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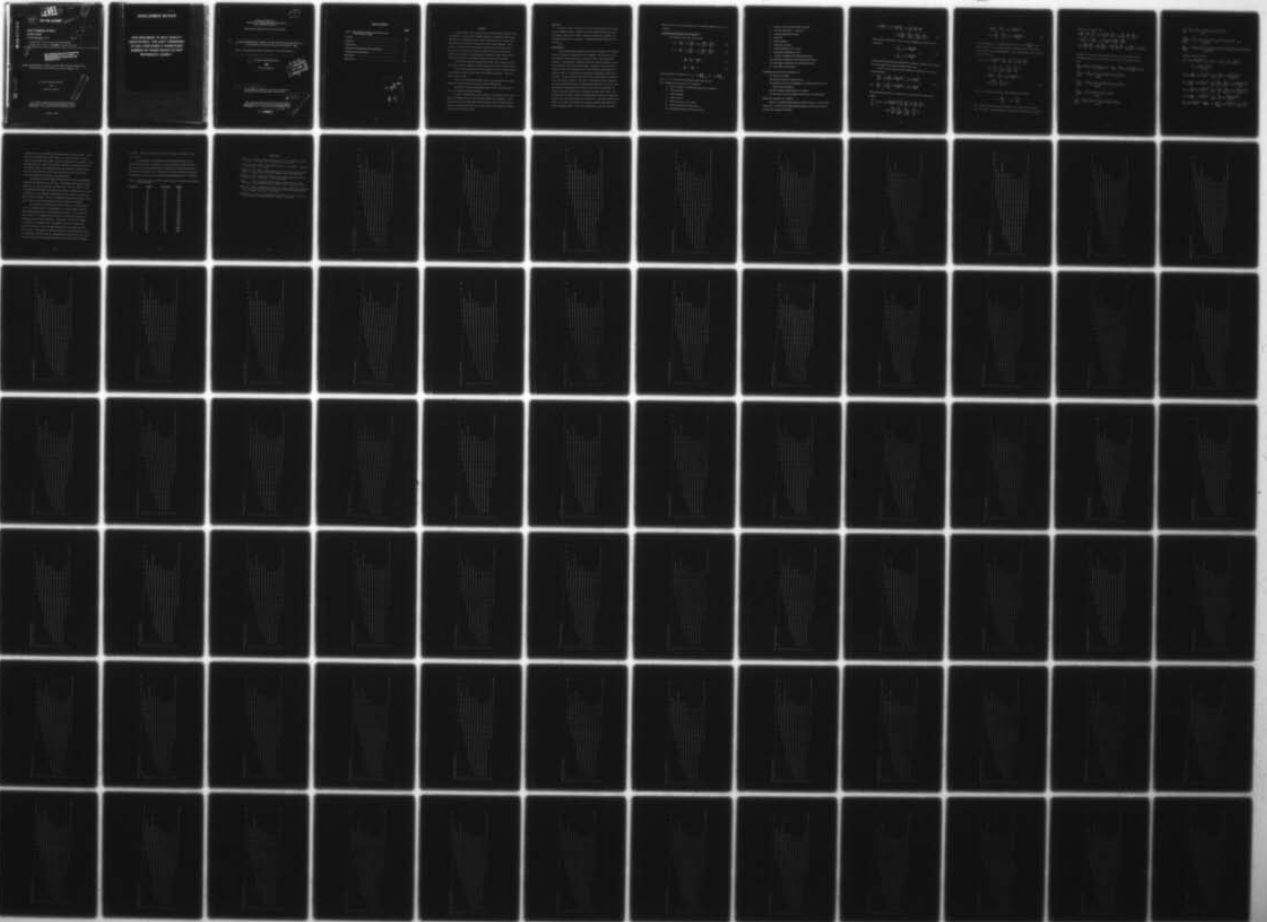
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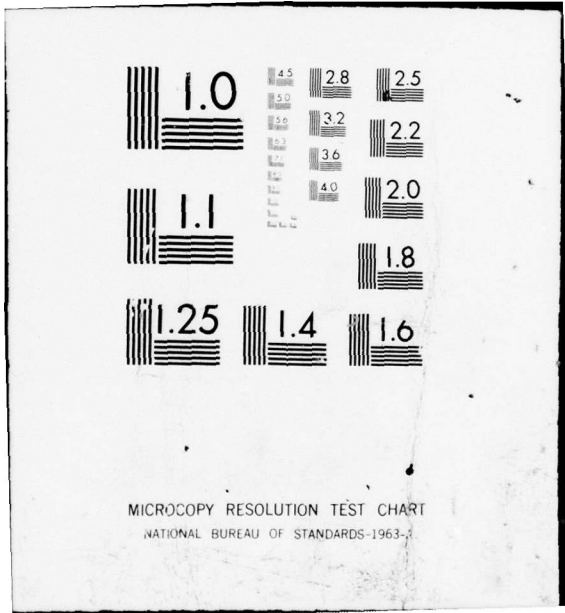
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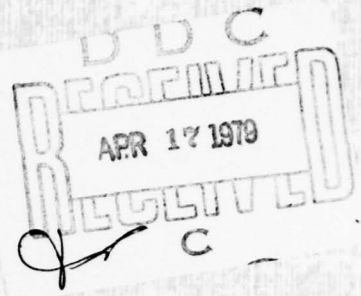
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Department of Meteorology and Oceanography

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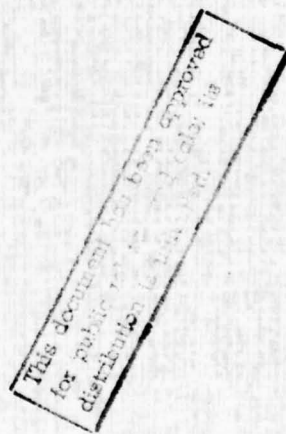
A THREE DIMENSIONAL MODEL OF THE WIND DRIVEN HORIZONTAL VELOCITIES IN THE NORTH ATLANTIC OCEAN (I)

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El Sayed Mohamed Hassan

and

Frank D. Malone



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October 1963

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NEW YORK UNIVERSITY

Department of Meteorology and Oceanography

Geophysical Sciences Lab

(6) A THREE DIMENSIONAL MODEL OF THE WIND DRIVEN HORIZONTAL VELOCITIES IN THE NORTH ATLANTIC OCEAN.

Part I. Discussion and Mean Circulation in the North Atlantic

(10) El Sayed Mohamed/Hassan

~~and~~
Frank D. Malone



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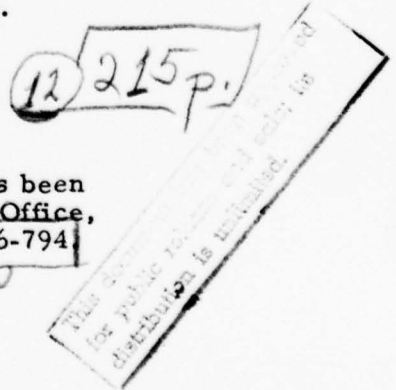
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Preface

When trying to make a numerical forecasting model for the oceanic circulation, the lack of knowledgeable boundary conditions at the lateral boundaries of an arbitrary body of water was acutely felt. Parts I- V of this report is an attempt to remedy that for the North Atlantic. This, however, suffers from many defects: The model is not all that one desires; the resolution is low and the equatorial region is not properly treated. It is, however hesitatingly, introduced as a first attempt to be used, and abused and eventually to help construct a better model.

Part VI deals with two side problems that were of interest during this work, and were judged of general interest to warrant reporting them.

The most interesting part, will probably be Part VII which contains the prediction model and tests based on actual observations. This will appear later in 1964.

The U. S. Naval Oceanographic Office has generously and sympathetically sponsored this work under Contract N62306-794.

The staff of the AEC Computing Center at New York University were very helpful and understanding.

To Mrs. Lillian Bloom goes the thanks of the authors for her neat typing of a difficult piece of work written almost in hieroglyphic. The authors also wish to thank Miss Roberta Bloom, Mrs. Gertrude Fisher and Mr. Soliman Lotaief for their help in preparing the figures which appear in Part VI of this report.

Abstract:

→ Starting with the wind stress over the North Atlantic Ocean computed by Hidaka (1958), a model of the three dimensional picture of the horizontal velocity is developed. This is presented as a possible climatological atlas for the currents. Limitations of the method are discussed. ←

Introduction:

While attempting to forecast the oceanic circulation, the problem of lateral boundary conditions had to be tackled. Any oceanic area not involving the whole world ocean, will have at least one lateral water boundary. Specifying the exchange of water across this boundary affects the circulation inside the area basically. In general, to know the distribution of the water exchange across any arbitrary water boundary in a body of water, is equivalent to knowing the circulation everywhere in that body. If this is known for all time, this implies that the prediction of the circulation is known. The circle of argument is thus complete: To make a prediction of the circulation in an arbitrary area in the ocean the boundary exchange should be known, and to know the boundary exchange at all time means that a prediction must have been made. As a compromise solution, oceanic circulation was treated as a steady state problem, the water being driven by wind stress. The North Atlantic was chosen to compute numerically the currents using the wind stress published by Hidaka (1958). These were published by season, and for the

annual mean, and correspondingly, five circulation patterns were calculated.

Fundamental Equations and Assumptions:

The equations used were of the form:

$$-f\rho v = -\frac{\partial p}{\partial x} + A_V \frac{\partial^2 u}{\partial z^2} + A_H \left(\frac{\partial^2 u}{\partial x^2} + \frac{\partial^2 u}{\partial y^2} \right) \quad (1)$$

$$f\rho u = -\frac{\partial p}{\partial y} + A_V \frac{\partial^2 v}{\partial z^2} + A_H \left(\frac{\partial^2 v}{\partial x^2} + \frac{\partial^2 v}{\partial y^2} \right) \quad (2)$$

$$\frac{\partial u}{\partial x} + \frac{\partial v}{\partial y} = \frac{\tan \phi}{R} v \quad (3)$$

$$u \frac{\partial \rho}{\partial x} + v \frac{\partial \rho}{\partial y} = 0 \quad (4)$$

and the boundary conditions are $\tau_x = -A_V \frac{\partial u}{\partial z} \Big|_{z=0}$, $\tau_y = -A_V \frac{\partial v}{\partial z} \Big|_{z=0}$

and $u = v = 0$ at the lateral boundaries and at the bottom.

The meanings of the symbols are as follows:

- β Rate of change of Coriolis parameter with latitude.
- ϕ North latitude.
- λ East longitude.
- ρ Water density.
- τ Wind stress in c. g. s. units.
- τ_x Zonal component of wind stress.
- τ_y Meridional component of wind stress.

- ω Angular velocity of the earth's rotation.
- f Coriolis parameter $\equiv 2 \omega \sin \varphi$.
- h Constant depth of the ocean.
- p Pressure.
- u Zonal velocity.
- v Meridional velocity.
- x Zonal coordinate $\equiv R \lambda \cos \varphi$.
- y Meridional coordinate $\equiv R \varphi$.
- z Vertical coordinate increasing downwards.
- A_H Exchange coefficient in the horizontal direction.
- A_V Exchange coefficient in the vertical direction.
- R The radius of the earth.

Conditions imposed by the equations are:

- (1) The flow is steady.
- (2) Vertical velocity is equal to zero.
- (3) Nonlinear terms are negligible, if compared with terms retained in the equations.
- (4) The exchange coefficients are constant.
- (5) The fluid is incompressible and the flow is nondivergent.

Setting the equations for solution:

When (1) is differentiated partially with respect to y and (2) with respect to x , and the first differentiated equation subtracted from the second, then equation (5) result: .

$$\rho v f \frac{\tan \varphi}{R} + \rho v \beta = \frac{\tan \varphi}{R} \frac{\partial p}{\partial x} + A_V \frac{\partial^2}{\partial z^2} \left(\frac{\partial v}{\partial x} - \frac{\partial u}{\partial y} \right) + A_H \left(\frac{\partial^3 v}{\partial x^3} + \frac{\partial^3 v}{\partial x \partial y^2} - \frac{\partial^3 u}{\partial y \partial x^2} - \frac{\partial^3 u}{\partial y^3} \right) \quad (5)$$

The velocity components u and v are then expanded in Fourier series such that:

$$\left. \begin{aligned} u &= \sum_{j=1}^{\infty} u_j \cos \frac{(2j-1)\pi z}{2h} \\ v &= \sum_{j=1}^{\infty} v_j \cos \frac{(2j-1)\pi z}{2h} \end{aligned} \right\} \quad (6)$$

This expansion automatically satisfies the boundary condition at the bottom, and can represent any natural profile in the ocean.

Then it can be shown from the boundary conditions at the surface and bottom that:

$$\left. \begin{aligned} \frac{\partial^2 u}{\partial z^2} &= \sum_j \left[\frac{2\tau_x}{hA_V} - \left(\frac{(2j-1)\pi}{2h} \right)^2 u_j \right] \cos \frac{(2j-1)\pi z}{2h} \\ \text{and } \frac{\partial^2 v}{\partial z^2} &= \sum_j \left[\frac{2\tau_y}{hA_V} - \left(\frac{(2j-1)\pi}{2h} \right)^2 v_j \right] \cos \frac{(2j-1)\pi z}{2h} \end{aligned} \right\} \quad (7)$$

When substitutions from (1), (6) and (7) are made into (5), equation (8) results

$$\sum_{j=1}^{\infty} \left(v_j \rho \beta - A_V \left(\frac{(2j-1)\pi}{2h} \right)^2 \left(\frac{\partial u_j}{\partial y} - \frac{\partial v_j}{\partial x} \right) - \frac{2}{h} \left(\frac{\partial \tau_y}{\partial x} - \frac{\partial \tau_x}{\partial y} \right) - A_H \left(\frac{\partial^3 v_j}{\partial x^3} + \frac{\partial^3 v_j}{\partial x \partial y^2} - \frac{\partial^3 u_j}{\partial y \partial x^2} - \frac{\partial^3 u_j}{\partial y^3} \right) \right)$$

$$\begin{aligned}
& + \frac{\tan \phi}{R} \left[\left(-\frac{2\tau_x}{h} \right) + A_V \left(\frac{(2j-1)\pi}{2h} \right)^2 u_j \right. \\
& \left. - A_H \left(\frac{\partial^2 u_j}{\partial x^2} + \frac{\partial^2 u_j}{\partial y^2} \right) \right] \cos \frac{(2j-1)\pi z}{2h} = 0
\end{aligned} \tag{8}$$

As all dependency on z in (8) appears in the term $\cos \frac{(2j-1)\pi z}{2h}$ and as (8) is true for all z , it follows that the coefficients of the cosine term can be equated to zero independently. Thus, equation (8) can be replaced by the system (8').

$$\begin{aligned}
& \left(v_j \rho \beta - A_V \left(\frac{(2j-1)\pi}{2h} \right)^2 \left(\frac{\partial u_j}{\partial y} - \frac{\partial v_j}{\partial x} \right) - \frac{z}{h} \left(\frac{\partial \tau_y}{\partial x} - \frac{\partial \tau_x}{\partial y} \right) \right. \\
& \left. - A_H \left(\frac{\partial^3 v_j}{\partial x^3} + \frac{\partial^3 v_j}{\partial x \partial y^2} - \frac{\partial^3 u_j}{\partial y \partial x^2} - \frac{\partial^3 u_j}{\partial y^3} \right) \right. \\
& \left. + \frac{\tan \phi}{R} \left[-\frac{2\tau_x}{h} + A_V \left(\frac{(2j-1)\pi}{2h} \right)^2 u_j \right. \right. \\
& \left. \left. - A_H \left(\frac{\partial^2 u_j}{\partial x^2} + \frac{\partial^2 u_j}{\partial y^2} \right) \right] \right) = 0
\end{aligned} \tag{8'}$$

From (3) a stream function Ψ_j can be introduced such that:

$$u_j = \frac{\partial \Psi_j}{\partial y}, \quad v_j = -\frac{\partial \Psi_j}{\partial x}$$

Each equation of the system (8') can now be set separately for solution.

Thus, dropping j when it appears as a subscript, (9) represents a typical

equation of the system (8').

$$\begin{aligned} & \rho \beta \frac{\partial \Psi}{\partial x} + \frac{\tan \varphi}{R} \left(\frac{2\tau_x}{h} - A_V \left(\frac{(2j-1)\pi}{2h} \right)^2 \frac{\partial \Psi}{\partial y} + A_H \left(\frac{\partial^2}{\partial x^2} \frac{\partial \Psi}{\partial y} + \frac{\partial^3 \Psi}{\partial y^3} \right) \right) \\ & + \left(\frac{2}{h} \frac{\partial \tau_y}{\partial x} - \frac{2}{h} \frac{\partial \tau_x}{\partial y} \right) + A_V \left(\frac{(2j-1)\pi}{2h} \right)^2 \left(\frac{\partial^2 \Psi}{\partial x^2} + \frac{\partial^2 \Psi}{\partial y^2} \right) \\ & - A_H \left[\frac{\partial^4 \Psi}{\partial x^4} + \frac{\partial^4 \Psi}{\partial y^4} + 2 \frac{\partial^2}{\partial x^2} \left(\frac{\partial^2 \Psi}{\partial y^2} \right) + 4 \frac{\tan \varphi}{R} \frac{\partial^2}{\partial x^2} \frac{\partial \Psi}{\partial y} + \frac{1}{R^2} \frac{\partial^2 \Psi}{\partial x^2} (1 + 2 \tan^2 \varphi) \right] = 0 \end{aligned}$$

Equation (9) can be put in the finite difference form by using the following approximations consistent with the retention of the 4th order derivatives

$$\frac{\partial F_{0,0}}{\partial x} = \frac{8(F_{1,0} - F_{-1,0}) - (F_{2,0} - F_{-2,0})}{12 \Delta x}, \quad \frac{\partial F_{0,0}}{\partial y} = \frac{8(F_{0,1} - F_{0,-1}) - (F_{0,2} - F_{0,-2})}{12 \Delta y}$$

$$\frac{\partial^2 F_{0,0}}{\partial x^2} = \frac{16(F_{1,0} + F_{-1,0}) - (F_{2,0} + F_{-2,0}) - 30 F_{0,0}}{12(\Delta x)^2}$$

$$\frac{\partial^2 F_{0,0}}{\partial y^2} = \frac{16(F_{0,1} + F_{0,-1}) - (F_{0,2} + F_{0,-2}) - 30 F_{0,0}}{12(\Delta y)^2}$$

$$\frac{\partial^3 F_{0,0}}{\partial y^3} = \frac{(F_{0,2} - F_{0,-2}) - 2(F_{0,1} - F_{0,-1})}{2(\Delta y)^3}$$

$$\frac{\partial^4 F}{\partial x^4} = \frac{(F_{2,0} + F_{-2,0}) - 4(F_{1,0} + F_{-1,0}) + 6 F_{0,0}}{(\Delta x)^4}$$

$$\frac{\partial^4 F}{\partial y^4} = \frac{(F_{0,2} + F_{0,-2}) - 4(F_{0,1} + F_{0,-1}) + 6F_{0,0}}{(\Delta y)^4}$$

$$\frac{\partial^3 F_{0,0}}{\partial x^2 \partial y} = \frac{(F_{1,1} + F_{-1,1} - F_{1,-1} - F_{-1,-1}) - 2(F_{0,1} - F_{0,-1})}{2(\Delta x)^2 \Delta y} \quad \text{and}$$

$$\frac{\partial^4 F}{\partial x^2 \partial y^2} = \frac{4F_{0,0} + F_{1,1} + F_{-1,-1} + F_{1,-1} + F_{-1,1} - 2(F_{1,0} + F_{-1,0} + F_{0,-1} + F_{0,1})}{(\Delta x)^2 (\Delta y)^2}$$

Equation (9) then becomes:

$$\Psi_{0,0} \left[-\frac{5}{2} A_V \left(\frac{(2j-1)\pi}{2h} \right)^2 \left(\frac{1}{\Delta x^2} + \frac{1}{\Delta y^2} \right) - A_H \left(\frac{6}{\Delta x^4} + \frac{6}{\Delta y^4} + \frac{8}{\Delta x^2 \Delta y^2} \right) + \frac{5}{2} A_H \frac{\tan^2 \varphi + \sec^2 \varphi}{R^2 \Delta x^2} \right]$$

$$+ \Psi_{2,0} \left[-\frac{\rho\beta}{12\Delta x} - A_V \left(\frac{(2j-1)\pi}{2h} \right)^2 \cdot \frac{1}{12\Delta x^2} - \frac{A_H}{\Delta x^4} + A_H \frac{\tan^2 \varphi + \sec^2 \varphi}{12R^2 \Delta x^2} \right]$$

$$+ \Psi_{1,0} \left[\frac{2\rho\beta}{3\Delta x} + A_V \left(\frac{(2j-1)\pi}{2h} \right)^2 \cdot \frac{4}{3\Delta x^2} + \frac{4A_H}{\Delta x^4} + \frac{4A_H}{\Delta x^2 \Delta y^2} - \frac{4}{3} A_H \frac{\tan^2 \varphi + \sec^2 \varphi}{R^2 \Delta x^2} \right]$$

$$+ \Psi_{-1,0} \left[-\frac{2\rho\beta}{3\Delta x} + A_V \left(\frac{(2j-1)\pi}{2h} \right)^2 \cdot \frac{4}{3\Delta x^2} + \frac{4A_H}{\Delta x^4} + \frac{4A_H}{\Delta x^2 \Delta y^2} - \frac{4}{3} A_H \frac{\tan^2 \varphi + \sec^2 \varphi}{R^2 \Delta x^2} \right]$$

$$+ \Psi_{-2,0} \left[\frac{\rho\beta}{12\Delta x} - A_V \left(\frac{(2j-1)\pi}{2h} \right)^2 \cdot \frac{1}{12\Delta x^2} - \frac{A_H}{\Delta x^4} + A_H \frac{\tan^2 \varphi + \sec^2 \varphi}{12R^2 \Delta x^2} \right]$$

$$+ \Psi_{0,2} \left[A_V \left(\frac{(2j-1)\pi}{2h} \right)^2 \cdot \frac{\tan \varphi}{12R\Delta y} + A_H \cdot \frac{\tan \varphi}{2R(\Delta y)^3} - A_V \left(\frac{(2j-1)\pi}{2h} \right)^3 \cdot \frac{1}{12\Delta y^2} - \frac{A_H}{\Delta y^4} \right]$$

$$\begin{aligned}
& + \Psi_{0,1} \left[-A_V \left(\frac{(2j-1)\pi}{2h} \right)^2 \cdot \frac{2 \tan \varphi}{3R\Delta y} - A_H \frac{\tan \varphi}{R(\Delta y)^3} + A_V \left(\frac{(2j-1)\pi}{2h} \right)^2 \cdot \frac{4}{3\Delta y^2} \right. \\
& \quad \left. + \frac{4A_H}{\Delta y^4} + \frac{4A_H}{\Delta x^2 \Delta y^2} + A_H \frac{3 \tan \varphi}{R\Delta x^2 \Delta y} \right] \\
& + \Psi_{0,-1} \left[A_V \left(\frac{(2j-1)\pi}{2h} \right)^2 \cdot \frac{2 \tan \varphi}{3R\Delta y} + A_H \frac{\tan \varphi}{R(\Delta y)^3} + A_V \left(\frac{(2j-1)\pi}{2h} \right)^2 \cdot \frac{4}{\Delta y^2} \right. \\
& \quad \left. + \frac{4A_H}{\Delta y^4} + \frac{4A_H}{\Delta x^2 \Delta y^2} - A_H \frac{3 \tan \varphi}{R\Delta x^2 \Delta y} \right] \\
& + (\Psi_{1,1} + \Psi_{-1,1}) \left[-A_H \cdot \frac{3 \tan \varphi}{2R\Delta x^2 \Delta y} - \frac{2A_H}{\Delta x^2 \Delta y^2} \right] + (\Psi_{1,-1} + \Psi_{-1,-1}) \left[A_H \cdot \frac{3 \tan \varphi}{2R\Delta x^2 \Delta y} - \frac{2A_H}{\Delta x^2 \Delta y^2} \right] \\
& = - \frac{\tan \varphi}{R} \cdot \frac{2\tau_{x0,0}}{h} - \frac{1}{6h} \left[\frac{1}{\Delta x} \left(\tau_{y-2,0} - \tau_{y2,0} - 8(\tau_{y-1,0} - \tau_{y1,0}) \right) \right. \\
& \quad \left. + \frac{1}{\Delta y} \left(\tau_{x0,2} - \tau_{x0,-2} - 8(\tau_{x0,1} - \tau_{x0,-1}) \right) \right] \quad (10)
\end{aligned}$$

Computations and Results:

The values used for the parameters were as follows:

$$A_V = 50 \text{ gm cm}^{-1} \text{ sec}^{-1}$$

$$A_H = 10^8 \text{ gm cm}^{-1} \text{ sec}^{-1}$$

$$h = 2000 \text{ meters}$$

$$\Delta y = 555.6 \text{ km}$$

$$\Delta x = \Delta y \cos \varphi$$

$$R = 6371 \text{ km}$$

$$\rho = 1.027 \text{ gm cm}^{-3}$$

$$\omega = 7.292 \times 10^{-5} \text{ sec}^{-1}$$

Values for wind stress were taken from the computations by Hidaka (1958) these values appear at the beginning of the different parts of this report. Part I contains the annual mean, and the seasons starting by the spring appear in Parts II through V. The wind stress curl, defined as the right hand side of equation (10) is then given. Solving the system of equations (10) as a system of simultaneous linear algebraic equations was found to be more accurate and less time consuming than solving it by iteration. The number of grid points was 147 or less, and the resulting matrix was inverted in less than one minute. The curl of the wind stress could not be accurately determined near the boundaries because values on land were taken as zero. The first hundred Fourier coefficients are given for the grid points, and stream functions, zonal and meridional velocities for selected levels based on the hundred Fourier coefficients are then given. The depth of the selected levels appear in Table I. The highest velocities appeared at the surface, but secondary maxima occurred at subsurface depths. The greatest velocity in any season did not exceed 100 cm/sec, and occurred near the western boundary. This is less than half the recognized value for the western current, but remembering that the grid size is 5°square, so that this value is an averaged value, this value seems reasonable.

Discussion :

The model discussed here is proposed as a probable climatic picture of the North Atlantic circulation. It should be tested by comparing it to observations, and if found adequate, it can serve as a skeleton

to help interpret the rapidly accumulating amount of observations. It exhibits the main observed surface features, e. g. the northern current system, the Gulf Stream system, and the equatorial current system. Certain differences are observed, however, like the north going current off the African coast. The subsurface currents cannot be verified because of lack of observations, but the under current below the Gulf Stream, which was observed sometimes, is clearly shown.

Modifications of the profiles in the model can be accomplished by changing the parameters A_V and A_H . Computations have been repeated taking for A_V and A_H the pairs of values $100, 10^7$; $100, 10^8$; $500, 10^8$. No significant difference in the pattern occurred, but differences occurred in details e. g. The position and magnitude of the maximum stream function at different depths. The use of exchange coefficients varying in space was not done, as precise knowledge of their magnitude is lacking.

The greatest restriction of the model, however, is the forced absence of vertical velocity. In this model, it is a price paid to enable a three dimensional picture of the horizontal velocities. It is only necessary, however, to stipulate known values for $\partial w / \partial z$ in the equation of continuity to relax these conditions. In practice, $\partial w / \partial z$ at all depths is not known, but models with "reasonable" values are considered to test the restriction. A less drastic assumption is neglecting the non-linear terms. Checking the magnitude of these terms by using the values of velocity that resulted from the computation reveals that they are everywhere less by order of magnitude than the terms retained in the equation

of motion. This, in part is due to the low resolution resulting from the coarse grid.

The conditions of no velocities at the lateral boundaries is not correct where the North Atlantic is connected with other bodies of water. The results at these places should be considered more approximate than those in the rest of the ocean. In spite of the obvious crudity of the model, it is felt that it can serve as a useful first approximation to the circulation.

Table I: Depths in meters of levels at which stream functions and velocities were computed.

<u>Level No.</u>	<u>Depth</u>	<u>Level No.</u>	<u>Depth</u>
1	0	17	320
2	20	18	340
3	40	19	360
4	60	20	380
5	80	21	400
6	100	22	500
7	120	23	600
8	140	24	700
9	160	25	800
10	180	26	900
11	200	27	1000
12	220	28	1200
13	240	29	1400
14	260	30	1600
15	280	31	1800
16	300	32	2000

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FOURIER EXPANSION OF THE STREAM FUNCTION-COMPONENT No. 2

	97.5M	77.5	57.5	37.5	17.5	22.5	27.5	32.5	37.5	42.5	47.5	52.5	57.5	62.5	67.5	72.5	77.5	82.5	87.5	92.5	97.5	02.5M	07.5	02.5M	07.5M	37.5E	
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80.5N																											

FOURIER EXPANSION OF THE STREAM FUNCTION COMPONENT NO. 5

	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	07.5E	07.5W
57.5N																		
52.5N																		
47.5N																		
42.5N																		
37.5N																		
32.5N																		
27.5N																		
22.5N																		
17.5N																		
12.5N																		
07.5N																		

0.2410E 09 0.7211E 08 0.9595E 08 0.2180E 08 -0.2379E 07 -0.3320E 08

0.7441E 08 -0.2370E 08 -0.2695E 08 -0.5015E 08 -0.2355E 08 -0.2679E 08 0.3619E 07

-0.5219E 08 -0.5898E 08 -0.6868E 08 -0.7773E 08 -0.8422E 08 -0.8776E 08 -0.8832E 08 -0.8632E 08 -0.8180E 07

-0.4194E 08 -0.3249E 08 -0.1748E 08 -0.1747E 08 -0.1072E 08 -0.1039E 08 -0.0673E 08 -0.0673E 08 -0.0495E 08 -0.2120E 08 -0.2753E 07

-0.1527E 09 -0.2496E 08 -0.3496E 08 -0.4527E 08 -0.5582E 08 -0.6652E 08 -0.7736E 08 -0.8832E 08 -0.9932E 08 -0.1120E 08

-0.2741E 09 -0.4278E 08 -0.5869E 08 -0.7512E 08 -0.9207E 08 -1.0952E 08 -1.2736E 08 -1.4552E 08 -1.6392E 08 -0.1720E 08

-0.5160E 09 -0.7917E 08 -1.0681E 08 -1.3452E 08 -1.6227E 08 -1.9007E 08 -2.1792E 08 -2.4582E 08 -2.7372E 08 -0.2819E 08

-0.2280E 09 -0.4552E 08 -0.6827E 08 -0.9102E 08 -1.1377E 08 -1.3652E 08 -1.5927E 08 -1.8202E 08 -2.0477E 08 -0.4059E 08

-0.1122E 09 -0.2280E 08 -0.3438E 08 -0.4596E 08 -0.5754E 08 -0.6912E 08 -0.8070E 08 -0.9228E 08 -1.0386E 08 -0.7236E 08

0.1541E 09 0.3082E 08 0.4623E 08 0.6164E 08 0.7705E 08 0.9246E 08 1.0787E 08 1.2328E 08 1.3869E 08 0.6500E 08

0.1541E 09 0.3082E 08 0.4623E 08 0.6164E 08 0.7705E 08 0.9246E 08 1.0787E 08 1.2328E 08 1.3869E 08 0.1237E 08

0.1444E 09 0.2888E 08 0.4332E 08 0.5776E 08 0.7220E 08 0.8664E 08 1.0108E 08 1.1552E 08 1.2996E 08 -0.5710E 08

0.1033E 09 -0.2066E 08 0.3100E 08 0.4134E 08 0.5168E 08 0.6202E 08 0.7236E 08 0.8270E 08 0.9304E 08 -0.5668E 08 -0.8055E 07 -0.3293E 08

FOURIER EXPANSION OF THE SIKLAW FUNCTION-COMPLEMENT NO. 6

	42.5M	77.5	77.5	82.5	82.5	52.5	52.5	47.5	47.5	42.5	37.5	37.5	27.5	27.5	22.5	17.5	14.5	07.5	02.5M	02.5E	07.5E	
37.5N																						
32.5N																						
47.5N																						
42.5N																						
37.5N																						
32.5N																						
27.5N																						
22.5N																						
17.5N																						
12.5N																						
07.5N																						
02.5N																						

0.2213E 04 0.4580E 08 0.8457E 08 -0.2809E 08 -0.7380E 08 -0.1203E 07 -0.2452E 08

0.7367E 06 -0.1509E 08 -0.4574E 08 -0.8457E 08 -0.2809E 08 -0.7380E 08 -0.1203E 07 -0.2452E 08

-0.4972E 08 -0.5786E 08 -0.6384E 08 -0.5950E 08 -0.4158E 08 -0.2809E 08 -0.1203E 07 -0.2452E 08

-0.1570E 08 -0.1173E 08 -0.7391E 08 -0.1122E 08 -0.1046E 08 -0.1228E 08 -0.1203E 07 -0.2452E 08

-0.1308E 08 -0.4000E 08 -0.1294E 08 -0.4000E 08 -0.1294E 08 -0.1308E 08 -0.1203E 07 -0.2452E 08

-0.2809E 08 -0.4000E 08 -0.1294E 08 -0.4000E 08 -0.1294E 08 -0.2809E 08 -0.1203E 07 -0.2452E 08

-0.4580E 08 -0.4000E 08 -0.1294E 08 -0.4000E 08 -0.1294E 08 -0.4580E 08 -0.1203E 07 -0.2452E 08

-0.2452E 08 -0.4000E 08 -0.1294E 08 -0.4000E 08 -0.1294E 08 -0.2452E 08 -0.1203E 07 -0.2452E 08

-0.1203E 07 -0.4000E 08 -0.1294E 08 -0.4000E 08 -0.1294E 08 -0.1203E 07 -0.2452E 08

0.2452E 08 0.4000E 08 0.1294E 08 0.4000E 08 0.1294E 08 0.2452E 08 0.1203E 07 0.2452E 08

0.1203E 07 0.4000E 08 0.1294E 08 0.4000E 08 0.1294E 08 0.1203E 07 0.2452E 08

0.2452E 08 0.4000E 08 0.1294E 08 0.4000E 08 0.1294E 08 0.2452E 08 0.1203E 07 0.2452E 08

0.1203E 07 0.4000E 08 0.1294E 08 0.4000E 08 0.1294E 08 0.1203E 07 0.2452E 08

0.2452E 08 0.4000E 08 0.1294E 08 0.4000E 08 0.1294E 08 0.2452E 08 0.1203E 07 0.2452E 08

FOURIER EXPANSION OF THE STREAM FUNCTION COMPONENT ψ_{10}, N

	82.5M	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	07.5E
57.5N																		
52.5N																		
47.5N																		
42.5N																		
37.5N																		
32.5N																		
27.5N																		
22.5N																		
17.5N																		
12.5N																		
07.5N																		
02.5N																		

0.1775E 09 0.7607E 08 0.7816E 08 0.4088E 08 0.5892E 07 -0.2013E 08

0.7020E 08 0.5128E 07 -0.2022E 08 -0.3494E 08 -0.2665E 08 -0.2288E 08 -0.4495E 07

-0.4208E 08 -0.3708E 08 -0.5592E 08 -0.6053E 08 -0.4849E 08 -0.4670E 08 -0.2205E 08 -0.1888E 07

-5.2481E 08 -0.2870E 08 -0.6580E 08 -0.4687E 08 -0.8459E 08 -0.7885E 08 -0.6551E 08 -0.3465E 08 -0.1264E 08

-0.1327E 09 -0.1271E 09 -0.1773E 09 -0.1394E 09 -0.1495E 09 -0.1136E 09 -0.1020E 09 -0.7988E 08 -0.4018E 08 -0.3041E 08

-2.2891E 09 -0.1713E 09 -0.2270E 09 -0.1651E 09 -0.1818E 09 -0.1238E 09 -0.1292E 09 -0.8598E 08 -0.6663E 08 -0.2141E 08 -0.4295E 07

-0.2535E 09 -0.2098E 08 -0.1828E 08 -0.1429E 08 -0.1429E 08 -0.2394E 08 -0.4748E 08 -0.2141E 08 -0.4295E 07 0.1129E 08 0.5348E 08

-0.1183E 09 -0.5515E 08 -0.4714E 08 -0.6753E 08 -0.1652E 08 -0.4524E 07 -0.1875E 07 0.2432E 08 0.1743E 08 0.4479E 08 0.3672E 08 0.5942E 08

0.4157E 08 0.7682E 08 0.5308E 08 0.5193E 08 0.4377E 08 0.5224E 08 0.5158E 08 0.6018E 08 0.5113E 08 0.4548E 08 0.3188E 08 0.1972E 08

0.1403E 09 0.4888E 08 0.4725E 08 0.4377E 08 0.5224E 08 0.5158E 08 0.6018E 08 0.5113E 08 0.4548E 08 0.3188E 08 0.1972E 08

0.1098E 09 0.1858E 08 0.4479E 08 -0.4923E 07 0.1118E 08 -0.2188E 08 -0.5188E 07 -0.2598E 08 -0.5824E 07 -0.1295E 08 -0.2081E 07 -0.1258E 08

FOURIER EXPANSION OF THE SPINOR FUNCTION-COMPLEMENT NO. 10

	82.5M	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	07.5E
57.5N																		
52.5N																		
47.5N																		
42.5N																		
37.5N																		
32.5N																		
27.5N																		
22.5N																		
17.5N																		
12.5N																		
07.5N																		
02.5N																		

0.1170L UB 0.1847E UB -0.1245L UB -0.2440L UB -0.2295E UB -0.1944E UB -0.1375E OF 0.7545E OF -0.3111E OF
 0.1365E OY 0.9522E OB 0.7095E OB 0.4435E OB 0.4636E OB 0.4644E OB -0.1444E OB
 -0.3471E UB -0.3402E UB -0.4065E UB -0.5731E UB -0.5538E UB -0.4451E UB -0.1007E OB -0.1444L UB -0.1137E OF 0.7545E OF -0.3111E OF
 -0.2543E OB -0.2533E OB -0.2480E OB -0.2480E OB -0.8310E OB -0.7382E OB -0.6474E OB -0.4636E OB -0.2297E OB -0.2402E OF
 -0.1192E OY -0.7645E OB -0.1354E OY -0.7974E OB -0.1088L OY -0.1079E OY -0.1070E OY -0.9004E OB -0.7424L OB -0.5474E OB -0.3444E OB -0.1268E OB
 -0.2167E OY -0.1986E OY -0.1777E OY -0.1489E OY -0.1431E OY -0.1213E OY -0.6711E OB -0.5000E OB -0.4567E OB -0.1674E UB 0.1721L OF 0.1450L OB
 -0.7527E OB -0.4474E OB -0.4075E OB -0.1170E OY -0.9792E OB -0.8494E OB -0.4733E OB -0.2584E OB -0.2470E OF 0.1079E OB
 -0.2117E OY -0.4474E OB -0.1606E OY -0.1269E OY -0.1403E OY -0.1403E OY -0.8432E OB -0.6494E OB -0.4733E OB -0.2470E OF 0.1079E OB
 -0.1092E OY -0.4474E OB -0.4533E OB -0.2572E OB -0.3467E OB -0.8416E OY -0.1151L OB 0.1665E OB 0.3442E OB 0.3470L OB
 0.4234L OB 0.5078E OB 0.5022E OB 0.4402E OB 0.5457E OB 0.4402E OB 0.4402E OB 0.5103E OB 0.4773E OB 0.4122E OB 0.3042E OB 0.1670E OB
 0.1201E OY 0.5742L OB 0.8774E OB 0.4472E OB 0.4472E OB 0.5332E OB 0.2324L OB 0.1642E OB 0.3691E OB -0.7658E OF -0.7128E OF
 0.1011E OY 0.2717E OB 0.4402E OB 0.5402E OF 0.7663E OF -0.1124E OB -0.7250E OF -0.1107E OB -0.4495E OF -0.7138E OF -0.6763E OF -0.7470E OF

FOURIER EXPANSION OF THE STREAM FUNCTION COMPONENT ψ_B 11

	62.5N	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5N	07.5S
57.5N																		
52.5N																		
47.5N																		
42.5N																		
37.5N																		
32.5N																		
27.5N																		
22.5N																		
17.5N																		
12.5N																		
07.5N																		

0.1184E 09 0.0115E 08 0.0765E 08 0.4532E 08 0.1182E 08 -0.1197E 08

0.5624E 08 0.2026E 08 -0.4022E 07 -0.2026E 08 -0.1785E 08 -0.5871E 07

-0.5157E 08 -0.5344E 08 -0.4486E 08 -0.3487E 08 -0.2488E 08 -0.1489E 08 -0.0490E 08 -0.0490E 08 -0.1489E 08 -0.2488E 08 -0.3487E 08 -0.4486E 08 -0.5344E 08 -0.5157E 07

-0.2488E 08 -0.2386E 08 -0.5055E 08 -0.8444E 08 -0.9222E 08 -0.6232E 08 -0.7475E 08 -0.6424E 08 -0.4486E 08 -0.2488E 08 -0.2488E 08

-0.1122E 08 -0.1078E 08 -0.1078E 08 -0.1078E 08 -0.1078E 08 -0.1078E 08 -0.1078E 08 -0.1078E 08 -0.1078E 08 -0.1078E 08 -0.1078E 08

-0.1447E 09 -0.1447E 09 -0.1447E 09 -0.1447E 09 -0.1447E 09 -0.1447E 09 -0.1447E 09 -0.1447E 09 -0.1447E 09 -0.1447E 09 -0.1447E 09

-0.2555E 09 -0.1883E 09 -0.1883E 09 -0.1883E 09 -0.1883E 09 -0.1883E 09 -0.1883E 09 -0.1883E 09 -0.1883E 09 -0.1883E 09 -0.1883E 09

-0.2007E 09 -0.1507E 09 -0.1507E 09 -0.1507E 09 -0.1507E 09 -0.1507E 09 -0.1507E 09 -0.1507E 09 -0.1507E 09 -0.1507E 09 -0.1507E 09

-0.1059E 09 -0.4583E 08 -0.8192E 08 -0.4583E 08 -0.1059E 09 -0.4583E 08 -0.8192E 08 -0.4583E 08 -0.1059E 09 -0.4583E 08 -0.8192E 08 -0.4583E 08

0.2698E 08 0.4427E 08 0.4016E 08 0.4016E 08 0.4427E 08 0.4016E 08 0.4016E 08 0.4427E 08 0.4016E 08 0.4016E 08 0.4427E 08 0.4016E 08

0.1087E 09 0.4039E 08 0.4672E 08 0.5111E 08 0.2702E 08 0.1606E 08 0.5017E 07 -0.7532E 07 -0.6045E 07

0.9568E 08 0.5225E 08 0.5003E 08 0.8186E 07 0.6905E 07 -0.7954E 07 -0.7485E 07 -0.1096E 08 -0.4495E 07 -0.5715E 07 -0.6538E 07 -0.7127E 07

FOURIER EXPANSION OF THE STREAM FUNCTION-COMPONENT NO. 18

	82.5M	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	07.5E		
57.5M											0.4572E 08	0.4942E 08	0.4135E 08	0.3106E 08	0.183E 08	-0.183E 07	02.5M	07.5E		
52.5M									0.2212E 08	0.1565E 08	-0.1897E 07	-0.9553E 07	-0.1111E 08	-0.1038E 08	-0.4391E 07					
47.5M									-0.1915E 08	-0.2638E 08	-0.3949E 08	-0.4569E 08	-0.4041E 08	-0.3152E 08	-0.1915E 08	-0.6672E 07	0.5231E 07	0.5258E 08		
42.5M									-0.1973E 08	-0.198E 08	-0.3218E 08	-0.5751E 08	-0.707E 08	-0.7463E 08	-0.7127E 08	-0.6602E 08	-0.589E 08	-0.2683E 08	-0.7298E 07	
37.5M									-0.6810E 08	-0.7751E 08	-0.8533E 08	-0.8955E 08	-0.8283E 08	-0.6528E 08	-0.7257E 08	-0.5781E 08	-0.4216E 08	-0.2074E 08	0.6104E 06	
32.5M									-0.1046E 08	-0.1275E 08	-0.1661E 08	-0.1227E 08	-0.118E 08	-0.105E 08	-0.8969E 08	-0.7518E 08	-0.602E 08	-0.4413E 08	-0.2749E 08	-0.950E 07
27.5M									-0.1418E 08	-0.1839E 08	-0.2272E 08	-0.2557E 08	-0.2177E 08	-0.1575E 08	-0.1055E 08	-0.6720E 08	-0.5171E 08	-0.3554E 08	-0.1467E 08	0.2426E 07
22.5M									-0.1215E 08	-0.1682E 08	-0.2111E 08	-0.2357E 08	-0.2177E 08	-0.1575E 08	-0.1055E 08	-0.6720E 08	-0.5171E 08	-0.3554E 08	-0.1467E 08	0.2426E 07
17.5M									-0.808E 08	-0.9451E 08	-0.1084E 08	-0.1351E 08	-0.1497E 08	-0.1375E 08	-0.1055E 08	-0.6720E 08	-0.5171E 08	-0.3554E 08	-0.1467E 08	0.2426E 07
12.5M									-0.808E 08	-0.9451E 08	-0.1084E 08	-0.1351E 08	-0.1497E 08	-0.1375E 08	-0.1055E 08	-0.6720E 08	-0.5171E 08	-0.3554E 08	-0.1467E 08	0.2426E 07
07.5M									0.4158E 08	0.4602E 08	0.5194E 07	0.4827E 07	0.4294E 08	0.3815E 08	0.3255E 08	0.2949E 08	0.2663E 08	0.2448E 08	0.1517E 06	
02.5M									0.5507E 08	0.4229E 08	0.3065E 08	0.1956E 08	0.9758E 07	0.1511E 07	-0.3714E 07	-0.2741E 07	-0.1829E 07	-0.2995E 07	-0.4118E 07	

FRONTIER EXPANSION OF THE STREAM FUNCTION-COMPONENT NO. 19

	82.5M	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	07.5M
57.5M																		
52.5M																		
47.5M																		
42.5M																		
37.5M																		
32.5M																		
27.5M																		
22.5M																		
17.5M																		
12.5M																		
07.5M																		
02.5M																		

0.40N7E 08 0.4472E 08 0.3197E 08 0.2895E 08 0.1427E 08 -0.1259E 07

0.1912E 08 0.1381E 08 -0.2233E 07 -0.9350E 07 -0.1074E 08 -0.9938E 07 -0.4277E 07

-0.1807E 08 -0.2551E 08 -0.3138E 08 -0.3608E 08 -0.4222E 08 -0.5041E 08 -0.3119E 08 -0.1934E 08 -0.7151E 07 0.2675E 07 0.3534E 04

-0.1909E 08 -0.1956E 08 -0.5435E 08 -0.6793E 08 -0.7279E 08 -0.6933E 08 -0.6486E 08 -0.5770E 08 -0.4527E 08 -0.2702E 08 -0.7163E 04

-0.6372E 08 -0.6884E 08 -0.7445E 08 -0.8032E 08 -0.8648E 08 -0.9212E 08 -0.9870E 08 -0.1066E 08 -0.1174E 08 -0.1270E 08 -0.1359E 08 -0.1440E 08 -0.1513E 08 -0.1579E 08 -0.1638E 08 -0.1690E 08 -0.1736E 08 -0.1776E 08 -0.1810E 08 -0.1839E 08

-0.4550E 08 -0.1114E 09 -0.1220E 09 -0.1276E 09 -0.1296E 09 -0.1315E 09 -0.1331E 09 -0.1345E 09 -0.1357E 09 -0.1367E 09 -0.1375E 09 -0.1381E 09 -0.1386E 09 -0.1390E 09 -0.1393E 09 -0.1395E 09 -0.1396E 09 -0.1397E 09 -0.1398E 09 -0.1398E 09

-0.1116E 09 -0.1058E 09 -0.1026E 09 -0.1002E 09 -0.9846E 09 -0.9722E 09 -0.9636E 09 -0.9584E 09 -0.9550E 09 -0.9528E 09 -0.9514E 09 -0.9507E 09 -0.9504E 09 -0.9503E 09 -0.9503E 09 -0.9503E 09 -0.9503E 09 -0.9503E 09 -0.9503E 09 -0.9503E 09 -0.9503E 09

-0.7581E 04 -0.6499E 08 -0.6270E 08 -0.6066E 08 -0.5898E 08 -0.5758E 08 -0.5642E 08 -0.5546E 08 -0.5466E 08 -0.5398E 08 -0.5340E 08 -0.5290E 08 -0.5247E 08 -0.5210E 08 -0.5178E 08 -0.5150E 08 -0.5126E 08 -0.5105E 08 -0.5087E 08 -0.5071E 08 -0.5057E 08

-0.2297E 08 -0.5240E 07 -0.2734E 08 0.4358E 07 0.9943E 07 0.1534E 08 0.2198E 08 0.2774E 08 0.3076E 08 0.2107E 08 0.2107E 08 0.2107E 08 0.2107E 08 0.2107E 08 0.2107E 08 0.2107E 08 0.2107E 08 0.2107E 08 0.2107E 08 0.2107E 08

0.4520E 08 0.4173E 08 0.4098E 08 0.4041E 08 0.3990E 08 0.3946E 08 0.3908E 08 0.3876E 08 0.3848E 08 0.3824E 08 0.3803E 08 0.3785E 08 0.3769E 08 0.3754E 08 0.3741E 08 0.3729E 08 0.3718E 08 0.3708E 08 0.3699E 08 0.3691E 08

0.5018E 08 0.4105E 08 0.2979E 08 0.1965E 08 0.1023E 08 0.1994E 07 -0.3230E 07 -0.5507E 07 -0.2554E 07 -0.1593E 07 -0.2614E 07 -0.3684E 07

FOURIER EXPANSION OF THE STREAM FUNCTION-COMPONENT NO. 20

	82.5M	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	07.5M
57.5N																		
52.5N																		
47.5N																		
42.5N																		
37.5N																		
32.5N																		
27.5N																		
22.5N																		
17.5N																		
12.5N																		
07.5N																		
02.5N																		

0.5598E 08 0.4050E 08 0.3465E 08 0.2891E 08 0.1386E 08 -0.8032E 08
 0.1655E 08 0.1207E 08 -0.2635E 07 -0.9258E 07 -0.1047E 08 -0.9589E 07 -0.4195E 07
 -0.1711E 08 -0.2408E 08 -0.1049E 08 -0.3879E 08 -0.4087E 08 -0.3852E 08 -0.3079E 08 -0.1945E 08 -0.7560E 07 0.2161E 07 0.3508E 08
 -0.1842E 08 -0.1424E 08 -0.2928E 08 -0.5160E 08 -0.6509E 08 -0.6979E 08 -0.6297E 08 -0.6296E 08 -0.5650E 08 -0.4408E 08 -0.2711E 08 -0.8181E 07
 -0.3505E 08 -0.6802E 08 -0.7155E 08 -0.7736E 08 -0.8557E 08 -0.8758E 08 -0.8880E 08 -0.8199E 08 -0.7062E 08 -0.5399E 08 -0.4225E 08 -0.2212E 08 -0.1716E 07
 -0.8771E 08 -0.1081E 08 -0.1168E 08 -0.1170E 08 -0.1152E 08 -0.1095E 08 -0.9992E 08 -0.8734E 08 -0.7462E 08 -0.6086E 08 -0.4532E 08 -0.2901E 08 -0.1144E 08 0.3214E 07
 -0.9587E 08 -0.1201E 08 -0.1284E 08 -0.1255E 08 -0.1158E 08 -0.1150E 08 -0.1053E 08 -0.8301E 08 -0.6930E 08 -0.5458E 08 -0.4229E 08 -0.2901E 08 -0.1653E 08 0.3555E 08
 -0.1023E 08 -0.1023E 08 -0.1023E 08 -0.9919E 08 -0.9018E 08 -0.8032E 08 -0.6802E 08 -0.5463E 08 -0.4000E 08 -0.2546E 08 -0.1046E 08 0.4322E 08 0.1215E 08
 -0.7103E 08 -0.4476E 08 -0.6055E 08 -0.5719E 08 -0.4763E 08 -0.3467E 08 -0.2067E 08 -0.6907E 07 -0.8607E 08 -0.8400E 08 -0.5101E 08 -0.1468E 08 0.4322E 08 0.1215E 08
 -0.2329E 08 -0.8182E 07 -0.5401E 07 -0.4468E 07 0.1750E 08 0.6455E 07 0.1263E 08 0.1446E 08 0.2471E 08 0.2672E 08 0.2634E 08 0.2264E 08 0.1509E 08
 0.2406E 08 0.5147E 08 0.4539E 08 0.4271E 08 0.3157E 08 0.1944E 08 0.1114E 08 -0.5524E 08 -1.4081E 07

0.1955E 08 0.1067E 08 0.2800E 07 -0.2682E 07 -0.4492E 07 -0.2301E 07 -0.1394E 07 -0.2180E 07 -0.3589E 07

FOURIER EXPANSION OF THE STEAM FUNCTION COMPONENT NO. 21

	82.5M	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	37.5E
57.5M																		
52.5M																		
47.5M																		
42.5M																		
37.5M																		
32.5M																		
27.5M																		
22.5M																		
17.5M																		
12.5M																		
07.5M																		
02.5M																		

0.2211E 08 0.3675E 08 0.3155E 08 0.2408E 08 0.1296E 08 0.1296E 08 -0.4510E 06

0.1453E 08 0.1048E 08 -0.3057E 07 -0.4232E 07 -0.1029E 08 -0.9513E 07 -0.4132E 07

-0.1620E 08 -0.2485E 08 -0.2461E 08 -0.5558E 08 -0.3756E 08 -0.5034E 08 -0.1448E 08 -0.7402E 07 0.1691E 07 0.3284E 06

-0.1768E 08 -0.2802E 08 -0.4403E 08 -0.6732E 08 -0.8321E 08 -0.8018E 08 -0.4402E 08 -0.2712E 08 -0.6364E 07

-0.5921E 08 -0.6312E 08 -0.6486E 08 -0.6418E 08 -0.6051E 08 -0.4801E 08 -0.3631E 08 -0.2144E 07

-0.7404E 08 -0.1111E 09 -0.1112E 09 -0.1112E 09 -0.1112E 09 -0.1024E 09 -0.7401E 08 -0.2462E 08 -0.2262E 08 -0.2144E 07

-0.8441E 08 -0.1022E 09 -0.1225E 09 -0.1210E 09 -0.1118E 09 -0.1011E 09 -0.6047E 08 -0.2462E 08 -0.2262E 08 -0.2144E 07

-0.9455E 08 -0.1022E 09 -0.1225E 09 -0.1210E 09 -0.1118E 09 -0.1011E 09 -0.6047E 08 -0.2462E 08 -0.2262E 08 -0.2144E 07

-0.0624E 08 -0.6586E 08 -0.6522E 08 -0.5055E 08 -0.5218E 08 -0.4188E 08 -0.2462E 08 -0.2262E 08 -0.2144E 07

-0.2507E 08 -0.1071E 08 -0.7606E 07 -0.6444E 07 -0.2595E 07 0.4033E 07 0.4968E 07 0.1689E 08 0.2242E 08 0.2507E 08 0.1274E 08

0.2471E 08 0.5553E 08 0.4178E 08 0.3494E 08 0.3579E 08 0.3073E 08 0.1948E 08 0.1141E 08 0.1124E 08 -0.5794E 07

0.4142E 08 0.3768E 08 0.2784E 08 0.1924E 08 0.1076E 08 0.1122E 07 -0.2172E 07 -0.6455E 07 -0.2244E 07 -0.1459E 07 -0.2081E 07 -0.3286E 07

FRONTIER EXPANSION OF THE STREAM FUNCTION-COMPONENT NO. 22

	82.5N	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5N	07.5N
37.5N																		
32.5N																		
27.5N																		
22.5N																		
17.5N																		
12.5N																		
07.5N																		
02.5N																		

0.2270E 08 0.3350E 08 0.2451E 08 0.2317E 08 0.1227E 08 -0.1017E 06

0.1263E 08 0.4035E 07 -0.4235E 07 -0.1019E 08 -0.9000E 07 -0.4307E 07

-0.1530E 08 -0.2331E 08 -0.2074E 08 -0.3448E 08 -0.3529E 08 -0.3657E 08 -0.2905E 08 -0.1444E 08 -0.8182E 07 0.1266E 07 0.2093E 06

-0.1692E 08 -0.1402E 08 -0.2085E 08 -0.4065E 08 -0.3770E 08 -0.0454E 08 -0.5597E 08 -0.4327E 08 -0.2702E 08 -0.8681E 07

-0.5424E 08 -0.4620E 08 -0.4151E 08 -0.4774E 08 -0.4609E 08 -0.6184E 08 -0.5567E 08 -0.4145E 08 -0.2298E 08 -0.2404E 07

-0.7267E 08 -0.4618E 08 -0.1074E 08 -0.4554E 08 -0.4400E 08 -0.7520E 08 -0.6446E 08 -0.4503E 08 -0.1295E 08 0.1674E 07

-0.4789E 08 -0.1041E 08 -0.1186E 08 -0.1384E 08 -0.1080E 08 -0.1772E 08 -0.6574E 08 -0.6220E 08 -0.5974E 08 -0.1809E 08 -0.1114E 07

-0.4837E 08 -0.4447E 08 -0.4477E 08 -0.4477E 08 -0.4477E 08 -0.4477E 08 -0.4477E 08 -0.4477E 08 -0.4477E 08 -0.4477E 08 -0.4477E 07 1.0000E 07

-0.6154E 08 -0.4684E 08 -0.4587E 08 -0.4587E 08 -0.4587E 08 -0.4587E 08 -0.4587E 08 -0.4587E 08 -0.4587E 08 -0.4587E 08 -0.4587E 07 0.1644E 08

-0.4244E 08 -0.4244E 08 -0.4244E 08 -0.4244E 08 -0.4244E 08 -0.4244E 08 -0.4244E 08 -0.4244E 08 -0.4244E 08 -0.4244E 08 -0.4244E 08 0.1254E 08

0.2046E 08 0.2241E 08 0.4151E 08 0.4151E 08 0.4151E 08 0.4151E 08 0.4151E 08 0.4151E 08 0.4151E 08 0.4151E 08 0.4151E 08 0.4151E 08 0.4151E 08 0.4151E 08 0.4151E 08 0.4151E 08 0.4151E 08 0.4151E 08 0.4151E 08

0.4754E 08 0.4557E 08 0.2674E 08 0.1900E 08 0.1044E 08 0.5561E 07 -0.1702E 07 -0.4420E 07 -0.2110E 07 -0.1107E 07 -0.1085E 07 -0.3454E 07

FRUITER EXPANSION OF THE STREAM FUNCTION-COMPONENT NO. 23

	82.5W	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5W	07.5E			
57.5N																					
52.5N											0.2590E 08	0.3036E 08	0.2691E 08	0.2148E 08	0.1159E 08	0.2158E 05					
47.5N										0.1081E 08	0.7746E 07	-0.9253E 07	-0.1008E 08	-0.8903E 07	-0.4058E 07						
42.5N										-0.1456E 08	-0.2218E 08	-0.2768E 08	-0.3331E 08	-0.3708E 08	-0.3563E 08	-0.2929E 08	-0.1935E 08	-0.8408E 07	0.2432E 06		
37.5N										-0.1616E 08	-0.1793E 08	-0.2573E 08	-0.3716E 08	-0.6758E 08	-0.6188E 08	-0.5268E 08	-0.4250E 08	-0.2686E 08	-0.9158E 07		
32.5N										-0.4658E 08	-0.5728E 08	-0.6308E 08	-0.7938E 08	-0.7938E 08	-0.6151E 08	-0.7633E 08	-0.6688E 08	-0.5488E 08	-0.2325E 08	-0.3540E 07	
27.5N										-0.6873E 08	-0.4050E 08	-0.1010E 08	-0.4950E 08	-0.4950E 08	-0.4835E 08	-0.7222E 08	-0.5955E 08	-0.4568E 08	-0.3035E 08	-0.1556E 08	0.9988E 06
22.5N										-0.7057E 08	-0.4935E 08	-0.1108E 08	-0.1058E 08	-0.1058E 08	-0.1058E 08	-0.4835E 08	-0.3835E 08	-0.5301E 08	-0.5613E 08	-0.1872E 08	-0.1868E 07
17.5N										-0.7802E 08	-0.8998E 08	-0.4528E 08	-0.4490E 08	-0.6605E 08	-0.5852E 08	-0.7272E 08	-0.4490E 08	-0.5268E 08	-0.1760E 08	-0.2622E 07	0.4002E 07
12.5N										-0.5698E 08	-0.6055E 08	-0.6233E 08	-0.5488E 08	-0.4960E 08	-0.4268E 08	-0.2248E 08	-0.1267E 08	-0.5008E 07	0.6381E 07	0.1350E 08	0.1551E 08
07.5N										-0.2153E 08	-0.1358E 08	-0.1076E 08	-0.1118E 08	-0.8258E 07	-0.1193E 07	0.1403E 08	0.1403E 08	0.2279E 08	0.2271E 08	0.1982E 08	0.1200E 08
02.5N										0.1879E 08	0.2975E 08	0.3443E 08	0.3443E 08	0.3193E 08	0.2856E 08	0.1927E 08	0.1165E 08	0.1181E 07	-0.3198E 07		
										0.3400E 08	0.3370E 08	0.2558E 08	0.1881E 08	0.1103E 08	0.3924E 07	-0.1278E 07	-0.3875E 07	-0.1998E 07	-0.1676E 07	-0.2625E 07	

FOURIER EXPANSION OF THE STREAM FUNCTION COMPONENT nB. 2N

	62.5N	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5N	07.5N
57.5N																		
52.5N																		
47.5N																		
42.5N																		
37.5N																		
32.5N																		
27.5N																		
22.5N																		
17.5N																		
12.5N																		
7.5N																		
2.5N																		

0.2559E JB 0.2769E DB 0.2873E DB 0.1992E DB 0.1091E DB 0.1729E DB

0.9415E DT 0.6604E DT -0.4188E DT -0.9208E DT -0.9986E DT -0.8781E DT -0.4027E DT

-0.1182E DB -0.2155E DB -0.2701E DB -0.3226E DB -0.3592E DB -0.3666E DB -0.2872E DB -0.1920E DB -0.8578E DT 0.5840E DB 0.1927E DB

-0.1534E DB -0.1782E DB -0.2268E DB -0.2822E DB -0.3472E DB -0.4136E DB -0.4788E DB -0.5313E DB -0.5685E DB -0.4955E DT

-0.4421E DB -0.5942E DB -0.7615E DB -0.9392E DB -1.1205E DB -1.3008E DB -1.4768E DB -1.6451E DB -1.7938E DB -1.9166E DT

-0.6117E DB -0.8503E DB -1.1062E DB -1.3762E DB -1.6548E DB -1.9378E DB -2.2208E DB -2.5000E DB -2.7720E DB -2.9341E DB

-3.0862E DB -3.2268E DB -3.3728E DB -3.5174E DB -3.6578E DB -3.7900E DB -3.9120E DB -4.0200E DB -4.1000E DB -4.1500E DT

-0.7118E DB -0.8921E DB -1.0848E DB -1.2862E DB -1.4920E DB -1.6980E DB -1.8980E DB -2.0880E DB -2.2640E DB -2.4220E DT

-0.5278E DB -0.5831E DB -0.6055E DB -0.5815E DB -0.5152E DB -0.4095E DB -0.2692E DB -0.1300E DB -0.0000E DT 0.8058E DT

-0.2344E DB -0.1978E DB -0.1177E DB -0.1242E DB -0.1057E DB -0.0621E DT 0.2608E DT 0.1694E DB 0.1595E DB 0.2093E DB 0.1222E DB 0.1457E DB

0.1563E DB 0.2255E DB 0.3048E DB 0.3819E DB 0.4548E DB 0.5198E DB 0.5738E DB 0.6148E DB 0.6408E DB 0.6518E DB 0.6388E DB 0.5918E DB 0.5118E DB 0.3988E DB 0.2518E DT

0.3076E DB 0.5166E DB 0.7245E DB 0.9308E DB 1.1348E DB 1.3358E DB 1.5328E DB 1.7248E DB 1.9008E DB 2.0598E DB 2.1908E DB 2.2908E DB 2.3508E DB 2.3608E DB 2.3208E DT

0.1885E DT -0.1885E DT -0.8905E DB -0.1556E DT -0.1885E DT -0.8905E DB -0.1556E DT -0.1885E DT -0.8905E DB -0.1556E DT -0.1885E DT -0.8905E DB -0.1556E DT -0.1885E DT -0.8905E DB -0.1556E DT -0.1885E DT

FURIER EXPANSION OF THE STREAM FUNCTION, COMPANILIT (P. 23)

	82.5M	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	07.5M
57.5N																		
52.5N																		
47.5N																		
42.5N																		
37.5N																		
32.5N																		
27.5N																		
22.5N																		
17.5N																		
12.5N																		
07.5N																		
02.5N																		

0.2120E 08 0.2513E 08 0.2275E 08 0.1888E 08 0.1320E 08 0.2846E 06

0.4220E 07 0.5608E 07 0.4486E 07 0.4926E 07 0.4859E 07 0.4008E 07

0.2120E 08 0.2513E 08 0.2275E 08 0.1888E 08 0.1320E 08 0.2846E 06

0.4220E 07 0.5608E 07 0.4486E 07 0.4926E 07 0.4859E 07 0.4008E 07

0.4220E 07 0.5608E 07 0.4486E 07 0.4926E 07 0.4859E 07 0.4008E 07

0.4220E 07 0.5608E 07 0.4486E 07 0.4926E 07 0.4859E 07 0.4008E 07

0.4220E 07 0.5608E 07 0.4486E 07 0.4926E 07 0.4859E 07 0.4008E 07

0.4220E 07 0.5608E 07 0.4486E 07 0.4926E 07 0.4859E 07 0.4008E 07

0.4220E 07 0.5608E 07 0.4486E 07 0.4926E 07 0.4859E 07 0.4008E 07

0.4220E 07 0.5608E 07 0.4486E 07 0.4926E 07 0.4859E 07 0.4008E 07

0.4220E 07 0.5608E 07 0.4486E 07 0.4926E 07 0.4859E 07 0.4008E 07

0.2782E 08 0.2961E 08 0.2318E 08 0.1718E 08 0.1024E 08 0.4427E 07 0.5886E 06 0.8262E 06 0.1370E 07 0.2443E 07

FOURIER EXPANSION OF THE STREAM FUNCTION COMPONENT NO. 20

	82.5N	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5N	07.5E	02.5E
57.5N																			
52.5N																			
47.5N																			
42.5N																			
37.5N																			
32.5N																			
27.5N																			
22.5N																			
17.5N																			
12.5N																			
07.5N																			
02.5N																			

0.11274E 08 0.2318E 08 0.2094E 08 0.1715E 08 0.9644E 07 0.1820E 06

0.7194E 07 0.4721E 07 -0.9240E 07 -0.9754E 07 -0.4845E 07 -0.5480E 07

-0.1240E 08 -0.1074E 08 -0.2970E 08 -0.5020E 08 -0.5504E 08 -0.5275E 08 -0.2749E 08 -0.1877E 08 -0.8774E 07 -0.2505E 05 0.8863E 05

-0.1387E 08 -0.1623E 08 -0.2264E 08 -0.3012E 08 -0.3570E 08 -0.3572E 08 -0.4465E 08 -0.4988E 08 -0.2602E 08 -0.4965E 07

-0.3723E 08 -0.4488E 08 -0.5506E 08 -0.6954E 08 -0.7127E 08 -0.7570E 08 -0.7024E 08 -0.6241E 08 -0.5194E 08 -0.4997E 08 -0.2348E 08 -0.5050E 07

-0.5163E 08 -0.4488E 08 -0.4057E 08 -0.4230E 08 -0.4175E 08 -0.4011E 08 -0.3540E 08 -0.2754E 08 -0.1754E 08 -0.6894E 08 -0.4444E 08 -0.3071E 08 -0.1405E 08 -0.6444E 06

-0.5215E 08 -0.4020E 08 -0.3420E 08 -0.3003E 08 -0.2654E 08 -0.2259E 08 -0.1824E 08 -0.1250E 08 -0.0624E 08 -0.5080E 08 -0.3645E 08 -0.2013E 08 -0.3776E 07

-0.5421E 08 -0.4750E 08 -0.4846E 08 -0.4987E 08 -0.4727E 08 -0.4370E 08 -0.4370E 08 -0.4331E 08 -0.4331E 08 -0.4331E 08 -0.4331E 08 -0.4331E 08 -0.4331E 08 -0.4331E 08 -0.4331E 08 -0.4331E 08 -0.4331E 08 -0.4331E 08 -0.4331E 08 -0.4331E 08 -0.4331E 08

-0.4455E 08 -0.5810E 08 -0.5651E 08 -0.5475E 08 -0.4456E 08 -0.3549E 08 -0.2516E 08 -0.1579E 08 -0.8246E 07 0.2347E 07 0.9877E 07 0.1201E 08

-0.1802E 08 -0.1403E 08 -0.1287E 08 -0.1198E 08 -0.1495E 08 -0.1410E 08 -0.1491E 08 -0.1598E 08 -0.1735E 08 -0.1811E 08 -0.1700E 08 -0.1079E 08

0.8624E 07 0.1646E 08 0.2457E 08 0.2686E 08 0.2611E 08 0.2431E 08 0.1776E 08 0.1158E 08 0.2259E 07 -0.2402E 07

0.2515E 08 0.2761E 08 0.2180E 08 0.2180E 08 0.1644E 08 0.1065E 08 0.4579E 07 -0.2518E 08 -0.3001E 07 -0.1681E 07 -0.7592E 06 -0.1246E 07 -0.2277E 07

FOURIER EXPANSION OF THE STEAM FUNCTION COMPONENT NO. 32

	82.5M	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	07.5M
57.5M																		
52.5M																		
47.5M																		
42.5M																		
37.5M																		
32.5M																		
27.5M																		
22.5M																		
17.5M																		
12.5M																		
07.5M																		

0.11651 JB 0.14306 OB 0.1327E OB 0.1121E OB 0.0857E OB 0.0657E OB 0.0402E OB
 0.5400E JF 0.1417E OF -0.5524E OF -0.0602E OF -0.0955E OF -0.1607E OF -0.2165E OF
 -0.0223E JF -0.1559E OB -0.2454E OB -0.2720E OB -0.2355E OB -0.1082E OB -0.0991E OF -0.1038E OF -0.1040E OB
 -0.0887E OF -0.1254E OB -0.1735E OB -0.2091E OB -0.1854E OB -0.0403E JB -0.4514E OB -0.4076E OB -0.1420E OB -0.2370E OB -0.0985E JF
 -0.2422E OB -0.5483E OB -0.4113E OB -0.4637E OB -0.5194E OB -0.5106E JB -0.5709E JB -0.5418E OB -0.5279E OB -0.4510E OB -0.5500E OB -0.2221E OB -0.4490E OF
 -0.5155E OB -0.5070E OB -0.602E OB -0.7115E OB -0.7105E OB -0.6977E JB -0.6554E JB -0.5422E OB -0.4114E OB -0.2451E OB -0.1550E OB -0.2400E JF
 -0.2991E OB -0.6015E OB -0.7299E OB -0.7450E OB -0.6478E JB -0.5539E OB -0.4634E OB -0.3471E OB -0.2054E OB -0.6100E OF
 -0.3405E OB -0.5444E OB -0.6542E OB -0.6793E OB -0.6000E OB -0.6521E JB -0.5755E JB -0.4412E OB -0.3242E JB -0.2174E OB -0.0610E OF 0.2416E OF
 -0.2078E OB -0.5722E OB -0.4274E OB -0.4760E OB -0.5080E JB -0.2762E JB -0.1948E OB -0.1270E OB -0.5221E OF 0.4506E OF 0.0855E OF
 -0.1134E OB -0.1104E OB -0.1182E OB -0.1594E OB -0.1407E JB -0.0915E JF 0.2473E OF 0.1114E OB 0.1181E OB 0.0274E OF
 0.7164E OB 0.5251E OF 0.1097E OB 0.1402E OB 0.1506E JB 0.1045E OB 0.1519E OB 0.0962E OF 0.2981E OF 0.1299E OF
 0.1387E JB 0.1175E OB 0.1494E JB 0.1204E OB 0.0604E OF 0.0522E OF 0.1029E OB -0.1160E OF -0.1160E OF -0.1160E OF -0.1160E OF -0.1160E OF

FAURIER EXPANSION OF THE STREAM FUNCTION-COMPOUND NO. 16

	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5	07.5E
57.5N																		
52.5N																		
47.5N																		
42.5N																		
37.5N																		
32.5N																		
27.5N																		
22.5N																		
17.5N																		
12.5N																		
07.5N																		
02.5N																		

0.2181E 07 0.1089E 08 0.1013E 09 0.8675E 07 0.5239E 07 0.4388E 06

-0.7595E 07 -0.1299E 08 -0.1749E 08 -0.2125E 08 -0.2395E 08 -0.2100E 08 -0.1529E 08 -0.8090E 07 -0.3541E 07

0.2181E 07 0.1089E 08 0.1013E 09 0.8675E 07 0.5239E 07 0.4388E 06

-0.7595E 07 -0.1299E 08 -0.1749E 08 -0.2125E 08 -0.2395E 08 -0.2100E 08 -0.1529E 08 -0.8090E 07 -0.3541E 07

0.2181E 07 0.1089E 08 0.1013E 09 0.8675E 07 0.5239E 07 0.4388E 06

-0.7595E 07 -0.1299E 08 -0.1749E 08 -0.2125E 08 -0.2395E 08 -0.2100E 08 -0.1529E 08 -0.8090E 07 -0.3541E 07

0.2181E 07 0.1089E 08 0.1013E 09 0.8675E 07 0.5239E 07 0.4388E 06

-0.7595E 07 -0.1299E 08 -0.1749E 08 -0.2125E 08 -0.2395E 08 -0.2100E 08 -0.1529E 08 -0.8090E 07 -0.3541E 07

0.2181E 07 0.1089E 08 0.1013E 09 0.8675E 07 0.5239E 07 0.4388E 06

-0.7595E 07 -0.1299E 08 -0.1749E 08 -0.2125E 08 -0.2395E 08 -0.2100E 08 -0.1529E 08 -0.8090E 07 -0.3541E 07

0.2181E 07 0.1089E 08 0.1013E 09 0.8675E 07 0.5239E 07 0.4388E 06

-0.7595E 07 -0.1299E 08 -0.1749E 08 -0.2125E 08 -0.2395E 08 -0.2100E 08 -0.1529E 08 -0.8090E 07 -0.3541E 07

0.2181E 07 0.1089E 08 0.1013E 09 0.8675E 07 0.5239E 07 0.4388E 06

-0.7595E 07 -0.1299E 08 -0.1749E 08 -0.2125E 08 -0.2395E 08 -0.2100E 08 -0.1529E 08 -0.8090E 07 -0.3541E 07

0.2181E 07 0.1089E 08 0.1013E 09 0.8675E 07 0.5239E 07 0.4388E 06

-0.7595E 07 -0.1299E 08 -0.1749E 08 -0.2125E 08 -0.2395E 08 -0.2100E 08 -0.1529E 08 -0.8090E 07 -0.3541E 07

0.2181E 07 0.1089E 08 0.1013E 09 0.8675E 07 0.5239E 07 0.4388E 06

-0.7595E 07 -0.1299E 08 -0.1749E 08 -0.2125E 08 -0.2395E 08 -0.2100E 08 -0.1529E 08 -0.8090E 07 -0.3541E 07

0.2181E 07 0.1089E 08 0.1013E 09 0.8675E 07 0.5239E 07 0.4388E 06

-0.7595E 07 -0.1299E 08 -0.1749E 08 -0.2125E 08 -0.2395E 08 -0.2100E 08 -0.1529E 08 -0.8090E 07 -0.3541E 07

0.2181E 07 0.1089E 08 0.1013E 09 0.8675E 07 0.5239E 07 0.4388E 06

FOURIER EXPANSION OF THE STREAM FUNCTION COMPONENT NO. 30

	82.5N	77.5N	72.5N	67.5N	62.5N	57.5N	52.5N	47.5N	42.5N	37.5N	32.5N	27.5N	22.5N	17.5N	12.5N	07.5N	02.5N	07.5E
57.5N																		
52.5N																		
47.5N																		
42.5N																		
37.5N																		
32.5N																		
27.5N																		
22.5N																		
17.5N																		
12.5N																		
07.5N																		
02.5N																		

0.7711L OF 0.9555E OF 0.6941E OF 0.4695E OF 0.4028E OF

0.1775E OF 0.8201E OF 0.7661E OF 0.7886E OF 0.8663E OF 0.5412E OF

-0.6968E OF -0.1193E OF -0.1622E OF -0.1478E OF -0.2294E OF -0.1978E OF -0.1452E OF -0.1406E OF -0.1406E OF

-0.8959E OF -0.2472E OF -0.3042E OF -0.3527E OF -0.3946E OF -0.4306E OF -0.4606E OF -0.4846E OF -0.5026E OF

-0.2027E OF -0.5953E OF -0.4628E OF -0.5252E OF -0.5846E OF -0.6396E OF -0.6896E OF -0.7346E OF -0.7746E OF

-0.1834E OF -0.4824E OF -0.4006E OF -0.4524E OF -0.5046E OF -0.5546E OF -0.6006E OF -0.6406E OF -0.6746E OF

-0.2138E OF -0.5192E OF -0.4306E OF -0.4824E OF -0.5346E OF -0.5846E OF -0.6306E OF -0.6706E OF -0.7046E OF

-0.1665E OF -0.2920E OF -0.1478E OF -0.1738E OF -0.2046E OF -0.2306E OF -0.2546E OF -0.2746E OF -0.2896E OF

-0.7127E OF -0.4060E OF -0.1119E OF -0.1478E OF -0.1827E OF -0.2127E OF -0.2377E OF -0.2577E OF -0.2727E OF

-0.1119E OF 0.4060E OF 0.1119E OF 0.1478E OF 0.1827E OF 0.2127E OF 0.2377E OF 0.2577E OF 0.2727E OF

0.4060E OF 0.1119E OF 0.1478E OF 0.1827E OF 0.2127E OF 0.2377E OF 0.2577E OF 0.2727E OF 0.2877E OF

0.1119E OF 0.4060E OF 0.1119E OF 0.1478E OF 0.1827E OF 0.2127E OF 0.2377E OF 0.2577E OF 0.2727E OF

0.4060E OF 0.1119E OF 0.1478E OF 0.1827E OF 0.2127E OF 0.2377E OF 0.2577E OF 0.2727E OF 0.2877E OF

0.4060E OF 0.1119E OF 0.1478E OF 0.1827E OF 0.2127E OF 0.2377E OF 0.2577E OF 0.2727E OF 0.2877E OF

FAURIER EXPANSION OF THE STREAM FUNCTION-COMPONENT NO. 40

	82.5W	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5W	07.5E
57.5N																		
52.5N																		
47.5N																		
42.5N																		
37.5N																		
32.5N																		
27.5N																		
22.5N																		
17.5N																		
12.5N																		
07.5N																		
02.5N																		

0.6629E 07 0.6530E 07 0.7940E 07 0.6601E 07 0.4200E 07 0.3100E 06

0.1462E 07 -0.1403E 06 -0.4657E 07 -0.7207E 07 -0.7488E 07 -0.6343E 07 -0.5270E 07

-0.6287E 07 -0.1047E 06 -0.1088E 06 -0.2003E 06 -0.2111E 06 -0.1602E 06 -0.1374E 06 -0.7482E 07 -0.1452E 07 -0.3100E 06

-0.6200E 07 -0.8192E 07 -0.1188E 06 -0.2758E 06 -0.5208E 06 -0.5550E 06 -0.5184E 06 -0.2709E 06 -0.1911E 06 -0.8880E 07

-0.1538E 06 -0.2217E 06 -0.2754E 06 -0.3214E 06 -0.3694E 06 -0.4133E 06 -0.4573E 06 -0.5012E 06 -0.5452E 06 -0.5892E 07

-0.1771E 06 -0.308E 06 -0.4046E 06 -0.4995E 06 -0.5207E 06 -0.5224E 06 -0.5021E 06 -0.4673E 06 -0.3438E 06 -0.2534E 06 -0.3454E 07

-0.1588E 06 -0.3012E 06 -0.4825E 06 -0.5096E 06 -0.5541E 06 -0.5555E 06 -0.4488E 06 -0.3863E 06 -0.3012E 06 -0.1939E 06 -0.7044E 07

-0.1486E 06 -0.3015E 06 -0.4519E 06 -0.4825E 06 -0.4973E 06 -0.4533E 06 -0.4790E 06 -0.2021E 06 -0.1032E 06 -0.4444E 06

-0.1446E 06 -0.2228E 06 -0.2754E 06 -0.3403E 06 -0.4078E 06 -0.4532E 06 -0.4087E 06 -0.2592E 06 -0.1428E 06 -0.0799E 07 -0.5622E 05 0.4618E 07

-0.6152E 07 -0.1027E 07 -0.1818E 07 -0.1022E 06 -0.1510E 06 -0.1655E 06 -0.1567E 06 -0.1294E 06 -0.8256E 07 -0.3330E 07 0.1631E 07 0.6632E 07 0.5486E 07

0.6782E 07 0.9081E 07 0.8718E 07 0.7444E 07 0.5133E 07 0.3737E 07 0.2442E 07 0.1462E 07 0.6403E 07 0.2552E 07 -0.5044E 06

0.6782E 07 0.9081E 07 0.8718E 07 0.7444E 07 0.5133E 07 0.3737E 07 0.2442E 07 0.1462E 07 0.6403E 07 0.2552E 07 -0.5044E 06

FOURIER EXPANSION OF THE STREAM FUNCTION-COMPONENT NR. 41

	62.5M	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	07.5E
57.5M																		
52.5M																		
47.5M																		
42.5M																		
37.5M																		
32.5M																		
27.5M																		
22.5M																		
17.5M																		
12.5M																		
07.5M																		
02.5M																		

0.6888E 07 0.8032E 07 0.7499E 07 0.6452E 07 0.5388E 06

0.1522E 07 -0.2275E 06 -0.4735E 07 -0.7107E 07 -0.9485E 07 -0.6185E 07 -0.3207E 07

-0.6024E 07 -0.1052E 06 -0.1445E 06 -0.1772E 06 -0.2012E 06 -0.2030E 06 -0.1808E 06 -0.1330E 06 -0.7320E 07 -0.1688E 07 -0.3271E 06

-0.5827E 07 -0.1775E 07 -0.1135E 06 -0.1071E 06 -0.5967E 06 -0.4280E 06 -0.4285E 06 -0.4005E 06 -0.3504E 06 -0.2629E 06 -0.1859E 06 -0.8377E 07

-0.1532E 06 -0.2100E 06 -0.2621E 06 -0.3583E 06 -0.5967E 06 -0.5529E 06 -0.4825E 06 -0.4367E 06 -0.3767E 06 -0.2947E 06 -0.1908E 06 -0.8377E 07

-0.1466E 06 -0.2412E 06 -0.4196E 06 -0.6866E 06 -0.9781E 06 -0.5033E 06 -0.4529E 06 -0.4042E 06 -0.3551E 06 -0.2479E 06 -0.1418E 06 -0.3487E 07

-0.1481E 06 -0.2855E 06 -0.5897E 06 -0.9387E 06 -0.9866E 06 -0.5242E 06 -0.5355E 06 -0.4700E 06 -0.4025E 06 -0.2947E 06 -0.1908E 06 -0.7650E 07

-0.1721E 06 -0.2654E 06 -0.4745E 06 -0.6745E 06 -0.6700E 06 -0.4452E 06 -0.3978E 06 -0.3450E 06 -0.2843E 06 -0.2011E 06 -0.1038E 06 -0.6632E 06

-0.1582E 06 -0.2091E 06 -0.2614E 06 -0.2833E 06 -0.2430E 06 -0.1538E 06 -0.1294E 06 -0.1070E 06 -0.0827E 06 -0.0510E 06 -0.0272E 07

-0.5786E 07 -0.6574E 07 -0.7481E 07 -0.8475E 07 -0.9584E 06 -0.1294E 06 -0.1294E 06 -0.1294E 06 -0.1294E 06 -0.1294E 06 -0.1294E 06 -0.4272E 07

0.2046E 07 -0.3054E 06 0.2186E 07 0.4198E 07 0.6780E 07 0.9262E 07 0.7454E 07 0.6074E 07 0.2442E 07 -0.5374E 06

0.6238E 07 0.9034E 07 0.8168E 07 0.7011E 07 0.5851E 07 0.5165E 07 0.4721E 06 -0.0741E 06 -0.3091E 06 -0.8251E 06 -0.9584E 06

FOURIER EXPANSION OF THE STREAM FUNCTION COMPONENT NO. 42

	82.5M	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	07.5E
51.5N																		
52.5N																		
47.5N																		
42.5N																		
37.5N																		
32.5N																		
27.5N																		
22.5N																		
17.5N																		
12.5N																		
07.5N																		

0.4006E 07 0.7594E 07 0.7099E 07 0.6151E 07 0.5790E 07 0.5396E 06
 0.1218E 07 -0.2263E 06 -0.4650E 07 -0.7110E 07 -0.6028E 07 -0.5158E 07
 -0.5753E 07 -0.1006E 06 -0.1389E 06 -0.1709E 06 -0.1972E 06 -0.1752E 06 -0.1502E 06 -0.7158E 07 -0.1470E 07 -0.5538E 06
 -0.5558E 07 -0.7575E 07 -0.1081E 06 -0.1651E 06 -0.2764E 06 -0.5151E 06 -0.2947E 06 -0.2551E 06 -0.1911E 06 -0.8143E 07
 -0.1274E 06 -0.1901E 06 -0.2498E 06 -0.4174E 06 -0.4198E 06 -0.3877E 06 -0.4422E 06 -0.2758E 06 -0.1416E 06 -0.6463E 07
 -0.1538E 06 -0.2750E 06 -0.5646E 06 -0.4194E 06 -0.4577E 06 -0.4003E 06 -0.4488E 06 -0.2424E 06 -0.1392E 06 -0.5502E 07
 -0.1863E 06 -0.3088E 06 -0.4502E 06 -0.4852E 06 -0.4075E 06 -0.4422E 06 -0.3670E 06 -0.2812E 06 -0.1874E 06 -0.7059E 07
 -0.1606E 06 -0.2672E 06 -0.5958E 06 -0.4333E 06 -0.4594E 06 -0.3388E 06 -0.2789E 06 -0.1942E 06 -0.1033E 06 -0.6585E 06
 -0.1253E 06 -0.1972E 06 -0.2476E 06 -0.5201E 06 -0.5281E 06 -0.3236E 06 -0.2981E 06 -0.1942E 06 -0.1422E 06 -0.7153E 07 -0.6898E 06 0.5952E 07
 -0.5341E 07 -0.6157E 07 -0.7056E 07 -0.9299E 07 -0.1222E 06 -0.1560E 06 -0.1514E 06 -0.1287E 06 -0.8098E 07 -0.4092E 07 0.6083E 06 0.3656E 07 0.5768E 07 0.4403E 07
 -0.2123E 07 -0.8279E 06 0.1699E 07 0.4342E 07 0.6147E 07 0.7647E 07 0.6991E 07 0.5750E 07 0.2552E 07 -0.5762E 06
 0.5788E 07 0.8841E 07 0.7655E 07 0.6603E 07 0.5147E 07 0.5121E 07 0.5121E 07 0.4953E 06 -0.6155E 06 -0.7151E 06 -0.2951E 06 -0.4025E 06 -0.9122E 06

FOURIER EXPANSION OF THE STREAM FUNCTION, COMPONENT NO. 45

	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	7.5	02.5	07.5
82.5M																	
57.5N																	
52.5N																	
47.5N																	
42.5N																	
37.5N																	
32.5N																	
27.5N																	
22.5N																	
17.5N																	
12.5N																	
07.5N																	

0.5189E OF 0.0474E OF 0.0051E OF 0.3209E OF 0.2877E OF

0.9480E OF -0.4412E OF -0.4502E OF -0.6568E OF -0.5571E OF -0.2429E OF

-0.5006E OF -0.0920E OF -0.1240E OF -0.1733E OF -0.1594E OF -0.1194E OF -0.6872E OF -0.1463E OF -0.3455E OF

-0.4492E OF -0.0459E OF -0.4596E OF -0.1607E OF -0.2227E OF -0.2087E OF -0.2820E OF -0.2858E OF -0.2695E OF -0.1668E OF -0.7626E OF

-0.1074E OF -0.1102E OF -0.1156E OF -0.2168E OF -0.2576E OF -0.3104E OF -0.3738E OF -0.3524E OF -0.3111E OF -0.2538E OF -0.1888E OF -0.6272E OF

-0.1249E OF -0.2150E OF -0.1156E OF -0.1156E OF -0.4539E OF -0.4539E OF -0.4539E OF -0.4539E OF -0.4539E OF -0.4539E OF -0.4539E OF -0.4539E OF

-0.1139E OF -0.2231E OF -0.3116E OF -0.3767E OF -0.4278E OF -0.4789E OF -0.5300E OF -0.5811E OF -0.6322E OF -0.6833E OF -0.7344E OF -0.7855E OF -0.8366E OF -0.8877E OF

-0.1321E OF -0.2234E OF -0.3147E OF -0.4060E OF -0.4973E OF -0.5886E OF -0.6799E OF -0.7712E OF -0.8625E OF -0.9538E OF -1.0451E OF -1.1364E OF -1.2277E OF -1.3190E OF

-0.1050E OF -0.2114E OF -0.2422E OF -0.2613E OF -0.2748E OF -0.2833E OF -0.2918E OF -0.3003E OF -0.3088E OF -0.3173E OF -0.3258E OF -0.3343E OF -0.3428E OF -0.3513E OF

-0.4372E OF -0.3102E OF -0.5946E OF -0.6055E OF -0.1082E OF -0.1417E OF -0.1246E OF -0.0897E OF -0.4814E OF -0.2444E OF 0.2444E OF 0.4598E OF 0.4171E OF

-0.2103E OF -0.1513E OF 0.6575E OF 0.7931E OF 0.4507E OF 0.6174E OF 0.7111E OF 0.4095E OF 0.2079E OF -0.4188E OF

0.4639E OF 0.6098E OF 0.6552E OF 0.5584E OF 3.455E OF 3.2723E OF 0.4622E OF -0.6117E OF -0.6022E OF -0.2594E OF -0.3448E OF -0.3448E OF

FRONTIER EXPANSION OF THE STREAM FUNCTION, CONTINUED, Jd. 57

	82.5m	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5m	07.5E
57.5N																		
52.5N																		
47.5N																		
42.5N																		
37.5N																		
32.5N																		
27.5N																		
22.5N																		
17.5N																		
12.5N																		
07.5N																		
02.5N																		

0.3536C OF 0.3642E OF 0.3547E OF 0.3122E OF 0.1960E OF 0.1798E OF
 0.4447E OF -0.5118E OF -0.4574E OF -0.4707E OF -0.4655E OF -0.2179E OF
 -0.4053E OF -0.5045E OF -0.4075E OF -0.1021E OF -0.1103E OF -0.1119E OF -0.1277E OF -0.1023E OF -0.1023E OF -0.1250E OF -0.3275E OF
 -0.2556E OF -0.3118E OF -0.1417E OF -0.1727E OF -0.1881E OF -0.1923E OF -0.1862E OF -0.1639E OF -0.1252E OF -0.1572E OF
 -0.5502E OF -0.4755E OF -0.1287E OF -0.1287E OF -0.1071E OF -0.2149E OF -0.2520E OF -0.2477E OF -0.2117E OF -0.1819E OF -0.1245E OF -0.4455E OF
 -0.7011E OF -0.1311E OF -0.1856E OF -0.2207E OF -0.2505E OF -0.2775E OF -0.2940E OF -0.2744E OF -0.2744E OF -0.2139E OF -0.1071E OF -0.1071E OF -0.5324E OF
 -0.4003E OF -0.1227E OF -0.1794E OF -0.2251E OF -0.2402E OF -0.2402E OF -0.2402E OF -0.2402E OF -0.2402E OF -0.2402E OF -0.2402E OF -0.2402E OF
 -0.4019E OF -0.1227E OF -0.1227E OF -0.2377E OF -0.2575E OF -0.2680E OF -0.2680E OF -0.2680E OF -0.2680E OF -0.2680E OF -0.2680E OF
 -0.5363E OF -0.2079E OF -0.1200E OF -0.1437E OF -0.1744E OF -0.1975E OF -0.1975E OF -0.1975E OF -0.1975E OF -0.1975E OF -0.1975E OF
 -0.2238E OF -0.2056E OF -0.3189E OF -0.4049E OF -0.4562E OF -0.4562E OF -0.4562E OF -0.4562E OF -0.4562E OF -0.4562E OF
 -0.1874E OF -0.1549E OF -0.4582E OF 0.3668E OF 0.4144E OF 0.2619E OF 0.2753E OF 0.2651E OF 0.1222E OF -0.2464E OF
 0.2240E OF 0.3044E OF 0.5355E OF 0.2798E OF 0.2452E OF 0.1801E OF 0.3777E OF 0.4317E OF -0.1410E OF -0.1639E OF -0.2036E OF -0.4491E OF

FOURIER EXPANSION OF THE STREAM FUNCTION-COMPONENT NO. 59

	82.5M	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	07.5E
57.5N																		
52.5N										0.2008E 07	0.1924E 07	0.3287E 07	0.2896E 07	0.2896E 07	0.1877E 07	0.1867E 06		
47.5N										0.4054E 06	-0.5174E 06	-0.2923E 07	-0.4459E 07	-0.5826E 07	-0.7277E 07			
42.5N										-0.2652E 07	-0.5201E 07	-0.9224E 07	-0.1114E 08	-0.1157E 08	-0.1057E 08	-0.1057E 08	-0.1057E 08	-0.1057E 08
37.5N										-0.2562E 07	-0.5161E 07	-0.9224E 07	-0.1376E 08	-0.1677E 08	-0.1757E 08	-0.1757E 08	-0.1757E 08	-0.1757E 08
32.5N										-0.2562E 07	-0.5161E 07	-0.9224E 07	-0.1376E 08	-0.1677E 08	-0.1757E 08	-0.1757E 08	-0.1757E 08	-0.1757E 08
27.5N										-0.2562E 07	-0.5161E 07	-0.9224E 07	-0.1376E 08	-0.1677E 08	-0.1757E 08	-0.1757E 08	-0.1757E 08	-0.1757E 08
22.5N										-0.2562E 07	-0.5161E 07	-0.9224E 07	-0.1376E 08	-0.1677E 08	-0.1757E 08	-0.1757E 08	-0.1757E 08	-0.1757E 08
17.5N										-0.2562E 07	-0.5161E 07	-0.9224E 07	-0.1376E 08	-0.1677E 08	-0.1757E 08	-0.1757E 08	-0.1757E 08	-0.1757E 08
12.5N										-0.2562E 07	-0.5161E 07	-0.9224E 07	-0.1376E 08	-0.1677E 08	-0.1757E 08	-0.1757E 08	-0.1757E 08	-0.1757E 08
07.5N										-0.2562E 07	-0.5161E 07	-0.9224E 07	-0.1376E 08	-0.1677E 08	-0.1757E 08	-0.1757E 08	-0.1757E 08	-0.1757E 08
02.5N										-0.2562E 07	-0.5161E 07	-0.9224E 07	-0.1376E 08	-0.1677E 08	-0.1757E 08	-0.1757E 08	-0.1757E 08	-0.1757E 08

FIGURE EXPANSION OF THE STREAM FUNCTION-COMPOUND NO. 63

	62.5K	71.5	73.5	81.5	84.5	91.5	92.5	97.5	98.5	102.5	104.5	107.5	111.5	112.5	117.5	121.5	124.5K	127.5K
57.5K																		
52.5K																		
47.5K																		
42.5K																		
37.5K																		
32.5K																		
27.5K																		
22.5K																		
17.5K																		
12.5K																		
07.5K																		
02.5K																		

0.485E OF 0.485E OF 0.284E OF 0.251E OF 0.198E OF 0.145E OF

0.142E OF 0.142E OF 0.142E OF 0.142E OF 0.142E OF 0.142E OF

-0.245E OF 0.485E OF 0.485E OF 0.485E OF 0.485E OF 0.485E OF

-0.207E OF -0.207E OF -0.207E OF -0.207E OF -0.207E OF -0.207E OF

-0.485E OF -0.485E OF -0.485E OF -0.485E OF -0.485E OF -0.485E OF

-0.485E OF -0.485E OF -0.485E OF -0.485E OF -0.485E OF -0.485E OF

-0.485E OF -0.485E OF -0.485E OF -0.485E OF -0.485E OF -0.485E OF

-0.485E OF -0.485E OF -0.485E OF -0.485E OF -0.485E OF -0.485E OF

-0.485E OF -0.485E OF -0.485E OF -0.485E OF -0.485E OF -0.485E OF

-0.485E OF -0.485E OF -0.485E OF -0.485E OF -0.485E OF -0.485E OF

-0.485E OF -0.485E OF -0.485E OF -0.485E OF -0.485E OF -0.485E OF

-0.485E OF -0.485E OF -0.485E OF -0.485E OF -0.485E OF -0.485E OF

FOURIER EXPANSION OF THE STREAM FUNCTION-COMPONENT NO. ON

	82.5N	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	7.5	2.5	07.5E
37.5N																		
32.5N																		
27.5N																		
22.5N																		
17.5N																		
12.5N																		
07.5N																		
02.5N																		

0.2372E 07 0.2957E 07 0.2751E 07 0.2826E 07 0.1586E 07 0.1586E 06

0.2481E 06 -0.4727E 06 -0.4587E 07 -0.5711E 07 -0.5903E 07 -0.3356E 07 -0.1836E 07

-3.2370E 07 -0.4450E 07 -0.4477E 07 -0.4829E 07 -0.4829E 07 -0.4916E 07 -0.4007E 06 -0.4100E 07 -0.4100E 07 -0.2097E 06

-0.1935E 07 -0.2796E 07 -0.2796E 07 -0.2756E 07 -0.2756E 07 -0.1518E 06 -0.1518E 06 -0.1518E 06 -0.1518E 06 -0.1518E 06 -0.4683E 07

-0.4481E 07 -0.745E 07 -0.9926E 07 -0.1229E 06 -0.1229E 06 -0.1476E 06 -0.1476E 06 -0.1476E 06 -0.1476E 06 -0.1476E 06 -0.4276E 07

-0.5247E 07 -0.9455E 07 -0.1411E 06 -0.1411E 06 -0.1411E 06 -0.1411E 06 -0.2279E 06 -0.2279E 06 -0.2279E 06 -0.2279E 06 -0.4276E 07

-0.4062E 07 -0.4252E 06 -0.1252E 06 -0.1252E 06 -0.1252E 06 -0.1252E 06 -0.2411E 06 -0.2411E 06 -0.2411E 06 -0.2411E 06 -0.2411E 06

-0.5120E 07 -0.4252E 07 -0.1252E 06 -0.1252E 06 -0.1252E 06 -0.1252E 06 -0.2411E 06 -0.2411E 06 -0.2411E 06 -0.2411E 06 -0.2411E 06

-0.5982E 07 -0.4187E 07 -0.1187E 06 -0.1187E 06 -0.1187E 06 -0.1187E 06 -0.1572E 06 -0.1572E 06 -0.1572E 06 -0.1572E 06 -0.1572E 06

-0.1539E 07 -0.1884E 07 -0.2353E 07 -0.1539E 07 -0.1539E 07 -0.1539E 07 -0.1539E 07 -0.1539E 07 -0.1539E 07 -0.1539E 07 -0.1539E 07

-0.1539E 07 -0.1884E 07 -0.2353E 07 -0.1539E 07 -0.1539E 07 -0.1539E 07 -0.1539E 07 -0.1539E 07 -0.1539E 07 -0.1539E 07 -0.1539E 07

0.1666E 07 0.2711E 07 0.2711E 07 0.2711E 07 0.2711E 07 0.1835E 07 0.1835E 07 0.1835E 07 0.1835E 07 0.1835E 07 0.1835E 06

0.1666E 07 0.2711E 07 0.2711E 07 0.2711E 07 0.2711E 07 0.1835E 07 0.1835E 07 0.1835E 07 0.1835E 07 0.1835E 07 0.1835E 06

FIGURE EXPANSION OF THE STRAIN FUNCTION, COMPONENT No. 06

	82.5N	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5N	07.5E
57.5N											0.2220E 07	0.2764E 07	0.2575E 07	0.2271E 07	0.1939E 07	0.1502E 06		
52.5N									0.3047E 06	-0.4535E 06	-0.2419E 07	-0.5538E 07	-0.3708E 07	-0.3195E 07	-0.1717E 07			
47.5N											-0.2219E 07	-0.4064E 07	-0.6064E 07	-0.8179E 07	-0.1037E 07			
42.5N											-0.1795E 07	-0.2594E 07	-0.4256E 07	-0.6792E 07	-0.9892E 07	-0.1353E 07	-0.1853E 06	-0.2495E 06
37.5N											-0.1460E 07	-0.2459E 07	-0.4152E 07	-0.6482E 07	-0.9480E 07	-0.1306E 07	-0.1760E 06	-0.2367E 06
32.5N											-0.1190E 07	-0.1959E 07	-0.3162E 07	-0.4842E 07	-0.7042E 07	-0.9819E 07	-0.1320E 07	-0.1740E 06
27.5N											-0.0962E 07	-0.1573E 07	-0.2529E 07	-0.3882E 07	-0.5682E 07	-0.8062E 07	-0.1100E 07	-0.1451E 06
22.5N											-0.0757E 07	-0.1273E 07	-0.2027E 07	-0.3127E 07	-0.4627E 07	-0.6627E 07	-0.9127E 07	-0.1220E 07
17.5N											-0.0588E 07	-0.0955E 07	-0.1519E 07	-0.2319E 07	-0.3419E 07	-0.4919E 07	-0.6919E 07	-0.9419E 07
12.5N											-0.0451E 07	-0.0688E 07	-0.1055E 07	-0.1619E 07	-0.2419E 07	-0.3519E 07	-0.5019E 07	-0.7019E 07
07.5N											-0.0319E 07	-0.0488E 07	-0.0719E 07	-0.1055E 07	-0.1519E 07	-0.2119E 07	-0.2919E 07	-0.4019E 07
02.5N											-0.0188E 07	-0.0288E 07	-0.0419E 07	-0.0619E 07	-0.0819E 07	-0.1119E 07	-0.1519E 07	-0.2119E 07

FRONTIER EXPANSION OF THE STREAM FUNCTION, COMPLETE SET OF

	82.5N	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5E	07.5W
57.5N											0.2085E 07	0.2592E 07	0.2415E 07	0.2132E 07	0.1551E 07	0.1221E 06		
52.5N											0.2085E 07	0.2592E 07	0.2415E 07	0.2132E 07	0.1551E 07	0.1221E 06		
47.5N											0.2085E 07	0.2592E 07	0.2415E 07	0.2132E 07	0.1551E 07	0.1221E 06		
42.5N											0.2085E 07	0.2592E 07	0.2415E 07	0.2132E 07	0.1551E 07	0.1221E 06		
37.5N											0.2085E 07	0.2592E 07	0.2415E 07	0.2132E 07	0.1551E 07	0.1221E 06		
32.5N											0.2085E 07	0.2592E 07	0.2415E 07	0.2132E 07	0.1551E 07	0.1221E 06		
27.5N											0.2085E 07	0.2592E 07	0.2415E 07	0.2132E 07	0.1551E 07	0.1221E 06		
22.5N											0.2085E 07	0.2592E 07	0.2415E 07	0.2132E 07	0.1551E 07	0.1221E 06		
17.5N											0.2085E 07	0.2592E 07	0.2415E 07	0.2132E 07	0.1551E 07	0.1221E 06		
12.5N											0.2085E 07	0.2592E 07	0.2415E 07	0.2132E 07	0.1551E 07	0.1221E 06		
07.5N											0.2085E 07	0.2592E 07	0.2415E 07	0.2132E 07	0.1551E 07	0.1221E 06		
02.5N											0.2085E 07	0.2592E 07	0.2415E 07	0.2132E 07	0.1551E 07	0.1221E 06		

RELATER EXPANSION OF THE STRAIN FUNCTIONAL COMPONENT NO. 11

82.5N	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	7.5	2.5	92.5N	87.5N	82.5N
37.5N																			
32.5N																			
27.5N																			
22.5N																			
17.5N																			
12.5N																			
7.5N																			
02.5N																			

0.1001E OF -0.517E OF -0.2622E OF -0.1112E OF

0.2777E OF -0.4001E OF -0.2777E OF -0.2022E OF -0.1552E OF

-0.1001E OF -0.517E OF -0.2622E OF -0.1112E OF -0.517E OF -0.958E OF -0.2581E OF

-0.1001E OF -0.517E OF -0.2622E OF -0.1112E OF -0.1001E OF -0.4001E OF -0.2777E OF

-0.1001E OF -0.517E OF -0.2622E OF -0.1112E OF -0.1001E OF -0.4001E OF -0.2777E OF

-0.1001E OF -0.517E OF -0.2622E OF -0.1112E OF -0.1001E OF -0.4001E OF -0.2777E OF

-0.1001E OF -0.517E OF -0.2622E OF -0.1112E OF -0.1001E OF -0.4001E OF -0.2777E OF

-0.1001E OF -0.517E OF -0.2622E OF -0.1112E OF -0.1001E OF -0.4001E OF -0.2777E OF

-0.1001E OF -0.517E OF -0.2622E OF -0.1112E OF -0.1001E OF -0.4001E OF -0.2777E OF

-0.1001E OF -0.517E OF -0.2622E OF -0.1112E OF -0.1001E OF -0.4001E OF -0.2777E OF

-0.1001E OF -0.517E OF -0.2622E OF -0.1112E OF -0.1001E OF -0.4001E OF -0.2777E OF

0.1277E OF 0.2133E OF 0.1420E OF 0.1021E OF 0.0488E OF 0.3528E OF -0.2387E OF -0.1171E OF -0.1260E OF -0.3211E OF

FOURIER EXPANSION OF THE SINGULAR FUNCTIONAL COMPONENT NO. 78

	02.5N	07.5	12.5	17.5	22.5	27.5	32.5	37.5	42.5	47.5	52.5	57.5	62.5	67.5	72.5	77.5	82.5N
51.5N								0.1506E 07	0.1423E 07	0.1351E 07	0.1289E 07	0.1236E 07	0.1183E 07	0.1130E 07	0.1077E 07	0.1024E 07	0.0971E 07
52.5N								0.2109E 06	-0.1459E 06	-0.1180E 07	-0.2627E 07	-0.2706E 07	-0.2555E 07	-0.2304E 07	-0.2053E 07	-0.1802E 07	-0.1551E 07
53.5N								0.2109E 06	-0.1459E 06	-0.1180E 07	-0.2627E 07	-0.2706E 07	-0.2555E 07	-0.2304E 07	-0.2053E 07	-0.1802E 07	-0.1551E 07
54.5N								-0.1533E 07	-0.2944E 07	-0.4355E 07	-0.5766E 07	-0.7177E 07	-0.8588E 07	-1.0000E 07	-1.1411E 07	-1.2822E 07	-1.4233E 07
55.5N								-0.1533E 07	-0.2944E 07	-0.4355E 07	-0.5766E 07	-0.7177E 07	-0.8588E 07	-1.0000E 07	-1.1411E 07	-1.2822E 07	-1.4233E 07
56.5N								-0.2000E 07	-0.4714E 07	-0.8016E 07	-1.1818E 07	-1.6120E 07	-2.0922E 07	-2.6224E 07	-3.2026E 07	-3.8328E 07	-4.5130E 07
57.5N								-0.2000E 07	-0.4714E 07	-0.8016E 07	-1.1818E 07	-1.6120E 07	-2.0922E 07	-2.6224E 07	-3.2026E 07	-3.8328E 07	-4.5130E 07
58.5N								-0.3235E 07	-0.8281E 07	-1.4227E 07	-2.1173E 07	-2.9119E 07	-3.8065E 07	-4.8011E 07	-5.8957E 07	-7.0903E 07	-8.3849E 07
59.5N								-0.3235E 07	-0.8281E 07	-1.4227E 07	-2.1173E 07	-2.9119E 07	-3.8065E 07	-4.8011E 07	-5.8957E 07	-7.0903E 07	-8.3849E 07
60.5N								-0.4370E 07	-1.1072E 07	-2.0018E 07	-3.1064E 07	-4.4310E 07	-6.0756E 07	-8.0402E 07	-1.0314E 08	-1.2986E 08	-1.6018E 08
61.5N								-0.4370E 07	-1.1072E 07	-2.0018E 07	-3.1064E 07	-4.4310E 07	-6.0756E 07	-8.0402E 07	-1.0314E 08	-1.2986E 08	-1.6018E 08
62.5N								-0.5505E 07	-1.4117E 07	-2.6063E 07	-4.1009E 07	-5.8955E 07	-8.0901E 07	-1.0684E 08	-1.3767E 08	-1.7350E 08	-2.1433E 08
63.5N								-0.5505E 07	-1.4117E 07	-2.6063E 07	-4.1009E 07	-5.8955E 07	-8.0901E 07	-1.0684E 08	-1.3767E 08	-1.7350E 08	-2.1433E 08
64.5N								-0.6640E 07	-1.7219E 07	-3.2165E 07	-5.0111E 07	-7.1057E 07	-9.5003E 07	-1.2283E 08	-1.5463E 08	-1.9143E 08	-2.3323E 08
65.5N								-0.6640E 07	-1.7219E 07	-3.2165E 07	-5.0111E 07	-7.1057E 07	-9.5003E 07	-1.2283E 08	-1.5463E 08	-1.9143E 08	-2.3323E 08
66.5N								-0.7775E 07	-2.0321E 07	-3.7267E 07	-5.8213E 07	-8.3159E 07	-1.1210E 08	-1.4590E 08	-1.8536E 08	-2.3042E 08	-2.8108E 08
67.5N								-0.7775E 07	-2.0321E 07	-3.7267E 07	-5.8213E 07	-8.3159E 07	-1.1210E 08	-1.4590E 08	-1.8536E 08	-2.3042E 08	-2.8108E 08
68.5N								-0.8910E 07	-2.3367E 07	-4.2313E 07	-6.5259E 07	-9.2205E 07	-1.2311E 08	-1.6091E 08	-2.0647E 08	-2.5903E 08	-3.1859E 08
69.5N								-0.8910E 07	-2.3367E 07	-4.2313E 07	-6.5259E 07	-9.2205E 07	-1.2311E 08	-1.6091E 08	-2.0647E 08	-2.5903E 08	-3.1859E 08
70.5N								-0.1016E 07	0.1688E 07	0.3099E 07	0.4245E 07	0.5127E 07	0.5745E 07	0.6099E 07	0.6181E 07	0.5993E 07	0.5537E 07
71.5N								0.1016E 07	0.1688E 07	0.3099E 07	0.4245E 07	0.5127E 07	0.5745E 07	0.6099E 07	0.6181E 07	0.5993E 07	0.5537E 07
72.5N								0.1016E 07	0.1688E 07	0.3099E 07	0.4245E 07	0.5127E 07	0.5745E 07	0.6099E 07	0.6181E 07	0.5993E 07	0.5537E 07

FOURIER EXPANSION OF THE STEAM FUNCTION: COMPONENT NO. 19

	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	7.5	02.5	57.5E
82.5N																	
57.5N																	
52.5N																	
47.5N																	
42.5N																	
37.5N																	
32.5N																	
27.5N																	
22.5N																	
17.5N																	
12.5N																	
07.5N																	
82.5N																	

0.1519E 07 0.1867E 07 0.1752E 07 0.1534E 07 0.4967E 06 0.9826E 05

0.2055E 06 -0.5381E 06 -0.1757E 07 -0.2555E 07 -0.2701E 07 -0.2342E 07 -0.1796E 07

-0.1947E 07 -0.2805E 07 -0.4472E 07 -0.5408E 07 -0.6466E 07 -0.6815E 07 -0.6328E 07 -0.4956E 07 -0.2735E 07 -0.8135E 06 -0.2217E 06

-0.1151E 07 -0.1673E 07 -0.2682E 07 -0.4492E 07 -0.6963E 07 -0.1013E 08 -0.1036E 08 -0.1043E 08 -0.9310E 07 -0.6967E 07 -0.5458E 07

-0.2719E 07 -0.5362E 07 -0.8197E 07 -0.1142E 08 -0.1502E 08 -0.1371E 08 -0.1186E 08 -0.1257E 08 -0.1150E 08 -0.7371E 07 -0.5092E 07

-0.3157E 07 -0.6101E 07 -0.9817E 07 -0.1408E 08 -0.1261E 08 -0.1424E 08 -0.1555E 08 -0.1497E 08 -0.1255E 08 -0.9987E 07 -0.5182E 07 -0.2008E 07

-0.2672E 07 -0.5594E 07 -0.1078E 08 -0.1227E 08 -0.1417E 08 -0.1595E 08 -0.1495E 08 -0.1531E 08 -0.1174E 08 -0.8326E 07 -0.5802E 07

-0.4052E 07 -0.5597E 07 -0.4878E 07 -0.1177E 08 -0.1518E 08 -0.1435E 08 -0.1381E 08 -0.1255E 08 -0.1138E 08 -0.6946E 07 -0.5597E 07 -0.1657E 07

-0.2389E 07 -0.3114E 07 -0.3647E 07 -0.4693E 07 -0.6692E 07 -0.1046E 08 -0.1058E 08 -0.9952E 07 -0.8584E 07 -0.4777E 07 -0.2208E 07 0.1966E 06

-0.9592E 06 -0.1071E 07 -0.1340E 07 -0.2111E 07 -0.3246E 07 -0.4812E 07 -0.5846E 07 -0.6478E 07 -0.6785E 07 -0.6785E 07 -0.6478E 07 -0.5846E 07 -0.4812E 07 -0.3246E 07 -0.2111E 07 -0.1340E 07 -0.1071E 07 -0.9592E 06

0.9862E 06 0.1659E 07 3.1864E 07 0.1315E 07 0.1094E 07 0.7370E 06 0.2752E 06 -0.2095E 06 -0.8707E 05 -0.1032E 06 -0.2095E 06 -0.8707E 05 -0.1032E 06 -0.2095E 06

AD-A067 404

NEW YORK UNIV BRONX GEOPHYSICAL SCIENCES LAB

F/G 4/2

A THREE DIMENSIONAL MODEL OF THE WIND DRIVEN HORIZONTAL VELOCIT--ETC(U)

OCT 63 E S HASSAN, F D MALONE

N62306-794

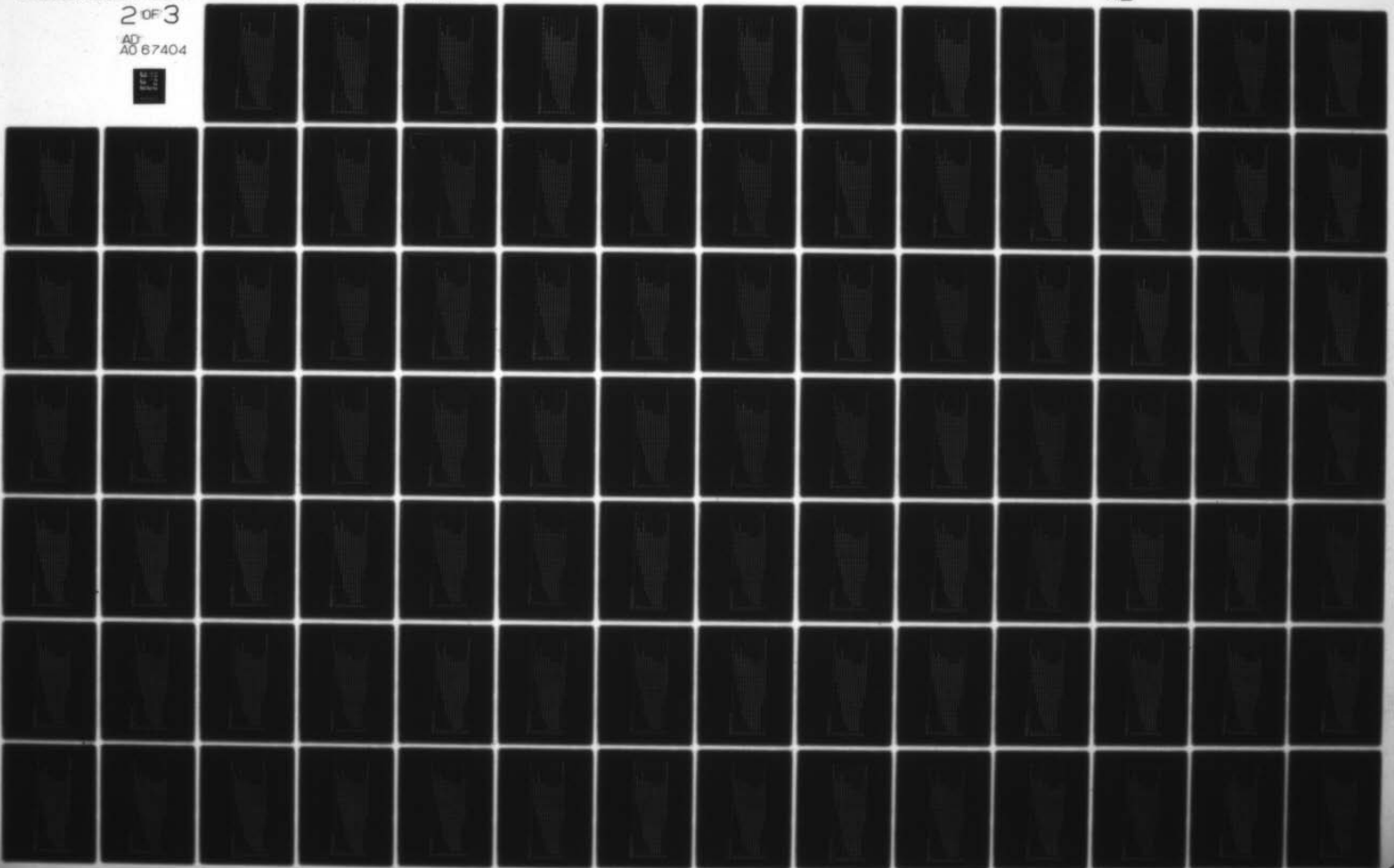
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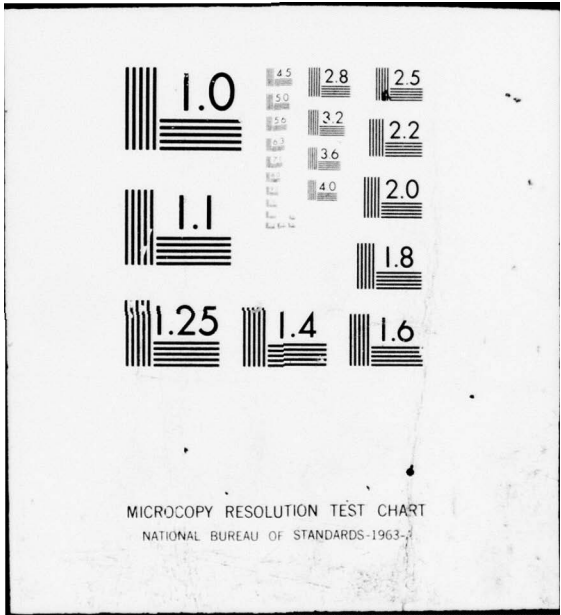
63-13-PT-1

NL

2 OF 3

AD
AD 67404





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-7

FOURIER EXPANSION OF THE STRIP FUNCTION COMPONENT NO. 00

	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	7.5	0.5
82.5M																
57.5M									0.147M	0.1025E	0.1170E	0.1500E	0.1912E	0.2406E	0.2991E	0.3658E
52.5M									0.2003E	-0.1504E	-0.1078E	-0.0753E	-0.0483E	-0.0224E	-0.1206E	0.1606E
47.5M									-0.1432E	0.1121E	0.0655E	0.0188E	-0.0379E	-0.0975E	-0.1681E	0.2417E
42.5M									-0.1111E	0.0791E	0.0488E	0.0164E	-0.0399E	-0.0914E	-0.1505E	0.2177E
37.5M									-0.2600E	0.1955E	0.1306E	0.0759E	-0.1113E	-0.1206E	-0.1211E	0.1211E
32.5M									-0.5923E	0.4544E	0.3257E	0.2028E	-0.1228E	-0.1306E	-0.1370E	0.1370E
27.5M									-0.8208E	0.6194E	0.4599E	0.3103E	-0.1597E	-0.1597E	-0.1597E	0.1597E
22.5M									-0.7491E	0.5656E	0.4187E	0.2800E	-0.1800E	-0.1800E	-0.1800E	0.1800E
17.5M									-0.5897E	0.4476E	0.3182E	0.1992E	-0.1033E	-0.1033E	-0.1033E	0.1033E
12.5M									-0.4506E	0.3355E	0.2306E	0.1406E	-0.0753E	-0.0753E	-0.0753E	0.0753E
07.5M									-0.3115E	0.2355E	0.1686E	0.1136E	-0.0597E	-0.0597E	-0.0597E	0.0597E
02.5M									-0.1724E	0.1324E	0.0924E	0.0524E	-0.0274E	-0.0274E	-0.0274E	0.0274E

EMPIRICAL EXPANSION OF THE SIGMA FUNCTION, SUPPLEMENT NO. 82

	82.5h	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5h	07.5e
57.5h																		
52.5h																		
47.5h																		
42.5h																		
37.5h																		
32.5h																		
27.5h																		
22.5h																		
17.5h																		
12.5h																		
07.5h																		
02.5h																		

0.1405E 06 -0.3157E 06 -0.1010E 07 -0.2336E 07 -0.2523E 07 -0.2191E 07 -0.1215E 07

0.1405E 06 -0.3157E 06 -0.1010E 07 -0.2336E 07 -0.2523E 07 -0.2191E 07 -0.1215E 07

-0.1374E 07 -0.2646E 07 -0.3919E 07 -0.5080E 07 -0.6018E 07 -0.6551E 07 -0.5907E 07 -0.4637E 07 -0.2752E 07 -0.7678E 06 -0.2100E 06

-0.1652E 07 -0.1551E 07 -0.2417E 07 -0.4595E 07 -0.6751E 07 -0.8487E 07 -0.9418E 07 -0.9833E 07 -0.9705E 07 -0.8696E 07 -0.6519E 07 -0.3225E 07

-0.2446E 07 -0.4202E 07 -0.5706E 07 -0.6888E 07 -0.7698E 07 -0.8108E 08 -0.1208E 08 -0.1256E 08 -0.1157E 08 -0.9924E 07 -0.6909E 07 -0.2910E 07

-0.2895E 07 -0.5404E 07 -0.8114E 07 -1.1002E 08 -0.1501E 08 -0.1593E 08 -0.1427E 08 -0.1173E 08 -0.9242E 07 -0.5805E 07 -0.1895E 07

-0.2446E 07 -0.5125E 07 -0.7666E 07 -1.0415E 07 -1.3108E 08 -0.1494E 08 -0.1475E 08 -0.1418E 08 -0.1094E 08 -0.7818E 07 -0.3591E 07

-0.2794E 07 -0.5179E 07 -0.7699E 07 -1.0415E 08 -0.1354E 08 -0.1355E 08 -0.1287E 08 -0.1194E 08 -0.1065E 08 -0.8394E 07 -0.5278E 07 -0.1583E 07

-0.2168E 07 -0.3774E 07 -0.5103E 07 -0.6485E 07 -0.7470E 07 -0.8046E 07 -0.8204E 07 -0.7986E 07 -0.7374E 07 -0.6559E 07 -0.4515E 07 -0.2116E 07 -0.1472E 06

-0.8762E 06 -0.9722E 06 -0.1216E 07 -0.1932E 07 -0.2492E 07 -0.3198E 07 -0.3898E 07 -0.4512E 07 -0.4946E 07 -0.5120E 07 -0.4946E 07 -0.4512E 06 -0.3898E 06 -0.3198E 06 -0.2492E 06 -0.1932E 06 -0.1216E 06

-0.8179E 06 -0.4528E 06 -0.7873E 06 -0.1239E 06 -0.7102E 06 -0.8799E 06 -0.9993E 06 -0.9993E 06 -0.8799E 06 -0.7102E 06 -0.4528E 06 -0.1239E 06

0.4036E 06 -0.1505E 07 -0.1562E 07 -0.1204E 07 -0.1066E 07 -0.8755E 06 -0.2222E 06 -0.1940E 06 -0.1923E 06 -0.8097E 05 -0.9549E 05 -0.2409E 06

FEEDBACK EXPANSION OF THE STEADY FUNCTION-COMPUTATION, IN. 85

	62.5N	77.5	79.5	87.5	92.5	97.5	98.5	99.5	99.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5N	07.5E
57.5N																		
52.5N																		
47.5N																		
42.5N																		
37.5N																		
32.5N																		
27.5N																		
22.5N																		
17.5N																		
12.5N																		
07.5N																		
02.5N																		

0.1859E 06 -0.2548E 07 -0.3824E 07 -0.4600E 07 -0.4915E 07 -0.4944E 07 -0.4600E 07 -0.3824E 07 -0.2548E 07 -0.1859E 06
 -0.1588E 07 -0.2548E 07 -0.4600E 07 -0.6586E 07 -0.8195E 07 -0.9195E 07 -0.9400E 07 -0.8195E 07 -0.6586E 07 -0.4600E 07 -0.2548E 07 -0.1588E 07
 -0.1622E 07 -0.1490E 07 -0.1332E 07 -0.1179E 07 -0.1060E 07 -0.1012E 07 -0.1012E 07 -0.1060E 07 -0.1179E 07 -0.1332E 07 -0.1490E 07 -0.1622E 07
 -0.2425E 07 -0.4509E 07 -0.5558E 07 -0.5979E 07 -0.6132E 07 -0.5979E 07 -0.5558E 07 -0.4509E 07 -0.2425E 07 -0.1332E 07 -0.1266E 07 -0.1332E 07 -0.1394E 07 -0.1477E 07 -0.1477E 07 -0.1394E 07 -0.1266E 07 -0.1332E 07 -0.1394E 07
 -0.2815E 07 -0.4509E 07 -0.5558E 07 -0.5979E 07 -0.6132E 07 -0.5979E 07 -0.5558E 07 -0.4509E 07 -0.2815E 07 -0.1332E 07 -0.1266E 07 -0.1332E 07 -0.1394E 07 -0.1477E 07 -0.1477E 07 -0.1394E 07 -0.1266E 07 -0.1332E 07 -0.1394E 07
 -0.2981E 07 -0.4509E 07 -0.5558E 07 -0.5979E 07 -0.6132E 07 -0.5979E 07 -0.5558E 07 -0.4509E 07 -0.2981E 07 -0.1332E 07 -0.1266E 07 -0.1332E 07 -0.1394E 07 -0.1477E 07 -0.1477E 07 -0.1394E 07 -0.1266E 07 -0.1332E 07 -0.1394E 07
 -0.2715E 07 -0.4509E 07 -0.5558E 07 -0.5979E 07 -0.6132E 07 -0.5979E 07 -0.5558E 07 -0.4509E 07 -0.2715E 07 -0.1332E 07 -0.1266E 07 -0.1332E 07 -0.1394E 07 -0.1477E 07 -0.1477E 07 -0.1394E 07 -0.1266E 07 -0.1332E 07 -0.1394E 07
 -0.2101E 07 -0.3671E 07 -0.4509E 07 -0.5558E 07 -0.5979E 07 -0.6132E 07 -0.5979E 07 -0.4509E 07 -0.2101E 07 -0.1332E 07 -0.1266E 07 -0.1332E 07 -0.1394E 07 -0.1477E 07 -0.1477E 07 -0.1394E 07 -0.1266E 07 -0.1332E 07 -0.1394E 07
 -0.1904E 06 -0.3671E 07 -0.4509E 07 -0.5558E 07 -0.5979E 07 -0.6132E 07 -0.5979E 07 -0.4509E 07 -0.1904E 06 -0.1332E 07 -0.1266E 07 -0.1332E 07 -0.1394E 07 -0.1477E 07 -0.1477E 07 -0.1394E 07 -0.1266E 07 -0.1332E 07 -0.1394E 07
 -0.1797E 06 -0.3671E 07 -0.4509E 07 -0.5558E 07 -0.5979E 07 -0.6132E 07 -0.5979E 07 -0.4509E 07 -0.1797E 06 -0.1332E 07 -0.1266E 07 -0.1332E 07 -0.1394E 07 -0.1477E 07 -0.1477E 07 -0.1394E 07 -0.1266E 07 -0.1332E 07 -0.1394E 07
 -0.1797E 06 -0.3671E 07 -0.4509E 07 -0.5558E 07 -0.5979E 07 -0.6132E 07 -0.5979E 07 -0.4509E 07 -0.1797E 06 -0.1332E 07 -0.1266E 07 -0.1332E 07 -0.1394E 07 -0.1477E 07 -0.1477E 07 -0.1394E 07 -0.1266E 07 -0.1332E 07 -0.1394E 07

FRONTIER EXPANSION OF THE STREAM FUNCTION, COMPONENT NO. 05

	82.5M	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	07.5M
57.5M																		
52.5M																		
47.5M																		
42.5M																		
37.5M																		
32.5M																		
27.5M																		
22.5M																		
17.5M																		
12.5M																		
07.5M																		
02.5M																		

0.1528E 07 0.1614E 07 0.1502E 07 0.1324E 07 0.0874E 06 0.1747E 05

0.1174E 06 -0.2451E 06 -0.1512E 07 -0.2221E 07 -0.2482E 07 -0.2653E 07 -0.1182E 07

-0.1270E 07 -0.2456E 07 -0.4731E 07 -0.5013E 07 -0.5526E 07 -0.4886E 07 -0.2594E 07 -0.7253E 06 -0.1491E 06

-0.4652E 06 -0.1406E 07 -0.2272E 07 -0.6248E 07 -0.7086E 07 -0.4176E 07 -0.4011E 07 -0.5151E 07

-0.2297E 07 -0.1866E 07 -0.8234E 07 -0.8665E 07 -0.9034E 07 -0.1124E 06 -0.1190E 06 -0.1022E 06 -0.6465E 07 -0.2741E 07

-0.2644E 07 -0.5184E 07 -0.7496E 07 -0.1081E 08 -0.1204E 08 -0.1294E 08 -0.1317E 08 -0.1044E 08 -0.8821E 07 -0.1742E 07

-0.2255E 07 -0.4714E 07 -0.9166E 07 -0.1044E 08 -0.1215E 08 -0.1504E 08 -0.1374E 08 -0.1271E 08 -0.7504E 07 -0.1742E 07

-0.7586E 07 -0.4517E 07 -0.4444E 07 -0.1007E 08 -0.1124E 08 -0.1242E 08 -0.1201E 08 -0.1122E 08 -0.4486E 07 -0.1514E 07

-0.1342E 07 -0.4717E 07 -0.5861E 07 -0.7186E 07 -0.4525E 07 -0.4051E 07 -0.4574E 07 -0.7514E 07 -0.6245E 07 -0.2724E 07 0.1071E 06

-0.4035E 06 -0.8647E 06 -0.1112E 07 -0.1775E 07 -0.2763E 07 -0.4124E 07 -0.4704E 07 -0.4175E 07 -0.1204E 07 -0.1434E 06 0.2694E 06 0.7741E 06

-0.7577E 06 -0.4714E 06 -0.4744E 06 -0.3424E 06 0.4562E 05 0.6741E 06 0.7444E 06 0.4910E 06 0.4452E 06 -0.1174E 06

0.8513E 06 0.1347E 07 0.1151E 07 0.6271E 06 0.6271E 06 0.2737E 06 0.1401E 06 -0.1795E 06 -0.7544E 05 -0.8663E 05 -0.2242E 06

FOURIER EXPANSION OF THE STREAM FUNCTION COMPONENT NO. 06

	82.5M	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	07.5E	
57.5N																			
										C.1273E 07 0.1562E 07 0.1498E 07 0.1270E 07 0.8271E 06 0.7562E 05									
52.5N																			
										0.1733E 06 -0.2886E 06 -0.1474E 07 -0.2144E 07 -0.2312E 07 -0.2010E 07 -0.1117E 07									
47.5N																			
										-0.1238E 07 -0.2497E 07 -0.3558E 07 -0.4623E 07 -0.5487E 07 -0.5818E 07 -0.5407E 07 -0.4252E 07 -0.2531E 07 -0.7114E 06 -0.1955E 06									
42.5N																			
										-0.4584E 06 -0.1186E 07 -0.2164E 07 -0.4103E 07 -0.6098E 07 -0.7665E 07 -0.8574E 07 -0.8972E 07 -0.8848E 07 -0.7963E 07 -0.5962E 07 -0.2964E 07									
37.5N																			
										-3.2246E 07 -0.5143E 07 -0.6497E 07 -0.8039E 07 -0.9602E 07 -0.1098E 08 -0.1163E 08 -0.1149E 08 -0.1054E 08 -0.7009E 07 -0.6352E 07 -0.2688E 07									
32.5N																			
										-0.2598E 07 -0.5635E 07 -0.7362E 07 -0.9087E 07 -0.1053E 08 -0.1179E 08 -0.1266E 08 -0.1296E 08 -0.1220E 08 -0.1076E 08 -0.8512E 07 -0.5551E 07 -0.1799E 07									
27.5N																			
										-0.2193E 07 -0.4810E 07 -0.6988E 07 -0.8797E 08 -0.1027E 08 -0.1186E 08 -0.1297E 08 -0.1350E 08 -0.1345E 08 -0.1295E 08 -0.1191E 08 -0.1046E 08 -0.7203E 07 -0.3326E 07									
22.5N																			
										-0.2488E 07 -0.4608E 07 -0.6188E 07 -0.8182E 07 -0.9718E 07 -0.1101E 08 -0.1184E 08 -0.1214E 08 -0.1174E 08 -0.1098E 08 -0.9773E 07 -0.4488E 07 -0.1444E 07									
17.5N																			
										-0.1955E 07 -0.3383E 07 -0.4663E 07 -0.5772E 07 -0.6719E 07 -0.8123E 07 -0.8819E 07 -0.8973E 07 -0.8590E 07 -0.7359E 07 -0.6135E 07 -0.4191E 07 -0.1998E 07 0.7546E 05									
12.5N																			
										-0.7813E 06 -0.8815E 06 -0.1079E 07 -0.1727E 07 -0.2485E 07 -0.4028E 07 -0.4597E 07 -0.4678E 07 -0.4038E 07 -0.3189E 07 -0.1910E 07 -0.8062E 06 0.2715E 06 0.7553E 06									
07.5N																			
										-0.7390E 06 -0.8528E 06 -0.7357E 06 -0.5417E 06 0.7221E 05 0.6037E 06 0.7632E 06 0.8843E 06 0.4457E 06 -0.1151E 06									
02.5N																			
										0.8095E 06 0.1455E 07 0.1219E 07 0.1076E 07 0.8995E 06 0.6047E 06 0.2252E 06 -0.1770E 06 -0.1752E 06 -0.7374E 05 -0.4651E 05 -0.2100E 06									

FERMIER EXPANSION OF THE SINGULAR FUNCTION COMPONENTS AND CH

	82.5m	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5m	97.5m
51.5m																		
52.5m																		
57.5m																		
62.5m																		
67.5m																		
72.5m																		
77.5m																		
82.5m																		
87.5m																		
92.5m																		
97.5m																		

0.16576 06 -0.27626 06 -0.14156 07 -0.55556 07 -0.51776 07 -0.46076 07 -0.40526 06 -0.34976 06 -0.29426 05 -0.23876 04 -0.18326 03 -0.12776 02 -0.07226 01 -0.01676 00

FOURIER EXPANSION OF THE STREAM FUNCTION COMPONENT NO. 5A

	02.5M	71.5	12.5	87.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	07.5E	
57.5A																			
32.5A																			
47.5A																			
42.5A																			
37.5A																			
32.5A																			
27.5A																			
22.5A																			
17.5A																			
12.5A																			
07.5A																			
02.5A																			

0.1059E 07 -0.1314E 07 0.1218E 07 0.1076E 07 0.0883E 06 0.0699E 05

0.1459E 06 -0.2428E 06 -0.1245E 07 -0.1845E 07 -0.1438E 07 -0.1176E 07 -0.9518E 06

-0.1023E 07 -0.1988E 07 -0.2468E 07 -0.3872E 07 -0.4612E 07 -0.4854E 07 -0.4517E 07 -0.3652E 07 -0.2157E 07 -0.0138E 06 -0.1700E 06

-0.7607E 06 -0.1107E 07 -0.1774E 07 -0.3591E 07 -0.5072E 07 -0.6405E 07 -0.7192E 07 -0.7550E 07 -0.7467E 07 -0.6762E 07 -0.5682E 07 -0.4254E 07

-0.1628E 07 -0.3056E 07 -0.4232E 07 -0.5172E 07 -0.5875E 07 -0.6375E 07 -0.6737E 07 -0.6925E 07 -0.6925E 07 -0.6745E 07 -0.6445E 07 -0.5959E 07

-0.2118E 07 -0.4129E 07 -0.6022E 07 -0.7875E 07 -0.9610E 07 -1.1200E 07 -1.2684E 07 -1.4011E 07 -1.5141E 07 -1.6011E 07 -1.6584E 07 -1.6922E 07

-0.1790E 07 -0.3774E 07 -0.5778E 07 -0.7806E 07 -0.9865E 07 -1.1960E 07 -1.4086E 07 -1.6246E 07 -1.8446E 07 -2.0690E 07 -2.3074E 07 -2.5598E 07

-0.2337E 07 -0.3770E 07 -0.5229E 07 -0.6762E 07 -0.8428E 07 -1.0240E 07 -1.2202E 07 -1.4330E 07 -1.6640E 07 -2.0140E 07 -2.4840E 07 -3.0740E 07

-0.1579E 07 -0.2765E 07 -0.3826E 07 -0.4773E 07 -0.5555E 07 -0.6211E 07 -0.6700E 07 -0.7060E 07 -0.7290E 07 -0.7430E 07 -0.7480E 07 -0.7440E 07

-0.0138E 06 -0.0862E 06 -0.1696E 06 -0.2619E 06 -0.3620E 06 -0.4689E 06 -0.5814E 06 -0.7000E 06 -0.8246E 06 -0.9554E 06 -1.0926E 06 -1.2366E 06

-0.0110E 06 -0.0717E 06 -0.1402E 06 -0.2166E 06 -0.2999E 06 -0.3899E 06 -0.4864E 06 -0.5894E 06 -0.6988E 06 -0.8146E 06 -0.9368E 06 -1.0654E 06

0.0662E 06 0.1108E 07 0.1948E 06 0.3161E 06 0.4751E 06 0.6720E 06 0.9080E 06 1.1831E 06 1.5072E 06 1.8806E 06 2.3046E 06 2.7896E 06 3.3366E 06 3.9566E 06 4.6516E 06 5.4246E 06 6.2776E 06 7.2116E 06 8.2276E 06 9.3286E 06

FOURIER EXPANSION OF THE SINGULAR FUNCTION COMPONENT No. 46

	80.5K	77.5	74.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5K	07.5K
57.5K																		
52.5K																		
47.5K																		
42.5K																		
37.5K																		
32.5K																		
27.5K																		
22.5K																		
17.5K																		
12.5K																		
07.5K																		
02.5K																		

0.1414 OF 0.1224 OF 0.1164 OF 0.1104 OF 0.1044 OF 0.0984 OF 0.0924 OF 0.0864 OF 0.0804 OF 0.0744 OF 0.0684 OF 0.0624 OF 0.0564 OF 0.0504 OF 0.0444 OF 0.0384 OF 0.0324 OF 0.0264 OF 0.0204 OF 0.0144 OF 0.0084 OF 0.0024 OF 0.0000

0.1402 OF 0.1322 OF 0.1242 OF 0.1162 OF 0.1082 OF 0.1002 OF 0.0922 OF 0.0842 OF 0.0762 OF 0.0682 OF 0.0602 OF 0.0522 OF 0.0442 OF 0.0362 OF 0.0282 OF 0.0202 OF 0.0122 OF 0.0042 OF 0.0000

0.1390 OF 0.1300 OF 0.1220 OF 0.1140 OF 0.1060 OF 0.0980 OF 0.0900 OF 0.0820 OF 0.0740 OF 0.0660 OF 0.0580 OF 0.0500 OF 0.0420 OF 0.0340 OF 0.0260 OF 0.0180 OF 0.0100 OF 0.0020 OF 0.0000

0.1378 OF 0.1288 OF 0.1208 OF 0.1128 OF 0.1048 OF 0.0968 OF 0.0888 OF 0.0808 OF 0.0728 OF 0.0648 OF 0.0568 OF 0.0488 OF 0.0408 OF 0.0328 OF 0.0248 OF 0.0168 OF 0.0088 OF 0.0008 OF 0.0000

0.1366 OF 0.1276 OF 0.1196 OF 0.1116 OF 0.1036 OF 0.0956 OF 0.0876 OF 0.0796 OF 0.0716 OF 0.0636 OF 0.0556 OF 0.0476 OF 0.0396 OF 0.0316 OF 0.0236 OF 0.0156 OF 0.0076 OF 0.0000

0.1354 OF 0.1264 OF 0.1184 OF 0.1104 OF 0.1024 OF 0.0944 OF 0.0864 OF 0.0784 OF 0.0704 OF 0.0624 OF 0.0544 OF 0.0464 OF 0.0384 OF 0.0304 OF 0.0224 OF 0.0144 OF 0.0064 OF 0.0000

0.1342 OF 0.1252 OF 0.1172 OF 0.1092 OF 0.1012 OF 0.0932 OF 0.0852 OF 0.0772 OF 0.0692 OF 0.0612 OF 0.0532 OF 0.0452 OF 0.0372 OF 0.0292 OF 0.0212 OF 0.0132 OF 0.0052 OF 0.0000

0.1330 OF 0.1240 OF 0.1160 OF 0.1080 OF 0.1000 OF 0.0920 OF 0.0840 OF 0.0760 OF 0.0680 OF 0.0600 OF 0.0520 OF 0.0440 OF 0.0360 OF 0.0280 OF 0.0200 OF 0.0120 OF 0.0040 OF 0.0000

0.1318 OF 0.1228 OF 0.1148 OF 0.1068 OF 0.0988 OF 0.0908 OF 0.0828 OF 0.0748 OF 0.0668 OF 0.0588 OF 0.0508 OF 0.0428 OF 0.0348 OF 0.0268 OF 0.0188 OF 0.0108 OF 0.0028 OF 0.0000

0.1306 OF 0.1216 OF 0.1136 OF 0.1056 OF 0.0976 OF 0.0896 OF 0.0816 OF 0.0736 OF 0.0656 OF 0.0576 OF 0.0496 OF 0.0416 OF 0.0336 OF 0.0256 OF 0.0176 OF 0.0096 OF 0.0016 OF 0.0000

0.1294 OF 0.1204 OF 0.1124 OF 0.1044 OF 0.0964 OF 0.0884 OF 0.0804 OF 0.0724 OF 0.0644 OF 0.0564 OF 0.0484 OF 0.0404 OF 0.0324 OF 0.0244 OF 0.0164 OF 0.0084 OF 0.0004 OF 0.0000

0.1282 OF 0.1192 OF 0.1112 OF 0.1032 OF 0.0952 OF 0.0872 OF 0.0792 OF 0.0712 OF 0.0632 OF 0.0552 OF 0.0472 OF 0.0392 OF 0.0312 OF 0.0232 OF 0.0152 OF 0.0072 OF 0.0000

FOURIER EXPANSION OF THE STRAIN FUNCTION-COMPONENT NO. 98

	82.5N	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	7.5	02.5N	07.5E
57.5N																		
52.5N																		
47.5N																		
42.5N																		
37.5N																		
32.5N																		
27.5N																		
22.5N																		
17.5N																		
12.5N																		
07.5N																		

0.47211 06 0.12726 07 0.11116 07 0.09656 06 0.08176 06 0.55886 05
 0.14876 06 -0.22356 06 -0.11846 07 -0.17676 07 -0.15716 07 -0.148216 06
 -0.45316 06 -0.18226 07 -0.35616 07 -0.42526 07 -0.48226 07 -0.53516 07 -0.57186 06 -0.59186 06 -0.19886 06
 -0.40516 06 -0.11376 07 -0.10186 07 -0.10186 07 -0.10186 07 -0.10186 07 -0.10186 07 -0.10186 07 -0.10186 07 -0.10186 07
 -0.16886 07 -0.28226 07 -0.38816 07 -0.48816 07 -0.58816 07 -0.68816 07 -0.78816 07 -0.88816 07 -0.98816 07 -0.10886 07
 -0.19216 07 -0.31616 07 -0.44016 07 -0.56416 07 -0.68816 07 -0.81216 07 -0.93616 07 -1.06016 07 -1.18416 07 -1.30816 07
 -0.16886 07 -0.31616 07 -0.46416 07 -0.61216 07 -0.76016 07 -0.90816 07 -1.05616 07 -1.20416 07 -1.35216 07 -1.50016 07
 -0.19216 07 -0.34016 07 -0.48816 07 -0.63616 07 -0.78416 07 -0.93216 07 -1.08016 07 -1.22816 07 -1.37616 07 -1.52416 07
 -0.21616 06 -0.36416 06 -0.51216 06 -0.66016 06 -0.80816 06 -0.95616 06 -1.10416 06 -1.25216 06 -1.40016 06 -1.54816 06
 0.60316 06 0.14116 07 0.96716 06 0.70616 06 0.44516 06 0.18416 06 -0.07716 06 -0.33816 06 -0.60216 06 -0.86616 06

FIGURE EXPANSION OF THE STEAM FUNCTION-COMPONENT NO. 99

	82.5N	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5N	07.5E	
57.5N																			
52.5N											0.9527E 06	0.1767E 07	0.1099E 07	0.9662E 06	0.6186E 06	0.5870E 05			
47.5N											0.1322E 06	-0.2190E 06	-0.1126E 07	-0.1672E 07	-0.1594E 07	-0.8658E 06			
42.5N											-0.9117E 06	-0.1784E 07	-0.2676E 07	-0.3897E 07	-0.5617E 07	-0.8272E 07	-0.1192E 07	-0.5617E 06	-0.1562E 06
37.5N											-0.6792E 06	-0.9818E 06	-0.1579E 07	-0.4557E 07	-0.5767E 07	-0.6488E 07	-0.6112E 07	-0.612E 07	-0.612E 07
32.5N											-0.1628E 07	-0.276E 07	-0.4671E 07	-0.5991E 07	-0.7201E 07	-0.8286E 07	-0.8819E 07	-0.8111E 07	-0.6539E 07
27.5N											-0.188E 07	-0.388E 07	-0.6072E 07	-0.8523E 07	-1.119E 07	-1.499E 07	-1.979E 07	-2.5511E 07	-3.227E 07
22.5N											-0.155E 07	-0.356E 07	-0.601E 07	-0.8929E 07	-1.230E 07	-1.615E 07	-2.048E 07	-2.528E 07	-3.058E 07
17.5N											-0.1811E 07	-0.396E 07	-0.650E 07	-0.945E 07	-1.280E 07	-1.654E 07	-2.067E 07	-2.519E 07	-3.012E 07
12.5N											-0.2106E 07	-0.447E 07	-0.720E 07	-1.030E 07	-1.376E 07	-1.758E 07	-2.176E 07	-2.629E 07	-3.124E 07
07.5N											-0.2408E 07	-0.502E 07	-0.800E 07	-1.134E 07	-1.504E 07	-1.909E 07	-2.349E 07	-2.824E 07	-3.334E 07
02.5N											-0.2710E 07	-0.554E 07	-0.870E 07	-1.219E 07	-1.601E 07	-1.996E 07	-2.414E 07	-2.856E 07	-3.334E 07

ZENITH VELOCITY IN UNITS OF CP/SEC. AT LEVEL NO. 1

	82.5N	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5N	07.5E
82.5N																		
77.5																		
72.5																		
67.5																		
62.5																		
57.5N																		
52.5N																		
47.5N																		
42.5N																		
37.5N																		
32.5N																		
27.5N																		
22.5N																		
17.5N																		
12.5N																		
07.5N																		
02.5N																		

0.2522E 01 0.4505E 01 0.6439E 01 0.7076E 01 0.7549E 01 0.7852E-01

0.1639E 02 0.1907E 02 0.2378E 02 0.1749E 02 0.1397E 02 0.2205E 02 0.1761E 01

0.2649E 02 0.1413E 02 0.3073E 02 0.1655E 02 0.1988E 02 0.1582E 02 0.3512E 01 0.5785E 00 -0.

0.2246E 02 0.5132E 02 0.5170E 02 0.2968E 02 0.1938E 02 0.1784E 02 0.1159E 01 -0.4768E 01 -0.5077E 01 -0.4632E 01 -0.2242E 01

0.5981E 02 0.5132E 02 0.1957E 02 0.1784E 02 0.1428E 02 0.1159E 01 -0.4768E 01 -0.5077E 01 -0.4632E 01 -0.2242E 01

0.4492E 02 0.2908E 02 0.2320E 02 0.1897E 02 0.1507E 02 0.1159E 01 -0.4768E 01 -0.5077E 01 -0.4632E 01 -0.2242E 01

0.5407E 02 -0.2867E 02 0.1228E 02 0.2507E 01 -0.1907E 02 0.2507E 01 -0.2507E 01 -0.1761E 02 -0.1761E 02 -0.1761E 02 -0.1761E 02

-0.5100E 02 -0.1668E 02 -0.2200E 02 -0.2763E 02 -0.2908E 02 -0.2698E 02 -0.2551E 02 -0.2332E 02 -0.1815E 02 -0.1005E 02

-0.5469E 02 -0.4672E 02 -0.4117E 02 -0.4573E 02 -0.4474E 02 -0.3865E 02 -0.3186E 02 -0.1427E 02 -0.1268E 02 0.5166E 01

-0.2779E 02 -0.2018E 02 -0.2927E 02 -0.2194E 02 -0.2846E 02 -0.4339E 02 -0.5387E 02 -0.5258E 02 -0.2194E 02 -0.6216E 00 0.6694E 01 0.1240E 02

-0.8405E 00 0.5514E 01 -0.2340E 02 -0.2377E 01 -0.4601E 01 0.1042E 02 0.4177E 01 0.1401E 02 0.4819E 01 0.6199E 01

0.2229E 02 0.1053E 02 0.1640E 02 0.4608E 01 0.7673E 01 -0.5159E 00 -0.1053E 01 -0.5167E 01 -0.5167E 01 -0.5167E 01 -0.

MERIDIONAL VELOCITY IN UNITS OF CM./SEC. AT LEVEL No. 1

	62.5h	72.5	82.5	92.5	102.5	112.5	122.5	132.5	142.5	152.5	162.5	172.5	182.5	192.5	202.5h
57.5h															
52.5h															
47.5h															
42.5h															
37.5h															
32.5h															
27.5h															
22.5h															
17.5h															
12.5h															
07.5h															

-0.2476E 01 0.3099E 02 0.1536E 02 0.4044E 01 -0.3673E 01 -0.6042E 01 -0.1240E 02
 0.1030E 02 0.8646E 01 0.1126E 02 0.5331E 01 -0.2763E 00 -0.7771E 01 -0.1270E 02 -0.1601E 02 -0.1598E 02 -0.4162E 01 0.1639E 01
 0.1212E 02 0.7403E 01 0.2472E 02 0.2094E 02 0.9981E 01 0.8215E 00 -0.3219E 01 -0.5272E 01 -0.1072E 02 -0.1806E 02 -0.2472E 02 -0.1481E 02
 0.3218E 02 0.1452E 01 0.1203E 02 0.3358E 01 0.4272E 01 0.4194E 01 -0.8822E 00 -0.1029E 02 -0.1262E 02 -0.1532E 02 -0.2018E 02 -0.2711E 02 -0.1422E 02
 0.4807E 02 0.2755E 01 0.1087E 02 -0.4433E 01 -0.1943E 00 -0.8215E 01 -0.7598E 01 -0.1155E 02 -0.1004E 02 -0.1467E 02 -0.1557E 02 -0.1494E 02 -0.2671E 02 -0.4196E 01
 0.4990E 01 0.9711E 01 0.9707E 01 -0.6325E 01 0.5318E 01 -0.4452E 01 -0.6455E 01 -0.1136E 02 -0.1024E 02 -0.1511E 02 -0.1472E 02 -0.2117E 02 -0.1500E 02
 0.3403E 02 -0.4261E 01 0.9271E 01 -0.1511E 01 -0.8175E 00 -0.7499E 01 -0.6338E 01 -0.7192E 02 -0.6944E 01 -0.1212E 02 -0.1492E 02 -0.1782E 02 -0.1676E 02 -0.2546E 01
 0.2144E 02 -0.1622E 01 0.2146E 01 -0.4962E 00 -0.1427E 01 -0.6133E 01 -0.4503E 01 -0.4503E 01 -0.1038E 02 -0.4328E 01 -0.8444E 01 -0.1044E 02 -0.1044E 02 -0.2416E 01 0.7150E 01
 -0.2599E 01 -0.6144E 00 0.2585E 01 0.5912E 01 0.1468E 01 0.1468E 01 -0.4408E 01 -0.6376E 01 -0.4444E 01 -0.4444E 01 -0.1411E 01 0.3452E 01 0.1444E 02
 -0.8584E 01 0.3392E 01 -0.1029E 01 0.8584E 01 0.1570E 01 0.1776E 01 0.5144E 01 0.7744E 01 0.5004E 01 0.5004E 01 -0.1444E 00
 -0.1011E 02 0.1101E 02 0.4001E 01 0.7532E 01 0.4824E 01 0.5271E 01 0.2402E 01 0.2697E 00 -0.2194E 01 0.5271E 00 0.6312E 00 -0.1358E 01

STRAP FUNCTION IN UNITS OF CP**2/SEC. AT LEVEL NO. 2

	42.5M	47.5	52.5	57.5	62.5	67.5	72.5	77.5	82.5	87.5	92.5	97.5	01.5	02.5M	07.5E
57.5N															
52.5N															
47.5N															
42.5N															
37.5N															
32.5N															
27.5N															
22.5N															
17.5N															
12.5N															
07.5N															
02.5N															

0.2992E 10 0.1451E 10 0.1532E 10 0.6556E 09 0.2026E 09 -0.5919E 09

0.1399E 10 0.5995E 08 -0.2453E 09 -0.4482E 09 -0.3518E 09 -0.3895E 09 0.3472E 07

-0.7800E 09 -0.7415E 09 -0.1105E 10 -0.1133E 10 -0.1160E 10 -0.4532E 09 -0.6079E 09 -0.3517E 09 -0.0184E 08 0.1154E 09 -0.9432E 08

-0.7072E 09 -0.4194E 09 -0.1272E 10 -0.2376E 10 -0.2608E 10 -0.1978E 10 -0.1781E 10 -0.1272E 10 -0.9208E 09 -0.2416E 09 0.1174E 09

-0.2558E 10 -0.1622E 10 -0.2125E 10 -0.2316E 10 -0.2536E 10 -0.2536E 10 -0.1781E 10 -0.1272E 10 -0.9208E 09 -0.2416E 09 0.1174E 09

-0.4171E 10 -0.272E 10 -0.403E 10 -0.2671E 10 -0.3559E 10 -0.2416E 10 -0.2492E 10 -0.1646E 10 -0.9879E 09 -0.0127E 09 -0.2476E 09 0.1434E 08 0.4151E 09

-0.4798E 10 -0.4507E 10 -0.2777E 10 -0.368E 10 -0.2882E 10 -0.1840E 10 -0.1482E 10 -0.1091E 10 -0.1102E 10 -0.2224E 09 -0.1242E 09 0.5616E 09

-0.3948E 10 -0.1951E 10 -0.2436E 10 -0.1010E 10 -0.2120E 10 -0.4525E 09 -0.1235E 10 -0.2885E 09 -0.4724E 09 0.4482E 09 0.3677E 09 0.8971E 09

-0.2247E 10 -0.1161E 10 -0.1909E 10 -0.0745E 09 -0.1801E 10 -0.5117E 09 -0.4510E 09 -0.8077E 07 -0.9012E 08 0.5427E 09 0.3912E 09 0.1022E 10 0.7563E 09 0.7463E 09

0.1041E 10 0.5421E 09 0.1115E 10 0.4001E 09 0.8632E 09 0.3497E 09 0.3497E 09 0.4559E 09 0.4559E 09 0.1107E 10 0.9279E 09 0.1154E 10 0.7567E 09 0.7246E 09 0.2234E 09

0.2012E 10 0.4157E 09 0.1172E 10 0.7544E 09 0.1180E 10 0.7544E 09 0.1180E 10 0.7544E 09 0.1180E 10 0.7544E 09 0.1180E 10 0.7544E 09 0.1180E 10 0.7544E 09 0.1180E 10 0.7544E 09

0.1807E 10 0.5144E 09 0.8605E 09 -0.2041E 08 0.2173E 09 -0.4182E 09 -0.1525E 09 -0.5117E 09 -0.9712E 08 -0.3725E 09 -0.1312E 09 -0.3760E 09

ZENITH VELOCITY IN UNITS OF CP/SEC. AT LEVEL NO. 2

	82.5W	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5W	02.5E	07.5E
57.5N																		
52.5N																		
47.5N																		
42.5N																		
37.5N																		
32.5N																		
27.5N																		
22.5N																		
17.5N																		
12.5N																		
07.5N																		
02.5N																		

0.1176 01 2.30672 01 0.31775 01 0.41776 01 -0.17794 00 0.17794 00 0.17794 00

0.1176 01 2.30672 01 0.31775 01 0.41776 01 -0.17794 00 0.17794 00 0.17794 00

0.1176 01 2.30672 01 0.31775 01 0.41776 01 -0.17794 00 0.17794 00 0.17794 00

0.1176 01 2.30672 01 0.31775 01 0.41776 01 -0.17794 00 0.17794 00 0.17794 00

0.1176 01 2.30672 01 0.31775 01 0.41776 01 -0.17794 00 0.17794 00 0.17794 00

0.1176 01 2.30672 01 0.31775 01 0.41776 01 -0.17794 00 0.17794 00 0.17794 00

0.1176 01 2.30672 01 0.31775 01 0.41776 01 -0.17794 00 0.17794 00 0.17794 00

0.1176 01 2.30672 01 0.31775 01 0.41776 01 -0.17794 00 0.17794 00 0.17794 00

0.1176 01 2.30672 01 0.31775 01 0.41776 01 -0.17794 00 0.17794 00 0.17794 00

0.1176 01 2.30672 01 0.31775 01 0.41776 01 -0.17794 00 0.17794 00 0.17794 00

0.1176 01 2.30672 01 0.31775 01 0.41776 01 -0.17794 00 0.17794 00 0.17794 00

PERICENTRAL VELOCITY IN UNITS OF CM./SEC. AT LEVEL NO. Z

	62.5M	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	07.5E
51.5M																		
52.5M																		
57.5M																		
62.5M																		
67.5M																		
72.5M																		
77.5M																		
82.5M																		
87.5M																		
92.5M																		
97.5M																		
02.5M																		

-0.2812E 02 0.5331E 02 0.1054E 02 0.2454E 02 0.1607E 02 0.2756E 01
 -0.1786E 01 0.2253E 02 0.7124E 01 0.1031E 01 -0.2502E 01 -0.5544E 01 -0.6734E 01
 0.1672E 02 0.3214E 01 0.6601E 01 0.9268E 00 -0.2252E 01 -0.6877E 01 -0.8015E 01 -0.6422E 01 -0.6756E 01 0.8244E 00 0.2253E 01
 0.7484E 01 0.5414E 01 0.1735E 02 0.1028E 02 0.2241E 01 -0.5371E 01 -0.4539E 01 -0.4753E 01 -0.1150E 02 -0.1252E 02 -0.6522E 01
 0.1976E 02 -0.4122E 01 0.6743E 01 -0.4970E 00 -0.3544E 01 -0.9310E 01 -0.8710E 01 -0.4722E 01 -0.1066E 02 -0.1342E 02 -0.1218E 01
 0.3156E 02 -0.6933E 01 0.5571E 01 -0.9144E 01 -0.1314E 02 -0.7538E 01 -0.8705E 01 -0.6846E 01 -0.9086E 01 -0.7612E 01 -0.4331E 01 -0.1644E 01 0.6444E 00
 0.3005E 02 -0.8624E 01 0.1979E 01 -0.1232E 02 -0.2444E 00 -0.7627E 01 -0.9747E 01 -0.7103E 01 -0.4561E 01 -0.1044E 02 -0.8803E 01 -0.1257E 01
 0.1978E 02 -0.9582E 01 0.3340E 01 -0.6482E 01 -0.4400E 01 -0.4762E 01 -0.3744E 01 -0.3444E 01 -0.5956E 01 -0.7384E 01 -0.8842E 01 -0.5877E 01 0.5894E 01
 0.7101E 02 -0.5727E 01 -0.1150E 01 -0.6484E 01 -0.4122E 01 -0.6179E 01 -0.4134E 01 -0.7663E 01 -0.5008E 01 -0.4470E 01 -0.5422E 01 0.1441E 00 0.7407E 01
 -0.4492E 01 -0.2844E 00 0.1334E 01 0.3532E 01 0.2390E 00 -0.1506E 01 -0.3116E 01 -0.2170E 01 -0.2694E 01 -0.4344E 00 0.1627E 01 0.3951E 01 0.4739E 01 0.7752E 01
 -0.4444E 01 0.4392E 01 0.8624E 00 0.5800E 01 0.2766E 01 0.7505E 01 0.4339E 01 0.5886E 01 0.2147E 01 -0.1210E 01
 -0.5400E 01 0.1144E 02 0.4757E 01 0.6253E 01 0.3463E 01 0.6744E 00 -0.3563E 00 -0.7703E 01 0.8866E 00 0.1879E 00 -0.1086E 01

STRAP FUNCTION IN UNITS OF CM./SEC. AT LEVEL NO. N

	42.5M	47.5	52.5	57.5	62.5	67.5	72.5	77.5	82.5	87.5	92.5	97.5	02.5M	07.5M
37.5M														
32.5M														
27.5M														
22.5M														
17.5M														
12.5M														
07.5M														
02.5M														

0.1925E 13 0.4537E 09 0.6508E 05 0.1112E 06 -0.9718E 08 -0.5419E 09
 0.6031E 09 -0.1715E 07 -0.1529E 09 -0.1034E 09 -0.7382E 07 -0.1345E 09 0.9861E 08
 0.6031E 09 -0.1715E 07 -0.1529E 09 -0.1034E 09 -0.7382E 07 -0.1345E 09 0.9861E 08
 -0.5107E 09 -0.1265E 09 -0.5218E 09 -0.1874E 09 -0.2714E 08 0.1928E 09 0.4114E 08 0.7357E 08 0.5893E 08 -0.9284E 08
 0.6031E 09 -0.1715E 07 -0.1529E 09 -0.1034E 09 -0.7382E 07 -0.1345E 09 0.9861E 08
 -0.2421E 09 -0.1112E 09 -0.4970E 09 -0.5407E 09 -0.1874E 09 -0.2518E 09 -0.1944E 09 -0.1034E 09 -0.2335E 09 0.6562E 08 0.4422E 08
 -0.1068E 10 -0.4333E 08 -0.7111E 09 -0.1690E 09 -0.5176E 09 0.2770E 09 -0.2757E 09 0.4222E 09 -0.4447E 08 0.4653E 09 0.1174E 09 0.5347E 09 0.2317E 09 0.5959E 09 0.2335E 09 0.3274E 09
 -0.1945E 10 -0.1782E 09 -0.1172E 10 -0.1272E 08 -0.5176E 09 0.2770E 09 -0.2757E 09 0.4222E 09 -0.4447E 08 0.4653E 09 0.1174E 09 0.5347E 09 0.2317E 09 0.5959E 09 0.2335E 09 0.3274E 09
 -0.2506E 10 -0.4407E 08 -0.1201E 10 0.2721E 09 0.4222E 09 -0.4447E 08 0.4653E 09 0.1174E 09 0.5347E 09 0.2317E 09 0.5959E 09 0.2335E 09 0.3274E 09
 -0.1477E 10 0.5752E 09 -0.7814E 09 0.4601E 09 0.2721E 09 0.4222E 09 -0.4447E 08 0.4653E 09 0.1174E 09 0.5347E 09 0.2317E 09 0.5959E 09 0.2335E 09 0.3274E 09
 -0.4000E 09 0.5675E 09 -0.1720E 09 0.5521E 09 0.4222E 09 0.4601E 09 0.2721E 09 0.4222E 09 -0.4447E 08 0.4653E 09 0.1174E 09 0.5347E 09 0.2317E 09 0.5959E 09 0.2335E 09 0.3274E 09
 0.1577E 10 0.4937E 09 0.1214E 10 0.5401E 09 0.4222E 09 0.4601E 09 0.2721E 09 0.4222E 09 -0.4447E 08 0.4653E 09 0.1174E 09 0.5347E 09 0.2317E 09 0.5959E 09 0.2335E 09 0.3274E 09
 0.1722E 13 0.1513E 09 0.6505E 09 -0.1687E 09 0.2415E 09 -0.1897E 09 -0.6571E 08 -0.4447E 08 -0.1244E 09 -0.1524E 09 -0.2279E 09
 0.1046E 09 -0.2824E 09 0.1346E 09 -0.4657E 09 -0.4745E 09 -0.8511E 08 -0.3773E 08 -0.5705E 08 -0.5183E 09 -0.7686E 08 -0.2788E 09

PERIPHERAL VELOCITY IN UNITS OF CM./SEC. AT LEVEL NO. 6

	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5	07.5E
82.5N																	
57.5N																	
52.5N																	
47.5N																	
42.5N																	
37.5N																	
32.5N																	
27.5N																	
22.5N																	
17.5N																	
12.5N																	
07.5N																	
02.5N																	

0.25500 01 0.18218 02 -0.56758-00 0.42250 01 -0.12840-00 -0.24200 01

0.58796 01 0.73070 01 -0.20000 01 -0.16150 01 -0.26100 01 -0.18010 01 -0.16370 01

-0.63000-01 0.76150 00 -0.25000 01 -0.12970 01 -0.10350 01 0.20770-00 0.53820-00 0.75960 00 0.14000 01 -0.15920-00

0.58796 01 0.73070 01 -0.20000 01 -0.16150 01 -0.26100 01 -0.18010 01 -0.16370 01

-0.63000-01 0.76150 00 -0.25000 01 -0.12970 01 -0.10350 01 0.20770-00 0.53820-00 0.75960 00 0.14000 01 -0.15920-00

0.58796 01 0.73070 01 -0.20000 01 -0.16150 01 -0.26100 01 -0.18010 01 -0.16370 01

-0.63000-01 0.76150 00 -0.25000 01 -0.12970 01 -0.10350 01 0.20770-00 0.53820-00 0.75960 00 0.14000 01 -0.15920-00

0.58796 01 0.73070 01 -0.20000 01 -0.16150 01 -0.26100 01 -0.18010 01 -0.16370 01

-0.63000-01 0.76150 00 -0.25000 01 -0.12970 01 -0.10350 01 0.20770-00 0.53820-00 0.75960 00 0.14000 01 -0.15920-00

0.58796 01 0.73070 01 -0.20000 01 -0.16150 01 -0.26100 01 -0.18010 01 -0.16370 01

-0.63000-01 0.76150 00 -0.25000 01 -0.12970 01 -0.10350 01 0.20770-00 0.53820-00 0.75960 00 0.14000 01 -0.15920-00

0.58796 01 0.73070 01 -0.20000 01 -0.16150 01 -0.26100 01 -0.18010 01 -0.16370 01

-0.63000-01 0.76150 00 -0.25000 01 -0.12970 01 -0.10350 01 0.20770-00 0.53820-00 0.75960 00 0.14000 01 -0.15920-00

0.58796 01 0.73070 01 -0.20000 01 -0.16150 01 -0.26100 01 -0.18010 01 -0.16370 01

-0.63000-01 0.76150 00 -0.25000 01 -0.12970 01 -0.10350 01 0.20770-00 0.53820-00 0.75960 00 0.14000 01 -0.15920-00

0.58796 01 0.73070 01 -0.20000 01 -0.16150 01 -0.26100 01 -0.18010 01 -0.16370 01

-0.63000-01 0.76150 00 -0.25000 01 -0.12970 01 -0.10350 01 0.20770-00 0.53820-00 0.75960 00 0.14000 01 -0.15920-00

0.58796 01 0.73070 01 -0.20000 01 -0.16150 01 -0.26100 01 -0.18010 01 -0.16370 01

-0.63000-01 0.76150 00 -0.25000 01 -0.12970 01 -0.10350 01 0.20770-00 0.53820-00 0.75960 00 0.14000 01 -0.15920-00

0.58796 01 0.73070 01 -0.20000 01 -0.16150 01 -0.26100 01 -0.18010 01 -0.16370 01

-0.63000-01 0.76150 00 -0.25000 01 -0.12970 01 -0.10350 01 0.20770-00 0.53820-00 0.75960 00 0.14000 01 -0.15920-00

0.58796 01 0.73070 01 -0.20000 01 -0.16150 01 -0.26100 01 -0.18010 01 -0.16370 01

-0.63000-01 0.76150 00 -0.25000 01 -0.12970 01 -0.10350 01 0.20770-00 0.53820-00 0.75960 00 0.14000 01 -0.15920-00

0.58796 01 0.73070 01 -0.20000 01 -0.16150 01 -0.26100 01 -0.18010 01 -0.16370 01

-0.63000-01 0.76150 00 -0.25000 01 -0.12970 01 -0.10350 01 0.20770-00 0.53820-00 0.75960 00 0.14000 01 -0.15920-00

STREAM FUNCTIONS IN UNITS OF $C_0 \cdot \Delta Z / \Delta C$ AT LEVEL NO. 8

	82.5M	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5M
57.5M																
52.5M																
47.5M																
42.5M																
37.5M																
32.5M																
27.5M																
22.5M																
17.5M																
12.5M																
07.5M																
02.5M																

0.5788 DV -0.2775 CV 0.1623 CV -0.2468 CV -0.4482 CV -0.7458 CV -1.0558 DV

0.6098 DV -0.2408 DV -0.0208 DV -0.1638 DV 0.2878 DV -0.3638 DV 0.0418 DV

-0.7658 DV 0.4578 DV -0.1128 DV 0.1288 DV -0.4488 DV 0.7718 DV -0.5798 DV 0.1428 DV -0.1788 DV

-0.1158 DV -0.4698 DV -0.1678 DV -0.5038 DV -0.2478 DV -0.1308 DV 0.3588 DV -0.5798 DV 0.1428 DV

-0.1688 DV 0.1478 DV -0.2158 DV 0.4558 DV -0.1598 DV 0.1598 DV 0.2908 DV -0.9418 DV 0.1748 DV 0.1198 DV

-0.1968 DV 0.1608 DV -0.2098 DV 0.4458 DV -0.1598 DV 0.1598 DV 0.2908 DV -0.9418 DV 0.1748 DV 0.1198 DV

0.1498 DV 0.4188 DV -0.2098 DV 0.4458 DV -0.1598 DV 0.1598 DV 0.2908 DV -0.9418 DV 0.1748 DV 0.1198 DV

0.1298 DV 0.1618 DV -0.1738 DV 0.2278 DV -0.1168 DV 0.1168 DV 0.2278 DV -0.1168 DV 0.1168 DV 0.2278 DV

0.6708 DV -0.3778 DV 0.1498 DV -0.1498 DV 0.1498 DV -0.1498 DV 0.1498 DV -0.1498 DV 0.1498 DV -0.1498 DV

0.5168 DV -0.5498 DV -0.3398 DV -0.3398 DV -0.3398 DV -0.3398 DV -0.3398 DV -0.3398 DV -0.3398 DV

-0.1228 DV -0.2688 DV -0.3498 DV -0.2418 DV -0.1748 DV -0.1748 DV -0.1748 DV -0.1748 DV -0.1748 DV

ZENAL VELOCITY IN UNITS OF C/P/SEC. AT LEVEL NO. 0

	02.5N	07.5	12.5	17.5	22.5	27.5	32.5	37.5	42.5	47.5	52.5	57.5	62.5	67.5	72.5	77.5	82.5N
37.5N																	07.5E
32.5N																	02.5E
27.5N																	
22.5N																	
17.5N																	
12.5N																	
07.5N																	
02.5N																	

0.4774E 00 0.1947E 01 -0.2928E-00 0.4775E-00 -0.1167E 01 -0.3865E-01
 0.1551E 01 -0.1577E-00 0.6550E 01 -0.3822E 01 0.1166E 01 -0.3655E 01 -0.6056E 00
 0.5167E-00 0.7408E 00 0.7408E 00 -0.1627E 01 -0.1627E 01 0.2581E-00 -0.5522E-01 0.1372E 01 0.2482E-00 -0.
 -0.2056E 01 0.3270E 01 -0.1080E 01 0.1271E 01 -0.1157E 01 0.2808E-00 -0.4082E-00 0.4280E 01 0.9170E 01 0.9250E 00 -0.2542E-00 0.5151E 00
 -0.5858E 01 0.5907E-00 -0.6270E 01 -0.5706E 01 -0.5150E 01 -0.6181E-01 -0.5593E 01 0.5182E-00 -0.2837E 01 0.2744E-00 -0.2010E 01 0.2026E-00 -0.1559E 01
 -0.6531E 01 0.5907E-00 -0.2406E 01 -0.4552E-00 -0.2406E 01 -0.4552E-00 -0.2406E 01 -0.4552E-00 -0.2406E 01 -0.4552E-00 -0.2406E 01 -0.4552E-00 -0.2406E 01
 -0.2204E 01 -0.7087E 01 0.6996E 01 -0.6996E 01 0.6996E 01 0.6996E 01 0.6996E 01 0.6996E 01 0.6996E 01 0.6996E 01 0.6996E 01 0.6996E 01 0.6996E 01 0.6996E 01
 -0.5446E 01 0.4526E 01 -0.5255E 01 0.6215E 01 -0.2464E 01 0.7688E 01 -0.2672E 01 0.6882E 01 -0.1447E 01 0.6355E 01 -0.7582E 00 0.6174E 01 -0.3888E-01 0.5742E 01
 0.1189E 01 0.1511E 01 0.8248E-01 0.2657E 01 -0.5862E-01 0.2353E 01 0.4442E 01 0.5300E 01 0.4442E 01 0.5300E 01 0.4442E 01 0.5300E 01 0.4442E 01 0.5300E 01
 -0.5808E 01 0.1566E 01 -0.1103E 01 0.4317E 01 -0.1886E 01 0.5388E 01 0.5388E 01 0.5388E 01 0.5388E 01 0.5388E 01 0.5388E 01 0.5388E 01 0.5388E 01 0.5388E 01
 -0.5788E 00 -0.4274E 01 -0.7489E-00 -0.8704E 01 0.1645E-00 -0.2868E 01 0.2551E-00 -0.2288E 01 -0.2288E 01 -0.2288E 01 -0.2288E 01 -0.2288E 01 -0.2288E 01 -0.2288E 01

STREAP FUNCTION IN UNITS OF CP**2/SEC. AT LEVEL NO. 1C

	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	7.5	02.5M	07.5M
82.5M																	
57.5M																	
52.5M																	
47.5M																	
42.5M																	
37.5M																	
32.5M																	
27.5M																	
22.5M																	
17.5M																	
12.5M																	
07.5M																	
02.5M																	

0.2732E DV -0.2847E DV 0.6008E DV -0.2050E DV -0.5473E DV -0.1119E DV

-0.1615E DV -0.1408E DV 0.4016E DV 0.6005E DV -0.6724E DV 0.48072E DV

-0.4458E DV 0.4156E DV -0.6120E DV 0.4016E DV 0.2050E DV -0.1199E DV -0.4544E DV -0.2404E DV -0.2245E DV -0.3469E DV

-0.4458E DV 0.4156E DV -0.6120E DV 0.4016E DV 0.2050E DV -0.1199E DV -0.4544E DV -0.2404E DV -0.2245E DV -0.3469E DV

-0.4458E DV 0.4156E DV -0.6120E DV 0.4016E DV 0.2050E DV -0.1199E DV -0.4544E DV -0.2404E DV -0.2245E DV -0.3469E DV

-0.4458E DV 0.4156E DV -0.6120E DV 0.4016E DV 0.2050E DV -0.1199E DV -0.4544E DV -0.2404E DV -0.2245E DV -0.3469E DV

-0.4458E DV 0.4156E DV -0.6120E DV 0.4016E DV 0.2050E DV -0.1199E DV -0.4544E DV -0.2404E DV -0.2245E DV -0.3469E DV

-0.4458E DV 0.4156E DV -0.6120E DV 0.4016E DV 0.2050E DV -0.1199E DV -0.4544E DV -0.2404E DV -0.2245E DV -0.3469E DV

-0.4458E DV 0.4156E DV -0.6120E DV 0.4016E DV 0.2050E DV -0.1199E DV -0.4544E DV -0.2404E DV -0.2245E DV -0.3469E DV

-0.4458E DV 0.4156E DV -0.6120E DV 0.4016E DV 0.2050E DV -0.1199E DV -0.4544E DV -0.2404E DV -0.2245E DV -0.3469E DV

-0.4458E DV 0.4156E DV -0.6120E DV 0.4016E DV 0.2050E DV -0.1199E DV -0.4544E DV -0.2404E DV -0.2245E DV -0.3469E DV

-0.4458E DV 0.4156E DV -0.6120E DV 0.4016E DV 0.2050E DV -0.1199E DV -0.4544E DV -0.2404E DV -0.2245E DV -0.3469E DV

STREAM FUNCTION IN UNITS OF $C_0 \cdot \omega^2 / 2g$ AT LEVEL $h_0 = 11$

	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5	07.5E
57.5N																	
52.5N										0.1763E 0V	-0.2653E 0V	0.5512E 0E	-0.1862E 0V	-0.2406E 0V	-0.9415E 0E		
47.5N																	
42.5N																	
37.5N																	
32.5N																	
27.5N																	
22.5N																	
17.5N																	
12.5N																	
07.5N																	
02.5N																	

-0.183E 0V -0.8162E 0E -0.5979E 0E -0.1330E 0V -0.2521E 0E -0.1407E 0V -0.1546E 0E -0.1470E 0V -0.9907E 0E -0.1319E 0E

WIND VELOCITY IN UNITS OF CP/SEC. AT LEVEL NO. 11

	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5	07.5
57.5h																	
52.5h																	
47.5h																	
42.5h																	
37.5h																	
32.5h																	
27.5h																	
22.5h																	
17.5h																	
12.5h																	
07.5h																	
02.5h																	

-0.4878E-01 0.4277E 00 -0.4863E 00 -0.3729E-01 -0.1011E 01 -0.2760E-01

0.4481E-00 -0.5182E 00 0.2047E 01 -0.3445E 01 0.1775E 00 -0.2110E 01 0.4487E-01

-0.5439E-00 0.4063E-00 -0.5197E 00 -0.1570E 01 -0.6251E-01 -0.3555E-01 0.4809E 00 0.3178E-00 0.1101E 01 0.1412E-00 -0.

-0.1046E 01 0.2025E 01 -0.1203E 01 0.1439E 01 -0.4462E 00 0.1319E 01 0.1868E-00 0.1215E 01 0.4031E-01 0.7463E 00 -0.1551E-00 0.5206E 00

-0.2858E 01 0.4851E-00 -0.3752E 01 0.3174E-00 -0.2719E 01 0.6239E 00 -0.2220E 01 0.5358E 00 -0.1968E 01 0.4054E-00 -0.1517E 01 0.2329E-00 -0.1300E 01

-0.2772E 01 0.6278E-01 -0.2512E 01 -0.5115E-00 -0.1938E 01 -0.5527E 00 -0.2017E 01 -0.6029E 00 -0.2050E 01 -0.7310E 00 -0.2110E 01 -0.2865E 00 -0.2100E 01 -0.7920E 00

-0.2878E 01 -0.6473E 00 0.1801E 01 -0.3876E 01 0.3500E 01 -0.2029E 01 0.1490E 01 -0.4001E 01 0.5402E 01 -0.1935E 01 0.1001E 01 -0.9192E 00 0.7437E 00 -0.2081E-00 0.5041E 00

0.1231E 01 0.2372E 01 -0.1490E 01 0.2245E 01 -0.2029E 01 0.1490E 01 -0.4001E 01 0.5402E 01 -0.1935E 01 0.1001E 01 -0.9192E 00 0.7437E 00 -0.2081E-00 0.5041E 00

0.2904E-00 0.2857E 01 -0.4480E 00 0.4678E 01 -0.5610E 00 0.5125E 01 -0.1540E 01 -0.9118E 00 0.5201E 01 -0.5786E-00 0.5041E 01 0.1796E-01 0.4722E 01

0.5810E-00 0.1029E-00 0.5292E 00 0.9465E 00 0.4740E-00 0.3268E 01 0.2245E 01 0.2211E 01 0.1490E 01 0.1871E 01 0.1495E 01 0.1554E 01 0.1720E 01 0.1504E 01

-0.2695E 01 0.1234E 01 -0.5970E 00 0.1780E 01 -0.1558E 01 0.1788E 01 -0.1832E 01 0.1698E 01 -0.1762E 01 0.1746E 01

-0.5918E 00 -0.1948E 01 -0.1487E-00 -0.1904E 01 0.1551E-00 -0.1746E 01 0.1412E-00 -0.1647E 01 -0.

STREAM FUNCTION IN UNITS OF CM**2/SEC. AT LEVEL NO. 14

	82.5N	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5N	07.5E
57.5N																		
52.5N											0.1671E OV -0.2277E CV	0.4762E DE -0.1565E CV	-0.7113E OT -0.4070E OH					
47.5N											-0.1552E OH -0.1070E CV	0.2450E OH -0.2770E CV	0.7606E CV 0.1105E OT	0.7594E OH				
42.5N											-0.2112E OH	0.1191E CV -0.2552E OH	0.4448E OH -0.1744E CV	-0.1750E DE -0.0650E CV	-0.2452E OH	-0.1407E OH	-0.2106E OH	
37.5N											-0.7653E OH -0.9762E OT	-0.3765E OH	0.1476E OH -0.2722E CV	-0.1179E CV	-0.2144E OH	-0.1411E OH	-0.1450E OH	-0.7772E OT
32.5N											-0.5586E OH	0.5719E OH	0.7308E OH	0.1157E OH	0.2013E OH	0.2013E OH	0.2013E OH	0.2013E OH
27.5N											0.7026E OH	0.1705E CV -0.1611E OH	0.2744E CV -0.6078E OH	0.2013E OH	0.2013E OH	0.2013E OH	0.2013E OH	0.2013E OH
22.5N											0.1543E OH	0.1627E CV -0.2124E OH	0.2474E CV -0.6745E OH	0.2744E CV -0.6078E OH	0.2013E OH	0.2013E OH	0.2013E OH	0.2013E OH
17.5N											0.2297E OH	0.4827E OH	0.1207E CV	0.1412E CV	0.5744E OH	0.2554E OH	0.2013E OH	0.2013E OH
12.5N											0.5388E OH	0.1974E OH	0.6819E OH	0.4924E OH	0.5744E OH	0.2554E OH	0.2013E OH	0.2013E OH
07.5N											0.1197E OH	-0.1554E CV	0.1079E CV	-0.1775E CV	0.7036E OH	-0.1775E CV	0.4048E OH	-0.1683E CV
02.5N											-0.1518E OH	-0.1079E CV	-0.7043E OH	-0.1165E OH	-0.3619E OH	-0.1227E OH	-0.1227E OH	-0.1227E OH
											-0.1518E OH	-0.1079E CV	-0.7043E OH	-0.1165E OH	-0.3619E OH	-0.1227E OH	-0.1227E OH	-0.1227E OH
											-0.1518E OH	-0.1079E CV	-0.7043E OH	-0.1165E OH	-0.3619E OH	-0.1227E OH	-0.1227E OH	-0.1227E OH

STREIP FUNCTION IN UNITS OF 10^{-4} AT 10000 MHz. 13

	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5	01.5
82.5N																	
57.5N																	
52.5N																	
47.5N																	
42.5N																	
37.5N																	
32.5N																	
27.5N																	
22.5N																	
17.5N																	
12.5N																	
07.5N																	
02.5N																	

0.2766E 08 -0.1925E 07 0.4577E 06 -0.1388E 05 0.1892E 04 -0.1046E 03

-0.2274E 08 0.7110E 07 -0.1041E 06 0.4988E 05 0.9503E 04 0.6647E 03

-0.1160E 08 0.1508E 07 -0.1341E 06 0.4110E 05 -0.2976E 04 0.1376E 03 -0.1706E 02 -0.5573E 01 -0.2073E 00 -0.1099E 00 -0.1640E 00

-0.5871E 08 -0.2754E 07 -0.4551E 06 0.1652E 05 -0.2519E 04 0.4852E 03 -0.1421E 02 -0.1142E 01 -0.5526E 00 -0.1237E 00

-0.4855E 08 0.1415E 07 -0.5708E 06 0.1652E 05 -0.2519E 04 0.4852E 03 -0.1421E 02 -0.1142E 01 -0.5526E 00 -0.1237E 00

-0.4855E 08 0.1415E 07 -0.5708E 06 0.1652E 05 -0.2519E 04 0.4852E 03 -0.1421E 02 -0.1142E 01 -0.5526E 00 -0.1237E 00

0.8021E 08 0.1258E 07 -0.7118E 06 0.1418E 05 -0.5082E 04 0.2191E 03 -0.4432E 02 0.2191E 01 -0.1836E 00 0.1836E 00

0.1552E 09 0.1124E 08 0.1482E 07 -0.4432E 06 0.2191E 05 -0.4432E 04 0.2191E 03 -0.4432E 02 0.2191E 01 -0.1836E 00 0.1836E 00

0.2105E 09 0.4428E 08 0.1424E 07 0.1396E 06 0.7581E 05 0.1427E 04 0.3678E 03 0.2210E 02 0.2507E 01 0.1177E 00 0.1523E 00 0.1177E 00

0.5080E 08 0.2445E 07 0.7502E 06 0.1037E 05 0.5499E 04 0.1037E 03 0.5687E 02 0.2188E 01 0.1120E 00 0.1120E 00 0.1120E 00 0.1120E 00 0.1120E 00

0.5929E 08 -0.1152E 07 0.7160E 06 -0.1585E 05 0.5155E 04 0.1585E 03 -0.1585E 02 0.1585E 01 -0.1585E 00 0.1585E 00 0.1585E 00 0.1585E 00 0.1585E 00

-0.1426E 09 -0.1454E 08 -0.7069E 07 -0.4420E 06 -0.9650E 05 -0.4420E 04 -0.9650E 03 -0.4420E 02 -0.9650E 01 -0.4420E 00 -0.9650E 00 -0.4420E 00 -0.9650E 00

-0.1104E 09 -0.6031E 08 -0.7115E 07 -0.4929E 06 -0.9402E 05 -0.4929E 04 -0.9402E 03 -0.4929E 02 -0.9402E 01 -0.4929E 00 -0.9402E 00 -0.4929E 00 -0.9402E 00

ZENITH VELOCITY IN UNITS OF CP/SEC. AT LEVEL NO. 13

	07.5M	11.5	15.5	19.5	23.5	27.5	31.5	35.5	39.5	43.5	47.5	51.5	55.5	59.5	63.5	67.5	71.5	75.5	79.5	83.5M	87.5M	
37.5M																						
32.5M																						
27.5M																						
22.5M																						
17.5M																						
12.5M																						
07.5M																						
02.5M																						

-0.8555E-00 0.1422E-00 0.7097E 00 0.7151E 00 -0.1555E 01 0.2527E-00

0.1422E-00 -0.5368E 00 0.7097E 00 0.7151E 00 -0.1555E 01 0.2527E-00

-0.5558E-00 0.5860E-00 -0.4072E-00 -0.5656E 00 0.4441E-00 0.5271E-00 0.6455E 00 0.1864E-00 0.4524E 00 0.1037E-00 -0.

-0.4495E-00 0.1444E 01 -0.7011E 00 0.1367E 01 -0.4019E-00 0.1154E 01 0.1668E-00 0.6726E 00 -0.4511E-01 0.4288E 00 -0.1164E-00 0.5058E 00

-0.1488E 01 -0.1057E-00 -0.2398E 01 0.4200E-00 -0.1951E 01 0.5471E 00 -0.1755E 01 0.4196E-00 -0.1617E 01 0.5445E-00 -0.1357E 01 0.2442E-00 -0.1157E 01

-0.1291E 01 0.4854E-00 -0.2196E-01 -0.1922E 01 0.1195E 01 -0.0747E 00 -0.1718E 01 -0.7195E 00 -0.1760E 01 -0.2775E 00 -0.1853E 01 -0.48570E 00 -0.1865E 01 -0.7094E 00

-0.2450E 01 0.4854E-00 -0.2196E-01 -0.1922E 01 0.1195E 01 -0.0747E 00 -0.1718E 01 -0.7195E 00 -0.1760E 01 -0.2775E 00 -0.1853E 01 -0.48570E 00 -0.1865E 01 -0.7094E 00

0.1341E 01 0.1651E 00 -0.8227E 00 0.1534E 01 -0.1453E 01 0.1201E 01 -0.2655E 01 0.1195E 01 -0.3646E 01 0.1592E 01 -0.3646E 01 0.1055E 01 -0.2524E 01

0.1982E 01 0.1727E 01 0.4155E 00 0.1262E 01 0.2555E-00 0.5685E 01 -0.4559E-00 0.4147E 01 -0.4452E-00 0.4509E 01 -0.1226E-00 0.4237E 01 -0.1146E-00 0.4020E 01

0.2450E-00 0.2274E-00 0.4659E 00 0.6544E 00 0.4061E 00 0.2041E 01 0.1239E 01 0.1686E 01 0.1231E 01 0.1466E 01 0.1230E 01 0.1247E 01 0.1220E 01 0.1171E 01

-0.2327E 01 0.4254E 00 -0.5966E 00 0.4061E 00 -0.1220E 01 0.1247E 01 0.1220E 01 0.1171E 01 0.1230E 01 0.1466E 01 0.1231E 01 0.1230E 01 0.1247E 01 0.1220E 01 0.1171E 01

-0.4076E 00 -0.1120E 01 -0.2672E-00 -0.1166E 01 -0.1854E-01 -0.1212E 01 0.4022E-01 -0.1186E 01 -0.

MERIDIONAL VELOCITY IN UNITS OF CM./SEC. AT LEVEL NO. 13

	42.5N	47.5	52.5	57.5	62.5	67.5	72.5	77.5	82.5	87.5	92.5	97.5	02.5N
37.5N													
32.5N													
27.5N													
22.5N													
17.5N													
12.5N													
07.5N													
02.5N													

0.4444E 01 -0.1177E-02 -0.1462E 01 0.1324E 01 -0.1563E 01 0.4169E-02
 0.1894E 01 -0.1271E 01 -0.4570E 00 -0.4623E-02 -0.3163E-02 0.4842E-01 0.1622E-01
 0.4481E-00 0.4481E-00 0.1647E-02 0.5038E-02 0.1025E-01 0.9774E-01 -0.6851E-01 -0.1892E-00
 -0.2876E-00 0.1238E-00 -0.4551E-00 -0.1892E-00 0.2738E-02 0.4122E-01 -0.1810E-01 -0.5963E-01
 -0.4674E-01 -0.2174E-00 -0.2421E-00 -0.2880E-00 0.5013E-00 -0.1424E-00 0.2738E-02 0.2400E-00
 -0.7023E 00 0.4681E 00 -0.4444E-00 0.1227E-00 0.2399E-00 0.2399E-00 0.1813E-02 0.2328E-02 -0.1042E-00 0.1678E-00
 -0.1832E 01 0.1894E 01 -0.1177E 01 0.4555E 00 -0.3810E-00 0.1894E-00 -0.2604E-00 0.1894E-00 -0.2805E-00 0.1894E-00
 -0.1509E 01 0.2255E 01 -0.1894E 01 0.4555E 00 -0.3810E-00 0.1894E-00 -0.2604E-00 0.1894E-00 -0.2805E-00 0.1894E-00
 -0.3249E-00 0.1101E 01 -0.1894E 01 0.1101E 01 -0.6558E 00 0.2421E-00 -0.1124E-00 0.4390E-01 0.4390E-01 0.1894E-01 -0.6656E-01
 -0.1894E-00 -0.1894E-00 -0.5685E 00 0.3107E-00 -0.8342E-00 0.1054E-00 0.2188E-00 -0.1054E-00 0.4555E-01 0.2664E-01 -0.1894E-01 0.7342E-02
 0.1528E 01 -0.3894E-00 0.2299E 01 -0.1894E-00 0.3107E-00 0.3552E-00 -0.1054E-00 0.3552E-00 -0.1894E-00 0.2738E-02 -0.1894E-00 0.2324E-00
 0.1576E 00 -0.1002E 01 0.1894E-00 0.1894E-00 0.1894E-00 0.1894E-00 0.1894E-00 0.1894E-00 0.1894E-00 0.1894E-00 0.1894E-00 0.1894E-00 0.1894E-00 0.1894E-00
 0.2572E-00 -0.6877E 00 0.5828E 00 -0.6877E 00 0.3552E-00 -0.2471E-02 0.1605E-00 -0.1459E-00 0.4174E-01 -0.4058E-01 -0.1810E-01 0.3509E-01

ZORNAL VELOCITY IN UNITS OF C./SEC. AT LEVEL NO. IN

	62.5h	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5h	07.5h
57.5h																		
52.5h																		
47.5h																		
42.5h																		
37.5h																		
32.5h																		
27.5h																		
22.5h																		
17.5h																		
12.5h																		
07.5h																		
02.5h																		

-0.

STREAM FUNCTION IN UNITS OF $C_P \cdot \frac{1}{2} \rho U^2 R$ AT LEVEL $h = 15$

	82.5N	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5N	07.5E
57.5N																		
52.5N																		
47.5N																		
42.5N																		
37.5N																		
32.5N																		
27.5N																		
22.5N																		
17.5N																		
12.5N																		
07.5N																		
02.5N																		

0.1554F 07 -0.1262E 0V 0.5655E 0E -0.977E 0E 0.1536E 0E -0.5616E 0E

-0.1210E 0E -0.2160E 0E 0.4316E 0E 0.6971E 0E 0.9762E 0E 0.1262E 0E

-0.7294E 0E 0.1565E 0E -0.1256E 0E 0.6847E 0E 0.6847E 0E -0.1515E 0E -0.1515E 0E -0.2603E 0E -0.1034E 0E

-0.5927E 0E 0.4471E 0E 0.2846E 0E 0.1513E 0E -0.2846E 0E 0.5927E 0E -0.4471E 0E 0.2846E 0E 0.1513E 0E

-0.4167E 0E 0.1241E 0E -0.7072E 0E 0.4217E 0E -0.8292E 0E 0.5098E 0E -0.7267E 0E 0.2198E 0E -0.6405E 0E

0.7951E 0E 0.6436E 0E 0.5406E 0E 0.7968E 0E 0.1238E 0E -0.1238E 0E 0.1260E 0E -0.1238E 0E -0.1238E 0E

0.1545E 0E 0.4486E 0E 0.5406E 0E 0.1238E 0E 0.4317E 0E 0.1567E 0E -0.1238E 0E -0.1238E 0E 0.1567E 0E

0.1708E 0E 0.2314E 0E 0.1508E 0E 0.7562E 0E 0.9702E 0E 0.1217E 0E 0.6004E 0E 0.4308E 0E 0.1690E 0E

0.4850E 0E 0.2874E 0E 0.6370E 0E 0.4354E 0E 0.5654E 0E 0.5913E 0E 0.4515E 0E 0.7016E 0E 0.2310E 0E 0.7897E 0E

-0.1122E 0E -0.7576E 0E 0.1627E 0E -0.1176E 0E 0.2762E 0E -0.1228E 0E 0.3756E 0E -0.1347E 0E 0.2606E 0E

-0.1126E 0E -0.2777E 0E -0.6757E 0E -0.4495E 0E -0.4405E 0E -0.5586E 0E -0.2867E 0E -0.5129E 0E

-0.8795E 0E -0.6734E 0E -0.6487E 0E -0.3515E 0E -0.6427E 0E -0.5547E 0E -0.2961E 0E -0.6731E 0E -0.7356E 0E

ZENITH VELOCITY IN UNITS OF CP./SEC. AT LEVEL NO. 15

	82.5h	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5h	07.5e
57.5h																		
52.5h																		
47.5h																		
42.5h																		
37.5h																		
32.5h																		
27.5h																		
22.5h																		
17.5h																		
12.5h																		
07.5h																		

-0.5108E-00 -0.7577E-01 -0.7276E-00 -0.1221E-00 -0.6871E-00 -0.8893E-02
 0.1888E-01 -0.3808E-00 0.1002E-00 0.1843E-01 0.6102E-00 -0.1156E-01 0.2929E-00
 -0.2819E-00 0.5135E-00 -0.2688E-00 0.8902E-02 0.4228E-00 0.4124E-00 0.6762E-00 0.5100E-00 0.6536E-00 0.8820E-01 -0.
 -0.1377E-00 0.1053E-01 -0.4330E-00 0.1178E-01 -0.2845E-00 0.1088E-01 0.7897E-01 0.7530E-00 -0.9171E-01 2.5808E-00 -0.7857E-01 0.4881E-00
 -0.6803E-00 -0.5822E-00 -0.1482E-01 0.6887E-00 -0.1993E-01 0.5501E-00 -0.1384E-01 0.2867E-00 -0.1292E-01 0.2837E-00 -0.1127E-01 0.2700E-00 -0.9856E-00
 -0.5887E-00 -0.7233E-00 -0.1122E-01 -0.7102E-00 -0.1288E-01 -0.1778E-00 -0.1585E-01 -0.7533E-00 -0.1407E-01 -0.4538E-00 -0.1557E-01 -0.7803E-00 -0.1561E-01 -0.6188E-00
 -0.1877E-01 0.7200E-00 -0.6853E-00 0.3063E-00 -0.1798E-01 0.8923E-00 -0.2198E-01 0.1053E-01 -0.2280E-01 0.1204E-01 -0.2156E-01 0.8916E-00 -0.1950E-01
 0.1013E-01 0.8768E-02 -0.2280E-00 0.7888E-00 -0.8218E-00 0.1033E-01 -0.7088E-00 0.1018E-01 -0.4157E-00 0.8880E-00 -0.2507E-00 0.7855E-00 -0.1553E-00 0.6532E-00
 0.1883E-01 0.1118E-01 0.1523E-01 0.2131E-01 0.8528E-00 0.7510E-01 0.6188E-00 0.3163E-01 0.8885E-01 0.3398E-01 0.8788E-01 0.1827E-01 0.1768E-00 0.3312E-01
 0.2588E-00 0.5100E-00 0.5822E-00 0.4000E-00 0.5328E-00 0.1078E-01 0.5888E-00 0.1281E-01 0.7877E-00 0.1118E-01 0.7788E-00 0.9700E-00 0.7888E-00 0.8775E-00
 -0.1562E-01 0.3878E-00 -0.7288E-00 0.3852E-00 -0.8657E-00 0.5888E-00 -0.1188E-01 0.6898E-00 -0.1288E-01 0.8072E-00
 -0.8013E-00 -0.8022E-00 -0.5178E-00 -0.6887E-00 -0.1100E-00 -0.7577E-00 0.1118E-01 -0.7701E-00 -0.
 -0. -0. -0.

MERIDIONAL VELOCITY IN UNITS OF CM/SEC. AT LEVEL NO. 15

	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5
82.5M															
57.5M															
52.5M															
47.5M															
42.5M															
37.5M															
32.5M															
27.5M															
22.5M															
17.5M															
12.5M															
07.5M															
02.5M															

0.2497E 01 -0.1067E 01 -0.6538E 00 0.7842E 00 -0.1079E 01 0.5099E 00

0.5359E 00 -0.1073E 01 -0.2928E 00 -0.2274E 00 -0.3109E 01 0.1124E 00 0.4607E -01

-0.2444E 00 0.7423E 01 -0.2440E 00 0.1128E 00 0.5078E 00 0.0244E 01 0.1750E 00 -0.4007E 01 0.4622E -01 -0.7600E 01 -0.6703E 01

-0.1507E 00 -0.1445E 00 -0.1099E 00 -0.7433E 01 0.2162E 00 -0.1118E 00 0.1837E 00 -0.1452E 00 0.4742E 01 -0.1016E 00 0.5255E 02 -0.1846E 01

-0.3219E 00 0.5052E 00 -0.3160E 00 0.2755E 01 -0.1713E 00 0.1382E 00 -0.1682E 00 0.1848E 00 -0.1577E 00 0.1777E 00 -0.1005E 00 0.1299E 00

-0.4015E 00 0.1238E 01 -0.1034E 01 0.0717E 01 0.2041E 00 0.2299E 00 -0.2253E 00 0.2253E 00 -0.2279E 00 0.2025E 02 -0.1770E 00

0.1282E 01 -0.1198E 01 0.9213E 00 -0.6034E 00 0.6465E 00 -0.1632E 00 -0.7427E 01 0.2831E 01 -0.1258E 00 0.9424E 01 -0.1357E 00 0.1243E 00 -0.1201E 00

-0.5095E 01 0.3925E 00 -0.8014E 00 0.8466E 00 -0.7450E 00 0.6605E 00 -0.5147E 00 0.3540E 00 -0.2578E 00 0.1663E 00 -0.9446E 01 0.6312E 01 -0.1003E 02 0.1747E 02

-0.2594E 00 -0.1662E 00 -0.1728E 00 0.1831E 00 -0.2404E 01 0.3107E 00 -0.1913E 00 0.1830E 00 -0.1416E 00 0.1021E 00 -0.5374E 01 0.4497E 01 -0.3867E 01 0.3510E 01

0.4951E 00 -0.5174E 00 0.5604E 00 -0.2115E 00 0.1038E 00 -0.1573E 00 0.2358E 00 0.1138E 00 -0.2448E 01 0.1770E 00 -0.1138E 00 0.1921E 00 -0.1293E 00 0.1875E 00

0.2338E 00 -0.6163E 00 0.3556E 00 -0.3272E 00 0.1715E 00 -0.2443E 00 0.1353E 00 -0.1460E 00 0.5017E 01 -0.8292E 01

0.1201E 01 -0.2698E 00 0.3678E 00 -0.5523E 00 0.3077E 00 -0.2558E 00 0.1831E 00 -0.1648E 00 0.1017E 00 -0.4617E 01 0.3350E 01 -0.2413E 01

STREAK FUNCTION IN UNITS OF CM**2/SEC. AT LEVEL NO. 16

	82.5N	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5N	07.5E
37.5N																		
32.5N																		
27.5N																		
22.5N																		
17.5N																		
12.5N																		
07.5N																		
02.5N																		

-0.1266E OF -0.1021E OV 0.3110E OE -0.0551E OB 0.1144E OD -0.5076E OM

-0.4065E OF -0.0941E OF 0.4172E OF 0.1042E OB 0.5131E OF 0.4055E OF 0.4535E OB

0.1014E OF 0.1161E OB 0.0904E OB 0.2194E OB -0.1991E OS -0.7164E OF -0.1524E OF -0.1350E OB -0.3958E OF -0.0865E OF

-0.3182E OB 0.5522E OF -0.2444E OB 0.1124E OB -0.2522E OB -0.4471E OS -0.1991E OS -0.7164E OF -0.2922E OF -0.4074E OF -0.1524E OF -0.1350E OB -0.3958E OF

-0.5886E OB 0.5272E OF -0.6176E OB 0.2244E OB -0.7424E OB 0.2365E OB -0.6762E OB 0.1710E OF -0.0640E OB 0.0512E OF -0.5421E OE 0.2244E OB -0.4471E OS

0.7347E OB 0.4471E OB 0.1752E OB 0.9543E OB -0.2272E OB 0.1174E OV -0.2981E OB 0.9950E OB -0.2391E OB 0.0987E OB -0.1327E OE 0.4017E OB -0.1642E OF 0.7034E OB

0.1404E OV 0.8172E OB 0.1472E OB 0.1272E OB 0.1272E OB 0.1434E OF -0.1662E OF 0.1434E OF -0.2704E OB 0.1457E OV 0.1457E OV 0.1457E OV 0.1600E OE 0.1562E OF

0.1514E OV 0.1404E OB 0.5272E OB 0.9663E OB 0.2676E OB 0.4471E OB 0.1272E OB 0.1272E OB 0.1272E OB 0.1272E OB 0.1272E OB 0.1272E OB 0.1272E OB 0.1272E OB 0.1272E OB

0.4456E OB 0.2676E OB 0.5272E OB 0.1272E OB 0.1272E OB 0.1272E OB 0.1272E OB 0.1272E OB 0.1272E OB 0.1272E OB 0.1272E OB 0.1272E OB 0.1272E OB 0.1272E OB

-0.3027E OB -0.6051E OB -0.1602E OF -0.4051E OB 0.1344E OB -0.1307E OV 0.2194E OB -0.1272E OB 0.1272E OB 0.1272E OB 0.1272E OB 0.1272E OB 0.1272E OB 0.1272E OB

-0.4456E OB -0.1602E OB -0.1602E OB -0.1602E OB -0.1602E OB -0.1602E OB -0.1602E OB -0.1602E OB -0.1602E OB -0.1602E OB -0.1602E OB -0.1602E OB -0.1602E OB -0.1602E OB

-0.7499E OB -0.4456E OF -0.6527E OB -0.2345E OB -0.4555E OB -0.4116E OF -0.2724E OB -0.5294E OB -0.1873E OB -0.8024E OB -0.1138E OB -0.6192E OB

PERIPHERAL VELOCITY IN UNITS OF CM./SEC. AT LEVEL NO. 16

	82.5M	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	07.5E
57.5N																		
52.5N																		
47.5N																		
42.5N																		
37.5N																		
32.5N																		
27.5N																		
22.5N																		
17.5N																		
12.5N																		
07.5N																		
02.5N																		

0.2378E-01 -0.1216E-01 -0.5111E-0C 0.5031E-0C -0.8635E-0C 0.4455E-0C

0.2398E-6C -0.4889E-0C -0.2041E-0C -0.1522E-0C 0.4412E-01 0.4245E-01 0.4469E-01

0.2398E-6C -0.4889E-0C -0.2041E-0C -0.1522E-0C 0.4412E-01 0.4245E-01 0.4469E-01

0.2398E-6C -0.4889E-0C -0.2041E-0C -0.1522E-0C 0.4412E-01 0.4245E-01 0.4469E-01

0.2398E-6C -0.4889E-0C -0.2041E-0C -0.1522E-0C 0.4412E-01 0.4245E-01 0.4469E-01

0.2398E-6C -0.4889E-0C -0.2041E-0C -0.1522E-0C 0.4412E-01 0.4245E-01 0.4469E-01

0.2398E-6C -0.4889E-0C -0.2041E-0C -0.1522E-0C 0.4412E-01 0.4245E-01 0.4469E-01

0.2398E-6C -0.4889E-0C -0.2041E-0C -0.1522E-0C 0.4412E-01 0.4245E-01 0.4469E-01

0.2398E-6C -0.4889E-0C -0.2041E-0C -0.1522E-0C 0.4412E-01 0.4245E-01 0.4469E-01

0.2398E-6C -0.4889E-0C -0.2041E-0C -0.1522E-0C 0.4412E-01 0.4245E-01 0.4469E-01

0.2398E-6C -0.4889E-0C -0.2041E-0C -0.1522E-0C 0.4412E-01 0.4245E-01 0.4469E-01

0.2398E-6C -0.4889E-0C -0.2041E-0C -0.1522E-0C 0.4412E-01 0.4245E-01 0.4469E-01

0.2398E-6C -0.4889E-0C -0.2041E-0C -0.1522E-0C 0.4412E-01 0.4245E-01 0.4469E-01

-0.3947E-01 -0.1520E-0C 0.2657E-0C -0.2684E-0C 0.2867E-0C -0.2386E-0C 0.1817E-0C -0.1611E-0C 0.1159E-0C -0.1019E-0C 0.4438E-01 -0.4622E-01

STREAM FUNCTION IN UNITS OF $C_0 \cdot \omega^2 / g \cdot H_0$ AT LEVEL NO. 17

	82.5N	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	7.5	02.5E	07.5E	
37.5N																			
32.5N																			
27.5N																			
22.5N																			
17.5N																			
12.5N																			
07.5N																			
02.5N																			

-0.2153E 08 -0.4044E 08 0.2499E 08 -0.7574E 08 0.1116E 08 -0.4607E 08

0.1123E 07 0.2448E 07 0.3693E 08 0.1276E 08 0.4468E 08 0.1931E 07 0.5553E 08

0.5429E 07 0.4900E 07 0.2404E 07 0.1641E 08 -0.1078E 08 0.2854E 07 -0.1544E 08 -0.1461E 07 -0.1274E 08 -0.2525E 07 -0.7496E 07

-0.2553E 08 0.5531E 07 -0.2093E 08 0.8553E 07 -0.2142E 08 0.1472E 07 -0.1734E 08 -0.5128E 07 -0.1644E 07 -0.2422E 07 -0.5765E 07

-0.1638E 08 0.2214E 07 -0.5514E 08 0.1640E 08 -0.0450E 08 0.2035E 08 -0.5396E 08 0.1566E 08 -0.5811E 08 0.0271E 07 -0.4472E 08 0.6495E 08 -0.4498E 08

0.6747E 08 0.3104E 08 0.7508E 08 -0.1222E 08 0.4163E 08 -0.8410E 08 0.6410E 08 -0.1824E 08 0.6257E 08 -0.4951E 07 0.7468E 07 -0.5397E 08 0.6372E 08

0.1071E 09 0.2125E 08 0.6077E 08 0.7031E 08 0.2789E 08 0.1073E 09 0.1001E 08 0.1238E 09 0.6820E 07 0.1478E 09 0.6328E 07 0.1266E 09 0.1150E 08 0.1202E 09

0.1343E 09 0.1556E 08 0.1313E 09 0.3155E 08 0.4892E 08 0.4724E 08 0.6077E 08 0.4686E 08 0.4444E 08 0.1156E 09 0.2750E 08 0.1244E 09 0.2657E 08 0.1254E 09

0.4584E 08 0.2402E 08 0.4470E 08 0.2604E 08 0.4454E 08 0.3100E 08 0.4180E 08 0.4040E 08 0.4180E 08 0.2193E 08 0.4442E 08 0.5344E 08 0.1060E 08 0.5644E 08

-0.4230E 08 -0.4818E 08 -0.1643E 08 -0.8131E 08 0.1540E 07 -0.4450E 08 0.4683E 07 -0.1130E 09 0.1319E 08 -0.1175E 09 0.4714E 07 -0.1175E 09 -0.3542E 07 -0.1104E 09

-0.8102E 08 -0.8525E 07 -0.5775E 08 -0.2105E 08 -0.3942E 08 -0.2886E 08 -0.2555E 08 -0.3494E 08 -0.1434E 08 -0.1855E 08

-0.6548E 08 -0.2307E 07 -0.5948E 08 -0.1942E 08 -0.4422E 08 -0.2466E 08 -0.2466E 08 -0.4251E 08 -0.1934E 08 -0.1128E 08 -0.5307E 08

ZENITH VELOCITY IN UNITS OF GRAVITY AT LEVEL NO. 17

82.5M	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	07.5E
57.5N																	
52.5N																	
47.5N																	
42.5N																	
37.5N																	
32.5N																	
27.5N																	
22.5N																	
17.5N																	
12.5N																	
07.5N																	

-0.4036L-00 -0.144L-00 -0.5556E-00 -0.9800E-01 -0.4890E-01 -0.3787E-02
 -0.2740E-01 -0.2230E-02 -0.1012E-01 0.4536E-00 -0.2600E-00 0.2501E-00
 -0.1404E-00 0.2876E-00 -0.8197E-01 0.2604E-00 -0.2271E-01 0.3855E-00 0.4597E-00 0.6907E-01 -0.
 0.1127E-01 0.7511E-00 -0.2151E-00 0.4551E-00 -0.1582E-00 0.6744E-00 -0.2271E-01 0.1780E-00 -0.1017E-01 0.2177E-00 -0.3189E-00 0.1621E-00 -0.8416E-00
 -0.2766E-00 -0.3652E-00 -0.7499E-00 0.5686E-01 -0.9994E-00 0.4252E-00 -0.8016E-00 0.7821E-00 -0.1501E-01 -0.7453E-00 -0.1177E-01 -0.6890E-00 -0.1245E-01 -0.5274E-00
 -0.2722E-00 -0.1079E-01 -0.6231E-00 -0.8535E-00 -0.3521E-00 -0.4794E-00 0.7821E-00 -0.3792E-00 0.4871E-00 -0.3792E-00 0.7862E-00 -0.1460E-00 0.7044E-00 -0.1609E-00 0.6072E-00
 -0.1586E-01 0.094E-00 -0.1052E-00 0.1674E-00 0.5115E-00 -0.3101E-00 0.7821E-00 0.4252E-00 -0.1476E-01 0.3684E-00 0.4597E-00 0.4597E-00 0.4597E-00 0.4597E-00 0.4597E-00
 0.4480E-00 -0.4065E-00 0.1674E-00 0.5115E-00 -0.3101E-00 0.7821E-00 0.4252E-00 -0.1476E-01 0.3684E-00 0.4597E-00 0.4597E-00 0.4597E-00 0.4597E-00 0.4597E-00 0.4597E-00
 0.1460E-01 0.7821E-00 0.1674E-00 0.5115E-00 -0.3101E-00 0.7821E-00 0.4252E-00 -0.1476E-01 0.3684E-00 0.4597E-00 0.4597E-00 0.4597E-00 0.4597E-00 0.4597E-00 0.4597E-00
 0.5220E-00 0.2846E-00 0.5994E-00 0.2565E-00 0.5994E-00 0.2565E-00 0.5994E-00 0.2565E-00 0.5994E-00 0.2565E-00 0.5994E-00 0.2565E-00 0.5994E-00 0.2565E-00 0.5994E-00 0.2565E-00
 -0.1182E-01 0.6976E-01 -0.6570E-00 0.1195E-00 -0.7709E-00 0.2157E-00 -0.9412E-00 0.2952E-00 -0.1052E-01 0.4480E-00
 -0.5235E-00 -0.2722E-00 -0.2669E-00 -0.3537E-00 -0.1332E-00 -0.4410E-00 -0.3458E-02 -0.4584E-00 -0.
 -0.

STRESS FUNCTIONS IN UNITS OF $G \cdot \text{cm}^2/\text{SEC.}$ AT LEVEL NO. 10

	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5
82.5m																
57.5m																
52.5m																
47.5m																
42.5m																
37.5m																
32.5m																
27.5m																
22.5m																
17.5m																
12.5m																
07.5m																
02.5m																

-0.2568E 08 -0.4213E 08 0.1427E 08 -0.6532E 08 0.1325E 08 -0.4180E 08

0.6779E 07 0.8608E 07 0.5387E 06 0.3779E 06 0.4629E 07 0.1405E 08

0.4823E 07 0.7539E 07 0.1751E 07 0.1131E 06 0.1224E 07 -0.1248E 08 -0.1565E 07 -0.9300E 07 -0.1651E 07 -0.6022E 07

-0.2078E 08 0.4795E 08 0.1044E 08 0.5881E 07 -0.2025E 08 0.4400E 06 -0.1648E 06 -0.2674E 07 -0.7844E 07 -0.2715E 07 -0.4470E 07

-0.3458E 08 -0.4532E 08 -0.2471E 08 0.1542E 08 -0.5502E 08 0.1163E 08 -0.5086E 08 0.5855E 07 -0.4463E 08 -0.1102E 08 -0.4142E 08

0.0071E 08 0.2195E 08 0.2422E 08 0.5718E 08 -0.5401E 07 0.7531E 08 -0.1722E 08 0.7646E 08 -0.1571E 08 0.1292E 08 -0.4052E 07 0.6758E 07 -0.6442E 08 0.6442E 08

0.4407E 08 0.7018E 08 0.5232E 08 0.3494E 08 0.8595E 08 0.1588E 08 0.1029E 08 0.9537E 07 0.1098E 08 0.8745E 07 0.1052E 09 0.1030E 08 0.1055E 09

0.1177E 09 0.1175E 09 0.2462E 08 0.9375E 08 0.5171E 08 0.6097E 08 0.7536E 08 0.4451E 08 0.9191E 08 0.2848E 08 0.1027E 09 0.1401E 08 0.1051E 09

0.5758E 08 0.1945E 08 0.4657E 08 0.1432E 08 0.2724E 08 0.4081E 08 0.1761E 08 0.3797E 08 0.1332E 08 0.4248E 08 0.9198E 07 0.4454E 08

-0.4495E 08 -0.5865E 08 -0.2032E 08 -0.6891E 08 -0.6119E 07 -0.8223E 08 -0.1485E 08 -0.4475E 08 0.5188E 07 -0.1057E 09 0.1058E 07 -0.1077E 09 -0.4445E 07 -0.1017E 09

-0.6698E 08 -0.3627E 07 -0.5119E 08 -0.1547E 08 -0.3555E 08 -0.1423E 08 -0.2855E 08 -0.2412E 08 -0.1287E 08 -0.2577E 08

-0.5535E 08 -0.8444E 08 -0.5252E 08 -0.4488E 07 -0.4412E 08 -0.2002E 08 -0.2787E 08 -0.4328E 08 -0.1442E 08 -0.3786E 08 -0.1046E 08

ZENITH VELOCITY IN UNITS OF C/75SEC. AT LEVEL NO. 10

	82.5M	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	07.5E	
57.5N																			
52.5N																			
47.5N																			
42.5N																			
37.5N																			
32.5N																			
27.5N																			
22.5N																			
17.5N																			
12.5N																			
07.5N																			
02.5N																			

-0.4414E-00 -0.1477E-00 -0.4122E-00 -0.8425E-01 -0.2476E-02

-0.2028E-01 -0.1523E-00 -0.1162E-00 -0.7721E 00 0.5174E-00 -0.1418E 00 0.2272E-00

-0.1563E-00 -0.2662E-00 -0.6993E-02 0.3220E-00 0.4124E-00 0.5451E-00 0.4647E-00 0.2066E-00 0.5400E-00 0.6270E-01 -0.

0.5403E-01 0.6518E 00 -0.1537E-00 0.4453E 00 -0.1204E-00 0.7804E 00 -0.5184E-01 0.5287E 00 -0.8744E-01 0.4502E-00 -0.2784E-01 0.4225E-00

-0.1582E-00 -0.5412E 00 -0.5191E 00 -0.8007E 00 -0.7843E 00 -0.9034E 00 -0.1014E 01 0.4499E-00 -0.1253E 01 0.6266E 00 -0.1278E 01 0.6637E 00 -0.1201E 01

-0.1534E-00 -0.1080E 01 -0.5059E 00 -0.8510E 00 -0.8007E 00 -0.7843E 00 -0.9034E 00 -0.1014E 01 0.4499E-00 -0.1253E 01 0.6266E 00 -0.1278E 01 0.6637E 00 -0.1201E 01

0.5820E 00 -0.2097E-00 0.2778E-00 0.2511E-00 -0.1253E-00 0.6522E 00 -0.7431E 00 -0.2310E-00 0.7113E 00 -0.1519E-00 0.6487E 00 -0.9458E-01 0.5665E 00

0.1866E 01 0.5934E 00 0.1656E 01 0.1023E 01 0.1182E 01 0.1374E 01 0.1877E 01 0.4589E-00 0.2155E 01 0.2895E-00 0.2254E 01 0.2302E-00 0.2302E 01

0.2958E-00 0.2146E-00 0.5108E-00 0.1950E-00 0.5074E-00 0.9906E 00 0.2699E-00 0.7866E 00 0.3291E-00 0.6648E 00 0.5334E-00 0.5819E 00 0.5413E-00 0.4498E-00

-0.1019E 01 -0.5463E-01 -0.6040E 00 0.1948E-01 -0.6947E 00 0.9480E-01 -0.8344E 00 0.1727E-00 -0.9435E 00 0.5634E-00

-0.4646E-00 -0.1664E-00 -0.2680E-00 -0.2323E-00 -0.1241E-00 -0.2627E-00 -0.1807E-02 -0.1692E-00 -0.

WIND VELOCITY IN UNITS OF CM/SEC. AT LEVEL NO. 10

	82.5m	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5m	07.5m
37.5m																		
32.5m																		
27.5m																		
22.5m																		
17.5m																		
12.5m																		
07.5m																		
02.5m																		

0.1442E 01 -0.1174E 01 0.1202E 00 0.2571E 00 -0.5262E 00 0.4008E 00
 -0.8005E 01 -0.5216E 00 0.5422E 02 -0.6572E 01 0.1093E 00 0.4508E 01 0.4188E 01
 -0.1301E 00 0.6096E 01 -0.8996E 01 0.2714E 00 0.1374E 00 -0.6275E 02 0.4008E 01 0.8265E 01 0.1578E 01 -0.5473E 01 -0.8609E 02
 0.7684E 01 -0.1794E 01 0.4234E 01 -0.7408E 01 0.6504E 01 -0.8489E 01 0.7684E 01 0.5162E 01 -0.8796E 01 0.2816E 01 -0.5574E 01
 -0.7624E 01 0.2054E 00 -0.2134E 00 0.1821E 00 0.8991E 01 -0.2920E 01 0.6504E 01 -0.8489E 01 0.7684E 01 0.5162E 01 -0.8796E 01 0.2816E 01 -0.5574E 01
 -0.2065E 00 0.5525E 00 -0.6226E 00 0.5884E 00 0.5884E 00 -0.5187E 00 0.2016E 00 -0.1624E 01 -0.2598E 01 0.6745E 01 -0.1100E 03 0.1051E 00 -0.1419E 00 0.1116E 00 -0.3124E 00
 -0.7576E 01 0.4121E 00 -0.6131E 00 0.5945E 00 -0.5409E 00 0.4297E 00 -0.3934E 00 0.3602E 00 -0.2748E 00 0.2459E 00 -0.1720E 00 0.1471E 00 -0.8723E 01 0.4122E 01
 0.2872E 01 0.4252E 01 -0.1991E 00 0.5718E 00 -0.4269E 00 0.4297E 00 -0.3934E 00 0.3602E 00 -0.2748E 00 0.2459E 00 -0.1720E 00 0.1471E 00 -0.8723E 01 0.4122E 01
 0.1802E 00 0.1565E 01 -0.3104E 02 0.4787E 01 -0.5479E 01 0.1419E 00 -0.1159E 00 0.1210E 00 -0.1159E 00 0.9928E 01 -0.7655E 01 0.6274E 01 -0.5374E 01 0.4835E 01
 0.4405E 00 -0.5527E 00 0.4094E 00 -0.5152E 00 0.2310E 00 -0.1496E 00 0.2344E 00 -0.8834E 01 0.7636E 01 0.1702E 01 -0.1145E 01 0.4741E 01 -0.5049E 01 0.1072E 00
 -0.5555E 01 -0.2115E 00 0.1607E 00 -0.2124E 00 0.1115E 00 -0.1512E 00 0.9454E 01 -0.1393E 00 0.5555E 01 -0.1192E 00
 -0.6870E 01 -0.1800E 01 0.1090E 00 0.1090E 00 0.1147E 00 -0.1817E 00 0.1554E 00 -0.1172E 00 0.1189E 00 0.1189E 00 0.1172E 00 -0.1554E 00 -0.1189E 00 0.1189E 00 -0.1172E 00 -0.1554E 00

STREAM FUNCTION IN UNITS OF $CF \cdot \frac{1}{2} \frac{1}{\text{SEC.}}$ AT LEVEL No. IV

	84.5N	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5N	07.5E
57.5N																		
52.5N																		
47.5N																		
42.5N																		
37.5N																		
32.5N																		
27.5N																		
22.5N																		
17.5N																		
12.5N																		
07.5N																		

-0.2798E 08 -0.4774E 08 0.1557E 08 -0.5N10E 08 0.2155E 07 -0.5787E 08

0.1000E 08 0.1197E 08 0.2088E 08 0.1214E 08 0.3200E 08 0.6215E 07 0.2957E 08

0.5858E 07 0.5768E 07 0.1609E 07 0.6953E 07 -0.1017E 08 0.1049E 07 -0.1042E 08 -0.3051E 08 -0.7679E 07 -0.9808E 06 -0.5271E 07

-0.1678E 08 0.3981E 07 -0.1621E 08 0.4888E 07 -0.1762E 08 0.1326E 07 -0.1378E 08 -0.2186E 08 -0.6187E 07 -0.1993E 07 -0.1962E 07 -0.3851E 07

-0.3232E 08 -0.2124E 08 0.1589E 08 0.2262E 07 0.4923E 08 0.1502E 08 -0.4001E 08 0.1063E 08 -0.4511E 08 0.5866E 07 -0.4172E 08 0.1852E 08 0.5786E 08

0.5450E 08 0.1589E 08 0.2262E 07 0.4923E 08 0.1502E 08 -0.4001E 08 0.1063E 08 -0.4511E 08 0.5866E 07 -0.4172E 08 0.1852E 08 0.5786E 08

0.8206E 08 0.1097E 08 0.6891E 08 0.4072E 08 0.6919E 08 0.2211E 08 0.8659E 08 0.1580E 08 0.9312E 08 0.1098E 08 0.9456E 08 0.1055E 08 0.9175E 08

0.1028E 09 0.1075E 08 0.1048E 09 0.1715E 08 0.8829E 08 0.5750E 08 0.6592E 08 0.5799E 08 0.4480E 08 0.7325E 08 0.3911E 08 0.8572E 08 0.1823E 08 0.8642E 08

0.5478E 08 0.1538E 08 0.3548E 08 0.1537E 08 0.3142E 08 0.1023E 08 0.2699E 08 0.2228E 08 0.1858E 08 0.2897E 08 0.1257E 08 0.3366E 08 0.8179E 07 0.3556E 08

-0.5336E 08 -0.3116E 08 -0.3841E 08 -0.1715E 08 -0.7000E 08 -0.8627E 07 -0.8901E 08 -0.2108E 07 -0.6480E 08 -0.1944E 07 -0.4521E 08 -0.5449E 07 -0.9282E 08

-0.5851E 08 -0.6189E 08 -0.4399E 08 -0.7186E 07 -0.3118E 08 -0.1183E 08 -0.2167E 08 -0.1581E 08 -0.1143E 08 -0.1695E 08

-0.4408E 08 -0.2281E 08 -0.4558E 08 -0.4118E 07 -0.3754E 08 -0.1282E 08 -0.2726E 08 -0.1893E 08 -0.2894E 08 -0.1041E 08 -0.3176E 08

STREAM FUNCTION IN UNITS OF $CP \cdot \omega^2 / SEC.$ AT LEVEL NO. 20

	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5E	07.5E
82.5W																	
57.5N																	
52.5N																	
47.5N																	
42.5N																	
37.5N																	
32.5N																	
27.5N																	
22.5N																	
17.5N																	
12.5N																	
07.5N																	
02.5N																	

-0.2740F DB -0.3621L CB 0.8790E OF -0.4602E CB 0.7194E OF -0.5815E DB
 0.1780F CB 0.1402L CB 0.2654E DB 0.1112E CB 0.2855E DB 0.5576E OF 0.2505E DB
 0.3604E OF 0.5753E OF 0.6238E CB 0.3398E OF -0.4636F OF 0.1924E CB -0.9291E OF -0.5052E CB -0.6729E OF -0.5878E DB -0.4401E OF
 -0.1362E DB 0.2888E OF -0.1445E DB 0.1107E OF -0.1622E DB 0.1168E OF -0.1483L CB 0.2580E DB -0.6222E OF -0.1559E OF -0.2315E OF -0.4019E OF
 -0.3053E DB -0.5454E OF -0.3892E DB 0.3815E OF -0.4574E DB 0.4515E OF -0.4420E DB 0.7608E OF -0.4194E DB 0.3754E OF -0.3894E DB -0.5162E CB -0.4550E DB
 0.4792E DB 0.1088E DB 0.5182L CB 0.5485E DB 0.54199E OF 0.5104E DB -0.6655E OF 0.5762E DB -0.5405E OF 0.5529E CB 0.4054E DB 0.5104E DB
 0.7193E DB 0.8194E OF 0.6412E OF 0.2914E DB 0.4192E DB 0.2453L CB 0.8992E CB 0.1466E DB 0.7113L CB 0.1608E DB 0.7974E CB 0.8482E OF 0.7867E CB
 0.8871E DB 0.8284E OF 0.9024E DB 0.1024E DB 0.7951E DB 0.2407E DB 0.6107E DB 0.4180E DB 0.4214E DB 0.5538E DB 0.2726L CB 0.6544E CB 0.1655E DB 0.7028E DB
 0.2922L CB 0.1047E DB 0.2651E OF 0.1086E DB 0.2494E DB 0.1076E DB 0.2090E DB 0.1604E DB 0.1574E DB 0.2115E DB 0.1074E DB 0.2557E DB 0.6471E OF 0.2802E CB
 -0.5465E DB -0.2526E DB -0.4081E DB -0.4422E DB -0.2557E DB -0.5954E DB -0.1503L CB -0.1337E DB -0.7162E OF -0.8201E DB -0.4481E OF -0.4470E OF -0.8155E CB
 -0.4458E DB 0.1050E OF -0.3665E DB -0.2662E OF -0.2655E DB -0.6080E OF -0.1814E CB -0.8794E OF -0.9665E OF -0.9480E OF
 -0.3603E DB 0.1568E DB -0.3657E DB -0.1007E OF -0.3324E DB -0.7792E OF -0.2525E DB -0.1495E DB -0.1001E DB -0.2129E DB -0.9494E OF -0.2407E DB

STREAM FUNCTION IN UNITS OF $C_0 \cdot \Delta z^2 / \text{SEC}$. AT LEVEL NO. 21

	04.5	07.5	12.5	17.5	22.5	27.5	32.5	37.5	42.5	47.5	52.5	57.5	62.5	67.5	72.5	77.5	82.5	87.5	92.5	97.5	102.5	107.5	112.5	117.5	122.5	127.5	132.5	137.5	142.5	147.5	152.5	157.5	162.5	167.5	172.5	177.5	182.5	187.5	192.5	197.5	202.5	207.5	212.5	217.5	222.5	227.5	232.5	237.5	242.5	247.5	252.5	257.5	262.5	267.5	272.5	277.5	282.5	287.5	292.5	297.5	302.5	307.5	312.5	317.5	322.5	327.5	332.5	337.5	342.5	347.5	352.5	357.5	362.5	367.5	372.5	377.5	382.5	387.5	392.5	397.5	402.5	407.5	412.5	417.5	422.5	427.5	432.5	437.5	442.5	447.5	452.5	457.5	462.5	467.5	472.5	477.5	482.5	487.5	492.5	497.5	502.5	507.5	512.5	517.5	522.5	527.5	532.5	537.5	542.5	547.5	552.5	557.5	562.5	567.5	572.5	577.5	582.5	587.5	592.5	597.5	602.5	607.5	612.5	617.5	622.5	627.5	632.5	637.5	642.5	647.5	652.5	657.5	662.5	667.5	672.5	677.5	682.5	687.5	692.5	697.5	702.5	707.5	712.5	717.5	722.5	727.5	732.5	737.5	742.5	747.5	752.5	757.5	762.5	767.5	772.5	777.5	782.5	787.5	792.5	797.5	802.5	807.5	812.5	817.5	822.5	827.5	832.5	837.5	842.5	847.5	852.5	857.5	862.5	867.5	872.5	877.5	882.5	887.5	892.5	897.5	902.5	907.5	912.5	917.5	922.5	927.5	932.5	937.5	942.5	947.5	952.5	957.5	962.5	967.5	972.5	977.5	982.5	987.5	992.5	997.5	1002.5	1007.5	1012.5	1017.5	1022.5	1027.5	1032.5	1037.5	1042.5	1047.5	1052.5	1057.5	1062.5	1067.5	1072.5	1077.5	1082.5	1087.5	1092.5	1097.5	1102.5	1107.5	1112.5	1117.5	1122.5	1127.5	1132.5	1137.5	1142.5	1147.5	1152.5	1157.5	1162.5	1167.5	1172.5	1177.5	1182.5	1187.5	1192.5	1197.5	1202.5	1207.5	1212.5	1217.5	1222.5	1227.5	1232.5	1237.5	1242.5	1247.5	1252.5	1257.5	1262.5	1267.5	1272.5	1277.5	1282.5	1287.5	1292.5	1297.5	1302.5	1307.5	1312.5	1317.5	1322.5	1327.5	1332.5	1337.5	1342.5	1347.5	1352.5	1357.5	1362.5	1367.5	1372.5	1377.5	1382.5	1387.5	1392.5	1397.5	1402.5	1407.5	1412.5	1417.5	1422.5	1427.5	1432.5	1437.5	1442.5	1447.5	1452.5	1457.5	1462.5	1467.5	1472.5	1477.5	1482.5	1487.5	1492.5	1497.5	1502.5	1507.5	1512.5	1517.5	1522.5	1527.5	1532.5	1537.5	1542.5	1547.5	1552.5	1557.5	1562.5	1567.5	1572.5	1577.5	1582.5	1587.5	1592.5	1597.5	1602.5	1607.5	1612.5	1617.5	1622.5	1627.5	1632.5	1637.5	1642.5	1647.5	1652.5	1657.5	1662.5	1667.5	1672.5	1677.5	1682.5	1687.5	1692.5	1697.5	1702.5	1707.5	1712.5	1717.5	1722.5	1727.5	1732.5	1737.5	1742.5	1747.5	1752.5	1757.5	1762.5	1767.5	1772.5	1777.5	1782.5	1787.5	1792.5	1797.5	1802.5	1807.5	1812.5	1817.5	1822.5	1827.5	1832.5	1837.5	1842.5	1847.5	1852.5	1857.5	1862.5	1867.5	1872.5	1877.5	1882.5	1887.5	1892.5	1897.5	1902.5	1907.5	1912.5	1917.5	1922.5	1927.5	1932.5	1937.5	1942.5	1947.5	1952.5	1957.5	1962.5	1967.5	1972.5	1977.5	1982.5	1987.5	1992.5	1997.5	2002.5	2007.5	2012.5	2017.5	2022.5	2027.5	2032.5	2037.5	2042.5	2047.5	2052.5	2057.5	2062.5	2067.5	2072.5	2077.5	2082.5	2087.5	2092.5	2097.5	2102.5	2107.5	2112.5	2117.5	2122.5	2127.5	2132.5	2137.5	2142.5	2147.5	2152.5	2157.5	2162.5	2167.5	2172.5	2177.5	2182.5	2187.5	2192.5	2197.5	2202.5	2207.5	2212.5	2217.5	2222.5	2227.5	2232.5	2237.5	2242.5	2247.5	2252.5	2257.5	2262.5	2267.5	2272.5	2277.5	2282.5	2287.5	2292.5	2297.5	2302.5	2307.5	2312.5	2317.5	2322.5	2327.5	2332.5	2337.5	2342.5	2347.5	2352.5	2357.5	2362.5	2367.5	2372.5	2377.5	2382.5	2387.5	2392.5	2397.5	2402.5	2407.5	2412.5	2417.5	2422.5	2427.5	2432.5	2437.5	2442.5	2447.5	2452.5	2457.5	2462.5	2467.5	2472.5	2477.5	2482.5	2487.5	2492.5	2497.5	2502.5	2507.5	2512.5	2517.5	2522.5	2527.5	2532.5	2537.5	2542.5	2547.5	2552.5	2557.5	2562.5	2567.5	2572.5	2577.5	2582.5	2587.5	2592.5	2597.5	2602.5	2607.5	2612.5	2617.5	2622.5	2627.5	2632.5	2637.5	2642.5	2647.5	2652.5	2657.5	2662.5	2667.5	2672.5	2677.5	2682.5	2687.5	2692.5	2697.5	2702.5	2707.5	2712.5	2717.5	2722.5	2727.5	2732.5	2737.5	2742.5	2747.5	2752.5	2757.5	2762.5	2767.5	2772.5	2777.5	2782.5	2787.5	2792.5	2797.5	2802.5	2807.5	2812.5	2817.5	2822.5	2827.5	2832.5	2837.5	2842.5	2847.5	2852.5	2857.5	2862.5	2867.5	2872.5	2877.5	2882.5	2887.5	2892.5	2897.5	2902.5	2907.5	2912.5	2917.5	2922.5	2927.5	2932.5	2937.5	2942.5	2947.5	2952.5	2957.5	2962.5	2967.5	2972.5	2977.5	2982.5	2987.5	2992.5	2997.5	3002.5	3007.5	3012.5	3017.5	3022.5	3027.5	3032.5	3037.5	3042.5	3047.5	3052.5	3057.5	3062.5	3067.5	3072.5	3077.5	3082.5	3087.5	3092.5	3097.5	3102.5	3107.5	3112.5	3117.5	3122.5	3127.5	3132.5	3137.5	3142.5	3147.5	3152.5	3157.5	3162.5	3167.5	3172.5	3177.5	3182.5	3187.5	3192.5	3197.5	3202.5	3207.5	3212.5	3217.5	3222.5	3227.5	3232.5	3237.5	3242.5	3247.5	3252.5	3257.5	3262.5	3267.5	3272.5	3277.5	3282.5	3287.5	3292.5	3297.5	3302.5	3307.5	3312.5	3317.5	3322.5	3327.5	3332.5	3337.5	3342.5	3347.5	3352.5	3357.5	3362.5	3367.5	3372.5	3377.5	3382.5	3387.5	3392.5	3397.5	3402.5	3407.5	3412.5	3417.5	3422.5	3427.5	3432.5	3437.5	3442.5	3447.5	3452.5	3457.5	3462.5	3467.5	3472.5	3477.5	3482.5	3487.5	3492.5	3497.5	3502.5	3507.5	3512.5	3517.5	3522.5	3527.5	3532.5	3537.5	3542.5	3547.5	3552.5	3557.5	3562.5	3567.5	3572.5	3577.5	3582.5	3587.5	3592.5	3597.5	3602.5	3607.5	3612.5	3617.5	3622.5	3627.5	3632.5	3637.5	3642.5	3647.5	3652.5	3657.5	3662.5	3667.5	3672.5	3677.5	3682.5	3687.5	3692.5	3697.5	3702.5	3707.5	3712.5	3717.5	3722.5	3727.5	3732.5	3737.5	3742.5	3747.5	3752.5	3757.5	3762.5	3767.5	3772.5	3777.5	3782.5	3787.5	3792.5	3797.5	3802.5	3807.5	3812.5	3817.5	3822.5	3827.5	3832.5	3837.5	3842.5	3847.5	3852.5	3857.5	3862.5	3867.5	3872.5	3877.5	3882.5	3887.5	3892.5	3897.5	3902.5	3907.5	3912.5	3917.5	3922.5	3927.5	3932.5	3937.5	3942.5	3947.5	3952.5	3957.5	3962.5	3967.5	3972.5	3977.5	3982.5	3987.5	3992.5	3997.5	4002.5	4007.5	4012.5	4017.5	4022.5	4027.5	4032.5	4037.5	4042.5	4047.5	4052.5	4057.5	4062.5	4067.5	4072.5	4077.5	4082.5	4087.5	4092.5	4097.5	4102.5	4107.5	4112.5	4117.5	4122.5	4127.5	4132.5	4137.5	4142.5	4147.5	4152.5	4157.5	4162.5	4167.5	4172.5	4177.5	4182.5	4187.5	4192.5	4197.5	4202.5	4207.5	4212.5	4217.5	4222.5	4227.5	4232.5	4237.5	4242.5	4247.5	4252.5	4257.5	4262.5	4267.5	4272.5	4277.5	4282.5	4287.5	4292.5	4297.5	4302.5	4307.5	4312.5	4317.5	4322.5	4327.5	4332.5	4337.5	4342.5	4347.5	4352.5	4357.5	4362.5	4367.5	4372.5	4377.5	4382.5	4387.5	4392.5	4397.5	4402.5	4407.5	4412.5	4417.5	4422.5	4427.5	4432.5	4437.5	4442.5	4447.5	4452.5	4457.5	4462.5	4467.5	4472.5	4477.5	4482.5	4487.5	4492.5	4497.5	4502.5	4507.5	4512.5	4517.5	4522.5	4527.5	4532.5	4537.5	4542.5	4547.5	4552.5	4557.5	4562.5	4567.5	4572.5	4577.5	4582.5	4587.5	4592.5	4597.5	4602.5	4607.5	4612.5	4617.5	4622.5	4627.5	4632.5	4637.5	4642.5	4647.5	4652.5	4657.5	4662.5	4667.5	4672.5	4677.5	4682.5	4687.5	4692.5	4697.5	4702.5	4707.5	4712.5	4717.5	4722.5	4727.5	4732.5	4737.5	4742.5	4747.5	4752.5	4757.5	4762.5	4767.5	4772.5	4777.5	4782.5	4787.5	4792.5	4797.5	4802.5	4807.5	4812.5	4817.5	4822.5	4827.5	4832.5	4837.5	4842.5	4847.5	4852.5	4857.5	4862.5	4867.5	4872.5	4877.5	4882.5	4887.5	4892.5	4897.5	4902.5	4907.5	4912.5	4917.5	4922.5	4927.5	4932.5	4937.5	4942.5	4947.5	4952.5	4957.5	4962.5	4967.5	4972.5	4977.5	4982.5	4987.5	4992.5	4997.5	5002.5	5007.5	5012.5	5017.5	5022.5	5027.5	5032.5	5037.5	5042.5	5047.5	5052.5	5057.5	5062.5	5067.5	5072.5	5077.5	5082.5	5087.5	5092.5	5097.5	5102.5	5107.5	5112.5	5117.5	5122.5	5127.5	5132.5	5137.5	5142.5	5147.5	5152.5	5157.5	5162.5	5167.5	5172.5	5177.5	5182.5	5187.5	5192.5	5197.5	52
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STREAM FUNCTION IN UNITS OF $C_P \cdot \frac{1}{2} \rho U^2 L$ AT LEVEL NO. 25

	82.5N	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5N	07.5E
57.5N																		
52.5N																		
47.5N																		
42.5N																		
37.5N																		
32.5N																		
27.5N																		
22.5N																		
17.5N																		
12.5N																		
07.5N																		
02.5N																		

-0.4426E 07 -0.2413E 07 -0.5515E 07 -0.5538E 07 -0.1609E 07 -0.8091E 07

0.6170E 07 0.1381E 07 0.4400E 07 0.1822E 07 0.5386E 07 0.1422E 07 0.3598E 07

-0.1229E 07 -0.8505E 06 -0.1108E 07 -0.1117E 07 -0.8435E 06 -0.5735E 06 -0.1070E 07 -0.2107E 06 -0.1231E 07 -0.1507E 06 -0.1193E 07

0.6170E 07 0.1381E 07 0.4400E 07 0.1822E 07 0.5386E 07 0.1422E 07 0.3598E 07

-0.1229E 07 -0.8505E 06 -0.1108E 07 -0.1117E 07 -0.8435E 06 -0.5735E 06 -0.1070E 07 -0.2107E 06 -0.1231E 07 -0.1507E 06 -0.1193E 07

-0.1276E 06 -0.2652E 07 -0.1227E 04 -0.2115E 07 -0.1240E 06 -0.1631E 07 -0.1508E 06 -0.9829E 06 -0.1328E 06 -0.4654E 06 -0.1252E 06

0.3896E 07 0.8404E 06 0.1070E 06 0.1128E 07 0.1015E 06 0.3127E 07 0.8025E 07 0.5491E 07 0.5417E 07 0.1128E 06 0.2154E 07 0.1200E 06

0.1015E 06 0.2270E 06 0.1111E 06 -0.4522E 06 0.1127E 06 -0.8572E 05 0.7426E 07 0.1582E 07 0.1653E 07 0.5035E 07 0.5467E 07 0.2821E 07 0.6752E 07

0.6127E 07 -0.2010E 07 0.7210E 07 -0.4351E 07 0.4112E 07 -0.6651E 07 0.4629E 07 -0.8010E 07 0.7752E 07 -0.4133E 07 0.5704E 07 -0.7217E 07 0.2780E 07 -0.5746E 07

0.5650E 06 -0.3312E 06 0.9823E 06 -0.5017E 06 0.9481E 06 -0.4104E 05 0.2915E 06 -0.4791E 05 0.1070E 07 -0.1301E 06 0.7895E 06 -0.1552E 06 0.6015E 06 -0.4521E 05

-0.2030E 06 -0.1948E 07 -0.1942E 06 -0.2088E 07 -0.1135E 06 -0.2498E 07 -0.1532E 06 -0.4454E 07 -0.1208E 06 -0.6502E 07 -0.4574E 07 -0.3444E 07 -0.4652E 07 -0.4571E 07

0.3294E 07 0.2051E 07 0.2808E 07 0.2898E 07 0.2188E 07 0.5187E 07 0.1632E 07 0.2943E 07 0.4951E 06 0.2423E 07

-0.9446E 06 0.6602E 06 -0.1551E 07 0.1671E 07 -0.2194E 07 0.2792E 07 -0.2456E 07 0.5756E 07 -0.1496E 07 0.4353E 07 -0.9279E 06 0.4493E 07

STREAM FUNCTION IN UNITS OF $C \times 10^{-2} / \text{SEC. AT LEVEL NO. 24}$

	82.5	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	7.5	2.5
57.5																	
52.5																	
47.5																	
42.5																	
37.5																	
32.5																	
27.5																	
22.5																	
17.5																	
12.5																	
7.5																	
2.5																	

-0.18594 OF -0.88642 DE -0.29711 OF -0.18362 OF -0.11558 OF -0.21641 OF

0.21888 OF 0.21888 OF 0.44744 OF 0.15471 OF 0.45744 OF 0.12444 OF

-0.81006 OF -0.55646 OF -0.73246 OF -0.45396 OF -0.82156 OF -0.54688 OF -0.15088 OF -0.51731 OF

-0.15456 OF 0.12176 OF -0.12466 OF 0.48666 OF -0.25906 OF 0.61006 OF -0.32756 OF 0.66786 OF -0.21626 OF 0.62656 OF

-0.83596 OF -0.14676 OF -0.81106 OF -0.17856 OF -0.55986 OF 0.13306 OF 0.44016 OF 0.90876 OF 0.24516 OF -0.12246 OF -0.86076 OF -0.71946 OF

0.44526 OF 0.18396 OF 0.46656 OF -0.55986 OF 0.30966 OF 0.11916 OF 0.30966 OF -0.16526 OF 0.50086 OF -0.16296 OF 0.25546 OF 0.17486 OF -0.14926 OF 0.46056 OF 0.37746 OF

-0.18166 OF -0.18446 OF -0.10526 OF -0.32456 OF -0.41406 OF 0.12354 OF -0.59196 OF 0.53826 OF -0.67356 OF 0.52096 OF -0.60816 OF 0.65756 OF -0.65466 OF

0.12376 OF 0.12496 OF 0.11376 OF 0.11376 OF 0.33156 OF 0.19266 OF 0.19266 OF 0.33156 OF 0.28446 OF 0.28446 OF 0.25016 OF 0.22006 OF 0.16386 OF 0.16386 OF 0.38156 OF

-0.83016 OF -0.91966 OF -0.82586 OF 0.72776 OF -0.77016 OF 0.11086 OF -0.66956 OF 0.12206 OF -0.59016 OF 0.11056 OF -0.41536 OF 0.42276 OF -0.21426 OF 0.44846 OF

0.50076 OF 0.75546 OF 0.24986 OF 0.77086 OF 0.23106 OF 0.60046 OF 0.15516 OF 0.20286 OF 0.20286 OF 0.31656 OF 0.31656 OF 0.14206 OF 0.14206 OF 0.26806 OF 0.26806 OF 0.24946 OF

0.04016 OF 0.18886 OF 0.55376 OF 0.82256 OF 0.42276 OF 0.14206 OF 0.14206 OF 0.21656 OF 0.21656 OF 0.24986 OF 0.24986 OF 0.26816 OF 0.26816 OF 0.24946 OF

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NEW YORK UNIV BRONX GEOPHYSICAL SCIENCES LAB

F/G 4/2

A THREE DIMENSIONAL MODEL OF THE WIND DRIVEN HORIZONTAL VELOCIT--ETC(U)

OCT 63 E S HASSAN, F D MALONE

N62306-794

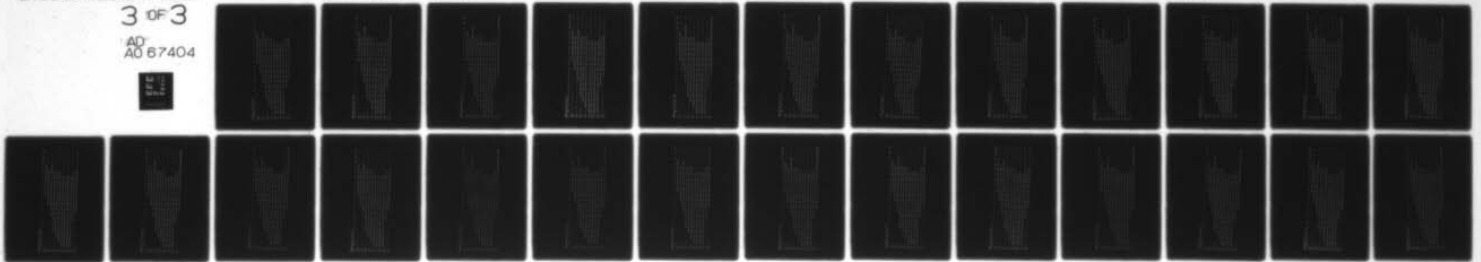
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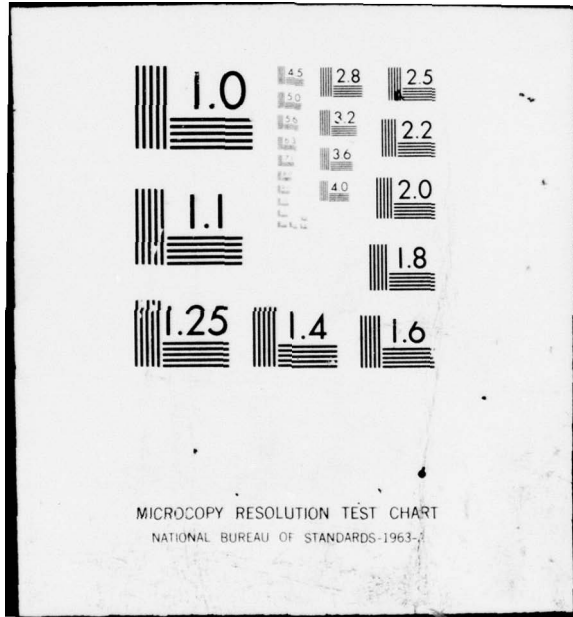


END

DATE
FILMED

6 --79

DDC



STREMP FUNCTION IN UNITS OF CM**2/SEC. AT LEVEL NO. 25

	82.5M	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	07.5E
57.5M																		
52.5M																		
47.5M																		
42.5M																		
37.5M																		
32.5M																		
27.5M																		
22.5M																		
17.5M																		
12.5M																		
07.5M																		
02.5M																		

-0.1570E 07 -0.1220E 06 -0.1201E 07 -0.2415E 06 -0.6851E 06 -0.5558E 06

0.1222E 07 0.5200E 05 0.4802E 05 0.1167E 06 0.8146E 06 0.1366E 06 0.5631E 06

-0.4766E 06 -0.4409E 05 -0.589E 06 0.2701E 06 0.2304E 06 0.1560E 06 0.1577E 06 -0.7730E 05 -0.1867E 06

0.2353E 06 0.1077E 06 0.2708E 06 0.1405E 06 0.2622E 06 0.2701E 06 0.375E 06 0.7787E 05 0.1664E 06

-0.530E 07 -0.4775E 06 -0.5047E 07 -0.1331E 07 -0.4021E 07 -0.4655E 07 -0.949E 06 -0.4550E 07 -0.784E 06 -0.4408E 07 -0.625E 06 -0.4310E 07

0.1922E 07 0.4409E 05 0.2210E 07 -0.143E 06 0.2587E 07 -0.2875E 06 0.2800E 07 -0.246E 06 0.2072E 07 -0.7247E 06 0.1564E 07 0.5104E 06 0.800E 06 0.5874E 06

-0.4404E 05 -0.5165E 06 0.2414E 06 0.5077E 06 -0.4807E 06 0.7126E 06 -0.104E 07 0.7500E 06 -0.1650E 07 0.5453E 06 -0.9171E 06 0.2990E 06 -0.7227E 06

-0.2736E 07 -0.972E 06 -0.2400E 07 -0.1575E 07 -0.2774E 07 -0.1490E 07 -0.3519E 07 -0.7144E 06 -0.370E 07 -0.5016E 06 -0.340E 07

0.4035E 06 0.5426E 06 0.8124E 06 0.4611E 06 0.7566E 06 0.4404E 06 0.5837E 06 0.4404E 06 0.5568E 06 0.3302E 06 0.4500E 06 0.1611E 06 0.2854E 06

-0.2268E 07 0.4415E 06 -0.2374E 07 0.1150E 07 -0.1697E 07 0.1097E 07 0.2154E 07 -0.1792E 07 0.2465E 07 -0.1254E 07 0.2624E 07 -0.5411E 06 0.2594E 07

0.1734E 07 0.2827E 05 0.1432E 07 -0.2288E 06 0.1077E 07 -0.5144E 06 0.5427E 06 -0.815E 06 0.180E 06 -0.126E 07

0.5827E 06 0.1655E 06 0.6183E 06 0.3400E 06 0.6445E 06 0.5767E 06 0.6370E 06 0.8415E 06 0.5589E 06 0.1030E 07 0.3370E 06 0.1127E 07

ZONAL VELOCITY IN UNITS OF CM/SEC. AT LEVEL NO. 25

	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	07.5E
97.5M																	
92.5M																	
87.5M																	
82.5M																	
77.5M																	
72.5M																	
67.5M																	
62.5M																	
57.5M																	
52.5M																	
47.5M																	
42.5M																	
37.5M																	
32.5M																	
27.5M																	
22.5M																	
17.5M																	
12.5M																	
07.5M																	
02.5M																	

-0.1581E-01 -0.1572E-02 -0.9994E-02 -0.1835E-02 -0.6993E-02 -0.1159E-03
 0.4445E-02 0.1100E-02 -0.1575E-01 0.1594E-03 -0.1200E-01 -0.1407E-02 -0.5445E-02
 -0.9537E-02 -0.4900E-02 0.4442E-02 -0.3508E-02 0.4522E-02 -0.1500E-01 0.1011E-01 0.5135E-01 0.7160E-02 0.4903E-01
 0.1300E-01 0.4000E-01 0.1573E-01 0.4937E-01 0.1300E-01 0.5037E-01 0.1011E-01 0.1011E-01 0.1011E-01 0.1011E-02 -0.4552E-02 -0.2897E-02
 -0.1905E-03 -0.2454E-01 0.1465E-02 -0.2070E-01 0.1200E-01 0.7700E-02 -0.2257E-01 0.5442E-02 -0.1724E-01 0.1011E-02 -0.4552E-02 -0.2897E-02
 0.2340E-02 -0.7019E-01 -0.4116E-02 -0.7027E-01 -0.4116E-02 -0.6664E-01 -0.4179E-02 -0.6332E-01 -0.4179E-02 -0.4179E-02 -0.4179E-02 -0.4179E-02 -0.4179E-02 -0.4179E-02
 0.3419E-01 0.3524E-01 0.3853E-01 0.4747E-01 0.3092E-01 0.5709E-01 0.2424E-01 0.1794E-01 0.6693E-01 0.1583E-01 0.6433E-01 0.1072E-01 0.5460E-01
 -0.1470E-01 -0.1005E-01 -0.1049E-01 -0.1426E-01 -0.4054E-02 -0.1793E-01 -0.1976E-02 -0.1966E-01 0.7007E-03 0.1860E-01 0.1263E-02 -0.1472E-01 0.3441E-03 -0.9397E-02
 -0.5551E-02 -0.1700E-01 -0.6244E-03 -0.3185E-01 0.3512E-02 -0.4254E-01 0.6550E-02 -0.5540E-01 0.6953E-02 -0.6953E-02 -0.6953E-02 -0.6953E-02 -0.6953E-02 -0.6953E-02 -0.6953E-02
 0.1495E-01 0.5540E-02 0.1335E-01 0.7901E-02 0.1191E-01 -0.1112E-01 0.9640E-02 -0.5179E-02 0.1059E-01 0.2591E-03 0.1177E-01 0.4040E-02 0.1331E-01 0.7800E-02
 0.1956E-01 -0.2400E-01 0.1020E-01 -0.2423E-01 0.2135E-01 -0.1965E-01 0.2360E-01 -0.1965E-01 0.2360E-01 -0.1965E-01 0.2360E-01 -0.1965E-01 0.2360E-01 -0.1965E-01
 0.1394E-01 -0.5510E-04 0.8020E-02 -0.4292E-02 0.3149E-02 -0.8049E-02 -0.1720E-02 -0.1273E-01 -0.1273E-01 -0.1273E-01 -0.1273E-01 -0.1273E-01 -0.1273E-01 -0.1273E-01

MERIDIONAL VELOCITY IN UNITS OF CM./SEC. AT LEVEL NO. 20

	82.5M	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	07.5E
57.5M																		
52.5M																		
47.5M																		
42.5M																		
37.5M																		
32.5M																		
27.5M																		
22.5M																		
17.5M																		
12.5M																		
07.5M																		

-0.2791E-02 -0.1825E-02 0.5504E-03 -0.4066E-02 0.3492E-02 -0.5733E-02
 0.6290E-03 0.4901E-03 0.1886E-03 0.2225E-02 -0.7753E-03 0.2112E-02 -0.7125E-03
 0.5107E-04 -0.1213E-03 0.4431E-03 -0.5796E-03 0.6829E-03 -0.9777E-03 0.1568E-03 -0.7944E-03 -0.5049E-03 -0.2093E-03 -0.4553E-03
 0.7946E-04 0.1927E-03 0.1427E-03 0.7811E-03 0.1749E-03 0.4890E-03 -0.2446E-03 0.9750E-03 -0.3991E-03 0.8086E-03 -0.4504E-03 0.2026E-03
 0.2434E-02 -0.3016E-02 0.2004E-02 -0.2780E-02 0.1387E-02 -0.2272E-02 0.3134E-03 -0.1634E-02 -0.4416E-03 -0.1257E-02 -0.1155E-02 -0.1535E-02 -0.1913E-02
 0.3056E-02 -0.1640E-02 0.3154E-02 -0.1261E-02 0.2854E-02 -0.5528E-03 0.1925E-02 0.8279E-03 0.2440E-03 0.2622E-02 -0.1545E-02 0.3498E-02 -0.2762E-02 0.4767E-02
 0.1882E-02 -0.1350E-02 0.2213E-02 -0.1727E-02 0.2255E-02 -0.1824E-02 0.1987E-02 -0.1588E-02 0.1092E-02 -0.7161E-03 -0.1198E-03 0.1552E-03 -0.1272E-02 0.7166E-03
 0.3027E-02 -0.2457E-02 0.3445E-02 -0.3196E-02 0.5688E-02 -0.5869E-02 0.5747E-02 -0.4567E-02 0.5661E-02 -0.4945E-02 0.5149E-02 -0.4754E-02 0.1938E-02 -0.3864E-02
 -0.1890E-02 0.2054E-02 -0.4455E-03 0.1906E-02 -0.6220E-03 0.1771E-02 -0.4220E-03 0.1712E-02 -0.4055E-03 0.1600E-02 -0.2234E-03 0.1272E-02 -0.4092E-04 0.1003E-02
 -0.5108E-02 0.2457E-02 -0.4821E-02 0.2287E-02 -0.1166E-02 -0.4020E-02 0.3091E-03 0.3246E-02 -0.6596E-03 -0.2088E-02 -0.1494E-02 -0.5174E-03 -0.2105E-02
 0.2785E-02 0.7271E-03 0.2151E-02 0.4074E-03 0.1710E-02 0.1015E-02 0.1514E-02 0.8228E-03 0.9134E-03 0.4088E-03
 -0.5577E-03 -0.4220E-03 -0.5149E-03 -0.1185E-03 -0.5847E-03 0.3342E-03 0.5942E-03 -0.6065E-03 0.9007E-03 -0.5781E-03 0.1612E-02 -0.7410E-03 0.1721E-02

ZERNAL VELOCITY IN UNITS BP CM/SEC. AT LEVEL NO. 27

	82.5M	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	07.5E
57.5M																		
52.5M																		
47.5M																		
42.5M																		
37.5M																		
32.5M																		
27.5M																		
22.5M																		
17.5M																		
12.5M																		
07.5M																		
02.5M																		

-0.5046E-02 -0.1474E-03 -0.2648E-02 -0.1766E-01 -0.2015E-02 -0.5597E-05

0.9688E-03 -0.2879E-04 -0.8975E-03 0.6455E-03 -0.1698E-02 0.1000E-02 0.8651E-03

-0.2558E-02 -0.2408E-02 0.7223E-03 -0.1915E-02 0.1070E-02 -0.1627E-02 0.9422E-03 -0.4222E-03 0.7552E-05 -0.1129E-03 -0.

0.5542E-02 0.2165E-01 0.5743E-02 0.1875E-01 0.3787E-02 0.1688E-01 0.3686E-02 0.1584E-01 0.5310E-02 0.2635E-02 0.1474E-01

0.5769E-03 0.7744E-03 0.2007E-02 -0.1254E-02 0.3558E-02 0.4970E-02 0.1583E-02 0.4038E-02 -0.1247E-02 0.6602E-02 -0.5465E-03 0.4495E-02

-0.7004E-04 -0.2258E-01 -0.3526E-02 -0.2077E-01 -0.5036E-02 -0.1963E-01 -0.2350E-02 -0.1852E-01 -0.1736E-01 -0.7665E-03 -0.1615E-01

0.1542E-01 0.5550E-02 0.1161E-01 0.5105E-02 0.8220E-02 0.5959E-02 0.6660E-02 0.4428E-02 0.1154E-02 0.6462E-02 -0.1942E-02 0.5877E-02

-0.6310E-02 -0.1095E-02 -0.8096E-02 -0.1047E-02 -0.4471E-02 -0.1159E-02 -0.4558E-02 -0.1262E-02 -0.2610E-02 0.1333E-02 -0.9015E-03 -0.1319E-02 0.5073E-03 -0.1233E-02

-0.1775E-01 -0.4016E-02 -0.1636E-01 -0.1427E-01 -0.8537E-02 -0.1257E-01 -0.1097E-01 -0.1039E-01 -0.1320E-01 -0.1835E-02 -0.1500E-01 -0.5155E-02 -0.1618E-01

0.8976E-02 0.1267E-02 0.8257E-02 0.1186E-02 0.2947E-02 0.7602E-02 0.5279E-02 0.7488E-02 0.3232E-02 0.6878E-02 0.2944E-02 0.5809E-02 0.2277E-02

0.6701E-02 0.3274E-02 0.7092E-02 0.2553E-02 0.8524E-02 0.1891E-02 0.9544E-02 0.1167E-02 0.1600E-02 0.1600E-02 0.1600E-02 0.1600E-02 0.1600E-02 0.1600E-02 0.1600E-02 0.1600E-02 0.1600E-02 0.1600E-02 0.1600E-02 0.1600E-02

-0.2726E-02 -0.3421E-02 -0.1020E-02 -0.4277E-02 -0.1045E-02 -0.4679E-02 -0.2642E-02 -0.4199E-02 -0.

REGIONAL VELOCITY IN UNITS OF CM./SEC. AT LEVEL NO. 27

	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	02.5E	07.5E
57.5M																		
52.5M																		
47.5M																		
42.5M																		
37.5M																		
32.5M																		
27.5M																		
22.5M																		
17.5M																		
12.5M																		
07.5M																		
02.5M																		

ZENITH VELOCITY IN UNITS BP CP/SEC. AT LEVEL NO. 28

	82.5M	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	07.5	02.5M	07.5M
57.5M																		
52.5M																		
47.5M																		
42.5M																		
37.5M																		
32.5M																		
27.5M																		
22.5M																		
17.5M																		
12.5M																		
07.5M																		

-0.1714E-03 -0.9257E-04 -0.7013E-03 -0.8761E-04 -0.5937E-03 0.4909E-05

0.1487E-03 -0.1007E-03 0.1450E-03 -0.3176E-04 -0.1009E-04 0.1166E-03 0.8350E-05

-0.5272E-05 -0.5622E-05 0.2486E-03 -0.4772E-03 0.4109E-03 -0.3656E-03 0.5778E-03 -0.1917E-03 0.7073E-03 -0.3271E-04 -0.

0.6123E-03 0.6016E-02 0.4934E-03 0.5754E-02 0.4271E-03 0.5240E-02 0.4460E-03 0.4445E-02 0.4704E-02 0.4674E-03 0.4552E-02

0.5997E-03 0.1166E-02 0.5773E-03 0.4770E-03 0.8774E-03 0.1204E-02 0.7311E-05 0.1502E-02 0.5851E-03 0.1772E-02 0.4166E-03 0.1893E-02

-0.2984E-03 -0.7758E-02 -0.1221E-02 -0.1598E-07 -0.1171E-02 -0.6940E-02 -0.1049E-02 -0.6279E-02 -0.8624E-03 -0.5766E-02 -0.6941E-02 -0.5550E-02 -0.4952E-03 -0.4454E-02

0.1756E-02 -0.1493E-03 0.2119E-02 -0.1702E-02 0.1476E-02 -0.1193E-02 0.7458E-03 -0.2033E-02 -0.4953E-05 -0.2009E-02 -0.7772E-03 -0.1861E-02 -0.1404E-02 -0.1651E-02

-0.3642E-03 0.6965E-03 -0.2874E-03 0.1172E-02 -0.1402E-03 0.1479E-02 0.1035E-04 0.1651E-02 0.2090E-03 0.1701E-02 0.3993E-03 0.1615E-02 0.5262E-03 0.1556E-02

-0.1986E-02 0.4046E-04 -0.3800E-02 0.4465E-03 -0.3436E-02 0.4475E-03 -0.3012E-02 0.5909E-03 -0.2373E-02 0.4819E-03 -0.1519E-02 0.6771E-03 -0.7602E-03 0.4465E-03

0.1229E-02 -0.2315E-03 0.1275E-02 -0.3456E-03 0.1217E-02 0.6504E-03 0.1190E-02 0.5810E-03 0.9158E-03 -0.4072E-05 0.5516E-03 -0.4372E-03 0.8063E-04 -0.8642E-03

0.6165E-03 0.1944E-02 0.6393E-03 0.1639E-02 0.7715E-03 0.1202E-02 0.4472E-03 0.7765E-03 0.4055E-03 0.1900E-03

-0.1179E-02 -0.3234E-03 -0.1151E-02 -0.2178E-03 -0.3411E-03 -0.4453E-04 -0.4452E-03 0.1650E-03 -0.

PERIPHERAL VELOCITY IN UNITS OF CP/SEC. AT LEVEL No. 2c

	82.5M	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	7.5	2.5M	07.5E
82.5M																		
77.5																		
72.5																		
67.5																		
62.5																		
57.5																		
52.5																		
47.5																		
42.5																		
37.5																		
32.5																		
27.5																		
22.5																		
17.5																		
12.5																		
07.5																		
02.5M																		

-0.2887E-05 0.2887E-05 -0.2887E-05 0.2887E-05 -0.2887E-05 0.2887E-05 -0.2887E-05 0.2887E-05 -0.2887E-05 0.2887E-05 -0.2887E-05 0.2887E-05 -0.2887E-05 0.2887E-05 -0.2887E-05 0.2887E-05 -0.2887E-05 0.2887E-05 -0.2887E-05 0.2887E-05

0.4594E-05 -0.2597E-05 -0.6107E-04 0.3272E-04 -0.7604E-05 0.1643E-05 0.3117E-04

-0.1288E-01 -0.1422E-03 -0.1103E-03 -0.1270E-03 -0.7612E-04 -0.3925E-04 0.7411E-04 0.6922E-04 0.1477E-03 0.3886E-04 0.4611E-04

0.2879E-03 -0.9884E-04 0.1597E-03 -0.1857E-03 0.7199E-04 -0.3872E-04 0.1139E-03 0.8599E-04 0.1417E-03 0.2382E-03 0.2867E-03 0.4722E-03

-0.1225E-03 -0.3360E-03 0.4522E-03 -0.3797E-03 -0.3663E-04 0.1622E-04 -0.4525E-03 0.1272E-03 -0.2776E-03 0.2663E-03 -0.3224E-04 0.2281E-03

0.2928E-03 -0.3360E-03 0.4522E-03 -0.3797E-03 -0.3663E-04 0.1622E-04 -0.4525E-03 0.1272E-03 -0.2776E-03 0.2663E-03 -0.3224E-04 0.2281E-03

0.2928E-03 -0.3360E-03 0.4522E-03 -0.3797E-03 -0.3663E-04 0.1622E-04 -0.4525E-03 0.1272E-03 -0.2776E-03 0.2663E-03 -0.3224E-04 0.2281E-03

0.2928E-03 -0.3360E-03 0.4522E-03 -0.3797E-03 -0.3663E-04 0.1622E-04 -0.4525E-03 0.1272E-03 -0.2776E-03 0.2663E-03 -0.3224E-04 0.2281E-03

0.2928E-03 -0.3360E-03 0.4522E-03 -0.3797E-03 -0.3663E-04 0.1622E-04 -0.4525E-03 0.1272E-03 -0.2776E-03 0.2663E-03 -0.3224E-04 0.2281E-03

0.2928E-03 -0.3360E-03 0.4522E-03 -0.3797E-03 -0.3663E-04 0.1622E-04 -0.4525E-03 0.1272E-03 -0.2776E-03 0.2663E-03 -0.3224E-04 0.2281E-03

0.2928E-03 -0.3360E-03 0.4522E-03 -0.3797E-03 -0.3663E-04 0.1622E-04 -0.4525E-03 0.1272E-03 -0.2776E-03 0.2663E-03 -0.3224E-04 0.2281E-03

0.5366E-04 0.8231E-04 0.1978E-04 0.7575E-04 0.4073E-04 0.4860E-04 0.1419E-04 0.6773E-04 0.3432E-04 -0.5171E-05 0.1707E-04 0.4892E-05

STREAK FUNCTION IN UNITS OF CP. **2/SEC. AT LEVEL NO. 31

	82.5m	77.5	72.5	67.5	62.5	57.5	52.5	47.5	42.5	37.5	32.5	27.5	22.5	17.5	12.5	7.5	02.5m	07.5m	
57.5m																			
52.5m																			
47.5m																			
42.5m																			
37.5m																			
32.5m																			
27.5m																			
22.5m																			
17.5m																			
12.5m																			
07.5m																			
02.5m																			

-0.1805E 03 -0.1019E 04 -0.8942E 03 -0.8072E 03 -0.4890E 03 -0.1506E 03

0.4701E 03 0.2837E 03 0.1955E 04 0.1455E 04 0.1048E 04 0.1279E 04 0.1194E 04

0.5462E 03 0.1415E 04 0.1415E 04 0.2577E 04 0.4452E 04 0.4153E 04 0.2408E 04 0.2914E 04 -0.1492E 03

-0.7600E 03 0.3944E 03 0.1066E 03 0.1719E 04 0.2577E 04 0.4452E 04 0.4153E 04 0.2408E 04 0.2914E 04 -0.1492E 03

-0.1115E 03 0.8070E 03 -0.9321E 04 0.2289E 04 -0.7391E 04 0.4172E 04 -0.5322E 04 0.4512E 04 -0.6374E 04 0.2057E 04 -0.9544E 04

0.6857E 03 0.1439E 04 0.1644E 04 0.6397E 04 0.5606E 04 0.7695E 04 0.6890E 04 0.6526E 04 0.4970E 04 0.5754E 04 0.5606E 04 0.2771E 04 0.1549E 04

-0.4892E 02 0.2161E 04 0.5107E 04 0.4320E 04 0.5107E 04 0.5522E 04 0.6084E 04 0.6132E 04 0.7167E 04 0.5285E 04 0.6279E 04 0.3500E 04 0.3599E 04 -0.5874E 03

0.6941E 04 0.5027E 04 0.7137E 04 0.5027E 04 0.6013E 04 0.6585E 04 0.4453E 04 0.7041E 04 0.8647E 04 0.6248E 04 0.6794E 04 0.4312E 04 0.3277E 04 0.8160E 03

-0.4688E 03 0.2315E 04 0.7749E 03 0.4125E 04 0.2442E 04 0.5815E 04 0.5668E 04 0.6484E 04 0.5642E 04 0.5534E 04 0.2630E 04 0.1385E 04 0.6558E 03 0.8877E 03

-0.2521E 03 0.4215E 03 -0.9545E 02 0.8755E 03 0.8072E 03 0.2145E 04 0.2208E 04 0.2405E 04 0.1718E 04 0.1410E 04 0.5216E 03 0.1762E 02 -0.5388E 03 -0.7427E 03

0.1748E 04 0.4401E 03 0.1408E 04 -0.2612E 02 0.4380E 03 -0.7316E 03 0.1116E 03 -0.9545E 03 0.6444E 01 -0.3400E 03

-0.1839E 04 -0.9545E 03 -0.1529E 04 -0.1529E 04 -0.1144E 01 -0.1144E 01 -0.5066E 03 -0.5066E 03 -0.6746E 02 -0.6746E 02 -0.1548E 03 -0.1548E 03 -0.8656E 02

ZONAL VELOCITY IN UNITS OF CP/SEC. AT LEVEL NO. JI

	17.5	22.5	27.5	32.5	37.5	42.5	47.5	52.5	57.5	62.5	67.5	72.5	77.5	82.5m	87.5m	92.5m	97.5m
57.5h																	
52.5h																	
47.5h																	
42.5h																	
37.5h																	
32.5h																	
27.5h																	
22.5h																	
17.5h																	
12.5h																	
07.5h																	
02.5h																	

-0.1421E-04 -0.1114E-04 -0.1518E-04 -0.1120E-04 -0.1269E-04 0.4607E-06
 -0.1421E-04 -0.1114E-04 -0.1518E-04 -0.1120E-04 -0.1269E-04 0.4607E-06
 -0.1162E-04 -0.2571E-04 -0.1900E-04 -0.3893E-04 -0.2807E-04 -0.1988E-04 -0.1416E-04 -0.1019E-04 -0.1898E-04
 -0.1162E-04 -0.2571E-04 -0.1900E-04 -0.3893E-04 -0.2807E-04 -0.1988E-04 -0.1416E-04 -0.1019E-04 -0.1898E-04
 -0.3171E-04 -0.2406E-04 -0.4167E-04 -0.3878E-04 -0.4167E-04 -0.3878E-04 -0.4167E-04 -0.3878E-04 -0.4167E-04
 -0.3171E-04 -0.2406E-04 -0.4167E-04 -0.3878E-04 -0.4167E-04 -0.3878E-04 -0.4167E-04 -0.3878E-04 -0.4167E-04
 -0.4266E-05 0.1270E-03 -0.2034E-04 0.1073E-03 -0.2288E-04 0.1008E-03 -0.2165E-03 -0.8770E-05 0.1157E-03 0.5074E-05 0.1281E-03
 -0.4266E-05 0.1270E-03 -0.2034E-04 0.1073E-03 -0.2288E-04 0.1008E-03 -0.2165E-03 -0.8770E-05 0.1157E-03 0.5074E-05 0.1281E-03
 -0.3874E-04 -0.4653E-04 -0.6370E-04 -0.5765E-04 -0.4628E-04 -0.4422E-04 -0.5298E-04 -0.2963E-04 -0.4595E-04 -0.1571E-04 -0.3117E-04 -0.2638E-05 -0.2286E-04
 -0.3874E-04 -0.4653E-04 -0.6370E-04 -0.5765E-04 -0.4628E-04 -0.4422E-04 -0.5298E-04 -0.2963E-04 -0.4595E-04 -0.1571E-04 -0.3117E-04 -0.2638E-05 -0.2286E-04
 -0.2175E-04 -0.1593E-03 -0.3397E-04 -0.1605E-03 -0.2821E-04 -0.1593E-03 -0.1562E-04 -0.1888E-04 -0.1047E-04 -0.1191E-03 0.2907E-04 -0.1182E-03
 -0.2175E-04 -0.1593E-03 -0.3397E-04 -0.1605E-03 -0.2821E-04 -0.1593E-03 -0.1562E-04 -0.1888E-04 -0.1047E-04 -0.1191E-03 0.2907E-04 -0.1182E-03
 -0.6074E-04 -0.2458E-04 -0.2469E-04 -0.1155E-04 -0.1881E-04 -0.1881E-04 -0.2594E-04 -0.2940E-04 -0.1047E-04 -0.1047E-04 -0.1047E-04 -0.2294E-04
 -0.6074E-04 -0.2458E-04 -0.2469E-04 -0.1155E-04 -0.1881E-04 -0.1881E-04 -0.2594E-04 -0.2940E-04 -0.1047E-04 -0.1047E-04 -0.1047E-04 -0.2294E-04
 0.1048E-04 -0.1885E-05 0.2163E-04 -0.1881E-04 -0.1881E-04 -0.2594E-04 -0.2940E-04 -0.1047E-04 -0.1047E-04 -0.1047E-04 -0.2294E-04
 0.1048E-04 -0.1885E-05 0.2163E-04 -0.1881E-04 -0.1881E-04 -0.2594E-04 -0.2940E-04 -0.1047E-04 -0.1047E-04 -0.1047E-04 -0.2294E-04
 0.6240E-04 0.2793E-04 0.8226E-04 0.4323E-04 0.8748E-04 0.4710E-04 0.7477E-04 0.4498E-04 0.7240E-04 0.5138E-04 0.6475E-04 0.4407E-04 0.3895E-04 0.2011E-04
 0.6240E-04 0.2793E-04 0.8226E-04 0.4323E-04 0.8748E-04 0.4710E-04 0.7477E-04 0.4498E-04 0.7240E-04 0.5138E-04 0.6475E-04 0.4407E-04 0.3895E-04 0.2011E-04
 -0.1903E-04 0.2524E-04 -0.1808E-04 0.4201E-04 -0.1668E-04 0.2594E-04 0.2594E-04 0.2594E-04 0.2594E-04 0.2594E-04 0.2594E-04 0.2594E-04 0.2594E-04 0.2594E-04
 -0.1903E-04 0.2524E-04 -0.1808E-04 0.4201E-04 -0.1668E-04 0.2594E-04 0.2594E-04 0.2594E-04 0.2594E-04 0.2594E-04 0.2594E-04 0.2594E-04 0.2594E-04 0.2594E-04
 0.1702E-04 0.1858E-04 0.3608E-04 0.2666E-04 0.2126E-04 0.1219E-04 0.8864E-05 0.8864E-05 0.8864E-05 0.8864E-05 0.8864E-05 0.8864E-05 0.8864E-05 0.8864E-05
 0.1702E-04 0.1858E-04 0.3608E-04 0.2666E-04 0.2126E-04 0.1219E-04 0.8864E-05 0.8864E-05 0.8864E-05 0.8864E-05 0.8864E-05 0.8864E-05 0.8864E-05 0.8864E-05
 0.1567E-04 -0.2898E-05 0.7491E-05 -0.9561E-05 0.1511E-05 -0.1007E-04 0.1286E-05 -0.1786E-05 -0.1786E-05 -0.1786E-05 -0.1786E-05 -0.1786E-05 -0.1786E-05 -0.1786E-05
 0.1567E-04 -0.2898E-05 0.7491E-05 -0.9561E-05 0.1511E-05 -0.1007E-04 0.1286E-05 -0.1786E-05 -0.1786E-05 -0.1786E-05 -0.1786E-05 -0.1786E-05 -0.1786E-05 -0.1786E-05

MERIDIONAL VELOCITY IN UNITS OF CM./SEC. AT LEVEL NO. 32

	77.5	78.5	81.5	82.5	84.5	87.5	92.5	97.5	102.5	107.5	112.5	117.5	122.5	127.5	132.5	137.5	142.5	147.5	152.5	157.5	162.5	167.5	172.5	177.5	182.5	187.5	192.5	197.5	202.5	207.5	212.5	217.5	222.5	227.5	232.5	237.5	242.5	247.5	252.5	257.5	262.5	267.5	272.5	277.5	282.5	287.5	292.5	297.5	302.5	307.5	312.5	317.5	322.5	327.5	332.5	337.5	342.5	347.5	352.5	357.5	362.5	367.5	372.5	377.5	382.5	387.5	392.5	397.5	402.5	407.5	412.5	417.5	422.5	427.5	432.5	437.5	442.5	447.5	452.5	457.5	462.5	467.5	472.5	477.5	482.5	487.5	492.5	497.5	502.5	507.5	512.5	517.5	522.5	527.5	532.5	537.5	542.5	547.5	552.5	557.5	562.5	567.5	572.5	577.5	582.5	587.5	592.5	597.5	602.5	607.5	612.5	617.5	622.5	627.5	632.5	637.5	642.5	647.5	652.5	657.5	662.5	667.5	672.5	677.5	682.5	687.5	692.5	697.5	702.5	707.5	712.5	717.5	722.5	727.5	732.5	737.5	742.5	747.5	752.5	757.5	762.5	767.5	772.5	777.5	782.5	787.5	792.5	797.5	802.5	807.5	812.5	817.5	822.5	827.5	832.5	837.5	842.5	847.5	852.5	857.5	862.5	867.5	872.5	877.5	882.5	887.5	892.5	897.5	902.5	907.5	912.5	917.5	922.5	927.5	932.5	937.5	942.5	947.5	952.5	957.5	962.5	967.5	972.5	977.5	982.5	987.5	992.5	997.5	1002.5	1007.5	1012.5	1017.5	1022.5	1027.5	1032.5	1037.5	1042.5	1047.5	1052.5	1057.5	1062.5	1067.5	1072.5	1077.5	1082.5	1087.5	1092.5	1097.5	1102.5	1107.5	1112.5	1117.5	1122.5	1127.5	1132.5	1137.5	1142.5	1147.5	1152.5	1157.5	1162.5	1167.5	1172.5	1177.5	1182.5	1187.5	1192.5	1197.5	1202.5	1207.5	1212.5	1217.5	1222.5	1227.5	1232.5	1237.5	1242.5	1247.5	1252.5	1257.5	1262.5	1267.5	1272.5	1277.5	1282.5	1287.5	1292.5	1297.5	1302.5	1307.5	1312.5	1317.5	1322.5	1327.5	1332.5	1337.5	1342.5	1347.5	1352.5	1357.5	1362.5	1367.5	1372.5	1377.5	1382.5	1387.5	1392.5	1397.5	1402.5	1407.5	1412.5	1417.5	1422.5	1427.5	1432.5	1437.5	1442.5	1447.5	1452.5	1457.5	1462.5	1467.5	1472.5	1477.5	1482.5	1487.5	1492.5	1497.5	1502.5	1507.5	1512.5	1517.5	1522.5	1527.5	1532.5	1537.5	1542.5	1547.5	1552.5	1557.5	1562.5	1567.5	1572.5	1577.5	1582.5	1587.5	1592.5	1597.5	1602.5	1607.5	1612.5	1617.5	1622.5	1627.5	1632.5	1637.5	1642.5	1647.5	1652.5	1657.5	1662.5	1667.5	1672.5	1677.5	1682.5	1687.5	1692.5	1697.5	1702.5	1707.5	1712.5	1717.5	1722.5	1727.5	1732.5	1737.5	1742.5	1747.5	1752.5	1757.5	1762.5	1767.5	1772.5	1777.5	1782.5	1787.5	1792.5	1797.5	1802.5	1807.5	1812.5	1817.5	1822.5	1827.5	1832.5	1837.5	1842.5	1847.5	1852.5	1857.5	1862.5	1867.5	1872.5	1877.5	1882.5	1887.5	1892.5	1897.5	1902.5	1907.5	1912.5	1917.5	1922.5	1927.5	1932.5	1937.5	1942.5	1947.5	1952.5	1957.5	1962.5	1967.5	1972.5	1977.5	1982.5	1987.5	1992.5	1997.5	2002.5	2007.5	2012.5	2017.5	2022.5	2027.5	2032.5	2037.5	2042.5	2047.5	2052.5	2057.5	2062.5	2067.5	2072.5	2077.5	2082.5	2087.5	2092.5	2097.5	2102.5	2107.5	2112.5	2117.5	2122.5	2127.5	2132.5	2137.5	2142.5	2147.5	2152.5	2157.5	2162.5	2167.5	2172.5	2177.5	2182.5	2187.5	2192.5	2197.5	2202.5	2207.5	2212.5	2217.5	2222.5	2227.5	2232.5	2237.5	2242.5	2247.5	2252.5	2257.5	2262.5	2267.5	2272.5	2277.5	2282.5	2287.5	2292.5	2297.5	2302.5	2307.5	2312.5	2317.5	2322.5	2327.5	2332.5	2337.5	2342.5	2347.5	2352.5	2357.5	2362.5	2367.5	2372.5	2377.5	2382.5	2387.5	2392.5	2397.5	2402.5	2407.5	2412.5	2417.5	2422.5	2427.5	2432.5	2437.5	2442.5	2447.5	2452.5	2457.5	2462.5	2467.5	2472.5	2477.5	2482.5	2487.5	2492.5	2497.5	2502.5	2507.5	2512.5	2517.5	2522.5	2527.5	2532.5	2537.5	2542.5	2547.5	2552.5	2557.5	2562.5	2567.5	2572.5	2577.5	2582.5	2587.5	2592.5	2597.5	2602.5	2607.5	2612.5	2617.5	2622.5	2627.5	2632.5	2637.5	2642.5	2647.5	2652.5	2657.5	2662.5	2667.5	2672.5	2677.5	2682.5	2687.5	2692.5	2697.5	2702.5	2707.5	2712.5	2717.5	2722.5	2727.5	2732.5	2737.5	2742.5	2747.5	2752.5	2757.5	2762.5	2767.5	2772.5	2777.5	2782.5	2787.5	2792.5	2797.5	2802.5	2807.5	2812.5	2817.5	2822.5	2827.5	2832.5	2837.5	2842.5	2847.5	2852.5	2857.5	2862.5	2867.5	2872.5	2877.5	2882.5	2887.5	2892.5	2897.5	2902.5	2907.5	2912.5	2917.5	2922.5	2927.5	2932.5	2937.5	2942.5	2947.5	2952.5	2957.5	2962.5	2967.5	2972.5	2977.5	2982.5	2987.5	2992.5	2997.5	3002.5	3007.5	3012.5	3017.5	3022.5	3027.5	3032.5	3037.5	3042.5	3047.5	3052.5	3057.5	3062.5	3067.5	3072.5	3077.5	3082.5	3087.5	3092.5	3097.5	3102.5	3107.5	3112.5	3117.5	3122.5	3127.5	3132.5	3137.5	3142.5	3147.5	3152.5	3157.5	3162.5	3167.5	3172.5	3177.5	3182.5	3187.5	3192.5	3197.5	3202.5	3207.5	3212.5	3217.5	3222.5	3227.5	3232.5	3237.5	3242.5	3247.5	3252.5	3257.5	3262.5	3267.5	3272.5	3277.5	3282.5	3287.5	3292.5	3297.5	3302.5	3307.5	3312.5	3317.5	3322.5	3327.5	3332.5	3337.5	3342.5	3347.5	3352.5	3357.5	3362.5	3367.5	3372.5	3377.5	3382.5	3387.5	3392.5	3397.5	3402.5	3407.5	3412.5	3417.5	3422.5	3427.5	3432.5	3437.5	3442.5	3447.5	3452.5	3457.5	3462.5	3467.5	3472.5	3477.5	3482.5	3487.5	3492.5	3497.5	3502.5	3507.5	3512.5	3517.5	3522.5	3527.5	3532.5	3537.5	3542.5	3547.5	3552.5	3557.5	3562.5	3567.5	3572.5	3577.5	3582.5	3587.5	3592.5	3597.5	3602.5	3607.5	3612.5	3617.5	3622.5	3627.5	3632.5	3637.5	3642.5	3647.5	3652.5	3657.5	3662.5	3667.5	3672.5	3677.5	3682.5	3687.5	3692.5	3697.5	3702.5	3707.5	3712.5	3717.5	3722.5	3727.5	3732.5	3737.5	3742.5	3747.5	3752.5	3757.5	3762.5	3767.5	3772.5	3777.5	3782.5	3787.5	3792.5	3797.5	3802.5	3807.5	3812.5	3817.5	3822.5	3827.5	3832.5	3837.5	3842.5	3847.5	3852.5	3857.5	3862.5	3867.5	3872.5	3877.5	3882.5	3887.5	3892.5	3897.5	3902.5	3907.5	3912.5	3917.5	3922.5	3927.5	3932.5	3937.5	3942.5	3947.5	3952.5	3957.5	3962.5	3967.5	3972.5	3977.5	3982.5	3987.5	3992.5	3997.5	4002.5	4007.5	4012.5	4017.5	4022.5	4027.5	4032.5	4037.5	4042.5	4047.5	4052.5	4057.5	4062.5	4067.5	4072.5	4077.5	4082.5	4087.5	4092.5	4097.5	4102.5	4107.5	4112.5	4117.5	4122.5	4127.5	4132.5	4137.5	4142.5	4147.5	4152.5	4157.5	4162.5	4167.5	4172.5	4177.5	4182.5	4187.5	4192.5	4197.5	4202.5	4207.5	4212.5	4217.5	4222.5	4227.5	4232.5	4237.5	4242.5	4247.5	4252.5	4257.5	4262.5	4267.5	4272.5	4277.5	4282.5	4287.5	4292.5	4297.5	4302.5	4307.5	4312.5	4317.5	4322.5	4327.5	4332.5	4337.5	4342.5	4347.5	4352.5	4357.5	4362.5	4367.5	4372.5	4377.5	4382.5	4387.5	4392.5	4397.5	4402.5	4407.5	4412.5	4417.5	4422.5	4427.5	4432.5	4437.5	4442.5	4447.5	4452.5	4457.5	4462.5	4467.5	4472.5	4477.5	4482.5	4487.5	4492.5	4497.5	4502.5	4507.5	4512.5	4517.5	4522.5	4527.5	4532.5	4537.5	4542.5	4547.5	4552.5	4557.5	4562.5	4567.5	4572.5	4577.5	4582.5	4587.5	4592.5	4597.5	4602.5	4607.5	4612.5	4617.5	4622.5	4627.5	4632.5	4637.5	4642.5	4647.5	4652.5	4657.5	4662.5	4667.5	4672.5	4677.5	4682.5	4687.5	4692.5	4697.5	4702.5	4707.5	4712.5	4717.5	4722.5	4727.5	4732.5	4737.5	4742.5	4747.5	4752.5	4757.5	4762.5	4767.5	4772.5	4777.5	4782.5	4787.5	4792.5	4797.5	4802.5	4807.5	4812.5	4817.5	4822.5	4827.5	4832.5	4837.5	4842.5	4847.5	4852.5	4857.5	4862.5	4867.5	4872.5	4877.5	4882.5	4887.5	4892.5	4897.5	4902.5	4907.5	4912.5	4917.5	4922.5	4927.5	4932.5	4937.5	4942.5	4947.5	4952.5	4957.5	4962.5	4967.5	4972.5	4977.5	4982.5	4987.5	4992.5	4997.5	5002.5	5007.5	5012.5	5017.5	5022.5	5027.5	5032.5	5037.5	5042.5	5047.5	5052.5	5057.5	5062.5	5067.5	5072.5	5077.5	5082.5	5087.5	5092.5	5097.5	5102.5	5107.5	5112.5	5117.5	5122.5	5127.5	5132.5	5137.5	5142.5	5147.5	5152.5	5157.5	5162.5	5167.5	5172.5	5177.5	5182.5	5187.5	5192.5	5197.5	5202.5	5207.5	5212.5	5217.5	5222.5	5227.5	5232.5	5237.5	5242.5	5247.5	5252.5	525
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