APPLICATION OF A FOURIER APPROXIMATION METHOD

FOR THE SOLUTION OF STEADY WAVE PROBLEMS

TO THE MICROCOMPUTER

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ABSTRACT

Fenton's FORTRAN program for the numerical solution of steady water wave problems is adapted to the microcomputer. Modified source code is provided in an appendix. The program is expanded to present accelerations, forces and moments, and to plot surface elevations, velocities and accelerations. Sample output is provided for deep and shallow water waves. Program performance in terms of convergence, accuracy and solution time is evaluated. The effect of current on solution is examined.

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I. INTRODUCTION.

The limitations of linear theory in the solution of steady water waves are well known. By ignoring the non-linearity of the dynamic and kinematic free surface boundary conditions, errors are introduced into the solution, errors which make the method impractical for steep waves, or for waves in shallow water. Engineers are often interested in such waves, and a variety of methods of analysis are available. The purpose of this project is to adapt one such method, the Fourier approximation method of Rienecker and Fenton (1981) to the microcomputer. Such a program, when combined with the increasing availability of microcomputers, provides engineers and researchers easy access to the solution of steady non-linear wave problems.

Currently, the most widely accepted methods of solving the non-linear wave problem are small parameter pertubation solutions. Stokes method employs wave steepness $(k\eta)$ as the small parameter; where η is wave amplitude, k is wave number $2\pi/L$, and L is wave length. Accuracy for steep waves is improved over linear theory, but the method cannot be applied in shallow water. Shallowness d/L, where d is water depth, is the small parameter used in cnoidal theory. As expected, accuracy is good in shallow water, but not for steep waves or in deep water. Neither of the methods are universally applicable, leading investigators to search for a more satisfactory approach.

Chappelear (1961) developed a numerical Fourier approximation

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method.   A solution in the form of a Fourier series is assumed, and a set of simultaneous non-linear equations forming the boundary value problem is established. The Fourier coefficients are then determined numerically.   This method is universally applicable for steep waves, in both shallow and deep water, but was not presented in a easily applied form.   Dean (1965) used the stream function instead of the velocity potential function, and established a formulation which was more computationally straightforward.   He prepared tables (Dean, 1974) of various output variables for engineering application, which led to greater exposure and acceptability for the method.

Rienecker and Fenton (1981) present an adaptation of this method, making several improvements over previous approaches. The simultaneous equations are solved exactly using the Newton-Rhapson method, providing rapid convergence for most wave conditions typically encountered. The only approximation to the solution is the truncation of the Fourier series to a finite number of terms.   A co-flowing current is also considered.   As will be subsequently shown, errors introduced by ignoring current can be as important as the corrections to linear theory that higher order theories predict. Clearly, neglecting current can be inconsistent with the use of higher order theories.   Finally, the method is readily adapted to the computer, and Fenton (1983) presents program source code. The complicated graphic, logarithmic double-interpolation needed to apply Dean's tables is a significant roadblock to its widespread application.   With Fenton's program modified for the microcomputer, the solution can be computed exactly for the wave height, period, and water depth

desired.   Tables of solutions become unnecessary, even for those
without   easy   access   to mainframes.   Increased access   to   this
method should earn it the acceptance and popularity it deserves.

II.   <u>PHYSICS</u>.

The   basic theory and equations are presented   by   Rienecker
and   Fenton (1981),   and Fenton (1983).   The discussion here   is
limited   to additions to Fenton's program,   and familiarity   with
the above papers is assumed.

Fenton's subroutine "POINT" computes surface elevation for any
position along the wave, and pressure and water particle velocity
for any position and depth.   The subroutine can be modified, or a
different routine developed to suit the needs of the user.   This
adaptation   computes   accelerations   (total time   derivatives   of
velocities)   and   horizontal   forces and moments   on   a   vertical
circular cylinder,   using the Morison equation.   Inertia and drag
components are presented, both per unit depth and depth-integrated.

Rienecker   and   Fenton   (1981)   non-dimensionalize   their
solution   by mean water depth.   Fenton (1983) uses wave   number,
which makes the coding more efficient.

A.   <u>Water   Particle Accelerations</u>.   Fenton (1983) presents
the following dimensionless equations for horizontal and vertical
fluid velocities (U,V) in a fixed reference plane:

$$U(k/g)^{1/2} = c(k/g)^{1/2} - \bar{u}(k/g)^{1/2} + \sum_{j=1}^{N} jB_j \frac{\cosh jk(d+Y)}{\cosh jkd} \cos jk(X-ct) \quad (1a)$$

$$V(k/g)^{1/2} = \sum_{j=1}^{N} jB_j \frac{\sinh jk(d+Y)}{\cosh jkd} \sin jk(X-ct) \quad (1b)$$

where:

k = wavenumber = $2\pi/L$ g = acceleration due to gravity

L = wavelength B_j = jth Fourier coefficient

c = celerity = L/T   N = number of Fourier coefficients

$\bar{u}$ = mean fluid velocity relative to wave speed   X = horizontal distance from a fixed reference

t = time (= 0 at crest)   Y = vertical distance from the free surface

T = wave period   d = water depth

Figure 1 illustrates the varibles used.

Using dimensionless variables, and a frame of reference moving with the wave, velocities become:

$$U^* = c^* - \bar{u}^* + \sum_{j=1}^{N} jB_j \frac{\cosh\ j(d^*+y^*)}{\cosh\ jd^*} \cos\ jx^* \tag{2a}$$

$$V^* = \sum_{j=1}^{N} jB_j \frac{\sinh\ j(d^*+y^*)}{\cosh\ jd^*} \sin\ jx^* \tag{2b}$$

where:

$U^* = U(k/g)^{1/2}$ $x^* = k(X-ct)$

$\bar{u}^* = \bar{u}(k/g)^{1/2}$ $y^* = kY$

$c^* = c(k/g)^{1/2}$ $d^* = kd$

$V^* = V(k/g)^{1/2}$ $t^* = t(gk)^{1/2}$

The following derivation is essentially from Sobey (1984). Accelerations, the total time derivatives of velocity, are:

$$\frac{DU}{Dt} = U_t + U \cdot U_x + V \cdot U_y \tag{3a}$$

$$\frac{DV}{Dt} = V_t + U \cdot V_x + V \cdot V_y \tag{3b}$$

where the subscripts indicate partial derivatives with respect to t, x and y.

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DEFINITION OF TERMS

CREST

WATER SURFACE

y

$\eta(x-ct)$

$x-ct$

STILL WATER LEVEL

TROUGH

H

$L/2$

d

$\dfrac{DV}{Dt}$

V

ACCELERATIONS

$\dfrac{DU}{Dt}$

VELOCITIES

u

$S=$

BOTTOM
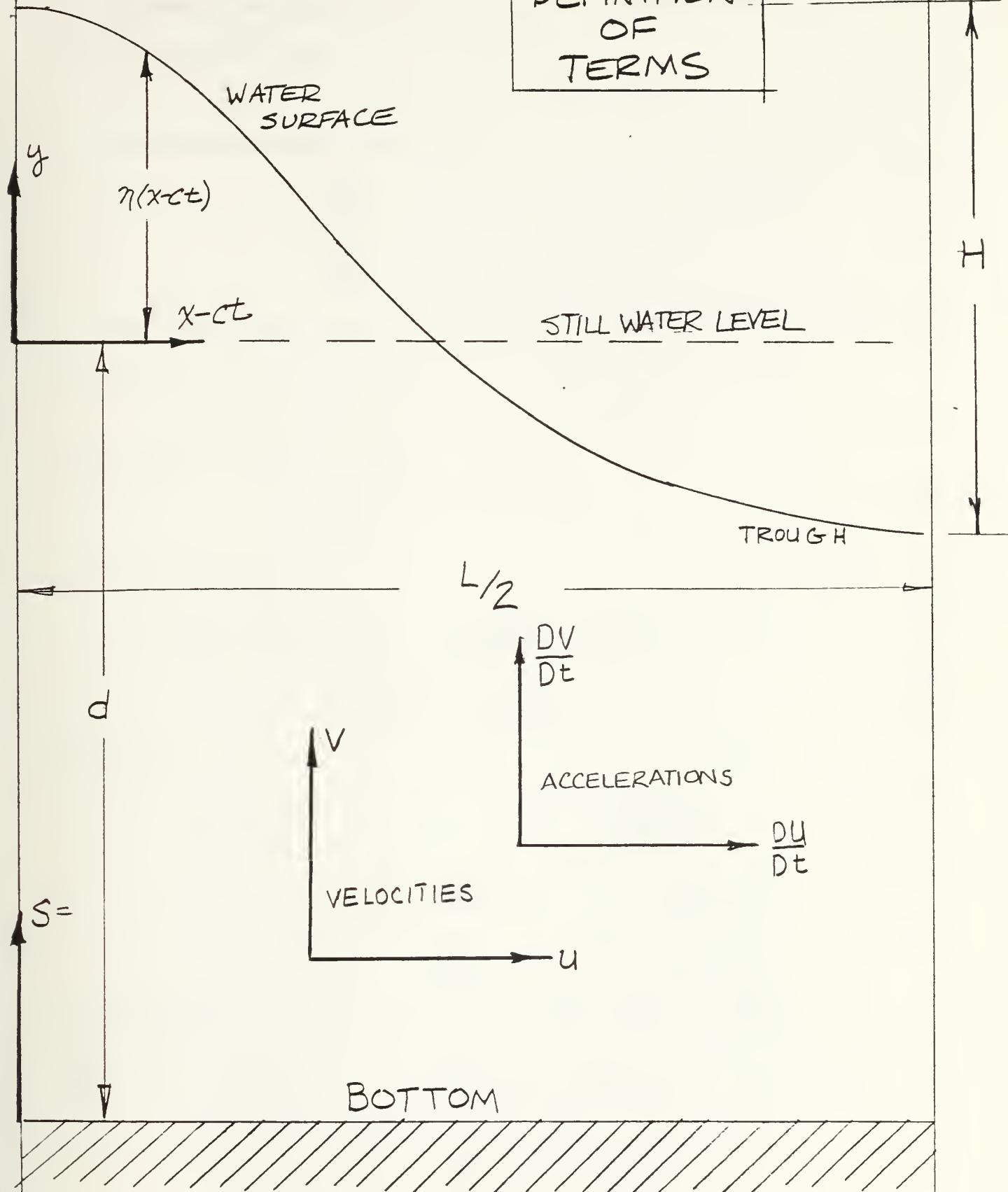
In a frame of reference moving with c, such that flow is steady, it can be shown that:

$$U_t = -c \cdot U_x \qquad\qquad V_t = -c \cdot V_x \qquad\qquad \text{(4a \& b)}$$

The accelerations are therefore

$$\frac{DU}{Dt} = (U-c)U_x + V \cdot U_y \qquad\qquad \text{(5a)}$$

$$\frac{DV}{Dt} = (U-c)V_x + V \cdot V_y \qquad\qquad \text{(5b)}$$

To minimize computation, substitute equations of continuity and irrotational flow:

$$U_x + V_y = 0 \qquad\qquad U_y - V_x = 0 \qquad\qquad \text{(6a \& b)}$$

into equation (5b) to yield

$$\frac{DV}{Dt} = (U-c)U_y - V \cdot U_x \qquad\qquad \text{(7)}$$

Non-dimensionally,

$$\frac{DV}{Dt} = \frac{DV(k/g)^{1/2}}{Dt(gk)^{1/2}} \cdot \frac{(gk)^{1/2}}{(k/g)^{1/2}} = \frac{DV^*}{Dt^*} \cdot g \qquad\qquad \text{(8a)}$$

$$V = \frac{V(k/g)^{1/2}}{(k/g)^{1/2}} = \frac{V^*}{(k/g)^{1/2}} \qquad\qquad \text{(8b)}$$

Similarly,

$$\frac{DU}{Dt} = \frac{DU^*}{Dt^*} \cdot g \qquad \text{and} \qquad U-c = \frac{(U^*-c^*)}{(k/g)^{1/2}} \qquad \text{(9a \& b)}$$

$$U_x = \frac{U(k/g)^{1/2}}{x \cdot k} \cdot \frac{k}{(k/g)^{1/2}} = U_x^* \cdot \frac{k}{(k/g)^{1/2}} \qquad \text{(10a)}$$

$$U_x = \frac{U(k/g)^{1/2}}{y \cdot k} \cdot \frac{k}{(k/g)^{1/2}} = U_y^* \cdot \frac{k}{(k/g)^{1/2}} \qquad \text{(10b)}$$

Substituting equations (9) and (10) into (5a) yields:

$$\frac{DU^*}{Dt^*} \cdot g = \frac{(U^*-c^*)}{(k/g)^{1/2}} \cdot U_x^* \cdot \frac{k}{(k/g)^{1/2}} + \frac{V^*}{(k/g)^{1/2}} \cdot U_y^* \cdot \frac{k}{(k/g)^{1/2}}$$

$$= (U^*-c^*)U_x^* \cdot g + V^* \cdot U_y^* \cdot g$$

$$\frac{DU^*}{Dt^*} = (U^*-c^*)U_x^* + V^* \cdot U_y^* \qquad\qquad \text{(11a)}$$

Similarly, substituting equations (8) and (10) into (7) yields:

$$\frac{DV^*}{Dt^*} = (U^* - c^*)Uy^* - V^* \cdot U_x^* \qquad (11b)$$

Differentiating equation (2a) with respect to x and y yields:

$$U_x^* = -\sum_{j=1}^{N} j^2 B_j \frac{\cosh j(d^* + y^*)}{\cosh jd^*} \sin j(X^* - c^* t^*) \qquad (12a)$$

$$Uy^* = \sum_{j=1}^{N} j^2 B_j \frac{\sinh j(d^* + y^*)}{\cosh jd^*} \cos j(X^* - c^* t^*) \qquad (12b)$$

Equations (11) and (12) are used in the program to compute total water particle accelerations.

B. Horizontal Forces and Moments on Vertical Right Circular Cylinders. Wave forces on piles are among the local wave solution values most frequently required by engineers. Despite considerable research, little improvement has been made over the Morison equation (Morison, O'Brien, Johnson, Schaaf, 1950). Two horizontal components of force are postulated, drag force F_D and inertia force F_{Ih}. The values per unit depth for a particular depth are:

$$f_{Dh} = \frac{C_D \rho D}{2} U | U | \qquad\qquad f_{Ih} = \frac{C_M \rho \Pi D^2}{4} \frac{DU}{Dt} \qquad (13a \& b)$$

where:

C_D = coefficient of drag

C_M = coefficient of inertia

ρ = mass density of water

D = pile diameter

Depth-integrated values are:

$$F_{Dh} = \int_0^S \frac{C_D \rho D}{2} U|U| \, dS \qquad\qquad F_{Ih} = \int_0^S \frac{C_M \rho \pi D^2}{4} \frac{DU}{Dt} \, dS \qquad (14a \& b)$$

where S = height above the bottom = $y+d$

Moments per unit depth at a particular depth S are:

$$m_{Dh} = \frac{C_D \rho D}{2} U|U| S \qquad\qquad m_{Ih} = \frac{C_M \rho \pi D^2}{4} \frac{DU}{Dt} S \qquad (15a \& b)$$

Depth-integrated values are:

$$M_{Dh} = \int_0^S \frac{C_D \rho D}{2} U|U| S \, dS \qquad\qquad M_{Ih} = \int_0^S \frac{C_M \rho \pi D^2}{4} \frac{DU}{Dt} S \, dS \qquad (16a \& b)$$

The limitations to these equations should be recognized; see Wiegel (1964,1982,1984), Bidde (1979,1971) and Brunn (1981), as well as the original paper. The total time derivative of velocity DU/Dt is used in this program; some investigators use local acceleration. In addition, vortex shedding and impact forces are not included. Constant values for pile diameter and coefficients of drag and mass over depth are assumed, permitting these values to be included in the dimensionalizing factors, and not in the program code (see Appendix 4). Pile diameters often change due to marine growth. Coefficients of drag and mass vary due to resulting changes in roughness, and as a function of Reynolds number and Keulegan-Carpenter number. These variations must be estimated empirically. If improved accuracy is required, program source code can be dimensionalized, and modified to read pile diameter, coefficient of drag and coefficient of mass for each depth from data files during integration.

Dimensionless forces per unit depth are:

$$f_{Dh} = \frac{C_D \rho D}{2} \cdot \frac{U(k/g)^{1/2}}{(k/g)^{1/2}} \left| \frac{U(k/g)^{1/2}}{(k/g)^{1/2}} \right| \qquad\qquad f_{Ih} = \frac{C_M \rho \pi D^2}{4} \frac{DU}{Dt} \cdot \frac{g}{g}$$

$$= \frac{C_D \rho D}{2} U^* |U^*| \cdot \frac{g}{k} \qquad\qquad\qquad = \frac{C_M \rho \pi D^2}{4} \frac{DU^*}{Dt^*} \cdot g$$

$$= \frac{C_D \rho g D}{2k} (f_{Dh})^* \qquad\qquad\qquad\qquad = \frac{C_M \rho g \pi D^2}{4} (f_{Ih})^* \qquad (17a\ \&\ b)$$

where $(f_{Dh})^* = U^* |U^*|$ and $(f_{Ih})^* = \dfrac{DU^*}{Dt^*}$

Similarly, depth-integrated dimensionless forces are:

$$F_{Dh} = \frac{C_D \rho g D}{2k^2}(F_{Dh})^* \qquad\qquad F_{Ih} = \frac{C_M \rho g \pi D^2}{4k}(F_{Ih})^* \qquad (18a\ \&\ b)$$

where $(F_{Dh})^* = \displaystyle\int_0^S U^* |U^*|\, dS^*$ and $(F_{Ih})^* = \displaystyle\int_0^S \frac{DU^*}{Dt^*}\, dS^*$

Dimensionless moments per unit depth are:

$$m_{Dh} = \frac{C_D \rho g D}{2k^2} (m_{Dh})^* \qquad\qquad m_{Ih} = \frac{C_M \rho g \pi D^2}{4k} (m_{Ih})^* \qquad (19a\ \&\ b)$$

where $(m_{Dh})^* = U^* |U^*| S^*$ and $(m_{Ih})^* = \dfrac{DU^*}{Dt^*} S^*$

Depth-integrated dimensionless moments:

$$M_{Dh} = \frac{C_D \rho g D}{2k^3}(M_{Dh})^* \qquad\qquad M_{Ih} = \frac{C_M \rho g \pi D^2}{4k^2}(M_{Ih})^* \qquad (20a\ \&\ b)$$

where $(M_{Dh})^* = \displaystyle\int_0^S U^* |U^*|\, S^*\, dS^*$ and $(M_{Ih})^* = \displaystyle\int_0^S \frac{DU^*}{Dt^*}\, S^*\, dS^*$

III.   Program   Development.

Program development came in two phases: modification   to suit the computer used,   and expansion to provide   accelerations, forces and moments. Programming philosophy was to:

o   Minimize changes to Fenton's code as much as possible.

o   Provide screen output of program progress.

o   Maximize economy of code; minimize execution time.

o   Write   new   code in small subroutines to ease debugging   and adaptation of code for further applications.

Source code is provided in Appendix 1.

A.   Adaptation   to Microcomputer.   The program was adapted on   an   IBM (TM) PC XT using the IBM PC FORTRAN   complier   V2.OO. The following modifications were required.

1)   Intrinisic functions must be specified   as   single- or double-precision; e.g. DSIN for double precision.

2)   The   lower   boundary   of   arrays   cannot   be   zero, complicating   the   code for the "COSA" and "SINA"   arrays.   This problem was solved in a straightforward,   if not elegant fashion. Since $COS (0) = COS (2\pi)$ and $SIN (0) = SIN (2\pi)$, these values are substituted when required by subroutines "EQNS" and "OUTPUT".

3)   Some other minor modifications were made. Matrix dimensions   were   enlarged   to 59,   to permit a problem with up   to   24 Fourier coefficients to be solved.   If a PARAMETER statement were available for this compiler,   adjusting array dimensions would be much easier.

4)   The number of iterations permitted for each height step before   it   is   assumed that the solution will not   converge   was increased from 9 to 18.   This allows examination of   convergence

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characteristics for problems where the program oscillates about a solution, but does not converge.

5)   Screen output is added to display program progress during execution. As will be shown later, execution time is not trivial on a microcomputer, ranging from two minutes when 10 Fourier coefficients are employed, to over 45 minutes using 24 Fourier coefficients, even with an 8087 numerical coprocessor and a hard disk installed. The height step, iteration number, and the value of one element of the solution vector are displayed so that solution progress may be traced. When wavelength is specified, kH and kd remain constant and do not show progress of the solution; therefore, $k\eta_1$ was selected for display. A relative plot of $k\eta_1$ vs. iteration number illustrates program convergence.

B.   Expansion of Subroutine "POINT". Subroutine "POINTND" expands "POINT" to include accelerations, forces and moments. Some minor code modfications are provided to minimize computations. Due to added features, the program was divided into subroutines to ease development and clarity. Computation of U_x and Uy (equations (12a & b)) is performed in the same loop as velocities, in new subroutines "FINITE" and "DEEP." Accelerations, and the forces per unit depth are calculated next, along with pressure, as in "POINT." In finite-depth problems, moments are computed about the bottom. In deep water problems, water depth is not provided. Here, moments are summed about a point at a depth equal to one-half of the wavelength, below which wave-induced motion is negligible. That depth is: $y = -L/2$; $ky = (2\pi/L)\cdot(-L/2) = -\pi$. Be certain that kd is greater than π if the deep water method is used. If not, local output will be computed beneath the bottom.

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Depth-integrated forces and moments are computed using the trapezoidal rule in the new subroutine "INTEG", using 25 steps equally spaced between the surface and the bottom (or to depth $ky = -\tilde{n}$ for deep water). In deep water, particularly with long waves, 25 vertical steps may not provide sufficient accuracy. Two convenient changes can overcome such a problem. If values are required only to a certain depth, less than $ky = -\tilde{n}$, then only compute forces to that depth. Enter a line of code in "POINTND" setting a variable "DOVERH" equal to the depth desired over wave height. Then, substitute the following line of code:

BOTTOM = Z(2)*DOVERH, in place of: BOTTOM = PI

If values are required to depth $ky = -\tilde{n}$, then the number of vertical steps can be increased. Tables for two values of phase angle fit on a 66-line page when 25 steps are used, making print-out convenient. Using 58 steps puts one table on a page, without the need to modify any format statements.

Surface elevations, velocities and accelerations are plotted versus phase angle using the new subroutines "PLOTTER" and "SUBPLOT". These plots permit examination of the solution for smoothness and shape, as described later. To standardize plot size, 48 values are computed between crest and trough.

IV. Program Operation.

To ease operation, data input, modification, and printing are performed through data files, rather than via screen input or printer output.

A. <u>Input</u>. Data input files are prepared in the same dimensionless format as in Fenton's original program. Data files can be created using any text editor which does not add any additional control characters. The line editor that is a part of most operating systems is adequate. Any unused file name may be selected. The format follows:

```
<DEPTH> [HOVERD]    e.g.    'FINITE' 0.583909
<CASE>  [HEIGHT]            'PERIOD' 1.858611E-03
<CURRNT> [VALUE]           'EULER' 0.0
[N] [NSTEP]                18   4
```

Input variables are defined in the main program source code. Be sure that string values are in apostrophes, and that real values include a decimal point.

The first two lines of this file are straightforward. Current is a value which has often been ignored, and such data may not be precisely available. Certainly a range of values can be determined. The solutions using the mean and extreme possible values of current can be found, and controlling output parameters selected. This process will also demonstrate the importance of considering current.

Selection of the number of Fourier coefficients "N" and height steps "NSTEP" requires some insight into and experience with the solution. In general, steeper waves required more height steps, while longer waves require more Fourier coeffients. The section on "convergence" provides more information and examples; however, this is a topic on which further research is needed.

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B. Output. Two data output files are created: a solution file prepared by the main program and the subroutine "OUTPUT", and a file of local depth-dependent variables, created by the main program and the subroutine "POINTND." Plots are also provided for surface elevation, velocities and accelerations versus distance, time or phase angle, from crest to trough.

The solution file contains the solution vector for each iteration, and values for a variety of integral quantities which are not a function of location in the solution field. Review of the solution vector can provide valuable insight into how the problem converged. It is formatted for an 80-column printer. See Appendix 2 for examples.

The local variable output file contains part of the final solution vector, followed by tables of local variables vs. depth for selected values of phase angle. The phase angles selected are concentrated near the crest, the region of greatest interest, particularly in shallow water. Output is in dimensionless form; see Appendix 3 for samples and Appendix 4 for definition of each variable. Note that the depth-integrated values are the forces and moments from the depth indicated to the surface. The value from one depth to another is simply the difference between the values indicated at those depths. Plots of surface elevation, velocities, and accelerations follow the tables. The plots give a good "feel" for the solution, and can be used to identify potential problems. (see "Accuracy" section).

C. Running the Program. To run the program, prepare a data input file and then type FENTON <return>. Enter the name of the data input file as unit 5 when asked. Units 6 and 7 are solution

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and local variable output files, respectively. Be sure to use a new file name for units 6 and 7; if a filename is selected that already exists in the current directory (e.g. FENTON.EXE), it will erase the existing file before writing over it. Also be certain to have at least 80K bytes of memory on the disk in use; that is the approximate requirement for the output files. See Appendix 5 for a sample screen input and display during run.

The program should run as-is on any IBM PC or compatible computer (one that uses the MS DOS (version 2) operating system, the 8086-family of processors, and the same disk format as an IBM-PC). Minimum hardware requirements are 192K RAM and one double-sided, or two single-sided disk drives. If the program is copied onto a disk formatted with the "/8" switch (for 8 sectors per track, 320K per disk), the program should run on a computer using MS-DOS version 1, although the code cannot be modified on such a computer. Due to program size (over 100K) and execution time, adaptation to a computer using an 8-bit processor is im-practical.

The code was compiled using the 8087 EMULATOR library. This library permits the program to run on computers with the 8087 numerical coprocessor, to take advantage of its speed and accu-racy. The program will run without the 8087 chip, with the same accuracy, but much slower (by a factor of about 13). If smaller code is important, the program may be recompiled by using the 8087ONLY library, but it will then only run if the computer has an 8087 chip installed.

V. Program Performance.

Rienecker and Fenton (1981) demonstrate the accuracy of their method as compared with that of Vanden-Broeck and Schwartz (1979) and Cokelet (1977), showing agreement to seven decimal places. Values for local variables are compared here with those of Dean (1974), and show good agreement. Convergence is also examined, and examples of problems to look for and solutions are provided. Run time on the personal computer is significant, and is analysed in detail.

A. Accuracy. The solution obtained using the microcomputer was identical to that obtained on a VAX 11/750 by Dr. Fenton, to the level of accuracy of data available (7 significant figures). Double precision and the 8087 numerical coprocessor, with its 64 bit floating point arithmetic, are employed.

The solution for local variables is compared with that of Dean (1974). Since Dean's tables assume that the Eulerian mean current velocity c_e = 0, only those solutions can be compared. To avoid interpolation, problems for which Dean's tables were created are solved, and exact locations compared. Figure 2 (Dean, 1974) illustrates the range of cases examined. Appendix 6 presents a summary of comparisons; output files from which the variables came are provided in Appendix 3. Case 8C, at the point between deep and transitional water, is computed using both the deep and finite methods, so differences may be examined.

The program is solved exactly only at N+1 points (N = the number of Fourier coefficients) spaced uniformly from crest to trough. Many of the phase angles at which values are computed will be between those points. No attempt is made to approximate

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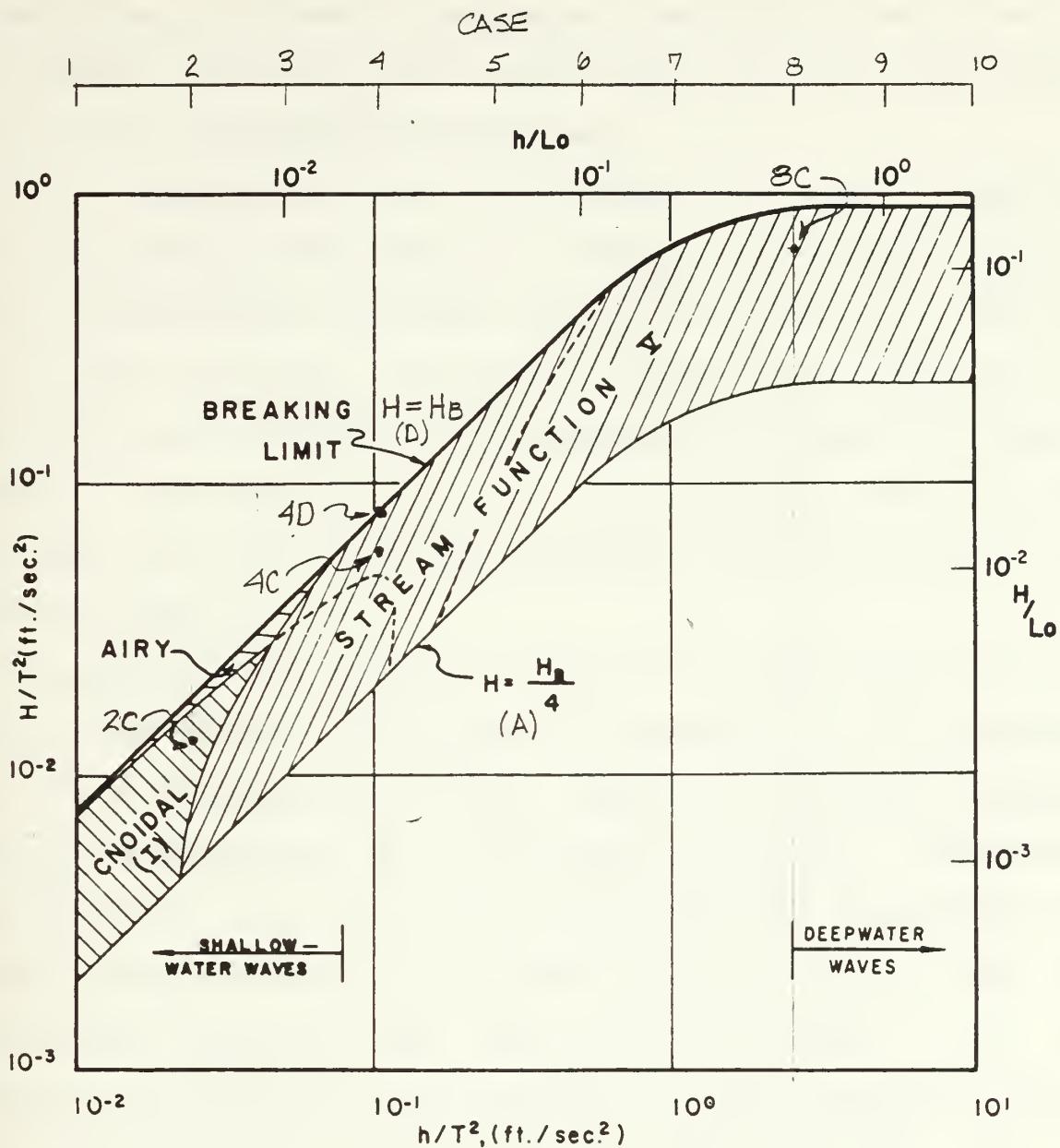
Periodic wave theories providing best fit to dynamic free surface
boundary condition (Analytical and Stream Function V theories)

(DEAN, 1974)

those values using some higher order interpolation technique. In most cases, the sum of the Fourier coefficients is sufficiently accurate for engineering applications.

B. <u>Convergence</u>. For most problems, the method proves very robust, converging very quickly. Selection of a proper number of Fourier coefficients and height steps is the key to an efficient and accurate solution. Too few will result in no solution or an innacurate one; too many will unnecessarily increase run time. In general, the steeper the wave, the more height steps required. The longer the wave (shallower the water) the more Fourier coefficients needed.

Convergence was achieved in deep water cases using only one Fourier coefficient. In addition, convergence could be achieved when wave steepness H/L was well beyond the limiting steepness. Clearly, convergence is no guarantee of accuracy. Dean (1965) increased the number of coefficients until the differences between values in the local solution and the values of the next lower-order solution were less than one percent. When this procedure was applied to the problems with wave steepness greater than the theoretical limit, more and more iterations were required for convergence, until finally convergence did not occur. Before that point was reached, the solution departed from that of a typical monocromatic wave, with large variations in surface profile. Applying Dean's procedure to waves which exist in theory showed that adding coefficients beyond a certain number caused insignificant changes in output.

In shallow water, a minimum number of Fourier coefficients is typically required for the solution to converge. Still,

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convergence does not guarantee accuracy. Dean's case 4C con-
verged using 8 Fourier coefficients, but pertubations in the
surface profile are apparent, shown most clearly in the trough
(Appendix 3.4C). Increasing the number of coefficients to 17
reduced the pertubations such that they are less than the
accuracy of the plotting technique, providing a smooth curve.
Examination of velocities and accelerations reveals only minor
changes when more coefficients are used.

Convergence was not achieved for Dean's case 4D (at the
theoretical breaking limit) using 18 Fourier coefficients. The
solution oscillated about a value near Dean's solution, but would
not converge. Reducing H/d to 97% of the breaking limit resulted
in convergence, with pertubations in the surface profile (Appen-
dix 3.4D). When 23 coefficients were employed, pertubations were
smaller, but still evident. To achieve accuracy for problems in
this range, the program must be modified to either permit use of
even more coefficients (with the accompanying increase in run
time), or to interpolate between the points where the solution is
exact. Examination of maximum horizontal velocities and accelera-
tions shows how close this solution is to the breaking limit.
Horizontal velocity at the crest is 97% of wave speed. The plot
does not provide sufficient horizontal resolution to be certain
of maximum horizontal acceleration, but it is at least 82% of
acceleration due to gravity.

An unusual phenomena was observed when considering very
long, steep waves. Dean's case 2C is a good example. The solu-
tion took over 10 iterations to converge in the first of 4 height

steps; the remaining height steps converged more quickly. The resulting surface elevation is shown in Appendix 3.2C. The appearance of the second crest is not a desired output. Fenton (1984) demonstrated that by increasing the number of height steps from 4 to 8, the problem converges to the desired monocromatic solution. He postulates that the linear solution does not provide a sufficiently accurate starting point for this wave. The program instead found a solution which satisfied all of the boundary conditions, of length 1/3. He then suggests using cnoidal theory as the initial solution, or using more height steps. He selects the latter method in the interest of minimizing program complexity.

It must be stressed that this is a very long wave, in very shallow water. For example, for a typical period of 12 seconds, wave height is just 0.66 meters, and water depth only 1.1 meters. Even for an extreme period of 22 seconds, wave height is just 2.2 meters, and water depth, 3.8 meters. It is doubtful that such a wave would control design in most applications.

The following general recommendations can be made from limited experience with the program to date.

1) Before running the program, be certain that input variables are within the range of theoretical existence of the wave; that is, steepness and height over depth are less than theoretical limits. With no current, convergence was achieved up to $H/d = 0.75$ in shallow water, and $H/gT^2 = 0.026$ in deep water.

2) The screen plot provides an early indication of the convergence pattern. Display of Dean's case 4C, shown in

Appendix 5, is a typical example of a program where convergence was quickly achieved. One to three significant figures of accuracy are added with each iteration. Following that is an example of a problem which oscillated about a solution, but did not converge. From the display, the user can typically judge if the program will converge by about the 5th iteration, and terminate the run manually to save computer time. If $k\eta_1$ is beyond the range $0 < k\eta_1 < 1$ at any iteration, convergence will not occur.

3) Probably most important, the program must be run and evaluated by someone familiar with both the physics and the mathematics of the problem. The program is not fail-safe, and misapplication can cause one to wrongly conclude that it does not work. Worse yet, a solution which has not been adequately evaluated may be improperly applied in practice.

C. Run time. Run time varies with the computer system used; whether or not an 8087 chip is installed; whether floppy disks, hard disk or RAM disk is used for memory, and the type of processor itself. Execution times were recorded for an IBM PC XT, with an 8088 processor (clock time 4.77 MHz), hard disk, and with an 8087 chip installed.

The type of problem also affects run time. The number of iterations required for convergence can only be estimated. Each height step takes a minimum of three iterations, and the last may take from three to nine iterations, for a problem which eventually converges. Run time per iteration is fairly consistent, depending somewhat upon depth ("deep" or "finite") and strongly on number of Fourier coefficients N. For the finite case, run time per iteration (in seconds) can be approximated by the

following equation:

$$T = (1/30)N^{2.65}$$

A deep water problem takes about 15% less time per iteration. If an 8087 chip is not installed, run time is about 13 times longer.

Run time for the subroutine "POINTND" is not so drastically affected by number of coefficients, and takes from one to two minutes to complete.

VI.   EFFECT OF CURRENT.

In many engineering applications of wave forces, the effect of current on the solution is ignored, due to lack of understanding of its impact, or due to lack of current data. Approximating zero current is reasonable for order-of-magnitude analyses using linear wave theory. If any significant current is possible, it is inconsistent to ignore it in final design, while at the same time taking the time and effort to compute a non-linear solution.

The extensive tables created by Dean (1974) assume zero mean current velocity. To include current would require a set of such tables for various current conditions, adding another dimension to the interpolation process. With the availability of Fenton's computer program, solutions for exact value of current are avail-able. Deep and shallow water examples follow.

A. Shallow Water. Dean's case 4C ($H=0.75H_b$) is the shallow water example. A wave of height 5 meters is examined, first with no current and then with a moderate 1 meter/second (~2 knot) current, both opposing and assisting the wave. The assisting current caused a 10% decrease in wave number (or increase in wavelength); the opposing current had the opposite effect. The

surface profile plot does not readily reveal the impact of current, since it is automatically scaled from crest to trough. The phase angle at which the water surface crosses the still water level is 45 degrees with no current; decreasing to 42 degrees with an assisting current. However, the absolute distance from crest to the point at which the water surface crosses the still water level increases from 21.4 meters to 22.2 meters with assisting current.

Upon first observation, changes in horizontal surface velocities appear to reach 15% when considering current. When output is dimensionalized, and the constant 1 m/s current is subtracted, the differences are revealed to be minor, affecting only the third significant figure. The variations in acceleration are more obvious, as they are non-dimensionalized by acceleration due to gravity, and have no offset as horizontal velocities do. The difference is only about 3%.

Since current is non-dimensionalized by $\sqrt{gH}$, a reduction in height by a factor of four doubles the effect of current. For a 1 m/s current on a 1.25 meter wave, wavelength is changed by 20%, a fairly linear effect. The percentage change in velocities and accelerations is about doubled as well.

Interestingly, the differences in output changes with depth. For instance, the 1 m/s assisting current causes maximum horizontal acceleration of the 5 meter wave to decrease by 1.5% at the surface, but to increase by 6% at the bottom. Again, the effect is approximately doubled for a wave of wave of one-fourth the height, and the same current.

B. <u>Deep Water</u>. A deep water case (Dean's case 8C), was then

examined. Again, a wave height of 5 meters and current of 1 m/s was selected. Wavelength changed by 18%, in the same manner as in shallow water. The phase angle at which the water surface crosses the still water level, however, increased from 78.75 degrees with no current to 80.75 degrees with an assisting current. Of course, the absolute distance from crest to the point where the water surface crosses the still water level increased when assisting current was considered.

Changes in surface velocities and accelerations are much more pronounced in deep water. The 1 m/s assisting current caused a 5% drop in maximum vertical velocity, and an 18% decrease in maximum horizontal velocity, after compensating for the 1 m/s current. Maximum vertical accelerations decreased by 18% as well. Again, doubling the effect of current by dividing height by four caused the percentage changes in velocities and accelerations to double. Opposing current could not be examined for this particular case, because it increased the steepness beyond the limits of convergence.

The reason for the difference in effect of current between deep and shallow water is not completely clear. One reasonable explanation is the horizontal velocity profiles. As water becomes more shallow, the horizontal velocity profile becomes more constant from surface to the bottom. The effect of current then becomes more constant throughout the solution field. In deep water, horizontal velocities decrease to near zero (relative to the current) at a depth $y = -L/2$. The effect of current varies across the solution field, causing the much greater impact on the solution itself.

VII. Topics for Further Investigation.

As with many studies, more questions were raised during this effort than were answered. The following is a partial listing of ideas for continued work.

A.   Development of subroutines for additional engineering applications of the program.   One example is a dimensional version of "POINTND." The principle advantage of such a version would be the ability to sum drag and inertia forces and moments, and plot the total and their components using "PLOTTER." Maximum total forces and moments may then be determined.

B.   The main program could be modified to write the solution vector Z(2N+10) to a file. If more application subroutines were developed, they could be modified to be run from this solution vector file, instead of as an automatic follow-on to the main program.   The time-consuming process of solving the simultaneous differential equations would then be kept seperate from the applications, and only those required need be run.

C.   If the modifications indicated in (C) above are made, then "POINT" could be made more flexible, so that the output may be tailored to the user's needs. In a deep water problems, limiting the vertical range over which the problem is solved to a range of interest will improve the vertical resolution and therefore the accuracy of the depth-integrated values.   In shallow water problems, limiting the horizontal range from the crest to, say, the point where the water surface crosses the still water level, will provide improved horizontal resolution in the area of immediate interest.   For instance, case 4D demonstrates that higher horizontal resolution in the vicinity of the crest is

needed, particularly for horizontal accelerations (and therefore inertia forces and moments) to be certain of the peak values. If "POINT" could be run again, from the crest to a phase angle of 45 degrees, the resolution would be quadrupled, and all the maximum values displayed, but more accurately.

D. A detailed study of convergence characteristics would aid in determining the optimum number of height steps and Fourier coefficients to achieve convergence and accuracy. A chart (or program) to provide that information would simplify the guess-work, and minimize computer time by reducing total number of iterations (and eliminating runs which do not converge or converge to inaccurate solutions).

E. An interpolation subroutine to smooth the values between the exact solution points would be valuable for waves near the breaking point.

F. A more thorough study of the effect of current on the solution is indicated. Current is rarely uniform throughout depth in nature, and the impact of a realistic current-depth profile would show if the assumption of a mean current is satis-factory. Also, the interaction between waves and current should be investigated.

G. When an updated Fortran compiler becomes available, the following simplifications can be made:

1) Use a parameter statement to ease changing of array dimensions.

2) If complex numbers are available, use the more computa-tionally efficient Watt iteration method to calculate the sum of sines and cosines may possibly improve runtime.

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```
 1          PROGRAM STEADY
 2 C CALCULATION OF STEADY WAVES
 3 CC PROGRAM DEVELOPED USING FORTRAN77 ON A VAX 11/750 BY J. D. FENTON
 4 CC   SCHOOL OF MATHEMATICS, UNIVERSITY OF NEW SOUTH WALES
 5 CC              KENSINGTON, N.S.W., AUSTRALIA  2033
 6 CC PAPER SUBMITTED TO 'COMPUTERS & GEOSCIENCES', NOVEMBER 1983
 7 CC
 8 CC THIS VERSION ADAPTED TO MICROCOMPUTERS USING THE IBM (TM) PC AND
 9 CC IBM FORTRAN COMPILER V.2.00 (MICROSOFT (TM) FORTRAN V.3.20).
10 CC DELETED LINES REMAIN AS COMMENTS; COMMENTS ALSO INDICATE NEW OR
11 CC CHANGED LINES. CHANGES ARE SUMMARIZED BELOW:
12 CC      --MS FORTRAN REQUIRES ARRAY LOWER BOUNDARIES TO BE 1.
13 CC      --AN IMPLICIT STATEMENT DOES NOT ALTER THE TYPE OF INTRINSIC
14 CC          FUNCTION; THEY MUST BE GIVEN IN PRECISION REQUIRED (E.G.
15 CC          DSIN(X) FOR DOUBLE PRECISION).
16 CC      --SUBROUTINE POINT IS CALLED, AND MODIFIED TO INCLUDE
17 CC          ACCELERATIONS, FORCES AND MOMENTS
18 CC THIS VERSION PRODUCES DIMENSIONLESS OUTPUT
19 C
20          IMPLICIT DOUBLE PRECISION(A-H,K-L,O-Z)
21          CHARACTER*10 DEPTH,CASE,CURRNT,UNITS
22          COMMON /ONE/N,NUM,PI,HOVERD,HEIGHT,VALUE,DEPTH,CASE,CURRNT
23 CC       COMMON /TWO/Z(41),COSA(0:41),SINA(0:41),COEFF(41),SOL(41,2),Y(41)
24 CC LOWER BOUNDARY OF ARRAY CANNOT BE CHANGED TO ZERO.
25          COMMON /TWO/Z(59),COSA(59),SINA(59),COEFF(59),SOL(59,2),Y(59)
26          DIMENSION RHS1(59),RHS2(59),A(59,59),B(59),IPVT(59)
27 C
28 CC SUBROUTINES: INIT, EQNS, PLOT, OUTPUT, POINTND, PLOTTER, SUBPLOT
29 CC LINPACK ROUTINES: DGEFA, DGESL; BLAS: DAXPY, DSCAL, IDAMAX, DDOT
30 CC
31 CC WRITE INSTRUCTIONS TO SCREEN
32 CC
33          WRITE(*,30)
34          WRITE(*,31)
35 CC
36 C INPUT DATA
37 C
38 C        "DEPTH" IS EITHER 'DEEP' OR 'FINITE'.
39 C        "HOVERD IS WAVE HEIGHT OVER DEPTH
40          READ(5,*)DEPTH,HOVERD
41 C      "CASE" IS EITHER 'PERIOD' OR 'WAVELENGTH'.
42 C        "HEIGHT" IS HEIGHT/LENGTH IF "CASE" IS 'WAVELENGTH'.
43 C        "HEIGHT' IS HEIGHT/(G*T**2) IF "CASE" IS 'PERIOD'.
44          READ(5,*)CASE,HEIGHT
45 C        "CURRNT"IS EITHER 'EULER' OR 'STOKES'.
46 C        "VALUE" IS THE MAGNITUDE OF THE MEAN EULERIAN OR STOKES
47 C          VELOCITIES NON-DIMEN. W/ RESPECT TO WAVE HEIGHT.
48          READ(5,*)CURRNT,VALUE
49 C        "N"IS THE NUMBER OF TERMS IN THE FOURIER SERIES AND THE
50 C          NUMBER OF INTERVALS IN HALF A WAVELENGTH.
51 C        "NSTEP"IS THE NUMBER OF STEPS IN WAVE HEIGHT.
52          READ(5,*)N,NSTEP
53 C        "NUMBER"IS THE NUMBER OF ITERATIONS FOR EACH WAVE HEIGHT STEP.
54          NUMBER=18
55 C        "CRIT" IS THE CRITERION FOR CONVERGENGE. IF THE SUM OF
56 C          MAGNITUDES OF CORRECTIONS IS SMALLER THAN CRIT, THE
57 C          ITERATION STOPS.
58          CRIT=1.D-3
59          NUM=2*N+10
```

```
 60          PI=4.D0*DATAN(1.D0)
 61          DHE=HEIGHT/NSTEP
 62          DHO=HOVERD/NSTEP
 63 CC
 64 CC LABEL OUTPUT FILES
 65 CC
 66          DO 15 I=6,7
 67             WRITE(I,30)
 68             WRITE(I,20)DEPTH,HOVERD
 69             WRITE(I,21)HEIGHT,CASE
 70    15      WRITE(I,22)CURRNT,VALUE
 71 C
 72 C COMMENCE STEPPING THROUGH STEPS IN WAVE HEIGHT.
 73 C
 74          DO 1 NS=1,NSTEP
 75          HEIGHT=NS*DHE
 76          HOVERD=NS*DHO
 77          WRITE (6,23)NS,NSTEP
 78 CC
 79 CC   SCREEN OUTPUT DURING RUN
 80 CC
 81          WRITE (*,23)NS,NSTEP
 82          WRITE(*,28)
 83 C
 84 C CALCULATE INITIAL LINEAR SOLUTION.
 85 C
 86          IF(NS.LE.1)THEN
 87             CALL INIT
 88          ELSE
 89 C
 90 C OR, EXTRAPOLATE FOR NEXT WAVE HEIGHT, IF NECESSARY.
 91 C
 92             DO 3 I=1,NUM
 93    3        Z(I)=2.*SOL(I,2)-SOL(I,1)
 94          ENDIF
 95 C
 96 C COMMENCE ITERATIVE SOLUTION
 97 C
 98          DO 4 ITER=1,NUMBER
 99             WRITE(6,24)ITER
100 C
101 C CALCULATE RIGHT SIDES OF EQUATIONS AND DIFFERENTIATE NUMERICALLY
102 C TO OBTAIN JACOBIAN MATRIX.
103 C
104             CALL EQNS(RHS1)
105                DO 5 I=1,NUM
106                H=0.01*Z(I)
107                IF(DABS(Z(I)).LT.1.D-4)H=1.D-5
108                Z(I)=Z(I)+H
109                CALL EQNS(RHS2)
110                Z(I)=Z(I)-H
111                B(I)=-RHS1(I)
112                   DO 6 J=1,NUM
113    6             A(J,I)=(RHS2(J)-RHS1(J))/H
114    5          CONTINUE
115 C
116 C SOLVE MATRIX EQUATION AND CORRECT VARIABLES,USING 'LINPACK' ROUTINES.
117 C
118 C THE MATRIX EQUATION [A(I,J)][CORR'N VECTOR]=[B(I)] IS TO BE SOLVED.
```

```
D Line# 1        7
2   119 C
2   120            CALL DGEFA(A,59,NUM,IPVT,INFO)
2   121            IF(INFO.NE.0)THEN
2   122              WRITE(6,27)INFO
2   123              STOP
2   124            ENDIF
2   125            CALL DGESL(A,59,NUM,IPVT,B,0)
2   126 C
2   127 C THE B(I) ARE NOW THE CORRECTIONS TO EACH VARIABLE.
2   128 C
2   129            SUM=0.D0
2   130              DO 7 I=1,NUM
3   131              SUM=SUM+DABS(B(I))
3   132      7       Z(I)=Z(I)+B(I)
2   133            WRITE(6,25)(Z(I),I=1,NUM)
2   134 CC
2   135 CC PROVIDE SCREEN OUTPUT DURING RUN
2   136 CC
2   137            CALL PLOT(ITER,Z(10))
2   138 CC
2   139            CRITER=CRIT
2   140            IF(NS.EQ.NSTEP)CRITER=0.001*CRIT
2   141            IF(SUM.LT.CRITER)GOTO 9
2   142      4     CONTINUE
1   143          WRITE(6,26)NUMBER
1   144          STOP
1   145      8   IF(NS.EQ.1)THEN
    146            DO 9 I=1,NUM
2   147      9     SOL(I,2)=Z(I)
1   148          ELSE
1   149            DO 10 I=1,NUM
2   150            SOL(I,1)=SOL(I,2)
2   151     10     SOL(I,2)=Z(I)
1   152          ENDIF
1   153      1   CONTINUE
    154 C
    155 C OUTPUT OF RESULTS
    156 C
    157            CALL OUTPUT
    158 CC
    159 CC COMPUTE LOCAL VALUES OF VELOCITY, ACCELERATION AND PRESSURE
    160 CC
    161            CALL POINTND
    162 CC
    163     20  FORMAT(//,'DEPTH: ',A6,', HEIGHT/DEPTH=',F7.4)
    164     21  FORMAT(/,'WAVE HEIGHT',1PG13.6,',DIMENSIONLESS WITH RESPECT TO ',
    165        1A10)
    166     22  FORMAT(/,' CURRENT CRITERION: ',A6,', MAGNITUDE=',F5.2)
    167     23  FORMAT(/,' HEIGHT STEP ',I2,' OF ',I2)
    168     24  FORMAT(/,' ITERATION ',I3)
    169     25  FORMAT(/,' SOLUTION VECTOR',12(/,6(1PG13.5)))
    170     26  FORMAT(/,'DID NOT CONVERGE SUFFICIENTLY AFTER',I3,' ITERATIONS.')
    171     27  FORMAT(/,' MATRIX SINGULAR, INFO = ',I4)
    172 CC
    173     28  FORMAT(/,' ITER.        Z(10)',/)
    174     30  FORMAT(' STEADY WATER WAVE COMPUTATION USING THE FOURIER APPRO',
    175        1'XIMATION METHOD OF',/,19X,'M. M. RIENECKER AND J. D. FENTON.')
    176     31  FORMAT(' UNIT 5 IS THE DATA INPUT FILE, UNIT 6 IS THE SOLUTION',
    177        1' OUTPUT FILE,',/,' UNIT 7 IS THE LOCAL VARIABLE OUTPUT FILE.',/)
```

D Line# 1   7

```
     178          STOP
     179          END
```

Name	Type	Offset	P	Class	
A	REAL*8	1182			
B	REAL*8	29030			
CASE	CHAR*10	50		/ONE	/
COEFF	REAL*8	1416		/TWO	/
COSA	REAL*8	472		/TWO	/
CRIT	REAL*8	29510			
CRITER	REAL*8	29598			
CURRNT	CHAR*10	60		/ONE	/
DABS				INTRINSIC	
DATAN				INTRINSIC	
DEPTH	CHAR*10	40		/ONE	/
DHE	REAL*8	29518			
DHO	REAL*8	29526			
H	REAL*8	29562			
HEIGHT	REAL*8	24		/ONE	/
HOVERD	REAL*8	16		/ONE	/
I	INTEGER*4	29534			
INFO	INTEGER*4	29578			
IPVT	INTEGER*4	946			
ITER	INTEGER*4	29550			
J	INTEGER*4	29570			
N	INTEGER*4	0		/ONE	/
IS	INTEGER*4	29538			
NSTEP	INTEGER*4	29502			
NUM	INTEGER*4	4		/ONE	/
NUMBER	INTEGER*4	29506			
PI	REAL*8	8		/ONE	/
RHS1	REAL*8	2			
RHS2	REAL*8	474			
SINA	REAL*8	944		/TWO	/
SOL	REAL*8	1888		/TWO	/
SUM	REAL*8	29582			
UNITS	CHAR*10	*****			
VALUE	REAL*8	32		/ONE	/
Y	REAL*8	2832		/TWO	/
Z	REAL*8	0		/TWO	/

Name	Type	Size	Class
DGEFA			SUBROUTINE
DGESL			SUBROUTINE
EQNS			SUBROUTINE
INIT			SUBROUTINE
ONE		70	COMMON
OUTPUT			SUBROUTINE
PLOT			SUBROUTINE
OINTN			SUBROUTINE
STEADY			PROGRAM
TWO		3304	COMMON
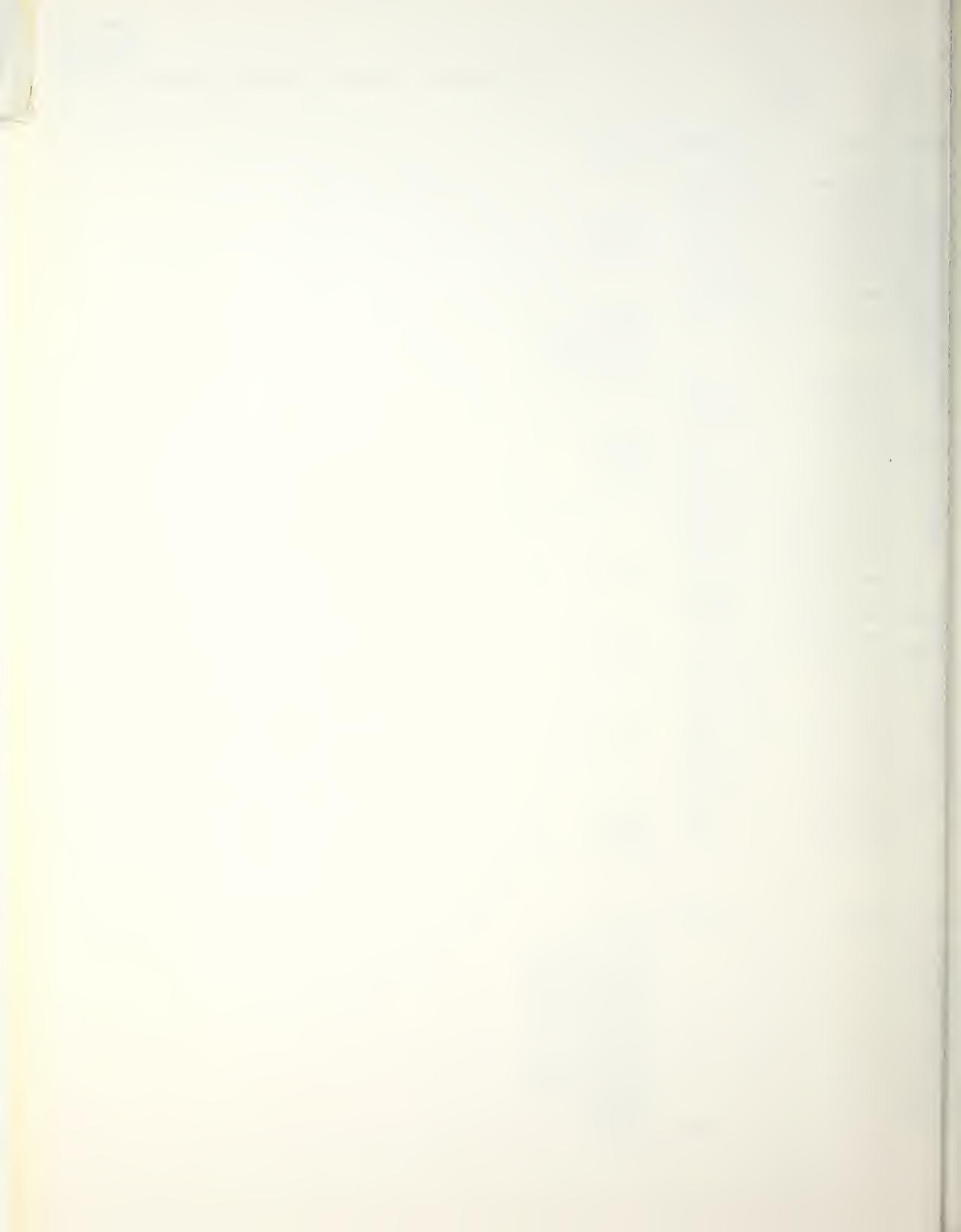
D Line# 1   7   IBM Personal Computer FORTRAN Compiler V2.00
  Pass One   No Errors Detected
                179 Source Lines

```
     1          SUBROUTINE INIT
     2 C SUBROUTINE TO CALCULATE INITIAL SOLUTION FROM LINEAR WAVE THEORY.
     3 C
     4          IMPLICIT DOUBLE PRECISION(A-H,K-L,O-Z)
     5          CHARACTER*10 DEPTH,CASE,CURRNT
     6          COMMON /ONE/N,NUM,PI,HOVERD,HEIGHT,VALUE,DEPTH,CASE,CURRNT
     7 CC       COMMON /TWO/Z(41),COSA(0:41),SINA(0:41),COEFF(41),SOL(41,2),Y(41)
     8 CC LOWER BOUNDARY OF ARRAY CANNOT BE CHANGED TO ZERO.
     9          COMMON /TWO/Z(59),COSA(59),SINA(59),COEFF(59),SOL(59,2),Y(59)
    10          IF(DEPTH.EQ.'FINITE')THEN
    11            IF(CASE.EQ.'PERIOD')THEN
    12              A=4.*PI*PI*HEIGHT/HOVERD
    13              B=A/DSQRT(DTANH(A))
    14              T=DTANH(B)
    15              Z(1)=B+(A-B*T)/(T+B*(1.-T*T))
    16            ELSE
    17              Z(1)=2.*PI*PI*HEIGHT/HOVERD
    18            ENDIF
    19            Z(2)=Z(1)*HOVERD
    20            Z(4)=DSQRT(DTANH(Z(1)))
    21          ELSE
    22            Z(1)=-1.D0
    23            Z(4)=1.D0
    24            IF (CASE.EQ.'PERIOD')THEN
    25              Z(2)=4.*PI*PI*HEIGHT
    26            ELSE
    27              Z(2)=2.*PI*HEIGHT
    28            ENDIF
    29          ENDIF
    30          Z(3)=2.*PI/Z(4)
    31          IF(CURRNT.EQ.'EULER')THEN
    32            Z(5)=VALUE*DSQRT(Z(2))
    33            Z(6)=0.D0
    34          ELSE
    35            Z(6)=VALUE*DSQRT(Z(2))
    36            Z(5)=0.D0
    37          ENDIF
    38          Z(7)=Z(4)
    39          Z(8)=0.D0
    40          Z(9)=0.5*Z(7)**2
    41 CC       COSA(0)=1.D0
    42 CC       SINA(0)=0.D0
    43 CC ZERO LOWER BOUNDARY NOT PERMITTED; USE COSA(2*PI)=COSA(0)
    44          Z(10)=0.5*Z(2)
    45            DO 1 I=1,N
    46            COSA(I)=DCOS(I*PI/N)
    47            COSA(I+N)=DCOS((I+N)*PI/N)
    48            SINA(I)=DSIN(I*PI/N)
    49            SINA(I+N)=DSIN((I+N)*PI/N)
    50            Z(N+I+10)=0.D0
    51    1       Z(I+10)=0.5*Z(2)*COSA(I)
    52          Z(N+11)=0.5*Z(2)/Z(7)
    53          WRITE(6,2)(Z(I),I=1,NUM)
    54    2     FORMAT(//,'*INITIAL LINEAR SOLUTION',12(,/6(1PG13.5)))
    55            DO 3 I=1,9
    56    3       SOL(I,1)=Z(I)
    57            SOL(I,2)=0.D0
    58            DO 4 I=10,NUM
    59    4       SOL(I,1)=0.D0
```

D Line# 1   7
        60   RETURN
        61   END

Name	Type	Offset	P Class	
A	REAL*8	2		
B	REAL*8	10		
CASE	CHAR*10	50	/ONE	/
COEFF	REAL*8	1416	/TWO	/
COSA	REAL*8	472	/TWO	/
CURRNT	CHAR*10	60	/ONE	/
DCOS			INTRINSIC	
DEPTH	CHAR*10	40	/ONE	/
DSIN			INTRINSIC	
DSQRT			INTRINSIC	
DTANH			INTRINSIC	
HEIGHT	REAL*8	24	/ONE	/
HOVERD	REAL*8	16	/ONE	/
I	INTEGER*4	26		
N	INTEGER*4	0	/ONE	/
NUM	INTEGER*4	4	/ONE	/
PI	REAL*8	8	/ONE	/
SINA	REAL*8	944	/TWO	/
SOL	REAL*8	1888	/TWO	/
T	REAL*8	18		
VALUE	REAL*8	32	/ONE	/
Y	REAL*8	2832	/TWO	/
	REAL*8	0	/TWO	/

Name	Type	Size	Class
INIT			SUBROUTINE
ONE		70	COMMON
TWO		3304	COMMON

 Pass One   No Errors Detected
             61 Source Lines

```
    1          SUBROUTINE EQNS(RHS)
    2 C SUBROUTINE FOR EVALUATION OF EQUATIONS.
    3 C
    4          IMPLICIT DOUBLE PRECISION(A-H,K-L,O-Z)
    5          CHARACTER*10 DEPTH,CASE,CURRNT
    6          COMMON /ONE/N,NUM,PI,HOVERD,HEIGHT,VALUE,DEPTH,CASE,CURRNT
    7 CC       COMMON /TWO/Z(41),COSA(0:41),SINA(0:41),COEFF(41),SOL(41,2),Y(41)
    8 CC LOWER BOUNDARY OF ARRAY CANNOT BE CHANGED TO ZERO.
    9          COMMON /TWO/Z(59),COSA(59),SINA(59),COEFF(59),SOL(59,2),Y(59)
   10          DIMENSION RHS(59)
   11          IF(DEPTH.EQ.'FINITE')THEN
   12             RHS(1)=Z(2)-Z(1)*HOVERD
   13          ELSE
   14             RHS(1)=Z(1)+1.D0
   15          ENDIF
   16          IF(CASE.EQ.'WAVELENGTH')THEN
   17             RHS(2)=Z(2)-2.*PI*HEIGHT
   18          ELSE
   19             RHS(2)=Z(2)-HEIGHT*Z(3)**2
   20          ENDIF
   21          RHS(3)=Z(4)*Z(3)-PI-PI
   22          RHS(4)=Z(5)+Z(7)-Z(4)
   23          RHS(5)=Z(6)+Z(7)-Z(4)
   24          IF(DEPTH.EQ.'FINITE')THEN
   25             RHS(5)=RHS(5)-Z(8)/Z(1)
   26             DO 2 I=1,N
   27    2       COEFF(I)=Z(N+I+10)/DCOSH(I*Z(1))
   28          ENDIF
   29          IT=6
   30          IF(CURRNT.EQ.'EULER')IT=5
   31          RHS(6)=Z(IT)-VALUE*DSQRT(Z(2))
   32          RHS(7)=Z(10)+Z(N+10)
   33             DO 1 I=1,N-1
   34    1       RHS(7)=RHS(7)+Z(10+I)+Z(10+I)
   35          RHS(8)=Z(10)-Z(N+10)-Z(2)
   36             DO 3 M=0,N
   37             PSI=0.D0
   38             U=0.D0
   39             V=0.D0
   40             IF(DEPTH.EQ.'FINITE')THEN
   41                DO 4 J=1,N
   42                NM=MOD(M*J,N+N)
   43                E=DEXP(J*(Z(1)+Z(10+M)))
   44                S=0.5*(E-1./E)
   45                C=0.5*(E+1./E)
   46 CC FOLLOWING STATEMENT PERMITS COMPUTATION OF COSA(0)=COSA(2*PI)
   47                IF(NM.EQ.0)NM=N+N
   48                PSI=PSI+COEFF(J)*S*COSA(NM)
   49                U=U+J*COEFF(J)*C*COSA(NM)
   50                V=V+J*COEFF(J)*S*SINA(NM)
   51    4          CONTINUE
   52             ELSE
   53                DO 5 J=1,N
   54                NM=MOD(M*J,N+N)
   55                E=DEXP(J*Z(10+M))
   56 CC FOLLOWING STATEMENT PERMITS COMPUTATION OF COSA(0)=COSA(2*PI)
   57                IF(NM.EQ.0)NM=N+N
   58                PSI=PSI+Z(N+J+10)*E*COSA(NM)
   59                U=U+J*Z(N+J+10)*E*COSA(NM)
```

D Line# 1   7   IBM Personal Computer FORTRAN Compiler V2.00
2   60   5   V=V+J*Z(N+J+10)*E*SINA(NM)
'   61   ENDIF
.   62   RHS(M+9)=PSI-Z(8)-Z(7)*Z(M+10)
1   63   RHS(N+M+10)=0.5*((-Z(7)+U)**2+V**2)+Z(M+10)-Z(9)
1   64   3   CONTINUE
       65   RETURN
       66   END

Name	Type	Offset	P	Class
C	REAL*8	78		
CASE	CHAR*10	50		/ONE /
COEFF	REAL*8	1416		/TWO /
COSA	REAL*8	472		/TWO /
CURRNT	CHAR*10	60		/ONE /
DCOSH				INTRINSIC
DEPTH	CHAR*10	40		/ONE /
DEXP				INTRINSIC
DSQRT				INTRINSIC
E	REAL*8	62		
HEIGHT	REAL*8	24		/ONE /
HOVERD	REAL*8	16		/ONE /
I	INTEGER*4	2		
IT	INTEGER*4	10		
J	INTEGER*4	50		
M	INTEGER*4	18		
MOD				INTRINSIC
:	INTEGER*4	0		/ONE /
NM	INTEGER*4	58		
NUM	INTEGER*4	4		/ONE /
PI	REAL*8	8		/ONE /
PSI	REAL*8	26		
RHS	REAL*8	0	*	
S	REAL*8	70		
SINA	REAL*8	944		/TWO /
SOL	REAL*8	1888		/TWO /
U	REAL*8	34		
V	REAL*8	42		
VALUE	REAL*8	32		/ONE /
Y	REAL*8	2832		/TWO /
Z	REAL*8	0		/TWO /

Name	Type	Size	Class
EQNS			SUBROUTINE
ONE		70	COMMON
TWO		3304	COMMON

Pass One   No Errors Detected
              66 Source Lines

```
D Line# 1        7                      IBM Personal Computer FORTRAN Compiler V2.00
        1           SUBROUTINE OUTPUT(NSTEP)
        2 C SUBROUTINE FOR OUTPUT OF RESULTS
        3 C
        4           IMPLICIT DOUBLE PRECISION(A-H,K-L,O-Z)
        5           CHARACTER*10 DEPTH,CASE,CURRNT
        6           COMMON /ONE/N,NUM,PI,HOVERD,HEIGHT,VALUE,DEPTH,CASE,CURRNT
        7 CC        COMMON /TWO/Z(41),COSA(0:41),SINA(0:41),COEFF(41),SOL(41,2),Y(41)
        8 CC LOWER BOUNDARY OF ARRAY CANNOT BE CHANGED TO ZERO.
        9           COMMON /TWO/Z(59),COSA(59),SINA(59),COEFF(59),SOL(59,2),Y(59)
       10 C CALCULATE FOURIER COEFFICIENTS OF SURFACE ELEVATIONS
       11           DO 10 J=I,N
   1   12           SUM=0.5DO*(Z(10)+Z(N+10)*(-1.DO)**J)
   1   13             DO 11 M=1,N-1
   2   14 CC11       SUM=SUM+Z(10+M)*COSA(MOD(M*J,N+N))
   2   15 CC FOLLOWING STATEMENTS PERMIT COMPUTATION OF COSA(0)=COSA(2*PI)
   2   16       .    NM=MOD(M*J,N+N)
   2   17             IF(NM.EQ.0)NM=N+N
   2   18    11       SUM=SUM+Z(10+M)*COSA(NM)
   1   19    10     Y(J)=2.*SUM/N
       20         WRITE(6,1)N,NSTEP
       21         WRITE(7,1)N,NSTEP
       22     1   FORMAT(//,'SOLUTION OF ORDER ',I3,' NON-DIMENSIONALIZED BY ',
       23        1'WAVE NUMBER, ',I2,' HEIGHT STEP(S).',/)
       24         IF(DEPTH.EQ.'FINITE')THEN
       25           WRITE(6,2)Z(1)
       26           WRITE(7,2)Z(1)
       27         ELSE
       28           WRITE(7,'(/)')
       29         ENDIF
       30     2   FORMAT(' WATER DEPTH                                ',1PG13.5,/)
       31         WRITE(6,3)(Z(I),I=2,9)
       32         WRITE(7,3)(Z(I),I=2,9)
       33     3   FORMAT(' WAVE HEIGHT                                ',1PG13.5,//,
       34        1' WAVE PERIOD                            ',1PG13.5,//,
       35        1' WAVE SPEED                             ',1PG13.5,//,
       36        1' MEAN EULERIAN FLUID SPEED              ',1PG13.5,//,
       37        1' MEAN MASS TRANSPORT SPEED          .   ',1PG13.5,//,
       38        1' MEAN FLUID SPEED RELATIVE TO WAVE ',1PG13.5,//,
       39        1' VOLUME FLUX DUE TO WAVES               ',1PG13.5,//,
       40        1' BERNOULLI CONSTANT                     ',1PG13.5)
       41         WRITE(6,4)(Z(I),I=10,N+10)
       42     4   FORMAT(//,' SURFACE ELEVATIONS - CREST TO TROUGH',//,
       43        13(10(1PF8.4),/))
       44     5   FORMAT(/,' FOURIER COEFFICIENTS',//,10(5(I3,1PF10.6,3X),/))
       45         PULSE=Z(8)+Z(1)*Z(5)
       46         KE=0.5*(Z(4)*PULSE+Z(5)*(Z(8)-Z(7)*Z(1)))
       47         PE=0.5*(Z(10)**2+Z(N+10)**2)
       48           DO 7 I=1,N-1
   1   49     7     PE=PE+Z(10+I)**2
       50         PE=PE/(2.*N)
       51         UB2=2.*Z(9)-Z(4)**2
       52         SXX=4.*KE-3.*PE+UB2*Z(1)+2.*Z(5)*(Z(7)*Z(1)-Z(8))
       53         F=Z(4)*(3.*KE-2.*PE)+0.5*UB2*(PULSE+Z(4)*Z(1))
       54        1+Z(4)*Z(5)*(Z(7)*Z(1)-Z(8))
       55         WRITE(6,8)PULSE,KE,PE,UB2,SXX,F
       56     8   FORMAT(/,' INTEGRAL QUANTITIES',//,
       57        1' IMPULSE                               ',1PE14.6,//,
       58        1' KINETIC ENERGY (T)                  ',1PE14.6,//,
       59        1' POTENTIAL ENERGY (V)                ',1PE14.6,//,
```

D Line# 1   7   IBM Personal Computer FORTRAN Compiler V2.00

```
    60        1' MEAN SQUARE OF BED VELOCITY ',1PE14.6,//,
    61        1' RADIATION STRESS (SXX)        ',1PE14.6,//,
    62        1' WAVE POWER (F)                ',1PE14.6)
    63         IF(DEPTH.EQ.'FINITE')THEN
    64           Q=Z(7)*Z(1)-Z(8)
    65           R=Z(9)+Z(1)
    66           S=SXX-2.*Z(4)*PULSE+(Z(4)**2+0.5*Z(1))*Z(1)
    67           WRITE(6,9)Q,R,S
    68    9      FORMAT(//,' INVARIANTS FOR FINITE DEPTH',//,
    69        1' VOLUME FLUX (Q)          ',F9.6,//,
    70        1' BERNOULLI CONSTANT (R) ',F9.6,//,
    71        1' MOMENTUM FLUX (S)        ',F9.6)
    72         ENDIF
    73         RETURN
    74         END
```

Name	Type	Offset	P	Class	
CASE	CHAR*10	50		/ONE	/
COEFF	REAL*8	1416		/TWO	/
COSA	REAL*8	472		/TWO	/
CURRNT	CHAR*10	60		/ONE	/
DEPTH	CHAR*10	40		/ONE	/
F	REAL*8	868			
HEIGHT	REAL*8	24		/ONE	/
HOVERD	REAL*8	16		/ONE	/
I	INTEGER*4	6			
	INTEGER*4	2			
KE	REAL*8	832			
M	INTEGER*4	22			
MOD				INTRINSIC	
N	INTEGER*4	0		/ONE	/
NM	INTEGER*4	30			
NSTEP	INTEGER*4	0	*		
NUM	INTEGER*4	4		/ONE	/
PE	REAL*8	840			
PI	REAL*8	8		/ONE	/
PULSE	REAL*8	824			
Q	REAL*8	1308			
R	REAL*8	1316			
S	REAL*8	1324			
SINA	REAL*8	944		/TWO	/
SOL	REAL*8	1888		/TWO	/
SUM	REAL*8	14			
SXX	REAL*8	860			
UB2	REAL*8	852			
VALUE	REAL*8	32		/ONE	/
Y	REAL*8	2832		/TWO	/
Z	REAL*8	0		/TWO	/

ame	Type	Size	Class
ONE		70	COMMON
OUTPUT			SUBROUTINE
TWO		3304	COMMON

Pass One   No Errors Detected
             74 Source Lines

```
     1 C SUBROUTINE TO PLOT ITERATIVE SOLUTION TO SCREEN DURING RUN.
     2 C
     3 CC USE WITH MAIN PROGRAM STEADY
     4 C
     5         SUBROUTINE PLOT(ITER,X)
     6         IMPLICIT DOUBLE PRECISION(X)
     7         CHARACTER A(60)*1
     8         DATA A/60*' '/
     9         IF(ITER.EQ.1)THEN
    10           X1=X
    11           N=1
    12         ELSEIF(ITER.EQ.2)THEN
    13           X40=X
    14           N=40
    15           XR=X40-X1
    16         ELSE
    17           N=DINT((X-X1)*40./XR)
    18           IF(N.GT.60)N=60
    19           IF(N.LT.1)N=1
    20         ENDIF
    21         A(N)='*'
    22         WRITE(*,20)ITER,X,A
    23         A(N)=' '
    24    20   FORMAT(I3,1PG17.8,60A)
    25         RETURN
    26         END
```

Name   Type   Offset P Class

A   CHAR*1 ·   2
DINT   INTRINSIC
ITER   INTEGER*4   0 *
N   INTEGER*4   70
X   REAL*8   4 *
X1   REAL*8   62
X40   REAL*8   74
XR   REAL*8   82

Name   Type   Size   Class

PLOT   SUBROUTINE

 Pass One   No Errors Detected
              26 Source Lines

```
Line# 1        7                    IBM Personal Computer FORTRAN Compiler V2.00
    1           SUBROUTINE POINTND
    2 C SUBROUTINE TO PROVIDE FORMATTED, DIMENSIONLESS OUTPUT USING SOLUTION
    3 C VECTOR FROM 'FENTON'
    4 C
    5 CC USE WITH MAIN PROGRAM 'FENTON'
    6 CC ACCELERATIONS, FORCES AND MOMENTS INCLUDED.
    7 CC
    8 CC SUBROUTINES SUBPOINT, VFINITE, VDEEP, INTEG, PLOTTER, SUBPLOT
    9 CC
   10           IMPLICIT DOUBLE PRECISION(A-H,K-M,O-Z)
   11           CHARACTER*10 DEPTH,CASE,CURRNT,UNITA,UNITB,UNITC,UNITD,W,
   12          1UNITAA,UNITAB,UNITUA,UNITUB
   13           COMMON /ONE/N,NUM,PI,HOVERD,HEIGHT,VALUE,DEPTH,CASE,CURRNT
   14           COMMON /TWO/Z(59),COSA(59),SINA(59),COEFF(59),SOL(59,2),Y(59)
   15           DIMENSION E1(49,3),U1(49,2),A(49,2),D(49,3),F(4),FS(4),F1(4)
   16           WRITE(*,27)
   17 CC
   18 CC INITIALIZE U,BOTTOM
   19 CC
   20           UO=Z(4)-Z(7)
   21           IF(DEPTH.EQ.'FINITE')THEN
   22             BOTTOM=Z(1)
   23           ELSE
   24             BOTTOM=PI
   25           ENDIF
   26 CC
   27 CC COMPUTE LOCAL VARIABLES FOR 49 VALUES OF KX, EVENLY SPACED ALONG L/2
   28 CC
   29           DO 2 IX=1,49
   30             X=IX-1.
   31 CC
   32 CC D(IX,N) IS THE ABSCISSA ARRAY; N=1 FOR ANGLE (DEGREES),2 FOR
   33 CC    DISTANCE KX (RADIANS) AND 3 FOR TIME (SECONDS*(K*G)**2)
   34 CC
   35             D(IX,3)=X*Z(3)/96.
   36             D(IX,2)=X*PI/48.
   37             D(IX,1)=X*3.75
   38 CC
   39 CC COMPUTE SURFACE ELEVATION
   40 CC
   41             COSA(N)=DCOS(N*D(IX,2))
   42             SINA(N)=DSIN(N*D(IX,2))
   43             E1(IX,1)=0.5*Y(N)*COSA(N)
   44             DO 1 J=1,N-1
   45               COSA(J)=DCOS(J*D(IX,2))
   46               SINA(J)=DSIN(J*D(IX,2))
   47      1        E1(IX,1)=E1(IX,1)+Y(J)*COSA(J)
   48 CC
   49 CC COMPUTE LOCAL VARIABLES FOR 25 VALUES OF KY, EVENLY SPACED BETWEEN
   50 CC    THE FREE SURFACE AND THE BOTTOM (OR TO D=L/2 FOR DEEP WATER).
   51 CC
   52             YRANGE=E1(IX,1)+BOTTOM
   53             YSTEP=YRANGE/24.
   54             YINT=YSTEP/2.
   55 CC
   56 CC COMPUTE SURFACE VELOCITIES, ACCELERATIONS, FORCES AND MOMENTS
   57 CC
   58             IY=1
   59             CALL SUBPOINT(KY,IX,IY,YSTEP,E1,UO,BOTTOM,U,V,AX,AY,PRESS,F)
```

```
  60 CC
  61 CC INITIALIZE INTEGRAL VARIABLES; SET PLOTTING ARRAY FOR VELOCITIES
  62 CC    (U1) AND ACCELERATIONS (A) TO VALUES FOR WATER SURFACE.
  63 CC
  64            DO 3 I=1,4
  65              F1(I)=F(I)
  66     3       FS(I)=0.DO
  67            U1(IX,1)=U
  68            U1(IX,2)=V
  69            A(IX,1)=AX
  70            A(IX,2)=AY
  71 CC
  72 CC WRITE SOLUTION AND COMPUTE VALUES BENEATH SURFACE ONLY FOR CERTAIN
  73 CC VALUES OF KX (CONCENTRATED AT CREST)
  74 CC
  75            IF(IX.LE.3)GOTO 10
  76            IF(IX.EQ.5)GOTO 10
  77            IF(IX.EQ.9)GOTO 10
  78            IF(IX.EQ.13)GOTO 10
  79            IF(IX.EQ.17)GOTO 10
  80            IF(IX.EQ.25)GOTO 10
  81            IF(IX.EQ.33)GOTO 10
  82            IF(IX.EQ.41)GOTO 10
  83            IF(IX.EQ.49)GOTO 10
  84            GOTO 2
  85     10    WRITE(7,22)D(IX,1),D(IX,2),HOVERD,HEIGHT,CASE
  86            WRITE(7,20)
  87            WRITE(*,28)IX,D(IX,1)
  88            WRITE(7,21)KY,U,V,AX,AY,PRESS,F,FS
  89            DO 9 IY=2,25
  90               CALL SUBPOINT(KY,IX,IY,YSTEP,E1,UO,BOTTOM,U,V,AX,AY,PRESS,F)
  91               CALL INTEG(F,F1,FS,YINT)
  92     9       WRITE(7,21)KY,U,V,AX,AY,PRESS,F,FS
  93     2    CONTINUE
  94 CC
  95 CC SET OUTPUT UNITS FOR PLOTTING SUBROUTINE.
  96 CC
  97        UNITA='    *K'
  98        UNITB=' (K*G)^.5'
  99        UNITUA='    *SQRT'
 100        UNITUB=' (K/G)     '
 101        UNITAA='    *1/G  '
 102        UNITAB='    *1/G  '
 103        UNITD=' DEGREES'
 104 CC
 105 CC PLOT SURFACE ELEVATION, VELOCITIES AND ACCELERATIONS.
 106 CC
 107        WRITE(7,23)
 108        WRITE(7,29)
 109        CALL PLOTTER(E1,D,UNITA,UNITB,UNITA,UNITD,1)
 110        WRITE(7,25)
 111        WRITE(7,29)
 112        CALL PLOTTER(U1,D,UNITUA,UNITUB,UNITA,UNITD,2)
 113        WRITE(7,26)
 114        WRITE(7,29)
 115        CALL PLOTTER(A,D,UNITAA,UNITAB,UNITA,UNITD,2)
 116        WRITE(*,24)
 117 CC
 118     20 FORMAT(7X,'KY          U          V          AX          AY          PRESS',
```

```
   119        16X,'FD          FI          MD          MI          FDS         FIS ',
   120        2'      MDS       MIS',/)
   121    21  FORMAT(3X,5F8.5,F9.5,8F10.7)
   122    22  FORMAT(////,'SOLUTION VS DEPTH, THETA=',F6.2,' DEGREES,',
   123        1' KX=',F7.4,' RADIANS, H/d=',F6.4,', WAVE HEIGHT=',1PG11.5,
   124        2' DIMENSIONLESS W/RESP. TO ',A10,/)
   125    23  FORMAT(////////,40X,'WATER  SURFACE  ELEVATION',35X,'ELEV.VS.   ',
   126        1'TIME      DIST.    ANGLE')
   127    24  FORMAT(/,' BE SURE TO USE CONDENSED MODE WHEN PRINTING LOCAL ',
   128        1'SOLUTION.')
   129    25  FORMAT(////////,21X,'HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER',
   130        1' PARTICLE VELOCITIES',18X,'   U        V    DIST.    ANGLE')
   131    26  FORMAT(////////,20X,'HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER',
   132        1' PARTICAL ACCELERATIONS ',13X,'    Ax       Ay    DIST.    ANGLE')
   133    27  FORMAT(/,' COMPUTING LOCAL SOLUTION',/)
   134    28  FORMAT(' STEP ',I2,', THETA = ',F6.2,' DEGREES')
   135    29  FORMAT('-------------------------------------------------------------',
   136        1'-------------------------------------------------------------',
   137        2'---------------')
   138        RETURN
   139        END
```

Name	Type	Offset	P Class
A	REAL*8	3234	
AX	REAL*8	4106	
AY	REAL*8	4114	
BOTTOM	REAL*8	4026	
CASE	CHAR*10	50	/ONE /
COEFF	REAL*8	1416	/TWO /
COSA	REAL*8	472	/TWO /
CURRNT	CHAR*10	60	/ONE /
D	REAL*8	2058	
DCOS			INTRINSIC
DEPTH	CHAR*10	40	/ONE /
DSIN			INTRINSIC
E1	REAL*8	786	
F	REAL*8	1962	
F1	REAL*8	2026	
FS	REAL*8	1994	
HEIGHT	REAL*8	24	/ONE /
HOVERD	REAL*8	16	/ONE /
I	INTEGER*4	4130	
IX	INTEGER*4	4034	
IY	INTEGER*4	4078	
J	INTEGER*4	4046	
KY	REAL*8	4082	
N	INTEGER*4	0	/ONE /
NUM	INTEGER*4	4	/ONE /
PI	REAL*8	8	/ONE /
PRESS	REAL*8	4122	
SINA	REAL*8	944	/TWO /
SOL	REAL*8	1888	/TWO /
U	REAL*8	4090	
U0	REAL*8	4018	
U1	REAL*8	2	
UNITA	CHAR*10	4134	
UNITAA	CHAR*10	4174	
UNITAB	CHAR*10	4184	

```
UNITB   CHAR*10         4144
UNITC   CHAR*10         ****
 NITD   CHAR*10         4194
UNITUA  CHAR*10         4154
UNITUB  CHAR*10         4164
V       REAL*8          4098
VALUE   REAL*8            32     /ONE   /
W       CHAR*10         ****
X       REAL*8          4038
Y       REAL*8          2832     /TWO   /
YINT    REAL*8          4070
YRANGE  REAL*8          4054
YSTEP   REAL*8          4062
Z       REAL*8             0     /TWO   /
```

```
140 CC
141         SUBROUTINE SUBPOINT(KY,IX,IY,YSTEP,E1,UO,BOTTOM,U,V,AX,AY,
142        1PRESS,F)
143 CC SUBROUTINE TO COMPUTE VELOCITIES, ACCELERATIONS, PRESSURES, FORCES,
144 CC    AND MOMENTS FOR ANY POSITION IN SOLUTION FIELD.
145 CC
146         IMPLICIT DOUBLE PRECISION(A-H,K-M,O-Z)
147         CHARACTER*10 DEPTH,CASE,CURRNT
148         COMMON /ONE/N,NUM,PI,HOVERD,HEIGHT,VALUE,DEPTH,CASE,CURRNT
149         COMMON /TWO/Z(59),COSA(59),SINA(59),COEFF(59),SOL(59,2),Y(59)
150         DIMENSION E1(49,3),F(4)
151         YI=IY-1.
152         KY=E1(IX,1)-YI*YSTEP
153 CC
154 CC COMPUTE VELOCITIES (U,V), AND PARTIAL DERIVATIVES OF HORIZONTAL
155 CC    VELOCITY WITH RESPECT TO X AND Y (UX,UY).
156 CC
157         U=UO
158         V=0.DO
159         UX=0.DO
160         UY=0.DO
161         IF(DEPTH.EQ.'FINITE')THEN
162           CALL VFINITE(U,V,UX,UY,KY)
163         ELSE
164           CALL VDEEP(U,V,UX,UY,KY)
165         ENDIF
166 CC
167 CC COMPUTE TOTAL ACCELERATION (AX,AY), PRESSURE, FORCE PER UNIT DEPTH,
168 CC    (F(1),F(2)) AND MOMENT ABOUT BOTTOM (OR D=L/2) (F(3),F(4)), PER
169 CC    UNIT DEPTH.
170 CC UX+VY=0   (CONTINUITY/MASS CONSERVATION)
171 CC UY-VX=0   (IRROTATIONAL FLOW)
172 CC
173             UC=U-Z(4)
174             AX=UC*UX+V*UY
175             AY=UC*UY-V*UX
176             PRESS=Z(9)-KY-0.5*(UC*UC+V*V)
177             F(1)=DSIGN(U*U,U)
178             F(2)=AX
179             S=KY+BOTTOM
180             F(3)=F(1)*S
181             F(4)=F(2)*S
182         RETURN
```

```
     183          END
```

„ame	Type	Offset	P	Class
AX	REAL*8	36	*	
AY	REAL*8	40	*	
BOTTOM	REAL*8	24	*	
CASE	CHAR*10	50		/ONE /
COEFF	REAL*8	1416		/TWO /
COSA	REAL*8	472		/TWO /
CURRNT	CHAR*10	60		/ONE /
DEPTH	CHAR*10	40		/ONE /
DSIGN				INTRINSIC
E1	REAL*8	16	*	
F	REAL*8	48	*	
HEIGHT	REAL*8	24		/ONE /
HOVERD	REAL*8	16		/ONE /
IX	INTEGER*4	4	*	
IY	INTEGER*4	8	*	
KY	REAL*8	0	*	
N	INTEGER*4	0		/ONE /
NUM	INTEGER*4	4		/ONE /
FI	REAL*8	8		/ONE . /
FRESS	REAL*8	44	*	
S	REAL*8	5198		
SINA	REAL*8	944		/TWO /
SOL	REAL*8	1888		/TWO /
J	REAL*8	28	*	
UO	REAL*8	20	*	
UC	REAL*8	5190		
UX	REAL*8	5174		
UY	REAL*8	5182		
V	REAL*8	32	*	
VALUE	REAL*8	32		/ONE /
Y	REAL*8	2832		/TWO /
YI	REAL*8	5166		
YSTEF	REAL*8	12	*	
Z	REAL*8	0		/TWO /

```
     184 CC
     185          SUBROUTINE VDEEF(U,V,UX,UY,KY)
     186 CC SUBROUTINE TO COMFUTE U,V,UX,UY IN DEEF WATER.
     187 CC
     188          IMFLICIT DOUBLE FRECISION(A-H,K-M,O-Z)
     189          CHARACTER*10 DEFTH,CASE,CURRNT
     190          COMMON /ONE/N,NUM,FI,HOVERD,HEIGHT,VALUE,DEFTH,CASE,CURRNT
     191          COMMON /TWO/Z(59),COSA(59),SINA(59),COEFF(59),SOL(59,2),Y(59)
     192          DO 5 J=1,N
   1 193            E=J*Z(N+J+10)*DEXF(J*KY)
   1 194            DC=E*COSA(J)
   1 195            DS=E*SINA(J)
     196            U=U+DC
   1 197            V=V+DS
   1 198            UX=UX-J*DS
   1 199      5     UY=UY+J*DC
     200          RETURN
     201          END
```

```
 e   Type          Offset P Class

E    CHAR*10           50    /ONE    /
FF   REAL*8          1416    /TWO    /
A    REAL*8           472    /TWO    /
RNT  CHAR*10           60    /ONE    /
     REAL*8          5222
TH   CHAR*10           40    /ONE    /
P                          INTRINSIC
     REAL*8          5230
     REAL*8          5214
GHT  REAL*8            24    /ONE    /
ERD  REAL*8            16    /ONE    /
     INTEGER*4       5206
     REAL*8            16 *
     INTEGER*4          0    /ONE    /
     INTEGER*4          4    /ONE    /
     REAL*8             8    /ONE    /
A    REAL*8           944    /TWO    /
     REAL*8          1888    /TWO    /
     REAL*8             0 *
     REAL*8             8 *
     REAL*8            12 *
     REAL*8             4 *
UE   REAL*8            32    /ONE    /
     REAL*8          2832    /TWO    /
     REAL*8             0    /TWO    /


 202 CC
 203          SUBROUTINE VFINITE(U,V,UX,UY,KY)
 204 CC SUBROUTINE TO COMPUTE U,V,UX,UX IN WATER OF FINITE DEPTH.
 205 CC
 206          IMPLICIT DOUBLE PRECISION(A-H,K-M,O-Z)
 207          CHARACTER*10 DEPTH,CASE,CURRNT
 208          COMMON /ONE/N,NUM,PI,HOVERD,HEIGHT,VALUE,DEPTH,CASE,CURRNT
 209          COMMON /TWO/Z(59),COSA(59),SINA(59),COEFF(59),SOL(59,2),Y(59)
 210          DO 4 J=1,N
 211             E=DEXP(J*(Z(1)+KY))
 212             S=0.5*(E-1./E)
 213             C=0.5*(E+1./E)
 214             B=J*Z(N+J+10)/DCOSH(J*Z(1))
 215             DC=B*COSA(J)
 216             DS=B*SINA(J)
 217             U=U+C*DC
 218             V=V+S*DS
 219             UX=UX-J*C*DS
 220       4     UY=UY+J*S*DC
 221          RETURN
```

```
 e   Type          Offset P Class

     REAL*8          5270
     REAL*8          5262
E    CHAR*10           50    /ONE    /
FF   REAL*8          1416    /TWO    /
A    REAL*8           472    /TWO    /
```

CURRNT	CHAR*10	60	/ONE /
DC	REAL*8	5278	
⌐COSH			INTRINSIC
DEPTH	CHAR*10	40	/ONE /
DEXP			INTRINSIC
DS	REAL*8	5286	
E	REAL*8	5246	
HEIGHT	REAL*8	24	/ONE /
HOVERD	REAL*8	16	/ONE /
J	INTEGER*4	5238	
KY	REAL*8	16 *	
N	INTEGER*4	0	/ONE /
NUM	INTEGER*4	4	/ONE /
PI	REAL*8	8	/ONE /
G	REAL*8	5254	
SINA	REAL*8	944	/TWO /
SOL	REAL*8	1888	/TWO /
U	REAL*8	0 *	
UX	REAL*8	8 *	
UY	REAL*8	12 *	
V	REAL*8	4 *	
VALUE	REAL*8	32	/ONE /
Y	REAL*8	2832	/TWO /
Z	REAL*8	0	/TWO /

```
  223 CC
  224 CC SUBROUTINE TO COMPUTE DEPTH-INTEGRATED VALUES OF FORCE AND MOMENT
  225 CC    ABOUT THE BOTTOM USING THE TRAPEZOID RULE.
  226 CC
  227        SUBROUTINE INTEG(F,F1,FS,YINT)
  228        IMPLICIT DOUBLE PRECISION(F,Y)
  229        DIMENSION F(4),FS(4),F1(4)
  230        DO 8 I=1,4
1 231          FS(I)=FS(I)+(F(I)+F1(I))*YINT
1 232     8    F1(I)=F(I)
  233        RETURN
  234        END
```

Name	Type	Offset P Class
F	REAL*8	0 *
F1	REAL*8	4 *
FS	REAL*8	8 *
I	INTEGER*4	5294
YINT	REAL*8	12 *

Name	Type	Size	Class
INTEG			SUBROUTINE
ONE		70	COMMON
LOTTE			SUBROUTINE
POINTN			SUBROUTINE
SUBPOI			SUBROUTINE
TWO		3304	COMMON
VDEEP			SUBROUTINE
VFINIT			SUBROUTINE
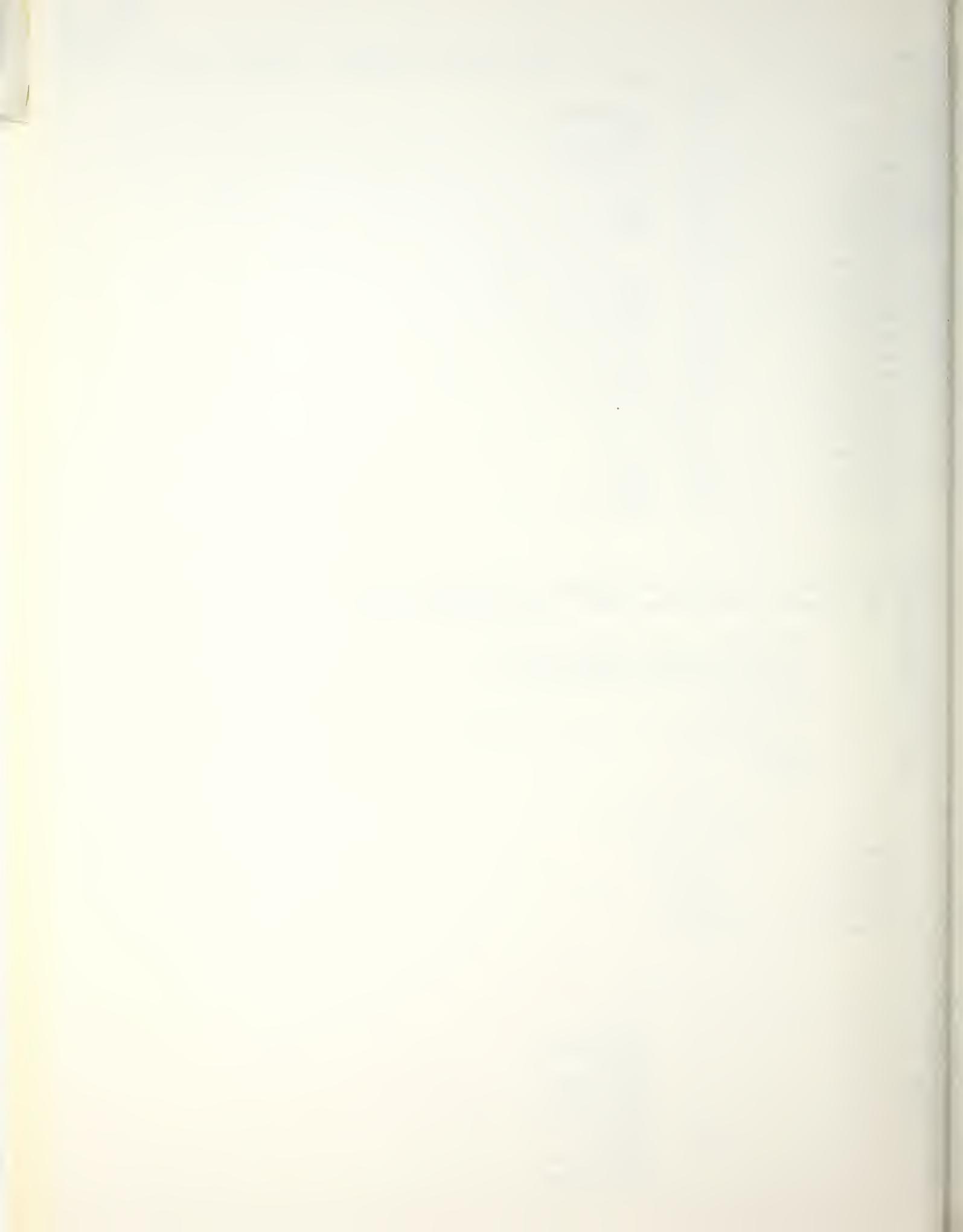
D Line# 1   7   IBM Personal Computer FORTRAN Compiler V2.00
  Pass One   No Errors Detected
              234 Source Lines

```
    1          SUBROUTINE FLOTTER(A,D,UNITA,UNITB,UNITC,UNITD,NPLOT)
    2 CC SUBROUTINE TO PROVIDE A ONE-PAGE PLOT OF DATA, USING A 132-COLUMN
    3 CC PRINTER.   CONDENSED MODE ON 8 1/2 INCH PAPER IS RECOMMENDED.
    4 CC
    5 CC ROUTINE WILL FLOT UP TO THREE ORDINATES A(49,1),A(49,2),A(49,3)
    6 CC VS. AN ABCISSA D(49,3). IF FEWER THAN THREE ORDINATES ARE PLOTTED,
    7 CC THE EXTRA VARIBLE MAY BE USED AS AN ALTERNATE DESCRIPTION OF THE
    8 CC ABCISSA (E.G. DISTANCE, TIME AND ANGLE), OR MAY BE USED TO DISPLAY
    9 CC OTHER UNPLOTTED DATA.
   10 CC
   11 CC NPLOT IS THE NUMBER OF ORDINATES TO BE FLOTTED, UP TO A MAX. OF 3.
   12 CC UNITA, UNITB, UNITC, AND UNITD ARE THE RESPECTIVE UNITS
   13 CC
   14 CC MAIN PROGRAM MUST LEAD IN WITH A 132 COLUMN TITLE LINE, SPACED DOWN
   15 CC SIX LINES.   LAST 4X8 COLUMNS SHOULD BE DATA TITLES.
   16 CC
   17          IMPLICIT DOUBLE PRECISION(A-H,K-L,O-Z)
   18          CHARACTER*1 SPACE(100),BORDER(100),SAVE
   19          CHARACTER*8 UNITA,UNITB,UNITC,UNITD
   20          CHARACTER*10 DEPTH,CASE,CURRNT
   21          COMMON /ONE/N,NUM,PI,HOVERD,HEIGHT,VALUE,DEPTH,CASE,CURRNT
   22          DIMENSION A(49,3),D(49,3)
   23 CC
   24 CC SET PLOTTING ARRAY TO ALL SPACES, BORDER TO ALL DASHES
   25 CC
   26          DATA SPACE/'|',98*' ','|'/
   27          DATA BORDER/'|',98*'-','|'/
   28          WRITE(7,20)HOVERD,HEIGHT,CASE,VALUE,CURRNT,UNITA,UNITB,UNITC
   29         1,UNITD
   30 CC
   31 CC FIND MAXIMA AND MINIMA
   32 CC
   33          AMAX=A(1,49)
   34          AMIN=A(1,1)
   35          DO 1 J=1,NPLOT
   36            DO 2 I=1,49
   37               IF(A(I,J).GT.AMAX)AMAX=A(I,J)
   38      2       IF(A(I,J).LT.AMIN)AMIN=A(I,J)
   39      1   CONTINUE
   40 CC
   41 CC ESTABLISH Y=0 AXIS.
   42 CC
   43          ARANGE=AMAX-AMIN
   44          NZERO=DINT(99.*AMAX/ARANGE+1.5)
   45          SAVE=SPACE(NZERO)
   46          SPACE(NZERO)='|'
   47 CC
   48 CC FLOT DATA
   49 CC
   50          I=49
   51          CALL SUBPLOT(BORDER,NPLOT,I,A,D,AMAX,ARANGE)
   52          DO 3 I=48,2,-1
   53      3     CALL SUBPLOT(SPACE,NPLOT,I,A,D,AMAX,ARANGE)
   54          I=1
   55          CALL SUBPLOT(BORDER,NPLOT,I,A,D,AMAX,ARANGE)
   56          WRITE(7,21)AMAX,AMIN
   57          SPACE(NZERO)=SAVE
   58   20  FORMAT('H/d=',F5.4,' HEIGHT=',1FG10.4,', DIMENSIONLESS ',
   59         1'W/RESP. TO ',A10,', CURRENT=',F7.4,', CRITER., ',5A8)
```

D Line# 1   7   IBM Personal Computer FORTRAN Compiler V2.00
```
    60   21   FORMAT(F6.5,89X,F8.5,////////)          .
    61        RETURN
    62        END
```

Name	Type	Offset F Class
A	REAL*8	0 *
AMAX	REAL*8	202
AMIN	REAL*8	210
ARANGE	REAL*8	230
BORDER	CHAR*1	102
CASE	CHAR*10	50 /ONE /
CURRNT	CHAR*10	60 /ONE /
D	REAL*8	4 *
DEPTH	CHAR*10	40 /ONE ./
DINT		INTRINSIC
HEIGHT	REAL*8	24 /ONE /
HOVERD	REAL*8	16 /ONE /
I	INTEGER*4	226
J	INTEGER*4	218
N	INTEGER*4	0 /ONE /
NPLOT	INTEGER*4	24 *
NUM	INTEGER*4	4 /ONE /
NZERO	INTEGER*4	238
PI	REAL*8	8 /ONE /
SAVE	CHAR*1	242
SPACE	CHAR*1	2
UNITA	CHAR*8	8 *
UNITB	CHAR*8	12 *
UNITC	CHAR*8	16 *
UNITD	CHAR*8	20 *
VALUE	REAL*8	32 /ONE /

```
    63 CC
    64        SUBROUTINE SUBPLOT(SPACE,NPLOT,I,A,D,AMAX,ARANGE)
    65 CC SUBROUTINE TO POSITION PLOTTING POINTS.
    66 CC
    67 CC USE WITH SUBROUTINE PLOTTER.
    68 CC
    69        IMPLICIT DOUBLE PRECISION(A,D)
    70        CHARACTER*1 SPACE(100),SAVE(100),O(3)
    71        DIMENSION A(49,3),D(49,3)
    72        DO 1 J=1,100
1   73    1    SAVE(J)=SPACE(J)
    74        O(1)='+'
    75        O(2)='o'
    76        O(3)='x'
    77        DO 2 J=1,NPLOT
1   78        NSPACE=DINT(99.*(AMAX-A(I,J))/ARANGE+1.5)
1   79    2    SPACE(NSPACE)=O(J)
    80        WRITE(7,20)SPACE,(A(I,J),J=1,NPLOT),(D(I,J),J=4-NPLOT,1,-1)
    81        DO 3 J=1,100
    82    3    SPACE(J)=SAVE(J)
    83   20   FORMAT(100A1,3F8.5,F8.2)
    84        RETURN
    85        END
```

Name	Type	Offset	F	Class
A	REAL*8	12	*	
AMAX	REAL*8	20	*	
ARANGE	REAL*8	24	*	
D	REAL*8	16	*	
DINT				INTRINSIC
I	INTEGER*4	8	*	
J	INTEGER*4	488		
NPLOT	INTEGER*4	4	*	
NSPACE	INTEGER*4	496		
O	CHAR*1	484		
SAVE	CHAR*1	384		
SPACE	CHAR*1	0	*	

Name	Type	Size	Class
ONE		70	COMMON
PLOTTE			SUBROUTINE
SUBPLO			SUBROUTINE

Pass One   No Errors Detected
             85 Source Lines

STEADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
M. M. RIENECKER AND J. D. FENTON.

DEPTH: FINITE, HEIGHT/DEPTH .5821

WAVE HEIGHT .000926, DIMENSIONLESS WITH RESPECT TO PERIOD

CURRENT CRITERION EULER , MAGNITUDE   .00

HEIGHT STEP 1 OF 4

*INITIAL LINEAR SOLUTION
   .253330E+00 .368658E-01 .126158E+02 .498042E+00 .000000E+00 .000000E+00
.498042E+00 .000000E+00 .124023E+00 .184329E-01
   .181529E-01 .173213E-01 .159634E-01 .141204E-01 .118484E-01 .921645E-02
.630442E-02 .320084E-02 .112915E-17 -.320084E-02
  -.630442E-02 -.921645E-02 -.118484E-01 -.141204E-01 -.159634E-01 -.173213E-01
.181529E-01 -.184329E-01 .370107E-01 .000000E+00
   .000000E+00 .000000E+00 .000000E+00 .000000E+00 .000000E+00 .000000E+00
.000000E+00 .000000E+00 .000000E+00 .000000E+00
   .000000E+00 .000000E+00 .000000E+00 .000000E+00 .000000E+00 .000000E+00

ITERATION   1

SOLUTION VECTOR
   .244047E+00 .355149E-01 .123863E+02 .507101E+00 .000000E+00 -.618296E-03
.507101E+00 -.156633E-03 .128413E+00 .351539E-01
   .310890E-01 .203821E-01 .674987E-02 -.562338E-02 -.137964E-01 -.168710E-01
.157231E-01 -.121187E-01 -.781879E-02 -.404822E-02
  -.137613E-02 .140197E-03 .729479E-03 .715827E-03 .403288E-03 .266768E-04
.257145E-03 -.360977E-03 .997840E-02 .125960E-01
   .799552E-02 .247389E-02 .488430E-03 .688651E-04 .749700E-05 .696788E-06
.538069E-07 .668004E-08 .202548E-09 .295093E-09
  -.121294E-10 .225214E-10 -.150290E-11 .311853E-12 -.149384E-12 .529469E-12

ITERATION   2

SOLUTION VECTOR
   .245405E+00 .357126E-01 .124173E+02 .505999E+00 .263745E-18 .533924E-03
.505999E+00 .129439E-03 .128141E+00 .286298E-01
   .263429E-01 .202977E-01 .124899E-01 .507872E-02 -.488104E-03 -.379162E-02
.524965E-02 -.566173E-02 -.575431E-02 -.592508E-02
  -.624239E-02 -.660223E-02 -.688971E-02 -.705592E-02 -.711568E-02 -.711337E-02
.709286E-02 -.708281E-02 .243250E-01 .827602E-02
   .343748E-02 .127906E-02 .288456E-03 .368389E-04 .555181E-05 .183530E-05
.645717E-06 .257238E-06 .919371E-07 .114665E-07
  -.117932E-07 -.105491E-07 -.478328E-08 -.106319E-08 .383611E-09 .331366E-09

ITERATION   3

SOLUTION VECTOR
   .245851E+00 .357774E-01 .124286E+02 .505540E+00 .214325E-18 .104139E-02
.505540E+00 .255796E-03 .128012E+00 .274901E-01
   .254592E-01 .202526E-01 .137597E-01 .760725E-02 .262875E-02 -.101277E-02
.351945E-02 -.519779E-02 -.631110E-02 -.704287E-02
  -.751685E-02 -.781972E-02 -.801179E-02 -.813309E-02 -.820898E-02 -.825489E-02
.827957E-02 -.828736E-02 .270162E-01 .783953E-02
   .252496E-02 .822244E-03 .260507E-03 .775846E-04 .221941E-04 .646539E-05
.188207E-05 .473653E-06 .899352E-07 .111249E-07

-.136115E-09 -.465720E-09 -.130949E-09 -.599229E-10 -.111887E-09 -.597357E-10

ITERATION   4

SOLUTION VECTOR
  .245849E+00 .357771E-01 .124286E+02 .505541E+00 .224993E-20 .106466E-02
.505541E+00 .261746E-03 .128018E+00 .273998E-01
  .253971E-01 .202642E-01 .138671E-01 .779728E-02 .284605E-02 -.838123E-03
.342606E-02 -.517880E-02 -.633858E-02 -.709460E-02
 -.758261E-02 -.789542E-02 -.809468E-02 -.822052E-02 -.829865E-02 -.834516E-02
.836970E-02 -.837735E-02 .272138E-01 .780618E-02
  .246840E-02 .790881E-03 .251825E-03 .786229E-04 .237609E-04 .684641E-05
.183966E-05 .441631E-06 .845792E-07 .677050E-08
 -.453752E-08 -.347067E-08 -.165953E-08 -.656253E-09 -.241920E-09 -.661627E-10

ITERATION   5

SOLUTION VECTOR
  .245849E+00 .357771E-01 .124286E+02 .505541E+00 -.551484E-21 .106478E-02
.505541E+00 .261773E-03 .128018E+00 .273995E-01
  .253969E-01 .202643E-01 .138675E-01 .779797E-02 .284681E-02 -.837584E-03
.342584E-02 -.517882E-02 -.633873E-02 -.709482E-02
 -.758285E-02 -.789567E-02 -.809493E-02 -.822078E-02 -.829891E-02 -.834543E-02
.836996E-02 -.837761E-02 .272144E-01 .780611E-02
  .246822E-02 .790766E-03 .251790E-03 .786266E-04 .237687E-04 .685025E-05
.184025E-05 .441523E-06 .845420E-07 .678625E-08
 -.453651E-08 -.348559E-08 -.166361E-08 -.656418E-09 -.241849E-09 -.665299E-10

HEIGHT STEP 2 OF 4

ITERATION   1

SOLUTION VECTOR
  .236128E+00 .687250E-01 .121809E+02 .515809E+00 .184997E-18 .245397E-02
.515809E+00 .580076E-03 .133497E+00 .588211E-01
  .489600E-01 .285951E-01 .111612E-01 .792344E-03 -.433358E-02 -.671459E-02
.788193E-02 -.853964E-02 -.896527E-02 -.926273E-02
 -.947518E-02 -.962605E-02 -.973155E-02 -.980388E-02 -.985200E-02 -.988220E-02
.989864E-02 -.990383E-02 .358043E-01 .139753E-01
  .679215E-02 .344099E-02 .169816E-02 .795083E-03 .349853E-03 .144217E-03
.554974E-04 .198603E-04 .655411E-05 .197139E-05
  .529879E-06 .125825E-06 .265935E-07 .781747E-08 .477835E-08 .231067E-08

ITERATION   2

SOLUTION VECTOR
  .234885E+00 .683633E-01 .121486E+02 .517192E+00 .145425E-18 .321741E-02
.517192E+00 .756697E-03 .134370E+00 .573383E-01
  .491247E-01 .318247E-01 .157466E-01 .454622E-02 -.229962E-02 -.623746E-02
.843773E-02 -.964650E-02 -.103018E-01 -.106524E-01
 -.108374E-01 -.109334E-01 -.109822E-01 -.110061E-01 -.110174E-01 -.110224E-01
.110244E-01 -.110250E-01 .396744E-01 .147780E-01
  .642710E-02 .288787E-02 .129982E-02 .575670E-03 .247231E-03 .101561E-03
.393251E-04 .140064E-04 .436656E-05 .101604E-05
  .231631E-07 -.174405E-06 -.148975E-06 -.902723E-07 -.495812E-07 -.175511E-07

ITERATION   3

SOLUTION VECTOR
  .234899E+00 .683674E-01 .121487E+02 .517189E+00 -.913155E-21 .325704E-02

```
   .491097E-01    .318701E-01    .158365E-01    .459124E-02  -.231843E-02  -.628400E-02
.847870E-02  -.966992E-02  -.103098E-01  -.106516E-01
  -.108337E-01  -.109305E-01  -.109818E-01  -.110091E-01  -.110234E-01  -.110308E-01
.110343E-01  -.110353E-01    .396925E-01    .147906E+01
   .643661E-02    .288406E-02    .129185E-02    .570272E-03    .245248E-03    .101498E-03
.397720E-04    .143646E-04    .451707E-05    .103374E-05
  -.131733E-07  -.218858E-06  -.186025E-06  -.118221E-06  -.713880E-07  -.270874E-07


HEIGHT STEP   3 OF   4


ITERATION   1

SOLUTION VECTOR
   .224992E+00    .982257E-01    .118897E+02    .528457E+00  -.361048E-19    .561740E-02
.528457E+00    .126386E-02    .140588E+00    .859877E-01
   .656794E-01    .338681E-01    .120476E-01  -.129371E-03  -.640161E-02  -.949964E-02
.109871E-01  -.116844E-01  -.120032E-01  -.121445E-01
  -.122044E-01  -.122279E-01  -.122359E-01  -.122378E-01  -.122380E-01  -.122380E-01
.122380E-01  -.122381E-01    .455920E-01    .187399E-01
   .928620E-02    .482074E-02    .253606E-02    .133120E-02    .689683E-03    .348941E-03
.170606E-03    .796371E-04    .349307E-04    .140540E-04
   .495467E-05    .136722E-05    .163241E-06  -.125842E-06  -.139816E-06  -.601869E-07


ITERATION   2

SOLUTION VECTOR
   .224548E+00    .980321E-01    .118781E+02    .528972E+00    .346754E-20    .580731E-02
.528972E+00    .130413E-02    .140895E+00    .856801E-01
   .661640E-01    .346331E-01    .123290E-01  -.175110E-03  -.652881E-02  -.960922E-02
.110695E-01  -.117544E-01  -.120741E-01  -.122230E-01
  -.122923E-01  -.123245E-01  -.123396E-01  -.123466E-01  -.123498E-01  -.123512E-01
.123519E-01  -.123520E-01    .459671E-01    .188719E-01
   .934978E-02    .484039E-02    .252461E-02    .130622E-02    .663549E-03    .327909E-03
.156001E-03    .704376E-04    .294789E-04    .108910E-04
   .308329E-05    .191066E-06  -.636847E-06  -.717579E-06  -.616856E-06  -.273602E-06


ITERATION   3

SOLUTION VECTOR
   .224552E+00    .980337E-01    .118781E+02    .528971E+00  -.496825E-22    .580817E-02
.528971E+00    .130424E-02    .140893E+00    .856819E-01
   .661629E-01  ..346329E-01    .123281E-01  -.175446E-03  -.652859E-02  -.960892E-02
.110694E-01  -.117544E-01  -.120742E-01  -.122230E-01
  -.122923E-01  -.123245E-01  -.123395E-01  -.123464E-01  -.123496E-01  -.123511E-01
.123517E-01  -.123519E-01    .459661E-01    .188715E-01
   .934962E-02    .484034E-02    .252468E-02    .130630E-02    .663622E-03    .327958E-03
.156036E-03    .704630E-04    .294986E-04    .109063E-04
   .309386E-05    .197438E-06  -.634092E-06  -.717271E-06  -.617960E-06  -.274351E-06


HEIGHT STEP   4 OF   4


ITERATION   1

SOLUTION VECTOR
   .215820E+00    .125629E+00    .116448E+02    .539567E+00    .671009E-19    .808305E-02
.539567E+00    .174519E-02    .146761E+00    .112861E+00
   .741632E-01    .314608E-01    .764112E-02  -.382606E-02  -.896171E-02  -.111771E-01
.121125E-01  -.125018E-01  -.126615E-01  -.127261E-01
 -.127515E-01  -.127613E-01  -.127647E-01  -.127660E-01  -.127665E-01  -.127671E-01
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   .110382E-01   .621050E-02   .355517E-02   .203862E-02   .116148E-02   .653421E-03
.361229E-03  .195287E-03   .102776E-03   .524012E-04
   .257668E-04   .121809E-04   .554675E-05   .248695E-05   .120869E-05   .422835E-06


ITERATION   2

SOLUTION VECTOR
   .215468E+00   .125424E+00   .116354E+02   .540003E+00   .481750E-20   .823581E-02
.540003E+00   .177463E-02   .147024E+00   .112604E+00
   .748945E-01   .317097E-01   .756118E-02  -.393435E-02  -.903316E-02  -.112223E-01
.121490E-01  -.125387E-01  -.127023E-01  -.127708E-01
  -.127996E-01  -.128116E-01  -.128167E-01  -.128188E-01  -.128197E-01  -.128200E-01
.128201E-01  -.128201E-01   .482700E-01   .208422E-01
   .110916E-01   .624586E-02   .357380E-02   .204429E-02   .115839E-02   .645956E-03
.352447E-03   .187083E-03   .959714E-04   .471692E-04
   .219287E-04   .943210E-05   .357946E-05   .103539E-05   .590763E-07  -.874714E-07


ITERATION   3

SOLUTION VECTOR
   .215471E+00   .125426E+00   .116355E+02   .540002E+00   .167969E-21   .823632E-02
.540002E+00   .177469E-02   .147022E+00   .112605E+00
   .748933E-01   .317093E-01   .756168E-02  -.393362E-02  -.903265E-02  -.112221E-01
.121489E-01  -.125388E-01  -.127024E-01  -.127710E-01
  -.127997E-01  -.128117E-01  -.128168E-01  -.128189E-01  -.128198E-01  -.128201E-01
.128203E-01  -.128203E-01   .482697E-01   .208419E-01
   .110913E-01   .624562E-02   .357367E-02   .204423E-02   .115839E-02   .645969E-03
.352470E-03   .187108E-03   .959971E-04   .471936E-04
   .219518E-04   .945373E-05   .359948E-05   .105381E-05   .760316E-07  -.795459E-07


ITERATION   4

SOLUTION VECTOR
   .215471E+00   .125426E+00   .116355E+02   .540002E+00  -.167976E-21   .823632E-02
.540002E+00   .177469E-02   .147022E+00   .112605E+00
   .748934E-01   .317093E-01   .756168E-02  -.393362E-02  -.903265E-02  -.112221E-01
.121489E-01  -.125388E-01  -.127024E-01  -.127710E-01
  -.127997E-01  -.128117E-01  -.128168E-01  -.128189E-01  -.128198E-01  -.128201E-01
.128203E-01  -.128203E-01   .482697E-01   .208419E-01
   .110913E-01   .624562E-02   .357368E-02   .204423E-02   .115838E-02   .645968E-03
.352470E-03   .187108E-03   .959970E-04   .471936E-04
   .219517E-04   .945369E-05   .359946E-05   .105379E-05   .760152E-07  -.795533E-07


*SOLUTION, NON-DIMENSIONALIZED BY WAVENUMBER

*WATER DEPTH                           .215471

*WAVE HEIGHT                           .125426

*WAVE PERIOD                         11.635485

*WAVE SPEED                            .540002

*MEAN EULERIAN FLUID SPEED            .000000

*MEAN MASS TRANSPORT SPEED            .008236

*MEAN FLUID SPEED RELATIVE TO WAVE    .540002

*VOLUME FLUX DUE TO WAVES             .001775
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*SURFACE ELEVATIONS - CREST TO TROUGH

 .1126   .0749   .0317   .0076 -.0039 -.0090 -.0112 -.0121 -.0125 -.0127 -.0128 -
.0128 -.0128 -.0128 -.0128 -.0128 -.0128 -.0128
 -.0128

*FOURIER COEFFICIENTS

  1   .048270   2   .020842   3   .011091   4   .006246   5   .003574
  6   .002044   7   .001158   8   .000646   9   .000352   10   .000187
 11   .000096   12   .000047   13   .000022   14   .000009   15   .000004
 16   .000001   17   .000000   18   .000000

*INTEGRAL QUANTITIES

*IMPULSE   .177469E-02

*KINETIC ENERGY (T)   .479168E-03

*POTENTIAL ENERGY (V)   .419326E-03

*MEAN SQUARE OF BED VELOCITY   .244220E-02

*RADIATION STRESS (SXX)   .118492E-02

*WAVE POWER (F)   .467629E-03

*INVARIANTS FOR FINITE DEPTH

*VOLUME FLUX (Q)   .114580

*BERNOULLI CONSTANT (R)   .362493

*MOMENTUM FLUX (S)   .085314

3. LOCAL VARIABLE OUTPUT
FILE: DEAN'S CASE 2C

STEADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
M. M. RIENECKER AND J. D. FENTON.

PTH: FINITE, HEIGHT/DEPTH= .5851

WAVE HEIGHT 4.655280E-04,DIMENSIONLESS WITH RESPECT TO PERIOD

CURRENT CRITERION: EULER , MAGNITUDE= .00

SOLUTION, NON-DIMENSIDNALIZED BY WAVENUMBER   _DEP·_

WATER DEPTH   .16466   _Ɔ.-9Ɔ_

WAVE HEIGHT   9.63417E-02 _Ǝ ⁻ᒿᏕᎱ Ɔ·²_

WAVE PERIOD   14.386

WAVE SPEED   .43676

MEAN EULERIAN FLUID SPEED   .00000

MEAN MASS TRANSPORT SPEED   1.23417E-02

MEAN FLUID SPEED RELATIVE TD WAVE .43676

VOLUME FLUX DUE TD WAVES   2.03218E-03

BERNOULLI CONSTANT   9.67366E-02

SOLUTION VS DEPTH, THETA= .00 DEGREES, KX= .0000 RADIANS, H/d= .5851, WAVE HEIGHT=4.65528E-04 DIMENSIONLESS W/RESP. TD PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
	_235.2_			_-.25662_									
.07675	.23681	.00000	.00000	-.28933	.00000	.0560776	.0000000	.0135374	.0000000	.0000000	.0000000	.0000000	.0000000
.06669	.22296	.00000	.00000	-.27983	.00719	.0497113	.0000000	.0115005	.0000000	.0005320	.0000000	.0001259	.0000000
.05663	.21043	.00000	.00000	-.26817	.01449	.0442809	.0000000	.0097989	.0000000	.0010048	.0000000	.0002330	.0000000
.04657	.19908	.00000	.00000	-.25510	.02192	.0396341	.0000000	.0083719	.0000000	.0014268	.0000000	.0003244	.0000000
.03651	.18890	.00000	.00000	-.24119	.02948	.0356461	.0000000	.0071710	.0000000	.0018054	.0000000	.0004026	.0000000
.02645	.17948	.00000	.00000	-.22683	.03719	.0322143	.0000000	.0061565	.0000000	.0021467	.0000000	.0004696	.0000000
.01639	.17104	.00000	.00000	-.21231	.04504	.0292539	.0000000	.0052965	.0000000	.0024558	.0000000	.0005272	.0000000
.00634	.16339	.00000	.00000	-.19785	.05303	.0266948	.0000000	.0045647	.0000000	.0027372	.0000000	.0005768	.0000000
-.00372	.15646	.00000	.00000	-.18359	.06117	.0244789	.0000000	.0039395	.0000000	.0029946	.0000000	.0006196	.0000000
-.01378	.15019	.00000	.00000	-.16962	.06946	.0225573	.0000000	.0034034	.0000000	.0032311	.0000000	.0006565	.0000000
-.02384	.14453	.00000	.00000	-.15601	.07788	.0208898	.0000000	.0029417	.0000000	.0034496	.0000000	.0006884	.0000000
-.03390	.13944	.00000	.00000	-.14279	.08643	.0194424	.0000000	.0025423	.0000000	.0036525	.0000000	.0007160	.0000000
-.04396	.13486	.00000	.00000	-.12998	.09512	.0181868	.0000000	.0021952	.0000000	.0038417	.0000000	.0007398	.0000000
-.05402	.13076	.00000	.00000	-.11757	.10393	.0170991	.0000000	.0018919	.0000000	.0040192	.0000000	.0007604	.0000000
-.06407	.12712	.00000	.00000	-.10554	.11287	.0161593	.0000000	.0016254	.0000000	.0041864	.0000000	.0007781	.0000000
-.07413	.12390	.00000	.00000	-.09389	.12193	.0153507	.0000000	.0013896	.0000000	.0043449	.0000000	.0007932	.0000000
-.08419	.12108	.00000	.00000	-.08257	.13110	.0146592	.0000000	.0011796	.0000000	.0044958	.0000000	.0008062	.0000000
-.09425	.11863	.00000	.00000	-.07156	.14038	.0140731	.0000000	.0009909	.0000000	.0046403	.0000000	.0008171	.0000000
-.10431	.11654	.00000	.00000	-.06082	.14977	.0135827	.0000000	.0008197	.0000000	.0047794	.0000000	.0008262	.0000000
-.11437	.11480	.00000	.00000	-.05032	.15927	.0131801	.0000000	.0006629	.0000000	.0049140	.0000000	.0008336	.0000000
-.12443	.11340	.000000	.00000	-.04001	.16888	.0128589	.0000000	.0005174	.0000000	.0050450	.0000000	.0008396	.0000000
-.13448	.11231	.00000	.00000	-.02987	.17859	.0126141	.0000000	.0003806	.0000000	.0051731	.0000000	.0008441	.0000000
-.14454	.11154	.00000	.00000	-.01985	.18839	.0124419	.0000000	.0002503	.0000000	.0052991	.0000000	.0008473	.0000000
-.15460	.11108	.00000	.00000	-.00990	.19830	.0123396	.0000000	.0001241	.0000000	.0054237	.0000000	.0008492	.0000000
-.16466	.11093	.00000	.00000	.00000	.20831	.0123056	.0000000	.0000000	.0000000	.0055477	.0000000	.0008498	.0000000
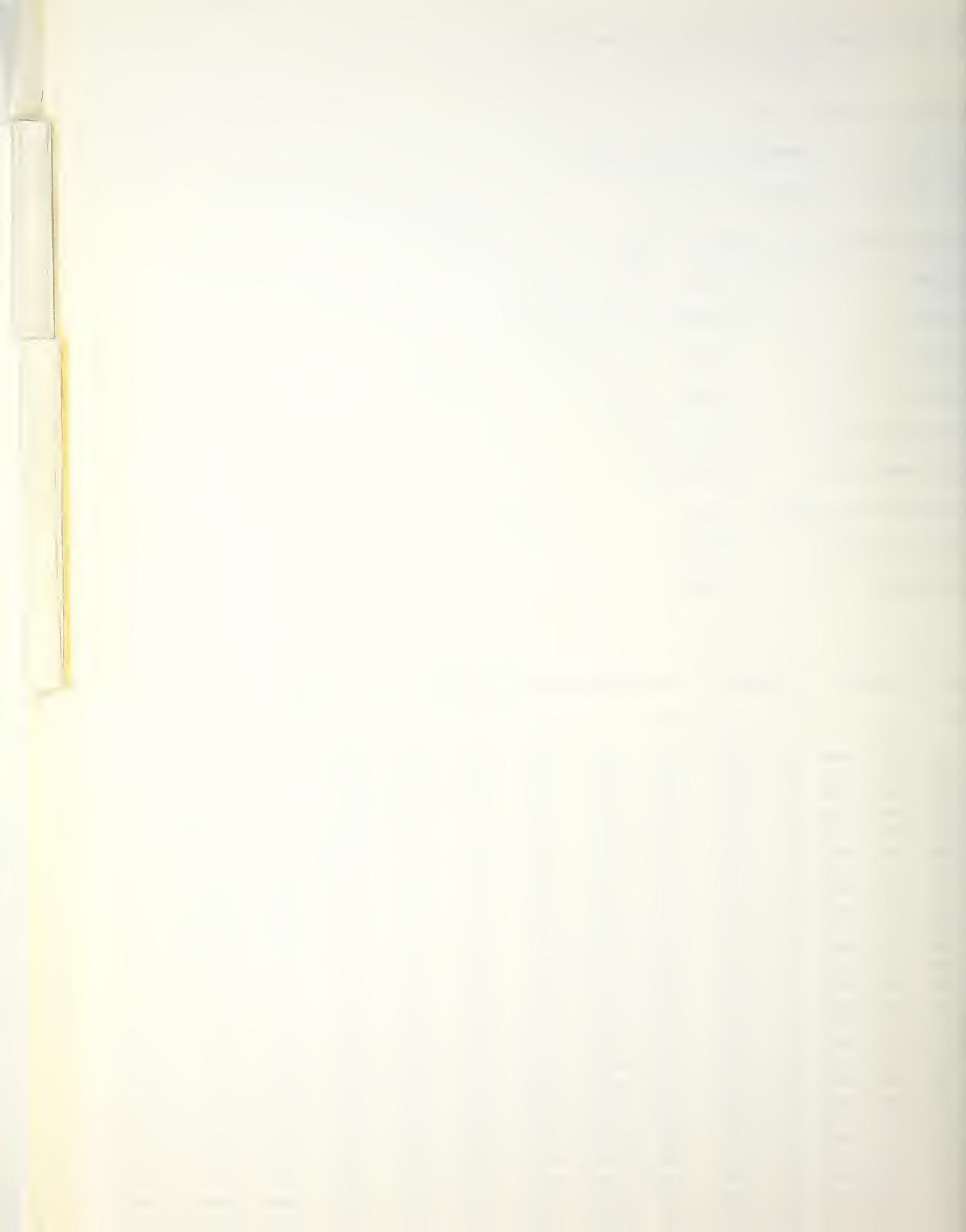
OLUTION VS DEPTH, THETA= 15.00 DEGREES, KX= .2618 RADIANS, H/d= .5851, WAVE HEIGHT=4.65528E-04 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.00857	.02475	.07474	.20495	.12985	.00049	.0006124	.2049525	.0001061	.0355036	.0000000	.0000000	.0000000	.0000000
.00135	.02624	.07091	.20129	.11844	.00861	.0006888	.2012904	.0001143	.0334164	.0000047	.0014661	.0000008	.0002487
-.00587	.02761	.06717	.19760	.10794	.01664	.0007621	.1976046	.0001210	.0313782	.0000099	.0029057	.0000016	.0004826
-.01308	.02884	.06351	.19393	.09829	.02460	.0008319	.1939334	.0001261	.0293955	.0000157	.0043187	.0000025	.0007019
-.02030	.02996	.05994	.19031	.08942	.03250	.0008978	.1903093	.0001296	.0274725	.0000219	.0057054	.0000035	.0009071
-.02752	.03098	.05645	.18676	.08125	.04033	.0009596	.1867598	.0001316	.0256121	.0000286	.0070662	.0000044	.0010987
-.03474	.03189	.05303	.18331	.07374	.04811	.0010173	.1833085	.0001322	.0238157	.0000358	.0084018	.0000054	.0012771
-.04196	.03272	.04968	.17998	.06681	.05583	.0010708	.1799753	.0001314	.0220836	.0000433	.0097129	.0000063	.0014427
-.04917	.03347	.04640	.17678	.06043	.06351	.0011202	.1767769	.0001294	.0204152	.0000512	.0110003	.0000072	.0015961
-.05639	.03414	.04319	.17373	.05454	.07114	.0011656	.1737274	.0001262	.0188091	.0000595	.0122653	.0000082	.0017377
-.06361	.03474	.04003	.17084	.04909	.07873	.0012071	.1708385	.0001220	.0172632	.0000680	.0135088	.0000091	.0018678
-.07083	.03528	.03694	.16812	.04404	.08629	.0012449	.1681203	.0001168	.0157751	.0000769	.0147321	.0000099	.0019871
-.07804	.03576	.03389	.16558	.03936	.09381	.0012791	.1655809	.0001108	.0143417	.0000860	.0159364	.0000107	.0020958
-.08526	.03619	.03090	.16323	.03501	.10129	.0013098	.1632270	.0001040	.0129596	.0000953	.0171230	.0000115	.0021943
-.09248	.03657	.02795	.16106	.03095	.10875	.0013373	.1610641	.0000965	.0116254	.0001049	.0182934	.0000122	.0022830
-.09970	.03690	.02504	.15910	.02715	.11618	.0013616	.1590970	.0000885	.0103351	.0001146	.0194488	.0000129	.0023623
-.10692	.03719	.02217	.15733	.02358	.12358	.0013830	.1573292	.0000799	.0090846	.0001245	.0205908	.0000135	.0024324
-.11413	.03744	.01932	.15576	.02021	.13095	.0014015	.1557638	.0000708	.0078700	.0001346	.0217207	.0000141	.0024936
-.12135	.03765	.01651	.15440	.01701	.13831	.0014172	.1544031	.0000614	.0066868	.0001447	.0228401	.0000145	.0025461
-.12857	.03782	.01372	.15325	.01396	.14563	.0014304	.1532490	.0000516	.0055306	.0001550	.0239504	.0000149	.0025902
-.13579	.03796	.01095	.15230	.01103	.15294	.0014410	.1523030	.0000416	.0043972	.0001654	.0250531	.0000153	.0026260
-.14301	.03807	.00820	.15157	.00819	.16023	.0014492	.1515661	.0000314	.0032819	.0001758	.0261497	.0000155	.0026537
-.15022	.03814	.00546	.15104	.00542	.16750	.0014550	.1510393	.0000210	.0021804	.0001863	.0272418	.0000157	.0026734
-.15744	.03819	.00273	.15072	.00270	.17474	.0014585	.1507229	.0000105	.0010879	.0001968	.0283308	.0000159	.0026852
-.16466	.03820	.00000	.15062	.00000	.18197	.0014596	.1506175	.0000000	.0000000	.0002073	.0294184	.0000159	.0026892

OLUTION VS DEPTH, THETA= 30.00 DEGREES, KX= .5236 RADIANS, H/d= .5851, WAVE HEIGHT=4.65528E-04 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
	0.05387	-.03	-.277										
-.01546	-.03571	.01651	.03681	.05199	.00045	-.0012755	.0368062	-.0001903	.0054913	.0000000	.0000000	.0000000	.0000000
-.02168	-.03506	.01599	.03864	.05003	.00698	-.0012292	.0386425	-.0001758	.0055251	-.0000078	.0002345	-.0000011	.0000342
-.02790	-.03443	.01545	.04038	.04804	.01350	-.0011855	.0403815	-.0001621	.0055227	-.0000153	.0004801	-.0000022	.0000686
-.03411	-.03383	.01488	.04203	.04601	.02001	-.0011444	.0420253	-.0001494	.0054863	-.0000225	.0007363	-.0000032	.0001028
-.04033	-.03325	.01430	.04358	.04396	.02651	-.0011057	.0435759	-.0001375	.0054178	-.0000295	.0010023	-.0000040	.0001367
-.04655	-.03270	.01370	.04504	.04187	.03299	-.0010694	.0450354	-.0001263	.0053193	-.0000363	.0012778	-.0000049	.0001701
-.05276	-.03218	.01308	.04641	.03977	.03946	-.0010355	.0464059	-.0001159	.0051927	-.0000428	.0015620	-.0000056	.0002027
-.05898	-.03168	.01244	.04769	.03764	.04592	-.0010038	.0476892	-.0001061	.0050398	-.0000492	.0018545	-.0000063	.0002345
-.06520	-.03121	.01179	.04889	.03550	.05236	-.0009743	.0488874	-.0000969	.0048625	-.0000553	.0021547	-.0000069	.0002653
-.07141	-.03077	.01112	.05000	.03334	.05879	-.0009470	.0500024	-.0000883	.0046626	-.0000613	.0024620	-.0000075	.0002949
-.07763	-.03036	.01044	.05104	.03116	.06521	-.0009217	.0510360	-.0000802	.0044417	-.0000671	.0027761	-.0000080	.0003232
-.08384	-.02997	.00974	.05199	.02898	.07161	-.0008985	.0519901	-.0000726	.0042015	-.0000728	.0030963	-.0000085	.0003501
-.09006	-.02962	.00904	.05287	.02678	.07800	-.0008772	.0528663	-.0000654	.0039437	-.0000783	.0034222	-.0000089	.0003754
-.09628	-.02929	.00832	.05367	.02457	.08438	-.0008578	.0536662	-.0000587	.0036698	-.0000837	.0037534	-.0000093	.0003991
-.10249	-.02899	.00759	.05439	.02236	.09074	-.0008403	.0543913	-.0000522	.0033812	-.0000889	.0040892	-.0000097	.0004210
-.10871	-.02872	.00686	.05504	.02014	.09709	-.0008246	.0550430	-.0000461	.0030796	-.0000941	.0044294	-.0000100	.0004411
-.11493	-.02847	.00612	.05562	.01791	.10342	-.0008106	.0556226	-.0000403	.0027662	-.0000992	.0047734	-.0000103	.0004592
-.12114	-.02826	.00537	.05613	.01568	.10974	-.0007984	.0561312	-.0000347	.0024426	-.0001042	.0051207	-.0000105	.0004754
-.12736	-.02807	.00461	.05657	.01345	.11605	-.0007879	.0565698	-.0000294	.0021100	-.0001091	.0054710	-.0000107	.0004896
-.13358	-.02791	.00385	.05694	.01121	.12234	-.0007791	.0569395	-.0000242	.0017698	-.0001140	.0058238	-.0000108	.0005016
-.13979	-.02778	.00309	.05724	.00897	.12862	-.0007719	.0572408	-.0000192	.0014233	-.0001188	.0061787	-.0000110	.0005116
-.14601	-.02768	.00232	.05747	.00673	.13489	-.0007663	.0574746	-.0000143	.0010719	-.0001236	.0065353	-.0000111	.0005193
-.15223	-.02761	.00155	.05764	.00449	.14114	-.0007623	.0576411	-.0000095	.0007167	-.0001284	.0068931	-.0000112	.0005249
-.15844	-.02757	.00077	.05774	.00224	.14738	-.0007599	.0577410	-.0000047	.0003589	-.0001331	.0072517	-.0000112	.0005282
-.16466	-.02755	.00000	.05777	.00000	.15360	-.0007591	.0577742	.0000000	.0000000	-.0001378	.0076108	-.0000112	.0005293

WATER SURFACE ELEVATION   ELEV.VS.   TIME   DIST.   ANGLE

H/d=.5851 HEIGHT=4.6553E-04, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .00000, CRITER., EULER   *K   (K*G)^.5   *K   DEGREES

ELEV.	TIME	DIST.	ANGLE
-.01960	7.19290	3.14159	180.00
-.01944	7.04305	3.07614	176.25
-.01935	6.89320	3.01069	172.50
-.01936	6.74335	2.94524	168.75
-.01863	6.59349	2.87979	165.00
-.01713	6.44364	2.81434	161.25
-.01599	6.29379	2.74889	157.50
-.01480	6.14394	2.68344	153.75
-.01115	5.99409	2.61799	150.00
-.00438	5.84423	2.55254	146.25
.00337	5.69438	2.48709	142.50
.01262	5.54453	2.42164	138.75
.02851	5.39468	2.35619	135.00
.05209	5.24482	2.29074	131.25
.07251	5.09497	2.22529	127.50
.07506	4.94512	2.15984	123.75
.05762	4.79527	2.09440	120.00
.03329	4.64542	2.02895	116.25
.01535	4.49556	1.96350	112.50
.00524	4.34571	1.89805	108.75
-.00255	4.19586	1.83260	105.00
-.00988	4.04601	1.76715	101.25
-.01441	3.89616	1.70170	97.50
-.01579	3.74630	1.63625	93.75
-.01669	3.59645	1.57080	90.00
-.01835	3.44660	1.50535	86.25
-.01949	3.29675	1.43990	82.50
-.01947	3.14689	1.37445	78.75
-.01935	2.99704	1.30900	75.00
-.01971	2.84719	1.24355	71.25
-.01998	2.69734	1.17810	67.50
-.01991	2.54749	1.11265	63.75
-.01991	2.39763	1.04720	60.00
-.01990	2.24778	.98175	56.25
-.01957	2.09793	.91630	52.50
-.01936	1.94808	.85085	48.75
-.01954	1.79823	.78540	45.00
-.01916	1.64837	.71995	41.25
-.01769	1.49852	.65450	37.50
-.01629	1.34867	.58905	33.75
-.01546	1.19882	.52360	30.00
-.01306	1.04896	.45815	26.25
-.00723	.89911	.39270	22.50
.00041	.74926	.32725	18.75
.00857	.59941	.26180	15.00
.02121	.44956	.19635	11.25
.04248	.29970	.13090	7.50
.06608	.14985	.06545	3.75
.07675	.00000	.00000	.00

07675

-.01998

H/d=.5851 HEIGHT=4.6553E-04, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .00000, CRITER., EULER   *SQRT(K/G)   *K   DEGREES

U	V	DIST.	ANGLE
-.04559	.00000	3.14159	180.00
-.04548	.00078	3.07614	176.25
-.04513	.00172	3.01069	172.50
-.04446	.00304	2.94524	168.75
-.04332	.00502	2.87979	165.00
-.04147	.00804	2.81434	161.25
-.03845	.01261	2.74889	157.50
-.03348	.01947	2.68344	153.75
-.02562	.02968	2.61799	150.00
-.01326	.04430	2.55254	146.25
.00688	.06277	2.48709	142.50
.03858	.08208	2.42164	138.75
.08492	.09814	2.35619	135.00
.15034	.09910	2.29074	131.25
.21985	.05405	2.22529	127.50
.22986	-.03559	2.15984	123.75
.16737	-.09425	2.09440	120.00
.09791	-.10046	2.02895	116.25
.04762	-.08613	1.96350	112.50
.01290	-.06722	1.89805	108.75
-.00957	-.04825	1.83260	105.00
-.02331	-.03259	1.76715	101.25
-.03200	-.02145	1.70170	97.50
-.03756	-.01396	1.63625	93.75
-.04096	-.00898	1.57080	90.00
-.04304	-.00570	1.50535	86.25
-.04436	-.00357	1.43990	82.50
-.04517	-.00222	1.37445	78.75
-.04566	-.00136	1.30900	75.00
-.04597	-.00080	1.24355	71.25
-.04614	-.00040	1.17810	67.50
-.04620	-.00009	1.11265	63.75
-.04618	.00020	1.04720	60.00
-.04608	.00054	.98175	56.25
-.04587	.00099	.91630	52.50
-.04550	.00165	.85085	48.75
-.04490	.00267	.78540	45.00
-.04392	.00429	.71995	41.25
-.04235	.00680	.65450	37.50
-.03984	.01067	.58905	33.75
-.03571	.01651	.52360	30.00
-.02909	.02526	.45815	26.25
-.01876	.03811	.39270	22.50
-.00213	.05534	.32725	18.75
.02475	.07474	.26180	15.00
.06496	.09266	.19635	11.25
.12270	.10217	.13090	7.50
.19588	.07890	.06545	3.75
.23681	.00000	.00000	.00

23681

-.10046

1 HEIGHT=4.6553E-04, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .00000, CRITER., EULER

Ax *1/G	Ay *1/G	DIST. *K	ANGLE DEGREES
.00000	.00557	3.14159	180.00
.00164	.00612	3.07614	176.25
.00356	.00805	3.01069	172.50
.00640	.01175	2.94524	168.75
.01075	.01768	2.87979	165.00
.01718	.02690	2.81434	161.25
.02741	.04082	2.74889	157.50
.04424	.06031	2.68344	153.75
.07021	.08550	2.61799	150.00
.10880	.11382	2.55254	146.25
.16417	.13274	2.48709	142.50
.23173	.11951	2.42164	138.75
.29613	.05484	2.35619	135.00
.31954	-.07835	2.29074	131.25
.18444	-.24603	2.22529	127.50
-.12221	-.27149	2.15984	123.75
-.30859	-.11757	2.09440	120.00
-.30771	.03126	2.02895	116.25
-.24710	.10995	1.96350	112.50
-.17876	.13343	1.89805	108.75
-.11979	.11967	1.83260	105.00
-.07776	.09180	1.76715	101.25
-.04930	.06545	1.70170	97.50
-.03054	.04460	1.63625	93.75
-.01916	.02933	1.57080	90.00
-.01225	.01909	1.50535	86.25
-.00758	.01240	1.43990	82.50
-.00453	.00789	1.37445	78.75
-.00282	.00501	1.30900	75.00
-.00173	.00343	1.24355	71.25
-.00083	.00257	1.17810	67.50
-.00016	.00213	1.11265	63.75
.00040	.00223	1.04720	60.00
.00114	.00284	.98175	56.25
.00211	.00395	.91630	52.50
.00339	.00596	.85085	48.75
.00554	.00941	.78540	45.00
.00917	.01466	.71995	41.25
.01457	.02255	.65450	37.50
.02289	.03460	.58905	33.75
.03681	.05199	.52360	30.00
.05899	.07505	.45815	26.25
.09210	.10294	.39270	22.50
.14071	.12794	.32725	18.75
.20495	.12985	.26180	15.00
.27280	.08704	.19635	11.25
.32101	-.01806	.13090	7.50
.26442	-.18613	.06545	3.75
.00000	-.28933	.00000	.00

-.30859

STEADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
M. M. RIENECKER AND J. D. FENTON.

DEPTH: FINITE, HEIGHT/DEPTH= .5851

WAVE HEIGHT 4.65528OE-04,DIMENSIONLESS WITH RESPECT TO PERIOD

CURRENT CRITERION: EULER , MAGNITUDE= .00

SOLUTION OF ORDER 23 NON-DIMENSIONALIZED BY WAVE NUMBER, 8 HEIGHT STEP(S).

WATER DEPTH   .14921

WAVE HEIGHT   8.73014E-02

WAVE PERIOD   13.694

WAVE SPEED   .45882

MEAN EULERIAN FLUID SPEED   .00000

MEAN MASS TRANSPORT SPEED   5.16125E-03

MEAN FLUID SPEED RELATIVE TO WAVE   .45882

VOLUME FLUX DUE TO WAVES   7.70102E-04

BERNOULLI CONSTANT   .10590

SOLUTION VS DEPTH, THETA= .00 DEGREES, KX= .0000 RADIANS, H/d= .5851, WAVE HEIGHT=4.65528E-04 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.08095	.23545	.00000	.00000	-.25818	.00000	.0554348	.0000000	.0127590	.0000000	.0000000	.0000000	.0000000	.0000000
.07136	.22485	.00000	.00000	-.24673	.00717	.0505597	.0000000	.0111521	.0000000	.0005083	.0000000	.0001147	.0000000
.06177	.21519	.00000	.00000	-.23451	.01445	.0463065	.0000000	.0097639	.0000000	.0009727	.0000000	.0002150	.0000000
.05218	.20637	.00000	.00000	-.22183	.02185	.0425872	.0000000	.0085767	.0000000	.0013990	.0000000	.0003030	.0000000
.04259	.19831	.00000	.00000	-.20896	.02938	.0393273	.0000000	.0075432	.0000000	.0017918	.0000000	.0003802	.0000000
.03300	.19096	.00000	.00000	-.19607	.03702	.0364661	.0000000	.0066446	.0000000	.0021552	.0000000	.0004483	.0000000
.02341	.18425	.00000	.00000	-.18331	.04430	.0339495	.0000000	.0058604	.0000000	.0024929	.0000000	.0005082	.0000000
.01382	.17814	.00000	.00000	-.17075	.05269	.0317337	.0000000	.0051736	.0000000	.0028078	.0000000	.0005611	.0000000
.00423	.17257	.00000	.00000	-.15846	.06070	.0297809	.0000000	.0045696	.0000000	.0031028	.0000000	.0006079	.0000000
-.00536	.16751	.00000	.00000	-.14649	.06863	.0280592	.0000000	.0040364	.0000000	.0033801	.0000000	.0006491	.0000000
-.01495	.16292	.00000	.00000	-.13485	.07707	.0265413	.0000000	.0035635	.0000000	.0036419	.0000000	.0006856	.0000000
-.02454	.15876	.00000	.00000	-.12355	.08542	.0252040	.0000000	.0031422	.0000000	.0038901	.0000000	.0007177	.0000000
-.03413	.15501	.00000	.00000	-.11260	.09388	.0240276	.0000000	.0027651	.0000000	.0041261	.0000000	.0007461	.0000000
-.04372	.15164	.00000	.00000	-.10197	.10244	.0229951	.0000000	.0024258	.0000000	.0043516	.0000000	.0007709	.0000000
-.05331	.14863	.00000	.00000	-.09165	.11110	.0220923	.0000000	.0021187	.0000000	.0045678	.0000000	.0007927	.0000000
-.06290	.14597	.00000	.00000	-.08162	.11986	.0213068	.0000000	.0018390	.0000000	.0047759	.0000000	.0008117	.0000000
-.07249	.14363	.00000	.00000	-.07186	.12872	.0206283	.0000000	.0015826	.0000000	.0049770	.0000000	.0008281	.0000000
-.08208	.14159	.00000	.00000	-.06234	.13766	.0200480	.0000000	.0013458	.0000000	.0051720	.0000000	.0008422	.0000000
-.09167	.13985	.00000	.00000	-.05303	.14670	.0195586	.0000000	.0011254	.0000000	.0053619	.0000000	.0008540	.0000000
-.10126	.13840	.00000	.00000	-.04391	.15583	.0191542	.0000000	.0009185	.0000000	.0055476	.0000000	.0008633	.0000000
-.11085	.13722	.00000	.00000	-.03494	.16504	.0188296	.0000000	.0007223	.0000000	.0057297	.0000000	.0008717	.0000000
-.12044	.13631	.00000	.00000	-.02610	.17434	.0185811	.0000000	.0005346	.0000000	.0059091	.0000000	.0008777	.0000000
-.13003	.13567	.00000	.00000	-.01735	.18372	.0184055	.0000000	.0003530	.0000000	.0060864	.0000000	.0008820	.0000000
-.13962	.13528	.00000	.00000	-.00866	.19318	.0183011	.0000000	.0001755	.0000000	.0062625	.0000000	.0008845	.0000000
-.14921	.13515	.00000	.00000	.00000	.20273	.0182664	.0000000	.0000000	.0000000	.0064378	.0000000	.0008853	.0000000

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.07245	.20517	.06516	.21040	-.17867	-.00084	.0420960	.2103966	.0093308	.0466354	.0000000	.0000000	.0000000	.0000000
.06321	.19754	.05978	.19294	-.17391	.00677	.0390223	.1929354	.0082891	.0409832	.0003746	.0018625	.0000814	.0004046
.05398	.19051	.05466	.17719	-.16801	.01443	.0362934	.1771918	.0073742	.0360025	.0007224	.0035717	.0001537	.0007601
.04474	.18403	.05033	.16300	-.16126	.02214	.0338672	.1629992	.0065685	.0316133	.0010464	.0051426	.0002181	.0010723
.03550	.17807	.04616	.15021	-.15391	.02992	.0317074	.1502076	.0058567	.0277452	.0013492	.0065889	.0002755	.0013465
.02627	.17258	.04232	.13868	-.14615	.03777	.0297828	.1386828	.0052262	.0243356	.0016331	.0079230	.0003266	.0015870
.01703	.16753	.03876	.12830	-.13812	.04569	.0280666	.1283047	.0046658	.0213295	.0019003	.0091559	.0003723	.0017978
.00780	.16290	.03546	.11897	-.12994	.05369	.0265356	.1189657	.0041662	.0186783	.0021524	.0102977	.0004131	.0019826
-.00144	.15865	.03239	.11057	-.12168	.06177	.0251696	.1105699	.0037193	.0163389	.0023912	.0113577	.0004495	.0021443
-.01067	.15476	.02952	.10303	-.11342	.06992	.0239514	.1030320	.0033181	.0142735	.0026180	.0123441	.0004820	.0022856
-.01991	.15121	.02684	.09628	-.10519	.07814	.0228659	.0962758	.0029565	.0124483	.0028342	.0132644	.0005110	.0024090
-.02915	.14799	.02433	.09023	-.09704	.08644	.0219000	.0902340	.0026294	.0108338	.0030409	.0141257	.0005368	.0025165
-.03838	.14506	.02196	.08485	-.08899	.09482	.0210425	.0848466	.0023321	.0094033	.0032392	.0149342	.0005597	.0026100
-.04762	.14242	.01972	.08006	-.08104	.10327	.0202836	.0800609	.0020607	.0081335	.0034301	.0156957	.0005800	.0026910
-.05685	.14005	.01759	.07583	-.07321	.11179	.0196149	.0758304	.0018116	.0070034	.0036143	.0164156	.0005979	.0027609
-.06609	.13795	.01556	.07211	-.06549	.12039	.0190291	.0721144	.0015817	.0059942	.0037928	.0170987	.0006135	.0028209
-.07532	.13609	.01363	.06888	-.05789	.12906	.0185199	.0688773	.0013683	.0050890	.0039661	.0177498	.0006271	.0028721
-.08456	.13447	.01175	.06609	-.05039	.13779	.0180821	.0660886	.0011690	.0042726	.0041352	.0183731	.0006389	.0029153
-.09379	.13308	.00997	.06372	-.04300	.14660	.0177111	.0637219	.0009814	.0035311	.0043005	.0189725	.0006488	.0029513
-.10303	.13192	.00823	.06176	-.03569	.15547	.0174032	.0617552	.0008036	.0028517	.0044626	.0195519	.0006570	.0029808
-.11227	.13098	.00653	.06017	-.02846	.16441	.0171552	.0601702	.0006338	.0022228	.0046222	.0201150	.0006637	.0030043
-.12150	.13025	.00487	.05895	-.02129	.17341	.0169649	.0589523	.0004700	.0016334	.0047797	.0206650	.0006688	.0030221
-.13074	.12973	.00323	.05809	-.01417	.18248	.0168302	.0580903	.0003109	.0010730	.0049358	.0212053	.0006724	.0030346
-.13997	.12942	.00161	.05758	-.00708	.19162	.0167499	.0575762	.0001547	.0005318	.0050909	.0217396	.0006745	.0030420
-.14921	.12932	.00000	.05741	.00000	.20083	.0167232	.0574053	.0000000	.0000000	.0052454	.0222706	.0006752	.0030444

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.05306	.14586	.08991	.27714	-.03581	-.00017	.0212757	.2771424	.0043033	.0560562	.0000000	.0000000	.0000000	.0000000
.04463	.14306	.08350	.25931	-.04095	.00794	.0204662	.2593150	.0039671	.0502649	.0001759	.0022606	.0000349	.0004480
.03620	.14040	.07750	.24294	-.04467	.01600	.0197114	.2423379	.0036547	.0450430	.0003452	.0043770	.0000670	.0008495
.02777	.13787	.07189	.22791	-.04719	.02404	.0190088	.2279053	.0033642	.0403351	.0005084	.0063610	.0000965	.0012094
.01935	.13548	.06662	.21412	-.04870	.03206	.0183559	.2141192	.0030940	.0360907	.0006658	.0082237	.0001238	.0015315
.01092	.13323	.06167	.20149	-.04936	.04008	.0177503	.2014893	.0028423	.0322638	.0008180	.0099750	.0001488	.0018195
.00249	.13111	.05701	.18993	-.04929	.04809	.0171895	.1899325	.0026076	.0288125	.0009552	.0116244	.0001717	.0020769
-.00594	.12912	.05261	.17937	-.04863	.05610	.0166717	.1793727	.0023886	.0256989	.0011079	.0131806	.0001928	.0023066
-.01436	.12726	.04845	.16974	-.04746	.06413	.0161944	.1697403	.0021837	.0228584	.0012464	.0146517	.0002121	.0025113
-.02279	.12552	.04450	.16097	-.04586	.07215	.0157557	.1609718	.0019918	.0203494	.0013810	.0160453	.0002297	.0026935
-.03122	.12391	.04075	.15301	-.04390	.08021	.0153537	.1530095	.0018116	.0180533	.0015121	.0173683	.0002457	.0028553
-.03965	.12242	.03717	.14580	-.04165	.08828	.0149867	.1458011	.0016420	.0159740	.0016399	.0186275	.0002602	.0029987
-.04808	.12105	.03375	.13930	-.03914	.09636	.0146532	.1392993	.0014819	.0140877	.0017648	.0198289	.0002734	.0031254
-.05650	.11980	.03048	.13346	-.03643	.10447	.0143515	.1334617	.0013305	.0123725	.0018871	.0209782	.0002852	.0032369
-.06493	.11866	.02733	.12825	-.03355	.11261	.0140805	.1282503	.0011867	.0108086	.0020069	.0220810	.0002959	.0033346
-.07336	.11764	.02429	.12363	-.03052	.12076	.0138388	.1236311	.0010497	.0093774	.0021245	.0231424	.0003053	.0034196
-.08179	.11673	.02135	.11957	-.02737	.12895	.0136254	.1195745	.0009186	.0080619	.0022402	.0241573	.0003135	.0034931
-.09021	.11593	.01850	.11605	-.02413	.13716	.0134393	.1160540	.0007928	.0068465	.0023543	.0251602	.0003208	.0035559
-.09864	.11524	.01572	.11305	-.02081	.14540	.0132798	.1130473	.0006715	.0057164	.0024669	.0261256	.0003270	.0036089
-.10707	.11466	.01301	.11053	-.01743	.15366	.0131459	.1105348	.0005540	.0046578	.0025782	.0270677	.0003321	.0036525
-.11550	.11418	.01035	.10850	-.01400	.16196	.0130373	.1085007	.0004395	.0036577	.0026886	.0279907	.0003363	.0036876
-.12393	.11381	.00772	.10693	-.01053	.17028	.0129532	.1069318	.0003275	.0027036	.0027981	.0288985	.0003395	.0037144
-.13235	.11355	.00513	.10582	-.00703	.17864	.0128935	.1058183	.0002173	.0017836	.0029070	.0297950	.0003418	.0037333
-.14078	.11339	.00256	.10515	-.00352	.18702	.0128578	.1051530	.0001084	.0008862	.0030155	.0306840	.0003432	.0037446
-.14921	.11334	.00000	.10493	.00000	.19543	.0128459	.1049317	.0000000	.0000000	.0031238	.0315693	.0003437	.0037483

LUTION VS DEPTH, THETA= 15.00 DEGREES, KX= .2618 RADIANS, H/c= .5851, WAVE HEIGHT=4.65528E-04 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.02191	.05581	.07007	.19361	.11111	.00033	.0031145	.1936052	.0005329	.0331288	.0000000	.0000000	.0000000	.0000000
.01478	.05708	.06646	.18970	.10130	.00822	.0032576	.1897038	.0005342	.0311087	.0000227	.0013665	.0000038	.0002290
.00765	.05823	.06294	.18586	.09229	.01604	.0033903	.1858589	.0005318	.0291530	.0000464	.0027053	.0000076	.0004438
.00052	.05927	.05950	.18209	.08401	.02380	.0035130	.1820949	.0005260	.0272643	.0000710	.0040170	.0000114	.0006449
-.00661	.06022	.05614	.17843	.07641	.03150	.0036259	.1784323	.0005170	.0254437	.0000965	.0053023	.0000151	.0008328
-.01374	.06107	.05286	.17489	.06941	.03915	.0037297	.1748884	.0005053	.0236915	.0001227	.0065618	.0000187	.0010080
-.02087	.06184	.04965	.17148	.06298	.04675	.0038248	.1714778	.0004909	.0220068	.0001496	.0077966	.0000223	.0011709
-.02800	.06254	.04652	.16821	.05705	.05430	.0039116	.1682126	.0004741	.0203885	.0001772	.0090075	.0000257	.0013221
-.03513	.06317	.04344	.16510	.05159	.06182	.0039906	.1651031	.0004552	.0188344	.0002054	.0101958	.0000290	.0014619
-.04226	.06374	.04043	.16216	.04655	.06930	.0040623	.1621575	.0004344	.0173423	.0002341	.0113624	.0000322	.0015908
-.04939	.06424	.03748	.15938	.04190	.07675	.0041271	.1593828	.0004120	.0159091	.0002633	.0125087	.0000352	.0017094
-.05652	.06470	.03458	.15678	.03759	.08416	.0041855	.1567846	.0003879	.0145320	.0002929	.0136358	.0000381	.0018179
-.06365	.06510	.03173	.15437	.03359	.09154	.0042380	.1543675	.0003626	.0132073	.0003229	.0147450	.0000408	.0019168
-.07078	.06546	.02893	.15214	.02987	.09890	.0042848	.1521352	.0003360	.0119316	.0003533	.0158377	.0000432	.0020064
-.07791	.06577	.02616	.15009	.02641	.10623	.0043263	.1500906	.0003085	.0107012	.0003840	.0169151	.0000455	.0020871
-.08504	.06605	.02344	.14824	.02316	.11353	.0043629	.1482361	.0002800	.0095120	.0004150	.0179786	.0000476	.0021532
-.09217	.06629	.02075	.14657	.02012	.12082	.0043948	.1465734	.0002507	.0083603	.0004462	.0190295	.0000495	.0022229
-.09930	.06650	.01809	.14510	.01724	.12808	.0044223	.1451041	.0002207	.0072419	.0004777	.0200693	.0000512	.0022735
-.10643	.06668	.01546	.14383	.01451	.13532	.0044458	.1438290	.0001902	.0061528	.0005093	.0210994	.0000527	.0023262
-.11356	.06682	.01285	.14275	.01191	.14255	.0044652	.1427491	.0001592	.0050889	.0005410	.0221210	.0000539	.0023663
-.12065	.06694	.01026	.14186	.00940	.14975	.0044809	.1418649	.0001278	.0040459	.0005729	.0231356	.0000549	.0023983
-.12782	.06703	.00768	.14118	.00698	.15694	.0044930	.1411768	.0000961	.0030197	.0006049	.0241446	.0000557	.0024241
-.13495	.06709	.00511	.14069	.00462	.16411	.0045015	.1406851	.0000642	.0020061	.0006370	.0251494	.0000563	.0024420
-.14208	.06713	.00255	.14039	.00230	.17127	.0045066	.1403900	.0000321	.0010010	.0006691	.0261514	.0000567	.0024527
-.14921	.06714	.00000	.14029	.00000	.17841	.0045083	.1402917	.0000000	.0000000	.0007012	.0271520	.0000568	.0024563

LUTION VS DEPTH, THETA= 30.00 DEGREES, KX= .5236 RADIANS, H/d= .5851, WAVE HEIGHT=4.65528E-04 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
-.00161	-.00381	.01617	.03689	.04881	.00037	-.0000145	.0368939	-.0000021	.0054455	.0000000	.0000000	.0000000	.0000000
-.00776	-.00319	.01565	.03852	.04695	.00682	-.0000102	.0385177	-.0000014	.0054483	-.0000001	.0002319	.0000000	.0000335
-.01391	-.00259	.01510	.04006	.04505	.01325	-.0000067	.0400573	-.0000009	.0054197	-.0000001	.0004735	.0000000	.0000669
-.02006	-.00202	.01454	.04151	.04313	.01967	-.0000041	.0415140	-.0000005	.0053615	-.0000002	.0007243	.0000000	.0001001
-.02621	-.00148	.01396	.04289	.04118	.02608	-.0000022	.0428893	-.0000003	.0052753	-.0000002	.0009839	.0000000	.0001328
-.03236	-.00096	.01336	.04418	.03921	.03248	-.0000009	.0441846	-.0000001	.0051629	-.0000002	.0012516	.0000000	.0001649
-.03851	-.00046	.01275	.04540	.03722	.03886	-.0000002	.0454016	.0000000	.0050259	-.0000002	.0015271	.0000000	.0001962
-.04466	.00000	.01212	.04654	.03522	.04523	.0000000	.0465417	.0000000	.0048659	-.0000002	.0018098	.0000000	.0002266
-.05081	.00045	.01148	.04761	.03320	.05159	.0000002	.0476066	.0000000	.0046844	-.0000002	.0020993	.0000000	.0002560
-.05696	.00086	.01082	.04860	.03117	.05794	.0000007	.0485979	.0000001	.0044831	-.0000002	.0023951	.0000000	.0002842
-.06311	.00125	.01015	.04952	.02913	.06428	.0000016	.0495171	.0000001	.0042634	-.0000002	.0026968	.0000000	.0003111
-.06926	.00162	.00947	.05037	.02707	.07060	.0000026	.0503656	.0000002	.0040267	-.0000002	.0030040	.0000000	.0003366
-.07541	.00195	.00878	.05114	.02501	.07691	.0000038	.0511450	.0000003	.0037745	-.0000002	.0033161	.0000000	.0003606
-.08156	.00226	.00809	.05186	.02295	.08321	.0000051	.0518566	.0000003	.0035081	-.0000001	.0036328	.0000000	.0003829
-.08771	.00255	.00738	.05250	.02087	.08949	.0000065	.0525017	.0000004	.0032288	-.0000001	.0039537	.0000000	.0004037
-.09386	.00280	.00666	.05308	.01880	.09576	.0000079	.0530815	.0000004	.0029360	.0000000	.0042784	.0000000	.0004225
-.10001	.00303	.00594	.05360	.01672	.10202	.0000092	.0535971	.0000005	.0026369	.0000000	.0046064	.0000000	.0004398
-.10616	.00323	.00521	.05405	.01463	.10827	.0000105	.0540497	.0000005	.0023268	.0000001	.0049375	.0000000	.0004550
-.11231	.00341	.00448	.05444	.01255	.11450	.0000116	.0544400	.0000004	.0020088	.0000001	.0052711	.0000000	.0004684
-.11846	.00356	.00374	.05477	.01046	.12072	.0000127	.0547689	.0000004	.0016841	.0000002	.0056069	.0000000	.0004797
-.12461	.00368	.00299	.05504	.00837	.12693	.0000135	.0550370	.0000003	.0013539	.0000003	.0059445	.0000000	.0004891
-.13076	.00378	.00225	.05524	.00628	.13313	.0000143	.0552450	.0000003	.0010193	.0000004	.0062836	.0000000	.0004964
-.13691	.00384	.00150	.05539	.00419	.13931	.0000148	.0553932	.0000002	.0006813	.0000005	.0066238	.0000000	.0005016
-.14306	.00388	.00075	.05548	.00209	.14548	.0000151	.0554820	.0000001	.0003412	.0000006	.0069648	.0000000	.0005047
-.14921	.00390	.00000	.05551	.00000	.15163	.0000152	.0555116	.0000000	.0000000	.0000007	.0073061	.0000000	.0005058
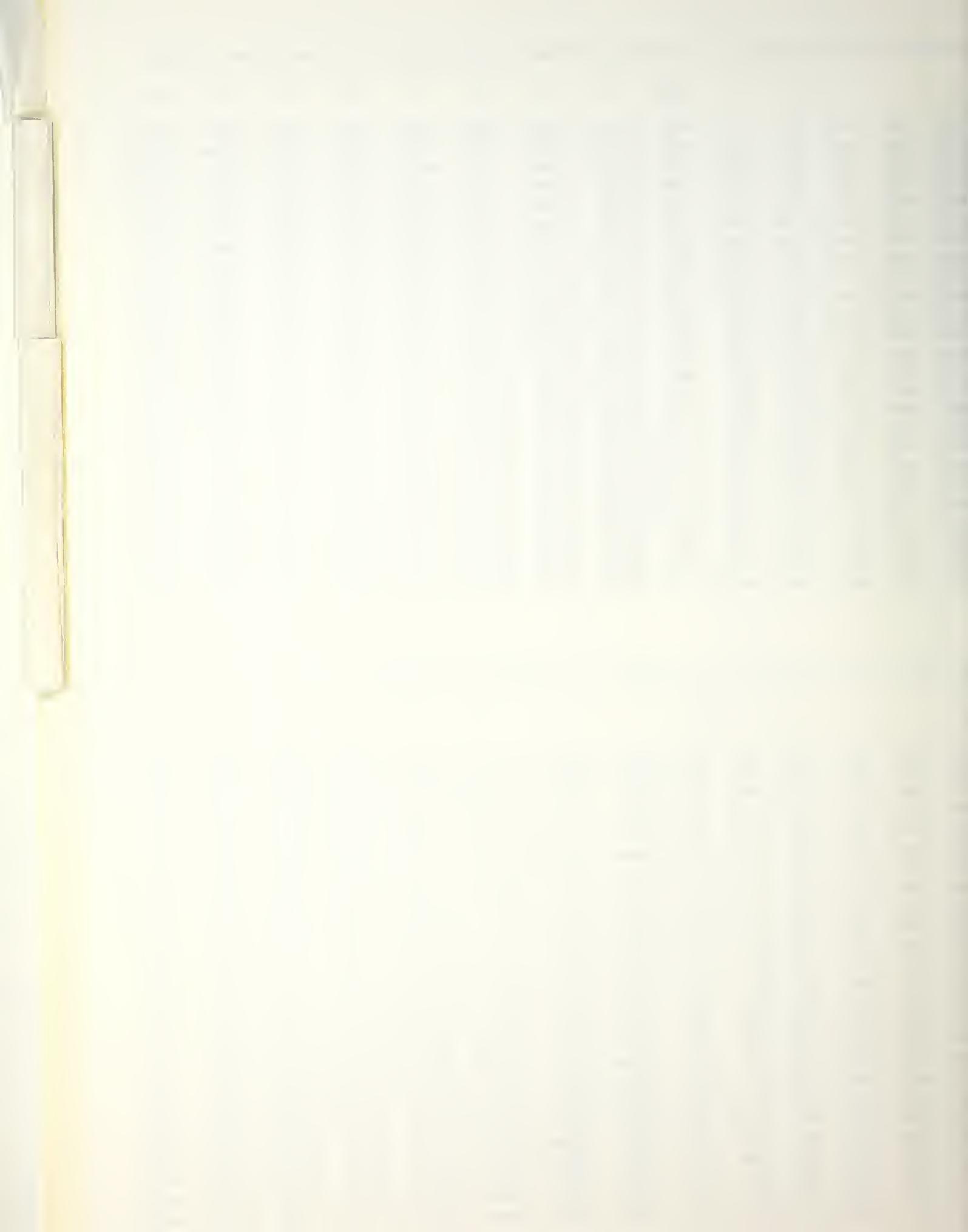
SOLUTION VS DEPTH, THETA= 45.00 DEGREES, KX= .7854 RADIANS, H/d= .5851, WAVE HEIGHT=4.65528E-04 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
-.00587	-.01324	.00272	.00584	.00893	.00034	-.0001754	.0058417	-.0000251	.0008374	.0000000	.0000000	.0000000	.0000000
-.01184	-.01313	.00264	.00620	.00867	.00637	-.0001725	.0061987	-.0000237	.0008515	-.0000010	.0000360	-.0000001	.0000050
-.01781	-.01303	.00256	.00654	.00839	.01239	-.0001697	.0065444	-.0000223	.0008599	-.0000021	.0000740	-.0000003	.0000102
-.02378	-.01292	.00247	.00688	.00811	.01841	-.0001670	.0068782	-.0000209	.0008627	-.0000031	.0001141	-.0000004	.0000153
-.02976	-.01282	.00238	.00720	.00780	.02443	-.0001644	.0071997	-.0000196	.0008600	-.0000041	.0001561	-.0000005	.0000204
-.03573	-.01272	.00229	.00751	.00749	.03045	-.0001619	.0075083	-.0000184	.0008520	-.0000050	.0002001	-.0000006	.0000256
-.04170	-.01263	.00219	.00780	.00717	.03647	-.0001596	.0078037	-.0000172	.0008390	-.0000060	.0002458	-.0000008	.0000306
-.04767	-.01254	.00209	.00809	.00683	.04248	-.0001574	.0080853	-.0000160	.0008209	-.0000069	.0002932	-.0000009	.0000356
-.05365	-.01246	.00199	.00835	.00648	.04849	-.0001553	.0083529	-.0000148	.0007982	-.0000079	.0003423	-.0000009	.0000404
-.05962	-.01238	.00188	.00861	.00613	.05450	-.0001533	.0086061	-.0000137	.0007710	-.0000088	.0003930	-.0000010	.0000451
-.06559	-.01231	.00177	.00884	.00576	.06051	-.0001514	.0088444	-.0000127	.0007395	-.0000097	.0004451	-.0000011	.0000496
-.07156	-.01224	.00165	.00907	.00539	.06652	-.0001497	.0090677	-.0000116	.0007041	-.0000106	.0004986	-.0000012	.0000539
-.07754	-.01217	.00154	.00928	.00500	.07252	-.0001481	.0092755	-.0000106	.0006648	-.0000115	.0005534	-.0000012	.0000580
-.08351	-.01211	.00142	.00947	.00461	.07852	-.0001466	.0094677	-.0000096	.0006220	-.0000124	.0006093	-.0000013	.0000618
-.08948	-.01205	.00130	.00964	.00422	.08452	-.0001453	.0096440	-.0000087	.0005760	-.0000132	.0006664	-.0000014	.0000654
-.09545	-.01200	.00117	.00980	.00381	.09052	-.0001441	.0098041	-.0000077	.0005270	-.0000141	.0007245	-.0000014	.0000687
-.10143	-.01196	.00105	.00995	.00340	.09651	-.0001430	.0099480	-.0000068	.0004753	-.0000150	.0007835	-.0000015	.0000717
-.10740	-.01192	.00092	.01008	.00299	.10251	-.0001420	.0100753	-.0000059	.0004212	-.0000158	.0008433	-.0000015	.0000744
-.11337	-.01188	.00079	.01019	.00257	.10849	-.0001412	.0101859	-.0000051	.0003650	-.0000167	.0009038	-.0000015	.0000767
-.11935	-.01185	.00066	.01028	.00215	.11448	-.0001405	.0102798	-.0000042	.0003070	-.0000175	.0009649	-.0000016	.0000787
-.12532	-.01183	.00053	.01036	.00172	.12047	-.0001399	.0103567	-.0000033	.0002474	-.0000183	.0010265	-.0000016	.0000804
-.13129	-.01181	.00040	.01042	.00129	.12645	-.0001395	.0104167	-.0000025	.0001866	-.0000192	.0010885	-.0000016	.0000817
-.13726	-.01180	.00027	.01046	.00086	.13243	-.0001391	.0104596	-.0000017	.0001249	-.0000200	.0011509	-.0000016	.0000826
-.14324	-.01179	.00013	.01049	.00043	.13840	-.0001389	.0104853	-.0000008	.0000626	-.0000208	.0012134	-.0000016	.0000832
-.14921	-.01178	.00000	.01049	.00000	.14438	-.0001389	.0104939	.0000000	.0000000	-.0000217	.0012761	-.0000016	.0000834

SOLUTION VS DEPTH, THETA= 60.00 DEGREES, KX= 1.0472 RADIANS, H/d= .5851, WAVE HEIGHT=4.65528E-04 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
-.00652	-.01472	.00043	.00091	.00145	.00030	-.0002167	.0009098	-.0000309	.0001298	.0000000	.0000000	.0000000	.0000000
-.01247	-.01470	.00042	.00097	.00142	.00626	-.0002161	.0009702	-.0000296	.0001327	-.0000013	.0000056	-.0000002	.0000008
-.01841	-.01468	.00041	.00103	.00138	.01221	-.0002156	.0010288	-.0000282	.0001346	-.0000026	.0000115	-.0000004	.0000016
-.02436	-.01467	.00039	.00109	.00133	.01816	-.0002151	.0010854	-.0000269	.0001355	-.0000033	.0000178	-.0000005	.0000024
-.03030	-.01465	.00038	.00114	.00128	.02412	-.0002146	.0011400	-.0000255	.0001356	-.0000051	.0000244	-.0000007	.0000032
-.03625	-.01463	.00037	.00119	.00123	.03007	-.0002142	.0011925	-.0000242	.0001347	-.0000064	.0000314	-.0000008	.0000040
-.04219	-.01462	.00035	.00124	.00118	.03602	-.0002137	.0012428	-.0000229	.0001330	-.0000077	.0000386	-.0000010	.0000048
-.04814	-.01461	.00033	.00129	.00112	.04197	-.0002133	.0012909	-.0000216	.0001305	-.0000089	.0000461	-.0000011	.0000056
-.05408	-.01459	.00032	.00134	.00107	.04793	-.0002129	.0013366	-.0000203	.0001271	-.0000102	.0000539	-.0000012	.0000063
-.06003	-.01458	.00030	.00138	.00101	.05388	-.0002125	.0013800	-.0000190	.0001231	-.0000115	.0000620	-.0000013	.0000071
-.06597	-.01457	.00028	.00142	.00095	.05983	-.0002122	.0014208	-.0000177	.0001183	-.0000127	.0000703	-.0000014	.0000078
-.07192	-.01455	.00026	.00146	.00089	.06578	-.0002118	.0014592	-.0000164	.0001128	-.0000140	.0000783	-.0000015	.0000085
-.07786	-.01454	.00025	.00149	.00082	.07173	-.0002115	.0014949	-.0000151	.0001067	-.0000153	.0000877	-.0000016	.0000091
-.08381	-.01453	.00023	.00153	.00076	.07768	-.0002112	.0015280	-.0000138	.0000999	-.0000165	.0000967	-.0000017	.0000097
-.08975	-.01452	.00021	.00156	.00070	.08363	-.0002110	.0015584	-.0000125	.0000925	-.0000178	.0001059	-.0000018	.0000103
-.09570	-.01452	.00019	.00159	.00063	.08958	-.0002107	.0015860	-.0000113	.0000849	-.0000190	.0001152	-.0000019	.0000108
-.10165	-.01451	.00017	.00161	.00056	.09553	-.0002105	.0016108	-.0000100	.0000766	-.0000203	.0001247	-.0000019	.0000113
-.10759	-.01450	.00015	.00163	.00049	.10148	-.0002103	.0016329	-.0000088	.0000680	-.0000215	.0001343	-.0000020	.0000118
-.11354	-.01450	.00013	.00165	.00042	.10742	-.0002102	.0016520	-.0000075	.0000589	-.0000228	.0001441	-.0000020	.0000121
-.11948	-.01449	.00011	.00167	.00036	.11337	-.0002100	.0016683	-.0000062	.0000496	-.0000240	.0001540	-.0000021	.0000125
-.12543	-.01449	.00009	.00168	.00028	.11932	-.0002099	.0016816	-.0000050	.0000400	-.0000253	.0001639	-.0000021	.0000127
-.13137	-.01448	.00006	.00169	.00021	.12527	-.0002098	.0016920	-.0000037	.0000302	-.0000265	.0001740	-.0000021	.0000129
-.13732	-.01448	.00004	.00170	.00014	.13121	-.0002097	.0016994	-.0000025	.0000202	-.0000278	.0001840	-.0000022	.0000131
-.14326	-.01448	.00002	.00170	.00007	.13716	-.0002097	.0017039	-.0000012	.0000101	-.0000290	.0001942	-.0000022	.0000132
-.14921	-.01448	.00000	.00171	.00000	.14310	-.0002097	.0017054	.0000000	.0000000	-.0000303	.0002043	-.0000022	.0000132

SOLUTION VS DEPTH, THETA= 90.00 DEGREES, KX= 1.5708 RADIANS, H/c= .5851, WAVE HEIGHT=4.65528E-04 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
-.00655	-.01499	.00001	.00002	.00007	.00020	-.0002247	.0000225	-.0000321	.0000032	.0000000	.0000000	.0000000	.0000000
-.01249	-.01499	.00001	.00002	.00006	.00615	-.0002246	.0000241	-.0000307	.0000033	-.0000013	.0000001	-.0000002	.0000000
-.01844	-.01499	.00001	.00003	.00006	.01209	-.0002246	.0000257	-.0000294	.0000034	-.0000027	.0000003	-.0000004	.0000000
-.02438	-.01499	.00001	.00003	.00005	.01804	-.0002246	.0000271	-.0000280	.0000034	-.0000040	.0000004	-.0000005	.0000001
-.03033	-.01499	.00001	.00003	.00005	.02398	-.0002246	.0000285	-.0000267	.0000034	-.0000053	.0000006	-.0000007	.0000001
-.03627	-.01499	.00001	.00003	.00005	.02993	-.0002246	.0000299	-.0000254	.0000034	-.0000067	.0000008	-.0000009	.0000001
-.04221	-.01498	.00001	.00003	.00004	.03587	-.0002245	.0000312	-.0000240	.0000033	-.0000080	.0000010	-.0000010	.0000001
-.04816	-.01498	.00001	.00003	.00004	.04182	-.0002245	.0000324	-.0000227	.0000033	-.0000093	.0000012	-.0000011	.0000001
-.05410	-.01498	.00001	.00003	.00004	.04776	-.0002245	.0000336	-.0000214	.0000032	-.0000107	.0000013	-.0000013	.0000002
-.06005	-.01498	.00001	.00003	.00003	.05370	-.0002245	.0000347	-.0000200	.0000031	-.0000120	.0000016	-.0000014	.0000002
-.06599	-.01498	.00001	.00004	.00003	.05965	-.0002245	.0000357	-.0000187	.0000030	-.0000133	.0000018	-.0000015	.0000002
-.07193	-.01498	.00001	.00004	.00003	.06559	-.0002245	.0000367	-.0000173	.0000028	-.0000147	.0000020	-.0000016	.0000002
-.07788	-.01498	.00001	.00004	.00003	.07154	-.0002245	.0000376	-.0000160	.0000027	-.0000160	.0000022	-.0000017	.0000002
-.08382	-.01498	.00001	.00004	.00002	.07748	-.0002245	.0000384	-.0000147	.0000025	-.0000174	.0000024	-.0000018	.0000002
-.08977	-.01498	.00000	.00004	.00002	.08343	-.0002245	.0000392	-.0000133	.0000023	-.0000187	.0000027	-.0000019	.0000003
-.09571	-.01498	.00000	.00004	.00002	.08937	-.0002244	.0000399	-.0000120	.0000021	-.0000200	.0000029	-.0000020	.0000003
-.10166	-.01498	.00000	.00004	.00002	.09531	-.0002244	.0000405	-.0000107	.0000019	-.0000214	.0000031	-.0000020	.0000003
-.10760	-.01498	.00000	.00004	.00001	.10126	-.0002244	.0000410	-.0000093	.0000017	-.0000227	.0000034	-.0000021	.0000003
-.11354	-.01498	.00000	.00004	.00001	.10720	-.0002244	.0000415	-.0000080	.0000015	-.0000240	.0000036	-.0000021	.0000003
-.11949	-.01498	.00000	.00004	.00001	.11315	-.0002244	.0000419	-.0000067	.0000012	-.0000254	.0000039	-.0000022	.0000003
-.12543	-.01498	.00000	.00004	.00001	.11909	-.0002244	.0000423	-.0000053	.0000010	-.0000267	.0000041	-.0000022	.0000003
-.13138	-.01498	.00000	.00004	.00001	.12504	-.0002244	.0000425	-.0000040	.0000008	-.0000280	.0000044	-.0000022	.0000003
-.13732	-.01498	.00000	.00004	.00000	.13098	-.0002244	.0000427	-.0000027	.0000005	-.0000294	.0000046	-.0000023	.0000003
-.14326	-.01498	.00000	.00004	.00000	.13692	-.0002244	.0000428	-.0000013	.0000003	-.0000307	.0000049	-.0000023	.0000003
-.14921	-.01498	.00000	.00004	.00000	.14287	-.0002244	.0000429	.0000000	.0000000	-.0000320	.0000051	-.0000023	.0000003

SOLUTION VS DEPTH, THETA=120.00 DEGREES, KX= 2.0944 RADIANS, H/c= .5851, WAVE HEIGHT=4.65528E-04 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
-.00645	-.01499	.00000	.00001	.00002	.00010	-.0002248	.0000102	-.0000321	.0000015	.0000000	.0000000	.0000000	.0000000
-.01240	-.01499	.00000	.00001	.00002	.00605	-.0002248	.0000091	-.0000308	.0000012	-.0000013	.0000001	-.0000002	.0000000
-.01835	-.01499	.00000	.00001	.00001	.01200	-.0002248	.0000081	-.0000294	.0000011	-.0000027	.0000001	-.0000004	.0000000
-.02429	-.01499	.00000	.00001	.00001	.01795	-.0002248	.0000073	-.0000281	.0000009	-.0000040	.0000002	-.0000005	.0000000
-.03024	-.01499	.00000	.00001	.00001	.02390	-.0002248	.0000065	-.0000267	.0000008	-.0000053	.0000002	-.0000007	.0000000
-.03619	-.01499	.00000	.00001	.00001	.02984	-.0002248	.0000059	-.0000254	.0000007	-.0000067	.0000002	-.0000009	.0000000
-.04214	-.01499	.00000	.00001	.00001	.03579	-.0002248	.0000053	-.0000241	.0000006	-.0000080	.0000003	-.0000010	.0000000
-.04809	-.01499	.00000	.00000	.00001	.04174	-.0002248	.0000048	-.0000227	.0000005	-.0000094	.0000003	-.0000011	.0000000
-.05404	-.01499	.00000	.00000	.00001	.04769	-.0002248	.0000044	-.0000214	.0000004	-.0000107	.0000003	-.0000013	.0000000
-.05998	-.01499	.00000	.00000	.00001	.05364	-.0002248	.0000040	-.0000201	.0000004	-.0000120	.0000003	-.0000014	.0000000
-.06593	-.01499	.00000	.00000	.00000	.05959	-.0002248	.0000037	-.0000187	.0000003	-.0000134	.0000004	-.0000015	.0000000
-.07188	-.01499	.00000	.00000	.00000	.06553	-.0002248	.0000034	-.0000174	.0000003	-.0000147	.0000004	-.0000016	.0000000
-.07783	-.01499	.00000	.00000	.00000	.07148	-.0002248	.0000031	-.0000160	.0000002	-.0000160	.0000004	-.0000017	.0000000
-.08378	-.01499	.00000	.00000	.00000	.07743	-.0002248	.0000029	-.0000147	.0000002	-.0000174	.0000004	-.0000018	.0000000
-.08973	-.01499	.00000	.00000	.00000	.08338	-.0002248	.0000027	-.0000134	.0000002	-.0000187	.0000004	-.0000019	.0000000
-.09567	-.01499	.00000	.00000	.00000	.08933	-.0002248	.0000026	-.0000120	.0000001	-.0000201	.0000005	-.0000020	.0000001
-.10162	-.01499	.00000	.00000	.00000	.09528	-.0002248	.0000024	-.0000107	.0000001	-.0000214	.0000005	-.0000020	.0000001
-.10757	-.01499	.00000	.00000	.00000	.10122	-.0002248	.0000023	-.0000094	.0000001	-.0000227	.0000005	-.0000021	.0000001
-.11352	-.01499	.00000	.00000	.00000	.10717	-.0002248	.0000022	-.0000080	.0000001	-.0000241	.0000005	-.0000021	.0000001
-.11947	-.01499	.00000	.00000	.00000	.11312	-.0002248	.0000021	-.0000067	.0000001	-.0000254	.0000005	-.0000022	.0000001
-.12542	-.01499	.00000	.00000	.00000	.11907	-.0002248	.0000021	-.0000053	.0000000	-.0000267	.0000005	-.0000022	.0000001
-.13136	-.01499	.00000	.00000	.00000	.12502	-.0002248	.0000020	-.0000040	.0000000	-.0000281	.0000005	-.0000023	.0000001
-.13731	-.01499	.00000	.00000	.00000	.13097	-.0002248	.0000020	-.0000027	.0000000	-.0000294	.0000006	-.0000023	.0000001
-.14326	-.01499	.00000	.00000	.00000	.13691	-.0002248	.0000020	-.0000013	.0000000	-.0000308	.0000006	-.0000023	.0000001
-.14921	-.01499	.00000	.00000	.00000	.14286	-.0002248	.0000020	.0000000	.0000000	-.0000321	.0000006	-.0000023	.0000001

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
-.00637	-.01499	.00000	.00001	.00001	.00003	-.0002248	.0000085	-.0000321	.0000012	.0000000	.0000000	.0000000	.0000000
-.01233	-.01499	.00000	.00001	.00000	.00598	-.0002248	.0000075	-.0000308	.0000010	-.0000013	.0000000	-.0000002	.0000000
-.01828	-.01499	.00000	.00001	.00000	.01193	-.0002248	.0000066	-.0000294	.0000009	-.0000027	.0000001	-.0000004	.0000000
-.02423	-.01499	.00000	.00001	.00000	.01788	-.0002248	.0000058	-.0000281	.0000007	-.0000040	.0000001	-.0000005	.0000000
-.03018	-.01499	.00000	.00001	.00000	.02383	-.0002248	.0000051	-.0000268	.0000006	-.0000054	.0000002	-.0000007	.0000000
-.03613	-.01499	.00000	.00000	.00000	.02978	-.0002248	.0000045	-.0000254	.0000005	-.0000067	.0000002	-.0000009	.0000000
-.04208	-.01499	.00000	.00000	.00000	.03574	-.0002248	.0000039	-.0000241	.0000004	-.0000080	.0000002	-.0000010	.0000000
-.04803	-.01499	.00000	.00000	.00000	.04169	-.0002248	.0000035	-.0000227	.0000003	-.0000094	.0000002	-.0000011	.0000000
-.05399	-.01499	.00000	.00000	.00000	.04764	-.0002248	.0000030	-.0000214	.0000003	-.0000107	.0000003	-.0000013	.0000000
-.05994	-.01499	.00000	.00000	.00000	.05359	-.0002248	.0000027	-.0000201	.0000002	-.0000120	.0000003	-.0000014	.0000000
-.06589	-.01499	.00000	.00000	.00000	.05954	-.0002248	.0000024	-.0000187	.0000002	-.0000134	.0000003	-.0000015	.0000000
-.07184	-.01499	.00000	.00000	.00000	.06549	-.0002248	.0000021	-.0000174	.0000002	-.0000147	.0000003	-.0000016	.0000000
-.07779	-.01499	.00000	.00000	.00000	.07144	-.0002248	.0000019	-.0000161	.0000001	-.0000161	.0000003	-.0000017	.0000000
-.08374	-.01499	.00000	.00000	.00000	.07740	-.0002248	.0000017	-.0000147	.0000001	-.0000174	.0000003	-.0000018	.0000000
-.08969	-.01499	.00000	.00000	.00000	.08335	-.0002248	.0000015	-.0000134	.0000001	-.0000187	.0000003	-.0000019	.0000000
-.09565	-.01499	.00000	.00000	.00000	.08930	-.0002248	.0000013	-.0000120	.0000001	-.0000201	.0000003	-.0000020	.0000000
-.10160	-.01499	.00000	.00000	.00000	.09525	-.0002248	.0000012	-.0000107	.0000001	-.0000214	.0000003	-.0000020	.0000000
-.10755	-.01499	.00000	.00000	.00000	.10120	-.0002248	.0000011	-.0000094	.0000000	-.0000227	.0000004	-.0000021	.0000000
-.11350	-.01499	.00000	.00000	.00000	.10715	-.0002248	.0000010	-.0000080	.0000000	-.0000241	.0000004	-.0000021	.0000000
-.11945	-.01499	.00000	.00000	.00000	.11310	-.0002248	.0000009	-.0000067	.0000000	-.0000254	.0000004	-.0000022	.0000000
-.12540	-.01499	.00000	.00000	.00000	.11906	-.0002248	.0000009	-.0000054	.0000000	-.0000268	.0000004	-.0000022	.0000000
-.13135	-.01499	.00000	.00000	.00000	.12501	-.0002248	.0000008	-.0000040	.0000000	-.0000281	.0000004	-.0000023	.0000000
-.13731	-.01499	.00000	.00000	.00000	.13096	-.0002248	.0000008	-.0000027	.0000000	-.0000294	.0000004	-.0000023	.0000000
-.14326	-.01499	.00000	.00000	.00000	.13691	-.0002248	.0000008	-.0000013	.0000000	-.0000308	.0000004	-.0000023	.0000000
-.14921	-.01499	.00000	.00000	.00000	.14286	-.0002248	.0000008	.0000000	.0000000	-.0000321	.0000004	-.0000023	.0000000

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
-.00635	-.01499	.00000	.00000	.00000	.00000	-.0002248	.0000000	-.0000321	.0000000	.0000000	.0000000	.0000000	.0000000
-.01230	-.01499	.00000	.00000	.00000	.00595	-.0002248	.0000000	-.0000308	.0000000	-.0000013	.0000000	-.0000002	.0000000
-.01825	-.01499	.00000	.00000	.00000	.01191	-.0002248	.0000000	-.0000294	.0000000	-.0000027	.0000000	-.0000004	.0000000
-.02420	-.01499	.00000	.00000	.00000	.01786	-.0002248	.0000000	-.0000281	.0000000	-.0000040	.0000000	-.0000005	.0000000
-.03015	-.01499	.00000	.00000	.00000	.02381	-.0002248	.0000000	-.0000268	.0000000	-.0000054	.0000000	-.0000007	.0000000
-.03611	-.01499	.00000	.00000	.00000	.02976	-.0002248	.0000000	-.0000254	.0000000	-.0000067	.0000000	-.0000009	.0000000
-.04206	-.01499	.00000	.00000	.00000	.03572	-.0002248	.0000000	-.0000241	.0000000	-.0000080	.0000000	-.0000010	.0000000
-.04801	-.01499	.00000	.00000	.00000	.04167	-.0002248	.0000000	-.0000227	.0000000	-.0000094	.0000000	-.0000011	.0000000
-.05397	-.01499	.00000	.00000	.00000	.04762	-.0002248	.0000000	-.0000214	.0000000	-.0000107	.0000000	-.0000013	.0000000
-.05992	-.01499	.00000	.00000	.00000	.05357	-.0002248	.0000000	-.0000201	.0000000	-.0000120	.0000000	-.0000014	.0000000
-.06587	-.01499	.00000	.00000	.00000	.05953	-.0002248	.0000000	-.0000187	.0000000	-.0000134	.0000000	-.0000015	.0000000
-.07183	-.01499	.00000	.00000	.00000	.06548	-.0002248	.0000000	-.0000174	.0000000	-.0000147	.0000000	-.0000016	.0000000
-.07778	-.01499	.00000	.00000	.00000	.07143	-.0002248	.0000000	-.0000161	.0000000	-.0000161	.0000000	-.0000017	.0000000
-.08373	-.01499	.00000	.00000	.00000	.07738	-.0002248	.0000000	-.0000147	.0000000	-.0000174	.0000000	-.0000018	.0000000
-.08968	-.01499	.00000	.00000	.00000	.08334	-.0002248	.0000000	-.0000134	.0000000	-.0000187	.0000000	-.0000019	.0000000
-.09564	-.01499	.00000	.00000	.00000	.08929	-.0002248	.0000000	-.0000120	.0000000	-.0000201	.0000000	-.0000020	.0000000
-.10159	-.01499	.00000	.00000	.00000	.09524	-.0002248	.0000000	-.0000107	.0000000	-.0000214	.0000000	-.0000020	.0000000
-.10754	-.01499	.00000	.00000	.00000	.10119	-.0002248	.0000000	-.0000094	.0000000	-.0000227	.0000000	-.0000021	.0000000
-.11349	-.01499	.00000	.00000	.00000	.10715	-.0002248	.0000000	-.0000080	.0000000	-.0000241	.0000000	-.0000022	.0000000
-.11945	-.01499	.00000	.00000	.00000	.11310	-.0002248	.0000000	-.0000067	.0000000	-.0000254	.0000000	-.0000022	.0000000
-.12540	-.01499	.00000	.00000	.00000	.11905	-.0002248	.0000000	-.0000054	.0000000	-.0000268	.0000000	-.0000022	.0000000
-.13135	-.01499	.00000	.00000	.00000	.12500	-.0002248	.0000000	-.0000040	.0000000	-.0000281	.0000000	-.0000023	.0000000
-.13730	-.01499	.00000	.00000	.00000	.13096	-.0002248	.0000000	-.0000027	.0000000	-.0000294	.0000000	-.0000023	.0000000
-.14326	-.01499	.00000	.00000	.00000	.13691	-.0002248	.0000000	-.0000013	.0000000	-.0000308	.0000000	-.0000023	.0000000
-.14921	-.01499	.00000	.00000	.00000	.14286	-.0002248	.0000000	.0000000	.0000000	-.0000321	.0000000	-.0000023	.0000000

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICLE VELOCITIES

	U	V	DIST.	ANGLE
d=.5851 HEIGHT=4.6553E-04, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER	*SQRT(K/G)	*K	DEGREES	

```
------------------------------------------------------------------o-----+  -.01499  .00000 3.14159  180.00
                                                                o      +  -.01499  .00000 3.07614  176.25
                                                                o      +  -.01499  .00000 3.01069  172.50
                                                                o      +  -.01499  .00000 2.94524  168.75
                                                                o      +  -.01499  .00000 2.87979  165.00
                                                                o      +  -.01499  .00000 2.81434  161.25
                                                                o      +  -.01499  .00000 2.74889  157.50
                                                                o      +  -.01499  .00000 2.68344  153.75
                                                                o      +  -.01499  .00000 2.61799  150.00
                                                                o      +  -.01499  .00000 2.55254  146.25
                                                                o      +  -.01499  .00000 2.48709  142.50
                                                                o      +  -.01499  .00000 2.42164  138.75
                                                                o      +  -.01499  .00000 2.35619  135.00
                                                                o      +  -.01499  .00000 2.29074  131.25
                                                                o      +  -.01499  .00000 2.22529  127.50
                                                                o      +  -.01499  .00000 2.15984  123.75
                                                                o      +  -.01499  .00000 2.09440  120.00
                                                                o      +  -.01499  .00000 2.02895  116.25
                                                                o      +  -.01499  .00000 1.96350  112.50
                                                                o      +  -.01499  .00000 1.89805  108.75
                                                                o      +  -.01499  .00000 1.83260  105.00
                                                                o      +  -.01499  .00001 1.76715  101.25
                                                                o      +  -.01499  .00000 1.70170   97.50
                                                                o      +  -.01499  .00000 1.63625   93.75
                                                                o      +  -.01499  .00001 1.57080   90.00
                                                                o      +  -.01498  .00002 1.50535   86.25
                                                                o      +  -.01497  .00003 1.43990   82.50
                                                                o      +  -.01497  .00004 1.37445   78.75
                                                                o      +  -.01495  .00007 1.30900   75.00
                                                                o      +  -.01493  .00011 1.24355   71.25
                                                                o      +  -.01488  .00017 1.17810   67.50
                                                                o      +  -.01482  .00027 1.11265   63.75
                                                                o      +  -.01472  .00043 1.04720   60.00
                                                                o      +  -.01456  .00069  .98175   56.25
                                                                o      +  -.01430  .00109  .91630   52.50
                                                             o:      +  -.01390  .00172  .85085   48.75
                                                             o:    +:  -.01324  .00272  .78540   45.00
                                                          o :    +:  -.01221  .00428  .71995   41.25
                                                      o  :     + :  -.01061  .00673  .65450   37.50
                                                  o   :   +  :  -.00804  .01052  .58905   33.75
                                            o      :  +   :  -.00381  .01617  .52360   30.00
                                      o        +:      :   .00289  .02431  .45815   26.25
                                 o         +    :   .01325  .03657  .39270   22.50
                            o          +      :   .02975  .05248  .32725   18.75
                       o      +          :   .05581  .07007  .26180   15.00
                 +  o                   :   .09390  .08522  .19635   11.25
        +              o              :   .14586  .08991  .13090    7.50
  +                        o          :   .20517  .06516  .06545    3.75
------------------------------------------------------------------o-----:   .23545  .00000  .00000     .00
```

.545   -.01499

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS

				Ax	Ay	DIST.	ANGLE

d=.5851 HEIGHT=4.6553E-04, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER

Ax *1/G	Ay *1/G	DIST. *K	ANGLE DEGREES
.00000	.00000	3.14159	180.00
.00000	.00000	3.07614	176.25
.00000	.00000	3.01069	172.50
.00000	.00000	2.94524	168.75
.00000	.00000	2.87979	165.00
.00000	-.00001	2.81434	161.25
-.00001	.00000	2.74869	157.50
.00000	.00001	2.68344	153.75
.00001	.00001	2.61799	150.00
.00001	-.00001	2.55254	146.25
-.00001	-.00001	2.48709	142.50
-.00001	.00001	2.42164	138.75
.00001	.00001	2.35619	135.00
.00001	-.00001	2.25074	131.25
-.00001	-.00001	2.22529	127.50
-.00002	.00001	2.15984	123.75
.00001	.00002	2.09440	120.00
.00002	-.00001	2.02895	116.25
-.00001	-.00002	1.96350	112.50
-.00002	.00001	1.89805	108.75
.00001	.00003	1.83260	105.00
.00003	.00000	1.76715	101.25
.00001	-.00001	1.70170	97.50
-.00001	.00002	1.63625	93.75
.00002	.00007	1.57080	90.00
.00007	.00006	1.50535	86.25
.00006	.00006	1.43990	82.50
.00006	.00014	1.37445	78.75
.00014	.00028	1.30900	75.00
.00026	.00037	1.24355	71.25
.00037	.00055	1.17810	67.50
.00055	.00090	1.11265	63.75
.00091	.00148	1.04720	60.00
.00148	.00229	.98175	56.25
.00230	.00361	.91630	52.50
.00364	.00570	.85085	48.75
.00584	.00893	.78540	45.00
.00925	.01392	.71995	41.25
.01455	.02165	.65450	37.50
.02312	.03308	.58905	33.75
.03689	.04881	.52360	30.00
.05793	.06955	.45815	26.25
.08939	.09429	.39270	22.50
.13538	.11446	.32725	18.75
.19361	.11111	.26180	15.00
.24977	.06521	.19635	11.25
.27714	-.03581	.13090	7.50
.21040	-.17867	.06545	3.75
.00000	-.25818	.00000	.00

.714

-.25818

_=.5851 HEIGHT=4.6553E-04, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER   *K   (K*G)^.5   *K   DEGREES

	*K	(K*G)^.5	*K	DEGREES
+	-.00635	6.84712	3.14159	180.00
+	-.00634	6.70447	3.07614	176.25
+	-.00635	6.56182	3.01069	172.50
+	-.00637	6.41917	2.94524	168.75
+	-.00635	6.27652	2.87979	165.00
+	-.00631	6.13387	2.81434	161.25
+	-.00633	5.99123	2.74889	157.50
+	-.00639	5.84858	2.68344	153.75
+	-.00637	5.70593	2.61799	150.00
+	-.00629	5.56328	2.55254	146.25
+	-.00630	5.42063	2.48709	142.50
+	-.00641	5.27798	2.42164	138.75
+	-.00641	5.13534	2.35619	135.00
+	-.00629	4.99269	2.29074	131.25
+	-.00627	4.85004	2.22529	127.50
+	-.00641	4.70739	2.15984	123.75
+	-.00645	4.56474	2.09440	120.00
+	-.00629	4.42210	2.02895	116.25
+	-.00622	4.27945	1.96350	112.50
+	-.00639	4.13680	1.89805	108.75
+	-.00650	3.99415	1.83260	105.00
+	-.00631	3.85150	1.76715	101.25
+	-.00617	3.70885	1.70170	97.50
+	-.00636	3.56621	1.63625	93.75
+	-.00655	3.42356	1.57080	90.00
+	-.00636	3.28091	1.50535	86.25
+¦	-.00611	3.13826	1.43990	82.50
+	-.00629	2.99561	1.37445	78.75
+	-.00658	2.85296	1.30900	75.00
+	-.00641	2.71032	1.24355	71.25
+¦	-.00601	2.56767	1.17810	67.50
+¦	-.00612	2.42502	1.11265	63.75
+	-.00652	2.28237	1.04720	60.00
+	-.00635	2.13972	.98175	56.25
+¦	-.00570	1.99708	.91630	52.50
+¦	-.00554	1.85443	.85085	48.75
+'	-.00587	1.71178	.78540	45.00
+¦	-.00544	1.56913	.71995	41.25
+ ¦	-.00395	1.42648	.65450	37.50
¦+ ¦	-.00258	1.28383	.58905	33.75
¦+ ¦	-.00161	1.14119	.52360	30.00
+¦	.00091	.99854	.45815	26.25
+	.00634	.85589	.39270	22.50
+	.01355	.71324	.32725	18.75
+	.02191	.57059	.26180	15.00
+	.03434	.42794	.19635	11.25
+	.05306	.28530	.13090	7.50
+	.07245	.14265	.06545	3.75
¦	.08095	.00000	.00000	.00

-.00658

4C, SHALLOW
W/ CURRENT

M. M. RIENECKER AND J. D. FENTON.

DEPTH: FINITE, HEIGHT/DEPTH= .5839

WAVE HEIGHT 1.858611E-03,DIMENSIONLESS WITH RESPECT TO PERIOD

CURRENT CRITERION: EULER , MAGNITUDE= .00

SOLUTION OF ORDER 8 NON-DIMENSIONALIZED BY WAVE NUMBER, 2 HEIGHT STEP(S).

WATER DEPTH	.31319
WAVE HEIGHT	.18287
WAVE PERIOD	9.9193
WAVE SPEED	.63343
MEAN EULERIAN FLUID SPEED	2.09000E-22
MEAN MASS TRANSPORT SPEED	1.34673E-02
MEAN FLUID SPEED RELATIVE TO WAVE	.63343
VOLUME FLUX DUE TO WAVES	4.21777E-03
BERNOULLI CONSTANT	.20262

SOLUTION VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .5839, WAVE HEIGHT=1.858615E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.15675	.33052	.00000	.00000	-.26811	.00000	.1092432	.0000000	.0513368	.0000000	.0000000	.0000000	.0000000	.0000000
.13716	.31396	.00000	.00000	-.25796	.01443	.0985715	.0000000	.0443917	.0000000	.0020346	.0000000	.0009372	.0000000
.11758	.29885	.00000	.00000	-.24651	.02907	.0893134	.0000000	.0384735	.0000000	.0038740	.0000000	.0017485	.0000000
.09800	.28507	.00000	.00000	-.23420	.04394	.0812637	.0000000	.0334148	.0000000	.0055440	.0000000	.0024523	.0000000
.07842	.27249	.00000	.00000	-.22139	.05906	.0742506	.0000000	.0290772	.0000000	.0070665	.0000000	.0030641	.0000000
.05884	.26102	.00000	.00000	-.20832	.07443	.0681294	.0000000	.0253461	.0000000	.0084604	.0000000	.0035969	.0000000
.03925	.25056	.00000	.00000	-.19519	.09006	.0627781	.0000000	.0221260	.0000000	.0097420	.0000000	.0040617	.0000000
.01966	.24103	.00000	.00000	-.18214	.10595	.0580938	.0000000	.0193375	.0000000	.0109254	.0000000	.0044676	.0000000
.00010	.23236	.00000	.00000	-.16927	.12209	.0539893	.0000000	.0169142	.0000000	.0120227	.0000000	.0048225	.0000000
-.01948	.22446	.00000	.00000	-.15664	.13848	.0503908	.0000000	.0148001	.0000000	.0130446	.0000000	.0051330	.0000000
-.03906	.21734	.00000	.00000	-.14431	.15512	.0472357	.0000000	.0129486	.0000000	.0140004	.0000000	.0054047	.0000000
-.05864	.21089	.00000	.00000	-.13230	.17199	.0444706	.0000000	.0113198	.0000000	.0148983	.0000000	.0056423	.0000000
-.07822	.20506	.00000	.00000	-.12062	.18909	.0420504	.0000000	.0098804	.0000000	.0157453	.0000000	.0058498	.0000000
-.09780	.19984	.00000	.00000	-.10926	.20642	.0399385	.0000000	.0086017	.0000000	.0165480	.0000000	.0060308	.0000000
-.11738	.19518	.00000	.00000	-.09822	.22397	.0380962	.0000000	.0074594	.0000000	.0173119	.0000000	.0061880	.0000000
-.13696	.19105	.00000	.00000	-.08749	.24174	.0365017	.0000000	.0064325	.0000000	.0180423	.0000000	.0063240	.0000000
-.15654	.18743	.00000	.00000	-.07703	.25971	.0351297	.0000000	.0055029	.0000000	.0187435	.0000000	.0064409	.0000000
-.17612	.18429	.00000	.00000	-.06682	.27788	.0339605	.0000000	.0046547	.0000000	.0194200	.0000000	.0065403	.0000000
-.19570	.18160	.00000	.00000	-.05685	.29625	.0329774	.0000000	.0038743	.0000000	.0200753	.0000000	.0066239	.0000000
-.21528	.17935	.00000	.00000	-.04707	.31481	.0321670	.0000000	.0031492	.0000000	.0207131	.0000000	.0066925	.0000000
-.23486	.17753	.00000	.00000	-.03745	.33357	.0315181	.0000000	.0024686	.0000000	.0213366	.0000000	.0067476	.0000000
-.25444	.17613	.00000	.00000	-.02797	.35251	.0310222	.0000000	.0018223	.0000000	.0219489	.0000000	.0067895	.0000000
-.27402	.17514	.00000	.00000	-.01859	.37163	.0306725	.0000000	.0012012	.0000000	.0225529	.0000000	.0068192	.0000000
-.29361	.17454	.00000	.00000	-.00928	.39094	.0304645	.0000000	.0005965	.0000000	.0231514	.0000000	.0068368	.0000000
-.31319	.17434	.00000	.00000	.00000	.41043	.0303955	.0000000	.0000000	.0000000	.0237472	.0000000	.0068425	.0000000
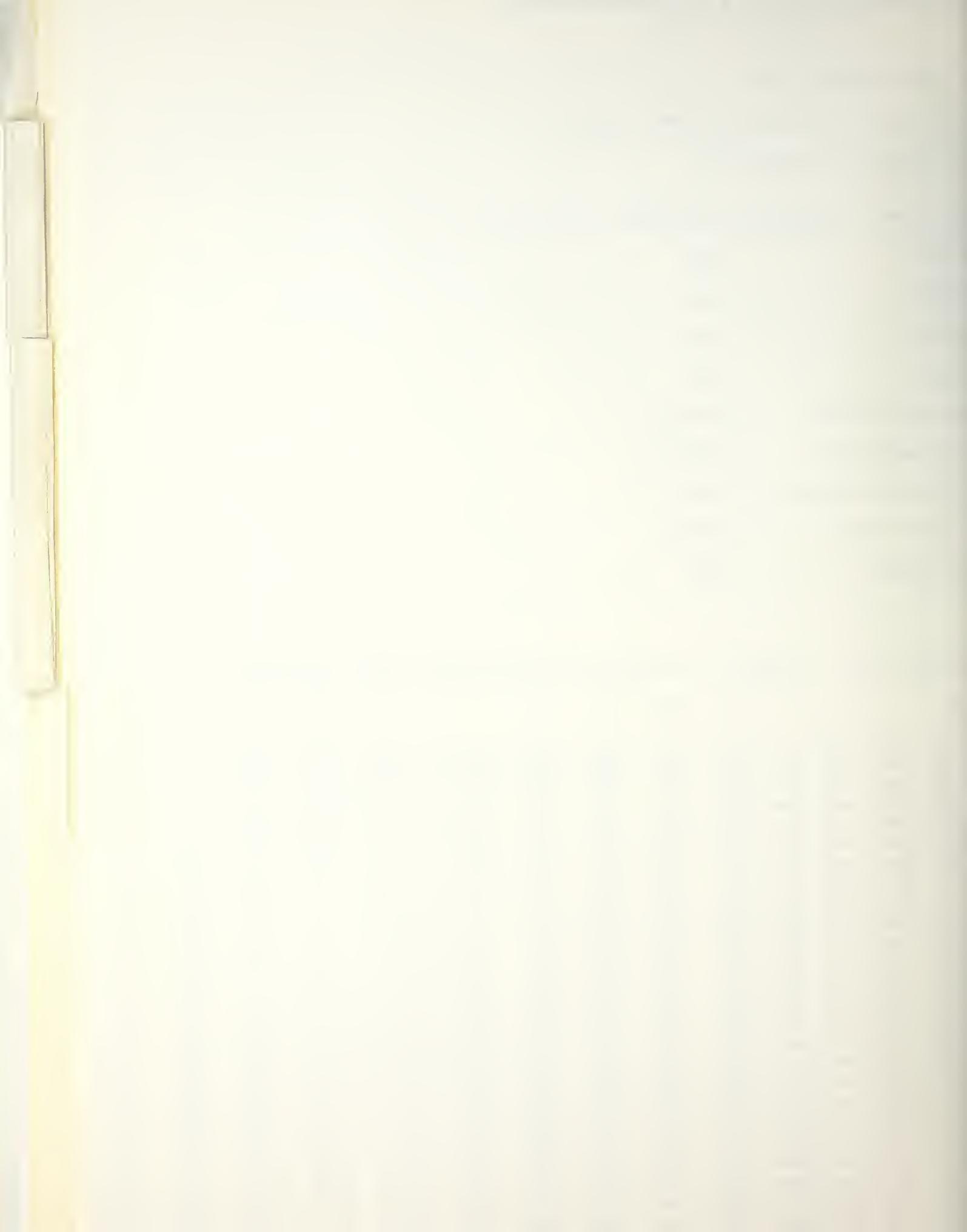
KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.10210	.19368	.14067	.30898	-.03151	-.00706	.0375105	.3089846	.0156149	.1286248	.0000000	.0000000	.0000000	.0000000
.08575	.18912	.13035	.28221	-.03860	.00967	.0357679	.2882066	.0142691	.1149763	.0006355	.0051792	.0002532	.0021126
.06841	.18482	.12074	.26915	-.04355	.02630	.0341586	.2691529	.0130346	.1027066	.0012420	.0100129	.0004960	.0040005
.05106	.18076	.11177	.25169	-.04703	.04286	.0326737	.2516937	.0119013	.0916786	.0018216	.0145300	.0007122	.0056863
.03372	.17693	.10338	.23571	-.04928	.05937	.0313051	.2357092	.0108598	.0817679	.0023764	.0187570	.0009096	.0071905
.01637	.17334	.09552	.22109	-.05050	.07585	.0300453	.2210893	.0099016	.0728614	.0029085	.0227186	.0010897	.0085316
-.00097	.16996	.08814	.20773	-.05085	.09231	.0288873	.2077321	.0090189	.0648567	.0034196	.0264376	.0012538	.0097259
-.01832	.16681	.08120	.19555	-.05048	.10878	.0278245	.1955481	.0082045	.0576606	.0039114	.0299350	.0014031	.0107985
-.03566	.16386	.07465	.18445	-.04950	.12525	.0268510	.1844501	.0074517	.0511888	.0043856	.0332306	.0015389	.0117325
-.05301	.16112	.06847	.17435	-.04802	.14175	.0259612	.1743622	.0067545	.0453549	.0048436	.0363424	.0016621	.0125698
-.07035	.15859	.06260	.16521	-.04611	.15828	.0251503	.1652148	.0061073	.0401192	.0052869	.0392874	.0017737	.0133112
-.08770	.15625	.05703	.15694	-.04385	.17484	.0244135	.1569448	.0055049	.0353889	.0057167	.0420813	.0018744	.0139661
-.10504	.15410	.05172	.14950	-.04129	.19145	.0237468	.1494951	.0049427	.0311161	.0061344	.0447390	.0019650	.0145428
-.12239	.15214	.04664	.14281	-.03849	.20810	.0231463	.1428147	.0044162	.0272485	.0065411	.0472740	.0020461	.0150490
-.13974	.15036	.04178	.13686	-.03548	.22481	.0226088	.1368577	.0039215	.0237381	.0069379	.0496995	.0021185	.0154912
-.15708	.14877	.03710	.13158	-.03231	.24156	.0221311	.1315834	.0034548	.0205409	.0073259	.0520275	.0021824	.0158752
-.17443	.14735	.03258	.12696	-.02901	.25838	.0217106	.1269559	.0030126	.0176165	.0077061	.0542638	.0022385	.0162061
-.19177	.14610	.02821	.12294	-.02559	.27525	.0213449	.1229437	.0025916	.0149273	.0080795	.0564370	.0022871	.0164883
-.20912	.14502	.02396	.11952	-.02208	.29218	.0210319	.1195196	.0021888	.0124385	.0084470	.0585398	.0023286	.0167257
-.22646	.14412	.01981	.11666	-.01850	.30917	.0207701	.1166605	.0018013	.0101174	.0088096	.0605881	.0023632	.0169213
-.24281	.14338	.01575	.11435	-.01486	.32623	.0205578	.1143470	.0014263	.0079334	.0091680	.0625915	.0023912	.0170778
-.26115	.14281	.01175	.11256	-.01118	.34335	.0203923	.1125635	.0010612	.0058573	.0095231	.0645534	.0024127	.0171974
-.27850	.14240	.00781	.11130	-.00747	.36053	.0202774	.1112981	.0007034	.0038609	.0098755	.0665008	.0024280	.0172817
-.29584	.14215	.00390	.11054	-.00374	.37773	.0202078	.1105422	.0003505	.0019174	.0102270	.0684248	.0024373	.0173319
-.31319	.14207	.00000	.11029	.00000	.39509	.0201846	.1102908	.0000000	.0000000	.0105773	.0703399	.0024402	.0173485

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.02383	.05627	.10069	.20231	.12340	.00716	.0031658	.2023144	.0010689	.0681829	.0000000	.0000000	.0000000	.0000000
.00979	.05825	.09547	.19801	.11347	.02286	.0033930	.1980134	.0010959	.0639528	.0000461	.0028108	.0000152	.0009277
-.00426	.06005	.09039	.19382	.10245	.03841	.0036064	.1938195	.0011141	.0598756	.0000952	.0055819	.0000307	.0017972
-.01830	.06169	.08543	.18975	.09325	.05383	.0038057	.1897500	.0011223	.0559550	.0001472	.0082550	.0000464	.0026104
-.03234	.06318	.08060	.18582	.09482	.06912	.0039912	.1858199	.0011209	.0521867	.0002020	.0108919	.0000622	.0033697
-.04638	.06452	.07588	.18204	.07707	.08430	.0041630	.1820415	.0011107	.0485693	.0002592	.0134747	.0000778	.0040771
-.06042	.06574	.07127	.17843	.06994	.09937	.0043217	.1784250	.0010924	.0450989	.0003188	.0160056	.0000933	.0047348
-.07447	.06684	.06676	.17498	.06338	.11435	.0044675	.1749790	.0010665	.0417707	.0003805	.0184869	.0001084	.0053447
-.08851	.06783	.06235	.17171	.05734	.12924	.0046014	.1717104	.0010338	.0385793	.0004442	.0209210	.0001232	.0059089
-.10255	.06873	.05802	.16862	.05177	.14405	.0047235	.1686250	.0009949	.0355182	.0005097	.0233108	.0001374	.0064291
-.11659	.06953	.05379	.16573	.04661	.15878	.0048346	.1657273	.0009504	.0325806	.0005768	.0256581	.0001511	.0069072
-.13064	.07025	.04962	.16302	.04184	.17344	.0049351	.1630210	.0009009	.0297594	.0006454	.0279663	.0001641	.0073449
-.14468	.07089	.04553	.16051	.03741	.18804	.0050258	.1605090	.0008469	.0270469	.0007153	.0302378	.0001764	.0077439
-.15872	.07146	.04151	.15819	.03329	.20258	.0051071	.1581935	.0007889	.0244354	.0007864	.0324755	.0001879	.0081052
-.17276	.07197	.03755	.15608	.02945	.21706	.0051795	.1560764	.0007273	.0219167	.0008587	.0346820	.0001985	.0084307
-.18681	.07241	.03364	.15416	.02585	.23149	.0052435	.1541588	.0006627	.0194827	.0009318	.0368602	.0002083	.0087214
-.20085	.07280	.02978	.15244	.02246	.24587	.0052995	.1524417	.0005953	.0171250	.0010059	.0390129	.0002171	.0089784
-.21489	.07313	.02596	.15093	.01926	.26021	.0053480	.1509258	.0005257	.0148354	.0010806	.0411429	.0002250	.0092028
-.22893	.07341	.02218	.14961	.01622	.27450	.0053894	.1496115	.0004541	.0126053	.0011560	.0432530	.0002318	.0093955
-.24297	.07365	.01844	.14850	.01331	.28875	.0054238	.1484992	.0003808	.0104263	.0012319	.0453461	.0002377	.0095572
-.25702	.07383	.01472	.14759	.01052	.30296	.0054516	.1475890	.0003062	.0082899	.0013083	.0474250	.0002425	.0096885
-.27106	.07398	.01102	.14689	.00781	.31713	.0054730	.1468810	.0002306	.0061876	.0013850	.0494925	.0002463	.0097902
-.28510	.07408	.00734	.14638	.00517	.33126	.0054882	.1463753	.0001541	.0041109	.0014620	.0515515	.0002490	.0098625
-.29914	.07414	.00367	.14607	.00257	.34536	.0054972	.1460718	.0000772	.0020512	.0015391	.0536048	.0002506	.0099058
-.31319	.07416	.00000	.14597	.00000	.35943	.0055002	.1459707	.0000000	.0000000	.0016163	.0556552	.0002513	.0099202
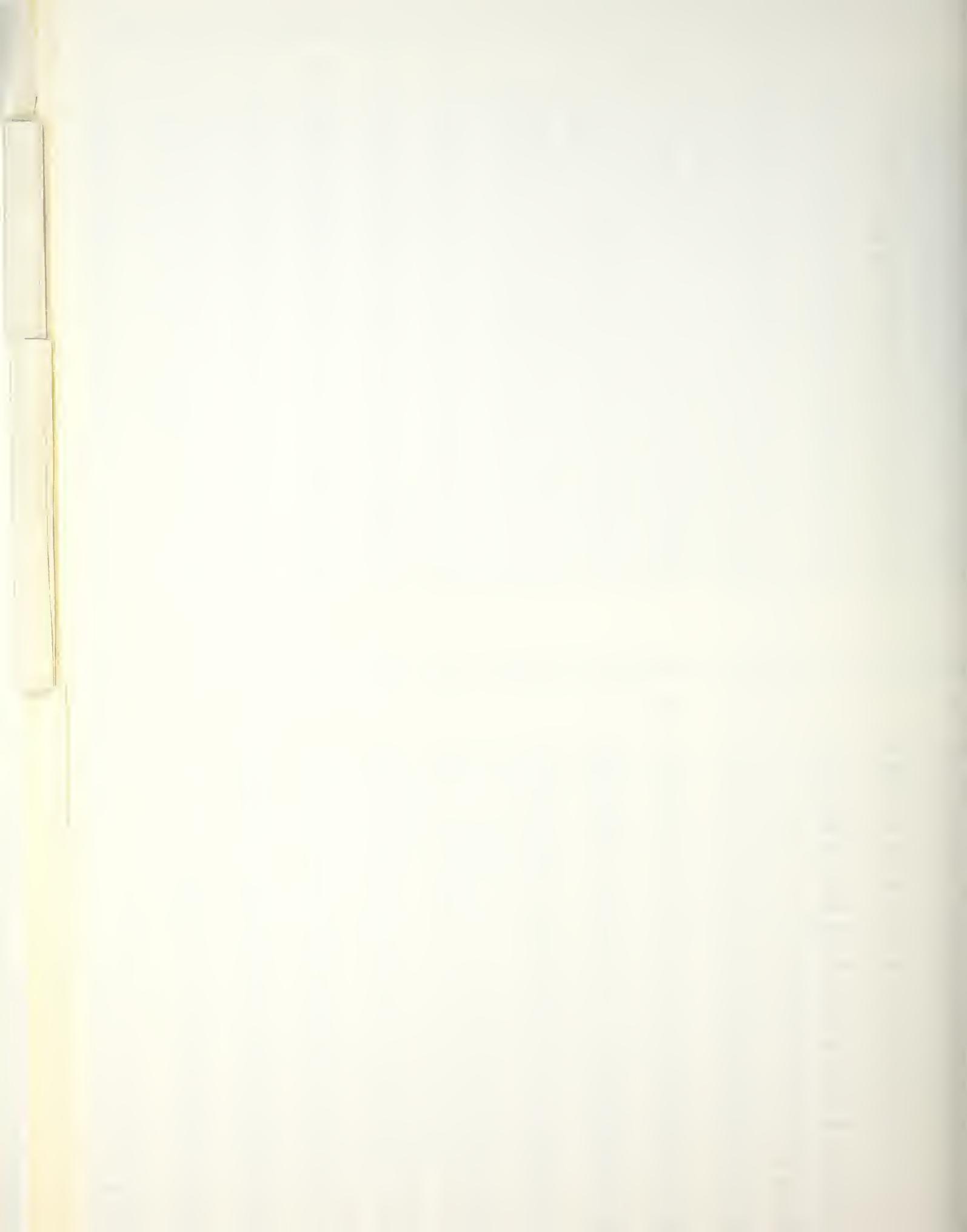
/c=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER   *K   (K*G)^.5   *K   DEGREES

plot	*K	(K*G)^.5	*K	DEGREES
+¦	-.02613	4.95963	3.14159	180.00
+¦	-.02618	4.85631	3.07614	176.25
+¦	-.02630	4.75298	3.01069	172.50
+¦	-.02642	4.64965	2.94524	168.75
+¦	-.02645	4.54633	2.87979	165.00
+¦	-.02635	4.44300	2.81434	161.25
+¦	-.02608	4.33968	2.74889	157.50
+¦	-.02571	4.23635	2.68344	153.75
+¦	-.02535	4.13303	2.61799	150.00
+¦	-.02512	4.02970	2.55254	146.25
+¦	-.02515	3.92637	2.48709	142.50
+¦	-.02547	3.82305	2.42164	138.75
+¦	-.02604	3.71972	2.35619	135.00
+	-.02672	3.61640	2.29074	131.25
+	-.02731	3.51307	2.22529	127.50
+	-.02759	3.40975	2.15984	123.75
+	-.02742	3.30642	2.09440	120.00
+	-.02676	3.20310	2.02895	116.25
+¦	-.02571	3.09977	1.96350	112.50
+ ¦	-.02450	2.99644	1.89805	108.75
+ ¦	-.02343	2.89312	1.83260	105.00
+ ¦	-.02280	2.78979	1.76715	101.25
+ ¦	-.02280	2.68647	1.70170	97.50
+ ¦	-.02345	2.58314	1.63625	93.75
+ ¦	-.02455	2.47982	1.57080	90.00
+¦	-.02576	2.37649	1.50535	86.25
+¦	-.02659	2.27316	1.43990	82.50
+¦	-.02660	2.16984	1.37445	78.75
+¦	-.02547	2.06651	1.30900	75.00
+ ¦	-.02313	1.96319	1.24355	71.25
+ ¦	-.01977	1.85986	1.17810	67.50
+ ¦	-.01581	1.75654	1.11265	63.75
+ ¦	-.01182	1.65321	1.04720	60.00
+ ¦	-.00831	1.54988	.98175	56.25
¦ +	-.00557	1.44656	.91630	52.50
¦ +	-.00353	1.34323	.85085	49.75
¦+	-.00170	1.23991	.78540	45.00
+	.00084	1.13658	.71995	41.25
+ ¦	.00521	1.03326	.65450	37.50
+	.01258	.92993	.58905	33.75
+	.02383	.82661	.52360	30.00
+	.03928	.72328	.45815	26.25
+	.05853	.61995	.39270	22.50
+	.08043	.51663	.32725	18.75
+	.10310	.41330	.25180	15.00
+	.12425	.30998	.19635	11.25
+	.14151	.20665	.13090	7.50
+	.15281	.10333	.06545	3.75
¦	.15675	.00000	.00000	.00

5675   -.02759

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICLE VELOCITIES

	U	V	DIST.	ANGLE
H/d=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER	*SQRT(K/G)	*K	DEGREES
	-.04296	.00000	3.14159	180.00
	-.04297	-.00002	3.07614	176.25
	-.04301	-.00001	3.01069	172.50
	-.04304	.00004	2.94524	168.75
	-.04304	.00012	2.87979	165.00
	-.04299	.00022	2.81434	161.25
	-.04288	.00029	2.74889	157.50
	-.04274	.00030	2.68344	153.75
	-.04260	.00023	2.61799	150.00
	-.04252	.00010	2.55254	146.25
	-.04252	-.00007	2.48709	142.50
	-.04263	-.00020	2.42164	138.75
	-.04283	-.00024	2.35619	135.00
	-.04305	-.00014	2.29074	131.25
	-.04321	.00012	2.22529	127.50
	-.04326	.00049	2.15984	123.75
	-.04312	.00093	2.09440	120.00
	-.04280	.00135	2.02895	116.25
	-.04233	.00168	1.96350	112.50
	-.04179	.00186	1.89805	108.75
	-.04127	.00191	1.83260	105.00
	-.04089	.00189	1.76715	101.25
	-.04068	.00192	1.70170	97.50
	-.04062	.00217	1.63625	93.75
	-.04062	.00278	1.57080	90.00
	-.04050	.00386	1.50535	86.25
	-.04009	.00544	1.43990	82.50
	-.03923	.00750	1.37445	78.75
	-.03783	.00998	1.30900	75.00
	-.03585	.01284	1.24355	71.25
	-.03329	.01606	1.17810	67.50
	-.03020	.01967	1.11265	63.75
	-.02662	.02380	1.04720	60.00
	-.02250	.02866	.98175	56.25
	-.01762	.03457	.91630	52.50
	-.01159	.04133	.85085	48.75
	-.00381	.05064	.78540	45.00
	.00632	.06105	.71995	41.25
	.01937	.07301	.65450	37.50
	.03583	.08632	.58905	33.75
	.05527	.10069	.52360	30.00
	.08144	.11543	.45815	26.25
	.11236	.12907	.39270	22.50
	.14985	.13888	.32725	18.75
	.19368	.14067	.26180	15.00
	.24109	.12940	.19635	11.25
	.28573	.10112	.13090	7.50
	.31942	.05595	.06545	3.75
	.33052	.00000	.00000	.00

3052

-.04326

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICLE VELOCITIES

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS	Ax	Ay	DIST.	ANGLE
H/d=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER	*1/G	*1/G	*K	DEGREES
	.00000	-.00023	3.14159	180.00
	-.00031	-.00009	3.07614	176.25
	-.00042	.00029	3.01069	172.50
	-.00024	.00071	2.94524	168.75
	.00024	.00097	2.87979	165.00
	.00085	.00091	2.81434	161.25
	.00135	.00046	2.74889	157.50
	.00154	-.00028	2.68344	153.75
	.00124	-.00108	2.61799	150.00
	.00046	-.00162	2.55254	146.25
	-.00062	-.00165	2.48709	142.50
	-.00165	-.00100	2.42164	138.75
	-.00225	.00025	2.35619	135.00
	-.00215	.00182	2.29074	131.25
	-.00121	.00332	2.22529	127.50
	.00042	.00433	2.15984	123.75
	.00239	.00457	2.09440	120.00
	.00422	.00393	2.02895	116.25
	.00544	.00262	1.96350	112.50
	.00566	.00106	1.89805	108.75
	.00479	-.00012	1.83260	105.00
	.00311	-.00034	1.76715	101.25
	.00123	.00117	1.70170	97.50
	-.00002	.00423	1.63625	93.75
	.00013	.00862	1.57030	90.00
	.00212	.01374	1.50535	86.25
	.00600	.01885	1.43990	82.50
	.01139	.02345	1.37445	78.75
	.01765	.02727	1.30900	75.00
	.02405	.03049	1.24355	71.25
	.02994	.03365	1.17810	67.50
	.03503	.03775	1.11265	63.75
	.03961	.04393	1.04720	60.00
	.04479	.05323	.98175	56.25
	.05233	.06802	.91630	52.50
	.06419	.08155	.85085	48.75
	.08177	.09799	.78540	45.00
	.10539	.11282	.71995	41.25
	.13427	.12349	.65450	37.50
	.16708	.12774	.58905	33.75
	.20231	.12340	.52360	30.00
	.23830	.10799	.45815	26.25
	.27230	.07853	.39270	22.50
	.29898	.03214	.32725	18.75
	.30898	-.03131	.26180	15.00
	.28972	-.10904	.19635	11.25
	.23006	-.18671	.13090	7.50
	.12864	-.24584	.06545	3.75
	.00000	-.26811	.00000	.00

30898

-.26811

STEADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
                M. M. RIENECKER AND J. D. FENTON.

DEPTH: FINITE, HEIGHT/DEPTH= .5839

WAVE HEIGHT 1.858611E-03,DIMENSIONLESS WITH RESPECT TO PERIOD

CURRENT CRITERION: EULER , MAGNITUDE= .00

SOLUTION OF ORDER   9 NON-DIMENSIONALIZED BY WAVE NUMBER, 2 HEIGHT STEP(S).

 WATER DEPTH   .31338

 WAVE HEIGHT   .18299

 WAVE PERIOD   9.9224

 WAVE SPEED   .63323

 MEAN EULERIAN FLUID SPEED   4.58366E-22

 MEAN MASS TRANSPORT SPEED   1.32644E-02

 MEAN FLUID SPEED RELATIVE TO WAVE   .63323

 VOLUME FLUX DUE TO WAVES   4.15683E-03

 BERNOULLI CONSTANT   .20260

SOLUTION VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .5839, WAVE HEIGHT=1.85861E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.15689	.33088	.00000	.00000	-.27069	.00000	.1094840	.0000000	.0514871	.0000000	.0000000	.0000000	.0000000	.0000000
.13729	.31414	.00000	.00000	-.26010	.01439	.0986836	.0000000	.0444743	.0000000	.0020395	.0000000	.0009402	.0000000
.11770	.29889	.00000	.00000	-.24822	.02900	.0893359	.0000000	.0385110	.0000000	.0039816	.0000000	.0017532	.0000000
.09810	.28500	.00000	.00000	-.23553	.04386	.0812257	.0000000	.0334233	.0000000	.0055526	.0000000	.0024580	.0000000
.07851	.27235	.00000	.00000	-.22236	.05897	.0741730	.0000000	.0290678	.0000000	.0070751	.0000000	.0030702	.0000000
.05892	.26082	.00000	.00000	-.20899	.07433	.0680273	.0000000	.0253264	.0000000	.0084683	.0000000	.0036031	.0000000
.03932	.25032	.00000	.00000	-.19561	.08997	.0626825	.0000000	.0221012	.0000000	.0097487	.0000000	.0040678	.0000000
.01973	.24077	.00000	.00000	-.18235	.10586	.0579722	.0000000	.0193110	.0000000	.0109305	.0000000	.0044735	.0000000
.00013	.23209	.00000	.00000	-.16931	.12201	.0533670	.0000000	.0168880	.0000000	.0120263	.0000000	.0048292	.0000000
-.01946	.22421	.00000	.00000	-.15655	.13841	.0502714	.0000000	.0147757	.0000000	.0130466	.0000000	.0051384	.0000000
-.03906	.21707	.00000	.00000	-.14412	.15506	.0471213	.0000000	.0129265	.0000000	.0140008	.0000000	.0054098	.0000000
-.05865	.21062	.00000	.00000	-.13204	.17195	.0443626	.0000000	.0113005	.0000000	.0148971	.0000000	.0056471	.0000000
-.07825	.20482	.00000	.00000	-.12031	.18907	.0419494	.0000000	.0098638	.0000000	.0157427	.0000000	.0058545	.0000000
-.09784	.19961	.00000	.00000	-.10892	.20642	.0398427	.0000000	.0085877	.0000000	.0165440	.0000000	.0060353	.0000000
-.11744	.19496	.00000	.00000	-.09798	.22399	.0380094	.0000000	.0074478	.0000000	.0173068	.0000000	.0061924	.0000000
-.13703	.19084	.00000	.00000	-.08714	.24177	.0364216	.0000000	.0064230	.0000000	.0180360	.0000000	.0063283	.0000000
-.15662	.18723	.00000	.00000	-.07670	.25976	.0350558	.0000000	.0054952	.0000000	.0187363	.0000000	.0064450	.0000000
-.17622	.18410	.00000	.00000	-.06652	.27795	.0338920	.0000000	.0046487	.0000000	.0194118	.0000000	.0065444	.0000000
-.19581	.18142	.00000	.00000	-.05657	.29634	.0329138	.0000000	.0038696	.0000000	.0200663	.0000000	.0066279	.0000000
-.21541	.17919	.00000	.00000	-.04683	.31493	.0321075	.0000000	.0031457	.0000000	.0207033	.0000000	.0066966	.0000000
-.23500	.17738	.00000	.00000	-.03726	.33370	.0314620	.0000000	.0024659	.0000000	.0213261	.0000000	.0067516	.0000000
-.25460	.17598	.00000	.00000	-.02782	.35265	.0309687	.0000000	.0018205	.0000000	.0219378	.0000000	.0067936	.0000000
-.27419	.17499	.00000	.00000	-.01849	.37179	.0306209	.0000000	.0012000	.0000000	.0225412	.0000000	.0068232	.0000000
-.29379	.17440	.00000	.00000	-.00923	.39112	.0304140	.0000000	.0005960	.0000000	.0231392	.0000000	.0068408	.0000000
-.31338	.17420	.00000	.00000	.00000	.41062	.0303454	.0000000	.0000000	.0000000	.0237344	.0000000	.0068466	.0000000
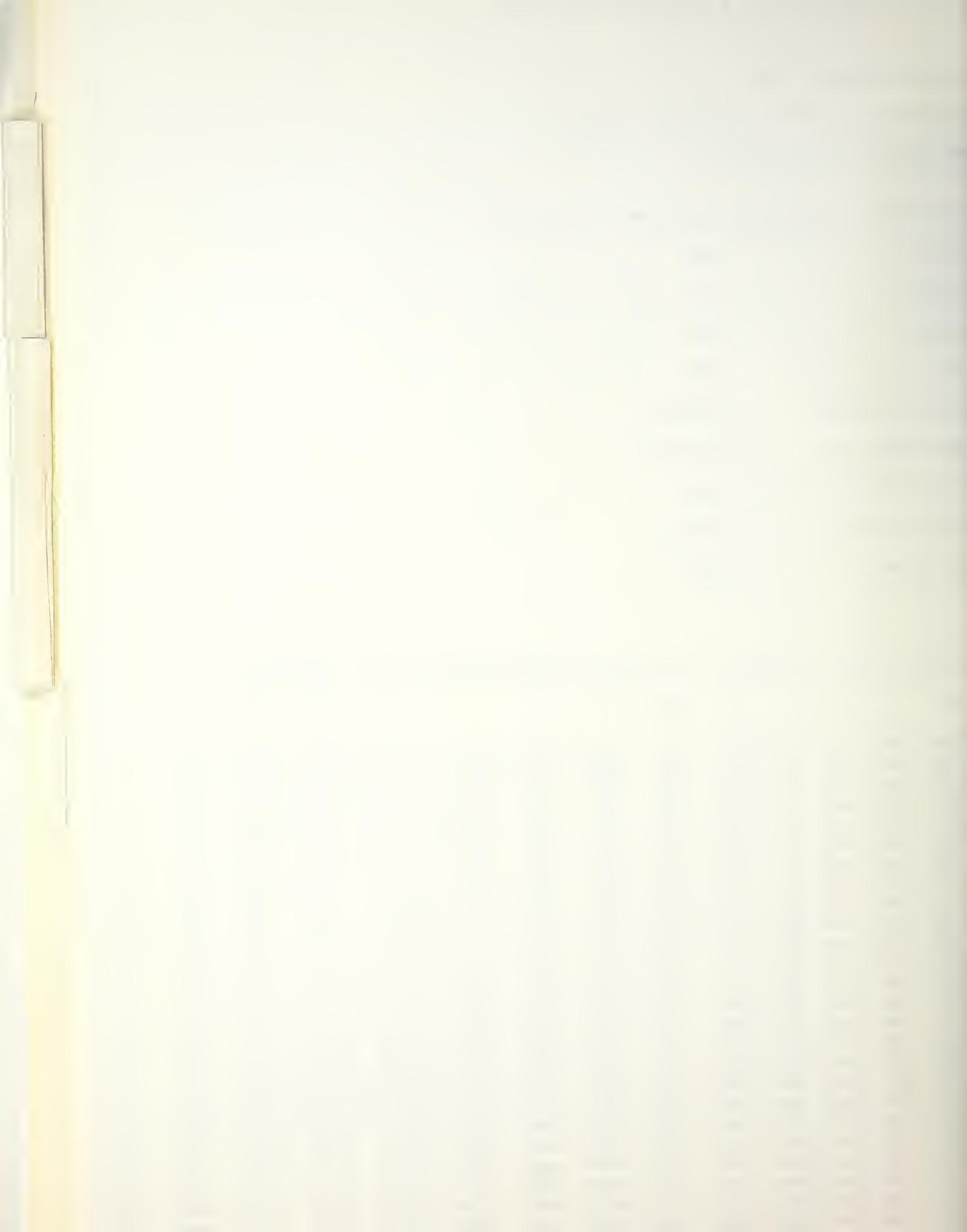
KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.10013	.19177	.13809	.30365	-.02903	-.00452	.0367754	.3036525	.0152072	.1255653	.0000000	.0000000	.0000000	.0000000
.08290	.18747	.12798	.28331	-.03598	.01215	.0351451	.2833064	.0139275	.1122705	.0006195	.0050566	.0002510	.0020489
.06568	.18339	.11857	.26465	-.04117	.02871	.0336317	.2646539	.0137483	.1003188	.0012121	.0097772	.0004808	.0038804
.04845	.17952	.10978	.24757	-.04486	.04520	.0322289	.2475671	.0116613	.0895764	.0017795	.0141900	.0006911	.0055163
.03122	.17587	.10157	.23193	-.04731	.06163	.0309307	.2319281	.0106586	.0799217	.0023236	.0183208	.0008834	.0069765
.01399	.17243	.09387	.21763	-.04871	.07803	.0297313	.2176282	.0097330	.0712443	.0029462	.0221937	.0010590	.0082788
-.00324	.16919	.08664	.20457	-.04923	.09442	.0286251	.2045679	.0088777	.0634441	.0033489	.0258309	.0012194	.0094391
-.02047	.16615	.07984	.19266	-.04901	.11080	.0276068	.1926560	.0080862	.0564304	.0038334	.0292529	.0013655	.0104718
-.03770	.16331	.07342	.18181	-.04817	.12719	.0266716	.1818093	.0073528	.0501207	.0043010	.0324789	.0014985	.0113898
-.05493	.16067	.06735	.17195	-.04681	.14360	.0258149	.1719521	.0066718	.0444406	.0047531	.0355266	.0016193	.0122044
-.07216	.15822	.06159	.16302	-.04502	.16004	.0250323	.1630157	.0060382	.0393223	.0051912	.0384123	.0017288	.0129260
-.08939	.15595	.05612	.15494	-.04287	.17651	.0243200	.1549379	.0054474	.0347042	.0056163	.0411514	.0018278	.0135638
-.10662	.15386	.05091	.14766	-.04042	.19303	.0236743	.1476625	.0048949	.0305304	.0060298	.0437583	.0019169	.0141257
-.12385	.15196	.04592	.14114	-.03771	.20958	.0230919	.1411393	.0043766	.0267499	.0064327	.0462463	.0019968	.0146192
-.14108	.15023	.04114	.13532	-.03479	.22619	.0225697	.1353232	.0038887	.0233160	.0068261	.0486280	.0020680	.0150505
-.15831	.14868	.03654	.13017	-.03171	.24284	.0221052	.1301742	.0034278	.0201859	.0072109	.0509152	.0021310	.0154253
-.17554	.14730	.03210	.12566	-.02848	.25956	.0216958	.1256571	.0029905	.0173204	.0075883	.0531192	.0021863	.0157484
-.19277	.14608	.02780	.12174	-.02513	.27632	.0213395	.1217408	.0025737	.0146830	.0079590	.0552505	.0022342	.0160241
-.21000	.14503	.02361	.11840	-.02170	.29315	.0210344	.1183988	.0021745	.0122400	.0083241	.0573193	.0022751	.0162561
-.22723	.14415	.01953	.11561	-.01818	.31004	.0207789	.1156083	.0017901	.0099596	.0086843	.0593353	.0023093	.0164473
-.24446	.14343	.01552	.11335	-.01461	.32698	.0205716	.1133505	.0014178	.0078120	.0090405	.0613077	.0023369	.0166004
-.26169	.14287	.01159	.11161	-.01100	.34399	.0204115	.1116100	.0010551	.0057691	.0093936	.0632457	.0023582	.0167174
-.27892	.14247	.00770	.11038	-.00735	.36106	.0202978	.1103751	.0006995	.0038035	.0097443	.0651581	.0023733	.0167999
-.29615	.14223	.00384	.10964	-.00368	.37820	.0202298	.1096374	.0003486	.0018890	.0100934	.0670535	.0023824	.0168489
-.31338	.14215	.00000	.10939	.00000	.39540	.0202071	.1093921	.0000000	.0000000	.0104418	.0689404	.0023854	.0168652

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.02552	.05751	.10039	.19828	.11904	.00631	.0033073	.1982846	.0011208	.0671981	.0000000	.0000000	.0000000	.0000000
.01140	.05943	.09524	.19444	.10853	.02204	.0035315	.1944423	.0011469	.0631503	.0000483	.0027728	.0000160	.0009203
-.00273	.06117	.09021	.19065	.09889	.03762	.0037414	.1906467	.0011623	.0592255	.0000996	.0054917	.0000323	.0017843
-.01685	.06275	.08530	.18692	.09004	.05308	.0039371	.1869231	.0011675	.0554293	.0001538	.0081574	.0000488	.0025938
-.03097	.06418	.08051	.18329	.08191	.06841	.0041188	.1832929	.0011632	.0517646	.0002107	.0107713	.0000652	.0033507
-.04509	.06547	.07582	.17977	.07443	.08363	.0042868	.1797746	.0011501	.0482324	.0002701	.0133347	.0000816	.0040567
-.05921	.06665	.07123	.17633	.06756	.09876	.0044417	.1763834	.0011289	.0448319	.0003317	.0158493	.0000976	.0047137
-.07333	.06770	.06674	.17313	.06122	.11379	.0045838	.1731324	.0011004	.0415608	.0003954	.0183170	.0001134	.0053237
-.08745	.06866	.06235	.17003	.05539	.12873	.0047139	.1700325	.0010650	.0384157	.0004611	.0207399	.0001287	.0058884
-.10157	.06952	.05804	.16709	.05000	.14353	.0048325	.1670828	.0010236	.0353921	.0005285	.0231201	.0001434	.0064095
-.11569	.07029	.05381	.16432	.04502	.15838	.0049401	.1643208	.0009766	.0324846	.0005975	.0254600	.0001575	.0068887
-.12981	.07098	.04965	.16172	.04041	.17311	.0050375	.1617227	.0009247	.0296874	.0006679	.0277620	.0001710	.0073277
-.14393	.07159	.04557	.15930	.03613	.18777	.0051252	.1593037	.0008685	.0269933	.0007397	.0300286	.0001836	.0077279
-.15805	.07214	.04155	.15707	.03214	.20237	.0052035	.1570680	.0008083	.0243971	.0008126	.0322623	.0001955	.0080907
-.17217	.07262	.03758	.15502	.02843	.21692	.0052735	.1550189	.0007447	.0218898	.0008866	.0344657	.0002064	.0084175
-.18630	.07304	.03367	.15316	.02495	.23142	.0053352	.1531591	.0006780	.0194645	.0009615	.0366415	.0002165	.0087095
-.20042	.07341	.02981	.15149	.02167	.24587	.0053891	.1514909	.0006088	.0171133	.0010372	.0387925	.0002256	.0089677
-.21454	.07373	.02599	.15002	.01858	.26027	.0054358	.1500158	.0005373	.0148283	.0011135	.0409212	.0002338	.0091932
-.22866	.07400	.02221	.14874	.01565	.27463	.0054755	.1487354	.0004639	.0126015	.0011906	.0430305	.0002407	.0093669
-.24278	.07422	.01846	.14765	.01294	.28896	.0055085	.1476505	.0003889	.0104247	.0012682	.0451231	.0002467	.0095495
-.25690	.07440	.01474	.14676	.01015	.30324	.0055352	.1467619	.0003126	.0082895	.0013462	.0472018	.0002517	.0096815
-.27102	.07454	.01104	.14607	.00753	.31748	.0055557	.1460703	.0002354	.0061879	.0014245	.0492693	.0002556	.0097838
-.28514	.07463	.00735	.14558	.00499	.33169	.0055703	.1455760	.0001573	.0041113	.0015030	.0513284	.0002583	.0098565
-.29926	.07469	.00367	.14528	.00248	.34587	.0055790	.1452794	.0000788	.0020515	.0015817	.0533820	.0002600	.0099001
-.31338	.07471	.00000	.14518	.00000	.36000	.0055819	.1451805	.0000000	.0000000	.0016605	.0554327	.0002606	.0099145
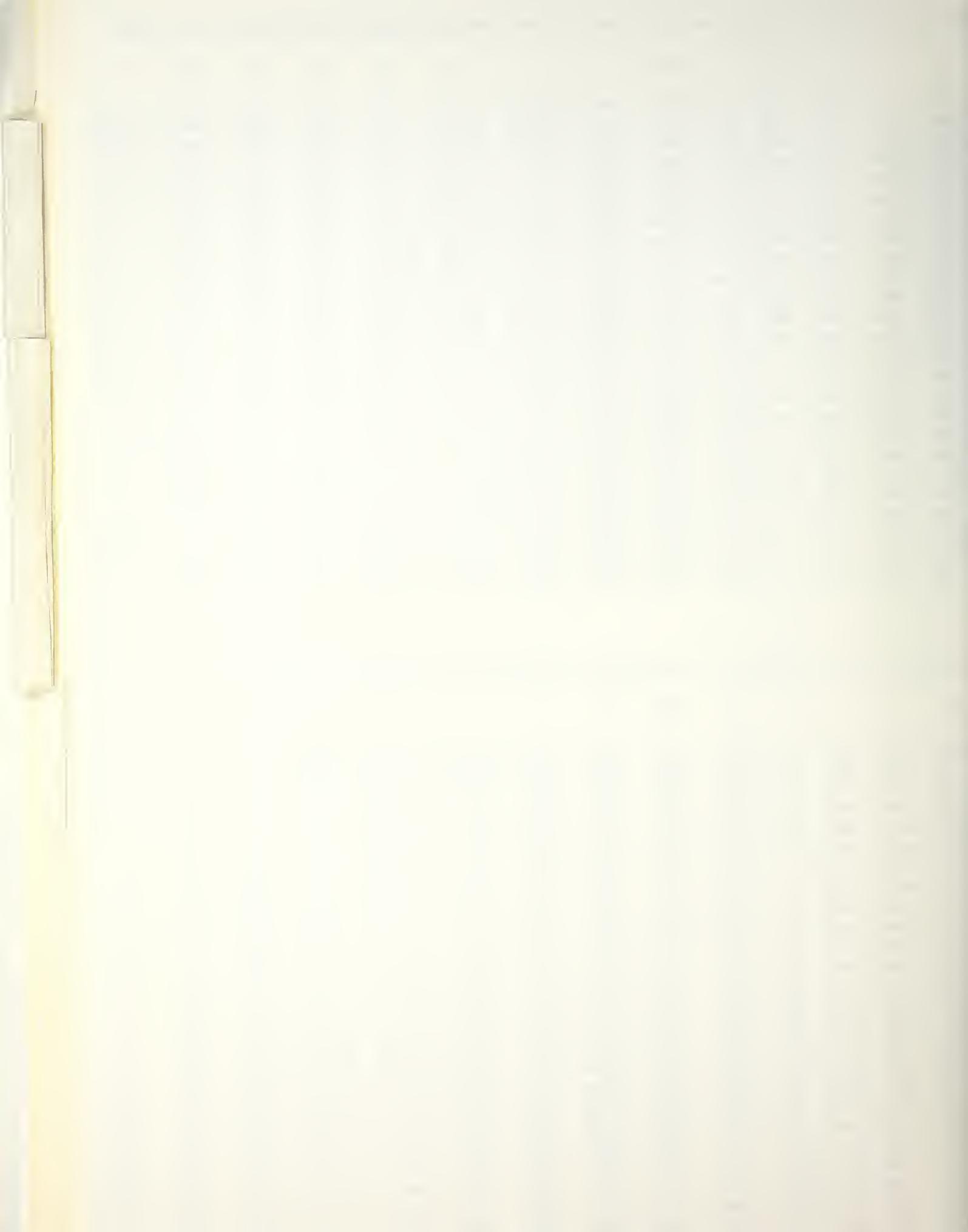
H/d=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER   *K   (K*G)^.5   *K   DEGREES

ELEV	TIME	DIST	ANGLE
-.02610	4.96118	3.14159	180.00
-.02606	4.85782	3.07614	176.25
-.02597	4.75447	3.01069	172.50
-.02589	4.65111	2.94524	168.75
-.02590	4.54775	2.87979	165.00
-.02603	4.44439	2.81434	161.25
-.02625	4.34103	2.74889	157.50
-.02651	4.23768	2.68344	153.75
-.02666	4.13432	2.61799	150.00
-.02661	4.03096	2.55254	146.25
-.02633	3.92760	2.48709	142.50
-.02587	3.82424	2.42164	138.75
-.02537	3.72089	2.35619	135.00
-.02502	3.61753	2.29074	131.25
-.02497	3.51417	2.22529	127.50
-.02527	3.41081	2.15984	123.75
-.02587	3.30745	2.09440	120.00
-.02655	3.20410	2.02895	116.25
-.02705	3.10074	1.96350	112.50
-.02712	2.99738	1.89805	108.75
-.02664	2.89402	1.83260	105.00
-.02565	2.79066	1.76715	101.25
-.02438	2.68731	1.70170	97.50
-.02317	2.58395	1.63625	93.75
-.02238	2.48059	1.57080	90.00
-.02221	2.37723	1.50535	86.25
-.02264	2.27387	1.43990	82.50
-.02340	2.17052	1.37445	78.75
-.02399	2.06715	1.30900	75.00
-.02385	1.96380	1.24355	71.25
-.02254	1.86044	1.17810	67.50
-.01988	1.75708	1.11265	63.75
-.01601	1.65373	1.04720	60.00
-.01139	1.55037	.98175	56.25
-.00660	1.44701	.91630	52.50
-.00217	1.34365	.85085	48.75
.00176	1.24030	.78540	45.00
.00550	1.13694	.71995	41.25
.00990	1.03358	.65450	37.50
.01616	.93022	.58905	33.75
.02552	.82686	.52360	30.00
.03888	.72351	.45815	26.25
.05644	.62015	.39270	22.50
.07744	.51679	.32725	18.75
.10013	.41343	.26180	15.00
.12205	.31007	.19635	11.25
.14039	.20672	.13090	7.50
.15360	.10336	.06545	3.75
.15689	.00000	.00000	.00

.15686

-.02712

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICLE VELOCITIES

H/d=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

U *SQRT(H/G)	V *K	DIST.	ANGLE DEGREES
-.04307	.00000	3.14159	180.00
-.04306	.00002	3.07614	176.25
-.04305	.00002	3.01069	172.50
-.04303	.00001	2.94524	168.75
-.04303	-.00001	2.87979	165.00
-.04306	-.00003	2.81434	161.25
-.04310	-.00002	2.74889	157.50
-.04314	.00002	2.68344	153.75
-.04315	.00010	2.61799	150.00
-.04313	.00020	2.55254	146.25
-.04305	.00029	2.48709	142.50
-.04294	.00035	2.42164	138.75
-.04281	.00036	2.35619	135.00
-.04272	.00033	2.29074	131.25
-.04267	.00029	2.22529	127.50
-.04268	.00029	2.15984	123.75
-.04273	.00037	2.09440	120.00
-.04277	.00055	2.02895	116.25
-.04275	.00086	1.96350	112.50
-.04262	.00127	1.89805	108.75
-.04235	.00174	1.83260	105.00
-.04195	.00223	1.76715	101.25
-.04146	.00273	1.70170	97.50
-.04091	.00323	1.63625	93.75
-.04035	.00384	1.57080	90.00
-.03978	.00462	1.50535	86.25
-.03915	.00570	1.43990	82.50
-.03835	.00720	1.37445	78.75
-.03726	.00921	1.30900	75.00
-.03572	.01179	1.24355	71.25
-.03365	.01500	1.17810	67.50
-.03095	.01890	1.11265	63.75
-.02756	.02358	1.04720	60.00
-.02337	.02916	.98175	56.25
-.01819	.03578	.91630	52.50
-.01172	.04357	.85085	48.75
-.00351	.05266	.78540	45.00
.00699	.06303	.71995	41.25
.02034	.07459	.65450	37.50
.03703	.08713	.58905	33.75
.05751	.10039	.52360	30.00
.08240	.11385	.45815	26.25
.11256	.12640	.39270	22.50
.14895	.13578	.32725	18.75
.19177	.13809	.26180	15.00
.23888	.12811	.19635	11.25
.28426	.10114	.13090	7.50
.31818	.05642	.06545	3.75
.33088	.00000	.00000	.00

33088

-.04315

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS

	Ax	Ay	DIST.	ANGLE
H/d=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER	*1/G	*1/G	*K	DEGREES
	.00000	.00019	3.14159	180.00
	.00014	.00012	3.07614	176.25
	.00019	-.00004	3.01069	172.50
	.00009	-.00019	2.94524	169.75
	-.00013	-.00023	2.87979	165.00
	-.00036	-.00008	2.81434	161.25
	-.00046	.00025	2.74889	157.50
	-.00033	.00064	2.68344	153.75
	.00003	.00094	2.61799	150.00
	.00053	.00102	2.55254	146.25
	.00101	.00082	2.48709	142.50
	.00128	.00038	2.42164	138.75
	.00121	-.00011	2.35619	135.00
	.00079	-.00041	2.29074	131.25
	.00017	-.00032	2.22529	127.50
	-.00038	.00029	2.15984	123.75
	-.00058	.00133	2.09440	120.00
	-.00022	.00258	2.02895	116.25
	.00070	.00375	1.96350	112.50
	.00205	.00460	1.89805	108.75
	.00351	.00500	1.83260	105.00
	.00476	.00507	1.76715	101.25
	.00555	.00509	1.70170	97.50
	.00581	.00551	1.63625	93.75
	.00578	.00683	1.57080	90.00
	.00593	.00937	1.50535	86.25
	.00686	.01320	1.43990	82.50
	.00909	.01808	1.37445	78.75
	.01284	.02366	1.30900	75.00
	.01805	.02963	1.24355	71.25
	.02444	.03591	1.17810	67.50
	.03168	.04267	1.11265	63.75
	.03958	.05033	1.04720	60.00
	.04828	.05945	.98175	56.25
	.05842	.07047	.91630	52.50
	.07116	.08334	.85085	48.75
	.08780	.09716	.78540	45.00
	.10925	.11009	.71995	41.25
	.13550	.11966	.65450	37.50
	.16564	.12339	.58905	33.75
	.19828	.11904	.52360	30.00
	.23190	.10433	.45815	26.25
	.26431	.07654	.39270	22.50
	.29109	.03265	.32725	18.75
	.30365	-.02903	.26180	15.00
	.28876	-.10544	.19635	11.25
	.23281	-.18486	.13090	7.50
	.13172	-.24695	.06545	3.75
	.00000	-.27069	.00000	.00

-.27069

0365

STEADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
H. M. RIENECKER AND J. D. FENTON.

DEPTH: FINITE, HEIGHT/DEPTH= .5839

WAVE HEIGHT 1.858611E-03,DIMENSIONLESS WITH RESPECT TO PERIOD

CURRENT CRITERION: EULER , MAGNITUDE= .00

SOLUTION OF ORDER 10 NON-DIMENSIONALIZED BY WAVE NUMBER, 2 HEIGHT STEP(S).

WATER DEPTH   .31344

WAVE HEIGHT   .18302

WAVE PERIOD   9.9233

WAVE SPEED   .63317

MEAN EULERIAN FLUID SPEED   7.29110E-22

MEAN MASS TRANSPORT SPEED   1.31434E-02

MEAN FLUID SPEED RELATIVE TO WAVE   .63317

VOLUME FLUX DUE TO WAVES   4.11967E-03

BERNOULLI CONSTANT   .20262

SOLUTION VS DEPTH, THETA= .00 DEGREES, KX= .0000 RADIANS, H/d= .5839, WAVE HEIGHT=1.85861E-03 DIMENSIONLESS W/RESP. TO PERIOD

| KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.15694	.33093	.00000	.00000	-.27171	.00000	.1095146	.0000000	.0515139	.0000000	.0000000	.0000000	.0000000	.0000000
.13734	.31412	.00000	.00000	-.26089	.01438	.0986717	.0000000	.0444797	.0000000	.0020402	.0000000	.0009407	.0000000
.11774	.29883	.00000	.00000	-.24881	.02898	.0892972	.0000000	.0385036	.0000000	.0038822	.0000000	.0017539	.0000000
.09814	.28491	.00000	.00000	-.23594	.04383	.0811711	.0000000	.0334089	.0000000	.0055527	.0000000	.0024586	.0000000
.07855	.27223	.00000	.00000	-.22262	.05893	.0741101	.0000000	.0290502	.0000000	.0070744	.0000000	.0030707	.0000000
.05895	.26069	.00000	.00000	-.20912	.07430	.0679614	.0000000	.0253080	.0000000	.0084667	.0000000	.0036034	.0000000
.03935	.25019	.00000	.00000	-.19563	.09993	.0625969	.0000000	.0220834	.0000000	.0097461	.0000000	.0040678	.0000000
.01975	.24064	.00000	.00000	-.18230	.10583	.0579091	.0000000	.0192947	.0000000	.0109270	.0000000	.0044733	.0000000
.00015	.23197	.00000	.00000	-.16920	.12199	.0538078	.0000000	.0168736	.0000000	.0120219	.0000000	.0048277	.0000000
-.01945	.22409	.00000	.00000	-.15640	.13840	.0502167	.0000000	.0147632	.0000000	.0130412	.0000000	.0051378	.0000000
-.03905	.21696	.00000	.00000	-.14394	.15505	.0470715	.0000000	.0129160	.0000000	.0139946	.0000000	.0054090	.0000000
-.05865	.21052	.00000	.00000	-.13184	.17195	.0443176	.0000000	.0112918	.0000000	.0148902	.0000000	.0056463	.0000000
-.07825	.20472	.00000	.00000	-.12011	.18908	.0419091	.0000000	.0098567	.0000000	.0157352	.0000000	.0058535	.0000000
-.09785	.19952	.00000	.00000	-.10872	.20644	.0398067	.0000000	.0085820	.0000000	.0165360	.0000000	.0060342	.0000000
-.11745	.19488	.00000	.00000	-.09768	.22401	.0379775	.0000000	.0074433	.0000000	.0172982	.0000000	.0061912	.0000000
-.13705	.19077	.00000	.00000	-.08696	.24181	.0363933	.0000000	.0064196	.0000000	.0180270	.0000000	.0063271	.0000000
-.15665	.18716	.00000	.00000	-.07653	.25980	.0350306	.0000000	.0054926	.0000000	.0187270	.0000000	.0064438	.0000000
-.17625	.18404	.00000	.00000	-.06636	.27800	.0338696	.0000000	.0046468	.0000000	.0194022	.0000000	.0065432	.0000000
-.19585	.18137	.00000	.00000	-.05644	.29640	.0328938	.0000000	.0038682	.0000000	.0200564	.0000000	.0066266	.0000000
-.21544	.17914	.00000	.00000	-.04672	.31499	.0320894	.0000000	.0031447	.0000000	.0206932	.0000000	.0066954	.0000000
-.23504	.17733	.00000	.00000	-.03717	.33376	.0314456	.0000000	.0024652	.0000000	.0213159	.0000000	.0067503	.0000000
-.25464	.17594	.00000	.00000	-.02775	.35273	.0309534	.0000000	.0018200	.0000000	.0219274	.0000000	.0067923	.0000000
-.27424	.17495	.00000	.00000	-.01844	.37187	.0306065	.0000000	.0011997	.0000000	.0225306	.0000000	.0068219	.0000000
-.29384	.17436	.00000	.00000	-.00920	.39120	.0304002	.0000000	.0005958	.0000000	.0231285	.0000000	.0068395	.0000000
-.31344	.17416	.00000	.00000	.00000	.41071	.0303317	.0000000	.0000000	.0000000	.0237236	.0000000	.0068453	.0000000
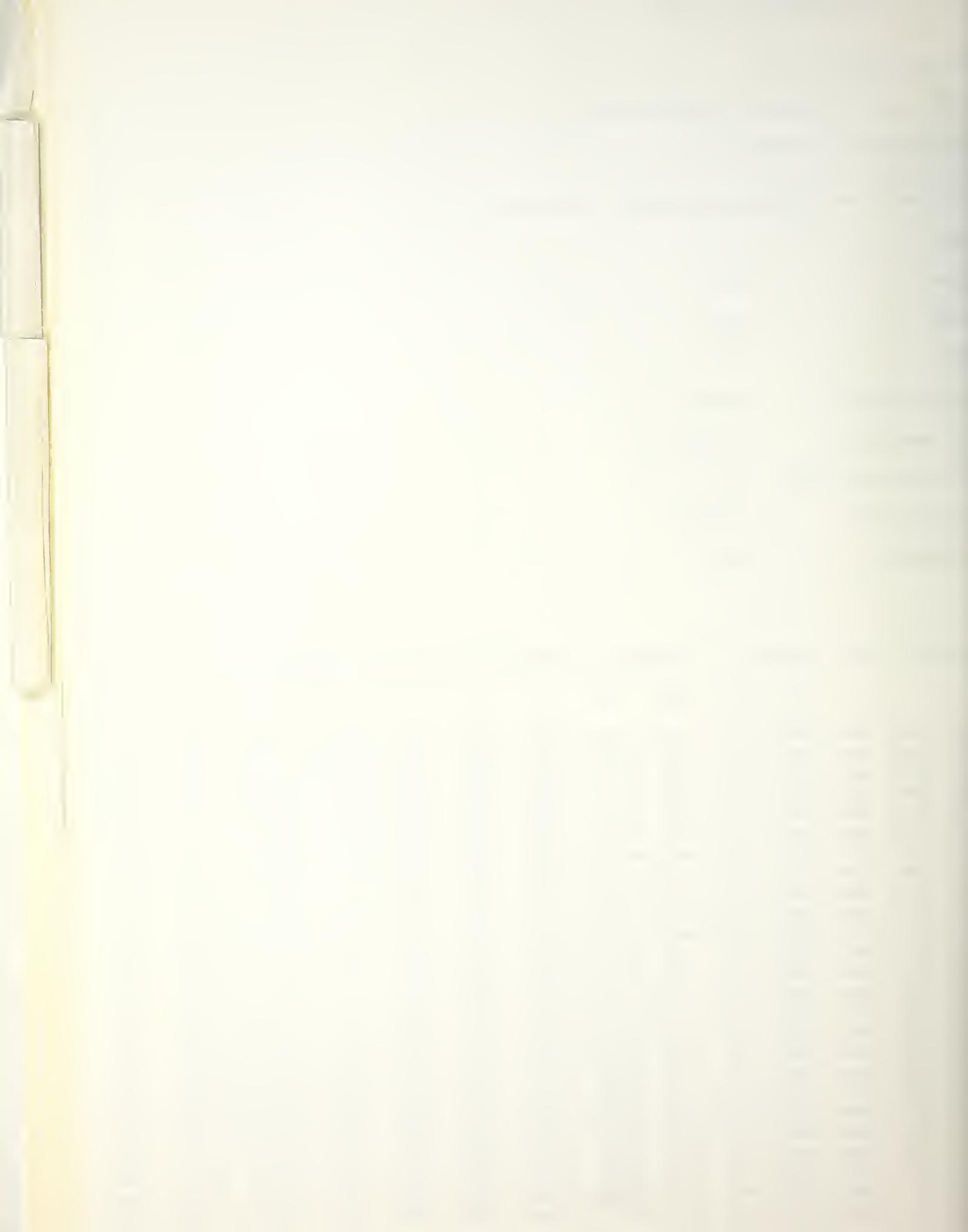
UTION VS DEPTH, THETA= 15.00 DEGREES, KX= .2618 RADIANS, H/d= .5839, WAVE HEIGHT=1.85861E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.09796	.19087	.13630	.29945	-.02869	-.00244	.0364301	.2994505	.0149872	.1231931	.0000000	.0000000	.0000000	.0000000
.08081	.18669	.12637	.27956	-.03560	.01414	.0348521	.2795558	.0137406	.1102165	.0006109	.0049625	.0002462	.0020005
.06367	.18271	.11712	.26131	-.04075	.03063	.0333834	.2613083	.0125894	.0985431	.0011958	.0095982	.0004719	.0037897
.04653	.17894	.10848	.24459	-.04443	.04704	.0320190	.2445851	.0115260	.0880439	.0017563	.0139341	.0006786	.0053889
.02939	.17537	.10039	.22927	-.04687	.06340	.0307538	.2292726	.0105434	.0786018	.0022943	.0179954	.0008677	.0068172
.01225	.17200	.09281	.21527	-.04828	.07972	.0295829	.2152659	.0096348	.0701098	.0028115	.0218054	.0010407	.0080918
-.00489	.16882	.08569	.20247	-.04880	.09603	.0285011	.2024687	.0087939	.0624713	.0033093	.0253857	.0011986	.0092281
-.02203	.16584	.07899	.19079	-.04860	.11233	.0275040	.1907929	.0080148	.0555983	.0037893	.0287563	.0013427	.0102401
-.03918	.16306	.07266	.18016	-.04778	.12865	.0265871	.1801577	.0072919	.0494109	.0042529	.0319356	.0014739	.0111401
-.05632	.16046	.06667	.17049	-.04644	.14498	.0257462	.1704897	.0066199	.0438369	.0047014	.0349410	.0015931	.0119393
-.07346	.15804	.06099	.16172	-.04467	.16134	.0249773	.1617223	.0059941	.0388104	.0051362	.0377883	.0017012	.0126476
-.09060	.15581	.05559	.15380	-.04254	.17774	.0242769	.1537951	.0054099	.0342717	.0055583	.0404925	.0017990	.0132740
-.10774	.15376	.05044	.14665	-.04011	.19417	.0236415	.1466535	.0048630	.0301664	.0059690	.0430676	.0018870	.0138263
-.12488	.15188	.04551	.14025	-.03743	.21065	.0230679	.1402486	.0043496	.0264449	.0063694	.0455265	.0019660	.0143115
-.14203	.15018	.04078	.13454	-.03454	.22717	.0225535	.1345368	.0038660	.0230617	.0067604	.0478817	.0020364	.0147358
-.15917	.14865	.03622	.12948	-.03148	.24375	.0220955	.1294790	.0034088	.0199752	.0071430	.0501445	.0020987	.0151047
-.17631	.14728	.03182	.12504	-.02828	.26037	.0216918	.1250409	.0029746	.0171472	.0075183	.0523259	.0021534	.0154228
-.19345	.14608	.02756	.12119	-.02496	.27706	.0213402	.1211926	.0025606	.0145420	.0078872	.0544363	.0022009	.0156944
-.21059	.14505	.02341	.11791	-.02155	.29380	.0210390	.1179081	.0021639	.0121268	.0082504	.0564856	.0022414	.0159230
-.22773	.14419	.01937	.11517	-.01806	.31060	.0207868	.1151652	.0017816	.0098705	.0086089	.0584832	.0022752	.0161115
-.24487	.14346	.01540	.11295	-.01451	.32747	.0205821	.1129456	.0014112	.0077443	.0099634	.0604383	.0023026	.0162625
-.26202	.14291	.01149	.11123	-.01092	.34439	.0204240	.1112344	.0010503	.0057202	.0093149	.0623597	.0023237	.0163779
-.27916	.14252	.00764	.11002	-.00730	.36138	.0203116	.1100202	.0006963	.0037718	.0096640	.0642560	.0023386	.0164593
-.29630	.14228	.00381	.10929	-.00365	.37842	.0202444	.1092949	.0003470	.0018735	.0100116	.0661357	.0023476	.0165076
-.31344	.14220	.00000	.10905	.00000	.39553	.0202220	.1090537	.0000000	.0000000	.0103584	.0680072	.0023505	.0165237

UTION VS DEPTH, THETA= 30.00 DEGREES, KX= .5236 RADIANS, H/d= .5839, WAVE HEIGHT=1.85861E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.02789	.05785	.10116	.19830	.11802	.00411	.0033462	.1983021	.0011422	.0676867	.0000000	.0000000	.0000000	.0000000
.01367	.05975	.09597	.19451	.10763	.01994	.0035698	.1945132	.0011677	.0636271	.0000492	.0027933	.0000164	.0009338
-.00055	.06147	.09091	.19075	.09809	.03562	.0037791	.1907541	.0011824	.0596845	.0001014	.0055330	.0000331	.0018107
-.01478	.06304	.08596	.18705	.08932	.05117	.0039741	.1870532	.0011869	.0559662	.0001566	.0082196	.0000500	.0026323
-.02900	.06446	.08112	.18343	.08126	.06661	.0041551	.1834348	.0011819	.0521767	.0002144	.0108542	.0000668	.0034006
-.04322	.06575	.07640	.17992	.07385	.08193	.0043224	.1799193	.0011680	.0486179	.0002747	.0134380	.0000835	.0041174
-.05744	.06691	.07177	.17652	.06703	.09716	.0044766	.1765240	.0011460	.0451899	.0003372	.0159727	.0001000	.0047845
-.07166	.06796	.06725	.17326	.06075	.11229	.0046181	.1732635	.0011165	.0418910	.0004019	.0184601	.0001161	.0054037
-.08589	.06890	.06281	.17015	.05495	.12733	.0047474	.1701501	.0010803	.0387184	.0004685	.0209021	.0001317	.0059769
-.10011	.06975	.05847	.16719	.04960	.14230	.0048653	.1671940	.0010379	.0356679	.0005369	.0233010	.0001468	.0065059
-.11433	.07052	.05420	.16440	.04466	.15719	.0049724	.1644037	.0009901	.0327344	.0006068	.0256590	.0001612	.0069923
-.12855	.07120	.05002	.16179	.04008	.17201	.0050691	.1617861	.0009372	.0299123	.0006782	.0279786	.0001749	.0074378
-.14278	.07181	.04590	.15935	.03583	.18677	.0051562	.1593472	.0008800	.0271951	.0007509	.0302622	.0001878	.0078439
-.15700	.07235	.04185	.15709	.03188	.20148	.0052341	.1570917	.0008188	.0245760	.0008248	.0325124	.0001999	.0082120
-.17122	.07282	.03785	.15502	.02819	.21613	.0053035	.1550233	.0007543	.0220476	.0008998	.0347319	.0002111	.0085436
-.18544	.07324	.03391	.15315	.02473	.23072	.0053647	.1531452	.0006867	.0196025	.0009756	.0369233	.0002213	.0088398
-.19966	.07361	.03002	.15146	.02148	.24527	.0054182	.1514599	.0006165	.0172327	.0010523	.0390893	.0002306	.0091017
-.21389	.07392	.02618	.14997	.01842	.25978	.0054645	.1499693	.0005440	.0149302	.0011297	.0412328	.0002389	.0093304
-.22811	.07419	.02237	.14867	.01551	.27424	.0055038	.1486750	.0004697	.0126869	.0012077	.0433565	.0002461	.0095268
-.24233	.07441	.01859	.14758	.01273	.28867	.0055366	.1475781	.0003937	.0104944	.0012862	.0454632	.0002522	.0096916
-.25655	.07459	.01484	.14668	.01005	.30305	.0055630	.1466796	.0003165	.0083444	.0013651	.0475557	.0002572	.0098256
-.27077	.07472	.01111	.14598	.00747	.31740	.0055834	.1459802	.0002382	.0062285	.0014444	.0496368	.0002612	.0099292
-.28500	.07482	.00740	.14548	.00494	.33171	.0055978	.1454802	.0001592	.0041381	.0015239	.0517094	.0002640	.0100030
-.29922	.07488	.00370	.14518	.00246	.34598	.0056064	.1451802	.0000797	.0020648	.0016036	.0537763	.0002657	.0100471
-.31344	.07489	.00000	.14508	.00000	.36022	.0056092	.1450801	.0000000	.0000000	.0016833	.0558404	.0002663	.0100617
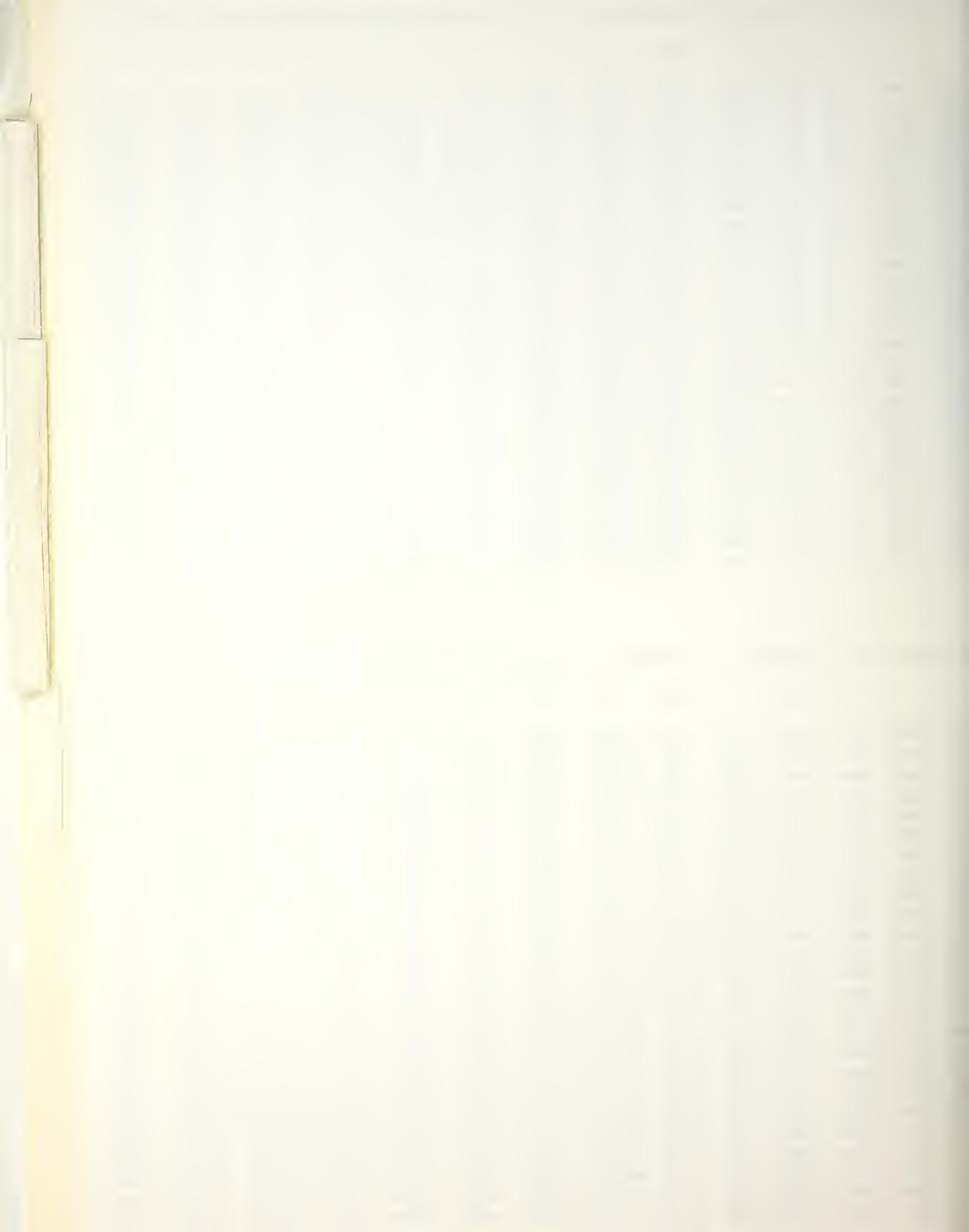
=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

*K	(K*G)^.5	*K	DEGREES
-.02608	4.96165	3.14159	180.00
-.02611	4.85828	3.07614	176.25
-.02617	4.75492	3.01069	172.50
-.02622	4.65155	2.94524	168.75
-.02617	4.54818	2.87979	165.00
-.02603	4.44481	2.81434	161.25
-.02584	4.34145	2.74889	157.50
-.02570	4.23808	2.68344	153.75
-.02569	4.13471	2.61799	150.00
-.02586	4.03134	2.55254	146.25
-.02616	3.92797	2.48709	142.50
-.02647	3.82461	2.42164	138.75
-.02663	3.72124	2.35619	135.00
-.02652	3.61787	2.29074	131.25
-.02613	3.51450	2.22529	127.50
-.02557	3.41114	2.15984	123.75
-.02506	3.30777	2.09440	120.00
-.02482	3.20440	2.02895	116.25
-.02496	3.10103	1.96350	112.50
-.02544	2.99766	1.89805	108.75
-.02604	2.89430	1.83260	105.00
-.02644	2.79093	1.76715	101.25
-.02636	2.68756	1.70170	97.50
-.02567	2.58419	1.63625	93.75
-.02447	2.48083	1.57080	90.00
-.02307	2.37746	1.50535	86.25
-.02186	2.27409	1.43990	82.50
-.02117	2.17072	1.37445	78.75
-.02105	2.06736	1.30900	75.00
-.02124	1.96399	1.24355	71.25
-.02121	1.86062	1.17810	67.50
-.02032	1.75725	1.11265	63.75
-.01810	1.65388	1.04720	60.00
-.01439	1.55052	.98175	56.25
-.00944	1.44715	.91630	52.50
-.00380	1.34378	.85085	48.75
.00193	1.24041	.78540	45.00
.00746	1.13705	.71995	41.25
.01300	1.03368	.65450	37.50
.01939	.93031	.58905	33.75
.02789	.82694	.52360	30.00
.03976	.72357	.45815	26.25
.05574	.62021	.39270	22.50
.07562	.51684	.32725	18.75
.09796	.41347	.26180	15.00
.12026	.31010	.19635	11.25
.13940	.20674	.13090	7.50
.15236	.10337	.06545	3.75
.15694	.00000	.00000	.00

174

-.02663
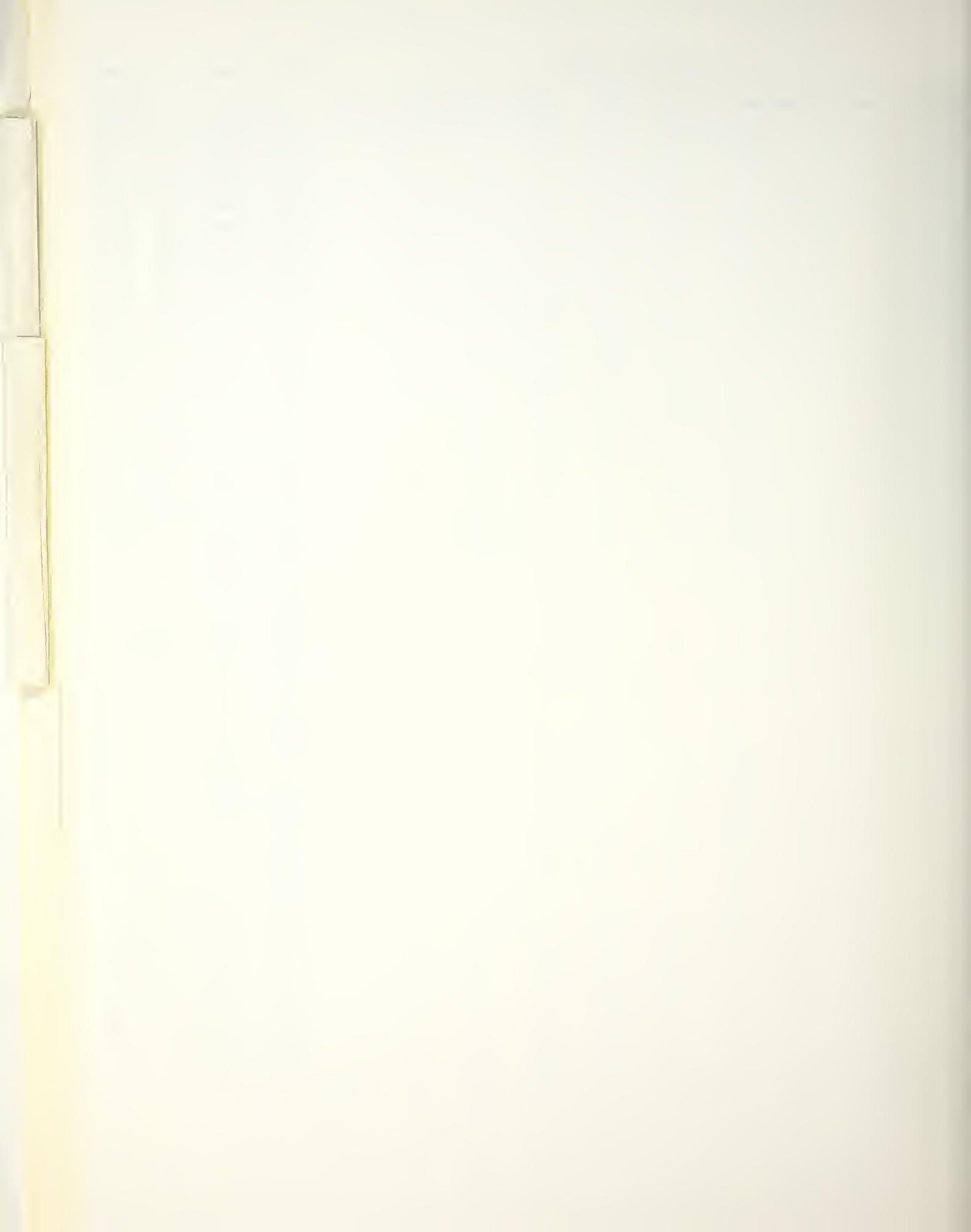
HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICLE VELOCITIES

	U	V	DIST.	ANGLE

d=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

	*SQRT(K/G)	*K	DEGREES

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-----------------------------------------------------------------------------o---------+ -.04313  .00000 3.14159  180.00
                                                                     o         + -.04314  .00000 3.07614  176.25
                                                                     o         + -.04314  .00001 3.01069  172.50
                                                                     o         + -.04314  .00003 2.94524  168.75
                                                                     o         + -.04313  .00005 2.87979  165.00
                                                                     o         + -.04311  .00007 2.81434  161.25
                                                                     o         + -.04309  .00008 2.74889  157.50
                                                                     o         + -.04307  .00008 2.68344  153.75
                                                                     o         + -.04306  .00007 2.61799  150.00
                                                                     o         + -.04306  .00008 2.55254  146.25
                                                                     o         + -.04307  .00010 2.48709  142.50
                                                                     o         + -.04307  .00016 2.42164  138.75
                                                                     o         + -.04306  .00024 2.35619  135.00
                                                                    o¦         + -.04301  .00034 2.29074  131.25
                                                                    o¦         + -.04293  .00045 2.22529  127.50
                                                                    o¦         + -.04282  .00055 2.15984  123.75
                                                                    o¦         + -.04271  .00065 2.09440  120.00
                                                                    o¦         + -.04260  .00076 2.02895  116.25
                                                                    o¦         + -.04249  .00091 1.96350  112.50
                                                                    o¦         + -.04239  .00113 1.89805  108.75
                                                                    o¦         + -.04224  .00145 1.83260  105.00
                                                                    o¦         + -.04203  .00189 1.76715  101.25
                                                                    o¦         + -.04172  .00245 1.70170   97.50
                                                                    o¦         + -.04129  .00314 1.63625   93.75
                                                                    o¦        +¦ -.04074  .00396 1.57080   90.00
                                                                   o ¦        +¦ -.04005  .00494 1.50535   86.25
                                                                   o ¦        +¦ -.03923  .00614 1.43990   82.50
                                                                   o ¦        +¦ -.03824  .00762 1.37445   78.75
                                                                 o  ¦        + ¦ -.03701  .00949 1.30900   75.00
                                                                 o  ¦        + ¦ -.03544  .01185 1.24355   71.25
                                                                 o  ¦       +  ¦ -.03341  .01483 1.17810   67.50
                                                                o   ¦       +  ¦ -.03081  .01854 1.11265   63.75
                                                              o     ¦      +   ¦ -.02752  .02313 1.04720   60.00
                                                            o       ¦     +    ¦ -.02341  .02875  .98175   56.25
                                                          o         ¦    +     ¦ -.01828  .03556  .91630   52.50
                                                        o           ¦   +      ¦ -.01184  .04370  .85085   48.75
                                                      o             ¦+         ¦ -.00364  .05319  .78540   45.00
                                                   o  ·             +          ¦  .00687  .06396  .71995   41.25
                                                o                 +            ¦  .02029  .07578  .65450   37.50
                                             o                 +               ¦  .03714  .08831  .58905   33.75
                                          o              +                     ¦  .05785  .10116  .52360   30.00
                                       o           +                           ¦  .08286  .11384  .45815   26.25
                                     o  +                                      ¦  .11287  .12546  .39270   22.50
                                 +   o                                         ¦  .14874  .13411  .32725   18.75
                            +        o                                         ¦  .19087  .13630  .26180   15.00
                      +             o                                          ¦  .23758  .12689  .19635   11.25
               +                               o                               ¦  .28322  .10079  .13090    7.50
          ·                                           o                         ¦  .31784  .05652  .06545    3.75
+--------------------------------------------------------------------o---------¦  .33093  .00000  .00000     .00
93                                              -.04314
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HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS

d=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

	Ax	Ay	DIST.	ANGLE
	*1/G	*1/G	*K	DEGREES
	.00000	.00003	3.14159	180.00
	-.00004	.00006	3.07614	176.25
	-.00003	.00013	3.01069	172.50
	.00004	.00019	2.94524	168.75
	.00014	.00020	2.87979	165.00
	.00023	.00014	2.81434	161.25
	.00025	.00004	2.74889	157.50
	.00017	-.00003	2.68344	153.75
	.00004	-.00001	2.61799	150.00
	-.00008	.00015	2.55254	146.25
	-.00010	.00041	2.48709	142.50
	.00004	.00072	2.42164	138.75
	.00032	.00096	2.35619	135.00
	.00068	.00108	2.29074	131.25
	.00099	.00107	2.22529	127.50
	.00118	.00101	2.15984	123.75
	.00119	.00103	2.09440	120.00
	.00109	.00129	2.02895	116.25
	.00104	.00188	1.96350	112.50
	.00121	.00279	1.89805	108.75
	.00172	.00394	1.83260	105.00
	.00261	.00518	1.76715	101.25
	.00380	.00643	1.70170	97.50
	.00515	.00769	1.63625	93.75
	.00652	.00912	1.57080	90.00
	.00787	.01096	1.50535	86.25
	.00932	.01352	1.43990	82.50
	.01117	.01706	1.37445	78.75
	.01381	.02172	1.30900	75.00
	.01761	.02747	1.24355	71.25
	.02280	.03423	1.17810	67.50
	.02947	.04199	1.11265	63.75
	.03762	.05083	1.04720	60.00
	.04733	.06096	.98175	56.25
	.05889	.07248	.91630	52.50
	.07293	.08526	.85085	48.75
	.09029	.09857	.78540	45.00
	.11172	.11087	.71995	41.25
	.13744	.11988	.65450	37.50
	.16676	.12305	.58905	33.75
	.19830	.11802	.52360	30.00
	.23043	.10269	.45815	26.25
	.26113	.07478	.39270	22.50
	.28668	.03163	.32725	18.75
	.29945	-.02869	.26180	15.00
	.28651	-.10406	.19635	11.25
	.23305	-.18377	.13090	7.50
	.13288	-.24719	.06545	3.75
	.00000	-.27171	.00000	.00

.45   -.27171

DEPTH: FINITE, HEIGHT/DEPTH= .5839

WAVE HEIGHT 1.858611E-03,DIMENSIONLESS WITH RESPECT TO PERIOD

CURRENT CRITERION: EULER , MAGNITUDE= .00

SOLUTION OF ORDER 12 NON-DIMENSIONALIZED BY WAVE NUMBER, 2 HEIGHT STEP(S).

|	
WATER DEPTH	.31347
WAVE HEIGHT	.18304
WAVE PERIOD	9.9237
WAVE SPEED	.63315
MEAN EULERIAN FLUID SPEED	6.80526E-24
MEAN MASS TRANSPORT SPEED	1.30239E-02
MEAN FLUID SPEED RELATIVE TO WAVE	.63315
VOLUME FLUX DUE TO WAVES	4.08259E-03
BERNOULLI CONSTANT	.20266

SOLUTION VS DEPTH, THETA= .00 DEGREES, KX= .0000 RADIANS, H/d= .5839, WAVE HEIGHT=1.85861E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.15700	.33097	.00000	.00000	-.27229	.00000	.1095422	.0000000	.0515365	.0000000	.0000000	.0000000	.0000000	.0000000
.13740	.31412	.00000	.00000	-.26135	.01437	.0986736	.0000000	.0444888	.0000000	.0020408	.0000000	.0009412	.0000000
.11780	.29880	.00000	.00000	-.24915	.02897	.0892826	.0000000	.0385045	.0000000	.0038831	.0000000	.0017546	.0000000
.09819	.28486	.00000	.00000	-.23618	.04381	.0811463	.0000000	.0334049	.0000000	.0055535	.0000000	.0024595	.0000000
.07859	.27218	.00000	.00000	-.22278	.05892	.0740795	.0000000	.0290436	.0000000	.0070750	.0000000	.0030716	.0000000
.05899	.26063	.00000	.00000	-.20921	.07429	.0679280	.0000000	.0253002	.0000000	.0084669	.0000000	.0036042	.0000000
.03938	.25013	.00000	.00000	-.19568	.08992	.0625627	.0000000	.0220755	.0000000	.0097459	.0000000	.0040686	.0000000
.01978	.24057	.00000	.00000	-.18230	.10582	.0578754	.0000000	.0192870	.0000000	.0109263	.0000000	.0044740	.0000000
.00018	.23190	.00000	.00000	-.16917	.12198	.0537753	.0000000	.0168665	.0000000	.0120207	.0000000	.0048283	.0000000
-.01942	.22402	.00000	.00000	-.15635	.13839	.0501860	.0000000	.0147569	.0000000	.0130396	.0000000	.0051383	.0000000
-.03903	.21689	.00000	.00000	-.14388	.15505	.0470427	.0000000	.0129105	.0000000	.0139926	.0000000	.0054095	.0000000
-.05863	.21045	.00000	.00000	-.13177	.17195	.0442908	.0000000	.0112870	.0000000	.0148878	.0000000	.0056466	.0000000
-.07823	.20466	.00000	.00000	-.12003	.18909	.0418842	.0000000	.0098527	.0000000	.0157325	.0000000	.0058538	.0000000
-.09784	.19946	.00000	.00000	-.10864	.20645	.0397837	.0000000	.0085787	.0000000	.0165329	.0000000	.0060345	.0000000
-.11744	.19482	.00000	.00000	-.09760	.22403	.0379562	.0000000	.0074405	.0000000	.0172949	.0000000	.0061915	.0000000
-.13704	.19072	.00000	.00000	-.08688	.24183	.0363736	.0000000	.0064173	.0000000	.0180235	.0000000	.0063273	.0000000
-.15664	.18712	.00000	.00000	-.07646	.25983	.0350123	.0000000	.0054908	.0000000	.0187231	.0000000	.0064440	.0000000
-.17625	.18399	.00000	.00000	-.06630	.27803	.0338525	.0000000	.0046453	.0000000	.0193981	.0000000	.0065434	.0000000
-.19585	.18132	.00000	.00000	-.05638	.29644	.0328776	.0000000	.0038670	.0000000	.0200522	.0000000	.0066268	.0000000
-.21545	.17909	.00000	.00000	-.04667	.31503	.0320742	.0000000	.0031437	.0000000	.0206888	.0000000	.0066955	.0000000
-.23506	.17729	.00000	.00000	-.03713	.33381	.0314310	.0000000	.0024646	.0000000	.0213112	.0000000	.0067505	.0000000
-.25466	.17590	.00000	.00000	-.02772	.35278	.0309394	.0000000	.0018195	.0000000	.0219226	.0000000	.0067925	.0000000
-.27426	.17491	.00000	.00000	-.01843	.37193	.0305928	.0000000	.0011994	.0000000	.0225257	.0000000	.0068221	.0000000
-.29387	.17432	.00000	.00000	-.00920	.39126	.0303867	.0000000	.0005957	.0000000	.0231234	.0000000	.0068397	.0000000
-.31347	.17412	.00000	.00000	.00000	.41077	.0303183	.0000000	.0000000	.0000000	.0237184	.0000000	.0068455	.0000000
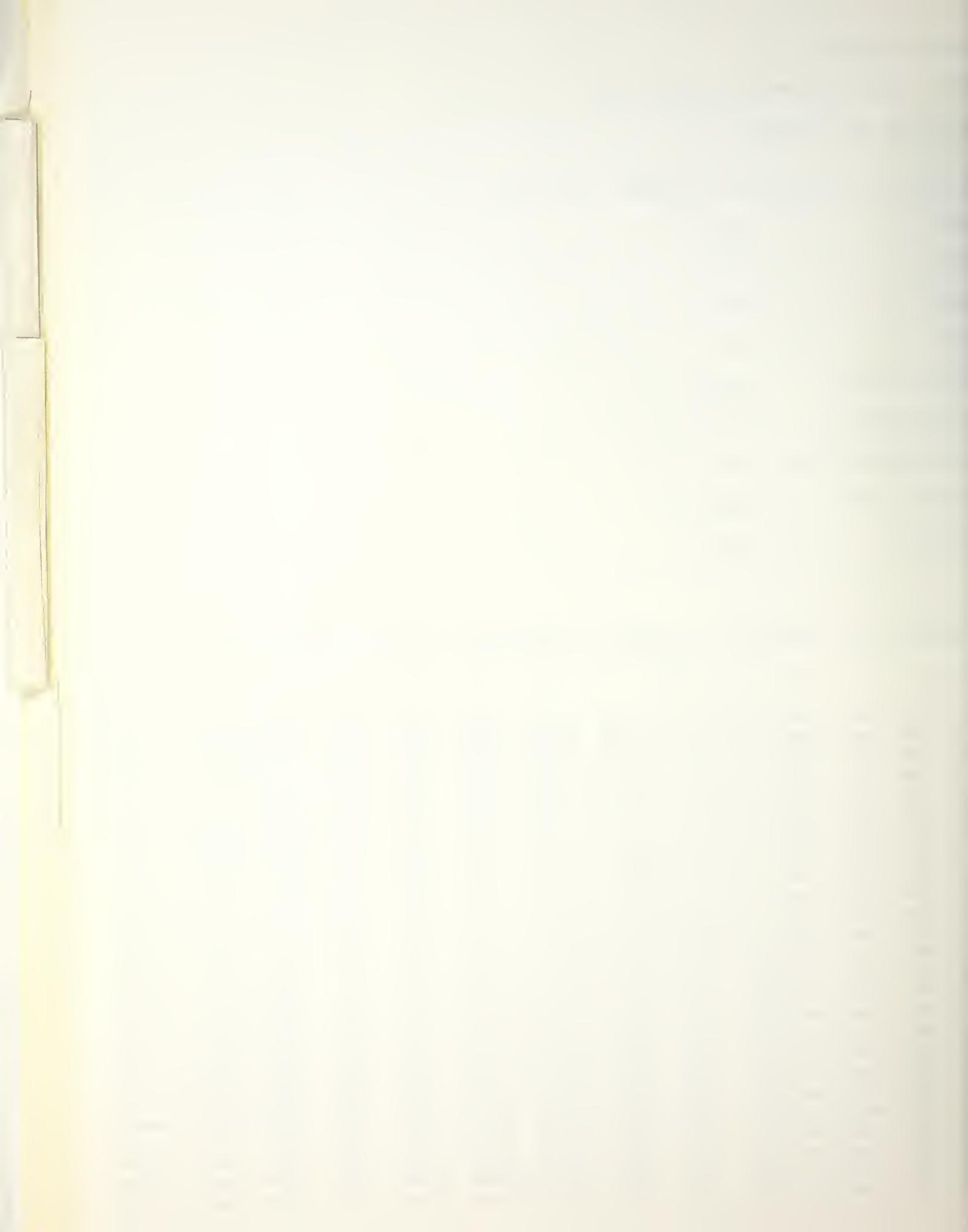
KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.09546	.19009	.13456	.29554	-.02934	.00000	.0361352	.2955448	.0147766	.1208553	.0000000	.0000000	.0000000	.0000000
.07842	.18600	.12482	.27612	-.03603	.01648	.0345948	.2761184	.0135572	.1082068	.0006026	.0048701	.0002414	.0019514
.06138	.18210	.11573	.25829	-.04101	.03286	.0331591	.2582862	.0124296	.0968178	.0011798	.0094229	.0004628	.0036981
.04434	.17839	.10724	.24193	-.04455	.04917	.0318239	.2419317	.0113868	.0865652	.0017334	.0136843	.0006657	.0052604
.02730	.17488	.09929	.22695	-.04689	.06542	.0305842	.2269464	.0104222	.0773365	.0022651	.0176788	.0008515	.0066567
.01026	.17157	.09183	.21323	-.04821	.08165	.0294358	.2132303	.0095293	.0690294	.0027764	.0214288	.0010214	.0079036
-.00678	.16845	.08481	.20069	-.04868	.09786	.0283742	.2006911	.0087022	.0615505	.0032689	.0249551	.0011768	.0090161
-.02381	.16551	.07820	.18924	-.04843	.11407	.0273948	.1892441	.0079350	.0548154	.0037440	.0282771	.0013185	.0100074
-.04085	.16277	.07196	.17881	-.04758	.13029	.0264937	.1788119	.0072226	.0487470	.0042031	.0314126	.0014476	.0108897
-.05789	.16021	.06605	.16932	-.04623	.14653	.0256667	.1693237	.0065598	.0432753	.0046474	.0343785	.0015650	.0116736
-.07493	.15783	.06044	.16072	-.04445	.16280	.0249102	.1607153	.0059420	.0383369	.0050783	.0371902	.0016715	.0123689
-.09197	.15563	.05510	.15293	-.04231	.17910	.0242206	.1529284	.0053649	.0338737	.0054969	.0398622	.0017679	.0129841
-.10901	.15361	.05000	.14591	-.03989	.19543	.0235948	.1459104	.0048242	.0298331	.0059042	.0424081	.0018547	.0135268
-.12605	.15176	.04513	.13961	-.03721	.21182	.0230297	.1396141	.0043163	.0261669	.0063014	.0448405	.0019325	.0140039
-.14308	.15008	.04044	.13400	-.03434	.22824	.0225226	.1339970	.0038375	.0228311	.0066895	.0471715	.0020020	.0144213
-.16012	.14856	.03593	.12902	-.03129	.24472	.0220711	.1290216	.0033845	.0197850	.0070694	.0494122	.0020635	.0147844
-.17716	.14722	.03158	.12465	-.02810	.26126	.0216729	.1246546	.0029542	.0169914	.0074421	.0515733	.0021175	.0150977
-.19420	.14603	.02735	.12087	-.02480	.27784	.0213261	.1209669	.0025436	.0144157	.0078084	.0536650	.0021644	.0153653
-.21124	.14501	.02324	.11763	-.02141	.29449	.0210289	.1176334	.0021498	.0120258	.0081692	.0556968	.0022044	.0155905
-.22828	.14415	.01922	.11493	-.01794	.31119	.0207800	.1149326	.0017703	.0097914	.0085254	.0576781	.0022378	.0157764
-.24531	.14345	.01528	.11275	-.01442	.32795	.0205780	.1127467	.0014025	.0076841	.0088777	.0596178	.0022648	.0159253
-.26235	.14291	.01141	.11106	-.01085	.34478	.0204219	.1110613	.0010439	.0056770	.0092270	.0615244	.0022856	.0160391
-.27939	.14252	.00758	.10987	-.00725	.36166	.0203110	.1098653	.0006921	.0037439	.0095740	.0634066	.0023004	.0161194
-.29643	.14229	.00378	.10915	-.00363	.37861	.0202446	.1091508	.0003449	.0018598	.0099195	.0652724	.0023092	.0161671
-.31347	.14221	.00000	.10891	.00000	.39561	.0202225	.1089132	.0000000	.0000000	.0102643	.0671302	.0023122	.0161829

TION VS DEPTH, THETA= 30.00 DEGREES, KX= .5236 RADIANS, H/d= .5839, WAVE HEIGHT=1.85861E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.03173	.05754	.10260	.19951	.11989	.00000	.0033110	.1995081	.0011430	.0688707	.0000000	.0000000	.0000000	.0000000
.01735	.05949	.09731	.19564	.10929	.01603	.0035389	.1956408	.0011707	.0647217	.0000493	.0028418	.0000166	.0009608
.00297	.06126	.09215	.19180	.09956	.03191	.0037524	.1918000	.0011874	.0606924	.0001017	.0056282	.0000336	.0018627
-.01142	.06286	.08712	.18802	.09061	.04767	.0039513	.1880158	.0011935	.0567906	.0001571	.0083597	.0000507	.0027076
-.02580	.06431	.08220	.18431	.08240	.06329	.0041360	.1843138	.0011898	.0530213	.0002153	.0110374	.0000679	.0034973
-.04018	.06563	.07740	.18072	.07484	.07881	.0043067	.1807154	.0011770	.0493869	.0002760	.0136626	.0000849	.0042338
-.05457	.06681	.07270	.17724	.06789	.09421	.0044640	.1772389	.0011557	.0458875	.0003391	.0162369	.0001017	.0049190
-.06895	.06788	.06810	.17390	.06150	.10953	.0046084	.1739996	.0011268	.0425217	.0004043	.0187622	.0001181	.0055548
-.08333	.06885	.06360	.17071	.05560	.12475	.0047404	.1707104	.0010909	.0392864	.0004715	.0212405	.0001340	.0061432
-.09772	.06972	.05919	.16768	.05016	.13990	.0048606	.1676819	.0010487	.0361776	.0005406	.0236741	.0001494	.0066859
-.11210	.07050	.05487	.16482	.04514	.15496	.0049697	.1648230	.0010007	.0331901	.0006113	.0260654	.0001642	.0071848
-.12648	.07119	.05062	.16214	.04049	.16996	.0050683	.1621411	.0009477	.0303179	.0006835	.0284168	.0001782	.0076415
-.14087	.07181	.04645	.15964	.03617	.18490	.0051570	.1596421	.0008901	.0275544	.0007570	.0307310	.0001914	.0080577
-.15525	.07236	.04234	.15733	.03217	.19977	.0052364	.1573309	.0008285	.0248926	.0008318	.0330106	.0002037	.0084349
-.16963	.07285	.03830	.15521	.02843	.21459	.0053070	.1552116	.0007633	.0223248	.0009076	.0352583	.0002152	.0087745
-.18402	.07328	.03431	.15329	.02493	.22936	.0053693	.1532873	.0006951	.0198432	.0009844	.0374770	.0002257	.0090777
-.19840	.07365	.03037	.15156	.02165	.24408	.0054237	.1515606	.0006241	.0174397	.0010620	.0396693	.0002352	.0093458
-.21278	.07396	.02648	.15003	.01855	.25875	.0054708	.1500334	.0005508	.0151060	.0011403	.0418383	.0002436	.0095799
-.22717	.07423	.02262	.14871	.01562	.27338	.0055108	.1487074	.0004756	.0128335	.0012193	.0439868	.0002510	.0097808
-.24155	.07446	.01880	.14758	.01281	.28797	.0055441	.1475837	.0003987	.0106138	.0012988	.0461176	.0002573	.0099495
-.25593	.07464	.01501	.14666	.01012	.30251	.0055709	.1466633	.0003205	.0084381	.0013787	.0482338	.0002625	.0100865
-.27032	.07478	.01124	.14595	.00751	.31702	.0055916	.1459467	.0002413	.0062976	.0014590	.0503381	.0002665	.0101925
-.28470	.07487	.00748	.14543	.00497	.33150	.0056062	.1454346	.0001613	.0041837	.0015396	.0524337	.0002694	.0102678
-.29909	.07493	.00374	.14513	.00248	.34593	.0056150	.1451272	.0000808	.0020874	.0016203	.0545233	.0002711	.0103129
-.31347	.07495	.00000	.14502	.00000	.36034	.0056179	.1450247	.0000000	.0000000	.0017010	.0566100	.0002717	.0103279
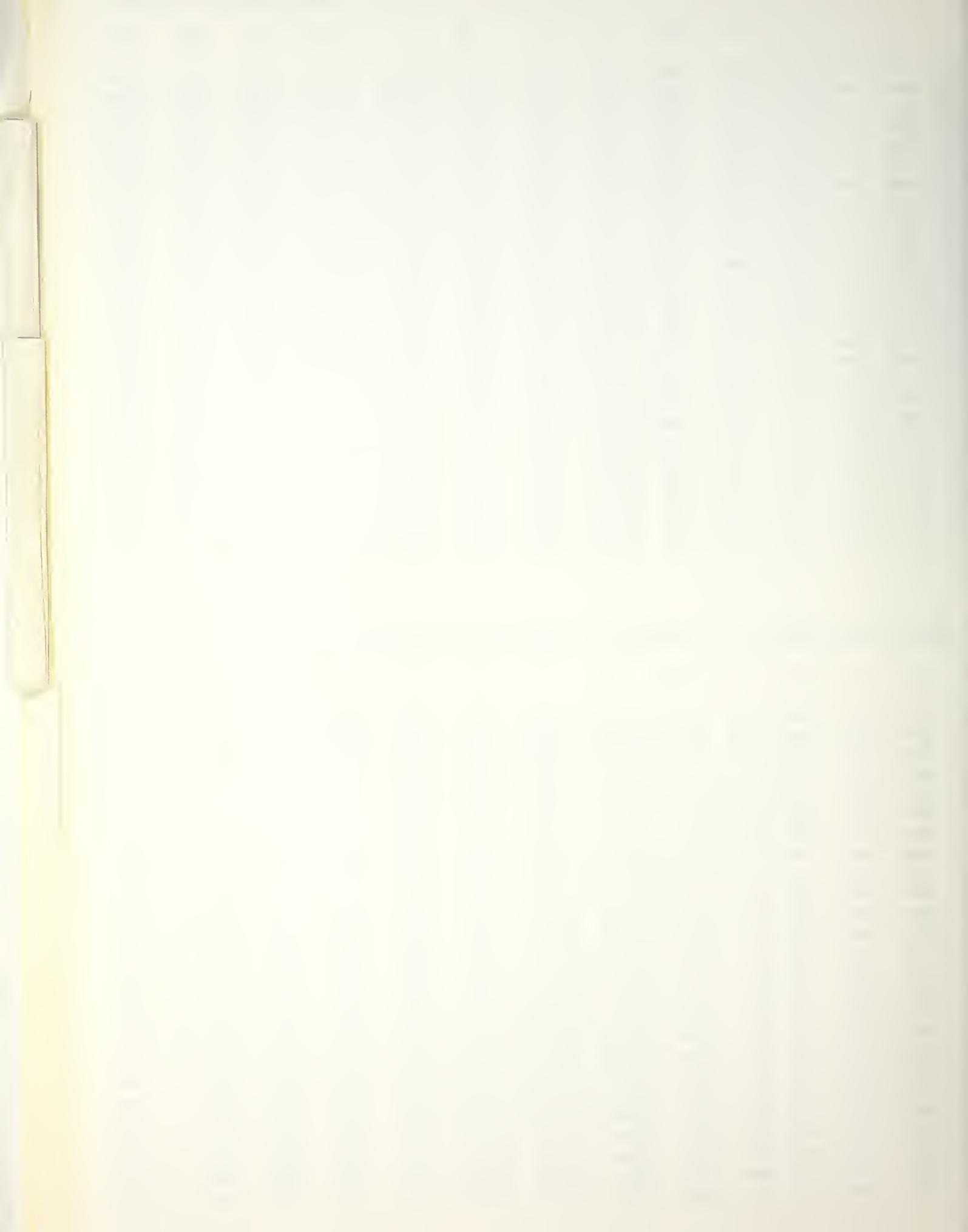
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d=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER   *K   (K*G)^.5   *K   DEGREES

	ELEV.VS. *K	TIME (K*G)^.5	DIST. *K	ANGLE DEGREES
	-.02603	4.96187	3.14159	180.00
	-.02605	4.85850	3.07614	176.25
	-.02609	4.75513	3.01069	172.50
	-.02609	4.65175	2.94524	168.75
	-.02603	4.54838	2.87979	165.00
	-.02593	4.44501	2.81434	161.25
	-.02585	4.34164	2.74889	157.50
	-.02588	4.23826	2.68344	153.75
	-.02601	4.13489	2.61799	150.00
	-.02617	4.03152	2.55254	146.25
	-.02626	3.92815	2.48709	142.50
	-.02619	3.82477	2.42164	138.75
	-.02595	3.72140	2.35619	135.00
	-.02565	3.61803	2.29074	131.25
	-.02548	3.51466	2.22529	127.50
	-.02553	3.41129	2.15984	123.75
	-.02579	3.30791	2.09440	120.00
	-.02609	3.20454	2.02895	116.25
	-.02619	3.10117	1.96350	112.50
	-.02595	2.99780	1.89805	108.75
	-.02540	2.89442	1.83260	105.00
	-.02476	2.79105	1.76715	101.25
	-.02431	2.68768	1.70170	97.50
	-.02422	2.58431	1.63625	93.75
	-.02442	2.48093	1.57080	90.00
	-.02461	2.37756	1.50535	86.25
	-.02439	2.27419	1.43990	82.50
	-.02349	2.17082	1.37445	78.75
	-.02196	2.06745	1.30900	75.00
	-.02013	1.96407	1.24355	71.25
	-.01841	1.86070	1.17810	67.50
	-.01705	1.75733	1.11265	63.75
	-.01588	1.65396	1.04720	60.00
	-.01432	1.55058	.98175	56.25
	-.01164	1.44721	.91630	52.50
	-.00730	1.34384	.85085	48.75
	-.00124	1.24047	.78540	45.00
	.00613	1.13710	.71995	41.25
	.01418	1.03372	.65450	37.50
	.02260	.93035	.58905	33.75
	.03173	.82698	.52360	30.00
	.04263	.72361	.45815	26.25
	.05658	.62023	.39270	22.50
	.07435	.51686	.32725	18.75
	.09546	.41349	.26180	15.00
	.11777	.31012	.19635	11.25
	.13787	.20674	.13090	7.50
	.15194	.10337	.06545	3.75
	.15700	.00000	.00000	.00

-.02626

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HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICLE VELOCITIES               U       V     DIST.   ANGLE
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=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD    , CURRENT=  .0000, CRITER., EULER   *SQRT(K/G)   *K    DEGREES
------------------------------------------------------------------o----------+ -.04315  .00000 3.14159  180.00
                                                             o         + -.04315  .00001 3.07614  176.25
                                                             o         + -.04315  .00001 3.01069  172.50
                                                             o         + -.04315  .00002 2.94524  168.75
                                                             o         + -.04315  .00003 2.87979  165.00
                                                             o         + -.04314  .00004 2.81434  161.25
                                                             o         + -.04313  .00006 2.74889  157.50
                                                             o         + -.04312  .00007 2.68344  153.75
                                                             o         + -.04311  .00009 2.61799  150.00
                                                             o         + -.04310  .00012 2.55254  146.25
                                                             o         + -.04308  .00015 2.48709  142.50
                                                             o         + -.04306  .00019 2.42164  138.75
                                                             o         + -.04302  .00024 2.35619  135.00
                                                            o!         + -.04298  .00031 2.29074  131.25
                                                            o!         + -.04293  .00038 2.22529  127.50
                                                            o!         + -.04287  .00048 2.15984  123.75
                                                            o!         + -.04280  .00061 2.09440  120.00
                                                            o!         + -.04270  .00077 2.02895  116.25
                                                            o!         + -.04257  .00097 1.96350  112.50
                                                            o!         + -.04242  .00122 1.89805  108.75
                                                            o!         + -.04222  .00154 1.83260  105.00
                                                            o!         + -.04197  .00194 1.76715  101.25
                                                            o!         + -.04166  .00244 1.70170   97.50
                                                            o!        +! -.04126  .00307 1.63625   93.75
                                                            o!        +! -.04075  .00386 1.57080   90.00
                                                           o !        +! -.04011  .00485 1.50535   86.25
                                                           o !        +! -.03931  .00609 1.43990   82.50
                                                           o !        +! -.03830  .00764 1.37445   78.75
                                                          o  !        + ! -.03704  .00960 1.30900   75.00
                                                         o   !        + ! -.03546  .01203 1.24355   71.25
                                                         o   !      +   ! -.03345  .01504 1.17810   67.50
                                                        o    !      +   ! -.03087  .01874 1.11265   63.75
                                                      o      !     +    ! -.02756  .02323 1.04720   60.00
                                                    o        !     +    ! -.02334  .02868  .98175   56.25
                                                  o          !    +     ! -.01804  .03528  .91630   52.50
                                                o            !   +      ! -.01146  .04324  .85085   48.75
                                              o              !  +       ! -.00325  .05275  .78540   45.00
                                            o              + !         !  .00707  .06382  .71995   41.25
                                        o              +       !          .02018  .07622  .65450   37.50
                                      o              +         !          .03680  .08940  .58905   33.75
                                  o              +             !          .05754  .10260  .52360   30.00
                               o           +                  !          .08282  .11499  .45815   26.25
                           o  +                               !          .11300  .12565  .39270   22.50
                   +     o                                    !          .14863  .13311  .32725   18.75
              +        o                                      !          .19009  .13456  .26180   15.00
        +           o                                         !          .23622  .12536  .19635   11.25
    +             o                                           !          .28199  .10010  .13090    7.50
                               o                              !          .31741  .05650  .06545    3.75
---------------------------------------------------------o----------!     .33097  .00000  .00000     .00
97                                                        -.04315
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HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS

	Ax	Ay	DIST.	ANGLE

d=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

Ax *1/6	Ay *1/6	DIST. *K	ANGLE DEGREES
.00000	.00007	3.14159	180.00
.00001	.00007	3.07614	176.25
.00002	.00008	3.01069	172.50
.00004	.00009	2.94524	168.75
.00005	.00011	2.87979	165.00
.00007	.00012	2.81434	161.25
.00008	.00015	2.74889	157.50
.00010	.00018	2.68344	153.75
.00013	.00023	2.61799	150.00
.00017	.00030	2.55254	146.25
.00022	.00038	2.48709	142.50
.00029	.00047	2.42164	138.75
.00037	.00058	2.35619	135.00
.00046	.00072	2.29074	131.25
.00057	.00091	2.22529	127.50
.00070	.00115	2.15984	123.75
.00089	.00146	2.09440	120.00
.00113	.00185	2.02895	116.25
.00144	.00233	1.96350	112.50
.00183	.00292	1.89805	108.75
.00231	.00366	1.83260	105.00
.00289	.00460	1.76715	101.25
.00362	.00578	1.70170	97.50
.00456	.00727	1.63625	93.75
.00577	.00912	1.57080	90.00
.00731	.01141	1.50535	86.25
.00925	.01424	1.43990	82.50
.01165	.01776	1.37445	78.75
.01464	.02212	1.30900	75.00
.01838	.02747	1.24355	71.25
.02314	.03394	1.17810	67.50
.02922	.04160	1.11265	63.75
.03695	.05051	1.04720	60.00
.04664	.06070	.98175	56.25
.05860	.07220	.91630	52.50
.07322	.08484	.85085	48.75
.09101	.09810	.78540	45.00
.11258	.11074	.71995	41.25
.13829	.12057	.65450	37.50
.16774	.12465	.58905	33.75
.19951	.11989	.52360	30.00
.23136	.10381	.45815	26.25
.26072	.07459	.39270	22.50
.28420	.03062	.32725	18.75
.29554	-.02934	.26180	15.00
.28321	-.10368	.19635	11.25
.23198	-.18302	.13090	7.50
.13332	-.24719	.06545	3.75
.00000	-.27229	.00000	.00

-.27229

EPTH: FINITE, HEIGHT/DEPTH= .5839

VE HEIGHT 1.858611E-03,DIMENSIONLESS WITH RESPECT TO PERIOD

CURRENT CRITERION: EULER , MAGNITUDE= .00

OLUTION OF ORDER 15 NON-DIMENSIONALIZED BY WAVE NUMBER, 2 HEIGHT STEP(S).

WATER DEPTH	.31349
WAVE HEIGHT	.18305
WAVE PERIOD	9.9241
WAVE SPEED	.63312
MEAN EULERIAN FLUID SPEED	4.98518E-23
MEAN MASS TRANSPORT SPEED	1.29704E-02
MEAN FLUID SPEED RELATIVE TO WAVE	.63312
VOLUME FLUX DUE TO WAVES	4.06611E-03
BERNOULLI CONSTANT	.20267

OLUTION VS DEPTH, THETA= .00 DEGREES, KX= .0000 RADIANS, H/d= .5839, WAVE HEIGHT=1.85861E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.15703	.33101	.00000	.00000	-.27275	.00000	.1095644	.0000000	.0515524	.0000000	.0000000	.0000000	.0000000	.0000000
.13743	.31413	.00000	.00000	-.26169	.01436	.0986763	.0000000	.0444948	.0000000	.0020413	.0000000	.0009415	.0000000
.11782	.29879	.00000	.00000	-.24940	.02896	.0892731	.0000000	.0385045	.0000000	.0038837	.0000000	.0017551	.0000000
.09822	.28483	.00000	.00000	-.23635	.04380	.0811297	.0000000	.0334016	.0000000	.0055540	.0000000	.0024600	.0000000
.07861	.27214	.00000	.00000	-.22288	.05890	.0740591	.0000000	.0290387	.0000000	.0070753	.0000000	.0030720	.0000000
.05901	.26059	.00000	.00000	-.20927	.07427	.0679059	.0000000	.0252947	.0000000	.0084669	.0000000	.0036047	.0000000
.03940	.25008	.00000	.00000	-.19569	.08991	.0625404	.0000000	.0220699	.0000000	.0097456	.0000000	.0040689	.0000000
.01980	.24053	.00000	.00000	-.18228	.10581	.0578537	.0000000	.0192818	.0000000	.0109258	.0000000	.0044743	.0000000
.00019	.23185	.00000	.00000	-.16913	.12197	.0537548	.0000000	.0168619	.0000000	.0120198	.0000000	.0048286	.0000000
-.01941	.22398	.00000	.00000	-.15630	.13838	.0501668	.0000000	.0147529	.0000000	.0130385	.0000000	.0051385	.0000000
-.03902	.21685	.00000	.00000	-.14382	.15505	.0470250	.0000000	.0129070	.0000000	.0139912	.0000000	.0054096	.0000000
-.05863	.21042	.00000	.00000	-.13171	.17195	.0442746	.0000000	.0112841	.0000000	.0148862	.0000000	.0056468	.0000000
-.07823	.20462	.00000	.00000	-.11996	.18909	.0418695	.0000000	.0098502	.0000000	.0157306	.0000000	.0058539	.0000000
-.09784	.19942	.00000	.00000	-.10858	.20646	.0397703	.0000000	.0085767	.0000000	.0165309	.0000000	.0060346	.0000000
-.11744	.19479	.00000	.00000	-.09754	.22404	.0379440	.0000000	.0074389	.0000000	.0172927	.0000000	.0061916	.0000000
-.13705	.19069	.00000	.00000	-.08683	.24184	.0363625	.0000000	.0064160	.0000000	.0180211	.0000000	.0063274	.0000000
-.15665	.18709	.00000	.00000	-.07641	.25985	.0350021	.0000000	.0054898	.0000000	.0187207	.0000000	.0064441	.0000000
-.17626	.18397	.00000	.00000	-.06626	.27805	.0338432	.0000000	.0046445	.0000000	.0193955	.0000000	.0065434	.0000000
-.19586	.18130	.00000	.00000	-.05634	.29646	.0328690	.0000000	.0038664	.0000000	.0200495	.0000000	.0066269	.0000000
-.21547	.17907	.00000	.00000	-.04664	.31505	.0320661	.0000000	.0031433	.0000000	.0206860	.0000000	.0066956	.0000000
-.23507	.17727	.00000	.00000	-.03710	.33384	.0314234	.0000000	.0024642	.0000000	.0213084	.0000000	.0067505	.0000000
-.25468	.17588	.00000	.00000	-.02770	.35281	.0309322	.0000000	.0018193	.0000000	.0219196	.0000000	.0067925	.0000000
-.27428	.17489	.00000	.00000	-.01841	.37196	.0305859	.0000000	.0011993	.0000000	.0225226	.0000000	.0068221	.0000000
-.29389	.17430	.00000	.00000	-.00919	.39129	.0303799	.0000000	.0005956	.0000000	.0231203	.0000000	.0068397	.0000000
-.31349	.17410	.00000	.00000	.00000	.41081	.0303115	.0000000	.0000000	.0000000	.0237152	.0000000	.0068455	.0000000
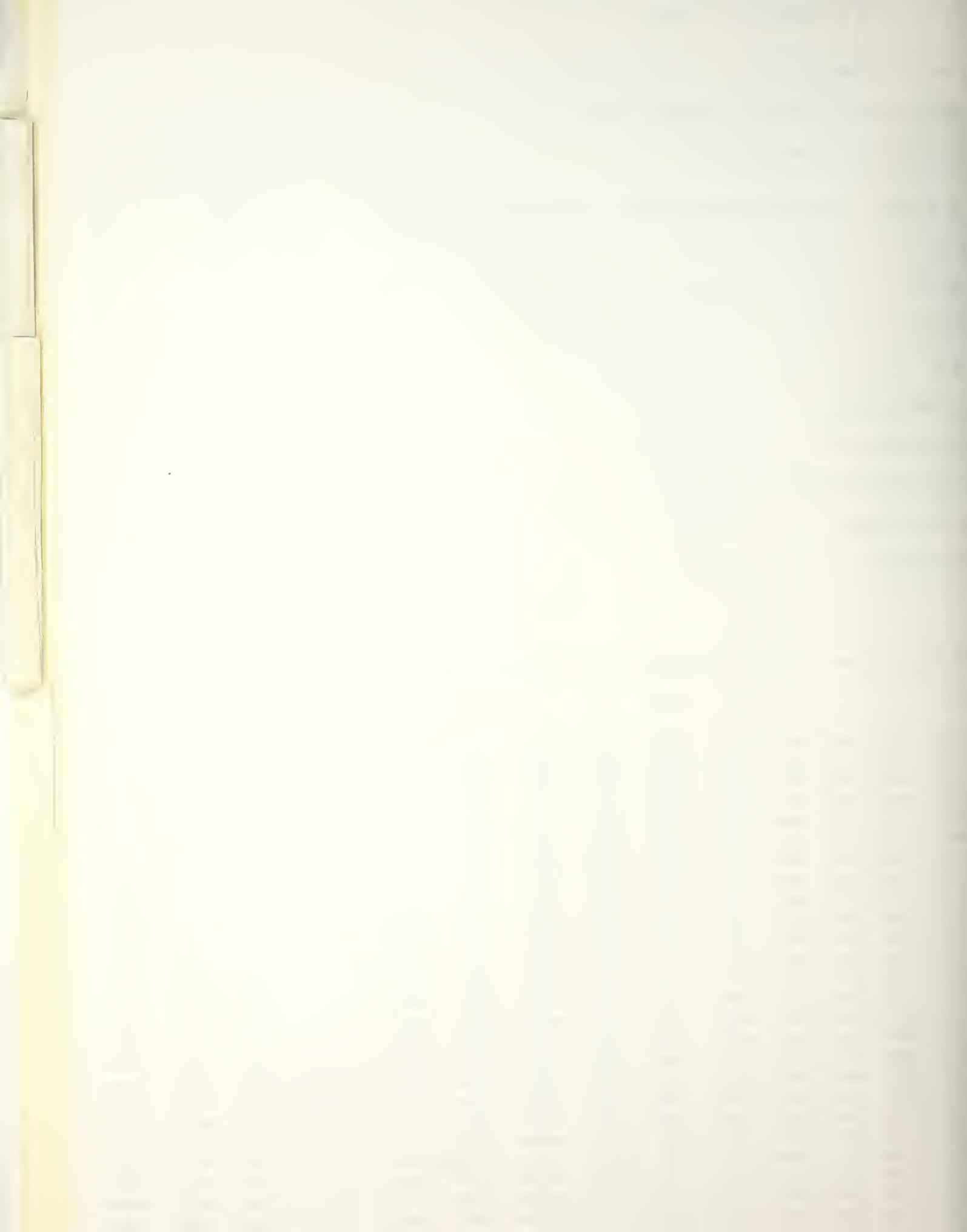
SOLUTION VS DEPTH, THETA= 15.00 DEGREES, KX= .2618 RADIANS, H/d= .5839, WAVE HEIGHT=1.85861E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.09455	.18980	.13386	.29375	-.02956	.00089	.0360235	.2937495	.0146991	.1198621	.0000000	.0000000	.0000000	.0000000
.07755	.18574	.12419	.27456	-.03617	.01733	.0344984	.2745564	.0134903	.1073626	.0005995	.0048311	.0002396	.0019316
.06055	.18187	.11517	.25693	-.04109	.03367	.0330760	.2569256	.0123717	.0961000	.0011739	.0093492	.0004595	.0036612
.04355	.17819	.10674	.24075	-.04459	.04994	.0317522	.2407454	.0113367	.0859549	.0017250	.0135798	.0006610	.0052088
.02654	.17471	.09884	.22591	-.04689	.06617	.0305227	.2259116	.0103788	.0768178	.0022544	.0175468	.0008456	.0065926
.00954	.17141	.09143	.21233	-.04819	.08236	.0293830	.2123275	.0094917	.0685888	.0027637	.0212722	.0010145	.0078286
-.00746	.16831	.08446	.19990	-.04863	.09854	.0283290	.1999035	.0086696	.0611767	.0032543	.0247765	.0011689	.0089318
-.02446	.16540	.07789	.18856	-.04837	.11471	.0273564	.1885572	.0079068	.0544986	.0037277	.0280788	.0013098	.0099151
-.04146	.16267	.07168	.17821	-.04751	.13090	.0264611	.1782132	.0071982	.0484790	.0041851	.0311966	.0014382	.0107905
-.05846	.16012	.06580	.16880	-.04615	.14710	.0256393	.1688023	.0065387	.0430490	.0046280	.0341466	.0015550	.0115686
-.07547	.15776	.06022	.16026	-.04436	.16334	.0248873	.1602616	.0059238	.0381462	.0050576	.0369439	.0016610	.0122588
-.09247	.15557	.05490	.15253	-.04223	.17960	.0242018	.1525341	.0053491	.0337135	.0054749	.0396029	.0017568	.0128697
-.10947	.15356	.04983	.14557	-.03981	.19590	.0235795	.1455680	.0048107	.0296989	.0058811	.0421371	.0018432	.0134087
-.12647	.15172	.04497	.13932	-.03713	.21225	.0230175	.1393169	.0043047	.0260549	.0062772	.0445588	.0019207	.0138827
-.14347	.15004	.04031	.13374	-.03426	.22865	.0225131	.1337393	.0038276	.0227380	.0066642	.0468801	.0019898	.0142975
-.16048	.14854	.03582	.12880	-.03122	.24509	.0220640	.1287980	.0033761	.0197081	.0070432	.0491119	.0020510	.0146583
-.17748	.14720	.03147	.12446	-.02804	.26159	.0216678	.1244603	.0029471	.0169283	.0074149	.0512649	.0021048	.0149697
-.19448	.14602	.02726	.12070	-.02475	.27814	.0213229	.1206976	.0025377	.0143645	.0077804	.0533488	.0021514	.0152358
-.21148	.14501	.02317	.11749	-.02136	.29475	.0210271	.1174851	.0021450	.0119847	.0081404	.0553736	.0021912	.0154597
-.22848	.14415	.01916	.11480	-.01790	.31142	.0207793	.1149016	.0017664	.0097591	.0084958	.0573482	.0022245	.0156446
-.24548	.14345	.01524	.11263	-.01439	.32815	.0205783	.1126295	.0013995	.0076596	.0088474	.0592816	.0022514	.0157927
-.26249	.14291	.01137	.11095	-.01083	.34493	.0204230	.1109546	.0010417	.0056593	.0091959	.0611823	.0022721	.0159059
-.27949	.14252	.00756	.10977	-.00723	.36178	.0203126	.1097661	.0006907	.0037324	.0095422	.0630586	.0022868	.0159857
-.29649	.14229	.00377	.10906	-.00362	.37869	.0202465	.1090560	.0003442	.0018541	.0098870	.0649188	.0022956	.0160332
-.31349	.14221	.00000	.10882	.00000	.39566	.0202246	.1088198	.0000000	.0000000	.0102310	.0667709	.0022986	.0160490

SOLUTION VS DEPTH, THETA= 30.00 DEGREES, KX= .5236 RADIANS, H/d= .5839, WAVE HEIGHT=1.85861E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.03285	.05751	.10302	.20000	.12031	-.00115	.0033075	.2000037	.0011455	.0692694	.0000000	.0000000	.0000000	.0000000
.01842	.05947	.09771	.19608	.10966	.01494	.0035365	.1960780	.0011738	.0650801	.0000494	.0028579	.0000167	.0009694
.00399	.06124	.09252	.19218	.09987	.03088	.0037509	.1921847	.0011908	.0610146	.0001020	.0056594	.0000338	.0018792
-.01044	.06286	.08746	.18835	.09089	.04668	.0039508	.1883532	.0011973	.0570800	.0001575	.0084051	.0000510	.0027313
-.02487	.06431	.08252	.18461	.08263	.06237	.0041364	.1846083	.0011938	.0532811	.0002159	.0110962	.0000683	.0035276
-.03930	.06564	.07769	.18097	.07504	.07793	.0043080	.1809709	.0011812	.0496197	.0002768	.0137340	.0000854	.0042701
-.05374	.06683	.07297	.17746	.06806	.09340	.0044660	.1774588	.0011601	.0460959	.0003401	.0163202	.0001023	.0049607
-.06817	.06790	.06835	.17409	.06164	.10876	.0046110	.1740871	.0011312	.0427078	.0004056	.0188568	.0001188	.0056015
-.08260	.06887	.06383	.17087	.05572	.12404	.0047436	.1708682	.0010953	.0394524	.0004731	.0213458	.0001349	.0061943
-.09703	.06975	.05940	.16781	.05026	.13923	.0048644	.1678126	.0010530	.0363252	.0005424	.0237895	.0001504	.0067411
-.11146	.07053	.05506	.16493	.04522	.15435	.0049740	.1649290	.0010049	.0333209	.0006134	.0261904	.0001653	.0072436
-.12589	.07123	.05079	.16222	.04055	.16940	.0050730	.1622245	.0009517	.0304335	.0006859	.0285509	.0001794	.0077036
-.14032	.07185	.04660	.15971	.03623	.18439	.0051621	.1597050	.0008939	.0276561	.0007598	.0308738	.0001927	.0081227
-.15475	.07240	.04248	.15739	.03221	.19931	.0052417	.1573754	.0008321	.0249817	.0008348	.0331617	.0002051	.0085026
-.16918	.07289	.03842	.15524	.02846	.21418	.0053126	.1552395	.0007667	.0224024	.0009110	.0354173	.0002167	.0088444
-.18361	.07331	.03442	.15330	.02496	.22900	.0053751	.1533004	.0006981	.0199103	.0009881	.0376435	.0002272	.0091498
-.19804	.07369	.03047	.15156	.02167	.24376	.0054297	.1515605	.0006268	.0174972	.0010661	.0398432	.0002368	.0094197
-.21248	.07401	.02656	.15002	.01857	.25848	.0054769	.1500219	.0005533	.0151546	.0011448	.0420193	.0002453	.0096553
-.22691	.07428	.02269	.14869	.01563	.27316	.0055171	.1486861	.0004777	.0128740	.0012241	.0441746	.0002528	.0098575
-.24134	.07450	.01886	.14755	.01282	.28780	.0055505	.1475541	.0004005	.0106467	.0013040	.0463121	.0002591	.0100272
-.25577	.07468	.01505	.14663	.01012	.30239	.0055774	.1466270	.0003219	.0084638	.0013842	.0484347	.0002643	.0101651
-.27020	.07482	.01127	.14591	.00752	.31695	.0055981	.1459052	.0002424	.0063166	.0014649	.0505455	.0002684	.0102717
-.28463	.07492	.00750	.14539	.00497	.33147	.0056128	.1453894	.0001620	.0041962	.0015458	.0526473	.0002713	.0103476
-.29906	.07498	.00375	.14508	.00248	.34596	.0056216	.1450798	.0000811	.0020936	.0016268	.0547432	.0002731	.0103930
-.31349	.07500	.00000	.14499	.00000	.36041	.0056245	.1449766	.0000000	.0000000	.0017080	.0568360	.0002736	.0104081
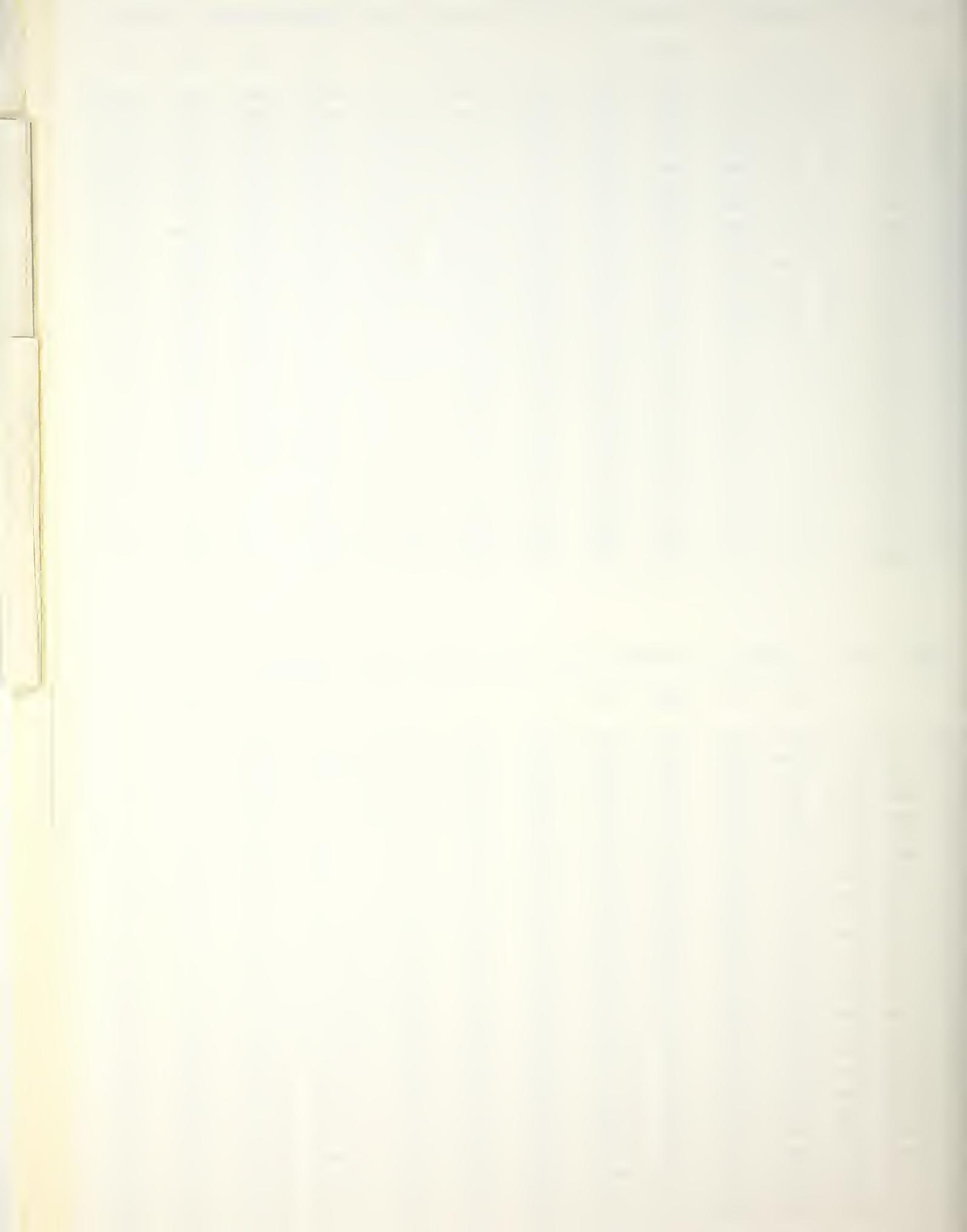
/d=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER   *K   (K*6)^.5   *K   DEGREES

ELEV.VS. *K	TIME (K*6)^.5	DIST. *K	ANGLE DEGREES
-.02602	4.96205	3.14159	180.00
-.02601	4.85867	3.07614	176.25
-.02600	4.75530	3.01069	172.50
-.02601	4.65192	2.94524	168.75
-.02605	4.54854	2.87979	165.00
-.02607	4.44517	2.81434	161.25
-.02603	4.34179	2.74889	157.50
-.02595	4.23842	2.68344	153.75
-.02590	4.13504	2.61799	150.00
-.02592	4.03166	2.55254	146.25
-.02601	3.92829	2.48709	142.50
-.02608	3.82491	2.42164	138.75
-.02603	3.72154	2.35619	135.00
-.02587	3.61816	2.29074	131.25
-.02571	3.51478	2.22529	127.50
-.02567	3.41141	2.15984	123.75
-.02578	3.30803	2.09440	120.00
-.02589	3.20466	2.02895	116.25
-.02584	3.10128	1.96350	112.50
-.02557	2.99790	1.89805	108.75
-.02520	2.89453	1.83260	105.00
-.02494	2.79115	1.76715	101.25
-.02489	2.68778	1.70170	97.50
-.02492	2.58440	1.63625	93.75
-.02475	2.48102	1.57080	90.00
-.02419	2.37765	1.50535	86.25
-.02330	2.27427	1.43990	82.50
-.02237	2.17090	1.37445	78.75
-.02163	2.06752	1.30900	75.00
-.02098	1.96414	1.24355	71.25
-.02003	1.86077	1.17810	67.50
-.01836	1.75739	1.11265	63.75
-.01585	1.65402	1.04720	60.00
-.01276	1.55064	.98175	56.25
-.00945	1.44726	.91630	52.50
-.00596	1.34389	.85085	48.75
-.00173	1.24051	.78540	45.00
.00402	1.13714	.71995	41.25
.01185	1.03376	.65450	37.50
.02164	.93038	.58905	33.75
.03285	.82701	.52360	30.00
.04514	.72363	.45815	26.25
.05892	.62026	.39270	22.50
.07518	.51688	.32725	18.75
.09455	.41350	.26180	15.00
.11603	.31013	.19635	11.25
.13651	.20675	.13090	7.50
.15150	.10338	.06545	3.75
.15703	.00000	.00000	.00
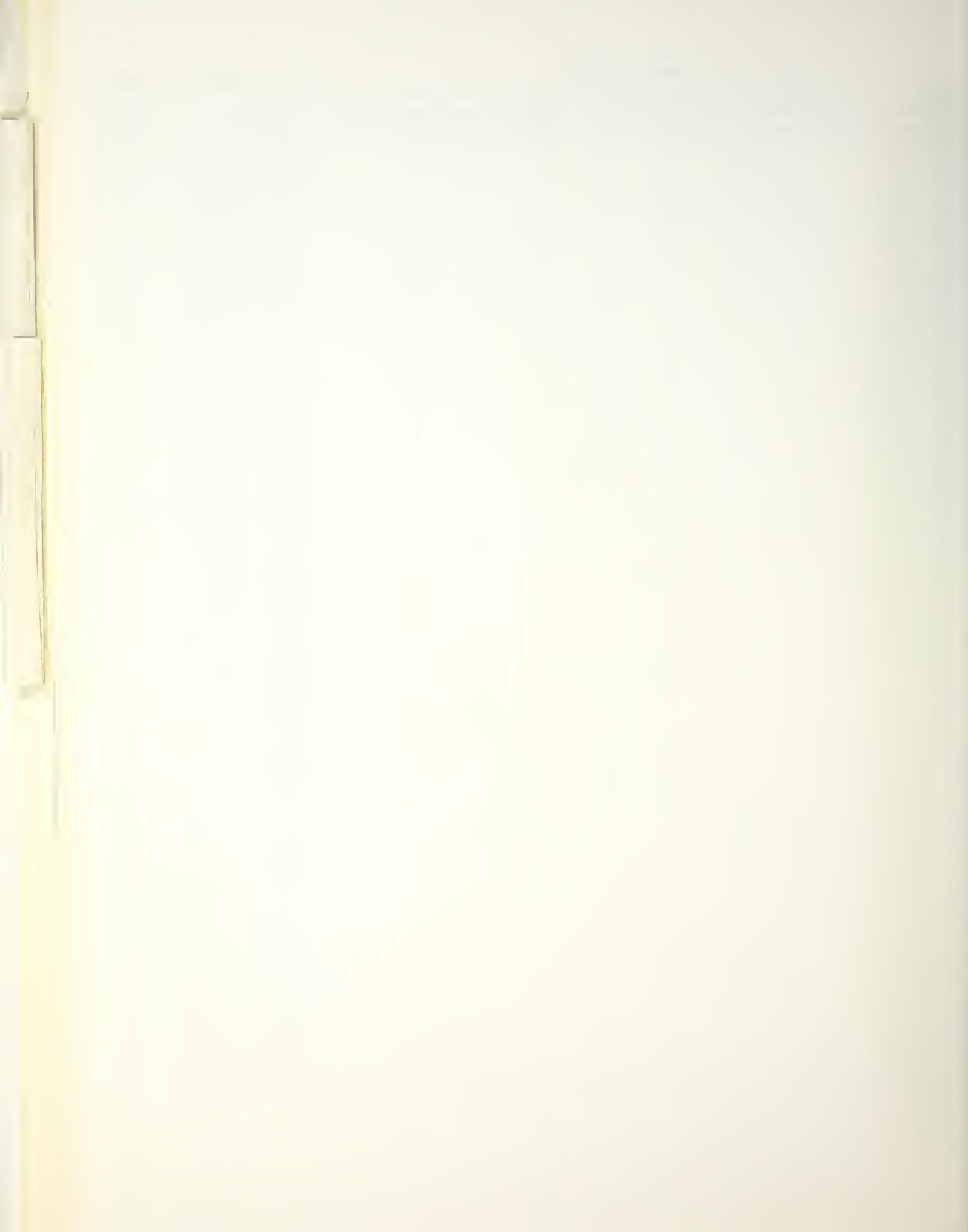
'03   -.02608

d=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER

U	V	DIST.	ANGLE
*SQRT(K/G)	*K		DEGREES
-.04317	.00000	3.14159	180.00
-.04317	.00001	3.07614	176.25
-.04317	.00001	3.01069	172.50
-.04317	.00002	2.94524	168.75
-.04316	.00003	2.87979	165.00
-.04316	.00004	2.81434	161.25
-.04315	.00006	2.74889	157.50
-.04314	.00007	2.68344	153.75
-.04313	.00009	2.61799	150.00
-.04311	.00012	2.55254	146.25
-.04310	.00015	2.48709	142.50
-.04307	.00019	2.42164	138.75
-.04304	.00024	2.35619	135.00
-.04300	.00031	2.29074	131.25
-.04295	.00039	2.22529	127.50
-.04289	.00048	2.15984	123.75
-.04281	.00061	2.09440	120.00
-.04271	.00077	2.02895	116.25
-.04259	.00097	1.96350	112.50
-.04243	.00123	1.89805	108.75
-.04223	.00154	1.83260	105.00
-.04198	.00194	1.76715	101.25
-.04167	.00244	1.70170	97.50
-.04127	.00307	1.63625	93.75
-.04077	.00387	1.57080	90.00
-.04013	.00486	1.50535	86.25
-.03934	.00612	1.43990	82.50
-.03833	.00767	1.37445	78.75
-.03705	.00961	1.30900	75.00
-.03543	.01202	1.24355	71.25
-.03338	.01500	1.17810	67.50
-.03079	.01870	1.11265	63.75
-.02755	.02326	1.04720	60.00
-.02346	.02883	.98175	56.25
-.01825	.03551	.91630	52.50
-.01159	.04343	.85085	48.75
-.00315	.05271	.78540	45.00
.00744	.06345	.71995	41.25
.02062	.07569	.65450	37.50
.03705	.09914	.58905	33.75
.05751	.10302	.52360	30.00
.08271	.11605	.45815	26.25
.11306	.12672	.39270	22.50
.14874	.13341	.32725	18.75
.18980	.13386	.26180	15.00
.23530	.12427	.19635	11.25
.28096	.09948	.13090	7.50
.31699	.05645	.06545	3.75
.33101	.00000	.00000	.00

-.04317

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        HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS                    Ax      Ay    DIST.   ANGLE
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d=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD    , CURRENT=  .0000, CRITER., EULER   #1/G    #1/G    #K    DEGREES
-------------------------------------------------------------------------------------------------------------------------
                                             o                                          |  .00000  .00007 3.14159  180.00
                              o                                                         |  .00001  .00007 3.07614  176.25
                              o                                                         |  .00002  .00008 3.01069  172.50
                              o                                                         |  .00003  .00009 2.94524  168.75
                              o                                                         |  .00004  .00011 2.87979  165.00
                              o                                                         |  .00006  .00013 2.81434  161.25
                              o                                                         |  .00009  .00016 2.74889  157.50
                              o                                                         |  .00011  .00019 2.68344  153.75
                              o                                                         |  .00014  .00023 2.61799  150.00
                              o                                                         |  .00017  .00029 2.55254  146.25
                              o                                                         |  .00021  .00037 2.48709  142.50
                              o                                                         |  .00028  .00047 2.42164  139.75
                              o                                                         |  .00037  .00059 2.35619  135.00
                              o                                                         |  .00046  .00073 2.29074  131.25
                              o                                                         |  .00058  .00091 2.22529  127.50
                              o                                                         |  .00071  .00115 2.15984  123.75
                              o                                                         |  .00089  .00146 2.09440  120.00
                              o                                                         |  .00113  .00186 2.02895  116.25
                              o                                                         |  .00145  .00234 1.96350  112.50
                              o                                                         |  .00184  .00292 1.89805  108.75
                              o                                                         |  .00231  .00366 1.83260  105.00
                              o                                                         |  .00288  .00459 1.76715  101.25
                            o+                                                          |  .00362  .00579 1.70170   97.50
                            o+                                                          |  .00457  .00729 1.63625   93.75
                            o|                                                          |  .00580  .00915 1.57080   90.00
                           o+|                                                          |  .00734  .01144 1.50535   86.25
                           o+|                                                          |  .00924  .01428 1.43990   82.50
                          o+ |                                                          |  .01161  .01779 1.37445   78.75
                         o + |                                                          |  .01460  .02214 1.30900   75.00
                         o+  |                                                          |  .01844  .02745 1.24355   71.25
                       o +   |                                                          |  .02333  .03386 1.17810   67.50
                      o +    |                                                          |  .02945  .04152 1.11265   63.75
                     o +     |                                                          |  .03705  .05055 1.04720   60.00
                   o +       |                                                          |  .04648  .06099  .98175   56.25
                 o +         |                                                          |  .05826  .07271  .91630   52.50
               o  +          |                                                          |  .07298  .08527  .85085   49.75
              o+             |                                                          |  .09110  .09797  .78540   45.00
            o                |                                                          |  .11294  .10980  .71995   41.25
          +  o               |                                                          |  .13861  .11920  .65450   37.50
        +     o              |                                                          |  .16795  .12381  .58905   33.75
      +        o             |                                                          |  .20000  .12031  .52360   30.00
    +            o           |                                                          |  .23249  .10516  .45815   26.25
  +                o         |                                                          |  .26195  .07574  .39270   22.50
                     o       |                                                          |  .28425  .03085  .32725   18.75
                       |   o                                                            |  .29375 -.02956  .26180   15.00
                       |        o                                                       |  .28076 -.10342  .19635   11.25
  +                    |             o                                                  |  .23086 -.18235  .13090    7.50
       +               |                                               o  |  .13361 -.24710  .06545    3.75
-----------------------------------------------+----------------------------------------o  .00000 -.27275  .00000     .00
75                                                                        -.27275
```
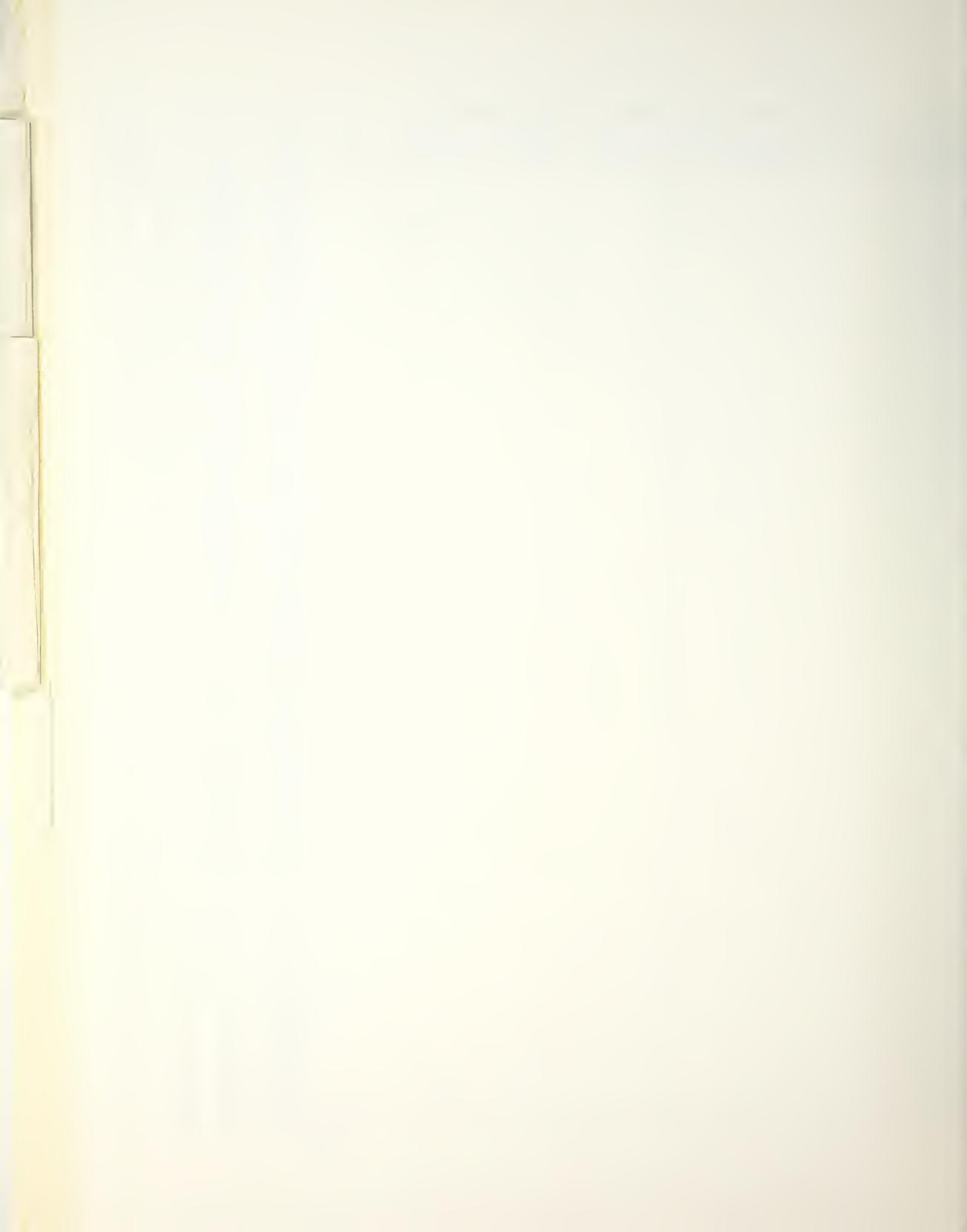
STEADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
              M. M. RIENECKER AND J. D. FENTON.

DEPTH: FINITE, HEIGHT/DEPTH= .5839

WAVE HEIGHT 1.858611E-03,DIMENSIONLESS WITH RESPECT TO PERIOD

CURRENT CRITERION: EULER , MAGNITUDE= .0000

SOLUTION OF ORDER 17 NON-DIMENSIONALIZED BY WAVE NUMBER, 2 HEIGHT STEP(S).

WATER DEPTH	.31350
WAVE HEIGHT	.18305
WAVE PERIOD	9.9242
WAVE SPEED	.63312
MEAN EULERIAN FLUID SPEED	-7.59017E-22
MEAN MASS TRANSPORT SPEED	1.29619E-02
MEAN FLUID SPEED RELATIVE TO WAVE	.63312
VOLUME FLUX DUE TO WAVES	4.06351E-03
BERNOULLI CONSTANT	.20267

SOLUTION VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .5839, WAVE HEIGHT=1.85861E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.15703	.33100	.00000	.00000	-.27304	.00000	.1095636	.0000000	.0515530	.0000000	.0000000	.0000000	.0000000	.0000000
.13743	.31411	.00000	.00000	-.26188	.01436	.0986661	.0000000	.0444910	.0000000	.0020412	.0000000	.0009415	.0000000
.11782	.29876	.00000	.00000	-.24950	.02895	.0892587	.0000000	.0384991	.0000000	.0038834	.0000000	.0017550	.0000000
.09822	.28481	.00000	.00000	-.23639	.04379	.0811141	.0000000	.0333958	.0000000	.0055535	.0000000	.0024598	.0000000
.07861	.27211	.00000	.00000	-.22288	.05889	.0740440	.0000000	.0290333	.0000000	.0070745	.0000000	.0030718	.0000000
.05901	.26056	.00000	.00000	-.20924	.07426	.0678922	.0000000	.0252901	.0000000	.0084658	.0000000	.0036043	.0000000
.03940	.25006	.00000	.00000	-.19564	.08990	.0625284	.0000000	.0220661	.0000000	.0097443	.0000000	.0040685	.0000000
.01980	.24051	.00000	.00000	-.18222	.10580	.0578436	.0000000	.0192789	.0000000	.0109243	.0000000	.0044738	.0000000
.00019	.23183	.00000	.00000	-.16907	.12197	.0537466	.0000000	.0168596	.0000000	.0120182	.0000000	.0048280	.0000000
-.01942	.22396	.00000	.00000	-.15624	.13838	.0501603	.0000000	.0147512	.0000000	.0130367	.0000000	.0051379	.0000000
-.03902	.21684	.00000	.00000	-.14376	.15505	.0470200	.0000000	.0129059	.0000000	.0139894	.0000000	.0054090	.0000000
-.05863	.21041	.00000	.00000	-.13165	.17195	.0442710	.0000000	.0112834	.0000000	.0148843	.0000000	.0056462	.0000000
-.07823	.20461	.00000	.00000	-.11991	.18909	.0418670	.0000000	.0098499	.0000000	.0157297	.0000000	.0058533	.0000000
-.09784	.19942	.00000	.00000	-.10853	.20646	.0397689	.0000000	.0085765	.0000000	.0165289	.0000000	.0060339	.0000000
-.11744	.19479	.00000	.00000	-.09750	.22405	.0379433	.0000000	.0074390	.0000000	.0172907	.0000000	.0061909	.0000000
-.13705	.19069	.00000	.00000	-.08679	.24185	.0363625	.0000000	.0064161	.0000000	.0180191	.0000000	.0063268	.0000000
-.15665	.18709	.00000	.00000	-.07637	.25985	.0350027	.0000000	.0054900	.0000000	.0187187	.0000000	.0064435	.0000000
-.17626	.18397	.00000	.00000	-.06623	.27806	.0338442	.0000000	.0046447	.0000000	.0193936	.0000000	.0065428	.0000000
-.19586	.18130	.00000	.00000	-.05632	.29647	.0328705	.0000000	.0038666	.0000000	.0200476	.0000000	.0066263	.0000000
-.21547	.17908	.00000	.00000	-.04662	.31506	.0320679	.0000000	.0031435	.0000000	.0206841	.0000000	.0066950	.0000000
-.23508	.17727	.00000	.00000	-.03709	.33385	.0314254	.0000000	.0024644	.0000000	.0213065	.0000000	.0067499	.0000000
-.25468	.17588	.00000	.00000	-.02769	.35292	.0309343	.0000000	.0019194	.0000000	.0219178	.0000000	.0067919	.0000000
-.27429	.17489	.00000	.00000	-.01840	.37197	.0305882	.0000000	.0011994	.0000000	.0225209	.0000000	.0068215	.0000000
-.29389	.17431	.00000	.00000	-.00918	.39131	.0303823	.0000000	.0005957	.0000000	.0231186	.0000000	.0068391	.0000000
-.31350	.17411	.00000	.00000	.00000	.41082	.0303139	.0000000	.0000000	.0000000	.0237136	.0000000	.0068450	.0000000
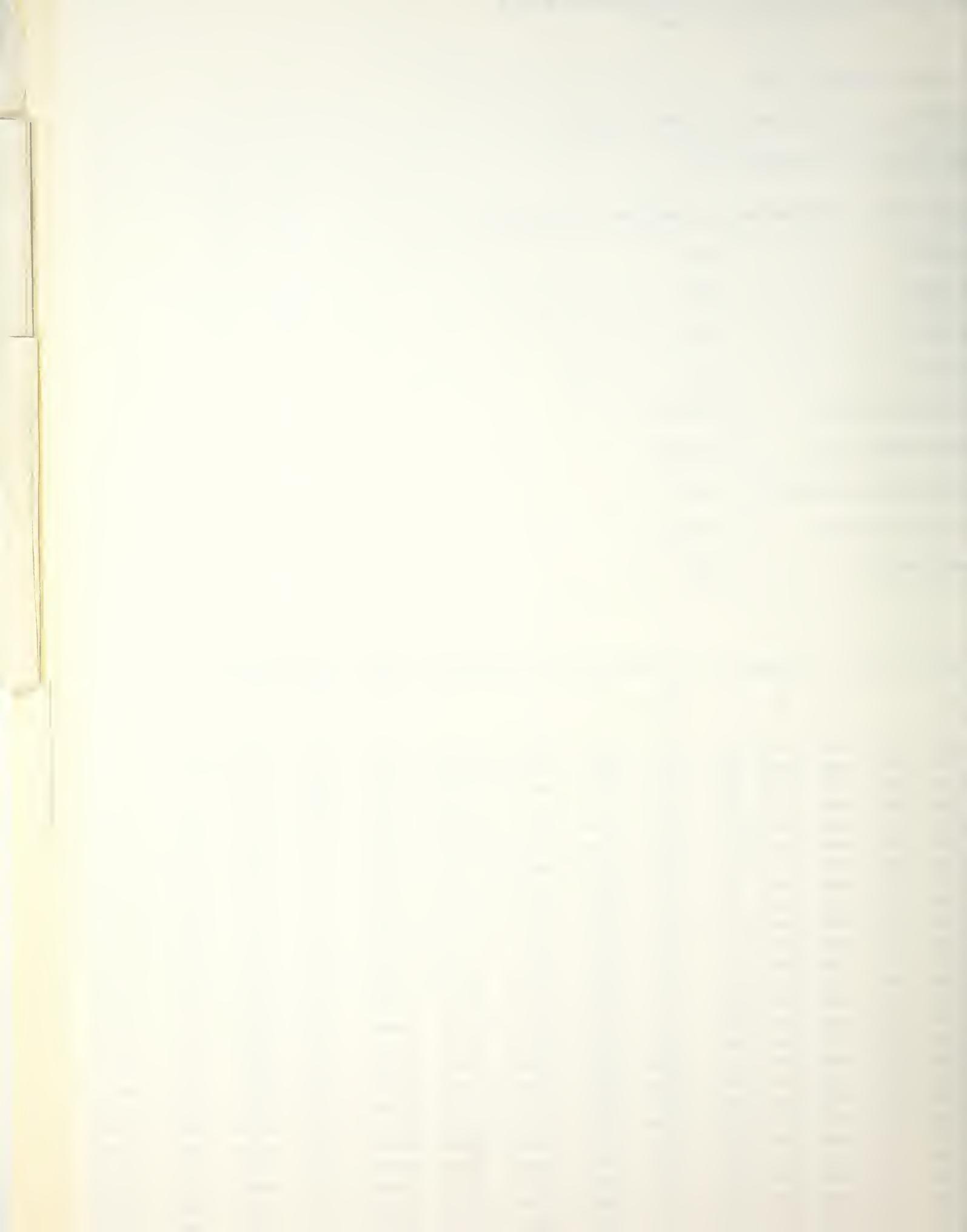
SOLUTION VS DEPTH, THETA= 15.00 DEGREES, KX= .2618 RADIANS, H/d= .5839, WAVE HEIGHT=1.85861E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.09474	.18989	.13386	.29337	-.02979	.00074	.0360597	.2933661	.0147211	.1197642	.0000000	.0000000	.0000000	.0000000
.07773	.18583	.12420	.27426	-.03636	.01719	.0345311	.2742639	.0135097	.1073007	.0006004	.0048277	.0002401	.0019312
.06072	.18195	.11519	.25670	-.04126	.03353	.0331054	.2567011	.0123888	.0960631	.0011756	.0093436	.0004604	.0036608
.04371	.17827	.10676	.24057	-.04473	.04981	.0317786	.2405717	.0113517	.0859350	.0017275	.0135729	.0006623	.0052087
.02670	.17478	.09886	.22578	-.04702	.06604	.0305464	.2257758	.0103919	.0768092	.0022575	.0175392	.0008472	.0065929
.00969	.17148	.09145	.21222	-.04830	.08224	.0294043	.2122198	.0095032	.0685876	.0027674	.0212644	.0010164	.0078295
-.00732	.16837	.08448	.19982	-.04873	.09842	.0283480	.1996166	.0086796	.0611801	.0032586	.0247688	.0011711	.0089331
-.02433	.16545	.07790	.18849	-.04846	.11460	.0273735	.1884858	.0079156	.0545046	.0037325	.0280713	.0013122	.0099170
-.04134	.16272	.07169	.17815	-.04759	.13080	.0264765	.1781530	.0072059	.0484863	.0041905	.0311896	.0014408	.0107930
-.05835	.16017	.06581	.16875	-.04622	.14701	.0256531	.1687503	.0065454	.0430568	.0046339	.0341400	.0015578	.0115716
-.07536	.15780	.06023	.16022	-.04443	.16325	.0248998	.1602156	.0059297	.0381539	.0050638	.0369379	.0016639	.0122623
-.09237	.15561	.05492	.15249	-.04229	.17952	.0242130	.1524923	.0053543	.0337208	.0054815	.0395974	.0017598	.0128736
-.10938	.15359	.04984	.14553	-.03985	.19583	.0235897	.1455292	.0048151	.0297055	.0058881	.0421321	.0018463	.0134130
-.12639	.15175	.04498	.13928	-.03718	.21218	.0230269	.1392802	.0043086	.0260608	.0062846	.0445544	.0019239	.0138873
-.14340	.15007	.04032	.13370	-.03430	.22859	.0225216	.1337040	.0038309	.0227431	.0066720	.0468762	.0019932	.0143024
-.16041	.14857	.03583	.12876	-.03125	.24504	.0220717	.1287637	.0033790	.0197125	.0070512	.0491085	.0020545	.0146625
-.17742	.14722	.03148	.12443	-.02807	.26154	.0216750	.1244266	.0029495	.0169320	.0074233	.0512619	.0021083	.0149751
-.19443	.14605	.02727	.12066	-.02477	.27811	.0213294	.1206643	.0025397	.0143676	.0077891	.0533464	.0021550	.0152413
-.21144	.14503	.02317	.11745	-.02138	.29472	.0210333	.1174519	.0021467	.0119872	.0081474	.0553716	.0021948	.0154655
-.22845	.14417	.01917	.11477	-.01792	.31140	.0207852	.1147685	.0017678	.0097611	.0085050	.0573466	.0022281	.0156504
-.24546	.14347	.01524	.11260	-.01440	.32813	.0205838	.1125965	.0014005	.0076611	.0088569	.0592804	.0022551	.0157986
-.26247	.14293	.01138	.11092	-.01094	.34493	.0204283	.1109217	.0010425	.0056604	.0092057	.0611814	.0022759	.0159119
-.27948	.14254	.00756	.10973	-.00724	.36179	.0203177	.1097331	.0006912	.0037331	.0095522	.0630581	.0022906	.0159918
-.29649	.14231	.00377	.10902	-.00363	.37870	.0202516	.1090230	.0003445	.0018545	.0098973	.0649186	.0022994	.0160393
-.31350	.14223	.00000	.10879	.00000	.39568	.0202296	.1087868	.0000000	.0000000	.0102416	.0667711	.0023023	.0160551

SOLUTION VS DEPTH, THETA= 30.00 DEGREES, KX= .5236 RADIANS, H/d= .5839, WAVE HEIGHT=1.85861E-03 DIMENSIONLESS W/RESP. TO PERIOD

| KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.03214	.05763	.10279	.20002	.11994	-.00034	.0033212	.2000171	.0011479	.0691327	.0000000	.0000000	.0000000	.0000000
.01774	.05958	.09749	.19606	.10931	.01571	.0035494	.1960648	.0011757	.0649431	.0000495	.0028521	.0000167	.0009654
.00333	.06134	.09232	.19215	.09955	.03161	.0037631	.1921527	.0011923	.0608800	.0001021	.0056475	.0000338	.0018715
-.01107	.06295	.08727	.18831	.09059	.04739	.0039622	.1883083	.0011983	.0569501	.0001578	.0083871	.0000510	.0027199
-.02547	.06440	.08234	.18456	.08236	.06303	.0041470	.1845552	.0011944	.0531572	.0002161	.0110720	.0000682	.0035128
-.03987	.06571	.07752	.18091	.07479	.07856	.0043178	.1809135	.0011815	.0495028	.0002771	.0137036	.0000853	.0042520
-.05427	.06690	.07281	.17740	.06784	.09399	.0044751	.1774000	.0011601	.0459866	.0003404	.0162837	.0001022	.0049396
-.06967	.06797	.06820	.17403	.06143	.10932	.0046194	.1740291	.0011309	.0426065	.0004059	.0188143	.0001187	.0055775
-.08307	.06893	.06369	.17081	.05554	.12456	.0047513	.1708126	.0010948	.0393591	.0004734	.0212974	.0001347	.0061677
-.09748	.06980	.05927	.16776	.05010	.13972	.0048715	.1677607	.0010524	.0362399	.0005427	.0237353	.0001502	.0067121
-.11188	.07057	.05494	.16488	.04507	.15481	.0049806	.1648816	.0010042	.0332434	.0006136	.0261306	.0001650	.0072124
-.12628	.07127	.05069	.16218	.04042	.16983	.0050791	.1621822	.0009509	.0303635	.0006860	.0284857	.0001791	.0076704
-.14068	.07189	.04651	.15967	.03612	.18478	.0051677	.1596681	.0008931	.0275934	.0007598	.0308032	.0001923	.0080878
-.15508	.07244	.04239	.15734	.03211	.19967	.0052470	.1573439	.0008312	.0249257	.0008348	.0330860	.0002048	.0084659
-.16948	.07292	.03834	.15521	.02838	.21451	.0053175	.1552133	.0007658	.0223529	.0009109	.0353366	.0002163	.0088064
-.18388	.07335	.03435	.15329	.02489	.22929	.0053797	.1532793	.0006973	.0198670	.0009879	.0375580	.0002268	.0091104
-.19829	.07372	.03041	.15154	.02161	.24403	.0054341	.1515443	.0006261	.0174596	.0010658	.0397529	.0002363	.0093792
-.21269	.07403	.02651	.15001	.01852	.25872	.0054810	.1500101	.0005525	.0151225	.0011444	.0419243	.0002448	.0096138
-.22709	.07430	.02265	.14868	.01559	.27337	.0055210	.1486782	.0004771	.0128471	.0012236	.0440751	.0002522	.0098152
-.24149	.07453	.01882	.14755	.01279	.28797	.0055542	.1475496	.0003999	.0106246	.0013034	.0462081	.0002585	.0099842
-.25589	.07471	.01502	.14663	.01010	.30254	.0055810	.1466253	.0003215	.0084465	.0013835	.0483264	.0002637	.0101215
-.27029	.07484	.01125	.14591	.00750	.31706	.0056016	.1459059	.0002420	.0063038	.0014641	.0504328	.0002678	.0102277
-.28469	.07494	.00749	.14539	.00496	.33156	.0056162	.1453917	.0001618	.0041877	.0015448	.0525304	.0002707	.0103033
-.29910	.07500	.00374	.14508	.00247	.34601	.0056250	.1450830	.0000810	.0020894	.0016258	.0546220	.0002724	.0103485
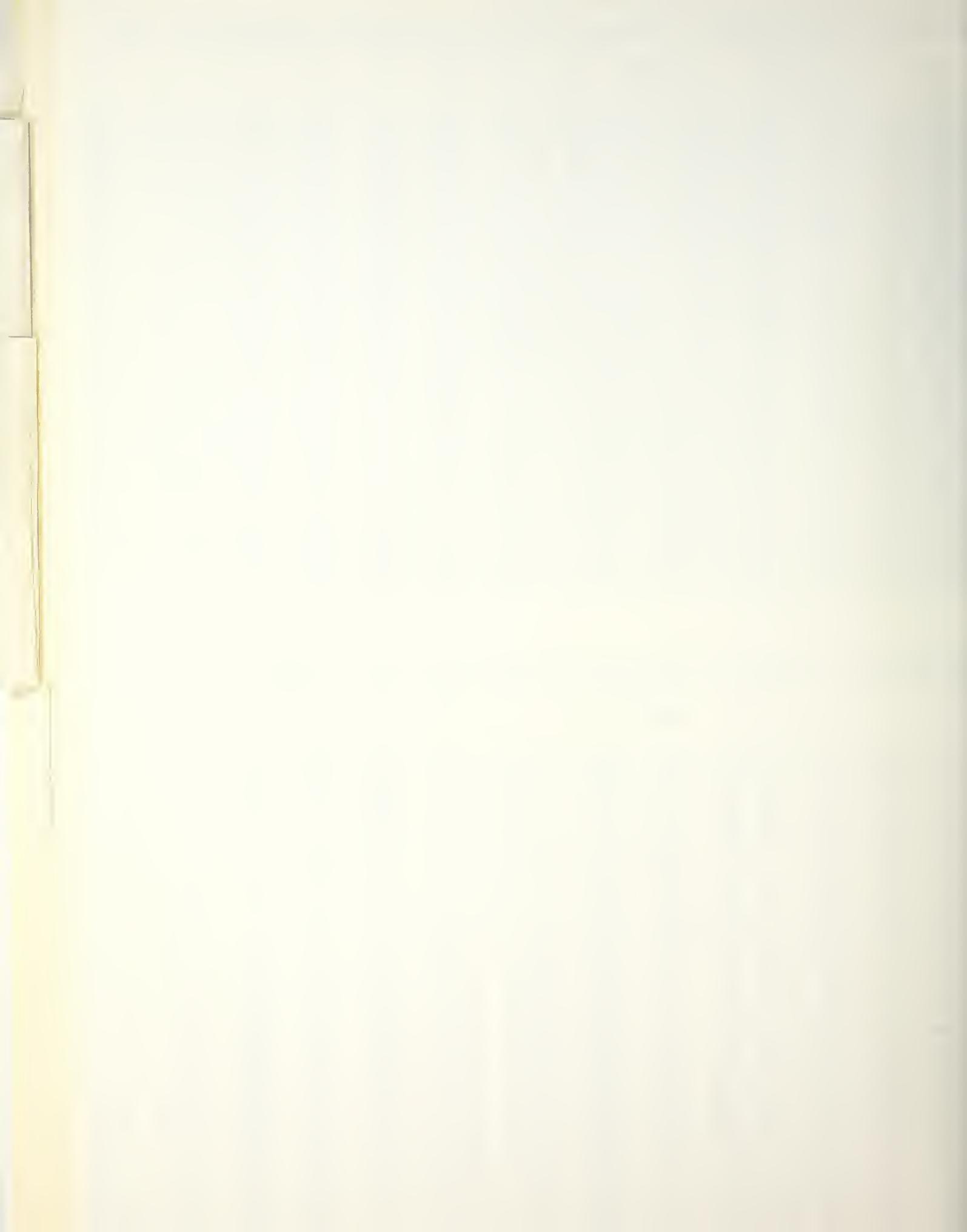
WATER SURFACE ELEVATION

ELEV.VS.   TIME   DIST.   ANGLE

H/d=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

	*K	(K*6)^.5	*K	DEGREES
	-.02602	4.96210	3.14159	180.00
	-.02601	4.85872	3.07614	176.25
	-.02601	4.75534	3.01069	172.50
	-.02602	4.65196	2.94524	168.75
	-.02604	4.54859	2.87979	165.00
	-.02603	4.44521	2.81434	161.25
	-.02599	4.34183	2.74889	157.50
	-.02595	4.23846	2.68344	153.75
	-.02596	4.13508	2.61799	150.00
	-.02602	4.03170	2.55254	146.25
	-.02604	3.92833	2.48709	142.50
	-.02598	3.82495	2.42164	138.75
	-.02587	3.72157	2.35619	135.00
	-.02582	3.61819	2.29074	131.25
	-.02586	3.51482	2.22529	127.50
	-.02592	3.41144	2.15984	123.75
	-.02588	3.30806	2.09440	120.00
	-.02570	3.20469	2.02895	116.25
	-.02550	3.10131	1.96350	112.50
	-.02541	2.99793	1.89805	108.75
	-.02543	2.89456	1.83260	105.00
	-.02538	2.79118	1.76715	101.25
	-.02511	2.68780	1.70170	97.50
	-.02466	2.58442	1.63625	93.75
	-.02420	2.48105	1.57080	90.00
	-.02389	2.37767	1.50535	86.25
	-.02359	2.27429	1.43990	82.50
	-.02302	2.17092	1.37445	78.75
	-.02201	2.06754	1.30900	75.00
	-.02068	1.96416	1.24355	71.25
	-.01929	1.86079	1.17810	67.50
	-.01789	1.75741	1.11265	63.75
	-.01614	1.65403	1.04720	60.00
	-.01357	1.55065	.98175	56.25
	-.01001	1.44728	.91630	52.50
	-.00569	1.34390	.85085	48.75
	-.00086	1.24052	.78540	45.00
	.00469	1.13715	.71995	41.25
	.01168	1.03377	.65450	37.50
	.02080	.93039	.58905	33.75
	.03214	.82702	.52360	30.00
	.04521	.72364	.45815	26.25
	.05970	.62026	.39270	22.50
	.07597	.51688	.32725	18.75
	.09474	.41351	.26180	15.00
	.11564	.31013	.19635	11.25
	.13602	.20675	.13090	7.50
	.15131	.10338	.06545	3.75
	.15703	.00000	.00000	.00

15703

-.02604

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICLE VELOCITIES

H/d=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

U	V	DIST.	ANGLE
*SQRT(K/G)	*K		DEGREES
-.04318	.00000	3.14159	180.00
-.04318	.00001	3.07614	176.25
-.04318	.00001	3.01069	172.50
-.04318	.00002	2.94524	168.75
-.04317	.00003	2.87979	165.00
-.04317	.00004	2.81434	161.25
-.04316	.00006	2.74889	157.50
-.04315	.00007	2.68344	153.75
-.04314	.00009	2.61799	150.00
-.04312	.00012	2.55254	146.25
-.04311	.00015	2.48709	142.50
-.04308	.00019	2.42164	138.75
-.04305	.00024	2.35619	135.00
-.04301	.00030	2.29074	131.25
-.04296	.00038	2.22529	127.50
-.04290	.00048	2.15984	123.75
-.04282	.00061	2.09440	120.00
-.04272	.00077	2.02895	116.25
-.04260	.00097	1.96350	112.50
-.04244	.00122	1.89805	108.75
-.04224	.00154	1.83260	105.00
-.04199	.00194	1.76715	101.25
-.04168	.00245	1.70170	97.50
-.04128	.00308	1.63625	93.75
-.04078	.00387	1.57080	90.00
-.04014	.00487	1.50535	86.25
-.03934	.00611	1.43990	82.50
-.03833	.00767	1.37445	78.75
-.03705	.00962	1.30900	75.00
-.03544	.01204	1.24355	71.25
-.03341	.01504	1.17810	67.50
-.03082	.01872	1.11265	63.75
-.02754	.02325	1.04720	60.00
-.02340	.02878	.98175	56.25
-.01819	.03549	.91630	52.50
-.01161	.04349	.85085	48.75
-.00325	.05286	.78540	45.00
.00736	.06359	.71995	41.25
.02066	.07565	.65450	37.50
.03719	.08890	.58905	33.75
.05763	.10279	.52360	30.00
.08276	.11613	.45815	26.25
.11314	.12713	.39270	22.50
.14891	.13380	.32725	18.75
.18989	.13386	.26180	15.00
.23508	.12393	.19635	11.25
.28054	.09922	.13090	7.50
.31678	.05643	.06545	3.75
.33100	.00000	.00000	.00

33100

-.04318

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        HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS              Ax      Ay    DIST.   ANGLE
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H/d=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT=  .0000, CRITER., EULER    %1/G    %1/G    %K   DEGREES
|-----------------------------------------o---------------------------------------------------|  .00000  .00007 3.14159 180.00
|                                         o                                                   |  .00001  .00007 3.07614 176.25
|                                         o                                                   |  .00002  .00008 3.01069 172.50
|                                         o                                                   |  .00003  .00009 2.94524 168.75
|                                         o                                                   |  .00005  .00011 2.87979 165.00
|                                         o                                                   |  .00007  .00013 2.81434 161.25
|                                         o                                                   |  .00009  .00015 2.74889 157.50
|                                         o                                                   |  .00011  .00018 2.68344 153.75
|                                         o                                                   |  .00013  .00023 2.61799 150.00
|                                         o                                                   |  .00017  .00030 2.55254 146.25
|                                         o                                                   |  .00022  .00038 2.48709 142.50
|                                         o                                                   |  .00029  .00047 2.42164 138.75
|                                         o                                                   |  .00037  .00057 2.35619 135.00
|                                         o                                                   |  .00045  .00072 2.29074 131.25
|                                         o                                                   |  .00056  .00092 2.22529 127.50
|                                         o                                                   |  .00071  .00117 2.15984 123.75
|                                         o                                                   |  .00092  .00148 2.09440 120.00
|                                         o                                                   |  .00116  .00184 2.02895 116.25
|                                         o                                                   |  .00145  .00230 1.96350 112.50
|                                         o                                                   |  .00180  .00290 1.89805 108.75
|                                        o                                                    |  .00227  .00368 1.83260 105.00
|                                       o+                                                    |  .00289  .00464 1.76715 101.25
|                                       o+                                                    |  .00367  .00582 1.70170  97.50
|                                       o|                                                    |  .00462  .00727 1.63625  93.75
|                                       o|                                                    |  .00579  .00911 1.57080  90.00
|                                      o+|                                                    |  .00728  .01142 1.50535  86.25
|                                      o+|                                                    |  .00920  .01431 1.43990  82.50
|                                     o+ |                                                    |  .01165  .01785 1.37445  78.75
|                                    o + |                                                    |  .01471  .02217 1.30900  75.00
|                                   o +  |                                                    |  .01850  .02744 1.24355  71.25
|                                  o +   |                                                    |  .02327  .03385 1.17810  67.50
|                                 o +    |                                                    |  .02933  .04153 1.11265  63.75
|                                o  +    |                                                    |  .03701  .05056 1.04720  60.00
|                               o +      |                                                    |  .04662  .06097  .98175  56.25
|                              o +       |                                                    |  .05848  .07267  .91630  52.50
|                            o   +       |                                                    |  .07309  .08533  .85085  48.75
|                          o+            |                                                    |  .09103  .09819  .78540  45.00
|                        o               |                                                    |  .11279  .11002  .71995  41.25
|                    +  o                |                                                    |  .13849  .11914  .65450  37.50
|                 +      o               |                                                    |  .16786  .12342  .58905  33.75
|             +          o               |                                                    |  .20002  .11994  .52360  30.00
|         +                o             |                                                    |  .23287  .10515  .45815  26.25
|      +                     o           |                                                    |  .26272  .07592  .39270  22.50
|+                              o        |                                                    |  .28480  .03080  .32725  18.75
|                               |   o    |                                                    |  .29337 -.02979  .26180  15.00
|+                              |        o    |                                                |  .27970 -.10330  .19635  11.25
|   +                           |             o                                               |  .23032 -.18184  .13090   7.50
|        +                      |                        o                                    |  .13389 -.24696  .06545   3.75
|-------------------------------+-------------------------------------------------------o-----|  .00000 -.27304  .00000    .00
29337                                              -.27304
```

STEADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
        M. M. RIENECKER AND J. D. FENTON.

DEPTH: FINITE, HEIGHT/DEPTH= .5839

WAVE HEIGHT 1.858611E-03,DIMENSIONLESS WITH RESPECT TO PERIOD

CURRENT CRITERION: EULER , MAGNITUDE= .0000

SOLUTION OF ORDER 19 NON-DIMENSIONALIZED BY WAVE NUMBER, 2 HEIGHT STEP(S).

WATER DEPTH   .31350

WAVE HEIGHT   .18305

WAVE PERIOD   9.9242

WAVE SPEED   .63312

MEAN EULERIAN FLUID SPEED   6.37202E-22

MEAN MASS TRANSPORT SPEED   1.29600E-02

MEAN FLUID SPEED RELATIVE TO WAVE   .63312

VOLUME FLUX DUE TO WAVES   4.06295E-03

BERNOULLI CONSTANT   .20267

$H = 5m; k = .0366 1/m, L = 171.6m$
$H = 1.25m, k = .14694$

SOLUTION VS DEPTH, THETA= .00 DEGREES, KX= .0000 RADIANS, H/d= .5839, WAVE HEIGHT=1.85861E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
	5418												
.15703	.33100	.00000	.00000	-.27315	.00000	.1095619	.0000000	.0515524	.0000000	.0000000	.0000000	.0000000	.0000000
.13743	.31410	.00000	.00000	-.26194	.01436	.0986613	.0000000	.0444890	.0000000	.0020412	.0000000	.0009415	.0000000
.11782	.29875	.00000	.00000	-.24953	.02895	.0892528	.0000000	.0384766	.0000000	.0038832	.0000000	.0017550	.0000000
.09822	.28479	.00000	.00000	-.23639	.04379	.0811081	.0000000	.0333934	.0000000	.0055532	.0000000	.0024597	.0000000
.07861	.27210	.00000	.00000	-.22287	.05889	.0740385	.0000000	.0290312	.0000000	.0070741	.0000000	.0030716	.0000000
.05901	.26055	.00000	.00000	-.20922	.07426	.0678974	.0000000	.0252984	.0000000	.0084654	.0000000	.0036041	.0000000
.03940	.25005	.00000	.00000	-.19562	.08990	.0625245	.0000000	.0220648	.0000000	.0097438	.0000000	.0040683	.0000000
.01980	.24050	.00000	.00000	-.18220	.10590	.0578406	.0000000	.0192779	.0000000	.0109237	.0000000	.0044736	.0000000
.00019	.23183	.00000	.00000	-.16904	.12196	.0537442	.0000000	.0168589	.0000000	.0120175	.0000000	.0048278	.0000000
-.01942	.22396	.00000	.00000	-.15621	.13838	.0501586	.0000000	.0147508	.0000000	.0130360	.0000000	.0051377	.0000000
-.03902	.21684	.00000	.00000	-.14373	.15505	.0470189	.0000000	.0129056	.0000000	.0139886	.0000000	.0054098	.0000000
-.05863	.21041	.00000	.00000	-.13163	.17195	.0442704	.0000000	.0112933	.0000000	.0148835	.0000000	.0056459	.0000000
-.07823	.20461	.00000	.00000	-.11989	.18910	.0418668	.0000000	.0098496	.0000000	.0157279	.0000000	.0058530	.0000000
-.09784	.19942	.00000	.00000	-.10951	.20646	.0397689	.0000000	.0085766	.0000000	.0165282	.0000000	.0060337	.0000000
-.11744	.19479	.00000	.00000	-.09748	.22405	.0379437	.0000000	.0074391	.0000000	.0172900	.0000000	.0061907	.0000000
-.13705	.19069	.00000	.00000	-.08677	.24185	.0363631	.0000000	.0064162	.0000000	.0180184	.0000000	.0063265	.0000000
-.15665	.18709	.00000	.00000	-.07636	.25986	.0350035	.0000000	.0054901	.0000000	.0187180	.0000000	.0064432	.0000000
-.17626	.18397	.00000	.00000	-.06622	.27806	.0339451	.0000000	.0046449	.0000000	.0193929	.0000000	.0065426	.0000000
-.19587	.18130	.00000	.00000	-.05631	.29647	.0329715	.0000000	.0038668	.0000000	.0200469	.0000000	.0066260	.0000000
-.21547	.17908	.00000	.00000	-.04661	.31507	.0320690	.0000000	.0031436	.0000000	.0206835	.0000000	.0066947	.0000000
-.23508	.17728	.00000	.00000	-.03708	.33385	.0314266	.0000000	.0024645	.0000000	.0213059	.0000000	.0067497	.0000000
-.25468	.17589	.00000	.00000	-.02769	.35282	.0309356	.0000000	.0018195	.0000000	.0219172	.0000000	.0067917	.0000000
-.27429	.17490	.00000	.00000	-.01840	.37199	.0305994	.0000000	.0011994	.0000000	.0225703	.0000000	.0068213	.0000000
-.29389	.17431	.00000	.00000	-.00918	.39131	.0303835	.0000000	.0005957	.0000000	.0231180	.0000000	.0068389	.0000000
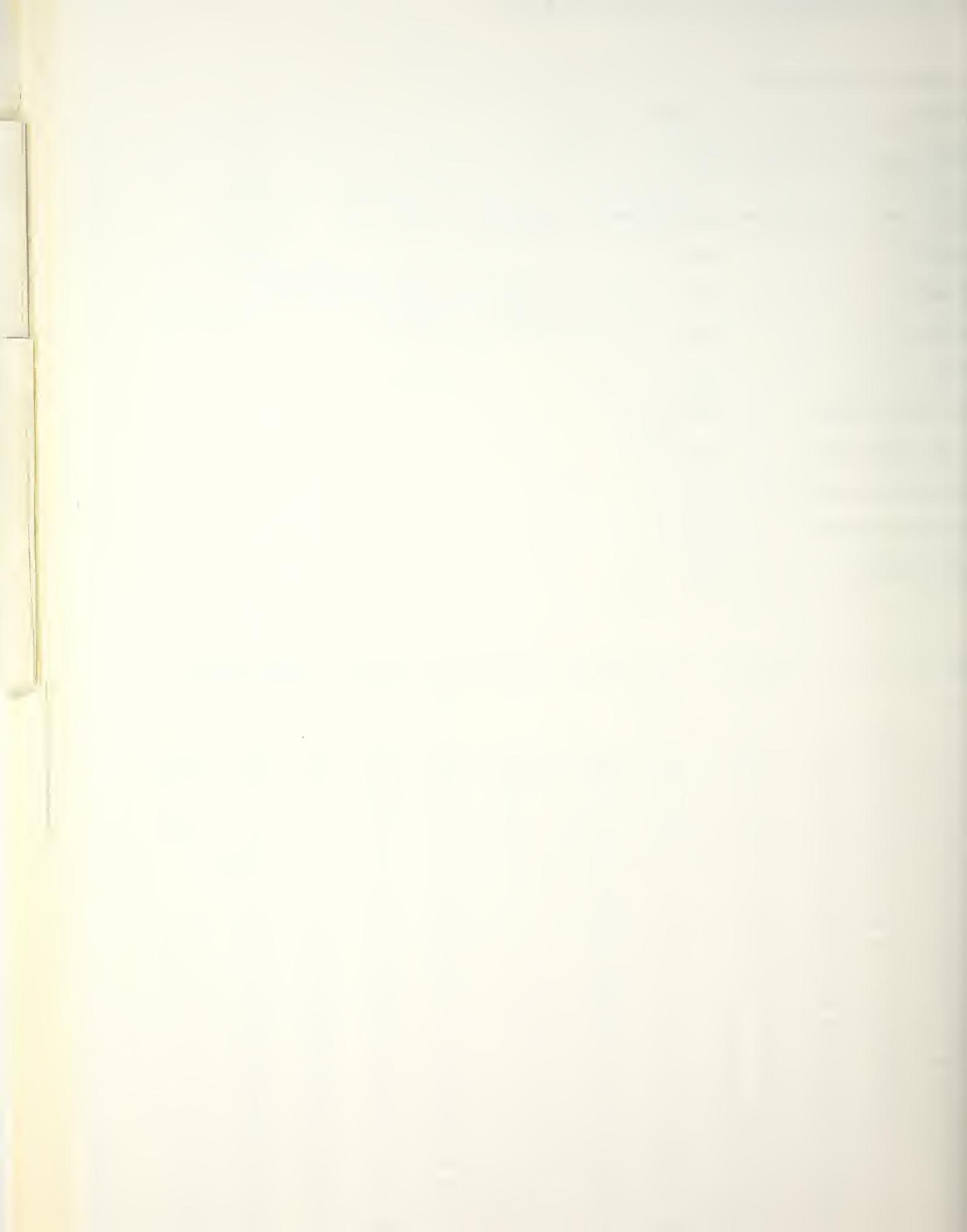
OLUTION VS DEPTH, THETA= 15.00 DEGREES, KX= .2618 RADIANS, H/d= .5839, WAVE HEIGHT=1.85861E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.09490	.18996	.13392	.29338	-.02991	.00061	.0360960	.2933784	.0147376	.1198165	.0000000	.0000000	.0000000	.0000000
.07789	.18589	.12426	.27429	-.03646	.01706	.0345540	.2742919	.0135240	.1073540	.0006010	.0048300	.0002405	.0019329
.06087	.18200	.11524	.25674	-.04174	.03341	.0331254	.2567378	.0124011	.0961147	.0011769	.0093492	.0004610	.0036640
.04385	.17831	.10681	.24061	-.04480	.04969	.0317961	.2406124	.0113624	.0859834	.0017293	.0135798	.0006632	.0052134
.02684	.17482	.09891	.22582	-.04708	.06592	.0305616	.2258171	.0104012	.0768536	.0022598	.0175484	.0008484	.0065999
.00982	.17152	.09149	.21226	-.04835	.08213	.0294176	.2122596	.0095113	.0686275	.0027701	.0212757	.0010178	.0078367
-.00720	.16840	.08451	.19985	-.04878	.09832	.0283598	.1998535	.0086867	.0612155	.0032617	.0247821	.0011727	.0089415
-.02421	.16548	.07794	.18952	-.04850	.11450	.0273838	.1885189	.0079217	.0545357	.0037360	.0280866	.0013140	.0099263
-.04123	.16274	.07173	.17818	-.04763	.13070	.0264855	.1781821	.0072112	.0485134	.0041944	.0312066	.0014427	.0108031
-.05825	.16019	.06584	.16878	-.04625	.14692	.0256610	.1687752	.0065500	.0430801	.0046380	.0341586	.0015598	.0115824
-.07526	.15782	.06026	.16024	-.04446	.16316	.0249068	.1602363	.0059337	.0381739	.0050683	.0369590	.0016660	.0122737
-.09228	.15563	.05494	.15251	-.04232	.17944	.0242192	.1525090	.0053577	.0337377	.0054863	.0396190	.0017621	.0128856
-.10930	.15361	.04986	.14554	-.03988	.19576	.0235951	.1455422	.0048181	.0297199	.0058931	.0421549	.0018487	.0134255
-.12631	.15176	.04500	.13929	-.03720	.21212	.0230315	.1392897	.0043111	.0260729	.0062898	.0445783	.0019264	.0139002
-.14333	.15009	.04033	.13371	-.03432	.22853	.0225258	.1337104	.0038332	.0227532	.0066774	.0469011	.0019957	.0143157
-.16035	.14858	.03584	.12877	-.03127	.24499	.0220754	.1287673	.0033809	.0197208	.0070569	.0491344	.0020570	.0146770
-.17736	.14724	.03149	.12443	-.02808	.26150	.0216782	.1244277	.0029512	.0169389	.0074292	.0512887	.0021109	.0149890
-.19438	.14606	.02728	.12066	-.02478	.27807	.0213323	.1206633	.0025410	.0143731	.0077951	.0533740	.0021576	.0152554
-.21140	.14504	.02318	.11745	-.02139	.29469	.0210359	.1174491	.0021478	.0119916	.0081556	.0554000	.0021975	.0154797
-.22841	.14418	.01917	.11476	-.01793	.31137	.0207875	.1147642	.0017687	.0097646	.0085115	.0573757	.0022309	.0156648
-.24543	.14348	.01525	.11259	-.01441	.32811	.0205860	.1125909	.0014012	.0076637	.0088635	.0593102	.0022578	.0158131
-.26245	.14293	.01138	.11092	-.01084	.34491	.0204303	.1109151	.0010430	.0056623	.0092125	.0612118	.0022796	.0159265
-.27946	.14255	.00756	.10973	-.00724	.36178	.0203196	.1097259	.0006915	.0037344	.0095592	.0630991	.0022934	.0160064
-.29648	.14231	.00377	.10902	-.00363	.37870	.0202535	.1090154	.0003446	.0018551	.0099044	.0649503	.0023022	.0160540
-.31350	.14224	.00000	.10878	.00000	.39569	.0202314	.1087791	.0000000	.0000000	.0102489	.0668033	.0023051	.0160698

OLUTION VS DEPTH, THETA= 30.00 DEGREES, KX= .5236 RADIANS, H/d= .5839, WAVE HEIGHT=1.85861E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.03183	.05767	.10268	.19992	.11979	.00000	.0033263	.1999193	.0011487	.0690381	.0000000	.0000000	.0000000	.0000000
.01744	.05962	.09739	.19598	.10916	.01603	.0035542	.1959766	.0011762	.0648567	.0000495	.0028482	.0000167	.0009633
.00305	.06138	.09222	.19207	.09941	.03192	.0037675	.1920730	.0011926	.0608011	.0001022	.0056400	.0000338	.0018673
-.01133	.06298	.08718	.18824	.09046	.04768	.0039664	.1882365	.0011985	.0568782	.0001578	.0083761	.0000510	.0027139
-.02572	.06443	.08225	.18449	.08224	.06331	.0041508	.1844906	.0011945	.0530917	.0002162	.0110576	.0000682	.0035051
-.04011	.06574	.07744	.18086	.07469	.07882	.0043213	.1808555	.0011814	.0494434	.0002772	.0136860	.0000853	.0042428
-.05450	.06692	.07274	.17735	.06774	.09424	.0044793	.1773483	.0011599	.0459327	.0003405	.0162631	.0001021	.0049290
-.06889	.06799	.06814	.17398	.06135	.10955	.0046224	.1739832	.0011307	.0425578	.0004059	.0187907	.0001186	.0055656
-.08328	.06895	.06363	.17077	.05546	.12478	.0047541	.1707722	.0010945	.0393151	.0004734	.0212710	.0001346	.0061546
-.09767	.06981	.05922	.16773	.05003	.13993	.0048740	.1677254	.0010520	.0362004	.0005427	.0237063	.0001501	.0066979
-.11206	.07059	.05489	.16485	.04501	.15500	.0049829	.1648512	.0010039	.0332080	.0006136	.0260990	.0001648	.0071972
-.12644	.07128	.05064	.16216	.04037	.17000	.0050812	.1621562	.0009505	.0303319	.0006860	.0284516	.0001739	.0076544
-.14083	.07190	.04646	.15965	.03607	.18494	.0051697	.1596463	.0008926	.0275653	.0007597	.0307667	.0001922	.0080709
-.15522	.07245	.04236	.15733	.03207	.19982	.0052488	.1573259	.0008308	.0249009	.0008347	.0330472	.0002046	.0084484
-.16961	.07293	.03831	.15520	.02835	.21464	.0053191	.1551988	.0007654	.0223311	.0009107	.0352956	.0002160	.0087882
-.18400	.07336	.03432	.15327	.02486	.22942	.0053812	.1532680	.0006969	.0198480	.0009877	.0375148	.0002266	.0090918
-.19839	.07373	.03038	.15154	.02158	.24414	.0054355	.1515359	.0006257	.0174433	.0010655	.0397077	.0002361	.0093599
-.21278	.07404	.02648	.15000	.01850	.25882	.0054823	.1500042	.0005522	.0151086	.0011441	.0418771	.0002446	.0095941
-.22717	.07431	.02263	.14867	.01557	.27345	.0055232	.1486744	.0004767	.0129354	.0012232	.0440259	.0002520	.0097951
-.24155	.07453	.01881	.14755	.01277	.28804	.0055554	.1475475	.0003997	.0106151	.0013029	.0461570	.0002583	.0099637
-.25594	.07471	.01501	.14662	.01009	.30259	.0055821	.1466250	.0003213	.0084390	.0013831	.0482734	.0002634	.0101009
-.27033	.07485	.01124	.14591	.00749	.31711	.0056027	.1459067	.0002418	.0062982	.0014635	.0503780	.0002675	.0102070
-.28472	.07495	.00748	.14539	.00496	.33159	.0056173	.1453933	.0001617	.0041841	.0015443	.0524737	.0002704	.0102824
-.29911	.07501	.00374	.14509	.00247	.34603	.0056260	.1450852	.0000810	.0020876	.0016251	.0545635	.0002721	.0103273
-.31350	.07503	.00000	.14499	.00000									
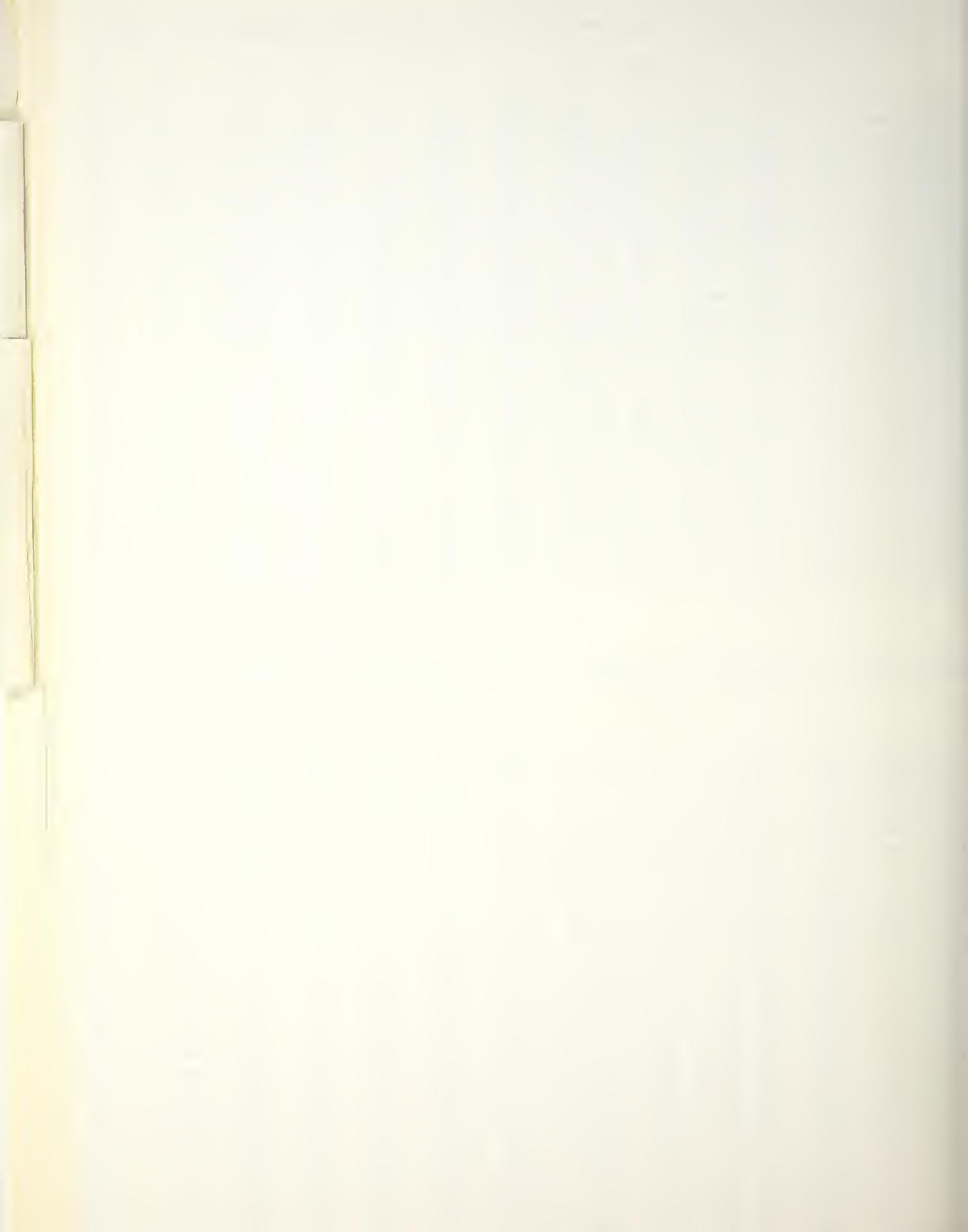
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                    WATER SURFACE ELEVATION                                    ELEV.VS.  TIME   DIST.  ANGLE
------------------------------------------------------------------------------------------------------
/d=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER  *K  (K*G)^.5  *K  DEGREES
------------------------------------------------------------------------------+ -.02602 4.96210 3.14159 180.00
                                                                            |  + -.02603 4.85873 3.07614 176.25
                                                                            |  + -.02603 4.75535 3.01069 172.50
                                                                            |  + -.02601 4.65197 2.94524 168.75
                                                                            |  + -.02599 4.54860 2.87979 165.00
                                                                            |  + -.02600 4.44522 2.81434 161.25
                                                                            |  + -.02603 4.34184 2.74889 157.50
                                                                            |  + -.02603 4.23846 2.68344 153.75
                                                                            |  + -.02599 4.13509 2.61799 150.00
                                                                            |  + -.02594 4.03171 2.55254 146.25
                                                                            |  + -.02593 3.92833 2.48709 142.50
                                                                            |  + -.02598 3.82496 2.42164 138.75
                                                                            |  + -.02600 3.72158 2.35619 135.00
                                                                            |  + -.02593 3.61820 2.29074 131.25
                                                                            |  + -.02582 3.51482 2.22529 127.50
                                                                            |  + -.02575 3.41145 2.15984 123.75
                                                                            |  + -.02578 3.30807 2.09440 120.00
                                                                            |  + -.02580 3.20469 2.02895 116.25
                                                                            |  + -.02570 3.10132 1.96350 112.50
                                                                            |  + -.02549 2.99794 1.89805 108.75
                                                                            |  + -.02527 2.89456 1.83260 105.00
                                                                            |  + -.02517 2.79118 1.76715 101.25
                                                                            |  +| -.02510 2.68781 1.70170  97.50
                                                                            |  +| -.02489 2.58443 1.63625  93.75
                                                                            |  +| -.02440 2.48105 1.57080  90.00
                                                                            |  +| -.02383 2.37768 1.50535  86.25
                                                                            |  +| -.02332 2.27430 1.43990  82.50
                                                                            |  + | -.02285 2.17092 1.37445  78.75
                                                                            |  + | -.02214 2.06754 1.30900  75.00
                                                                            |   + | -.02097 1.96417 1.24355  71.25
                                                                            |     + | -.01940 1.86079 1.17810  67.50
                                                                            |      + | -.01769 1.75741 1.11265  63.75
                                                                            |       + | -.01584 1.65403 1.04720  60.00
                                                                            |        + | -.01352 1.55066  .98175  56.25
                                                                            |      +   | -.01027 1.44728  .91630  52.50
                                                                            | +        | -.00596 1.34390  .85085  48.75
                                                                            +         | -.00083 1.24053  .78540  45.00
                                                                       +      |  .00499 1.13715  .71995  41.25
                                                                  +          |  .01192 1.03377  .65450  37.50
                                                            +                |  .02071  .93039  .58905  33.75
                                                        +                    |  .03183  .82702  .52360  30.00
                                                  +                          |  .04503  .72364  .45815  26.25
                                             +                               |  .05983  .62026  .39270  22.50
                                       +                                     |  .07627  .51689  .32725  18.75
                                   +                                         |  .09490  .41351  .26180  15.00
                             +                                               |  .11556  .31013  .19635  11.25
                        +                                                    |  .13586  .20675  .13090   7.50
                  +                                                          |  .15124  .10338  .06545   3.75
 +                                                                           |
-----------------------------------------------------------------------------|  .15703  .00000  .00000   .00
,5703
                                                                       -.02603
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HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICLE VELOCITIES

	U *SQRT(K/G)	V *K	DIST.	ANGLE DEGREES
H/d=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER				
+	-.04318	.00000	3.14159	180.00
+	-.04318	.00001	3.07614	176.25
+	-.04318	.00001	3.01069	172.50
+	-.04318	.00002	2.94524	168.75
+	-.04318	.00003	2.87979	165.00
+	-.04317	.00004	2.81434	161.25
+	-.04316	.00006	2.74889	157.50
+	-.04315	.00007	2.68344	153.75
+	-.04314	.00009	2.61799	150.00
+	-.04313	.00012	2.55254	146.25
+	-.04311	.00015	2.48709	142.50
+	-.04308	.00019	2.42164	138.75
+	-.04305	.00024	2.35619	135.00
+	-.04301	.00031	2.29074	131.25
+	-.04296	.00039	2.22529	127.50
+	-.04290	.00049	2.15984	123.75
+	-.04282	.00061	2.09440	120.00
+	-.04273	.00077	2.02895	116.25
+	-.04260	.00097	1.96350	112.50
+	-.04244	.00123	1.89805	108.75
+	-.04224	.00154	1.83260	105.00
+	-.04199	.00194	1.76715	101.25
+	-.04168	.00244	1.70170	97.50
+	-.04128	.00308	1.63625	93.75
+	-.04078	.00387	1.57080	90.00
+	-.04014	.00487	1.50535	86.25
+	-.03934	.00611	1.43990	82.50
+	-.03833	.00767	1.37445	78.75
+	-.03705	.00961	1.30900	75.00
+	-.03544	.01203	1.24355	71.25
+	-.03341	.01504	1.17810	67.50
+	-.03083	.01874	1.11265	63.75
+	-.02755	.02327	1.04720	60.00
+	-.02340	.02878	.98175	56.25
+	-.01817	.03546	.91630	52.50
+	-.01158	.04347	.85085	48.75
+	-.00325	.05288	.78540	45.00
+	.00732	.06356	.71995	41.25
+	.02064	.07571	.65450	37.50
+	.03721	.08888	.58905	33.75
+	.05767	.10268	.52360	30.00
+	.08278	.11606	.45815	26.25
+	.11316	.12721	.39270	22.50
+	.14898	.13396	.32725	18.75
+	.18996	.13392	.26180	15.00
+	.23505	.12335	.19635	11.25
+	.28040	.09912	.13090	7.50
+	.31670	.05642	.06545	3.75
+	.33100	.00000	.00000	.00

-.04318

3100

Handwritten notes:

H=1.25M
u(0)=2.70g

H=5M:
utot 5.418 m/s
Δu* .37413
Δu= 6.125 m/s
v*(1s)= .13352
v(1s)= 2.192 m/s

V*(1s)=1.096

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS

	Ax	Ay	DIST.	ANGLE
H/d=.5839 HEIGHT=1.8596E-01, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER	*1/G	*1/G	*K	DEGREES
	.00000	.00007	3.14159	180.00
	.00001	.00007	3.07614	176.25
	.00002	.00008	3.01069	172.50
	.00004	.00009	2.94524	168.75
	.00005	.00010	2.87979	165.00
	.00006	.00012	2.81434	161.25
	.00008	.00016	2.74889	157.50
	.00011	.00019	2.68344	153.75
	.00014	.00024	2.61799	150.00
	.00018	.00029	2.55254	146.25
	.00022	.00036	2.48709	142.50
	.00028	.00047	2.42164	138.75
	.00036	.00059	2.35619	135.00
	.00046	.00074	2.29074	131.25
	.00058	.00092	2.22529	127.50
	.00072	.00115	2.15984	123.75
	.00089	.00146	2.09440	120.00
	.00114	.00186	2.02895	116.25
	.00145	.00233	1.96350	112.50
	.00183	.00292	1.89805	108.75
	.00229	.00366	1.83260	105.00
	.00237	.00461	1.76715	101.25
	.00363	.00581	1.70170	97.50
	.00461	.00730	1.63625	93.75
	.00582	.00913	1.57080	90.00
	.00732	.01142	1.50535	86.25
	.00920	.01428	1.43990	82.50
	.01161	.01783	1.37445	78.75
	.01468	.02218	1.30900	75.00
	.01853	.02747	1.24355	71.25
	.02332	.03387	1.17810	67.50
	.02934	.04153	1.11265	63.75
	.03676	.05056	1.04720	60.00
	.04657	.06097	.98175	56.25
	.05850	.07265	.91630	52.50
	.07317	.08531	.85085	48.75
	.09110	.09822	.78540	45.00
	.11280	.11011	.71995	41.25
	.13845	.11922	.65450	37.50
	.16778	.12336	.58905	33.75
	.19992	.11979	.52360	30.00
	.23287	.10508	.45815	26.25
	.26296	.07597	.39270	22.50
	.28512	.03079	.32725	19.75
	.29338	-.02991	.26180	15.00
	.27935	-.10331	.19635	11.25
	.23007	-.18165	.13090	7.50
	.13399	-.24688	.06545	3.75
	.00000	-.27315	.00000	.00
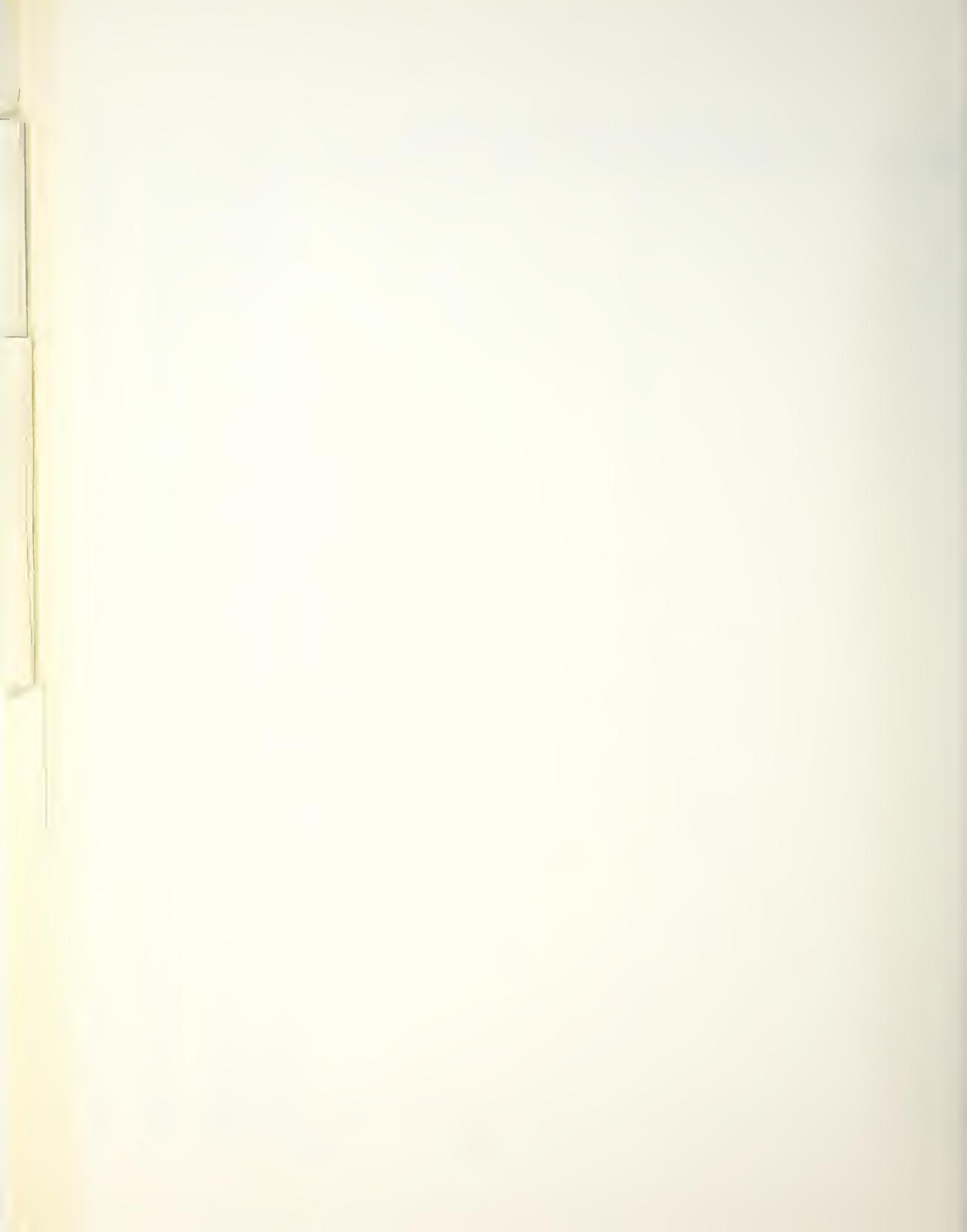
9338

-.27315

STEADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
M. M. RIENECKER AND J. D. FENTON.

DEPTH: FINITE, HEIGHT/DEPTH= .5839

WAVE HEIGHT 1.858611E-03, DIMENSIONLESS WITH RESPECT TO PERIOD

CURRENT CRITERION: EULER , MAGNITUDE= .14

SOLUTION, NON-DIMENSIONALIZED BY WAVENUMBER

WATER DEPTH   .28366

WAVE HEIGHT   .16563   t= 5m, K= .033126, L= 185.7m

WAVE PERIOD   9.4401

WAVE SPEED   .66558

MEAN EULERIAN FLUID SPEED   5.81101E-02

MEAN MASS TRANSPORT SPEED   6.96472E-02

MEAN FLUID SPEED RELATIVE TO WAVE   .60747

VOLUME FLUX DUE TO WAVES   3.27261E-03

BERNOULLI CONSTANT   .18644

SOLUTION VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .5839, WAVE HEIGHT=1.85861E-03 DIMENSIONLESS W/RESP. TO PERIOD

6.4399 -1=5.44 (.0096

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.14405	.37442	.00000	.00000	-.27027	.00000	.1401887	.0000000	.0599602	.0000000	.0000000	.0000000	.0000000	.0000000
.12623	.35864	.00000	.00000	-.25903	.01310	.1286226	.0000000	.0527210	.0000000	.0023953	.0000000	.0010041	.0000000
.10841	.34429	.00000	.00000	-.24667	.02642	.1185359	.0000000	.0464741	.0000000	.0045976	.0000000	.0018880	.0000000
.09059	.33123	.00000	.00000	-.23364	.03996	.1097151	.0000000	.0410605	.0000000	.0066315	.0000000	.0026679	.0000000
.07277	.31935	.00000	.00000	-.22025	.05373	.1019823	.0000000	.0363491	.0000000	.0085178	.0000000	.0033577	.0000000
.05494	.30853	.00000	.00000	-.20675	.06775	.0951887	.0000000	.0322313	.0000000	.0102748	.0000000	.0039688	.0000000
.03712	.29868	.00000	.00000	-.19331	.08201	.0892094	.0000000	.0286168	.0000000	.0119179	.0000000	.0045110	.0000000
.01930	.28972	.00000	.00000	-.18005	.09650	.0839390	.0000000	.0254303	.0000000	.0134607	.0000000	.0049926	.0000000
.00148	.28158	.00000	.00000	-.16706	.11123	.0792888	.0000000	.0226084	.0000000	.0149152	.0000000	.0054206	.0000000
-.01634	.27420	.00000	.00000	-.15439	.12619	.0751833	.0000000	.0200979	.0000000	.0162916	.0000000	.0058012	.0000000
-.03416	.26750	.00000	.00000	-.14207	.14137	.0715588	.0000000	.0178538	.0000000	.0175992	.0000000	.0061394	.0000000
-.05198	.26146	.00000	.00000	-.13012	.15676	.0683609	.0000000	.0159376	.0000000	.0188460	.0000000	.0064396	.0000000
-.06980	.25601	.00000	.00000	-.11853	.17237	.0655436	.0000000	.0140168	.0000000	.0200391	.0000000	.0067056	.0000000
-.08763	.25113	.00000	.00000	-.10729	.18819	.0630675	.0000000	.0123634	.0000000	.0211851	.0000000	.0069407	.0000000
-.10545	.24678	.00000	.00000	-.09639	.20419	.0608990	.0000000	.0108530	.0000000	.0222898	.0000000	.0071475	.0000000
-.12327	.24292	.00000	.00000	-.08581	.22039	.0590099	.0000000	.0094647	.0000000	.0233582	.0000000	.0073286	.0000000
-.14109	.23953	.00000	.00000	-.07552	.23677	.0573760	.0000000	.0081801	.0000000	.0243953	.0000000	.0074858	.0000000
-.15891	.23659	.00000	.00000	-.06549	.25333	.0559771	.0000000	.0069831	.0000000	.0254054	.0000000	.0076209	.0000000
-.17673	.23409	.00000	.00000	-.05570	.27008	.0547960	.0000000	.0058592	.0000000	.0263924	.0000000	.0077354	.0000000
-.19455	.23199	.00000	.00000	-.04611	.28699	.0538188	.0000000	.0047956	.0000000	.0273602	.0000000	.0078303	.0000000
-.21237	.23029	.00000	.00000	-.03668	.30407	.0530341	.0000000	.0037805	.0000000	.0283124	.0000000	.0079067	.0000000
-.23020	.22898	.00000	.00000	-.02739	.32132	.0524328	.0000000	.0028033	.0000000	.0292521	.0000000	.0079654	.0000000
-.24802	.22805	.00000	.00000	-.01821	.33874	.0520081	.0000000	.0018537	.0000000	.0301828	.0000000	.0080069	.0000000
-.26584	.22750	.00000	.00000	-.00909	.35632	.0517551	.0000000	.0009223	.0000000	.0311074	.0000000	.0080316	.0000000
-.29366	.22731	.00000	.00000	.00000	.37406	.0516711	.0000000	.0000000	.0000000	.0320290	.0000000	.0080399	.0000000
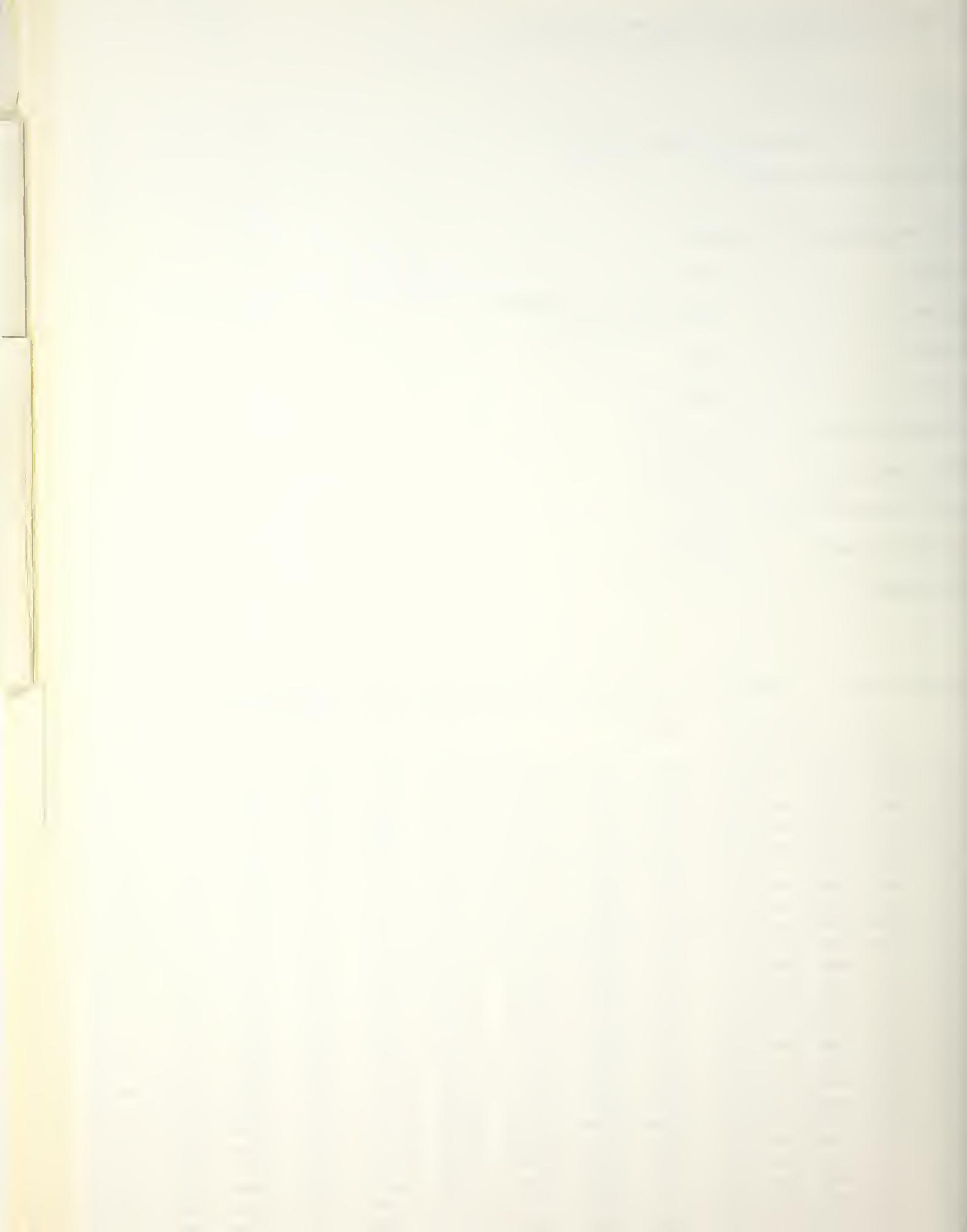
KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.08129	.22684	.12750	.28906	-.00626	.00077	.0514550	.2890639	.0187785	.1054938	.0000000	.0000000	.0000000	.0000000
.06608	.22400	.11862	.27151	-.01386	.01582	.0501760	.2715114	.0175487	.0949594	.0007727	.0042621	.0002762	.0015241
.05089	.22126	.11029	.25530	-.01986	.03077	.0489578	.2553041	.0163782	.0854087	.0015264	.0082676	.0005342	.0028954
.03567	.21864	.10246	.24036	-.02449	.04564	.0479016	.2403574	.0152645	.0767536	.0022621	.0120361	.0007747	.0041284
.02047	.21612	.09509	.22659	-.02795	.06044	.0467080	.2265910	.0142051	.0689119	.0029807	.0155864	.0009988	.0052359
.00526	.21372	.08815	.21393	-.03042	.07521	.0456770	.2139289	.0131969	.0618080	.0036831	.0189357	.0012071	.0062298
-.00995	.21144	.08160	.20230	-.03203	.08994	.0447081	.2023003	.0122372	.0553721	.0043703	.0221004	.0014005	.0071207
-.02515	.20929	.07539	.19164	-.03292	.10465	.0438008	.1916390	.0113228	.0495399	.0050432	.0250955	.0015796	.0079184
-.04036	.20725	.06951	.18188	-.03319	.11935	.0429540	.1818837	.0104507	.0442523	.0057029	.0279355	.0017452	.0086315
-.05557	.20535	.06391	.17298	-.03292	.13405	.0421666	.1729777	.0096179	.0394551	.0063500	.0306335	.0018978	.0092679
-.07077	.20356	.05858	.16487	-.03221	.14876	.0414374	.1648692	.0088215	.0350986	.0069857	.0332022	.0020380	.0098347
-.08598	.20190	.05349	.15751	-.03111	.16349	.0407653	.1575105	.0080585	.0311368	.0076107	.0356533	.0021663	.0103383
-.10118	.20037	.04861	.15086	-.02969	.17823	.0401499	.1508584	.0073262	.0275279	.0082259	.0379979	.0022833	.0107844
-.11639	.19896	.04392	.14487	-.02799	.19300	.0395870	.1448736	.0066217	.0242328	.0088321	.0402464	.0023893	.0111779
-.13160	.19768	.03941	.13952	-.02605	.20779	.0390784	.1395210	.0059424	.0212159	.0094302	.0424086	.0024849	.0115235
-.14680	.19652	.03505	.13477	-.02392	.22262	.0386220	.1347688	.0052857	.0184439	.0100210	.0444941	.0025702	.0118250
-.16201	.19549	.03083	.13059	-.02162	.23748	.0382166	.1305890	.0046490	.0158861	.0106052	.0465117	.0026458	.0120860
-.17722	.19458	.02673	.12696	-.01919	.25239	.0378613	.1269571	.0040301	.0135138	.0111836	.0484698	.0027117	.0123096
-.19242	.19379	.02273	.12385	-.01664	.26731	.0375552	.1238514	.0034264	.0112999	.0117570	.0503767	.0027684	.0124982
-.20763	.19313	.01881	.12125	-.01400	.28228	.0372976	.1212539	.0028358	.0092191	.0123262	.0522403	.0028161	.0126542
-.22293	.19258	.01496	.11915	-.01128	.29730	.0370877	.1191491	.0022559	.0072472	.0128917	.0540681	.0028549	.0127794
-.23804	.19216	.01117	.11752	-.00851	.31235	.0369250	.1175248	.0016845	.0053613	.0134544	.0558676	.0028847	.0128753
-.25325	.19186	.00743	.11637	-.00570	.32745	.0368091	.1163713	.0011195	.0035391	.0140150	.0576459	.0029060	.0129430
-.26845	.19168	.00371	.11568	-.00285	.34259	.0367397	.1156819	.0005587	.0017591	.0145742	.0594102	.0029188	.0129832
-.28366	.19162	.00000	.11545	.00000	.35778	.0367166	.1154525	.0000000	.0000000	.0151327	.0611676	.0029230	.0129966

×6%

×k0/k1 =±1.2%

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.02350	.10149	.08760	.17449	.12212	.00000	.0103008	.1744035	.0031640	.0535703	.0000000	.0000000	.0000000	.0000000
.01070	.10351	.08335	.17246	.11251	.01430	.0107149	.1724627	.0031541	.0507668	.0001345	.0022197	.0000404	.0006677
-.00209	.10537	.07917	.17044	.10358	.02848	.0111030	.1704380	.0031262	.0479995	.0002741	.0044140	.0000906	.0012996
-.01489	.10708	.07506	.16836	.09526	.04255	.0114656	.1683610	.0030816	.0452500	.0004185	.0065820	.0001203	.0018963
-.02769	.10864	.07102	.16626	.08752	.05652	.0118035	.1662593	.0030213	.0425572	.0005674	.0087233	.0001594	.0024582
-.04049	.11008	.06704	.16416	.08030	.07039	.0121175	.1641569	.0029466	.0399181	.0007205	.0108377	.0001976	.0029860
-.05329	.11139	.06312	.16207	.07357	.08417	.0124086	.1620749	.0028586	.0373375	.0008775	.0129254	.0002347	.0034804
-.06609	.11260	.05927	.16003	.06729	.09787	.0126777	.1600317	.0027583	.0349187	.0010380	.0149866	.0002707	.0039421
-.07888	.11369	.05547	.15804	.06142	.11149	.0129256	.1580433	.0026469	.0323634	.0012018	.0170220	.0003053	.0043720
-.09168	.11469	.05172	.15612	.05592	.12504	.0131534	.1561238	.0025251	.0299721	.0013687	.0190325	.0003384	.0047709
-.10448	.11559	.04803	.15429	.05077	.13852	.0133619	.1542852	.0023942	.0276446	.0015384	.0210188	.0003698	.0051396
-.11728	.11641	.04439	.15254	.04593	.15194	.0135519	.1525380	.0022548	.0253792	.0017106	.0229823	.0003996	.0054789
-.13008	.11715	.04080	.15089	.04137	.16530	.0137244	.1508913	.0021078	.0231741	.0018852	.0249240	.0004275	.0057896
-.14288	.11781	.03724	.14935	.03707	.17860	.0138800	.1493529	.0019541	.0210263	.0020618	.0268453	.0004535	.0060725
-.15568	.11840	.03373	.14793	.03300	.19184	.0140196	.1479296	.0017943	.0189327	.0022403	.0287477	.0004775	.0063282
-.16947	.11893	.03025	.14663	.02914	.20504	.0141438	.1466270	.0016292	.0168894	.0024206	.0306326	.0004994	.0065574
-.18127	.11939	.02681	.14545	.02546	.21819	.0142532	.1454501	.0014594	.0148923	.0026023	.0325017	.0005192	.0067608
-.19407	.11979	.02340	.14440	.02193	.23129	.0143484	.1444029	.0012955	.0129369	.0027853	.0343565	.0005367	.0069389
-.20687	.12012	.02001	.14349	.01855	.24435	.0144300	.1434891	.0011081	.0110186	.0029695	.0361988	.0005520	.0070922
-.21967	.12041	.01664	.14271	.01529	.25736	.0144982	.1427113	.0009278	.0091324	.0031546	.0380303	.0005651	.0072211
-.23247	.12064	.01329	.14207	.01211	.27033	.0145535	.1420720	.0007450	.0072732	.0033405	.0398527	.0005758	.0073261
-.24526	.12081	.00995	.14157	.00902	.28327	.0145962	.1415729	.0005604	.0054357	.0035270	.0416678	.0005841	.0074074
-.25806	.12094	.00663	.14122	.00598	.29616	.0146266	.1412154	.0003744	.0036147	.0037140	.0434774	.0005901	.0074654
-.27086	.12102	.00331	.14100	.00298	.30902	.0146447	.1410006	.0001874	.0018046	.0039014	.0452834	.0005937	.0075000
-.28366	.12104	.00000	.14093	.00000	.32184	.0146507	.1409289	.0000000	.0000000	.0040888	.0470875	.0005949	.0075116

x 10⁻¹

/d=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT=1.42784, CRITER., EULER   #K   (K#G)^.5   #K   DEGREES

		#K	(K#G)^.5	#K	DEGREES
+		-.02158	4.72006	3.14159	180.00
+		-.02159	4.62172	3.07614	176.25
+		-.02159	4.52339	3.01069	172.50
+		-.02157	4.42505	2.94524	168.75
+		-.02155	4.32672	2.87979	165.00
+		-.02156	4.22838	2.81434	161.25
+		-.02160	4.13005	2.74889	157.50
+		-.02161	4.03171	2.68344	153.75
+		-.02157	3.93338	2.61799	150.00
+		-.02151	3.83505	2.55254	146.25
+		-.02151	3.73671	2.48709	142.50
+		-.02158	3.63838	2.42164	138.75
+		-.02162	3.54004	2.35619	135.00
+		-.02156	3.44171	2.29074	131.25
+		-.02145	3.34337	2.22529	127.50
+		-.02140	3.24504	2.15984	123.75
+		-.02147	3.14670	2.09440	120.00
+		-.02154	3.04837	2.02895	116.25
+		-.02148	2.95003	1.96350	112.50
+		-.02129	2.85170	1.89805	109.75
+		-.02112	2.75337	1.83260	105.00
+		-.02112	2.65503	1.76715	101.25
+		-.02117	2.55670	1.70170	97.50
+		-.02107	2.45836	1.63625	93.75
+		-.02071	2.36003	1.57080	90.00
+		-.02027	2.26169	1.50535	86.25
+		-.01998	2.16336	1.43990	82.50
+		-.01980	2.06502	1.37445	78.75
+		-.01942	1.96669	1.30900	75.00
+		-.01859	1.86836	1.24355	71.25
+		-.01741	1.77002	1.17810	67.50
+		-.01619	1.67169	1.11265	63.75
+		-.01501	1.57335	1.04720	60.00
+		-.01347	1.47502	.98175	56.25
+		-.01105	1.37668	.91630	52.50
+		-.00763	1.27835	.85085	48.75
+		-.00355	1.18001	.78540	45.00
+		.00099	1.08168	.71995	41.25
+		.00649	.98334	.65450	37.50
+		.01380	.88501	.58905	33.75
+		.02350	.78668	.52360	30.00
+		.03531	.68834	.45815	26.25
+		.04866	.59001	.39270	22.50
+		.06370	.49167	.32725	18.75
+		.08129	.39334	.26180	15.00
+		.10155	.29500	.19635	11.25
+		.12211	.19667	.13090	7.50
+		.13801	.09833	.06545	3.75
		.14405	.00000	.00000	.00

1405   -.02162

l/d=.5839 HEIGHT=1.9586E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT=1.42794, CRITER., EULER   *SQRT(K/G)   *K   DEGREES

U	V	DIST.	ANGLE
.02057	.00000	3.14159	180.00
.02057	.00000	3.07614	176.25
.02057	.00001	3.01069	172.50
.02057	.00001	2.94524	168.75
.02058	.00001	2.97979	165.00
.02058	.00002	2.81434	161.25
.02058	.00002	2.74889	157.50
.02058	.00003	2.68344	153.75
.02059	.00004	2.61799	150.00
.02060	.00005	2.55254	146.25
.02061	.00006	2.48709	142.50
.02062	.00008	2.42164	138.75
.02063	.00010	2.35619	135.00
.02065	.00014	2.29074	131.25
.02067	.00017	2.22529	127.50
.02071	.00022	2.15984	123.75
.02074	.00029	2.09440	120.00
.02080	.00037	2.02895	116.25
.02086	.00049	1.96350	112.50
.02095	.00062	1.89805	108.75
.02106	.00079	1.83260	105.00
.02120	.00102	1.76715	101.25
.02139	.00132	1.70170	97.50
.02162	.00170	1.63625	93.75
.02193	.00218	1.57080	90.00
.02232	.00281	1.50535	86.25
.02283	.00361	1.43990	82.50
.02349	.00463	1.37445	78.75
.02434	.00594	1.30900	75.00
.02543	.00763	1.24355	71.25
.02694	.00977	1.17810	67.50
.02866	.01248	1.11265	63.75
.03103	.01588	1.04720	60.00
.03411	.02016	.98175	56.25
.03806	.02551	.91630	52.50
.04314	.03214	.85085	48.75
.04973	.04020	.78540	45.00
.05830	.04978	.71995	41.25
.06939	.06092	.65450	37.50
.08356	.07361	.58905	33.75
.10149	.08760	.52360	30.00
.12413	.10197	.45815	26.25
.15235	.11495	.39270	22.50
.18659	.12430	.32725	18.75
.22684	.12750	.26180	15.00
.27239	.12098	.19635	11.25
.31972	.09921	.13090	7.50
.35376	.05753	.06545	3.75
.37442	.00000	.00000	.00

U(0)=6.443
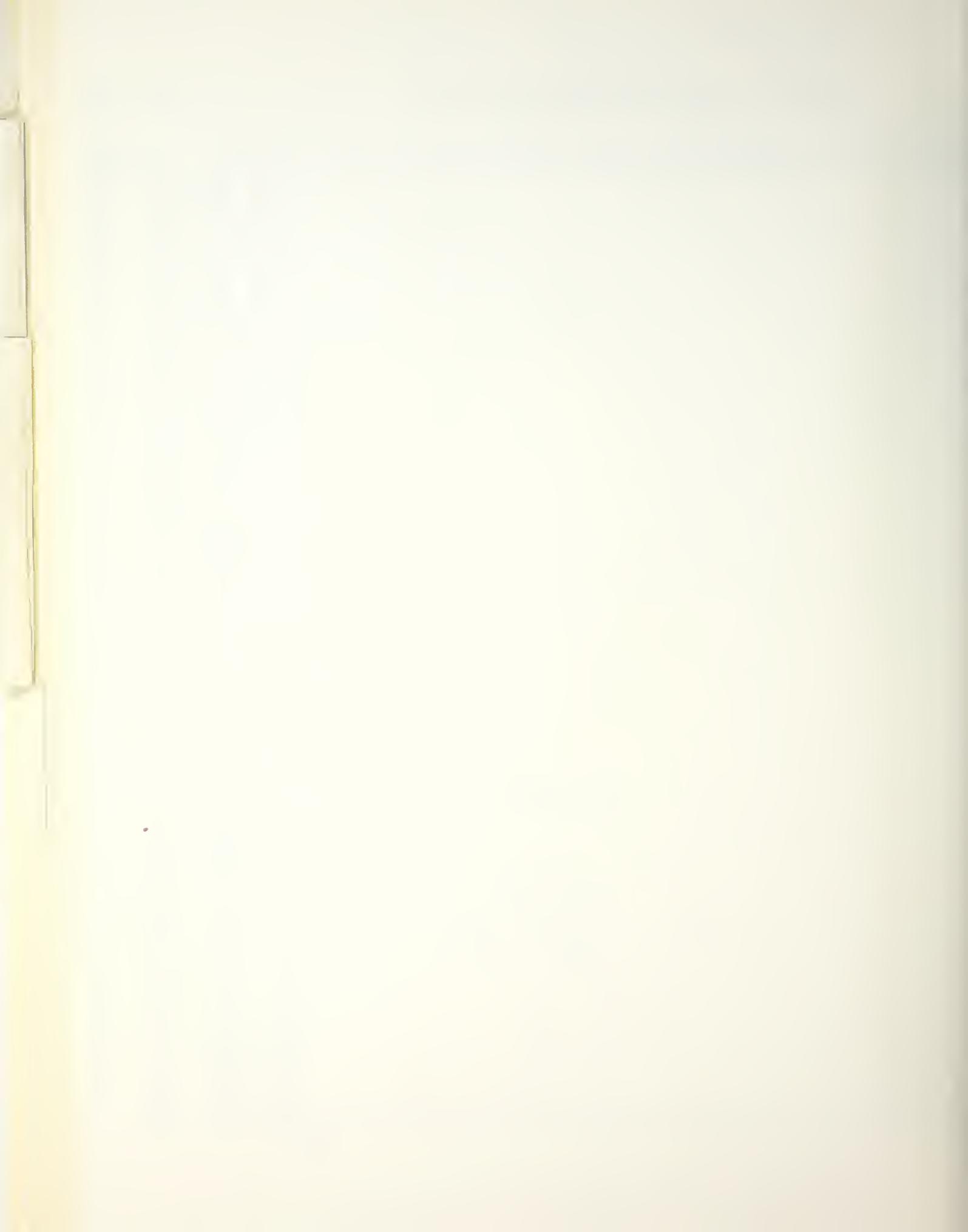
ΔU=.3....
ΔU=6.05 m/s
V*(0) 2.164 m/s

.00000

/d=.5939 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT=1.42784, CRITER., EULER   #1/G   #1/G   #K   DEGREES

Ax	Ay	DIST.	ANGLE
.00000	.00002	3.14159	180.00
.00000	.00003	3.07614	176.25
.00001	.00003	3.01069	172.50
.00002	.00003	2.94524	168.75
.00002	.00004	2.87979	165.00
.00002	.00005	2.81434	161.25
.00003	.00006	2.74889	157.50
.00005	.00008	2.68344	153.75
.00006	.00010	2.61799	150.00
.00008	.00012	2.55254	146.25
.00009	.00015	2.48709	142.50
.00012	.00021	2.42164	138.75
.00016	.00027	2.35619	135.00
.00022	.00034	2.29074	131.25
.00028	.00043	2.22529	127.50
.00034	.00055	2.15984	123.75
.00043	.00072	2.09440	120.00
.00057	.00094	2.02895	116.25
.00076	.00121	1.96350	112.50
.00098	.00153	1.89805	108.75
.00123	.00196	1.83260	105.00
.00157	.00254	1.76715	101.25
.00204	.00329	1.70170	97.50
.00266	.00423	1.63625	93.75
.00344	.00541	1.57080	90.00
.00440	.00691	1.50535	86.25
.00564	.00887	1.43990	82.50
.00727	.01138	1.37445	78.75
.00942	.01454	1.30900	75.00
.01217	.01848	1.24355	71.25
.01565	.02341	1.17810	67.50
.02011	.02955	1.11265	63.75
.02592	.03711	1.04720	60.00
.03346	.04621	.98175	56.25
.04308	.05694	.91630	52.50
.05523	.06928	.85085	48.75
.07052	.08285	.78540	45.00
.08975	.09675	.71995	41.25
.11347	.10947	.65450	37.50
.14183	.11892	.58905	33.75
.17440	.12212	.52360	30.00
.20972	.11496	.45815	26.25
.24437	.09285	.39270	22.50
.27302	.05266	.32725	18.75
.28906	-.00626	.26180	15.00
.28299	-.08200	.19635	11.25
.23916	-.16690	.13090	7.50
.14197	-.24018	.06545	3.75
.00000	-.27027	.00000	.00

-.27027
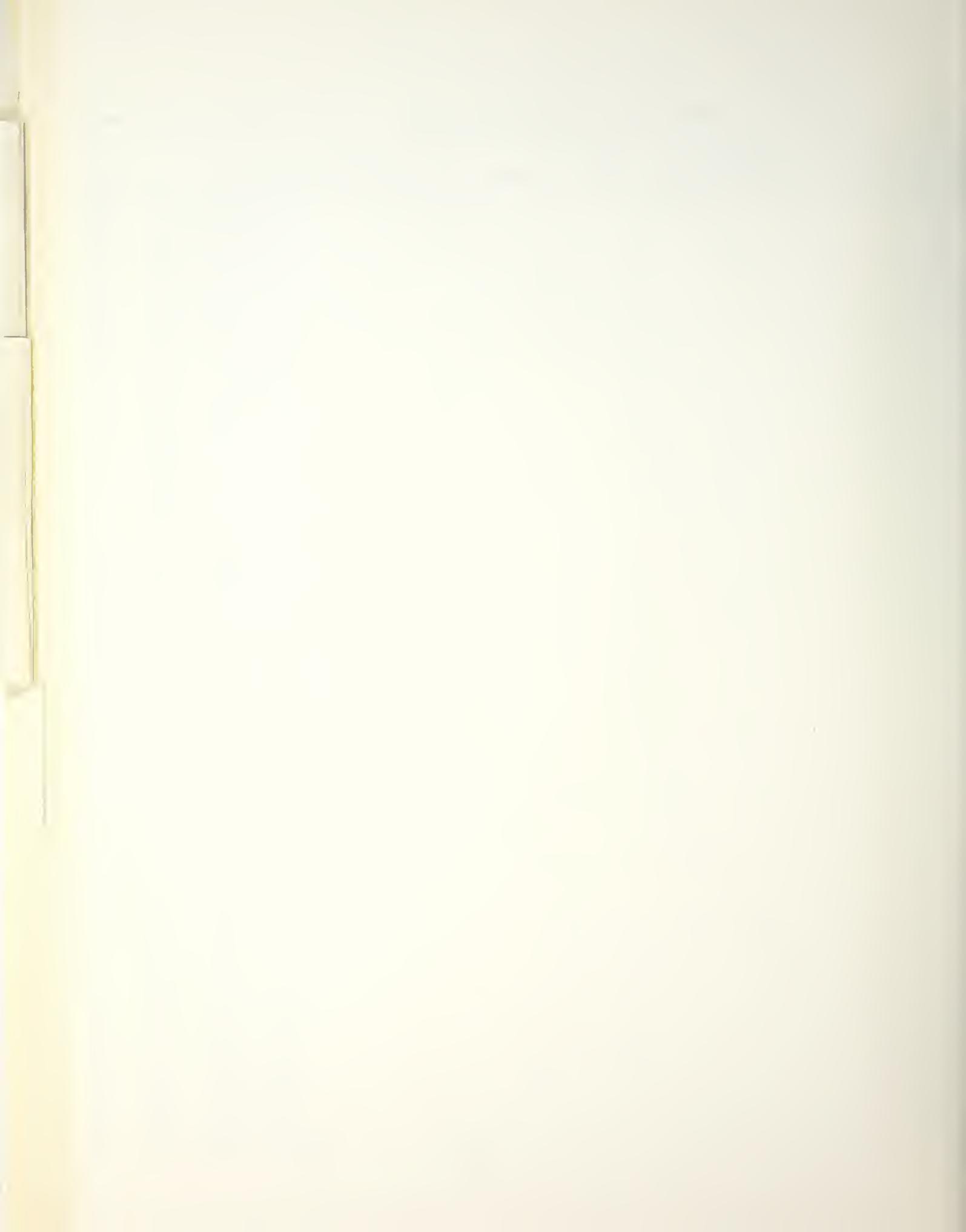
: FINITE, HEIGHT/DEPTH= .5839

HEIGHT 1.858611E-03,DIMENSIONLESS WITH RESPECT TO PERIOD

ENT CRITERION: EULER , MAGNITUDE= .29

252

TION, NON-DIMENSIONALIZED BY WAVENUMBER   2 HT STEPS

R DEPTH   .25932

HEIGHT   .15142 $H = 1.25\,m, K = .121136$

PERIOD   9.0261

SPEED   .69612

EULERIAN FLUID SPEED   .11112

MASS TRANSPORT SPEED   .12149

FLUID SPEED RELATIVE TO WAVE   .58499

JE FLUX DUE TO WAVES   2.68988E-03

ULLI CONSTANT   .17278

)

ON VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .5939, WAVE HEIGHT=1.85861E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
13319	.41475	.00000	.00000	-.26789	.00000	.1720144	.0000000	.0675183	.0000000	.0000000	.0000000	.0000000	.0000000
11684	.39989	.00000	.00000	-.25664	.01206	.1599103	.0000000	.0601520	.0000000	.0027143	.0000000	.0010440	.0000000
10048	.38636	.00000	.00000	-.24433	.02432	.1492767	.0000000	.0537106	.0000000	.0052426	.0000000	.0019751	.0000000
08413	.37405	.00000	.00000	-.23138	.03678	.1399116	.0000000	.0480528	.0000000	.0076074	.0000000	.0028073	.0000000
06777	.36293	.00000	.00000	-.21810	.04946	.1316453	.0000000	.0430607	.0000000	.0098281	.0000000	.0035523	.0000000
05142	.35261	.00000	.00000	-.20473	.06236	.1243350	.0000000	.0386360	.0000000	.0119213	.0000000	.0042204	.0000000
03506	.34331	.00000	.00000	-.19142	.07549	.1178600	.0000000	.0346964	.0000000	.0139019	.0000000	.0048201	.0000000
01871	.33484	.00000	.00000	-.17830	.08981	.1121181	.0000000	.0311724	.0000000	.0157825	.0000000	.0053587	.0000000
00235	.32714	.00000	.00000	-.16545	.10235	.1070224	.0000000	.0280053	.0000000	.0175745	.0000000	.0058426	.0000000
01400	.32015	.00000	.00000	-.15291	.11610	.1024988	.0000000	.0251452	.0000000	.0192878	.0000000	.0062773	.0000000
03036	.31382	.00000	.00000	-.14072	.13006	.0984843	.0000000	.0225497	.0000000	.0209313	.0000000	.0066673	.0000000
04671	.30810	.00000	.00000	-.12889	.14421	.0949250	.0000000	.0201922	.0000000	.0225129	.0000000	.0070167	.0000000
06306	.30294	.00000	.00000	-.11742	.15855	.0917748	.0000000	.0180115	.0000000	.0240396	.0000000	.0073291	.0000000
07942	.29832	.00000	.00000	-.10630	.17308	.0889942	.0000000	.0160103	.0000000	.0255179	.0000000	.0076073	.0000000
09577	.29419	.00000	.00000	-.09551	.18778	.0865495	.0000000	.0141550	.0000000	.0269534	.0000000	.0078539	.0000000
11213	.29054	.00000	.00000	-.08503	.20266	.0844120	.0000000	.0124249	.0000000	.0283514	.0000000	.0080713	.0000000
2848	.28733	.00000	.00000	-.07484	.21771	.0825572	.0000000	.0108017	.0000000	.0297167	.0000000	.0082612	.0000000
4484	.28454	.00000	.00000	-.06491	.23292	.0809645	.0000000	.0092691	.0000000	.0310539	.0000000	.0084253	.0000000
6119	.28216	.00000	.00000	-.05520	.24829	.0796164	.0000000	.0078127	.0000000	.0323671	.0000000	.0085650	.0000000
7755	.28018	.00000	.00000	-.04570	.26382	.0784985	.0000000	.0064191	.0000000	.0336600	.0000000	.0086814	.0000000
9390	.27857	.00000	.00000	-.03636	.27951	.0775991	.0000000	.0050765	.0000000	.0349365	.0000000	.0087754	.0000000
1026	.27732	.00000	.00000	-.02715	.29534	.0769090	.0000000	.0037735	.0000000	.0362000	.0000000	.0088478	.0000000
2661	.27644	.00000	.00000	-.01805	.31133	.0764209	.0000000	.0024997	.0000000	.0374538	.0000000	.0088991	.0000000
4297	.27592	.00000	.00000	-.00901	.32746	.0761300	.0000000	.0012451	.0000000	.0387013	.0000000	.0089297	.0000000
5932	.27574	.00000	.00000	.00000	.34374	.0760334	.0000000	.0000000	.0000000	.0399456	.0000000	.0089399	.0000000

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
7000	.26139	.12105	.28297	.01489	.00096	.0683262	.2829740	.0225015	.0931904	.0000000	.0000000	.0000000	.0000000
5628	.25953	.11289	.26700	.00641	.01482	.0673574	.2669963	.0212582	.0842648	.0009309	.0037733	.0003002	.0012175
4256	.25771	.10521	.25218	-.00053	.02858	.0664125	.2521825	.0200487	.0761291	.0018487	.0073354	.0005836	.0023180
2834	.25592	.09796	.23847	-.00615	.04226	.0654964	.2384665	.0188734	.0687163	.0027537	.0107017	.0008507	.0033117
1511	.25419	.09111	.22578	-.01062	.05586	.0646132	.2257846	.0177323	.0619637	.0036464	.0138869	.0011018	.0042083
0139	.25252	.08463	.21408	-.01411	.06941	.0637659	.2140766	.0166248	.0558131	.0045272	.0169047	.0013375	.0050164
1233	.25091	.07849	.20329	-.01675	.08292	.0629571	.2032856	.0155500	.0502103	.0053966	.0197682	.0015583	.0057438
2605	.24938	.07265	.19336	-.01866	.09640	.0621886	.1933583	.0145069	.0451050	.0062553	.0224896	.0017645	.0063979
3977	.24792	.06709	.18424	-.01993	.10986	.0614620	.1842450	.0134940	.0404510	.0071036	.0250803	.0019566	.0069847
5349	.24653	.06178	.17590	-.02065	.12330	.0607782	.1758993	.0125099	.0362050	.0079423	.0275512	.0021350	.0075107
6722	.24523	.05671	.16828	-.02090	.13674	.0601381	.1682787	.0115529	.0323274	.0087719	.0299126	.0023001	.0079809
0094	.24401	.05185	.16134	-.02074	.15017	.0595422	.1613438	.0106214	.0287812	.0095930	.0321741	.0024523	.0084001
9466	.24288	.04718	.15506	-.02023	.16361	.0589907	.1550587	.0097136	.0255323	.0104063	.0343449	.0025918	.0087728
0839	.24183	.04268	.14939	-.01942	.17706	.0584839	.1493907	.0088276	.0225491	.0112122	.0364337	.0027190	.0091027
2210	.24098	.03834	.14431	-.01835	.19053	.0580218	.1443102	.0079617	.0198021	.0120116	.0384498	.0028342	.0093932
7583	.24001	.03413	.13979	-.01706	.20400	.0576043	.1397906	.0071139	.0172637	.0128049	.0403980	.0029376	.0096475
4955	.23923	.03004	.13581	-.01558	.21750	.0572314	.1358083	.0062826	.0149083	.0135928	.0422889	.0030295	.0098683
6327	.23854	.02606	.13234	-.01395	.23102	.0569028	.1323423	.0054657	.0127119	.0143758	.0441286	.0031101	.0100578
7699	.23795	.02218	.12937	-.01218	.24456	.0566186	.1293743	.0046615	.0106515	.0151547	.0459242	.0031796	.0102181
9071	.23744	.01836	.12689	-.01030	.25813	.0563784	.1268890	.0038681	.0087058	.0159300	.0476824	.0032381	.0103509
0444	.23703	.01462	.12487	-.00834	.27172	.0561821	.1248730	.0030837	.0068540	.0167022	.0494098	.0032858	.0104576
1816	.23671	.01092	.12332	-.00631	.28535	.0560296	.1233160	.0023065	.0050764	.0174721	.0511126	.0033228	.0105395
5188	.23648	.00726	.12221	-.00424	.29900	.0559208	.1222096	.0015347	.0033539	.0182402	.0527971	.0033492	.0105973
6560	.23634	.00362	.12155	-.00213	.31267	.0558555	.1215481	.0007664	.0016679	.0190071	.0544695	.0033650	.0106318
6932	.23629	.00000	.12133	.00000	.32638	.0558337	.1213280	.0000000	.0000000	.0197734	.0561359	.0033702	.0106432

+11.59%   +1.6%   -3.3%

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
721	.14333	.07451	.15108	.11991	.00000	.0205430	.1510823	.0056909	.0417799	.0000000	.0000000	.0000000	.0000000
0569	.14529	.07110	.15063	.11142	.01295	.0211100	.1506345	.0055945	.0399204	.0002400	.0017382	.0000650	.0004707
6383	.14712	.06772	.15003	.10342	.02561	.0216431	.1500297	.0054864	.0380314	.0004863	.0034704	.0001288	.0009198
1735	.14881	.06437	.14930	.09588	.03829	.0221433	.1492987	.0053580	.0361258	.0007385	.0051949	.0001913	.0013470
2887	.15037	.06105	.14847	.08878	.05087	.0226116	.1484688	.0052108	.0342143	.0009964	.0069104	.0002522	.0017523
4040	.15182	.05776	.14756	.08209	.06338	.0230489	.1475646	.0050460	.0323056	.0012594	.0086159	.0003113	.0021355
6192	.15315	.05450	.14661	.07575	.07581	.0234562	.1466079	.0048649	.0304069	.0015274	.0103107	.0003684	.0024968
6344	.15439	.05128	.14562	.06978	.08817	.0239348	.1456180	.0046688	.0285237	.0017998	.0119943	.0004233	.0028363
7496	.15552	.04809	.14461	.06412	.10046	.0241855	.1446123	.0044588	.0266605	.0020765	.0136664	.0004759	.0031542
8649	.15655	.04492	.14361	.05877	.11269	.0245094	.1436061	.0042361	.0248203	.0023570	.0153268	.0005260	.0034508
7801	.15750	.04179	.14261	.05368	.12486	.0248075	.1426129	.0040018	.0230054	.0026411	.0169758	.0005734	.0037264
0953	.15837	.03868	.14164	.04885	.13697	.0250807	.1416447	.0037569	.0212171	.0029286	.0186135	.0006181	.0039811
2105	.15915	.03560	.14071	.04425	.14903	.0253299	.1407122	.0035023	.0194561	.0032190	.0202402	.0006599	.0042155
3258	.15986	.03254	.13982	.03986	.16104	.0255559	.1398245	.0032391	.0177222	.0035121	.0218564	.0006989	.0044297
4410	.16050	.02951	.13899	.03565	.17300	.0257596	.1389900	.0029681	.0160150	.0038078	.0234627	.0007345	.0046240
5562	.16106	.02649	.13822	.03162	.18491	.0259416	.1382156	.0026902	.0143332	.0041056	.0250597	.0007671	.0047989
6714	.16156	.02350	.13751	.02774	.19677	.0261027	.1375076	.0024061	.0126753	.0044055	.0266482	.0007965	.0049545
7867	.16200	.02052	.13687	.02398	.20859	.0262434	.1368714	.0021167	.0110396	.0047071	.0282290	.0008226	.0050911
9019	.16237	.01756	.13631	.02035	.22037	.0263642	.1363113	.0018227	.0094238	.0050101	.0298029	.0008453	.0052090
0171	.16268	.01462	.13583	.01681	.23211	.0264657	.1358313	.0015247	.0078255	.0053145	.0313707	.0008645	.0053084
323	.16294	.01168	.13543	.01335	.24380	.0265482	.1354344	.0012236	.0062421	.0056199	.0329335	.0008804	.0053894
476	.16313	.00875	.13512	.00996	.25546	.0266120	.1351232	.0009199	.0046708	.0059262	.0344923	.0008927	.0054523
628	.16327	.00583	.13490	.00661	.26708	.0266574	.1348996	.0006143	.0031087	.0062331	.0360479	.0009016	.0054971
780	.16335	.00291	.13476	.00330	.27866	.0266846	.1347649	.0003075	.0015529	.0065404	.0376015	.0009069	.0055240
932	.16338	.00000	.13472	.00000	.29020	.0266936	.1347199	.0000000	.0000000	.0068479	.0391541	.0009086	.0055329
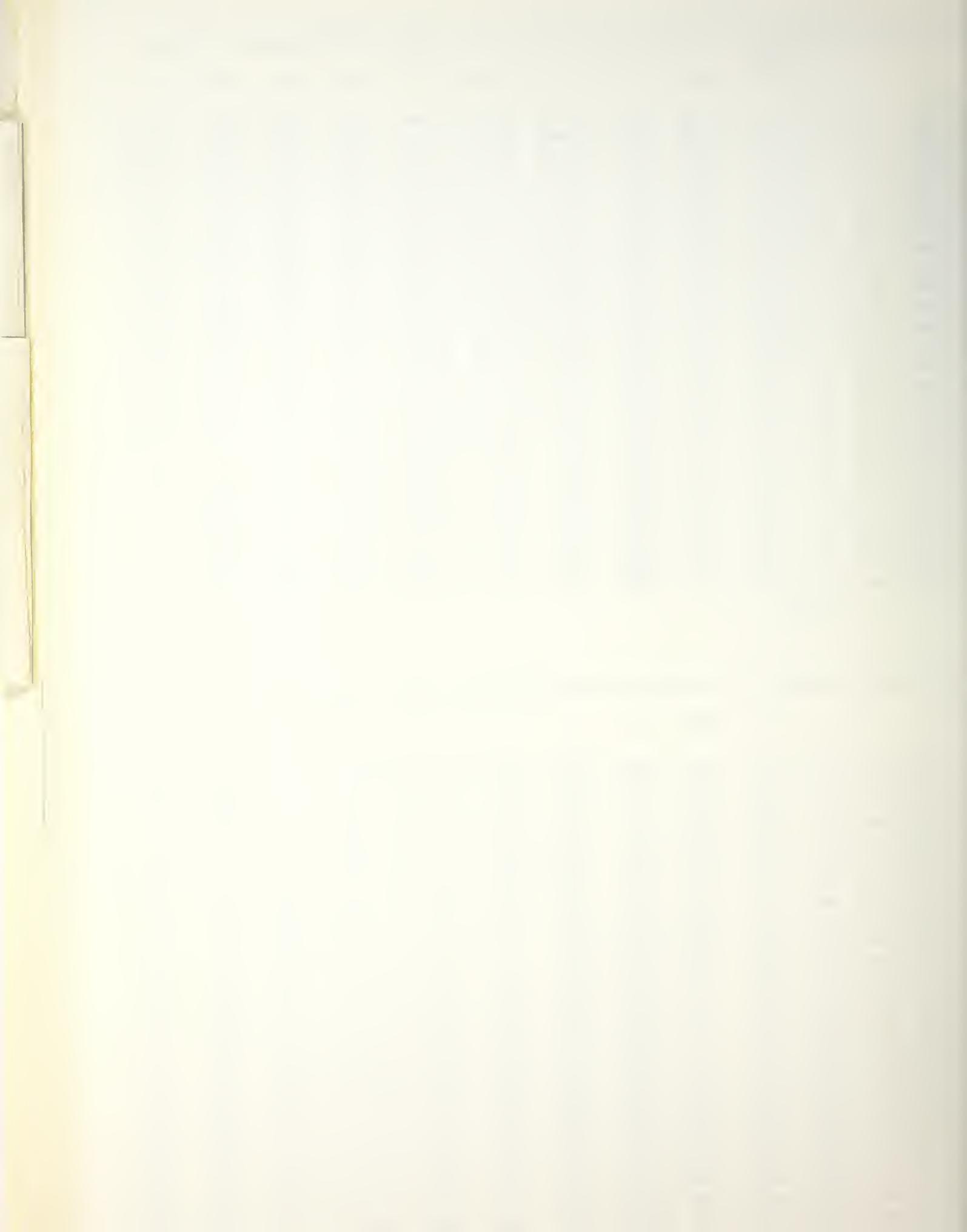
839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT=2.85569, CRITER., EULER   *K   (K*G)^.5   *K   DEGREES

	*K	(K*G)^.5	*K	DEGREES
+	-.01823	4.51303	3.14159	180.00
+	-.01823	4.41901	3.07614	176.25
+	-.01824	4.32499	3.01069	172.50
+	-.01822	4.23097	2.94524	168.75
+	-.01820	4.13695	2.87979	165.00
+	-.01821	4.04293	2.81434	161.25
+	-.01826	3.94890	2.74889	157.50
+	-.01827	3.85488	2.68344	153.75
+	-.01822	3.76086	2.61799	150.00
+	-.01816	3.66684	2.55254	146.25
+	-.01817	3.57282	2.48709	142.50
+	-.01825	3.47880	2.42164	138.75
+	-.01830	3.38478	2.35619	135.00
+	-.01824	3.29075	2.29074	131.25
+	-.01812	3.19673	2.22529	127.50
+	-.01808	3.10271	2.15984	123.75
+	-.01819	3.00969	2.09440	120.00
+	-.01829	2.91467	2.02995	116.25
+	-.01824	2.82065	1.96350	112.50
+	-.01805	2.72662	1.89805	108.75
+	-.01790	2.63260	1.83260	105.00
+	-.01795	2.53858	1.76715	101.25
+	-.01809	2.44456	1.70170	97.50
+	-.01806	2.35054	1.63625	93.75
+	-.01775	2.25652	1.57080	90.00
+	-.01738	2.16250	1.50535	86.25
+	-.01722	2.06847	1.43990	82.50
+	-.01724	1.97445	1.37445	78.75
+	-.01707	1.88043	1.30900	75.00
+	-.01645	1.78641	1.24355	71.25
+	-.01551	1.69239	1.17810	67.50
+	-.01464	1.59837	1.11265	63.75
+	-.01394	1.50434	1.04720	60.00
+	-.01297	1.41032	.98175	56.25
+	-.01116	1.31630	.91630	52.50
+	-.00840	1.22228	.85085	48.75
+	-.00513	1.12826	.78540	45.00
+	-.00161	1.03424	.71995	41.25
+	.00267	.94022	.65450	37.50
+	.00873	.84619	.58905	33.75
+	.01721	.75217	.52360	30.00
+	.02778	.65815	.45815	26.25
+	.03979	.56413	.39270	22.50
+	.05348	.47011	.32725	18.75
+	.07000	.37609	.26180	15.00
+	.08981	.28206	.19635	11.25
+	.11055	.18804	.13090	7.50
+	.12692	.09402	.06545	3.75
+	.13319	.00000	.00000	.00

-.01830

39 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT=2.85569, CRITER., EULER

Handwritten annotations:
H=1.25M
$U(0) = 3.732 - 1 = 2.732$ (1%)
$V(s) = 1.089\ m/s$ (1%)

U	V	DIST.	ANGLE
*SQRT(K/G)	*K		DEGREES
.07805	.00000	3.14159	180.00
.07805	.00000	3.07614	176.25
.07805	.00000	3.01069	172.50
.07805	.00000	2.94524	168.75
.07805	.00000	2.87979	165.00
.07805	.00001	2.81434	161.25
.07805	.00001	2.74889	157.50
.07805	.00001	2.68344	153.75
.07805	.00002	2.61799	150.00
.07806	.00002	2.55254	146.25
.07806	.00003	2.48709	142.50
.07806	.00003	2.42164	138.75
.07807	.00005	2.35619	135.00
.07808	.00006	2.29074	131.25
.07809	.00008	2.22529	127.50
.07811	.00010	2.15984	123.75
.07813	.00014	2.09440	120.00
.07816	.00019	2.02895	116.25
.07819	.00024	1.96350	112.50
.07824	.00032	1.89805	108.75
.07830	.00041	1.83260	105.00
.07838	.00054	1.76715	101.25
.07849	.00072	1.70170	97.50
.07863	.00094	1.63625	93.75
.07882	.00124	1.57080	90.00
.07907	.00164	1.50535	86.25
.07939	.00215	1.43990	82.50
.07982	.00282	1.37445	78.75
.08039	.00371	1.30900	75.00
.08113	.00497	1.24355	71.25
.08211	.00639	1.17810	67.50
.08340	.00835	1.11265	63.75
.08512	.01089	1.04720	60.00
.08740	.01417	.98175	56.25
.09039	.01839	.91630	52.50
.09431	.02379	.85085	48.75
.09951	.03056	.78540	45.00
.10645	.03888	.71995	41.25
.11566	.04891	.65450	37.50
.12770	.06081	.58905	33.75
.14333	.07451	.52360	30.00
.16359	.08930	.45815	26.25
.18962	.10356	.39270	22.50
.22214	.11501	.32725	18.75
.26139	.12105	.26180	15.00
.30707	.11789	.19635	11.25
.35607	.09911	.13090	7.50
.39772	.05859	.06545	3.75
.41475	.00000	.00000	.00

.00000

839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT=2.85569, CRITER., EULER

Ax *1/G	Ay *1/G	DIST. *K	ANGLE DEGREES
.00000	.00001	3.14159	180.00
.00000	.00001	3.07614	176.25
.00000	.00001	3.01069	172.50
.00001	.00001	2.94524	168.75
.00001	.00001	2.87979	165.00
.00001	.00002	2.81434	161.25
.00001	.00003	2.74889	157.50
.00002	.00003	2.68344	153.75
.00003	.00004	2.61799	150.00
.00003	.00005	2.55254	146.25
.00004	.00006	2.48709	142.50
.00005	.00009	2.42164	138.75
.00007	.00013	2.35619	135.00
.00011	.00016	2.29074	131.25
.00014	.00020	2.22529	127.50
.00017	.00026	2.15984	123.75
.00021	.00036	2.09440	120.00
.00029	.00048	2.02895	116.25
.00040	.00063	1.96350	112.50
.00052	.00081	1.89805	108.75
.00067	.00106	1.83260	105.00
.00087	.00141	1.76715	101.25
.00115	.00187	1.70170	97.50
.00154	.00246	1.63625	93.75
.00204	.00322	1.57080	90.00
.00267	.00420	1.50535	86.25
.00349	.00552	1.43990	82.50
.00460	.00726	1.37445	78.75
.00609	.00951	1.30900	75.00
.00804	.01240	1.24355	71.25
.01056	.01612	1.17810	67.50
.01386	.02090	1.11265	63.75
.01827	.02699	1.04720	60.00
.02413	.03461	.98175	56.25
.03180	.04400	.91630	52.50
.04171	.05532	.85085	48.75
.05456	.06853	.78540	45.00
.07126	.08307	.71995	41.25
.09265	.09784	.65450	37.50
.11922	.11107	.58905	33.75
.15108	.11991	.52360	30.00
.18745	.11983	.45815	26.25
.22544	.10503	.39270	22.50
.25967	.07074	.32725	18.75
.28297	.01488	.26180	15.00
.28493	-.06186	.19635	11.25
.24727	-.15247	.13090	7.50
.14977	-.23379	.06545	3.75
.00000	-.26789	.00000	.00

3%

-.26789   -2%

STEADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
M. M. RIENECKER AND J. D. FENTON.

EPTH: FINITE, HEIGHT/DEPTH= .5839

WE HEIGHT 1.858611E-03,DIMENSIONLESS WITH RESPECT TO PERIOD

URRENT CRITERION: EULER , MAGNITUDE= -.14

LUTION OF ORDER 18 NON-DIMENSIONALIZED BY WAVE NUMBER, 2 HEIGHT STEP(S).

ATER DEPTH   .35115

AVE HEIGHT   .20504

AVE PERIOD   10.503

AVE SPEED   .59821

EAN EULERIAN FLUID SPEED   -6.46543E-02

EAN MASS TRANSPORT SPEED   -4.99257E-02

AN FLUID SPEED RELATIVE TO WAVE   .66297

LUME FLUX DUE TO WAVES   5.17194E-03

RNOULLI CONSTANT   .22236

UTION VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .5839, WAVE HEIGHT=1.85861E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.17293	.28377	.00000	.00000	-.27671	.00000	.0805248	.0000000	.0422011	.0000000	.0000000	.0000000	.0000000	.0000000
.15109	.26546	.00000	.00000	-.26557	.01591	.0704707	.0000000	.0353932	.0000000	.0016486	.0000000	.0008472	.0000000
.12925	.24885	.00000	.00000	-.25312	.03208	.0619278	.0000000	.0297503	.0000000	.0030942	.0000000	.0015584	.0000000
.10742	.23377	.00000	.00000	-.23987	.04854	.0546476	.0000000	.0250596	.0000000	.0043670	.0000000	.0021569	.0000000
.08558	.22006	.00000	.00000	-.22620	.06528	.0484272	.0000000	.0211496	.0000000	.0054924	.0000000	.0026614	.0000000
.06374	.20760	.00000	.00000	-.21236	.08233	.0430995	.0000000	.0178817	.0000000	.0064917	.0000000	.0030876	.0000000
.04191	.19628	.00000	.00000	-.19856	.09968	.0385269	.0000000	.0151433	.0000000	.0073929	.0000000	.0034481	.0000000
.02007	.18600	.00000	.00000	-.18494	.11733	.0345951	.0000000	.0129424	.0000000	.0081813	.0000000	.0037537	.0000000
-.00176	.17666	.00000	.00000	-.17157	.13528	.0312094	.0000000	.0109041	.0000000	.0088997	.0000000	.0040130	.0000000
-.02360	.16820	.00000	.00000	-.15854	.15351	.0282907	.0000000	.0092665	.0000000	.0095494	.0000000	.0042332	.0000000
-.04544	.16054	.00000	.00000	-.14586	.17202	.0257729	.0000000	.0078791	.0000000	.0101396	.0000000	.0044204	.0000000
-.06727	.15363	.00000	.00000	-.13356	.19081	.0236007	.0000000	.0066996	.0000000	.0106787	.0000000	.0045796	.0000000
-.08911	.14740	.00000	.00000	-.12163	.20986	.0217277	.0000000	.0056935	.0000000	.0111736	.0000000	.0047149	.0000000
-.11095	.14183	.00000	.00000	-.11008	.22917	.0201150	.0000000	.0048317	.0000000	.0116305	.0000000	.0048298	.0000000
-.13278	.13686	.00000	.00000	-.09887	.24872	.0187299	.0000000	.0040899	.0000000	.0120546	.0000000	.0049272	.0000000
-.15462	.13246	.00000	.00000	-.08800	.26852	.0175448	.0000000	.0034461	.0000000	.0124506	.0000000	.0050095	.0000000
-.17646	.12860	.00000	.00000	-.07743	.28855	.0165369	.0000000	.0028889	.0000000	.0128228	.0000000	.0050787	.0000000
-.19829	.12525	.00000	.00000	-.06714	.30881	.0156869	.0000000	.0023978	.0000000	.0131746	.0000000	.0051364	.0000000
-.22013	.12239	.00000	.00000	-.05709	.32929	.0149791	.0000000	.0019625	.0000000	.0135094	.0000000	.0051840	.0000000
-.24197	.12000	.00000	.00000	-.04725	.34999	.0144003	.0000000	.0015723	.0000000	.0138302	.0000000	.0052226	.0000000
-.26380	.11807	.00000	.00000	-.03759	.37050	.0139403	.0000000	.0012176	.0000000	.0141396	.0000000	.0052531	.0000000
-.28564	.11658	.00000	.00000	-.02807	.39202	.0135906	.0000000	.0008903	.0000000	.0144402	.0000000	.0052761	.0000000
-.30748	.11552	.00000	.00000	-.01865	.41334	.0133451	.0000000	.0005828	.0000000	.0147343	.0000000	.0052922	.0000000
-.32931	.11489	.00000	.00000	-.00931	.43488	.0131995	.0000000	.0002982	.0000000	.0150241	.0000000	.0053017	.0000000
-.35115	.11468	.00000	.00000	.00000	.45661	.0131513	.0000000	.0000000	.0000000	.0153118	.0000000	.0053048	.0000000
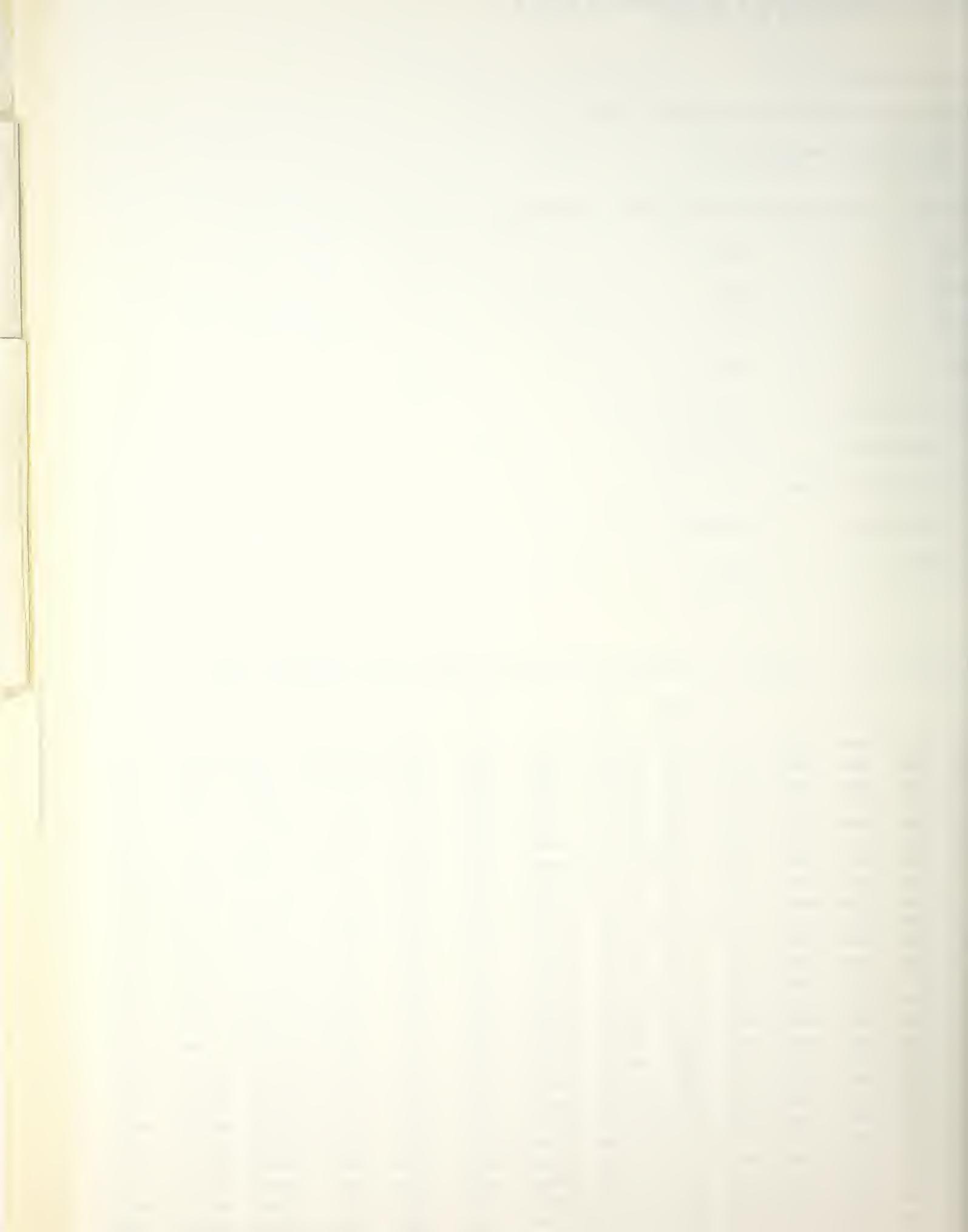
TION VS DEPTH, THETA= 15.00 DEGREES, KX= .2618 RADIANS, H/d= .5839, WAVE HEIGHT=1.85861E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.11164	.15004	.14030	.29566	-.05607	.00046	.0225134	.2956587	.0104189	.1368266	.0000000	.0000000	.0000000	.0000000
.09235	.14438	.12980	.27509	-.06144	.01860	.0208460	.2750878	.0092453	.1220023	.0004180	.0055028	.0001896	.0024955
.07307	.13904	.12005	.25625	-.06504	.03667	.0193308	.2562456	.0082005	.1087046	.0008054	.0106256	.0003578	.0047198
.05379	.13400	.11097	.23901	-.06717	.05467	.0179557	.2390072	.0072709	.0967830	.0011649	.0154005	.0005070	.0067010
.03451	.12926	.10251	.22325	-.06809	.07265	.0167092	.2232542	.0064440	.0860991	.0014991	.0198573	.0006392	.0084642
.01522	.12482	.09460	.20888	-.06800	.09062	.0155805	.2088759	.0057083	.0765263	.0018104	.0240236	.0007564	.0100321
-.00406	.12066	.08719	.19577	-.06708	.10860	.0145599	.1957690	.0050536	.0679493	.0021010	.0279250	.0008601	.0114251
-.02334	.11678	.08024	.18384	-.06548	.12660	.0136383	.1838382	.0044707	.0602634	.0023729	.0315849	.0009519	.0126612
-.04262	.11317	.07370	.17300	-.06332	.14464	.0128074	.1729962	.0039514	.0533735	.0026279	.0350253	.0010331	.0137568
-.06191	.10982	.06753	.16316	-.06070	.16273	.0120597	.1631629	.0034881	.0471934	.0028676	.0382663	.0011049	.0147264
-.08119	.10672	.06170	.15427	-.05771	.18087	.0113883	.1542655	.0030744	.0416453	.0030937	.0413268	.0011681	.0155830
-.10047	.10386	.05616	.14624	-.05440	.19907	.0107870	.1462381	.0027040	.0366583	.0033075	.0442240	.0012238	.0163379
-.11976	.10124	.05090	.13902	-.05085	.21734	.0102504	.1390212	.0023719	.0321685	.0035103	.0469743	.0012728	.0170015
-.13904	.09886	.04589	.13256	-.04709	.23567	.0097733	.1325613	.0020730	.0281176	.0037034	.0495927	.0013156	.0175828
-.15832	.09670	.04107	.12681	-.04318	.25409	.0093515	.1268109	.0018032	.0244526	.0038878	.0520934	.0013530	.0180896
-.17760	.09477	.03645	.12173	-.03913	.27258	.0089808	.1217275	.0015586	.0211252	.0040645	.0544897	.0013854	.0185290
-.19689	.09305	.03200	.11727	-.03498	.29114	.0086579	.1172738	.0013356	.0180909	.0042346	.0567940	.0014133	.0189071
-.21617	.09154	.02770	.11342	-.03075	.30979	.0083798	.1134172	.0011311	.0153090	.0043988	.0590182	.0014371	.0192292
-.23545	.09024	.02352	.11013	-.02645	.32852	.0081437	.1101296	.0009422	.0127416	.0045581	.0611735	.0014571	.0194996
-.25474	.08915	.01944	.10739	-.02211	.34734	.0079476	.1073870	.0007663	.0103536	.0047133	.0632706	.0014736	.0197223
-.27402	.08826	.01545	.10517	-.01773	.36624	.0077897	.1051697	.0006008	.0081118	.0048650	.0653200	.0014868	.0199003
-.29330	.08757	.01153	.10346	-.01332	.38522	.0076683	.1034614	.0004436	.0059851	.0050141	.0673314	.0014968	.0200362
-.31258	.08708	.00766	.10225	-.00889	.40429	.0075824	.1022499	.0002924	.0039433	.0051611	.0693148	.0015039	.0201319
-.33187	.08678	.00382	.10153	-.00445	.42344	.0075312	.1015265	.0001452	.0019577	.0053068	.0712795	.0015081	.0201888
-.35115	.08668	.00000	.10129	.00000	.44268	.0075142	.1012860	.0000000	.0000000	.0054519	.0732349	.0015095	.0202077

TION VS DEPTH, THETA= 30.00 DEGREES, KX= .5236 RADIANS, H/d= .5839, WAVE HEIGHT=1.85861E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.04300	.01141	.11999	.22729	.11131	.00000	.0001303	.2272912	.0000513	.0895864	.0000000	.0000000	.0000000	.0000000
.02658	.01305	.11338	.22076	.09988	.01816	.0001704	.2207635	.0000644	.0833880	.0000025	.0036792	.0000010	.0014204
.01015	.01451	.10700	.21446	.08955	.03613	.0002105	.2144626	.0000761	.0774859	.0000056	.0072530	.0000021	.0027414
-.00627	.01580	.10081	.20841	.08022	.05395	.0002495	.2084062	.0000861	.0718751	.0000094	.0107253	.0000034	.0039678
-.02269	.01693	.09482	.20261	.07179	.07162	.0002867	.2026083	.0000942	.0665481	.0000138	.0141004	.0000049	.0051045
-.03911	.01793	.08901	.19708	.06418	.08916	.0003216	.1970795	.0001004	.0614955	.0000188	.0173924	.0000065	.0061559
-.05554	.01881	.08337	.19183	.05730	.10658	.0003540	.1918280	.0001046	.0567065	.0000243	.0205758	.0000082	.0071265
-.07196	.01959	.07790	.18686	.05108	.12389	.0003836	.1868598	.0001071	.0521691	.0000304	.0236854	.0000099	.0080205
-.08838	.02026	.07257	.18213	.04546	.14110	.0004106	.1821787	.0001079	.0478703	.0000369	.0267157	.0000117	.0088420
-.10481	.02085	.06738	.17779	.04038	.15823	.0004349	.1777875	.0001071	.0437966	.0000438	.0296716	.0000135	.0095947
-.12123	.02137	.06232	.17369	.03578	.17528	.0004566	.1736872	.0001050	.0399341	.0000512	.0325577	.0000152	.0102823
-.13765	.02181	.05738	.16988	.03161	.19225	.0004758	.1698785	.0001016	.0362685	.0000588	.0353788	.0000169	.0109080
-.15407	.02220	.05256	.16636	.02784	.20916	.0004928	.1663607	.0000971	.0327854	.0000668	.0381398	.0000185	.0114750
-.17050	.02253	.04783	.16313	.02441	.22601	.0005077	.1631331	.0000917	.0294702	.0000750	.0408455	.0000201	.0119862
-.18692	.02282	.04319	.16019	.02128	.24281	.0005206	.1601942	.0000855	.0263084	.0000834	.0435004	.0000215	.0124442
-.20334	.02306	.03864	.15754	.01843	.25956	.0005317	.1575425	.0000786	.0232856	.0000921	.0461095	.0000229	.0128515
-.21977	.02326	.03416	.15518	.01582	.27626	.0005412	.1551761	.0000711	.0203875	.0001009	.0486774	.0000241	.0132101
-.23619	.02344	.02975	.15309	.01341	.29293	.0005492	.1530933	.0000631	.0175996	.0001098	.0512087	.0000252	.0135220
-.25261	.02358	.02540	.15129	.01118	.30955	.0005559	.1512923	.0000548	.0149079	.0001189	.0537081	.0000262	.0137890
-.26903	.02369	.02109	.14977	.00909	.32614	.0005613	.1497716	.0000461	.0122984	.0001281	.0561803	.0000270	.0140124
-.28546	.02378	.01682	.14853	.00713	.34270	.0005656	.1485295	.0000372	.0097571	.0001373	.0586298	.0000277	.0141935
-.30188	.02385	.01259	.14756	.00527	.35922	.0005689	.1475648	.0000280	.0072703	.0001467	.0610611	.0000282	.0143333
-.31830	.02390	.00838	.14688	.00347	.37571	.0005712	.1468765	.0000188	.0048243	.0001560	.0634789	.0000286	.0144326
-.33473	.02393	.00419	.14646	.00172	.39218	.0005726	.1464638	.0000094	.0024054	.0001654	.0658876	.0000288	.0144920
-.35115	.02394	.00000	.14633	.00000	.40862	.0005730	.1463263	.0000000	.0000000	.0001748	.0682919	.0000289	.0145117
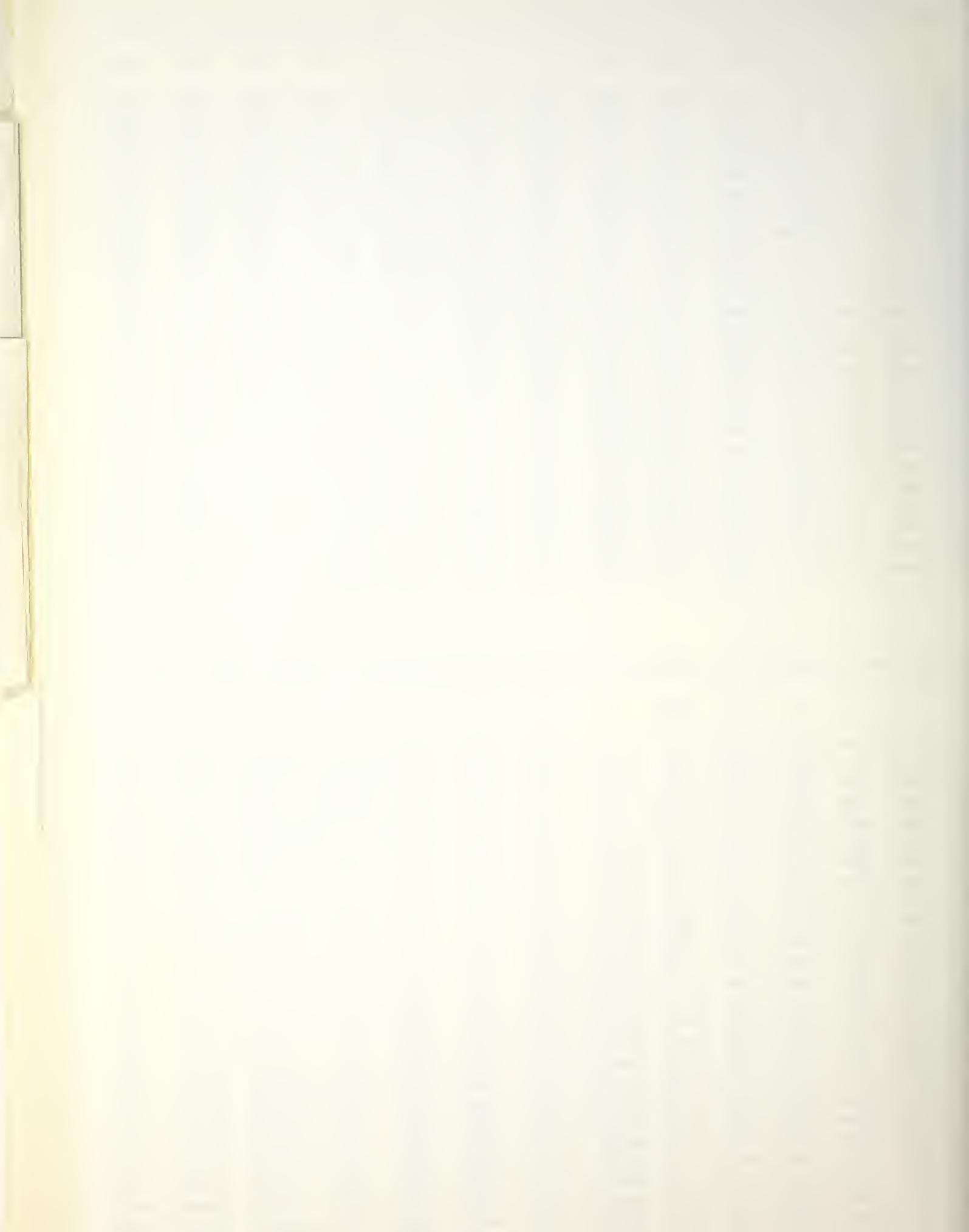
=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT=-1.4279, CRITER., EULER   *K   (K*G)^.5   *K   DEGREES

*K	(K*G)^.5	*K	DEGREES
-.03211	5.25163	3.14159	180.00
-.03211	5.14222	3.07614	176.25
-.03211	5.03281	3.01069	172.50
-.03210	4.92340	2.94524	168.75
-.03208	4.81399	2.87979	165.00
-.03208	4.70458	2.81434	161.25
-.03209	4.59517	2.74889	157.50
-.03209	4.48577	2.68344	153.75
-.03204	4.37636	2.61799	150.00
-.03198	4.26695	2.55254	146.25
-.03195	4.15754	2.48709	142.50
-.03196	4.04813	2.42164	138.75
-.03195	3.93872	2.35619	135.00
-.03186	3.82931	2.29074	131.25
-.03172	3.71990	2.22529	127.50
-.03162	3.61049	2.15984	123.75
-.03157	3.50108	2.09440	120.00
-.03151	3.39168	2.02895	116.25
-.03133	3.28227	1.96350	112.50
-.03103	3.17286	1.89805	108.75
-.03071	3.06345	1.83260	105.00
-.03046	2.95404	1.76715	101.25
-.03019	2.84463	1.70170	97.50
-.02975	2.73522	1.63625	93.75
-.02906	2.62581	1.57080	90.00
-.02822	2.51640	1.50535	86.25
-.02736	2.40700	1.43990	82.50
-.02645	2.29759	1.37445	78.75
-.02523	2.18818	1.30900	75.00
-.02351	2.07877	1.24355	71.25
-.02133	1.96936	1.17810	67.50
-.01886	1.85995	1.11265	63.75
-.01610	1.75054	1.04720	60.00
-.01272	1.64113	.98175	56.25
-.00833	1.53172	.91630	52.50
-.00281	1.42232	.85085	48.75
.00369	1.31291	.78540	45.00
.01108	1.20350	.71995	41.25
.01973	1.09409	.65450	37.50
.03025	.98468	.58905	33.75
.04300	.87527	.52360	30.00
.05777	.76586	.45815	26.25
.07411	.65645	.39270	22.50
.09198	.54704	.32725	18.75
.11164	.43764	.26180	15.00
.13263	.32823	.19635	11.25
.15260	.21882	.13090	7.50
.16741	.10941	.06545	3.75
.17293	.00000	.00000	.00

-.03211

=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT=-1.4278, CRITER., EULER

U $*SQRT(K/G)$	V	DIST. $*K$	ANGLE DEGREES
-.11520	.00000	3.14159	180.00
-.11520	.00002	3.07614	176.25
-.11519	.00004	3.01069	172.50
-.11518	.00006	2.94524	168.75
-.11517	.00009	2.87979	165.00
-.11516	.00012	2.81434	161.25
-.11514	.00015	2.74889	157.50
-.11512	.00019	2.68344	153.75
-.11509	.00024	2.61799	150.00
-.11506	.00030	2.55254	146.25
-.11502	.00037	2.48709	142.50
-.11496	.00046	2.42164	138.75
-.11490	.00057	2.35619	135.00
-.11481	.00071	2.29074	131.25
-.11471	.00087	2.22529	127.50
-.11459	.00108	2.15984	123.75
-.11443	.00133	2.09440	120.00
-.11424	.00163	2.02895	116.25
-.11401	.00201	1.96350	112.50
-.11372	.00248	1.89805	108.75
-.11336	.00305	1.83260	105.00
-.11292	.00375	1.76715	101.25
-.11237	.00461	1.70170	97.50
-.11170	.00567	1.63625	93.75
-.11087	.00697	1.57080	90.00
-.10985	.00856	1.50535	86.25
-.10858	.01049	1.43990	82.50
-.10701	.01284	1.37445	78.75
-.10507	.01569	1.30900	75.00
-.10268	.01915	1.24355	71.25
-.09973	.02333	1.17810	67.50
-.09608	.02832	1.11265	63.75
-.09153	.03424	1.04720	60.00
-.08591	.04121	.98175	56.25
-.07898	.04938	.91630	52.50
-.07045	.05882	.85085	48.75
-.05992	.06951	.78540	45.00
-.04694	.08128	.71995	41.25
-.03103	.09389	.65450	37.50
-.01175	.10700	.58905	33.75
.01141	.11999	.52360	30.00
.03903	.13170	.45815	26.25
.07146	.14036	.39270	22.50
.10864	.14397	.32725	18.75
.15004	.14030	.26180	15.00
.19428	.12650	.19635	11.25
.23736	.09887	.13090	7.50
.27082	.05529	.06545	3.75
.28377	.00000	.00000	.00

-.11520
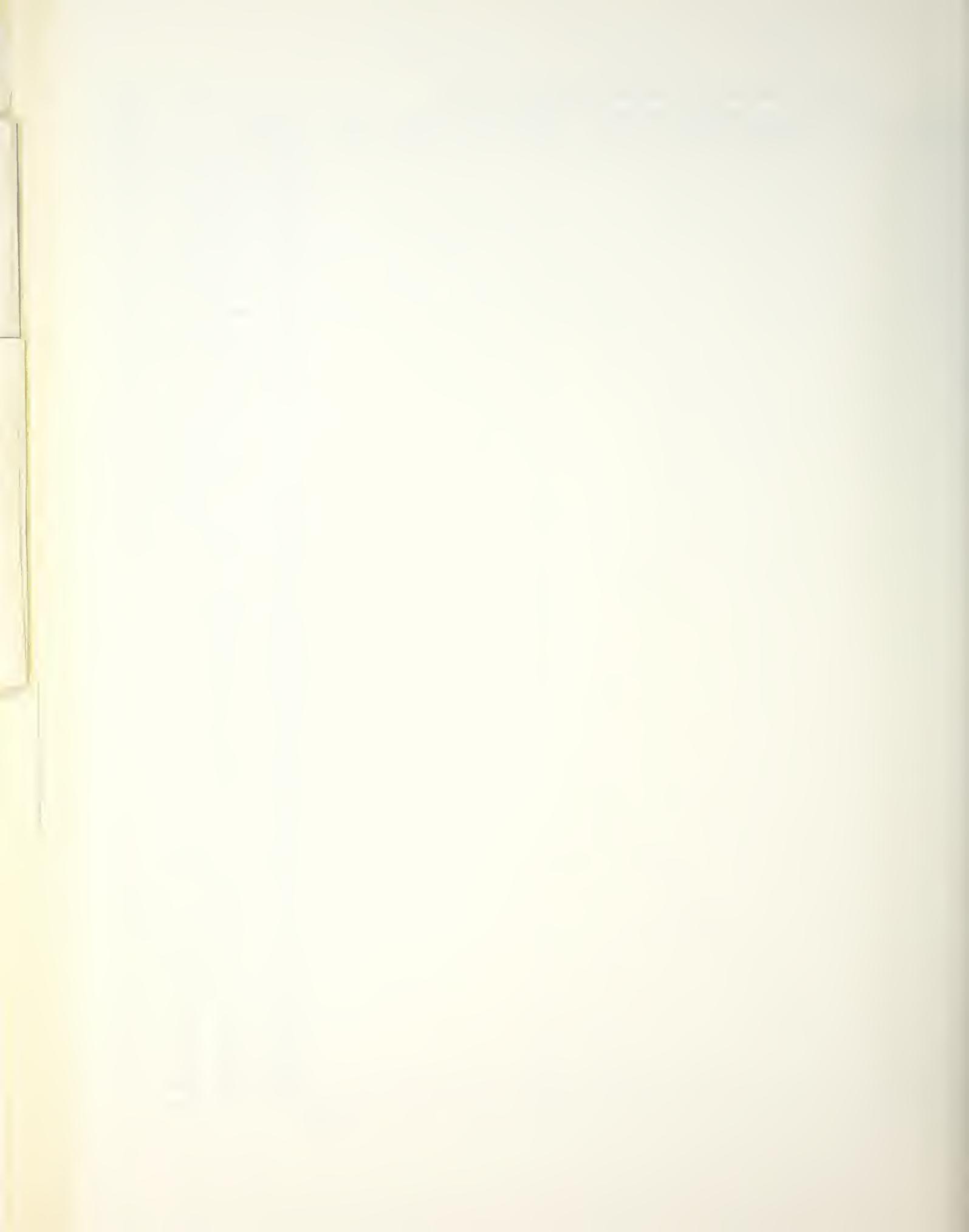
	Ax	Ay	DIST.	ANGLE

.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT=-1.4278, CRITER., EULER

	*1/6	*1/6	*K	DEGREES
	.00000	.00021	3.14159	180.00
	.00003	.00022	3.07614	176.25
	.00006	.00023	3.01069	172.50
	.00009	.00026	2.94524	168.75
	.00012	.00029	2.87979	165.00
	.00016	.00034	2.81434	161.25
	.00021	.00041	2.74889	157.50
	.00027	.00049	2.68344	153.75
	.00034	.00059	2.61799	150.00
	.00042	.00071	2.55254	146.25
	.00052	.00087	2.48709	142.50
	.00065	.00108	2.42164	138.75
	.00080	.00132	2.35619	135.00
	.00100	.00162	2.29074	131.25
	.00123	.00199	2.22529	127.50
	.00151	.00245	2.15984	123.75
	.00186	.00302	2.09440	120.00
	.00230	.00372	2.02895	116.25
	.00284	.00457	1.96350	112.50
	.00351	.00560	1.89805	108.75
	.00431	.00688	1.83260	105.00
	.00531	.00844	1.76715	101.25
	.00656	.01036	1.70170	97.50
	.00810	.01268	1.63625	93.75
	.00999	.01550	1.57080	90.00
	.01231	.01890	1.50535	86.25
	.01516	.02300	1.43990	82.50
	.01871	.02792	1.37445	78.75
	.02309	.03375	1.30900	75.00
	.02846	.04060	1.24355	71.25
	.03503	.04858	1.17810	67.50
	.04309	.05771	1.11265	63.75
	.05299	.06793	1.04720	60.00
	.06507	.07907	.98175	56.25
	.07962	.09080	.91630	52.50
	.09697	.10253	.85085	48.75
	.11745	.11322	.78540	45.00
	.14119	.12134	.71995	41.25
	.16795	.12509	.65450	37.50
	.19707	.12249	.58905	33.75
	.22729	.11131	.52360	30.00
	.25635	.08905	.45815	26.25
	.28061	.05372	.39270	22.50
	.29546	.00488	.32725	18.75
	.29566	-.05607	.26180	15.00
	.27398	-.12581	.19635	11.25
	.22007	-.19691	.13090	7.50
	.12579	-.25410	.06545	3.75
	.00000	-.27671	.00000	.00

-.27671
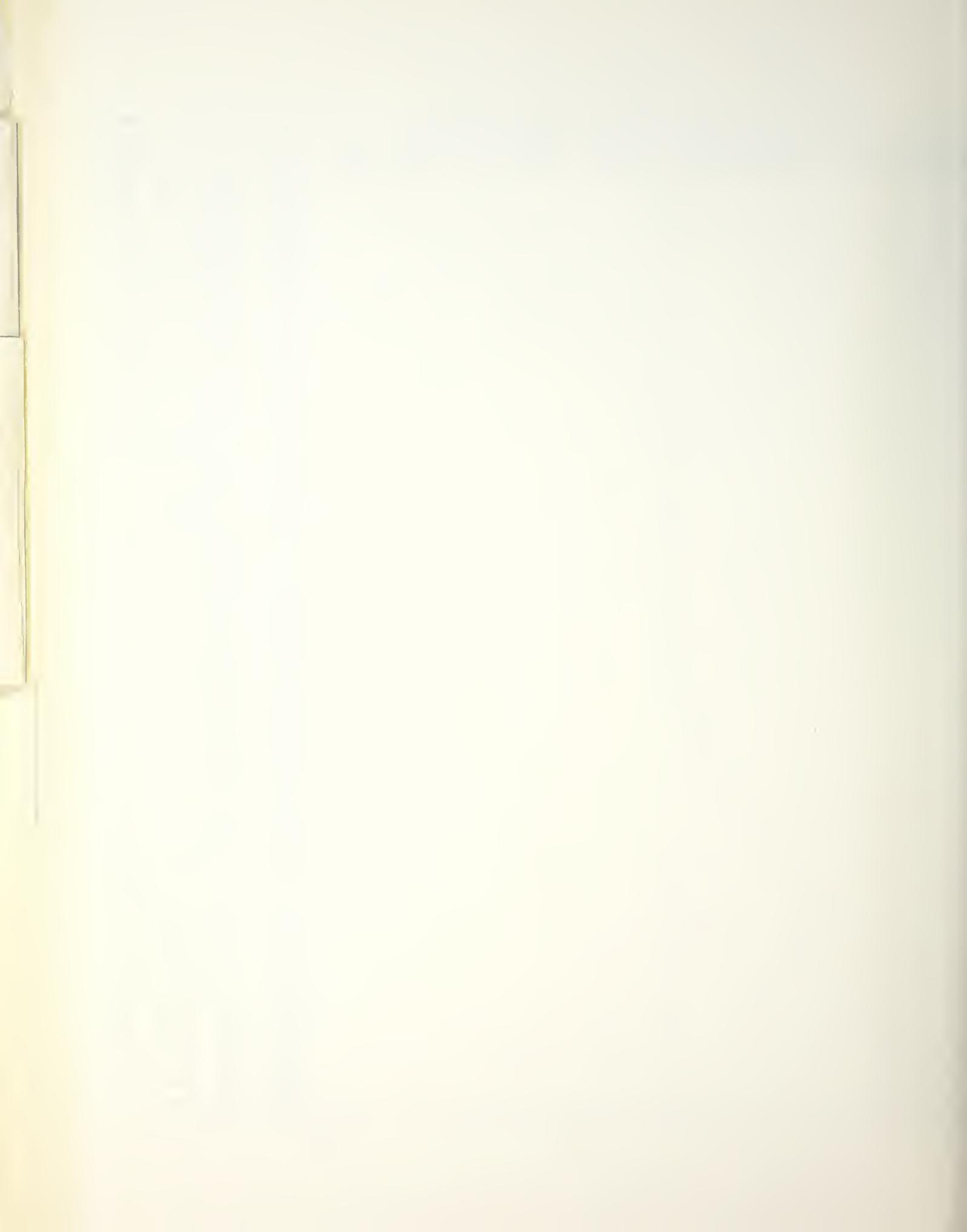
STEADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
          M. M. RIENECKER AND J. D. FENTON.

DEPTH: FINITE, HEIGHT/DEPTH= .5839

WAVE HEIGHT 1.858611E-03,DIMENSIONLESS WITH RESPECT TO PERIOD

CURRENT CRITERION: EULER , MAGNITUDE= -.29

n order

SOLUTION, NON-DIMENSIONALIZED BY WAVENUMBER ,2 HT STEPS

WATER DEPTH   .40058

WAVE HEIGHT   .23390   -28%   H=1.25m   k=.18712   L=33.6m

WAVE PERIOD   11.218

WAVE SPEED   .56009

MEAN EULERIAN FLUID SPEED   -.13811

MEAN MASS TRANSPORT SPEED   -.12112

MEAN FLUID SPEED RELATIVE TO WAVE   .69820

VOLUME FLUX DUE TO WAVES   6.80472E-03

BERNOULLI CONSTANT   .24696

OLUTION VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .5839, WAVE HEIGHT=1.85861E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.19304	.23170	.00000	.00000	-.28133	.00000	.0536966	.0000000	.0318693	.0000000	.0000000	.0000000	.0000000	.0000000
.16830	.21154	.00000	.00000	-.27035	.01791	.0447474	.0000000	.0254560	.0000000	.0012173	.0000000	.0007089	.0000000
.14357	.19327	.00000	.00000	-.25789	.03611	.0373515	.0000000	.0203248	.0000000	.0022327	.0000000	.0012751	.0000000
.11984	.17670	.00000	.00000	-.24453	.05463	.0312219	.0000000	.0162171	.0000000	.0030807	.0000000	.0017270	.0000000
.09410	.16166	.00000	.00000	-.23066	.07348	.0261347	.0000000	.0129283	.0000000	.0037900	.0000000	.0020875	.0000000
.06937	.14901	.00000	.00000	-.21659	.09269	.0219079	.0000000	.0102955	.0000000	.0043842	.0000000	.0023747	.0000000
.04463	.13562	.00000	.00000	-.20253	.11224	.0183932	.0000000	.0081889	.0000000	.0043926	.0000000	.0026033	.0000000
.01990	.12437	.00000	.00000	-.18863	.13213	.0154671	.0000000	.0065044	.0000000	.0053013	.0000000	.0027950	.0000000
-.00483	.11419	.00000	.00000	-.17498	.15237	.0130360	.0000000	.0051589	.0000000	.0056539	.0000000	.0029292	.0000000
-.02957	.10494	.00000	.00000	-.16167	.17294	.0110116	.0000000	.0040854	.0000000	.0059515	.0000000	.0030436	.0000000
-.05430	.09658	.00000	.00000	-.14872	.19384	.0093279	.0000000	.0032300	.0000000	.0062028	.0000000	.0031340	.0000000
-.07904	.08904	.00000	.00000	-.13615	.21505	.0079287	.0000000	.0025494	.0000000	.0064162	.0000000	.0032055	.0000000
-.10377	.08226	.00000	.00000	-.12397	.23657	.0067674	.0000000	.0020086	.0000000	.0065980	.0000000	.0032619	.0000000
-.12850	.07619	.00000	.00000	-.11218	.25838	.0058053	.0000000	.0015795	.0000000	.0067535	.0000000	.0033062	.0000000
-.15324	.07078	.00000	.00000	-.10074	.28048	.0050102	.0000000	.0012392	.0000000	.0068872	.0000000	.0033411	.0000000
-.17797	.06600	.00000	.00000	-.08965	.30286	.0043554	.0000000	.0009695	.0000000	.0070030	.0000000	.0033684	.0000000
-.20271	.06180	.00000	.00000	-.07987	.32551	.0038188	.0000000	.0007556	.0000000	.0071041	.0000000	.0033898	.0000000
-.22744	.05916	.00000	.00000	-.06838	.34843	.0033822	.0000000	.0005856	.0000000	.0071932	.0000000	.0034063	.0000000
-.25217	.05505	.00000	.00000	-.05814	.37160	.0030305	.0000000	.0004497	.0000000	.0072725	.0000000	.0034191	.0000000
-.27691	.05246	.00000	.00000	-.04811	.39502	.0027516	.0000000	.0003403	.0000000	.0073440	.0000000	.0034299	.0000000
-.30164	.05036	.00000	.00000	-.03827	.41868	.0025358	.0000000	.0002509	.0000000	.0074094	.0000000	.0034362	.0000000
-.32638	.04874	.00000	.00000	-.02857	.44259	.0023754	.0000000	.0001763	.0000000	.0074701	.0000000	.0034415	.0000000
-.35111	.04759	.00000	.00000	-.01899	.46674	.0022647	.0000000	.0001120	.0000000	.0075275	.0000000	.0034451	.0000000
-.37584	.04690	.00000	.00000	-.00948	.49112	.0021999	.0000000	.0000544	.0000000	.0075827	.0000000	.0034471	.0000000
-.40058	.04667	.00000	.00000	.00000	.51574	.0021785	.0000000	.0000000	.0000000	.0076369	.0000000	.0034479	.0000000
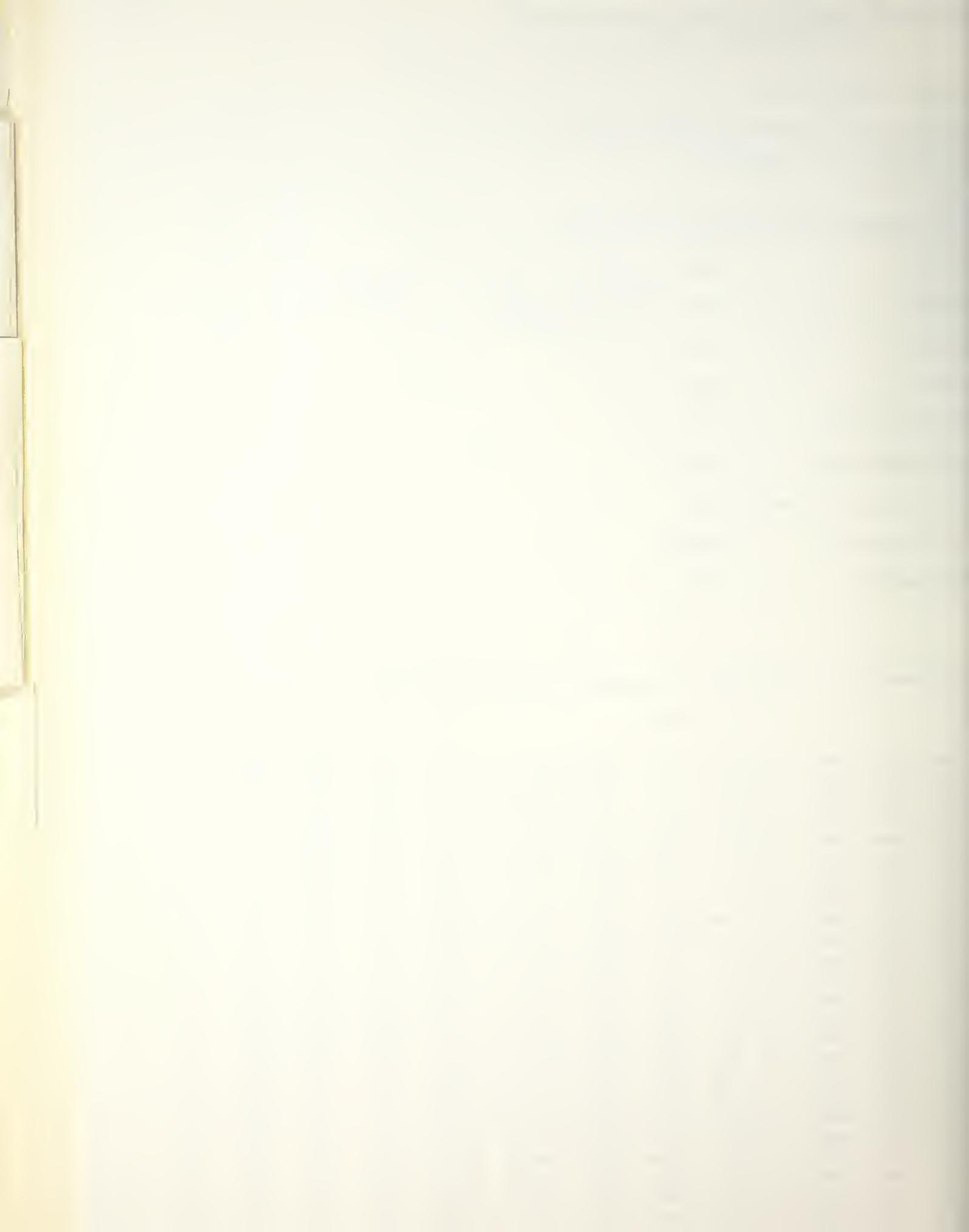
LUTION VS DEPTH, THETA= 15.00 DEGREES, KX= .2618 RADIANS, H/d= .5839, WAVE HEIGHT=1.85861E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.13277	.10600	.14670	.29575	-.08488	.00033	.0112353	.2957457	.0059923	.1577348	.0000000	.0000000	.0000000	.0000000
.11054	.09825	.13527	.27372	-.08899	.02062	.0096536	.2737181	.0049342	.1399037	.0002321	.0063275	.0001214	.0033072
.08832	.09100	.12472	.25363	-.09119	.04083	.0082805	.2536347	.0040483	.1240021	.0004314	.0121871	.0002212	.0062395
.06610	.08421	.11494	.23535	-.09184	.06102	.0070912	.2353453	.0033093	.1098304	.0006022	.0176204	.0003030	.0088377
.04388	.07787	.10588	.21871	-.09123	.08121	.0060637	.2187078	.0026750	.0972058	.0007483	.0226655	.0003697	.0111382
.02165	.07196	.09745	.20359	-.08961	.10142	.0051781	.2035895	.0021864	.0859620	.0008733	.0273578	.0004239	.0131734
-.00057	.06646	.08960	.18987	-.08717	.12168	.0044167	.1899674	.0017667	.0759487	.0009799	.0317297	.0004679	.0149725
-.02279	.06135	.08226	.17743	-.08409	.14199	.0037639	.1774283	.0014219	.0670301	.0010708	.0358108	.0005033	.0165612
-.04501	.05662	.07539	.16617	-.08048	.16239	.0032057	.1661692	.0011398	.0590839	.0011482	.0396287	.0005317	.0179625
-.06724	.05225	.06894	.15600	-.07646	.18287	.0027299	.1559960	.0009100	.0519999	.0012142	.0432084	.0005545	.0191968
-.08946	.04822	.06287	.14682	-.07212	.20344	.0023256	.1468240	.0007235	.0456796	.0012703	.0465731	.0005727	.0202821
-.11168	.04453	.05713	.13858	-.06752	.22411	.0019832	.1385766	.0005729	.0400342	.0013182	.0497443	.0005871	.0212345
-.13391	.04116	.05169	.13119	-.06273	.24488	.0016943	.1311852	.0004518	.0349835	.0013591	.0527417	.0005985	.0220681
-.15613	.03810	.04652	.12459	-.05779	.26577	.0014517	.1245884	.0003549	.0304557	.0013940	.0555837	.0006074	.0227952
-.17835	.03534	.04159	.11873	-.05273	.28676	.0012489	.1187319	.0002775	.0263855	.0014240	.0582873	.0006145	.0234263
-.20057	.03287	.03687	.11357	-.04759	.30787	.0010803	.1135675	.0002161	.0227140	.0014499	.0608685	.0006199	.0239723
-.22280	.03068	.03233	.10905	-.04239	.32909	.0009412	.1090529	.0001673	.0193876	.0014724	.0633421	.0006242	.0244401
-.24502	.02876	.02796	.10515	-.03715	.35043	.0008273	.1051513	.0001287	.0163573	.0014920	.0657222	.0006275	.0248373
-.26724	.02712	.02372	.10183	-.03188	.37189	.0007353	.1018311	.0000980	.0135779	.0015094	.0680221	.0006300	.0251699
-.28946	.02573	.01959	.09907	-.02658	.39346	.0006621	.0990655	.0000736	.0110075	.0015249	.0702543	.0006319	.0254431
-.31169	.02460	.01556	.09683	-.02128	.41515	.0006054	.0968323	.0000538	.0086075	.0015390	.0724310	.0006333	.0256611
-.33391	.02373	.01161	.09511	-.01596	.43696	.0005632	.0951136	.0000375	.0063411	.0015520	.0745638	.0006343	.0258272
-.35613	.02311	.00771	.09390	-.01064	.45889	.0005341	.0938957	.0000237	.0041732	.0015642	.0766640	.0006350	.0259440
-.37836	.02274	.00385	.09317	-.00532	.48093	.0005171	.0931687	.0000115	.0020705	.0015759	.0787425	.0006354	.0260134
-.40058	.02262	.00000	.09293	.00000	.50310	.0005114	.0929271	.0000000	.0000000	.0015873	.0808103	.0006355	.0260364

LUTION VS DEPTH, THETA= 30.00 DEGREES, KX= .5236 RADIANS, H/d= .5839, WAVE HEIGHT=1.85861E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.05827	-.03809	.13985	.25597	.09480	.00000	-.0014506	.2559717	-.0006656	.1174523	.0000000	.0000000	.0000000	.0000000
.03915	-.03712	.13160	.24622	.08292	.02082	-.0013780	.2462173	-.0006060	.1082691	-.0000270	.0048006	-.0000122	.0021577
.02003	-.03633	.12369	.23696	.07239	.04142	-.0013198	.2369564	-.0005551	.0996665	-.0000528	.0094194	-.0000233	.0041455
.00091	-.03569	.11610	.22819	.06307	.06183	-.0012735	.2281879	-.0005113	.0916158	-.0000776	.0138659	-.0000334	.0059740
-.01820	-.03517	.10881	.21991	.05483	.08297	-.0012371	.2199082	-.0004730	.0840872	-.0001016	.0181494	-.0000429	.0076536
-.03732	-.03477	.10190	.21211	.04755	.10217	-.0012090	.2121117	-.0004392	.0770507	-.0001250	.0222792	-.0000516	.0091940
-.05644	-.03446	.09505	.20479	.04113	.12213	-.0011879	.2047912	-.0004088	.0704761	-.0001479	.0262646	-.0000597	.0106043
-.07556	-.03424	.08854	.19794	.03548	.14198	-.0011724	.1979386	-.0003810	.0643336	-.0001705	.0301144	-.0000672	.0118929
-.09468	-.03408	.08226	.19154	.03051	.16173	-.0011617	.1915448	-.0003554	.0585934	-.0001928	.0338376	-.0000743	.0130680
-.11380	-.03398	.07618	.18560	.02615	.18139	-.0011549	.1856003	-.0003312	.0532265	-.0002149	.0374429	-.0000808	.0141370
-.13292	-.03393	.07028	.18010	.02233	.20097	-.0011514	.1800952	-.0003082	.0482046	-.0002370	.0409387	-.0000869	.0151066
-.15204	-.03392	.06457	.17502	.01900	.22049	-.0011503	.1750197	-.0002859	.0434999	-.0002590	.0443333	-.0000926	.0159932
-.17115	-.03393	.05901	.17036	.01609	.23994	-.0011513	.1703642	-.0002641	.0390857	-.0002810	.0476350	-.0000979	.0167727
-.19027	-.03397	.05360	.16612	.01357	.25934	-.0011538	.1661193	-.0002426	.0349358	-.0003030	.0508515	-.0001027	.0174803
-.20939	-.03402	.04833	.16228	.01137	.27870	-.0011573	.1622759	-.0002213	.0310250	-.0003251	.0539908	-.0001072	.0181108
-.22851	-.03408	.04316	.15883	.00947	.29801	-.0011616	.1588256	-.0001999	.0273288	-.0003473	.0570603	-.0001112	.0186686
-.24763	-.03415	.03911	.15576	.00782	.31730	-.0011663	.1557605	-.0001784	.0238235	-.0003695	.0600675	-.0001148	.0191576
-.26675	-.03422	.03315	.15307	.00639	.33655	-.0011710	.1530735	-.0001567	.0204860	-.0003919	.0630198	-.0001180	.0195812
-.28587	-.03429	.02826	.15076	.00515	.35578	-.0011756	.1507582	-.0001349	.0172939	-.0004143	.0659242	-.0001208	.0199424
-.30498	-.03435	.02345	.14881	.00406	.37499	-.0011799	.1488088	-.0001128	.0142252	-.0004368	.0687879	-.0001232	.0202437
-.32410	-.03440	.01869	.14722	.00310	.39417	-.0011836	.1472206	-.0000905	.0112587	-.0004594	.0716177	-.0001251	.0204873
-.34322	-.03445	.01398	.14599	.00224	.41334	-.0011866	.1459895	-.0000681	.0083734	-.0004821	.0744206	-.0001266	.0206749
-.36234	-.03448	.00930	.14511	.00145	.43250	-.0011888	.1451123	-.0000455	.0055487	-.0005048	.0772034	-.0001277	.0208080
-.38146	-.03450	.00465	.14459	.00071	.45164	-.0011902	.1445870	-.0000228	.0027643	-.0005275	.0799727	-.0001284	.0208875
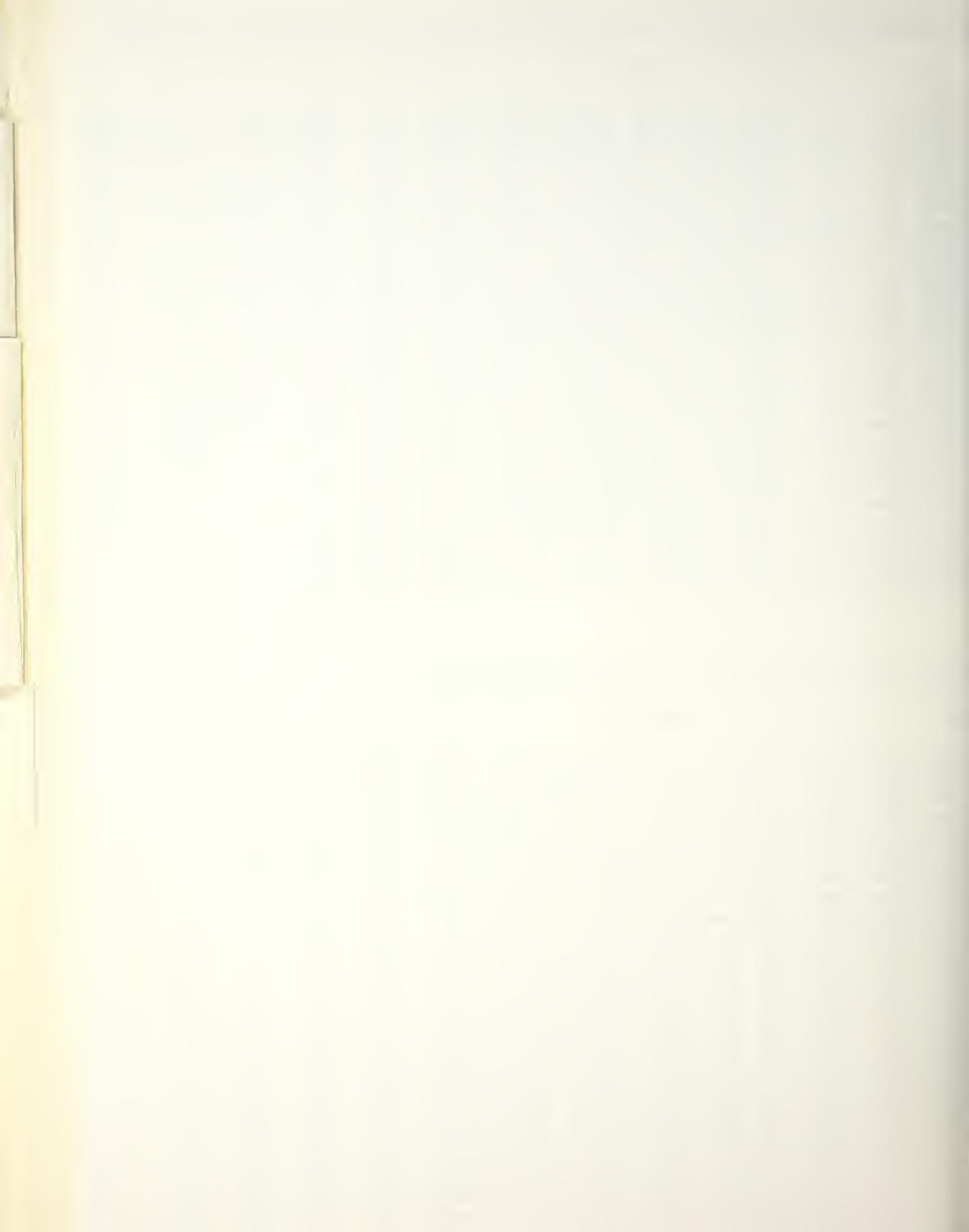
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/d=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT=********, CRITER., EULER    *K  (K*G)^.5   *K   DEGREES
------------------------------------------------------------------------------------------+  -.04086 5.60909 3.14159  180.00
                                                                                          |  + -.04086 5.49223 3.07614  176.25
                                                                                          |  + -.04086 5.37537 3.01069  172.50
                                                                                          |  + -.04084 5.25852 2.94524  168.75
                                                                                          |  + -.04081 5.14166 2.87979  165.00
                                                                                          |  + -.04079 5.02481 2.81434  161.25
                                                                                          |  + -.04078 4.90795 2.74889  157.50
                                                                                          |  + -.04075 4.79109 2.68344  153.75
                                                                                          |  + -.04068 4.67424 2.61799  150.00
                                                                                          |  + -.04059 4.55738 2.55254  146.25
                                                                                          |  + -.04052 4.44053 2.48709  142.50
                                                                                          |  + -.04047 4.32367 2.42164  138.75
                                                                                          |  + -.04039 4.20681 2.35619  135.00
                                                                                          |  + -.04023 4.08996 2.29074  131.25
                                                                                          |  + -.04001 3.97310 2.22529  127.50
                                                                                          |  + -.03981 3.85625 2.15984  123.75
                                                                                          +| -.03962 3.73939 2.09440  120.00
                                                                                          +| -.03940 3.62253 2.02895  116.25
                                                                                          +| -.03905 3.50568 1.96350  112.50
                                                                                          +| -.03857 3.38882 1.89805  108.75
                                                                                          +| -.03804 3.27197 1.83260  105.00
                                                                                          +| -.03749 3.15511 1.76715  101.25
                                                                                        + | -.03688 3.03825 1.70170   97.50
                                                                                        + | -.03606 2.92140 1.63625   93.75
                                                                                      +   | -.03495 2.80454 1.57080   90.00
                                                                                      +   | -.03363 2.68769 1.50535   86.25
                                                                                    +     | -.03219 2.57083 1.43990   82.50
                                                                                    +     | -.03056 2.45397 1.37445   78.75
                                                                                  +       | -.02854 2.33712 1.30900   75.00
                                                                                +         | -.02596 2.22026 1.24355   71.25
                                                                            +             | -.02282 2.10341 1.17810   67.50
                                                                        +                 | -.01923 1.98655 1.11265   63.75
                                                                    +                     | -.01515 1.86970 1.04720   60.00
                                                                +                         | -.01031 1.75284  .98175   56.25
                                                            | +                           | -.00438 1.63599  .91630   52.50
                                                        +|                                |  .00277 1.51913  .85085   48.75
                                                    +   |                                 |  .01104 1.40227  .78540   45.00
                                                +       |                                 |  .02039 1.28542  .71995   41.25
                                            +           |                                 |  .03109 1.16856  .65450   37.50
                                        +               |                                 |  .04363 1.05170  .58905   33.75
                                    +                   |                                 |  .05827  .93485  .52360   30.00
                                +                       |                                 |  .07479  .81799  .45815   26.25
                            +                           |                                 |  .09280  .70114  .39270   22.50
                        +                               |                                 |  .11212  .58428  .32725   18.75
                    +                                   |                                 |  .13277  .46742  .26180   15.00
                +                                       |                                 |  .15402  .35057  .19635   11.25
            +                                           |                                 |  .17360  .23371  .13090    7.50
        +                                               |                                 |  .18780  .11686  .06545    3.75
------+-----------------------------------------------------------------------------------|  .19304  .00000  .00000     .00
9304                                                                                           -.04086
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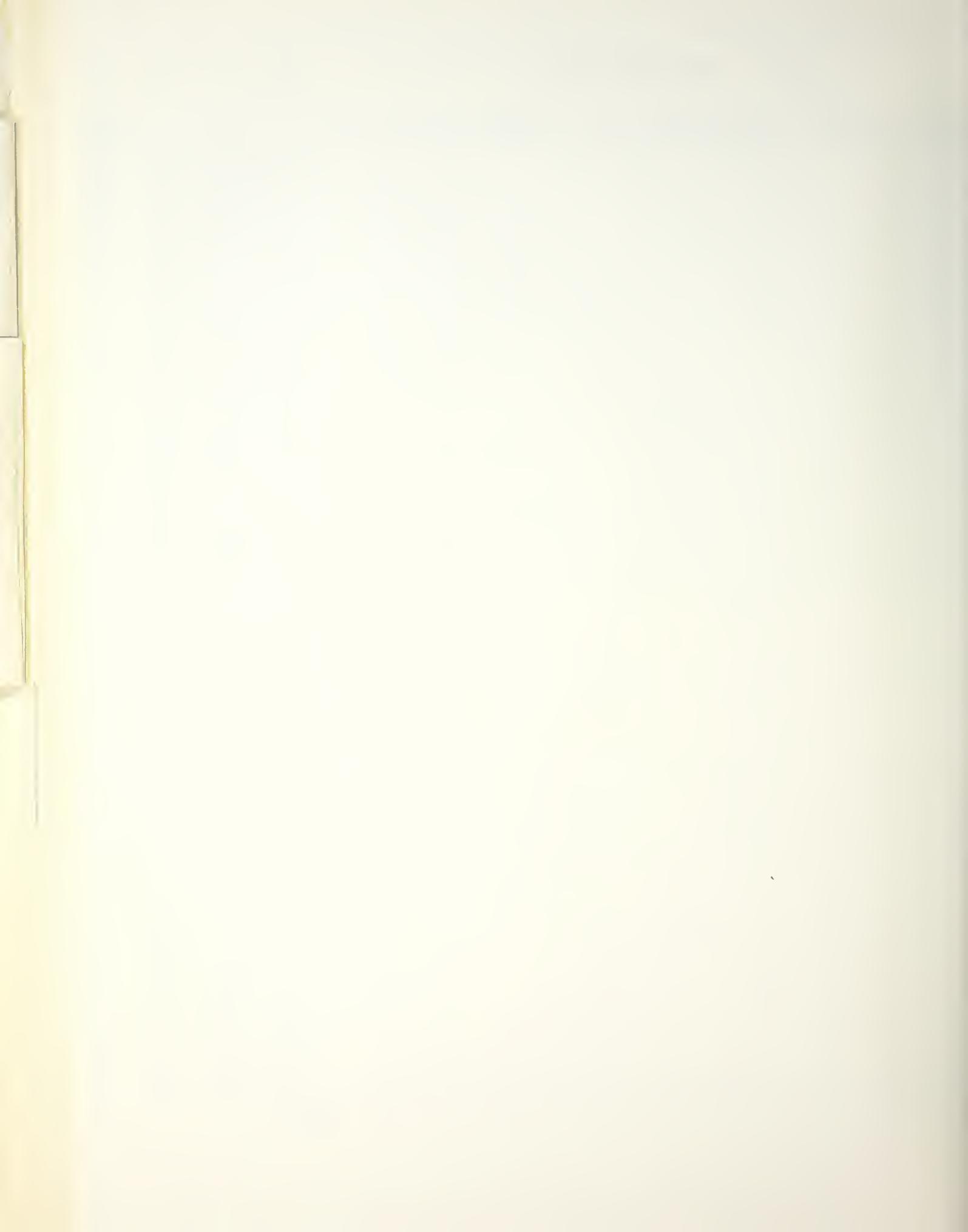
HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICLE VELOCITIES

	U	V	DIST.	ANGLE
H/d=.5839 HEIGHT=1.8586E-03, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT=*******, CRITER., EULER	*SQRT(K/G)	*K		DEGREES
	-.19862	.00000	3.14159	180.00
	-.19862	.00006	3.07614	176.25
	-.19861	.00012	3.01069	172.50
	-.19859	.00018	2.94524	168.75
	-.19857	.00025	2.87979	165.00
	-.19853	.00032	2.81434	161.25
	-.19849	.00041	2.74889	157.50
	-.19844	.00052	2.68344	153.75
	-.19837	.00064	2.61799	150.00
	-.19829	.00078	2.55254	146.25
	-.19819	.00095	2.48709	142.50
	-.19808	.00115	2.42164	138.75
	-.19793	.00139	2.35619	135.00
	-.19775	.00168	2.29074	131.25
	-.19754	.00203	2.22529	127.50
	-.19729	.00245	2.15984	123.75
	-.19698	.00295	2.09440	120.00
	-.19660	.00355	2.02895	116.25
	-.19616	.00427	1.96350	112.50
	-.19561	.00514	1.89805	108.75
	-.19496	.00617	1.83260	105.00
	-.19417	.00741	1.76715	101.25
	-.19322	.00889	1.70170	97.50
	-.19206	.01066	1.63625	93.75
	-.19068	.01278	1.57080	90.00
	-.18901	.01529	1.50535	86.25
	-.18698	.01827	1.43990	82.50
	-.18453	.02179	1.37445	78.75
	-.18157	.02594	1.30900	75.00
	-.17800	.03082	1.24355	71.25
	-.17370	.03651	1.17810	67.50
	-.16848	.04310	1.11265	63.75
	-.16216	.05066	1.04720	60.00
	-.15452	.05926	.98175	56.25
	-.14533	.06894	.91630	52.50
	-.13431	.07969	.85085	48.75
	-.12106	.09136	.78540	45.00
	-.10519	.10365	.71995	41.25
	-.08631	.11619	.65450	37.50
	-.06407	.12849	.58905	33.75
	-.03809	.13985	.52360	30.00
	-.00800	.14906	.45815	26.25
	.02630	.15451	.39270	22.50
	.06454	.15438	.32725	18.75
	.10600	.14670	.26180	15.00
	.14899	.12902	.19635	11.25
	.18953	.09855	.13090	7.50
	.22009	.05418	.06545	3.75
	.23170	.00000	.00000	.00

Handwritten annotations:

H=1.25M

u(0) = 1.678 m/s *l = 2.678 (1.2%)

V(225) = 1.119 m/s (12.1%)

23170

-.19862

M. M. RIENECKER AND J. D. FENTON.

EPTH: FINITE, HEIGHT/DEPTH= .7500

AVE HEIGHT 2.387324E-03,DIMENSIONLESS WITH RESPECT TO PERIOD

CURRENT CRITERION: EULER , MAGNITUDE= .0000

OLUTION OF ORDER 18 NON-DIMENSIONALIZED BY WAVE NUMBER, 4 HEIGHT STEP(S).

WATER DEPTH	.30427
WAVE HEIGHT	.22820
WAVE PERIOD	9.7769
WAVE SPEED	.64265
MEAN EULERIAN FLUID SPEED	1.30048E-22
MEAN MASS TRANSPORT SPEED	1.28777E-02
MEAN FLUID SPEED RELATIVE TO WAVE	.64265
VOLUME FLUX DUE TO WAVES	3.91825E-03
BERNOULLI CONSTANT	.20773

OLUTION VS DEPTH, THETA= .00 DEGREES, KX= .0000 RADIANS, H/d= .7500, WAVE HEIGHT=2.38732E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.20733	.67074	.00000	.00000	.13727	.00000	.4498938	.0000000	.2301649	.0000000	.0000000	.0000000	.0000000	.0000000
.18601	.57788	.00000	.00000	-.25077	.01961	.3339461	.0000000	.1637276	.0000000	.0083544	.0000000	.0041982	.0000000
.16470	.50398	.00000	.00000	-.42943	.03341	.2539944	.0000000	.1191145	.0000000	.0146208	.0000000	.0072128	.0000000
.14338	.44459	.00000	.00000	-.49534	.04473	.1976609	.0000000	.0884826	.0000000	.0194347	.0000000	.0094255	.0000000
.12206	.39641	.00000	.00000	-.50206	.05534	.1571401	.0000000	.0669938	.0000000	.0232163	.0000000	.0110826	.0000000
.10075	.35696	.00000	.00000	-.47917	.06617	.1274177	.0000000	.0516061	.0000000	.0262492	.0000000	.0123467	.0000000
.07943	.32437	.00000	.00000	-.44287	.07764	.1052138	.0000000	.0403704	.0000000	.0287286	.0000000	.0133270	.0000000
.05811	.29723	.00000	.00000	-.40184	.08995	.0883438	.0000000	.0320142	.0000000	.0307916	.0000000	.0140985	.0000000
.03680	.27446	.00000	.00000	-.36061	.10314	.0753270	.0000000	.0256914	.0000000	.0325361	.0000000	.0147135	.0000000
.01548	.25523	.00000	.00000	-.32137	.11720	.0651428	.0000000	.0208293	.0000000	.0340333	.0000000	.0152093	.0000000
-.00583	.23891	.00000	.00000	-.28506	.13205	.0570760	.0000000	.0170333	.0000000	.0353359	.0000000	.0156129	.0000000
-.02715	.22498	.00000	.00000	-.25193	.14765	.0506179	.0000000	.0140270	.0000000	.0364837	.0000000	.0159439	.0000000
-.04847	.21309	.00000	.00000	-.22190	.16392	.0454010	.0000000	.0116135	.0000000	.0375071	.0000000	.0162172	.0000000
-.06978	.20287	.00000	.00000	-.19471	.18081	.0411566	.0000000	.0096505	.0000000	.0384297	.0000000	.0164439	.0000000
-.09110	.19413	.00000	.00000	-.17005	.19824	.0376853	.0000000	.0080332	.0000000	.0392700	.0000000	.0166323	.0000000
-.11242	.18665	.00000	.00000	-.14759	.21617	.0348380	.0000000	.0066837	.0000000	.0400430	.0000000	.0167892	.0000000
-.13373	.18028	.00000	.00000	-.12700	.23457	.0325019	.0000000	.0055426	.0000000	.0407607	.0000000	.0169195	.0000000
-.15505	.17490	.00000	.00000	-.10800	.25338	.0305909	.0000000	.0045647	.0000000	.0414332	.0000000	.0170272	.0000000
-.17637	.17041	.00000	.00000	-.09032	.27259	.0290395	.0000000	.0037141	.0000000	.0420687	.0000000	.0171155	.0000000
-.19768	.16673	.00000	.00000	-.07372	.29216	.0277975	.0000000	.0029627	.0000000	.0426745	.0000000	.0171866	.0000000
-.21900	.16379	.00000	.00000	-.05799	.31207	.0268266	.0000000	.0022874	.0000000	.0432567	.0000000	.0172426	.0000000
-.24032	.16155	.00000	.00000	-.04292	.33231	.0260983	.0000000	.0016690	.0000000	.0438208	.0000000	.0172848	.0000000
-.26163	.15997	.00000	.00000	-.02835	.35287	.0255919	.0000000	.0010911	.0000000	.0443717	.0000000	.0173142	.0000000
-.28295	.15904	.00000	.00000	-.01410	.37373	.0252934	.0000000	.0005392	.0000000	.0449141	.0000000	.0173316	.0000000
-.30427	.15873	.00000	.00000	.00000	.39490	.0251948	.0000000	.0000000	.0000000	.0454522	.0000000	.0173373	.0000000

CASE 4D 18 TERMS

WATER SURFACE ELEVATION	ELEV.VS.	TIME	DIST.	ANGL
H/d=.7500 HEIGHT=2.3873E-03, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER	*K	(K*6)^.5	*K	DEGREE
-.02087	4.88846	3.14159	180.0
-.02094	4.78662	3.07614	176.2
-.02098	4.68478	3.01069	172.5
-.02078	4.58294	2.94524	168.7
-.02056	4.48109	2.87979	165.0
-.02072	4.37925	2.81434	161.2
-.02119	4.27741	2.74889	157.5
-.02136	4.17556	2.68344	153.7
-.02085	4.07372	2.61799	150.0
-.02019	3.97188	2.55254	146.2
-.02028	3.87003	2.48709	142.5
-.02117	3.76819	2.42164	138.7
-.02179	3.66635	2.35619	135.0
-.02121	3.56451	2.29074	131.2
-.01998	3.46266	2.22529	127.5
-.01962	3.36082	2.15984	123.7
-.02074	3.25898	2.09440	120.0
-.02204	3.15713	2.02895	116.2
-.02176	3.05529	1.96350	112.5
-.01996	2.95345	1.89805	108.7
-.01874	2.85160	1.83260	105.0
-.01970	2.74976	1.76715	101.2
-.02175	2.64792	1.70170	97.5
-.02217	2.54608	1.63625	93.7
-.01996	2.44423	1.57080	90.0
-.01743	2.34239	1.50535	86.2
-.01754	2.24055	1.43990	82.5
-.02011	2.13870	1.37445	78.7
-.02156	2.03686	1.30900	75.0
-.01915	1.93502	1.24355	71.2
-.01466	1.83317	1.17810	67.5
-.01268	1.73133	1.11265	63.7
-.01487	1.62949	1.04720	60.0
-.01728	1.52765	.98175	56.2
-.01460	1.42580	.91630	52.5
-.00684	1.32396	.85085	48.7
-.00011	1.22212	.78540	45.0
.00057	1.12027	.71995	41.2
-.00168	1.01843	.65450	37.5
.00217	.91659	.58905	33.7
.01652	.81474	.52360	30.0
.03446	.71290	.45815	26.2
.04435	.61106	.39270	22.5
.04453	.50922	.32725	18.7
.04942	.40737	.26180	15.0
.07739	.30553	.19635	11.2
.13006	.20369	.13090	7.5
.18422	.10184	.06545	3.7
.20733	.00000	.00000	.0

0733

-.02217

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICLE VELOCITIES

	U	V	DIST.	ANGLE
/d=.7500 HEIGHT=2.3873E-03, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER	*SQRT(K/G)	*K		DEGREES
--o----+	-.03350	.00000	3.14159	180.00
o +	-.03351	.00000	3.07614	176.25
o +	-.03351	.00002	3.01069	172.50
o +	-.03349	.00003	2.94524	168.75
o +	-.03346	.00002	2.87979	165.00
o +	-.03348	-.00002	2.81434	161.25
o +	-.03353	-.00001	2.74889	157.50
o +	-.03354	.00006	2.68344	153.75
o +	-.03348	.00012	2.61799	150.00
o +	-.03340	.00009	2.55254	146.25
o +	-.03340	.00002	2.48709	142.50
o +	-.03349	.00001	2.42164	138.75
o +	-.03354	.00013	2.35619	135.00
o +	-.03346	.00027	2.29074	131.25
o +	-.03330	.00030	2.22529	127.50
o +	-.03323	.00021	2.15984	123.75
o +	-.03331	.00019	2.09440	120.00
o +	-.03340	.00036	2.02895	116.25
o +	-.03330	.00065	1.96350	112.50
o +	-.03303	.00085	1.89805	108.75
o +	-.03279	.00086	1.83260	105.00
o +	-.03277	.00090	1.76715	101.25
o +	-.03282	.00123	1.70170	97.50
o +	-.03265	.00184	1.63625	93.75
o +	-.03216	.00248	1.57080	90.00
o +	-.03156	.00293	1.50535	86.25
o +	-.03115	.00336	1.43990	82.50
o +	-.03086	.00421	1.37445	78.75
o¦ +	-.03027	.00566	1.30900	75.00
o¦ +¦	-.02917	.00749	1.24355	71.25
o¦ +¦	-.02766	.00939	1.17810	67.50
o¦ +¦	-.02608	.01133	1.11265	63.75
o ¦ +¦	-.02443	.01390	1.04720	60.00
o ¦ + ¦	-.02214	.01766	.98175	56.25
o ¦ + ¦	-.01891	.02270	.91630	52.50
o ¦ + ¦	-.01470	.02876	.85085	48.75
o ¦ + ¦	-.00954	.03526	.78540	45.00
o ¦+ ¦	-.00324	.04239	.71995	41.25
o + ¦	.00509	.05126	.65450	37.50
o + ¦ ¦	.01586	.06292	.58905	33.75
o + ¦	.02921	.07803	.52360	30.00
o + ¦	.04646	.09407	.45815	26.25
o + ¦	.06746	.10641	.39270	22.50
o + ¦	.09221	.11620	.32725	18.75
o+ ¦	.12419	.12905	.26180	15.00
+ o ¦	.17136	.15619	.19635	11.25
+ o ¦	.26923	.21029	.13090	7.50
+ o ¦	.48957	.22563	.06545	3.75
--o----¦	.67074	.00000	.00000	.00

-.03354

CASE 4D, 18 72376
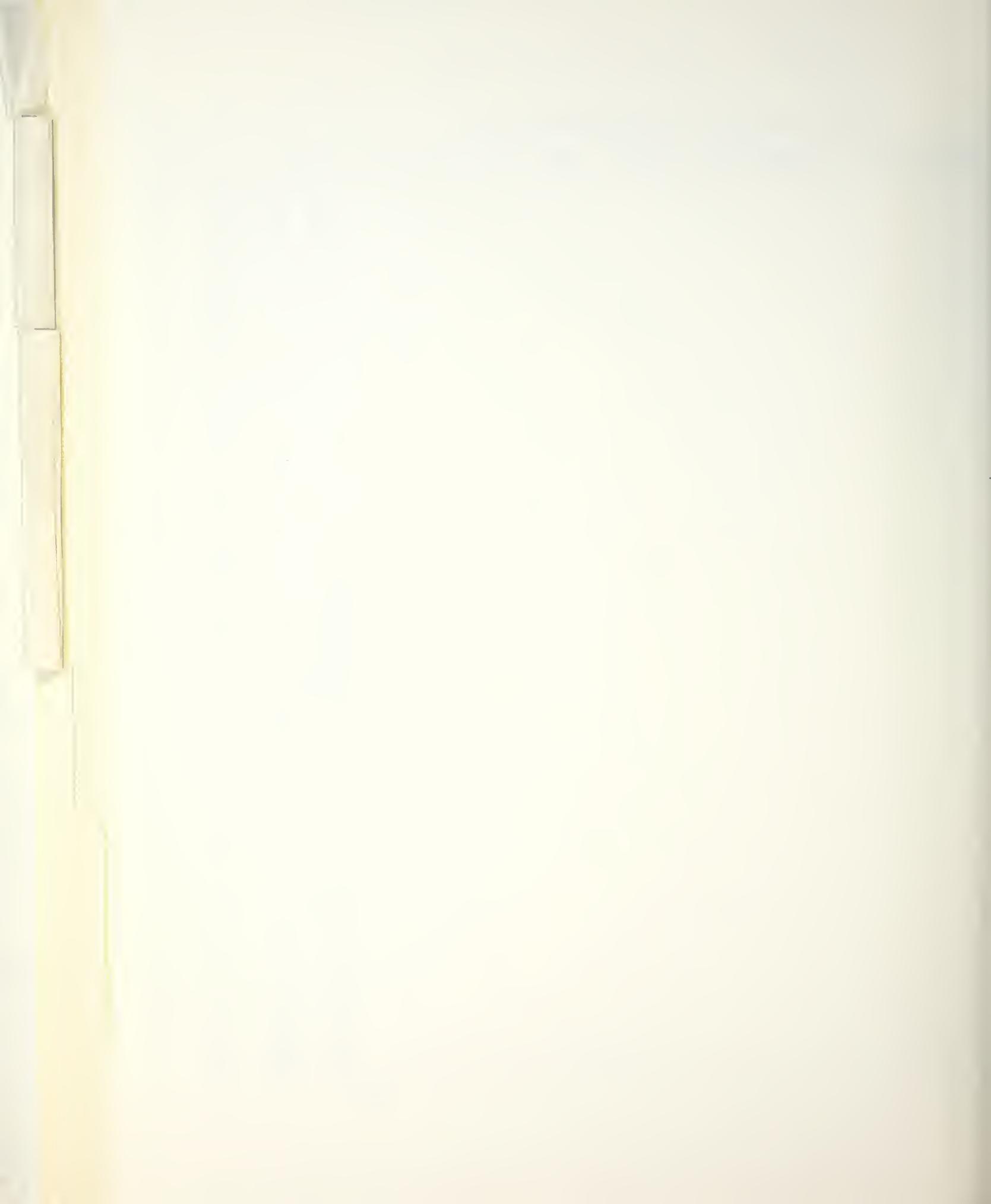
HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS	Ax	Ay	DIST.	ANGLE
/d=.7500 HEIGHT=2.3873E-03, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER	‡1/G	‡1/G	‡K	DEGREES
o	.00000	-.00004	3.14159	180.00
o	-.00010	.00010	3.07614	176.25
o	.00010	.00024	3.01069	172.50
o	.00033	.00000	2.94524	168.75
o	.00010	-.00036	2.87979	165.00
o	-.00042	-.00020	2.81434	161.25
o	-.00045	.00046	2.74889	157.50
o	.00026	.00080	2.68344	153.75
o	.00091	.00021	2.61799	150.00
o	.00054	-.00070	2.55254	146.25
o	-.00058	-.00062	2.48709	142.50
o	-.00096	.00062	2.42164	138.75
o	.00011	.00159	2.35619	135.00
o	.00151	.00102	2.29074	131.25
o	.00147	-.00052	2.22529	127.50
o	-.00017	-.00096	2.15984	123.75
o	-.00130	.00072	2.09440	120.00
o	-.00018	.00274	2.02895	116.25
o	.00217	.00282	1.96350	112.50
o	.00312	.00091	1.89805	108.75
o	.00139	-.00033	1.83260	105.00
o	-.00071	.00158	1.76715	101.25
o+	.00013	.00515	1.70170	97.50
o+	.00360	.00688	1.63625	93.75
o¦	.00639	.00555	1.57080	90.00
o¦	.00560	.00376	1.50535	86.25
o+	.00282	.00597	1.43990	82.50
o+	.00335	.01210	1.37445	78.75
o+¦	.00857	.01738	1.30900	75.00
o ¦	.01477	.01889	1.24355	71.25
o ¦	.01720	.01834	1.17810	67.50
o ¦	.01539	.02200	1.11265	63.75
o+ ¦	.01679	.03307	1.04720	60.00
o + ¦	.02640	.04576	.98175	56.25
o + ¦	.04045	.05461	.91630	52.50
o+ ¦	.05206	.05920	.85085	48.75
o+ ¦	.05661	.06591	.78540	45.00
o + ¦	.06279	.08380	.71995	41.25
o + ¦	.08428	.10667	.65450	37.50
o+ ¦	.11873	.12312	.58905	33.75
+ o ¦	.15725	.12806	.52360	30.00
+ o ¦	.18357	.11809	.45815	26.25
+ o ¦	.18757	.11598	.39270	22.50
+ o ¦	.21331	.13754	.32725	18.75
+ o ¦	.29181	.14788	.26180	15.00
+ o ¦	.44868	.14655	.19635	11.25
+ o ¦	.77328	.13474	.13090	7.50
o ¦	.98340	.10055	.06545	3.75
o----------+	.00000	.13727	.00000	.00

.1340

-.00130

M. M. RIENECKER AND J. D. FENTON.

DEPTH: FINITE, HEIGHT/DEPTH= .7500

WAVE HEIGHT 2.387324E-03,DIMENSIONLESS WITH RESPECT TO PERIOD

CURRENT CRITERION: EULER , MAGNITUDE= .0000

SOLUTION OF ORDER 22 NON-DIMENSIONALIZED BY WAVE NUMBER, 4 HEIGHT STEP(S).

WATER DEPTH	.30603
WAVE HEIGHT	.22952
WAVE PERIOD	9.8052
WAVE SPEED	.64080
MEAN EULERIAN FLUID SPEED	6.77109E-22
MEAN MASS TRANSPORT SPEED	1.33337E-02
MEAN FLUID SPEED RELATIVE TO WAVE	.64080
VOLUME FLUX DUE TO WAVES	4.08049E-03
BERNOULLI CONSTANT	.20695

SOLUTION VS DEPTH, THETA= .00 DEGREES, KX= .0000 RADIANS, H/d= .7500, WAVE HEIGHT=2.38732E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.20686	.62710	.00000	.00000	-.06235	.00000	.3932513	.0000000	.2016924	.0000000	.0000000	.0000000	.0000000	.0000000
.18549	.54154	.00000	.00000	-.34872	.01654	.2932663	.0000000	.1441445	.0000000	.0073355	.0000000	.0036953	.0000000
.16411	.47495	.00000	.00000	-.45734	.02908	.2255797	.0000000	.1060549	.0000000	.0128794	.0000000	.0063687	.0000000
.14274	.42229	.00000	.00000	-.48047	.04033	.1783252	.0000000	.0800276	.0000000	.0171952	.0000000	.0083570	.0000000
.12137	.37999	.00000	.00000	-.46410	.05156	.1443895	.0000000	.0617126	.0000000	.0206434	.0000000	.0098715	.0000000
.10000	.34553	.00000	.00000	-.43102	.06335	.1193880	.0000000	.0484755	.0000000	.0234619	.0000000	.0110489	.0000000
.07863	.31709	.00000	.00000	-.39237	.07592	.1005436	.0000000	.0386754	.0000000	.0258119	.0000000	.0119801	.0000000
.05726	.29335	.00000	.00000	-.35344	.08932	.0860519	.0000000	.0312620	.0000000	.0278057	.0000000	.0127274	.0000000
.03589	.27333	.00000	.00000	-.31653	.10354	.0747108	.0000000	.0255453	.0000000	.0295234	.0000000	.0133344	.0000000
.01452	.25632	.00000	.00000	-.28252	.11851	.0657012	.0000000	.0210607	.0000000	.0310237	.0000000	.0138324	.0000000
-.00685	.24177	.00000	.00000	-.25155	.13418	.0584525	.0000000	.0174879	.0000000	.0323503	.0000000	.0142443	.0000000
-.02822	.22926	.00000	.00000	-.22349	.15048	.0525590	.0000000	.0146015	.0000000	.0335365	.0000000	.0145871	.0000000
-.04959	.21847	.00000	.00000	-.19803	.16735	.0477272	.0000000	.0122393	.0000000	.0346081	.0000000	.0148739	.0000000
-.07096	.20914	.00000	.00000	-.17486	.18474	.0437410	.0000000	.0102823	.0000000	.0355854	.0000000	.0151146	.0000000
-.09233	.20109	.00000	.00000	-.15366	.20260	.0404387	.0000000	.0086418	.0000000	.0364849	.0000000	.0153168	.0000000
-.11370	.19416	.00000	.00000	-.13416	.22090	.0376983	.0000000	.0072506	.0000000	.0373198	.0000000	.0154866	.0000000
-.13507	.18822	.00000	.00000	-.11608	.23960	.0354263	.0000000	.0060565	.0000000	.0381011	.0000000	.0156288	.0000000
-.15644	.18317	.00000	.00000	-.09920	.25867	.0335508	.0000000	.0050189	.0000000	.0388382	.0000000	.0157471	.0000000
-.17781	.17893	.00000	.00000	-.08332	.27809	.0320160	.0000000	.0041051	.0000000	.0395387	.0000000	.0158446	.0000000
-.19918	.17544	.00000	.00000	-.06826	.29785	.0307789	.0000000	.0032888	.0000000	.0402097	.0000000	.0159236	.0000000
-.22055	.17265	.00000	.00000	-.05386	.31791	.0298066	.0000000	.0025479	.0000000	.0408571	.0000000	.0159860	.0000000
-.24192	.17051	.00000	.00000	-.03996	.33828	.0290740	.0000000	.0018640	.0000000	.0414862	.0000000	.0160331	.0000000
-.26329	.16901	.00000	.00000	-.02644	.35894	.0285630	.0000000	.0012208	.0000000	.0421021	.0000000	.0160661	.0000000
-.28466	.16811	.00000	.00000	-.01316	.37989	.0282612	.0000000	.0006039	.0000000	.0427093	.0000000	.0160856	.0000000
-.30603	.16781	.00000	.00000	.00000	.40112	.0281614	.0000000	.0000000	.0000000	.0433121	.0000000	.0160920	.0000000
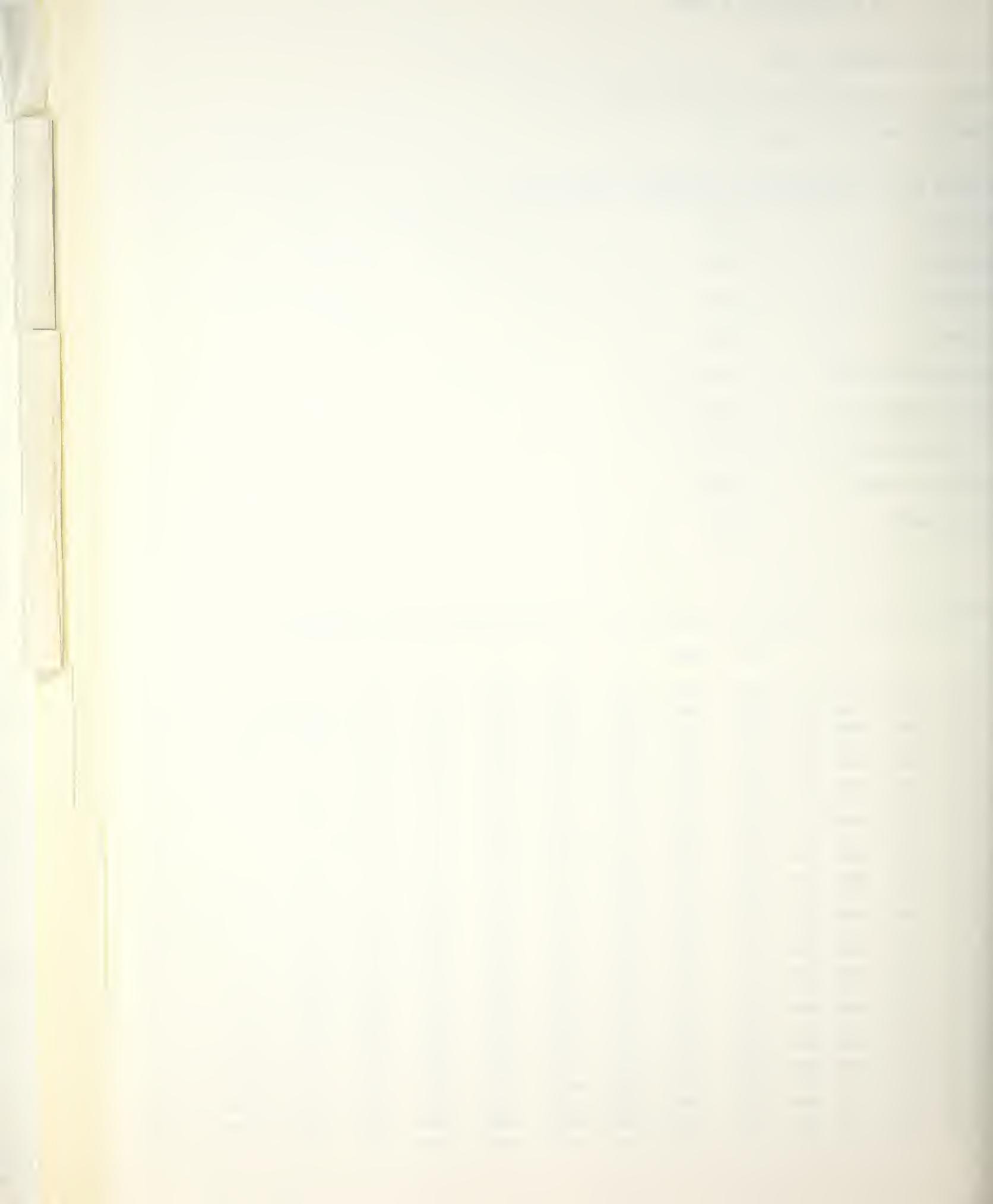
KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.07091	.14765	.13954	.29219	.08990	.00470	.0217999	.2921920	.0082173	.1101390	.0000000	.0000000	.0000000	.0000000
.05521	.14766	.13032	.28594	.06964	.02166	.0218032	.2859396	.0078761	.1032913	.0003424	.0045400	.0001264	.0016761
.03950	.14732	.12144	.27717	.05198	.03831	.0217036	.2771700	.0074992	.0957702	.0006841	.0089621	.0002471	.0032393
.02379	.14671	.11293	.26685	.03683	.05471	.0215232	.2668459	.0070998	.0880118	.0010235	.0132342	.0003618	.0046825
.00809	.14588	.10481	.25567	.02406	.07090	.0212814	.2556702	.0066849	.0803103	.0013597	.0173375	.0004700	.0060043
-.00762	.14490	.09709	.24415	.01345	.08689	.0209951	.2441523	.0062652	.0728579	.0016917	.0212625	.0005717	.0072071
-.02332	.14380	.08975	.23266	.00479	.10274	.0206784	.2326567	.0058459	.0657733	.0020189	.0250069	.0006668	.0082958
-.03903	.14263	.08279	.22144	-.00217	.11846	.0203432	.2214400	.0054316	.0591244	.0023411	.0285729	.0007554	.0092766
-.05474	.14142	.07618	.21068	-.00760	.13409	.0199993	.2106790	.0050257	.0529423	.0026579	.0319663	.0008375	.0101567
-.07044	.14019	.06990	.20049	-.01173	.14964	.0196546	.2004917	.0046304	.0472334	.0029693	.0351952	.0009133	.0107433
-.08615	.13898	.06393	.19095	-.01472	.16514	.0193157	.1909531	.0042472	.0419871	.0032753	.0382692	.0009830	.0116440
-.10185	.13780	.05825	.18211	-.01674	.18060	.0189876	.1821071	.0038768	.0371819	.0035761	.0411988	.0010468	.0122657
-.11756	.13665	.05282	.17398	-.01793	.19603	.0186745	.1739754	.0035196	.0327892	.0038718	.0439951	.0011049	.0128152
-.13326	.13557	.04763	.16656	-.01841	.21145	.0183795	.1665644	.0031753	.0287764	.0041628	.0466693	.0011575	.0132986
-.14897	.13456	.04266	.15987	-.01829	.22687	.0181053	.1598700	.0028436	.0251089	.0044493	.0492328	.0012048	.0137218
-.16468	.13362	.03787	.15388	-.01766	.24229	.0178536	.1538812	.0025236	.0217515	.0047317	.0516966	.0012469	.0140898
-.18038	.13276	.03326	.14858	-.01661	.25773	.0176259	.1485835	.0022146	.0186690	.0050103	.0540719	.0012841	.0144072
-.19609	.13200	.02879	.14396	-.01521	.27318	.0174233	.1439602	.0019155	.0158271	.0052956	.0563692	.0013165	.0146781
-.21179	.13133	.02444	.13999	-.01353	.28866	.0172466	.1399942	.0016252	.0131924	.0055578	.0585991	.0013443	.0149060
-.22750	.13075	.02021	.13667	-.01160	.30417	.0170964	.1366692	.0013426	.0107325	.0058275	.0607717	.0013677	.0150939
-.24321	.13028	.01606	.13397	-.00949	.31971	.0169731	.1339705	.0010663	.0084165	.0060951	.0628970	.0013866	.0152442
-.25891	.12991	.01198	.13189	-.00724	.33528	.0168769	.1318853	.0007952	.0062141	.0063609	.0649847	.0014012	.0153591
-.27462	.12965	.00796	.13040	-.00488	.35089	.0168081	.1304034	.0005280	.0040962	.0066254	.0670445	.0014116	.0154401
-.29032	.12949	.00397	.12952	-.00246	.36654	.0167668	.1295173	.0002633	.0020342	.0068891	.0690856	.0014178	.0154882
-.30603	.12943	.00000	.12922	.00000	.38223	.0167530	.1292224	.0000000	.0000000	.0071523	.0711175	.0014199	.0155042

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.01611	.03669	.08500	.15959	.13498	.00475	.0013459	.1595907	.0004335	.0514097	.0000000	.0000000	.0000000	.0000000
.00268	.03904	.08112	.15998	.12449	.01992	.0015239	.1599793	.0004704	.0493876	.0000193	.0021447	.0000061	.0006765
-.01074	.04120	.07726	.15994	.11480	.03494	.0016975	.1599426	.0005012	.0472295	.0000409	.0042917	.0000126	.0013249
-.02416	.04319	.07343	.15958	.10582	.04984	.0018654	.1595785	.0005258	.0449800	.0000648	.0064351	.0000195	.0019437
-.03758	.04502	.06963	.15896	.09747	.06463	.0020268	.1589640	.0005441	.0426732	.0000909	.0085739	.0000267	.0025320
-.05101	.04670	.06586	.15916	.08963	.07931	.0021809	.1581603	.0005562	.0403345	.0001191	.0107021	.0000340	.0030890
-.06443	.04824	.06212	.15722	.08240	.09338	.0023274	.1572169	.0005623	.0379837	.0001494	.0128187	.0000416	.0036146
-.07785	.04966	.05843	.15617	.07558	.10837	.0024658	.1561743	.0005627	.0356356	.0001816	.0149219	.0000491	.0041087
-.09127	.05095	.05476	.15507	.06918	.12276	.0025960	.1550663	.0005575	.0333015	.0002155	.0170106	.0000566	.0045714
-.10469	.05213	.05114	.15392	.06316	.13707	.0027177	.1539213	.0005472	.0309896	.0002512	.0190843	.0000640	.0050028
-.11812	.05321	.04755	.15276	.05748	.15130	.0028309	.1527634	.0005320	.0287061	.0002884	.0211425	.0000713	.0054034
-.13154	.05418	.04399	.15161	.05213	.16546	.0029356	.1516132	.0005122	.0264549	.0003271	.0231852	.0000783	.0057736
-.14495	.05506	.04047	.15049	.04706	.17955	.0030319	.1504887	.0004883	.0242388	.0003672	.0252127	.0000850	.0061139
-.15838	.05586	.03698	.14941	.04225	.19357	.0031198	.1494052	.0004606	.0220589	.0004085	.0272253	.0000914	.0064246
-.17181	.05656	.03352	.14838	.03768	.20753	.0031994	.1483764	.0004294	.0199155	.0004509	.0292238	.0000973	.0067063
-.18523	.05719	.03009	.14741	.03332	.22143	.0032710	.1474139	.0003951	.0178077	.0004943	.0312089	.0001029	.0069594
-.19865	.05774	.02668	.14653	.02915	.23527	.0033345	.1465275	.0003581	.0157339	.0005386	.0331815	.0001079	.0071845
-.21207	.05822	.02329	.14573	.02515	.24905	.0033901	.1457264	.0003185	.0136919	.0005838	.0351429	.0001125	.0073820
-.22550	.05863	.01993	.14502	.02129	.26279	.0034381	.1450179	.0002769	.0116788	.0006296	.0370941	.0001155	.0075523
-.23892	.05898	.01659	.14441	.01756	.27647	.0034784	.1444082	.0002334	.0096914	.0006760	.0390365	.0001199	.0076957
-.25234	.05926	.01324	.14390	.01393	.29010	.0035112	.1439024	.0001885	.0077260	.0007229	.0409714	.0001227	.0078126
-.26576	.05947	.00992	.14350	.01037	.30369	.0035366	.1435049	.0001424	.0057785	.0007702	.0429002	.0001249	.0079032
-.27918	.05962	.00661	.14322	.00688	.31723	.0035547	.1432137	.0000954	.0038446	.0008178	.0448244	.0001265	.0079678
-.29261	.05971	.00330	.14305	.00343	.33072	.0035656	.1430461	.0000479	.0019200	.0008656	.0467456	.0001275	.0080065
-.30603	.05974	.00000	.14299	.00000	.34416	.0035692	.1429384	.0000000	.0000000	.0009135	.0486657	.0001278	.0080194

d=.7500 HEIGHT=2.3873E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

*K	(K*G)^.5	*K	DEGREES
-.02267	4.90260	3.14159	180.00
-.02271	4.80046	3.07614	176.25
-.02269	4.69832	3.01069	172.50
-.02254	4.59618	2.94524	168.75
-.02257	4.49405	2.87979	165.00
-.02284	4.39191	2.81434	161.25
-.02285	4.28977	2.74889	157.50
-.02246	4.18763	2.68344	153.75
-.02233	4.08550	2.61799	150.00
-.02280	3.98336	2.55254	146.25
-.02309	3.88122	2.48709	142.50
-.02256	3.77909	2.42164	138.75
-.02204	3.67695	2.35619	135.00
-.02252	3.57481	2.29074	131.25
-.02323	3.47267	2.22529	127.50
-.02283	3.37054	2.15984	123.75
-.02183	3.26840	2.09440	120.00
-.02195	3.16626	2.02895	116.25
-.02307	3.06412	1.96350	112.50
-.02314	2.96199	1.89805	108.75
-.02174	2.85985	1.83260	105.00
-.02111	2.75771	1.76715	101.25
-.02234	2.65557	1.70170	97.50
-.02313	2.55344	1.63625	93.75
-.02162	2.45130	1.57080	90.00
-.01989	2.34916	1.50535	86.25
-.02058	2.24702	1.43990	82.50
-.02209	2.14489	1.37445	78.75
-.02086	2.04275	1.30900	75.00
-.01772	1.94061	1.24355	71.25
-.01687	1.83847	1.17810	67.50
-.01852	1.73634	1.11265	63.75
-.01777	1.63420	1.04720	60.00
-.01289	1.53206	.98175	56.25
-.00888	1.42992	.91630	52.50
-.00906	1.32779	.85085	48.75
-.00834	1.22565	.78540	45.00
-.00100	1.12351	.71995	41.25
.00895	1.02137	.65450	37.50
.01370	.91924	.58905	33.75
.01611	.81710	.52360	30.00
.02730	.71496	.45815	26.25
.04799	.61282	.39270	22.50
.06442	.51069	.32725	18.75
.07091	.40855	.26180	15.00
.08530	.30641	.19635	11.25
.12667	.20427	.13090	7.50
.18104	.10214	.06545	3.75
.20686	.00000	.00000	.00

)686

-.02323

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICLE VELOCITIES

d=.7500 HEIGHT=2.3873E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

U	V	DIST.	ANGLE
*SQRT(K/G)		*K	DEGREES
-.03686	.00000	3.14159	180.00
-.03687	.00000	3.07614	176.25
-.03686	.00001	3.01069	172.50
-.03686	.00002	2.94524	168.75
-.03686	.00001	2.87979	165.00
-.03686	.00002	2.81434	161.25
-.03686	.00004	2.74889	157.50
-.03684	.00005	2.68344	153.75
-.03683	.00005	2.61799	150.00
-.03684	.00006	2.55254	146.25
-.03684	.00010	2.48709	142.50
-.03680	.00014	2.42164	138.75
-.03676	.00015	2.35619	135.00
-.03676	.00016	2.29074	131.25
-.03676	.00023	2.22529	127.50
-.03670	.00033	2.15984	123.75
-.03662	.00040	2.09440	120.00
-.03656	.00046	2.02895	116.25
-.03653	.00059	1.96350	112.50
-.03643	.00081	1.89805	108.75
-.03626	.00103	1.83260	105.00
-.03608	.00125	1.76715	101.25
-.03592	.00156	1.70170	97.50
-.03569	.00203	1.63625	93.75
-.03532	.00263	1.57080	90.00
-.03486	.00328	1.50535	86.25
-.03436	.00407	1.43990	82.50
-.03372	.00518	1.37445	78.75
-.03284	.00665	1.30900	75.00
-.03172	.00842	1.24355	71.25
-.03034	.01050	1.17810	67.50
-.02857	.01314	1.11265	63.75
-.02628	.01661	1.04720	60.00
-.02346	.02102	.98175	56.25
-.01987	.02620	.91630	52.50
-.01507	.03225	.85085	48.75
-.00885	.03976	.78540	45.00
-.00142	.04942	.71995	41.25
.00786	.06085	.65450	37.50
.02037	.07263	.58905	33.75
.03669	.08500	.52360	30.00
.05633	.10053	.45815	26.25
.08075	.11928	.39270	22.50
.11172	.13350	.32725	18.75
.14765	.13954	.26180	15.00
.19290	.14759	.19635	11.25
.27099	.17484	.13090	7.50
.45064	.19361	.06545	3.75
.62710	.00000	.00000	.00

2710

-.03687

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        HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS          Ax      Ay    DIST.   ANGLE
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=.7500 HEIGHT=2.3873E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT=  .0000, CRITER., EULER    *1/G    *1/G     *K    DEGREES
-------------------------------------------------------------------------------------------------------------------
                                                                       o------|   .00000   .00003 3.14159  180.00
                                                              o        | -.00001   .00007 3.07614  176.25
                                                              o        |  .00006   .00008 3.01069  172.50
                                                              o        |  .00006  -.00001 2.94524  168.75
                                                              o        | -.00005   .00000 2.87979  165.00
                                                              o        | -.00005   .00017 2.81434  161.25
                                                              o        |  .00015   .00022 2.74889  157.50
                                                              o        |  .00022   .00002 2.68344  153.75
                                                              o        | -.00001  -.00005 2.61799  150.00
                                                              o        | -.00012   .00026 2.55254  146.25
                                                              o        |  .00017   .00049 2.48709  142.50
                                                              o        |  .00047   .00027 2.42164  138.75
                                                              o        |  .00024   .00004 2.35619  135.00
                                                              o        | -.00007   .00040 2.29074  131.25
                                                              o        |  .00024   .00095 2.22529  127.50
                                                              o        |  .00083   .00093 2.15984  123.75
                                                              o        |  .00081   .00056 2.09440  120.00
                                                              o        |  .00034   .00089 2.02895  116.25
                                                              o        |  .00054   .00187 1.96350  112.50
                                                              o        |  .00149   .00238 1.89805  108.75
                                                              o        |  .00201   .00217 1.83260  105.00
                                                              o        |  .00163   .00250 1.76715  101.25
                                                              o        |  .00172   .00408 1.70170   97.50
                                                              o        |  .00311   .00567 1.63625   93.75
                                                             o+        |  .00461   .00632 1.57080   90.00
                                                             o+        |  .00497   .00713 1.50535   86.25
                                                             o+        |  .00530   .00978 1.43990   82.50
                                                             o!        |  .00753   .01344 1.37445   78.75
                                                            o+!        |  .01086   .01641 1.30900   75.00
                                                            o+!        |  .01327   .01916 1.24355   71.25
                                                           o+ !        |  .01511   .02415 1.17810   67.50
                                                           o+ !        |  .01953   .03173 1.11265   63.75
                                                          o+  !        |  .02681   .03954 1.04720   60.00
                                                         o+   !        |  .03426   .04706  .98175   56.25
                                                        o +   !        |  .04089   .05665  .91630   52.50
                                                       o  +   !        |  .05102   .07020  .85085   48.75
                                                      o  +    !        |  .06747   .08475  .78540   45.00
                                                     o  +     !        |  .08700   .09826  .71995   41.25
                                                     o        !        |  .10606   .11074  .65450   37.50
                                                   o          !        |  .12751   .12419  .58905   33.75
                                                 +  o         !        |  .15959   .13498  .52360   30.00
                                             +        o       !        |  .20166   .13807  .45815   26.25
                                          +              o    !        |  .24565   .12663  .39270   22.50
                                       +                   o  !        |  .26839   .10229  .32725   18.75
                                   +                         o!        |  .29219   .08990  .26180   15.00
                              +                               o!       |  .37152   .07360  .19635   11.25
                       +                                       o!      |  .58012   .05162  .13090    7.50
                                                              !o       |  .83733  -.01902  .06545    3.75
-------------------------------------------------------------------------+------o   .00000  -.06235  .00000     .00
                                                                              -.06235
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M. M. RIENECKER AND J. D. FENTON.

H: FINITE, HEIGHT/DEPTH= .7500

HEIGHT 2.387324E-03,DIMENSIONLESS WITH RESPECT TO PERIOD

RENT CRITERION: EULER , MAGNITUDE= .00

UTION, NON-DIMENSIONALIZED BY WAVENUMBER

ER DEPTH	.30618
E HEIGHT	.22963
E PERIOD	9.8075
E SPEED	.64065
N EULERIAN FLUID SPEED	2.80462E-22
N MASS TRANSPORT SPEED	1.33974E-02
N FLUID SPEED RELATIVE TO WAVE	.64065
UME FLUX DUE TO WAVES	4.10194E-03
NOULLI CONSTANT	.20691

TION VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .7500, WAVE HEIGHT=2.38732E-03 DIMENSIONLESS W/RESP. TO PERIOD

| KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.20675	.62285	.00000	.00000	-.08110	.00000	.3879366	.0000000	.1989822	.0000000	.0000000	.0000000	.0000000	.0000000
.18538	.53748	.00000	.00000	-.36032	.01621	.2888809	.0000000	.1420001	.0000000	.0072324	.0000000	.0036437	.0000000
.16400	.47146	.00000	.00000	-.46128	.02859	.2222729	.0000000	.1045084	.0000000	.0126946	.0000000	.0062779	.0000000
.14263	.41948	.00000	.00000	-.47898	.03982	.1759669	.0000000	.0789755	.0000000	.0169501	.0000000	.0082386	.0000000
.12126	.37787	.00000	.00000	-.45948	.05112	.1427851	.0000000	.0610316	.0000000	.0203563	.0000000	.0097347	.0000000
.09989	.34403	.00000	.00000	-.42497	.06303	.1183538	.0000000	.0480594	.0000000	.0231468	.0000000	.0109004	.0000000
.07852	.31612	.00000	.00000	-.38598	.07573	.0999293	.0000000	.0384421	.0000000	.0254794	.0000000	.0118248	.0000000
.05715	.29282	.00000	.00000	-.34731	.08927	.0857414	.0000000	.0311517	.0000000	.0274634	.0000000	.0125684	.0000000
.03577	.27316	.00000	.00000	-.31098	.10361	.0746178	.0000000	.0255155	.0000000	.0291770	.0000000	.0131740	.0000000
.01440	.25644	.00000	.00000	-.27765	.11870	.0657623	.0000000	.0210819	.0000000	.0306771	.0000000	.0136719	.0000000
-.00697	.24212	.00000	.00000	-.24739	.13446	.0586217	.0000000	.0175400	.0000000	.0320063	.0000000	.0140846	.0000000
-.02834	.22979	.00000	.00000	-.21998	.15085	.0528034	.0000000	.0146706	.0000000	.0331969	.0000000	.0144288	.0000000
-.04971	.21914	.00000	.00000	-.19511	.16779	.0480232	.0000000	.0123161	.0000000	.0342744	.0000000	.0147172	.0000000
-.07109	.20993	.00000	.00000	-.17245	.18523	.0440718	.0000000	.0103609	.0000000	.0352585	.0000000	.0149595	.0000000
-.09246	.20197	.00000	.00000	-.15169	.20315	.0407926	.0000000	.0087181	.0000000	.0361653	.0000000	.0151634	.0000000
-.11383	.19511	.00000	.00000	-.13255	.22148	.0380670	.0000000	.0073221	.0000000	.0370080	.0000000	.0153348	.0000000
-.13520	.18922	.00000	.00000	-.11478	.24021	.0358040	.0000000	.0061216	.0000000	.0377974	.0000000	.0154785	.0000000
-.15657	.18421	.00000	.00000	-.09816	.25931	.0339336	.0000000	.0050766	.0000000	.0385426	.0000000	.0155981	.0000000
-.17794	.18000	.00000	.00000	-.08250	.27876	.0324014	.0000000	.0041549	.0000000	.0392515	.0000000	.0156968	.0000000
-.19932	.17654	.00000	.00000	-.06762	.29852	.0311654	.0000000	.0033303	.0000000	.0399307	.0000000	.0157768	.0000000
-.22069	.17376	.00000	.00000	-.05337	.31860	.0301932	.0000000	.0025911	.0000000	.0405864	.0000000	.0158399	.0000000
-.24206	.17164	.00000	.00000	-.03962	.33898	.0294603	.0000000	.0018889	.0000000	.0412239	.0000000	.0158877	.0000000
-.26343	.17014	.00000	.00000	-.02622	.35965	.0289488	.0000000	.0012374	.0000000	.0418480	.0000000	.0159211	.0000000
-.28480	.16925	.00000	.00000	-.01305	.38060	.0286467	.0000000	.0006122	.0000000	.0424635	.0000000	.0159409	.0000000
-.30618	.16896	.00000	.00000	.00000	.40184	.0285467	.0000000	.0000000	.0000000	.0430746	.0000000	.0159474	.0000000
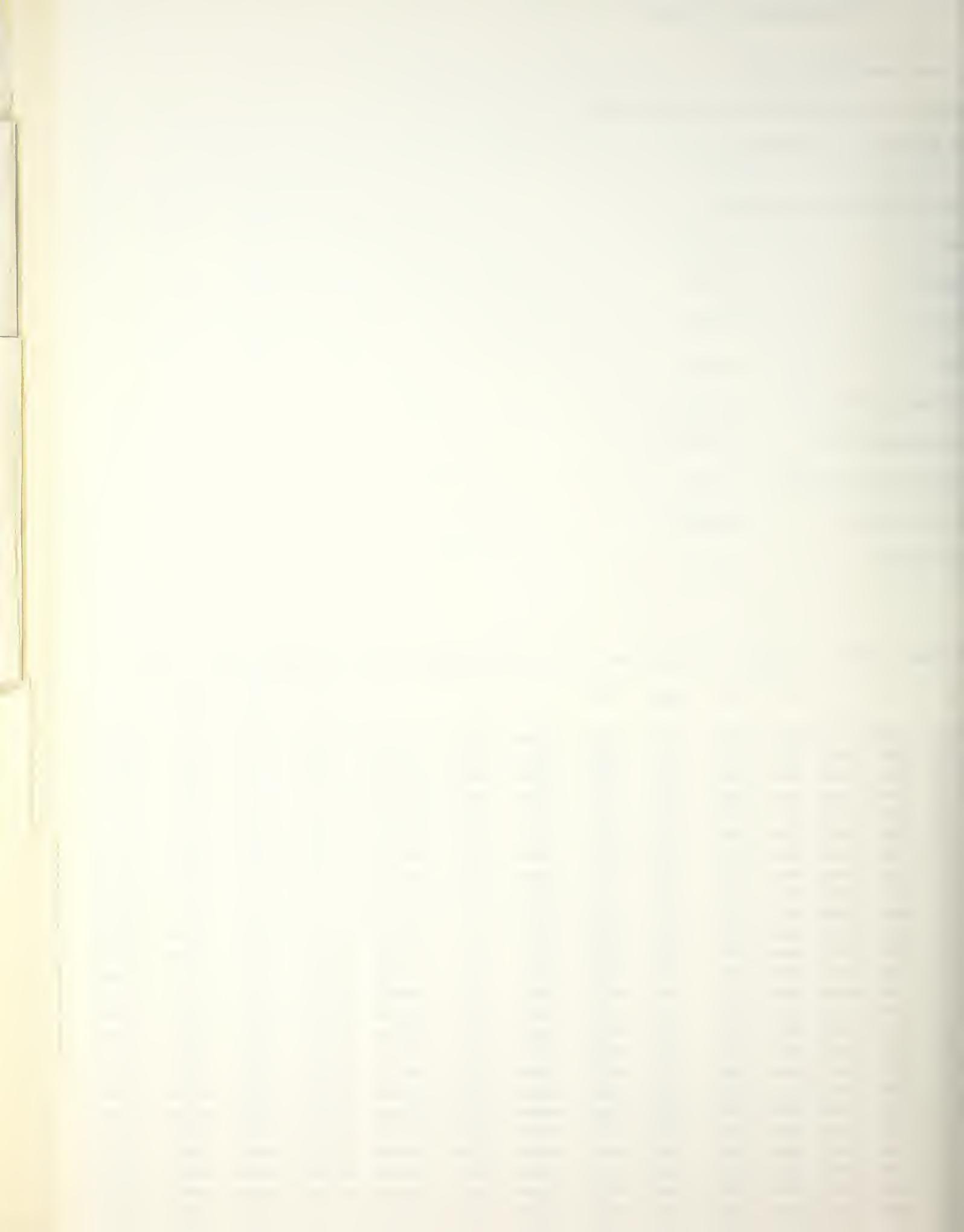
UTION VS DEPTH, THETA= 15.00 DEGREES, KX= .2618 RADIANS, H/d= .7500, WAVE HEIGHT=2.38732E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.07480	.15109	.14189	.29659	.08124	.00220	.0228287	.2965936	.0086973	.1129958	.0000000	.0000000	.0000000	.0000000
.05893	.15078	.13247	.28971	.06303	.01922	.0227360	.2897122	.0083010	.1057752	.0003616	.0046535	.0001349	.0017364
.04305	.15019	.12339	.28039	.04678	.03596	.0225562	.2803916	.0078773	.0979213	.0007211	.0091785	.0002633	.0033531
.02718	.14936	.11469	.26958	.03264	.05247	.0223075	.2695821	.0074364	.0898669	.0010772	.0135437	.0003849	.0048436
.01131	.14835	.10640	.25798	.02058	.06876	.0220069	.2579787	.0069868	.0819036	.0014289	.0177309	.0004993	.0062070
-.00457	.14720	.09852	.24608	.01050	.08488	.0216691	.2460840	.0065356	.0742209	.0017756	.0217317	.0006067	.0074462
-.02044	.14597	.09104	.23426	.00223	.10085	.0213070	.2342573	.0060881	.0669353	.0021167	.0255442	.0007069	.0085665
-.03632	.14468	.08395	.22275	-.00440	.11671	.0209315	.2227505	.0056486	.0601114	.0024520	.0291715	.0008000	.0095749
-.05219	.14336	.07722	.21174	-.00959	.13247	.0205516	.2117361	.0052198	.0537780	.0027812	.0326200	.0008863	.0104788
-.06806	.14204	.07083	.20133	-.01350	.14816	.0201747	.2013281	.0048038	.0479386	.0031045	.0358986	.0009658	.0112862
-.08394	.14074	.06477	.19160	-.01631	.16379	.0198069	.1915979	.0044018	.0425802	.0034218	.0390172	.0010389	.0120046
-.09981	.13947	.05899	.18259	-.01817	.17939	.0194530	.1825861	.0040144	.0376791	.0037334	.0419872	.0011057	.0126416
-.11569	.13826	.05348	.17431	-.01921	.19497	.0191168	.1743113	.0036415	.0332044	.0040395	.0448199	.0011665	.0132043
-.13156	.13712	.04822	.16678	-.01955	.21053	.0188013	.1667774	.0032830	.0291219	.0043405	.0475271	.0012214	.0136989
-.14743	.13605	.04317	.15998	-.01931	.22610	.0185088	.1599776	.0029381	.0253950	.0046366	.0501206	.0012708	.0141316
-.16331	.13506	.03832	.15390	-.01856	.24167	.0182411	.1538993	.0026060	.0219871	.0049283	.0526118	.0013148	.0145077
-.17918	.13416	.03364	.14853	-.01740	.25726	.0179994	.1485257	.0022858	.0188617	.0052160	.0550122	.0013536	.0148319
-.19506	.13336	.02912	.14384	-.01590	.27287	.0177847	.1438388	.0019762	.0159832	.0055000	.0573327	.0013875	.0151085
-.21093	.13266	.02472	.13982	-.01411	.28850	.0175977	.1398201	.0016761	.0133171	.0057808	.0595841	.0014165	.0153411
-.22681	.13206	.02044	.13645	-.01208	.30417	.0174389	.1364523	.0013841	.0108303	.0060589	.0617769	.0014408	.0155327
-.24268	.13156	.01624	.13372	-.00987	.31987	.0173087	.1337198	.0010990	.0084907	.0063347	.0639213	.0014605	.0156861
-.25855	.13118	.01212	.13161	-.00752	.33561	.0172072	.1316089	.0008194	.0062675	.0066086	.0660272	.0014757	.0158032
-.27443	.13090	.00805	.13011	-.00507	.35138	.0171346	.1301091	.0005440	.0041307	.0068812	.0681045	.0014865	.0158857
-.29030	.13073	.00402	.12921	-.00255	.36719	.0170911	.1292124	.0002713	.0020511	.0071529	.0701627	.0014930	.0159348
-.30618	.13068	.00000	.12891	.00000	.38305	.0170765	.1289140	.0000000	.0000000	.0074241	.0722115	.0014951	.0159511

UTION VS DEPTH, THETA= 30.00 DEGREES, KX= .5236 RADIANS, H/d= .7500, WAVE HEIGHT=2.38732E-03 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.01869	.03738	.08676	.16135	.13509	.00249	.0013973	.1613507	.0004539	.0524171	.0000000	.0000000	.0000000	.0000000
.00515	.03974	.08279	.16189	.12490	.01778	.0015795	.1618935	.0004918	.0504020	.0000201	.0021877	.0000064	.0006959
-.00838	.04192	.07884	.16194	.11539	.03295	.0017574	.1619382	.0005233	.0482239	.0000427	.0043794	.0000133	.0013634
-.02192	.04393	.07492	.16160	.10649	.04798	.0019297	.1616031	.0005485	.0459367	.0000677	.0065691	.0000205	.0020007
-.03546	.04578	.07103	.16098	.09816	.06290	.0020954	.1609802	.0005673	.0435806	.0000949	.0087524	.0000281	.0026065
-.04899	.04747	.06717	.16014	.09036	.07771	.0022538	.1601419	.0005796	.0411860	.0001244	.0109257	.0000358	.0031802
-.06253	.04903	.06335	.15915	.08304	.09242	.0024042	.1591460	.0005858	.0387757	.0001559	.0130867	.0000437	.0037214
-.07606	.05046	.05957	.15804	.07617	.10704	.0025465	.1580395	.0005860	.0363668	.0001894	.0152334	.0000517	.0042300
-.08960	.05177	.05582	.15686	.06970	.12156	.0026801	.1568606	.0005805	.0339723	.0002248	.0173646	.0000596	.0047060
-.10314	.05296	.05212	.15564	.06362	.13600	.0028051	.1556411	.0005695	.0316014	.0002619	.0194797	.0000673	.0051498
-.11667	.05405	.04845	.15441	.05788	.15036	.0029213	.1544079	.0005536	.0292609	.0003006	.0215781	.0000749	.0055617
-.13021	.05503	.04482	.15318	.05247	.16464	.0030287	.1531836	.0005330	.0269554	.0003409	.0236599	.0000823	.0059422
-.14374	.05592	.04123	.15199	.04735	.17885	.0031274	.1519875	.0005080	.0246877	.0003826	.0257253	.0000893	.0062917
-.15728	.05672	.03767	.15084	.04250	.19299	.0032175	.1508361	.0004791	.0224589	.0004255	.0277748	.0000960	.0066108
-.17082	.05744	.03414	.14974	.03788	.20707	.0032991	.1497437	.0004466	.0202693	.0004696	.0298091	.0001023	.0069000
-.19435	.05807	.03063	.14872	.03349	.22109	.0033723	.1487227	.0004108	.0181180	.0005148	.0318291	.0001081	.0071598
-.19789	.05863	.02716	.14778	.02929	.23505	.0034373	.1477834	.0003722	.0160032	.0005609	.0338359	.0001134	.0073907
-.21142	.05911	.02371	.14694	.02526	.24896	.0034942	.1469351	.0003311	.0139224	.0006078	.0358305	.0001181	.0075933
-.22496	.05953	.02028	.14619	.02139	.26281	.0035432	.1461853	.0002878	.0118726	.0006554	.0378144	.0001223	.0077679
-.23850	.05987	.01687	.14554	.01762	.27661	.0035844	.1455406	.0002426	.0098502	.0007037	.0397888	.0001259	.0079149
-.25203	.06015	.01348	.14501	.01397	.29036	.0036180	.1450060	.0001959	.0078512	.0007524	.0417552	.0001289	.0080347
-.26557	.06037	.01010	.14459	.01041	.30406	.0036439	.1445860	.0001480	.0058714	.0008015	.0437152	.0001312	.0081276
-.27910	.06052	.00673	.14428	.00690	.31771	.0036624	.1442837	.0000991	.0039061	.0008510	.0456702	.0001329	.0081937
-.29264	.06061	.00336	.14410	.00344	.33132	.0036735	.1441015	.0000497	.0019506	.0009006	.0476220	.0001339	.0082334
-.30618	.06064	.00000	.14404	.00000	.34488	.0036772	.1440406	.0000000	.0000000	.0009504	.0495722	.0001342	.0082466

CASE 4D, 23 TERMS
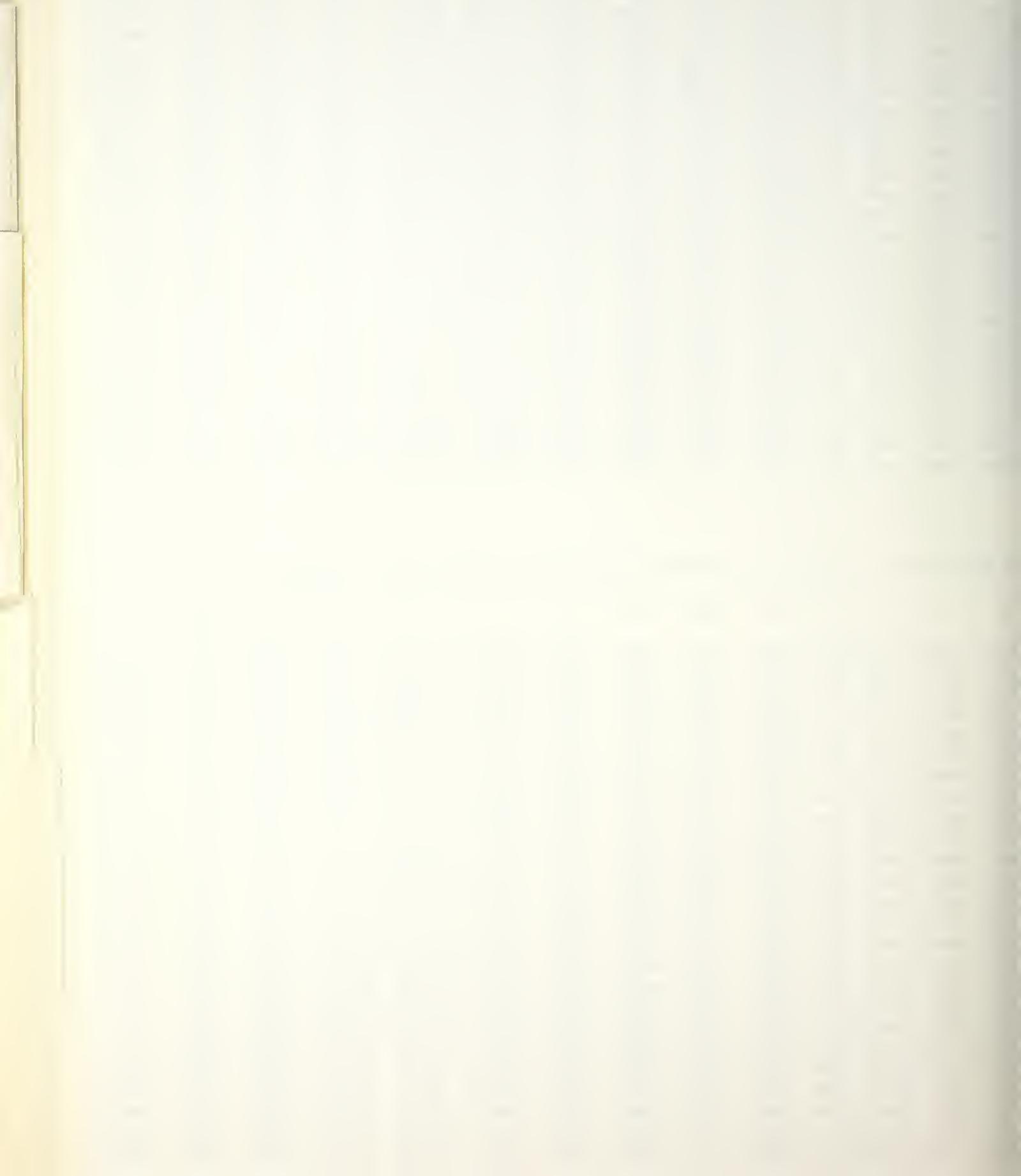
WATER SURFACE ELEVATION   ELEV.VS.   TIME   DIST.   ANGLE

/d=.7500 HEIGHT=2.3873E-03, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .00000, CRITER., EULER

	*K	(K*G)^.5	*K	DEGREES
+	-.02288	4.90377	3.14159	180.00
+	-.02284	4.80161	3.07614	176.25
+	-.02287	4.69945	3.01069	172.50
+	-.02300	4.59729	2.94524	168.75
+	-.02292	4.49512	2.87979	165.00
+	-.02268	4.39296	2.81434	161.25
+	-.02278	4.29080	2.74889	157.50
+	-.02313	4.18864	2.68344	153.75
+	-.02303	4.08648	2.61799	150.00
+	-.02255	3.98432	2.55254	146.25
+	-.02260	3.88215	2.48709	142.50
+	-.02319	3.77999	2.42164	138.75
+	-.02319	3.67783	2.35619	135.00
+	-.02244	3.57567	2.29074	131.25
+	-.02231	3.47351	2.22529	127.50
+	-.02313	3.37134	2.15984	123.75
+	-.02335	3.26918	2.09440	120.00
+	-.02235	3.16702	2.02895	116.25
+!	-.02187	3.06486	1.96350	112.50
+	-.02285	2.96270	1.89805	108.75
+	-.02340	2.86053	1.83260	105.00
+!	-.02217	2.75837	1.76715	101.25
+!	-.02115	2.65621	1.70170	97.50
+!	-.02213	2.55405	1.63625	93.75
+	-.02307	2.45189	1.57080	90.00
+!	-.02163	2.34972	1.50535	86.25
+ !	-.01978	2.24756	1.43990	82.50
+!	-.02043	2.14540	1.37445	78.75
+!	-.02170	2.04324	1.30900	75.00
+!	-.01996	1.94108	1.24355	71.25
+ !	-.01676	1.83891	1.17810	67.50
+ !	-.01642	1.73675	1.11265	63.75
+ !	-.01768	1.63459	1.04720	60.00
+ !	-.01524	1.53243	.98175	56.25
+ !	-.00962	1.43027	.91630	52.50
+ !	-.00686	1.32811	.85085	48.75
+ !	-.00708	1.22594	.78540	45.00
!+ !	-.00284	1.12378	.71995	41.25
+ !	.00751	1.02162	.65450	37.50
+ !	.01569	.91946	.58905	33.75
+ !	.01869	.81730	.52360	30.00
+ !	.02681	.71513	.45815	26.25
+ !	.04642	.61297	.39270	22.50
+ !	.06599	.51081	.32725	18.75
+ !	.07480	.40865	.26180	15.00
+ !	.08722	.30649	.19635	11.25
+ . !	.12580	.20432	.13090	7.50
+ !	.18014	.10216	.06545	3.75
+	.20675	.00000	.00000	.00

-.02340

M. M. RIENECKER AND J. D. FENTON.

TH: FINITE, HEIGHT/DEPTH= .2520

E HEIGHT 2.005161E-02,DIMENSIONLESS WITH RESPECT TO PERIOD

RRENT CRITERION: EULER , MAGNITUDE= .00

UTION OF ORDER   9 NON-DIMENSIONALIZED BY WAVE NUMBER, 2 HEIGHT STEP(S).

TER DEPTH   2.7919

VE HEIGHT   .70349

VE PERIOD   5.9232

VE SPEED   1.0608

AN EULERIAN FLUID SPEED.   -2.09812E-22

AN MASS TRANSPORT SPEED   1.99771E-02

AN FLUID SPEED RELATIVE TO WAVE 1.0608

LUME FLUX DUE TO WAVES   5.57735E-02

RNOULLI CONSTANT   .56301

UTION VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.43013	.54527	.00000	.00000	-.32057	.00000	.2973223	.0000000	.9579718	.0000000	.0000000	.0000000	.0000000	.0000000
.29588	.46879	.00000	.00000	-.30872	.09190	.2197603	.0000000	.6785645	.0000000	.0347091	.0000000	.1098524	.0000000
.16163	.40437	.00000	.00000	-.28947	.18594	.1635144	.0000000	.4829395	.0000000	.0604364	.0000000	.1878183	.0000000
.02738	.34973	.00000	.00000	-.26678	.28282	.1223085	.0000000	.3448179	.0000000	.0796223	.0000000	.2433815	.0000000
-.10687	.30313	.00000	.00000	-.24295	.38285	.0918867	.0000000	.2467157	.0000000	.0940001	.0000000	.2830882	.0000000
-.24112	.26323	.00000	.00000	-.21932	.48608	.0692917	.0000000	.1767456	.0000000	.1048192	.0000000	.3115130	.0000000
-.37537	.22898	.00000	.00000	-.19666	.59242	.0524299	.0000000	.1266968	.0000000	.1129898	.0000000	.3318815	.0000000
-.50962	.19950	.00000	.00000	-.17538	.70172	.0397987	.0000000	.0908305	.0000000	.1191806	.0000000	.3464831	.0000000
-.64387	.17409	.00000	.00000	-.15569	.81376	.0303072	.0000000	.0650998	.0000000	.1238865	.0000000	.3569499	.0000000
-.77812	.15217	.00000	.00000	-.13766	.92834	.0231569	.0000000	.0466322	.0000000	.1274753	.0000000	.3644499	.0000000
-.91237	.13326	.00000	.00000	-.12125	1.04523	.0177592	.0000000	.0333784	.0000000	.1302217	.0000000	.3698206	.0000000
-1.04662	.11695	.00000	.00000	-.10639	1.16422	.0136777	.0000000	.0238709	.0000000	.1323319	.0000000	.3736634	.0000000
-1.18087	.10289	.00000	.00000	-.09297	1.28510	.0105873	.0000000	.0170561	.0000000	.1339607	.0000000	.3764107	.0000000
-1.31512	.09080	.00000	.00000	-.08088	1.40769	.0082452	.0000000	.0121761	.0000000	.1352249	.0000000	.3783729	.0000000
-1.44937	.08043	.00000	.00000	-.06998	1.53183	.0064693	.0000000	.0086850	.0000000	.1362126	.0000000	.3797732	.0000000
-1.58362	.07157	.00000	.00000	-.06014	1.65736	.0051229	.0000000	.0061897	.0000000	.1369907	.0000000	.3807716	.0000000
-1.71787	.06406	.00000	.00000	-.05123	1.78414	.0041031	.0000000	.0044067	.0000000	.1376100	.0000000	.3814829	.0000000
-1.85212	.05773	.00000	.00000	-.04314	1.91206	.0033325	.0000000	.0031317	.0000000	.1381091	.0000000	.3819889	.0000000
-1.98637	.05247	.00000	.00000	-.03574	2.04103	.0027531	.0000000	.0022176	.0000000	.1385176	.0000000	.3823480	.0000000
-2.12062	.04818	.00000	.00000	-.02893	2.17094	.0023213	.0000000	.0015581	.0000000	.1388582	.0000000	.3826015	.0000000
-2.25487	.04479	.00000	.00000	-.02258	2.30174	.0020048	.0000000	.0010766	.0000000	.1391486	.0000000	.3827783	.0000000
-2.38912	.04219	.00000	.00000	-.01662	2.43336	.0017802	.0000000	.0007170	.0000000	.1394027	.0000000	.3828987	.0000000
-2.52337	.04038	.00000	.00000	-.01093	2.56576	.0016306	.0000000	.0004378	.0000000	.1396316	.0000000	.3829762	.0000000
-2.65762	.03931	.00000	.00000	-.00542	2.69892	.0015451	.0000000	.0002074	.0000000	.1398448	.0000000	.3830195	.0000000
-2.79187	.03895	.00000	.00000	.00000	2.83280	.0015173	.0000000	.0000000	.0000000	.1400504	.0000000	.3830335	.0000000
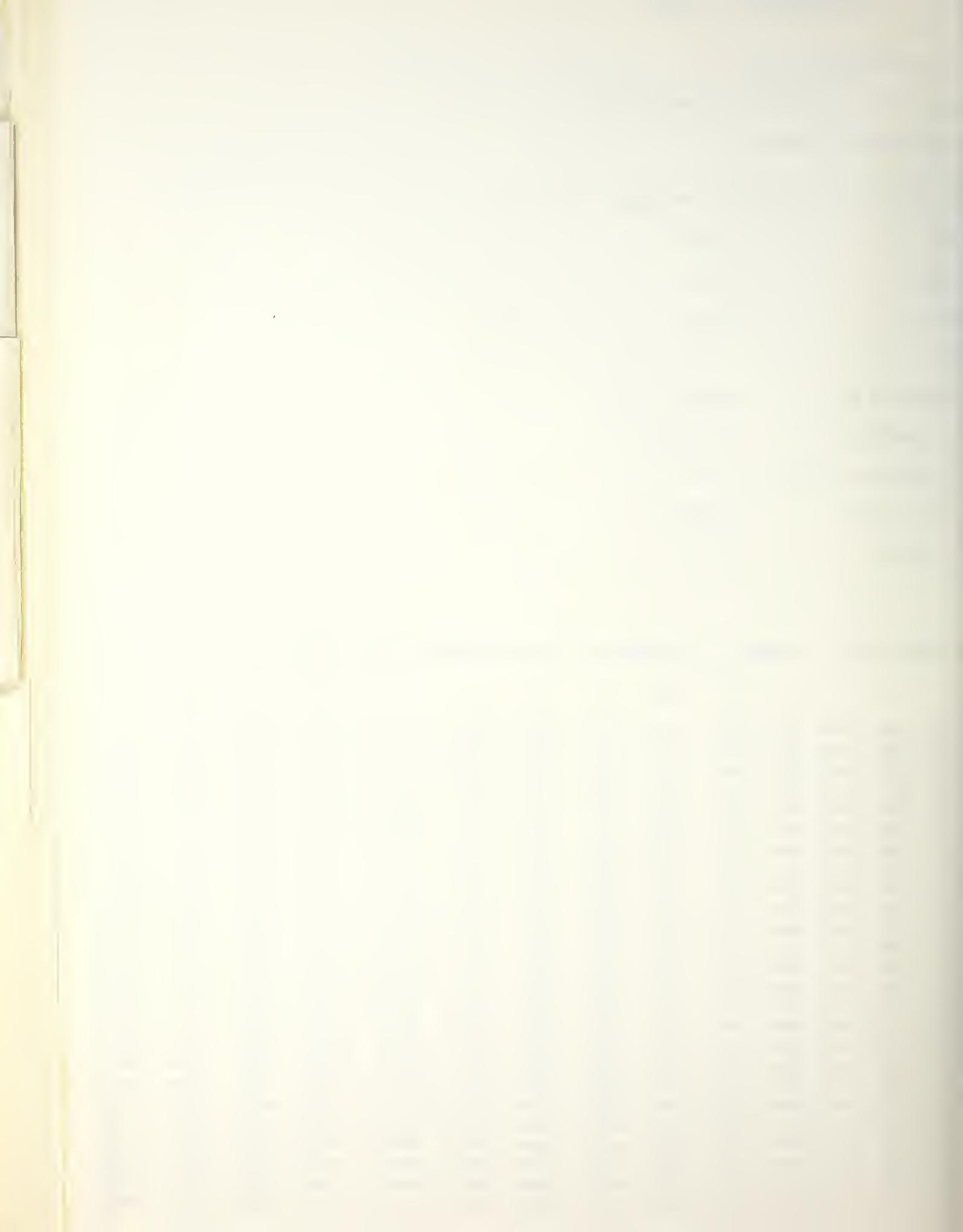
SOLUTION VS DEPTH, THETA= 15.00 DEGREES, KX= .2818 RADIANS, H/d= .2520, WAVE HEIGHT=2.00518E-02 DIMENSIONLESS W/RESP. TO PERIOD

| KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.39238	.49619	.15078	.19253	-.27901	-.00012	.2462004	.1925264	.7839628	.6130514	.0000000	.0000000	.0000000	.0000000
.25970	.42926	.12748	.15902	-.27364	.09577	.1842624	.1590161	.5622895	.4852485	.0285562	.0233208	.0893083	.0728595
.12703	.37215	.10847	.13257	-.25985	.19299	.1384922	.1325678	.4042439	.3869510	.0499673	.0426640	.1534266	.1307199
-.00565	.32322	.09275	.11139	-.24173	.29236	.1044719	.1113873	.2910811	.3103490	.0660852	.0588476	.1995534	.1769777
-.13833	.28118	.07959	.09421	-.22174	.39428	.0790629	.0942074	.2097964	.2499829	.0782606	.0724864	.2327809	.2141493
-.27101	.24497	.06849	.08012	-.20134	.49889	.0600097	.0801201	.1512761	.2019717	.0874964	.0840511	.2567339	.2441312
-.40368	.21372	.05906	.06846	-.18141	.60618	.0456750	.0684635	.1090804	.1635034	.0944974	.0939079	.2740055	.2683763
-.53636	.18671	.05100	.05875	-.16245	.71606	.0348605	.0587456	.0786282	.1325012	.0998400	.1023467	.2864578	.2880128
-.66904	.16335	.04409	.05059	-.14473	.82838	.0266829	.0505947	.0566433	.1074039	.1039227	.1096002	.2954315	.3039277
-.80171	.14313	.03812	.04372	-.12836	.94295	.0204872	.0437249	.0407728	.0870192	.1070519	.1158572	.3018939	.3168254
-.93439	.12564	.03296	.03791	-.11338	1.05961	.0157857	.0379135	.0293215	.0704234	.1094582	.1212730	.3065439	.3272699
-1.06707	.11051	.02847	.03298	-.09973	1.17816	.0122132	.0329847	.0210654	.0568920	.1113156	.1259762	.3098865	.3357158
-1.19974	.09745	.02456	.02880	-.08736	1.29844	.0094960	.0287982	.0151189	.0458502	.1127557	.1300748	.3122869	.3425316
-1.33242	.08619	.02113	.02524	-.07615	1.42028	.0074279	.0252410	.0108407	.0368378	.1138784	.1336597	.3140090	.3480170
-1.46510	.07651	.01812	.02222	-.06601	1.54354	.0058535	.0222216	.0077662	.0294829	.1147595	.1368083	.3152434	.3524166
-1.59777	.06823	.01545	.01967	-.05683	1.66808	.0046551	.0196655	.0055586	.0234824	.1154566	.1395870	.3161273	.3559303
-1.73045	.06119	.01308	.01751	-.04849	1.79378	.0037442	.0175117	.0039741	.0185872	.1160138	.1420533	.3167597	.3587211
-1.86313	.05526	.01096	.01571	-.04088	1.92053	.0030535	.0157105	.0028359	.0145909	.1164648	.1442572	.3172115	.3609221
-1.99581	.05032	.00904	.01422	-.03391	2.04826	.0025324	.0142212	.0020160	.0113210	.1168353	.1462429	.3175333	.3626410
-2.12848	.04629	.00729	.01301	-.02747	2.17687	.0021430	.0130112	.0014217	.0086314	.1171455	.1480494	.3177614	.3639646
-2.26116	.04309	.00568	.01205	-.02147	2.30630	.0018569	.0120542	.0009855	.0063973	.1174109	.1497122	.3179211	.3649616
-2.39384	.04066	.00417	.01133	-.01580	2.43651	.0016533	.0113300	.0006581	.0045097	.1176437	.1512634	.3180301	.3656852
-2.52651	.03896	.00274	.01082	-.01040	2.56745	.0015176	.0108232	.0004027	.0028720	.1178541	.1527330	.3181005	.3661749
-2.65919	.03795	.00136	.01052	-.00516	2.69910	.0014399	.0105232	.0001910	.0013962	.1180503	.1541491	.3181398	.3664580
-2.79187	.03761	.00000	.01042	.00000	2.83143	.0014146	.0104239	.0000000	.0000000	.1182396	.1555387	.3181525	.3665506

SOLUTION VS DEPTH, THETA= 30.00 DEGREES, KX= .5236 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.30474	.38815	.25213	.30293	-.19197	.00026	.1506574	.3029337	.4665265	.9380660	.0000000	.0000000	.0000000	.0000000
.17571	.34003	.21653	.25744	-.19654	.10411	.1156212	.2574402	.3431152	.7639743	.0171783	.0361512	.0522321	.1098031
.04669	.29796	.18657	.21953	-.19253	.20796	.0887794	.2195251	.2520052	.6231339	.0303647	.0669215	.0906249	.1992890
-.08234	.26121	.16118	.18785	-.18342	.31269	.0682301	.1878522	.1848715	.5089911	.0404938	.0932024	.1188089	.2723254
-.21136	.22912	.13954	.16129	-.17145	.41890	.0524977	.1612947	.1354704	.4162217	.0482823	.1157268	.1394750	.3320133
-.34039	.20112	.12100	.13893	-.15810	.52656	.0404478	.1389339	.0991570	.3405934	.0542785	.1350953	.1546114	.3808374
-.46941	.17667	.10504	.12003	-.14430	.63608	.0312129	.1200304	.0724906	.2787650	.0589015	.1518018	.1656849	.4207938
-.59844	.15534	.09126	.10399	-.13066	.74737	.0241306	.1039911	.0529288	.2280970	.0624718	.1662540	.1737760	.4534928
-.72746	.13673	.07932	.09034	-.11752	.86039	.0186954	.0903392	.0385949	.1864965	.0652346	.1787907	.1796804	.4802393
-.85649	.12051	.06893	.07869	-.10512	.97506	.0145217	.0786898	.0281049	.1522945	.0673776	.1896952	.1839834	.5020956
-.98551	.10637	.05987	.06873	-.09354	1.09128	.0113148	.0687306	.0204386	.1241516	.0690443	.1992057	.1871151	.5199298
-1.11454	.09407	.05194	.06021	-.08284	1.20893	.0088498	.0602065	.0148440	.1009861	.0703452	.2075238	.1893912	.5344541
-1.24356	.08339	.04498	.05291	-.07299	1.32791	.0069545	.0529087	.0107676	.0819186	.0713648	.2148211	.1910435	.5462537
-1.37259	.07414	.03884	.04666	-.06398	1.44811	.0054971	.0466648	.0078019	.0662304	.0721681	.2212449	.1922415	.5558112
-1.50161	.06616	.03341	.04133	-.05573	1.56942	.0043767	.0413328	.0056471	.0533297	.0728051	.2269218	.1931091	.5635243
-1.63064	.05930	.02858	.03679	-.04818	1.69175	.0035162	.0367946	.0040831	.0427269	.0733143	.2319620	.1937368	.5697212
-1.75967	.05344	.02427	.03295	-.04127	1.81501	.0028563	.0329529	.0029483	.0340140	.0737254	.2364616	.1941904	.5746720
-1.88869	.04850	.02038	.02973	-.03492	1.93913	.0023520	.0297269	.0021242	.0268486	.0740614	.2405053	.1945177	.5785984
-2.01772	.04437	.01685	.02705	-.02905	2.06403	.0019686	.0270503	.0015240	.0209410	.0743401	.2441681	.1947530	.5816814
-2.14674	.04099	.01361	.02487	-.02359	2.18966	.0016801	.0248691	.0010839	.0160437	.0745755	.2475176	.1949213	.5840674
-2.27577	.03830	.01062	.02314	-.01847	2.31598	.0014668	.0231398	.0007570	.0119425	.0747785	.2506147	.1950400	.5858728
-2.40479	.03625	.00781	.02183	-.01362	2.44294	.0013143	.0218284	.0005087	.0084492	.0749579	.2535157	.1951217	.5871883
-2.53382	.03482	.00513	.02091	-.00897	2.57051	.0012122	.0209094	.0003128	.0053957	.0751209	.2562729	.1951747	.5880815
-2.66284	.03396	.00254	.02036	-.00445	2.69867	.0011536	.0203649	.0001488	.0026276	.0752735	.2589356	.1952045	.5885991
-2.79187	.03368	.00000	.02018	.00000	2.82740	.0011345	.0201846	.0000000	.0000000	.0754211	.2615515	.1952141	.5887686
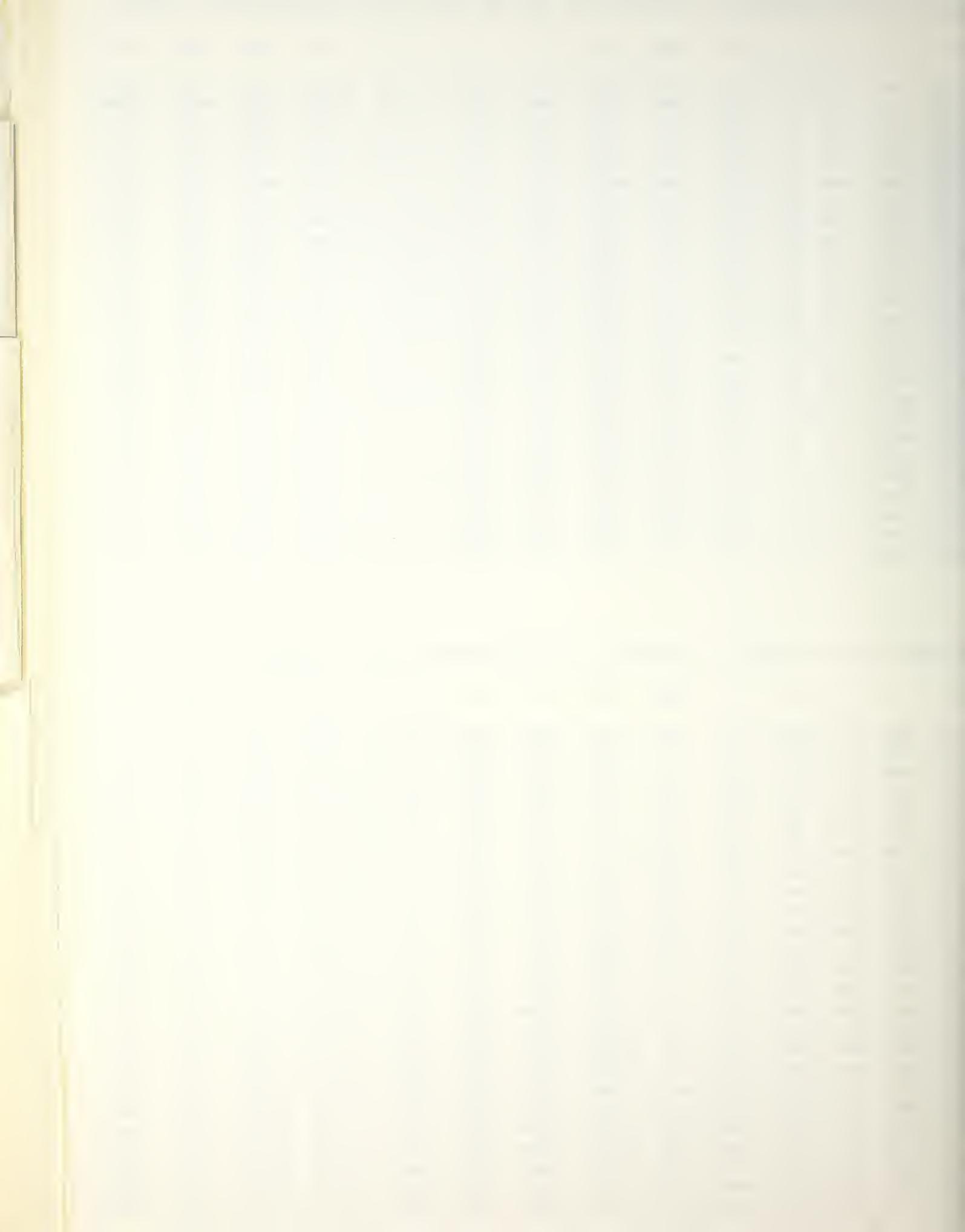
HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS

	Ax	Ay	DIST.	ANGLE
/o=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER	*1/G	*1/G	*K	DEGREES
	.00000	.28506	3.14159	180.00
	.01433	.28480	3.07614	176.25
	.02865	.28400	3.01069	172.50
	.04294	.28256	2.94524	168.75
	.05720	.28078	2.87979	165.00
	.07140	.27834	2.81434	161.25
	.08553	.27535	2.74889	157.50
	.09958	.27179	2.68344	153.75
	.11353	.26767	2.61799	150.00
	.12736	.26298	2.55254	146.25
	.14106	.25773	2.48709	142.50
	.15462	.25191	2.42164	138.75
	.16802	.24553	2.35619	135.00
	.18124	.23857	2.29074	131.25
	.19427	.23102	2.22529	127.50
	.20706	.22266	2.15984	123.75
	.21960	.21407	2.09440	120.00
	.23194	.20465	2.02895	116.25
	.24375	.19456	1.96350	112.50
	.25529	.18380	1.89805	108.75
	.26643	.17238	1.83260	105.00
	.27714	.16029	1.76715	101.25
	.28738	.14754	1.70170	97.50
	.29713	.13414	1.63625	93.75
	.30637	.12010	1.57080	90.00
	.31504	.10542	1.50535	86.25
	.32311	.09009	1.43990	82.50
	.33050	.07410	1.37445	78.75
	.33711	.05744	1.30900	75.00
	.34285	.04009	1.24355	71.25
	.34759	.02304	1.17810	67.50
	.35119	.00329	1.11265	63.75
	.35351	-.01616	1.04720	60.00
	.35439	-.03628	.98175	56.25
	.35368	-.05704	.91630	52.50
	.35121	-.07840	.85085	48.75
	.34676	-.10031	.79540	45.00
	.34009	-.12271	.71995	41.25
	.33087	-.14553	.65450	37.50
	.31867	-.16866	.58905	33.75
	.30298	-.19193	.52360	30.00
	.28316	-.21509	.45815	26.25
	.25855	-.23776	.39270	22.50
	.22853	-.25936	.32725	18.75
	.19270	-.27912	.26180	15.00
	.15104	-.29610	.19635	11.25
	.10411	-.30925	.13090	7.50
	.05316	-.31761	.05545	3.75
	.00000	-.32048	.00000	.00

5439

-.32048

d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER

	U	V	DIST.	ANGLE
	*SQRT(K/G)	*K		DEGREES
	-.23255	.00000	3.14159	180.00
	-.23219	.01442	3.07614	176.25
	-.23111	.02893	3.01069	172.50
	-.22930	.04319	2.94524	168.75
	-.22676	.05750	2.87979	165.00
	-.22349	.07173	2.81434	161.25
	-.21948	.08586	2.74889	157.50
	-.21472	.09987	2.68344	153.75
	-.20922	.11373	2.61799	150.00
	-.20298	.12743	2.55254	146.25
	-.19600	.14095	2.48709	142.50
	-.18827	.15426	2.42164	138.75
	-.17980	.16735	2.35619	135.00
	-.17057	.18018	2.29074	131.25
	-.16058	.19274	2.22529	127.50
	-.14980	.20499	2.15984	123.75
	-.13823	.21689	2.09440	120.00
	-.12586	.22840	2.02895	116.25
	-.11266	.23947	1.96350	112.50
	-.09865	.25006	1.89805	108.75
	-.08381	.26013	1.83260	105.00
	-.06813	.26964	1.76715	101.25
	-.05163	.27856	1.70170	97.50
	-.03429	.28686	1.63625	93.75
	-.01609	.29450	1.57080	90.00
	.00296	.30143	1.50535	86.25
	.02289	.30760	1.43990	82.50
	.04372	.31292	1.37445	78.75
	.06545	.31732	1.30900	75.00
	.08809	.32068	1.24355	71.25
	.11163	.32288	1.17810	67.50
	.13605	.32379	1.11265	63.75
	.16133	.32329	1.04720	60.00
	.18742	.32125	.98175	56.25
	.21430	.31755	.91630	52.50
	.24191	.31206	.85085	48.75
	.27021	.30464	.78540	45.00
	.29911	.29515	.71995	41.25
	.32852	.28339	.65450	37.50
	.35825	.26912	.58905	33.75
	.38803	.25208	.52360	30.00
	.41743	.23198	.45815	26.25
	.44587	.20853	.39270	22.50
	.47257	.18153	.32725	18.75
	.49658	.15091	.26180	15.00
	.51683	.11684	.19635	11.25
	.53227	.07978	.13090	7.50
	.54195	.04048	.06545	3.75
	.54527	.00000	.00000	.00

54527

-.23255

WATER SURFACE ELEVATION   ELEV.VS.   TIME   DIST.   ANGLE

/d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER   *K   (K*G)^.5   *K   DEGREES

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------------------------------------------------------------------------------------+ -.27336  2.96157  3.14159  180.00
                                                                                  :  + -.27298  2.89987  3.07614  176.25
                                                                                  :   + -.27186  2.83817  3.01069  172.50
                                                                                  :    + -.27000  2.77647  2.94524  168.75
                                                                                  +:  -.26742  2.71477  2.87979  165.00
                                                                                  +:  -.26413  2.65307  2.81434  161.25
                                                                                + :  -.26015  2.59137  2.74889  157.50
                                                                              +  :  -.25546  2.52967  2.68344  153.75
                                                                              +  :  -.25006  2.46797  2.61799  150.00
                                                                            +    :  -.24391  2.40628  2.55254  146.25
                                                                         +       :  -.23700  2.34458  2.48709  142.50
                                                                       +         :  -.22931  2.28288  2.42164  138.75
                                                                     +           :  -.22080  2.22118  2.35619  135.00
                                                                  +              :  -.21149  2.15948  2.29074  131.25
                                                                +                :  -.20138  2.09778  2.22529  127.50
                                                              +                  :  -.19050  2.03608  2.15984  123.75
                                                            +                    :  -.17890  1.97438  2.09440  120.00
                                                          +                      :  -.16660  1.91268  2.02895  116.25
                                                        +                        :  -.15363  1.85098  1.96350  112.50
                                                      +                          :  -.14001  1.78928  1.89805  108.75
                                                     +                           :  -.12571  1.72758  1.83260  105.00
                                                   +                             :  -.11071  1.66588  1.76715  101.25
                                                 +                               :  -.09496  1.60418  1.70170   97.50
                                               +                                 :  -.07839  1.54248  1.63625   93.75
                                             +                                   :  -.06096  1.48078  1.57080   90.00
                                           +                                     :  -.04263  1.41909  1.50535   86.25
                                         +                                       :  -.02342  1.35739  1.43990   82.50
                                        +                                        :  -.00334  1.29569  1.37445   78.75
                                      +  :                                          .01753  1.23399  1.30900   75.00
                                    +    :                                          .03911  1.17229  1.24355   71.25
                                  +      :                                          .06128  1.11059  1.17810   67.50
                                +        :                                          .08396  1.04889  1.11265   63.75
                              +          :                                          .10706   .98719  1.04720   60.00
                            +            :                                          .13056   .92549   .98175   56.25
                          +              :                                          .15444   .86379   .91630   52.50
                        +                :                                          .17871   .80209   .85085   48.75
                      +                  :                                          .20338   .74039   .78540   45.00
                    +                    :                                          .22842   .67869   .71995   41.25
                  +                      :                                          .25376   .61699   .65450   37.50
                +                        :                                          .27921   .55529   .58905   33.75
              +                          :                                          .30447   .49359   .52360   30.00
            +                            :                                          .32909   .43190   .45815   26.25
          +                              :                                          .35250   .37020   .39270   22.50
        +                                :                                          .37406   .30850   .32725   18.75
     +                                   :                                          .39302   .24680   .26180   15.00
   +                                     :                                          .40869   .18510   .19635   11.25
 +                                       :                                          .42041   .12340   .13090    7.50
+                                        :                                          .42767   .06170   .06545    3.75
-----------------------------------------:                                          .43012   .00000   .00000     .00
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3012   -.27336

OLUTION VS DEPTH, THETA= 15.00 DEGREES, KX= .2618 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.39302	.49658	.15091	.19270	-.27912	-.00058	.2465879	.1927004	.7853517	.6137269	.0000000	.0000000	.0000000	.0000000
.26032	.42956	.12759	.15917	-.27374	.09532	.1845251	.1591746	.5632025	.4858285	.0286050	.0233475	.0894787	.0729572
.12762	.37239	.10856	.13270	-.25994	.19255	.1386748	.1326957	.4048568	.3874009	.0500499	.0427135	.1537110	.1308974
-.00508	.32342	.09281	.11149	-.24183	.29192	.1046003	.1114861	.2914967	.3106858	.0661915	.0589154	.1999151	.1772165
-.13779	.28134	.07964	.09428	-.22183	.39385	.0791539	.0942829	.2100794	.2502326	.0783839	.0725685	.2331955	.2144344
-.27049	.24510	.06853	.08018	-.20142	.49847	.0600744	.0801779	.1514691	.2021573	.0876219	.0841442	.2571848	.2444511
-.40319	.21382	.05909	.06851	-.18148	.60578	.0457211	.0685079	.1092120	.1636420	.0946416	.0940097	.2744814	.2687225
-.53590	.18680	.05103	.05878	-.16252	.71567	.0348933	.0587801	.0787178	.1326052	.0999905	.1024535	.2869508	.2983790
-.66860	.16342	.04411	.05062	-.14479	.82800	.0267062	.0506216	.0567041	.1074823	.1040778	.1097145	.2959263	.3043091
-.80130	.14319	.03814	.04375	-.12841	.94259	.0205038	.0437459	.0408138	.0870784	.1072102	.1159759	.3024067	.3172186
-.93401	.12569	.03297	.03793	-.11342	1.05926	.0157974	.0379300	.0293492	.0704681	.1096189	.1213552	.3070622	.3276720
-1.06671	.11055	.02848	.03300	-.09977	1.17783	.0122216	.0329976	.0210839	.0569256	.1114780	.1261014	.3104085	.3361248
-1.19941	.09748	.02457	.02881	-.08739	1.29813	.0095019	.0288083	.0151312	.0458754	.1129194	.1302023	.3128114	.3429458
-1.33212	.08621	.02114	.02525	-.07617	1.41999	.0074320	.0252489	.0108488	.0368556	.1140429	.1337891	.3145352	.3484352
-1.46482	.07653	.01812	.02223	-.06603	1.54327	.0058563	.0222277	.0077715	.0294969	.1149246	.1369392	.3157707	.3528373
-1.59752	.06824	.01545	.01967	-.05684	1.66783	.0046571	.0196701	.0055621	.0234926	.1156222	.1397192	.3166554	.3563538
-1.73023	.06120	.01308	.01752	-.04850	1.79356	.0037455	.0175152	.0039763	.0185946	.1161798	.1421865	.3172883	.3591463
-1.86293	.05527	.01096	.01571	-.04089	1.92033	.0030544	.0157130	.0028373	.0145952	.1166309	.1443913	.3177404	.3613485
-1.99563	.05033	.00904	.01422	-.03392	2.04808	.0025330	.0142231	.0020168	.0113247	.1170017	.1463776	.3180625	.3630685
-2.12834	.04630	.00729	.01301	-.02748	2.17672	.0021434	.0130125	.0014222	.0086340	.1173120	.1481847	.3182907	.3643928
-2.26104	.04309	.00568	.01206	-.02147	2.30618	.0018571	.0120551	.0009858	.0063990	.1175774	.1498480	.3184504	.3653902
-2.39374	.04066	.00417	.01133	-.01581	2.43641	.0016535	.0113305	.0006583	.0045108	.1178103	.1513997	.3185595	.3661141
-2.52644	.03896	.00274	.01082	-.01040	2.56737	.0015177	.0108235	.0004028	.0028726	.1180207	.1528656	.3186299	.3666040
-2.65915	.03795	.00136	.01052	-.00516	2.69905	.0014399	.0105234	.0001911	.0013965	.1182170	.1542860	.3196693	.3668873
-2.79185	.03761	.00000	.01042	.00000	2.83141	.0014146	.0104241	.0000000	.0000000	.1184064	.1556759	.3186820	.3669799

OLUTION VS DEPTH, THETA= 30.00 DEGREES, KX= .5236 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.30447	.38803	.25208	.30298	-.19193	.00046	.1505679	.3029755	.4662062	.9381085	.0000000	.0000000	.0000000	.0000000
.17545	.33994	.21649	.25743	-.19650	.10430	.1155565	.2574255	.3428913	.7638599	.0171668	.0361496	.0521921	.1097882
.04644	.29788	.18653	.21949	-.19250	.20815	.0887327	.2194944	.2518493	.6229892	.0303448	.0669141	.0905569	.1992492
-.08257	.26114	.16115	.18782	-.18339	.31288	.0681964	.1878198	.1847631	.5088561	.0404678	.0931885	.1187213	.2722607
-.21159	.22907	.13951	.16127	-.17142	.41898	.0524733	.1612652	.1353950	.4161069	.0482518	.1157068	.1393736	.3319270
-.34060	.20107	.12097	.13891	-.15807	.52673	.0404302	.1389084	.0991046	.3404995	.0542446	.1350700	.1545003	.3807331
-.46961	.17664	.10502	.12001	-.14428	.63624	.0312002	.1200090	.0724543	.2786895	.0588653	.1517719	.1655670	.4206749
-.59863	.15531	.09124	.10397	-.13064	.74752	.0241214	.1039734	.0529037	.2280371	.0624339	.1662203	.1738535	.4533621
-.72764	.13671	.07930	.09032	-.11751	.86053	.0186888	.0903247	.0385777	.1864493	.0651954	.1787538	.1795546	.4800992
-.85665	.12049	.06892	.07868	-.10510	.97520	.0145169	.0786780	.0280932	.1522577	.0673374	.1896556	.1838553	.5019481
-.98567	.10636	.05986	.06872	-.09353	1.09141	.0113114	.0687211	.0204206	.1241230	.0690035	.1991638	.1869854	.5197765
-1.11468	.09406	.05193	.06020	-.08283	1.20905	.0088474	.0601989	.0148386	.1009640	.0703039	.2074800	.1893605	.5342961
-1.24369	.08338	.04497	.05290	-.07259	1.32802	.0069528	.0529027	.0107640	.0815018	.0713231	.2147759	.1909121	.5460921
-1.37271	.07413	.03884	.04666	-.06397	1.44821	.0054959	.0466602	.0077995	.0662176	.0721261	.2211983	.1921095	.5556468
-1.50172	.06615	.03341	.04133	-.05572	1.56951	.0043759	.0413292	.0056455	.0533201	.0727629	.2268742	.1929768	.5633578
-1.63073	.05929	.02858	.03679	-.04818	1.69183	.0035156	.0367919	.0040821	.0427198	.0732720	.2319125	.1936043	.5695530
-1.75975	.05344	.02425	.03295	-.04127	1.81508	.0028560	.0329509	.0029477	.0340088	.0736830	.2364124	.1940578	.5745025
-1.88876	.04849	.02038	.02973	-.03491	1.93918	.0023517	.0297255	.0021238	.0268449	.0740189	.2404554	.1943849	.5784280
-2.01777	.04437	.01685	.02705	-.02905	2.06408	.0019684	.0270494	.0015237	.0209324	.0742975	.2441178	.1946202	.5815103
-2.14678	.04099	.01361	.02487	-.02359	2.18970	.0016800	.0248686	.0010837	.0160419	.0745330	.2474668	.1947884	.5838958
-2.27580	.03830	.01062	.02314	-.01847	2.31600	.0014668	.0231396	.0007569	.0119412	.0747360	.2505637	.1949071	.5857009
-2.40481	.03625	.00781	.02183	-.01362	2.44295	.0013143	.0218284	.0005087	.0084485	.0749154	.2534644	.1949688	.5870161
-2.53382	.03482	.00513	.02091	-.00897	2.57051	.0012122	.0209095	.0003128	.0053952	.0750783	.2562213	.1950418	.5879092
-2.66284	.03396	.00254	.02037	-.00445	2.69865	.0011536	.0203652	.0001488	.0026274	.0752309	.2588838	.1950715	.5884267
-2.79185	.03368	.00000	.02018	.00000	2.82738	.0011345	.0201849	.0000000	.0000000	.0753765	.2614995	.1950811	.5885961

STEADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
         M. M. RIENECKER AND J. D. FENTON.

DEPTH: FINITE, HEIGHT/DEPTH= .2520

WAVE HEIGHT 2.005161E-02,DIMENSIONLESS WITH RESPECT TO PERIOD

CURRENT CRITERION: EULER , MAGNITUDE= .00

SOLUTION OF ORDER 7 NON-DIMENSIONALIZED BY WAVE NUMBER, 2 HEIGHT STEP(S).

WATER DEPTH   2.7919

WAVE HEIGHT   .70348

WAVE PERIOD   5.9231

WAVE SPEED   1.0608

MEAN EULERIAN FLUID SPEED   -5.72746E-22

MEAN MASS TRANSPORT SPEED   1.99803E-02

MEAN FLUID SPEED RELATIVE TO WAVE   1.0608

VOLUME FLUX DUE TO WAVES   5.57819E-02

BERNOULLI CONSTANT   .56300

SOLUTION VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	XD	XI	FDS	FIS	XDS	XIS
.43012	.54527	.00000	.00000	-.32048	.00000	.2973202	.0000000	.9573579	.0000000	.0000000	.0000000	.0000000	.0000000
.29587	.46880	.00000	.00000	-.30871	.09190	.2197690	.0000000	.6785963	.0000000	.0347093	.0000000	.1098521	.0000000
.16162	.40438	.00000	.00000	-.28948	.18594	.1635214	.0000000	.4829567	.0000000	.0204375	.0000000	.1373201	.0000000
.02738	.34973	.00000	.00000	-.26680	.28283	.1223127	.0000000	.3448274	.0000000	.0796240	.0000000	.2433247	.0000000
-.10687	.30313	.00000	.00000	-.24296	.38285	.0918891	.0000000	.2467202	.0000000	.0940021	.0000000	.2930320	.0000000
-.24112	.26324	.00000	.00000	-.21933	.48608	.0692929	.0000000	.1767475	.0000000	.1048214	.0000000	.3115170	.0000000
-.37537	.22898	.00000	.00000	-.19666	.59242	.0524306	.0000000	.1266975	.0000000	.1129930	.0000000	.3313856	.0000000
-.50962	.19950	.00000	.00000	-.17539	.70171	.0397990	.0000000	.0908306	.0000000	.1191929	.0000000	.3464870	.0000000
-.64387	.17409	.00000	.00000	-.15570	.81375	.0303074	.0000000	.0650997	.0000000	.1238887	.0000000	.3569538	.0000000
-.77812	.15217	.00000	.00000	-.13766	.92833	.0231570	.0000000	.0466321	.0000000	.1274775	.0000000	.3644537	.0000000
-.91237	.13326	.00000	.00000	-.12125	1.04522	.0177593	.0000000	.0333783	.0000000	.1302240	.0000000	.3699244	.0000000
-1.04662	.11695	.00000	.00000	-.10639	1.16420	.0136777	.0000000	.0238708	.0000000	.1323342	.0000000	.3736672	.0000000
-1.18086	.10289	.00000	.00000	-.09297	1.28509	.0105873	.0000000	.0170561	.0000000	.1339630	.0000000	.3764144	.0000000
-1.31511	.09080	.00000	.00000	-.08088	1.40768	.0082452	.0000000	.0121760	.0000000	.1352271	.0000000	.3783766	.0000000
-1.44936	.08043	.00000	.00000	-.06998	1.53182	.0064693	.0000000	.0086850	.0000000	.1362148	.0000000	.3797769	.0000000
-1.58361	.07157	.00000	.00000	-.06014	1.65734	.0051229	.0000000	.0061897	.0000000	.1369929	.0000000	.3807753	.0000000
-1.71786	.06406	.00000	.00000	-.05124	1.78412	.0041031	.0000000	.0044067	.0000000	.1376122	.0000000	.3814856	.0000000
-1.85211	.05773	.00000	.00000	-.04314	1.91205	.0033326	.0000000	.0031317	.0000000	.1381113	.0000000	.3819926	.0000000
-1.98636	.05247	.00000	.00000	-.03574	2.04101	.0027531	.0000000	.0022178	.0000000	.1385199	.0000000	.3823517	.0000000
-2.12061	.04818	.00000	.00000	-.02893	2.17092	.0023213	.0000000	.0015582	.0000000	.1388604	.0000000	.3826051	.0000000
-2.25486	.04478	.00000	.00000	-.02259	2.30172	.0020049	.0000000	.0010766	.0000000	.1391508	.0000000	.3827820	.0000000
-2.38910	.04219	.00000	.00000	-.01662	2.43334	.0017802	.0000000	.0007170	.0000000	.1394049	.0000000	.3829024	.0000000
-2.52335	.04038	.00000	.00000	-.01093	2.56574	.0016307	.0000000	.0004378	.0000000	.1396339	.0000000	.3829799	.0000000
-2.65760	.03931	.00000	.00000	-.00542	2.69889	.0015452	.0000000	.0002074	.0000000	.1398470	.0000000	.3830232	.0000000
-2.79185	.03895	.00000	.00000	.00000	2.83279	.0015173	.0000000	.0000000	.0000000	.1400526	.0000000	.3830371	.0000000
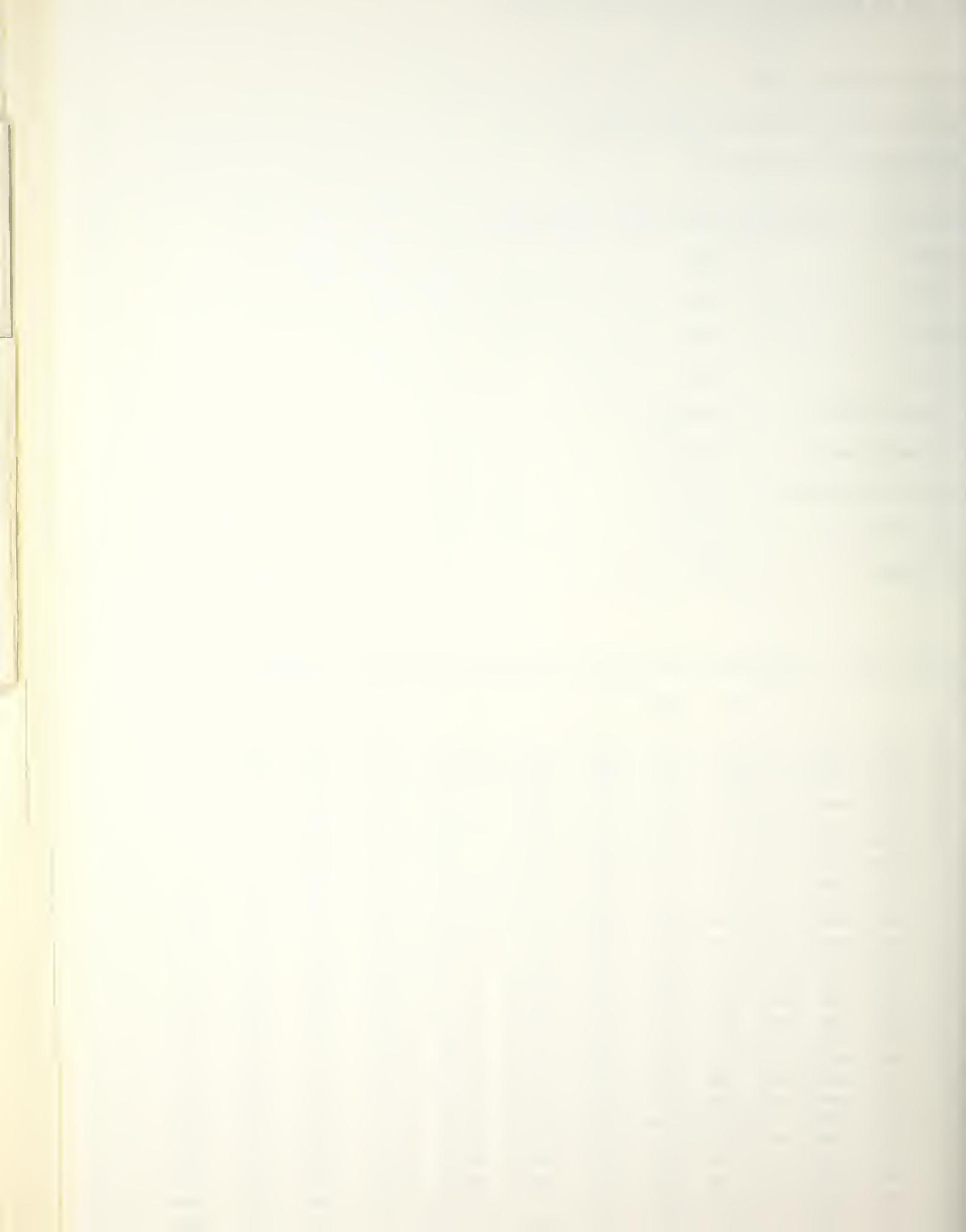
HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS

H/d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

Ax *1/G	Ay *1/G	DIST. *K	ANGLE DEGREES
.00000	.28504	3.14159	180.00
.01433	.28477	3.07614	176.25
.02864	.28395	3.01069	172.50
.04293	.28258	2.94524	168.75
.05718	.28067	2.87979	165.00
.07138	.27823	2.81434	161.25
.08551	.27525	2.74889	157.50
.09956	.27174	2.68344	153.75
.11353	.26768	2.61799	150.00
.12739	.26307	2.55254	146.25
.14113	.25790	2.48709	142.50
.15471	.25213	2.42164	138.75
.16813	.24576	2.35619	135.00
.18134	.23876	2.29074	131.25
.19432	.23113	2.22529	127.50
.20705	.22287	2.15984	123.75
.21950	.21396	2.09440	120.00
.23165	.20442	2.02895	116.25
.24348	.19426	1.96350	112.50
.25498	.18347	1.89805	108.75
.26612	.17207	1.83260	105.00
.27689	.16006	1.76715	101.25
.28725	.14743	1.70170	97.50
.29717	.13417	1.63625	93.75
.30657	.12025	1.57080	90.00
.31541	.10567	1.50535	86.25
.32358	.09038	1.43990	82.50
.33099	.07439	1.37445	78.75
.33754	.05767	1.30900	75.00
.34313	.04024	1.24355	71.25
.34765	.02209	1.17810	67.50
.35099	.00325	1.11265	63.75
.35307	-.01626	1.04720	60.00
.35378	-.03639	.98175	56.25
.35299	-.05713	.91630	52.50
.35056	-.07843	.85085	48.75
.34627	-.10028	.78540	45.00
.33986	-.12262	.71995	41.25
.33093	-.14548	.65450	37.50
.31901	-.16856	.58905	33.75
.30351	-.19190	.52360	30.00
.28375	-.21516	.45815	26.25
.25907	-.23791	.39270	22.50
.22886	-.25957	.32735	18.75
.19279	-.27932	.26180	15.00
.15093	-.29620	.19635	11.25
.10392	-.30923	.13090	7.50
.05301	-.31747	.06545	3.75
.00000	-.32029	.00000	.00

35378

-.32029

h/o=.2920 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER   *SQRT(K/G)   *K   DEGREES

	V *SQRT(K/G)	DIST. *K	ANGLE DEGREES
	-.23254	.00000 3.14159	180.00
	-.23617	.01442 3.07614	176.25
	-.23107	.02882 3.01069	172.50
	-.22924	.04318 2.94524	168.75
	-.22669	.05748 2.87979	165.00
	-.22341	.07171 2.81434	161.25
	-.21941	.08584 2.74889	157.50
	-.21469	.09985 2.68344	153.75
	-.20923	.11374 2.61799	150.00
	-.20305	.12747 2.55254	146.25
	-.19611	.14102 2.48709	142.50
	-.18841	.15435 2.42164	138.75
	-.17994	.16747 2.35619	135.00
	-.17069	.18030 2.29074	131.25
	-.16065	.19282 2.22529	127.50
	-.14981	.20499 2.15984	123.75
	-.13818	.21680 2.09440	120.00
	-.12575	.22821 2.02895	116.25
	-.11253	.23919 1.96350	112.50
	-.09851	.24973 1.89805	108.75
	-.08370	.25980 1.83260	105.00
	-.06806	.26938 1.76715	101.25
	-.05160	.27842 1.70170	97.50
	-.03439	.28687 1.63625	93.75
	-.01612	.29469 1.57080	90.00
	.00294	.30178 1.50535	86.25
	.02290	.30805 1.43990	82.50
	.04376	.31342 1.37445	78.75
	.06551	.31777 1.30900	75.00
	.08815	.32099 1.24355	71.25
	.11165	.32300 1.17810	67.50
	.13600	.32369 1.11265	63.75
	.16117	.32297 1.04720	60.00
	.18715	.33077 .98175	56.25
	.21393	.31598 .91630	52.50
	.24149	.31150 .85085	48.75
	.26978	.30419 .78540	45.00
	.29877	.29486 .71995	41.25
	.32833	.28330 .65450	37.50
	.35827	.26922 .58905	33.75
	.38827	.25233 .52360	30.00
	.41787	.23230 .45815	26.25
	.44643	.20885 .39270	22.50
	.47315	.18177 .32725	18.75
	.49708	.15106 .26180	15.00
	.51719	.11699 .19635	11.25
	.53245	.07977 .13090	7.50
	.54200	.04046 .06545	3.75
	.54525	.00000 .00000	.00

.5525   -.23254

=.2530 HEIGHT=2.00522-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER.. EULER				>H	(K*G)^.5	*K	DEGREES

ELEV.VEL.	TIME	DIST.	ANGLE
-.27237	1.93134	3.14159	180.00
-.27302	2.85594	3.07614	176.25
-.27199	2.83814	3.01069	172.50
-.27022	2.77644	2.94524	168.75
-.26773	2.71475	2.87979	165.00
-.26447	2.65305	2.81434	161.25
-.26042	2.59135	2.74889	157.50
-.25555	2.52965	2.68344	153.75
-.24987	2.46795	2.61799	150.00
-.24356	2.40625	2.55254	146.25
-.23640	2.34455	2.48709	142.50
-.22853	2.28285	2.42164	138.75
-.21999	2.22115	2.35619	135.00
-.21077	2.15945	2.29074	131.25
-.20093	2.09775	2.22529	127.50
-.19044	2.03605	2.15984	123.75
-.17939	1.97435	2.09440	120.00
-.16741	1.91266	2.02895	116.25
-.15478	1.85096	1.96350	112.50
-.14132	1.78926	1.89805	108.75
-.12697	1.72757	1.83260	105.00
-.11169	1.66587	1.76715	101.25
-.09547	1.60417	1.70170	97.50
-.07833	1.54247	1.63625	93.75
-.06030	1.48077	1.57080	90.00
-.04147	1.41907	1.50535	86.25
-.02193	1.35737	1.43990	82.50
-.00175	1.29567	1.37445	78.75
.01894	1.23399	1.30900	75.00
.04010	1.17228	1.24355	71.25
.06158	1.11058	1.17810	67.50
.08363	1.04898	1.11265	63.75
.10617	.98713	1.04720	60.00
.13015	.93545	.98175	56.25
.15373	.86373	.91630	52.50
.17702	.80203	.85085	48.75
.20151	.74033	.78540	45.00
.22708	.67869	.71995	41.25
.25337	.51699	.65450	37.50
.27937	.55529	.58905	33.75
.30601	.49355	.52360	30.00
.32998	.43189	.45815	26.25
.35353	.37019	.39270	22.50
.37504	.30849	.32725	18.75
.39381	.24680	.26180	15.00
.40921	.18510	.19635	11.25
.42066	.12340	.13090	7.50
.42771	.06170	.06545	3.75
.43010	.00000	.00000	.00

-.27337

UTION VS DEPTH, THETA= 15.00 DEGREES, KX= .2618 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.39381	.49708	.15106	.19279	-.27932	-.00112	.2470925	.1927885	.7871401	.6141490	.0000000	.0000000	.0000000	.0000000
.26108	.42996	.12772	.15933	-.27390	.09478	.1848666	.1593270	.5643747	.4864055	.0286678	.0233688	.0896958	.0730403
.12835	.37271	.10867	.13285	-.26009	.19201	.1389105	.1328463	.4056385	.3879300	.0501558	.0427594	.1540725	.1310673
-.00439	.32367	.09290	.11161	-.24197	.29139	.1047652	.1116142	.2920233	.3111143	.0663278	.0589835	.2003742	.1774606
-.13712	.28155	.07971	.09439	-.22196	.39332	.0792700	.0943855	.2104361	.2505627	.0785417	.0726551	.2337208	.2147374
-.26986	.24527	.06859	.08026	-.20154	.49795	.0601566	.0802581	.1517115	.2024063	.0877950	.0842456	.2577554	.2447995
-.40259	.21396	.05914	.06857	-.18159	.60527	.0457796	.0685702	.1093768	.1638285	.0948256	.0941229	.2750830	.2691054
-.53532	.18691	.05107	.05883	-.16260	.71517	.0349350	.0588284	.0788398	.1327447	.1001824	.1025779	.2875737	.2887880
-.66806	.16351	.04414	.05066	-.14486	.82751	.0267359	.0506591	.0567801	.1075868	.1042753	.1098443	.2965737	.3047380
-.80079	.14327	.03816	.04378	-.12848	.94212	.0205249	.0437752	.0408653	.0871567	.1074119	.1161116	.3030541	.3179626
-.93352	.12575	.03299	.03795	-.11348	1.05881	.0158124	.0379529	.0293838	.0705268	.1098235	.1215356	.3077163	.3281275
-1.06626	.11060	.02850	.03302	-.09982	1.17741	.0122322	.0330155	.0211071	.0569695	.1116847	.1262456	.3110673	.3365891
-1.19899	.09752	.02458	.02882	-.08742	1.29773	.0095094	.0288223	.0151467	.0459083	.1131276	.1303496	.3134733	.3434167
-1.33173	.08624	.02115	.02526	-.07621	1.41961	.0074374	.0252598	.0108591	.0368811	.1142523	.1339388	.3151992	.3489112
-1.46446	.07655	.01813	.02224	-.06606	1.54292	.0058600	.0222362	.0077782	.0295150	.1151348	.1370910	.3164361	.3533177
-1.59719	.06826	.01546	.01968	-.05686	1.66750	.0046597	.0196767	.0055665	.0235059	.1158330	.1399726	.3173218	.3568366
-1.72993	.06122	.01309	.01752	-.04852	1.79325	.0037473	.0175202	.0039791	.0186042	.1163909	.1423413	.3179553	.3596313
-1.86266	.05529	.01096	.01572	-.04091	1.92006	.0030556	.0157169	.0028391	.0146031	.1168424	.1445471	.3184078	.3618351
-1.99539	.05034	.00904	.01423	-.03393	2.04783	.0025339	.0142259	.0020180	.0113296	.1172134	.1465343	.3187302	.3635562
-2.12813	.04630	.00729	.01301	-.02749	2.17649	.0021440	.0130146	.0014229	.0086374	.1175238	.1483422	.3189585	.3649813
-2.26086	.04310	.00568	.01206	-.02148	2.30598	.0018575	.0120566	.0009862	.0064013	.1177894	.1500061	.3191184	.3658794
-2.39360	.04067	.00417	.01133	-.01581	2.43624	.0016537	.0113316	.0006585	.0045123	.1180224	.1515583	.3192276	.3666037
-2.52633	.03896	.00274	.01082	-.01040	2.56724	.0015178	.0108243	.0004029	.0028735	.1182329	.1530287	.3192980	.3670939
-2.65906	.03795	.00136	.01052	-.00516	2.69894	.0014401	.0105241	.0001911	.0013959	.1184292	.1544455	.3193374	.3673773
-2.79180	.03761	.00000	.01042	.00000	2.83134	.0014147	.0104247	.0000000	.0000000	.1186187	.1558358	.3193501	.3674700

UTION VS DEPTH, THETA= 30.00 DEGREES, KX= .5236 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.30501	.38827	.25233	.30351	-.19190	.00000	.1507557	.3035056	.4668615	.9398987	.0000000	.0000000	.0000000	.0000000
.17598	.34013	.21667	.25777	-.19651	.10386	.1156864	.2577663	.3433312	.7649922	.0171900	.0362115	.0522711	.1095942
.04694	.29804	.18667	.21973	-.19252	.20772	.0888256	.2197288	.2521528	.6237531	.0303845	.0670180	.0906898	.1995916
-.08209	.26127	.16125	.18759	-.18342	.31246	.0682638	.1879890	.1849749	.5093951	.0405194	.0933226	.1188919	.2726988
-.21112	.22918	.13959	.16139	-.17147	.41858	.0525224	.1613914	.1355432	.4164986	.0483121	.1158835	.1395707	.3324345
-.34016	.20116	.12104	.13900	-.15812	.52634	.0404661	.1390047	.0992082	.3407896	.0543115	.1352442	.1547162	.3812923
-.46919	.17671	.10508	.12008	-.14432	.63586	.0312264	.1200836	.0725266	.2789069	.0589358	.1519597	.1657950	.4212732
-.59822	.15537	.09129	.10403	-.13068	.74715	.0241405	.1040317	.0529539	.2282012	.0625089	.1664189	.1738916	.4539902
-.72726	.13676	.07934	.09037	-.11755	.86018	.0187027	.0903707	.0386124	.1865738	.0652730	.1789612	.1797991	.4807502
-.85629	.12053	.06895	.07871	-.10514	.97485	.0145270	.0787144	.0281171	.1523522	.0674169	.1898700	.1841043	.5026186
-.98533	.10639	.05988	.06875	-.09356	1.09108	.0113187	.0687499	.0204470	.1241948	.0690844	.1993839	.1872375	.5204585
-1.11436	.09409	.05195	.06022	-.08285	1.20874	.0088527	.0602218	.0148498	.1010184	.0703858	.2077048	.1895147	.5349886
-1.24339	.08341	.04499	.05292	-.07301	1.32773	.0069556	.0529209	.0107716	.0819429	.0714057	.2150044	.1911677	.5467927
-1.37243	.07415	.03885	.04667	-.06399	1.44793	.0054986	.0466746	.0078045	.0662485	.0722093	.2214300	.1923662	.5563535
-1.50146	.06617	.03342	.04134	-.05574	1.56925	.0043778	.0413405	.0056489	.0533432	.0728465	.2271084	.1932342	.5640692
-1.63049	.05930	.02859	.03680	-.04819	1.69158	.0035170	.0368008	.0040843	.0427369	.0733559	.2321499	.1938621	.5702680
-1.75953	.05345	.02427	.03295	-.04128	1.81485	.0028569	.0329579	.0029491	.0340214	.0737671	.2366505	.1943159	.5752202
-1.88856	.04850	.02038	.02973	-.03492	1.93897	.0023524	.0297309	.0021248	.0268540	.0741032	.2406949	.1946433	.5791477
-2.01759	.04437	.01685	.02705	-.02905	2.06388	.0019689	.0270535	.0015243	.0209449	.0743820	.2443585	.1948787	.5822315
-2.14663	.04099	.01362	.02467	-.02359	2.18953	.0016803	.0248717	.0010841	.0160464	.0746174	.2477085	.1950470	.5846181
-2.27566	.03830	.01062	.02314	-.01847	2.31585	.0014670	.0231420	.0007572	.0119444	.0748205	.2508062	.1951658	.5864239
-2.40470	.03626	.00781	.02183	-.01362	2.44281	.0013145	.0218302	.0005088	.0084505	.0749999	.2537077	.1952475	.5877397
-2.53373	.03482	.00513	.02091	-.00897	2.57039	.0012123	.0209110	.0003129	.0053964	.0751629	.2564652	.1953005	.5886331
-2.66276	.03397	.00254	.02037	-.00445	2.69855	.0011537	.0203664	.0001489	.0026280	.0753156	.2591283	.1953303	.5891508
-2.79180	.03368	.00000	.02019	.00000	2.82731	.0011346	.0201861	.0000000	.0000000	.0754632	.2617446	.1953399	.5893204
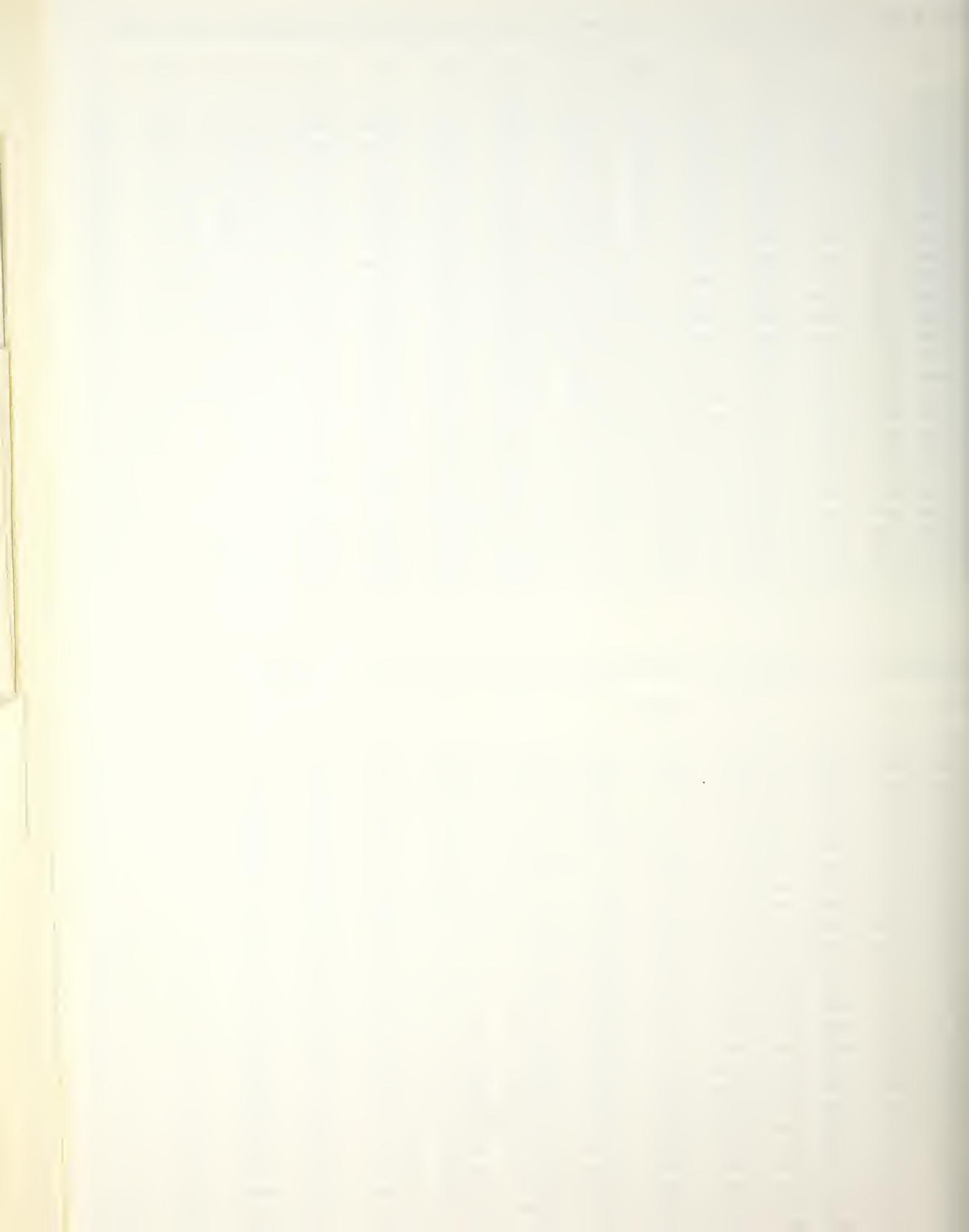
STEADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
M. M. RIENECKER AND J. D. FENTON.

EPTH: FINITE, HEIGHT/DEPTH= .2520

AVE HEIGHT 2.005161E-02,DIMENSIONLESS WITH RESPECT TO PERIOD

CURRENT CRITERION: EULER , MAGNITUDE= .00

OLUTION OF ORDER   6 NON-DIMENSIONALIZED BY WAVE NUMBER,   1 HEIGHT STEP(S).

WATER DEPTH	2.7918
WAVE HEIGHT	.70347
WAVE PERIOD	5.9231
WAVE SPEED	1.0608
MEAN EULERIAN FLUID SPEED	6.26374E-22
MEAN MASS TRANSPORT SPEED	1.99885E-02
MEAN FLUID SPEED RELATIVE TO WAVE	1.0608
VOLUME FLUX DUE TO WAVES	5.58038E-02
BERNOULLI CONSTANT	.56299

OLUTION VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.43010	.54525	.00000	.00000	-.32029	.00000	.2973029	.0000000	.9578789	.0000000	.0000000	.0000000	.0000000	.0000000
.29585	.46881	.00000	.00000	-.30866	.09191	.2197819	.0000000	.6786036	.0000000	.0347082	.0000000	.1098457	.0000000
.16161	.40440	.00000	.00000	-.28949	.18595	.1635360	.0000000	.4829879	.0000000	.0604376	.0000000	.1878155	.0000000
.02736	.34975	.00000	.00000	-.26682	.28283	.1223233	.0000000	.3446488	.0000000	.0756253	.0000000	.2433922	.0000000
-.10689	.30314	.00000	.00000	-.24299	.38296	.0918959	.0000000	.2467325	.0000000	.0940043	.0000000	.2830908	.0000000
-.24113	.26324	.00000	.00000	-.21935	.48507	.0692971	.0000000	.1767540	.0000000	.1048240	.0000000	.3115164	.0000000
-.37537	.22898	.00000	.00000	-.19658	.59241	.0524332	.0000000	.1267007	.0000000	.1129949	.0000000	.3218352	.0000000
-.50962	.19950	.00000	.00000	-.17540	.70170	.0398007	.0000000	.0908322	.0000000	.1191859	.0000000	.3464866	.0000000
-.64387	.17409	.00000	.00000	-.15571	.81374	.0303085	.0000000	.0651005	.0000000	.1238918	.0000000	.3569532	.0000000
-.77811	.15218	.00000	.00000	-.13767	.92831	.0231578	.0000000	.0466326	.0000000	.1274805	.0000000	.3644531	.0000000
-.91236	.13327	.00000	.00000	-.12125	1.04519	.0177599	.0000000	.0333786	.0000000	.1302271	.0000000	.3698237	.0000000
-1.04660	.11695	.00000	.00000	-.10639	1.16417	.0136782	.0000000	.0238711	.0000000	.1323373	.0000000	.3736664	.0000000
-1.18085	.10290	.00000	.00000	-.09298	1.29505	.0105877	.0000000	.0170552	.0000000	.1339661	.0000000	.3764136	.0000000
-1.31509	.09081	.00000	.00000	-.08088	1.40764	.0082455	.0000000	.0121762	.0000000	.1352303	.0000000	.3783758	.0000000
-1.44934	.08043	.00000	.00000	-.06998	1.53178	.0064696	.0000000	.0086852	.0000000	.1362180	.0000000	.3797760	.0000000
-1.58359	.07158	.00000	.00000	-.06014	1.65730	.0051232	.0000000	.0061899	.0000000	.1369961	.0000000	.3807745	.0000000
-1.71783	.06406	.00000	.00000	-.05124	1.78408	.0041033	.0000000	.0044058	.0000000	.1376154	.0000000	.3814858	.0000000
-1.85208	.05773	.00000	.00000	-.04314	1.91200	.0033327	.0000000	.0031318	.0000000	.1381146	.0000000	.3819918	.0000000
-1.98632	.05247	.00000	.00000	-.03575	2.04095	.0027533	.0000000	.0022177	.0000000	.1385231	.0000000	.3823509	.0000000
-2.12057	.04818	.00000	.00000	-.02893	2.17085	.0023215	.0000000	.0015582	.0000000	.1388637	.0000000	.3826043	.0000000
-2.25481	.04478	.00000	.00000	-.02259	2.30166	.0020050	.0000000	.0010767	.0000000	.1391541	.0000000	.3827812	.0000000
-2.38906	.04219	.00000	.00000	-.01662	2.43328	.0017803	.0000000	.0007170	.0000000	.1394082	.0000000	.3829016	.0000000
-2.52331	.04038	.00000	.00000	-.01093	2.56567	.0016308	.0000000	.0004379	.0000000	.1396372	.0000000	.3829791	.0000000
-2.65755	.03931	.00000	.00000	-.00542	2.69882	.0015453	.0000000	.0002074	.0000000	.1398504	.0000000	.3830224	.0000000
-2.79180	.03895	.00000	.00000	.00000	2.83271	.0015175	.0000000	.0000000	.0000000	.1400559	.0000000	.3830363	.0000000
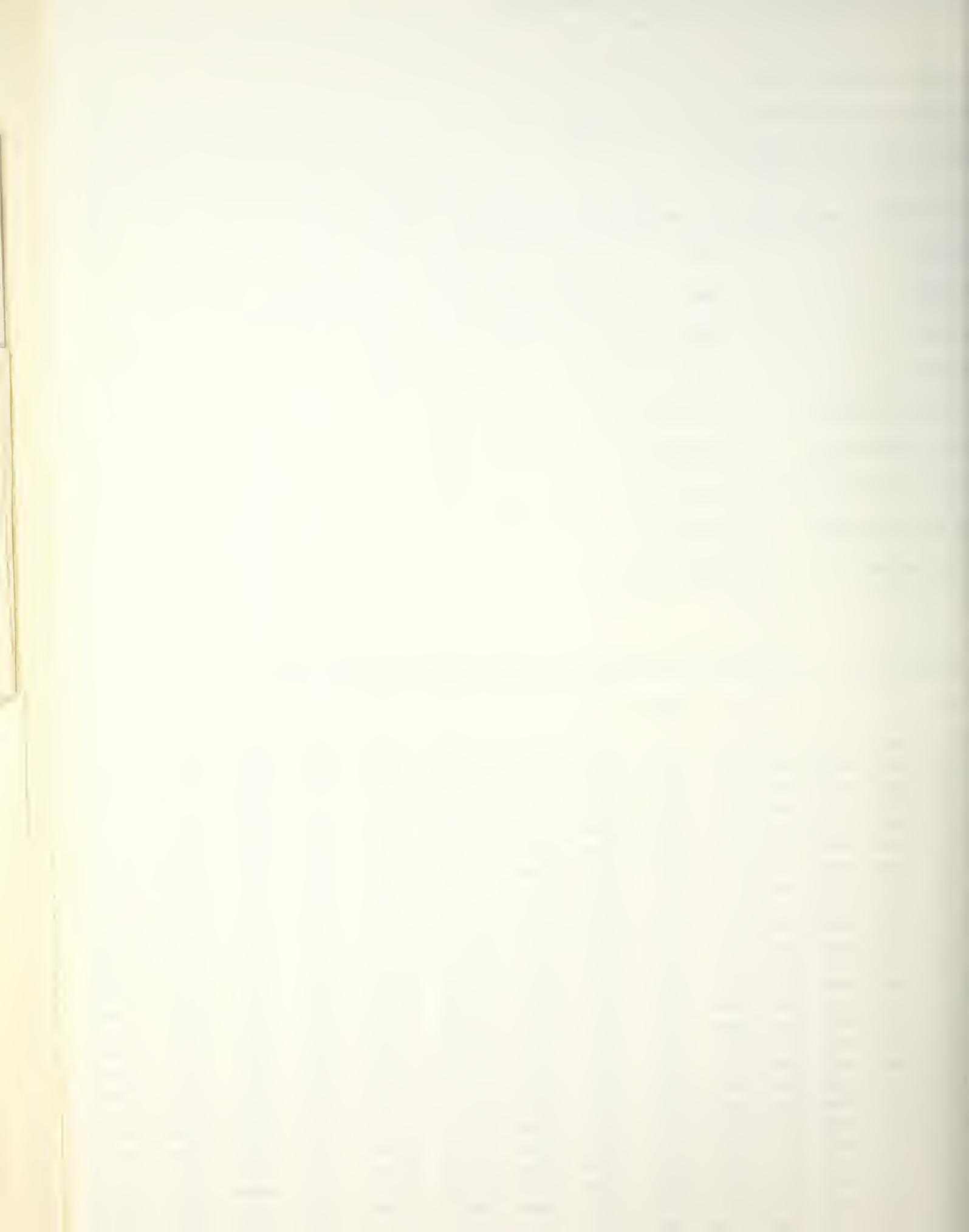
l/d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

	Ax	Ay	DIST.	ANGLE
	*1/G	*1/G	*K	DEGREES
	.00000	.32262	3.14159	180.00
	.01748	.32235	3.07614	176.25
	.03495	.32155	3.01069	172.50
	.05243	.32020	2.94524	168.75
	.06991	.31830	2.87979	165.00
	.08738	.31583	2.81434	161.25
	.10484	.31276	2.74889	157.50
	.12228	.30909	2.68344	153.75
	.13968	.30477	2.61799	150.00
	.15703	.29979	2.55254	146.25
	.17430	.29411	2.48709	142.50
	.19146	.28769	2.42164	138.75
	.20846	.28051	2.35619	135.00
	.22527	.27252	2.29074	131.25
	.24183	.26369	2.22529	127.50
	.25808	.25399	2.15984	123.75
	.27394	.24339	2.09440	120.00
	.28933	.23186	2.02895	116.25
	.30417	.21938	1.96350	112.50
	.31836	.20593	1.89805	108.75
	.33178	.19150	1.83260	105.00
	.34431	.17610	1.76715	101.25
	.35585	.15973	1.70170	97.50
	.36625	.14241	1.63625	93.75
	.37538	.12418	1.57080	90.00
	.38310	.10509	1.50535	86.25
	.38927	.08519	1.43990	82.50
	.39375	.06456	1.37445	78.75
	.39640	.04329	1.30900	75.00
	.39710	.02149	1.24355	71.25
	.39572	-.00073	1.17810	67.50
	.39215	-.02321	1.11265	63.75
	.38630	-.04583	1.04720	60.00
	.37809	-.06840	.98175	56.25
	.36747	-.09077	.91630	52.50
	.35440	-.11273	.85085	48.75
	.33888	-.13412	.78540	45.00
	.32093	-.15472	.71995	41.25
	.30061	-.17435	.65450	37.50
	.27800	-.19281	.58905	33.75
	.25322	-.20992	.52350	30.00
	.22640	-.22549	.45815	26.25
	.19774	-.23936	.39270	22.50
	.16743	-.25137	.32725	18.75
	.13571	-.26139	.26180	15.00
	.10282	-.26931	.19635	11.25
	.06905	-.27503	.13090	7.50
	.03468	-.27850	.06545	3.75
	.00000	-.27965	.00000	.00

9710

-.27965

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICLE VELOCITIES

/d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER

U *SQRT(K/G)	V *K	DIST.	ANGLE DEGREES
-.24986	.00000	3.14159	180.00
-.24951	.01611	3.07614	176.25
-.24846	.03222	3.01069	172.50
-.24669	.04834	2.94524	168.75
-.24421	.06447	2.87979	165.00
-.24099	.08061	2.81434	161.25
-.23700	.09676	2.74889	157.50
-.23224	.11292	2.68344	153.75
-.22666	.12906	2.61799	150.00
-.22024	.14518	2.55254	146.25
-.21294	.16125	2.48709	142.50
-.20473	.17725	2.42164	138.75
-.19556	.19315	2.35619	135.00
-.18540	.20888	2.29074	131.25
-.17421	.22442	2.22529	127.50
-.16195	.23969	2.15984	123.75
-.14860	.25463	2.09440	120.00
-.13411	.26916	2.02895	116.25
-.11847	.28320	1.96350	112.50
-.10165	.29664	1.89805	108.75
-.08365	.30939	1.83260	105.00
-.06447	.32133	1.76715	101.25
-.04412	.33234	1.70170	97.50
-.02261	.34230	1.63625	93.75
.00000	.35107	1.57080	90.00
.02367	.35853	1.50535	86.25
.04832	.36453	1.43990	82.50
.07387	.36894	1.37445	78.75
.10021	.37164	1.30900	75.00
.12721	.37249	1.24355	71.25
.15472	.37137	1.17810	67.50
.18258	.36819	1.11265	63.75
.21061	.36286	1.04720	60.00
.23861	.35528	.98175	56.25
.26636	.34543	.91630	52.50
.29365	.33325	.85085	48.75
.32022	.31876	.78540	45.00
.34585	.30196	.71995	41.25
.37029	.28291	.65450	37.50
.39329	.26168	.58905	33.75
.41462	.23840	.52360	30.00
.43405	.21319	.45815	26.25
.45137	.18623	.39270	22.50
.46638	.15770	.32725	18.75
.47891	.12783	.26180	15.00
.48881	.09686	.19635	11.25
.49597	.06505	.13090	7.50
.50030	.03267	.06545	3.75
.50175	.00000	.00000	.00

0175

-.24986

/d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

	*K	(K*G)^.5	*K	DEGREES
+	-.35147	2.96043	3.14159	180.00
+	-.35072	2.89876	3.07614	176.25
+	-.34846	2.83708	3.01069	172.50
+¦	-.34472	2.77540	2.94524	168.75
+ ¦	-.33949	2.71373	2.87979	165.00
+ ¦	-.33282	2.65205	2.81434	161.25
+ ¦	-.32472	2.59038	2.74889	157.50
+ ¦	-.31522	2.52870	2.68344	153.75
+	-.30438	2.46703	2.61799	150.00
+	-.29224	2.40535	2.55254	146.25
+	-.27884	2.34367	2.48709	142.50
+	-.26425	2.28200	2.42164	138.75
+	-.24853	2.22032	2.35619	135.00
+	-.23174	2.15865	2.29074	131.25
+	-.21396	2.09697	2.22529	127.50
+	-.19527	2.03530	2.15984	123.75
+	-.17574	1.97362	2.09440	120.00
+	-.15545	1.91195	2.02895	116.25
+	-.13450	1.85027	1.96350	112.50
+	-.11298	1.78859	1.89805	108.75
+	-.09097	1.72692	1.83260	105.00
+	-.06857	1.66524	1.76715	101.25
+	-.04588	1.60357	1.70170	97.50
+	-.02299	1.54189	1.63625	93.75
+	.00000	1.48022	1.57080	90.00
+	.02299	1.41854	1.50535	86.25
+	.04588	1.35686	1.43990	82.50
+	.06857	1.29519	1.37445	78.75
+	.09097	1.23351	1.30900	75.00
+	.11298	1.17184	1.24355	71.25
+	.13450	1.11016	1.17810	67.50
+	.15545	1.04849	1.11265	63.75
+	.17574	.98681	1.04720	60.00
+	.19527	.92513	.98175	56.25
+	.21396	.86346	.91630	52.50
+	.23174	.80178	.85085	48.75
+	.24853	.74011	.78540	45.00
+	.26425	.67843	.71995	41.25
+	.27884	.61676	.65450	37.50
+	.29224	.55508	.58905	33.75
+	.30438	.49341	.52360	30.00
+	.31522	.43173	.45815	26.25
+	.32472	.37005	.39270	22.50
+	.33282	.30838	.32725	18.75
+	.33949	.24670	.26180	15.00
+	.34472	.18503	.19635	11.25
+	.34846	.12335	.13090	7.50
+	.35072	.06168	.06545	3.75
¦	.35147	.00000	.00000	.00

35147   -.35147

SOLUTION VS DEPTH, THETA= 15.00 DEGREES, KX= .2618 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.33949	.47891	.12783	.13571	-.26139	-.00924	.2293526	.1357068	.7176902	.4246537	.0000000	.0000000	.0000000	.0000000
.20911	.42060	.11214	.11913	-.25546	.08738	.1769084	.1191286	.5305159	.3572448	.0264848	.0166131	.0813725	.0509733
.07873	.36946	.09836	.10459	-.24419	.18515	.1365023	.1045864	.3915478	.2999991	.0469166	.0311975	.1414835	.0938201
-.05166	.32461	.08625	.09183	-.22961	.28462	.1053712	.0918326	.2885116	.2514423	.0626847	.0440024	.1858177	.1297695
-.18204	.28528	.07562	.08065	-.21318	.38612	.0813861	.0806502	.2122279	.2103089	.0748598	.0552468	.2184618	.1598718
-.31242	.25081	.06626	.07085	-.19595	.48983	.0629068	.0708488	.1558381	.1755125	.0842665	.0651233	.2424566	.1850242
-.44281	.22061	.05804	.06226	-.17865	.59579	.0486697	.0622614	.1142228	.1461213	.0915403	.0738010	.2600623	.2059920
-.57319	.19417	.05081	.05474	-.16175	.70399	.0377010	.0547420	.0835648	.1213365	.0971710	.0814286	.2729564	.2234280
-.70357	.17103	.04444	.04816	-.14558	.81435	.0292506	.0481624	.0610207	.1004733	.1015357	.0881371	.2823822	.2378882
-.83396	.15080	.03882	.04241	-.13033	.92675	.0227408	.0424108	.0444753	.0829449	.1049251	.0940417	.2892597	.2498455
-.96434	.13314	.03387	.03739	-.11610	1.04108	.0177263	.0373891	.0323570	.0682489	.1075632	.0992440	.2942685	.2597021
-1.09472	.11775	.02949	.03301	-.10291	1.15720	.0138642	.0330119	.0234996	.0559547	.1096226	.1038336	.2979099	.2677991
-1.22511	.10436	.02562	.02920	-.09076	1.27497	.0108904	.0292047	.0170391	.0456937	.1112364	.1078896	.3005527	.2744257
-1.35549	.09274	.02218	.02590	-.07961	1.39425	.0086015	.0259027	.0123364	.0371501	.1125071	.1114821	.3024677	.2798265
-1.48587	.08271	.01912	.02305	-.06940	1.51493	.0068410	.0230496	.0089195	.0300528	.1135138	.1146734	.3038534	.2842075
-1.61626	.07408	.01638	.02060	-.06003	1.63689	.0054885	.0205969	.0064405	.0241694	.1143175	.1175188	.3048548	.2877424
-1.74664	.06672	.01393	.01850	-.05145	1.76001	.0044515	.0185028	.0046433	.0192996	.1149656	.1200678	.3055774	.2905762
-1.87702	.06049	.01171	.01673	-.04354	1.88421	.0036592	.0167316	.0033397	.0152707	.1154944	.1223648	.3060978	.2928299
-2.00741	.05529	.00969	.01525	-.03623	2.00940	.0030572	.0152533	.0023917	.0119327	.1159322	.1244499	.3064714	.2946033
-2.13779	.05103	.00784	.01404	-.02943	2.13550	.0026045	.0140427	.0016979	.0091547	.1163013	.1263598	.3067380	.2959781
-2.26817	.04765	.00611	.01308	-.02305	2.26247	.0022701	.0130790	.0011839	.0068212	.1166191	.1281279	.3069259	.2970195
-2.39856	.04507	.00450	.01235	-.01700	2.39025	.0020311	.0123461	.0007945	.0048292	.1168995	.1297854	.3070549	.2977790
-2.52894	.04326	.00296	.01183	-.01119	2.51879	.0018712	.0118312	.0004879	.0030852	.1171539	.1313616	.3071385	.2982950
-2.65932	.04218	.00147	.01153	-.00556	2.64809	.0017794	.0115258	.0002320	.0015028	.1173919	.1328943	.3071854	.2985941
-2.78971	.04183	.00000	.01142	.00000	2.77811	.0017495	.0114246	.0000000	.0000000	.1176220	.1343804	.3072005	.2986921

SOLUTION VS DEPTH, THETA= 30.00 DEGREES, KX= .5236 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.30438	.41462	.23840	.25322	-.20992	-.03387	.1719096	.2532177	.5319035	.7834778	.0000000	.0000000	.0000000	.0000000
.17546	.36469	.20944	.22263	-.20856	.06800	.1329979	.2226259	.3943611	.6601230	.0196544	.0306730	.0597072	.0930548
.04654	.32083	.18396	.19575	-.20183	.17042	.1029302	.1957528	.2919356	.5552035	.0348624	.0576417	.1039460	.1713949
-.08238	.28231	.16154	.17215	-.19161	.27395	.0796965	.1721513	.2157645	.4660700	.0466345	.0813569	.1366724	.2372264
-.21130	.24848	.14182	.15143	-.17929	.37895	.0617436	.1514286	.1592001	.3904444	.0557518	.1022149	.1608427	.2924374
-.34022	.21880	.12445	.13324	-.16586	.48562	.0478713	.1332396	.1172600	.3263686	.0628176	.1205647	.1786634	.3386433
-.46914	.19275	.10916	.11728	-.15205	.59404	.0371522	.1172817	.0862141	.2721599	.0682982	.1367133	.1917793	.3772246
-.59806	.16991	.09568	.10329	-.13832	.70425	.0288698	.1032893	.0632723	.2263736	.0725540	.1509313	.2014153	.4093601
-.72698	.14990	.08379	.09103	-.12501	.81620	.0224703	.0910295	.0463501	.1877689	.0758634	.1634572	.2084815	.4360558
-.85590	.13239	.07330	.08030	-.11232	.92983	.0175260	.0802983	.0338919	.1552812	.0784415	.1745010	.2138539	.4581689
-.98482	.11707	.06403	.07092	-.10038	1.04505	.0137063	.0709170	.0247383	.1279970	.0804548	.1842483	.2174333	.4764290
-1.11374	.10371	.05583	.06273	-.08924	1.16175	.0107559	.0627296	.0180265	.1051325	.0820316	.1928632	.2201899	.4914566
-1.24266	.09207	.04855	.05560	-.07891	1.27984	.0084775	.0555997	.0131151	.0860151	.0832714	.2004907	.2221973	.5037780
-1.37158	.08197	.04208	.04941	-.06938	1.39921	.0067189	.0494086	.0095282	.0700676	.0842509	.2072596	.2236569	.5138391
-1.50050	.07323	.03631	.04405	-.06060	1.51976	.0053623	.0440535	.0069132	.0567939	.0850297	.2132842	.2247167	.5220166
-1.62942	.06571	.03115	.03945	-.05253	1.64140	.0043173	.0394450	.0050093	.0457674	.0856537	.2186665	.2254852	.5286278
-1.75834	.05928	.02651	.03551	-.04509	1.76403	.0035139	.0355066	.0036241	.0366202	.0861585	.2234979	.2260417	.5339385
-1.88726	.05384	.02230	.03217	-.03822	1.88759	.0028984	.0321726	.0026156	.0290339	.0865718	.2278605	.2264439	.5381706
-2.01618	.04929	.01847	.02939	-.03184	2.01200	.0024296	.0293876	.0018793	.0227320	.0869152	.2318297	.2267337	.5415074
-2.14510	.04557	.01494	.02711	-.02589	2.13720	.0020762	.0271053	.0013383	.0174721	.0872057	.2354702	.2269411	.5440990
-2.27402	.04260	.01167	.02529	-.02030	2.25315	.0018147	.0252875	.0009358	.0130403	.0874555	.2388475	.2270877	.5460658
-2.40294	.04034	.00858	.02390	-.01498	2.38980	.0016274	.0239042	.0006294	.0092452	.0876784	.2420164	.2271886	.5475023
-2.53186	.03875	.00564	.02293	-.00987	2.51712	.0015019	.0229322	.0003873	.0059129	.0878801	.2450375	.2272541	.5484794
-2.66079	.03781	.00280	.02236	-.00490	2.64509	.0014298	.0223554	.0001843	.0028821	.0880691	.2479567	.2272909	.5490463
-2.78971	.03750	.00000	.02216	.00000	2.77369	.0014063	.0221642	.0000000	.0000000	.0882519	.2508265	.2273028	.5493321
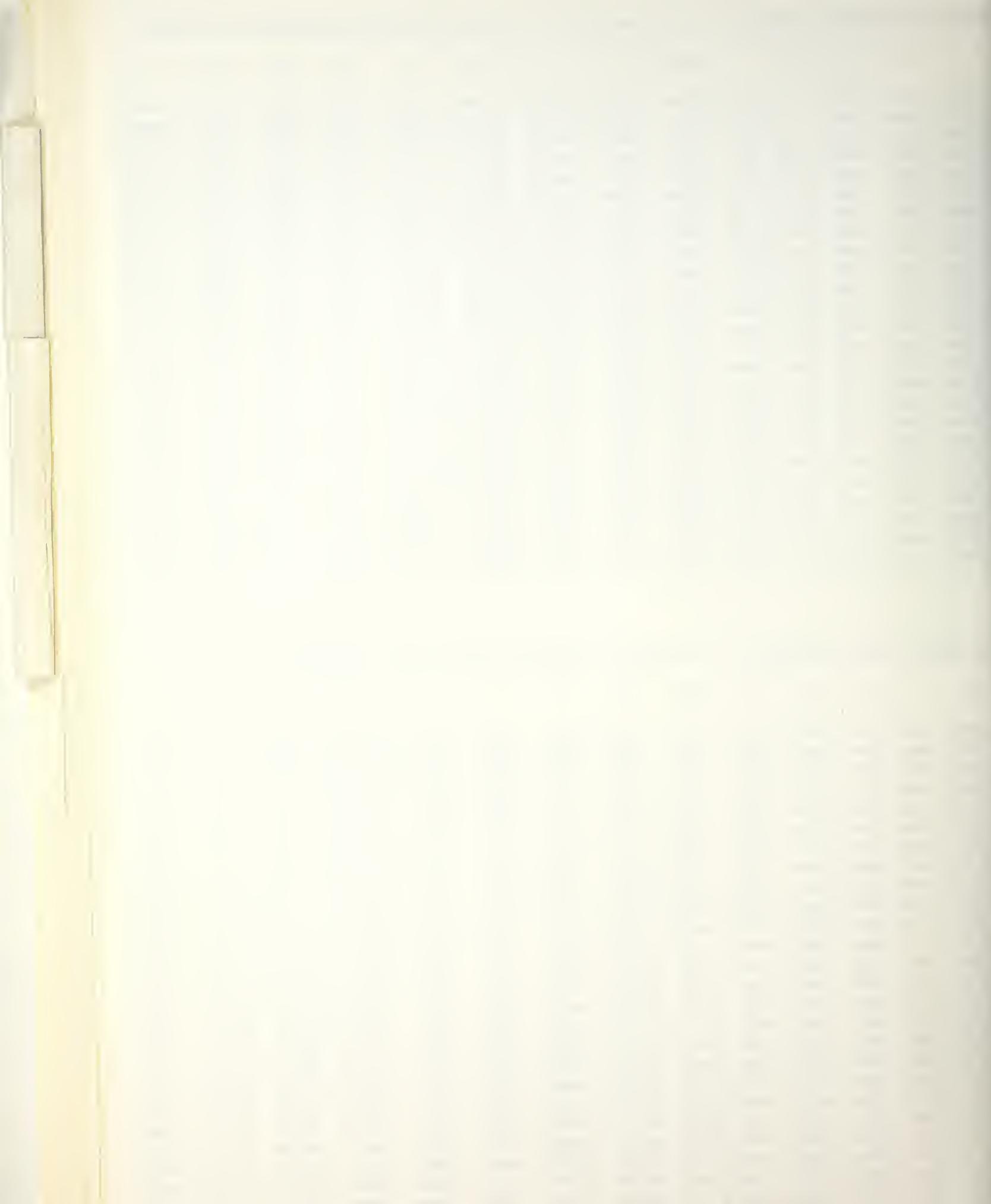
STEADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
M. M. RIENECKER AND J. D. FENTON.

PTH: FINITE, HEIGHT/DEPTH= .2520

VE HEIGHT 2.005161E-02,DIMENSIONLESS WITH RESPECT TO PERIOD

URRENT CRITERION: EULER , MAGNITUDE= .00

LUTION OF ORDER   1 NON-DIMENSIONALIZED BY WAVE NUMBER, 2 HEIGHT STEP(S).

ATER DEPTH   2.7897

AVE HEIGHT   .70294

AVE PERIOD   5.9209

AVE SPEED   1.0612

EAN EULERIAN FLUID SPEED   1.52925E-22

EAN MASS TRANSPORT SPEED   4.54893E-02

EAN FLUID SPEED RELATIVE TO WAVE   1.0612

OLUME FLUX DUE TO WAVES   .12690

ERNOULLI CONSTANT   .50796

LUTION VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.35147	.50175	.00000	.00000	-.27965	.00000	.2517556	.0000000	.7908087	.0000000	.0000000	.0000000	.0000000	.0000000
.22059	.44044	.00000	.00000	-.27208	.09470	.1939907	.0000000	.5839690	.0000000	.0291702	.0000000	.0899671	.0000000
.08971	.38669	.00000	.00000	-.25918	.19077	.1495296	.0000000	.4305574	.0000000	.0516505	.0000000	.1563589	.0000000
-.04118	.33957	.00000	.00000	-.24304	.28876	.1153085	.0000000	.3169288	.0000000	.0689819	.0000000	.2052752	.0000000
-.17206	.29828	.00000	.00000	-.22515	.38900	.0889690	.0000000	.2328894	.0000000	.0823500	.0000000	.2412560	.0000000
-.30294	.26210	.00000	.00000	-.20656	.49162	.0686960	.0000000	.1708307	.0000000	.0926678	.0000000	.2676759	.0000000
-.43382	.23042	.00000	.00000	-.18801	.59669	.0530924	.0000000	.1250794	.0000000	.1006378	.0000000	.2870406	.0000000
-.56471	.20269	.00000	.00000	-.16999	.70415	.0410830	.0000000	.0914096	.0000000	.1068007	.0000000	.3012079	.0000000
-.69559	.17844	.00000	.00000	-.15281	.81392	.0318400	.0000000	.0666768	.0000000	.1115729	.0000000	.3115532	.0000000
-.82647	.15725	.00000	.00000	-.13665	.92587	.0247267	.0000000	.0485444	.0000000	.1152747	.0000000	.3190935	.0000000
-.95735	.13875	.00000	.00000	-.12160	1.03986	.0192528	.0000000	.0352779	.0000000	.1181527	.0000000	.3245789	.0000000
-1.08823	.12264	.00000	.00000	-.10769	1.15575	.0150410	.0000000	.0255918	.0000000	.1203970	.0000000	.3285623	.0000000
-1.21912	.10863	.00000	.00000	-.09490	1.27339	.0118011	.0000000	.0185347	.0000000	.1221535	.0000000	.3314500	.0000000
-1.35000	.09649	.00000	.00000	-.08318	1.39263	.0093099	.0000000	.0134035	.0000000	.1235351	.0000000	.3335400	.0000000
-1.48088	.08600	.00000	.00000	-.07246	1.51334	.0073956	.0000000	.0096796	.0000000	.1246283	.0000000	.3350506	.0000000
-1.61176	.07698	.00000	.00000	-.06264	1.63539	.0059264	.0000000	.0069809	.0000000	.1255001	.0000000	.3361409	.0000000
-1.74265	.06929	.00000	.00000	-.05365	1.75867	.0048010	.0000000	.0050259	.0000000	.1262021	.0000000	.3369267	.0000000
-1.87353	.06278	.00000	.00000	-.04539	1.88308	.0039418	.0000000	.0036113	.0000000	.1267743	.0000000	.3374920	.0000000
-2.00441	.05735	.00000	.00000	-.03775	2.00852	.0032896	.0000000	.0025833	.0000000	.1272475	.0000000	.3378974	.0000000
-2.13529	.05291	.00000	.00000	-.03066	2.13493	.0027995	.0000000	.0018320	.0000000	.1276460	.0000000	.3381863	.0000000
-2.26618	.04937	.00000	.00000	-.02400	2.26224	.0024377	.0000000	.0012762	.0000000	.1279887	.0000000	.3383897	.0000000
-2.39706	.04668	.00000	.00000	-.01770	2.39040	.0021794	.0000000	.0008557	.0000000	.1282908	.0000000	.3385293	.0000000
-2.52794	.04479	.00000	.00000	-.01165	2.51936	.0020066	.0000000	.0005252	.0000000	.1285648	.0000000	.3386196	.0000000
-2.65882	.04367	.00000	.00000	-.00578	2.64911	.0019074	.0000000	.0002496	.0000000	.1288209	.0000000	.3386703	.0000000
-2.78971	.04330	.00000	.00000	.00000	2.77961	.0018751	.0000000	.0000000	.0000000	.1290684	.0000000	.3386867	.0000000
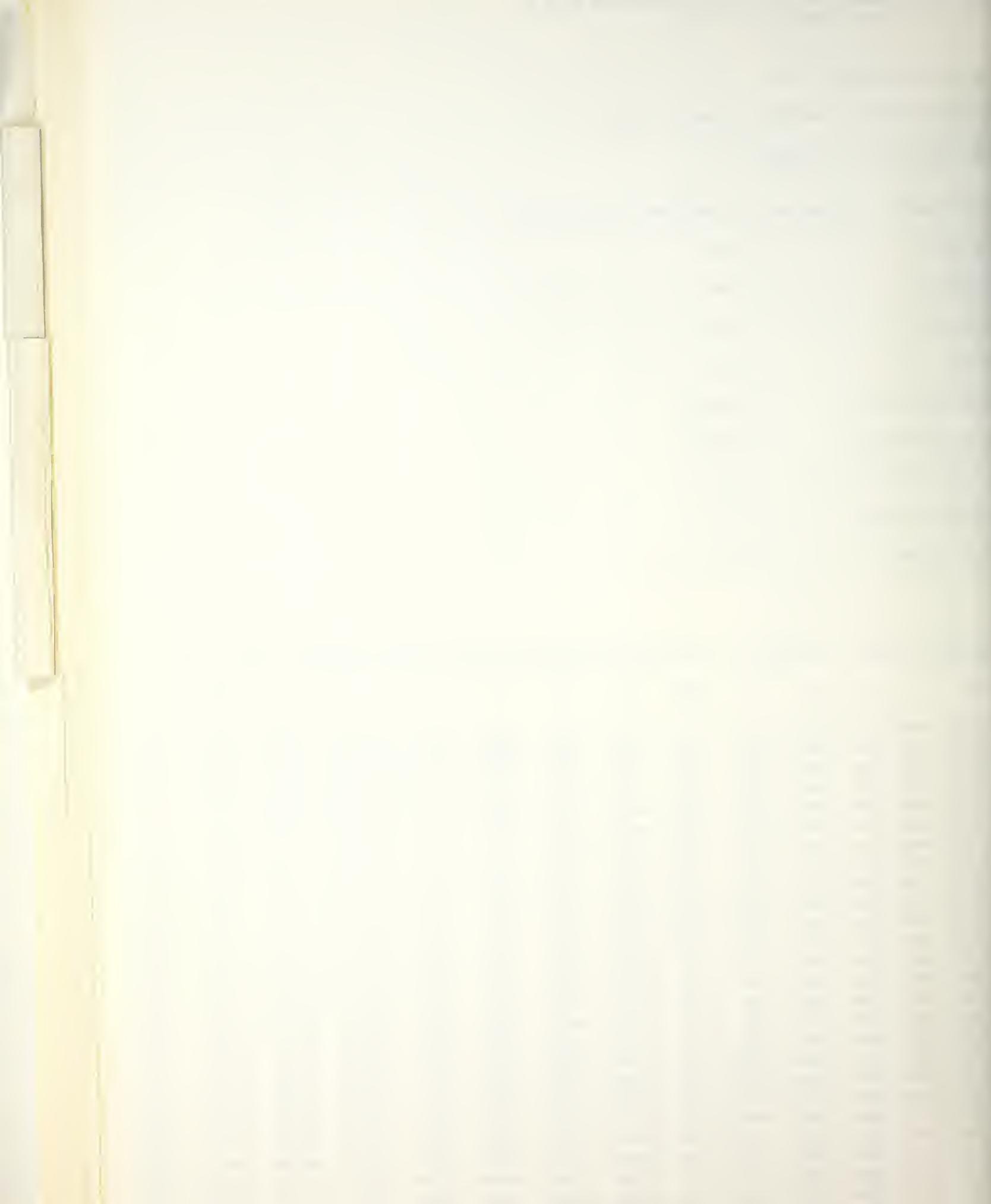
=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER

ELEV.VS.	TIME	DIST.	ANGLE
*K	(K*G)^.5	*K	DEGREES
-.27336	2.96158	3.14159	180.00
-.27299	2.89988	3.07614	176.25
-.27188	2.83818	3.01069	172.50
-.27005	2.77648	2.94524	168.75
-.26749	2.71478	2.87979	165.00
-.26422	2.65308	2.81434	161.25
-.26022	2.59138	2.74889	157.50
-.25548	2.52968	2.68344	153.75
-.25000	2.46798	2.61799	150.00
-.24377	2.40628	2.55254	146.25
-.23677	2.34458	2.48709	142.50
-.22902	2.28288	2.42164	138.75
-.22052	2.22118	2.35619	135.00
-.21129	2.15948	2.29074	131.25
-.20133	2.09778	2.22529	127.50
-.19066	2.03608	2.15984	123.75
-.17926	1.97439	2.09440	120.00
-.16711	1.91269	2.02895	116.25
-.15419	1.85099	1.96350	112.50
-.14047	1.78929	1.89805	108.75
-.12595	1.72759	1.83260	105.00
-.11062	1.66589	1.76715	101.25
-.09452	1.60419	1.70170	97.50
-.07766	1.54249	1.63625	93.75
-.06009	1.48079	1.57080	90.00
-.04182	1.41909	1.50535	86.25
-.02287	1.35739	1.43990	82.50
-.00321	1.29569	1.37445	78.75
.01717	1.23399	1.30900	75.00
.03831	1.17229	1.24355	71.25
.06022	1.11059	1.17810	67.50
.08288	1.04889	1.11265	63.75
.10622	.98719	1.04720	60.00
.13016	.92549	.98175	56.25
.15459	.86379	.91630	52.50
.17938	.80209	.85085	48.75
.20441	.74039	.78540	45.00
.22960	.67869	.71995	41.25
.25482	.61700	.65450	37.50
.27993	.55530	.58905	33.75
.30474	.49360	.52360	30.00
.32891	.43190	.45815	26.25
.35199	.37020	.39270	22.50
.37338	.30850	.32725	18.75
.39238	.24680	.26180	15.00
.40833	.18510	.19635	11.25
.42016	.12340	.13090	7.50
.42760	.06170	.06545	3.75
.43013	.00000	.00000	.00

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-.27336

-.27336

|	U	V	DIST.	ANGLE
=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER	*SQRT(K/G)	*K		DEGREES
	-.23255	.00000	3.14159	180.00
	-.23219	.01442	3.07614	176.25
	-.23111	.02883	3.01069	172.50
	-.22929	.04319	2.94524	168.75
	-.22675	.05750	2.87979	165.00
	-.22347	.07173	2.81434	161.25
	-.21946	.08586	2.74889	157.50
	-.21472	.09987	2.68344	153.75
	-.20924	.11374	2.61799	150.00
	-.20301	.12745	2.55254	146.25
	-.19605	.14098	2.48709	142.50
	-.18833	.15430	2.42164	138.75
	-.17985	.16739	2.35619	135.00
	-.17061	.18022	2.29074	131.25
	-.16058	.19276	2.22529	127.50
	-.14978	.20497	2.15984	123.75
	-.13818	.21682	2.09440	120.00
	-.12579	.22829	2.02895	116.25
	-.11260	.23934	1.96350	112.50
	-.09860	.24995	1.89805	108.75
	-.08378	.26007	1.83260	105.00
	-.06814	.26967	1.76715	101.25
	-.05165	.27869	1.70170	97.50
	-.03432	.28707	1.63625	93.75
	-.01612	.29476	1.57080	90.00
	.00295	.30168	1.50535	86.25
	.02290	.30777	1.43990	82.50
	.04373	.31296	1.37445	78.75
	.06544	.31721	1.30900	75.00
	.08804	.32042	1.24355	71.25
	.11153	.32253	1.17810	67.50
	.13593	.32343	1.11265	63.75
	.16121	.32301	1.04720	60.00
	.18736	.32112	.98175	56.25
	.21434	.31761	.91630	52.50
	.24208	.31229	.85085	48.75
	.27049	.30500	.78540	45.00
	.29949	.29554	.71995	41.25
	.32889	.28371	.65450	37.50
	.35853	.26932	.58905	33.75
	.38815	.25213	.52360	30.00
	.41735	.23189	.45815	26.25
	.44561	.20836	.39270	22.50
	.47219	.18135	.32725	18.75
	.49619	.15078	.26180	15.00
	.51653	.11677	.19635	11.25
	.53210	.07976	.13090	7.50
	.54192	.04049	.06545	3.75
	.54527	.00000	.00000	.00

-.23255

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS

=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

| Ax | Ay | DIST. | ANGLE |
*1/G	*1/G	*K	DEGREES
.00000	.28507	3.14159	180.00
.01433	.28480	3.07614	176.25
.02865	.28400	3.01069	172.50
.04294	.28265	2.94524	168.75
.05720	.28076	2.87979	165.00
.07140	.27832	2.81434	161.25
.08553	.27533	2.74889	157.50
.09958	.27179	2.68344	153.75
.11353	.26769	2.61799	150.00
.12738	.26303	2.55254	146.25
.14109	.25780	2.48709	142.50
.15466	.25200	2.42164	138.75
.16806	.24562	2.35619	135.00
.18128	.23863	2.29074	131.25
.19428	.23103	2.22529	127.50
.20704	.22282	2.15984	123.75
.21954	.21398	2.09440	120.00
.23174	.20451	2.02895	116.25
.24364	.19441	1.96350	112.50
.25520	.18368	1.89805	108.75
.26639	.17232	1.83260	105.00
.27717	.16031	1.76715	101.25
.28751	.14764	1.70170	97.50
.29734	.13431	1.63625	93.75
.30662	.12029	1.57080	90.00
.31528	.10559	1.50535	86.25
.32327	.09019	1.43990	82.50
.33053	.07412	1.37445	78.75
.33698	.05736	1.30900	75.00
.34258	.03994	1.24355	71.25
.34723	.02186	1.17810	67.50
.35082	.00312	1.11265	63.75
.35323	-.01628	1.04720	60.00
.35429	-.03632	.98175	56.25
.35379	-.05702	.91630	52.50
.35152	-.07834	.85085	48.75
.34721	-.10024	.78540	45.00
.34056	-.12267	.71995	41.25
.33124	-.14553	.65450	37.50
.31886	-.16869	.58905	33.75
.30293	-.19197	.52360	30.00
.28292	-.21511	.45815	26.25
.25822	-.23772	.39270	22.50
.22823	-.25927	.32725	18.75
.19253	-.27901	.26180	15.00
.15102	-.29602	.19635	11.25
.10419	-.30924	.13090	7.50
.05323	-.31767	.06545	3.75
.00000	-.32057	.00000	.00

-.32057

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HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS

	Ax	Ay	DIST.	ANGLE
	#1/6	#1/6	#K	DEGREES

=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

Ax	Ay	DIST.	ANGLE
.00000	.28507	3.14159	180.00
.01433	.28480	3.07614	176.25
.02865	.28399	3.01069	172.50
.04294	.28264	2.94524	168.75
.05720	.28075	2.87979	165.00
.07140	.27832	2.81434	161.25
.08553	.27534	2.74889	157.50
.09959	.27181	2.68344	153.75
.11354	.26771	2.61799	150.00
.12738	.26305	2.55254	146.25
.14109	.25781	2.48709	142.50
.15465	.25199	2.42164	138.75
.16805	.24559	2.35619	135.00
.18126	.23859	2.29074	131.25
.19426	.23101	2.22529	127.50
.20703	.22281	2.15984	123.75
.21955	.21399	2.09440	120.00
.23177	.20455	2.02895	116.25
.24368	.19446	1.96350	112.50
.25523	.18372	1.89805	108.75
.26640	.17234	1.83260	105.00
.27716	.16030	1.76715	101.25
.28747	.14761	1.70170	97.50
.29729	.13426	1.63625	93.75
.30657	.12025	1.57080	90.00
.31526	.10557	1.50535	86.25
.32328	.09020	1.43990	82.50
.33057	.07415	1.37445	78.75
.33706	.05741	1.30900	75.00
.34265	.03998	1.24355	71.25
.34727	.02188	1.17810	67.50
.35082	.00312	1.11265	63.75
.35318	-.01630	1.04720	60.00
.35421	-.03636	.98175	56.25
.35371	-.05705	.91630	52.50
.35146	-.07836	.85085	48.75
.34719	-.10025	.78540	45.00
.34060	-.12266	.71995	41.25
.33131	-.14552	.65450	37.50
.31894	-.16868	.58905	33.75
.30300	-.19197	.52360	30.00
.28295	-.21511	.45815	26.25
.25820	-.23773	.39270	22.50
.22819	-.25926	.32725	18.75
.19249	-.27900	.26180	15.00
.15100	-.29601	.19635	11.25
.10419	-.30923	.13090	7.50
.05324	-.31767	.06545	3.75
.00000	-.32058	.00000	.00

-.32058

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HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICLE VELOCITIES — .2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER

U *SQRT(K/G)	V *K	DIST.	ANGLE DEGREES
-.23256	.00000	3.14159	180.00
-.23219	.01442	3.07614	176.25
-.23110	.02883	3.01069	172.50
-.22929	.04319	2.94524	168.75
-.22674	.05750	2.87979	165.00
-.22347	.07173	2.81434	161.25
-.21947	.08586	2.74889	157.50
-.21473	.09988	2.68344	153.75
-.20925	.11375	2.61799	150.00
-.20303	.12746	2.55254	146.25
-.19605	.14098	2.48709	142.50
-.18832	.15430	2.42164	138.75
-.17983	.16738	2.35619	135.00
-.17059	.18020	2.29074	131.25
-.16057	.19274	2.22529	127.50
-.14977	.20496	2.15984	123.75
-.13819	.21683	2.09440	120.00
-.12581	.22832	2.02895	116.25
-.11262	.23938	1.96350	112.50
-.09861	.24999	1.89805	108.75
-.08379	.26009	1.83260	105.00
-.06814	.26966	1.76715	101.25
-.05165	.27865	1.70170	97.50
-.03431	.28702	1.63625	93.75
-.01611	.29470	1.57080	90.00
.00296	.30165	1.50535	86.25
.02290	.30778	1.43990	82.50
.04373	.31301	1.37445	78.75
.06545	.31728	1.30900	75.00
.08805	.32049	1.24355	71.25
.11155	.32257	1.17810	67.50
.13593	.32344	1.11265	63.75
.16119	.32297	1.04720	60.00
.18733	.32105	.98175	56.25
.21429	.31753	.91630	52.50
.24204	.31224	.85085	48.75
.27048	.30498	.78540	45.00
.29950	.29556	.71995	41.25
.32894	.28377	.65450	37.50
.35861	.26939	.58905	33.75
.38822	.25218	.52360	30.00
.41739	.23191	.45815	26.25
.44561	.20836	.39270	22.50
.47215	.18133	.32725	18.75
.49612	.15075	.26180	15.00
.51647	.11676	.19635	11.25
.53207	.07976	.13090	7.50
.54191	.04049	.06545	3.75
.54527	.00000	.00000	.00

-.23256

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.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER   *K   (K*G)^.5   *K   DEGREES
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	*K	(K*G)^.5	*K	DEGREES
+	-.27336	2.96158	3.14159	180.00
+	-.27299	2.89988	3.07614	176.25
+	-.27190	2.83818	3.01069	172.50
+	-.27008	2.77648	2.94524	168.75
+¦	-.26752	2.71478	2.87979	165.00
+¦	-.26422	2.65308	2.81434	161.25
+ ¦	-.26019	2.59138	2.74889	157.50
+ ¦	-.25542	2.52968	2.68344	153.75
+ ¦	-.24993	2.46798	2.61799	150.00
+ ¦	-.24371	2.40628	2.55254	146.25
+ ¦	-.23676	2.34458	2.48709	142.50
+ ¦	-.22907	2.28288	2.42164	138.75
+ ¦	-.22062	2.22118	2.35619	135.00
+ ¦	-.21141	2.15948	2.29074	131.25
+ ¦	-.20143	2.09778	2.22529	127.50
+ ¦	-.19069	2.03609	2.15984	123.75
+ ¦	-.17921	1.97439	2.09440	120.00
+ ¦	-.16698	1.91269	2.02895	116.25
+ ¦	-.15402	1.85099	1.96350	112.50
+ ¦	-.14033	1.78929	1.89805	108.75
+ ¦	-.12589	1.72759	1.83260	105.00
+ ¦	-.11067	1.66589	1.76715	101.25
+ ¦	-.09466	1.60419	1.70170	97.50
+ ¦	-.07786	1.54249	1.63625	93.75
+ ¦	-.06027	1.48079	1.57080	90.00
+ ¦	-.04192	1.41909	1.50535	86.25
¦ +	-.02284	1.35739	1.43990	82.50
+ ¦	-.00307	1.29569	1.37445	78.75
+ ¦	.01739	1.23399	1.30900	75.00
+ ¦	.03853	1.17229	1.24355	71.25
+ ¦	.06036	1.11059	1.17810	67.50
+ ¦	.08289	1.04889	1.11265	63.75
+ ¦	.10610	.98719	1.04720	60.00
+ ¦	.12995	.92549	.98175	56.25
+ ¦	.15436	.86379	.91630	52.50
+ ¦	.17921	.80209	.85085	48.75
+ ¦	.20436	.74039	.78540	45.00
+ ¦	.22967	.67870	.71995	41.25
+ ¦	.25499	.61700	.65450	37.50
+ ¦	.28014	.55530	.58905	33.75
+ ¦	.30491	.49360	.52360	30.00
+ ¦	.32900	.43190	.45815	26.25
+ ¦	.35199	.37020	.39270	22.50
+ ¦	.37331	.30850	.32725	18.75
+ ¦	.39227	.24680	.26180	15.00
+ ¦	.40812	.18510	.19635	11.25
+ ¦	.42011	.12340	.13090	7.50
+ ¦	.42759	.06170	.06545	3.75
¦	.43013	.00000	.00000	.00

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.3
                                                          -.27336
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KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.39227	.49612	.15075	.19249	-.27900	-.00005	.2461397	.1924889	.7837433	.6129115	.0000000	.0000000	.0000000	.0000000
.25960	.42921	.12746	.15899	-.27363	.09584	.1842207	.1589886	.5621435	.4851487	.0285485	.0233157	.0892811	.0728412
.12693	.37211	.10846	.13255	-.25983	.19306	.1384629	.1325476	.4041450	.3868794	.0499541	.0426551	.1533810	.1306883
-.00575	.32319	.09274	.11137	-.24172	.29243	.1044511	.1113723	.2910136	.3102970	.0660681	.0588359	.1994953	.1769364
-.13842	.28115	.07958	.09420	-.22173	.39435	.0790481	.0941961	.2097502	.2499445	.0782408	.0724725	.2327141	.2141007
-.27109	.24495	.06848	.08011	-.20133	.49896	.0599992	.0801114	.1512445	.2019431	.0874647	.0840354	.2566611	.2440772
-.40376	.21370	.05906	.06846	-.18140	.60625	.0456675	.0684567	.1090589	.1634819	.0944742	.0938909	.2739287	.2683181
-.53644	.18670	.05100	.05874	-.16244	.71613	.0348552	.0587403	.0786135	.1324849	.0998158	.1023286	.2863781	.2879515
-.66911	.16334	.04408	.05059	-.14472	.82844	.0266791	.0505905	.0566333	.1073915	.1038977	.1095812	.2953499	.3038640
-.80178	.14312	.03812	.04372	-.12836	.94301	.0204845	.0437216	.0407660	.0870098	.1070264	.1158376	.3018110	.3167598
-.93445	.12563	.03296	.03791	-.11337	1.05966	.0157837	.0379109	.0293170	.0704163	.1094323	.1212527	.3064601	.3272029
-1.06713	.11051	.02847	.03298	-.09973	1.17821	.0122119	.0329827	.0210624	.0568866	.1112894	.1259556	.3098020	.3356477
-1.19980	.09744	.02456	.02880	-.08735	1.29849	.0094951	.0287966	.0151169	.0458462	.1127294	.1300538	.3122020	.3424626
-1.33247	.08618	.02113	.02524	-.07615	1.42033	.0074273	.0252397	.0108394	.0368348	.1138519	.1336383	.3139239	.3479473
-1.46514	.07650	.01811	.02222	-.06601	1.54358	.0058530	.0222207	.0077653	.0294807	.1147329	.1367867	.3151580	.3523465
-1.59782	.06823	.01545	.01966	-.05682	1.66812	.0046548	.0196648	.0055581	.0234808	.1154299	.1395652	.3160419	.3558597
-1.73049	.06119	.01308	.01751	-.04848	1.79381	.0037440	.0175112	.0039738	.0185860	.1159871	.1420313	.3166742	.3586503
-1.86316	.05526	.01096	.01571	-.04088	1.92057	.0030533	.0157101	.0028357	.0145901	.1164380	.1442351	.3171259	.3608510
-1.99583	.05032	.00904	.01422	-.03391	2.04828	.0025324	.0142209	.0020158	.0113204	.1168085	.1462206	.3174477	.3625698
-2.12851	.04629	.00729	.01301	-.02747	2.17689	.0021430	.0130110	.0014216	.0086310	.1171187	.1480271	.3176757	.3638933
-2.26118	.04309	.00568	.01205	-.02146	2.30632	.0018569	.0120541	.0009854	.0063970	.1173840	.1496898	.3178354	.3648903
-2.39385	.04066	.00417	.01133	-.01580	2.43652	.0016533	.0113299	.0006581	.0045095	.1176169	.1512410	.3179444	.3656137
-2.52652	.03896	.00274	.01082	-.01040	2.56746	.0015176	.0108231	.0004027	.0028719	.1178272	.1527105	.3180148	.3661034
-2.65920	.03795	.00136	.01052	-.00516	2.69910	.0014399	.0105232	.0001910	.0013961	.1180234	.1541266	.3180542	.3663865
-2.79187	.03761	.00000	.01042	.00000	2.83143	.0014146	.0104239	.0000000	.0000000	.1182127	.1555161	.3180668	.3664791

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.30491	.38822	.25218	.30300	-.19197	.00012	.1507133	.3029964	.4667260	.9383135	.0000000	.0000000	.0000000	.0000000
.17588	.34009	.21657	.25749	-.19654	.10397	.1156617	.2574920	.3432547	.7641717	.0171855	.0361606	.0522569	.1098380
.04685	.29801	.18661	.21957	-.19254	.20783	.0888089	.2195670	.2521030	.6232883	.0303772	.0669387	.0906672	.1993518
-.08218	.26125	.16121	.18789	-.18343	.31257	.0682515	.1878859	.1849401	.5091112	.0405101	.0932260	.1188636	.2724100
-.21122	.22916	.13956	.16132	-.17147	.41868	.0525133	.1613217	.1355184	.4163151	.0483014	.1157556	.1395384	.3321150
-.34025	.20114	.12102	.13896	-.15811	.52644	.0404592	.1389556	.0991904	.3406660	.0542997	.1351284	.1546809	.3809526
-.46928	.17670	.10506	.12005	-.14432	.63596	.0312212	.1200478	.0725138	.2788213	.0589242	.1518383	.1657586	.4209196
-.59831	.15536	.09127	.10401	-.13067	.74726	.0241366	.1040051	.0529449	.2281407	.0624957	.1662934	.1738528	.4536269
-.72735	.13675	.07933	.09035	-.11754	.86029	.0186997	.0903505	.0386060	.1865304	.0652593	.1788325	.1797593	.4803800
-.85638	.12052	.06894	.07870	-.10513	.97496	.0145248	.0786988	.0281125	.1523207	.0674029	.1897389	.1840637	.5022414
-.98541	.10638	.05988	.06874	-.09355	1.09119	.0113171	.0687378	.0204438	.1241718	.0690701	.1992510	.1871964	.5200796
-1.11444	.09408	.05195	.06021	-.08285	1.20885	.0088514	.0602123	.0148475	.1010015	.0703713	.2075703	.1894733	.5346070
-1.24348	.08340	.04498	.05291	-.07300	1.32783	.0069556	.0529132	.0107700	.0819303	.0713911	.2148688	.1911260	.5464091
-1.37251	.07415	.03885	.04667	-.06398	1.44804	.0054979	.0466684	.0078034	.0662392	.0721945	.2212934	.1923243	.5559684
-1.50154	.06616	.03342	.04134	-.05573	1.56935	.0043773	.0413355	.0056481	.0533363	.0728316	.2269711	.1931921	.5636830
-1.63057	.05930	.02859	.03680	-.04819	1.69169	.0035166	.0367967	.0040838	.0427318	.0733409	.2320119	.1938200	.5698809
-1.75961	.05345	.02427	.03295	-.04127	1.81496	.0028566	.0329544	.0029488	.0340176	.0737521	.2365120	.1942737	.5748325
-1.88864	.04850	.02038	.02973	-.03492	1.93908	.0023521	.0297280	.0021245	.0268512	.0740881	.2405560	.1946010	.5787595
-2.01767	.04437	.01685	.02705	-.02905	2.06399	.0019687	.0270511	.0015242	.0209428	.0743669	.2442192	.1948364	.5818430
-2.14671	.04099	.01361	.02487	-.02359	2.18963	.0016802	.0248696	.0010840	.0160449	.0746023	.2475689	.1950047	.5842293
-2.27574	.03830	.01062	.02314	-.01847	2.31595	.0014669	.0231401	.0007571	.0119433	.0748053	.2506663	.1951235	.5860350
-2.40477	.03625	.00781	.02183	-.01362	2.44292	.0013143	.0218286	.0005088	.0084498	.0749848	.2535675	.1952051	.5873507
-2.53380	.03482	.00513	.02091	-.00897	2.57049	.0012122	.0209094	.0003128	.0053960	.0751478	.2563248	.1952581	.5882440
-2.66284	.03396	.00254	.02036	-.00445	2.69866	.0011536	.0203650	.0001488	.0026277	.0753004	.2589877	.1952879	.5887617
-2.79187	.03368	.00000	.02018	.00000	2.82741	.0011345	.0201846	.0000000	.0000000	.0754480	.2616038	.1952975	.5889312

TEADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
          M. M. RIENECKER AND J. D. FENTON.

PTH: FINITE, HEIGHT/DEPTH= .2520

VE HEIGHT 2.005161E-02,DIMENSIONLESS WITH RESPECT TO PERIOD

JRRENT CRITERION: EULER , MAGNITUDE= .00

LUTION OF ORDER 10 NON-DIMENSIONALIZED BY WAVE NUMBER, 2 HEIGHT STEP(S).

ITER DEPTH   2.7919

VE HEIGHT   .70349

VE PERIOD   5.9232

VE SPEED   1.0608

AN EULERIAN FLUID SPEED   6.19785E-22

AN MASS TRANSPORT SPEED   1.99769E-02

AN FLUID SPEED RELATIVE TO WAVE   1.0608

)LUME FLUX DUE TO WAVES   5.57728E-02

RNOULLI CONSTANT   .56301

UTION VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.43013	.54527	.00000	.00000	-.32058	.00000	.2973221	.0000000	.9579716	.0000000	.0000000	.0000000	.0000000	.0000000
.29588	.46879	.00000	.00000	-.30872	.09189	.2197594	.0000000	.6785620	.0000000	.0347091	.0000000	.1098523	.0000000
.16163	.40437	.00000	.00000	-.28947	.18594	.1635139	.0000000	.4829380	.0000000	.0604363	.0000000	.1878180	.0000000
.02738	.34973	.00000	.00000	-.26678	.28282	.1223082	.0000000	.3448173	.0000000	.0796221	.0000000	.2433810	.0000000
-.10687	.30313	.00000	.00000	-.24295	.38285	.0918866	.0000000	.2467154	.0000000	.0939999	.0000000	.2830876	.0000000
-.24112	.26323	.00000	.00000	-.21932	.48608	.0692916	.0000000	.1767455	.0000000	.1048190	.0000000	.3115124	.0000000
-.37537	.22898	.00000	.00000	-.19666	.59242	.0524299	.0000000	.1266968	.0000000	.1129896	.0000000	.3318810	.0000000
-.50962	.19950	.00000	.00000	-.17538	.70172	.0397987	.0000000	.0908305	.0000000	.1191804	.0000000	.3464825	.0000000
-.64387	.17409	.00000	.00000	-.15569	.81376	.0303072	.0000000	.0650998	.0000000	.1238863	.0000000	.3569493	.0000000
-.77812	.15217	.00000	.00000	-.13766	.92834	.0231569	.0000000	.0466322	.0000000	.1274750	.0000000	.3644493	.0000000
-.91237	.13326	.00000	.00000	-.12125	1.04523	.0177592	.0000000	.0333784	.0000000	.1302215	.0000000	.3698201	.0000000
-1.04662	.11695	.00000	.00000	-.10639	1.16422	.0136777	.0000000	.0238709	.0000000	.1323317	.0000000	.3736629	.0000000
-1.18087	.10289	.00000	.00000	-.09297	1.28510	.0105873	.0000000	.0170561	.0000000	.1339605	.0000000	.3764102	.0000000
-1.31512	.09080	.00000	.00000	-.08088	1.40769	.0082452	.0000000	.0121761	.0000000	.1352246	.0000000	.3783724	.0000000
-1.44937	.08043	.00000	.00000	-.06998	1.53183	.0064693	.0000000	.0086850	.0000000	.1362124	.0000000	.3797727	.0000000
-1.58362	.07157	.00000	.00000	-.06014	1.65736	.0051229	.0000000	.0061897	.0000000	.1369905	.0000000	.3807711	.0000000
-1.71787	.06406	.00000	.00000	-.05123	1.78414	.0041031	.0000000	.0044067	.0000000	.1376098	.0000000	.3814824	.0000000
-1.85212	.05773	.00000	.00000	-.04314	1.91206	.0033325	.0000000	.0031317	.0000000	.1381089	.0000000	.3819884	.0000000
-1.98637	.05247	.00000	.00000	-.03574	2.04103	.0027531	.0000000	.0022176	.0000000	.1385174	.0000000	.3823475	.0000000
-2.12062	.04818	.00000	.00000	-.02893	2.17094	.0023213	.0000000	.0015581	.0000000	.1388580	.0000000	.3826010	.0000000
-2.25487	.04478	.00000	.00000	-.02258	2.30174	.0020048	.0000000	.0010766	.0000000	.1391484	.0000000	.3827778	.0000000
-2.38912	.04219	.00000	.00000	-.01662	2.43336	.0017802	.0000000	.0007170	.0000000	.1394025	.0000000	.3828982	.0000000
-2.52337	.04038	.00000	.00000	-.01093	2.56576	.0016306	.0000000	.0004378	.0000000	.1396314	.0000000	.3829757	.0000000
-2.65762	.03931	.00000	.00000	-.00542	2.69892	.0015451	.0000000	.0002074	.0000000	.1398446	.0000000	.3830190	.0000000
-2.79187	.03895	.00000	.00000	.00000	2.83281	.0015173	.0000000	.0000000	.0000000	.1400501	.0000000	.3830330	.0000000
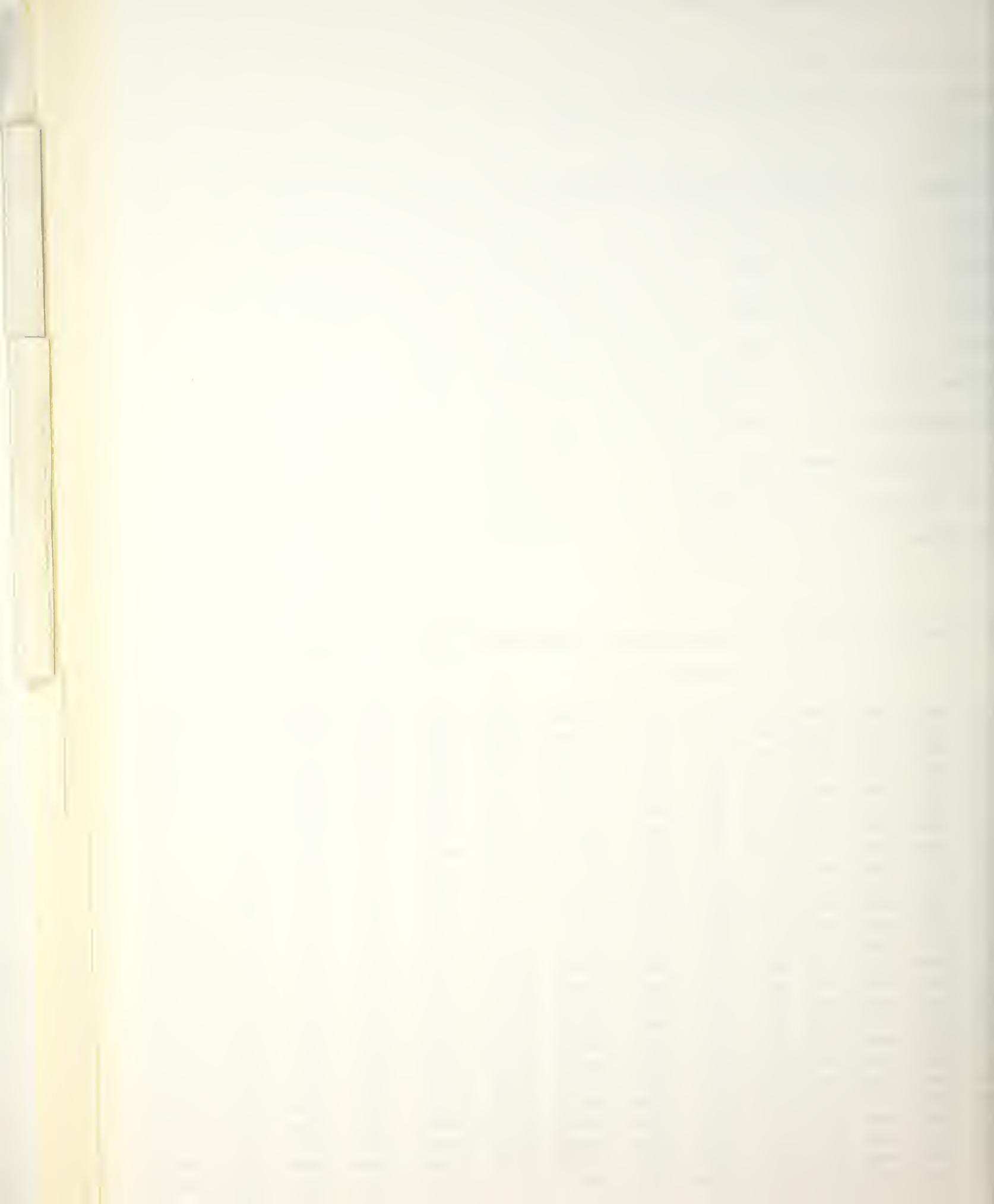
EADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
        M. M. RIENECKER AND J. D. FENTON.

) TH: FINITE, HEIGHT/DEPTH= .2520

,E HEIGHT 2.005161E-02,DIMENSIONLESS WITH RESPECT TO PERIOD

RRENT CRITERION: EULER , MAGNITUDE= .00

UTION OF ORDER 12 NON-DIMENSIONALIZED BY WAVE NUMBER, 2 HEIGHT STEP(S).

TER DEPTH	2.7919
VE HEIGHT	.70349
VE PERIOD	5.9232
VE SPEED	1.0608
AN EULERIAN FLUID SPEED	-3.27483E-22
AN MASS TRANSPORT SPEED	1.99768E-02
AN FLUID SPEED RELATIVE TO WAVE	1.0608
LUME FLUX DUE TO WAVES	5.57726E-02
RNOULLI CONSTANT	.56301

UTION VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.43013	.54527	.00000	.00000	-.32058	.00000	.2973220	.0000000	.9579713	.0000000	.0000000	.0000000	.0000000	.0000000
.29588	.46878	.00000	.00000	-.30872	.09189	.2197590	.0000000	.6785609	.0000000	.0347091	.0000000	.1098522	.0000000
.16163	.40437	.00000	.00000	-.28947	.18594	.1635136	.0000000	.4829374	.0000000	.0604362	.0000000	.1878178	.0000000
.02738	.34973	.00000	.00000	-.26678	.28282	.1223081	.0000000	.3448171	.0000000	.0796220	.0000000	.2433808	.0000000
-.10687	.30313	.00000	.00000	-.24295	.38285	.0918866	.0000000	.2467153	.0000000	.0939998	.0000000	.2830874	.0000000
-.24112	.26323	.00000	.00000	-.21932	.48608	.0692916	.0000000	.1767455	.0000000	.1048189	.0000000	.3115122	.0000000
-.37537	.22898	.00000	.00000	-.19666	.59242	.0524299	.0000000	.1266968	.0000000	.1129895	.0000000	.3318807	.0000000
-.50962	.19950	.00000	.00000	-.17538	.70172	.0397987	.0000000	.0908305	.0000000	.1191803	.0000000	.3464823	.0000000
-.64387	.17409	.00000	.00000	-.15569	.81376	.0303072	.0000000	.0650998	.0000000	.1238862	.0000000	.3569491	.0000000
-.77812	.15217	.00000	.00000	-.13766	.92834	.0231569	.0000000	.0466323	.0000000	.1274749	.0000000	.3644491	.0000000
-.91237	.13326	.00000	.00000	-.12125	1.04523	.0177592	.0000000	.0333784	.0000000	.1302214	.0000000	.3698198	.0000000
-1.04662	.11695	.00000	.00000	-.10639	1.16422	.0136777	.0000000	.0238709	.0000000	.1323316	.0000000	.3736627	.0000000
-1.18087	.10289	.00000	.00000	-.09297	1.28510	.0105873	.0000000	.0170561	.0000000	.1339604	.0000000	.3764099	.0000000
-1.31512	.09080	.00000	.00000	-.08088	1.40769	.0082452	.0000000	.0121761	.0000000	.1352246	.0000000	.3783721	.0000000
-1.44937	.08043	.00000	.00000	-.06998	1.53183	.0064693	.0000000	.0086850	.0000000	.1362123	.0000000	.3797724	.0000000
-1.58362	.07157	.00000	.00000	-.06014	1.65736	.0051229	.0000000	.0061897	.0000000	.1369904	.0000000	.3807709	.0000000
-1.71787	.06406	.00000	.00000	-.05123	1.78414	.0041031	.0000000	.0044067	.0000000	.1376097	.0000000	.3814822	.0000000
-1.85212	.05773	.00000	.00000	-.04314	1.91207	.0033325	.0000000	.0031317	.0000000	.1381088	.0000000	.3819882	.0000000
-1.98637	.05247	.00000	.00000	-.03574	2.04103	.0027531	.0000000	.0022176	.0000000	.1385173	.0000000	.3823473	.0000000
-2.12062	.04818	.00000	.00000	-.02893	2.17094	.0023213	.0000000	.0015581	.0000000	.1388579	.0000000	.3826007	.0000000
-2.25487	.04478	.00000	.00000	-.02258	2.30174	.0020048	.0000000	.0010766	.0000000	.1391483	.0000000	.3827776	.0000000
-2.38912	.04219	.00000	.00000	-.01662	2.43336	.0017802	.0000000	.0007170	.0000000	.1394024	.0000000	.3828980	.0000000
-2.52337	.04038	.00000	.00000	-.01093	2.56576	.0016306	.0000000	.0004378	.0000000	.1396313	.0000000	.3829755	.0000000
-2.65762	.03931	.00000	.00000	-.00542	2.69892	.0015451	.0000000	.0002074	.0000000	.1398445	.0000000	.3830188	.0000000
-2.79187	.03895	.00000	.00000	.00000	2.83281	.0015173	.0000000	.0000000	.0000000	.1400501	.0000000	.3830327	.0000000
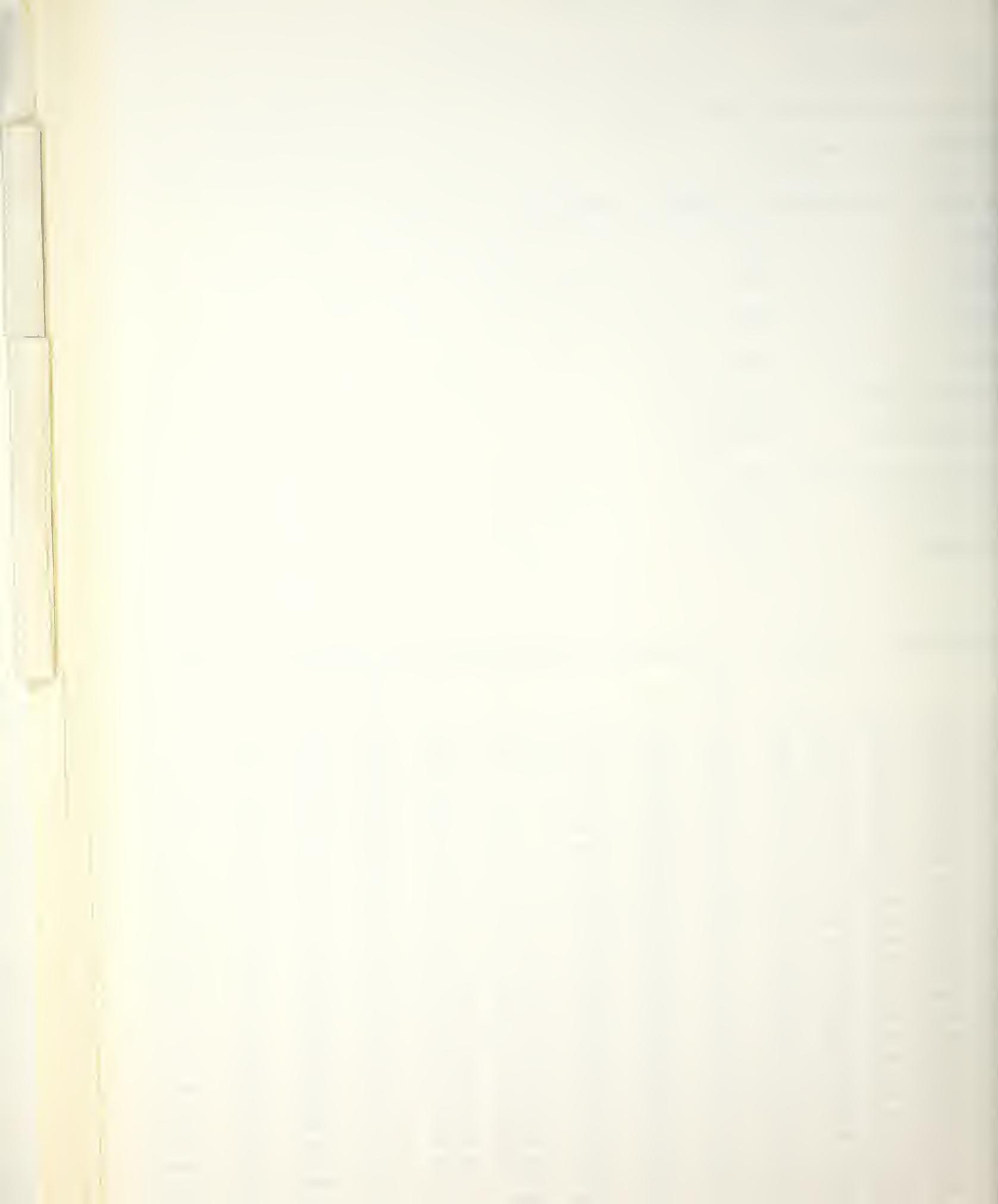
KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.39221	.49609	.15074	.19246	-.27900	.00000	.2461021	.1924635	.7836069	.6128178	.0000000	.0000000	.0000000	.0000000
.25954	.42918	.12745	.15897	-.27362	.09589	.1841946	.1589715	.5620521	.4850863	.0285437	.0233124	.0892641	.0728293
.12687	.37208	.10845	.13254	-.25982	.19311	.1384446	.1325354	.4040828	.3868355	.0499459	.0426495	.1533525	.1306681
-.00580	.32317	.09273	.11136	-.24171	.29247	.1044381	.1113632	.2909711	.3102651	.0660575	.0588284	.1994588	.1769102
-.13847	.28114	.07958	.09419	-.22172	.39439	.0790388	.0941891	.2097211	.2499209	.0782284	.0724637	.2326722	.2140700
-.27114	.24493	.06848	.08011	-.20132	.49900	.0599925	.0801061	.1512246	.2019254	.0874510	.0840256	.2566154	.2440432
-.40381	.21369	.05905	.06845	-.18139	.60629	.0456628	.0684526	.1090452	.1634685	.0944596	.0938802	.2738804	.2682815
-.53648	.18669	.05100	.05874	-.16243	.71617	.0348518	.0587371	.0786043	.1324747	.0998006	.1023173	.2863281	.2879129
-.66915	.16333	.04408	.05059	-.14471	.82848	.0266767	.0505879	.0566270	.1073838	.1038820	.1095694	.2952987	.3038239
-.80182	.14312	.03812	.04372	-.12835	.94305	.0204828	.0437196	.0407617	.0870039	.1070104	.1158252	.3017589	.3167186
-.93449	.12563	.03295	.03791	-.11337	1.05970	.0157825	.0379093	.0293141	.0704118	.1094160	.1212401	.3064074	.3271607
-.06716	.11050	.02847	.03298	-.09972	1.17825	.0122110	.0329814	.0210604	.0568832	.1112730	.1259426	.3097490	.3356048
-.19983	.09744	.02456	.02980	-.08735	1.29852	.0094945	.0287956	.0151156	.0458436	.1127128	.1300406	.3121487	.3424192
-.33250	.08618	.02113	.02524	-.07614	1.42036	.0074269	.0252390	.0108385	.0368329	.1138353	.1336249	.3138704	.3479035
-.46517	.07650	.01811	.02222	-.06600	1.54361	.0058527	.0222201	.0077648	.0294793	.1147162	.1367731	.3151044	.3523023
-.59784	.06822	.01545	.01966	-.05682	1.66814	.0046546	.0196643	.0055577	.0234797	.1154132	.1395515	.3159882	.3558154
-.73051	.06119	.01308	.01751	-.04848	1.79384	.0037438	.0175108	.0039735	.0185852	.1159703	.1420175	.3166204	.3586057
-.86318	.05526	.01095	.01571	-.04088	1.92058	.0030533	.0157098	.0028355	.0145895	.1164212	.1442212	.3170721	.3608064
-.99585	.05032	.00904	.01422	-.03391	2.04830	.0025323	.0142208	.0020158	.0113200	.1167917	.1462067	.3173939	.3625251
-.12852	.04629	.00729	.01301	-.02747	2.17690	.0021429	.0130109	.0014215	.0086308	.1171018	.1480131	.3176219	.3638485
-.26119	.04309	.00568	.01205	-.02146	2.30633	.0018569	.0120540	.0009854	.0063968	.1173671	.1496757	.3177816	.3648454
-.39386	.04066	.00417	.01133	-.01580	2.43653	.0016533	.0113299	.0006580	.0045094	.1176000	.1512269	.3178906	.3655688
-.52653	.03896	.00274	.01082	-.01040	2.56747	.0015176	.0108231	.0004027	.0028718	.1178103	.1526964	.3179610	.3660584
-.65920	.03795	.00136	.01052	-.00516	2.69911	.0014399	.0105232	.0001910	.0013961	.1180065	.1541124	.3180003	.3663416
-.79187	.03761	.00000	.01042	.00000	2.83143	.0014146	.0104239	.0000000	.0000000	.1181959	.1555020	.3180130	.3664342

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.30507	.38828	.25223	.30306	-.19196	.00000	.1507619	.3030577	.4669001	.9385504	.0000000	.0000000	.0000000	.0000000
.17603	.34014	.21661	.25754	-.19655	.10386	.1156971	.2575400	.3433770	.7643523	.0171918	.0361695	.0522787	.1098704
.04699	.29805	.18664	.21960	-.19255	.20772	.0888347	.2196049	.2521890	.6234273	.0303881	.0669546	.0907043	.1994093
-.08205	.26129	.16124	.18792	-.18344	.31246	.0682704	.1879161	.1850005	.5092187	.0405244	.0932477	.1189116	.2724870
-.21109	.22919	.13958	.16135	-.17148	.41858	.0525270	.1613459	.1355607	.4163983	.0483182	.1157819	.1395940	.3322074
-.34013	.20117	.12103	.13897	-.15813	.52634	.0404692	.1389749	.0992199	.3407306	.0543183	.1351585	.1547419	.3810570
-.46917	.17672	.10507	.12006	-.14433	.63587	.0312284	.1200634	.0725343	.2788714	.0589442	.1518715	.1658234	.4210334
-.59820	.15538	.09128	.10402	-.13068	.74716	.0241418	.1040176	.0529590	.2281796	.0625166	.1663291	.1739202	.4537481
-.72724	.13676	.07934	.09036	-.11755	.86020	.0187035	.0903605	.0386158	.1865604	.0652810	.1788703	.1798286	.4805069
-.85628	.12053	.06895	.07871	-.10514	.97488	.0145275	.0787069	.0281192	.1523439	.0674251	.1897784	.1841343	.5023728
-.98532	.10639	.05988	.06874	-.09356	1.09110	.0113190	.0687442	.0204483	.1241896	.0690927	.1992919	.1872678	.5202146
-.11436	.09409	.05195	.06022	-.08285	1.20877	.0088528	.0602174	.0148506	.1010151	.0703941	.2076124	.1895453	.5347447
-.24340	.08341	.04499	.05292	-.07301	1.32776	.0069566	.0529173	.0107721	.0819407	.0714142	.2149118	.1911985	.5465489
-.37244	.07415	.03885	.04667	-.06399	1.44797	.0054986	.0466716	.0078048	.0662470	.0722178	.2213372	.1923970	.5561099
-.50148	.06616	.03342	.04134	-.05574	1.56929	.0043778	.0413380	.0056490	.0533421	.0728550	.2270155	.1932651	.5638258
-.63052	.05930	.02859	.03680	-.04819	1.69163	.0035169	.0367986	.0040844	.0427361	.0733643	.2320569	.1938931	.5700247
-.75956	.05345	.02427	.03296	-.04128	1.81491	.0028568	.0329558	.0029491	.0340207	.0737756	.2365574	.1943469	.5749770
-.88859	.04850	.02038	.02973	-.03492	1.93904	.0023523	.0297290	.0021248	.0268534	.0741116	.2406018	.1946742	.5789046
-1.01763	.04437	.01685	.02705	-.02905	2.06395	.0019688	.0270518	.0015243	.0209444	.0743904	.2442653	.1949097	.5819885
-1.14667	.04099	.01362	.02487	-.02359	2.18960	.0016802	.0248701	.0010841	.0160461	.0746259	.2476152	.1950780	.5843751
-1.27571	.03930	.01062	.02314	-.01847	2.31593	.0014669	.0231404	.0007571	.0119441	.0748289	.2507129	.1951968	.5861810
-1.40475	.03625	.00781	.02183	-.01362	2.44290	.0013143	.0218287	.0005088	.0084503	.0750084	.2536142	.1952784	.5874968
-1.53379	.03482	.00513	.02091	-.00897	2.57048	.0012122	.0209095	.0003128	.0053963	.0751714	.2563717	.1953314	.5883902
-1.66283	.03396	.00254	.02036	-.00445	2.69865	.0011536	.0203650	.0001489	.0026279	.0753240	.2590347	.1953612	.5889079
-1.79187	.03368	.00000	.02019	.00000	2.82741	.0011345	.0201846	.0000000	.0000000	.0754716	.2616509	.1953708	.5890774
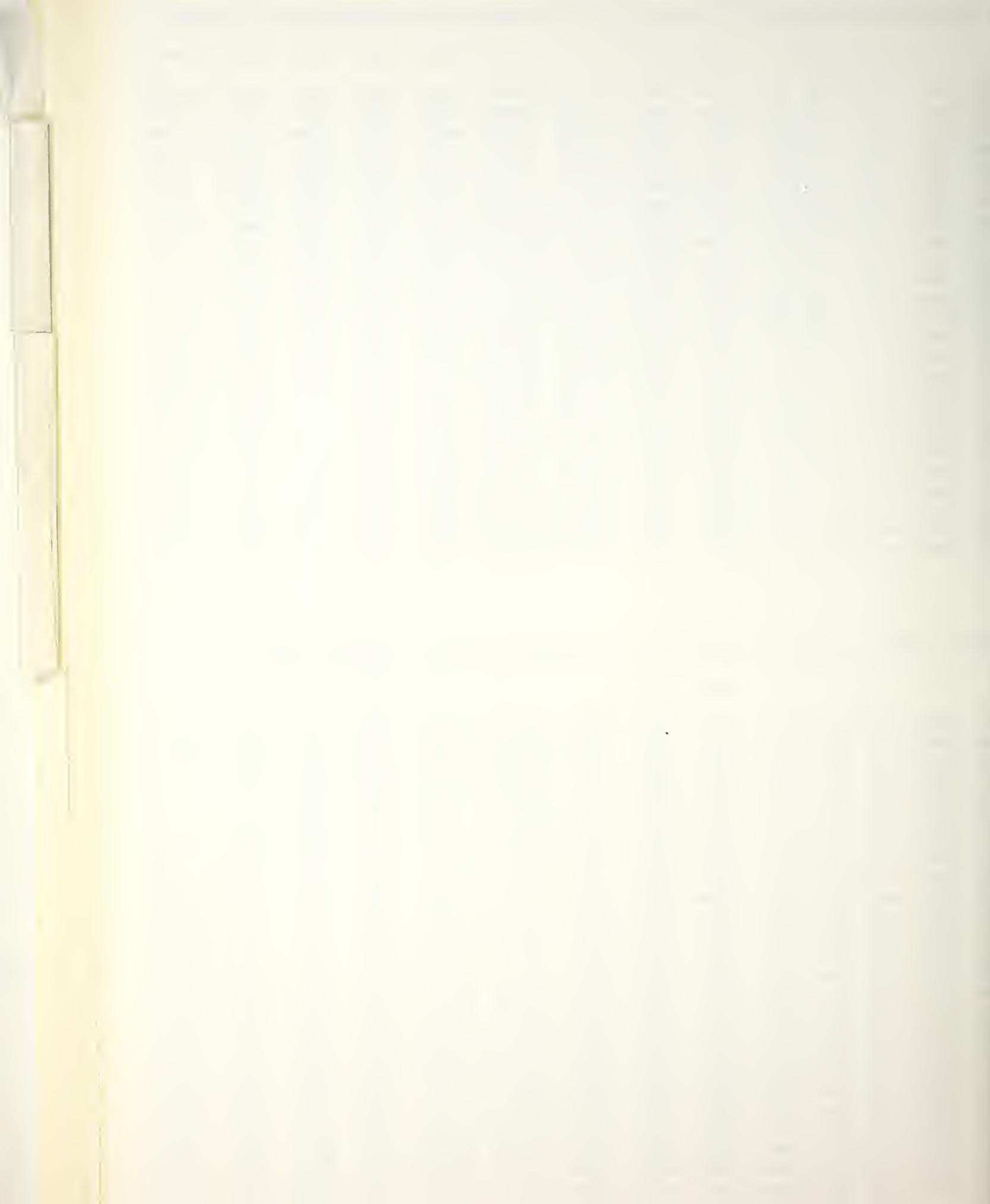
=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER   *K   (K*6)^.5   *K   DEGREES

*K	(K*6)^.5	*K	DEGREES
-.27336	2.96158	3.14159	180.00
-.27299	2.89988	3.07614	176.25
-.27190	2.83818	3.01069	172.50
-.27007	2.77648	2.94524	168.75
-.26751	2.71478	2.87979	165.00
-.26422	2.65308	2.81434	161.25
-.26019	2.59138	2.74889	157.50
-.25544	2.52968	2.68344	153.75
-.24995	2.46798	2.61799	150.00
-.24373	2.40628	2.55254	146.25
-.23676	2.34458	2.48709	142.50
-.22904	2.28288	2.42164	138.75
-.22058	2.22118	2.35619	135.00
-.21136	2.15948	2.29074	131.25
-.20140	2.09778	2.22529	127.50
-.19070	2.03609	2.15984	123.75
-.17926	1.97439	2.09440	120.00
-.16706	1.91269	2.02895	116.25
-.15409	1.85099	1.96350	112.50
-.14035	1.78929	1.89805	108.75
-.12585	1.72759	1.83260	105.00
-.11058	1.66589	1.76715	101.25
-.09455	1.60419	1.70170	97.50
-.07778	1.54249	1.63625	93.75
-.06027	1.48079	1.57080	90.00
-.04200	1.41909	1.50535	86.25
-.02298	1.35739	1.43990	82.50
-.00319	1.29569	1.37445	78.75
.01733	1.23399	1.30900	75.00
.03857	1.17229	1.24355	71.25
.06049	1.11059	1.17810	67.50
.08305	1.04889	1.11265	63.75
.10622	.98719	1.04720	60.00
.12998	.92549	.98175	56.25
.15427	.86379	.91630	52.50
.17905	.80209	.85085	48.75
.20419	.74039	.78540	45.00
.22957	.67870	.71995	41.25
.25500	.61700	.65450	37.50
.28025	.55530	.58905	33.75
.30507	.49360	.52360	30.00
.32914	.43190	.45815	26.25
.35206	.37020	.39270	22.50
.37329	.30850	.32725	18.75
.39221	.24680	.26180	15.00
.40805	.18510	.19635	11.25
.42006	.12340	.13090	7.50
.42757	.06170	.06545	3.75
.43013	.00000	.00000	.00

-.27336

4.3

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICLE VELOCITIES

H.=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

U *SQRT(K/G)	V *K	DIST. *K	ANGLE DEGREES
-.23256	.00000	3.14159	180.00
-.23219	.01442	3.07614	176.25
-.23110	.02883	3.01069	172.50
-.22929	.04319	2.94524	168.75
-.22675	.05750	2.87979	165.00
-.22347	.07173	2.81434	161.25
-.21947	.08586	2.74889	157.50
-.21473	.09987	2.68344	153.75
-.20925	.11375	2.61799	150.00
-.20302	.12746	2.55254	146.25
-.19605	.14098	2.48709	142.50
-.18832	.15430	2.42164	138.75
-.17984	.16738	2.35619	135.00
-.17059	.18021	2.29074	131.25
-.16057	.19274	2.22529	127.50
-.14977	.20496	2.15984	123.75
-.13818	.21682	2.09440	120.00
-.12580	.22830	2.02895	116.25
-.11261	.23937	1.96350	112.50
-.09861	.24998	1.89805	108.75
-.08379	.26010	1.83260	105.00
-.06814	.26968	1.76715	101.25
-.05165	.27868	1.70170	97.50
-.03431	.28704	1.63625	93.75
-.01611	.29470	1.57080	90.00
.00296	.30162	1.50535	86.25
.02290	.30773	1.43990	82.50
.04373	.31297	1.37445	78.75
.06544	.31726	1.30900	75.00
.08806	.32051	1.24355	71.25
.11156	.32262	1.17810	67.50
.13595	.32349	1.11265	63.75
.16121	.32301	1.04720	60.00
.18733	.32106	.98175	56.25
.21428	.31750	.91630	52.50
.24200	.31218	.85085	48.75
.27044	.30492	.78540	45.00
.29947	.29553	.71995	41.25
.32895	.28377	.65450	37.50
.35865	.26942	.58905	33.75
.38828	.25223	.52360	30.00
.41745	.23195	.45815	26.25
.44564	.20837	.39270	22.50
.47214	.18132	.32725	18.75
.49609	.15074	.26180	15.00
.51642	.11675	.19635	11.25
.53204	.07975	.13090	7.50
.54190	.04049	.06545	3.75
.54527	.00000	.00000	.00

.27

-.23256

.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

Ax *1/G	Ay *1/G	DIST. *K	ANGLE DEGREES
.00000	.28507	3.14159	180.00
.01433	.28480	3.07614	176.25
.02865	.28399	3.01069	172.50
.04294	.28265	2.94524	168.75
.05720	.28076	2.87979	165.00
.07140	.27832	2.81434	161.25
.08553	.27534	2.74889	157.50
.09958	.27180	2.68344	153.75
.11354	.26771	2.61799	150.00
.12738	.26304	2.55254	146.25
.14109	.25781	2.48709	142.50
.15466	.25200	2.42164	139.75
.16806	.24560	2.35619	135.00
.18127	.23861	2.29074	131.25
.19427	.23101	2.22529	127.50
.20703	.22281	2.15984	123.75
.21954	.21398	2.09440	120.00
.23176	.20453	2.02895	116.25
.24366	.19444	1.96350	112.50
.25522	.18371	1.89805	108.75
.26641	.17235	1.83260	105.00
.27718	.16032	1.76715	101.25
.28750	.14763	1.70170	97.50
.29731	.13428	1.63625	93.75
.30657	.12025	1.57080	90.00
.31523	.10555	1.50535	86.25
.32324	.09017	1.43990	82.50
.33053	.07412	1.37445	78.75
.33704	.05739	1.30900	75.00
.34267	.03999	1.24355	71.25
.34732	.02191	1.17810	67.50
.35088	.00315	1.11265	63.75
.35323	-.01628	1.04720	60.00
.35422	-.03635	.98175	56.25
.35367	-.05706	.91630	52.50
.35139	-.07838	.85085	48.75
.34713	-.10027	.78540	45.00
.34056	-.12267	.71995	41.25
.33132	-.14552	.65450	37.50
.31898	-.16868	.58905	33.75
.30306	-.19196	.52360	30.00
.28300	-.21511	.45815	26.25
.25822	-.23773	.39270	22.50
.22818	-.25927	.32725	18.75
.19246	-.27900	.26180	15.00
.15098	-.29600	.19635	11.25
.10419	-.30923	.13090	7.50
.05324	-.31767	.06545	3.75
.00000	-.32058	.00000	.00

-.32058

752

EADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
                M. M. RIENECKER AND J. D. FENTON.

D TH: FINITE, HEIGHT/DEPTH= .2520

E HEIGHT 2.005161E-02,DIMENSIONLESS WITH RESPECT TO PERIOD

RRENT CRITERION: EULER , MAGNITUDE= .14

S UTION OF ORDER 12 NON-DIMENSIONALIZED BY WAVE NUMBER, 2 HEIGHT STEP(S).

TER DEPTH	2.3783
VE HEIGHT	.59927
VE PERIOD	5.4669
VE SPEED	1.1493
AN EULERIAN FLUID SPEED	.11053
AN MASS TRANSPORT SPEED	.12830
AN FLUID SPEED RELATIVE TO WAVE	1.0388
LUME FLUX DUE TO WAVES	4.22546E-02
RNOULLI CONSTANT	.54021

S UTION VS DEPTH, THETA= .00 DEGREES, KX= .0000 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.35486	.54046	.00000	.00000	-.28075	.00000	.2920994	.0000000	.7983493	.0000000	.0000000	.0000000	.0000000	.0000000
.24098	.49131	.00000	.00000	-.26554	.08275	.2413875	.0000000	.6322571	.0000000	.0303770	.0000000	.0814594	.0000000
.12709	.44825	.00000	.00000	-.24818	.16736	.2009246	.0000000	.5033926	.0000000	.0555625	.0000000	.1461239	.0000000
.01321	.41043	.00000	.00000	-.22986	.25402	.1684556	.0000000	.4028616	.0000000	.0765951	.0000000	.1977264	.0000000
-.10067	.37718	.00000	.00000	-.21138	.34278	.1422654	.0000000	.3240264	.0000000	.0942877	.0000000	.2391158	.0000000
-.21455	.34790	.00000	.00000	-.19324	.43362	.1210376	.0000000	.2618936	.0000000	.1092803	.0000000	.2724783	.0000000
-.32843	.32211	.00000	.00000	-.17580	.52650	.1037542	.0000000	.2126812	.0000000	.1220801	.0000000	.2995009	.0000000
-.44231	.29937	.00000	.00000	-.15923	.62131	.0896229	.0000000	.1735078	.0000000	.1330911	.0000000	.3214906	.0000000
-.55619	.27933	.00000	.00000	-.14366	.71796	.0780236	.0000000	.1421665	.0000000	.1426370	.0000000	.3394653	.0000000
-.67007	.26167	.00000	.00000	-.12911	.81632	.0684686	.0000000	.1169591	.0000000	.1509783	.0000000	.3542200	.0000000
-.78395	.24611	.00000	.00000	-.11560	.91627	.0605724	.0000000	.0965725	.0000000	.1583259	.0000000	.3663786	.0000000
-.89783	.23244	.00000	.00000	-.10308	1.01771	.0540292	.0000000	.0799877	.0000000	.1648514	.0000000	.3764320	.0000000
-1.01172	.22044	.00000	.00000	-.09152	1.12052	.0485958	.0000000	.0664097	.0000000	.1706949	.0000000	.3847680	.0000000
-1.12560	.20995	.00000	.00000	-.08083	1.22460	.0440780	.0000000	.0552161	.0000000	.1759718	.0000000	.3916934	.0000000
-1.23948	.20080	.00000	.00000	-.07096	1.32984	.0403205	.0000000	.0459173	.0000000	.1807775	.0000000	.3974520	.0000000
-1.35336	.19287	.00000	.00000	-.06181	1.43617	.0371986	.0000000	.0381259	.0000000	.1851915	.0000000	.4022375	.0000000
-1.46724	.18604	.00000	.00000	-.05333	1.54350	.0346127	.0000000	.0315338	.0000000	.1892805	.0000000	.4062039	.0000000
-1.58112	.18023	.00000	.00000	-.04543	1.65176	.0324829	.0000000	.0258943	.0000000	.1931009	.0000000	.4094739	.0000000
-1.69500	.17534	.00000	.00000	-.03802	1.76090	.0307454	.0000000	.0210079	.0000000	.1967012	.0000000	.4121445	.0000000
-1.80888	.17132	.00000	.00000	-.03105	1.87085	.0293499	.0000000	.0167120	.0000000	.2001230	.0000000	.4142923	.0000000
-1.92276	.16810	.00000	.00000	-.02442	1.98157	.0282566	.0000000	.0128716	.0000000	.2034032	.0000000	.4159768	.0000000
-2.03664	.16564	.00000	.00000	-.01807	2.09304	.0274355	.0000000	.0093731	.0000000	.2065743	.0000000	.4172435	.0000000
-2.15052	.16390	.00000	.00000	-.01193	2.20521	.0268642	.0000000	.0061186	.0000000	.2096662	.0000000	.4181256	.0000000
-2.26441	.16287	.00000	.00000	-.00593	2.31808	.0265273	.0000000	.0030210	.0000000	.2127063	.0000000	.4186460	.0000000
-2.37829	.16253	.00000	.00000	.00000	2.43162	.0264160	.0000000	.0000000	.0000000	.2157209	.0000000	.4188180	.0000000

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.33011	.51139	.11513	.13447	-.25492	.00000	.2615240	.1344661	.7083104	.3641872	.0000000	.0000000	.0000000	.0000000
.21726	.46651	.10104	.11681	-.24283	.08473	.2176338	.1168108	.5648784	.3031878	.0270364	.0141783	.0718395	.0376566
.10441	.42701	.08885	.10183	-.22826	.17099	.1823341	.1018258	.4526800	.2528026	.0496046	.0265148	.1292552	.0690283
-.00844	.39218	.07825	.08904	-.21241	.25896	.1538089	.0890390	.3645033	.2110087	.0685714	.0372844	.1753647	.0951988
-.12129	.36146	.06899	.07808	-.19611	.34876	.1306545	.0780773	.2948866	.1762201	.0846222	.0467139	.2125707	.1170481
-.23414	.33433	.06088	.06864	-.17990	.44040	.1117794	.0686431	.2396714	.1471808	.0983015	.0549926	.2427330	.1352960
-.34699	.31037	.05374	.06050	-.16415	.53384	.0963305	.0604970	.1956757	.1228872	.1100441	.0622793	.2672975	.1505345
-.45984	.28920	.04744	.05344	-.14907	.62902	.0836373	.0534444	.1604537	.1025302	.1201988	.0687084	.2873920	.1632537
-.57269	.27050	.04187	.04733	-.13481	.72586	.0731710	.0473261	.1321173	.0854519	.1290467	.0743944	.3039003	.1738606
-.68554	.25399	.03693	.04201	-.12142	.82426	.0645125	.0420109	.1092033	.0711137	.1368154	.0794352	.3175168	.1826948
-.79839	.23943	.03254	.03739	-.10892	.92412	.0573287	.0373895	.0905734	.0590716	.1436903	.0839154	.3287892	.1900405
-.91124	.22661	.02861	.03337	-.09729	1.02535	.0513537	.0333713	.0753383	.0489572	.1498227	.0879080	.3381507	.1961360
1.02409	.21535	.02510	.02988	-.08651	1.12783	.0463749	.0298799	.0628008	.0404633	.1553370	.0914770	.3459452	.2011815
1.13694	.20548	.02194	.02685	-.07652	1.23149	.0422218	.0268515	.0524119	.0333320	.1603361	.0946780	.3524461	.2053454
1.24979	.19687	.01909	.02423	-.06726	1.33623	.0387572	.0242320	.0437374	.0273458	.1649053	.0975604	.3578713	.2087692
1.36264	.18940	.01651	.02198	-.05866	1.44198	.0358709	.0219763	.0364322	.0223202	.1691162	.1001677	.3623948	.2115716
1.47549	.18296	.01415	.02005	-.05066	1.54867	.0334742	.0200462	.0302205	.0180977	.1730290	.1025388	.3661557	.2138521
1.58834	.17747	.01199	.01841	-.04319	1.65623	.0314959	.0184096	.0248801	.0145427	.1766949	.1047087	.3692648	.2156939
1.70119	.17286	.00999	.01704	-.03618	1.76461	.0298789	.0170401	.0202309	.0115378	.1801580	.1067089	.3718102	.2171654
1.81404	.16905	.00813	.01592	-.02956	1.87375	.0285778	.0159156	.0161250	.0089804	.1834564	.1085685	.3738615	.2183232
1.92689	.16600	.00637	.01502	-.02326	1.98362	.0275572	.0150185	.0124393	.0067794	.1866238	.1103139	.3754733	.2192124
2.03974	.16368	.00471	.01433	-.01723	2.09419	.0267898	.0143347	.0090697	.0048530	.1896903	.1119702	.3766869	.2198688
2.15259	.16203	.00310	.01385	-.01138	2.20543	.0262553	.0138537	.0059258	.0031268	.1926834	.1135607	.3775330	.2203190
2.26544	.16106	.00154	.01357	-.00566	2.31732	.0259400	.0135680	.0029273	.0015311	.1956285	.1151080	.3780326	.2205819
2.37829	.16074	.00000	.01347	.00000	2.42985	.0258358	.0134732	.0000000	.0000000	.1985500	.1166338	.3781977	.2206683

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.26720	.43888	.20324	.23131	-.19144	.00000	.1926171	.2313065	.5095651	.6119172	.0000000	.0000000	.0000000	.0000000
.15697	.40401	.17955	.20320	-.18620	.08938	.1632262	.2032012	.4138199	.5151667	.0196120	.0239476	.0508916	.0621183
.04674	.37299	.15882	.17986	-.17797	.17952	.1391235	.1788614	.3373780	.4337436	.0362758	.0450046	.0922933	.1144168
-.06349	.34540	.14060	.15774	-.16791	.27067	.1193003	.1577419	.2761561	.3651404	.0505186	.0635563	.1261079	.1584467
-.17372	.32086	.12455	.13938	-.15684	.36299	.1029481	.1393806	.2269563	.3072741	.0627677	.0799319	.1538364	.1955063
-.28395	.29903	.11037	.12339	-.14532	.45657	.0894183	.1233883	.1872724	.2584171	.0733698	.0944142	.1766663	.2266839
-.39417	.27963	.09782	.10944	-.13376	.55142	.0781901	.1094372	.1551380	.2171357	.0826074	.1072462	.1955380	.2528936
-.50440	.26238	.08668	.09725	-.12242	.64753	.0688449	.0972511	.1290073	.1822373	.0907111	.1186377	.2111984	.2749047
-.61463	.24707	.07677	.08660	-.11146	.74487	.0610453	.0865968	.1076629	.1527269	.0978699	.1287703	.2242423	.2933660
-.72486	.23349	.06793	.07728	-.10100	.84339	.0545193	.0772770	.0901437	.1277718	.1042392	.1378021	.2351443	.3088255
-.83509	.22147	.06002	.06912	-.09110	.94304	.0490468	.0691245	.0756890	.1066729	.1099471	.1458709	.2442840	.3217467
-.94532	.21083	.05293	.06200	-.08178	1.04374	.0444496	.0619974	.0636950	.0888403	.1151001	.1530976	.2519660	.3325223
1.05555	.20145	.04655	.05577	-.07305	1.14545	.0405832	.0557746	.0536810	.0737754	.1197866	.1595885	.2584351	.3414847
1.16577	.19321	.04079	.05035	-.06487	1.24808	.0373299	.0503535	.0452630	.0610543	.1240808	.1654377	.2638884	.3489157
1.27600	.18600	.03557	.04565	-.05722	1.35158	.0345943	.0456464	.0381327	.0503153	.1280448	.1707286	.2684846	.3550538
1.38623	.17972	.03082	.04159	-.05007	1.45590	.0322986	.0415788	.0320420	.0412485	.1317316	.1755360	.2723523	.3601003
1.49646	.17430	.02647	.03809	-.04337	1.56098	.0303797	.0380876	.0267896	.0335867	.1351860	.1799267	.2755947	.3642247
1.60669	.16967	.02246	.03512	-.03706	1.66678	.0287863	.0351196	.0222114	.0270982	.1384469	.1839615	.2782954	.3675693
1.71692	.16576	.01874	.03263	-.03112	1.77326	.0274771	.0326300	.0181725	.0215805	.1415478	.1876955	.2805211	.3702522
1.82714	.16254	.01527	.03058	-.02547	1.88037	.0264189	.0305819	.0145606	.0168549	.1445182	.1911793	.2823252	.3723706
1.93737	.15996	.01199	.02895	-.02007	1.99809	.0255858	.0289451	.0112811	.0127623	.1473844	.1944601	.2837494	.3740029
2.04760	.15798	.00886	.02770	-.01488	2.09639	.0249573	.0276960	.0082530	.0091586	.1501701	.1975818	.2848260	.3752111
2.15783	.15658	.00584	.02682	-.00984	2.20526	.0245187	.0268163	.0054053	.0059118	.1528969	.2005862	.2855788	.3760417
2.26806	.15575	.00290	.02629	-.00489	2.31468	.0242596	.0262935	.0026741	.0028983	.1555853	.2035133	.2860241	.3765272
2.37829	.15548	.00000	.02612	.00000	2.42464	.0241739	.0261200	.0000000	.0000000	.1582547	.2064021	.2861715	.3766870
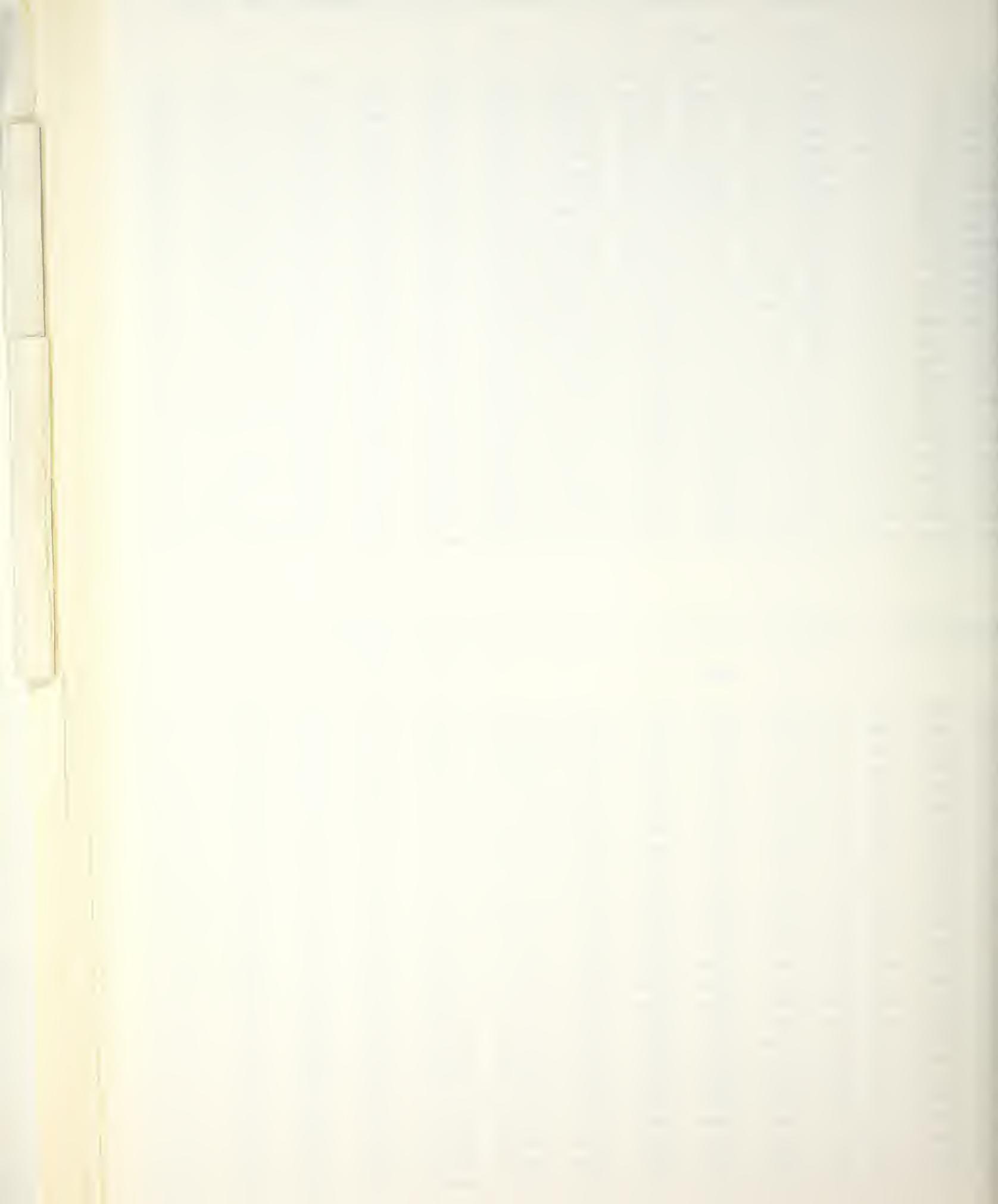
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.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= 1.4278, CRITER., EULER    *K    (K*6)^.5    *K    DEGREES
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	*K	(K*6)^.5	*K	DEGREES
+	-.24442	2.73343	3.14159	180.00
+	-.24407	2.67648	3.07614	176.25
+	-.24305	2.61954	3.01069	172.50
+¦	-.24134	2.56259	2.94524	168.75
+¦	-.23894	2.50564	2.87979	165.00
+¦	-.23585	2.44870	2.81434	161.25
+ ¦	-.23208	2.39175	2.74889	157.50
+ ¦	-.22763	2.33480	2.68344	153.75
+ ¦	-.22248	2.27786	2.61799	150.00
+ ¦	-.21665	2.22091	2.55254	146.25
+ ¦	-.21012	2.16397	2.48709	142.50
+ ¦	-.20290	2.10702	2.42164	138.75
+ ¦	-.19499	2.05007	2.35619	135.00
+ ¦	-.18639	1.99313	2.29074	131.25
+ ¦	-.17710	1.93618	2.22529	127.50
+ ¦	-.16711	1.87923	2.15984	123.75
+ ¦	-.15644	1.82229	2.09440	120.00
+ ¦	-.14507	1.76534	2.02895	116.25
+ ¦	-.13301	1.70839	1.96350	112.50
+ ¦	-.12027	1.65145	1.89805	108.75
+ ¦	-.10684	1.59450	1.83260	105.00
+ ¦	-.09273	1.53755	1.76715	101.25
+ ¦	-.07796	1.48061	1.70170	97.50
+ ¦	-.06252	1.42366	1.63625	93.75
+ ¦	-.04644	1.36671	1.57080	90.00
+ ¦	-.02972	1.30977	1.50535	86.25
¦ +	-.01239	1.25282	1.43990	82.50
+¦	.00555	1.19588	1.37445	78.75
+ ¦	.02405	1.13893	1.30900	75.00
+ ¦	.04309	1.08198	1.24355	71.25
+ ¦	.06262	1.02504	1.17810	67.50
+ ¦	.08260	.96809	1.11265	63.75
+ ¦	.10296	.91114	1.04720	60.00
+ ¦	.12364	.85420	.98175	56.25
+ ¦	.14454	.79725	.91630	52.50
+ ¦	.16557	.74030	.85085	48.75
+ ¦	.18659	.68336	.78540	45.00
+ ¦	.20746	.62641	.71995	41.25
+ ¦	.22800	.56946	.65450	37.50
+ ¦	.24799	.51252	.58905	33.75
+ ¦	.26720	.45557	.52360	30.00
+ ¦	.28533	.39863	.45815	26.25
+ ¦	.30210	.34168	.39270	22.50
+ ¦	.31714	.28473	.32725	18.75
+ ¦	.33011	.22779	.26180	15.00
+ ¦	.34065	.17084	.19635	11.25
+ ¦	.34845	.11389	.13090	7.50
+ ¦	.35324	.05695	.06545	3.75
+ ¦	.35486	.00000	.00000	.00

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                                                -.24442
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HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICLE VELOCITIES

	U	V	DIST.	ANGLE
	*SQRT(K/G)	*K		DEGREES

.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= 1.4278, CRITER., EULER

U	V	DIST.	ANGLE
-.10338	.00000	3.14159	180.00
-.10304	.01310	3.07614	176.25
-.10201	.02618	3.01069	172.50
-.10030	.03923	2.94524	168.75
-.09790	.05222	2.87979	165.00
-.09482	.06514	2.81434	161.25
-.09105	.07796	2.74889	157.50
-.08658	.09067	2.68344	153.75
-.08142	.10325	2.61799	150.00
-.07556	.11566	2.55254	146.25
-.06900	.12790	2.48709	142.50
-.06173	.13993	2.42164	138.75
-.05375	.15173	2.35619	135.00
-.04506	.16327	2.29074	131.25
-.03565	.17453	2.22529	127.50
-.02552	.18546	2.15984	123.75
-.01466	.19605	2.09440	120.00
-.00308	.20625	2.02895	116.25
.00925	.21603	1.96350	112.50
.02230	.22534	1.89805	108.75
.03610	.23415	1.83260	105.00
.05063	.24241	1.76715	101.25
.06590	.25006	1.70170	97.50
.08190	.25707	1.63625	93.75
.09863	.26336	1.57080	90.00
.11609	.26888	1.50535	86.25
.13426	.27357	1.43990	82.50
.15313	.27736	1.37445	78.75
.17268	.28017	1.30900	75.00
.19289	.28192	1.24355	71.25
.21371	.28252	1.17810	67.50
.23512	.28189	1.11265	63.75
.25706	.27993	1.04720	60.00
.27945	.27653	.98175	56.25
.30222	.27159	.91630	52.50
.32527	.26499	.85085	48.75
.34846	.25662	.78540	45.00
.37163	.24637	.71995	41.25
.39459	.23412	.65450	37.50
.41710	.21977	.58905	33.75
.43888	.20324	.52360	30.00
.45960	.18448	.45815	26.25
.47898	.16349	.39270	22.50
.49629	.14033	.32725	18.75
.51139	.11513	.26180	15.00
.52374	.08812	.19635	11.25
.53290	.05963	.13090	7.50
.53855	.03009	.06545	3.75
.54046	.00000	.00000	.00

-.10338

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HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS

	Ax	Ay	DIST.	ANGLE
=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= 1.4278, CRITER., EULER	*1/G	*1/G	*K	DEGREES
	.00000	.25082	3.14159	180.00
	.01308	.25058	3.07614	176.25
	.02615	.24985	3.01069	172.50
	.03920	.24863	2.94524	168.75
	.05221	.24692	2.87979	165.00
	.06517	.24471	2.81434	161.25
	.07807	.24200	2.74889	157.50
	.09088	.23878	2.68344	153.75
	.10361	.23503	2.61799	150.00
	.11622	.23075	2.55254	146.25
	.12870	.22593	2.48709	142.50
	.14103	.22056	2.42164	138.75
	.15318	.21462	2.35619	135.00
	.16515	.20810	2.29074	131.25
	.17688	.20099	2.22529	127.50
	.18837	.19328	2.15984	123.75
	.19958	.18495	2.09440	120.00
	.21047	.17600	2.02895	116.25
	.22102	.16640	1.96350	112.50
	.23117	.15616	1.89805	108.75
	.24089	.14527	1.83260	105.00
	.25013	.13371	1.76715	101.25
	.25885	.12148	1.70170	97.50
	.26698	.10859	1.63625	93.75
	.27447	.09502	1.57080	90.00
	.28126	.08079	1.50535	86.25
	.28728	.06590	1.43990	82.50
	.29244	.05037	1.37445	78.75
	.29668	.03420	1.30900	75.00
	.29989	.01742	1.24355	71.25
	.30198	.00005	1.17810	67.50
	.30284	-.01787	1.11265	63.75
	.30234	-.03629	1.04720	60.00
	.30036	-.05516	.98175	56.25
	.29675	-.07442	.91630	52.50
	.29135	-.09397	.85085	48.75
	.28400	-.11371	.78540	45.00
	.27450	-.13351	.71995	41.25
	.26267	-.15321	.65450	37.50
	.24833	-.17260	.58905	33.75
	.23131	-.19144	.52360	30.00
	.21145	-.20946	.45815	26.25
	.18867	-.22630	.39270	22.50
	.16297	-.24159	.32725	18.75
	.13447	-.25492	.26180	15.00
	.10341	-.26585	.19635	11.25
	.07023	-.27401	.13090	7.50
	.03551	-.27904	.06545	3.75
	.00000	-.28075	.00000	.00

-.28075

34

STEADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
M. M. RIENECKER AND J. D. FENTON.

DEPTH: FINITE, HEIGHT/DEPTH= .2520

WAVE HEIGHT 2.005161E-02,DIMENSIONLESS WITH RESPECT TO PERIOD

CURRENT CRITERION: EULER , MAGNITUDE= .29

SOLUTION OF ORDER 12 NON-DIMENSIONALIZED BY WAVE NUMBER, 2 HEIGHT STEP(S).

WATER DEPTH	2.0818
WAVE HEIGHT	.52458
WAVE PERIOD	5.1148
WAVE SPEED	1.2284
MEAN EULERIAN FLUID SPEED	.20683
MEAN MASS TRANSPORT SPEED	.22276
MEAN FLUID SPEED RELATIVE TO WAVE	1.0216
VOLUME FLUX DUE TO WAVES	3.31649E-02
BERNOULLI CONSTANT	.52279

SOLUTION VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.30536	.56899	.00000	.00000	-.25057	.00000	.3237465	.0000000	.7728468	.0000000	.0000000	.0000000	.0000000	.0000000
.20589	.53326	.00000	.00000	-.23578	.07527	.2843701	.0000000	.6505623	.0000000	.0302436	.0000000	.0707908	.0000000
.10643	.50136	.00000	.00000	-.22032	.15205	.2513631	.0000000	.5500490	.0000000	.0568874	.0000000	.1305011	.0000000
.00696	.47285	.00000	.00000	-.20468	.23038	.2235872	.0000000	.4670284	.0000000	.0805082	.0000000	.1810837	.0000000
-.09251	.44736	.00000	.00000	-.18922	.31026	.2001281	.0000000	.3981210	.0000000	.1015810	.0000000	.2241104	.0000000
-.19197	.42456	.00000	.00000	-.17418	.39166	.1802479	.0000000	.3406442	.0000000	.1204983	.0000000	.2608517	.0000000
-.29144	.40416	.00000	.00000	-.15972	.47452	.1633486	.0000000	.2924589	.0000000	.1375865	.0000000	.2923379	.0000000
-.39091	.38593	.00000	.00000	-.14593	.55880	.1489430	.0000000	.2518524	.0000000	.1531178	.0000000	.3194083	.0000000
-.49037	.36964	.00000	.00000	-.13286	.64440	.1366333	.0000000	.2174471	.0000000	.1673204	.0000000	.3427481	.0000000
-.58984	.35510	.00000	.00000	-.12053	.73128	.1260932	.0000000	.1881309	.0000000	.1803867	.0000000	.3629189	.0000000
-.68931	.34213	.00000	.00000	-.10893	.81934	.1170545	.0000000	.1630022	.0000000	.1924792	.0000000	.3803819	.0000000
-.78877	.33060	.00000	.00000	-.09805	.90851	.1092960	.0000000	.1413268	.0000000	.2037364	.0000000	.3955171	.0000000
-.88824	.32037	.00000	.00000	-.08785	.99874	.1026347	.0000000	.1225047	.0000000	.2142764	.0000000	.4086383	.0000000
-.98771	.31132	.00000	.00000	-.07828	1.08995	.0969195	.0000000	.1060428	.0000000	.2242009	.0000000	.4200047	.0000000
-1.08717	.30336	.00000	.00000	-.06929	1.18208	.0920250	.0000000	.0915341	.0000000	.2335977	.0000000	.4298309	.0000000
-1.18664	.29639	.00000	.00000	-.06085	1.27508	.0878474	.0000000	.0786409	.0000000	.2425434	.0000000	.4382943	.0000000
-1.28611	.29035	.00000	.00000	-.05288	1.36890	.0843007	.0000000	.0670808	.0000000	.2511048	.0000000	.4455415	.0000000
-1.38557	.28516	.00000	.00000	-.04534	1.46348	.0813141	.0000000	.0566162	.0000000	.2593414	.0000000	.4516933	.0000000
-1.48504	.28077	.00000	.00000	-.03818	1.55880	.0788294	.0000000	.0470453	.0000000	.2673059	.0000000	.4568488	.0000000
-1.58451	.27713	.00000	.00000	-.03133	1.65481	.0767995	.0000000	.0381949	.0000000	.2750458	.0000000	.4610880	.0000000
-1.68397	.27420	.00000	.00000	-.02475	1.75149	.0751866	.0000000	.0299142	.0000000	.2826046	.0000000	.4644753	.0000000
-1.78344	.27196	.00000	.00000	-.01838	1.84881	.0739611	.0000000	.0220700	.0000000	.2900222	.0000000	.4670607	.0000000
-1.88291	.27037	.00000	.00000	-.01217	1.94676	.0731010	.0000000	.0145422	.0000000	.2973361	.0000000	.4688815	.0000000
-1.98237	.26943	.00000	.00000	-.00606	2.04532	.0725910	.0000000	.0072204	.0000000	.3045818	.0000000	.4699638	.0000000
-2.08184	.26911	.00000	.00000	.00000	2.14449	.0724220	.0000000	.0000000	.0000000	.3117938	.0000000	.4703229	.0000000
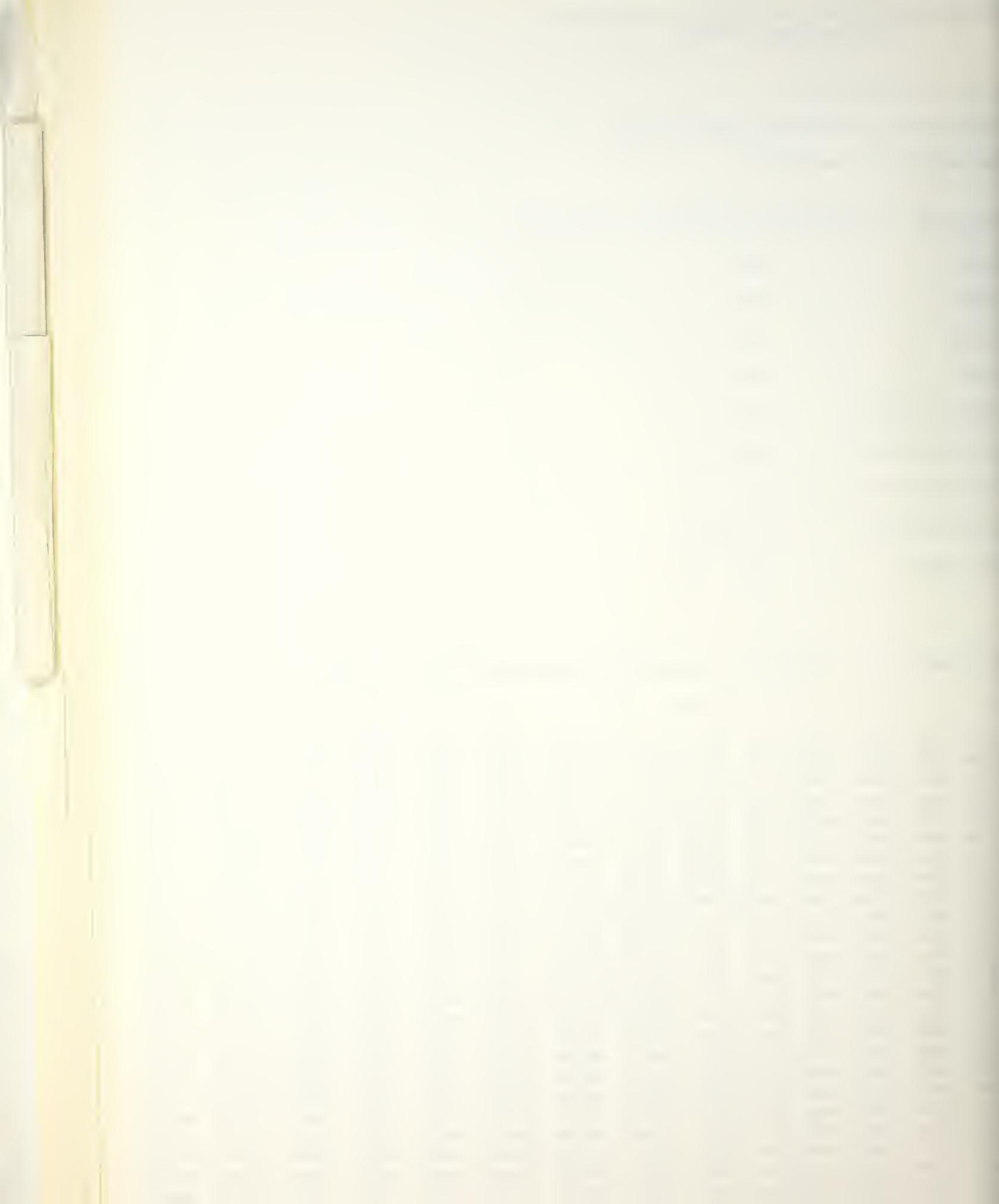
KY	U	V	AX	.AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.28630	.54739	.09576	.10818	-.23061	.00000	.2996374	.1081847	.7095827	.2561964	.0000000	.0000000	.0000000	.0000000
.18763	.51433	.08562	.09624	-.21794	.07653	.2645399	.0962445	.6003641	.2184235	.0278344	.0100858	.0646278	.0234159
.08895	.48474	.07661	.08579	-.20440	.15436	.2349706	.0857855	.5100726	.1862226	.0524783	.0190664	.1194125	.0433796
-.00972	.45823	.06858	.07660	-.19051	.23355	.2099715	.0766034	.4350864	.1587316	.0744301	.0270781	.1660431	.0603984
-.10839	.43447	.06141	.06853	-.17662	.31411	.1887665	.0685270	.3725209	.1352344	.0941023	.0342383	.2058874	.0749015
-.20706	.41319	.05499	.06141	-.16299	.39603	.1707243	.0614119	.3200698	.1151335	.1118382	.0406490	.2400572	.0872537
-.30574	.39412	.04923	.05514	-.14979	.47928	.1553298	.0551362	.2758818	.0979275	.1279245	.0463990	.2694591	.0977654
-.40441	.37704	.04405	.04960	-.13714	.56380	.1421611	.0495961	.2384655	.0831941	.1426016	.0515661	.2948351	.1067012
-.50308	.36176	.03938	.04470	-.12508	.64954	.1308716	.0447034	.2066147	.0705758	.1560719	.0562185	.3167936	.1142876
-.60175	.34810	.03516	.04038	-.11367	.73644	.1211756	.0403822	.1793503	.0597691	.1685070	.0604163	.3358357	.1207184
-.70042	.33591	.03134	.03657	-.10289	.82443	.1128372	.0365677	.1558748	.0505151	.1800523	.0642127	.3523744	.1261594
-.79910	.32506	.02787	.03320	-.09274	.91346	.1056609	.0332042	.1355356	.0425924	.1908322	.0676550	.3667515	.1307529
-.89777	.31541	.02471	.03024	-.08319	1.00345	.0994846	.0302437	.1177967	.0358107	.2009533	.0707852	.3792500	.1346211
-.99644	.30688	.02181	.02765	-.07421	1.09437	.0941737	.0276451	.1022158	.0300059	.2105076	.0736413	.3901046	.1378682
-1.09511	.29936	.01916	.02537	-.06577	1.18614	.0896162	.0253728	.0884264	.0250359	.2195751	.0762570	.3995101	.1405837
-1.19379	.29278	.01671	.02340	-.05780	1.27872	.0857189	.0233964	.0761228	.0207772	.2282255	.0786630	.4076284	.1428440
-1.29246	.28706	.01443	.02169	-.05028	1.37206	.0824048	.0216901	.0650486	.0171217	.2365201	.0808874	.4145932	.1447138
-1.39113	.28215	.01231	.02023	-.04314	1.46613	.0796099	.0202316	.0549871	.0139741	.2445133	.0829557	.4205153	.1462479
-1.48980	.27800	.01032	.01900	-.03635	1.56088	.0772817	.0190025	.0457534	.0112501	.2522537	.0848914	.4254855	.1474924
-1.58848	.27455	.00844	.01799	-.02985	1.65629	.0753776	.0179872	.0371884	.0088742	.2597853	.0867163	.4295775	.1484853
-1.68715	.27178	.00665	.01717	-.02359	1.75233	.0738632	.0171729	.0291530	.0067780	.2671483	.0884510	.4328506	.1492575
-1.78582	.26965	.00493	.01655	-.01752	1.84897	.0727118	.0165498	.0215239	.0048990	.2743798	.0901147	.4353508	.1498336
-1.88449	.26815	.00326	.01611	-.01160	1.94621	.0719032	.0161100	.0141897	.0031792	.2815145	.0917260	.4371127	.1502321
-1.98317	.26725	.00162	.01585	-.00578	2.04402	.0714236	.0158483	.0070475	.0015638	.2885857	.0933027	.4381605	.1504661
-2.08184	.26695	.00000	.01576	.00000	2.14241	.0712646	.0157614	.0000000	.0000000	.2956254	.0948622	.4385082	.1505433

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.23601	.49100	.17249	.19205	-.17896	.00000	.2410833	.1920506	.5587956	.4451451	.0000000	.0000000	.0000000	.0000000
.13944	.46460	.15486	.17197	-.17143	.07964	.2158525	.1719741	.4794679	.3820019	.0220648	.0175782	.0501363	.0399418
.04286	.44080	.13908	.15421	-.16264	.16008	.1943090	.1542066	.4128480	.3276426	.0418709	.0333291	.0932250	.0742095
-.05372	.41936	.12494	.13847	-.15309	.24141	.1758664	.1384680	.3566785	.2808299	.0597462	.0474619	.1303843	.1035918
-.15029	.40005	.11225	.12452	-.14317	.32368	.1600395	.1245151	.3091233	.2405063	.0759666	.0601610	.1625350	.1287664
-.24687	.38266	.10082	.11214	-.13314	.40691	.1464256	.1121368	.2686861	.2057674	.0907654	.0715886	.1904366	.1503163
-.34345	.36700	.09053	.10115	-.12320	.49111	.1346904	.1011505	.2341444	.1758389	.1043401	.0818879	.2147176	.1687436
-.44003	.35292	.08122	.09140	-.11349	.57626	.1245555	.0913973	.2044969	.1500572	.1168587	.0911858	.2358990	.1844807
-.53660	.34028	.07280	.08274	-.10409	.66234	.1157890	.0827397	.1789212	.1278522	.1284646	.0995946	.2544137	.1979005
-.63318	.32893	.06516	.07506	-.09506	.74930	.1081968	.0750580	.1567402	.1087334	.1392806	.1072144	.2706223	.2093249
-.72976	.31877	.05821	.06825	-.08644	.83712	.1016168	.0682485	.1373941	.0922775	.1494122	.1141345	.2848256	.2190314
-.82633	.30970	.05187	.06222	-.07823	.92575	.0959129	.0622210	.1204190	.0781187	.1589506	.1204347	.2972751	.2272596
-.92291	.30161	.04607	.05690	-.07044	1.01515	.0909711	.0568972	.1054288	.0659397	.1679750	.1261868	.3081809	.2342160
-1.01949	.29444	.04075	.05221	-.06305	1.10528	.0866956	.0522092	.0921010	.0554644	.1765542	.1314554	.3177194	.2400784
-1.11607	.28811	.03585	.04810	-.05604	1.19611	.0830061	.0480981	.0801650	.0464518	.1847489	.1362991	.3260379	.2449998
-1.21264	.28255	.03131	.04451	-.04939	1.28760	.0798352	.0445132	.0693923	.0386907	.1926123	.1407711	.3332598	.2491112
-1.30922	.27772	.02708	.04141	-.04306	1.37972	.0771264	.0414109	.0595892	.0319948	.2001917	.1449203	.3394881	.2525245
-1.40580	.27356	.02313	.03875	-.03703	1.47243	.0748328	.0387539	.0505900	.0261992	.2075296	.1487913	.3448085	.2553347
-1.50238	.27003	.01942	.03651	-.03125	1.56571	.0729155	.0365107	.0422519	.0211566	.2146642	.1524258	.3492917	.2576214
-1.59895	.26710	.01589	.03465	-.02570	1.65954	.0713427	.0346548	.0344504	.0167343	.2216302	.1558622	.3529956	.2594511
-1.69553	.26474	.01253	.03316	-.02034	1.75390	.0700887	.0331646	.0270759	.0128118	.2284597	.1591371	.3559666	.2608778
-1.79211	.26293	.00929	.03202	-.01512	1.84876	.0691334	.0320230	.0200301	.0092781	.2351826	.1622850	.3582413	.2619445
-1.88868	.26165	.00614	.03122	-.01002	1.94413	.0684615	.0312168	.0132236	.0060297	.2418268	.1653387	.3598471	.2626837
-1.98526	.26089	.00306	.03074	-.00499	2.03998	.0680625	.0307367	.0065733	.0029685	.2484194	.1683304	.3608030	.2631182
-2.08184	.26063	.00000	.03058	.00000	2.13632	.0679302	.0305772	.0000000	.0000000	.2549863	.1712911	.3611204	.2632615

d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= 2.8557, CRITER., EULER

*K	(K*G)^.5	*K	DEGREES
-.21922	2.55740	3.14159	180.00
-.21890	2.50412	3.07614	176.25
-.21795	2.45085	3.01069	172.50
-.21638	2.39757	2.94524	168.75
-.21417	2.34429	2.87979	165.00
-.21133	2.29101	2.81434	161.25
-.20785	2.23773	2.74889	157.50
-.20375	2.18445	2.68344	153.75
-.19901	2.13117	2.61799	150.00
-.19364	2.07789	2.55254	146.25
-.18763	2.02461	2.48709	142.50
-.18099	1.97133	2.42164	138.75
-.17371	1.91805	2.35619	135.00
-.16580	1.86477	2.29074	131.25
-.15726	1.81149	2.22529	127.50
-.14808	1.75822	2.15984	123.75
-.13828	1.70494	2.09440	120.00
-.12784	1.65166	2.02895	116.25
-.11679	1.59838	1.96350	112.50
-.10512	1.54510	1.89805	108.75
-.09283	1.49182	1.83260	105.00
-.07995	1.43854	1.76715	101.25
-.06647	1.38526	1.70170	97.50
-.05242	1.33198	1.63625	93.75
-.03780	1.27870	1.57080	90.00
-.02264	1.22542	1.50535	86.25
-.00696	1.17214	1.43990	82.50
.00922	1.11886	1.37445	78.75
.02584	1.06558	1.30900	75.00
.04289	1.01231	1.24355	71.25
.06030	.95903	1.17810	67.50
.07803	.90575	1.11265	63.75
.09600	.85247	1.04720	60.00
.11414	.79919	.98175	56.25
.13235	.74591	.91630	52.50
.15054	.69263	.85085	48.75
.16857	.63935	.78540	45.00
.18630	.58607	.71995	41.25
.20358	.53279	.65450	37.50
.22021	.47951	.58905	33.75
.23601	.42623	.52360	30.00
.25076	.37295	.45815	26.25
.26421	.31968	.39270	22.50
.27614	.26640	.32725	18.75
.28630	.21312	.26180	15.00
.29447	.15984	.19635	11.25
.30047	.10656	.13090	7.50
.30413	.05328	.06545	3.75
.30536	.00000	.00000	.00
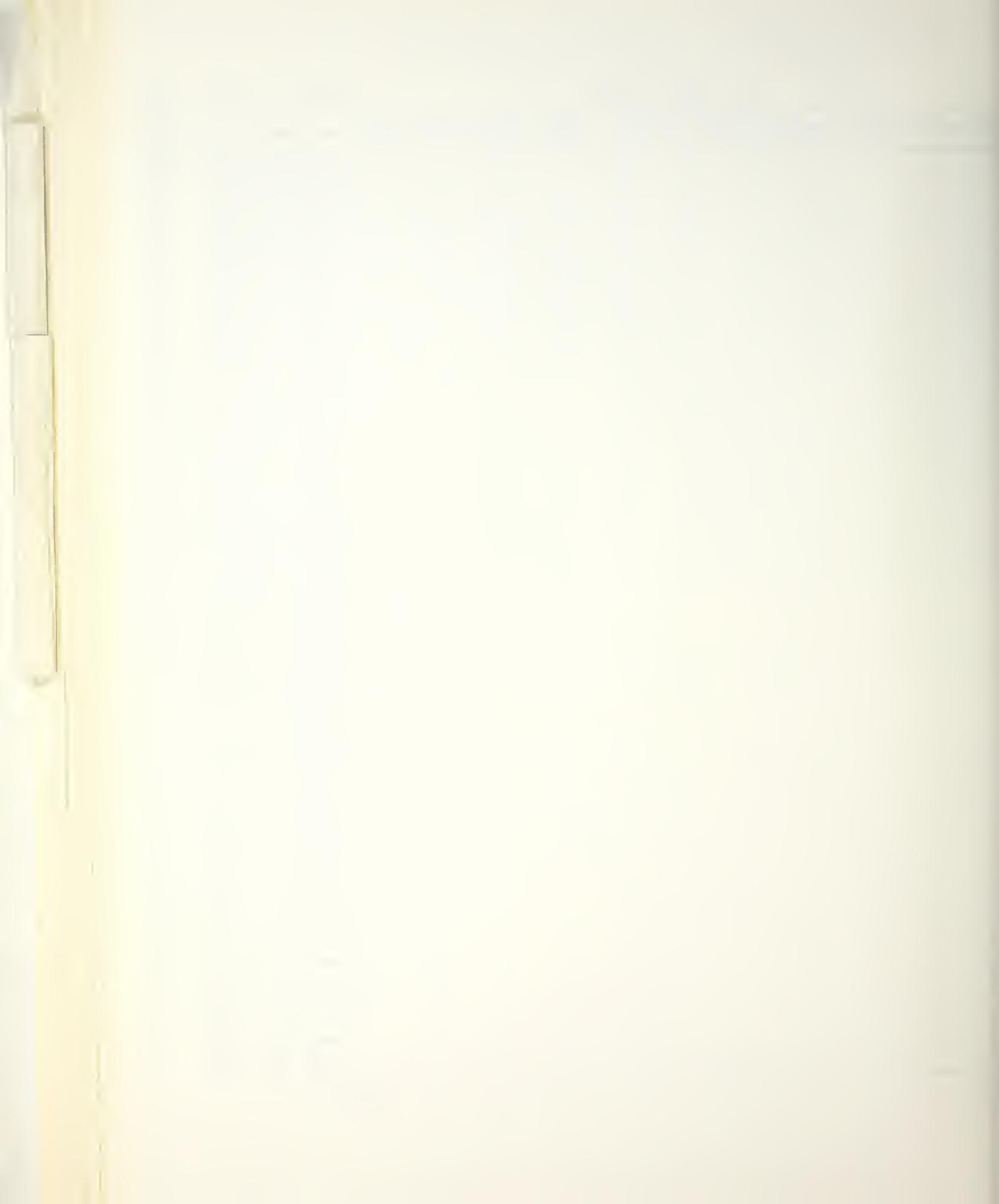
.1536

-.21922

'd=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= 2.8557, CRITER., EULER

U	V	DIST.	ANGLE
*SQRT(K/G)	*K	*K	DEGREES
.01023	.00000	3.14159	180.00
.01054	.01174	3.07614	176.25
.01149	.02346	3.01069	172.50
.01307	.03516	2.94524	168.75
.01528	.04680	2.87979	165.00
.01813	.05838	2.81434	161.25
.02161	.06987	2.74889	157.50
.02574	.08127	2.68344	153.75
.03050	.09254	2.61799	150.00
.03591	.10368	2.55254	146.25
.04197	.11465	2.48709	142.50
.04868	.12544	2.42164	138.75
.05604	.13602	2.35619	135.00
.06406	.14636	2.29074	131.25
.07274	.15644	2.22529	127.50
.08208	.16623	2.15984	123.75
.09209	.17569	2.09440	120.00
.10276	.18479	2.02895	116.25
.11410	.19349	1.96350	112.50
.12611	.20175	1.89805	108.75
.13878	.20954	1.83260	105.00
.15210	.21680	1.76715	101.25
.16609	.22349	1.70170	97.50
.18071	.22955	1.63625	93.75
.19597	.23494	1.57080	90.00
.21184	.23959	1.50535	86.25
.22831	.24344	1.43990	82.50
.24536	.24642	1.37445	78.75
.26295	.24847	1.30900	75.00
.28104	.24952	1.24355	71.25
.29960	.24949	1.17810	67.50
.31856	.24830	1.11265	63.75
.33785	.24587	1.04720	60.00
.35741	.24211	.98175	56.25
.37712	.23696	.91630	52.50
.39689	.23032	.85085	48.75
.41657	.22212	.78540	45.00
.43602	.21228	.71995	41.25
.45504	.20076	.65450	37.50
.47345	.18750	.58905	33.75
.49100	.17249	.52360	30.00
.50745	.15574	.45815	26.25
.52252	.13730	.39270	22.50
.53593	.11726	.32725	18.75
.54739	.09576	.26180	15.00
.55664	.07301	.19635	11.25
.56343	.04926	.13090	7.50
.56759	.02481	.06545	3.75
.56899	.00000	.00000	.00

.899   .00000

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS

	Ax	Ay	DIST.	ANGLE
/d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= 2.8557, CRITER., EULER	*1/G	*1/G	*K	DEGREES
	.00000	.21856	3.14159	180.00
	.01174	.21835	3.07614	176.25
	.02348	.21774	3.01069	172.50
	.03519	.21671	2.94524	168.75
	.04688	.21527	2.87979	165.00
	.05853	.21340	2.81434	161.25
	.07012	.21110	2.74889	157.50
	.08165	.20835	2.68344	153.75
	.09310	.20515	2.61799	150.00
	.10446	.20147	2.55254	146.25
	.11570	.19731	2.48709	142.50
	.12681	.19265	2.42164	138.75
	.13777	.18747	2.35619	135.00
	.14855	.18175	2.29074	131.25
	.15912	.17548	2.22529	127.50
	.16946	.16864	2.15984	123.75
	.17953	.16122	2.09440	120.00
	.18931	.15320	2.02895	116.25
	.19874	.14456	1.96350	112.50
	.20779	.13529	1.89805	108.75
	.21641	.12539	1.83260	105.00
	.22456	.11484	1.76715	101.25
	.23218	.10364	1.70170	97.50
	.23921	.09179	1.63625	93.75
	.24560	.07929	1.57080	90.00
	.25127	.06615	1.50535	86.25
	.25616	.05239	1.43990	82.50
	.26019	.03801	1.37445	78.75
	.26329	.02305	1.30900	75.00
	.26536	.00753	1.24355	71.25
	.26632	-.00850	1.17810	67.50
	.26607	-.02499	1.11265	63.75
	.26451	-.04188	1.04720	60.00
	.26154	-.05910	.98175	56.25
	.25704	-.07655	.91630	52.50
	.25090	-.09414	.85085	48.75
	.24302	-.11173	.78540	45.00
	.23328	-.12919	.71995	41.25
	.22159	-.14635	.65450	37.50
	.20787	-.16301	.58905	33.75
	.19205	-.17896	.52360	30.00
	.17412	-.19396	.45815	26.25
	.15409	-.20775	.39270	22.50
	.13206	-.22006	.32725	18.75
	.10818	-.23061	.26180	15.00
	.08269	-.23314	.19635	11.25
	.05589	-.24542	.13090	7.50
	.02818	-.24927	.06545	3.75
	.00000	-.25057	.00000	.00

-.25057

8632

STEADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
              M. M. RIENECKER AND J. D. FENTON.

DEPTH: DEEP , HEIGHT/DEPTH= .2520

WAVE HEIGHT 2.005161E-02,DIMENSIONLESS WITH RESPECT TO PERIOD

CURRENT CRITERION: EULER , MAGNITUDE= .00

SOLUTION OF ORDER   1 NON-DIMENSIONALIZED BY WAVE NUMBER, 1 HEIGHT STEP(S).

WAVE HEIGHT   .69873

WAVE PERIOD   5.9031

WAVE SPEED   1.0644

MEAN EULERIAN FLUID SPEED   7.95567E-22

MEAN MASS TRANSPORT SPEED   -1.10629E-20

MEAN FLUID SPEED RELATIVE TO WAVE   1.0644

VOLUME FLUX DUE TO WAVES   .12488

BERNOULLI CONSTANT   .51048

SOLUTION VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.34937	.49674	.00000	.00000	-.28197	.00000	.2467471	.0000000	.8613842	.0000000	.0000000	.0000000	.0000000	.0000000
.20391	.42949	.00000	.00000	-.27268	.10502	.1844634	.0000000	.6171226	.0000000	.0313612	.0000000	.1075293	.0000000
.05845	.37135	.00000	.00000	-.25736	.21188	.1379012	.0000000	.4412902	.0000000	.0548062	.0000000	.1845059	.0000000
-.08700	.32108	.00000	.00000	-.23866	.32123	.1030923	.0000000	.3149045	.0000000	.0723333	.0000000	.2395027	.0000000
-.23246	.27761	.00000	.00000	-.21842	.43343	.0770698	.0000000	.2242062	.0000000	.0854362	.0000000	.2787113	.0000000
-.37792	.24003	.00000	.00000	-.19787	.54862	.0576159	.0000000	.1592316	.0000000	.0952316	.0000000	.3065981	.0000000
-.52337	.20754	.00000	.00000	-.17783	.66676	.0430725	.0000000	.1127732	.0000000	.1025545	.0000000	.3263805	.0000000
-.66883	.17944	.00000	.00000	-.15880	.78775	.0322002	.0000000	.0796233	.0000000	.1080290	.0000000	.3403732	.0000000
-.81429	.15515	.00000	.00000	-.14107	.91141	.0240722	.0000000	.0560234	.0000000	.1121216	.0000000	.3502386	.0000000
-.95974	.13415	.00000	.00000	-.12479	1.03755	.0179959	.0000000	.0392644	.0000000	.1151811	.0000000	.3571687	.0000000
-1.10520	.11599	.00000	.00000	-.11000	1.16595	.0134534	.0000000	.0273964	.0000000	.1174684	.0000000	.3620168	.0000000
-1.25066	.10029	.00000	.00000	-.09669	1.29639	.0100575	.0000000	.0190181	.0000000	.1191783	.0000000	.3653924	.0000000
-1.39611	.08671	.00000	.00000	-.08478	1.42867	.0075188	.0000000	.0131239	.0000000	.1204566	.0000000	.3677301	.0000000
-1.54157	.07497	.00000	.00000	-.07418	1.56258	.0056209	.0000000	.0089936	.0000000	.1214122	.0000000	.3693386	.0000000
-1.68703	.06482	.00000	.00000	-.06480	1.69794	.0042021	.0000000	.0061122	.0000000	.1221266	.0000000	.3704373	.0000000
-1.83248	.05605	.00000	.00000	-.05652	1.83459	.0031414	.0000000	.0041124	.0000000	.1226607	.0000000	.3711809	.0000000
-1.97794	.04846	.00000	.00000	-.04923	1.97237	.0023494	.0000000	.0027328	.0000000	.1230600	.0000000	.3716787	.0000000
-2.12340	.04190	.00000	.00000	-.04284	2.11114	.0017556	.0000000	.0017876	.0000000	.1233584	.0000000	.3720075	.0000000
-2.26885	.03623	.00000	.00000	-.03725	2.25078	.0013125	.0000000	.0011455	.0000000	.1235816	.0000000	.3722208	.0000000
-2.41431	.03132	.00000	.00000	-.03236	2.39118	.0009812	.0000000	.0007136	.0000000	.1237484	.0000000	.3723560	.0000000
-2.55977	.02708	.00000	.00000	-.02809	2.53225	.0007335	.0000000	.0004269	.0000000	.1238731	.0000000	.3724389	.0000000
-2.70522	.02342	.00000	.00000	-.02438	2.67389	.0005484	.0000000	.0002393	.0000000	.1239663	.0000000	.3724874	.0000000
-2.85068	.02025	.00000	.00000	-.02114	2.81605	.0004099	.0000000	.0001193	.0000000	.1240360	.0000000	.3725135	.0000000
-2.99614	.01751	.00000	.00000	-.01833	2.95864	.0003065	.0000000	.0000446	.0000000	.1240881	.0000000	.3725254	.0000000
-3.14159	.01514	.00000	.00000	-.01588	3.10161	.0002291	.0000000	.0000000	.0000000	.1241271	.0000000	.3725286	.0000000

SOLUTION VS DEPTH, THETA= 15.00 DEGREES, KX= .2618 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.33746	.47413	.12704	.13522	-.26372	-.00925	.2248017	.1352232	.7820976	.4704489	.0000000	.0000000	.0000000	.0000000
.19250	.41015	.10990	.11698	-.25626	.09793	.1682242	.1169757	.5608754	.3900079	.0284866	.0182795	.0973391	.0623662
.04754	.35480	.09507	.10119	-.24272	.20667	.1258860	.1011906	.4014671	.3227102	.0498038	.0340922	.1670900	.1140242
-.09742	.30693	.08224	.08754	-.22572	.31764	.0942033	.0875355	.2867711	.2664733	.0657560	.0477711	.2169737	.1567284
-.24238	.26551	.07114	.07572	-.20705	.43123	.0704944	.0757232	.2043784	.2195375	.0776933	.0596042	.2525724	.1919546
-.38734	.22968	.06154	.06550	-.18793	.54756	.0527526	.0655048	.1452939	.1804167	.0866263	.0698404	.2779167	.2209434
-.53230	.19869	.05324	.05667	-.16917	.66665	.0394759	.0566654	.1030042	.1478564	.0933111	.0786954	.2959134	.2447368
-.67726	.17187	.04605	.04902	-.15128	.78839	.0295407	.0490187	.0727981	.1207983	.0983134	.0863554	.3086557	.2642089
-.82222	.14868	.03984	.04240	-.13456	.91265	.0221060	.0424040	.0512720	.0983505	.1020568	.0929817	.3176483	.2800929
-.96718	.12862	.03446	.03668	-.11917	1.03924	.0165424	.0366818	.0359700	.0797613	.1048580	.0987139	.3239716	.2930025
-1.11214	.11126	.02981	.03173	-.10516	1.16796	.0123791	.0317318	.0251227	.0643981	.1069543	.1036725	.3283996	.3034512
-1.25710	.09625	.02579	.02745	-.09252	1.29861	.0092635	.0274498	.0174570	.0517289	.1085229	.1079620	.3314858	.3118682
-1.40207	.08326	.02231	.02375	-.08119	1.43099	.0069321	.0237456	.0120586	.0413062	.1096968	.1116727	.3336251	.3186114
-1.54703	.07202	.01930	.02054	-.07110	1.56493	.0051875	.0205413	.0082717	.0327545	.1105752	.1148826	.3350987	.3239793
-1.69199	.06230	.01669	.01777	-.06216	1.70024	.0038819	.0177694	.0056272	.0257586	.1112326	.1176594	.3361061	.3282204
-1.83695	.05390	.01444	.01537	-.05425	1.83678	.0029049	.0153715	.0037899	.0200544	.1117245	.1200615	.3367886	.3315409
-1.98191	.04662	.01249	.01330	-.04730	1.97439	.0021738	.0132972	.0025209	.0154206	.1120926	.1221394	.3372460	.3341121
-2.12687	.04033	.01081	.01150	-.04119	2.11295	.0016267	.0115029	.0016507	.0116722	.1123680	.1239369	.3375484	.3360758
-2.27183	.03489	.00935	.00995	-.03583	2.25233	.0012173	.0099506	.0010588	.0086547	.1125742	.1254918	.3377448	.3375491
-2.41679	.03018	.00809	.00861	-.03115	2.39245	.0009109	.0086079	.0006602	.0062390	.1127284	.1268370	.3378694	.3386286
-2.56175	.02611	.00700	.00745	-.02706	2.53320	.0006817	.0074463	.0003953	.0043177	.1128439	.1280006	.3379459	.3393938
-2.70671	.02259	.00605	.00644	-.02349	2.67450	.0005101	.0064414	.0002218	.0028013	.1129302	.1290072	.3379906	.3399098
-2.85167	.01954	.00524	.00557	-.02039	2.81628	.0003817	.0055722	.0001107	.0016155	.1129949	.1298779	.3380147	.3402299
-2.99663	.01690	.00453	.00482	-.01768	2.95849	.0002857	.0048203	.0000414	.0006988	.1130433	.1306312	.3380257	.3403976
-3.14159	.01462	.00392	.00417	-.01533	3.10106	.0002138	.0041698	.0000000	.0000000	.1130795	.1312828	.3380287	.3404483

SOLUTION VS DEPTH, THETA= 30.00 DEGREES, KX= .5236 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.30256	.41051	.23701	.25227	-.21225	-.03394	.1685225	.2522710	.5804174	.8688597	.0000000	.0000000	.0000000	.0000000
.15905	.35564	.20533	.21855	-.20990	.07918	.1264765	.2185462	.4174543	.7213437	.0211671	.0337826	.0716005	.1141022
.01555	.30809	.17788	.18933	-.20137	.19312	.0949209	.1893299	.2996786	.5977410	.0370531	.0630490	.1230571	.2087507
-.12796	.26691	.15410	.16402	-.18911	.30858	.0712384	.1640194	.2146863	.4942944	.0489756	.0884030	.1599644	.2871077
-.27147	.23122	.13350	.14209	-.17483	.42595	.0534645	.1420925	.1534500	.4078236	.0579234	.1103675	.1863793	.3518376
-.41497	.20031	.11565	.12310	-.15971	.54545	.0401253	.1230969	.1094064	.3356386	.0646387	.1293957	.2052401	.4051833
-.55848	.17353	.10019	.10664	-.14456	.66713	.0301141	.1066407	.0777881	.2754652	.0696786	.1458801	.2186719	.4490320
-.70198	.15034	.08680	.09238	-.12988	.79095	.0226007	.0923845	.0551368	.2253820	.0734611	.1601608	.2282097	.4849694
-.84549	.13024	.07519	.08003	-.11601	.91683	.0169619	.0800341	.0389462	.1837664	.0762998	.1725323	.2349605	.5143271
-.98900	.11283	.06514	.06933	-.10312	1.04462	.0127299	.0693348	.0274024	.1492497	.0784303	.1832500	.2397212	.5382220
-1.13250	.09774	.05643	.06007	-.09130	1.17419	.0095538	.0600658	.0191945	.1206775	.0800292	.1925349	.2430647	.5575902
-1.27601	.08468	.04889	.05204	-.08057	1.30538	.0071702	.0520359	.0133765	.0970773	.0812292	.2005786	.2454017	.5732148
-1.41952	.07336	.04235	.04508	-.07090	1.43803	.0053812	.0450795	.0092669	.0776303	.0821299	.2075469	.2470265	.5857506
-1.56302	.06355	.03669	.03905	-.06226	1.57199	.0040386	.0390530	.0063752	.0616480	.0828058	.2135837	.2481488	.5957443
-1.70653	.05505	.03179	.03383	-.05456	1.70713	.0030310	.0338322	.0043497	.0485514	.0833130	.2188135	.2489184	.6036514
-1.85004	.04769	.02754	.02931	-.04773	1.84331	.0022748	.0293094	.0029380	.0378548	.0836937	.2233441	.2494413	.6098513
-1.99354	.04132	.02386	.02539	-.04170	1.98040	.0017072	.0253912	.0019600	.0291504	.0839794	.2272690	.2497928	.6146592
-2.13705	.03579	.02067	.02200	-.03639	2.11831	.0012813	.0219968	.0012871	.0220967	.0841939	.2306692	.2500257	.6183363
-2.28055	.03101	.01790	.01906	-.03172	2.25694	.0009616	.0190561	.0008280	.0164081	.0843548	.2336149	.2501775	.6210991
-2.42406	.02686	.01551	.01651	-.02763	2.39619	.0007217	.0165086	.0005178	.0118455	.0844756	.2361668	.2502741	.6231264
-2.56757	.02327	.01344	.01430	-.02405	2.53600	.0005416	.0143017	.0003109	.0082095	.0845662	.2383775	.2503335	.6245654
-2.71107	.02016	.01164	.01239	-.02092	2.67628	.0004065	.0123898	.0001750	.0053340	.0846343	.2402927	.2503684	.6255372
-2.85458	.01747	.01008	.01073	-.01818	2.81699	.0003051	.0107334	.0000876	.0030806	.0846853	.2419519	.2503872	.6261410
-2.99809	.01513	.00874	.00930	-.01580	2.95806	.0002290	.0092985	.0000329	.0013344	.0847236	.2433893	.2503959	.6264578
-3.14159	.01311	.00757	.00806	-.01372	3.09945	.0001718	.0080555	.0000000	.0000000	.0847524	.2446345	.2503982	.6265535
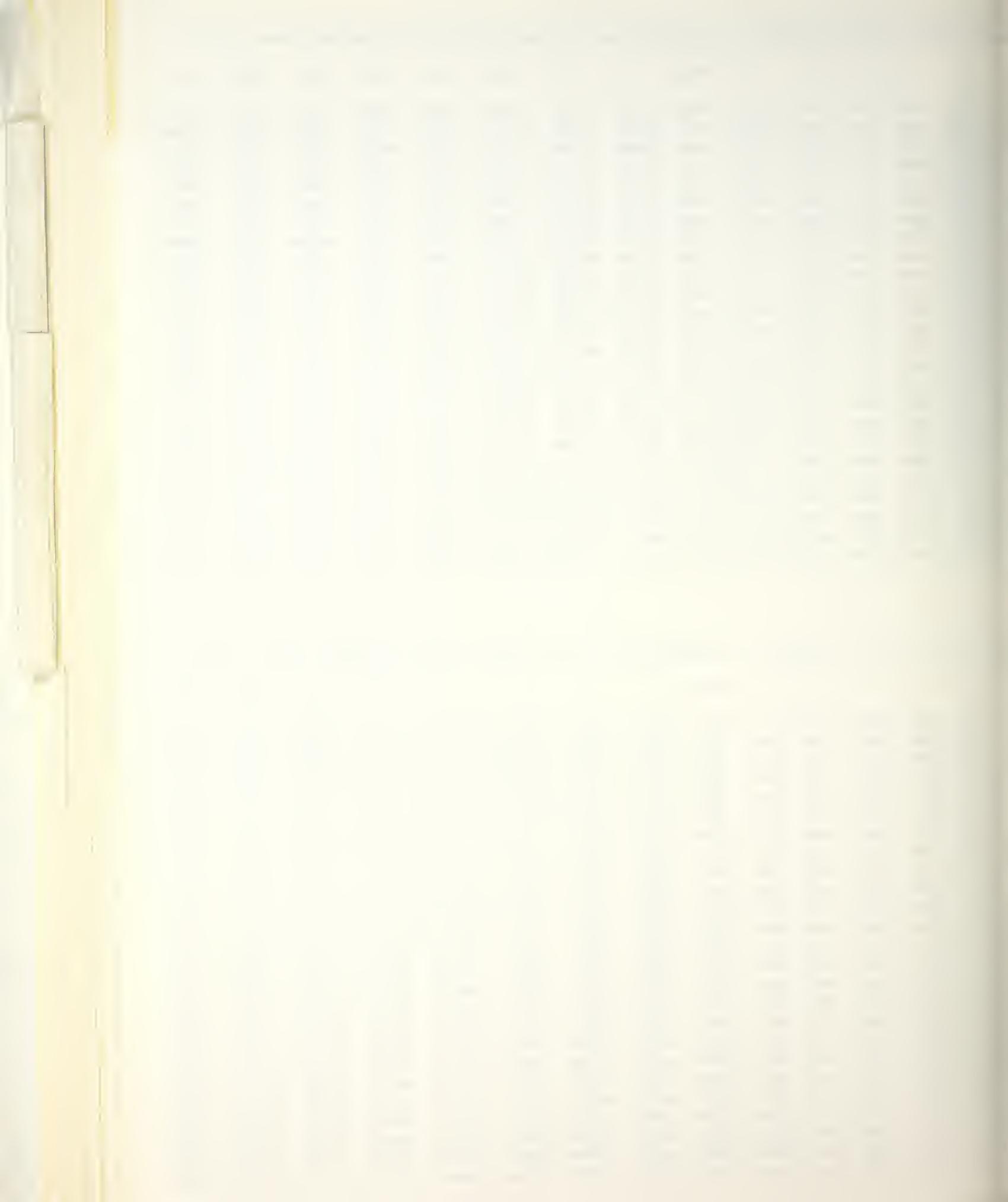
d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

ELEV	*K	(K*6)^.5	*K DEGREE
-.34937	2.95156	3.14159	180.0
-.34862	2.89007	3.07614	176.2
-.34638	2.82857	3.01069	172.5
-.34265	2.76708	2.94524	168.7
-.33746	2.70559	2.87979	165.0
-.33083	2.64410	2.81434	161.2
-.32277	2.58261	2.74889	157.5
-.31334	2.52112	2.68344	153.7
-.30256	2.45963	2.61799	150.0
-.29049	2.39814	2.55254	146.2
-.27717	2.33665	2.48709	142.5
-.26267	2.27516	2.42164	138.7
-.24704	2.21367	2.35619	135.0
-.23035	2.15218	2.29074	131.2
-.21268	2.09069	2.22529	127.5
-.19410	2.02919	2.15984	123.7
-.17468	1.96770	2.09440	120.0
-.15452	1.90621	2.02895	116.2
-.13370	1.84472	1.96350	112.5
-.11230	1.78323	1.89805	108.7
-.09042	1.72174	1.83260	105.0
-.06816	1.66025	1.76715	101.2
-.04560	1.59876	1.70170	97.5
-.02285	1.53727	1.63625	93.7
.00000	1.47578	1.57080	90.0
.02285	1.41429	1.50535	86.2
.04560	1.35280	1.43990	82.5
.06816	1.29131	1.37445	78.7
.09042	1.22981	1.30900	75.0
.11230	1.16832	1.24355	71.2
.13370	1.10683	1.17810	67.5
.15452	1.04534	1.11265	63.7
.17468	.98385	1.04720	60.0
.19410	.92236	.98175	56.2
.21268	.86087	.91630	52.5
.23035	.79938	.85085	48.7
.24704	.73789	.78540	45.0
.26267	.67640	.71995	41.2
.27717	.61491	.65450	37.5
.29049	.55342	.58905	33.7
.30256	.49193	.52360	30.0
.31334	.43044	.45815	26.2
.32277	.36894	.39270	22.5
.33083	.30745	.32725	18.7
.33746	.24596	.26180	15.0
.34265	.18447	.19635	11.2
.34638	.12298	.13090	7.5
.34862	.06149	.06545	3.7
.34937	.00000	.00000	.0

-.34937

3 57

d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER

	U	V	DIST.	ANGLE
		*SQRT(K/G)	*K	DEGREES
	-.24698	.00000	3.14159	180.00
	-.24664	.01617	3.07614	176.25
	-.24560	.03233	3.01069	172.50
	-.24387	.04851	2.94524	168.75
	-.24143	.06469	2.87979	165.00
	-.23825	.08088	2.81434	161.25
	-.23433	.09706	2.74889	157.50
	-.22964	.11325	2.68344	153.75
	-.22414	.12941	2.61799	150.00
	-.21781	.14554	2.55254	146.25
	-.21062	.16161	2.48709	142.50
	-.20251	.17760	2.42164	138.75
	-.19346	.19346	2.35619	135.00
	-.18343	.20916	2.29074	131.25
	-.17238	.22465	2.22529	127.50
	-.16027	.23986	2.15984	123.75
	-.14706	.25472	2.09440	120.00
	-.13274	.26917	2.02895	116.25
	-.11727	.28311	1.96350	112.50
	-.10063	.29645	1.89805	108.75
	-.08282	.30908	1.83260	105.00
	-.06383	.32090	1.76715	101.25
	-.04368	.33179	1.70170	97.50
	-.02239	.34162	1.63625	93.75
	.00000	.35027	1.57080	90.00
	.02344	.35759	1.50535	86.25
	.04785	.36347	1.43990	82.50
	.07315	.36777	1.37445	78.75
	.09923	.37035	1.30900	75.00
	.12597	.37110	1.24355	71.25
	.15322	.36989	1.17810	67.50
	.18081	.36664	1.11265	63.75
	.20856	.36124	1.04720	60.00
	.23628	.35362	.98175	56.25
	.26376	.34374	.91630	52.50
	.29077	.33156	.85085	48.75
	.31708	.31708	.78540	45.00
	.34245	.30032	.71995	41.25
	.36664	.28133	.65450	37.50
	.38941	.26019	.58905	33.75
	.41051	.23701	.52360	30.00
	.42974	.21193	.45815	26.25
	.44688	.18510	.39270	22.50
	.46173	.15674	.32725	18.75
	.47413	.12704	.26180	15.00
	.48393	.09626	.19635	11.25
	.49102	.06464	.13090	7.50
	.49530	.03246	.06545	3.75
	.49674	.00000	.00000	.00

.574

-.24698

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS

	Ax	Ay	DIST.	ANGLE
d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER	*1/G	*1/G	*K	DEGREES
	.00000	.32389	3.14159	180.00
	.01721	.32361	3.07614	176.25
	.03442	.32279	3.01069	172.50
	.05163	.32140	2.94524	168.75
	.06885	.31944	2.87979	165.00
	.08608	.31690	2.81434	161.25
	.10331	.31376	2.74889	157.50
	.12054	.30999	2.68344	153.75
	.13774	.30556	2.61799	150.00
	.15491	.30046	2.55254	146.25
	.17202	.29465	2.48709	142.50
	.18903	.28810	2.42164	138.75
	.20592	.28077	2.35619	135.00
	.22263	.27264	2.29074	131.25
	.23911	.26366	2.22529	127.50
	.25530	.25380	2.15984	123.75
	.27112	.24304	2.09440	120.00
	.28650	.23135	2.02895	116.25
	.30133	.21872	1.96350	112.50
	.31553	.20511	1.89805	108.75
	.32898	.19054	1.83260	105.00
	.34156	.17499	1.76715	101.25
	.35315	.15849	1.70170	97.50
	.36362	.14104	1.63625	93.75
	.37282	.12269	1.57080	90.00
	.38062	.10348	1.50535	86.25
	.38687	.08347	1.43990	82.50
	.39145	.06274	1.37445	78.75
	.39419	.04138	1.30900	75.00
	.39499	.01950	1.24355	71.25
	.39371	-.00278	1.17810	67.50
	.39024	-.02533	1.11265	63.75
	.38450	-.04800	1.04720	60.00
	.37639	-.07062	.98175	56.25
	.36587	-.09302	.91630	52.50
	.35291	-.11501	.85085	48.75
	.33750	-.13642	.78540	45.00
	.31966	-.15703	.71995	41.25
	.29945	-.17667	.65450	37.50
	.27694	-.19514	.58905	33.75
	.25227	-.21225	.52360	30.00
	.22557	-.22782	.45815	26.25
	.19702	-.24169	.39270	22.50
	.16683	-.25370	.32725	18.75
	.13522	-.26372	.26180	15.00
	.10246	-.27163	.19635	11.25
	.06881	-.27735	.13090	7.50
	.03455	-.28081	.06545	3.75
	.00000	-.28197	.00000	.00

.199

-.28197

ATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
M. M. RIENECKER AND J. D. FENTON.

EP , HEIGHT/DEPTH= .2520

HT 2.005161E-02,DIMENSIONLESS WITH RESPECT TO PERIOD

CRITERION: EULER , MAGNITUDE= .00

OF ORDER   6 NON-DIMENSIONALIZED BY WAVE NUMBER, 1 HEIGHT STEP(S).

GHT   .70041

OD   5.9102

D   1.0631

ERIAN FLUID SPEED   5.25107E-22

TRANSPORT SPEED   5.25107E-22

D SPEED RELATIVE TO WAVE   1.0631

UX DUE TO WAVES   5.54649E-02

CONSTANT   .56508

S DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
2	.53442	.00000	.00000	-.31744	.00000	.2856016	.0000000	1.0187160	.0000000	.0000000	.0000000	.0000000	.0000000
0	.45312	.00000	.00000	-.30356	.10234	.2053215	.0000000	.7018489	.0000000	.0364808	.0000000	.1278564	.0000000
8	.38545	.00000	.00000	-.28190	.20739	.1485739	.0000000	.4857876	.0000000	.0627790	.0000000	.2161105	.0000000
4	.32870	.00000	.00000	-.25700	.31595	.1080456	.0000000	.3372155	.0000000	.0818486	.0000000	.2772684	.0000000
7	.28085	.00000	.00000	-.23138	.42828	.0788758	.0000000	.2344525	.0000000	.0957389	.0000000	.3197494	.0000000
9	.24032	.00000	.00000	-.20645	.54438	.0577561	.0000000	.1630920	.0000000	.1058921	.0000000	.3492912	.0000000
1	.20590	.00000	.00000	-.18299	.66408	.0423941	.0000000	.1134119	.0000000	.1133343	.0000000	.3698384	.0000000
3	.17658	.00000	.00000	-.16137	.78714	.0311791	.0000000	.0787759	.0000000	.1188016	.0000000	.3841200	.0000000
5	.15155	.00000	.00000	-.14173	.91326	.0229676	.0000000	.0546157	.0000000	.1228253	.0000000	.3940325	.0000000
7	.13016	.00000	.00000	-.12410	1.04215	.0169411	.0000000	.0377671	.0000000	.1257909	.0000000	.4008975	.0000000
9	.11185	.00000	.00000	-.10837	1.17352	.0125095	.0000000	.0260285	.0000000	.1279794	.0000000	.4056382	.0000000
1	.09615	.00000	.00000	-.09445	1.30709	.0092456	.0000000	.0178632	.0000000	.1295960	.0000000	.4088998	.0000000
4	.08269	.00000	.00000	-.08217	1.44261	.0068385	.0000000	.0121961	.0000000	.1307912	.0000000	.4111335	.0000000
6	.07114	.00000	.00000	-.07138	1.57984	.0050613	.0000000	.0082744	.0000000	.1316755	.0000000	.4126547	.0000000
8	.06122	.00000	.00000	-.06194	1.71857	.0037480	.0000000	.0055703	.0000000	.1323301	.0000000	.4136835	.0000000
0	.05269	.00000	.00000	-.05369	1.85861	.0027768	.0000000	.0037142	.0000000	.1328150	.0000000	.4143735	.0000000
2	.04537	.00000	.00000	-.04650	1.99980	.0020580	.0000000	.0024469	.0000000	.1331743	.0000000	.4148313	.0000000
4	.03906	.00000	.00000	-.04025	2.14198	.0015258	.0000000	.0015873	.0000000	.1334406	.0000000	.4151311	.0000000
6	.03364	.00000	.00000	-.03481	2.28504	.0011315	.0000000	.0010090	.0000000	.1336380	.0000000	.4153240	.0000000
9	.02897	.00000	.00000	-.03010	2.42884	.0008393	.0000000	.0006237	.0000000	.1337845	.0000000	.4154453	.0000000
1	.02495	.00000	.00000	-.02601	2.57330	.0006227	.0000000	.0003702	.0000000	.1338932	.0000000	.4155192	.0000000
3	.02150	.00000	.00000	-.02247	2.71833	.0004621	.0000000	.0002060	.0000000	.1339738	.0000000	.4155620	.0000000
5	.01852	.00000	.00000	-.01940	2.86384	.0003430	.0000000	.0001019	.0000000	.1340336	.0000000	.4155849	.0000000
7	.01596	.00000	.00000	-.01675	3.00978	.0002546	.0000000	.0000378	.0000000	.1340780	.0000000	.4155953	.0000000
9	.01375	.00000	.00000	-.01446	3.15509	.0001890	.0000000	.0000000	.0000000	.1341110	.0000000	.4155981	.0000000

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.39067	.48941	.14676	.18411	-.27936	-.00092	.2395253	.1841083	.8460651	.6503178	.0000000	.0000000	.0000000	.0000000
.24349	.41731	.12251	.15004	-.27168	.10556	.1741509	.1500369	.5895149	.5078871	.0304419	.0245893	.1056425	.0852308
.09631	.35660	.10297	.12348	-.25527	.21389	.1271622	.1234801	.4117388	.3998165	.0526151	.0447171	.1793234	.1520275
-.05087	.30524	.08700	.10246	-.23473	.32498	.0931698	.1024594	.2879624	.3166737	.0688291	.0613437	.2308135	.2047531
-.19804	.26163	.07380	.08559	-.21273	.43922	.0684528	.0855902	.2014942	.2519389	.0807227	.0751820	.2668320	.2465966
-.34522	.22451	.06280	.07189	-.19083	.55671	.0504062	.0718919	.1409544	.2010364	.0894694	.0867709	.2920324	.2799304
-.49240	.19284	.05357	.06066	-.16989	.67735	.0371858	.0606574	.0985124	.1606931	.0959152	.0965250	.3096544	.3065496
-.63958	.16575	.04579	.05137	-.15038	.80098	.0274747	.0513669	.0687420	.1285208	.1006734	.1047687	.3219624	.3278325
-.78675	.14257	.03920	.04363	-.13251	.92736	.0203253	.0436312	.0478629	.1027445	.1041910	.1117595	.3305432	.3448510
-.93393	.12269	.03360	.03715	-.11636	1.05625	.0150523	.0371534	.0332303	.0820221	.1067944	.1177044	.3365108	.3584478
-1.08111	.10563	.02883	.03170	-.10189	1.18739	.0111571	.0317031	.0229891	.0653238	.1087231	.1227714	.3406479	.3692908
-1.22829	.09097	.02477	.02710	-.08901	1.32053	.0082761	.0270994	.0158348	.0518495	.1101531	.1270986	.3435049	.3779134
-1.37546	.07838	.02129	.02320	-.07762	1.45547	.0061429	.0231979	.0108492	.0409705	.1112142	.1307999	.3454685	.3847439
-1.52264	.06754	.01831	.01988	-.06757	1.59198	.0045620	.0198824	.0073857	.0321886	.1120020	.1339702	.3468104	.3901276
-1.66982	.05822	.01576	.01706	-.05875	1.72987	.0033895	.0170583	.0049886	.0251060	.1125871	.1366886	.3477210	.3943438
-1.81700	.05019	.01356	.01465	-.05103	1.86898	.0025193	.0146482	.0033371	.0194029	.1130220	.1390218	.3483337	.3976192
-1.96417	.04328	.01168	.01259	-.04428	2.00916	.0018732	.0125879	.0022055	.0148212	.1133452	.1410261	.3487416	.4001377
-2.11135	.03732	.01006	.01082	-.03839	2.15026	.0013931	.0108242	.0014353	.0111515	.1135856	.1427490	.3490095	.4020490
-2.25853	.03219	.00867	.00931	-.03327	2.29217	.0010364	.0093126	.0009152	.0082236	.1137644	.1442308	.3491825	.4034748
-2.40571	.02777	.00748	.00802	-.02881	2.43479	.0007711	.0080158	.0005675	.0058987	.1138974	.1455060	.3492916	.4045140
-2.55288	.02396	.00644	.00690	-.02494	2.57802	.0005739	.0069022	.0003378	.0040634	.1139963	.1466038	.3493582	.4052471
-2.70006	.02067	.00556	.00595	-.02158	2.72178	.0004271	.0059454	.0001886	.0026251	.1140700	.1475492	.3493969	.4057393
-2.84724	.01783	.00479	.00512	-.01866	2.86600	.0003180	.0051226	.0000936	.0015079	.1141248	.1483637	.3494177	.4060434
-2.99442	.01539	.00413	.00441	-.01614	3.01062	.0002367	.0044148	.0000348	.0006498	.1141656	.1490655	.3494272	.4062022
-3.14159	.01328	.00357	.00381	-.01395	3.15559	.0001763	.0038056	.0000000	.0000000	.1141960	.1496705	.3494297	.4062500

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.30510	.38595	.24781	.29440	-.19616	.00000	.1489552	.2943990	.5134026	1.0147021	.0000000	.0000000	.0000000	.0000000
.16149	.33310	.20996	.24639	-.19904	.11509	.1109531	.2463909	.3664868	.8138485	.0186630	.0388320	.0631814	.1313010
.01787	.28752	.17858	.20709	-.19270	.23049	.0826695	.2070857	.2611913	.6542804	.0325663	.0713944	.1082525	.2367215
-.12574	.24825	.15236	.17475	-.18122	.34721	.0616278	.1747495	.1856604	.5270191	.0429277	.0988124	.1403535	.3215460
-.26935	.21441	.13032	.14800	-.16715	.46579	.0459700	.1479967	.1320371	.4250824	.0506539	.1219876	.1631804	.3899126
-.41296	.18524	.11169	.12574	-.15210	.58647	.0343121	.1257387	.0936250	.3430944	.0564186	.1416434	.1793843	.4450724
-.55657	.16008	.09589	.10712	-.13704	.70933	.0256261	.1071230	.0662438	.2769148	.0607225	.1583643	.1908639	.4895928
-.70019	.13838	.08244	.09148	-.12255	.83431	.0191496	.0914800	.0467520	.2233397	.0639377	.1726252	.1989777	.5255141
-.84380	.11965	.07095	.07828	-.10897	.96131	.0143173	.0782800	.0328981	.1798713	.0663408	.1848150	.2046970	.5544671
-.98741	.10349	.06113	.06710	-.09645	1.09018	.0107092	.0671011	.0230695	.1445479	.0681379	.1952542	.2087159	.5777623
1.13102	.08952	.05270	.05760	-.08507	1.22077	.0080136	.0576039	.0161119	.1158167	.0694823	.2042088	.2115293	.5964581
1.27464	.07745	.04547	.04951	-.07481	1.35292	.0059987	.0495137	.0111992	.0924399	.0704884	.2119005	.2134904	.6114122
1.41825	.06702	.03925	.04261	-.06563	1.48646	.0044917	.0426058	.0077408	.0734244	.0712417	.2185152	.2148504	.6232222
1.56186	.05800	.03390	.03670	-.05747	1.62124	.0033643	.0366956	.0053147	.0579693	.0718058	.2242096	.2157879	.6327571
1.70547	.05020	.02930	.03163	-.05024	1.75713	.0025204	.0316304	.0036197	.0454251	.0722284	.2291158	.2164294	.6401814
1.84908	.04346	.02532	.02728	-.04386	1.89400	.0018886	.0272830	.0024411	.0352635	.0725450	.2333461	.2168646	.6459754
1.99270	.03762	.02189	.02355	-.03824	2.03172	.0014155	.0235468	.0016262	.0270529	.0727822	.2369960	.2171557	.6504501
2.13631	.03257	.01893	.02033	-.03332	2.17020	.0010610	.0203325	.0010666	.0204400	.0729601	.2401468	.2173501	.6538603
2.27992	.02820	.01638	.01756	-.02900	2.30935	.0007954	.0175546	.0006854	.0151349	.0730934	.2428680	.2174759	.6564148
2.42353	.02442	.01417	.01518	-.02523	2.44907	.0005964	.0151791	.0004282	.0108995	.0731933	.2452192	.2175558	.6582843
2.56714	.02115	.01226	.01312	-.02193	2.58930	.0004472	.0131218	.0002569	.0075378	.0732682	.2472514	.2176050	.6596082
2.71076	.01831	.01061	.01135	-.01906	2.72998	.0003354	.0113464	.0001445	.0048885	.0733244	.2490084	.2176338	.6605004
2.85437	.01586	.00919	.00981	-.01655	2.87104	.0002515	.0098136	.0000722	.0028187	.0733666	.2505278	.2176494	.6610539
2.99798	.01373	.00795	.00849	-.01437	3.01243	.0001886	.0084896	.0000271	.0012192	.0733982	.2518421	.2176565	.6613438
3.14159	.01189	.00688	.00735	-.01247	3.15412	.0001415	.0073456	.0000000	.0000000	.0734219	.2529791	.2176585	.6614314

H=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

	*K	(K*G)^.5	*K	DEGREES
-.27509	2.95510	3.14159	180.00
-.27473	2.89353	3.07614	176.25
-.27366	2.83197	3.01069	172.50
-.27185	2.77040	2.94524	168.75
-.26929	2.70884	2.87979	165.00
-.26595	2.64727	2.81434	161.25
-.26182	2.58571	2.74889	157.50
-.25689	2.52414	2.68344	153.75
-.25116	2.46258	2.61799	150.00
-.24464	2.40101	2.55254	146.25
-.23736	2.33945	2.48709	142.50
-.22935	2.27789	2.42164	138.75
-.22064	2.21632	2.35619	135.00
-.21125	2.15476	2.29074	131.25
-.20121	2.09319	2.22529	127.50
-.19049	2.03163	2.15984	123.75
-.17910	1.97006	2.09440	120.00
-.16698	1.90850	2.02895	116.25
-.15410	1.84693	1.96350	112.50
-.14039	1.78537	1.89805	108.75
-.12582	1.72381	1.83260	105.00
-.11035	1.66224	1.76715	101.25
-.09396	1.60068	1.70170	97.50
-.07668	1.53911	1.63625	93.75
-.05855	1.47755	1.57080	90.00
-.03963	1.41598	1.50535	86.25
-.02000	1.35442	1.43990	82.50
.00024	1.29285	1.37445	78.75
.02101	1.23129	1.30900	75.00
.04225	1.16973	1.24355	71.25
.06393	1.10816	1.17810	67.50
.08603	1.04660	1.11265	63.75
.10859	.98503	1.04720	60.00
.13164	.92347	.98175	56.25
.15523	.86190	.91630	52.50
.17938	.80034	.85085	48.75
.20407	.73877	.78540	45.00
.22922	.67721	.71995	41.25
.25464	.61564	.65450	37.50
.28006	.55408	.58905	33.75
.30510	.49252	.52360	30.00
.32926	.43095	.45815	26.25
.35199	.36939	.39270	22.50
.37267	.30782	.32725	18.75
.39067	.24626	.26180	15.00
.40539	.18469	.19635	11.25
.41632	.12313	.13090	7.50
.42305	.06156	.06545	3.75
.42532	.00000	.00000	.00

-.27509

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICLE VELOCITIES

d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER

U *SQRT(K/G)	V *K	DIST.	ANGLE DEGREES
-.23317	.00000	3.14159	180.
-.23279	.01479	3.07614	176.
-.23166	.02956	3.01069	172.
-.22979	.04428	2.94524	168.
-.22716	.05894	2.87979	165.
-.22380	.07350	2.81434	161.
-.21969	.08795	2.74889	157.
-.21485	.10227	2.68344	153.
-.20926	.11643	2.61799	150.
-.20291	.13042	2.55254	146.
-.19581	.14419	2.48709	142.
-.18793	.15773	2.42164	138.
-.17928	.17100	2.35619	135.
-.16984	.18396	2.29074	131.
-.15960	.19658	2.22529	127.
-.14857	.20882	2.15984	123.
-.13675	.22066	2.09440	120.
-.12413	.23206	2.02895	116.
-.11073	.24300	1.96350	112.
-.09653	.25346	1.89805	108.
-.08153	.26341	1.83260	105.
-.06573	.27281	1.76715	101.
-.04912	.28164	1.70170	97.
-.03167	.28985	1.63625	93.
-.01338	.29736	1.57080	90.
.00577	.30411	1.50535	86.
.02579	.31002	1.43990	82.
.04668	.31498	1.37445	78.
.06842	.31891	1.30900	75.
.09101	.32170	1.24355	71.
.11442	.32326	1.17810	67.
.13863	.32349	1.11265	63.
.16361	.32231	1.04720	60.
.18935	.31963	.98175	56.
.21581	.31536	.91630	52.
.24297	.30937	.85085	48.
.27078	.30155	.78540	45.
.29916	.29170	.71995	41.
.32797	.27964	.65450	37.
.35701	.26510	.58905	33.
.38595	.24781	.52360	30.
.41433	.22752	.45815	26.
.44155	.20398	.39270	22.
.46687	.17706	.32725	18.
.48941	.14676	.26180	15.
.50826	.11332	.19635	11.
.52250	.07720	.13090	7.
.53139	.03912	.06545	3.
.53442	.00000	.00000	.

.142

-.23317

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS

	Ax	Ay	DIST.	ANGLE
d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER	*1/G	*1/G	*K	DEGREES
	.00000	.29306	3.14159	180.00
	.01476	.29275	3.07614	176.25
	.02949	.29181	3.01069	172.50
	.04419	.29026	2.94524	168.75
	.05884	.28809	2.87979	165.00
	.07341	.28531	2.81434	161.25
	.08789	.28194	2.74889	157.50
	.10227	.27796	2.68344	153.75
	.11653	.27338	2.61799	150.00
	.13064	.26820	2.55254	146.25
	.14459	.26240	2.48709	142.50
	.15834	.25597	2.42164	138.75
	.17188	.24891	2.35619	135.00
	.18517	.24120	2.29074	131.25
	.19819	.23285	2.22529	127.50
	.21090	.22385	2.15984	123.75
	.22329	.21422	2.09440	120.00
	.23533	.20396	2.02895	116.25
	.24700	.19308	1.96350	112.50
	.25829	.18160	1.89805	108.75
	.26918	.16953	1.83260	105.00
	.27964	.15687	1.76715	101.25
	.28964	.14362	1.70170	97.50
	.29915	.12977	1.63625	93.75
	.30811	.11532	1.57080	90.00
	.31644	.10024	1.50535	86.25
	.32408	.08453	1.43990	82.50
	.33093	.06816	1.37445	78.75
	.33690	.05115	1.30900	75.00
	.34188	.03348	1.24355	71.25
	.34577	.01516	1.17810	67.50
	.34848	-.00377	1.11265	63.75
	.34990	-.02329	1.04720	60.00
	.34993	-.04338	.98175	56.25
	.34844	-.06400	.91630	52.50
	.34527	-.08511	.85085	48.75
	.34021	-.10668	.78540	45.00
	.33299	-.12867	.71995	41.25
	.32326	-.15100	.65450	37.50
	.31057	-.17355	.58905	33.75
	.29440	-.19616	.52360	30.00
	.27417	-.21854	.45815	26.25
	.24931	-.24027	.39270	22.50
	.21937	-.26079	.32725	18.75
	.18411	-.27936	.26180	15.00
	.14367	-.29513	.19635	11.25
	.09867	-.30722	.13090	7.50
	.05025	-.31484	.06545	3.75
	.00000	-.31744	.00000	.00

-.31744

STEADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
                M. M. RIENECKER AND J. D. FENTON.

EPTH: DEEP , HEIGHT/DEPTH= .2520

AVE HEIGHT 2.005161E-02,DIMENSIONLESS WITH RESPECT TO PERIOD

CURRENT CRITERION: EULER , MAGNITUDE= .00

OLUTION OF ORDER   7 NON-DIMENSIONALIZED BY WAVE NUMBER, 1 HEIGHT STEP(S).

WAVE HEIGHT   .70042

WAVE PERIOD   5.9102

WAVE SPEED   1.0631

MEAN EULERIAN FLUID SPEED   1.92776E-22

MEAN MASS TRANSPORT SPEED   -4.04648E-20

MEAN FLUID SPEED RELATIVE TO WAVE   1.0631

VOLUME FLUX DUE TO WAVES   5.54480E-02

BERNOULLI CONSTANT   .56509

OLUTION VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.42534	.53443	.00000	.00000	-.31758	.00000	.2856135	.0000000	1.0187636	.0000000	.0000000	.0000000	.0000000	.0000000
.27672	.45311	.00000	.00000	-.30359	.10233	.2053129	.0000000	.7018228	.0000000	.0364813	.0000000	.1278586	.0000000
.12809	.38544	.00000	.00000	-.28189	.20738	.1485656	.0000000	.4857629	.0000000	.0627783	.0000000	.2161094	.0000000
-.02053	.32870	.00000	.00000	-.25698	.31594	.1080406	.0000000	.3372016	.0000000	.0818470	.0000000	.2772548	.0000000
-.16915	.28084	.00000	.00000	-.23136	.42827	.0788733	.0000000	.2344463	.0000000	.0957368	.0000000	.3197445	.0000000
-.31777	.24032	.00000	.00000	-.20644	.54438	.0577551	.0000000	.1630900	.0000000	.1058898	.0000000	.3492859	.0000000
-.46639	.20590	.00000	.00000	-.18298	.66408	.0423938	.0000000	.1134118	.0000000	.1133320	.0000000	.3698330	.0000000
-.61502	.17658	.00000	.00000	-.16136	.78714	.0311791	.0000000	.0787765	.0000000	.1187992	.0000000	.3841147	.0000000
-.76364	.15155	.00000	.00000	-.14173	.91326	.0229678	.0000000	.0546164	.0000000	.1228230	.0000000	.3940273	.0000000
-.91226	.13016	.00000	.00000	-.12409	1.04216	.0169413	.0000000	.0377678	.0000000	.1257886	.0000000	.4008924	.0000000
-1.06088	.11185	.00000	.00000	-.10837	1.17353	.0125097	.0000000	.0260291	.0000000	.1279772	.0000000	.4056333	.0000000
-1.20950	.09615	.00000	.00000	-.09444	1.30710	.0092457	.0000000	.0178636	.0000000	.1295938	.0000000	.4088950	.0000000
-1.35813	.08270	.00000	.00000	-.08217	1.44262	.0068386	.0000000	.0121964	.0000000	.1307891	.0000000	.4111288	.0000000
-1.50675	.07114	.00000	.00000	-.07138	1.57984	.0050614	.0000000	.0082746	.0000000	.1316734	.0000000	.4126500	.0000000
-1.65537	.06122	.00000	.00000	-.06194	1.71858	.0037481	.0000000	.0055705	.0000000	.1323280	.0000000	.4136788	.0000000
-1.80399	.05270	.00000	.00000	-.05369	1.85862	.0027768	.0000000	.0037143	.0000000	.1328129	.0000000	.4143688	.0000000
-1.95262	.04537	.00000	.00000	-.04650	1.99981	.0020580	.0000000	.0024470	.0000000	.1331722	.0000000	.4148266	.0000000
-2.10124	.03906	.00000	.00000	-.04025	2.14199	.0015258	.0000000	.0015874	.0000000	.1334385	.0000000	.4151264	.0000000
-2.24986	.03364	.00000	.00000	-.03481	2.28505	.0011316	.0000000	.0010090	.0000000	.1336360	.0000000	.4153194	.0000000
-2.39848	.02897	.00000	.00000	-.03010	2.42886	.0008394	.0000000	.0006237	.0000000	.1337824	.0000000	.4154407	.0000000
-2.54710	.02496	.00000	.00000	-.02601	2.57332	.0006228	.0000000	.0003702	.0000000	.1338911	.0000000	.4155146	.0000000
-2.69573	.02150	.00000	.00000	-.02247	2.71834	.0004621	.0000000	.0002060	.0000000	.1339717	.0000000	.4155574	.0000000
-2.84435	.01852	.00000	.00000	-.01940	2.86386	.0003430	.0000000	.0001019	.0000000	.1340315	.0000000	.4155803	.0000000
-2.99297	.01596	.00000	.00000	-.01675	3.00980	.0002546	.0000000	.0000378	.0000000	.1340760	.0000000	.4155907	.0000000
-3.14159	.01375	.00000	.00000	-.01446	3.15611	.0001890	.0000000	.0000000	.0000000	.1341089	.0000000	.4155935	.0000000

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.39000	.48900	.14665	.18403	-.27921	-.00046	.2391249	.1840331	.8444922	.6499301	.0000000	.0000000	.0000000	.0000000
.24285	.41700	.12240	.14991	-.27155	.10602	.1738880	.1499148	.5885142	.5073783	.0303874	.0245702	.1054333	.0851488
.09570	.35635	.10288	.12337	-.25515	.21434	.1269857	.1233651	.4110901	.3993692	.0525241	.0446767	.1789790	.1518627
-.05145	.30504	.08693	.10237	-.23462	.32543	.0930499	.1023654	.2875375	.3163239	.0687132	.0612848	.2303805	.2045197
-.19860	.26148	.07375	.08552	-.21263	.43966	.0683707	.0855173	.2012145	.2516769	.0805897	.0751082	.2663404	.2463103
-.34575	.22439	.06276	.07184	-.19074	.55714	.0503497	.0718362	.1407698	.2008430	.0893245	.0866855	.2915018	.2796044
-.49290	.19274	.05354	.06061	-.16981	.67778	.0371468	.0606150	.0983906	.1605506	.0957621	.0964306	.3090980	.3061939
-.64005	.16567	.04576	.05133	-.15031	.80140	.0274478	.0513345	.0686618	.1284157	.1005146	.1046673	.3213889	.3274546
-.78720	.14250	.03918	.04361	-.13246	.92776	.0203068	.0436064	.0478102	.1026667	.1040282	.1116525	.3299583	.3444564
-.93435	.12264	.03359	.03713	-.11632	1.05663	.0150395	.0371342	.0331959	.0819644	.1066287	.1175930	.3359183	.3580406
-1.08150	.10559	.02882	.03169	-.10185	1.18775	.0111484	.0316883	.0229667	.0652810	.1085555	.1226566	.3400505	.3688742
-1.22865	.09094	.02476	.02709	-.08898	1.32088	.0082701	.0270879	.0158203	.0518178	.1099842	.1269811	.3429042	.3774897
-1.37580	.07835	.02128	.02319	-.07759	1.45579	.0061389	.0231890	.0108400	.0409471	.1110444	.1306802	.3448657	.3843149
-1.52295	.06752	.01830	.01988	-.06755	1.59227	.0045593	.0198755	.0073799	.0321715	.1118315	.1338487	.3462063	.3896346
-1.67010	.05820	.01575	.01705	-.05874	1.73015	.0033877	.0170530	.0049849	.0250935	.1124162	.1365657	.3471160	.3939078
-1.81724	.05018	.01356	.01464	-.05102	1.86923	.0025181	.0146441	.0033348	.0193939	.1128507	.1388978	.3477281	.3971810
-1.96439	.04327	.01168	.01258	-.04427	2.00938	.0018724	.0125848	.0022041	.0148148	.1131737	.1409012	.3481357	.3996979
-2.11154	.03732	.01006	.01082	-.03838	2.15046	.0013926	.0108219	.0014345	.0111471	.1134139	.1426233	.3484034	.4016080
-2.25869	.03219	.00867	.00931	-.03326	2.29235	.0010360	.0093109	.0009147	.0082206	.1135926	.1441046	.3485762	.4030330
-2.40584	.02777	.00747	.00801	-.02881	2.43494	.0007709	.0080146	.0005672	.0058967	.1137256	.1453793	.3486852	.4040717
-2.55299	.02395	.00644	.00690	-.02493	2.57814	.0005737	.0069014	.0003377	.0040622	.1138245	.1464768	.3487518	.4048044
-2.70014	.02067	.00556	.00594	-.02158	2.72188	.0004271	.0059448	.0001885	.0026243	.1138981	.1474219	.3487905	.4052964
-2.84729	.01783	.00479	.00512	-.01866	2.86607	.0003179	.0051223	.0000936	.0015075	.1139530	.1482362	.3488113	.4056004
-2.99444	.01539	.00413	.00441	-.01614	3.01067	.0002367	.0044147	.0000348	.0006496	.1139938	.1489379	.3488207	.4057591
-3.14159	.01328	.00357	.00381	-.01395	3.15561	.0001763	.0038056	.0000000	.0000000	.1140242	.1495427	.3488233	.4058069

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.30465	.38575	.24763	.29400	-.19618	.00037	.1488054	.2940000	.5128199	1.0131960	.0000000	.0000000	.0000000	.0000000
.16106	.33295	.20982	.24614	-.19903	.11545	.1108526	.2461443	.3661076	.8129287	.0186426	.0387806	.0631042	.1311099
.01747	.28740	.17848	.20692	-.19267	.23084	.0825997	.2069203	.2609373	.6536733	.0325319	.0713092	.1081240	.2364072
-.12613	.24815	.15228	.17463	-.18118	.34755	.0615787	.1746322	.1856885	.5265973	.0428834	.0987034	.1401902	.3211468
-.26972	.21433	.13026	.14791	-.16712	.46611	.0459354	.1479105	.1319206	.4247799	.0506026	.1218610	.1629936	.3894526
-.41332	.18517	.11164	.12567	-.15206	.58679	.0342876	.1256738	.0935462	.3428731	.0563623	.1415034	.1791813	.4445676
-.55691	.16003	.09585	.10707	-.13700	.70963	.0256088	.1070735	.0661908	.2767510	.0606627	.1582139	.1906499	.4890546
-.70050	.13834	.08241	.09144	-.12252	.83460	.0191375	.0914417	.0467164	.2232175	.0638754	.1724667	.1987563	.5249508
-.84410	.11962	.07093	.07825	-.10894	.96159	.0143088	.0782503	.0328744	.1797799	.0662767	.1846500	.2044707	.5538847
-.98769	.10346	.06111	.06708	-.09643	1.09045	.0107033	.0670780	.0230538	.1444794	.0680725	.1950841	.2084861	.5771654
-1.13128	.08950	.05269	.05759	-.08505	1.22103	.0080095	.0575859	.0161016	.1157655	.0694160	.2040346	.2112974	.5958502
-1.27488	.07743	.04546	.04950	-.07479	1.35316	.0059958	.0494996	.0111925	.0924016	.0704215	.2117230	.2132570	.6107959
-1.41847	.06701	.03925	.04259	-.06562	1.48668	.0044898	.0425948	.0077365	.0733960	.0711744	.2183351	.2146160	.6226997
-1.56206	.05799	.03390	.03669	-.05746	1.62145	.0033630	.0366871	.0053119	.0579483	.0717382	.2240272	.2155529	.6321297
-1.70566	.05019	.02929	.03162	-.05023	1.75732	.0025195	.0316238	.0036179	.0454098	.0721605	.2289317	.2161940	.6395505
-1.84925	.04345	.02532	.02728	-.04385	1.89417	.0018880	.0272779	.0024400	.0352524	.0724770	.2331607	.2166289	.6453418
-1.99284	.03762	.02189	.02354	-.03824	2.03188	.0014151	.0235430	.0016256	.0270449	.0727141	.2368095	.2169208	.6498146
-2.13644	.03257	.01893	.02033	-.03331	2.17035	.0010607	.0203296	.0010662	.0204344	.0728919	.2399594	.2171141	.6532234
-2.28003	.02820	.01638	.01756	-.02900	2.30947	.0007952	.0175624	.0006852	.0151311	.0730251	.2426799	.2172398	.6557769
-2.42362	.02442	.01417	.01518	-.02522	2.44918	.0005963	.0151775	.0004281	.0108970	.0731250	.2450305	.2173197	.6576456
-2.56722	.02115	.01226	.01312	-.02193	2.58939	.0004471	.0131207	.0002568	.0075362	.0731999	.2470623	.2173689	.6589691
-2.71081	.01831	.01061	.01135	-.01905	2.73005	.0003353	.0113457	.0001444	.0048875	.0732561	.2488189	.2173977	.6598611
-2.85441	.01586	.00919	.00981	-.01655	2.87109	.0002515	.0098132	.0000722	.0028182	.0732982	.2503380	.2174133	.6604143
-2.99800	.01373	.00795	.00849	-.01437	3.01247	.0001886	.0084895	.0000271	.0012190	.0733298	.2516521	.2174204	.6607042
-3.14159	.01189	.00688	.00735	-.01247	3.15414	.0001415	.0073456	.0000000	.0000000	.0733535	.2527890	.2174224	.6607917

H=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER   *K   (K*G)^.5   *K   DEGREES

		*K	(K*G)^.5	*K	DEGREES
		-.27508	2.95512	3.14159	180.00
		-.27470	2.89355	3.07614	176.25
		-.27355	2.83199	3.01069	172.50
		-.27166	2.77042	2.94524	168.75
		-.26902	2.70886	2.87979	165.00
		-.26566	2.64729	2.81434	161.25
		-.26158	2.58573	2.74889	157.50
		-.25677	2.52416	2.68344	153.75
		-.25123	2.46260	2.61799	150.00
		-.24494	2.40103	2.55254	146.25
		-.23788	2.33947	2.48709	142.50
		-.23002	2.27790	2.42164	138.75
		-.22135	2.21634	2.35619	135.00
		-.21187	2.15477	2.29074	131.25
		-.20160	2.09321	2.22529	127.50
		-.19056	2.03164	2.15984	123.75
		-.17878	1.97008	2.09440	120.00
		-.16629	1.90851	2.02895	116.25
		-.15312	1.84695	1.96350	112.50
		-.13927	1.78538	1.89805	108.75
		-.12474	1.72382	1.83260	105.00
		-.10950	1.66225	1.76715	101.25
		-.09351	1.60069	1.70170	97.50
		-.07672	1.53912	1.63625	93.75
		-.05910	1.47756	1.57080	90.00
		-.04062	1.41599	1.50535	86.25
		-.02128	1.35443	1.43990	82.50
		-.00113	1.29286	1.37445	78.75
		.01979	1.23130	1.30900	75.00
		.04138	1.16973	1.24355	71.25
		.06356	1.10817	1.17810	67.50
		.08623	1.04660	1.11265	63.75
		.10933	.98504	1.04720	60.00
		.13281	.92347	.98175	56.25
		.15664	.86191	.91630	52.50
		.18081	.80034	.85085	48.75
		.20532	.73878	.78540	45.00
		.23011	.67721	.71995	41.25
		.25508	.61565	.65450	37.50
		.28003	.55408	.58905	33.75
		.30465	.49252	.52350	30.00
		.32853	.43095	.45815	26.25
		.35113	.36939	.39270	22.50
		.37184	.30782	.32725	18.75
		.39000	.24626	.26180	15.00
		.40495	.18469	.19635	11.25
		.41611	.12313	.13090	7.50
		.42301	.06156	.06545	3.75
		.42534	.00000	.00000	.00

.434

-.27508

	U *SQRT(K/G)	V	DIST. *K	ANGLE DEGREES
H=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER				
	-.23318	.00000	3.14159	180.00
	-.23280	.01479	3.07614	176.25
	-.23169	.02957	3.01069	172.50
	-.22983	.04429	2.94524	168.75
	-.22723	.05895	2.87979	165.00
	-.22387	.07352	2.81434	161.25
	-.21975	.08797	2.74889	157.50
	-.21488	.10228	2.68344	153.75
	-.20924	.11643	2.61799	150.00
	-.20286	.13038	2.55254	146.25
	-.19571	.14413	2.48709	142.50
	-.18781	.15764	2.42164	139.75
	-.17916	.17089	2.35619	135.00
	-.16974	.18386	2.29074	131.25
	-.15954	.19651	2.22529	127.50
	-.14857	.20882	2.15984	123.75
	-.13680	.22073	2.09440	120.00
	-.12422	.23222	2.02895	116.25
	-.11084	.24324	1.96350	112.50
	-.09664	.25374	1.89805	108.75
	-.08163	.26369	1.83260	105.00
	-.06579	.27304	1.76715	101.25
	-.04914	.28177	1.70170	97.50
	-.03167	.28984	1.63625	93.75
	-.01336	.29720	1.57080	90.00
	.00578	.30382	1.50535	86.25
	.02578	.30963	1.43990	82.50
	.04664	.31456	1.37445	78.75
	.06836	.31853	1.30900	75.00
	.09095	.32143	1.24355	71.25
	.11439	.32315	1.17810	67.50
	.13867	.32357	1.11265	63.75
	.16374	.32257	1.04720	60.00
	.18958	.32003	.98175	56.25
	.21613	.31583	.91630	52.50
	.24334	.30984	.85085	48.75
	.27114	.30193	.78540	45.00
	.29945	.29195	.71995	41.25
	.32814	.27972	.65450	37.50
	.35700	.26503	.58905	33.75
	.38575	.24763	.52360	30.00
	.41397	.22727	.45815	26.25
	.44110	.20373	.39270	22.50
	.46640	.17686	.32725	18.75
	.48900	.14665	.26180	15.00
	.50797	.11328	.19635	11.25
	.52236	.07721	.13090	7.50
	.53136	.03913	.06545	3.75
	.53443	.00000	.00000	.00

.543

-.23318

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS

	Ax	Ay	DIST.	ANGLE
H =.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER	*1/G	*1/G	*K	DEGREES
	.00000	.29308	3.14159	180.00
	.01476	.29277	3.07614	176.25
	.02950	.29186	3.01069	172.50
	.04420	.29033	2.94524	168.75
	.05886	.28818	2.87979	165.00
	.07343	.28542	2.81434	161.25
	.08792	.28202	2.74889	157.50
	.10228	.27801	2.68344	153.75
	.11652	.27337	2.61799	150.00
	.13061	.26811	2.55254	146.25
	.14452	.26225	2.48709	142.50
	.15825	.25578	2.42164	138.75
	.17178	.24871	2.35619	135.00
	.18508	.24103	2.29074	131.25
	.19813	.23275	2.22529	127.50
	.21091	.22384	2.15984	123.75
	.22338	.21431	2.09440	120.00
	.23550	.20415	2.02895	116.25
	.24724	.19333	1.96350	112.50
	.25857	.18188	1.89805	108.75
	.26945	.16979	1.83260	105.00
	.27986	.15706	1.76715	101.25
	.28976	.14371	1.70170	97.50
	.29913	.12975	1.63625	93.75
	.30793	.11520	1.57080	90.00
	.31613	.10004	1.50535	86.25
	.32368	.08428	1.43990	82.50
	.33050	.06793	1.37445	78.75
	.33652	.05095	1.30900	75.00
	.34163	.03335	1.24355	71.25
	.34571	.01512	1.17810	67.50
	.34863	-.00373	1.11265	63.75
	.35026	-.02321	1.04720	60.00
	.35044	-.04328	.98175	56.25
	.34901	-.06392	.91630	52.50
	.34581	-.08508	.85085	48.75
	.34063	-.10670	.78540	45.00
	.33321	-.12874	.71995	41.25
	.32324	-.15108	.65450	37.50
	.31033	-.17362	.58905	33.75
	.29400	-.19618	.52360	30.00
	.27371	-.21848	.45815	26.25
	.24892	-.24015	.39270	22.50
	.21912	-.26063	.32725	18.75
	.18403	-.27921	.26180	15.00
	.14374	-.29505	.19635	11.25
	.09881	-.30723	.13090	7.50
	.05036	-.31494	.06545	3.75
	.00000	-.31758	.00000	.00

.344

-.31758

EADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
M. M. RIENECKER AND J. D. FENTON.

TH: DEEP , HEIGHT/DEPTH= .2520

E HEIGHT 2.005161E-02,DIMENSIONLESS WITH RESPECT TO PERIOD

RRENT CRITERION: EULER , MAGNITUDE= .00

UTION OF ORDER 9 NON-DIMENSIONALIZED BY WAVE NUMBER, 1 HEIGHT STEP(S).

VE HEIGHT   .70042

VE PERIOD   5.9102

VE SPEED   1.0631

AN EULERIAN FLUID SPEED   4.25754E-22

AN MASS TRANSPORT SPEED   4.25754E-22

AN FLUID SPEED RELATIVE TO WAVE   1.0631

LUME FLUX DUE TO WAVES   5.54418E-02

RNOULLI CONSTANT   .56509

UTION VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.42534	.53443	.00000	.00000	-.31764	.00000	.2856148	.0000000	1.0187701	.0000000	.0000000	.0000000	.0000000	.0000000
.27672	.45311	.00000	.00000	-.30359	.10232	.2053074	.0000000	.7018054	.0000000	.0364810	.0000000	.1278580	.0000000
.12810	.38544	.00000	.00000	-.28188	.20738	.1485618	.0000000	.4857513	.0000000	.0627775	.0000000	.2161068	.0000000
-.02052	.32869	.00000	.00000	-.25697	.31594	.1080387	.0000000	.3371962	.0000000	.0818457	.0000000	.2772610	.0000000
-.16915	.28084	.00000	.00000	-.23135	.42827	.0788725	.0000000	.2344443	.0000000	.0957353	.0000000	.3197402	.0000000
-.31777	.24032	.00000	.00000	-.20643	.54438	.0577548	.0000000	.1630896	.0000000	.1058883	.0000000	.3492815	.0000000
-.46639	.20590	.00000	.00000	-.18298	.66408	.0423938	.0000000	.1134120	.0000000	.1133304	.0000000	.3698286	.0000000
-.61501	.17658	.00000	.00000	-.16136	.78714	.0311792	.0000000	.0787769	.0000000	.1187977	.0000000	.3841104	.0000000
-.76363	.15155	.00000	.00000	-.14173	.91326	.0229680	.0000000	.0546168	.0000000	.1228215	.0000000	.3940230	.0000000
-.91226	.13016	.00000	.00000	-.12409	1.04216	.0169414	.0000000	.0377681	.0000000	.1257872	.0000000	.4008883	.0000000
-1.06088	.11185	.00000	.00000	-.10837	1.17353	.0125098	.0000000	.0260293	.0000000	.1279757	.0000000	.4056291	.0000000
-1.20950	.09616	.00000	.00000	-.09444	1.30710	.0092458	.0000000	.0178638	.0000000	.1295924	.0000000	.4088909	.0000000
-1.35812	.08270	.00000	.00000	-.08217	1.44262	.0068397	.0000000	.0121966	.0000000	.1307877	.0000000	.4111247	.0000000
-1.50675	.07114	.00000	.00000	-.07138	1.57985	.0050615	.0000000	.0082747	.0000000	.1316720	.0000000	.4126459	.0000000
-1.65537	.06122	.00000	.00000	-.06194	1.71858	.0037481	.0000000	.0055706	.0000000	.1323266	.0000000	.4136748	.0000000
-1.80399	.05270	.00000	.00000	-.05369	1.85862	.0027768	.0000000	.0037143	.0000000	.1328115	.0000000	.4143648	.0000000
-1.95261	.04537	.00000	.00000	-.04650	1.99981	.0020581	.0000000	.0024470	.0000000	.1331708	.0000000	.4148226	.0000000
-2.10124	.03906	.00000	.00000	-.04025	2.14200	.0015258	.0000000	.0015874	.0000000	.1334371	.0000000	.4151224	.0000000
-2.24986	.03364	.00000	.00000	-.03481	2.28505	.0011316	.0000000	.0010091	.0000000	.1336346	.0000000	.4153154	.0000000
-2.39848	.02897	.00000	.00000	-.03010	2.42886	.0008394	.0000000	.0006238	.0000000	.1337911	.0000000	.4154367	.0000000
-2.54710	.02496	.00000	.00000	-.02601	2.57332	.0006228	.0000000	.0003702	.0000000	.1338897	.0000000	.4155106	.0000000
-2.69573	.02150	.00000	.00000	-.02247	2.71835	.0004621	.0000000	.0002060	.0000000	.1339703	.0000000	.4155534	.0000000
-2.84435	.01852	.00000	.00000	-.01940	2.86386	.0003430	.0000000	.0001019	.0000000	.1340302	.0000000	.4155763	.0000000
-2.99297	.01596	.00000	.00000	-.01675	3.00980	.0002546	.0000000	.0000378	.0000000	.1340746	.0000000	.4155867	.0000000
-3.14159	.01375	.00000	.00000	-.01446	3.15611	.0001890	.0000000	.0000000	.0000000	.1341075	.0000000	.4155895	.0000000

UTION VS DEPTH, THETA= 15.00 DEGREES, KX= .2618 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.38948	.48870	.14654	.18390	-.27913	-.00009	.2388283	.1839030	.8433200	.6493747	.0000000	.0000000	.0000000	.0000000
.24235	.41676	.12232	.14980	-.27148	.10638	.1736920	.1497988	.5877640	.5069107	.0303466	.0245484	.1052763	.0850610
.09522	.35616	.10282	.12327	-.25507	.21470	.1268529	.1232741	.4105996	.3990157	.0524559	.0446368	.1787199	.1517046
-.05190	.30489	.08688	.10230	-.23454	.32578	.0929588	.1022967	.2872138	.3160649	.0686262	.0612307	.2300539	.2043088
-.19903	.26136	.07371	.08547	-.21256	.44001	.0683079	.0854657	.2010000	.2514878	.0804896	.0750432	.2659688	.2460602
-.34616	.22429	.06273	.07180	-.19068	.55748	.0503062	.0717972	.1406276	.2007042	.0892153	.0866121	.2911003	.2793253
-.49329	.19266	.05351	.06059	-.16975	.67811	.0371167	.0605852	.0982964	.1604480	.0956465	.0963507	.3086765	.3058931
-.64042	.16561	.04574	.05131	-.15026	.80172	.0274269	.0513116	.0685995	.1283393	.1003946	.1045823	.3209541	.3271374
-.78754	.14245	.03916	.04359	-.13242	.92807	.0202923	.0435886	.0477692	.1026097	.1039050	.1115635	.3295146	.3441270
-.93467	.12260	.03357	.03712	-.11628	1.05692	.0150295	.0371204	.0331690	.0819217	.1065034	.1175008	.3354687	.3577018
-1.08180	.10555	.02881	.03168	-.10182	1.18803	.0111415	.0316775	.0229492	.0652491	.1084287	.1225618	.3395970	.3685283
-1.22893	.09091	.02475	.02708	-.08896	1.32114	.0082654	.0270795	.0158090	.0517940	.1098563	.1268842	.3424482	.3771385
-1.37606	.07833	.02127	.02318	-.07757	1.45603	.0061356	.0231824	.0108327	.0409294	.1109157	.1305817	.3444081	.3839596
-1.52318	.06751	.01830	.01987	-.06754	1.59250	.0045571	.0198704	.0073752	.0321585	.1117023	.1337488	.3457475	.3893362
-1.67031	.05819	.01575	.01705	-.05872	1.73036	.0033862	.0170491	.0049821	.0250840	.1122867	.1364648	.3466566	.3935472
-1.81744	.05017	.01356	.01464	-.05101	1.86943	.0025171	.0146411	.0033331	.0193871	.1127209	.1387960	.3472683	.3968187
-1.96457	.04326	.01168	.01258	-.04426	2.00956	.0018717	.0125825	.0022031	.0148100	.1130438	.1407987	.3476755	.3993344
-2.11170	.03731	.01006	.01082	-.03838	2.15062	.0013922	.0108202	.0014338	.0111437	.1132839	.1425203	.3479431	.4012436
-2.25882	.03218	.00867	.00931	-.03326	2.29248	.0010358	.0093097	.0009143	.0082183	.1134625	.1440012	.3481158	.4026680
-2.40595	.02776	.00747	.00801	-.02880	2.43505	.0007708	.0080137	.0005670	.0058952	.1135954	.1452755	.3482248	.4037062
-2.55308	.02395	.00644	.00690	-.02493	2.57823	.0005737	.0069008	.0003376	.0040612	.1136943	.1463727	.3482913	.4044386
-2.70021	.02066	.00556	.00594	-.02157	2.72195	.0004270	.0059444	.0001885	.0026238	.1137679	.1473176	.3483300	.4049304
-2.84734	.01783	.00479	.00512	-.01866	2.86612	.0003179	.0051221	.0000935	.0015072	.1138227	.1481317	.3483508	.4052343
-2.99446	.01539	.00413	.00441	-.01614	3.01069	.0002367	.0044146	.0000348	.0006495	.1138635	.1488333	.3483602	.4053930
-3.14159	.01328	.00357	.00381	-.01395	3.15561	.0001763	.0038056	.0000000	.0000000	.1138939	.1494390	.3483628	.4054407

TION VS DEPTH, THETA= 30.00 DEGREES, KX= .5236 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.30488	.38585	.24767	.29398	-.19621	.00020	.1488801	.2939838	.5131118	1.0132083	.0000000	.0000000	.0000000	.0000000
.16128	.33302	.20987	.24617	-.19906	.11529	.1109052	.2461676	.3663060	.8130605	.0186530	.0387837	.0631436	.1311290
.01768	.28747	.17851	.20695	-.19270	.23067	.0826367	.2069516	.2610718	.6538163	.0325496	.0713184	.1081904	.2364531
-.12593	.24820	.15231	.17466	-.18121	.34739	.0616048	.1746620	.1857797	.5267226	.0429064	.0987189	.1402750	.3212177
-.26953	.21437	.13028	.14794	-.16714	.46596	.0459538	.1479363	.1319823	.4248826	.0506293	.1218820	.1630908	.3895445
-.41313	.18520	.11167	.12570	-.15208	.58664	.0343006	.1256954	.0935879	.3429550	.0563917	.1415292	.1792871	.4446765
-.55673	.16006	.09587	.10709	-.13702	.70949	.0256180	.1070912	.0662189	.2768156	.0606939	.1582436	.1907615	.4891770
-.70034	.13836	.08242	.09146	-.12254	.83446	.0191440	.0914562	.0467354	.2232680	.0639079	.1724997	.1988718	.5250838
-.84394	.11964	.07094	.07826	-.10895	.96146	.0143133	.0782621	.0328870	.1798190	.0663102	.1846857	.2045888	.5540261
-.98754	.10347	.06112	.06709	-.09644	1.09032	.0107065	.0670875	.0230622	.1445096	.0681067	.1951220	.2086061	.5773134
-1.13115	.08951	.05270	.05759	-.08506	1.22091	.0080117	.0575935	.0161071	.1157886	.0694507	.2040743	.2114185	.5960032
-1.27475	.07744	.04547	.04951	-.07480	1.35305	.0059974	.0495057	.0111961	.0924193	.0704565	.2117642	.2133789	.6109529
-1.41835	.06701	.03925	.04260	-.06563	1.48658	.0044909	.0425996	.0077388	.0734093	.0712096	.2183775	.2147385	.6228597
-1.56196	.05800	.03390	.03669	-.05746	1.62136	.0033637	.0366909	.0053134	.0579583	.0717736	.2240707	.2156757	.6322921
-1.70556	.05020	.02929	.03163	-.05023	1.75724	.0025200	.0316269	.0036189	.0454172	.0721961	.2289761	.2163170	.6397146
-1.84916	.04346	.02532	.02728	-.04385	1.89410	.0018894	.0272803	.0024406	.0352578	.0725126	.2332057	.2167521	.6455072
-1.99277	.03762	.02189	.02354	-.03824	2.03181	.0014153	.0235448	.0016259	.0270488	.0727498	.2368550	.2170441	.6499809
-2.13637	.03257	.01893	.02033	-.03331	2.17029	.0010609	.0203310	.0010664	.0204372	.0729276	.2400054	.2172374	.6533905
-2.27997	.02820	.01638	.01756	-.02900	2.30942	.0007953	.0175635	.0006853	.0151330	.0730609	.2427262	.2173632	.6559445
-2.42358	.02442	.01417	.01518	-.02523	2.44914	.0005963	.0151783	.0004282	.0108983	.0731608	.2450771	.2174431	.6578136
-2.56718	.02115	.01226	.01312	-.02193	2.58936	.0004472	.0131212	.0002569	.0075370	.0732357	.2471091	.2174923	.6591372
-2.71079	.01831	.01061	.01135	-.01905	2.73003	.0003353	.0113461	.0001445	.0048880	.0732919	.2488659	.2175211	.6600294
-2.85439	.01586	.00919	.00981	-.01655	2.87108	.0002515	.0098134	.0000722	.0028185	.0733340	.2503852	.2175367	.6605827
-2.99799	.01373	.00795	.00849	-.01437	3.01246	.0001886	.0084896	.0000271	.0012191	.0733656	.2516994	.2175439	.6608726
-3.14159	.01189	.00688	.00735	-.01247	3.15414	.0001415	.0073456	.0000000	.0000000	.0733893	.2528363	.2175459	.6609602

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d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER    *K   (K*G)^.5   *K   DEGREES
------------------------------------------------------------------+ -.27508 2.95512 3.14159 180.00
                                                                + -.27470 2.89356 3.07614 176.25
                                                                + -.27357 2.83199 3.01069 172.50
                                                                + -.27170 2.77043 2.94524 168.75
                                                              +! -.26908 2.70886 2.87979 165.00
                                                              +! -.26573 2.64730 2.81434 161.25
                                                             + ! -.26163 2.58573 2.74889 157.50
                                                           + ! -.25679 2.52417 2.68344 153.75
                                                           + ! -.25119 2.46260 2.61799 150.00
                                                         + ! -.24482 2.40104 2.55254 146.25
                                                       + ! -.23768 2.33947 2.48709 142.50
                                                     + ! -.22978 2.27791 2.42164 138.75
                                                   + ! -.22112 2.21634 2.35619 135.00
                                                 + ! -.21171 2.15478 2.29074 131.25
                                               + ! -.20157 2.09321 2.22529 127.50
                                             + ! -.19069 2.03165 2.15984 123.75
                                           + ! -.17908 1.97008 2.09440 120.00
                                         + ! -.16672 1.90852 2.02895 116.25
                                       + ! -.15358 1.84695 1.96350 112.50
                                     + ! -.13966 1.78539 1.89805 108.75
                                   + ! -.12494 1.72382 1.83260 105.00
                                 + ! -.10943 1.66226 1.76715 101.25
                               + ! -.09314 1.60069 1.70170  97.50
                             + ! -.07612 1.53913 1.63625  93.75
                           + ! -.05838 1.47756 1.57080  90.00
                         + ! -.03994 1.41600 1.50535  86.25
                       ! + ! -.02083 1.35443 1.43990  82.50
                     ! + ! -.00102 1.29287 1.37445  78.75
                   + ! .01949 1.23130 1.30900  75.00
                 + ! .04073 1.16974 1.24355  71.25
               + ! .06269 1.10817 1.17810  67.50
             + ! .08534 1.04661 1.11265  63.75
           + ! .10863 .98504 1.04720  60.00
         + ! .13247 .92348 .98175  56.25
       + ! .15675 .86191 .91630  52.50
     + ! .18135 .80035 .85085  48.75
   + ! .20617 .73878 .78540  45.00
 + ! .23107 .67722 .71995  41.25
 + ! .25595 .61565 .65450  37.50
+ ! .28063 .55409 .58905  33.75
+ ! .30488 .49252 .52360  30.00
+ ! .32840 .43096 .45815  26.25
+ ! .35072 .36939 .39270  22.50
+ ! .37130 .30783 .32725  18.75
+ ! .38948 .24626 .26180  15.00
+ ! .40457 .18470 .19635  11.25
+ ! .41591 .12313 .13090   7.50
+ ! .42295 .06157 .06545   3.75
+ ------------------------------------------------------------! .42534 .00000 .00000 .00
534                                                       -.27508
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HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICLE VELOCITIES

	U	V	DIST.	ANGLE
d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER	*SQRT(K/G)	*K	DEGREES
	-.23318	.00000	3.14159	180.00
	-.23281	.01479	3.07614	176.25
	-.23169	.02957	3.01069	172.50
	-.22983	.04429	2.94524	168.75
	-.22721	.05895	2.87979	165.00
	-.22385	.07352	2.81434	161.25
	-.21974	.08797	2.74889	157.50
	-.21487	.10228	2.68344	153.75
	-.20926	.11643	2.61799	150.00
	-.20288	.13040	2.55254	146.25
	-.19575	.14415	2.48709	142.50
	-.18786	.15767	2.42164	138.75
	-.17920	.17093	2.35619	135.00
	-.16977	.18389	2.29074	131.25
	-.15955	.19652	2.22529	127.50
	-.14855	.20879	2.15984	123.75
	-.13675	.22067	2.09440	120.00
	-.12417	.23213	2.02895	116.25
	-.11078	.24313	1.96350	112.50
	-.09660	.25365	1.89805	108.75
	-.08161	.26364	1.83260	105.00
	-.06580	.27307	1.76715	101.25
	-.04916	.28188	1.70170	97.50
	-.03169	.29001	1.63625	93.75
	-.01338	.29741	1.57080	90.00
	.00578	.30402	1.50535	86.25
	.02579	.30977	1.43990	82.50
	.04664	.31459	1.37445	78.75
	.06835	.31843	1.30900	75.00
	.09090	.32122	1.24355	71.25
	.11431	.32286	1.17810	67.50
	.13856	.32327	1.11265	63.75
	.16364	.32234	1.04720	60.00
	.18953	.31992	.98175	56.25
	.21616	.31587	.91630	52.50
	.24347	.31002	.85085	48.75
	.27138	.30221	.78540	45.00
	.29975	.29226	.71995	41.25
	.32844	.27999	.65450	37.50
	.35723	.26519	.58905	33.75
	.38585	.24767	.52360	30.00
	.41391	.22720	.45815	26.25
	.44089	.20360	.39270	22.50
	.46610	.17672	.32725	18.75
	.48870	.14654	.26180	15.00
	.50773	.11323	.19635	11.25
	.52223	.07719	.13090	7.50
	.53133	.03914	.06545	3.75
	.53443	.00000	.00000	.00

.443

-.23318

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS

d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER

Ax	Ay	DIST.	ANGLE
#1/6	#1/6	#K	DEGREES
.00000	.29308	3.14159	180.00
.01476	.29277	3.07614	176.25
.02950	.29185	3.01069	172.50
.04420	.29032	2.94524	168.75
.05885	.28817	2.87979	165.00
.07343	.28540	2.81434	161.25
.08791	.28201	2.74889	157.50
.10229	.27800	2.68344	153.75
.11653	.27338	2.61799	150.00
.13062	.26815	2.55254	146.25
.14455	.26231	2.48709	142.50
.15829	.25585	2.42164	138.75
.17182	.24879	2.35619	135.00
.18511	.24108	2.29074	131.25
.19814	.23276	2.22529	127.50
.21089	.22381	2.15984	123.75
.22332	.21423	2.09440	120.00
.23541	.20403	2.02895	116.25
.24714	.19321	1.96350	112.50
.25849	.18178	1.89805	108.75
.26941	.16974	1.83260	105.00
.27989	.15708	1.76715	101.25
.28987	.14380	1.70170	97.50
.29930	.12989	1.63625	93.75
.30814	.11535	1.57080	90.00
.31633	.10018	1.50535	86.25
.32381	.08437	1.43990	82.50
.33053	.06794	1.37445	78.75
.33641	.05089	1.30900	75.00
.34140	.03324	1.24355	71.25
.34541	.01499	1.17810	67.50
.34832	-.00386	1.11265	63.75
.35002	-.02330	1.04720	60.00
.35034	-.04332	.98175	56.25
.34909	-.06390	.91630	52.50
.34605	-.08503	.85085	48.75
.34098	-.10665	.78540	45.00
.33358	-.12870	.71995	41.25
.32354	-.15108	.65450	37.50
.31048	-.17365	.58905	33.75
.29398	-.19621	.52360	30.00
.27355	-.21849	.45815	26.25
.24868	-.24012	.39270	22.50
.21890	-.26056	.32725	18.75
.18390	-.27913	.26180	15.00
.14372	-.29499	.19635	11.25
.09886	-.30722	.13090	7.50
.05041	-.31498	.06545	3.75
.00000	-.31764	.00000	.00

.034

-.31764

EADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
         M. H. RIENECKER AND J. D. FENTON.

TH: DEEP , HEIGHT/DEPTH= .2520

E HEIGHT 2.005161E-02,DIMENSIONLESS WITH RESPECT TO PERIOD

RRENT CRITERION: EULER , MAGNITUDE= .00

UTION OF ORDER 10 NON-DIMENSIONALIZED BY WAVE NUMBER, 1 HEIGHT STEP(S).

E HEIGHT	.70042
E PERIOD	5.9102
E SPEED	1.0631
N EULERIAN FLUID SPEED	2.47675E-22
N MASS TRANSPORT SPEED	2.47675E-22
N FLUID SPEED RELATIVE TO WAVE	1.0631
UME FLUX DUE TO WAVES	5.54414E-02
NOULLI CONSTANT	.56509

TION VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.42534	.53443	.00000	.00000	-.31764	.00000	.2856147	.0000000	1.0187699	.0000000	.0000000	.0000000	.0000000	.0000000
.27672	.45311	.00000	.00000	-.30359	.10232	.2053069	.0000000	.7018037	.0000000	.0364810	.0000000	.1278579	.0000000
.12810	.38544	.00000	.00000	-.28188	.20738	.1485615	.0000000	.4857505	.0000000	.0627774	.0000000	.2161065	.0000000
-.02052	.32869	.00000	.00000	-.25697	.31594	.1080385	.0000000	.3371959	.0000000	.0818456	.0000000	.2772606	.0000000
-.16914	.28084	.00000	.00000	-.23135	.42827	.0788724	.0000000	.2344442	.0000000	.0957352	.0000000	.3197398	.0000000
-.31777	.24032	.00000	.00000	-.20643	.54438	.0577548	.0000000	.1630896	.0000000	.1058881	.0000000	.3492810	.0000000
-.46639	.20590	.00000	.00000	-.18298	.66408	.0423938	.0000000	.1134120	.0000000	.1133303	.0000000	.3698282	.0000000
-.61501	.17658	.00000	.00000	-.16136	.78714	.0311793	.0000000	.0787769	.0000000	.1187976	.0000000	.3841100	.0000000
-.76363	.15155	.00000	.00000	-.14173	.91327	.0229680	.0000000	.0546169	.0000000	.1228213	.0000000	.3940226	.0000000
-.91226	.13016	.00000	.00000	-.12409	1.04216	.0169414	.0000000	.0377681	.0000000	.1257871	.0000000	.4008879	.0000000
1.06088	.11185	.00000	.00000	-.10837	1.17353	.0125098	.0000000	.0260293	.0000000	.1279756	.0000000	.4056288	.0000000
1.20950	.09616	.00000	.00000	-.09444	1.30710	.0092458	.0000000	.0178638	.0000000	.1295923	.0000000	.4088905	.0000000
1.35812	.08270	.00000	.00000	-.08217	1.44262	.0068387	.0000000	.0121966	.0000000	.1307976	.0000000	.4111243	.0000000
1.50675	.07114	.00000	.00000	-.07138	1.57985	.0050615	.0000000	.0082747	.0000000	.1316719	.0000000	.4126456	.0000000
1.65537	.06122	.00000	.00000	-.06194	1.71858	.0037481	.0000000	.0055706	.0000000	.1323265	.0000000	.4136744	.0000000
1.80399	.05270	.00000	.00000	-.05369	1.85862	.0027768	.0000000	.0037143	.0000000	.1328114	.0000000	.4143644	.0000000
1.95261	.04537	.00000	.00000	-.04650	1.99981	.0020581	.0000000	.0024470	.0000000	.1331707	.0000000	.4148223	.0000000
2.10124	.03906	.00000	.00000	-.04025	2.14200	.0015258	.0000000	.0015874	.0000000	.1334370	.0000000	.4151221	.0000000
2.24986	.03364	.00000	.00000	-.03481	2.28505	.0011316	.0000000	.0010091	.0000000	.1336345	.0000000	.4153150	.0000000
2.39848	.02897	.00000	.00000	-.03010	2.42986	.0008394	.0000000	.0006238	.0000000	.1337810	.0000000	.4154363	.0000000
2.54710	.02496	.00000	.00000	-.02601	2.57332	.0006229	.0000000	.0003702	.0000000	.1338896	.0000000	.4155102	.0000000
2.69573	.02150	.00000	.00000	-.02247	2.71835	.0004621	.0000000	.0002060	.0000000	.1339702	.0000000	.4155530	.0000000
2.84435	.01852	.00000	.00000	-.01940	2.86386	.0003430	.0000000	.0001019	.0000000	.1340301	.0000000	.4155759	.0000000
2.99297	.01596	.00000	.00000	-.01675	3.00981	.0002546	.0000000	.0000378	.0000000	.1340745	.0000000	.4155863	.0000000
3.14159	.01375	.00000	.00000	-.01446	3.15611	.0001890	.0000000	.0000000	.0000000	.1341074	.0000000	.4155891	.0000000

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.38940	.48866	.14653	.18388	-.27912	-.00004	.2387839	.1838770	.8431436	.6492678	.0000000	.0000000	.0000000	.0000000
.24227	.41673	.12231	.14978	-.27147	.10644	.1736622	.1497801	.5876497	.5068359	.0303405	.0245446	.1052525	.0850457
.09515	.35614	.10281	.12326	-.25506	.21476	.1268325	.1232606	.4105241	.3989628	.0524456	.0446301	.1786804	.1516783
-.05198	.30487	.08687	.10229	-.23453	.32584	.0929447	.1022868	.2871636	.3160269	.0686129	.0612219	.2300039	.2042746
-.19910	.26134	.07370	.08546	-.21255	.44006	.0682981	.0854582	.2009666	.2514601	.0804743	.0750328	.2659119	.2460202
-.34623	.22428	.06272	.07179	-.19067	.55754	.0502994	.0717915	.1406054	.2006837	.0891986	.0866005	.2910388	.2792810
-.49335	.19264	.05351	.06058	-.16975	.67816	.0371120	.0605808	.0982816	.1604326	.0956288	.0963381	.3086118	.3058455
-.64047	.16560	.04574	.05131	-.15026	.80177	.0274236	.0513082	.0685898	.1283278	.1003762	.1045689	.3208873	.3270874
-.78760	.14244	.03916	.04359	-.13241	.92812	.0202901	.0435859	.0477627	.1026010	.1038861	.1115495	.3294464	.3440751
-.93472	.12259	.03357	.03712	-.11628	1.05697	.0150280	.0371183	.0331648	.0819152	.1064842	.1174863	.3353997	.3576485
-1.08185	.10555	.02881	.03168	-.10182	1.18807	.0111404	.0316759	.0229464	.0652442	.1084092	.1225470	.3395273	.3684739
-1.22897	.09091	.02475	.02708	-.08895	1.32118	.0082647	.0270782	.0158072	.0517903	.1098367	.1268691	.3423781	.3770832
-1.37610	.07833	.02127	.02318	-.07757	1.45607	.0061351	.0231814	.0108316	.0409267	.1108960	.1305663	.3443377	.3839037
-1.52322	.06750	.01830	.01987	-.06753	1.59254	.0045567	.0198696	.0073745	.0321564	.1116825	.1337332	.3456770	.3892799
-1.67035	.05819	.01575	.01705	-.05872	1.73039	.0033860	.0170485	.0049816	.0250825	.1122668	.1364490	.3465860	.3934905
-1.81747	.05017	.01356	.01464	-.05100	1.86946	.0025170	.0146407	.0033328	.0193860	.1127010	.1387801	.3471976	.3967617
-1.96460	.04326	.01168	.01258	-.04426	2.00958	.0018716	.0125822	.0022029	.0148092	.1130238	.1407827	.3476048	.3992772
-2.11172	.03731	.01006	.01082	-.03838	2.15064	.0013921	.0108199	.0014337	.0111431	.1132639	.1425042	.3478723	.4011863
-2.25884	.03218	.00867	.00931	-.03326	2.29250	.0010357	.0093095	.0009143	.0082179	.1134425	.1439850	.3480450	.4026106
-2.40597	.02776	.00747	.00801	-.02880	2.43507	.0007707	.0080135	.0005670	.0058949	.1135754	.1452593	.3481540	.4036487
-2.55309	.02395	.00644	.00690	-.02493	2.57825	.0005736	.0069007	.0003376	.0040611	.1136743	.1463564	.3482205	.4043811
-2.70022	.02066	.00556	.00594	-.02157	2.72196	.0004270	.0059444	.0001885	.0026237	.1137479	.1473013	.3482592	.4048729
-2.84734	.01783	.00479	.00512	-.01866	2.86613	.0003179	.0051221	.0000935	.0015072	.1138027	.1481154	.3482800	.4051767
-2.99447	.01539	.00413	.00441	-.01614	3.01070	.0002367	.0044146	.0000348	.0006495	.1138435	.1488170	.3482894	.4053354
-3.14159	.01328	.00357	.00381	-.01395	3.15561	.0001763	.0038056	.0000000	.0000000	.1138739	.1494217	.3482920	.4053832

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.30502	.38591	.24771	.29403	-.19621	.00009	.1489233	.2940315	.5132815	1.0134134	.0000000	.0000000	.0000000	.0000000
.16141	.33307	.20990	.24621	-.19907	.11518	.1109357	.2462063	.3664214	.8132209	.0186590	.0387915	.0631666	.1311605
.01780	.28750	.17854	.20698	-.19271	.23057	.0826583	.2069823	.2611504	.6539395	.0325600	.0713325	.1082291	.2365092
-.12580	.24823	.15233	.17469	-.18122	.34729	.0616201	.1746863	.1858332	.5268170	.0429198	.0987380	.1403245	.3212928
-.26941	.21439	.13030	.14796	-.16715	.46586	.0459646	.1479556	.1320187	.4249550	.0506449	.1219051	.1631477	.3896343
-.41302	.18522	.11168	.12571	-.15210	.58654	.0343083	.1257107	.0936126	.3430105	.0564088	.1415556	.1793490	.4447777
-.55663	.16007	.09588	.10710	-.13703	.70940	.0256234	.1071034	.0662356	.2768581	.0607122	.1582727	.1908269	.4892871
-.70024	.13838	.08243	.09147	-.12255	.83438	.0191478	.0914659	.0467465	.2233006	.0639270	.1725309	.1989395	.5252007
-.84385	.11965	.07095	.07827	-.10896	.96137	.0143160	.0782698	.0328945	.1798440	.0663298	.1847186	.2046581	.5541483
-.98746	.10348	.06112	.06709	-.09645	1.09025	.0107083	.0670936	.0230672	.1445287	.0681267	.1951564	.2086764	.5774397
-1.13107	.08952	.05270	.05760	-.08506	1.22084	.0080130	.0575984	.0161104	.1158031	.0694710	.2041098	.2114895	.5961327
-1.27468	.07745	.04547	.04951	-.07481	1.35298	.0059983	.0495096	.0111983	.0924302	.0704770	.2118007	.2134504	.6110848
-1.41828	.06702	.03925	.04260	-.06563	1.48652	.0044915	.0426027	.0077402	.0734176	.0712302	.2184148	.2148102	.6229934
-1.56189	.05800	.03390	.03669	-.05747	1.62130	.0033641	.0366933	.0053143	.0579644	.0717943	.2241086	.2157476	.6324272
-1.70550	.05020	.02929	.03163	-.05024	1.75718	.0025203	.0316287	.0036194	.0454217	.0722168	.2290144	.2163891	.6398508
-1.84911	.04346	.02532	.02728	-.04386	1.89405	.0018886	.0272817	.0024409	.0352611	.0725334	.2332444	.2168243	.6456442
-1.99272	.03762	.02189	.02355	-.03824	2.03177	.0014154	.0235459	.0016261	.0270512	.0727707	.2368941	.2171163	.6501185
-2.13633	.03257	.01893	.02033	-.03332	2.17025	.0010610	.0203318	.0010666	.0204388	.0729485	.2400447	.2173097	.6535285
-2.27994	.02820	.01638	.01756	-.02900	2.30939	.0007954	.0175641	.0006854	.0151342	.0730818	.2427658	.2174354	.6560828
-2.42355	.02442	.01417	.01518	-.02523	2.44911	.0005964	.0151787	.0004282	.0108990	.0731817	.2451169	.2175154	.6579521
-2.56716	.02115	.01226	.01312	-.02193	2.58934	.0004472	.0131215	.0002569	.0075375	.0732566	.2471490	.2175646	.6592759
-2.71077	.01831	.01061	.01135	-.01906	2.73001	.0003354	.0113463	.0001445	.0048983	.0733128	.2489059	.2175934	.6601681
-2.85437	.01586	.00919	.00981	-.01655	2.87107	.0002515	.0098135	.0000722	.0028186	.0733550	.2504252	.2176090	.6607215
-2.99798	.01373	.00795	.00849	-.01437	3.01246	.0001886	.0084896	.0000271	.0012192	.0733866	.2517395	.2176161	.6610115
-3.14159	.01189	.00688	.00735	-.01247	3.15414	.0001415	.0073456	.0000000	.0000000	.0734103	.2528765	.2176181	.6610990

=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER   *K   (K*G)^.5   *K   DEGREES

*K	(K*G)^.5	*K	DEGREES
-.27508	2.95512	3.14159	180.00
-.27471	2.89356	3.07614	176.25
-.27359	2.83199	3.01069	172.50
-.27172	2.77043	2.94524	168.75
-.26910	2.70886	2.87979	165.00
-.26573	2.64730	2.81434	161.25
-.26161	2.58573	2.74889	157.50
-.25674	2.52417	2.68344	153.75
-.25112	2.46260	2.61799	150.00
-.24477	2.40104	2.55254	146.25
-.23767	2.33947	2.48709	142.50
-.22981	2.27791	2.42164	138.75
-.22120	2.21634	2.35619	135.00
-.21181	2.15478	2.29074	131.25
-.20165	2.09321	2.22529	127.50
-.19072	2.03165	2.15984	123.75
-.17904	1.97008	2.09440	120.00
-.16662	1.90852	2.02895	116.25
-.15345	1.84695	1.96350	112.50
-.13954	1.78539	1.89805	108.75
-.12488	1.72382	1.83260	105.00
-.10946	1.66226	1.76715	101.25
-.09326	1.60069	1.70170	97.50
-.07627	1.53913	1.63625	93.75
-.05852	1.47756	1.57080	90.00
-.04002	1.41600	1.50535	86.25
-.02081	1.35443	1.43990	82.50
-.00091	1.29287	1.37445	78.75
.01966	1.23130	1.30900	75.00
.04090	1.16974	1.24355	71.25
.06279	1.10817	1.17810	67.50
.08535	1.04661	1.11265	63.75
.10853	.98504	1.04720	60.00
.13230	.92348	.98175	56.25
.15657	.86191	.91630	52.50
.18122	.80035	.85085	48.75
.20612	.73878	.78540	45.00
.23113	.67722	.71995	41.25
.25608	.61565	.65450	37.50
.28079	.55409	.58905	33.75
.30502	.49252	.52360	30.00
.32847	.43096	.45815	26.25
.35073	.36939	.39270	22.50
.37125	.30783	.32725	18.75
.38940	.24626	.26180	15.00
.40449	.18470	.19635	11.25
.41586	.12313	.13090	7.50
.42294	.06157	.06545	3.75
.42534	.00000	.00000	.00

34

-.27508

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICLE VELOCITIES

	U	V	DIST.	ANGLE

d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

	U *SQRT(K/G)	V *K	DIST.	ANGLE DEGREES
-.23318	.00000	3.14159	180.00
-.23280	.01479	3.07614	176.25
-.23169	.02957	3.01069	172.50
-.22982	.04429	2.94524	168.75
-.22721	.05895	2.87979	165.00
-.22385	.07352	2.81434	161.25
-.21974	.08797	2.74889	157.50
-.21488	.10229	2.68344	153.75
-.20927	.11644	2.61799	150.00
-.20289	.13041	2.55254	146.25
-.19576	.14416	2.48709	142.50
-.18785	.15767	2.42164	138.75
-.17919	.17091	2.35619	135.00
-.16975	.18387	2.29074	131.25
-.15954	.19650	2.22529	127.50
-.14854	.20879	2.15984	123.75
-.13676	.22068	2.09440	120.00
-.12418	.23215	2.02895	116.25
-.11080	.24317	1.96350	112.50
-.09661	.25368	1.89805	108.75
-.08161	.26366	1.83260	105.00
-.06579	.27306	1.76715	101.25
-.04915	.28184	1.70170	97.50
-.03168	.28997	1.63625	93.75
-.01337	.29737	1.57080	90.00
.00578	.30400	1.50535	86.25
.02579	.30977	1.43990	82.50
.04665	.31463	1.37445	78.75
.06836	.31849	1.30900	75.00
.09092	.32127	1.24355	71.25
.11432	.32290	1.17810	67.50
.13856	.32328	1.11265	63.75
.16363	.32231	1.04720	60.00
.18950	.31986	.98175	56.25
.21612	.31581	.91630	52.50
.24344	.30998	.85085	48.75
.27137	.30220	.78540	45.00
.29977	.29228	.71995	41.25
.32848	.28003	.65450	37.50
.35729	.26524	.58905	33.75
.38591	.24771	.52360	30.00
.41395	.22722	.45815	26.25
.44089	.20360	.39270	22.50
.46607	.17671	.32725	18.75
.48866	.14653	.26180	15.00
.50769	.11322	.19635	11.25
.52220	.07719	.13090	7.50
.53132	.03914	.06545	3.75
.53443	.00000	.00000	.00

.43

-.23318

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS

	Ax	Ay	DIST.	ANGLE
d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER	*1/G	*1/G	*K	DEGREES
	.00000	.29308	3.14159	180.00
	.01476	.29277	3.07614	176.25
	.02950	.29185	3.01069	172.50
	.04420	.29031	2.94524	168.75
	.05885	.28816	2.87979	165.00
	.07343	.28540	2.81434	161.25
	.08791	.28202	2.74889	157.50
	.10229	.27802	2.68344	153.75
	.11654	.27340	2.61799	150.00
	.13063	.26817	2.55254	146.25
	.14455	.26231	2.48709	142.50
	.15828	.25584	2.42164	138.75
	.17181	.24876	2.35619	135.00
	.18509	.24105	2.29074	131.25
	.19813	.23274	2.22529	127.50
	.21088	.22380	2.15984	123.75
	.22332	.21424	2.09440	120.00
	.23543	.20406	2.02895	116.25
	.24717	.19325	1.96350	112.50
	.25851	.18181	1.89805	108.75
	.26942	.16975	1.83260	105.00
	.27988	.15707	1.76715	101.25
	.28983	.14377	1.70170	97.50
	.29926	.12985	1.63625	93.75
	.30810	.11532	1.57080	90.00
	.31631	.10016	1.50535	86.25
	.32382	.08438	1.43990	82.50
	.33057	.06796	1.37445	78.75
	.33647	.05093	1.30900	75.00
	.34146	.03327	1.24355	71.25
	.34544	.01500	1.17810	67.50
	.34833	-.00386	1.11265	63.75
	.34999	-.02331	1.04720	60.00
	.35028	-.04334	.98175	56.25
	.34903	-.06393	.91630	52.50
	.34601	-.08505	.85085	48.75
	.34096	-.10666	.78540	45.00
	.33360	-.12870	.71995	41.25
	.32359	-.15107	.65450	37.50
	.31055	-.17364	.58905	33.75
	.29403	-.19621	.52360	30.00
	.27357	-.21850	.45815	26.25
	.24867	-.24012	.39270	22.50
	.21887	-.26056	.32725	18.75
	.18388	-.27912	.26180	15.00
	.14371	-.29498	.19635	11.25
	.09886	-.30722	.13090	7.50
	.05041	-.31498	.06545	3.75
	.00000	-.31764	.00000	.00

-.31764

.)28

TEADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
        M. M. RIENECKER AND J. D. FENTON.

PTH: DEEP , HEIGHT/DEPTH= .2520

VE HEIGHT 2.005161E-02,DIMENSIONLESS WITH RESPECT TO PERIOD

RRENT CRITERION: EULER , MAGNITUDE= .00

UTION OF ORDER 12 NON-DIMENSIONALIZED BY WAVE NUMBER, 1 HEIGHT STEP(S).

VE HEIGHT   .70042

VE PERIOD   5.9102

VE SPEED   1.0631

AN EULERIAN FLUID SPEED   -3.59109E-22

AN MASS TRANSPORT SPEED   4.19925E-20

AN FLUID SPEED RELATIVE TO WAVE   1.0631

LUME FLUX DUE TO WAVES   5.54412E-02

RNOULLI CONSTANT   .56509

UTION VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.42534	.53443	.00000	.00000	-.31765	.00000	.2856147	.0000000	1.0187697	.0000000	.0000000	.0000000	.0000000	.0000000
.27672	.45311	.00000	.00000	-.30359	.10232	.2053067	.0000000	.7018031	.0000000	.0364810	.0000000	.1278578	.0000000
.12810	.38544	.00000	.00000	-.28188	.20738	.1485614	.0000000	.4857502	.0000000	.0627773	.0000000	.2161063	.0000000
-.02052	.32869	.00000	.00000	-.25697	.31594	.1080385	.0000000	.3371958	.0000000	.0818456	.0000000	.2772604	.0000000
-.16914	.28084	.00000	.00000	-.23135	.42827	.0788724	.0000000	.2344442	.0000000	.0957351	.0000000	.3197397	.0000000
-.31777	.24032	.00000	.00000	-.20643	.54438	.0577548	.0000000	.1630896	.0000000	.1058881	.0000000	.3492809	.0000000
-.46639	.20590	.00000	.00000	-.18298	.66408	.0423938	.0000000	.1134120	.0000000	.1133302	.0000000	.3698280	.0000000
-.61501	.17658	.00000	.00000	-.16136	.78714	.0311793	.0000000	.0787769	.0000000	.1187975	.0000000	.3841098	.0000000
-.76363	.15155	.00000	.00000	-.14173	.91327	.0229680	.0000000	.0546169	.0000000	.1228213	.0000000	.3940225	.0000000
-.91226	.13016	.00000	.00000	-.12409	1.04216	.0169414	.0000000	.0377681	.0000000	.1257870	.0000000	.4008877	.0000000
-1.06088	.11185	.00000	.00000	-.10837	1.17353	.0125098	.0000000	.0260293	.0000000	.1279756	.0000000	.4056286	.0000000
-1.20950	.09616	.00000	.00000	-.09444	1.30710	.0092458	.0000000	.0178638	.0000000	.1295923	.0000000	.4088904	.0000000
-1.35812	.08270	.00000	.00000	-.08217	1.44262	.0068387	.0000000	.0121966	.0000000	.1307875	.0000000	.4111242	.0000000
-1.50675	.07114	.00000	.00000	-.07138	1.57985	.0050615	.0000000	.0082747	.0000000	.1316718	.0000000	.4126454	.0000000
-1.65537	.06122	.00000	.00000	-.06194	1.71858	.0037481	.0000000	.0055706	.0000000	.1323265	.0000000	.4136743	.0000000
-1.80399	.05270	.00000	.00000	-.05369	1.85862	.0027768	.0000000	.0037143	.0000000	.1328114	.0000000	.4143642	.0000000
-1.95261	.04537	.00000	.00000	-.04650	1.99981	.0020581	.0000000	.0024470	.0000000	.1331706	.0000000	.4148221	.0000000
-2.10124	.03906	.00000	.00000	-.04025	2.14200	.0015258	.0000000	.0015874	.0000000	.1334370	.0000000	.4151219	.0000000
-2.24986	.03364	.00000	.00000	-.03481	2.28505	.0011316	.0000000	.0010091	.0000000	.1336344	.0000000	.4153148	.0000000
-2.39848	.02897	.00000	.00000	-.03010	2.42886	.0008394	.0000000	.0006238	.0000000	.1337809	.0000000	.4154362	.0000000
-2.54710	.02496	.00000	.00000	-.02601	2.57332	.0006228	.0000000	.0003702	.0000000	.1338896	.0000000	.4155100	.0000000
-2.69573	.02150	.00000	.00000	-.02247	2.71835	.0004621	.0000000	.0002060	.0000000	.1339702	.0000000	.4155529	.0000000
-2.84435	.01852	.00000	.00000	-.01940	2.86386	.0003430	.0000000	.0001020	.0000000	.1340300	.0000000	.4155758	.0000000
-2.99297	.01596	.00000	.00000	-.01675	3.00981	.0002546	.0000000	.0000378	.0000000	.1340744	.0000000	.4155861	.0000000
-3.14159	.01375	.00000	.00000	-.01446	3.15611	.0001890	.0000000	.0000000	.0000000	.1341074	.0000000	.4155890	.0000000

LUTION VS DEPTH, THETA= 15.00 DEGREES, KX= .2618 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.38935	.48863	.14652	.18386	-.27912	.00000	.2387574	.1838603	.8430384	.6491999	.0000000	.0000000	.0000000	.0000000
.24223	.41671	.12230	.14977	-.27147	.10647	.1736444	.1497690	.5875810	.5067913	.0303368	.0245422	.1052382	.0850362
.09510	.35612	.10281	.12325	-.25506	.21479	.1268202	.1232528	.4104786	.3989317	.0524394	.0446260	.1786567	.1516623
-.05202	.30485	.08687	.10228	-.23453	.32587	.0929362	.1022810	.2871333	.3160045	.0686049	.0612166	.2299739	.2042539
-.19914	.26133	.07370	.08545	-.21255	.44010	.0682922	.0854538	.2009465	.2514436	.0804651	.0750266	.2658777	.2459961
-.34626	.22427	.06272	.07179	-.19066	.55757	.0502953	.0717881	.1405920	.2006714	.0891885	.0865935	.2910017	.2792543
-.49339	.19264	.05351	.06058	-.16974	.67819	.0371092	.0605782	.0982727	.1604235	.0956181	.0963305	.3085729	.3058169
-.64051	.16559	.04574	.05131	-.15025	.80180	.0274217	.0513061	.0685839	.1283209	.1003651	.1045609	.3208471	.3270573
-.78763	.14244	.03916	.04358	-.13241	.92815	.0202887	.0435843	.0477588	.1025958	.1038747	.1115412	.3294054	.3440438
-.93475	.12258	.03357	.03712	-.11627	1.05700	.0150270	.0371170	.0331622	.0819113	.1064726	.1174776	.3353581	.3576164
-1.08188	.10555	.02881	.03167	-.10182	1.18810	.0111398	.0316749	.0229447	.0652413	.1083975	.1225381	.3394854	.3684411
-1.22900	.09091	.02475	.02708	-.08895	1.32121	.0082642	.0270774	.0158061	.0517881	.1098249	.1268600	.3423359	.3770500
-1.37612	.07833	.02127	.02318	-.07757	1.45610	.0061348	.0231808	.0108309	.0409251	.1108841	.1305570	.3442954	.3838701
-1.52324	.06750	.01830	.01987	-.06753	1.59256	.0045565	.0198692	.0073741	.0321552	.1116705	.1337238	.3456346	.3892460
-1.67037	.05819	.01575	.01705	-.05872	1.73041	.0033858	.0170481	.0049813	.0250817	.1122548	.1364395	.3465434	.3934564
-1.81749	.05017	.01356	.01464	-.05100	1.86947	.0025169	.0146404	.0033326	.0193854	.1126890	.1387706	.3471550	.3967274
-1.96461	.04326	.01168	.01258	-.04426	2.00960	.0018716	.0125820	.0022028	.0148087	.1130118	.1407731	.3475622	.3992428
-2.11173	.03731	.01006	.01082	-.03838	2.15065	.0013921	.0108198	.0014337	.0111428	.1132519	.1424945	.3478297	.4011518
-2.25886	.03218	.00867	.00931	-.03326	2.29252	.0010357	.0093094	.0009143	.0082177	.1134305	.1439753	.3480024	.4025760
-2.40598	.02776	.00747	.00801	-.02880	2.43508	.0007707	.0080135	.0005669	.0058948	.1135634	.1452496	.3481114	.4036141
-2.55310	.02395	.00644	.00690	-.02493	2.57826	.0005736	.0069006	.0003376	.0040610	.1136623	.1463467	.3481779	.4043465
-2.70023	.02066	.00556	.00594	-.02157	2.72196	.0004270	.0059444	.0001885	.0026236	.1137359	.1472916	.3482166	.4048382
-2.84735	.01783	.00479	.00512	-.01866	2.86613	.0003179	.0051221	.0000935	.0015071	.1137907	.1481056	.3482374	.4051421
-2.99447	.01539	.00413	.00441	-.01614	3.01070	.0002367	.0044146	.0000348	.0006495	.1138315	.1488071	.3482468	.4053007
-3.14159	.01328	.00357·	.00381	-.01395	3.15561	.0001763	.0038056	.0000000	.0000000	.1138618	.1494118	.3482494	.4053485

UTION VS DEPTH, THETA= 30.00 DEGREES, KX= .5236 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.30514	.38595	.24774	.29408	-.19620	.00000	.1489593	.2940752	.5134228	1.0135985	.0000000	.0000000	.0000000	.0000000
.16153	.33311	.20992	.24624	-.19907	.11509	.1109612	.2462400	.3665179	.8133597	.0186641	.0387984	.0631858	.1311882
.01791	.28754	.17856	.20701	-.19272	.23049	.0826764	.2070087	.2612164	.6540448	.0325686	.0713448	.1082615	.2365580
-.12570	.24826	.15235	.17471	-.18123	.34721	.0616329	.1747070	.1858782	.5268973	.0429310	.0987546	.1403660	.3213578
-.26932	.21441	.13031	.14797	-.16716	.46578	.0459737	.1479719	.1320493	.4250163	.0506579	.1219252	.1631954	.3897118
-.41293	.18524	.11169	.12572	-.15211	.58647	.0343147	.1257237	.0936333	.3430575	.0564232	.1415784	.1794009	.4448648
-.55654	.16009	.09589	.10711	-.13704	.70932	.0256280	.1071137	.0662495	.2768941	.0607275	.1582977	.1908816	.4893816
-.70016	.13839	.08244	.09147	-.12255	.83430	.0191510	.0914741	.0467559	.2233282	.0639429	.1725577	.1989962	.5253010
-.84377	.11966	.07095	.07828	-.10897	.96130	.0143183	.0782764	.0329008	.1798651	.0663462	.1847470	.2047161	.5542531
-.98739	.10349	.06113	.06710	-.09645	1.09018	.0107099	.0670988	.0230714	.1445448	.0681434	.1951859	.2087353	.5775479
-1.13100	.08952	.05270	.05760	-.08507	1.22077	.0080141	.0576026	.0161132	.1158153	.0694880	.2041403	.2115490	.5962436
-1.27461	.07745	.04547	.04951	-.07481	1.35292	.0059990	.0495128	.0112001	.0924395	.0704942	.2118320	.2135103	.6111977
-1.41823	.06702	.03926	.04261	-.06563	1.48646	.0044920	.0426053	.0077414	.0734245	.0712475	.2184467	.2148704	.6231079
-1.56184	.05800	.03390	.03670	-.05747	1.62125	.0033645	.0366954	.0053151	.0579696	.0718117	.2241410	.2158080	.6325429
-1.70545	.05021	.02930	.03163	-.05024	1.75714	.0025206	.0316303	.0036199	.0454255	.0722343	.2290473	.2164496	.6399674
-1.84907	.04346	.02532	.02728	-.04386	1.89401	.0018887	.0272829	.0024412	.0352639	.0725509	.2332776	.2168848	.6457614
-1.99268	.03762	.02189	.02355	-.03824	2.03173	.0014155	.0235468	.0016263	.0270532	.0727882	.2369276	.2171769	.6502362
-2.13630	.03257	.01893	.02033	-.03332	2.17022	.0010611	.0203325	.0010667	.0204402	.0729660	.2400784	.2173702	.6536466
-2.27991	.02820	.01638	.01756	-.02900	2.30936	.0007954	.0175646	.0006854	.0151351	.0730993	.2427997	.2174961	.6562012
-2.42352	.02442	.01417	.01518	-.02523	2.44909	.0005964	.0151791	.0004283	.0108996	.0731993	.2451509	.2175760	.6580706
-2.56714	.02115	.01226	.01312	-.02193	2.58932	.0004472	.0131218	.0002569	.0075379	.0732742	.2471831	.2176252	.6593946
-2.71075	.01831	.01061	.01135	-.01906	2.73000	.0003354	.0113464	.0001445	.0048885	.0733304	.2489401	.2176541	.6602869
-2.85437	.01586	.00919	.00981	-.01655	2.87106	.0002515	.0098136	.0000722	.0028187	.0733725	.2504595	.2176696	.6608403
-2.99798	.01373	.00795	.00849	-.01437	3.01245	.0001886	.0084896	.0000271	.0012192	.0734041	.2517738	.2176767	.6611303
-3.14159	.01189	.00688	.00735	-.01247	3.15414	.0001415	.0073456	.0000000	.0000000	.0734278	.2529109	.2176787	.6612178

```
d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER     *K   (K*G)^.5   *K   DEGREES
----------------------------------------------------------------------------------------------------+ -.27508 2.95512 3.14159  180.00
                                                                                                  + -.27470 2.89356 3.07614  176.25
                                                                                                  + -.27358 2.83199 3.01069  172.50
                                                                                                  + -.27172 2.77043 2.94524  168.75
                                                                                               +| -.26910 2.70886 2.87979  165.00
                                                                                               +| -.26573 2.64730 2.81434  161.25
                                                                                             + | -.26162 2.58573 2.74889  157.50
                                                                                           +  | -.25675 2.52417 2.68344  153.75
                                                                                           +  | -.25114 2.46260 2.61799  150.00
                                                                                         +    | -.24478 2.40104 2.55254  146.25
                                                                                       +      | -.23767 2.33947 2.48709  142.50
                                                                                     +        | -.22979 2.27791 2.42164  138.75
                                                                                   +          | -.22116 2.21634 2.35619  135.00
                                                                                 +            | -.21177 2.15478 2.29074  131.25
                                                                               +              | -.20163 2.09321 2.22529  127.50
                                                                             +                | -.19073 2.03165 2.15984  123.75
                                                                           +                  | -.17908 1.97008 2.09440  120.00
                                                                         +                    | -.16667 1.90852 2.02895  116.25
                                                                       +                      | -.15350 1.84695 1.96350  112.50
                                                                     +                        | -.13956 1.78539 1.89805  108.75
                                                                   +                          | -.12485 1.72382 1.83260  105.00
                                                                 +                            | -.10939 1.66226 1.76715  101.25
                                                               +                              | -.09317 1.60069 1.70170   97.50
                                                             +                                | -.07622 1.53913 1.63625   93.75
                                                           +                                  | -.05852 1.47756 1.57080   90.00
                                                         +                                    | -.04009 1.41600 1.50535   86.25
                                                   | +                                        | -.02091 1.35443 1.43990   82.50
                                                 +                                            | -.00101 1.29287 1.37445   78.75
                                             +   |                                            |  .01962 1.23130 1.30900   75.00
                                           +     |                                            |  .04093 1.16974 1.24355   71.25
                                         +       |                                            |  .06290 1.10817 1.17810   67.50
                                       +         |                                            |  .08547 1.04661 1.11265   63.75
                                     +           |                                            |  .10863  .98504 1.04720   60.00
                                   +             |                                            |  .13232  .92348  .98175   56.25
                                 +               |                                            |  .15650  .86191  .91630   52.50
                              +                  |                                            |  .18109  .80035  .85085   48.75
                            +                    |                                            |  .20599  .73878  .78540   45.00
                          +                      |                                            |  .23105  .67722  .71995   41.25
                        +                        |                                            |  .25608  .61565  .65450   37.50
                      +                          |                                            |  .28087  .55409  .58905   33.75
                    +                            |                                            |  .30514  .49252  .52360   30.00
                  +                              |                                            |  .32858  .43096  .45815   26.25
                +                                |                                            |  .35078  .36939  .39270   22.50
              +                                  |                                            |  .37124  .30783  .32725   18.75
            +                                    |                                            |  .38935  .24626  .26180   15.00
          +                                      |                                            |  .40444  .18470  .19635   11.25
        +                                        |                                            |  .41583  .12313  .13090    7.50
      +                                          |                                            |  .42293  .06157  .06545    3.75
    +--------------------------------------------------------------------------------------------| .42534  .00000  .00000     .00
 .34                                                                         -.27508
```

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICLE VELOCITIES

=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

U	V	DIST.	ANGLE
*SQRT(K/G)	*K	DEGREES	
-.23318	.00000	3.14159	180.00
-.23281	.01479	3.07614	176.25
-.23169	.02957	3.01069	172.50
-.22982	.04429	2.94524	168.75
-.22721	.05895	2.87979	165.00
-.22385	.07352	2.81434	161.25
-.21974	.08797	2.74889	157.50
-.21488	.10229	2.68344	153.75
-.20926	.11644	2.61799	150.00
-.20289	.13040	2.55254	146.25
-.19576	.14416	2.48709	142.50
-.18786	.15767	2.42164	138.75
-.17919	.17092	2.35619	135.00
-.16975	.18388	2.29074	131.25
-.15954	.19651	2.22529	127.50
-.14854	.20878	2.15984	123.75
-.13675	.22067	2.09440	120.00
-.12417	.23214	2.02895	116.25
-.11079	.24315	1.96350	112.50
-.09661	.25367	1.89805	108.75
-.08161	.26366	1.83260	105.00
-.06580	.27308	1.76715	101.25
-.04916	.28187	1.70170	97.50
-.03169	.28998	1.63625	93.75
-.01337	.29737	1.57080	90.00
.00578	.30398	1.50535	86.25
.02579	.30974	1.43990	82.50
.04664	.31460	1.37445	78.75
.06835	.31847	1.30900	75.00
.09092	.32128	1.24355	71.25
.11433	.32293	1.17810	67.50
.13858	.32332	1.11265	63.75
.16364	.32234	1.04720	60.00
.18950	.31987	.98175	56.25
.21611	.31579	.91630	52.50
.24341	.30994	.85085	48.75
.27133	.30216	.78540	45.00
.29974	.29226	.71995	41.25
.32848	.28003	.65450	37.50
.35732	.26526	.58905	33.75
.38595	.24774	.52360	30.00
.41399	.22725	.45815	26.25
.44092	.20361	.39270	22.50
.46607	.17671	.32725	18.75
.48863	.14652	.26180	15.00
.50766	.11321	.19635	11.25
.52218	.07719	.13090	7.50
.53131	.03914	.06545	3.75
.53443	.00000	.00000	.00

43

-.23318

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS

d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

Ax *1/G	Ay *1/G	DIST. *K	ANGLE DEGREES
.00000	.29308	3.14159	180.00
.01476	.29277	3.07614	176.25
.02950	.29185	3.01069	172.50
.04420	.29031	2.94524	168.75
.05885	.28816	2.87979	165.00
.07343	.28540	2.81434	161.25
.08791	.28201	2.74889	157.50
.10229	.27801	2.68344	153.75
.11653	.27340	2.61799	150.00
.13063	.26816	2.55254	146.25
.14455	.26231	2.48709	142.50
.15829	.25585	2.42164	138.75
.17181	.24877	2.35619	135.00
.18510	.24106	2.29074	131.25
.19813	.23274	2.22529	127.50
.21088	.22380	2.15984	123.75
.22332	.21423	2.09440	120.00
.23542	.20404	2.02895	116.25
.24716	.19324	1.96350	112.50
.25851	.18181	1.89805	108.75
.26943	.16976	1.83260	105.00
.27990	.15709	1.76715	101.25
.28986	.14379	1.70170	97.50
.29927	.12987	1.63625	93.75
.30810	.11532	1.57080	90.00
.31629	.10015	1.50535	86.25
.32379	.08435	1.43990	82.50
.33054	.06794	1.37445	78.75
.33646	.05092	1.30900	75.00
.34147	.03328	1.24355	71.25
.34548	.01502	1.17810	67.50
.34837	-.00384	1.11265	63.75
.35002	-.02330	1.04720	60.00
.35029	-.04334	.98175	56.25
.34900	-.06394	.91630	52.50
.34596	-.08506	.85085	48.75
.34091	-.10667	.78540	45.00
.33358	-.12870	.71995	41.25
.32360	-.15107	.65450	37.50
.31058	-.17364	.58905	33.75
.29408	-.19620	.52360	30.00
.27361	-.21849	.45815	26.25
.24868	-.24012	.39270	22.50
.21886	-.26056	.32725	18.75
.18386	-.27912	.26180	15.00
.14369	-.29497	.19635	11.25
.09886	-.30721	.13090	7.50
.05041	-.31498	.06545	3.75
.00000	-.31765	.00000	.00

029

-.31765

TEADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
         M. M. RIENECKER AND J. D. FENTON.

PTH: DEEP , HEIGHT/DEPTH= .2520

VE HEIGHT 2.005161E-02,DIMENSIONLESS WITH RESPECT TO PERIOD

URRENT CRITERION: EULER , MAGNITUDE= .14

LUTION OF ORDER 12 NON-DIMENSIONALIZED BY WAVE NUMBER, 1 HEIGHT STEP(S).

AVE HEIGHT   .59341

AVE PERIOD   5.4401

AVE SPEED   1.1550

EAN EULERIAN FLUID SPEED   .10999

EAN MASS TRANSPORT SPEED   .10999

EAN FLUID SPEED RELATIVE TO WAVE 1.0450

OLUME FLUX DUE TO WAVES   4.14150E-02

ERNOULLI CONSTANT   .54600

LUTION VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.34707	.52422	.00000	.00000	-.27578	.00000	.2748031	.0000000	.9586956	.0000000	.0000000	.0000000	.0000000	.0000000
.20171	.46556	.00000	.00000	-.25635	.10664	.2167466	.0000000	.7246493	.0000000	.0357261	.0000000	.1223463	.0000000
.05635	.41560	.00000	.00000	-.23454	.21631	.1727208	.0000000	.5523511	.0000000	.0640328	.0000000	.2151593	.0000000
-.08901	.37292	.00000	.00000	-.21215	.32920	.1390694	.0000000	.4245204	.0000000	.0866938	.0000000	.2861588	.0000000
-.23437	.33639	.00000	.00000	-.19027	.44533	.1131570	.0000000	.3289721	.0000000	.1050257	.0000000	.3409230	.0000000
-.37973	.30506	.00000	.00000	-.16953	.56456	.0930631	.0000000	.2570270	.0000000	.1200139	.0000000	.3835137	.0000000
-.52510	.27816	.00000	.00000	-.15027	.68669	.0773751	.0000000	.2024518	.0000000	.1324014	.0000000	.4169089	.0000000
-.67046	.25504	.00000	.00000	-.13265	.81151	.0650457	.0000000	.1607369	.0000000	.1427527	.0000000	.4433056	.0000000
-.81582	.23514	.00000	.00000	-.11671	.93877	.0552930	.0000000	.1285991	.0000000	.1514989	.0000000	.4643347	.0000000
-.96118	.21801	.00000	.00000	-.10240	1.06822	.0475293	.0000000	.1036337	.0000000	.1589721	.0000000	.4812135	.0000000
-1.10654	.20325	.00000	.00000	-.08965	1.19965	.0413107	.0000000	.0840695	.0000000	.1654291	.0000000	.4948558	.0000000
-1.25190	.19052	.00000	.00000	-.07834	1.33281	.0362995	.0000000	.0685948	.0000000	.1710698	.0000000	.5059515	.0000000
-1.39726	.17955	.00000	.00000	-.06835	1.46753	.0322375	.0000000	.0562329	.0000000	.1760511	.0000000	.5150241	.0000000
-1.54262	.17008	.00000	.00000	-.05956	1.60361	.0289265	.0000000	.0462526	.0000000	.1804965	.0000000	.5224728	.0000000
-1.68798	.16190	.00000	.00000	-.05183	1.74088	.0262130	.0000000	.0381035	.0000000	.1845041	.0000000	.5286038	.0000000
-1.83334	.15485	.00000	.00000	-.04507	1.87921	.0239779	.0000000	.0313691	.0000000	.1881520	.0000000	.5336531	.0000000
-1.97870	.14875	.00000	.00000	-.03916	2.01846	.0221280	.0000000	.0257324	.0000000	.1915030	.0000000	.5378033	.0000000
-2.12407	.14349	.00000	.00000	-.03400	2.15851	.0205900	.0000000	.0209509	.0000000	.1946077	.0000000	.5411962	.0000000
-2.26943	.13895	.00000	.00000	-.02951	2.29927	.0193061	.0000000	.0168381	.0000000	.1975074	.0000000	.5439427	.0000000
-2.41479	.13502	.00000	.00000	-.02559	2.44063	.0182301	.0000000	.0132497	.0000000	.2002356	.0000000	.5461295	.0000000
-2.56015	.13163	.00000	.00000	-.02219	2.58252	.0173252	.0000000	.0100736	.0000000	.2028197	.0000000	.5478247	.0000000
-2.70551	.12869	.00000	.00000	-.01923	2.72488	.0165618	.0000000	.0072223	.0000000	.2052827	.0000000	.5490818	.0000000
-2.85087	.12616	.00000	.00000	-.01666	2.86763	.0159160	.0000000	.0046271	.0000000	.2076432	.0000000	.5499430	.0000000
-2.99623	.12397	.00000	.00000	-.01443	3.01074	.0153681	.0000000	.0022339	.0000000	.2099169	.0000000	.5504417	.0000000
-3.14159	.12207	.00000	.00000	-.01250	3.15415	.0149023	.0000000	.0000000	.0000000	.2121170	.0000000	.5506040	.0000000

UTION VS DEPTH, THETA= 15.00 DEGREES, KX= .2618 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	- FD	FI	MD	MI	FDS	FIS	MDS	MIS
.32429	.49818	.10975	.12483	-.25291	.00000	.2481825	.1248346	.8601704	.4326615	.0000000	.0000000	.0000000	.0000000
.17987	.44400	.09358	.10517	-.23677	.10900	.1971389	.1051725	.6547902	.3493270	.0321548	.0166078	.1093889	.0564641
.03546	.39766	.08001	.08899	-.21782	.22057	.1581336	.0889936	.5023990	.2827377	.0578075	.0306278	.1929447	.1021028
-.10895	.35794	.06856	.07558	-.19788	.33496	.1281207	.0755756	.3885443	.2291939	.0784767	.0425106	.2572760	.1390673
-.25336	.32384	.05884	.06437	-.17810	.45223	.1048728	.0643728	.3028970	.1859236	.0953002	.0526157	.3072021	.1690412
-.39777	.29453	.05057	.05497	-.15916	.57231	.0867479	.0549669	.2380206	.1508194	.1091363	.0612327	.3462595	.1933560
-.54218	.26931	.04351	.04703	-.14144	.69503	.0725266	.0470326	.1885264	.1222569	.1206369	.0685977	.3770586	.2130737
-.68660	.24758	.03747	.04031	-.12514	.82021	.0612980	.0403131	.1504865	.0989686	.1302998	.0749046	.4015373	.2290474
-.83101	.22886	.03230	.03460	-.11033	.94764	.0523772	.0346038	.1210221	.0799550	.1385078	.0803140	.4211418	.2419667
-.97542	.21271	.02785	.02974	-.09699	1.07710	.0452466	.0297393	.0980120	.0644205	.1455568	.0849599	.4369573	.2523915
-1.11983	.19878	.02403	.02558	-.08505	1.20838	.0395127	.0255850	.0798854	.0517268	.1516769	.0889547	.4498025	.2607780
-1.26424	.18675	.02075	.02203	-.07444	1.34129	.0348751	.0220302	.0654729	.0413584	.1570482	.0923928	.4602983	.2674993
-1.40865	.17636	.01792	.01898	-.06505	1.47565	.0311030	.0189833	.0538995	.0328970	.1618122	.0953542	.4689176	.2728610
-1.55307	.16739	.01548	.01637	-.05676	1.61127	.0280180	.0163682	.0445074	.0260013	.1660810	.0979068	.4760232	.2771138
-1.69748	.15963	.01338	.01412	-.04947	1.74803	.0254820	.0141208	.0367990	.0203921	.1699441	.1001082	.4818940	.2804636
-1.84189	.15293	.01156	.01219	-.04307	1.88577	.0233871	.0121877	.0303963	.0158404	.1734727	.1020079	.4867459	.2830798
-1.98630	.14713	.00999	.01052	-.03747	2.02437	.0216484	.0105233	.0250102	.0121575	.1767245	.1036477	.4907465	.2851014
-2.13071	.14212	.00864	.00909	-.03257	2.16374	.0201992	.0090892	.0204190	.0091881	.1797462	.1050639	.4940268	.2866427
-2.27512	.13779	.00747	.00785	-.02830	2.30376	.0189865	.0078529	.0164513	.0068043	.1825756	.1062872	.4966890	.2877975
-2.41953	.13404	.00646	.00679	-.02457	2.44436	.0179680	.0067864	.0129739	.0049001	.1852439	.1073442	.4988137	.2886426
-2.56395	.13080	.00559	.00587	-.02133	2.58546	.0171097	.0058659	.0098833	.0033884	.1877767	.1082578	.5004641	.2892411
-2.70836	.12800	.00484	.00507	-.01850	2.72700	.0163841	.0050713	.0070982	.0021971	.1901952	.1090475	.5016903	.2896444
-2.85277	.12558	.00418	.00438	-.01605	2.86892	.0157691	.0043850	.0045545	.0012665	.1925168	.1097303	.5025317	.2898945
-2.99718	.12348	.00362	.00379	-.01392	3.01118	.0152466	.0037921	.0022018	.0005476	.1947564	.1103208	.5030195	.2900254
-3.14159	.12166	.00313	.00328	-.01206	3.15371	.0148016	.0032797	.0000000	.0000000	.1969260	.1108314	.5031785	.2900650

UTION VS DEPTH, THETA= 30.00 DEGREES, KX= .5236 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.26531	.43184	.19611	.21823	-.19531	.00000	.1864986	.2182253	.6353483	.7434720	.0000000	.0000000	.0000000	.0000000
.12335	.38855	.16828	.18585	-.18673	.11478	.1509722	.1858460	.4929163	.6067775	.0239520	.0286798	.0800810	.0958368
-.01860	.35115	.14466	.15866	-.17456	.23106	.1233029	.1586591	.3850739	.4954913	.0434192	.0531318	.1423982	.1740727
-.16055	.31881	.12453	.13575	-.16062	.34921	.1016426	.1357464	.3030006	.4046652	.0593852	.0740278	.1912357	.2379632
-.30251	.29086	.10734	.11637	-.14609	.46940	.0846000	.1163663	.2401865	.3303738	.0726042	.0919221	.2297896	.2901341
-.44446	.26668	.09262	.09992	-.13171	.59164	.0711196	.0999200	.1918189	.2694973	.0836567	.1072735	.2604520	.3327112
-.58642	.24576	.07998	.08592	-.11795	.71588	.0603993	.0859221	.1543309	.2195462	.0929915	.1204640	.2850208	.3674221
-.72837	.22766	.06911	.07398	-.10506	.84202	.0518273	.0739772	.1250707	.1785234	.1009571	.1318132	.3048519	.3956759
-.87033	.21198	.05976	.06376	-.09317	.96992	.0449353	.0637610	.1020600	.1448184	.1078250	.1415895	.3209730	.4186258
-1.01228	.19840	.05170	.05501	-.08235	1.09942	.0393638	.0550062	.0838179	.1171255	.1138083	.1500192	.3341660	.4372178
-1.15423	.18664	.04474	.04749	-.07257	1.23040	.0348356	.0474910	.0692309	.0943817	.1190748	.1572942	.3450290	.4522300
-1.29619	.17645	.03873	.04103	-.06380	1.36268	.0311360	.0410304	.0574586	.0757176	.1237572	.1635772	.3540211	.4643032
-1.43814	.16762	.03355	.03547	-.05599	1.49614	.0280980	.0354693	.0478635	.0604202	.1279615	.1690069	.3614965	.4739658
-1.58010	.15997	.02906	.03068	-.04904	1.63065	.0255910	.0306774	.0399602	.0479026	.1317722	.1737018	.3677300	.4816543
-1.72205	.15334	.02518	.02654	-.04290	1.76609	.0235126	.0265443	.0333771	.0376808	.1352574	.1777632	.3729353	.4877287
-1.86400	.14759	.02182	.02298	-.03749	1.90235	.0217820	.0229767	.0278284	.0293547	.1384723	.1812781	.3772794	.4924867
-2.00596	.14260	.01891	.01989	-.03273	2.03932	.0203350	.0198949	.0230931	.0225934	.1414616	.1843210	.3808937	.4961739
-2.14791	.13828	.01639	.01723	-.02854	2.17694	.0191206	.0172313	.0189997	.0171224	.1442621	.1869561	.3838813	.4989928
-2.28987	.13453	.01421	.01493	-.02489	2.31511	.0180977	.0149279	.0154142	.0127144	.1469037	.1892387	.3863239	.5011105
-2.43182	.13128	.01232	.01294	-.02167	2.45376	.0172333	.0129350	.0122317	.0091809	.1494114	.1912163	.3882862	.5026646
-2.57378	.12846	.01069	.01121	-.01896	2.59284	.0165008	.0112102	.0093694	.0063654	.1518058	.1929301	.3898194	.5037680
-2.71573	.12601	.00927	.00972	-.01641	2.73230	.0158784	.0097169	.0067620	.0041381	.1541039	.1944154	.3909643	.5045135
-2.85768	.12389	.00804	.00842	-.01428	2.87209	.0153481	.0084237	.0043575	.0023916	.1563203	.1957030	.3917535	.5049770
-2.99964	.12205	.00697	.00730	-.01241	3.01214	.0148955	.0073034	.0021145	.0010367	.1584669	.1968192	.3922129	.5052203
-3.14159	.12045	.00605	.00633	-.01079	3.15245	.0145093	.0063327	.0000000	.0000000	.1605539	.1977871	.3923630	.5052939

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d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= 1.4278, CRITER., EULER   *K   (K*6)^.5   *K   DEGREES

	*K	(K*6)^.5	*K	DEGREES
	-.24634	2.72003	3.14159	180.00
	-.24599	2.66337	3.07614	176.25
	-.24492	2.60670	3.01069	172.50
	-.24313	2.55003	2.94524	168.75
	-.24063	2.49336	2.87979	165.00
	-.23742	2.43670	2.81434	161.25
	-.23350	2.38003	2.74889	157.50
	-.22886	2.32336	2.68344	153.75
	-.22351	2.26670	2.61799	150.00
	-.21745	2.21003	2.55254	146.25
	-.21068	2.15336	2.48709	142.50
	-.20321	2.09669	2.42164	138.75
	-.19502	2.04003	2.35619	135.00
	-.18613	1.98336	2.29074	131.25
	-.17654	1.92669	2.22529	127.50
	-.16624	1.87002	2.15984	123.75
	-.15526	1.81336	2.09440	120.00
	-.14358	1.75669	2.02895	116.25
	-.13121	1.70002	1.96350	112.50
	-.11816	1.64335	1.89805	108.75
	-.10445	1.58669	1.83260	105.00
	-.09007	1.53002	1.76715	101.25
	-.07504	1.47335	1.70170	97.50
	-.05937	1.41668	1.63625	93.75
	-.04309	1.36002	1.57080	90.00
	-.02620	1.30335	1.50535	86.25
	-.00874	1.24668	1.43990	82.50
	.00928	1.19002	1.37445	78.75
	.02781	1.13335	1.30900	75.00
	.04682	1.07668	1.24355	71.25
	.06626	1.02001	1.17810	67.50
	.08607	.96335	1.11265	63.75
	.10620	.90668	1.04720	60.00
	.12655	.85001	.98175	56.25
	.14705	.79334	.91630	52.50
	.16757	.73668	.85085	48.75
	.18800	.68001	.78540	45.00
	.20818	.62334	.71995	41.25
	.22793	.56667	.65450	37.50
	.24705	.51001	.58905	33.75
	.26531	.45334	.52360	30.00
	.28245	.39667	.45815	26.25
	.29820	.34000	.39270	22.50
	.31224	.28334	.32725	18.75
	.32429	.22667	.26180	15.00
	.33402	.17000	.19635	11.25
	.34120	.11333	.13090	7.50
	.34559	.05667	.06545	3.75
	.34707	.00000	.00000	.00

-.24634

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HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICLE VELOCITIES          U      V    DIST.   ANGLE
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=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD    , CURRENT= 1.4278, CRITER., EULER    *SQRT(K/G)    *K   DEGREES
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                                                          o--------------+ -.10386  .00000 3.14159  180.00
                                               o  :                     +  -.10351  .01373 3.07614  176.25
                                             o    :                     +  -.10243  .02743 3.01069  172.50
                                          o       :                   +: -.10064  .04108 2.94524  168.75
                                        o         :                   +: -.09813  .05466 2.87979  165.00
                                      o           :                   +: -.09490  .06813 2.81434  161.25
                                    o             :                 + : -.09096  .08149 2.74889  157.50
                                  o               :               +   : -.08629  .09469 2.68344  153.75
                                o                 :             +     : -.08091  .10771 2.61799  150.00
                              o                   :           +       : -.07481  .12053 2.55254  146.25
                            o                     :         +         : -.06799  .13312 2.48709  142.50
                          o                       :       +           : -.06044  .14545 2.42164  138.75
                        o                         :     +             : -.05218  .15748 2.35619  135.00
                      o                           :   +               : -.04320  .16920 2.29074  131.25
                    o                             :   +               : -.03349  .18056 2.22529  127.50
                   o                              : +                 : -.02307  .19154 2.15984  123.75
                 o                                :+                  : -.01193  .20209 2.09440  120.00
               o                                  +                   : -.00006  .21220 2.02895  116.25
              o                                 + :                   :  .01252  .22180 1.96350  112.50
            o                                  +   :                  :  .02581  .23088 1.89805  108.75
           o                                 +     :                  :  .03981  .23938 1.83260  105.00
          o                                +       :                  :  .05452  .24726 1.76715  101.25
         o                               +         :                  :  .06993  .25447 1.70170   97.50
        o                              +           :                  :  .08603  .26097 1.63625   93.75
       o                             +             :                  :  .10281  .26670 1.57080   90.00
      o                            +               :                  :  .12026  .27160 1.50535   86.25
     o                           +                 :                  :  .13836  .27562 1.43990   82.50
     o                         +                   :                  :  .15709  .27869 1.37445   78.75
    o                        +                     :                  :  .17642  .28074 1.30900   75.00
    o                      +                       :                  :  .19633  .28170 1.24355   71.25
    o                    +                         :                  :  .21677  .28150 1.17810   67.50
    o                  +                           :                  :  .23768  .28005 1.11265   63.75
     o  +                                          :                  :  .25903  .27727 1.04720   60.00
    + o                                            :                  :  .28072  .27307  .98175   56.25
   +     o                                         :                  :  .30267  .26735  .91630   52.50
  +        o                                       :                  :  .32477  .26002  .85085   48.75
 +          o                                      :                  :  .34689  .25098  .78540   45.00
+            o                                     :                  :  .36886  .24015  .71995   41.25
 +            o                                    :                  :  .39050  .22744  .65450   37.50
+              o                                   :                  :  .41158  .21278  .58905   33.75
+               o                                  :                  :  .43184  .19611  .52360   30.00
 +               o                                 :                  :  .45098  .17742  .45815   26.25
+                 o                                :                  :  .46866  .15674  .39270   22.50
+                  o                               :                  :  .48452  .13413  .32725   18.75
+                   o                              :                  :  .49818  .10975  .26180   15.00
                     o                             :                  :  .50928  .08381  .19635   11.25
                       o                           :                  :  .51748  .05662  .13090    7.50
                         o                         :                  :  .52252  .02854  .06545    3.75
---------------------------------------------------------------o--------------:  .52422  .00000  .00000     .00
22                                                     -.10386
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	Ax	Ay	DIST.	ANGLE
d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= 1.4278, CRITER., EULER	*1/G	*1/G	*K	DEGREES
	.00000	.26408	3.14159	180.00
	.01378	.26377	3.07614	176.25
	.02755	.26283	3.01069	172.50
	.04126	.26127	2.94524	168.75
	.05492	.25908	2.87979	165.00
	.06848	.25627	2.81434	161.25
	.08194	.25283	2.74889	157.50
	.09526	.24877	2.68344	153.75
	.10843	.24409	2.61799	150.00
	.12141	.23878	2.55254	146.25
	.13419	.23285	2.48709	142.50
	.14675	.22630	2.42164	138.75
	.15904	.21913	2.35619	135.00
	.17106	.21134	2.29074	131.25
	.18276	.20294	2.22529	127.50
	.19412	.19391	2.15984	123.75
	.20510	.18428	2.09440	120.00
	.21568	.17403	2.02895	116.25
	.22583	.16318	1.96350	112.50
	.23549	.15172	1.89805	108.75
	.24464	.13967	1.83260	105.00
	.25323	.12702	1.76715	101.25
	.26121	.11379	1.70170	97.50
	.26855	.09998	1.63625	93.75
	.27517	.08561	1.57080	90.00
	.28104	.07068	1.50535	86.25
	.28608	.05521	1.43990	82.50
	.29023	.03922	1.37445	78.75
	.29341	.02273	1.30900	75.00
	.29555	.00577	1.24355	71.25
	.29655	-.01163	1.17810	67.50
	.29631	-.02944	1.11265	63.75
	.29474	-.04760	1.04720	60.00
	.29171	-.06606	.98175	56.25
	.28709	-.08475	.91630	52.50
	.28075	-.10359	.85085	48.75
	.27255	-.12246	.78540	45.00
	.26235	-.14123	.71995	41.25
	.24998	-.15977	.65450	37.50
	.23531	-.17787	.58905	33.75
	.21823	-.19531	.52360	30.00
	.19863	-.21185	.45815	26.25
	.17649	-.22718	.39270	22.50
	.15185	-.24098	.32725	18.75
	.12483	-.25291	.26180	15.00
	.09571	-.26264	.19635	11.25
	.06485	-.26985	.13090	7.50
	.03275	-.27428	.06545	3.75
	.00000	-.27578	.00000	.00

-.27578

655

EADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
        M. M. RIENECKER AND J. D. FENTON.

TH: DEEP , HEIGHT/DEPTH= .2520

E HEIGHT 2.005161E-02,DIMENSIONLESS WITH RESPECT TO PERIOD

RRENT CRITERION: EULER , MAGNITUDE= .29

TION OF ORDER 12 NON-DIMENSIONALIZED BY WAVE NUMBER, 1 HEIGHT STEP(S).

E HEIGHT   .51575

E PERIOD   5.0716

E SPEED   1.2389

N EULERIAN FLUID SPEED   .20508

N MASS TRANSPORT SPEED   .20508

N FLUID SPEED RELATIVE TO WAVE 1.0338

UME FLUX DUE TO WAVES   3.18809E-02

NOULLI CONSTANT   .53438

TION VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.29454	.54630	.00000	.00000	-.24366	.00000	.2984434	.0000000	1.0254910	.0000000	.0000000	.0000000	.0000000	.0000000
.15137	.49958	.00000	.00000	-.22339	.10972	.2495826	.0000000	.8218656	.0000000	.0392310	.0000000	.1322450	.0000000
.00819	.45943	.00000	.00000	-.20259	.22240	.2110731	.0000000	.6648355	.0000000	.0722076	.0000000	.2386721	.0000000
-.13498	.42486	.00000	.00000	-.18222	.33804	.1805094	.0000000	.5427222	.0000000	.1002394	.0000000	.3251164	.0000000
-.27815	.39508	.00000	.00000	-.16284	.45652	.1560893	.0000000	.4469530	.0000000	.1243352	.0000000	.3959634	.0000000
-.42132	.36940	.00000	.00000	-.14478	.57769	.1364527	.0000000	.3711883	.0000000	.1452772	.0000000	.4545309	.0000000
-.56449	.34722	.00000	.00000	-.12819	.70134	.1205650	.0000000	.3107081	.0000000	.1636760	.0000000	.5033452	.0000000
-.70767	.32808	.00000	.00000	-.11312	.82726	.1076349	.0000000	.2619756	.0000000	.1800120	.0000000	.5443414	.0000000
-.85084	.31153	.00000	.00000	-.09954	.95522	.0970527	.0000000	.2223240	.0000000	.1946648	.0000000	.5790105	.0000000
-.99401	.29723	.00000	.00000	-.08739	1.08503	.0883461	.0000000	.1897304	.0000000	.2079367	.0000000	.6085079	.0000000
1.13718	.28486	.00000	.00000	-.07658	1.21648	.0811467	.0000000	.1626512	.0000000	.2200701	.0000000	.6337335	.0000000
1.28035	.27416	.00000	.00000	-.06700	1.34938	.0751657	.0000000	.1399013	.0000000	.2312599	.0000000	.6553920	.0000000
1.42353	.26491	.00000	.00000	-.05853	1.48358	.0701754	.0000000	.1205660	.0000000	.2416643	.0000000	.6740379	.0000000
1.56670	.25689	.00000	.00000	-.05108	1.61892	.0659949	.0000000	.1039350	.0000000	.2514122	.0000000	.6901090	.0000000
1.70987	.24996	.00000	.00000	-.04453	1.75526	.0624799	.0000000	.0894539	.0000000	.2606092	.0000000	.7039530	.0000000
1.85304	.24396	.00000	.00000	-.03879	1.89247	.0595145	.0000000	.0766874	.0000000	.2693423	.0000000	.7158464	.0000000
1.99622	.23876	.00000	.00000	-.03376	2.03046	.0570051	.0000000	.0652923	.0000000	.2776835	.0000000	.7260101	.0000000
2.13939	.23426	.00000	.00000	-.02937	2.16912	.0548756	.0000000	.0549966	.0000000	.2856926	.0000000	.7346212	.0000000
2.28256	.23036	.00000	.00000	-.02554	2.30837	.0530642	.0000000	.0455839	.0000000	.2934195	.0000000	.7418213	.0000000
2.42573	.22698	.00000	.00000	-.02219	2.44813	.0515198	.0000000	.0368810	.0000000	.3009063	.0000000	.7477247	.0000000
2.56890	.22405	.00000	.00000	-.01928	2.58834	.0502005	.0000000	.0287493	.0000000	.3081881	.0000000	.7524229	.0000000
2.71208	.22152	.00000	.00000	-.01674	2.72893	.0490715	.0000000	.0210770	.0000000	.3152946	.0000000	.7559897	.0000000
2.85525	.21933	.00000	.00000	-.01454	2.86987	.0481038	.0000000	.0137743	.0000000	.3222510	.0000000	.7584846	.0000000
2.99842	.21742	.00000	.00000	-.01262	3.01110	.0472733	.0000000	.0067682	.0000000	.3290786	.0000000	.7599552	.0000000
3.14159	.21579	.00000	.00000	-.01095	3.15259	.0465596	.0000000	.0000000	.0000000	.3357958	.0000000	.7604397	.0000000

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.27764	.52788	.08919	.09697	-.22698	.00000	.2786584	.0969708	.9527965	.3315652	.0000000	.0000000	.0000000	.0000000
.13517	.48407	.07671	.08282	-.20899	.11139	.2343255	.0828247	.7678284	.2713966	.0365418	.0128075	.1225668	.0429513
-.00730	.44633	.06607	.07091	-.19020	.22542	.1992128	.0709072	.6243910	.2222440	.0674245	.0237585	.2217401	.0781153
-.14977	.41379	.05697	.06082	-.17156	.34213	.1712206	.0608232	.5122619	.1819723	.0938119	.0331421	.3027083	.1069092
-.29224	.38570	.04917	.05226	-.15369	.46144	.1487636	.0522587	.4238805	.1489036	.1166056	.0411974	.3693934	.1304788
-.43470	.36144	.04246	.04496	-.13693	.58322	.1306370	.0449620	.3536197	.1217070	.1365084	.0481228	.4247778	.1497554
-.57717	.34047	.03670	.03873	-.12146	.70730	.1159195	.0387289	.2972663	.0993173	.1540716	.0540844	.4711430	.1654999
-.71964	.32234	.03173	.03339	-.10736	.83349	.1039024	.0333926	.2516466	.0808754	.1697304	.0592219	.5102442	.1783357
-.86211	.30666	.02745	.02882	-.09461	.96158	.0940373	.0288155	.2143566	.0656845	.1838304	.0636533	.5434394	.1887757
-1.00458	.29308	.02375	.02488	-.08318	1.09140	.0858975	.0248833	.1835645	.0531760	.1966478	.0674784	.5717849	.1972426
-1.14704	.28133	.02056	.02150	-.07298	1.22275	.0791490	.0215005	.1578666	.0428838	.2084047	.0707825	.5961064	.2040853
-1.28951	.27116	.01780	.01859	-.06393	1.35548	.0735288	.0185871	.1361814	.0344249	.2192806	.0736381	.6170526	.2095924
-1.43198	.26235	.01542	.01608	-.05591	1.48943	.0688287	.0160755	.1176705	.0274829	.2294213	.0761073	.6351354	.2140023
-1.57445	.25472	.01335	.01391	-.04884	1.62444	.0648829	.0139085	.1016811	.0217967	.2389461	.0782432	.6507607	.2175127
-1.71691	.24811	.01157	.01204	-.04262	1.76040	.0615587	.0120375	.0877014	.0171495	.2479530	.0800914	.6642511	.2202870
-1.85938	.24238	.01002	.01042	-.03716	1.89720	.0587491	.0104210	.0753287	.0133619	.2565230	.0816912	.6758644	.2224604
-2.00185	.23742	.00869	.00902	-.03238	2.03472	.0563674	.0090237	.0642443	.0102847	.2647232	.0830763	.6858067	.2241448
-2.14432	.23312	.00753	.00782	-.02819	2.17288	.0543432	.0078154	.0541951	.0077941	.2726095	.0842759	.6942436	.2254327
-2.28679	.22939	.00653	.00677	-.02453	2.31160	.0526187	.0067701	.0449788	.0057871	.2802289	.0853148	.7013082	.2264001
-2.42925	.22616	.00566	.00587	-.02134	2.45080	.0511464	.0058654	.0364336	.0041782	.2876204	.0862149	.7071075	.2271100
-2.57172	.22335	.00490	.00508	-.01855	2.59043	.0498870	.0050823	.0284292	.0028963	.2948174	.0869948	.7117279	.2276139
-2.71419	.22093	.00425	.00440	-.01613	2.73043	.0488080	.0044043	.0208607	.0018824	.3018479	.0876705	.7152390	.2279543
-2.85666	.21882	.00368	.00382	-.01401	2.87076	.0478820	.0038171	.0136433	.0010876	.3087355	.0882562	.7176969	.2281659
-2.99912	.21699	.00319	.00331	-.01217	3.01136	.0470865	.0033084	.0067083	.0004713	.3155005	.0887637	.7191466	.2282769
-3.14159	.21541	.00277	.00287	-.01057	3.15221	.0464021	.0028678	.0000000	.0000000	.3221600	.0892037	.7196245	.2283105

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.23213	.47869	.16306	.17532	-.18265	.00000	.2291431	.1753186	.7730659	.5914768	.0000000	.0000000	.0000000	.0000000
.09156	.44242	.14077	.15061	-.17045	.11573	.1957356	.1506149	.6328432	.4869611	.0298630	.0229085	.0988156	.0757990
-.04901	.41100	.12164	.12959	-.15679	.23329	.1689200	.1295874	.5223987	.4007595	.0554932	.0426028	.1800129	.1381933
-.18958	.38377	.10520	.11164	-.14269	.35281	.1472783	.1116432	.4347668	.3295718	.0777174	.0595579	.2472882	.1895253
-.33016	.36016	.09105	.09629	-.12878	.47431	.1297178	.0962947	.3646934	.2707265	.0971864	.0741731	.3034790	.2317178
-.47073	.33970	.07884	.08314	-.11547	.59772	.1153932	.0831391	.3081997	.2220535	.1144142	.0867847	.3507739	.2663533
-.61130	.32194	.06831	.07184	-.10300	.72295	.1036477	.0718428	.2622592	.1817834	.1299097	.0976778	.3908691	.2947374
-.75187	.30654	.05920	.06213	-.09150	.84986	.0939691	.0621275	.2245599	.1494674	.1436994	.1070940	.4250857	.3179494
-.89244	.29318	.05133	.05376	-.08100	.97832	.0859554	.0537604	.1933266	.1209153	.1563456	.1152393	.4544572	.3368832
-1.03301	.28159	.04452	.04655	-.07150	1.10819	.0792904	.0465459	.1671900	.0981457	.1679600	.1222894	.4797965	.3522801
-1.17359	.27152	.03862	.04032	-.06297	1.23932	.0737235	.0403188	.1450883	.0793476	.1787147	.1283948	.5017452	.3647554
-1.31416	.26278	.03351	.03494	-.05535	1.37158	.0690552	.0349391	.1261939	.0638489	.1887501	.1336844	.5208126	.3748201
-1.45473	.25520	.02908	.03029	-.04857	1.50486	.0651262	.0302879	.1098589	.0510916	.1981811	.1382689	.5374038	.3828988
-1.59530	.24861	.02524	.02626	-.04256	1.63904	.0618081	.0262640	.0955733	.0406117	.2071028	.1422437	.5518428	.3893442
-1.73587	.24289	.02191	.02278	-.03725	1.77401	.0589972	.0227807	.0829335	.0320232	.2155938	.1456908	.5643893	.3944494
-1.87645	.23793	.01902	.01976	-.03256	1.90968	.0566093	.0197639	.0716190	.0250042	.2237193	.1486811	.5752521	.3984577
-2.01702	.23361	.01652	.01715	-.02845	2.04597	.0545754	.0171499	.0613742	.0192864	.2315340	.1512757	.5845997	.4015707
-2.15759	.22987	.01434	.01488	-.02483	2.18280	.0528392	.0148843	.0519940	.0146462	.2390837	.1535272	.5925679	.4039557
-2.29816	.22661	.01246	.01292	-.02166	2.32011	.0513540	.0129199	.0433136	.0108970	.2464070	.1554814	.5992667	.4057510
-2.43873	.22379	.01082	.01122	-.01889	2.45784	.0500811	.0112161	.0352000	.0078834	.2535365	.1571779	.6047851	.4070710
-2.57931	.22133	.00940	.00974	-.01646	2.59593	.0489883	.0097382	.0275455	.0054756	.2604997	.1586507	.6091952	.4080099
-2.71988	.21920	.00816	.00846	-.01434	2.73434	.0480489	.0084558	.0202630	.0035659	.2673200	.1599294	.6125554	.4086454
-2.86045	.21735	.00709	.00734	-.01249	2.87303	.0472402	.0073428	.0132813	.0020644	.2740175	.1610399	.6149131	.4090412
-3.00102	.21574	.00616	.00638	-.01087	3.01196	.0465433	.0063769	.0065427	.0008964	.2806092	.1620042	.6163065	.4092493
-3.14159	.21434	.00535	.00554	-.00946	3.15111	.0459420	.0055383	.0000000	.0000000	.2871096	.1628416	.6167663	.4093123

d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= 2.8557, CRITER., EULER   *K   (K*G)^.5   *K   DEGREES

	*K	(K*G)^.5	*K	DEGREES
+	-.22121	2.53580	3.14159	180.00
+	-.22088	2.48297	3.07614	176.25
+	-.21987	2.43015	3.01069	172.50
+│	-.21819	2.37732	2.94524	168.75
+│	-.21584	2.32449	2.87979	165.00
+ │	-.21281	2.27166	2.81434	161.25
+ │	-.20912	2.21883	2.74889	157.50
+ │	-.20476	2.16600	2.68344	153.75
+ │	-.19974	2.11317	2.61799	150.00
+ │	-.19405	2.06034	2.55254	146.25
+ │	-.18770	2.00751	2.48709	142.50
+ │	-.18070	1.95468	2.42164	138.75
+ │	-.17304	1.90185	2.35619	135.00
+ │	-.16473	1.84902	2.29074	131.25
+ │	-.15578	1.79619	2.22529	127.50
+ │	-.14619	1.74336	2.15984	123.75
+ │	-.13597	1.69054	2.09440	120.00
+ │	-.12513	1.63771	2.02895	116.25
+ │	-.11367	1.58488	1.96350	112.50
+ │	-.10162	1.53205	1.89805	108.75
+ │	-.08898	1.47922	1.83260	105.00
+ │	-.07576	1.42639	1.76715	101.25
+ │	-.06199	1.37356	1.70170	97.50
+ │	-.04769	1.32073	1.63625	93.75
+ │	-.03287	1.26790	1.57080	90.00
│ +	-.01757	1.21507	1.50535	86.25
+	-.00182	1.16224	1.43990	82.50
+ │	.01436	1.10941	1.37445	78.75
+ │	.03090	1.05658	1.30900	75.00
+ │	.04778	1.00376	1.24355	71.25
+ │	.06493	.95093	1.17810	67.50
+ │	.08229	.89810	1.11265	63.75
+ │	.09978	.84527	1.04720	60.00
+ │	.11733	.79244	.98175	56.25
+ │	.13484	.73961	.91630	52.50
+ │	.15221	.68678	.85085	48.75
+ │	.16931	.63395	.78540	45.00
+ │	.18601	.59112	.71995	41.25
+ │	.20215	.52829	.65450	37.50
+ │	.21759	.47546	.58905	33.75
+ │	.23213	.42263	.52360	30.00
+ │	.24560	.36980	.45815	26.25
+ │	.25780	.31698	.39270	22.50
+ │	.26854	.26415	.32725	18.75
+ │	.27764	.21132	.26180	15.00
+ │	.28491	.15849	.19635	11.25
+ │	.29022	.10566	.13090	7.50
+ │	.29345	.05283	.06545	3.75
+ │	.29454	.00000	.00000	.00

.54

-.22121

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICLE VELOCITIES

	U	V	DIST.	ANGLE
	*SQRT(K/G)	*K	DEGREES	

=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= 2.8557, CRITER., EULER

U	V	DIST.	ANGLE
.00959	.00000	3.14159	180.00
.00993	.01263	3.07614	176.25
.01094	.02523	3.01069	172.50
.01263	.03778	2.94524	168.75
.01500	.05025	2.87979	165.00
.01805	.06262	2.81434	161.25
.02176	.07486	2.74889	157.50
.02616	.08694	2.68344	153.75
.03122	.09884	2.61799	150.00
.03696	.11053	2.55254	146.25
.04337	.12198	2.48709	142.50
.05044	.13316	2.42164	138.75
.05818	.14404	2.35619	135.00
.06658	.15460	2.29074	131.25
.07564	.16479	2.22529	127.50
.08535	.17459	2.15984	123.75
.09571	.18396	2.09440	120.00
.10672	.19286	2.02895	116.25
.11836	.20127	1.96350	112.50
.13062	.20913	1.89805	108.75
.14350	.21642	1.83260	105.00
.15699	.22308	1.76715	101.25
.17106	.22908	1.70170	97.50
.18570	.23437	1.63625	93.75
.20090	.23890	1.57080	90.00
.21662	.24261	1.50535	86.25
.23284	.24547	1.43990	82.50
.24953	.24741	1.37445	78.75
.26664	.24837	1.30900	75.00
.28414	.24831	1.24355	71.25
.30197	.24715	1.17810	67.50
.32006	.24484	1.11265	63.75
.33835	.24131	1.04720	60.00
.35676	.23651	.98175	56.25
.37518	.23038	.91630	52.50
.39350	.22285	.85085	48.75
.41161	.21389	.78540	45.00
.42935	.20345	.71995	41.25
.44657	.19151	.65450	37.50
.46308	.17804	.58905	33.75
.47869	.16306	.52360	30.00
.49319	.14661	.45815	26.25
.50637	.12874	.39270	22.50
.51801	.10955	.32725	18.75
.52788	.08919	.26180	15.00
.53580	.06783	.19635	11.25
.54159	.04568	.13090	7.50
.54511	.02298	.06545	3.75
.54630	.00000	.00000	.00

.30

.00000

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS

	Ax	Ay	DIST.	ANGLE
N=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= 2.8557, CRITER., EULER	#1/6	#1/6	#K	DEGREES
	.00000	.23723	3.14159	180.00
	.01271	.23692	3.07614	176.25
	.02539	.23601	3.01069	172.50
	.03803	.23448	2.94524	168.75
	.05060	.23235	2.87979	165.00
	.06307	.22960	2.81434	161.25
	.07542	.22625	2.74889	157.50
	.08763	.22229	2.68344	153.75
	.09966	.21772	2.61799	150.00
	.11151	.21255	2.55254	146.25
	.12313	.20678	2.48709	142.50
	.13450	.20041	2.42164	138.75
	.14560	.19345	2.35619	135.00
	.15639	.18589	2.29074	131.25
	.16684	.17774	2.22529	127.50
	.17693	.16902	2.15984	123.75
	.18662	.15971	2.09440	120.00
	.19587	.14983	2.02895	116.25
	.20465	.13939	1.96350	112.50
	.21293	.12840	1.89805	108.75
	.22066	.11686	1.83260	105.00
	.22780	.10478	1.76715	101.25
	.23431	.09219	1.70170	97.50
	.24013	.07909	1.63625	93.75
	.24523	.06551	1.57080	90.00
	.24954	.05147	1.50535	86.25
	.25301	.03698	1.43990	82.50
	.25559	.02209	1.37445	78.75
	.25720	.00682	1.30900	75.00
	.25779	-.00879	1.24355	71.25
	.25727	-.02469	1.17810	67.50
	.25559	-.04082	1.11265	63.75
	.25265	-.05714	1.04720	60.00
	.24839	-.07355	.98175	56.25
	.24272	-.08999	.91630	52.50
	.23557	-.10636	.85085	48.75
	.22687	-.12254	.78540	45.00
	.21653	-.13841	.71995	41.25
	.20452	-.15382	.65450	37.50
	.19079	-.16863	.58905	33.75
	.17532	-.18265	.52360	30.00
	.15813	-.19569	.45815	26.25
	.13927	-.20756	.39270	22.50
	.11883	-.21806	.32725	18.75
	.09697	-.22698	.26180	15.00
	.07398	-.23414	.19635	11.25
	.04982	-.23938	.13090	7.50
	.02509	-.24258	.06545	3.75
	.00000	-.24366	.00000	.00

-.24366

79

EADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
             M. M. RIENECKER AND J. D. FENTON.

TH: DEEP , HEIGHT/DEPTH= .2520

E HEIGHT 2.005161E-02,DIMENSIONLESS WITH RESPECT TO PERIOD

RRENT CRITERION: EULER , MAGNITUDE= -.14

UTION OF ORDER 12 NON-DIMENSIONALIZED BY WAVE NUMBER, 1 HEIGHT STEP(S).

VE HEIGHT   .86795

VE PERIOD   6.5792

VE SPEED   .95501

AN EULERIAN FLUID SPEED   -.13302

AN MASS TRANSPORT SPEED   -.13302

AN FLUID SPEED RELATIVE TO WAVE   1.0880

LUME FLUX DUE TO WAVES   6.45200E-02

RNOULLI CONSTANT   .59121

UTION VS DEPTH, THETA= .00 DEGREES, KX= .0000 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.59121	.95529	.00000	.00000	.00099	.00000	.9125790	.0000000	3.4064795	.0000000	.0000000	.0000000	.0000000	.0000000
.43568	.59551	.00000	.00000	-.54340	.09091	.3546345	.0000000	1.2686240	.0000000	.0985471	.0000000	.3635677	.0000000
.28015	.41885	.00000	.00000	-.46365	.16734	.1754379	.0000000	.6003027	.0000000	.1397691	.0000000	.5089081	.0000000
.12461	.30813	.00000	.00000	-.38259	.25737	.0949447	.0000000	.3101089	.0000000	.1607959	.0000000	.5797079	.0000000
-.03092	.22859	.00000	.00000	-.32244	.35829	.0522552	.0000000	.1625486	.0000000	.1722432	.0000000	.6164649	.0000000
-.18646	.16737	.00000	.00000	-.27521	.46748	.0280130	.0000000	.0827822	.0000000	.1784854	.0000000	.6355435	.0000000
-.34199	.11850	.00000	.00000	-.23621	.58333	.0140433	.0000000	.0393157	.0000000	.1817560	.0000000	.6450387	.0000000
-.49752	.07868	.00000	.00000	-.20318	.70476	.0061913	.0000000	.0163702	.0000000	.1833295	.0000000	.6493692	.0000000
-.65306	.04582	.00000	.00000	-.17487	.83095	.0020991	.0000000	.0052237	.0000000	.1839743	.0000000	.6510485	.0000000
-.80859	.01845	.00000	.00000	-.15049	.96123	.0003404	.0000000	.0007942	.0000000	.1841640	.0000000	.6515165	.0000000
-.96412	-.00447	.00000	.00000	-.12945	1.09503	-.0000200	.0000000	-.0000435	.0000000	.1841889	.0000000	.6515749	.0000000
-1.11966	-.02375	.00000	.00000	-.11131	1.23188	-.0005643	.0000000	-.0011409	.0000000	.1841435	.0000000	.6514828	.0000000
-1.27519	-.04003	.00000	.00000	-.09565	1.37135	-.0016025	.0000000	-.0029910	.0000000	.1839749	.0000000	.6511614	.0000000
-1.43072	-.05381	.00000	.00000	-.08216	1.51308	-.0028952	.0000000	-.0049533	.0000000	.1836252	.0000000	.6505436	.0000000
-1.58626	-.06549	.00000	.00000	-.07054	1.65676	-.0042887	.0000000	-.0066704	.0000000	.1830665	.0000000	.6496397	.0000000
-1.74179	-.07541	.00000	.00000	-.06054	1.80212	-.0056867	.0000000	-.0079602	.0000000	.1822907	.0000000	.6485019	.0000000
-1.89732	-.08385	.00000	.00000	-.05194	1.94892	-.0070304	.0000000	-.0087477	.0000000	.1813018	.0000000	.6472026	.0000000
-2.05286	-.09103	.00000	.00000	-.04454	2.09697	-.0082867	.0000000	-.0090220	.0000000	.1801106	.0000000	.6458207	.0000000
-2.20839	-.09715	.00000	.00000	-.03819	2.24608	-.0094385	.0000000	-.0089080	.0000000	.1787322	.0000000	.6444341	.0000000
-2.36392	-.10237	.00000	.00000	-.03274	2.39611	-.0104799	.0000000	-.0081499	.0000000	.1771832	.0000000	.6431153	.0000000
-2.51946	-.10682	.00000	.00000	-.02806	2.54693	-.0114114	.0000000	-.0070994	.0000000	.1754808	.0000000	.6419295	.0000000
-2.67499	-.11063	.00000	.00000	-.02404	2.69842	-.0122380	.0000000	-.0057103	.0000000	.1736416	.0000000	.6409333	.0000000
-2.83053	-.11387	.00000	.00000	-.02060	2.85048	-.0129668	.0000000	-.0040335	.0000000	.1716915	.0000000	.6401755	.0000000
-2.98606	-.11664	.00000	.00000	-.01764	3.00305	-.0136060	.0000000	-.0021162	.0000000	.1696151	.0000000	.6396973	.0000000
-3.14159	-.11901	.00000	.00000	-.01511	3.15604	-.0141645	.0000000	.0000000	.0000000	.1674554	.0000000	.6395327	.0000000

UTION VS DEPTH, THETA= 15.00 DEGREES, KX= .2618 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.41269	.42137	.26886	.54033	-.07345	.00000	.1775541	.5403319	.6310769	1.9204902	.0000000	.0000000	.0000000	.0000000
.26459	.34109	.18721	.34656	-.25308	.12065	.1163403	.3465611	.3962764	1.1804508	.0217621	.0656722	.0760729	.2296168
.11650	.26713	.14062	.23446	-.28199	.22824	.0713560	.2344617	.2324843	.7638970	.0356606	.1086955	.1226310	.3735909
-.03160	.20478	.11049	.16843	-.26895	.33528	.0419342	.1684253	.1304152	.5238016	.0440494	.1385282	.1495028	.4689417
-.17969	.15300	.08923	.12684	-.24429	.44531	.0234080	.1268395	.0693321	.3756857	.0488879	.1603918	.1642936	.5355465
-.32779	.10991	.07333	.09883	-.21749	.55921	.0120799	.0988310	.0339904	.2780912	.0515156	.1771022	.1719444	.5839570
-.47588	.07386	.06097	.07889	-.19174	.67703	.0054560	.0788903	.0145440	.2102986	.0528141	.1902620	.1755382	.6201210
-.62398	.04355	.05111	.06407	-.16808	.79851	.0018970	.0640725	.0047759	.1613098	.0533586	.2008480	.1769688	.6476377
-.77207	.01795	.04310	.05270	-.14681	.92332	.0003222	.0527002	.0007635	.1248742	.0535229	.2094947	.1773790	.6688289
-.92017	-.00376	.03650	.04376	-.12791	1.05110	-.0000141	.0437577	-.0000313	.0972043	.0535457	.2166372	.1774332	.6852732
-1.06826	-.02221	.03102	.03659	-.11123	1.18151	-.0004934	.0365948	-.0010230	.0758730	.0535082	.2225871	.1773552	.6980891
-1.21636	-.03794	.02643	.03078	-.09659	1.31424	-.0014397	.0307756	-.0027718	.0592502	.0533650	.2275757	.1770742	.7080947
-1.36445	-.05138	.02256	.02600	-.08378	1.44900	-.0026397	.0259957	-.0046911	.0461979	.0530630	.2317795	.1765216	.7159028
-1.51255	-.06287	.01929	.02204	-.07261	1.58554	-.0039524	.0220353	-.0064386	.0358964	.0525748	.2353360	.1756974	.7219817
-1.66064	-.07271	.01652	.01873	-.06287	1.72362	-.0052865	.0187312	-.0078291	.0277399	.0518907	.2383547	.1746409	.7266938
-1.80874	-.08115	.01416	.01596	-.05441	1.86304	-.0065845	.0159593	-.0087762	.0212714	.0510117	.2409234	.1734114	.7303230
-1.95683	-.08838	.01215	.01362	-.04706	2.00364	-.0078119	.0136234	-.0092552	.0161404	.0499457	.2431139	.1720762	.7330932
-2.10493	-.09460	.01044	.01165	-.04069	2.14524	-.0089495	.0116476	-.0092776	.0120747	.0487045	.2449852	.1707039	.7351825
-2.25302	-.09994	.00897	.00997	-.03517	2.28773	-.0099887	.0099714	-.0088757	.0088603	.0473022	.2465860	.1693597	.7367327
-2.40112	-.10454	.00771	.00855	-.03038	2.43098	-.0109278	.0085458	-.0080918	.0063279	.0457534	.2479572	.1681033	.7378573
-2.54921	-.10849	.00663	.00733	-.02624	2.57489	-.0117693	.0073307	-.0069719	.0043425	.0440727	.2491328	.1669879	.7386475
-2.69731	-.11189	.00571	.00629	-.02266	2.71937	-.0125183	.0062932	-.0055617	.0027960	.0422743	.2501416	.1660598	.7391761
-2.84540	-.11481	.00491	.00541	-.01957	2.86435	-.0131815	.0054061	-.0039042	.0016012	.0403713	.2510079	.1653588	.7395017
-2.99350	-.11733	.00423	.00465	-.01689	3.00975	-.0137662	.0046466	-.0020387	.0006881	.0383759	.2517523	.1649188	.7396712
-3.14159	-.11950	.00364	.00400	-.01458	3.15551	-.0142798	.0039957	.0000000	.0000000	.0362991	.2523922	.1647678	.7397221

UTION VS DEPTH, THETA= 30.00 DEGREES, KX= .5236 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.29422	.24597	.30209	.37000	-.10188	.00000	.0605034	.3700029	.2078782	1.2712596	.0000000	.0000000	.0000000	.0000000
.15106	.20158	.25004	.32724	-.14773	.12507	.0406351	.3272390	.1337973	1.0774839	.0072394	.0499081	.0244569	.1681216
.00790	.15914	.20708	.27287	-.17063	.24517	.0253243	.2728710	.0797586	.8594051	.0119608	.0928636	.0397431	.3067629
-.13526	.12054	.17252	.22413	-.17488	.36342	.0145301	.2241334	.0436824	.6738197	.0148135	.1284389	.0485789	.4165101
-.27842	.08639	.14466	.18414	-.16842	.48192	.0074634	.1841444	.0213690	.5272375	.0163878	.1576632	.0532353	.5024810
-.42158	.05659	.12201	.15209	-.15666	.60177	.0032023	.1520943	.0087102	.4136989	.0171512	.1817309	.0553883	.5698327
-.56474	.03076	.10340	.12644	-.14273	.72348	.0009460	.1264383	.0024377	.3258133	.0174482	.2016681	.0561863	.6227665
-.70789	.00844	.08796	.10576	-.12932	.84724	.0000712	.1057643	.0001733	.2573985	.0175210	.2182890	.0563732	.6645124
-.85105	-.01082	.07507	.08896	-.11436	.97304	-.0001170	.0889569	-.0002680	.2037592	.0175177	.2322270	.0563664	.6975218
-.99421	-.02743	.06423	.07517	-.10129	1.10077	-.0007522	.0751709	-.0016152	.1614205	.0174555	.2439752	.0562316	.7236612
-1.13737	-.04175	.05507	.06377	-.08931	1.23030	-.0017431	.0637715	-.0034935	.1278122	.0172769	.2539206	.0558659	.7443642
-1.28053	-.05411	.04729	.05428	-.07849	1.36146	-.0029277	.0542788	-.0054487	.1010163	.0169425	.2623706	.0552259	.7607436
-1.42369	-.06477	.04067	.04633	-.06880	1.49409	-.0041958	.0463261	-.0072080	.0795839	.0164327	.2695718	.0543199	.7736709
-1.56685	-.07398	.03502	.03963	-.06019	1.62803	-.0054738	.0396296	-.0086198	.0624066	.0157405	.2757244	.0531870	.7838345
-1.71001	-.08194	.03018	.03397	-.05257	1.76313	-.0067142	.0339664	-.0096120	.0486259	.0148681	.2809924	.0518819	.7917821
-1.85316	-.08881	.02603	.02916	-.04586	1.89925	-.0078881	.0291598	-.0101633	.0375703	.0138229	.2855109	.0504664	.7979520
-1.99632	-.09476	.02247	.02507	-.03997	2.03628	-.0089790	.0250676	-.0102834	.0287091	.0126155	.2893925	.0490029	.8026962
-2.13948	-.09990	.01941	.02157	-.03480	2.17409	-.0099793	.0215746	-.0100003	.0216202	.0112585	.2927311	.0475510	.8062988
-2.28264	-.10434	.01677	.01859	-.03028	2.31260	-.0108870	.0185866	-.0093514	.0159650	.0097649	.2956058	.0461658	.8089891
-2.42580	-.10819	.01450	.01603	-.02633	2.45171	-.0117043	.0160258	-.0083778	.0114712	.0081479	.2980834	.0448968	.8109530
-2.56896	-.11151	.01253	.01383	-.02288	2.59136	-.0124353	.0138277	-.0071209	.0079182	.0064200	.3002203	.0437874	.8123408
-2.71212	-.11439	.01084	.01194	-.01988	2.73146	-.0130859	.0119384	-.0056201	.0051272	.0045932	.3020646	.0428754	.8132746
-2.85528	-.11689	.00938	.01031	-.01727	2.87196	-.0136626	.0103125	-.0039118	.0029527	.0026785	.3036573	.0421931	.8138530
-2.99843	-.11905	.00812	.00891	-.01499	3.01282	-.0141718	.0089121	-.0020288	.0012758	.0006862	.3050334	.0417679	.8141557
-3.14159	-.12091	.00703	.00770	-.01301	3.15397	-.0146203	.0077048	.0000000	.0000000	-.0013748	.3062228	.0416226	.8142470

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d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT=-1.4278, CRITER., EULER    *K   (K*G)^.5   *K   DEGREES
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ELEV	*K	(K*G)^.5	*K	DEGREES
	-.27673	3.28959	3.14159	180.00
	-.27649	3.22106	3.07614	176.25
	-.27564	3.15253	3.01069	172.50
	-.27389	3.08399	2.94524	168.75
	-.27109	3.01546	2.87979	165.00
	-.26735	2.94693	2.81434	161.25
	-.26307	2.87839	2.74889	157.50
	-.25863	2.80986	2.68344	153.75
	-.25412	2.74133	2.61799	150.00
	-.24914	2.67279	2.55254	146.25
	-.24301	2.60426	2.48709	142.50
	-.23522	2.53573	2.42164	138.75
	-.22579	2.46719	2.35619	135.00
	-.21538	2.39866	2.29074	131.25
	-.20496	2.33013	2.22529	127.50
	-.19521	2.26159	2.15984	123.75
	-.18600	2.19306	2.09440	120.00
	-.17636	2.12453	2.02895	116.25
	-.16498	2.05600	1.96350	112.50
	-.15100	1.98746	1.89805	108.75
	-.13465	1.91893	1.83260	105.00
	-.11721	1.85040	1.76715	101.25
	-.10040	1.78186	1.70170	97.50
	-.08532	1.71333	1.63625	93.75
	-.07164	1.64480	1.57080	90.00
	-.05767	1.57626	1.50535	86.25
	-.04120	1.50773	1.43990	82.50
	-.02083	1.43920	1.37445	78.75
	.00305	1.37066	1.30900	75.00
	.02825	1.30213	1.24355	71.25
	.05188	1.23360	1.17810	67.50
	.07209	1.16506	1.11265	63.75
	.08933	1.09653	1.04720	60.00
	.10641	1.02800	.98175	56.25
	.12714	.95946	.91630	52.50
	.15407	.89093	.85085	48.75
	.18676	.82240	.78540	45.00
	.22149	.75386	.71995	41.25
	.25295	.68533	.65450	37.50
	.27717	.61680	.58905	33.75
	.29422	.54827	.52360	30.00
	.30901	.47973	.45815	26.25
	.32960	.41120	.39270	22.50
	.36334	.34267	.32725	18.75
	.41269	.27413	.26180	15.00
	.47269	.20560	.19635	11.25
	.53170	.13707	.13090	7.50
	.57519	.06853	.06545	3.75
	.59121	.00000	.00000	.00

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.21                                                -.27673
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d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT=-1.4278, CRITER., EULER

U	V	DIST.	ANGLE
*SQRT(K/G)	*K		DEGREES
-.36252	.00000	3.14159	180.00
-.36216	.01420	3.07614	176.25
-.36108	.02838	3.01069	172.50
-.35935	.04253	2.94524	168.75
-.35701	.05663	2.87979	165.00
-.35402	.07068	2.81434	161.25
-.35030	.08463	2.74889	157.50
-.34577	.09842	2.68344	153.75
-.34041	.11201	2.61799	150.00
-.33432	.12539	2.55254	146.25
-.32762	.13863	2.48709	142.50
-.32038	.15178	2.42164	138.75
-.31260	.16485	2.35619	135.00
-.30412	.17775	2.29074	131.25
-.29478	.19029	2.22529	127.50
-.28449	.20230	2.15984	123.75
-.27330	.21373	2.09440	120.00
-.26136	.22470	2.02895	116.25
-.24884	.23549	1.96350	112.50
-.23579	.24627	1.89805	108.75
-.22213	.25703	1.83260	105.00
-.20766	.26747	1.76715	101.25
-.19223	.27711	1.70170	97.50
-.17582	.28557	1.63625	93.75
-.15852	.29285	1.57080	90.00
-.14048	.29934	1.50535	86.25
-.12173	.30564	1.43990	82.50
-.10218	.31218	1.37445	78.75
-.08164	.31887	1.30900	75.00
-.06002	.32501	1.24355	71.25
-.03742	.32961	1.17810	67.50
-.01411	.33192	1.11265	63.75
.00972	.33197	1.04720	60.00
.03424	.33067	.98175	56.25
.05999	.32928	.91630	52.50
.08770	.32869	.85085	48.75
.11785	.32874	.78540	45.00
.15013	.32792	.71995	41.25
.18326	.32395	.65450	37.50
.21544	.31518	.58905	33.75
.24597	.30209	.52360	30.00
.27665	.28718	.45815	26.25
.31166	.27393	.39270	22.50
.35698	.26641	.32725	18.75
.42137	.26886	.26180	15.00
.52010	.28152	.19635	11.25
.67313	.28154	.13090	7.50
.86002	.20024	.06545	3.75
.95529	.00000	.00000	.00

-.36252

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HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS

	Ax	Ay	DIST.	ANGLE
.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT=-1.4278, CRITER., EULER	*1/G	*1/G	*K	DEGREES
	.00000	.28602	3.14159	180.00
	.01386	.28572	3.07614	176.25
	.02771	.28485	3.01069	172.50
	.04153	.28351	2.94524	168.75
	.05532	.28173	2.87979	165.00
	.06908	.27948	2.81434	161.25
	.08276	.27665	2.74889	157.50
	.09632	.27312	2.68344	153.75
	.10971	.26886	2.61799	150.00
	.12295	.26401	2.55254	146.25
	.13608	.25875	2.48709	142.50
	.14917	.25324	2.42164	138.75
	.16223	.24746	2.35619	135.00
	.17518	.24121	2.29074	131.25
	.18784	.23423	2.22529	127.50
	.20008	.22634	2.15984	123.75
	.21185	.21760	2.09440	120.00
	.22329	.20828	2.02895	116.25
	.23464	.19873	1.96350	112.50
	.24606	.18915	1.89805	108.75
	.25756	.17946	1.83260	105.00
	.26885	.16933	1.76715	101.25
	.27952	.15836	1.70170	97.50
	.28922	.14631	1.63625	93.75
	.29800	.13333	1.57080	90.00
	.30623	.11982	1.50535	86.25
	.31451	.10630	1.43990	82.50
	.32325	.09300	1.37445	78.75
	.33233	.07981	1.30900	75.00
	.34107	.06624	1.24355	71.25
	.34846	.05177	1.17810	67.50
	.35386	.03625	1.11265	63.75
	.35756	.02000	1.04720	60.00
	.36074	.00361	.98175	56.25
	.36487	-.01234	.91630	52.50
	.37091	-.02761	.85085	48.75
	.37853	-.04279	.78540	45.00
	.38507	-.05924	.71995	41.25
	.38590	-.07713	.65450	37.50
	.37888	-.09291	.58905	33.75
	.37000	-.10188	.52360	30.00
	.37027	-.10410	.45815	26.25
	.38910	-.10177	.39270	22.50
	.43835	-.09274	.32725	18.75
	.54033	-.07345	.26180	15.00
	.71125	-.05079	.19635	11.25
	.86192	-.03930	.13090	7.50
	.68310	-.02105	.06545	3.75
	.00000	.00099	.00000	.00

-.10410

STEADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
M. M. RIENECKER AND J. D. FENTON.

DEPTH: FINITE, HEIGHT/DEPTH= .1280

WAVE HEIGHT 2.037581E-02,DIMENSIONLESS WITH RESPECT TO PERIOD

CURRENT CRITERION: EULER , MAGNITUDE= .00

SOLUTION OF ORDER   6 NON-DIMENSIONALIZED BY WAVE NUMBER, 2 HEIGHT STEP(S).

WATER DEPTH   5.5419

WAVE HEIGHT   .70951

WAVE PERIOD   5.9009

WAVE SPEED   1.0648

MEAN EULERIAN FLUID SPEED   -8.06501E-23

MEAN MASS TRANSPORT SPEED   1.02243E-02

MEAN FLUID SPEED RELATIVE TO WAVE   1.0648

VOLUME FLUX DUE TO WAVES   5.66623E-02

BERNOULLI CONSTANT   .56685

SOLUTION VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .1280, WAVE HEIGHT=2.03758E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.43239	.54620	.00000	.00000	-.32083	.00000	.2983366	.0000000	1.7823575	.0000000	.0000000	.0000000	.0000000	.0000000
.18346	.41434	.00000	.00000	-.29393	.17186	.1716785	.0000000	.9829260	.0000000	.0585004	.0000000	.3441808	.0000000
-.06547	.31695	.00000	.00000	-.25222	.35270	.1004561	.0000000	.5501433	.0000000	.0923716	.0000000	.5349942	.0000000
-.31440	.24376	.00000	.00000	-.20943	.54421	.0594190	.0000000	.3106145	.0000000	.1122705	.0000000	.6421283	.0000000
-.56333	.18816	.00000	.00000	-.17060	.74595	.0354039	.0000000	.1762617	.0000000	.1240726	.0000000	.7027273	.0000000
-.81226	.14561	.00000	.00000	-.13727	.95668	.0212035	.0000000	.1002856	.0000000	.1311182	.0000000	.7371478	.0000000
-1.06119	.11290	.00000	.00000	-.10953	1.17500	.0127461	.0000000	.0571120	.0000000	.1353438	.0000000	.7567382	.0000000
-1.31012	.08765	.00000	.00000	-.08688	1.39958	.0076833	.0000000	.0325142	.0000000	.1378865	.0000000	.7678936	.0000000
-1.55905	.06813	.00000	.00000	-.06862	1.62924	.0046412	.0000000	.0184854	.0000000	.1394205	.0000000	.7742412	.0000000
-1.80798	.05299	.00000	.00000	-.05403	1.86298	.0028083	.0000000	.0104862	.0000000	.1403477	.0000000	.7778472	.0000000
-2.05691	.04125	.00000	.00000	-.04243	2.09996	.0017017	.0000000	.0059305	.0000000	.1409090	.0000000	.7798305	.0000000
-2.30584	.03213	.00000	.00000	-.03325	2.33951	.0010325	.0000000	.0033414	.0000000	.1412493	.0000000	.7810445	.0000000
-2.55477	.02505	.00000	.00000	-.02602	2.58110	.0006274	.0000000	.0018742	.0000000	.1414559	.0000000	.7816937	.0000000
-2.80370	.01954	.00000	.00000	-.02032	2.82429	.0003819	.0000000	.0010458	.0000000	.1415816	.0000000	.7820571	.0000000
-3.05263	.01527	.00000	.00000	-.01584	3.06874	.0002331	.0000000	.0005802	.0000000	.1416581	.0000000	.7822595	.0000000
-3.30156	.01195	.00000	.00000	-.01232	3.31418	.0001428	.0000000	.0003199	.0000000	.1417049	.0000000	.7823715	.0000000
-3.55049	.00938	.00000	.00000	-.00955	3.56040	.0000880	.0000000	.0001752	.0000000	.1417336	.0000000	.7824331	.0000000
-3.79942	.00740	.00000	.00000	-.00736	3.80724	.0000547	.0000000	.0000953	.0000000	.1417514	.0000000	.7824668	.0000000
-4.04835	.00588	.000000	.00000	-.00563	4.05456	.0000345	.0000000	.0000516	.0000000	.1417625	.0000000	.7824851	.0000000
-4.29728	.00472	.00000	.00000	-.00424	4.30227	.0000223	.0000000	.0000277	.0000000	.1417696	.0000000	.7824950	.0000000
-4.54621	.00386	.00000	.00000	-.00312	4.55029	.0000149	.0000000	.0000149	.0000000	.1417742	.0000000	.7825003	.0000000
-4.79514	.00324	.00000	.00000	-.00218	4.79856	.0000105	.0000000	.0000079	.0000000	.1417774	.0000000	.7825031	.0000000
-5.04407	.00283	.00000	.00000	-.00138	5.04705	.0000080	.0000000	.0000040	.0000000	.1417797	.0000000	.7825046	.0000000
-5.29300	.00259	.00000	.00000	-.00067	5.29572	.0000067	.0000000	.0000017	.0000000	.1417815	.0000000	.7825053	.0000000
-5.54193	.00251	.00000	.00000	.00000	5.54457	.0000063	.0000000	.0000000	.0000000	.1417831	.0000000	.7825055	.0000000

...LUTION VS DEPTH, THETA= 15.00 DEGREES, KX= .2618 RADIANS, H/d= .1280, WAVE HEIGHT=2.03758E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.39635	.49870	.15066	.19112	-.28076	-.00107	.2487014	.1911172	1.4768575	1.1349065	.0000000	.0000000	.0000000	.0000000
.14892	.38152	.11124	.13546	-.26421	.17832	.1455552	.1354590	.8283324	.7708763	.0487751	.0404021	.2851844	.2357721
-.09851	.29351	.08360	.09858	-.23007	.36443	.0861457	.0985751	.4689270	.5365855	.0774397	.0693554	.4456736	.3975235
-.34594	.22668	.06353	.07311	-.19279	.55956	.0513824	.0731101	.2669825	.3798791	.0944539	.0905952	.5367160	.5109031
-.59337	.17555	.04864	.05496	-.15803	.76367	.0308178	.0549608	.1525036	.2719770	.1046232	.1064394	.5886123	.5915468
-.84079	.13623	.03744	.04172	-.12775	.97584	.0185584	.0417186	.0872454	.1961247	.1107317	.1184000	.6182726	.6494576
-1.08822	.10587	.02892	.03189	-.10231	1.19490	.0112094	.0318900	.0499233	.1420289	.1144144	.1275064	.6352423	.6912920
-1.33565	.08238	.02239	.02450	-.08141	1.41969	.0067860	.0245034	.0285437	.1030683	.1166407	.1344831	.6449498	.7216139
-1.58308	.06415	.01737	.01890	-.06447	1.64915	.0041154	.0189008	.0162923	.0748255	.1179894	.1398528	.6504966	.7436219
-1.83051	.04999	.01350	.01462	-.05087	1.88237	.0024995	.0146224	.0092765	.0542697	.1188077	.1440001	.6536598	.7595928
-2.07793	.03899	.01050	.01134	-.04004	2.11860	.0015199	.0113386	.0052651	.0392767	.1193050	.1472118	.6554588	.7711658
-2.32536	.03042	.00817	.00881	-.03144	2.35723	.0009254	.0088088	.0029767	.0283342	.1196075	.1497044	.6564784	.7795302
-2.57279	.02375	.00636	.00685	-.02464	2.59775	.0005642	.0068549	.0016753	.0203530	.1197318	.1516422	.6570540	.7855535
-2.82022	.01856	.00495	.00534	-.01928	2.83977	.0003446	.0053429	.0009379	.0145418	.1199042	.1531512	.6573773	.7898705
-3.06765	.01453	.00385	.00417	-.01506	3.08297	.0002110	.0041720	.0005221	.0103226	.1199730	.1543283	.6575579	.7929466
-3.31507	.01139	.00299	.00327	-.01173	3.32710	.0001297	.0032651	.0002888	.0072710	.1200151	.1552484	.6576582	.7951232
-3.56250	.00895	.00231	.00256	-.00911	3.57197	.0000802	.0025638	.0001587	.0050748	.1200411	.1559695	.6577135	.7966505
-3.80993	.00707	.00178	.00202	-.00703	3.81741	.0000500	.0020229	.0000866	.0035037	.1200572	.1565370	.6577439	.7977118
-4.05736	.00563	.00136	.00161	-.00538	4.06331	.0000317	.0016083	.0000470	.0023876	.1200673	.1569862	.6577604	.7984406
-4.30479	.00453	.00103	.00129	-.00406	4.30957	.0000205	.0012937	.0000254	.0016005	.1200737	.1573452	.6577694	.7989340
-4.55222	.00371	.00075	.00106	-.00299	4.55614	.0000138	.0010595	.0000136	.0010486	.1200780	.1576363	.6577742	.7992617
-4.79964	.00312	.00053	.00089	-.00209	4.80294	.0000098	.0008308	.0000072	.0006613	.1200809	.1578776	.6577768	.7994733
-5.04707	.00273	.00034	.00078	-.00133	5.04995	.0000074	.0007774	.0000037	.0003847	.1200830	.1580840	.6577782	.7996027
-5.29450	.00250	.00016	.00071	-.00064	5.29713	.0000062	.0007120	.0000015	.0001762	.1200847	.1582683	.6577788	.7996721
-5.54193	.00242	.00000	.00069	.00000	5.54448	.0000059	.0006907	.0000000	.0000000	.1200862	.1584418	.6577790	.7996939

...LUTION VS DEPTH, THETA= 30.00 DEGREES, KX= .5236 RADIANS, H/d= .1280, WAVE HEIGHT=2.03758E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.30792	.39094	.25259	.30209	-.19489	.00000	.1528370	.3020858	.8940734	1.7671570	.0000000	.0000000	.0000000	.0000000
.06418	.30447	.19071	.22326	-.19617	.19545	.0927038	.2232572	.5197074	1.2516037	.0299245	.0640245	.1723001	.3679020
-.17956	.23726	.14547	.16703	-.17740	.39344	.0562932	.1670251	.3018645	.8956494	.0480831	.1115890	.2724267	.6295918
-.42331	.18505	.11175	.12627	-.15232	.59696	.0342445	.1262653	.1752847	.6463041	.0591171	.1473329	.3305777	.8175126
-.66705	.14446	.08628	.09625	-.12701	.80669	.0208691	.0962452	.1017341	.4691832	.0658339	.1744506	.3643385	.9534591
-.91080	.11286	.06686	.07383	-.10399	1.02234	.0127380	.0738334	.0589912	.3419322	.0699296	.1951784	.3839264	1.0523113
-1.15454	.08823	.05195	.05692	-.08414	1.24322	.0077853	.0569195	.0341573	.2497278	.0724308	.2111135	.3952786	1.1244180
-1.39828	.06902	.04044	.04405	-.06751	1.46855	.0047637	.0440464	.0197389	.1825124	.0739602	.2234184	.4018470	1.1770959
-1.64203	.05401	.03153	.03418	-.05385	1.69756	.0029176	.0341846	.0113782	.1333165	.0748963	.2329526	.4056393	1.2155866
-1.88577	.04229	.02461	.02659	-.04276	1.92958	.0017884	.0265920	.0065388	.0972244	.0754659	.2403595	.4078229	1.2436830
-2.12951	.03312	.01922	.02072	-.03384	2.16402	.0010972	.0207241	.0037441	.0707193	.0758215	.2461260	.4090761	1.2641506
-2.37326	.02596	.01502	.01618	-.02671	2.40042	.0006738	.0161765	.0021350	.0512579	.0760374	.2506232	.4097926	1.2790162
-2.61700	.02035	.01173	.01264	-.02104	2.63837	.0004142	.0126449	.0012116	.0369854	.0761700	.2541357	.4102005	1.2897706
-2.86075	.01597	.00917	.00990	-.01654	2.87756	.0002551	.0098989	.0006840	.0265407	.0762515	.2568831	.4104315	1.2975127
-3.10449	.01255	.00715	.00776	-.01297	3.11772	.0001575	.0077626	.0003838	.0189208	.0763018	.2590356	.4105616	1.3030531
-3.34823	.00988	.00558	.00610	-.01014	3.35866	.0000976	.0061012	.0002141	.0133842	.0763329	.2607252	.4106345	1.3069902
-3.59198	.00780	.00433	.00481	-.00790	3.60022	.0000608	.0048112	.0001186	.0093815	.0763522	.2620551	.4106750	1.3097647
-3.83572	.00619	.00335	.00381	-.00612	3.84226	.0000383	.0038128	.0000653	.0065054	.0763643	.2631061	.4106974	1.3117009
-4.07946	.00495	.00257	.00304	-.00470	4.08469	.0000245	.0030448	.0000358	.0044529	.0763719	.2639419	.4107098	1.3130364
-4.32321	.00400	.00194	.00246	-.00356	4.32743	.0000160	.0024603	.0000195	.0029985	.0763769	.2646128	.4107165	1.3139445
-4.56695	.00329	.00143	.00202	-.00262	4.57042	.0000108	.0020239	.0000106	.0019733	.0763801	.2651593	.4107202	1.3145504
-4.81070	.00278	.00100	.00171	-.00184	4.81363	.0000077	.0017091	.0000057	.0012498	.0763824	.2656142	.4107221	1.3149432
-5.05444	.00244	.00064	.00150	-.00117	5.05701	.0000059	.0014969	.0000029	.0007297	.0763841	.2660050	.4107232	1.3151844
-5.29818	.00224	.00031	.00137	-.00057	5.30054	.0000050	.0013745	.0000012	.0003350	.0763854	.2663549	.4107237	1.3153142
-5.54193	.00217	.00000	.00133	.00000	5.54421	.0000047	.0013345	.0000000	.0000000	.0763866	.2666850	.4107238	1.3153550

d=.1280 HEIGHT=2.0376E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER	*K	(K*G)^.5	*K	DEGREES
	-.27712	2.95046	3.14159	180.00
	-.27676	2.88900	3.07614	176.25
	-.27569	2.82753	3.01069	172.50
	-.27388	2.76606	2.94524	168.75
	-.27132	2.70459	2.87979	165.00
	-.26798	2.64312	2.81434	161.25
	-.26384	2.58166	2.74889	157.50
	-.25889	2.52019	2.68344	153.75
	-.25314	2.45872	2.61799	150.00
	-.24659	2.39725	2.55254	146.25
	-.23927	2.33578	2.48709	142.50
	-.23123	2.27432	2.42164	138.75
	-.22249	2.21285	2.35619	135.00
	-.21308	2.15138	2.29074	131.25
	-.20302	2.08991	2.22529	127.50
	-.19230	2.02844	2.15984	123.75
	-.18090	1.96698	2.09440	120.00
	-.16878	1.90551	2.02895	116.25
	-.15589	1.84404	1.96350	112.50
	-.14217	1.78257	1.89805	108.75
	-.12756	1.72110	1.83260	105.00
	-.11203	1.65964	1.76715	101.25
	-.09556	1.59817	1.70170	97.50
	-.07817	1.53670	1.63625	93.75
	-.05990	1.47523	1.57080	90.00
	-.04083	1.41376	1.50535	86.25
	-.02105	1.35230	1.43990	82.50
	-.00065	1.29083	1.37445	78.75
	.02027	1.22936	1.30900	75.00
	.04166	1.16789	1.24355	71.25
	.06346	1.10642	1.17810	67.50
	.08569	1.04496	1.11265	63.75
	.10838	.98349	1.04720	60.00
	.13158	.92202	.98175	56.25
	.15535	.86055	.91630	52.50
	.17974	.79908	.85085	48.75
	.20475	.73762	.78540	45.00
	.23030	.67615	.71995	41.25
	.25622	.61468	.65450	37.50
	.28222	.55321	.58905	33.75
	.30792	.49174	.52360	30.00
	.33280	.43028	.45815	26.25
	.35627	.36881	.39270	22.50
	.37768	.30734	.32725	18.75
	.39635	.24587	.26180	15.00
	.41165	.18440	.19635	11.25
	.42302	.12294	.13090	7.50
	.43002	.06147	.06545	3.75
	.43239	.00000	.00000	.00

239

-.27712

'd=.1280 HEIGHT=2.0376E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

U *SQRT(K/G)	V *K	DIST. *K	ANGLE DEGREES
-.23443	.00000	3.14159	180.00
-.23405	.01485	3.07614	176.25
-.23292	.02968	3.01069	172.50
-.23104	.04447	2.94524	168.75
-.22841	.05918	2.87979	165.00
-.22504	.07381	2.81434	161.25
-.22093	.08832	2.74889	157.50
-.21608	.10271	2.68344	153.75
-.21048	.11694	2.61799	150.00
-.20414	.13100	2.55254	146.25
-.19703	.14485	2.48709	142.50
-.18914	.15846	2.42164	138.75
-.18048	.17181	2.35619	135.00
-.17102	.18485	2.29074	131.25
-.16076	.19755	2.22529	127.50
-.14970	.20988	2.15984	123.75
-.13785	.22180	2.09440	120.00
-.12519	.23329	2.02895	116.25
-.11175	.24432	1.96350	112.50
-.09750	.25488	1.89805	108.75
-.08246	.26493	1.83260	105.00
-.06661	.27445	1.76715	101.25
-.04993	.28341	1.70170	97.50
-.03241	.29175	1.63625	93.75
-.01404	.29941	1.57080	90.00
.00521	.30633	1.50535	86.25
.02534	.31240	1.43990	82.50
.04636	.31754	1.37445	78.75
.06826	.32165	1.30900	75.00
.09102	.32461	1.24355	71.25
.11463	.32634	1.17810	67.50
.13907	.32674	1.11265	63.75
.16431	.32572	1.04720	60.00
.19033	.32321	.98175	56.25
.21713	.31911	.91630	52.50
.24468	.31331	.85085	48.75
.27295	.30567	.78540	45.00
.30187	.29602	.71995	41.25
.33133	.28414	.65450	37.50
.36113	.26976	.58905	33.75
.39094	.25259	.52360	30.00
.42031	.23231	.45815	26.25
.44861	.20866	.39270	22.50
.47505	.18145	.32725	18.75
.49870	.15066	.26180	15.00
.51854	.11651	.19635	11.25
.53359	.07947	.13090	7.50
.54300	.04030	.06545	3.75
.54620	.00000	.00000	.00

4620

-.23443

d=.1280 HEIGHT=2.0376E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER

	Ax *1/G	Ay *1/G	DIST. *K	ANGLE DEGREES
	.00000	.29494	3.14159	180.00
	.01481	.29462	3.07614	176.25
	.02959	.29369	3.01069	172.50
	.04434	.29214	2.94524	168.75
	.05904	.28998	2.87979	165.00
	.07366	.28722	2.81434	161.25
	.08820	.28385	2.74889	157.50
	.10263	.27990	2.68344	153.75
	.11695	.27534	2.61799	150.00
	.13113	.27019	2.55254	146.25
	.14514	.26442	2.48709	142.50
	.15897	.25802	2.42164	138.75
	.17259	.25099	2.35619	135.00
	.18596	.24332	2.29074	131.25
	.19906	.23500	2.22529	127.50
	.21186	.22603	2.15984	123.75
	.22434	.21642	2.09440	120.00
	.23647	.20619	2.02895	116.25
	.24825	.19534	1.96350	112.50
	.25965	.18390	1.89805	108.75
	.27067	.17187	1.83260	105.00
	.28127	.15925	1.76715	101.25
	.29144	.14605	1.70170	97.50
	.30112	.13226	1.63625	93.75
	.31028	.11786	1.57080	90.00
	.31883	.10284	1.50535	86.25
	.32670	.08717	1.43990	82.50
	.33380	.07085	1.37445	78.75
	.34002	.05386	1.30900	75.00
	.34527	.03621	1.24355	71.25
	.34944	.01791	1.17810	67.50
	.35245	-.00103	1.11265	63.75
	.35418	-.02058	1.04720	60.00
	.35455	-.04071	.98175	56.25
	.35343	-.06139	.91630	52.50
	.35066	-.08259	.85085	48.75
	.34605	-.10429	.78540	45.00
	.33930	-.12644	.71995	41.25
	.33006	-.14900	.65450	37.50
	.31785	-.17187	.58905	33.75
	.30209	-.19489	.52360	30.00
	.28213	-.21779	.45815	26.25
	.25731	-.24016	.39270	22.50
	.22708	-.26141	.32725	18.75
	.19112	-.28076	.26180	15.00
	.14950	-.29729	.19635	11.25
	.10288	-.31002	.13090	7.50
	.05246	-.31807	.06545	3.75
	.00000	-.32083	.00000	.00

.455

-.32083

M. M. RIENECKER AND J. D. FENTON.

EPTH: FINITE, HEIGHT/DEPTH= .1280

VE HEIGHT 2.037581E-02, DIMENSIONLESS WITH RESPECT TO PERIOD

URRENT CRITERION: EULER , MAGNITUDE= .00

LUTION OF ORDER   8 NON-DIMENSIONALIZED BY WAVE NUMBER, 2 HEIGHT STEP(S).

ATER DEPTH   5.5421

AVE HEIGHT   .70952

AVE PERIOD   5.9010

AVE SPEED   1.0648

EAN EULERIAN FLUID SPEED   -1.04061E-22

EAN MASS TRANSPORT SPEED   1.02192E-02

EAN FLUID SPEED RELATIVE TO WAVE   1.0648

OLUME FLUX DUE TO WAVES   5.66355E-02

ERNOULLI CONSTANT   .56686

LUTION VS DEPTH, THETA=   .00 DEGREES, KX= .0000 RADIANS, H/d= .1280, WAVE HEIGHT=2.03758E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.43242	.54622	.00000	.00000	-.32106	.00000	.2983563	.0000000	1.7825211	.0000000	.0000000	.0000000	.0000000	.0000000
.18348	.41432	.00000	.00000	-.29392	.17184	.1716605	.0000000	.9828481	.0000000	.0585021	.0000000	.3442004	.0000000
-.06545	.31693	.00000	.00000	-.25218	.35269	.1004474	.0000000	.5501100	.0000000	.0923709	.0000000	.5350049	.0000000
-.31439	.24375	.00000	.00000	-.20941	.54422	.0594158	.0000000	.3106056	.0000000	.1122688	.0000000	.6421366	.0000000
-.56333	.18816	.00000	.00000	-.17059	.74597	.0354027	.0000000	.1762602	.0000000	.1240706	.0000000	.7027359	.0000000
-.81226	.14561	.00000	.00000	-.13726	.95670	.0212030	.0000000	.1002856	.0000000	.1311162	.0000000	.7371570	.0000000
-1.06120	.11290	.00000	.00000	-.10953	1.17504	.0127458	.0000000	.0571122	.0000000	.1353418	.0000000	.7567480	.0000000
-1.31014	.08765	.00000	.00000	-.08688	1.39962	.0076831	.0000000	.0325142	.0000000	.1378845	.0000000	.7679037	.0000000
-1.55907	.06813	.00000	.00000	-.06862	1.62929	.0046411	.0000000	.0184853	.0000000	.1394185	.0000000	.7742515	.0000000
-1.80801	.05299	.00000	.00000	-.05402	1.86303	.0028082	.0000000	.0104860	.0000000	.1403457	.0000000	.7778575	.0000000
-2.05695	.04125	.00000	.00000	-.04243	2.10002	.0017016	.0000000	.0059304	.0000000	.1409070	.0000000	.7799008	.0000000
-2.30588	.03213	.00000	.00000	-.03325	2.33958	.0010325	.0000000	.0033413	.0000000	.1412473	.0000000	.7810548	.0000000
-2.55482	.02505	.00000	.00000	-.02602	2.58117	.0006274	.0000000	.0018741	.0000000	.1414539	.0000000	.7817040	.0000000
-2.80375	.01954	.00000	.00000	-.02032	2.82437	.0003819	.0000000	.0010458	.0000000	.1415796	.0000000	.7820674	.0000000
-3.05269	.01527	.00000	.00000	-.01584	3.06883	.0002331	.0000000	.0005802	.0000000	.1416561	.0000000	.7822698	.0000000
-3.30163	.01195	.00000	.00000	-.01232	3.31428	.0001428	.0000000	.0003198	.0000000	.1417029	.0000000	.7823818	.0000000
-3.55056	.00938	.00000	.00000	-.00955	3.56050	.0000880	.0000000	.0001752	.0000000	.1417316	.0000000	.7824434	.0000000
-3.79950	.00740	.00000	.00000	-.00736	3.80735	.0000547	.0000000	.0000953	.0000000	.1417493	.0000000	.7824771	.0000000
-4.04844	.00587	.00000	.00000	-.00563	4.05467	.0000345	.0000000	.0000516	.0000000	.1417605	.0000000	.7824954	.0000000
-4.29737	.00472	.00000	.00000	-.00424	4.30239	.0000223	.0000000	.0000277	.0000000	.1417675	.0000000	.7825052	.0000000
-4.54631	.00386	.00000	.00000	-.00312	4.55041	.0000149	.0000000	.0000149	.0000000	.1417722	.0000000	.7825105	.0000000
-4.79524	.00324	.00000	.00000	-.00218	4.79869	.0000105	.0000000	.0000079	.0000000	.1417753	.0000000	.7825134	.0000000
-5.04418	.00283	.00000	.00000	-.00138	5.04719	.0000080	.0000000	.0000040	.0000000	.1417776	.0000000	.7825148	.0000000
-5.29312	.00259	.00000	.00000	-.00067	5.29587	.0000067	.0000000	.0000017	.0000000	.1417795	.0000000	.7825155	.0000000
-5.54205	.00251	.00000	.00000	.00000	5.54472	.0000063	.0000000	.0000000	.0000000	.1417811	.0000000	.7825157	.0000000

UTION VS DEPTH, THETA= 15.00 DEGREES, KX= .2618 RADIANS, H/d= .1280, WAVE HEIGHT=2.03758E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.39518	.49797	.15044	.19094	-.28051	-.00026	.2479692	.1909354	1.4722509	1.1336276	.0000000	.0000000	.0000000	.0000000
.14779	.38102	.11108	.13522	-.26401	.17915	.1451797	.1352249	.8260507	.7694090	.0486295	.0403435	.2842823	.2353911
-.09959	.29316	.08348	.09841	-.22987	.36528	.0859422	.0984094	.4677371	.5355897	.0772175	.0692423	.4443140	.3968094
-.34698	.22643	.06345	.07300	-.19262	.56042	.0512693	.0730016	.2663479	.3792491	.0941895	.0904445	.5351147	.5099680
-.59436	.17537	.04859	.05489	-.15789	.76453	.0307540	.0548891	.1521616	.2715747	.1043352	.1062636	.5868811	.5904699
-.84174	.13610	.03740	.04167	-.12764	.97669	.0185222	.0416700	.0870601	.1958620	.1104303	.1182073	.6164710	.6482882
-1.08913	.10578	.02889	.03186	-.10222	1.19574	.0111888	.0318564	.0498227	.1418540	.1141053	.1273019	.6334023	.6900611
-1.33651	.08231	.02237	.02448	-.08134	1.42051	.0067742	.0244797	.0284891	.1029504	.1163272	.1342703	.6430889	.7203416
-1.58390	.06410	.01736	.01888	-.06441	1.64994	.0041087	.0188839	.0162628	.0747455	.1176733	.1396340	.6486244	.7423212
-1.83128	.04996	.01349	.01461	-.05083	1.88313	.0024956	.0146102	.0092606	.0542152	.1184902	.1437770	.6517814	.7582726
-2.07867	.03896	.01049	.01133	-.04001	2.11933	.0015177	.0113298	.0052565	.0392396	.1189866	.1469856	.6535771	.7698323
-2.32605	.03040	.00816	.00880	-.03142	2.35793	.0009242	.0088026	.0029721	.0283090	.1192887	.1494758	.6545949	.7781875
-2.57344	.02374	.00635	.00685	-.02463	2.59841	.0005635	.0068503	.0016729	.0203360	.1194727	.1514119	.6551695	.7842045
-2.82082	.01855	.00494	.00534	-.01927	2.84039	.0003442	.0053396	.0009367	.0145304	.1195850	.1529197	.6554922	.7885172
-3.06821	.01452	.00384	.00417	-.01505	3.08355	.0002108	.0041696	.0005214	.0103150	.1196536	.1540960	.6556726	.7915904
-3.31559	.01138	.00299	.00326	-.01172	3.32764	.0001295	.0032635	.0002884	.0072660	.1196957	.1550154	.6557728	.7937651
-3.56298	.00895	.00231	.00256	-.00910	3.57246	.0000801	.0025626	.0001585	.0050716	.1197216	.1557360	.6558281	.7952911
-3.81036	.00707	.00178	.00202	-.00703	3.81786	.0000500	.0020221	.0000866	.0035017	.1197377	.1563031	.6558584	.7963516
-4.05775	.00563	.00136	.00161	-.00538	4.06372	.0000317	.0016077	.0000470	.0023864	.1197478	.1567521	.6558749	.7970799
-4.30513	.00453	.00103	.00129	-.00406	4.30994	.0000205	.0012933	.0000254	.0015997	.1197543	.1571109	.6558838	.7975729
-4.55252	.00371	.00075	.00106	-.00298	4.55646	.0000138	.0010592	.0000136	.0010481	.1197585	.1574019	.6558887	.7979004
-4.79990	.00312	.00053	.00089	-.00209	4.80322	.0000098	.0008907	.0000072	.0006610	.1197614	.1576431	.6558913	.7981118
-5.04728	.00273	.00033	.00078	-.00133	5.05018	.0000074	.0007773	.0000037	.0003846	.1197636	.1578494	.6558926	.7982412
-5.29467	.00250	.00016	.00071	-.00064	5.29733	.0000062	.0007119	.0000015	.0001761	.1197553	.1580336	.6558932	.7983105
-5.54205	.00242	.00000	.00069	.00000	5.54463	.0000059	.0006906	.0000000	.0000000	.1197668	.1582071	.6558934	.7983323

TION VS DEPTH, THETA= 30.00 DEGREES, KX= .5236 RADIANS, H/d= .1280, WAVE HEIGHT=2.03758E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.30746	.39074	.25235	.30151	-.19494	.00040	.1526775	.3015069	.8930897	1.7636699	.0000000	.0000000	.0000000	.0000000
.06373	.30433	.19057	.22301	-.19617	.19584	.0926190	.2230107	.5192022	1.2501509	.0298930	.0639203	.1721089	.3672791
-.18000	.23716	.14538	.16689	-.17736	.39382	.0562442	.1668912	.3015848	.8948802	.0480342	.1114357	.2721341	.6286833
-.42373	.18498	.11169	.12618	-.15227	.59733	.0342159	.1261828	.1751282	.6458448	.0590582	.1471511	.3302287	.8164437
-.66746	.14440	.08624	.09619	-.12696	.80707	.0208523	.0961909	.1016466	.4688919	.0657690	.1742507	.3639578	.9522910
-.91119	.11282	.06683	.07380	-.10396	1.02271	.0127282	.0737963	.0589425	.3417411	.0698613	.1949662	.3835280	1.0510788
-1.15492	.08820	.05193	.05689	-.08411	1.24359	.0077796	.0568935	.0341302	.2495999	.0723605	.2108927	.3948703	1.1231425
-1.39865	.06899	.04043	.04403	-.06749	1.46891	.0047603	.0440279	.0197239	.1824256	.0738887	.2231915	.4014333	1.1757913
-1.64238	.05400	.03152	.03417	-.05383	1.69791	.0029156	.0341713	.0113699	.1332572	.0748241	.2327212	.4052225	1.2142620
-1.88611	.04228	.02460	.02658	-.04275	1.92992	.0017873	.0265823	.0065342	.0971836	.0753972	.2401250	.4074044	1.2423446
-2.12984	.03311	.01921	.02072	-.03383	2.16436	.0010965	.0207171	.0037416	.0706912	.0757487	.2458891	.4086566	1.2628027
-2.37356	.02595	.01501	.01617	-.02671	2.40074	.0006734	.0161713	.0021336	.0512386	.0759644	.2503845	.4093726	1.2776616
-2.61729	.02035	.01173	.01264	-.02104	2.63868	.0004140	.0126411	.0012109	.0369722	.0760969	.2538957	.4097802	1.2884114
-2.86102	.01597	.00916	.00990	-.01653	2.87786	.0002550	.0098961	.0006836	.0265317	.0761784	.2566422	.4100111	1.2961503
-3.10475	.01255	.00715	.00776	-.01297	3.11801	.0001574	.0077605	.0003836	.0189147	.0762286	.2587940	.4101411	1.3016887
-3.34848	.00988	.00557	.00610	-.01014	3.35893	.0000975	.0060997	.0002140	.0133801	.0762597	.2604830	.4102139	1.3056243
-3.59221	.00780	.00433	.00481	-.00790	3.60048	.0000608	.0048101	.0001186	.0093788	.0762790	.2618125	.4102545	1.3083973
-3.83594	.00619	.00335	.00381	-.00612	3.84251	.0000383	.0038120	.0000653	.0065036	.0762911	.2628633	.4102769	1.3103333
-4.07967	.00494	.00257	.00304	-.00470	4.08492	.0000245	.0030442	.0000358	.0044518	.0762987	.2635988	.4102892	1.3116684
-4.32340	.00400	.00194	.00246	-.00356	4.32765	.0000160	.0024599	.0000195	.0029977	.0763037	.2643695	.4102959	1.3125762
-4.56713	.00329	.00143	.00202	-.00262	4.57063	.0000108	.0020236	.0000106	.0019728	.0763069	.2649159	.4102996	1.3131820
-4.81086	.00278	.00100	.00171	-.00184	4.81382	.0000077	.0017089	.0000057	.0012495	.0763092	.2653708	.4103015	1.3135746
-5.05459	.00244	.00064	.00150	-.00117	5.05718	.0000059	.0014967	.0000029	.0007296	.0763109	.2657614	.4103026	1.3138159
-5.29832	.00224	.00031	.00137	-.00057	5.30070	.0000050	.0013743	.0000012	.0003350	.0763122	.2661113	.4103031	1.3139455
-5.54205	.00217	.00000	.00133	.00000	5.54436	.0000047	.0013243	.0000000	.0000000	.0763134	.2664414	.4103032	1.3139864

d=.1280 HEIGHT=2.0376E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

	*K	(K*G)^.5	*K	DEGREES
+	-.27710	2.95050	3.14159	180.00
+	-.27674	2.88903	3.07614	176.25
+	-.27563	2.82756	3.01069	172.50
+	-.27377	2.76609	2.94524	168.75
+¦	-.27116	2.70462	2.87979	165.00
+¦	-.26777	2.64315	2.81434	161.25
+ ¦	-.26362	2.58169	2.74889	157.50
+ ¦	-.25871	2.52022	2.68344	153.75
+ ¦	-.25304	2.45875	2.61799	150.00
+ ¦	-.24663	2.39728	2.55254	146.25
+ ¦	-.23950	2.33581	2.48709	142.50
+ ¦	-.23165	2.27434	2.42164	138.75
+ ¦	-.22307	2.21287	2.35619	135.00
+ ¦	-.21375	2.15140	2.29074	131.25
+ ¦	-.20365	2.08994	2.22529	127.50
+ ¦	-.19276	2.02847	2.15984	123.75
+ ¦	-.18106	1.96700	2.09440	120.00
+ ¦	-.16854	1.90553	2.02895	116.25
+ ¦	-.15521	1.84406	1.96350	112.50
+ ¦	-.14110	1.78259	1.89805	108.75
+ ¦	-.12625	1.72112	1.83260	105.00
+ ¦	-.11068	1.65966	1.76715	101.25
+ ¦	-.09443	1.59819	1.70170	97.50
+ ¦	-.07750	1.53672	1.63625	93.75
+ ¦	-.05987	1.47525	1.57080	90.00
+ ¦	-.04151	1.41378	1.50535	86.25
+ ¦	-.02237	1.35231	1.43990	82.50
¦+	-.00242	1.29084	1.37445	78.75
+ ¦	.01835	1.22937	1.30900	75.00
+ ¦	.03993	1.16791	1.24355	71.25
+ ¦	.06227	1.10644	1.17810	67.50
+ ¦	.08527	1.04497	1.11265	63.75
+ ¦	.10885	.98350	1.04720	60.00
+ ¦	.13289	.92203	.98175	56.25
+ ¦	.15729	.86056	.91630	52.50
+ ¦	.18200	.79909	.85085	48.75
+ ¦	.20694	.73762	.78540	45.00
+ ¦	.23208	.67616	.71995	41.25
+ ¦	.25732	.61469	.65450	37.50
+ ¦	.28253	.55322	.58905	33.75
+ ¦	.30746	.49175	.52360	30.00
+ ¦	.33176	.43028	.45815	26.25
+ ¦	.35491	.36881	.39270	22.50
+ ¦	.37628	.30734	.32725	18.75
+ ¦	.39518	.24587	.26180	15.00
+ ¦	.41086	.18441	.19635	11.25
+ ¦	.42263	.12294	.13090	7.50
+ ¦	.42994	.06147	.06545	3.75
+ ¦	.43242	.00000	.00000	.00

.242   -.27710

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICLE VELOCITIES

	U	V	DIST.	ANGLE
d=.1280 HEIGHT=2.0376E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER	*SQRT(K/G)		*K	DEGREES
	-.23444	.00000	3.14159	180.00
	-.23406	.01486	3.07614	176.25
	-.23294	.02969	3.01069	172.50
	-.23107	.04448	2.94524	168.75
	-.22846	.05920	2.87979	165.00
	-.22509	.07383	2.81434	161.25
	-.22099	.08835	2.74889	157.50
	-.21613	.10273	2.68344	153.75
	-.21051	.11696	2.61799	150.00
	-.20414	.13100	2.55254	146.25
	-.19699	.14482	2.48709	142.50
	-.18907	.15841	2.42164	138.75
	-.18038	.17172	2.35619	135.00
	-.17091	.18474	2.29074	131.25
	-.16066	.19744	2.22529	127.50
	-.14963	.20980	2.15984	123.75
	-.13782	.22178	2.09440	120.00
	-.12522	.23336	2.02895	116.25
	-.11182	.24450	1.96350	112.50
	-.09761	.25515	1.89805	108.75
	-.08257	.26528	1.83260	105.00
	-.06670	.27482	1.76715	101.25
	-.04999	.28373	1.70170	97.50
	-.03244	.29195	1.63625	93.75
	-.01403	.29943	1.57080	90.00
	.00522	.30613	1.50535	86.25
	.02533	.31200	1.43590	82.50
	.04631	.31699	1.37445	78.75
	.06817	.32103	1.30900	75.00
	.09090	.32405	1.24355	71.25
	.11453	.32595	1.17810	67.50
	.13904	.32561	1.11265	63.75
	.16441	.32590	1.04720	60.00
	.19060	.32367	.98175	55.25
	.21757	.31977	.91630	52.50
	.24526	.31406	.85085	48.75
	.27358	.30637	.78540	45.00
	.30245	.29655	.71995	41.25
	.33174	.28442	.65450	37.50
	.36125	.26976	.58905	33.75
	.39074	.25235	.52360	30.00
	.41980	.23192	.45815	26.25
	.44788	.20824	.39270	22.50
	.47424	.18110	.32725	18.75
	.49797	.15044	.26180	15.00
	.51801	.11642	.19635	11.25
	.53332	.07947	.13090	7.50
	.54294	.04032	.06545	3.75
	.54622	.00000	.00000	.00

622

-.23444

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS

d=.1280 HEIGHT=2.0376E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

Ax	Ay	DIST.	ANGLE
*1/G	*1/G	*K	DEGREES
.00000	.29496	3.14159	180.00
.01481	.29465	3.07614	176.25
.02960	.29373	3.01069	172.50
.04435	.29219	2.94524	168.75
.05905	.29005	2.87979	165.00
.07368	.28730	2.81434	161.25
.08822	.28394	2.74889	157.50
.10266	.27997	2.68344	153.75
.11697	.27539	2.61799	150.00
.13113	.27019	2.55254	146.25
.14512	.26436	2.48709	142.50
.15892	.25791	2.42164	138.75
.17251	.25083	2.35619	135.00
.18586	.24314	2.29074	131.25
.19896	.23483	2.22529	127.50
.21179	.22591	2.15984	123.75
.22433	.21639	2.09440	120.00
.23655	.20626	2.02895	116.25
.24843	.19552	1.96350	112.50
.25993	.18417	1.89805	108.75
.27101	.17219	1.83260	105.00
.28163	.15956	1.76715	101.25
.29174	.14630	1.70170	97.50
.30130	.13240	1.63625	93.75
.31027	.11786	1.57080	90.00
.31861	.10269	1.50535	86.25
.32628	.08691	1.43990	82.50
.33323	.07052	1.37445	78.75
.33941	.05353	1.30900	75.00
.34473	.03594	1.24355	71.25
.34911	.01773	1.17810	67.50
.35241	-.00109	1.11265	63.75
.35449	-.02053	1.04720	60.00
.35516	-.04059	.98175	56.25
.35426	-.06126	.91630	52.50
.35156	-.08250	.85085	48.75
.34684	-.10427	.78540	45.00
.33983	-.12651	.71995	41.25
.33021	-.14912	.65450	37.50
.31760	-.17199	.58905	33.75
.30151	-.19494	.52360	30.00
.28138	-.21773	.45815	26.25
.25660	-.23998	.39270	22.50
.22659	-.26115	.32725	18.75
.19094	-.28051	.26180	15.00
.14961	-.29714	.19635	11.25
.10312	-.31004	.13090	7.50
.05265	-.31824	.06545	3.75
.00000	-.32106	.00000	.00

.516

-.32106

STEADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
M. M. RIENECKER AND J. D. FENTON.

DEPTH: DEEP , HEIGHT/DEPTH= .1280

WAVE HEIGHT 2.037581E-02,DIMENSIONLESS WITH RESPECT TO PERIOD

CURRENT CRITERION: EULER , MAGNITUDE= .00

SOLUTION OF ORDER 6 NON-DIMENSIONALIZED BY WAVE NUMBER, 2 HEIGHT STEP(S).

WAVE HEIGHT	.70949
WAVE PERIOD	5.9009
WAVE SPEED	1.0648
MEAN EULERIAN FLUID SPEED	-3.48686E-23
MEAN MASS TRANSPORT SPEED	-2.88340E-20
MEAN FLUID SPEED RELATIVE TO WAVE	1.0648
VOLUME FLUX DUE TO WAVES	5.66610E-02
BERNOULLI CONSTANT	.56686

SOLUTION VS DEPTH, THETA= .00 DEGREES, KX= .0000 RADIANS, H/d= .1280, WAVE HEIGHT=2.03758E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.43237	.54616	.00000	.00000	-.32082	.00000	.2982872	.0000000	1.0660673	.0000000	.0000000	.0000000	.0000000	.0000000
.28345	.46238	.00000	.00000	-.30781	.10196	.2137991	.0000000	.7322720	.0000000	.0381287	.0000000	.1338999	.0000000
.13454	.39286	.00000	.00000	-.28626	.20657	.1543354	.0000000	.5056232	.0000000	.0655391	.0000000	.2260705	.0000000
-.01438	.33468	.00000	.00000	-.26113	.31471	.1120116	.0000000	.3502844	.0000000	.0853706	.0000000	.2897993	.0000000
-.16329	.28571	.00000	.00000	-.23514	.42667	.0816326	.0000000	.2431266	.0000000	.0997889	.0000000	.3339832	.0000000
-.31221	.24431	.00000	.00000	-.20980	.54247	.0596871	.0000000	.1688778	.0000000	.1103112	.0000000	.3646601	.0000000
-.46112	.20918	.00000	.00000	-.18593	.66194	.0437546	.0000000	.1172831	.0000000	.1180132	.0000000	.3859669	.0000000
-.61004	.17928	.00000	.00000	-.16392	.78483	.0321423	.0000000	.0813700	.0000000	.1236643	.0000000	.4007581	.0000000
-.75895	.15379	.00000	.00000	-.14394	.91085	.0236520	.0000000	.0563543	.0000000	.1278186	.0000000	.4110127	.0000000
-.90787	.13202	.00000	.00000	-.12599	1.03970	.0174288	.0000000	.0389312	.0000000	.1308774	.0000000	.4181075	.0000000
-1.05678	.11339	.00000	.00000	-.10999	1.17106	.0128579	.0000000	.0268063	.0000000	.1331325	.0000000	.4230021	.0000000
-1.20570	.09744	.00000	.00000	-.09583	1.30468	.0094949	.0000000	.0183812	.0000000	.1347968	.0000000	.4263667	.0000000
-1.35461	.08377	.00000	.00000	-.08334	1.44027	.0070172	.0000000	.0125396	.0000000	.1360263	.0000000	.4286690	.0000000
-1.50353	.07204	.00000	.00000	-.07238	1.57761	.0051895	.0000000	.0085008	.0000000	.1369352	.0000000	.4302356	.0000000
-1.65244	.06197	.00000	.00000	-.06278	1.71648	.0038401	.0000000	.0057185	.0000000	.1376075	.0000000	.4312943	.0000000
-1.80136	.05332	.00000	.00000	-.05440	1.85668	.0028429	.0000000	.0038102	.0000000	.1381051	.0000000	.4320038	.0000000
-1.95027	.04589	.00000	.00000	-.04711	1.99805	.0021056	.0000000	.0025084	.0000000	.1384735	.0000000	.4324743	.0000000
-2.09919	.03950	.00000	.00000	-.04076	2.14043	.0015600	.0000000	.0016261	.0000000	.1387465	.0000000	.4327821	.0000000
-2.24810	.03400	.00000	.00000	-.03524	2.28370	.0011561	.0000000	.0010330	.0000000	.1389487	.0000000	.4329801	.0000000
-2.39702	.02927	.00000	.00000	-.03046	2.42773	.0008570	.0000000	.0006381	.0000000	.1390986	.0000000	.4331045	.0000000
-2.54593	.02521	.00000	.00000	-.02631	2.57243	.0006354	.0000000	.0003785	.0000000	.1392097	.0000000	.4331802	.0000000
-2.69485	.02171	.00000	.00000	-.02272	2.71770	.0004712	.0000000	.0002105	.0000000	.1392921	.0000000	.4332241	.0000000
-2.84376	.01870	.00000	.00000	-.01962	2.86347	.0003495	.0000000	.0001041	.0000000	.1393532	.0000000	.4332475	.0000000
-2.99268	.01610	.00000	.00000	-.01693	3.00966	.0002593	.0000000	.0000386	.0000000	.1393986	.0000000	.4332581	.0000000
-3.14159	.01387	.00000	.00000	-.01461	3.15624	.0001924	.0000000	.0000000	.0000000	.1394322	.0000000	.4332610	.0000000

SOLUTION VS DEPTH, THETA= 3.75 DEGREES, KX= .0654 RADIANS, H/d= .1280, WAVE HEIGHT=2.03758E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.43000	.54295	.04029	.05245	-.31806	-.00011	.2947988	.0524485	1.0529022	.1873248	.0000000	.0000000	.0000000	.0000000
.28119	.45987	.03330	.04201	-.30554	.10215	.2114774	.0420089	.7238404	.1437872	.0376711	.0070284	.1322043	.0246375
.13237	.39085	.02778	.03411	-.28439	.20700	.1527607	.0341086	.5001328	.1116703	.0647734	.0126922	.2232780	.0436456
-.01645	.33306	.02333	.02800	-.25958	.31532	.1109286	.0280019	.3466681	.0875099	.0843941	.0173137	.2862869	.0584662
-.16526	.28439	.01969	.02319	-.23385	.42742	.0808802	.0231930	.2407261	.0690299	.0986662	.0211230	.3299939	.0701141
-.31408	.24323	.01669	.01935	-.20873	.54332	.0591603	.0193463	.1672766	.0547020	.1090864	.0242883	.3603527	.0793208
-.46290	.20829	.01418	.01623	-.18503	.66286	.0433837	.0162293	.1162118	.0434734	.1167165	.0269354	.3814465	.0866258
-.61171	.17855	.01208	.01368	-.16317	.78579	.0318800	.0136768	.0806525	.0346006	.1223168	.0291607	.3960949	.0924352
-.76053	.15319	.01032	.01157	-.14331	.91182	.0234659	.0115684	.0558739	.0275450	.1264350	.0310391	.4062535	.0970593
-.90935	.13152	.00882	.00981	-.12547	1.04067	.0172965	.0098146	.0386100	.0219085	.1294680	.0326302	.4132839	.1007391
-1.05816	.11298	.00755	.00835	-.10956	1.17202	.0127636	.0083473	.0265921	.0173910	.1317047	.0339816	.4181355	.1036633
-1.20698	.09710	.00647	.00711	-.09546	1.30560	.0094276	.0071139	.0182388	.0137627	.1333559	.0351320	.4214713	.1059814
-1.35579	.08348	.00555	.00607	-.08304	1.44116	.0069691	.0060731	.0124454	.0108453	.1345760	.0361133	.4237544	.1078124
-1.50461	.07180	.00476	.00519	-.07212	1.57845	.0051552	.0051919	.0084389	.0084991	.1354781	.0369515	.4253084	.1092518
-1.65343	.06177	.00409	.00444	-.06257	1.71726	.0038155	.0044439	.0056782	.0066132	.1361456	.0376684	.4263588	.1103763
-1.80224	.05315	.00351	.00381	-.05423	1.85739	.0028254	.0038074	.0037842	.0050995	.1366398	.0382824	.4270629	.1112478
-1.95106	.04575	.00302	.00326	-.04696	1.99869	.0020930	.0032649	.0024918	.0038870	.1370058	.0388087	.4275299	.1119165
-2.09988	.03938	.00260	.00280	-.04063	2.14100	.0015510	.0028017	.0016157	.0029185	.1372769	.0392601	.4278355	.1124229
-2.24869	.03391	.00223	.00241	-.03514	2.28419	.0011497	.0024056	.0010266	.0021480	.1374779	.0396475	.4280321	.1127999
-2.39751	.02920	.00192	.00207	-.03037	2.42814	.0008525	.0020666	.0006343	.0015377	.1376268	.0399803	.4281557	.1130741
-2.54633	.02514	.00165	.00178	-.02624	2.57275	.0006322	.0017762	.0003763	.0010573	.1377373	.0402662	.4282309	.1132672
-2.69514	.02165	.00142	.00153	-.02267	2.71794	.0004689	.0015271	.0002094	.0006818	.1378192	.0405120	.4282745	.1133966
-2.84396	.01865	.00123	.00131	-.01957	2.86362	.0003479	.0013134	.0001035	.0003909	.1378800	.0407234	.4282978	.1134764
-2.99278	.01607	.00106	.00113	-.01689	3.00972	.0002581	.0011299	.0000384	.0001682	.1379251	.0409052	.4283083	.1135180
-3.14159	.01384	.00091	.00097	-.01458	3.15620	.0001915	.0009723	.0000000	.0000000	.1379586	.0410616	.4283112	.1135305

SOLUTION VS DEPTH, THETA= 7.50 DEGREES, KX= .1309 RADIANS, H/d= .1280, WAVE HEIGHT=2.03758E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.42300	.53355	.07946	.10285	-.31001	-.00040	.2846717	.1028536	1.0147381	.3666310	.0000000	.0000000	.0000000	.0000000
.27447	.45246	.06577	.08262	-.29889	.10275	.2047172	.0826179	.6993273	.2822282	.0363431	.0137735	.1272904	.0481858
.12595	.38492	.05493	.06723	-.27889	.20829	.1481651	.0672279	.4841355	.2196699	.0625490	.0249014	.2151771	.0854579
-.02258	.32827	.04617	.05529	-.25502	.31714	.1077624	.0552853	.3361128	.1724356	.0815548	.0339995	.2760906	.1145765
-.17110	.28049	.03900	.04585	-.23006	.42964	.0786772	.0458520	.2337099	.1362030	.0954002	.0415102	.3184070	.1374968
-.31963	.24003	.03307	.03829	-.20557	.54583	.0576160	.0382883	.1625905	.1080484	.1055216	.0477587	.3478372	.1556354
-.46815	.20566	.02813	.03215	-.18239	.66556	.0422951	.0321479	.1130736	.0859455	.1129413	.0529894	.3683086	.1700419
-.61667	.17638	.02398	.02711	-.16097	.78861	.0311093	.0271119	.0785486	.0684553	.1183925	.0573902	.3825389	.1815080
-.76520	.15139	.02048	.02295	-.14147	.91470	.0229187	.0229471	.0544638	.0545313	.1224047	.0611077	.3924167	.1906413
-.91372	.13003	.01751	.01948	-.12392	1.04354	.0169069	.0194793	.0376663	.0433972	.1253622	.0642584	.3992585	.1979137
-1.06225	.11174	.01500	.01658	-.10827	1.17484	.0124858	.0165756	.0259622	.0344663	.1275450	.0669359	.4039837	.2036960
-1.21077	.09607	.01286	.01413	-.09438	1.30834	.0092292	.0141330	.0178199	.0272882	.1291576	.0692164	.4072351	.2082820
-1.35930	.08263	.01103	.01207	-.08214	1.44378	.0068273	.0120704	.0121683	.0215130	.1303500	.0711623	.4094621	.2119061
-1.50782	.07109	.00947	.01032	-.07137	1.58092	.0050538	.0103232	.0082567	.0168658	.1312323	.0728253	.4109789	.2147562
-1.65635	.06118	.00814	.00884	-.06194	1.71956	.0037430	.0088393	.0055593	.0131285	.1318856	.0742484	.4120049	.2169837
-1.80487	.05266	.00699	.00758	-.05371	1.85951	.0027735	.0075761	.0037074	.0101271	.1323695	.0754674	.4126930	.2187107
-1.95340	.04534	.00601	.00650	-.04652	2.00060	.0020559	.0064988	.0024428	.0077219	.1327281	.0765126	.4131498	.2200362
-2.10192	.03904	.00517	.00558	-.04027	2.14269	.0015245	.0055786	.0015850	.0058000	.1329940	.0774095	.4134489	.2210404
-2.25045	.03363	.00445	.00479	-.03484	2.28565	.0011307	.0047916	.0010077	.0042700	.1331912	.0781796	.4136414	.2217882
-2.39897	.02896	.00383	.00412	-.03012	2.42935	.0008389	.0041177	.0006230	.0030579	.1333375	.0788413	.4137625	.2223324
-2.54749	.02495	.00330	.00354	-.02604	2.57372	.0006225	.0035402	.0003698	.0021032	.1334460	.0794100	.4138362	.2227156
-2.69602	.02150	.00284	.00304	-.02249	2.71864	.0004620	.0030447	.0002059	.0013566	.1335266	.0798990	.4138790	.2229725
-2.84454	.01852	.00245	.00262	-.01943	2.86406	.0003430	.0026194	.0001019	.0007781	.1335863	.0803196	.4139018	.2231311
-2.99307	.01596	.00211	.00225	-.01677	3.00990	.0002546	.0022542	.0000378	.0003348	.1336307	.0806815	.4139122	.2232138
-3.14159	.01375	.00181	.00194	-.01448	3.15611	.0001891	.0019403	.0000000	.0000000	.1336637	.0809930	.4139150	.2232386

LUTION VS DEPTH, THETA= 15.00 DEGREES, KX= .2618 RADIANS, H/d= .1280, WAVE HEIGHT=2.03758E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.39633	.49867	.15065	.19108	-.28076	-.00107	.2486697	.1910807	.8797753	.6760295	.0000000	.0000000	.0000000	.0000000
.24892	.42478	.12541	.15509	-.27436	.10527	.1804372	.1550892	.6117748	.5258320	.0316281	.0255151	.1099374	.0885854
.10151	.36267	.10519	.12721	-.25840	.21333	.1315289	.1272107	.4265614	.4125569	.0546221	.0463225	.1864698	.1577510
-.04591	.31021	.08873	.10526	-.23789	.32413	.0962287	.1052641	.2978938	.3258645	.0714094	.0634575	.2398671	.2121777
-.19332	.26573	.07517	.08773	-.21573	.43810	.0706101	.0877335	.2081779	.2586623	.0837066	.0776827	.2771681	.2552613
-.34073	.22789	.06389	.07355	-.19357	.55536	.0519360	.0735534	.1454654	.2060128	.0927391	.0895707	.3032340	.2895110
-.48815	.19564	.05445	.06196	-.17234	.67582	.0382755	.0619615	.1015620	.1644115	.0993883	.0995590	.3214416	.3168138
-.63556	.16809	.04650	.05240	-.15254	.79930	.0282537	.0524015	.0708048	.1313199	.1042919	.1079884	.3341462	.3386112
-.78297	.14451	.03979	.04446	-.13440	.92559	.0208840	.0444595	.0492573	.1048630	.1079137	.1151277	.3429956	.3560195
-.93039	.12431	.03408	.03782	-.11800	1.05442	.0154538	.0378216	.0341716	.0836314	.1105921	.1211924	.3491449	.3699129
-1.07780	.10699	.02923	.03225	-.10330	1.18554	.0114463	.0322458	.0236229	.0665487	.1125748	.1263568	.3534047	.3809821
-1.22522	.09211	.02510	.02754	-.09023	1.31871	.0084848	.0275426	.0162600	.0527820	.1140438	.1307636	.3563444	.3897776
-1.37263	.07933	.02156	.02356	-.07866	1.45369	.0062937	.0235616	.0111332	.0416796	.1151331	.1345304	.3583634	.3967401
-1.52004	.06834	.01854	.02018	-.06846	1.59028	.0046710	.0201820	.0075743	.0327262	.1159413	.1377546	.3597423	.4022243
-1.66746	.05889	.01595	.01731	-.05951	1.72828	.0034684	.0173060	.0051129	.0255115	.1165412	.1405177	.3606774	.4065168
-1.81487	.05076	.01372	.01485	-.05168	1.86751	.0025764	.0148536	.0034182	.0197066	.1169868	.1428881	.3613062	.4098497
-1.96228	.04376	.01181	.01276	-.04483	2.00782	.0019145	.0127586	.0022578	.0150463	.1173178	.1449233	.3617246	.4124112
-2.10970	.03772	.01017	.01097	-.03886	2.14907	.0014231	.0109663	.0014685	.0113161	.1175638	.1466720	.3619992	.4143543
-2.25711	.03253	.00877	.00943	-.03366	2.29115	.0010581	.0094312	.0009359	.0083417	.1177467	.1481754	.3621765	.4158032
-2.40452	.02805	.00755	.00811	-.02915	2.43394	.0007869	.0081149	.0005800	.0059812	.1178827	.1494687	.3622882	.4168589
-2.55194	.02419	.00651	.00699	-.02522	2.57736	.0005853	.0069851	.0003451	.0041188	.1179838	.1505816	.3623564	.4176033
-2.69935	.02087	.00561	.00601	-.02182	2.72131	.0004354	.0060148	.0001926	.0026600	.1180590	.1515398	.3623960	.4181030
-2.84677	.01800	.00484	.00518	-.01887	2.86573	.0003239	.0051808	.0000955	.0015274	.1181150	.1523650	.3624172	.4184116
-2.99418	.01553	.00417	.00446	-.01631	3.01055	.0002411	.0044636	.0000355	.0006580	.1181566	.1530759	.3624269	.4185727
-3.14159	.01339	.00360	.00385	-.01410	3.15573	.0001794	.0038465	.0000000	.0000000	.1181876	.1536884	.3624295	.4186212

LUTION VS DEPTH, THETA= 30.00 DEGREES, KX= .5236 RADIANS, H/d= .1280, WAVE HEIGHT=2.03758E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.30792	.39093	.25257	.30205	-.19490	.00000	.1528297	.3020480	.5271884	1.0419193	.0000000	.0000000	.0000000	.0000000
.16419	.33734	.21369	.25234	-.19930	.11525	.1138012	.2523356	.3762026	.8341677	.0191614	.0398407	.0649221	.1348248
.02046	.29113	.18154	.21173	-.19374	.23064	.0847560	.2117321	.2680034	.6695087	.0334307	.0731909	.1112179	.2428864
-.12327	.25131	.15474	.17841	-.18264	.34728	.0631547	.1784087	.1906215	.5384958	.0440603	.1012284	.1441770	.3296995
-.26700	.21700	.13224	.15090	-.16871	.46573	.0470875	.1509023	.1353575	.4337833	.0519828	.1248943	.1676034	.3995723
-.41073	.18743	.11327	.12806	-.15366	.58629	.0351304	.1280647	.0959363	.3497277	.0578914	.1449422	.1842253	.4558793
-.55446	.16194	.09718	.10900	-.13852	.70903	.0262259	.1089994	.0678499	.2819965	.0623008	.1619788	.1959958	.5012781
-.69819	.13996	.08351	.09300	-.12392	.83391	.0195897	.0930045	.0478657	.2272478	.0655933	.1764958	.2043117	.5378749
-.84192	.12100	.07184	.07953	-.11021	.96082	.0146405	.0795266	.0336685	.1828854	.0680533	.1888947	.2101711	.5673491
-.98565	.10463	.06187	.06813	-.09756	1.08964	.0109469	.0681262	.0236009	.1468766	.0698921	.1995058	.2142868	.5910474
-1.12938	.09049	.05332	.05845	-.08605	1.22018	.0081885	.0584513	.0164771	.1176167	.0712673	.2086023	.2171670	.6100552
-1.27310	.07828	.04599	.05022	-.07567	1.35230	.0061275	.0502172	.0114492	.0938302	.0722961	.2164117	.2191739	.6252508
-1.41683	.06773	.03969	.04319	-.06639	1.48584	.0045867	.0431922	.0079110	.0744961	.0730661	.2231246	.2205653	.6373475
-1.56056	.05860	.03428	.03719	-.05813	1.62063	.0034343	.0371862	.0054298	.0587924	.0736425	.2289010	.2215240	.6469263
-1.70429	.05072	.02961	.03204	-.05081	1.75654	.0025721	.0320420	.0036969	.0460539	.0740742	.2338760	.2221799	.6544611
-1.84802	.04390	.02559	.02763	-.04435	1.89344	.0019268	.0276292	.0024924	.0357402	.0743975	.2381643	.2226247	.6603392
-1.99175	.03800	.02212	.02384	-.03867	2.03122	.0014436	.0238387	.0016600	.0274107	.0746397	.2418630	.2229231	.6648775
-2.13548	.03289	.01913	.02058	-.03369	2.16975	.0010818	.0205791	.0010884	.0207048	.0748212	.2450551	.2231206	.6683353
-2.27921	.02847	.01654	.01777	-.02932	2.30896	.0008108	.0177733	.0006992	.0153273	.0749572	.2478113	.2232491	.6709248
-2.42294	.02465	.01431	.01536	-.02550	2.44876	.0006077	.0153559	.0004368	.0110355	.0750591	.2501921	.2233307	.6728193
-2.56667	.02134	.01238	.01327	-.02217	2.58907	.0004556	.0132719	.0002619	.0076303	.0751356	.2522495	.2233809	.6741508
-2.71040	.01848	.01071	.01147	-.01926	2.72983	.0003416	.0114739	.0001473	.0049474	.0751928	.2540278	.2234103	.6750646
-2.85413	.01600	.00927	.00992	-.01673	2.87097	.0002561	.0099221	.0000736	.0028522	.0752358	.2555654	.2234262	.6756252
-2.99786	.01386	.00802	.00858	-.01452	3.01246	.0001920	.0085819	.0000276	.0012335	.0752680	.2568952	.2234335	.6759188
-3.14159	.01200	.00695	.00742	-.01260	3.15425	.0001440	.0074242	.0000000	.0000000	.0752922	.2580455	.2234355	.6760074

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.20338	.27021	.30464	.34676	-.10031	.00071	.0730111	.3467598	.2186847	1.0386245	.0000000	.0000000	.0000000	.0000000
.07857	.23974	.26529	.30146	-.11196	.11217	.0574739	.3014646	.1649746	.8653317	.0081423	.0404496	.0239406	.1188079
-.04623	.21250	.23133	.26217	-.11622	.22267	.0451551	.2621677	.1239789	.7198141	.0145464	.0756205	.0419714	.2177219
-.17103	.18824	.20193	.22820	-.11552	.33297	.0354344	.2281979	.0928674	.5980666	.0195753	.1062196	.0555027	.2999584
-.29583	.16670	.17642	.19888	-.11159	.44358	.0277901	.1988764	.0693647	.4964000	.0235205	.1328693	.0656261	.3682538
-.42063	.14763	.15423	.17357	-.10564	.55481	.0217933	.1735734	.0516768	.4115809	.0266146	.1561104	.0731792	.4249123
-.54543	.13076	.13488	.15173	-.09854	.66686	.0170974	.1517297	.0384080	.3408487	.0290414	.1764095	.0788005	.4718643
-.67023	.11587	.11798	.13286	-.09086	.77984	.0134251	.1328602	.0284829	.2818787	.0309460	.1941681	.0829746	.5107229
-.79503	.10274	.10317	.11655	-.08302	.89379	.0105560	.1165489	.0210784	.2327269	.0324424	.2097313	.0860672	.5428345
-.91983	.09119	.09018	.10244	-.07526	1.00871	.0083162	.1024421	.0155681	.1917734	.0336200	.2233965	.0883540	.5693236
-1.04464	.08105	.07874	.09024	-.06777	1.12459	.0065689	.0902399	.0114772	.1576686	.0345489	.2354200	.0900416	.5911290
-1.16944	.07216	.06865	.07969	-.06064	1.24139	.0052064	.0796882	.0084470	.1292873	.0352837	.2460236	.0912849	.6090352
-1.29424	.06438	.05972	.07057	-.05393	1.35904	.0041447	.0705721	.0062072	.1056898	.0358672	.2553999	.0921993	.6236979
-1.41904	.05760	.05179	.06271	-.04765	1.47751	.0033180	.0627100	.0045550	.0860890	.0363329	.2637168	.0928709	.6356650
-1.54384	.05172	.04472	.05595	-.04181	1.59673	.0026749	.0559482	.0033383	.0698240	.0367068	.2711211	.0933634	.6453941
-1.66864	.04664	.03840	.05016	-.03638	1.71666	.0021754	.0501571	.0024434	.0563370	.0370095	.2777421	.0937242	.6532666
-1.79344	.04229	.03270	.04523	-.03133	1.83724	.0017883	.0452277	.0017854	.0451557	.0372568	.2836942	.0939881	.6595998
-1.91824	.03859	.02754	.04107	-.02664	1.95843	.0014895	.0410684	.0013012	.0358777	.0374614	.2890791	.0941807	.6646563
-2.04304	.03550	.02283	.03760	-.02226	2.08018	.0012603	.0376031	.0009437	.0281575	.0376329	.2939883	.0943208	.6686521
-2.16785	.03296	.01849	.03477	-.01814	2.20246	.0010863	.0347692	.0006779	.0216962	.0377794	.2985044	.0944220	.6717630
-2.29265	.03093	.01444	.03252	-.01424	2.32524	.0009569	.0325159	.0004777	.0162321	.0379069	.3027030	.0944941	.6741298
-2.41745	.02939	.01063	.03080	-.01053	2.44850	.0008637	.0308032	.0003234	.0115328	.0380205	.3066541	.0945441	.6758623
-2.54225	.02830	.00700	.02960	-.00694	2.57221	.0008010	.0296008	.0001999	.0073884	.0381244	.3104234	.0945767	.6770430
-2.66705	.02766	.00347	.02889	-.00345	2.69637	.0007649	.0288877	.0000955	.0036052	.0382221	.3140731	.0945952	.6777290
-2.79185	.02744	.00000	.02865	.00000	2.82095	.0007531	.0286514	.0000000	.0000000	.0383168	.3176636	.0946011	.6779540

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
.10706	.16133	.32329	.35351	-.01616	-.00084	.0260262	.3535102	.0754478	1.0247963	.0000000	.0000000	.0000000	.0000000
-.01372	.14500	.28452	.31211	-.03293	.11691	.0210244	.3121107	.0584084	.8670833	.0028416	.0401996	.0080841	.1142583
-.13451	.13007	.25046	.27535	-.04353	.23303	.0169185	.2753505	.0449583	.7316998	.0051331	.0756787	.0143269	.2108154
-.25530	.11651	.22052	.24287	-.04962	.34816	.0135744	.2428652	.0344323	.6160401	.0069747	.1069759	.0191216	.2922109
-.37609	.10425	.19419	.21425	-.05244	.46275	.0108678	.2142499	.0262541	.5175771	.0084509	.1345830	.0227867	.3606747
-.49688	.09321	.17100	.18910	-.05295	.57716	.0086882	.1890980	.0199392	.4339752	.0096319	.1589428	.0255765	.4181428
-.61766	.08331	.15055	.16702	-.05186	.69160	.0069401	.1670230	.0150892	.3631393	.0105758	.1804504	.0276920	.4662838
-.73845	.07445	.13250	.14767	-.04969	.80625	.0055429	.1476696	.0113818	.3032247	.0113297	.1994560	.0292907	.5065282
-.85924	.06655	.11653	.13072	-.04683	.92120	.0044292	.1307176	.0085599	.2526263	.0119320	.2162689	.0304950	.5400983
-.98003	.05953	.10240	.11588	-.04355	1.03653	.0035435	.1158826	.0064202	.2099587	.0124135	.2311621	.0313997	.5680357
-1.10082	.05330	.08985	.10291	-.04007	1.15226	.0028406	.1029141	.0048036	.1740314	.0127990	.2443761	.0320776	.5912265
-1.22160	.04779	.07870	.09159	-.03651	1.26843	.0022838	.0915934	.0035861	.1438242	.0131085	.2561232	.0325843	.6104231
-1.34239	.04293	.06876	.08173	-.03298	1.38502	.0018434	.0817299	.0026719	.1184641	.0133578	.2665909	.0329622	.6262637
-1.46318	.03867	.05987	.07316	-.02954	1.50203	.0014956	.0731585	.0019872	.0972035	.0135594	.2759453	.0332436	.6392888
-1.58397	.03495	.05189	.06574	-.02622	1.61945	.0012216	.0657369	.0014755	.0794023	.0137235	.2843337	.0334527	.6499547
-1.70476	.03172	.04470	.05934	-.02304	1.73727	.0010061	.0593424	.0010937	.0645107	.0138581	.2918878	.0336079	.6586462
-1.82555	.02894	.03819	.05387	-.02002	1.85546	.0008372	.0538703	.0008090	.0520551	.0139694	.2987252	.0337228	.6656861
-1.94633	.02656	.03225	.04923	-.01714	1.97400	.0007055	.0492316	.0005965	.0416261	.0140626	.3049519	.0338077	.6713439
-2.06712	.02457	.02679	.04535	-.01441	2.09289	.0006035	.0453513	.0004374	.0328674	.0141416	.3106641	.0338701	.6758429
-2.18791	.02292	.02174	.04217	-.01181	2.21209	.0005254	.0421670	.0003173	.0254664	.0142098	.3159497	.0339157	.6793659
-2.30870	.02161	.01702	.03963	-.00931	2.33161	.0004669	.0396279	.0002256	.0191463	.0142697	.3208897	.0339485	.6820602
-2.42949	.02060	.01254	.03769	-.00690	2.45142	.0004245	.0376936	.0001538	.0136588	.0143235	.3255594	.0339714	.6840415
-2.55027	.01989	.00826	.03633	-.00456	2.57151	.0003958	.0363334	.0000956	.0087773	.0143731	.3300302	.0339865	.6853965
-2.67106	.01947	.00410	.03553	-.00227	2.69189	.0003792	.0355258	.0000458	.0042911	.0144199	.3343701	.0339950	.6861857
-2.79185	.01933	.00000	.03526	.00000	2.81254	.0003738	.0352580	.0000000	.0000000	.0144654	.3386450	.0339978	.6864449

SOLUTION VS DEPTH, THETA= 90.00 DEGREES, KX= 1.5708 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
-.06096	-.01609	.29450	.30637	.12010	.00076	-.0002590	.3063678	-.0007072	.8366575	.0000000	.0000000	.0000000	.0000000
-.17475	-.01288	.26290	.27561	.09621	.12681	-.0001660	.2756113	-.0004344	.7213039	-.0000242	.0331109	-.0000649	.0886381
-.28853	-.01030	.23456	.24769	.07699	.25041	-.0001062	.2476852	-.0002658	.6200351	-.0000397	.0628831	-.0001048	.1649517
-.40232	-.00823	.20916	.22243	.06156	.37204	-.0000678	.2224253	-.0001620	.5314924	-.0000496	.0896294	-.0001291	.2304662
-.51611	-.00658	.18639	.19965	.04918	.49211	-.0000432	.1996515	-.0000984	.4543553	-.0000559	.1136429	-.0001439	.2865547
-.62989	-.00525	.16599	.17918	.03926	.61090	-.0000276	.1791775	-.0000596	.3873741	-.0000599	.1351958	-.0001529	.3344437
-.74368	-.00419	.14769	.16082	.03133	.72869	-.0000175	.1608179	-.0000359	.3293823	-.0000625	.1545394	-.0001584	.3752226
-.85747	-.00334	.13129	.14439	.02499	.84567	-.0000112	.1443928	-.0000216	.2793109	-.0000641	.1719039	-.0001616	.4098533
-.97126	-.00266	.11656	.12973	.01992	.96200	-.0000071	.1297316	-.0000129	.2361887	-.0000651	.1874998	-.0001636	.4391820
-1.08504	-.00212	.10333	.11667	.01588	1.07781	-.0000045	.1166747	-.0000077	.1991414	-.0000658	.2015188	-.0001648	.4639495
-1.19883	-.00169	.09143	.10507	.01265	1.19322	-.0000029	.1050750	-.0000046	.1673866	-.0000662	.2141349	-.0001655	.4848026
-1.31262	-.00135	.08071	.09480	.01007	1.30829	-.0000018	.0947977	-.0000027	.1402279	-.0000665	.2255064	-.0001659	.5023039
-1.42640	-.00108	.07103	.08572	.00801	1.42310	-.0000012	.0857209	-.0000016	.1170473	-.0000667	.2357768	-.0001661	.5169412
-1.54019	-.00086	.06227	.07774	.00637	1.53771	-.0000007	.0777351	-.0000009	.0972979	-.0000668	.2450764	-.0001663	.5291361
-1.65398	-.00069	.05431	.07074	.00505	1.65214	-.0000005	.0707426	-.0000005	.0804960	-.0000668	.2535238	-.0001664	.5392514
-1.76777	-.00055	.04705	.06466	.00400	1.76644	-.0000003	.0646567	-.0000003	.0662140	-.0000669	.2612271	-.0001664	.5475983
-1.88155	-.00044	.04041	.05940	.00316	1.88063	-.0000002	.0594017	-.0000002	.0540732	-.0000669	.2682853	-.0001664	.5544418
-1.99534	-.00036	.03428	.05491	.00248	1.99474	-.0000001	.0549114	-.0000001	.0437375	-.0000669	.2747890	-.0001664	.5600066
-2.10913	-.00029	.02860	.05113	.00192	2.10878	-.0000001	.0511291	-.0000001	.0349070	-.0000669	.2808220	-.0001665	.5644810
-2.22291	-.00024	.02329	.04801	.00147	2.22276	-.0000001	.0480069	.0000000	.0273128	-.0000669	.2864622	-.0001665	.5680209
-2.33670	-.00020	.01828	.04550	.00109	2.33669	.0000000	.0455050	.0000000	.0207115	-.0000670	.2917824	-.0001665	.5707532
-2.45049	-.00017	.01351	.04359	.00077	2.45058	.0000000	.0435914	.0000000	.0148804	-.0000670	.2968514	-.0001665	.5727782
-2.56428	-.00015	.00891	.04224	.00049	2.56444	.0000000	.0422419	.0000000	.0096132	-.0000670	.3017348	-.0001665	.5741717
-2.67806	-.00014	.00443	.04144	.00024	2.67827	.0000000	.0414390	.0000000	.0047152	-.0000670	.3064957	-.0001665	.5749869
-2.79185	-.00014	.00000	.04117	.00000	2.79207	.0000000	.0411725	.0000000	.0000000	-.0000670	.3111958	-.0001665	.5752551

OLUTION VS DEPTH, THETA=120.00 DEGREES, KX= 2.0944 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
-.17890	-.13823	.21689	.21960	.21407	-.00044	-.0191078	.2195999	-.0499278	.5738037	.0000000	.0000000	.0000000	.0000000
-.28777	-.12375	.19525	.19970	.18567	.13015	-.0153134	.1996955	-.0383460	.5000531	-.0018738	.0228250	-.0048053	.0584570
-.39665	-.11083	.17562	.18141	.16127	.25788	-.0122843	.1814141	-.0294233	.4345241	-.0033761	.0435712	-.0084944	.1093321
-.50552	-.09932	.15782	.16468	.14026	.38314	-.0098653	.1646785	-.0225555	.3765097	-.0045818	.0624113	-.0113240	.1534819
-.61439	-.08907	.14170	.14940	.12215	.50627	-.0079331	.1494046	-.0172740	.3253224	-.0055507	.0795089	-.0134922	.1916872
-.72326	-.07993	.12709	.13551	.10650	.62757	-.0063891	.1355051	-.0132165	.2803040	-.0063304	.0950184	-.0151520	.2246553
-.83214	-.07180	.11387	.12289	.09294	.74728	-.0051550	.1228912	-.0101023	.2408316	-.0069588	.1030845	-.0164214	.2530241
-.94101	-.06456	.10188	.11148	.08117	.86562	-.0041681	.1114751	-.0077146	.2063226	-.0074663	.1218426	-.0173912	.2773656
-1.04988	-.05813	.09102	.10117	.07092	.98276	-.0033788	.1011710	-.0058858	.1762366	-.0078772	.1334183	-.0181316	.2981908
-1.15876	-.05242	.08117	.09190	.06197	1.09885	-.0027473	.0918969	-.0044867	.1500762	-.0082106	.1439283	-.0186962	.3159541
-1.26763	-.04735	.07223	.08357	.05413	1.21404	-.0022421	.0835749	-.0034174	.1273866	-.0084822	.1534803	-.0191265	.3310582
-1.37650	-.04287	.06410	.07613	.04724	1.32842	-.0018377	.0761321	-.0026010	.1077535	-.0087043	.1621742	-.0194541	.3438584
-1.48538	-.03891	.05669	.06950	.04115	1.44210	-.0015142	.0695011	-.0019783	.0908015	-.0088868	.1701020	-.0197034	.3546670
-1.59425	-.03543	.04993	.06362	.03575	1.55515	-.0012556	.0636197	-.0015037	.0761911	-.0090376	.1773486	-.0198930	.3637575
-1.70312	-.03239	.04374	.05843	.03094	1.66765	-.0010489	.0584314	-.0011420	.0636160	-.0091630	.1839926	-.0200370	.3713681
-1.81199	-.02973	.03804	.05389	.02662	1.77965	-.0008841	.0538852	-.0008663	.0527997	-.0092683	.1901067	-.0201463	.3777054
-1.92087	-.02744	.03278	.04994	.02273	1.89121	-.0007531	.0499355	-.0006559	.0434930	-.0093574	.1957584	-.0202292	.3829472
-2.02974	-.02548	.02790	.04654	.01919	2.00236	-.0006493	.0465422	-.0004949	.0354703	-.0094337	.2010103	-.0202918	.3872457
-2.13861	-.02383	.02334	.04367	.01594	2.11315	-.0005679	.0436703	-.0003710	.0285271	-.0095000	.2059211	-.0203389	.3907295
-2.24749	-.02247	.01905	.04129	.01294	2.22359	-.0005047	.0412898	-.0002747	.0224757	-.0095584	.2105461	-.0203741	.3935060
-2.35636	-.02137	.01499	.03938	.01013	2.33372	-.0004567	.0393758	-.0001989	.0171479	-.0096107	.2149372	-.0203999	.3956630
-2.46523	-.02053	.01109	.03791	.00747	2.44354	-.0004216	.0379079	-.0001377	.0123814	-.0096585	.2191443	-.0204182	.3972705
-2.57411	-.01994	.00732	.03687	.00492	2.55309	-.0003977	.0368705	-.0000866	.0080284	-.0097031	.2232149	-.0204304	.3983815
-2.68298	-.01959	.00364	.03625	.00244	2.66236	-.0003838	.0362525	-.0000418	.0039469	-.0097457	.2271955	-.0204374	.3990334
-2.79185	-.01947	.00000	.03605	.00000	2.77137	-.0003793	.0360472	.0000000	.0000000	-.0097872	.2311313	-.0204397	.3992483

SOLUTION VS DEPTH, THETA=150.00 DEGREES, KX= 2.6180 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
-.25006	-.20922	.11373	.11353	.26767	.00013	-.0437742	.1135257	-.1112651	.2885592	.0000000	.0000000	.0000000	.0000000
-.35596	-.18897	.10286	.10389	.23705	.13273	-.0357101	.1038868	-.0869858	.2530565	-.0042090	.0115129	-.0104982	.0286808
-.46187	-.17069	.09293	.09497	.21006	.26228	-.0291365	.0949652	-.0678875	.2212669	-.0076429	.0220429	-.0186994	.0537981
-.56778	-.15421	.08388	.08674	.18624	.38915	-.0237820	.0867376	-.0528928	.1929106	-.0104452	.0316648	-.0250952	.0757305
-.67369	-.13937	.07563	.07918	.16518	.51364	-.0194233	.0791753	-.0411417	.1677063	-.0127331	.0404506	-.0300747	.0948266
-.77960	-.12601	.06811	.07225	.14653	.63604	-.0158776	.0722464	-.0319497	.1453782	-.0146024	.0484690	-.0339452	.1114057
-.88550	-.11399	.06126	.06592	.12999	.75657	-.0129948	.0659168	-.0247727	.1256602	-.0161313	.0557853	-.0369489	.1257583
-.99141	-.10321	.05502	.06015	.11529	.87546	-.0106525	.0601517	-.0191791	.1082995	-.0173835	.0624611	-.0392763	.1381474
-1.09732	-.09354	.04933	.05492	.10220	.99287	-.0087503	.0549166	-.0148276	.0930578	-.0184110	.0685545	-.0410771	.1488101
-1.20323	-.08489	.04415	.05018	.09051	1.10897	-.0072064	.0501772	-.0114482	.0797126	-.0192559	.0741196	-.0424685	.1579590
-1.30914	-.07716	.03941	.04590	.08004	1.22390	-.0059541	.0459010	-.0088282	.0680580	-.0199528	.0792073	-.0435422	.1657841
-1.41505	-.07028	.03508	.04206	.07065	1.33778	-.0049391	.0420566	-.0068002	.0579037	-.0205297	.0838650	-.0443698	.1724543
-1.52095	-.06417	.03112	.03861	.06220	1.45071	-.0041172	.0386147	-.0052325	.0490753	-.0210092	.0881369	-.0450070	.1781192
-1.62686	-.05876	.02748	.03555	.05456	1.56280	-.0034524	.0355479	-.0040220	.0414130	-.0214101	.0920641	-.0454970	.1829110
-1.73277	-.05400	.02413	.03283	.04762	1.67411	-.0029156	.0328312	-.0030878	.0347709	-.0217473	.0956851	-.0458735	.1869452
-1.83868	-.04983	.02104	.03044	.04130	1.78472	-.0024832	.0304414	-.0023669	.0290160	-.0220332	.0990356	-.0461624	.1903230
-1.94459	-.04622	.01817	.02836	.03550	1.89469	-.0021361	.0283580	-.0018099	.0240268	-.0222778	.1021493	-.0463835	.1931318
-2.05049	-.04312	.01549	.02656	.03015	2.00407	-.0018591	.0265625	-.0013782	.0196923	-.0224893	.1050575	-.0465524	.1954469
-2.15640	-.04049	.01298	.02504	.02518	2.11291	-.0016398	.0250387	-.0010420	.0159108	-.0225746	.1077900	-.0466805	.1973322
-2.26231	-.03832	.01061	.02377	.02053	2.22123	-.0014686	.0237726	-.0007777	.0125886	-.0228392	.1103748	-.0467769	.1988414
-2.36822	-.03658	.00836	.02275	.01612	2.32908	-.0013378	.0227526	-.0005668	.0096387	-.0229878	.1128385	-.0468481	.2000184
-2.47413	-.03524	.00619	.02197	.01192	2.43647	-.0012417	.0219691	-.0003945	.0069801	-.0231244	.1152067	-.0468990	.2008985
-2.58003	-.03429	.00409	.02141	.00787	2.54343	-.0011760	.0214147	-.0002491	.0045360	-.0232525	.1175040	-.0469331	.2015083
-2.68594	-.03373	.00203	.02108	.00391	2.64996	-.0011376	.0210842	-.0001205	.0022330	-.0233750	.1197545	-.0469526	.2018667
-2.79185	-.03354	.00000	.02097	.00000	2.75608	-.0011250	.0209743	.0000000	.0000000	-.0234948	.1219817	-.0469590	.2019850

SOLUTION VS DEPTH, THETA=180.00 DEGREES, KX= 3.1416 RADIANS, H/d= .2520, WAVE HEIGHT=2.00516E-02 DIMENSIONLESS W/RESP. TO PERIOD

KY	U	V	AX	AY	PRESS	FD	FI	MD	MI	FDS	FIS	MDS	MIS
-.27336	-.23255	.00000	.00000	.28506	.00000	-.0540798	.0000000	-.1361996	.0000000	.0000000	.0000000	.0000000	.0000000
-.37830	-.21053	.00000	.00000	.25379	.13318	-.0443220	.0000000	-.1069736	.0000000	-.0051630	.0000000	-.0127590	.0000000
-.48323	-.19059	.00000	.00000	.22603	.26326	-.0363250	.0000000	-.0838605	.0000000	-.0093944	.0000000	-.0227717	.0000000
-.58817	-.17256	.00000	.00000	.20136	.39060	-.0297774	.0000000	-.0656199	.0000000	-.0128627	.0000000	-.0306148	.0000000
-.69311	-.15627	.00000	.00000	.17940	.51549	-.0244215	.0000000	-.0512546	.0000000	-.0157065	.0000000	-.0367470	.0000000
-.79805	-.14158	.00000	.00000	.15982	.63821	-.0200442	.0000000	-.0399642	.0000000	-.0180395	.0000000	-.0415331	.0000000
-.90298	-.12833	.00000	.00000	.14234	.75898	-.0164694	.0000000	-.0311086	.0000000	-.0199554	.0000000	-.0452622	.0000000
-1.00792	-.11641	.00000	.00000	.12671	.87802	-.0135524	.0000000	-.0241765	.0000000	-.0215306	.0000000	-.0481629	.0000000
-1.11286	-.10571	.00000	.00000	.11271	.99551	-.0111738	.0000000	-.0187608	.0000000	-.0228279	.0000000	-.0504158	.0000000
-1.21779	-.09510	.00000	.00000	.10014	1.11160	-.0092358	.0000000	-.0145377	.0000000	-.0238988	.0000000	-.0521629	.0000000
-1.32273	-.08751	.00000	.00000	.08883	1.22644	-.0076580	.0000000	-.0112505	.0000000	-.0247852	.0000000	-.0535160	.0000000
-1.42767	-.07984	.00000	.00000	.07862	1.34015	-.0063746	.0000000	-.0086961	.0000000	-.0255214	.0000000	-.0545626	.0000000
-1.53261	-.07302	.00000	.00000	.06939	1.45285	-.0053319	.0000000	-.0067141	.0000000	-.0261357	.0000000	-.0553711	.0000000
-1.63754	-.06698	.00000	.00000	.06100	1.56462	-.0044858	.0000000	-.0051779	.0000000	-.0266508	.0000000	-.0559951	.0000000
-1.74248	-.06165	.00000	.00000	.05336	1.67555	-.0038005	.0000000	-.0039881	.0000000	-.0270855	.0000000	-.0564760	.0000000
-1.84742	-.05698	.00000	.00000	.04636	1.78571	-.0032469	.0000000	-.0030665	.0000000	-.0274553	.0000000	-.0568462	.0000000
-1.95235	-.05293	.00000	.00000	.03992	1.89517	-.0028014	.0000000	-.0023518	.0000000	-.0277726	.0000000	-.0571304	.0000000
-2.05729	-.04945	.00000	.00000	.03395	2.00398	-.0024449	.0000000	-.0017960	.0000000	-.0280479	.0000000	-.0573481	.0000000
-2.16223	-.04650	.00000	.00000	.02839	2.11219	-.0021622	.0000000	-.0013613	.0000000	-.0282896	.0000000	-.0575137	.0000000
-2.26717	-.04406	.00000	.00000	.02317	2.21983	-.0019409	.0000000	-.0010184	.0000000	-.0285049	.0000000	-.0576386	.0000000
-2.37210	-.04209	.00000	.00000	.01821	2.32693	-.0017716	.0000000	-.0007436	.0000000	-.0286997	.0000000	-.0577310	.0000000
-2.47704	-.04058	.00000	.00000	.01348	2.43353	-.0016470	.0000000	-.0005185	.0000000	-.0288791	.0000000	-.0577973	.0000000
-2.58198	-.03952	.00000	.00000	.00890	2.53964	-.0015617	.0000000	-.0003278	.0000000	-.0290474	.0000000	-.0578417	.0000000
-2.68691	-.03888	.00000	.00000	.00442	2.64528	-.0015119	.0000000	-.0001587	.0000000	-.0292087	.0000000	-.0578672	.0000000
-2.79185	-.03867	.00000	.00000	.00000	2.75045	-.0014956	.0000000	.0000000	.0000000	-.0293665	.0000000	-.0578755	.0000000

WATER SURFACE ELEVATION   ELEV.VS.   TIME   DIST.   ANGLE

/d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER   *K   (K*G)^.5   *K   DEGREES

ELEV (*K)	TIME (K*G)^.5	DIST (*K)	ANGLE DEGREES
-.27336	2.96157	3.14159	180.00
-.27298	2.89987	3.07614	176.25
-.27186	2.83817	3.01069	172.50
-.27000	2.77647	2.94524	168.75
-.26742	2.71477	2.87979	165.00
-.26413	2.65307	2.81434	161.25
-.26015	2.59137	2.74889	157.50
-.25546	2.52967	2.68344	153.75
-.25006	2.46797	2.61799	150.00
-.24391	2.40628	2.55254	146.25
-.23700	2.34458	2.48709	142.50
-.22931	2.28288	2.42164	138.75
-.22080	2.22118	2.35619	135.00
-.21149	2.15948	2.29074	131.25
-.20138	2.09778	2.22529	127.50
-.19050	2.03608	2.15984	123.75
-.17890	1.97438	2.09440	120.00
-.16660	1.91268	2.02895	116.25
-.15363	1.85098	1.96350	112.50
-.14001	1.78928	1.89805	108.75
-.12571	1.72758	1.83260	105.00
-.11071	1.66588	1.76715	101.25
-.09496	1.60418	1.70170	97.50
-.07839	1.54248	1.63625	93.75
-.06096	1.48078	1.57080	90.00
-.04263	1.41909	1.50535	86.25
-.02342	1.35739	1.43990	82.50
-.00334	1.29569	1.37445	78.75
.01753	1.23399	1.30900	75.00
.03911	1.17229	1.24355	71.25
.06128	1.11059	1.17810	67.50
.08396	1.04889	1.11265	63.75
.10706	.98719	1.04720	60.00
.13056	.92549	.98175	56.25
.15444	.86379	.91630	52.50
.17871	.80209	.85085	48.75
.20338	.74039	.78540	45.00
.22842	.67869	.71995	41.25
.25376	.61699	.65450	37.50
.27921	.55529	.58905	33.75
.30447	.49359	.52360	30.00
.32909	.43190	.45815	26.25
.35250	.37020	.39270	22.50
.37406	.30850	.32725	18.75
.39302	.24680	.26180	15.00
.40869	.18510	.19635	11.25
.42041	.12340	.13090	7.50
.42767	.06170	.06545	3.75
.43012	.00000	.00000	.00

3012

-.27336

HORIZONTAL (+) AND VERTICAL(o) SURFACE WATER PARTICLE VELOCITIES

H/d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD   , CURRENT= .0000, CRITER., EULER

U *SQRT(K/G)	V	DIST. *K	ANGLE DEGREES
-.23255	.00000	3.14159	180.00
-.23219	.01442	3.07614	176.25
-.23111	.02883	3.01069	172.50
-.22930	.04319	2.94524	168.75
-.22676	.05750	2.87979	165.00
-.22349	.07173	2.81434	161.25
-.21948	.08586	2.74889	157.50
-.21472	.09987	2.68344	153.75
-.20922	.11373	2.61799	150.00
-.20298	.12743	2.55254	146.25
-.19600	.14095	2.48709	142.50
-.18827	.15426	2.42164	138.75
-.17980	.16735	2.35619	135.00
-.17057	.18018	2.29074	131.25
-.16058	.19274	2.22529	127.50
-.14980	.20499	2.15984	123.75
-.13823	.21689	2.09440	120.00
-.12586	.22840	2.02895	116.25
-.11266	.23947	1.96350	112.50
-.09865	.25006	1.89805	108.75
-.08381	.26013	1.83260	105.00
-.06813	.26964	1.76715	101.25
-.05163	.27856	1.70170	97.50
-.03429	.28686	1.63625	93.75
-.01609	.29450	1.57080	90.00
.00296	.30143	1.50535	86.25
.02289	.30760	1.43990	82.50
.04372	.31292	1.37445	78.75
.06545	.31732	1.30900	75.00
.08809	.32068	1.24355	71.25
.11163	.32288	1.17810	67.50
.13605	.32379	1.11265	63.75
.16133	.32329	1.04720	60.00
.18742	.32125	.98175	56.25
.21430	.31755	.91630	52.50
.24191	.31206	.85085	48.75
.27021	.30464	.78540	45.00
.29911	.29515	.71995	41.25
.32852	.28339	.65450	37.50
.35825	.26912	.58905	33.75
.38803	.25208	.52360	30.00
.41743	.23198	.45815	26.25
.44587	.20853	.39270	22.50
.47257	.18153	.32725	18.75
.49658	.15091	.26180	15.00
.51683	.11684	.19635	11.25
.53227	.07978	.13090	7.50
.54196	.04048	.06545	3.75
.54527	.00000	.00000	.00

54527

-.23255

HORIZONTAL(+) AND VERTICAL(o) SURFACE WATER PARTICAL ACCELERATIONS

	Ax	Ay	DIST.	ANGLE
H/d=.2520 HEIGHT=2.0052E-02, DIMENSIONLESS W/RESP. TO PERIOD , CURRENT= .0000, CRITER., EULER	*1/G	*1/G	*K	DEGREES
	.00000	.28506	3.14159	180.00
	.01433	.28480	3.07614	176.25
	.02865	.28400	3.01069	172.50
	.04294	.28266	2.94524	168.75
	.05720	.28078	2.87979	165.00
	.07140	.27834	2.81434	161.25
	.08553	.27535	2.74889	157.50
	.09958	.27179	2.68344	153.75
	.11353	.26767	2.61799	150.00
	.12736	.26298	2.55254	146.25
	.14106	.25773	2.48709	142.50
	.15462	.25191	2.42164	138.75
	.16802	.24553	2.35619	135.00
	.18124	.23857	2.29074	131.25
	.19427	.23102	2.22529	127.50
	.20706	.22286	2.15984	123.75
	.21960	.21407	2.09440	120.00
	.23184	.20465	2.02895	116.25
	.24375	.19456	1.96350	112.50
	.25529	.18380	1.89805	108.75
	.26643	.17238	1.83260	105.00
	.27714	.16029	1.76715	101.25
	.28738	.14754	1.70170	97.50
	.29713	.13414	1.63625	93.75
	.30637	.12010	1.57080	90.00
	.31504	.10542	1.50535	86.25
	.32311	.09009	1.43990	82.50
	.33050	.07410	1.37445	78.75
	.33711	.05744	1.30900	75.00
	.34285	.04009	1.24355	71.25
	.34759	.02204	1.17810	67.50
	.35119	.00329	1.11265	63.75
	.35351	-.01616	1.04720	60.00
	.35439	-.03629	.98175	56.25
	.35368	-.05704	.91630	52.50
	.35121	-.07840	.85085	48.75
	.34676	-.10031	.78540	45.00
	.34009	-.12271	.71995	41.25
	.33087	-.14553	.65450	37.50
	.31867	-.16866	.58905	33.75
	.30298	-.19193	.52360	30.00
	.28316	-.21509	.45815	26.25
	.25855	-.23776	.39270	22.50
	.22853	-.25936	.32725	18.75
	.19270	-.27912	.26180	15.00
	.15104	-.29610	.19635	11.25
	.10411	-.30925	.13090	7.50
	.05316	-.31761	.06545	3.75
	.00000	-.32048	.00000	.00

35439

-.32048

OUTPUT VARIABLE DIMENSIONALIZATION FACTORS

Variable Name	Dimensionless Variable	Dimensionalization Coefficient
Depth	y^*	k^{-1}
Water Particle Velocities	U^*, V^*	$(g/k)^{1/2}$
Water Particle Accelerations	$\dfrac{DU^*}{Dt^*}$, $\dfrac{DV^*}{Dt^*}$	g
Pressure	p^*	$\rho g/k^2$
Drag Force per unit Depth	f_{Dh}^*	$\dfrac{C_D \rho g D}{2k}$
Inertia Force per unit Depth	f_{Ih}^*	$\dfrac{C_M \rho g \pi D^2}{4}$
Drag Force, Depth Integrated	F_{Dh}^*	$\dfrac{C_D \rho g D}{2k^2}$
Inertia Force, Depth Integrated	F_{Ih}^*	$\dfrac{C_M \rho g \pi D^2}{4k}$
Drag Moment per unit Depth	m_{Dh}^*	$\dfrac{C_D \rho g D}{2k^2}$
Inertia Moment per unit Depth	m_{Ih}^*	$\dfrac{C_M \rho g \pi D^2}{4k}$
Drag Moment, Depth Integrated	M_{Dh}^*	$\dfrac{C_D \rho g D}{2k^3}$
Inertia Moment, Depth Integrated	M_{Ih}^*	$\dfrac{C_M \rho g \pi D^2}{4k^2}$

Appendix 4.

1

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A>B:FENTON
STEADY WATER WAVE COMPUTATION USING THE FOURIER APPROXIMATION METHOD OF
                  M. M. RIENECKER AND J. D. FENTON.
UNIT 5 IS THE DATA INPUT FILE, UNIT 6 IS THE SOLUTION OUTPUT FILE,
UNIT 7 IS THE LOCAL VARIABLE OUTPUT FILE.
File name missing or blank - Please enter name

UNIT 5? 4C.DAT
UNIT 6? 4C.S10
UNIT 7? 4C.A10

HEIGHT STEP   1 OF   2

ITER.        Z(10)

  1    9.78391883E-02*
  2    7.93110178E-02                                         *
  3    7.72400196E-02                                            *
  4    7.71107145E-02                                            *
  5    7.71105895E-02                                            *

HEIGHT STEP   2 OF   2

ITER.        Z(10)


  1    .16782669      *
  2    .15638370                                            *
  3    .15696168                                         *
  4    .15694276                                        *
  5    .15694280                                        *
COMPUTING LOCAL SOLUTION
STEP   1, THETA =     .00 DEGREES
STEP   2, THETA =    3.75 DEGREES
STEP   3, THETA =    7.50 DEGREES
STEP   5, THETA =   15.00 DEGREES
STEP   9, THETA =   30.00 DEGREES
STEP  13, THETA =   45.00 DEGREES
STEP  17, THETA =   60.00 DEGREES
STEP  25, THETA =   90.00 DEGREES
STEP  33, THETA =  120.00 DEGREES
STEP  41, THETA =  150.00 DEGREES
STEP  49, THETA =  180.00 DEGREES
BE SURE TO USE CONDENSED MODE WHILE PRINTING.
Stop - Program terminated.

A>
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SAMPLE INPUT AND SCREEN DISPLAY
          APPENDIX 5

COMPARISON OF RESULTS WITH DEAN'S SOLUTION

DEAN'S CASE 4C (SHALLOW WATER)		DIMENSIONLESS OUTPUT VARIABLES							DEAN'S SOLUTION
		NUMBER OF FOURIER COEFFICIENTS							
		8	9	10	12	15	17	18	23	12

	8	9	10	12	15	17	18	23	12
kd	0.31319	0.31338	0.31344	0.31347	0.31349	0.31350	0.31350	0.31350	0.31324
kH	0.18287	0.18299	0.18302	0.18304	0.18305	0.18305	0.18305	0.18305	0.18290
T*SQRT(gk)	9.91930	9.92240	9.92330	9.92370	9.92410	9.92420	9.92420	9.92420	9.92049
c*SQRT(k/g)	0.63343	0.63323	0.63317	0.63315	0.63312	0.63312	0.63312	0.63312	0.63338

PHASE = 0 DEG.

VARIABLE LOCATION

		8	9	10	12	15	17	18	23	12
ELEV.	SURFACE	0.15675	0.15689	0.15694	0.15700	0.15703	0.15703	0.15703	0.15703	0.15693
U	SURFACE	0.33052	0.33088	0.33093	0.33097	0.33101	0.33100	0.33100	0.33099	0.33295
U	BOTTOM	0.17434	0.17420	0.17416	0.17412	0.17410	0.17411	0.17411	0.17412	0.17383
V	SURFACE									
Ax	SURFACE									
Ax	BOTTOM									
Ay	SURFACE	-0.26811	-0.27069	-0.27171	-0.27229	-0.27275	-0.27314	-0.27315	-0.27335	-0.27822
FDS	BOTTOM	0.0237472	0.0237344	0.0237236	0.0237184	0.0237152	0.0237136	0.0237131	0.0237120	0.0237370
FIS	BOTTOM									
MDS	BOTTOM	0.0068426	0.0068466	0.0068453	0.0068455	0.0068455	0.0684500	0.0068447	0.0068440	0.0068555
MIS	BOTTOM									

PHASE = 30 DEG.										DEAN'S SOLUTION
		NUMBER OF FOURIER COEFFICIENTS								
VARIABLE LOCATION		8	9	10	12	15	17	18	23	12
ELEV.	SURFACE	0.02383	0.02552	0.02789	0.03173	0.03285	0.03214	0.03183	0.03177	0.03164
U	SURFACE	0.05627	0.05751	0.05785	0.05754	0.05751	0.05763	0.05767	0.05769	0.05767
U	BOTTOM	0.07416	0.07471	0.07489	0.07495	0.07500	0.07502	0.07503	0.07506	0.07471
V	SURFACE	0.10069	0.10039	0.10116	0.10260	0.10302	0.10279	0.10268	0.10266	0.10181
Ax	SURFACE	0.20231	0.19828	0.19830	0.19951	0.20000	0.20002	0.19992	0.19980	0.19558
Ax	BOTTOM	0.14597	0.14518	0.14508	0.14502	0.14498	0.14498	0.14498	0.14499	0.14476
Ay	SURFACE	0.12340	0.11904	0.11802	0.11989	0.12031	0.11994	0.11979	0.11973	0.11666
FDS	BOTTOM	0.0016163	0.0016605	0.0016833	0.0017010	0.0017080	0.0017068	0.0017061	0.0017060	0.0016919
FIS	BOTTOM	0.0556552	0.0554327	0.0558404	0.0566100	0.0568360	0.0567107	0.0566503	0.0566350	0.0562365
MDS	BOTTOM	0.0002512	0.0002606	0.0002663	0.0002717	0.0002736	0.0002730	0.0002727	0.0002730	0.0002704
MIS	BOTTOM	0.0099202	0.0099145	0.0100617	0.0103279	0.0104081	0.0103635	0.0103425	0.0103370	0.0102295

VARIATION OF RESULTS vs NUMBER OF TERMS

Surface Elevation at Theta = 30 Degrees

Number of Fourier Coefficients

Surface Elevation, θ = 30 Deg.

COMPARISON OF RESULTS WITH DEAN'S SOLUTION

DEAN'S CASE 8C   DIMENSIONLESS OUTPUT VARIABLES
(DEEP WATER)

NUMBER OF FOURIER COEFFICIENTS

		DEEP						FINITE			DEAN'S SOLUTION
	1	6	7	9	10	1	6	7	9	10	7
kd						2.78970	2.79180	2.79190	2.79190	2.79190	2.79203
kH	0.69873	0.70041	0.70042	0.70042	0.70042	0.70294	0.70347	0.70348	0.70349	0.70349	0.70353
T*SQRT(gk)	5.90310	0.59102	5.91020	5.91020	5.91020	5.92909	5.92310	5.92310	5.92320	5.92320	5.92333
c*SQRT(k/g)	1.06440	1.06310	1.06310	1.06310	1.06310	1.0612	1.06080	1.06080	1.06080	1.06080	1.06075

PHASE = 0 DEG.

VARIABLE LOCATION

				DEEP					FINITE			DEAN'S
ELEV.	SURFACE	0.34937	0.42532	0.42534	0.42534	0.42534	0.35147	0.43010	0.43012	0.43013	0.43013	0.42986
U	SURFACE	0.49674	0.53442	0.53443	0.53443	0.53443	0.50175	0.54525	0.54527	0.54527	0.54527	0.54529
U	BOTTOM						0.04330	0.03895	0.03895	0.03895	0.03895	0.03896
V	SURFACE											
Ax	SURFACE											
Ax	BOTTOM											
Ay	SURFACE	-0.28197	-0.31744	-0.31758	-0.31764	-0.31764	-0.27965	-0.32029	-0.32048	-0.32057	-0.32058	-0.32046
FDS	BOTTOM	0.1241271	0.1340783	0.1341075	0.1341075	0.1341074	0.1290684	0.1400559	0.1400526	0.1400504	0.1400501	0.1390360
FIS	BOTTOM											
MDS	BOTTOM	0.3725286	0.4155981	0.4155935	0.4155895	0.4155891	0.3386867	0.3830363	0.3830371	0.3830335	0.3830330	0.3792870
MIS	BOTTOM											

PHASE = 30 DEG.   NUMBER OF FOURIER COEFFICIENTS   DEAN'S

				DEEP					FINITE			SOLUTION
VARIABLE	LOCATION	1	6	7	9	10	1	6	7	9	10	7
ELEV.	SURFACE	0.30256	0.30510	0.30465	0.30488	0.30302	0.30438	0.30501	0.30447	0.30474	0.30491	0.30533
U	SURFACE	0.41051	0.38595	0.38575	0.38585	0.38591	0.41462	0.38827	0.38803	0.38815	0.38822	0.38827
U	BOTTOM						0.03750	0.03368	0.03368	0.03368	0.03368	0.03373
V	SURFACE	0.23701	0.24781	0.24763	0.24767	0.24771	0.23840	0.25233	0.25208	0.25213	0.25218	0.02996
Ax	SURFACE	0.25227	0.29440	0.29400	0.29398	0.29403	0.25322	0.30351	0.30298	0.30293	0.30300	0.30302
Ax	BOTTOM						0.02216	0.02019	0.02018	0.02018	0.02018	0.02017
Ay	SURFACE	-0.21225	-0.19616	-0.19618	-0.19621	-0.19621	-0.20992	-0.19190	-0.19193	-0.19197	-0.19197	-0.19193
FDS	BOTTOM	0.0847524	0.0734219	0.0733535	0.0733893	0.0734103	0.0882519	0.0754632	0.0753785	0.0754211	0.0754480	0.0750716
FIS	BOTTOM	0.2446345	0.2529791	0.2527890	0.2528363	0.2528765	0.2508265	0.2617446	0.2614995	0.2615515	0.2616604	0.2611139
MDS	BOTTOM	0.2503982	0.2176584	0.2174224	0.2175458	0.2176181	0.2273028	0.1953399	0.1950811	0.1952141	0.1952975	0.1938773
MIS	BOTTOM	0.6265535	0.6614313	0.6607917	0.6609602	0.6610990	0.5492321	0.5893204	0.5885961	0.5887686	0.5889312	0.5871094