ICEBERG GROUNDING MODEL RESULTS FOR NORTHERN GRAND BANK, 1983-1986, AND SELECTED CONSOLIDATION AND RETRIEVAL OF ICE SCOUR DATA BASE

S.J. d'Apollonia

DSS Contract # 08SC.23420-6-M670
Date   : July 1986
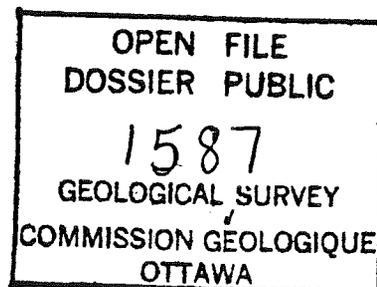
1

Disclaimer

The contents of this report do not necessarily reflect the
views, opinions, or policies of the Government of Canada.

INTRODUCTION

This report presents results and documentation for the following tasks:

A. Consolidation of the ESRF Update II Ice Scour Study data into AGC's regional ice scour System 2000 data base.

B. Selected data retrievals for maximium scour depth, maximum scour width and per cent seabed disturbance from the AGC regional ice scour data base for water depth intervals of less than 100 m, 100 to 200 m and greater than 200 m.

C. Refinement, testing, running and documentation of a numerical iceberg grounding model for the northern Grand Bank region.

A. CONSOLIDATION OF ESRF UPDATE II ICE SCOUR DATA

Analyses of ice scour data was carried out by Geonautics Limited as part of its ESRF Update II ice scour study and included a total of 942 sample areas analyzed from the following cruises:

Cormorant 1984 Grand Banks Cruise

Hudson Cruise 84-024

Hudson Cruise 84-035

Before these analyses could be added to AGC's regional ice scour database, a conversion program had to be written to convert the digitized record entries supplied by Geonautics into System 2000 load format. This task was assumed by AGC's Data Section and completed by Dave Hackett. The program source code is on user account IAM 2701 in a file SCOUR.

Digitized bathymetry and navigation was unavailable by July/86 for the Cormorant cruise and therefore sorting by water depth and or geographic area was not possible for this data. An edit tape containing navigation and bathymetry was created for the HU 84-024 data by Darrel Beaver of Data Section. Final processing of the Update II scour data was completed and added to the regional ice scour data base with some difficulty due to other problems in the data sets. Most of the difficulties were traced to missing or out of bound values necessary for final processing. These included Inner Range, Outer Range, Record Length, Slant Range Scale, or Start and End Times that were on different days. The inconsistencies were edited and corrected where possible by a combination of interpolation, extrapolation and common sense. The percentage of areas that were not processed because of either missing navigation or other unresolvable problems in the data is provided below.

CRUISE	TOTAL SAMPLE AREAS	TOTAL COMPLETED
COR 84	236	0 %
HU 84024	141	97 %
HU 84035	565	89 %

The following is a descriptive list of all files required to access the AGC regional ice scour data base together with related procedures and programs.

USER ACCOUNT: IAM2701
PASSWORD   : BERG

FILE NAME	FILE TYPE	DESCRIPTION
TAJJV1Y	Direct	System 2000 working file
TBJJV1Y	Direct	"
TCJJV1Y	Direct	"
TDJJV1Y	Direct	"
TEJJV1Y	Direct	"
TFJJV1Y	Direct	"
SCOUR2	Indirect	Procedure Library file (listing on p.101)
GEOPHYS	Indirect	Program source code for ice scour proc.
LAMPOST	Indirect	Program source code for map posting

Complete documentation of the regional ice scour data base including program listings, examples of running procedures, data base definition and parameter description is provided in the Ice Scour Data Base User's Manual (S. d'Apollonia, internal report).

Data Validation

A proposal by Geonautics to undertake a validation of the ice scour data base was submitted to AGC in early 1986. The continued use of the regional ice scour data base for research puposes makes the validation a necessary part of completing the data base and is therefore highly recommended.

B. SELECTED DATA RETRIEVALS

A total of 54 selected data sets were produced from the
AGC regional ice scour data base to compare different ice scour
attributes across a range of water depths. These files were
named DATA1 through DATA54 and contain the following data sets:

FILENAME	PARAMETER	WATER DEPTH,M	AREA
DATA1	maximum scour depth	100	Grand Banks (S. of 48.5N)
2	"	100-200	"
3	"	200	"
4	maximum scour width	100	"
5	"	100-200	"
6	"	200	"
7	% seabed disturbance	100	"
8	"	100-200	"
9	"	200	"
10	maximum scour depth	100	NE Newfoundland Shelf
11	"	100-200	"
12	"	200	"
13	maximum scour width	100	"
14	"	100-200	"
15	"	200	"
16	% seabed disturbance	100	"
17	"	100-200	"
18	"	200	"
19	maximum scour depth	100	Labrador Shelf (52-61N)
20	maximum scour width	100	"
21	% seabed disturbance	100	"
22	maximum scour depth	100-200	"
23	maximum scour width	100-200	"
24	% seabed disturbance	100-200	"
25	maximum scour depth	200	"
26	maximum scour width	200	"
27	% seabed disturbance	200	"

FILENAME	PARAMETER	WATER DEPTH,M	AREA
DATA28	maximum scour depth	100	SE Baffin (61N-67N)
29	maximum scour width	100	"
30	% seabed disturbance	100	"
31	maximum scour depth	100-200	"
32	maximum scour width	100-200	"
33	% seabed disturbance	100-200	"
34	maximum scour depth	200	"
35	maximum scour width	200	"
36	% seabed disturbance	200	"
37	maximum scour depth	100	NE Baffin (67N-75N)
38	maximum scour width	100	"
39	% seabed disturbance	100	"
40	maximum scour depth	100-200	"
41	maximum scour width	100-200	"
42	% seabed disturbance	100-200	"
43	maximum scour depth	200	"
44	maximum scour width	200	"
45	% seabed disturbance	200	"
46	maximum scour depth	100	All East. Cont. Shelf
47	maximum scour width	100	" (E. of 80W)
48	% seabed disturbance	100	"
49	maximum scour depth	100-200	"
50	maximum scour width	100-200	"
51	% seabed disturbance	100-200	"
52	maximum scour depth	200	"
53	maximum scour width	200	"
54	% seabed disturbance	200	"

The following example System 2000 command sequences were
employed to produce the previous data sets:

1. MAXIMUM SCOUR DEPTH
    (a) List c28 WH C8 spans 52.*61. and C7 spans 100*200;
    (b) List BY ENTRY, Max C202 WH Same:
(outputs (a) and (b) combined)

2. MAXIMUM SCOUR WIDTH
    (a) List C27 WH Same;
    (b) List BY ENTRY, Max C57 WH Same;
(outputs (a) and (b) combined)

3. % SEABED DISTURBANCE
    (a) List C23 WH Same;
    (b) List BY ENTRY, ((C120+C121)/2) WH Same;
(outputs (a) and (b) combined)

Data sets DATA1 to DATA45 were transferred to a micro-computer
(Corona) using the PC-Talk utility program. A copy of this
diskette is included with this report (DISK #1).
Data sets DATA46 to DATA54 have not been transferred and still
reside as permanent files on IAM2701. Manson Rawding, a summer
student with Data Section, has completed a batch utility to plot
the data-sets as histograms using the MS-CHART program. Documenta-
tion on using this utility is available from Manson. Data sets
DATA1 through DATA46 have already been converted using this utility
and are ready for processing and plotting with MS-CHART. The
converted files are named REPORT1.SYM throuth REPORT46.SYM. A copy
of the disk containing the converted data sets together with Manson's
batch utility is included with this report (DISK #2).

Sample Area Location Map

A plot showing the location of all sample areas for which positional information exists was produced using the LAMPOST data posting program (Figure 1). The plot file of this map is called ALLPL and resides as a direct access file on IAM2701.

The map posting program (LAMPOST) was provided by Roy Sparkes of EMG, a copy of which is retained on IAM2701.

There was insufficient time under the present contract to prepare generalized contour plots of the entire data base coverage for scour depth, scour width and % seabed disturbance. The recommended method of doing this is to use the CONMAP program. A comprehensive User Manual describing CONMAP is available in the BIO library (MEDS, Technical Note No.12, 1976). CONMAP requires as input a free-format file containing: latitude, longitude and the data value. These input files are easy to create directly in System 2000. For example, to produce a listing of latitude, longitude and maximum scour depth, the following command sequence would be used:

List C8, C9, C28 WHERE ...

Some editing of the output file generated above is required before it can be used by CONMAP. This includes deletion of the first two header lines and all "*" in the file. The data can now submitted in a batch job for contouring after selection of suitable map boundaries and contouring options. A copy of a procedure to run this program is provide on page 105.

AREAS ANALYZED
25000000.0   50.0   60.0
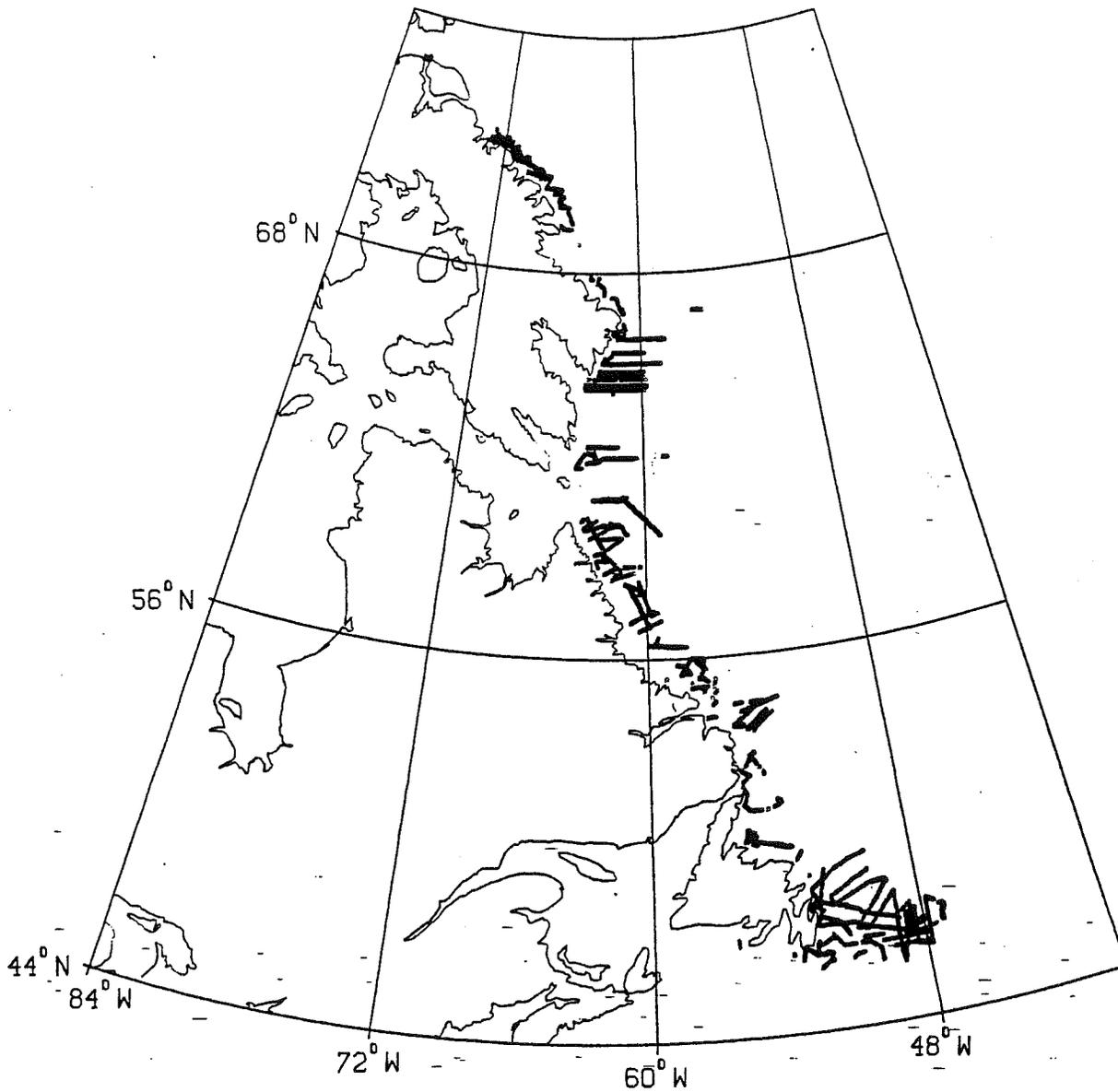
Figure 1. Sample areas in AGC-regional ice scour data base
to July 1986.

C.   NUMERICAL ICEBERG GROUNDING MODEL FOR THE N. GRAND BANKS

Development of a numerical iceberg grounding model for studies related to the frequency and areal distribution of iceberg groundings (see: d'Apollonia S.J. and Lewis C.F.M., Ice Scour Workshop Proc., Calgary, 1985) was continued with the addition of the following features:

1. Water depths at which groundings occur are user-selectable according to any of the following:

       a)   minimum cell water depth + N meters

       b)   maximum cell water depth + N meters

       c)   mean cell water depth + N meters

       d)   minimum cell water depth + N meters

2. Input draught distribution table has two user-selectable options as follows:

       a)   same draught distribution used for all cells

       b)   draught distrubution is re-calculated for each cell by truncating the given draught distribution at the greater water depth of each cell as selected above and re-normalizing the remaining fractions to 100%.

The program source code for the iceberg grounding model has been fully documented for this report (see p.84).

The following is a descriptive list of all files required to run the grounding model together with all related procedures. Note that this list does not include the input data files which are different for each area over which the model is run. These are described separately on begining on page 11 .

USER ACCOUNT: IAM1401
PASSWORD   :   DAPOL

FILE NAME	FILE TYPE	DESCRIPTION
TAOWHUI	Direct	System 2000 working file (see defn. below)
TBOWHUI	Direct	"
TCOWHUI	Direct	"
TDOWHUI	Direct	"
TEOWHUI	Direct	"
TFOWHUI	Direct	"
BDIFFER	Indirect	Binary program file (source code p.91)
BKWIK	Indirect	Binary program file (source code p.92)
BSUM	Indirect	Binary program file (source code p.93)
BADD	Indirect	Binary program file (source code p.94)
GBK	Indirect	Procedure library file (listing p. 80)
BMODEL5	Indirect	Binary program file (source code p.86)

The following is the data base description of the S2K data base
set up to hold all input and output data to run the grounding
model over the Grand Banks. An example is also provided for
creating the IMIN data input file.

```
/begin,open,granbnk
 86/07/09. 14.40.30. BEGIN SYSTEM 2000   RELEASE M2.80D
 ---
 USER,EMG;DBN IS GRANBNK;ECHO OFF;COMMAND FILE IS INPUT;
 -556-    ASSIGNED    GRANBNK                4  2494 86/07/07. 18.11.40.
 ---
?
describe;
   SYSTEM RELEASE NUMBER          M2.80D
   DATA BASE NAME IS GRANBNK
   DEFINITION NUMBER      4
   DATA BASE CYCLE      2494
     1*   TITLE (NON-KEY CHAR X(55));
   10*   ROW-RG (RECORD);
    11*   ROW (INTEGER NUMBER 99 IN 10);
    20*   COL-RG (RECORD IN 10);
      21*   COLUMN (INTEGER NUMBER 99 IN 20);
      22*   BATHY-MIN (NON-KEY INTEGER NUMBER 9999 IN 20);
      23*   BATHY-MAX (NON-KEY INTEGER NUMBER 9999 IN 20);
      24*   LAT (NON-KEY DECIMAL NUMBER 999.9999 IN 20);
      25*   LONG (NON-KEY DECIMAL NUMBER 999.9999 IN 20);
      26*   GRNDGS/ CELL(NON-KEY DECIMAL NUMBER 999.9 IN 20);
      27*   BERG FRACTION (NON-KEY DECIMAL NUMBER 9.9(5) IN 20);
      28*   BERG DRIFT SPEED (NON-KEY DECIMAL NUMBER 9.99 IN 20);
      29*   25 YR BERG SIGHT. (NON-KEY DECIMAL NUMBER 999.99 IN 20);
```

```
report file is imin;
---
? li c22,ob c11,c21 wh c11 spans 14*48 and c21 spans 2*54;


? exit;
 -506-    CLOSED      GRANBNK               4   2494 86/07/07. 18.11.40.
 86/07/09. 14.49.01. END   SYSTEM 2000   RELEASE M2.80D
$REVERT.CCL
/save,imin
```

The following utility programs are used in the grounding model:

DIFFER   Used to calculate the difference between the number of groundings in each cell between any two model runs. The resulting file is saved and is ready for input to the CONMAP program.

KWIK   Used to merge the central latitude and longitude of each cell with the respective number of groundings calculated by any model run.

SUM   Used to calculate the integral (sum) of groundings in all cells for anymodel run.

ADD   Used to update the System 2000 data base following any model run. This is normally an overnight batch job. This procedure is only used if further processing of grounding results is required in an S2K environment.

The model requires five input files to run. The program will prompt the user for the names of these files. Note that any names can be assigned to these files. Those provided below were used for the runs produced for this report. Sample listings are given on p. 95 .

DRAFT   : Table of iceberg draught distribution

BFRAC   : Fractional distribution of iceberg sightings in each cell

IMIN   : Minimum cell water depth

IMAX   : Maximum cell water depth

LATLON : Central latitude and longitude of each cell

The source and description of each of these input files is
described below:

DRAFT

This is a tabular listing of iceberg draught intervals in 5 meter
increments with their associated probabilities. Four different
draft input files are provided (see Figure 2).
DRAFT1 was calculated from the exceedence curve of iceberg draughts
on the Northern Grand Banks as published in Mobil Oil's Hibernia
Development Plan, page 3.1.3, 1984).

DRAFT2 was modified from DRAFT1 by moving all probabilities four
intervals (20 meters) shallower.

DRAFT3 was modified from DRAFT1 by moving all probabilities four
intervals (20 meters) deeper.

DRAFT was the baseline draught distribution used for generating
all results for this report, and is the same baseline distribution
that was used for the paper presented at the Ice Scour Workshop
in Calgary, 1985)

The minimum, maximum and modal probabilities for the above
distributions are given below.

| | MIN | | MAX | | MODE | | NO. OF INTERVALS |
	meters	%	meters	%	meters	%	
DRAFT1	5	<1	210	<1	95	10	42
DRAFT2	5	<1	190	<1	75	10	38
DRAFT3	5	<1	230	<1	115	10	46
DRAFT	5	5	245	<1	20	12	49

DRAFT1		DRAFT2		DRAFT3		BASELINE DRAFT	
5	.00050	5	.00850	5	.00000	5	.0500
10	.00100	10	.01000	10	.00000	10	.0975
15	.00100	15	.01000	15	.00000	15	.0975
20	.00100	20	.01500	20	.00000	20	.1175
25	.00500	25	.02000	25	.00050	25	.1175
30	.01000	30	.02500	30	.00100	30	.0700
35	.01000	35	.02500	35	.00100	35	.0700
40	.01500	40	.03000	40	.00100	40	.0400
45	.02000	45	.03000	45	.00500	45	.0400
50	.02500	50	.03500	50	.01000	50	.0350
55	.02500	55	.04000	55	.01000	55	.0350
60	.03000	60	.05000	60	.01500	60	.0200
65	.03000	65	.07000	65	.02000	65	.0200
70	.03500	70	.09000	70	.02500	70	.0150
75	.04000	75	.10000	75	.02500	75	.0150
80	.05000	80	.08000	80	.03000	80	.0200
85	.07000	85	.06000	85	.03000	85	.0200
90	.09000	90	.05000	90	.03500	90	.0100
95	.10000	95	.04000	95	.04000	95	.0100
100	.08000	100	.03000	100	.05000	100	.0100
105	.06000	105	.02000	105	.07000	105	.0100
110	.05000	110	.02000	110	.09000	110	.0050
115	.04000	115	.02000	115	.10000	115	.0050
120	.03000	120	.01500	120	.08000	120	.0050
125	.02000	125	.01500	125	.06000	125	.0050
130	.02000	130	.01500	130	.05000	130	.0050
135	.02000	135	.01500	135	.04000	135	.0050
140	.01500	140	.01500	140	.03000	140	.0050
145	.01500	145	.01000	145	.02000	145	.0050
150	.01500	150	.01000	150	.02000	150	.0050
155	.01500	155	.00500	155	.02000	155	.0050
160	.01500	160	.00500	160	.01500	160	.0050
165	.01000	165	.00500	165	.01500	165	.0050
170	.01000	170	.00500	170	.01500	170	.0020
175	.00500	175	.00250	175	.01500	175	.0020
180	.00500	180	.00250	180	.01500	180	.0015
185	.00500	185	.00100	185	.01000	185	.0015
190	.00500	190	.00050	190	.01000	190	.0015
195	.00250			195	.00500	195	.0015
200	.00250			200	.00500	200	.0010
205	.00100			205	.00500	205	.0010
210	.00050			210	.00500	210	.0010
				215	.00250	215	.0010
				220	.00250	220	.0010
				225	.00100	225	.0010
				230	.00050	230	.0010
						235	.0010
						240	.0010
						245	.0010

Figure 2. Draft distributions used in grounding model for northern Grand Banks area.

BFRAC

These are the fractional distributions of iceberg sightings in
each cell. The sightings are based on 25 years of sightings
reported by the International Ice Patrol Service for the years
1960-84 (see Consultant's Report,Iceberg Observation Data...,
Fenco Project 48067 to BIO, April 1985). The fractional sightings
were calculated by dividing the 25 year total number of sightings
in each 5 x 5 n.m. cell by the total number of sightings in the
same respective 5 n.m. band between 57W and 39W. The fractions
were subsequently smoothed by applying a 9 x 9 cell running
average across the entire area between 46N and 50N and 47W to 54W.
The resulting sightings data provide the long term probability
of the expected concentrations of icebergs in each 5 x 5 n.m. cell.

IMIN

These are the minimum water depths measured in each 5 x 5 n.m. cell
based on the CHS 1:350,000 chart series for the northern Grand
Banks. Useable data has been digitized for the area between
47W and 54W and 46N to 49N for water depths between 30 and 600 m.

IMAX

These are the maximum water depths measured in each 5 x 5 n.m. cell
as above.

SCLIFE

These are the average number of years that iceberg scour marks are
expected to remain on the seabed before they are covered or
obliterated. Different values can be entered for any cell or
groups of cells. This option was not used in the present study.

LATLON

These are the latitudes and longitudes of the central points of
each cell.

The grounding model program reads the input files BFRAC, IMIN, IMAX and LATLON into two dimensional arrays from west to east and north to south. Therefore it is essential that all input files are set up in the same order, that is, by increasing rows and columns. Since the data for these input files is stored in a S2K data base, it is a simple matter to create the input files in the required order.

The following example is a typical model run for the area covered in this report.

```
WELCOME TO THE NOS SOFTWARE SYSTEM.
COPYRIGHT CONTROL DATA 1978, 1985.

86/07/09 13.59.58. A12001A
BEDFORD INSTITUTE OF OCEANOGRAPHY.          NOS 2.4-630/628-2.
USER NAME: iam1401,dapol


JSN: AGZN, NAMIAF
/-model5,granbnk

 ENTER ICEBERG GROUNDING OPTION: (1,2,3 OR 4)
 1 = MIN CELL WATER DEPTH + N METERS
 2 = MAX CELL WATER DEPTH + N METERS
 3 = AVG CELL WATER DEPTH + N METERS
 4 = MIN TO MAX CELL WATER DEPTH + N METERS
? -1
 ENTER APERTURE (N) IN METERS
? 0
 ENTER ICEBERG DRAUGHT DISTRIBUTION OPTION (1 OR 2)
 1 = DRAUGHT DISTRUBUTION TABLE CONSTANT FOR EACH CELL
 2 = DRAUGHT DISTRUBUTION TABLE RE-ADJUSTED FOR EACH CELL
? 1
 ENTER NUMBER OF ROWS
? 35
 ENTER NUMBER OF COLUMNS
? 53
 ENTER NUMBER OF YEARS OR SQ KM
? 1
```

```
   ENTER MEAN ANNUAL ICEBERG POPULATION IN TOP ROW
? 1618
   ENTER NUMBER OF INTERVALS IN ICEBERG DRAUGHT FILE
? 49
   ENTER BERG LOSS RATE PER KM SOUTH (2.0 FOR BASELINE)
? 2
   ENTER MAXIMUM SCOUR DEPTH
? 5
   ENTER DRAUGHT DISTRIBUTION FILE NAME
? draft
   ENTER SCOUR LIFETIME FILE NAME
? sclife
   ENTER FRACTIONAL ICEBERG SIGHTINGS FILE NAME
? bfrac


   ENTER THE MINIMUM WATER DEPTH FILE NAME
? imin
   ENTER THE MAXIMUM WATER DEPTH FILE NAME
? imax
     STOP

 ENTER FILE NAME LISTING LAT/LONG OF EACH CELL
? latlon
 ENTER OUTPUT FILE NAME
? run1
   - STOP




/-sum,granbnk
 ENTER FILE NAME LISTING OUTPUT OF MODEL RUN
? run1
 TOTAL = 483.77
     STOP
```

Results

Model runs were completed for each iceberg season of 1983 to 1986. The total icebergs reaching 48N reported by the International Ice Patrol are given below. Since the boundaries of the modelled area (54W to 47W) did not cover the entire latitude patrolled by the IIP, an estimate of the reduced iceberg count at 48N was calculated by multiplying the reported sightings for each year by the total fractions of iceberg sightings for the 25 year period (1960-84) between 47W and 54W.

YEAR	IIP SIGHTINGS AT 48N	POPULATION USED IN MODEL	TOTAL GROUNDINGS ALL CELLS
1983	1352	994	108
1984	2202	1618	234
1985	1031	758	60
1986	162	119	1

Detailed results for these runs are provided for each cell on pages 41-53 (1983), pages 54-66 (1984), pages 67-79 (1985)

All runs for these results used the maximum cell water depth for grounding determination, N=0, maximum scour depth=5.0 and constant draught distribution.

To examine the sensitivity of selecting different water depth options, model runs were generated for each of the years above with four different water depth options. The total groundings in all cells was then plotted for each option selected against the total iceberg population in row 1. The results of this are shown in Figure 3. For each case, N=0, max. scour depth=5.0 and draught distribution is constant.

17
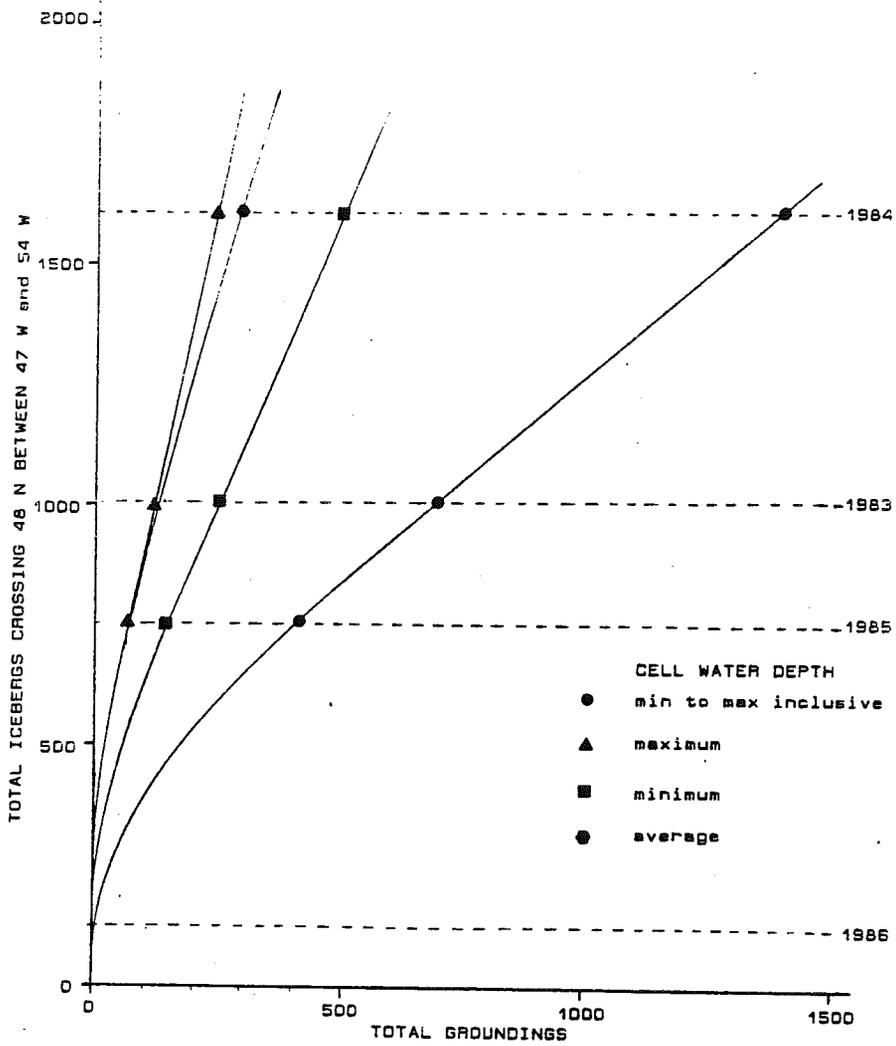
Figure 3   MODEL SENSITIVITY TO CELL BATHYMETRY IN NORTHERN
GRAND BANKS BETWEEN 46N – 49N and 47W – 54W.

These results show a linear relationship between the initial
iceberg population in Row 1 and the total groundings at initial
populations above 750 icebergs.

The table below summarizes options selected in model runs 1 to 7
together with total groundings. Contoured maps illustrating these
results are provided in this report (Figures 4-10).

RUN #	WATER DEPTH OPTION	DRAUGHT OPTION	N (m)	MAXIMUM SCOUR D.	YEAR	INITIAL POPULAT.	TOTAL GROUNDGS
1	min	constant	0	5	1984	1618	484
2	max	constant	0	5	1984	1618	234
3	avg	constant	0	5	1984	1618	282
4	min to max	constant	0	5	1984	1618	1375
5	avg	constant	10	5	1984	1618	512
6	avg	constant	20	5	1984	1618	692
7	avg	adjusted	0	5	1984	1618	316

The difference between any two model runs can be plotted to show
the residual groundings. Figure 11 shows that results of plotting
the difference between RUN4 and RUN3.

It is sometimes difficult to compare the contoured outputs of
different model runs if there are subtle differences being examined.
Figures 12 to 16 were generated to illustrate how a simplified map that
includes only a single trend line (0.1 grndg/cell) makes comparison
between runs easier to contend with.

Figures 4 to 16

Figure 4a.   RUN1   Minimum water depth
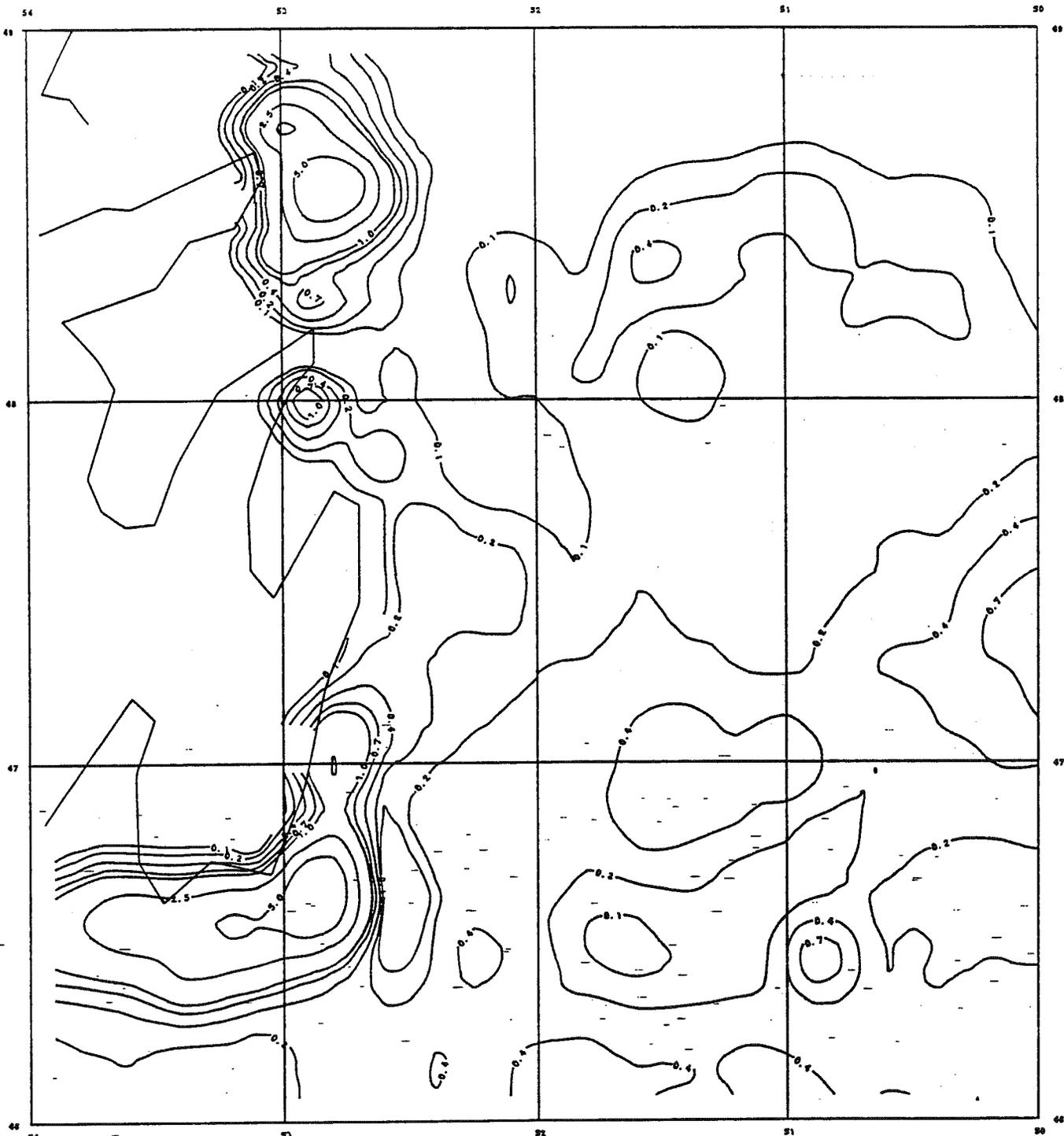
RUN1 — 1984 IIP DATA

Figure 4b. RUN1 Minimum water depth

RUN1 — 1984 IIP DATA
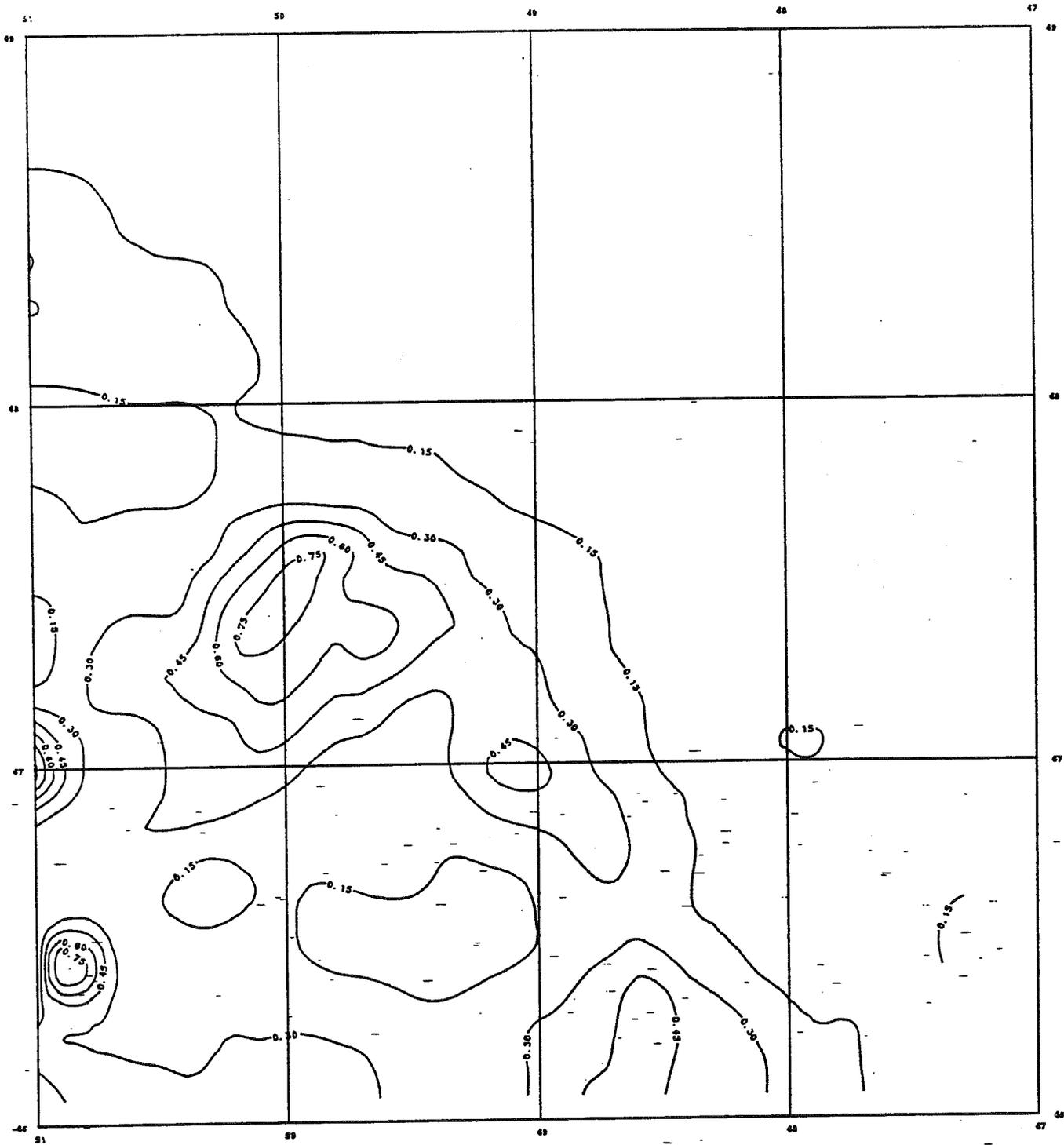
Figure 5a.   RUN2   Maximum water depth

RUN2 — 1984 IIP DATA

Figure 5b. RUN2 Maximum water depth
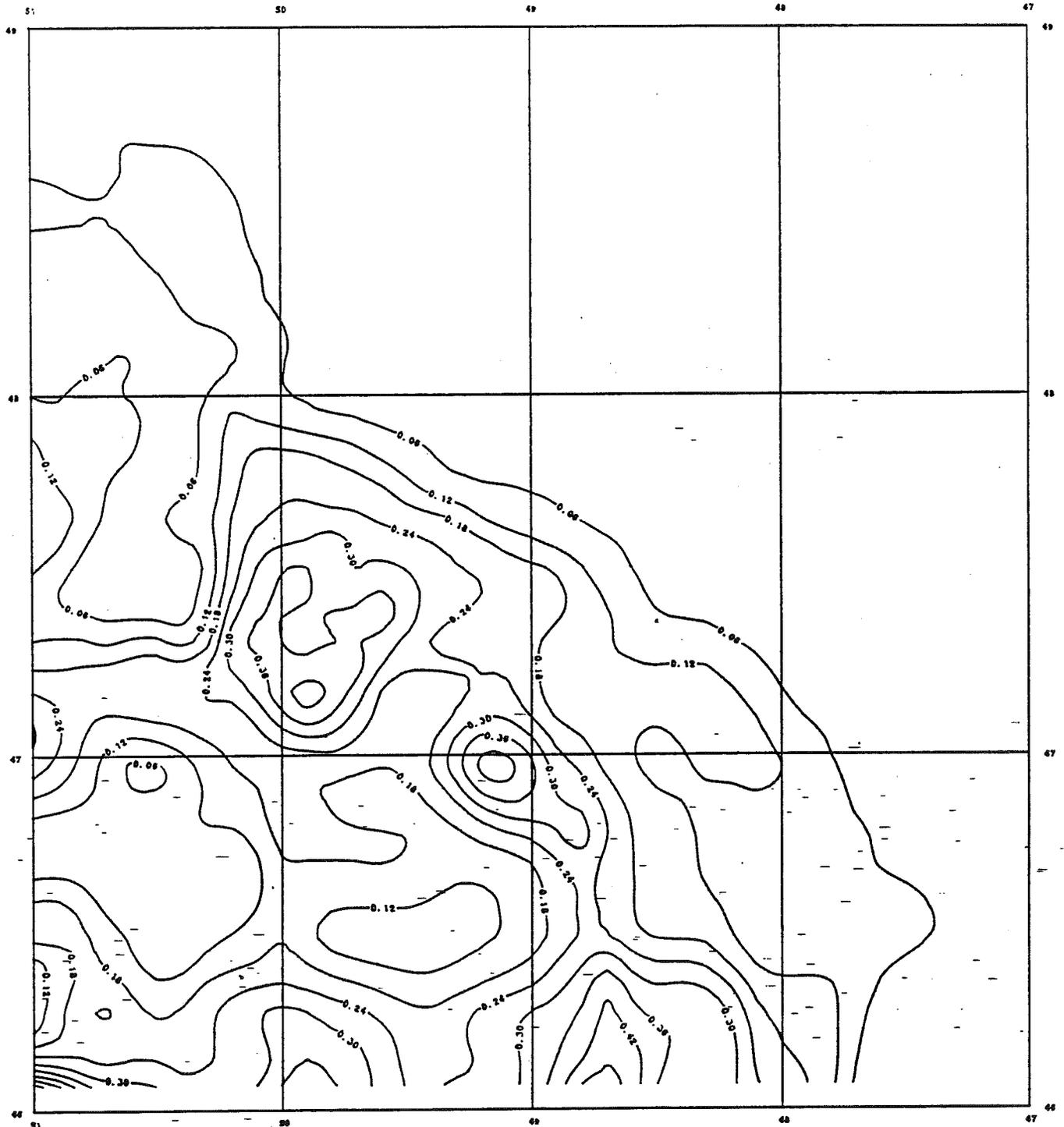
RUN2 — 1984 IIP DATA

IN=IAM1401 JN=ABDR::.

Figure 6a. RUN3 Average water depth
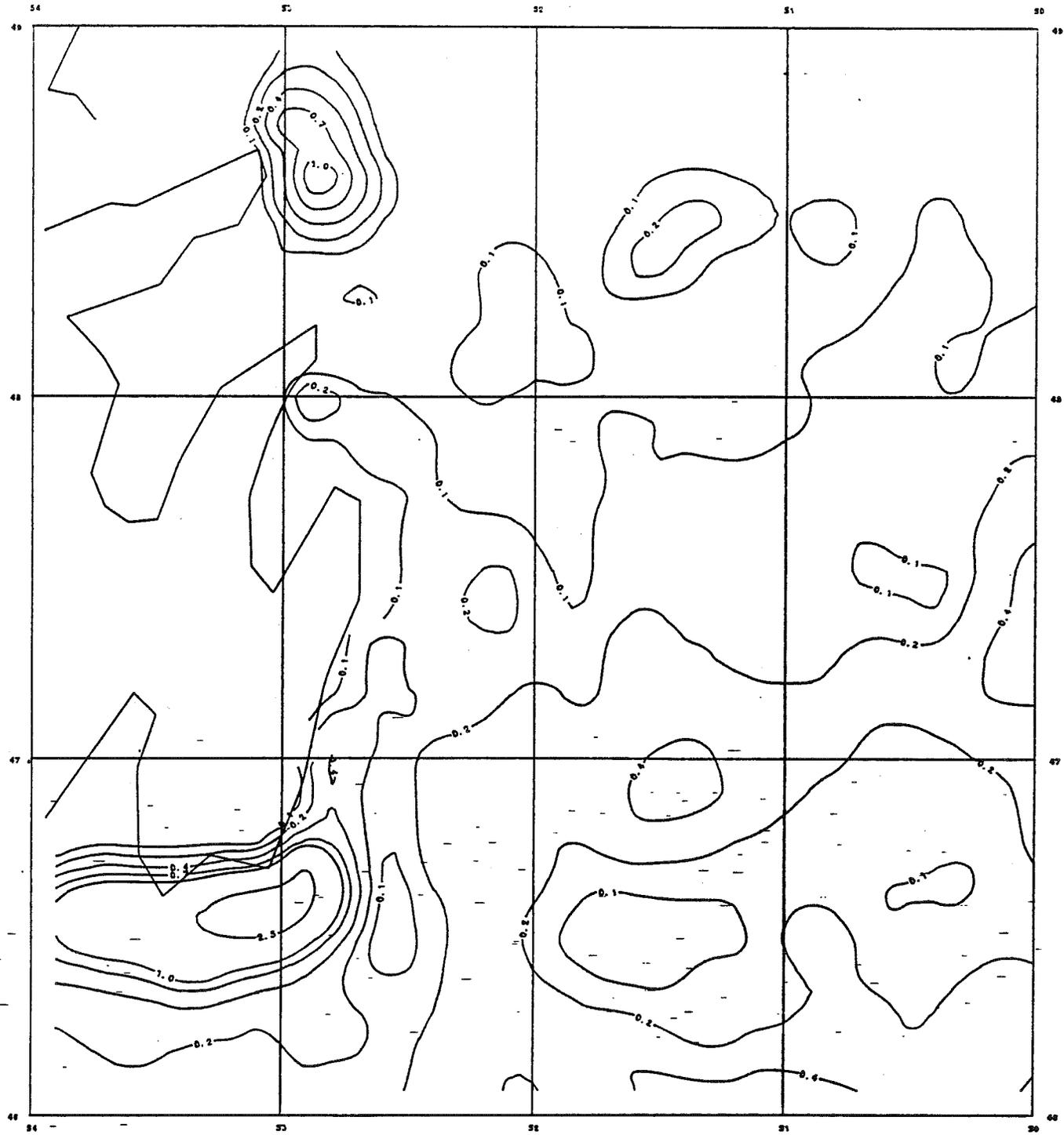
RUN3 — 1984 IIP DATA

JN=IAM1401   JN=AHQV: :

Figure 6b. RUN3 Average water depth
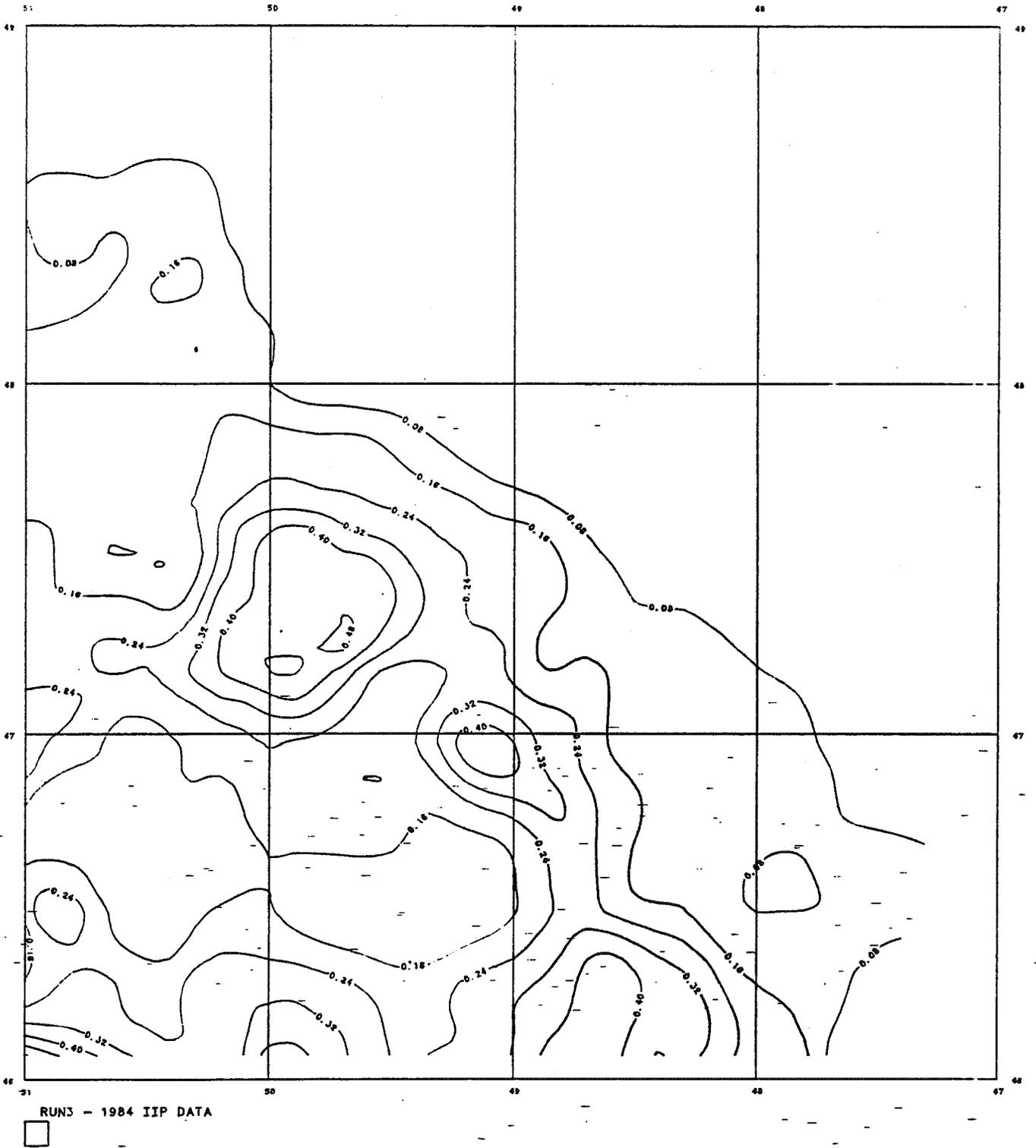
RUN3 — 1984 IIP DATA

Figure 7a.   RUN4   Minimum to maximum water depth
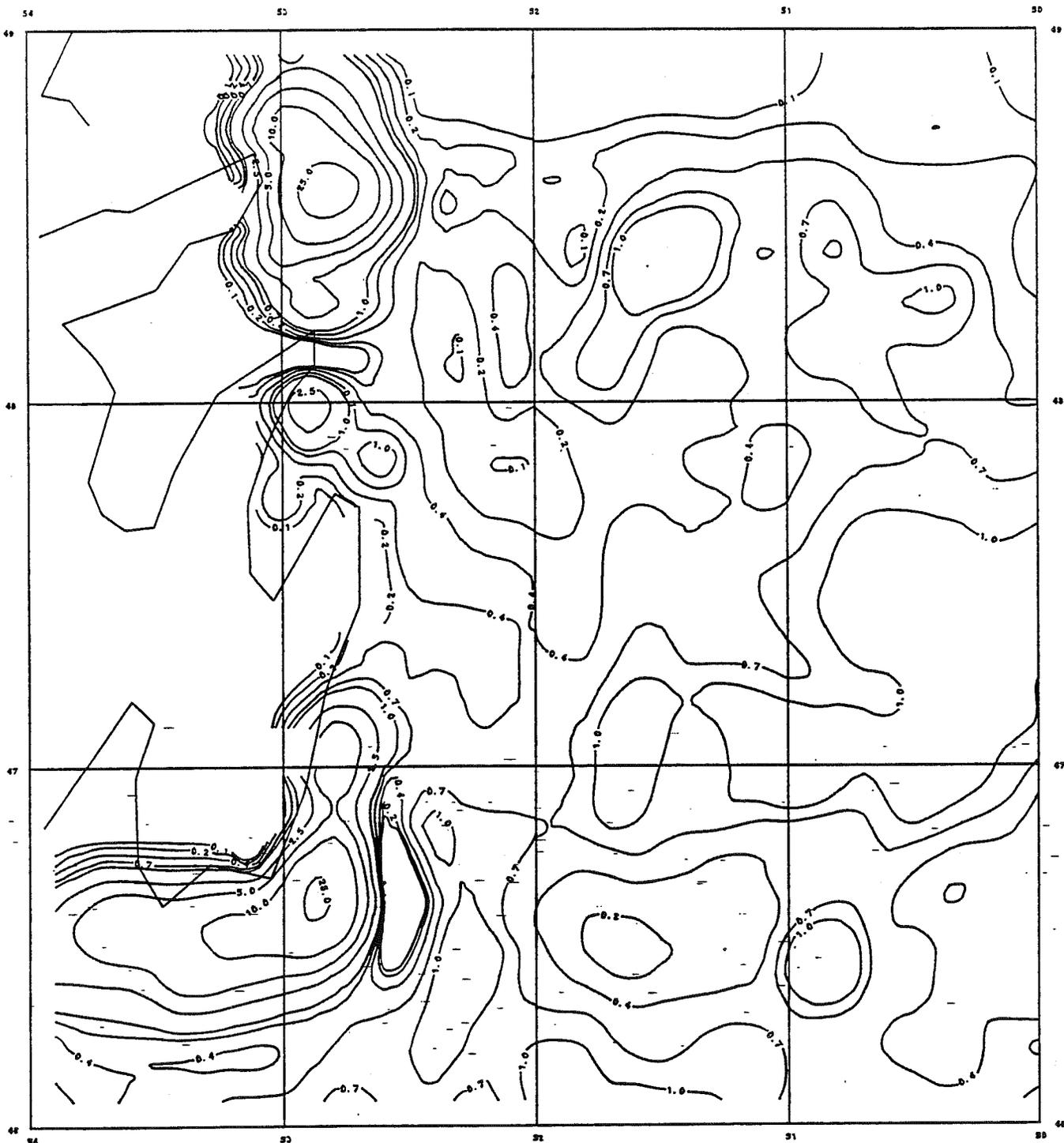
RUN4 — 1984 IIP DATA

Figure 7b. RUN4 Minimum to maximum water depth
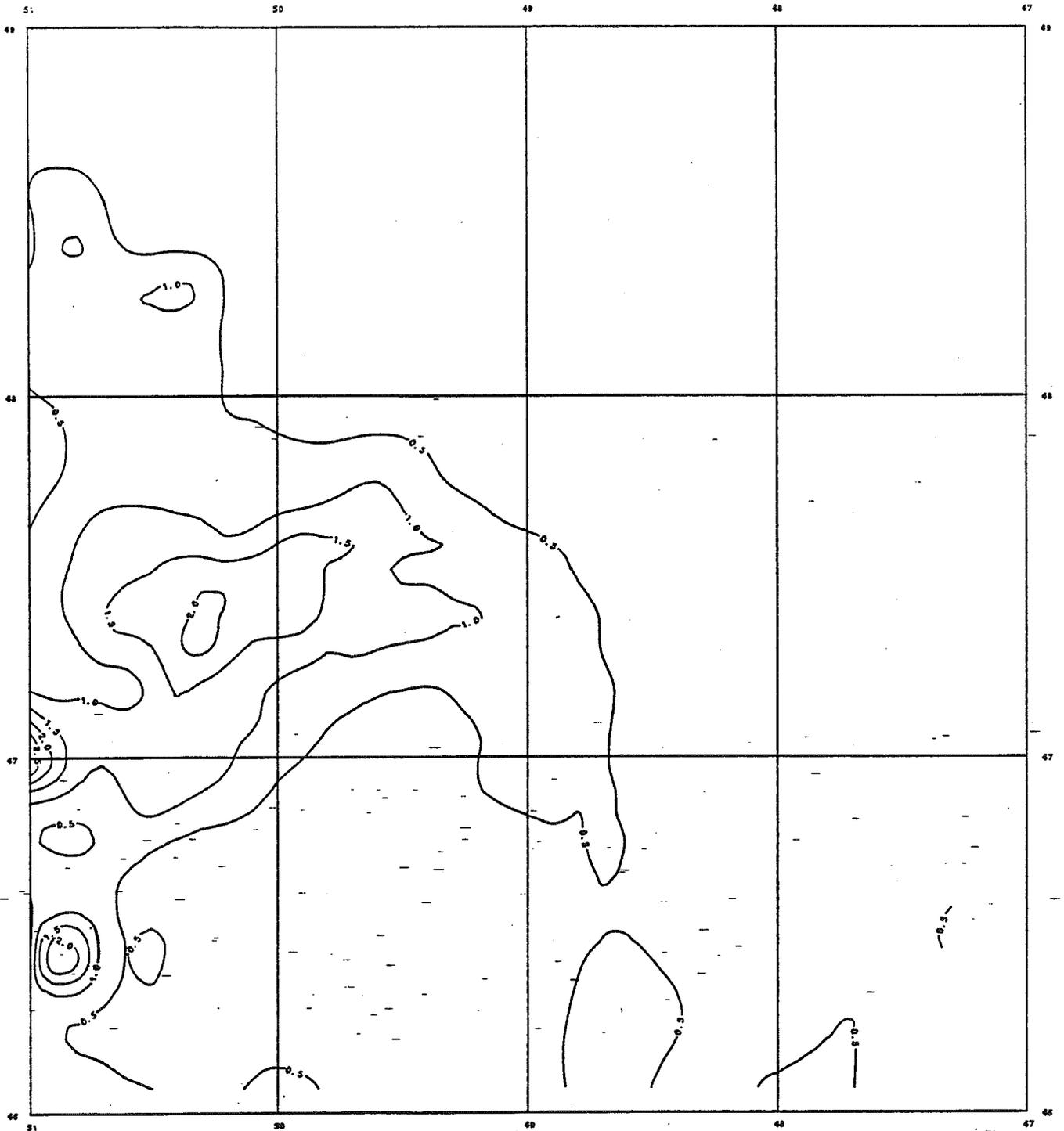
RUN4 — 1984 IIP DATA

N=IAM1401   JN=ABKP

Figure 8a.   RUN5   Average water depth,   N=10 meters

RUN5 — 1984 IIP DATA

JN=IAM1401   JN=AHQC::

Figure 8b.   RUN5   Average water depth,   N=10 meters
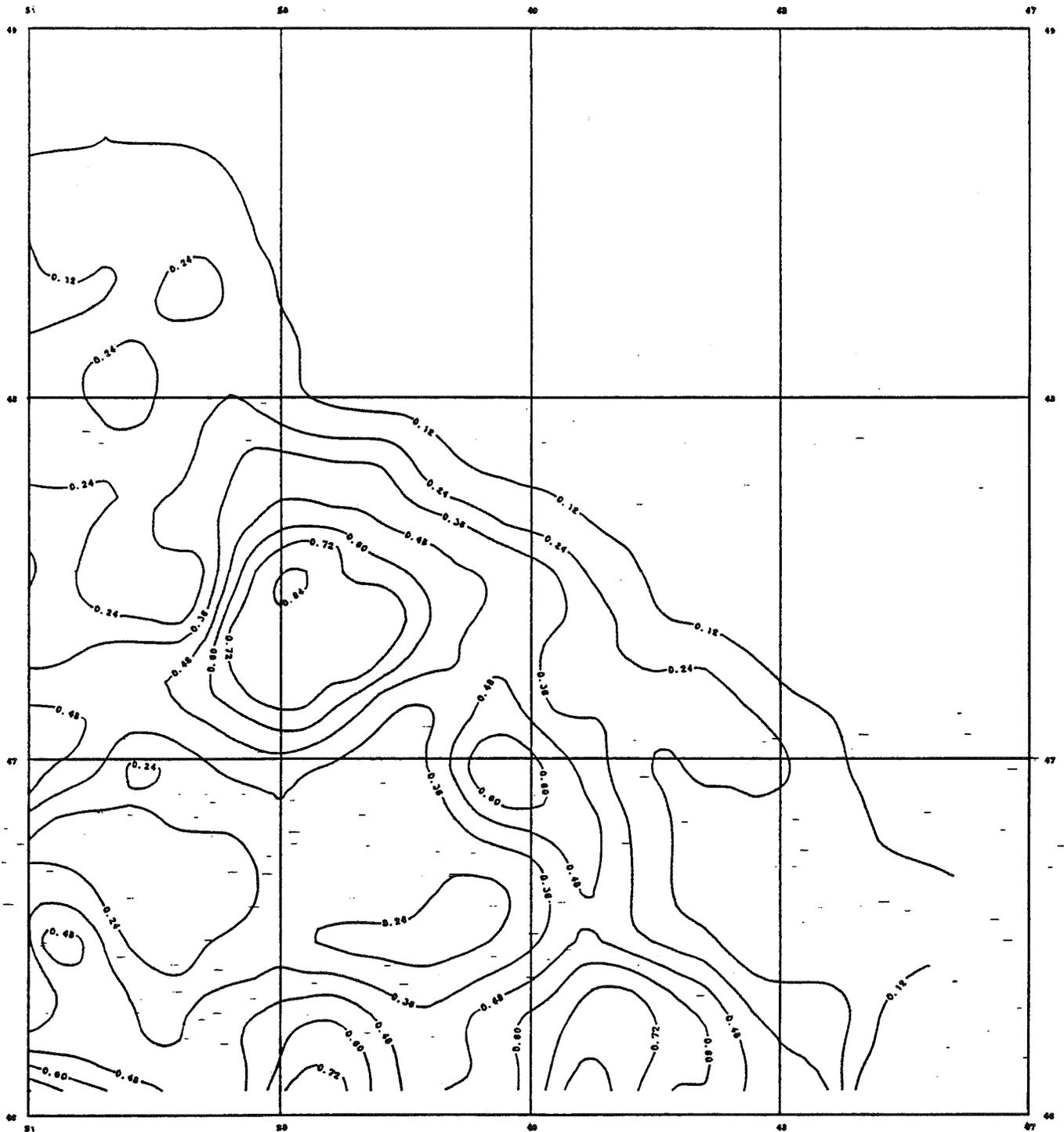
RUN5 - 1984 IIP DATA

JN=IAM1401   JN=AHNZ:::

Figure 9a.   RUN6   Average water depth,   N=20 meters

RUN6 — 1984 IIP DATA

N=IAM1401   JN=AHPR

Figure 9b.   RUN6   Average water depth,   N=20 meters
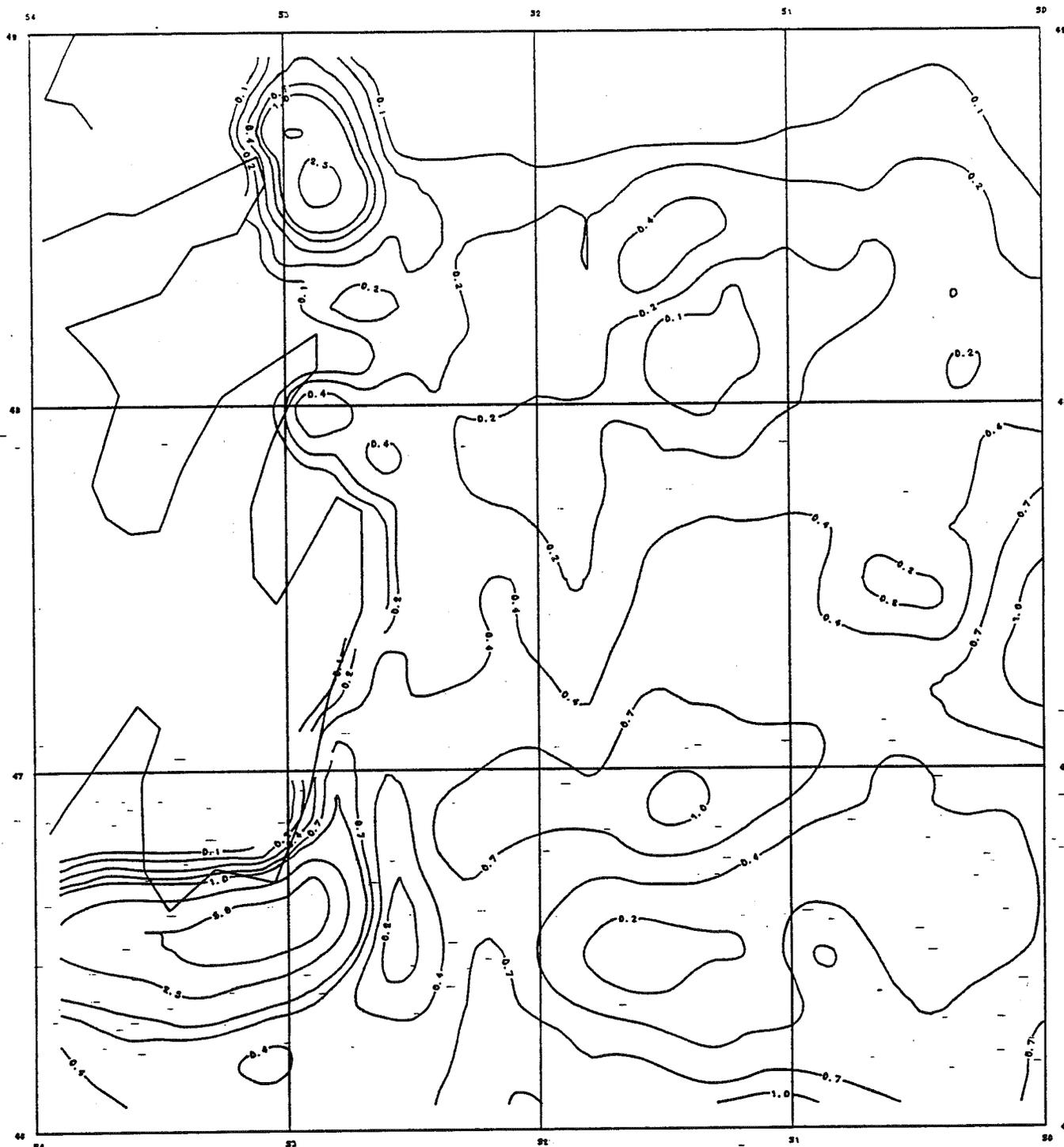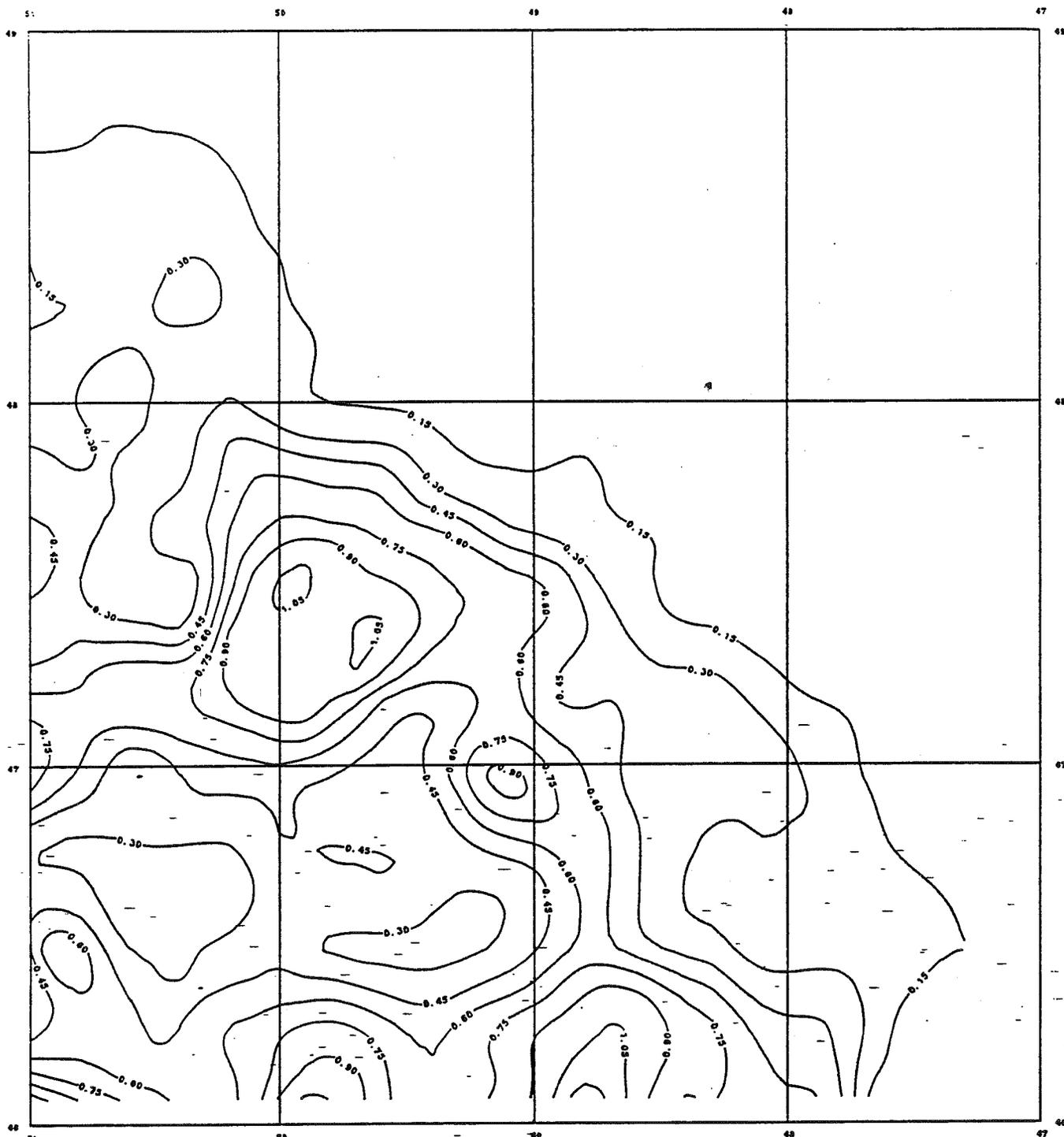
RUN6 — 1984 IIP DATA

Figure 10a.   RUN7   Average water depth, N=0; Draughts adjusted
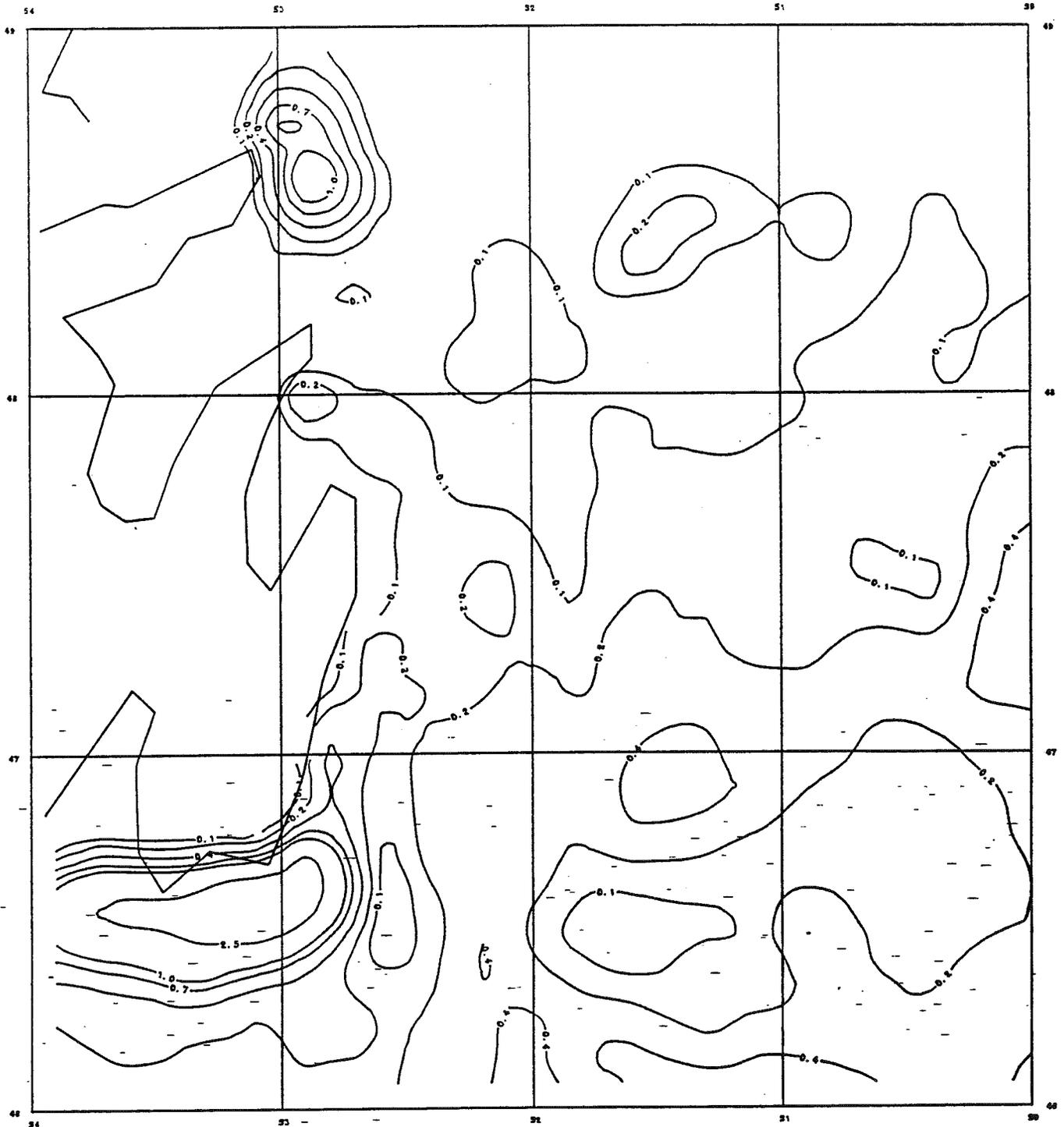
RUN7 - 1984 IIP DATA

Figure 10b.   RUN7   Average water depth,   N=0,   draughts adjusted
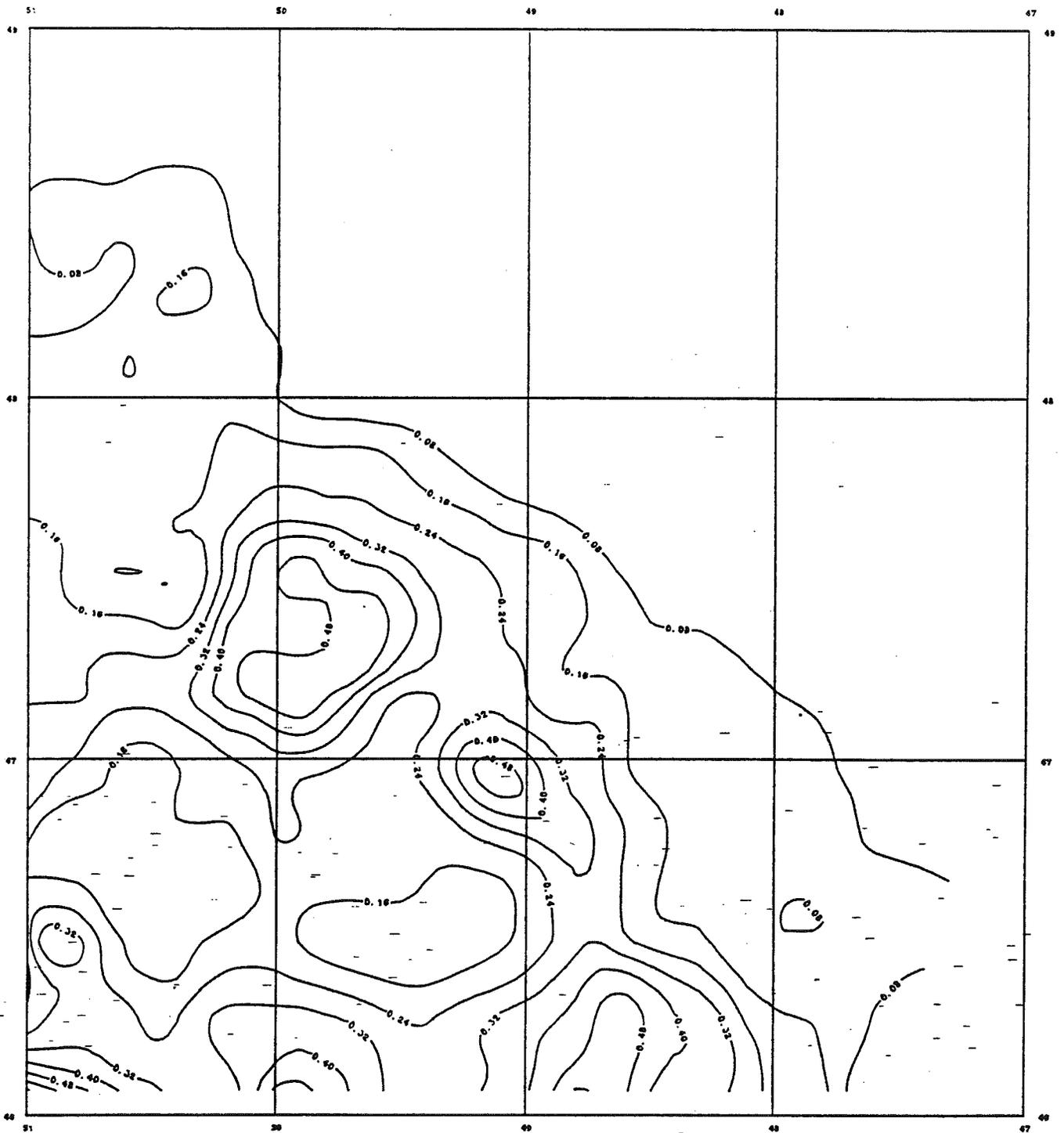
RUN7 —1984 IIP DATA

Figure 11. Trend surface plot (difference between RUN4 & RUN3)
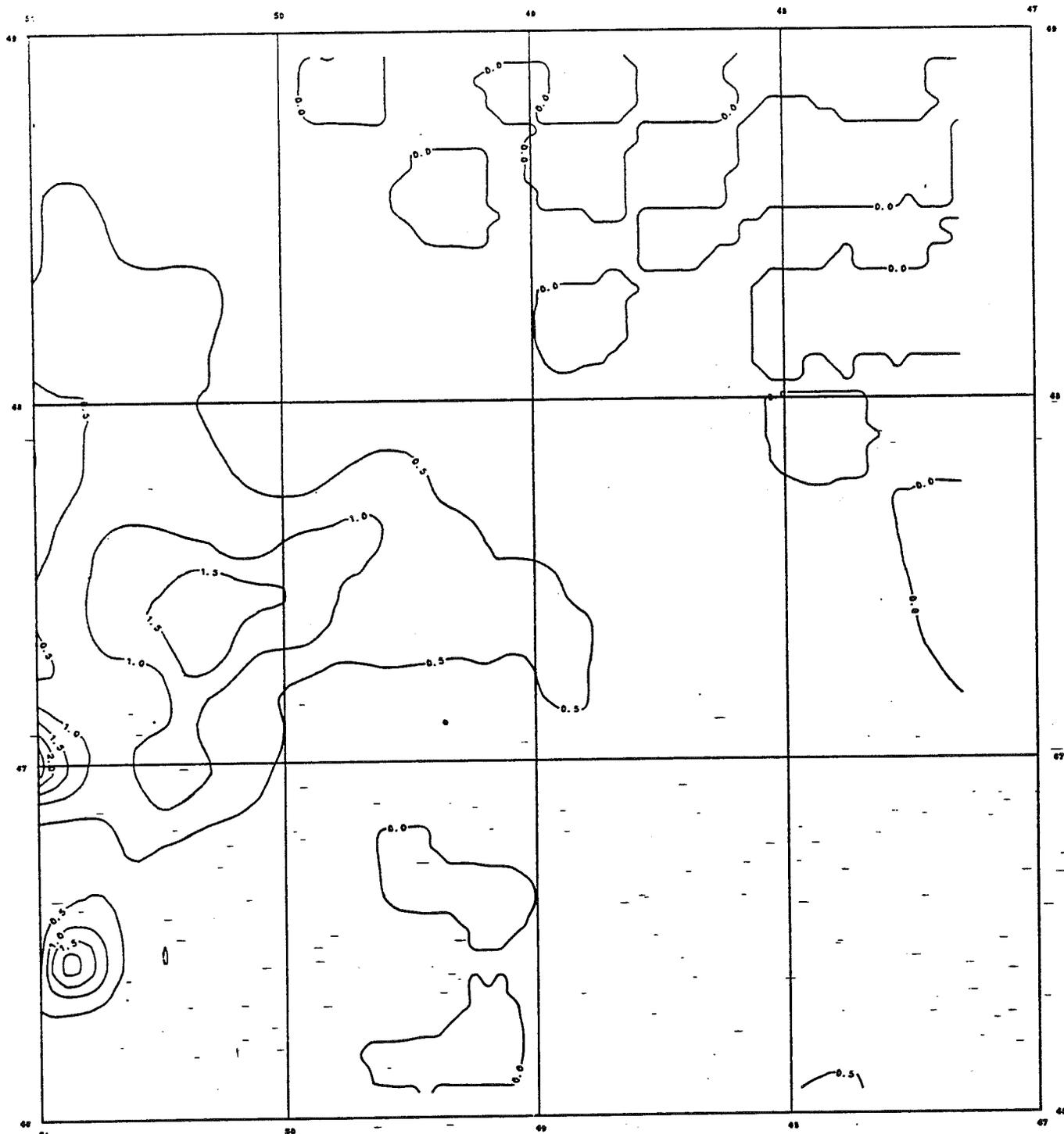
RUN4-RUN3 — 1984 IIP DATA

N=IAM1401 JN=AHRB:

GRNDGS/CELL   RUN1   0.1 CONTOUR ONLY

Figure 12.

GRNDGS/CELL   RUN2   0.1 CONTOUR ONLY

Figure 13.

GRNDGS/CELL   RUN3   0.1 CONTOUR ONLY

Figure 14.

GRNDGS/CELL   RUN4   0. 1 CONTOUR ONLY
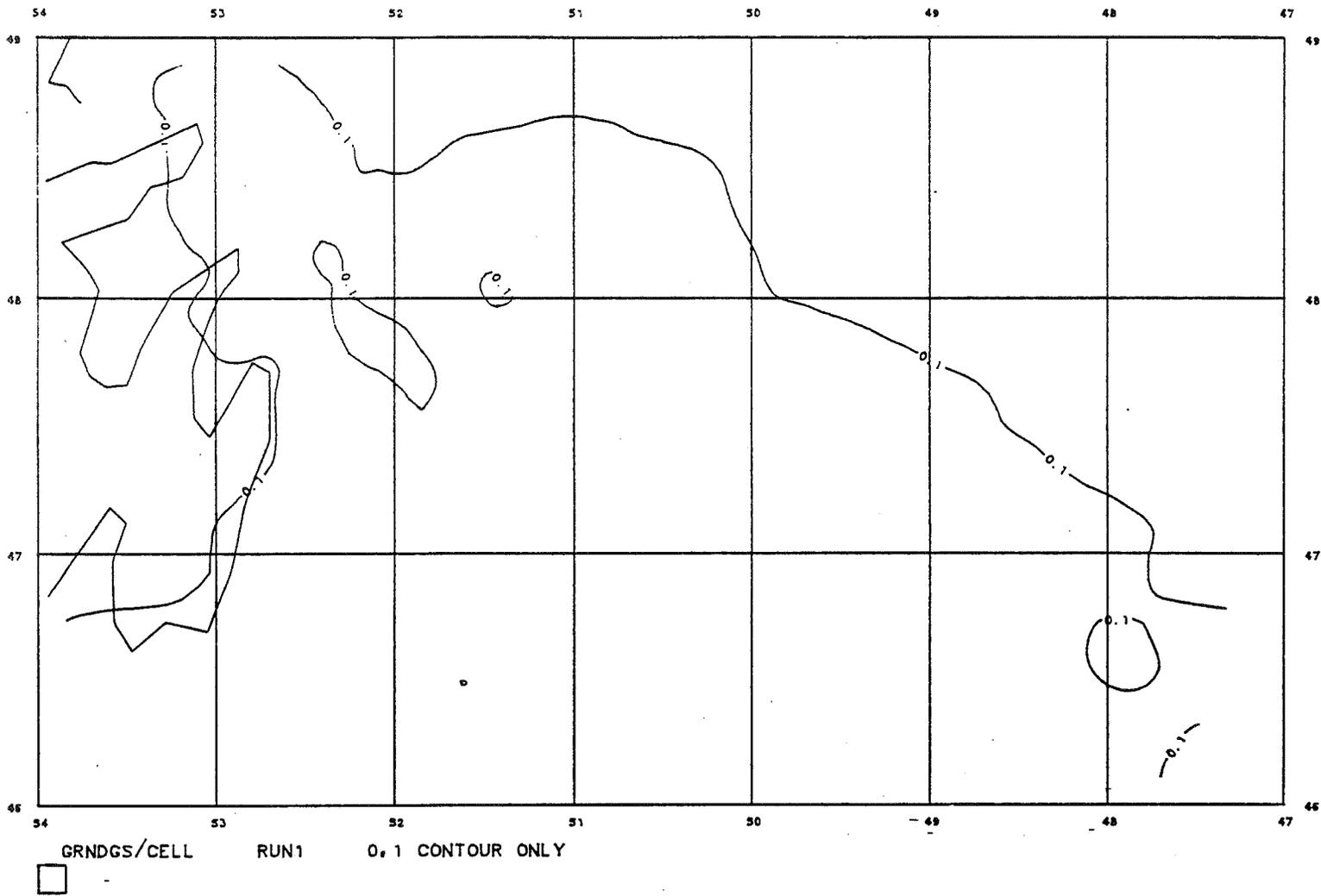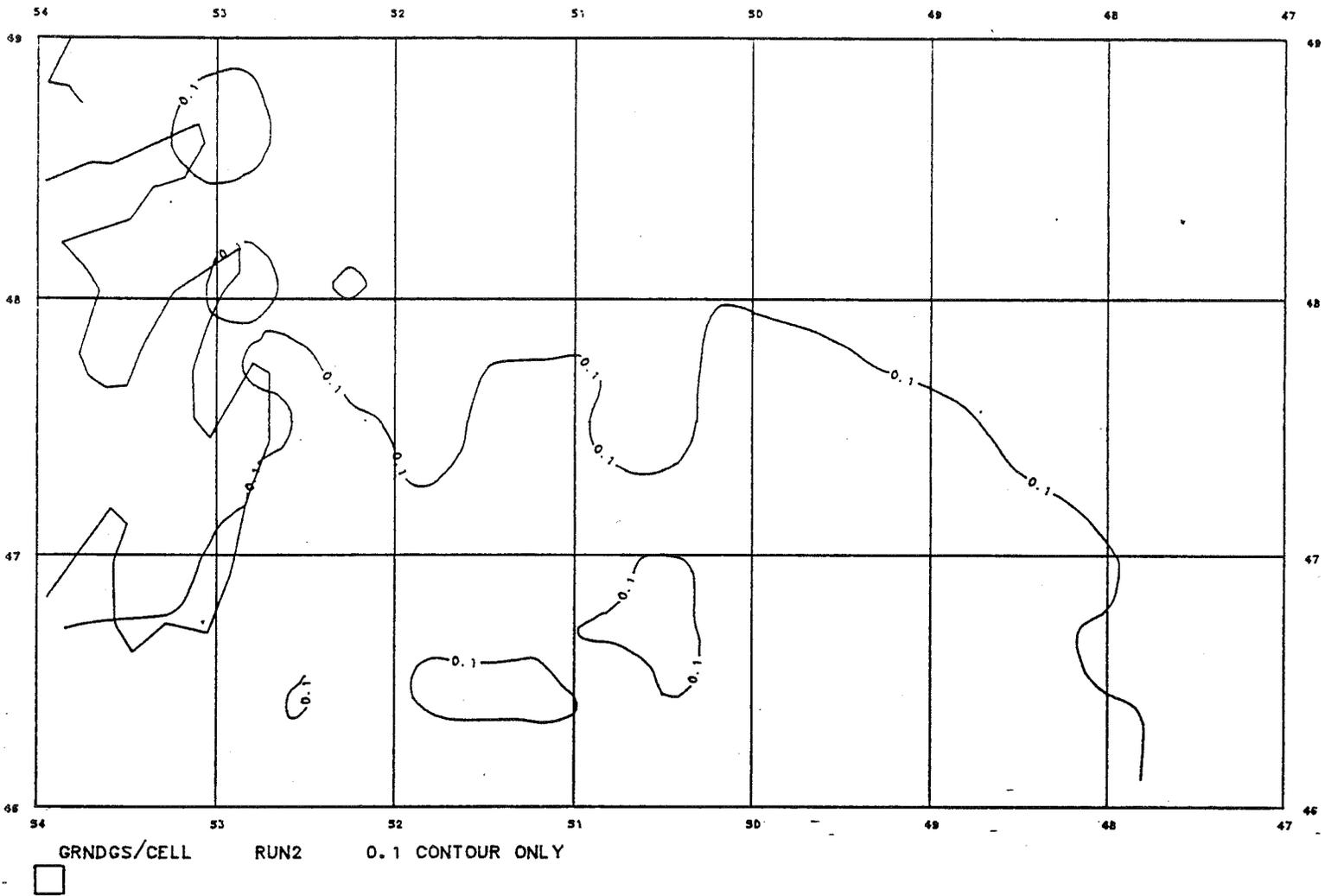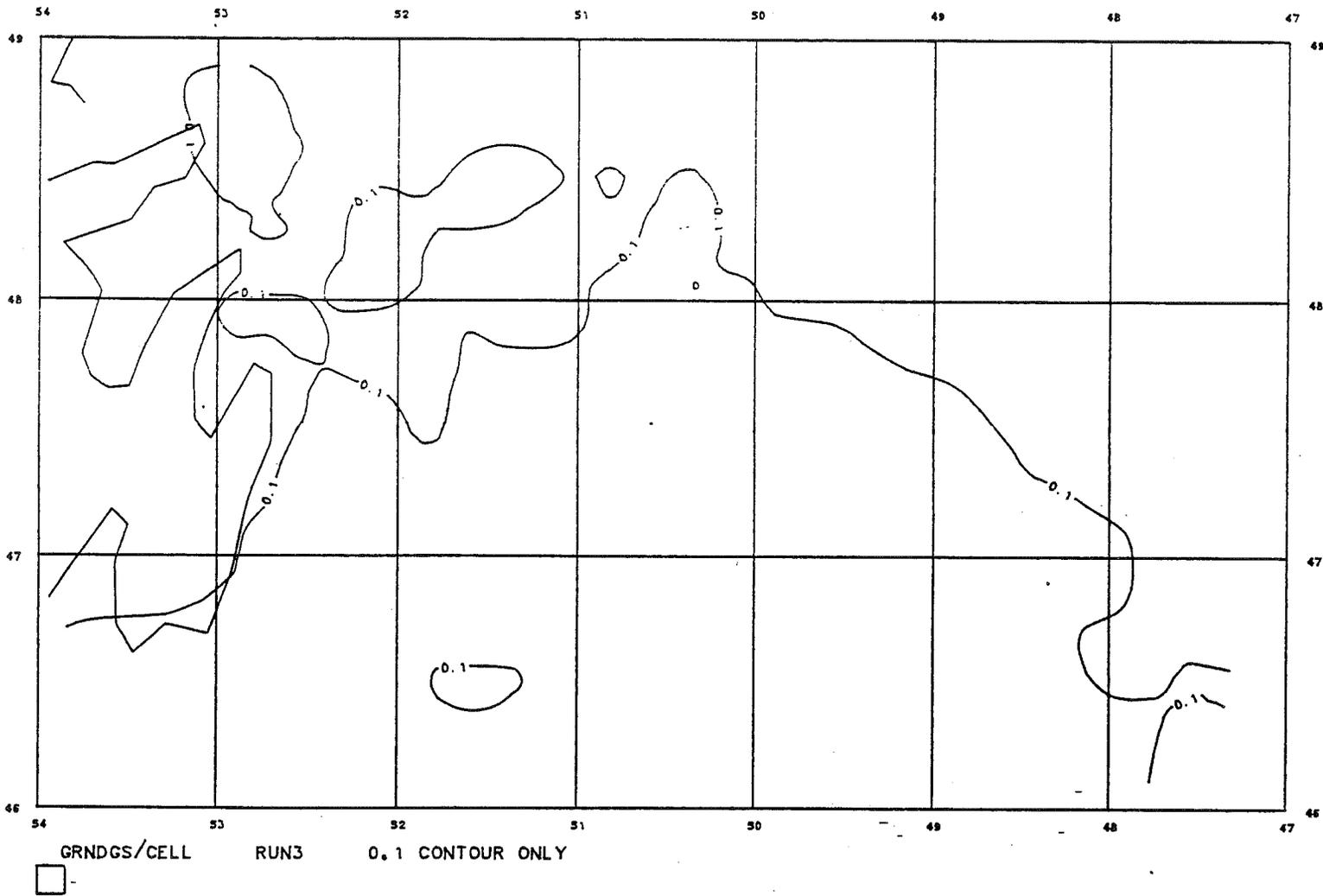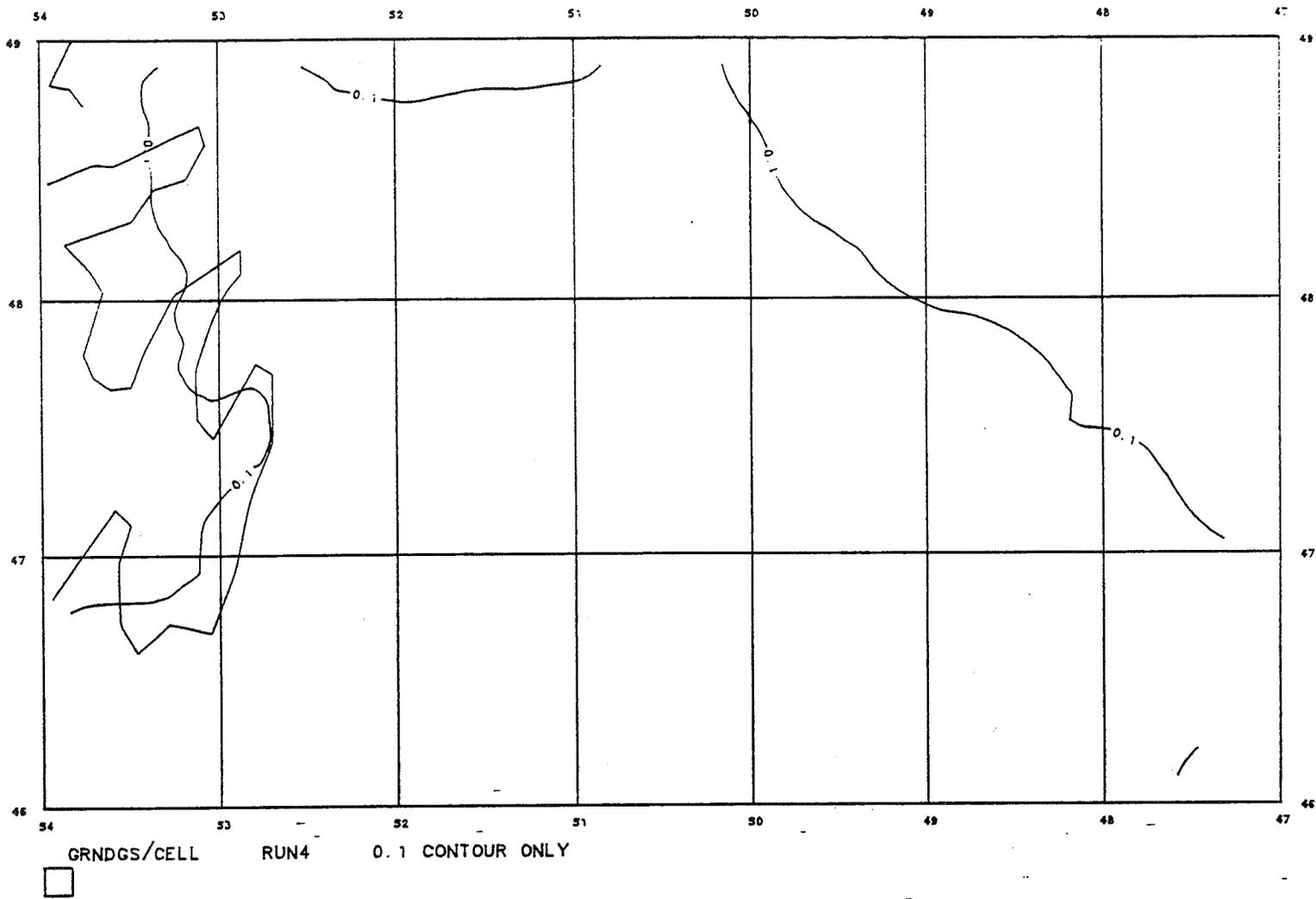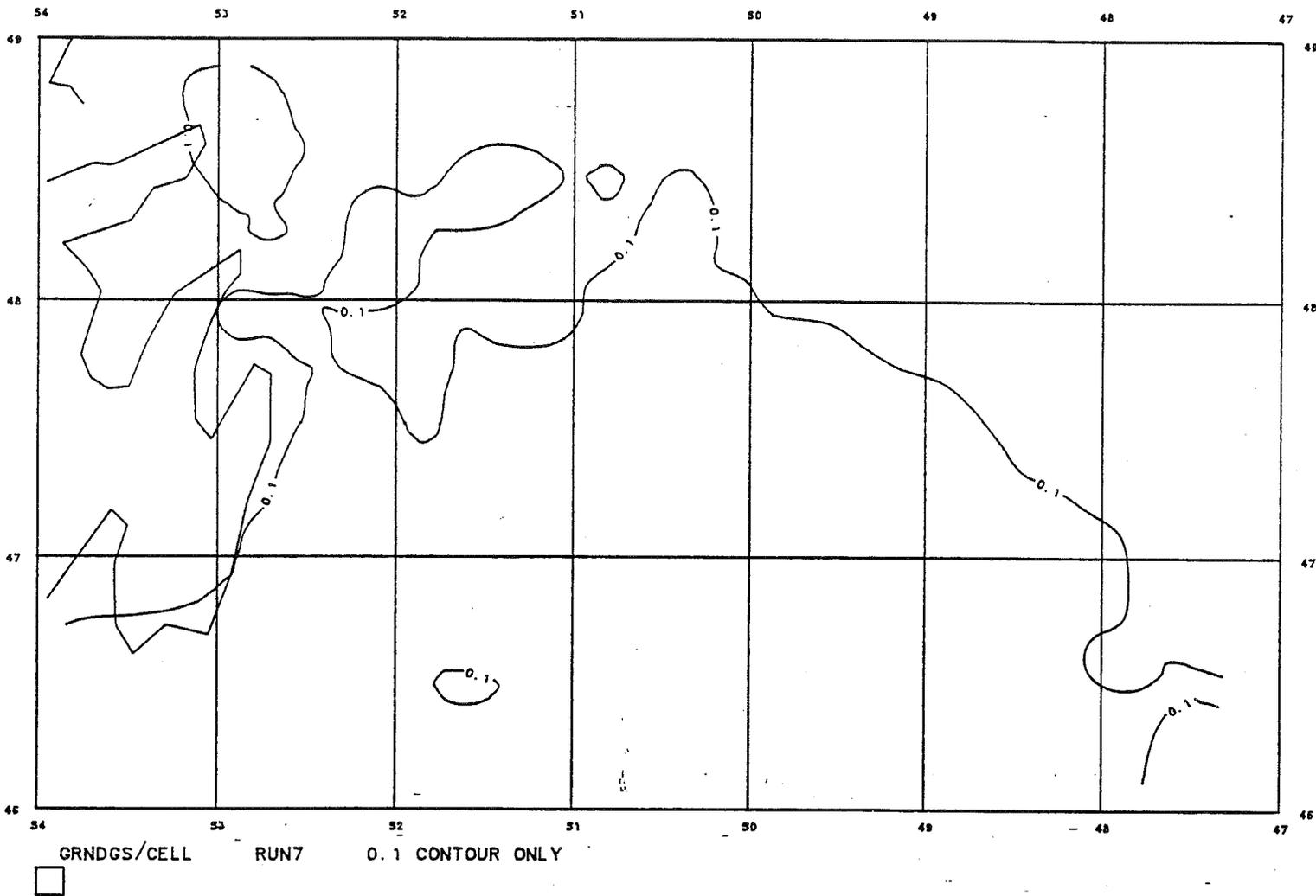
Figure 15.

Figure 16.

The listings on the following pages are the detailed results obtained for running the model for the years 1983, 1984 and 1985.

The following options were selected for all three runs:

> maximum water depth
> constant draught distribution
> N = 0
> Maximum scour depth = 5
> Uniform iceberg velocity

RUN8 - 1983 LAT:46N TO 49N LON:47W TO 54W W.D.= MAX DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
48.92	53.87	.00	48.92	53.75	.00	48.92	53.62	.00
48.92	53.50	.00	48.92	53.37	.00	48.92	53.24	.00
48.92	53.12	.00	48.92	52.99	.00	48.92	52.86	.09
48.92	52.74	.00	48.92	52.61	.00	48.92	52.49	.00
48.92	52.36	.00	48.92	52.23	.00	48.92	52.11	.00
48.92	51.98	.00	48.92	51.85	.00	48.92	51.73	.00
48.92	51.60	.00	48.92	51.48	.00	48.92	51.35	.00
48.92	51.22	.00	48.92	51.10	.00	48.92	50.97	.00
48.92	50.84	.00	48.92	50.72	.00	48.92	50.59	.00
48.92	50.47	.00	48.92	50.34	.02	48.92	50.21	.00
48.92	50.09	.00	48.92	49.96	.00	48.92	49.83	.00
48.92	49.71	.00	48.92	49.58	.00	48.92	49.46	.00
48.92	49.33	.00	48.92	49.20	.00	48.92	49.08	.00
48.92	48.95	.00	48.92	48.82	.00	48.92	48.70	.00
48.92	48.57	.00	48.92	48.45	.00	48.92	48.32	.00
48.92	48.19	.00	48.92	48.07	.00	48.92	47.94	.00
48.92	47.82	.00	48.92	47.69	.00	48.92	47.56	.00
48.92	47.44	.00	48.92	47.31	.00	48.83	53.87	.00
48.83	53.75	.00	48.83	53.62	.00	48.83	53.50	.00
48.83	53.37	.00	48.83	53.24	.00	48.83	53.12	.00
48.83	52.99	.26	48.83	52.86	.06	48.83	52.74	.00
48.83	52.61	.00	48.83	52.49	.00	48.83	52.36	.00
48.83	52.23	.00	48.83	52.11	.00	48.83	51.98	.00
48.83	51.85	.00	48.83	51.73	.00	48.83	51.60	.00
48.83	51.48	.00	48.83	51.35	.00	48.83	51.22	.00
48.83	51.10	.00	48.83	50.97	.00	48.83	50.84	.00
48.83	50.72	.05	48.83	50.59	.03	48.83	50.47	.03
48.83	50.34	.03	48.83	50.21	.00	48.83	50.09	.00
48.83	49.96	.00	48.83	49.83	.00	48.83	49.71	.00
48.83	49.58	.00	48.83	49.46	.00	48.83	49.33	.00
48.83	49.20	.00	48.83	49.08	.00	48.83	48.95	.00
48.83	48.82	.00	48.83	48.70	.00	48.83	48.57	.00
48.83	48.45	.00	48.83	48.32	.00	48.83	48.19	.00
48.83	48.07	.00	48.83	47.94	.00	48.83	47.82	.00
48.83	47.69	.00	48.83	47.56	.00	48.83	47.44	.00
48.83	47.31	.00	48.75	53.87	.00	48.75	53.75	.00
48.75	53.62	.00	48.75	53.50	.00	48.75	53.37	.00
48.75	53.24	.00	48.75	53.12	.00	48.75	52.99	.39
48.75	52.86	.39	48.75	52.74	.00	48.75	52.61	.00
48.75	52.49	.00	48.75	52.36	.00	48.75	52.23	.00
48.75	52.11	.00	48.75	51.98	.00	48.75	51.85	.00
48.75	51.73	.00	48.75	51.60	.00	48.75	51.48	.00
48.75	51.35	.00	48.75	51.22	.00	48.75	51.10	.00
48.75	50.97	.02	48.75	50.84	.04	48.75	50.72	.04
48.75	50.59	.03	48.75	50.47	.03	48.75	50.34	.02
48.75	50.21	.03	48.75	50.09	.00	48.75	49.96	.00
48.75	49.83	.00	48.75	49.71	.00	48.75	49.58	.00
48.75	49.46	.00	48.75	49.33	.00	48.75	49.20	.00
48.75	49.08	.00	48.75	48.95	.00	48.75	48.82	.00
48.75	48.70	.00	48.75	48.57	.00	48.75	48.45	.00

RUN8 - 1983   LAT:46N TO 49N   LON:47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
48.75	48.32	.00	48.75	48.19	.00	48.75	48.07	.00
48.75	47.94	.00	48.75	47.82	.00	48.75	47.69	.00
48.75	47.56	.00	48.75	47.44	.00	48.75	47.31	.00
48.67	53.87	.00	48.67	53.75	.00	48.67	53.62	.00
48.67	53.50	.00	48.67	53.37	.00	48.67	53.24	.00
48.67	53.12	.00	48.67	52.99	.79	48.67	52.86	.43
48.67	52.74	.00	48.67	52.61	.00	48.67	52.49	.00
48.67	52.36	.00	48.67	52.23	.00	48.67	52.11	.02
48.67	51.98	.00	48.67	51.85	.00	48.67	51.73	.00
48.67	51.60	.04	48.67	51.48	.03	48.67	51.35	.04
48.67	51.22	.03	48.67	51.10	.03	48.67	50.97	.03
48.67	50.84	.03	48.67	50.72	.03	48.67	50.59	.04
48.67	50.47	.04	48.67	50.34	.04	48.67	50.21	.03
48.67	50.09	.00	48.67	49.96	.00	48.67	49.83	.00
48.67	49.71	.00	48.67	49.58	.00	48.67	49.46	.00
48.67	49.33	.00	48.67	49.20	.00	48.67	49.08	.00
48.67	48.95	.00	48.67	48.82	.00	48.67	48.70	.00
48.67	48.57	.00	48.67	48.45	.00	48.67	48.32	.00
48.67	48.19	.00	48.67	48.07	.00	48.67	47.94	.00
48.67	47.82	.00	48.67	47.69	.00	48.67	47.56	.00
48.67	47.44	.00	48.67	47.31	.00	48.58	53.87	.00
48.58	53.75	.00	48.58	53.62	.00	48.58	53.50	.00
48.58	53.37	.00	48.58	53.24	.00	48.58	53.12	.00
48.58	52.99	1.26	48.58	52.86	.38	48.58	52.74	.00
48.58	52.61	.00	48.58	52.49	.06	48.58	52.36	.04
48.58	52.23	.04	48.58	52.11	.04	48.58	51.98	.04
48.58	51.85	.04	48.58	51.73	.04	48.58	51.60	.04
48.58	51.48	.04	48.58	51.35	.04	48.58	51.22	.03
48.58	51.10	.03	48.58	50.97	.04	48.58	50.84	.03
48.58	50.72	.03	48.58	50.59	.04	48.58	50.47	.04
48.58	50.34	.04	48.58	50.21	.03	48.58	50.09	.03
48.58	49.96	.00	48.58	49.83	.00	48.58	49.71	.00
48.58	49.58	.00	48.58	49.46	.00	48.58	49.33	.00
48.58	49.20	.00	48.58	49.08	.00	48.58	48.95	.00
48.58	48.82	.00	48.58	48.70	.00	48.58	48.57	.00
48.58	48.45	.00	48.58	48.32	.00	48.58	48.19	.00
48.58	48.07	.00	48.58	47.94	.00	48.58	47.82	.00
48.58	47.69	.00	48.58	47.56	.00	48.58	47.44	.00
48.58	47.31	.00	48.50	53.87	.00	48.50	53.75	.00
48.50	53.62	.00	48.50	53.50	.00	48.50	53.37	.00
48.50	53.24	.00	48.50	53.12	.00	48.50	52.99	.00
48.50	52.86	.00	48.50	52.74	.00	48.50	52.61	.00
48.50	52.49	.06	48.50	52.36	.04	48.50	52.23	.03
48.50	52.11	.03	48.50	51.98	.04	48.50	51.85	.04
48.50	51.73	.04	48.50	51.60	.04	48.50	51.48	.05
48.50	51.35	.06	48.50	51.22	.05	48.50	51.10	.05
48.50	50.97	.04	48.50	50.84	.04	48.50	50.72	.04
48.50	50.59	.04	48.50	50.47	.06	48.50	50.34	.06
48.50	50.21	.04	48.50	50.09	.03	48.50	49.96	.02
48.50	49.83	.00	48.50	49.71	.00	48.50	49.58	.00

RUN8 - 1983   LAT:46N TO 49N   LON:47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
48.50	49.46	.00	48.50	49.33	.00	48.50	49.20	.00
48.50	49.08	.00	48.50	48.95	.00	48.50	48.82	.00
48.50	48.70	.00	48.50	48.57	.00	48.50	48.45	.00
48.50	48.32	.00	48.50	48.19	.00	48.50	48.07	.00
48.50	47.94	.00	48.50	47.82	.00	48.50	47.69	.00
48.50	47.56	.00	48.50	47.44	.00	48.50	47.31	.00
48.42	53.87	.00	48.42	53.75	.00	48.42	53.62	.00
48.42	53.50	.00	48.42	53.37	.00	48.42	53.24	.00
48.42	53.12	.00	48.42	52.99	.00	48.42	52.86	.00
48.42	52.74	.00	48.42	52.61	.00	48.42	52.49	.06
48.42	52.36	.03	48.42	52.23	.04	48.42	52.11	.06
48.42	51.98	.05	48.42	51.85	.05	48.42	51.73	.04
48.42	51.60	.19	48.42	51.48	.03	48.42	51.35	.00
48.42	51.22	.05	48.42	51.10	.04	48.42	50.97	.02
48.42	50.84	.02	48.42	50.72	.02	48.42	50.59	.03
48.42	50.47	.05	48.42	50.34	.04	48.42	50.21	.04
48.42	50.09	.03	48.42	49.96	.03	48.42	49.83	.00
48.42	49.71	.00	48.42	49.58	.00	48.42	49.46	.00
48.42	49.33	.00	48.42	49.20	.00	48.42	49.08	.00
48.42	48.95	.00	48.42	48.82	.00	48.42	48.70	.00
48.42	48.57	.00	48.42	48.45	.00	48.42	48.32	.00
48.42	48.19	.00	48.42	48.07	.00	48.42	47.94	.00
48.42	47.82	.00	48.42	47.69	.00	48.42	47.56	.00
48.42	47.44	.00	48.42	47.31	.00	48.33	53.87	.00
48.33	53.75	.00	48.33	53.62	.00	48.33	53.50	.00
48.33	53.37	.00	48.33	53.24	.00	48.33	53.12	.00
48.33	52.99	.00	48.33	52.86	.00	48.33	52.74	.00
48.33	52.61	.03	48.33	52.49	.04	48.33	52.36	.03
48.33	52.23	.05	48.33	52.11	.07	48.33	51.98	.05
48.33	51.85	.04	48.33	51.73	.04	48.33	51.60	.06
48.33	51.48	.03	48.33	51.35	.00	48.33	51.22	.00
48.33	51.10	.04	48.33	50.97	.03	48.33	50.84	.03
48.33	50.72	.00	48.33	50.59	.03	48.33	50.47	.03
48.33	50.34	.04	48.33	50.21	.05	48.33	50.09	.04
48.33	49.96	.04	48.33	49.83	.00	48.33	49.71	.00
48.33	49.58	.00	48.33	49.46	.00	48.33	49.33	.00
48.33	49.20	.00	48.33	49.08	.00	48.33	48.95	.00
48.33	48.82	.00	48.33	48.70	.00	48.33	48.57	.00
48.33	48.45	.00	48.33	48.32	.00	48.33	48.19	.00
48.33	48.07	.00	48.33	47.94	.00	48.33	47.82	.00
48.33	47.69	.00	48.33	47.56	.00	48.33	47.44	.00
48.33	47.31	.00	48.25	53.87	.00	48.25	53.75	.00
48.25	53.62	.00	48.25	53.50	.00	48.25	53.37	.00
48.25	53.24	.00	48.25	53.12	.00	48.25	52.99	.00
48.25	52.86	.00	48.25	52.74	.04	48.25	52.61	.03
48.25	52.49	.04	48.25	52.36	.03	48.25	52.23	.05
48.25	52.11	.05	48.25	51.98	.06	48.25	51.85	.04
48.25	51.73	.04	48.25	51.60	.00	48.25	51.48	.00
48.25	51.35	.02	48.25	51.22	.00	48.25	51.10	.04
48.25	50.97	.00	48.25	50.84	.00	48.25	50.72	.00

RUN8 - 1983   LAT:46N TO 49N   LON:47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
48.25	50.59	.03	48.25	50.47	.03	48.25	50.34	.04
48.25	50.21	.04	48.25	50.09	.03	48.25	49.96	.03
48.25	49.83	.03	48.25	49.71	.02	48.25	49.58	.00
48.25	49.46	.00	48.25	49.33	.00	48.25	49.20	.00
48.25	49.08	.00	48.25	48.95	.00	48.25	48.82	.00
48.25	48.70	.00	48.25	48.57	.00	48.25	48.45	.00
48.25	48.32	.00	48.25	48.19	.00	48.25	48.07	.00
48.25	47.94	.00	48.25	47.82	.00	48.25	47.69	.00
48.25	47.56	.00	48.25	47.44	.00	48.25	47.31	.00
48.17	53.87	.00	48.17	53.75	.00	48.17	53.62	.00
48.17	53.50	.00	48.17	53.37	.02	48.17	53.24	.00
48.17	53.12	.00	48.17	52.99	.00	48.17	52.86	.20
48.17	52.74	.05	48.17	52.61	.03	48.17	52.49	.03
48.17	52.36	.03	48.17	52.23	.04	48.17	52.11	.04
48.17	51.98	.05	48.17	51.85	.05	48.17	51.73	.03
48.17	51.60	.00	48.17	51.48	.00	48.17	51.35	.00
48.17	51.22	.00	48.17	51.10	.00	48.17	50.97	.02
48.17	50.84	.02	48.17	50.72	.04	48.17	50.59	.03
48.17	50.47	.03	48.17	50.34	.04	48.17	50.21	.04
48.17	50.09	.05	48.17	49.96	.03	48.17	49.83	.03
48.17	49.71	.02	48.17	49.58	.03	48.17	49.46	.00
48.17	49.33	.00	48.17	49.20	.00	48.17	49.08	.00
48.17	48.95	.00	48.17	48.82	.00	48.17	48.70	.00
48.17	48.57	.00	48.17	48.45	.00	48.17	48.32	.00
48.17	48.19	.00	48.17	48.07	.00	48.17	47.94	.00
48.17	47.82	.00	48.17	47.69	.00	48.17	47.56	.00
48.17	47.44	.00	48.17	47.31	.00	48.08	53.87	.00
48.08	53.75	.00	48.08	53.62	.00	48.08	53.50	.00
48.08	53.37	.00	48.08	53.24	.00	48.08	53.12	.00
48.08	52.99	.14	48.08	52.86	.17	48.08	52.74	.06
48.08	52.61	.05	48.08	52.49	.04	48.08	52.36	.03
48.08	52.23	.13	48.08	52.11	.04	48.08	51.98	.04
48.08	51.85	.04	48.08	51.73	.03	48.08	51.60	.00
48.08	51.48	.00	48.08	51.35	.00	48.08	51.22	.02
48.08	51.10	.00	48.08	50.97	.03	48.08	50.84	.03
48.08	50.72	.04	48.08	50.59	.03	48.08	50.47	.04
48.08	50.34	.00	48.08	50.21	.03	48.08	50.09	.05
48.08	49.96	.03	48.08	49.83	.02	48.08	49.71	.02
48.08	49.58	.02	48.08	49.46	.02	48.08	49.33	.00
48.08	49.20	.00	48.08	49.08	.00	48.08	48.95	.00
48.08	48.82	.00	48.08	48.70	.00	48.08	48.57	.00
48.08	48.45	.00	48.08	48.32	.00	48.08	48.19	.00
48.08	48.07	.00	48.08	47.94	.00	48.08	47.82	.00
48.08	47.69	.00	48.08	47.56	.00	48.08	47.44	.00
48.08	47.31	.00	48.00	53.88	.00	48.00	53.75	.00
48.00	53.63	.00	48.00	53.51	.00	48.00	53.38	.00
48.00	53.26	.00	48.00	53.14	.00	48.00	53.01	.09
48.00	52.89	.11	48.00	52.77	.05	48.00	52.64	.05
48.00	52.52	.04	48.00	52.40	.04	48.00	52.27	.04
48.00	52.15	.03	48.00	52.03	.03	48.00	51.90	.03

RUN8 - 1983   LAT:46N TO 49N   LON:47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
48.00	51.78	.03	48.00	51.66	.02	48.00	51.53	.00
48.00	51.41	.01	48.00	51.29	.01	48.00	51.16	.02
48.00	51.04	.01	48.00	50.92	.01	48.00	50.79	.08
48.00	50.67	.02	48.00	50.55	.02	48.00	50.42	.02
48.00	50.30	.03	48.00	50.18	.10	48.00	50.05	.03
48.00	49.93	.03	48.00	49.81	.02	48.00	49.68	.02
48.00	49.56	.02	48.00	49.44	.02	48.00	49.31	.02
48.00	49.19	.00	48.00	49.07	.00	48.00	48.94	.00
48.00	48.82	.00	48.00	48.70	.00	48.00	48.57	.00
48.00	48.45	.00	48.00	48.33	.00	48.00	48.20	.00
48.00	48.08	.00	48.00	47.96	.00	48.00	47.83	.00
48.00	47.71	.00	48.00	47.59	.00	48.00	47.46	.00
47.92	53.88	.00	47.92	53.75	.00	47.92	53.63	.00
47.92	53.51	.00	47.92	53.38	.00	47.92	53.26	.00
47.92	53.14	.00	47.92	53.01	.10	47.92	52.89	.02
47.92	52.77	.04	47.92	52.64	.05	47.92	52.52	.05
47.92	52.40	.05	47.92	52.27	.03	47.92	52.15	.04
47.92	52.03	.03	47.92	51.90	.03	47.92	51.78	.03
47.92	51.66	.04	47.92	51.53	.03	47.92	51.41	.01
47.92	51.29	.01	47.92	51.16	.01	47.92	51.04	.05
47.92	50.92	.05	47.92	50.79	.01	47.92	50.67	.07
47.92	50.55	.02	47.92	50.42	.01	47.92	50.30	.03
47.92	50.18	.09	47.92	50.05	.06	47.92	49.93	.03
47.92	49.81	.02	47.92	49.68	.03	47.92	49.56	.02
47.92	49.44	.02	47.92	49.31	.02	47.92	49.19	.02
47.92	49.07	.00	47.92	48.94	.00	47.92	48.82	.00
47.92	48.70	.00	47.92	48.57	.00	47.92	48.45	.00
47.92	48.33	.00	47.92	48.20	.00	47.92	48.08	.00
47.92	47.96	.00	47.92	47.83	.00	47.92	47.71	.00
47.92	47.59	.00	47.92	47.46	.00	47.83	53.88	.00
47.83	53.75	.00	47.83	53.63	.00	47.83	53.51	.00
47.83	53.38	.00	47.83	53.26	.00	47.83	53.14	.00
47.83	53.01	.02	47.83	52.89	.02	47.83	52.77	.02
47.83	52.64	.05	47.83	52.52	.06	47.83	52.40	.05
47.83	52.27	.03	47.83	52.15	.04	47.83	52.03	.03
47.83	51.90	.02	47.83	51.78	.03	47.83	51.66	.03
47.83	51.53	.02	47.83	51.41	.03	47.83	51.29	.01
47.83	51.16	.02	47.83	51.04	.06	47.83	50.92	.05
47.83	50.79	.01	47.83	50.67	.06	47.83	50.55	.01
47.83	50.42	.02	47.83	50.30	.02	47.83	50.18	.10
47.83	50.05	.11	47.83	49.93	.10	47.83	49.81	.09
47.83	49.68	.07	47.83	49.56	.04	47.83	49.44	.03
47.83	49.31	.03	47.83	49.19	.02	47.83	49.07	.03
47.83	48.94	.03	47.83	48.82	.04	47.83	48.70	.00
47.83	48.57	.00	47.83	48.45	.00	47.83	48.33	.00
47.83	48.20	.00	47.83	48.08	.00	47.83	47.96	.00
47.83	47.83	.00	47.83	47.71	.00	47.83	47.59	.00
47.83	47.46	.00	47.75	53.88	.00	47.75	53.75	.00
47.75	53.63	.00	47.75	53.51	.00	47.75	53.38	.00
47.75	53.26	.00	47.75	53.14	.01	47.75	53.01	.00

RUN8 - 1983   LAT:46N TO 49N   LON:47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
47.75	52.89	.02	47.75	52.77	.24	47.75	52.64	.05
47.75	52.52	.06	47.75	52.40	.05	47.75	52.27	.04
47.75	52.15	.04	47.75	52.03	.04	47.75	51.90	.03
47.75	51.78	.03	47.75	51.66	.03	47.75	51.53	.08
47.75	51.41	.07	47.75	51.29	.07	47.75	51.16	.07
47.75	51.04	.07	47.75	50.92	.07	47.75	50.79	.07
47.75	50.67	.02	47.75	50.55	.02	47.75	50.42	.01
47.75	50.30	.02	47.75	50.18	.10	47.75	50.05	.12
47.75	49.93	.13	47.75	49.81	.11	47.75	49.68	.13
47.75	49.56	.12	47.75	49.44	.04	47.75	49.31	.04
47.75	49.19	.03	47.75	49.07	.03	47.75	48.94	.03
47.75	48.82	.03	47.75	48.70	.03	47.75	48.57	.03
47.75	48.45	.00	47.75	48.33	.00	47.75	48.20	.00
47.75	48.08	.00	47.75	47.96	.00	47.75	47.83	.00
47.75	47.71	.00	47.75	47.59	.00	47.75	47.46	.00
47.67	53.88	.00	47.67	53.75	.00	47.67	53.63	.00
47.67	53.51	.00	47.67	53.38	.00	47.67	53.26	.00
47.67	53.14	.00	47.67	53.01	.00	47.67	52.89	.04
47.67	52.77	.00	47.67	52.64	.06	47.67	52.52	.08
47.67	52.40	.06	47.67	52.27	.05	47.67	52.15	.04
47.67	52.03	.03	47.67	51.90	.03	47.67	51.78	.03
47.67	51.66	.03	47.67	51.53	.08	47.67	51.41	.08
47.67	51.29	.08	47.67	51.16	.08	47.67	51.04	.08
47.67	50.92	.08	47.67	50.79	.08	47.67	50.67	.02
47.67	50.55	.02	47.67	50.42	.09	47.67	50.30	.04
47.67	50.18	.11	47.67	50.05	.12	47.67	49.93	.14
47.67	49.81	.12	47.67	49.68	.14	47.67	49.56	.12
47.67	49.44	.13	47.67	49.31	.12	47.67	49.19	.05
47.67	49.07	.04	47.67	48.94	.03	47.67	48.82	.03
47.67	48.70	.02	47.67	48.57	.03	47.67	48.45	.03
47.67	48.33	.03	47.67	48.20	.00	47.67	48.08	.00
47.67	47.96	.00	47.67	47.83	.00	47.67	47.71	.00
47.67	47.59	.00	47.67	47.46	.00	47.58	53.88	.00
47.58	53.75	.00	47.58	53.63	.00	47.58	53.51	.00
47.58	53.38	.00	47.58	53.26	.00	47.58	53.14	.00
47.58	53.01	.00	47.58	52.89	.02	47.58	52.77	.00
47.58	52.64	.06	47.58	52.52	.08	47.58	52.40	.08
47.58	52.27	.06	47.58	52.15	.05	47.58	52.03	.04
47.58	51.90	.03	47.58	51.78	.03	47.58	51.66	.03
47.58	51.53	.08	47.58	51.41	.08	47.58	51.29	.08
47.58	51.16	.08	47.58	51.04	.08	47.58	50.92	.09
47.58	50.79	.02	47.58	50.67	.00	47.58	50.55	.02
47.58	50.42	.02	47.58	50.30	.02	47.58	50.18	.11
47.58	50.05	.16	47.58	49.93	.13	47.58	49.81	.26
47.58	49.68	.15	47.58	49.56	.13	47.58	49.44	.13
47.58	49.31	.12	47.58	49.19	.12	47.58	49.07	.09
47.58	48.94	.05	47.58	48.82	.03	47.58	48.70	.03
47.58	48.57	.03	47.58	48.45	.02	47.58	48.33	.02
47.58	48.20	.02	47.58	48.08	.02	47.58	47.96	.00
47.58	47.83	.00	47.58	47.71	.00	47.58	47.59	.00

RUN8 - 1983   LAT:46N TO 49N   LON:47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
47.58	47.46	.00	47.50	53.88	.00	47.50	53.75	.00
47.50	53.63	.00	47.50	53.51	.00	47.50	53.38	.00
47.50	53.26	.00	47.50	53.14	.00	47.50	53.01	.00
47.50	52.89	.00	47.50	52.77	.00	47.50	52.64	.06
47.50	52.52	.07	47.50	52.40	.05	47.50	52.27	.05
47.50	52.15	.09	47.50	52.03	.04	47.50	51.90	.03
47.50	51.78	.03	47.50	51.66	.04	47.50	51.53	.10
47.50	51.41	.09	47.50	51.29	.10	47.50	51.16	.10
47.50	51.04	.09	47.50	50.92	.04	47.50	50.79	.02
47.50	50.67	.00	47.50	50.55	.00	47.50	50.42	.00
47.50	50.30	.00	47.50	50.18	.12	47.50	50.05	.16
47.50	49.93	.24	47.50	49.81	.12	47.50	49.68	.14
47.50	49.56	.18	47.50	49.44	.13	47.50	49.31	.13
47.50	49.19	.13	47.50	49.07	.12	47.50	48.94	.11
47.50	48.82	.07	47.50	48.70	.03	47.50	48.57	.03
47.50	48.45	.03	47.50	48.33	.02	47.50	48.20	.02
47.50	48.08	.02	47.50	47.96	.02	47.50	47.83	.00
47.50	47.71	.00	47.50	47.59	.00	47.50	47.46	.00
47.42	53.88	.00	47.42	53.75	.00	47.42	53.63	.00
47.42	53.51	.00	47.42	53.38	.00	47.42	53.26	.00
47.42	53.14	.00	47.42	53.01	.00	47.42	52.89	.00
47.42	52.77	.00	47.42	52.64	.08	47.42	52.52	.08
47.42	52.40	.05	47.42	52.27	.07	47.42	52.15	.11
47.42	52.03	.04	47.42	51.90	.04	47.42	51.78	.03
47.42	51.66	.04	47.42	51.53	.10	47.42	51.41	.09
47.42	51.29	.10	47.42	51.16	.09	47.42	51.04	.09
47.42	50.92	.03	47.42	50.79	.03	47.42	50.67	.02
47.42	50.55	.02	47.42	50.42	.00	47.42	50.30	.02
47.42	50.18	.17	47.42	50.05	.21	47.42	49.93	.16
47.42	49.81	.21	47.42	49.68	.19	47.42	49.56	.24
47.42	49.44	.13	47.42	49.31	.12	47.42	49.19	.12
47.42	49.07	.12	47.42	48.94	.10	47.42	48.82	.09
47.42	48.70	.07	47.42	48.57	.05	47.42	48.45	.02
47.42	48.33	.02	47.42	48.20	.02	47.42	48.08	.02
47.42	47.96	.02	47.42	47.83	.02	47.42	47.71	.00
47.42	47.59	.00	47.42	47.46	.00	47.33	53.88	.00
47.33	53.75	.00	47.33	53.63	.00	47.33	53.51	.00
47.33	53.38	.00	47.33	53.26	.00	47.33	53.14	.00
47.33	53.01	.00	47.33	52.89	.00	47.33	52.77	.18
47.33	52.64	.09	47.33	52.52	.07	47.33	52.40	.04
47.33	52.27	.06	47.33	52.15	.10	47.33	52.03	.07
47.33	51.90	.04	47.33	51.78	.04	47.33	51.66	.05
47.33	51.53	.12	47.33	51.41	.10	47.33	51.29	.11
47.33	51.16	.09	47.33	51.04	.08	47.33	50.92	.08
47.33	50.79	.08	47.33	50.67	.03	47.33	50.55	.10
47.33	50.42	.02	47.33	50.30	.02	47.33	50.18	.23
47.33	50.05	.20	47.33	49.93	.18	47.33	49.81	.16
47.33	49.68	.18	47.33	49.56	.17	47.33	49.44	.10
47.33	49.31	.10	47.33	49.19	.11	47.33	49.07	.10
47.33	48.94	.08	47.33	48.82	.07	47.33	48.70	.06

RUN8 - 1983   LAT:46N TO 49N   LON:47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
47.33	48.57	.06	47.33	48.45	.06	47.33	48.33	.05
47.33	48.20	.02	47.33	48.08	.02	47.33	47.96	.02
47.33	47.83	.02	47.33	47.71	.00	47.33	47.59	.00
47.33	47.46	.00	47.25	53.88	.00	47.25	53.75	.00
47.25	53.63	.00	47.25	53.51	.00	47.25	53.38	.00
47.25	53.26	.00	47.25	53.14	.00	47.25	53.01	.00
47.25	52.89	.00	47.25	52.77	.07	47.25	52.64	.09
47.25	52.52	.05	47.25	52.40	.04	47.25	52.27	.08
47.25	52.15	.10	47.25	52.03	.10	47.25	51.90	.04
47.25	51.78	.04	47.25	51.66	.09	47.25	51.53	.12
47.25	51.41	.09	47.25	51.29	.10	47.25	51.16	.10
47.25	51.04	.09	47.25	50.92	.09	47.25	50.79	.09
47.25	50.67	.11	47.25	50.55	.13	47.25	50.42	.13
47.25	50.30	.13	47.25	50.18	.16	47.25	50.05	.17
47.25	49.93	.15	47.25	49.81	.21	47.25	49.68	.24
47.25	49.56	.14	47.25	49.44	.15	47.25	49.31	.14
47.25	49.19	.12	47.25	49.07	.13	47.25	48.94	.07
47.25	48.82	.07	47.25	48.70	.06	47.25	48.57	.06
47.25	48.45	.06	47.25	48.33	.07	47.25	48.20	.05
47.25	48.08	.03	47.25	47.96	.02	47.25	47.83	.02
47.25	47.71	.02	47.25	47.59	.01	47.25	47.46	.00
47.17	53.88	.00	47.17	53.75	.00	47.17	53.63	.00
47.17	53.51	.00	47.17	53.38	.00	47.17	53.26	.00
47.17	53.14	.00	47.17	53.01	.00	47.17	52.89	.00
47.17	52.77	.06	47.17	52.64	.13	47.17	52.52	.08
47.17	52.40	.04	47.17	52.27	.08	47.17	52.15	.10
47.17	52.03	.10	47.17	51.90	.04	47.17	51.78	.04
47.17	51.66	.12	47.17	51.53	.13	47.17	51.41	.11
47.17	51.29	.11	47.17	51.16	.04	47.17	51.04	.11
47.17	50.92	.10	47.17	50.79	.10	47.17	50.67	.11
47.17	50.55	.11	47.17	50.42	.03	47.17	50.30	.17
47.17	50.18	.10	47.17	50.05	.17	47.17	49.93	.28
47.17	49.81	.22	47.17	49.68	.17	47.17	49.56	.09
47.17	49.44	.08	47.17	49.31	.10	47.17	49.19	.12
47.17	49.07	.14	47.17	48.94	.06	47.17	48.82	.06
47.17	48.70	.06	47.17	48.57	.07	47.17	48.45	.06
47.17	48.33	.07	47.17	48.20	.07	47.17	48.08	.05
47.17	47.96	.02	47.17	47.83	.02	47.17	47.71	.02
47.17	47.59	.02	47.17	47.46	.00	47.08	53.88	.00
47.08	53.75	.00	47.08	53.63	.00	47.08	53.51	.00
47.08	53.38	.00	47.08	53.26	.00	47.08	53.14	.00
47.08	53.01	.00	47.08	52.89	.12	47.08	52.77	.05
47.08	52.64	.05	47.08	52.52	.10	47.08	52.40	.09
47.08	52.27	.09	47.08	52.15	.10	47.08	52.03	.11
47.08	51.90	.08	47.08	51.78	.09	47.08	51.66	.12
47.08	51.53	.13	47.08	51.41	.17	47.08	51.29	.11
47.08	51.16	.11	47.08	51.04	.13	47.08	50.92	.14
47.08	50.79	.09	47.08	50.67	.08	47.08	50.55	.11
47.08	50.42	.12	47.08	50.30	.11	47.08	50.18	.09
47.08	50.05	.10	47.08	49.93	.23	47.08	49.81	.18

RUN8 - 1983   LAT:46N TO 49N   LON:47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
47.08	49.68	.13	47.08	49.56	.10	47.08	49.44	.07
47.08	49.31	.11	47.08	49.19	.14	47.08	49.07	.13
47.08	48.94	.07	47.08	48.82	.07	47.08	48.70	.07
47.08	48.57	.06	47.08	48.45	.06	47.08	48.33	.07
47.08	48.20	.07	47.08	48.08	.07	47.08	47.96	.03
47.08	47.83	.03	47.08	47.71	.02	47.08	47.59	.02
47.08	47.46	.00	47.00	53.88	.00	47.00	53.76	.00
47.00	53.64	.00	47.00	53.52	.00	47.00	53.40	.00
47.00	53.28	.00	47.00	53.15	.00	47.00	53.03	.00
47.00	52.91	.34	47.00	52.79	.08	47.00	52.67	.05
47.00	52.55	.04	47.00	52.43	.10	47.00	52.31	.11
47.00	52.19	.12	47.00	52.07	.13	47.00	51.95	.13
47.00	51.83	.13	47.00	51.70	.12	47.00	51.58	.13
47.00	51.46	.19	47.00	51.34	.18	47.00	51.22	.11
47.00	51.10	.13	47.00	50.98	.13	47.00	50.86	.11
47.00	50.74	.04	47.00	50.62	.00	47.00	50.50	.00
47.00	50.38	.02	47.00	50.25	.08	47.00	50.13	.10
47.00	50.01	.08	47.00	49.89	.06	47.00	49.77	.11
47.00	49.65	.09	47.00	49.53	.09	47.00	49.41	.12
47.00	49.29	.17	47.00	49.17	.26	47.00	49.05	.20
47.00	48.93	.11	47.00	48.80	.13	47.00	48.68	.06
47.00	48.56	.05	47.00	48.44	.05	47.00	48.32	.06
47.00	48.20	.06	47.00	48.08	.07	47.00	47.96	.07
47.00	47.84	.02	47.00	47.72	.02	47.00	47.60	.02
46.92	53.88	.00	46.92	53.76	.00	46.92	53.64	.00
46.92	53.52	.00	46.92	53.40	.00	46.92	53.28	.00
46.92	53.15	.00	46.92	53.03	.00	46.92	52.91	.42
46.92	52.79	.10	46.92	52.67	.06	46.92	52.55	.04
46.92	52.43	.13	46.92	52.31	.12	46.92	52.19	.12
46.92	52.07	.13	46.92	51.95	.13	46.92	51.83	.13
46.92	51.70	.12	46.92	51.58	.18	46.92	51.46	.24
46.92	51.34	.16	46.92	51.22	.14	46.92	51.10	.15
46.92	50.98	.10	46.92	50.86	.09	46.92	50.74	.05
46.92	50.62	.02	46.92	50.50	.03	46.92	50.38	.02
46.92	50.25	.06	46.92	50.13	.08	46.92	50.01	.12
46.92	49.89	.08	46.92	49.77	.07	46.92	49.65	.07
46.92	49.53	.07	46.92	49.41	.09	46.92	49.29	.12
46.92	49.17	.20	46.92	49.05	.18	46.92	48.93	.13
46.92	48.80	.11	46.92	48.68	.11	46.92	48.56	.05
46.92	48.44	.05	46.92	48.32	.06	46.92	48.20	.05
46.92	48.08	.06	46.92	47.96	.06	46.92	47.84	.04
46.92	47.72	.02	46.92	47.60	.01	46.83	53.88	.00
46.83	53.76	.00	46.83	53.64	.00	46.83	53.52	.00
46.83	53.40	.00	46.83	53.28	.00	46.83	53.15	.00
46.83	53.03	.00	46.83	52.91	.63	46.83	52.79	.09
46.83	52.67	.05	46.83	52.55	.04	46.83	52.43	.11
46.83	52.31	.15	46.83	52.19	.13	46.83	52.07	.12
46.83	51.95	.11	46.83	51.83	.11	46.83	51.70	.10
46.83	51.58	.22	46.83	51.46	.20	46.83	51.34	.18
46.83	51.22	.15	46.83	51.10	.12	46.83	50.98	.05

RUN8 - 1983   LAT:46N TO 49N   LON:47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
46.83	50.86	.04	46.83	50.74	.04	46.83	50.62	.04
46.83	50.50	.05	46.83	50.38	.04	46.83	50.25	.08
46.83	50.13	.07	46.83	50.01	.12	46.83	49.89	.11
46.83	49.77	.08	46.83	49.65	.07	46.83	49.53	.06
46.83	49.41	.07	46.83	49.29	.09	46.83	49.17	.12
46.83	49.05	.17	46.83	48.93	.14	46.83	48.80	.16
46.83	48.68	.11	46.83	48.56	.08	46.83	48.44	.06
46.83	48.32	.04	46.83	48.20	.04	46.83	48.08	.05
46.83	47.96	.04	46.83	47.84	.04	46.83	47.72	.02
46.83	47.60	.02	46.75	53.88	.00	46.75	53.76	.00
46.75	53.64	.00	46.75	53.52	.00	46.75	53.40	.00
46.75	53.28	.00	46.75	53.15	.00	46.75	53.03	.00
46.75	52.91	.76	46.75	52.79	.10	46.75	52.67	.06
46.75	52.55	.04	46.75	52.43	.06	46.75	52.31	.13
46.75	52.19	.10	46.75	52.07	.09	46.75	51.95	.08
46.75	51.83	.08	46.75	51.70	.11	46.75	51.58	.15
46.75	51.46	.14	46.75	51.34	.11	46.75	51.22	.08
46.75	51.10	.06	46.75	50.98	.03	46.75	50.86	.04
46.75	50.74	.04	46.75	50.62	.04	46.75	50.50	.04
46.75	50.38	.04	46.75	50.25	.04	46.75	50.13	.05
46.75	50.01	.11	46.75	49.89	.10	46.75	49.77	.09
46.75	49.65	.09	46.75	49.53	.09	46.75	49.41	.07
46.75	49.29	.06	46.75	49.17	.08	46.75	49.05	.10
46.75	48.93	.14	46.75	48.80	.19	46.75	48.68	.11
46.75	48.56	.08	46.75	48.44	.06	46.75	48.32	.06
46.75	48.20	.03	46.75	48.08	.04	46.75	47.96	.05
46.75	47.84	.04	46.75	47.72	.05	46.75	47.60	.02
46.67	53.88	.00	46.67	53.76	.00	46.67	53.64	.00
46.67	53.52	.00	46.67	53.40	.00	46.67	53.28	.00
46.67	53.15	.00	46.67	53.03	.00	46.67	52.91	1.66
46.67	52.79	.09	46.67	52.67	.06	46.67	52.55	.04
46.67	52.43	.04	46.67	52.31	.12	46.67	52.19	.09
46.67	52.07	.07	46.67	51.95	.06	46.67	51.83	.05
46.67	51.70	.04	46.67	51.58	.08	46.67	51.46	.07
46.67	51.34	.07	46.67	51.22	.04	46.67	51.10	.04
46.67	50.98	.03	46.67	50.86	.03	46.67	50.74	.03
46.67	50.62	.02	46.67	50.50	.04	46.67	50.38	.04
46.67	50.25	.04	46.67	50.13	.04	46.67	50.01	.09
46.67	49.89	.07	46.67	49.77	.08	46.67	49.65	.08
46.67	49.53	.08	46.67	49.41	.06	46.67	49.29	.06
46.67	49.17	.06	46.67	49.05	.07	46.67	48.93	.09
46.67	48.80	.13	46.67	48.68	.09	46.67	48.56	.08
46.67	48.44	.06	46.67	48.32	.05	46.67	48.20	.03
46.67	48.08	.04	46.67	47.96	.04	46.67	47.84	.04
46.67	47.72	.04	46.67	47.60	.02	46.58	53.88	.47
46.58	53.76	.61	46.58	53.64	.86	46.58	53.52	.86
46.58	53.40	.82	46.58	53.28	.97	46.58	53.15	1.83
46.58	53.03	1.21	46.58	52.91	.68	46.58	52.79	.24
46.58	52.67	.04	46.58	52.55	.02	46.58	52.43	.03
46.58	52.31	.10	46.58	52.19	.08	46.58	52.07	.11

RUN8 - 1983 LAT:46N TO 49N LON:47W TO 54W W.D.= MAX DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
46.58	51.95	.04	46.58	51.83	.03	46.58	51.70	.02
46.58	51.58	.03	46.58	51.46	.03	46.58	51.34	.03
46.58	51.22	.03	46.58	51.10	.04	46.58	50.98	.10
46.58	50.86	.12	46.58	50.74	.04	46.58	50.62	.02
46.58	50.50	.03	46.58	50.38	.03	46.58	50.25	.04
46.58	50.13	.04	46.58	50.01	.09	46.58	49.89	.06
46.58	49.77	.05	46.58	49.65	.05	46.58	49.53	.05
46.58	49.41	.05	46.58	49.29	.04	46.58	49.17	.05
46.58	49.05	.06	46.58	48.93	.08	46.58	48.80	.13
46.58	48.68	.11	46.58	48.56	.07	46.58	48.44	.06
46.58	48.32	.06	46.58	48.20	.05	46.58	48.08	.03
46.58	47.96	.03	46.58	47.84	.03	46.58	47.72	.04
46.58	47.60	.05	46.50	53.88	.52	46.50	53.76	.50
46.50	53.64	.57	46.50	53.52	.74	46.50	53.40	.86
46.50	53.28	.92	46.50	53.15	.57	46.50	53.03	.25
46.50	52.91	.17	46.50	52.79	.05	46.50	52.67	.04
46.50	52.55	.02	46.50	52.43	.02	46.50	52.31	.08
46.50	52.19	.14	46.50	52.07	.09	46.50	51.95	.03
46.50	51.83	.02	46.50	51.70	.01	46.50	51.58	.02
46.50	51.46	.02	46.50	51.34	.02	46.50	51.22	.02
46.50	51.10	.04	46.50	50.98	.10	46.50	50.86	.09
46.50	50.74	.09	46.50	50.62	.04	46.50	50.50	.04
46.50	50.38	.03	46.50	50.25	.04	46.50	50.13	.07
46.50	50.01	.08	46.50	49.89	.05	46.50	49.77	.03
46.50	49.65	.02	46.50	49.53	.02	46.50	49.41	.03
46.50	49.29	.04	46.50	49.17	.04	46.50	49.05	.06
46.50	48.93	.07	46.50	48.80	.11	46.50	48.68	.09
46.50	48.56	.07	46.50	48.44	.06	46.50	48.32	.07
46.50	48.20	.04	46.50	48.08	.03	46.50	47.96	.03
46.50	47.84	.03	46.50	47.72	.03	46.50	47.60	.04
46.42	53.88	.12	46.42	53.76	.14	46.42	53.64	.17
46.42	53.52	.28	46.42	53.40	.47	46.42	53.28	.32
46.42	53.15	.21	46.42	53.03	.16	46.42	52.91	.07
46.42	52.79	.05	46.42	52.67	.03	46.42	52.55	.02
46.42	52.43	.02	46.42	52.31	.07	46.42	52.19	.18
46.42	52.07	.08	46.42	51.95	.02	46.42	51.83	.02
46.42	51.70	.01	46.42	51.58	.02	46.42	51.46	.02
46.42	51.34	.04	46.42	51.22	.03	46.42	51.10	.01
46.42	50.98	.02	46.42	50.86	.05	46.42	50.74	.07
46.42	50.62	.05	46.42	50.50	.03	46.42	50.38	.03
46.42	50.25	.05	46.42	50.13	.06	46.42	50.01	.10
46.42	49.89	.07	46.42	49.77	.06	46.42	49.65	.05
46.42	49.53	.04	46.42	49.41	.04	46.42	49.29	.05
46.42	49.17	.05	46.42	49.05	.07	46.42	48.93	.10
46.42	48.80	.11	46.42	48.68	.17	46.42	48.56	.10
46.42	48.44	.10	46.42	48.32	.10	46.42	48.20	.06
46.42	48.08	.04	46.42	47.96	.04	46.42	47.84	.04
46.42	47.72	.04	46.42	47.60	.03	46.33	53.88	.10
46.33	53.76	.10	46.33	53.64	.13	46.33	53.52	.14
46.33	53.40	.19	46.33	53.28	.17	46.33	53.15	.16

RUN8 - 1983   LAT:46N TO 49N   LON:47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
46.33	53.03	.11	46.33	52.91	.13	46.33	52.79	.05
46.33	52.67	.03	46.33	52.55	.02	46.33	52.43	.05
46.33	52.31	.05	46.33	52.19	.18	46.33	52.07	.13
46.33	51.95	.05	46.33	51.83	.03	46.33	51.70	.03
46.33	51.58	.03	46.33	51.46	.03	46.33	51.34	.03
46.33	51.22	.04	46.33	51.10	.02	46.33	50.98	.03
46.33	50.86	.06	46.33	50.74	.10	46.33	50.62	.06
46.33	50.50	.05	46.33	50.38	.05	46.33	50.25	.09
46.33	50.13	.10	46.33	50.01	.09	46.33	49.89	.09
46.33	49.77	.09	46.33	49.65	.08	46.33	49.53	.06
46.33	49.41	.05	46.33	49.29	.06	46.33	49.17	.07
46.33	49.05	.09	46.33	48.93	.12	46.33	48.80	.12
46.33	48.68	.20	46.33	48.56	.13	46.33	48.44	.13
46.33	48.32	.12	46.33	48.20	.10	46.33	48.08	.05
46.33	47.96	.05	46.33	47.84	.05	46.33	47.72	.05
46.33	47.60	.02	46.25	53.88	.08	46.25	53.76	.09
46.25	53.64	.10	46.25	53.52	.09	46.25	53.40	.10
46.25	53.28	.09	46.25	53.15	.09	46.25	53.03	.08
46.25	52.91	.07	46.25	52.79	.06	46.25	52.67	.09
46.25	52.55	.06	46.25	52.43	.05	46.25	52.31	.09
46.25	52.19	.11	46.25	52.07	.17	46.25	51.95	.08
46.25	51.83	.06	46.25	51.70	.06	46.25	51.58	.05
46.25	51.46	.04	46.25	51.34	.03	46.25	51.22	.03
46.25	51.10	.03	46.25	50.98	.03	46.25	50.86	.07
46.25	50.74	.12	46.25	50.62	.08	46.25	50.50	.06
46.25	50.38	.08	46.25	50.25	.09	46.25	50.13	.13
46.25	50.01	.14	46.25	49.89	.13	46.25	49.77	.11
46.25	49.65	.11	46.25	49.53	.08	46.25	49.41	.07
46.25	49.29	.09	46.25	49.17	.11	46.25	49.05	.13
46.25	48.93	.13	46.25	48.80	.13	46.25	48.68	.20
46.25	48.56	.13	46.25	48.44	.14	46.25	48.32	.14
46.25	48.20	.13	46.25	48.08	.06	46.25	47.96	.06
46.25	47.84	.06	46.25	47.72	.03	46.25	47.60	.02
46.17	53.88	.06	46.17	53.76	.07	46.17	53.64	.08
46.17	53.52	.08	46.17	53.40	.07	46.17	53.28	.07
46.17	53.15	.05	46.17	53.03	.07	46.17	52.91	.09
46.17	52.79	.08	46.17	52.67	.08	46.17	52.55	.06
46.17	52.43	.08	46.17	52.31	.11	46.17	52.19	.10
46.17	52.07	.18	46.17	51.95	.10	46.17	51.83	.08
46.17	51.70	.14	46.17	51.58	.13	46.17	51.46	.14
46.17	51.34	.08	46.17	51.22	.08	46.17	51.10	.09
46.17	50.98	.09	46.17	50.86	.08	46.17	50.74	.07
46.17	50.62	.09	46.17	50.50	.09	46.17	50.38	.07
46.17	50.25	.09	46.17	50.13	.09	46.17	50.01	.12
46.17	49.89	.15	46.17	49.77	.12	46.17	49.65	.13
46.17	49.53	.08	46.17	49.41	.07	46.17	49.29	.08
46.17	49.17	.09	46.17	49.05	.12	46.17	48.93	.14
46.17	48.80	.15	46.17	48.68	.20	46.17	48.56	.18
46.17	48.44	.12	46.17	48.32	.14	46.17	48.20	.14
46.17	48.08	.07	46.17	47.96	.07	46.17	47.84	.06

RUN8 - 1983   LAT:46N TO 49N   LON:47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
46.17	47.72	.02	46.17	47.60	.00	46.08	53.88	.04
46.08	53.76	.05	46.08	53.64	.06	46.08	53.52	.06
46.08	53.40	.06	46.08	53.28	.06	46.08	53.15	.07
46.08	53.03	.05	46.08	52.91	.06	46.08	52.79	.05
46.08	52.67	.05	46.08	52.55	.05	46.08	52.43	.09
46.08	52.31	.13	46.08	52.19	.11	46.08	52.07	.20
46.08	51.95	.12	46.08	51.83	.13	46.08	51.70	.10
46.08	51.58	.09	46.08	51.46	.10	46.08	51.34	.09
46.08	51.22	.19	46.08	51.10	.22	46.08	50.98	.21
46.08	50.86	.18	46.08	50.74	.11	46.08	50.62	.12
46.08	50.50	.11	46.08	50.38	.09	46.08	50.25	.09
46.08	50.13	.11	46.08	50.01	.13	46.08	49.89	.17
46.08	49.77	.13	46.08	49.65	.13	46.08	49.53	.08
46.08	49.41	.08	46.08	49.29	.09	46.08	49.17	.09
46.08	49.05	.12	46.08	48.93	.14	46.08	48.80	.19
46.08	48.68	.20	46.08	48.56	.17	46.08	48.44	.10
46.08	48.32	.13	46.08	48.20	.12	46.08	48.08	.08
46.08	47.96	.07	46.08	47.84	.06	46.08	47.72	.01

EOI ENCOUNTERED.
/

RUN9 - 1984 LAT: 46N TO 49N LON: 47W TO 54W W.D.= MAX DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
48.92	53.87	.00	48.92	53.75	.00	48.92	53.62	.00
48.92	53.50	.00	48.92	53.37	.00	48.92	53.24	.00
48.92	53.12	.00	48.92	52.99	.00	48.92	52.86	.14
48.92	52.74	.00	48.92	52.61	.00	48.92	52.49	.00
48.92	52.36	.00	48.92	52.23	.00	48.92	52.11	.00
48.92	51.98	.00	48.92	51.85	.00	48.92	51.73	.00
48.92	51.60	.00	48.92	51.48	.00	48.92	51.35	.00
48.92	51.22	.00	48.92	51.10	.00	48.92	50.97	.00
48.92	50.84	.00	48.92	50.72	.00	48.92	50.59	.00
48.92	50.47	.00	48.92	50.34	.03	48.92	50.21	.00
48.92	50.09	.00	48.92	49.96	.00	48.92	49.83	.00
48.92	49.71	.00	48.92	49.58	.00	48.92	49.46	.00
48.92	49.33	.00	48.92	49.20	.00	48.92	49.08	.00
48.92	48.95	.00	48.92	48.82	.00	48.92	48.70	.00
48.92	48.57	.00	48.92	48.45	.00	48.92	48.32	.00
48.92	48.19	.00	48.92	48.07	.00	48.92	47.94	.00
48.92	47.82	.00	48.92	47.69	.00	48.92	47.56	.00
48.92	47.44	.00	48.92	47.31	.00	48.83	53.87	.00
48.83	53.75	.00	48.83	53.62	.00	48.83	53.50	.00
48.83	53.37	.00	48.83	53.24	.00	48.83	53.12	.00
48.83	52.99	.43	48.83	52.86	.09	48.83	52.74	.00
48.83	52.61	.00	48.83	52.49	.00	48.83	52.36	.00
48.83	52.23	.00	48.83	52.11	.00	48.83	51.98	.00
48.83	51.85	.00	48.83	51.73	.00	48.83	51.60	.00
48.83	51.48	.00	48.83	51.35	.00	48.83	51.22	.00
48.83	51.10	.00	48.83	50.97	.00	48.83	50.84	.00
48.83	50.72	.07	48.83	50.59	.06	48.83	50.47	.05
48.83	50.34	.05	48.83	50.21	.00	48.83	50.09	.00
48.83	49.96	.00	48.83	49.83	.00	48.83	49.71	.00
48.83	49.58	.00	48.83	49.46	.00	48.83	49.33	.00
48.83	49.20	.00	48.83	49.08	.00	48.83	48.95	.00
48.83	48.82	.00	48.83	48.70	.00	48.83	48.57	.00
48.83	48.45	.00	48.83	48.32	.00	48.83	48.19	.00
48.83	48.07	.00	48.83	47.94	.00	48.83	47.82	.00
48.83	47.69	.00	48.83	47.56	.00	48.83	47.44	.00
48.83	47.31	.00	48.75	53.87	.00	48.75	53.75	.00
48.75	53.62	.00	48.75	53.50	.00	48.75	53.37	.00
48.75	53.24	.00	48.75	53.12	.00	48.75	52.99	.64
48.75	52.86	.64	48.75	52.74	.00	48.75	52.61	.00
48.75	52.49	.00	48.75	52.36	.00	48.75	52.23	.00
48.75	52.11	.00	48.75	51.98	.00	48.75	51.85	.00
48.75	51.73	.00	48.75	51.60	.00	48.75	51.48	.00
48.75	51.35	.00	48.75	51.22	.00	48.75	51.10	.00
48.75	50.97	.03	48.75	50.84	.07	48.75	50.72	.07
48.75	50.59	.05	48.75	50.47	.04	48.75	50.34	.04
48.75	50.21	.04	48.75	50.09	.00	48.75	49.96	.00
48.75	49.83	.00	48.75	49.71	.00	48.75	49.58	.00
48.75	49.46	.00	48.75	49.33	.00	48.75	49.20	.00
48.75	49.08	.00	48.75	48.95	.00	48.75	48.82	.00
48.75	48.70	.00	48.75	48.57	.00	48.75	48.45	.00

RUN9 - 1984   LAT: 46N TO 49N   LON: 47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
48.75	48.32	.00	48.75	48.19	.00	48.75	48.07	.00
48.75	47.94	.00	48.75	47.82	.00	48.75	47.69	.00
48.75	47.56	.00	48.75	47.44	.00	48.75	47.31	.00
48.67	53.87	.00	48.67	53.75	.00	48.67	53.62	.00
48.67	53.50	.00	48.67	53.37	.00	48.67	53.24	.00
48.67	53.12	.00	48.67	52.99	1.32	48.67	52.86	.71
48.67	52.74	.00	48.67	52.61	.00	48.67	52.49	.00
48.67	52.36	.00	48.67	52.23	.00	48.67	52.11	.03
48.67	51.98	.00	48.67	51.85	.00	48.67	51.73	.00
48.67	51.60	.06	48.67	51.48	.05	48.67	51.35	.06
48.67	51.22	.05	48.67	51.10	.05	48.67	50.97	.05
48.67	50.84	.05	48.67	50.72	.05	48.67	50.59	.07
48.67	50.47	.07	48.67	50.34	.06	48.67	50.21	.05
48.67	50.09	.00	48.67	49.96	.00	48.67	49.83	.00
48.67	49.71	.00	48.67	49.58	.00	48.67	49.46	.00
48.67	49.33	.00	48.67	49.20	.00	48.67	49.08	.00
48.67	48.95	.00	48.67	48.82	.00	48.67	48.70	.00
48.67	48.57	.00	48.67	48.45	.00	48.67	48.32	.00
48.67	48.19	.00	48.67	48.07	.00	48.67	47.94	.00
48.67	47.82	.00	48.67	47.69	.00	48.67	47.56	.00
48.67	47.44	.00	48.67	47.31	.00	48.58	53.87	.00
48.58	53.75	.00	48.58	53.62	.00	48.58	53.50	.00
48.58	53.37	.00	48.58	53.24	.00	48.58	53.12	.00
48.58	52.99	2.12	48.58	52.86	.64	48.58	52.74	.00
48.58	52.61	.00	48.58	52.49	.10	48.58	52.36	.07
48.58	52.23	.06	48.58	52.11	.06	48.58	51.98	.06
48.58	51.85	.07	48.58	51.73	.06	48.58	51.60	.06
48.58	51.48	.07	48.58	51.35	.07	48.58	51.22	.05
48.58	51.10	.05	48.58	50.97	.06	48.58	50.84	.05
48.58	50.72	.05	48.58	50.59	.06	48.58	50.47	.07
48.58	50.34	.07	48.58	50.21	.05	48.58	50.09	.05
48.58	49.96	.00	48.58	49.83	.00	48.58	49.71	.00
48.58	49.58	.00	48.58	49.46	.00	48.58	49.33	.00
48.58	49.20	.00	48.58	49.08	.00	48.58	48.95	.00
48.58	48.82	.00	48.58	48.70	.00	48.58	48.57	.00
48.58	48.45	.00	48.58	48.32	.00	48.58	48.19	.00
48.58	48.07	.00	48.58	47.94	.00	48.58	47.82	.00
48.58	47.69	.00	48.58	47.56	.00	48.58	47.44	.00
48.58	47.31	.00	48.50	53.87	.00	48.50	53.75	.00
48.50	53.62	.00	48.50	53.50	.00	48.50	53.37	.00
48.50	53.24	.00	48.50	53.12	.00	48.50	52.99	.00
48.50	52.86	.00	48.50	52.74	.00	48.50	52.61	.00
48.50	52.49	.09	48.50	52.36	.06	48.50	52.23	.06
48.50	52.11	.05	48.50	51.98	.07	48.50	51.85	.07
48.50	51.73	.07	48.50	51.60	.06	48.50	51.48	.08
48.50	51.35	.10	48.50	51.22	.08	48.50	51.10	.08
48.50	50.97	.07	48.50	50.84	.07	48.50	50.72	.06
48.50	50.59	.07	48.50	50.47	.10	48.50	50.34	.11
48.50	50.21	.07	48.50	50.09	.05	48.50	49.96	.03
48.50	49.83	.00	48.50	49.71	.00	48.50	49.58	.00

RUN9 - 1984 LAT: 46N TO 49N LON: 47W TO 54W W.D.= MAX DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
48.50	49.46	.00	48.50	49.33	.00	48.50	49.20	.00
48.50	49.08	.00	48.50	48.95	.00	48.50	48.82	.00
48.50	48.70	.00	48.50	48.57	.00	48.50	48.45	.00
48.50	48.32	.00	48.50	48.19	.00	48.50	48.07	.00
48.50	47.94	.00	48.50	47.82	.00	48.50	47.69	.00
48.50	47.56	.00	48.50	47.44	.00	48.50	47.31	.00
48.42	53.87	.00	48.42	53.75	.00	48.42	53.62	.00
48.42	53.50	.00	48.42	53.37	.00	48.42	53.24	.00
48.42	53.12	.00	48.42	52.99	.00	48.42	52.86	.00
48.42	52.74	.00	48.42	52.61	.00	48.42	52.49	.11
48.42	52.36	.05	48.42	52.23	.06	48.42	52.11	.10
48.42	51.98	.08	48.42	51.85	.08	48.42	51.73	.07
48.42	51.60	.32	48.42	51.48	.06	48.42	51.35	.00
48.42	51.22	.09	48.42	51.10	.07	48.42	50.97	.04
48.42	50.84	.04	48.42	50.72	.04	48.42	50.59	.05
48.42	50.47	.08	48.42	50.34	.08	48.42	50.21	.06
48.42	50.09	.06	48.42	49.96	.06	48.42	49.83	.00
48.42	49.71	.00	48.42	49.58	.00	48.42	49.46	.00
48.42	49.33	.00	48.42	49.20	.00	48.42	49.08	.00
48.42	48.95	.00	48.42	48.82	.00	48.42	48.70	.00
48.42	48.57	.00	48.42	48.45	.00	48.42	48.32	.00
48.42	48.19	.00	48.42	48.07	.00	48.42	47.94	.00
48.42	47.82	.00	48.42	47.69	.00	48.42	47.56	.00
48.42	47.44	.00	48.42	47.31	.00	48.33	53.87	.00
48.33	53.75	.00	48.33	53.62	.00	48.33	53.50	.00
48.33	53.37	.00	48.33	53.24	.00	48.33	53.12	.00
48.33	52.99	.00	48.33	52.86	.00	48.33	52.74	.00
48.33	52.61	.05	48.33	52.49	.06	48.33	52.36	.06
48.33	52.23	.09	48.33	52.11	.12	48.33	51.98	.09
48.33	51.85	.07	48.33	51.73	.07	48.33	51.60	.10
48.33	51.48	.05	48.33	51.35	.00	48.33	51.22	.00
48.33	51.10	.07	48.33	50.97	.05	48.33	50.84	.04
48.33	50.72	.00	48.33	50.59	.05	48.33	50.47	.05
48.33	50.34	.08	48.33	50.21	.08	48.33	50.09	.06
48.33	49.96	.06	48.33	49.83	.00	48.33	49.71	.00
48.33	49.58	.00	48.33	49.46	.00	48.33	49.33	.00
48.33	49.20	.00	48.33	49.08	.00	48.33	48.95	.00
48.33	48.82	.00	48.33	48.70	.00	48.33	48.57	.00
48.33	48.45	.00	48.33	48.32	.00	48.33	48.19	.00
48.33	48.07	.00	48.33	47.94	.00	48.33	47.82	.00
48.33	47.69	.00	48.33	47.56	.00	48.33	47.44	.00
48.33	47.31	.00	48.25	53.87	.00	48.25	53.75	.00
48.25	53.62	.00	48.25	53.50	.00	48.25	53.37	.00
48.25	53.24	.00	48.25	53.12	.00	48.25	52.99	.00
48.25	52.86	.00	48.25	52.74	.06	48.25	52.61	.05
48.25	52.49	.06	48.25	52.36	.05	48.25	52.23	.09
48.25	52.11	.09	48.25	51.98	.11	48.25	51.85	.07
48.25	51.73	.07	48.25	51.60	.00	48.25	51.48	.00
48.25	51.35	.04	48.25	51.22	.00	48.25	51.10	.07
48.25	50.97	.00	48.25	50.84	.00	48.25	50.72	.00

RUN9 - 1984   LAT: 46N TO 49N   LON: 47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
48.25	50.59	.04	48.25	50.47	.05	48.25	50.34	.07
48.25	50.21	.07	48.25	50.09	.06	48.25	49.96	.05
48.25	49.83	.05	48.25	49.71	.04	48.25	49.58	.00
48.25	49.46	.00	48.25	49.33	.00	48.25	49.20	.00
48.25	49.08	.00	48.25	48.95	.00	48.25	48.82	.00
48.25	48.70	.00	48.25	48.57	.00	48.25	48.45	.00
48.25	48.32	.00	48.25	48.19	.00	48.25	48.07	.00
48.25	47.94	.00	48.25	47.82	.00	48.25	47.69	.00
48.25	47.56	.00	48.25	47.44	.00	48.25	47.31	.00
48.17	53.87	.00	48.17	53.75	.00	48.17	53.62	.00
48.17	53.50	.00	48.17	53.37	.04	48.17	53.24	.00
48.17	53.12	.00	48.17	52.99	.00	48.17	52.86	.36
48.17	52.74	.09	48.17	52.61	.05	48.17	52.49	.06
48.17	52.36	.05	48.17	52.23	.07	48.17	52.11	.07
48.17	51.98	.08	48.17	51.85	.09	48.17	51.73	.05
48.17	51.60	.00	48.17	51.48	.00	48.17	51.35	.00
48.17	51.22	.00	48.17	51.10	.00	48.17	50.97	.04
48.17	50.84	.04	48.17	50.72	.06	48.17	50.59	.05
48.17	50.47	.05	48.17	50.34	.07	48.17	50.21	.07
48.17	50.09	.08	48.17	49.96	.06	48.17	49.83	.05
48.17	49.71	.04	48.17	49.58	.05	48.17	49.46	.00
48.17	49.33	.00	48.17	49.20	.00	48.17	49.08	.00
48.17	48.95	.00	48.17	48.82	.00	48.17	48.70	.00
48.17	48.57	.00	48.17	48.45	.00	48.17	48.32	.00
48.17	48.19	.00	48.17	48.07	.00	48.17	47.94	.00
48.17	47.82	.00	48.17	47.69	.00	48.17	47.56	.00
48.17	47.44	.00	48.17	47.31	.00	48.08	53.87	.00
48.08	53.75	.00	48.08	53.62	.00	48.08	53.50	.00
48.08	53.37	.00	48.08	53.24	.00	48.08	53.12	.00
48.08	52.99	.25	48.08	52.86	.29	48.08	52.74	.10
48.08	52.61	.09	48.08	52.49	.08	48.08	52.36	.05
48.08	52.23	.23	48.08	52.11	.07	48.08	51.98	.07
48.08	51.85	.07	48.08	51.73	.05	48.08	51.60	.00
48.08	51.48	.00	48.08	51.35	.00	48.08	51.22	.04
48.08	51.10	.00	48.08	50.97	.05	48.08	50.84	.04
48.08	50.72	.07	48.08	50.59	.06	48.08	50.47	.07
48.08	50.34	.00	48.08	50.21	.05	48.08	50.09	.08
48.08	49.96	.06	48.08	49.83	.04	48.08	49.71	.04
48.08	49.58	.04	48.08	49.46	.04	48.08	49.33	.00
48.08	49.20	.00	48.08	49.08	.00	48.08	48.95	.00
48.08	48.82	.00	48.08	48.70	.00	48.08	48.57	.00
48.08	48.45	.00	48.08	48.32	.00	48.08	48.19	.00
48.08	48.07	.00	48.08	47.94	.00	48.08	47.82	.00
48.08	47.69	.00	48.08	47.56	.00	48.08	47.44	.00
48.08	47.31	.00	48.00	53.88	.00	48.00	53.75	.00
48.00	53.63	.00	48.00	53.51	.00	48.00	53.38	.00
48.00	53.26	.00	48.00	53.14	.00	48.00	53.01	.16
48.00	52.89	.20	48.00	52.77	.09	48.00	52.64	.08
48.00	52.52	.07	48.00	52.40	.07	48.00	52.27	.06
48.00	52.15	.05	48.00	52.03	.06	48.00	51.90	.06

RUN9 - 1984 LAT: 46N TO 49N LON: 47W TO 54W W.D.= MAX DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
48.00	51.78	.05	48.00	51.66	.03	48.00	51.53	.00
48.00	51.41	.02	48.00	51.29	.02	48.00	51.16	.03
48.00	51.04	.03	48.00	50.92	.02	48.00	50.79	.14
48.00	50.67	.04	48.00	50.55	.04	48.00	50.42	.04
48.00	50.30	.04	48.00	50.18	.17	48.00	50.05	.05
48.00	49.93	.05	48.00	49.81	.04	48.00	49.68	.04
48.00	49.56	.04	48.00	49.44	.04	48.00	49.31	.04
48.00	49.19	.00	48.00	49.07	.00	48.00	48.94	.00
48.00	48.82	.00	48.00	48.70	.00	48.00	48.57	.00
48.00	48.45	.00	48.00	48.33	.00	48.00	48.20	.00
48.00	48.08	.00	48.00	47.96	.00	48.00	47.83	.00
48.00	47.71	.00	48.00	47.59	.00	48.00	47.46	.00
47.92	53.88	.00	47.92	53.75	.00	47.92	53.63	.00
47.92	53.51	.00	47.92	53.38	.00	47.92	53.26	.00
47.92	53.14	.00	47.92	53.01	.17	47.92	52.89	.04
47.92	52.77	.08	47.92	52.64	.10	47.92	52.52	.09
47.92	52.40	.08	47.92	52.27	.06	47.92	52.15	.06
47.92	52.03	.05	47.92	51.90	.05	47.92	51.78	.05
47.92	51.66	.07	47.92	51.53	.06	47.92	51.41	.02
47.92	51.29	.02	47.92	51.16	.02	47.92	51.04	.10
47.92	50.92	.10	47.92	50.79	.02	47.92	50.67	.13
47.92	50.55	.04	47.92	50.42	.02	47.92	50.30	.06
47.92	50.18	.16	47.92	50.05	.12	47.92	49.93	.05
47.92	49.81	.04	47.92	49.68	.05	47.92	49.56	.04
47.92	49.44	.04	47.92	49.31	.04	47.92	49.19	.04
47.92	49.07	.00	47.92	48.94	.00	47.92	48.82	.00
47.92	48.70	.00	47.92	48.57	.00	47.92	48.45	.00
47.92	48.33	.00	47.92	48.20	.00	47.92	48.08	.00
47.92	47.96	.00	47.92	47.83	.00	47.92	47.71	.00
47.92	47.59	.00	47.92	47.46	.00	47.83	53.88	.00
47.83	53.75	.00	47.83	53.63	.00	47.83	53.51	.00
47.83	53.38	.00	47.83	53.26	.00	47.83	53.14	.00
47.83	53.01	.04	47.83	52.89	.04	47.83	52.77	.04
47.83	52.64	.10	47.83	52.52	.11	47.83	52.40	.09
47.83	52.27	.05	47.83	52.15	.07	47.83	52.03	.05
47.83	51.90	.05	47.83	51.78	.05	47.83	51.66	.06
47.83	51.53	.04	47.83	51.41	.05	47.83	51.29	.02
47.83	51.16	.03	47.83	51.04	.11	47.83	50.92	.10
47.83	50.79	.02	47.83	50.67	.11	47.83	50.55	.02
47.83	50.42	.03	47.83	50.30	.04	47.83	50.18	.18
47.83	50.05	.20	47.83	49.93	.19	47.83	49.81	.16
47.83	49.68	.13	47.83	49.56	.07	47.83	49.44	.06
47.83	49.31	.05	47.83	49.19	.04	47.83	49.07	.05
47.83	48.94	.05	47.83	48.82	.07	47.83	48.70	.00
47.83	48.57	.00	47.83	48.45	.00	47.83	48.33	.00
47.83	48.20	.00	47.83	48.08	.00	47.83	47.96	.00
47.83	47.83	.00	47.83	47.71	.00	47.83	47.59	.00
47.83	47.46	.00	47.75	53.88	.00	47.75	53.75	.00
47.75	53.63	.00	47.75	53.51	.00	47.75	53.38	.00
47.75	53.26	.00	47.75	53.14	.02	47.75	53.01	.00

RUN9 - 1984 LAT: 46N TO 49N LON: 47W TO 54W W.D.= MAX DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
47.75	52.89	.04	47.75	52.77	.44	47.75	52.64	.10
47.75	52.52	.12	47.75	52.40	.09	47.75	52.27	.07
47.75	52.15	.08	47.75	52.03	.06	47.75	51.90	.05
47.75	51.78	.05	47.75	51.66	.06	47.75	51.53	.14
47.75	51.41	.13	47.75	51.29	.14	47.75	51.16	.13
47.75	51.04	.13	47.75	50.92	.12	47.75	50.79	.13
47.75	50.67	.04	47.75	50.55	.04	47.75	50.42	.03
47.75	50.30	.04	47.75	50.18	.19	47.75	50.05	.22
47.75	49.93	.24	47.75	49.81	.21	47.75	49.68	.23
47.75	49.56	.23	47.75	49.44	.08	47.75	49.31	.07
47.75	49.19	.06	47.75	49.07	.06	47.75	48.94	.05
47.75	48.82	.05	47.75	48.70	.05	47.75	48.57	.06
47.75	48.45	.00	47.75	48.33	.00	47.75	48.20	.00
47.75	48.08	.00	47.75	47.96	.00	47.75	47.83	.00
47.75	47.71	.00	47.75	47.59	.00	47.75	47.46	.00
47.67	53.88	.00	47.67	53.75	.00	47.67	53.63	.00
47.67	53.51	.00	47.67	53.38	.00	47.67	53.26	.00
47.67	53.14	.00	47.67	53.01	.00	47.67	52.89	.07
47.67	52.77	.00	47.67	52.64	.11	47.67	52.52	.14
47.67	52.40	.12	47.67	52.27	.10	47.67	52.15	.08
47.67	52.03	.07	47.67	51.90	.06	47.67	51.78	.06
47.67	51.66	.06	47.67	51.53	.14	47.67	51.41	.14
47.67	51.29	.15	47.67	51.16	.15	47.67	51.04	.15
47.67	50.92	.15	47.67	50.79	.15	47.67	50.67	.03
47.67	50.55	.03	47.67	50.42	.17	47.67	50.30	.07
47.67	50.18	.21	47.67	50.05	.22	47.67	49.93	.26
47.67	49.81	.22	47.67	49.68	.25	47.67	49.56	.23
47.67	49.44	.24	47.67	49.31	.22	47.67	49.19	.09
47.67	49.07	.07	47.67	48.94	.06	47.67	48.82	.05
47.67	48.70	.05	47.67	48.57	.05	47.67	48.45	.05
47.67	48.33	.05	47.67	48.20	.00	47.67	48.08	.00
47.67	47.96	.00	47.67	47.83	.00	47.67	47.71	.00
47.67	47.59	.00	47.67	47.46	.00	47.58	53.88	.00
47.58	53.75	.00	47.58	53.63	.00	47.58	53.51	.00
47.58	53.38	.00	47.58	53.26	.00	47.58	53.14	.00
47.58	53.01	.00	47.58	52.89	.04	47.58	52.77	.00
47.58	52.64	.12	47.58	52.52	.15	47.58	52.40	.14
47.58	52.27	.11	47.58	52.15	.10	47.58	52.03	.07
47.58	51.90	.06	47.58	51.78	.05	47.58	51.66	.06
47.58	51.53	.16	47.58	51.41	.15	47.58	51.29	.15
47.58	51.16	.16	47.58	51.04	.16	47.58	50.92	.17
47.58	50.79	.05	47.58	50.67	.00	47.58	50.55	.03
47.58	50.42	.04	47.58	50.30	.04	47.58	50.18	.20
47.58	50.05	.30	47.58	49.93	.25	47.58	49.81	.49
47.58	49.68	.29	47.58	49.56	.25	47.58	49.44	.25
47.58	49.31	.23	47.58	49.19	.23	47.58	49.07	.16
47.58	48.94	.09	47.58	48.82	.06	47.58	48.70	.06
47.58	48.57	.06	47.58	48.45	.05	47.58	48.33	.04
47.58	48.20	.04	47.58	48.08	.03	47.58	47.96	.00
47.58	47.83	.00	47.58	47.71	.00	47.58	47.59	.00

RUN9 - 1984   LAT: 46N TO 49N   LON: 47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
47.58	47.46	.00	47.50	53.88	.00	47.50	53.75	.00
47.50	53.63	.00	47.50	53.51	.00	47.50	53.38	.00
47.50	53.26	.00	47.50	53.14	.00	47.50	53.01	.00
47.50	52.89	.00	47.50	52.77	.00	47.50	52.64	.11
47.50	52.52	.14	47.50	52.40	.09	47.50	52.27	.10
47.50	52.15	.17	47.50	52.03	.07	47.50	51.90	.06
47.50	51.78	.06	47.50	51.66	.07	47.50	51.53	.19
47.50	51.41	.18	47.50	51.29	.19	47.50	51.16	.19
47.50	51.04	.17	47.50	50.92	.07	47.50	50.79	.03
47.50	50.67	.00	47.50	50.55	.00	47.50	50.42	.00
47.50	50.30	.00	47.50	50.18	.23	47.50	50.05	.31
47.50	49.93	.46	47.50	49.81	.22	47.50	49.68	.26
47.50	49.56	.34	47.50	49.44	.25	47.50	49.31	.24
47.50	49.19	.25	47.50	49.07	.22	47.50	48.94	.21
47.50	48.82	.13	47.50	48.70	.06	47.50	48.57	.05
47.50	48.45	.05	47.50	48.33	.04	47.50	48.20	.03
47.50	48.08	.03	47.50	47.96	.04	47.50	47.83	.00
47.50	47.71	.00	47.50	47.59	.00	47.50	47.46	.00
47.42	53.88	.00	47.42	53.75	.00	47.42	53.63	.00
47.42	53.51	.00	47.42	53.38	.00	47.42	53.26	.00
47.42	53.14	.00	47.42	53.01	.00	47.42	52.89	.00
47.42	52.77	.00	47.42	52.64	.15	47.42	52.52	.15
47.42	52.40	.10	47.42	52.27	.14	47.42	52.15	.22
47.42	52.03	.07	47.42	51.90	.07	47.42	51.78	.06
47.42	51.66	.07	47.42	51.53	.20	47.42	51.41	.17
47.42	51.29	.19	47.42	51.16	.18	47.42	51.04	.17
47.42	50.92	.05	47.42	50.79	.06	47.42	50.67	.04
47.42	50.55	.04	47.42	50.42	.00	47.42	50.30	.05
47.42	50.18	.34	47.42	50.05	.40	47.42	49.93	.30
47.42	49.81	.42	47.42	49.68	.37	47.42	49.56	.47
47.42	49.44	.25	47.42	49.31	.24	47.42	49.19	.24
47.42	49.07	.22	47.42	48.94	.19	47.42	48.82	.17
47.42	48.70	.14	47.42	48.57	.10	47.42	48.45	.04
47.42	48.33	.04	47.42	48.20	.04	47.42	48.08	.03
47.42	47.96	.03	47.42	47.83	.04	47.42	47.71	.00
47.42	47.59	.00	47.42	47.46	.00	47.33	53.88	.00
47.33	53.75	.00	47.33	53.63	.00	47.33	53.51	.00
47.33	53.38	.00	47.33	53.26	.00	47.33	53.14	.00
47.33	53.01	.00	47.33	52.89	.00	47.33	52.77	.35
47.33	52.64	.18	47.33	52.52	.13	47.33	52.40	.09
47.33	52.27	.12	47.33	52.15	.19	47.33	52.03	.13
47.33	51.90	.07	47.33	51.78	.08	47.33	51.66	.10
47.33	51.53	.24	47.33	51.41	.20	47.33	51.29	.21
47.33	51.16	.17	47.33	51.04	.15	47.33	50.92	.15
47.33	50.79	.16	47.33	50.67	.06	47.33	50.55	.19
47.33	50.42	.04	47.33	50.30	.05	47.33	50.18	.46
47.33	50.05	.39	47.33	49.93	.35	47.33	49.81	.31
47.33	49.68	.36	47.33	49.56	.33	47.33	49.44	.19
47.33	49.31	.19	47.33	49.19	.21	47.33	49.07	.20
47.33	48.94	.16	47.33	48.82	.14	47.33	48.70	.11

RUN9 - 1984   LAT: 46N TO 49N   LON: 47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
47.33	48.57	.12	47.33	48.45	.11	47.33	48.33	.10
47.33	48.20	.04	47.33	48.08	.05	47.33	47.96	.03
47.33	47.83	.03	47.33	47.71	.00	47.33	47.59	.00
47.33	47.46	.00	47.25	53.88	.00	47.25	53.75	.00
47.25	53.63	.00	47.25	53.51	.00	47.25	53.38	.00
47.25	53.26	.00	47.25	53.14	.00	47.25	53.01	.00
47.25	52.89	.00	47.25	52.77	.15	47.25	52.64	.18
47.25	52.52	.09	47.25	52.40	.09	47.25	52.27	.17
47.25	52.15	.19	47.25	52.03	.20	47.25	51.90	.08
47.25	51.78	.08	47.25	51.66	.17	47.25	51.53	.23
47.25	51.41	.19	47.25	51.29	.20	47.25	51.16	.20
47.25	51.04	.18	47.25	50.92	.17	47.25	50.79	.19
47.25	50.67	.22	47.25	50.55	.25	47.25	50.42	.26
47.25	50.30	.26	47.25	50.18	.32	47.25	50.05	.35
47.25	49.93	.31	47.25	49.81	.42	47.25	49.68	.48
47.25	49.56	.29	47.25	49.44	.30	47.25	49.31	.29
47.25	49.19	.23	47.25	49.07	.25	47.25	48.94	.13
47.25	48.82	.13	47.25	48.70	.12	47.25	48.57	.12
47.25	48.45	.12	47.25	48.33	.14	47.25	48.20	.11
47.25	48.08	.06	47.25	47.96	.04	47.25	47.83	.03
47.25	47.71	.03	47.25	47.59	.02	47.25	47.46	.00
47.17	53.88	.00	47.17	53.75	.00	47.17	53.63	.00
47.17	53.51	.00	47.17	53.38	.00	47.17	53.26	.00
47.17	53.14	.00	47.17	53.01	.00	47.17	52.89	.00
47.17	52.77	.12	47.17	52.64	.27	47.17	52.52	.16
47.17	52.40	.07	47.17	52.27	.17	47.17	52.15	.20
47.17	52.03	.20	47.17	51.90	.09	47.17	51.78	.08
47.17	51.66	.25	47.17	51.53	.26	47.17	51.41	.22
47.17	51.29	.23	47.17	51.16	.09	47.17	51.04	.21
47.17	50.92	.21	47.17	50.79	.21	47.17	50.67	.23
47.17	50.55	.23	47.17	50.42	.07	47.17	50.30	.34
47.17	50.18	.20	47.17	50.05	.34	47.17	49.93	.57
47.17	49.81	.44	47.17	49.68	.35	47.17	49.56	.18
47.17	49.44	.17	47.17	49.31	.20	47.17	49.19	.24
47.17	49.07	.28	47.17	48.94	.12	47.17	48.82	.12
47.17	48.70	.13	47.17	48.57	.14	47.17	48.45	.13
47.17	48.33	.14	47.17	48.20	.14	47.17	48.08	.10
47.17	47.96	.05	47.17	47.83	.05	47.17	47.71	.04
47.17	47.59	.04	47.17	47.46	.00	47.08	53.88	.00
47.08	53.75	.00	47.08	53.63	.00	47.08	53.51	.00
47.08	53.38	.00	47.08	53.26	.00	47.08	53.14	.00
47.08	53.01	.00	47.08	52.89	.25	47.08	52.77	.10
47.08	52.64	.10	47.08	52.52	.22	47.08	52.40	.19
47.08	52.27	.18	47.08	52.15	.21	47.08	52.03	.23
47.08	51.90	.17	47.08	51.78	.18	47.08	51.66	.24
47.08	51.53	.26	47.08	51.41	.34	47.08	51.29	.24
47.08	51.16	.23	47.08	51.04	.27	47.08	50.92	.28
47.08	50.79	.18	47.08	50.67	.17	47.08	50.55	.23
47.08	50.42	.24	47.08	50.30	.22	47.08	50.18	.19
47.08	50.05	.21	47.08	49.93	.48	47.08	49.81	.37

RUN9 - 1984   LAT: 46N TO 49N   LON: 47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
47.08	49.68	.27	47.08	49.56	.22	47.08	49.44	.14
47.08	49.31	.24	47.08	49.19	.30	47.08	49.07	.27
47.08	48.94	.14	47.08	48.82	.14	47.08	48.70	.14
47.08	48.57	.13	47.08	48.45	.12	47.08	48.33	.14
47.08	48.20	.14	47.08	48.08	.14	47.08	47.96	.06
47.08	47.83	.05	47.08	47.71	.05	47.08	47.59	.04
47.08	47.46	.00	47.00	53.88	.00	47.00	53.76	.00
47.00	53.64	.00	47.00	53.52	.00	47.00	53.40	.00
47.00	53.28	.00	47.00	53.15	.00	47.00	53.03	.00
47.00	52.91	.71	47.00	52.79	.18	47.00	52.67	.11
47.00	52.55	.09	47.00	52.43	.21	47.00	52.31	.23
47.00	52.19	.25	47.00	52.07	.27	47.00	51.95	.27
47.00	51.83	.26	47.00	51.70	.25	47.00	51.58	.27
47.00	51.46	.39	47.00	51.34	.38	47.00	51.22	.24
47.00	51.10	.26	47.00	50.98	.28	47.00	50.86	.23
47.00	50.74	.08	47.00	50.62	.00	47.00	50.50	.00
47.00	50.38	.05	47.00	50.25	.16	47.00	50.13	.21
47.00	50.01	.17	47.00	49.89	.13	47.00	49.77	.22
47.00	49.65	.19	47.00	49.53	.19	47.00	49.41	.25
47.00	49.29	.36	47.00	49.17	.54	47.00	49.05	.43
47.00	48.93	.22	47.00	48.80	.27	47.00	48.68	.12
47.00	48.56	.11	47.00	48.44	.11	47.00	48.32	.13
47.00	48.20	.14	47.00	48.08	.15	47.00	47.96	.14
47.00	47.84	.05	47.00	47.72	.05	47.00	47.60	.04
46.92	53.88	.00	46.92	53.76	.00	46.92	53.64	.00
46.92	53.52	.00	46.92	53.40	.00	46.92	53.28	.00
46.92	53.15	.00	46.92	53.03	.00	46.92	52.91	.89
46.92	52.79	.21	46.92	52.67	.12	46.92	52.55	.08
46.92	52.43	.27	46.92	52.31	.26	46.92	52.19	.26
46.92	52.07	.27	46.92	51.95	.28	46.92	51.83	.28
46.92	51.70	.26	46.92	51.58	.39	46.92	51.46	.52
46.92	51.34	.34	46.92	51.22	.31	46.92	51.10	.32
46.92	50.98	.21	46.92	50.86	.18	46.92	50.74	.11
46.92	50.62	.04	46.92	50.50	.06	46.92	50.38	.04
46.92	50.25	.13	46.92	50.13	.16	46.92	50.01	.26
46.92	49.89	.17	46.92	49.77	.15	46.92	49.65	.15
46.92	49.53	.15	46.92	49.41	.19	46.92	49.29	.25
46.92	49.17	.43	46.92	49.05	.38	46.92	48.93	.28
46.92	48.80	.25	46.92	48.68	.22	46.92	48.56	.12
46.92	48.44	.11	46.92	48.32	.12	46.92	48.20	.11
46.92	48.08	.13	46.92	47.96	.12	46.92	47.84	.08
46.92	47.72	.04	46.92	47.60	.03	46.83	53.88	.00
46.83	53.76	.00	46.83	53.64	.00	46.83	53.52	.00
46.83	53.40	.00	46.83	53.28	.00	46.83	53.15	.00
46.83	53.03	.00	46.83	52.91	1.36	46.83	52.79	.20
46.83	52.67	.11	46.83	52.55	.08	46.83	52.43	.23
46.83	52.31	.32	46.83	52.19	.27	46.83	52.07	.26
46.83	51.95	.23	46.83	51.83	.25	46.83	51.70	.23
46.83	51.58	.47	46.83	51.46	.44	46.83	51.34	.39
46.83	51.22	.32	46.83	51.10	.25	46.83	50.98	.11

RUN9 - 1984   LAT: 46N TO 49N   LON: 47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
46.83	50.86	.09	46.83	50.74	.09	46.83	50.62	.09
46.83	50.50	.10	46.83	50.38	.09	46.83	50.25	.17
46.83	50.13	.14	46.83	50.01	.26	46.83	49.89	.23
46.83	49.77	.17	46.83	49.65	.15	46.83	49.53	.14
46.83	49.41	.15	46.83	49.29	.19	46.83	49.17	.26
46.83	49.05	.36	46.83	48.93	.31	46.83	48.80	.34
46.83	48.68	.24	46.83	48.56	.17	46.83	48.44	.13
46.83	48.32	.10	46.83	48.20	.09	46.83	48.08	.11
46.83	47.96	.09	46.83	47.84	.10	46.83	47.72	.04
46.83	47.60	.04	46.75	53.88	.00	46.75	53.76	.00
46.75	53.64	.00	46.75	53.52	.00	46.75	53.40	.00
46.75	53.28	.00	46.75	53.15	.00	46.75	53.03	.00
46.75	52.91	1.69	46.75	52.79	.22	46.75	52.67	.12
46.75	52.55	.09	46.75	52.43	.14	46.75	52.31	.30
46.75	52.19	.23	46.75	52.07	.21	46.75	51.95	.18
46.75	51.83	.18	46.75	51.70	.23	46.75	51.58	.33
46.75	51.46	.30	46.75	51.34	.25	46.75	51.22	.17
46.75	51.10	.13	46.75	50.98	.07	46.75	50.86	.08
46.75	50.74	.10	46.75	50.62	.09	46.75	50.50	.08
46.75	50.38	.10	46.75	50.25	.10	46.75	50.13	.11
46.75	50.01	.24	46.75	49.89	.22	46.75	49.77	.21
46.75	49.65	.21	46.75	49.53	.21	46.75	49.41	.15
46.75	49.29	.14	46.75	49.17	.18	46.75	49.05	.22
46.75	48.93	.32	46.75	48.80	.42	46.75	48.68	.23
46.75	48.56	.17	46.75	48.44	.13	46.75	48.32	.12
46.75	48.20	.08	46.75	48.08	.10	46.75	47.96	.10
46.75	47.84	.10	46.75	47.72	.10	46.75	47.60	.04
46.67	53.88	.00	46.67	53.76	.00	46.67	53.64	.00
46.67	53.52	.00	46.67	53.40	.00	46.67	53.28	.00
46.67	53.15	.00	46.67	53.03	.00	46.67	52.91	3.76
46.67	52.79	.21	46.67	52.67	.14	46.67	52.55	.10
46.67	52.43	.10	46.67	52.31	.27	46.67	52.19	.21
46.67	52.07	.16	46.67	51.95	.13	46.67	51.83	.12
46.67	51.70	.09	46.67	51.58	.18	46.67	51.46	.15
46.67	51.34	.15	46.67	51.22	.10	46.67	51.10	.08
46.67	50.98	.06	46.67	50.86	.07	46.67	50.74	.07
46.67	50.62	.05	46.67	50.50	.10	46.67	50.38	.09
46.67	50.25	.08	46.67	50.13	.08	46.67	50.01	.20
46.67	49.89	.16	46.67	49.77	.18	46.67	49.65	.18
46.67	49.53	.19	46.67	49.41	.14	46.67	49.29	.13
46.67	49.17	.13	46.67	49.05	.15	46.67	48.93	.21
46.67	48.80	.31	46.67	48.68	.19	46.67	48.56	.18
46.67	48.44	.14	46.67	48.32	.11	46.67	48.20	.07
46.67	48.08	.09	46.67	47.96	.09	46.67	47.84	.08
46.67	47.72	.09	46.67	47.60	.04	46.58	53.88	1.08
46.58	53.76	1.41	46.58	53.64	1.98	46.58	53.52	1.99
46.58	53.40	1.90	46.58	53.28	2.24	46.58	53.15	4.24
46.58	53.03	2.81	46.58	52.91	1.56	46.58	52.79	.56
46.58	52.67	.10	46.58	52.55	.05	46.58	52.43	.08
46.58	52.31	.22	46.58	52.19	.18	46.58	52.07	.25

RUN9 - 1984   LAT: 46N TO 49N   LON: 47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
46.58	51.95	.10	46.58	51.83	.06	46.58	51.70	.04
46.58	51.58	.06	46.58	51.46	.08	46.58	51.34	.08
46.58	51.22	.06	46.58	51.10	.10	46.58	50.98	.23
46.58	50.86	.27	46.58	50.74	.09	46.58	50.62	.06
46.58	50.50	.07	46.58	50.38	.08	46.58	50.25	.09
46.58	50.13	.10	46.58	50.01	.21	46.58	49.89	.13
46.58	49.77	.11	46.58	49.65	.11	46.58	49.53	.12
46.58	49.41	.11	46.58	49.29	.09	46.58	49.17	.11
46.58	49.05	.15	46.58	48.93	.20	46.58	48.80	.29
46.58	48.68	.25	46.58	48.56	.17	46.58	48.44	.13
46.58	48.32	.15	46.58	48.20	.11	46.58	48.08	.08
46.58	47.96	.07	46.58	47.84	.07	46.58	47.72	.08
46.58	47.60	.11	46.50	53.88	1.23	46.50	53.76	1.19
46.50	53.64	1.34	46.50	53.52	1.75	46.50	53.40	2.03
46.50	53.28	2.19	46.50	53.15	1.36	46.50	53.03	.60
46.50	52.91	.40	46.50	52.79	.12	46.50	52.67	.09
46.50	52.55	.04	46.50	52.43	.06	46.50	52.31	.19
46.50	52.19	.34	46.50	52.07	.21	46.50	51.95	.07
46.50	51.83	.05	46.50	51.70	.03	46.50	51.58	.04
46.50	51.46	.04	46.50	51.34	.05	46.50	51.22	.04
46.50	51.10	.09	46.50	50.98	.23	46.50	50.86	.20
46.50	50.74	.20	46.50	50.62	.09	46.50	50.50	.09
46.50	50.38	.08	46.50	50.25	.10	46.50	50.13	.16
46.50	50.01	.19	46.50	49.89	.11	46.50	49.77	.06
46.50	49.65	.05	46.50	49.53	.05	46.50	49.41	.08
46.50	49.29	.09	46.50	49.17	.10	46.50	49.05	.13
46.50	48.93	.17	46.50	48.80	.26	46.50	48.68	.21
46.50	48.56	.16	46.50	48.44	.15	46.50	48.32	.17
46.50	48.20	.11	46.50	48.08	.07	46.50	47.96	.07
46.50	47.84	.07	46.50	47.72	.07	46.50	47.60	.09
46.42	53.88	.28	46.42	53.76	.33	46.42	53.64	.41
46.42	53.52	.69	46.42	53.40	1.14	46.42	53.28	.77
46.42	53.15	.50	46.42	53.03	.38	46.42	52.91	.16
46.42	52.79	.12	46.42	52.67	.07	46.42	52.55	.04
46.42	52.43	.04	46.42	52.31	.17	46.42	52.19	.43
46.42	52.07	.20	46.42	51.95	.05	46.42	51.83	.05
46.42	51.70	.03	46.42	51.58	.05	46.42	51.46	.05
46.42	51.34	.09	46.42	51.22	.07	46.42	51.10	.04
46.42	50.98	.06	46.42	50.86	.13	46.42	50.74	.17
46.42	50.62	.13	46.42	50.50	.06	46.42	50.38	.07
46.42	50.25	.13	46.42	50.13	.15	46.42	50.01	.25
46.42	49.89	.17	46.42	49.77	.14	46.42	49.65	.12
46.42	49.53	.10	46.42	49.41	.10	46.42	49.29	.11
46.42	49.17	.13	46.42	49.05	.17	46.42	48.93	.25
46.42	48.80	.28	46.42	48.68	.41	46.42	48.56	.25
46.42	48.44	.24	46.42	48.32	.24	46.42	48.20	.14
46.42	48.08	.09	46.42	47.96	.09	46.42	47.84	.11
46.42	47.72	.09	46.42	47.60	.08	46.33	53.88	.25
46.33	53.76	.25	46.33	53.64	.32	46.33	53.52	.35
46.33	53.40	.46	46.33	53.28	.43	46.33	53.15	.40

RUN9 - 1984   LAT: 46N TO 49N   LON: 47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
46.33	53.03	.28	46.33	52.91	.32	46.33	52.79	.11
46.33	52.67	.09	46.33	52.55	.05	46.33	52.43	.13
46.33	52.31	.14	46.33	52.19	.44	46.33	52.07	.32
46.33	51.95	.13	46.33	51.83	.09	46.33	51.70	.08
46.33	51.58	.07	46.33	51.46	.08	46.33	51.34	.08
46.33	51.22	.11	46.33	51.10	.05	46.33	50.98	.07
46.33	50.86	.14	46.33	50.74	.25	46.33	50.62	.16
46.33	50.50	.12	46.33	50.38	.13	46.33	50.25	.22
46.33	50.13	.25	46.33	50.01	.22	46.33	49.89	.23
46.33	49.77	.21	46.33	49.65	.19	46.33	49.53	.14
46.33	49.41	.12	46.33	49.29	.14	46.33	49.17	.18
46.33	49.05	.22	46.33	48.93	.29	46.33	48.80	.31
46.33	48.68	.49	46.33	48.56	.32	46.33	48.44	.34
46.33	48.32	.31	46.33	48.20	.26	46.33	48.08	.12
46.33	47.96	.13	46.33	47.84	.13	46.33	47.72	.12
46.33	47.60	.04	46.25	53.88	.21	46.25	53.76	.22
46.25	53.64	.26	46.25	53.52	.23	46.25	53.40	.25
46.25	53.28	.22	46.25	53.15	.23	46.25	53.03	.21
46.25	52.91	.18	46.25	52.79	.17	46.25	52.67	.23
46.25	52.55	.15	46.25	52.43	.13	46.25	52.31	.23
46.25	52.19	.27	46.25	52.07	.43	46.25	51.95	.19
46.25	51.83	.16	46.25	51.70	.14	46.25	51.58	.14
46.25	51.46	.10	46.25	51.34	.08	46.25	51.22	.09
46.25	51.10	.08	46.25	50.98	.07	46.25	50.86	.19
46.25	50.74	.31	46.25	50.62	.20	46.25	50.50	.15
46.25	50.38	.19	46.25	50.25	.24	46.25	50.13	.32
46.25	50.01	.37	46.25	49.89	.32	46.25	49.77	.27
46.25	49.65	.27	46.25	49.53	.20	46.25	49.41	.18
46.25	49.29	.24	46.25	49.17	.28	46.25	49.05	.33
46.25	48.93	.32	46.25	48.80	.34	46.25	48.68	.52
46.25	48.56	.34	46.25	48.44	.35	46.25	48.32	.37
46.25	48.20	.33	46.25	48.08	.16	46.25	47.96	.15
46.25	47.84	.16	46.25	47.72	.06	46.25	47.60	.04
46.17	53.88	.15	46.17	53.76	.19	46.17	53.64	.22
46.17	53.52	.21	46.17	53.40	.19	46.17	53.28	.17
46.17	53.15	.14	46.17	53.03	.18	46.17	52.91	.23
46.17	52.79	.20	46.17	52.67	.21	46.17	52.55	.15
46.17	52.43	.21	46.17	52.31	.30	46.17	52.19	.27
46.17	52.07	.48	46.17	51.95	.27	46.17	51.83	.22
46.17	51.70	.36	46.17	51.58	.35	46.17	51.46	.36
46.17	51.34	.20	46.17	51.22	.22	46.17	51.10	.25
46.17	50.98	.23	46.17	50.86	.20	46.17	50.74	.17
46.17	50.62	.23	46.17	50.50	.25	46.17	50.38	.19
46.17	50.25	.24	46.17	50.13	.23	46.17	50.01	.31
46.17	49.89	.38	46.17	49.77	.32	46.17	49.65	.34
46.17	49.53	.21	46.17	49.41	.20	46.17	49.29	.21
46.17	49.17	.23	46.17	49.05	.31	46.17	48.93	.36
46.17	48.80	.38	46.17	48.68	.52	46.17	48.56	.47
46.17	48.44	.32	46.17	48.32	.38	46.17	48.20	.36
46.17	48.08	.19	46.17	47.96	.17	46.17	47.84	.17

RUN9 - 1984   LAT: 46N TO 49N   LON: 47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
46.17	47.72	.05	46.17	47.60	.00	46.08	53.88	.10
46.08	53.76	.14	46.08	53.64	.16	46.08	53.52	.16
46.08	53.40	.16	46.08	53.28	.15	46.08	53.15	.18
46.08	53.03	.15	46.08	52.91	.17	46.08	52.79	.14
46.08	52.67	.14	46.08	52.55	.12	46.08	52.43	.25
46.08	52.31	.35	46.08	52.19	.29	46.08	52.07	.55
46.08	51.95	.33	46.08	51.83	.35	46.08	51.70	.27
46.08	51.58	.26	46.08	51.46	.26	46.08	51.34	.24
46.08	51.22	.51	46.08	51.10	.59	46.08	50.98	.57
46.08	50.86	.50	46.08	50.74	.30	46.08	50.62	.32
46.08	50.50	.31	46.08	50.38	.25	46.08	50.25	.25
46.08	50.13	.29	46.08	50.01	.36	46.08	49.89	.47
46.08	49.77	.35	46.08	49.65	.34	46.08	49.53	.22
46.08	49.41	.23	46.08	49.29	.25	46.08	49.17	.25
46.08	49.05	.32	46.08	48.93	.37	46.08	48.80	.51
46.08	48.68	.53	46.08	48.56	.46	46.08	48.44	.28
46.08	48.32	.36	46.08	48.20	.33	46.08	48.08	.23
46.08	47.96	.20	46.08	47.84	.15	46.08	47.72	.03

EOI ENCOUNTERED.

/

RUN10 - 1985 LAT: 46N TO 49N LON: 47W TO 54W W.D.= MAX DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
48.92	53.87	.00	48.92	53.75	.00	48.92	53.62	.00
48.92	53.50	.00	48.92	53.37	.00	48.92	53.24	.00
48.92	53.12	.00	48.92	52.99	.00	48.92	52.86	.07
48.92	52.74	.00	48.92	52.61	.00	48.92	52.49	.00
48.92	52.36	.00	48.92	52.23	.00	48.92	52.11	.00
48.92	51.98	.00	48.92	51.85	.00	48.92	51.73	.00
48.92	51.60	.00	48.92	51.48	.00	48.92	51.35	.00
48.92	51.22	.00	48.92	51.10	.00	48.92	50.97	.00
48.92	50.84	.00	48.92	50.72	.00	48.92	50.59	.00
48.92	50.47	.00	48.92	50.34	.01	48.92	50.21	.00
48.92	50.09	.00	48.92	49.96	.00	48.92	49.83	.00
48.92	49.71	.00	48.92	49.58	.00	48.92	49.46	.00
48.92	49.33	.00	48.92	49.20	.00	48.92	49.08	.00
48.92	48.95	.00	48.92	48.82	.00	48.92	48.70	.00
48.92	48.57	.00	48.92	48.45	.00	48.92	48.32	.00
48.92	48.19	.00	48.92	48.07	.00	48.92	47.94	.00
48.92	47.82	.00	48.92	47.69	.00	48.92	47.56	.00
48.92	47.44	.00	48.92	47.31	.00	48.83	53.87	.00
48.83	53.75	.00	48.83	53.62	.00	48.83	53.50	.00
48.83	53.37	.00	48.83	53.24	.00	48.83	53.12	.00
48.83	52.99	.20	48.83	52.86	.04	48.83	52.74	.00
48.83	52.61	.00	48.83	52.49	.00	48.83	52.36	.00
48.83	52.23	.00	48.83	52.11	.00	48.83	51.98	.00
48.83	51.85	.00	48.83	51.73	.00	48.83	51.60	.00
48.83	51.48	.00	48.83	51.35	.00	48.83	51.22	.00
48.83	51.10	.00	48.83	50.97	.00	48.83	50.84	.00
48.83	50.72	.03	48.83	50.59	.03	48.83	50.47	.02
48.83	50.34	.02	48.83	50.21	.00	48.83	50.09	.00
48.83	49.96	.00	48.83	49.83	.00	48.83	49.71	.00
48.83	49.58	.00	48.83	49.46	.00	48.83	49.33	.00
48.83	49.20	.00	48.83	49.08	.00	48.83	48.95	.00
48.83	48.82	.00	48.83	48.70	.00	48.83	48.57	.00
48.83	48.45	.00	48.83	48.32	.00	48.83	48.19	.00
48.83	48.07	.00	48.83	47.94	.00	48.83	47.82	.00
48.83	47.69	.00	48.83	47.56	.00	48.83	47.44	.00
48.83	47.31	.00	48.75	53.87	.00	48.75	53.75	.00
48.75	53.62	.00	48.75	53.50	.00	48.75	53.37	.00
48.75	53.24	.00	48.75	53.12	.00	48.75	52.99	.29
48.75	52.86	.29	48.75	52.74	.00	48.75	52.61	.00
48.75	52.49	.00	48.75	52.36	.00	48.75	52.23	.00
48.75	52.11	.00	48.75	51.98	.00	48.75	51.85	.00
48.75	51.73	.00	48.75	51.60	.00	48.75	51.48	.00
48.75	51.35	.00	48.75	51.22	.00	48.75	51.10	.00
48.75	50.97	.02	48.75	50.84	.03	48.75	50.72	.03
48.75	50.59	.02	48.75	50.47	.02	48.75	50.34	.02
48.75	50.21	.02	48.75	50.09	.00	48.75	49.96	.00
48.75	49.83	.00	48.75	49.71	.00	48.75	49.58	.00
48.75	49.46	.00	48.75	49.33	.00	48.75	49.20	.00
48.75	49.08	.00	48.75	48.95	.00	48.75	48.82	.00
48.75	48.70	.00	48.75	48.57	.00	48.75	48.45	.00

RUN10 - 1985 LAT: 46N TO 49N LON: 47W TO 54W W.D.= MAX DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
48.75	48.32	.00	48.75	48.19	.00	48.75	48.07	.00
48.75	47.94	.00	48.75	47.82	.00	48.75	47.69	.00
48.75	47.56	.00	48.75	47.44	.00	48.75	47.31	.00
48.67	53.87	.00	48.67	53.75	.00	48.67	53.62	.00
48.67	53.50	.00	48.67	53.37	.00	48.67	53.24	.00
48.67	53.12	.00	48.67	52.99	.59	48.67	52.86	.32
48.67	52.74	.00	48.67	52.61	.00	48.67	52.49	.00
48.67	52.36	.00	48.67	52.23	.00	48.67	52.11	.01
48.67	51.98	.00	48.67	51.85	.00	48.67	51.73	.00
48.67	51.60	.03	48.67	51.48	.02	48.67	51.35	.03
48.67	51.22	.02	48.67	51.10	.02	48.67	50.97	.02
48.67	50.84	.02	48.67	50.72	.02	48.67	50.59	.03
48.67	50.47	.03	48.67	50.34	.03	48.67	50.21	.02
48.67	50.09	.00	48.67	49.96	.00	48.67	49.83	.00
48.67	49.71	.00	48.67	49.58	.00	48.67	49.46	.00
48.67	49.33	.00	48.67	49.20	.00	48.67	49.08	.00
48.67	48.95	.00	48.67	48.82	.00	48.67	48.70	.00
48.67	48.57	.00	48.67	48.45	.00	48.67	48.32	.00
48.67	48.19	.00	48.67	48.07	.00	48.67	47.94	.00
48.67	47.82	.00	48.67	47.69	.00	48.67	47.56	.00
48.67	47.44	.00	48.67	47.31	.00	48.58	53.87	.00
48.58	53.75	.00	48.58	53.62	.00	48.58	53.50	.00
48.58	53.37	.00	48.58	53.24	.00	48.58	53.12	.00
48.58	52.99	.94	48.58	52.86	.28	48.58	52.74	.00
48.58	52.61	.00	48.58	52.49	.04	48.58	52.36	.03
48.58	52.23	.03	48.58	52.11	.03	48.58	51.98	.03
48.58	51.85	.03	48.58	51.73	.03	48.58	51.60	.03
48.58	51.48	.03	48.58	51.35	.03	48.58	51.22	.02
48.58	51.10	.02	48.58	50.97	.03	48.58	50.84	.02
48.58	50.72	.02	48.58	50.59	.03	48.58	50.47	.03
48.58	50.34	.03	48.58	50.21	.02	48.58	50.09	.02
48.58	49.96	.00	48.58	49.83	.00	48.58	49.71	.00
48.58	49.58	.00	48.58	49.46	.00	48.58	49.33	.00
48.58	49.20	.00	48.58	49.08	.00	48.58	48.95	.00
48.58	48.82	.00	48.58	48.70	.00	48.58	48.57	.00
48.58	48.45	.00	48.58	48.32	.00	48.58	48.19	.00
48.58	48.07	.00	48.58	47.94	.00	48.58	47.82	.00
48.58	47.69	.00	48.58	47.56	.00	48.58	47.44	.00
48.58	47.31	.00	48.50	53.87	.00	48.50	53.75	.00
48.50	53.62	.00	48.50	53.50	.00	48.50	53.37	.00
48.50	53.24	.00	48.50	53.12	.00	48.50	52.99	.00
48.50	52.86	.00	48.50	52.74	.00	48.50	52.61	.00
48.50	52.49	.04	48.50	52.36	.03	48.50	52.23	.03
48.50	52.11	.02	48.50	51.98	.03	48.50	51.85	.03
48.50	51.73	.03	48.50	51.60	.03	48.50	51.48	.03
48.50	51.35	.04	48.50	51.22	.03	48.50	51.10	.03
48.50	50.97	.03	48.50	50.84	.03	48.50	50.72	.03
48.50	50.59	.03	48.50	50.47	.04	48.50	50.34	.05
48.50	50.21	.03	48.50	50.09	.02	48.50	49.96	.01
48.50	49.83	.00	48.50	49.71	.00	48.50	49.58	.00

RUN10 - 1985   LAT: 46N TO 49N   LON: 47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
48.50	49.46	.00	48.50	49.33	.00	48.50	49.20	.00
48.50	49.08	.00	48.50	48.95	.00	48.50	48.82	.00
48.50	48.70	.00	48.50	48.57	.00	48.50	48.45	.00
48.50	48.32	.00	48.50	48.19	.00	48.50	48.07	.00
48.50	47.94	.00	48.50	47.82	.00	48.50	47.69	.00
48.50	47.56	.00	48.50	47.44	.00	48.50	47.31	.00
48.42	53.87	.00	48.42	53.75	.00	48.42	53.62	.00
48.42	53.50	.00	48.42	53.37	.00	48.42	53.24	.00
48.42	53.12	.00	48.42	52.99	.00	48.42	52.86	.00
48.42	52.74	.00	48.42	52.61	.00	48.42	52.49	.05
48.42	52.36	.02	48.42	52.23	.03	48.42	52.11	.04
48.42	51.98	.04	48.42	51.85	.03	48.42	51.73	.03
48.42	51.60	.14	48.42	51.48	.03	48.42	51.35	.00
48.42	51.22	.04	48.42	51.10	.03	48.42	50.97	.02
48.42	50.84	.02	48.42	50.72	.02	48.42	50.59	.02
48.42	50.47	.03	48.42	50.34	.03	48.42	50.21	.03
48.42	50.09	.02	48.42	49.96	.03	48.42	49.83	.00
48.42	49.71	.00	48.42	49.58	.00	48.42	49.46	.00
48.42	49.33	.00	48.42	49.20	.00	48.42	49.08	.00
48.42	48.95	.00	48.42	48.82	.00	48.42	48.70	.00
48.42	48.57	.00	48.42	48.45	.00	48.42	48.32	.00
48.42	48.19	.00	48.42	48.07	.00	48.42	47.94	.00
48.42	47.82	.00	48.42	47.69	.00	48.42	47.56	.00
48.42	47.44	.00	48.42	47.31	.00	48.33	53.87	.00
48.33	53.75	.00	48.33	53.62	.00	48.33	53.50	.00
48.33	53.37	.00	48.33	53.24	.00	48.33	53.12	.00
48.33	52.99	.00	48.33	52.86	.00	48.33	52.74	.00
48.33	52.61	.02	48.33	52.49	.03	48.33	52.36	.02
48.33	52.23	.04	48.33	52.11	.05	48.33	51.98	.04
48.33	51.85	.03	48.33	51.73	.03	48.33	51.60	.04
48.33	51.48	.02	48.33	51.35	.00	48.33	51.22	.00
48.33	51.10	.03	48.33	50.97	.02	48.33	50.84	.02
48.33	50.72	.00	48.33	50.59	.02	48.33	50.47	.02
48.33	50.34	.03	48.33	50.21	.03	48.33	50.09	.03
48.33	49.96	.03	48.33	49.83	.00	48.33	49.71	.00
48.33	49.58	.00	48.33	49.46	.00	48.33	49.33	.00
48.33	49.20	.00	48.33	49.08	.00	48.33	48.95	.00
48.33	48.82	.00	48.33	48.70	.00	48.33	48.57	.00
48.33	48.45	.00	48.33	48.32	.00	48.33	48.19	.00
48.33	48.07	.00	48.33	47.94	.00	48.33	47.82	.00
48.33	47.69	.00	48.33	47.56	.00	48.33	47.44	.00
48.33	47.31	.00	48.25	53.87	.00	48.25	53.75	.00
48.25	53.62	.00	48.25	53.50	.00	48.25	53.37	.00
48.25	53.24	.00	48.25	53.12	.00	48.25	52.99	.00
48.25	52.86	.00	48.25	52.74	.03	48.25	52.61	.02
48.25	52.49	.03	48.25	52.36	.02	48.25	52.23	.04
48.25	52.11	.04	48.25	51.98	.05	48.25	51.85	.03
48.25	51.73	.03	48.25	51.60	.00	48.25	51.48	.00
48.25	51.35	.02	48.25	51.22	.00	48.25	51.10	.03
48.25	50.97	.00	48.25	50.84	.00	48.25	50.72	.00

RUN10 - 1985 LAT: 46N TO 49N LON: 47W TO 54W W.D.= MAX DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
48.25	50.59	.02	48.25	50.47	.02	48.25	50.34	.03
48.25	50.21	.03	48.25	50.09	.02	48.25	49.96	.02
48.25	49.83	.02	48.25	49.71	.02	48.25	49.58	.00
48.25	49.46	.00	48.25	49.33	.00	48.25	49.20	.00
48.25	49.08	.00	48.25	48.95	.00	48.25	48.82	.00
48.25	48.70	.00	48.25	48.57	.00	48.25	48.45	.00
48.25	48.32	.00	48.25	48.19	.00	48.25	48.07	.00
48.25	47.94	.00	48.25	47.82	.00	48.25	47.69	.00
48.25	47.56	.00	48.25	47.44	.00	48.25	47.31	.00
48.17	53.87	.00	48.17	53.75	.00	48.17	53.62	.00
48.17	53.50	.00	48.17	53.37	.02	48.17	53.24	.00
48.17	53.12	.00	48.17	52.99	.00	48.17	52.86	.14
48.17	52.74	.04	48.17	52.61	.02	48.17	52.49	.02
48.17	52.36	.02	48.17	52.23	.03	48.17	52.11	.03
48.17	51.98	.03	48.17	51.85	.04	48.17	51.73	.02
48.17	51.60	.00	48.17	51.48	.00	48.17	51.35	.00
48.17	51.22	.00	48.17	51.10	.00	48.17	50.97	.02
48.17	50.84	.02	48.17	50.72	.03	48.17	50.59	.02
48.17	50.47	.02	48.17	50.34	.03	48.17	50.21	.03
48.17	50.09	.03	48.17	49.96	.02	48.17	49.83	.02
48.17	49.71	.02	48.17	49.58	.02	48.17	49.46	.00
48.17	49.33	.00	48.17	49.20	.00	48.17	49.08	.00
48.17	48.95	.00	48.17	48.82	.00	48.17	48.70	.00
48.17	48.57	.00	48.17	48.45	.00	48.17	48.32	.00
48.17	48.19	.00	48.17	48.07	.00	48.17	47.94	.00
48.17	47.82	.00	48.17	47.69	.00	48.17	47.56	.00
48.17	47.44	.00	48.17	47.31	.00	48.08	53.87	.00
48.08	53.75	.00	48.08	53.62	.00	48.08	53.50	.00
48.08	53.37	.00	48.08	53.24	.00	48.08	53.12	.00
48.08	52.99	.10	48.08	52.86	.12	48.08	52.74	.04
48.08	52.61	.03	48.08	52.49	.03	48.08	52.36	.02
48.08	52.23	.09	48.08	52.11	.03	48.08	51.98	.03
48.08	51.85	.03	48.08	51.73	.02	48.08	51.60	.00
48.08	51.48	.00	48.08	51.35	.00	48.08	51.22	.01
48.08	51.10	.00	48.08	50.97	.02	48.08	50.84	.02
48.08	50.72	.03	48.08	50.59	.02	48.08	50.47	.03
48.08	50.34	.00	48.08	50.21	.02	48.08	50.09	.03
48.08	49.96	.02	48.08	49.83	.02	48.08	49.71	.01
48.08	49.58	.02	48.08	49.46	.02	48.08	49.33	.00
48.08	49.20	.00	48.08	49.08	.00	48.08	48.95	.00
48.08	48.82	.00	48.08	48.70	.00	48.08	48.57	.00
48.08	48.45	.00	48.08	48.32	.00	48.08	48.19	.00
48.08	48.07	.00	48.08	47.94	.00	48.08	47.82	.00
48.08	47.69	.00	48.08	47.56	.00	48.08	47.44	.00
48.08	47.31	.00	48.00	53.88	.00	48.00	53.75	.00
48.00	53.63	.00	48.00	53.51	.00	48.00	53.38	.00
48.00	53.26	.00	48.00	53.14	.00	48.00	53.01	.06
48.00	52.89	.08	48.00	52.77	.04	48.00	52.64	.03
48.00	52.52	.03	48.00	52.40	.03	48.00	52.27	.02
48.00	52.15	.02	48.00	52.03	.02	48.00	51.90	.02

RUN10 - 1985 LAT: 46N TO 49N LON: 47W TO 54W W.D.= MAX DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
48.00	51.78	.02	48.00	51.66	.01	48.00	51.53	.00
48.00	51.41	.01	48.00	51.29	.01	48.00	51.16	.01
48.00	51.04	.01	48.00	50.92	.01	48.00	50.79	.05
48.00	50.67	.02	48.00	50.55	.02	48.00	50.42	.02
48.00	50.30	.02	48.00	50.18	.07	48.00	50.05	.02
48.00	49.93	.02	48.00	49.81	.02	48.00	49.68	.01
48.00	49.56	.02	48.00	49.44	.02	48.00	49.31	.02
48.00	49.19	.00	48.00	49.07	.00	48.00	48.94	.00
48.00	48.82	.00	48.00	48.70	.00	48.00	48.57	.00
48.00	48.45	.00	48.00	48.33	.00	48.00	48.20	.00
48.00	48.08	.00	48.00	47.96	.00	48.00	47.83	.00
48.00	47.71	.00	48.00	47.59	.00	48.00	47.46	.00
47.92	53.88	.00	47.92	53.75	.00	47.92	53.63	.00
47.92	53.51	.00	47.92	53.38	.00	47.92	53.26	.00
47.92	53.14	.00	47.92	53.01	.07	47.92	52.89	.02
47.92	52.77	.03	47.92	52.64	.04	47.92	52.52	.03
47.92	52.40	.03	47.92	52.27	.02	47.92	52.15	.02
47.92	52.03	.02	47.92	51.90	.02	47.92	51.78	.02
47.92	51.66	.03	47.92	51.53	.02	47.92	51.41	.01
47.92	51.29	.01	47.92	51.16	.01	47.92	51.04	.04
47.92	50.92	.04	47.92	50.79	.01	47.92	50.67	.05
47.92	50.55	.02	47.92	50.42	.01	47.92	50.30	.02
47.92	50.18	.06	47.92	50.05	.04	47.92	49.93	.02
47.92	49.81	.02	47.92	49.68	.02	47.92	49.56	.02
47.92	49.44	.01	47.92	49.31	.01	47.92	49.19	.01
47.92	49.07	.00	47.92	48.94	.00	47.92	48.82	.00
47.92	48.70	.00	47.92	48.57	.00	47.92	48.45	.00
47.92	48.33	.00	47.92	48.20	.00	47.92	48.08	.00
47.92	47.96	.00	47.92	47.83	.00	47.92	47.71	.00
47.92	47.59	.00	47.92	47.46	.00	47.83	53.88	.00
47.83	53.75	.00	47.83	53.63	.00	47.83	53.51	.00
47.83	53.38	.00	47.83	53.26	.00	47.83	53.14	.00
47.83	53.01	.01	47.83	52.89	.02	47.83	52.77	.02
47.83	52.64	.04	47.83	52.52	.04	47.83	52.40	.03
47.83	52.27	.02	47.83	52.15	.02	47.83	52.03	.02
47.83	51.90	.02	47.83	51.78	.02	47.83	51.66	.02
47.83	51.53	.02	47.83	51.41	.02	47.83	51.29	.01
47.83	51.16	.01	47.83	51.04	.04	47.83	50.92	.04
47.83	50.79	.01	47.83	50.67	.04	47.83	50.55	.01
47.83	50.42	.01	47.83	50.30	.02	47.83	50.18	.07
47.83	50.05	.07	47.83	49.93	.07	47.83	49.81	.06
47.83	49.68	.05	47.83	49.56	.03	47.83	49.44	.02
47.83	49.31	.02	47.83	49.19	.01	47.83	49.07	.02
47.83	48.94	.02	47.83	48.82	.03	47.83	48.70	.00
47.83	48.57	.00	47.83	48.45	.00	47.83	48.33	.00
47.83	48.20	.00	47.83	48.08	.00	47.83	47.96	.00
47.83	47.83	.00	47.83	47.71	.00	47.83	47.59	.00
47.83	47.46	.00	47.75	53.88	.00	47.75	53.75	.00
47.75	53.63	.00	47.75	53.51	.00	47.75	53.38	.00
47.75	53.26	.00	47.75	53.14	.01	47.75	53.01	.00

RUN10 - 1985 LAT: 46N TO 49N LON: 47W TO 54W W.D.= MAX DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
47.75	52.89	.01	47.75	52.77	.16	47.75	52.64	.04
47.75	52.52	.04	47.75	52.40	.03	47.75	52.27	.03
47.75	52.15	.03	47.75	52.03	.02	47.75	51.90	.02
47.75	51.78	.02	47.75	51.66	.02	47.75	51.53	.05
47.75	51.41	.05	47.75	51.29	.05	47.75	51.16	.05
47.75	51.04	.05	47.75	50.92	.04	47.75	50.79	.05
47.75	50.67	.02	47.75	50.55	.02	47.75	50.42	.01
47.75	50.30	.02	47.75	50.18	.07	47.75	50.05	.08
47.75	49.93	.09	47.75	49.81	.08	47.75	49.68	.09
47.75	49.56	.08	47.75	49.44	.03	47.75	49.31	.03
47.75	49.19	.02	47.75	49.07	.02	47.75	48.94	.02
47.75	48.82	.02	47.75	48.70	.02	47.75	48.57	.02
47.75	48.45	.00	47.75	48.33	.00	47.75	48.20	.00
47.75	48.08	.00	47.75	47.96	.00	47.75	47.83	.00
47.75	47.71	.00	47.75	47.59	.00	47.75	47.46	.00
47.67	53.88	.00	47.67	53.75	.00	47.67	53.63	.00
47.67	53.51	.00	47.67	53.38	.00	47.67	53.26	.00
47.67	53.14	.00	47.67	53.01	.00	47.67	52.89	.02
47.67	52.77	.00	47.67	52.64	.04	47.67	52.52	.05
47.67	52.40	.04	47.67	52.27	.03	47.67	52.15	.03
47.67	52.03	.02	47.67	51.90	.02	47.67	51.78	.02
47.67	51.66	.02	47.67	51.53	.05	47.67	51.41	.05
47.67	51.29	.05	47.67	51.16	.05	47.67	51.04	.05
47.67	50.92	.05	47.67	50.79	.05	47.67	50.67	.01
47.67	50.55	.01	47.67	50.42	.06	47.67	50.30	.02
47.67	50.18	.08	47.67	50.05	.08	47.67	49.93	.09
47.67	49.81	.08	47.67	49.68	.09	47.67	49.56	.08
47.67	49.44	.08	47.67	49.31	.08	47.67	49.19	.03
47.67	49.07	.02	47.67	48.94	.02	47.67	48.82	.02
47.67	48.70	.02	47.67	48.57	.02	47.67	48.45	.02
47.67	48.33	.02	47.67	48.20	.00	47.67	48.08	.00
47.67	47.96	.00	47.67	47.83	.00	47.67	47.71	.00
47.67	47.59	.00	47.67	47.46	.00	47.58	53.88	.00
47.58	53.75	.00	47.58	53.63	.00	47.58	53.51	.00
47.58	53.38	.00	47.58	53.26	.00	47.58	53.14	.00
47.58	53.01	.00	47.58	52.89	.02	47.58	52.77	.00
47.58	52.64	.04	47.58	52.52	.05	47.58	52.40	.05
47.58	52.27	.04	47.58	52.15	.03	47.58	52.03	.03
47.58	51.90	.02	47.58	51.78	.02	47.58	51.66	.02
47.58	51.53	.05	47.58	51.41	.05	47.58	51.29	.05
47.58	51.16	.06	47.58	51.04	.05	47.58	50.92	.06
47.58	50.79	.02	47.58	50.67	.00	47.58	50.55	.01
47.58	50.42	.01	47.58	50.30	.01	47.58	50.18	.07
47.58	50.05	.10	47.58	49.93	.09	47.58	49.81	.17
47.58	49.68	.10	47.58	49.56	.09	47.58	49.44	.09
47.58	49.31	.08	47.58	49.19	.08	47.58	49.07	.06
47.58	48.94	.03	47.58	48.82	.02	47.58	48.70	.02
47.58	48.57	.02	47.58	48.45	.02	47.58	48.33	.01
47.58	48.20	.01	47.58	48.08	.01	47.58	47.96	.00
47.58	47.83	.00	47.58	47.71	.00	47.58	47.59	.00

RUN10 - 1985 LAT: 46N TO 49N LON: 47W TO 54W W.D.= MAX DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
47.58	47.46	.00	47.50	53.88	.00	47.50	53.75	.00
47.50	53.63	.00	47.50	53.51	.00	47.50	53.38	.00
47.50	53.26	.00	47.50	53.14	.00	47.50	53.01	.00
47.50	52.89	.00	47.50	52.77	.00	47.50	52.64	.04
47.50	52.52	.05	47.50	52.40	.03	47.50	52.27	.03
47.50	52.15	.06	47.50	52.03	.02	47.50	51.90	.02
47.50	51.78	.02	47.50	51.66	.02	47.50	51.53	.06
47.50	51.41	.06	47.50	51.29	.06	47.50	51.16	.06
47.50	51.04	.06	47.50	50.92	.02	47.50	50.79	.01
47.50	50.67	.00	47.50	50.55	.00	47.50	50.42	.00
47.50	50.30	.00	47.50	50.18	.08	47.50	50.05	.11
47.50	49.93	.16	47.50	49.81	.08	47.50	49.68	.09
47.50	49.56	.12	47.50	49.44	.08	47.50	49.31	.08
47.50	49.19	.09	47.50	49.07	.08	47.50	48.94	.07
47.50	48.82	.04	47.50	48.70	.02	47.50	48.57	.02
47.50	48.45	.02	47.50	48.33	.01	47.50	48.20	.01
47.50	48.08	.01	47.50	47.96	.01	47.50	47.83	.00
47.50	47.71	.00	47.50	47.59	.00	47.50	47.46	.00
47.42	53.88	.00	47.42	53.75	.00	47.42	53.63	.00
47.42	53.51	.00	47.42	53.38	.00	47.42	53.26	.00
47.42	53.14	.00	47.42	53.01	.00	47.42	52.89	.00
47.42	52.77	.00	47.42	52.64	.05	47.42	52.52	.05
47.42	52.40	.03	47.42	52.27	.05	47.42	52.15	.07
47.42	52.03	.02	47.42	51.90	.02	47.42	51.78	.02
47.42	51.66	.02	47.42	51.53	.07	47.42	51.41	.06
47.42	51.29	.06	47.42	51.16	.06	47.42	51.04	.06
47.42	50.92	.02	47.42	50.79	.02	47.42	50.67	.01
47.42	50.55	.01	47.42	50.42	.00	47.42	50.30	.02
47.42	50.18	.11	47.42	50.05	.13	47.42	49.93	.10
47.42	49.81	.14	47.42	49.68	.12	47.42	49.56	.15
47.42	49.44	.08	47.42	49.31	.08	47.42	49.19	.08
47.42	49.07	.07	47.42	48.94	.06	47.42	48.82	.06
47.42	48.70	.05	47.42	48.57	.03	47.42	48.45	.01
47.42	48.33	.01	47.42	48.20	.01	47.42	48.08	.01
47.42	47.96	.01	47.42	47.83	.01	47.42	47.71	.00
47.42	47.59	.00	47.42	47.46	.00	47.33	53.88	.00
47.33	53.75	.00	47.33	53.63	.00	47.33	53.51	.00
47.33	53.38	.00	47.33	53.26	.00	47.33	53.14	.00
47.33	53.01	.00	47.33	52.89	.00	47.33	52.77	.11
47.33	52.64	.06	47.33	52.52	.04	47.33	52.40	.03
47.33	52.27	.04	47.33	52.15	.06	47.33	52.03	.04
47.33	51.90	.02	47.33	51.78	.03	47.33	51.66	.03
47.33	51.53	.08	47.33	51.41	.06	47.33	51.29	.07
47.33	51.16	.06	47.33	51.04	.05	47.33	50.92	.05
47.33	50.79	.05	47.33	50.67	.02	47.33	50.55	.06
47.33	50.42	.01	47.33	50.30	.02	47.33	50.18	.15
47.33	50.05	.12	47.33	49.93	.11	47.33	49.81	.10
47.33	49.68	.11	47.33	49.56	.11	47.33	49.44	.06
47.33	49.31	.06	47.33	49.19	.07	47.33	49.07	.07
47.33	48.94	.05	47.33	48.82	.05	47.33	48.70	.04

RUN10 - 1985   LAT: 46N TO 49N   LON: 47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
47.33	48.57	.04	47.33	48.45	.04	47.33	48.33	.03
47.33	48.20	.01	47.33	48.08	.01	47.33	47.96	.01
47.33	47.83	.01	47.33	47.71	.00	47.33	47.59	.00
47.33	47.46	.00	47.25	53.88	.00	47.25	53.75	.00
47.25	53.63	.00	47.25	53.51	.00	47.25	53.38	.00
47.25	53.26	.00	47.25	53.14	.00	47.25	53.01	.00
47.25	52.89	.00	47.25	52.77	.05	47.25	52.64	.06
47.25	52.52	.03	47.25	52.40	.03	47.25	52.27	.05
47.25	52.15	.06	47.25	52.03	.06	47.25	51.90	.02
47.25	51.78	.03	47.25	51.66	.05	47.25	51.53	.07
47.25	51.41	.06	47.25	51.29	.06	47.25	51.16	.06
47.25	51.04	.06	47.25	50.92	.05	47.25	50.79	.06
47.25	50.67	.07	47.25	50.55	.08	47.25	50.42	.08
47.25	50.30	.08	47.25	50.18	.10	47.25	50.05	.11
47.25	49.93	.10	47.25	49.81	.13	47.25	49.68	.15
47.25	49.56	.09	47.25	49.44	.09	47.25	49.31	.09
47.25	49.19	.07	47.25	49.07	.08	47.25	48.94	.04
47.25	48.82	.04	47.25	48.70	.04	47.25	48.57	.04
47.25	48.45	.04	47.25	48.33	.04	47.25	48.20	.03
47.25	48.08	.02	47.25	47.96	.01	47.25	47.83	.01
47.25	47.71	.01	47.25	47.59	.01	47.25	47.46	.00
47.17	53.88	.00	47.17	53.75	.00	47.17	53.63	.00
47.17	53.51	.00	47.17	53.38	.00	47.17	53.26	.00
47.17	53.14	.00	47.17	53.01	.00	47.17	52.89	.00
47.17	52.77	.03	47.17	52.64	.08	47.17	52.52	.05
47.17	52.40	.02	47.17	52.27	.05	47.17	52.15	.06
47.17	52.03	.06	47.17	51.90	.03	47.17	51.78	.02
47.17	51.66	.07	47.17	51.53	.08	47.17	51.41	.07
47.17	51.29	.07	47.17	51.16	.03	47.17	51.04	.06
47.17	50.92	.06	47.17	50.79	.06	47.17	50.67	.07
47.17	50.55	.07	47.17	50.42	.02	47.17	50.30	.10
47.17	50.18	.06	47.17	50.05	.10	47.17	49.93	.17
47.17	49.81	.13	47.17	49.68	.10	47.17	49.56	.05
47.17	49.44	.05	47.17	49.31	.06	47.17	49.19	.07
47.17	49.07	.08	47.17	48.94	.04	47.17	48.82	.04
47.17	48.70	.04	47.17	48.57	.04	47.17	48.45	.04
47.17	48.33	.04	47.17	48.20	.04	47.17	48.08	.03
47.17	47.96	.01	47.17	47.83	.02	47.17	47.71	.01
47.17	47.59	.01	47.17	47.46	.00	47.08	53.88	.00
47.08	53.75	.00	47.08	53.63	.00	47.08	53.51	.00
47.08	53.38	.00	47.08	53.26	.00	47.08	53.14	.00
47.08	53.01	.00	47.08	52.89	.07	47.08	52.77	.03
47.08	52.64	.03	47.08	52.52	.06	47.08	52.40	.05
47.08	52.27	.05	47.08	52.15	.06	47.08	52.03	.07
47.08	51.90	.05	47.08	51.78	.05	47.08	51.66	.07
47.08	51.53	.07	47.08	51.41	.10	47.08	51.29	.07
47.08	51.16	.07	47.08	51.04	.08	47.08	50.92	.08
47.08	50.79	.05	47.08	50.67	.05	47.08	50.55	.07
47.08	50.42	.07	47.08	50.30	.06	47.08	50.18	.06
47.08	50.05	.06	47.08	49.93	.14	47.08	49.81	.11

RUN10 - 1985 LAT: 46N TO 49N LON: 47W TO 54W W.D.= MAX DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
47.08	49.68	.08	47.08	49.56	.06	47.08	49.44	.04
47.08	49.31	.07	47.08	49.19	.09	47.08	49.07	.08
47.08	48.94	.04	47.08	48.82	.04	47.08	48.70	.04
47.08	48.57	.04	47.08	48.45	.04	47.08	48.33	.04
47.08	48.20	.04	47.08	48.08	.04	47.08	47.96	.02
47.08	47.83	.02	47.08	47.71	.01	47.08	47.59	.01
47.08	47.46	.00	47.00	53.88	.00	47.00	53.76	.00
47.00	53.64	.00	47.00	53.52	.00	47.00	53.40	.00
47.00	53.28	.00	47.00	53.15	.00	47.00	53.03	.00
47.00	52.91	.20	47.00	52.79	.05	47.00	52.67	.03
47.00	52.55	.03	47.00	52.43	.06	47.00	52.31	.06
47.00	52.19	.07	47.00	52.07	.08	47.00	51.95	.08
47.00	51.83	.07	47.00	51.70	.07	47.00	51.58	.08
47.00	51.46	.11	47.00	51.34	.11	47.00	51.22	.07
47.00	51.10	.07	47.00	50.98	.08	47.00	50.86	.07
47.00	50.74	.02	47.00	50.62	.00	47.00	50.50	.00
47.00	50.38	.01	47.00	50.25	.05	47.00	50.13	.06
47.00	50.01	.05	47.00	49.89	.04	47.00	49.77	.06
47.00	49.65	.05	47.00	49.53	.05	47.00	49.41	.07
47.00	49.29	.10	47.00	49.17	.15	47.00	49.05	.12
47.00	48.93	.06	47.00	48.80	.08	47.00	48.68	.03
47.00	48.56	.03	47.00	48.44	.03	47.00	48.32	.04
47.00	48.20	.04	47.00	48.08	.04	47.00	47.96	.04
47.00	47.84	.01	47.00	47.72	.01	47.00	47.60	.01
46.92	53.88	.00	46.92	53.76	.00	46.92	53.64	.00
46.92	53.52	.00	46.92	53.40	.00	46.92	53.28	.00
46.92	53.15	.00	46.92	53.03	.00	46.92	52.91	.24
46.92	52.79	.06	46.92	52.67	.03	46.92	52.55	.02
46.92	52.43	.07	46.92	52.31	.07	46.92	52.19	.07
46.92	52.07	.07	46.92	51.95	.08	46.92	51.83	.07
46.92	51.70	.07	46.92	51.58	.11	46.92	51.46	.14
46.92	51.34	.09	46.92	51.22	.08	46.92	51.10	.08
46.92	50.98	.06	46.92	50.86	.05	46.92	50.74	.03
46.92	50.62	.01	46.92	50.50	.02	46.92	50.38	.01
46.92	50.25	.03	46.92	50.13	.04	46.92	50.01	.07
46.92	49.89	.04	46.92	49.77	.04	46.92	49.65	.04
46.92	49.53	.04	46.92	49.41	.05	46.92	49.29	.07
46.92	49.17	.12	46.92	49.05	.10	46.92	48.93	.07
46.92	48.80	.07	46.92	48.68	.06	46.92	48.56	.03
46.92	48.44	.03	46.92	48.32	.03	46.92	48.20	.03
46.92	48.08	.04	46.92	47.96	.03	46.92	47.84	.02
46.92	47.72	.01	46.92	47.60	.01	46.83	53.88	.00
46.83	53.76	.00	46.83	53.64	.00	46.83	53.52	.00
46.83	53.40	.00	46.83	53.28	.00	46.83	53.15	.00
46.83	53.03	.00	46.83	52.91	.35	46.83	52.79	.05
46.83	52.67	.03	46.83	52.55	.02	46.83	52.43	.06
46.83	52.31	.08	46.83	52.19	.07	46.83	52.07	.07
46.83	51.95	.06	46.83	51.83	.06	46.83	51.70	.06
46.83	51.58	.12	46.83	51.46	.11	46.83	51.34	.10
46.83	51.22	.08	46.83	51.10	.06	46.83	50.98	.03

RUN10 - 1985   LAT: 46N TO 49N   LON: 47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
46.83	50.86	.02	46.83	50.74	.02	46.83	50.62	.02
46.83	50.50	.03	46.83	50.38	.02	46.83	50.25	.04
46.83	50.13	.04	46.83	50.01	.07	46.83	49.89	.06
46.83	49.77	.04	46.83	49.65	.04	46.83	49.53	.04
46.83	49.41	.04	46.83	49.29	.05	46.83	49.17	.07
46.83	49.05	.09	46.83	48.93	.08	46.83	48.80	.09
46.83	48.68	.06	46.83	48.56	.04	46.83	48.44	.03
46.83	48.32	.02	46.83	48.20	.02	46.83	48.08	.03
46.83	47.96	.02	46.83	47.84	.02	46.83	47.72	.01
46.83	47.60	.01	46.75	53.88	.00	46.75	53.76	.00
46.75	53.64	.00	46.75	53.52	.00	46.75	53.40	.00
46.75	53.28	.00	46.75	53.15	.00	46.75	53.03	.00
46.75	52.91	.41	46.75	52.79	.05	46.75	52.67	.03
46.75	52.55	.02	46.75	52.43	.03	46.75	52.31	.07
46.75	52.19	.06	46.75	52.07	.05	46.75	51.95	.04
46.75	51.83	.04	46.75	51.70	.06	46.75	51.58	.08
46.75	51.46	.07	46.75	51.34	.06	46.75	51.22	.04
46.75	51.10	.03	46.75	50.98	.02	46.75	50.86	.02
46.75	50.74	.02	46.75	50.62	.02	46.75	50.50	.02
46.75	50.38	.02	46.75	50.25	.02	46.75	50.13	.03
46.75	50.01	.06	46.75	49.89	.05	46.75	49.77	.05
46.75	49.65	.05	46.75	49.53	.05	46.75	49.41	.04
46.75	49.29	.03	46.75	49.17	.04	46.75	49.05	.05
46.75	48.93	.08	46.75	48.80	.10	46.75	48.68	.06
46.75	48.56	.04	46.75	48.44	.03	46.75	48.32	.03
46.75	48.20	.02	46.75	48.08	.02	46.75	47.96	.02
46.75	47.84	.02	46.75	47.72	.03	46.75	47.60	.01
46.67	53.88	.00	46.67	53.76	.00	46.67	53.64	.00
46.67	53.52	.00	46.67	53.40	.00	46.67	53.28	.00
46.67	53.15	.00	46.67	53.03	.00	46.67	52.91	.87
46.67	52.79	.05	46.67	52.67	.03	46.67	52.55	.02
46.67	52.43	.02	46.67	52.31	.06	46.67	52.19	.05
46.67	52.07	.04	46.67	51.95	.03	46.67	51.83	.03
46.67	51.70	.02	46.67	51.58	.04	46.67	51.46	.03
46.67	51.34	.03	46.67	51.22	.02	46.67	51.10	.02
46.67	50.98	.01	46.67	50.86	.02	46.67	50.74	.02
46.67	50.62	.01	46.67	50.50	.02	46.67	50.38	.02
46.67	50.25	.02	46.67	50.13	.02	46.67	50.01	.05
46.67	49.89	.04	46.67	49.77	.04	46.67	49.65	.04
46.67	49.53	.04	46.67	49.41	.03	46.67	49.29	.03
46.67	49.17	.03	46.67	49.05	.03	46.67	48.93	.05
46.67	48.80	.07	46.67	48.68	.04	46.67	48.56	.04
46.67	48.44	.03	46.67	48.32	.03	46.67	48.20	.02
46.67	48.08	.02	46.67	47.96	.02	46.67	47.84	.02
46.67	47.72	.02	46.67	47.60	.01	46.58	53.88	.24
46.58	53.76	.31	46.58	53.64	.43	46.58	53.52	.43
46.58	53.40	.41	46.58	53.28	.49	46.58	53.15	.92
46.58	53.03	.61	46.58	52.91	.34	46.58	52.79	.12
46.58	52.67	.02	46.58	52.55	.01	46.58	52.43	.02
46.58	52.31	.05	46.58	52.19	.04	46.58	52.07	.05

RUN10 - 1985   LAT: 46N TO 49N   LON: 47W TO 54W   W.D.= MAX   DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
46.58	51.95	.02	46.58	51.83	.01	46.58	51.70	.01
46.58	51.58	.01	46.58	51.46	.02	46.58	51.34	.02
46.58	51.22	.01	46.58	51.10	.02	46.58	50.98	.05
46.58	50.86	.06	46.58	50.74	.02	46.58	50.62	.01
46.58	50.50	.02	46.58	50.38	.02	46.58	50.25	.02
46.58	50.13	.02	46.58	50.01	.05	46.58	49.89	.03
46.58	49.77	.02	46.58	49.65	.02	46.58	49.53	.03
46.58	49.41	.02	46.58	49.29	.02	46.58	49.17	.02
46.58	49.05	.03	46.58	48.93	.04	46.58	48.80	.06
46.58	48.68	.05	46.58	48.56	.04	46.58	48.44	.03
46.58	48.32	.03	46.58	48.20	.02	46.58	48.08	.02
46.58	47.96	.02	46.58	47.84	.02	46.58	47.72	.02
46.58	47.60	.02	46.50	53.88	.25	46.50	53.76	.24
46.50	53.64	.27	46.50	53.52	.36	46.50	53.40	.42
46.50	53.28	.45	46.50	53.15	.28	46.50	53.03	.12
46.50	52.91	.08	46.50	52.79	.02	46.50	52.67	.02
46.50	52.55	.01	46.50	52.43	.01	46.50	52.31	.04
46.50	52.19	.07	46.50	52.07	.04	46.50	51.95	.01
46.50	51.83	.01	46.50	51.70	.01	46.50	51.58	.01
46.50	51.46	.01	46.50	51.34	.01	46.50	51.22	.01
46.50	51.10	.02	46.50	50.98	.05	46.50	50.86	.04
46.50	50.74	.04	46.50	50.62	.02	46.50	50.50	.02
46.50	50.38	.02	46.50	50.25	.02	46.50	50.13	.03
46.50	50.01	.04	46.50	49.89	.02	46.50	49.77	.01
46.50	49.65	.01	46.50	49.53	.01	46.50	49.41	.02
46.50	49.29	.02	46.50	49.17	.02	46.50	49.05	.03
46.50	48.93	.03	46.50	48.80	.05	46.50	48.68	.04
46.50	48.56	.03	46.50	48.44	.03	46.50	48.32	.03
46.50	48.20	.02	46.50	48.08	.01	46.50	47.96	.01
46.50	47.84	.01	46.50	47.72	.01	46.50	47.60	.02
46.42	53.88	.05	46.42	53.76	.06	46.42	53.64	.08
46.42	53.52	.13	46.42	53.40	.22	46.42	53.28	.15
46.42	53.15	.10	46.42	53.03	.07	46.42	52.91	.03
46.42	52.79	.02	46.42	52.67	.01	46.42	52.55	.01
46.42	52.43	.01	46.42	52.31	.03	46.42	52.19	.08
46.42	52.07	.04	46.42	51.95	.01	46.42	51.83	.01
46.42	51.70	.01	46.42	51.58	.01	46.42	51.46	.01
46.42	51.34	.02	46.42	51.22	.01	46.42	51.10	.01
46.42	50.98	.01	46.42	50.86	.03	46.42	50.74	.03
46.42	50.62	.02	46.42	50.50	.01	46.42	50.38	.01
46.42	50.25	.02	46.42	50.13	.03	46.42	50.01	.05
46.42	49.89	.03	46.42	49.77	.03	46.42	49.65	.02
46.42	49.53	.02	46.42	49.41	.02	46.42	49.29	.02
46.42	49.17	.02	46.42	49.05	.03	46.42	48.93	.05
46.42	48.80	.05	46.42	48.68	.08	46.42	48.56	.05
46.42	48.44	.05	46.42	48.32	.05	46.42	48.20	.03
46.42	48.08	.02	46.42	47.96	.02	46.42	47.84	.02
46.42	47.72	.02	46.42	47.60	.02	46.33	53.88	.04
46.33	53.76	.04	46.33	53.64	.06	46.33	53.52	.06
46.33	53.40	.08	46.33	53.28	.08	46.33	53.15	.07

RUN10 - 1985 LAT: 46N TO 49N LON: 47W TO 54W W.D.= MAX DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
46.33	53.03	.05	46.33	52.91	.06	46.33	52.79	.02
46.33	52.67	.02	46.33	52.55	.01	46.33	52.43	.02
46.33	52.31	.02	46.33	52.19	.08	46.33	52.07	.06
46.33	51.95	.02	46.33	51.83	.02	46.33	51.70	.01
46.33	51.58	.01	46.33	51.46	.01	46.33	51.34	.01
46.33	51.22	.02	46.33	51.10	.01	46.33	50.98	.01
46.33	50.86	.03	46.33	50.74	.04	46.33	50.62	.03
46.33	50.50	.02	46.33	50.38	.02	46.33	50.25	.04
46.33	50.13	.04	46.33	50.01	.04	46.33	49.89	.04
46.33	49.77	.04	46.33	49.65	.03	46.33	49.53	.02
46.33	49.41	.02	46.33	49.29	.03	46.33	49.17	.03
46.33	49.05	.04	46.33	48.93	.05	46.33	48.80	.05
46.33	48.68	.09	46.33	48.56	.06	46.33	48.44	.06
46.33	48.32	.05	46.33	48.20	.05	46.33	48.08	.02
46.33	47.96	.02	46.33	47.84	.02	46.33	47.72	.02
46.33	47.60	.01	46.25	53.88	.03	46.25	53.76	.04
46.25	53.64	.04	46.25	53.52	.04	46.25	53.40	.04
46.25	53.28	.04	46.25	53.15	.04	46.25	53.03	.03
46.25	52.91	.03	46.25	52.79	.03	46.25	52.67	.04
46.25	52.55	.02	46.25	52.43	.02	46.25	52.31	.04
46.25	52.19	.04	46.25	52.07	.07	46.25	51.95	.03
46.25	51.83	.03	46.25	51.70	.02	46.25	51.58	.02
46.25	51.46	.02	46.25	51.34	.01	46.25	51.22	.01
46.25	51.10	.01	46.25	50.98	.01	46.25	50.86	.03
46.25	50.74	.05	46.25	50.62	.03	46.25	50.50	.02
46.25	50.38	.03	46.25	50.25	.04	46.25	50.13	.05
46.25	50.01	.06	46.25	49.89	.05	46.25	49.77	.04
46.25	49.65	.04	46.25	49.53	.03	46.25	49.41	.03
46.25	49.29	.04	46.25	49.17	.04	46.25	49.05	.05
46.25	48.93	.05	46.25	48.80	.05	46.25	48.68	.08
46.25	48.56	.05	46.25	48.44	.06	46.25	48.32	.06
46.25	48.20	.05	46.25	48.08	.03	46.25	47.96	.02
46.25	47.84	.03	46.25	47.72	.01	46.25	47.60	.01
46.17	53.88	.02	46.17	53.76	.03	46.17	53.64	.03
46.17	53.52	.03	46.17	53.40	.03	46.17	53.28	.03
46.17	53.15	.02	46.17	53.03	.03	46.17	52.91	.03
46.17	52.79	.03	46.17	52.67	.03	46.17	52.55	.02
46.17	52.43	.03	46.17	52.31	.04	46.17	52.19	.04
46.17	52.07	.07	46.17	51.95	.04	46.17	51.83	.03
46.17	51.70	.05	46.17	51.58	.05	46.17	51.46	.05
46.17	51.34	.03	46.17	51.22	.03	46.17	51.10	.04
46.17	50.98	.03	46.17	50.86	.03	46.17	50.74	.03
46.17	50.62	.03	46.17	50.50	.04	46.17	50.38	.03
46.17	50.25	.04	46.17	50.13	.03	46.17	50.01	.05
46.17	49.89	.06	46.17	49.77	.05	46.17	49.65	.05
46.17	49.53	.03	46.17	49.41	.03	46.17	49.29	.03
46.17	49.17	.03	46.17	49.05	.05	46.17	48.93	.05
46.17	48.80	.06	46.17	48.68	.08	46.17	48.56	.07
46.17	48.44	.05	46.17	48.32	.05	46.17	48.20	.05
46.17	48.08	.03	46.17	47.96	.03	46.17	47.84	.02

RUN10 - 1985 LAT: 46N TO 49N LON: 47W TO 54W W.D.= MAX DIST=CONSTANT

LAT	LON	G/CELL	LAT	LON	G/CELL	LAT	LON	G/CELL
46.17	47.72	.01	46.17	47.60	.00	46.08	53.88	.01
46.08	53.76	.02	46.08	53.64	.02	46.08	53.52	.02
46.08	53.40	.02	46.08	53.28	.02	46.08	53.15	.02
46.08	53.03	.02	46.08	52.91	.02	46.08	52.79	.02
46.08	52.67	.02	46.08	52.55	.02	46.08	52.43	.03
46.08	52.31	.05	46.08	52.19	.04	46.08	52.07	.07
46.08	51.95	.04	46.08	51.83	.05	46.08	51.70	.03
46.08	51.58	.03	46.08	51.46	.03	46.08	51.34	.03
46.08	51.22	.07	46.08	51.10	.08	46.08	50.98	.07
46.08	50.86	.07	46.08	50.74	.04	46.08	50.62	.04
46.08	50.50	.04	46.08	50.38	.03	46.08	50.25	.03
46.08	50.13	.04	46.08	50.01	.05	46.08	49.89	.06
46.08	49.77	.05	46.08	49.65	.04	46.08	49.53	.03
46.08	49.41	.03	46.08	49.29	.03	46.08	49.17	.03
46.08	49.05	.04	46.08	48.93	.05	46.08	48.80	.07
46.08	48.68	.07	46.08	48.56	.06	46.08	48.44	.04
46.08	48.32	.05	46.08	48.20	.04	46.08	48.08	.03
46.08	47.96	.03	46.08	47.84	.02	46.08	47.72	.00

EOI ENCOUNTERED.
/

The procedure files listed on the following pages
are all contained in the file GBK on account IAM1401.

Note that all procedures listed in GBK are for operations concerning
running the iceberg grounding model in the Grand Banks region
between 46N and 50N and 47W to 54W.

```
.PROC,MODEL5.
REWIND,*.
GET,BMODEL5.
BMODEL5.
REWIND,*.
GET,BKWIK.
BKWIK.


.PROC,SUM.
GET,BSUM.
BSUM.


.PROC,DIFFER.
GET,BDIFFER.
BDIFFER.


.PROC,UPDATE,NUM.
SUBMIT,MODJOB,TO.
.DATA,MODJOB.
/JOB
NUM,CM120000,T1500.
/USER
CHARGE,*.
GET,BADD.
BADD.
ATTACH,S2K=S2KM280/UN=LIBRARY.
REWIND,TAPE2.
S2K.
/EOR
USER,EMG;
DBN IS GRANBNK;
COMMAND FILE IS TAPE2;
EXIT;
/EOR
```

```
.PROC,OPEN.
ATTACH,S2K=S2KM280/UN=LIBRARY.
S2K,C=COMM.
.DATA,COMM.
USER,EMG;DBN IS GRANBNK;ECHO OFF;COMMAND FILE IS INPUT;




.PROC,STORE.
RETURN,TAOWHUI,TBOWHUI,TCOWHUI,TDOWHUI,TEOWHUI,TFOWHUI.
ATTACH,TAOWHUI,TBOWHUI,TCOWHUI,TDOWHUI,TEOWHUI,TFOWHUI.
ARCPUT,TAOWHUI,TBOWHUI,TCOWHUI,TDOWHUI,TEOWHUI,TFOWHUI.
ARCPURG,TAOWHUI,TBOWHUI,TCOWHUI,TDOWHUI,TEOWHUI,TFOWHUI.




.PROC,RESTORE.
PURGE,TAOWHUI,TBOWHUI,TCOWHUI,TDOWHUI,TEOWHUI,TFOWHUI.
ARCGET,TAOWHUI,TBOWHUI,TCOWHUI/OP=D. CHARGE=$AGC1,EMG$.
ARCGET,TDOWHUI,TEOWHUI,TFOWHUI/OP=D. CHARGE=$AGC1,EMG$.
DAYFILE,OKREST.
REVERT.JOB SUBMITED - DAYFILE: OKREST, BADREST.
REPLACE,OKREST.
EXIT.
DAYFILE,BADREST.
REPLACE,BADREST.
```

```
.PROC,CONMAP,INFILE.
SUBMIT (PROG,B)
.DATA,PROG
/JOB
CONJOB,CM130000,T0030.
/USER
CHARGE,AGC1,EMG.
ATTACH,CONMAP/UN=CIC4001.
ATTACH,TAPE8=WRLDMAP,TAPE9=WRLDCUT/UN=CIC4001.
FTN.
COPYLM,CONMAP,LGO,TEMP,A.
RENAME,CONMAP=TEMP.
GET,TAPE16=INFILE.
GET,ZETALB2/UN=LIBRARY.
LDSET,LIB=ZETALB2.
CONMAP,PL=30000.
REPLACE,TAPE13=ZMAP.
GET,PLOTOFF/UN=LIBRARY.
PLOTOFF,PAULD,7738,PLTR=Z,PFILE=TAPE13.
DAYFILE,OKCON.
REPLACE,OKCON.
EXIT.
DAYFILE,BADCON.

REPLACE,BADCON.
/EOR
/NOSEQ
      SUBROUTINE GETPT(ZLAT,ZLONG,ZP,END)
      KR=16
      END=0.0
10    READ(KR,*)ZLAT,ZLONG,ZP
      ZLONG=ABS(ZLONG)
      IF(EOF(KR).NE.0)GO TO 30
      RETURN
30    END=1.0
      RETURN
      END
/NOSEQ
/EOR
TTL  GRNDGS/CELL      RUN7
RGN    49.0        46.0        47.0      51.0        48.0        48.0
MAP      1     2     1   1.0                  17.5
GRD     -3    .05    45         10. 1         5 11
CON      8                  1    1
END
/EOR
*** PLOT OK IF LIMIT LIGHT COMES ON ***
```

Source code for programs used in running iceberg grounding
model

```
      PROGRAM MODEL5
CC
CC            ************************************
CC            *                                  *
CC            *      ICEBERG GROUNDING MODEL     *
CC            *                                  *
CC            ************************************
CC
CC
CC----PROGRAM DOCUMENTATION
CC
CC      PROGRAM NAME:    MODEL5
CC      LOCATION:        IAM1401
CC      LANGUAGE:        CDC CYBER FORTRAN V
CC      MEMORY:          60000
CC      TIME:            APPROX 3 SEC FOR 35 X 50 ARRAY
CC      CAPACITY:        3600 CELLS  (60 X 60 ARRAY)
CC
CC----DEVELOPMENT HISTORY:
CC
CC          OCT    1984 - WRITTEN AND TESTED BY S. D'APOLLONIA, AGC
CC
CC
CC          JUN    1986 - BATHYMETRIC APERTURE IS USER SELECTABLE ACCORDING
CC                        TO MIN, MAX, AVG OR AVG + N METERS WATER DEPTH IN
CC                        EACH CELL. THE RESPECTIVE WATER DEPTH IS
CC                        MATCHED AGAINST THE EQUIVALENT ICEBERG DRAUGHT
CC                        PROBABILITY DISTRIBUTION. MODEL5 ASSUMES UNIFORM
CC                        CURRENT VELOCITY FOR EACH CELL.
CC
CC
CC----FILES:
CC
CC      UNIT  I/O  LFN        DESCRIPTION
CC      ------------------------------------------------------------------------
CC      TAPE1  I   DRAUGHT  FRACTIONAL DRAUGHT DISTRIBUTION TABLE
CC      TAPE2  I   SCLIFE   LIFETIME OF SCOURS ON SEABED IN YEARS
CC      TAPE3  I   BFRAC    FRACTIONAL DISTRIBUTION OF ICEBERG SIGHTINGS PER CELL
CC      TAPE4  I   IMIN     MINIMUM WATER DEPTH IN CELL (METRES)
CC      TAPE5  I   IMAX     MAXIMUM WATER DEPTH IN CELL (METRES)
CC      TAPE7  O   TAPE7    TABLE OF RESULTS (GROUNDINGS PER CELL)
CC      TAPE8  O   TAPE8    TABLE OF RESULTS (SCOURS REMAINING/KM2) FOR EACH CELL
CC
CC----VARIABLES AND PARAMETERS:
CC
```

```
CC      VARIABLE DESCRIPTION
CC      -------------------------------------------------------------
CC
CC      ABSUM   : SUM OF BERGS GROUNDING IN EACH DRAUGHT INTERVAL
CC      BFRAC   : FRACTION OF ICEBERGS IN CELL OF TOTAL ICEBERGS
CC                SIGHTED IN ROW (IPS DATA 1960-84)
CC      BGLOSS  : AVERAGE NET LOSS OF BERGS WITH EACH KILOMETRE
CC                DISTANCE SOUTH OF NORTHERNMOST ROW.
CC      CELL    : LENGTH OF CELL  ( KILOMETRES )
CC      COUNT   : NUMBER OF BERGS SIGHTED IN CELL
CC      DRAUGHT  : FRACTIONAL ICEBERG DRAUGHT FREQUENCY TABLE
CC                IN 5 METRE INCREMENTS
CC      FRASUM  : SUM OF FRACTIONAL ICEBERG DRAUGHTS THAT GROUND
CC      IMETER  : WATER DEPTH APERTURE IN METERS
CC      IROW    : NUMBER OF ROWS IN MODEL  ( I )
CC      ICOL    : NUMBER OF COLUMNS IN MODEL  ( J )
CC      IMIN    : MINIMUM WATER DEPTH IN CELL (METRES)
CC      IMAX    : MAXIMUM WATER DEPTH IN CELL (METRES)
CC      ISCDEP  : MAXIMUM SCOUR DEPTH IN CELL (METRES)
CC      LL      : NUMBER OF DRAUGHT CLASS INTERVALS
CC      SCLIFE  : LIFETIME PRESERVATION OF SCOURS ON SEABED (YEARS)
CC      SIGHT   : 25 YEAR MEAN ANNUAL ICEBERGS SIGHTED  IN EACH CELL

CC      TOTAL   : MEAN SEASONAL FLUX OF BERGS ENTERING ROW 1
CC      TOTAL1  : TOTAL NUMBER OF BERGS ENTERING EACH NEW ROW
CC      YEARS   : MODEL RUN PERIOD ( YEARS )
CC
CC----IF IOPT =1      BATHYMETRIC APERTURE AT MIN WATER DEPTH IN CELL + N METERS
CC----IF IOPT =2      BATHYMETRIC APERTURE AT MAX WATER DEPTH IN CELL + N METERS
CC----IF IOPT =3      BATHYMETRIC APERTURE AT AVG WATER DEPTH IN CELL + N METERS
CC----IF IOPT =4      BATHYMETRIC APERTURE BETWEEN MIN AND MAX W DEPTH+ N METERS
CC----IF IOPT2=1      DRAUGHT DISTRIBUTION TABLE IS CONSTANT IN EACH CELL
CC----IF IOPT2=2      DRAUGHT DISTRIBUTION TABLE IS RE-ADJUSTED IN EACH CELL
CC                    BY TRUNCATING GIVEN DRAUGHT DISTRIBUTION AT K2 OF
CC                    RESPECTIVE CELL, THEN NORMALIZING TO 100%
      DIMENSION SCLIFE(60,60),BFRAC(60,60),IMIN(60,60),IMAX(60,60)
      DIMENSION SIGHT(60,60)
      DIMENSION DRGHT(200,3),GROUND(60,60),SCOURS(60,60)
      CHARACTER*10 FILNAM
CC
CC----SELECT OPTION
CC
      PRINT* ,' '
      PRINT* ,'ENTER ICEBERG GROUNDING OPTION: (1,2,3 OR 4)'
```

```
        PRINT* ,'1 = MIN CELL WATER DEPTH + N METERS'
        PRINT* ,'2 = MAX CELL WATER DEPTH + N METERS'
        PRINT* ,'3 = AVG CELL WATER DEPTH + N METERS'
        PRINT* ,'4 = MIN TO MAX CELL WATER DEPTH + N METERS'
        READ(*,*) IOPT
CC
        PRINT* ,'ENTER APERTURE (N) IN METERS'
        READ(*,*) IMETER
CC----OPTION TO CALCULATE DRAUGHT DISTRIBUTION IN EACH CELL
CC
        PRINT *,'ENTER ICEBERG DRAUGHT DISTRIBUTION OPTION (1 OR 2)'
        PRINT *,'1 = DRAUGHT DISTRUBUTION TABLE CONSTANT FOR EACH CELL'
        PRINT *,'2 = DRAUGHT DISTRUBUTION TABLE RE-ADJUSTED FOR EACH CELL'
        READ(*,*) IOPT2
CC
CC----ENTER MODEL VARIABLES
CC
        PRINT* ,'ENTER NUMBER OF ROWS'
        READ(*,*) IROW
        PRINT* ,'ENTER NUMBER OF COLUMNS'
        READ(*,*) ICOL
        PRINT* ,'ENTER NUMBER OF YEARS OR SQ KM'
        READ(*,*) YEARS
        PRINT* ,'ENTER MEAN ANNUAL ICEBERG POPULATION IN TOP ROW'
        READ(*,*) TOTAL
        CELL=      9.26
        AREA=      CELL**2
CC
        PRINT* ,'ENTER NUMBER OF INTERVALS IN ICEBERG DRAUGHT FILE'
        READ(*,*) LL
        PRINT* ,'ENTER BERG LOSS RATE PER KM SOUTH (2.0 FOR BASELINE)'
        READ(*,*) BGLOSS
        PRINT* ,'ENTER MAXIMUM SCOUR DEPTH'
        READ(*,*) ISCDEP
        PRINT* ,' ENTER DRAUGHT DISTRIBUTION FILE NAME'
        READ(*,'(A10)')FILNAM
        CALL PF('GET','FILE1',FILNAM)
        PRINT* ,' ENTER SCOUR LIFETIME FILE NAME'
        READ(*,'(A10)')FILNAM
        CALL PF('GET','FILE2',FILNAM)
        PRINT* ,' ENTER FRACTIONAL ICEBERG SIGHTINGS FILE NAME'
        READ(*,'(A10)')FILNAM
        CALL PF('GET','FILE3',FILNAM)
        PRINT* ,' ENTER THE MINIMUM WATER DEPTH FILE NAME'
```

```
      READ(*,'(A10)')FILNAM
      CALL PF('GET','FILE4',FILNAM)
      PRINT* ,' ENTER THE MAXIMUM WATER DEPTH FILE NAME'
      READ(*,'(A10)')FILNAM
      CALL PF('GET','FILE5',FILNAM)
      OPEN (1,FILE='FILE1')
      OPEN (2,FILE='FILE2')
      OPEN (3,FILE='FILE3')
      OPEN (4,FILE='FILE4')
      OPEN (5,FILE='FILE5')
      OPEN (6,FILE='FILE6')
      READ(1,*)((DRGHT(L,M),M=1,2),L=1,LL)
      READ(2,*)((SCLIFE(I,J),J=1,ICOL),I=1,IROW)
      READ(3,*)((BFRAC(I,J),J=1,ICOL),I=1,IROW)
      READ(4,*)((IMIN(I,J),J=1,ICOL),I=1,IROW)
      READ(5,*)((IMAX(I,J),J=1,ICOL),I=1,IROW)
CC
      I=1
      J=1
CC
CC
CC-----CALCULATE ICEBERG POPULATION FOR CURRENT ROW

CC
20    TOTAL1=TOTAL-((I-1)*CELL*BGLOSS)
CC
CC-----MODEL ALWAYS ASSUMES AT LEAST ONE BERG THROUGH ANY ROW
CC
      IF(TOTAL1 .LE. 0.0) TOTAL1=1.0
CC
CC-----CALCULATE 25 YR MEAN ANNUAL SIGHTINGS PER CELL
CC
      DO 30 J=1,ICOL
      SIGHT(I,J) = TOTAL1*BFRAC(I,J)
30    CONTINUE
CC
CC-----REPEAT CALCULATION OF SIGHTINGS FOR NEXT ROW
CC
      J=1
      I=I+1
      IF(I .LE. IROW) GO TO 20
      I=1
      J=1
CC
      OPEN (7,FILE='TAPE7')
```

```fortran
      OPEN (8,FILE='TAPE8')
CC
CC----BRANCH TO SELECTED OPTION
CC
45    GO TO (50,51,52,53),IOPT
CC
50    K = IMIN(I,J)
      K2=K+4 + ISCDEP + IMETER
      GO TO 55
CC
51    K=IMAX(I,J)
      K2=K+4 + ISCDEP + IMETER
      GO TO 55
CC
52    K=(IMIN(I,J)+IMAX(I,J))/2
      K2=K+4 + ISCDEP + IMETER
      GO TO 55
CC
53    K= IMIN(I,J)
      K2= IMAX(I,J) + 4 + ISCDEP + IMETER
55    GO TO (60,180),IOPT2
CC


CC
CC----CALCULATE SUM OF ICEBERG DRAUGHT FRACTIONS IN BATHYMETRIC WINDOW
CC
60    FRASUM = 0.0
      DO 160 L=1,LL
      IF(DRGHT(L,1).GE.K.AND.DRGHT(L,1).LE.K2) THEN
      FRASUM = FRASUM+DRGHT(L,2)
      ENDIF
160   CONTINUE
      GO TO 250
CC----BRANCH TO RE-ADJUST DRAUGHT DISTRIBUTION TABLE
CC
180   N=0
      SUM=0.0
      DO 185 L=1,LL
      IF(DRGHT(L,1).LE.K2) THEN
      SUM = SUM+DRGHT(L,2)
      N=N+1
      ENDIF
185   CONTINUE
CC
CC----NORMALIZE DRAUGHT FRACTIONS TO 100%
CC
```

```
      DO 190 L=1,N
      DRGHT(L,3)=DRGHT(L,2)/SUM
190   CONTINUE
CC
CC----CALCULATE SUM OF RE-ADJUSTED DRAUGHT FRACTIONS IN BATHYMETRIC RANGE
CC
      FRASUM = 0.0
      DO 200 L=1,LL
      IF(DRGHT(L,1).GE.K.AND.DRGHT(L,1).LE.K2) THEN
      FRASUM = FRASUM + DRGHT(L,3)
      ENDIF
200   CONTINUE
CC
CC----CALCULATE GROUNDINGS IN CELL(I,J)
CC
250   GROUND(I,J)= SIGHT(I,J) * FRASUM
      SCOURS(I,J)=GROUND(I,J)*SCLIFE(I,J)/AREA
      GROUND(I,J)= GROUND(I,J)*YEARS
CC
CC----REPEAT FOR NEXT COLUMN IN CURRENT ROW
CC
      J = J+1

      IF(J.LE.ICOL)GO TO 45
CC
CC----REPEAT CALCULATION FOR NEXT ROW
CC
      J=1
      I=I+1
      IF(I.LE.IROW)GO TO 45
300   CONTINUE
CC
400   WRITE(7,505)((GROUND(I,J),J=1,ICOL),I=1,IROW)
      WRITE(8,505)((SCOURS(I,J),J=1,ICOL),I=1,IROW)
      CLOSE (7,STATUS='KEEP')
      CALL PF('REPLACE','TAPE7','TAPE7')
      CLOSE (8,STATUS='KEEP')
      CALL PF('REPLACE','TAPE8','TAPE8')
505   FORMAT(F6.2)
      STOP
      END
END OF FILE
```

```fortran
      PROGRAM DIFFER
C     THIS PROGRAM CALCULATES THE DIFFERENCE BETWEEN THE NUMBER OF
C     GROUNDINGS IN EACH CELL FOR ANY TWO MODEL RUNS (DIFER=FILE1-FILE2).
C     THE RESULT CAN BE IMMEDIATELY PRINTED OR PLOTTED WITH CONMAP
      CALL SYSTEM (0,0)
      PRINT* ,'ENTER FILE NAME OF FIRST MODEL RUN'
      READ(*,'(A10)')FILNAM
      CALL PF('GET','FILE1',FILNAM)
      PRINT* ,'ENTER FILE NAME OF SECOND MODEL RUN'
      READ(*,'(A10)')FILNAM
      CALL PF('GET','FILE2',FILNAM)
      OPEN(1,FILE='FILE1')
      OPEN(2,FILE='FILE2')
10    READ(1,*,END=20)XLAT,XLON,GND1
      READ(2,*,END=20)XLAT,XLON,GND2
      GND3=GND1-GND2
      WRITE(3,25)XLAT,XLON,GND3
      GO TO 10
20    CONTINUE
25    FORMAT(3F10.5)
      PRINT* ,'ENTER OUTPUT FILE NAME'
      READ(*,'(A10)')FILNAM
      CALL SYSTEM(0,0)
      CALL PF('REPLACE','TAPE3',FILNAM)
      STOP
      END
  EOI ENCOUNTERED.
```

```
?? copy,kwikx
      PROGRAM KWIK
C     THIS PROGRAM MERGES OUTPUT FROM GROUNDING MODEL
C     WITH GEOGRAPHIC COORDINATES OF EACH RESPECTIVE CELL
      CALL SYSTEM (0,0)
      CALL PF('GET','TAPE7','TAPE7')
      OPEN(1,FILE='TAPE7')
      PRINT* ,'ENTER FILE NAME LISTING LAT/LONG OF EACH CELL'
      READ(*,'(A10)')FILNAM
      CALL PF('GET','FILE1',FILNAM)
      OPEN(2,FILE='FILE1')
10    READ(1,*,END=20)GROUND
      READ(2,*,END=20)XLAT,XLONG
      WRITE(3,25)XLAT,XLONG,GROUND
      GO TO 10
20    CONTINUE
25    FORMAT(3F10.5)
      PRINT* ,'ENTER OUTPUT FILE NAME'
      READ(*,'(A10)')FILNAM
      CALL SYSTEM(0,0)
      CALL PF('REPLACE','TAPE3',FILNAM)
      STOP
      END
 EOI ENCOUNTERED.
```

```
/copy,sum
      PROGRAM SUM
C     THIS PROGRAM CALCULATES TOTAL OF ALL GROUNDINGS
C     IN EACH CELL FROM GROUNDING OUTPUT
      CALL SYSTEM (0,0)
      PRINT* ,'ENTER FILE NAME LISTING OUTPUT OF MODEL RUN'
      READ(*,'(A10)')FILNAM
      CALL PF('GET','FILE1',FILNAM)
      OPEN(2,FILE='FILE1')
      TOTAL=0.0
10    READ(2,*,END=20)XLAT,XLON,GROUND
      TOTAL=TOTAL+GROUND
      GO TO 10
20    CONTINUE
      PRINT *,'TOTAL = ',TOTAL
      STOP
      END
  EOI ENCOUNTERED.
```

```
      PROGRAM ADD
      CHARACTER*20 FILNAM
      PRINT* ,' ENTER MODEL OUTPUT FILENAME'
      READ(*,'(A10)')FILNAM
      CALL PF('GET','FILE1',FILNAM)
      OPEN (1,FILE='FILE1')
      OPEN (2,FILE='TAPE2')
5     CONTINUE
      READ(1,*,END=30)XLAT,XLON,GRND
      WRITE(2,200) GRND,XLAT,XLON
200   FORMAT('AS C26 EQ ',F5.1,'* WH C24 EQ ',F8.4,' AND ',
     $'C25 EQ ',F8.4,';')
      GO TO 5
30    CONTINUE
      STOP
      END
 EOI ENCOUNTERED.
```

Sample listings of input files required to run iceberg grounding model.

```
999
999
999
999
999
999
999
131
146
194
265
335
291
296
394
330
326
294
280
283
310
296
272
260
230
233
225
220
220
222
250
550
700
999
999
999
999
999
999
999
999
999
999
999
999
999
999
999
999
999
```

Sample Listing - IMAX

```
999
999
999
999
999
999
999
267
226
329
336
347
338
311
318
338
340
335
306
310
320
320
317
302
280
256
250
248
244
334
600
999
999
999
999
999
999
999
999
999
999
999
999
999
999
999
999
999
999
999
999
```

Sample Listing - BFRAC

```
0.00132
0.01509
0.01889
0.02332
0.01766
0.01837
0.04309
0.04173
0.04303
0.02509
0.02538
0.03272
0.03094
0.03357
0.02567
0.02447
0.02196
0.02332
0.02647
0.02559
0.02499
0.01908
0.01884
0.02256
0.02339
0.02200
0.01612
0.01663
0.01570
0.01688
0.01558
0.01623
0.01519
0.01403
0.01389
0.01352
0.01327
0.01210
0.01309
0.01168
0.01031
0.00763
0.00677
0.00671
0.00698
0.00602
0.00550
0.00551
0.00634
0.00551
```

Sample Listing - SCLIFE

```
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
0100
```

48.9167	53.8738
48.9167	53.7476
48.9167	53.6213
48.9167	53.4951
48.9167	53.3689
48.9167	53.2427
48.9167	53.1164
48.9167	52.9902
48.9167	52.8640
48.9167	52.7378
48.9167	52.6116
48.9167	52.4853
48.9167	52.3591
48.9167	52.2329
48.9167	52.1067
48.9167	51.9804
48.9167	51.8542
48.9167	51.7280
48.9167	51.6018
48.9167	51.4756
48.9167	51.3493
48.9167	51.2231
48.9167	51.0969
48.9167	50.9707
48.9167	50.8444
48.9167	50.7182
48.9167	50.5920
48.9167	50.4658
48.9167	50.3396
48.9167	50.2133
48.9167	50.0871
48.9167	49.9609
48.9167	49.8347
48.9167	49.7085
48.9167	49.5822
48.9167	49.4560
48.9167	49.3298
48.9167	49.2036
48.9167	49.0773
48.9167	48.9511
48.9167	48.8249
48.9167	48.6987
48.9167	48.5725
48.9167	48.4462
48.9167	48.3200
48.9167	48.1938
48.9167	48.0676
48.9167	47.9413
48.9167	47.8151
48.9167	47.6889

The procedure files listed on the following pages are
all contained in the file SCOUR2 on account IAM2701. To invoke
any of the procedures, the user enters a command sequence

Begin,   name of procedure,scour2

For example, the name of the first procedure to gain access to
the regional ice scour data base is OPEN. Therefore to use this
procedure, the user types:

Begin,open,scour2   (return)

Note that all the procedures contained in SCOUR2 are for operations
concerning the regional ice scour data base.

```
.PROC,OPEN.
ATTACH,S2K=S2KM2RC/UN=LIBRARY.
S2K,C=COMM.
.DATA,COMM.
USER,EMG:DPN IS SCOUR2:ECHO OFF;COMMAND FILE IS INPUT;
```

```
.PROC,STORE.
RETURN,TAJJV1Y,TBJJV1Y,TCJJV1Y,TDJJV1Y,TEJJV1Y,TFJJV1Y.
ATTACH,TAJJV1Y,TBJJV1Y,TCJJV1Y,TDJJV1Y,TEJJV1Y,TFJJV1Y.
ARCPUT,TAJJV1Y,TBJJV1Y,TCJJV1Y,TDJJV1Y,TEJJV1Y,TFJJV1Y.
ARCPURG,TAJJV1Y,TBJJV1Y,TCJJV1Y,TDJJV1Y,TEJJV1Y,TFJJV1Y.
```

```
.PROC,RESTORE.
PURGE,TAJJV1Y,TBJJV1Y,TCJJV1Y,TDJJV1Y,TEJJV1Y,TFJJV1Y.
ARCGET,TAJJV1Y,TBJJV1Y,TCJJV1Y/OP=D. CHARGE=$AGC1,EMG$.
ARCGET,TDJJV1Y,TEJJV1Y,TFJJV1Y/OP=D. CHARGE=$AGC1,EMG$.
```

```
.PROC,KETREV,JOBNAME=PETREV,COMF=FILE,REPF=REPORT,PRINT=B.
SUBMIT,THIS,_PRINT_.
.DATA,THIS
/JOB
 JOBNAME,CM1000(0,T300.
7READ,ACCOUNT
ATTACH,S2K=S2KM2RC/UN=LIBRARY.
GET,_COMF_.
S2K.
IFE,FILE(_REPF_,LO),SAVIT.
GET,AUTOSAV/UN=LIBRARY.
BEGIN,,AUTOSAV,_REPF_.
REWIND,_REPF_.
ROUTE,_REPF_,DC=LP.
ENDIF,SAVIT.
DAYFILE,OKREV.
REPLACE,OKREV.
EXIT.
DAYFILE,NOREV.
REPLACE,NOREV.
/EOR
USER,EMG$
SHARED DPN IS SCOUR2;
COMMAND FILE IS _COMF_;
EXIT;
/EOR
```

```
.PROC,UPDATE,JOBNAME=UPDATE,COMF=FILE,PRINT=R.
SUBMIT,THIS,_PRINT_.
.DATA,THIS
/JOB
  JOBNAME,CM120000,T300.
7READ,ACCOUNT
*CHARGE,*.
ATTACH,S2K=S2KM2RO/UN=LIBRARY.
ATTACH,TAJJV1Y,TBJJV1Y,TCJJV1Y,TDJJV1Y,TEJJV1Y,TFJJV1Y.
ARCPUT,TAJJV1Y,TBJJV1Y,TCJJV1Y,TDJJV1Y,TEJJV1Y,TFJJV1Y.
ARCPURG,TAJJV1Y,TBJJV1Y,TCJJV1Y,TDJJV1Y,TEJJV1Y,TFJJV1Y.
GET,_COMF_.
S2K.
DAYFILE,OKUP.
REPLACE,OKUP.
EXIT.
DAYFILE,BADUP.
REPLACE,BADUP.
/EOR
USER,EMG;
DBN IS SCOUR2;
COMMAND FILE IS _COMF_;
EXIT;
/EOR

.PROC,LOAD.
SUBMIT (PROG,TO)
.DATA,PROG
/JOB
LOADJOB,CM120000,T0300.
/USER
CHARGE,AGC1,EMG.
ATTACH,ESRF2.
ATTACH,S2KM2RO/UN=LIBRARY.
GET,AUTOSAV/UN=LIBRARY.
S2KM2RO,M=ANYTHIN.
AUTOSAV,ANYTHIN.
EXIT.
/EOR
USER,EMG;DBN IS SCOUR2;
STOP AFTER SCAN IF ANY COMMANDS ARE REJECTED;
DATA FILE IS ESRF2;LOAD;EXIT;
```

```
.PROC,RADPAL,VVSN,CRUISE.
IFE,NUM(CRUISE),REVERT." CRUISE NO. IS NOT NUMERIC.
SUBMIT(PROG,R)
.DATA,PROG
/JOB
GEOPHY.,CM,50000.,TO100,NT1.
/READ,ACCOUNT
RESOURC,NT=1.
*REQUEST(TAPE2,D=PE,NT,PO=R,VSN=VVSN).
LABEL(TAPE2,D=PE,NT,PO=R,VSN=VVSN).
*GET,TAPE2=P2054.
COPYEI,TAPE2,RIDD IN.
UNLOAD(TAPE2)
REWIND,RIDD IN.
*SKIPP,TAPE2,3.
PURGE,GOODGEO/NA.
PURGE,BADGED/NA.
ATTACH,PLILGO/UN=CIC1RC1.
COPYBR,PLILGO,LGO,2.
FTN,L=0.
GET,GEOPHYS/UN=IAM2701.
ATTACH,PREFOR/UN=CIC18F1.
PREFOR,GEOPHYS,,D.
FTN,I=TAPE3,L=0.
COPYBF,PLILGO,LGO.
LDSET(PRESET=ZERO,MAP=SBEX/TEMP)
LOAD,LGO.
SYS.
DAYFILE,OUTPUT.
REPLACE,OUTPUT=GOODGEO.
EXIT.
REWIND,TEMP.
COPY,TEMP.
DAYFILE,OUTPUT.
REPLACE,OUTPUT=BADGEO.
/NOSEQ
/EOR
        BLOCK DATA ICEBERG
        INTEGER #CRUISE
        COMMON/#CRUISE/#CRUISE/
        DATA #CRUISE/54_CRUISE/
        END
/EOR
/EOF
```

```
.PROJ,CONM13,INETLE.
SUBMIT (PKRG,B)
.DATA,PROG
/JOB
CONJOB,CM130CCG,T2C0.
/READ,ACCOUNT
GET,CONMAP/UN=CIC4001.
ATTACH,TAPE8=WRLDMAP,TAPE9=WRLDCUT/UN=CIC4001.
FTN.
COPYLM,CONMAP,LGO,TEMP,A.
RENAME,CONMAP=TEMP.
GET,TAPE16=INFILE.
GET,7FTALIB/UN=LIBRARY.
LDSET,LIB=7FTALIB.
CONMAP.
REPLACE,TAPE13=7MAP.
GET,PLOTOFF/UN=LIBRARY.
PLOTOFF,STEVED,7738,PLTR=7,PFILE=TAPE13.
DAYFILE,OKCON.
REPLACE,OKCON.
EXIT.
DAYFILE,BADCON.
REPLACE,BADCON.
/EOR
/NOSEQ
      SUBROUTINE GETPT(ZLAT,ZLONG,ZP,END)
      KR=16
      END=0.0
10    READ(KR,*)ZP,ZLAT,ZLONG
      IF(EOF(KR).NE.0)GO TO 30
      RETURN
30    END=1.0
      RETURN
      END
/EOR
TTL  GRAND BANKS (ESRF) JULY 23 - OCCURRENCES
RGN    49.0        46.0      51.0        53.0
MAP     1     2     1   1.0                    37.00
GRD    -1   .05    45        8.0      0 0000
CON     8                    2
END
/EOR
*** PLOT OK IF LIMIT LIGHT COMES ON ***
```

```
.PROC,FLPOST,INFILE,OUTFILE.
SUBMIT,SUBJOB.
.DATA,SUBJOB.
/JOB
MYJOB,CM120000,T300.
/READ,ACCOUNT
GET,LAMPOST.
PURGE,OUTFILE/NA.
PURGE,YPOST/NA.
PURGE,NPOST/NA.
ATTACH,DISSPLA/UN=LIBRARY.
ATTACH,MAPDTA/UN=LIBRARY.
GET,TAPE3=INFILE.
FTN,REW,ER,I=LAMPOST,L=0.
ENQUIRE,F.
LDSET(PRESET=ZERO,LIB=DISSPLA).
LGO.
GET,AUTOSAV/UN=LIBRARY.
BEGIN,,AUTOSAV,PLFILE,OUTFILE.
DAYFILE,OUTPUT.
REPLACE,OUTPUT=YPOST.
EXIT.
DAYFILE,OUTPUT.
REPLACE,OUTPUT=NPOST.
ENQUIRE,F.
/NOSEQ
/EOR
2500000.  5X.  60.  12.  12.
-84.0 -40.0 44.0 75.0
START TIMES
     0
/EOR
```

```
.PROC,ZETPLOT,COMF=POSTFIL.
SUBMIT,ZJOB.
.DATA,ZJOB.
/JOB
GEOPLOT,CM120000,T300.
/READ,ACCOUNT
PURGE,POSG/NA.
PURGE,POSB/NA.
GET,PLOTOFF/UN=LIBRARY.
GET,PLFILE=COMF.
ATTACH,POPZETA/UN=LIBRARY.
POPZETA.
PLOTOFF,STEVE D,773R,R,20,Z,1,B X X X ,15,32,1,0,0,0,1,1,TAPE51,PSHEET.
DAYFILE,OUTPUT.
SAVE,OUTPUT=POSG.
EXIT.
DAYFILE,OUTPUT.
SAVE,OUTPUT=POSB.
/EOR
/NOSEQ
/EOR
/EOF
```