[redacted]

#528

PIONEER VENUS

HIGH RESOLUTION VENUS GRAVITY DATA

78-051A-21A

216

[redacted]

Table of Contents

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1. INTRODUCTION:

The documentation for this data set was originally on paper, kept in NSSDC's Data Set Catalogs (DSCs). The paper documentation in the Data Set Catalogs have been made into digital images, and then collected into a single PDF file for each Data Set Catalog. The inventory information in these DSCs is current as of July 1, 2004. This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system. The information existing in the DSCs is now not needed for locating the data files, but we did not remove that inventory information.

The offline tape datasets have now been migrated from the original magnetic tape to Archival Information Packages (AIP's).

A prior restoration may have been done on data sets, if a requestor of this data set has questions; they should send an inquiry to the request office to see if additional information exists.

2. ERRATA/CHANGE LOG:

NOTE: Changes are made in a text box, and will show up that way when displayed on screen with a PDF reader.

When printing, special settings may be required to make the text box appear on the printed output.

Version	Date	Person	Page	Description of Change
01				
02				

3 LINKS TO RELEVANT INFORMATION IN THE ONLINE NSSDC INFORMATION SYSTEM:

http://nssdc.gsfc.nasa.gov/nmc/

[NOTE: This link will take you to the main page of the NSSDC Master Catalog. There you will be able to perform searches to find additional information]

4. CATALOG MATERIALS:

a. Associated Documents To find associated documents you will need to know the document ID number and then click here. http://nssdcftp.gsfc.nasa.gov/miscellaneous/documents/

b. Core Catalog Materials

PIONEER VENUS 1

HIGH-RESOLUTION VENUS GRAVITY DATA

78-051A-21A PSCM-00015

THIS DATA SET HAS BEEN RESTORED. THERE WAS ORIGINALLY ONE 9-TRACK, 1600 BPI TAPE WRITTEN IN EBCDIC. THERE IS ONE RESTORED TAPE WRITTEN IN ASCII. THE TIME SPAN COULD NOT BE VERIFIED. THE DR TAPE IS A 3480 CARTRIDGE AND THE DS TAPE IS 9-TRACK, 6250 BPI. THE ORIGINAL TAPE WAS CREATED ON AN IBM 4341 COMPUTER AND WAS RESTORED ON AN IBM 9021 COMPUTER. THE DR AND DS NUMBER ALONG WITH THE CORRESPONDING D NUMBER AND TIME SPAN IS AS FOLLOWS:

DR#	DS#	D#	FILES	TIME SPAN
DR005386	DS005386	D047127	6	04/25/79 - 05/28/79

PIONEER VENUS 1

GRAVIT POTENTIAL MODEL BETA REGIO

78-051A-21B PSCM-00024

This data set has been restored. Originally there was one 9-track, 1600 BPI tape, written in EBCDIC. There is one restored tape. The original tape was created on an IBM 4341 computer and was restored on an IBM 9021 computer. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The DR and DS number along with their corresponding D number and time span is as follows:

DR#	DS#	DD#	FILES	TIME SPAN
DR-005503	DS-005503	DD-048961	2	04/25/79 - 05/28/79

REQ. AGENT	RAND NO.	ACQ. AGENT
DEW	V0122	WSC

PIONEER VENUS

HIGH RESOLUTION VENUS GRAVITY DATA

78-051A-21A

78-051A-21B

This data set catalog consists of 2 tapes. The tapes are multi-filed, 9-track, 1600 BPI, and EBCDIC formatted. The first file is written by file 3 and is listed by file 4, both fortran programs. The 2nd file is written and listed by the fortran programs in files 5 and 6. The tapes were made on the IBM 4341 computer. The D and C numbers along with their time span is as follows:

78-051A-21A

D#	C#	TIME SPAN
D-47127	C-22142	04/25/79 - 05/28/79

78-051A-21B

D-48961	C-22456	04/25/79 - 05/28/79

DEPARTMENT OF EARTH AND PLANETARY SCIENCES

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

CAMBRIDGE, MASSACHUSETTS 02139

54-612
15 July 1982

Dr. H. K. Hills
National Space Science Data Center
M/S 601
Goddard Space Flight Center
Greenbelt, MD 20771

Re: Pioneer (12) Venus Orbiter celestial mechanics data.

Dear Ken:

The enclosed tape contains a model of the gravitational potential of Venus in the vicinity of Beta Regio. The model is discussed by Reasenberg et al. [GRL, 9, 637-640, 1982]; a preprint is enclosed and I will send you a reprint when it becomes available. Also enclosed is the computer print from the jobs that wrote and read back the tape. This listing contains the data on the tape and the four FORTRAN programs used to write and read the tape.

The data are on the tape in the same form and FORMAT as on our previous tape which came with my letter of 28 July 1981. The tape was written by the OS simulator under CP-CMS (VM/SP) on an IBM model 4341. It is unlabeled (NL) and has a density of 1600 BPI (DEN=3). The first file was written by the FORTRAN program in file 3 and was listed by the FORTRAN program in file 4 of the previous tape. These programs read and write the tape under FORMAT control; this "card image" form of the data is probably more convenient for users who use non-IBM type systems. The DCB for file 1 is: RECFM=FB, LRECL=80, BLKSIZE= 8000.

The second file, which contains the same information as the first file, was written and listed by the FORTRAN programs in files 5 and 6, respecively, of the previous tape. These programs do unformatted reads and writes; file 2 is best suited for users who use IBM compatible systems. The DCB for file 2 is: RECFM=VBS, BLKSIZE=6232.

Since you have received data in this form from us before, I don't anticipate that you will have any difficulty with this tape. However, should you have any questions, we would be happy to try to answer them. The control language that appears in the listing is at least partially nonstandard; it is not expected to be intelligible to your staff. The tape was prepared by Zachary Goldberg. He can be reached at his MIT office, Tel. (617) 253-7795, during the late afternoon and evening.

Kind regards,

Robert D. Reasenberg
(617) 253-7064

RDR/jlc

xc: Z. M. Goldberg
I. I. Shapiro

DEPARTMENT OF EARTH AND PLANETARY SCIENCES

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
CAMBRIDGE, MASSACHUSETTS 02139

54-612
July 28, 1981

Dr. H. K. Hills
National Space Science Data Center
M/S 601
Goddard Space Flight Center
Greenbelt, MD 20771

Re: Pioneer (12) Venus Orbiter celestial mechanics data; phone conversation of 2 July 1981.

Dear Ken:

As per the referenced conversation, enclosed are three items: (1) a computer tape as described below, (2) the computer print associated with the writing of the tape, and (3) a preprint of our paper on Venus gravity. The paper will appear soon with identification number 1B0747 in J. Geophys. Res. I will send you one of the reprints when I get them.

The tape has six files, two containing the Venus gravity data discussed in the enclosed paper and four containing short FORTRAN programs. We have represented the nonspherical part of the external potential of Venus by a surface mass density in units of "nano planet masses per square degree." The more familiar mGal of acceleration at the surface of the reference sphere (R = 6052 km) is obtained by multiplying by (approximately) 17.7. Where no gravity information is available, the data are set to zero; this should not be taken to indicate the surface mass density at these points has been found to be zero.

The tape was written by the OS simulator under CP-CMS(VM/SP) on an IBM mimicking Itel NAS/7031. It is unlabeled (NL) and has a density of 1600 BPI (DEN=3). The first file was written by the FORTRAN program in file 3 and was listed by the FORTRAN program in file 4. These programs read and write the tape under FORMAT control; this "card image" form of the data is probably more convenient for users who use non-IBM type systems. The DCB for file 1 is: RECFM=FB, LRECL=80, BLKSIZE= 8000.

The second file, which contains the same information as the first file, was written and listed by the

FORTRAN programs in files 5 and 6, respectively. These programs do unformatted reads and writes; file 2 is best suited for users who use IBM compatible systems. The DCB for file 2 is: RECFM=VBS, BLKSIZE=6232.

Each of the four FORTRAN programs can be found in three places; (1) in files 3 through 6 which are card image with DCB = (RECFM=FB, LRECL=80, BLKSIZE=6160); (2) in the listing where the programs are shown compiled and executed; and (3) at the end of the listing where the programs are copied back from the tape.

Our limited experience with exporting these data indicates that our documentation is adequate. However, should you have any questions, we would be happy to try to answer them. The control language that appears in the listing is at least partially nonstandard; it is not expected to be intelligible to your staff. The tape was prepared by Zachary Goldberg. He can be reached at his MIT office, Tel. (617) 253-7795, during the late afternoon and evening.

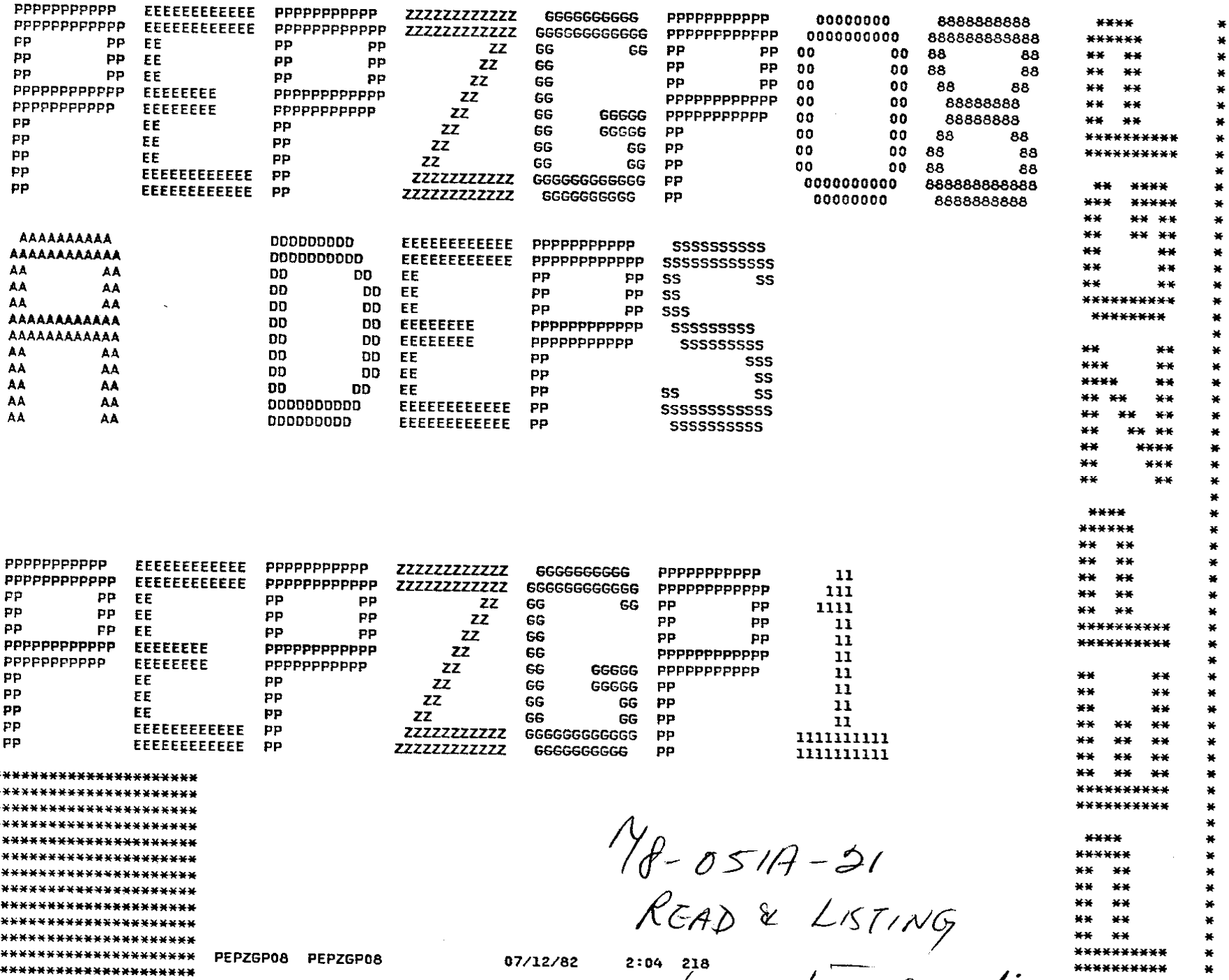
Sincerely,

Bob Reasenberg

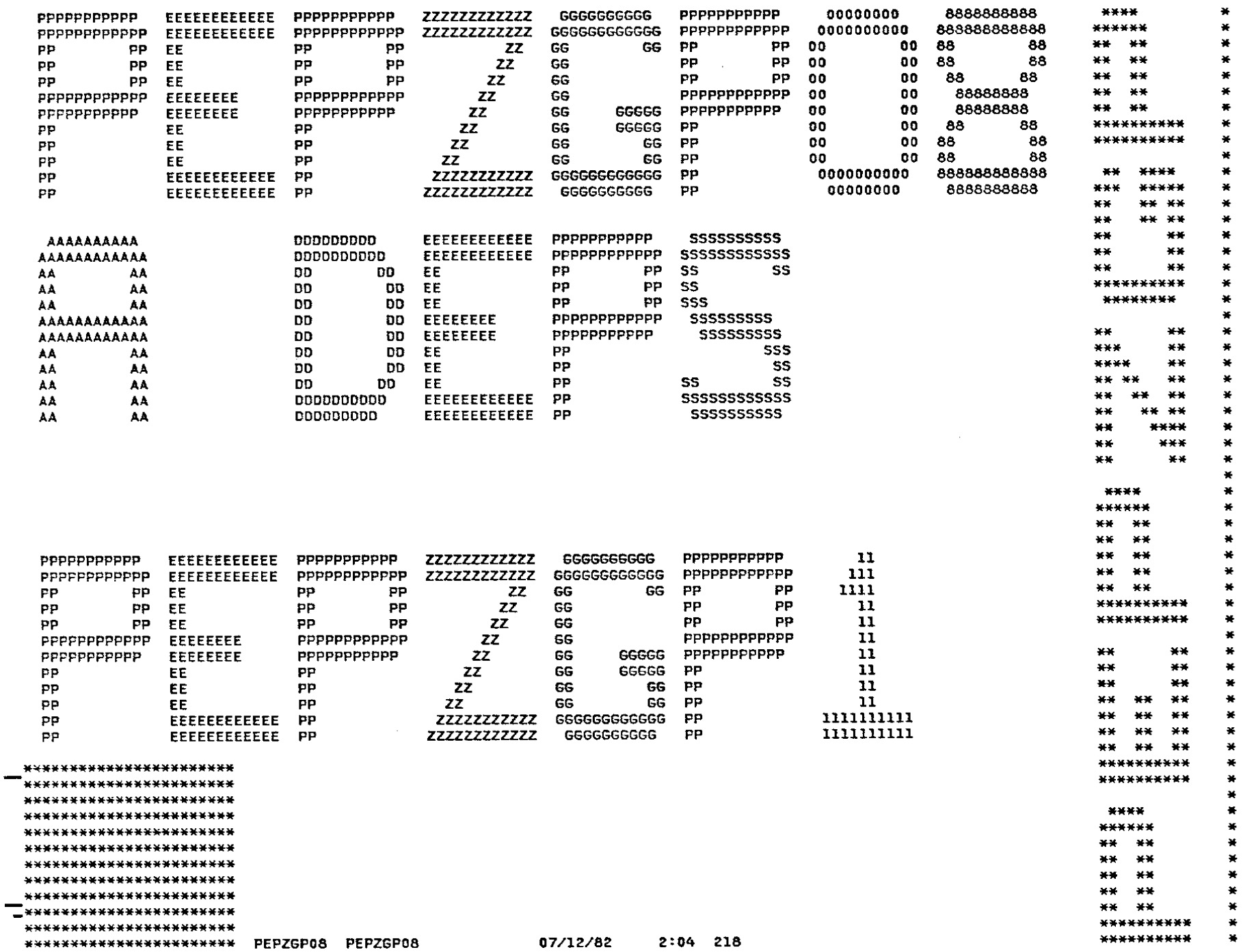
Robert D. Reasenberg
(617) 253-7064

db

xc: Z. M. Goldberg
I. I. Shapiro



78-051A-21
READ & LISTING
from data supplier


PEPZGP08 PEPZGP08 07/12/82 2:04 218

```
//PEPZGP08 JOB (3951GP,,PEPZGP1,DEPS,),                                  CMSPRT
// PEPZGP08,TIME=0003
LOG IEF403I PEPZGP08 STARTED TIME=22.30.21
LOG PEPSPOOL  1.2  1981 SEP 8
LOG PEPWTR04  FILE 0698 REQUESTED
LOG PEPWTR05  FILE=4865 ORIG=NET7031  RCDS=000121 CL=P FLAGS=00 00
LOG PEPWTR06  SPOOLING FILE PEPZGP08     0698         07/11/82 22:30:04
LOG PEPWTR30  CLOSING VS1 OUTPUT DATASET
LOG PEPWTR41  ENDING, NO RESTART
LOG PEPSPOOL  1.2  1981 SEP 8
LOG PEPWTR04  FILE 0701 REQUESTED
LOG PEPWTR05  FILE=4866 ORIG=NET7031  RCDS=006648 CL=P FLAGS=00 00
LOG PEPWTR06  SPOOLING FILE PEPZGP08     0701         07/11/82 22:30:04
LOG PEPWTR30  CLOSING VS1 OUTPUT DATASET
LOG PEPWTR41  ENDING, NO RESTART
LOG PEPSPOOL  1.2  1981 SEP 8
LOG PEPWTR04  FILE 0720 REQUESTED
LOG PEPWTR05  FILE=4864 ORIG=NET7031  RCDS=000121 CL=P FLAGS=00 00
LOG PEPWTR06  SPOOLING FILE PEPZGP08     0720         07/11/82 22:30:03
LOG PEPWTR30  CLOSING VS1 OUTPUT DATASET
LOG PEPWTR41  ENDING, NO RESTART
LOG PEPSPOOL  1.2  1981 SEP 8
LOG PEPWTR04  FILE 0722 REQUESTED
LOG PEPWTR05  FILE=4863 ORIG=NET7031  RCDS=006592 CL=P FLAGS=00 00
LOG PEPWTR06  SPOOLING FILE PEPZGP08     0722         07/11/82 22:29:54
LOG PEPWTR30  CLOSING VS1 OUTPUT DATASET
LOG PEPWTR41  ENDING, NO RESTART
LOG IEF404I PEPZGP08 ENDED   TIME=22.31.24
***SRI D
//JOBLIB DD DSN=USER.$395102.SPOOLLIB,DISP=OLD
// DD DSN=SYS1.VMWTR,DISP=OLD
// EXEC PGM=PEPSPOOL,PARM=698
//SYSPRINT DD SYSOUT=A,
// DCB=BLKSIZE=2036,
// COPIES=1,CHARS=GT15,FCB=LPI8,DEST=CENTRAL
IEF236I ALLOC. FOR PEPZGP08
IEF237I 148   ALLOCATED TO JOBLIB
IEF237I 14B   ALLOCATED TO
IEF142I - STEP WAS EXECUTED - COND CODE 0000
IEF285I   USER.$395102.SPOOLLIB                          PASSED
IEF285I   VOL SER NOS= USR007.
IEF285I   SYS1.VMWTR                                     PASSED
IEF285I   VOL SER NOS= USR006.
IEF373I STEP /        / START 82192.2230
IEF374I STEP /        / STOP  82192.2230 CPU   0MIN 00.28SEC STOR VIRT 150K
********************************************************************************************************************************
*   END STEP =              CLOCK = 22.30.25        DA =       1    CORE = 640K     CPU TIME =     0.28 SEC    PGM = PEPSPOOL     *
*        JOB = PEPZGP08      DATE =  7/11/82      TAPE =       0    USED = 150K    OCCUPANCY =     0.31 SEC     CC =     0       *
********************************************************************************************************************************
// EXEC PGM=PEPSPOOL,PARM=701
//SYSPRINT DD SYSOUT=A,
// DCB=BLKSIZE=2036,
// COPIES=1,CHARS=GT15,FCB=LPI8,DEST=CENTRAL
IEF236I ALLOC. FOR PEPZGP08
IEF237I 148   ALLOCATED TO JOBLIB
IEF237I 14B   ALLOCATED TO
IEF142I - STEP WAS EXECUTED - COND CODE 0000
IEF285I   USER.$395102.SPOOLLIB                          PASSED
IEF285I   VOL SER NOS= USR007.
IEF285I   SYS1.VMWTR                                     PASSED
```

```
IEF285I   VOL SER NOS= USR006.
IEF373I STEP /        / START 82192.2230
IEF374I STEP /        / STOP  82192.2230 CPU    0MIN 04.77SEC STOR VIRT 156K
*****************************************************************************************************************************
*   END STEP =               CLOCK = 22.30.52        DA =       1    CORE = 640K     CPU TIME =     4.77 SEC    PGM = PEPSPOOL     *
*        JOB = PEPZGP08       DATE =  7/11/82       TAPE =       0    USED = 156K     OCCUPANCY =    4.80 SEC     CC =     0        *
*****************************************************************************************************************************
// EXEC PGM=PEPSPOOL,PARM=720
//SYSPRINT DD SYSOUT=A,
// DCB=BLKSIZE=2036,
// COPIES=1,CHARS=GT15,FCB=LPI8,DEST=CENTRAL
IEF236I ALLOC. FOR PEPZGP08
IEF237I 148   ALLOCATED TO JOBLIB
IEF237I 14B   ALLOCATED TO
IEF142I - STEP WAS EXECUTED - COND CODE 0000
IEF285I   USER.$395102.SPOOLLIB                          PASSED
IEF285I   VOL SER NOS= USR007.
IEF285I   SYS1.VMWTR                                     PASSED
IEF285I   VOL SER NOS= USR006.
IEF373I STEP /        / START 82192.2230
IEF374I STEP /        / STOP  82192.2230 CPU    0MIN 00.26SEC STOR VIRT 156K
*****************************************************************************************************************************
*   END STEP =               CLOCK = 22.30.56        DA =       1    CORE = 640K     CPU TIME =     0.26 SEC    PGM = PEPSPOOL     *
*        JOB = PEPZGP08       DATE =  7/11/82       TAPE =       0    USED = 156K     OCCUPANCY =    0.29 SEC     CC =     0        *
*****************************************************************************************************************************
// EXEC PGM=PEPSPOOL,PARM=722
//SYSPRINT DD SYSOUT=A,
// DCB=BLKSIZE=2036,
// COPIES=1,CHARS=GT15,FCB=LPI8,DEST=CENTRAL
//
IEF236I ALLOC. FOR PEPZGP08
IEF237I 148   ALLOCATED TO JOBLIB
IEF237I 14B   ALLOCATED TO
IEF142I - STEP WAS EXECUTED - COND CODE 0000
IEF285I   USER.$395102.SPOOLLIB                          PASSED
IEF285I   VOL SER NOS= USR007.
IEF285I   SYS1.VMWTR                                     PASSED
IEF285I   VOL SER NOS= USR006.
IEF373I STEP /        / START 82192.2230
IEF374I STEP /        / STOP  82192.2231 CPU    0MIN 04.74SEC STOR VIRT 156K
*****************************************************************************************************************************
*   END STEP =               CLOCK = 22.31.22        DA =       1    CORE = 640K     CPU TIME =     4.74 SEC    PGM = PEPSPOOL     *
*        JOB = PEPZGP08       DATE =  7/11/82       TAPE =       0    USED = 156K     OCCUPANCY =    4.77 SEC     CC =     0        *
*****************************************************************************************************************************
IEF285I   USER.$395102.SPOOLLIB                          KEPT
IEF285I   VOL SER NOS= USR007.
IEF285I   SYS1.VMWTR                                     KEPT
IEF285I   VOL SER NOS= USR006.
IEF298I  PEPZGP08 SYSOUT=A.
IEF375I  JOB /PEPZGP08/ START 82192.2230
IEF376I  JOB /PEPZGP08/ STOP  82192.2231 CPU    0MIN 10.05SEC
*****************************************************************************************************************************
*   END JOB = PEPZGP08       CLOCK = 22.31.23     DATE =  7/11/82     INPUT CARDS =        0        JOB CPU TIME =    10.05 SEC    *
*****************************************************************************************************************************
```

```
*BEGIN PEPBAT JOB PEPZGP1 AT 16:29:02 ON 07/09/82

================================================================================

JOB SUBMITTED BY: PEPZGP

STORAGE = 06144K

SPRBAT010I SPOOL DEVICE CHARACTERISTICS
RDR  00C CL A     CONT NOHOLD    EOF       READY
PUN  00D CL A     CONT NOHOLD COPY 001    READY FORM STANDARD
     00D TO  PEPZGP    DIST PEPBAT
PRT  00E CL A     CONT NOHOLD COPY 001    READY FORM STANDARD
     00E TO  PEPZGP    DIST PEPBAT     FLASHC 000
     00E FLASH         CHAR        MDFY        FCB
PUN  013 CL L     CONT NOHOLD COPY 001    READY FORM STANDARD
     013 TO  PEPMNT    DIST PEPBAT

SPRBAT011I INITIAL DISK ALLOCATIONS
LABEL  CUU M  STAT CYL TYPE BLKSIZE     FILES  BLKS USED-(%) BLKS LEFT  BLK TOTAL
BAT195 195 A    R/W 150 3350  4096          0          6- 0      17994      18000
MNT193 293 P/A R/O  60 3350  1024       1405       25283-94       1717      27000
MNT194 294 Q/A R/O  10 3350  1024        505        3357-75       1143       4500
MNT195 295 R/A R/O 150 3350  4096         83       17821-99        179      18000
MNT190 190 S    R/O 115 3330  1024        180       15747-66       8288      24035
BAT196 196 X    R/W   2 3350  1024          4          78- 9        822        900
MNT19E 19E Y/S R/O 150 3350  4096        751       12997-72       5003      18000

SPRBAT012I FOLLOWING GLOBAL DEFINITIONS IN  EFFECT
MACLIB   = CMSIO    CMSCLIB  DMSSP    CMSLIB   OSMACRO  OSMACRO1
TXTLIB   = EISPACK  PLILIB   FORTMOD2 CMSLIB
DOSLIB   = NONE
LOADLIB  = NONE

================================================================================



/SET TIME 1500 PRINT 50000 PUNCH 100000

EXEC SPRLNK PEPZGP 191 B
DASD 197 LINKED R/O; R/W BY PEPZGP
DMSACC723I B (197) R/O
R; T=0.16/0.27 16:29:15N

EXEC SPRLNK PEPZGP 192 D
DASD 198 LINKED R/O; R/W BY PEPZGP
DMSACC723I D (198) R/O
R; T=0.13/0.22 16:29:17N

EXEC EXPORTF
EXEC SPRLNK PEPZGP 193 E
DASD 199 LINKED R/O; R/W BY PEPZGP
DMSACC723I E (199) R/O
COPIN C* EXPORTF B
R * EXPORTF A = FORTRAN =
EXEC SPRFTH CW NOCHANGE TERM ( PRINT OPT ( 2 ) MAP XREF GOSTMT

FORTRAN H EXTENDED COMPILER ENTERED
```

```
*STATISTICS*     SOURCE STATEMENTS =      25, PROGRAM SIZE =     3204, SUBPROGRAM NAME =  MAIN

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                    4854K BYTES OF CORE NOT USED
SFRBTP082I <<<<<<<< SPRFTH CW RC= 0 >>>>>>>>
EXEC SFRFTH CR NOCHANGE TERM ( PRINT OPT ( 2 ) MAP XREF GOSTMT

FORTRAN H EXTENDED COMPILER ENTERED

*STATISTICS*     SOURCE STATEMENTS =      33, PROGRAM SIZE =     3324, SUBPROGRAM NAME =  MAIN

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                    4854K BYTES OF CORE NOT USED
SFRBTP082I <<<<<<<< SPRFTH CR RC= 0 >>>>>>>>
EXEC SPRMNT PT1717 1600 181 W ( NOWAIT
MOUNT PT1717 VADDR 181 DEN 1600 RING=IN
SFRMNT301A PEPBAT SLOT=PT1717 RING=IN **** (JOB=PEPZGP1 WAIT=15 MINS )
DMSMNT000I REQUEST SENT TO 'MOUNT' FOR SLOT=PT1717, VADDR=181
EXEC SPRWMT W181 ( 60
TAPE 181 ATTACHED
TAPE REW
DMSEXEC W SYSIN 05 A4 ( FROM 1 FOR * EOF
+++ R(00115) +++
FI SYSPRINT PR
FI 05 DISK SYSIN 05 A4
FI 06 PR
FI 10 DISK C547ZM03 OUT E4 ( RECFM VBS BLOCK 6232
FI 20 TAPI NL 1 ( RECFM FB LRECL 80 BLOCK 8000
LOAD CW ( START NOMAP
DMSLIO740I EXECUTION BEGINS...
TAPE WTM 2
TAPE REW
FI SYSPRINT PR
FI 05 DUMMY
FI 06 PR
FI 10 TAPI NL 1 ( RECFM FB LRECL 80 BLOCK 8000
LOAD CR ( START NOMAP
DMSLIO740I EXECUTION BEGINS...
EXEC SFRDSM 181
TAPE 181 DETACHED
R; T=16.75/28.95 16:32:56N

EXEC SPREND
```

COMMAND	DATE	TIME	COST	CPU	CONNECT	PAGES	SIO	SPOOL
LOGON	07/09/82	16:29:12	$0.09	0	0	47	161	0
SFRLNK	PEPZGP	16:29:15	$0.06	0	0	6	84	1
SPRLNK	PEPZGP	16:29:17	$0.04	1	0	6	63	1
EXFORTF		16:32:56	$3.21	29	3	30	759	6651
LOGOFF	07/09/82	16:32:57	$3.42	30	3	91	1092	6654

*END PEPBAT AT 16:32:57 ON 07/09/82

REQUESTED OPTIONS: OPT(2) MAP XREF GOSTMT

OPTIONS IN EFFECT: NAME(MAIN) OPTIMIZE(2) LINECOUNT(60) SIZE(MAX) AUTODBL(NONE)
SOURCE EBCDIC NOLIST NODECK OBJECT MAP NOFORMAT GOSTMT XREF NOALC NOANSF TERM IBM FLAG(I)

```
                C
                C       COPY CONTOUR OUTPUT DATASET TO MAGTAPE FOR EXPORT.
                C           (WITH TITLE RECORDS, NO REFORMATTING)
                C
                C       (Z. GOLDBERG -- JULY 4,1980)
                C
                C       VERSION F:  FORTRAN FORMATTED TAPE I/O
                C
                C
  ISN 0002            REAL LAT(201) ,LON(201), DATA(201)
  ISN 0003            REAL*8 TITLIN(10), EOF/'ENDTITLE'/
  ISN 0004            DATA IN/10/, IOUT/20/, INTITL/5/
                C
                C
                C
                C       READ TITLE FROM CONTROL FILE & COPY TO TAPE.
                C
                C           TITLE CONSISTS OF AN ARBITRARY NUMBER OF 80-BYTE RECORDS
                C           (I.E. CARD IMAGES) THE LAST OF WHICH CONTAINS THE DELIMITER
                C           'ENDTITLE' IN THE FIRST 8 BYTES.
                C
  ISN 0005        10 CONTINUE
  ISN 0006           READ(INTITL,20) TITLIN
  ISN 0007           WRITE(IOUT,20) TITLIN
  ISN 0008        20 FORMAT(10A8)
  ISN 0009           IF(TITLIN(1).NE.EOF) GO TO 10
                C
                C
                C
                C       READ GRID PARAMETERS FROM CONTOUR OUTPUT FILE & COPY TO TAPE.
                C
                C           THESE DEFINE A GRID OF LATITUDE & LONGITUDE LINES AT WHOSE
                C           INTERSECTIONS SOME GEOPHYSICAL QUANTITY HAS BEEN ESTIMATED.
                C
                C           INTEGERS NLAT & NLON ARE (RESPECTIVELY) THE NUMBER OF
                C           LATITUDE & LONGITUDE LINES IN THE GRID.
                C
  ISN 0011            READ(IN) NLAT,NLON
  ISN 0012            WRITE(IOUT,30) NLAT,NLON
  ISN 0013        30 FORMAT(2I10)
                C
  ISN 0014            READ(IN) (LAT(I),I=1,NLAT)
  ISN 0015            WRITE(IOUT,40) (LAT(I),I=1,NLAT)
                C
                C           REAL ARRAYS LAT & LON CONTAIN THE VALUES (IN DEGREES) OF
                C           THE LATITUDE & LONGITUDE ALONG EACH LINE.
                C
  ISN 0016            READ(IN) (LON(J),J=1,NLON)
  ISN 0017            WRITE(IOUT,40) (LON(J),J=1,NLON)
                C
                C
                C
                C       READ DATA RECORDS FROM CONTOUR OUTPUT FILE & COPY TO TAPE.
```

```
                C
                C           EACH OF THE REMAINING RECORDS CONTAINS A VECTOR OF VALUES
                C           OF THE ESTIMATED QUANTITY ALONG A SINGLE LATITUDE LINE,
                C           WITH THE J-TH VALUE OF THE I-TH SUCH RECORD CORRESPONDING
                C           TO LAT(I) & LON(J).
                C
ISN 0018              DO 50 I=1,NLAT
ISN 0019              READ(IN) (DATA(J),J=1,NLON)
ISN 0020              WRITE(IOUT,40) (DATA(J),J=1,NLON)
ISN 0021           40 FORMAT(5E16.8)
ISN 0022           50 CONTINUE
                C
                C
ISN 0023              REWIND IN
ISN 0024              END FILE IOUT
                C
ISN 0025              STOP
ISN 0026              END
```

*****F O R T R A N C R O S S R E F E R E N C E L I S T I N G*****

SYMBOL	INTERNAL STATEMENT NUMBERS											
I	0014	0014	0014	0015	0015	0015	0018					
J	0016	0016	0016	0017	0017	0017	0019	0019	0019	0020	0020	0020
IN	0004	0011	0014	0016	0019	0023						
EOF	0003	0003	0009									
LAT	0002	0014	0015									
LON	0002	0016	0017									
DATA	0002	0019	0020									
IOUT	0004	0007	0012	0015	0017	0020	0024					
NLAT	0011	0012	0014	0015	0018							
NLON	0011	0012	0016	0017	0019	0020						
INTITL	0004	0006										
TITLIN	0003	0006	0007	0009								

*****F O R T R A N C R O S S R E F E R E N C E L I S T I N G*****

LABEL	DEFINED	REFERENCES
10	0005	0009
20	0008	0006 0007
30	0013	0012
40	0021	0015 0017 0020
50	0022	0018

/ MAIN / SIZE OF PROGRAM 000C84 HEXADECIMAL BYTES

NAME	TAG	TYPE	ADD.	NAME	TAG	TYPE	ADD.	NAME	TAG	TYPE	ADD.	NAME	TAG	TYPE	ADD.
I	SF	I*4	00009C	J	F	I*4	0000A0	IN	F	I*4	0000A4	EOF		R*8	0000B8
LAT	SF	R*4	0000C0	LON	SF	R*4	0003E4	DATA	SF	R*4	000708	IOUT	F	I*4	0000A8
NLAT	SF	I*4	0000AC	NLON	SF	I*4	0000B0	IBCOM#	F XF	I*4	000000	INTITL	F	I*4	0000B4
TITLIN	SF	R*8	000A30												

SOURCE STATEMENT LABELS

LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR

10 5 000A94 50 22 000C3C

COMPILER GENERATED LABELS

LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR
100000	1	000A8C	100001	11	000ADC	100010	19	000BDE	100015	23	000C40

FORMAT STATEMENT LABELS

LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR
20	8	000028	30	13	00002E	40	21	000034			

*OPTIONS IN EFFECT*NAME(MAIN) OPTIMIZE(2) LINECOUNT(60) SIZE(MAX) AUTODBL(NONE)

*OPTIONS IN EFFECT*SOURCE EBCDIC NOLIST NODECK OBJECT MAP NOFORMAT GOSTMT XREF NOALC NOANSF TERM IBM FLAG(I)

STATISTICS SOURCE STATEMENTS = 25, PROGRAM SIZE = 3204, SUBPROGRAM NAME = MAIN

STATISTICS NO DIAGNOSTICS GENERATED

****** END OF COMPILATION ******

4854K BYTES OF CORE NOT USED

REQUESTED OPTIONS: OPT(2) MAP XREF GOSTMT

OPTIONS IN EFFECT: NAME(MAIN) OPTIMIZE(2) LINECOUNT(60) SIZE(MAX) AUTODBL(NONE)
SOURCE EBCDIC NOLIST NODECK OBJECT MAP NOFORMAT GOSTMT XREF NOALC NOANSF TERM IBM FLAG(I)

```
                C
                C       LIST EXPORT-FORMAT COPY OF CONTOUR OUTPUT DATASET.
                C            (WITH MINOR EDITING/REFORMATTING)
                C
                C        (Z. GOLDBERG -- JULY 4,1980)
                C
                C       VERSION F:  FORTRAN FORMATTED TAPE I/O
                C
                C
   ISN 0002           REAL LAT(201), LON(201), DENS(201)
   ISN 0003           REAL*8 TITLIN(10), EOF/'ENDTITLE'/
   ISN 0004           DATA IN/10/, IOUT/6/, J1/1/
                C
                C
   ISN 0005           WRITE(IOUT,1)
   ISN 0006         1 FORMAT('1 ')
                C
                C       READ & PRINT TITLE RECORDS FROM INPUT TAPE.
                C
   ISN 0007         5 CONTINUE
   ISN 0008           READ(IN,10) TITLIN
   ISN 0009        10 FORMAT(10A8)
                C
                C       (DON'T PRINT DELIMITER.)
                C
   ISN 0010           IF(TITLIN(1).EQ.EOF) GO TO 20
   ISN 0012           WRITE(IOUT,15) TITLIN
   ISN 0013        15 FORMAT(X,10A8)
   ISN 0014           GO TO 5
                C
                C
                C
                C       WRITE COLUMN HEADINGS.
                C
   ISN 0015        20 CONTINUE
   ISN 0016           WRITE(IOUT,25)
   ISN 0017        25 FORMAT(///16X,'LATITUDE',3X,'LONGITUDE',5X,'DENSITY'/X)
                C
                C
                C       READ & STORE GRID PARAMETERS.
                C
   ISN 0018           READ(IN,30) NLAT,NLON
   ISN 0019           READ(IN,35) (LAT(I),I=1,NLAT)
   ISN 0020           READ(IN,35) (LON(J),J=1,NLON)
   ISN 0021        30 FORMAT(2I10)
   ISN 0022        35 FORMAT(5E16.8)
                C
                C
                C
                C       FOR EACH LATITUDE LINE, READ IN VECTOR OF SURFACE DENSITIES.
                C           PRINT EACH VALUE ON A SEPARATE LINE OF TABLE, PRECEDED BY
                C           CORRESPONDING LATITUDE (FOR 1ST VALUE IN VECTOR) &
                C           LONGITUDE (FOR EACH VALUE), PRECEDED IN TURN BY INDICES OF
```

```
                C            LATITUDE LINE (FOR 1ST VALUE) & LONGITUDE LINE (FOR EACH).
                C
 ISN 0023             DO 100 I=1,NLAT
 ISN 0024             READ(IN,35) (DENS(J),J=1,NLON)
                C
 ISN 0025             WRITE(IOUT,40) I ,J1 ,LAT(I) ,LON(J1) ,DENS(J1)
 ISN 0026          40 FORMAT(2I6,3F12.5)
                C
 ISN 0027             DO 50 J=2,NLON
 ISN 0028             WRITE(IOUT,45) J, LON(J), DENS(J)
 ISN 0029          45 FORMAT(I12,F24.5,F12.5)
 ISN 0030          50 CONTINUE
                C
 ISN 0031         100 CONTINUE
                C
                C
 ISN 0032             REWIND IN
 ISN 0033             STOP
 ISN 0034             END
```

*****F O R T R A N C R O S S R E F E R E N C E L I S T I N G*****

SYMBOL	INTERNAL STATEMENT NUMBERS								
I	0019	0019	0019	0023	0025	0025			
J	0020	0020	0020	0024	0024	0024	0027	0028	0028	0028
IN	0004	0008	0018	0019	0020	0024	0032			
J1	0004	0025	0025	0025						
EOF	0003	0003	0010							
LAT	0002	0019	0025							
LON	0002	0020	0025	0028						
DENS	0002	0024	0025	0028						
IOUT	0004	0005	0012	0016	0025	0028				
NLAT	0018	0019	0023							
NLON	0018	0020	0024	0027						
TITLIN	0003	0008	0010	0012						

*****F O R T R A N C R O S S R E F E R E N C E L I S T I N G*****

LABEL	DEFINED	REFERENCES		
1	0006	0005		
5	0007	0014		
10	0009	0008		
15	0013	0012		
20	0015	0010		
25	0017	0016		
30	0021	0018		
35	0022	0019	0020	0024
40	0026	0025		
45	0029	0028		
50	0030	0027		
100	0031	0023		

/ MAIN / SIZE OF PROGRAM 000CFC HEXADECIMAL BYTES

NAME	TAG	TYPE	ADD.	NAME	TAG	TYPE	ADD.	NAME	TAG	TYPE	ADD.	NAME	TAG	TYPE	ADD.
I	SF	I*4	0000F0	J	SF	I*4	0000F4	IN	F	I*4	0000F8	J1	F	I*4	0000FC
EOF		R*8	000110	LAT	SF	R*4	000118	LON	SF	R*4	00043C	DENS	SF	R*4	000760

```
      IOUT  F       I*4   000100      NLAT SF       I*4   000104      NLON SF       I*4   000108    IBCOM#  F  XF   I*4   000000
    TITLIN SF       R*8   000A88
```

SOURCE STATEMENT LABELS

LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR
5	7	000AFC	20	15	000B4C	50	30	000CA4	100	31	000CB4

COMPILER GENERATED LABELS

LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR
100000	1	000ADC	100001	12	000B28	100006	24	000BEC	100009	28	000C70
100011	32	000CC4									

FORMAT STATEMENT LABELS

LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR
1	6	000028	10	9	00002E	15	13	000034	25	17	00003C
30	21	000068	35	22	00006E	40	26	000075	45	29	000080

```
*OPTIONS IN EFFECT*NAME(MAIN) OPTIMIZE(2) LINECOUNT(60) SIZE(MAX) AUTODBL(NONE)

*OPTIONS IN EFFECT*SOURCE EBCDIC NOLIST NODECK OBJECT MAP NOFORMAT GOSTMT XREF NOALC NOANSF TERM IBM FLAG(I)

*STATISTICS*     SOURCE STATEMENTS =      33, PROGRAM SIZE =     3324, SUBPROGRAM NAME =  MAIN

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                  4854K BYTES OF CORE NOT USED
```

ESTIMATED VENUS GRAVITY IN VICINITY OF BETA REGIO
(REWRITE OF FILE 'C547ZM03 OUT' FOR NATIONAL SPACE SCIENCE DATA CENTER)
VERSION 1: IBM FORTRAN FORMATTED DATA;
FILE 1 OF NON-LABELLED 1600 B.P.I. TAPE;
80-BYTE FIXED-LENGTH RECORDS IN 8000-BYTE BLOCKS.
7/9/82

MERGE OF 2 MAP SOLUTIONS:
M547Z08 (SOUTH)
M547Z09 (NORTH)

VENUS SURFACE-DENSITY IS IN UNITS OF NANO-PLANET-MASSES/DEGREE**2
(0.0565 N-PM/DEG**2 = 1 MILLIGAL (APPROX))
(OR 1 NP/D**2 = 17.7 MGAL)

		LATITUDE	LONGITUDE	DENSITY
1	1	-33.00000	244.00000	0.82518
	2		245.00000	0.89269
	3		246.00000	0.95723
	4		247.00000	0.90068
	5		248.00000	0.84414
	6		249.00000	0.78759
	7		250.00000	0.73928
	8		251.00000	0.69735
	9		252.00000	0.65542
	10		253.00000	0.61349
	11		254.00000	0.57156
	12		255.00000	0.52963
	13		256.00000	0.48770
	14		257.00000	0.44577
	15		258.00000	0.40384
	16		259.00000	0.36191
	17		260.00000	0.31948
	18		261.00000	0.24725
	19		262.00000	0.17503
	20		263.00000	0.10280
	21		264.00000	0.03057
	22		265.00000	-0.04166
	23		266.00000	-0.11158
	24		267.00000	-0.17204
	25		268.00000	-0.23249
	26		269.00000	-0.29295
	27		270.00000	-0.35340
	28		271.00000	-0.39276
	29		272.00000	-0.40828
	30		273.00000	-0.42379
	31		274.00000	-0.43931
	32		275.00000	-0.45483
	33		276.00000	-0.47035
	34		277.00000	-0.48586
	35		278.00000	-0.50138
	36		279.00000	-0.51690
	37		280.00000	-0.53241
	38		281.00000	-0.54793
	39		282.00000	-0.58788
	40		283.00000	-0.62990

78-051A-21A

PEPZGPA7

A DEPS

PEPZGP1

PEPZGPA7 PEPZGP 07/21/81 20:20 218

```
//PEPZGPA7 JOB (3951GP,,PEPZGP1,DEPS,),                                  CMSPRT
// PEPZGP,TIME=0003
LOG IEF403I PEPZGPA7 STARTED TIME=20.11.03
LOG PEPSPOOL  1.1  18 FEB 1981
LOG PEPWTR04  FILE 4928 REQUESTED
LOG PEPWTR05  FILE=4928 ORIG=PEPBAT   RCDS=000119 CL=P FLAGS=01 00
LOG PEPWTR06  SPOOLING FILE PEPZGP1       CONSOLE       07/20/81 16:36:32
LOG PEPWTR30  CLOSING VS1 OUTPUT DATASET
LOG PEPWTR41  ENDING, NO RESTART
LOG PEPSPOOL  1.1  18 FEB 1981
LOG PEPWTR04  FILE 4931 REQUESTED
LOG PEPWTR05  FILE=4931 ORIG=PEPBAT   RCDS=007197 CL=P FLAGS=00 00
LOG PEPWTR06  SPOOLING FILE PEPZGP1       LISTING       07/20/81 16:36:46
LOG PEPWTR30  CLOSING VS1 OUTPUT DATASET
LOG PEPWTR41  ENDING, NO RESTART
LOG PEPSPOOL  1.1  18 FEB 1981
LOG PEPWTR04  FILE 5032 REQUESTED
LOG PEPWTR05  FILE=5032 ORIG=PEPBAT   RCDS=000123 CL=P FLAGS=01 00
LOG PEPWTR06  SPOOLING FILE PEPZGP2       CONSOLE       07/20/81 17:07:58
LOG PEPWTR30  CLOSING VS1 OUTPUT DATASET
LOG PEPWTR41  ENDING, NO RESTART
LOG PEPSPOOL  1.1  18 FEB 1981
LOG PEPWTR04  FILE 5035 REQUESTED
LOG PEPWTR05  FILE=5035 ORIG=PEPBAT   RCDS=007186 CL=P FLAGS=01 00
LOG PEPWTR06  SPOOLING FILE PEPZGP2       LISTING       07/20/81 17:08:19
LOG PEPWTR30  CLOSING VS1 OUTPUT DATASET
LOG PEPWTR41  ENDING, NO RESTART
LOG PEPSPOOL  1.1  18 FEB 1981
LOG PEPWTR04  FILE 7839 REQUESTED
LOG PEPWTR05  FILE=7839 ORIG=PEPBAT   RCDS=000294 CL=P FLAGS=01 00
LOG PEPWTR06  SPOOLING FILE PEPZGP3       CONSOLE       07/21/81 15:47:23
LOG PEPWTR30  CLOSING VS1 OUTPUT DATASET
LOG PEPWTR41  ENDING, NO RESTART
LOG IEF404I PEPZGPA7 ENDED   TIME=20.13.11
***SRI D
// EXEC PGM=PEPSPOOL,PARM=4928
//STEPLIB DD DSN=USER.$395100.SPOOLLIB,DISP=OLD
//         DD DSN=SYS1.VMWTR,DISP=OLD
//SYSPRINT DD SYSOUT=A,
// CHARS=GT15,
// DCB=(BLKSIZE=2036),
// COPIES=1,DEST=CENTRAL,FCB=LPI8
IEF236I ALLOC. FOR PEPZGPA7
IEF237I 14C   ALLOCATED TO STEPLIB
IEF237I 14B   ALLOCATED TO
IEF142I - STEP WAS EXECUTED - COND CODE 0000
IEF285I   USER.$395100.SPOOLLIB                          KEPT
IEF285I   VOL SER NOS= USR008.
IEF285I   SYS1.VMWTR                                     KEPT
IEF285I   VOL SER NOS= USR006.
IEF373I STEP /        / START 81202.2011
IEF374I STEP /        / STOP  81202.2011 CPU   0MIN 00.26SEC STOR VIRT  94K
*****************************************************************************************************************
*   END STEP =              CLOCK = 20.11.13        DA =       1    CORE = 320K     CPU TIME =     0.26 SEC    PGM = PEPSPOOL     *
*        JOB = PEPZGPA7      DATE =  7/21/81       TAPE =       0    USED =  94K    OCCUPANCY =     0.29 SEC     CC =     0        *
*****************************************************************************************************************
// EXEC PGM=PEPSPOOL,PARM=4931
//STEPLIB DD DSN=USER.$395100.SPOOLLIB,DISP=OLD
//         DD DSN=SYS1.VMWTR,DISP=OLD
//SYSPRINT DD SYSOUT=A,
```

```
// CHARS=GT15,
// DCB=(BLKSIZE=2036),
// COPIES=1,DEST=CENTRAL,FCB=LPI8
IEF236I ALLOC. FOR PEPZGPA7
IEF237I 14C   ALLOCATED TO STEPLIB
IEF237I 14B   ALLOCATED TO
IEF142I - STEP WAS EXECUTED - COND CODE 0000
IEF285I   USER.$395100.SPOOLLIB                          KEPT
IEF285I   VOL SER NOS= USR008.
IEF285I   SYS1.VMWTR                                     KEPT
IEF285I   VOL SER NOS= USR006.
IEF373I STEP /        / START 81202.2011
IEF374I STEP /        / STOP  81202.2011 CPU   0MIN 05.36SEC STOR VIRT  94K
*************************************************************************************************************************
*   END STEP =              CLOCK = 20.11.47       DA =       1    CORE = 320K     CPU TIME =     5.36 SEC    PGM = PEPSPOOL     *
*        JOB = PEPZGPA7      DATE =  7/21/81      TAPE =       0    USED =  94K    OCCUPANCY =     5.39 SEC     CC =      0        *
*************************************************************************************************************************
// EXEC PGM=PEPSPOOL,PARM=5032
//STEPLIB DD DSN=USER.$395100.SPOOLLIB,DISP=OLD
//        DD DSN=SYS1.VMWTR,DISP=OLD
//SYSPRINT DD SYSOUT=A,
// CHARS=GT15,
// DCB=(BLKSIZE=2036),
// COPIES=1,DEST=CENTRAL,FCB=LPI8
IEF236I ALLOC. FOR PEPZGPA7
IEF237I 14C   ALLOCATED TO STEPLIB
IEF237I 14B   ALLOCATED TO
IEF142I - STEP WAS EXECUTED - COND CODE 0000
IEF285I   USER.$395100.SPOOLLIB                          KEPT
IEF285I   VOL SER NOS= USR008.
IEF285I   SYS1.VMWTR                                     KEPT
IEF285I   VOL SER NOS= USR006.
IEF373I STEP /        / START 81202.2011
IEF374I STEP /        / STOP  81202.2011 CPU   0MIN 00.27SEC STOR VIRT  94K
*************************************************************************************************************************
*   END STEP =              CLOCK = 20.11.55       DA =       1    CORE = 320K     CPU TIME =     0.27 SEC    PGM = PEPSPOOL     *
*        JOB = PEPZGPA7      DATE =  7/21/81      TAPE =       0    USED =  94K    OCCUPANCY =     0.30 SEC     CC =      0        *
*************************************************************************************************************************
// EXEC PGM=PEPSPOOL,PARM=5035
//STEPLIB DD DSN=USER.$395100.SPOOLLIB,DISP=OLD
//        DD DSN=SYS1.VMWTR,DISP=OLD
//SYSPRINT DD SYSOUT=A,
// CHARS=GT15,
// DCB=(BLKSIZE=2036),
// COPIES=1,DEST=CENTRAL,FCB=LPI8
IEF236I ALLOC. FOR PEPZGPA7
IEF237I 14C   ALLOCATED TO STEPLIB
IEF237I 14B   ALLOCATED TO
IEF142I - STEP WAS EXECUTED - COND CODE 0000
IEF285I   USER.$395100.SPOOLLIB                          KEPT
IEF285I   VOL SER NOS= USR008.
IEF285I   SYS1.VMWTR                                     KEPT
IEF285I   VOL SER NOS= USR006.
IEF373I STEP /        / START 81202.2011
IEF374I STEP /        / STOP  81202.2012 CPU   0MIN 05.60SEC STOR VIRT  94K
*************************************************************************************************************************
*   END STEP =              CLOCK = 20.12.49       DA =       1    CORE = 320K     CPU TIME =     5.60 SEC    PGM = PEPSPOOL     *
*        JOB = PEPZGPA7      DATE =  7/21/81      TAPE =       0    USED =  94K    OCCUPANCY =     5.63 SEC     CC =      0        *
*************************************************************************************************************************
// EXEC PGM=PEPSPOOL,PARM=7839
```

```
//STEPLIB DD DSN=USER.$395100.SPOOLLIB,DISP=OLD
//        DD DSN=SYS1.VMWTR,DISP=OLD
//SYSPRINT DD SYSOUT=A,
// CHARS=GT15,
// DCB=(BLKSIZE=2036),
// COPIES=1,DEST=CENTRAL,FCB=LPI8
//
IEF236I ALLOC. FOR PEPZGPA7
IEF237I 14C   ALLOCATED TO STEPLIB
IEF237I 14B   ALLOCATED TO
IEF142I - STEP WAS EXECUTED - COND CODE 0000
IEF285I   USER.$395100.SPOOLLIB                          KEPT
IEF285I   VOL SER NOS= USR008.
IEF285I   SYS1.VMWTR                                     KEPT
IEF285I   VOL SER NOS= USR006.
IEF373I STEP /        / START 81202.2012
IEF374I STEP /        / STOP  81202.2013 CPU    0MIN 00.42SEC STOR VIRT  94K
*********************************************************************************************************************************
*   END STEP =              CLOCK = 20.13.07        DA =       1    CORE = 320K     CPU TIME =     0.42 SEC     PGM = PEPSPOOL     *
*        JOB = PEPZGPA7      DATE =  7/21/81       TAPE =       0    USED =  94K     OCCUPANCY =    0.45 SEC     CC =      0        *
*********************************************************************************************************************************
IEF298I  PEPZGPA7 SYSOUT=A.
IEF375I  JOB /PEPZGPA7/ START 81202.2011
IEF376I  JOB /PEPZGPA7/ STOP  81202.2013 CPU    0MIN 11.91SEC
*********************************************************************************************************************************
*   END JOB = PEPZGPA7       CLOCK = 20.13.09     DATE =  7/21/81     INPUT CARDS =        0        JOB CPU TIME =    11.91 SEC     *
*********************************************************************************************************************************
```

```
*BEGIN PEPBAT JOB PEPZGP1 AT 16:36:26 ON 07/20/81

================================================================================

JOB SUBMITTED BY: PEPZGP

STORAGE = 06144K

SPRBAT010I SPOOL DEVICE CHARACTERISTICS
RDR  00C CL A    CONT NOHOLD   EOF      READY
PUN  00D CL A    CONT NOHOLD COPY 001   READY FORM STANDARD
     00D TO  PEPZGP   DIST PEPBAT
PRT  00E CL A    CONT NOHOLD COPY 001   READY FORM STANDARD
     00E TO  PEPZGP   DIST PEPBAT    FLASHC 000
     00E FLASH        CHAR       MDFY       FCB
PUN  013 CL L    CONT NOHOLD COPY 001   READY FORM STANDARD
     013 TO  PEPMNT   DIST PEPBAT

SPRBAT011I INITIAL DISK ALLOCATIONS
LABEL  CUU M  STAT CYL TYPE BLKSIZE    FILES  BLKS USED-(%) BLKS LEFT  BLK TOTAL
BAT195 195 A   R/W 150 3350  4096         0          6- 0      17994      18000
MNT193 293 P/A R/O  60 3350  1024      1371      21854-81       5146      27000
MNT194 294 Q/A R/O  10 3350  1024       413       2737-61       1763       4500
MNT195 295 R/A R/O 150 3350  4096        57      16043-89       1957      18000
M290   190 S   R/O  84 3330  1024       155      17321-99        235      17556
BAT196 196 X   R/W   2 3350  1024         1          7- 1        893        900
MNT19E 19E Y/S R/O 150 3350  4096       404       9663-54       8337      18000

SPRBAT012I FOLLOWING GLOBAL DEFINITIONS IN EFFECT
MACLIB   = CMSIO    CMSCLIB  CMSBSE   CMSLIB   OSMACRO  OSMACRO1
TXTLIB   = EISPACK  PLILIB   FORTMOD2 CMSLIB
DOSLIB   = NONE

================================================================================



/SET TIME 300 PRINT 50000 PUNCH 2000

EXEC SPRLNK PEPZGP 191
DASD 192 LINKED R/O; R/W BY PEPZGP
DMSACC723I B (192) R/O
R; T=0.20/0.36 16:36:35N

EXEC SPRLNK PEPZGP 192
DASD 193 LINKED R/O; R/W BY PEPZGP
DMSACC723I C (193) R/O
R; T=0.20/0.37 16:36:37N

EXEC WHOIW
COPIN C* EXPORTF B
R * EXPORTF A = FORTRAN =
EXEC SPRFTH CW NOCHANGE TERM ( PRINT OPT ( 2 ) MAP XREF GOSTMT

FORTRAN H EXTENDED COMPILER ENTERED

*STATISTICS*     SOURCE STATEMENTS =      25, PROGRAM SIZE =     3204, SUBPROGRAM NAME =  MAIN

*STATISTICS*  NO  DIAGNOSTICS GENERATED
```

```
****** END OF COMPILATION ******                                    4963K BYTES OF CORE NOT USED
SPRBTP082I <<<<<<<< SPRFTH CW RC= 0 >>>>>>>>
EXEC SPRFTH CR NOCHANGE TERM ( PRINT OPT ( 2 ) MAP XREF GOSTMT

FORTRAN H EXTENDED COMPILER ENTERED

*STATISTICS*     SOURCE STATEMENTS =      33, PROGRAM SIZE =     3324, SUBPROGRAM NAME =  MAIN

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                                    4963K BYTES OF CORE NOT USED
SPRBTP082I <<<<<<<< SPRFTH CR RC= 0 >>>>>>>>
EXEC SPRMNT PT1709 1600 181 W ( NOWAIT
MOUNT PT1709 VADDR 181 DEN 1600 RING=IN
SPRMNT301A PEPBAT SLOT=PT1709 (JOB=PEPZGP1 WAIT=15 MINS)
DMSMNT000I MOUNT REQUEST SENT
EXEC SPRWMT W181 ( 60
TAPE 181 ATTACHED
TAPE REW
TAPE WTM
TAPE REW
DMSEXEC W SYSIN 05 A4 ( FROM 1 FOR * EOF
+++ R(00113) +++
FI SYSPRINT PR
FI 05 DISK SYSIN 05 A4
FI 06 PR
FI 10 DISK GRAVITY PUBLI A4 ( RECFM VBS BLOCK 6232
FI 20 TAP1 NL 1 ( RECFM FB LRECL 80 BLOCK 8000 DEN 1600
LOAD CW ( START NOMAP
DMSLIO740I EXECUTION BEGINS...
TAPE WTM 2
TAPE REW
FI SYSPRINT PR
FI 05 DUMMY
FI 06 PR
FI 10 TAP1 NL 1 ( RECFM FB LRECL 80 BLOCK 8000 DEN 1600
LOAD CR ( START NOMAP
DMSLIO740I EXECUTION BEGINS...
EXEC SPRDSM 181
TAPE 181 DETACHED
R; T=18.88/39.48 16:41:19N

EXEC SPREND

================================================================================

COMMAND    DATE      TIME       COST      CPU  CONNECT    PAGES      SIO    SPOOL

LOGON      07/20/81 16:36:33    $0.12       0        0       37      167        0
SPRLNK     PEPZGP   16:36:35    $0.04       1        0        4       73        1
SPRLNK     PEPZGP   16:36:37    $0.06       0        0        4       67        1
WHOIW               16:41:21    $3.26      40        4      286      698     7200
LOGOFF     07/20/81 16:41:22    $3.50      41        4      335     1028     7203

================================================================================

*END PEPBAT AT 16:41:22 ON 07/20/81
```

REQUESTED OPTIONS: OPT(2) MAP XREF GOSTMT

OPTIONS IN EFFECT: NAME(MAIN) OPTIMIZE(2) LINECOUNT(60) SIZE(MAX) AUTODBL(NONE)
SOURCE EBCDIC NOLIST NODECK OBJECT MAP NOFORMAT GOSTMT XREF NOALC NOANSF TERM IBM FLAG(I)

```
                C
                C         Z. GOLDBERG -- JULY 4,1980
                C
                C         COPY CONTOUR OUTPUT DATASET TO MAGTAPE FOR EXPORT
                C            (WITH TITLE RECORDS, NO REFORMATTING)
                C         VERSION F:  FORTRAN FORMATTED TAPE I/O
                C
                C
   ISN 0002           REAL LAT(201) ,LON(201), DATA(201)
   ISN 0003           REAL*8 TITLIN(10), EOF/'ENDTITLE'/
   ISN 0004           DATA IN/10/, IOUT/20/, INTITL/5/
                C
                C
   ISN 0005        10 CONTINUE
   ISN 0006           READ(INTITL,20) TITLIN
   ISN 0007           WRITE(IOUT,20) TITLIN
   ISN 0008        20 FORMAT(10A8)
   ISN 0009           IF(TITLIN(1).NE.EOF) GO TO 10
                C
                C
   ISN 0011           READ(IN) NLAT,NLON
   ISN 0012           WRITE(IOUT,30) NLAT,NLON
   ISN 0013        30 FORMAT(2I10)
                C
   ISN 0014           READ(IN) (LAT(I),I=1,NLAT)
   ISN 0015           WRITE(IOUT,40) (LAT(I),I=1,NLAT)
                C
   ISN 0016           READ(IN) (LON(J),J=1,NLON)
   ISN 0017           WRITE(IOUT,40) (LON(J),J=1,NLON)
                C
   ISN 0018           DO 50 I=1,NLAT
   ISN 0019           READ(IN) (DATA(J),J=1,NLON)
   ISN 0020           WRITE(IOUT,40) (DATA(J),J=1,NLON)
   ISN 0021        40 FORMAT(5E16.8)
   ISN 0022        50 CONTINUE
                C
                C
   ISN 0023           REWIND IN
   ISN 0024           END FILE IOUT
                C
   ISN 0025           STOP
   ISN 0026           END
```

*****F O R T R A N C R O S S R E F E R E N C E L I S T I N G*****

SYMBOL	INTERNAL STATEMENT NUMBERS											
I	0014	0014	0014	0015	0015	0015	0018					
J	0016	0016	0016	0017	0017	0017	0019	0019	0019	0020	0020	0020
IN	0004	0011	0014	0016	0019	0023						
EOF	0003	0003	0009									
LAT	0002	0014	0015									
LON	0002	0016	0017									
DATA	0002	0019	0020									

*****F O R T R A N C R O S S R E F E R E N C E L I S T I N G*****

SYMBOL	INTERNAL STATEMENT NUMBERS						
IOUT	0004	0007	0012	0015	0017	0020	0024
NLAT	0011	0012	0014	0015	0018		
NLON	0011	0012	0016	0017	0019	0020	
INTITL	0004	0006					
TITLIN	0003	0006	0007	0009			

*****F O R T R A N C R O S S R E F E R E N C E L I S T I N G*****

LABEL	DEFINED	REFERENCES		
10	0005	0009		
20	0008	0006	0007	
30	0013	0012		
40	0021	0015	0017	0020
50	0022	0018		

/ MAIN / SIZE OF PROGRAM 000C84 HEXADECIMAL BYTES

NAME	TAG	TYPE	ADD.	NAME	TAG	TYPE	ADD.	NAME	TAG	TYPE	ADD.	NAME	TAG	TYPE	ADD.
I	SF	I*4	00009C	J	F	I*4	0000A0	IN	F	I*4	0000A4	EOF		R*8	0000B8
LAT	SF	R*4	0000C0	LON	SF	R*4	0003E4	DATA	SF	R*4	000708	IOUT	F	I*4	0000A8
NLAT	SF	I*4	0000AC	NLON	SF	I*4	0000B0	IBCOM#	F XF	I*4	000000	INTITL	F	I*4	0000B4
TITLIN	SF	R*8	000A30												

SOURCE STATEMENT LABELS

LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR
10	5	000A94	50	22	000C3C						

COMPILER GENERATED LABELS

LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR
100000	1	000A8C	100001	11	000ADC	100010	19	000BDE	100015	23	000C40

FORMAT STATEMENT LABELS

LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR
20	8	000028	30	13	00002E	40	21	000034			

*OPTIONS IN EFFECT*NAME(MAIN) OPTIMIZE(2) LINECOUNT(60) SIZE(MAX) AUTODBL(NONE)

*OPTIONS IN EFFECT*SOURCE EBCDIC NOLIST NODECK OBJECT MAP NOFORMAT GOSTMT XREF NOALC NOANSF TERM IBM FLAG(I)

STATISTICS SOURCE STATEMENTS = 25, PROGRAM SIZE = 3204, SUBPROGRAM NAME = MAIN

STATISTICS NO DIAGNOSTICS GENERATED

****** END OF COMPILATION ****** 4963K BYTES OF CORE NOT USED

REQUESTED OPTIONS: OPT(2) MAP XREF GOSTMT

OPTIONS IN EFFECT: NAME(MAIN) OPTIMIZE(2) LINECOUNT(60) SIZE(MAX) AUTODBL(NONE)
SOURCE EBCDIC NOLIST NODECK OBJECT MAP NOFORMAT GOSTMT XREF NOALC NOANSF TERM IBM FLAG(I)

```
                C
                C        Z. GOLDBERG -- JULY 4,1980
                C
                C       LIST EXPORT-FORMAT COPY OF CONTOUR OUTPUT DATASET
                C            (WITH MINOR EDITING/REFORMATTING)
                C       VERSION F:  FORTRAN FORMATTED TAPE I/O
                C
                C
ISN 0002              REAL LAT(201), LON(201), DENS(201)
ISN 0003              REAL*8 TITLIN(10), EOF/'ENDTITLE'/
ISN 0004              DATA IN/10/, IOUT/6/, J1/1/
                C
                C
ISN 0005              WRITE(IOUT,1)
ISN 0006            1 FORMAT('1 ')
                C
ISN 0007            5 CONTINUE
ISN 0008              READ(IN,10) TITLIN
ISN 0009           10 FORMAT(10A8)
                C
ISN 0010              IF(TITLIN(1).EQ.EOF) GO TO 20
ISN 0012              WRITE(IOUT,15) TITLIN
ISN 0013           15 FORMAT(X,10A8)
ISN 0014              GO TO 5
                C
                C
ISN 0015           20 CONTINUE
ISN 0016              WRITE(IOUT,25)
ISN 0017           25 FORMAT(///16X,'LATITUDE',3X,'LONGITUDE',5X,'DENSITY'/X)
                C
                C
ISN 0018              READ(IN,30) NLAT,NLON
ISN 0019              READ(IN,35) (LAT(I),I=1,NLAT)
ISN 0020              READ(IN,35) (LON(J),J=1,NLON)
ISN 0021           30 FORMAT(2I10)
ISN 0022           35 FORMAT(5E16.8)
                C
                C
ISN 0023              DO 100 I=1,NLAT
ISN 0024              READ(IN,35) (DENS(J),J=1,NLON)
                C
ISN 0025              WRITE(IOUT,40) I ,J1 ,LAT(I) ,LON(J1) ,DENS(J1)
ISN 0026           40 FORMAT(2I6,3F12.5)
ISN 0027              DO 50 J=2,NLON
ISN 0028              WRITE(IOUT,45) J, LON(J), DENS(J)
ISN 0029           45 FORMAT(I12,F24.5,F12.5)
ISN 0030           50 CONTINUE
                C
ISN 0031          100 CONTINUE
                C
                C
ISN 0032              REWIND IN
ISN 0033              STOP
```

```
  ISN 0034          END
```

*****F O R T R A N C R O S S R E F E R E N C E L I S T I N G*****

SYMBOL	INTERNAL STATEMENT NUMBERS									
I	0019	0019	0019	0023	0025	0025				
J	0020	0020	0020	0024	0024	0024	0027	0028	0028	0028
IN	0004	0008	0018	0019	0020	0024	0032			
J1	0004	0025	0025	0025						
EOF	0003	0003	0010							
LAT	0002	0019	0025							
LON	0002	0020	0025	0028						
DENS	0002	0024	0025	0028						
IOUT	0004	0005	0012	0016	0025	0028				
NLAT	0018	0019	0023							
NLON	0018	0020	0024	0027						
TITLIN	0003	0008	0010	0012						

*****F O R T R A N C R O S S R E F E R E N C E L I S T I N G*****

LABEL	DEFINED	REFERENCES
1	0006	0005
5	0007	0014
10	0009	0008
15	0013	0012
20	0015	0010
25	0017	0016
30	0021	0018
35	0022	0019 0020 0024
40	0026	0025
45	0029	0028
50	0030	0027
100	0031	0023

/ MAIN / SIZE OF PROGRAM 000CFC HEXADECIMAL BYTES

NAME	TAG	TYPE	ADD.	NAME	TAG	TYPE	ADD.	NAME	TAG	TYPE	ADD.	NAME	TAG	TYPE	ADD.
I	SF	I*4	0000F0	J	SF	I*4	0000F4	IN	F	I*4	0000F8	J1	F	I*4	0000FC
EOF		R*8	000110	LAT	SF	R*4	000118	LON	SF	R*4	00043C	DENS	SF	R*4	000760
IOUT	F	I*4	000100	NLAT	SF	I*4	000104	NLON	SF	I*4	000108	IBCOM#	F XF	I*4	000000
TITLIN	SF	R*8	000A88												

SOURCE STATEMENT LABELS

LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR
5	7	000AFC	20	15	000B4C	50	30	000CA4	100	31	000CB4

COMPILER GENERATED LABELS

LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR
100000	1	000ADC	100001	12	000B28	100006	24	000BEC	100009	28	000C70
100011	32	000CC4									

FORMAT STATEMENT LABELS

LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR	LABEL	ISN	ADDR

```
    1    6  000028      10    9  00002E      15   13  000034      25   17  00003C
   30   21  000068      35   22  00006E      40   26  000075      45   29  000080

*OPTIONS IN EFFECT*NAME(MAIN) OPTIMIZE(2) LINECOUNT(60) SIZE(MAX) AUTODBL(NONE)

*OPTIONS IN EFFECT*SOURCE EBCDIC NOLIST NODECK OBJECT MAP NOFORMAT GOSTMT XREF NOALC NOANSF TERM IBM FLAG(I)

*STATISTICS*      SOURCE STATEMENTS =      33, PROGRAM SIZE =     3324, SUBPROGRAM NAME =  MAIN

*STATISTICS*  NO  DIAGNOSTICS GENERATED

****** END OF COMPILATION ******                          4963K BYTES OF CORE NOT USED
```

FILE 1

REWRITE OF CONTOR.OUT.D0123.REVE0 FOR NATIONAL SPACE SCIENCE DATA CENTER
(VERSION 1: FORTRAN FORMATTED DATA)
7/20/81

MERGE OF 8 MAP SOLUTIONS:
D0AXAYB.NEWFIL, D0B1, D12(SIN), D23A.NODAY5 (CENTRAL LATITUDE BAND)
D01P20.NEWFIL, D123P20.NEWFIL (NORTH LAT BAND)
D01M20.NEWFIL, D123M20.NODAY5 (SOUTH LAT BAND)

VENUS SURFACE-DENSITY IS IN UNITS OF NANO-PLANET-MASSES/DEGREE**2
(0.0565 N-PM/DEG**2 = 1 MILLIGAL (APPROX))
(OR 1 NP/D**2 = 17.7 MGAL)

		LATITUDE	LONGITUDE	DENSITY
1	1	-20.00000	0.0	0.36207
	2		1.00000	0.33537
	3		2.00000	0.30866
	4		3.00000	0.28040
	5		4.00000	0.25056
	6		5.00000	0.22073
	7		6.00000	0.19731
	8		7.00000	0.18029
	9		8.00000	0.16328
	10		9.00000	0.16153
	11		10.00000	0.17504
	12		11.00000	0.18856
	13		12.00000	0.21765
	14		13.00000	0.26230
	15		14.00000	0.30696
	16		15.00000	0.34610
	17		16.00000	0.37971
	18		17.00000	0.41332
	19		18.00000	0.41670
	20		19.00000	0.38985
	21		20.00000	0.36300
	22		21.00000	0.29558
	23		22.00000	0.18758
	24		23.00000	0.07958
	25		24.00000	-0.04513
	26		25.00000	-0.18657
	27		26.00000	-0.32800
	28		27.00000	-0.46057
	29		28.00000	-0.58587
	30		29.00000	-0.70468
	31		30.00000	-0.76542
	32		31.00000	-0.77143
	33		32.00000	-0.76039
	34		33.00000	-0.71285
	35		34.00000	-0.66182
	36		35.00000	-0.61079
	37		36.00000	-0.55165
	38		37.00000	-0.48440
	39		38.00000	-0.41715
	40		39.00000	-0.34939
	41		40.00000	-0.28112
	42		41.00000	-0.21284

	43		42.00000	-0.16208
	44		43.00000	-0.12882
	45		44.00000	-0.09557
	46		45.00000	-0.07539
	47		46.00000	-0.06830
	48		47.00000	-0.06120
	49		48.00000	-0.05830
	50		49.00000	-0.05959
	51		50.00000	-0.06089
	52		51.00000	-0.05606
	53		52.00000	-0.04512
	54		53.00000	-0.03419
	55		54.00000	-0.01870
	56		55.00000	0.00133
	57		56.00000	0.02137
	58		57.00000	0.03940
	59		58.00000	0.05544
	60		59.00000	0.07148
	61		60.00000	0.07515
	62		61.00000	0.07429
	63		62.00000	0.07082
	64		63.00000	0.06585
	65		64.00000	0.06511
	66		65.00000	0.00000
	67		66.00000	0.00000
	68		67.00000	0.00000
	69		68.00000	0.00000
	70		69.00000	0.00000
	71		70.00000	0.00000
	72		71.00000	0.00000
	73		72.00000	0.00000
	74		73.00000	0.00000
	75		74.00000	0.00000
	76		75.00000	0.00000
	77		76.00000	0.00000
	78		77.00000	0.00000
	79		78.00000	0.00000
	80		79.00000	0.00000
	81		80.00000	0.00000
	82		81.00000	0.00000
	83		82.00000	0.00000
	84		83.00000	0.00000
	85		84.00000	0.00000
	86		85.00000	0.00000
2	1	-19.00000	0.0	0.28077
	2		1.00000	0.24974
	3		2.00000	0.21647
	4		3.00000	0.18216
	5		4.00000	0.14826
	6		5.00000	0.11532
	7		6.00000	0.08665
	8		7.00000	0.06701
	9		8.00000	0.05053
	10		9.00000	0.04424
	11		10.00000	0.05815
	12		11.00000	0.07875
	13		12.00000	0.10973
	14		13.00000	0.15919
	15		14.00000	0.21404
	16		15.00000	0.26520

17	16.00000	0.30609
18	17.00000	0.34257
19	18.00000	0.35890
20	19.00000	0.33510
21	20.00000	0.29797
22	21.00000	0.23380
23	22.00000	0.12247
24	23.00000	-0.00226
25	24.00000	-0.13814
26	25.00000	-0.28956
27	26.00000	-0.44391
28	27.00000	-0.59235
29	28.00000	-0.72491
30	29.00000	-0.85721
31	30.00000	-0.94598
32	31.00000	-0.97209
33	32.00000	-0.96894
34	33.00000	-0.93188
35	34.00000	-0.87964
36	35.00000	-0.82166
37	36.00000	-0.75828
38	37.00000	-0.68611
39	38.00000	-0.61170
40	39.00000	-0.53695
41	40.00000	-0.46783
42	41.00000	-0.40269
43	42.00000	-0.34922
44	43.00000	-0.31227
45	44.00000	-0.27854
46	45.00000	-0.25354
47	46.00000	-0.24036
48	47.00000	-0.22925
49	48.00000	-0.22093
50	49.00000	-0.20935
51	50.00000	-0.19371
52	51.00000	-0.17400
53	52.00000	-0.15022
54	53.00000	-0.12645
55	54.00000	-0.09964
56	55.00000	-0.07018
57	56.00000	-0.04097
58	57.00000	-0.01309
59	58.00000	0.00972
60	59.00000	0.03004
61	60.00000	0.04474
62	61.00000	0.04645
63	62.00000	0.04680
64	63.00000	0.04715
65	64.00000	0.05053
66	65.00000	0.00000
67	66.00000	0.00000
68	67.00000	0.00000
69	68.00000	0.00000
70	69.00000	0.00000
71	70.00000	0.00000
72	71.00000	0.00000
73	72.00000	0.00000
74	73.00000	0.00000
75	74.00000	0.00000
76	75.00000	0.00000

	77		76.00000	0.00000
	78		77.00000	0.00000
	79		78.00000	0.00000
	80		79.00000	0.00000
	81		80.00000	0.00000
	82		81.00000	0.00000
	83		82.00000	0.00000
	84		83.00000	0.00000
	85		84.00000	0.00000
	86		85.00000	0.00000
3	1	-18.00000	0.0	0.19948
	2		1.00000	0.16411
	3		2.00000	0.12428
	4		3.00000	0.08392
	5		4.00000	0.04594
	6		5.00000	0.00990
	7		6.00000	-0.02401
	8		7.00000	-0.04628
	9		8.00000	-0.06221
	10		9.00000	-0.07305
	11		10.00000	-0.05874
	12		11.00000	-0.03105
	13		12.00000	0.00182
	14		13.00000	0.05607
	15		14.00000	0.12111
	16		15.00000	0.18431
	17		16.00000	0.23247
	18		17.00000	0.27182
	19		18.00000	0.30110
	20		19.00000	0.28034
	21		20.00000	0.23295
	22		21.00000	0.17202
	23		22.00000	0.05736
	24		23.00000	-0.08411
	25		24.00000	-0.23115
	26		25.00000	-0.39256
	27		26.00000	-0.55983
	28		27.00000	-0.72414
	29		28.00000	-0.86555
	30		29.00000	-1.00382
	31		30.00000	-1.12061
	32		31.00000	-1.16667
	33		32.00000	-1.17102
	34		33.00000	-1.15166
	35		34.00000	-1.09746
	36		35.00000	-1.03253
	37		36.00000	-0.96490
	38		37.00000	-0.88782
	39		38.00000	-0.80625
	40		39.00000	-0.72451
	41		40.00000	-0.65454
	42		41.00000	-0.59253
	43		42.00000	-0.53636
	44		43.00000	-0.49571
	45		44.00000	-0.46152
	46		45.00000	-0.43168
	47		46.00000	-0.41242
	48		47.00000	-0.39729
	49		48.00000	-0.38357
	50		49.00000	-0.35910

	51		50.00000	-0.32654
	52		51.00000	-0.29194
	53		52.00000	-0.25532
	54		53.00000	-0.21871
	55		54.00000	-0.18058
	56		55.00000	-0.14170
	57		56.00000	-0.10331
	58		57.00000	-0.06559
	59		58.00000	-0.03601
	60		59.00000	-0.01141
	61		60.00000	0.01037
	62		61.00000	0.03605
	63		62.00000	0.02498
	64		63.00000	0.03002
	65		64.00000	0.03722
	66		65.00000	0.00000
	67		66.00000	0.00000
	68		67.00000	0.00000
	69		68.00000	0.00000
	70		69.00000	0.00000
	71		70.00000	0.00000
	72		71.00000	0.00000
	73		72.00000	0.00000
	74		73.00000	0.00000
	75		74.00000	0.00000
	76		75.00000	0.00000
	77		76.00000	0.00000
	78		77.00000	0.00000
	79		78.00000	0.00000
	80		79.00000	0.00000
	81		80.00000	0.00000
	82		81.00000	0.00000
	83		82.00000	0.00000
	84		83.00000	0.00000
	85		84.00000	0.00000
	86		85.00000	0.00000
4	1	-17.00000	0.0	0.11818
	2		1.00000	0.07848
	3		2.00000	0.03208
	4		3.00000	-0.01431
	5		4.00000	-0.05637
	6		5.00000	-0.09552
	7		6.00000	-0.13468
	8		7.00000	-0.15957
	9		8.00000	-0.17495
	10		9.00000	-0.19034
	11		10.00000	-0.17563
	12		11.00000	-0.14086
	13		12.00000	-0.10609
	14		13.00000	-0.04705
	15		14.00000	0.02818
	16		15.00000	0.10341
	17		16.00000	0.15884
	18		17.00000	0.20107
	19		18.00000	0.24330
	20		19.00000	0.22559
	21		20.00000	0.16792
	22		21.00000	0.11024
	23		22.00000	-0.00775
	24		23.00000	-0.16595

25	24.00000	-0.32415
26	25.00000	-0.49555
27	26.00000	-0.67574
28	27.00000	-0.85593
29	28.00000	-1.00618
30	29.00000	-1.14452
31	30.00000	-1.28928
32	31.00000	-1.35517
33	32.00000	-1.36666
34	33.00000	-1.36482
35	34.00000	-1.31528
36	35.00000	-1.24340
37	36.00000	-1.17152
38	37.00000	-1.08953
39	38.00000	-1.00080
40	39.00000	-0.91207
41	40.00000	-0.84125
42	41.00000	-0.78238
43	42.00000	-0.72350
44	43.00000	-0.67916
45	44.00000	-0.64449
46	45.00000	-0.60982
47	46.00000	-0.58448
48	47.00000	-0.56534
49	48.00000	-0.54621
50	49.00000	-0.50886
51	50.00000	-0.45937
52	51.00000	-0.40988
53	52.00000	-0.36042
54	53.00000	-0.31097
55	54.00000	-0.26153
56	55.00000	-0.21321
57	56.00000	-0.16565
58	57.00000	-0.11808
59	58.00000	-0.08174
60	59.00000	-0.05286
61	60.00000	-0.02399
62	61.00000	0.01303
63	62.00000	0.00315
64	63.00000	0.01289
65	64.00000	0.02390
66	65.00000	0.00000
67	66.00000	0.00000
68	67.00000	0.00000
69	68.00000	0.00000
70	69.00000	0.00000
71	70.00000	0.00000
72	71.00000	0.00000
73	72.00000	0.00000
74	73.00000	0.00000
75	74.00000	0.00000
76	75.00000	0.00000
77	76.00000	0.00000
78	77.00000	0.00000
79	78.00000	0.00000
80	79.00000	0.00000
81	80.00000	0.00000
82	81.00000	0.00000
83	82.00000	0.00000
84	83.00000	0.00000

	55		54.00000	-0.08415
	56		55.00000	-0.09292
	57		56.00000	-0.09060
	58		57.00000	-0.08797
	59		58.00000	-0.08525
	60		59.00000	-0.09252
	61		60.00000	-0.13363
	62		61.00000	-0.05981
	63		62.00000	-0.03324
	64		63.00000	0.00300
	65		64.00000	0.04853
	66		65.00000	0.09741
	67		66.00000	0.12463
	68		67.00000	0.14982
	69		68.00000	0.17430
	70		69.00000	0.19866
	71		70.00000	0.22303
	72		71.00000	0.22594
	73		72.00000	0.26857
	74		73.00000	0.28859
	75		74.00000	0.30835
	76		75.00000	0.32810
	77		76.00000	0.34785
	78		77.00000	0.36226
	79		78.00000	0.37476
	80		79.00000	0.38691
	81		80.00000	0.39907
	82		81.00000	0.41122
	83		82.00000	0.42035
	84		83.00000	0.42835
	85		84.00000	0.43596
	86		85.00000	0.44356
80	1	59.00000	0.0	0.00000
	2		1.00000	0.00000
	3		2.00000	0.00000
	4		3.00000	0.00000
	5		4.00000	0.00000
	6		5.00000	0.00000
	7		6.00000	0.00000
	8		7.00000	0.00000
	9		8.00000	0.00000
	10		9.00000	0.00000
	11		10.00000	0.00000
	12		11.00000	0.10466
	13		12.00000	0.11391
	14		13.00000	0.12316
	15		14.00000	0.13242
	16		15.00000	0.15384
	17		16.00000	0.15244
	18		17.00000	0.16674
	19		18.00000	0.18105
	20		19.00000	0.19504
	21		20.00000	0.21275
	22		21.00000	0.22382
	23		22.00000	0.23489
	24		23.00000	0.24596
	25		24.00000	0.25703
	26		25.00000	0.26671
	27		26.00000	0.27226
	28		27.00000	0.27381

	29		28.00000	0.27402
	30		29.00000	0.27423
	31		30.00000	0.27276
	32		31.00000	0.26623
	33		32.00000	0.25908
	34		33.00000	0.25172
	35		34.00000	0.24436
	36		35.00000	0.23593
	37		36.00000	0.22427
	38		37.00000	0.21298
	39		38.00000	0.20180
	40		39.00000	0.19063
	41		40.00000	0.17835
	42		41.00000	0.16274
	43		42.00000	0.14589
	44		43.00000	0.12862
	45		44.00000	0.11135
	46		45.00000	0.09299
	47		46.00000	0.07138
	48		47.00000	0.05111
	49		48.00000	0.03129
	50		49.00000	0.01147
	51		50.00000	-0.00613
	52		51.00000	-0.01711
	53		52.00000	-0.02698
	54		53.00000	-0.03648
	55		54.00000	-0.04599
	56		55.00000	-0.05261
	57		56.00000	-0.05061
	58		57.00000	-0.04771
	59		58.00000	-0.04450
	60		59.00000	-0.04129
	61		60.00000	-0.03781
	62		61.00000	-0.03353
	63		62.00000	-0.01052
	64		63.00000	0.02277
	65		64.00000	0.06449
	66		65.00000	0.11479
	67		66.00000	0.17335
	68		67.00000	0.20087
	69		68.00000	0.22361
	70		69.00000	0.24601
	71		70.00000	0.26840
	72		71.00000	0.29080
	73		72.00000	0.31072
	74		73.00000	0.32954
	75		74.00000	0.34756
	76		75.00000	0.36557
	77		76.00000	0.38359
	78		77.00000	0.39744
	79		78.00000	0.40955
	80		79.00000	0.42062
	81		80.00000	0.43169
	82		81.00000	0.44277
	83		82.00000	0.45148
	84		83.00000	0.45903
	85		84.00000	0.46542
	86		85.00000	0.47181
81	1	60.00000	0.0	0.00000
	2		1.00000	0.00000

3	2.00000	0.00000
4	3.00000	0.00000
5	4.00000	0.00000
6	5.00000	0.00000
7	6.00000	0.00000
8	7.00000	0.00000
9	8.00000	0.00000
10	9.00000	0.00000
11	10.00000	0.00000
12	11.00000	0.09983
13	12.00000	0.10747
14	13.00000	0.11510
15	14.00000	0.13018
16	15.00000	0.13905
17	16.00000	0.13907
18	17.00000	0.15031
19	18.00000	0.16155
20	19.00000	0.17396
21	20.00000	0.19072
22	21.00000	0.20275
23	22.00000	0.21477
24	23.00000	0.22679
25	24.00000	0.23881
26	25.00000	0.24985
27	26.00000	0.25793
28	27.00000	0.25934
29	28.00000	0.25852
30	29.00000	0.25771
31	30.00000	0.25569
32	31.00000	0.25006
33	32.00000	0.24340
34	33.00000	0.23640
35	34.00000	0.22939
36	35.00000	0.22162
37	36.00000	0.21154
38	37.00000	0.20207
39	38.00000	0.19281
40	39.00000	0.18354
41	40.00000	0.17348
42	41.00000	0.16105
43	42.00000	0.14654
44	43.00000	0.13133
45	44.00000	0.11613
46	45.00000	0.10015
47	46.00000	0.08184
48	47.00000	0.06577
49	48.00000	0.05046
50	49.00000	0.03514
51	50.00000	0.02141
52	51.00000	0.01241
53	52.00000	0.00526
54	53.00000	-0.00128
55	54.00000	-0.00782
56	55.00000	-0.01231
57	56.00000	-0.01063
58	57.00000	-0.00744
59	58.00000	-0.00375
60	59.00000	-0.00005
61	60.00000	0.00383
62	61.00000	0.00829

63	62.00000	0.01219
64	63.00000	0.03317
65	64.00000	0.07220
66	65.00000	0.11902
67	66.00000	0.17360
68	67.00000	0.23400
69	68.00000	0.27292
70	69.00000	0.29335
71	70.00000	0.31378
72	71.00000	0.33421
73	72.00000	0.35287
74	73.00000	0.37049
75	74.00000	0.38677
76	75.00000	0.40304
77	76.00000	0.41932
78	77.00000	0.43262
79	78.00000	0.44435
80	79.00000	0.45434
81	80.00000	0.46432
82	81.00000	0.47431
83	82.00000	0.48262
84	83.00000	0.48972
85	84.00000	0.49489
86	85.00000	0.50006

```
*BEGIN PEPBAT JOB PEPZGP3 AT 15:47:07 ON 07/21/81

================================================================================

JOB SUBMITTED BY: PEPZGP

STORAGE = 06144K

SPRBAT010I SPOOL DEVICE CHARACTERISTICS
RDR  00C CL A    CONT NOHOLD   EOF       READY
PUN  00D CL A    CONT NOHOLD COPY 001    READY FORM STANDARD
     00D TO  PEPZGP   DIST PEPBAT
PRT  00E CL A    CONT NOHOLD COPY 001    READY FORM STANDARD
     00E TO  PEPZGP   DIST PEPBAT    FLASHC 000
     00E FLASH        CHAR       MDFY       FCB
PUN  013 CL L    CONT NOHOLD COPY 001    READY FORM STANDARD
     013 TO  PEPMNT   DIST PEPBAT

SPRBAT011I INITIAL DISK ALLOCATIONS
LABEL  CUU M  STAT CYL TYPE BLKSIZE    FILES  BLKS USED-(%) BLKS LEFT  BLK TOTAL
BAT195 195 A   R/W 150 3350  4096         0          6- 0      17994      18000
MNT193 293 P/A R/O  60 3350  1024      1371      21854-81       5146      27000
MNT194 294 Q/A R/O  10 3350  1024       413       2737-61       1763       4500
MNT195 295 R/A R/O 150 3350  4096        57      16043-89       1957      18000
M290   190 S   R/O  84 3330  1024       155      17321-99        235      17556
BAT196 196 X   R/W   2 3350  1024         3          9- 1        891        900
MNT19E 19E Y/S R/O 150 3350  4096       404       9663-54       8337      18000

SPRBAT012I FOLLOWING GLOBAL DEFINITIONS IN EFFECT
MACLIB   = CMSIO    CMSCLIB  CMSBSE   CMSLIB   OSMACRO  OSMACRO1
TXTLIB   = EISPACK  PLILIB   FORTMOD2 CMSLIB
DOSLIB   = NONE

================================================================================



/SET TIME 300 PRINT 50000 PUNCH 2000

 XEC SPRLNK PEPZGP 191
DASD 192 LINKED R/O; R/W BY PEPZGP
DMSACC723I B (192) R/O
R; T=0.20/0.34 15:47:27N

EXEC SPRLNK PEPZGP 192
DASD 193 LINKED R/O; R/W BY PEPZGP
DMSACC723I C (193) R/O
R; T=0.21/0.36 15:47:29N

EXEC PROGCOP
EXEC SPRLNK PEPMNT 191 ( SELECT SPRD2T MODULE
DASD 194 LINKED R/O; R/W BY PEPMNT
DMSACC723I D (194) R/O
EXEC SPRMNT PT1709 1600 181 W ( NOWAIT
MOUNT PT1709 VADDR 181 DEN 1600 RING=IN
SPRMNT301A PEPBAT SLOT=PT1709 (JOB=PEPZGP3 WAIT=15 MINS)
DMSMNT000I MOUNT REQUEST SENT
EXEC SPRWMT W181 ( 120
TAPE 181 ATTACHED
```

```
TAPE REW
SPRD2T CW EXPORTF B1 ( NL 3
SPRD2T812I EXECUTING REW 1 ON TAP1 ...
SPRD2T811I OUTPUT: DSN=-, FILE=3
SPRD2T811I DCB: RECFM=FB BLOCK=6160 LRECL=80 DEN=3
SPRD2T800I 1 BLOCKS COPIED FROM 'CW EXPORTF B1' TO TAP1
SPRD2T CR EXPORTF B1 ( NL 4
SPRD2T811I OUTPUT: DSN=-, FILE=4
SPRD2T811I DCB: RECFM=FB BLOCK=6160 LRECL=80 DEN=3
SPRD2T800I 1 BLOCKS COPIED FROM 'CR EXPORTF B1' TO TAP1
SPRD2T CW EXPORTU B1 ( NL 5
SPRD2T811I OUTPUT: DSN=-, FILE=5
SPRD2T811I DCB: RECFM=FB BLOCK=6160 LRECL=80 DEN=3
SPRD2T800I 1 BLOCKS COPIED FROM 'CW EXPORTU B1' TO TAP1
SPRD2T CR EXPORTU B1 ( NL 6
SPRD2T811I OUTPUT: DSN=-, FILE=6
SPRD2T811I DCB: RECFM=FB BLOCK=6160 LRECL=80 DEN=3
SPRD2T800I 1 BLOCKS COPIED FROM 'CR EXPORTU B1' TO TAP1
TAPE REW
TAPE FSF 2
FI INMOVE TAP1 ( RECFM FB LRECL 80 BLOCK 6160
FI OUTMOVE TERM
MOVEFILE
```

CW/F

```
C
C         Z. GOLDBERG -- JULY 4,1980
C
C         COPY CONTOUR OUTPUT DATASET TO MAGTAPE FOR EXPORT
C            (WITH TITLE RECORDS, NO REFORMATTING)
C         VERSION F:  FORTRAN FORMATTED TAPE I/O
C
C
      REAL LAT(201) ,LON(201), DATA(201)
      REAL*8 TITLIN(10), EOF/'ENDTITLE'/
      DATA IN/10/, IOUT/20/, INTITL/5/
C
C
   10 CONTINUE
      READ(INTITL,20) TITLIN
      WRITE(IOUT,20) TITLIN
   20 FORMAT(10A8)
      IF(TITLIN(1).NE.EOF) GO TO 10
C
C
      READ(IN) NLAT,NLON
      WRITE(IOUT,30) NLAT,NLON
   30 FORMAT(2I10)
C
      READ(IN) (LAT(I),I=1,NLAT)
      WRITE(IOUT,40) (LAT(I),I=1,NLAT)
C
      READ(IN) (LON(J),J=1,NLON)
      WRITE(IOUT,40) (LON(J),J=1,NLON)
C
      DO 50 I=1,NLAT
      READ(IN) (DATA(J),J=1,NLON)
      WRITE(IOUT,40) (DATA(J),J=1,NLON)
   40 FORMAT(5E16.8)
   50 CONTINUE
C
C
```

```
      REWIND IN
      END FILE IOUT
C
      STOP
      END
MOVEFILE
C
C         Z. GOLDBERG -- JULY 4,1980
C
C        LIST EXPORT-FORMAT COPY OF CONTOUR OUTPUT DATASET
C              (WITH MINOR EDITING/REFORMATTING)
C        VERSION F:  FORTRAN FORMATTED TAPE I/O
C
C
      REAL LAT(201), LON(201), DENS(201)
      REAL*8 TITLIN(10), EOF/'ENDTITLE'/
      DATA IN/10/, IOUT/6/, J1/1/
C
C
      WRITE(IOUT,1)
    1 FORMAT('1 ')
C
    5 CONTINUE
      READ(IN,10) TITLIN
   10 FORMAT(10A8)
C
      IF(TITLIN(1).EQ.EOF) GO TO 20
      WRITE(IOUT,15) TITLIN
   15 FORMAT(X,10A8)
      GO TO 5
C
C
   20 CONTINUE
      WRITE(IOUT,25)
   25 FORMAT(///16X,'LATITUDE',3X,'LONGITUDE',5X,'DENSITY'/X)
C
C
      READ(IN,30) NLAT,NLON
      READ(IN,35) (LAT(I),I=1,NLAT)
      READ(IN,35) (LON(J),J=1,NLON)
   30 FORMAT(2I10)
   35 FORMAT(5E16.8)
C
C
      DO 100 I=1,NLAT
      READ(IN,35) (DENS(J),J=1,NLON)
C
      WRITE(IOUT,40) I ,J1 ,LAT(I) ,LON(J1) ,DENS(J1)
   40 FORMAT(2I6,3F12.5)
      DO 50 J=2,NLON
      WRITE(IOUT,45) J, LON(J), DENS(J)
   45 FORMAT(I12,F24.5,F12.5)
   50 CONTINUE
C
  100 CONTINUE
C
C
      REWIND IN
      STOP
      END
```

```
MOVEFILE [redacted] CW/U
C
C         Z. GOLDBERG -- JULY 4,1980
C
C        COPY CONTOUR OUTPUT DATASET TO MAGTAPE FOR EXPORT
C           (WITH TITLE RECORDS, NO REFORMATTING)
C        VERSION U:  UNFORMATTED TAPE I/O
C
C
      REAL LAT(201) ,LON(201), DATA(201)
      REAL*8 TITLIN(10), EOF/'ENDTITLE'/
      DATA IN/10/, IOUT/20/, INTITL/5/
C
C
   10 CONTINUE
      READ(INTITL,15) TITLIN
   15 FORMAT(10A8)
      WRITE(IOUT) TITLIN
      IF(TITLIN(1).NE.EOF) GO TO 10
C
C
      READ(IN) NLAT,NLON
      WRITE(IOUT) NLAT,NLON
C
      READ(IN) (LAT(I),I=1,NLAT)
      WRITE(IOUT) (LAT(I),I=1,NLAT)
C
      READ(IN) (LON(J),J=1,NLON)
      WRITE(IOUT) (LON(J),J=1,NLON)
C
      DO 50 I=1,NLAT
      READ(IN) (DATA(J),J=1,NLON)
      WRITE(IOUT) (DATA(J),J=1,NLON)
   50 CONTINUE
C
C
      REWIND IN
      REWIND IOUT
C
      STOP
      END
MOVEFILE CR/U
C
C         Z. GOLDBERG -- JULY 4,1980
C
C        LIST EXPORT-FORMAT COPY OF CONTOUR OUTPUT DATASET
C              (WITH MINOR EDITING/REFORMATTING)
C        VERSION U:  UNFORMATTED TAPE I/O
C
C
      REAL LAT(201), LON(201), DENS(201)
      REAL*8 TITLIN(10), EOF/'ENDTITLE'/
      DATA IN/10/, IOUT/6/, J1/1/
C
C
      WRITE(IOUT,5)
    5 FORMAT('1 ')
C
   10 CONTINUE
      READ(IN) TITLIN
```

```
      IF(TITLIN(1).EQ.EOF) GO TO 20
      WRITE(IOUT,15) TITLIN
   15 FORMAT(X,10A8)
      GO TO 10
C
C
   20 CONTINUE
      WRITE(IOUT,25)
   25 FORMAT(///16X,'LATITUDE',3X,'LONGITUDE',5X,'DENSITY'/X)
C
C
      READ(IN) NLAT,NLON
      READ(IN) (LAT(I),I=1,NLAT)
      READ(IN) (LON(J),J=1,NLON)
C
C
      DO 100 I=1,NLAT
      READ(IN) (DENS(J),J=1,NLON)
C
      WRITE(IOUT,35) I ,J1 ,LAT(I) ,LON(J1) ,DENS(J1)
   35 FORMAT(2I6,3F12.5)
      DO 50 J=2,NLON
      WRITE(IOUT,45) J, LON(J), DENS(J)
   45 FORMAT(I12,F24.5,F12.5)
   50 CONTINUE
C
  100 CONTINUE
C
C
      REWIND IN
      STOP
      END
EXEC SPRDSM 181
TAPE 181 DETACHED
EXEC SPRDET PEPMNT 191
DASD 194 DETACHED
R; T=1.04/5.87 15:50:42N

EXEC SPREND
```

```
================================================================================

COMMAND     DATE      TIME        COST      CPU  CONNECT     PAGES       SIO     SPOOL

LOGON     07/21/81 15:47:24     $0.11        0        0        38       171         0
SPRLNK    PEPZGP   15:47:27     $0.05        1        0         5        74         1
SPRLNK    PEPZGP   15:47:29     $0.05        0        0         4        67         1
PROGCOP            15:50:42     $0.49        6        3       182       312         3
LOGOFF    07/21/81 15:50:43     $0.72        7        3       230       647         6

================================================================================

*END PEPBAT AT 15:50:42 ON 07/21/81
```

HCC JOB NAME = PEPZGPA7 SRI = DEFERRED ACCOUNT ID = 3951GP 81.202 = TUESDAY, JULY 21, 1981 4:09 P.M.

JOB CLASS = F PRIORITY = 02 PROGRAMMER ID = PEPZGP PARTITION = 08

START	END	SERVICE REQUIREMENT				RATE	FACTOR		COST	COMMENT
16:09	16:09	INPUT PEPZGPA7	0 CARDS	ON RDR1	AT $	.62 PER 1000 CARDS		= $	0.00	
20:11	20:13	EXEC PGM PEPSPOOL	0.004 MINUTES	ON HAS5	AT $	8.00 PER CPU MINUTE	1.00	= $	0.01	STEP =
		EXEC I/O	0 I/O OPS	TO TAPE	AT $	1.08 PER 1000 I/O OPS	1.00	= $	0.00	
		EXEC I/O	1 I/O OPS	TO DISK	AT $	.57 PER 1000 I/O OPS	1.00	= $	0.01	CPU PERCENTAGE = 90%
		EXEC I/O	0 I/O OPS	TO UNIT REC	AT $	.62 PER 1000 I/O OPS	1.00	= $	0.00	
		USE CORE 128K	0.005 MINUTES	ON HAS5	AT $	.67 PER K-BYTE-HOUR		= $	0.01	
		EXEC PGM PEPSPOOL	0.089 MINUTES	ON HAS5	AT $	8.00 PER CPU MINUTE	1.00	= $	0.67	STEP =
		EXEC I/O	0 I/O OPS	TO TAPE	AT $	1.08 PER 1000 I/O OPS	1.00	= $	0.00	
		EXEC I/O	1 I/O OPS	TO DISK	AT $	.57 PER 1000 I/O OPS	1.00	= $	0.01	CPU PERCENTAGE = 99%
		EXEC I/O	0 I/O OPS	TO UNIT REC	AT $	.62 PER 1000 I/O OPS	1.00	= $	0.00	
		USE CORE 128K	0.090 MINUTES	ON HAS5	AT $	.67 PER K-BYTE-HOUR		= $	0.12	
		EXEC PGM PEPSPOOL	0.005 MINUTES	ON HAS5	AT $	8.00 PER CPU MINUTE	1.00	= $	0.01	STEP =
		EXEC I/O	0 I/O OPS	TO TAPE	AT $	1.08 PER 1000 I/O OPS	1.00	= $	0.00	
		EXEC I/O	1 I/O OPS	TO DISK	AT $	.57 PER 1000 I/O OPS	1.00	= $	0.01	CPU PERCENTAGE = 90%
		EXEC I/O	0 I/O OPS	TO UNIT REC	AT $	.62 PER 1000 I/O OPS	1.00	= $	0.00	
		USE CORE 128K	0.005 MINUTES	ON HAS5	AT $	.67 PER K-BYTE-HOUR		= $	0.01	
		EXEC PGM PEPSPOOL	0.093 MINUTES	ON HAS5	AT $	8.00 PER CPU MINUTE	1.00	= $	0.80	STEP =
		EXEC I/O	0 I/O OPS	TO TAPE	AT $	1.08 PER 1000 I/O OPS	1.00	= $	0.00	
		EXEC I/O	1 I/O OPS	TO DISK	AT $	.57 PER 1000 I/O OPS	1.00	= $	0.01	CPU PERCENTAGE = 99%
		EXEC I/O	0 I/O OPS	TO UNIT REC	AT $	.62 PER 1000 I/O OPS	1.00	= $	0.00	
		USE CORE 128K	0.094 MINUTES	ON HAS5	AT $	.67 PER K-BYTE-HOUR		= $	0.14	
		EXEC PGM PEPSPOOL	0.007 MINUTES	ON HAS5	AT $	8.00 PER CPU MINUTE	1.00	= $	0.01	STEP =
		EXEC I/O	0 I/O OPS	TO TAPE	AT $	1.08 PER 1000 I/O OPS	1.00	= $	0.00	
		EXEC I/O	1 I/O OPS	TO DISK	AT $	.57 PER 1000 I/O OPS	1.00	= $	0.01	CPU PERCENTAGE = 93%
		EXEC I/O	0 I/O OPS	TO UNIT REC	AT $	.62 PER 1000 I/O OPS	1.00	= $	0.00	
		USE CORE 128K	0.008 MINUTES	ON HAS5	AT $	.67 PER K-BYTE-HOUR		= $	0.01	
20:20	20:21	PRINT SYSOUT=A	15075 LINES	ON PR1	AT $	.55 PER 1000 LINES	1.00	= $	8.29	
								SUBTOTAL = $	10.13	
								SRI FACTOR =	.75	
								TOTAL CHARGE = $	7.60	
		HANDLING	1 JOB		AT $	.67 PER JOB HANDLING		= $	.67	
								TOTAL CHARGE = $	8.27	

TOTAL JOB COST = $ 8.27

JOB CPU TIME = 0.199 MINUTES

JOB RUN TIME = 0.201 MINUTES

SYSTEM RESIDENCE TIME = 252 MINUTES

D 48961

```
$EXE TPLIST BS

INPUT PARAMETERS ARE:  ED SR=1=2 2

 TAPE NO.    1              FILE NO.   1
 RECORD    1                LENGTH   8000
ESTIMATED VENUS GRAVITY IN VICINITY OF BETA REGIO                                    (REWRITE OF FILE 'C
547ZM03 OUT' FOR NATIONAL SPACE SCIENCE DATA CENTER)          VERSION 1:  IBM FORTRAN FORMATTED D
ATA;                                         FILE 1 OF NON-LABELLED 1600 B.P.I. TAPE;
                                    80-BYTE FIXED-LENGTH RECORDS IN 8000-BYTE BLOCKS.
    7/9/82
                                                                  MERGE OF 2 MAP SOLUTIONS:
                                                    M547Z08   (SOUTH)
                                 M547Z09   (NORTH)
                                                                                            VENUS SURFA
CE-DENSITY IS IN UNITS OF NANO-PLANET-MASSES/DEGREE**2                 (0.0565 N-PM/DEG**2 = 1 MILLIG
AL (APPROX))                                                   (OR 1 NP/D**2 = 17.7 MGAL)
                       Nlat            Nlon ENDTITLE
                        98               65
0000E+02 -0.32000000E+02 -0.31000000E+02 -0.30000000E+02 -0.29000000E+02 -0.28000000E+02      -0.330
00E+02 -0.26000000E+02 -0.25000000E+02 -0.24000000E+02 -0.23000000E+02 -0.22000000E+02 -0.270000
+02 -0.20000000E+02 -0.19000000E+02 -0.18000000E+02 -0.17000000E+02 -0.16000000E+02 -0.21000000E
 -0.14000000E+02 -0.13000000E+02 -0.12000000E+02 -0.11000000E+02 -0.10000000E+02 -0.15000000E+02
.80000000E+01 -0.70000000E+01 -0.60000000E+01 -0.50000000E+01 -0.40000000E+01 -0.90000000E+01 -0
00000E+01 -0.10000000E+01  0.0              0.10000000E+01  0.20000000E+01  0.30000000E+01 -0.30000000E+01 -0.20
00E+01  0.50000000E+01  0.60000000E+01  0.70000000E+01  0.80000000E+01  0.90000000E+01  0.40000
E+02  0.11000000E+02  0.12000000E+02  0.13000000E+02  0.14000000E+02  0.15000000E+02  0.10000000
2  0.17000000E+02  0.18000000E+02  0.19000000E+02  0.20000000E+02  0.21000000E+02  0.16000000E+0
0.23000000E+02  0.24000000E+02  0.25000000E+02  0.26000000E+02  0.27000000E+02  0.22000000E+02
9000000E+02  0.30000000E+02  0.31000000E+02  0.32000000E+02  0.33000000E+02  0.28000000E+02  0.2
000E+02  0.36000000E+02  0.37000000E+02  0.38000000E+02  0.39000000E+02  0.34000000E+02  0.3500
0E+02  0.42000000E+02  0.43000000E+02  0.44000000E+02  0.45000000E+02  0.40000000E+02  0.4100000
2  0.48000000E+02  0.49000000E+02  0.50000000E+02  0.51000000E+02  0.46000000E+02  0.47000000E+
 0.54000000E+02  0.55000000E+02  0.56000000E+02  0.57000000E+02  0.52000000E+02  0.53000000E+02
60000000E+02  0.61000000E+02  0.62000000E+02  0.63000000E+02  0.58000000E+02  0.59000000E+02  0.
                0.24400000E+03  0.24500000E+03  0.64000000E+02
00E+03  0.25000000E+03  0.25100000E+03  0.24600000E+03  0.24700000E+03  0.24800000E+03  0.249000
+03  0.25600000E+03  0.25700000E+03  0.25200000E+03  0.25300000E+03  0.25400000E+03  0.25500000E
  0.26200000E+03  0.26300000E+03  0.25800000E+03  0.25900000E+03  0.26000000E+03  0.26100000E+03
.26800000E+03  0.26900000E+03  0.26400000E+03  0.26500000E+03  0.26600000E+03  0.26700000E+03  0
40000E+03  0.27500000E+03  0.27000000E+03  0.27100000E+03  0.27200000E+03  0.27300000E+03  0.27
00E+03  0.28100000E+03  0.27600000E+03  0.27700000E+03  0.27800000E+03  0.27900000E+03  0.28000
E+03  0.28700000E+03  0.28200000E+03  0.28300000E+03  0.28400000E+03  0.28500000E+03  0.28600000
3  0.29300000E+03  0.28800000E+03  0.28900000E+03  0.29000000E+03  0.29100000E+03  0.29200000E+0
0.29900000E+03  0.29400000E+03  0.29500000E+03  0.29600000E+03  0.29700000E+03  0.29800000E+03
500000E+03  0.30000000E+03  0.30100000E+03  0.30200000E+03  0.30300000E+03  0.30400000E+03  0.3
2818E+00  0.30600000E+03  0.30700000E+03  0.30800000E+03 0.82517505E+00  0.89269328E+00  0.9572
1E+00  0.90068221E+00  0.84413624E+00  0.78759122E+00  0.73927569E+00  0.69734573E+00  0.6554160
00  0.61348605E+00  0.57155609E+00  0.52962613E+00  0.48769617E+00  0.44576621E+00  0.40383625E+
-0.41657045E-01  0.36190629E+00  0.31948090E+00  0.24725318E+00  0.17502570E+00  0.10279799E+00  0.30570537E-01
39275932E+00 -0.11158490E+00 -0.17203927E+00 -0.23249364E+00 -0.29294777E+00 -0.35340238E+00 -0.
6226E+00 -0.40827656E+00 -0.42379355E+00 -0.43931079E+00 -0.45482802E+00 -0.47034502E+00 -0.485
45E+00 -0.50137925E+00 -0.51689649E+00 -0.53241348E+00 -0.54793072E+00 -0.58788466E+00 -0.629895
+00 -0.67190623E+00 -0.71391678E+00 -0.68830299E+00 -0.54577851E+00 -0.40325332E+00 -0.26072788E
 0.73431802E+00 -0.11820269E+00  0.24322316E-01  0.16662169E+00  0.30854559E+00  0.45046949E+00  0.59239411E+00
.15858612E+01  0.87624145E+00  0.10181656E+01  0.11600876E+01  0.13020096E+01  0.14439354E+01  0
9407E+01  0.17475739E+01  0.19133911E+01  0.20792046E+01  0.21192856E+01  0.20511131E+01  0.19
62E+00  0.81856394E+00  0.87352633E+00  0.92574310E+00  0.86651778E+00  0.80729222E+00  0.74806
E+00  0.70441389E+00  0.67284274E+00  0.64127183E+00  0.60970068E+00  0.57812977E+00  0.54655886
 0.20997167E+00  0.51498771E+00  0.48341680E+00  0.45184565E+00  0.42027450E+00  0.38776588E+00  0.29886866E+0
0.29962230E+00  0.12107444E+00  0.32177463E-01 -0.56719661E-01 -0.14350009E+00 -0.22156119E+00 -
7299433E+00 -0.37768316E+00 -0.45574427E+00 -0.49388742E+00 -0.48692298E+00 -0.47995877E+00 -0.4
790E+00 -0.46602988E+00 -0.45906568E+00 -0.45210123E+00 -0.44513679E+00 -0.43817258E+00 -0.4312
        -0.42424369E+00 -0.46351600E+00 -0.50668025E+00 -0.54984426E+00 -0.59300828E+00 -0.5739312
```

D-47127

DUMP OF TAPE 47127

INPUT TAPE 47127 ... T2
DATA INPUT ... F ... 1 1

REWRITE OF CONTOR.OUT.D0123.REVEO FOR NATIONAL SPACE SCIENCE DATA CENTER

FILE 1 RECORD 1 LENGTH ... BYTES

(0)	D7C9E6D7	C9F3C140	D6C64?C3	D6D5E3D6	D940D6E4	E340C4F0	F1F2F340	D9C5E5C5	F040C6D6	D940D5C1
(40)	E3C9D6D5	C1D340E2	D7C1C3C5	40C4C5C9	C5D5C3C5	40C4C1E3	C140C3C5	D5E3C5D9	40404040	40404040
(80)	404040D5	C5E6E2C?	D6D540F1	7?4?4?C6	D6D9E3D?	C1D54?C6	D6D?D4C1	E3E3C5C4	40C4C1E3	C1D54040
(120)	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(160)	F761F2F?	61??F140	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(200)	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(240)	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(280)	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(320)	D4C5D9C7	C540D6C6	40F?40C4	C1D74?E2	D6D3E4E3	C9D6D5E2	7?404040	40404040	40404040	40404040
(360)	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(400)	404040C4	F0C1E7C1	E2C24?D5	C5E6C6C?	D36?40C9	F?C2F16?	40C4F1F2	40E2C9D5	5D6F4?C4	F2F3C14?
(440)	D5D6C4C1	??F54040	4040C3C5	D5E3D9C1	D340D3C1	F3C9E3E4	C4C54?C?	C1D5C45?	40404040	40404040
(480)	404040C4	F0F1D7F2	F040D5C5	E6C6C9D3	6?40C4F1	F2F3D7F2	F040D5C5	E6C6C9D3	40404040	D5D6D9E3
(520)	C?40D3C1	E340C2C1	D5C45040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(560)	404040C4	F?F1D4F2	F?40D5C5	E6C6C9D3	6?40C4F1	F2F3D4F2	F?40D5D6	C4C1E?F5	40404040	E2D6E4E3
(600)	C?40D3C1	E340C2C1	D5C45040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(640)	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(680)	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(720)	E5C5D9E4	E240C2E4	D9C6C1C3	C540C4C5	D5E2C9E3	E?40C?E2	40C9D540	E4D5C9F3	E240D6C6	40D5C1D5
(760)	C6D6D7D3	C1D5C5E3	6?D4C1E2	E2C5E261	C4C5C7D9	C5C5E2C?	F2404040	40404040	40404040	40404040
(800)	4DF040F0	F5F6F540	D5D6D7D4	61C4C5C7	5C5CF24?	7?4?F140	D4C?D3D3	C9C7C1D3	4040C1D7	D7D9D6E7
(840)	5D5D4040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(880)	40D6D940	F140D5D7	61C45C5C	F24?7?40	F1F74?F7	40?4C7C1	D3D54040	40404040	40404040	40404040
(920)	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(960)	C5D5C4E3	C9C3D3C5	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(1000)	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(1040)	40404040	40404040	??F14040	40404040	4040F??6	40404040	40404040	40404040	40404040	40404040
(1080)	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(1120)	4060F040	F2F0F0F0	F0F0F0F0	C54EF0F2	4060F040	F1F?F0F0	F0F0F0F0	C54EF0F2	4060F040	F1F?F0F0
(1160)	F0F0F0F0	C54EF0F2	4060F040	F1F7F0F0	F0F0F0F0	C54EF0F2	4060F040	F1F6F0F0	F0F0F0F0	C54EF0F2
(1200)	4060F040	F1F5F0F0	F0F0F0F0	C54EF0F2	4060F040	F1F4F0F0	F0F0F0F0	C54EF0F2	4060F040	F1F3F0F0
(1240)	F0F0F0F0	C54EF0F2	4060F040	F1F2F0F0	F0F0F0F0	C54EF0F2	4060F040	F1F1F0F0	F0F0F0F0	C54EF0F2
(1280)	4060F040	F1F0F0F0	F0F0F0F0	C54EF0F2	4060F040	F?F?F0F0	F0F0F0F0	C54EF0F1	4060F040	F?F?F0F0
(1320)	F0F0F0F0	C54EF0F1	4060F040	F7F0F0F0	F0F0F0F0	C54EF0F1	4060F040	F6F0F0F0	F0F0F0F0	C54EF0F1
(1360)	4060F040	F5F0F0F0	F0F0F0F0	C54EF0F1	4060F040	F4F0F0F0	F0F0F0F0	C54EF0F1	4060F040	F3F0F0F0
(1400)	F0F0F0F0	C54EF0F1	4060F040	F2F0F0F0	F0F0F0F0	C54EF0F1	4060F040	F1F0F0F0	F0F0F0F0	C54EF0F1
(1440)	4040F040	F0404040	40404040	40404040	4040F040	F1F0F0F0	F0F0F0F0	C54EF0F1	4040F040	F2F0F0F0
(1480)	F0F0F0F0	C54EF0F1	4040F040	F3F0F0F0	F0F0F0F0	C54EF0F1	4040F040	F4F0F0F0	F0F0F0F0	C54EF0F1
(1520)	4040F040	F5F0F0F0	F0F0F0F0	C54EF0F1	4040F040	F6F0F0F0	F0F0F0F0	C54EF0F1	4040F040	F7F0F0F0
(1560)	F0F0F0F0	C54EF0F1	4040F040	F?F0F0F0	F0F0F0F0	C54EF0F1	4040F040	F?F0F0F0	F0F0F0F0	C54EF0F1
(1600)	4040F040	F1F0F0F0	F0F0F0F0	C54EF0F2	4040F040	F1F1F0F0	F0F0F0F0	C54EF0F2	4040F040	F1F2F0F0
(1640)	F0F0F0F0	C54EF0F2	4040F040	F1F3F0F0	F0F0F0F0	C54EF0F2	4040F040	F1F4F0F0	F0F0F0F0	C54EF0F2
(1680)	4040F040	F1F5F0F0	F0F0F0F0	C54EF0F2	4040F040	F1F6F0F0	F0F0F0F0	C54EF0F2	4040F040	F1F7F0F0
(1720)	F0F0F0F0	C54EF0F2	4040F040	F1F?F0F0	F0F0F0F0	C54EF0F2	4040F040	F1F9F0F0	F0F0F0F0	C54EF0F2
(1760)	4040F040	F2F0F0F0	F0F0F0F0	C54EF0F2	4040F040	F2F1F0F0	F0F0F0F0	C54EF0F2	4040F040	F2F2F0F0
(1800)	F0F0F0F0	C54EF0F2	4040F040	F2F3F0F0	F0F0F0F0	C54EF0F2	4040F040	F2F4F0F0	F0F0F0F0	C54EF0F2
(1840)	4040F040	F2F5F0F0	F0F0F0F0	C54EF0F2	4040F040	F2F6F0F0	F0F0F0F0	C54EF0F2	4040F040	F2F7F0F0
(1880)	F0F0F0F0	C54EF0F2	4040F040	F2F?F0F0	F0F0F0F0	C54EF0F2	4040F040	F2F9F0F0	F0F0F0F0	C54EF0F2
(1920)	4040F040	F3F0F0F0	F0F0F0F0	C54EF0F2	4040F040	F3F1F0F0	F0F0F0F0	C54EF0F2	4040F040	F3F2F0F0
(1960)	F0F0F0F0	C54EF0F2	4040F040	F3F3F0F0	F0F0F0F0	C54EF0F2	4040F040	F3F4F0F0	F0F0F0F0	C54EF0F2
(2000)	4040F040	F3F5F0F0	F0F0F0F0	C54EF0F2	4040F040	F3F6F0F0	F0F0F0F0	C54EF0F2	4040F040	F3F7F0F0
(2040)	F0F0F0F0	C54EF0F2	4040F040	F3F?F0F0	F0F0F0F0	C54EF0F2	4040F040	F3F9F0F0	F0F0F0F0	C54EF0F2
(2080)	4040F040	F4F0F0F0	F0F0F0F0	C54EF0F2	4040F040	F4F1F0F0	F0F0F0F0	C54EF0F2	4040F040	F4F2F0F0
(2120)	F0F0F0F0	C54EF0F2	4040F040	F4F3F0F0	F0F0F0F0	C54EF0F2	4040F040	F4F4F0F0	F0F0F0F0	C54EF0F2
(2160)	4040F040	F4F5F0F0	F0F0F0F0	C54EF0F2	4040F040	F4F6F0F0	F0F0F0F0	C54EF0F2	4040F040	F4F7F0F0
(2200)	F0F0F0F0	C54EF0F2	4040F040	F4F?F0F0	F0F0F0F0	C54EF0F2	4040F040	F4F9F0F0	F0F0F0F0	C54EF0F2
(2240)	4040F040	F5F0F0F0	F0F0F0F0	C54EF0F2	4040F040	F5F1F0F0	F0F0F0F0	C54EF0F2	4040F040	F5F2F0F0
(2280)	F0F0F0F0	C54EF0F2	4040F040	[illegible]	F0F0F0F0	C54EF0F2	4040F040	[illegible]	[illegible]	[illegible]

(2320)	4040F048	F5F3F0F0	F0F0F0F0	C54EF0F2	4040F048	F5F5F0F0	F0F0F0F0	C54EF0F2	4040F048	F5F7F0F0
(2360)	F0F0F0F0	C54EF0F2	4040F048	F5F8F0F0	F0F0F0F0	C54EF0F2	4040F048	F5F9F0F0	F0F0F0F0	C54EF0F2
(2400)	4040F048	F6F1F0F0	F0F0F0F0	C54EF0F2	40404040	40404040	40404040	40404040	40404040	40404040
(2440)	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(2480)	4040F048	F0F4F0F0	40404040	40404040	4040F048	F1F0F0F0	F0F0F0F0	C54EF0F1	4040F048	F2F0F0F0
(2520)	F0F0F0F0	C54EF0F1	4040F048	F3F0F0F0	F0F0F0F0	C54EF0F1	4040F048	F4F0F0F0	F0F0F0F0	C54EF0F1
(2560)	4040F048	F5F0F0F0	F0F0F0F0	C54EF0F1	4040F048	F6F0F0F0	F0F0F0F0	C54EF0F1	4040F048	F7F0F0F0
(2600)	F0F0F0F0	C54EF0F1	4040F048	F8F0F0F0	F0F0F0F0	C54EF0F1	4040F048	F9F0F0F0	F0F0F0F0	C54EF0F1
(2640)	4040F048	F1F0F0F0	F0F0F0F0	C54EF0F2	4040F048	F1F1F0F0	F0F0F0F0	C54EF0F2	4040F048	F1F2F0F0
(2680)	F0F0F0F0	C54EF0F2	4040F048	F1F3F0F0	F0F0F0F0	C54EF0F2	4040F048	F1F4F0F0	F0F0F0F0	C54EF0F2
(2720)	4040F048	F1F5F0F0	F0F0F0F0	C54EF0F2	4040F048	F1F6F0F0	F0F0F0F0	C54EF0F2	4040F048	F1F7F0F0
(2760)	F0F0F0F0	C54EF0F2	4040F048	F1F8F0F0	F0F0F0F0	C54EF0F2	4040F048	F1F9F0F0	F0F0F0F0	C54EF0F2
(2800)	4040F048	F2F0F0F0	F0F0F0F0	C54EF0F2	4040F048	F2F1F0F0	F0F0F0F0	C54EF0F2	4040F048	F2F2F0F0
(2840)	F0F0F0F0	C54EF0F2	4040F048	F2F3F0F0	F0F0F0F0	C54EF0F2	4040F048	F2F4F0F0	F0F0F0F0	C54EF0F2
(2880)	4040F048	F2F5F0F0	F0F0F0F0	C54EF0F2	4040F048	F2F6F0F0	F0F0F0F0	C54EF0F2	4040F048	F2F7F0F0
(2920)	F0F0F0F0	C54EF0F2	4040F048	F2F8F0F0	F0F0F0F0	C54EF0F2	4040F048	F2F9F0F0	F0F0F0F0	C54EF0F2
(2960)	4040F048	F3F0F0F0	F0F0F0F0	C54EF0F2	4040F048	F3F1F0F0	F0F0F0F0	C54EF0F2	4040F048	F3F2F0F0
(3000)	F0F0F0F0	C54EF0F2	4040F048	F3F3F0F0	F0F0F0F0	C54EF0F2	4040F048	F3F4F0F0	F0F0F0F0	C54EF0F2
(3040)	4040F048	F3F5F0F0	F0F0F0F0	C54EF0F2	4040F048	F3F6F0F0	F0F0F0F0	C54EF0F2	4040F048	F3F7F0F0
(3080)	F0F0F0F0	C54EF0F2	4040F048	F3F8F0F0	F0F0F0F0	C54EF0F2	4040F048	F3F9F0F0	F0F0F0F0	C54EF0F2
(3120)	4040F048	F4F0F0F0	F0F0F0F0	C54EF0F2	4040F048	F4F1F0F0	F0F0F0F0	C54EF0F2	4040F048	F4F2F0F0
(3160)	F0F0F0F0	C54EF0F2	4040F048	F4F3F0F0	F0F0F0F0	C54EF0F2	4040F048	F4F4F0F0	F0F0F0F0	C54EF0F2
(3200)	4040F048	F4F5F0F0	F0F0F0F0	C54EF0F2	4040F048	F4F6F0F0	F0F0F0F0	C54EF0F2	4040F048	F4F7F0F0
(3240)	F0F0F0F0	C54EF0F2	4040F048	F4F8F0F0	F0F0F0F0	C54EF0F2	4040F048	F4F9F0F0	F0F0F0F0	C54EF0F2
(3280)	4040F048	F5F0F0F0	F0F0F0F0	C54EF0F2	4040F048	F5F1F0F0	F0F0F0F0	C54EF0F2	4040F048	F5F2F0F0
(3320)	F0F0F0F0	C54EF0F2	4040F048	F5F3F0F0	F0F0F0F0	C54EF0F2	4040F048	F5F4F0F0	F0F0F0F0	C54EF0F2
(3360)	4040F048	F5F5F0F0	F0F0F0F0	C54EF0F2	4040F048	F5F6F0F0	F0F0F0F0	C54EF0F2	4040F048	F5F7F0F0
(3400)	F0F0F0F0	C54EF0F2	4040F048	F5F8F0F0	F0F0F0F0	C54EF0F2	4040F048	F5F9F0F0	F0F0F0F0	C54EF0F2
(3440)	4040F048	F6F0F0F0	F0F0F0F0	C54EF0F2	4040F048	F6F1F0F0	F0F0F0F0	C54EF0F2	4040F048	F6F2F0F0
(3480)	F0F0F0F0	C54EF0F2	4040F048	F6F3F0F0	F0F0F0F0	C54EF0F2	4040F048	F6F4F0F0	F0F0F0F0	C54EF0F2
(3520)	4040F048	F6F5F0F0	F0F0F0F0	C54EF0F2	4040F048	F6F6F0F0	F0F0F0F0	C54EF0F2	4040F048	F6F7F0F0
(3560)	F0F0F0F0	C54EF0F2	4040F048	F6F8F0F0	F0F0F0F0	C54EF0F2	4040F048	F6F9F0F0	F0F0F0F0	C54EF0F2
(3600)	4040F048	F7F0F0F0	F0F0F0F0	C54EF0F2	4040F048	F7F1F0F0	F0F0F0F0	C54EF0F2	4040F048	F7F2F0F0
(3640)	F0F0F0F0	C54EF0F2	4040F048	F7F3F0F0	F0F0F0F0	C54EF0F2	4040F048	F7F4F0F0	F0F0F0F0	C54EF0F2
(3680)	4040F048	F7F5F0F0	F0F0F0F0	C54EF0F2	4040F048	F7F6F0F0	F0F0F0F0	C54EF0F2	4040F048	F7F7F0F0
(3720)	F0F0F0F0	C54EF0F2	4040F048	F7F8F0F0	F0F0F0F0	C54EF0F2	4040F048	F7F9F0F0	F0F0F0F0	C54EF0F2
(3760)	4040F048	F8F0F0F0	F0F0F0F0	C54EF0F2	4040F048	F8F1F0F0	F0F0F0F0	C54EF0F2	4040F048	F8F2F0F0
(3800)	F0F0F0F0	C54EF0F2	4040F048	F8F3F0F0	F0F0F0F0	C54EF0F2	4040F048	F8F4F0F0	F0F0F0F0	C54EF0F2
(3840)	4040F048	F8F5F0F0	F0F0F0F0	C54EF0F2	40404040	40404040	40404040	40404040	40404040	40404040
(3880)	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040	40404040
(3920)	4040F048	F3F6F2F0	F6F7F7F8	C54EF0F0	4040F048	F3F3F5F3	F6F5F3F0	C54EF0F0	4040F048	F3F0F8F6
(3960)	F6F2F8F9	C54EF0F0	4040F048	F2F0F0F3	F9F5F0F0	C54EF0F0	4040F048	F2F5F0F5	F6F4F3F4	C54EF0F0
(4000)	4040F048	F2F2F0F7	F3F2F6F9	C54EF0F0	4040F048	F1F8F7F3	F0F0F7F0	C54EF0F0	4040F048	F1F0F0F2
(4040)	F9F2F1F3	C54EF0F0	4040F048	F1F6F3F2	F7F5F7F2	C54EF0F0	4040F048	F1F6F1F5	F2F5F9F6	C54EF0F0
(4080)	4040F048	F1F7F5F0	F4F2F3F9	C54EF0F0	4040F048	F1F9F0F5	F5F9F0F6	C54EF0F0	4040F048	F2F1F7F6
(4120)	F4F6F6F0	C54EF0F0	4040F048	F2F5F2F3	F0F4F3F1	C54EF0F0	4040F048	F3F0F6F9	F5F2F4F9	C54EF0F0
(4160)	4040F048	F3F4F6F0	F9F6F9F9	C54EF0F0	4040F048	F3F7F9F7	F9F7F9F1	C54EF0F0	4040F048	F4F1F3F3
(4200)	F1F0F4F0	C54EF0F0	4040F048	F4F1F6F6	F9F0F6F9	C54EF0F0	4040F048	F3F0F9F0	F5F0F3F0	C54EF0F0
(4240)	4040F048	F3F6F3F0	F0F1F0F2	C54EF0F0	4040F048	F2F9F5F5	F7F7F5F3	C54EF0F0	4040F048	F1F0F7F5
(4280)	F7F9F3F9	C54EF0F0	4040F048	F7F2F5F0	F1F9F2F2	C560F0F1	4060F048	F4F5F1F3	F4F0F0F0	C560F0F1
(4320)	4060F048	F1F0F6F5	F6F5F1F6	C54EF0F0	4060F048	F3F2F7F9	F9F6F2F5	C54EF0F0	4060F048	F4F6F0F5
(4360)	F6F5F3F3	C54EF0F0	4060F048	F5F0F5F0	F7F2F6F5	C54EF0F0	4060F048	F7F0F4F6	F9F3F3F0	C54EF0F0
(4400)	4060F048	F7F6F5F4	F2F2F9F2	C54EF0F0	4060F048	F7F7F1F4	F2F9F0F6	C54EF0F0	4060F048	F7F6F0F3
(4440)	F8F6F9F4	C54EF0F0	4060F048	F7F1F2F8	F5F0F3F3	C54EF0F0	4060F048	F6F6F1F0	F2F1F3F7	C54EF0F0
(4480)	4060F048	F6F1F0F7	F9F2F6F4	C54EF0F0	4060F048	F5F5F1F6	F5F3F1F5	C54EF0F0	4060F048	F4F8F4F4
(4520)	F0F2F3F9	C54EF0F0	4060F048	F4F1F7F1	F5F3F1F2	C54EF0F0	4060F048	F3F4F9F3	F9F0F7F5	C54EF0F0
(4560)	4060F048	F2F8F1F1	F1F5F7F7	C54EF0F0	4060F048	F2F1F2F8	F4F0F8F0	C54EF0F0	4060F048	F1F6F2F0
(4600)	F7F6F4F7	C54EF0F0	4060F048	F1F2F1F0	F2F2F3F3	C54EF0F0	4060F048	F9F5F5F6	F9F1F9F0	C560F0F1
(4640)	4060F048	F7F5F3F9	F3F4F3F0	C560F0F1	4060F048	F6F8F2F9	F7F0F6F3	C560F0F1	4060F048	F6F1F2F0
(4680)	F2F3F4F7	C560F0F1	4060F048	F5F1F3F0	F0F9F5F7	C560F0F1	4060F048	F5F9F5F9	F3F5F2F9	C560F0F1
(4720)	4060F048	F6F0F9F0	F6F0F9F5	C560F0F1	4060F048	F5F6F0F6	F2F8F4F7	C560F0F1	4060F048	F4F5F1F2
(4760)	F4F1F5F0	C560F0F1	4060F048	F3F4F1F0	F5F4F1F0	C560F0F1	4060F048	F1F8F6F9	F9F0F3F5	C560F0F1
(4800)	4040F048	F1F3F3F4	F6F3F0F0	C560F0F2	4040F048	F2F1F3F6	F8F2F9F5	C560F0F1	4040F048	F3F9F4F0
(4840)	F4F9F7F3	C560F0F1	4040F048	F5F5F4F4	F4F5F0F9	C560F0F1	4040F048	F7F1F4F3	F3F8F5F0	C560F0F1
(4880)	4040F048	F7F5F1F4	F5F4F8F3	C560F0F1	4040F048	F7F4F2F9	F4F5F6F7	C560F0F1	4040F048	F7F0F8F2
(4920)	F1F7F6F2	C560F0F1	4040F048	F6F5F5F4	F6F6F6F0	C560F0F1	4040F048	F6F5F1F0	F7F1F0F7	C560F0F1