#783

ISEE 1 & 2

4-sec Magnetometer data on O/D
60-sec Magnetometer Data on O/D
4-sec magnetometer Data on O/D
60-sec Magnetometer Data on O/D

77-102A-04Y, 04Z
77-102B-04T, 04U

ISEE 1 & 2

4-SEC MAGNETOMETER DATA ON O/D
60-SEC MAGNETOMETER DATA ON O/D
4-SEC MAGNETOMETER DATA ON O/D
60-SEC MAGNETOMETER DATA ON O/D

77-102A-04Y, 04Z
77-102B-04T, 04U

THIS DATA SET CONSISTS OF 4 OPTIMEM 1000M WRITE-ONCE-READ-MANY (WORM) OPTICAL DISKS. THE KV NUMBERS FOLLOW:

KF000053-56

UNIVERSITY OF CALIFORNIA, LOS ANGELES

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INSTITUTE OF GEOPHYSICS AND PLANETARY PHYSICS
LOS ANGELES, CALIFORNIA 90024-1567
FAX: (213) 206-3051

March 22, 1995

    Enclosed in this box are 4 Optimem 1000M Write-Once-Read-Many (WORM) optical disk platters containing International Sun-Earth Explorer #1 and #2 (ISEE-1 and ISEE-2) averaged fluxgate magnetometer data at 4-second and 60-second resolutions, the latter including Multi-Coordinate Ephemeris (MCE) data.

    These disks were written using NSSDC SOAR software and may be accessed using DEC/VMS files-11 commands, for example, "MOUNT/NOWRITE DUC0: ISEE1" or "MOUNT/NOWRITE DUC0: ISEE2". Each disk logical volume (one side of a disk) contains a volume description file in Standard Formatted Data Units (SFDU) that has the file name "[000000]VOLDESC.SFD". Also, each logical volume includes files containing the structure of the data files in SFDU format. These files are named "[000000]4SECOND.SFD" for the 4-second averaged data files and "[000000]60SECOND.SFD" for the 60-second averaged data files. Also included are files describing the UCLA/IGPP flat file system, which was used to create these data files. These files are called "[000000]FFHEADER.SFD" and "[000000]FFDATA.SFD". Finally, software has been archived on each logical volume that demonstrates how to read these datasets. For a description of the software see the file "[SOURCE]00README.TXT" on each logical volume. Printed copies of all the VOLDESC.SFD files, along with one copy of each of the other SFDU files and the 00README.TXT file have been included for reference.

    Please note that each logical volume has an NSSDC logical volume identification number. Technical support for the preparation of SFDU documentation was provided by John Garrett and Don Sawyer of the NSSDC Standards Office. Included on the next page is a list of logical volume ID numbers and the data coverage on each logical volume.

If you have any questions please contact:

TECHNICAL CONTACT: Harry Herbert
                          University of California at Los Angeles
                          Institute of Geophysics and Planetary Physics
                          5833 Slichter Hall
                          Los Angeles, CA 90024-1567
                          (310) 825-9030
                          NSI-hherbert@igpp.ucla.edu
                          NSI-DECnet=BRUNET::HARRY

SCIENTIFIC CONTACT: Dr. Christopher Russell
                          University of California at Los Angeles
                          Institute of Geophysics and Planetary Physics
                          6871 Slichter Hall
                          Los Angeles, CA 90024-1567
                          (310) 825-3188
                          NSI=ctrussel@igpp.ucla.edu
                          NSI-DECnet=BRUNET::CTRUSSELL

```
ISEE-1 AVERAGED MAG DATA   DATA ORBITS   TIME COVERAGE
------------------------   -----------   --------------------------------
USA_NASA_NSSD_IC1D_0010A   0001 - 0380   10/22/77 14:49 - 04/17/80 21:02

USA_NASA_NSSD_IC1D_0010B   0381 - 0760   04/17/80 21:02 - 10/13/82 01:45

USA_NASA_NSSD_IC1D_0011A   0761 - 1140   10/13/82 01:45 - 04/08/85 06:46

USA_NASA_NSSD_IC1D_0011B   1141 - 1517   04/08/85 06:46 - 09/26/87 06:38


ISEE-2 AVERAGED MAG DATA   DATA ORBITS   TIME COVERAGE
------------------------   -----------   --------------------------------
USA_NASA_NSSD_IC2D_0010A   0001 - 0380   10/22/77 14:49 - 04/17/80 21:02

USA_NASA_NSSD_IC2D_0010B   0381 - 0760   04/17/80 21:02 - 10/13/82 01:44

USA_NASA_NSSD_IC2D_0011A   0761 - 1140   10/13/82 01:44 - 04/08/85 06:42

USA_NASA_NSSD_IC2D_0011B   1141 - 1517   04/08/85 06:42 - 09/26/87 06:38
```

```
* ------------------------------------------------------------------- *
*                                                                     *
* 00readme.txt -  This file contains a list of the documentation files in the*
*                 [000000] and the [SOURCE] directories of the Optimem 1000  *
*                 Write-Once Read-Many disk platters containing the 4-second *
*                 and 60-second averaged magnetic field data sets of the     *
*                 International Sun-Earth Explorers (ISEE) 1 and 2 spacecraft *
*                 of the United States National Aeronautics and Space        *
*                 Adminstration (NASA).                                       *
*                                                                     *
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*                                                                     *
* For information about this software please contact:                *
*                                                                     *
*    Principal Investigator:                                          *
*      Christopher Russell                                            *
*      UCLA - Institute of Geophysics and Planetary Physics           *
*      6871 Slichter Hall                                             *
*      Los Angeles, Ca. 90024-1567                                    *
*      INTERNET e-mail:     ctrussell@igpp.ucla.edu                   *
*      NSI/DECnet e-mail:   BRUNET::CTRUSSELL                         *
*      Telephone:           (310) 825-3188                            *
*                                                                     *
*    Programmer:                                                      *
*      Harry Herbert                                                  *
*      UCLA - Institute of Geophysics and Planetary Physics           *
*      5833 Slichter Hall                                             *
*      Los Angeles, Ca. 90024-1567                                    *
*      INTERNET e-mail:     hherbert@igpp.ucla.edu                    *
*      NSI/DECnet e-mail:   BRUNET::HARRY                             *
*      Telephone:           (310) 825-9030                            *
*                                                                     *
* ------------------------------------------------------------------- *
```

===
                        00README.TXT
===

       This file contains a map showing how the files in the [000000] and
[SOURCE] directories of the ISEE 1 and 2 4-second and 60-second averaged
magnetic field WORM disks are used to read and interpret the datasets.
Included herein is a brief description of the purpose of each file. The
files themselves contain more complete documentation.

Documentation files:

    voldesc.sfd - SFDU volume description file for this disk. This file
                    contains spacecraft and instrument descriptions, an overview
                    of the 4-second and 60-second averaged magnetic field
                    datasets, a list of the data files included on the disk with
                    their start and stop times, and a list of the support files
                    that have been included on the disk. These support files are
                    described more fully in this 00README.TXT file.

    4second.sfd - SFDU detailed dataset description. This file provides the
                    layout of the 4-second averaged magnetic field dataset
                    including a description of each item.

    60second.sfd - SFDU detailed dataset description. This file provides the
                    layout of the 60-second averaged magnetic field dataset
                    including a description of each item.

    errata.txt   - Known problems description. This file contains a description
                    of any data and documentation inaccuracies that have been
                    discovered in previous logical volumes of this dataset.

ffheader.sfd - UCLA/IGPP header flat file description. This SFDU compliant
document contains a detailed description of the meta data
file used with the UCLA/IGPP flat file data storage system.
This system was used for storing the ISEE 4-second and
60-second averaged magnetic field data. As detailed in this
document, a UCLA/IGPP flat file is made up of a pair of
files: an ASCII file containing meta data with the file type
extension ".ffh" (for flat file header); and a data file
containing binary values with the file type extension ".ffd"
(for flat file data).

ffdata.sfd - UCLA/IGPP header data file description. This SFDU compliant
document contains a detailed description of the binary data
file used with the UCLA/IGPP flat file data storage system.
This system was used for storing the ISEE 4-second and
60-second averaged magnetic field data. As detailed in this
document, a UCLA/IGPP flat file is made up of a pair of
files: an ASCII file containing meta data with the file type
extension ".ffh" (for flat file header); and a data file
containing binary values with the file type extension ".ffd"
(for flat file data).

DEC VMS files:

4s2asc - Program to read ISEE 1 and 2 4-second averaged magnetic field
data files in UCLA/IGPP format and write their contents to a
user specified ASCII text file. It is contructed from
these files:

4S2ASC.COM - Compile and link command file 4S2ASC.FOR
4S2ASC.FOR - FORTRAN program to write out ISEE 4-second data
CTIME.FOR - FORTRAN time subroutines used by 4S2ASC.FOR

60s2asc - Program to read ISEE 1 and 2 60-second averaged magnetic field
data files in UCLA/IGPP format and write their contents to a
user specified ASCII text file. It is contructed from
these files:

60S2ASC.COM - Compile and link command file 60S2ASC.FOR
60S2ASC.FOR - FORTRAN program to write out ISEE 60-second data
CTIME.FOR   - FORTRAN time subroutines used by 60S2ASC.FOR

Sun UNIX files:

Makefile - Input file for the UNIX "make" command. It compiles and
links the Sun/UNIX programs.

4s2asc - Program to read ISEE 1 and 2 4-second averaged magnetic field
data files in UCLA/IGPP format that have been FTPed from VMS
and write their contents to a user specified ASCII text file.
The program includes routines to convert the binary data from
VMS to IEEE floating point formats. It is contructed from
these files:

4s2asc.f - FORTRAN program to write out ISEE 4-second data
convert.c - FORTRAN callable C data conversion functions
ctime.c   - FORTRAN callable C time functions

60s2asc - Program to read ISEE 1 and 2 60-second averaged magnetic field
data files in UCLA/IGPP format that have been FTPed from VMS
and write their contents to a user specified ASCII text file.
The program includes routines to convert the binary data from
VMS to IEEE floating point formats. It is contructed from
these files:

60s2asc.f - FORTRAN program to write out ISEE 60-second data
convert.c - FORTRAN callable C data conversion functions
ctime.c   - FORTRAN callable C time functions

USAGE NOTES - To use the DEC VMS programs, copy the source code off the
WORM disk then type "@4S2ASC" and "@60S2ASC" to compile and
link both of the flat file to ASCII programs. Both programs
can read the data directly from the WORM disk and write their
output to a user specified file on a magnetic disk.

To use the Sun UNIX programs, FTP in ASCII mode the source
code from VMS to UNIX. Type "make all" to compile and link
both of the flat file to ASCII programs. To move the ISEE
4-second and 60-second data files use the BINARY mode of FTP