

#675

ISRE 1 & 2
4SECOND AVERAGED ELECTRON AND PROTON DATA
77-102A-10H/77-102B-02F

4SEC PESOLVED B-FLP DATA (12-s AVG)
77-102A-04T/77-102B-04P

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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 This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system.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

REQ. AGENT

RLR

RAND NO.

ACQ. AGENT

SK

ISEE-1

4 SEC AVG ELECTRON AND PROTON DATA

77-102A-10H **SPMS-00296**

This data set catalog consists of 19 tapes for ISEE-1. The tapes are 6250 bpi, 9-track, binary, with an ASCII header file for each data file. The D and C numbers, time spans, and number of files are as follows:

77-102A-10H ISEE-1:

D# --	C# --	FILES -----	TIME SPANS -----
D-82300	C-27941	100	10/23/77 - 12/25/77
D-82301	C-27942	104	12/27/77 - 02/26/78
D-82302	C-27953	082	02/26/78 - 04/26/78
D-82303	C-27943	110	04/26/78 - 07/02/78
D-82304	C-27944	104	07/02/78 - 09/13/78
D-82305	C-27945	106	09/13/78 - 12/10/78
D-82306	C-27946	106	12/10/78 - 02/21/79
D-82307	C-27947	088	02/21/79 - 04/29/79
D-82308	C-27948	108	04/29/79 - 07/08/79
D-82309	C-27949	094	07/08/79 - 09/16/79
D-82310	C-27950	100	09/16/79 - 11/25/79
D-82311	C-27951	094	11/25/79 - 01/30/80
D-82312	C-27952	022	01/30/80 - 02/19/80
D-84356	C-28844	030	10/27/82 - 11/27/82
D-84357	C-28845	090	02/23/83 - 06/09/83
D-84358	C-28846	072	06/12/83 - 09/03/83
D-84359	C-28847	056	09/04/83 - 11/22/83
D-84360	C-28848	018	11/23/83 - 12/27/83
D-79073	C-27160	110	03/30/86 - 06/17/86

REQ. AGENT

RLR

RAND NO.

ACQ. AGENT

SK

ISEE-2

4 SEC AVG ELECTRON AND PROTON DATA

77-102B-08F SPMS-00179

This data set catalog consists of 20 tapes for ISEE-2. The tapes are 6250 bpi, 9-track, Binary, with an ASCII header file for each data file. The D and C numbers, time spans, and number of files are as follows:

77-102B-08F ISEE-2:

D#	C#	FILES	TIME SPANS
D-82313	C-27994	106	10/22/77 - 12/28/77
D-82314	C-27995	108	12/28/77 - 02/26/78
D-82315	C-27996	106	02/26/78 - 04/27/78
D-82316	C-27997	110	04/27/78 - 07/01/78
D-82318	C-27999	088	07/02/78 - 09/13/78
D-82317	C-27998	092	09/13/78 - 12/10/78
D-82320	C-28001	108	12/10/78 - 02/21/79
D-82319	C-28000	114	02/21/79 - 04/29/79
D-82321	C-28002	106	04/29/79 - 07/08/79
D-82322	C-28003	104	07/08/79 - 09/16/79
D-82325	C-28006	098	09/16/79 - 11/25/79
D-82324	C-28005	100	11/25/79 - 01/29/80
D-82323	C-28004	036	01/30/80 - 02/19/80
D-84361	C-28849	036	10/24/82 - 11/27/82
D-84362	C-28850	082	11/28/82 - 02/22/83
D-79070	C-27161	120	02/21/83 - 06/11/83
D-79071	C-27162	086	06/12/83 - 09/01/83
D-84363	C-28851	056	09/04/83 - 12/13/83
D-85875	C-28939	6	12/13/83 - 12/27/83
D-79072	C-27163	110	03/28/86 - 06/17/86

ATTN: Ralph Post
RE: isee archive tapes

23-Nov-88

These four tapes contain isee data from the Berkeley/Toulouse high time resolution energetic particle experiments. They are in a FLAT format with the particulars as described in the accompanying letter to Sumant Krishnaswamy and the sample header file.

The tapes cover the time periods:

28-Mar-86 to 17-Jun-86 for isee 1 and 2;
21-Feb-83 to 1-Sep-83 for isee 2.

If you have questions, my phone number is 206-543-9055.

Michael McCarthy

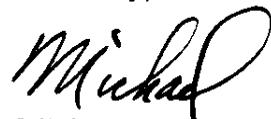
To Suman Krishnaswamy

14-October-1988

Page 2

9. spin pr is the spacecraft spin period as determined from the sun sensor.
10. Units for flux are $\text{cm}^{-2}\text{-sec}^{-1}\text{-keV}^{-1}\text{-ster}^{-1}$.

Sincerely,



Michael McCarthy

Instrument Paper:

Anderson et al., IEEE Trans. Geosci. Electronics,
GE-16, No.3, July 1978, 213 - 216.

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

Space Sciences Division
Geophysics Program, AK-50
(206) 543-0208 or 543-8020

September 26, 1991

Suman Krishnaswamy
NSSDC Project
7601 Oral Glen Drive
Suite 300
Greenbelt, MD 20770

Dear Dr. Krishnaswamy:

I have just sent the ISEE archive tapes for period II (which is from October 15, 1982 to December 25, 1983). Ralph should receive them shortly. Each tape has a summary page containing the starting and stopping times of every file. There are eight tapes in one box: five from isee 1 and three from isee 2.

This concludes the archive shipments except for two flat tapes. The two tapes yet to be delivered are tapes correspond to the following dates:

isee 1: 28 Nov 1982 (332) - 22 Feb 1983 (053)
isee 2: 23 Nov 1983 (327) - 27 Dec 1983 (361).

All the data for these tapes has been processed, we are just having some problem putting it on the tapes. I will get them out as soon as I can.

If you have any questions please call me at (206) 543-0208.

Sincerely,

77-102A-10H
77-102B-08F - D184361-63

Jeffery Ross

62-7505

cc: Dr. Robert O. Wales
Dr. Keith Ogilvie
Dr. Mary Mellott
Dr. Tom Armstrong

Received
10/1/91

Michael P. McCarthy
Research Associate
[206] 543-9055

14-October-1988

Sumant Krishnaswamy
Code 633
NSSDC
NASA/GSFC
Greenbelt, MD 20771

RE: Format of archive tapes

These data are from the high time resolution particle detectors from Berkeley/Toulouse. These detectors were installed on both ISEE-1 and ISEE-2. Dr. Kinsey Anderson was PI for this experiment. Data tapes (6250 bpi) contain about 110 files arranged in pairs of a header file and its associated data file. The header files are ASCII and the data files contain binary data in a format described in the header file. These are FLAT files.

The header file is terse in its description of the data fields and some additional information will be given here.

1. **time** is the time at the end of the 4 second averaging period.
2. **otnn** refers to the open solid state telescopes which collect both protons and electrons.
 - a. $nn = 12$ means $16 \text{ keV} < \text{energy} < 280 \text{ keV}$.
 - b. $nn = 60$ means $84 \text{ keV} < \text{energy} < 280 \text{ keV}$.
 - c. $nn = 200$ means (electron) energies greater than 200 keV.
3. **ftnn** refers to the solid state telescopes with a foil cover. These collect only electrons.
 - a. $nn = 8$ means $19 \text{ keV} < \text{energy} < 280 \text{ keV}$.
 - b. $nn = 60$ means $84 \text{ keV} < \text{energy} < 280 \text{ keV}$.
4. **ne** refers to electrostatic analyzers collecting electrons. When $n = 2$, the energy range is approximately 1.4–1.6 keV. When $n = 6$, the energy range is approximately 4.5–6.0 keV.
5. **np** refers to electrostatic analyzers collecting protons. The energy ranges are similar to those for the electrons.
6. **coin** refers to counts of very energetic particles which penetrate the first solid state detector in the open telescopes. This includes electrons of energy greater than 300 keV and protons of energy greater than 1 MeV.
7. **sc angle** refers to the spacecraft spin angle as determined by the sun sensor. 0° means the sun sensor is looking at the sun.
8. **{x, y, z} pos** is the spacecraft coordinates in the GSE coordinate system.

L

CDATE = Sat Apr 9 08:59:15 1988
 RECL = 68
 NCOLS = 16
 NROWS = 30115
 BF = 50
 FILL = -1.00000

#	NAME	UNITS	SOURCE	TYPE	LOC
001	time	seconds	ISEE 2	T	0
002	ot12	flux	ISEE 2	R	8
003	ot60	flux	ISEE 2	R	12
004	ft8	flux	ISEE 2	R	16
005	ft60	flux	ISEE 2	R	20
006	2e	flux	ISEE 2	R	24
007	6e	flux	ISEE 2	R	28
008	2p	flux	ISEE 2	R	32
009	6p	flux	ISEE 2	R	36
010	ot200	flux	ISEE 2	R	40
011	coin	flux	ISEE 2	R	44
012	sc ang	degrees	ISEE 2	R	48
013	x pos	Km	ISEE 2	I	52
014	y pos	Km	ISEE 2	I	56
015	z pos	Km	ISEE 2	I	60
016	spin pr	Msecs	ISEE 2	R	64

ABSTRACT

start time: 1986 Mar 28 (87) 12:49:20.100

stop time: 1986 Mar 29 (88) 22:17:02.210

average period: 4.000 seconds

data format: IEEE

EOF

This is double precision
 floating point with
 a time origin

00:00:00 GAT
 on Jan 1 1965.

Sample header file listing

NOTE FOR VAX USERS, ON READING DATA IN NON-VAX REPRESENTATIONS

February, 1994

H. K. Hills

On the current VAX operating system, there is a conversion feature that allows the Fortran programmer to insert CONVERT=(one of several valid keyword values) into the OPEN statement, and then the data that are read in through that file with an unformatted Fortran READ statement are converted from the specified representation to VAX representation during the read process. For more details, use the system HELP file for FORTRAN/CONVERT.

Information on IEEE floating point format

	Single Prec.	Double Prec.
sign	bit 31	bit 63
exponent	bits 30-23 bias 127	bits 62-52 bias 1023
fraction	bits 22-0	bits 51-0

Fortran real and double precision numbers are composed of the following parts:

- * a one bit sign. 1 ==> negative number.
- * a biased exponent. The exponent is eight bits for a real number and is eleven bits for a double precision number. The values of all ones and all zeros are reserved.
- * a normalized significand, with the high order 1 bit implicit. The fraction is 23 bits for a real number and 52 bits for a double precision number. A real or double is represented by the form:

$2^{*(\text{exponent} - \text{bias})} * 1.f$

where f is the bits in the mantissa.

zero is represented by an exponent of zero and a fraction of zero.

Some further examples of IEEE numbers follow:

+1.0	3f800000	3ff00000000000000
-1.0	bf800000	bff00000000000000
+2.0	40000000	4000000000000000
+3.0	40400000	4008000000000000

From: NCF::KAYSER "Susan E. Kayser GSFC (301) 962-626" 26-JUL-1989 11:00
To: SUMANT
CC:
Obj: Subroutines to convert IEEE --> VAX

K-1

C
C PROGRAM: IEEE_VAX VERSION: 89.5 PROJECT: NSSDC
C
C ENGLISH NAME: IEEE to VAX
C LANGUAGE: FORTRAN77 for VAX 8650
C
C PURPOSE: To convert between IEEE and VAX formats
C
C METHOD: IEEE integers are like IBM integers: to convert to VAX,
C you need only rearrange the bytes. E.g., in a VAX dump, a 4-byte
C word can be represented as DCBA, where A is the earliest address
C and D is the last. For IEEE and IBM, A is the most significant
C byte and D the least (so normal reading is ABCD); for the VAX:
C
C IEEE (IBM) VAX
C I*4 DCBA ABCD
C I*2 BA AB
C For floating point numbers, the bytes must be rearranged:
C R*4 DCBA CDAB
C R*8 HGFE DCBA GHEF CDAB
C and also the contents of the bytes changed.
C
C R*4: A real number is represented as $2^{n} * (b_0/2^0 + b_1/2^1 + b_2/2^2 \dots)$ where the b_i are either 0 or 1, and n is the
largest power of 2 less than the number. For example:
C $3 = 2 * (1 + 1/2)$ $5 = 2^{+2} * (1 + 1/2^{+2})$
C and the first term in the () is always 1. For IEEE as for the
VAX, bit 31 (msb) is the sign bit (1 for negative number), the 8
bits 30-23 are for the exponent, and the remaining bits 22-0 (lsb)
are the fraction. The exponent has a bias, which is 127 for IEEE,
i.e. the 8 exponent bits = $n + 127$. The fraction has the first 1
implicit. E.g., for 3, bit 31 is 0, bits 30-23 are 1000 0000, and
the mantissa is 1000..., or 0100 0000 0100 0000... or 404000000;
for 5, the exponent is $2+127 = 1000 0001$ and the mantissa is 01
(omitting the initial 1), or 0100 0000 1010 0000... or 40A00000.
C The number 0 is represented as 00000000 for IEEE and VAX.
C The VAX has a bias of 128--but also seems to define the exponent
as the first power of two larger than the number, which means that
the VAX exponent is effectively 2 greater than the IEEE exponent.
C The fraction's highest (implicit 1) term is then 1/2, and the
mantissa will be identical to that of IEEE.
C
C R*8: The IEEE representation has bit 63 (msb) for the sign,
the next 11 bits 62-52 for the exponent, with a bias of 1023, and
the remaining 52 bits 51-0 (lsb) for the fraction (high-order 1
omitted). The VAX has bit 63 for the sign, the next 8 bits 62-55
for the exponent, with a bias of 128, and the remaining 55 bits
54-0 for the fraction. Thus the bias must be changed, the
exponent shrunk to 8 bits (which means that very large exponents
cannot be represented in VAX), and 3 0-bits tacked on as the lsb.
C
C The procedure for R*4 conversion is a modification of a
program sent by George Pitt which adds 1 to the exponent and then
reorders the bytes.
C The procedure of R*8 conversion reorders the bytes so that the

C most significant byte is at the start of the longword (ABCD), uses
C the bit-manipulation VAX functions IAND, IOR, and ISHFT to make
C the conversion, and rearranges the bytes into the Vax order CDAB.

X-2

C CALLS:

C IE_VAX8....INVERT4 R*8 conversion IEEE-->VAX
CNUFLIP4
C IE_VAX4....IFLIP4 R*4 conversion IEEE-->VAX
C INVERT4 I*4 conversion IEEE-->VAX (DCBA-->ABCD)
C IFLIP4 (DCBA-->CDAB)
C NUFLIP4 (ABCD-->CDAB)
C VAX2LCL R*4 conversion VAX-->IEEE

C COMMONS: VARIABLES CHANGED:
C none

C CALLING SEQUENCE:

C SUBROUTINES IE_VAX8 and IE_VAX4 (N,IARRAY,JARRAY)
C SUBROUTINE vax2lcl (N,IARRAY)
C N: Number of items to be converted
C IARRAY: Incoming array (IEEE format) of N items (consecutive)
C JARRAY: Output array, converted to VAX format
C FUNCTIONS INVERT4,IFLIP4,NUFLIP4 (INT)
C INT: Input 4-byte word

C VARIABLES:

C BYTES(4): 4 bytes equivalenced to the 4-byte word ICONV or INT
C FILL: Output when conversion produces bad value
C ICONV: Holds most significant 4 bytes to be converted
C ICONV2: For R*8, holds least significant 4 bytes
C IOFF: Hex Adjustment to change IEEE bias to VAX bias
C ISIG: Holds significand of ICONV (everything but sign)
C ISIGN: Holds sign bit
C IWORD: Temporary storage for a 4 byte word

C ERROR HANDLING:

C For REAL conversion, the resulting exponents are checked to be
C sure they do not exceed valid limits. If they do, an error message
C is written, and the output is replaced by FILL.

C PDL:

C DESIGN AND CODING: S. Kayser -SAR- May, 1989
C IE_VAX4 is based on a routine sent by George Pitt.

C MODIFIED:

C*****1*****2*****3*****4*****5*****6*****7*

SUBROUTINE IE_VAX8(N,IARRAY,JARRAY)

C..Convert from Pyramid IEEE double to Vax floating point R*8 format
C..Original word is unchanged.

DIMENSION IARRAY(1),JARRAY(1)
INTEGER ISIGN,ISIG,IOFF/'37E00000'X/
INTEGER ICONV,ICONV2,IWORD
REAL*8 FILL/-1.D9/
DO 100 I = 1,N
 ICONV = IARRAY(2*I-1)
 ICONV2 = IARRAY(2*I)
 IF (ICONV.NE.0 .OR. ICONV2.NE.0) THEN
 ICONV = INVERT4(ICONV)
 ISIGN = IAND(ICONV,'80000000'X) ! Pick up sign bit
 ISIG = IAND(ICONV,'7FFFFFFF'X) ! Pick up significand

```

ISIG = ISIG - IOFF           ! Change exp bias
IF (ISIG .LT. '00800000'X) THEN
  WRITE(31,1110) ICONV,ICONV
  FORMAT(' IE_VAX8: out-of-bounds',I10,Z10)
  JARRAY(2*I-1) = FILL
  GO TO 100
ENDIF
IF (ISIG .GT. '75800000'X) THEN
  WRITE(31,1110) ICONV,ICONV
  JARRAY(2*I-1) = FILL
  GO TO 100
ENDIF
ICONV = ISIG * 8             ! Shift 3 bits
ICONV = IOR(ICONV,ISIGN)      ! Put sign bit back
C..High order word still needs 3 bits transferred from low order
IF (ICONV2 .NE. 0) THEN
  IWORD = IAND(ICONV2,'E0'X)      ! Pick up 3 msb
  IWORD = ISHFT(IWORD,-5)
  ICONV = IOR(ICONV,IWORD)        ! Transfer 3 bits
  ICONV2 = INVERT4(ICONV2)
  ICONV2 = ISHFT(ICONV2,3)        ! Shift 3 bits
  ICONV2 = NUFLIP4(ICONV2)
END IF
ICONV = NUFLIP4(ICONV)
END IF
JARRAY(2*I-1) = ICONV
JARRAY(2*I)   = ICONV2

```

100 CONTINUE

RETURN

END

FUNCTION INVERT4(INT)

C..Reverses order of bytes in I*4 word (or R*4). DCBA --> ABCD

C..Original word is unchanged.

```

BYTE BYTES(4), OBYTES(4)
EQUIVALENCE (BYTES,INEW), (OBYTES,IOUTA)
INEW = INT
OBYTES(1) = BYTES(4)
OBYTES(2) = BYTES(3)
OBYTES(3) = BYTES(2)
OBYTES(4) = BYTES(1)
INVERT4 = IOUTA
RETURN
END

```

FUNCTION IFLIP4(INT)

C..Flips order of bytes by pairs in I*4 word (or R*4). DCBA --> CDAB

C..Original word is unchanged.

```

BYTE BYTES(4), OBYTES(4)
EQUIVALENCE (BYTES,INEW), (OBYTES,IOUTA)
INEW = INT
OBYTES(1) = BYTES(2)
OBYTES(2) = BYTES(1)
OBYTES(3) = BYTES(4)
OBYTES(4) = BYTES(3)
IFLIP4 = IOUTA
RETURN
END

```

FUNCTION NUFLIP4(INT)

C..Reorders bytes in I*4 word (or R*4). ABCD --> CDAB

C..Original word is unchanged.

```

BYTE BYTES(4), OBYTES(4)

```

K-3

K-4

```
EQUIVALENCE (BYTES,INew), (OBYTES,IOUTA)
INew = INT
OBYTES(1) = BYTES(3)
OBYTES(2) = BYTES(4)
OBYTES(3) = BYTES(1)
OBYTES(4) = BYTES(2)
NUFLIP4= IOUTA
RETURN
END
```

C-----

```
SUBROUTINE IE_VAX4(N,IARRAY,JARRAY)
```

```
C..Convert from Pyramid IEEE single to Vax floating point f format
C..Modified by S. Kayser, to use FLIP4.
```

```
DIMENSION IARRAY(N),JARRAY(N)
BYTE BYTES(4)
INTEGER ICONV,IWORD
EQUIVALENCE (ICONV,BYTES)
DATA FILL/-1.E9/
DO 100 I = 1,N
    ICONV = IARRAY(I)
    IF (ICONV .NE. 0) THEN
        IWORD = BYTES(1) + 1          ! Changes exponent bias
        IF (IWORD .GT. 255) THEN
            WRITE(31,1100) ICONV,ICONV
1110       FORMAT(' IE_VAX4: out-of-bounds',I10,Z10)
            JARRAY(I) = FILL
            GO TO 100
        ENDIF
        BYTES(1) = IWORD
        ICONV = IFLIP4(ICONV)
    ENDIF
    JARRAY(I) = ICONV
100 CONTINUE
RETURN
END
```

C-----

```
C..converts from vax f format to IEEE (UNIX point of view)
```

```
subroutine vax2lcl(n,iarray)
dimension iarray(n)
character*1 conv(4),ccc
integer iconv
equivalence (iconv,conv)
c Convert from vax floating point f format to pyramid IEEE single
do 10 i=1,n
    iconv=iarray(i)
    if (iconv.ne.0) then
        ccc=conv(1)
        iii=ichar(conv(2))-1
        if (iii.lt.0)then
            write(0,100)iconv
100       format(' vax2lcl: overflow int in =',i10)
            call exit(1)
        endif
        conv(1)=char(iii)
        conv(2)=ccc
        ccc=conv(3)
        conv(3)=conv(4)
        conv(4)=ccc
        iarray(i)=iconv
    endif
```

K-5

10 continue
return
end

DUMP OF TAPE D1OUT

INPUT TAPE D1OUT ON HTO
 DATA INPUT H9 NF=110 SR=2 1 1 SR=110 LAST 1

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY					INPUT RETRIES	
				PERM	ZERO B	SFCRT	UNDEF.	#RECS.	TOTAL#	
1	30	30	72	0	0	0	0	0	0	0
FILE	RECORD,	1 LENGTH	3400BYTES							
()	41C3F9FC	D7FF7CE0	47EDF764	468D50E0	46013711	45597C9E	49440254	4A1FB73F	488113CC	48473AC9
(40)	45D382B1	429A229E	42B2F368	00000000	00000000	00000000	00000000	41C3F9FC	D9FF3B64	C0000000
(80)	C0000000	C0000000	C0000000	C0000000	C0000000	C0000000	C0000000	C0000000	C0000000	434ACD58
(120)	FFFF66BE	FFFF15A4	00009BDE	453E0C58	[41C3F9FC	DEFEF9DB	4808C6CE	478D9C3	45DCEF7C	46022A56
(160)	452D4810	4AC089890	47A5E376	46534F1E	40685068	446285EB	439E372A	FFFF66C5	FFFF15A8	00009BDD
(200)	453E0C58	41C3F9FC	DDFEB851	47EC0D84C	4751FD21	45DB5A5E	46026752	492C1961	4A263C9D	479D8D71
(240)	46610CD80	4039D99E	443695DE	428C60B8	FFFFF66CC	FFFF15AD	00009BDC	453E0E4C	41C3F9FC	DFFE76C8
(280)	47E3D903	4747D33C	4643695A	4675CCC5	492EBA02	49FFE42D	47A30ECC	4641453C	400P6337	44F01DB4
(320)	43377F14	FFFF66D3	FFFF15B1	00009B9D	453E0C4C	41C3F9FC	E1FE353F	48077E77	478B4E8B	45D80266
(360)	45FC5853	492DF038	49F53248	479B85AF	465E79CE	408B6337	4433E26C	43949116	FFFF66DA	FFFF15B5
(400)	00009BDA	453E0C58	41C3F9FC	E3FE147A	47F35D5C	475C557F	45D4D82A	45FC755D	492E76BF	49EC1304
(440)	47A1725	463462C2	4038E337	443EBF07	424B90D0	FFFFF66E1	FFFF15BA	00009B09	453E0E4C	41C3F9FC
(480)	E5F0D2F1	47E2FC14	47480182	46403895	46726599	492E337C	49D9AC39	47A3A4EA	466DEFFB	40685006
(520)	44BA18BF	432433A0	FFF56E8	FFFF15BE	00009B08	453E0E4C	41C3F9FC	E7FD9168	48032120	47834FA1
(560)	45CE3E4A	45F41W78	492F4089	49C3A761	47A54489	46406597	3FB9D99E	442E4DED	438AE802	FFFF66EF
(600)	FFFF15C3	00009B06	453E0C58	41C3F9FC	E5FD4FDF	47F5CA54	4769F22F	45C6FC21	45D8BAD12	492D04CD
(640)	49C32E97	47A83630	465BE61A	408B6337	44329FBF	41FC49E0	FFFFF66F6	FFFF15C7	00009B05	453E0C58
(680)	41C3F9FC	EBFD0E56	47E6D103	47468DDE	464A74C5	46705AE4	492EDFRA4	49C5E247	47AAD9E1	464FDF84
(720)	4LE85U19	44A775C2	4311E8E0	FFFFF66FD	FFFF15CC	00009B04	453E0C58	41C3F9FC	EDFC0CCCC	47FE1C3B
(760)	477731F2	45F49219	461C5B76	453111761	49C67C1E	47AA3D03	465B8CA34	400B6337	44602E25	4381362A
(800)	FFFF6704	FFFF15D0	00009B03	453E0E4C	41C3F9FC	EFCF8B43	47FD7949	477A195A	45CCE80C	46002571
(840)	4931BF89	49C3CFA4	47B4E4C1	464F039F	410B6337	443639AD	41449140	FFFFF6708	FFFFF15D5	00009B02
(880)	453E0C58	41C3F9FC	F1FC49BA	47EC70F9	47471961	463CBFF0	46617BDF	4933531E	49C23C03	47AA5E6
(920)	4641453C	3FB9D99E	445517EA	42FB3970	FFFFF6712	FFFFF15D9	00009B01	453E0C58	41C3F9FC	F3FC0831
(960)	47F57E25	4764DD3C	46125E02	46362F8A8	493090DA	498DD5A4	47AF375D	4650BB6B	4039D99E	448441E4
(1000)	436F202C	FFFFF6719	FFF515DE	00009BCF	453E0E4C	41C3F9FC	F5FBC6A7	4801AD7F	4785377D	45CAA9F2
(1040)	4601ADED	4932E7B2	49C173B2	47ACADA9	46466CA2	40B9D55E	4437A73	43B03772	FFFFF672C	FFFF15E2
(1080)	00009BCE	453E0E4C	41C3F9FC	F7FB851E	47EAEF2A	474E5BE2	460B8C53	462F7B73	49319DE8	49BF6846
(1120)	47AFD34A	46610D80	3FB9D99E	44C2D46D	43B07E1C	FFFFF6727	FFFFF15E7	00009BCD	453E0C58	41C3F9FC
(1160)	F5FB4395	47F07F16	47593FA3	462EB62A	465828DB	4930B27C	49B7E2D8	47AB0DDA	465A2E4F	4039D99E
(1200)	445CC254	42D4A123	FFFFF672E	FFFF15E8	00009BCC	453E0C58	41C3F9FC	FBFB22D0	4806EE82E	478C62C2
(1240)	45DFAAA3	46D093AB	492F622B	49B5576E	47ADCB88	465A2E4F	408B6337	44263315	43A6BD50	FFFFF6735
(1280)	FFFFF15F0	00009BCB	453E0C38	41C3F9FC	FCFAE147	47E8EFC2	474EE745	45EEDDA73	461487C3	4930F5BF
(1320)	45B73A97	47AEB15E	4658CA34	40CB6337	442D66F2	42AE7950	FFFFF673C	FFFFF15F4	00009ECA	453E0E4C
(1360)	41C3F9FC	FFFA9FB8	47E6D088	474DD07E	463E37A7	465EE8AE	492F1EE8	49B3A69A	47AF6B57	46587682
(1400)	4C0B6337	44D06C8B	43488B60	FFFFF6743	FFFF15F8	00009BC8	453E0E4C	41C3F9FD	01FA5E35	4808EAF3
(1440)	478D0E8D	45B8DEC0	45E36988	492D04CD	45B39C89	47AD6394	46527338	40A29E64	4433863A	439D081E
(1480)	FFFFF674A	FFFFF15FD	00009BC7	453E0C58	41C3F9FD	03FA1CAC	47EFFD38	475288E4	45F55DFF	460FC138
(1520)	492E11DA	49B8CD39	47AAD9E1	465CC201	4039D99E	443667C6	4287E100	FFFFF6751	FFFFF1601	00009BC6
(1560)	453E0E4C	41C3F9FD	05F9DB22	47E47B25	4747764E	46458E38	467D2399	49302BF5	49B91DBF	47A79A42
(1600)	465A2E4F	40B86337	44C4171B	43353F38	FFFFF6758	FFF160E	00009BC5	453E0E4C	41C3F9FD	07F99999
(1640)	48069B67	478A1DFA	45D8CCF4	46265CC8	492B0D1E	49B4C072	47A6B05E	466B5C49	4C68500E	442C8076
(1680)	4393620A	FFFFF675F	FFFFF160A	00009BC4	453EC058	41C3F9FD	09F95810	47F2F5A1	476252C3	45DC2B77
(1720)	4E015941	493C90DA	49B87CB2	47A96E0B	46542B03	4068500E	44480D3B	42428E20	FFFFF676E	FFFFF160F
(1760)	00009BC3	453E0C58	41C3F9FD	0BF51687	47E5E9DE	47485E5F	46495357	46743CEA	492CE32B	49BA3797
(1800)	47B1F129	45695268	401B6337	44C30287	4321F52C	FFFFF676E	FFFFF1613	00009BC1	453E0C58	41C3F9FD
(1840)	CDF8D4FD	4801CAE7	478295C8	45E033DC	460750B6	492DCE97	49B71254	47A7324F	4663A132	4039D99E
(1880)	443F96B1	4385BC50	FFFFF6775	FFFFF1618	LC00C9BC0	453E0E4C	41C3F9FD	0FF89374	47F81E7C	47ED936F
(1920)	45D179A8	45FDB4CB	492E763F	49BCEE21	47A308CC	466558FD	40B8E337	4413D53D	41EAAEBC	FFFFF677C
(1960)	FFFFF161C	00009EBF	453E0C58	41C3F9FD	11F851EB	47E81A2B	4745D425	462C70A1	46507234	492AC910
(2000)	498BCA39	47AFED48	466638FD	401B6337	44A4AB44	430EA9C4	FFFFF6783	FFFFF1621	00009BBE	453E0C58
(2040)	41C3F9FD	13F83126	47F533EB	47739JB3	46C4B2FA	461D8E90	492FA56F	49B8CD39	47A67C64	46E19751
(2080)	4039D99E	446142BD	4380163C	FFFFF678A	FFFFF1625	00009BBD	453E0E4C	41C3F9FD	15F7EF9D	48C028B7
(2120)	4781E7C6	45DBC2EB	460556FA	492069B2	49B94603	47AC2B89	4650BB6B	40B89D99E	44519858	411EA480

(210)	FFFFF6791	FFFFF162A	0009B8C	453E0C58	41C3F9FD	17F7AE14	47E955C9	474801B2	4622C775	46423B9B
(220)	4930A54	49BE9EF5	47A5AC7C	46527338	400E6337	44952517	42F67D40	FFFFF6798	FFFF162E	00009BBA
(2240)	453E0C58	41C3F9FD	19F76C8B	47F52109	4762244C	4612F44B	462EDEA3	492C3B03	49BC6B46	47A2A0D8
(2280)	465D9DE6	400B6337	447FDF27	436CE050	FFFFF679F	FFF1633	00009BB9	453E0E4C	41C3F9FD	1PF72B02
(2320)	4872EADN	47E5946A	45CAF774	46013C37	4A34FB7	4A39C8DC	47A0E51C	46723B7A	40B9D99E	443890ED
(2360)	43AF17DE	FFFFF67A6	FFF1637	00093B88	453E4E4C	41C3F9FD	1D6F6E978	47E6B857	475171BF	4611F576
(2400)	46360CCF	493CB27C	49BB292C	47A07F18	467686F7	3FB9D99E	449B9364	43AF512C	FFFFF67AD	FFFF163C
(2440)	00009BB7	453E0E4C	41C3F9FD	1FF6A7EF	47FC03C1	4755FB4F	462E50E3	4647508D	492FE8B2	49E8A4F5
(2480)	475C3B99	4644B4D6	400B6337	447C34C0	42CFE220	FFFFF67B4	FFFFF1640	00009BB6	453E0E4C	41C3F9FD
(2520)	21F66666	48064331	478C35D5	45CBAE69	45EA77C4	492FE8B2	49B9C0E7	479C3B99	46603199	40685006
(2560)	44E2508B	43A58E44	FFFFF67B8	FFFFF1645	00009BB4	453E0C58	41C3F9FD	23F624DD	47EACE62	474B747B
(2600)	45E77A16	46127D0F	492E76BF	49C1232C	479CF565	46579A9C	40685006	4434C8E7	42A9E02C	FFFFF67C2
(2640)	FFFFF1649	J009B83	453E0E4C	41C3F9FD	25F5E353	47E79F40	474DFEF4	4649B747	46736DDA	492F1EE8
(2680)	49BE262B	479949F2	46647D18	3FB9D99E	44B41084	43462D48	FFFFF67C9	FFFFF164E	00009BB2	453E0E4C
(2720)	41C3F9FD	27FEA1CA	4805FB8	478CD6EA	45CC555E	45F6A6EF	4930F6F39	49C1232C	47987A0A	465D9DE6
(2760)	400B6337	442F33E9	439B8E830	FFFFF67D0	FFFFF1652	00009BB1	453E0C58	41C3F9FD	29F56041	47EEC8E3
(2800)	47528884	45DCB4AE	46179099	492D266E	49CA6AB3	479F7B37	467083AD	40685006	443DC9B9	428324D0
(2840)	FFFFF67D7	FFFFF1657	00009BB0	453E0E4C	41C3F9FD	2BF53F7C	47E25575	4743A698	46560B44	467A3F1A
(2880)	492CC189	49D88CF6	4736F438	46603199	400E6337	44B8EDE4E	4332FF5C	FFFFF67DE	FFFFF165B	00009BAF
(2920)	453E0E4C	41C3F9FD	2DF4FDF3	4807D297	478B064A	45D58A72	4608D8B0	492C7E46	49D1F754	47A1B6F4
(2960)	46527338	40685006	443667C6	43924276	FFFFF67E5	FFFFF1660	00009BA0	453E0E4C	41C3F9FD	2FF4PC6A
(3000)	47F1A2AC	476C8099	45C3FFA3	4600CEDD0	452D04CD	49D9CF9C1	479A33D6	4656BEB5	40685006	443EDE4E
(3040)	42390DC0	FFFFF67EC	FFFFF1664	00009BAC	453E0C58	41C3F9FD	31F47AE1	47E9E8DF	4747A4C4	465680E2
(3080)	4684849	492C7E46	49E2022C	4799FFDC	4650B86B	408B6337	44BA5DE5	431F9714	FFFFF67F3	FFFFF1669
(3120)	00009BAB	453E0C58	41C3F9FD	33F43958	480243C9	4781AD78	45DEC5F1	4604C355	492A85CC	49E7FC2C
(3160)	479E295F	467083AD	4039D99E	442A837F	43889C62	FFFFF67FA	FFFFF166D	00009BAA	453E0E4C	41C3F9FD
(3200)	35F3F7CE	47F7CB08	4771EE89	45D6D5D4	4600EAD6	492B7135	498F8E98	47A04B1F	46542E03	40B9D99E
(3240)	443FF2E2	41D78A40	FFFFF681	FFFFF1672	00009BA9	453E0C58	41C3F9FD	37F3B8645	47E91C45	47471961
(3280)	463F5DB0	4664D76D	4929357C	49FE518B	47A0651C	4648246E	4039D99E	44A23CF6	430C4AEC	FFFFF6808
(3320)	FFFFF1676	00009BA8	453E0C58	41C3F9FD	39F374BC	47F8E913	476D080C	45FFE741	461E5A8C	492DC97
(3360)	4A367902	47A6486A	463C1DD9	400B6337	4439A582	437DEC9C	FFFFF680F	FFFFF167B	00009EA6	453E0E4C

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY	INPUT RETRIES					
				PERM	ZERO	B	SHORT	UNDEF.	#RECS.	TOTAL#
	2	573	573	3400	0	0	0	0	0	0

FILE	110 RECORD	420 LENGTH	2788BYTES							
(3)	41C42E9F	BFB43958	47EE4635	47477239	461C6C03	463918F9	48866F76	47D1AAD3	480754A8	4603E38F
(4)	4CEE940F	44B47062	435EBCA0	FFFFEDA98	C001700B	00001E22	453E0A64	41C42E9F	C1B43558	48C8EF15
(8)	478C9DE2	45E3A599	4617983F	488C031C	47F8E41F	4802323A	460637E3	4037A9A5	44487CDF	43A828D4
(120)	FFFEDA08	0001700B	00001E22	453E0A64	41C42E9F	C3B33333	47ED5A26	474D2F87	45F0A611	460DB161
(160)	488CDE91F	47FF1FA6	47E3EF	461C0B70D	4089BF3C	443D0805	42B1E9A0	FFFEDA08	0001700B	00201E22
(20)	453E0A64	41C42E9F	C5B33333	47E4518E	473EF79F	4641BC73	4665540C	489A402C	4807172C	47E41E50
(240)	462DC874	4009BF3C	44AE85F5	4348F28C	FFFED9F9	00017011	00001E2B	453E0A64	41C42E9F	C7B33333
(280)	480716F6	4786E096	45CF38D8	45F335A5	48ADB5C2	480D0E80	47D861E5	462B74A1	4009BF3C	441211D5
(320)	439EC3CA	FFFED9F9	00017011	00001E2B	453E0A64	41C42E9F	C9B33333	47F39F5C	475B88C8	45CB47B0
(360)	45ED3E4F	48B2EE48	48118B9	47DE112A	462AEE04	4065946F	4428FB88	428E3938	FFFEDSF9	00017011
(400)	0C01E12B	453E0A64	41C42E9F	CBB22D0E	47E91C44	474184EC	463B9A66	465452C7	48B733CD	48253490
(440)	47D08454	462C3B3C	406594JF	448C5769	4337BFC4	FFFED9F9	00017011	00001E2B	453E0A64	41C42E9F
(480)	CDB22D0E	48031FE6	477C8943	45E3F253	46073C6A	48B6BA4C	48275EC4	47F5B8F0	46275394	4009BF3C
(520)	4453F1B9	4394D5FE	FFFED9EA	00017017	00001E35	453E087C	41C42E9F	CFB22DCE	47F8F884	47727DFC
(560)	45C3B214	45DAD11D	48B733CD	482B0788	47D861E6	46209819	4089BF3C	443D0805	424D17C0	FFFED9EA
(600)	00017017	00001E35	453E0870	41C42E9F	C1B22D0E	47E714EE	473BF79F	462D731B	46432440	48B274C8
(640)	48341E44	47D7A620	462D01C9	4037A9A5	448C5769	4324DFF4	FFFED9EA	00017017	00001E35	453E0870
(680)	41C42E9F	D3B126E9	47FE2275	47E6424B8	45F5E1B7	4611A386	48B10846	483A06B8	47DEFEE2	4606FDFF
(720)	4009BF3C	44347062	438AC3A2	FFFED9EA	00017017	00001E35	453E0870	41C42E9F	D5B126E9	48007352
(760)	47812348	45B51484	45D5CB7A	48AF9BC5	48341EE4	47E12F3E	461367BE	4089BF3C	4428FB88	4201BCD0
(800)	FFFED9DC	0001701D	00001E3E	453E0A64	41C42E9F	D7E126E9	47EA6EC0	4741B4EC	461A8ECE	46335B8B
(840)	48B3E14A	4834B05B	47DFB7A9	4626CCF9	4009BF3C	448C5769	4312043C	FFFED9DC	0001701D	00001E3E
(880)	453E0A64	41C42E9F	D9B126E9	47F80C75	475B88C8	46159412	462ABFB8	48AEA8C4	482E704B	47CA9539
(920)	46247925	3FB7A9A5	442EBEF5	4381CCA2	FFFED9DC	0001701D	00001E3E	453E0A64	41C42E9F	DBE020C4
(960)	48340BF5	4786E096	45CD25B6	45F10EA8	48B01545	483664BC	47D00D33	461F0AE1	4089BF3C	443D0805
(1000)	4143C6C0	FFFED9DC	0001701D	00001E3E	453E0A64	41C42E9F	DDB020C4	47E852D0	47449392	46185841
(1040)	4E3E3A52	48B919D0	483AF0E8	47D7A520	46088B37	446594CF	448C5769	42FE3940	FFFED9CD	00017022
(1080)	0001E47	453E0870	41C42E9F	DFB020C4	47F225AA	47500E2D	461EAFF2	463ED646	48B8A04F	483787A8
(1120)	47DA6648	46180F66	3FB7A9A5	449D86AF	4376B694	FFFED9CD	00017022	00001E47	453E0870	41C42E9F

(1160)	E 18 C20C4	4807EB6B	4789BF3C	45D92281	45F6CBF6	48B733CD	4836F632	47D91DAD	46031CF3	4065940F
(1260)	4453F1B9	43B12844	FFFED9CD	00017022	000C1E47	453E0870	41C42E9F	E3AF1A9F	47EA66C0	47477239
(1240)	45FDE771	461312DA	4888A..4F	48341EE4	47D7194A	46209819	4037A9A5	4417CC42	42D5F138	FFFED9CD
(1280)	00017022	00001E47	453E0870	41C42E9F	E5AF1A9F	47E9A9E7	47449392	4642851A	466424BB	48B54DCB
(1320)	4838AA93	47E0736F	46365128	3FB7A9A5	448C5769	435CF230	FFFED9BE	00017028	00001E50	453E0870
(1360)	41C42E9F	E7AF1A9F	487EB6B	47E8C9DE2	45D0E0FD	4601DAF2	48B45ACA	4838AA93	47E0736F	461748CA
(1410)	4937A9A5	443D0805	43A7466C	FFFED9BE	00017028	00001E50	453E0870	41C42E9F	E9AF1A9F	47EFEF1E
(1440)	47500E2D	45FAF40D	461147B1	48B7AD4E	483B81E1	47D9D974	460C6C42	40A0B471	445F6691	42B04D98
(1480)	FFFED9BE	00017028	00001E50	453E0870	41C42E9F	EBAE147A	47E47FFE	473ED646	463C957E	465FD6C1
(1520)	48ACC2C2	4839CD7F	47DC3BB8	4618D602	406E94C0	44DF5691	4348CE2C	FFFED9BE	00017028	00001E50
(1560)	453E0870	41C42E9F	EDAE147A	4807EB6B	4786E096	45D26742	45F6144D	48ABD5C2	48341EE4	47DD8454
(1600)	46247925	4009BF3C	4423411C	439DBB3E	FFFED9B0	0001702E	00001E59	453E0A64	41C42E9F	EFAE147A
(1640)	47F311B9	475E676E	45DCF629	46031C5B	48AEAB04	4838191C	47E0C152	461A633A	40A0B471	4428FB88
(1680)	428A97B0	FFFED9B0	0001702E	00001E59	453E0A64	41C42E9F	F1AE147A	47E74424	473BF79F	4635E604
(1720)	46429ED9	48AEA8C4	483B81E1	47E9FC86	461FD17D	4037A9A5	448C5769	4336E0E0	FFFED9B0	0001702E
(1760)	00001E59	453E0A64	41C42E9F	F3AE147A	48018E98	477ECBFE	45D6EE0C	45F6E46B	48AD3C42	48341EE4
(1800)	47E41E50	46215EB5	4037A9A5	442EB5F5	43543AF4	FFFED9B0	0001702E	00001E59	453E0A64	41C42E9F
(1840)	F5AD0E56	47FB8D7D	4776CBF6	45C169D4	45EA99B2	48AEAB04	4838AA93	47DEFEB2	46301C49	40A0B471
(1880)	441D86AF	4245C3D0	FFFED9A1	00017033	00001E62	453E0870	41C42E9F	F7AD0E56	47E800FD	473ED646
(1920)	46287B54	4648E18D	48B10846	4839CD7F	47EFDAE8	46279394	4009BF3C	44C87CDF	43230AE8	FFFED9A1
(1960)	00017033	00001E62	453E870	41C42E9F	F5AD0E56	47FE2275	476424B8	45FF3DEC	461A3F7A	48B2EE48
(2000)	4836F632	47FB9724	461D7DA9	4037A9A5	44487CDF	438A526E	FFFED9A1	00017033	00001E62	453E0870
(2040)	41C42E9F	FBAD0E56	47F73DBC	47812348	45DB2FB0	45F27DFC	48AEAB04	483DC7B8	47F5B8F0	463FA077
(2080)	4037A9A5	443D0805	41F1F680	FFFED9A1	00017033	00001E62	453E0870	41C42E9F	FDAC0831	47FA3789
(2120)	47477239	46198E16	46363A52	48B10846	4832FBF9	47EE632D	463336B8	3F37A9A5	44A3411C	43103918
(2160)	FFFED992	00017039	00001E6B	453E0870	41C42E9F	FFAC0831	47F54845	4758AA20	460P811P	461D1E20
(2200)	48AF9BC5	483AF06B	47EAB84D	462AAE04	3FB7A9A5	4453F1B9	4380E58E	FFFED992	00017039	00001E6B
(2240)	453E0870	41C42EAO	01AC0831	480481FE	4785BE3C	45D0AC583	45FC0854	48B1F48	483A5EF4	47F15248
(2280)	4641F44A	4037A9A5	4417CC42	4136DB40	FFFED992	00017039	00001E6B	453E0870	41C42EAO	03AC0831
(2320)	47EAC52D	47449392	460F5D9C	4627E111	48B01545	483AF06B	47F09681	46247925	4637A9A5	44869CFC
(2360)	42FA0F50	FFFED992	00017039	00001E6B	453E0870	41C42EAO	05ABC02C	47EEFE1E	474D2F87	461A8ECE
(2400)	46335BAB	48B01545	483A5EF4	47EC2FD9	46301C49	4009BF3C	44765045	436E0BD8	FFFED983	0001703F
(2440)	00001E74	453E0A64	41C42EAO	07AB020C	480671B8	4789BF3C	45BEAB8D	45DE676I	48B274C8	48341EE4
(2480)	47E940BF	462C3B3C	4065940F	443D0805	43AFD070	FFFED983	0001703F	00001E74	453E0A64	41C42EAO
(2520)	05AB020C	47EB2399	47477239	4605273C	4615F180	48B10846	483A5EF4	47EF1EF4	462C3B3C	406E940F
(2560)	4428FB88	42D26BD0	FFFED983	0001703F	00001E74	453E0A64	41C42EAO	0BAB020C	47EB2399	47477239
(2600)	462428CA	46449392	48B01545	48305D347	47EAB84D	46406713	4009BF3C	44B47062	435ACAF0	FFFED983
(2640)	00001E74	453E0A64	41C42EAO	0DA9FBET	47FCDB9B	47925B30	45E6D732	453D66F2	48P4CAF3	
(2680)	483845E0	47E30BE1	462EBCE6	41B7A9A5	C0000000	43A5B70C	FFFED975	00017045	00001E7D	453E0A64
(2720)	41C42EAO	0FA9FBET	C0000000	C0000000	C0000000	C0000000	C0000000	C0000000	C0000000	C0000000
(2760)	C0000000	C0000000	42AA0640	FFFED975	00017045	00001E7D	453E0A64			

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY	INPUT #RECS.	RETRIES TOTAL#
110	420	421	3400	PERM 0 ZERO 0 SHCRT 0 UNDEF. 0	0	0

EOJ DUMP STOPPED AFTER FILE 110 # OF PERMANENT READ ERRORS 0

START TIME 05/15/89 10:45:26 STOP TIME 05/15/89 10:51:16

\$\$
\$ASS IN HT1
\$EXE TPNRCF BS

REQ. AGENT

RLR

RAND NO.

ACQ. AGENT

SK

ISEE-1

4 SECOND RESOLVED B-FIELD DATA (12-S AVG)

77-102A-04T [SPMS-00304]

This data set catalog consists of 5 tapes for ISEE-1. The tapes are 6250 bpi, 9-track, unlabeled, multifiled, binary, created on the IBM 360. The records are of fixed length with 24 bytes per record and 1000 records per block. The data format for each logical record is as follows:

I*2 FOUR DIGIT YEAR	(IBM FORMAT)
I*2 DAY OF YEAR (001=JAN 1)	(IBM FORMAT)
I*4 MILLISECONDS OF DAY	(IBM FORMAT)
R*4 BX SC, BY SC, BZ SC, BT	(IBM FORMAT).

The D and C numbers, time spans, and number of files are as follows:

77-102A-04T ISEE-1:

D#	C#	FILES	ORBITS	TIME SPANS
D-80100	C-27689	60	741 - 800	08/26/82 - 01/16/83
D-80101	C-27690	60	801 - 860	01/16/83 - 06/09/83
D-80102	C-27691	60	861 - 920	06/09/83 - 10/30/83
D-80103	C-27692	30	921 - 950	10/30/83 - 01/10/84
D-80104	C-27693	60	1271 - 1330	02/13/86 - 07/06/86

REQ. AGENT

RLR

RAND NO.

ACQ. AGENT

SK

ISEE-2

4 SECOND RESOLVED B-FIELD DATA (12-S AVG)

77-102B-04P SPMS-00184

This data set catalog consists of 5 tapes for ISEE-2. The tapes are 6250 bpi, 9-track, unlabeled, multifiled, binary, created on the IBM 360. The records are of fixed length with 24 bytes per record and 1000 records per block. The data format for each logical record is as follows:

I*2 FOUR DIGIT YEAR	(IBM FORMAT)
I*2 DAY OF YEAR (001=JAN 1)	(IBM FORMAT)
I*4 MILLISECONDS OF DAY	(IBM FORMAT)
R*4 BX SC, BY SC, BZ SC, BT	(IBM FORMAT).

The D and C numbers, time spans, and number of files are as follows:

77-102B-04P ISEE-2:

D#	C#	FILES	ORBITS	TIME SPANS
--	--	-----	-----	-----
D-80105	C-27694	60	741 - 800	08/26/82 - 01/16/83
D-80106	C-27695	60	801 - 860	01/16/83 - 06/09/83
D-80107	C-27696	60	861 - 920	06/09/83 - 10/30/83
D-80108	C-27697	30	921 - 950	10/30/83 - 01/10/84
D-80109	C-27698	60	1271 - 1330	02/13/86 - 07/06/86

77-102A-04T
77-102B-04P

12/22/89

ISEE MAGNETOMETER FOUR SECOND DATA TAPE DESCRIPTION

This letter describes the format used by the ISEE-1 and ISEE-2 magnetometer group for the submission of its four second data on magnetic tape to the National Space Science Data Center (NSSDC).

The overall description is that the data is stored as IBM integer and floating point numbers, and written onto standard 1/2 inch 6250-bpi 9-track magnetic tapes. The logical record length will be fixed for all tapes at 24 bytes. The physical blocksize for all tapes will be fixed at 2,400 bytes. Each physical block contains 100 logical records. Each magnetic tape contains 30 or 60 files of data separated by a single end-of-file mark. The end-of-data is indicated by two successive end-of-file marks at the end of the 30th or 60th data file.

Each tape file contains magnetometer data in spacecraft coordinates from one of the spacecraft for one orbit, an orbit being measured from perigee to perigee. Each magnetic tape contains 30 or 60 orbits of data. The data provided are 12 second overlapping data averages of the highest resolution data, recorded every four seconds.

The external labels on the magnetic tape contain the following information: Name of the spacecraft and experiment; start and stop dates of the data on the tape; the density (6250-bpi) and number of tracks (9) at which the tape was recorded; the physical blocksize and the logical record length used in writing the tape; an estimate of the amount of tape used; the production date of the tape; and a name and telephone number of the individual responsible for the tape.

All data is stored in standard IBM/360 format for the recording of integer and floating point data values. The data fill value (flag value) for magnetometer values is +1.0e34. There are no fill values for the time values. There are no significant time gaps in the data, that is, times with fill values have been generated to fill all time gaps in the data. The format of each logical record is:

INTEGER*2 Four digit year for the data point
INTEGER*2 Three digit day of year for the data point (001 - Jan. 1)
INTEGER*4 Milliseconds of the day for the data point (0 - midnight)
REAL*4 BX magnetometer value in spacecraft coordinates for this time
REAL*4 BY magnetometer value in spacecraft coordinates for this time
REAL*4 BZ magnetometer value in spacecraft coordinates for this time
REAL*4 BT magnetometer value for this time

The last physical block of each tape file may contain more than one copy of the last logical record so that all physical blocks are the same size.

Questions concerning these data tapes may be directed to:

Harry Herbert or Muriel Kniffin
University of California at Los Angeles
Institute of Geophysics and Planetary Physics
5833 Slichter Hall
Los Angeles, California 90024-1567
(213)206-6073
SPAN: BRUNET::HARRY or BRUNET::MURIEL

213-825-9030 Harry Herbert

(2321) 5D1ED09C 5D1ED09C 07BF0010 036DFA9C 5D1ED09C 5D1ED09C 5D1ED09C 07BF0010 036DFA9C
(2361) 5D1ED09C 5D1ED09C 5D1ED09C 5D1ED09C 5D1ED09C 07BF0010 036DFA9C 5D1ED09C 5D1ED09C 5D1ED09C

1983/1/16 15:58:59.23

FILE INPUT DATA RECORDS MAX.
RECS. INPUT SIZE PERM ZERO R SHORT UNDEF. #RECS. TOTAL#
63 522 523 2400 0 0 0 0 0 0

EOJ DUMP STOPPED AFTER FILE 6 : # OF PERMANENT READ ERRORS 1

START TIME 03/29/90 16:11:00 STOP TIME 03/29/90 16:16:14

D 79073 - file 2.dat

\$\$
\$XE TPNRCF BS