

547

SCATHA

CDAW DATA SETS FOR 6.0 + 8.0

79-007A-06A, 08A, 11B, 12A, 13A, 14A, 15A, 05A

547	79-007A-05A	SPMS-00379	SCATHA
547	79-007A-06A	SPMS-00525	SCATHA
547	79-007A-08A	SPMS-00378	SCATHA
547	79-007A-11B	SPMS-00523	SCATHA
547	79-007A-12A	SPMS-00592	SCATHA
547	79-007A-13A	SPMS-00094	SCATHA
547	79-007A-14A	SPMS-00351	SCATHA
547	79-007A-15A	SPMS-00591	SCATHA

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  - b. Core Catalog Materials

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 This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system.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

STP P78-2

E-FIELD (&B-FIELD) COMPONENTS, TAPE

79-007A-05A SPMS-00379

This data set has been restored. There was originally one 9-track, 1600 BPI tape written in Binary. There is one restored tape. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The original tape was created on an IBM 360 computer and the restored tape was created on an IBM 9021 computer. The DR and DS numbers along with the corresponding D number are as follows:

DR#	DS#	D#	FILES	TIME SPAN
-----	-----	-----	-----	-----
DR005741	DS005741	D046427	1 - 9	03/22/79 - 04/01/79

REQ. AGENT

LSM

REQ. NO.

V0144

ACQ. AGENT

DMS

SCATHA

E FIELD COMPONENTS 3 FILES / DAY

79-007A-05A

This data set catalog consists of 1 tape(s). The tape(s) are 9 track, 1600 bpi, bin with 9 file(s) of data. The time span D and C numbers are as follows:

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-46427	C-21696	3/22/79,3/31/79,4/1/79

INFORMATION SHEET FOR INCOMING DATA

NSSDC ID: XI-007A USA DATE DATA RECEIVED: 9/16/81  
DATE NSDF COORDINATOR CONSULTED: \_\_\_\_\_  
DATE SCIENTIST NOTIFIED: \_\_\_\_\_

SOURCE:	MATERIAL RECEIVED: (NUMBER OF SHEETS OF HARDCOPY, NUMBER 100' REELS MICROFILM, NUMBER OF MAGNETIC TAPES, ETC.)  <u>1 Mag-tape</u>
PI AND AFFILIATION:	

SATELLITE NAME/NSDF NAME: SCATHAM

EXPERIMENT NAME: \_\_\_\_\_

DATA SET FULL NAME: E Field components 3 files/dm

CONTACT: \_\_\_\_\_ ACQUISITION SCIENTIST: DMS

FORM THAT WILL BE ANNOUNCED IN AIM/NSDF: 90

THESE ARE:  A NEW DATA SET  ADDITIONS  REPLACEMENTS  OTHER (EXPLAIN BELOW)

ACCESSION UNIT NUMBERS: DO 46427 C-21696

REMARKS:  
  
CDAW

DATA RECEIPT NOTIFICATION SENT?

Jorda Moran  
DATA TECHNICIAN



Date September 8, 1981  
NSSDC ID 79-007A-05A

# CDAW DATA SET ENTRY

Date Rcvd : August 31, 1981      eDB : db

Data Sent By : Tom Aggson

Material Rcvd : 1 tape (9-track) 1600 (bpi)  
9 Files PDP  
Documentation

JEM  
BINARY

Satellite/NSRF Name : SCATHA (STP P78-2)

Data Set Name : E field components 3 files/day

New Data Set       Additions       Replacements  
Comments \_\_\_\_\_

Time Coverage : March 22, March 31, & April 1

Tapes To Be Returned to : Not to Be Returned

Please generate  
Dump.  
Thanks

Completed By : K. Headley

344-8991  
Mikir Ghosh  
for tape format questions

Tape for Air Force Geophysical Laboratory

01/21/51  
79-007A-05  
CDB 6

PDP  
IBM-32-bit  
Binary

3 files/day

Tape Specifications:

9 Track, Density = 3, 1600 bpi, Label = NL (No Label)  
The physical record length is 2640 bytes. There are  
3 files containing data. File 1 contains data from  
14 channels at intervals of 60 seconds. File 2 contains  
least square fitted electric field components (EX,EY) at  
times separated by the spin period. File 3 contains common  
mode data from 3 channels, at intervals of 1 second.  
End of File mark marks the end of the File. Double end  
of file mark marks the end of volume. Description of data  
words in each file is given below.

File 1

File 1 is headed by a header record followed by data  
records. All records are 2640 bytes containing 660  
elements of I\*4 (32 bits) type. The first 4 data words  
in the header record are as follows:

- Word 1 = Year
- Word 2 = Day
- Word 3 = 10
- Word 4 = Code Word ('1' for File 1)

The remaining 656 words are filled with zeros.

Data Records: The data record is 2640 bytes containing  
660 32 bit words. There are 44 groups of 15 data words  
in each physical record. The time is given in milliseconds.  
All the data are expressed in physical units using the  
appropriate algorithm. The order of data in the physical  
record is given below.

- |        |                     |
|--------|---------------------|
| Word 1 | Time in millisecond |
| Word 2 | DCHI                |
| Word 3 | AC                  |
| Word 4 | CM1-                |
| Word 5 | CM2-                |
| Word 6 | CM3-                |
| Word 7 | BX(Direct)          |

Word 8	BY(Direct)
Word 9	ECH2
Word 10	ECH3
Word 11	ECH4
Word 12	MCH1
Word 13	MCH2
Word 14	MCH3
Word 15	MCH4
Word 16	Time in millisecond
Word 17	DCHI
Word 18	AC
Word 19	CM1-
Word 20	CM2-
Word 21	CM3-
Word 22	BX(Direct)
Word 23	BY(Direct)
Word 24	ECH2
Word 25	ECH3
Word 26	ECH4
Word 27	MCH1
Word 28	MCH2
Word 29	MCH3
Word 30	MCH4
'	'
'	'
631-645	next minute
645-660	next minute

All data values except MCH1, MCH2, MCH3, and MCH4 are multiplied by  $10^3$ . The data containing MCH1, MCH2, MCH3, and MCH4 data words are multiplied by  $10^4$  for better resolution. A data drop or bad data is filled with binary '1's. It is obvious that the last physical record of file will not have exactly 660-32 bit data words. In that case remaining data are filled with zeros to make the physical record 2640 bytes long. The end of file mark marks the end of file.

## File 2

File 2 contains the least-squares fitted electric field components EX and EY data. File 2 is headed by a header record followed by data records. The physical record is 2640 bytes containing 660-32 bit data words.

Header Records: The header record for File 2 is 2640 bytes. The first 4 data words (each 32 bits) are shown below.

Word 1 = Year  
Word 2 = Day  
Word 3 = 10  
Word 4 = Code Word ('2' for File 2)

The remaining 656 data words are filled with zeros.

### Data Record:

The data record for File 2 is 2640 bytes containing 660-32 bit words. There are 220 groups of 3 data words in each physical record. Time is expressed in milliseconds. The data value is multiplied by  $10^3$  for better resolution. The order of data in each physical record is given below.

Word 1	Time in millisecond
Word 2	EX
Word 3	EY
Word 1	Time in millisecond
Word 2	EX
Word 3	EY
'	'
'	'
Word 658	Time in millisecond
Word 659	EX
Word 660	EY

Time words are separated by spin period which is approximately 57.3 seconds.

The last physical record of File 2 may not have exactly 660 data words. In that case, remaining data are filled with zeros to make the physical record 2640 bytes long.

### File 3

File 3 contains the common mode data from 3 channels. File 3 is headed by a header record followed by data records. All physical records in this file are 2640 bytes containing 660-32 bit data words.

Header Record: The header record of File 3 is 2640 bytes long. The first 4 data words (each 32 bits) are shown below.

Word 1 = Year

Word 2 = Day

Word 3 = 10

Word 4 = Code Word ('3' for File 3).

The remaining 656 data words are filled with zeros.

### Data Record File 3

Data record for File 3 is 2640 bytes containing 660-32 bit words. There are 13 groups of 49 data words in each physical record. Time is expressed in milliseconds. Each group of 49 data words contains a time word followed by 48 data words. Data are processed from each frame containing 16 seconds of data. The time word appears after 16 seconds. With the exception of the last physical record, there are 637-32 bit data words in each physical record. The remaining  $(660-637=23)$  23 data are filled with zeros. The last data record also contains zero fill data. The number of zero fill data is determined by the number of data in the array of 660 elements. The order in which the data appears in a physical record for File 3 is shown below.

Data Record

Word 1	Time at the starts of 16 seconds period.
Word 2	CM1 - at the time of word 1
Word 3	CM2 - at the time of word 1
Word 4	CM3 - at the time of word 1
Word 5	CM1 - at the time of next sec.
Word 6	CM2 - at the time of next sec.
Word 7	CM3 - at the time of next. sec.
Word 47	CM1 - at the time of next sec.
Word 48	CM2 - at the time of next sec.
Word 49	CM3 - at the time of next sec.
Word 50	Time at the start of next 16 sec. period
Word 51	CM1 - Time at the time of data 50
Word 52	CM2 - Time at the time of data 50
Word 53	CM3 - Time at the time of data 50
Word 635	CM1 - Time at the end of 13th. 16 sec. period
Word 636	CM2 - Time at the end of " " peri
Word 637	CM3 - Time at the end of " " peri
Words (638-660)	are zero fill

Notice that the number of zero fill for the last data record is not known beforehand..

Participant: T. Aggson

Data Set Mnemonic: SC05

Satellite ID: SCATHA (STP P78-2)

NSSDC ID: 79-007A-05A

Data Set Name: E-Field Components

Principal Investigators: T. Aggson, NASA/GSFC

Data Availability: YY/DDD/HH/MM/SS YY/DDD/HH/MM/SS  
79/081/12/00/00 79/081/20/00/00  
79/092/12/00/00 79/091/06/00/00

Data Time Interval: 60s

<u>Description</u>	<u>Mnemonic</u>	<u>Units</u>	<u>Tuple</u>
DC E-Field Spacecraft Coordinates Range -120 to +120	SC05DCHI	mv/m	
AC E-Field Spacecraft Coordinates Range -12 to +12	SC05AC	mv/m	
Common Mode Voltage Range -15 to +15	SC05CM1	v	
Common Mode Voltage Range -300 to +300	SC05CM2	v	
Common Mode Voltage Range -5000 to +5000	SC05CM3	v	
Magnetic Field x(direct) Spacecraft Coordinates Range -500 to +500	SC05BX	gammas	
Magnetic Field y(direct) Spacecraft Coordinates Range -500 to +500	SC05BY	gammas	
rms E-Field Noise Range 1Hz to 2Hz	SC05ECH2	mv/m	
rms E-Field Noise Range 2Hz to 20Hz	SC05ECH3	mv/m	
rms E-Field Noise Range 20Hz to 200Hz	SC05ECH4	mv/m	
rms B-Field Noise Range 1Hz to 1Hz	SC05MCH1	unknown	
rms B-Field Noise Range 1Hz to 2Hz	SC05MCH2	unknown	
rms B-Field Noise Range 2Hz to 20Hz	SC05MCH3	unknown	
rms B-Field Noise Range 20Hz to 200Hz	SC05MCH4	unknown	

Participant: T. Aggson

Data Set Mnemonic: SC05

(cont'd)

<u>Description</u>	<u>Mnemonic</u>	<u>Units</u>	<u>Tuple</u>
DC Electric Field components for EX Time Interval Approximately 57.3 seconds	SC05EX	mv/m	
DC Electric Field components for EY Time Interval Approximately 57.3 seconds	SC05EY	mv/m	





( 2280)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
( 2320)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
( 2360)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
( 2400)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
( 2440)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
( 2480)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
( 2520)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
( 2560)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
( 2600)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000

FILE INPUT DATA RECORDS MAX. READ ERROR SUMMARY INPUT RETRIES

FILE	RECS.	INPUT	SIZE	PERM	ZERO	B	SHORT	UNDEF.	#RECS.	TOTAL#
1	1979	35	2640	0	0	0	0	0	0	0

FILE	RECORD	LENGTH	2640BYTES
( 0)	0000078B	0000005B	0000000A 00000003
( 40)	00000000	00000000	00000000 00000000
( 80)	00000000	00000000	00000000 00000000
( 120)	00000000	00000000	00000000 00000000
( 160)	00000000	00000000	00000000 00000000
( 200)	00000000	00000000	00000000 00000000
( 240)	00000000	00000000	00000000 00000000
( 280)	00000000	00000000	00000000 00000000
( 320)	00000000	00000000	00000000 00000000
( 360)	00000000	00000000	00000000 00000000
( 400)	00000000	00000000	00000000 00000000
( 440)	00000000	00000000	00000000 00000000
( 480)	00000000	00000000	00000000 00000000
( 520)	00000000	00000000	00000000 00000000
( 560)	00000000	00000000	00000000 00000000
( 600)	00000000	00000000	00000000 00000000
( 640)	00000000	00000000	00000000 00000000
( 680)	00000000	00000000	00000000 00000000
( 720)	00000000	00000000	00000000 00000000
( 760)	00000000	00000000	00000000 00000000
( 800)	00000000	00000000	00000000 00000000
( 840)	00000000	00000000	00000000 00000000
( 880)	00000000	00000000	00000000 00000000
( 920)	00000000	00000000	00000000 00000000
( 960)	00000000	00000000	00000000 00000000
( 1000)	00000000	00000000	00000000 00000000
( 1040)	00000000	00000000	00000000 00000000
( 1080)	00000000	00000000	00000000 00000000
( 1120)	00000000	00000000	00000000 00000000
( 1160)	00000000	00000000	00000000 00000000
( 1200)	00000000	00000000	00000000 00000000
( 1240)	00000000	00000000	00000000 00000000
( 1280)	00000000	00000000	00000000 00000000
( 1320)	00000000	00000000	00000000 00000000
( 1360)	00000000	00000000	00000000 00000000
( 1400)	00000000	00000000	00000000 00000000
( 1440)	00000000	00000000	00000000 00000000
( 1480)	00000000	00000000	00000000 00000000
( 1520)	00000000	00000000	00000000 00000000
( 1560)	00000000	00000000	00000000 00000000
( 1600)	00000000	00000000	00000000 00000000
( 1640)	00000000	00000000	00000000 00000000
( 1680)	00000000	00000000	00000000 00000000
( 1720)	00000000	00000000	00000000 00000000
( 1760)	00000000	00000000	00000000 00000000
( 1800)	00000000	00000000	00000000 00000000
( 1840)	00000000	00000000	00000000 00000000
( 1880)	00000000	00000000	00000000 00000000
( 1920)	00000000	00000000	00000000 00000000

06A-SPMS-00525  
08A-SPMS-00378  
14A-SPMS-00351

STP

P78-2 SC2-3 PLASMA DATA

P78-2 B FIELD AVERAGES - I MIN

P78-2 ENERGETIC PROTON FLUXES I-MIN AVG

79-007A-06A, 08A, 14A

THIS DATA SET HAS BEEN RESTORED. THERE WERE ORIGINALLY FOUR 9-TRACK, 1600 BPI TAPES, AND ONE 9-TRACK 6250 BPI TAPE WRITTEN IN ASCII. THERE IS ONE RESTORED TAPE. THE DR TAPE IS 3480 CARTRIDGE AND THE DS TAPE IS 9-TRACK, 6250 BPI. FILES 18-37 WERE AN IMAGE COPY. THE ORIGINAL TAPES WERE CREATED ON AN IBM 360 COMPUTER AND WERE RESTORED ON AN IBM 9021 COMPUTER. THE DR AND DS NUMBERS ALONG WITH THE CORRESPONDING D NUMBERS AND TIME SPANS ARE AS FOLLOWS:

DR#	DS#	DD#	FILES	TIME SPAN
DR005206	DS005206	D045317	1-6	02/18/79 - 03/31/79 (06A)
		D045318	7-10	04/01/79 - 04/03/79 (06A)
		D046636	11-13	03/22/79 - 04/01/79 (08A)
		D046727	14-17	03/22/79 - 04/01/79 (14A)
		D073801	18-37	01/28/83 - 06/28/83 (06A, 08A, 14A)

REQ. AGENT

LSM

REQ. NO.

V0144

ACQ. AGENT

DMS

SCATHA

SC 2 - 3 PLASMA DATA

79-007A-06A

This data set catalog consists of 2 tape(s). The tape(s) are 9 track, 1600 bpi, ebcdic with 6,4 file(s) of data. The time span D and C numbers are as follows:

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>	
D-45317	C- 21546	2/18/79-3/31/79	6 files
D-45318	C- 21547	4/1/79 -4/3/79	4 files

INFORMATION SHEET FOR INCOMING DATA

NSSDC ID: 1-027A-44A

DATE DATA RECEIVED: 7/2/77

DATE NSDF COORDINATOR CONSULTED: \_\_\_\_\_

DATE SCIENTIST NOTIFIED: \_\_\_\_\_

SOURCE:	MATERIAL RECEIVED: (NUMBER OF SHEETS OF HARDCOPY, NUMBER 100' REELS MICROFILM, NUMBER OF MAGNETIC TAPES, ETC.)
PI AND AFFILIATION:	<u>Mag Tape</u>

SATELLITE NAME/NSDF NAME: SEARCH

EXPERIMENT NAME: \_\_\_\_\_

DATA SET FULL NAME: 4-2-3 PLASMA DATA

CONTACT: \_\_\_\_\_ ACQUISITION SCIENTIST: DMS

FORM THAT WILL BE ANNOUNCED IN AIM/NSDF: DD

THESE ARE:  A NEW DATA SET  ADDITIONS  REPLACEMENTS  OTHER (EXPLAIN BELOW)

ACCESSION UNIT NUMBERS: DD 45211, 12

REMARKS:

DD

DATA RECEIPT NOTIFICATION SENT?

Sandra Thomas  
DATA TECHNICIAN

Date July 15, 1981  
NSSDC ID 79-007A-061

# CDAW DATA SET ENTRY

Date Rcvd : July 15, 1981 EDB: 06

Data Sent By : J. Fennell

Material Rcvd : 2 tapes & documentation

1600 cpi - 9-track EBCDIC

verification plots (Data vs time  
Data vs Data)

Satellite/NSRF Name: STP P78-2 (SCATHA)

Data Set Name: SC2-3 Plasma Data

New Data Set     Additions     Replacements  
Comments \_\_\_\_\_

Time Coverage : Feb 18, March 22, March 31, April 1, April 3, 19

Tapes To Be Returned to: Not To Be Returned

Please provide  
a tape dump -  
Thanks  
Dr

Completed By: X. Headley

**CDB TAPE DOCUMENTATION FORM**

**SECTION I. DATA SET DESCRIPTION (please print)**

1. Data Set Name <i>SC2-3 Plasma Data from P78-2 (Scatha) satellite</i>		
2. Scientific Contact <i>J. F. Fennell</i>	3. Telephone No. or Telex No. <i>213-648-7075</i>	
4. Address <i>Aerospace Corp. AG/2437, P.O. Box 92957 Los Angeles, Ca, 90009</i>		
5. City <i>Los Angeles</i>	6. State <i>Calif.</i>	7. ZIP Code or Country <i>90009</i>
8. Programmer Contact <i>Lynn Friesen 213-648-5992</i>		

**SECTION II. TAPE DESCRIPTION**

1. No. of Tapes Submitted <i>2</i>	2. Tape Density <input type="checkbox"/> 800 bpi <input checked="" type="checkbox"/> 1600 bpi	
3. No. of Files (per tape) <i>B5565/6 files B5630/4 files</i>		
4. No. of End of File Marks	5. No. of Tracks <input type="checkbox"/> 7 <input checked="" type="checkbox"/> 9	
6. Recording Parity <i>odd</i>	7. Make and Model of Computer Used to Generate Tape <i>CDC 176</i>	
8. Are tapes written in binary, coded or both? (e.g. BCD) <del>BCD</del> <i>EBCDIC</i>		
9. What floating point representation is used? (e.g. CDC 64 bit) <i>N/A</i>		
10. What integer representation is used? <i>N/A</i>		
11. No. of Physical Records (per file) <i>see attached sheet</i>		
12. Are original tapes to be returned? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
13. Start and Stop Time of Each File (If more space is needed, please attach.) <i>see attached sheet</i>		

**SECTION III. LOGICAL AND PHYSICAL RECORD FORMAT (please attach)**

**SECTION IV. TO BE FILLED IN BY DAWOC ONLY**

CDB No.
---------

Date Received	Tape No.
Programmer ID	CON Name
Data Base	Date Loaded

2/15/88

79-607A-06A

Tapes B5565 and B5630 contain CDAW 6.0 data from SCATHA, SC2-3 ESA.

seconds?

<u>Tape #</u>	<u>File #</u>	<u>UT start</u>	<u>UT stop</u>	<u># Records</u>	<u>Contents (date, instrument)</u>
B5565	1	10517.86	86404.69	63008	18 Feb 79, SC2-3 e
	2	"	"	"	18 Feb 79, SC2-3 p
	3	14.76	86413.56	82784	22 Mar 79, SC2-3 e
	4	"	"	"	22 Mar 79, SC2-3 p
	5	13.10	86411.92	67104	31 Mar 79, SC2-3 e
	6	"	"	"	31 Mar 79, SC2-3 p
B5630	1	12.92	86411.74	84640	1 Apr 79, SC2-3 e
	2	"	"	"	1 Apr 79, SC2-3 p
	3	12.55	86411.37	86400	3 Apr 79, SC2-3 e
	4	"	"	"	3 Apr 79, SC2-3 p

The tapes are 9-track, 1600 bpi and EBCDIC coded.

The fixed-length logical record size is 80 characters with 60 logical records per physical record.

Data: (Format (6X,3F10.2, 12,7I6) )

UT (seconds)

Pitch angle (degrees)

Sun angle (degrees)

Program number (integer)

E1

E2

:

:

E7

} seven energy channels (count rate)



we B5565

t, last records file	UT sec	Pitch Angle	Sun Angle	Instrument Program channels in program							N.B. {channel 0 not on tape}		
				1	2	3	4	5	6	7			
file 1	10517.86	100.57	178.87	1	0	0	0	0	0	0	0	} electrons	63008
	86404.69	125.77	76.48	2	3	4	3	3	9	7	18		
file 2	10517.86	100.57	178.87	1	0	0	0	0	0	0	0	} ions	63008
	86404.69	125.77	76.48	2	1	1	1	3	3	28	63		
file 3	14.76	132.61	170.15	1	0	0	0	0	0	0	0	} electrons	82784
	86413.56	142.25	155.47	2	3	102	206	358	376	486	167		
file 4	14.76	132.61	170.15	1	0	0	0	0	0	0	0	} ions	82784
	86413.56	142.25	155.47	2	1	3	2	15	15	66	83		
file 5	13.10	64.95	144.37	1	45	42	74	155	201	147	73	} electrons	67104
	86411.92	87.45	13.99	2	1	24	137	334	414	750	455		
file 6	13.10	64.95	144.37	1	2	1	1	3	9	33	56	} ions	67104
	86411.92	87.45	13.99	2	1	1	1	1	6	35	53		

so col card mag

record #

29-007A-06A  
2/15/81  
CD 26

Tape 35630:

UT Sec

Pitch Angle

Sun Angle

Height  
Pressure

Channels in Program

N.B. {chan on tape} 0 not }

1 2 3 4 5 6 7

rest and last record, file 1

864 12.92  
11.74

92.97  
65.96

21.03  
146.00

1  
2

96  
1

213  
150

366  
401

461  
464

692  
548

582  
380

398  
345

} electrons

84640

file 2

864 12.92  
11.74

92.97  
65.96

21.03  
146.00

1  
2

2  
1

1  
1

7  
2

12  
4

18  
20

41  
58

80  
142

} ions

84640

file 3

864 12.55  
11.37

93.16  
43.77

173.60  
132.65

1  
2

204  
1

444  
67

360  
284

272  
632

327  
954

487  
273

309  
26

} electrons

86400

file 4

864 12.55  
11.37

93.16  
43.77

173.60  
132.65

1  
2

2  
1

1  
1

3  
3

5  
5

9  
21

34  
164

68  
78

} ions

86400

record +

80 col card image

77-602A-06A

7/15/81

COB 6

2/15/81

The program channel (or step) number determines the energy being measured at each UT time. The particle flux is determined by:

Electrons

$$J_e = \frac{(\text{Counts per sample} - 1)}{1.62 \times 10^{-5} \times E_e (\text{keV}) \times \epsilon_e}$$

where

$$\epsilon_e = 1 - 2/B$$

and

$$B \sim 3. + 6.5 (0.2 + E_e (\text{keV})) + 30. / (0.2 + E_e (\text{keV}))^3$$

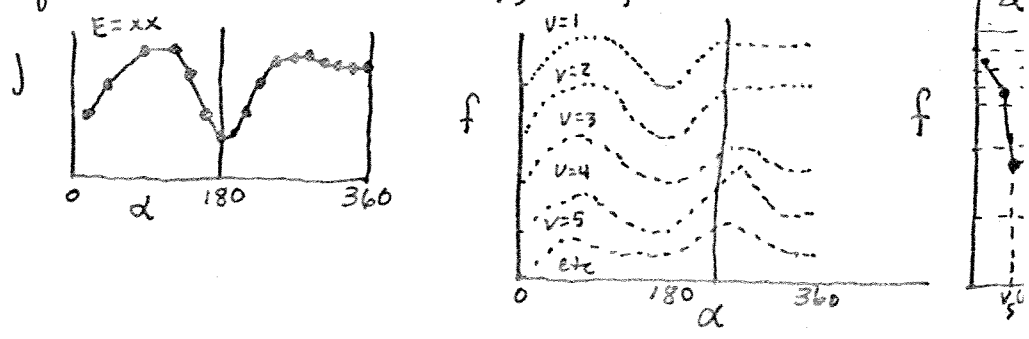
{from Archuleta and DeForest, 1971}

Ions

$$J_I = \frac{(\text{Counts per sample} - 1)}{6.3 \times 10^{-5} \times E_{\text{Ion}} (\text{keV})}$$

Data should be plotted as:

- 1) Average flux versus time with two averages used per
  - (a)  $\alpha = 90^\circ \pm 15^\circ$  (ie) x symbol
  - (b)  $\alpha = 0^\circ$  to  $30^\circ$  and  $150^\circ$  to  $180^\circ$  combined. (ie) dot $\alpha =$  pitch angle. See example enclosed (A1 and A2)  
 Average to be over 1 to 5 satellite spin periods. (~1-  
 (i) USE 1 min if low frequency oscillations to be st  
 (ii) Use 5 min for general flux information
  
- 2) Pitch angle plot on request. Make stacked plot as  
 on enclosed sample (A3). Can use data accumulated over  
 spins and binned into  $5^\circ$  pitch angle bins before plotting
  
- 3) Isodistribution function contour plots in velocity space  
 Starts with 2) above. Interpolate  $J$  in pitch angle  
 each energy to give  $1$  to  $2^\circ$  resolution ( $180$  to  $360$  va  
 At each  $\alpha$  (out of the  $180$  to  $360$ ) compute  $f(v)$  for e  
 channel (see below). Then interpolate  $f(v)$ s at a giv  
 to select prechosen  $f_0(v)$ s and find their velocity  
 Plot appropriate symbol in  $V_{||}, V_{\perp}$  space. Do th  
 each angle. Result will appear as attached pl  
 of  $f(v)$  isocontours in  $V_{||}, V_{\perp}$  space.



The  $f(v)$  vs  $\alpha$  array can be integrated to obtain pla  
 moments  $N, \langle E \rangle, \gamma, \text{Eng. density}$

## SC2-3 ESA

2/15/81

CDB 6

## PEAK ENERGIES

PGRM / STEP  
(FRAME NO.) $E_e$  (eV)  
 $\Delta E \sim 7\%$ Multiplier  
to get  
Flux/eV $E_i$  (eV/g)  
 $\Delta E \sim 8\%$ 

1	0	187	3.3	154	10.3
	1	446	13.8	360	4.4
	2	1090	5.7	880	1.8
	3	2580	2.4	2060	0.77
	4	4520	1.37	3600	0.44
	5	10950	0.56	8800	0.18
	6	19400	0.32	15600	0.10
2	0	+5 ions	(1230)	-4v elect.	(400)
	1	87	71	74	2.4
	2	316	19.5	255	6.2
	3	815	7.57	655	2.4
	4	1940	3.18	1550	1.0
	5	5900	1.05	4800	0.33
	6	14400	0.43	11600	0.14
3	0	+6v ions	(1029)	-4v elect.	(400)
	1	17	363	18	88
	2	40	154	37	43
	3	612	10.1	490	3.2
	4	1440	4.3	1165	1.4
	5	3410	1.8	2700	0.59
	6	8200	0.75	6650	0.24

eESA has analyzer const. = 5.9 ( $\times V_{pp}$ )pESA has analyzer const. = 4.33 ( $\times V_{pp}$ )

$$G_e = 1.62 \times 10^{-4} \text{ cm}^2 \text{ ster } \Delta E/E$$

$$G_p = 6.3 \times 10^{-4} \text{ cm}^2 \text{ ster } \Delta E/E$$

ELECTRONS

+ 0-30

70-110

150-180 ←

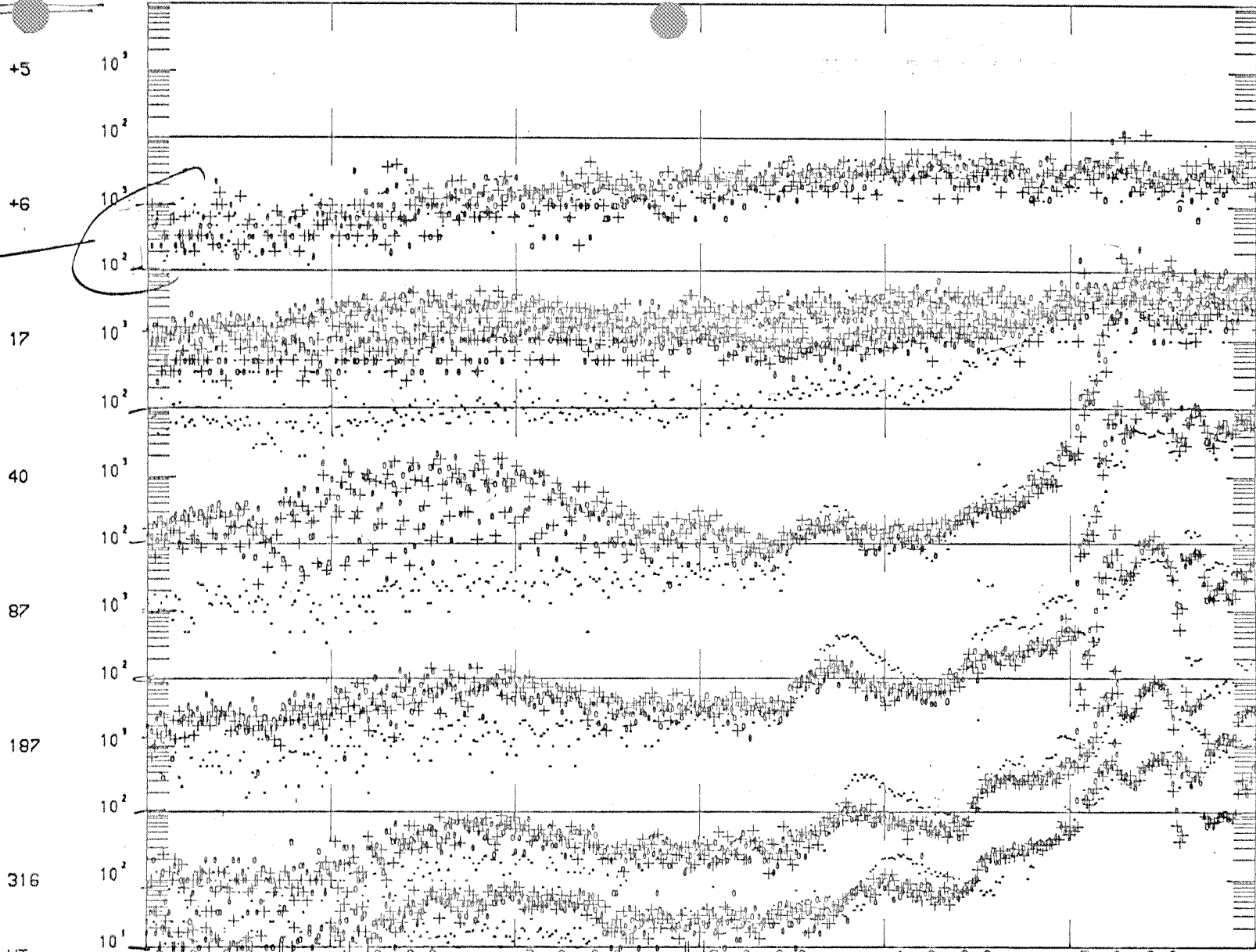
Pitch Angle Kang e

REMIC 1

SA HA-SC2  
 FEB 12  
 REV 11.20  
 DAY 43  
 YEAR 1979  
 LAT:  
 7.43  
 7.85  
 7.74  
 6.92  
 5.26  
 2.78  
 LON  
 200.26  
 199.71  
 200.68  
 203.42  
 207.97  
 214.13  
 ALT (KM)  
 37302  
 35279  
 33163  
 31115  
 29345  
 28092  
 MLAT  
 7.48  
 7.78  
 7.86  
 7.59  
 6.85  
 5.59

S

Energy, eV



UT	0.0	3600.0	7200.0	10800.0	14400.0	18000.0
UTSEC	0.0	3600.0	7200.0	10800.0	14400.0	18000.0
MLT	12.85	13.81	14.90	16.14	17.52	19.03
B(GAMMA)	107.63	119.98	133.61	149.06	168.31	182.77
L(ER)	6.60	6.39	6.19	5.98	5.74	5.56
ALT(ER)	5.85	5.54	5.21	4.88	4.61	4.41

OR-10-91 107785X

AI  
 29-007A-061  
 7/15/81  
 2006

ELECTRONS

0-30

70-110

150-180

446

612

815

1090

1440

1940

2580

UT

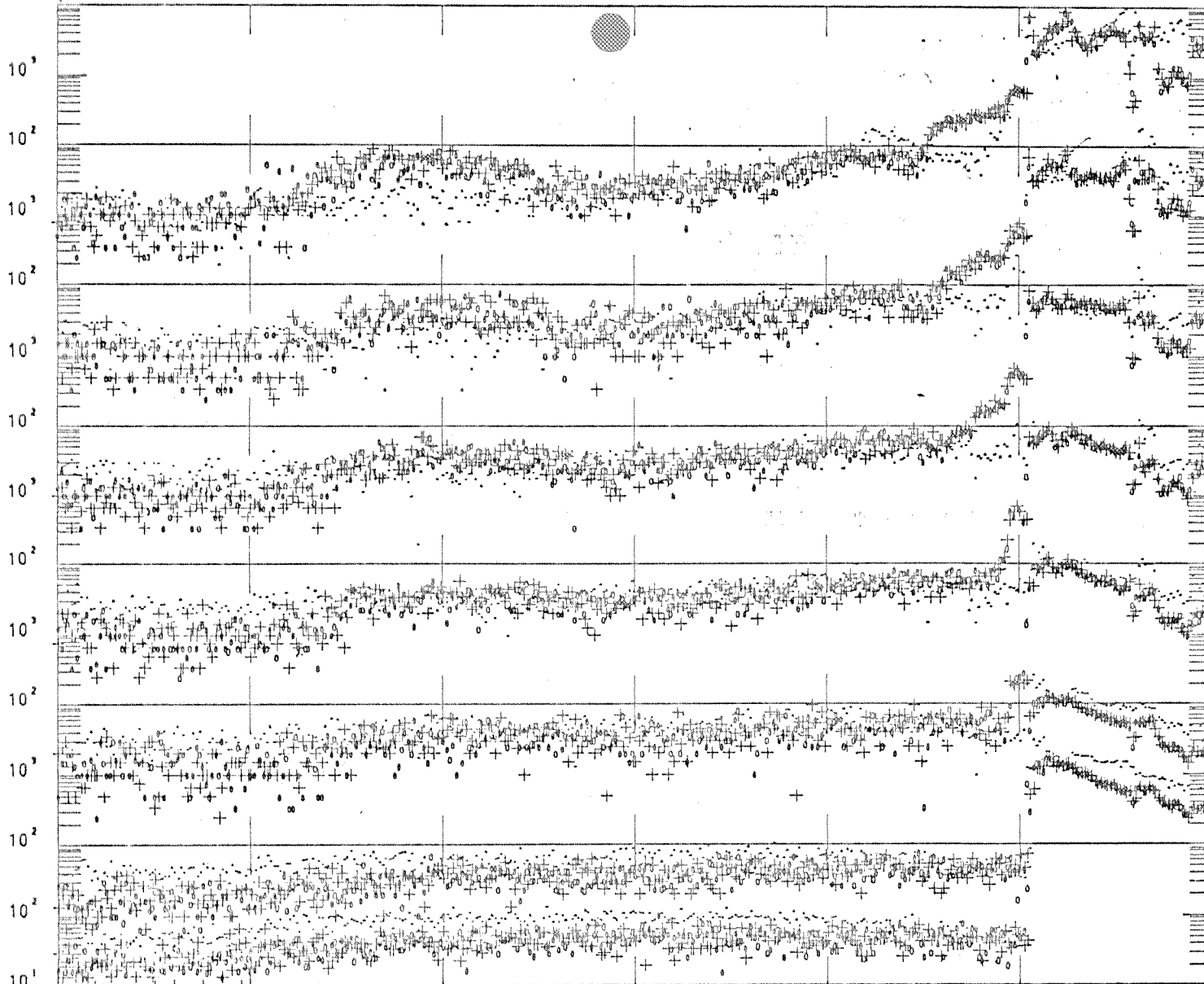
UTSEC

MLT

B(GAMMA)

L(ER)

ALT(ER)



SCATHA-SO2

FEV 2

REV 11.20

DAY 43

YEAR 1979

LAT

7.43

7.85

7.74

6.92

5.26

2.78

LON

200.26

199.71

200.68

203.42

207.97

214.13

ALT(KM)

37302

35279

33163

31115

29345

28092

MLAT

7.48

7.78

7.86

7.59

6.85

5.59

ELECTRONS

0-30

70-110

150-180

SCATHA-SC2

FEB 12

REU 11.20

DAY 43

YEAR 1979

LAT

7.43

7.85

7.74

6.92

5.26

2.78

LON

200.26

199.71

200.68

203.42

207.97

214.13

ALT(KM)

37302

35279

33163

31115

29345

28092

MLAT

7.48

7.78

7.86

7.59

6.85

5.59

3410

4520

5900

8200

10950

14400

19400

UT

0. 0. 0.0 1. 0. 0.0 2. 0. 0.0 3. 0. 0.0 4. 0. 0.0 5. 0. 0.0

UTSEC

0.0 3600.0 7200.0 10800.0 14400.0 18000.0

MLT

12.85 13.81 14.90 16.14 17.52 19.03

B(GAMMA)

107.63 119.98 133.61 149.06 168.31 182.77

L(ER)

6.60 6.39 6.19 5.98 5.74 5.56

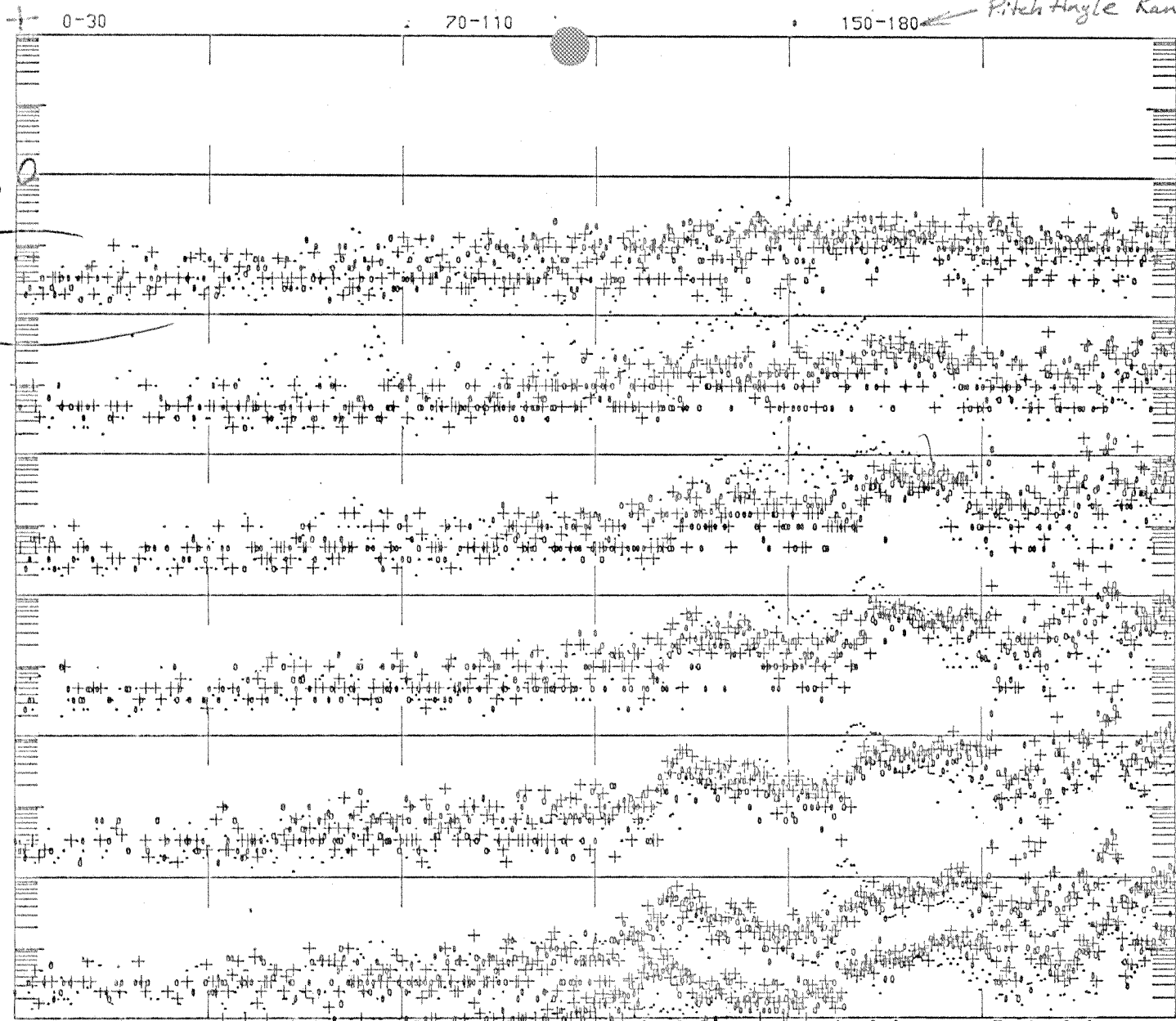
ALT(ER)

5.85 5.54 5.21 4.88 4.61 4.41



Pitch Angle Range

SC A-S02,  
 FEB 12  
 REV 11.20  
 DAY 43  
 YEAR 1979  
 LAT  
 7.43  
 7.85  
 7.74  
 6.92  
 5.26  
 2.78  
 LON  
 200.26  
 199.71  
 200.68  
 203.42  
 207.97  
 214.13  
 ALT(KM)  
 37302  
 35279  
 33163  
 31115  
 29345  
 28092  
 MLAT  
 7.48  
 7.78  
 7.86  
 7.59  
 6.85  
 5.59



IONS

0-30

70-110

150-180

-4

10<sup>3</sup>

10<sup>2</sup>

10<sup>1</sup>

18

10<sup>3</sup>

10<sup>2</sup>

37

10<sup>3</sup>

10<sup>2</sup>

74

10<sup>3</sup>

10<sup>2</sup>

154

10<sup>3</sup>

10<sup>2</sup>

255

10<sup>2</sup>

UT

0.0 0.0 0.0 1.0 0.0 0.0 2.0 0.0 0.0 3.0 0.0 0.0 4.0 0.0 0.0 5.0 0.0 0.0

UTSEC

0.0 3600.0 7200.0 10800.0 14400.0 18000.0

MLT

12.85 13.81 14.90 16.14 17.52 19.03

B(GAMMA)

107.63 119.98 133.61 149.06 168.31 182.77

L(ER)

6.60 6.39 6.19 5.98 5.74 5.56

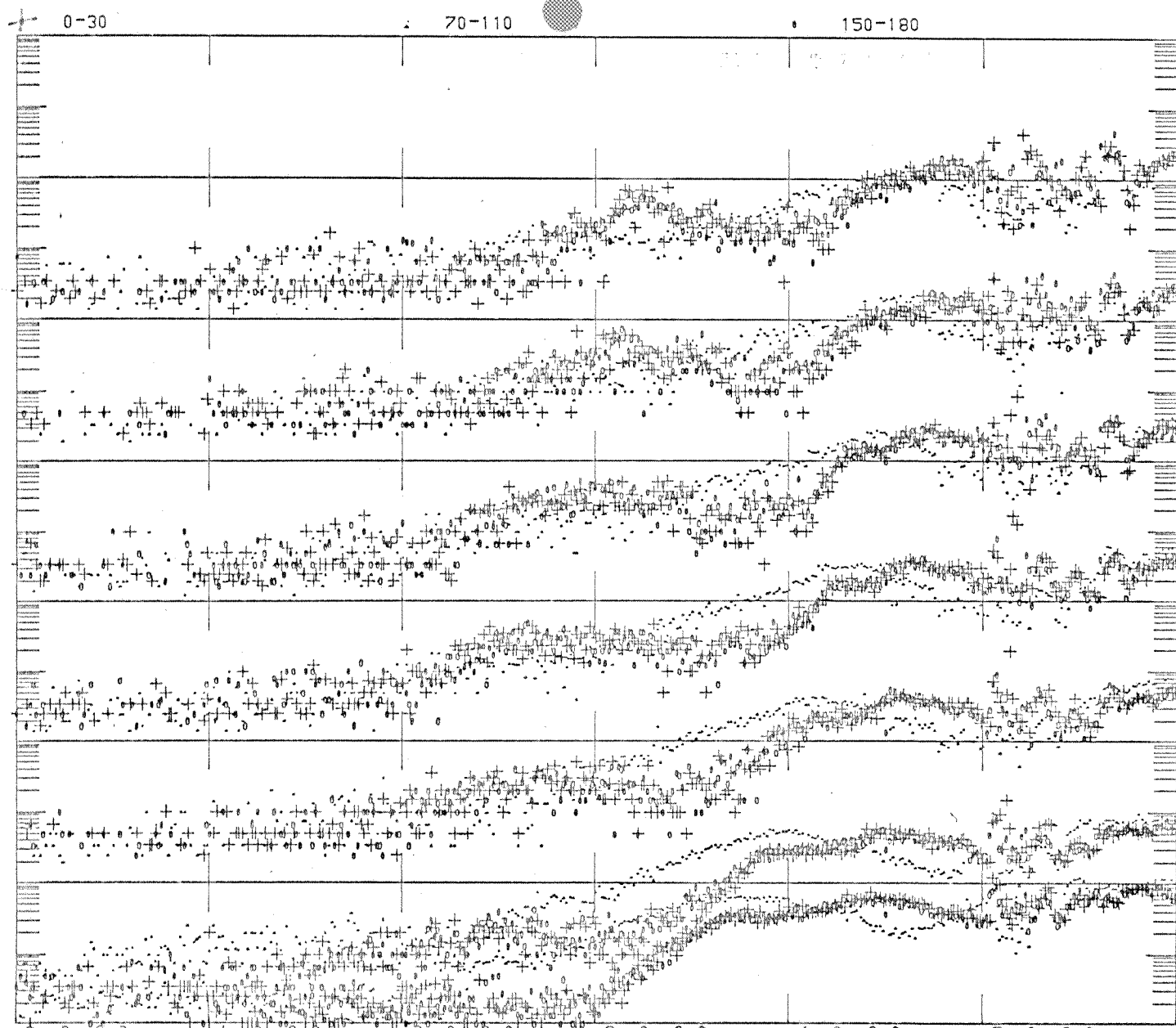
ALT(ER)

5.85 5.54 5.21 4.88 4.61 4.41

*Delete  
PGRM 2  
STP*

AZ

10MS

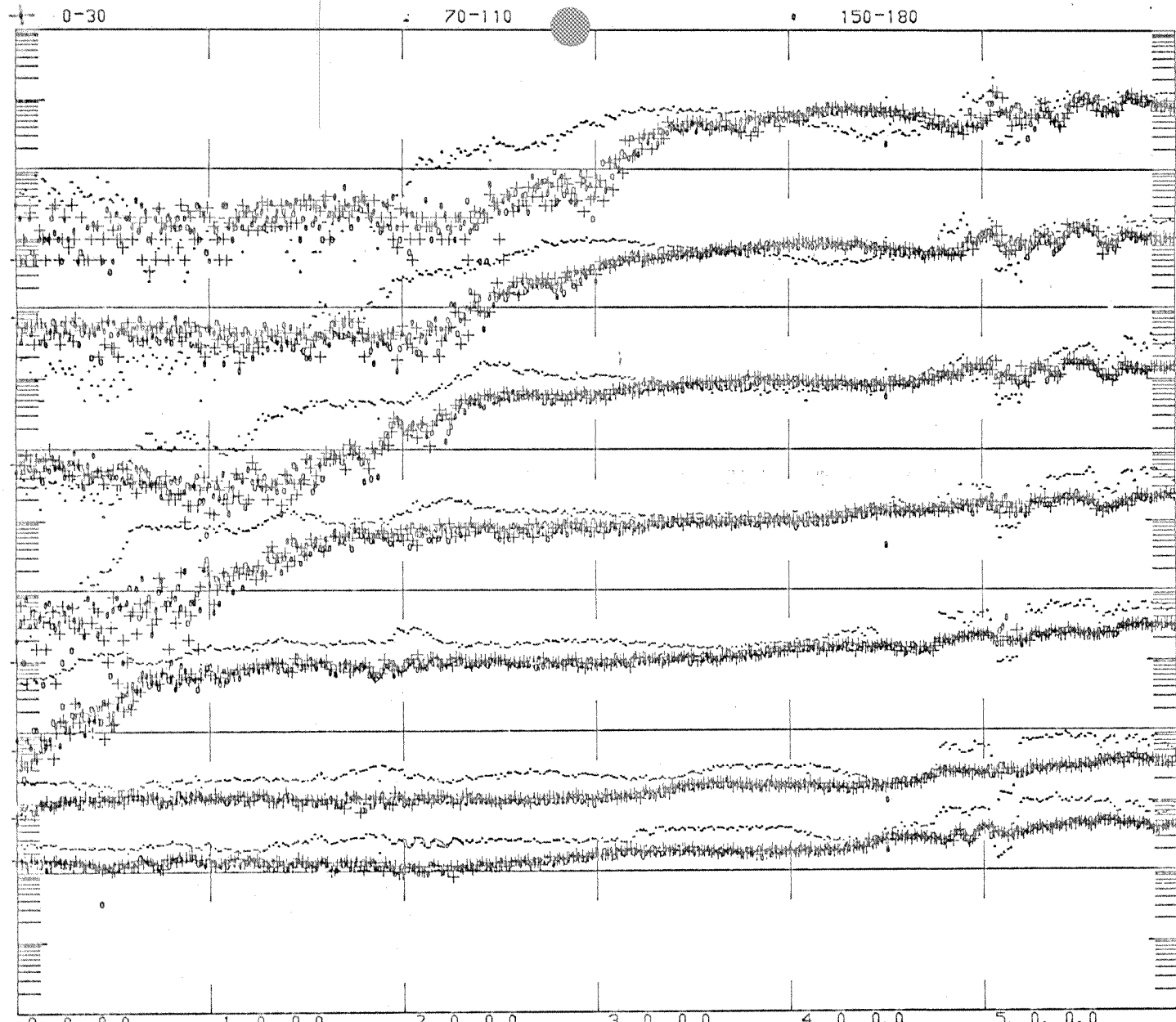


SCATHA-SC2  
 FEB 12  
 REV 11.20  
 DAY 43  
 YEAR 1979  
 LAT  
 7.43  
 7.85  
 7.74  
 6.92  
 5.26  
 2.78  
 LON  
 200.26  
 199.71  
 200.68  
 203.42  
 207.97  
 214.13  
 ALT(KM)  
 37302  
 35279  
 33163  
 31115  
 29345  
 28092  
 MLAT  
 7.48  
 7.78  
 7.86  
 7.59  
 6.85  
 5.59

UT	0.0	3600.0	7200.0	10800.0	14400.0	18000.0
UTSEC	0.0	3600.0	7200.0	10800.0	14400.0	18000.0
MLT	12.85	13.81	14.90	16.14	17.52	19.03
B(GAMMA)	107.63	119.98	133.61	149.06	168.31	182.77
L(ER)	6.60	6.39	6.19	5.98	5.74	5.56
ALT(ER)	5.85	5.54	5.21	4.88	4.61	4.41

06715-01 107185X

10



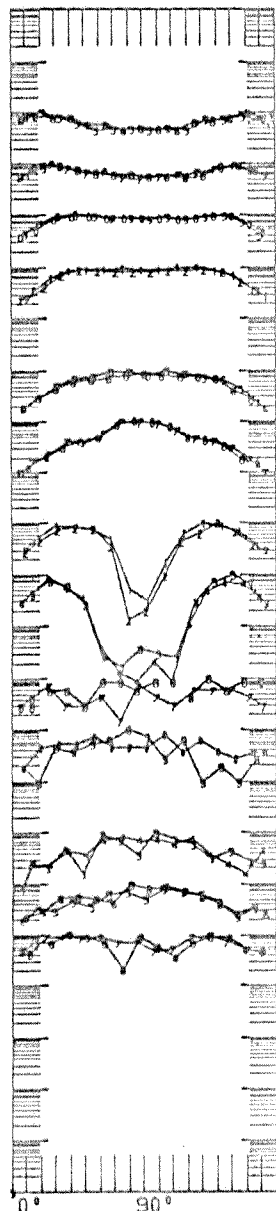
SC 1A-S02  
 FEB 12  
 REV 11.20  
 DAY 43  
 YEAR 1979  
 LAT  
 7.43  
 7.85  
 7.74  
 6.92  
 5.26  
 2.78  
 LON  
 200.26  
 199.71  
 200.68  
 203.42  
 207.97  
 214.13  
 ALT(KM)  
 37302  
 35279  
 33163  
 31115  
 29345  
 28092  
 MLAT  
 7.48  
 7.78  
 7.86  
 7.59  
 6.85  
 5.59

UT	0.0	3600.0	7200.0	10800.0	14400.0	18000.0
UTSEC	0.0	3600.0	7200.0	10800.0	14400.0	18000.0
MLT	12.85	13.81	14.90	16.14	17.52	19.03
B(GAMMA)	107.63	119.98	133.61	149.06	168.31	182.77
L(ER)	6.60	6.39	6.19	5.98	5.74	5.56
ALT(ER)	5.85	5.54	5.21	4.88	4.61	4.41

06/15/81 12718 05

05-13-79 ELECTRONS/CM \* 2-SEC-STER-KEV

ELECTRONS



E FLUX F(U) 250CT1979 DAY 298 IONS

.017KEV		
.040KEV		
.087KEV	.2363E+09	.4390E+03
.187KEV	.2065E+09	.1785E+03
.316KEV	.1619E+09	.8279E+02
.446KEV	.1482E+09	.5372E+02
.612KEV		
.815KEV	.5709E+08	.1132E+02
1.090KEV	.5596E+08	.8299E+01
1.440KEV		
1.940KEV	.1439E+08	.1199E+01
2.580KEV	.5610E+07	.3515E+00
3.410KEV		
4.520KEV	.9418E+05	.3368E-02
5.900KEV	.1134E+06	.3106E-02
8.200KEV		
10.950KEV	.1388E+06	.2050E-02
14.400KEV	.1309E+06	.1470E-02
19.400KEV	.7837E+05	.6530E-03

SC2-3 SC11 B-FIELD

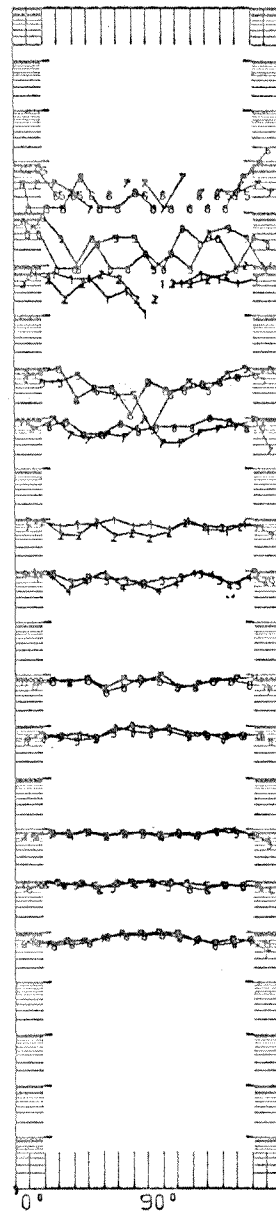
L 7.284 7.281  
 UT 60248.42 60306.67  
 MLT 21.136 21.151  
 ALT 37164.93 37133.29

B-FIELD 39.80 37.55

PITCH ANGLE( DEG)

IONS/CM \* 2-SEC-STER-KEV

E FLUX F(U)



.018KEV		
.037KEV		
.074KEV	.9510E+07	.7003E+08
.154KEV	.8124E+06	.2875E+07
.255KEV	.7359E+06	.1573E+07
.360KEV	.3910E+06	.5918E+06
.490KEV		
.655KEV	.4059E+06	.3377E+06
.880KEV	.3732E+06	.2311E+06
1.165KEV		
1.550KEV	.3632E+06	.1277E+06
2.060KEV	.3492E+06	.9237E+05
2.700KEV		
3.600KEV	.3606E+06	.5458E+05
4.800KEV	.4007E+06	.4549E+05
6.650KEV		
8.800KEV	.3519E+06	.2179E+05
11.600KEV	.3020E+06	.1419E+05
15.600KEV	.3158E+06	.1103E+05

L 7.284 7.281  
 UT 60248.42 60306.67  
 MLT 21.136 21.151  
 ALT 37164.93 37133.29

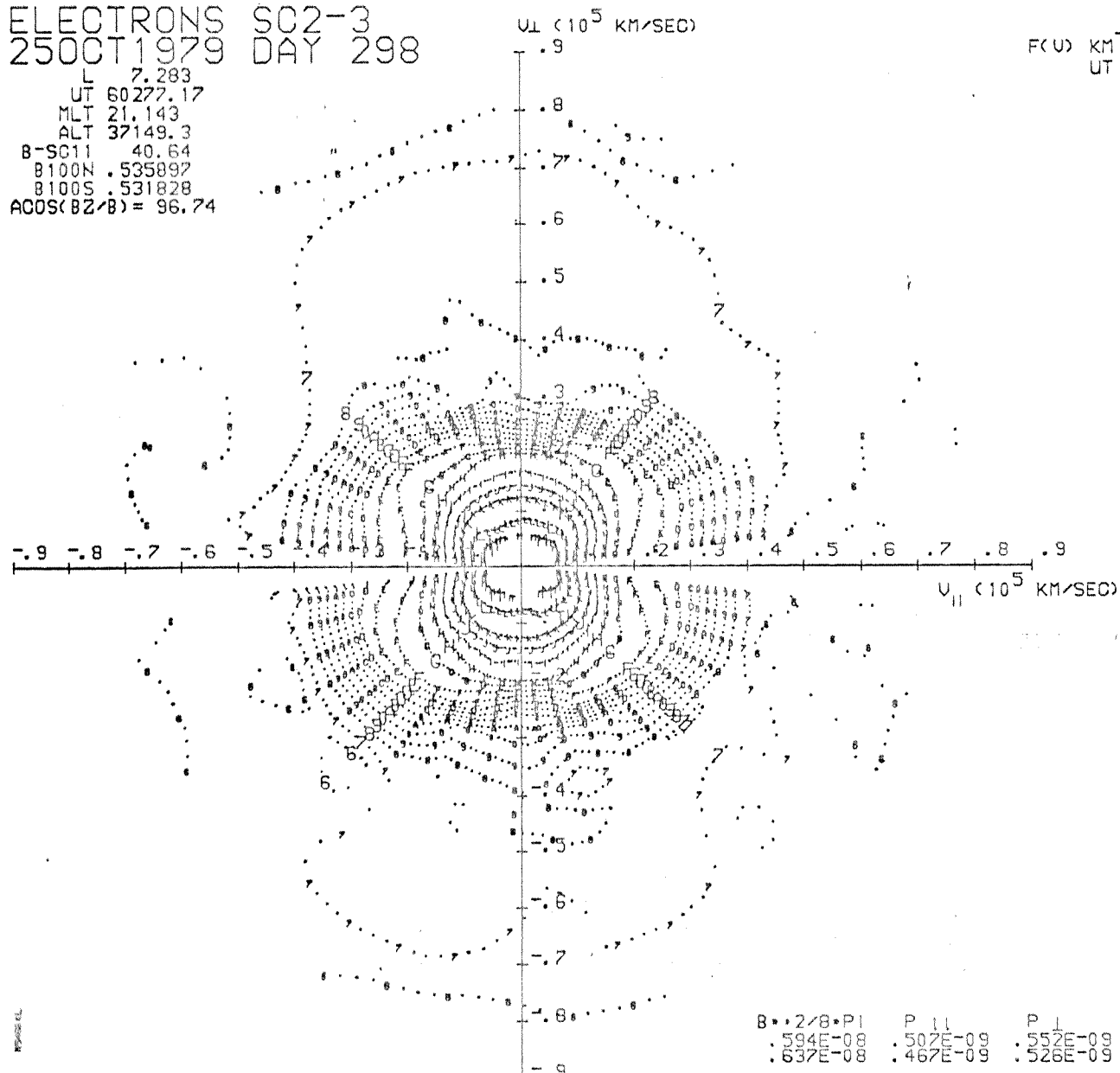
B-FIELD 39.80 37.55

PITCH ANGLE( DEG)

These iso f(v) contours in Velocity space were generated from the pitch angle plots in A3

ELECTRONS SC2-3  
25OCT1979 DAY 298

L 7.283  
UT 60277.17  
MLT 21.143  
ALT 37149.3  
B-SC11 40.64  
B100N .535897  
B100S .531828  
AOS(B2/B) = 96.74

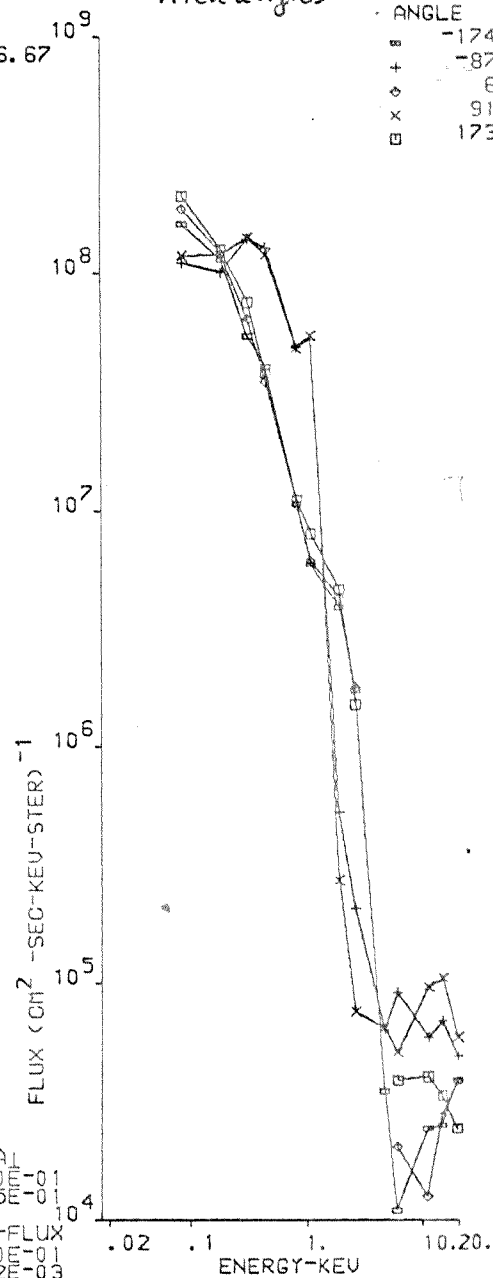


F(U) KM<sup>-6</sup>-SEC<sup>3</sup>  
UT 60248.42 60306.67

1	.100E-04
2	.215E-04
3	.464E-04
4	.100E-03
5	.215E-03
6	.464E-03
7	.100E-02
8	.215E-02
9	.464E-02
0	.100E-01
A	.215E-01
B	.464E-01
C	.100E+00
D	.215E+00
E	.464E+00
F	.100E+01
G	.215E+01
H	.464E+01
I	.100E+02
J	.215E+02
K	.464E+02
L	.100E+03
M	.215E+03
N	.464E+03
O	.100E+04
P	.215E+04
Q	.464E+04
R	.100E+05
S	.215E+05
T	.464E+05
U	.100E+06
V	.215E+06
W	.464E+06
X	.100E+07
Y	.215E+07
Z	.464E+07
+	.100E+08
x	.215E+08
x	.464E+08
x	.100E+09
+	.215E+09
x	.464E+09
E	.100E+10

Spectra at selected  
Pitch angles

PITCH ANGLE	
E	-174
+	-87
x	6
x	91
E	173



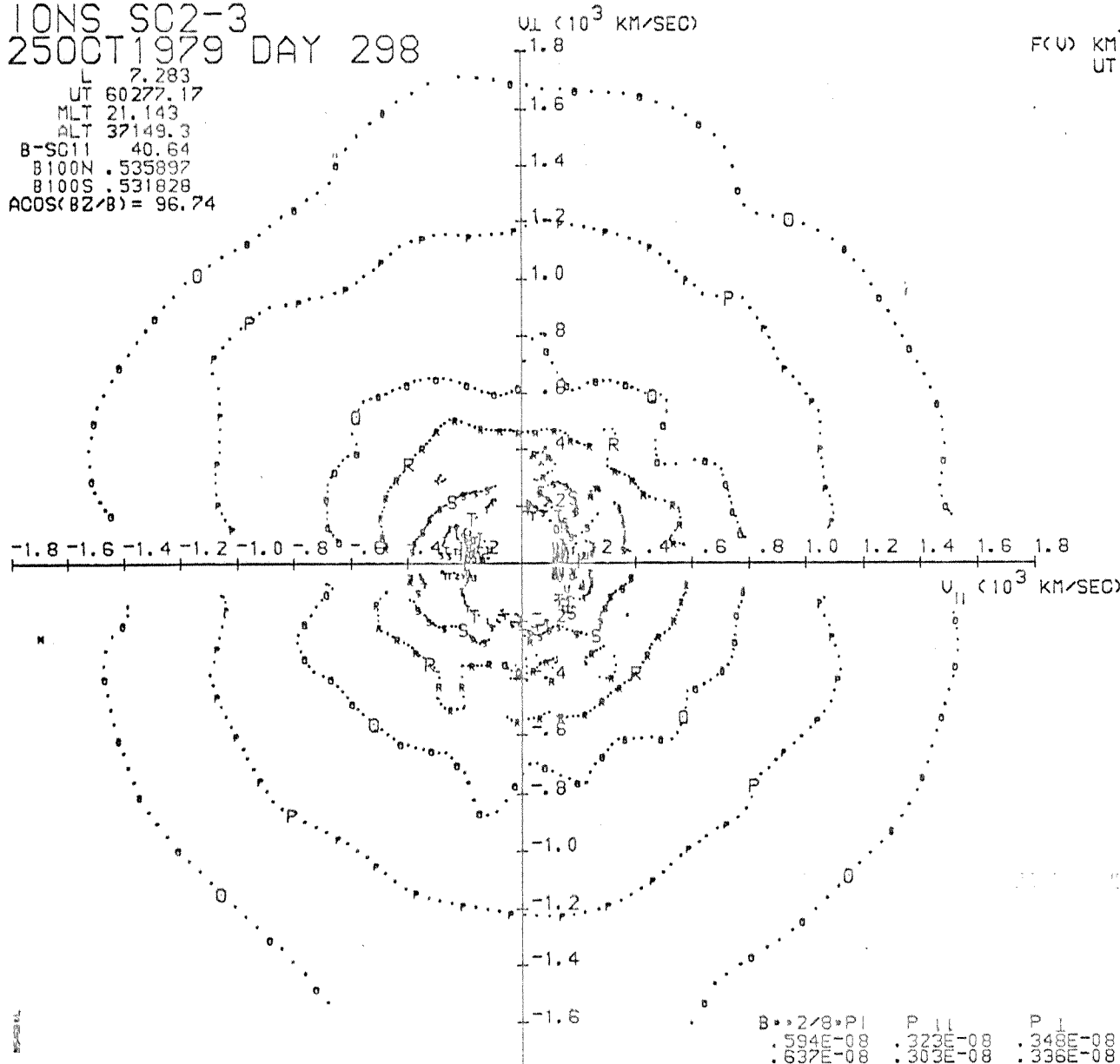
B = 278 P1 P<sub>||</sub> P<sub>⊥</sub> BETA<sub>||</sub> BETA<sub>⊥</sub>  
 .594E-08 .507E-09 .552E-09 .853E-01 .930E-01  
 .637E-08 .467E-09 .526E-09 .733E-01 .825E-01

UT DEN U<sub>||</sub> KM/S U<sub>⊥</sub> KM/S J UA/M\*\*2 MOM-FLUX E-FLUX T<sub>⊥</sub> EU T<sub>||</sub> EU E-DEN HEAT-FLUX  
 60262.98 .106E+01 .896E+01 .134E+05 .153E-02 .410E-11 .138E-01 .324E+03 .298E+03 .806E-09 .150E-01  
 60292.11 .103E+01 .487E+03 .131E+05 .801E-01 .512E-10 .601E-01 .320E+03 .284E+03 .780E-09 .272E-03

A4

IONS SC2-3  
25OCT1979 DAY 298

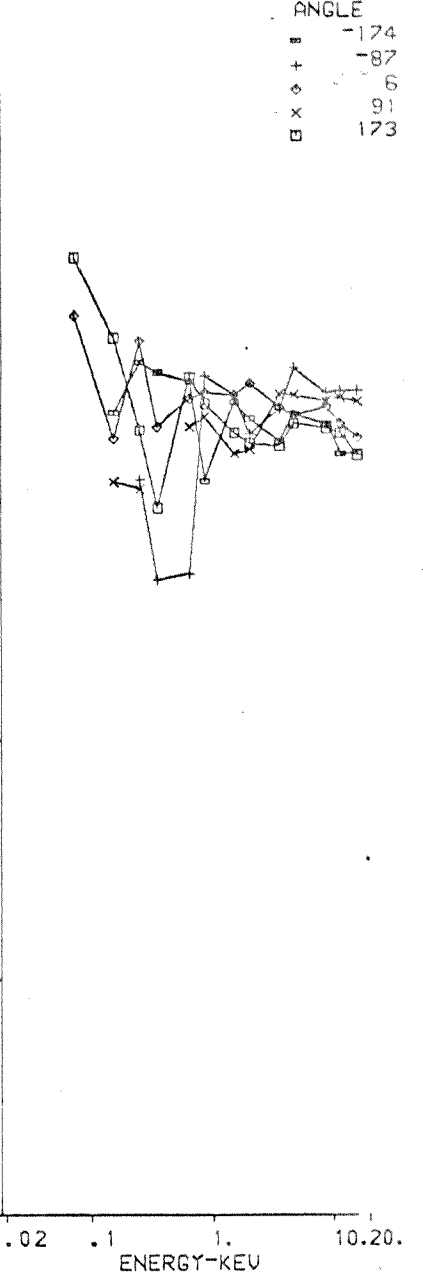
L 7.283  
UT 60277.17  
MLT 21.143  
ALT 37149.3  
B-SC11 40.64  
B100N .535897  
B100S .531828  
ACOS(BZ/B) = 96.74



$F(U) \text{ KM}^{-6}\text{-SEC}^3$   
UT 60248.42 60306.67

1	.100E-03
2	.215E-03
3	.464E-03
4	.100E-02
5	.215E-02
6	.464E-02
7	.100E-01
8	.215E-01
9	.464E-01
0	.100E+00
A	.215E+00
B	.464E+00
C	.100E+01
D	.215E+01
E	.464E+01
F	.100E+02
G	.215E+02
H	.464E+02
I	.100E+03
J	.215E+03
K	.464E+03
L	.100E+04
M	.215E+04
N	.464E+04
O	.100E+05
P	.215E+05
Q	.464E+05
R	.100E+06
S	.215E+06
T	.464E+06
U	.100E+07
V	.215E+07
W	.464E+07
X	.100E+08
Y	.215E+08
Z	.464E+08
+	.100E+09
x	.215E+09
x	.464E+09
x	.100E+10
+	.215E+10
x	.464E+10
B	.100E+11

PITCH ANGLE  
= -174  
+ -87  
o 6  
x 91  
B 173



UT	DEN	$U_{11} \text{ KM/S}$	$U_1 \text{ KM/S}$	$J \text{ UA/M}^{*2}$	MOM-FLUX	E-FLUX	$T_1 \text{ EV}$	$T_{11} \text{ EV}$	E-DEN	HEAT-FLUX
60262.98	.514E+00	.102E+02	.882E+03	.838E-03	.923E-10	.672E-02	.423E+04	.393E+04	.510E-08	.176E-02
60292.11	.496E+00	.438E+02	.836E+03	.348E-02	.313E-09	.239E-01	.423E+04	.382E+04	.489E-08	.108E-01

$B = 2/8 * PI$   
 $P_{111}$   
 $P_{11}$   
 $BETAI_{11}$   
 $BETAI$

A5

Participant: J. Fennell

Data Set Mnemonic: SC06

Satellite ID: SCATHA (STP P78-2)

NSSDC ID: 79-007A-06A

Data Set Name: SC2-3 Spacecraft Sheath Fields Detector

Principal Investigators: J. Fennell, Aerospace Corp.

Data Availability: HH/DDD/HH/MM/SS - YY/DDD/HH/MM/SS  
79/081/06/00/00 79/081/20/00/00  
79/090/12/00/00 79/091/06/00/00

Data Time Interval: 3.5s

<u>Description</u>	<u>Mnemonic</u>	<u>Units</u>	<u>Tuple</u>
Electron Pitch Angle	SC06EPA	deg	
Electron Sun Angle	SC06ESA	deg	
Electron Flux in 1 ms Interval	SC06EFLX	#/cm <sup>2</sup> .s.sr.keV	
DECOMMUTATOR FOR ELECTRONS	SC06EDEC	none	
Electron Energy	SC06EEN	eV	
Pitch Angle for Ions	SC06IPA	deg	
Sun Angle for Ions	SC06ISA	deg	
Ion Flux	SC06IFL	#/cm <sup>2</sup> .s.sr.keV	
DECOMMUTATOR FOR IONS	SC06IDEC	none	
Ion Energy	SC06IEN	eV	

*what are the E ranges of the channels*

Participant: Fennell

Data Set Mnemonic: SC06

Decommutator Parameter Mnemonic: SC06EDEC, SC06IDEC

Brief Description of Decommutator:

The decommutator parameter contains the energy channel number (1-7) in bit 0, bit 1 contains the pitch angle, and bit 2 contains the sun angle.

Decommutator Word

Bit	0	1	2	3
	Energy Channel II	pitch angle	sun angle	not used

Parameters applicable to SC06EDEC;  
SC06EEN, SC06EFLX

Parameters applicable to SC06IDEC;  
SC06IEN, SC06IFL



<u>Logicon Mnemonic</u>		<u>Applicable Parameter Mnemonic</u>	<u>Energy Channel Number</u>	<u>Pitch Angle</u>	<u>Sun Angle</u>
E1A		<del>SC06EFL</del> , SC06EEN	1	150-180	-
E1B		SC06EEN " SLOBIFL, SC06EEN		0-30	-
E2A	- AS A	"	2	150-180	-
E2B	" B	"	2	0-30	-
E3A	" A	"	3	150-180	-
E3B	" B	"	3	0-30	-
E4A	" A	"	4	150-180	-
E4B	" B	"	4	0-30	-
E5A	" A	"	5	150-180	-
E5B	" B	"	5	0-30	-
E6A	" A	"	6	150-180	-
E6B	" B	"	6	0-30	-
E7A	" A	"	7	150-180	-
E7B	" B	"	7	0-30	-

D-45317

\$JOB 9:36:37  
\$ASS IN MT2  
\$NOP \*\*\*\*\* LIST OF TAPE X406 1ST. & LAST REC., FILE 1 \*\*\*\*\*  
DATA IGNORED  
DATA IGNORED  
\$EXE TPLIST BS

FI 2/18/79 - 3/31/79

INPUT PARAMETERS ARE: ED FL=1=1

TAPE NO.	FILE NO. 1										
RECORD	LENGTH										
1	10517.86	100.57	178.87	1	0	0	0	0	0	0	10518.86
94.33	172.68	2	0	0	0	0	0	0	0	0	10519.86
0	0	0	0	0	0	0	0	0	0	0	10520.86
0	0	0	0	0	0	0	0	0	0	0	10521.86
0	0	0	0	0	0	0	0	0	0	0	10522.86
6	63.30	139.11	1	0	0	67	51	29	15	13	10524.86
39 2	2	49	33	119	55	40	10	10525.86	51.25	125.67	1
64	35	30	13	11	10526.86	45.43	118.94	2	4	42	37
29	15	10527.86	39.83	112.22	3	3	84	49	60	43	22
28.86	34.55	105.50	1	26	52	38	27	24	10	9	10529.86
98.77	2	4	33	36	46	19	23	8	10530.86	25.80	92.05
2	60	55	23	16	24	10531.86	23.04	85.32	1	11	42
7	8	10532.86	21.95	78.60	2	1	26	36	33	16	20
10533.86	22.78	71.88	1	22	35	20	22	16	8	6	10534.86
65.15	2	2	17	37	43	21	25	3	10535.86	29.18	58.43
126	48	53	26	20	39	10536.86	33.86	51.71	1	21	39
21	7	8	10537.86	39.08	44.98	2	5	36	35	75	40
10538.86	44.65	38.26	3	6	69	39	80	57	32	46	10539.86
0.45	31.54	1	53	59	56	50	44	20	17	10540.86	56.40
6	46	50	110	67	35	10	10541.86	62.46	18.10	1	49
45	46	20	14	10542.86	68.60	11.38	2	3	60	44	139
1	10543.86	74.78	4.70	3	4	79	41	108	77	38	82
81.00	2.25	1	71	72	56	47	42	23	11	10545.86	87.24
2	3	75	63	161	58	67	22	10546.86	93.49	15.57	3
136	45	53	94	10547.86	99.72	22.28	1	77	83	33	51
16	10548.86	105.94	29.00	2	6	61	55	157	50	44	9
86	112.13	35.73	1	72	70	65	45	37	21	12	10550.86
.45	2	8	45	40	117	56	43	14	10551.86	124.32	49.17
38	85	52	26	67	10552.86	130.27	55.89	1	43	50	47
19	12	10553.86	136.06	62.62	2	2	44	46	77	40	38
554.86	141.61	69.34	3	4	90	58	70	36	19	49	10555.86
76.07	1	17	46	48	27	23	10	10556.86	151.43	82.79	2
31	38	49	22	24	6	10557.86	155.18	89.51	1	25	40
5	11	12	10558.86	157.60	96.24	2	4	26	23	37	18
10559.86	158.23	102.96	3	4	203	72	34	29	13	25	10560.86
4	109.68	1	19	54	36	30	23	6	11	10561.86	154.00
33	37	44	25	25	7	10562.86	149.90	123.13	3	1	149
30	30	43	10563.86	145.05	129.85	1	26	54	41	31	25
10564.86	139.71	136.58	2	3	49	37	76	38	43	6	10565.86
34.07	143.30	1	35	66	38	42	39	20	15	10566.86	128.21
4	49	31	117	56	44	12	10567.86	122.22	156.74	3	2
104	61	32	69	10568.86	116.13	163.46	1	54	69	64	39
12	10569.86	109.98	170.16	2	6	62	59	150	55	52	8
103.78	176.78	3	6	47	39	117	58	40	74	10571.86	97.55
1	65	76	54	27	51	20	21	10572.86	91.31	169.57	2
1	155	69	75	11	10573.86	85.06	162.86	1	74	62	34
16	10574.86	78.83	156.15	2	1	84	63	141	49	57	8
.86	72.62	149.43	3	6	55	43	126	62	48	65	10576.86
2.71	1	61	56	59	43	44	13	19			66.44

TAPE NO. 1 FILE NO. 1  
RECORD 1051 LENGTH 640

00.00	3	10	5	3	2	5	11	86400.69	100.75	86399.69	49.58	1	1	5	2	42.85	3
	4	5	12	9				86401.69	107.07	56.30	2	3	4	2	6		
22			86402.69	113.36				63.03	3	11	7	4	1	4	10		86403.6
9	119.60	69.76	1	4	3	3	3	6	4	14			86404.69	125.77		76.	
48	2	3	4	3	3	9	7	18									

\*\*\*\*\* JOB DONE.

\$JOB 9:39:14  
 \$ASS IN MT2  
 \$AVF IN 5  
 \$NOP \*\*\*\*\* LISTING OF TAPE X-406, 1ST. & LAST REC., FILE 6 \*\*\*\*\*  
 \$EXE TPLIST BS

D-45317  
 F6 3/31/79

INPUT PARAMETERS ARE: ED FL=1=1

TAPE NO.	FILE NO.	RECORD	LENGTH
1	1	1	4800
59.95	13.10	64.95	144.37
1	2	2	4
1	3	4	4
1	4	15	8
1	7	28	17
50	18.10	41.62	113.06
0	37.86	106.79	1
53	2	1	2
4	5	6	17
14	30	23.10	31.29
24.10	32.01	75.46	2
69.19	1	4	1
1	1	1	6
22	42	28.10	44.11
29.10	48.58	44.14	1
37.88	2	1	1
1	3	6	8
4	9	37	27
8.68	34.10	73.29	12.98
1	2	2	1
9	18	31	52
0	39.10	99.65	18.87
104.87	25.09	2	1
1	1	1	4
57	2	4	10
10	129.78	56.37	1
.64	2	1	2
2	6	7	26
12	22	49.10	144.00
50.10	145.95	87.70	2
93.97	1	3	2
2	1	5	6
1	14	39	54.10
55.10	140.76	119.04	1
2	125.30	2	1
3	2	8	12
6	12	31	19
14.09	60.10	119.10	150.32
1	1	1	3
6	8	23	64
43	87.97	171.39	2
1	1	1	3
1	2	2	14
.10	61.76	140.43	1
4.17	2	1	1

TAPE NO.	FILE NO.	RECORD	LENGTH
1	1	1119	1920
86388.92	60.66	130.54	1
2	1	4	23
19	35	56	86389.92

1	4	0	17	24	42	60	86391.92	45.78	111.72	2	1	2			
6	11	33	61		86392.92	41.12	105.44	1	2	3	11	17	32	1	47
71		86393.92	36.94	99.16	2	1	1	5	7	12	41	55	86394.9		
2	33.33	92.89	1	1	7	10	20	36	57	73	86395.92	30.55	86.		
61	2	1	1	4	10	16	46	67	86396.92	28.72	80.34	1	5	5	
6	26	54	94	94	86397.92	27.99	74.06	2	1	1	10	10	14		
37	64	86398.92	28.55	67.78	1	7	8	9	26	40	79	76	863		
99.92	30.36	61.51	2	3	2	5	3	16	54	56	86400.92	33.02			
55.23	1	1	5	6	19	38	48	74	86401.92	36.54	48.96	2	1		
2	2	4	11	50	56	86402.92	40.45	42.68	1	1	5	6	12	26	
42	52	86403.92	45.16	36.41	2	1	1	3	3	6	26	48			
86404.92	50.02	30.14	1	3	4	4	9	20	46	85	86405.92	55.18			
23.88	2	1	1	2	3	7	31	47	86406.92	60.33	17.63	1	1		
2	5	10	20	43	62	86407.92	65.61	11.40	2	2	1	2	2		
8	19	43	86408.92	71.05	5.30	1	4	3	6	7	13	56	66		
86409.92	76.44	2.26	2	1	2	2	4	8	31	69	86410.92	8			
1.82	7.81	1	2	2	5	10	7	39	76	86411.92	87.45	13.99	2		
1	1	1	1	6	35	53									

\*\*\*\*\* JOB DONE.

4/1/79

TAPE NO.	1	FILE NO.	1													
RECORD	1	LENGTH	4800													
	12.92	92.97	21.03	1	96	213	366	461	692	582	398			13.92		
98.43	27.23	2	31	152	307	411	746	432			14.92	103.76	33.54	1		
76	180	347	520	696	550	336			15.92	109.14	39.80	2	4	26	145	
304	407	680	411			16.92	114.57	46.07	1	66	202	306	510	708	568	
312			17.92	120.01	52.33	2	3	32	138	226	480	620	367			18.9
2	125.21	58.60	1	82	232	311	580	650	458	316			19.92	130.08	64.	
87.2	2	30	145	262	598	534	332			20.92	135.05	71.14	1	57	178	
328	564	532	396	293			21.92	139.35	77.41	2	1	31	149	241	596	4
87	333			22.92	143.26	83.67	1	64	210	265	518	483	384	295		
23.92	146.38	89.94	2	2	21	160	210	532	475	285			24.92	148.78		
96.21	1	60	200	297	507	475	343	274			25.92	150.05	102.48	2	3	2
7	146	206	512	463	301			26.92	150.39	108.75	1	76	184	276	494	489
395	262			27.92	149.30	115.01	2	1	26	161	195	524	476	317		
28.92	147.19	121.28	1	63	198	280	463	502	372	282			29.92	144.37		
127.55	2	2	28	153	216	528	480	359			30.92	140.67	133.81	1	54	
184	278	526	506	422	315			31.92	136.57	140.08	2	1	31	143	227	
564	554	352			32.92	132.07	146.34	1	74	191	262	606	534	415	306	
	33.92	127.15	152.59	2	1	24	133	258	518	586	363			34.92	12	
2.21	158.84	1	61	161	275	600	660	493	330			35.92	116.94	165.07	2	
2	28	134	266	478	656	382			36.92	111.83	171.24	1	66	211	340	5
76	710	530	320			37.92	106.31	176.98	2	1	27	146	315	413	678	43
5			38.92	100.87	175.50	1	73	189	337	486	694	612	366			39.92
95.41	169.51	2	1	21	119	294	460	754	456			40.92	89.69	163.31		
1	58	202	342	502	720	564	344			41.92	84.24	157.08	2	2	34	149
	295	516	760	450			42.92	78.99	150.82	1	83	195	374	501	706	540
331			43.92	73.69	144.57	2	1	25	108	295	449	694	448			44.
92	68.32	138.30	1	78	181	332	495	702	509	334			45.92	63.18	132	
.04	2	1	28	139	279	435	634	404			46.92	58.10	125.77	1	75	155
315	624	596	477	315			47.92	53.27	119.51	2	2	23	130	222	534	
598	385			48.92	48.44	113.24	1	70	163	273	582	570	433	308		
49.92	43.98	106.97	2	3	20	118	213	540	524	347			50.92	39.79		
100.70	1	68	155	225	498	506	373	292			51.92	36.13	94.44	2	3	
24	118	189	528	516	330			52.92	32.95	88.17	1	51	166	225	425	44
9	341	280			53.92	30.79	81.90	2	1	25	106	196	474	461	301	
	54.92	29.69	75.63	1	57	161	245	429	448	364	303			55.92	29.5	
5	69.36	2	1	20	124	188	461	498	291			56.92	30.70	63.10	1	71
144	279	430	495	383	277			57.92	32.96	56.83	2	2	18	111	175	
466	492	306			58.92	35.90	50.56	1	61	146	243	459	498	399	275	
	59.92	39.55	44.30	2	1	15	99	209	536	501	343			60.92		
43.79	38.03	1	60	193	225	562	562	387	281			61.92	48.57	31.77	2	
2	15	100	226	508	568	364			62.92	53.31	25.51	1	64	177	290	
602	568	442	290			63.92	58.32	19.26	2	17	125	276	451	630	3	
48			64.92	63.51	13.04	1	74	185	303	576	624	474	339			65.92
68.81	6.89	2	1	23	126	322	398	692	395			66.92	74.29	1.89		
1	58	178	379	474	676	526	358			67.92	79.73	6.19	2	2	25	11
9	316	429	690	465			68.92	85.17	12.32	1	67	201	387	464	680	616
	378			69.92	90.54	18.54	2	1	23	140	314	459	814	465	70	
.92	96.01	24.79	1	80	170	401	455	754	568	369			71.92	101.39	3	
1.05	2	1	24	101	329	422	700	398								

TAPE NO.	1	FILE NO.	1													
RECORD	1411	LENGTH	3200													
	86372.74	56.75	30.87	1	240	408	422	488	357	395	352			86373.74		
62.33	24.59	2	1	134	362	391	423	335	378			86374.74	68.06	18.32	1	
224	414	408	404	316	410	345			86375.74	73.52	12.06	2	2	144	357	
446	496	319	409			86376.74	79.14	5.82	1	252	418	460	472	301	452	
434			86377.74	84.76	1.10	2	1	144	388	481	459	296	403			86378.7
4	90.43	6.88	1	270	447	493	463	299	483	403			86379.74	96.02	13.	
13	2	1	157	388	467	467	334	392			86380.74	101.59	19.39	1	288	433
496	423	323	479	386			86381.74	107.18	25.66	2	1	165	378	473	475	3

03.74	110.10	50.21	2	2	102	400	450	460	514	552	86384.74	123.35			
44.49	1	307	456	489	487	374	350	330	86385.74	128.38	50.76	2	1	19	
2	413.	456	546	300	285		86386.74	133.26	57.04	1	323	440	522	602	303
333	330		86387.74	138.12	63.32	2	1	207	422	448	776	274	281		
86388.74	142.55	69.59	1	338	427	504	410	249	307	319	86389.74	146.52			
75.87	2	2	229	428	387	550	208	265	86390.74	149.73	82.15	1	374		
431	582	359	220	260	295		86391.74	152.15	88.42	2	2	213	441	374	
444	188	260		86392.74	153.43	94.70	1	322	396	696	341	230	250	282	
86393.74	153.40	100.98	2	3	269	411	371	426	227	287	86394.74	15			
2.11	107.25	1	338	396	628	347	246	267	278	86395.74	149.48	113.53	2		
2	251	431	422	520	203	281		86396.74	146.25	119.81	1	344	421	580	4
09	257	285	304		86397.74	142.16	126.08	2	3	207	443	424	720	238	26
9		86398.74	137.70	132.36	1	359	456	532	528	314	330	301	86399.74		
132.80	138.63	2	3	203	411	447	616	312	314	86400.74	127.99	144.91			
1	330	466	510	624	368	363	346	86401.74	122.64	151.18	2	1	139	363	
412	435	351	350		86402.74	117.18	157.45	1	303	439	443	475	432	379	
366		86403.74	111.65	163.72	2	2	158	415	442	518	365	368	86404.		
74	106.03	169.97	1	277	447	451	530	328	417	406	86405.74	100.43	176		
.15	2	2	149	408	472	492	345	430	86406.74	94.61	177.18	1	271	449	
472	487	369	442	390		86407.74	88.94	171.06	2	2	141	383	465	502	
352	454		86408.74	83.14	164.81	1	300	461	461	464	415	457	444	86	
409.74	77.45		158.55	2	1	142	429	452	487	334	411	86410.74	71.57		
152.28	1	291	431	453	524	343	459	372	86411.74	65.96	146.00	2	1	1	
50	401	464	548	380	345										

TAPE NO.	1	FILE NO.	2	RECORD	1	LENGTH	4800										
					12.92	92.97	21.03	1	2	1	7	12	18	41	80	13.92	
98.43		27.28	2	1	1	3	5	5	15	60	14.92	103.76	33.54	1			
2	2	6	6	18	31	72			15.92	109.14	39.80	2	2	1	1		
5	5	25	44		16.92	114.57	46.07	1	1	1	7	7	18	59			
66		17.92	120.01	52.33	2	1	3	1	4	9	23	49	18.9				
2	125.21	58.60	1	3	1	3	17	22	45	57	19.92	130.08	64.				
87	2	1	1	3	3	9	45	56	20.92	135.05	71.14	1	2	3			
4	25	19	41	75		21.92	139.35	77.41	2	1	3	3	6	17			
38	60		22.92	143.26	83.67	1	6	4	8	17	29	52	79				
23.92	146.38		89.94	2	1	2	2	6	13	41	64	24.92	148.78				
96.21	1	3	3	8	24	40	61	83	25.92	150.05	102.48	2	2				
6	5	9	20	38	73		26.92	150.39	108.75	1	4	7	13	20	44		
69	71		27.92	149.30	115.01	2	1	2	5	6	18	57	83				
28.92	147.19		121.28	1	1	11	9	25	42	61	75	29.92	144.37				
127.55	2	1	1	8	6	23	40	76	30.92	140.67	133.81	1	2				
13	7	28	32	58	82		31.92	136.57	140.08	2	1	1	5	6			
13	44	83		32.92	132.07	146.34	1	4	10	4	12	18	31	83			
2.21	33.92	127.15	152.59	2	2	1	5	4	15	32	40	34.92	12				
1	158.84	1	3	3	7	9	18	32	75	35.92	116.94	165.07	2				
18	18	35	55		37.92	106.31	176.98	2	1	1	4	4	6	23	4		
8		38.92	100.87	175.50	1	1	3	4	15	11	28	81	39.92				
95.41	169.51	2	3	1	1	2	13	15	56		40.92	89.69	163.31				
1	3	5	5	10	16	42	81		41.92	84.24	157.08	2	1	2	2		
	3	5	24	41		42.92	78.99	150.82	1	5	1	3	13	18	40		
79		43.92	73.69	144.57	2	1	1	5	4	2	32	51	44.				
92	68.32	138.30	1	1	2	3	10	16	42	84	45.92	63.18	132				
.04	2	1	2	2	6	10	31	49	46.92	58.10	125.77	1	1	3			
3	12	34	44	82		47.92	53.27	119.51	2	1	1	1	2	7			
30	56		48.92	48.44	113.24	1	3	4	4	11	25	48	74				
49.92	43.98		106.97	2	1	1	3	7	17	55	48	50.92	39.79				
100.70	1	1	4	12	22	28	53	71		51.92	36.13	94.44	2	1			
2	6	10	22	53	62		52.92	32.95	88.17	1	3	8	17	42	3		
4	61	87		53.92	30.79	81.90	2	1	2	5	15	22	72	66			
	54.92	29.69		75.63	1	4	11	16	17	44	73	82	55.92	29.5			
5	69.36	2	1	1	3	9	16	52	78		56.92	30.70	63.10	1	2		
	12	17	24	34	68	75		57.92	32.96	56.83	2	1	2	4	12		
11	31	73		58.92	35.90	50.56	1	2	5	11	22	26	60	112			

1	1	3	7	7	29	50	62.92	53.31	25.51	1	1	5	6			
10	23	33	75		63.92	58.32	19.26	2	2	1	2	11	22			
59		64.92	63.51		13.04	1	1	6	5	19	60	60	65.92			
	68.81	6.89	2	2	1	1	6	10	36	53	66.92	74.29	1.89			
1	1	1	7	7	16	28	69		67.92	79.73	6.19	2	2			
1	3	6	25	51		68.92	85.17		12.32	1	2	3	2	9	14	27
100		69.92	90.54		18.54	2	1	3	2	5	5	16	50			70
.92	96.01	24.79	1	2	2	2	6	14	39	85		71.92	101.39			3
1.05	2	1	1	2	3	9	23	62								

TAPE NO. 1 FILE NO. 2  
RECORD 1411 LENGTH 3200

86372.74	56.75	30.87	1	9	9	17	36	52	158	193			86373.74			
62.33	24.59	2	1	1	4	7	18	50	211		86374.74	68.06	18.32	1		
1	4	8	38	53	141	244		86375.74	73.52	12.06	2	1	2	3		
5	19	66	167		86376.74	79.14		5.82	1	3	4	5	22	67	142	
195		86377.74	84.76		1.10	2	1	1	4	4	17	67	151		86378.7	
4	90.43	6.88	1	5	3	6	20	45	131	214		86379.74	96.02		13.	
13	2	1	2	5	6	17	62	157		86380.74	101.59	19.39	1	4	2	
6	31	58	142	203		86381.74	107.18		25.66	2	1	2	2	8	23	
74	180		86382.74	112.70		31.94	1	2	4	9	25	53	166	220	863	
83.74	118.10	38.21	2	1	1	7	14	16	68	202		86384.74	123.35			
44.49	1	5	6	15	39	51	182	208		86385.74	128.38	50.76	2	1		
3	12	13	24	86	193		86386.74	133.26		57.04	1	4	8	15	37	63
187	146		86387.74	138.12		63.32	2	1	2	13	16	27	82	190		
86388.74	142.55	69.59	1	6	12	16	42	81	209	99		86389.74	146.52			
75.87	2	1	1	9	11	44	91	187		86390.74	149.73	82.15	1	8		
11	25	42	85	205	88		86391.74	152.15		88.42	2	1	2	6	23	
37	88	200		86392.74	153.43		94.70	1	3	6	27	47	63	181	95	
	86393.74	153.40	100.98	2	1	4	6	21	36	98	189		86394.74	15		
2.11	107.25	1	5	8	19	45	79	173	126		86395.74	149.48	113.53	2		
1	1	5	18	31	84	180		86396.74	146.25	119.81	1	6	9	16		
36	83	169	113		86397.74	142.16	126.08	2	1	1	3	9	34	89	18	
0		86398.74	137.70	132.36	1	4	6	10	34	74	182	160		86399.74		
132.80	138.63	2	1	2	2	5	23	75	234		86400.74	127.99	144.91			
1	1	12	5	21	50	149	197		86401.74	122.64	151.18	2	1	2	4	
5	15	81	178		86402.74	117.18	157.45	1	1	4	8	19	52	112		
189		86403.74	111.65	163.72	2	1	2	2	6	17	88	131		86404.		
74	106.03	169.97	1	4	1	7	22	49	126	195		86405.74	100.43	176		
.15	2	1	1	7	2	14	75	141		86406.74	94.61	177.18	1	3	1	
4	15	42	104	202		86407.74	88.94	171.06	2	2	1	4	3	14		
62	156		86408.74	83.14	164.81	1	2	3	7	39	48	105	213	86		
409.74	77.45	158.55	2	2	1	3	5	16	60	159		86410.74	71.57			
152.28	1	4	4	5	27	54	120	208		86411.74	65.96	146.00	2	1		
1	2	4	20	58	142											

TAPE NO. 1 FILE NO. 3  
RECORD 1 LENGTH 4800

12.55	93.16	173.60	1	204	444	360	272	327	487	309			13.55		
87.41	167.33	2	1	96	359	497	291	387	369		14.55	81.77	161.05	1	
227	463	381	268	312	415	324		15.55	75.94	154.78	2	3	101	341	
444	301	353	435		16.55	70.50		148.50	1	259	456	294	228	278	518
279		17.55	64.85	142.23	2	2	94	350	320	225	325	334		18.5	
5	59.26	135.96	1	241	418	206	163	296	422	283		19.55	53.91	129.	
68	2	115	299	229	195	344	333		20.55	48.40	123.41	1	249	347	
149	215	327	372	244		21.55	43.16	117.13	2	3	118	267	179	218	3
10	233		22.55	38.36	110.86	1	239	258	126	328	321	329	185		
23.55	33.58	104.58	2	1	86	248	120	258	286	227		24.55	29.45		
98.31	1	231	196	108	349	241	297	193		25.55	25.97	92.03	2	1	9
6	201	113	295	266	204		26.55	23.78	85.76	1	174	185	120	300	210
267	170		27.55	22.93	79.49	2	3	94	206	97	306	243	216		
28.55	23.45	73.21	1	185	155	106	324	256	265	182		29.55	25.62		
66.94	2	1	87	226	118	297	294	243		30.55	29.03	60.66	1	204	
220	117	389	235	297	171		31.55	33.08	54.39	2	2	113	251	134	

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7.83	35.57	1	237	308	164	250	329	384	229	35.55	53.30	29.29	2	4		
1	124	355	262	194	382	327		36.55	58.76	23.02	1	225	383	269	1	
72	317	407	222		37.55	64.32		16.74	2	2	91	353	352	297	330	37
3		38.55	70.20		10.47	1	228	431	320	275	224	428	343		39.55	
	75.75	4.19	2	1	111	315	479	337	349	460		40.55	81.30		2.08	
1	237	407	405	332	301	444	311		41.55	87.10	8.36	2	2	91	357	
	461	369	368	425		42.55	92.98	14.63	1	264	471	439	372	317	452	
280		43.55	98.60		20.90	2	1	108	393	457	315	330	432		44.	
55	104.43	27.18	1	249	439	434	297	288	454	308		45.55	110.07		33	
.45	2	1	94	370	398	295	342	440		46.55	115.70	39.73	1	241	416	
336	211	248	404	268		47.55	121.05	46.00	2	1	115	351	311	207		
340	357		48.55	126.58		52.28	1	240	352	224	192	321	348	261		
49.55	132.04		58.55	2	1	105	293	220	200	320	305		50.55	137.15		
64.83	1	259	283	133	308	279	299	212		51.55	142.03	71.10	2	2	1	
06	262	190	245	289	257		52.55	146.45	77.37	1	235	257	111	404	26	
2	315	187		53.55	150.29		83.65	2	2	103	247	131	279	250	222	
	54.55	153.08		89.92	1	209	206	123	336	245	278	170		55.55	155.0	
3	96.20	2	131	259	111	333	239	227		56.55	155.59	102.47	1	229		
	235	111	333	234	279	189		57.55	154.38	108.75	2	3	115	228	114	
330	261	238		58.55	152.11		115.02	1	208	196	101	400	246	271	193	
	59.55	148.73		121.30	2	1	103	263	133	309	278	251		60.55	1	
44.70	127.57	1	236	246	109	371	291	304	212		61.55	140.17		133.84	2	
1	123	285	159	251	292	263		62.55	135.32	140.12	1	269	294	142		
291	314	324	199		63.55	130.01		146.39	2	2	122	331	257	198	363	3
10		64.55	124.90		152.67	1	274	350	220	227	315	356	248		65.55	
	119.55	158.94	2	3	99	360	311	247	347	396		66.55	114.09		165.22	
1	242	424	361	266	266	428	325		67.55	108.28	171.49	2	1	104	37	
4	454	285	317	434		68.55	102.57	177.75	1	245	460	435	352	321	441	
	333		69.55	97.04		175.95	2	1	102	398	552	372	367	440	70	
.55	91.24	169.68	1	239	528	492	401	306	489	322		71.55	85.52	16		
3.41	2	2	116	407	505	379	345	416								

TAPE NO. 1  
RECORD 1440

FILE NO. 3  
LENGTH 4800

86352.37	49.63	143.13	1	156	326	624	666	309	44	11		86353.37				
47.08	136.85	2	1	81	277	548	690	220	24		86354.37	46.84	130.57	1		
188	336	634	628	315	41	13		86355.37	46.65	124.29	2	1	100	310		
586	742	199	18		86356.37	44.47	118.01	1	221	379	648	612	333	43		
15		86357.37	46.47	111.74	2	1	82	302	507	752	201	30		86358.3		
7	49.64	105.46	1	198	362	646	668	339	51	14		86359.37	51.88	99.		
18	2	1	96	283	518	754	207	24		86360.37	52.64	92.90	1	195	327	
600	652	367	53		86361.37	54.54	86.62	2	1	94	259	590	820	2		
31	32		86362.37	56.80	80.34	1	137	331	578	646	349	55	9	863		
63.37	60.39		74.06	2	1	51	263	506	708	199	24		86364.37	65.73		
67.78	1	127	242	542	616	318	59	14		86365.37	69.23	61.51	2	1	4	
6	203	438	746	221	34		86366.37	73.87	55.23	1	121	297	634	738	369	
	58	15		86367.37	77.34	48.95	2	1	56	234	465	850	262	52		
86368.37	81.24		42.67	1	132	327	576	750	376	52	17		86369.37	84.62		
	36.39	2	5	47	231	489	764	290	51		86370.37	88.12	30.12	1	145	
297	608	762	421	81	20		86371.37	89.42	23.84	2	1	59	197	492		
750	260	37		86372.37	95.33	17.57	1	152	317	580	674	362	70	24		
	86373.37	100.36		11.30	2	1	49	208	495	790	254	49		86374.37	10	
4.44		5.06	1	135	299	696	704	410	86	22		86375.37	109.20	1.54	2	
1	91	190	459	808	303	41		86376.37	112.13	7.62	1	118	294	588	7	
56	352	73	20		86377.37	116.93	13.88	2	1	87	252	492	822	256	3	
8		86378.37	119.18		20.15	1	152	278	600	812	492	93	16		86379.37	
	124.35		26.42	2	1	81	250	526	904	346	49		86380.37	125.45	32.70	
1	206	372	754	946	463	104	21		86381.37	128.42	38.98	2	2	85	289	
	570	914	307	45		86382.37	133.03	45.25	1	167	428	754	768	451	74	
	25		86383.37	133.41		51.53	2	1	65	287	674	974	302	39		86384.
37	134.09		57.81	1	195	386	848	928	448	56	18		86385.37	134.95	64	
.09	2	1	54	246	672	858	227	29		86386.37	134.37	70.37	1	124	367	
658	692	329	53	8		86387.37	131.52	76.65	2	1	55	242	616	716		
202	32		86388.37	129.57		82.93	1	127	266	728	814	424	56	8	86	

36	151	467	844	268	22	86392.37	116.05	108.04	1	92	248	610	808	42
5	55	20		86393.37	111.56	114.32	2	1	40	135	415	754	255	44
	86394.37	107.67	120.60	1	71	208	524	726	366	66	15	86395.37	104.2	
7	126.88	2	1	39	169	387	734	233	38	86396.37	99.96	133.16	1	65
	236	526	714	417	84	18	86397.37	96.53	139.43	2	1	38	155	384
	884	297	49	86398.37	93.05	145.71	1	81	222	544	776	447	82	36
	86399.37	90.39	151.99	2	1	39	177	411	736	314	52	86400.37		
85.72	158.27	1	101	236	568	792	496	104	21	86401.37	78.64	164.54	2	
	1	47	175	438	872	314	47	86402.37	73.69	170.81	1	98	246	600
840	500	89	23	86403.37	69.46	177.04	2	1	39	168	425	768	288	
46	86404.37	65.29	176.54	1	124	249	562	764	389	76	20	86405.37		
	61.07	170.30	2	1	33	201	518	946	286	49	86406.37	57.90	164.03	
1	95	275	658	818	434	78	11	86407.37	53.35	157.76	2	1	45	23
6	564	974	311	39	86408.37	50.31	151.48	1	156	351	760	952	528	105
	20	86409.37	47.75	145.20	2	1	65	266	594	1000	328	44	86410	
.37	45.41	138.93	1	142	396	696	848	413	64	19	86411.37	43.77	13	
2.65	2	1	67	284	632	954	273	26						

TAPE NO.	1	FILE NO.	4	RECORD	1	LENGTH	4800												
	12.55	93.16	173.60	1	2	1	3	5	9	34	68	13.55							
87.41	157.33	2	1	1	2	7	20	55		14.55	81.77	161.05	1						
	1	3	5	3	14	36	77	15.55	75.94	154.78	2	1	1	1					
3	9	28	64	16.55	70.50	148.50	1	1	2	7	2	18	28						
75	17.55	64.85	142.23	2	1	3	1	3	7	21	70	18.5							
5	59.26	135.96	1	1	3	2	10	17	30	64	19.55	53.91	129.						
68	2	2	2	6	6	17	53	20.55	48.40	123.41	1	1	3						
3	12	22	28	44	21.55	43.16	117.13	2	1	1	1	5	10						
18	39	22.55	38.36	110.86	1	2	4	2	17	27	41	42							
23.55	33.58	104.58	2	2	2	2	7	14	33	40	24.55	29.45							
98.31	1	1	2	7	15	25	35	34	25.55	25.97	92.03	2	1						
1	6	5	19	38	42	26.55	23.78	85.76	1	7	9	17	34	23					
76	38	27.55	22.93	79.49	2	1	4	4	9	18	41	62							
28.55	23.45	73.21	1	4	9	22	28	43	70	50	29.55	25.62							
66.94	2	2	5	6	11	26	39	56	30.55	29.03	60.66	1	8						
18	16	30	43	71	41	31.55	33.08	54.39	2	2	2	7	17						
28	33	62	32.55	37.58	48.11	1	9	8	12	21	39	64	50						
	33.55	42.72	41.84	2	1	5	15	16	16	27	69	34.55	4						
7.83	35.57	1	6	8	15	13	21	55	60	35.55	53.30	29.29	2						
3	4	2	6	17	16	56	36.55	58.76	23.02	1	13	7	5						
19	28	42	100	37.55	64.32	16.74	2	1	5	8	7	10	19	6					
4		38.55	70.20	10.47	1	4	6	1	10	14	42	85	39.55						
75.75	4.19	2	2	3	1	7	10	26	62	40.55	81.30	2.08							
1	2	6	8	11	17	39	85	41.55	87.10	8.36	2	3	1						
	2	11	21	70	42.55	92.98	14.63	1	5	4	5	6	18	37					
78		43.55	98.60	20.90	2	1	1	1	2	7	18	64	44.						
55	104.43	27.18	1	1	3	8	18	13	28	100	45.55	110.07	33						
.45	2	1	1	3	7	9	15	62	46.55	115.70	39.73	1	1	2					
5	12	22	45	64	47.55	121.05	46.00	2	1	1	5	4	7						
26	57		48.55	126.58	52.28	1	2	4	6	16	25	52	46						
49.55	132.04	58.55	2	1	1	1	10	8	27	58	50.55	137.15							
64.83	1	5	4	12	20	27	57	36	51.55	142.03	71.10	2	1						
3	7	17	15	31	55	52.55	146.45	77.37	1	3	6	12	31	2					
9	69	45	53.55	150.29	83.65	2	1	5	6	6	22	30	60						
	54.55	153.08	89.92	1	6	3	14	35	31	51	40	55.55	155.0						
3	96.20	2	1	1	6	13	22	43	62	56.55	155.59	102.47	1	2					
	9	14	42	37	64	32	57.55	154.38	108.75	2	1	2	4	5					
16	28	47	58.55	152.11	115.02	1	3	8	4	25	23	49	38						
	59.55	148.73	121.30	2	1	1	4	8	16	33	42	60.55	1						
44.70	127.57	1	3	5	3	15	32	40	37	61.55	140.17	133.84	2						
1	2	4	8	10	18	42	62.55	135.32	140.12	1	3	2	6						
10	11	36	45	63.55	130.01	146.39	2	1	1	2	1	4	23						
52	64.55	124.90	152.67	1	2	2	4	8	10	27	54	65.55							
119.55	158.94	2	1	1	1	5	7	11	54	66.55	114.09	165.22							

84	69.55	97.04	175.95	2	1	1	10	77	80	206	81	86353.37			
.55	91.24	169.68	1	2	3	2	4	8	39	82	6	11	51	85.52	16
3.41	2	1	2	2	4	9	16	36							

TAPE NO. 1 FILE NO. 4  
RECORD 1440 LENGTH 4800

86352.37	49.63	143.13	1	1	1	10	77	80	206	81	86353.37			
47.08	136.85	2	1	1	2	2	39	73	115	86354.37	46.84	130.57	1	
1	1	4	79	87	91	63	86355.37	46.65	124.29	2	1	1	1	
2	55	77	64	86356.37	44.47	118.01	1	1	1	3	57	55	67	
66	86357.37	46.47	111.74	2	1	1	1	2	19	85	57	86358.3		
7	49.64	105.46	1	1	1	4	51	72	64	102	86359.37	51.88	99.	
18	2	1	1	1	6	10	30	80	86360.37	52.64	92.90	1	1	1
2	7	26	50	89	86361.37	54.54	86.62	2	1	1	1	5	7	
22	93	86362.37	56.80	80.34	1	1	1	4	14	33	64	101	863	
63.37	60.39	74.06	2	1	1	1	1	8	29	86	86364.37	65.73		
67.78	1	1	2	5	13	22	62	76	86365.37	69.23	61.51	2	1	
1	1	1	12	35	80	86366.37	73.87	55.23	1	1	1	3	18	24
59	77	86367.37	77.34	48.95	2	1	1	1	2	10	35	59		
86368.37	81.24	42.67	1	1	2	3	15	30	42	91	86369.37	84.62		
36.39	2	1	1	2	5	9	37	107	86370.37	88.12	30.12	1	1	
2	4	8	31	87	49	86371.37	89.42	23.84	2	1	1	1	4	
6	34	62	86372.37	95.33	17.57	1	1	1	4	12	34	63	58	
86373.37	100.36	11.30	2	1	1	2	2	10	36	46	86374.37	10		
4.44	5.06	1	1	1	6	12	26	48	43	86375.37	109.20	1.54	2	
1	1	2	2	11	45	84	86376.37	112.13	7.62	1	4	2	5	
23	35	87	36	86377.37	116.93	13.88	2	1	1	2	4	10	60	4
7	86378.37	119.18	20.15	1	1	1	4	16	37	84	49	86379.37		
124.35	26.42	2	1	1	2	2	8	31	65	86380.37	125.45	32.70		
1	1	2	3	12	36	72	53	86381.37	128.42	38.98	2	1	1	1
2	7	42	84	86382.37	133.03	45.25	1	1	2	5	23	34	72	
86	86383.37	133.41	51.53	2	1	1	2	2	8	36	86	86384.		
37	134.09	57.81	1	1	3	7	19	103	80	86385.37	134.95	64		
.09	2	1	1	1	4	10	32	76	86386.37	134.37	70.37	1	1	2
3	9	36	108	74	86387.37	131.52	76.65	2	1	1	1	1	6	
51	120	86388.37	129.57	82.93	1	1	1	1	7	18	95	101	86	
389.37	125.30	89.20	2	1	1	3	3	52	205	86390.37	122.04			
95.48	1	1	2	6	5	29	139	176	86391.37	119.13	101.76	2	1	
1	3	3	5	56	157	86392.37	116.05	108.04	1	1	1	6	8	2
6	115	147	86393.37	111.56	114.32	2	1	1	1	4	13	43	131	
86394.37	107.67	120.60	1	1	2	2	9	36	109	148	86395.37	104.2		
7	126.88	2	1	1	1	12	64	163	86396.37	99.96	133.16	1	1	
1	4	19	26	122	217	86397.37	96.53	139.43	2	1	2	2	3	
10	52	140	86398.37	93.05	145.71	1	1	1	3	19	46	100	207	
86399.37	90.39	151.99	2	1	1	1	3	5	50	129	86400.37			
85.72	158.27	1	2	1	3	11	31	105	201	86401.37	78.64	164.54	2	
1	1	1	2	9	46	181	86402.37	73.69	170.81	1	1	3	3	
15	35	134	222	86403.37	69.46	177.04	2	1	1	2	2	7	114	5
22	86404.37	65.29	176.54	1	1	1	2	16	74	470	209	86405.37		
61.07	170.30	2	1	2	1	3	13	248	201	86406.37	57.90	164.03		
1	1	3	10	48	447	191	154	86407.37	53.35	157.76	2	1	1	
2	4	28	562	110	86408.37	50.31	151.48	1	1	1	5	80	504	96
131	86409.37	47.75	145.20	2	1	1	2	4	34	280	106	86410		
.37	45.41	138.93	1	1	2	6	144	397	72	90	86411.37	43.77	13	
2.65	2	1	1	3	5	21	164	78						

\*\*\*\*\* JOB DONE.

INFORMATION SHEET FOR INCOMING DATA

NSSDC ID: 79-007A-08A DATE DATA RECEIVED: 10/13/81  
DATE NSDF COORDINATOR CONSULTED: \_\_\_\_\_  
DATE SCIENTIST NOTIFIED: \_\_\_\_\_

SOURCE:	MATERIAL RECEIVED: (NUMBER OF SHEETS OF HARDCOPY, NUMBER 100' REELS MICROFILM, NUMBER OF MAGNETIC TAPES, ETC.)  <u>1 mag tap</u>
PI AND AFFILIATION:	

SATELLITE NAME/NSDF NAME: Scatka

EXPERIMENT NAME: \_\_\_\_\_

DATA SET FULL NAME: B Field Averages - 1 MIN

CONTACT: \_\_\_\_\_ ACQUISITION SCIENTIST: DMS

FORM THAT WILL BE ANNOUNCED IN AIM/NSDF: DD

THESE ARE:  A NEW DATA SET  ADDITIONS  REPLACEMENTS  OTHER (EXPLAIN BELOW)

ACCESSION UNIT NUMBERS: DD 46636 C-

REMARKS:  
  
CDHW

DATA RECEIPT NOTIFICATION SENT?  Linda Moran

DATA TECHNICIAN

REQ. AGENT

LSM

REQ. NO.

V0144

ACQ. AGENT

DMS

SCATHA

B FIELD AVERAGES - 1 MIN

79-007A-08A

This data set catalog consists of 1 tape(s). The tape(s) are 9 track, 1600 bpi, ebcdic with 3 file(s) of data. The time span D and C numbers are as follows:

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-46636	C-21744	3/22/79, 3/31/79, 4/1/79

Date 10/6/81  
NSSDC ID 79-007A-08(A)

# CDAW DATA SET ENTRY

Date Rcvd : 10/6/81      eDB : 6

Data Sent By : Brian ledley

Material Rcvd : 1 9TRK -1600 bpi - EBCDIC - #files?

3 Tape listings for Days 81, 90, 91

Satellite/NSRF Name : Scatha

Data Set Name : B Field Averages - 1 MZ

New Data Set     Additions     Replacements

Comments \_\_\_\_\_

Time Coverage : 1979 Days 81, 90, 91

Tapes To be Returned to : NO

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

EBCDIC  
Dump  
Please -  
Dunks.

Completed By : Dan Sawyer

OUTPUT TAPE DD CARD IS: //GO.FT08F001 DD UNIT=1600,LABEL=(1,NL),DISP=(OLD,KEEP),VOL=SER=LST060,  
// DSN=SCATHACD,DCB=(,DEN=3,LRECL=214,BLKSIZE=2140,'RECFM=FH)  
OUTPUT TAPE FORMAT IS (1X,12,13,20F10.5) = (YR,DY,HR,MN,SEC & 19 DATA PARMS)

214,

360/91

EBCDIC

CDB6  
10/6/81  
79-007A-08A

The 19 data points are one minute averages, as follows:-

- 1 FGX } the three Cartesian components of the measured magnetic field, in topographic coordinates
- 2 FGY } X = North, Y = East, Z = down. Units are nanoTeslas.
- 3 FGZ }
- 4 BGX } model (dipole) magnetic field, in the same coordinates
- 5 BGY }
- 6 BGZ }
- 7 DGX } Measured minus model magnetic field, in the same coordinates
- 8 DGY } ..
- 9 DGZ }
- 10 |F| Magnitude of the measured field.
- 11 |B| " " " model " "
- 12 BD declination of model field, in degrees.
- 13 BI inclination " " " " "
- 14 FI " " measured " " "
- 15 FD declination " " " " "
- 16 FDEV } Standard deviation of one minute sets of the measured field (Total field, and
- 17 GXDEV } three topographic components, respectively)
- 18 GYDEV }
- 19 GZDEV }

INFORMATION SHEET FOR INCOMING DATA

NSSDC ID: 79-007A-08A DATE DATA RECEIVED: 10/13/81  
DATE NSDF COORDINATOR CONSULTED: \_\_\_\_\_  
DATE SCIENTIST NOTIFIED: \_\_\_\_\_

SOURCE:	MATERIAL RECEIVED: (NUMBER OF SHEETS OF HARDCOPY, NUMBER 100' REELS MICROFILM, NUMBER OF MAGNETIC TAPES, ETC.)  <u>1 mag tap</u>
PI AND AFFILIATION:	

SATELLITE NAME/NSDF NAME: Scatka  
EXPERIMENT NAME: \_\_\_\_\_  
DATA SET FULL NAME: B Field Averages - 1 MIN  
CONTACT: \_\_\_\_\_ ACQUISITION SCIENTIST: DMS  
FORM THAT WILL BE ANNOUNCED IN AIM/NSDF: DD  
THESE ARE:  A NEW DATA SET  ADDITIONS  REPLACEMENTS  OTHER (EXPLAIN BELOW)  
ACCESSION UNIT NUMBERS: DD 46636 C-

REMARKS:  
  
CDHW

DATA RECEIPT NOTIFICATION SENT?  Linda Moran  
DATA TECHNICIAN



REQ. AGENT

LSM

REQ. NO.

V0144

ACQ. AGENT

DMS

SCATHA

B FIELD AVERAGES - 1 MIN

79-007A-08A

This data set catalog consists of 1 tape(s). The tape(s) are 9 track, 1600 bpi, ebcdic with 3 file(s) of data. The time span D and C numbers are as follows:

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-46636	C-21744	3/22/79, 3/31/79, 4/1/79

Date 10/6/81  
NSSDC ID 79-007A-08(A)

# CDAW DATA SET ENTRY

Date Rcvd : 10/6/81      eDB : 6

Data Sent By : Brian ledley

Material Rcvd : 1 9TRK -1600 bpi - EBCDIC - #files?

3 Tape listings for Days 81, 90, 91

Satellite/NSDF Name : Scatha

Data Set Name : B Field Averages - 1 MZ

New Data Set     Additions     Replacements

Comments \_\_\_\_\_

Time Coverage : 1979 Days 81, 90, 91

Tapes To be Returned to : NO

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

EBCDIC  
Dump  
Please -  
Dunks.

Completed By : Dan Sawyer

OUTPUT TAPE DD CARD IS: //GO.FT08F001 DD UNIT=1600,LABEL=(1,NL),DISP=(OLD,KEEP),VOL=SER=LST060,  
// DSN=SCATHACD,DCB=(,DEN=3,LRECL=214,BLKSIZE=2140,'RECFM=FH)  
OUTPUT TAPE FORMAT IS (1X,12,13,20F10.5) = (YR,DY,HR,MN,SEC & 19 DATA PARMS)

214,

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CDB6  
10/6/81  
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- 13 BI inclination " " " " "
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- 15 FD declination " " " " "
- 16 FDEV } Standard deviation of one minute sets of the measured field (Total field, and
- 17 GXDEV } three topographic components, respectively)
- 18 GYDEV }
- 19 GZDEV }

D-46636  
 3/22/79, 3/31/79, 4/11

INPUT TAPE X-393 ON MT4  
 DATA INPUT H9 NF 3 FL 3 1 1

FILE	1	RECORD	9	1	LENGTH	2140	BYTES						
( 0)		40F1F9F7	F94040F8	F140F540	F5F04040	F2F04BF6	F4F4F2F0	4040F8F3	4BF7F9F3	F3F34060	F1F44BF9		
( 40)		F6F6F8F8	404060F1	4BF4F2F1	F7F74040	F7F24BF0	F9F8F2F1	4060F1F3	4BF4F7F8	F8F94040	40F14BF3		
( 80)		F6F3F0F7	4040F1F1	4BF6F9F5	F1F24040	60F14BF4	F8F7F9F9	404060F2	4BF7F8F4	F8F44040	F8F54BF1		
( 120)		F3F3F0F4	4040F7F3	4BF3F6F0	F0F04060	F1F04BF1	F2F7F1F8	404060F0	4BF9F5F6	F9F24040	40F14BF0		
( 160)		F6F4F6F5	4060F1F0	4BF5F8F9	F3F14040	40F04BF2	F5F3F5F4	404040F0	4BF2F5F7	F4F54040	40F04BF3		
( 200)		F8F1F6F7	404040F0	4BF3F6F8	F1F240F1	F9F7F940	40F8F140	F540F5F1	4040F2F0	4BF6F4F4	F0F64040		
( 240)		F8F34BF6	F7F5F0F7	4060F1F5	4BF2F9F6	F1F64040	60F04BF7	F0F3F0F7	4040F7F2	4BF1F8F3	F1F64060		
( 280)		F1F34BF5	F0F0F8F3	404040F1	4BF4F4F3	F6F74040	F1F14BF4	F9F1F9F2	404060F1	4BF7F9F5	F3F34040		
( 320)		60F24BF1	F4F6F7F4	4040F8F5	4BF0F6F5	F5F14040	F7F34BF4	F4F9F0F6	4060F1F0	4BF3F5F9	F5F34040		
( 360)		60F04BF4	F7F3F5F6	404040F1	4BF1F2F6	F2F44060	F1F04BF5	F9F3F9F6	404040F0	4BF2F4F3	F4F04040		
( 400)		40F04BF2	F3F7F0F1	404040F0	4BF3F6F0	F7F24040	40F04BF1	F6F9F4F4	40F1F9F7	F94040F8	F140F540		
( 440)		F5F24040	F2F04BF6	F4F3F9F2	4040F8F3	4BF6F0F7	F4F84060	F1F54BF0	F0F0F8F2	404060F0	4BF0F1F4		
( 480)		F8F04040	F7F24BF2	F6F8F6F7	4060F1F3	4BF5F2F2	F8F74040	40F14BF5	F2F4F3F1	4040F1F1	4BF3F3F8		
( 520)		F8F14040	60F14BF4	F7F7F9F5	404060F1	4BF5F3F9	F1F24040	F8F44BF9	F4F4F4F7	4040F7F3	4BF5F3F8		
( 560)		F7F84060	F1F04BF1	F7F1F7F6	404060F0	4BF0F0F9	F9F94040	40F14BF1	F8F7F7F1	4060F1F0	4BF5F9F8		
( 600)		F5F94040	40F04BF2	F5F0F3F3	404040F0	4BF2F6F9	F2F64040	40F04BF4	F5F5F0F6	404040F0	4BF3F3F3		
( 640)		F3F240F1	F9F7F940	40F8F140	F540F5F3	4040F2F0	4BF6F4F3	F7F84040	F8F34BF5	F3F7F9F3	4060F1F4		
( 680)		4BF6F8F8	F9F04040	40F04BF4	F8F3F4F6	4040F7F2	4BF3F5F4	F7F54060	F1F34BF5	F4F5F0F0	404040F1		
( 720)		4BF6F0F5	F0F04040	F1F14BF1	F8F3F1F7	404060F1	4BF1F4F3	F9F04040	60F14BF1	F2F1F5F3	4040F8F4		
( 760)		4BF8F2F1	F7F74040	F7F34BF6	F2F9F1F6	404060F9	4BF9F7F2	F6F74040	40F04BF3	F2F6F5F7	404040F1		
( 800)		4BF2F4F9	F0F54060	F1F04BF6	F0F3F2F0	404040F0	4BF1F6F3	F2F74040	40F04BF1	F6F1F3F3	404040F0		
( 840)		4BF3F4F8	F8F14040	40F04BF1	F6F7F2F7	40F1F9F7	F94040F8	F140F540	F5F44040	F2F04BF6	F4F3F6F5		
( 880)		4040F8F3	4BF3F2F8	F6F44060	F1F44BF5	F7F1F7F8	404040F0	4BF2F8F0	F9F64040	F7F24BF4	F4F1F4F1		
( 920)		4060F1F3	4BF5F6F7	F2F34040	40F14BF6	F8F5F7F2	4040F1F0	4BF8F8F7	F2F34040	60F14BF0	F0F4F5F5		
( 960)		404060F1	4BF4F0F4	F7F54040	F8F44BF5	F9F5F3F5	4040F7F3	4BF7F2F0	F2F14040	60F94BF9	F1F9F0F9		
( 1000)		404040F0	4BF1F9F0	F3F04040	40F14BF3	F1F0F2F7	4060F1F0	4BF6F0F7	F7F84040	40F04BF1	F8F7F8F2		
( 1040)		404040F0	4BF2F2F6	F3F44040	40F04BF3	F7F5F0F7	404040F0	4BF3F7F3	F6F340F1	F9F7F940	40F8F140		
( 1080)		F540F5F5	4040F2F0	4BF6F4F3	F5F14040	F8F34BF1	F3F8F8F5	4060F1F4	4BF7F2F1	F5F34040	40F04BF3		
( 1120)		F2F1F9F4	4040F7F2	4BF5F2F8	F6F34060	F1F34BF5	F8F9F5F5	404040F1	4BF7F6F6	F4F84040	F1F04BF6		
( 1160)		F1F0F2F2	404060F1	4BF1F3F1	F9F84040	60F14BF4	F4F4F5F4	4040F8F4	4BF4F3F5	F7F24040	F7F34BF8		
( 1200)		F1F1F9F1	4060F1F0	4BF0F4F1	F3F74040	40F04BF2	F1F8F4F6	404040F1	4BF3F7F1	F3F54060	F1F04BF6		
( 1240)		F1F2F3F5	404040F0	4BF2F0F5	F7F84040	40F04BF2	F1F5F6F4	404040F0	4BF5F1F1	F1F24040	40F04BF4		
( 1280)		F7F8F3F0	40F1F9F7	F94040F8	F140F540	F5F64040	F2F04BF6	F4F3F3F7	4040F8F3	4BF3F4F5	F4F24060		
( 1320)		F1F44BF4	F8F1F5F6	404040F0	4BF0F4F7	F5F34040	F7F24BF6	F1F6F4F3	4060F1F3	4BF6F1F1	F9F64040		
( 1360)		40F14BF8	F4F7F2F9	4040F1F0	4BF7F2F8	F9F94040	60F04BF8	F6F9F6F0	404060F1	4BF7F9F9	F7F64040		
( 1400)		F8F44BF5	F9F5F2F3	4040F7F3	4BF9F0F4	F2F94040	60F94BF8	F5F6F9F4	404040F0	4BF0F3F2	F1F94040		
( 1440)		40F14BF4	F3F2F2F9	4060F1F0	4BF6F1F6	F9F04040	40F04BF2	F2F5F6F9	404040F0	4BF2F4F2	F5F54040		
( 1480)		40F04BF3	F4F4F9F9	404040F0	4BF2F2F0	F2F440F1	F9F7F940	40F8F140	F540F5F7	4040F2F0	4BF6F4F3		
( 1520)		F2F34040	F8F34BF2	F6F5F3F7	4060F1F4	4BF7F3F0	F2F14040	40F04BF1	F0F6F5F3	4040F7F2	4BF7F0F4		
( 1560)		F8F14060	F1F34BF6	F3F4F4F7	404040F1	4BF9F2F8	F1F34040	F1F04BF5	F6F0F5F7	404060F1	4BF0F9F5		
( 1600)		F7F54040	60F14BF8	F2F1F6F0	4040F8F4	4BF5F5F9	F8F84040	F7F34BF9	F9F7F3F3	4060F1F0	4BF0F3F2		
( 1640)		F2F24040	40F04BF0	F7F2F1F8	404040F1	4BF4F9F3	F1F14060	F1F04BF6	F2F1F4F2	404040F0	4BF2F3F9		
( 1680)		F8F14040	40F04BF2	F4F0F4F5	404040F0	4BF3F3F8	F5F24040	40F04BF3	F8F1F1F5	40F1F9F7	F94040F8		
( 1720)		F140F540	F5F84040	F2F04BF6	F4F3F1F0	4040F8F3	4BF4F4F1	F8F94060	F1F44BF6	F7F0F4F3	404040F0		
( 1760)		4BF4F8F3	F1F34040	F7F24BF7	F9F3F7F6	4060F1F3	4BF6F5F7	F0F74040	40F24BF0	F0F9F0F1	4040F1F0		
( 1800)		4BF6F4F8	F1F34040	60F14BF0	F1F3F3F6	404060F1	4BF5F2F5	F8F94040	F8F44BF7	F2F5F3F8	4040F7F4		
( 1840)		4BF0F9F1	F0F44040	60F94BF9	F7F1F6F1	404040F0	4BF3F2F6	F7F24040	40F14BF5	F5F3F7F9	4060F1F0		
( 1880)		4BF6F2F5	F9F24040	40F04BF2	F3F0F3F2	404040F0	4BF2F3F6	F3F84040	40F04BF4	F1F9F9F5	404040F0		
( 1920)		4BF4F5F5	F8F740F1	F9F7F940	40F8F140	F540F5F9	4040F2F0	4BF6F4F2	F9F64040	F8F34BF7	F8F6F0F5		
( 1960)		4060F1F4	4BF6F8F5	F9F94040	40F04BF4	F5F5F6F2	4040F7F2	4BF8F8F3	F2F94060	F1F34BF6	F7F9F7F7		
( 2000)		404040F2	4BF0F8F9	F9F44040	F1F04BF9	F0F2F7F6	404060F1	4BF0F0F6	F2F24040	60F14BF6	F3F4F3F2		
( 2040)		4040F8F5	4BF0F6F6	F5F14040	F7F44BF1	F8F5F4F3	404060F9	4BF9F4F1	F7F94040	40F04BF3	F0F6F8F8		
( 2080)		404040F1	4BF6F1F4	F3F44060	F1F04BF6	F3F0F4F0	404040F0	4BF2F3F6	F8F34040	40F04BF2	F9F0F0F2		
( 2120)		404040F0	4BF4F6F7	F3F34040	40F04BF2	F7F5F9F9							

FILE	1	RECORD	9	76	LENGTH	2140	BYTES						
( 0)		40F1F9F7	F94040F8	F1F2F040	40F14040	F2F54BF0	F2F7F7F1	4040F7F6	4BF5F9F4	F0F64060	F3F14BF3		

( 120)	F7F4F5F8	40F1F2F0	4BF5F9F6	F3F24060	F2F24BF2	F4F5F7F6	4060F5F4	4BF9F9F5	F5F44060	F4F44BF2
( 160)	F8F0F9F8	404060F5	4BF9F4F7	F4F84040	40F04BF9	F0F6F1F1	404040F0	4BF8F5F9	F6F54040	40F04BF8
( 200)	F1F6F2F0	404040F0	4BF8F7F6	F1F540F1	F9F7F940	40F8F1F2	F04040F2	4040F2F5	4BF0F2F7	F5F74040
( 240)	F7F44BF9	F5F5F3F0	4060F3F1	4BF3F8F3	F8F760F1	F1F64BF8	F7F8F0F4	40F1F0F1	4BF8F3F0	F4F24060
( 280)	F1F04BF6	F0F9F0F3	4060F6F3	4BF1F3F8	F9F64060	F2F64BF8	F7F5F1F3	4060F2F0	4BF7F7F4	F8F44060
( 320)	F5F34BF7	F3F9F0F8	40F1F4F2	4BF3F5F4	F3F340F1	F2F04BF2	F8F5F1F4	4060F2F2	4BF7F1F9	F1F24060
( 360)	F5F54BF1	F8F8F6F4	4060F3F1	4BF6F6F2	F2F34040	60F54BF9	F4F7F8F1	404040F1	4BF3F4F4	F5F04040
( 400)	40F14BF0	F4F9F3F7	404040F0	4BF7F6F6	F6F14040	40F14BF0	F7F4F6F8	40F1F9F7	F94040F8	F1F2F040
( 440)	40F34040	F2F54BF0	F2F7F4F4	4040F7F4	4BF2F3F2	F4F64060	F2F94BF7	F7F5F7F4	60F1F1F6	4BF1F2F3
( 480)	F5F340F1	F0F14BF5	F8F8F6F4	4060F1F0	4BF5F8F4	F5F54060	F6F24BF9	F4F2F3F5	4060F2F7	4BF3F5F6
( 520)	F1F84060	F1F94BF1	F9F1F1F9	4060F5F3	4BF1F8F1	F1F940F1	F4F14BF0	F0F5F4F7	40F1F1F9	4BF9F7F5
( 560)	F0F94060	F2F14BF8	F5F6F4F6	4060F5F5	4BF4F4F0	F6F74060	F3F14BF6	F4F3F2F3	404060F5	4BF9F4F8
( 600)	F2F04040	40F04BF2	F9F4F6F2	404040F0	4BF4F5F4	F8F94040	40F04BF6	F4F1F5F4	404040F0	4BF5F3F3
( 640)	F1F540F1	F9F7F940	40F8F1F2	F04040F5	4040F1F0	4BF0F2F7	F2F04040	F7F54BF5	F8F4F5F5	4060F2F4
( 680)	4BF3F7F0	F4F360F1	F1F94BF9	F5F0F1F9	40F1F0F1	4BF1F6F8	F1F44060	F1F04BF5	F4F2F2F8	4060F6F2
( 720)	4BF5F9F9	F0F24060	F2F54BF5	F8F3F5F9	4060F1F3	4BF8F2F8	F1F44060	F5F74BF3	F5F1F1F7	40F1F4F3
( 760)	4BF8F7F1	F3F140F1	F1F94BF4	F3F5F2F2	4060F1F7	4BF8F7F0	F6F74060	F5F64BF4	F8F4F0F9	4060F3F1
( 800)	4BF6F0F9	F3F84040	60F54BF9	F4F9F0F7	404040F0	4BF9F2F1	F9F54040	40F14BF1	F2F7F5F0	404040F1
( 840)	4BF7F1F1	F3F54040	40F04BF7	F8F2F2F9	40F1F9F7	F94040F8	F1F2F040	40F64040	F1F04BF0	F2F7F0F6
( 880)	4040F7F5	4BF4F8F7	F6F24060	F2F34BF2	F9F7F1F2	60F1F2F1	4BF9F2F2	F8F040F1	F0F04BF9	F2F9F3F9
( 920)	4060F1F0	4BF5F1F8	F4F54060	F6F24BF4	F0F3F2F8	4060F2F5	4BF4F4F1	F7F64060	F1F24BF7	F7F8F6F7
( 960)	4060F5F9	4BF5F1F9	F5F240F1	F4F54BF2	F8F5F0F2	40F1F1F9	4BF1F2F8	F2F94060	F1F74BF1	F5F1F3F6
( 1000)	4060F5F7	4BF0F5F5	F4F64060	F3F14BF5	F8F9F6F9	404060F5	4BF9F4F9	F6F64040	40F14BF1	F3F7F8F0
( 1040)	404040F0	4BF7F8F9	F1F04040	40F14BF1	F4F7F2F2	404040F0	4BF8F8F6	F1F540F1	F9F7F940	40F8F1F2
( 1080)	F04040F7	4040F1F0	4BF0F2F6	F9F34040	F7F54BF0	F8F8F0F6	4060F1F9	4BF6F0F2	F4F560F1	F2F04BF5
( 1120)	F2F8F9F2	40F1F0F0	4BF6F9F1	F7F34060	F1F04BF4	F9F4F8F5	4060F6F2	4BF2F0F7	F8F74060	F2F54BF6
( 1160)	F0F3F6F6	404060F9	4BF1F0F7	F5F94060	F5F84BF3	F2F1F0F5	40F1F4F3	4BF3F5F3	F8F340F1	F1F84BF8
( 1200)	F2F2F4F9	4060F1F4	4BF6F3F1	F0F64060	F5F74BF2	F2F2F4F9	4060F3F1	4BF5F6F9	F7F54040	60F54BF9
( 1240)	F5F0F3F1	404040F0	4BF3F4F8	F9F34040	40F04BF5	F9F0F0F7	404040F0	4BF5F7F1	F0F44040	40F04BF2
( 1280)	F7F2F3F1	40F1F9F7	F94040F8	F1F2F040	40F84040	F1F04BF0	F2F6F7F9	4040F7F3	4BF6F4F7	F1F84060
( 1320)	F1F94BF6	F6F4F2F9	60F1F2F1	4BF3F9F4	F9F840F1	F0F04BF4	F5F5F1F6	4060F1F0	4BF4F7F1	F4F84060
( 1360)	F6F24BF0	F1F2F7F9	4060F2F6	4BF8F0F7	F9F84040	60F94BF1	F9F2F8F1	4060F5F9	4BF3F8F2	F1F940F1
( 1400)	F4F34BF3	F4F6F4F6	40F1F1F8	4BF5F1F7	F8F34060	F1F44BF9	F4F9F6F1	4060F5F7	4BF8F7F2	F2F24060
( 1440)	F3F14BF5	F4F9F5F6	404060F5	4BF9F5F1	F0F44040	40F04BF4	F0F9F2F8	404040F0	4BF6F6F9	F3F34040
( 1480)	40F04BF7	F3F3F5F1	404040F0	4BF2F3F9	F0F140F1	F9F7F940	40F8F1F2	F04040F9	4040F1F0	4BF0F2F6
( 1520)	F6F54040	F7F24BF2	F4F9F4F0	4060F1F8	4BF2F1F1	F7F660F1	F2F04BF7	F9F2F7F2	40F1F0F0	4BF2F1F9
( 1560)	F6F84060	F1F04BF4	F4F8F3F4	4060F6F1	4BF8F1F8	F0F44060	F2F74BF9	F7F0F2F8	404060F7	4BF7F6F3
( 1600)	F4F24060	F5F84BF9	F7F4F6F7	40F1F4F1	4BF9F2F7	F7F640F1	F1F84BF2	F1F4F3F1	4060F1F4	4BF1F4F7
( 1640)	F7F14060	F5F84BF3	F2F9F9F8	4060F3F1	4BF5F2F9	F1F34040	60F54BF9	F5F1F8F4	404040F0	4BF3F8F6
( 1680)	F7F34040	40F04BF4	F0F2F0F9	404040F0	4BF8F9F9	F8F24040	40F04BF3	F7F5F6F3	40F1F9F7	F94040F8
( 1720)	F1F2F040	F1F04040	F1F04BF0	F2F6F5F2	4040F7F0	4BF4F1F2	F8F84060	F1F74BF6	F5F3F0F2	60F1F2F2
( 1760)	4BF6F8F2	F1F54040	F9F94BF9	F8F5F2F9	4060F1F0	4BF4F2F5	F4F34060	F6F14BF6	F2F3F6F4	4060F2F9
( 1800)	4BF5F7F2	F4F24040	60F74BF2	F2F7F5F9	4060F6F1	4BF0F5F8	F5F140F1	F4F24BF5	F5F1F4F9	40F1F1F7
( 1840)	4BF9F1F1	F9F24060	F1F44BF0	F7F4F3F8	4060F5F9	4BF3F8F5	F8F64060	F3F14BF5	F0F8F4F5	404060F5
( 1880)	4BF9F5F2	F7F04040	40F04BF7	F0F0F4F9	404040F0	4BF3F8F7	F7F54040	40F04BF5	F5F7F8F2	404040F0
( 1920)	4BF6F6F5	F8F640F1	F9F7F940	40F8F1F2	F040F1F1	4040F1F0	4BF0F2F6	F3F84040	F7F14BF1	F9F6F3F4
( 1960)	4060F1F8	4BF3F7F7	F0F060F1	F2F44BF1	F7F1F4F8	4040F9F9	4BF7F5F2	F0F04060	F1F04BF4	F0F2F7F5
( 2000)	4060F6F1	4BF4F2F9	F5F84060	F2F84BF5	F5F5F6F6	404060F7	4BF9F7F4	F2F64060	F6F24BF7	F4F1F9F0
( 2040)	40F1F4F4	4BF3F1F3	F2F040F1	F1F74BF6	F1F0F6F8	4060F1F4	4BF4F7F3	F1F34060	F5F94BF3	F6F4F9F5
( 2080)	4060F3F1	4BF4F8F7	F5F34040	60F54BF9	F5F3F6F3	404040F0	4BF1F8F8	F6F94040	40F04BF3	F4F1F3F5
( 2120)	404040F0	4BF9F0F1	F2F74040	40F04BF4	F6F6F0F3					

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY				INPUT RETRIES	
				PERM	ZERO	B	SHORT	UNDEF.	#RECS. TOTAL#
1	76	77	2140	0	0	0	0	0	0

FILE	2	1979	1	90	2140	BYTES				
( 0)	40F1F9F7	F94040F9	F0F1F140	F4F94040	F4F54BF2	F0F0F3F0	40F1F6F8	4BF6F6F8	F8F74040	40F34BF0
( 40)	F3F3F3F4	60F1F3F1	4BF7F2F4	F3F940F1	F9F44BF7	F7F0F4F3	404060F1	4BF6F2F0	F9F860F1	F0F14BF1
( 80)	F2F2F3F2	4060F2F6	4BF1F0F1	F5F64040	40F44BF6	F5F4F3F3	4060F3F0	4BF6F0F2	F0F740F2	F1F44BF0
( 120)	F4F2F6F9	40F2F1F9	4BF4F6F2	F6F94040	40F14BF0	F3F0F3F0	4060F3F7	4BF9F8F1	F8F54060	F2F74BF4
( 160)	F3F6F9F5	404060F0	4BF4F7F6	F8F34040	40F04BF6	F7F9F1F2	404040F1	4BF2F5F1	F4F44040	40F14BF6
( 200)	F5F4F2F8	404040F0	4BF8F5F2	F7F140F1	F9F7F940	40F9F0F1	F140F5F0	4040F4F5	4BF2F0F0	F1F840F1
( 240)	F6F84BF8	F3F5F4F9	404040F3	4BF4F3F5	F0F660F1	F3F14BF6	F8F9F9F4	40F1F9F4	4BF5F5F0	F3F74040

Table with 11 columns and 72 rows of hexadecimal data. Handwritten annotations '2 1899' and '46 90' are visible above the first row of the second section.

FILE 2 RECORDS 2140 BYTES

Table with 11 columns and 15 rows of hexadecimal data.

( 760)	4BF2F8F6	F7F44040	F6F94BF1	F0F0F4F0	404060F4	4BF3F9F2	F0F34060	F3F44BF3	F6F7F8F3	4040F1F7
( 800)	4BF4F8F5	F9F04040	60F14BF9	F7F3F7F9	404040F0	4BF7F7F2	F5F24040	40F04BF5	F4F8F8F3	404040F0
( 840)	4BF3F6F7	F9F74040	40F04BF6	F6F4F6F7	40F1F9F7	F94040F9	F0F2F340	F5F34040	F3F24BF3	F6F0F1F7
( 880)	4040F6F1	4BF1F6F7	F6F74040	60F44BF6	F5F2F2F1	4060F4F0	4BF5F3F3	F4F94040	F6F54BF8	F9F8F6F6
( 920)	404060F2	4BF2F8F7	F6F24060	F2F04BF7	F1F2F0F2	404060F4	4BF7F3F0	F9F94040	60F24BF3	F6F4F5F9
( 960)	4060F1F9	4BF8F2F1	F4F74040	F7F34BF5	F2F9F4F5	4040F6F9	4BF1F1F4	F7F94040	60F44BF3	F4F9F3F6
( 1000)	4060F3F3	4BF4F5F3	F1F74060	F1F74BF4	F3F8F1F3	404060F1	4BF9F8F8	F1F84040	40F04BF8	F5F5F2F8
( 1040)	404040F0	4BF4F3F9	F4F64040	40F04BF2	F7F9F2F8	404040F0	4BF9F7F4	F2F240F1	F9F7F940	40F9F0F2
( 1080)	F340F5F4	4040F3F2	4BF3F6F0	F0F54040	F6F04BF5	F9F9F1F7	404060F4	4BF0F4F3	F0F04060	F3F84BF7
( 1120)	F6F1F7F7	4040F6F5	4BF9F2F9	F5F24040	60F24BF3	F0F5F2F6	4060F2F0	4BF6F6F1	F4F64040	60F54BF3
( 1160)	F3F0F3F5	404060F1	4BF7F3F7	F7F44060	F1F84BF1	F0F0F3F1	4040F7F2	4BF0F5F3	F4F14040	F6F94BF1
( 1200)	F2F9F6F7	404060F3	4BF8F1F6	F9F54060	F3F24BF5	F4F4F8F0	4060F1F7	4BF3F9F0	F3F34040	60F24BF0
( 1240)	F0F2F5F6	404040F0	4BF5F5F5	F9F54040	40F04BF5	F1F4F0F0	404040F0	4BF6F8F1	F8F64040	40F04BF4
( 1280)	F4F1F2F0	40F1F9F7	F94040F9	F0F2F340	F5F54040	F3F24BF3	F5F9F9F2	4040F5F9	4BF6F0F8	F7F34040
( 1320)	60F34BF7	F3F3F6F0	4060F3F7	4BF3F9F6	F3F94040	F6F54BF9	F6F0F8F2	404060F2	4BF3F2F2	F9F04060
( 1360)	F2F04BF6	F1F0F9F8	404060F6	4BF3F5F2	F0F84040	60F14BF4	F1F0F7F0	4060F1F6	4BF7F8F5	F4F14040
( 1400)	F7F04BF4	F6F7F8F7	4040F6F9	4BF1F4F5	F0F54040	60F34BF5	F8F4F0F4	4060F3F2	4BF0F5F1	F8F94060
( 1440)	F1F74BF3	F4F2F5F2	404060F2	4BF0F1F6	F9F24040	40F04BF8	F6F6F0F6	404040F0	4BF7F1F9	F4F44040
( 1480)	40F04BF2	F2F2F8F8	404040F0	4BF5F2F1	F5F140F1	F9F7F940	40F9F0F2	F340F5F6	4040F3F2	4BF3F5F9
( 1520)	F8F04040	F5F74BF6	F9F3F4F6	404060F3	4BF4F5F9	F9F44060	F3F64BF6	F6F6F9F2	4040F6F5	4BF9F9F2
( 1560)	F5F54040	60F24BF3	F4F0F5F6	4060F2F0	4BF5F6F0	F5F94040	60F84BF2	F9F9F0F9	404060F1	4BF1F1F9
( 1600)	F3F84060	F1F64BF1	F0F6F3F3	4040F6F8	4BF4F4F8	F7F14040	F6F94BF1	F6F0F9F2	404060F3	4BF4F3F1
( 1640)	F9F94060	F3F24BF3	F9F0F3F5	4060F1F7	4BF2F9F4	F6F84040	60F24BF0	F3F1F2F6	404040F0	4BF5F8F2
( 1680)	F6F84040	40F04BF4	F0F9F4F6	404040F0	4BF3F5F0	F5F04040	40F04BF5	F5F2F9F8	40F1F9F7	F94040F9
( 1720)	F0F2F340	F5F74040	F3F24BF3	F5F9F6F6	4040F5F9	4BF7F5F4	F0F14040	60F24BF1	F4F6F4F6	4060F3F9
( 1760)	4BF0F1F6	F1F84040	F6F64BF0	F2F4F7F2	404060F2	4BF3F5F8	F2F44060	F2F04BF5	F1F0F2F9	404060F6
( 1800)	4BF2F7F0	F7F04040	40F04BF2	F1F1F7F7	4060F1F8	4BF5F0F5	F8F94040	F7F14BF4	F0F0F8F7	4040F6F9
( 1840)	4BF1F7F7	F2F84040	60F24BF0	F5F7F2F8	4060F3F3	4BF1F2F3	F0F14060	F1F74BF2	F4F6F8F3	404060F2
( 1880)	4BF0F4F5	F5F94040	40F04BF9	F3F8F0F4	404040F0	4BF9F4F1	F7F44040	40F04BF3	F3F7F3F9	404040F0
( 1920)	4BF7F4F2	F5F640F1	F9F7F940	40F9F0F2	F340F5F8	4040F3F2	4BF3F5F9	F5F44040	F6F24BF6	F7F7F2F0
( 1960)	404060F2	4BF3F4F2	F4F94060	F3F84BF9	F8F2F1F9	4040F6F6	4BF0F5F7	F3F24040	60F24BF3	F7F5F9F2
( 2000)	4060F2F0	4BF4F6F0	F0F74040	60F34BF3	F8F0F1F3	404040F0	4BF0F3F3	F4F34060	F1F84BF5	F2F2F1F2
( 2040)	4040F7F3	4BF8F6F1	F8F64040	F6F94BF1	F9F4F1F4	404060F2	4BF1F4F0	F3F74060	F3F14BF8	F5F5F0F2
( 2080)	4060F1F7	4BF1F9F8	F9F74040	60F24BF0	F5F9F9F0	404040F0	4BF7F7F1	F1F64040	40F14BF3	F3F5F2F3
( 2120)	404040F0	4BF4F7F4	F9F44040	40F04BF7	F9F4F1F5					

FILE	INPUT RECS.	DATA INPUT	RECORDS	MAX. SIZE	READ PERM	ERROR ZERO	SUMMARY B SHORT	UNDEF.	INPUT #RECS.	RETRIES TOTAL#
2	46	47	2140		0	0	0	0	0	0

FILE	3	RECORD 9	1	LENGTH	2140	BYTES
( 0)	40F1F9F7	F94040F9	F140F040	40F04040	F4F34BF1	F0F7F9F9
( 40)	F3F4F8F0	4060F3F8	4BF6F2F8	F8F34040	F6F64BF1	F2F9F3F3
( 80)	F5F0F7F8	404040F0	4BF6F8F6	F2F34040	40F04BF6	F7F9F7F2
( 120)	F0F3F6F2	4040F6F9	4BF2F3F2	F0F24040	60F14BF4	F8F7F2F9
( 160)	F9F4F6F1	404060F2	4BF0F9F1	F0F54040	40F04BF8	F3F9F5F8
( 200)	F4F0F2F8	404040F1	4BF1F7F1	F6F940F1	F9F7F940	40F9F140
( 240)	F6F64BF8	F4F3F3F2	404060F0	4BF6F9F6	F2F74060	F3F94BF9
( 280)	60F24BF4	F3F2F2F5	4060F2F0	4BF3F0F0	F8F44040	40F04BF6
( 320)	F1F94BF6	F8F2F5F8	4040F7F7	4BF8F9F6	F1F84040	F6F94BF2
( 360)	F3F04BF8	F8F3F3F0	4060F1F7	4BF0F4F6	F7F04040	60F24BF1
( 400)	40F04BF5	F1F5F6F4	404040F0	4BF6F9F8	F8F94040	40F04BF2
( 440)	40F24040	F4F34BF1	F0F7F7F4	4040F6F5	4BF5F4F9	F7F94040
( 480)	F2F34040	F6F64BF1	F9F7F7F5	404060F2	4BF4F4F9	F9F94060
( 520)	F9F64040	40F24BF4	F5F7F5F7	4060F1F9	4BF3F9F6	F2F54040
( 560)	F3F84040	40F04BF0	F0F6F6F2	4060F3F1	4BF1F6F5	F5F94060
( 600)	F5F64040	40F04BF4	F1F6F1F9	404040F0	4BF4F4F4	F8F94040
( 640)	F8F240F1	F9F7F940	40F9F140	F04040F3	4040F4F3	4BF1F0F7
( 680)	4BF3F7F9	F6F74060	F3F94BF6	F6F6F2F6	4040F6F6	4BF2F3F2
( 720)	4BF2F0F1	F2F04040	60F24BF1	F6F4F2F8	404040F2	4BF8F4F7
( 760)	4BF3F5F5	F8F24040	F6F94BF2	F8F8F8F1	404040F0	4BF3F3F9
( 800)	4BF9F5F0	F8F24040	60F24BF1	F3F3F7F9	404040F0	4BF4F9F7
( 840)	4BF3F2F8	F6F54040	40F04BF3	F4F7F6F1	40F1F9F7	F94040F9
( 880)	4040F6F2	4BF1F3F4	F3F44040	40F04BF6	F5F7F2F2	4060F3F7

( 1000) 4060F3F1 4BF4F2F0 F2F14060 F1F64BF9 F0F2F8F6 404060F2 4BF1F4F8 F0F04040 40F04BF6 F0F6F0F2  
( 1040) 404040F0 4BF9F5F6 F4F94040 40F04BF3 F0F4F6F4 404040F0 4BF8F3F6 F0F740F1 F9F7F940 40F9F140  
( 1080) F04040F5 4040F4F3 4BF1F0F7 F3F64040 F5F94BF4 F3F2F7F5 404040F1 4BF3F7F7 F6F64060 F3F54BF7  
( 1120) F3F6F0F4 4040F6F6 4BF3F0F3 F7F04040 60F24BF5 F0F3F3F1 4060F2F0 4BF1F0F1 F9F04040 60F64BF8  
( 1160) F7F0F9F4 404040F3 4BF8F8F0 F9F74060 F1F54BF6 F3F4F1F4 4040F6F9 4BF3F6F4 F7F84040 F6F94BF3  
( 1200) F2F9F1F7 404040F1 4BF3F2F7 F8F84060 F3F14BF0 F1F0F1F6 4060F1F6 4BF8F5F4 F8F94040 60F24BF1  
( 1240) F6F2F1F9 404040F1 4BF6F6F7 F9F94040 40F14BF3 F3F1F8F7 404040F0 4BF3F2F7 F7F14040 40F14BF0  
( 1280) F7F6F2F8 40F1F9F7 F94040F9 F140F040 40F64040 F4F34BF1 F0F7F2F4 4040F5F7 4BF1F6F0 F6F24040  
( 1320) 40F24BF4 F2F9F1F6 4060F3F1 4BF1F7F9 F3F84040 F6F64BF3 F3F9F8F9 404060F2 4BF5F2F1 F1F24060  
( 1360) F2F04BF0 F5F2F3F8 404060F9 4BF1F7F9 F2F84040 40F44BF9 F5F0F2F8 4060F1F1 4BF1F2F7 F0F14040  
( 1400) F6F54BF1 F6F3F4F6 4040F6F9 4BF3F5F0 F0F94040 40F24BF4 F3F3F4F4 4060F2F8 4BF5F8F6 F1F54060  
( 1440) F1F64BF8 F0F6F9F0 404060F2 4BF1F7F6 F3F64040 40F04BF3 F7F9F5F8 404040F0 4BF1F9F5 F4F54040  
( 1480) 40F04BF2 F8F8F7F0 404040F0 4BF9F5F3 F1F640F1 F9F7F940 40F9F140 F04040F7 4040F4F3 4BF1F0F7  
( 1520) F1F24040 F5F64BF3 F4F7F8F9 404040F2 4BF2F3F8 F6F04060 F2F84BF6 F4F4F0F4 4040F6F6 4BF3F7F6  
( 1560) F5F34040 60F24BF5 F3F8F9F3 4060F2F0 4BF0F0F2 F9F34060 F1F04BF0 F2F8F6F5 404040F4 4BF7F7F7  
( 1600) F5F34040 60F84BF6 F4F1F1F1 4040F6F3 4BF2F5F3 F8F84040 F6F94BF3 F7F1F5F2 404040F2 4BF2F7F5  
( 1640) F0F64060 F2F64BF9 F2F6F2F0 4060F1F6 4BF7F5F8 F9F04040 60F24BF1 F9F0F5F2 404040F1 4BF0F6F3  
( 1680) F8F54040 40F04BF7 F6F6F0F3 404040F0 4BF5F9F3 F0F44040 40F04BF8 F1F8F0F1 40F1F9F7 F94040F9  
( 1720) F140F040 40F84040 F4F34BF1 F0F6F9F8 4040F5F4 4BF2F0F6 F5F04040 40F04BF8 F5F5F4F8 4060F2F5  
( 1760) 4BF5F9F4 F1F04040 F6F64BF4 F1F3F6F2 404060F2 4BF5F5F6 F7F74060 F1F94BF9 F5F3F5F7 4060F1F2  
( 1800) 4BF2F0F7 F1F24040 40F34BF4 F1F2F2F5 404060F5 4BF6F4F0 F5F34040 F5F94BF9 F5F7F0F5 4040F6F9  
( 1840) 4BF3F9F3 F4F54040 40F04BF9 F0F4F1F6 4060F2F5 4BF2F6F9 F3F34060 F1F64BF7 F1F0F8F9 404060F2  
( 1880) 4BF2F0F4 F6F64040 40F04BF7 F4F8F5F6 404040F0 4BF4F7F3 F6F84040 40F04BF5 F6F0F2F8 404040F0  
( 1920) 4BF8F5F7 F5F640F1 F9F7F940 40F9F140 F040F1F0 404040F7 4BF6F0F6 F8F24040 F5F34BF3 F7F1F2F5  
( 1960) 404040F0 4BF3F2F4 F7F34060 F2F34BF5 F6F1F5F1 4040F6F6 4BF4F6F6 F6F04040 60F24BF5 F8F1F9F1  
( 2000) 4060F1F9 4BF8F8F4 F1F94060 F1F34BF0 F9F5F3F4 404040F2 4BF9F0F6 F6F34040 60F34BF6 F7F7F3F2  
( 2040) 4040F5F8 4BF3F4F9 F1F84040 F6F94BF4 F2F5F1F8 404040F0 4BF3F4F8 F6F04060 F2F34BF8 F1F6F0F7  
( 2080) 4060F1F6 4BF6F4F3 F2F54040 60F24BF2 F2F4F5F5 404040F0 4BF4F5F3 F6F84040 40F04BF4 F3F6F3F6  
( 2120) 404040F0 4BF8F9F9 F7F74040 40F04BF3 F0F2F5F2

FILE 3 RECD 29 32 LENGTH 2140BYTES  
( 0) 40F1F9F7 F94040F9 F140F640 40F14040 F2F64BF3 F1F2F7F4 40F1F1F9 4BF7F4F2 F4F54040 60F74BF3  
( 40) F8F5F1F4 404060F6 4BF2F3F7 F7F740F1 F1F94BF3 F9F4F8F3 4060F1F0 4BF1F3F8 F7F54060 F1F04BF8  
( 80) F7F4F0F2 404040F0 4BF3F4F7 F6F34040 40F24BF7 F5F3F6F1 404040F4 4BF6F3F6 F2F540F1 F2F04BF1  
( 120) F4F4F3F9 40F1F2F0 4BF3F1F6 F9F34040 60F34BF5 F2F9F2F6 404060F2 4BF9F7F6 F0F84040 60F54BF1  
( 160) F8F5F3F6 404060F4 4BF8F5F3 F7F94040 40F04BF6 F8F6F5F4 404040F0 4BF7F3F9 F2F34040 40F04BF6  
( 200) F9F0F3F2 404040F1 4BF5F5F5 F0F140F1 F9F7F940 40F9F140 F64040F2 4040F2F6 4BF3F1F2 F6F240F1  
( 240) F2F04BF8 F5F5F0F1 404060F7 4BF2F2F4 F3F14040 60F94BF0 F0F7F3F2 40F1F1F9 4BF7F0F6 F8F24060  
( 280) F1F04BF1 F5F9F2F2 4060F1F0 4BF9F1F9 F6F54040 40F14BF1 F4F8F1F9 404040F2 4BF9F3F4 F9F24040  
( 320) 40F14BF9 F1F2F3F3 40F1F2F1 4BF4F5F7 F8F640F1 F2F04BF6 F3F2F3F8 404060F3 4BF4F2F0 F8F84040  
( 360) 60F44BF2 F5F2F9F6 404060F5 4BF1F9F3 F5F34040 60F44BF8 F5F0F9F3 404040F0 4BF7F7F0 F4F24040  
( 400) 40F04BF8 F4F8F5F9 404040F1 4BF3F4F7 F3F84040 40F34BF2 F8F8F1F9 40F1F9F7 F94040F9 F140F640  
( 440) 40F34040 F2F64BF3 F1F2F4F8 40F1F2F2 4BF9F7F9 F3F84040 60F94BF2 F4F1F4F7 404060F8 4BF4F4F1  
( 480) F9F640F1 F2F04BF0 F1F9F9F4 4060F1F0 4BF1F7F9 F5F84060 F1F04BF9 F6F6F3F5 404040F2 4BF9F5F9  
( 520) F4F34040 40F04BF9 F3F8F1F1 404040F2 4BF5F2F4 F3F940F1 F2F34BF6 F3F1F0F6 40F1F2F0 4BF9F4F9  
( 560) F0F44040 60F44BF2 F9F7F5F0 404060F3 4BF9F1F5 F4F04040 60F54BF2 F0F2F1F0 404060F4 4BF8F4F7  
( 600) F9F84040 40F14BF0 F3F4F2F6 404040F0 4BF9F8F2 F8F14040 40F14BF0 F7F9F6F0 404040F1 4BF7F2F6  
( 640) F3F340F1 F9F7F940 40F9F140 F64040F4 4040F2F6 4BF3F1F2 F3F640F1 F2F44BF7 F5F7F6F3 404060F9  
( 680) 4BF2F2F8 F1F14040 60F74BF4 F2F7F2F3 40F1F2F0 4BF3F3F4 F2F04060 F1F04BF1 F9F9F8F3 4060F1F1  
( 720) 4BF0F1F4 F1F24040 40F44BF4 F2F3F4F3 404040F0 4BF9F7F1 F7F24040 40F34BF5 F8F6F8F9 40F1F2F5  
( 760) 4BF3F2F3 F1F740F1 F2F14BF2 F6F6F9F2 404060F4 4BF2F3F0 F3F74040 60F34BF3 F9F7F6F0 404060F5  
( 800) 4BF2F1F1 F1F04040 60F44BF8 F4F4F9F5 404040F0 4BF6F9F9 F9F74040 40F04BF7 F1F4F6F2 404040F0  
( 840) 4BF6F5F3 F6F94040 40F04BF8 F1F3F4F2 40F1F9F7 F94040F9 F140F640 40F54040 F2F64BF3 F1F2F2F4  
( 880) 40F1F2F5 4BF9F8F6 F7F24040 60F94BF6 F1F4F7F5 4060F1F0 4BF3F1F0 F0F040F1 F2F04BF6 F4F9F5F8  
( 920) 4060F1F0 4BF2F1F9 F9F64060 F1F14BF0 F6F2F9F9 404040F5 4BF3F3F7 F1F34040 40F04BF6 F0F5F2F2  
( 960) 404040F0 4BF7F5F2 F9F940F1 F2F64BF7 F8F0F0F7 40F1F2F1 4BF5F8F6 F0F24040 60F44BF3 F6F4F1F0  
( 1000) 404060F4 4BF6F6F4 F5F64040 60F54BF2 F2F0F5F1 404060F4 4BF8F4F1 F8F44040 40F04BF4 F4F0F1F1  
( 1040) 404040F0 4BF3F5F5 F5F64040 40F14BF2 F5F5F0F5 404040F0 4BF5F3F3 F2F240F1 F9F7F940 40F9F140  
( 1080) F64040F6 4040F2F6 4BF3F1F2 F1F240F1 F2F54BF8 F1F5F9F2 404060F8 4BF9F8F3 F7F14040 60F54BF9  
( 1120) F4F1F4F8 40F1F2F0 4BF9F6F6 F1F04060 F1F04BF2 F3F9F9F8 4060F1F1 4BF1F1F2 F9F64040 40F44BF8  
( 1160) F4F9F8F2 404040F1 4BF2F5F6 F2F74040 40F54BF1 F7F1F4F8 40F1F2F6 4BF2F9F9 F8F240F1 F2F14BF9  
( 1200) F0F6F3F2 404060F4 4BF0F8F4 F1F94040 60F24BF6 F9F6F3F4 404060F5 4BF2F3F0 F3F44040 60F44BF8  
( 1240) F3F8F6F5 404040F0 4BF4F2F1 F4F64040 40F04BF4 F8F1F0F3 404040F1 4BF3F7F2 F2F94040 40F24BF0  
( 1280) F1F3F3F8 40F1F9F7 F94040F9 F140F640 40F74040 F2F64BF3 F1F1F9F8 40F1F2F3 4BF6F3F8 F2F64060



```

( 1400) F2F44BF4 F6F5F1F3 40F1F2F2 4BF2F2F7 F8F44040 60F54BF5 F6F5F5F1 404060F3 4BF3F5F0 F2F04040
( 1440) 60F54BF2 F4F0F5F9 404060F4 4BF8F3F5 F3F74040 40F04BF5 F6F0F6F6 404040F0 4BF6F4F9 F1F14040
( 1480) 40F14BF0 F7F6F7F1 404040F2 4BF4F1F4 F4F340F1 F9F7F940 40F9F140 F64040F8 4040F2F6 4BF3F1F1
( 1520) F8F640F1 F2F34BF2 F0F8F9F6 404060F9 4BF9F8F1 F7F34040 60F84BF1 F1F0F4F7 40F1F2F1 4BF6F0F2
( 1560) F5F04060 F1F04BF2 F7F9F6F6 4060F1F1 4BF2F1F6 F2F64040 40F14BF6 F0F6F4F6 404040F0 4BF2F9F7
( 1600) F9F34040 40F34BF1 F0F5F7F9 40F1F2F3 4BF9F2F8 F8F040F1 F2F24BF5 F5F0F5F8 404060F4 4BF6F3F1
( 1640) F6F84040 60F34BF7 F5F2F3F8 404060F5 4BF2F5F1 F2F64040 60F44BF8 F3F2F0F1 404040F0 4BF2F2F6
( 1680) F1F64040 40F04BF3 F5F7F7F5 404040F2 4BF1F6F7 F0F54040 40F24BF7 F7F6F9F4 40F1F9F7 F94040F9
( 1720) F140F640 40F94040 F2F64BF3 F1F1F7F4 40F1F2F3 4BF6F2F3 F2F54060 F1F24BF7 F9F6F6F6 4060F1F0
( 1760) 4BF0F5F6 F7F740F1 F2F14BF9 F2F2F3F9 4060F1F0 4BF2F9F9 F3F24060 F1F14BF2 F6F9F6F0 404040F1
( 1800) 4BF7F0F0 F8F74040 60F24BF4 F9F7F3F4 404040F1 4BF2F1F2 F8F440F1 F2F44BF7 F2F3F4F3 40F1F2F2
( 1840) 4BF8F7F4 F5F24040 60F54BF9 F0F9F8F3 404060F4 4BF6F2F4 F9F34040 60F54BF2 F6F2F3F6 404060F4
( 1880) 4BF8F2F8 F5F64040 40F04BF5 F5F1F6F8 404040F0 4BF4F5F9 F6F74040 40F04BF9 F8F4F9F8 404040F2
( 1920) 4BF7F3F0 F3F640F1 F9F7F940 40F9F140 F640F1F0 4040F2F6 4BF3F1F1 F6F140F1 F2F44BF2 F3F1F3F8
( 1960) 4060F1F1 4BF8F6F2 F6F14040 60F94BF0 F5F3F0F7 40F1F2F2 4BF2F4F3 F4F04060 F1F04BF3 F1F8F8F5
( 2000) 4060F1F1 4BF3F2F4 F1F04040 40F14BF9 F8F7F9F8 404060F1 4BF5F4F3 F7F64040 40F24BF2 F7F1F0F3
( 2040) 40F1F2F5 4BF1F6F6 F7F040F1 F2F34BF1 F9F9F6F9 404060F5 4BF4F5F4 F5F24040 60F44BF1 F4F7F7F2
( 2080) 404060F5 4BF2F7F3 F8F84040 60F44BF8 F2F5F0F3 404040F0 4BF3F2F8 F4F04040 40F04BF4 F7F8F4F6
( 2120) 404040F0 4BF7F5F3 F0F84040 40F34BF1 F4F6F2F6

```

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY				INPUT RETRIES	
				PERM	ZERO B	SHORT	UNDEF.	#RECS.	TOTAL#
3	32	33	2140	0	0	0	0	0	0

EOJ DUMP STOPPED AFTER FILE 3 # OF PERMANENT READ ERRORS 0

START TIME 10/14/81 20:19:48 STOP TIME 10/14/81 20:20:03

STP P78-2

UCSD CHARGED PARTICLE DET AVERAGE

79-007A-11B SPMS-00523

This data set has been restored. There was originally one 9-track, 1600 BPI tape written in ASCII. There is one restored tape. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The original tape was created on an IBM 11/70 computer and the restored tape was created on an IBM 9021 computer. The DR and DS numbers along with the corresponding D number are as follows:

DR#	DS#	D#	FILES	TIME SPAN
-----	-----	-----	-----	-----
DR005889	DS005889	D047130	1 - 4	03/22/79 - 03/31/79

REQ. AGENT

LSM

REQ. NO.

V0144

ACQ. AGENT

DMS

SCATHA

UCSD CHARGED PARTICLE DETECTOR

79-007A-11B

This data set catalog consists of 1 tape(s). The tape(s) are 9 track, 1600 bpi, ascii with 4 file(s) of data. The time span D and C numbers are as follows:

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-47130	C-22002	3/22/79, 3/31/79

INFORMATION SHEET FOR INCOMING DATA

NSSDC ID: 79-007A-11B

DATE DATA RECEIVED: 12/31/81

DATE NSDF COORDINATOR CONSULTED: \_\_\_\_\_

DATE SCIENTIST NOTIFIED: \_\_\_\_\_

SOURCE:	MATERIAL RECEIVED: (NUMBER OF SHEETS OF HARDCOPY, NUMBER 100' REELS MICROFILM, NUMBER OF MAGNETIC TAPES, ETC.)  <u>1 mag tape</u>
PI AND AFFILIATION:	

SATELLITE NAME/NSDF NAME: scatha

EXPERIMENT NAME: \_\_\_\_\_

DATA SET FULL NAME: UCSD Charged Particle detector

CONTACT: \_\_\_\_\_ ACQUISITION SCIENTIST: DMS

FORM THAT WILL BE ANNOUNCED IN AIM/NSDF: DB

THESE ARE:  A NEW DATA SET  ADDITIONS  REPLACEMENTS  OTHER (EXPLAIN BELOW)

ACCESSION UNIT NUMBERS: DB 47130 C-22602

REMARKS:  
  
CDAW

DATA RECEIPT NOTIFICATION SENT?

Jinda Moran  
DATA TECHNICIAN

# CDAW DATA SET ENTRY

Date Rcvd : Dec 28 EDB : ϕ6

Data Sent By : D. Nichols

Material Rcvd : 1 Tape, Documentation - see also  
79-007A-11A for ulrad His  
tape is a replacement.

Satellite/NSRF Name : Scatha (STP P78-2)

Data Set Name : UCSD Charged Particle Detector

New Data Set     Additions     Replacements  
Comments \_\_\_\_\_

Time Coverage : 81/09 - 20<sup>h</sup>    90/20<sup>h</sup> - 24<sup>h</sup>

Tapes To be Returned to : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Completed By : M. Teague

**CDB TAPE DOCUMENTATION FORM**

**SECTION I. DATA SET DESCRIPTION (please print)**

1. Data Set Name UCSD SCATHA PARTICLE DETECTOR		
2. Scientific Contact DAVID NICHOLS		3. Telephone No. or Telex No. 719-452-3317
4. Address C.A.S.S. C-411 / University of California at San Diego		
5. City La Jolla	6. State CA	7. ZIP Code or Country 92093
8. Programmer Contact		

**SECTION II. TAPE DESCRIPTION**

1. No. of Tapes Submitted 1	2. Tape Density <input type="checkbox"/> 800 bpi <input checked="" type="checkbox"/> 1600 bpi
3. No. of Files (per tape) 4	
4. No. of End of File Marks 6 4	5. No. of Tracks <input type="checkbox"/> 7 <input checked="" type="checkbox"/> 9
6. Recording Parity odd	7. Make and Model of Computer Used to Generate Tape DEC PDP 11/70
8. Are tapes written in binary, coded or both? (e.g. BCD) ASCII coded	
9. What floating point representation is used? (e.g. CDC 64 bit) N.A.	
10. What integer representation is used? N.A.	
11. No. of Physical Records (per file) see attached page	
12. Are original tapes to be returned? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
13. Start and Stop Time of Each File (If more space is needed, please attach.) see attached page	

**SECTION III. LOGICAL AND PHYSICAL RECORD FORMAT (please attach)**

**SECTION IV. TO BE FILLED IN BY DAWOC ONLY**

CDB No.
---------

Date Received	Tape No.
Programmer ID	CON Name
Data Base	Date Loaded



Our instrument on SCATHA has three sets of detectors, a high-energy (maximum energy 81keV) rotatable pair of ion and electron detectors (HI-I and HI-E), a low energy (maximum energy 1.6keV) rotatable pair of ion and electron detectors (LO-I AND LO-E) and a low energy ion detector that points perpendicular to the spin axis of the satellite (FIX). All detectors measure differential energy flux, which is here converted to distribution functions. Magnetometer data and the pitch angles for each detector are also included in each record.

There are two different modes provided. A high time resolution mode is provided for the times of the most interest (Day 90 2000-2400 and Day 81 800-1500). This mode gives each of our measurements at quarter second intervals. A second mode gives 320 second averages in the directions parallel and perpendicular to the magnetic field.

In the high resolution mode logical records each have one second of data on them. The first seven items of information, the time, pitch angles and magnetic field are for the whole second, while the next four lines give information for each of the four energies the detector samples each second. Invalid distribution function values are flagged by a value of -9.99 while invalid high energies are flagged as -1.0.

	time (UT sec)	pitch angles (degrees)			Magnetic field (nT)		
	HI	LO	FIX	BX	BY	BZ	
(4x)	E-HI	E-LO	HI-I	HI-E	LO-I	LO-E	FIX
	energies (eV)		distribution functions (s**3/km**6)				

These values are ASCII coded, eight characters per field (decimal point included). A FORTRAN program would read a logical record with a 28F8.0 FORMAT. There are 16 logical records per physical record, corresponding to an actual telemetry record. Each logical record has 4480 bytes.



The averaging mode records are formatted as follows.

```

-----
| time      | Total Magnetic field |
| (UT sec)  |      (nT)             |
|-----|-----|
| E-HI     | E-LO                 |
| energies | (eV)                 |
|-----|-----|
(64x) | HI-I  HI-E  LO-I  LO-E  FIX | HI-I  HI-E  LO-I  LO-E  FIX |
|           | parallel |           | perpendicular |
|           | distribution functions (s**3/km**6) |
|-----|-----|

```

These are also ASCII coded, eight characters per field. There is one logical record per physical record. Each record has 6160 bytes. If our detector did not sample a given pitch angle range the invalid value -9.99 will be given for the distribution function. This is particularly a problem with the high energy detector which spent most of the time parked along the spin axis.

file	day	start time	end time	of records	remarks
1	8i	0800	1230	817	high res
		1030	1130		data gap
2	8i	1230	1600	792	high res
3	90	2000	2400	900	high res
4	8i	1600	2000		averaging

Participant: D. Nichols

Data Set Mnemonic: SC11

Satellite ID: SCATHA (STP P78-2)

NSSDC ID: 79-007A-11B

Data Set Name: UCSD Charged Particle Detector

Principal Investigators: E. Whipple, University of Calif. San Diego.

Data Availability: YY/DDD/HH/MM/SS - YY/DDD/HH/MM/SS  
79/081/08/00/15 - 79/081/16/00/15 for CDB-6A\*  
79/090/20/00/13 - 79/091/00/00/13 for CDB-6B

\*320-S data available for CDB-6A only; Maximum availability is  
is 79/081/16/05/19 - 79/081/19/58/39

Data Time Interval: 1s or 320s

<u>Description</u>	<u>Mnemonic</u>	<u>Units</u>	<u>Tuple</u>
Pitch Angle for High-Energy Detector	SC11PAHI	deg	
Pitch Angle for Low-Energy Detector	SC11PALO	deg	
Pitch Angle for Fixed Detector	SC11PAFX	deg	
X-Component of Magnetic Field	SC11MFBX	nT	
Y-Component of Magnetic Field	SC11MFBY	nT	
Z-Component of Magnetic Field	SC11MFBZ	nT	
Energy for High-Energy Detector	SC11ENHI	eV	
Energy for Low-Energy Detector	SC11ENLO	eV	
Distribution Function for High-Energy Ions	SC11DFHI	s <sup>3</sup> /km <sup>6</sup>	
Distribution Function for High-Energy Electrons	SC11DFHE	s <sup>3</sup> /km <sup>6</sup>	
Distribution Function for Low-Energy Ions	SC11DFLI	s <sup>3</sup> /km <sup>6</sup>	
Distribution Function for Low-Energy Electrons	SC11DFLE	s <sup>3</sup> /km <sup>6</sup>	
Distribution Function for Fixed Low-Energy Ion Detector	SC11DFFX	s <sup>3</sup> /km <sup>6</sup>	

Participant: D. Nichols

Data Set Mnemonic: SC11

(cont'd)

<u>Description</u>	<u>Mnemonic</u>	<u>Units</u>	<u>Tuple</u>
DECOMMUTATOR for High-Energy Ions and Electrons	SC11DCHI	none	
DECOMMUTATOR for Low-Energy Ions and Electrons	SC11DCL0	none	
DECOMMUTATOR for Low-Energy Fixed Ion Detector	SC11DCFX	none	
— Total Magnetic Field; 320-s Averages	SC11TMF	nT	
— Energy for High-Energy Detector; 320-s Averages	SC11AVHI	eV	
— Energy for Low-Energy Detector; 320-s Averages	SC11AVL0	eV	
— Distribution Function for High-Energy Ions; Direction Parallel to the Magnetic Field; 320-s Averages	SC11PLHI	s <sup>3</sup> /km <sup>6</sup>	
— Distribution Function for High-Energy Electrons; Direction Parallel to the Magnetic Field; 320-s Averages	SC11PLHE	s <sup>3</sup> /km <sup>6</sup>	
— Distribution Function for Low-Energy Ions; Direction Parallel to the Magnetic Field; 320-s Averages	SC11PLLI	s <sup>3</sup> /km <sup>6</sup>	
— Distribution Function for Low-Energy Electrons; Direction Parallel to the Magnetic Field; 320-s Average	SC11PLLE	s <sup>3</sup> /km <sup>6</sup>	
— Distribution Function for Fixed Low-Energy Ion Detector; Direction Parallel to the Magnetic Field; 320-s Averages	SC11PLFX	s <sup>3</sup> /km <sup>6</sup>	
— Distribution Function for High-Energy Ions; Direction Perpendicular to the Magnetic Field; 320-s Averages	SC11PDHI	s <sup>3</sup> /km <sup>6</sup>	
— Distribution Function for High-Energy Electrons; Direction Perpendicular to the Magnetic Field; 320-s Averages	SC11PDHE	s <sup>3</sup> /km <sup>6</sup>	

Participant: D. Nichols

Data Set Mnemonic: SC11

(cont'd)

<u>Description</u>	<u>Mnemonic</u>	<u>Units</u>	<u>Tuple</u>
Distribution Function for Low-Energy Ions; Direction Perpendicular to the Magnetic Field; 320-s Averages	SC11PDLI	s <sup>3</sup> /km <sup>6</sup>	
Distribution Function for Low-Energy Electrons; Direction Perpendicular to the Magnetic Field; 320-s Averages	SC11PDLE	s <sup>3</sup> /km <sup>6</sup>	
Distribution Function for Fixed Low-Energy Ion Detector; Direction Perpendicular to the Magnetic Field; 320-s Averages	SC11PDFX	s <sup>3</sup> /km <sup>6</sup>	
DECOMMUTATOR for High-Energy Ions and Electrons; 320-s Averages	SC11DHAV	none	
DECOMMUTATOR for Low-Energy Ions and Electrons and for the Low-Energy Fixed Ion Detector; 320-s Averages	SC11DLAV	none	

Participant: D. Nichols

Data Set Mnemonic: SC11

Decommutator Parameter Mnemonic: SC11DCHI

Applicable Parameter Mnemonics: SC11DFHI; SC11DFHE; SC11PAHI; SC11ENHI

Brief Description of Decommutator:

The decommutator contains the high-energy detector pitch angle in bytes 0 and 1, and the particle energy is contained in bytes 2 and 3. In order to maintain the required resolution, pitch angle is included in the decommutator as  $10 \times \text{SC11PAHI}$  and energy is included as  $1000 \times \text{ALOG}(\text{SC11ENHI} \times 100.)$ , where SC11PAHI and SC11ENHI are the pitch angle and energy applicable to the high-energy detector, respectively, and are included in the data base as separate parameters.

Logicons:

Logicons are of the form HI $ij$  where  $i$  is applicable to energy and  $j$  is applicable to pitch angle. For instance from the following table, HI21 corresponds to locally-mirroring 2.8 to 9.0 eV ions or electrons, and HI103 corresponds to intermediate pitch angles in the range 110 deg to 160 deg and 26 to 81.6 keV ions or electrons.

Values for  $i$ :

<u><math>i</math></u>	<u>Minimum Energy (eV)</u>	<u>Maximum Energy (eV)</u>
1	0.9	2.8
2	2.8	9.0
3	9.0	28.0
4	28.0	87.0
5	87.0	270.0
6	270.0	850.0
7	850.0	2650.0
8	2650.0	8320.0
9	8320.0	26000.0
10	26000.0	81600.0

Values for  $j$ :

<u><math>j</math></u>	<u>Minimum Pitch Angle (deg)</u>	<u>Maximum Pitch Angle (deg)</u>
1	70.0	110.0
2	20.0	70.0
3	110.0	160.0

Participant: D. Nichols

Data Set Mnemonic: SC11

Decommutator Parameter Mnemonic: SC11DCL0

Applicable Parameter Mnemonics: SC11DFLI; SC11DFLE; SC11PAL0; SC11ENL0

Brief Description of Decommutator:

As SC11DCHI except the low-energy detector parameters SC11PAL0 and SC11ENL0 are used.

Logicons:

As SC11DCHI in format and of the form LOij.

Values of i:

<u>i</u>	<u>Minimum Energy (eV)</u>	<u>Maximum Energy (eV)</u>
1	0.09	0.24
2	0.24	0.65
3	0.65	1.75
4	1.75	4.7
5	4.7	12.6
6	12.6	34.0
7	34.0	91.0
8	91.0	245.0
9	245.0	660.0
10	660.0	1775.0

Values of j:

<u>j</u>	<u>Minimum Pitch Angle (deg)</u>	<u>Maximum Pitch Angle (deg)</u>
1	70.0	110.0
2	20.0	70.0
3	110.0	160.0

Participant: D. Nichols

Data Set Mnemonic: SC11

Decommutator Parameter Mnemonic: SC11DCFX

Applicable Parameter Mnemonic: SC11DFFX; SC11PAFX; SC11ENLO

Brief Description of Decommutator:

As SC11DCHI except the fixed low-energy ion detector parameters SC11PAFX and SC11ENLO are used.

Logicons:

As SC11DCHI in format and of the form FXij.

Values of i:

<u>i</u>	<u>Minimum Energy (eV)</u>	<u>Maximum Energy (eV)</u>
1	0.09	0.24
2	0.24	0.65
3	0.65	1.75
4	1.75	4.7
5	4.7	12.6
6	12.6	34.0
7	34.0	91.0
8	91.0	245.0
9	245.0	660.0
10	660.0	1775.0

Values of j:

<u>j</u>	<u>Minimum Pitch Angle (deg)</u>	<u>Maximum Pitch Angle (deg)</u>
1	70.0	110.0
2	20.0	70.0
3	110.0	160.0

Participant: D. Nichols

Data Set Mnemonic: SC11

Decommutator Parameter Mnemonic: SC11DHAV

Applicable Parameter Mnemonics: SC11PLHI, SC11PLHE, SC11PDHI,  
SC11PDHE; SC11AVHI

**Brief Description of Decommutator:**

The decommutator contains the energy for the time-averaged (320s) data from the high-energy detector in byte position 2 and 3. This energy is included explicitly in the data base as SC11AVHI, and the decommutator contains energy as  $1000.*ALO10(SC11AVHI*100.)$ .

**Logicons:**

<u>Name</u>	<u>Minimum Energy (eV)</u>	<u>Maximum Energy (eV)</u>
AHI1	0.9	2.8
AHI2	2.8	9.0
AHI3	9.0	28.0
AHI4	28.0	87.0
AHI5	87.0	270.0
AHI6	270.0	850.0
AHI7	850.0	2650.0
AHI8	2650.0	8320.0
AHI9	8320.0	26000.0
AHI10	26000.0	81600.0



Participant: D. Nichols

Data Set Mnemonic: SC11

Decommutator Parameter Mnemonic: SC11DLAV

Applicable Parameter Mnemonics: SC11PLLI, SC11PLLE, SC11PLFX,  
SC11PDLI, SC11PDLE, SC11PDFX,  
SC11AVLO

Brief Description of Decommutator:

As SC11DHAV except the parameter SC11AVLO is used.

Logicons:

<u>Name</u>	<u>Minimum Energy (eV)</u>	<u>Maximum Energy (eV)</u>
AL01	0.09	0.24
AL02	0.24	0.65
AL03	0.65	1.75
AL04	1.75	4.7
AL05	4.7	12.6
AL06	12.6	34.0
AL07	34.0	91.0
AL08	91.0	245.0
AL09	245.0	660.0
AL010	660.0	1775.0

\$JOB 10:54:00  
\$ASS IN MT1  
\$NOP \*\*\*\*\* ASCII LIST OF X-401 \*\*\*\*\*  
\$EXE TPLIST BS

INPUT PARAMETERS ARE: AS FL=1 4

TAPE NO.	1	FILE NO.	1
RECORD	1	LENGTH	4480
8.00	28815	90.0	41.3
4.78	-9.99	51.6	0.87
8	-9.99	5.39	9.48
47.6	132.6	1.7	-2.9
-1.7	-0.29	-9.99	-9.99
-9.99	4.0	-0.16	8.89
1.7	8.7	105.3	7.4
27	4.99	-9.99	-9.99
0.22	7.58	4.17	-9.99
03.9	27.2	0.34	6.99
9	7.16	-9.99	41.9
3.38	-9.99	6.41	-9.99
1.10	6.92	3.25	-9.99
86.6	1.66	6.76	3.01
4.90	-9.99	28820	89.0
80	-9.99	4.54	-9.99
5.96	2.63	-9.99	3.97
28821	88.9	78.9	101.1
2	8.54	255.9	5.37
-9.99	3.98	8.40	341.8
5.1	94.9	0.8	62.3
6	9.72	4.98	1.54
7.98	602.4	12.96	4.75
.8	71.5	78.3	692.7
0.27	6.91	4.67	7.76
22.80	4.70	-0.21	6.97
7	1205.5	26.26	4.68
4.11	7.27	1586.9	34.57
.89	6.79	3.74	7.36
5	4.54	-0.91	6.54
2742.5	60.00	4.58	-0.97
04	6.66	28826	88.9
5.59	2.88	6.77	4127.3
4.51	-1.15	5.36	2.48
27	88.9	116.6	63.4
5.97	7108.9	155.43	4.16
.49	2.23	6.03	9326.4
57.1	0.9	101.7	29.4
267.20	3.68	-2.62	5.13
41	16045.0	350.74	3.46
104.4	18.1	18374.6	401.96
2.84	4.55	1.82	5.30
05	3.56	-2.97	4.69
31596.9	687.71	3.36	-2.94
.60	5.05	41430.9	902.13
4.43	-0.55	5.07	

TAPE NO.	1	FILE NO.	1
RECORD	817	LENGTH	4480
12.49	44991	95.4	97.2
0.09	3.82	62203.3	1355.42
9	3.20	-0.17	3.98
103.3	77.0	20.1	129.0
11.2	2.00	5.74	1.60

22	1.44	9.23	6.20	11.47	104.3	2.00	5.92	1.49	9.05	6.36	11.49	104.0
	2.00	6.28	1.46	9.23	6.15	11.48	44994	95.7	115.9	64.5	20.4	146.5
62.9	103.7	2.00	6.10	1.51	-9.99	5.70	11.43	103.5	2.00	6.33	1.48	9.2
3	5.17	11.34	103.3	2.00	6.28	1.51	8.75	4.85	11.31	103.1	2.00	6.48
	1.53	9.23	4.61	11.27	44995	95.7	122.2	58.2	20.1	152.4	46.3	103.0
2.00	5.81	1.46	9.45	4.42	11.23	102.9	2.00	6.29	1.57	9.05	4.33	11.14
	102.8	2.00	5.33	1.54	9.05	4.29	11.00	102.7	2.00	6.18	1.46	8.75
4.11	10.97	44996	95.8	128.3	52.1	20.1	156.9	29.7	-3.9	-0.33	-9.99	-9.
99	-9.99	-9.99	-9.99	-1.7	-0.29	-9.99	-9.99	-9.99	-9.99	-9.99	1.0	-0.23
12.18	7.99	-9.99	-9.99	-9.99	4.0	-0.16	11.08	5.92	-9.99	-9.99	-9.99	
44997	95.9	134.4	46.0	19.8	158.6	12.7	7.4	-0.08	10.35	4.53	-9.99	-9.9
9	-9.99	11.4	0.00	9.68	3.81	-9.99	-9.99	-9.99	15.9	0.09	9.28	3.39
	-9.99	-9.99	-9.99	21.2	0.22	8.87	3.01	-9.99	5.61	-9.99	44998	96.1
0.5	40.0	20.1	159.2	-4.4	27.2	0.34	8.50	2.73	-9.99	5.52	-9.99	34.
0	0.50	8.15	2.49	-9.99	4.86	9.99	41.9	0.67	7.74	2.31	-9.99	4.93
	-9.99	50.9	0.87	7.15	2.17	-9.99	4.55	-9.99	44999	96.2	146.7	33.9
.1	157.8	-21.6	61.2	1.10	6.59	2.00	-9.99	4.27	-9.99	73.1	1.36	6.80
	1.33	-9.99	4.18	9.42	86.6	1.66	6.55	1.72	-9.99	3.78	9.99	102.1
2.00	6.14	1.56	-9.99	3.58	10.06	45000	96.5	152.9	27.8	20.4	154.5	-38.
8	119.9	2.39	6.01	1.26	8.93	3.28	9.80	140.3	2.83	5.57	1.01	8.48
	2.46	9.94	163.6	3.34	4.96	0.87	8.64	-9.99	9.75	190.3	3.94	5.30
.82	8.49	-9.99	9.57	45001	96.7	159.0	21.8	20.4	149.2	-55.4	220.9	4.6
0	5.00	0.38	-9.99	-9.99	9.26	255.9	5.37	4.87	0.25	7.92	2.12	8.70
295.9	6.25	5.14	0.18	7.79	3.25	-9.99	341.8	7.25	-9.99	-0.02	-9.99	3.
42	8.14	45002	96.9	165.2	16.0	20.4	142.4	-71.8	394.4	8.40	4.20	-0.17
	7.54	3.84	7.54	454.6	9.72	-9.99	-0.23	-9.99	4.34	7.71	523.5	11.23
4.26	-0.37	7.28	4.35	7.58	602.4	12.96	4.14	-0.30	7.16	4.28	7.76	450
03	97.2	170.8	10.9	20.7	133.5	-86.6	692.7	14.96	-9.99	-0.34	7.03	4.16
	7.51	796.2	17.23	4.22	-0.48	-9.99	4.09	7.39	914.6	19.83	3.52	-0.74
.79	4.00	7.27	1050.2	22.80	4.12	-0.78	-9.99	3.92	7.45	45004	97.5	175.1
	7.8	21.0	123.4	-100.6	1205.5	26.26	3.33	-1.04	6.85	4.26	7.45	1383.3
30.10	3.73	-1.33	-9.99	4.09	6.90	1586.9	34.57	3.96	-1.29	6.31	3.85	6.
78	1820.0	39.70	3.41	-1.25	6.66	3.56	6.66	45005	97.7	173.6	8.8	21.0
	111.5	-113.3	2087.0	45.55	3.64	-1.49	6.37	3.24	6.77	2392.6	52.22	3.26
1.41	6.43	2.89	6.25	2742.5	60.00	3.58	-1.48	6.31	2.51	6.43	3143.2	68.
77	3.27	-1.69	5.71	2.16	6.31	45006	97.7	168.3	13.2	20.7	98.2	-125.1
3602.0	78.55	2.69	-1.83	6.07	1.92	6.29	4127.3	90.10	3.29	-2.00	5.78	1
.71	5.95	4728.7	103.32	3.26	-2.08	5.66	1.45	5.83	5417.4	118.32	3.22	-2.18
	5.24	1.21	6.02									

TAPE NO. 1 FILE NO. 2

RECORD 1 LENGTH 4480

1248

44943	97.3	154.8	26.0	22.8	156.0	-45.3	692.7	14.96	4.33	-0.57	7.03	
4.01	7.73	796.2	17.23	4.40	-0.46	-9.99	3.88	7.76	914.6	19.83	3.52	-0.8
5	7.09	3.73	7.09	1050.2	22.80	3.72	-0.88	-9.99	3.58	7.37	44944	97.6
	160.8	20.2	23.1	149.8	-61.7	1205.5	26.26	3.81	-0.99	-9.99	3.92	-9.99
23.3	30.10	3.73	-1.07	-9.99	3.70	7.03	1586.9	34.57	3.66	-1.22	6.31	3.51
	6.91	1820.0	39.70	3.41	-1.37	-9.99	3.31	7.03	44945	97.8	166.7	14.8
23.4	142.1	-77.7	2087.0	45.55	3.51	-1.24	6.07	3.13	6.67	2392.6	52.22	3.
74	-1.40	-9.99	3.03	6.73	2742.5	60.00	3.66	-1.47	-9.99	2.79	6.13	3143.2
	68.77	3.39	-1.55	-9.99	2.28	6.75	44946	98.5	171.7	10.6	24.5	132.6
92.5	3602.0	78.55	2.69	-1.79	-9.99	2.01	6.37	4127.3	90.10	2.59	-1.93	5.4
8	1.74	6.32	4728.7	103.32	3.26	-1.87	-9.99	1.48	5.83	5417.4	118.32	2.85
	-2.18	5.24	1.42	5.84	44947	98.8	174.2	8.8	24.8	121.3	-106.2	6206.0
5.65	3.22	-2.24	-9.99	1.16	5.60	7108.9	155.43	3.00	-2.24	-9.99	1.01	5.78
	8142.6	178.09	3.15	-2.40	-9.99	0.35	5.49	9326.4	203.98	3.48	-2.60	-9.99
0.76	5.47	44948	99.1	171.3	10.9	25.1	109.1	-118.7	10681.7	233.42	3.47	-2.
79	4.95	0.66	5.25	12233.6	267.20	3.54	-2.85	-9.99	0.44	5.13	14010.5	306.30
	3.61	-2.92	-9.99	0.34	4.72	16045.0	350.74	3.64	-3.01	-9.99	0.33	4.78
44949	99.3	166.0	15.5	25.1	95.2	-129.9	18374.6	401.96	3.74	-3.18	-9.99	0.1
8	4.48	21041.9	457.73	3.90	-3.16	4.07	-0.04	-9.99	24096.0	525.50	4.12	-3.00
	-9.99	-0.16	-9.99	27592.9	601.05	4.19	-2.99	4.15	-0.27	4.15	44950	99.7
0.0	21.1	25.7	80.1	-137.4	31596.9	687.71	4.10	-2.80	-9.99	-0.38	-9.99	36181.
5	787.70	3.85	-2.77	-9.99	-0.59	3.63	41430.9	902.13	3.74	-2.79	-9.99	-0.68

7	64.4	-148.0	04323.4	1104.33	3.53	-3.10	-9.99	-0.94	3.65	62203.3	1355.42	3.30	
	-3.30	-9.99	-0.94	3.87	71225.8	1529.85	3.09	-3.52	3.20	-0.93	3.90	81556.6	17
77.60	2.70	-3.76	3.12	-1.11	3.42	44952	100.0	147.9	32.8	25.7	47.8	-153.	
0	120.9	2.00	7.47	1.30	9.05	3.57	3.75	111.2	2.00	5.87	1.72	8.75	
	-9.99	9.05	108.0	2.00	6.07	1.59	8.75	-9.99	-9.99	106.4	2.00	6.15	1
.58	9.36	-9.99	9.23	44953	100.2	141.9	38.8	25.7	30.9	-157.2	105.4	2.0	
0	6.01	1.64	8.75	-9.99	9.05	104.0	2.00	6.16	1.59	-9.99	-9.99	8.75	
104.3	2.00	6.02	1.65	3.75	-9.99	9.05	104.0	2.00	6.23	1.56	8.75	-9.	
99	9.05	44954	100.3	135.6	45.0	25.4	13.1	-159.3	103.7	2.00	6.17	1.63	
	9.36	-9.99	9.23	103.5	2.00	6.37	1.64	9.23	-9.99	9.05	103.3	2.00	
6.11	1.64	9.36	-9.99	9.05	103.2	2.00	5.63	1.58	9.71	-9.99	9.36	449	
55	100.5	129.5	51.1	25.7	-4.1	-159.9	103.0	2.00	6.33	1.65	9.23	-9.99	
	9.23	102.9	2.00	6.41	1.62	9.36	-9.99	9.36	102.8	2.00	6.54	1.64	9
.23	-9.99	9.23	102.7	2.00	6.56	1.64	9.23	-9.99	-9.99	44956	100.5	123.3	
	57.2	25.4	-21.5	-158.1	-3.9	-0.33	-9.99	-9.99	-9.99	-9.99	-9.99	-1.7	
-0.29	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	1.0	-0.23	11.87	8.34	-9.99	-9.99	-9.
99	4.0	-0.16	10.51	6.38	-9.99	-9.99	-9.99	44957	100.6	116.8	63.6	25.4	
	-39.3	-154.5	7.4	-0.08	9.92	4.89	-9.99	-9.99	-9.99	11.4	0.00	9.57	
3.97	-9.99	-9.99	-9.99	15.9	0.09	9.01	3.50	-9.99	-9.99	-9.99	21.2	0.	
22	8.55	3.18	-9.99	-9.99	-9.99	44958	100.7	110.7	69.8	25.4	-55.9	-149.2	
	27.2	0.34	7.96	2.84	-9.99	-9.99	-9.99	34.0	0.50	7.62	2.65	-9.99	-9
.99	-9.99	41.9	0.67	7.22	2.40	-9.99	-9.99	9.73	50.9	0.87	7.12	2.13	
	-9.99	-9.99	-9.99										

TAPE NO.	1	FILE NO.	2										
RECORD	792	LENGTH	4480										
15000	57599	31.8	55.6	121.5	-191.5	-95.6	68.9	61.2	1.10	7.11	3.33	9.30	
4.80	-9.99	73.1	1.36	6.91	3.17	-9.99	4.54	-9.99	86.6	1.66	6.79	3.0	
2	-9.99	4.55	9.25	102.1	2.00	6.99	2.88	-9.99	4.35	-9.99	57600	31.5	
	55.5	121.5	-191.8	-87.3	78.6	119.9	2.39	7.36	2.68	-9.99	4.09	9.11	1
40.3	2.83	7.37	2.55	8.48	4.13	-9.99	163.6	3.34	6.73	2.39	-9.99	4.08	
	8.34	190.3	3.94	6.91	2.28	-9.99	3.82	8.19	57601	31.3	55.9	121.1	-
192.1	-78.1	87.5	220.9	4.60	7.18	2.21	-9.99	4.08	8.36	255.9	5.37	6.	
74	2.17	7.92	4.03	8.62	295.9	6.25	6.39	2.11	8.27	4.15	8.70	341.8	
	7.25	6.08	2.05	7.97	4.19	8.81	57602	30.9	56.7	120.3	-192.4	-67.8	
95.3	394.4	8.40	6.25	1.95	7.54	4.34	8.44	454.6	9.72	6.35	1.83	-9.9	
9	4.81	8.79	523.5	11.23	6.04	1.73	-9.99	4.84	8.51	602.4	12.96	5.81	
	1.62	-9.99	4.93	8.34	57603	30.7	57.9	119.2	-192.7	-57.1	101.8	692.7	1
4.96	5.77	1.52	-9.99	4.89	7.99	796.2	17.23	5.56	1.40	6.91	4.66	7.61	
	914.6	19.83	5.64	1.26	7.09	4.42	8.02	1050.2	22.80	5.52	1.18	6.97	
4.19	8.05	57604	30.4	59.5	117.7	-193.0	-45.5	107.1	1205.5	26.26	5.63	1.	
10	6.85	4.52	7.72	1383.3	30.10	5.65	1.01	6.43	4.29	7.68	1586.9	34.57	
	5.59	0.89	6.61	4.07	7.35	1820.0	39.70	5.50	0.82	6.19	3.86	6.89	
57605	30.1	61.4	115.8	-193.3	-33.4	111.3	2087.0	45.55	5.52	0.72	6.67	3.6	
5	6.97	2392.6	52.22	5.56	0.65	6.25	3.49	17.44	2742.5	60.00	5.43	0.56	
	6.43	3.35	7.58	3143.2	68.77	5.28	0.47	6.19	3.20	6.94	57606	29.8	6
3.5	113.7	-193.6	-20.9	113.9	3602.0	78.55	5.13	0.40	6.07	3.06	7.33	4127.	
3	90.10	5.06	0.30	5.95	2.95	7.51	4728.7	103.32	4.97	0.21	5.83	2.85	
	7.43	5417.4	118.32	4.87	0.10	5.94	2.76	6.73	57607	29.6	66.0	111.3	-193
.9	-8.2	115.4	6206.0	135.65	4.83	-0.01	5.60	2.66	6.38	7108.9	155.43	4.71	
	-0.14	5.60	2.56	6.36	8142.6	178.09	4.56	-0.26	5.79	2.48	6.39	9326.4	2
03.98	4.44	-0.34	5.67	2.43	6.45	57608	29.4	68.6	108.7	-193.9	4.3	115.	
4	10681.7	233.42	4.37	-0.45	5.35	2.40	6.25	12233.6	267.20	4.21	-0.58	5.38	
	2.42	6.72	14010.5	306.30	4.10	-0.72	5.41	2.47	6.30	16045.0	350.74	3.96	-0
.85	5.38	2.55	5.91	57609	29.3	71.4	106.0	-194.2	17.0	114.2	18374.6	401.9	
6	3.78	-0.96	5.08	2.53	5.74	21041.9	457.73	3.67	-1.13	5.07	2.32	5.77	2
4096.0	525.50	3.52	-1.35	4.30	2.07	5.65	27592.9	601.05	3.36	-1.69	4.80	1.	
88	5.54	57610	29.1	74.4	103.0	-194.4	29.4	111.6	31596.9	687.71	3.25	-2.22	
	4.85	1.73	5.44	36181.5	787.70	3.17	-2.71	4.71	1.58	5.38	41430.9	902.13	
3.06	-3.37	4.83	1.46	5.34	47441.4	1033.23	2.98	-3.80	4.71	1.35	5.30	576	
11	29.0	77.5	100.0	-194.4	41.6	107.4	54323.4	1184.33	2.94	-3.97	4.62	1.24	
	5.21	62203.3	1355.42	2.84	-4.06	4.47	1.14	5.30	71225.8	1529.85	2.75	-3.98	4
.56	1.04	5.22	81556.6	1777.60	2.58	-4.15	4.46	0.95	5.28	57612	28.8	80.8	
	96.7	-194.7	53.4	101.5	69.5	0.87	7.90	2.99	9.78	5.90	10.18	59.9	
0.87	7.03	3.19	-9.99	5.20	9.78	56.7	0.87	7.17	3.41	-9.99	5.10	-9.	

3.45	-9.99	5.05	-9.99	53.0	0.87	7.14	3.47	-9.99	5.10	-9.99	53.4	0.87	7.08
87	7.17	3.46	-9.99	5.00	-9.99	57614	28.6	87.2	90.3	-195.3	74.2	86.9	0.
	52.4	0.87	6.96	3.47	-9.99	5.04	9.48	52.1	0.87	6.92	3.48	-9.99	5
.11	-9.99	52.0	0.87	7.07	3.47	9.48	5.12	-9.99	51.8	0.87	7.13	3.48	
	-9.99	5.10	-9.99										

TAPE NO. 1 FILE NO. 3  
RECORD 1 LENGTH 4480

20.00

72013	130.5	96.3	91.6	72.6	37.7	47.5	-1.0	401.96	-9.99	-9.99	5.33		
1.70	5.18	-1.0	457.73	-9.99	-9.99	4.92	1.64	5.07	-1.0	525.50	-9.99	-9.9	
9	5.10	1.52	4.96	-1.0	601.05	-9.99	-9.99	5.12	1.50	5.17	72014	130.6	
91.3	87.7	72.6	42.5	43.0	-1.0	687.71	-9.99	-9.99	5.13	1.40	5.08		
-1.0	787.70	-9.99	-9.99	4.89	1.29	4.99	-1.0	902.13	-9.99	-9.99	4.87	1.21	
4.93	-1.0	1033.23	-9.99	-9.99	4.93	1.11	4.94	72015	131.0	86.3	83.8		
72.9	46.6	38.0	-1.0	1184.33	-9.99	-9.99	4.97	0.99	4.85	-1.0	1355.42	-9.	
99	-9.99	4.39	0.92	4.83	-1.0	1529.85	-9.99	-9.99	4.68	0.84	4.72	-1.0	
1777.60	-9.99	-9.99	4.61	0.72	4.55	72016	131.5	81.4	79.8	73.2	50.2		
32.3	3620.7	78.55	4.23	0.13	6.34	2.29	6.04	3611.1	78.55	4.13	0.22	5.5	
7	2.26	5.87	3608.0	78.55	4.35	0.21	5.57	2.19	5.57	3606.4	78.55	4.24	
0.22	6.04	2.17	5.87	72017	130.9	76.6	76.2	73.5	53.1	26.7	3605.4	7	
8.55	4.16	0.22	5.57	2.16	6.26	3604.8	78.55	4.17	0.22	5.87	2.11	-9.99	
3604.3	78.55	4.20	0.22	5.57	2.16	5.87	3604.0	78.55	4.18	0.21	5.57		
2.14	6.26	72018	132.7	71.8	72.5	73.8	55.5	20.5	3603.7	78.55	4.29	0.	
21	5.57	2.16	6.04	3603.5	78.55	4.36	0.22	5.57	2.09	5.87	3603.4	78.55	
4.23	0.22	5.87	2.14	5.57	3603.2	78.55	4.34	0.22	-9.99	2.13	-9.99		
72019	132.2	67.1	69.0	73.3	57.3	14.2	3603.1	78.55	4.20	0.22	5.57	2.1	
5	5.57	3603.0	78.55	4.34	0.21	5.57	2.13	5.57	3602.9	78.55	4.17	0.23	
-9.99	2.15	5.57	3602.8	78.55	4.20	0.22	-9.99	2.14	5.87	72020	133.0	6	
2.8	65.9	74.1	58.2	8.0	3602.7	78.55	4.16	0.22	5.87	2.14	5.57	3602.	
7	78.55	4.23	0.22	5.87	2.10	-9.99	3602.6	78.55	4.13	0.22	-9.99	2.07	
5.57	3602.6	78.55	4.21	0.22	5.57	2.10	5.87	72021	133.8	58.5	62.9	74	
.1	58.5	1.8	3602.5	78.55	4.28	0.22	6.04	2.12	5.87	3602.5	78.55	4.29	
0.22	6.17	2.13	-9.99	3602.4	78.55	4.08	0.23	5.87	2.12	5.87	3602.4		
78.55	4.33	0.21	6.04	2.11	5.57	72022	134.8	60.8	60.2	74.4	58.2	-4.	
7	3602.4	78.55	4.22	0.23	6.04	2.07	5.57	3602.4	78.55	4.36	0.22	5.57	
2.12	5.57	3602.3	78.55	4.23	0.21	5.87	2.12	5.57	3602.3	78.55	4.34	0	
.20	5.57	2.17	5.87	72023	135.8	57.3	57.9	74.4	57.0	-10.9	3602.3	78.5	
5	4.22	0.22	-9.99	2.17	-9.99	3602.3	78.55	4.31	0.22	6.17	2.14	5.87	
3602.2	78.55	4.34	0.21	-9.99	2.15	5.87	3602.2	78.55	4.11	0.22	5.87	2.	
16	-9.99	72024	137.0	54.2	55.9	74.7	55.2	-17.1	3602.2	78.55	4.22	0.20	
6.26	2.14	5.57	3602.2	78.55	4.20	0.22	5.57	2.17	6.17	3602.2	78.55		
4.28	0.21	5.57	2.15	6.26	3602.2	78.55	4.21	0.21	6.26	2.17	5.57	720	
25	138.2	44.1	54.4	74.7	52.5	-23.1	3602.1	78.55	4.25	0.20	5.57	2.19	
5.87	3602.1	73.55	4.29	0.21	5.57	2.22	-9.99	3602.1	78.55	4.22	0.21	6	
.26	2.21	5.87	3602.1	78.55	4.30	0.22	5.57	2.26	5.87	72026	139.1	48.3	
53.2	74.7	49.9	-28.7	3602.1	78.55	4.44	0.20	5.87	2.27	5.57	3602.1		
78.55	4.30	0.20	5.87	2.26	-9.99	3602.1	78.55	4.32	0.20	6.04	2.27	6.	
04	3602.1	78.55	4.25	0.21	5.87	2.24	6.04	72027	140.4	46.5	52.7	74.7	
46.0	-34.0	3602.0	78.55	4.30	0.21	6.17	2.28	5.57	3602.0	78.55	4.20		
0.19	5.57	2.26	5.87	3602.0	78.55	4.17	0.20	6.04	2.27	6.04	3602.0	78.	
55	4.20	0.20	5.57	2.21	6.04	72028	141.7	45.4	52.7	75.0	41.9	-38.8	
3602.0	78.55	4.27	0.20	5.57	2.22	-9.99	3602.0	78.55	4.22	0.18	5.87	2	
.24	5.87	3602.0	78.55	4.27	0.20	6.17	2.24	5.57	3602.0	78.55	4.27	0.21	
6.04	2.24	-9.99											

TAPE NO. 1 FILE NO. 3  
RECORD 900 LENGTH 4480

22.99

86397	118.6	119.8	122.9	35.5	3.4	66.5	395.1	8.40	5.31	1.45	-9.99		
3.21	-9.99	395.2	8.40	5.25	1.44	8.21	3.32	-9.99	394.9	8.40	5.25	1.4	
6	8.21	3.29	-9.99	394.9	8.40	5.17	1.46	7.51	3.34	-9.99	86398	118.6	
114.1	117.0	35.5	10.5	65.9	394.8	8.40	5.17	1.45	-9.99	3.38	7.81	3	
94.8	3.40	5.12	1.47	7.51	3.34	-9.99	394.8	8.40	5.25	1.47	7.81	3.23	
-9.99	394.7	8.40	5.31	1.49	7.51	3.33	-9.99	86399	118.7	108.1	112.4		
35.5	17.6	64.1	394.7	3.40	5.34	1.52	7.51	3.28	-9.99	394.7	8.40	5.	

62.0	394.6	8.40	5.28	1.52	-9.99	3.20	-9.99	394.6	8.40	5.47	1.53	7.8
1	3.27	-9.99	394.5	8.40	5.42	1.52	7.51	3.22	-9.99	394.5	8.40	5.45
1.53	7.51	3.27	-9.99	86401	118.7	96.2	101.6	35.5	31.2	59.0	394.5	
8.40	5.25	1.53	7.81	3.27	-9.99	394.5	8.40	5.17	1.54	-9.99	3.34	-9.99
394.5	8.40	5.32	1.51	7.51	3.30	-9.99	394.5	8.40	5.12	1.55	-9.99	
3.24	-9.99	86402	118.7	90.1	96.0	35.5	37.4	55.2	394.4	8.40	5.25	1.
53	7.51	3.26	-9.99	394.4	8.40	5.42	1.53	-9.99	3.21	-9.99	394.4	8.40
4.77	1.55	7.81	3.30	-9.99	394.4	8.40	5.28	1.54	7.81	3.27	-9.99	
86403	118.4	84.2	90.6	35.2	43.4	51.0	394.4	8.40	5.07	1.53	7.51	3.2
9	-9.99	394.4	8.40	5.17	1.55	7.51	3.28	-9.99	394.4	8.40	5.01	1.55
7.51	3.27	-9.99	394.4	8.40	5.25	1.55	7.51	3.32	-9.99	86404	118.4	7
8.1	85.0	35.2	48.7	46.0	394.4	8.40	5.37	1.55	-9.99	3.29	-9.99	394.
3	8.40	5.07	1.57	7.51	3.31	-9.99	394.3	8.40	5.07	1.60	-9.99	3.39
-9.99	394.3	8.40	5.28	1.58	7.51	3.31	7.51	86405	118.7	72.1	79.6	35
.5	53.1	40.3	394.3	8.40	5.32	1.56	-9.99	3.39	-9.99	394.3	8.40	5.35
1.58	7.51	3.36	-9.99	394.3	8.40	4.65	1.57	8.21	3.42	-9.99	394.3	
8.40	5.32	1.53	7.51	3.39	-9.99	86406	118.7	66.2	74.2	35.5	57.3	34.
4	394.3	8.40	5.40	1.58	7.51	3.38	-9.99	394.3	8.40	5.47	1.57	-9.99
3.30	-9.99	394.3	8.40	5.12	1.58	7.51	3.25	7.51	394.3	8.40	5.35	1
.57	-9.99	3.29	7.51	86407	119.0	61.0	68.9	35.8	60.3	27.9	394.3	8.4
0	4.87	1.56	7.51	3.23	-9.99	394.3	8.40	5.21	1.58	7.51	3.20	-9.99
394.2	8.40	5.12	1.57	-9.99	3.21	-9.99	394.2	8.40	5.32	1.57	7.81	3.
20	-9.99	86408	119.0	56.0	63.5	35.8	62.9	21.0	-4.7	-0.33	-9.99	-9.99
-9.99	-9.99	-9.99	-2.4	-0.29	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	0.3	-0.23
9.99	-9.99	-9.99	-9.99	-9.99	3.3	-0.16	8.34	6.52	-9.99	-9.99	-9.99	864
09	118.8	51.2	58.3	35.8	65.0	14.2	6.8	-0.08	7.72	5.09	-9.99	-9.99
-9.99	10.8	0.00	7.62	4.37	-9.99	-9.99	-9.99	15.4	0.09	-9.99	3.94	-9
.99	-9.99	-9.99	20.7	0.22	7.23	3.56	11.00	5.79	-9.99	86410	118.8	46.1
53.0	35.8	66.2	6.3	26.7	0.34	6.83	3.24	10.32	5.37	-9.99	33.6	
0.50	6.63	3.03	9.99	4.32	-9.99	41.5	0.67	6.63	2.80	9.73	4.33	-9.
99	50.5	0.87	6.46	2.65	9.51	4.50	-9.99	86411	118.8	41.5	48.2	35.8
66.5	-0.2	60.8	1.10	6.29	2.52	-9.99	4.21	-9.99	72.7	1.36	6.26	
2.39	-9.99	4.11	-9.99	86.3	1.66	6.21	2.27	-9.99	3.85	8.94	101.8	2.
00	6.45	2.19	8.78	3.85	-9.99	86412	118.8	36.9	43.4	35.8	65.9	-7.6
119.6	2.39	6.01	1.92	8.63	3.57	-9.99	140.0	2.83	6.09	1.81	8.48	3
.55	-9.99	163.3	3.34	5.56	1.80	8.34	3.52	-9.99	190.0	3.94	5.83	1.76
-9.99	3.34	-9.99										

TAPE NO.	1	FILE NO.	4									
RECORD	1	LENGTH	6160									
1599	57599	231.34	-4.0	-0.33	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99
-9.99	-9.99	-1.8	-0.29	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	-9.
99	-9.99	0.9	-0.23	9.83	8.13	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99
-9.99	4.0	-0.16	8.88	5.98	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	-
9.99	7.4	0.08	8.99	5.23	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	-9.9
9	11.4	0.00	8.38	4.00	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99
15.9	0.09	8.12	4.47	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	2
1.2	0.22	8.02	4.19	-9.99	-9.99	-9.99	-9.99	-9.99	10.76	6.32	10.70	27.2
0.34	7.79	3.97	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	10.32	5.91	10.40	34.0
0.50	7.40	3.75	-9.99	-9.99	-9.99	-9.99	-9.99	9.99	5.65	-9.99	41.9	0.
67	7.18	3.55	-9.99	-9.99	-9.99	-9.99	-9.99	9.73	5.35	9.73	53.9	0.87
7.12	3.30	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	9.54	5.13	9.64	61.2	1.10
7.11	3.20	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	9.30	4.83	9.35	73.1	1.36
5	3.04	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	9.12	4.63	9.12	86.6	1.66
2.89	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	8.94	4.42	9.04	105.2	2.00
.75	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	8.79	4.30	8.91	119.9	2.39
-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	8.73	4.22	8.71	140.3	2.83	6.91	2.44
-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	8.48	4.13	8.48	163.6	3.34	6.86	2.35
99	-9.99	-9.99	-9.99	-9.99	-9.99	8.34	3.97	8.37	190.3	3.94	6.73	2.27
-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	8.19	3.80	8.39	229.9	4.60	6.56	2.20
9.99	-9.99	-9.99	-9.99	-9.99	-9.99	8.19	3.71	8.30	255.9	5.37	6.25	2.14
9	-9.99	-9.99	-9.99	-9.99	-9.99	8.08	3.70	8.24	295.9	6.25	6.16	2.09
-9.99	-9.99	-9.99	-9.99	-9.99	-9.99	8.07	3.91	8.25	341.8	7.25	6.09	2.01
.99	-9.99	-9.99	-9.99	-9.99	-9.99	7.83	4.05	8.16	394.4	8.40	5.95	1.94



25	1.80	-9.99	4.67	-9.99	602.4	12.96	-9.99	-9.99	-9.99	-9.99	7.28	4.81	-9.99	5.	
	1.74	7.16	4.45	-9.99	622.7	14.96	-9.99	-9.99	-9.99	7.03	4.36	-9.99	-9.99	5.20	
1.68	-9.99	4.12	-9.99	796.2	17.23	-9.99	-9.99	6.91	4.08	-9.99	5.32	1.6			
1	-9.99	3.83	-9.99	914.6	19.83	-9.99	-9.99	-9.99	3.81	6.79	5.38	1.52			
	6.79	3.56	6.79	1050.2	22.80	-9.99	-9.99	6.67	3.56	6.82	5.51	1.44	-9		
.99	3.29	6.67	1205.5	26.26	-9.99	-9.99	-9.99	3.77	7.15	5.47	1.37	6.55			
	3.57	6.55	1383.3	30.10	-9.99	-9.99	6.58	3.49	6.85	5.37	1.28	6.43			
3.27	6.43	1586.9	34.57	-9.99	-9.99	6.57	3.22	7.31	5.27	1.21	6.61	3.			
04	6.31	1820.0	39.70	-9.99	-9.99	6.34	2.99	6.69	5.12	1.13	6.66	2.81			
	6.79	2086.9	45.55	-9.99	-9.99	6.37	2.81	6.59	4.93	1.05	6.37	2.63			
6.07	2392.6	52.22	-9.99	-9.99	6.25	2.70	6.53	4.67	0.97	6.10	2.47	6.3			
4	2742.5	60.00	-9.99	-9.99	5.83	2.59	6.23	4.64	0.89	5.83	2.36	6.70			
3143.2	68.77	-9.99	-9.99	6.16	2.51	6.35	4.55	0.79	5.86	2.21	6.16	360			
2.0	78.55	-9.99	-9.99	6.28	2.69	6.57	4.39	0.68	5.69	2.15	6.14	4127.3			
	90.10	-9.99	-9.99	6.45	2.72	6.58	4.29	0.56	5.58	2.08	5.99	4728.7	1		
03.32	-9.99	-9.99	6.28	2.76	6.44	4.22	0.40	5.66	2.05	6.17	5417.4	118.			
32	-9.99	-9.99	6.26	2.77	6.57	4.20	0.23	5.69	2.02	6.20	6206.0	135.65			
	-9.99	-9.99	6.37	2.77	6.52	4.16	0.03	5.82	1.99	6.01	7108.8	155.43	-		
9.99	-9.99	6.27	2.84	6.55	4.17	-0.19	5.48	1.98	6.07	8142.6	178.09	-9.9			
9	-9.99	6.41	2.84	6.58	4.07	-0.43	5.28	1.99	5.80	9326.4	203.98	-9.99			
	-9.99	6.20	2.74	6.59	4.04	-0.69	5.13	1.96	5.97	10681.7	233.42	-9.99	-9		
.99	6.05	2.65	6.64	4.01	-0.97	5.32	1.96	5.96	12233.6	267.20	-9.99	-9.99			
	5.91	2.53	6.61	3.86	-1.26	5.50	1.95	5.97	14010.5	306.30	-9.99	-9.99			
5.86	2.38	6.61	3.75	-1.57	5.49	1.95	5.81	16045.0	350.74	-9.99	-9.99	5.			
60	2.13	6.60	3.65	-1.78	5.35	1.94	5.71	18374.6	401.96	-9.99	-9.99	5.53			
	2.03	6.40	3.58	-1.83	5.29	1.87	5.60	21041.9	457.73	-9.99	-9.99	5.39			
1.95	6.29	3.51	-1.91	5.41	1.78	5.66	24096.0	525.50	-9.99	-9.99	5.23	1.9			
0	6.10	3.41	-2.11	5.33	1.73	5.59	27592.9	601.05	-9.99	-9.99	5.11	1.86			
	5.99	3.32	-2.45	5.39	1.67	5.50	31596.9	687.71	-9.99	-9.99	5.01	1.85	5		
.77	3.29	-3.01	5.16	1.61	5.36	36181.5	787.70	-9.99	-9.99	5.04	1.74	5.54			
	3.11	-3.45	5.08	1.55	5.18	41430.9	902.13	-9.99	-9.99	4.79	1.62	5.41			
2.89	-3.61	5.01	1.48	5.18	47441.4	1033.23	-9.99	-9.99	4.70	1.50	5.28	2.			
66	-3.99	4.33	1.41	5.00	54323.4	1184.33	-9.99	-9.99	4.41	1.39	5.03	2.31			
	-4.25	4.69	1.33	5.05	62203.3	1355.42	-9.99	-9.99	4.47	1.31	5.05	1.89	-		
4.31	4.54	1.25	4.88	71225.8	1529.85	-9.99	-9.99	4.55	1.23	4.89	1.71	-4.5			
1	4.31	1.20	4.69	81556.6	1777.60	-9.99	-9.99	4.49	1.15	4.84	1.52	-4.49			
	4.40	1.11	4.48												

\*\*\*\*\* JOB DONE.  
\$WEO LPS



STP P78-2

FINAL ATLAS ELECTRONS + IONS

79-007A-12A SPMS-00592

This data set has been restored. There were originally three 9-track, 1600 BPI tapes written in Binary. There is one restored tape. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The original tapes were created on a 6600 computer and the restored tapes were created on an IBM 9021 computer. The DR and DS numbers along with the corresponding D numbers are as follows:

DR#	DS#	D#	FILES	TIME SPAN
-----	-----	-----	-----	-----
DR005919	DS005919	D045281	1	03/22/79 - 03/22/79
		D045297	2	03/31/79 - 03/31/79
		D045298	3	04/01/79 - 04/01/79

REQ. AGENT

LSM

REQ. NO.

V0144

ACQ. AGENT

DMS

SCATHA

SC 5 FINAL ATLAS ELECTRONS AND IONS

79-007A-12A

This data set catalog consists of 3 tape(s). The tape(s) are 9 track, 1600 bpi, bin with 1 file(s) of data. The time span D and C numbers are as follows:

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-45281	C-21488	3/22/79
D-45297	C-21537	3/31/79
D-45298	C-21538	4/01/79

INFORMATION SHEET FOR INCOMING DATA

NSSDC ID: 9-2070-12A

DATE DATA RECEIVED: 6/14/81

DATE NSDF COORDINATOR CONSULTED: \_\_\_\_\_

DATE SCIENTIST NOTIFIED: \_\_\_\_\_

SOURCE:	MATERIAL RECEIVED: (NUMBER OF SHEETS OF HARDCOPY, NUMBER 100' REELS MICROFILM, NUMBER OF MAGNETIC TAPES, ETC.)
PI AND AFFILIATION:	<u>1 Mag-tape</u>

SATELLITE NAME/NSDF NAME: SCHTAH

EXPERIMENT NAME: \_\_\_\_\_

DATA SET FULL NAME: C E FINN/ATLIS ELECTRONIC LIMITED

CONTACT: \_\_\_\_\_ ACQUISITION SCIENTIST: DMS

FORM THAT WILL BE ANNOUNCED IN AIM/NSDF: DD

THESE ARE:  A NEW DATA SET  ADDITIONS  REPLACEMENTS  OTHER (EXPLAIN BELOW)

ACCESSION UNIT NUMBERS: DD 45281 C 21479

REMARKS:

5/14/81

DATA RECEIPT NOTIFICATION SENT?

Jana Moran  
DATA TECHNICIAN

INFORMATION SHEET FOR INCOMING DATA

NSSDC ID: 70-329

DATE DATA RECEIVED: 7/1/76

DATE NSDF COORDINATOR CONSULTED: \_\_\_\_\_

DATE SCIENTIST NOTIFIED: \_\_\_\_\_

SOURCE:	MATERIAL RECEIVED: (NUMBER OF SHEETS OF HARDCOPY, NUMBER 100' REELS MICROFILM, NUMBER OF MAGNETIC TAPES, ETC.)
PI AND AFFILIATION:	<u>2 Mag Tapes</u>

SATELLITE NAME/NSDF NAME: INSAT

EXPERIMENT NAME: \_\_\_\_\_

DATA SET FULL NAME: INSAT-1B (100' REEL) ELECTRONIC

CONTACT: \_\_\_\_\_ ACQUISITION SCIENTIST: DMS

FORM THAT WILL BE ANNOUNCED IN AIM/NSDF: \_\_\_\_\_

THESE ARE:  A NEW DATA SET  ADDITIONS  REPLACEMENTS  OTHER (EXPLAIN BELOW)

ACCESSION UNIT NUMBERS: 70-329-11, 12

REMARKS:

\_\_\_\_\_

DATA RECEIPT NOTIFICATION SENT?

Shirley P. Bull

DATA TECHNICIAN

Date 6/11/81

NSSCID: 79-007A-12

# CDAW DATA SET ENTRY

Date Rcvd : 6/5/81 CDB: 06

Data Sent By : Daved A. Hardy

Material Rcvd : 1 Mag. Tape (P=RP81) CDC 60 BIT

9 Trk, 1600 Bpi ; Tape Dump ;

Documentation

Satellite/NSEF Name : SCATHA (P78-2) <sup>STP</sup>

Data Set Name : SC5 Final Atlas <sup>Electrons and Jons</sup> ~~ETRA~~

New Data Set     Additions     Replacements  
Comments \_\_\_\_\_

Time Coverage : 22 March, 1979 0000 - 1948 UT

Tapes Taken Returned to : AE

Ralph -  
Please Refurn  
Tape Dump!  
P.S. We'd like a  
Hex Dump also -  
Thanks -

Completed By : Don Sawyer

**CDB TAPE DOCUMENTATION FORM**

CDB #6  
77-007A-12  
6/5/81

**SECTION I. DATA SET DESCRIPTION (please print)**

1. Data Set Name <i>Day 81 SCB Data</i>		
2. Scientific Contact <i>David A. Hardy</i>	3. Telephone No. or Telex No. <i>617-861-3102</i>	
4. Address <i>AFGL/PHG Hanscom Air Force Base</i>		
5. City <i>Bedford</i>	6. State <i>Mass.</i>	7. ZIP Code or Country <i>01731</i>
8. Programmer Contact <i>Dennis Delorey 617-861-3751</i>		

**SECTION II. TAPE DESCRIPTION**

1. No. of Tapes Submitted <i>1</i>	2. Tape Density <input type="checkbox"/> 800 bpi <input checked="" type="checkbox"/> 1600 bpi
3. No. of Files (per tape) <i>1</i>	
4. No. of End of File Marks <i>1</i>	5. No. of Tracks <input type="checkbox"/> 7 <input checked="" type="checkbox"/> 9
6. Recording Parity <i>odd</i>	7. Make and Model of Computer Used to Generate Tape <i>CDC 6600</i>
8. Are tapes written in binary, coded or both? (e.g. BCD) <i>Binary</i>	
9. What floating point representation is used? (e.g. CDC 64 bit) <i>CDC 60 bit</i>	
10. What integer representation is used? <i>CDC 60 bit</i>	
11. No. of Physical Records (per file) <i>Approx. 1500</i>	
12. Are original tapes to be returned? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
13. Start and Stop Time of Each File (If more space is needed, please attach.)  <i>PERP81 Time period ~ 0000 - 1948 UT (22 Mar 79)</i>	

**SECTION III. LOGICAL AND PHYSICAL RECORD FORMAT (please attach)**

**SECTION IV. TO BE FILLED IN BY DAWOC ONLY**

Date Received		CDB No.	
Programmer ID		Tape No.	
Data Base		CON Name	
		Date Loaded	

COB #6  
77-107A12  
6/5/81

The SCS data tape has one physical record per logical record.

The data rate is one record per satellite spin (~58 seconds)

Unwanted (bad) data words contain a dummy filled value of -999999.

SCS Final Atlas Data Base (one file per day)

EPB 46  
77-007A12  
6/5/81

Word #	Description
1	Alphanumeric bbbbbbbbscs
2	Year
3	Month
4	Day
5	Minimum pitch angle for spin ( $d_{min}$ )
6	Pitch angle value closest to $180^\circ$
7	GAT (seconds)
8	Day of year
9	Total Number density (#/cm <sup>3</sup> )
10	2-Maxwellian density $N_1$ (#/cm <sup>3</sup> )
11	2-Maxwellian density $N_2$ (#/cm <sup>3</sup> )
12	Total Number density (#/cm <sup>3</sup> )
13	2-Maxwellian density $N_1$ (#/cm <sup>3</sup> )
14	2-Maxwellian density $N_2$ (#/cm <sup>3</sup> )
15	Energy density, electrons (eV/cm <sup>3</sup> )
16	" " , ions (eV/cm <sup>3</sup> )
17	Energy flux, electrons (eV/cm <sup>2</sup> -sec)
18	" " , ions (eV/cm <sup>2</sup> -sec)
19	Number flux, electrons (#/cm <sup>2</sup> -sec)
20	" " , ions (#/cm <sup>2</sup> -sec)
21	2-Maxwellian temperature, $T_1$ (eV)
22	" " " " , $T_2$ (eV)
23	" " " " , $T_1$ (eV)
24	" " " " , $T_2$ (eV)
25	$T_{avg}$ (eV) electrons
26	$T_{avg}$ (eV) ions
27	$T_{rms}$ (eV) electrons
28	$T_{rms}$ (eV) ions
29	Local time (hours)
30	Altitude (km)
31	$R_e$ (satellite altitude in earth radii)
32	latitude (degrees)
33	L-shell
34	magnetic time (hrs)
35	Radius (magnetic) - earth radii
36	magnetic latitude (deg)
37	magnetic longitude (deg)

} electrons  
} ions



6/15/81

38

 $K_p \times 3$ 

39

SM latitude (deg)

40

SM local time (hrs.)

41

GSM latitude (deg)

42

GSM local time (hrs.)

43

 $\sum E_i f(E_i) \Delta E_i$ 

44

 $\sum f(E_i) \Delta E_i$ 

45

 $\sum E_i f(E_i) \Delta E_i$ 

46

 $\sum f(E_i) \Delta E_i$ 

47

 $\sum E_i f(E_i) \Delta E_i$ 

48

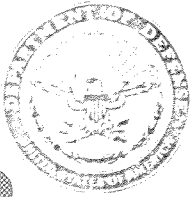
 $\sum f(E_i) \Delta E_i$ 

49

 $\sum E_i f(E_i) \Delta E_i$ 

50

 $\sum f(E_i) \Delta E_i$ electrons; values at  $\sim 90^\circ$  paelectrons; values at  $\alpha_{min}$ ions; values at  $\sim 90^\circ$  pitch ang.ions; values at  $\alpha_{min}$



DEPARTMENT OF THE AIR FORCE  
AIR FORCE GEOPHYSICS LABORATORY (AFGL)  
HANSCOM AIR FORCE BASE, MASSACHUSETTS 01731

CDB 6  
77-007A-12A  
6/29/81

REPLY TO  
ATTN OF:

AFGL/PHG

19 June 1981

SUBJECT:

Data for the CDAW 6 Workshop

TO:

Dr. James I. Vette  
(CDB-6 Workshop)  
Code 601  
NASA Goddard Space Flight Center  
Greenbelt, MD 20771

Dear Jim,

Enclosed are the two additional tapes for the SC5 data from March 30 and April 1, 1979. The data are in the same format as the previous tape I sent you. If there are any problems give me a call at (617) 861-3102.

DAVID A. HARDY, Captain, USAF  
Spacecraft Environment Branch  
Space Physics Division

Atch a/s

# CDAW DATA SET ENTRY

Date Rcvd : 6/27/81 CDB: 06

Data Sent By : Dave Hardy

Material Rcvd : 2 Tapes, ~~Drift~~  
2 Listings, letter

Satellite/NSSDC Name: Scatha

Data Set Name : SC5 Final Atlas Electrons and Ions

New Data Set     Additions     Replacements  
Comments Same Format    1600 Bun Qtrk / CDC 6600

Time Coverage : 31 March - 1 April 1979

~~Tapes to be Returned to:~~

Please Return  
2 Tape listings  
Thanks.  
~~Drift~~

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Completed By: Don Sawyer

$$\begin{array}{r} 11/1 \ 10/1 \ 11/0 \ 11.0 \\ 3 \ 6 \ 7 \ 3 \end{array}$$

$$\begin{array}{r} 3 \\ 011.0 \ / \ 011/0 \\ 3 \end{array}$$

$$\begin{array}{r} 1732_8 \\ 1717_8 \\ \hline 13_8 = 11_{10} \end{array}$$

$$\begin{array}{r} 11/111.0 \\ 3 \ 7 \end{array}$$

386  
100 201

$$7566 = 011/110/111/011.0$$

$$\begin{array}{r} 3 \ 6 \ 7 \ 3 \end{array}$$

3673<sub>8</sub>

$$\begin{array}{r} 1724 \\ 1717 \\ \hline 5 \end{array}$$

$$\begin{array}{r} 11/111.0 \\ 3 \ / \ 7_8 = 31_{10} \end{array}$$

$$\begin{array}{r} 1720 \\ 1717 \\ \hline 3 \end{array}$$

$$\begin{array}{r} 1.00.000. \\ 1. \ / \ 001.00. \end{array}$$

Participant: D. Hardy

Data Set Mnemonic: SC12

Satellite ID: SCATHA (STP P78-2)

NSSDC ID: 79-007A-12A

Data Set Name: Rapid Scan Particle Detector

Principal Investigators: D. A. Hardy, USAF Geophys. Lab., Hanscom AFB

Data Availability: YY/DDD/HH/MM/SS - YY/DDD/HH/MM/SS  
79/081/06/00/21 - 79/081/19/48/00  
79/090/13/01/25 - 79/090/23/53/00  
79/091/02/40/00 - 79/091/05/59/18

Data Time Interval: 58s (avg. satellite spin)

<u>Description</u>	<u>Mnemonic</u>	<u>Units</u>	<u>Tuple</u>
Minimum Pitch Angle for Spin	SC12MPA	deg	
Pitch Angle Closest to 180 Deg	SC12P180	deg	
Total Electron Number Density	SC12TED	#/cm3	
Maxwellian Electron Density N1	SC12MED1	#/cm3	
Maxwellian Electron Density N1 <i>NR</i>	SC12MED2	#/cm3	
Total Ion Number Density	SC12TID	#/cm3	
Maxwellian Ion Density N1	SC12MID1	#/cm3	
Maxwellian Ion Density N2	SC12MID2	#/cm3	
Electron Energy Density	SC12EED	eV/cm3	
Ion Energy Density	SC12IED	eV/cm3	
Electron Energy Flux	SC12EEF	eV/cm2.s	
Ion Energy Flux	SC12IEF	eV/cm2.s	
Electron Number Flux	SC12ENF	#/cm2.s	
Ion Number Flux	SC12INF	#/cm2.s	
Maxwellian Electron Temperature T1	SC12MET1	eV	
Maxwellian Electron Temperature T2	SC12MET2	eV	

Participant: D. Hardy

Data Set Mnemonic: SC12

(cont'd)

<u>Description</u>	<u>Mnemonic</u>	<u>Units</u>	<u>Tuple</u>
Maxwellian Ion Temperature T1	SC12MIT1	eV	
Maxwellian Ion Temperature T2	SC12MIT2	eV	
Electron Average Temperature	SC12TAVE	eV	
Ion Average Temperature	SC12TAVI	eV	
Electron rms Temperature	SC12TRME	eV	
Ions rms Temperature	SC12TRMI	eV	
Local Time of Satellite	SC12LT	h	
Satellite Altitude	SC12ALK	km	
Satellite Altitude	SC12ALR	Re	
Satellite Latitude	SC12SL	deg	
L - Shell	SC12L	deg	
Magnetic Local Time	SC12MT	h	
Radius (Magnetic)	SC12RM	Re	
Satellite Magnetic Latitude	SC12MLA	deg	
Satellite Magnetic Longitude	SC12ML0	deg	
Kp * 3	SC12KP*3	deg	
SM Latitude of Satellite	SC12SMLA	deg	
SM Local Time of Satellite	SC12SMLT	h	
GSM Latitude of Satellite	SC12GSLA	deg	
GSM Local Time of Satellite	SC12GSLT	deg	
Electron Energy Flux for Pitch Angle = 90 Deg	SC12EEF9	eV/cm2.s	
Total Electron Flux for Pitch Angle = 90 Deg	SC12TEF9	#/cm2.s	

Participant: D. Hardy

Data Set Mnemonic: SC12

(cont'd)

<u>Description</u>	<u>Mnemonic</u>	<u>Units</u>	<u>Triple</u>
Electron Energy Flux for Minimum Pitch Angle	SC12EEFM	eV/cm2.s	
Total Electron Flux for Minimum Pitch Angle	SC12TEFM	#/cm2.s	
Ion Energy Flux for Pitch Angle -90 Deg	SC12IEF9	eV/cm2.s	
Total Ion Flux for Pitch Angle -90 Deg	SC12TIF9	#/cm2.s	
Ion Energy Flux for Minimum Pitch Angle	SC12IEFM	eV/cm2.s	
Total Ion Flux for Minimum Pitch Angle	SC12TIFM	#/cm2.s	

INPUT TAPE X404 ON MT2  
DATA INPUT 09 FL 1 2 2

*SCS 1979 3 3673 22*

FILE	1 RECORD	1 LENGTH	500BYTES						
( 0 )	555555555555	552303401732	756600000000	000017216000	000000000000	172454000000	000000001724	671102134676	
( 48 )	037317274611	641060020040	172743040507	534121721726	504000000000	000017176275	267564776711	171750511261	
( 96 )	022020401715	512060631276	324417175460	354545747336	171676212214	435134561715	663721752040	643117326302	
( 144 )	163363253556	173456661611	732575601772	643153762104	023317705005	340224131505	175665302607	543745261752	
( 192 )	412424343610	062517315151	051175660320	173440244532	366005141732	531421270475	736417357506	662577555111	
( 240 )	173252565734	753734521734	545213302616	200517327664	700417304246	173546377735	367034541722	430336000311	
( 288 )	507017375056	250661745732	172274234451	764626306056	154546457101	256017234003	161504025463	172242053020	
( 336 )	677362331722	742757124064	457060542222	535202443763	172742126360	167055621721	400000000000	000060542157	
( 384 )	721717230625	172242053020	677362336054	141665267161	501317224232	427776474402	175067704266	637153421736	
( 432 )	672452463330	610417504413	326050526721	173651476712	153302771771	706435626454	035717545563	306332633740	
( 480 )	177140422630	647756711756	617440225701	3400					

FILE	1 RECORD	2 LENGTH	500BYTES						
( 0 )	555555555555	552303401732	756600000000	000017216000	000000000000	172454000000	000000001724	703615754034	
( 48 )	207617274613	400123211056	172761340507	534121731726	504000000000	000017176377	620534652721	171751067021	
( 96 )	066744641715	534347212767	116417176177	435135432046	171744332625	132321471715	662065211077	737217326505	
( 144 )	777511515464	173456155535	354456751772	671423744010	556017704750	410072522106	175666676676	552270601752	
( 192 )	416641031433	111517315130	134604251452	173440424672	324260511732	423361243215	447517357514	532637130152	
( 240 )	173253442213	707553301734	473420621552	134417334013	732606555472	173545356045	254264661722	431144552027	
( 288 )	036517375057	314264071542	172274247441	563357256056	157437621574	526417234002	774040731055	172242133442	
( 336 )	470535501722	743107124635	762760542232	341566653124	172742117004	130373141721	400000000000	000060542167	
( 384 )	560403514452	172242133442	470535506054	142403775230	313217224240	713055325651	175067076024	343644641736	
( 432 )	676664043326	665017504266	421735145714	173650107477	353216601772	403661121274	703617564747	315445561137	
( 480 )	177072343603	132122131755	502267640607	0000					

FILE	1 RECORD	1201 LENGTH	500BYTES						
( 0 )	555555555555	552303401732	756600000000	000017216000	000000000000	172454000000	000000001723	605531604070	
( 48 )	263317275220	642450763454	174042622313	716662131726	504000000000	000017215070	552527060301	172076520723	
( 96 )	457300061717	461646562042	136717207254	024003474710	172055674646	515424151716	632157454755	135217344053	
( 144 )	155215056323	173565077217	300436261774	444347562736	570617715744	265400346666	176042005630	316310261753	
( 192 )	467531652144	343217277727	300271427351	173374022302	572353751732	466076267663	540617364345	221426302017	
( 240 )	173242062224	577647461734	464760421251	052217334231	206442360152	173547044207	044107161720	406424661704	
( 288 )	462017374235	342373600526	172264206334	744570336055	043415107123	507417227366	430377760475	171774373470	
( 336 )	226465001722	642420375170	575360533540	017561766700	172745343164	752760251723	540000000000	000060533505	
( 384 )	420247736157	171774373470	226465006054	336201676661	444617177231	100634241040	175166606136	160500311740	
( 432 )	547610522705	037617514754	321526122241	174073310446	354243161772	533133233773	374417575573	645322146747	
( 480 )	177350571243	724404651760	435463464567	4400					

FILE	1 RECORD	1202 LENGTH	500BYTES						
( 0 )	555555555555	552303401732	756600000000	000017216000	000000000000	172454000000	000000001723	527032511443	
( 48 )	264417275241	353664030346	174042640613	716662131726	504000000000	000017214435	751101535072	172066334154	
( 96 )	444165061717	450061127552	713217206031	123476142021	172043515466	424726431716	627566315623	466517344103	
( 144 )	702667722463	173556430631	041101301774	450770700432	256617715070	054042343751	176041257473	762763471753	
( 192 )	413620275255	175117305034	162107637253	173375340617	004264301732	452102524375	643317364037	474766713624	
( 240 )	173246534146	050550621734	510244571300	255417334350	142125627346	173547047670	334037201720	412524162171	
( 288 )	566017374237	415750765346	172264233664	162301426055	044077512144	347617227371	633421532275	171775417677	
( 336 )	463500001722	642674041373	360760533541	144660414452	172745343473	550410411723	540000000000	000060533506	
( 384 )	561607446732	171775417677	463500006054	335177654004	535317177331	630011417640	175170764074	566534151740	
( 432 )	506333165754	526017514340	400773237570	174056746044	521304651772	421022541050	524617554053	405667356340	
( 480 )	177255171325	725245271757	406545402767	2000					

FILE	INPUT RECS.	DATA INPUT	RECORDS	MAX. SIZE	READ ERROR SUMMARY				INPUT RETRIES	
					PERM	ZERO B	SHORT	UNDEF.	#RECS.	TOTAL#
1	1202	1204		375	0	1	0	0	1	1



D-45297  
3/31/79

INPUT TAPE X400 ON MT1  
DATA INPUT 09 EL 1 1 STOP

FILE	1 RECORD	1 LENGTH	1479 BYTES	3	31
( 0)	555555555555	552303401732	756600000000	000017216000	000000000000
( 48)	445317274404	670224621555	173755622601	217270241726	550000000000
( 96)	505171161713	541652446525	650717204261	457111524526	171760304453
( 144)	601626327665	173564236715	716473571772	426445377230	534617716677
( 192)	747452405703	467017306157	532617514267	173541107077	221011741732
( 240)	173261160223	171105571735	400563775102	331617337570	270475721617
( 288)	107617367062	341001313041	172254360625	241152706055	204722551260
( 336)	545575201722	544106155136	407360533561	006531734703	172756536346
( 384)	672026245564	172451122367	545575206054	241604262321	100317245133
( 432)	410763002474	171117474076	703674651512	173571442620	571067731772
( 480)	177265033417	361223621760	412054430643	4000	

EOJ STOP REQUESTED IN FILE 1

EOJ DUMP STOPPED AFTER FILE 1 # OF PERMANENT READ ERRORS 0

START TIME 07/06/81 17:26:38 STOP TIME 07/06/81 17:26:51

D-45298  
4/1/79

INPUT TAPE X406 ON MT1  
DATA INPUT 09 FL 1 1 STOP

FILE	1 RECORD	1 LENGTH	BYTES	4	1
( 0 )	555555555555	552303401732	756600000000	000017224000	000000000000
( 48 )	062217274526	274111074512	172750165706	517676351726	554000000000
( 96 )	127320301716	613103743303	756117207704	451762212541	172065415034
( 144 )	172661061446	173546154673	612666731775	562747364231	250617707574
( 192 )	414552532460	406417317576	356251767627	173544026663	106353461731
( 240 )	173355675370	504212301733	635463652302	006617344677	343351166730
( 288 )	655017375174	323473616426	172275676636	303735461721	506010527572
( 336 )	472073231722	757410630356	030160543560	457520023034	172752434605
( 384 )	441440035412	172264707652	472073236054	345717002644	712117226466
( 432 )	556466250572	544317524042	100444443354	173755127724	256224351773
( 480 )	177242052022	410421561757	525567222107	7400	

EOJ STOP REQUESTED IN FILE 1

EOJ DUMP STOPPED AFTER FILE 1 # OF PERMANENT READ ERRORS 0

START TIME 07/06/81 17:32:03 STOP TIME 07/06/81 17:32:14

STP P78-2

ENERGETIC ION SPECTROMETER

79-007A-13A SPMS-00094

This data set has been restored. There was originally one 9-track, 1600 BPI tape written in ASCII. There is one restored tape. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The original tape was created on an IBM 760 computer and the restored tape was created on an IBM 9021 computer. The DR and DS numbers along with the corresponding D number are as follows:

DR#	DS#	D#	FILES	TIME SPAN
-----	-----	-----	-----	-----
DR005890	DS005890	D047128	1	03/22/79 - 03/22/79

REQ. AGENT

LSM

REQ. NO.

V0144

ACQ. AGENT

DMS

SCATHA  
ENERGETIC ION SPECTROMETER  
79-007A-13A

This data set catalog consists of 1 tape(s). The tape(s) are 9 track, 1600 bpi, ascii with 1 file(s) of data. The time span D and C numbers are as follows:

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-47128	C-22003	3/22/79

INFORMATION SHEET FOR INCOMING DATA

NSSDC ID: 77-0070-13A DATE DATA RECEIVED: 12/30/81  
DATE NSDF COORDINATOR CONSULTED: \_\_\_\_\_  
DATE SCIENTIST NOTIFIED: \_\_\_\_\_

SOURCE:	MATERIAL RECEIVED: (NUMBER OF SHEETS OF HARDCOPY, NUMBER 100' REELS MICROFILM, NUMBER OF MAGNETIC TAPES, ETC.)  <u>1 mag tape</u>
PI AND AFFILIATION:	

SATELLITE NAME/NSDF NAME: Satka  
EXPERIMENT NAME: energetic ion spectrometer  
DATA SET FULL NAME: \_\_\_\_\_  
CONTACT: \_\_\_\_\_ ACQUISITION SCIENTIST: DMS  
FORM THAT WILL BE ANNOUNCED IN AIM/NSDF: DA  
THESE ARE:  A NEW DATA SET  ADDITIONS  REPLACEMENTS  OTHER (EXPLAIN BELOW)  
ACCESSION UNIT NUMBERS: DD47128 C-22003

REMARKS:  
  
EDAW

DATA RECEIPT NOTIFICATION SENT?  Arda M. M...  
DATA TECHNICIAN

# CDAW DATA SET ENTRY

Date Rcvd : Dec 28 EDB : 6

Data Sent By : R Strangway

Material Rcvd : 1 kpa, letter, dump

Satellite/NSRF Name : ~~Star~~ Scatka STP P78-2

Data Set Name : Energetic Ion Spectrometer

New Data Set     Additions     Replacements  
Comments \_\_\_\_\_

Time Coverage : 1979 Mar 22<sup>nd</sup> 7<sup>h</sup> - 18<sup>h</sup>

Tapes To be Returned to : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Completed By : M. Teague

*Lockheed*

PALO ALTO  
RESEARCH  
LABORATORY

Department 52-12, Building 255

3251 HANOVER STREET • PALO ALTO, CALIFORNIA • 94304

December 17, 1981

Mr. Don Sawyer  
Code 601/NSSDC  
Goddard Space Flight Center  
Greenbelt, MD 20771

Dear Don:

Please find enclosed one magnetic tape and a listing of the contents of the tape. The tape contains 15 minute averages of data obtained from the Lockheed Ion Mass Spectrometer (Experiment #SC-8) flown on the SCATHA (P78-2) spacecraft for Day 081, 1979. The data is given as differential number flux as a function of energy for the two principal masses, protons (mass 1) and oxygen (mass 16), together with the total number density and energy density as computed for the energy range of the instrument (0.1 - 32 keV). The data have been labelled accordingly.

The data are written in ASCII with 80 characters per line and 31 lines per record on a 9 track tape at 1600 bpi. There are consequently 2480 characters (bytes) per record.

For the purposes of timing, I have included the start time in seconds and also in HH:MM:SS together with the end time for each record. For the purposes of timing note that each 15 minute average starts as soon after

07:30, 22:30, 37:30 and 52:30

in each hour as is consistent with the timing of the data from the spacecraft together with possible data drop-out.

The first average starts at 07:37:30 with the last average finishing at 17:37:30. There is a data drop out between 10:37:30 and 11:22:30.

At this time I do not intend to send any data for the day 90-91 event. We will produce summary plots for the CDAW.

Mr. Don Sawyer  
December 17, 1981  
Page 2

If you have any questions or problems with the tape and the data please call me on (415) 858-4089. Unfortunately I will be away from Lockheed until the New Year.

Wishing you all the best for the holiday season.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Bob Strangeway", with a long horizontal flourish extending to the right.

Bob Strangeway

BS: jm

Enclosure



Participant: R. Strangeway

Data Set Mnemonic: SC13

Satellite ID: SCATHA (STP P78-2)

NSSDC ID: 79-007A-13A

Data Set Name: Energetic Ion Spectrometer

Principal Investigators: R. Johnson, Lockheed, Palo Alto

Data Availability: YY/DDD/HH/MM/SS - YY/DDD/HH/MM/SS  
79/081/07/37/34 - 79/081/17/33/18 for CDB-6A

Data Time Interval: 15 min

<u>Description</u>	<u>Mnemonic</u>	<u>Units</u>	<u>Tuple</u>
Total Proton Density	SC13PTDN	/cm <sup>3</sup>	
Total Oxygen Density	SC13OXDN	/cm <sup>3</sup>	
Proton Energy Density	SC13PEND	keV/cm <sup>3</sup>	
Oxygen Energy Density	SC13OEND	keV/cm <sup>3</sup>	
? Particle Energy	SC13EN	keV	
Proton Number Flux	SC13PTFX	/cm <sup>2</sup> .s.ster.keV	
Oxygen Number Flux	SC13OXFX	/cm <sup>2</sup> .s.ster.keV	
? DECOMPLICATOR PARAMETER	SC13DEC	none	

32k  
 over 1-150u  
 + 100-29000 uV?  
 ✓ .1 - 32keV

see 1<sup>st</sup> P of letter from Lockheed for more info.

E 24 energies  
 100 eV to 32 keV

INPUT PARAMETERS ARE: AS SR=1=1

D-47128

TAPE NO.	FILE NO.	RECORD	LENGTH	START	END	PA	DAY	MONTH	YEAR	STEP ENERGY (KEV)	DIFFERENTIAL NUMBER
1	1	1	2400	27454 (07:37:34)	28334 (07:52:14)	ALL	81	MARCH	1979		
ASS 1 MASS 16											
FLUX (/CM**2-SEC-STER-KEV)											
		1	0.100	9.1E+05	1.4E+05						
3	0.165	2	0.129	3.2E+05	4.1E+05						
		3	0.165	1.3E+06	5.9E+04					4	0.212
		4	0.165	8.7E+05	3.9E+06					5	0.273
		5	0.165	3.3E+05						6	0.350
		6	0.165							7	0.450
		7	0.165	8.4E+04	3.7E+05					8	0.579
		8	0.165	8.4E+04	2.4E+05					9	0.744
		9	0.165							10	0.956
		10	0.165							11	1.230
		11	0.165							12	1.580
		12	0.165							13	2.030
		13	0.165							14	2
		14	0.165	.610	2.1E+05	4.9E+04				15	3.350
		15	0.165	2.3E+04						16	4.300
		16	0.165							17	5.530
		17	0.165							18	7.110
		18	0.165							19	
		19	0.165	9.130	8.3E+04	1.1E+04				20	11.730
		20	0.165	+05	6.9E+03					21	15.080
		21	0.165							22	19.380
		22	0.165							23	24.900
		23	0.165							24	32.000
		24	0.165							33	
DENSITY (/CM**3)											
										0.586	0.4
ENERGY DENSITY (KEV/CM**3)											
										3.946	0.665

\*\*\*\*\* JOB DONE.  
\$WEO LPS

REQ. AGENT

LSM

REQ. NO.

V0144

ACQ. AGENT

DMS

SCATHA

ENERGETIC PROTON FLUXES - 1 MIN AVERAGES

79-007A-14A SPMS-00351

This data set catalog consists of 1 tape(s). The tape(s) are 9 track, 1600 bpi, ascii with 4 file(s) of data. The time span D and C numbers are as follows:

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-46727	C-21793	3/22/79,3/31/79, 4/1/79, 4/3/79

INFORMATION SHEET FOR INCOMING DATA

NSSDC ID: 79-007A-14A

DATE DATA RECEIVED: 10/23/81

DATE NSDF COORDINATOR CONSULTED: \_\_\_\_\_

DATE SCIENTIST NOTIFIED: \_\_\_\_\_

SOURCE:	MATERIAL RECEIVED: (NUMBER OF SHEETS OF HARDCOPY, NUMBER 100' REELS MICROFILM, NUMBER OF MAGNETIC TAPES, ETC.)
PI AND AFFILIATION:	<u>1 mag tape</u>

SATELLITE NAME/NSDF NAME: SCATHA

EXPERIMENT NAME: \_\_\_\_\_

DATA SET FULL NAME: ENERGETIC PROTON FLUXES - 1 MIN AVERAGES

CONTACT: \_\_\_\_\_ ACQUISITION SCIENTIST: DMS

FORM THAT WILL BE ANNOUNCED IN AIM/NSDF: DD

THESE ARE:  A NEW DATA SET  ADDITIONS  REPLACEMENTS  OTHER (EXPLAIN BELOW)

ACCESSION UNIT NUMBERS: DD 46787 C-21793

REMARKS:

CDAW

DATA RECEIPT NOTIFICATION SENT?

Sinda Moran

DATA TECHNICIAN

Copy

Date 10/22/81  
NSSDC ID 79-007A-144

# CDAW DATA SET ENTRY

Date Rcvd : 10/20/81 EDB : 6

Data Sent By : Walter N. Spjeldvik - NOAA/ERL

Material Rcvd : 1 Tape - 1 page documentation

4 files - 1600 bpi - 9TRK ASCII  
CDC 160

Satellite/NSRF Name : SCATHA - (STP P28-2)

Data Set Name : Energetic Proton Fluxes - 1 MIN AVERAGES

New Data Set     Additions     Replacements  
Comments \_\_\_\_\_

Time Coverage : Probably 1979, Day 81, 90, 91 + ?

Tapes To be Returned to : Walter N. Spjeldvik  
NOAA/ERL, Space Environment Lab.  
Boulder, Colorado

Please get  
an ASCII dup

Completed By : D. Saenger



National Aeronautics and  
Space Administration

CDB TAPE DOCUMENTATION FORM

SECTION I. DATA SET DESCRIPTION (please print)

1. Data Set Name <i>SCATHA-SPJELDVIK - Instrument SC2-6</i>		
2. Scientific Contact <i>Walther N. Spjeldvik</i>	3. Telephone No. or Telex No. <i>(303)-497-3186</i>	
4. Address <i>NOAA/ERL, Space Environment Laboratory, Code R43</i>		
5. City <i>Boulder</i>	6. State <i>Colorado</i>	7. ZIP Code or Country <i>80303</i>
8. Programmer Contact <i>Walther N. Spjeldvik</i>		

SECTION II. TAPE DESCRIPTION

1. No. of Tapes Submitted <i>1</i>	2. Tape Density <input type="checkbox"/> 800 bpi <input checked="" type="checkbox"/> 1600 bpi
3. No. of Files (per tape) <i>4</i>	
4. No. of End of File Marks	5. No. of Tracks <input type="checkbox"/> 7 <input checked="" type="checkbox"/> 9
6. Recording Parity <i>blocked 200-byte records blocksize 5000 bytes</i>	7. Make and Model of Computer Used to Generate Tape <i>CDC - Cyber 760</i>
8. Are tapes written in binary, coded or both? (e.g. BCD) <i>ASCII</i>	
9. What floating point representation is used? (e.g. CDC 64 bit) <i>ASCII with IPE12.5</i>	
10. What integer representation is used? <i>no integers</i>	
11. No. of Physical Records (per file) <i>File 1: 1119 Records   File 3: 1441 Records File 2: 1411 Records   File 4: 1380 Records</i>	
12. Are original tapes to be returned? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
13. Start and Stop Time of Each File (If more space is needed, please attach.) <i>Each file has 1 min-averages for the full day, i.e. 0000-2400 hr; timing is part of the record.</i>	

SECTION III. LOGICAL AND PHYSICAL RECORD FORMAT (please attach) → on back →

SECTION IV. TO BE FILLED IN BY DAWOC ONLY

CDB No.

Date Received	Tape No.
Programmer ID	CON Name
Data Base	Date Loaded

The data are "averaged" (selected) for 1-min periods  
 For each minute data are given as follows:

29-007A-19A  
 10/20/81

Time-of-day (in sec),  $j_1(90^\circ)$ ,  $j_1(30^\circ)$ ,  $j_2(90^\circ)$ ,  $j_2(30^\circ)$ ,  
 $j_3(90^\circ)$ ,  $j_3(30^\circ)$ ,  $j_4(90^\circ)$ ,  $j_4(30^\circ)$ ,  $j_5(90^\circ)$ ,  $j_5(30^\circ)$ ,  
 $j_6(90^\circ)$ ,  $j_6(30^\circ)$ ,  $j_7(90^\circ)$ ,  $j_7(30^\circ)$ , blank space of  
 12 characters

Each number is coded in ascii according to format IPE12.5  
 there is one such set of numbers for each minute of the  
 day.

The data set is preceded by a short text line  
 giving day, year, instrument, etc in plain English (ASCII).

Energy passbands:

Channel #	lower threshold (keV)	higher threshold (keV)	$\Delta E$ (keV)
1	14	24	10
2	24	48	24
3	48	96	48
4	96	170	74
5	170	354	184
6	354	698	344
7	698	3300	2402

Geometric factor is  $g = 2.01 \times 10^{-3} \text{ cm}^2 \text{ ster}$

All fluxes are given in flux units: (ions/cm<sup>2</sup>secsterkeV)  
 and have been converted from count rate  $\Phi$  to flux  $j$  by  
 $j = \Phi / (g \Delta E)$ .

Within each one-minute interval all occurring  $90^\circ$  and  $30^\circ$  ( $\pm 10^\circ$  each)  
 have been averaged over. Bad data (or non-sampling) is indicated by ---

Participant: B. Ledley

Data Set Mnemonic: SC08

Satellite ID: SCATHA (STP P78-2)

NSSDC ID: 79-007A-08A

Data Set Name: Magnetic Field Monitor

Principal Investigators: B. Ledley, NASA/GSFC

Data Availability: YY/DDD/HH/MM/SS - YY/DDD/HH/MM/SS  
79/081/06/00/20 - 79/081/20/00/00  
79/090/12/00/00 - 79/091/05/59/26

Data Time Interval: 1 min

<u>Description</u>	<u>Mnemonic</u>	<u>Units</u>	<u>Tuple</u>
X-Component of Magnetic Field in Topographic Coordinates; X = North	SC08FGX	nT	
Y-Component of Magnetic Field in Topographic Coordinates; Y = East	SC08FGY	nT	
Z-Component of Magnetic Field in Topographic Coordinates; Z = Down	SC08FGZ	nT	
X-Component of Dipole Magnetic Field in Topographic Coordinates	SC08BGX	nT	
Y-Component of Dipole Magnetic Field in Topographic Coordinates	SC08BGY	nT	
Z-Component of Dipole Magnetic Field in Topographic Coordinates	SC08BGZ	nT	
Measured Minus Dipole Field; X-Component	SC08DGX	nT	
Measured Minus Dipole Field; Y-Component	SC08DGY	nT	
Measured Minus Dipole Field; Z-Component	SC08DGZ	nT	
Magnitude of the Measured Field	SC08F	nT	
Magnitude of the Dipole Model Field	SC08B	nT	
Declination of Measured Field	SC08BD	deg	
Inclination of Measured Field	SC08BI	deg	



Participant: B. Ledley

Data Set Mnemonic: SC08

(cont'd)

<u>Description</u>	<u>Mnemonic</u>	<u>Units</u>	<u>Tuple</u>
Inclination of Dipole Model Field	SC08FI	deg	
Declination of Dipole Model Field	SC08FD	deg	
Standard Deviation of One Minute Sets of the Total Measured Field	SC08FDV	nT	
Standard Deviation of One Minute Sets of the X-Component of the Measured Field	SC08GXDV	nT	
Standard Deviation of One Minute Sets of the Y-Component of the Measured Field	SC08GYDV	nT	
Standard Deviation of One Minute Sets of the Z-Component of the Measured Field	SC08GZDV	nT	

Participant: W. Spjeldvik

Data Set Mnemonic: SC14

Satellite ID: SCATHA (STP P78-2)

NSSDC ID: 79-007A-14A

Data Set Name: Energetic Proton Detector

Principal Investigators: J. B. Blake, Aerospace Corporation

Data Availability: YY/DDD/HH/MM/SS - YY/DDD/HH/MM/SS  
79/081/06/00/00 - 79/081/20/00/00  
79/090/06/00/00 - 79/091/06/00/00

Data Time Interval: 60s

<u>Description</u>	<u>Mnemonic</u>	<u>Units</u>	<u>Tuple</u>
Channel 1 - Protron Flux 14-24 keV Pitch Angle 90 deg +/- 10	SC14C190	/cm2.s.sr.keV	
Channel 1 - Protron Flux 14-24 keV Pitch Angle 30 deg +/- 10	SC14C130	/cm2.s.sr.keV	
Channel 2 - Protron Flux 24-48 keV Pitch Angle 90 deg +/- 10	SC14C290	/cm2.s.sr.keV	
Channel 2 - Protron Flux 24-48 keV Pitch Angle 30 deg +/- 10	SC14C230	/cm2.s.sr.keV	
Channel 3 - Protron Flux 48-96 keV Pitch Angle 90 deg +/- 10	SC14C390	/cm2.s.sr.keV	
Channel 3 - Protron Flux 48-96 keV Pitch Angle 30 deg +/- 10	SC14C330	/cm2.s.sr.keV	
Channel 4 - Protron Flux 96-170 keV Pitch Angle 90 deg +/- 10	SC14C490	/cm2.s.sr.keV	
Channel 4 - Protron Flux 96-170 keV Pitch Angle 30 deg +/- 10	SC14C430	/cm2.s.sr.keV	
Channel 5 - Protron Flux 170-354 keV Pitch Angle 90 deg +/- 10	SC14C590	/cm2.s.sr.keV	
Channel 5 - Protron Flux 170-354 keV Pitch Angle 30 deg +/- 10	SC14C530	/cm2.s.sr.keV	
Channel 6 - Protron Flux 354-698 keV Pitch Angle 90 deg +/- 10	SC14C690	/cm2.s.sr.keV	

Participant: W. Spjeldvik

Data Set Mnemonic: SC14

(cont'd)

<u>Description</u>	<u>Mnemonic</u>	<u>Units</u>	<u>Tuple</u>
Channel 6 - Protron Flux 354-698 keV Pitch Angle 30 deg +/- 10	SC14C630	/cm <sup>2</sup> .s.sr.keV	
Channel 7 - Protron Flux 698-3300 keV Pitch Angle 90 deg +/- 10	SC14C790	/cm <sup>2</sup> .s.sr.keV	
Channel 7 - Protron Flux 698-3300 keV Pitch Angle 30 deg +/- 10	SC14C730	/cm <sup>2</sup> .s.sr.keV	

\$JOB 14:54:32  
\$NOP \*\*\*\*\* ASCII LIST OF X-400 \*\*\*\*\*  
\$ASS IN MT3  
\$EXE TPLIST BS

D-46727  
3/22/79 → 4/3

INPUT PARAMETERS ARE: AS SR=1=1 4

TAPE NO. 1 FILE NO. 1  
RECORD 1 LENGTH 5J00  
DAY= 90(MAR31)1979 SCATHA SC2-6 IONS W.N. SPJELDVIK, NOAA/SEL

4.21020E+01 1.47313E+05 9.37562E+04 4.48507E+04 2.30752E+04 3.92309E+03 2.42667E+03 4.26919E+0  
2 2.47496E+02 1.68992E+01 6.75968E+00 3.61564E-01 3.61564E-01 1.03562E-01 7.76716E-02  
1.02102E+02 1.42090E+05 9.13638E+04 4.33582E+04 2.31475E+04 3.64842E+03 2.44549E+03 3.54646E  
+02 2.53502E+02 1.08155E+01 9.06592E+00 3.61564E-01 5.95518E-01 1.03562E-01 3.65513E-02  
1.62102E+02 1.41244E+05 8.85660E+04 4.18905E+04 2.20881E+04 3.70025E+03 2.32233E+03 3.3279  
5E+02 2.34914E+02 1.21674E+01 7.95256E+00 0. 8.50739E-02 1.55343E-01 3.65513E-02  
2.22102E+02 1.44328E+05 8.76381E+04 4.34826E+04 2.26381E+04 3.80390E+03 2.36537E+03 4.20  
196E+02 2.38141E+02 1.35194E+01 7.25776E+00 3.61564E-01 4.56713E-01 1.03562E-01 5.45064E-02  
2.82102E+02 1.49270E+05 8.78581E+04 4.66750E+04 2.26800E+04 4.13212E+03 2.44938E+03 3.  
78737E+02 2.40618E+02 1.26181E+01 5.97698E+00 0. 3.04475E-01 1.38083E-01 8.72102E-02  
3.42101E+02 1.48756E+05 8.88391E+04 4.59204E+04 2.30956E+04 3.95419E+03 2.45071E+03  
3.83219E+02 2.41286E+02 2.16310E+01 7.81119E+00 3.61564E-01 1.60695E-01 0. 5.75345E-02  
4.02101E+02 1.48458E+05 8.98068E+04 4.69403E+04 2.34021E+04 4.17444E+03 2.53146E+0  
3 4.47089E+02 2.27400E+02 1.35194E+01 7.47541E+00 0. 1.70148E-01 5.17811E-02 1.21838E-01  
4.62101E+02 1.50796E+05 8.77114E+04 4.83665E+04 2.31312E+04 4.57435E+03 2.47785E  
+03 4.54933E+02 2.08417E+02 1.26181E+01 5.23875E+00 0. 9.03911E-02 6.90414E-02 9.06169E-02  
5.22101E+02 1.54428E+05 8.62131E+04 5.03731E+04 2.29778E+04 4.62272E+03 2.4692  
7E+03 4.26919E+02 1.94576E+02 1.55473E+01 3.97628E+00 0. 1.70148E-01 5.17811E-02 3.65513E-  
02 5.82101E+02 1.52687E+05 8.64706E+04 4.92289E+04 2.29222E+04 4.35323E+03 2.42  
781E+03 4.00027E+02 1.89039E+02 1.35194E+01 9.06592E+00 3.61564E-01 3.40296E-01 5.17811E-02 8.52865  
E-02 6.42101E+02 1.46816E+05 8.56592E+04 4.68740E+04 2.35945E+04 4.55017E+03 2.  
45323E+03 3.69773E+02 2.07577E+02 1.08155E+01 7.77363E+00 1.44626E+00 0. 6.90414E-02 6.472  
63E-02 7.02101E+02 1.48955E+05 8.70442E+04 4.68159E+04 2.37299E+04 4.31696E+03  
2.43208E+03 4.58854E+02 2.11581E+02 1.62232E+01 7.15731E+00 3.61564E-01 4.25370E-01 1.03562E-01 8.5  
2865E-02 7.62101E+02 1.50896E+05 8.67632E+04 4.86567E+04 2.42771E+04 4.69009E+0  
3 2.56438E+03 5.68105E+02 2.82372E+02 1.82511E+01 7.95256E+00 7.23129E-01 4.25370E-01 2.07124E-01 6  
.09189E-02 8.22100E+02 1.51725E+05 8.56512E+04 4.95605E+04 2.47600E+04 5.06841E  
+03 2.73998E+03 7.66438E+02 3.46835E+02 2.43348E+01 1.19288E+01 0. 5.95518E-01 2.07124E-01  
9.74702E-02 8.82100E+02 1.49204E+05 8.51741E+04 4.71393E+04 2.44975E+04 5.3767  
6E+03 3.04934E+03 8.52158E+02 4.32634E+02 1.62232E+01 7.84123E+00 0. 5.78503E-01 1.55343E-  
01 9.32059E-02 9.42100E+02 1.48275E+05 8.38507E+04 4.88972E+04 2.47711E+04 6.23  
618E+03 3.42092E+03 8.87455E+02 4.46417E+02 1.71245E+01 1.02747E+01 1.92834E+00 1.37394E+00 1.38083  
E-01 8.28497E-02 1.00210E+03 1.55771E+05 8.31710E+04 5.18408E+04 2.56703E+04 6.  
84080E+03 3.72371E+03 1.01688E+03 4.51158E+02 1.55473E+01 8.82316E+00 1.08469E+00 1.75073E+00 1.035  
62E-01 7.63089E-02 1.06210E+03 1.58607E+05 8.28027E+04 5.22637E+04 2.64129E+04  
7.25021E+03 3.81288E+03 9.37878E+02 4.72413E+02 2.90666E+01 1.60430E+01 2.53095E+00 1.92834E+00 1.0  
3562E-01 9.66580E-02 1.12210E+03 1.57496E+05 8.14151E+04 5.41376E+04 2.66750E+0  
4 7.43850E+03 3.81484E+03 1.03088E+03 4.35824E+02 2.61374E+01 2.35838E+01 3.85669E+00 2.73182E+00 1  
.38083E-01 5.75345E-02 1.18210E+03 1.53025E+05 8.30641E+04 5.27512E+04 2.77627E  
+04 7.41915E+03 3.92157E+03 9.43929E+02 4.53219E+02 3.08241E+01 3.05378E+01 5.20653E+00 1.70148E+00  
3.31399E-01 1.09654E-01 1.24210E+03 1.55041E+05 8.10038E+04 5.73549E+04 2.7411  
5E+04 7.62161E+03 3.89352E+03 9.14347E+02 4.40563E+02 4.28113E+01 3.26055E+01 4.57981E+00 2.38207E+  
00 3.10686E-01 1.34022E-01 1.30210E+03 1.56169E+05 8.21236E+04 5.74627E+04 2.77  
206E+04 7.48342E+03 3.98446E+03 9.66452E+02 4.62481E+02 6.62449E+01 4.16966E+01 1.80782E+00 2.58804  
E+00 1.55343E-01 9.81115E-02 1.36210E+03 1.51592E+05 8.05252E+04 5.72886E+04 2.  
84605E+04 7.90837E+03 3.78777E+03 9.34517E+02 4.87054E+02 7.36805E+01 5.39272E+01 2.89251E+00 2.812  
17E+00 2.58905E-01 1.15069E-01 1.42210E+03 1.58027E+05 7.99392E+04 5.92454E+04  
2.89773E+04 8.11567E+03 3.99450E+03 9.86061E+02 4.89669E+02 9.01291E+01 7.66097E+01 3.37460E+00 3.0  
5321E+00 6.90414E-02 1.03562E-01

TAPE NO. 1 FILE NO. 2  
RECORD 1 LENGTH 5000

\$JOB 14:54:32  
\$NOP \*\*\*\*\* ASCII LIST OF X-400 \*\*\*\*\*  
\$ASS IN MT3  
\$EXE TPLIST BS

D-46727  
3/22/79 → 4/3

INPUT PARAMETERS ARE: AS SR=1=1 4

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DAY= 90(MAR31)1979 SCATHA SC2-6 IONS W.N. SPJELDVIK, NOAA/SEL

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2 2.47496E+02 1.68992E+01 6.75968E+00 3.61564E-01 3.61564E-01 1.03562E-01 7.76716E-02  
1.02102E+02 1.42090E+05 9.13638E+04 4.33582E+04 2.31475E+04 3.64842E+03 2.44549E+03 3.54646E  
+02 2.53502E+02 1.08155E+01 9.06592E+00 3.61564E-01 5.95518E-01 1.03562E-01 3.65513E-02  
1.62102E+02 1.41244E+05 8.85660E+04 4.18905E+04 2.20881E+04 3.70025E+03 2.32233E+03 3.3279  
5E+02 2.34914E+02 1.21674E+01 7.95256E+00 0. 8.50739E-02 1.55343E-01 3.65513E-02  
2.22102E+02 1.44328E+05 8.76381E+04 4.34826E+04 2.26381E+04 3.80390E+03 2.36537E+03 4.20  
196E+02 2.38141E+02 1.35194E+01 7.25776E+00 3.61564E-01 4.56713E-01 1.03562E-01 5.45064E-02  
2.82102E+02 1.49270E+05 8.78581E+04 4.66750E+04 2.26800E+04 4.13212E+03 2.44938E+03 3.  
78737E+02 2.40618E+02 1.26181E+01 5.97698E+00 0. 3.04475E-01 1.38083E-01 8.72102E-02  
3.42101E+02 1.48756E+05 8.88391E+04 4.59204E+04 2.30956E+04 3.95419E+03 2.45071E+03  
3.83219E+02 2.41286E+02 2.16310E+01 7.81119E+00 3.61564E-01 1.60695E-01 0. 5.75345E-02  
4.02101E+02 1.48458E+05 8.98068E+04 4.69403E+04 2.34021E+04 4.17444E+03 2.53146E+0  
3 4.47089E+02 2.27400E+02 1.35194E+01 7.47541E+00 0. 1.70148E-01 5.17811E-02 1.21838E-01  
4.62101E+02 1.50796E+05 8.77114E+04 4.83665E+04 2.31312E+04 4.57435E+03 2.47785E  
+03 4.54933E+02 2.08417E+02 1.26181E+01 5.23875E+00 0. 9.03911E-02 6.90414E-02 9.06169E-02  
5.22101E+02 1.54428E+05 8.62131E+04 5.03731E+04 2.29778E+04 4.62272E+03 2.4692  
7E+03 4.26919E+02 1.94576E+02 1.55473E+01 3.97628E+00 0. 1.70148E-01 5.17811E-02 3.65513E-  
02 5.82101E+02 1.52687E+05 8.64706E+04 4.92289E+04 2.29222E+04 4.35323E+03 2.42  
781E+03 4.00027E+02 1.89039E+02 1.35194E+01 9.06592E+00 3.61564E-01 3.40296E-01 5.17811E-02 8.52865  
E-02 6.42101E+02 1.46816E+05 8.56592E+04 4.68740E+04 2.35945E+04 4.55017E+03 2.  
45323E+03 3.69773E+02 2.07577E+02 1.08155E+01 7.77363E+00 1.44626E+00 0. 6.90414E-02 6.472  
63E-02 7.02101E+02 1.48955E+05 8.70442E+04 4.68159E+04 2.37299E+04 4.31696E+03  
2.43208E+03 4.58854E+02 2.11581E+02 1.62232E+01 7.15731E+00 3.61564E-01 4.25370E-01 1.03562E-01 8.5  
2865E-02 7.62101E+02 1.50896E+05 8.67632E+04 4.86567E+04 2.42771E+04 4.69009E+0  
3 2.56438E+03 5.68105E+02 2.82372E+02 1.82511E+01 7.95256E+00 7.23129E-01 4.25370E-01 2.07124E-01 6  
.09189E-02 8.22100E+02 1.51725E+05 8.56512E+04 4.95605E+04 2.47600E+04 5.06841E  
+03 2.73998E+03 7.66438E+02 3.46835E+02 2.43348E+01 1.19288E+01 0. 5.95518E-01 2.07124E-01  
9.74702E-02 8.82100E+02 1.49204E+05 8.51741E+04 4.71393E+04 2.44975E+04 5.3767  
6E+03 3.04934E+03 8.52158E+02 4.32634E+02 1.62232E+01 7.84123E+00 0. 5.78503E-01 1.55343E-  
01 9.32059E-02 9.42100E+02 1.48275E+05 8.38507E+04 4.88972E+04 2.47711E+04 6.23  
618E+03 3.42092E+03 8.87455E+02 4.46417E+02 1.71245E+01 1.02747E+01 1.92834E+00 1.37394E+00 1.38083  
E-01 8.28497E-02 1.00210E+03 1.55771E+05 8.31710E+04 5.18408E+04 2.56703E+04 6.  
84080E+03 3.72371E+03 1.01688E+03 4.51158E+02 1.55473E+01 8.82316E+00 1.08469E+00 1.75073E+00 1.035  
62E-01 7.63089E-02 1.06210E+03 1.58607E+05 8.28027E+04 5.22637E+04 2.64129E+04  
7.25021E+03 3.81288E+03 9.37878E+02 4.72413E+02 2.90666E+01 1.60430E+01 2.53095E+00 1.92834E+00 1.0  
3562E-01 9.66580E-02 1.12210E+03 1.57496E+05 8.14151E+04 5.41376E+04 2.66750E+0  
4 7.43850E+03 3.81484E+03 1.03088E+03 4.35824E+02 2.61374E+01 2.35838E+01 3.85669E+00 2.73182E+00 1  
.38083E-01 5.75345E-02 1.18210E+03 1.53025E+05 8.30641E+04 5.27512E+04 2.77627E  
+04 7.41915E+03 3.92157E+03 9.43929E+02 4.53219E+02 3.08241E+01 3.05378E+01 5.20653E+00 1.70148E+00  
3.31399E-01 1.09654E-01 1.24210E+03 1.55041E+05 8.10038E+04 5.73549E+04 2.7411  
5E+04 7.62161E+03 3.89352E+03 9.14347E+02 4.40563E+02 4.28113E+01 3.26055E+01 4.57981E+00 2.38207E+  
00 3.10686E-01 1.34022E-01 1.30210E+03 1.56169E+05 8.21236E+04 5.74627E+04 2.77  
206E+04 7.48342E+03 3.98446E+03 9.66452E+02 4.62481E+02 6.62449E+01 4.16966E+01 1.80782E+00 2.58804  
E+00 1.55343E-01 9.81115E-02 1.36210E+03 1.51592E+05 8.05252E+04 5.72886E+04 2.  
84605E+04 7.90837E+03 3.78777E+03 9.34517E+02 4.87054E+02 7.36805E+01 5.39272E+01 2.89251E+00 2.812  
17E+00 2.58905E-01 1.15069E-01 1.42210E+03 1.58027E+05 7.99392E+04 5.92454E+04  
2.89773E+04 8.11567E+03 3.99450E+03 9.86061E+02 4.89669E+02 9.01291E+01 7.66097E+01 3.37460E+00 3.0  
5321E+00 6.90414E-02 1.03562E-01

TAPE NO. 1 FILE NO. 2  
RECORD 1 LENGTH 5000

STP P78-2

64-S DIFFERENTIAL ELECTRON FLUX, TAPE

79-007A-15A SPMS-00591

This data set has been restored. There was originally one 9-track, 1600 BPI tape written in ASCII. There is one restored tape. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The original tape was created on an IBM 7094 computer and the restored tape was created on an IBM 9021 computer. The DR and DS numbers along with the corresponding D number are as follows:

DR#	DS#	D#	FILES	TIME SPAN
-----	-----	-----	-----	-----
DR005693	DS005693	D047132	1 - 3	03/22/79 - 04/01/79

REQ. AGENT

LSM

REQ. NO.

V0144

ACQ. AGENT

DMS

SCATHA

HIGH ENERGY PARTICLE SPECTROMETER

79-007A-15A

This data set catalog consists of 1 tape(s). The tape(s) are 9 track, 1600 bpi, ascii with 3 file(s) of data. The time span D and C numbers are as follows:

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-47132	C-22005	3/22/79, 3/31/79, 4/1/79

INFORMATION SHEET FOR INCOMING DATA

NSSDC ID: 79-007A-15A

DATE DATA RECEIVED: 1/6/82

DATE NSDF COORDINATOR CONSULTED: \_\_\_\_\_

DATE SCIENTIST NOTIFIED: \_\_\_\_\_

SOURCE:	MATERIAL RECEIVED: (NUMBER OF SHEETS OF HARDCOPY, NUMBER 100' REELS MICROFILM, NUMBER OF MAGNETIC TAPES, ETC.)
PI AND AFFILIATION:	1 mag tape

SATELLITE NAME/NSDF NAME: Satka

EXPERIMENT NAME: \_\_\_\_\_

DATA SET FULL NAME: High Energy Particle Spectrometer

CONTACT: \_\_\_\_\_ ACQUISITION SCIENTIST: D.M.S

FORM THAT WILL BE ANNOUNCED IN AIM/NSDF: DD

THESE ARE:  A NEW DATA SET  ADDITIONS  REPLACEMENTS  OTHER (EXPLAIN BELOW)

ACCESSION UNIT NUMBERS: DD 47132 C-22005

REMARKS:

CDAW

DATA RECEIPT NOTIFICATION SENT?

Moran  
DATA TECHNICIAN



Date Jan 4

NSSDC ID 79-007A-15A

# CDAW DATA SET ENTRY

Date Rcvd : Jan 4 1982 EDB: 46

Data Sent By : ~~XXXXXXXXXX~~ J. Reagan

Material Rcvd : Letter, 1 tape, documentation

Verification plots, Data Listing

Workshop Questionnaire

Satellite/NSRF Name: Scatha (STP P78-2)

Data Set Name: High Energy Particle Spectrometer

New Data Set     Additions     Replacements  
Comments \_\_\_\_\_

Time Coverage : Mar 22 1979 - April 1 1979

Tapes To be Returned to: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Completed By: \_\_\_\_\_

*Lockheed*

PALO ALTO  
RESEARCH  
LABORATORY

Department 52-12, Building 255

3251 HANOVER STREET • PALO ALTO, CALIFORNIA • 94304

December 23, 1981

Dr. James I. Vette  
(CDB-6 Workshop)  
Code 601  
NASA/Goddard Space Flight Center  
Greenbelt, MD 20771

Dear Dr. Vette:

Please find enclosed a magnetic tape of P78-2 (SCATHA) SC-3 energetic electron flux data for the CDB-6 workshop days of 22 March, 31 March and 1 April 1979. Also please find enclosed a completed workshop questionnaire with Dr. J. B. Reagan, SC-3 experiment P.I., as the principle contact for this data set; listings of the data on magnetic tape; and a set of survey plots of this data.

In addition to the brief descriptions of the data set at the beginning of the survey plots and of each data listing, please note the following about the SC-3 data set. The experiment normally dwells for 64 seconds in each of two electron modes, the low energy mode (first 4 channels) and the high energy mode (last 4 channels). Thus for a specified universal time (UT) 4 channels have data and 4 channels contain zeros, which are to be taken as "NO DATA AVAILABLE" not as zero flux. Every 64 seconds the zeros move to the other data group. Thus the spin-averaged differential electron flux (electrons/cm<sup>2</sup>-sec-sr-keV) is provided for every other 64 second interval at the interval centroid time, where good data exists, along with the number of seconds of data used in the average. Data gaps are indicated when the number of seconds of average data is zero. Additional zeros can appear in energy channels 7 and 8 when the resultant flux becomes negative upon background subtraction. Please note that taking long-time averages of channels 7 and 8 may give misleading results because of this background subtraction.

Dr. James I. Vette  
December 23, 1981  
Page 2

If there are any questions regarding the above or the enclosed data please contact Dr. J. B. Reagan (415) 858-4050 or myself (415) 858-4093. We are looking forward to continued participation in CDAW-6.

Sincerely,

*Richard Nightingale*

Richard W. Nightingale  
Space Sciences Laboratory

Enclosures

cc: Dr. Ted Fritz, NOAA  
Dr. J. B. Reagan

PRE-CDAW-6  
SC-3 DATA SET

Spacecraft: P78-2 - SCATHA Spacecraft

Data source: SC-3 Experiment - Energetic Electrons (47-4970 keV)

Lockheed Palo Alto Research Laboratory:  
J. B. Reagan, R. W. Nightingale, W. L. Imhof

Data/format to be provided:

- 1) 64-sec spin-averaged differential electron flux ( $e^-/cm^2\text{-sec-sr-keV}$ ) for 8 energy channels.

Channel 1: 47-66 keV  
2: 66-87 keV  
3: 87-129 keV  
4: 129-299 keV  
5: 634-1026 keV  
6: 1026-1419 keV  
7: 1419-2603 keV  
8: 2603-4970 keV

- 2) Survey plots for each time period are attached.
- 3) Magnetic tape listing of the data will be available before CDAW meeting.
- 4) Ten minute averaged pitch angle distribution and spectral plots can be produced for limited time periods.

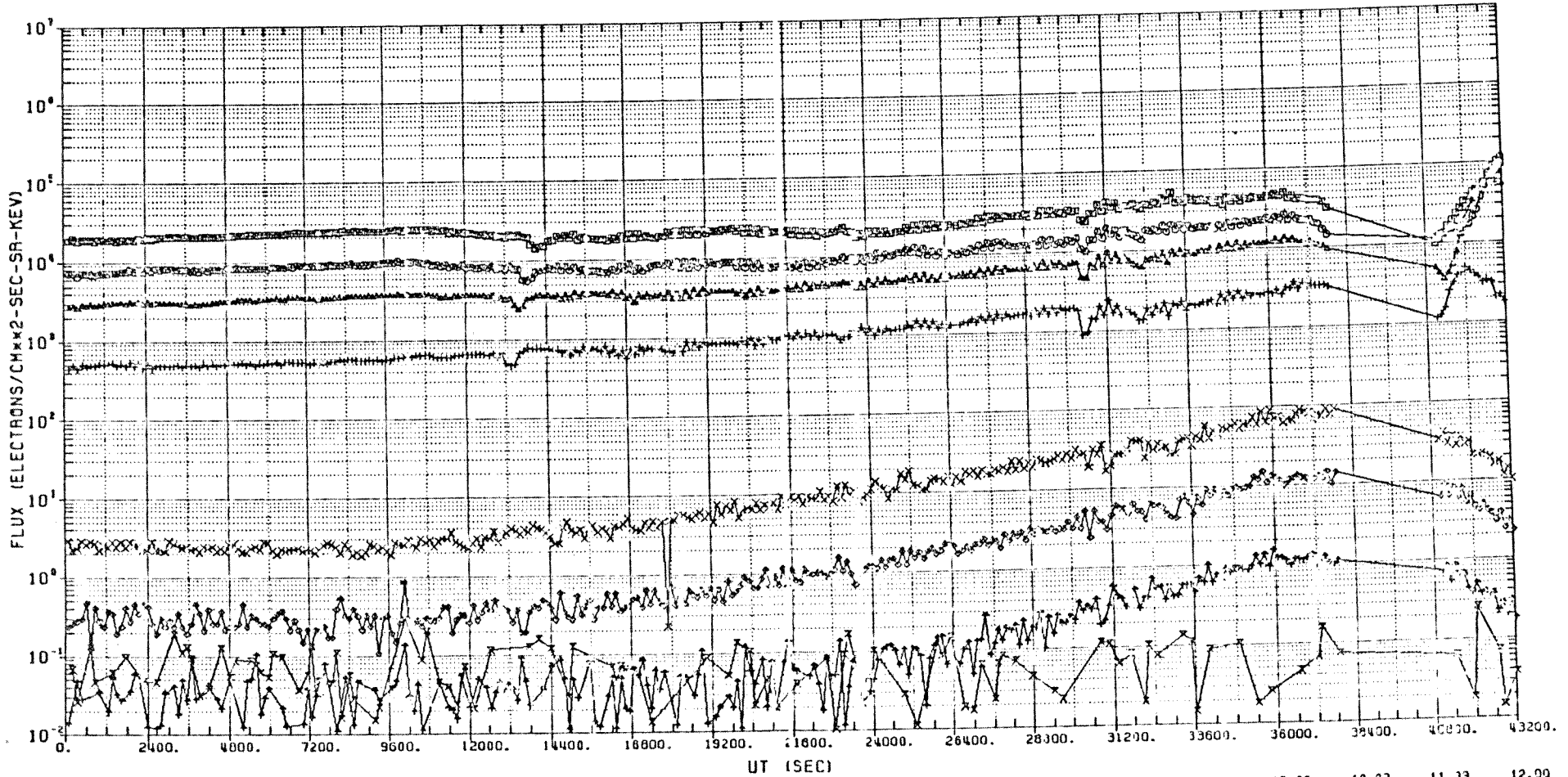
DATA COVERAGE:

- 1) Day 81, 22 Mar 79 SC-3 data for whole day available except for gap at ~37200-41000 S UT
- 2) Day 90, 31 Mar 79 SC-3 data for whole day available except for gaps at ~4800-12000 S, ~43300-45500 S, and ~53400-70800 S UT.
- 3) Day 91, 1 Apr 79 SC-3 data for whole day available except for gap at ~1200-3000 S UT.

SC-3 FORMAT2-C FOR DAY 81, 3/22/79

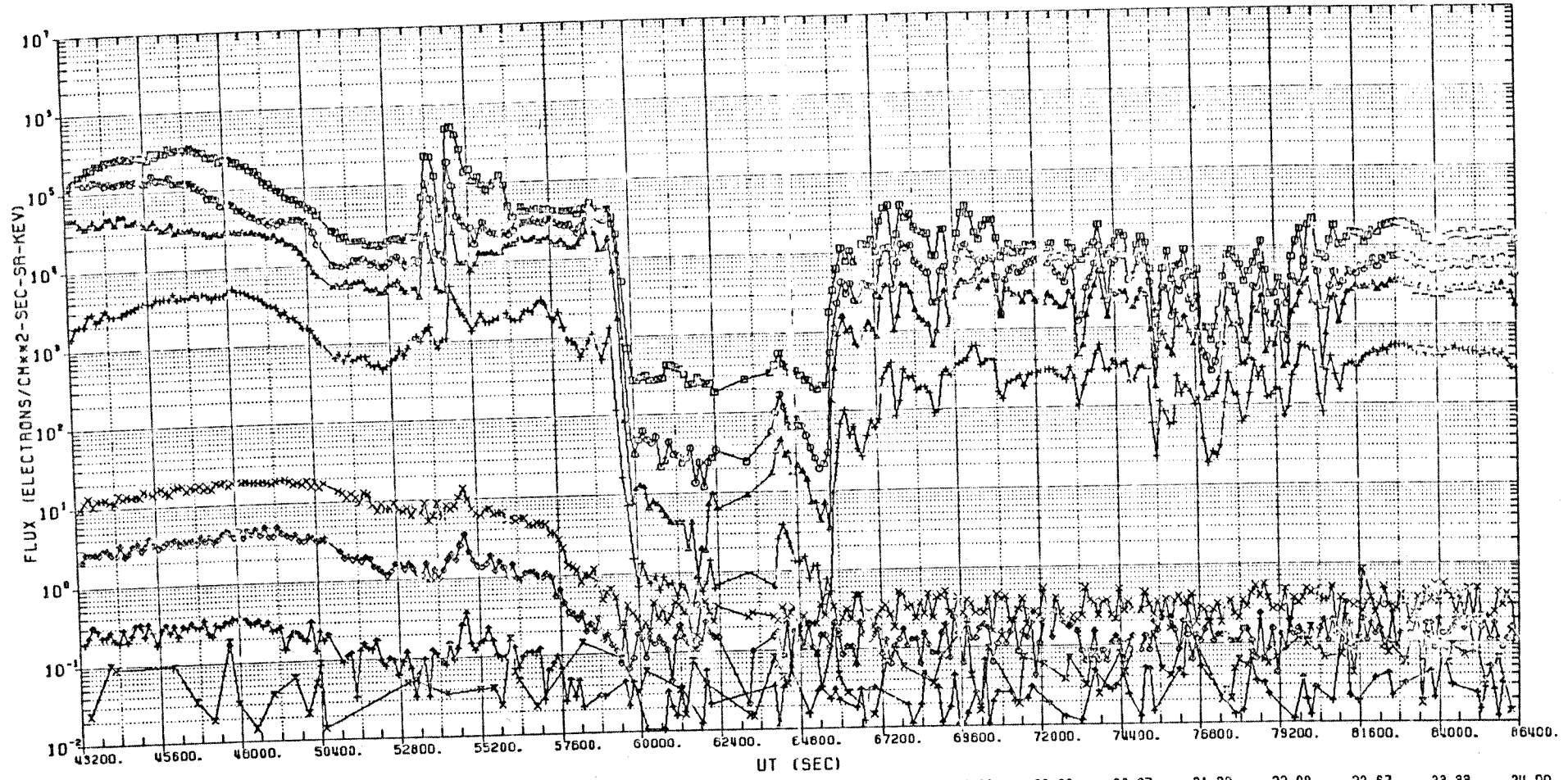
CHANNEL ASSIGNMENTS

- : 47-68 KEY
- : 66-87
- ▲ : 87-129
- +
- × : 694-1026 KEY
- ◆ : 1026-1419
- ↑ : 1419-2603
- ×



UT (H)	0.00	0.67	1.33	2.00	2.67	3.33	4.00	4.67	5.33	6.00	6.67	7.33	8.00	8.67	9.33	10.00	10.67	11.33	12.00
LT (H)	4.35	4.84	5.32	5.80	6.26	6.73	7.20	7.68	8.16	8.66	9.18	9.72	10.29	10.89	11.54	12.22	12.96	13.74	14.58
MLT (H)	4.21	4.70	5.19	5.68	6.18	6.65	7.15	7.65	8.16	8.68	9.22	9.77	10.35	10.95	11.59	12.28	12.98	13.74	14.58
GLON	67.10	64.47	61.68	59.73	55.74	52.74	49.78	46.92	44.21	41.71	39.49	37.61	36.10	35.20	34.82	35.10	36.11	37.92	40.54
CLAT	-3.21	-2.28	-1.90	-0.94	0.62	1.58	2.49	3.40	4.28	5.08	5.83	6.50	7.08	7.48	7.72	7.75	7.50	6.93	5.99
MLAT	-11.50	-10.21	-8.86	-7.47	-6.06	-4.64	-3.23	-1.86	-0.53	0.72	1.86	2.86	3.68	4.28	4.59	4.56	4.12	3.23	1.83
B/OO	1.41	1.00	1.19	1.13	1.08	1.05	1.03	1.02	1.01	1.00	1.00	1.00	1.00	1.01	1.01	1.01	1.01	1.01	1.00
L	6.02	7.00	7.92	7.67	7.81	7.75	7.68	7.55	7.40	7.23	7.05	6.88	6.72	6.57	6.42	6.25	6.07	5.79	5.74
KP/DST	1-18	1-18	1-18	1-14	1-14	1-9	1-10	1-10	1-14	4/15	4/15	4/17	4/33	4/33	8-147	8-737	8-737	8-114	7-122

CHANNEL ASSIGNMENTS  
 □ : 47-65 KEV      X : 894-1025 KEV  
 ○ : 66-87          ◆ : 1026-1419  
 ▲ : 87-129        † : 1419-2603  
 + : 129-299        X : 2603-4970

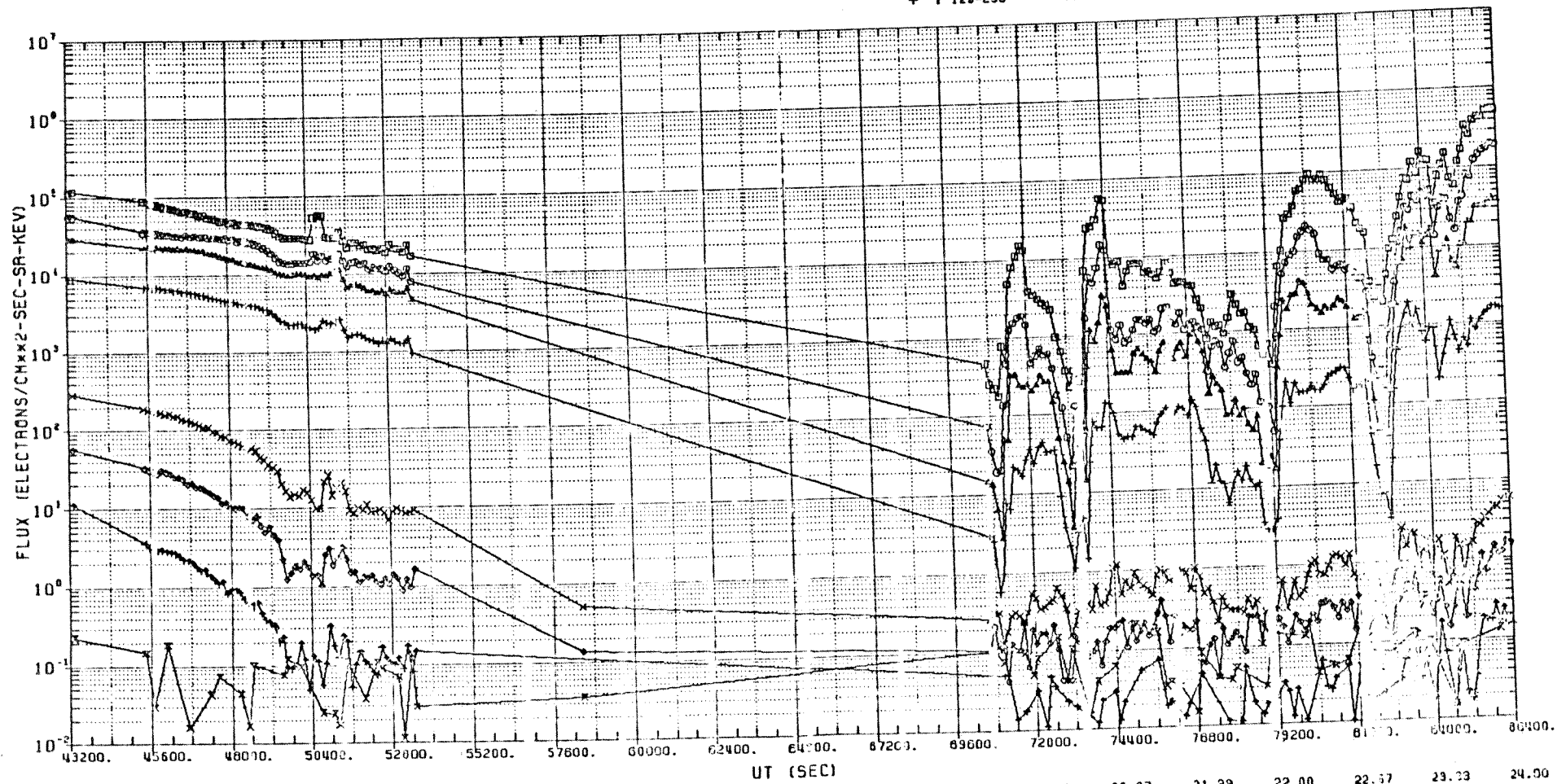


	12.00	12.67	13.99	14.00	14.67	15.33	16.00	16.67	17.99	18.00	18.67	19.99	20.00	20.67	21.99	22.00	22.67	23.99	24.00
UT (H)	12.00	12.67	13.99	14.00	14.67	15.33	16.00	16.67	17.99	18.00	18.67	19.99	20.00	20.67	21.99	22.00	22.67	23.99	24.00
LT (H)	14.50	15.48	16.42	17.40	18.39	19.38	20.36	21.30	22.20	23.04	23.82	0.55	1.24	1.87	2.47	3.04	3.58	4.09	4.59
MLT (H)	14.56	15.42	16.93	17.29	18.27	19.26	20.23	21.18	22.08	22.94	23.74	0.49	1.17	1.80	2.99	2.93	3.46	3.96	4.46
GLON	40.54	43.96	46.06	52.69	57.60	62.52	67.17	71.29	74.70	77.31	79.09	80.06	80.29	79.04	78.82	77.29	75.96	73.09	70.55
GLAT	5.99	4.68	9.01	1.10	-0.94	-2.91	-4.64	-6.02	-7.00	-7.58	-7.76	-7.66	-7.31	-6.78	-6.10	-5.32	-4.47	-3.57	-2.84
MLAT	1.83	-0.08	-2.43	-5.09	-7.88	-10.57	-12.93	-14.83	-16.21	-17.06	-17.45	-17.44	-17.12	-16.54	-15.77	-14.83	-13.78	-12.62	-11.39
B/BO	1.00	1.00	1.01	1.04	1.11	1.21	1.38	1.60	1.81	1.92	1.98	2.05	2.14	2.17	2.11	1.93	1.72	1.52	1.37
L	5.74	5.63	5.55	5.51	5.55	5.66	5.91	6.20	6.50	6.77	7.03	7.30	7.56	7.79	7.86	8.05	8.08	8.06	8.02
KP/DST	7-/-22	7-/-22	7-/-19	7-/-28	7-/-28	7-/-50	7-/-74	7-/-74	7-/-57	7-/-47	4-/-47	4-/-48	4-/-37	4-/-37	3-/-30	3-/-22	3-/-22	3-/-20	3-/-20
24-NOV-81 10:02:40																			



SC-3 FORMAT2-C FOR DAY 90, 3/31/79

CHANNEL ASSIGNMENTS  
 □ : 47-88 KEV      × : 834-102E KEV  
 ○ : 88-87          ⊕ : 1028-1419  
 ▲ : 87-129        † : 1419-2603  
 + : 129-299        × : 2603-4970



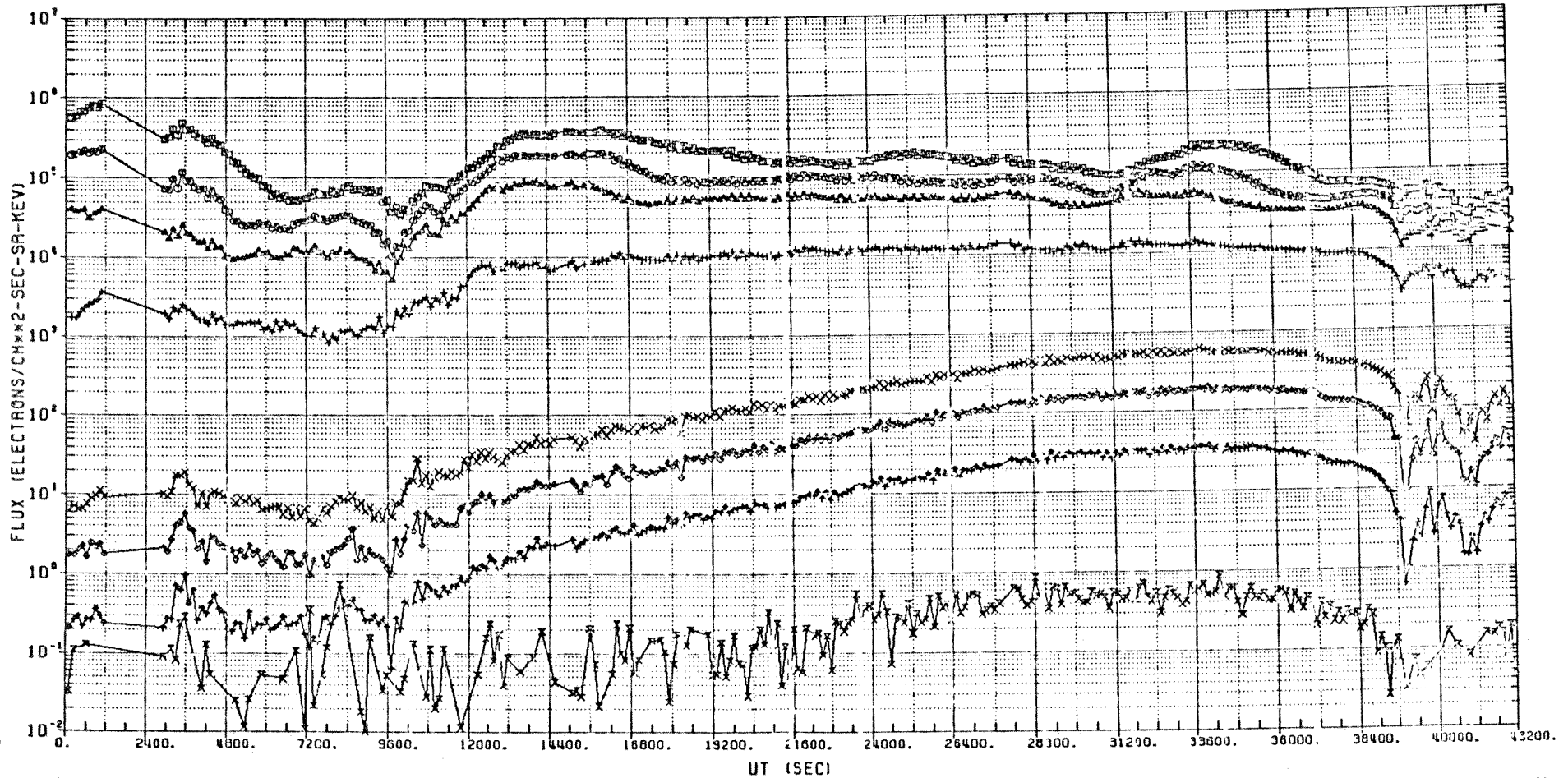
	12.00	12.87	13.33	14.00	14.87	15.33	16.00	16.87	17.33	18.00	18.67	19.33	20.00	20.87	21.33	22.00	22.87	23.33	24.00
UT (H)	12.00	12.87	13.33	14.00	14.87	15.33	16.00	16.87	17.33	18.00	18.67	19.33	20.00	20.87	21.33	22.00	22.87	23.33	24.00
LT (H)	19.20	20.17	21.09	21.97	22.79	23.55	0.27	0.93	1.56	2.14	2.70	3.23	3.74	4.23	4.71	5.18	5.65	6.11	6.59
MLT (H)	19.10	20.07	21.01	21.89	22.73	23.52	0.28	0.96	1.60	2.20	2.75	3.26	3.77	4.26	4.73	5.19	5.65	6.10	6.58
GLON	109.13	113.60	117.49	120.61	122.92	124.41	125.08	124.42	123.21	121.53	119.47	117.10	114.48	109.78	105.77	101.63	97.34	92.91	88.34
GLAT	-9.59	-5.21	-8.45	-7.27	-7.70	-7.78	-7.57	-7.15	-8.55	-5.83	-5.02	-4.15	-3.23	-2.28	-1.32	-0.38	0.61	1.55	2.49
MLAT	-14.86	-14.44	-17.60	-18.31	-18.63	-18.64	-18.40	-17.97	-17.42	-16.76	-16.02	-15.23	-14.39	-13.50	-12.58	-11.63	-10.64	-9.64	-8.63
Ø/ØØ	1.44	1.44	1.92	2.14	2.21	2.19	2.10	2.22	2.25	2.09	1.90	1.70	1.52	1.38	1.26	1.20	1.20	1.15	1.11
L	5.82	6.00	6.39	6.70	6.86	7.18	7.41	7.65	7.88	8.00	8.18	8.20	8.19	8.15	8.09	8.01	7.91	7.85	7.78
KP/ØØT	3 7/-24	3 7/-24	3 7/-22	3 7/-25	3 7/-25	3 +/-33	3 +/-41	3 +/-41	3 +/-47	3 +/-38	3 +/-38	3 +/-36	3 +/-35	3 +/-35	3 +/-35	5 +/-39	5 +/-35	5 +/-35	5 +/-40



SC-3 FORMAT2-C FOR DAY 91, 4/ 1/79

## CHANNEL ASSIGNMENTS

□ : 47-66 KEY	× : E34-1026 KEY
○ : 66-87	◆ : 1026-1419
▲ : 87-129	↑ : 1419-2603
+ : 129-299	× : 2603-4970



	0.00	0.87	1.39	2.00	2.87	3.39	4.00	4.87	5.39	6.00	6.87	7.39	8.00	8.87	9.39	10.00	10.87	11.39	12.00
UT (H)	0.00	0.87	1.39	2.00	2.87	3.39	4.00	4.87	5.39	6.00	6.87	7.39	8.00	8.87	9.39	10.00	10.87	11.39	12.00
LT (H)	6.58	7.06	7.55	8.05	8.56	9.10	9.67	10.27	10.91	11.60	12.33	13.11	13.95	14.84	15.78	16.76	17.75	18.74	19.72
MLT (H)	8.58	7.03	7.51	8.01	8.53	9.07	9.65	10.25	10.89	11.58	12.31	13.08	13.91	14.79	15.71	16.88	17.88	18.88	19.84
GLON	99.81	96.95	94.23	91.72	89.49	87.60	86.12	85.14	84.73	84.98	85.98	87.73	90.32	93.39	97.78	102.36	107.20	112.10	116.94
GLAT	2.49	3.39	4.28	5.07	5.83	6.50	7.08	7.49	7.74	7.78	7.52	6.98	6.03	4.73	3.08	1.18	-0.87	-2.85	-4.60
MLAT	-8.63	-7.39	-6.63	-5.67	-4.78	-3.98	-3.31	-2.81	-2.53	-2.57	-2.84	-3.53	-4.63	-6.13	-7.96	-10.05	-12.13	-14.10	-15.77
B/O0	1.11	1.11	1.08	1.04	1.03	1.02	1.02	1.01	1.01	1.01	1.01	1.01	1.01	1.04	1.08	1.15	1.25	1.30	1.30
L	7.78	7.78	7.51	7.34	7.14	6.94	6.73	6.54	6.38	6.19	6.01	5.84	5.61	5.53	5.55	5.55	5.61	5.74	5.74
KP/DST	4+/-48	4+/-48	4+/-54	4+/-47	4+/-47	5-/-53	5-/-44	5-/-44	5-/-38	5-/-31	5-/-31	3-/-38	3-/-34	3-/-34	4-/-36	4-/-44	4-/-44	4-/-44	4-/-40

\$EXE TPLIST BS

INPUT PARAMETERS ARE: AS SR=1=1 3

TAPE NO. 1 FILE NO. 1
RECORD 1 LENGTH 2160

\* LOCKHEED PALO ALTO RESEARCH LABORATORY SCATHA SC3 EXPERIMENT \*\*

3/22/79 \*\* DAY 81 =

\*\* THE FOLLOWING RECORDS CONTAIN 64 SEC AVERAGES OF DIFFERENTIAL ELECTRON

\*\* FLUX FOR 1 DAY OF SC-3 DATA. \*\* UT = CENTER
UT FOR 64 SECOND AVERAGE \*\* SD = SECONDS OF ELECTRON DATA I
N AVERAGE (NORMALLY 64 SECONDS) \*\* THE REST OF COLUMN HEADINGS ARE ENERGY BOUNDS IN K
EV FOR EACH CHANNEL \*\* DATA FORMAT = I2,I6,I8E9.2

\*\* EACH CHANNEL IS DIFFERENTIAL ELECTRON FLUX IN UNITS OF \*\* ELE
CTRONS/(CM\*\*2-SEC-STER-KEV). \*\* THE RECORDS ARE WRITTEN IN
ASCII CODE, 80 CHARACTERS PER LINE IMAGE AND 27 \*\* LINES PER RECORD, TOTALING 2160 CHARACTER
S (8-BIT-BYTES) PER RECORD. \*\* EACH DAY OF DATA IS WRITTEN AS ONE FILE, ONE TAPE MARK SIGNIFYING
THE \*\* END-OF-FILE. THE LAST RECORD IS COMPLETED WITH ZEROES. \*\* THE
END-OF DATA IS MARKED BY AT LEAST TWO TAPE MARKS. \*\*

\*\* COLUMN NUMBERING

70 80\* ! ! 10 20 30 40 50 60 \*\*23
456789012345678901234567890123456789012345678901234567890123456789\*\* ASCII CHARACTER TES
T PATTERN \*\* !"#%&'()\*+,-./0123456789:;=,.?
@ABCDEFGHIJKLMNPOQRSTUVWXYZ \*\*

\*SD UT 47-66 KEV 66-87 87-129 129-299 634-1026 1026-1419 1419-2603 2603-497
0\*

TAPE NO. 1 FILE NO. 2
RECORD 1 LENGTH 2160

\* LOCKHEED PALO ALTO RESEARCH LABORATORY SCATHA SC3 EXPERIMENT \*\*

3/31/79 \*\* DAY 90 =

\*\* THE FOLLOWING RECORDS CONTAIN 64 SEC AVERAGES OF DIFFERENTIAL ELECTRON

\*\* FLUX FOR 1 DAY OF SC-3 DATA. \*\* UT = CENTER
UT FOR 64 SECOND AVERAGE \*\* SD = SECONDS OF ELECTRON DATA I
N AVERAGE (NORMALLY 64 SECONDS) \*\* THE REST OF COLUMN HEADINGS ARE ENERGY BOUNDS IN K
EV FOR EACH CHANNEL \*\* DATA FORMAT = I2,I6,I8E9.2

\*\* EACH CHANNEL IS DIFFERENTIAL ELECTRON FLUX IN UNITS OF \*\* ELE
CTRONS/(CM\*\*2-SEC-STER-KEV). \*\* THE RECORDS ARE WRITTEN IN
ASCII CODE, 80 CHARACTERS PER LINE IMAGE AND 27 \*\* LINES PER RECORD, TOTALING 2160 CHARACTER
S (8-BIT-BYTES) PER RECORD. \*\* EACH DAY OF DATA IS WRITTEN AS ONE FILE, ONE TAPE MARK SIGNIFYING
THE \*\* END-OF-FILE. THE LAST RECORD IS COMPLETED WITH ZEROES. \*\* THE
END-OF DATA IS MARKED BY AT LEAST TWO TAPE MARKS. \*\*

\*\* COLUMN NUMBERING

70 80\* ! ! 10 20 30 40 50 60 \*\*23
456789012345678901234567890123456789012345678901234567890123456789\*\* ASCII CHARACTER TES
T PATTERN \*\* !"#%&'()\*+,-./0123456789:;=,.?
@ABCDEFGHIJKLMNPOQRSTUVWXYZ \*\*

\*SD UT 47-66 KEV 66-87 87-129 129-299 634-1026 1026-1419 1419-2603 2603-497
0\*

TAPE NO. 1 FILE NO. 3
RECORD 1 LENGTH 2160

\* LOCKHEED PALO ALTO RESEARCH LABORATORY SCATHA SC3 EXPERIMENT \*\*

4/1/79 \*\* DAY 91 =

\*\* THE FOLLOWING RECORDS CONTAIN 64 SEC AVERAGES OF DIFFERENTIAL ELECTRON

\*\* FLUX FOR 1 DAY OF SC-3 DATA. \*\* UT = CENTER
UT FOR 64 SECOND AVERAGE \*\* SD = SECONDS OF ELECTRON DATA I
N AVERAGE (NORMALLY 64 SECONDS) \*\* THE REST OF COLUMN HEADINGS ARE ENERGY BOUNDS IN K

REQ. AGENT  
GLS

RAND NO.  
V0324

ACQ. AGENT  
HKH

STP P78-2

SC2-3 PLASMA DATA  
79-007A-06A

B-FIELD AVERAGE 1 MINUTE DATA  
79-007A-08A

ENERGETIC PROTON FLUXES 1-MINUTE AVERAGE DATA  
79-007A-14A

THESE DATA SETS ARE CONTAINED ON ONE MAGNETIC TAPE. THE TAPE IS 9 TRACK, 6250 BPI, WRITTEN IN ASCII AND CONTAINS 20 FILES OF DATA. THE TAPE WAS CREATED ON A CYBER 176 COMPUTER. THE D AND C NUMBERS AND THE TIME INTERVALS ARE AS FOLLOWS:

<u>D#</u>	<u>C#</u>	<u>TIME INTERVALS</u>
D-73801	C-26044	FILES 6-10 01/28/83 - 06/28/83 (14A) FILES 11-15 01/28/83 - 06/28/83 (06A) FILES 16-20 01/28/83 - 06/28/83 (08A)

\* FILES 1-5 CONTAIN EPHEMERIS DATA, TIME INTERVALS 01/28/83 - 06/28/83.

DATE: 5/21/86

? NSSDC ID: 79-0074-~~14~~14A

P.I.: FENNELL/BLAKE/FRITZ

CDAW DATA SET ENTRY

DATE RECEIVED: 5/16/86

DATA SENT BY: D. Joseph Fennell (Aerospace)

PARTICIPANT: \_\_\_\_\_

MATERIAL RECEIVED: Intro letter (2), Quest, plot pkg, tape dump, CDB Doc, ephemeris data file info, ephemeris data file info, plasma data file info, word/data info, field data file info, SCATHA SC2 Plasma Inst. Part, SC2 Energetic 10N Expt.

SATELLITE/NSDF NAME: 1-9tk, 6250, ASCII tape

CDAW DATA SET MNEMONIC: \_\_\_\_\_

CDAW DATA SET NAME: SCATHA SC2-6

AIM FILE DATA SET NAME: \_\_\_\_\_

~~CDAW NEW DATA SET~~

ADDITIONS

REPLACEMENTS

~~AIM FILE NEW DATA SET~~

ADDITIONS

REPLACEMENTS

COMMENTS: Original plots & tape dump in SC2 folder

TIME COVERAGE: See attached

TAPES TO BE RETURNED TO: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

RECEIVED BY: Leah Satterfield

DATE: 5/21/86

? NSSDC ID: 79-0074-06A

P.I.: FENNELL

CDAW DATA SET ENTRY

DATE RECEIVED: 5/16/86

DATA SENT BY: Dr. Joseph Fennell (Aerospace)

PARTICIPANT: \_\_\_\_\_

MATERIAL RECEIVED: Intro letters (2), Questionnaire, plot pkg, tape dump, CDB Desc. ephemeris data file info, energetic data file info, plasma data file info, word/data file info, B-field data file info, SCATHA SC2 Plasma inst. Para., SCATHA SC2, Energetic ION experiment info, 1-9th, 625-Box, ASI tape

SATELLITE/NSDF NAME: \_\_\_\_\_

? CDAW DATA SET MNEMONIC: SC06

CDAW DATA SET NAME: SCATHA SC2

AIM FILE DATA SET NAME: \_\_\_\_\_

? CDAW NEW DATA SET ADDITIONS REPLACEMENTS

AIM FILE NEW DATA SET ADDITIONS REPLACEMENTS

COMMENTS: Original plot pkg, tape dump will be in folder.

TIME COVERAGE: See attached

TAPES TO BE RETURNED TO: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

RECEIVED BY: Leah Saterwood

DATE: 5/21/86  
NSSDC ID: 79-007A-08A  
P.I.: LEDLEY

CDAW DATA SET ENTRY

DATE RECEIVED: 5/16/86  
DATA SENT BY: Dr. Joseph Tennel (Aerospace)  
PARTICIPANT: \_\_\_\_\_

MATERIAL RECEIVED: Intro letter, (2) Quasi. plots, dump, CDB Doc, ephemeris data, ephemeris data, plasma data, Wd/Plots, B field data, SCATHA SC2 Plasma Inst. Para, SC2 ephemeris 10W spot, 1-9 tick, 4250, ASCI tape

SATELLITE/NSDF NAME: \_\_\_\_\_

CDAW DATA SET MNEMONIC: SC08

CDAW DATA SET NAME: SC-11 B field Annages - ~~16 Sec~~ 16 Sec.

AIM FILE DATA SET NAME: \_\_\_\_\_

CDAW NEW DATA SET                      ADDITIONS                      REPLACEMENTS  
AIM FILE NEW DATA SET                      ADDITIONS                      REPLACEMENTS

COMMENTS: Original plot + tape dump in SC2 folder

TIME COVERAGE: See attached

TAPES TO BE RETURNED TO: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

RECEIVED BY: Lach Stetwood



National Aeronautics and  
Space Administration

# CDB TAPE DOCUMENTATION FORM

## SECTION I. DATA SET DESCRIPTION (Please print.)

1. Spacecraft/Ground Station(s) SCATHA (P78-2)		2. Experiment Name SC2 and SC11		3. Data Set Name Plasma, Energetic ions and magnetic field	
4. Scientific Contact J.F. Fennell		5. Telephone/Telex No. <del>213 643 7075</del> 66-4460		6. SPAN/TELENET Address none yet	
7. Address The Aerospace Corp., MS: M2-259, P.O. Box 92957					
8. City Los Angeles		9. State CA		10. Zip Code or Country 90009	
11. Programmer Contact Arlene Kishi		12. Telephone/Telex No. 213 6485614 / 66-4460		13. SPAN/TELENET Address none yet	

## SECTION II. TAPE DESCRIPTION

1. External Physical Label C-8412 The Aerospace Corp					
2. No. of Tapes Submitted 1			3. Tape Density <input type="checkbox"/> 800 bpi <input checked="" type="checkbox"/> 1600 bpi <input checked="" type="checkbox"/> 6250 bpi		
4. No. of Files (per tape) 20					
5. No. of File Marks Between Files 1		6. After Last File? 2		7. No. of Tracks <input type="checkbox"/> 7 <input checked="" type="checkbox"/> 9	
8. Recording Parity Odd			9. Make and Model of Computer Used to Generate Tape Cyber 176		
10. Tapes are written in: <input type="checkbox"/> binary <input checked="" type="checkbox"/> ASCII <input type="checkbox"/> EBCDIC Combination as shown Other; Specify _____					
11. If binary, what floating point representation is used? (e.g., CDC 64 bit, or IBM 3081 32 bit)					
12. If binary, what integer representation is used? (e.g., 32 bit, 2's complement)					
13. No. of Physical Records (per file) File 1-5: 5    File 7: 6    File 9: 4    File 11: 11    File 13: 9    File 15: 5    File 18: 3 File 6: 5    File 8: 4    File 10: 2    File 12: 4    File 14: 8    File 17: 4    File 20: 2					
14. Are original tapes to be returned? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
15. Start and Stop Time of Each File (If more space is needed, please attach.)  See attached sheets					

## SECTION III. LOGICAL AND PHYSICAL RECORD FORMAT (Please attach.)

## SECTION IV. TO BE FILLED IN BY NSSDC ONLY

Date Received		CDB No.	
Programmer ID		Tape No.	
Data Base		CON Name	
		Date Loaded	

THE AEROSPACE CORPORATION



Post Office Box 92957, Los Angeles, California 90009, Telephone: (213) 648-5000

March 24, 1986

Ms. Leah Gatewood  
CDAW 8  
Code 663  
NASA Goddard Space Flight Center  
Greenbelt, Maryland 20771

Dear Ms. Gatewood:

I can provide the data noted in the questionnaire for the SCATHA satellite. I can easily provide plots, which are already available, of the plasma and energetic proton data at one minute intervals and the magnetic field data at sixteen second intervals. These plots are all scaled as six hours of data per frame with several intensity levels stacked on each frame. The SCATHA plots are on a common time base of 6 hours equals 18.3 cm. It may also be possible to provide some of the SCATHA wave data in the form of plots. Only a few digital channels of wave data are available.

As you will note from the questionnaire, we are scheduled to be connected to SPAN some time this summer. No firm date has been set yet but we expect to be on span by June. We are in the process of switching much of our data processing from a CDC CYBER 176 to a VAX 11/785. This may cause our data formats to change and I cannot say exactly what they will be at this time. If you have any questions, please feel free to call me at (213) 648-7075.

Regards,

Joseph F. Fennell



TWENTY FIVE YEARS OF EXCELLENCE

*An Affirmative Action Employer*

GENERAL OFFICES LOCATED AT: 2350 EAST EL SEGUNDO BOULEVARD, EL SEGUNDO, CALIFORNIA



COORDINATED DATA BASE 8 (CDB-8) QUESTIONNAIRE

(PLEASE RETURN BY MARCH 10, 1986)

NAME: J. F. Fennell TELEPHONE: 3/20/86

ADDRESS: The Aerospace Corp. MS: M2-259  
P.O. Box 92957  
Los Angeles, CA 90009

TELEX (Carrier, Number, Answer Back): 66-4460

TELENET ADDRESS: None

SPAN ADDRESS (Node Name::Account Name): None yet (maybe by June)

TELEMAIL: None

1. I wish to participate: Yes  No

2. If no, do you wish to remain on the distribution list? Yes  No

3. The area of interest with which I would logically affiliate is (denote first and second choices):

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> 1. Solar Wind                | <input checked="" type="checkbox"/> 4. Plasma    | <input type="checkbox"/> 7. Model/Theory |
| <input checked="" type="checkbox"/> 2. Magnetic Field | <input type="checkbox"/> 5. Waves                | <input type="checkbox"/> 8. Other _____  |
| <input type="checkbox"/> 3. Electric Field            | <input checked="" type="checkbox"/> 6. Particles |  |

4. It is highly desirable for NSSDC to receive data by March 24. Please note that NSSDC will assist in averaging, coordinate transformations, etc; the important step is to send the data with documentation now. I can send my data to NSSDC by April 30 (date). The data will be submitted on tape , or electronically using the \_\_\_\_\_ network.

5. The CDAW 8 Planning Committee has selected the following intervals for study. Please indicate, next to each time interval, the time periods for which you will supply data.

Event	Time Interval	I will supply data for the time interval:
A	28 Jan. 1983 0400-1100 UT	Bfield - whole interval (B) Plasma - whole interval (PL) Energetic Protons (EP) - whole interval
B	25 Mar. 1983 0500-1400 UT	B - whole interval PL - " " EP " "
C	26 Mar. 1983 0000-0600 UT	B - whole interval PL - " " EP " "
D	29 Jan. 1983 0500-1400 UT	Bfield 0500-1000 UT Plasma - 0500-1000 UT Energetic Protons - 0900-1000 UT
E	4 June 1983 0500-1000 UT	Data not available yet - processing date unknown
F	27-28 June 1983 1500-0300 UT	B 0000-0300 28 June PL " " " EP - unknown } 27 June not available

6. I will follow the attached CDB Guidelines in submitting the following data sets:

IDENTIFICATION	EXPERIMENT IDENTIFICATION	PRINCIPAL INVESTIGATOR	NO. OF PARAM-EMETERS FOR CDB	TOTAL DATA POINTS FOR CDB	Used Previously in CDAW No. <u>6</u> (is format identical?)
SCATHA	SC2 <del>SC2-6</del>	Fennell,	28-40 <del>30</del> (avg)	~30x2x <del>60</del> / <del>hr</del>	Probably but not certain
SCATHA	SC2-6	Fennell/Bake/Fitz	30	30x <del>2</del> 60/hr	Probably
SCATHA	SC11	Ledley	10	10x240/hr	?

7. Data Averaging: In consideration of the size of the resulting database and to ensure that all data can be loaded, it is suggested that the maximum (highest) time resolution be 1-minute data, and higher resolution data be loaded where appropriate. NSSDC would prefer to receive your data with the time resolution that you normally have or use and will perform averages to your specifications. (See enclosed Guidelines page 1, with particular references to items 3, 4, and 6.)

         I will want NSSDC to perform time averaging and will enclose my specifications with the data.

I want my data set(s) to be loaded without any averaging; if so, my basic time resolution is 16 sec to 1 minute (16 sec for SC11, ~1 min for others)

8. Data Manipulation: If you wish to have special data manipulation functions or subroutines added to the system that are extensive and may be impractical to construct in real time, these should be received as soon as possible (preferably in FORTRAN).

I will \_\_\_\_\_ will not  be submitting data manipulation code for incorporation into the system. These will be sent by \_\_\_\_\_ (date).

9. I suggest that a special effort be made to obtain the following data sets:

\_\_\_\_\_  
\_\_\_\_\_

10. To assist NSSDC in planning support and future development for CDAW-8 please complete this survey:

Remote access via: SPAN  *maybe in June* TELENET \_\_\_\_\_ Modem \_\_\_\_\_ Other None

Type(s) of terminal available: (e.g., TEKTRONIX 4014, VT100 with graphics board, VT240)  
Tek 4014 emulation on Pericom and HDS terminals

Type of PC/Software Communications Package you might use for access to CDAW system: (e.g., MacIntosh/TEKALIKE,...)

PC PLOT, Tekalike

Graphics software available at local node: (e.g., TEMPLATE, NCAR,...)

IDL

Other commercial software packages you might use with CDAW data at your local node: (e.g., IDL,...)

IDL

11. Please forward copies of the Workshop Announcement to any individual who you feel may be interested and ask them to submit this Questionnaire to NSSDC by March 10, 1986.

PLEASE RETURN THIS QUESTIONNAIRE TO:

Ms. Leah Gatewood  
CDAW 8  
Code 633  
NASA Goddard Space Flight Center  
Greenbelt, Maryland 20771  
U.S.A.

Telephone: (301) 344-6818

FTS: 344-6818

SPAN Address: NSSDC::GATEWOOD

TELEX: 89675 NSCOM GBLT

Data is provided for the following:

<u>Day</u>	<u>Times</u>	
5028	4-11 UT	Jan. 28, 1983
5084	5-14 UT	Mar. 25, 1983
5085	0-6 UT	Mar. 26, 1983
5029	5-10 UT	Jan. 29, 1983
5179	0-3 UT	June 28, 1983

There are 20 files on C8412 with blocksize=30720 characters.

<u>File</u>	<u>Data</u>
1	Ephemeris day 5028
2	Ephemeris day 5084
3	Ephemeris day 5085
4	Ephemeris day 5029
5	Ephemeris day 5179
6	Energetic protons day 5028
7	Energetic protons day 5084
8	Energetic protons day 5085
9	Energetic protons day 5029
10	Energetic protons day 5179
11	Plasma day 5028
12	Plasma day 5084
13	Plasma day 5085
14	Plasma day 5029
15	Plasma day 5179
16	Bfield day 5028
17	Bfield day 5084
18	Bfield day 5085
19	Bfield day 5029
20	Bfield day 5179

Ephemeris data files (1024 characters/record, 30 records/block):

(DATA(i), i=1,70)  
 FORMAT (F15.2,F11.2,2F10.2,3F11.2,63F15.2)

Word	Data
✓ 1	Julian Date
✓ 2	UT (seconds)
3	Right Ascension of Greenwich (radians)
4	Rev Number
5	$\vec{X}$ , Satellite Position, ECI (km)
6	" " " "
7	" " " "
8	$\vec{V}$ , Satellite Velocity, ECI (km/sec)
9	" " " "
10	" " " "
11	$\vec{S}$ , Sun Position, ECI (km)
12	" " "
13	" " "
14	$\vec{M}$ , Moon Position, ECI (km)
15	" " "
16	" " "
✓ 17	Radius (km)
✓ 18	Altitude (km)
✓ 19	Latitude (deg)
✓ 20	Longitude (deg)
21	Right Ascension (deg)
22	Velocity (km/sec)
23	Solar Zenith Angle (deg)
24	Shadow Angle (deg)
25	Radius, MAG (ER) (3)
✓ 26	Latitude, MAG (deg)
✓ 27	Longitude, MAG (deg)
28	Radius, SM (ER) (4)
29	Latitude, SM (deg)
✓ 30	Local Time, SM (hr)
31	Radius, GSM (ER) (5)
32	Latitude, GSM (deg)
33	Local Time, GSM (hr)
34	B, (gamma)
✓ 35	L, (ER)
36	Dipole Radius, R (ER)
✓ 37	Dipole Latitude, $\lambda$ (deg)
38	Invariant Latitude, $\Lambda$ (deg)
✓ 39	Local Time (hr)
40	Magnetic Time (hr) (6)
41	B, (gamma), of 100-km North Intercept
42	Latitude (deg)
43	Longitude (deg)
44	B, (gamma), of 100-km South Intercept
45	Latitude (deg)

*Ignore all entries  
 except "✓" words,  
 for CDA*

<u>Word</u>	<u>Data</u>
46	Longitude (deg)
47	B, (gamma), of Equator (minimum B)
48	Radius (ER)
49	Latitude (deg)
50	Longitude (deg)
51	Radius (ER), of mirror point
52	Latitude (deg)
53	Longitude (deg)
54	$\vec{B}$ , (total), ECI (gamma)
55	" " " "
56	" " " "
57	$\vec{B}$ , (main field), ECI (gamma)
58	" " " "
59	" " " "
60	$\vec{V}_D$ , Differential Velocity, ECI (km/sec)
61	" " " "
62	" " " "
63	Differential Velocity, ECI (km/sec)
64	$\vec{M}$ , Dipole Moment, ECI (gamma)
65	" " " "
66	" " " "
67	$\vec{D}$ , Dipole Displacement, ECI (km)
68	" " " "
69	" " " "
70	Tilt Angle (deg)

Plasma data files (768 characters/record, 40 records/block):

TIME, (DATA(i), i=1,76)  
FORMAT(F14.7,6F9.2,70F10.2)

TIME = Day number + Fraction of day

<u>Word</u>	<u>Data</u>	
1	$E_e$ (ev)	17
2		40
3		87
4		187
5		316
6		446
7		612
8		815
9		1090
10		1440
11		1940
12		2580
13		3410
14		4520
15		5900
16		8200
17		10950
18		14400
19		19400
20	$E_e$ (ev)	17
21		40
22		87
23		187
24		316
25		446
26		612
27		815
28		1090
29		1440
30		1940
31		2580
32		3410
33		4520
34		5900
35		8200
36		10950
37		14400
38		19400
39	$E_i$ (ev/q)	18
40		37
41		74
42		154
43		255
44		360
45		490
46		655

All pitch angles GE 70 and LE 110

*Counts/sec*

All pitch angles LE 30 or GE 150

*See back page*

All pitch angles GE 70 and LE 110

<u>Word</u>	<u>Data</u>
47	$E_i$ (ev/q) 880
48	1165
49	1550
50	2060
51	2700
52	3600
53	4800
54	6650
55	8800
56	11600
57	15600
58	$E_i$ (ev/q) 18
59	37
60	74
61	154
62	255
63	360
64	490
65	655
66	880
67	1165
68	1550
69	2060
70	2700
71	3600
72	4800
73	6650
74	8800
75	11600
76	15600

All pitch angles GE 70 and LE 110

*Counts/Dec*

All pitch angles LE 30 or GE 150



Energetic proton data files (320 characters/record, 96 records/block):

TIME,(DATA(i), i=1,30)  
FORMAT(F14.7,2(8F11.2,2F9.2,2F11.2,2F8.2,F9.2))

TIME = Day number + Fraction of day

Word	Data
1	17-29 kev
2	29-54 kev
3	54-104 kev
4	104-189 kev
5	189-363 kev
6	363-717 kev
7	GT 717 kev
8	GT 3.3 mev
9	ALPHA1
10	ALPHA2
11	P1S
12	P2S
13	CNO1
14	GT CNO
15	2B
16	17-29 kev
17	29-54 kev
18	54-104 kev
19	104-189 kev
20	189-363 kev
21	363-717 kev
22	GT 717 kev
23	GT 3.3 mev
24	ALPHA1
25	ALPHA2
26	P1S
27	P2S
28	CNO1
29	GT CNO
30	2B

All pitch angles GE 80 and LE 100

> 120 kev  
> 390 kev

units

count/sec

All pitch angles LT 20 or GT 160

background →

See back page

Bfield data files (48 characters/record, 640 records/block):

TIME, (DATA(i), i=1,4)  
FORMAT (F15.7,3F8.2,F9.2)

TIME = Day number + Fraction of day

<u>Word</u>	<u>Data</u>	
1	Measured B	
2	Measured B <sup>x</sup>	VDH coordinates (Z earth spin axis, Y eastward, X Z-R plane)
3	Measured B <sup>y</sup>	
4	Measured B <sup>z</sup>	
	B	

*Unit: nanotesla*

*Z: Vertical  
X: Northward  
Y: Eastward*

*See back side*

*1/2*

## SCATHA SC2 Plasma Instrument Parameters

Electrons		Ions	
Energy (ev)	Multiplicative Constant for flux conversion	Energy (ev)	Multiplicative Constant for flux conversion
17	730.0	18	90.0
40	241.0	37	43.0
87	169.0	74	21.4
187	66.0	154	10.3
316	48.75	255	6.20
446	40.6	360	4.40
612	33.60	490	3.20
1090	15.40	880	1.80
1440	13.00	1165	1.40
1940	10.25	1550	1.02
2580	8.28	2060	0.77
3410	6.96	2700	0.59
4520	5.71	3600	0.44
5900	4.55	4800	0.33
8200	3.76	6650	0.24
10950	3.73	8800	0.18
14400	3.06	11600	0.14
19400	2.46	15600	0.10

### SCATHA SC2 Energetic Ion Experiment

Channel ID or Energy	Geometric Factor (cm <sup>2</sup> ster)
17 -29 keV	2x10 <sup>-3</sup>
29 -54 keV	"
54 -104 keV	"
104 -189 keV	"
189 -363 keV	"
363 -717 keV	"
>717 keV	"
>3.3 MeV	"
Alpha1 >392 keV	3.6x10 <sup>-4</sup>
Alpha2 >549 keV	"
P1S E <sub>p</sub> >125 keV	" Singles channel
P1S E <sub>p</sub> >390 keV	" Singles channel
CNO1 ECNO 392 to 960 keV	" CNO group
GT CNO EMG>5.4 MeV	" Heavy ions
2B(background)	"

\$NOP  
\$ASS IN HTO  
\$NOP \*\*\*\*\* GAILOUT2 \*\*\*\*\*  
\$EXE TPLIST BS

D-73801

INPUT PARAMETERS ARE: AS SR=1=2 20 1 1

TAPE NO.	1	FILE NO.	1							
RECORD	1	LENGTH	30720							
	2445362.50	0.00	77.61	1481.34	45034.95	-8681.50	3211.66	.09		
	2.79	-.16	89657099.91	-107246608.21	-46501864.62	-146217.73	294367.9			
9	139903.08	45976.41	39598.35	4.01	222.40	4669.09				
	2.79	44.64	127.38	7.22	8.36	292.21	7.20			
	8.24	302.32	7.20	25.25	302.57	91.42				
6.97	6.95	3.44	67.74	302.61	302.32	57400.86				
	61.45	239.92	61172.90	-64.75	185.22	90.10	7.2			
8	.44	221.79	7.29	-3.26	221.12	-21.01				
	19.28	86.86	-24.80	20.37	77.81	-.54	-.50			
	-.16	.75	3335.10	4899.05	29888.03	33.85	-45			
6.00	182.89	-21.10	2445362.50	600.00	77.65	1481.35	45056.77	-7003		
.30	3115.07	-.02	2.81	-.16	89671565.79	-107236571.19	-464975			
11.84	-146814.95	294090.77	139843.98	45704.08	39326.01	3.91				
	221.97	4671.17	2.81	46.36	125.61	7.17	8.			
19	291.80	7.15	8.07	302.45	7.15	24.96				
	302.73	92.26	6.95	6.92	3.43	67.71	302.75			
	302.46	57355.81	61.43	239.53	61163.93	-64.58	1			
85.05	90.91	7.24	.36	221.36	7.24	-3.32				
	220.69	-21.61	18.66	87.73	-25.33	19.77	79.			
34	-.53	-.48	-.16	.73	3117.63	5040.23				
29888.03	53.77	-454.08	182.89	-21.58	2445362.50	1200.00				
77.70	1481.35	45010.87	-5314.58	3013.79	-.13	2.82	-.17	89		
686030.33	-107226532.57	-46493158.36	-147411.71	293812.61	139784.45	45423.63				
	39045.56	3.80	221.57	4673.27	2.83	48.13				
123.79	7.13	8.01	291.42	7.11	7.89	302.60				
	7.11	24.61	302.88	93.13	6.93	6.90	3			
.44	67.67	302.89	302.60	57311.80	61.40	239.16				
61151.83	-64.40	184.91	91.74	7.19	.27	220.95				
	7.20	-3.39	220.28	-22.21	18.03	88.63				
-25.84	19.15	80.95	-.52	-.46	-.17	.72				
2894.19	5171.77	29888.03	73.58	-451.30	182.89	-22				
.04	2445362.50	1800.00	77.74	1481.36	44896.05	-3617.74	2907.90	-.25		
	2.83	-.18	89700493.54	-107216492.36	-46488804.19	-148008.00	29353			
3.52	139724.47	45135.35	38757.27	3.69	221.19	4675.39				
	2.85	49.93	121.93	7.08	7.83	291.06	7.0			
6	7.72	302.74	7.06	24.19	303.04	94.02				
	6.91	6.88	3.45	67.63	303.03	302.74	57268.98			
	61.37	238.81	61136.42	-64.23	184.79	92.57				
7.14	.16	220.57	7.15	-3.48	219.90	-22.79				
	17.37	89.54	-26.34	18.52	82.65	-.51	-.4			
4	-.18	.70	2665.22	5293.41	29888.03	93.25				
-447.65	182.89	-22.50	2445362.50	2400.00	77.78	1481.37	44711.17	-1		
915.26	2797.47	-.37	2.84	-.19	89714955.42	-107206450.56	-464			
84449.34	-148603.83	293253.50	139664.05	44839.53	38461.44	3.58				
	220.83	4677.55	2.87	51.78	120.03	7.04				
7.65	29.73	7.02	7.54	302.89	7.02	23.71				
	303.20	94.93	6.88	6.86	3.47	67.60	303.			
17	302.89	57227.55	61.32	238.48	61117.71	-64.05				
	184.69	93.43	7.10	.05	220.21	7.10	-3.59			
	219.54	-23.36	16.69	90.48	-26.81	17.88				
84.44	-.51	-.42	-.19	.68	2431.14	5404.92				
29888.03	112.74	-443.14	182.89	-22.95	2445362.50	3000.00				
77.83	1481.37	44455.13	-209.75	2682.59	-.49	2.84	-.20			
89729415.96	-17196407.17	-46480093.80	-149199.19	292972.56	139603.18	44536				
.49	38158.40	3.45	220.51	4679.73	2.89	53.67				

EPHMERIS DATA

FILES 1-5

4	4580.52	2.73	149.41	22.79	7.37	14.23			
355.67	7.42	13.99	311.00	7.42	25.86	310.92			
82.87	8.44	7.51	19.39	69.87	310.94	31			
1.04	57987.66	55.27	281.06	54343.77	-79.91	248.38			
36.23	8.51	-13.07	285.28	7.31	-28.32	285.1			
8	8.13	59.16	57.46	7.17	40.58	70.35			
-.77	-.26	.18	.84	-544.74	-5896.10	29876.94			
-250.80	383.01	184.06	12.32	2445513.50	15000.00	75.02	16		
35.12	-6155.08	-46692.60	2606.87	2.61	-.71	.18	-15674332.25		
138784402.92	60176376.47	243178.86	-286796.31	-151514.61	47168.63	407			
90.53	3.17	284.30	4582.49	2.71	150.23	22.01			
7.40	14.34	355.12	7.45	14.10	311.12	7.			
45	25.99	311.05	82.24	8.49	7.54	19.61			
69.93	311.07	311.16	58023.84	55.32	280.76	54476.01			
-79.81	247.11	35.39	8.58	-13.10	284.66				
7.35	-28.47	284.50	6.42	59.28	56.64	5.90			
40.62	69.22	-.79	-.26	.18	.85	-286.			
33	-5914.28	29876.94	-267.31	371.68	184.06	12.23	24		
45513.50	15600.00	75.06	1635.13	-4583.47	-47087.96	2710.97	2.63	-	
.61	.17	-15691813.14	138782776.07	60175670.54	243644.62	-286461.13	-		
151412.94	47388.11	41010.02	3.28	283.75	4584.44	2.70			
150.95	21.33	7.44	14.44	354.54	7.49				
14.20	311.24	7.49	26.12	311.18	81.65	8.54			
7.56	19.80	69.99	311.20	311.27	58060.23	55			
.37	280.45	54612.31	-79.71	245.82	34.59	8.64			
-13.13	284.01	7.38	-28.61	283.79	4.72	59.35			
55.87	4.65	40.61	68.16	-.81	-.27				
.17	.87	-27.37	-5921.15	29876.94	-283.31	359.63			
184.06	12.17	2445513.50	16200.00	75.10	1635.13	-3005.67	-47419.82		
2811.41	2.63	-.50	.16	-15709293.83	138781147.34	60174963.79			
244109.85	-286125.33	-151310.93	47598.08	41219.99	3.39	28			
3.17	4586.37	2.69	151.55	20.76	7.47	14.54			
353.95	7.52	14.30	311.36	7.52	26.24	311.3			
1	81.09	8.59	7.59	19.97	70.05	311.33			
311.39	58096.72	55.42	280.13	54749.39	-79.59	244.52			
33.84	8.71	-13.16	283.34	7.41	-28.73	28			
3.05	3.05	59.38	55.14	3.41	40.57	67.16			
-.82	-.28	.16	.89	231.64	-5916.68	29876.9			
4	-298.77	346.89	184.06	12.13	2445513.50	16800.00	75.15		
1635.14	-1423.87	-47688.59	2908.11	2.64	-.40	.16	-15726774.		
32	138779516.74	60174256.22	244574.54	-285788.92	-151208.60	47798.39			
41420.30	3.49	282.58	4588.29	2.67	152.04	20.30			
7.50	14.63	353.34	7.55	14.39	311.48				
7.55	26.37	311.43	80.56	8.63	7.61	20.14			
70.10	311.45	311.50	58133.17	55.46	279.80	54885.			
93	-79.46	243.24	33.13	8.77	-13.19	282.65			
7.44	-28.85	282.29	1.41	59.36	54.44	2.20			
40.49	66.22	-.84	-.29	.16	.90	4			
90.20	-5900.89	29876.94	-313.66	333.49	184.06	12.10			
2445513.50	17400.00	75.19	1635.14	159.81	-47894.69	3000.99	2.64		
-.29	.15	-15744254.59	138777884.26	60173547.85	245038.69	-285451.89			
-151105.95	47988.88	41610.80	3.59	281.98	4590.19	2			
.66	152.42	19.96	7.53	14.71	352.71	7.58			
14.48	311.59	7.58	26.50	311.56	80.05	8.67			
7.63	20.30	70.15	311.58	311.61	58169.47				
55.50	279.46	55022.29	-79.33	241.98	32.45	8.83			
-13.22	281.94	7.47	-28.95	281.51	-.22	59			
.30	53.78	1.01	40.38	65.34	-.85	-.30			
.15	.92	747.83	-5873.80	29876.94	-327.94	319.46			
184.06	12.10								

30.20	60.10	-0.79	-0.63	-0.04	1.02	5645.		
09	-1787.08	29876.94	-427.62	-163.54	184.06	18.34	24	
45513.50	33600.00	76.37	1635.28	36921.18	-32203.93	3876.52	1.57	2
.05	-0.05	-16216142.89	138733097.58	60154114.27	257365.00	-276122.77	-	-
148211.80	49145.64	42767.61	4.52	263.01	4638.90	2.59	-	-
14.38	130.29	42.25	7.71	14.57	333.12	7.74	-	-
7.79	314.53	20.64	70.41	28.75	314.85	75.50	8.89	-
.13	268.96	58088.48	-73.72	216.61	314.40	58858.04	9.08	56
-12.15	48.86	259.53	7.64	-27.47	257.41	-35.97	44.95	-
-0.05	1.01	-25.28	29.57	60.52	-0.78	-0.64	-	-
184.06	18.78	5717.86	-1538.46	29876.94	-420.05	-182.09	-	-
3844.63	1.49	2445513.50	34200.00	76.42	1635.28	37840.07	-30951.89	-
257813.77	-275768.85	2.12	-0.06	-16233617.27	138731412.54	60153383.12	-	-
2.31	4640.72	-148100.10	49037.45	42659.41	4.50	26	-	-
332.41	7.72	2.59	128.84	43.68	7.70	14.48	-	-
8	75.83	8.85	14.29	314.64	7.72	28.61	314.9	-
314.51	58868.78	56.16	7.77	20.40	70.35	314.94	-	-
29.21	9.01	-12.04	258.82	7.62	-27.26	25	-	-
6.68	-36.95	43.94	49.54	-26.10	28.93	60.98	-	-
-0.76	-0.64	-0.06	1.00	5779.67	-1286.90	29876.9	-	-
4	-411.69	-200.28	184.06	19.22	2445513.50	34800.00	76.46	-
1635.29	38712.91	-29662.18	3808.06	1.42	2.18	-0.06	-16251091.	-
44	138729725.61	60152651.16	258261.98	-275414.35	-147988.09	48918.66	-	-
42540.63	4.46	261.63	4642.54	2.60	127.37	45.14	-	-
7.71	7.68	14.38	331.71	7.71	14.20	314.75	-	-
70.29	28.43	315.11	76.22	8.79	7.75	20.14	-	-
75	-73.34	315.06	314.62	58878.45	56.19	268.19	58217.	-
7.60	-27.04	215.57	30.30	8.94	-11.91	258.13	-	-
28.27	61.50	255.98	-37.90	42.90	50.32	-26.92	-	-
30.43	-1032.87	29876.94	-0.75	-0.64	-0.06	.99	58	-
2445513.50	35400.00	76.51	1635.29	39538.30	-28336.12	3766.82	184.06	19.67
2.24	-0.07	-16268565.39	138728036.81	60151918.39	258709.62	-275059.25	1.34	-
-147875.76	48789.36	42411.32	4.43	260.95	4644.37	2	-	-
.61	125.87	46.61	7.66	14.28	331.03	7.68	-	-
14.10	314.87	7.68	28.21	315.25	331.03	7.68	-	-
56.23	7.72	19.86	70.22	315.18	314.74	58887.05	8.73	-
-11.78	267.81	58274.13	-73.17	215.09	31.54	8.87	-	-
.83	51.20	257.47	7.57	-26.82	255.31	-38.82	41	-
-0.07	.98	5870.03	-776.87	29876.94	-392.61	-235.50	-	-
184.06	20.13	-	-	-	-	-	-	-

TAPE NO.	1	FILE NO.	6							
RECORD	1	LENGTH	30720							
5028.1672706	7247.00	7403.00	3467.00	948.00	214.25	24.50	76.75	2222		
.00	2.75	.75	1822.00	10.50	0.00	0.00	0.00	2823.67	1809.50	785.
33	312.00	86.67	8.50	41.17	1623.83	.42	.25	1659.33	3.42	
0.00	0.00	0.00	5028.1679693	7259.00	7467.00	3451.00	933.50	234.00	3	
1.00	66.75	2197.00	2.75	1.75	1812.00	10.25	0.00	0.00	0.00	2816
.45	1852.45	797.91	321.18	83.00	8.27	40.73	1668.27	.18	0.00	
1640.45	4.36	0.00	0.00	0.00	5028.1686681	7199.00	7316.33	3333.67	9	
17.00	233.67	31.00	69.67	2260.33	1.50	.33	1810.33	10.17	0.00	
0.00	0.00	2869.77	1846.38	811.46	317.77	86.77	8.38	41.77	167	
2.54	.08	0.00	1643.62	4.31	0.00	0.00	0.00	5028.1693668	7339.00	7
475.00	3504.00	964.50	224.75	33.75	74.75	2226.00	1.50	.25	1803.	
00	11.75	0.00	0.00	0.00	2869.55	1823.55	809.00	317.55	86.00	
7.91	43.91	1697.00	.36	.18	1643.00	3.45	0.00	0.00	0.00	5028.
1700656	7250.20	7378.20	3368.60	935.00	215.20	30.80	72.60	2287.00		
1.40	.40	1815.80	8.60	0.00	0.00	0.00	2819.67	1847.50	808.83	
314.50	84.42	7.92	41.17	1709.17	.75	.17	1648.33	3.83	0.00	
0.00	0.00	5028.1707643	7447.00	7611.00	3524.00	961.00	232.25	32.75		

ENERGETIC PROTON FLUXES  
 1-MINUTE AVERAGE DATA  
 FILE 6-10









	-1.00	143.75	7.50	-1.00	2.50	3.75	-1.00	5.00	7.50	15.00
	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
0	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
00	-1.00	2.50	0.00	2.50	2.50	-1.00	2.50	5.00	-1.00	11
.25	25.00	-1.00	42.50	65.00	-1.00	128.75	193.75	271.25	-1.00	-
1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	5179.0528567	-1.00
-1.00	12.50	42.50	82.50	87.50	-1.00	151.25	201.25	-1.00	33.75	-
2.50	-1.00	6.25	6.25	-1.00	3.75	5.00	8.75	-1.00	-1.00	-1.00
-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1.25
1.25	0.00	2.50	-1.00	3.75	3.75	-1.00	16.25	17.50	-1.00	-1.00
46.25	73.75	-1.00	162.50	243.75	258.75	-1.00	-1.00	-1.00	-1.00	-1.00
-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
0	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	5179.0535588	-1.00	-1.00	17.14
25	61.43	83.75	-1.00	182.86	207.50	-1.00	131.43	7.50	-1.00	5.00
0	4.29	-1.00	10.00	7.14	10.00	-1.00	-1.00	-1.00	-1.00	-1.00
00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	0.00	0.00	0.00	0.00
3.75	-1.00	4.29	11.25	-1.00	18.57	13.75	-1.00	43.75	47.14	-
-1.00	160.00	244.29	266.25	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
-1.00	-1.00	-1.00	5179.0542608	-1.00	-1.00	10.00	31.25	83.75	86.25	-
-1.00	212.50	202.50	-1.00	147.50	11.25	-1.00	12.50	7.50	-1.00	-1.00
6.25	3.75	7.50	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
-1.00	-1.00	-1.00	-1.00	1.25	0.00	0.00	3.75	-1.00	2.50	-
5.00	-1.00	11.25	21.25	-1.00	57.50	58.75	-1.00	136.25	235.0	-
0	272.50	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
.00	5179.0549625	-1.00	-1.00	10.00	21.25	58.75	101.25	-1.00	203.75	205.0
00	-1.00	151.25	15.00	-1.00	6.25	6.25	-1.00	12.50	2.50	10
.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
-1.00	-1.00	1.25	1.25	5.00	2.50	-1.00	5.00	11.25	-1.00	-1.00
8.75	20.00	-1.00	50.00	40.00	-1.00	178.75	221.25	223.75	-1.00	-1.00
-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	5179.0556650	-1.00
00	-1.00	7.78	18.75	38.89	77.50	-1.00	178.89	225.00	-1.00	127.78
7.50	-1.00	6.25	3.33	-1.00	3.75	4.44	11.25	-1.00	-1.00	-1.00
-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	2.2
2	1.25	0.00	1.25	-1.00	5.56	3.75	-1.00	15.56	28.75	-1.00
00	38.75	55.56	-1.00	181.25	234.44	231.25	-1.00	-1.00	-1.00	-1.00
.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	5179.0563671	-1.00	-1.00	11.25
18.75	35.00	71.25	-1.00	180.00	207.50	-1.00	273.75	17.50	-1.00	-1.00
3.75	7.50	-1.00	5.00	3.75	16.25	-1.00	-1.00	-1.00	-1.00	-1.00
-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	1.25	1.25	2.50	-
0.00	-1.00	3.75	8.75	-1.00	17.50	18.75	-1.00	25.00	46.25	-
-1.00	200.00	222.50	223.75	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00

TAPE NO.	1	FILE NO.	16							
RECORD	1	LENGTH	30720							
5028.1668004	-19.29	28.08	123.76	128.36	5028.1669856	-19.10	31.52	123.37	128.76	
5028.1671708	-18.26	32.67	122.43	128.02	5028.1673560	-19.73	29.51	122.66	127.69	502
8.1675411	-18.35	26.37	124.87	128.93	5028.1677263	-19.77	25.66	124.82	128.96	5028.1
679115	-19.80	25.85	124.05	128.25	5028.1680967	-19.52	27.26	123.78	128.24	5028.1682
819	-20.53	29.90	124.07	129.26	5028.1684671	-18.23	31.89	123.73	129.07	5028.1686522
-18.83	30.70	123.21	128.36	5028.1688374	-20.10	26.80	124.62	129.04	5028.1690226	-
18.50	25.50	126.05	129.93	5028.1692078	-19.85	26.40	125.00	129.29	5028.1693930	-19.

B-FIELD AVERAGE 1 MINUTE  
DATA

99.65	5179.1043664	-72.27	-7.30	69.40	100.46	5179.1045515	-70.01	-8.80	70.92
100.04	5179.1047367	-68.47	-6.56	71.97	99.55	5179.1049219	-69.75	-5.94	70.70
.49	5179.1051071	-70.02	-8.24	71.02	100.08	5179.1052923	-71.19	-6.18	69.69
	5179.1054775	-71.90	-8.05	67.88	99.21	5179.1056627	-70.90	-9.16	69.32
5179.1058478	-70.39	-7.54	70.33	99.79	5179.1060330	-68.52	-7.97	71.79	99.56
9.1062182	-68.51	-7.29	71.41	99.23	5179.1064034	-70.64	-7.93	69.77	99.61
065886	-71.09	-9.99	69.54	99.94	5179.1067738	-72.20	-8.59	68.29	99.75
589	-71.50	-8.98	68.01	99.09	5179.1071441	-70.99	-7.91	69.80	99.87
	-69.80	-6.72	70.77	99.63	5179.1075145	-68.70	-7.04	71.23	99.21
70.61	-5.80	69.45	99.21	5179.1078849	-71.70	-8.58	68.72	99.68	5179.1080700
07	-7.06	68.40	99.61	5179.1082552	-72.50	-6.65	67.18	99.07	5179.1084404
	-9.05	68.43	98.81	5179.1086256	-70.12	-7.09	69.97	99.31	5179.1088108
7.57	70.61	99.22	5179.1089960	-68.67	-7.63	70.40	98.65	5179.1091811	-71.63
7	68.02	98.99	5179.1093663	-71.99	-9.74	67.93	99.46	5179.1095515	-70.81
	69.17	99.41	5179.1097367	-69.95	-7.16	68.82	98.40	5179.1099219	-69.12
.24	98.89	5179.1101071	-69.33	-6.53	71.31	99.67	5179.1102922	-69.01	-6.35
	99.13	5179.1104774	-69.90	-7.03	69.07	98.52	5179.1106626	-71.03	-8.44
98.80	5179.1108478	-70.93	-8.36	68.59	99.02	5179.1110330	-70.93	-6.91	67.90
.43	5179.1112182	-69.34	-8.80	68.28	97.71	5179.1114034	-69.35	-7.90	69.67
	5179.1115885	-69.91	-7.85	69.79	99.10	5179.1117737	-68.88	-8.61	69.45
5179.1119589	-71.14	-6.15	66.92	97.86	5179.1121441	-72.42	-8.53	66.54	98.72
9.1123293	-70.63	-8.32	68.28	98.59	5179.1125145	-69.82	-5.43	67.89	97.53
126996	-69.30	-7.21	67.93	97.31	5179.1128848	-69.38	-6.39	69.00	98.06
700	-70.26	-5.06	67.52	97.58	5179.1132552	-70.19	-6.78	66.18	96.71
	-70.96	-7.22	65.86	97.08	5179.1136256	-70.80	-7.50	66.82	97.65
69.14	-6.90	68.30	97.43	5179.1139959	-68.43	-6.21	68.11	96.75	5179.1141811
82	-6.75	68.34	97.22	5179.1143663	-69.35	-7.29	68.38	97.67	5179.1145515
	-7.75	67.87	97.01	5179.1147367	-69.85	-6.71	66.31	96.54	5179.1149218
7.59	66.42	97.40	5179.1151070	-68.77	-8.57	68.17	97.21	5179.1152922	-67.90
1	67.93	96.26	5179.1154774	-68.11	-8.29	67.21	96.05	5179.1156626	-68.28
	67.68	96.58	5179.1158478	-69.57	-7.25	66.50	96.52	5179.1160329	-69.23
.64	95.82	5179.1162181	-69.39	-8.44	65.85	96.03	5179.1164033	-69.28	-8.09
	96.81	5179.1165885	-67.42	-8.40	68.46	96.45	5179.1167737	-67.25	-6.24
95.50	5179.1169589	-69.19	-6.98	66.30	96.08	5179.1171440	-69.59	-7.79	66.58
.62	5179.1173292	-69.54	-6.89	65.82	96.00	5179.1175144	-69.02	-6.74	65.20
	5179.1176996	-69.51	-6.99	65.91	96.05	5179.1178848	-68.92	-6.71	67.14
5179.1180700	-67.88	-5.65	67.01	95.55	5179.1182552	-69.01	-6.71	65.48	95.37
9.1184403	-69.76	-8.17	65.60	96.11	5179.1186255	-70.20	-6.35	65.21	96.02
188107	-69.73	-6.56	64.89	95.48	5179.1189959	-69.03	-6.88	65.49	95.40
811	-68.98	-5.71	66.51	96.00	5179.1193663	-67.40	-7.41	67.64	95.78
	-67.42	-5.63	66.64	94.96	5179.1197366	-69.76	-5.97	64.60	95.27
69.96	-7.78	65.17	95.93						

TAPE NO.	1	FILE NO.	20
RECORD	2	LENGTH	30720
5179.1201070	-69.34	-6.19	65.64
5179.1204774	-67.70	-7.75	67.19
9.1208477	-67.80	-7.34	66.64
212181	-70.26	-8.38	64.76
885	-67.80	-7.19	66.31
	-68.57	-6.69	66.61
68.01	-6.98	65.71	94.83
26	-8.94	64.49	95.79
	-6.43	64.91	94.70
6.26	66.58	95.77	5179.1232551
1	64.49	94.97	5179.1239958
	65.43	95.88	5179.1243662
.84	94.59	5179.1247366	-68.72
	95.68	-1.0000000	-1.00
	-1.00	-1.0000000	-1.00
.00	-1.0000000	-1.00	-1.00
	-1.0000000	-1.00	-1.00
	-1.0000000	-1.00	-1.00
1.0000000	-1.00	-1.00	-1.00