ISEE - 3

84 Sec. Elec. Mom. GEOTAIL
78-079A-01M
Solar Wind Proton Data
78-079A-01N
168 Sec. Solar Wind Elec. Moments
78-079A-010
SW Protons Bulk Flow Latitude, 5-M
78-079A-01P
15-M & 2-HR Cosmic Ray Fluxes
78-079A-04C

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1. INTRODUCTION:

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 This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system.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

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

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

2. ERRATA/CHANGE LOG:

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

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

Version	Date	Person	Page	Description of Change
01				
02				

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

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

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

4. CATALOG MATERIALS:

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

b. Core Catalog Materials

REQ. AGENT	ACQ. AGENT
BMW	Sumant K.

ISEE-3

84 - SECOND ELECTRON MOMENTS GEOTAIL

78-079A-01M SPHE-00675

This data set consists of 1 9-track, 9 "data" files, ASCII, 6250 BPI, magnetic tape. The tape was created on a VAX 11/780 computer.

D#	C#	FILES	TIME SPAN
D-79069	C-27548	27	10/17/82 - 12/24/83

Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

DATE: 30 September 1988
IN REPLY REFER TO: ESS-8-88:49-815
MAIL STOP: D438
TELEPHONE: (505)667-5389

Dr. J. H. King
NSSDC
Code 633
NASA/Goddard Space Flight Center
Greenbelt, MD 20771

Dear Joe:

Under separate cover I am sending you 3 magnetic tapes containing high temporal resolution plasma moments derived from data obtained by the Los Alamos experiments on ISEE-3/ICE.

78-079A-01M
D79069
C27548

Tape 1 contains 9 files of electron moments for the interval from 17 October 1982 through 26 December 1983 when ISEE-3 was in the distant (and near) geomagnetic tail. Each data record contains the date, the time in secs, the time in UT, the electron density, the electron flow speed, the flow azimuth, the maximum electron temperature, and the minimum electron temperature. The format is (1x, I6, 1X, 2(F8.1, 1X), 5(1PE11.4, 1X).

Tape 2 contains 6 files of solar wind proton moments for the interval from 16 August 1978 through 7 October 1979 at a nominal temporal resolution of 24 sec. Each data record contains the date, the time in secs, the time in UT, the proton density, the bulk flow speed, the bulk flow azimuth, the maximum proton temperature, and the minimum proton temperature. The format is identical to that of Tape 1.

Tape 3 contains 6 files. The first 2 of these files have solar wind proton moments for the interval from 7 October 1979 through 26 February 1980, after which time the ion instrument failed to return usable data. The format for the data records in these 2 files and the plasma elements included are identical to those of Tape 2. Files 3-5 contain our electron measurements for the 3 day interval surrounding the comet encounter in September 1985, that is 10, 11, 12 September. Each data record in these files contains the date, the time in secs, the time in UT, the core density, the maximum core temperature, the minimum core temperature, the halo density, the maximum halo temperature, the minimum halo temperature, the total electron density, the bulk flow speed, the bulk flow azimuth, the maximum total temperature, the minimum total temperature, the electron heat flux and the electron heat flux azimuth. The format is (1X, I6, 1X, 2(F8.1, 1X), 5(1PE11.4, 1X), 2(/, 6(PE11.4, 1X). Since the core and halo parameters are derived from model fits and the other quantities are derived from a straight numerical integration over the entire electron distribution, the total density does not necessarily equal the sum of the core and halo densities.

The last (6th) file on tape 3 contains solar wind electron temperature values (the densities and flow velocities are redundant with the proton values) for the interval from 16 August 1978 through 26 February 1980. You will note that these dates overlap with the dates for the proton moments on tapes 2 and 3. The format for the 6th file on Tape 3 is (1X, I6, 1X, 2(F8.1, 1X), 5(1PE11.4, 1X).

Please give me a call (505-667-5389) or send me a SPAN message (ESSDP1::073500) if you have any questions pertaining to this submission.

Sincerely,

Jack

J. T. Gosling

JTG:mm

Cy: K. Ogilvie, GSFC/Code 602
T. VonRosenvinge, GSFC/Code 661
R. Wales, GSFC/Code 692
S.J. Bame, ESS-8/D438
CRM-4(2)/A150

Additional notes on NSSDC data sets 78-079A-01M and -01N

These data have been supplied by Dr. J. T. Gosling, Los Alamos National Laboratory, (505)-667-5389, ESSDP1::073500 (SPAN), and contain high temporal resolution proton and/or electron moments derived from measurements obtained by the Los Alamos experiment on the ISEE-3/ICE spacecraft. The ion instrument on ISEE-3 failed on 1980-Feb-26 so no proton data are available from this instrument after that date.

See cover letter from Dr. Gosling for details of parameters, files and data formats. Additional information is given below. Much of it is based on information provided by Dr. Gosling.

78-079A-01M: "84-SECOND ELECTRON MOM GEOTAIL" ("Tape 1")
1982-Oct-17 to 1983-Dec-26

78-079A-01N: "24/168-S SW(8/78-2/80),GZ(9/85)" ("Tapes 2 & 3")

TAPE FORMAT

The tapes are labeled (LABEL='TAPE' for all three tapes), written in ASCII at 6250 bpi, using a default block size of 2048.

TIME RESOLUTIONS

The time resolution for the G-Z encounter data is 24 seconds. The time resolutions for the other files are different. It is nominally 84 seconds for the distant tail data (tape 1, all files), but occasionally is 24 seconds. It is nominally 24 seconds for the solar wind proton moments (tape 2 - all files, and tape 3 - first two files). It is nominally 168 seconds for the solar wind electron moments (tape 3, 6th file).

UNITS, ETC.

Date - is in YYMMDD format.
Time in seconds - is from start of day in SSSSS.S format (0-86400).
Time in UT - is UT time of day in HHMMSS.0 format (0.0-235959.0)
Densities are in cm-3.
Flow speeds are in km/s.
Flow azimuths are in degrees.
Temperatures are in Kelvins.
Heat fluxes are in (erg cm-2 sec-1).
Heat flux azimuths are in degrees.

COORDINATE SYSTEMS, ETC.

Bulk flow speed and azimuth

The plasma bulk flow speed is measured relative to the spacecraft and the bulk flow azimuth is measured positive from the (spacecraft-centered) solar ecliptic (SE) -X direction toward the SE -Y direction, i.e., 0 degrees corresponds to antisunward flow and positive flow angles correspond to flow towards dawn (+90 deg), and negative flow angles correspond to flow towards dusk (-90 deg). Thus,

antisunward = 0 deg = -SEX
toward dawn = +90 deg = -SEY
sunward flow= 180 deg = +SEX
toward dusk = -90 deg = +SEY

Z-axis = spacecraft spin axis direction, North

The spacecraft spin axis was maintained within 0.5 degree of perpendicular to the ecliptic.

Heat flux azimuth

Plasma heat flux azimuth (where available) is similar to the velocity azimuth, but it is measured from 0 to 360 degrees, i.e., 0 and 360 degrees correspond to heat flux directed antisunward, 180 degrees corresponds to sunward heat flux, 90 degrees corresponds to a heat flux directed toward dawn, and 270 degrees corresponds to a heat flux directed toward dusk. Thus,

antisunward = 0,360 deg = -SEX
toward dawn = 90 deg = -SEY
sunward flux= 180 deg = +SEX
toward dusk = 270 deg = +SEY

MINIMUM AND MAXIMUM TEMPERATURES

When the data are analyzed, a 2-D temperature matrix is calculated, which is subsequently diagonalized. Then nominally, the maximum temperature corresponds to the parallel temperature and the minimum temperature corresponds to the perpendicular temperature. This is done independently of the magnetic field measurements, but there is usually good agreement between the angle of maximum temperature and the magnetic field direction.

The alignment of the maximum temperature angle with the magnetic field is usually within 15 degrees. However, the electron temperature maximum is aligned perpendicular to the field about 2% of the time in the solar wind. See papers by J.L. Phillips et al. in JGR 1989, 1990.

OTHER REFERENCES

Feldman, et al., JGR, v.80, 4181, 1975.

Zwickl, et al., GRL, v.13, 401, 1986.

For a description of the Los Alamos instrument on the ISEE-3/ICE spacecraft, see: Bame, S.J., J.R. Asbridge, H.E. Felthauser, J.P. Glore, H.L. Hawk, and J. Chavez, ISEE-C solar wind plasma experiment, IEEE Trans. Geosci. Electron., GE-16, 160-162, 1978.

EPHEMERIS DATA

These data sets do not contain any spacecraft position information. Daily values of ISEE-3/ICE position in GSE coordinates are included in the magnetic field data from JPL and are available as NSSDC data set 78-079A-02D.

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See also: Russell and Petrinec
GRL, 19, No. 10, 961-963, May 22, 1992

NSSDC DATA SET 78-079A-01M

Tape labels, file names, and file sizes

SPACECRAFT: ISEE-3/ICE

DATA SET NAME: 84-SECOND ELECTRON MOM. GEOTAIL

SOURCE: DR. J. T. GOSLING
MS-D438, LOS ALAMOS NATIONAL LABORATORY
LOS ALAMOS, NM 87545
Phone: 505-667-5389
e-mail (SPAN): ESSDP1::073500

TIME SPAN: 17oct82-26dec83

QUANTITY: 1 tape ("Tape 1" of cover letter from J. T. Gosling)

TAPE MEDIUM AND DENSITY: 9-track, 6250 bpi

TAPE FORMAT: ASCII, VAX (ANSI) STANDARD LABELED TAPE

TAPE BLOCK SIZE: 2048 Bytes

DATA FORMAT: See cover letter from J. T. Gosling

Tape Label	Data File Name	Data File Size Tape blocks/VAX blocks/MBy/lines
TAPE	1TAIL.50	1767 / 6984 / 3.5/ 40634
	2TAIL.50	2816 / 11129 / 5.5/ 64747
("Tape 1")	3TAIL.50	4792 / 18944 / 9.5/ 110215
(84-s geotail	4TAIL.50	4045 / 15988 / 8 / 93018
electrons)	5TAIL.50	4968 / 19638 / 10 / 114256
	6TAIL.50	4922 / 19458 / 10 / 113205
	7TAIL.50	4299 / 16995 / 8.5/ 98876
	8TAIL.50	4696 / 18564 / 9.5/ 108007
	9TAIL.50	2540 / 10041 / 5 / 58416

Notes:

1. Since this is a standard labeled tape, each data file has a header file and a trailer file associated with it.

2. On a VAX, to copy (e.g.) file 1TAIL.50 from tape to a disk file with the same name, do:

```
$ ALLOCATE  <dev_name>:
$ MOUNT  <dev_name>:    TAPE
$ COPY   <dev_name>:1TAIL.50  *.*
```

This will require 6984 VAX blocks on disk, and

will create an ASCII file consisting of 40634 lines of data.

To copy all the files from tape to disk, do:

```
$ ALLOCATE  <dev_name>:
$ MOUNT <dev_name>:    TAPE
$ COPY  <dev_name>:*.*    *.*
```

This will require about 140,000 VAX blocks.

Data File	Time Span YY/MM/DD hh:mm:ss.s	to	YY/MM/DD hh:mm:ss.s
1TAIL.50	82/10/17 00:46:01.0	to	82/12/04 00:29:16.9
2TAIL.50	82/12/05 00:51:15.7	to	83/02/20 00:19:21.0
3TAIL.50	83/02/20 00:22:08.9	to	83/03/26 01:43:59.5
4TAIL.50	83/03/27 01:45:11.4	to	83/05/01 01:33:50.2
5TAIL.50	83/05/01 01:36:14.2	to	83/06/26 01:02:53.8
6TAIL.50	83/06/26 01:04:17.8	to	83/07/31 00:06:59.6
7TAIL.50	83/07/31 00:07:47.6	to	83/08/27 21:38:08.8
8TAIL.50	83/08/28 00:41:39.8	to	83/10/30 00:29:49.1
9TAIL.50	83/10/30 00:25:37.2	to	83/12/24 23:23:58.1

78-079A-01M
10/17/82 - 12/24/83
D-79069 C-27548

```
$$
$ASS IN HT1
$EXE TPDUMP ES
```

DUMP OF TAPE GOSLINGO

INPUT TAPE GOSLINGOON HT1
DATA INPUT HS NF=26 SR=2=1=1 SR 2 LAST 1 SR=26=1=1 SR 26 LAST 1

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY PERM	ZERO R	SHORT	UNDEF.	INPUT RETRIES #RECS.	TOTAL#
1	5	5	8	0	0	0	0	0	0
FILE 2	89 RECORD	8 7 1 0 1 7 LENGTH	2048BYT~~26~~7	6 1					

(0)	3030 3839	20383031	30313720	20203237	36312E30	2020 2034	36303120	30202035	2E393839	30452B30
(40)	3020 2035	2E393235	31452B30	3220 2033	2E353731	3345 2B30	3220 2033	2E343530	3545 2B30	3820 2031
(80)	2E353231	39452B30	35303038	39203832	31303137	2020 2032	3834352E	30202020	34373235	2E3 2020
(120)	362E3031	32334528	30302020	352E3838	32324528	3020 2020	332E3534	34374520	30322020	322E3538
(160)	37324528	30352020	312E3531	37324528	3030 3030	3832 2038	32313031	3720 2020	30393239	2E392020
(200)	20343834	382E3920	20362E20	37343845	2B303020	20352E39	35353945	2B303220	20352E35	39353145
(240)	2B303220	20322E34	37343445	2B303520	20312E35	31333245	2B303530	30383920	38323130	31372020
(280)	20303031	322E3920	20203530	31322E39	20203620	30343938	452B3030	20203520	37353734	452B3032
(320)	2020 332E	35363536	452B3030	2020 322E	34333439	452B3035	20203120	35313636	452B3035	30303839
(360)	20383231	30313720	20203430	39362E38	2020 2045	31333620	382E2036	2E313638	33452B30	3020 2335
(400)	2E383538	39452B30	3220 2032	2E353236	39452B30	3220 2032	2E353335	31452B30	35202031	2E343832
(440)	3845 2B30	35303038	392 3832	31303137	2020 2032	31383020	3820 2020	35333030	2E382020	362E3335
(480)	34384528	30302020	362E3034	3434452E	30322020	332E3537	33384528	30322020	322E3538	34354528
(520)	30352020	312E3436	31384528	30353030	38392038	30313031	37202020	33323634	2E382020	20353432
(560)	342E3820	20362E33	32323845	2B303020	20352E38	34393445	2B303220	20332E35	36353045	2B303220
(600)	20322E34	36323145	2B303520	20312E34	38363145	2B303530	30383920	38323130	31372020	20333334
(640)	382E3720	30203535	34382E37	2020 362E	36333735	45283030	2020 362E	31373331	452B3030	2020 332E
(680)	35343032	452B3032	2020 322E	35323033	452B3035	2020 312E	34343932	452B3035	30303839	20383231
(720)	3031 3720	2020 3334	33322E37	2020 2035	3731322E	3720 2036	2E363732	34452B30	30202035	2E393839
(760)	3345 2B30	3220 2033	2E353939	31452B30	3220 2032	2E343137	3345 2B30	35202031	2E343531	37452B30
(800)	35303038	39203832	31303137	20202033	3531362E	3720 2020	35383336	2E372020	362E3837	37314528
(840)	30302020	352E3934	31344528	30322020	332E3537	34344528	30322020	322E3339	31344528	30352020
(880)	312E3437	31384528	30353030	38392038	32313031	3720 2020	33363030	2E362020	31303030	30203620
(920)	20362E38	30333545	2B303020	20362E32	32333145	2B303220	20332E35	35363145	2B303220	20322E33
(960)	37353345	2B303520	20312E34	35343745	2B303530	30383920	38323130	31372020	20333638	342E3620
(1000)	20313031	32342E36	2020 362E	37373431	452B3030	2020 352E	37303231	452B3032	2020 312E	35323733
(1040)	452B3030	2020 322E	33323873	452B3035	2020 312E	34783537	452B3035	30303839	20383231	30313720
(1080)	20203337	36382E35	2020 3135	32343820	352E2036	2E383538	38452B30	30202035	2E383237	35452B30
(1120)	3220 2032	2E393037	39452B30	3220 2032	2E353339	34452B30	35202031	2E343831	32452B30	35303038
(1160)	392 3832	31303137	2020 2033	7875320E	3520 2031	30343132	2E352020	362E3631	3836452B	3030 2020
(1200)	352E3836	30314528	3020 2120	332E3534	36374528	3020 2020	322E3532	34374528	30352020	312E3436
(1240)	32304528	30353030	38392038	32313031	37202020	33393336	2E352020	31303533	362E3520	20362E37
(1280)	36313845	2B303020	20352E38	32333145	2B303220	20332E35	32323345	2B303220	20322E34	31393345
(1320)	2B303520	20312E34	35313945	2B303530	30383920	38323130	31372020	20343030	302E3420	2020 3337
(1360)	3030 2E34	2020 362E	39353233	45283030	2020 352E	36333531	45283030	2020 332E	35363536	452B3032
(1400)	2020 322E	33353130	452B3035	2020 312E	34343537	45283035	30303839	20383231	30313720	20203431
(1440)	31342E34	20203130	38323130	34202036	2E393539	39452B30	30202036	2E323532	35452B30	3220 2033
(1480)	2E353135	36452B30	3220 2033	2E313532	31452B30	3520 2031	2E343433	3445 2B30	35303038	39203832
(1520)	31303137	20202034	31383820	3420 2031	30393438	2E342020	362E3839	32344528	30302020	362E3233
(1560)	39334528	30322020	332E3531	32314528	30322020	32253237	3135452B	30352020	312E3435	34354528
(1600)	30303030	38392038	32313031	37202020	34303732	2E332020	31313131	322E3320	20362E35	37373545
(1640)	2B303020	20362E31	36343745	2B303220	20332E35	34393445	2B303220	20322E31	35393745	2B303520
(1680)	20312E34	37333545	2B303530	30383920	38323130	31372020	20343335	362E3324	20313132	33362E33
(1720)	2020 362E	37393739	452B3030	2020 352E	39347936	452B3032	2020 332E	35313532	452B3032	2020 322E
(1760)	32363631	452B3035	2020 312E	34313733	452B3035	30303839	20383231	30313720	20203434	3420 2E32
(1800)	2020 3131	34303025	3220 2036	2E363531	30452B31	3020 2036	2E313132	37452B3	3220 2033	2E343934
(1840)	3945 2B30	32202032	2E323933	39452830	3520 2031	2E343435	38452B30	35303038	39203832	31303137
(1880)	2020 2034	3532342E	3220 2031	31353234	2E322020	342E3531	3734452B	30302020	352E3832	3532452B

(1920)	37322020	332E3535	30303450	30322020	32223431	2E324528	303E2000	312E3434	37364528	30353030
(1960)	38392038	32313031	37202020	34363038	2E322023	31313634	382E3220	20362E36	38333945	2B303020
(2000)	20322E30	36353445	2B303220	20332E35	32393745	2B303220	20322E33	36393945	2B303520	20312E34
(2040)	32343943	2B303B3E								

821 204

FILE 2 RECORD 1767 LENGTH 2048BYTES

(0)	30303839	20383231	32303420	20202034	39372E35	20202020	3831372E	35202031	2E323534	30452830
(40)	31202034	2E303432	30452830	32202033	2E353633	34452830	32202031	2E373537	30452830	35202031
(80)	2E363339	32452830	35303038	39203832	31323034	20202020	35383125	34202020	20393431	2E342020
(120)	312E3430	32384528	30312020	332E3836	37324528	34322020	332E3535	34354528	30322020	312E3730
(160)	35374528	30352020	312E3533	34334528	30353030	38392038	32313230	34202020	20363635	2E342020
(200)	20313130	352E3420	20312E34	31353345	2B303120	20332E35	37343945	2B303220	20332E35	34333245
(240)	2B303220	20312E37	37303345	2B303520	20312E34	38353245	2B303530	30383920	38323132	30342020
(280)	20203734	392E3420	20203132	32392E34	20203120	33383439	452B3031	20203420	30363135	452B3032
(320)	20203120	32333135	452B3030	20203120	38323430	452B3035	20203120	35353430	452B3035	30303839
(360)	20383231	32303420	20202020	32332E33	20202031	33353320	32202031	2E333733	34452830	31202034
(400)	2E323231	37452830	32202020	2E373734	35452030	32202031	2E373237	32452830	35202031	2E363537
(440)	37452830	35303038	39203832	31323034	20202020	39313725	33202020	31353137	2E332020	312E3333
(480)	39304528	30312020	332E3930	38304528	30322020	332E3534	33394528	30322020	312E3834	30374528
(520)	30352020	312E2537	38314528	30353030	38392038	32313230	34202020	31303031	2E332020	20313634
(560)	31223320	20312E33	30363035	2B303120	20332E37	32343845	2B303220	20332E35	36353245	2B303220
(600)	20312E38	33313245	2B303520	20312E36	35303045	2B303530	30383920	38323132	30342020	20313038
(640)	352E3220	20203138	30352E32	20203120	33313730	452B3031	20203320	36373039	452B3032	20203120
(680)	35353131	452B3032	20203120	38323236	452B3035	20203120	36333233	452B3035	30303839	20383231
(720)	32303420	20203131	36392E32	20202031	3932392E	32202031	2E323738	32452830	31202033	2E393630
(760)	35452830	32202033	2E353234	34452830	32202031	2E373839	36452830	35202031	2E363437	30452830
(800)	35303038	39203832	31323034	20202031	3233332E	31202020	32303533	2E312020	312E3237	31304528
(840)	30312020	332E3831	36334528	30322020	322E3131	37384528	30322020	312E3837	35394528	30352020
(880)	312E3538	31344528	30353030	38392038	32313230	34202020	31333337	2E312020	20323231	372E3120
(920)	20312E30	39343145	2B303120	20332E38	31333645	2B303220	20332E35	38363045	2B303220	20312E38
(960)	32303745	2B303520	20312E35	37353245	2B303530	30383920	38323132	30342020	20313430	312E3120
(1000)	20203233	34312E31	20203120	32363131	452B3031	20203320	36393337	452B3030	20203320	35343336
(1040)	452B3032	20203120	38323238	452B3030	20203120	39313433	452B3035	30303839	20383231	32303420
(1080)	20203130	30352E30	20202032	35303520	30202031	2E373138	32452830	31202034	2E323830	34452830
(1120)	32202033	2E353730	36452830	32202031	2E383132	38452830	35202031	2E363436	30452830	35303038
(1160)	39203832	31323034	20202031	35383926	30202020	32363239	2E302020	312E3237	31334528	30312020
(1200)	332E3939	31374528	30322020	332E3539	32374528	30322020	312E3737	33324528	30352020	312E3631
(1240)	37334528	30353030	38392038	32313230	34202020	31363732	2E392020	20323735	322E3920	20312E32
(1280)	36333945	2B303120	20332E38	31373145	2B303220	20332E35	30383545	2B303220	20312E38	32333945
(1320)	2B303520	20312E36	30383945	2B303530	30383920	38323132	30342020	20313735	362E3920	20203239
(1360)	31362E39	20203120	32373139	452B3031	20203420	30373732	452B3032	20203320	35383733	452B3032
(1400)	20203120	37393175	452B3035	20203120	36313431	452B3035	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(1440)	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(1480)	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(1520)	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(1560)	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(1600)	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(1640)	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(1680)	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(1720)	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(1760)	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(1800)	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(1840)	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(1880)	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(1920)	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(1960)	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(2000)	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(2040)	5E5E5E5E	5E5E5E5E								

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY PERM	ZERO B	SHORT	UNDEF.	INPUT RETRIES #RECS.	TOTAL#
2	1767	1768	2048	0	0	0	0	0	0

8 310 30

FILE 26 RECORD 1 LENGTH 2048BYTES

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(40)	3020 2036	2E303735	37452830	32202033	2E353735	38452830	32202032	2E303934	74452830	35202031

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(80)	2E363438	34452830	35303038	39203833	31303330	20202031	3632312E	32202020	32373031	2E322020
(120)	36253137	39324528	30302020	352E3534	38344528	30322020	332E3537	31324528	30322020	322E3330
(160)	35344528	30352020	31312E35	39374528	30353030	38392038	33313033	30202020	31373035	2E312020
(200)	20323832	352E3120	20362E30	37337345	2B303020	20352E36	31353045	2B303020	20352E35	38393045
(240)	2B303220	20322E33	39743945	2B303520	20312E34	35393045	2B303530	30383920	38333130	33302020
(280)	20313738	392E3120	20202020	34392E31	20202020	33383238	452B3030	20203532	37333739	452B3032
(320)	202033 2E	35393832	45783030	20203522	32393431	452B3035	20203512	35313371	452B3035	32373839
(360)	20383331	30333020	20203158	37332531	20202033	31313325	31202036	2E333032	32452830	30202035
(400)	2E363432	36452830	32202033	2B3E3534	31452830	32202032	2E323439	31452830	35202031	2E343831
(440)	31452830	35303038	39203833	31303330	20202031	3935372E	30202020	33323337	2E302020	392E3332
(480)	39324528	30322020	352E3531	373 452B	30322020	332E3533	37354528	30322020	322E3232	38364528
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(560)	312E3020	20362E37	34393645	2B303020	20352E33	37373545	2B303220	20332E35	35353345	2B303220
(600)	20322E32	33303745	2B303520	2B312E34	39313745	2B303530	30383920	38333130	33302020	20323132
(640)	342E3920	20203335	32342E39	20203 62E	31353338	452B3030	20203 52E	36393731	452B3032	20203 32E
(680)	35373530	452B3032	20203022E	32353037	452B3035	20203125	33373932	452B3035	30303839	20383331
(720)	30333020	20203232	20382E35	20202033	36343 82E	39202035	2E353334	30452830	30202035	2E343131
(760)	35452830	32202033	2E353737	37452830	32202032	25333131	33452E30	35202031	2E343330	30452830
(800)	35303038	39203833	31303330	20202032	3239322E	39202020	33383132	2E392020	352E3637	38324528
(840)	30322020	352E3338	31314528	30322020	322E3630	30344528	30302020	322E3137	36384528	30352020
(880)	312E3436	3537452B	31353030	38392038	33313033	30202020	32333736	2E382020	20333933	362E3820
(920)	20352E39	33303045	2B303520	20352E33	35373645	2B303220	20332E35	38353745	2B303220	20322E32
(960)	32323245	2B303520	20312E34	35323145	2B313530	30383920	38333130	33302020	20323436	302E3820
(1000)	20203431	30302E38	20202 22E	30333335	452B3030	20203522	33323730	452B3032	20203322	35363937
(1040)	452B3032	20203022E	31393031	452B3035	20203125	34363630	452B3035	30303839	20383331	30333020
(1080)	20203235	34342E38	20202034	3232342E	38202035	25353236	30452830	30202035	2E303230	32452830
(1120)	32202033	2E353839	34452830	32202032	2E333131	35452830	35202031	2E343838	34452830	35303038
(1160)	39203833	31303330	20202032	36333832E	37202020	34333438	2E372020	362E3137	33304528	30202020
(1200)	352E3835	30394528	30322020	332E3534	34334528	30322020	322E3039	35394528	30352020	312E3436
(1240)	30394528	30353030	38392038	33313033	30202020	32373132	2E372020	20343531	322E3720	20352E35
(1280)	39313145	2B303020	20352E36	34333345	2B303220	20312E34	38373545	2B303020	20322E33	30373645
(1320)	2B303520	20312E34	39333745	2B303530	30383920	38333130	33302020	20323739	362E3620	20203436
(1360)	33362E36	20203522	39333230	452B3030	20203522	33303138	452B3032	20203322	35393333	452B3032
(1400)	20203022E	33343639	452B3035	20203125	34363233	452B3035	30303839	20383331	30333020	20203238
(1440)	383 2E36	20202034	383 3E	36202035	2E363939	39452830	30202035	2E323830	30452830	32202033
(1480)	2E353536	36452830	32202032	2E333034	35452830	35202031	2E343032	32452830	35303038	39203833
(1520)	31303330	20202032	39353432E	36202020	34393234	2E362020	352E3635	32304528	30302020	352E3239
(1560)	34374528	30322020	362E3239	38364528	30312020	322E3239	32384528	30352020	312E3432	39324528
(1600)	30353030	38392038	33313033	30202020	33303438	2E352020	20353034	382E3539	20352E39	36393745
(1640)	2B303020	20352E32	30393945	2B303220	20332E35	30323245	2B303220	20322E33	37353945	2B303520
(1680)	20312E33	37353445	2B303530	30383920	38333130	33302020	20333133	322E3520	20203532	31322E35
(1720)	20203522E	37353838	452B3030	20203522	33363738	452B3032	20203125	31373535	452B3030	20203225
(1760)	33333735	452B3035	20203125	34353039	452B3035	30303839	20383331	30333020	20203332	31362E35
(1800)	20202035	33333625	35202036	2E333134	32452830	30202035	2E333234	36452830	32202033	2E353838
(1840)	30452830	32202032	2E323535	37452830	35202031	2E343333	35452830	35303038	39203833	31303330
(1880)	20202033	33303025	34202020	35353030	2E342020	352E3937	35344528	30302020	352E3130	3734452B
(1920)	30322020	332E3538	38384528	30322020	322E3234	3537452B	30352020	312E3431	3731452B	31353030
(1960)	38392038	33313033	30202020	33333834	2E342020	20353632	342E3420	20362E30	30363545	2B303020
(2000)	20352E32	34323045	2B303220	20332E35	37353045	2B303220	20322E32	32323245	2B303520	20312E33
(2040)	37373645	2B303 55E								

FILE 26 RECORD 2540 LENGTH 2048BYTES

(0)	30303839	20383331	32323420	20383237	32362E38	20323235	38343625	38202031	2E323835	38452830
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(80)	2E353537	35452830	353 38	39203833	31303234	20203832	3831302E	38203233	30303130	2E382020
(120)	312E3236	3935452B	30312020	342E3234	31324528	30322020	332E3534	36324528	30322020	312E3732
(160)	3334452B	30352020	312E3536	37334528	30353030	38392038	33313232	34202038	32383934	2E372032
(200)	3331 3133	342E3720	20312E33	3E333345	2B303120	20342E33	32323345	2B303220	20332E35	39383545
(240)	2B303220	20312E37	3334 45	2B303520	20312E35	31373945	2B303530	30383920	38333132	32342020
(280)	38323937	382E3720	32333332	35382E37	20203125	33333539	452B3031	20203425	34373533	452B3032
(320)	20203325	35373633	452B3032	20203125	37313633	452B3035	20203125	35333136	452B3035	30303839
(360)	20383331	32323420	20383337	36322E36	20323330	34323225	36202031	2E323736	31452830	31202034
(400)	2E323933	31452830	32202031	2E373637	37452830	30202031	2E363536	34452830	35202031	2E353633
(440)	34452830	35303038	39203833	31323234	20203833	31343625	36203233	30353436	2E362020	312E3330
(480)	31394528	30312020	342E3331	32384528	30322020	332E3538	30334528	30322020	312E3639	31334528
(520)	30352020	312E3533	32324528	30353030	38392038	33313232	34202038	33323331	2E362032	333 3731

(560)	302E3520	20312E33	383331[illegible]5	2B303120	20342E36	36363445	2B303220	20362E35	30343345	2E303020
(600)	20312E37	33333545	2B303520	20312E35	30343745	2B303530	30383921	38333132	32342020	38333331
(640)	342E3521	32333038	3334[illegible]E	20203125	33383135	452B3031	20203425	34393135	452B3032	2020332E
(680)	35363237	452B3032	20203312E	36363435	452B2035	2[illegible]3312E	35303336	452B3035	32303839	20383331
(720)	32323420	20383333	39362035	20323330	39393822	35202031	2E323332	36452B30	31202034	2E333833
(760)	37452B30	32202032	2E3373[illegible]	38452B30	30202031	2E373531	31452B30	35202031	2E353033	33452B30
(800)	353[illegible]3038	39203833	31323234	2020[illegible]833	34383220E	34043233	31313232	2E352020	312E3338	3E344528
(840)	30312020	342E3238	37324528	30322020	332E3836	35344520	30312020	312E3730	38354528	30352020
(880)	312E3439	35384528	30353030	38392038	33313232	34202038	33353636	2E342032	33313234	36253420
(920)	20312E32	32393445	2B303120	20342E31	32313745	2B303220	20332E35	35353345	2B303220	20312E37
(960)	34363245	2B303520	20312E35	37343245	2B303530	30383920	38333132	32342020	38333635	312E3420
(1000)	32333134	31302E34	20203125	31373172	452B3031	20203425	31373838	452B3032	20203325	35363231
(1040)	452B3032	20203125	37393831	452B3035	20203125	35363032	452B3035	30303839	20383331	32323420
(1080)	20383337	33342E33	20323331	3533342E	33202031	2E313835	39452B30	31202034	2E333934	39452B30
(1120)	32202033	2E353435	33452B30	32202031	2E373730	37452B30	35202031	2E353732	32452B30	35303038
(1160)	39203833	31323234	20203833	3831382E	33203233	31363538	2E332720	312E3236	30314528	30312020
(1200)	342E3338	32384528	30353030	332E3539	37394528	30322020	312E3736	31394528	30352020	312E3531
(1240)	37384528	30353030	38392038	33313232	34202038	33393832	2E332032	33313832	322E3320	20312E32
(1280)	30373945	2B303120	20342E32	36393345	2B303220	20332E35	36333145	2B303220	20312E37	33393945
(1320)	2B303520	20312E35	31383945	2B303530	30383920	38333132	32342020	38333938	362E3220	32333139
(1360)	34362E32	20203125	31393830	452B3031	20203425	34323830	452B3032	20203125	34323831	452B3030
(1400)	20203128	37343230	452B3035	20203128	35333430	452B3035	30313839	20383331	32323420	20383430
(1440)	37342E32	20323332	31313025	32202031	2E333033	38452B30	31202034	2E343536	35452B30	32202031
(1480)	2E323731	30452D30	31202031	2E363738	37452B30	35202031	2E353034	33452B30	35303038	39203833
(1520)	31323234	20203834	31353425	31203333	32323334	2E312020	312E3235	36304528	30312020	342E3238
(1560)	30334528	30322020	312E3527	37314528	30302020	312E3734	39334528	30352020	312E3536	37304528
(1600)	30353030	38392038	33313232	34202038	34323338	20312032	33323335	382E3120	20312E32	35393145
(1640)	2B303120	20342E31	35363445	2B303220	20332E35	37343945	2B303220	20312E37	32343145	2B303520
(1680)	20312E35	36313945	2B303530	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(1720)	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(1760)	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(1800)	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(1840)	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(1880)	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(1920)	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(1960)	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(2000)	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E	5E5E5E5E
(2040)	5E5E5E5E	5E5E5E5E								

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY PERM	ZERO B	SHORT	UNDEF.	INPUT RETRIES #RECS.	TOTAL#
26	2540	2541	2048	0	0	0	0	0	0

ECO DUMP STOPPED AFTER FILE 26 # OF PERMANENT READ ERRORS 0

START TIME 01/24/90 22:22:16 STOP TIME 01/24/90 22:09:15

PRINTED IN U.S.A.

REQ. AGENT	RAND NO.	ACQ. AGENT
GWM		Sumant K.

ISEE-3

SOLAR WIND PROTON DATA

78-079A-01N SPHE-00180

This dataset consists of 2 9-track, Ascii, 6250 BPI, magnetic tapes. They were created on a VAX 11/780 computer. This dataset contains Solar Wind Proton data for Isee-3. Refer to the documentation for description of data files. Also, please note that the documentation notes 6 "data" files for each tape. Each data file has a 80 byte header and trailer file associated with it.

D #	C#	No. of Files	Time Span
D-79067	C-27532	18	08/16/78 - 10/07/79
D-79068	C-27533	18	Files 1-6 10/07/79 - 02/19/80
			Files 7-15 09/10/85 - 09/12/85
			Files 16-18 08/16/78 - 02/18/80

NSSDC Data Sets 78-079A-01M (tape 1)
& 78-079A-01N (tapes 2,3)

Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

DATE: 30 September 1988
IN REPLY REFER TO: ESS-8-88:49-815
MAIL STOP: D438
TELEPHONE: (505)667-5389

Dr. J. H. King
NSSDC
Code 633
NASA/Goddard Space Flight Center
Greenbelt, MD 20771

Dear Joe:

Under separate cover I am sending you 3 magnetic tapes containing high temporal resolution plasma moments derived from data obtained by the Los Alamos experiments on ISEE-3/ICE.

78-079A-01M

Tape 1 contains 9 files of electron moments for the interval from 17 October 1982 through 26 December 1983 when ISEE-3 was in the distant (and near) geomagnetic tail. Each data record contains the date, the time in secs, the time in UT, the electron density, the electron flow speed, the flow azimuth, the maximum electron temperature, and the minimum electron temperature. The format is (1x, I6, 1X, 2(F8.1, 1X), 5(1PE11.4, 1X)).

067

Tape 2 contains 6 files of solar wind proton moments for the interval from 16 August 1978 through 7 October 1979 at a nominal temporal resolution of 24 sec. Each data record contains the date, the time in secs, the time in UT, the proton density, the bulk flow speed, the bulk flow azimuth, the maximum proton temperature, and the minimum proton temperature. The format is identical to that of Tape 1.

78-079A-01N

79068

Tape 3 contains 6 files. The first 2 of these files have solar wind proton moments for the interval from 7 October 1979 through 26 February 1980, after which time the ion instrument failed to return usable data. The format for the data records in these 2 files and the plasma elements included are identical to those of Tape 2. Files 3-5 contain our electron measurements for the 3 day interval surrounding the comet encounter in September 1985, that is 10, 11, 12 September. Each data record in these files contains the date, the time in secs, the time in UT, the core density, the maximum core temperature, the minimum core temperature, the halo density, the maximum halo temperature, the minimum halo temperature, the total electron density, the bulk flow speed, the bulk flow azimuth, the maximum total temperature, the minimum total temperature, the electron heat flux and the electron heat flux azimuth. The format is (1X, I6, 1X, 2(F8.1, 1X), 5(1PE11.4, 1X), 24/, 6(PE11.4, 1X)). Since the core and halo parameters are derived from model fits and the other quantities are derived from a straight numerical integration over the entire electron distribution, the total density does not necessarily equal the sum of the core and halo densities.

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The last (6th) file on tape 3 contains solar wind electron temperature values (the densities and flow velocities are redundant with the proton values) for the interval from 16 August 1978 through 26 February 1980. You will note that these dates overlap with the dates for the proton moments on tapes 2 and 3. The format for the 6th file on Tape 3 is (1X, I6, 1X, 2(F8.1, 1X), 5(1PE11.4, 1X)).

Please give me a call (505-667-5389) or send me a SPAN message (ESSDP1::073500) if you have any questions pertaining to this submission.

Sincerely,

Jack

J. T. Gosling

JTG:mm

Cy: K. Ogilvie, GSFC/Code 602
T. VonRosenvinge, GSFC/Code 661
R. Wales, GSFC/Code 692
S.J. Bame, ESS-8/D438
CRM-4(2)/A150

Additional notes on NSSDC data sets 78-079A-01M and -01N

These data have been supplied by Dr. J. T. Gosling, Los Alamos National Laboratory, (505)-667-5389, ESSDP1::073500 (SPAN), and contain high temporal resolution proton and/or electron moments derived from measurements obtained by the Los Alamos experiment on the ISEE-3/ICE spacecraft. The ion instrument on ISEE-3 failed on 1980-Feb-26 so no proton data are available from this instrument after that date.

See cover letter from Dr. Gosling for details of parameters, files and data formats. Additional information is given below. Much of it is based on information provided by Dr. Gosling.

78-079A-01M: "84-SECOND ELECTRON MOM GEOTAIL" ("Tape 1")
1982-Oct-17 to 1983-Dec-26

78-079A-01N: "24/168-S SW(8/78-2/80),GZ(9/85)" ("Tapes 2 & 3")

TAPE FORMAT

The tapes are labeled (LABEL='TAPE' for all three tapes), written in ASCII at 6250 bpi, using a default block size of 2048.

TIME RESOLUTIONS

The time resolution for the G-Z encounter data is 24 seconds. The time resolutions for the other files are different. It is nominally 84 seconds for the distant tail data (tape 1, all files), but occasionally is 24 seconds. It is nominally 24 seconds for the solar wind proton moments (tape 2 - all files, and tape 3 - first two files). It is nominally 168 seconds for the solar wind electron moments (tape 3, 6th file).

UNITS, ETC.

Date - is in YYMMDD format.
Time in seconds - is from start of day in SSSSS.S format (0-86400).
Time in UT - is UT time of day in HHMMSS.0 format (0.0-235959.0)
Densities are in cm-3.
Flow speeds are in km/s.
Flow azimuths are in degrees.
Temperatures are in Kelvins.
Heat fluxes are in (erg cm-2 sec-1).
Heat flux azimuths are in degrees.

COORDINATE SYSTEMS, ETC.

Bulk flow speed and azimuth

The plasma bulk flow speed is measured relative to the spacecraft and the bulk flow azimuth is measured positive from the (spacecraft-centered) solar ecliptic (SE) -X direction toward the SE -Y direction, i.e., 0 degrees corresponds to antisunward flow and positive flow angles correspond to flow towards dawn (+90 deg), and negative flow angles correspond to flow towards dusk (-90 deg). Thus,

```
antisunward =   0 deg = -SEX
toward dawn = +90 deg = -SEY
sunward flow= 180 deg = +SEX
toward dusk = -90 deg = +SEY

Z-axis = spacecraft spin axis direction, North
```

The spacecraft spin axis was maintained within 0.5 degree of perpendicular to the ecliptic.

Heat flux azimuth

Plasma heat flux azimuth (where available) is similar to the velocity azimuth, but it is measured from 0 to 360 degrees, i.e., 0 and 360 degrees correspond to heat flux directed antisunward, 180 degrees corresponds to sunward heat flux, 90 degrees corresponds to a heat flux directed toward dawn, and 270 degrees corresponds to a heat flux directed toward dusk. Thus,

```
antisunward = 0,360 deg = -SEX
toward dawn =  90 deg   = -SEY
sunward flux= 180 deg   = +SEX
toward dusk = 270 deg   = +SEY
```

MINIMUM AND MAXIMUM TEMPERATURES

When the data are analyzed, a 2-D temperature matrix is calculated, which is subsequently diagonalized. Then nominally, the maximum temperature corresponds to the parallel temperature and the minimum temperature corresponds to the perpendicular temperature. This is done independently of the magnetic field measurements, but there is usually good agreement between the angle of maximum temperature and the magnetic field direction.

The alignment of the maximum temperature angle with the magnetic field is usually within 15 degrees. However, the electron temperature maximum is aligned perpendicular to the field about 2% of the time in the solar wind. See papers by J.L. Phillips et al. in JGR 1989, 1990.

OTHER REFERENCES

Feldman, et al., JGR, v.80, 4181, 1975.

Zwickl, et al., GRL, v.13, 401, 1986.

For a description of the Los Alamos instrument on the ISEE-3/ICE spacecraft, see: Bame, S.J., J.R. Asbridge, H.E. Felthauser, J.P. Glore, H.L. Hawk, and J. Chavez, ISEE-C solar wind plasma experiment, IEEE Trans. Geosci. Electron., GE-16, 160-162, 1978.

EPHEMERIS DATA

These data sets do not contain any spacecraft position information. Daily values of ISEE-3/ICE position in GSE coordinates are included in the magnetic field data from JPL and are available as NSSDC data set 78-079A-02D.

****

See also Russell and Petrinec
GRL, 19, No. 10, 961-963

NSSDC DATA SET 78-079A-01N

Tape labels, file names, and file sizes

SPACECRAFT: ISEE-3/ICE

DATA SET NAME: 24/168-S SW(8/78-2/80), GZ(9/85)

SOURCE: DR. J. T. GOSLING
MS-D438, LOS ALAMOS NATIONAL LABORATORY
LOS ALAMOS, NM 87545
Phone: 505-667-5389
e-mail (SPAN): ESSDP1::073500

TIME SPAN: 16Aug78-26Feb80 and 10-12Sep85.

QUANTITY: 2 tapes ("Tape 2" and "Tape 3" of cover letter)

TAPE MEDIUM AND DENSITY: 9-track, 6250 BPI

TAPE FORMAT: ASCII, VAX (ANSI) STANDARD LABELED TAPES

TAPE BLOCK SIZE: 2048 Bytes

DATA FORMAT: See cover letter from J. T. Gosling

Tape Label	Data File Name	Data File Size Tape blocks/VAX blocks/MBy/lines
TAPE	1TRACK.130	5155 / 20378 / 10 / 118562
	2TRACK.130	4694 / 18554 / 9 / 107946
("Tape 2")	3TRACK.130	4261 / 16842 / 8 / 97988
(24-s SW prot.)	4TRACK.130	5730 / 22651 / 11 / 131783
	5TRACK.130	6465 / 25556 / 13 / 148686
	6TRACK.130	5451 / 21547 / 11 / 125359
TAPE	7TRACK.130	6550 / 25892 / 13 / 150642
	8TRACK.130	3508 / 13868 / 7 / 80683
("Tape 3")	850910.COMET	286 / 1102 / 0.6/ 9003
(24-s GZ elec.)	850911.COMET	309 / 1192 / 0.6/ 9732
	850912.COMET	276 / 1063 / 0.5/ 8682
(168-s SW elec.)	1OLD.100	5790 / 22345 / 11 / 220007

Notes:

1. Since these are standard labeled tapes, each data file has a header file and a trailer file associated with it.

2. On a VAX, to copy (e.g.) file 1TRACK.130 from tape to a disk file with the same name, do:

```
$ ALLOCATE  <dev_name>:
$ MOUNT  <dev_name>:    TAPE
```

```
$ COPY   <dev_name>:1TRACK.130  *.*
```

This will require 20,378 VAX blocks on disk, and will create an ASCII file consisting of 118,562 lines of data.

To copy all the files from tape to disk, do:

```
$ ALLOCATE  <dev_name>:
$ MOUNT <dev_name>:    TAPE
$ COPY  <dev_name>:*.*    *.*
```

This will require about 125,000 VAX blocks for "tape 2" and about 65,000 VAX blocks for "tape 3".

Data File	Time Span YY/MM/DD hh:mm:ss.s	to	YY/MM/DD hh:mm:ss.s
1TRACK.130	78/08/16 15:41:17.0	to	78/11/02 15:14:57.0
2TRACK.130	78/11/02 16:13:12.0	to	78/12/31 01:39:55.0
3TRACK.130	78/12/31 01:38:18.0	to	79/02/25 00:24:42.0
4TRACK.130	79/02/25 00:49:40.0	to	79/05/06 00:13:46.0
5TRACK.130	79/05/06 00:08:33.0	to	79/07/29 01:18:44.0
6TRACK.130	79/07/29 01:19:32.0	to	79/10/07 00:03:44.0
7TRACK.130	79/10/07 00:00:31.0	to	79/12/30 00:20:49.0
8TRACK.130	79/12/30 00:23:14.0	to	80/02/19 06:30:14.0
850910.COMET	85/09/10 00:00:16.8	to	85/09/10 23:59:37.9
850911.COMET	85/09/11 00:00:49.9	to	85/09/11 23:59:23.0
850912.COMET	85/09/12 00:00:11.0	to	85/09/12 23:59:04.1
1OLD.100	78/08/16 16:22:12.0	to	80/02/18 23:58:48.0

D-79067
8/16/78-10/7/7

```
$NCP
$NOP
$NOP ******** IC1-IN *********
$EXE TPLIST BS

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

 TAPE NO.   1              FILE NO.   2
 RECORD 1                  LENGTH   2048
0089 780816  56477.1 154117.0  2.2200E+01  3.1837E+02  3.6883E+00  1.4895E+04  2.1280E+040089 78081
6  56501.5 154141.0  2.0911E+01  3.1826E+02  3.8864E+00  2.2796E+04  1.5135E+040089 780816  56646.4
 154406.1  2.1924E+01  3.1691E+02  3.9530E+00  1.5978E+04  2.1601E+040089 780816  56670.5 154430.0
 2.1827E+01  3.1708E+02  3.8740E+00  1.6273E+04  2.1277E+040089 780816  56815.5 154655.0  2.2667E+0
1  3.1509E+02  3.4346E+00  1.6368E+04  2.2270E+040089 780816  56839.9 154719.0  2.1987E+01  3.1687E
+02  3.5781E+00  1.6328E+04  2.2257E+040089 780816  56984.9 154944.0  2.3384E+01  3.1936E+02  3.803
7E+00  1.5832E+04  2.1217E+040089 780816  57008.8 155008.0  2.2931E+01  3.2016E+02  3.7487E+00  2.3
647E+04  1.4902E+040089 780816  57154.1 155234.0  2.2980E+01  3.1888E+02  3.9626E+00  2.1968E+04  1
.5618E+040089 780816  57178.2 155258.0  2.2204E+01  3.1818E+02  3.8232E+00  2.2499E+04  1.5982E+040
089 780816  57323.2 155523.0  2.3121E+01  3.1833E+02  3.7248E+00  2.3435E+04  1.5982E+040089 780816
  57346.9 155546.0  2.1946E+01  3.1937E+02  3.5244E+00  2.3618E+04  1.6662E+040089 780816  57435.1
155715.0  2.1275E+01  3.1682E+02  3.6302E+00  2.1322E+04  1.6141E+040089 780816  57459.1 155739.0
2.1842E+01  3.1877E+02  3.7058E+00  1.6409E+04  2.3221E+040089 780816  57483.4 155803.0  2.1957E+01
  3.2011E+02  3.7035E+00  1.7289E+04  2.3628E+040089 780816  57507.6 155827.0  2.2899E+01  3.1523E+
02  3.7941E+00  1.5611E+04  2.1967E+040089 780816  57556.0 155915.0  2.2229E+01  3.1728E+02  4.0058
E+00  1.6355E+04  2.2803E+040089 780816  57580.1 155940.0  2.2049E+01  3.1552E+02  3.7475E+00  1.61
15E+04  2.1001E+040089 780816  57604.1 160004.0  2.1323E+01  3.1577E+02  3.6335E+00  2.2597E+04  1.
6088E+040089 780816  57749.4 160229.0  2.2806E+01  3.1864E+02  3.9027E+00  2.2401E+04  1.6851E+0400
89 780816  57773.4 160253.0  2.2878E+01  3.1962E+02  3.7746E+00  1.7066E+04  2.3032E+040089 780816
  57797.5 160317.0  2.1570E+01  3.2297E+02  3.4113E+00  2.2749E+04  1.6814E+040089 780816  57821.9 1
60341.0  2.1813E+01  3.2335E+02  3.2756E+00  1.5986E+04  2.2356E+040

***** JOB DONE.
$WEC LPS

$$
$NCP
$NCP
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```
$NOP
$NOP **********8 IC1-IN ************
$EXE TPLIST ES

 INPUT PARAMETERS ARE:  AS SR=5451=1 1 1 17

  TAPE NO.   1              FILE NO.   17
  RECORD   5451             LENGTH   2048
 0085 791006 86287.3 235807.0  2.3779E+01  3.7007E+02 -8.9566E-02  1.2966E+05  5.5566E+040089 79100
 6  86311.3 235831.0  2.4886E+01  3.7050E+02 -1.2619E+00  6.9709E+04  5.5526E+040089 791006  86335.4
  235855.0  2.4049E+01  3.7071E+02 -1.3100E+00  6.8153E+04  5.5162E+040089 791006  86359.7 235919.0
  2.3759E+01  3.7116E+02 -1.3802E+00  6.5734E+04  5.5371E+040089 791006  86383.8 235943.0  2.3390E+0
 1  3.7166E+02 -1.6932E+00  6.4787E+04  5.4966E+040089 791007       31.8       31.0  2.3065E+01  3.7131E
 +02 -1.4358E+00  6.8313E+04  5.4316E+040089 791007      55.8       55.0  2.2966E+01  3.7101E+02 -1.535
 8E+00  7.0189E+04  5.5060E+040089 791007      200.2      320.0  2.4734E+01  3.6955E+02 -1.6550E+00  6.4
 617E+04  5.8886E+040089 791007     224.3     344.0  2.4302E+01  3.7044E+02 -1.6863E+00  6.4415E+04  5
 .2555E+04^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
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***** JOB DONE.
$WEO LPS

$$
$ASS IN HTC
$EXE TPARCF ES
```

PRINTED IN U.S.A.

```
$NOP
$NOP   ********************** IC2IN ***************************
$EXE TPLIST BS

INPUT PARAMETERS ARE:  AS FL=1=1 1 1 2

 TAPE NO.   1              FILE NO.   2
 RECORD    1               LENGTH   2048
0089 791007      31.8       31.0  2.3065E+01  3.7131E+02 -1.4358E+00  6.8313E+04  5.4316E+040089 79100
7       55.8       55.0  2.2966E+01  3.7101E+02 -1.5358E+00  7.0189E+04  5.5060E+040089 791007     200.2
     320.0  2.4734E+01  3.6955E+02 -1.6550E+00  6.4617E+04  5.8886E+040089 791007     224.3     344.0
 2.4302E+01  3.7144E+02 -1.6863E+00  6.4415E+04  5.2955E+040089 791007     248.6     408.0  2.2864E+0
1  3.7097E+02 -1.7991E+00  6.4357E+04  5.2974E+040089 791007     272.6     432.0  2.3842E+01  3.7053E
+02 -1.7896E+00  6.6646E+04  5.4070E+040089 791007     296.6     456.0  2.3945E+01  3.7061E+02 -1.682
4E+00  6.5614E+04  5.5346E+040089 791007     320.7     520.0  2.4625E+01  3.6570E+02 -1.6633E+00  6.5
794E+04  5.7306E+040089 791007     344.6     544.0  2.3656E+01  3.6992E+02 -1.8362E+00  6.4186E+04  5
.6018E+040089 791007     368.7     608.0  2.4476E+01  3.6971E+02 -1.7183E+00  6.7807E+04  5.6335E+040
089 791007     513.2     833.0  2.4293E+01  3.6754E+02 -1.7085E+00  6.3093E+04  5.3506E+040089 791007
    537.4     857.0  2.4288E+01  3.6787E+02 -1.8990E+00  6.4769E+04  5.4097E+040089 791007     561.4
    921.0  2.4649E+01  3.6700E+02 -2.0142E+00  6.3047E+04  5.4602E+040089 791007     585.5     945.0
 2.5155E+01  3.6788E+02 -1.9074E+00  6.6331E+04  5.2797E+040089 791007     609.5    1005.0  2.4859E+01
  3.6690E+02 -2.2370E+00  6.5655E+04  5.6609E+040089 791007     633.5    1033.0  2.4617E+01  3.6649E+
02 -2.1797E+00  6.5969E+04  5.9182E+040089 791007     657.6    1057.0  2.3810E+01  3.7064E+02 -1.6129
E+00  5.8976E+04  5.2161E+040089 791007     681.9    1121.0  2.1950E+01  3.7455E+02 -1.6273E+00  5.19
03E+04  4.6688E+040089 791007     826.3    1346.0  1.8362E+01  3.7731E+02 -2.5434E+00  5.0311E+04  3.
8160E+040089 791007     850.3    1410.0  1.9449E+01  3.7742E+02 -2.6461E+00  4.8770E+04  4.0416E+040
89 791007     874.3    1434.0  1.8665E+01  3.7630E+02 -2.5569E+00  3.8341E+04  4.6547E+040089 791007
   898.4    1458.0  1.9058E+01  3.7681E+02 -2.5539E+00  5.0837E+04  3.9279E+040089 791007     922.4
  1522.0  1.7511E+01  3.7579E+02 -2.8134E+00  5.2297E+04  4.1053E+04^

 TAPE NO.   1              FILE NO.   2
 RECORD    6550            LENGTH   2048
0089 791230     788.4    1308.0  6.2249E+00  4.5104E+02  5.5076E-01  8.0435E+04  6.0856E+040089 79123
0     812.8    1332.0  6.2447E+00  4.5171E+02  4.6122E-01  5.5732E+04  6.1897E+040089 791230     836.9
   1356.0  6.1099E+00  4.5040E+02  4.7804E-01  7.7266E+04  5.7788E+040089 791230     861.3    1421.0
 6.9651E+00  4.4877E+02 -1.7696E-01  1.0339E+05  6.1546E+040089 791230     885.4    1445.0  7.0567E+0
0  4.5430E+02 -3.8367E-01  1.0937E+05  6.6277E+040089 791230     909.8    1509.0  7.0971E+00  4.5362E
+02 -7.2412E-01  6.3868E+04  1.0239E+050089 791230     933.9    1533.0  7.0605E+00  4.5495E+02 -7.916
7E-01  6.4313E+04  1.0716E+050089 79123     1079.3    1759.0  7.2872E+00  4.5419E+02 -3.2141E-01  5.1
824E+04  6.6614E+040089 791230    1103.7    1823.0  7.7823E+00  4.5507E+02 -3.1118E-01  6.4726E+04  7
.6078E+040089 791230    1127.8    1847.0  8.0342E+00  4.5317E+02 -5.2761E-01  8.4254E+04  6.4281E+040
089 791230    1152.2    1912.0  6.6306E+00  4.5469E+02 -5.5153E-01  1.0764E+05  7.0267E+040089 791230
  1176.3    1936.0  6.4675E+00  4.5521E+02 -3.6131E-01  1.0592E+05  7.0131E+040089 791230    1200.7
  2000.0  7.0300E+00  4.5306E+02 -1.4664E+00  1.1123E+05  7.0915E+040089 791230    1224.7    2024.0
7.0327E+00  4.5334E+02 -9.1564E-01  1.0064E+05  6.4247E+040089 791230    1249.2    2049.0  6.8688E+00
 4.5779E+02 -1.4933E+00  1.1728E+05  6.3725E+04^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
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***** JOB DONE.
$NOP
$NOP
$NOP
$NOP   ****************** IC2IN *********************
$EXE TPLIST BS

INPUT PARAMETERS ARE:  AS FL=1=1 1 1 5

 TAPE NO.   1              FILE NO.   5
 RECORD    1               LENGTH   2048
0089 791230    1394.6    2314.0  9.5545E+00  4.4969E+02 -4.7941E+00  9.5803E+04  7.1873E+040089 79123
```

ISEE-3

168 SEC. SOLAR WIND ELECTRON MOMENTS

78-079A-010 SPHE-00205

THIS DATA SET CONSISTS OF THREE 9-TRACK, ASCII, 6250 BPI TAPES. THEY WERE CREATED ON THE VAX 11/780 COMPUTER. THIS DATA SET CONTAINS SOLAR WIND ELECTRON DATA FOR ISEE-3. EACH TAPE HAS A VOLUME LABEL, (WHICH CAN BE FOUND BELOW) AS WELL AS EACH DATA FILE HAVING A HEADER AND TRAILER ASSOCIATED WITH IT. THE D AND C NUMBERS ALONG WITH THEIR TIME SPANS ARE AS FOLLOW:

D#	C#	VOLLABEL	FILES	TIMESPAN
D-79739	C-27251	IC3OLD	3	02/27/80-10/16/82
D-78954	C-27758	EXICE	2	12/22/83-04/30/86
D-086454	C-031230	ICENEW	74	05/01/86-06/30/92

Directory of ICENEW: (Label name of tape)

8605.ICE;1	8606.ICE;1	8607.ICE;2	8608.ICE;1
8609.ICE;1	8610.ICE;1	8611.ICE;1	8612.ICE;1
701.ICE;1	8702.ICE;1	8703.ICE;2	8704.ICE;1
8705.ICE;1	8706.ICE;1	8707.ICE;1	8708.ICE;1
8709.ICE;2	8710.ICE;2	8711.ICE;2	8712.ICE;1
8801.ICE;1	8802.ICE;2	8803.ICE;1	8804.ICE;1
8805.ICE;2	8806.ICE;1	8807.ICE;1	8808.ICE;2
8809.ICE;2	8810.ICE;1	8811.ICE;2	8812.ICE;2
8901.ICE;1	8902.ICE;1	8903.ICE;1	8904.ICE;1
8905.ICE;1	8906.ICE;1	8907.ICE;1	8908.ICE;1
8909.ICE;1	8910.ICE;2	8911.ICE;1	8912.ICE;1
9001.ICE;1	9002.ICE;1	9003.ICE;1	9004.ICE;1
9005.ICE;1	9006.ICE;2	9007.ICE;1	9008.ICE;1
9009.ICE;1	9010.ICE;1	9011.ICE;1	9012.ICE;1
9101.ICE;1	9102.ICE;1	9103.ICE;1	9104.ICE;1
9105.ICE;1	9106.ICE;1	9107.ICE;2	9108.ICE;1
9109.ICE;1	9110.ICE;2	9111.ICE;1	9112.ICE;1
9201.ICE;1	9202.ICE;1	9203.ICE;1	9204.ICE;1
9205.ICE;1	9206.ICE;1		

Total of 74 files.

78-079A-01Ø

D-79739

(01Ø)

Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

DATE: 3 August 1989
IN REPLY REFER TO: SST-8-89:7-782
MAIL STOP: D438
TELEPHONE: (505)667-5389

Dr. Sumant Krishnaswamy
Code 633
NSSDC
NASA/Goddard Space Flight Center
Greenbelt, MD 20771

Dear Sumant:

Under separate cover I am sending you one magnetic tape containing high temporal resolution solar wind electron moments derived from measurements obtained by the Los Alamos electron experiment on ISEE-3 and covering the time interval from 2/27/80 through 10/16/82. The tape contains 3 files, one for each of the (partial) years 1980, 1981, 1982. The temporal resolution of these data is usually approximately 168 secs. Each data record in these files contains the date (yymmdd), the time in seconds, the UT time (hhmmss), the electron density, the bulk flow speed, the bulk flow azimuth, the minimum total temperature (tper), the maximum total temperature (tpar), the angle of maximum temperature, the heat flux and the heat flux azimuth. These moments and the sign conventions and such are as for the electron data from ISEE-3 previously submitted to you by Los Alamos. I am enclosing a sample listing of the data with the read format and other information indicated.

Please contact me (Ph: 505-667-5389; SPAN: ESSDP1::073500) if you have any questions concerning this submission.

Sincerely,

Jack

J. T. Gosling

JTG:mm

Enc. a/s

Cy: T. Von Rosenvinge, Code 611, NASA/GSFC
R. Wales, Code 602, NASA/GSFC
CRM-4(2)/A150

An Equal Opportunity Employer/Operated by University of California

78-0114-024

(CONT.)

Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

DATE: 29 August 1989
IN REPLY REFER TO: SST-8-89:7-782
MAIL STOP: D438
TELEPHONE: (505)667-5389

Dr. Sumant Krishnaswamy
Code 633
NSSDC
NASA/Goddard Space Flight Center
Greenbelt, MD 20771

Dear Sumant:

Under separate cover I am sending you one magnetic tape containing high temporal resolution solar wind electron moments derived from measurements obtained by the Los Alamos electron experiment on ISEE-3 (ICE) and covering the time interval from 12/23/83 through 4/30/86. The tape contains 2 files, one for the 1983, 1984 data and one for the 1985, 1986 data. The temporal resolution of these data is usually approximately 168 secs. Each data record in these files contains the date (yymmdd), the time in seconds, the UT time (hhmmss), the electron density, the bulk flow speed, the bulk flow azimuth, the minimum total temperature (tper), the maximum total temperature (tpar), the angle of maximum temperature, the heat flux and the heat flux azimuth. These moments and the sign conventions and such are as for the electron data from ISEE-3 previously submitted to you by Los Alamos. I am enclosing a sample listing of the data with the read format and other information indicated.

Please contact me (Ph: 505-667-5389; SPAN: ESSDP1::073500) if you have any questions concerning this submission.

Sincerely,

Jack

J. T. Gosling

JTG:mm

Enc. a/s

Cy: T. Von Rosenvinge, Code 611, NASA/GSFC
R. Wales, Code 602, NASA/GSFC
CRM-4(2)/A150

An Equal Opportunity Employer/Operated by University of California

NSSDC DATA SET 78-079A-010

Tape labels, file names, and file sizes

SPACECRAFT: ISEE-3/ICE

DATA SET NAME: SOL. WIND ELECTRON MOM. (168-SEC)

SOURCE: DR. J. T. GOSLING
MS-D438, LOS ALAMOS NATIONAL LABORATORY
LOS ALAMOS, NM 87545
Phone: 505-667-5389
e-mail (SPAN): ESSDP1::073500

TIME SPAN: 27Feb80-16oct82 and 23Dec83-30Apr86

QUANTITY: 2 tapes

TAPE MEDIUM AND DENSITY: 9-track, 6250 BPI

TAPE FORMAT: ASCII, VAX STANDARD LABELLED TAPES

TAPE BLOCK SIZE: 32768 Bytes (1980-82 data tape, label="IC3OLD")
2048 Bytes (1983-86 data tape, label="EXICE")

DATA FORMAT: See cover letter from J. T. Gosling

Tape Label	Data File Name	Data File Size Tape blocks/VAX blocks/MBy/lines
IC3OLD	IC3OLD.80	496 / 31206 / 16 / 253604
	IC3OLD.81	529 / 33285 / 17 / 270500
	IC3OLD.82	383 / 24186 / 12 / 196066
EXICE	VX8384.IC	6325 / 24902 / 12 / 202376
	VX8586.IC	2678 / 10543 / 5 / 85680

Notes:

1. Since these are standard labelled tapes, each data file has a header file and a trailer file associated with it.

2. On a VAX, to copy (e.g.) file IC3OLD.80 from tape to a disk file with the same name, do:

```
$ ALLOCATE  <dev_name>:
$ MOUNT  <dev_name>:    IC3OLD
$ COPY   <dev_name>:IC3OLD.80  *.*
```

This will require 31,206 VAX blocks on disk, and will create an ASCII file consisting of 253,604 lines of data.

AB-079A-010

To copy all the files from (e.g.) tape IC3OLD to disk, do:

```
$ ALLOCATE  <dev_name>:
$ MOUNT <dev_name>:    IC3OLD
$ COPY  <dev_name>:*.*    *.*
```

This will require about 89,000 VAX blocks.

Data File	Time Span YY/MM/DD hh:mm:ss.s	to	YY/MM/DD hh:mm:ss.s
IC3OLD.80	80/02/01 00:10:56.0	to	80/12/31 23:59:54.0
IC3OLD.81	81/01/01 00:04:06.0	to	81/12/31 23:57:20.0
IC3OLD.82	82/01/01 02:52:15.0	to	82/10/16 23:59:50.0
VX8384.IC	83/12/22 00:05:07.0	to	84/12/31 11:46:31.0
VX8586.IC	85/01/01 02:16:56.0	to	86/04/30 18:24:28.0

NSSDC data set 78-079A-010

ISEE-3, "Solar wind electron moments (168-sec)"

These data have been supplied by Dr. J. T. Gosling, Los Alamos National Laboratory and contain high temporal resolution solar wind electron moments derived from measurements obtained by the Los Alamos electron experiment on the ISEE-3/ICE spacecraft. The ion instrument on ISEE-3 failed on 1980-Feb-26 so no proton data are available from this instrument after that date.

The temporal resolution of these data is usually approximately 168 seconds. Each data record (2 lines) contains

1) the date (YYMMDD),
2) the time in seconds from start of day (SSSSS.S),
3) the UT time of day in HHMMSS.0,
4) the electron density (cm-3),
5) the bulk flow speed (km/s),
6) the bulk flow azimuth (GSE+180 degrees),
7) the minimum total temperature (Tperp, deg K),
8) the maximum total temperature (Tpar, deg K),
9) the angle of maximum temperature (degrees, 135=Parker spiral angle)
10) the heat flux (erg cm-2 sec-1),
11) the heat flux azimuth (degrees, 0=antisunward, 90=towards dawn)

Format:

```
      READ(1,1000) IYYMMDD,SEC,UTIME,(PLASMA(I),I=1,8)
1000  FORMAT(1X, I6, 1X, 2(F8.1,1X), 5(1PE11.4,1X) / 3(1PE11.4,1X))
```

Example (data for second 86103.0 [23:55:03.0 UT] on 1982-jan-30):

```
820130  86103.0 235503.0  2.4347E+00  6.2305E+02  9.0099E-01  1.3549E+05  2.234
6.8713E+01  1.0535E-02  2.4814E+02
```

Note that the first line of each time sample is 85 characters long, and the second line is 35 characters long.

Bulk flow speed and azimuth (parameters 5 and 6)

The plasma bulk flow speed is measured relative to the spacecraft and the bulk flow azimuth is measured positive from the (spacecraft-centered) solar ecliptic (SE) -X direction toward the SE -Y direction, i.e., 0 degrees corresponds to antisunward flow and positive flow angles correspond to flow towards dawn (+90

78-079A-01Ø

deg), and negative flow angles correspond to flow towards dusk (-90 deg). Thus,

antisunward = 0 deg = -GSEX
toward dawn = +90 deg = -GSEY
sunward flow= 180 deg = +GSEX
toward dusk = -90 deg = +GSEY

Z-axis = spacecraft spin axis direction, North

The spacecraft spin axis was maintained within 0.5 degree of perpendicular to the ecliptic.

T-max azimuth (parameter 9)

The Tmax azimuth ranges from 0 to 180 degs with 0 and 180 degs corresponding to alignment with the sun-spacecraft line and 135 degs corresponding to the nominal Parker field spiral angle at 1 AU.

The alignment of the maximum temperature angle with the magnetic field is usually within 15 degrees. The electron temperature maximum is aligned perpendicular to the field about 2% of the time in the solar wind. See papers by J.L. Phillips et al. in JGR 1989, 1990.

Heat flux azimuth (parameter 11)

Plasma heat flux azimuth (where available) is similar to the velocity azimuth, but it is measured from 0 to 360 degrees, i.e., 0 and 360 degrees correspond to heat flux directed antisunward, 180 degrees corresponds to sunward heat flux, 90 degrees corresponds to a heat flux directed toward dawn, and 270 degrees corresponds to a heat flux directed toward dusk. Thus,

antisunward = 0,360 deg = -GSEX
toward dawn = 90 deg = -GSEY
sunward flux= 180 deg = +GSEX
toward dusk = 270 deg = +GSEY

Data gaps

There should be no gaps in the period 2/27/80 to 10/16/82 other than gaps caused by the tracking of the satellite. In particular the coverage for 1981 should be complete.

The above is based on information provided by Jack Gosling [(505)-667-5389 or ESSDP1::073500].

78-079A-01Φ

For a description of the Los Alamos instrument on the ISEE-3/ICE spacecraft, see: Bame, S.J., J.R. Asbridge, H.E. Felthauser, J.P. Glore, H.L. Hawk, and J. Chavez, ISEE-C solar wind plasma experiment, IEEE Trans. Geosci. Electron., GE-16, 160-162, 1978.

****

Sample data:

```
800903  57496.0 155816.0  1.4578E+01  3.3251E+02 -2.9403E+00  1.4322E+05  1.495
2.2401E+01  6.4832E-03  3.0175E+01
800903  57664.0 160104.0  1.9349E+01  3.5261E+02 -8.1859E-01  1.4237E+05  1.490
6.2787E+01  7.5793E-03  5.4529E+01
800903  57832.0 160352.0  1.9267E+01  3.2572E+02 -3.7215E+00  1.4167E+05  1.482
2.3784E+01  4.3320E-03  1.7034E+01
800903  57999.0 160639.0  2.1625E+01  3.2027E+02 -1.8146E+00  1.4019E+05  1.460
1.3498E+01  3.0838E-03  9.9463E+00
```

****

See also Russell and Petrinec
GRL, 19, No. 10, 961-963, May 22, 1992

ASCII LIST OF KM2005

LE 1 RECORD 1 80 BYTES

VOL1ICENEW ← label name 3

ASCII LIST OF KM2005

FILE 1 RECORD 5 80 BYTES

HDR4 00

ASCII LIST OF KM2005

D86454 - ISEE3 78-079A-010

FILE 2 RECORD 1 2048 BYTES

```
0089 860501  43343.7 120223.0  8.2718E+00  3.2507E+02 -8.9367E+00  1.1007E+05  1.1240E+050039 1.7345E+02  2.1375E-03  3.4352E+020089
 860501  45358.8 123558.0  8.0489E+00  3.2243E+02 -8.8903E+00  1.0675E+05  1.1320E+050039 1.7782E+02  2.5635E-03  6.2505E+000089 860
501  46030.5 124710.0  7.3207E+00  3.1123E+02 -8.4974E+00  1.1192E+05  1.1736E+050039 1.8376E+00  4.3832E-03  3.5983E+020089 860501
 46366.4 125246.0  8.1048E+00  3.1539E+02 -1.0400E+01  1.0560E+05  1.1903E+050039 1.7624E+02  4.5077E-03  3.5608E+020089 860501  470
38.1 130358.0  7.7539E+00  3.2847E+02 -9.2176E+00  1.0943E+05  1.2176E+050039 6.6292E+00  5.5229E-03  1.4129E+010089 860501  47709.8
 131509.0  7.6228E+00  3.1466E+02 -1.0277E+01  1.0703E+05  1.0889E+050039 1.7305E+02  4.7909E-04  3.4177E+020089 860501  49389.0 134
309.0  7.5784E+00  3.1751E+02 -1.0975E+01  1.0976E+05  1.1240E+050039 2.3471E+01  2.3587E-03  2.4425E+010089 860501  49724.9 134844.
0  7.8701E+00  3.1748E+02 -9.9692E+00  1.0942E+05  1.1236E+050039 2.1630E+01  2.7582E-03  2.4262E+010089 860501  50060.7 135420.0  7
.4515E+00  3.1822E+02 -8.4519E+00  1.1102E+05  1.1240E+050039 1.7442E+01  2.1954E-03  1.3927E+010089 860501  50396.6 135956.0  7.163
 +00  3.0592E+02 -7.3443E+00  1.0899E+05  1.1059E+050039 2.6447E+01  1.2642E-03  6.4958E-010089 860501  50732.4 140532.0  7.3517E+0
  3.1878E+02 -9.1983E+00  1.1301E+05  1.2076E+050039 1.7957E+02  4.8202E-03  3.1048E+000089 860501  51068.2 141108.0  7.0670E+00  3
.2268E+02 -7.1630E+00  1.1605E+05  1.2067E+050039 1.7898E+02  4.5484E-03  3.5876E+020089 860501  51404.1 141644.0  7.5114E+00  3.281
6E+02 -1.0074E+01  1.1286E+05  1.1652E+050039 1.6952E+02  2.8836E-03  3.5907E+020089 860501  51739.9 142219.0  7.4545E+00  3.3303E+0
2 -8.8127E+00  1.1182E+05  1.1402E+050039 1.7039E+01  2.5949E-03  3.3703E+010089 860502  17396.4  44956.0  1.4576E+01  3.7885E+02 -6
.0301E+00  8.7717E+04  9.0295E+040039 1.6604E+02  1.0405E-03  1.6503E+020089 860502  18404.0  50643.0  1.4441E+01  3.5939E+02 -5.635
2E+00  9.4556E+04  9.9825E+040039 1.2841E+02  1.7932E-03  3.0079E+02
```

ASCII LIST OF KM2005

FILE 2 RECORD 108 2048 BYTES

```
0089 860531  30923.5  83523.0  7.8030E+00  3.1739E+02 -1.0872E+01  1.0417E+05  1.0618E+050039 1.2206E+02  2.4934E-03  2.8348E+020089
 860531  31259.3  84059.0  7.7337E+00  3.2419E+02 -1.1359E+01  1.0217E+05  1.0493E+050039 1.2092E+02  2.2846E-03  2.9008E+020089 860
531  31595.2  84635.0  7.7077E+00  3.3271E+02 -1.1372E+01  1.0317E+05  1.0514E+050039 1.1971E+02  1.9820E-03  2.8602E+020089 860531
 31931.0  85211.0  7.6680E+00  3.2268E+02 -1.0462E+01  1.0220E+05  1.0579E+050039 1.2042E+02  2.0375E-03  2.8695E+020089 860531  322
66.9  85746.0  7.7771E+00  3.2440E+02 -1.0351E+01  1.0190E+05  1.0546E+050039 1.2318E+02  2.0417E-03  2.9101E+020089 860531  32602.7
 90322.0  7.7097E+00  3.2163E+02 -1.0032E+01  1.0314E+05  1.0433E+050039 1.2362E+02  2.0863E-03  2.9243E+020089 860531  32938.6  90
858.0  8.0071E+00  3.1650E+02 -1.3056E+01  1.0224E+05  1.0558E+050039 1.4762E+02  2.1367E-03  3.1643E+02^^^^^^^^^^^^^^^^^^^^^^^^^^^
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```

ASCII LIST OF KM2005

FILE 3 RECORD 1 80 BYTES

```
EOF18605.ICE          ICENEW00010001000100 92202 00000 000108DECFILE11A
```

ASCII LIST OF KM2005

FILE 3 RECORD 4 80 BYTES

```
EOF4                                                                    00
```

ASCII LIST OF KM2005

FILE 4 RECORD 1 80 BYTES

```
HDR18606.ICE          ICENEW00010002000100 92202 00000 000000DECFILE11A
```

ASCII LIST OF KM2005

FILE 4 RECORD 4 80 BYTES

```
HDR4                                                                    00
```

ASCII LIST OF KM2005

FILE 5 RECORD 1 2048 BYTES

```
0089 860601  23112.0  62512.0  6.6022E+00  3.2095E+02 -9.4919E+00  8.5643E+04  8.7887E+040039 8.3569E+00  1.0785E-03  1.2668E+010089
 860601  23447.8  63047.0  6.7698E+00  3.2771E+02 -9.7611E+00  8.4112E+04  8.8324E+040039 1.7829E+02  9.5231E-04  1.2933E+010089 860
601  23783.7  63623.0  6.5615E+00  3.2109E+02 -9.6269E+00  8.4391E+04  9.0434E+040039 1.5295E+01  8.6415E-04  1.1599E+010089 860601
 24119.5  64159.0  6.5096E+00  3.2132E+02 -9.8466E+00  8.5112E+04  9.0960E+040039 5.0461E+00  1.0648E-03  1.3351E+010089 860601  244
55.4  64735.0  6.5736E+00  3.1924E+02 -9.1674E+00  8.5504E+04  9.0596E+040039 1.2087E+01  7.7024E-04  1.9365E+010089 860601  25798.8
 70958.0  1.0674E+01  3.0493E+02 -1.0725E+01  8.3201E+04  8.6588E+040039 1.7718E+02  4.8266E-04  3.4504E+020089 860601  26134.6  71
534.0  1.0882E+01  3.1084E+02 -1.0098E+01  8.3874E+04  8.7467E+040039 1.6087E+02  1.9397E-04  2.0964E+010089 860601  26470.5  72110.
0  1.0820E+01  2.9868E+02 -1.1316E+01  8.3513E+04  8.5743E+040039 1.6098E+02  5.1124E-04  3.4782E+020089 860601  26806.3  72646.0  1
.0583E+01  3.0149E+02 -9.5098E+00  8.3393E+04  8.6024E+040039 1.5208E+02  4.7279E-04  3.2674E+020089 860601  27142.2  73222.0  1.072
0E+01  3.0702E+02 -1.0656E+01  8.3380E+04  8.6450E+040039 1.6676E+02  4.4678E-04  3.2317E+020089 860601  27478.0  73758.0  1.1067E+0
1  2.9936E+02 -1.0987E+01  8.2515E+04  8.4681E+040039 1.6583E+02  8.7029E-04  3.4327E+020089 860601  27813.9  74333.0  1.1245E+01  3
```

```
.0433E+02 -1.2036E+01  8.3447E+04  8.4069E+040039 1.2699E+02  6.1558E-04  3.5738E+020089 860601  28149.7  74909.0  1.1233E+01  3.015
9E+02 -1.1387E+01  8.3360E+04  8.4498E+040039 1.6609E+02  6.2831E-04  1.2297E+010089 860601  28485.6  75445.0  1.1336E+01  3.0638E+0
? -1.0146E+01  8.3087E+04  8.4820E+040039 1.7454E+02  4.0610E-04  3.4485E+020089 860601  29829.0  81708.0  1.2940E+01  3.1832E+02 -1
 076E+01  8.1279E+04  8.3796E+040039 1.6676E+02  2.8873E-04  3.3955E+020089 860601  30164.8  82244.0  1.3108E+01  3.1498E+02 -1.061
7E+01  8.0960E+04  8.2973E+040039 4.7137E+00  1.9868E-04  1.3264E+02
```

ASCII LIST OF KM2005

FILE 5   RECORD 90   2048 BYTES

```
0089 860630  62761.6 172601.0  8.3736E+00  4.7446E+02 -8.5933E+00  1.6365E+05  1.9603E+050039 1.4192E+02  1.2324E-02  3.2018E+020089
 860630  63097.5 173137.0  8.6811E+00  5.1090E+02 -9.5491E+00  1.6685E+05  1.8498E+050039 1.7659E+02  8.1198E-03  3.5493E+020089 860
630  64776.7 175936.0  7.2608E+00  5.0195E+02 -8.5449E+00  1.6081E+05  1.8126E+050039 1.4012E+02  9.1274E-03  3.2001E+020089 860630
 65112.6 180512.0  8.1272E+00  5.0913E+02 -1.0320E+01  1.5323E+05  1.8031E+050039 1.4229E+02  8.9954E-03  3.2600E+02^^^^^^^^^^^^^^^^
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```

ASCII LIST OF KM2005

FILE 6   RECORD 1   80 BYTES

```
EOF18606.ICE          ICENEW00010002000100 92202 00000 000090DECFILE11A
```

ASCII LIST OF KM2005

FILE 6   RECORD 4   80 BYTES

```
EOF4                                                                  00
```

Input - JIN - # 2

```
FILE      1 HAS        5 RECS, <MINREC SIZE=      80> <MAXREC SIZE=      80>
FILE      2 HAS      496 RECS, <MINREC SIZE=   32768> <MAXREC SIZE=   32768>
FILE      3 HAS        4 RECS, <MINREC SIZE=      80> <MAXREC SIZE=      80>
FILE      4 HAS        4 RECS, <MINREC SIZE=      80> <MAXREC SIZE=      80>
FILE      5 HAS      529 RECS, <MINREC SIZE=   32768> <MAXREC SIZE=   32768>
FILE      6 HAS        4 RECS, <MINREC SIZE=      80> <MAXREC SIZE=      80>
FILE      7 HAS        4 RECS, <MINREC SIZE=      80> <MAXREC SIZE=      80>
FILE      8 HAS      383 RECS, <MINREC SIZE=   32768> <MAXREC SIZE=   32768>
FILE      9 HAS        4 RECS, <MINREC SIZE=      80> <MAXREC SIZE=      80>
LOGICAL END-OF-TAPE DETECTED.
END OF FORMATTED DIRECTORY OPERATION...

TOTAL OF 1433 RECORDS IN 9 FILE(S).
SMALLEST RECORD LENGTH IS 80 BYTES.
LARGEST RECORD LENGTH IS 32768 BYTES.
```

D-79739

* Can only be copied on the Vax or IBM. Cannot use MODCOMP because of huge Record size of 32768.

3093

9

D79739 C-27251
02/27/80 - 10/16/82
ISEE-3 F:3

FILE 1 RECORD 1 32768 BYTES

```
089 800201    656.6    1056.0  1.3708E+00  4.2793E+02 -2.9144E+00  1.3801E+05  2.5972E+050039 1.2753E+02  5.6366E-03  3.0365E+020089
800201    624.7    1344.0  1.4064E+00  3.6879E+02  2.0952E+00  1.3863E+05  2.5097E+050039 1.4099E+02  3.8480E-03  3.2255E+020089 800
201    992.7    1632.0  1.3575E+00  4.0708E+02  5.4893E-01  1.4066E+05  2.4385E+050039 1.4185E+02  4.4916E-03  3.2269E+020089 800201
  1412.5    2332.0  1.3805E+00  4.0759E+02 -1.3660E+00  1.3469E+05  2.4340E+050039 1.2962E+02  4.9308E-03  3.0968E+020089 800201    15
80.4    2620.0  1.3135E+00  3.6849E+02  6.2342E+00  1.4144E+05  2.3993E+050039 1.3996E+02  3.5582E-03  3.1645E+020089 800201    1748.3
    2908.0  1.4572E+00  4.1153E+02 -4.0077E+00  1.1509E+05  2.3191E+050039 1.2918E+02  5.2799E-03  3.0896E+020089 800201    1916.2    3
156.0  1.4397E+00  4.0533E+02 -1.0925E+01  1.2510E+05  2.1992E+050039 1.1838E+02  5.0913E-03  2.9531E+020089 800201    2084.2    3444.
0  1.3764E+00  4.2734E+02 -2.0482E+00  1.2986E+05  2.3706E+050039 1.2021E+02  5.5786E-03  3.0197E+020089 800201    2252.1    3732.0  1
.4223E+00  4.2740E+02 -6.5468E+00  1.2622E+05  2.3767E+050039 1.1391E+02  4.9563E-03  2.9253E+020089 800201    2420.0    4020.0  1.366
7E+00  4.1821E+02 -2.8600E+00  1.2949E+05  2.3962E+050039 1.2254E+02  5.0081E-03  3.0345E+020089 800201    2587.9    4307.0  1.3669E+0
0  4.1755E+02 -3.7868E+00  1.3127E+05  2.3455E+050039 1.1352E+02  3.5906E-03  2.9730E+020089 800201    2755.9    4555.0  1.4034E+00  4
.4802E+02  2.2379E-01  1.2783E+05  2.3476E+050039 1.2019E+02  4.6488E-03  2.9626E+020089 800201    2923.8    4843.0  1.4695E+00  4.343
7E+02 -1.7641E+00  1.2422E+05  2.3161E+050039 1.1745E+02  5.4571E-03  2.9553E+020089 800201    3091.7    5131.0  1.3345E+00  4.1877E+0
2 -2.6161E+00  1.3347E+05  2.3203E+050039 1.1996E+02  3.7244E-03  3.0231E+020089 800201    3259.6    5419.0  1.3894E+00  4.3219E+02  1
.2403E+00  1.3426E+05  2.3984E+050039 1.2145E+02  3.3974E-03  2.9619E+020089 800201    3427.6    5707.0  1.3823E+00  4.1440E+02  5.243
4E-01  1.3696E+05  2.3353E+050039 1.2253E+02  5.2483E-03  2.9849E+020089 800201    3595.5    5995.0  1.5006E+00  4.1790E+02  1.2858E+0
0  1.4583E+05  2.4336E+050039 1.1236E+02  4.2042E-03  2.9127E+020089 800201    3763.4   10243.0  1.3751E+00  4.2827E+02  9.4180E-01  1
.5208E+05  2.3616E+050039 1.0859E+02  3.1775E-03  2.8860E+020089 800201    3931.3   10531.0  1.3870E+00  4.1747E+02  4.3588E+00  1.508
1E+05  2.4016E+050039 1.1532E+02  3.2631E-03  2.9430E+020089 800201    4099.2   10819.0  1.4550E+00  4.1839E+02 -6.4545E-01  1.4458E+0
5  2.4967E+050039 1.0871E+02  4.2166E-03  2.8691E+020089 800201    4267.2   11107.0  1.4747E+00  4.2009E+02  2.5669E+00  1.4140E+05  2
.4457E+050039 1.1692E+02  3.7232E-03  2.9057E+020089 800201    4435.1   11355.0  1.5826E+00  4.0673E+02  1.4136E+00  1.3031E+05  2.205
8E+050039 1.0573E+02  3.5197E-03  2.7009E+020089 800201    4603.0   11643.0  1.5058E+00  4.1069E+02  1.4001E+00  1.3345E+05  2.2395E+0
50039 9.4041E+01  4.2274E-03  2.6978E+020089 800201    4770.9   11930.0  1.1867E+00  4.3346E+02 -4.6700E+00  1.2800E+05  2.4541E+05003
9 9.7115E+01  4.3002E-03  2.7906E+020089 800201    4938.9   12218.0  1.5496E+00  4.5046E+02 -1.3157E+00  1.2847E+05  2.1856E+050039 9.
7615E+01  3.3016E-03  2.7490E+020089 800201    5106.8   12506.0  1.6800E+00  4.4950E+02  1.0762E+00  1.3594E+05  2.3068E+050039 9.7874
E+01  4.4511E-03  2.7536E+020089 800201    5442.6   13042.0  1.5557E+00  4.1959E+02  3.3010E+00  1.3947E+05  2.3220E+050039 9.8535E+01
  3.5647E-03  2.7068E+020089 800201    5610.6   13330.0  1.5171E+00  4.1232E+02  9.4229E-01  1.3333E+05  2.2367E+050039 1.0085E+02  3.
1425E-03  2.7767E+020089 800201    5776.5   13618.0  1.7459E+00  4.2548E+02  2.6574E+00  1.3869E+05  2.4166E+050039 1.0706E+02  5.3664
E-03  2.8529E+020089 800201    5946.4   13906.0  1.5849E+00  4.4484E+02 -4.3343E+00  1.3848E+05  2.3168E+050039 1.0209E+02  5.1691E-03
  2.8173E+020089 800201    6114.3   14154.0  1.4045E+00  4.3402E+02 -6.6945E+00  1.4155E+05  2.4162E+050039 8.2372E+01  4.1033E-03  2.
6026E+020089 800201    6282.3   14442.0  1.5320E+00  4.4040E+02  2.3709E+00  1.4377E+05  2.4197E+050039 8.6645E+01  4.9174E-03  2.6210
E+020089 800201    6450.2   14730.0  1.5129E+00  4.3467E+02 -6.0852E+00  1.4434E+05  2.5172E+050039 9.2848E+01  4.9817E-03  2.7217E+02
0089 800201    6618.1   15018.0  1.5511E+00  4.3466E+02 -9.4574E-01  1.3999E+05  2.3122E+050039 8.3477E+01  5.0153E-03  2.6305E+020089
 800201    6786.0   15306.0  1.6323E+00  4.4290E+02 -3.4380E+00  1.3424E+05  2.1355E+050039 9.1860E+01  4.3494E-03  2.7064E+020089 800
201    6954.0   15594.0  1.6308E+00  4.3437E+02  1.8248E+00  1.3069E+05  2.1695E+050039 9.2917E+01  4.8850E-03  2.7467E+020089 800201
  7121.9   15841.0  1.6916E+00  4.5481E+02 -2.5854E+00  1.2909E+05  1.9747E+050039 8.7883E+01  3.7757E-03  2.6905E+020089 800201    72
89.8   20129.0  1.6806E+00  4.6014E+02 -5.6308E-01  1.3248E+05  1.9593E+050039 8.8670E+01  4.4750E-03  2.7175E+020089 800201    7457.7
  20417.0  1.4971E+00  4.3165E+02 -3.5521E+00  1.3710E+05  2.1450E+050039 8.7523E+01  4.0146E-03  2.6925E+020089 800201    7625.7  20
705.0  1.5264E+00  4.3522E+02 -6.0798E+00  1.3019E+05  2.0904E+050039 8.2430E+01  4.5287E-03  2.6088E+020089 800201    7795.6  20953.
0  1.6921E+00  4.4359E+02 -3.0223E+00  1.2142E+05  1.9342E+050039 8.6976E+01  6.2883E-03  2.6630E+020089 800201    7961.5  21241.0  1
.7288E+00  4.6039E+02 -3.5070E+00  1.1677E+05  1.6255E+050039 8.5717E+01  4.3703E-03  2.6225E+020089 800201    8129.4  21529.0  1.688
0E+00  4.4329E+02 -1.0347E+00  1.2367E+05  1.9416E+050039 8.6052E+01  5.1400E-03  2.6208E+020089 800201    8297.4  21817.0  1.5943E+0
0  4.0447E+02 -7.4962E+00  1.1869E+05  1.9045E+050039 8.3252E+01  4.6620E-03  2.6548E+020089 800201    8465.3  22105.0  1.6753E+00  4
.3672E+02  1.0891E+00  1.3352E+05  2.1765E+050039 8.4844E+01  4.7498E-03  2.6393E+020089 800201    8633.2  22353.0  1.5128E+00  4.449
6E+02 -3.0109E+00  1.1679E+05  1.6422E+050039 8.9742E+01  3.6657E-03  2.7069E+020089 800201    8801.1  22641.0  1.5031E+00  4.3712E+0
2 -5.9240E-01  1.4243E+05  2.0587E+050039 9.3618E+01  3.9153E-03  2.7227E+020089 800201    8969.0  22929.0  1.6015E+00  4.3311E+02 -4
.4545E-01  1.3850E+05  2.2580E+050039 8.7734E+01  4.5040E-03  2.6760E+020089 800201    9137.0  23217.0  1.7794E+00  4.4735E+02 -4.720
8E+00  1.2977E+05  2.0549E+050039 8.5006E+01  5.7941E-03  2.6685E+020089 800201   11908.0  31828.0  1.6426E+00  4.6153E+02 -1.6325E+0
0  1.4303E+05  1.9617E+050039 7.2855E+01  3.3337E-03  2.5647E+020089 800201   12076.0  32116.0  1.5858E+00  4.5836E+02 -5.6211E+00  1
.4819E+05  2.0098E+050039 7.2726E+01  3.4383E-03  2.5688E+020089 800201   12244.0  32404.0  1.6964E+00  4.3687E+02 -2.3687E+00  1.472
6E+05  2.1171E+050039 8.0932E+01  3.6649E-03  2.6373E+020089 800201   12411.0  32651.0  1.7019E+00  4.4441E+02 -3.8867E+00  1.4486E+0
5  2.1418E+050039 7.6523E+01  4.3729E-03  2.5553E+020089 800201   12579.0  32939.0  1.6948E+00  4.6565E+02 -7.6795E+00  1.4098E+05  2
.0261E+050039 7.7432E+01  3.8970E-03  2.5757E+020089 800201   12747.0  33227.0  1.6842E+00  4.3669E+02 -5.1849E+00  1.2782E+05  1.835
4E+050039 8.4623E+01  4.2921E-03  2.6906E+020089 800201   12915.0  33515.0  1.5971E+00  4.2703E+02 -2.8801E+00  1.4307E+05  2.3117E+0
50039 9.3495E+01  4.2079E-03  2.6988E+020089 800201   13083.0  33803.0  1.7434E+00  4.3511E+02  2.5950E+00  1.4848E+05  2.8546E+05003
9 1.2844E+02  4.0364E-03  3.0547E+020089 800201   13251.0  34051.0  1.5439E+00  4.2550E+02 -4.5355E+00  1.4972E+05  3.0218E+050039 1.
3025E+02  5.6096E-03  3.0650E+020089 800201   13671.0  34751.0  1.6660E+00  4.3479E+02 -5.7775E+00  1.5735E+05  2.8025E+050039 1.2437
E+02  4.1483E-03  3.0560E+020089 800201   13839.0  35039.0  1.7169E+00  4.3708E+02  9.5219E-01  1.6013E+05  2.8211E+050039 1.1445E+02
```

4.7009E-03 2.9417E+020089 800201 14007.0 35367.0 1.5022E+00 4.1465E+02 -5.0623E+00 1.5726E+05 2.9299E+050039 1.0654E+02 5.
9212E-03 2.8446E+020089 800201 14175.0 35615.0 1.5562E+00 4.3423E+02 -1.2845E+00 1.5469E+05 2.7432E+050039 1.0985E+02 5.6856
-03 2.8654E+020089 800201 14343.0 35903.0 1.4952E+00 4.4611E+02 -3.6495E+00 1.4942E+05 2.7126E+050039 9.3307E+01 6.3765E-03
2.7163E+020089 800201 14511.0 40151.0 1.6094E+00 4.3290E+02 -2.8506E-02 1.4918E+05 2.9183E+050039 1.1019E+02 6.6025E-03 2.
8789E+020089 800201 14678.0 40438.0 1.7309E+00 4.6209E+02 -3.7026E+00 1.5581E+05 2.8103E+050039 8.7454E+01 5.6162E-03 2.6697
E+020089 800201 14846.0 40726.0 1.5765E+00 4.4922E+02 -7.5658E+00 1.5774E+05 2.2678E+050039 8.6743E+01 4.8962E-03 2.6535E+02
0089 800201 15014.0 41014.0 1.7257E+00 4.7952E+02 -6.3073E+00 1.5857E+05 2.5345E+050039 9.9394E+01 5.1718E-03 2.7740E+020089
800201 15182.0 41302.0 1.5768E+00 4.2724E+02 -3.6892E+00 1.5683E+05 2.6592E+050039 1.0795E+02 5.1556E-03 2.9034E+020089 800
201 15350.0 41550.0 1.7153E+00 4.2599E+02 -3.3009E+00 1.5209E+05 2.6822E+050039 1.2156E+02 5.5771E-03 3.0245E+020089 800201
15518.0 41838.0 1.8216E+00 4.3068E+02 -6.5512E+00 1.5051E+05 2.7683E+050039 1.1372E+02 6.6040E-03 2.9279E+020089 800201 156
86.0 42126.0 1.7481E+00 4.2417E+02 -6.6657E-01 1.5812E+05 2.6568E+050039 1.1625E+02 5.1609E-03 2.9816E+020089 800201 15854.0
42414.0 1.6020E+00 4.3575E+02 -4.2903E+00 1.5651E+05 2.5089E+050039 1.1189E+02 4.7860E-03 2.8979E+020089 800201 16022.0 42
702.0 1.6354E+00 4.3998E+02 1.1311E+00 1.5399E+05 2.5572E+050039 1.0315E+02 6.2953E-03 2.8048E+020089 800201 16190.0 42950.
0 1.5964E+00 4.2459E+02 -4.3365E+00 1.5115E+05 2.6272E+050039 1.0175E+02 5.9638E-03 2.7968E+020089 800201 16358.0 43238.0 1
.7868E+00 4.5596E+02 -6.5025E+00 1.4876E+05 2.5041E+050039 1.0242E+02 6.6915E-03 2.8221E+020089 800201 16526.0 43526.0 1.683
1E+00 4.4600E+02 -4.4220E+00 1.5225E+05 2.4565E+050039 1.0671E+02 5.4219E-03 2.8750E+020089 800201 16694.0 43814.0 1.7336E+0
0 4.1543E+02 -7.7596E+00 1.5257E+05 2.6332E+050039 1.0518E+02 6.6709E-03 2.8412E+020089 800201 16861.0 44101.0 1.7960E+00 4
.2854E+02 -2.4500E+00 1.4898E+05 2.7117E+050039 1.1014E+02 7.3586E-03 2.8887E+020089 800201 17029.0 44349.0 1.9162E+00 4.258
3E+02 -7.3859E+00 1.4165E+05 2.7763E+050039 1.1341E+02 7.5535E-03 2.9336E+020089 800201 17197.0 44637.0 1.7521E+00 4.2196E+0
2 2.5530E-01 1.4948E+05 2.7179E+050039 1.1693E+02 5.8522E-03 2.9643E+020089 800201 17365.0 44925.0 1.8880E+00 4.2658E+02 -3
.6418E+00 1.4406E+05 2.6548E+050039 1.1130E+02 6.4250E-03 2.8691E+020089 800201 17785.0 45625.0 1.6223E+00 4.0914E+02 -8.636
4E+00 1.4541E+05 2.9764E+050039 1.2042E+02 6.7506E-03 2.9925E+020089 800201 17953.0 45913.0 1.5987E+00 4.1196E+02 3.0828E+0
0 1.4651E+05 2.6576E+050039 1.2607E+02 5.3281E-03 3.0416E+020089 800201 18121.0 50201.0 1.8503E+00 3.9770E+02 9.0560E-01 1
.4491E+05 2.7392E+050039 1.2212E+02 4.6284E-03 2.9888E+020089 800201 18289.0 50449.0 1.7687E+00 3.8060E+02 2.4666E-01 1.431
5E+05 2.6972E+050039 1.4685E+02 4.4662E-03 3.2650E+020089 800201 18457.0 50737.0 1.8459E+00 4.4554E+02 -3.6952E+00 1.4246E+0
5 2.9465E+050039 1.3225E+02 7.0077E-03 3.0929E+020089 800201 18625.0 51025.0 1.8122E+00 4.0351E+02 -6.3526E+00 1.4584E+05 2
.6592E+050039 1.3286E+02 4.4531E-03 3.1611E+020089 800201 18793.0 51313.0 2.0457E+00 4.2916E+02 3.5332E+00 1.4234E+05 2.657
8E+050039 1.1174E+02 4.6027E-03 2.8535E+020089 800201 18961.0 51601.0 1.7248E+00 4.2870E+02 -1.9861E-02 1.4870E+05 2.8567E+0
0039 1.3563E+02 6.9507E-03 3.1318E+020089 800201 19129.0 51848.0 1.6798E+00 4.4025E+02 -1.5405E-01 1.4694E+05 2.6733E+05003
9 1.4572E+02 6.2264E-03 3.2569E+020089 800201 19296.0 52136.0 1.7614E+00 4.5148E+02 -4.9092E+00 1.4560E+05 2.5054E+050039 1.
5572E+02 5.3725E-03 3.3512E+020089 800201 19464.0 52424.0 2.0208E+00 4.2285E+02 1.4312E+00 1.4097E+05 2.3025E+050039 1.2918
E+02 5.2694E-03 3.0569E+020089 800201 19632.0 52712.0 2.1354E+00 4.4606E+02 -5.5797E+00 1.3572E+05 2.2261E+050039 1.4162E+02
6.6799E-03 3.1944E+020089 800201 19800.0 53000.0 2.1289E+00 4.4975E+02 -1.2590E+01 1.3875E+05 2.3562E+050039 1.2971E+02 5.
9329E-03 3.0765E+020089 800201 19968.0 53248.0 2.4386E+00 4.0919E+02 -7.5790E-01 1.3235E+05 2.0173E+050039 1.2103E+02 5.0304
E-03 2.9921E+020089 800201 20136.0 53536.0 2.4939E+00 4.5330E+02 -7.6701E+00 1.3912E+05 2.0449E+050039 1.4124E+02 5.5964E-03
3.1694E+020089 800201 20304.0 53824.0 2.2577E+00 4.3747E+02 -2.5942E+00 1.4071E+05 2.3944E+050039 1.1291E+02 7.2500E-03 2.
9075E+020089 800201 20472.0 54112.0 2.5421E+00 4.3705E+02 -5.3372E+00 1.3459E+05 2.2497E+050039 1.2358E+02 7.9744E-03 3.0083
E+020089 800201 20640.0 54400.0 2.5014E+00 4.5521E+02 -1.4803E+00 1.3265E+05 2.3225E+050039 1.2816E+02 8.9535E-03 3.0594E+02
0089 800201 20808.0 54648.0 2.4395E+00 4.4290E+02 -9.0609E+00 1.3496E+05 2.1979E+050039 1.2331E+02 6.8423E-03 3.0115E+020089
800201 20976.0 54936.0 2.3890E+00 4.2497E+02 1.3902E-01 1.3573E+05 2.1166E+050039 1.3734E+02 6.7040E-03 3.1724E+020089 800
201 21144.0 55224.0 2.5162E+00 4.3208E+02 -3.6407E+00 1.3125E+05 2.1508E+050039 1.2860E+02 6.9127E-03 3.0830E+020089 800201
21311.0 55511.0 2.5862E+00 4.3450E+02 -6.4304E+00 1.3551E+05 2.1516E+050039 1.2124E+02 7.7329E-03 2.9833E+020089 800201 214
79.0 55759.0 2.3529E+00 4.3797E+02 -1.2843E+00 1.3561E+05 2.1941E+050039 1.0021E+02 7.4085E-03 2.7915E+020089 800201 21899.0
60459.0 2.5508E+00 4.1097E+02 -1.3864E+00 1.3420E+05 2.1666E+050039 9.3490E+01 7.4331E-03 2.7644E+020089 800201 22067.0 60
747.0 2.4823E+00 4.3478E+02 -3.4715E+00 1.3220E+05 2.1969E+050039 1.0919E+02 8.0736E-03 2.8988E+020089 800201 22235.0 61035.
0 2.4103E+00 4.4315E+02 -2.3828E+00 1.3377E+05 2.3242E+050039 9.5838E+01 8.7424E-03 2.7641E+020089 800201 22403.0 61323.0 2
.5533E+00 4.2694E+02 -1.6514E+00 1.3436E+05 2.1496E+050039 1.0125E+02 7.7541E-03 2.7902E+020089 800201 22571.0 61611.0 2.415
6E+00 4.5484E+02 -4.2329E+00 1.3647E+05 2.1810E+050039 9.6653E+01 7.9509E-03 2.7541E+020089 800201 22823.0 62023.0 2.4649E+0
0 4.6984E+02 -7.7197E+00 1.3571E+05 2.0649E+050039 9.1614E+01 6.7131E-03 2.7228E+020089 800201 22991.0 62311.0 2.5169E+00 4
.6999E+02 -5.3491E+00 1.3890E+05 1.6942E+050039 9.7674E+01 5.7522E-03 2.7590E+020089 800201 23159.0 62559.0 2.4021E+00 4.769
8E+02 -4.6969E+00 1.4358E+05 1.6166E+050039 6.3277E+01 1.5919E-03 2.3621E+020089 800201 23327.0 62847.0 2.4901E+00 4.7606E+0
2 -4.5000E+00 1.4166E+05 1.8780E+050039 8.4714E+01 5.4691E-03 2.6419E+020089 800201 23494.0 63134.0 2.4495E+00 4.5571E+02 -1
.7976E+00 1.3408E+05 2.2288E+050039 1.1222E+02 7.8360E-03 2.9006E+020089 800201 23662.0 63422.0 2.4783E+00 4.5954E+02 -1.087
3E+00 1.3270E+05 2.1530E+050039 1.0296E+02 8.0979E-03 2.7952E+020089 800201 23830.0 63710.0 2.6799E+00 4.7324E+02 -5.3469E+0
1.2961E+05 2.0578E+050039 9.6141E+01 8.4961E-03 2.7400E+020089 800201 23998.0 63958.0 2.5532E+00 4.5868E+02 1.1596E+00 1
.3614E+05 2.0563E+050039 1.0004E+02 6.7013E-03 2.7675E+020089 800201 24166.0 64246.0 2.4931E+00 4.6283E+02 -7.1469E+00 1.419
7E+05 1.6951E+050039 6.4605E+01 4.1003E-03 2.5134E+020089 800201 24334.0 64534.0 2.5461E+00 4.7015E+02 -9.7884E+00 1.3695E+0
5 1.8084E+050039 7.5987E+01 5.2294E-03 2.5206E+020089 800201 24502.0 64822.0 2.5455E+00 4.8382E+02 -6.2166E+00 1.3993E+05 1
.8811E+050039 7.0398E+01 5.6360E-03 2.4980E+020089 800201 24670.0 65110.0 2.6760E+00 4.5516E+02 -8.0415E+00 1.3839E+05 1.875
0E+050039 9.4481E+01 5.9571E-03 2.7011E+020089 800201 24836.0 65358.0 2.6268E+00 4.5133E+02 -2.0922E+00 1.3348E+05 2.0383E+0

JARIN-1 D-79854

```
FILE     1 HAS        5 RECS, <MINREC SIZE=      80> <MAXREC SIZE=      80>
FILE     2 HAS     6525 RECS, <MINREC SIZE=    2048> <MAXREC SIZE=    2048>
FILE     3 HAS        4 RECS, <MINREC SIZE=      80> <MAXREC SIZE=      80>
FILE     4 HAS        4 RECS, <MINREC SIZE=      80> <MAXREC SIZE=      80>
FILE     5 HAS     2678 RECS, <MINREC SIZE=    2048> <MAXREC SIZE=    2048>
FILE     6 HAS        4 RECS, <MINREC SIZE=      80> <MAXREC SIZE=      80>
LOGICAL END-OF-TAPE DETECTED.
END OF FORMATTED DIRECTORY OPERATION...

TOTAL OF 9020 RECORDS IN 6 FILE(S).
SMALLEST RECORD LENGTH IS 80 BYTES.
LARGEST RECORD LENGTH IS 2048 BYTES.
```

D-79854

FILE (2)
12/22/83 - 12/31/84
ISEE -3
ID: 78-079A-010
FILES: 6
NOTE: Dump first and last records of files (2) & (5) for time span.
[TAPE TIME SPAN: 12/22/83 - 4/30/86]

```
$NOP
$NOP  **************  JAROUT1  **************
$EXE TPLIST BS

INPUT PARAMETERS ARE:   AS FL=1=1 1 1 2

 TAPE NO.    1                   FILE NO.    2
 RECORD   1                      LENGTH    2048
0089 831222     307.3      507.0  6.6853E+00  3.4878E+02  1.0937E+01  1.7940E+05  2.1220E+050039 4.597
3E+01  1.2027E-02  2.2601E+020089 831222       619.2     1019.0  6.5639E+00  3.5761E+02  6.7433E+00  1.8
698E+05  2.3702E+050039 4.9134E+01  8.3550E-03  2.2711E+020089 831222       931.0     1531.0  7.0579E+00
 3.8593E+02  7.6798E+00  1.9258E+05  2.4727E+050039 4.3456E+01  3.3653E-03  2.0553E+020089 831222
 1242.9    2042.   7.1802E+00  3.5062E+02  1.0703E+01  1.9264E+05  2.4535E+050039 4.9644E+01  4.116
3E-03  2.1055E+020089 831222     1566.7    2606.0  8.6053E+00  3.4063E+02  1.1303E+01  1.7628E+05  1.8
496E+050039 7.8565E+01  8.4678E-03  2.6429E+020089 831222     1878.6    3118.0  7.2618E+00  3.4594E+02
 4.3660E+00  1.9570E+05  2.3742E+050039 5.1342E+01  5.5520E-03  2.2501E+020089 831222     2190.4    3
630.0  6.7737E+00  3.1480E+02 -7.9877E+00  1.8085E+05  2.0762E+050039 3.5253E+01  1.1477E-02  2.105
9E+020089 831222     2502.3     4142.0  8.6888E+00  3.5437E+02  1.4654E+01  1.7715E+05  1.9068E+050039
1.0388E+02  1.0578E-02  2.7216E+020089 831222     2814.2    4654.0  8.8571E+00  3.3414E+02  7.7821E+00
 1.8983E+05  1.9344E+050039 7.2135E+01  3.4399E-03  2.2690E+020089 831222     3126.0    5206.0  8.075
6E+00  3.5353E+02  1.1508E+01  1.8060E+05  1.9847E+050039 6.4744E+01  1.0345E-02  2.4054E+020089 83
1222    3437.9    5717.0  9.0244E+00  3.7138E+02  7.9053E+00  1.7138E+05  1.9233E+050039 7.6867E+01
1.0842E-02  2.5571E+020089 831222     3749.7   10229.0  8.7393E+00  3.5091E+02  1.4163E+01  1.8263E+05
 1.9677E+050039 6.6401E+01  1.1216E-02  2.3959E+020089 831222     4061.6  10741.0  8.8978E+00  3.450
6E+02  1.7105E+00  1.7449E+05  2.0742E+050039 6.2504E+01  1.1745E-02  2.3809E+020089 831222     4373.
5  11253.0  8.9459E+00  3.4386E+02  2.7544E+01  2.0163E+05  2.2378E+050039 5.1127E+01  5.5944E-03
2.3065E+020089 831222     7576.0  20616.0  2.8792E+01  3.6334E+02  1.7373E+01  1.3166E+05  1.5466E+05
0039 1.4429E+02  8.7074E-04  3.0559E+020089 831222     7887.9  21127.0  2.2097E+01  4.0479E+02  6.119
4E+00  1.3225E+05  1.4798E+050039 1.5619E+02  7.8585E-04  2.9567E+02

 TAPE NO.    1                   FILE NO.    2
 RECORD   6325                   LENGTH    2048
 089 841231   41888.1 113808.0  3.4787E+00  5.7254E+02 -6.7557E-01  1.0438E+05  1.0628E+050039 1.010
 E+02  1.0479E-03  2.7453E+020089 841231   42056.1 114056.0  3.4595E+00  5.8966E+02  3.6584E+00  1.0
479E+05  1.1354E+050039 3.4901E+01  1.1687E-03  2.1631E+020089 841231   42224.0 114343.0  3.1132E+00
 5.7259E+02  3.0591E+00  1.0922E+05  1.1308E+050039 7.4545E+01  9.5283E-04  2.4536E+020089 841231
 42391.9 114631.0  2.9871E+00  5.7997E+02  1.5640E+00  9.8308E+04  1.1369E+050039 1.4003E+01  2.555
4E-03  1.9040E+02^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
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***** JOB DONE.
$WEO LPS

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$NOP
$NOP
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```
$NOP
$NOP  ******************** JAROUT1 ******************
$EXE TPLIST BS
INPUT PARAMETERS ARE:  AS FL=1=1 1 1 5
 TAPE NO.   1              FILE NO.   5
 RECORD   1                LENGTH   2048
0089 850101   8216.3  21656.0  8.2620E+00  5.6617E+02 -6.3328E+00  1.0280E+05  1.1240E+050039 3.195
7E+00  4.0621E-03  6.0148E+000089 850101   8384.2  21944.0  8.2924E+00  5.6963E+02 -6.6859E+00  1.0
313E+05  1.1628E+050039 9.2249E+00  4.8255E-03  6.9547E+000089 850101   8552.1  22232.0  8.1477E+00
 5.8003E+02 -5.4690E+00  1.0597E+05  1.2094E+050039 1.7508E+02  6.1739E-03  3.5627E+020089 850101
 8720.1  22520.0  8.3002E+00  5.4987E+02 -4.0173E+00  1.0514E+05  1.2018E+050039 1.6475E+02  5.786
2E-03  3.4288E+020089 850101   8888.0  22807.0  8.2190E+00  5.7675E+02 -4.7757E+00  1.0409E+05  1.1
636E+050039 1.7799E+02  5.1523E-03  3.5623E+020089 850101   9055.9  23055.0  8.3180E+00  5.6701E+02
 -4.0998E+00  1.0141E+05  1.1359E+050039 1.6257E+02  3.7869E-03  3.4089E+020089 850101   9223.8  23
343.0  8.1958E+00  5.4997E+02 -3.2251E+00  1.0191E+05  1.1008E+050039 1.6660E+02  3.2474E-03  3.491
6E+020089 850101   9895.5  24455.0  1.1338E+01  5.6150E+02 -1.8151E-01  1.0096E+05  1.0827E+050039
9.1693E+01  2.6904E-03  2.7678E+020089 850101  10063.5  24743.0  1.1601E+01  5.5607E+02  6.9222E-01
 1.0001E+05  1.0802E+050039 1.3039E+02  3.2646E-03  3.1013E+020089 850101  10231.4  25031.0  1.136
1E+01  5.5415E+02 -1.0997E+00  1.0073E+05  1.0722E+050039 1.2058E+02  2.7970E-03  3.1228E+020089 85
0101  10399.3  25319.0  1.1769E+01  5.5522E+02  1.3623E+00  1.0241E+05  1.0906E+050039 1.2627E+02
3.6519E-03  3.0430E+020089 850101  10567.2  25607.0  1.1873E+01  5.5604E+02  2.3661E+00  1.0060E+05
 1.0551E+050039 1.2713E+02  2.8552E-03  3.0973E+020089 850101  10735.2  25855.0  1.2085E+01  5.660
8E+02  2.3892E+00  1.0075E+05  1.0383E+050039 1.4845E+02  1.9991E-03  3.2811E+020089 850101  10903.
1  30143.0  1.2496E+01  5.7817E+02  3.7366E+00  1.0179E+05  1.0430E+050039 7.4349E+01  1.3421E-03
2.5592E+020089 850101  11071.0  30431.0  1.2251E+01  5.7741E+02  3.6022E+00  1.0416E+05  1.0474E+05
0039 6.5508E+01  1.6341E-03  2.8799E+020089 850101  11238.9  30718.0  1.3319E+01  5.9341E+02 -6.087
7E+00  9.9258E+04  1.0369E+050039 5.3626E+01  1.7071E-03  2.4066E+02

 TAPE NO.   1              FILE NO.   5
 RECORD   2678             LENGTH   2048
0089 860430  59215.6 162655.0  1.2694E+01  3.2332E+02 -9.0667E+00  1.3103E+05  1.3179E+050039 1.612
0E+02  6.2979E-03  2.8359E+020089 860430  59887.3 163807.0  1.2906E+01  3.2228E+02 -8.3707E+00  1.3
062E+05  1.3292E+050039 1.4133E+02  6.0159E-03  2.9972E+020089 860430  60223.1 164343.0  1.2651E+01
 3.2861E+02 -7.9016E+00  1.2937E+05  1.3126E+050039 1.0663E+02  6.5737E-03  2.7199E+020089 860430
 60559.0 164918.0  1.2731E+01  3.3314E+02 -9.2361E+00  1.2757E+05  1.2984E+050039 1.0215E+02  6.497
2E-03  2.8010E+020089 860430  61902.4 171142.0  1.2338E+01  3.3961E+02 -8.5249E+00  1.2647E+05  1.2
977E+050039 7.7648E+01  5.9405E-03  2.5951E+020089 860430  62574.1 172254.0  1.1843E+01  3.3977E+02
 -8.7048E+00  1.2844E+05  1.3143E+050039 7.5386E+01  5.0495E-03  2.6874E+020089 860430  63917.4 174
517.0  1.1348E+01  3.3863E+02 -7.6100E+00  1.2897E+05  1.3145E+050039 8.2691E+01  5.8735E-03  2.483
7E+020089 860430  66268.4 182428.0  1.2739E+01  2.8903E+02 -2.8311E+00  1.1953E+05  1.3293E+050039
1.3804E+02  4.9207E-03  3.2671E+02^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
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***** JOB DONE.
$WEO LPS

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D-79854

FILE - 5
1/1/85 - 4/30/86

ISEE -3

ID: 78-079A-010.

FILES: 6.

NOTE: DUMP FILES 2 & 5
(First and last records for time span)

TAPE TIME SPAN:
12/22/83 - 4/30/86

ISEE - 3

SW PROTONS BULK FLOW LATITUDE, 5-M

78-079A-01P SPHE-00355

This data set consists of one magnetic tape. The tape is is 6250, 9-track, ASCII, mult-filed (VAX copy format). The tape was created on a VAX computer. The D and C number, number of files and time span are as follows:

D#	C#	FILES	TIME SPAN
D-82888	C-28062	9	08/13/78 - 02/17/80

NSSDC data set 78-079A-01P

ISEE-3, "SW Protons Bulk Flow Latitude,5-M"

Data Description

These data have been supplied by Dr. J. T. Gosling, Los Alamos National Laboratory, (505)-667-5389, ESSDP1::073500, with the assistance of Sandy Kedge (ESSDP1::088447), and consist of values of solar wind plasma bulk flow velocity latitude angle derived from proton measurements obtained by the Los Alamos ion experiment on the ISEE-3/ICE spacecraft. The ion instrument on ISEE-3 failed on February 26, 1980, so no proton data are available from this instrument after that date. This data set covers the time span from August 13, 1978 (soon after launch) to February 17, 1980.

TAPE FORMAT

ASCII data files were copied electronically to NSSDC and transferred to 9-track magnetic tape using the the VAX/VMS COPY command, thus creating a standard labeled tape. The tape label is 'IC3LAT', the density is 6250 bpi, and the block size is 2048 bytes. There are 3 data files on the tape. The file names are POLAR1.DAT, POLAR2.DAT and POLAR3.DAT.

TIME RESOLUTION AND PARAMETERS

The temporal resolution of these data is 5 minutes. Each data record consists of:

1) the date (YYMMDD),
2) the time in seconds from start of day (SSSSS.S),
3) the UT time of day in HHMM.0,
4) the bulk flow latitude angle based on proton measurements, in degrees, measured relative to the spacecraft equatorial plane, which was approximately the same as the ecliptic plane. The spacecraft spin axis was maintained within 0.5 degree of perpendicular to the ecliptic. Fill value is -999.9.

DATA FORMAT:

```
     WRITE(2,2000) IYYMMDD, SEC, UT, ANGLE
2000 FORMAT (1X,I6,1X,2(F8.1,1X),1PE11.4,1X)
```

DATA SAMPLE:

78-079A-01P

780813	0.0	0.0	-9.9990E+02
780813	300.0	5.0	-9.9990E+02
780813	600.0	10.0	-9.9990E+02
780813	900.0	15.0	-9.9990E+02
780813	1200.0	20.0	-9.9990E+02

.
.
.

790807	84300.0	2325.0	3.6000E+00
790807	84600.0	2330.0	2.8000E+00
790807	84900.0	2335.0	2.8000E+00
790807	85200.0	2340.0	-9.9990E+02
790807	85500.0	2345.0	1.8000E+00
790807	85800.0	2350.0	2.1000E+00
790807	86100.0	2355.0	2.1000E+00

.
.
.
etc.

BULK FLOW SPEED AND AZIMUTH DATA

Solar wind plasma bulk flow speed and azimuth data from the same experiment are available for this period as NSSDC data set number 78-079A-01N.

EPHEMERIS DATA

This data set does not contain any spacecraft position information. Daily values of ISEE-3/ICE position in GSE coordinates are included in the magnetic field data from JPL and are available as NSSDC data set 78-079A-02D.

INSTRUMENT DESCRIPTION

For a description of the Los Alamos instrument on the ISEE-3/ICE spacecraft, see: Bame, S.J., J.R. Asbridge, H.E. Felthauser, J.P. Glore, H.L. Hawk, and J. Chavez, ISEE-C solar wind plasma experiment, IEEE Trans. Geosci. Electron., GE-16, 160-162, 1978.

See also Russell and Petrinec
GRL, 19, No. 10, 961-963, May 22, 1992

NSSDC DATA SET 78-079A-01P

Tape labels, file names, and file sizes

SPACECRAFT: ISEE-3/ICE

DATA SET NAME: SW PROTONS BULK FLOW LATITUDE,5-M

SOURCE: DR. J. T. GOSLING
MS-D438, LOS ALAMOS NATIONAL LABORATORY
LOS ALAMOS, NM 87545
Phone: 505-667-5389
e-mail (SPAN): ESSDP1::073500

TIME SPAN: 13Aug78-17Feb80

QUANTITY: 1 tape

TAPE MEDIUM AND DENSITY: 9-track, 6250 BPI

TAPE FORMAT: ASCII, VAX (ANSI) STANDARD LABELLED TAPE

TAPE BLOCK SIZE: 2048 Bytes

DATA FORMAT: See data description

Tape Label	Data File Name	Data File Size Tape blocks/VAX blocks/MBy/lines
IC3LAT	POLAR1.DAT	1059 / 4051 / 2 / 51843
	POLAR2.DAT	1039 / 3974 / 2 / 50866
	POLAR3.DAT	1135 / 4344 / 2 / 55594

Notes:

1. Since this is a standard labelled tape, each data file has a header file and a trailer file associated with it.

2. On a VAX, to copy (e.g.) file POLAR1.DAT from tape to a disk file with the same name, do:

```
$ ALLOCATE  <dev_name>:
$ MOUNT  <dev_name>:    IC3LAT
$ COPY   <dev_name>:POLAR1.DAT *.*
```

This will require 4,051 VAX blocks on disk, and will create an ASCII file consisting of 51,843 lines of data.

To copy all the files from tape to disk, do:

```
$ ALLOCATE  <dev_name>:
```

78-079A-01P

```
$ MOUNT <dev_name>:    IC3LAT
$ COPY  <dev_name>:*.*    *.*
```

This will require 12,369 VAX blocks.

Data File	Time Span YY/MM/DD hh:mm	to	YY/MM/DD hh:mm
POLAR1.DAT	78/08/13 00:00	to	79/02/08 23:55
POLAR2.DAT	79/02/09 00:00	to	79/08/07 23:55
POLAR3.DAT	79/08/08 00:00	to	80/02/17 01:20

78-079A-01P
D-82888
C-28062
8/13/78 → 2/17/80
(F2)

```
$NOP
$NOP
$NOP
$NOP    -----------------------------------    LIST OF ROUT2    -----------
$NOP
$EXE TPLIST BS

INPUT PARAMETERS ARE:   AS FL=1=1 1 1 2

 TAPE NO.    1                  FILE NO.    2
 RECORD     1                   LENGTH   2 48
0041 780813        0.0        0.0 -9.9990E+020041 780813     300.0        5.0 -9.9990E+020041 780813      60
0.0       10.0 -9.9990E+020041 780813     900.0      15.0 -9.9990E+020041 780813    1200.0       20.0 -9.9
990E+020041 780813    1500.0      25.0 -9.9990E+020041 780813    1800.0       30.0 -9.9990E+020041 78081
3   2100.0       35.0 -9.9990E+020041 780813    2400.0       40.0 -9.9990E+020041 780813    2700.0       45
.0 -9.9990E+020041 780813    3000.0        50.0 -9.9990E+020041 780813    3300.0       55.0 -9.9990E+02004
1 780813    3600.0      100.0 -9.9990E+020041 780813    3900.0      105.0 -9.9990E+020041 780813    4200.0
     110.0 -9.9990E+020041 780813    4500.0      115.0 -9.9990E+020041 780813    4800.0      120.0 -9.9990
E+020041 780813    5100.0      125.0 -9.9990E+020041 780813    5400.0      130.0 -9.9990E+020041 780813
 5700.0     135.0 -9.9990E+020041 780813    6000.0      140.0 -9.9990E+020041 780813    6300.0      145.0
-9.9990E+020041 780813    6600.0      150.0 -9.9990E+020041 780813    6900.0      155.0 -9.9990E+020041 7
80813    7200.0      200.0 -9.9990E+020041 780813    7500.0      205.0 -9.9990E+020041 780813    7800.0
 210.0 -9.9990E+020041 780813    8100.0      215.0 -9.9990E+020041 780813    8400.0      220.0 -9.9990E+0
20041 780813    8700.0      225.0 -9.9990E+020041 780813    9000.0      230.0 -9.9990E+020041 780813     93
00.0      235.0 -9.9990E+020041 780813    9600.0      240.0 -9.9990E+020041 780813    9900.0      245.0 -9.
9990E+020041 780813   10200.0      250.0 -9.9990E+020041 780813   10500.0      255.0 -9.9990E+020041 7808
13  10800.0      300.0 -9.9990E+020041 780813   11100.0      305.0 -9.9990E+020041 780813   11400.0     31
0.0 -9.9990E+020041 780813   11700.0      315.0 -9.9990E+020041 780813   12000.0      320.0 -9.9990E+0200
41 780813   12300.0      325.0 -9.9990E+020041 780813   12600.0      330.0 -9.9990E+020041 780813   12900.
0     335.0 -9.9990E+020041 780813   13200.0      340.0 -9.9990E+020041 780813   13500.0      345.0 -9.999
0E+020041 780813   13800.0      350.0 -9.9990E+020041 780813   14100.0      355.0 -9.9990E+020041 780813
 14400.0      400.0 -9.9990E+02^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

 TAPE NO.    1                  FILE NO.    2
 RECORD     1 59                LENGTH   2 48
0041 790208   8610.0    2355.0 -1.0000E+00^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
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***** JOB DONE.
$WEO LPS

$$
$NOP
$NOP
```

D-82888

```
$NOP
$NOP ****************** LOUT2 ********************
$EXE TFLIST BS

INPUT PARAMETERS ARE:  AS SR=1135=1 1 1 8

 TAPE NO.   1              FILE NO.   8
 RECORD    1135            LENGTH   2 48
 0041 800216  831 0.0   2305.0   2.6000E+000041 800216  83400.0   2310.0  1.2000E+000041 800216  8370
0.0   2315.0  1.2000E+000041 800216  84000.0    2320.0  1.2000E+000041 800216  84300.0    2325.0 -5.0
000E-010041 800216  84600.0   2330.0  5.0000E-010041 800216  84900.0   2335.0  5.0000E-010041 80021
6  85200.0    2340.0  1.4000E+000041 800216  85500.0    2345.0  9.0000E-010041 800216  85800.0   2350
.0  4.0000E-010041 800216  86100.0   2355.0  1.0000E-010041 800217       0.0       0.0  6.0000E-01004
1 800217    300.0       5.0  1.7000E+000041 800217     600.0      10.0  1.7000E+000041 800217     900.0
      15.0  1.4000E+000041 800217   1200.0      20.0  1.6000E+000041 800217   1500.0      25.0  2.3000
E+000041 800217   1800.0      30.0  2.0000E+000041 800217   2100.0      35.0  1.0000E+000041 800217
 2400.0      40.0  1.0000E+000041 800217   2700.0      45.0  2.2000E+000041 800217   3000.0      50.0
 8.0000E-010041 800217   3300.0      55.0  5.0000E-010041 800217   3600.0     100.0  4.0000E-010041 8
00217   3900.0     105.0 -1.0000E-010041 800217   4200.0     110.0  1.0000E-010041 800217   4500.0
 115.0 -4.0000E-010041 800217   4800.0     120.0  2.2000E+00^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
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***** JOB DONE.
$WEO LPS

$$
$EXE TPARCF BS
```

ISEE - 3

15-M & 2-HR COSMIC RAY FLUXES

78-079A-04C SPHE-00202

This data set consists of one magnetic tape. The tape is is 6250, 9-track, ASCII, mult-filed (VAX copy format). The tape was created on a VAX computer. The D and C number, number of files and time span are as follows:

D#	C#	FILES	TIME SPAN
D-82884	C-28061	9	08/15/78 - 02/07/87

78-079A-04C

I. Introduction

Refer to the "The Medium Energy Cosmic Ray Experiment for Isee-C" paper written by T.T. von Rosenvinge, F.B. McDonald, J.H. Trainor, M.A.I. Van Hillebeke and L.A. Fisk. Reference can be found in the IEEE Transactions on Geoscience Electronics, Vol. GE-16, No. 3, July 1978, 0018-9413/78/0700-2085.

II. Data Files

The files consist of an ASCII header that describes the format of data fields followed by the data itself that may be in either ASCII or binary form.

For simplicity, it is convenient to think of a data file as a table of numbers. Each row in the table corresponds to a particular event or time interval, each column gives the values of a particular parameter (e.g. 10 MeV proton flux, D1 pulse height, time, type II radio intensity) in each event.

Data files begin with an ASCII header that describes each of the data fields (columns) in the file. Each ASCII line is terminated by a CR LF. In the ASCII header, lines beginning with a ';' are comments. The actual data follows the header and is binary as specified on the first line of the header.

In binary files integers in the data are stored with least- significant byte (LSB) first. Real numbers are

in IEEE 754 standard form. These are the standard IBM-PC & 8087 coprocessor conventions.

The following format types are used in Flux verses. The sizes of the data fields refer to binary data only.

T2	Begin and end time (long, 32 bit, integer) Seconds since 1/1/70.
I	Single Integer (16 bit).
L	Long Integer (32 bit).
R2	Ratio- Float count and live time (2*32 bit).

Time in binary form is encoded as a 32-bit integer representing the number of seconds since 1970 Jan 1 0000:00 (valid from 1902 through 2038).

The columns are grouped into records called verses in order to group data of a similar kind. For a given time period or event, not all verses need be present, thus, only the verses containing active data take up room in the data file. The group of verses that make up an event or time period is called a chapter.

The type of verse defined is Flux. Flux verses are rather specific to particle data. The number and mixture of fields in a verse is arbitrary (within limits given below) but the fields in the data must correspond one-for-one with the descriptors in the header. The verse number, appears again at the beginning of each verse of data. The line describing

each field in the verse contains the format, the initial axis limits and the title.

Flux verses are an efficient form for storing large numbers of particle fluxes derived from a single pulse-height matrix. The normalizing rates and counts are stored at the beginning of the verse and the count of a given species and energy (box count) is stored as an integer. This allows each flux to be stored in a 16-bit integer instead of a 64-bit real value and error. The energy limits and geometry factor needed to normalize each flux are listed as fields in the line of the header describing that value.

Particles of a given type and in a specified energy interval, accumulated over a specified time period, will reside in a specific region of the pulse-height matrix; this matrix may have more than 2 dimensions. The flux (or more precisely, differential intensity) corresponding to these events is given by the following formula:

FLUXreg = Nreg x RATEmatx / (Nmatx x (Emax-Emin) x GF)

where:

FLUXreg = number of pulse height events in the region.

RATEmatx = rate of all events which occurred and would have appeared on the matrix were it not for limitations on the bit-rate and

78-079A-04C

the non-zero conversion time of the pulse-height analyzers.

Nmatx = number of events which did appear on the matrix.

Emax - Emin = the interval in kinetic energy (MeV/nucleon) for the given region.

This equation implies that the live-time or effective accumulation time for pulse-height events is

live time = Nmatx / RATEmatx

III. Flux ASCII Header

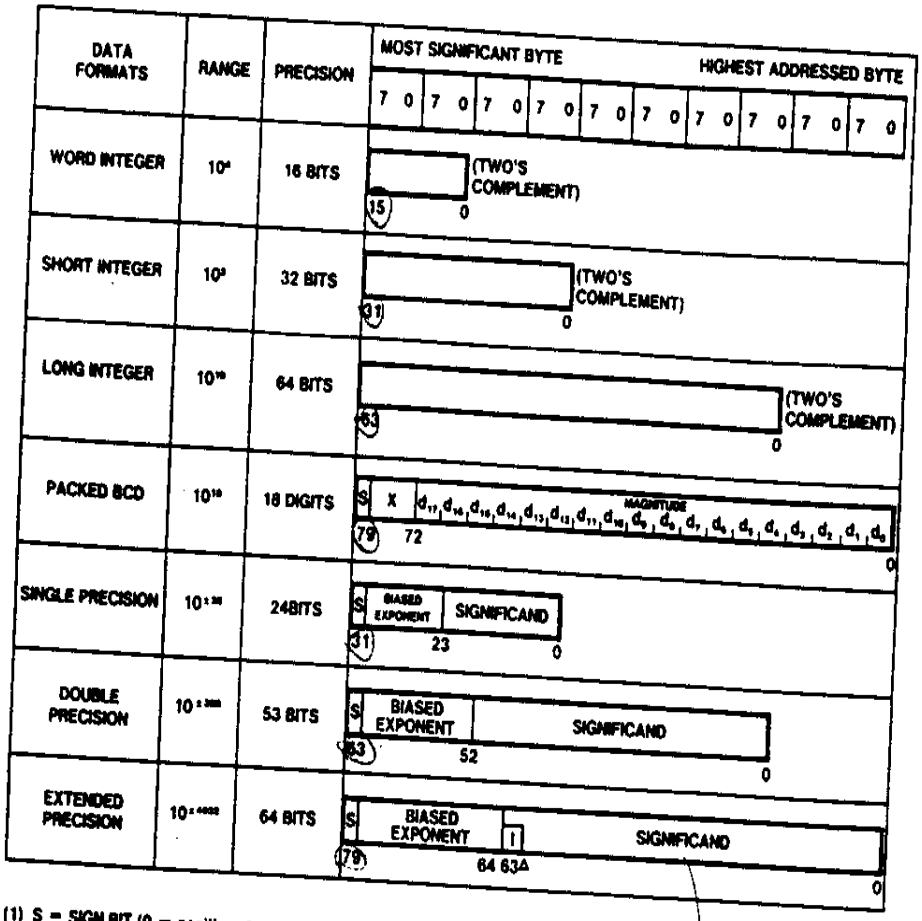
The Flux ASCII header appears on each file. The header information contains the following information. The ASCII header is followed by the actual binary data.

```
BINARY CREATED 1990 AUG 14 11:20:59          ;
ISEE-3    0 DAY  8 HR  0 MIN  0 SEC SUM. DATA FILE ;
;
90/04/07  0: 0: 0   ; START TIME OF FILE
90/04/21  0: 0: 0   ; END TIME  OF FILE
 0   0    8: 0: 0   ; AVG. INTERVAL
;
; TIME OF FIRST CHAPTER IN FILE 90/ 4/ 7  8: 0: 0
;
# 0 RATE
  T2                    TIME  ;
# 1 FLUX          7-HET I BSTP, HIGH GAIN
  R2   1.0E-05   1.0E+05      HET I BSTP,HI RATE
  L    0         32767   COUNT ON HET I  BTSP,HI MATRIX
;TYPE E MIN  E MAX   GEOM  PART   MODE  EVENT TYPE
  I   22.14   27.17  1.705 PROTON ICIB2  ;  7
  I   30.24   45.20  1.592 PROTON ICIB3  ;  7
  I   45.20   57.39  1.279 PROTON ICIB3  ;  7
;
# 2 FLUX        9-HET I BST, LOW GAIN
  R2   1.0E-05   1.0E+05     HET I BSTP, LO RATE
  L    0         32767   COUNT ON HET I BSTP, LO MATRIX
;TYPE E MIN  E MAX   GEOM  PART   MODE  EVENT TYPE
  I   30.01   45.09  1.598  HE4   ICIL3  ;  9
  I   45.09   57.15  1.289  HE4   ICIL3  ;  9
```

78-079A-04C

```
;
# 3 FLUX       10-HET I PEN,HIGH GAIN
  R2    1.0E-05    1.0E+05      HET I PEN,HI RATE
  L     0          32767    COUNT ON HET I PEN, HI MATRIX
;TYPE E MIN   E MAX    GEOM   PART    MODE   EVENT TYPE
  I  132.30   241.23   1.688  PROTON ICIPH   ;  10
;
# 4 FLUX         12-HET II AST, HIGH GAIN
  R2    1.0E-05    1.0E+05      HET II AST, HI RATE
  L     0          32767    COUNT ON HET II AST,HI MATRIX
;TYPE E MIN   E MAX    GEOM   PART    MODE   EVENT TYPE
  I     0.22     2.00   1.280 Elec    ICIIA2   ;  12
  I     4.45     6.41   1.107 Proton  ICIIA2   ;  12
  I     7.08    12.83   1.283 Proton  ICIIA3   ;  12
  I    12.83    22.66   1.278 Proton  ICIIA3   ;  12
  I     4.40     6.42   1.143 He4     ICIIA2   ;  12
  I     7.08    12.64   1.217 He4     ICIIA3   ;  12
  I    12.64    22.08   1.252 He4     ICIIA3   ;  12
;
# 5  FLUX         21-VLET II,EVENT TYPE 0
  R2    1.0E-05    1.0E+05      VLET II ET 0 RATE
  L     0          32767    COUNT ON VLET II ET 0 MATRIX
;TYPE E MIN   E MAX    GEOM   PART    MODE   EVENT TYPE
  I     2.09     2.81   0.265 C12     ICIID2   ;  21
  I     3.93     5.64   0.287 C12     ICIID3   ;  21
  I     2.08     2.80   0.287 O16     ICIID2   ;  21
  I     3.94     5.60   0.287 O16     ICIID3   ;  21
  I     2.08     2.81   0.287 Fe56    ICIID2   ;  21
  I     4.11     5.62   0.287 Fe56    ICIID3   ;  21
;
# 6  FLUX         22-VLET II,EVENT TYPE 1
  R2    1.0E-05    1.0E+05      VLET II ET 1 RATE
  L     0          32767    COUNT ON VLET II ET 1 MATRIX
;TYPE E MIN   E MAX    GEOM   PART    MODE   EVENT TYPE
  I     1.35     1.65   0.187 HE3     ICIID2   ;  22
  I     2.10     2.89   0.192 HE3     ICIID3   ;  22
  I     2.89     3.98   0.213 HE3     ICIID3   ;  22
  I     1.10     1.34   0.252 HE4     ICIID2   ;  22
  I     1.34     2.82   0.219 HE4     ICIID2   ;  22
  I     2.10     3.94   0.234 HE4     ICIID3   ;  22
  I     3.94     5.92   0.231 HE4     ICIID3   ;  22
;
# 7 RATE
  R2    1.0E-05    1.0E+05      ICIIA1H-(U)
  R2    1.0E-05    1.0E+05      ICIIAS-(U)
  R2    1.0E-05    1.0E+05      ICIBSE-(U)
  R2    1.0E-05    1.0E+05      ICIILDI-(U)
  R2    1.0E-05    1.0E+05      ICIIL
  R2    1.0E-05    1.0E+05      ICIILZ2
  R2    1.0E-05    1.0E+05      ICIILZ3
;
#END
```

78-079A-04C



(1) S = SIGN BIT (0 = positive, 1 = negative)
(2) d_n = DECIMAL DIGIT (TWO PER TYPE)
(3) X = BITS HAVE NO SIGNIFICANCE; 80387 IGNORES WHEN LOADING, ZEROS WHEN STORING
(4) Δ = POSITION OF IMPLICIT BINARY POINT
(5) I = INTEGER BIT OF SIGNIFICAND; STORED IN TEMPORARY REAL, IMPLICIT IN SINGLE AND DOUBLE PRECISION
(6) EXPONENT BIAS (NORMALIZED VALUES):
SINGLE: 127 (7FH)
DOUBLE: 1023 (3FFH)
EXTENDED REAL: 16383 (3FFFH)
(7) PACKED BCD: $(-1)^s (D_{17} \ldots D_0)$
(8) REAL: $(-1)^s (2^{e-bias}) (F_0.F_1 \ldots)$

mantissa

* least significant byte first (LSB) PC

Figure 2-10. 80387 Data Formats

VAX
* least significant byte first
integer
4321
least s-gn
most s-gn

IBM
* most significant byte first

intel

The binary integ
automatically con
representable in th

2.2.2.2 DECIMAL

Decimal integers a
into each byte, exce
Negative numbers
positive numbers on
digit. All digits mus

The decimal integer
ically converted to t
sentable in the exte

2.2.2.3 REAL NUMI

The 80387 represent

$(-1)^s 2^E (b_{0\Delta} b_1 b_2$

...where...

s = 0 or 1
E = any integer
b_i = 0 or 1
p = number of b

Table 2-3 summarizes

Parameter
Format width in bits
p (bits of precision)
Exponent width in b
Emax
Emin
Exponent bias

ROUT 1

78-079A-04C
D-82884
C-28061
8/15/78 → 2/1/80

```
$NOP
$NOP
$NOP
$nop ---------------------------------- LIST OF ------------------
$EXE TPLIST BS

INPUT PARAMETERS ARE:  AS FL=1=1 1 1 2

 TAPE NO.   1              FILE NO.   2
 RECORD   1                LENGTH   2 48
 BINARY CREATED  1987 AUG 27 18.47.02                          ; DATA TYPE & CREATION DATE   ISEE-3
      0 DAY  0 HR 15 MIN  3 SEC SUM. DATA FIL E    ; SAT. NAME(S) & FILE TITLE   ;     78/ 8/15   0
 :  :     ; START TIME OF FILE              80/ 2/ 1   0: 0: 0    ; STOP  TIME OF FILE
 ;      ; TIME OF FIRST CHAFT. IN FILE  78/ 8/15   0: 0: 0      ;     #0  RATE   12
              TIME ;     # 1   FLUX     7-HET I BSTP, HIGH GAIN                R2     1.0E-05     1.0
E+05          HET I   BSTP,HI RATE    L      0              32767          COUNT ON HET I    BSTP,HI M
ATRIX  ;TYPE   E MIN    E MAX     GEOM      PARTICLE     MODENAME  EVENT TYPE     I        22.14     27.1
7      1.7[illegible]5   PROTON  ;   IB2          7              I      30.24     45.20     1.592   PROTON  ;   IB3
         7          I      45.20     57.39      1.279   PROTON  ;   IB3          7          ;     # 2
  FLUX      9-HET I BST, LOW GAIN                  R2     1.0E-05     1.0E+05          HET I   BSTP,LO
RATE    L                 32767          COUNT ON HET I    BSTP,LO MATRIX  ;TYPE    E MIN     E MAX
    GEOM      PARTICLE     MODENAME  EVENT TYPE     I      30.01     45.09     1.598   HE4     ;   IL3
      9          I      45.09     57.15      1.289   HE4     ;   IL3          9          ;     # 3
 FLUX     10-HET I PEN, HIGH GAIN                R2     1.0E-05     1.0E+05          HET I   PEN,HI  R
ATE    L                 32767          COUNT ON HET I    PEN,HI  MATRIX  ;TYPE    E MIN     E MAX
   GEOM      PARTICLE     MODENAME  EVENT TYPE     I     132.30    241.23     1.688   PROTON  ;   IPH
      1[illegible]      ;     # 4   FLUX     12-HET II AST, HIGH GAIN                R2     1.0E-05     1.0E+0
E          HET II  AST,HI  RATE    L      0              32767          COUNT ON HET II   AST,HI  MATR
IX  ;TYPE    E MIN     E MAX     GEOM      PARTICLE     MODENAME  EVENT TYPE     I        0.22      2.00
  1.280    ELEC    ;   IIA2        12          I        4.45      6.41     1.107   PROTON  ;   IIA2
     12          I      7.08     12.83      1.283   PROTON  ;   IIA3

 TAPE NO.   1              FILE NO.   3
 RECORD   4613             LENGTH   1981
D
"

   B   C                 @@   D                 @C


  XD
     8D                    @@  8D
  [illegible]D      D  Xa
              HD                    @@  HD

J 1                  `D                    @@  `D                    pLE   B

  D
   C `IE

   D  @@    C  HE
@C@            MC  @C
   B  MC  @C

***** JOB DONE.
$WEO LPS


$$
```

D-82884

File 9
7/1/83
↓
2/7/87

```
$JOB    15:23:58
$ASS IN HT
$NOP
$AOF
$NOP
$NOP  ******************* RGUT1 *******************
$EXE TPLIST BS

INPUT PARAMETERS ARE:  AS SR=1=1 1 1 9

 TAPE NO.    1                FILE NO.    9
 RECORD    1                  LENGTH    2 48
 BINARY CREATED  1987 JUL 07 11.57.44                          ; DATA TYPE & CREATION DATE    ISEE-3
        DAY  2 H3     MIN     SEC SLM. DATA FIL E    ; SAT. NAME(S) & FILE TITLE    ;    87/ 1/ 1    5
 :  :     ; START TIME OF FILE                    87/ 2/ 7    0: 0: 9    ; STOP  TIME OF FILE
 ;     ; TIME OF FIRST CHART. IN FILE  83/ 1/ 2    0: 0: 0    ;    #0   RATE    12
                TIME ;     # 1    FLUX      7-HET I BSTP, HIGH GAIN                    R2     1.0E-05     1.0
E+ 5            HET I   BSTP,HI RATE    L                    32767                 COUNT ON HET I    BSTP,HI M
ATRIX   ;TYPE    E MIN     E MAX      GEOM      PARTICLE     MODENAME  EVENT TYPE     I        22.14      27.1
7     1.7 5   PROTON   ;   IB3          7                I      30.24     45.20      1.592    PROTON   ;   IB3
          7              I      45.2      57.39      1.279    PROTON   ;   IB3          7          ;    # 2
  FLUX      9-HET I BST, LOW GAIN                          R2    1.0E-05    1.0E+05                HET I   BSTP,LO
RATE    L                    32767                COUNT ON HET I    BSTP,LO MATRIX   ;TYPE    E MIN     E MAX
    GEOM      PARTICLE     MODENAME  EVENT TYPE     I      30.61     45.09      1.598    HE4      ;   IL3
          9              I      45. 9     57.15      1.289    HE4      ;   IL3          9          ;    # 3
  FLUX    1 -HET I PEN, HIGH GAIN                        R2    1.0E-05    1.0E+05                HET I   PEN,HI  R
ATE    L                    32767                COUNT ON HET I    PEN,HI  MATRIX   ;TYPE    E MIN     E MAX
    GEOM      PARTICLE     MODENAME  EVENT TYPE     I     132.30    241.23      1.688    PROTON   ;   IPH
          1          ;    # 4    FLUX     12-HET II AST, HIGH GAIN                    R2     1.0E-05     1.0E+0
5            HET II  AST,HI  RATE    L                    32767                 COUNT ON HET II   AST,HI  MATR
IX   ;TYPE    E MIN     E MAX      GEOM      PARTICLE     MODENAME  EVENT TYPE     I         0.22       2.00
   1.25    ELEC     ;   IIA2         12                I       4.45      6.41      1.107    PROTON   ;   IIA2
      12              I       7. 8     12.83      1.283    PROTON   ;   IIA3

***** JOB DONE.
$WEO LPS

$$
$ASS IN HT  OUT HT1
$EXE TRDUPC BS
```