#[redacted]677

AMPTE/IRM 5 SECOND AVERAGES

MAGNETIC FIELD 84-088B-02B
PLASMA PARAMETERS 84-088B-03B
PLASMA WAVE AMPLITUDE 84-088B-04B
SUPRATHERMAL IONS 84-088B-06A

Table of Contents

1. Introduction

2. Errata/Change Log

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

4. Catalog Materials

    a. Associated Documents

    b. Core Catalog Materials

---

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 This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system.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

RAND NO.

ACQ. AGENT
RP

AMPTE/IRM
5 SECOND AVERAGES

MAGNETIC FIELD AVERAGES
84-088B-02B

SPMS-00089

PLASMA PARAMETERS
84-088B-03B

PLASMA WAVE AMPLITUDES
84-088B-04B

SUPRATHERMAL IONS
84-088B-06A

This data set catalog contains 67 tapes. They are all 9 track, 6250 bpi, BIN. Each Tape has a tape header record (at the beginning of file 1), and each data file has a file header block. The 'D' and 'C' numbers and time spans follow:

D#	C#	Files	Time Span
D-79757	C-27424	06	09/01/84 - 09/04/84
D-79758	C-27425	04	09/04/84 - 09/07/84
D-79759	C-27426	04	09/08/84 - 09/11/84
D-79760	C-27427	04	09/11/84 - 09/13/84
D-79761	C-27428	04	09/13/84 - 09/15/84
D-79762	C-27429	04	09/15/84 - 09/18/84
D-79763	C-27430	04	09/18/84 - 09/21/84
D-79764	C-27431	04	09/21/84 - 09/23/84
D-79948	C-27432	5	09/23/84 - 09/25/84
D-79949	C-27433	5	09/25/84 - 09/28/84
D-79950	C-27434	7	09/29/84 - 10/04/84

D#	C#	Files	Time Span
D-79951	C-27435	5	10/05/84 - 10/08/84
D-79952	C-27436	6	10/09/84 - 10/14/84
D-80296	C-27624	7	10/15/84 - 10/20/84
D-80297	C-27625	9	10/21/84 - 10/28/84
D-80298	C-27626	8	10/29/84 - 11/04/84
D-80299	C-27627	10	11/05/84 - 11/13/84
D-80401	C-27719	8	11/14/84 - 11/21/84
D-80402	C-27720	7	11/22/84 - 11/27/84
D-80403	C-27721	9	11/28/84 - 12/05/84
D-80404	C-27722	7	12/06/84 - 12/11/84
D-80405	C-27723	8	12/14/84 - 12/20/84
D-80406	C-27724	4	12/21/84 - 12/23/84
D-80407	C-27725	3	12/23/84 - 12/25/84
D-80610	C-27808	4	12/26/84 - 12/28/84
D-80611	C-27809	6	12/28/84 - 01/02/85
D-80612	C-27810	7	01/02/85 - 01/11/85
D-80613	C-27811	8	01/13/85 - 01/22/85
D-80614	C-27812	11	01/23/85 - 02/06/85
D-80615	C-27813	16	02/06/85 - 02/24/85
D-80616	C-27814	10	02/25/85 - 03/07/85
D-80617	C-27815	10	03/08/85 - 03/20/85
D-76467	C-26879	7	03/21/85 - 03/24/85
D-76468	C-26880	7	03/24/85 - 03/28/85
D-76469	C-26881	9	03/28/85 - 04/06/85
D-76470	C-26882	8	04/06/85 - 04/12/85
D-76471	C-26883	10	04/12/85 - 04/20/85

D#	C#	Files	Time Span
D-76472	C-26884	8	04/20/85 - 04/26/85
D-76473	C-26885	14	04/26/85 - 05/08/85
D-76474	C-26886	9	05/10/85 - 05/16/85
D-76475	C-26887	12	05/17/85 - 05/30/85
D-76476	C-26888	13	06/01/85 - 06/14/85
D-76477	C-26889	11	06/16/85 - 06/30/85
D-76478	C-26890	13	07/01/85 - 07/14/85
D-76479	C-26891	8	07/15/85 - 07/21/85
D-78577	C-26892	11	07/23/85 - 08/03/85
D-78578	C-26893	12	08/04/85 - 08/14/85
D-78579	C-26894	11	08/16/85 - 08/25/85
D-78580	C-26895	11	08/27/85 - 09/06/85
D-78581	C-26896	12	09/07/85 - 09/18/85
D-78582	C-26897	12	09/19/85 - 09/30/85
D-78583	C-26898	12	10/01/85 - 10/12/85
D-78584	C-26899	14	10/13/85 - 10/27/85
D-78585	C-26900	11	10/29/85 - 11/07/85
D-78586	C-26901	11	11/09/85 - 11/19/85
D-79050	C-26902	11	11/20/85 - 12/03/85
D-79051	C-26903	11	12/05/85 - 12/14/85
D-79052	C-26904	11	12/16/85 - 12/25/85
D-79053	C-26905	11	12/26/85 - 01/05/86
D-79054	C-26906	11	01/06/86 - 01/17/86
D-79055	C-26907	11	01/18/86 - 01/28/86
D-79056	C-26908	11	01/29/86 - 02/08/86
D-79752	C-27419	11	02/08/86 - 02/20/86

D#	C#	Files	Time Span
D-79753	C-27420	11	02/21/86 - 03/03/86
D-79754	C-27421	11	03/04/86 - 03/15/86
D-79755	C-27422	11	03/15/86 - 03/30/86
D-79756	C-27423	11	03/30/86 - 04/10/86

MAX-PLANCK-INSTITUT FÜR PHYSIK UND ASTROPHYSIK

INSTITUT FÜR EXTRATERRESTRISCHE PHYSIK

8046 GARCHING b. MÜNCHEN
TELEFON MÜNCHEN (089) 3299 3591
TELEGRAMM:
EXTERRAPLANCK GARCHING b. MÜNCHEN
FERNSCHREIBER: 05 215845 xterr d

H. Höfner

R. Parthasarathy
National Space Science Data
Center/World Data Center A
NASA
Goddard Space Flight Center

Greenbelt, MD 20771

U.S.A.

677/697
84-088B-02B-4B, 6A, 4C
Received
21 Jan 92
RP

Subject: AMPTE/IRM Summary Tapes

Dear Sardi,

we unfortunately discovered another error in the summary tape documentation. Please find enclosed the corrected version (hopefully the last one!).

Best regards

Heinrich Höfner

F1

==========

MAX - PLANCK - INSTITUT FUER EXTRATERRESTRISCHE PHYSIK

==========

==========

AMPTE / IRM - SUMMARY TAPE FORMAT

==========

Prepared	by	H. Hoefner, K. H. Muehlhaeuser	25 Nov. 1986
Update #1	by	H. Hoefner,	8 Feb. 1991
Update #2	by	H. Hoefner,	18 Oct. 1991
Update #3	by	H. Hoefner,	10 Jan. 1992

****

Error Correction #1 H. Hoefner 8 Feb. 1991

Summary Result Record

Magnetometer entry # 10 bytes 37 - 40

is NOT the standard deviation in nanotesla
but rather the dimensionless relative standard deviation
for the averaged magnetic field vector

it was calculated as follows:

for every component j=(x,y,z) and n vectors in the 5 seconds averaging interval:

$$\overline{Bj} = (1/n) \sum_i Bji$$

$$\delta Bj = (1/n) \sum_i (Bji - Bj)^{**2}$$

$$|B| = SQRT(Bx^{**2} + By^{**2} + Bz^{**2})$$

$$\delta B = SQRT(\delta Bx^{**2} + \delta By^{**2} + \delta Bz^{**2})$$

relative standard deviation (entry # 10) = $\delta B/|B|$

****

****

Error Correction #2 H. Hoefner 18 Oct. 1991

Summary Result Record

Plasma entry # 22,23 bytes 85 - 92

Proton and electron temperatures are given in units keV !

****

****

Error Correction #3 H. Hoefner 10 Jan. 1992

Summary Result Record

Wave entry # 86-89,96,97,100,101

Unit for the magnetic components are nT/sqrt(Hz) !

Wave entry # 103

Unit for the antenna average signal is Volt !

****

F2

AMPTE / IRM - SUMMARY TAPE FORMAT

Each logical record consists of 460 bytes
Data on tape are blocked: block-count: 20
(the last block before EOF may be shorter)

One tape contains several passes,
each pass is separated by a end-of-file mark

Coding: all values in VAX data representation
text is ASCII

General structure::

```
------------
tape hader
------------
file header
------------

data for one pass: information + result records

------------
file trailer (same as header)
------------
   EOF
------------
file header
------------

data for one pass: information + result records

------------
file trailer
------------
   EOF
------------
    .
    .
    .
    .
------------
    EOF
------------
tape trailer
------------
   EOF
------------
   EOF
------------
```

Tape Header / Trailer Record

Byte	#Bytes	Description
1- 2	2	RECORD LENGTH Number of bytes following this item
3- 4	2	RECORD TYPE ID A binary constant value of "7" ("9") identifying file header (trailer), or "1" ("3") identifying a tape header (trailer) in byte 4; byte 3 = 00(hex)
5- 8	4	RECORD NUMBER A binary number identifying the position of the record on the tape
9- 12	4	MISSION IDENTIFICATION 4 ASCII characters indetifying the mission (AMPTE)
13- 16	4	SOURCE ID OF DATA 4 ASCII characters (GSOC)
17- 22	6	spare
23- 24	2	EXPERIMENT IDENTIFICATION not used
25- 30	6	TAPE IDENTIFICATION Six alphanumeric characters assigned to identifying the tape. This designation matches the designation on the physical tape label (MPE label)
31- 36	6	spare
37- 42	6	spare
43- 50	8	TAPE GENERATION TIME
	(2)	Year that the tape was generated
	(2)	Day of year
	(4)	Milliseconds of the day
51- 54	4	DATA LEVEL INDICATOR 4 character ASCII code indicating the level of the data: 'TEST' => Test 'PREL' => Preliminary 'FINA' => Final
55- 56	2	spare
57- 58	2	spare
59- 66	8	TIME OF THE FIRST DATA ITEM IN FIRST FILE
	(2)	Year (0-99)
	(2)	Day of year
	(4)	Milliseconds of the day
67- 74	8	TIME OF THE LAST DATA ITEM IN LAST FILE
	(2)	Year (0-99)
	(2)	Day of year

	(4)	Milliseconds of the day
75- 76	2	FILE COUNTER Number of files accumulated in this tape sequence
77- 80	4	RECORD COUNTER A binary number indication the number of data records accumulated in this tape sequence
81- 82	2	LOGICAL RECORD COUNTER A binary number indicating the size of the data records
83- 84	2	BLOCKING FACTOR number of logical records per physical record
85- mm		FILLER

File Header / Trailer Record

Byte	#Bytes	Description
1- 2	2	RECORD LENGTH Number of bytes following this item
3- 4	2	RECORD TYPE ID A binary constant value of "7" ("9") identifying file header (trailer), or "1" ("3") identifying a tape header (trailer) in byte 4; byte 3 = 00(hex)
5- 8	4	RECORD NUMBER A binary number identifying the position of the record on the tape
9- 12	4	MISSION IDENTIFICATION 4 ASCII characters identifying the mission (AMPTE)
13- 16	4	SOURCE ID OF DATA 4 ASCII characters indicating DSN active (one file = one tracking pass)
17- 22	6	spare
23- 24	2	EXPERIMENT IDENTIFICATION not used
25- 30	6	TAPE IDENTIFICATION Six alphanumeric characters assigned to identifying the tape (GSOC original label)
31- 36	6	spare
37- 42	6	spare
43- 50	8	TAPE GENERATION TIME
	(2)	Year that the tape was generated
	(2)	Day of year
	(4)	Milliseconds of the day
51- 54	4	DATA LEVEL INDICATOR 4 character ASCII code indicating the level of the data: 'TEST' => Test 'PREL' => Preliminary 'FINA' => Final
55- 56	2	spare
57- 58	2	spare
59- 66	8	TIME OF THE FIRST DATA ITEM IN FIRST FILE
	(2)	Year (0-99)
	(2)	Day of year
	(4)	Milliseconds of the day
67- 74	8	TIME OF THE LAST DATA ITEM IN LAST FILE
	(2)	Year (0-99)
	(2)	Day of year
	(4)	Milliseconds of the day

75-	76	2	FILE COUNTER not used
77-	80	4	RECORD COUNTER A binary number indication the number of data records accumulated in this file
81-	82	2	LOGICAL RECORD COUNTER A binary number indicating the size of the data records
83-	84	2	BLOCKING FACTOR number of logical records per physical record
85-	mm		FILLER

Summary Information Record

	Byte	#Bytes	Description	Units	Attribute	Comment
1	1- 3	3	Filler bytes (=0)		char*3	
	4	1	Contens-Flag (Bit 7=0, Bit 6=0)		char*1	
2	5- 8	4	Year (0-99)		int*4	
3	9- 12	4	Day of year (1-366)		int*4	
4	13- 16	4	Hour of day (0-23)		int*4	
5	17- 20	4	Status-bytes magnetometer (r. just.		char*4	
6	21- 28	8	Status-bytes plasma (right justified)		char*8	
8	29- 36	8	Status-bytes wave (r.justified)		char*8	
10	37- 40	4	Status-bytes suleica (r.just)		char*4	
11	41- 44	4	spare		char*4	
12	45- 48	4	Datarate (1, 2, 4, 8)		int*4	
13	49- 52	4	Spin periode (sec)		real*4	
14	53- 56	4	Minimal elevation		real*4	
15	57- 60	4	Maximal elevation		real*4	
16	61- 96	36	SCS to GSE matrix (3*3-Matrix FORTRAN-layout)		real*4	
25	97- 100	4	Latitude		real*4	
26	101- 104	4	Longitude		real*4	
27	105- 108	4	SURVEY calibration factor version		int*4	
28	109- 120	12	Magnetometer offset corr. coarse (3)		int*4	
31	121- 132	12	Magnetometer offset corr. file (3)		int*4	
34	133- 196	64	Wave version numbers of 16 vlf/mf-tab		int*4	
50	197- 200	4	Wave version number of hfe-table		int*4	
51	201- 204	4	Wave version number of hfb-table		int*4	
52	205- 216	12	Wave version numbers of 3 sfr/m-table		int*4	
55	217- 220	4	Wave version number of vlf/mf aas-tab		int*4	
56	221- 232	12	Wave version numbers of 3 sfr/e-tables		int*4	
59	233- 236	4	Wave scale factor		int*4	
60	237- 240	4	Suleica version number of suleica-tabl		int*4	
61	241-mm		filler			

Summary Result Record

********** all result record data are 5 second averages **********

	Byte	#Bytes	Description	Units	Attribute	plotid	Comment
1	1- 3	3	Filler bytes(=0)		char*3		
	4- 4	1	Contens-Flags (Bit 7=1, Bit 6=1		bit*8		
2	5- 8	4	Seconds of hour (0-3599)		int*4		
3	9- 12	4	Quality (0= no errors)		int*4		
MAGNETOMETER::							
4	13- 16	4	B field vector x component	nT	real*4	351	
5	17- 20	4	B field vector y component	nT	real*4	352	
6	21- 24	4	B field vector z component	nT	real*4	353	
7	25- 28	4	B field vector length |B|	nT	real*4	354	
8	29- 32	4	B field vector azimuth	deg	real*4	355	
9	33- 36	4	B field vector elevation	deg	real*4	356	
10	37- 40	4	relative standard deviation B/|B|	-	real*4	357	
11	41- 44	4	S/C spin angular frequency	1/sec	real*4	360	
12	45- 48	4	spare				
13	49- 52	4	spare				
PLASMA::							
14	53- 56	4	Plasma status-bytes		char*4		
15	57- 60	4	Proton density (total)	cm**-3	real*4	361	filler in solar wind
16	61- 64	4	Electron density (total)	cm**-3	real*4	362	filler in tail lobe
17	65- 68	4	Proton density (high energy)	cm**-3	real*4	364	filler in half-sweep mode
18	69- 72	4	Electron density (high energy)	cm**-3	real*4	365	filler in hs
19	73- 76	4	Proton velocity magnitude	km/sec	real*4	366	
20	77- 80	4	Proton velocity azimuth	deg	real*4	367	filler in sw
21	81- 84	4	Proton velocity elevation	deg	real*4	378	filler in sw
22	85- 88	4	Proton Temperature magnitude	keV	real*4	369	filler in sw
23	89- 92	4	Electron Temperature magnitude	keV	real*4	370	filler in tl
24	93- 96	4	spare				
25	97- 100	4	spare				
SULEICA::							
26	101- 104	4	Protons up + down 10 - 17 keV	flux	real*4	391	filler in solar wind
27	105- 108	4	Helium up + down 10 - 17 keV	flux	real*4	392	
28	109- 140	32	Proton sectors (1-8) 40 - 68 keV	flux	real*4	395	
36	141- 144	4	Proton omni rate 40 - 68 keV	flux	real*4	396	
37	145- 148	4	Helium up + down 40 - 68 keV	flux	real*4	397	

R1

38	149- 152	4	He (Q = 1, A = 4) 40 - 68 keV	flux	real*4	399	
39	153- 156	4	O (Q = 1) 40 - 68 keV	flux	real*4	401	filler in ring current
40	157- 160	4	CNO, Q > 2 40 - 68 keV	flux	real*4	403	
41	161- 164	4	Fe (Q = 14-26) 40 - 68 keV	flux	real*4	404	filler in rc
42	165- 168	4	background rate 40 - 68 keV	flux	real*4	405	filler in rc
43	169- 172	4	first order anisotropy magnitude	flux	real*4	406	
44	173- 176	4	first order anisotropy sector	flux	real*4	407	
45	177- 180	4	Protons up + down 160 -270 keV	flux	real*4	408	
46	181- 184	4	Helium up + down 160 -270 keV	flux	real*4	409	
47	185- 188	4	Suleica status		char*4		
48	189- 192	4	spare				
49	193- 196	4	spare				

WAVE::

50	197- 200	4	VLF/MF Peak 0.031 kHz	V/(m*Hz**.5)	real*4	420
51	201- 204	4	VLF/MF Peak 0.056 kHz	V/(m*Hz**.5)	real*4	421
52	205- 208	4	VLF/MF Peak 0.100 kHz	V/(m*Hz**.5)	real*4	422
53	209- 212	4	VLF/MF Peak 0.178 kHz	V/(m*Hz**.5)	real*4	423
54	213- 216	4	VLF/MF Peak 0.311 kHz	V/(m*Hz**.5)	real*4	424
55	217- 220	4	VLF/MF Peak 0.562 kHz	V/(m*Hz**.5)	real*4	425
56	221- 224	4	VLF/MF Peak 1.00 kHz	V/(m*Hz**.5)	real*4	426
57	225- 228	4	VLF/MF Peak 1.78 kHz	V/(m*Hz**.5)	real*4	427
58	229- 232	4	VLF/MF Peak 3.11 kHz	V/(m*Hz**.5)	real*4	428
59	233- 236	4	VLF/MF Peak 5.62 kHz	V/(m*Hz**.5)	real*4	429
60	237- 240	4	VLF/MF Peak 10.00 kHz	V/(m*Hz**.5)	real*4	430
61	241- 244	4	VLF/MF Peak 17.8 kHz	V/(m*Hz**.5)	real*4	431
62	245- 248	4	VLF/MF Peak 31.1 kHz	V/(m*Hz**.5)	real*4	432
63	249- 252	4	VLF/MF Peak 56.2 kHz	V/(m*Hz**.5)	real*4	433
64	253- 256	4	VLF/MF Peak 100.0 kHz	V/(m*Hz**.5)	real*4	434
65	257- 260	4	VLF/MF Peak 178.0 kHz	V/(m*Hz**.5)	real*4	435
66	261- 264	4	VLF/MF Average 0.031 kHz	V/(m*Hz**.5)	real*4	436
67	265- 268	4	VLF/MF Average 0.056 kHz	V/(m*Hz**.5)	real*4	437
68	269- 272	4	VLF/MF Average 0.100 kHz	V/(m*Hz**.5)	real*4	438
69	273- 276	4	VLF/MF Average 0.178 kHz	V/(m*Hz**.5)	real*4	439
70	277- 280	4	VLF/MF Average 0.311 kHz	V/(m*Hz**.5)	real*4	440
71	281- 284	4	VLF/MF Average 0.562 kHz	V/(m*Hz**.5)	real*4	441
72	285- 288	4	VLF/MF Average 1.00 kHz	V/(m*Hz**.5)	real*4	442
73	289- 292	4	VLF/MF Average 1.78 kHz	V/(m*Hz**.5)	real*4	443
74	293- 296	4	VLF/MF Average 3.11 kHz	V/(m*Hz**.5)	real*4	444
75	297- 300	4	VLF/MF Average 5.62 kHz	V/(m*Hz**.5)	real*4	445
76	301- 304	4	VLF/MF Average 10.00 kHz	V/(m*Hz**.5)	real*4	446
77	305- 308	4	VLF/MF Average 17.8 kHz	V/(m*Hz**.5)	real*4	447
78	309- 312	4	VLF/MF Average 31.1 kHz	V/(m*Hz**.5)	real*4	448
79	313- 316	4	VLF/MF Average 56.2 kHz	V/(m*Hz**.5)	real*4	449
80	317- 320	4	VLF/MF Average 100.0 kHz	V/(m*Hz**.5)	real*4	450
81	321- 324	4	VLF/MF Average 178.0 kHz	V/(m*Hz**.5)	real*4	451
82	325- 328	4	SFR1 El/Peak 0.350 kHz	V/(m*Hz**.5)	real*4	452

R2

83	329- 332	4	SFR1 El/Average 0.350 kHz	V/(m*Hz**.5)	real*4	453
84	333- 336	4	SFR1 El/Peak 1.00 kHz	V/(m*Hz**.5)	real*4	454
85	337- 340	4	SFR1 El/Average 1.00 kHz	V/(m*Hz**.5)	real*4	455
86	341- 344	4	SFR1 Mag/Average 0.350 kHz	nT/(Hz**.5)	real*4	456
87	345- 348	4	SFR1 Mag/Average 0.537 kHz	nT/(Hz**.5)	real*4	457
88	349- 352	4	SFR1 Mag/Average 1.025 kHz	nT/(Hz**.5)	real*4	458
89	353- 356	4	SFR1 Mag/Average 1.780 kHz	nT/(Hz**.5)	real*4	459
90	357- 360	4	SFR2 El/Peak 0.350 kHz	V/(m*Hz**.5)	real*4	460
91	361- 364	4	SFR2 El/Average 0.350 kHz	V/(m*Hz**.5)	real*4	461
92	365- 368	4	SFR2 El/Peak 1.00 kHz	V/(m*Hz**.5)	real*4	462
93	369- 372	4	SFR2 El/Average 1.00 kHz	V/(m*Hz**.5)	real*4	463
94	373- 376	4	SFR2 El/Peak 3.15 kHz	V/(m*Hz**.5)	real*4	464
95	377- 380	4	SFR2 El/Average 3.15 kHz	V/(m*Hz**.5)	real*4	465
96	381- 384	4	SFR2 Mag/Average 3.15 kHz	nT/(Hz**.5)	real*4	466
97	385- 388	4	SFR2 Mag/Average 5.55 kHz	nT/(Hz**.5)	real*4	467
98	389- 392	4	SFR3 El/Peak 30.00 kHz	V/(m*Hz**.5)	real*4	468
99	393- 396	4	SFR3 El/Average 30.00 kHz	V/(m*Hz**.5)	real*4	469
100	397- 400	4	SFR3 Mag/Average 10.00 kHz	nT/(Hz**.5)	real*4	470
101	401- 404	4	HFB Mag 300.00 kHz	nT/(Hz**.5)	real*4	471
102	405- 408	4	HFE El 300.00 kHz	V/(m*Hz**.5)	real*4	472
103	409- 412	4	VLF/MF Antenna average signal	V	real*4	473

ORBIT::

104	413- 416	4	GSEran range from earth center	km	real*4	480
105	417- 420	4	GSEaz longitude	degree	real*4	481
106	421- 424	4	GSEele latitude	degree	real*4	482
107	425- 428	4	DIECL distance above ecl. plane	km	real*4	483
108	429- 432	4	DINS distance above neutr. sheet	km	real*4	484
109	431- 436	4	L		real*4	485
110	437- 440	4	B	nT	real*4	486
111	441- 460	20	spare			

total:: 115*4 = 460 bytes

R3

SEQUENCE OF PROCESSED SUMMARY TAPES FOR THE WORLD DATA CENTER

File: [HHH.DOC]SUMTAPE.SEQ

Tape Label	Summary tapes	Start of data	End of data	Records	Tape cr. 1600 bpi	Tape cr. 6250 bpi	Tape 1600 to RAL	Tape 6250 to WDC
MPE001	UR0017	21-MAR-85 07:20	24-MAR-85 18:01	54154	27-MAR-87	15-MAY-87	16-APR-87	25-SEP-87
MPE002	UR0023	24-MAR-85 20:16	28-MAR-85 4:02	44496	27-MAR-87	15-MAY-87	-	25-SEP-87
MPE003	UR0029	28-MAR-85 17:46	6-APR-85 2:01	35425	6-APR-87	15-MAY-87	-	25-SEP-87
MPE004	UR0175	6-APR-85 19:13	12-APR-85 1:01	42832	8-APR-87	15-MAY-87	-	25-SEP-87
MPE005	UR0207	12-APR-85 7:19	20-APR-85 2:05	51043	8-APR-87	15-MAY-87	-	25-SEP-87
MPE006	UR0216	20-APR-85 20:30	26-APR-85 2:05	59913	20-MAY-87	20-MAY-87	-	25-SEP-87
MPE007	UR0223	26-APR-85 2:10	8-MAY-85 24:00	60727	2-JUN-87	2-JUN-87	-	25-SEP-87
MPE008	UR0227	10-MAY-85 17:02	16-MAY-85 21:02	63980	3-JUN-87	3-JUN-87	-	25-SEP-87
MPE009	UR0245	17-MAY-85 8:08	30-MAY-85 23:40	60091	4-JUN-87	4-JUN-87	-	25-SEP-87
MPE010	UR0259	1-JUN-85 16:30	14-JUN-85 22:48	57265	14-JUL-87	14-JUL-87	-	25-SEP-87
MPE011	UR0184	16-JUN-85 14:55	30-JUN-85 21:00	49275	15-JUL-87	15-JUL-87	-	25-SEP-87
MPE012	UR0270	1-JUL-85 14:56	14-JUL-85 21:00	59633	23-SEP-87	23-SEP-87	-	25-SEP-87
MPE013	UR0284	15-JUL-85 11:21	21-JUL-85 20:22	59546	23-SEP-87	23-SEP-87	-	25-SEP-87
MPE014	UR0291	23-JUL-85 14:46	3-AUG-85 19:28	50116	23-SEP-87	26-SEP-87	-	16-MAR-88
MPE015	UR0302	4-AUG-85 17:22	14-AUG-85 18:40	49122	14-OCT-87	14-OCT-87	-	16-MAR-88
MPE016	UR0313	16-AUG-85 11:20	25-AUG-85 17:50	49087	15-OCT-87	15-OCT-87	-	16-MAR-88
MPE017	UR0323	27-AUG-85 11:08	6-SEP-85 17:01	49050	28-OCT-87	28-OCT-87	-	16-MAR-88
MPE018	UR0333	7-SEP-85 9:26	18-SEP-85 16:10	52184	20-JAN-88	20-JAN-88	-	16-MAR-88
MPE019	UR0344	19-SEP-85 13:04	30-SEP-85 16:01	45813	20-JAN-88	20-JAN-88	-	16-MAR-88
MPE020	UR0355	1-OCT-85 8:16	12-OCT-85 14:35	50080	2-FEB-88	2-FEB-88	-	16-MAR-88
MPE021	UR0366	13-OCT-85 10:47	27-OCT-85 13:50	53740	8-MAR-88	8-MAR-88	-	16-MAR-88
MPE022	UR0379	29-OCT-85 7:26	7-NOV-85 13:00	47537	9-MAR-88	9-MAR-88	-	16-MAR-88
MPE023	UR0388	9-NOV-85 6:15	19-NOV-85 12:30	46621	15-MAR-88	15-MAR-88	-	16-MAR-88
MPE024	UR0398	20-NOV-85 5:24	3-DEC-85 8:55	45801	19-JUL-88	19-JUL-88	-	25-OCT-88
MPE025	UR0409	5-DEC-85 8:18	14-DEC-85 10:40	42277	26-JUL-88	26-JUL-88	-	25-OCT-88
MPE026	UR0423	16-DEC-85 4:09	25-DEC-85 9:50	44089	28-JUL-88	28-JUL-88	-	25-OCT-88
MPE027	UR0430	26-DEC-85 6:43	5-JAN-86 9:00	43802	3-AUG-88	3-AUG-88	-	25-OCT-88
MPE028	UR0049	6-JAN-86 5:05	17-JAN-86 10:00	47866	11-OCT-88	11-OCT-88	-	25-OCT-88
MPE029	UR0036	18-JAN-86 1:25	28-JAN-86 9:00	39695	12-OCT-88	12-OCT-88	-	25-OCT-88
MPE030	UR0081	29-JAN-86 1:01	8-FEB-86 8:01	35658	18-OCT-88	18-OCT-88	-	25-OCT-88
MPE031	UR0070	8-FEB-86 23:21	20-FEB-86 5:35	45539	15-FEB-89	15-FEB-89	-	6-APR-89
MPE032	UR0080	21-FEB-86 1:45	3-MAR-86 4:35	40267	16-FEB-89	16-FEB-89	-	6-APR-89
MPE033	UR0092	4-MAR-86 0:21	15-MAR-86 5:35	45952	16-FEB-89	16-FEB-89	-	6-APR-89
MPE034	UR0103	15-MAR-86 18:54	30-MAR-86 5:20	41950	21-FEB-89	21-FEB-89	-	6-APR-89
MPE035	UR0114	30-MAR-86 20:49	10-APR-86 4:20	44111	23-MAR-89	23-MAR-89	-	6-APR-89

SEQUENCE OF PROCESSED SUMMARY TAPES FOR THE WORLD DATA CENTER
File: [HHH.DOC]SUMTAPE.SEQ

Tape Label	Summary tapes	Start of data	End of data	Records	Tape cr. 1600 bpi	Tape cr. 6250 bpi	Tape 1600 to RAL	Tape 6250 to WDC
MPE036	UR0507	1-SEP-84 5:51	4-SEP-84 21:40	43034	16-MAY-89	16-MAY-89	12-DEC-89	17-JUL-89
MPE037	UR0578	4-SEP-84 22:48	7-SEP-84 17:02	39928	16-MAY-89	16-MAY-89	12-DEC-89	17-JUL-89
MPE038	UR0580	8-SEP-84 11:55	11-SEP-84 02:14	51238	30-NOV-89	30-NOV-89	12-DEC-89	11-DEC-89
MPE039	UR0583	11-SEP-84 1:01	13-SEP-84 1:59	52743	26-JUN-89	26-JUN-89	12-DEC-89	17-JUL-89
MPE040	UR0593	13-SEP-84 2:02	15-SEP-84 17:02	40031	27-JUN-89	27-JUN-89	12-DEC-89	17-JUL-89
MPE041	UR0587	15-SEP-84 21:40	18-SEP-84 6:11	39935	27-JUN-89	27-JUN-89	12-DEC-89	17-JUL-89
MPE042	UR0590	18-SEP-84 6:14	21-SEP-84 2:01	47154	28-JUN-89	28-JUN-89	12-DEC-89	17-JUL-89
MPE043	UR0606	21-SEP-84 2:01	23-SEP-84 3:01	50395	29-JUN-89	29-JUN-89	12-DEC-89	17-JUL-89
MPE044	UR0597	23-SEP-84 6:00	25-SEP-84 0:01	50450	22-SEP-89	22-SEP-89	12-DEC-89	3-OCT-89
MPE045	UR0599	25-SEP-84 4:34	28-SEP-84 16:01	43118	26-SEP-89	26-SEP-89	12-DEC-89	3-OCT-89
MPE046	UR0600	29-SEP-84 6:30	4-OCT-84 15:01	48526	28-SEP-89	28-SEP-89	12-DEC-89	3-OCT-89
MPE047	UR0603	5-OCT-84 6:31	8-OCT-84 15:00	46923	29-SEP-89	29-SEP-89	12-DEC-89	3-OCT-89
MPE048	UR0621	9-OCT-84 7:16	14-OCT-84 15:01	53124	2-OCT-89	2-OCT-89	12-DEC-89	3-OCT-89
MPE049	UR0623	15-OCT-84 9:37	20-OCT-84 15:00	48954	2-NOV-89	2-NOV-89	12-DEC-89	11-DEC-89
MPE050	UR0628	21-OCT-84 3:51	28-OCT-84 13:00	45623	2-NOV-89	2-NOV-89	12-DEC-89	11-DEC-89
MPE051	UR0635	29-OCT-84 4:56	4-NOV-84 13:01	52110	8-DEC-89	8-DEC-89	12-DEC-89	11-DEC-89
MPE052	UR0644	5-NOV-84 3:47	13-NOV-84 13:02	53155	7-DEC-89	7-DEC-89	12-DEC-89	11-DEC-89
MPE053	UR0653	14-NOV-84 2:06	21-NOV-84 11:54	47755	22-JAN-90	22-JAN-90	3-APR-90	3-APR-90
MPE054	UR0660	22-NOV-84 3:43	27-NOV-84 12:01	48985	23-JAN-90	23-JAN-90	3-APR-90	3-APR-90
MPE055	UR0666	28-NOV-84 4:32	5-DEC-84 11:50	48790	26-FEB-90	26-FEB-90	3-APR-90	3-APR-90
MPE056	UR0675	6-DEC-84 1:02	11-DEC-84 10:40	48192	26-FEB-90	26-FEB-90	3-APR-90	3-APR-90
MPE057	UR0683	14-DEC-84 1:36	20-DEC-84 10:55	49827	29-MAR-90	29-MAR-90	3-APR-90	3-APR-90
MPE058	UR0690	21-DEC-84 0:53	23-DEC-84 10:20	35974	28-MAR-90	28-MAR-90	3-APR-90	3-APR-90
MPE059	UR0693	23-DEC-84 10:26	25-DEC-84 13:11	44037	30-MAR-90	30-MAR-90	3-APR-90	3-APR-90
MPE060	UR0695	26-DEC-84 12:56	28-DEC-84 9:20	38829	21-MAY-90	21-MAY-90	3-AUG-90	3-AUG-90
MPE061	UR0698	28-DEC-84 9:24	2-JAN-85 8:00	44285	1-JUN-90	1-JUN-90	3-AUG-90	3-AUG-90
MPE062	UR0568	2-JAN-85 23:25	11-JAN-85 9:00	43093	8-JUN-90	8-JUN-90	3-AUG-90	3-AUG-90
MPE063	UR0546	13-JAN-85 22:30	22-JAN-85 8:35	47429	23-JUL-90	23-JUL-90	3-AUG-90	3-AUG-90
MPE064	UR0565	23-JAN-85 0:38	6-FEB-85 7:39	48182	23-JUL-90	23-JUL-90	3-AUG-90	3-AUG-90
MPE065	UR0548	6-FEB-85 20:29	24-FEB-85 6:01	50369	24-JUL-90	24-JUL-90	3-AUG-90	3-AUG-90
MPE066	UR0556	25-FEB-85 22:17	7-MAR-85 5:25	49571	24-JUL-90	24-JUL-90	3-AUG-90	3-AUG-90
MPE067	UR0515	8-MAR-85 22:10	20-MAR-85 4:00	40043	24-JUL-90	24-JUL-90	3-AUG-90	3-AUG-90

RH 6190

Start Date 10/5/84

Dupe of DC-27435

Stop Date = 10/8/84

```
)NTROL CARD TABLE SIZE IS   4096 BYTES

IROL CARDS

'IALYZE RETRY=256,MAXTERR=100,MAXERR=100,KEEP,VERIFY
RINT LF=1,B=1-2,L=500,DUMP

APE BUFFER SIZE IS 65535 BYTES

APEIN DATA WILL BE COPIED TO TAPEOUT

APEIN IS NOT LABELED - LABELS=NO ASSUMED

                    CHARACTERISTICS OF THE TAPE TO BE ANALYZED
                          UNIT  SERIAL  DEN  TRTCH
                           493  BT1003  6250

                                FATAR DETAIL REPORT

NGTH/  MESSAGE/                 1...5...10...15...20...25...30...35...40...45...50...55...60...65...70...75...80
ISPL   BLOCK TYPE                 (COLUMN GRID IS VALID ONLY FOR CHARACTER FORMATTED DATA)

 * *  START FILE

9200  PRINT REQUESTED
     CA010100 01000000 49524D20 47534F43  53554452 20200000 4D504534 37202020  ..........(...|.........(&.....
000332020202 0 20202020 20205900 10019877  52024649 4E410100 20205400 17011A0F8  .....................+..........8
00065650154 00 1A0100BC 38030400 4BB70000  CC011400 00000000 00000000 00000000  ................................
0009700000000 00000000 00000000 00000000  00000000 00000000 00000000 00000000  ................................
0012900000000 00000000 00000000 00000000  00000000 00000000 00000000 00000000  ................................
0016100000000 00000000 00000000 00000000  00000000 00000000 00000000 00000000  ................................
0019300000000 00000000 00000000 00000000  00000000 00000000 00000000 00000000  ................................
0022500000000 00000000 00000000 00000000  00000000 00000000 00000000 00000000  ................................
0025700000000 00000000 00000000 00000000  00000000 00000000 00000000 00000000  ................................
0028900000000 00000000 00000000 00000000  00000000 00000000 00000000 00000000  ................................
0032100000000 00000000 00000000 00000000  00000000 00000000 00000000 00000000  ................................
0035300000000 00000000 00000000 00000000  00000000 00000000 00000000 00000000  ................................
0038500000000 00000000 00000000 00000000  00000000 00000000 00000000 00000000  ................................
0041700000000 00000000 00000000 00000000  00000000 00000000 00000000 00000000  ................................
0044900000000 00000000 00000000 CA010700  01000000 49524D20 47534F43 53554452  ......................(...|.....
0048120200000 55523036 30332020 20202020  20202020                             ....................

9200  PRINT REQUESTED
     00000008 54000000 17010000 06000000  000000E6 00A6F0F0 02130A09 0000000F  ...................W..00.......
00033C9A0C411 C9C9C9C9 C9C9C9C9 08000000  8B41E8E1 8640E89F 8640E8AF 7E40D5F9  I.D.IIIIIIII......Y.. Y.. Y.= N9
00065B53E98BC 2B3D38A5 D1B50A52 F0BE081C  7E40073C B63EA8FF 7DC0AC37 EFBE1826  ........J...0...= ......'.......
00097D6C14E96 D643FABD F7030000 0C800000  F67F0000 10800000 3A800000 D37F0000  0A+.0...7.......6...........L...
0012918800000 E9030000 E9030000 E9030000  E9030000 E9030000 E9030000 E9030000  ....Z...Z...Z...Z...Z...Z...Z...
00161E9030000 E9030000 E9030000 E9030000  E9030000 E9030000 E9030000 E9030000  Z...Z...Z...Z...Z...Z...Z...Z...
00193E9030000 E9030000 E9030000 E9030000  E9030000 E9030000 E9030000 E9030000  Z...Z...Z...Z...Z...Z...Z...Z...
00225E9030000 E9030000 80400000 E9030000  C9C9C9C9 C9C9C9C9 C9C9C9C9 C9C9C9C9  Z...Z.... ..Z...IIIIIIIIIIIIIII
00257C9C9C9C9 C9C9C9C9 C9C9C9C9 C9C9C9C9  C9C9C9C9 C9C9C9C9 C9C9C9C9 C9C9C9C9  IIIIIIIIIIIIIIIIIIIIIIIIIIIIII
00289C9C9C9C9 C9C9C9C9 C9C9C9C9 C9C9C9C9  C9C9C9C9 C9C9C9C9 C9C9C9C9 C9C9C9C9  IIIIIIIIIIIIIIIIIIIIIIIIIIIIII
00321C9C9C9C9 C9C9C9C9 C9C9C9C9 C9C9C9C9  C9C9C9C9 C9C9C9C9 C9C9C9C9 C9C9C9C9  IIIIIIIIIIIIIIIIIIIIIIIIIIIIII
00353C9C9C9C9 C9C9C9C9 C9C9C9C9 C9C9C9C9  C9C9C9C9 C9C9C9C9 C9C9C9C9 C9C9C9C9  IIIIIIIIIIIIIIIIIIIIIIIIIIIIII
00385C9C9C9C9 C9C9C9C9 C9C9C9C9 C9C9C9C9  C9C9C9C9 C9C9C9C9 C9C9C9C9 C9C9C9C9  IIIIIIIIIIIIIIIIIIIIIIIIIIIIII
00417C9C9C9C9 C9C9C9C9 C9C9C9C9 C9C9C9C9  C9C9C9C9 C9C9C9C9 C9C9C9C9 C9C9C9C9  IIIIIIIIIIIIIIIIIIIIIIIIIIIIII
```

year = 84 Stop year = 011A = Julian day # 282 = 10/8

Switch around

Start year = 84 Switch around to get 01 17 = 279 (Julian day) = 10/5