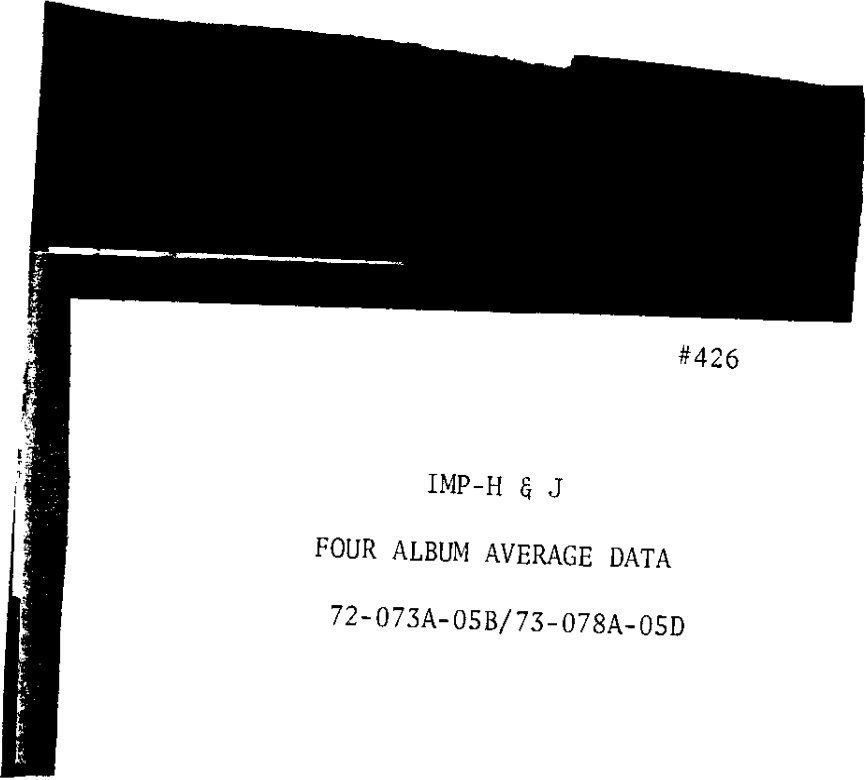




#426

IMP-H & J

FOUR ALBUM AVERAGE DATA

72-073A-05B/73-078A-05D

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 This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system.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

FOUR ALBUM AVERAGE DATA

72-073A-05B SPHE-00101

THIS DATA SET HAS BEEN RESTORED. THERE WERE ORIGINALLY 12 9-TRACK, 800 BPI TAPES. THERE ARE NOW 2 RESTORED TAPES. THE RESTORED DR TAPES ARE ON 3480 CARTRIDGES AND THE DS TAPES ARE 9-TRACK, 6250 BPI. THE TAPES WERE CREATED ON AN IBM 360 COMPUTER. THE DR AND DS NUMBERS ALONG WITH THE CORRESPONDING D NUMBERS AND THE TIME SPANS ARE AS FOLLOWS:

DR#	DS#	D#	FILES	TIME SPAN
DR02974	DS02974	D31004	1	10/10/73 - 10/18/73
		D31005	2	10/18/73 - 11/03/73
		D31006	3	11/03/73 - 11/19/73
		D31007	4	11/19/73 - 12/05/73
		D31008	5	12/05/73 - 12/21/73
		D31009	6	12/21/73 - 01/06/74
DR02975	DS02975	D31010	1	01/06/74 - 01/22/74
		D31011	2	01/22/74 - 02/07/74
		D31012	3	02/07/74 - 02/23/74
		D31013	4	02/23/74 - 03/11/74
		D31014	5	03/11/74 - 03/27/74
		D31015	6	03/27/74 - 04/13/74

IMP-H

IMP-J

FOUR ALARM AVERAGE DATA

72-078A-05B SPHE-00101

73-078A-05D SPHE-00441

This data set has been restored. There was originally
1 Binary 7-Track, 800 BPI tape. There is one restored tape.
The DR tape is a 3450 cartridge and the DS tape is 9-track,
6250 BPI. The tape was created on an CDC 6600 computer.
The DR and DS numbers along with the corresponding D numbers
and the time spans are as follows:

DR#	DS#	D#	FILES	TIME SPAN	DATA
DR03252	DS03252	D31987	1	12/01/77 - 12/02/77	H
			2	12/11/77 - 12/12/77	H
			3	12/01/77 - 12/02/77	J
			4	12/11/77 - 12/12/77	J

REQ. AGENT

WKD

VJP

RAND NO.

RD0040

RD0721

ACQ. AGENT

JIV

JIV

IMP H & J

FOUR ALBUM AVERAGE DATA

72-073A-05B/73-078A-05D

This data set consists of 12 IMP H and 1 IMP H & J data tapes. The IMP H tapes are 9 track, 800 BPI, binary, with one file of data created on an IBM 360 computer. The IMP H & J tape is 7 track, 800 BPI, binary, with 4 files of data, created on an CDC 6600 computer.

IMP-H

<u>D#</u>	<u>C#</u>	<u>TIME SPAN</u>
D-31004	C-19868	10/01/73 - 10/18/73
D-31005	C-19869	10/18/73 - 11/03/73
D-31006	C-19870	11/03/73 - 11/19/73
D-31007	C-19871	11/19/73 - 12/05/73
D-31008	C-19872	12/05/73 - 12/21/73
D-31009	C-19873	12/21/73 - 01/06/74
D-31010	C-19874	01/06/74 - 01/22/74
D-31011	C-19875	01/22/74 - 02/07/74
D-31012	C-19876	02/07/74 - 02/23/74
D-31013	C-19877	02/23/74 - 03/11/74
D-31014	C-19878	03/11/74 - 03/27/74
D-31015	C-19879	03/27/74 - 04/13/74

IMP-H & J

<u>D#</u>	<u>C#</u>	<u>FILES</u>	<u>DATA</u>	<u>DATE</u>
D-31987	C-20077	4	H	12/01/77 - 12/02/77
			H	12/11/77 - 12/12/77
			J	12/01/77 - 12/02/77
			J	12/11/77 - 12/12/77

IMP-7 and IMP-8

TABLE 2. EPE NORMAL DISCRIMINATOR LEVELS AND OUTPUT LOGIC

Detector	Discriminator*	Levels (MeV)	Logic	Output Channels (MeV)	Designation	Nuclear Charge Range	Samples per spin
A	A1	0.03	$A_1 \bar{A}_2 \bar{B}_1$	0.05 - 0.22	L ₁	$Z \geq 1$	16
	A2	0.20	$A_2 \bar{A}_4 \bar{B}_1$	0.22 - 0.80	L ₂	$Z \geq 1$	16
	A3	0.50	$A_3 \bar{A}_4 B_2 \bar{B}_3 C$	4.5 - 8.5	L ₅	$Z = 1$	8
	A4	0.80	$A_4 \bar{A}_5 \bar{B}_1$	0.80 - 2.1	L ₃	$Z \geq 1$	16
	A5	2.5	$A_4 \bar{A}_5 B_1 \bar{B}_2 C$	2.1 - 4.5	L ₄	$Z = 1$	16
	A6	3.5	$A_6 B_1 \bar{C}$	8.4 - 16.0	L ₁₁	$Z = 2$	8
			$\bar{A}_2 B_1 \bar{C}$	background	L ₉		8
B	B1	0.10	$A_5 \bar{B}_1$	2.2 - 8.4	L ₁₀	$Z \geq 2$	8
	B2	3.6	$A_5 \bar{A}_6 B_2 \bar{C}$	16.0 - 35.0	L ₁₂	$Z = 2$	8
	B3	9.0					
C	C	0.10	$A_2 B_1 C$	8.5 - 25.0	L ₆	$Z = 1$	8
D	D1	0.030	$D_1 \bar{D}_2$	0.03 - 0.10	L ₇	electrons	16
	D2	0.100					
E	E1	0.100	$E_1 \bar{E}_2$	0.10 - 0.20	L ₈	electrons	16
	E2	0.200					
F	F1	0.015	F ₁	>0.015	F	electrons and ions	16
G	G1	0.60	G ₁	>0.6	G ₁	$Z \geq 2$	16
	G2	1.0	G ₂	>1.0	G ₂	$Z \geq 2$	8
	G3	2.0	G ₃	>2.0	G ₃	$Z \geq 3$	8

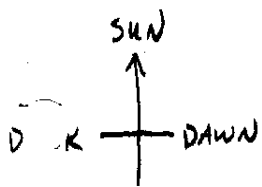
* Levels A₁ and D₁ are commandable to 50 keV. Level F₁ is commandable to 30 keV.

**Low energy proton response is 50 keV due to aluminum dead layer.

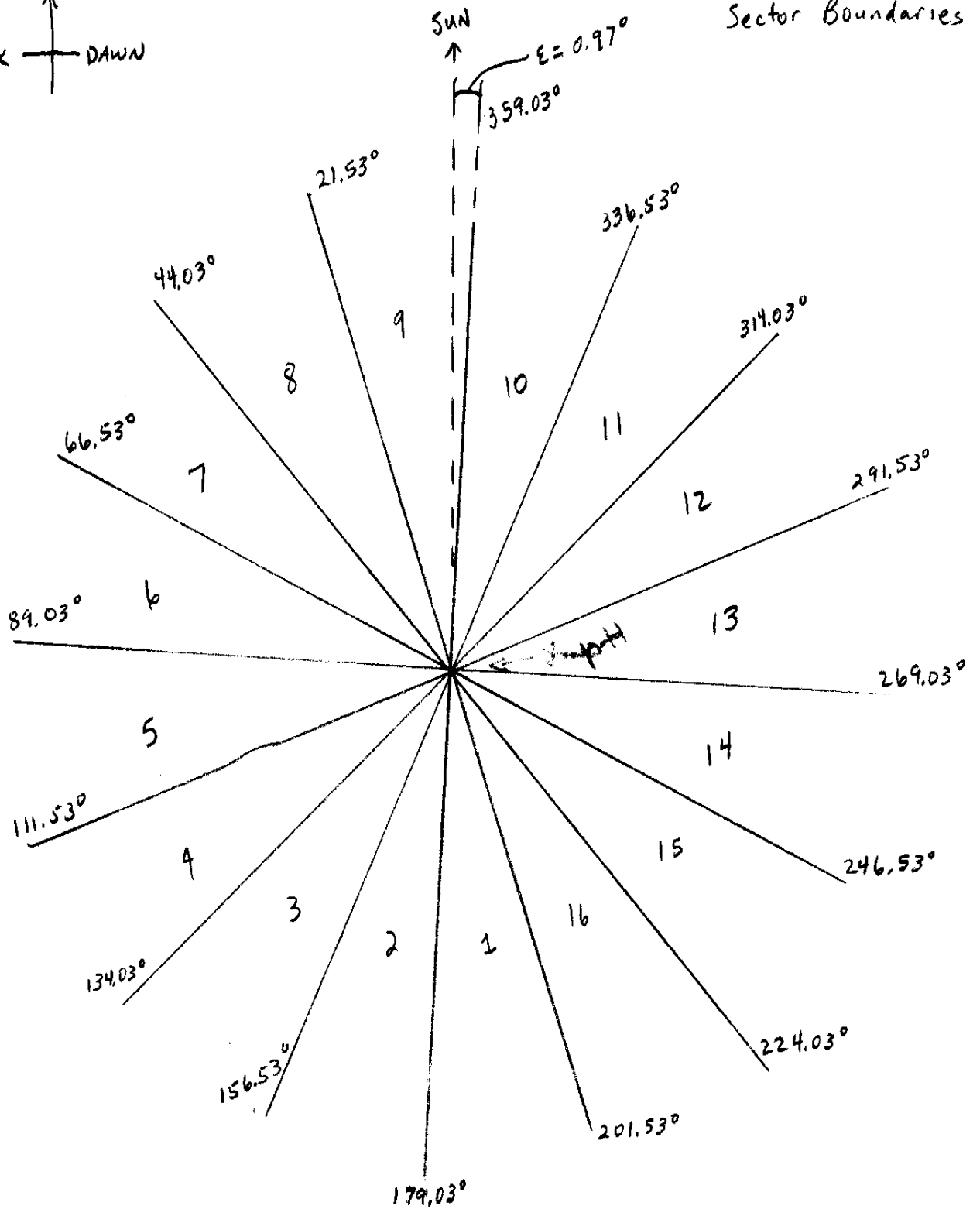
For the same reason, detector F low energy proton response is 0.024 MeV and 0.038 MeV on IMP 7 and 8 respectively.

As a safeguard against possible failure in the logic circuitry, a commandable mode was incorporated into the EPE whereby all discriminator levels could be routed to the multiplexers, thereby giving discriminator output counts only. Further safeguards include commandable low-level discriminators on detectors A, D, and F to protect against possible

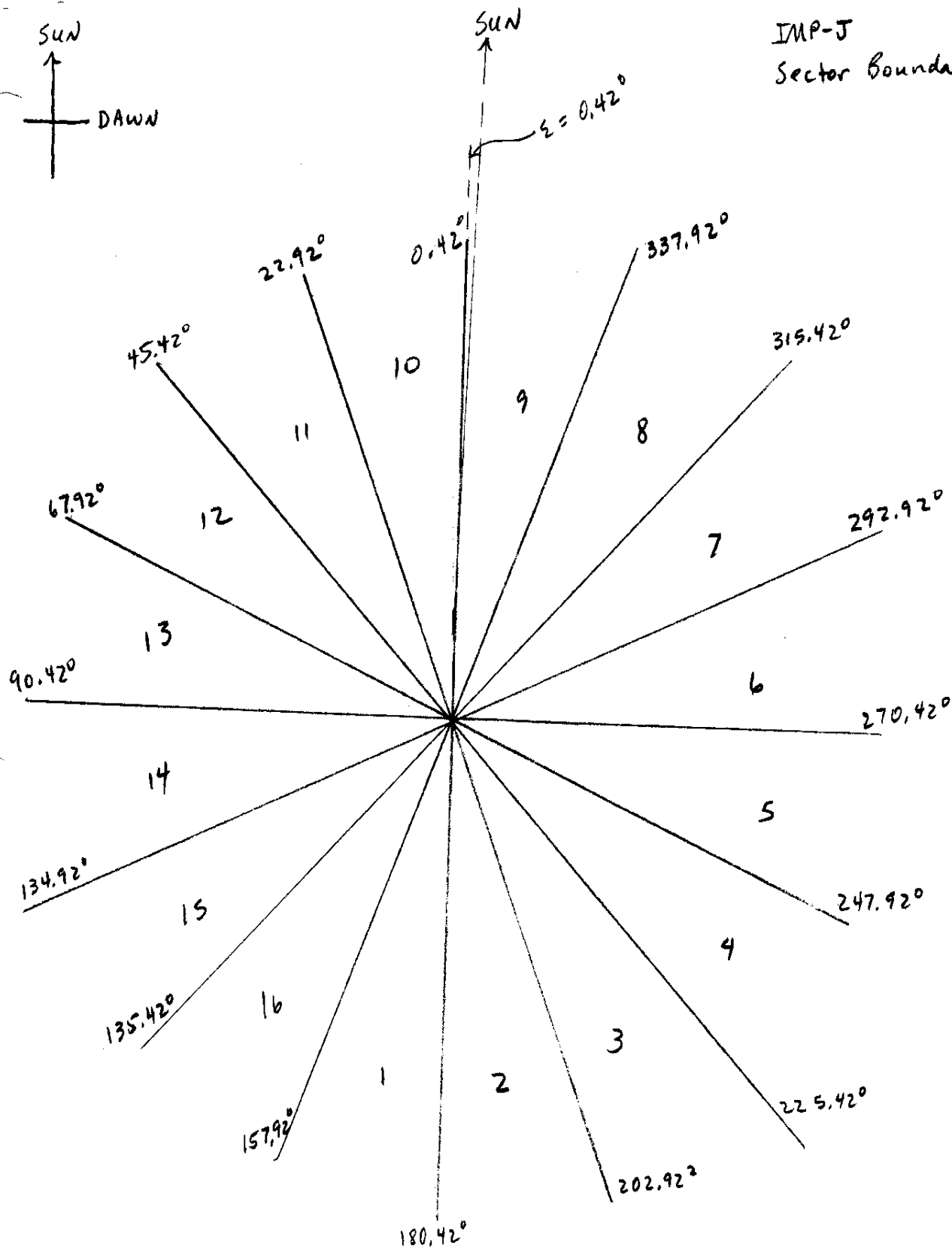
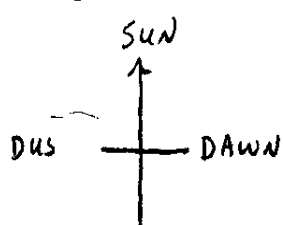
detector noise increases, and bias voltages commandable in four steps from normal operating bias to one-half that value to guard against excessive detector bias current. None of these safeguard modes has been required to date. For reference, routinely monitored EPE status and housekeeping functions are listed in Tables 3 and 4.



IMP-H
Sector Boundaries



IMP-J Sector Boundaries

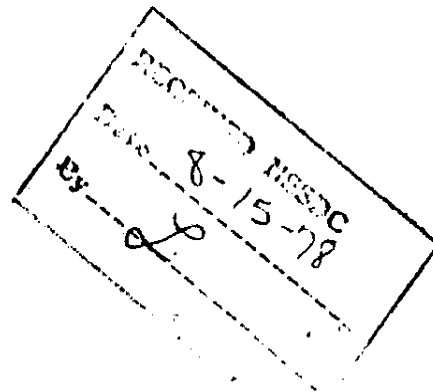




U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
ENVIRONMENTAL RESEARCH LABORATORIES
Boulder, Colorado 80302

Aug 78 p. 1

August 10, 1978



Dr. James I. Vette
Code 601.
GSFC
Greenbelt, MD 20771

Dear Dr. Vette:

This is to inform you that I am sending a magnetic tape of IMP-7 and IMP-8 data for the December Coordinated Data Analysis Workshop. Attached is a format for the tape. This format, the "4-album average", is a part of our regular IMP production, but I have written a special tape containing only the time periods requested for the workshop.

Also included in the shipment is microfilm for histogram plots produced from this tape. My letter to you of April 12, 1978, explained the 4-album average histograms. To recapitulate, the counts per second are averaged over four "albums" (about 6 minutes) and over the spin sectors.

I hope this will fill the need for IMP data for your workshop, and that our exceeding the parameter limit does not cause great problems. If you need more information or assistance, please let me know.

Sincerely,

Linda M. Bath

Linda M. Bath
Space Environment Laboratory

Enc.

Tapes.	72-0734 - OSD	IMP-H	N
	73-077A - OSD	IMP-J	monthly
Film	72-0734 - OSD	IMP-H	
	73-077A - OSD	IMP-J	



This tape is 7-track, unlabelled, 800BPI, binary, (odd parity) with 230 60-bit words per physical (and logical) record. It contains four files as follows:

- 1) 415 records IMP-H for 12/1/77 @ 1500 - 12/2/77 @ 2400
- 2) 130 records IMP-H for 12/11/77 @ 2100 - 12/12/77 @ 0730
- 3) 353 records IMP-J for 12/1/77 @ 1500 - 12/2/77 @ 2400
- 4) 114 records IMP-J for 12/11/77 @ 2100 - 12/12/77 @ 0730

Each file is terminated by a single EOF, except file 4, which is followed by at least two EOFs.

All words are 60-bit CDC-6600 floating point except words 1-4 and 197-212, which are 60-bit CDC integers.

Aug 78? p. 3

Words	Item
1	Satellite ID (1=IMP-H, 2=IMP-J)
2	Year (yy)
3	Day of year (1=Jan. 1)
4	Time of day, (in seconds)
5-20	L ₁ sectors (counts/seconds)
21-36	L ₂ "
37-52	L ₃ "
53-68	L ₄ "
69-76	L ₅ "
77-84	L ₆ "
85-100	L ₇ "
101-116	L ₈ "
117-124	L ₉ "
125-132	L ₁₀ "
133-140	L ₁₁ "
141-148	L ₁₂ "
149-164	F ₁ "
165-180	G ₁ "
181-188	G ₂ "
189-196	G ₃ "
197-212	Number of pages for each channel average (L ₁ -L ₁₂ , F, G ₁ , G ₂ , G ₃)

Coordinate information

213	Longitude (deg.)	
214	Latitude (deg.)	Geocentric Coordinates
215	Longitude (deg.)	
216	Latitude (deg.)	Geomagnetic Coordinates
217	R (earth radii)	geomagnetic coordinate of satellite
218	r, radial dist. of satellite from center of earth	
219	GSE _x	Geocentric Solar Ecliptic Coordinates (in earth radii)
220	GSE _y	
221	GSE _z	
222	GSM _x	Geocentric Solar Magnetospheric Coordinates (in earth radii)
223	GSM _y	
224	GSM _z	
225	Latitude of sub-solar point in geomagnetic coordinates (deg.)	
226	Satellite-earth-sun angle, Lsep (deg.)	
227	Spin period (seconds)	
228	Right Ascension	Spin vector in celestial inertial (deg.)
229	Declination	
230	Unused	

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Feb 78 p.1
U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
ENVIRONMENTAL RESEARCH LABORATORIES
Boulder, Colorado 80302

February 8, 1978

Ralph Post
GSFC Code 601
NSSDC
Greenbelt, MD 20771

Dear Ralph:

Enclosed is the master list of 4-album average tapes for both IMP-7(H) and IMP-8(J). The "tape title" listed as IMPHAVEnnn, etc., will appear on your tapes as IHnnn.

I apologize for the delay in getting this information to you. If you have any other questions, feel free to call.

Sincerely,

Linda M. Bath
Space Environment Laboratory

Enc.



Feb 78 p.2

Jan 31, 1978

Attached is a master list of
the inclusive dates and times
for all 4- Album Average Tapes.
Please keep this list for your
files.

(Note - the data log number is for
our own records - please ignore.)

Rosemary Miller
SEL, NOAA/ERL

Feb 78 p.3

Run Title	Catalog Number	Thru Decom Run	Begin Time	Begin Date	End Time	End Date	Drv 12 Run	Sent + Don
HAVERCOM	D21774	3	23:02	9/25/72	01:07	10/11/72	✓	
002	D21778	7	01:06	10/11/72	12:12	10/27/72	✓	
003	D21241	11	12:12	10/27/72	17:23	11/12/72	✓	
004	D21780	15	17:17	11/12/72	22:56	11/28/72	✓	
005	D21781	19	22:56	11/28/72	04:00	12/15/72	✓	
006	D21784	23	04:01	12/15/72	07:18	12/31/72	✓	
007	D21785	27	07:14	12/31/72	10:24	1/16/73	✓	
008	D21786	31	10:36	1/16/73	13:35	2/11/73	✓	
009	D21787	35	13:33	2/01/73	20:06	2/17/73	✓	
010	D21788	39	20:13	2/17/73	23:46	3/05/73	✓	
011	D21789	43	23:43	3/05/73	02:02	3/22/73	✓	
012	D21790	47	02:07	3/22/73	07:35	4/07/73	✓	
013	D21791	51	07:33	4/07/73	12:52	4/23/73	✓	
014	D21792	55	13:57	4/23/73	11:19	5/09/73	✓	
015	D21822	59	15:45	5/09/73	21:52	5/25/73	✓	
016	D21824	63	21:51	5/25/73	02:27	6/10/73	✓	
017	D21825	67	02:21	6/11/73	04:47	6/27/73	✓	
018	D21827	71	04:47	6/27/73	07:09	7/12/73	✓	
019	D21828	75	04:15	7/13/73	07:59	7/29/73	✓	
020	D21829	79	07:57	7/29/73	11:04	8/14/73	✓	
021	D21830	83	11:02	8/14/73	14:40	8/30/73	✓	
022	D21831	87	14:30	8/30/73	19:10	9/15/73	✓	
023	D21832	91	19:06	9/15/73	23:46	10/01/73	✓	
024	D21834	95	23:55	10/01/73	02:00	10/18/73	✓	
025	D21835	99	02:04	10/18/73	00:32	11/03/73	✓	
026	D21836	103	00:35	11/03/73	01:16	11/19/73	✓	
027	D21838	107	01:26	11/19/73	05:54	12/05/73	✓	
028	D21839	111	05:51	12/05/73	12:00	12/21/73	✓	
029	D21810	115	12:02	12/21/73	11:43	1/06/74	✓	
030	D21667	119	11:45	1/06/74	12:52	1/22/74	✓	
031	D21668	123	14:27	1/22/74	16:00	2/07/74	✓	
032	D21669	127	16:12	2/07/74	13:16	2/23/74	✓	
033	D21670	131	13:00	2/23/74	11:49	3/10/74	✓	
034	D21671	135	11:55	3/10/74	16:44	3/27/74	✓	
035	D21672	139	16:46	3/27/74	00:22	4/13/74	✓	
036	D21673	143	00:27	4/13/74	09:22	4/29/74	✓	
037	D21665	147	09:28	4/29/74	01:22	5/15/74	✓	
038	D21672	151	01:29	5/15/74	10:28	5/31/74	✓	
039	D21683	155	10:23	5/31/74	04:44	6/16/74	✓	
040	D21659	159	04:50	6/16/74	04:12	7/02/74	✓	
041	H40313	163	04:21	7/02/74	10:56	7/18/74	✓	
042	D21660	167	11:43	7/18/74	01:12	8/04/74	✓	
043	D21661	171	01:12	8/04/74	16:29	8/20/74	✓	
044	D21662	175	16:46	8/20/74	17:01	9/05/74	✓	
045	H40307	179	17:01	9/05/74	23:24	9/21/74	✓	

Feb 78 p.4

VER	Catalog	Decom	Begin	Begin	End	End	Drw	Stat
Title	Number	Run	Time	Date	Time	Date	12 Run	to Don
HAVE 046	H40312	183	23:29	9/21/74	20:34	10/07/74		
047	H40313	187	22:33	10/07/74	15:29	10/23/74		
048	D32488	171	15:34	10/23/74	17:59	11/02/74		
049	D32493	195	18:04	11/02/74	05:34	11/25/74		
HAVE 050	D20044	196-199	5:44	11/25/74	18:02	12/11/74	✓	Brng
051	D20045	203	18:13	12/11/74	06:29	12/28/74	✓	
052	D20046	207	06:31	12/28/74	05:45	1/13/75	✓	
053	D20146	211	05:49	1/13/75	06:51	1/29/75	✓	
054	D20146	215	07:13	1/29/75	05:24	2/14/75	✓	
055	D22664	219	05:29	2/14/75	12:40	3/02/75	✓	
056	D22667	223	12:43	3/02/75	21:02	3/18/75	✓	
057	D22695	227	20:56	3/18/75	12:00	4/04/75	✓	
058	D22807	231	00:03	4/04/75	17:51	4/30/75	✓	
059	D22801	235	06:55	4/20/75	15:18	5/06/75	✓	
060	D22438	239	00:23	5/06/75	22:02	5/22/75	✓	
061	D22526	243	00:03	5/22/75	17:40	6/07/75	✓	
062	D22534	247	00:46	6/07/75	02:46	6/24/75	✓	
063	D22535	251	00:48	6/24/75	12:40	7/10/75	✓	
064	D22538	255	00:47	7/10/75	06:02	7/27/75	✓	
065	D12007	259	00:16	7/27/75	12:03	8/12/75	✓	X
066	D13008	263	00:04	8/12/75	15:35	8/28/75	✓	
067	D13007	267	00:37	8/28/75	11:46	9/13/75	✓	
068	D13010	271	00:40	9/13/75	13:13	9/29/75	✓	
069	D22741	275	00:21	9/29/75	19:46	10/15/75	✓	
070	D22862	279	00:59	10/15/75	04:14	11/01/75	✓	
071	D22862	283	00:24	11/01/75	12:11	11/17/75	✓	
072	D22864	287	00:37	11/17/75	23:00	12/02/75	✓	
073	H20422	291	00:31	12/02/75	23:08	12/19/75	✓	
074	H10373	295	00:13	12/20/75	23:24	1/04/76	✓	3-3
075	H10371	299	00:31	1/04/76	04:34	1/21/76	✓	
076	H20963	303	00:46	1/21/76	01:41	2/06/76	✓	
077	H20966	307	01:44	2/06/76	23:41	2/22/76	✓	
078	D31609	311	00:40	2/22/76	02:46	3/10/76	✓	
079	D31637	315	00:14	3/10/76	14:08	3/26/76	✓	
080	D31649	319	00:12	3/26/76	14:52	4/11/76	✓	
081	D31675	323	00:13	4/11/76	14:35	4/27/76	✓	
082	D40767	327	00:43	4/27/76	19:35	5/13/76	✓	
083	D40768	331	00:40	5/13/76	03:08	5/29/76	✓	
084	D40770	335	00:15	5/29/76	13:13	6/15/76	✓	
085	D40771	339	00:24	6/15/76	00:57	7/03/76	✓	
086	D40771	343	00:06	7/03/76	06:02	7/19/76	✓	
087	D41128	347	00:04	7/19/76	06:52	8/03/76	✓	4
088	D51170	351	00:53	8/03/76	00:19	8/19/76	✓	
089	D41131	355	00:23	8/19/76	13:03	9/04/76	✓	
090	D41135	359	00:22	9/04/76	23:03	9/20/76	✓	
091	D41136	263	00:09	9/20/76	02:02	10/07/76	✓	

Run	Category	Run	Begin Time	Begin Date	End Time	End Date	Dev 12 Run	Cent to Don
PHAVE 092	D20367	367	02:09	10/07/76	10:12	10/23/76		
093	D20368	371	11:13	10/23/76	15:30	11/08/76		
094	D20367	375	16:03	11/08/76	17:08	11/24/76		
095	D20370	379	19:28	11/24/76	00:19	12/11/76		
096	D20371	383	00:41	12/11/76	05:52	12/27/76		
097	D20501	387	06:37	12/27/76	14:52	1/12/77		
098	D20503	391	15:16	1/12/77	18:57	1/28/77		
099	D20504	395	19:02	1/28/77	05:24	2/14/77		
100	D20505	399	05:35	2/14/77	08:02	3/02/77		
101	D21448	403	08:13	3/02/77	11:24	3/18/77		
102	D21449	407	11:35	3/18/77	15:19	4/03/77		
103	D21450	411	15:27	4/03/77	19:13	4/19/77		
104	D21464	415	19:13	4/19/77	04:57	5/06/77		
105	D21465	419	05:08	5/06/77	10:14	5/22/77		
106	D21470	423	10:51	5/22/77	15:43	6/07/77		
107	D21484	427						
108	D21525	431						
109	D21526	435						
110	D21527	439						
111	D21527	443						
112		447						

Title	Catalog Number	Dream Run	Begin Time	Begin Date	End Time	End Date	Dev 12 Run	Sent to Don
PHAVE 092	D20367	367	02:09	10/07/76	10:12	10/23/76		
093	D20368	371	11:13	10/23/76	15:30	11/08/76		
094	D20367	375	16:03	11/08/76	17:08	11/24/76		
095	D20370	379	19:28	11/24/76	00:19	12/11/76		
096	D20371	383	00:41	12/11/76	05:52	12/27/76		
097	D20501	387	06:37	12/27/76	14:52	1/12/77		
098	D20503	391	15:16	1/12/77	18:57	1/28/77		
099	D20504	395	19:02	1/28/77	05:24	2/14/77		
100	D20505	399	05:35	2/14/77	08:02	3/02/77		
101	D21448	403	08:13	3/02/77	11:24	3/18/77		
102	D21449	407	11:35	3/18/77	15:19	4/03/77		
103	D21450	411	15:27	4/03/77	19:13	4/19/77		
104	D21464	415	19:13	4/19/77	04:57	5/06/77		
105	D21465	419	05:08	5/06/77	10:14	5/22/77		
106	D21470	423	10:51	5/22/77	15:43	6/07/77		
107	D21484	427						
108	D21525	431						
109	D21526	435						
110	D21527	439						
111	D21527	443						
112		447						

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VER 7	Catalog	Decom	Begin	Begin	End	End	Dev	Sum
Title	Number	Run	Time	Date	Time	Date	12	to
							Run	Dom
JAVE 001	D21751	4	14:12	10/30/73	18:34	11/15/73		
002	D21752	8	18:42	11/15/73	01:46	12/02/73		
003	D21764	12	01:53	12/02/73	18:10	12/18/73		
004	D21766	16	18:11	12/18/73	06:21	1/04/74		
005	D21732	20	06:22	1/04/74	10:45	1/20/74		
006	D21734	24	10:51	1/20/74	05:16	2/05/74		
007	D21735	28	05:10	2/05/74	00:19	2/21/74		
008	D21736	32	00:27	2/21/74	22:43	3/06/74		
009	D21738	36	22:54	3/06/74	09:25	3/25/74		
010	D21739	40	09:46	3/25/74	20:00	4/10/74		
011	D21730	44	20:07	4/10/74	06:57	4/27/74		
012	D21731	48	07:05	4/27/74	14:11	5/13/74		
013	D21767	52	14:16	5/13/74	11:25	5/29/74		
014	D21768	56	11:30	5/29/74	05:55	6/14/74		
015	D21773	60	06:17	6/14/74	01:25	7/01/74		
016	H40316	64	01:35	7/01/74	15:12	7/16/74		
017	D21666	68	15:23	7/16/74	17:42	8/01/74		
	D21665	72	17:46	8/01/74	02:34	8/18/74		
019	D21664	76	02:34	8/18/74	05:53	9/03/74		
020	H40404	80	06:04	9/03/74	03:29	9/19/74		
021	H40482	84	03:38	9/19/74	23:10	10/04/74		
022	D21663	88	23:14	10/04/74	23:29	10/20/74		
023	H40486	92	23:29	10/20/74	05:32	11/04/74		
024	H40547	96	05:32	11/04/74	13:57	11/22/74		
WV 025	D21717	97-100	14:06	11/22/74	18:22	12/08/74		
026	D21718	101-104	14:05	12/08/74	20:13	12/24/74		
027	D21719	108	20:16	12/24/74	20:49	1/09/75		
028	D21514	112	20:51	1/09/75	16:57	1/25/75		
029	D21515	116	17:02	1/25/75	16:38	2/10/75		
030	D22225	120	16:38	2/10/75	13:25	2/26/75		
031	D21516	124	13:24	2/26/75	14:01	3/14/75		
032	D21517	128	14:01	3/14/75	14:47	3/27/75		
033	D21518	132	01:45	3/27/75	10:01	4/10/75		
034	D21519	136	00:03	4/10/75	10:51	5/04/75		
035	D22207	140	00:45	5/04/75	04:55	5/17/75		
036	D22208	144	00:53	5/17/75	03:35	6/02/75		
037	D22209	148	00:47	6/02/75	01:44	6/18/75		
038	D22210	152	00:46	6/18/75	01:04	7/04/75		
039	D22211	156	23:52	7/04/75	01:12	7/20/75		
040	D22212	160	00:14	7/20/75	01:17	8/07/75		
041	D22213	164	00:23	8/07/75	18:07	8/23/75		
042	D22214	168	00:11	8/23/75	11:37	9/07/75		
043	D22215	172	00:42	9/07/75	12:12	9/21/75		
044	D22216	176	00:50	9/21/75	09:59	10/07/75		
045	D22217	180	00:59	10/07/75	11:07	10/23/75		

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9	Catalog Number	Thru Decom Run	Begin Date	Begin Time	End Date	End Time	Dev 12 Run	Sub to Den
WE 046	D 22868	184	10/23/75	00:23	11/08/75	11:34	✓	
047	D 22869	188	11/08/75	00:55	11/24/75	07:35	✓	2
048	H 10423	192	11/24/75	00:45	12/10/75	04:59	✓	
049	H 10424	196	12/10/75	00:59	12/25/75	21:40	✓	
050	H 10427	200	12/26/75	00:56	1/11/76	02:54	✓	3
051	H 30704	204	1/11/76	00:53	1/27/76	01:02	✓	
052	H 30705	208	1/27/76	00:01	2/11/76	23:48	✓	
053	D 31031	212	2/11/76	00:52	2/28/76	01:02	✓	
054	D 31032	216	2/28/76	01:00	3/14/76	19:43	✓	
055	D 31033	220	3/14/76	00:54	3/30/76	20:46	✓	
056	D 31481	224	3/30/76	00:55	4/15/76	22:21	✓	
057	D 41482	228	4/15/76	22:21	5/01/76	23:24	✓	
058	D 31487	232	5/01/76	00:32	5/17/76	18:37	✓	
059	D 41456	236	5/17/76	00:32	6/03/76	03:13	✓	
060	D 41474	240	6/03/76	00:40	6/19/76	02:38	✓	
061	D 41475	244	6/19/76	00:47	7/05/76	04:08	✓	
062	D 41488	248	7/05/76	00:44	7/21/76	10:10	✓	
063	D 41489	252	7/21/76	00:24	8/06/76	11:19	✓	
064	D 41534	256	8/06/76	00:36	8/22/76	10:05	✓	
065	D 41535	260	8/22/76	00:20	9/07/76	10:35	✓	
066	D 41538	264	9/07/76	00:57	9/23/76	17:38	✓	
067	D 41563	268	9/23/76	00:39	10/09/76	20:57	✓	
068	D 41637	272	10/09/76	01:00	10/25/76	23:00	✓	
069	D 20374	276	10/25/76	23:05	11/11/76	02:46		
070	D 20375	280	11/11/76	03:56	11/27/76	03:00		
071	D 20376	284	11/27/76	04:00	12/13/76	02:30		
072	D 20506	288	12/13/76	03:24	12/31/76	02:05		
073	D 20507	292	12/31/76	02:15	1/14/77	09:52		
074	D 20508	296	1/14/77	10:24	1/30/77	14:28		
075	D 20509	300	1/30/77	14:32	2/15/77	21:46		
076	D 20372	304	2/15/77	21:51	3/04/77	03:11		
077	D 20373	308	3/04/77	03:10	3/20/77	01:46		
078	D 21528	312	3/20/77	02:24	4/05/77	00:05		
079	D 21530	316	4/05/77	00:15	4/21/77	03:24		
080	D 21531	320	4/21/77	03:25	5/07/77	02:54		
081	D 21533	324	5/07/77	09:51	5/23/77	18:35		
082	D 21535	328	5/23/77	18:46	6/09/77	04:00		
083	D 21537	332	6/09/77	04:05	6/25/77	04:13		
084	D 21538	336						
085	D 21539	340						
086	D 21540	344						
087	D 21541	348						
088	D 21551	352						
089	D 20314	356						



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
ENVIRONMENTAL RESEARCH LABORATORIES
Boulder, Colorado 80302

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January 27, 1978

Mr. Ralph Post
GSFC Code 601
NSSDC
Greenbelt, MD 20771

Mr. Post:

Enclosed is a format description for the IMP-7 and IMP-8 "Four-Album Average" tapes which you will be receiving from us and from Ed Roelof at APL. The hi-lited paragraph is specific to the particular format you will receive. In addition, you should know that the fixed-length blocks were written on our CDC machine as 123 60-bit words, so they represent 7380 bits or 230.63 32-bit words per block. If you have any other questions concerning the format, please feel free to call or write me about them.

We are copying the IMP-7 tapes numbered 24 through 35, covering the third six-month period from launch, and Ed should supply you with IMP-7 tapes 1 through 12 and IMP-8 tapes 1 through 25, per our agreement with Joe King.

We are also preparing copies of the microfilm for the "Four-Album Average histograms", which will be complete for launch through May 1977, and for the "Poorman's contours", which will cover the first half of 1976 for both satellites. Enclosed are descriptions for these two displays, and examples of each.

This film plus the tapes should fulfill your data request. We hope to have them sent to you some time within the next month. Again if you have questions, please write or call me at 8-323-3693.

Sincerely,

Linda M. Bath

Linda M. Bath
Space Environment Laboratory, R43

Enc.



Four-Album- Image
Output-Tape Description

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52

Words	Item
1	Satellite ID (1=IMP-H, 2=IMP-J)
2	Year (yy)
3	Day of year (1=Jan. 1)
4	Time of day, (in seconds)
5-20	L ₁ sectors (counts/seconds)
21-36	L ₂ "
37-52	L ₃ "
53-68	L ₄ "
69-76	L ₅ "
77-84	L ₆ "
85-100	L ₇ "
101-116	L ₈ "
117-124	L ₉ "
125-132	L ₁₀ "
133-140	L ₁₁ "
141-148	L ₁₂ "
149-164	F ₁ "
165-180	G ₁ "
181-188	G ₂ "
189-196	G ₃ "
197-212	Number of pages for each channel average (L ₁ -L ₁₂ , F, G ₁ , G ₂ , G ₃)

Coordinate information

213	Longitude (deg.)	
214	Latitude (deg.)	Geocentric Coordinates
215	Longitude (deg.)	
216	Latitude (deg.)	Geomagnetic Coordinates
217	R (earth radii)	geomagnetic coordinate of satellite
218	r, radial dist. of satellite from center of earth	
219	GSE _x	Geocentric Solar Ecliptic Coordinates (in earth radii)
220	GSE _y	
221	GSE _z	
222	GSM _x	Geocentric Solar Magnetospheric Coordinates (in earth radii)
223	GSM _y	
224	GSM _z	
225	Latitude of sub-solar point in geomagnetic coordinates (deg.)	
226	Satellite-earth-sun angle, Lsep (deg.)	
227	Spin period (seconds)	
228	Right Ascension	Spin vector in celestial inertial (deg.)
229	Declination	
230	Unused	

SEL tapes are 9-track, 800 bpi, fixed-block, unlabelled. All words are 32-bit IBM-360 floating-point, except words 1-4 and 197-212 which are 32-bit IBM-360 integers.

The SEL tapes are 7-track, 556 bpi, labelled, F=S. All words are 60-bit CDC-6600 floating-point, except words 1-4 and 197-212 which are 60-bit CDC-6600 integers.

D-31987

DUMP OF TAPE KZOUT-1

10/1/73 - 10/18/73

D-31004

INPUT TAPE KZOUT-1 ON MS1
DATA INPUT H9 FL 1 1 1

FILE	1	RECORD	173	LENGTH	923	BYTES
(0)	00000001	00000049	00000112	00015084	408077AA	00000000
(40)	40807784	40807784	41100EF7	41201DE5	4118166C	4118166C
(80)	00000000	40807784	00000000	00000000	00000000	00000000
(120)	00000000	00000000	00000000	40807797	00000000	00000000
(160)	00000000	00000000	00000000	00000000	00000000	4080774B
(200)	00000000	00000000	00000000	00000000	00000000	00000000
(240)	00000000	00000000	00000000	00000000	00000000	00000000
(280)	00000000	00000000	00000000	00000000	00000000	00000000
(320)	00000000	00000000	00000000	00000000	00000000	4118166C
(360)	00000000	00000000	4080774B	436DA60A	00000000	00000000
(400)	41100EF1	41100EF0	40807784	00000000	408077AA	00000000
(440)	00000000	40807797	408077D0	40807784	00000000	41100EEF
(480)	41201DE1	411412A8	4118166C	411412A7	00000000	00000000
(520)	00000000	00000000	00000000	00000000	00000000	00000000
(560)	00000000	00000000	00000000	00000000	00000000	00000000
(600)	41100EF1	00000000	41201DE8	408077D0	41100EF2	41100EE6
(640)	41100EF6	40807797	41181671	00000000	00000000	00000000
(680)	00000000	00000000	00000000	00000000	00000000	00000000
(720)	00000000	00000000	00000000	00000000	00000000	00000000
(760)	00000000	00000000	00000000	00000000	00000000	00000000
(800)	00000008	00000008	00000008	00000008	00000008	00000008
(840)	00000008	00000008	C23E22D8	4173DE4D	41733782	4229EF9E
(880)	4212D99	C2125A4E	421F43CD	419CBFAC	C17CC00E	42774166
(920)	00000000				4353079C	425B63D7
						C240EE14
						00000000

256

16

2

274

FILE	1	RECORD	432273	LENGTH	923	BYTES
(0)	00000001	00000049	00000123	00001AD9	41484392	413C384F
(40)	413C384B	4178709B	41645DDF	413C3850	41504B1A	41403C11
(80)	00000000	00000000	00000000	00000000	00000000	00000000
(120)	00000000	40403C14	40403C14	40403C21	40C0B40F	00000000
(160)	00000000	00000000	00000000	00000000	00000000	00000000
(200)	00000000	00000000	00000000	40403BFE	00000000	00000000
(240)	00000000	00000000	00000000	00000000	00000000	00000000
(280)	00000000	00000000	00000000	00000000	00000000	00000000
(320)	00000000	00000000	00000000	00000000	00000000	00000000
(360)	42720432	4279C730	42149BCC	4388036E	00000000	00000000
(400)	4044843D	408908C2	40890885	4044844E	4044844B	40448465
(440)	408908C2	4044845C	41156958	408908A2	00000000	41112115
(480)	411412C3	411C1A46	41221FE5	411412C5	00000000	41201E06
(520)	00000000	00000000	00000000	00000000	00000000	411A1864
(560)	00000000	00000000	00000000	00000000	00000000	40E0D23C
(600)	422F1AF9	4232DA35	4231C824	422A8E2F	4229C0A2	422AD2B4
(640)	422ED674	42313F1B	423A9D32	423654ED	00000000	4229C0A4
(680)	00000000	00000000	00000000	00000000	00000000	422FA402
(720)	00000000	00000000	00000000	00000000	00000000	422A0528
(760)	00000000	00000000	00000000	00000000	00000000	422D7FDF
(800)	00000010	00000010	0000000F	0000000F	00000010	00000010
(840)	00000010	00000010	4180EE49	C150CA12	424C50D5	C1252C10
(880)	C1D6D739	C2170D29	C212BB10	C192B7DA	C212C80A	4289DD22
(920)	00000000				43530786	425B1EB8
						C242BD70
						00000000

256

32

3

291

FILE	INPUT RECS.	DATA INPUT	RECORDS	MAX. SIZE	READ ERROR SUMMARY	INPUT RETRIES
1	4322	4323	923	0	0	0

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

START TIME 03/23/78 12:47:00

STOP TIME 03/23/78 12:49:00

D-31009
DUMP OF TAPE KZOUT-6

12/21/73 - 1/6/74

D-31009

INPUT TAPE KZOUT-6 ON MS1
DATA INPUT H9 FL 1 1 1

FILE	1	RECORD	1	LENGTH	923BYTES
(0)	00000001	00000049	00000163	0000A970	00000000 00000000 421761FD 41CD73AC 42403425 43161FDE
(40)	431610A5	425FD46D	428E9868	428C4BF0	41A8AC29 00000000 00000000 00000000 00000000 00000000 4219AE75
(80)	00000000	00000000	00000000	424A4146	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(120)	00000000	00000000	00000000	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(160)	00000000	00000000	00000000	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(200)	00000000	00000000	00000000	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(240)	00000000	00000000	00000000	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(280)	00000000	00000000	00000000	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(320)	00000000	00000000	00000000	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(360)	00000000	00000000	4216C561	44522E54	00000000 00000000 422D8AC3 4216C561 00000000 4267ECC1 41CD73AC
(400)	00000000	00000000	00000000	00000000	00000000 00000000 41AF28F4 00000000 00000000 00000000 00000000
(440)	00000000	00000000	00000000	00000000	00000000 00000000 00000000 41CD73AC 41478812 41AE41E8 00000000
(480)	41478812	42178B59	41478812	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(520)	00000000	00000000	00000000	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(560)	00000000	00000000	00000000	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(600)	423073D7	423073D7	4288A049	4284F821	42FAFE6F 42915B85 41CD73AC 41CD73AC 00000000 4219AE75
(640)	41CD73AC	4219AE75	4216C561	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(680)	00000000	00000000	00000000	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(720)	00000000	00000000	00000000	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(760)	00000000	00000000	00000000	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(800)	00000002	00000002	00000002	00000003	00000002 00000003 00000002 00000003 00000002 00000003 00000001
(840)	00000001	00000001	C257C29C	4022F87B	C2132532 41B4CF63 42262F30 45392D26 411A5B89 C224B719
(880)	40A9ED45	411A5B89	C223CD90	41829192	C212AE37 42576E6F 4247D318 42580CCC C242828F 00000000
(920)	00000000				

1.
256
96
3
355

FILE	1	RECORD	4254	LENGTH	923BYTES
(0)	00000001	0000004A	00000006	0000A3B6	40807E75 40403F3D 411413C2 40403F3D 40807E72 40403F3A
(40)	40403F3C	00000000	40C0BDB0	40C0BDB3	41100FCE 40403F3C 40403F3B 41100FCE 40403F38 00000000
(80)	00000000	00000000	00000000	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(120)	00000000	40807E77	00000000	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(160)	40403F3D	00000000	00000000	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(200)	00000000	00000000	00000000	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(240)	00000000	00000000	00000000	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(280)	00000000	00000000	00000000	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(320)	00000000	00000000	00000000	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(360)	41100FCE	40403F3C	00000000	4398962C	00000000 00000000 40403F3C 40403F39 00000000 41100FCE 00000000
(400)	40403F3B	40403F3B	40403F3D	40C0BDB2	40403F3D 40403F3D 40807E77 00000000 00000000 40403F3D
(440)	40403F3B	40C0BDB6	00000000	00000000	00000000 41100FCE 411E1DA3 411413C2 411C1BA9 411211C8
(480)	41222197	411211C8	411C1BAA	411413C2	00000000 00000000 00000000 00000000 00000000 00000000 40201F9C
(520)	00000000	00000000	00000000	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(560)	00000000	00000000	00000000	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(600)	41100FCF	40807E78	40807E77	40C0BDBA	411413C2 40403F3C 40807E75 41100FCF 40C0BDB2 40C0BDB3
(640)	41100FCE	411413C2	40807E76	40403F38	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(680)	00000000	00000000	00000000	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(720)	00000000	00000000	00000000	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(760)	00000000	00000000	00000000	00000000	00000000 00000000 00000000 00000000 00000000 00000000 00000000
(800)	00000010	00000010	00000010	00000010	00000010 00000010 00000010 00000010 00000010 00000010 00000010
(840)	00000010	00000010	C0A89152	416235D9	4245F1D2 41A5A186 4226B0A5 453A4CFD 422C8A92 C132F963
(880)	421252BA	42208A92	C116F56A	42128AED	C21350D5 4210BFBF 43530354 4258CA3D C2424F5C 00000000
(920)	00000000				

FILE	INPUT	DATA RECORDS	MAX.	READ ERROR SUMMARY	INPUT RETRIES
	RECS.	INPUT	SIZE	PERM ZERO B SHORT UNDEF.	#RECS. TOTAL#
1	4254	4255	923	0 0 0 0	0 0

EOJ DUMP STOPPED AFTER FILE 1 # OF PERMANENT READ ERRORS 0
START TIME 03/23/78 14:08:30 STOP TIME 03/23/78 14:10:14