[redacted]

529

ISEE-1

SPIN-PERIOD AVERAGED DATA ON TAPE
77-102A-06C

3- SEC E&B FIELD, S/C POTENTIAL, WAVES
77-102A-06G

256-HZ BURST MODE E-FIELD
77-102A-06H

[redacted]

ISEE 1

SPIN PERIOD AVERAGED DATA

77-102A-06C

This data set has been restored. There were originally 148 Binary 9-Track, 1600 BPI tapes, and now it has 47 9-track, 6250 BPI tapes. The tapes were created on a 11/40 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
DR02302	DS02302	D43101	1-5	10/22/77 - 12/04/77
		D41927	6-9	10/25/77 - 07/11/78
		D47412	10-12	11/01/77 - 12/18/77
		D43066	13-18	11/01/77 - 12/18/77
DR02303	DS02303	D57540	1-6	11/07/77 - 06/10/81
		D43074	7-20	11/10/77 - 01/01/78
		D43060	21-24	11/12/77 - 05/12/78
		D41920	25-29	12/04/77 - 04/12/79
DR02304	DS02304	D43075	1	12/11/77 - 12/11/77
		D47411	2-10	12/11/77 - 04/24/78
		D47410	11-14	12/11/77 - 04/24/78
		D41924	15-18	12/15/77 - 01/15/78
DR02305	DS02305	D43065	1-5	12/18/77 - 01/18/78
		D47439	6-9	12/18/77 - 01/17/78
		D47425	10-15	01/01/78 - 04/23/80
		D41914	16-19	01/01/78 - 01/14/79
DR02306	DS02306	D43102	1-4	01/18/78 - 02/01/78
		D47422	5-8	02/05/78 - 03/18/78
		D41925	9-13	02/12/78 - 03/08/78
		D41926	14-17	03/08/78 - 03/29/78
DR02307	DS02307	D43103	1-4	03/29/78 - 04/22/78
		D43070	5-9	04/02/78 - 05/23/79
		D43071	10-13	04/12/78 - 11/05/78
		D43104	14-17	04/23/78 - 05/28/78
DR02308	DS02308	D41912	1-8	04/30/78 - 06/25/78
		D41921	9-13	05/21/78 - 08/12/79
		D43072	14-18	05/28/78 - 11/21/78
DR02327	DS02327	D43105	1-5	06/14/78 - 07/18/78
		D43092	6-10	07/19/78 - 12/10/78
		D43073	11-15	08/13/78 - 10/29/78

DR#	DS#	D#	FILES	TIME SPAN
DR02328	DS02328	D41917	1-4	08/16/78 - 08/30/78
		D43068	5-9	08/30/78 - 09/26/78
		D43067	10-13	09/27/78 - 10/22/78
DR02329	DS02329	D43062	1-5	10/04/78 - 09/23/79
		D43063	6-11	10/29/78 - 02/14/79
		D41913	12-17	11/05/78 - 01/09/79
DR02330	DS02330	D47418	1-6	12/02/78 - 12/07/80
		D43099	7-11	12/10/78 - 12/31/78
		D43097	12-16	12/31/78 - 02/06/79
DR02331	DS02331	D41915	1-5	01/14/79 - 03/14/79
		D43096	6-9	02/07/79 - 02/25/79
		D43095	10-14	02/28/79 - 03/25/79
DR02332	DS02332	D43069	1-4	03/28/79 - 05/09/79
		D43094	5-9	04/04/79 - 05/20/79
		D43093	10-14	04/15/79 - 06/13/79
DR02333	DS02333	D41916	1-4	05/23/79 - 06/24/79
		D41918	5-9	06/03/79 - 08/05/79
		D47417	10-14	06/13/79 - 08/01/79
DR02334	DS02334	D43064	1-5	06/28/79 - 08/13/79
		D43098	6-10	07/01/79 - 12/25/79
		D41919	11-15	08/05/79 - 08/29/79
DR02335	DS02335	D41923	1-5	08/19/79 - 09/19/79
		D41922	6-9	09/12/79 - 10/07/79
		D43100	10-13	09/26/79 - 12/23/79
DR02336	DS02336	D43106	1-5	10/07/79 - 11/13/79
		D43107	6-10	10/21/79 - 11/18/79
		D47429	11-15	10/31/79 - 12/04/79
DR02337	DS02337	D43061	1-8	11/03/79 - 01/07/79
		D47430	9-12	12/26/79 - 01/08/80
		D48689	13-17	01/09/80 - 02/18/80
DR02358	DS02358	D47423	1-4	01/13/80 - 01/27/80
		D47428	5-9	01/27/80 - 02/13/80
		D47424	10-14	02/13/80 - 03/20/80
DR02359	DS02359	D47433	1-5	03/02/80 - 03/19/80
		D47427	6-10	03/19/80 - 04/06/80
		D48691	11-15	04/10/80 - 03/18/81
DR02360	DS02360	D47419	1-5	04/13/80 - 01/14/81
		D47431	6-9	04/23/80 - 05/06/80
		D47438	10-13	05/07/80 - 05/28/80
DR02361	DS02361	D47437	1-5	05/28/80 - 06/15/80
		D47426	6-10	06/15/80 - 07/08/80
		D47432	11-14	06/18/80 - 07/16/80

DR#	DS#	D#	FILES	TIME SPAN
DR02362	DS02362	D47436	1-4	07/16/80 - 07/29/80
		D54704	5-8	07/20/80 - 08/24/80
		D47434	9-13	07/30/80 - 08/17/80
DR02363	DS02363	D47435	1-5	08/17/80 - 09/03/80
		D47415	6-10	09/03/80 - 09/20/80
		D54705	11-14	09/14/80 - 10/19/80
DR02364	DS02364	D47416	1-6	09/21/80 - 10/12/80
		D47413	7-11	10/12/80 - 10/29/80
		D47414	12-16	10/29/80 - 11/22/80
DR02365	DS02365	D54706	1-3	11/09/80 - 12/14/80
		D47420	4-8	11/16/80 - 12/21/80
		D47421	9-13	12/21/80 - 01/07/81
DR02366	DS02366	D47440	1-5	01/07/81 - 02/01/81
		D48700	6-9	01/14/81 - 07/12/81
		D48690	10-14	02/11/81 - 03/04/81
DR02367	DS02367	D48688	1-5	03/18/81 - 04/05/81
		D48687	6-10	04/05/81 - 04/22/81
		D48697	11-14	04/22/81 - 05/06/81
DR02368	DS02368	D48698	1-5	05/06/81 - 05/27/81
		D48699	6-10	05/20/81 - 09/22/81
		D48694	11-16	06/10/81 - 11/17/81
DR02369	DS02369	D48695	1-5	06/14/81 - 07/01/81
		D57539	6-10	07/12/81 - 09/16/81
		D48696	11-14	07/15/81 - 08/02/81
DR02370	DS02370	D54702	1-5	08/08/81 - 08/19/81
		D54703	6-10	08/23/81 - 09/09/81
		D63701	11-16	09/16/81 - 01/27/82
DR02371	DS02371	D48692	1-5	09/23/81 - 10/14/81
		D48693	6-10	10/14/81 - 10/31/81
		D48701	11-16	11/25/81 - 12/16/81
DR02372	DS02372	D63679	1-6	12/16/81 - 01/05/82
		D63680	7-12	01/06/82 - 02/02/82
		D63681	13-17	02/03/82 - 02/20/82
DR02373	DS02373	D63682	1-5	02/21/82 - 03/10/82
		D63683	6-11	03/10/82 - 03/31/82
		D63684	12-16	03/31/82 - 04/17/82
DR02374	DS02374	D72819	1-5	04/18/82 - 06/26/82
		D63685	6-9	04/21/82 - 05/04/82
		D63686	10-13	05/05/82 - 05/23/82
DR02375	DS02375	D72841	1-5	05/09/82 - 05/05/84
		D63687	6-10	05/26/82 - 06/23/82
		D63688	11-16	06/27/82 - 07/28/82

DR#	DS#	D#	FILES	TIME SPAN
DR02376	DS02376	D72820	1-5	06/30/82 - 10/31/82
		D63689	6-10	07/28/82 - 08/15/82
		D63690	11-16	08/15/82 - 09/05/82
DR02377	DS02377	D63691	1-6	09/05/82 - 09/26/82
		D63692	7-13	09/26/82 - 10/20/82
		D63693	14-20	10/20/82 - 11/24/82
DR02379	DS02379	D63694	1-6	11/17/82 - 12/14/82
		D72821	7-12	12/05/82 - 05/15/83
		D63695	13-18	12/15/82 - 01/04/83
DR02380	DS02380	D63696	1-6	01/05/83 - 01/25/83
		D63697	7-12	01/26/83 - 02/16/83
		D63698	13-18	02/16/83 - 03/08/83
DR02381	DS02381	D63699	1-6	03/09/83 - 04/06/83
		D63700	7-14	04/10/83 - 05/04/83
		D72822	15-20	05/15/83 - 06/04/83
DR02382	DS02382	D72829	1-5	05/23/83 - 10/05/83
		D72823	6-12	06/05/83 - 06/28/83
		D72824	13-16	06/29/83 - 07/12/83
DR02383	DS02383	D72825	1-5	07/13/83 - 07/31/83
		D72826	6-10	07/31/83 - 08/17/83
		D72827	11-15	08/17/83 - 09/04/83
DR02384	DS02384	D72828	1-5	09/04/83 - 09/21/83
		D72830	6-10	10/05/83 - 10/23/83
		D72831	11-15	10/23/83 - 11/08/83
DR02385	DS02385	D72832	1-5	11/09/83 - 11/30/83
		D72842	6	11/20/83 - 11/22/83
		D72833	7-12	11/30/83 - 12/21/83
DR02386	DS02386	D72834	1-5	12/21/83 - 01/07/84
		D72835	6-10	01/08/84 - 01/24/84
		D72836	11-16	01/25/84 - 02/15/84
DR02387	DS02387	D72837	1-4	02/15/84 - 02/28/84
		D72838	5-9	02/29/84 - 03/18/84
		D72839	10-13	03/18/84 - 03/31/84
		D72840	14-19	04/01/84 - 04/22/84

REQ. AGENT	RD#	ACQ. AGENT
GLS	V0127	HKH

ISEE-1

SPIN-PERIOD AVERAGED DATA ON TAPE

77-102A-06C

This data set catalog contains 124 magnetic tapes. Each tape contains 9 track, 1600 BPI, multi-filed, binary data. These tapes were created on the PDP 11/40 computer. Included in this data set catalog are listings of each tape showing each file's start and stop time and block size. The following table list the D and C numbers, number of files and the time span of each tape:

D#	C#	NO. OF FILES	TIME SPAN
D-47410		4	12/11/77 - 04/24/78
D-47411		9	12/11/77 - 04/24/78
D-47412		3	11/01/77 - 12/18/77
D-47413		5	10/12/80 - 10/29/80
D-47414		5	10/19/80 - 11/22/80
D-47415	C-22165	5	09/03/80 - 09/20/80
D-47416		6	09/21/80 - 10/12/80
D-47417		5	06/13/79 - 08/01/79
D-47418		6	12/02/78 - 12/07/80
D-47419		5	04/13/80 - 01/14/81
D-47420	C-22166	5	11/16/80 - 12/21/80
D-47421		5	12/21/80 - 01/07/81
D-47422		4	02/05/78 - 03/18/78
D-47423		4	01/13/80 - 01/27/80
D-47424		5	02/13/80 - 03/02/80
D-47425	C-22167	6	01/01/80 - 04/23/80
D-47426		5	06/15/80 - 07/08/80
D-47427		5	03/19/80 - 04/06/80
D-47428		5	01/27/80 - 02/13/80
D-47429		5	10/31/79 - 02/05/79 ← ?
D-47430	C-22168	4	12/26/79 - 01/08/80

D#	C#	NO. OF FILES	TIME SPAN
D-54702		5	08/08/81 - 08/19/81
D-54703		5	08/23/81 - 09/09/81
D-54704		4	07/20/80 - 08/24/80
D-54705		4	09/14/80 - 10/19/80
D-54706	C-22927	3	11/09/80 - 12/14/80
D-57539		5	07/12/81 - 09/16/81
D-57540		6	11/07/77 - 06/10/81
D-48071		6	11/25/81 - 12/16/81
D-63679		6	12/16/81 - 01/05/82
D-63680		6	01/06/82 - 02/02/82
D-63681		5	02/03/82 - 02/20/82
D-63682		5	02/21/82 - 03/10/82
D-63683	C-24082	6	03/10/82 - 03/31/82
D-63684		5	03/31/82 - 04/17/82
D-63685		4	04/21/82 - 05/04-82
D-63686		4	05/05/82 - 05/23/82
D-63687		5	05/26/82 - 06/23/82
D-63688		6	06/27/82 - 07/28/82
D-63689	C-24083	5	07/28/82 - 08/14/82
D-63690		6	08/15/82 - 09/05/82
D-63691		6	09/05/82 - 09/26/82
D-63692		7	09/26/82 - 10/20/82
D-63693		7	10/20/82 - 11/24/82
D-63694		6	11/17/82 - 12/14/82
D-63695	C-24084	6	12/15/82 - 01/04/83
D-63696		6	01/05/83 - 01/25/83
D-63697		6	01/26/83 - 02/16/83

D#	C#	# OF FILES	TIME SPAN
D-43101		5	10/22/77-12/04/77
D-43102		4	01/18/78 - 02/01/78
D-43103		4	03/29/78 - 04/22/78
D-43104		4	04/23/78 - 05/28/78
D-43105	C-22177	5	06/14/78 - 07/18/78
D-43106		5	10/07/79 - 11/13/79
D-43107		5	10/21/79 - 11/18/79
D-41912		8	04/30/78 - 06/25/78
D-41913		6	11/05/78 - 01/09/79
D-41914		4	01/04/78 - 01/14/79
D-41915		5	01/14/79 - 03/14/79
D-41916	C-22181	4	05/23/79 - 06/24/79
D-41917		4	08/16/78 - 08/30/78
D-41918		5	06/03/79 - 08/05/79
D-41919		5	08/05/79 - 08/29/79
D-41920		5	12/04/77 - 04 15/79
D-41921	C-22182	5	05/21/78 - 08/12/79
D-41922		4	09/12/79 - 10/07/79
D-41923		5	08/19/79 - 09/19/79
D-41924		4	12/11/77 - 01/15/78
D-41925		5	02/12/78 - 03/08/78
D-41926		4	03/08/78 - 03/29/78
D-41927	C-22183	4	10/25/77 - 07/11/78
D-48687	C-22443	5	04/05/81 - 04/22/81
D-48688		5	03/18/81 - 04/05/81
D-48689		5	01/09/80 - 02/18/81
D-48690		5	02/11/81 - 03/04/81
D-48691	C-22444	5	04/10/80 - 03/18/81
D-48692		5	09/23/81 - 10/14/81
D-48693		5	10/14/81 - 10/31/81
D-48694		6	06/10/81 - 11/17/81
D-48695		5	06/14/81 - 07/01/81
D-48696	C-22445	4	07/15/81 - 08/02/81
D-48697		4	04/22/81 - 05/06/81
D-48698		5	05/06/81 - 05/27/81
D-48699		5	05/20/81 - 09/22/81
D-48700		4	01/14/81 - 07/12/81

D#	C#	# OF FILES	TIME SPAN
D-47431		4	04/23/80 - 05/06/80
D-47432		4	06/18/80 - 07/16/80
D-47433		5	03/02/80 - 03/19/80
D-47434		5	07/30/80 - 08/17/80
D-47435	C-22169	5	08/17/80 - 09/03/80
D-47436		4	07/16/80 - 07/29/80
D-47437		5	05/28/80 - 06/15/80
D-47438		4	05/07/80 - 05/28/80
D-47439		4	12/18/77 - 01/17/78
D-47440	C-22170	5	01/07/81 - 02/01/81
D-43060		4	05/09/79 - 05/13/79
D-43061		8	11/03/77 - 01/07/79
D-43062		5	10/04/78 - 09/23/79
D-43063		6	10/29/78 - 02/14/79
D-43064	C-22172	5	06/28/78 - 08/13/78
D-43065		5	12/18/77 - 01/18/78
D-43066		6	11/01/77 - 12/18/77
D-43067		4	09/27/78 - 10/22/78
D-43068		5	08/30/78 - 09/26/78
D-43069	C-22173	4	03/28/79 - 05/09/79
D-43070		5	04/02/78 - 05/23/79
D-43071		4	04/12/78 - 05/11/78
D-43072		5	05/28/79 - 11/21/79
D-43073		5	08/13/78 - 10/29/78
D-43074	C-22174	14	11/10/77 - 01/01/78
D-43075		1	12/11/77 - 12/11/77
D-43092		5	07/19/78 - 12/10/78
D-43093		5	04/15/79 - 06/13/79
D-43094		5	04/04/79 - 05/20/79
D-43095	C-22175	5	02/28/79 - 03/25/79
D-43096		4	02/07/79 - 02/25/79
D-43097		5	02/04/79 - 02/06/79
D-43098		5	07/01/79 - 12/25/79
D-43099		5	12/10/78 - 12/31/78
D-43100	C-22176	4	09/26/79 - 12/23/79

D#	C#	NO. OF FILES	TIME SPAN
D-63698		6	02/16/83 - 03/08/83
D-63699		6	03/09/83 - 04/06/83
D-63700	C-24085	8	04/10/83 - 05/04/83
D-63701		6	09/16/81 - 01/27/82

D#	C#	FILES	TIME SPAN
D-72819		5	04/18/82 - 06/26/82
D-72820		5	06/30/82 - 10/31/82
D-72821		6	12/05/82 - 05/15/83
D-72822	C-25657	6	05/15/83 - 06/04/83
D-72823		7	06/05/83 - 06/28/83
D-72824		4	06/29/83 - 07/12/83
D-72825		5	07/13/83 - 07/31/83
D-72826		5	07/31/83 - 08/17/83
D-72827	C-25658	5	08/17/83 - 09/04/83
D-72828		5	09/04/83 - 09/21/83
D-72829		5	05/23/83 - 10/05/83
D-72830		5	10/05/83 - 10/23/83
D-72831		5	10/23/83 - 11/-8/83
D-72832	C-25659	5	11/09/83 - 11/30/83
D-72833		6	11/30/83 - 12/21/83
D-72834		5	12/21/83 - 01/07/84
D-72835		5	01/08/84 - 01/24/84
D-72836		6	01/25/84 - 02/15/84
D-72837	C-25660	4	02/15/84 - 02/28/84
D-72838		5	02/29/84 - 03/18/84
D-72839		4	03/18/84 - 03/31/84
D-72840		6	04/01/84 - 04/22/84
D-72841		5	05/09/82 - 05/05/84
D-72842	C-25661	1	11/20/83 - 11/22/83

MARCH 3, 1983

TO: MEMO FOR THE RECORD

FROM: COMPUTER SERVICES

SUBJECT: ISEE-1 77-102A-06C

IN A TELEPHONE CONVERSATION WITH DR. FORREST S. MOZER, ON FEB. 10, 1983, HE STATED THAT FOR QUANTIES ON THE ISEE-MOM ANALYZED DATA TAPE:

1. PARAMETER B (RECORD HEADER ITEM # 42) IS A DIAGNOSTIC PARAMETER USED BY HIS GROUP, AND OF NO INTEREST TO A USER.

2. V2S (DATA GROUP ITEM # 16) IS 0.07115 TIMES THE VOLTAGE ON SPHERE # 2, WITH RESPECT TO THE EXPERIMENT SIGNAL GROUND, WHICH IS ESSENTIALLY THE S/C SKIN POTENTIAL.

3. VF1, VF2, AND VF3 (DATA GROUP ITEMS 17, 18, AND 19) ARE D.C. VOLTAGES PROPORTIONAL TO THE LOG OF THE POWER IN THE FREQUENCY RANGE OF EACH OF THE THREE WIDE BANDPASS FILTERS, WITH CENTER FREQUENCIES OF 6, 32, AND 256 HZ RESPECTIVELY. THE UNITS ARE ($UV/M \cdot \sqrt{HZ}$).

4. A HI AND A LO (DATA GROUP ITEMS 20 AND 21) ARE PARAMETERS USED IN THE LEAST SQUARES FITS OF DATA USED TO REMOVE THE S/C SPIN EFFECT, FOR THE TWO EXPERIMENT GAIN STATES. THEY ARE OF NO INTEREST TO A USER.

GOOD REFERENCES FOR THIS EXPERIMENT ARE:

GSFC PUBLICATION X-692-77-129, " NOTES ON THE ISEE A + B DATA POOL ", BY K.W. OGILVIE AND M. D. BANKS, JR., AUGUST 1977,

AND

ARTICLES IN THE IEEE TRANS. ON GEOSCIENCE ELECTRONICS, JULY 1978, VOL. GE-16, NUMBER 3.

FORMAT OF
ISEE-MOM ANALYSED DATA TAPE

by

Bengt H. Nilsson

Version 1.4

April, 1979

Department of Plasma Physics
Royal Institute of Technology
S-100 44 STOCKHOLM 70
Sweden
Phone 08/7877692

File: ANADATFMT

CHAPTER 1

INTRODUCTION

This document describes the format of the tape intended for microfiche creation and for further analysis. The data are computed from the Experimenter Raw Data Tape for ISEE-MOM using Least Square Sine Fit and by subtraction of v x B term. The Attitude/MCE tape is used to get attitude information.

For definitions of coordinate systems, see appendix.

CHAPTER 2

TAPE CHARACTERISTICS

2.1 Physical Record Size

The physical record size = 3536 bytes.

2.2 Logical Record Size

The logical record size = 3536 bytes, which means that each physical record contains exactly one logical record.

2.3 Number of Files and End-of-file Marks

The tape contains one or more files separated by 1 end-of-file mark and followed by 2 end-of-file marks.

2.4 Number of Records per File

The number of records differs from file to file.

2.5 Number of Tracks

The number of tracks on the tape is 9.

2.6 Recording Density

The tape is recorded in 1600 bpi.

2.7 Recording Mode

The tape is recorded in PE (Phase Encoded).

2.8 Recording Parity

The tape is recorded in odd parity.

2.9 Logical Record Format

Each Record consists of one Record Header and 48 Data Groups. The total block size is 80 + 48 * 72 = 3536 bytes.

2.9.1 Offset and Length

Offsets and lengths are given in bytes (8 bits long).

2.9.2 Format Field Codes

The codes in the Format column have the following meanings:

1. F = Real number in PDP-11 floating point representation. (See Floating Point Representation) (4 bytes long)

2. I = Integer number in two's complement notation (1 or 2 bytes long)

2.9.3 Byte Ordering

All words are written on the tape with high order byte before low order byte.

NOTE

This is not PDP-11 standard.

2.9.4 Fill Data (See attached telex re: "non-existing" value error.)

If no value can be computed for an item, a fill value is inserted. This value is = 1.0E+38 for a F*4 field, = -32767 for an I*2 field and = -1 for I*1 fields.

If a value to be inserted in an I*2 field is to big, it is replaced by the biggest possible value, ie. +32767 or -32767 (-32768 is not used).

A data group may contain only fill data. The Time offset field then contains the appropriate fill value; the rest of the group is filled with zeroes.

2.9.5 Timing

The time for different parts of the data is calculated somewhat differently.

Each Data Group contains data from one spin period. The time for the start of the spin period is computed by adding items 1, 2 and 3 from the Record Header (with appropriate factors) and item 1 in the Data Group.

The time for the data in the Record Header, with exception of the I bias values, is the same as for the first Data Group.

The time for each group of I bias values is calculated from items 1, 2 and 3 and the time offset in the group (ie. item 9, 13, 17, 21 or 25 resp.). The resulting time is the time for the start of the even-numbered major frame in which the "I bias measured" value is transmitted. The "I bias used" value is either this "I bias measured" value or the last "I

bias alternate" value received before the start of this even-numbered major frame depending on the I bias mode. Note that in the high bit rate there may be up to 4 consequtive I bias values of the same size but with different times of which the first one is the actual one.

2.10 Record Header Format

The time for the values in the header is the same as for the first data group in the record, ie. it is given by the items 1,2 and 3 in the header plus item 1 in the first data group.

Item	Offset	Length	Format	Contents
1	0	2	I*2	Year - 1900
2	2	2	I*2	Day of year
3	4	2	I*2	Hour
4	6	2	I*2	Satellite distance from earth center (unit = 0.001 earth radii)
5	8	2	I*2	Local time in GSM (unit = 0.001 hours)
6	10	2	I*2	Latitude in GSM (unit = 0.01 deg)
7	12	2	I*2	McIlwain parameter (unit = 0.1 earth radii)
8	14	2	I*2	No. of I bias values
9	16	2	I*2	Time offset of I bias to be added to the time given by items 1,2 and 3 (seconds).
10	18	2	I*2	I bias measured (unit = 0.00001 microamp)
11	20	2	I*2	Sun angle at measurement of I bias (unit=0.01 deg)
12	22	2	I*2	I bias used (unit = 0.00001 microamp)
13-28	24	32		(repeat items 9-12 4 times to get 5 groups of values)
29-34	56	12		Spare (contains zeroes)
35	68	2	I*2	Harvey: duration of active part of duty cycle (seconds)
36	70	2	I*2	Harvey: duration of duty cycle (seconds)

37	72	1	I*1	Harvey: = 0 sounder emitter is ON only in TA = 1 sounder emitter is OFF all the time = 2 sounder emitter is ON all the time = 3 same as 2
38	73	1	I*1	Harvey: = 0 propagation emitter is ON for all of TA = 1 sounder active for part of TA, progation ON for the rest = 2 sounder active for 1/2 of TA, progation ON for the other 1/2 = 3 progation emitter OFF in TA = 4 sounder and progation emitters ON during TA in alternate duty cycles
39	74	2		Spare (contains zero)
40	76	1	I*1	Guard filters: = 0 in = 1 out
41	77	1	I*1	Shield mode: = 0 sep = 1 grounded = 2 average = 3 same as 1
42	78	2	I*2	Parameter B (unit = 0.01)

2.11 Data Group Format

Item	Offset	Length	Format	Contents
1	0	4	F*4	Time offset for this group to be added to the time given by items 1,2 and 3 in the header (seconds).
2	4	4	F*4	E-field x-comp. in BDM system (mV/m)
3	8	4	F*4	E-field y-comp. in BDM system (mV/m)
4	12	4	F*4	E-field x-comp. in BSM system (mV/m)
5	16	4	F*4	E-field y-comp. in BSM system (mV/m)
6	20	4	F*4	E-field x-comp. in GSE system

				(=-Est) (mV/m)
7	24	4	F*4	E-field y-comp. in GSE system (=Edd) (mV/m)
8	28	4	F*4	E-field x-comp. in GSE (corrected) (mV/m) (currently equiv to item 6)
9	32	4	F*4	Standard deviation for E (Final) (mV/m)
10	36	4	F*4	Standard deviation for B (gamma)
11	40	2	I*2	Number of available E-values
12	42	2	I*2	Number of available B-values
13	44	2	I*2	E-field phase in BDM (unit = 0.01 deg)
14	46	2	I*2	B-field theta in GSM (unit = 0.01 deg)
15	48	2	I*2	B-field Phi in GSM (unit = 0.01 deg)
16	50	2	I*2	V2S (unit = 10 mV) (*)
17	52	2	I*2	Vf1 (unit = 0.001) (*)
18	54	2	I*2	Vf2 (unit = 0.001) (*)
19	56	2	I*2	Vf3 (unit = 0.001) (*)
20	58	2	I*2	A hi (unit = 0.0002 mV/m)
21	62	2	I*2	A lo (unit = 0.002 mV/m)
22	62	2	I*2	Bx in GSE (unit = 0.1 gamma)
23	64	2	I*2	By in GSE (unit = 0.1 gamma)
24	66	2	I*2	Bz in GSE (unit = 0.1 gamma)
25	68	2	I*2	=1 means that E-field component parallel to spin axis has been calculated such that E is perpendicular to B. Else =0.
26	70	2	I*2	Number of E-values used in final fit.

2.12 Make and Model Number of Computer

The tape is created on a PDP-11/40 computer using a TE16 magnetic tape unit.

(*) Alternately minimum and maximum for two successive spin periods.

APPENDIX A

Coordinate Systems

A.1 GSE, Geocentric Solar Ecliptic

Should need no further definition.

A.2 GSM, Geocentric Solar Magnetospheric

Should need no further definition.

A.3 BDM, B-local Dusk Magnetospheric

Definition of the BDM-system:

The Z(BDM) axis is along the local magnetic field, B, direction.

The X(BDM) axis is along the direction Y(GSM) x B.

The Y(BDM) axis is = Z(BDM) x X(BDM).

A.4 BSM, B-local Sun Magnetospheric

The Z(BSM) axis is along the local magnetic field, B, direction.

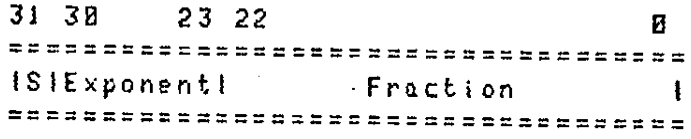
The Y(BSM) axis is along the direction B x X(GSM).

The X(BSM) axis is = Y(BSM) x Z(BSM).

APPENDIX B

Floating Point Representation

The floating point number format is:



S = sign of fraction; 0 for positive, 1 for negative

Exponent = 8 bits for the exponent, in excess 200(8) notation

Fraction = 23 bits plus 1 hidden bit (all numbers are assumed to be normalized)

The number format is essentially a sign and magnitude representation.

B.1 Fraction

The binary radix point is to the left (in front of bit 22 of the Fraction), so that the value of the fraction is always less than 1 in magnitude. Normalization would always cause the first bit after the radix point to be a 1, such that the fractional value would be between 1/2 and 1. Therefore, this bit can be understood and need not be represented directly, to achieve an extra 1 bit of resolution.

The first bit to the right of the radix point (hidden bit) is always a 1. The next bit for the fraction is taken from bit 22 of the Fraction.

B.2 Exponent

The 8-bit Exponent field (bits 30 to 23) allow exponent values between -128 and +127. Since an excess 200(8), or 128(10) number system is used, the correspondence between actual values and coded representation is as follows:

Actual Value	Representation	
Decimal	Octal	Binary
+127	377	11 111 111
+1	201	10 000 001
0	200	10 000 000
-1	177	01 111 111
-128	000	00 000 000

B.3 Example of a Number

```
        +12(10) = +1100(2)

                = +2(10)^4(10) * .11(2) [16*(1/2+1/4) = 12]

                S     Exponent          Fraction
representation: 0    10 000 100    1000000 0000000000000000
                                  ^   ^
                                  |   |
                                  |    ----hidden bit is a 1
                                  |
                                  --------radix point is under-
                                          stood
```

080 TELEX S
THIS STORED MESSAGE COMES FROM
10380 KTHB S

TO:FORREST MOZER/ROY TORBERT

STOCKHOLM,APRIL2,1980

I HAVE DISCUSSED AN ERROR IN THE FOUR QUANTITIES V2S,VF1,VF2 AND VF3 ON THE ANALYZED DATA TAPES.

THE ERROR IS THAT A 'NON-EXISTING' VALUE IS NOT MARKED WITH A BIG NEGATIVE NUMBER AS INTENDED, BUT CONTAINS GARBAGE. IF A VALUE IS 'NON-EXISTING'FOR A LONGER TIME, DATA MAY SHOW A PERIODICITY WITH A PERIOD OF TWO TAPE-BLOCKS, IE.4.9 MINUTES.

THE ERROR IS CORRECTED IN VERSION 1.4G OF THE ANALYS PROGRAM, WHICH MEANS IT IS CORRECTED FROM ANALYZED TAPE MSAK15 AND ONWARD.

BANGT H. NILSSON

+
U C SPACE BERK

FOR INTL TELEX DIAL 910-361-2350

DESCRIPTION OF THE ISEE-1 MOM ELECTRIC FIELD DATA SET

The ISEE-1 MOM experiment measures the two components of the quasi-static electric field in the satellite spin plane. Since this plane coincides with the solar-ecliptic x-y plane to within a few degrees, the measured fields are given as E_x and E_y. The third component, E_z, is calculated from the requirement that $\vec{E} \cdot \vec{B} = 0$. Also measured is the potential difference between a sphere and the spacecraft (called V2S) and the outputs of three broadband low frequency filters. These outputs and the experiment operation are further described in IEEE Trans. Geosci. Elect., GE-16, 258, 1978.

Corrections to the data on the analyzed tapes need to be made as a function of the state of the instrument operation (preferred versus non-preferred mode, bias current value, etc.). Since these corrections can be substantial, users of this data should contact the Principal Investigator for information on correcting the time intervals of interest. In addition, the instrument output is perturbed by active experiments performed by other experimenters, by diagnostic experiments performed within the MOM package, by sun shadowing effects, etc. Thus, the assistance of the Principal Investigator may be required to distinguish external electric field signatures from such effects.

NASA

MOZER ISEE-A ANALYZED DATA TAPES

START	STOP	TAPE	FILE	MINUTES MISSING
77/10/22 19:13:19	77/10/24 23:49:18	MSAK00.1	1	0
77/10/25 1:6:3	77/11/1 1:10:51	MSAJ56.1	1	77
77/11/1 1:10:57	77/11/7 15:12:47	MSAP71.1	1	0
77/11/8 2:0:30	77/11/12 0:0:31	MSAP71.1	2	648
77/11/12 0:35:0	77/11/15 2:0:0	MSAI72.1	1	34
77/11/15 2:0:23	77/11/18 0:0:7	MSAI72.1	2	0
77/11/18 0:0:1	77/11/23 1:1:12	MSAI72.1	3	0
77/11/23 1:12:56	77/11/25 0:0:10	MSAK00.1	2	0
77/11/25 0:0:16	77/11/28 0:43:41	MSAK00.1	3	12
77/11/28 0:43:44	77/12/1 1:5:4	MSAK00.1	4	0
77/12/1 1:5:58	77/12/4 1:9:57	MSAK00.1	5	0
77/12/4 1:10:16	77/12/7 23:48:56	MSAK12.1	1	1
77/12/8 0:23:32	77/12/11 0:12:55	MSAK12.1	2	0
77/12/11 0:12:58	77/12/14 0:17:0	MSAK16.1	1	35
77/12/14 0:17:3	77/12/18 0:47:50	MSAP71.1	3	0
77/12/18 0:56:37	77/12/22 0:50:10	MSAP87.1	1	0
77/12/25 0:13:0	77/12/28 1:44:40	MSAK16.1	2	9
77/12/28 2:45:19	77/12/31 23:59:57	MSAP87.1	2	4283
78/1/1 0:0:1	78/1/4 0:24:8	MSAP87.1	3	61
78/1/4 0:24:30	78/1/8 0:1:7	MSAI56.1	1	0
78/1/7 0:30:18	78/1/9 23:59:58	MSAI55.1	6	0
78/1/8 0:1:10	78/1/11 1:45:9	MSAK16.1	3	OVERLAP
78/1/11 1:45:12	78/1/15 0:24:41	MSAK16.1	4	0
78/1/15 0:24:44	78/1/18 0:1:9	MSAP87.1	4	0
78/1/18 0:1:15	78/1/22 0:17:54	MSAK40.1	1	0
78/1/22 0:17:57	78/1/25 0:24:17	MSAK40.1	2	0
78/1/25 0:24:20	78/1/29 0:44:1	MSAK40.1	3	0
78/1/29 0:44:4	78/2/1 0:17:40	MSAK40.1	4	0
78/2/1 0:17:45	78/2/5 0:15:56	MSAJ56.1	2	0
78/2/5 0:16:0	78/2/8 1:25:38	MSAI40.2	1	0
78/2/12 0:14:6	78/2/15 0:45:6	MSAK41.1	1	5688
78/2/19 2:32:44	78/2/22 1:26:8	MSAK41.1	2	5868
78/2/22 1:28:53	78/2/26 0:57:49	MSAI40.2	2	3
78/2/26 0:57:52	78/3/1 1:25:1	MSAK41.1	3	0
78/3/1 1:25:4	78/3/5 0:55:56	MSAK41.1	4	0
78/3/5 0:56:6	78/3/8 1:36:0	MSAK41.1	5	0
78/3/8 1:36:3	78/3/12 0:12:0	MSAK42.1	1	0
78/3/12 0:12:4	78/3/14 23:0:18	MSAI40.2	3	0
78/3/15 0:10:0	78/3/18 23:59:55	MSAI40.2	4	0
78/3/19 0:28:22	78/3/22 0:20:0	MSAK42.1	2	70
78/3/22 0:20:3	78/3/26 0:54:57	MSAK42.1	3	28
78/3/26 0:55:0	78/3/29 1:23:57	MSAK42.1	4	0
78/3/29 1:24:26	78/4/1 22:19:10	MSAK63.1	1	0
78/4/2 0:16:6	78/4/5 0:55:9	MSAI71.1	1	0
78/4/5 0:55:21	78/4/9 0:2:19	MSAK63.1	1	117
78/4/9 0:2:41	78/4/11 23:59:59	MSAI71.1	2	0
78/4/12 0:0:0	78/4/16 0:23:7	MSAI41.1	1	0
78/4/16 0:40:1	78/4/18 23:59:59	MSAK63.1	3	0
78/4/19 0:0:38	78/4/22 23:49:14	MSAK63.1	4	17
78/4/23 0:20:0	78/4/26 2:9:32	MSAK97.1	1	1
78/4/26 2:9:42	78/4/30 0:6:3	MSAI41.1	2	31
78/4/30 0:6:6	78/5/1 9:54:56	MSAH42.1	1	0
78/5/1 9:55:29	78/5/2 23:59:22	MSAH42.1	2	0
78/5/2 23:59:25	78/5/3 0:59:25	MSAH42.1	3	1
78/5/3 0:59:32	78/5/6 6:14:2	MSAH42.1	4	0
78/5/6 6:14:5	78/5/7 0:45:56	MSAJ56.1	3	0
78/5/7 0:45:49	78/5/8 23:33:57	MSAH42.1	5	0
78/5/9 0:30:42	78/5/10 0:0:17	MSAH42.1	6	0
78/5/10 0:3:46	78/5/14 1:30:0	MSAH42.1	7	57
78/5/14 1:30:3	78/5/17 0:26:9	MSAK97.1	2	3
78/5/17 0:26:29	78/5/21 0:12:57	MSAK97.1	3	0
78/5/21 0:13:7	78/5/24 0:54:58	MSAK13.1	1	0
78/5/24 0:55:1	78/5/28 0:9:2	MSAK97.1	4	0
78/5/28 0:9:5	78/5/31 0:44:56	MSAK98.1	1	0
78/5/31 0:45:1	78/6/3 23:59:59	MSAI56.1	2	0
78/6/4 0:0:6	78/6/7 0:29:56	MSAK98.1	2	0
78/6/7 0:29:59	78/6/11 0:34:55	MSAK98.1	3	0
78/6/11 0:34:58	78/6/14 1:25:8	MSAK98.1	4	0
78/6/14 1:25:11	78/6/18 0:30:56	MSAK99.1	1	0
78/6/18 0:31:2	78/6/20 23:42:14	MSAK99.1	2	0

START	STOP	TAPE	FILE	MINUTES MISSING
78/ 6/21 0:44:55	78/ 6/25 1:59:57	MSAH42.1	8	63
78/ 6/21 0:44:55	78/ 6/25 1:59:57	MSAI41.1	3	OVERLAP
78/ 6/25 2: 0: 0	78/ 6/28 0:13:27	MSAN74.1	2	0
78/ 6/28 0:31:21	78/ 7/ 2 0: 1:22	MSAH79.1	1	18
78/ 7/ 2 2:38: 4	78/ 7/ 5 0:21:12	MSAK99.1	3	157
78/ 7/ 5 0:21:15	78/ 7/ 8 23:59:16	MSAK99.1	4	0
78/ 7/ 9 0:26:03	78/ 7/11 22: 8:34	MSAJ56.1	4	27
78/ 7/12 5:43:54	78/ 7/16 2: 0:48	MSAH79.1	2	455
78/ 7/16 2: 0:51	78/ 7/18 23:15: 6	MSAK99.1	4	0
78/ 7/19 0:19:40	78/ 7/23 0:46:22	MSAL19.1	1	65
78/ 7/23 0:46:36	78/ 7/25 22:55:23	MSAH79.1	3	0
78/ 7/25 23:59:59	78/ 7/30 0:47:31	MSAH79.1	4	65
78/ 7/30 0:47:40	78/ 8/ 2 0: 5:11	MSAL19.1	2	0
78/ 8/ 2 0: 5:14	78/ 8/ 6 0:48: 4	MSAL19.1	3	0
78/ 8/ 6 0:48: 7	78/ 8/ 9 0: 0: 9	MSAL19.1	4	0
78/ 8/ 9 0: 1:13	78/ 8/13 0:59:57	MSAH79.1	5	1
78/ 8/13 1: 8:18	78/ 8/16 1: 7:20	MSAH84.1	1	8
78/ 8/16 1: 7:33	78/ 8/20 0:29:57	MSAI87.1	1	0
78/ 8/20 0:30:22	78/ 8/23 1: 5:10	MSAI87.1	2	0
78/ 8/23 1: 5:16	78/ 8/27 0:10:19	MSAI87.1	3	0
78/ 8/27 0:21:56	78/ 8/30 0:31: 4	MSAI87.1	4	12
78/ 8/30 0:55:14	78/ 9/ 3 0:50:46	MSAI88.1	1	24
78/ 9/ 3 0:50:49	78/ 9/ 6 1:34:29	MSAI56.1	3	0
78/ 9/ 6 1:34:23	78/ 9/10 0: 3:11	MSAH84.1	2	0
78/ 9/10 0: 3:19	78/ 9/13 0:13:59	MSAI88.1	2	0
78/ 9/13 0:14:10	78/ 9/17 0:18:27	MSAI88.1	3	0
78/ 9/17 0:25: 3	78/ 9/19 23:54:56	MSAI88.1	4	7
78/ 9/20 1:15:19	78/ 9/24 0:29:36	MSAH84.1	3	80
78/ 9/24 0:30:59	78/ 9/26 23:45:16	MSAI88.1	5	1
78/ 9/27 0:43:59	78/10/ 1 1:33:49	MSAJ01.1	1	59
78/10/ 1 1:33:52	78/10/ 4 0:20: 6	MSAK12.1	3	0
78/10/ 4 0:20:28	78/10/ 8 2: 5:34	MSAJ69.1	1	0
78/10/ 8 2: 5:38	78/10/11 1: 9:55	MSAJ01.1	2	0
78/10/11 1:48:28	78/10/15 0:27:23	MSAJ01.1	3	39
78/10/15 0:27:26	78/10/18 0:35:52	MSAN74.1	3	0
78/10/18 0:35:58	78/10/22 1:50:56	MSAJ01.1	4	0
78/10/22 1:50:59	78/10/25 1:20:16	MSAH84.1	4	0
78/10/25 1:18: 1	78/10/29 1:12: 9	MSAH84.1	5	-1
78/10/29 1:12:12	78/10/31 23:59:59	MSAJ02.1	1	0
78/11/ 1 4:30:50	78/11/ 5 1: 0:56	MSAI41.1	4	271
78/11/ 5 1:54:58	78/11/ 8 0:29:53	MSAI55.1	1	54
78/11/ 8 0:29:56	78/11/12 0: 0:11	MSAJ02.1	2	0
78/11/12 0: 0:17	78/11/15 0:20:29	MSAJ02.1	3	0
78/11/15 0:20:34	78/11/19 0:29:59	MSAI55.1	2	0
78/11/19 1:49: 4	78/11/22 0:55: 7	MSAI55.1	3	79
78/11/22 1:10: 3	78/11/25 23:59:56	MSAJ02.1	4	15
78/11/26 0: 0: 0	78/11/28 23:59:53	MSAJ02.1	5	0
78/11/29 4: 6:25	78/12/ 2 16:52:58	MSAJ69.1	2	247
78/12/ 2 16:53: 1	78/12/ 3 0: 7:17	MSAP70.1	1	0
78/12/ 3 2: 7:30	78/12/ 5 22:30: 1	MSAI55.1	4	120
78/12/ 6 1:26:12	78/12/10 0:24: 2	MSAL19.1	5	176
78/12/10 0:24: 5	78/12/12 23:44:56	MSAL21.1	1	0
78/12/13 0:30:39	78/12/16 23:45: 6	MSAL21.1	2	46
78/12/17 1: 0: 0	78/12/19 23:14:15	MSAN74.1	4	75
78/12/20 1: 4: 5	78/12/24 0:55: 9	MSAL21.1	3	110
78/12/24 0:55:12	78/12/27 1:55:29	MSAL21.1	4	0
78/12/27 2:55:41	78/12/31 0:30: 5	MSAL21.1	5	60
78/12/31 0:30: 8	79/ 1/ 3 0:30:24	MSAL59.1	1	0
79/ 1/ 3 0:59:28	79/ 1/ 7 0:30:15	MSAI55.1	5	29
79/ 1/ 7 0:30:18	79/ 1/ 9 23:59:58	MSAI55.1	6	0
79/ 1/10 0:14: 1	79/ 1/14 0:37:26	MSAI56.1	4	14
79/ 1/14 0:51:58	79/ 1/16 23:59:56	MSAI57.1	1	15
79/ 1/17 0: 0: 0	79/ 1/20 23:49:59	MSAL59.1	2	0
79/ 1/21 0:16:58	79/ 1/24 0: 4:58	MSAL59.1	3	27
79/ 1/24 0: 5:21	79/ 1/28 1:58:56	MSAI57.1	2	0
79/ 1/28 1:59: 4	79/ 1/30 23:56:57	MSAI57.1	3	0
79/ 1/31 0:24:28	79/ 2/ 3 23:40: 2	MSAL59.1	4	28
79/ 2/ 4 0:47:19	79/ 2/ 6 23: 7: 3	MSAL59.1	5	67
79/ 2/ 7 0:10:14	79/ 2/11 0:59:56	MSAL60.1	1	63
79/ 2/14 0:50:15	79/ 2/18 0: 2:39	MSAL60.1	2	4310

START	STOP	TAPE	FILE	MINUTES MISSING
79/ 2/18 0: 2: 46	79/ 2/21 1:21:53	MSAL60. 1	3	0
79/ 2/21 2:16: 10	79/ 2/25 1: 2: 3	MSAL60. 1	4	54
79/ 2/25 0:56: 2	79/ 2/27 23:26:10	MSAI57. 1	4	-5
79/ 2/28 1: 1: 42	79/ 3/ 4 1:23: 5	MSAL72. 1	1	96
79/ 3/ 4 1:23: 8	79/ 3/ 7 0:54: 0	MSAL72. 1	2	0
79/ 3/ 7 1:49: 3	79/ 3/11 1:39: 2	MSAL72. 1	3	55
79/ 3/11 2:29: 58	79/ 3/14 1:10: 4	MSAI57. 1	5	51
79/ 3/14 1:34: 13	79/ 3/18 0:21:12	MSAI71. 1	3	24
79/ 3/18 1:17: 3	79/ 3/21 1:10: 1	MSAL72. 1	4	56
79/ 3/21 1:10: 4	79/ 3/25 1:13:52	MSAL72. 1	5	0
79/ 3/25 1:13: 55	79/ 3/28 0:33:29	MSAI71. 1	4	0
79/ 3/28 0:25: 4	79/ 4/ 1 0: 2:20	MSAI85. 1	1	-7
79/ 4/ 1 0: 2: 29	79/ 4/ 4 0: 9:13	MSAJ69. 1	3	0
79/ 4/ 4 0: 9: 17	79/ 4/ 8 0:43:19	MSAL73. 1	1	0
79/ 4/ 8 0:43: 25	79/ 4/10 23:44:58	MSAK12. 1	4	0
79/ 4/11 0: 5: 47	79/ 4/15 1:49:20	MSAK12. 1	5	21
79/ 4/15 1:49: 27	79/ 4/18 1:28:42	MSAM05. 1	1	0
79/ 4/18 1:31: 0	79/ 4/22 0: 5:29	MSAM05. 1	2	2
79/ 4/22 0: 7: 40	79/ 4/24 22:56:30	MSAI85. 1	2	2
79/ 4/25 3:49: 0	79/ 4/29 2:14:37	MSAI85. 1	3	293
79/ 4/29 2:14: 34	79/ 5/ 2 1:50:15	MSAL73. 1	2	0
79/ 5/ 2 1:50: 33	79/ 5/ 6 0: 4:55	MSAL73. 1	3	0
79/ 5/ 6 0: 5: 0	79/ 5/ 9 0:45:16	MSAI85. 1	4	0
79/ 5/ 9 0:39: 18	79/ 5/13 0: 0: 7	MSAI72. 1	4	-5
79/ 5/13 0: 0: 10	79/ 5/16 0: 0:13	MSAL73. 1	4	0
79/ 5/16 0: 0: 16	79/ 5/20 0:53:10	MSAL73. 1	5	0
79/ 5/20 2: 9: 31	79/ 5/23 0:21:30	MSAI71. 1	5	76
79/ 5/23 0:21: 13	79/ 5/27 0:53: 41	MSAI86. 2	1	0
79/ 5/27 0:53: 44	79/ 5/30 0:34: 0	MSAM05. 1	3	0
79/ 5/30 0:34: 3	79/ 6/ 3 0: 9:58	MSAM05. 1	4	0
79/ 6/ 3 0:10: 14	79/ 6/ 6 1:14:57	MSAJ57. 1	1	0
79/ 6/ 6 1:15: 1	79/ 6/10 0: 6:15	MSAI86. 2	2	0
79/ 6/10 0: 6: 18	79/ 6/13 0:24:11	MSAM05. 1	5	0
79/ 6/13 0:24: 14	79/ 6/16 23: 9:27	MSAM06. 1	1	0
79/ 6/17 0:31: 40	79/ 6/20 1: 6:59	MSAI86. 2	3	82
79/ 6/20 1: 6: 52	79/ 6/24 1: 0: 7	MSAI86. 2	4	0
79/ 6/24 1: 0: 10	79/ 6/27 0:48:38	MSAM06. 1	2	0
79/ 6/27 0:48: 43	79/ 7/ 1 0:26:13	MSAJ57. 1	2	0
79/ 7/ 1 2:31: 8	79/ 7/ 4 0:44: 3	MSAL22. 1	1	125
79/ 7/ 4 0:44: 7	79/ 7/ 8 0:45:57	MSAK13. 1	2	0
79/ 7/ 8 0:46: 0	79/ 7/11 0:48: 9	MSAK13. 1	3	0
79/ 7/11 0:48: 12	79/ 7/15 0: 6:14	MSAM06. 1	3	0
79/ 7/15 0: 6: 20	79/ 7/17 23:59:57	MSAJ57. 1	3	0
79/ 7/18 0:23: 19	79/ 7/22 0: 0: 5	MSAJ57. 1	4	23
79/ 7/22 0: 0: 8	79/ 7/25 0:19:16	MSAM06. 1	4	0
79/ 7/25 0:19: 20	79/ 7/28 23:59:57	MSAK13. 1	4	0
79/ 7/29 0: 0: 0	79/ 8/ 1 1:20:54	MSAM06. 1	5	0
79/ 8/ 1 1:21: 0	79/ 8/ 5 0:36:53	MSAJ57. 1	5	0
79/ 8/ 5 0:36: 59	79/ 8/ 7 23:31:55	MSAJ68. 1	1	0
79/ 8/ 7 23:31: 58	79/ 8/12 1:13: 9	MSAK13. 1	5	0
79/ 8/12 1:41: 13	79/ 8/15 2: 0: 7	MSAJ68. 1	2	28
79/ 8/15 2: 0: 13	79/ 8/19 0:20:54	MSAJ68. 1	3	0
79/ 8/19 0:20: 57	79/ 8/21 23:55:11	MSAK15. 1	1	0
79/ 8/22 0: 1: 59	79/ 8/26 0:59:58	MSAJ68. 1	4	7
79/ 8/26 1: 0: 1	79/ 8/29 1: 0:56	MSAJ68. 1	5	0
79/ 8/29 1: 0: 59	79/ 9/ 2 0:23:55	MSAK15. 1	2	0
79/ 9/ 2 0:23: 59	79/ 9/ 4 19:59:58	MSAJ69. 1	4	0
79/ 9/ 5 0:17: 2	79/ 9/ 9 0:59:47	MSAK15. 1	3	257
79/ 9/ 9 0:59: 50	79/ 9/11 23:59:58	MSAK15. 1	4	0
79/ 9/12 0:32: 21	79/ 9/16 0:17:22	MSAK14. 1	1	32
79/ 9/16 0:17: 23	79/ 9/19 1: 1: 2	MSAK15. 1	5	0
79/ 9/19 1: 1: 7	79/ 9/23 0:28:35	MSAJ69. 1	5	0
79/ 9/23 0:28: 38	79/ 9/26 0:32:58	MSAK14. 1	2	0
79/ 9/26 0:33: 1	79/ 9/30 0:25: 1	MSAL20. 1	1	0
79/ 9/30 0:26: 50	79/10/ 3 1:10:12	MSAK14. 1	3	2
79/10/ 3 1:10: 15	79/10/ 7 1:15:59	MSAK14. 1	4	0
79/10/ 7 1:16: 2	79/10/ 9 23:59:54	MSAL00. 1	1	0
79/10/10 0: 0: 1	79/10/13 22:34: 0	MSAL00. 1	2	0
79/10/14 0:32: 40	79/10/17 0:52: 7	MSAL00. 1	3	119
79/10/17 0:52: 10	79/10/21 0: 5:55	MSAL00. 1	4	0

START	STOP	TAPE	FILE	MINUTES MISSING
79/10/21 0: 5: 59	79/10/23 23:35:20	MSAL01. 1	1	0
79/10/24 0:19: 7	79/10/28 1:43:43	MSAL01. 1	2	44
79/10/28 1:43:46	79/10/31 0:41:58	MSAL01. 1	3	0
79/10/31 0:42: 1	79/11/ 4 0:52:45	MSAM07. 1	1	0
79/11/ 4 0:52:48	79/11/ 7 0: 0: 5	MSAL01. 1	4	0
79/11/ 7 1:34: 1	79/11/11 0:15:57	MSAM07. 1	2	94
79/11/11 0:16: 0	79/11/13 23:59:59	MSAL00. 1	5	0
79/11/14 0: 0: 2	79/11/18 0:14: 0	MSAL01. 1	5	0
79/11/18 0:14: 3	79/11/21 1:17: 4	MSAK98. 1	5	0
79/11/21 2:14:29	79/11/25 0:37:57	MSAL22. 1	2	57
79/11/25 1:37:59	79/11/28 0:56: 9	MSAM07. 1	3	60
79/11/28 3:30:53	79/12/ 2 0: 0: 4	MSAM07. 1	4	155
79/12/ 2 0:48:54	79/12/ 5 0: 0: 9	MSAM07. 1	5	49
79/12/ 5 0: 0:12	79/12/ 9 0: 6:57	MSAL20. 1	2	0
79/12/ 9 0:17:20	79/12/12 0:40: 5	MSAL22. 1	3	10
79/12/12 0:41:42	79/12/16 0:34: 7	MSAL22. 1	4	2
79/12/16 1:35:33	79/12/19 1: 5: 2	MSAL20. 1	3	61
79/12/19 2:47:53	79/12/23 1:22:52	MSAL20. 1	4	103
79/12/23 2:15:46	79/12/25 20:58:15	MSAL22. 1	5	53
79/12/26 1:49:57	79/12/30 0: 0: 1	MSAM24. 1	1	292
79/12/30 1:20:58	80/ 1/ 2 0:29: 0	MSAM24. 1	2	81
80/ 1/ 2 2: 8:58	80/ 1/ 6 0:29:59	MSAM24. 1	3	100
80/ 1/ 6 0:30: 2	80/ 1/ 8 23:25: 0	MSAM24. 1	4	0
80/ 1/13 0:45:59	80/ 1/16 0:43:54	MSAM25. 1	1	5841
80/ 1/16 0:43:30	80/ 1/20 0:26:12	MSAM25. 1	2	0
80/ 1/20 0:26:19	80/ 1/23 1:13:25	MSAM25. 1	3	0
80/ 1/23 1:13:33	80/ 1/27 0: 5: 6	MSAM25. 1	4	0
80/ 1/27 0: 5: 9	80/ 1/30 1:36: 4	MSAM26. 1	1	0
80/ 1/30 1:36: 7	80/ 2/ 2 23:45: 5	MSAM26. 1	2	0
80/ 2/ 3 0: 8: 3	80/ 2/ 6 0: 0: 7	MSAM26. 1	3	23
80/ 2/ 6 1: 6: 3	80/ 2/10 1:27:24	MSAM26. 1	4	66
80/ 2/10 1:27:33	80/ 2/13 0: 2:58	MSAM26. 1	5	0
80/ 2/13 1:41:15	80/ 2/17 0: 5:21	MSAN18. 1	1	98
80/ 2/17 1:54:33	80/ 2/19 23: 4: 1	MSAN18. 1	2	109
80/ 2/20 0: 3:15	80/ 2/24 0: 1:48	MSAN18. 1	3	59
80/ 2/24 1:14:44	80/ 2/27 0:59:56	MSAN18. 1	4	73
80/ 2/27 0:59:59	80/ 3/ 2 0:43:20	MSAN18. 1	5	0
80/ 3/ 2 0:46: 7	80/ 3/ 4 23:30:21	MSAN19. 1	1	3
80/ 3/ 5 2:44:59	80/ 3/ 9 1:57:56	MSAN19. 1	2	195
80/ 3/ 9 1:57:59	80/ 3/12 0:32:26	MSAN19. 1	3	0
80/ 3/12 0:32:29	80/ 3/16 1:27:33	MSAN19. 1	4	0
80/ 3/16 1:27:36	80/ 3/19 0:17:29	MSAN19. 1	5	0
80/ 3/19 2:23:52	80/ 3/23 0:38:47	MSAN71. 1	1	126
80/ 3/23 0:43:42	80/ 3/26 0:30:47	MSAN71. 1	2	5
80/ 3/26 0:32:32	80/ 3/30 0: 9:55	MSAN71. 1	3	2
80/ 3/30 0: 9:58	80/ 4/ 2 0:43: 1	MSAN71. 1	4	0
80/ 4/ 2 0:43: 4	80/ 4/ 6 0:37:27	MSAN71. 1	5	0
80/ 4/ 6 0:37:30	80/ 4/ 9 0:26:15	MSAN74. 1	5	0
80/ 4/13 0:13:58	80/ 4/16 0:43:56	MSAQ48. 1	1	5748
80/ 4/16 0:43:59	80/ 4/20 0:32:59	MSAQ48. 1	2	0
80/ 4/20 1:41: 6	80/ 4/23 0:59:10	MSAN74. 1	6	68
80/ 4/23 0:59:13	80/ 4/27 2:46:31	MSAN75. 1	1	0
80/ 4/27 2:46:34	80/ 4/30 0: 0: 1	MSAN75. 1	2	0
80/ 4/30 0: 7:48	80/ 5/ 4 0:17:32	MSAN75. 1	3	8
80/ 5/ 4 0:17:35	80/ 5/ 6 23:58: 9	MSAN75. 1	4	0
80/ 5/ 7 0:23: 3	80/ 5/11 0:22:20	MSAP11. 1	1	25
80/ 5/11 0:22:23	80/ 5/14 1:49: 0	MSAP11. 1	2	0
80/ 5/14 1:49: 3	80/ 5/18 1:55:20	MSAP11. 1	3	0
80/ 5/18 1:55:23	80/ 5/20 23:38:57	MSAQ48. 1	3	0
80/ 5/21 0: 1: 5	80/ 5/25 0:16:43	MSAQ48. 1	4	22
80/ 5/25 0:16:48	80/ 5/28 0:39:11	MSAP11. 1	4	0
80/ 5/28 0:39:14	80/ 5/31 23:59:56	MSAP12. 1	1	0
80/ 6/ 1 0: 0: 2	80/ 6/ 4 0: 4:56	MSAP12. 1	2	0
80/ 6/ 4 0: 5: 5	80/ 6/ 8 0:34:49	MSAP12. 1	3	0
80/ 6/ 8 1: 2:37	80/ 6/11 0:22:53	MSAP12. 1	4	28
80/ 6/11 0:23: 2	80/ 6/15 0:19:51	MSAP12. 1	5	0
80/ 6/15 0:20: 6	80/ 6/18 0:21: 3	MSAP13. 1	1	0
80/ 6/18 0:21: 6	80/ 6/22 0:55:21	MSAP14. 1	1	0
80/ 6/22 0:55:24	80/ 6/24 23:37: 4	MSAP14. 1	2	0
80/ 6/25 2:12:56	80/ 6/29 1: 4:57	MSAP13. 1	2	156

START	STOP	TAPE	FILE	MINUTES MISSING
80/ 6/29 1: 5:22	80/ 7/ 2 1:59:56	MSAP13. 1	3	0
80/ 7/ 2 2: 3:35	80/ 7/ 6 0:15: 7	MSAP13. 1	4	4
80/ 7/ 6 0:15:10	80/ 7/ 8 23:59:55	MSAP13. 1	5	0
80/ 7/ 8 23:59:58	80/ 7/13 0:24:43	MSAP14. 1	3	0
80/ 7/13 0:25:47	80/ 7/16 1:58: 3	MSAP14. 1	4	1
80/ 7/16 1:58: 6	80/ 7/20 0:14:51	MSAP15. 1	1	0
80/ 7/20 0:19:58	80/ 7/23 1:27:10	MSAP15. 1	2	5
80/ 7/23 1:27:13	80/ 7/27 1:11:37	MSAP15. 1	3	0
80/ 7/27 1:11:40	80/ 7/29 23:59:13	MSAP15. 1	4	0
80/ 7/30 0:29: 5	80/ 8/ 3 0:11:11	MSAP16. 1	1	30
80/ 8/ 3 0:11:24	80/ 8/ 6 0:58:55	MSAP16. 1	2	0
80/ 8/ 6 0:58:58	80/ 8/10 0: 6: 3	MSAP16. 1	3	0
80/ 8/10 0: 6: 6	80/ 8/13 1:12: 5	MSAP16. 1	4	0
80/ 8/13 1:12: 8	80/ 8/17 0: 1:17	MSAP16. 1	5	0
80/ 8/17 0: 1:20	80/ 8/20 1:14:56	MSAP34. 1	1	0
80/ 8/20 2: 3:58	80/ 8/24 1:51: 4	MSAP34. 1	2	49
80/ 8/24 1:51: 7	80/ 8/27 0:10:16	MSAP34. 1	3	0
80/ 8/27 0:10:53	80/ 8/31 0:34:51	MSAP34. 1	4	1
80/ 8/31 0:35:49	80/ 9/ 3 0: 5: 3	MSAP34. 1	5	1
80/ 9/ 3 2:54: 4	80/ 9/ 7 0: 4:12	MSAP35. 1	1	169
80/ 9/ 7 0: 4:24	80/ 9/10 0: 3:11	MSAP35. 1	2	0
80/ 9/10 0:26:47	80/ 9/14 0:54:49	MSAP35. 1	3	24
80/ 9/14 0:55:12	80/ 9/16 23:12: 1	MSAP35. 1	4	0
80/ 9/17 1:15:59	80/ 9/20 23:59:55	MSAP35. 1	5	124
80/ 9/21 1: 0:10	80/ 9/23 23:59:57	MSAP67. 1	1	60
80/ 9/24 0:13:58	80/ 9/28 0:10: 2	MSAP67. 1	2	14
80/ 9/28 0:10: 5	80/ 9/30 23:42:58	MSAP67. 1	3	0
80/10/ 1 0:40:59	80/10/ 5 0: 0: 7	MSAP67. 1	4	58
80/10/ 5 0:43:59	80/10/ 8 0: 3:57	MSAP67. 1	5	44
80/10/ 8 7:24:33	80/10/12 0:16:55	MSAP67. 1	6	441
80/10/12 0:17:20	80/10/15 0:18:50	MSAP68. 1	1	0
80/10/15 0:18:53	80/10/19 0:53: 8	MSAP68. 1	2	0
80/10/19 1:46:59	80/10/22 0:11:53	MSAP68. 1	3	54
80/10/22 0:13:43	80/10/26 1:12:20	MSAP68. 1	4	2
80/10/26 1:12:26	80/10/29 1:24:55	MSAP68. 1	5	0
80/10/29 2:13:58	80/11/ 2 1: 8: 3	MSAP69. 1	1	49
80/11/ 2 1: 8: 6	80/11/ 5 0:12:56	MSAP69. 1	2	0
80/11/ 5 0:12:59	80/11/ 9 0:38:59	MSAP70. 1	2	0
80/11/ 9 0:39: 2	80/11/12 0: 8:16	MSAP69. 1	3	0
80/11/12 1: 8:42	80/11/16 0:11:55	MSAP69. 1	4	60
80/11/16 0:12:20	80/11/18 23:51:23	MSAQ36. 1	1	0
80/11/19 0:10:01	80/11/22 23:59:57	MSAP69. 1	5	19
80/11/23 0: 1: 4	80/11/26 0: 0: 1	MSAP70. 1	3	1
80/11/26 1:44: 0	80/11/30 0: 0: 7	MSAP70. 1	4	104
80/11/30 0: 0:33	80/12/ 3 1: 0:15	MSAP70. 1	5	0
80/12/ 3 1: 0:26	80/12/ 7 0:16:42	MSAP70. 1	6	0
80/12/ 7 0:16:54	80/12/ 9 23:52:45	MSAQ36. 1	2	0
80/12/10 2:54:59	80/12/14 1:40: 5	MSAQ36. 1	3	182
80/12/14 1:40: 8	80/12/17 1:46: 0	MSAQ36. 1	4	0
80/12/17 3:20:53	80/12/21 0:15: 1	MSAQ36. 1	5	95
80/12/21 1: 8:11	80/12/23 23:44: 1	MSAQ37. 1	1	53
80/12/24 0: 0:59	80/12/27 23:24: 6	MSAQ37. 1	2	17
80/12/28 0: 8: 1	80/12/31 0: 1:42	MSAQ37. 1	3	44
80/12/31 0: 1:45	81/ 1/ 4 0: 3: 2	MSAQ37. 1	4	0
81/ 1/ 4 0:35:10	81/ 1/ 7 0: 9:25	MSAQ37. 1	5	32
81/ 1/ 7 0: 9:46	81/ 1/11 1:55:38	MSAQ99. 1	1	0
81/ 1/11 1:56: 5	81/ 1/14 0: 0: 2	MSAQ48. 1	5	0
81/ 1/18 0:40:28	81/ 1/21 1:49:34	MSAQ99. 1	2	5800
81/ 1/21 1:51:18	81/ 1/25 0:38:31	MSAQ99. 1	3	2
81/ 1/25 0:38:56	81/ 1/28 0: 4:14	MSAQ99. 1	4	0
~~81/ 1/28 0: 4:37~~	~~81/ 2/ 1 0:51:11~~	~~MSAQ99. 1~~	~~5~~	~~0~~
***** BEGIN SPECIAL OR EXTRA TAPES *****				
77/11/ 1 1:10:57	77/11/ 1 3:55:59	MSAG53. 1	1	
77/11/ 1 3:56: 0	77/11/ 5 22:56:28	MSAG53. 1	2	
77/11/ 3 7:18:46	77/11/ 3 8:12:13	MSAX02	1	
77/11/ 5 16:29: 6	77/11/ 5 17:42:17	MSAX02	2	
77/11/ 5 23:50:31	77/11/ 6 4:45: 8	MSAG53. 1	3	
77/11/ 6 4:45:13	77/11/ 6 6:10:22	MSAX02	3	
77/11/ 6 4:45:13	77/11/ 7 15:12:47	MSAG53. 1	4	
77/11/ 8 2: 0:30	77/11/12 0: 0:31	MSAG53. 1	5	

START	STOP	TAPE	FILE	MINUTES MISSING
77/11/ 8 2: 0:30	77/11/ 8 3:11:16	MSAX02	4	
77/11/10 10: 5:40	77/11/10 11:29:59	MSAX00	1	
77/11/10 14:18: 5	77/11/10 15:31:17	MSAX02	5	
77/11/15 22:12: 0	77/11/15 23:55:57	MSAX00	2	
77/11/16 3: 0: 0	77/11/16 3:17:59	MSAX00	3	
77/11/20 0:50: 0	77/11/20 2:25: 0	MSAX02	6	
77/11/30 6:12: 0	77/11/30 7:11:59	MSAX00	4	
77/12/ 5 5: 0: 0	77/12/ 5 6:11:59	MSAX00	5	
77/12/ 6 8:25: 0	77/12/ 6 16:59:57	MSAX00	6	
77/12/ 7 11:30: 0	77/12/ 7 11:59:57	MSAX00	7	
77/12/ 7 17: 1: 0	77/12/ 7 17: 7:59	MSAX00	8	
77/12/ 8 21:30: 0	77/12/ 8 22:14:59	MSAX00	9	
77/12/ 9 21:30: 0	77/12/ 9 22:47:58	MSAX00	10	
77/12/10 5:12: 0	77/12/10 5:35:57	MSAX00	11	
77/12/11 0: 4:59	77/12/11 14:29:59	MSAX04	1	
77/12/11 14:30: 0	77/12/11 18:29:58	MSAX01	1	
77/12/11 14:30: 0	77/12/11 18:29:58	MSAX03	1	
77/12/11 18:30: 0	77/12/11 23:59:59	MSAX04	2	
77/12/14 0:17: 6	77/12/18 0:47:50	MSAG53. 1	6	
77/12/18 0:56:37	77/12/22 0:50:10	MSAG60. 1	1	
77/12/18 7:24: 0	77/12/18 7:59:57	MSAX00	12	
77/12/21 0:12: 0	77/12/21 0:47:58	MSAX00	13	
77/12/28 2:45:19	77/12/31 23:59:57	MSAG60. 1	2	
78/ 1/ 1 0: 0: 1	78/ 1/ 1 1:59:54	MSAN74. 1	1	
78/ 1/ 1 0: 0: 1	78/ 1/ 1 0:19:59	MSAG60. 1	3	
78/ 1/ 1 2: 0: 0	78/ 1/ 4 0:24: 8	MSAG60. 1	4	
78/ 1/ 1 17:45: 0	78/ 1/ 1 17:49:57	MSAX00	14	
78/ 1/15 0:24:47	78/ 1/18 0: 1:12	MSAG60. 1	5	
78/ 3/ 2 0: 0: 0	78/ 3/ 2 23:36:55	MSAX04	3	
78/ 3/26 0:55: 1	78/ 3/26 10:59:59	MSAX04	4	
78/ 3/26 11: 0: 0	78/ 3/27 5:59:57	MSAX03	2	
78/ 3/27 6: 0: 0	78/ 3/27 23:59:57	MSAX04	5	
78/ 4/19 0: 0:38	78/ 4/19 5:59:58	MSAX04	6	
78/ 4/19 6: 0: 0	78/ 4/19 17:59:59	MSAX03	3	
78/ 4/19 18: 0: 0	78/ 4/19 23:59:58	MSAX04	7	
78/ 4/23 0:20: 0	78/ 4/23 23:59:59	MSAX04	8	
78/ 4/24 0: 0: 0	78/ 4/24 6:59:58	MSAX03	4	
78/ 4/24 7: 0: 0	78/ 4/24 23:59:58	MSAX04	9	
78/ 9/ 8 0:14:53	78/ 9/ 8 1:16: 8	MSAX02	7	
79/ 1/ 7 10:45: 0	79/ 1/ 7 14:44:57	MSAX02	8	

****** END OF DATA *****

THESE ARE THE AVAILABLE ANALYZED ISEEA-MOM TAPES

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THE COLUMN NAMED ERROR CONTAINS 'Y' IF THE FILE WAS PRODUCED BEFORE THE VERSION 1.4G CORRECTION OF THE 4.9 MINUTE PERIODICITY ERROR IN V2S, VF1, VF2, AND VF3.
(SEE B. NILSSON TELEX OF 4/2/80).

8/11/80

START	STOP	TAPE	FILE	ERROR
771022191319	771024234918	MSAK00.1	1	Y
771025010603	771101011051	MSAJ56.1	1	Y
771101011057	771101035559	MSAG53.1	1	Y
771101035600	771105225628	MSAG53.1	2	Y
771103071846	771103081213	MSAX02	1	Y
771105162906	771105174217	MSAX02	2	Y
771105235031	771106044508	MSAG53.1	3	Y
771106044518	771106061022	MSAX02	3	Y
771106044518	771107151247	MSAG53.1	4	Y
771108020030	771108031116	MSAX02	4	Y
771108020030	771112000031	MSAC53.1	5	Y
771110100540	771110112959	MSAX00	1	Y
771110141805	771110153117	MSAX02	5	Y
771112003500	771115020000	MSAI72.1	1	Y
771115020023	771118000007	MSAI72.1	2	Y
771115221200	771152235557	MSAX00	2	Y
771116030000	771116031759	MSAX00	3	Y
771118000001	771123010112	MSAI72.1	3	Y
771120005000	771120022500	MSAX02	6	Y
771123011258	771125000010	MSAK00.1	2	Y
771125000016	771128004341	MSAK00.1	3	Y
771128004344	771201010504	MSAK00.1	4	Y
771130061200	771130071159	MSAX00	4	Y
771201010558	771204010957	MSAK00.1	5	Y
771204011016	771207234856	MSAK12.1	1	Y
771205050000	771205061159	MSAX00	5	Y
771206082500	771206165957	MSAX00	6	Y
771207113000	771207115957	MSAX00	7	Y
771207170100	771207170759	MSAX00	8	Y
771208213000	771208221459	MSAX00	9	Y
771208002332	771211001255	MSAK12.1	2	Y
771209213000	771209224758	MSAX00	10	Y
771210051200	771210053557	MSAX00	11	Y
771211000459	771211142959	MSAX04	1	Y
771211001258	771214001700	MSAK16.1	1	
771211143000	771211182958	MSAX01	1	Y
771211143000	771211182958	MSAX03	1	Y
771211183000	771211235959	MSAX04	2	Y
771214001706	771218004750	MSAG53.1	6	Y
771218005637	771222005010	MSAG60.1	1	Y
771218072400	771218075957	MSAX00	12	Y
771221001200	771221004758	MSAX00	13	Y
771225001300	771228014440	MSAK16.1	2	
771228024519	771231235957	MSAG60.1	2	Y
780101000001	780101001959	MSAG60.1	3	Y
780101020000	780104002408	MSAG60.1	4	Y
780101174500	780101174957	MSAX00	14	Y
780104002430	780108000107	MSAI56.1	1	Y
780107003018	780109235958	MSAI55.1	6	Y
780108000110	780111014509	MSAK16.1	3	
780111014512	780115002441	MSAK16.1	4	
780115002447	780118000112	MSAG60.1	5	Y
780118000115	780122001754	MSAK40.1	1	
780122001757	780125002417	MSAK40.1	2	
780125002420	780129004401	MSAK40.1	3	
780129004404	780201001740	MSAK40.1	4	
780201001745	780205001556	MSAJ56.1	2	Y
780205001600	780208012538	MSAI40.1	1	Y
780212001406	780215004506	MSAK41.1	1	
780219023244	780222012608	MSAK41.1	2	
780222012853	780226005749	MSAI40.1	2	Y
780226005752	780301012501	MSAK41.1	3	
780301012504	780305005556	MSAK41.1	4	
780302000000	780302233655	MSAX04	3	Y
780305005606	780308013600	MSAK41.1	5	
780308013603	780312001200	MSAK42.1	1	
780312001204	780314230018	MSAI40.1	3	Y
780315001000	780318235955	MSAI40.1	4	Y
780319002822	780322002000	MSAK42.1	2	

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780322002003	780326005457	MSAK42. 1	3		
780326005500	780329012357	MSAK42. 1	4		
780326005501	780326105959	MSAX04	4		Y
780326110000	780327055957	MSAX03	2		Y
780327060000	780327235957	MSAX04	5		Y
780329012426	780401221910	MSAK63. 1	1		
780402001606	780405005509	MSAI71. 1	1		Y
780405005521	780409000219	MSAK63. 1	2		
780409000241	780411235959	MSAI71. 1	2		Y
780412000000	780416002307	MSAI41. 1	1		Y
780416004001	780418235959	MSAK63. 1	3		
780419000038	780419055958	MSAX04	6		Y
780419000038	780422234914	MSAK63. 1	4		
780419060000	780419175959	MSAX03	3		Y
780419180000	780419235958	MSAX04	7		Y
780423002000	780423235959	MSAX04	8		Y
780423002000	780426020932	MSAK97. 1	1		
780424000000	780424065958	MSAX03	4		Y
780424070000	780424235958	MSAX04	9		Y
780426020942	780430000603	MSAI41. 1	2		Y
780430000606	780501095456	MSAH42. 1	1		Y
780501095529	780502235922	MSAH42. 1	2		Y
780502235925	780503005925	MSAH42. 1	3		Y
780503005932	780506061402	MSAH42. 1	4		Y
780506061405	780507004556	MSAJ56. 1	3		Y
780507004549	780508233357	MSAH42. 1	5		Y
780509003042	780510000017	MSAH42. 1	6		Y
780510000346	780514013000	MSAH42. 1	7		Y
780514013003	780517002609	MSAK97. 1	2		
780517002629	780521001257	MSAK97. 1	3		
780521001307	780524005458	MSAK13. 1	1		Y
780524005501	780528000902	MSAK97. 1	4		
780528000905	780531004456	MSAK98. 1	1		
780531004501	780603235959	MSAI56. 1	2		Y
780604000006	780607002956	MSAK98. 1	2		
780607002959	780611003455	MSAK98. 1	3		
780611003458	780614012508	MSAK98. 1	4		
780621004455	780625015957	MSAH42. 1	8		Y
780621004455	780625015957	MSAI41. 1	3		Y
780628003121	780702000122	MSAH79. 1	1		Y
780709002633	780711220834	MSAJ56. 1	4		Y
780712054354	780716020048	MSAH79. 1	2		Y
780723004636	780725235523	MSAH79. 1	3		Y
780725235959	780730004731	MSAH79. 1	4		Y
780809000113	780813005957	MSAH79. 1	5		Y
780813010818	780816010720	MSAH84. 1	1		Y
780816010723	780820002957	MSAI87. 1	1		Y
780820003022	780823010510	MSAI87. 1	2		Y
780823010516	780827001019	MSAI87. 1	3		Y
780827002156	780830003104	MSAI87. 1	4		Y
780830005514	780903005046	MSAI88. 1	1		Y
780903005049	780906013429	MSAI56. 1	3		Y
780906013423	780910000311	MSAH84. 1	2		Y
780908001453	780908011608	MSAX02	7		Y
780910000319	780913001359	MSAI88. 1	2		Y
780913001410	780917001827	MSAI88. 1	3		Y
780917002503	780919235456	MSAI88. 1	4		Y
780920011519	780924002936	MSAH84. 1	3		Y
780924003059	780926234516	MSAI88. 1	5		Y
780927004359	781001013349	MSAJ01. 1	1		Y
781001013352	781004002006	MSAK12. 1	3		Y
781004002028	781008020534	MSAJ69. 1	1		Y
781008020538	781011010955	MSAJ01. 1	2		Y
781011014828	781015002723	MSAJ01. 1	3		Y
781018003558	781022015056	MSAJ01. 1	4		Y
781022015059	781025012016	MSAH84. 1	4		Y
781025011801	781029011209	MSAH84. 1	5		Y
781029011212	781031235959	MSAJ02. 1	1		Y
781101043053	781105010056	MSAI41. 1	4		Y
781105015458	781108002953	MSAI55. 1	1		Y
781108002956	781112000011	MSAJ02. 1	2		Y
781112000017	781115002029	MSAJ02. 1	3		Y
781115002034	781119002959	MSAI55. 1	2		Y
781119014904	781122005507	MSAI55. 1	3		Y
781122011003	781125235956	MSAJ02. 1	4		Y
781126000000	781128235953	MSAJ02. 1	5		Y
781129040625	781202165258	MSAJ69. 1	2		Y

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781203020730	781205223001	MSAI55.	1	4	Y
790103005928	790107003015	MSAI55.	1	5	Y
790107104500	790107144457	MSAX02		8	Y
790110001401	790114003726	MSAI56.	1	4	Y
790114005158	790116235956	MSAI57.	1	1	Y
790124000521	790128015856	MSAI57.	1	2	Y
790128015904	790130235657	MSAI57.	1	3	Y
790225005603	790227232610	MSAI57.	1	4	Y
790311022958	790314011004	MSAI57.	1	5	Y
790314013413	790318002112	MSAI71.	1	3	Y
790325011355	790328003329	MSAI71.	1	4	Y
790328002504	790401000220	MSAI85.	1	1	Y
790401000229	790404000913	MSAJ69.	1	3	Y
790408004325	790410234458	MSAK12.	1	4	Y
790411000547	790415014920	MSAK12.	1	5	Y
790422000740	790424225630	MSAI85.	1	2	Y
790425034900	790429021437	MSAI85.	1	3	Y
790506000500	790509004516	MSAI85.	1	4	Y
790509003918	790513000007	MSAI72.	1	4	Y
790520020931	790523002130	MSAI71.	1	5	Y
790523002113	790527005341	MSAI86.	2	1	Y
790603001014	790606011457	MSAJ57.	1	1	Y
790606011501	790610000615	MSAI86.	2	2	Y
790617003140	790620010659	MSAI86.	2	3	Y
790620010652	790624010007	MSAI86.	2	4	Y
790627004843	790701002613	MSAJ57.	1	2	Y
790701023108	790704004403	MSAL22.	1	1	
790704004407	790708004557	MSAK13.	1	2	Y
790708004600	790711004809	MSAK13.	1	3	Y
790715000620	790717235957	MSAJ57.	1	3	Y
790718002319	790722000005	MSAJ57.	1	4	Y
790725001920	790728235957	MSAK13.	1	4	Y
790801012100	790805003653	MSAJ57.	1	5	Y
790805003659	790807233155	MSAJ68.	1	1	Y
790807233158	790812011309	MSAK13.	1	5	Y
790812014113	790815020007	MSAJ68.	1	2	Y
790815020013	790819002054	MSAJ68.	1	3	Y
790819002057	790821235511	MSAK15.	1	1	
790822000159	790826005958	MSAJ68.	1	4	Y
790826010001	790829010056	MSAJ68.	1	5	Y
790829010059	790902002355	MSAK15.	1	2	
790902002359	790904195958	MSAJ69.	1	4	Y
790905001702	790909005947	MSAK15.	1	3	
790909005950	790911235958	MSAK15.	1	4	
790912003221	790916001722	MSAK14.	1	1	Y
790916001723	790919010102	MSAK15.	1	5	
790919010107	790923002835	MSAJ69.	1	5	Y
790923002838	790926003258	MSAK14.	1	2	Y
790930002650	791003011012	MSAK14.	1	3	Y
791003011015	791007011559	MSAK14.	1	4	Y
791007011602	791009235954	MSAL00.	1	1	
791010000001	791013223400	MSAL00.	1	2	
791014003240	791017005207	MSAL00.	1	3	
791017005210	791021000555	MSAL00.	1	4	
791021000558	791023233520	MSAL01.	1	1	
791024001907	791028014343	MSAL01.	1	2	
791028014346	791031004158	MSAL01.	1	3	
791104005248	791107000005	MSAL01.	1	4	
791111001600	791113235959	MSAL00.	1	5	
791114000002	791118001400	MSAL01.	1	6	
791118001403	791121011704	MSAK98.	1	5	
791121021429	791125003757	MSAL22.	1	2	
791209001720	791212004005	MSAL22.	1	3	
791212004142	791216003407	MSAL22.	1	4	
791223021546	791225205815	MSAL22.	1	5	

MOZER ISEE-A ANALYZED DATA TAPES 06/01/84

START	STOP	TAPE	FILE	MINUTES MISSING
77/10/22 19:13:19	77/10/24 23:49:18	MSAK00.1	1	0
77/10/25 1:6:3	77/11/1 1:10:51	MSAJ56.1	1	77
77/11/1 1:10:54	77/11/7 15:12:47	MSAP71.1	1	0
77/11/7 15:13:2	77/11/7 23:9:8	MSAS65.1	1	0
77/11/8 2:0:30	77/11/12 0:0:31	MSAP71.1	2	171
77/11/12 0:35:0	77/11/15 2:0:0	MSAI72.1	1	34
77/11/15 2:0:23	77/11/18 0:0:7	MSAI72.1	2	0
77/11/18 0:0:1	77/11/23 1:1:12	MSAI72.1	3	0
77/11/23 1:12:58	77/11/25 0:0:10	MSAK00.1	2	12
77/11/25 0:0:16	77/11/28 0:43:41	MSAK00.1	3	0
77/11/28 0:43:44	77/12/1 1:5:4	MSAK00.1	4	0
77/12/1 1:5:58	77/12/4 1:9:57	MSAK00.1	5	1
77/12/4 1:10:16	77/12/7 23:48:56	MSAK12.1	1	0
77/12/8 0:23:32	77/12/11 0:12:55	MSAK12.1	2	35
77/12/11 0:12:58	77/12/14 0:17:0	MSAK16.1	1	0
77/12/14 0:17:3	77/12/18 0:47:50	MSAP71.1	3	0
77/12/18 0:56:37	77/12/22 0:50:10	MSAP87.1	1	9
77/12/22 0:53:54	77/12/25 0:12:57	MSAS65.1	2	4
77/12/25 0:13:0	77/12/28 1:44:40	MSAK16.1	2	0
77/12/28 2:45:19	77/12/31 23:59:57	MSAP87.1	2	61
78/1/1 0:0:1	78/1/4 0:24:8	MSAP87.1	3	0
78/1/4 0:24:30	78/1/8 0:1:7	MSAI56.1	1	0
78/1/8 0:1:10	78/1/11 1:45:9	MSAK16.1	3	0
78/1/11 1:45:12	78/1/15 0:24:41	MSAK16.1	4	0
78/1/15 0:24:44	78/1/18 0:1:9	MSAP87.1	4	0
78/1/18 0:1:15	78/1/22 0:17:54	MSAK40.1	1	0
78/1/22 0:17:57	78/1/25 0:24:17	MSAK40.1	2	0
78/1/25 0:24:20	78/1/29 0:44:1	MSAK40.1	3	0
78/1/29 0:44:4	78/2/1 0:17:40	MSAK40.1	4	0
78/2/1 0:17:45	78/2/5 0:15:56	MSAJ56.1	2	0
78/2/5 0:16:0	78/2/8 1:25:38	MSAI40.2	1	0
78/2/8 1:25:41	78/2/11 5:40:48	MSAS65.1	3	0
78/2/11 7:29:9	78/2/11 22:41:7	MSAS65.1	4	108
78/2/12 0:14:6	78/2/15 0:45:6	MSAK41.1	1	93
78/2/15 0:45:31	78/2/19 0:22:59	MSAS65.1	5	0
78/2/19 2:32:44	78/2/22 1:26:8	MSAK41.1	2	130
78/2/22 1:28:53	78/2/26 0:57:49	MSAI40.2	2	3
78/2/26 0:57:52	78/3/1 1:25:1	MSAK41.1	3	0
78/3/1 1:25:4	78/3/5 0:55:56	MSAK41.1	4	0
78/3/5 0:56:6	78/3/8 1:36:0	MSAK41.1	5	0
78/3/8 1:36:3	78/3/12 0:12:0	MSAK42.1	1	0
78/3/12 0:12:4	78/3/14 23:0:18	MSAI40.2	3	0
78/3/15 0:10:0	78/3/18 23:59:55	MSAI40.2	4	70
78/3/19 0:28:22	78/3/22 0:20:0	MSAK42.1	2	28
78/3/22 0:20:3	78/3/26 0:54:57	MSAK42.1	3	0
78/3/26 0:55:0	78/3/29 1:23:57	MSAK42.1	4	0
78/3/29 1:24:26	78/4/1 22:19:10	MSAK63.1	1	0
78/4/2 0:16:6	78/4/5 0:55:9	MSAI71.1	1	117
78/4/5 0:55:21	78/4/9 0:2:19	MSAK63.1	2	0
78/4/9 0:2:41	78/4/11 23:59:59	MSAI71.1	2	0
78/4/12 0:0:0	78/4/16 0:23:7	MSAI41.1	1	0
78/4/16 0:40:1	78/4/18 23:59:59	MSAK63.1	3	17
78/4/19 0:0:38	78/4/22 23:49:14	MSAK63.1	4	1
78/4/23 0:20:0	78/4/26 2:9:32	MSAK97.1	1	31
78/4/26 2:9:42	78/4/30 0:6:3	MSAI41.1	2	0
78/4/30 0:6:6	78/5/1 9:54:56	MSAH42.1	1	0
78/5/1 9:55:29	78/5/2 23:59:22	MSAH42.1	2	1
78/5/2 23:59:25	78/5/3 0:59:25	MSAH42.1	3	0
78/5/3 0:59:32	78/5/6 6:14:2	MSAH42.1	4	0
78/5/6 6:14:5	78/5/7 0:45:56	MSAJ56.1	3	0
78/5/7 0:45:59	78/5/8 23:33:57	MSAH42.1	5	0
78/5/9 0:30:42	78/5/10 0:0:17	MSAH42.1	6	57
78/5/10 0:3:46	78/5/14 1:30:0	MSAH42.1	7	3
78/5/14 1:30:3	78/5/17 0:26:9	MSAK97.1	2	0
78/5/17 0:26:29	78/5/21 0:12:57	MSAK97.1	3	0
78/5/21 0:13:7	78/5/24 0:54:58	MSAK13.1	1	0
78/5/24 0:55:1	78/5/28 0:9:2	MSAK97.1	4	0
78/5/28 0:9:5	78/5/31 0:44:56	MSAK98.1	1	0
78/5/31 0:45:1	78/6/3 23:59:59	MSAI56.1	2	0
78/6/4 0:0:6	78/6/7 0:29:56	MSAK98.1	2	0

START	STOP	TAPE	FILE	MINUTES MISSING
78/ 6/ 7 0:29:59	78/ 6/11 0:34:55	MSAK98.1	3	0
78/ 6/11 0:34:58	78/ 6/14 1:25: 8	MSAK98.1	4	0
78/ 6/14 1:25:11	78/ 6/18 0:30:56	MSAK99.1	1	0
78/ 6/18 0:31: 2	78/ 6/20 23:42:14	MSAK99.1	2	0
78/ 6/21 0:44:55	78/ 6/25 1:59:57	MSAH42.1	8	63
78/ 6/21 0:44:55	78/ 6/25 1:59:57	MSAI41.1	3	OVERLAP
78/ 6/25 2: 0: 0	78/ 6/28 0:13:27	MSAN74.1	2	0
78/ 6/28 0:31:21	78/ 7/ 2 0: 1:22	MSAH79.1	1	18
78/ 7/ 2 2:38: 4	78/ 7/ 5 0:21:12	MSAK99.1	3	157
78/ 7/ 5 0:21:15	78/ 7/ 8 23:59:16	MSAK99.1	4	0
78/ 7/ 9 0:26:33	78/ 7/11 22: 8:34	MSAJ56.1	4	27
78/ 7/12 5:43:54	78/ 7/16 2: 0:48	MSAH79.1	2	455
78/ 7/16 2: 0:51	78/ 7/18 23:15: 6	MSAK99.1	5	0
78/ 7/19 0:19:40	78/ 7/23 0:46:22	MSAL19.1	1	65
78/ 7/23 0:46:36	78/ 7/25 22:55:23	MSAH79.1	3	0
78/ 7/25 23:59:59	78/ 7/30 0:47:31	MSAH79.1	4	65
78/ 7/30 0:47:40	78/ 8/ 2 0: 5:11	MSAL19.1	2	0
78/ 8/ 2 0: 5:14	78/ 8/ 6 0:48: 4	MSAL19.1	3	0
78/ 8/ 6 0:48: 7	78/ 8/ 9 0: 0: 9	MSAL19.1	4	0
78/ 8/ 9 0: 1:13	78/ 8/13 0:59:57	MSAH79.1	5	1
78/ 8/13 1: 8:18	78/ 8/16 1: 7:20	MSAH84.1	1	8
78/ 8/16 1: 7:23	78/ 8/20 0:29:57	MSAI87.1	1	0
78/ 8/20 0:30:22	78/ 8/23 1: 5:10	MSAI87.1	2	0
78/ 8/23 1: 5:16	78/ 8/27 0:10:19	MSAI87.1	3	0
78/ 8/27 0:21:56	78/ 8/30 0:31: 4	MSAI87.1	4	12
78/ 8/30 0:55:14	78/ 9/ 3 0:50:46	MSAI88.1	1	24
78/ 9/ 3 0:50:49	78/ 9/ 6 1:34:29	MSAI56.1	3	0
78/ 9/ 6 1:34:23	78/ 9/10 0: 3:11	MSAH84.1	2	0
78/ 9/10 0: 3:19	78/ 9/13 0:13:59	MSAI88.1	2	0
78/ 9/13 0:14:10	78/ 9/17 0:18:27	MSAI88.1	3	0
78/ 9/17 0:25: 3	78/ 9/19 23:54:56	MSAI88.1	4	7
78/ 9/20 1:15:19	78/ 9/24 0:29:36	MSAH84.1	3	80
78/ 9/24 0:30:59	78/ 9/26 23:45:16	MSAI88.1	5	1
78/ 9/27 0:43:59	78/10/ 1 1:33:49	MSAJ01.1	1	59
78/10/ 1 1:33:52	78/10/ 4 0:20: 6	MSAK12.1	3	0
78/10/ 4 0:20:28	78/10/ 8 2: 5:34	MSAJ69.1	1	0
78/10/ 8 2: 5:38	78/10/11 1: 9:55	MSAJ01.1	2	0
78/10/11 1:48:28	78/10/15 0:27:23	MSAJ01.1	3	39
78/10/15 0:27:26	78/10/18 0:35:52	MSAN74.1	3	0
78/10/18 0:35:58	78/10/22 1:50:56	MSAJ01.1	4	0
78/10/22 1:50:59	78/10/25 1:20:16	MSAH84.1	4	0
78/10/25 1:18: 1	78/10/29 1:12: 9	MSAH84.1	5	-1
78/10/29 1:12:12	78/10/31 23:59:59	MSAJ02.1	1	0
78/11/ 1 4:30:53	78/11/ 5 1: 0:56	MSAI41.1	4	271
78/11/ 5 1:54:58	78/11/ 8 0:29:53	MSAI55.1	1	54
78/11/ 8 0:29:56	78/11/12 0: 0:11	MSAJ02.1	2	0
78/11/12 0: 0:17	78/11/15 0:20:29	MSAJ02.1	3	0
78/11/15 0:20:34	78/11/19 0:29:59	MSAI55.1	2	0
78/11/19 1:49: 4	78/11/22 0:55: 7	MSAI55.1	3	79
78/11/22 1:10: 3	78/11/25 23:59:56	MSAJ02.1	4	15
78/11/26 0: 0: 0	78/11/28 23:59:53	MSAJ02.1	5	0
78/11/29 4: 6:25	78/12/ 2 16:52:58	MSAJ69.1	2	247
78/12/ 2 16:53: 1	78/12/ 3 0: 7:17	MSAP70.1	1	0
78/12/ 3 2: 7:30	78/12/ 5 22:30: 1	MSAI55.1	4	120
78/12/ 6 1:26:12	78/12/10 0:24: 2	MSAL19.1	5	176
78/12/10 0:24: 5	78/12/12 23:44:56	MSAL21.1	1	0
78/12/13 0:30:39	78/12/16 23:45: 6	MSAL21.1	2	46
78/12/17 1: 0: 0	78/12/19 23:14:15	MSAN74.1	4	75
78/12/20 1: 4: 5	78/12/24 0:55: 9	MSAL21.1	3	110
78/12/24 0:55:12	78/12/27 1:55:29	MSAL21.1	4	0
78/12/27 2:55:41	78/12/31 0:30: 5	MSAL21.1	5	60
78/12/31 0:30: 8	79/ 1/ 3 0:30:24	MSAL59.1	1	0
79/ 1/ 3 0:59:28	79/ 1/ 7 0:30:15	MSAI55.1	5	29
79/ 1/ 7 0:30:18	79/ 1/ 9 23:59:58	MSAI55.1	6	0
79/ 1/10 0:14: 1	79/ 1/14 0:37:26	MSAI56.1	4	14
79/ 1/14 0:51:58	79/ 1/16 23:59:56	MSAI57.1	1	15
79/ 1/17 0: 0: 0	79/ 1/20 23:49:59	MSAL59.1	2	0
79/ 1/21 0:16:58	79/ 1/24 0: 4:58	MSAL59.1	3	27
79/ 1/24 0: 5:21	79/ 1/28 1:58:56	MSAI57.1	2	0
79/ 1/28 1:59: 4	79/ 1/30 23:56:57	MSAI57.1	3	0

START	STOP	TAPE	FILE	MINUTES MISSING
79/ 1/31 0:24:28	79/ 2/ 3 23:40: 2	MSAL59. 1	4	28
79/ 2/ 4 0:47:19	79/ 2/ 6 23: 7: 3	MSAL59. 1	5	67
79/ 2/ 7 0:10:14	79/ 2/11 0:59:56	MSAL60. 1	1	63
79/ 2/11 1: 0: 1	79/ 2/14 0:50:12	MSAJ02. 1	6	0
79/ 2/14 0:50:15	79/ 2/18 0: 2:39	MSAL60. 1	2	0
79/ 2/18 0: 2:46	79/ 2/21 1:21:53	MSAL60. 1	3	0
79/ 2/21 2:16:10	79/ 2/25 1: 2: 3	MSAL60. 1	4	54
79/ 2/25 0:56: 3	79/ 2/27 23:26:10	MSAI57. 1	4	-5
79/ 2/28 1: 1:42	79/ 3/ 4 1:23: 5	MSAL72. 1	1	96
79/ 3/ 4 1:23: 8	79/ 3/ 7 0:54: 0	MSAL72. 1	2	0
79/ 3/ 7 1:49: 3	79/ 3/11 1:39: 2	MSAL72. 1	3	55
79/ 3/11 2:29:58	79/ 3/14 1:10: 4	MSAI57. 1	5	51
79/ 3/14 1:34:13	79/ 3/18 0:21:12	MSAI71. 1	3	24
79/ 3/18 1:17: 3	79/ 3/21 1:10: 1	MSAL72. 1	4	56
79/ 3/21 1:10: 4	79/ 3/25 1:13:52	MSAL72. 1	5	0
79/ 3/25 1:13:55	79/ 3/28 0:33:29	MSAI71 1	4	0
79/ 3/28 0:25: 4	79/ 4/ 1 0: 2:20	MSAI85. 1	1	-7
79/ 4/ 1 0: 2:29	79/ 4/ 4 0: 9:13	MSAJ69. 1	3	0
79/ 4/ 4 0: 9:17	79/ 4/ 8 0:43:19	MSAL73. 1	1	0
79/ 4/ 8 0:43:25	79/ 4/10 23:44:58	MSAK12. 1	4	0
79/ 4/11 0: 5:47	79/ 4/15 1:49:20	MSAK12. 1	5	21
79/ 4/15 1:49:27	79/ 4/18 1:28:42	MSAM05. 1	1	0
79/ 4/18 1:31: 0	79/ 4/22 0: 5:29	MSAM05. 1	2	2
79/ 4/22 0: 7:40	79/ 4/24 22:56:30	MSAI85. 1	2	2
79/ 4/25 3:49: 0	79/ 4/29 2:14:37	MSAI85. 1	3	293
79/ 4/29 2:14:34	79/ 5/ 2 1:50:15	MSAL73. 1	2	0
79/ 5/ 2 1:50:33	79/ 5/ 6 0: 4:55	MSAL73. 1	3	0
79/ 5/ 6 0: 5: 0	79/ 5/ 9 0:45:16	MSAI85. 1	4	0
79/ 5/ 9 0:39:18	79/ 5/13 0: 0: 7	MSAI72. 1	4	-5
79/ 5/13 0: 0:10	79/ 5/16 0: 0:13	MSAL73. 1	4	0
79/ 5/16 0: 0:16	79/ 5/20 0:53:10	MSAL73. 1	5	0
79/ 5/20 2: 9:31	79/ 5/23 0:21:30	MSAI71. 1	5	76
79/ 5/23 0:21:13	79/ 5/27 0:53:41	MSAI86. 2	1	0
79/ 5/27 0:53:44	79/ 5/30 0:34: 0	MSAM05. 1	3	0
79/ 5/30 0:34: 3	79/ 6/ 3 0: 9:58	MSAM05. 1	4	0
79/ 6/ 3 0:10:14	79/ 6/ 6 1:14:57	MSAJ57. 1	1	0
79/ 6/ 6 1:15: 1	79/ 6/10 0: 6:15	MSAI86. 2	2	0
79/ 6/10 0: 6:18	79/ 6/13 0:24:11	MSAM05. 1	5	0
79/ 6/13 0:24:14	79/ 6/16 23: 9:27	MSAM06. 1	1	0
79/ 6/17 0:31:40	79/ 6/20 1: 6:49	MSAI86. 2	3	82
79/ 6/20 1: 6:52	79/ 6/24 1: 0: 7	MSAI86. 2	4	0
79/ 6/24 1: 0:10	79/ 6/27 0:48:38	MSAM06. 1	2	0
79/ 6/27 0:48:43	79/ 7/ 1 0:26:13	MSAJ57. 1	2	0
79/ 7/ 1 2:31: 8	79/ 7/ 4 0:44: 3	MSAL22. 1	1	125
79/ 7/ 4 0:44: 7	79/ 7/ 8 0:45:57	MSAK13. 1	2	0
79/ 7/ 8 0:46: 0	79/ 7/11 0:48: 9	MSAK13. 1	3	0
79/ 7/11 0:48:12	79/ 7/15 0: 6:14	MSAM06. 1	3	0
79/ 7/15 0: 6:20	79/ 7/17 23:59:57	MSAJ57. 1	3	0
79/ 7/18 0:23:19	79/ 7/22 0: 0: 5	MSAJ57. 1	4	23
79/ 7/22 0: 0: 8	79/ 7/25 0:19:16	MSAM06. 1	4	0
79/ 7/25 0:19:20	79/ 7/28 23:59:57	MSAK13. 1	4	0
79/ 7/29 0: 0: 0	79/ 8/ 1 1:20:54	MSAM06. 1	5	0
79/ 8/ 1 1:21: 0	79/ 8/ 5 0:36:53	MSAJ57. 1	5	0
79/ 8/ 5 0:36:59	79/ 8/ 7 23:31:55	MSAJ68. 1	1	0
79/ 8/ 7 23:31:58	79/ 8/12 1:13: 9	MSAK13. 1	5	0
79/ 8/12 1:41:13	79/ 8/15 2: 0: 7	MSAJ68. 1	2	28
79/ 8/15 2: 0:13	79/ 8/19 0:20:54	MSAJ68. 1	3	0
79/ 8/19 0:20:57	79/ 8/21 23:55:11	MSAK15. 1	1	0
79/ 8/22 0: 1:59	79/ 8/26 0:59:58	MSAJ68. 1	4	7
79/ 8/26 1: 0: 1	79/ 8/29 1: 0:56	MSAJ68. 1	5	0
79/ 8/29 1: 0:59	79/ 9/ 2 0:23:55	MSAK15. 1	2	0
79/ 9/ 2 0:23:59	79/ 9/ 4 19:59:58	MSAJ69. 1	4	0
79/ 9/ 5 0:17: 2	79/ 9/ 9 0:59:47	MSAK15. 1	3	257
79/ 9/ 9 0:59:50	79/ 9/11 23:59:58	MSAK15. 1	4	0
79/ 9/12 0:32:21	79/ 9/16 0:17:22	MSAK14. 1	1	32
79/ 9/16 0:17:23	79/ 9/19 1: 1: 2	MSAK15. 1	5	0
79/ 9/19 1: 1: 7	79/ 9/23 0:28:35	MSAJ69. 1	5	0
79/ 9/23 0:28:38	79/ 9/26 0:32:58	MSAK14. 1	2	0
79/ 9/26 0:33: 1	79/ 9/30 0:25: 1	MSAL20. 1	1	0
79/ 9/30 0:26:50	79/10/ 3 1:10:12	MSAK14. 1	3	2

DIARY 7A

MOZER ISEE-1 ANALYZED DATA TAPES DATE RUN 1986/03/13 PAGE 1

START	STOP	TAPE	FILE	MINUTES MISSING
77/10/22 19:13:19	77/10/24 23:49:18	MSAK00.1	1	0
77/10/25 1:6:3	77/11/1 1:10:51	MSAJ56.1	1	77
77/11/1 1:10:54	77/11/7 15:12:47	MSAP71.1	1	0
77/11/7 15:13:2	77/11/7 23:9:8	MSAS65.1	1	0
77/11/8 2:0:30	77/11/12 0:0:31	MSAP71.1	2	171
77/11/12 0:35:0	77/11/15 2:0:0	MSAI72.1	1	34
77/11/15 2:0:23	77/11/18 0:0:7	MSAI72.1	2	0
77/11/18 0:0:1	77/11/23 1:1:12	MSAI72.1	3	0
77/11/23 1:12:58	77/11/25 0:0:10	MSAK00.1	2	12
77/11/25 0:0:16	77/11/28 0:43:41	MSAK00.1	3	0
77/11/28 0:43:44	77/12/1 1:5:4	MSAK00.1	4	0
77/12/1 1:5:58	77/12/4 1:9:57	MSAK00.1	5	1
77/12/4 1:10:16	77/12/7 23:48:56	MSAK12.1	1	0
77/12/8 0:23:32	77/12/11 0:12:55	MSAK12.1	2	35
77/12/11 0:12:58	77/12/14 0:17:0	MSAK16.1	1	0
77/12/14 0:17:3	77/12/18 0:47:50	MSAP71.1	3	0
77/12/18 0:56:37	77/12/22 0:50:10	MSAP87.1	1	9
77/12/22 0:53:54	77/12/25 0:12:57	MSAS65.1	2	4
77/12/25 0:13:0	77/12/28 1:44:40	MSAK16.1	2	0
77/12/28 2:45:19	77/12/31 23:59:57	MSAP87.1	2	61
78/1/1 0:0:1	78/1/4 0:24:8	MSAP87.1	3	0
78/1/4 0:24:30	78/1/8 0:1:7	MSAI56.1	1	0
78/1/8 0:1:10	78/1/11 1:45:9	MSAK16.1	3	0
78/1/11 1:45:12	78/1/15 0:24:41	MSAK16.1	4	0
78/1/15 0:24:44	78/1/18 0:1:9	MSAP87.1	4	0
78/1/18 0:1:15	78/1/22 0:17:54	MSAK40.1	1	0
78/1/22 0:17:57	78/1/25 0:24:17	MSAK40.1	2	0
78/1/25 0:24:20	78/1/29 0:44:1	MSAK40.1	3	0
78/1/29 0:44:4	78/2/1 0:17:40	MSAK40.1	4	0
78/2/1 0:17:45	78/2/5 0:15:56	MSAJ56.1	2	0
78/2/5 0:16:0	78/2/8 1:25:38	MSAI40.2	1	0
78/2/8 1:25:41	78/2/11 5:40:48	MSAS65.1	3	0
78/2/11 7:29:9	78/2/11 22:41:7	MSAS65.1	4	108
78/2/12 0:14:6	78/2/15 0:45:6	MSAK41.1	1	93
78/2/15 0:45:31	78/2/19 0:22:59	MSAS65.1	5	0
78/2/19 2:32:44	78/2/22 1:26:8	MSAK41.1	2	130
78/2/22 1:28:53	78/2/26 0:57:49	MSAI40.2	2	3
78/2/26 0:57:52	78/3/1 1:25:1	MSAK41.1	3	0
78/3/1 1:25:4	78/3/5 0:55:56	MSAK41.1	4	0
78/3/5 0:56:6	78/3/8 1:36:0	MSAK41.1	5	0
78/3/8 1:36:3	78/3/12 0:12:0	MSAK42.1	1	0
78/3/12 0:12:4	78/3/14 23:0:18	MSAI40.2	3	0
78/3/15 0:10:0	78/3/18 23:59:55	MSAI40.2	4	70
78/3/19 0:28:22	78/3/22 0:20:0	MSAK42.1	2	28
78/3/22 0:20:3	78/3/26 0:54:57	MSAK42.1	3	0
78/3/26 0:55:0	78/3/29 1:23:57	MSAK42.1	4	0
78/3/29 1:24:26	78/4/1 22:19:10	MSAK63.1	1	0
78/4/2 0:16:6	78/4/5 0:55:9	MSAI71.1	1	117
78/4/5 0:55:21	78/4/9 0:2:19	MSAK63.1	2	0
78/4/9 0:2:41	78/4/11 23:59:59	MSAI71.1	2	0
78/4/12 0:0:0	78/4/16 0:23:7	MSAI41.1	1	0
78/4/16 0:40:1	78/4/18 23:59:59	MSAK63.1	3	17
78/4/19 0:0:38	78/4/22 23:49:14	MSAK63.1	4	1
78/4/23 0:20:0	78/4/26 2:9:32	MSAK97.1	1	31
78/4/26 2:9:42	78/4/30 0:6:3	MSAI41.1	2	0
78/4/30 0:6:6	78/5/1 9:54:56	MSAH42.1	1	0
78/5/1 9:55:29	78/5/2 23:59:22	MSAH42.1	2	0
78/5/2 23:59:25	78/5/3 0:59:25	MSAH42.1	3	1
78/5/3 0:59:32	78/5/6 6:14:2	MSAH42.1	4	0
78/5/6 6:14:5	78/5/7 0:45:56	MSAJ56.1	3	0
78/5/7 0:45:59	78/5/8 23:33:57	MSAH42.1	5	0
78/5/9 0:30:42	78/5/10 0:0:17	MSAH42.1	6	57
78/5/10 0:3:46	78/5/14 1:30:0	MSAH42.1	7	3
78/5/14 1:30:3	78/5/17 0:26:9	MSAK97.1	2	0
78/5/17 0:26:29	78/5/21 0:12:57	MSAK97.1	3	0
78/5/21 0:13:7	78/5/24 0:54:58	MSAK13.1	1	0
78/5/24 0:55:1	78/5/28 0:9:2	MSAK97.1	4	0
78/5/28 0:9:5	78/5/31 0:44:56	MSAK98.1	1	0
78/5/31 0:45:1	78/6/3 23:59:59	MSAI56.1	2	0
78/6/4 0:0:6	78/6/7 0:29:56	MSAK98.1	2	0

START	STOP	TAPE	FILE	MINUTES MISSING
78/ 6/ 7 0:29:59	78/ 6/11 0:34:55	MSAK98. 1	3	0
78/ 6/11 0:34:58	78/ 6/14 1:25: 8	MSAK98. 1	4	0
78/ 6/14 1:25:11	78/ 6/18 0:30:56	MSAK99. 1	1	0
78/ 6/18 0:31: 2	78/ 6/20 23:42:14	MSAK99. 1	2	0
78/ 6/21 0:44:55	78/ 6/25 1:59:57	MSAH42. 1	8	63
78/ 6/21 0:44:55	78/ 6/25 1:59:57	MSAI41. 1	3	OVERLAP
78/ 6/25 2: 0: 0	78/ 6/28 0:13:27	MSAN74. 1	2	0
78/ 6/28 0:31:21	78/ 7/ 2 0: 1:22	MSAH79. 1	1	18
78/ 7/ 2 2:38: 4	78/ 7/ 5 0:21:12	MSAK99. 1	3	157
78/ 7/ 5 0:21:15	78/ 7/ 8 23:59:16	MSAK99. 1	4	0
78/ 7/ 9 0:26:33	78/ 7/11 22: 8:34	MSAJ56. 1	4	27
78/ 7/12 5:43:54	78/ 7/16 2: 0:48	MSAH79. 1	2	455
78/ 7/16 2: 0:51	78/ 7/18 23:15: 6	MSAK99. 1	5	0
78/ 7/19 0:19:40	78/ 7/23 0:46:22	MSAL19. 1	1	65
78/ 7/23 0:46:36	78/ 7/25 22:55:23	MSAH79. 1	3	0
78/ 7/25 23:59:59	78/ 7/30 0:47:31	MSAH79. 1	4	65
78/ 7/30 0:47:40	78/ 8/ 2 0: 5:11	MSAL19. 1	2	0
78/ 8/ 2 0: 5:14	78/ 8/ 6 0:48: 4	MSAL19. 1	3	0
78/ 8/ 6 0:48: 7	78/ 8/ 9 0: 0: 9	MSAL19. 1	4	0
78/ 8/ 9 0: 1:13	78/ 8/13 0:59:57	MSAH79. 1	5	1
78/ 8/13 1: 8:18	78/ 8/16 1: 7:20	MSAH84. 1	1	8
78/ 8/16 1: 7:23	78/ 8/20 0:29:57	MSAI87. 1	1	0
78/ 8/20 0:30:22	78/ 8/23 1: 5:10	MSAI87. 1	2	0
78/ 8/23 1: 5:16	78/ 8/27 0:10:19	MSAI87. 1	3	0
78/ 8/27 0:21:56	78/ 8/30 0:31: 4	MSAI87. 1	4	12
78/ 8/30 0:55:14	78/ 9/ 3 0:50:46	MSAI88. 1	1	24
78/ 9/ 3 0:50:49	78/ 9/ 6 1:34:29	MSAI56. 1	3	0
78/ 9/ 6 1:34:23	78/ 9/10 0: 3:11	MSAH84. 1	2	0
78/ 9/10 0: 3:19	78/ 9/13 0:13:59	MSAI88. 1	2	0
78/ 9/13 0:14:10	78/ 9/17 0:18:27	MSAI88. 1	3	0
78/ 9/17 0:25: 3	78/ 9/19 23:54:56	MSAI88. 1	4	7
78/ 9/20 1:15:19	78/ 9/24 0:29:36	MSAH84. 1	3	80
78/ 9/24 0:30:59	78/ 9/26 23:45:16	MSAI88. 1	5	1
78/ 9/27 0:43:59	78/10/ 1 1:33:49	MSAJ01. 1	1	59
78/10/ 1 1:33:52	78/10/ 4 0:20: 6	MSAK12. 1	3	0
78/10/ 4 0:20:28	78/10/ 8 2: 5:34	MSAJ69. 1	1	0
78/10/ 8 2: 5:38	78/10/11 1: 9:55	MSAJ01. 1	2	0
78/10/11 1:48:28	78/10/15 0:27:23	MSAJ01. 1	3	39
78/10/15 0:27:26	78/10/18 0:35:52	MSAN74. 1	3	0
78/10/18 0:35:58	78/10/22 1:50:56	MSAJ01. 1	4	0
78/10/22 1:50:59	78/10/25 1:20:16	MSAH84. 1	4	0
78/10/25 1:18: 1	78/10/29 1:12: 9	MSAH84. 1	5	-1
78/10/29 1:12:12	78/10/31 23:59:59	MSAJ02. 1	1	0
78/11/ 1 4:30:53	78/11/ 5 1: 0:56	MSAI41. 1	4	271
78/11/ 5 1:54:58	78/11/ 8 0:29:53	MSAI55. 1	1	54
78/11/ 8 0:29:56	78/11/12 0: 0:11	MSAJ02. 1	2	0
78/11/12 0: 0:17	78/11/15 0:20:29	MSAJ02. 1	3	0
78/11/15 0:20:34	78/11/19 0:29:59	MSAI55. 1	2	0
78/11/19 1:49: 4	78/11/22 0:55: 7	MSAI55. 1	3	79
78/11/22 1:10: 3	78/11/25 23:59:56	MSAJ02. 1	4	15
78/11/26 0: 0: 0	78/11/28 23:59:53	MSAJ02. 1	5	0
78/11/29 4: 6:25	78/12/ 2 16:52:58	MSAJ69. 1	2	247
78/12/ 2 16:53: 1	78/12/ 3 0: 7:17	MSAP70. 1	1	0
78/12/ 3 2: 7:30	78/12/ 5 22:30: 1	MSAI55. 1	4	120
78/12/ 6 1:26:12	78/12/10 0:24: 2	MSAL19. 1	5	176
78/12/10 0:24: 5	78/12/12 23:44:56	MSAL21. 1	1	0
78/12/13 0:30:39	78/12/16 23:45: 6	MSAL21. 1	2	46
78/12/17 1: 0: 0	78/12/19 23:14:15	MSAN74. 1	4	75
78/12/20 1: 4: 5	78/12/24 0:55: 9	MSAL21. 1	3	110
78/12/24 0:55:12	78/12/27 1:55:29	MSAL21. 1	4	0
78/12/27 2:55:41	78/12/31 0:30: 5	MSAL21. 1	5	60
78/12/31 0:30: 8	79/ 1/ 3 0:30:24	MSAL59. 1	1	0
79/ 1/ 3 0:59:28	79/ 1/ 7 0:30:15	MSAI55. 1	5	29
79/ 1/ 7 0:30:18	79/ 1/ 9 23:59:58	MSAI55. 1	6	0
79/ 1/10 0:14: 1	79/ 1/14 0:37:26	MSAI56. 1	4	14
79/ 1/14 0:51:58	79/ 1/16 23:59:56	MSAI57. 1	1	15
79/ 1/17 0: 0: 0	79/ 1/20 23:49:59	MSAL59. 1	2	0
79/ 1/21 0:16:58	79/ 1/24 0: 4:58	MSAL59. 1	3	27
79/ 1/24 0: 5:21	79/ 1/28 1:58:56	MSAI57. 1	2	0
79/ 1/28 1:59: 4	79/ 1/30 23:56:57	MSAI57. 1	3	0

START	STOP	TAPE	FILE	MINUTES MISSING
79/ 1/31 0:24:28	79/ 2/ 3 23:40: 2	MSAL59. 1	4	28
79/ 2/ 4 0:47:19	79/ 2/ 6 23: 7: 3	MSAL59. 1	5	67
79/ 2/ 7 0:10:14	79/ 2/11 0:59:56	MSAL60. 1	1	63
79/ 2/11 1: 0: 1	79/ 2/14 0:50:12	MSAJ02. 1	6	0
79/ 2/14 0:50:15	79/ 2/18 0: 2:39	MSAL60. 1	2	0
79/ 2/18 0: 2:46	79/ 2/21 1:21:53	MSAL60. 1	3	0
79/ 2/21 2:16:10	79/ 2/25 1: 2: 3	MSAL60. 1	4	54
79/ 2/25 0:56: 3	79/ 2/27 23:26:10	MSAI57. 1	4	-5
79/ 2/28 1: 1:42	79/ 3/ 4 1:23: 5	MSAL72. 1	1	96
79/ 3/ 4 1:23: 8	79/ 3/ 7 0:54: 0	MSAL72. 1	2	0
79/ 3/ 7 1:49: 3	79/ 3/11 1:39: 2	MSAL72. 1	3	55
79/ 3/11 2:29:58	79/ 3/14 1:10: 4	MSAI57. 1	5	51
79/ 3/14 1:34:13	79/ 3/18 0:21:12	MSAI71. 1	3	24
79/ 3/18 1:17: 3	79/ 3/21 1:10: 1	MSAL72. 1	4	56
79/ 3/21 1:10: 4	79/ 3/25 1:13:52	MSAL72. 1	5	0
79/ 3/25 1:13:55	79/ 3/28 0:33:29	MSAI71. 1	4	0
79/ 3/28 0:25: 4	79/ 4/ 1 0: 2:20	MSAI85. 1	1	-7
79/ 4/ 1 0: 2:29	79/ 4/ 4 0: 9:13	MSAJ69. 1	3	0
79/ 4/ 4 0: 9:17	79/ 4/ 8 0:43:19	MSAL73. 1	1	0
79/ 4/ 8 0:43:25	79/ 4/10 23:44:58	MSAK12. 1	4	0
79/ 4/11 0: 5:47	79/ 4/15 1:49:20	MSAK12. 1	5	21
79/ 4/15 1:49:27	79/ 4/18 1:28:42	MSAM05. 1	1	0
79/ 4/18 1:31: 0	79/ 4/22 0: 5:29	MSAM05. 1	2	2
79/ 4/22 0: 7:40	79/ 4/24 22:56:30	MSAI85. 1	2	2
79/ 4/25 3:49: 0	79/ 4/29 2:14:37	MSAI85. 1	3	293
79/ 4/29 2:14:34	79/ 5/ 2 1:50:15	MSAL73. 1	2	0
79/ 5/ 2 1:50:33	79/ 5/ 6 0: 4:55	MSAL73. 1	3	0
79/ 5/ 6 0: 5: 0	79/ 5/ 9 0:45:16	MSAI85. 1	4	0
79/ 5/ 9 0:39:18	79/ 5/13 0: 0: 7	MSAI72. 1	4	-5
79/ 5/13 0: 0:10	79/ 5/16 0: 0:13	MSAL73. 1	4	0
79/ 5/16 0: 0:16	79/ 5/20 0:53:10	MSAL73. 1	5	0
79/ 5/20 2: 9:31	79/ 5/23 0:21:30	MSAI71. 1	5	76
79/ 5/23 0:21:13	79/ 5/27 0:53:41	MSAI86. 2	1	0
79/ 5/27 0:53:44	79/ 5/30 0:34: 0	MSAM05. 1	3	0
79/ 5/30 0:34: 3	79/ 6/ 3 0: 9:58	MSAM05. 1	4	0
79/ 6/ 3 0:10:14	79/ 6/ 6 1:14:57	MSAJ57. 1	1	0
79/ 6/ 6 1:15: 1	79/ 6/10 0: 6:15	MSAI86. 2	2	0
79/ 6/10 0: 6:18	79/ 6/13 0:24:11	MSAM05. 1	5	0
79/ 6/13 0:24:14	79/ 6/16 23: 9:27	MSAM06. 1	1	0
79/ 6/17 0:31:40	79/ 6/20 1: 6:49	MSAI86. 2	3	82
79/ 6/20 1: 6:52	79/ 6/24 1: 0: 7	MSAI86. 2	4	0
79/ 6/24 1: 0:10	79/ 6/27 0:48:38	MSAM06. 1	2	0
79/ 6/27 0:48:43	79/ 7/ 1 0:26:13	MSAJ57. 1	2	0
79/ 7/ 1 2:31: 8	79/ 7/ 4 0:44: 3	MSAL22. 1	1	125
79/ 7/ 4 0:44: 7	79/ 7/ 8 0:45:57	MSAK13. 1	2	0
79/ 7/ 8 0:46: 0	79/ 7/11 0:48: 9	MSAK13. 1	3	0
79/ 7/11 0:48:12	79/ 7/15 0: 6:14	MSAM06. 1	3	0
79/ 7/15 0: 6:20	79/ 7/17 23:59:57	MSAJ57. 1	3	0
79/ 7/18 0:23:19	79/ 7/22 0: 0: 5	MSAJ57. 1	4	23
79/ 7/22 0: 0: 8	79/ 7/25 0:19:16	MSAM06. 1	4	0
79/ 7/25 0:19:20	79/ 7/28 23:59:57	MSAK13. 1	4	0
79/ 7/29 0: 0: 0	79/ 8/ 1 1:20:54	MSAM06. 1	5	0
79/ 8/ 1 1:21: 0	79/ 8/ 5 0:36:53	MSAJ57. 1	5	0
79/ 8/ 5 0:36:59	79/ 8/ 7 23:31:55	MSAJ68. 1	1	0
79/ 8/ 7 23:31:58	79/ 8/12 1:13: 9	MSAK13. 1	5	0
79/ 8/12 1:41:13	79/ 8/15 2: 0: 7	MSAJ68. 1	2	28
79/ 8/15 2: 0:13	79/ 8/19 0:20:54	MSAJ68. 1	3	0
79/ 8/19 0:20:57	79/ 8/21 23:55:11	MSAK15. 1	1	0
79/ 8/22 0: 1:59	79/ 8/26 0:59:58	MSAJ68. 1	4	7
79/ 8/26 1: 0: 1	79/ 8/29 1: 0:56	MSAJ68. 1	5	0
79/ 8/29 1: 0:59	79/ 9/ 2 0:23:55	MSAK15. 1	2	0
79/ 9/ 2 0:23:59	79/ 9/ 4 19:59:58	MSAJ69. 1	4	0
79/ 9/ 5 0:17: 2	79/ 9/ 9 0:59:47	MSAK15. 1	3	257
79/ 9/ 9 0:59:50	79/ 9/11 23:59:58	MSAK15. 1	4	0
79/ 9/12 0:32:21	79/ 9/16 0:17:22	MSAK14. 1	1	32
79/ 9/16 0:17:23	79/ 9/19 1: 1: 2	MSAK15. 1	5	0
79/ 9/19 1: 1: 7	79/ 9/23 0:28:35	MSAJ69. 1	5	0
79/ 9/23 0:28:38	79/ 9/26 0:32:58	MSAK14. 1	2	0
79/ 9/26 0:33: 1	79/ 9/30 0:25: 1	MSAL20. 1	1	0
79/ 9/30 0:26:50	79/10/ 3 1:10:12	MSAK14. 1	3	2

START	STOP	TAPE	FILE	MINUTES MISSING
79/10/ 3 1:10:15	79/10/ 7 1:15:59	MSAK14. 1	4	0
79/10/ 7 1:16: 2	79/10/ 9 23:59:54	MSAL00. 1	1	0
79/10/10 0: 0: 1	79/10/13 22:34: 0	MSAL00. 1	2	0
79/10/14 0:32:40	79/10/17 0:52: 7	MSAL00. 1	3	119
79/10/17 0:52:10	79/10/21 0: 5:55	MSAL00. 1	4	0
79/10/21 0: 5:58	79/10/23 23:35:20	MSAL01. 1	1	0
79/10/24 0:19: 7	79/10/28 1:43:43	MSAL01. 1	2	44
79/10/28 1:43:46	79/10/31 0:41:58	MSAL01. 1	3	0
79/10/31 0:42: 1	79/11/ 4 0:52:45	MSAM07. 1	1	0
79/11/ 4 0:52:48	79/11/ 7 0: 0: 5	MSAL01. 1	4	0
79/11/ 7 1:34: 1	79/11/11 0:15:57	MSAM07. 1	2	94
79/11/11 0:16: 0	79/11/13 23:59:59	MSAL00. 1	5	0
79/11/14 0: 0: 2	79/11/18 0:14: 0	MSAL01. 1	5	0
79/11/18 0:14: 3	79/11/21 1: 7: 4	MSAK98. 1	5	0
79/11/21 2:14:29	79/11/25 0:37:57	MSAL22. 1	2	67
79/11/25 1:37:59	79/11/28 0:56: 9	MSAM07. 1	3	60
79/11/28 3:30:53	79/12/ 2 0: 0: 4	MSAM07. 1	4	155
79/12/ 2 0:48:54	79/12/ 5 0: 0: 9	MSAM07. 1	5	49
79/12/ 5 0: 0:12	79/12/ 9 0: 6:57	MSAL20. 1	2	0
79/12/ 9 0:17:20	79/12/12 0:40: 5	MSAL22. 1	3	10
79/12/12 0:41:42	79/12/16 0:34: 7	MSAL22. 1	4	2
79/12/16 1:35:33	79/12/19 1: 5: 2	MSAL20. 1	3	61
79/12/19 2:47:53	79/12/23 1:22:52	MSAL20. 1	4	103
79/12/23 2:15:46	79/12/25 20:58:15	MSAL22. 1	5	53
79/12/26 1:49:57	79/12/30 0: 0: 1	MSAM24. 1	1	292
79/12/30 1:20:58	80/ 1/ 2 0:29: 0	MSAM24. 1	2	81
80/ 1/ 2 2: 8:58	80/ 1/ 6 0:29:59	MSAM24. 1	3	100
80/ 1/ 6 0:30: 2	80/ 1/ 8 23:25: 0	MSAM24. 1	4	0
80/ 1/ 9 0: 9:28	80/ 1/12 23:42:58	MSAR39. 1	1	44
80/ 1/13 0:45:59	80/ 1/16 0:43:54	MSAM25. 1	1	63
80/ 1/16 0:43:50	80/ 1/20 0:26:12	MSAM25. 1	2	0
80/ 1/20 0:26:19	80/ 1/23 1:13:25	MSAM25. 1	3	0
80/ 1/23 1:13:33	80/ 1/27 0: 5: 6	MSAM25. 1	4	0
80/ 1/27 0: 5: 9	80/ 1/30 1:36: 4	MSAM26. 1	1	0
80/ 1/30 1:36: 7	80/ 2/ 2 23:45: 5	MSAM26. 1	2	0
80/ 2/ 3 0: 8: 3	80/ 2/ 6 0: 0: 7	MSAM26. 1	3	23
80/ 2/ 6 1: 6: 3	80/ 2/10 1:27:24	MSAM26. 1	4	66
80/ 2/10 1:27:32	80/ 2/13 0: 2:58	MSAM26. 1	5	0
80/ 2/13 1:41:15	80/ 2/17 0: 5:21	MSAN18. 1	1	98
80/ 2/17 1:54:33	80/ 2/19 23: 4: 1	MSAN18. 1	2	109
80/ 2/20 0: 3:15	80/ 2/24 0: 1:48	MSAN18. 1	3	59
80/ 2/24 1:14:44	80/ 2/27 0:59:56	MSAN18. 1	4	73
80/ 2/27 0:59:59	80/ 3/ 2 0:43:20	MSAN18. 1	5	0
80/ 3/ 2 0:46: 7	80/ 3/ 4 23:30:21	MSAN19. 1	1	3
80/ 3/ 5 2:44:59	80/ 3/ 9 1:57:56	MSAN19. 1	2	195
80/ 3/ 9 1:57:59	80/ 3/12 0:32:26	MSAN19. 1	3	0
80/ 3/12 0:32:29	80/ 3/16 1:27:33	MSAN19. 1	4	0
80/ 3/16 1:27:36	80/ 3/19 0:17:29	MSAN19. 1	5	0
80/ 3/19 2:23:52	80/ 3/23 0:38:47	MSAN71. 1	1	126
80/ 3/23 0:43:42	80/ 3/26 0:30:47	MSAN71. 1	2	5
80/ 3/26 0:32:32	80/ 3/30 0: 9:55	MSAN71. 1	3	2
80/ 3/30 0: 9:58	80/ 4/ 2 0:43: 1	MSAN71. 1	4	0
80/ 4/ 2 0:43: 4	80/ 4/ 6 0:37:27	MSAN71. 1	5	0
80/ 4/ 6 0:37:30	80/ 4/ 9 0:26:15	MSAN74. 1	5	0
80/ 4/ 9 0:26:18	80/ 4/12 23: 2:53	MSAR49. 1	1	0
80/ 4/13 0:13:58	80/ 4/16 0:43:56	MSAQ48. 1	1	71
80/ 4/16 0:43:59	80/ 4/20 0:32:59	MSAQ48. 1	2	0
80/ 4/20 1:41: 6	80/ 4/23 0:59:10	MSAN74. 1	6	68
80/ 4/23 0:59:13	80/ 4/27 2:46:31	MSAN75. 1	1	0
80/ 4/27 2:46:34	80/ 4/30 0: 0: 1	MSAN75. 1	2	0
80/ 4/30 0: 7:48	80/ 5/ 4 0:17:32	MSAN75. 1	3	8
80/ 5/ 4 0:17:35	80/ 5/ 6 23:58: 9	MSAN75. 1	4	0
80/ 5/ 7 0:23: 3	80/ 5/11 0:22:20	MSAP11. 1	1	25
80/ 5/11 0:22:23	80/ 5/14 1:49: 0	MSAP11. 1	2	0
80/ 5/14 1:49: 3	80/ 5/18 1:55:20	MSAP11. 1	3	0
80/ 5/18 1:55:23	80/ 5/20 23:38:57	MSAQ48. 1	3	0
80/ 5/21 0: 1: 5	80/ 5/25 0:16:43	MSAQ48. 1	4	22
80/ 5/25 0:16:48	80/ 5/28 0:39:11	MSAP11. 1	4	0
80/ 5/28 0:39:14	80/ 5/31 23:59:56	MSAP12. 1	1	0
80/ 6/ 1 0: 0: 2	80/ 6/ 4 0: 4:56	MSAP12. 1	2	0

START	STOP	TAPE	FILE	MINUTES MISSING
80/ 6/ 4 0: 5: 5	80/ 6/ 8 0:34:49	MSAP12. 1	3	0
80/ 6/ 8 1: 2:37	80/ 6/11 0:22:53	MSAP12. 1	4	28
80/ 6/11 0:23: 2	80/ 6/15 0:19:51	MSAP12. 1	5	0
80/ 6/15 0:20: 6	80/ 6/18 0:21: 3	MSAP13. 1	1	0
80/ 6/18 0:21: 6	80/ 6/22 0:55:21	MSAP14. 1	1	0
80/ 6/22 0:55:24	80/ 6/24 23:37: 4	MSAP14. 1	2	0
80/ 6/25 2:12:56	80/ 6/29 1: 4:57	MSAP13. 1	2	156
80/ 6/29 1: 5:22	80/ 7/ 2 1:59:56	MSAP13. 1	3	0
80/ 7/ 2 2: 3:35	80/ 7/ 6 0:15: 7	MSAP13. 1	4	4
80/ 7/ 6 0:15:10	80/ 7/ 8 23:59:55	MSAP13. 1	5	0
80/ 7/ 8 23:59:58	80/ 7/13 0:24:43	MSAP14. 1	3	0
80/ 7/13 0:25:47	80/ 7/16 1:58: 3	MSAP14. 1	4	1
80/ 7/16 1:58: 6	80/ 7/20 0:14:51	MSAP15. 1	1	0
80/ 7/20 0:19:58	80/ 7/23 1:27:10	MSAS91. 1	1	5
80/ 7/23 1:27:13	80/ 7/27 1:11:37	MSAS91. 1	2	0
80/ 7/27 1:11:40	80/ 7/29 23:59:13	MSAP15. 1	4	0
80/ 7/30 0:29: 5	80/ 8/ 3 0:11:11	MSAP16. 1	1	30
80/ 8/ 3 0:11:24	80/ 8/ 6 0:58:55	MSAP16. 1	2	0
80/ 8/ 6 0:58:58	80/ 8/10 0: 6: 3	MSAP16. 1	3	0
80/ 8/10 0: 6: 6	80/ 8/13 1:12: 5	MSAP16. 1	4	0
80/ 8/13 1:12: 8	80/ 8/17 0: 1:17	MSAP16. 1	5	0
80/ 8/17 0: 1:20	80/ 8/20 1:14:56	MSAS91. 1	3	0
80/ 8/20 2: 3:58	80/ 8/24 1:51: 4	MSAS91. 1	4	49
80/ 8/24 1:51: 7	80/ 8/27 0:10:16	MSAP34. 1	3	0
80/ 8/27 0:10:53	80/ 8/31 0:34:51	MSAP34. 1	4	1
80/ 8/31 0:35:49	80/ 9/ 3 0: 5: 3	MSAP34. 1	5	1
80/ 9/ 3 2:54: 4	80/ 9/ 7 0: 4:12	MSAP35. 1	1	169
80/ 9/ 7 0: 4:24	80/ 9/10 0: 3:11	MSAP35. 1	2	0
80/ 9/10 0:26:47	80/ 9/14 0:54:49	MSAP35. 1	3	24
80/ 9/14 0:55:13	80/ 9/16 23:12: 1	MSAS92. 1	1	0
80/ 9/17 1:15:59	80/ 9/20 23:59:55	MSAS92. 1	2	124
80/ 9/21 1: 0:13	80/ 9/23 23:59:57	MSAP67. 1	1	60
80/ 9/24 0:13:58	80/ 9/28 0:10: 2	MSAP67. 1	2	14
80/ 9/28 0:10: 5	80/ 9/30 23:42:58	MSAP67. 1	3	0
80/10/ 1 0:40:59	80/10/ 5 0: 0: 7	MSAP67. 1	4	58
80/10/ 5 0:43:59	80/10/ 8 0: 3:57	MSAP67. 1	5	44
80/10/ 8 7:24:33	80/10/12 0:16:55	MSAP67. 1	6	441
80/10/12 0:17:20	80/10/15 0:18:50	MSAS92. 1	3	0
80/10/15 0:18:53	80/10/19 0:53: 8	MSAS92. 1	4	0
80/10/19 1:46:59	80/10/22 0:11:53	MSAP68. 1	3	54
80/10/22 0:13:43	80/10/26 1:12:20	MSAP68. 1	4	2
80/10/26 1:12:26	80/10/29 1:24:55	MSAP68. 1	5	0
80/10/29 2:13:58	80/11/ 2 1: 8: 3	MSAP69. 1	1	49
80/11/ 2 1: 8: 6	80/11/ 5 0:12:56	MSAP69. 1	2	0
80/11/ 5 0:12:59	80/11/ 9 0:38:59	MSAP70. 1	2	0
80/11/ 9 0:39: 2	80/11/12 0: 8:17	MSAT85. 1	1	0
80/11/12 1: 8:42	80/11/16 0:11:55	MSAT85. 1	2	60
80/11/16 0:12:20	80/11/18 23:51:23	MSAQ36. 1	1	0
80/11/19 0:10:31	80/11/22 23:59:57	MSAP69. 1	5	19
80/11/23 0: 1: 6	80/11/26 0: 0: 1	MSAP70. 1	3	1
80/11/26 1:44: 0	80/11/30 0: 0: 7	MSAP70. 1	4	104
80/11/30 0: 0:33	80/12/ 3 1: 0:15	MSAP70. 1	5	0
80/12/ 3 1: 0:26	80/12/ 7 0:16:42	MSAP70. 1	6	0
80/12/ 7 0:16:54	80/12/ 9 23:52:45	MSAQ36. 1	2	0
80/12/10 2:54:59	80/12/14 1:40: 5	MSAT85. 1	3	182
80/12/14 1:40: 8	80/12/17 1:46: 0	MSAQ36. 1	4	0
80/12/17 3:20:58	80/12/21 0:15: 1	MSAQ36. 1	5	95
80/12/21 1: 8:11	80/12/23 23:44: 1	MSAQ37. 1	1	53
80/12/24 0: 0:59	80/12/27 23:24: 6	MSAQ37. 1	2	17
80/12/28 0: 8: 1	80/12/31 0: 1:42	MSAQ37. 1	3	44
80/12/31 0: 1:45	81/ 1/ 4 0: 3: 2	MSAQ37. 1	4	0
81/ 1/ 4 0:35:10	81/ 1/ 7 0: 9:25	MSAQ37. 1	5	32
81/ 1/ 7 0: 9:46	81/ 1/11 1:55:38	MSAQ99. 1	1	0
81/ 1/11 1:56: 5	81/ 1/14 0: 0: 2	MSAQ48. 1	5	0
81/ 1/14 4:24:55	81/ 1/18 0:40:11	MSAS60. 1	1	265
81/ 1/18 0:40:28	81/ 1/21 1:49:34	MSAQ99. 1	2	0
81/ 1/21 1:51:18	81/ 1/25 0:38:31	MSAQ99. 1	3	2
81/ 1/25 0:38:56	81/ 1/28 0: 4:14	MSAQ99. 1	4	0
81/ 1/28 0: 4:37	81/ 2/ 1 0:34:14	MSAQ99. 1	5	0
81/ 2/ 1 1:51: 9	81/ 2/ 4 2: 0: 7	MSAR39. 1	2	77

START	STOP	TAPE	FILE	MINUTES MISSING
81/ 2/ 4 2: 0:22	81/ 2/ 8 1:17:39	MSAR39. 1	3	0
81/ 2/ 8 5:10:58	81/ 2/11 0:56: 6	MSAR39. 1	4	233
81/ 2/11 5: 4:59	81/ 2/14 23:41: 7	MSAR40. 1	1	249
81/ 2/15 2: 7:59	81/ 2/18 1:23:34	MSAR39. 1	5	147
81/ 2/18 1:23:59	81/ 2/22 0:30:20	MSAR40. 1	2	0
81/ 2/22 0:30:42	81/ 2/25 1:12: 4	MSAR40. 1	3	0
81/ 2/25 1:12: 8	81/ 3/ 1 0: 5:18	MSAR40. 1	4	0
81/ 3/ 1 0: 5:21	81/ 3/ 4 0:17: 6	MSAR40. 1	5	0
81/ 3/ 4 0:17: 9	81/ 3/ 8 0:57: 0	MSAR49. 1	2	0
81/ 3/ 8 0:57: 3	81/ 3/11 0:21: 4	MSAR49. 1	3	0
81/ 3/11 0:55: 0	81/ 3/15 2: 0: 9	MSAR49. 1	4	34
81/ 3/15 2: 1: 0	81/ 3/18 0:51:44	MSAR49. 1	5	1
81/ 3/18 0:54:36	81/ 3/22 1:53:11	MSAR88. 1	1	3
81/ 3/22 2: 1: 1	81/ 3/25 0:52:59	MSAR88. 1	2	8
81/ 3/25 1:55:58	81/ 3/29 0:31:45	MSAR88. 1	3	63
81/ 3/29 0:31:48	81/ 4/ 1 0: 6: 4	MSAR88. 1	4	0
81/ 4/ 1 0: 6: 7	81/ 4/ 5 0:23:17	MSAR88. 1	5	0
81/ 4/ 5 0:23:31	81/ 4/ 8 0:40:24	MSAR90. 1	1	0
81/ 4/ 8 0:48:54	81/ 4/12 1:33: 6	MSAR90. 1	2	9
81/ 4/12 1:33: 9	81/ 4/15 0:26:48	MSAR90. 1	3	0
81/ 4/15 0:26:51	81/ 4/19 1:24: 1	MSAR90. 1	4	0
81/ 4/19 1:24:37	81/ 4/22 0:56: 3	MSAR90. 1	5	1
81/ 4/22 0:56: 6	81/ 4/26 0: 0: 2	MSAR91. 1	1	0
81/ 4/26 1:20:38	81/ 4/29 1:28:19	MSAR91. 1	2	81
81/ 4/29 1:28:22	81/ 5/ 3 0: 6:59	MSAR91. 1	3	0
81/ 5/ 3 0: 7: 2	81/ 5/ 6 1:49:38	MSAR91. 1	4	0
81/ 5/ 6 1:49:41	81/ 5/10 0:49: 4	MSAR92. 1	1	0
81/ 5/10 0:50:43	81/ 5/13 0:52: 4	MSAR92. 1	2	2
81/ 5/13 0:52:18	81/ 5/17 0: 0:37	MSAR92. 1	3	0
81/ 5/17 0: 0:40	81/ 5/20 0:49: 7	MSAR92. 1	4	0
81/ 5/20 0:49:11	81/ 5/24 0:28:15	MSAR93. 1	1	0
81/ 5/24 1: 9: 0	81/ 5/27 0:29:42	MSAR92. 1	5	41
81/ 5/27 0:30: 5	81/ 5/31 0:14:21	MSAR93. 1	2	0
81/ 5/31 0:14:24	81/ 6/ 3 0: 2:59	MSAR93. 1	3	0
81/ 6/ 3 0:14: 5	81/ 6/ 7 0:59:57	MSAR93. 1	4	11
81/ 6/ 7 1: 0:21	81/ 6/10 2:23:30	MSAS65. 1	6	0
81/ 6/10 2:23:33	81/ 6/14 0: 1: 2	MSAS38. 1	1	0
81/ 6/14 0: 1:28	81/ 6/17 0:31:30	MSAS39. 1	1	0
81/ 6/17 0:31:48	81/ 6/21 0:52:20	MSAS39. 1	2	0
81/ 6/21 0:52:46	81/ 6/24 1: 6:58	MSAS39. 1	3	0
81/ 6/24 1: 7: 1	81/ 6/28 0:59:55	MSAS39. 1	4	0
81/ 6/28 0:59:58	81/ 7/ 1 1:12:31	MSAS39. 1	5	0
81/ 7/ 1 1:14:21	81/ 7/ 5 0:31:22	MSAS60. 1	2	2
81/ 7/ 5 0:31:25	81/ 7/ 8 0:31:12	MSAS60. 1	3	0
81/ 7/ 8 0:31:15	81/ 7/12 0:30: 2	MSAS60. 1	4	0
81/ 7/12 0:30: 5	81/ 7/15 0:15: 1	MSAS64. 1	1	0
81/ 7/15 0:16:42	81/ 7/19 0: 1:32	MSAS61. 1	1	2
81/ 7/19 0: 1:35	81/ 7/22 0:25:35	MSAS61. 1	2	0
81/ 7/22 0:25:38	81/ 7/26 0:25:56	MSAS61. 1	3	0
81/ 7/26 0:26:22	81/ 7/29 0:29:21	MSAS64. 1	2	0
81/ 7/29 0:29:33	81/ 8/ 2 1:10: 0	MSAS61. 1	4	0
81/ 8/ 2 1:10: 3	81/ 8/ 5 1:25: 0	MSAS62. 1	1	0
81/ 8/ 5 1:25: 3	81/ 8/ 9 1: 8: 7	MSAS62. 1	2	0
81/ 8/ 9 1:25: 0	81/ 8/12 0:51:59	MSAS62. 1	3	17
81/ 8/12 0:57:56	81/ 8/16 1: 2: 0	MSAS62. 1	4	6
81/ 8/16 2: 2: 5	81/ 8/19 0:26:11	MSAS62. 1	5	60
81/ 8/19 0:36: 3	81/ 8/23 0:30:58	MSAS64. 1	3	10
81/ 8/23 0:30:59	81/ 8/26 0:46: 4	MSAS63. 1	1	0
81/ 8/26 0:46: 7	81/ 8/30 0: 1:45	MSAS63. 1	2	0
81/ 8/30 0: 1:48	81/ 9/ 2 0:46: 6	MSAS63. 1	3	0
81/ 9/ 2 0:46: 9	81/ 9/ 6 0:15:52	MSAS63. 1	4	0
81/ 9/ 6 0:16: 2	81/ 9/ 9 0:10:54	MSAS63. 1	5	0
81/ 9/ 9 0:10:57	81/ 9/13 0:24:53	MSAS64. 1	4	0
81/ 9/13 1: 7:59	81/ 9/16 0:20:28	MSAS64. 1	5	43
81/ 9/16 1:37:50	81/ 9/20 0:36: 5	MSAU25. 1	1	77
81/ 9/20 0:53: 1	81/ 9/22 23:59:54	MSAR93. 1	5	17
81/ 9/23 0: 0:19	81/ 9/27 0:17:57	MSAS20. 1	1	0
81/ 9/27 0:18: 0	81/ 9/30 0: 8:58	MSAS20. 1	2	0
81/ 9/30 0: 9: 1	81/10/ 3 23:59:33	MSAS20. 1	3	0
81/10/ 4 1: 0:17	81/10/ 7 0: 0: 0	MSAU25. 1	2	61

START	STOP	TAPE	FILE	MINUTES MISSING
81/10/ 7 0: 0: 0	81/10/11 0:16: 2	MSAS20. 1	4	0
81/10/11 0:16: 5	81/10/14 0:45: 9	MSAS20. 1	5	0
81/10/14 2:46:58	81/10/18 0: 0:20	MSAS21. 1	1	122
81/10/18 1:16:19	81/10/21 0:29:25	MSAS21. 1	2	76
81/10/21 0:29:46	81/10/25 0:50:53	MSAS21. 1	3	0
81/10/25 1:39:52	81/10/28 1:45: 5	MSAS21. 1	4	49
81/10/28 3:34:58	81/10/31 23:59:57	MSAS21. 1	5	110
81/11/ 1 0: 1:23	81/11/ 3 23:49:55	MSAS38. 1	2	1
81/11/ 4 1:32:50	81/11/ 8 1:22: 3	MSAS38. 1	3	103
81/11/ 8 1:22: 6	81/11/10 23:57:58	MSAS38. 1	4	0
81/11/11 0:29:58	81/11/14 20:42:38	MSAS38. 1	5	32
81/11/15 0: 3:55	81/11/17 21: 0: 4	MSAS38. 1	6	201
81/11/18 4: 7:54	81/11/22 0:27:19	MSAU25. 1	3	428
81/11/22 1:50:54	81/11/25 0:40:59	MSAU25. 1	4	84
81/11/25 1:26: 1	81/11/28 23:44:56	MSAX50. 1	1	45
81/11/29 2: 6: 1	81/12/ 1 23:55:54	MSAX50. 1	2	141
81/12/ 2 1:17: 7	81/12/ 5 23:59:55	MSAX50. 1	3	81
81/12/ 6 0: 0:21	81/12/ 8 23:12: 9	MSAX50. 1	4	0
81/12/ 9 1:43:32	81/12/13 1: 1: 4	MSAX50. 1	5	151
81/12/13 2:56: 6	81/12/16 0: 9: 2	MSAX50. 1	6	115
81/12/16 0: 9: 5	81/12/20 0: 2:56	MSAX51. 1	1	0
81/12/20 1:40: 4	81/12/22 22:48: 3	MSAX51. 1	2	97
81/12/23 0:12:57	81/12/27 0: 1: 2	MSAX51. 1	3	85
81/12/27 0: 1:16	81/12/29 21:54:56	MSAX51. 1	4	0
81/12/30 4:31: 1	82/ 1/ 3 0:39:52	MSAX51. 1	5	396
82/ 1/ 3 0:40:33	82/ 1/ 5 21:13: 6	MSAX51. 1	6	1
82/ 1/ 6 5:45:25	82/ 1/ 9 23:47:58	MSAX66. 1	1	512
82/ 1/10 0:55: 0	82/ 1/12 22:22: 7	MSAX66. 1	2	67
82/ 1/13 0:46: 4	82/ 1/16 22:18: 1	MSAX66. 1	3	144
82/ 1/17 0:15:59	82/ 1/19 20:21: 5	MSAX66. 1	4	118
82/ 1/20 2:28:53	82/ 1/24 1:37: 5	MSAX66. 1	5	368
82/ 1/24 1:37: 4	82/ 1/27 0: 8:55	MSAU25. 1	5	0
82/ 1/27 0: 8:58	82/ 1/30 22:38:28	MSAU25. 1	6	0
82/ 1/31 1:11:35	82/ 2/ 2 23:26:55	MSAX66. 1	6	153
82/ 2/ 3 0:49:48	82/ 2/ 7 0: 0: 3	MSAX67. 1	1	83
82/ 2/ 7 0: 1:47	82/ 2/10 0: 0: 5	MSAX67. 1	2	2
82/ 2/10 0: 0:42	82/ 2/14 0:33: 0	MSAX67. 1	3	1
82/ 2/14 0:37:48	82/ 2/17 0:30:59	MSAX67. 1	4	5
82/ 2/17 1:16:59	82/ 2/20 22: 8: 3	MSAX67. 1	5	46
82/ 2/21 0: 8:15	82/ 2/24 0:19:31	MSAX68. 1	1	120
82/ 2/24 0:20:16	82/ 2/28 0:49: 0	MSAX68. 1	2	1
82/ 2/28 1:28:51	82/ 3/ 3 0: 2: 9	MSAX68. 1	3	40
82/ 3/ 3 1: 7:52	82/ 3/ 6 23:39:41	MSAX68. 1	4	66
82/ 3/ 7 0:40: 2	82/ 3/10 1: 8:14	MSAX68. 1	5	60
82/ 3/10 1:13:46	82/ 3/13 23:13:32	MSAX69. 1	1	6
82/ 3/14 0: 9: 3	82/ 3/17 1:44:11	MSAX69. 1	2	56
82/ 3/17 1:44:14	82/ 3/21 1:23:50	MSAX69. 1	3	0
82/ 3/21 1:24:17	82/ 3/23 23:42: 4	MSAX69. 1	4	0
82/ 3/24 2:31: 7	82/ 3/27 22:58: 2	MSAX69. 1	5	169
82/ 3/28 7: 9:58	82/ 3/31 1:49:13	MSAX69. 1	6	492
82/ 3/31 2:57: 0	82/ 4/ 4 2:28:14	MSAX70. 1	1	68
82/ 4/ 4 2:30:29	82/ 4/ 7 0:54:30	MSAX70. 1	2	2
82/ 4/ 7 0:54:24	82/ 4/11 0:18:59	MSAX70. 1	3	0
82/ 4/11 0:30:14	82/ 4/14 1: 0: 8	MSAX70. 1	4	11
82/ 4/14 1: 0: 4	82/ 4/18 0: 0:51	MSAX70. 1	5	0
82/ 4/18 0: 1:50	82/ 4/21 0:36:54	MSBA28. 2	1	1
82/ 4/21 0:37:25	82/ 4/25 0:31: 4	MSAX71. 1	1	1
82/ 4/25 0:31: 0	82/ 4/28 0:19: 3	MSAX71. 1	2	0
82/ 4/28 0:19:39	82/ 5/ 2 0: 0:10	MSAX71. 1	3	1
82/ 5/ 2 0: 0:59	82/ 5/ 4 23:45: 2	MSAX71. 1	4	1
82/ 5/ 5 0:28: 1	82/ 5/ 9 0:11:59	MSAX72. 2	1	43
82/ 5/ 9 0:12: 5	82/ 5/12 0:57:30	MSBB23. 1	1	0
82/ 5/12 0:57:26	82/ 5/16 0:24: 6	MSAX72. 2	2	0
82/ 5/16 0:24: 4	82/ 5/19 1:10: 2	MSAX72. 2	3	0
82/ 5/19 1:10: 3	82/ 5/23 0:44: 6	MSAX72. 2	4	0
82/ 5/23 0:44:20	82/ 5/25 23:58: 2	MSBB11. 1	1	0
82/ 5/26 2:26: 1	82/ 5/30 1:15: 0	MSAX73. 2	1	148
82/ 5/30 1:15: 3	82/ 6/ 1 23:59:57	MSBA28. 2	2	0
82/ 6/ 2 0: 0:49	82/ 6/ 5 23:12:55	MSAX73. 2	2	1
82/ 6/ 6 1:24:29	82/ 6/ 8 22:38:10	MSAX73. 2	3	132

START	STOP	TAPE	FILE	MINUTES MISSING
82/ 6/ 9 1:18:57	82/ 6/13 0:48: 0	MSBA28. 2	3	161
82/ 6/13 0:48: 1	82/ 6/16 0:50:11	MSBA28. 2	4	0
82/ 6/16 0:50:14	82/ 6/20 0:49:53	MSAX73. 2	4	0
82/ 6/20 0:49:56	82/ 6/23 0:36:40	MSAX73. 2	5	0
82/ 6/23 0:36:43	82/ 6/26 22:52:59	MSBA28. 2	5	0
82/ 6/27 0:41: 5	82/ 6/30 0:55:59	MSAX74. 1	1	108
82/ 6/30 0:56:20	82/ 7/ 4 1:24: 1	MSBA29. 1	1	0
82/ 7/ 4 1:24: 4	82/ 7/ 6 23:57:22	MSBA29. 1	2	0
82/ 7/ 7 0: 0:28	82/ 7/10 23:59:55	MSAX74. 1	2	3
82/ 7/11 0: 6: 6	82/ 7/14 1:36: 7	MSAX74. 1	3	6
82/ 7/14 1:36:10	82/ 7/18 1:35:44	MSBA29. 1	3	0
82/ 7/18 4: 1:45	82/ 7/21 0:54:57	MSAX74. 1	4	146
82/ 7/21 0:55:20	82/ 7/25 0:30: 0	MSAX74. 1	5	0
82/ 7/25 0:30:33	82/ 7/28 1:27:24	MSAX74. 1	6	1
82/ 7/28 1:27:39	82/ 8/ 1 0: 0: 0	MSAX75. 1	1	0
82/ 8/ 1 0: 4:17	82/ 8/ 4 0:34: 3	MSAX75. 1	2	4
82/ 8/ 4 0:34:22	82/ 8/ 8 0:42:11	MSAX75. 1	3	0
82/ 8/ 8 0:42:14	82/ 8/11 1: 2: 5	MSAX75. 1	4	0
82/ 8/11 1: 2: 8	82/ 8/15 1:14:27	MSAX75. 1	5	0
82/ 8/15 1:14:30	82/ 8/18 0:25: 8	MSAX76. 1	1	0
82/ 8/18 0:25:11	82/ 8/22 0:44:43	MSAX76. 1	2	0
82/ 8/22 0:44:56	82/ 8/25 0: 8:57	MSAX76. 1	3	0
82/ 8/25 0: 9: 0	82/ 8/29 0:58:47	MSAX76. 1	4	0
82/ 8/29 2: 1: 1	82/ 8/31 23:59:54	MSAX76. 1	5	62
82/ 9/ 1 0: 0:32	82/ 9/ 5 0:10:14	MSAX76. 1	6	1
82/ 9/ 5 0:10:17	82/ 9/ 8 0: 0:11	MSAX93. 1	1	0
82/ 9/ 8 2:45:27	82/ 9/11 23:28: 0	MSAX93. 1	2	165
82/ 9/12 0:42:57	82/ 9/15 0:19:59	MSAX93. 1	3	75
82/ 9/15 1:14: 0	82/ 9/19 0:48:54	MSAX93. 1	4	54
82/ 9/19 0:48:57	82/ 9/21 23:58:54	MSAX93. 1	5	0
82/ 9/22 1:52: 0	82/ 9/26 0:41:53	MSAX93. 1	6	113
82/ 9/26 2:18: 1	82/ 9/29 0:18:45	MSAX94. 1	1	96
82/ 9/29 1:22:11	82/10/ 3 0:55:20	MSAX94. 1	2	63
82/10/ 3 0:55:23	82/10/ 6 0:23:36	MSAX94. 1	3	0
82/10/ 6 0:23:39	82/10/10 0: 0: 5	MSAX94. 1	4	0
82/10/10 0:15: 1	82/10/13 0: 1:48	MSAX94. 1	5	15
82/10/13 0: 2:12	82/10/17 0:29:55	MSAX94. 1	6	0
82/10/17 0:30:17	82/10/20 1:30: 0	MSAX94. 1	7	0
82/10/20 1:48:30	82/10/24 0: 0:14	MSAX95. 1	1	19
82/10/24 0: 1:27	82/10/27 0: 0: 8	MSBA29. 1	4	1
82/10/27 0: 0:11	82/10/31 1:12: 5	MSBA29. 1	5	0
82/10/31 1:12:24	82/11/ 3 0:31: 0	MSAX95. 1	2	0
82/11/ 3 0:31:20	82/11/ 7 0:39:53	MSAX95. 1	3	0
82/11/ 7 0:52:17	82/11/10 0:15:40	MSAX95. 1	4	12
82/11/10 0:16: 3	82/11/13 23:56:58	MSAX95. 1	5	0
82/11/14 2:34: 2	82/11/17 0: 9:38	MSAX95. 1	6	157
82/11/17 0:10:20	82/11/21 0:26:55	MSAX96. 1	1	1
82/11/21 1:19:39	82/11/24 1:20:59	MSAX95. 1	7	53
82/11/24 1:21: 2	82/11/28 0:44:55	MSAX96. 1	2	0
82/11/28 1:39:55	82/12/ 1 0:18: 3	MSAX96. 1	3	55
82/12/ 1 0:18: 6	82/12/ 5 0:50:52	MSAX96. 1	4	0
82/12/ 5 7:59: 3	82/12/ 7 23:43: 8	MSBA30. 1	1	428
82/12/ 8 1:30:58	82/12/11 22:54:59	MSAX96. 1	5	108
82/12/12 0:13: 0	82/12/14 23:51: 6	MSAX96. 1	6	78
82/12/15 0:35:10	82/12/18 23: 6: 9	MSAX97. 1	1	44
82/12/19 1: 4:37	82/12/21 22:32:12	MSAX97. 1	2	118
82/12/22 3:52:20	82/12/26 1:33:55	MSAX97. 1	3	320
82/12/26 1:34:36	82/12/29 0:59: 5	MSAX97. 1	4	1
82/12/29 4:46:15	83/ 1/ 1 23:50: 1	MSAX97. 1	5	227
83/ 1/ 2 0:33:38	83/ 1/ 4 22:43: 9	MSAX97. 1	6	44
83/ 1/ 5 4:44:22	83/ 1/ 9 0:28:13	MSAX98. 1	1	361
83/ 1/ 9 0:28:29	83/ 1/11 23:58:15	MSAX98. 1	2	0
83/ 1/12 0:20:35	83/ 1/15 23:51:56	MSAX98. 1	3	22
83/ 1/16 1: 8: 1	83/ 1/19 0: 0:26	MSAX98. 1	4	76
83/ 1/19 0: 0:46	83/ 1/22 23:59:53	MSAX98. 1	5	0
83/ 1/23 0: 0:18	83/ 1/25 23:42:58	MSAX98. 1	6	0
83/ 1/26 2:16: 9	83/ 1/30 1: 4:56	MSAX99. 1	1	153
83/ 1/30 3:45:15	83/ 2/ 2 0:34:52	MSAX99. 1	2	160
83/ 2/ 2 0:35: 6	83/ 2/ 5 22:50: 1	MSAX99. 1	3	0
83/ 2/ 6 1:46:19	83/ 2/ 9 0:42:58	MSAX99. 1	4	176

START	STOP	TAPE	FILE	MINUTES MISSING
83/ 2/ 9 0:44:42	83/ 2/13 0: 0: 5	MSAX99. 1	5	2
83/ 2/13 0:13:53	83/ 2/16 0:22: 0	MSAX99. 1	6	14
83/ 2/16 0:22: 3	83/ 2/19 22:47:49	MSAY00. 1	1	0
83/ 2/20 1:31:15	83/ 2/22 23:36:53	MSAY00. 1	2	163
83/ 2/23 0:44: 2	83/ 2/27 0: 9:51	MSAY00. 1	3	67
83/ 2/27 0:44: 3	83/ 3/ 1 22:52: 7	MSAY00. 1	4	34
83/ 3/ 2 0:14: 4	83/ 3/ 6 0:30: 5	MSAY00. 1	5	82
83/ 3/ 6 0:44: 2	83/ 3/ 8 21:56: 6	MSAY00. 1	6	14
83/ 3/ 9 0:43:59	83/ 3/12 23:17:16	MSAY01. 1	1	168
83/ 3/13 0: 5:53	83/ 3/16 0: 2: 7	MSBA30. 1	2	49
83/ 3/16 0: 4: 5	83/ 3/19 23:40:11	MSAY01. 1	2	2
83/ 3/20 0:44:44	83/ 3/23 0:35: 9	MSAY01. 1	3	65
83/ 3/23 1:24: 8	83/ 3/26 23:43:15	MSAY01. 1	4	49
83/ 3/27 1:56: 1	83/ 3/29 23:17:49	MSBA30. 1	3	133
83/ 3/30 0: 7: 6	83/ 4/ 2 20: 0:30	MSBA30. 1	4	49
83/ 4/ 3 0:43:58	83/ 4/ 5 15:31:53	MSAY01. 1	5	283
83/ 4/ 6 1: 9: 3	83/ 4/ 9 13:51:15	MSAY01. 1	6	577
83/ 4/10 0: 0:38	83/ 4/12 23: 7: 5	MSAY02. 1	1	609
83/ 4/13 0: 8:59	83/ 4/16 15: 5:54	MSAY02. 1	2	62
83/ 4/17 0:43:59	83/ 4/19 23:31:37	MSAY02. 1	3	578
83/ 4/20 6:24:10	83/ 4/23 18:39:54	MSAY02. 1	4	413
83/ 4/24 3:30:30	83/ 4/26 23:22:15	MSAY02. 1	5	531
83/ 4/27 1:13:43	83/ 5/ 1 0: 0:17	MSAY02. 1	6	111
83/ 5/ 1 0: 2:31	83/ 5/ 3 23:43: 2	MSAY02. 1	7	2
83/ 5/ 4 2: 3: 0	83/ 5/ 8 0: 0:15	MSAY02. 1	8	140
83/ 5/ 8 0: 2:36	83/ 5/11 0: 1: 6	MSBA30. 1	5	2
83/ 5/11 0:29: 3	83/ 5/15 0:14:47	MSBA30. 1	6	28
83/ 5/15 0:24:41	83/ 5/18 0: 8:15	MSBA32. 2	1	10
83/ 5/18 0: 8:50	83/ 5/22 0: 1:17	MSBA32. 2	2	1
83/ 5/22 0: 1:43	83/ 5/25 1:10:39	MSBA32. 2	3	0
83/ 5/25 1:10:57	83/ 5/29 0: 0: 2	MSBA32. 2	4	0
83/ 5/29 0: 0:19	83/ 6/ 1 1:23: 6	MSBA32. 2	5	0
83/ 6/ 1 1:23:29	83/ 6/ 4 23:31: 9	MSBA32. 2	6	0
83/ 6/ 5 0:33: 1	83/ 6/ 8 1:49: 0	MSBA33. 2	1	62
83/ 6/ 8 1:49: 3	83/ 6/12 0: 0: 6	MSBA33. 2	2	0
83/ 6/12 0: 0:59	83/ 6/15 0: 0: 9	MSBA33. 2	3	1
83/ 6/15 0: 7: 2	83/ 6/18 21:59:34	MSBA33. 2	4	7
83/ 6/19 0:26:13	83/ 6/22 1: 7:17	MSBA33. 2	5	147
83/ 6/22 1: 7:49	83/ 6/26 1:19:31	MSBA33. 2	6	1
83/ 6/26 1:25:17	83/ 6/29 0: 0: 9	MSBA33. 2	7	6
83/ 6/29 1:19:56	83/ 7/ 3 1:22:57	MSBA34. 1	1	80
83/ 7/ 3 1:23:39	83/ 7/ 6 1:40: 4	MSBA34. 1	2	1
83/ 7/ 6 1:40:19	83/ 7/10 0:36:48	MSBA34. 1	3	0
83/ 7/10 0:37:11	83/ 7/12 21: 8: 4	MSBA34. 1	4	0
83/ 7/13 0:10:29	83/ 7/17 1: 8:46	MSBA35. 1	1	182
83/ 7/17 1:13:55	83/ 7/20 0:40: 6	MSBA35. 1	2	5
83/ 7/20 0:40: 9	83/ 7/24 0: 0:17	MSBA35. 1	3	0
83/ 7/24 0:23: 0	83/ 7/27 0:23:49	MSBA35. 1	4	23
83/ 7/27 0:37:49	83/ 7/31 2: 0:14	MSBA35. 1	5	14
83/ 7/31 2: 0:27	83/ 8/ 3 0:25:24	MSBB08. 1	1	0
83/ 8/ 3 0:52:56	83/ 8/ 6 23:22:51	MSBB08. 1	2	28
83/ 8/ 7 2:50: 6	83/ 8/10 1: 4:34	MSBB08. 1	3	207
83/ 8/10 1: 5:17	83/ 8/14 0:59:57	MSBB08. 1	4	1
83/ 8/14 1: 0:21	83/ 8/17 1:30: 9	MSBB08. 1	5	0
83/ 8/17 1:36: 9	83/ 8/21 0: 0:47	MSBB09. 1	1	6
83/ 8/21 0: 1: 4	83/ 8/24 0:49:36	MSBB09. 1	2	0
83/ 8/24 0:49:49	83/ 8/28 0:40:11	MSBB09. 1	3	0
83/ 8/28 0:40:14	83/ 8/31 0:14:54	MSBB09. 1	4	0
83/ 8/31 0:15:46	83/ 9/ 4 1:31: 7	MSBB09. 1	5	1
83/ 9/ 4 1:31:10	83/ 9/ 7 0:44:42	MSBB10. 2	1	0
83/ 9/ 7 0:45: 9	83/ 9/11 0:43:24	MSBB10. 2	2	0
83/ 9/11 0:43:27	83/ 9/13 23:59:55	MSBB10. 2	3	0
83/ 9/14 0: 0:15	83/ 9/18 1:29:32	MSBB10. 2	4	0
83/ 9/18 1:29:45	83/ 9/21 1:30: 1	MSBB10. 2	5	0
83/ 9/21 1:30:23	83/ 9/24 23:59:56	MSBB11. 1	2	0
83/ 9/25 0: 0:21	83/ 9/28 1: 0: 1	MSBB11. 1	3	0
83/ 9/28 1: 0:18	83/10/ 2 0: 0: 3	MSBB11. 1	4	0
83/10/ 2 0: 0:21	83/10/ 5 0: 9: 0	MSBB11. 1	5	0
83/10/ 5 0: 9:25	83/10/ 9 0:59:57	MSBB12. 1	1	0
83/10/ 9 1: 0:20	83/10/12 2: 0:26	MSBB12. 1	2	0

START	STOP	TAPE	FILE		MINUTES MISSING
83/10/12 2: 0:29	83/10/16 0:25: 2	MSBB12.1	3		0
83/10/16 0:25:14	83/10/19 0: 0: 9	MSBB12.1	4		0
83/10/19 0: 0:12	83/10/23 0:49:38	MSBB12.1	5		0
83/10/23 0:49:41	83/10/26 0:49:55	MSBB13.1	1		0
83/10/26 0:50:20	83/10/30 0:14:33	MSBB13.1	2		0
83/10/30 0:14:54	83/11/ 1 23:59:54	MSBB13.1	3		0
83/11/ 2 0: 0: 1	83/11/ 6 1:38:31	MSBB13.1	4		0
83/11/ 6 1:38:46	83/11/ 8 23:43: 3	MSBB13.1	5		0
83/11/ 9 0:45:27	83/11/13 0: 7:28	MSBB14.1	1		62
83/11/13 0: 7:40	83/11/16 0:51: 7	MSBB14.1	2		0
83/11/16 0:51:16	83/11/20 1:31: 9	MSBB14.1	3		0
83/11/20 1:31:25	83/11/22 22:46:47	MSBB53.1	1		0
83/11/23 0: 1:38	83/11/27 1:10: 9	MSBB14.1	4		75
83/11/27 1:10:44	83/11/30 0:31:48	MSBB14.1	5		1
83/11/30 0:32:13	83/12/ 3 21:54:58	MSBB15.1	1		0
83/12/ 4 0: 4:59	83/12/ 7 1:34:41	MSBB15.1	2		130
83/12/ 7 1:35: 6	83/12/11 0:50:10	MSBB15.1	3		0
83/12/11 0:50:13	83/12/14 1:29: 2	MSBB15.1	4		0
83/12/14 1:29:38	83/12/18 0: 4:45	MSBB15.1	5		1
83/12/18 0: 4:56	83/12/21 0:14:49	MSBB15.1	6		0
83/12/21 0:14:57	83/12/24 18: 7: 3	MSBB16.1	1		0
83/12/25 4:32:40	83/12/27 23:22:56	MSBB16.1	2		626
83/12/28 1:48: 0	83/12/31 23:30:55	MSBB16.1	3		145
84/ 1/ 1 8: 6:40	84/ 1/ 4 0: 1:55	MSBB16.1	4		516
84/ 1/ 4 2:34: 2	84/ 1/ 7 21:12:18	MSBB16.1	5		152
84/ 1/ 8 7:47: 2	84/ 1/10 22:54: 9	MSBB17.1	1		635
84/ 1/11 1:46:42	84/ 1/14 23:58: 1	MSBB17.1	2		173
84/ 1/15 0:48:27	84/ 1/17 21:13: 5	MSBB17.1	3		50
84/ 1/18 0:58:33	84/ 1/22 0:10:10	MSBB17.1	4		225
84/ 1/22 0:10:34	84/ 1/24 21:14:56	MSBB17.1	5		0
84/ 1/25 0: 3: 2	84/ 1/29 0:57:54	MSBB18.1	1		168
84/ 1/29 1:10:59	84/ 2/ 1 0:45:19	MSBB18.1	2		13
84/ 2/ 1 2:32:53	84/ 2/ 5 0:22:58	MSBB18.1	3		108
84/ 2/ 5 4:43:59	84/ 2/ 7 20: 0:12	MSBB18.1	4		261
84/ 2/ 8 2:32: 0	84/ 2/12 0:13: 4	MSBB18.1	5		392
84/ 2/12 2:23:14	84/ 2/15 0:18:57	MSBB18.1	6		130
84/ 2/15 0:19:20	84/ 2/19 0:29: 0	MSBB19.1	1		0
84/ 2/19 2:46:27	84/ 2/21 23:22:58	MSBB19.1	2		137
84/ 2/22 0: 6: 0	84/ 2/25 23:27:54	MSBB19.1	3		43
84/ 2/26 1:30:51	84/ 2/28 22:16:16	MSBB19.1	4		123
84/ 2/29 1:12:12	84/ 3/ 3 22:34: 2	MSBB20.1	1		176
84/ 3/ 4 0:21: 8	84/ 3/ 6 22:41:34	MSBB20.1	2		107
84/ 3/ 7 0:12:32	84/ 3/10 22:50: 1	MSBB20.1	3		91
84/ 3/11 2:15:32	84/ 3/13 22:21: 0	MSBB20.1	4		206
84/ 3/14 1:29:47	84/ 3/18 0: 1: 8	MSBB20.1	5		189
84/ 3/18 0:59: 4	84/ 3/21 0:58:54	MSBB21.1	1		58
84/ 3/21 0:58:57	84/ 3/25 0:34: 8	MSBB21.1	2		0
84/ 3/25 1:23:17	84/ 3/28 1: 5: 9	MSBB21.1	3		49
84/ 3/28 1: 5:12	84/ 3/31 23:44:57	MSBB21.1	4		0
84/ 4/ 1 0: 5: 7	84/ 4/ 3 23:43: 1	MSBB22.1	1		20
84/ 4/ 4 0:59:28	84/ 4/ 7 22:42: 8	MSBB22.1	2		76
84/ 4/ 8 0: 0:15	84/ 4/10 22:46:13	MSBB22.1	3		78
84/ 4/11 4:52:59	84/ 4/14 23:59:56	MSBB22.1	4		367
84/ 4/15 1:41: 9	84/ 4/17 23:43:45	MSBB22.1	5		101
84/ 4/18 0: 4:30	84/ 4/22 0: 4:45	MSBB22.1	6		21
84/ 4/22 0: 5:16	84/ 4/24 23:43: 1	MSBB23.1	2		1
84/ 4/25 0:29:45	84/ 4/28 23: 9:16	MSBB23.1	3		47
84/ 4/29 1:59: 7	84/ 5/ 2 0:27:57	MSBB23.1	4		170
84/ 5/ 2 0:49: 3	84/ 5/ 5 23:42:55	MSBB23.1	5	(1)	21

****** END OF DATA *****

(1) NOTE: THE DATA ON THIS FILE AFTER 1984/05/02 23:49 U.T.
IS NOT VALID

FILE	START	STOP		BLOCKS
1	82- 5- 9 0:12: 5.619	82- 5-12 0:57:30.254		1638
2	84- 4-22 0: 5:16.602	84- 4-24 23:43: 1.523		1353
3	84- 4-25 0:29:45.255	84- 4-28 23: 9:16.617		1868
4	84- 4-29 1:59: 7.835	84- 5- 2 0:27:57.314		1186
5	84- 5- 2 0:49: 3.397	84- 5- 5 23:42:55.328	(1)	1609

TOTAL OF 7654 BLOCKS IN 5 FILES 72841

(1) NOTE: THE DATA ON THIS FILE AFTER 1984/05/02 23:49 U.T. IS NOT VALID

DUMP OF TAPE GAIL2

D-47412 11/01/77 - 12/18/77

INPUT TAPE GAIL2 ON MT4
DATA INPUT H9 NF 3 FL 1 1 0 SR 3 LAST 1

YR-77 305 DAY

FILE 1 RECORD 1 LENGTH 35363 BYTES

(0)	004D0131	00011EA2	30A00870	004A0001	02D400CD	FDCDE9EE	8C001800	80018001	80018001	80018001
(40)	80018001	80018001	80018001	80018001	00000000	00000000	00000000	80018001	FFFFFFFF	FFFF1801
(80)	4523ADF4	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA
(120)	00000000	80018001	80018001	80018001	80018001	80018001	80018001	45247B13	F249F2CA	
(160)	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	00000002	80018001
(200)	80018001	80018001	80018001	80018001	80018001	80010000	45253312	F249F2CA	F249F2CA	F249F2CA
(240)	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	4024EDB3	00000000	45F2B781	80018001	
(280)	80018001	8001FED9	FF820316	80010000	4525F5A2	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA
(320)	F249F2CA	F249F2CA	F249F2CA	400913CB	00000000	800107EF	46408001	80018001	80018001	8001FED8
(360)	FF7E0316	80010000	4526B831	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA
(400)	F249F2CA	401A7617	0000000C	800107F4	463E8001	80018001	80018001	FF7C0317	80018000	
(440)	45277AC0	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	3FE41A75	
(480)	0000000C	800107DF	B9EA8001	80018001	8001FEDA	FF7A0317	80010000	452A8D5F	F249F2CA	
(520)	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	3FE02DD2	00000000	800107EA
(560)	B9B98001	80018001	80018001	8001FED8	FF7C0317	80010000	452EFFDF	F249F2CA	F249F2CA	F249F2CA
(600)	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	3FA860A1	0000000C	800107E3	80018001	
(640)	80018001	8001FED9	FF7B0316	80010000	4529C26F	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA
(680)	F249F2CA	F249F2CA	F249F2CA	3F7ED1A1	0000000C	800107E9	B9F78001	80018001	80018001	8001FED8
(720)	FF790316	80010000	452A84FE	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA
(760)	F249F2CA	3FDAADC8	0000000D	800107E9	B9BE8001	80018001	80018001	8001FED8	FF7C0317	80010000
(800)	452B478D	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	40160244
(840)	0000000C	800107EC	B9C98001	80018001	80018001	8001FED7	FF7A0317	80010000	452CC5A1	F249F2CA
(880)	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	4159F145	00000000	80018001
(920)	46358001	80018001	80018001	8001FED5	FF7E0319	80010000	452CCCAC	F249F2CA	F249F2CA	F249F2CA
(960)	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	4045D145	0000000C	800107F1	80018001	
(1000)	80018001	8001FED6	FF7C0319	80010000	452D3F3E	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA
(1040)	F249F2CA	F249F2CA	F249F2CA	4060FE24	0000000C	800107FE	46168001	80018001	80018001	8001FED4
(1080)	FF7F0319	80010000	452E51CB	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	
(1120)	F249F2CA	40702F1C	0000000C	800107DF	460E8001	80018001	80018001	8001FED8	FF7C0317	80018000
(1160)	452F145A	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	40465A51
(1200)	0000000D	800107DC	B9BE8001	80018001	80018001	8001FED4	FF7B0317	80010000	452F0000	F249F2CA
(1240)	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	4C544E54	6C6F6F6C	80017D03
(1280)	46358001	80018001	80018001	8001FEDC	FF7E0318	80010000	453C9979	F249F2CA	F249F2CA	F249F2CA
(1320)	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	40454F3E	0000000C	80018004	80C48001	80018001
(1360)	80018001	8001FEDD	FF7B0318	80010000	45315C0A	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA
(1400)	F249F2CA	F249F2CA	F249F2CA	40104906	0000000C	800107CF	463E8001	80018001	80018001	8001FEDC
(1440)	FF7D0319	80010000	45321E98	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA
(1480)	F249F2CA	3FE789B3	0000000C	80010703	B9C58001	80018001	80018001	8001FED8	FF7C0318	80018001
(1520)	4532E127	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	3F116E82
(1560)	0000000C	800107E1	B9CF8001	80018001	80018001	8001FED6	FF7A0318	80018001	4533A3EE	F249F2CA
(1600)	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	3F3B7C0A	0000D000	80017E0
(1640)	B9BF8001	80018001	80018001	8001FED8	FF7B031C	80010000	45346646	F249F2CA	F249F2CA	F249F2CA
(1680)	F249F2CA	F249F2CA	F249F2CA	F249F2CA	F249F2CA	3ECF9350	00020000	80017EE	4B3B4FDE	8C0 3F4F
(1720)	80018001	8001FED6	FF7D031C	80010000	45352D05	41BAE6E5	C1945E87	41B48C13	C1941C82	41B48F86
(1760)	C19D1DAE	41AF0B86	403F7C10	3F7B515A	000A000C	F0FC07F8	4625FE87	0ECDBEC0	8001FF78	01BCFED4
(1800)	FF7E031C	00010009	4535EB64	4202A3B5	C10B41F9	4202A19D	C1B8B211	41B51D24	C1B42E84	41B51D24
(1840)	40C55B3A	3FE1A647	0007000C	FA4B07E9	4645FDC3	0A390460	80018001	FE70FFD6	FF7C031C	80018005
(1880)	4536ADF4	41E6F36F	C0929225	41E6ED86	C09321E9	41D89B10	C0C54A0B	41D89B10	4123BE73	40BA5920
(1920)	0003000C	FC7A07ED	4635FE83	00BC0046	80018001	FEACFED6	FF7D031C	80018001	4537F783	41B51E82
(1960)	3FA41798	41B65221	3FA3D206	41AAE419	BD2BF049	41AAF419	4100B850	4224F853	00070000	8142F7F8
(2000)	464CFDDB	09990AD5	80018001	FEADFED5	FF7C031A	00010006	4553E312	42B1456A	C1E4F525	42B34FE3
(2040)	C16427B9	41F283CD	C17EE4D5	41F283CD	409AFECF	405AD9F3	00080000	F6B0C7F1	E9CFF86F	8E316F42
(2080)	80018001	038DFED6	FF7A0319	00010005	453FF542	41BFE2F5	C12C490F	41BF7C06	C12C7A0A	41B3CFC
(2120)	C1400E9F	41B39CFC	4008FEC1	4011CEEC	000F000C	F6B707EC	4642F0D8	8AAE06DE	80018001	C11CFED7
(2160)	FF7D0319	00010000	453FB831	41BC9665	C10A1241	41BC1ED7	C10A1AB7	41B11252	C11BF5CC	41B11202
(2200)	4014271D	3FDF9F81	0011000C	F81F07DA	464CFE5A	9F0A0FDF	80018001	80018001	FF7C031	80013D0F
(2240)	453A7AC0	41C3D47A	C10FDAAB	41C3CFB1	C10FF4AE	41B7F629	C123FF35	41B7F629	3FD92C89	3F24C029
(2280)	0012000C	F81F07D3	4644FE0F	0A3A0753	80010006	F062FFD8	FF7C031A	80018001	80018001	8001FED0

(2320)	C1307 32E	41B1A526	C1307756	41A6DFC6	C1421B31	41A6DFC6	402AB42F	3F [illegible]	[illegible]	[illegible]
(2360)	464EFE7C	0DBC0B72	80010570	00E0FEDA	FF7A031E	00010010	45345F0F	41 [illegible]	C142 [illegible]	41 [illegible]
(2400)	C142963D	41A4E062	C153D6B2	41A4E062	3FC65E3E	3F2B7ACD	00110000	[illegible]	[illegible]	[illegible]
(2440)	800117C7	FFCCFED9	FF7A031E	00010000	453CC26F	41A819E6	C14A2545	41A [illegible]	C14A243F	41 [illegible]
(2480)	C15A7C1D	419DC94B	3FC35F97	3F4C150F	00120000	F3E207F2	[illegible]	[illegible]	[illegible]	[illegible]
(2520)	FF7A0321	00010000	453D84FE	41B59985	C161A547	41B59947	C161A6AE	41 [illegible]	C17333D [illegible]	41 [illegible]
(2560)	3F485F63	3F2737AA	00120000	F39007EE	464FF7F5	099D0642	80010CF6	FF32FED3	FF7A0321	00010000
(2600)	453E478D	41B4A8D8	C14F1568	41B4B60F	C14EE092	41A96DD8	C160E91F	41A9 [illegible]	7F [illegible]	3F541F0C
(2640)	00120000	F45A07F4	B9CAFEA2	0D1F0C0E	80010F90	FFB0FED3	FF790320	00010FFF	453F0410	41 [illegible]
(2680)	C13CE651	41B26411	C13C9EA3	41A73537	C14EBCF5	41A73537	3F0EC00F	3EAC47B1	00120000	F51507E0
(2720)	B9D3FDF0	09EB07A1	80010A85	00D6FED3	FF79031E	00010000	453FCCAC	41 [illegible]	C1313326	41 [illegible]
(2760)	C131050E	41B0A8D8	C144569F	41B0A8D8	3F2C24A1	3F944FF5	0C110000	F52FF7F3	[illegible]	[illegible]
(2800)	80010B47	FF6FFED5	FF7A031C	00010000	45408F38	41B59C3C	C110F12F	41B5B131	C11C900E	41 [illegible]
(2840)	C12F8091	41AA6819	3F60EABD	3F94B1D3	00120000	F6DF07EE	[illegible]	0AE005C1	[illegible]	[illegible]
(2880)	FF79031C	00010000	454151CB	41B7C531	C11E1971	41B7C0D3	C110F145	41 [illegible]	C130E578	41 [illegible]
(2920)	3F27345D	3FB272AC	00120000	F6E807EA	B9C3FE94	0D950FDF	80010EA2	014DFED6	FF7A0310	00010000
(2960)	4542145A	41AD7FE2	C123DBAC	41AD91D2	C123DF9A	41A30C91	C1352D41	41A30C91	3F77CF27	3FE [illegible]
(3000)	0011000C	F62007D5	B9D7FE20	0AD5072C	80010A95	C134FED9	FF79031D	00010000	454D6FE9	41E [illegible]
(3040)	C144E286	41BA0DFD	C144A66A	41AEE0A2	C1571565	41AEE0A2	3F4C5225	3FDE9B59	00120000	F51B87CC
(3080)	B9CDFE87	0DBC0F69	80010599	00E0FEDA	FF79031D	00010010	45435979	41AED667	C1374BBE	41 [illegible]
(3120)	C1375645	41A45F2C	C14572E9	41A45F2C	3F9C93E9	4004BAEA	00110000	F5320704	464 [illegible]	04120BF3
(3160)	80010FB1	FFD4FEDA	FF78031E	00010000	45445C66	41ABEA05	C135F52C	41ABED9A	C1341C24	41 [illegible]
(3200)	C144E50E	41A18FD1	3F247E5A	3FA15ED2	00110000	F53507CB	4630FE3E	0A1C09A1	[illegible]	FF03FED9
(3240)	FF7B0321	00010000	45451E98	41A58057	C15B4A65	41A583A4	C15E407C	41 [illegible]	C1E7F [illegible]	41 [illegible]
(3280)	3F680FEC	3F8C247C	00120000	F30C07CD	B9B5FE0F	0976057E	80010ABF	FFAEFED8	FF790323	00010000
(3320)	4545E127	419E60E2	C146AE63	419E5AE1	C146C1A8	4194CE50	C155DC3B	41940E5E	3EB659C8	3FE [illegible]
(3360)	00110000	F3760700	4645FF2F	0D950C0E	80010178	0002FED7	FF7A0325	00010C0F	454EA3F6	41 [illegible]
(3400)	C149E675	41B6D6D9	C149E735	41A8C549	C15BD1C9	41A8C549	3F4C106D	3FC6305 [illegible]	00120000	F4E607D4
(3440)	4650F938	09760705	8001FD11	00AEFED6	FF790325	00010000	45476646	41C3D4 [illegible]	C14E32C [illegible]	41C3 [illegible]
(3480)	C1463D62	41B7EF2C	C159AD66	41B7EF2C	3ERFE517	3F22A553	00110000	F5 [illegible]	4545 [illegible]	[illegible]
(3520)	80010100	00CEFED7	FF7A0323	00010000						

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY PERM	ZERO M	SHORT	UNDEF.	INPUT RECORDS RECS.	TOTALM
1	3661	3661	3536	0	137	0	0	137	141

YR.77 352 DAY

FILE 3 RECORD 2201 LENGTH 3536BYTES

(0)	004D0160	000055CF	1AA1059C	00000001	0ADAFC12	3C21FC12	80010001	80010001	80010001	[illegible]
(40)	80018001	80018001	80018001	80018001	00000000	00000000	00000000	00200200	00000000	[illegible]
(80)	462C5FD5	404E6FAA	BF17C957	40172C21	C0119C95	4008B400	BF400243	400EB400	3F9551A0	40 [illegible]
(120)	0017000C	FBEE1869	E6D0FC92	07050300	00750EEC	80010010	FFD40024	[illegible]	4E2C9 [illegible]	[illegible]
(160)	40584CF1	40A59895	BF4CB231	4086 13DF	4090 [illegible]	40C [illegible]	3F60E21A	405E [illegible]	[illegible]	3E [illegible]
(200)	E1D3FED6	09760AAE	0976FE44	80010009	FFD5FFF9	00000013	462CC11D	8FFA38DF	40E [illegible]	40 [illegible]
(240)	BF054528	40884847	408CCE1A	40884847	3F85340B	3F26F290	001 [illegible]	2A7127B [illegible]	[illegible]	[illegible]
(280)	01600084	8001001A	FFE4FFFD	00000013	462CF1C1	FF13F15C	40A02FB7	40A07C [illegible]	3EF [illegible]	40 [illegible]
(320)	40491259	407C3EAF	3F355701	3F1A5CF9	0019000C	2 [illegible] 2359	EE45FEAA	[illegible]	0720 [illegible]	[illegible]
(360)	FFE20005	00000012	462D2265	C06E12B4	4075BB49	4049B733	40BA [illegible]	402 [illegible]	402 [illegible]	402 [illegible]
(400)	3F6865CC	3F79C750	00180000	34612164	E917F9FC	0E1604FD	00EA [illegible]	[illegible]	[illegible]	[illegible]
(440)	462D5309	3FE105F6	3FF9D9E1	402B0E30	3D9A3A1A	3FF0B73D	3F81F224	3FF0B73D	3F651C65	40 [illegible]
(480)	0018000C	12BF1A07	F02DFE31	09C40642	04E205C3	80010010	FFEA0010	00010012	462E [illegible]	[illegible]
(520)	41323FDD	40D64A62	41B152DC	4090C0C3	413B126F	4090C0C3	3E415FD8	[illegible]	[illegible]	[illegible]
(560)	EF89FAC6	09010298	00750679	80010010	FFE70006	00010007	462DE450	41 [illegible]	40 [illegible]	4142FE25
(600)	C1537867	40B95B77	40255F71	40B95B77	3FCF6B4F	403DC7C4	00190C9D	07921F5C	F5C [illegible]	[illegible]
(640)	C61BFFB1	80010027	FFEE000B	00010016	462DF4F4	41419DE1	40BC9129	411 [illegible]	C1CAF6FC	40 [illegible]
(680)	3FFCF338	40993231	3FCD3A83	4055FF1C	0018000C	07C81E75	F51DFED2	[illegible]	[illegible]	[illegible]
(720)	FFED000D	00010015	462E1598	3E60B884	407BEC9A	40799B72	3F13757F	40 [illegible]	3EC [illegible]	40 [illegible]
(760)	3F6253E4	3F89C358	00180000	21E92127	F3FCFEC4	099D077A	0F60FFA5	[illegible]	FFE60000	00 [illegible]
(800)	462E463C	BE83B5B6	40913247	40909FF7	3F100E2C	40E20DB0	402BE3C7	40 [illegible]	3F7 [illegible]	3F [illegible]
(840)	00180000	246C2289	F52DFCAD	0B160300	0187FB4D	80010034	FFE60006	00100313	462E76E0	41511EC4
(920)	F735FEF4	09760F3D	061B00F3	80010033	FFEF0011	00010013	462EA7F4	4172AFDC	494E0F6 [illegible]	4175 [illegible]
(960)	BFF9478A	409AE461	3F21D612	409AE461	3F50A67E	40240AAC	001 [illegible]	3A7C10 [illegible]	FB [illegible]	07E [illegible]
(1000)	0027FCDF	80010033	FFFD0011	00010013	462ED527	40C44AFE	0E2E [illegible]	4 [illegible]	FE0E [illegible]	41 [illegible]
(1040)	BF5277C9	40950951	3F6016ED	409116FB	0019000D	FF611102	F537FE09	0 [illegible]	[illegible]	[illegible]
(1080)	FFF70024	00010013	462F08CB	40DC49B0	404B4B73	40DAA2AC	C0B24F14	4 [illegible]	3FC564 [illegible]	40 [illegible]
(1120)	3F5B31C2	4028 6370	0019000C	09AD14F4	EF71FB72	07EE029 [illegible]	8160FF5 [illegible]	[illegible]	[illegible]	[illegible]

REQ. AGENT	RAND NO.	ACQ. AGENT
RLR		SK

ISEE-1

3-SEC E&B FIELD, S/C POTENTIAL, WAVES

77-102A-06G

This data set catalog consists of 34 multi-filed tapes. The original tapes are 9-track, 1600 bpi, binary, with a header record for each data file. The backup tapes are 3480 cartridges. The D and C numbers and time spans are as follows:

77-102A-06G ISEE-1:

D#	C#	FILES	TIME SPAN
D-84035	C-28299	09	11/01/77 - 12/01/77
D-84036	C-28300	08	12/04/77 - 12/28/77
D-84037	C-28301	09	01/01/78 - 01/29/78
D-84038	C-28302	11	02/01/78 - 03/05/78
D-84039	C-28303	19	03/08/78 - 05/28/78
D-84040	C-28304	10	05/31/78 - 07/02/78
D-84041	C-28305	11	07/05/78 - 08/09/78
D-84042	C-28306	10	08/13/78 - 09/24/78
D-84043	C-28307	12	09/27/78 - 11/05/78
D-84044	C-28308	03	11/08/78 - 11/15/78
D-84045	C-28309	12	02/13/80 - 03/23/80
D-84046	C-28310	11	03/26/80 - 05/04/80
D-84047	C-28311	11	05/07/80 - 06/11/80
D-84048	C-28312	13	06/15/80 - 07/27/80
D-84049	C-28313	13	07/30/80 - 09/14/80
D-84050	C-28314	15	09/17/80 - 11/12/80
D-84051	C-28315	13	11/16/80 - 12/28/80
D-84052	C-28316	01	12/31/80 - 01/02/81
D-84053	C-28317	12	01/04/81 - 02/11/81
D-84054	C-28318	11	02/15/81 - 04/08/81
D-84055	C-28319	09	04/12/81 - 05/17/81

77-102A-06G ISEE-1 (cont.):

D#	C#	FILES	TIME SPAN
D-84056	C-28320	10	05/20/81 - 07/05/81
D-84057	C-28321	07	07/08/81 - 07/29/81
D-84058	C-28322	08	08/09/81 - 09/02/81
D-84059	C-28323	09	09/06/81 - 10/04/81
D-84060	C-28324	09	10/07/81 - 11/04/81
D-84061	C-28325	11	11/08/81 - 12/13/81
D-84062	C-28326	05	12/16/81 - 12/30/81
D-84063	C-28327	01	01/03/82 - 01/05/82
D-84064	C-28649	12	11/09/83 - 12/18/83
D-84065	C-28650	03	12/21/83 - 12/28/83
D-84066	C-28328	13	01/01/84 - 02/12/84
D-84067	C-28329	11	02/15/84 - 03/21/84
D-84068	C-28330	12	03/25/84 - 05/02/84

77-102A-06G

July 29, 1991

Mr. Ralph Post
GSFC Code 933
Bldg 26, G14
Greenbelt, MD. 20771

Dear Mr. Post:

Enclosed you may find documentation pertaining to the ISEE-1 Electric Field Analyzed Data Archive, prepared at the Space Sciences Laboratory of the University of California, Berkeley.

The documentation enclosed is as follows:

1) A copy of the document titled "ISEE-1 Electric Field Analyzed Data Archive - Data Format".

2) A copy of the Archive Tape List.
This list shows which tape and which file contain the data for a particular date and time.

In addition, 3 boxes containing a total of [redacted] 34 Archive Tapes are being sent to you separately.

When the tapes have arrived, please be so kind to sign the enclosed receipt, and mail it to me at the address below.

Should there be any question, you can call me at (415) 642-2405 or (415) 642-7297; the second number is to leave messages.
Please note that on September 2 the telephone Area Code will change from 415 to 510; the 7 digits following the Area Code will not change.

Sincerely,

Winston Teitler

Winston Teitler
Programmer/Analyst III

Winston Teitler
Space Sciences Laboratory
University of California
Berkeley, California 94720

ISEE-1 ELECTRIC FIELD ANALYZED DATA ARCHIVE

DATA FORMAT

Winston Teitler
Space Sciences Laboratory
University of California, Berkeley

July 29, 1991

Contents:

1. Introduction.

2. Format of the Archive Tapes.

3. Format of the Archive Tape List.

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1. Introduction.

The purpose of the ISEE-1 Electric Field Analyzed Data Archive project is to put ISEE-1 electric field analyzed data into a format that can be used more easily and conveniently.

The data archived by this project is from the ISEE-1 spacecraft, from an instrument built by the Space Sciences Laboratory at the University of California, Berkeley. It is primarily electric field data, and the data has been spin-period analyzed.

The following output is produced by the archiving project:

a) Archive Tapes.

These are standard 1/2 inch magnetic tapes, containing the data.

b) Archive Tape List.

This is a printed (hard-copy) list of the tapes and their files.

This document describes the format of the output indicated above.

This document can be provided in machine-readable form upon request.

The Archive Tape List can also be provided in machine-readable form upon request.

---

2. Format of the Archive Tapes.

As mentioned in Section 1, the Archive Tapes are standard 1/2 inch magnetic tapes.

2.1 Main Recording Features.

Number of Tracks = 9.

Density = 1,600 BPI.

Labels = Unlabeled (no internal labels).

2.2 Number of Files.

Each tape may contain any number of files.

Each file is followed by an End-of-File mark.

The last file on each tape is followed by 2 End-of-File marks, rather than just 1.

2.3 Data Representation.

(IBM)

All data on the tapes is in binary format.
Data were written by a Perkin-Elmer computer. Representation is like IBM.
Will need to swap bytes on a VAX.

Data items are written on tape encoded as integers that are non-negative (zero or positive, i.e., the sign bit is 0).

Integers on tape can be 4 bytes long (32 bits) or 2 bytes long (16 bits); 1 byte = 8 bits.

The byte order for an integer on tape is: first, the most significant byte (which includes the sign bit); then, the second most significant byte; etc., with the least significant byte last.

2.4 Block Length.

Every tape block is 4,800 bytes long.

2.5 Types of Blocks.

Every file contains 2 types of blocks:

a) File Header Block.

The File Header Block contains general information that refers to the whole file.

There is exactly 1 File Header Block for each file, and it is the first block in the file.

b) Spin Period Data Block.

A Spin Period Data Block contains information from a number of spin periods.

There are multiple such blocks in a file.

The Spin Period Data Blocks come after the File Header Block.

2.6 Spin Period Data Length and Blocking.

The data for each spin period occupies 48 bytes.

Spin period data is blocked at 100 spin periods per block (4,800 bytes), and is contained in the Spin Period Data Blocks.

The last Spin Period Data Block in each file is padded at the end if necessary, so as to have the same length as all the others.

If the total number of actual spin periods in the file ("true" spin periods) is not a multiple of 100, then the last Spin Period Data Block contains: first, the last "true" spin periods; followed by filler, to complete the block length.
The filler can be thought of as added "filler" spin periods.
Every byte that belongs to a "filler" spin period consists of bits all set to 0.

2.7 Number of Spin Periods.

Each file may contain any number of spin periods.

2.8 Sequence of Spin Periods.

Within each file, spin periods are in chronological sequence.

Within each file, there are no duplicate times, i.e., each spin period is at a time strictly later than the previous one.

It is possible that there may be a small overlap between the end of one file and the beginning of another one (on the same tape or on different tapes).

2.9 Format of the File Header Block.

2.9.1 List of data items and locations.

The list below shows the data items contained in the File Header Block.

For each item, the following are shown:

a) The number of the item.

b) The length (in bytes) of the integer that represents the item (see Section 2.3).

c) The location of the item within the block. The first byte in the block is referred to as byte 1.

d) The name or description of the item.

Item Number	Item Length	Item Location	Item Name
1	4	1 - 4	Reference date, year
2	4	5 - 8	Reference date, month
3	4	9 - 12	Reference date, day of month
4	4	13 - 16	Reference date, day of

			year
5	4	17 - 20	Time for the first spin period
6	4	21 - 24	Time for the last spin period
7	4	25 - 28	Number of "true" spin periods
8	4	29 - 32	Number of "filler" spin periods
9	4	33 - 36	Number of "good quality" spin periods
10	4	37 - 40	Average duration of a spin period
--	-	41 - 4,800	Reserved

2.9.2 Notes on each data item.

The notes below provide further explanations about the data items contained in the File Header Block.

In particular, for each item it is shown how to decode the integer that represents the item on the tape, to obtain the value in actual physical units (see Section 2.3).

The symbol K4 will be used below to represent the number 2**30 (2 raised to the 30th. power).

The symbols T1, T2, etc., will be used below to represent the integers on the tape that represent data items 1, 2, etc., respectively.

2.9.2.1 Item 1 - Reference date, year.

The times that are given in a file are expressed as time elapsed since 0 hours Universal Time (U.T.) at a date that is called the reference date for the file.

In general, the reference dates for different files are different.

Items 1 through 4 give the reference date.

(T1 - K4) gives the year for the reference date (e.g., 1977).

2.9.2.2 Item 2 - Reference date, month.

See Section 2.9.2.1.

(T2 - K4) gives the month for the reference date (1 through 12).

2.9.2.3 Item 3 - Reference date, day of month.

See Section 2.9.2.1.

(T3 - K4) gives the day of the month for the reference date (1 through 31).

2.9.2.4 Item 4 - Reference date, day of year.

See Section 2.9.2.1.

(T4 - K4) gives the day of the year for the reference date (1 through 366).

Day of year is defined with January 1 = Day 1.

2.9.2.5 Item 5 - Time for the first spin period.

(T5 - K4) / 1000 gives the time for the first "true" spin period in the file.

The time is for the mid-point of the spin period, is expressed in seconds, and is referred to the reference date for the file.

The time is greater than or equal to 0, and can equal or exceed 86400.

See Sections 2.6 and 2.9.2.1.

2.9.2.6 Item 6 - Time for the last spin period.

(T6 - K4) / 1000 gives the time for the last "true" spin period in the file.

The time is for the mid-point of the spin period,

is expressed in seconds, and is referred to the reference date for the file.

The time is greater than or equal to 0, and can equal or exceed 86400.

See Sections 2.6 and 2.9.2.1.

2.9.2.7 Item 7 - Number of "true" spin periods.

See Section 2.6.

(T7 - K4) gives the number of "true" spin periods in the file.

This number will always be at least 1 (every file contains some "true" spin periods).

2.9.2.8 Item 8 - Number of "filler" spin periods.

See Section 2.6.

(T8 - K4) gives the number of "filler" spin periods in the file.

If the number of "true" spin periods is not a multiple of 100, the number of "filler" spin periods will be at least 1.
If the number of "true" spin periods is a multiple of 100, the number of "filler" spin periods will be 0.

2.9.2.9 Item 9 - Number of "good quality" spin periods.

Each "true" spin period in a file is flagged either as a spin period with "good quality" data or as a spin period with "bad quality" data (see Section 2.6 for the definition of a "true" spin period).

For "good quality" spin periods the data is more reliable.
For "bad quality" spin periods the data is more dubious. Consultation with the ISEE-1 scientists at Berkeley is strongly recommended, prior to using such data.

(T9 - K4) gives the number of "good quality" spin periods in the file.

This number may be 0 (it is possible for a file not to contain any "good quality" spin periods).

2.9.2.10 Item 10 - Average duration of a spin period.

(T10 - K4) / 1000 gives the average duration of a spin period.

This is the average of the durations of all the "true" spin periods in the file, and is expressed in seconds (see Section 2.6 for the definition of a "true" spin period).

2.10 Format of the Spin Period Data Block.

See Section 2.6.

A Spin Period Data Block contains all the data for one spin period, followed by all the data for the next spin period, etc.

2.10.1 List of data items and locations.

The list below shows the data items for a "true" spin period (see Section 2.6 for the definition of a "true" spin period).

For each item, the following are shown:

a) The number of the item.

b) The length (in bytes) of the integer that represents the item (see Section 2.3).

c) The location of the item within the data for the spin period.
The first byte in the data for a spin period is referred to as byte 1.

d) The name or description of the item.

Item Number	Item Length	Item Location	Item Name
1	4	1 - 4	Time

2	4	5 -	8	Electric field, EX
3	4	9 -	12	Magnetic field, BX
4	4	13 -	16	Magnetic field, BY
5	4	17 -	20	Magnetic field, BZ
6	4	21 -	24	Standard deviation for the electric field E
7	4	25 -	28	Standard deviation for the magnetic field B
8	2	29 -	30	Location, X
9	2	31 -	32	Location, Y
10	2	33 -	34	Location, Z
11	2	35 -	36	Electric field, EY
12	2	37 -	38	Bias current
13	2	39 -	40	Voltage V2S
14	2	41 -	42	Filter 1
15	2	43 -	44	Filter 2
16	2	45 -	46	Filter 3
17	2	47 -	48	Quality flag

2.10.2 Notes on each data item.

The notes below provide further explanations about the data items for a "true" spin period (see Section 2.6 for the definition of a "true" spin period).

In particular, for each item it is shown how to decode the integer that represents the item on the tape, to obtain the value in actual physical units (see Section 2.3).

The symbol K4 will be used below to represent the number 2**30 (2 raised to the 30th. power).
The symbol K2 will be used below to represent the number 2**14 (2 raised to the 14th. power).

The symbols T1, T2, etc., will be used below to represent the integers on the tape that represent data

items 1, 2, etc., respectively.

2.10.2.1 Item 1 - Time.

(T1 - K4) / 1000 gives the time.

The time is for the mid-point of the spin period, is expressed in seconds, and is referred to the reference date for the file.

The time is greater than or equal to 0, and can equal or exceed 86400.

The values of time within a file are in increasing sequence, with no duplicates.

See Section 2.9.2.1.

2.10.2.2 Item 2 - Electric field, EX.

The components of the electric field are in the GSE coordinate system.

(T2 - K4) / 1000 gives an approximate value of EX, expressed in mV/m.

It must be emphasized that this value of EX is only approximate. Should a more precise value be needed, consultation with the ISEE-1 scientists at Berkeley is required.

2.10.2.3 Item 3 - Magnetic field, BX.

The components of the magnetic field are in the GSE coordinate system.

If T3 is 0, then the value of BX is unknown.

Otherwise, the value is obtained as follows:
(T3 - K4) / 10 gives the value of BX, expressed in nT.

2.10.2.4 Item 4 - Magnetic field, BY.

This is analogous to the case of BX.

See Section 2.10.2.3.

2.10.2.5 Item 5 - Magnetic field, BZ.

This is analogous to the case of BX.

See Section 2.10.2.3.

2.10.2.6 Item 6 - Standard deviation for the electric field E.

If T6 is 0, then the value of the standard deviation is unknown.

Otherwise, the value is obtained as follows: (T6 - K4) / 100 gives the value of the standard deviation, expressed in mV/m.

2.10.2.7 Item 7 - Standard deviation for the magnetic field B.

If T7 is 0, then the value of the standard deviation is unknown.

Otherwise, the value is obtained as follows: (T7 - K4) / 100 gives the value of the standard deviation, expressed in nT.

2.10.2.8 Item 8 - Location, X.

Location is the position of the spacecraft with respect to the center of the Earth, in the GSM coordinate system.

If T8 is 0, then the value of X is unknown.

Otherwise, the value is obtained as follows: (T8 - K2) / 100 gives the value of X, expressed in Re (Earth radii).

2.10.2.9 Item 9 - Location, Y.

This is analogous to the case of X.

See Section 2.10.2.8.

2.10.2.10 Item 10 - Location, Z.

This is analogous to the case of X.

See Section 2.10.2.8.

2.10.2.11 Item 11 - Electric field, EY.

The components of the electric field are in the GSE coordinate system.

(T11 - K2) / 10 gives the value of EY, expressed in mV/m.

2.10.2.12 Item 12 - Bias current.

(T12 - K2) / 10 gives the value of the bias current, expressed in nAmp.

2.10.2.13 Item 13 - Voltage V2S.

The V2S value may be either the minimum or the maximum value for the spin period (in general, it will be alternately minimum and maximum for two successive spin periods).

(T13 - K2) / 10 gives the value of V2S, expressed in Volt.

2.10.2.14 Item 14 - Filter 1.

A filter value may be either the minimum or the maximum value for the spin period (in general, it will be alternately minimum and maximum for two successive spin periods).

If T14 is 0, then the value of filter 1 is unknown.

Otherwise, the value is obtained as follows:
(T14 - K2) / 1000 gives the logarithm base 10 of the value of filter 1, expressed in microVolt/mh where h represents Hz raised to the 1/2 power.

2.10.2.15 Item 15 - Filter 2.

This is analogous to the case of filter 1.

See Section 2.10.2.14.

2.10.2.16 Item 16 - Filter 3.

This is analogous to the case of filter 1.

See Section 2.10.2.14.

2.10.2.17 Item 17 - Quality flag.

(T17 - K2) gives the quality flag.

A quality flag of 1 indicates a spin period with "good quality" data.
A quality flag of 0 indicates a spin period with "bad quality" data.

See Section 2.9.2.9 for a warning about the use of spin periods with "bad quality" data.

---

3. Format of the Archive Tape List.

As mentioned in Section 1, the Archive Tape List is a printed (hard-copy) document.

It consists, then, of lines of ASCII characters.

Numbers are shown in decimal representation.

Each line on the Archive Tape List corresponds to one file on an Archive Tape.

3.1 Line Length.

Every line contains 91 characters of text.

3.2 Sequence of Lines.

The lines are in chronological sequence, according to the date and time for the first spin period of the corresponding files.

There are no duplicates.

3.3 Format of the Line.

3.3.1 List of data items and locations.

The list below shows the data items contained in a line.

For each item, the following are shown:

a) The number of the item.

b) The length (in characters) of the item.

c) The location of the item within the line. The first character in the line is referred to as character 1.

d) The name or description of the item.

Character locations not occupied by the items below contain blanks.

Item Number	Item Length	Item Location	Item Name
1	29	1 - 29	Date and time when the file begins
2	29	31 - 59	Date and time when the file ends
3	8	61 - 68	Name of the tape

4	2	70 -	71	File number
5	6	73 -	78	Number of "true" spin periods
6	6	80 -	85	Number of "good quality" spin periods
7	5	87 -	91	Average duration of a spin period

3.3.2 Notes on each data item.

The notes below provide further explanations about the data items contained in the line.

Note that values are given directly (no decoding is required).

3.3.2.1 Item 1 - Date and time when the file begins.

This is the date and time for the mid-point of the first "true" spin period contained in the file (see Section 2.6 for the definition of a "true" spin period).

The date and time are in Universal Time (U.T.).

The date is given as year, month, day of month, day of year; for example,
1978/03/01 (060)
Note that the date takes the first 16 characters of this item, including the space before the left parenthesis.

Day of year is defined with January 1 = Day 1.

The time is given as hours, minutes, seconds, and fraction of a second to 3 decimal places; for example,
00:02:05.942
Note that the time takes the last 12 characters of this item.
There is 1 blank space between the date and the time.

The time is always greater than or equal to 00:00:00.000 and less than 24:00:00.000.

Note that the date may be different than the reference date for the file, which is contained in the File Header Block of the Archive Tape file, and is defined in Section 2.9.2.1.

The values of item 1 within the list are in increasing sequence, with no duplicates.

3.3.2.2 Item 2 - Date and time when the file ends.

This is the date and time for the mid-point of the last "true" spin period contained in the file (see Section 2.6 for the definition of a "true" spin period).

The date and time are in Universal Time (U.T.).

This item is formatted analogously to item 1 (see Section 3.3.2.1).

Note that the date may be different than the reference date for the file, which is contained in the File Header Block of the Archive Tape file, and is defined in Section 2.9.2.1.
The date may also be different than the date contained in item 1 (see Section 3.3.2.1).

3.3.2.3 Item 3 - Name of the tape.

This is the name assigned to the Archive Tape that contains the file.

Tape names consist of 2 upper-case letters followed by 6 digits; for example,
IS780201

3.3.2.4 Item 4 - File number.

This is number of the file within the Archive Tape.

The first file of a tape is referred to as file 1.

This number is formatted right-justified, with leading blanks if needed.

3.3.2.5 Item 5 - Number of "true" spin periods.

See Section 2.6.

This number is formatted right-justified, with leading blanks if needed.

3.3.2.6 Item 6 - Number of "good quality" spin periods.

See Section 2.9.2.9 (but note that there is no decoding for the Tape Archive List).

This number is formatted right-justified, with leading blanks if needed.

3.3.2.7 Item 7 - Average duration of a spin period.

See Section 2.9.2.10 (but note that there is no decoding for the Tape Archive List).

The format includes a decimal point followed by a fractional part to 3 decimal places, e.g.,

3.040

Additional documentation for 77-102A-06G

1

From: EAST::"cattell@sunspot.ssl.berkeley.edu" 9-SEP-1991 14:01:07.74
To: nssdca::sumant
CC:
Subj:

Dear Sumant: Here are the answers to your questions. Please feel free to call or e-mail any other questions or clarifications you need.

Cindy

From sumant@nssdca.DNET.NASA.GOV Wed Sep 4 15:10:12 1991
Received: from east.gsfc.nasa.gov by sunspot.ssl.berkeley.edu (4.1/1.30.1)
id AA01393; Wed, 4 Sep 91 15:10:04 PDT
Received: from NSSDCA.DECnet MAIL11D_V3 by east.gsfc.nasa.gov (5.57/Ultrix3.0-C)
id AA27728; Wed, 4 Sep 91 18:10:41 -0400
Date: Wed, 4 Sep 91 18:10:41 -0400
Message-Id: <9109042210.AA27728@east.gsfc.nasa.gov>
From: sumant@nssdca.DNET.NASA.GOV (Sumant Krishnaswamy, NSSDC)
To: "cattell@sunspot.ssl.berkeley.edu"@EAST.DNET.NASA.GOV
Cc: SUMANT@east.gsfc.nasa.gov
Subject: UCB ISEE-1 archive tapes
Status: R

Dear Cindy:

We have received the shipment of 34 tapes consisting of the ISEE-1 Quasi-Static Electric Field archive data. Thanks very much for your efforts in making these available.

I have talked with your programmer, Winston Teitler, to seek clarifications regarding some details of the data format. I have a number of additional questions, mostly of a more scientific nature, that are probably best directed to you. I hope you don't mind my bombarding you with these questions. (The section numbers cited below refer to the documentation provided by Winston Teitler).

1. From the information provided by Winston, the data submitted appears to cover the following time periods:

   1977/11/01 - 1978/11/15
   1980/02/14 - 1982/01/05
   1983/11/09 - 1984/05/02

   Does this cover all the data you are planning to archive? I am specifically curious about the ISEE-3 Geotail interval (1982/10/15 - 1983/12/25), most of which is not included in the submitted data, but I thought you were going to submit all of it. Are you planning on sending us any more data from the ISEE-3 Geotail interval?

******YES, THIS IS ALL WE PLAN TO ARCHIVE. UNFORTUNATELY, DURING MUCH OF 1982 AND 1983, THE INSTRUMENT WAS NOT IN THE OPTIMAL MODE AND IT WAS TOO DIFFICULT TO AUTOMATE PRODUCTION OF CALIBRATED QUANTITIES.**********

2. My notes indicate that you were at one time expecting to include burst data at 256 Hz as one of the parameters on the archival data, but that does not seem to be included on the archive tapes. Have you decided against archiving that quantity? Also, are there any data available from this instrument on the plasma density and temperature?

********I HAD FORGOTTEN THAT WE HAD SAID WE WOULD SEND THE BURST MODE DATA. IT IS ARCHIVED ON SEPARATE TAPES WHICH I WILL HAVE WINSTON SEND TO YOU. THE "SWEEP" DATA WHICH CAN PROVIDE DENSITY AND TEMPERATURE INFORMATION IS NOT BEING ARCHIVED.**********

3. On page 8 (section 2.9.2.9) of the documentation provided by Winston, regarding item 9 ("Number of 'good quality' spin periods"), it cautions against using the data for 'bad quality' spin periods and recommends consultation with the ISEE-1 scientists at Berkeley before making use of the data. Can you provide any more information on the reliability of the data (good and bad)? What criteria determine the data quality? Are there any descriptions of the data reduction procedures, or other references in the literature, other than the instrument description, which might be relevant and useful to the end-user? Are you the appropriate person to contact regarding the use of these data for scientific analysis?

*********THE BEST REFERENCE AVAILABLE AT THE MOMENT WHICH DESCRIBES THE OPERATION OF THE INSTRUMENT IS PEDERSON ET AL,QUASISTATIC ELECTRIC FIELD MEASUREMENTS WITH SPHERICAL DOUBLE PROBES ON GEOS AND ISEE, SPACE SCI. REV., 37, 269, 1984. THE DATA WERE FLAGGED AS BAD QUALITY WHEN THE BIAS CURRENT WAS NOT OPTIMALLY SET FOR THE PLASMA CONDITIONS. I AM THE APPROPRIATE CONTACT AT BERKELEY.**********

4. I presume the data on the tapes are spin-period averages and have a time resolution of 3 seconds. The paper describing the instrument seems to imply that there is one measurement per spin period. If this is so, how were the standard deviations computed? (I think Winston said these were provided by the Co-I's in Sweden?). If there were many values measured per spin period, what was the time resolution of the original data, i.e., how many values typically went into computing a standard deviation? What does it mean to say the standard deviation is 'unknown' (section 2.10.2.6)? Is this due to a lack of data?

**********THE INSTRUMENT SAMPLES THE ELECTRIC FIELD ALONG THE BOOM 8(32) TIMES PER SECOND IN LOW(HIGH) BIT RATE. THE VECTOR ELECTRIC FIELD IN THE SPIN PLANE CAN ONLY BE OBTAINED BY SPIN FITTING THOSE POINTS OVER 1 SPIN PERIOD. THE STANDARD DEVIATION IS FOR THE SPIN FIT. 'UNKNOWN' IN ALL THESE CASES MEANS EITHER THAT THE VALUE ON THE TAPE COULD NOT BE READ OR HAD A BAD DATA VALUE.**********

5. The values of Ex are described as being 'only approximate' (section 2.10.2.2). How approximate? What are the uncertainties or error bars? (The IEEE instrument paper seems to imply 0.1-0.2 mV/m ?). Are these related to corrections for instrumental effects? Again, are there any descriptions of the data reduction procedures? Are the values of Ey subject to the same uncertainties?

**********THE UNCERTAINTY IN Ex IS IN THE ZERO LEVEL. THE FLUCTUATIONS ARE ACCURATE TO ~.25 mV/m . THE ZERO LEVEL IS ACCURATE TO 1 - 2 mV/m. YES, THEY ARE RELATED TO THE CORRECTIONS DISCUSSED, FOR EXAMPLE, IN THE PEDERSON ET AL ARTICLE REFERENCED ABOVE. THE UNCERTAINTIES IN Ey ARE MUCH LESS (ALSO DISCUSSED IN PEDERSON ET AL ARTICLE). ANOTHER REFERENCE WHICH DISCUSSES UNCERTAINTIES IN THE DATA IS MOZER ET AL, COMPARISON OF SPHERICAL DOUBLE PROBE ELECTRIC FIELD MEASUREMENTS WITH PLASMA BULK FLOWS IN PLASMAS HAVING DENSITIES LESS THAN 1/CM-3, GRL, 10, P.737, 1983.**********

6. Were the magnetic field data included on the tapes provided by Chris Russell? Are these spin period averages too? What was the time resolution of the original data? Who computed the spin-period averages and standard deviations, and how were they computed? What is meant by an 'unknown' value of Bx, By, Bz? Is this a data gap due to telemetry gaps or instrumental glitches?

**********THE DATA WERE ON OUR OWN DATA TAPES. CHRIS RUSSEL PROVIDED OFFSETS, ETC. WE (I.E. CO-I'S IN STOCKHOLM) MADE THE SPIN PERIOD AVERAGES FROM THE ORIGINAL DATA (I THINK THAT THE MAG DATA WAS 8/32 SAMPLES PER SECOND IN LOW/HI BIT RATE BUT YOU WOULD NEED TO CHECK WITH RUSSELL INSTRUMENT PAPER TO BE SURE. THE STANDARD DEVIATIONS ARE COMPUTED IN THE SAME WAY AS THE E FIELD ONES AND ARE ONLY BASES ON THE TWO SENSORS MEASURING IN THE SPIN PLANE. AS ABOVE, UNKNOWN VALUE COULD BE EITHER OF THE TWO YOU SUGGEST OR PROBLEMS READING THE TAPES.**********

7. The spacecraft location is given in GSE whereas the E and B components are given in GSM. Any particular reason for this? What value was used for Re in computing the position? Were the location coordinates computed every 3-seconds by interpolation?

**********ACTUALLY, YOU HAVE IT BACKWARDS. THE DATA ARE IN GSE OR CLOSE TO IT. THIS IS BECAUSE THE ELECTRIC FIELD IS ONLY MEASURED IN THE SPIN PLANE OF THE SPACECRAFT WHICH IS APPROXIMATELY GSE. THE LOCATION IS GIVEN IN GSM BECAUSE THAT IS WHAT IS OF MOST SCIENTIFIC INTEREST. I DON'T KNOW WHAT WAS USED FOR Re. I ASSUME IT WAS THE AVERAGE RADIUS. THE 3-S LOCATIONS ARE INTERPOLATIONS. YOU COULD ASK WINSTON HOW OFTEN WE GOT THE VALUES ON OUR ORIGINAL TAPES.**********

8. What is the significance of the bias current (section 2.10.2.12)? Is this the same as the electron gun current? How is it related to the spacecraft potential? Can the plasma density and temperature be determined from this? In general, how is this quantity to be used or interpreted for scientific analysis? I know there is

some discussion of it in the instrument description, but can you add anything more to it with the experience gained from processing all the data?

**********THE PEDERSON ET AL ARTICLE HAS THE BEST DISCUSSION OF THE IMPORTANCE OF THE BIAS CURRENT. BASICALLY IT IS SET TO BE EQUAL AND OPPOSITE THE PHOTOEMMISSION CURRENT FROM THE SPHERE IN REGIONS OF LOW DENSITY WHERE THE THERMAL CURRENT IS SMALL. THIS ALLOWS THE SPHERES TO FLOAT NEAR PLASMA POTENTIAL AND ALLOWS THE MOST ACCURATE MEASUREMENT OF THE ELECTRIC FIELD. IT IS NOT THE SAME AS THE ELECTRON GUN CURRENT. THE ELECTRON GUNS WERE ONLY OPERATED A FEW TIMES DURING THE SPACECRAFT LIFETIME. THE BIAS CURRENT IS NOT RELATED TO THE SPACECRAFT POTENTIAL. THE PLASMA DENSITY CAN BE ESTIMATED FROM THE SPACECRAFT POTENTIAL (AT LEAST CHANGES IN THE DENSITY). THIS IS DESCRIBED IN MANY ARTICLES INCLUDING MOZER ET AL, REFERENCED ABOVE.**********

9. I presume that the quantity V2S (section 2.10.2.13) is what is commonly referred to as 'spacecraft potential'. Exacly what potential difference is being measured? Why does it alternate between maximum and minimum? What is the accuracy of this measurement? Again, are there any papers discussing the interpretation and significance of this quantity?

********THE QUANTITY BEING MEASURED IS THE DIFFERENCE BETWEEN THE SPACECRAFT POTENTIAL AND ONE OF THE SPHERES (WHICH ARE APPROXIMATELY AT THE BACKGROUND PLASMA POTENTIAL). THE WAY THE DATA WAS SENT DOWN WAS ALTERNATELY THE MAXIMUM AND MINIMUM VALUE IN EACH SPIN PERIOD. THIS WAS A WAY TO SEE HOW MUCH THE VALUE VARIED OVER SPIN WITHOUT USING LOTS OF THE AVAILA BLE DATA RATE. THE MOZER ET AL ARTICLE DISCUSSES THE SIGNIFICANCE AS DO MANY OF THE DATA ANALYSIS PAPERS FROM BERKELEY.**********

10. Items 14-16 (section 2.10.2.14-16) are referred to as 'filter 1', 'filter 2', and 'filter 3' in Winston's documentation. I presume these refer to the measurement of electric field component of waves in 3 frequency bands. The instrument paper describes these channels as having center frequencies of 6, 32, and 256 Hz, with Q=0.4. The numbers I got from Winston were: center frequencies of 4, 50, and 250 Hz, and FWHM equal to 3-14 Hz, 15-80 Hz, and 120-600 Hz. The two descriptions are somewhat different? Could you clarify the characteristics of the wave spectrum channels? Why is this value ~~be~~ a maximum or a minimum?

**********THE CORRECT VALUES ARE THE ONES WINSTON GAVE YOU. THE VALUE OF THE OUTPUT IN A GIVEN FILTER CHANGES WITH SPIN BECAUSE AS THE SPACECRAFT SPINS, THE ANGLE THAT THE BOOMS MAKE WITH THE MAGNETIC FIELD CHANGES. SINCE WAVES ARE POLARIZED, THE MAGNITUDE OF THE ELECTRIC FIELD WILL CHANGE DEPENDING ON WHETHER WE ARE MEASURING ALONG B OR PERPENDICULAR TO B OR AT SOME ANGLE. OUR RAW DATA SAMPLES THESE FILTERS MORE OFTEN. THE SPIN PERIOD DATA GIVES SOME IDEA OF THE VARIABILITY BY GIVING, ALTERNATELY, THE MAX AND MIN VALUES.**********

11. I am a bit puzzled by the description of the units used for the wave spectrum measurements. These are given as (log10 of) microvolts/mh where h=sqrt(Hertz). I presume

the m stands for meter so that this is the same as microvolts-per-meter/(sqrt(Hz)) ?

**********YES. WE GIVE THE ELECTRIC FIELD, RATHER THAN THE POWER AS IS MORE USUALLY PLOTTED.**********

Again, many thanks for your help in making these data available. Sorry to bother you with these questions but I wanted to put them down while they were fresh in my mind. It is hard to know what information needs to be included when one has never used the data and is not familiar with the instrument, so I sometimes feel compelled to ask some very basic questions.

By the way, just out of curiosity, what are you using the optical disk system for and how is it working? Also, do you happen to know what progress, if any, has been made in the archiving of the ISEE-3 X-ray and solar electron data (Dr. Kinsey Anderson's group)? Do you know whom I should contact regarding that?

**********WE ARE JUST STARTING TO PUT THE DATA ON OPTICAL DISK. SINCE THE COMPUTER SYSTEM WE USED FOR ISEE IS APPROACHING SENILITY AND DEATH, WE WILL BE SWITCHING OUR ISEE DATA ANALYSIS TO USE THE OPTICAL DATA BASE AND THE SUN (ASSUMING THAT NASA GIVES US ANY MONEY TO ANALYZE ISSE DATA). SO FAR, WE HAVE JUST TESTED THAT WE CAN WRITE AND READ, BUT WE HAVEN'T HAD PROBLEMS YET. DO YOU KNOW WHAT HAPPENED WITH THE PLAN FOR NSSDC TO DO SOME WORK WITH THE GENERAL MICROSYSTEM SOFTWARE FOR USING OPTIMEMS ON UNIX SYSTEMS? DR. BOB LIN (510-642-1149)WOULD BE THE PERSON TO CONTACT ON THE ELECTRON DATA AND EITHER MR. JON LORAN(510-643-8485) OR DR. SHARAD KANE(510-642-1719) FOR THE X-RAY DATA.**********

********BY THE WAY, CHRIS GOERTZ SAID THAT JGR WOULD PUBLISH 'DATA SET' PAPERS FOR DATA RESIDENT AT NSSDC. I DO PLAN ON WRITING ONE FOR THIS DATA SET, SO THAT SHOULD ALSO CLARIFY SOME OF THE QUESTIONS FOR POTENTIAL USERS OF THE DATA. YOUR QUESTIONS ARE A GOOD START ON WHAT PEOPLE WILL WANT TO KNOW!**********

Archive Tape List 8/23/91

(1)

1977/11/01	(305)	21:21:45.646	1977/11/07	(311)	14:33:45.401	IS771022	1	122238	113035	3.040	
1977/11/08	(312)	02:02:57.564	1977/11/11	(315)	23:58:22.534	IS771022	2	76339	72566	3.040	
1977/11/12	(316)	00:37:28.260	1977/11/15	(319)	01:57:51.438	IS771022	3	29025	27034	3.040	
1977/11/15	(319)	02:04:24.972	1977/11/17	(321)	23:58:26.078	IS771022	4	55717	50906	3.040	
1977/11/18	(322)	00:05:57.398	1977/11/23	(327)	00:59:06.574	IS771022	5	46875	45307	3.040	
1977/11/23	(327)	01:15:25.604	1977/11/24	(328)	23:58:28.574	IS771022	6	41948	41647	3.040	
1977/11/25	(329)	00:02:43.934	1977/11/28	(332)	00:43:03.474	IS771022	7	54174	49636	3.040	
1977/11/28	(332)	00:46:11.954	1977/12/01	(335)	01:04:45.237	IS771022	8	64937	63306	3.040	
1977/12/01	(335)	01:09:11.533	1977/12/04	(338)	01:08:37.182	IS771022	9	57851	56412	3.040	
1977/12/04	(338)	01:13:33.041	1977/12/07	(341)	23:48:06.057	IS771204	1	75057	70083	3.040	
1977/12/08	(342)	00:25:59.658	1977/12/11	(345)	00:10:30.800	IS771204	2	62966	59363	3.040	
1977/12/11	(345)	00:12:59.760	1977/12/14	(348)	00:15:33.533	IS771204	3	54555	46005	3.040	
1977/12/14	(348)	00:19:45.853	1977/12/15	(349)	14:06:21.914	IS771204	4	25982	23026	3.040	
1977/12/19	(353)	19:23:34.902	1977/12/22	(356)	00:47:45.870	IS771204	5	42475	41115	3.040	
1977/12/22	(356)	00:56:55.092	1977/12/25	(359)	00:11:43.518	IS771204	6	54010	53323	3.040	
1977/12/25	(359)	00:47:23.336	1977/12/28	(362)	01:43:19.510	IS771204	7	41849	40512	3.040	
1977/12/28	(362)	02:47:56.187	1977/12/29	(363)	14:02:31.937	IS771204	8	15277	14508	3.040	
1978/01/01	(001)	02:34:01.543	1978/01/04	(004)	00:17:29.166	IS780101	1	62748	24882	3.040	
1978/01/04	(004)	00:50:06.766	1978/01/07	(007)	23:22:26.414	IS780101	2	72083	25142	3.040	
1978/01/08	(008)	00:25:31.213	1978/01/11	(011)	01:42:57.054	IS780101	3	64927	28294	3.040	
1978/01/11	(011)	01:45:13.854	1978/01/15	(015)	00:22:41.678	IS780101	4	84154	34714	3.040	
1978/01/15	(015)	00:27:12.238	1978/01/17	(017)	23:58:54.422	IS780101	5	14752	4917	3.040	
1978/01/18	(018)	00:02:05.942	1978/01/22	(022)	00:15:47.862	IS780101	6	81920	0	3.040	
1978/01/22	(022)	00:18:01.622	1978/01/25	(025)	00:22:14.625	IS780101	7	64236	0	3.040	
1978/01/25	(025)	00:26:51.265	1978/01/29	(029)	00:15:16.078	IS780101	8	82314	0	3.040	
1978/01/29	(029)	00:46:31.758	1978/02/01	(032)	00:15:43.354	IS780101	9	62227	0	3.040	
1978/02/01	(032)	00:20:12.799	1978/02/03	(034)	15:50:56.506	IS780201	1	57404	278	3.040	
1978/02/06	(037)	23:14:16.961	1978/02/08	(039)	01:22:58.958	IS780201	2	21416	5968	3.040	
1978/02/08	(039)	01:28:09.038	1978/02/11	(042)	05:38:57.457	IS780201	3	69330	7562	3.040	
1978/02/11	(042)	07:32:03.966	1978/02/11	(042)	22:40:11.738	IS780201	4	11991	40	3.040	
1978/02/12	(043)	00:16:36.594	1978/02/15	(046)	00:44:04.134	IS780201	5	67537	0	3.040	
1978/02/15	(046)	00:48:29.466	1978/02/19	(050)	00:20:53.161	IS780201	6	74850	2750	3.040	
1978/02/19	(050)	02:37:09.552	1978/02/22	(053)	01:24:02.514	IS780201	7	60603	0	3.040	
1978/02/22	(053)	01:31:23.974	1978/02/26	(057)	00:55:36.814	IS780201	8	37052	1283	3.040	
1978/02/26	(057)	01:00:19.534	1978/03/01	(060)	01:22:40.201	IS780201	9	58820	804	3.040	
1978/03/01	(060)	01:25:12.202	1978/03/05	(064)	00:54:56.764	IS780201	10	76069	9	3.040	
1978/03/05	(064)	00:58:34.090	1978/03/08	(067)	01:33:36.278	IS780201	11	59332	3084	3.040	
1978/03/08	(067)	01:38:31.158	1978/03/12	(071)	00:09:48.142	IS780308	1	85454	47766	3.040	
1978/03/12	(071)	00:14:31.634	1978/03/13	(072)	17:52:41.365	IS780308	2	34556	17060	3.040	
1978/03/16	(075)	11:55:38.652	1978/03/17	(076)	16:31:30.386	IS780308	3	11352	10109	3.040	
1978/03/19	(078)	12:51:10.514	1978/03/22	(081)	00:17:48.254	IS780308	4	7601	6141	3.040	
1978/03/22	(081)	00:22:30.974	1978/03/26	(085)	00:54:13.185	IS780308	5	13906	10957	3.040	
1978/03/26	(085)	02:53:03.433	1978/03/29	(088)	01:21:17.730	IS780308	6	10637	9311	3.040	
1978/03/29	(088)	01:36:22.654	1978/03/31	(090)	19:10:01.102	IS780308	7	12726	10109	3.040	
1978/04/02	(092)	19:56:01.238	1978/04/04	(094)	22:47:15.062	IS780308	8	10808	8959	3.040	
1978/04/05	(095)	06:02:22.156	1978/04/07	(097)	23:47:01.758	IS780308	9	6263	4200	3.040	
1978/04/14	(104)	11:54:56.522	1978/04/15	(105)	04:51:26.234	IS780308	10	7819	7214	3.040	
1978/04/19	(109)	12:05:54.573	1978/04/22	(112)	11:53:05.086	IS780308	11	8487	7845	3.040	
1978/04/23	(113)	16:40:53.798	1978/04/24	(114)	18:21:54.406	IS780308	12	5428	3894	3.040	
1978/04/26	(116)	18:46:17.094	1978/04/29	(119)	00:57:53.565	IS780308	13	9798	5297	3.040	
1978/05/13	(133)	03:48:05.008	1978/05/14	(134)	01:27:42.614	IS780308	14	14175	9760	3.040	
1978/05/14	(134)	01:30:26.774	1978/05/17	(137)	00:22:08.246	IS780308	15	56959	45934	3.040	
1978/05/17	(137)	00:29:11.989	1978/05/21	(141)	00:12:00.905	IS780308	16	66960	47212	3.040	
1978/05/21	(141)	00:15:35.226	1978/05/24	(144)	00:54:20.444	IS780308	17	61000	50662	3.040	
1978/05/24	(144)	00:55:21.244	1978/05/28	(148)	00:06:41.238	IS780308	18	66060	34658	3.040	
1978/05/28	(148)	00:11:33.078	1978/05/31	(151)	00:42:25.774	IS780308	19	61510	53961	3.040	
1978/05/31	(151)	00:47:29.422	1978/06/03	(154)	23:59:12.254	IS780531	1	85157	73911	3.040	
1978/06/04	(155)	00:02:34.343	1978/06/07	(158)	00:29:39.486	IS780531	2	60965	54221	3.040	
1978/06/07	(158)	00:30:00.766	1978/06/11	(162)	00:32:30.622	IS780531	3	82784	74391	3.040	
1978/06/11	(162)	00:35:02.622	1978/06/14	(165)	01:24:03.038	IS780531	4	54294	42159	3.040	
1978/06/14	(165)	01:46:02.398	1978/06/18	(169)	00:30:40.017	IS780531	5	74845	34759	3.040	
1978/06/18	(169)	00:34:31.196	1978/06/20	(171)	23:26:36.382	IS780531	6	55566	21559	3.040	
1978/06/21	(172)	00:47:29.078	1978/06/25	(176)	01:58:52.014	IS780531	7	20557	17092	3.040	

1978/06/25	(176)	02:25:24.974	1978/06/26	(177)	23:12:32.630	IS780531	8	23762	14469	3.040		
1978/06/29	(180)	06:30:33.453	1978/07/01	(182)	23:59:13.550	IS780531	9	48788	41906	3.040		
1978/07/02	(183)	02:40:31.570	1978/07/05	(186)	00:18:53.878	IS780531	10	54374	29221	3.040		
1978/07/05	(186)	00:21:16.758	1978/07/08	(189)	23:57:07.174	IS780705	1	72061	55280	3.040		
1978/07/09	(190)	00:29:13.392	1978/07/11	(192)	07:20:53.602	IS780705	2	37599	32257	3.040		
1978/07/13	(194)	18:43:34.366	1978/07/16	(197)	01:59:43.550	IS780705	3	32971	30182	3.040		
1978/07/16	(197)	02:02:00.350	1978/07/18	(199)	23:13:30.998	IS780705	4	45203	38471	3.040		
1978/07/19	(200)	00:22:07.624	1978/07/23	(204)	00:45:26.714	IS780705	5	66544	56944	3.040		
1978/07/23	(204)	00:49:31.713	1978/07/25	(206)	17:16:55.434	IS780705	6	42439	40628	3.040		
1978/07/28	(209)	00:35:45.790	1978/07/30	(211)	00:46:08.214	IS780705	7	40843	34480	3.040		
1978/07/30	(211)	00:51:05.482	1978/08/01	(213)	23:54:04.382	IS780705	8	52952	44509	3.040		
1978/08/02	(214)	01:27:27.102	1978/08/06	(218)	00:45:40.326	IS780705	9	57621	47750	3.040		
1978/08/06	(218)	00:48:09.286	1978/08/08	(220)	23:58:48.990	IS780705	10	54984	51845	3.040		
1978/08/09	(221)	00:03:41.029	1978/08/11	(223)	19:45:10.070	IS780705	11	26713	26552	3.040		
1978/08/14	(226)	03:05:50.712	1978/08/16	(228)	01:05:35.797	IS780813	1	34694	30909	3.040		
1978/08/16	(228)	01:07:43.477	1978/08/20	(232)	00:27:39.062	IS780813	2	73545	62568	3.040		
1978/08/20	(232)	00:32:49.606	1978/08/23	(235)	01:02:40.054	IS780813	3	69093	63380	3.040		
1978/08/23	(235)	01:06:06.774	1978/08/27	(239)	00:08:18.929	IS780813	4	78911	72534	3.040		
1978/08/27	(239)	00:39:22.914	1978/08/30	(242)	00:29:22.558	IS780813	5	61402	40047	3.040		
1978/08/30	(242)	00:57:42.176	1978/09/03	(246)	00:49:37.753	IS780813	6	83462	62035	3.040		
1978/09/03	(246)	00:54:15.849	1978/09/06	(249)	01:32:08.026	IS780813	7	63761	59251	3.040		
1978/09/06	(249)	01:37:33.043	1978/09/09	(252)	22:30:46.193	IS780813	8	11117	10983	3.040		
1978/09/23	(266)	06:57:42.370	1978/09/24	(267)	00:26:56.654	IS780813	9	13754	13320	3.040		
1978/09/24	(267)	00:33:29.928	1978/09/26	(269)	23:10:16.889	IS780813	10	58613	47556	3.040		
1978/09/27	(270)	00:46:26.510	1978/10/01	(274)	01:23:58.485	IS780927	1	47402	38316	3.040		
1978/10/01	(274)	01:48:05.526	1978/10/04	(277)	00:17:56.833	IS780927	2	45834	40327	3.040		
1978/10/04	(277)	00:24:30.009	1978/10/08	(281)	02:03:58.501	IS780927	3	27693	24138	3.040		
1978/10/08	(281)	02:08:21.373	1978/10/11	(284)	01:09:05.510	IS780927	4	51640	30361	3.040		
1978/10/11	(284)	01:51:23.085	1978/10/15	(288)	00:26:45.193	IS780927	5	75184	36910	3.040		
1978/10/15	(288)	00:27:33.833	1978/10/18	(291)	00:33:55.814	IS780927	6	53898	26705	3.040		
1978/10/18	(291)	00:40:27.893	1978/10/22	(295)	01:49:57.262	IS780927	7	73087	34532	3.040		
1978/10/22	(295)	01:53:27.033	1978/10/24	(297)	11:03:06.006	IS780927	8	35897	17901	3.040		
1978/10/26	(299)	20:21:57.061	1978/10/29	(302)	01:10:09.350	IS780927	9	41546	39516	3.040		
1978/10/29	(302)	01:13:23.910	1978/10/31	(304)	23:58:42.422	IS780927	10	53420	51856	3.040		
1978/11/01	(305)	04:33:53.919	1978/11/02	(306)	23:16:48.874	IS780927	11	29451	27908	3.040		
1978/11/05	(309)	10:46:57.390	1978/11/08	(312)	00:28:29.865	IS780927	12	46827	26393	3.040		
1978/11/08	(312)	06:02:20.750	1978/11/11	(315)	23:57:31.614	IS781108	1	65639	0	3.040		
1978/11/12	(316)	00:02:44.734	1978/11/15	(319)	00:16:46.226	IS781108	2	38009	0	3.040		
1978/11/15	(319)	00:41:55.971	1978/11/17	(321)	22:17:27.326	IS781108	3	26823	0	3.040		
1980/02/14	(045)	11:35:11.362	1980/02/17	(048)	00:03:20.969	IS800102	1	45382	38094	3.040		
1980/02/17	(048)	01:57:00.556	1980/02/19	(050)	23:01:55.814	IS800102	2	49565	42131	3.040		
1980/02/20	(051)	01:03:34.368	1980/02/21	(052)	15:56:12.570	IS800102	3	30624	27518	3.040		
1980/02/24	(055)	03:06:50.820	1980/02/27	(058)	00:58:39.384	IS800102	4	27402	24810	3.040		
1980/02/27	(058)	01:01:56.984	1980/03/02	(062)	00:40:55.958	IS800102	5	66127	33781	3.040		
1980/03/02	(062)	00:48:34.928	1980/03/04	(064)	23:28:27.118	IS800102	6	9723	6607	3.040		
1980/03/05	(065)	02:47:26.915	1980/03/09	(069)	01:55:47.614	IS800102	7	82389	58330	3.040		
1980/03/09	(069)	02:00:27.274	1980/03/11	(071)	18:57:08.997	IS800102	8	46796	31644	3.040		
1980/03/14	(074)	04:19:32.279	1980/03/16	(076)	01:25:51.221	IS800102	9	37977	17531	3.040		
1980/03/16	(076)	01:30:03.541	1980/03/19	(079)	00:15:11.518	IS800102	10	63077	40623	3.040		
1980/03/19	(079)	02:26:38.371	1980/03/21	(081)	08:10:21.413	IS800102	11	47361	36757	3.040		
1980/03/23	(083)	17:40:20.181	1980/03/26	(086)	00:28:41.625	IS800102	12	45251	31903	3.040		
1980/03/26	(086)	00:35:12.205	1980/03/30	(090)	00:07:45.918	IS800326	1	84792	48738	3.040		
1980/03/30	(090)	00:12:25.598	1980/03/30	(090)	22:29:11.758	IS800326	2	21190	10649	3.040		
1980/04/07	(098)	20:49:27.494	1980/04/09	(100)	00:21:58.798	IS800326	3	23861	13706	3.040		
1980/04/09	(100)	00:28:46.158	1980/04/12	(103)	23:00:35.574	IS800326	4	34412	17941	3.040		
1980/04/13	(104)	00:16:26.064	1980/04/16	(107)	00:41:38.471	IS800326	5	56307	26495	3.040		
1980/04/16	(107)	00:44:10.472	1980/04/19	(110)	02:29:31.694	IS800326	6	64531	32914	3.040		
1980/04/21	(112)	09:46:39.557	1980/04/23	(114)	00:57:53.202	IS800326	7	37498	26373	3.040		
1980/04/23	(114)	01:00:06.962	1980/04/27	(118)	02:43:52.006	IS800326	8	86561	59998	3.040		
1980/04/27	(118)	02:46:39.206	1980/04/28	(119)	16:51:03.498	IS800326	9	31962	22424	3.040		
1980/04/30	(121)	23:57:42.846	1980/05/04	(125)	00:15:44.262	IS800326	10	62613	24346	3.040		
1980/05/04	(125)	00:18:28.422	1980/05/06	(127)	23:57:07.182	IS800326	11	61495	39013	3.040		
1980/05/07	(128)	00:25:30.908	1980/05/11	(132)	00:20:11.036	IS800507	1	33340	30105	3.040		
1980/05/11	(132)	00:24:50.717	1980/05/14	(135)	01:06:55.414	IS800507	2	50632	32543	3.040		

(3)

1980/05/11 (132)	00:24:50.717	1980/05/14 (135)	01:06:55.414	IS800507	2	50632	32543	3.040
1980/05/14 (135)	04:45:36.181	1980/05/18 (139)	01:53:23.586	IS800507	3	81369	38394	3.040
1980/05/18 (139)	01:55:28.206	1980/05/20 (141)	23:34:42.762	IS800507	4	59179	48899	3.040
1980/05/21 (142)	00:03:33.309	1980/05/25 (146)	00:14:34.710	IS800507	5	73817	25068	3.04
1980/05/25 (146)	00:19:30.651	1980/05/27 (148)	05:41:37.360	IS800507	6	45518	11037	3.04
1980/05/29 (150)	17:41:43.750	1980/05/31 (152)	23:59:06.094	IS800507	7	46995	6478	3.040
1980/06/01 (153)	00:02:29.937	1980/06/04 (156)	00:03:35.777	IS800507	8	54595	5326	3.040
1980/06/04 (156)	00:07:33.063	1980/06/05 (157)	19:52:36.850	IS800507	9	33883	3218	3.040
1980/06/08 (160)	07:46:21.711	1980/06/11 (163)	00:21:05.978	IS800507	10	44110	4862	3.040
1980/06/11 (163)	00:46:13.011	1980/06/15 (167)	00:18:49.604	IS800507	11	64712	6334	3.040
1980/06/15 (167)	00:22:33.630	1980/06/18 (170)	00:19:16.014	IS800615	1	13537	2458	3.040
1980/06/18 (170)	00:21:44.974	1980/06/22 (174)	00:52:57.414	IS800615	2	36719	5270	3.040
1980/06/22 (174)	00:55:26.374	1980/06/24 (176)	20:41:26.326	IS800615	3	51338	8918	3.040
1980/06/27 (179)	06:55:18.354	1980/06/29 (181)	01:02:36.218	IS800615	4	32090	4749	3.040
1980/06/29 (181)	01:07:50.107	1980/07/02 (184)	01:58:35.515	IS800615	5	59637	8844	3.040
1980/07/02 (184)	02:06:02.557	1980/07/04 (186)	13:55:48.126	IS800615	6	44723	5856	3.040
1980/07/06 (188)	20:45:36.514	1980/07/08 (190)	23:59:20.569	IS800615	7	44543	5898	3.040
1980/07/09 (191)	00:02:26.009	1980/07/13 (195)	00:22:46.733	IS800615	8	78368	12879	3.040
1980/07/13 (195)	00:28:15.372	1980/07/14 (196)	03:36:00.238	IS800615	9	25695	6585	3.040
1980/07/16 (198)	10:45:57.326	1980/07/20 (202)	00:12:27.046	IS800615	10	74327	66911	3.040
1980/07/20 (202)	00:22:25.963	1980/07/23 (205)	01:25:34.497	IS800615	11	50966	46174	3.040
1980/07/23 (205)	01:29:40.737	1980/07/27 (209)	01:09:28.486	IS800615	12	33448	32586	3.040
1980/07/27 (209)	01:14:08.166	1980/07/29 (211)	23:57:04.070	IS800615	13	33719	29514	3.040
1980/07/30 (212)	00:31:32.881	1980/08/02 (215)	07:41:06.714	IS800730	1	59100	52747	3.040
1980/08/04 (217)	15:15:26.314	1980/08/06 (219)	00:56:15.870	IS800730	2	28783	23599	3.040
1980/08/06 (219)	01:01:25.950	1980/08/10 (223)	00:03:57.422	IS800730	3	73268	62415	3.040
1980/08/10 (223)	00:11:30.986	1980/08/10 (223)	13:43:33.866	IS800730	4	13201	10340	3.040
1980/08/14 (227)	04:45:45.582	1980/08/16 (229)	23:59:50.934	IS800730	5	54414	48666	3.040
1980/08/17 (230)	00:03:48.058	1980/08/20 (233)	01:10:36.215	IS800730	6	58364	54306	3.040
1980/08/20 (233)	02:06:26.151	1980/08/24 (237)	01:48:58.542	IS800730	7	21775	20937	3.040
1980/08/24 (237)	01:52:19.182	1980/08/27 (240)	00:07:46.449	IS800730	8	50971	46484	3.040
1980/08/27 (240)	00:14:15.767	1980/08/30 (243)	20:14:42.898	IS800730	9	27690	25238	3.040
1980/09/03 (247)	13:08:37.042	1980/09/07 (251)	00:03:07.026	IS800730	10	38565	38000	3.040
1980/09/07 (251)	00:07:46.277	1980/09/09 (253)	11:57:26.006	IS800730	11	42498	41334	3.040
1980/09/11 (255)	22:16:07.830	1980/09/14 (258)	00:52:58.294	IS800730	12	33935	30760	3.040
1980/09/14 (258)	00:57:40.555	1980/09/16 (260)	23:10:40.742	IS800730	13	50514	49186	3.040
1980/09/17 (261)	01:18:44.775	1980/09/19 (263)	00:26:43.535	IS800917	1	29471	28559	3.040
1980/09/22 (266)	15:52:44.582	1980/09/23 (267)	23:58:34.038	IS800917	2	24438	23496	3.040
1980/09/24 (268)	00:16:26.090	1980/09/28 (272)	00:09:06.118	IS800917	3	69134	66190	3.040
1980/09/28 (272)	00:12:32.838	1980/09/30 (274)	23:42:42.090	IS800917	4	8651	8493	3.040
1980/10/01 (275)	00:43:29.999	1980/10/04 (278)	23:58:01.830	IS800917	5	58644	54795	3.040
1980/10/05 (279)	00:45:05.181	1980/10/08 (282)	00:02:21.582	IS800917	6	53216	51402	3.040
1980/10/08 (282)	07:27:01.378	1980/10/12 (286)	00:16:17.345	IS800917	7	22647	20569	3.040
1980/10/12 (286)	00:19:47.967	1980/10/15 (289)	00:16:50.014	IS800917	8	50646	49213	3.040
1980/10/15 (289)	00:20:01.544	1980/10/17 (291)	18:15:23.202	IS800917	9	43599	43421	3.040
1980/10/20 (294)	01:40:58.094	1980/10/22 (296)	00:09:47.634	IS800917	10	38641	36792	3.040
1980/10/22 (296)	00:16:20.528	1980/10/26 (300)	01:11:42.257	IS800917	11	77111	75371	3.040
1980/10/29 (303)	15:22:18.094	1980/10/30 (304)	20:34:35.710	IS800917	12	23421	19271	3.040
1980/11/08 (313)	05:54:06.271	1980/11/09 (314)	00:37:41.741	IS800917	13	17593	11534	3.040
1980/11/09 (314)	00:41:29.741	1980/11/12 (317)	00:07:39.417	IS800917	14	10713	5903	3.040
1980/11/12 (317)	01:11:09.718	1980/11/15 (320)	07:52:02.429	IS800917	15	58854	35184	3.040
1980/11/17 (322)	19:41:50.013	1980/11/18 (323)	23:27:54.233	IS801116	1	17941	12821	3.040
1980/11/19 (324)	01:12:29.488	1980/11/22 (327)	23:57:33.566	IS801116	2	75362	45127	3.040
1980/11/23 (328)	00:03:34.014	1980/11/24 (329)	21:30:56.830	IS801116	3	34210	22482	3.040
1980/11/27 (332)	09:41:40.172	1980/11/29 (334)	15:05:45.549	IS801116	4	20099	13374	3.040
1980/11/30 (335)	23:48:44.806	1980/12/03 (338)	00:57:57.382	IS801116	5	42960	30491	3.040
1980/12/03 (338)	01:02:53.803	1980/12/07 (342)	00:14:18.262	IS801116	6	25353	17978	3.040
1980/12/07 (342)	00:19:22.339	1980/12/09 (344)	23:48:48.278	IS801116	7	57115	36550	3.040
1980/12/10 (345)	02:57:26.949	1980/12/14 (349)	01:23:32.918	IS801116	8	75769	53271	3.040
1980/12/16 (351)	08:53:16.268	1980/12/17 (352)	01:43:20.570	IS801116	9	17052	11610	3.040
1980/12/17 (352)	03:24:14.946	1980/12/21 (356)	00:13:10.158	IS801116	10	81135	59691	3.040
1980/12/21 (356)	01:10:54.008	1980/12/23 (358)	15:41:44.125	IS801116	11	46783	34197	3.040

1980/12/25 (360)	23:46:53.846	1980/12/27 (362)	23:21:23.446	IS801116	12	39648	32330	3.040
1980/12/28 (363)	00:10:34.790	1980/12/30 (365)	23:59:51.782	IS801116	13	51176	38491	3.040
1980/12/31 (366)	00:03:09.382	1981/01/02 (002)	05:41:48.049	IS801231	1	48453	38043	3.040
1981/01/04 (004)	13:47:11.862	1981/01/07 (007)	00:07:49.806	IS810104	1	46021	33122	3.040
1981/01/07 (007)	00:12:44.019	1981/01/11 (011)	01:53:47.889	IS810104	2	75709	72765	3.040
1981/01/11 (011)	01:58:33.142	1981/01/11 (011)	19:44:25.150	IS810104	3	15019	14941	3.040
1981/01/14 (014)	04:32:14.525	1981/01/18 (018)	00:36:29.346	IS810104	4	70941	67494	3.040
1981/01/18 (018)	00:42:59.275	1981/01/21 (021)	01:46:54.518	IS810104	5	61735	59492	3.040
1981/01/21 (021)	01:53:46.286	1981/01/25 (025)	00:33:44.718	IS810104	6	30038	28678	3.040
1981/01/25 (025)	00:41:23.764	1981/01/28 (028)	00:02:44.873	IS810104	7	50935	48739	3.040
1981/01/28 (028)	00:07:04.531	1981/01/30 (030)	18:17:33.626	IS810104	8	51880	47882	3.040
1981/02/02 (033)	06:46:19.876	1981/02/04 (035)	01:28:05.476	IS810104	9	23908	21140	3.040
1981/02/04 (035)	03:56:29.472	1981/02/08 (039)	01:15:15.590	IS810104	10	51407	43283	3.040
1981/02/08 (039)	05:12:07.324	1981/02/11 (042)	00:53:42.190	IS810104	11	52487	32480	3.040
1981/02/11 (042)	05:07:54.020	1981/02/14 (045)	23:38:45.846	IS810104	12	52539	19899	3.040
1981/02/15 (046)	02:10:27.289	1981/02/18 (049)	01:21:10.317	IS810215	1	47645	0	3.040
1981/02/18 (049)	01:26:26.746	1981/02/22 (053)	00:28:53.681	IS810215	2	45985	0	3.040
1981/02/22 (053)	00:33:10.221	1981/02/25 (056)	01:09:55.790	IS810215	3	62157	0	3.040
1981/02/25 (056)	01:12:12.590	1981/03/01 (060)	00:03:12.614	IS810215	4	79559	0	3.040
1981/03/01 (060)	00:07:49.254	1981/03/02 (061)	19:39:34.478	IS810215	5	42654	33169	3.040
1981/03/15 (074)	03:59:57.288	1981/03/18 (077)	00:51:06.761	IS810215	6	37486	15552	3.040
1981/03/18 (077)	00:57:07.206	1981/03/21 (080)	23:42:02.102	IS810215	7	24852	14330	3.040
1981/03/25 (084)	17:19:32.942	1981/03/28 (087)	02:52:53.508	IS810215	8	12009	11337	3.040
1981/04/01 (091)	00:08:35.310	1981/04/05 (095)	00:21:05.550	IS810215	9	83959	37611	3.040
1981/04/05 (095)	00:26:04.920	1981/04/08 (098)	00:38:49.238	IS810215	10	57970	27234	3.040
1981/04/08 (098)	00:43:21.903	1981/04/12 (102)	01:31:33.734	IS810215	11	70821	39235	3.040
1981/04/12 (102)	01:33:47.494	1981/04/15 (105)	00:24:42.190	IS810412	1	45339	31963	3.040
1981/04/15 (105)	00:27:44.590	1981/04/19 (109)	01:21:40.230	IS810412	2	87746	53308	3.040
1981/04/19 (109)	01:27:05.351	1981/04/19 (109)	17:47:35.098	IS810412	3	16381	7889	3.040
1981/04/29 (119)	07:28:50.458	1981/05/03 (123)	00:05:23.513	IS810412	4	79764	48662	3.040
1981/05/03 (123)	00:09:29.753	1981/05/06 (126)	01:44:56.398	IS810412	5	64332	44938	3.040
1981/05/06 (126)	01:52:08.810	1981/05/10 (130)	00:46:39.870	IS810412	6	90541	63644	3.040
1981/05/10 (130)	00:53:44.107	1981/05/13 (133)	00:50:29.134	IS810412	7	66786	52236	3.040
1981/05/13 (133)	00:55:25.122	1981/05/16 (136)	23:58:37.305	IS810412	8	71534	52956	3.040
1981/05/17 (137)	00:00:57.145	1981/05/20 (140)	00:48:36.054	IS810412	9	64686	44410	3.040
1981/05/20 (140)	00:49:12.534	1981/05/24 (144)	00:26:21.742	IS810520	1	74936	54613	3.040
1981/05/24 (144)	01:11:27.588	1981/05/27 (147)	00:14:44.649	IS810520	2	55618	44048	3.040
1981/05/27 (147)	00:55:54.583	1981/05/31 (151)	00:13:25.398	IS810520	3	53583	46659	3.040
1981/05/31 (151)	00:16:21.718	1981/06/02 (153)	23:58:11.974	IS810520	4	61141	41890	3.040
1981/06/03 (154)	00:26:04.557	1981/06/03 (154)	20:55:13.422	IS810520	5	11962	0	3.040
1981/06/22 (173)	16:46:07.666	1981/06/24 (175)	01:05:04.374	IS810520	6	30464	30445	3.040
1981/06/24 (175)	01:07:36.374	1981/06/28 (179)	00:58:04.686	IS810520	7	88688	79854	3.040
1981/06/28 (179)	01:00:06.286	1981/07/01 (182)	01:10:43.707	IS810520	8	60704	58539	3.040
1981/07/01 (182)	01:17:43.375	1981/07/05 (186)	00:29:25.726	IS810520	9	90416	79817	3.040
1981/07/05 (186)	00:32:19.006	1981/07/08 (189)	00:30:07.158	IS810520	10	62590	60237	3.040
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1981/07/12 (193)	00:32:33.062	1981/07/15 (196)	00:11:25.833	IS810708	2	60982	58635	3.040
1981/07/15 (196)	00:21:45.537	1981/07/18 (199)	23:59:54.078	IS810708	3	83596	80722	3.040
1981/07/19 (200)	00:04:03.355	1981/07/22 (203)	00:24:18.414	IS810708	4	67066	65731	3.040
1981/07/22 (203)	00:26:32.174	1981/07/26 (207)	00:17:16.802	IS810708	5	80905	77721	3.040
1981/07/26 (207)	00:42:27.693	1981/07/29 (210)	00:28:16.222	IS810708	6	57210	55356	3.040
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1981/08/12 (224)	00:59:01.709	1981/08/16 (228)	00:45:09.454	IS810805	2	74002	68559	3.040
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1981/10/04 (277) 01:03:08.873	1981/10/06 (279) 23:58:03.049	IS810906	9	61458	58971	3.04
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1981/10/14 (287) 02:49:26.265	1981/10/17 (290) 23:58:26.889	IS811007	3	72417	69011	3.040
1981/10/18 (291) 01:18:46.448	1981/10/21 (294) 00:28:08.150	IS811007	4	57607	52657	3.040
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1981/11/22 (326) 02:35:42.266	1981/11/25 (329) 00:38:40.707	IS811108	5	49811	47634	3.040
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1981/12/02 (336) 01:19:59.605	1981/12/05 (339) 23:59:14.562	IS811108	8	60016	57973	3.040
1981/12/06 (340) 00:03:07.659	1981/12/08 (342) 23:11:52.914	IS811108	9	42751	39485	3.040
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1981/12/20 (354) 01:42:31.959	1981/12/22 (356) 22:46:37.124	IS811216	2	47502	46584	3.040
1981/12/23 (357) 00:53:46.362	1981/12/26 (360) 21:37:54.094	IS811216	3	34851	33012	3.040
1981/12/27 (361) 00:04:04.855	1981/12/29 (363) 21:54:06.499	IS811216	4	30422	30098	3.040
1981/12/30 (364) 04:33:28.863	1982/01/03 (003) 00:38:50.425	IS811216	5	50564	47233	3.040
1982/01/03 (003) 00:43:28.553	1982/01/05 (005) 21:11:30.512	IS820103	1	48054	46667	3.040
1983/11/09 (313) 03:05:44.060	1983/11/13 (317) 00:05:37.654	IS831109	1	46686	45761	3.040
1983/11/13 (317) 00:10:17.130	1983/11/15 (319) 23:34:21.797	IS831109	2	11427	10715	3.040
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1983/11/20 (324) 01:33:52.646	1983/11/22 (326) 22:46:18.163	IS831109	4	38711	37576	3.040
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1983/12/07 (341) 01:37:33.526	1983/12/11 (345) 00:43:47.944	IS831109	9	48730	47208	3.040
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1984/01/04 (004) 02:36:30.415	1984/01/07 (007) 21:10:03.308	IS840101	2	65406	63228	3.040
1984/01/08 (008) 07:47:21.771	1984/01/10 (010) 19:58:18.318	IS840101	3	24209	23792	3.040
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1984/01/18 (018) 01:01:06.908	1984/01/22 (022) 00:08:23.067	IS840101	6	68194	64581	3.040
1984/01/22 (022) 00:13:01.640	1984/01/24 (024) 21:14:18.332	IS840101	7	30649	28589	3.040
1984/01/25 (025) 00:05:30.432	1984/01/29 (029) 00:56:12.685	IS840101	8	74282	68501	3.040
1984/01/29 (029) 01:13:27.158	1984/01/31 (031) 21:10:43.985	IS840101	9	6347	5092	3.040
1984/02/01 (032) 07:41:24.687	1984/02/05 (036) 00:20:18.721	IS840101	10	46922	44784	3.040
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1984/02/08 (039) 02:35:22.321	1984/02/12 (043) 00:11:10.630	IS840101	12	50309	48124	3.040
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1984/02/15 (046) 00:26:39.773	1984/02/18 (049) 19:07:51.278	IS840215	1	40829	38502	3.040
1984/02/19 (050) 02:49:37.510	1984/02/21 (052) 23:21:16.537	IS840215	2	47674	42927	3.040
1984/02/22 (053) 00:10:49.729	1984/02/25 (056) 23:27:25.771	IS840215	3	73387	57813	3.040
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1984/03/07	(067)	00:15:00.432	1984/03/10	(070)	22:47:52.252	IS840215	7	32067	23390	3.040
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1984/04/11	(102)	04:55:26.874	1984/04/14	(105)	23:44:46.347	IS840325	6	34739	0	3.040
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DUMP OF TAPE IS820103

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D-84063
C-28327

YR-1982 Month-1 Day-3

01/03/82 - 01/03/82
1 files

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REQ. AGENT	RAND NO.	ACQ. AGENT
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ISEE-1

256-HZ BURST MODE E-FIELD

77-102A-06H

This data set catalog consists of 8 tapes. The tapes are 1600 bpi, 9-track, multifiled, binary, created on the VAX 11/780. The D and C numbers, time spans, and number of files are as follows:

D#	C#	FILES	TIME SPANS
D-84307	C-29040	02	11/07/77 - 12/31/78
D-84308	C-29041	01	02/12/81 - 07/01/81
D-84309	C-29042	01	07/01/81 - 12/31/81
D-84310	C-29043	01	01/01/82 - 07/04/82
D-84311	C-29044	01	07/04/82 - 12/31/82
D-84312	C-29045	01	01/01/83 - 07/03/83
D-84313	C-29046	01	07/03/83 - 12/31/83
D-84314	C-29047	01	01/01/84 - 05/02/84

October 3, 1991

From: Winston Teitler (UCBSP::WINSTON)
Space Sciences Laboratory
University of California
Berkeley, California 94720
(510) 642-2405 or (510) 642-7297

To: Mr. Ralph Post (NCF::POST)

Subject: Revised Documentation

Dear Mr. Post:

I hope you have received the 1 box with the ISEE-1 Vburst tapes; and also my message via SPAN giving the sizes of the files.

I am sending to you now a revised version of the documentation for the Vburst tapes.
This documentation supersedes the documentation dated September 24, 1991, which should be destroyed.

The only change to the documentation is in Section 3 (pages 10, 11), where the information about the sizes of the files has been incorporated into the File List.

Please be so kind to mail back to me the receipt enclosed with the revised documentation.

Sincerely,

Winston Teitler
Winston Teitler

September 24, 1991

From: Winston Teitler (UCBSP::WINSTON)
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To: Mr. Ralph Post (NCF::POST)

Subject: ISEE-1 Vburst Tapes

Dear Mr. Post:

Thank you very much for the mailing labels.

I am sending to you now the Vburst tapes.

There are 8 tapes, and they are going in one box.

Also enclosed with the tapes is the corresponding documentation.

Superceded

Please be so kind to mail back to me the receipt enclosed with the tapes.

no archival value

Sincerely,

Winston Teitler
Winston Teitler

ISEE-1 ELECTRIC FIELD VBURST DATA ARCHIVE

DATA FORMAT

Winston Teitler
Space Sciences Laboratory
University of California, Berkeley

October 3, 1991

Contents:

1. Introduction.

2. Format of the Archive Tapes.

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1. Introduction.

The purpose of the ISEE-1 Electric Field Vburst Data Archive project is to put ISEE-1 electric field Vburst data into a format that can be used more easily and conveniently.

The data archived by this project is from the ISEE-1 spacecraft, from an instrument built by the Space Sciences Laboratory at the University of California, Berkeley. It is primarily electric field data, belonging to Vburst events.

2.2 Number of Files.

Each tape may contain any number of files.

Each file is followed by an End-of-File mark.

The last file on each tape is followed by 2 End-of-File marks, rather than just 1.

2.3 Data Representation.

All data on the tapes is in binary format.

Data items are written on tape encoded as integers that are non-negative (zero or positive, i.e., the sign bit is 0).

Integers on tape can be 4 bytes long (32 bits) or 2 bytes long (16 bits); 1 byte = 8 bits.

The byte order for an integer on tape is: first, the most significant byte (which includes the sign bit); then, the second most significant byte; etc., with the least significant byte last.

2.4 Block Length.

Every tape block is 3,200 bytes long.

2.5 Types of Blocks.

Every file contains 1 type of block:

a) Vburst Event Data Block.

A Vburst Event Data Block contains information from a number of Vburst events.

one (on the same tape or on different tapes).

2.9 Format of the Vburst Event Data Block.

See Section 2.6.

A Vburst Event Data Block contains all the data for one Vburst event, followed by all the data for the next Vburst event, etc.

2.9.1 List of data items and locations.

The list below shows the data items for a "true" Vburst event (see Section 2.6 for the definition of a "true" Vburst event).

For each item, the following are shown:

a) The number of the item.

b) The length (in bytes) of the integer that represents the item (see Section 2.3).

c) The location of the item within the data for the Vburst event.
This means, which bytes the item occupies.
The first byte in the data for a Vburst event is referred to as byte 1.

d) The name or description of the item.

Item Number	Item Length	Item Location	Item Name
1	4	1 - 4	Year
2	4	5 - 8	Month
3	4	9 - 12	Day of month
4	4	13 - 16	Day of year
5	4	17 - 20	Time of day, hours
6	4	21 - 24	Time of day, minutes

The date and time are in Universal Time (U.T.).

The values of date/time within a file are in increasing sequence, with no duplicates.

(T1 - K4) gives the year for the start of the Vburst event (e.g., 1977).

2.9.2.2 Item 2 - Month.

See Section 2.9.2.1.

(T2 - K4) gives the month for the start of the Vburst event (1 through 12).

2.9.2.3 Item 3 - Day of month.

See Section 2.9.2.1.

(T3 - K4) gives the day of the month for the start of the Vburst event (1 through 31).

2.9.2.4 Item 4 - Day of year.

See Section 2.9.2.1.

(T4 - K4) gives the day of the year for the start of the Vburst event (1 through 366).

Day of year is defined with January 1 = Day 1.

2.9.2.5 Item 5 - Time of day, hours.

See Section 2.9.2.1.

(T5 - K4) gives the hours of the time of day for the start of the Vburst event (0 through 23).

2.9.2.6 Item 6 - Time of day, minutes.

See Section 2.9.2.1.

(T6 - K4) gives the minutes of the time of day for the start of the Vburst event (0 through 59).

2.9.2.11 Item 11 - Location, Y.

This is analogous to the case of X.

See Section 2.9.2.10.

2.9.2.12 Item 12 - Location, Z.

This is analogous to the case of X.

See Section 2.9.2.10.

2.9.2.13 Item 13 - Sun angle.

The Sun angle is for the start of the Vburst event.

If T13 is 0, then the value of the Sun angle is unknown.

Otherwise, the value is obtained as follows:
(T13 - K4) / 10 gives the value of the Sun angle, expressed in degrees.

The Sun angle is 0 when sphere 1 of the instrument points in the direction closest to the Sun, and increases towards 360 degrees as the spin period progresses.

2.9.2.14 Item 14 - Magnetic field, BX.

The components of the magnetic field are in the GSE coordinate system.

The magnetic field is for the start of the Vburst event.

If T14 is 0, then the value of BX is unknown.

Otherwise, the value is obtained as follows:
(T14 - K4) / 10 gives the value of BX, expressed in nT.

2.9.2.15 Item 15 - Magnetic field, BY.

This is analogous to the case of BX.

See Section 2.9.2.14.

File Name	Interval Covered	N
1977A	1977/10/22 - 1977/12/31	11,973
1978A	1978/01/01 - 1978/12/31	46,429
1981A	1981/01/01 - 1981/07/01	73,107
1981B	1981/07/01 - 1981/12/31	83,468
1982A	1982/01/01 - 1982/07/04	65,595
1982B	1982/07/04 - 1982/12/31	72,888
1983A	1983/01/01 - 1983/07/03	66,391
1983B	1983/07/03 - 1983/12/31	83,904
1984A	1984/01/01 - 1984/05/02	56,972

Dump of D84307

```
$$
$ASS IN HT0
$EXE TPDUMP BS
```

1978 11 7 311 Start: 11/7/78

4 digit year MONTH Day of Month

DUMP OF TAPE RR001

Day of year

```
INPUT TAPE  RR001   ON  HT0
DATA INPUT     H9 NF=2 SR=1=1=1 SR=2=4643=1

 FILE       1  RECORD        1  LENGTH     3200BYTES
 (     0)   400007B9  400000B  40000007  40000137  40000012  40000033  40000257  40000040  40000019  400005B2
 (    40)   3FFFFCDA  400002FC  40000083B  3FFFFFF1  40000034  40000012  3B2D3B2D  3B2A3B26  3B233B23  00000000
 (    80)   00000000  00000000  3B0C3B09  3B0C3B0C  3B0F3B0F  3B133B16  3B1C3B23  3B2D3B30  3B343B34  3B373B37
 (   120)   3B373B37  3B3A3B3E  3B3E3B41  3B443B44  3B443B48  3B4B3B4B  3B4B3B52  3B553B58  3B763B97  3BE43C41
 (   160)   3C8A3CC2  3CF43D1C  3D513D61  3D863DA7  3DBE3DD6  3E013DFD  3E153E22  3E2F3E3D  00000000  00000000
 (   200)   00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000
 (   240)   00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000
 (   280)   00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000
 (   320)   400007B9  400000B  40000007  40000137  40000012  40000034  4000013F  40000040  40000019  400005B2
 (   360)   3FFFFCDB  400002FC  40000184  3FFFFFF1  40000038  40000010  3BA53BA8  3BA83BA8  3BA83BA8  3BA83BA8
```

(44C)	3C793C8A	3C9A3CB5	3CCC3CE7	3D143D2C	3D573D7F	3DAE3D44	3DB13DDC	3DED3E22	3E403E4D		
(480)	3E5A3E5A	3EA73ED5	3F143F07	3F1E3F28	3F393F3C	3F6B3F67	3F713F7B	3F823F88	00000000	00000000	
(520)	00000001	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(5E0)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(680)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(640)	400007B9	4000000B	40000007	40000137	40000012	40000035	40000027	40000040	40000019	400005B2	
(680)	3FFFFCDB	400002FC	400008DF	3FFFFFF3	40000037	40000010	3BBF3BBF	3BBF3BBC	3BBC3BBC	3BBC3BBC	
(720)	3BBC3BBC	3BBF3BBF	3EBF3B8C	3BE53BB5	3BBC3BC9	3BE73BEA	3BEA3C05	3C473C58	3C763C6F	3C8A3C9A	
(760)	3CB83CA8	3CB83CB8	3CC23CC5	3CCC0000	3CDD3CF7	3D153D2C	00003D36	3D4A3D57	3D903DCC	3E403E6E	
(800)	3E973EB1	3EDC3F07	3F2C3F46	3F5D3F78	3F883F96	3FB73FB4	3FC13FCB	3FD23FDB	00000000	00000000	
(840)	00000001	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(880)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(920)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(960)	400007B9	4000000B	40000007	40000137	40000012	40000035	40000166	40000040	40000019	400005B1	
(1000)	3FFFFCDC	400002FB	400001E0	3FFFFFF2	40000039	40000010	3B9E3BA1	3BA13BA5	3BA53BA1	3BA13BA5	
(1040)	3BA53BA8	3BA83BA8	3BA53B97	3B8D3B91	3BA83BBC	3BBC3BC2	3BEE3BF1	3C123C33	3C473C58	3C623C6F	
(1080)	3C7C3C94	3CAB3CC5	3CDD3D0B	3D363D65	3CF43D15	3D403D68	3D903DBB	3DE33E11	3E393DE3	3DFA3E04	
(10C0)	3E253E6E	3EAA3EC8	3EF03F0A	3F283F2F	3F493F50	3F753F71	3F7F3F85	3F8F3F96	00000000	00000000	
(1100)	00000000	00000001	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(1140)	00000000	00000000	00000000	00000000	00000000	00000000	00000006	00000000	00000000	00000000	
(1180)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(11C0)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(1200)	400007B9	4000000B	40000007	40000137	40000012	40000036	4000004E	40000040	40000019	400005B1	
(1240)	3FFFFCDC	400002FB	400003938	3FFFFFF4	40000037	4000000D	3BA83BA8	3BA83BAB	3BA83BA8	3BA83BA8	
(1280)	3BA53BA5	3BA13B9B	3B973B97	3BA13BA8	3BB23BB8	3BBC3BCC	3BE43C05	3C293C44	3C553C5E	3C6F3C79	
(12C0)	3C883C8A	3C943C97	3CA13CA8	3CB13CB8	3CC23CCC	3CD63CDD	3CEA3CF7	3D040000	3D3A3D57	3DA03DF0	
(1300)	3E333E6E	3E9D0000	3EE33F04	3F1E3F32	3F495000	3F7E3F7E	3F823F8C	3F993FA0	00000000	00000000	
(1340)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(1380)	00000001	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(13C0)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(1400)	400007B9	4000000B	40000007	40000137	40000012	40000037	400001B6	40000040	40000019	400005B0	
(1440)	3FFFFCDE	400002FB	400002E2	3FFFFFF3	40000036	4000000A	3BA53BA1	3BA53BA5	3BA53BA5	3BA53BA5	
(1480)	3BA83BA8	3BA83BAB	3BA83B9E	3B973B94	3BA83BC6	3BC23BD0	3BFB3C12	3C023C3A	3C513C79	3C653C8D	
(14C0)	3C793C8A	3C973CB1	3CEA3CA1	3CE83CCC	3CE73CC9	3CDD3CD6	3CF43D15	3D1C3D40	3D6F3DB4	3E043E4D	
(1500)	3E753EA7	3EDC3F07	3F223F3F	3F573F71	3F7F3F88	3FAD3FA6	3FB43FC1	3FC83FCE	00000000	00000000	
(1540)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(1580)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(15C0)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(1600)	400007B9	4000000B	40000007	40000137	40000012	40000037	400001BE	40000040	40000019	400005B0	
(1640)	3FFFFCDE	400002FB	400002E2	3FFFFFF3	40000036	4000000A	3BA53BA1	3BA53BA5	3BA53BA5	3BA53BA5	
(1680)	3BA83BA8	3BA83BAB	3BA83B9E	3B973B94	3BA83BC6	3BC23BD0	3BFB3C12	3C023C3A	3C513C79	3C653C8D	
(16C0)	3C793C8A	3C973CB1	3CEA3CA1	3CE83CCC	3CE73CC9	3CDD3CD6	3CF43D15	3D1C3D40	3D6F3DB4	3E043E4D	
(1700)	3E753EA7	3EDC3F07	3F223F3F	3F573F71	3F7F3F88	3FAD3FA6	3FB43FC1	3FC83FCE	00000000	00000000	
(1740)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(1780)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(17C0)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(1800)	400007B9	4000000B	40000007	40000137	40000012	40000038	4000009E	40000040	40000019	400005B0	
(1840)	3FFFFCDE	400002FA	400003A3D	3FFFFFF5	40000034	40000009	3BA13BA1	3BA53BA5	3BA53BA5	3BA83BA5	
(1880)	3BA83BA5	3BA83BA8	3BA83B9E	3B973B97	3B9E3BB5	3BBC3BD0	3BD63C0B	3C123C30	3C473C55	3C723CCC	
(18C0)	3C6C3C7C	3C933CAB	3CC53CDD	3D0B3D36	3D613CFE	3D1C3D44	3D6B3D9C	3DB83DE3	3E043E25	3DB43E15	
(1900)	3E5A3E90	3EB13EDF	3F003F1B	3F2F3F43	3F533F57	3F783F75	3F7F3F85	3F883F92	00000000	00000000	
(1940)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(1980)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(19C0)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(1A00)	400007B9	4000000B	40000007	40000137	40000012	40000035	400001C6	40000040	40000019	400005AF	
(1A40)	3FFFFCDF	400002FA	400003AE3	3FFFFFF5	40000035	4000000A	3B9E3E9E	00003BA1	3BA13EA5	3BA53BA5	
(1A80)	3BA53BA5	3BA83BA8	3BA83B9E	3B973B94	3BA53BB5	3BBF3BC6	3BF13BF4	3C193C3A	3C4E3C62	3C623C72	
(1AC0)	3C833C9E	3CB83CCF	3CFE3D29	3D293CCC	3CE73D01	3D293D51	3D793DA0	3DC83DF0	3E183DD9	3DBB3E0E	
(1B00)	3E613E96	3EB43ECB	3EE53F07	3F1E3F35	3F433F49	3F6B3F64	3F713F78	3F7B3F82	00000000	00000000	
(1B40)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(1B80)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(1BC0)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(1C00)	400007B9	4000000B	40000007	40000137	40000012	40000035	400002C5	40000040	40000019	400005AF	
(1C40)	3FFFFCE0	400002FA	400003E4	3FFFFFF3	40000035	4000000C	3BA83BAB	3BAF3BAF	3BAF3BAF	3BAF3BB2	
(1C80)	3BB23BB5	3BB53BB5	3BAF3BA8	3BA13BA5	3BB53BDA	3BDD3BEA	3BEE3C0B	3C473C51	3C6C3C5E	3C833C97	
(1CC0)	3CA43CAE	3CB53CC5	3CCC3CCF	3CD63CD6	3CE03D15	3D513D79	3D263D2C	3E013DCF	3E113E22	3E253E22	

(3040)	3E893E68	3EDF3F43	3F643F85	3F9C3FAD	3FC13FC8	3FEC3FE9	3FF33FFD	40034000	00000000	00000000
(3080)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(30C0)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(3100)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY PERM	ZERO B	SHORT	UNDEF.	INPUT RETRIES #RECS.	TOTAL#
1	1198	1198	3200	0	0	0	0	0	0

FILE 2 RECORD 4643 LENGTH 3200 BYTES

(0)	40007BA	40000000C	40000001F	40000016D	40000017	40000026	40000001	40000040	40000019	3FFFFE38
(40)	3FFFFAE8	400000204	4000068D	3FFFFFE1	40000037	40000073	40073FF3	3FB73FCB	3FE2400D	40424038
(80)	41284017	4003336F6	42F84177	409F43E5	40D140BD	40AD4F9C	406E4E3F	40384046	40324032	40254032
(120)	402B403F	40384038	40384025	40324032	40324028	40324042	40324042	40463561	43DD421D	41424181
(160)	41494121	40F940F2	40CB40A3	4074405A	40424035	40214017	3FFD4000	40034011	00000000	00000000
(200)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(240)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(280)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(320)	40007BA	40000000C	40000001F	40000016D	40000017	40000028	4000004E	40000040	40000019	3FFFFE38
(360)	3FFFFAE5	400000204	4000068E	3FFFFFEF	40000048	40000057	3FE23FE2	3FD83FDB	3FD53FDF	3FE23FE9
(400)	3FE93FEC	3FE93FEF	3FF64003	40034000A	40034011	40254017	40254049	3FFD43EF	40E540E8	40C840A9
(440)	40854074	40504053	40534046	40464046	403F403F	403F403F	403F403F	40384030	403F4042	40384038
(480)	40384032	40384038	403F3EE9	3F7144C9	41354153	414940F9	40D140A3	407E4053	00000000	00000000
(520)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(560)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(600)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(640)	40007BA	40000000C	40000001F	40000016D	40000017	4000002A	40000059	40000040	40000019	3FFFFE39
(680)	3FFFFAE1	400002205	4000066EF	3FFFFFD9	4000003A	4000006E	3B3742AF	40B04CEF	40F240BA	40A64088
(720)	40814067	404C4038	40464032	401E400D	40174000A	402B4011	3FF34021	401E4011	40384000	40114042
(760)	402B4025	40384007	3E2542C6	40D84121	41534114	41064EEF	40CB40B7	409F409C	40604067	40674038
(800)	403E403F	40174032	401E4003	40174001B	3FFE4CCA	3FF63FE2	3FFD3FFD	3FE23F14	00000000	00000000
(840)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(880)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(920)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(960)	40007BA	40000000C	40000001F	40000016D	40000017	40000030	4000018E	40000040	40000019	3FFFFE3A
(1000)	3FFFFAD7	400600287	4007D3B	3FFFFFE8	40000034	4000605D	3F3F3F39	3FB43FB4	3F473EFA	3FA64000
(1040)	3FAD3F1B	3F3C3FCB	3FBA3F64	3F643FCE	3FE93F85	3F7F3FF6	3C153FD5	45F0418B	41F5418E	40D140D1
(1080)	41004BD	405E3FF6	401E406E	406A3FF6	3FD54042	408F401E	3FA64000	40784049	3FD84000	407B406E
(1120)	4011400C	4032403F	3C153F2F	47E24216	42524273	41C74131	41354177	410D402B	00000000	00000000
(1160)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(1200)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(1240)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(1280)	40007BA	40000000C	40000001F	40000016D	40000017	40000032	400001DA	40000040	40000019	3FFFFE3B
(1320)	3FFFFAD4	40000207	4000006C	3FFFFFEF	40000037	40000064	44A44238	40D84103	40B04095	406E4053
(1360)	40464028	400D4003	3FF63FF6	3FF63FF6	3FFD3FF3	3FEC3FF6	3FF63FF6	3FF63FF9	40004011	40174025
(1400)	402B4028	4038363C	47AA45C8	43554320	428E4216	419C4142	40E54052	40564C1E	3FF63FCE	3FB43F99
(1440)	3F7F3F64	3F643F57	3F493F49	3F503F71	3F493F64	3F533F46	3F573F46	3F493480	00000000	00000000
(1480)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(1520)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(1560)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(1600)	40007BA	40000000C	40000001F	40000016D	40000017	40000034	40000227	40000040	40000019	3FFFFE3B
(1640)	3FFFFAD1	400C0208	40006D9E	3FFFFFE9	400C0050	400C005B	40034017	3FF33FCE	3FF9402B	3FFD3FE9
(1680)	4017 3F5A	3F1E43B2	41C64 1F2	40E7400F	40814053	40384028	402B4028	40114011	40144011	40214018
(1720)	4017 4038	4038401E	401E4050	403F401E	40424053	403F404C	40533D54	3E3345CC	41AC41AC	41BD4156
(1760)	4100 40E8	40D84095	406E4074	405A401E	401E402B	40033FEF	3FF33FF3	3FE23FD5	00000000	00000000
(1800)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(1840)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(1880)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(1920)	40007BA	40000000C	40000001F	40000016D	40000017	40000037	4000001C	40000040	40000019	3FFFFE3C
(1960)	3FFFFACD	4000206	4000DD0	3FFFFFD1	40000030	40000076	40033FF6	4000400	3FEF4000	40004003
(2000)	4003 3FF6	3FF6400	3FF63FF6	3FFD4003	40034011	4011 4003	336243BF	42604121	41924142	41964103
(2040)	40D140A9	40A64095	407B4067	406E4064	403F4046	40534032	402B4038	40284018	4025401E	401E4017
(2080)	40174021	4003A4003	3116447F	42AF419F	42064190	4174414F	41004CD8	40B04078	00000000	00000000
(2120)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(2160)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(2200)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000

```
(  2240)  40C.C7BA  41CCC.0C  40..C.1F  40CCC1ED  40CFCC17  4 0000039  40000078  40000040  40000019  3FFFFE3C
(  2280)  3FFFFAC9  40000209  400006E2  3FFFFFCE  40000035  400.0005D  42B33FEC  3FC54046  40324C3F  3FBA3F99
(  2320)  413140D1  3E183F49  41CA3FD5  3E6B4042  40673F6E  40884CEF  3F5A3F1E  41384128  3EA03FA0  42484080
(  2360)  3DF.3FB4  35B44519  42.9415D  411A413F  41E84095  408841EF  40383F07  41564CE5  3EFA40CB  42033F7B
(  2400)  3E7F40D1  41C03FCE  40113FCE  3F9940AD  40923F32  3FA640CE  3FC43F6E  32094588  00000000  00000000
(  2440)  0000.000  .0000400  00.00010  00003000  00030000  00000000  00000000  00000000  00000000  00000000
(  2480)  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000
(  2520)  0000.000  .0C00000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000
(  2560)  40C.C7BA  40000.0C  40..C.01F  4000C16D  40CFCC17  40000C3B  400CCCC5  40000040  40000019  3FFFFE3C
(  2600)  3FFFFAC6  4000020A  40000701  3FFFFFE8  4000004B  40000069  3FF9400A  3FE23FE9  401E400D  40033FD2
(  2640)  3FCB4313  40884087  40CB4092  40534032  40284025  40424028  40144017  401E4000  40114017  40384032
(  2680)  4038401E  40254038  40384046  40534038  40604054  40603EE6  3E8244D0  417E418E  00004131  410340D1
(  2720)  40BA4099  407B407B  40384053  403F4025  3FF63FFD  3FF63FE5  3FE93FDB  3FD53FDB  00000000  00000000
(  2760)  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000
(  2800)  0000.000  .0000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000
(  2840)  0000.000  .0000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000
(  2880)  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000
(  2920)  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000
(  2960)  0000.000  .0000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000
(  3000)  0000.000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000
(  3040)  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000
(  3080)  0000.000  .0000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000
(  3120)  0000.000  .0000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000
(  3160)  0000.000  .0000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000
```

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY PERM	ZERO B	SHORT	UNDEF.	INPUT RETRIES #RECS.	TOTAL#
2	4643	4643	3200	0	0	0	0	0	0

****** EOF ON COMPLETION OF DUMP FOR REQUEST SR=2=4643=1X

EOJ DUMP STOPPED AFTER FILE 2 # OF PERMANENT READ ERRORS 0

START TIME 04/02/92 22:06:4. STOP TIME 04/02/92 22:09:51

$$
$ASS IN HT.
$EXE TPDUMP BS

DUMP OF TAPE BC1IN

INPUT TAPE BC1IN ON HT0
DATA INPUT FS NF=7 SR=1=1=1 FL=7=1=1

FILE 1 RECORD 1 LENGTH 3572BYTES

```
(     0)  0DF40000  0DF00000  00000001  00000004  43190787  4363DB5F  41163F95  0E1C0E25  00000B17  42FD1534
(    40)  411.3CC1  4311F1B2  407F7462  42FB1192  40F37462  42FC855C  4110A21C  42FFAC41  4114FD2E  42FC7DFD
(    80)  411.4818  42310.00  0000.010  00000006  00003023  00000002  0000000E  0000000E  00000013  00000002
(   120)  0000000F  00000002  00003023  00000002  00000010  00000001  0000002F  00000002  00000017  0000001F
(   160)  0000.00F  00000032  00003023  00000002  00000010  00000001  0000002F  00000002  00000017  0000001F
(   200)  0000.007  0000000.  00000.00  00000000  00000000  00000000  00000000  00000000  00000000  00000000
(   240)  0000.000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000
(   280)  00000000  00000006  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000
(   320)  0000.000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000
(   360)  0000.000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000
```