#484

VOYAGER 1 AND 2
MAGNETOMETER & PLASMA JUPITER & CRUISE DATA

HG COOR.	S-3 COOR.
77-084A-05A	77-084A-05B
77-084A-06A	77-084A-06B
77-076A-05A	77-076A-05B
77-076A-06A	77-076A-06B

SATURN & PLASMA ENCOUNTER DATA (HG COOR)

77-084A-05D
77-084A-06D
77-076A-05D
77-076A-06D

VOYAGER 1 & 2 SATURN ENCOUNTER DATA
L1 COORD.

77-084A-05E,06E
77-076A-05E,06E

Table of Contents

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1. INTRODUCTION:

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 This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system.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

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

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

2. ERRATA/CHANGE LOG:

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

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

Version	Date	Person	Page	Description of Change
01				
02				

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

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

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

4. CATALOG MATERIALS:

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

b. Core Catalog Materials

VOYAGER 2

MAGNETOMETER JUPITER SUMMARY TAPES (HG COORDINATES)

JUPITER PLASMA SUMMARY TAPES (HG COORDINATES)

77-076A-05A,06A PSFP-00092

This data set has been restored. There were originally 15 9-track, 6250 BPI tapes written in Binary. There are five restored tapes. The DR tapes are 3480 cartridges and the DS tapes are 9-track, 6250 BPI. The original tapes were created on an IBM 360 computer. The DR and DS numbers along with the corresponding D numbers and the time spans are as follows:

DR#	DS#	DD#	FILES	TIME SPAN
DR03788	DS03788	D41959	1	06/19/79 - 06/24/79 *
		D41960	2	06/24/79 - 06/29/79 *
		D41961	3	06/29/79 - 07/04/79 *
DR03789	DS03789	D41962	1	07/04/79 - 07/08/79 *
		D45768	2	07/04/79 - 07/09/79 **
		D45769	3	07/10/79 - 07/14/79 **
DR03790	DS03790	D41963	1	07/12/79 - 07/14/79 *
		D41964	2	07/14/79 - 07/19/79 *
		D41965	3	07/19/79 - 07/25/79 *
DR03791	DS03791	D41966	1	07/24/79 - 07/29/79 *
		D41967	2	07/28/79 - 08/04/79 *
		D41968	3	08/04/79 - 08/08/79 *
DR03792	DS03792	D41969	1	08/08/79 - 08/12/79 *
		D45770	2	08/08/79 - 08/13/79 **
		D45771	3	08/14/79 - 08/18/79 **

* These files are Cruise Data
** These files are Encounter Data

VOYAGER 1

MAGNETOMETER JUPITER SUMMARY TAPES (HG COORDINATES)

JUPITER PLASMA SUMMARY TAPES (HG COORDINATES)

77-084A-05A,06A PSFP-00108

This data set has been restored. There were originally eight 9-track, 6250 BPI tapes written in Binary. There are three restored tapes. The DR tapes are 3480 cartridges and the DS tapes are 9-track, 6250 BPI. The original tapes were created on an IBM 360 computer. The DR and DS numbers along with the corresponding D numbers and the time spans are as follows:

DR#	DS#	DD#	FILES	TIME SPAN
DR03808	DS03808	D41954	1	02/25/79 - 03/02/79 *
		D41949	2	03/02/79 - 03/07/79 *
		D41950	3	03/07/79 - 03/12/79 *
		D41951	4	03/12/79 - 03/16/79 *
		D41952	5	03/16/79 - 03/18/79 *
DR03809	DS03809	D41953	1	03/18/79 - 03/20/79 *
		D41955	2	03/20/79 - 03/24/79 *
DR03810	DS03810	D46723	1	03/02/79 - 03/07/79 **

* These tapes are Cruise Data
** This tape is Encounter Data

VOYAGER 2

MAGNETOMETER JUPITER SUMMARY TAPES (S3 COORDINATES)

JUPITER PLASMA SUMMARY TAPES (S3 COORDINATES)

77-076A-05B,06B PSFP-00126

This data set has been restored. There were originally ten 9-track, 6250 BPI tapes written in Binary. There are ten restored tapes. The DR tapes are 3480 cartridges and the DS tapes are 9-track, 6250 BPI. The original tapes were created on an IBM 360 computer. The DR and DS numbers along with the corresponding D numbers and the time spans are as follows:

DR#	DS#	DD#	FILES	TIME SPAN
DR03774	DS03774	D43083	1	07/04/79 - 07/08/79 *
DR03775	DS03775	D43084	1	07/12/79 - 07/14/79 *
DR03776	DS03776	D43085	1	07/14/79 - 07/19/79 *
DR03777	DS03777	D43086	1	07/19/79 - 07/24/79 *
DR03778	DS03778	D43087	1	07/24/79 - 07/29/79 *
DR03779	DS03779	D43088	1	07/28/79 - 08/04/79 *
DR03780	DS03780	D43089	1	08/04/79 - 08/08/79 *
DR03781	DS03781	D43090	1	08/08/79 - 08/12/79 *
DR03782	DS03782	D45772	1	07/04/79 - 07/09/79 **
DR03783	DS03783	D46640	1	07/10/79 - 07/14/79 **

* These tapes are Cruise Data
** These tapes are Encounter Data

VOYAGER 1

MAGNETOMETER JUPITER SUMMARY TAPES (S3 COORDINATES)

JUPITER PLASMA SUMMARY TAPES (S3 COORDINATES)

77-084A-05B,06B PSFP-00138

This data set has been restored. There were originally four 9-track, 6250 BPI tapes written in Binary. There are four restored tapes. The DR tapes are 3480 cartridges and the DS tapes are 9-track, 6250 BPI. The tapes were created on an IBM 360 computer. The DR and DS numbers along with the corresponding D numbers and the time spans are as follows:

DR#	DS#	DD#	FILES	TIME SPAN
DR03811	DS03811	D41956	1	03/02/79 - 03/07/79 *
DR03812	DS03812	D41957	1	03/07/79 - 03/12/79 *
DR03813	DS03813	D41958	1	03/12/79 - 03/16/79 *
DR03814	DS03814	D46724	1	03/02/79 - 03/07/79 **

* These tapes are Cruise Data
** This tape is Encounter Data

VOYAGER 2

MAGNETOMETER SATURN ENCOUNTER (HG COORDINATES)

PLASMA SATURN ENCOUNTER (HG COORDINATES)

77-076A-05D,06D PSFP-00064

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

DR#	DS#	DD#	FILES	TIME SPAN
DR03850	DS03850	D60880	1	08/23/81 - 08/28/81
		D60881	2	08/28/81 - 09/02/81

VOYAGER 1

SATURN ENCOUNTER DATA (HG COORDINATES)

PLASMA SATURN ENCOUNTER (HG COORDINATES)

77-084A-05D,06D PSFP-00064

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

DR#	DS#	DD#	FILES	TIME SPAN
DR03849	DS03849	D60882	1	11/09/80 - 11/14/80
		D60883	2	11/14/80 - 11/20/80

VOYAGER 2

SATURN ENCOUNTER L1 COORDINATES

77-076A-05E,06E PSFP-00239

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

DR#	DS#	DD#	FILES	TIME SPAN
DR03851	DS03851	D61727	1	08/23/81 - 08/25/81
		D61728	2	08/24/81 - 08/29/81

VOYAGER 1

SATURN ENCOUNTER L1 COORDINATES

77-084A-05E,06E PSFP-00192

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

DR#	DS#	DD#	FILES	TIME SPAN
DR03856	DS03856	D61729	1	11/09/80 - 11/14/80
		D61730	2	11/14/80 - 11/18/80

REQ. AGENT	RAND NO.	ACQ. AGENT
BER	V0067	RWV
GLS	V0236	WSC
DAD	V0238	

VOYAGER 1 & 2

MAGNETOMETER & PLASMA JUPITER SUMMARY DATA TAPES

HG COORDINATES		S-3 COORDINATES	
77-084A-05A	77-084A-06A	77-076A-05B	77-076A-06B
77-076A-05A	77-076A-06A	77-084A-05B	77-084A-06B

SATURN & PLASMA ENCOUNTER DATA (HG COORDS.)

77-084A-05D 77-084A-06D
77-076A-05D 77-076A-06D

This data set catalog consists of Voyager 1 and 2 data. They are 6250 BPI, 9 track, single filed, and binary formatted. They were created on the IBM 360 computer. The D tapes are standard labeled.

DATA SETS AND TIME SPANS ARE AS FOLLOWS:

77-084A-05A (HG COORDS.) CRUISE DATA
77-084A-06A

D#	C#	TIME SPANS
D-41949	C-21334	03/02/79 - 03/07/79
D-41950	C-21335	03/07/79 - 03/12/79
D-41951	C-21336	03/12/79 - 03/16/79
D-41952	C-21337	03/16/79 - 03/18/79
D-41953	C-21338	03/18/79 - 03/20/79
D-41954*	C-21339	02/25/79 - 03/02/79
D-41955	C-21340	03/20/79 - 03/24/79

VOYAGER 1 (S-3 COORDS.) CRUISE DATA
77-084A-05B 77-084A-06B

D#	C#	TIME SPANS
D-41956	C-21341	03/02/79 - 03/07/79
D-41957	C-21342	03/07/79 - 03/12/79
D-41958	C-21343	03/12/79 - 03/16/79

VOYAGER 2 77-076A-05A (HG COORD.) CRUISE DATA
77-076A-06A

D#	C#	TIME SPANS
D-41959	C-21344	06/19/79 - 06/24/79
D-41960	C-21345	06/24/79 - 06/29/79
D-41961	C-21346	06/29/79 - 07/04/79
D-41962	C-21347	07/04/79 - 07/08/79
D-41963	C-21348	07/12/79 - 07/14/79
D-41964	C-21349	07/14/79 - 07/19/79
D-41965	C-21350	07/19/79 - 07/24/79
D-41966	C-21351	07/24/79 - 07/29/79
D-41967	C-21352	07/28/79 - 08/04/79
D-41968	C-21353	08/04/79 - 08/08/79
D-41969	C-21354	08/08/79 - 08/12/79

VOYAGER 2 77-076A-05B (S-3 COORD.) CRUISE DATA
77-076A-06B

D#	C#	TIME SPANS
D-43083	C-21368	07/04/79 - 07/08/79
D-43084	C-21369	07/12/79 - 07/14/79
D-43085	C-21370	07/14/79 - 07/19/79
D-43086	C-21371	07/19/79 - 07/24/79
D-43087	C-21372	07/24/79 - 07/29/79
D-43088	C-21373	07/28/79 - 08/04/79
D-43089	C-21374	08/04/79 - 08/08/79
D-43090	C-21375	08/08/79 - 08/12/79

VOYAGER 1 ENCOUNTER DATA

77-084A-05A,06A HG COOR.

D#	C#	TIME SPAN
D-46723	C-21807	03/02/79 - 03/07/79

77-084A-05B,06B S-3 COOR.

D#	C#	TIME SPAN
D-46724	C-21808	03/02/79 - 03/07/79

VOYAGER 2 ENCOUNTER DATA

77-076A-05A,06A HG COOR.

D#	C#	TIME SPAN
D-45768	C-21802	07/04/79 - 07/09/79
D-45769*	C-22340	07/10/79 - 07/14/79
D-45770	C-21803	08/08/79 - 08/13/79
D-45771	C-21804	08/14/79 - 08/18/79

77-076A-05B,06B S-3 COOR.

D-45772	C-21805	07/04/79 - 07/09/79
D-46640	C-21806	07/10/79 - 07/14/79

VOYAGER 2 SATURN & PLASMA ENCOUNTER DATA (HG COOR)

77-076A-05D,06D

D#	C#	TIME SPAN
D-60880	C-23725	08/23/81 - 08/28/81
D-60881	C-23726	08/28/81 - 09/02/81

VOYAGER 1 SATURN & PLASMA ENCOUNTER DATA (HG COOR)

77-084A-05D,06D

D#	C#	TIME SPAN
D-60882	C-23727	11/09/80 - 11/14/80
D-60883	C-23728	11/14/80 - 11/19/80
	C-23729	11/19/80 -11/20/80

* THESE D-TAPES ARE NOT STANDARD LABELED.

VOYAGER 1 ENCOUNTER DATA

77-084A-05E,06E L1 COORD.

D#	C#	TIME SPAN
D-61729	C-23858*	11/09/80 - 11/14/80
D-61730	C-23859*	11/14/80 - 11/18/80

VOYAGER 2 ENCOUNTER DATA

77-076A-05E,06E L1 COORD.

D#	C#	TIME SPAN
D-61727	C-23856*	08/23/81 - 08/25/81
D-61728	C-23857*	08/24/81 - 08/29/81

Proposed Plan for

Submission of Data from the Voyager Plasma Science Experiment to the NSSDC

A. INTRODUCTION

Data from the Voyager Plasma Experiment consists of two basic types:

a. Data on the solar wind obtained during the cruise phase of the mission

b. Data obtained in the magnetosheath and magnetosphere of Jupiter during the encounter phase of the mission.

Both of these sets of data have been subject to an extensive but basically a preliminary analysis and a final more sophisticated analysis remains to be done on both sets. In the following sections we discuss the status of the data analysis for both sets of data and summarize what we expect to deposit in the NSSDC by October 1, 1980.

B. CRUISE DATA

Data has been obtained from both Voyager 1 and Voyager 2 from launch up until the present time. The coverage is essentially complete (tracking is between 50 and 75% for each spacecraft) and has been analyzed to give hourly averages of plasma velocity, number density, and temperature between 1 and 7 AU. These data refer primarily to protons. The analysis of the helium component is not yet in final form.

Higher time resolution data will, of course, be ultimately available. That availability is contingent on a more sophisticated analysis of the alpha particle component which depends in turn on the availability of final values for the interplanetary magnetic field. Depending upon the effort devoted to this analysis, it will be one or two years before a final high time resolution cruise data set is

available. In the meantime we are willing to entertain proposals which require limited amounts of high time resolution data.

As of October 1980, we intend to deposit an hourly average tape which for Voyager 1 contains data obtained between 1 and 7 AU and for Voyager 2 between 1 and 5 AU. The data on these tapes will include plasma flow velocity (speed and two angles), proton number density and temperature. At this point, it is not practical to include data on the helium component.

C. ENCOUNTER DATA

Current State of the Analysis of PLS Data during Jupiter Encounter

The following brief description should make apparent the limitations of the present analysis and define more clearly the data set which we propose to submit to NSSDC.

Figure 1 shows the Voyager 1 trajectory projected onto the Jovian equatorial plane. Also shown is the projection of the symmetry axis of the main sensor cluster (S), which consists of three modulated-grid Faraday cups (the A, B, and C cups). The projection of the normal of the side-looking sensor, or the D cup, is also indicated (D). The prime field of view of the main cluster is roughly a cone of half-angle 45° about the symmetry axis (Bridge et al., 1977), and the field of view of the side sensor is a cone of half-angle 30° about the cup normal. It is apparent from this figure that plasma corotating with Jupiter will flow into the D sensor over most of the inbound leg of the trajectory. Cold corotating flow moves out of the D sensor and into the field of view of the main cluster near closest approach, and out of the field of view of all sensors on the outbound leg. This behavior is shown quantitatively for Voyager 1 in Figure 2, which gives the response of the A, C, and D sensors to cold, rigidly corotating plasma as a function of time along the spacecraft trajectory.

Up until the present, the bulk of the plasma data has been analyzed using only one sensor at a time, the cup of choice being the one looking most nearly into corotating flow at a given point along the trajectory. No analysis has been carried out for highly oblique flows, i.e., when the flow is more than ~30° from any sensor normal. Thus, we have done very little analysis on the outbound legs of either Voyager 1 or Voyager 2. Examples of our inbound analysis of individual cups is shown in Figures 3 and 4. Figure 3 shows the positive ion charge and mass densities from ~45 R_J to closest approach (CA) on Voyager 1. The analysis up to day 64 0300 is of D sensor data; analysis after that time is either A, B, and C sensor data. Figure 4 shows the component of plasma velocity into the D sensor on the inbound leg, derived from the low resolution (L-mode) positive ion spectra. When we analyze only one sensor at a time, we obtain only the component of plasma flow along that sensor normal (e.g., see Belcher et al., 1980). Also shown is the expected component of flow along the D sensor normal assuming rigid corotation. The fact that the plasma is moving at less than the expected corotation velocity as close as 10 R_J to the planet has been one of the most novel results of the PLS analysis (McNutt, et al., 1979; Hill, 1980). An example of one of the best M-mode spectra from the D sensor is shown in Figure 5; we also show Maxwellian fits to various heavy ion species present in the spectra.

The analysis used to obtain the results discussed above uses one sensor at a time. If the flow is reasonably supersonic (Mach four or greater) and is flowing into the sensor at a small angle to the normal ($\lesssim$20°), one can sensibly take the response function of the detector (see Vasyliunas, 1971; Belcher et al., 1980) to be constant. With this assumption, our present analysis provides good estimates of the densities and temperatures of the various ions, as well as their common velocity component along the sensor normal. In some cases, when the flow is close to the symmetry axis of the main cluster, the response function of all

of the sensors in the main cluster can be taken as unity, and the three velocity components from the A, B, and C sensors can be combined to yield a vector velocity. This is, of course, the normal procedure in the analysis of solar wind data. In the Jovian magnetosphere, we can use this procedure only for a limited time around closest approach (cf. Figure 2) and during one spacecraft maneuver near 35 R_J on Voyager 1 inbound. Most of the time the flow is oblique to two or more sensor normals, the response function is very different from unity, and we cannot combine the simple solar wind analysis from two or more cups to obtain vector velocities. However, we still have significant signals in the cups which are oblique to the flow, and there is a large amount of information to be gained from the analysis of that data if we properly account for the effects of the finite response of the sensors. This type of analysis will be done in the future.

Encounter Data to be Submitted to NSSDC

For the Jupiter encounter we plan to submit two sets of data. The first will contain results of the analysis of encounter data performed to date which are discussed above; that is, they will be the data sets which form the basis for the plots of charge density and mass density shown in Figure 3 and for the analysis of plasma velocity shown in Figure 4. It should be possible for outside users to utilize these data with little additional effort.

We also intend to deposit in NSSDC a more basic data set which includes all of the encounter results but which will require a good deal more experience and investment of time on the part of potential users. The basic encounter data set exists in a form which the PLS and MAG experimenters have called "summary tapes." Basically, this data set is only one step removed from the Experiment Data Records (EDR) furnished by JPL. They have been processed to remove bad data, to arrange the data sequentially, etc. In addition they contain the results

of a crude moment analysis to derive plasma parameters. This analysis is usually not valid in the Jovian magnetosphere but it furnishes a useful basis for a qualitative evaluation of the data. We normally use this tape in conjunction with an SEDR (Supplemental Experiment Data Record) tape as a basis for analysis of the encounter data; i.e., the summary tapes, the SEDR, and an appropriate software package form the basis for most analyses which are currently being carried out at MIT.

We feel that it is important that these summary tapes together with adequate documentation be available as a primary data base especially for work which may take place sometime in the future. For example, it may be especially important to have the primary data available for future comparisons with results from Galileo or ISPM.

D. DOCUMENTATION

Adequate documentation exists for most of the material described above. There are significant gaps which we intend to fill by October and although the task is not negligible, it appears to be feasible to submit the data described above and the appropriate documentation by about October 1, 1980.

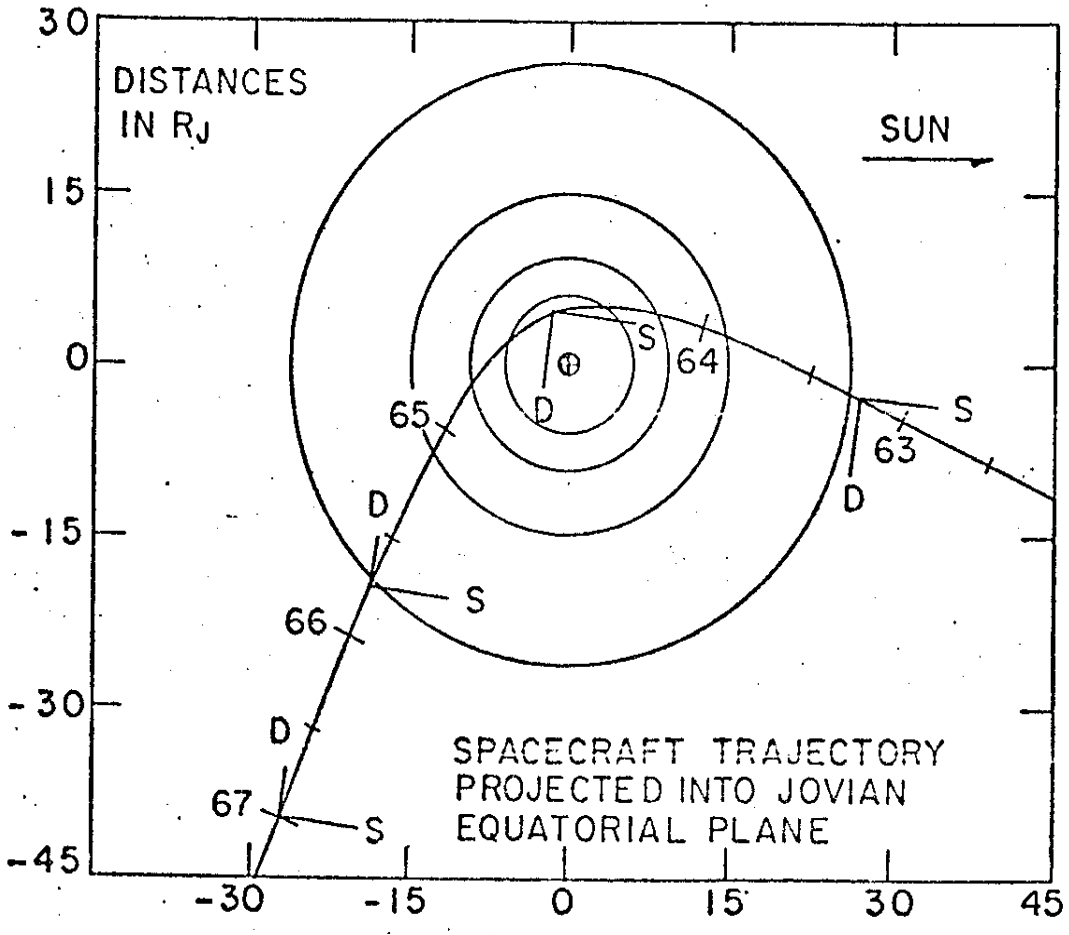

Figure 1: The Voyager 1 trajectory projected onto the Jovian equatorial plane. The line labeled S is the projection of the symmetry axis of the main cluster of Faraday cups, and the line labeled D is the projection of the D cup normal.

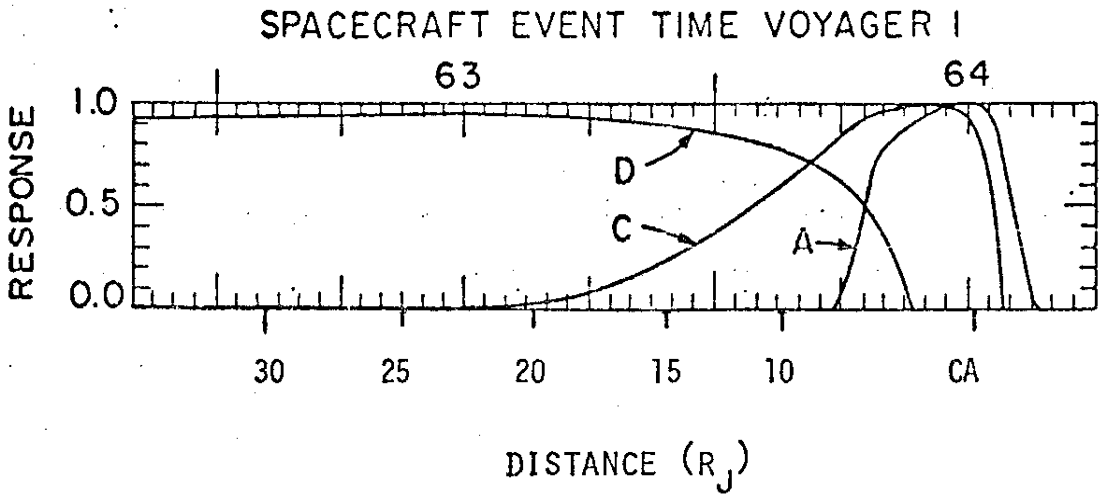

Figure 2: The response of the A, C, and D cups to a cold, corotating beam as a function of time along the Voyager 1 trajectory. The response of the B cup is almost identical to that of the C cup. The response is that fraction of the flux of an incident beam which is measured at the collector plate of the instrument.

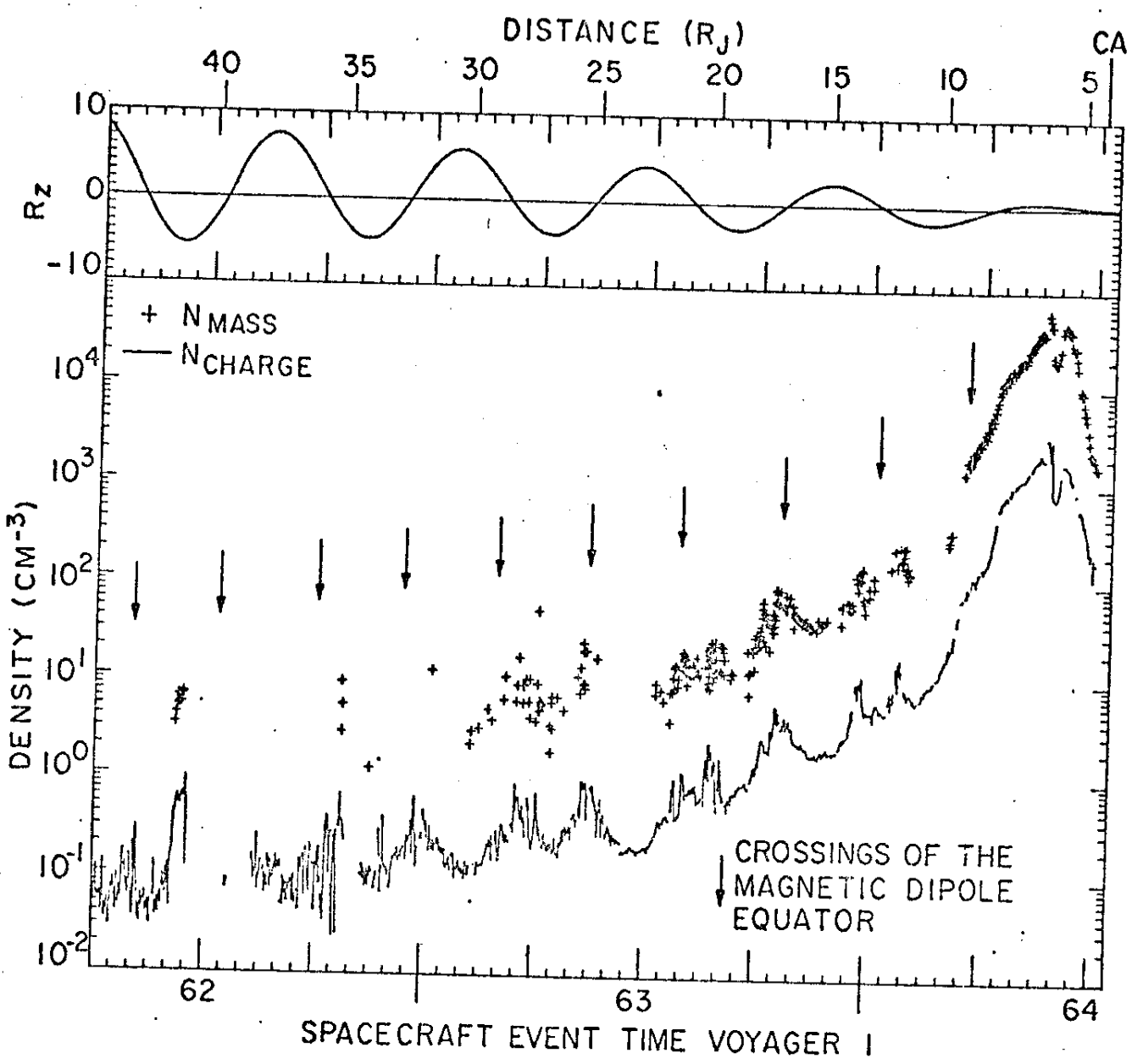

Figure 3: Mass and positive charge density as determined by PLS on the Voyager 1 inbound pass. The crosses represent amu/cc and the solid line total positive ion charge/cc, i.e., $\sum_i n_i Z^*_i$.

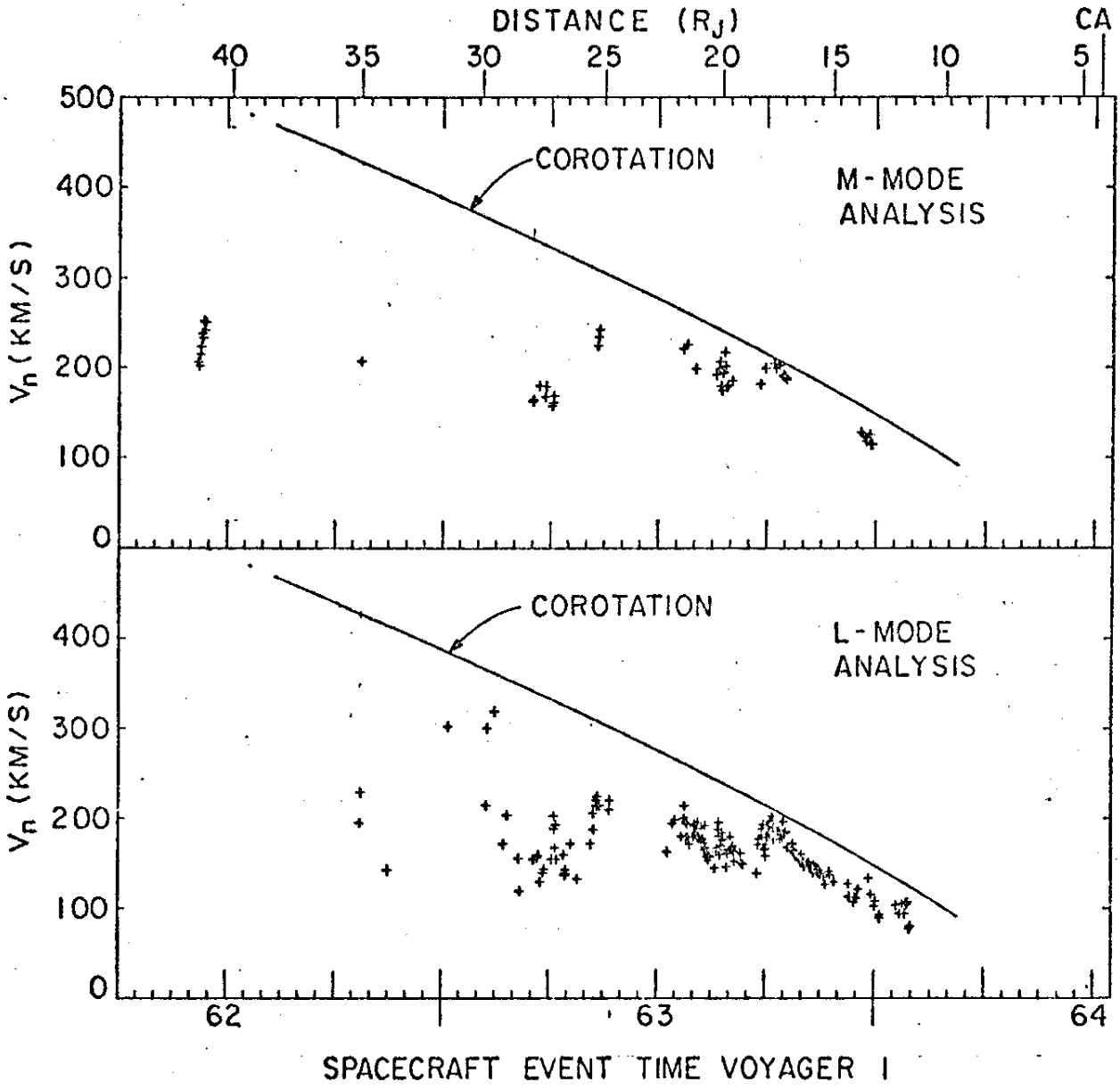

Figure 4: The component of plasma bulk velocity into the D sensor on the Voyager 1 inbound trajectory. The solid line is the expected component of flow assuming rigid corotation.

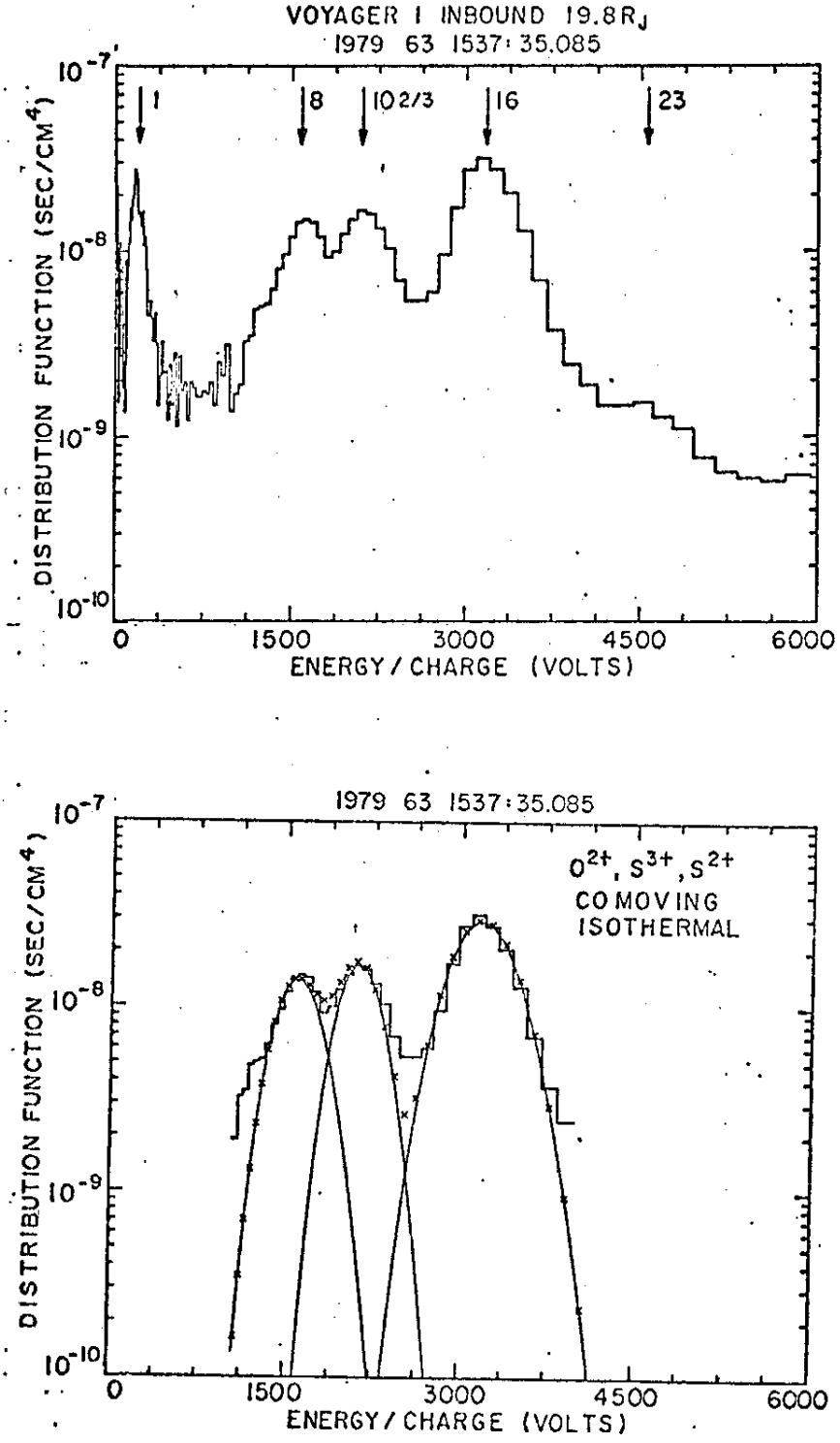

Figure 5: An M-mode spectrum from the D sensor at 19.8 R_J on Voyager 1 inbound. The peaks in energy per charge labeled 1, 8, 10-2/3, 16, and 23 are due to H^+, O^{++}, S^{+++}, O^+ or S^{++}, and Na^+. We also show Maxwellian fits to O^{++}, S^{+++}, and S^{++}.

References

Bridge, H. S., J. W. Belcher, R. J. Butler, A. J. Lazarus, A. M. Mavretic, J. D. Sullivan, G. L. Siscoe, and V. M. Vasyliunas: The Plasma Experiment on the 1977 Voyager Mission, Space Sci Rev 21, 259, 1977.

Belcher, J. W., C. K. Goertz, and H. S. Bridge: The Low Energy Plasma in the Jovian Magnetosphere, GRL 7, 17, 1980.

McNutt, R. L., J. W. Belcher, J. D. Sullivan, F. Bagenal, and H. S. Bridge: Departure from Rigid Corotation of Plasma in Jupiter's Dayside Magnetosphere, Nature 280, 803, 1979.

Hill, T. W.: Corotational Lag in Jupiter's Magnetosphere: A Comparison of Observation and Theory, Science 207, 301, 1980.

Vasyliunas, V. M.: In Methods of Experimental Physics, Vol. 9B of Plasma Physics, edited by R. H. Lovbergs, p. 49, Academic Press, 1971.

05A, 05B
05A, 05B

Voyager Conjoint Data Tape Format For Combined MAG And PLS Analysis

Tapes are IBM standard label, 9 track and contain IBM variable blocked (VB) records. Master tapes are 6250 BPI, distribution copies may be 1600/800 BPI.

There are four distinct types of records: header; magnetometer science; plasma science; and engineering. All Master Library tapes will contain all data record types. Prior to filing of these tapes in the NSSDC at GSFC, any tapes distributed outside the principal sphere of interest (MIT and GSFC), will contain only one type of data (MAG or PLS) plus engineering, unless there is mutual PI agreement to do otherwise.

Engineering records always precede science records. Science records are time ordered by the end time of the PLS data blocks and the begin time of the MAG data blocks. The time tag represents the Begin time of a block.

The first word in each record is an identifier for that type of data. The following table lists the record characteristics and their frequency of occurrence.

Record Type	ID	Rate	Length (Bytes)	Mode
Engineering	ENG	1/12min 1/48min	1092v	GS3,CR1,CR2 CR3,CR4,CR5,CR6,CR7
Low field magnetometer	LFM	1/48sec	2076	All modes
Proton high resolution	M	1/12sec 1/96sec 1/192sec	2540v	CR1 GS3,CR2,CR3,CR4 CR5,CR6
Proton low resolution	I	1/96sec 1/192sec 1/384sec	1056	GS3,CR2,CR3,CR4 CR5,CR6 CR7
Electron	E1/E2	1/12sec 2/96sec 2/192sec 2/384sec	680	CR1 GS3,CR2,CR3,CR4 CR5,CR6 CR7

High field MAG data is not compacted and therefore will not appear on this tape.

The DD card necessary to read this tape is:

```
//ddname DD UNIT=(9TRACK,,DEFER),LABEL=(,SL),DISP=SHR,
//       DCB=(RECFM=VB,LRECL=4224,BLKSIZE=18260,LEN=4),
//       DSN=VOYAGER.CONJOIN1.MAG.PLS,VOL=SER=xxxxxx
```

Each logical record consists of two or more parts. The following diagrams show the different record types and the different segments in each.

ENG - Engineering

Header 32 words	Selected Engineering Data 2 to 240 words

LFM - Magnetometer

Header 32 words	MAG Data 496 words	SEDR 40 words

M - Proton Mode

Header 32 words	Output Data 150 words	SEDR 50 words	Raw Data 256 words	Overlap Variable

L - Proton Mode

Header 32 words	Output Data 150 words	SEDR 50 words	Raw Data 32 words

E1/E2 - Electron Mode

Header 32 words	Output Data 80 words	SEDR 50 words	Raw Data 8 words

Because of the variable length of each record, a word has been added to each record header block to allow the use of FORTRAN in reading this tape. The last halfword of the block contains the count of the number of words remaining in the logical record.

Common Record Header Block

RELATIVE WORD	TYPE*LEN	DESCRIPTION
1	A*4	Data identifier: "ENG ", "LFM ", "M ", "I ", "E1 ", "E2 ", "HDR1", "HDR2"
2	A*4	Telemetry format
3	A*4	s/c id: "FLT1" or "FLT2"
4	I*2	Year of data - 1900 (time tag for beginning of data block)
	I*2	Day of year (Jan 1 = 1)
5	I*2	Hour of day (0-23)
	I*2	Minute of hour (0-59)
6	I*2	Second of minute (0-59)
	I*2	Millisecond of second (0-999)
7-8	R*8	Decimal day of year of data (Jan 1 = 0)
9-10	R*8	Decimal day count since 20AUG77
11	A*4	Type of time: SCET or ERT
12	R*4	Time period of this data block in seconds
13	I*2	2**16 seq counter of data at time of telemetry readout (increments once in 48 min)
	I*2	Modulo 60 seq counter of data readout (increments once in 48 sec)
14	I*2	Line counter of data readout (1-800) (increments once in 60 ms)
	I*2	SPARE
15	Z*4	Status word
16	Z*4	Command
17	I*2	Data identifier: LFM=1, HFM=2, M=3, E1=4, I=5, E2=6, ENG=7, HDR1=8, HDR3=10
	I*2	Data rate: GS3=0, CR1=1, CR2=2, CR3=3, CR4=4, CR5A=5, CR6A=6, CR6B=7, CR7=8, CR5B=9
18		SPARE
19-20	A*8	A character flag which indicates software or s/c hardware intervention reducing confidence in data
21-29		SPARE
30-31	4(I*2)	# of primary data words, # of secondary data words, # of primary full words, # of secondary full words (LFM only)
32	I*2	Record number on tape
	I*2	Number of words remaining in logical record

RELATIVE WORD	TYPE*LEN	DESCRIPTION
	>>>>>>>> 48 sec av (ROTATED) <<<<<<<<	
1	R*4	F1: average of 9.6 sec norms in gammas
2	R*4	F2: norm of (B1,B2,B3) in gammas
3	R*4	DELTA: arsin(B3/F2) in degrees
4	R*4	LAMBDA: 180 - atan(B2,-B1) in degrees
5	R*4	B1: average of first 9.6 sec component in gammas
6	R*4	B2: average of second 9.6 sec component in gammas
7	R*4	B3: average of third 9.6 sec component in gammas
8-10	3(R*4)	RMS: rms vector in gammas
11	I*4	N: number of 9.6 sec avs that make up this average (le 5)
	>>>>>>>> 9.6 sec av (ROTATED) <<<<<<<<	
12-16	5(R*4)	F1: averages of 1.92 sec norms in gammas
17-21	5(R*4)	F2: norms of (B1,B2,B3) in gammas
22-26	5(R*4)	DELTA: arsin(B3/F2) in degrees
27-31	5(R*4)	LAMBDA: 180 - atan(B2,-B1) in degrees
32-36	5(R*4)	B1: averages of first 1.92 sec component in gammas
37-41	5(R*4)	B2: averages of second 1.92 sec component in gammas
42-46	5(R*4)	B3: averages of third 1.92 sec component in gammas
47-61	15(R*4)	RMS: rms vectors in gammas (3 X 5)
62-66	5(I*4)	N: Number of 1.92 sec avs that make up this average (le 5)
	>>>>>>>> 1.92 sec av (ROTATED) <<<<<<<<	
67-91	25(R*4)	F1: averages of detail point norms in gammas
92-116	25(R*4)	F2: norms of (B1,B2,B3) in gammas
117-141	25(R*4)	DELTA: arsin(B3/F2) in degrees
142-166	25(R*4)	LAMBDA: 180 - atan(B2,-B1) in degrees
167-191	25(R*4)	B1: averages of first detail component in gammas
192-216	25(R*4)	B2: averages of second detail component in gammas
217-241	25(R*4)	B3: averages of third detail component in gammas

242-316	75(R*4)	RMS: PAYLOAD rms vectors in gammas (3 X 25)
317-341	25(I*4)	N: number of detail points that make up this average
	>>>>>>>> s/c field averages (PAYLOAD) <<<<<<<<	
342-488		SPARE
489-491	3(R*4)	RMS: vector rms in gammas
492	I*4	NSC: number of averages in 48 secs
493	R*4	SCX: average of first field component in gammas
494	R*4	SCY: average of second field component in gammas
495	R*4	SXZ: average of third field component in gammas
496	R*4	SCF: norm of (SCX,SCY,SCZ) in gammas

Note: For Jupiter System III, (B1,B2,B3) are Spherical coordinates while the angles DELTA and LAMBDA are derived from Cartesian coordinates.

Engineering Data Area

RELATIVE WORD	TYPE*LEN	DESCRIPTION
1	I*2	Deck (Eng code 620-672)
	I*2	Value of ENG
2	R*4	"read-out" time of data in seconds past time on record header block
3-240		repeat words 1 and 2 for each new set

Since only engineering parameters which change are entered into the record, the record is of variable length.

SEDR Data Block

RELATIVE WORD	TYPE*LEN	DESCRIPTION
1-2	R*8	TN: epicday of navigation blcck "closest" to data
3-4	R*8	TP: epicday of pointing vector block "closest" to data
5-10	R*4	Spacecraft relative positicn vector and velocity vector in EG: Inertial Sun Equator System (AU,km/sec). Time tag is TN. S3: Jupiter System III Cartesian (Jupiter radii,km/sec) Time tag is TN.
11	R*4	Spacecraft distance from HG: Sun in AU. Time tag is TN. S3: Jupiter in Jupiter radii. Time tag is TN.
12-13	R*4	Spacecraft relative longitude & latitude in radians in EG: Inertial Sun Equator System. Time tag is TN. S3: Jupiter latitude,Jupiter System III longitude. Time tag is TN. Note 0<=longitude<2*pi and -pi/2<latitude<=+pi/2
14-22	R*4	HG: Matrix to rotate data from Inertial Sun Equator System to Inertial Heliographic System. Time tag is TN. S3: Matrix to rotate data from Jupiter System III Cartesian to Jupiter System III Spherical. Time tag is DT.
23-31	R*4	HG: Matrix to rotate data from Inertial Heliographic System to Earth-Orbit-True System. Time tag is TN. S3: Matrix to rotate data from payload to Jupiter System III Cartesian. Time tag is DT.
32-40	R*4	HG: Matrix to rotate data from payload to Inertial Heliographic System. Time tag is DT. S3: Matrix to rotate data from payload to Jupiter System III Spherical. Time tag is DT.
41-50		SPARE

Matrices are left multiplying with elements in the order:

$$\begin{vmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{vmatrix}$$

Time tag TN is relative words 1-2 above. Time tag DT is record header time plus 1/2 the length of the data record.

When MAG(28) switch is on and the record is LFM, the time tag for relative words 32-40 above is record header time plus 47.04 seconds.

Description of MJS summary tape (and MAG detail tape) HDR1 records at beginning and end of tape(s).

RELATIVE WORD	TYPE*LEN	DESCRIPTION
1	A*4	"HDR1"
2	A*4	Telemetry format
3	A*4	s/c id: "FIT1" or "FIT2"
4	I*2	Year of data - 1900 (from first data record)
	I*2	Day of year of data
5	I*2	Hour of day of data
	I*2	Minute of day of data
6	I*2	Second of minute of data
	I*2	Millisecond of second of data
7	I*4	Year of this run
8	I*4	Calendar day of year of this run
9	A*4	Month of this run
10	I*4	Day of month of this run
11-12	A*8	Run type: "CRUISE" or "ENCOUNTER"
13	A*4	Coordinate system (not on detail tape)
14-16		SPARE
17	I*2	Data identifier=8 (not on detail tape)
	I*2	SPARE
18-31		SPARE
32	I*2	Record number on tape
	I*2	Number of words remaining in logical record
33-52	10(A*8)	List of mounted EDR volume serial numbers
53-64	6(A*8)	List of mounted SEDR volume serial numbers
65-66	A*8	Volume serial number of summary tape
67-68	A*8	Volume serial number of MAG detail tape
69-76	32(L*1)	System switching vectors
77-84	32(L*1)	MAG switching vectors
85-92	32(L*1)	PLS switching vectors
93-94	A*8	Name of zeroes
95-96	A*8	Name of sensitivities
97-98	A*8	Name of calibrations

99-100	SPARE

NOTE: Some fields may be incomplete when this record is at the beginning of the tape.

Description of MJS summary tape HDR3 records to be placed after each HDR1 record.

RELATIVE WORD	TYPE*LEN	DESCRIPTION
1	A*4	"HDR3"
2-3		SPARE
4	I*2	Year of data - 1900 (from first data record)
	I*2	Day of year of data
5	I*2	Hour of day of data
	I*2	Minute of day of data
6	I*2	Second of minute of data
	I*2	Millisecond of second of data
7-16		SPARE
17	I*2	Data identifier=10
	I*2	SPARE
18-31		SPARE
32	I*2	Record number on tape
	I*2	Number of words remaining in logical record
33-1056	A*4096	Contents of PLCCNS common block

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July 31, 1984

TO: 601/Dr. Kent Hills

FROM: 695/Planetary Magnetospheres Branch

SUBJECT: Voyager MAG Summary Tapes: Formats and Coordinates

The Voyager MAG/PLS Summary tapes for Saturn are essentially identical in format to the Jupiter Voyager tapes, only a few names have changed consistent with the particular encounter. For example, where we used System III for the Jupiter encounter (i.e., the "rotating system") we now use for Saturn the L1 coordinate system. L1 is identical to the Desch and Kaiser SLS system, as far as Saturn's rotation period and phase are concerned; see Desch, M. D., and M. L. Kaiser, Voyager Measurements of the Rotation Period of Saturn's Magnetic Field, Geophys. Res. Lett., 8, 253, 1981.

The MAG portion of the Summary Tapes are described on pp. 1.15-1 through 1.15-9 of GSFC-X-694-76-242, "Commonly Used Digital Tape, Disk and Card Formats," (Revised Feb. 1981), and I have attached p. 1.15-4, which shows the relevant blocks of MAG-averages. Notice the components B_1, B_2, B_3. These correspond to B_R, B_T, B_N, respectively, in the (spacecraft centered) Heliographic (HG) coordinate system, for which we also have supplied Jupiter and Saturn encounter tapes. But in the L1 ($\equiv$ SLS) system B_1, B_2, B_3 correspond to B_r, B_θ, B_ϕ, respectively, which are in a spacecraft centered system whose basis is the following set of orthogonal unit vectors (see Fig. 1):

$\hat{r}$, along the Saturn-spacecraft line, positive away from Saturn;

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$\hat{\theta}$, perpendicular to $\hat{r}$ and parallel to a Saturnian meridian plane, positive southward; and

$\hat{\phi}$, equal to $\hat{r} \times \hat{\theta}$, which is parallel to Saturn's equatorial plane and positive eastward, i.e., in the direction of planetary rotation.

Obviously the absolute directions of $\hat{r}$, $\hat{\theta}$, and $\hat{\phi}$ will depend on the spacecraft position at any instant, but they do not depend on the period or phase of Saturn. On the other hand, on the L1 tapes the angular representation of the field's direction, given by DELTA (δ_{L1}) and LAMBDA (λ_{L1}) on p. 1.15-4 in the "Formats" document, does depend on the planet's period and our chosen phase. These angles reflect the Desch-Kaiser SLS chosen period/phase. The attached sketch (Fig. 2) gives the definitions of these angles. Notice that for an inertially fixed S/C and fields represented in the L1 system λ_{L1} will go through 360° every 10 hours, 39.4 min.

Usually for model-fitting of the planetary field it is the components B_r, B_θ, B_ϕ, and knowledge of the S/C position in the same spherical system that are used, not λ_{L1} and δ_{L1}. Since in model field fitting the S/C position must be represented in a planet-fixed system, i.e., rotating, then the spin period and phase chosen to represent the planet's rotation (SLS in our case) become important.

Ron Lepping

R. P. Lepping

77-084A-05E
77-076A-05E

RELATIVE WORD	TYPE*LEN	DESCRIPTION
	--------	48 sec av (ROTATED) --------
1	R*4	F1: average of 9.6 sec norms in gammas
2	R*4	F2: norm of (B1,B2,B3) in gammas
3	R*4	DELTA: arsin(B3/F2) in degrees
4	R*4	LAMBDA: 180 - atan(B2,-B1) in degrees
5	R*4	B1: average of first 9.6 sec component in gammas
6	R*4	B2: average of second 9.6 sec component in gammas
7	R*4	B3: average of third 9.6 sec component in gammas
8-10	3(R*4)	RMS: rms vector in gammas
11	I*4	N: number of 9.6 sec avs that make up this average (le 5)
	--------	9.6 sec av (ROTATED) --------
12-16	5(R*4)	F1: averages of 1.92 sec norms in gammas
17-21	5(R*4)	F2: norms of (B1,B2,B3) in gammas
22-26	5(R*4)	DELTA: arsin(B3/F2) in degrees
27-31	5(R*4)	LAMBDA: 180 - atan(B2,-B1) in degrees
32-36	5(R*4)	B1: averages of first 1.92 sec component in gammas
37-41	5(R*4)	B2: averages of second 1.92 sec component in gammas
42-46	5(R*4)	B3: averages of third 1.92 sec component in gammas
47-61	15(R*4)	RMS: rms vectors in gammas (3 X 5)
62-66	5(I*4)	N: Number of 1.92 sec avs that make up this average (le 5)
	--------	1.92 sec av (ROTATED) --------
67-91	25(R*4)	F1: averages of detail point norms in gammas
92-116	25(R*4)	F2: norms of (B1,B2,B3) in gammas
117-141	25(R*4)	DELTA: arsin(B3/F2) in degrees
142-166	25(R*4)	LAMBDA: 180 - atan(B2,-B1) in degrees
167-191	25(R*4)	B1: averages of first detail component in gammas
192-216	25(R*4)	B2: averages of second detail component in gammas
217-241	25(R*4)	B3: averages of third detail component in gammas

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77-010A-02E

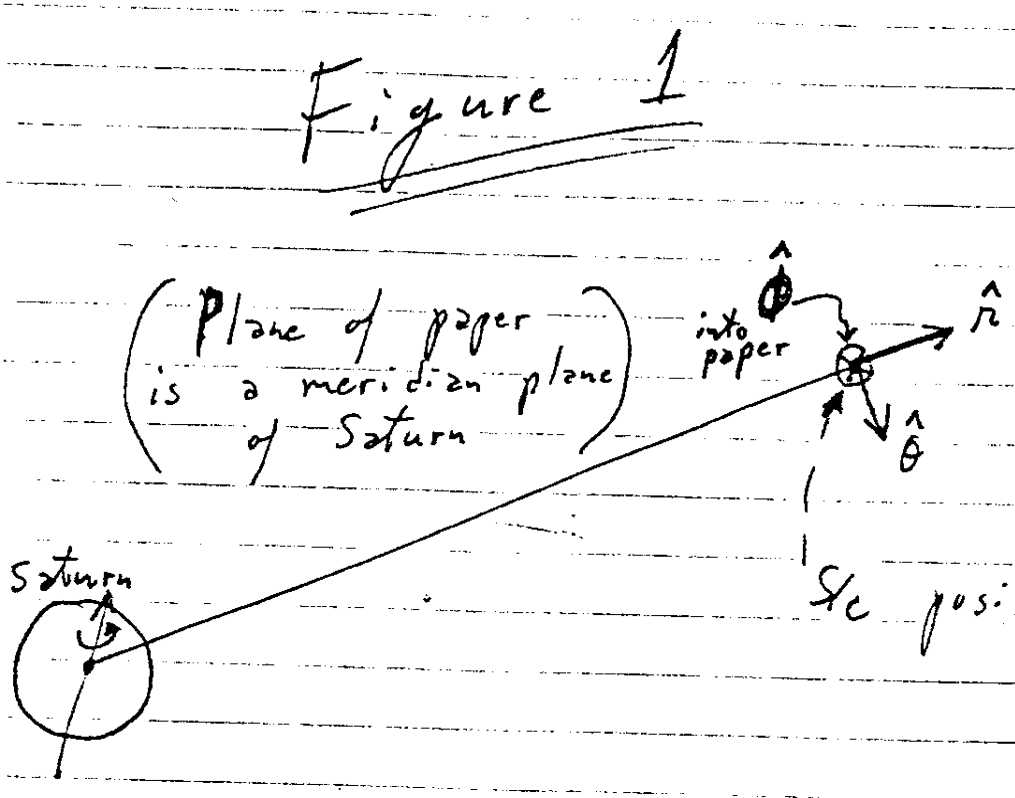

Figure 1. Notice that $\hat{r}$, θ, $\hat{\phi}$ depend on the position of the spacecraft (S/C) relative to Saturn, but not on Saturn's period or rotational phase.

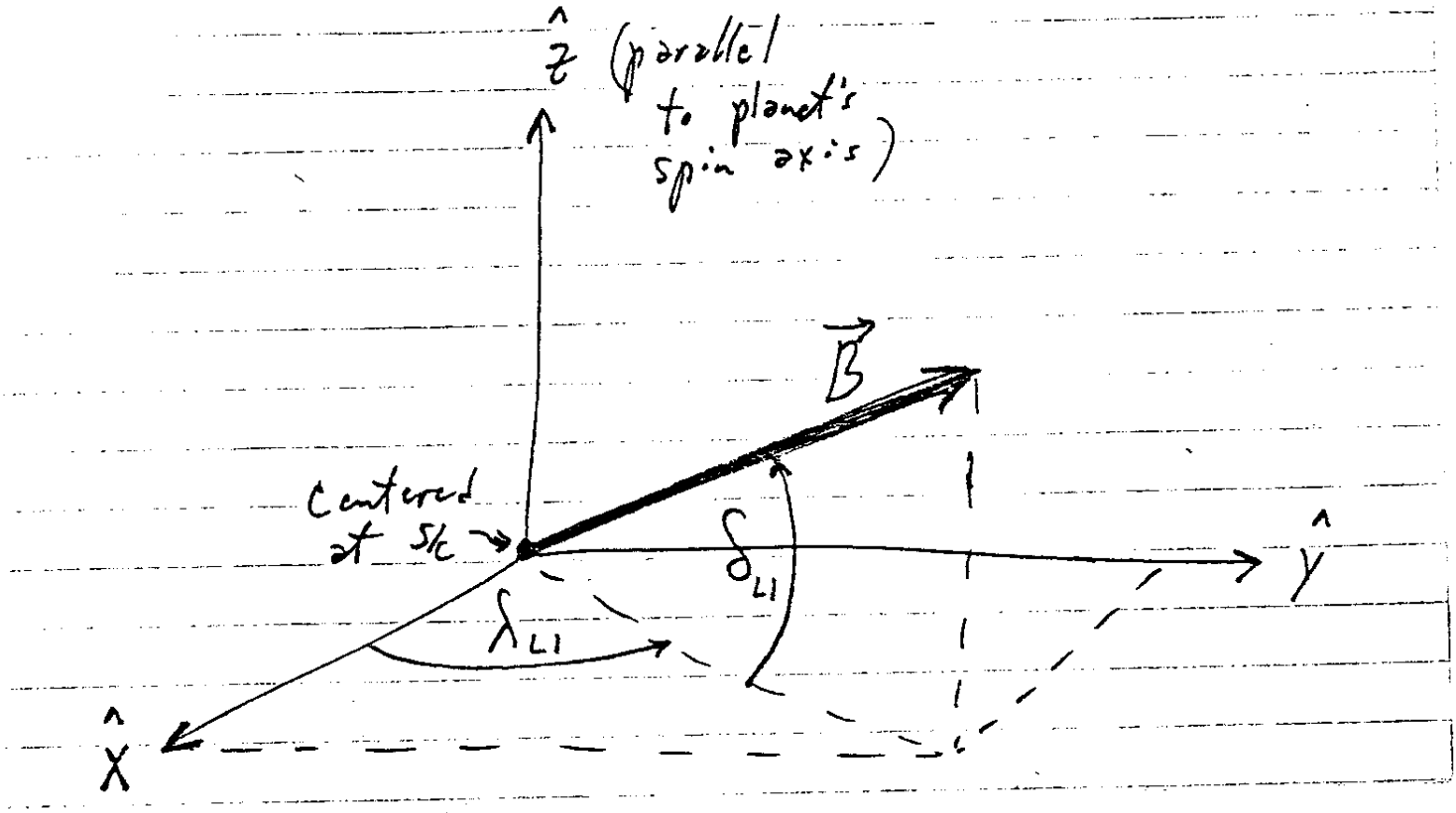

Figure 2. $\hat{X}$-$\hat{Y}$ plane is parallel to the equatorial plane of Saturn, and the $\hat{X}$ and $\hat{Y}$ axes rotate at the SLS period ($10,^{h}$ 39.4). And $\hat{X}$ is parallel to the $\hat{x}$-axis (at Saturn), which is the intersection of the planet's (SLS)* prime meridian plane and the equatorial plane, positive away from the planet's center.

See Desch and Kaiser, Geophys. Res. Lett., 8 253, 1981.

Revised Ion Temperatures for Voyager Plasma Measurements in the Io Plasma Torus

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ABSTRACT

We have discovered that an error was made in computing ion temperatures for some of the results derived from the positive ion data from the Plasma Science (PLS) experiment on the Voyager spacecraft. The reported results directly affected by this error are the ion temperatures in the inner magnetosphere of Jupiter given by Bagenal et al. (1980) and Bagenal and Sullivan (1981) plus a single ion temperature calculated from Voyager 1 data obtained in Saturn's magnetosphere and quoted by Bridge et al. (1981). The ion temperatures quoted for the torus region in the original Jupiter *Science* article (Bridge et al., 1979) and all of the ion temperatures in the middle magnetosphere of Jupiter (McNutt et al., 1981) were derived independently and are unaffected by the error.

DISCUSSION OF ION TEMPERATURE MEASUREMENTS

We are currently reanalyzing much of the positive ion data obtained by the Voyager PLS experiment during the Jupiter encounters. In the course of that analysis it became apparent that some ion temperatures obtained in previous work were a factor of two lower than those derived from the current analysis program. This discrepancy was traced to an error which affected some but not all of the earlier results.

The error, which caused the ion temperature to be quoted at half of the correct value, was introduced because the "ion thermal speed" was defined inconsistently in separate parts of the analysis of the torus data. The energy-per-charge spectra obtained by one of the PLS detectors during the inbound traversal of the Io torus are shown in Figure 5 of Bagenal and Sullivan (1981). In the initial analysis of these spectra each ionic species was assumed to have an isotropic reduced distribution function in velocity space which could be described for a specified direction (such as along the detector normal) by a Maxwellian function

$$f(v) = nw^{-1} (2\pi)^{-1/2} \exp\{-(v-V)^2/(2w^2)\} \qquad (1)$$

involving three independent parameters: the bulk speed of the ions in the specified direction V, the total number density n, and the thermal speed w. For the above form of f(v), w is related to the ion temperature by $w = (kT/m)^{1/2}$ where m is the mass of ion. The error occurred when the values of the ion thermal speed derived from the data in this way were later converted to ion temperatures using the more common definition of $(2kT/m)^{1/2}$ for the thermal speed. Thus the ion temperatures that emerged from the analysis were a factor of two lower than they should have been. Although the values derived for local density and bulk speed are obviously not affected by this error, the underestimate of the ion temperatures has two major effects. First, the incorrect ion temperatures were used to calculate scale heights for different ionic species. Since these scale heights form the basis for the two dimensional plots of plasma density in the torus (as a function of cylindrical radial distance and distance from the centrifugal equator, z), the contour plots given by Bagenal et al. (1980) and Bagenal and Sullivan (1981) are

incorrect. In addition, values of the flux tube content per unit L times the L-shell parameter squared (NL^2), derived using these temperatures, are underestimates by about a factor of $(2)^{1/2}$. The following section contains a summary of published results affected by this error in calculating the ion temperatures.

SUMMARY OF THE EFFECTS ON PUBLISHED RESULTS

The ion temperatures derived by Bagenal and Sullivan (1981) and shown in Figure 7 of that paper should be increased by a factor of two, as should the ion temperatures in Figure 1 of Bagenal et al. (1980) (however, see the following section for a discussion of the inherent uncertainties in the ion temperature determination). The temperatures inside of 10 R_J only, shown in Figure 11 of McNutt et al. (1981), should also be increased by a factor of two. With regard to the single incorrect estimate in Saturn's magnetosphere, the thermal speeds quoted in Figure 5 of Bridge et al. (1981) for ions with mass to charge ratios of 1 and 16 should be 38 and 28 km sec^{-1} respectively, where thermal speed is defined as $(2kT/m)^{1/2}$.

The ion temperatures in the inner magnetosphere of Jupiter were used to extrapolate the local measurements of ion density away from the spacecraft location along magnetic field lines; these extrapolated values of ion density describe the spatial distribution of plasma in the Io torus and were given in the form of density contour plots by Bagenal et al. (1980) and by Bagenal and Sullivan (1981).

Correction of the ion temperatures results in a torus which is more extended in latitude than that shown in these papers. If we approximate the density distribution along a field line as a Gaussian function

$$n(z) = n(z=0) \exp \{-(z/H)^2\} \qquad (2)$$

where the scale height $H \propto (T)^{1/2}$, it is evident that the two-fold increase in temperature means that the torus should be ~40% more extended in the z-direc-

tion. The spatial distribution of torus plasma has been re-calculated in the same manner as Bagenal and Sullivan (1981) using temperatures corrected by a factor of 2. The resulting map of positive ion charge density (in elementary charges/cm^3) is shown in Figure 1.

If we take the boundary of the plasma torus to be defined as the 250 cm^{-3} contour of the electron density map, the total volume was estimated to be $7.7 \times 10^{31} cm^3$ (212 R_J^3) before correcting the temperature. Using the corrected contour map in Figure 1, the volume is increased by 30% to $1.0 \times 10^{32} cm^3$ (287 R_J^3) and is equivalent to a uniform torus with major and minor radii of 6.0 and 1.56 R_J respectively. Only 3.0% (27%) of this volume is occupied by charge densities of over 2000 (1000) cm^{-3} while these regions of high density contribute 9% (48%) of the total of 9.1×10^{34} elementary charges. As an aside, we note that the <u>average</u> density is only 875 cm^{-3}; this is considerably less than values generally used in the literature for the Voyager 1 epoch in studies of the torus.

Values of the quantity NL^2 have been derived using the scale height approximation for the density distribution given in equation (2) and integrating over z to obtain

$$NL^2 = \Sigma\, 2\pi^{3/2}\, R_J^2\, L^3\, n_i(z=0)\, H_i \qquad (3)$$

Thus the erroneous ion temperatures caused the value of NL^2 to be underestimated by a factor of $\sim(2)^{1/2}$.

Values of NL^2 derived from the Voyager data have been used by various authors to calculate rates of plasma diffusion in the torus region (Richardson et al., 1980; Richardson and Siscoe, 1981; Siscoe et al., 1981; Richardson and Siscoe, 1983; Cheng et al., 1983). Tokar et al. (1982a) used the plasma distribution derived by Bagenal and Sullivan (1981) to calculate the dispersion that would be expected if the whistlers observed by the Voyager Plasma Wave experiment had traveled from the ionosphere of Jupiter to the spacecraft. The electrons accompanying the torus ions were insufficient to produce the observed dispersion and Tokar et al. (1982b) inferred that light ions, such as protons, had escaped from Jupiter's ionosphere and populated the mid-latitudes

between the torus and the ionosphere, contributing a further 10%-20% to the total electron content of these L-shells. Correcting the ion temperatures by a factor of two in the warm torus would increase the total plasma content by ~40% which may produce far greater frequency dispersion of the whistlers than observed (however, see the discussion concerning temperature below). Without repeating the work of Tokar et al. (1982) it is not possible to accurately determine the constraint placed by the observed whistler dispersions on the total flux tube content.

Finally, another important quantity that was derived from the PLS ion measurements was the Alfven speed in the torus. Since the Alfven speed is inversely proportional to only the square root of the local mass density, the corrected ion temperatures produce little change in the contour map of Alfven speed shown in Figure 15 of Bagenal and Sullivan (1981). The average time taken by an Alfven wave to travel along field lines between Io and the ionosphere of Jupiter (Bagenal, 1983) should be increased by ~20% to 400 seconds due to the extension of the torus. The range in travel times due to the variation in Io's position in the torus becomes about 200 to 800 seconds.

UNCERTAINTIES IN THE MEASUREMENTS OF ION TEMPERATURES

The ion data obtained inside ~5.7 R_J allowed accurate determination of the temperatures of the major ionic species (Bagenal and Sullivan, 1981; Bagenal, 1984). In this cold inner torus then, the factor of two correction to temperatures discussed above reflects the physical conditions in that region. However, outside of ~5.7 R_J, in the warm torus, there are inherent difficulties in the determination of ion temperatures. We currently feel that an increase of a factor of two in published ion temperatures in that region, although mathematically correct, probably is not physically realistic; on physical grounds an increase in published values of a factor around 1.5 is probably more appropriate in the warm torus for the following reasons. Firstly, the broad velocity distributions of the warm plasma produce a very flat energy-per-charge spectrum in which the individual peaks of the ionic species cannot be resolved. Thus the parameters V, n and w for each species are not well-

constrained by the data. Imposing the condition that all the ions should have the same temperature would reduce the number of free parameters and improve the fit.

However for the isothermal approximation to be valid the time scale for thermal equilibrium between the different heavy ion species must be appreciably less than the characteristic time for diffusive loss. For the thermal (~60 eV) multi-species torus plasma ions the time for equilibration via ion-ion Coulomb collisions is about 5 days and the diffusion time scale is 10 to 100 days. Thus the isothermal assumption is probably reasonable for the bulk of the ions. However new ions are continuously created at pickup energies of 300 to 600 eV and these ions maintain a high energy tail in the ion distribution at energies well above the peak of the thermal distribution. This hot component will broaden the energy-per-charge spectra and increase the ion temperatures derived under the assumption of thermal equilibrium. A preliminary inspection of the high energy tail of the spectrum suggests 10%-20% of the ions are hotter than the thermal population. These numbers are consistent with both theoretical studies (Barbosa et al., 1983; Richardson and Siscoe, 1983) and spectral observations of optical emissions from S^+ ions reported by Brown (1982).

A study of the ionic composition of the warm torus using data from both the PLS detector and the Voyager Ultraviolet Spectrometer is in progress and it is hoped that, as a result of reducing the number of free parameters, the ion temperature can be better constrained. Meanwhile, the original analysis of Bagenal and Sullivan (1981) probably over-estimated the width of the velocity distributions because of the presence of non-thermal tails, and hence we believe the temperature of the thermal ion population outside 5.7 R_J to be only a factor ~1.5 greater than their results, and not the full factor of two. We must be cautious in comparing local measurements made by Voyager 1 in 1979 with remote observations made using ground-based telescopes over a period of several years. Nevertheless, we suggest that the ion temperatures reported here are consistent with the temperatures of S^+ and S^{2+} ions obtained from spectral measurements of line emissions by Trauger et al. (1980), Brown (1981, 1982) and Roesler et al. (1982).

ACKNOWLEGDEMENTS

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Figure Captions

Figure 1.

Revised isodensity contour map of positive charge density (in elementary charges/cm^3) as a function of centrifugal distance and height above the centrifugal equator.

REFERENCES

1. Bagenal, F., J. D. Sullivan, and G. L. Siscoe. Spatial distribution of plasma in the Io torus, *Geophys. Res. Lett.*, *7*, 41, 1980.

2. Bagenal, F., and J. D. Sullivan, Direct plasma measurements in the Io torus and inner magnetosphere of Jupiter, *J. Geophys. Res.*, *86*, 8447, 1981.

3. Bagenal, F., Alfven wave propagation in the Io plasma torus, *J. Geophys. Res.*, *88*, 3013, 1983.

4. Bagenal, F., Plasma conditions inside Io's orbit: Voyager measurements, *J. Geophys. Res.* (in press), 1984.

5. Barbosa, D. D., F. V. Coroniti, and A. Eviatar, Coulomb thermal properties and stability of the Io plasma torus, *Astrophys. J.*, *274*, 429, 1983.

6. Bridge, H. S., J. W. Belcher, A. J. Lazarus, J. D. Sullivan, R. L. McNutt, F. Bagenal, J. D. Scudder, E. C. Sittler, G. L. Siscoe, V. M. Vasyliunas, C. K. Goertz, and C. M. Yeates, Plasma observations near Jupiter: Initial results from Voyager 1, *Science*, *204*, 987, 1979.

7. Bridge, H. S., J. W. Belcher, A. J. Lazarus, S. Olbert, J. D. Sullivan, F. Bagenal, P. R. Gazis, R. E. Hartle, K. W. Ogilvie, J. D. Scudder, E. C. Sittler, A. Eviatar, G. L. Siscoe, C. K. Goertz, and V. M. Vasyliunas, Plasma observations near Saturn: Initial results from Voyager 1, *Science*, *212*, 217, 1981.

8. Brown, R. A., The Jupiter hot plasma torus: Observed electron temperature and energy flows, *Astrophys. J.*, *244*, 1072, 1981.

9. Brown, R. A., The probability distribution of S^+ gyrospeeds in the Io torus, *J. Geophys. Res.*, *87*, 230, 1982.

10. Cheng, A. F., C. G. Maclennan, L. J. Lanzerotti, M. T. Paonessa, and T. P. Armstrong, Energetic ion losses near Io's orbit, *J. Geophys. Res.*, *88*, 3936, 1983.

11. McNutt, R. L., Jr., J. W. Belcher, and H. S. Bridge, Positive ion observations in the middle magnetosphere of Jupiter, *J. Geophys. Res.*, *86*, 8319, 1981.

12. Richardson, J. D., G. L. Siscoe, F. Bagenal, and J. D. Sullivan, Time dependent plasma injection by Io, *Geophys. Res. Lett.*, *7*, 37, 1980.

13. Richardson, J. D., and G. L. Siscoe, Factors governing the ratio of inward to outward diffusing flux of satellite ions, *J. Geophys. Res.*, *86*, 8485, 1981.

14. Richardson, J. D., and G. L. Siscoe, The problem of cooling the cold Io torus, *J. Geophys. Res.*, *88*, 2001, 1983.

15. Richardson, J. D., and G. L. Siscoe, The non-Maxwellian energy distribution of ions in the warm Io torus, *J. Geophys. Res.*, *88*, 8097, 1983.

16. Roesler, F. L., R. J. Oliversen, F. Sherb, J. Lattis, T. B. Williams, D. G. York, E. B. Jenkins, J. L. Lawrance, P. Zucchino, and D. Long, Fabry-Perot/CCD observations of [SIII] and [SII] emissions from the Jupiter plasma torus, *Astrophys. J.*, *259*, 900, 1982.

17. Siscoe, G. L., A. Eviatar, R. M. Thorne, J. D. Richardson, F. Bagenal, and J. D. Sullivan, Ring current impoundment of the Io plasma torus, *J. Geophys. Res.*, *86*, 8480, 1981.

18. Tokar, R. L., D. A. Gurnett, F. Bagenal, and R. R. Shaw, Light ion concentrations in Jupiter's inner magnetosphere, *J. Geophys. Res.*, *87*, 2241, 1982a.

19. Tokar, R. L., D. A. Gurnett, and F. Bagenal, The proton concentration in the vicinity of the Io plasma torus, *J. Geophys. Res.*, *87*, 10395, 1982b.

20. Trauger, J. T., G. Munch, and F. L. Roesler, A study of the Jovian [SII] nebula at high spectral resolution, *Astrophys. J.*, *236*, 1035, 1980.

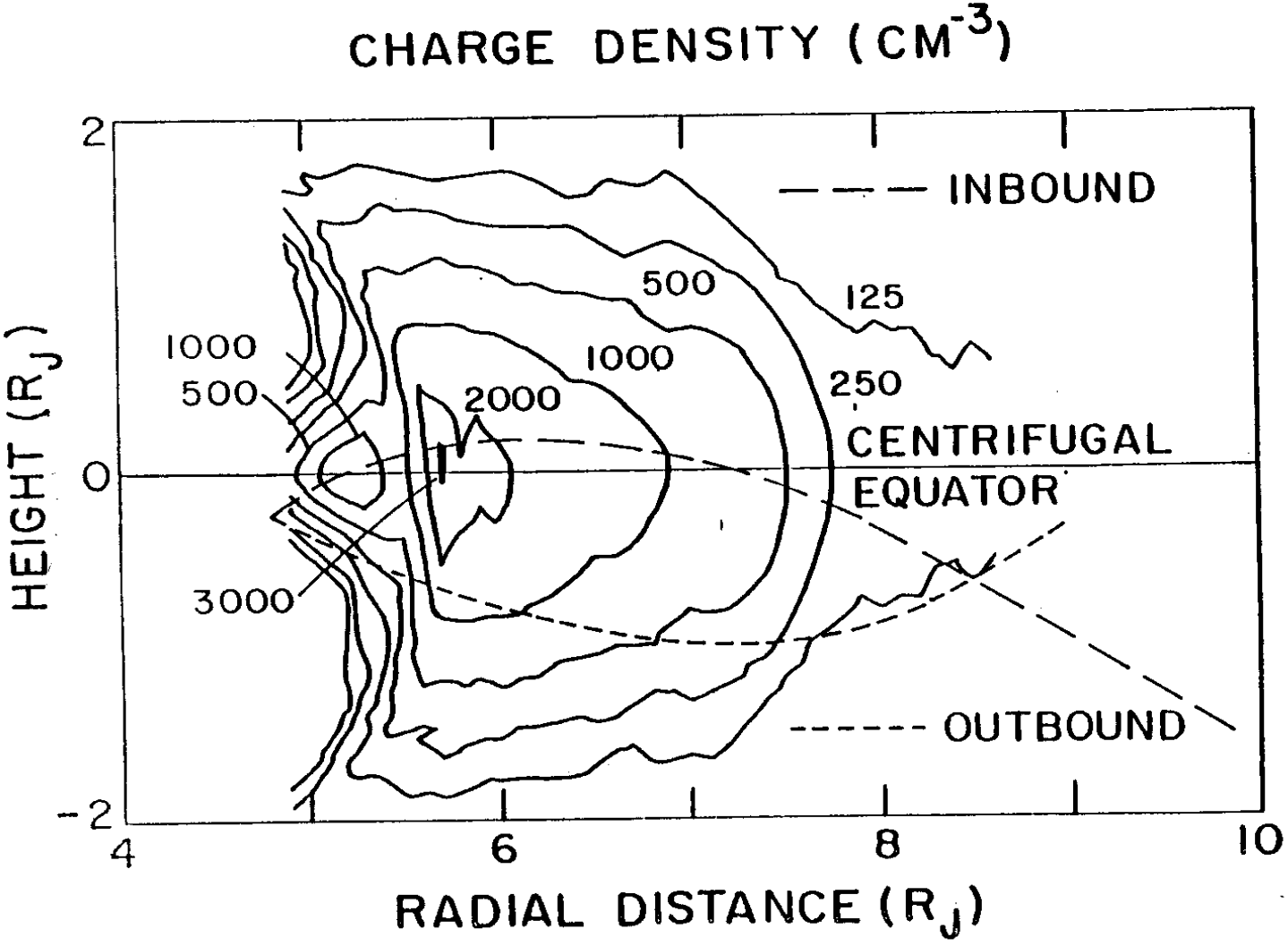
CHARGE DENSITY (CM^{-3})
INBOUND
500
125
1000
1000
250
500
2000
CENTRIFUGAL
EQUATOR
3000
OUTBOUND
HEIGHT (R_J)
2
0
-2
4
6
8
10
RADIAL DISTANCE (R_J)

FIGURE 1

Voyager (HGA)

D-41950

3/07/79 - 3/12/79

'05A'

RECORD 1 OF FILE 1
LENGTH = 17360 BYTES

43D00000	01940000	C8C4D9F1	C7E260F3	C6D3E3F1	004F0042	00170015	00200153	000007BC	08000081
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00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000080	00000008	00800000
00000000	00000000	00000000	00010044	C5F1F9F0	F6F74040	D5D6D5C5	40404040	D5D6D5C5	40404040
D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040
D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040
D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040
01010100	00000001	00000000	00000000	00010001	01000000	00000000	00000080	00001000	00000000
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00000000	00000000	10840000	C8C4D9F3	00000000	00000000	004F0042	00170015	00200153	00000000
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43152E66	4355E000	434C2000	434D0000	43522000	435A1000	43645000	4370F000	43802000	43920000
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ENG

FLT 1

YR DAY

GS-3

FLT 1

ENG

52

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2243 RECCRDS IN FILE   1 OF TAPE
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5000 bytes

3200

2400 bytes

DUMP OF TAPE ROUT1

Voyager 1 (S-3)
D-41956
3/2/79 - 3/7/79
(Resubmitted to NSSDC 9/20/89)

INPUT TAPE ROUT1 ON HT1
DATA INPUT HS NF 1 FL 1 1 1
DATA INPUT $4

FILE 1 RECORD 1 LENGTH 17540 BYTES

( )	461[illegible]	824[illegible]	D44 4 4[illegible]	C7E26 F3	C6D3E3F1	[illegible]4F[illegible]3D	[illegible] 17[illegible]3B	003B[illegible]3B	423CFFFF	495B50D4
(4)	4322FFFF	F495B5[illegible]D	E2C3C5E3	421EB852	3FBAJ013	00010002	FF[illegible]FFFF	00000000	00030000	77777777
(8)	4[illegible]4 4[illegible]4	4[illegible]4[illegible]40	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(12)	77777777	[illegible]0[illegible]8[illegible]	[illegible]3[illegible]0[illegible]	[illegible]0[illegible]7[illegible]1E8	[illegible]0[illegible]1	[illegible]0[illegible]4	3053[illegible]5E	41F5C28C	[illegible]0000000	00000000
(16)	[illegible]0[illegible]0	[illegible]0[illegible]0	[illegible]0[illegible]0	[illegible]0[illegible]0	[illegible]0[illegible]0	[illegible]0[illegible]0	[illegible]0[illegible]0	46506B8E	[illegible]0[illegible]0	77777777
(20)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(24)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(28)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(32)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(36)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(40)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(44)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(48)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(52)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(56)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(60)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(64)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(68)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(72)	77777777	77777777	77777777	77777777	4323[illegible]01	B4A9F805	43230001	B4A9F805	C22C1749	4213DC56
(76)	411BF7[illegible]	[illegible]0000000	[illegible]0[illegible]0[illegible]	42[illegible]63A5	41218C4E	41835DD8	40FD35FF	C0248[illegible]C	3F93F316	
(80)	3F9[illegible]EECE	BF1E2[illegible]F4	CCFFDE3C	40248F36	40FDE[illegible]43	[illegible]0CCCCCC	3E62E84E	BF47A7A5	CCFFF5E5	C0CCFAE3
(84)	C499575F	3F25FFAA	C0995BF4	40CCF1E4	BF3C[illegible]E1A	40181841	4018DE87	C0FDA6[illegible]2	409AE489	C0CC2E24
(88)	BF55975E	C0CAD2F7	C09868BA	C0223404	77777777	77777777	77777777	77777777	77777777	77777777
(92)	77777777	77777777	77777777	77777777	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE
(96)	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE
(100)	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE
(104)	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE
(108)	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE
(112)	[illegible]07D[illegible]77	[illegible]07B[illegible]77	[illegible]07C[illegible]76	[illegible]0770074	C0740[illegible]E	[illegible]730[illegible]F	C071C071	C06A[illegible]C72	C061[illegible]C64	006B006E
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(120)	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE
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(148)	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE
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(156)	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE
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(168)	[illegible]EEEC06C	[illegible]06E[illegible]062	[illegible]062[illegible]61	[illegible]05B[illegible]67	[illegible]059[illegible]63	[illegible]0E3[illegible]6E	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE
(172)	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE
(176)	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE
(180)	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE
(184)	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	0000[illegible]4A	C059[illegible]C0	C064[illegible]72	0078[illegible]7A
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(192)	C066005F	00470000	[illegible]0[illegible]03A	001D[illegible]44	[illegible]0613054	[illegible]0410054	0054002B	[illegible]0000000	00000039	004A[illegible]4C
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(216)	77777777	4[illegible]4[illegible]4	4[illegible]4[illegible]4[illegible]	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(220)	77777777	77777777	[illegible]0 1[illegible]1[illegible]	[illegible]0[illegible]1	[illegible]708[illegible]8A	[illegible]210[illegible]2	[illegible]0[illegible]0	[illegible]0[illegible]8	4120A3D6	00[illegible]0

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(232)	3FBDEA7C	3FAE8 FD	3FA 7A6B	3F8EBD96	3F7E5CBD	3F62277B	3F491FD7	3F34A2EF	77777777	77777777
(236)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(240)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(244)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(248)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(252)	77777777	77777777	77777777	77777777	77777777	43230001	B4A9F805	43230001	B4A9F805	C22C1749
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(344)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
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(416)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(420)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
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(484)	40C09561	4075C44E	402C48C3	401FC587	402A05C3	40B5347F	40405B2A	401284F1	40373C5F	3FC06C44

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(1568)	4C196EBC	402E1CA3	3E66D6FC	43320906	43230C0E	41BF962E	4323CC0E	41FF962B	C22C137C	4213D985
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(1580)	C0998763	3F7CEC9C	C099AC16	40CCB70A	BF38D6CB	4017DB37	40191112	C0FDA682	409AA271	C0CBF15E
(1584)	BF99C9C1	C0CA9ED3	C098B14E	C0222E7E	[illegible]	D44C4C4C	C7E2ECF3	C6D3E3F1	C04FCC3E	0CC00003
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(1596)	77777777	77777777	77777777	77777777	CCC4C0C0	0CCCCC39	0012C1E8	C0850CC9	C033C032	00350036
(1600)	41C1EB82	C18F414A	C1F598E2	404EC[illegible]AA	4211CEE0	4211CED5	3FDE92C5	3F3ECCAA	3FEA25B9	0CC0001C
(1604)	402910E1	4[illegible]F5C28F	423D[illegible]0	42390000	423A[illegible]000	41A00001	40934A34	40793C39	40789FFF	3F60782D
(1608)	42A9AD75	42AC36BE	42B52163	42E3C78B	C1447FB0	C213D9B0	42B98810	42BAA3B5	4163F0AE	C2662BB9
(1612)	4263C4CC	42EF[illegible]EE5	426 F34A	4230C[illegible]23	4081B77C	40FCA27C	42698E21	411ABEA3	3E7931B1	422AB06E
(1616)	4226233B	4229CC7[illegible]	C21F7[illegible]F3	417C1EB1	3D227E28	4222[illegible]E8E	4211E1B5	42EF8358	406B326C	427C2875
(1620)	41113559	7FFFFFFF	4221C584	4210D48B	42BF85DA	40218133	42F67772	41100000	7FFFFFFF	4090EC1F
(1624)	42221E8E	42115185	42BF8358	406B32EC	427F2BA2	427A9FC5	7FFFFFFF	7FFFFFFF	7FFFFFFF	7FFFFFFF
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(1640)	C2B138[illegible]E	C2B8E217	412EA98E	C23ED82E	42C3497D	C212C5AB	C2B34C51	C2B8F7AD	412A23FF	C23E5420
(1644)	42C33454	C2129EDC	C2B32F2E	40[illegible]1A8427	42725E3F	42196F8C	C2256E8C	4311A6F5	4246CCCC	4245CCCC
(1648)	42480000	42200000	42240000	4266DDEC	3F4A7AD1	40F77882	4047D881	BF48DB68	C04FC89A	42614250
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(1656)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	4323CCCA	CED53452	4323C00A
(1660)	CED53452	C22C[illegible]FAF	4213D6B4	411BEE9E	[illegible]000	[illegible]000	[illegible]000	423[illegible]A63	41218EA3	41A22B7C
(1664)	40FC0232	C02C121F	3F93E518	3F91AF1A	BF197A19	C0FFD544	402C197C	40FC2C4B	C0000000	BF606077
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(1672)	C0FDAE14	409A7B7F	CCCC[illegible]D9A	BF8C9CF5	C0CABEDE	C[illegible]9886B	C0222884	77777777	77777777	77777777
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FILE 1 RECORD 2101 LENGTH 15704BYTES

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(168)	40B35F27	C170B325	C1717DAD	C1738444	C1760766	C17620A9	C177F1F8	C1793EBC	C178EFFF	C177971A
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(1840)	3F4E16CD	3F9E1D0C	3F7B72F3	3F5E0587	3F6D49C0	3F2ECAEF	3F54EC43	3F373495	3F7F5289	3F58FC18
(1880)	3FEEE37C	3FEEF3C4	3F57CB7D	3F5E6ABC	3F8E4CD0	3FAC6EE4	3F5414CC	3F34BE22	3F493AC7	3F732AFD
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(204)	3F396664	3F2E0695	3F787169	3F48B971	3F6ECA8C	3F6E12D3	3F43AAC8	3F3D4DA5	3F9642SD	3F4682CC
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(2520)	000 0000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
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(260)	CCC 0000	CCCCCCC0	CCCCCCC0	CCCCCCC0	CCCCCCC0	00CCCCCC	CCCCCCC0	CCCCCCC0	00000000	00000000
(2640)	000 000	00000000	00 0 0 0	00000000	00000000	00000000	00000000	00000000	00000000	00000000

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(284)	CCCCCCCC	422FC423	41492FDE	427C376C	CC8E9DE4	C1D3AC9A	40144524	BFB53EB1	C010CF36	C0FF323E
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(384)	3FB1CDAE	3F2D4D2C	C0738B5D	C0E45574	77777777	77777777	77777777	77777777	77777777	77777777
(388)	77777777	77777777	77777777	77777777	CCCCCCCC	CCCCCC3E	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(392)	FFFFFFFF	FFFFFFFF	[illegible]	00000822	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF
(396)	0000002F	0000FFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	00000037	003BFFFF
(400)	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	FFFFFFFF	C2ACCCCC	C5F24C4C	C7E26CF3	C6D3E3F1
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(416)	[illegible]	[illegible]	411EB851	41143EA8	C1B9CAC6	41C7A4DB	42111789	42111788	3F456A09	3F30CCDE
(420)	3F26BE8D	[illegible]	4047C937	40F5C28F	[illegible]	C62ED1EC	3E243C89	3E12435F	3E15146B	3E1C8232
(424)	3C18CB69	3C12997A	3C2F6765	3BA74F92	3C70634C	3D10A8CE	3CA6F951	3C68944C	3C279695	
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(456)	CCCCCCCC	BF33F6F9	40229132	C0FDA27C	BF9A71BB	40FD754A	4022AAB1	40FFCC1E	3FA00DE4	BF1E983E
(460)	401E12C2	C0E29B3C	40734294	C0FE381E	CC1CC901	3FF12E3F	3F2D1F39	CC73C1AE	C0E4510C	77777777
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36?

RECORD 1 OF FILE 1
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HDR1 G5-3 FLT 1 79

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408AC397	406F8F1C	4072C775	4076F2AA	406DA692	406CA35E	4080E66A	407F7BA0	4082CA34	407864F6
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2264 RECORDS IN FILE 1 OF TAPE

Voyager 2 (5-3)
'05B'
D-43083
7/04/79 - 7/08/79

RECORD 1 OF FILE 1
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RECORD 1377 OF FILE 1
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1377 RECORDS IN FILE 1 CF TAPE

VOYAGER 1 H-G Coor.
D-46723
C-21807
1 file
3/2/79 - 3/7/79

RECORD 1 OF FILE 1
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RECORD 2154 OF FILE 1
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2154 RECORDS IN FILE   1 OF TAPE
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Vol 1 S-3 Coor.
D-46724
C-21808
3/02/79 - 03/07/79
Encounter Data

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43720E99	43766E14	437A051E	437DA3D7	4381E4A3D	4384F5C2	438EEAEF5	438EC6666	43902EE5	4393FAE1
4397D1EE	439EE5C2	43A9FA3D7	43A35C24	43A7A147	43AEE333	43AFCFEC	43B3FAE1	43EE3333	43EC7AE1
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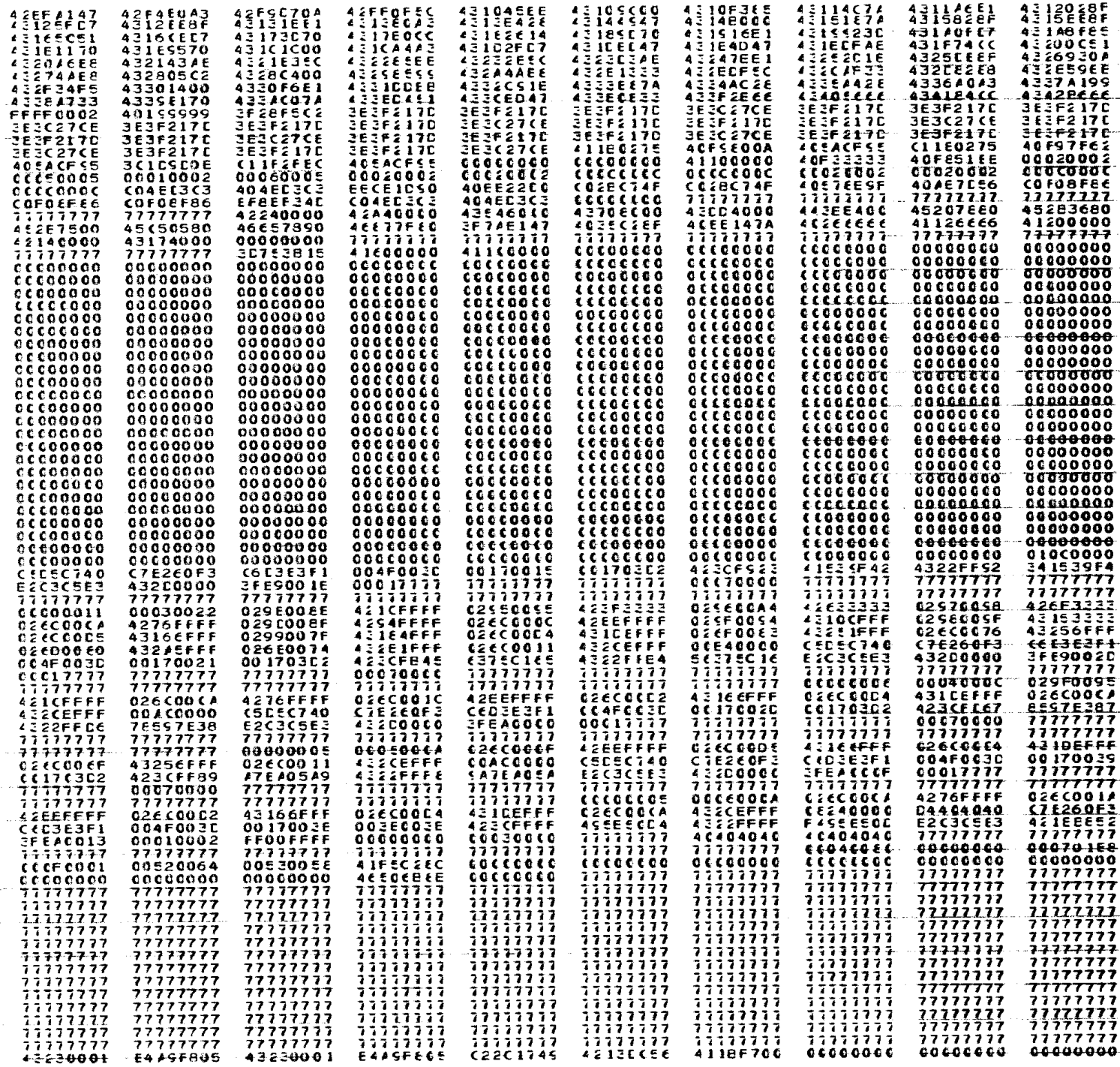
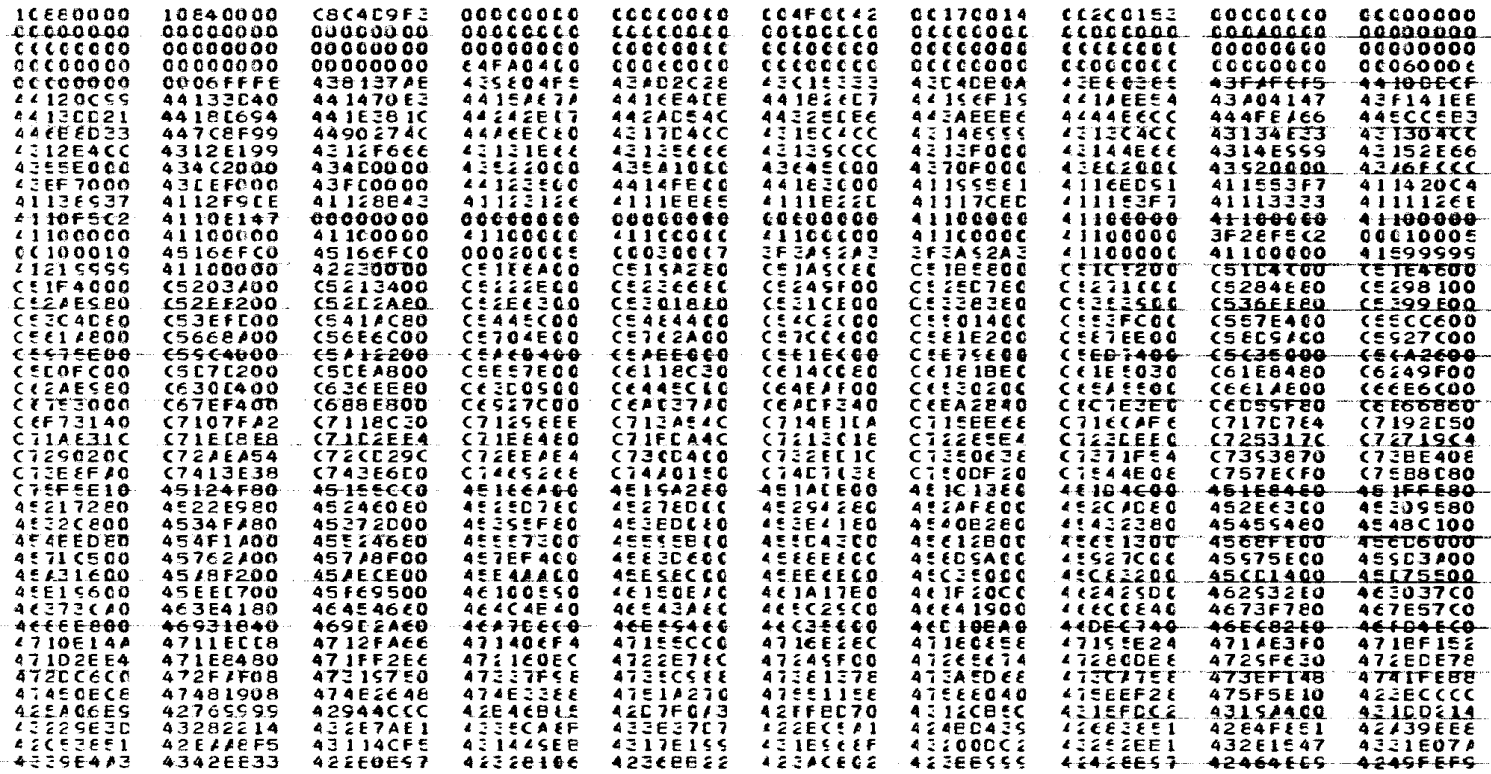


RECORD 2154 OF FILE 1
LENGTH = 4232 BYTES



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4255E666	4299C51E	429DAEE5	42A15EEE	42A59EEE	42A5AEF5	42ADC2EF	42E1EEEE	42E617CA	42EA570A
42EEA666	42C3028F	42C7EE14	42CEEEF5	42D075C2	42D511EB	42D9ED70	42DE7AE1	42E34A3D	42E82E14
42ED2147	42F228F5	42F7451E	42FC7333	43101B5C	43107CF5	4310C7D7	43112000	43117559	4311D4A3
43123147	4312EF33	4312EEE8	43134FD7	4313E2EE	43141CEE	43147CA3	4314E42E	43154D70	4315E8A3
43162570	43169428	431704A3	4317770A	4317EE5C	431EC1C2	431EDA14	4319547A	4319C0F5	431A4FAE
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4316CED7	43173D70	4317E0CC	431E2E14	431E9D70	43191EE1	4319923D	431A0FD7	431A8FE5	431B1170
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4339E170	433AC07A	433ED451	433CED47	433E0B33	433F2EEE	43405EEE	4341E4CC	4342E666	00010002
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C04ED3C3	404ED3C3	EBCE1D90	40EE22D0	C02EC74F	C02EC74F	4057EE9F	40AE7D56	C0F08FE6	C0F08FE6
C0F0EFE6	EF8EF34D	C0958277	C0EA35EE	C0EA10CE	40575121	404A9E2C	40DE014F	40AEAECF	40E561D4
4029FEE1	42240000	42A40000	43546000	43768000	43DD4000	443EE400	452678EC	452E36E0	452B7500
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2154 RECORDS IN FILE 1 OF TAPE

DUMP OF TAPE JJ0086

INPUT TAPE JJ0086 ON TU0
DATA INPUT HS FL 1 1 1

D-60880
08/22/81 - 08/28/81

'05D,06D'

YR. DAY HR. MIN.
81 235 22 6

FILE	1 RECORD	1 LENGTH 18196BYTES								
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(80)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(120)	00000000	00000000	00000000	00010044	F0F0F5F6	F0F94040	D5D6D5C5	40404040	D5D6D5C5	40404040
(160)	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040
(200)	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040
(240)	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040
(280)	01010100	00000001	00000000	00000000	00010001	01000000	01000000	00000000	00000100	01000000
(320)	00000000	00000000	00000100	00000000	00000001	00000000	00000000	00000000	00010001	01000000
(360)	01000000	00000000	00010000	00010000	40404040	40404040	40404040	40404040	40404040	40404040
(400)	00000000	00000000	10941000	C8C4D3F3	00000000	00000000	00E100E5	00160006	00170E5B	00000000
(440)	00000000	00000030	00000000	00000000	00000000	00000000	00000000	00000000	000A0000	00000000
(480)	00000000	00000000	00000000	00000000	00020000	00000000	00000000	00000000	00000000	00000000
(520)	00000000	00000000	00000000	00000000	00020400	00040000	00000000	00000000	00000000	00000000
(560)	00060006	00000000	0006FFFE	438137AE	439804F5	43AD2C28	43C15333	43D4DB0A	43F80385	43FAF8F5
(600)	4410DDCF	44120C99	4413BD40	4414702E3	4416A874	4418E4DE	441A26D7	441B6F19	441ABE34	441C4147
(640)	43F141EB	4413DD21	44197694	44183810	44242B07	441ADE4C	44325DE6	443AEEE6	4444B6CC	444FEA66
(680)	445CC5B3	446B8D33	447D8F99	44902740	44A6BC80	4317D4CC	4315C4CC	43149999	4313C4CC	43134CC3
(720)	431304CC	4312E4CC	4312C199	4312F666	43131CC6	43136666	43139CCC	4313F000	43144E66	4314A999
(760)	43152E66	43BD5000	43402000	434D0000	43822000	43BA1000	43645000	437CF000	43802000	43920000
(800)	43A6FCCC	43BF7000	43D9F000	43FD0000	44123500	4414F000	44183000	4419BF81	4416ED91	4417F3F7
(840)	411420C4	41138F37	4110F87B	41188643	4112B106	4111E8B8	41118C3D	41117CFD	41115BF7	41113335
(880)	41111126	4110F3C3	41103147	00000000	00000000	00000000	00000000	41100000	41100000	41100000
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(1080)	C5298100	C52AB980	C52C7200	C52D8A80	C52E6700	C52F1980	C5310E00	C5358380	C5383900	C53F6E80
(1120)	C53B9E00	C53C4D80	C53F5D00	C5414C80	C5446C00	C5494400	C54CCC00	C5501400	C553FC00	C5578400
(1160)	C55CC600	C5614800	C5668A00	C56B6C00	C5704E00	C5762A00	C57C0600	C581E200	C587BE00	C5899A00
(1200)	C5937C00	C5978E00	C5A04200	C5A12800	C5A40400	C5A3C000	C5B1BC00	C5B79800	C5BD7400	C5C03000
(1240)	C5CA2600	C5CF5C00	C5E7D200	C5EB7E00	C611B039	C614C020	C61815E0	C61B5030	C61E8480	C6249F00
(1280)	C6249F00	C62A8980	C6300400	C636EF80	C6300900	C644B000	C64BAF00	C6530000	C65A5500	C661A800
(1320)	C6686C00	C6753000	C67BF400	C6884800	C692C000	C6A03740	C6A0F340	C6BAC840	C6C7E3E0	C6C89F80
(1360)	C6E66860	C6F73140	C7107FA2	C7118C30	C7129B5E	C713A540	C7148100	C7158E68	C716CAF6	C7170784
(1400)	C7192D50	C71A831C	C71BD8E8	C71D2EF4	C71E9480	C71FDA40	C7213018	C7228EE4	C723D9B0	C725D17C
(1440)	C72719C4	C7298200	C7 6CA84	C72CD29C	C72E3A84	C7303400	C731ED1C	C7350838	C7371E54	C7393A70
(1480)	C73BE408	C73E2FA0	C74 8838	C743EAD0	C74A9248	C74A0150	C74C7038	C750DFCC	C75 44E08	C757BCF0
(1520)	C75B8D80	C75F5F10	45104F80	45155CC0	45186A00	4519A280	451ADB00	451C1380	451D4C00	451F8480
(1560)	451FF580	45217280	45 6E980	45246C80	45265780	45279D00	45294280	452AF800	452CAD80	452E6300
(1600)	45309580	4532C8C0	45 4F480	45378000	4539BF40	453BD080	453E4180	45408280	45432380	45465480
(1640)	4548C100	454BED80	454F1A00	45524680	45557300	455B5B00	455D4300	456 0B00	4564E300	456 5B00
(1680)	45606000	45710C00	45 4E200	457A8F00	457FF400	45830C00	45886800	458D9A00	45927C00	45977F00
(1720)	459D3A00	45A31A00	45 4F21C	45AECE00	45B4AA00	45B98C00	45BE6E00	45C35000	45C63200	45CC1400
(1760)	45D75500	45E19600	45E 0700	45F69500	46100590	4615DFA0	461A17B0	461F0000	46242D00	4629B2E0
(1800)	463037C0	46373CA0	46 4E180	464F4660	4654B940	46593A80	465C28C0	46641900	466C0840	4670F780
(1840)	467E57C0	4688B800	46 51A40	4693D460	4698F700	469D2460	46A7D8C0	46B59460	46C35C00	46D1CA40
(1880)	46FD48C0	4710E14A	4711ED08	4712FA66	471406F4	47155CC0	4716B28C	47180858	47195524	471A3FE0
(1920)	471BF152	471D2EB4	471 84A0	471FF2B6	47214DEC	4722E78C	47249F00	4726F674	47280DE8	472BF630
(1960)	472BDE78	472D0CC0	47 FAF08	473187D0	4733F938	47350988	47381378	473A5D68	473CA758	473EF148
(2000)	4741FE88	47450BC8	47481908	47482648	47453388	4751A270	47551158	47588040	475EFEF8	475F5E10
(2040)	4238CCCC	423A0CE8	42 3B8B8	42944CCC	42B4B860	42C7FDA3	42FFBC70	43120F1C	4315FDCC	4319A400
(2080)	431DD214	43229F70	43 8D214	432F74C1	434CBAEF	4375E7D7	4228C7A1	4248D4F8	426693F1	4284F831
(2120)	42A39EB8	42C53851	42F44BF5	43114CF5	43144958	4317B199	43189685	43200DC0	4325EFE1	432F1547
(2160)	4331E07A	4337F4A3	434 4D83	4228D847	4232F106	42 4A422	42 4C502	42368E9E	42428E97	42464FDF
(2200)	4249FEF9	424D4C4D	42 2A8D7	4254CDD2	425B6A1C	426E2CD0	427F4978	42 2EF1A	42 E73C2	4220FD70
(2240)	426D851E	427111EB	4274A3D7	42783AE1	427BD47A	427F7851	42831EB8	4286CF5C	428A87AE	428E47AE
(2280)	429211EB	4295E666	4299C51E	429DAB85	42A19EB8	42A59EB8	42A9A8F5	42ADC28F	42B1E666	42B6170A

(18160) 3FA220C6 3FC917F7 40FF7D2D 40B11E34 40B8224F C0101400 C0B88F4F 40B1671A BF165A62

1981 YR 240 DAY 23 HR.

FILE 1 RECORD 2286 LENGTH 14232BYTES

(0)	37980000	02AC0000	C5C340A0	C7E260F3	C6D3E3F2	C0010CF0	C0170039	00180005	42EFFFB3	1C044018
(40)	4358DFFB	31EE44D1	E2C3C6E3	41307044	AC300014	00010003	AFAF0000	FFFEFFFE	00060000	77777777
(80)	40404040	40404040	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(120)	77777777	00010010	0010 001	6F48C0BA	002145AF	00000000	00000005	411E5851	C1150155	40F5C75
(160)	C0B83F1C	411BC575	411BC539	3F1F7781	3F2AC44A	3F289ACD	00000010	4047C957	40F5C28F	4702E9DF
(200)	45AF4527	3E88CD47	3E3CF733	3E238C31	3E1F3817	3CC89C5A	3C8E2238	3BCC2CEE	3C2CEFBE	3C12F3D1
(240)	3C4D182C	3C3E22D3	3C1F4CC7	3B5FB312	3B156F45	3B125294	3AC9D988	77777777	77777777	77777777
(280)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(320)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(360)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(400)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(440)	77777777	77777777	77777777	77777777	4358DFFB	68C820A5	435BDFFB	68CB3CC2	C143C7F8	41897CE2
(480)	C0AEC24F	C2136652	C1B041FD	40B5C46B	41994D32	412D7614	C0123ED9	C070E98F	40E5083F	C01C71E8
(520)	C0E59CE6	C07132D8	00000030	BF80BA5D	40108100	40FF5A44	C0FAD4DF	40313A44	3FC69A60	C031FCA1
(560)	C0FAC631	5FBE7232	3FADABC0	BFE49210	40FF5E8A	BF5B5CDC	BFDFF7CB	40FF8DA0	C07FD55A	C0DD4AE9
(600)	BFEF926B	40DDBA32	C07FF0D1	BF20B28A	77777777	77777777	77777777	77777777	77777777	77777777
(640)	77777777	77777777	77777777	77777777	00000000	00000000	00400035	00030028	001E0040	004F0044
(680)	001E0000	00000000	C8C40000	D3C6D440	C7F260F3	C6D3E3F2	005100F0	00170039	002300A4	42EFFF92
(720)	23D51923	435BDFF9	22B0B192	E2C3C5E3	42300000	AC300013	00017777	88ACC000	30643054	00010003
(760)	77777777	40404040	40404040	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(800)	77777777	77777777	00000028	00100008	6F490218	411C3F83	411C24F0	C2462813	42BAC324	C097CB16
(840)	C011FF88	C11A7924	40B49100	3FBF8B5F	40113EC6	00000005	411CC138	411C7CEC	411BF717	411C33A4
(880)	411BDCA6	411CC99F	411C7A75	411BF41D	411C324E	4118D6B4	C24C0264	C24A3F8D	C2451942	C241A78A
(920)	C24075A1	42BC5718	42B0E6D2	42BDB623	42BB2881	42B7AD3B	C06650F3	C07B0DE9	C09D46BC	C0B889F0
(960)	C0BFC7F3	BFEFFF89	BF994B0C	C01AE48B	C0172D0D	BFC32D83	C11C0441	C11B68AF	C11A1D37	C119A0C4
(1000)	C11922CD	3F85C752	3F1D0925	3F4F0A3E	3FA09A72	3F161B3A	3F6384D7	3F7CC4BE	3FAAC217	3F49E243
(1040)	3F7CC158	3F9D764F	3F2A0876	3F7462EC	3F29DF33	3F1310BA	00000005	00000005	00000005	00000005
(1080)	00000005	411CC3E0	411C03F3	411CE084	411CE4F6	411CE80D	411CC035	411C9105	411C9559	411C967F
(1120)	411C6433	411BE39E	4118A642	411B5544	411C67F4	411C4EEB	411C3469	411C5923	411C114C	411CA8A6
(1160)	411C4482	411CC7B3	411C1265	411BE626	411BBE7C	411C43E1	411BE339	411BA5A0	411B943A	411CA77F
(1200)	411CEB90	411CC004	411C9178	411CBED5	411C8618	411C4382	411C053C	411C102+	411BE56B	411C9F46
(1240)	411C4E77	411C33E8	411C387D	411C10DF	411C0AF1	411C0382	411C053C	411C102+	411BE56B	411C9F46
(1280)	411B9388	C240FF74	C240FE11	C24CB3C4	C24CB82A	C24CEE4A	C24C3985	C24B4B25	C24A9325	C248C22D
(1320)	C2485C9C	C248F009	C24B62CD	C244B6BD	C244AD40	C243B788	C2430B4F	C2421E5E	C241368B	C241BFC0
(1360)	C24047FD	C240623F	C23FD843	C23FB996	C23CB5BE	C23C073F	42BCBA36	42BFCF34	42BCFC47	42BAC9A1
(1400)	42B95F2A	42BA127E	42BA0F30	42BA0329	42B87E7D	42B9EFA8	42B809D9	42B95429	42BC58C2	42C1A550
(1440)	42C16AA0	42BFE197	42B3C274	42BB192A	42BBE531	42B68C48	42B74FD5	42B6BCAD	42B73C8A	42B9DE07
(1480)	42B89951	C05C2AAA	C0664167	C0669724	C0696C46	C0683DD9	C06CEEF3	C0733BF0	C077F02A	C0884318
(1520)	C088EA80	C0903E87	C09B154F	C09E81EA	C0A09A2F	C0A7F1B9	C0AC5263	C0B4F349	C0BAD4C0	C0BA8985
(1560)	C0C40DDA	C0C42648	C0C43E74	C0C54806	C0BCF794	C0B8B423	BFE263DB	C0157F24	C0110336	BFC8AFD4
(1600)	BF9CC0E9	BFB96975	BFD22D17	BFCA103E	BFA2D81A	BFE3C736	C0110F35	BFE77136	C017417A	C0B6FD84
(1640)	C0280FA5	C0244143	C01F1FC8	C0174354	C0104BE8	BFBF04F7	BFB59AA4	BF8A543A	BFB27EFA	C0101771
(1680)	BFE5FECA	C11B68A7	C11C4436	C11C1D55	C11C1F1B	C11C2BDB	C11BEC62	C11BA1E0	C1185D6A	C11B1E76
(1720)	C11B0E35	C11A5DF5	C119E075	C119B292	C11A75C0	C11A2BE7	C119F78F	C1195B58	C1197AFC	C119AF38
(1760)	C1197689	C1192FD1	C1187246	C1190390	C1191588	C11932CB	3F37084A	3F3D656F	3F283A93	3F42BC64
(1800)	3F3B300C	3F667F3D	3F144C8B	3F21F18D	3F239B0C	3F40BEEF	3F3FE5D7	3F344FC5	3F37A8B0	3F37B8BC
(1840)	3F3018BF	3E4921C1	3F119EEF	3F300ED8	3F468441	3F1A11C5	3F3582C4	3F3CE8B5	3F4A7C04	3F3A44F6
(1880)	3F4FC10E	3F4F2DEF	3F4BE085	3F4CD3ED	3F31208F	3F35D0FD	3F48DEE3	3F25DC0B	3F29BFC0	3F38E43F
(1920)	3F47210F	3F384B95	3F4A0FC5	3F65BE4E	3F28A36C	3F492175	3F32E633	3F335201	3F3DCDC9	3F289B06
(1960)	3F3C03C9	3F45BAA4	3F2EDD66	3F2F9AA0	3F32AC12	3F3D4AF2	3F4E2077	3F3A8CC0	3F3879F9	3F33AF08
(2000)	3F40D366	3F3EA46F	3F2C5414	3F56B7AC	3F3F744A	3F5B0407	3F35CF57	3F1F4BA7	3F33DE76	3F2DC410
(2040)	3F273604	3F297433	3F4C1C4F	3F3DE98F	3F3FDA08	3F264B96	3F27395C	3F2BEAAF	3F3F7099	3F3BC7F8
(2080)	3F52F0B4	00000020	00000020	00000020	00000020	00000020	00000020	00000020	00000020	00000020
(2120)	00000020	00000020	00000020	00000020	00000020	00000020	00000020	00000020	00000020	00000020
(2160)	00000020	00000020	00000020	00000020	00000020	00000020	00000020	00000000	00000000	00000000
(2200)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(2240)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(2280)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(2320)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(2360)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(2400)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(2440)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(2480)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000

Voyager 2 LI Coord
D-61727
Aug. 23, 1981 -
Aug. 25, 1981 -

NAME OF TAPE DOUTS

INPUT TAPE DOUTS ON T
DATA INPUT FROM F
PART 1

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY PERM	ZERO B	SHORT	UNDEF.	INPUT RETRIES #RECS.	TOTAL #
1	1	1	80	0	0	0	0	0	0

1981 Day 235

FILE 1 RECORD 1 LENGTH 18212BYTES

(0)	47240000	01840000	C8C4D9F1	C7E6E3F3	C6D3E3F2	00E10CER	000A0021	002E0206	00000780	000000EC
(40)	4001E407	00000018	C3D9E4C9	E2C6E4C6	D3F14040	00000000	00000000	00000000	00080000	00000000
(80)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(120)	00000000	40000000	00000000	00010044	D5E6F3F0	F1F44040	D5D6D5C5	40404040	D5D6D5C5	40404040
(160)	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040
(200)	D5D6D5C5	40404040	D5D6D5C5	40404040	E2F3C1D5	C7D44040	D5D6D5C5	40404040	D5D6D5C5	40404040
(240)	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040
(280)	01010100	00000000	01000000	00000000	00010001	01000000	00000000	00000000	00010100	00000000
(320)	00030001	00000000	00000100	00000000	00000000	00000000	00000000	00000000	00010001	01000000
(360)	01010000	00000000	00000000	00010000	C1F1FFE9	C5D9C6F2	D7D9C5E2	C5D5E2F2	C3C1D3F2	40404040
(400)	00000000	00000000	10840000	C8C4D9F3	00000000	00000000	005100EB	000A0021	002E0206	00000000
(440)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	000A0000
(480)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(520)	00000000	00000000	00000000	00000000	00020400	00060000	00000000	00000000	00000000	00000000
(560)	00040000	00000000	00000FFE	43813740	439804FB	43AD2C28	43015333	43D4DB0A	43E80385	43FAF8F5
(600)	44100000	44100000	44100000	44147DE3	4418A87A	4416E4DE	44182627	4419BF19	441A8E54	43A04147
(640)	43F141EB	44180021	44180694	4413381C	44242B07	442AD54C	43255DE6	443AEEE6	4444B6CC	444FEA66
(680)	44500000	44500000	44700FB9	44A00740	44A80C80	43170400	43180400	43148999	4313C4CC	43134833
(720)	43100400	43100400	43100119	4312F066	43131E86	43135666	43139CCC	4313F000	43144E66	4314B999
(760)	43152E66	43580000	43402000	43400000	43522000	435A1000	43645000	437CF000	43802000	43920000
(800)	43AFF000	43BF7000	43C0F000	43FC0000	44123800	4414F800	44183000	41199581	4116ED91	411653F7
(840)	41142DC4	4116B937	4112F906	41126B43	41123126	4111E885	41116220	41117CED	411153F7	41113333
(880)	41111265	4110F5C2	4110E147	00000000	00000000	00000000	00000000	41100000	41100000	41100000
(920)	41100000	41100000	41100000	41100000	41100000	41100000	41100000	41100000	41100000	3F28F5C2
(960)	3DCCCCCD	3E4CCCCD	3E99999A	3F19E5D0	3F800000	3F800000	3F800007	3F3A92A3	3F3A92A3	41100000
(1000)	41699999	41219999	41100000	42230000	C5186A00	C519A280	C51A9C80	C51B5800	C51C5200	C51D4C00
(1040)	C51E4600	C51F4000	C5203A00	C5213400	C5222E00	C5239E80	C5249F00	C5251D80	C5271000	C5284880
(1080)	C5298180	C52AAF80	C52BE200	C52D2A80	C52E6300	C52F9B80	C5310E00	C5328380	C5353900	C536EE80
(1120)	C5399E00	C53C4D80	C53EFD00	C541AC80	C5445C00	C5484400	C54C2C00	C5501400	C553FC00	C557E400
(1160)	C55BCC00	C55E1A00	C5606A00	C5686C00	C5704E00	C5752A00	C57C0E00	C5817200	C587BE00	C58D9A00
(1200)	C5937800	C5977E00	C59C4000	C5A12200	C5A60400	C5AAE600	C5B18C00	C5BF7800	C5BD7400	C5C35000
(1240)	C5CA2800	C5D0FC00	C5D7D200	C5DEA800	C5E57E00	C6118C30	C614C080	C6181BE0	C6185030	C61E8480
(1280)	C6248D00	C62D4A00	C6346A00	C63B6E00	C63D2900	C6445C00	C648AF00	C6530200	C65A5500	C661A800
(1320)	C668FC00	C670E200	C6779400	C6886800	C6907C00	C6A03740	C6ADF340	C6BA2840	C6C7E3E0	C6D59F80
(1360)	C6E56860	C6F73140	C7107FA2	C7118C50	C71298BE	C715A54C	C714B1DA	C7158E68	C716CAF6	C717D784
(1400)	C7190D00	C71AB810	C71C8E78	C71D2E94	C71E8460	C71FDA4C	C7213018	C7228554	C723DBB0	C725317C
(1440)	C7267F24	C7280E00	C7298A24	C72CD29C	C72EFA24	C7300400	C732EC1C	C7350638	C7371F54	C7393870
(1480)	C73BE408	C73E8FA0	C74138B8	C7456E00	C7469268	C74A0180	C74D7038	C750DF20	C7544E08	C757BCF0
(1520)	C7B2BDD8	C7B5FCC0	C7B9CBA8	C7BCFA90	C7C02978	C7C35860	C7C68748	C7C9B630	C7CCE518	C7D01400
(1560)	C7D32EE8	C7D64DD0	C7D96CB8	C7DC8BA0	C7DFAA88	C7E2C970	C7E5E858	C7E90740	C7EC2628	C7EF4510
(1600)	C7F263F8	C7F582E0	C7F8A1C8	C7FBC0B0	C7FEDF98	C8019E80	C8045D68	C8071C50	C809DB38	C80C9A20
(1640)	C80F5908	C811F7F0	C814E6D8	C817D5C0	C81AC4A8	C81DB390	C820A278	C8239160	C8268048	C8296F30
(1680)	C82C5E18	C82F4D00	C8323BE8	C8352AD0	C83819B8	C83B08A0	C83DF788	C840E670	C843D558	C8469440
(1720)	C8497328	C84C8210	C84F90F8	C852AFE0	C855CEC8	C858EDB0	C85B0C98	C85D2B80	C85F4A68	C8616950
(1760)	C8638838	C86A7720	C8691608	C86B34F0	C86D53D8	C86F72C0	C87191A8	C873B090	C875CF78	C877EE60
(1800)	C87A0D48	C87C2C30	C87E4B18	C8806A00	C88288E8	C884A7D0	C886C6B8	C888E5A0	C88B0488	C88D2370
(1840)	C88F4258	C8916140	C8938028	C894EF10	C8965DF8	C8978CE0	C898BBC8	C899EAB0	C89B1998	C89C4880
(1880)	C89D7768	C89EA650	C89FD538	C8A10420	C8A23308	C8A361F0	C8A490D8	C8A5BFC0	C8A6EEA8	C8A81D90
(1920)	C8A94C78	C8AA7B60	C8ABAA48	C8ACD930	C8AE0818	C8AF3700	C8B065E8	C8B194D0	C8B2C3B8	C8B3F2A0
(1960)	C8B52188	C8B65070	C8B77F58	C8B8AE40	C8B9DD28	C8BB0C10	C8BC3AF8	C8BD69E0	C8BE98C8	C8BFC7B0
(2000)	C8C0F698	C8C22580	C8C35468	C8C48350	C8C5B238	C8C6E120	C8C81008	C8C93EF0	C8CA6DD8	C8CB9CC0
(2040)	C8CCCBA8	C8CDFA90	C8CF2978	C8D05860	C8D18748	C8D2B630	C8D3E518	C8D51400	C8D642E8	C8D771D0
(2080)	C8D8A0B8	C8D9CFA0	C8DAFE88	C8DC2D70	C8DD5C58	C8DE8B40	C8DFBA28	C8E0E910	C8E217F8	C8E346E0
(2120)	C8E475C8	C8E5A4B0	C8E6D398	C8E80280	C8E93168	C8EA6050	C8EB8F38	C8ECBE20	C8EDED08	C8EF1BF0

(0)	47240000	01840000	C8C4D9F1	C7E6E3F3	C6D3E3F2	00E10CER	000A0021	002E0206	00000780	000000EC
(40)	4001E407	00000018	C3D9E4C9	E2C6E4C6	D3F14040	00000000	00000000	00000000	00080000	00000000
(80)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(120)	00000000	40000000	00000000	00010044	D5E6F3F0	F1F44040	D5D6D5C5	40404040	D5D6D5C5	40404040
(160)	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040
(200)	D5D6D5C5	40404040	D5D6D5C5	40404040	E2F3C1D5	C7D44040	D5D6D5C5	40404040	D5D6D5C5	40404040
(240)	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040
(280)	01010100	00000000	01000000	00000000	00010001	01000000	00000000	00000000	00010100	00000000
(320)	00030001	00000000	00000100	00000000	00000000	00000000	00000000	00000000	00010001	01000000
(360)	01010000	00000000	00000000	00010000	C1F1FFE9	C5D9C6F2	D7D9C5E2	C5D5E2F2	C3C1D3F2	40404040
(400)	00000000	00000000	10840000	C8C4D9F3	00000000	00000000	005100EB	000A0021	002E0206	00000000
(440)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	000A0000
(480)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(520)	00000000	00000000	00000000	00000000	00020400	00060000	00000000	00000000	00000000	00000000
(560)	00040000	00000000	00000FFE	43813740	439804FB	43AD2C28	43015333	43D4DB0A	43E80385	43FAF8F5
(600)	44100000	44100000	44100000	44147DE3	4418A87A	4416E4DE	44182627	4419BF19	441A8E54	43A04147
(640)	43F141EB	44180021	44180694	4413381C	44242B07	442AD54C	43255DE6	443AEEE6	4444B6CC	444FEA66
(680)	44500000	44500000	44700FB9	44A00740	44A80C80	43170400	43180400	43148999	4313C4CC	43134833
(720)	43100400	43100400	43100119	4312F066	43131E86	43135666	43139CCC	4313F000	43144E66	4314B999
(760)	43152E66	43580000	43402000	43400000	43522000	435A1000	43645000	437CF000	43802000	43920000
(800)	43AFF000	43BF7000	43C0F000	43FC0000	44123800	4414F800	44183000	41199581	4116ED91	411653F7
(840)	41142DC4	4116B937	4112F906	41126B43	41123126	4111E885	41116220	41117CED	411153F7	41113333
(880)	41111265	4110F5C2	4110E147	00000000	00000000	00000000	00000000	41100000	41100000	41100000
(920)	41100000	41100000	41100000	41100000	41100000	41100000	41100000	41100000	41100000	3F28F5C2
(960)	3DCCCCCD	3E4CCCCD	3E99999A	3F19E5D0	3F800000	3F800000	3F800007	3F3A92A3	3F3A92A3	41100000
(1000)	41699999	41219999	41100000	42230000	C5186A00	C519A280	C51A9C80	C51B5800	C51C5200	C51D4C00
(1040)	C51E4600	C51F4000	C5203A00	C5213400	C5222E00	C5239E80	C5249F00	C5251D80	C5271000	C5284880
(1080)	C5298180	C52AAF80	C52BE200	C52D2A80	C52E6300	C52F9B80	C5310E00	C5328380	C5353900	C536EE80
(1120)	C5399E00	C53C4D80	C53EFD00	C541AC80	C5445C00	C5484400	C54C2C00	C5501400	C553FC00	C557E400
(1160)	C55BCC00	C55E1A00	C5606A00	C5686C00	C5704E00	C5752A00	C57C0E00	C5817200	C587BE00	C58D9A00
(1200)	C5937800	C5977E00	C59C4000	C5A12200	C5A60400	C5AAE600	C5B18C00	C5BF7800	C5BD7400	C5C35000
(1240)	C5CA2800	C5D0FC00	C5D7D200	C5DEA800	C5E57E00	C6118C30	C614C080	C6181BE0	C6185030	C61E8480
(1280)	C6248D00	C62D4A00	C6346A00	C63B6E00	C63D2900	C6445C00	C648AF00	C6530200	C65A5500	C661A800
(1320)	C668FC00	C670E200	C6779400	C6886800	C6907C00	C6A03740	C6ADF340	C6BA2840	C6C7E3E0	C6D59F80
(1360)	C6E56860	C6F73140	C7107FA2	C7118C50	C71298BE	C715A54C	C714B1DA	C7158E68	C716CAF6	C717D784
(1400)	C7190D00	C71AB810	C71C8E78	C71D2E94	C71E8460	C71FDA4C	C7213018	C7228554	C723DBB0	C725317C
(1440)	C7267F24	C7280E00	C7298A24	C72CD29C	C72EFA24	C7300400	C732EC1C	C7350638	C7371F54	C7393870
(1480)	C73BE408	C73E8FA0	C74138B8	C7456E00	C7469268	C74A0180	C74D7038	C750DF20	C7544E08	C757BCF0
(1520)	C7B2BDD8	C7B5FCC0	C7B9CBA8	C7BCFA90	C7C02978	C7C35860	C7C68748	C7C9B630	C7CCE518	C7D01400
(1560)	C7D32EE8	C7D64DD0	C7D96CB8	C7DC8BA0	C7DFAA88	C7E2C970	C7E5E858	C7E90740	C7EC2628	C7EF4510
(1600)	C7F263F8	C7F582E0	C7F8A1C8	C7FBC0B0	C7FEDF98	C8019E80	C8045D68	C8071C50	C809DB38	C80C9A20
(1640)	C80F5908	C811F7F0	C814E6D8	C817D5C0	C81AC4A8	C81DB390	C820A278	C8239160	C8268048	C8296F30
(1680)	C82C5E18	C82F4D00	C8323BE8	C8352AD0	C83819B8	C83B08A0	C83DF788	C840E670	C843D558	C8469440
(1720)	C8497328	C84C8210	C84F90F8	C852AFE0	C855CEC8	C858EDB0	C85B0C98	C85D2B80	C85F4A68	C8616950
(1760)	C8638838	C86A7720	C8691608	C86B34F0	C86D53D8	C86F72C0	C87191A8	C873B090	C875CF78	C877EE60
(1800)	C87A0D48	C87C2C30	C87E4B18	C8806A00	C88288E8	C884A7D0	C886C6B8	C888E5A0	C88B0488	C88D2370
(1840)	C88F4258	C8916140	C8938028	C894EF10	C8965DF8	C8978CE0	C898BBC8	C899EAB0	C89B1998	C89C4880
(1880)	C89D7768	C89EA650	C89FD538	C8A10420	C8A23308	C8A361F0	C8A490D8	C8A5BFC0	C8A6EEA8	C8A81D90
(1920)	C8A94C78	C8AA7B60	C8ABAA48	C8ACD930	C8AE0818	C8AF3700	C8B065E8	C8B194D0	C8B2C3B8	C8B3F2A0
(1960)	C8B52188	C8B65070	C8B77F58	C8B8AE40	C8B9DD28	C8BB0C10	C8BC3AF8	C8BD69E0	C8BE98C8	C8BFC7B0
(2000)	C8C0F698	C8C22580	C8C35468	C8C48350	C8C5B238	C8C6E120	C8C81008	C8C93EF0	C8CA6DD8	C8CB9CC0
(2040)	C8CCCBA8	C8CDFA90	C8CF2978	C8D05860	C8D18748	C8D2B630	C8D3E518	C8D51400	C8D642E8	C8D771D0
(2080)	C8D8A0B8	C8D9CFA0	C8DAFE88	C8DC2D70	C8DD5C58	C8DE8B40	C8DFBA28	C8E0E910	C8E217F8	C8E346E0
(2120)	C8E475C8	C8E5A4B0	C8E6D398	C8E80280	C8E93168	C8EA6050	C8EB8F38	C8ECBE20	C8EDED08	C8EF1BF0

(1920)	[illegible]	[illegible]	[illegible]	C143C409	C1214E7E	4232FB2B	41D04FD0	4246A000	4052BD7A	C0EB481F
(1960)	4038BA7F	4011BD4F	C01B78AE	C0F9B7F3	40F1B0B5	4034ED78	00000000	C03C7E9C	C0FB6417	BFD5AAD3
(2000)	[illegible]	[illegible]	40FE0DF7	C0F772E0	40307EC5	C015F111	C0340051	C03B84DA	C0F37E7C	40F1F455
(2040)	C0340E10	C0B0E041	C0417F07	C0FCD00D	40470FAC	77777777	77777777	77777777	77777777	77777777
(2080)	77777777	77777777	77777777	77777777	77777777	001E0040	00000000	00000000	00000000	003B0052
(2120)	[illegible]	[illegible]	C01C0C84							

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FILE # RECORD 484 LENGTH 18252BYTES

(0)	47400000	02AC0000	C5F14040	C7E260F3	C6D3E3F2	00510DED	000D001F	003603AE	42EC9057	2F876709
(40)	4300A90F	72F87670	E2C3C5E3	413D70A4	ABD40012	00010002	6F6F0000	FFFEFFFE	00040000	77777777
(80)	40404040	40404040	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(120)	77777777	00010210	00400001	11E70C8A	00210B40	00000000	00000005	411147AD	C1854FF0	C15340DE
(160)	C18CCE04	41D41FB3	41D4108E	3F3605F7	3F60923F	3F555AB6	00000010	40666B6E	40F5C28F	484A16B7
(200)	C44A138F	3D1CC646	3D17FF01	3E1FE91F	3E38A884	3E47DB78	3E3A5059	3E3D3CF2	3E37E845	3E351E82
(240)	3F1CFFF0	3E1E9E98	3F2D92F1	3E221811	3E1C7592	3E1B44B4	3E194140	77777777	77777777	77777777
(280)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(320)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(360)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(400)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(440)	77777777	77777777	77777777	77777777	436B48EC	944E37EB	435EA905	9022396F	41971BE1	4188A83E
(480)	41425B81	C1CC4F8A	C1B82B2E	C12D8A48	41DB62E6	4213AD8F	43147200	40D48EF7	40717314	405682BD
(520)	4141E1F6	40E66C18	C0F0F0BB	C0788A79	40E1D846	00000000	C0188D72	C01071F1	C0FE49E7	C0AD2C30
(560)	40BC7C3C	3F4883CF	40BAEFC4	40AC72F9	C01D3549	C021F548	40802B9E	C0DBC143	C0D2CFC5	C0893716
(600)	C0BFB87E	C0B62540	40AE2EC4	40738E59	77777777	77777777	77777777	77777777	77777777	77777777
(640)	77777777	77777777	77777777	77777777	00000000	00E9006E	00760073	00770077	00780078	00740073
(680)	00740072	00730073	08F40000	D3C6D440	C7E260F3	C6D3E3F2	00510DED	000D001F	000B01CD	42EC9036
(720)	3A34A9CC	4B0AA703	9343F47C	52C3C5E3	42300000	ABD40010	00017777	C8A0C010	30643054	00010000
(760)	77777777	40404040	40094040	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(800)	77777777	77777777	005000D8	00100008	11E80218	410ED896	41CE7766	C22A3A83	419E10D8	4159B6F9
(840)	41B69CAC	3138B7E5	4000A498	4033D45A	4031FC0B	00000005	41CB4499	41CCF46C	41CCE7E6	41D0C703
(880)	41B3C810	41C1CC8A	41B3C81F	41CCF48E	41D0C50B	41D3C8F0	C22E8FEB	C22B96C0	C22804F0	C2290C53
(920)	C227F72A	418070FC	4186C4F0	418AC8CF	41A8E504	41CEE459	41499F43	41B403FC	415E974C	41BEEFEC
(960)	41B6B87E	41B78B83	41B4D9F6	41ADEC9C	41B34B83	41940C13	C1307265	C131AF8A	C134C223	C12FE782
(1000)	C1251DDF	41D1DAD7	3FE5E2CF	3FE27B0B	402FD4BC	4023F961	40161550	4017646F	401CA9F9	40137802
(1040)	40100F8E	3FDC3E94	4016C72B	40281998	3FCB17A5	4015DFDC	00000005	00000005	00000005	00000005
(1080)	41C0C03B	41C3F4C0	41CA8C78	41C84CE8	41CB91C8	41CC62A8	41CCC1E0	41CD24A8	41CD0110	41CD0058
(1120)	41C631A0	41C61C70	41C7FF40	41CC8818	41CD4848	41CE8B60	41CF41D0	41CFFBC0	41D0E398	41D12FD0
(1160)	41D1D748	41D2CAF0	41D0D3D6	41D42640	41D40010	41C38860	41C9FE81	41CA8B80	41CE4B32	41CB8149
(1200)	41C3E2B0	41CC0118	41C82A4E	41CCFFE0	41CD5024	41CC3100	41CPCEF1	41CBFF5B	41CC5504	41CD4529
(1240)	41C10B74	41CF4164	41CFF9B7	41D0E8BD	41D1AF09	41D1D762	41D2C4E3	41D3D310	41D42635	41D3FFBF
(1280)	41D388B2	C22E98FA	C22FA192	C22F3CCE	C22DD68E	C22D69F5	C22CCAD0	C22C6FDC	C22BD71C	C22AF180
(1320)	C2287CED	C2284B00	C2273D42	C2274523	C2272B00	C228FC35	C2292CBD	C2290BA7	C228FD2F	C228E807
(1360)	C22B0987	C22BF8B6	C22B78F0	C227A9D1	C227A8C3	C1276A4E	41733CC2	417A3976	4182FC47	41821228
(1400)	418F11CD	418FA229	41B0DA27	418BDFFE	4186F77E	4185EF68	41806188	418469C3	418CEA1B	418E1103
(1440)	41B6B5C6	41B2C7C6	41A31BF8	41A3BAB6	41A1D808	41B479E3	418F01D7	41C9E3A0	41CE499F	41D525A6
(1480)	41B08837	41A68C2B	41A6B04B	41A7A67E	41A0D77E	41A24FAB	41B0488B	41B1B892	41B340DC	41B600A5
(1520)	41B6B164	41B0CFD7	41BCE0F6	41B0A24A	41BF8C81	41B0DFF7	41B51841	41BE3869	41BF5039	41BFF745
(1560)	41A01481	41A162AD	41A7A98E	41A684F1	41A7D63E	41A7A60B	41B5F4CC	41B81248	41B85811	41B67286
(1600)	41A02199	41A62FC9	41A4FCDC	41A40CF2	41B3D113	41A099F0	41AC8A79	41AC8BC2	41AC4963	41AE1AD1
(1640)	41B14463	41B27B7B	41B2FDC6	41B6DA1C	41B40D68	41B4E5E1	41B5B9CF	41B5BB3C	41B4BD63	41B40BD1
(1680)	41B6FAE8	C1B8D9B4	C1A09584	C12F8C0A	C130F99E	C12FA592	C1302C03	C1306055	C1319730	C1325126
(1720)	C13AF408	C13FFA10	C1A0DADB	C134DC10	C134B168	C1329958	C1320015	C13103B6	C12F9596	C12ED147
(1760)	C12E1B54	C12C01B9	C126A8DA	C1238177	C12A830F	C128E403	3F75BD3F	3F694CA3	3F7418EE	40122EDF
(1800)	3F7A7911	401188A8	3F0C88FB	3F838AA7	4018F8F9	3F9FB311	3F93DB1C	3FBA8F99	3F9206D6	3F54E754
(1840)	3F4BCA85	3F1402F0	3F7CC64A	401018EB	3F8ED0E8	3F4BA732	3F4E3412	3FEB388D	3F549530	4012517A
(1880)	3F69E49	3F8BBBD6	3F91E10C	3FE3C187	3F988D40	3FCAE409	3F9438E2	3FE9DB50	40138200	3F40D681
(1920)	3F5D5EAF	3F7CFCD	3F3FD29C	3F27CD37	3F49F1A3	40193A97	3FD263F3	40185E2C	3F5AEB69	3F4F53B0
(1960)	3F440F2A	3F479718	3F3547A5	3F3903E1	3F6B33EE	3F92F748	3F628B0C	3F7E42C9	3F76F0F7	3F31D859
(2000)	3F8766BC	3F2CB696	3F92A3EF	3F8CAF5C	3F20D1DF	3F2B3110	3F6FC3DD	3FA11A79	3F89FECA	3F6F5710
(2040)	3F85C430	3FA0C714	3F810542	3F5B5C7D	3F40CCAF	3F388200	3FCD1842	3F6073CB	3F481DD7	3F634FE7
(2080)	3F1A7FF8	3F3B6618	00000020	00000020	00000020	00000020	00000020	00000020	00000020	00000020
(2120)	00000020	00000021	00000017	00000118	00000020	00000020	00000020	00000020	00000020	00000020
(2160)	00000000	00000000	00000000	00000000	00000020	00000020	00000000	00000000	00000000	00000000
(2200)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(2240)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(2280)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000

D-61728

August 24, 1981 – August 29, 1981

DUMP OF TAPE DOUT-6

INPUT TAPE DOUT- [illegible]
DATA INPUT [illegible] LAST 1

FILE	INPUT RECS.	DATA RECORD INPUT	MAX. SIZE	READ ERROR SUMMARY PERM	ZERO B	SHORT	UNDEF.	INPUT RETRIES #RECS.	TOTAL#
1	7	7	80	0	0	0	0	0	0

1981 236

FILE 2 RECORD 1 LENGTH 16184 BYTES

(0)	3F580000	01940000	C80409F1	C7E260F3	C6D6E3F1	00F100EC	00160006	00170205	0000078E	000000CD
(40)	D1E4D3E8	00000018	C3D9E409	E2C54040	D3F14040	00000000	00000000	00000000	00080000	00000000
(80)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(120)	00000000	10000000	00000000	00010044	C5F2F1F2	F3F84040	D5D6D5C5	40404040	D5D6D5C5	40404040
(160)	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040
(200)	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040
(240)	[illegible]	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040
(280)	01010100	00000000	01000000	00000000	00010001	01000000	01000000	00000000	00000100	00000000
(320)	00000000	00000000	00000100	00000000	00000001	00000000	00000000	00000000	00010001	01000000
(360)	01000000	00000000	00000000	00010000	40404040	40404040	40404040	40404040	40404040	40404040
(400)	00000000	00000000	10840000	C8C409F3	00000000	00000000	005100EC	00160006	00170205	00000000
(440)	00010000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	000A0000
(480)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(520)	00000000	00000000	00000000	00000000	00020400	00060000	00000000	00000000	00000000	00000000
(560)	00000004	00000100	0014FFFE	438137AE	439804F5	43AD2C28	43C15333	43D4DB0A	43E80385	43FAF8F5
(600)	441100CF	44120099	44133040	441470E3	441BA874	441AE4DE	441826D7	44196F19	441ABE54	43A04147
(640)	43F141E6	44130B21	44150694	441E3B1C	44242B07	440AD64C	44325DE6	443AEEE6	4444B6CC	444FEA66
(680)	[illegible]	44680D03	4470BF99	4490274C	444A9C80	4317D4CC	4315C4CC	43148999	4313C4CC	43134B33
(720)	4311C400	4312E400	43127199	4312F666	43131F66	43135666	43139CCC	4313F000	43144E66	4314E999
(760)	43152E68	43352000	43402000	434D0000	43522000	435A1000	43645000	4370F000	43802000	43920000
(800)	[illegible]	43FF7000	[illegible]	43F00000	44123500	4414F800	44183000	41199581	4116ED91	411553F7
(840)	41142004	41108937	4112F900	4112A443	41123126	4111E583	41115C2D	41117CED	411153F7	41113333
(880)	4111126E	4110F5C2	4110E147	00000000	00000000	00000000	00000000	41100000	41100000	41100000
(920)	[illegible]	41100000	41100000	41100000	41100000	41100000	41100000	41100000	41100000	3F28F5C2
(960)	[illegible]	[illegible]	[illegible]	43166F00	00020003	00030007	3F3A92A3	3F3A92A3	41100000	41100000
(1000)	41599999	41219999	41100000	42230000	C5186A00	C5194280	C5149C80	[illegible]	C51C5200	C51D4C00
(1040)	[illegible]	[illegible]	C5203A00	C5213400	C5222E00	C5236680	C5249F00	C525D780	C5271000	C5284880
(1080)	[illegible]	[illegible]	[illegible]	C5202A80	C5235300	C5301A80	C531CE00	C5339380	C5353900	C536EE80
(1120)	C5399E00	C53C4D80	C53EFD00	C541AC80	C5445000	C5484400	C54C2000	C5501400	C553FC00	C557E400
(1160)	[illegible]	[illegible]	[illegible]	C5696000	C5704E00	C5762A00	C57C0600	C581E200	C587BE00	C58D9A00
(1200)	[illegible]	[illegible]	C59C4000	C5A12200	C5A60400	C5ABE000	C5B1B000	C5B79800	C5BD7400	C5C35000
(1240)	C5CA2600	C5D0F000	C5D78200	C5DEA800	C5E57E00	C6118C30	C614C080	C61819E0	C61B5030	C61E8480
(1280)	[illegible]	[illegible]	C630D400	C6365E80	C63D0900	C6445C00	C64BAF00	C6530200	C65A5500	C661A800
(1320)	[illegible]	C6763000	C677F400	C686B800	C6907C00	C6A037A0	C6ADF340	C6BA2940	C6C7E3E0	C6D59F80
(1360)	C6EB6880	C6F73140	C7107FA2	C7118C30	C712983E	C713A54C	C71481DA	C715E568	C716CAF6	C717D784
(1400)	[illegible]	[illegible]	C71BD8E8	C71D2EB4	C71E8480	C71FDA4C	C7213018	C72285E4	C723DBB0	C725317C
(1440)	[illegible]	C7290200	C72AEA64	[illegible]	[illegible]	C730D400	C732ED1C	C7350638	C7371F54	C7393870
(1480)	C735E408	C73E6FA0	C7413838	C743E6D0	C7469268	C74A0150	C74D7038	C750DF20	C7544E08	C7578CF0
(1520)	[illegible]	C7CFEF10	[illegible]	45155CC0	45186A00	4519A280	451ADB00	451C1380	451D4C00	451E8480
(1560)	[illegible]	45117180	4512E980	45246080	4525D7A0	45278000	45294280	452AF800	452CAD80	452E6300
(1600)	45309580	45320600	4534FA80	45372000	45395F80	453BD080	453E4180	4540B28C	45432380	45459480
(1640)	[illegible]	45435E80	454F1A00	45524680	45557300	45595B00	455D4300	45612B00	45651300	4568FB00
(1680)	[illegible]	4571CF00	[illegible]	457A9F00	[illegible]	45830600	4588BF00	458D9A00	45927C00	45975E00
(1720)	45913A00	45A01600	45A8F200	45AEC000	4594AA00	45B98000	45BE6E00	45C35000	45C83200	45CD1400
(1760)	[illegible]	45E19000	45EFD700	45F69500	46100590	46150EA0	461A17B0	461F20C0	462429D0	462932E0
(1800)	[illegible]	46370CA0	[illegible]	[illegible]	[illegible]	46543A80	465C29C0	46641900	466C0840	4673F780
(1840)	[illegible]	[illegible]	46931840	46902A60	46A7D800	46B59460	46C35000	46D10BA0	46DEC740	46EC82E0
(1880)	46F04300	4710E14A	4711EDD8	4712FA66	471406F4	47155CC0	4716B28C	47180858	47195E24	471AB3F0
(1920)	[illegible]	[illegible]	4718B480	471FF0B6	47217DEC	4722F78C	47249F00	47265674	47280DE8	4729F630
(1960)	[illegible]	4720C400	472FAF66	4731975C	47337F98	[illegible]	47381378	473A5D68	473CA758	473EF148
(2000)	[illegible]	[illegible]	4749190B	47492648	474F3388	4751A270	47551158	47588040	475BEF28	475F5E10
(2040)	[illegible]	[illegible]	[illegible]	42944C0C	42846BB5	40D7F0A3	42FF8070	43120B5C	4315FDC2	43194400
(2080)	[illegible]	[illegible]	[illegible]	4322?AE1	433CDA8F	[illegible]	4228C5A1	404BD439	42683951	4284F851
(2120)	[illegible]	[illegible]	427AA8F5	43114CF5	4314495B	4317B199	4318968F	43200DC2	43252EE1	432B1547

(15400)	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE	FFFEFFFE
(15420)	00000002	00120DDF	42EC00A9	6D61AD43	435BA006	96D61AD4	E2C3C5E3	413D70A4	ABC3001A	00010002	
(15440)	77777777	77777777	77777777	77777777	40404040	40404040	77777777	77777777	77777777	77777777	
(15460)	00000001	00150008A	00210006	00000000							
(15480)	00000001	401E8851	C0E74E59	401E5FCD	3F642C87	40E96852	40E96035	3F29C795	3F20D42B	3F32F275	
(15500)	00000010	40666B7E	40F9C29F	4613E7F	4513A901	3EEFD24A	3E2A92FC	3E14B8E1	3E15040A	3DA4C180	
(15520)	3D7BCE54	3D41F01F	3D181400	3D0B54E7	3D418C84	3D2B62B2	3D5F2F0F	3D212E81	3C7B901E	3D2A166E	
(15540)	3D183389	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	
(15560)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	
(15580)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	
(15600)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	
(15620)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	435BA004	87265900	
(15640)	43E9A00B	00B12A1B	421D0D18	41C987EE	41691CED	C1BC0010	C14CB18F	C125EDEA	4217D781	41FFA8C7	
(15660)	42F4A000	C0679EDB	40DF3511	40468CC8	C010B4E8	403FFD9C	C0F61639	C0E832E6	C06BCB72	00000000	
(15680)	40B2FDE0	40D2A6C3	401464FE	40239BDB	3E41A7A8	C0FC834D	C0CE9A9D	40945357	C01D2919	C0555DA2	
(15700)	C0E8C077	C0E1B6E8	40327413	C0AE0BDB	C02354F9	C0B45EEE	C0BD24FC	40583A63	77777777	77777777	
(15720)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	00880050	004D0051	
(15740)	00400008	00270C0C	00140083	00280083	00270000	00820028					

FILE 2 RECORD 2288 LENGTH 4232BYTES

(1981 Day 241)

(0)	10880000	40A40000	0C042BF3	00000000	00000000	00E1[0]F1	00170038	000B004E	00000000	00000000	
(40)	00000000	10000000	00000010	00000000	00000000	00000000	00000000	000A0000	00000000	00000000	
(80)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	
(120)	00000000	00000000	00000000	8B5E0400	00000000	00000000	00000000	00000000	00000000	00060006	
(160)	00000000	00000000	43A13745	439B04F8	43A22C28	43C15733	43D4DB0A	43E80385	43FAF8F5	4410DDCF	
(200)	44120C99	44133D40	441470E3	4415A87A	4416E4DE	44182607	44196F19	441ABE54	43A04147	43F141EB	
(240)	44155CD1	44167B4A	4417B1C	4418E8C7	441A2540	441B5C56	441C8F6C	441DC386	441EF6A1	44202DB8	
(280)	44216ED3	44230AEE	44243E07	44257520	44268C39	43178400	43158400	43148999	43158400	43134833	43130400
(320)	4312E400	4312E199	4312F666	43131E66	43135666	43139CCC	4313F000	43144E66	4314B999	43152E66	
(360)	43161333	43170000	43180000	43194CCC	431B1000	431C8000	431F0000	43202000	43220000	43246CCC	
(400)	43BF7000	43D8F000	43FD0000	44123500	4414FB00	44183000	41199581	4116ED91	411553F7	41142DC4	
(440)	41138937	4112F9DB	41128B43	41123126	4111EB85	4111B22D	41117CED	411153F7	41113333	4111126E	
(480)	4111F1C1	4111B1A7	41118210	41118000	41118000	41118000	41100000	41100000	41100000	41100000	
(520)	41100000	41100000	41100000	41100000	41100000	41100000	41100000	41100000	3F28FBC2	00010005	
(560)	00100010	45166FC0	45166FC0	00020005	00030007	3F3A92A3	3F3A92A3	41100000	41100000	41599999	
(600)	41119999	41119999	41199999	C51B6A00	C51BA200	C51A9C80	C51B8800	C51CF200	C51D4C00	C51E4600	
(640)	C51F4C00	C5213400	C5225C00	C5256A80	C5244F00	C5280780	C5271000	C52B4B80	C5298100		
(680)	C52A8980	C52BF200	C52D2A80	C52E6300	C5301880	C5315E00	C5338380	C5353900	C536EE80	C5399E00	
(720)	C53D0480	C53E5D00	C54040A0	C5440000	C5484A00	C54C2C00	C5501400	C553FC00	C557E400	C55CC600	
(760)	C5621800	C566AF00	C56A3C10	C5704E00	C5784A00	C57D3400	C5821E00	C5876E00	C58D9A00	C5927C00	
(800)	C5975E00	C59C4000	C5A12200	C5A60400	C5ABE000	C5B13C00	C5879800	C5BD7400	C5C35000	C5CA2600	
(840)	C5D1FC00	C5D7DC00	C5E2A400	C5E87E00	C611FC30	C614C080	C61816E0	C6185030	C61E8480	C6249F00	
(880)	C62AB980	C631A400	C63E1E00	C6430C00	C643AF00	C6453C00	C655A500	C6614800	C666C000		
(920)	C6753000	C67EF400	C6888800	C6927C00	C6A037A0	C6ADF340	C6BA2840	C6C7E3E0	C6D59F80	C6E66860	
(960)	C6F77140	C7107CA0	C7118C10	C7123BBE	C7134540	C7148104	C7153E68	C716CAF6	C717D784	C7192D50	
(1000)	C71AF710	C71C0E28	C71D3E14	C71E84F0	C71FDA4C	C7213018	C7226BE4	C723D880	C7253170	C72719C4	
(1040)	C7290200	C72AEA94	C72CD29C	C72EBAE4	C730D400	C732ED1C	C7350638	C7371F54	C7393870	C73BE408	
(1080)	C73E3FA0	C7413184	C7435BD0	C7440180	C7467C38	C750DF20	C7544E08	C757BCF0	C7588D80		
(1120)	C7626E10	C7644F60	C7658C00	C7684A00	C7694A80	C76A0B00	C76C1380	C76D4C00	C7698480	C76FF580	
(1160)	C8217280	C822E980	C8246080	C825D780	C8278D00	C8294280	C82AF800	C82CAD80	C82E6300	C8309580	
(1200)	C8320B00	C834F080	C8378D10	C8398FF0	C83B0C80	C83D4180	C8408280	C8432380	C8459480	C8480100	
(1240)	C84A6C80	C84F1D00	C8524580	C8557BC0	C8588F00	C85D4300	C8612B00	C8651300	C868FB00	C86D6000	
(1280)	C8710500	C8762A00	C87A8F00	C87EF400	C883D600	C8888800	C88D9A00	C8927C00	C8975E00	C89D3A00	
(1320)	C8A2E000	C8A8AF00	C8AE5E00	C8B4A800	C8BBBC00	C8C39E00	C8CB5000	C8D83200	C8D14C00	C8D75500	
(1360)	C8E19E00	C8E8D700	C8F49B10	C8F93C90	C8F93E40	C8FA1780	C8FF2DC0	C9024900	C9093E0	C9037C0	
(1400)	C9373CA0	C93E4180	C9454650	C94C4B40	C9543A80	C95C29C0	C9641900	C96C0840	C973F780	C97E57C0	
(1440)	C9888800	C9931840	C99D2A60	C9A7D8C0	C9B89460	C9C35000	C9D10BA0	C9DEC740	C9EC82E0	C9FD4BC0	
(1480)	CA110144	CA2A4C00	CA3FA2A0	CA53F6F4	CA68CC60	CA7C8B8C	CA93E624	CAB3F0C0	CACF8F60	CAE8F152	
(1520)	CB02E5B4	CB1F8480	CB1FF2B6	CB2160EC	CB22E78C	CB249F00	CB265674	CB280DE8	CB29F630	CB2BDE78	
(1560)	CB4D2C01	CB6F4E10	CB913710	CB9D7BB8	CBA0C988	CBA41376	CBA85D68	CBCA758	CBCEF148	CC41FE88	
(1600)	CC7A0C28	CC7E2418	CC7E6588	CC7EA6F8	CC81AD70	CC811188	CC8B8040	CC8EEF28	CC8F5E10	CC36CCCC	
(1640)	CC8A06E9	CC769999	CC944CCC	CC846385	CC07F0A3	CC2FB070	CC312CB5C	CC315FDC2	CC319A400	CC31DD214	
(1680)	CC3B0AF0	CC3E2E14	CC417A21	CC3DC485	CC3E8737	CC3BC6A1	CC24ED439	CC2683851	CC284F851	CC2A39E38	

DUMP OF TAPE DOUT-4

Voyager 1
L1 Coord.

D-61729
11/9/80 - 11/14/80

INPUT TAPE DOUT-4 ON MT4
DATA INPUT H9 FL 1 1 1

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FILE 1 RECORD 1 LENGTH 16192BYTES

(0)	3F400000	01940000	C8C4D9F1	C7E260F3	C6D3E3F1	0050013A	00160009	0016039A	000007BF	000000D5
(40)	40C1E4C7	00000001	C3D9E4C9	E2C54040	D3F14040	00000000	00000000	00000000	00080000	00000000
(80)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(120)	00000000	00000000	00000000	00010044	F0F8F1F5	F3C24040	D5D6D5C5	40404040	D5D6D5C5	40404040
(160)	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040
(200)	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040
(240)	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040
(280)	01010100	00000000	01000000	00000000	00010001	01000000	00000000	00000000	00000100	00000000
(320)	00000000	00000000	00000100	00000000	00000001	00000000	00000000	00000000	00010001	01000000
(360)	01000000	00000000	00000000	00010000	40404040	40404040	40404040	40404040	40404040	40404040
(400)	00000000	00000000	10840000	C8C4D9F3	00000000	00000000	0050013A	00160009	0016039A	00000000
(440)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	000A0000
(480)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(520)	00000000	00000000	00000000	00000000	00020400	00060000	00000000	00000000	00000000	00000000
(560)	00060006	00000000	0006FFFE	438137AE	439804F5	43AD2C28	43C15333	43D4DB0A	43E80385	43FAF8F5
(600)	4410DDCF	44120C99	44133D40	441470E3	4415A87A	4416E4DE	441826D7	44196F19	441ABE54	43A04147
(640)	43F141EB	4413DD21	4418D694	441E381C	44242B07	442AD54C	44325DE6	443AEEE6	4444B6CC	444FEA66
(680)	445CC5B3	446B8D33	447C8F99	4490274C	44A6BC80	4317D4CC	4315C4CC	43148999	4313C4CC	43134B33
(720)	431304CC	4312E4CC	4312E199	4312F666	43131E66	43135666	43139CCC	4313F000	43144E66	4314B999
(760)	43152E66	4355E000	434C2000	434D0000	43522000	435A1000	43645000	4370F000	43802000	43920000
(800)	43A6FCCC	43BF7000	43D8F000	43FD0000	44123500	4414FB00	44183000	41199581	4116ED91	411553F7
(840)	411420C4	41138937	4112F9DB	41128B43	41123126	4111EB85	4111E22D	41117CED	411153F7	41113333
(880)	4111126E	4110F5C2	4110E147	00000000	00000000	00000000	00000000	41100000	41100000	41100000
(920)	41100000	41100000	41100000	41100000	41100000	41100000	41100000	41100000	41100000	3F28F5C2
(960)	00010005	00100010	45166FC0	45166FC0	00020005	00030007	3F3A92A3	3F3A92A3	41100000	41100000
(1000)	41599959	41219999	41100000	42230000	C5186A00	C519A280	C51A9C80	C51B5800	C51C5200	C51D4C00
(1040)	C51E4600	C51F4000	C5203A00	C5213400	C5222E00	C5236680	C5249F00	C525D780	C5271000	C5284880
(1080)	C5298100	C52AB980	C52BF200	C52D2A80	C52E6300	C5301880	C531CE00	C5338380	C5353900	C536EE80
(1120)	C5399E00	C53C4080	C53EFD00	C541AC80	C5445C00	C5484400	C54C2C00	C5501400	C553FC00	C557E400
(1160)	C55CC600	C561A800	C5668A00	C56B6C00	C5704E00	C5762A00	C57C0600	C581E200	C587BE00	C58D9A00
(1200)	C5927C00	C5975E00	C59C4000	C5A12200	C5A60400	C5ABE000	C5B1BC00	C5B79800	C5BD7400	C5C35000
(1240)	C5CA2C00	C5D0FC00	C5D7D200	C5DEA800	C5E57E00	C6118C30	C614C080	C6181BE0	C61B5030	C61E8480
(1280)	C6249F00	C62AB980	C630D400	C636EE80	C63D0900	C6445C00	C64BAF00	C6530200	C65A5500	C661A800
(1320)	C66B6C00	C6753000	C67EF400	C6888800	C6927C00	C6A037A0	C6ADF340	C6BA2840	C6C7E3E0	C6D59F80
(1360)	C6E66860	C6F73140	C7107FA2	C7118C30	C71298BE	C713A54C	C714B1DA	C715BE68	C716CAF6	C717D784
(1400)	C7192D50	C71A831C	C71BD8E8	C71D2EB4	C71E8480	C71FDA4C	C7213018	C72285E4	C723DBB0	C725317C
(1440)	C72719C4	C729020C	C72AEA54	C72CD29C	C72EBAE4	C730D400	C732ED1C	C7350638	C7371F54	C7393870
(1480)	C73BE408	C73E8FA0	C7413B38	C743E6D0	C7469268	C74A0150	C74D7038	C750DF20	C7544E08	C757BCF0
(1520)	C75B8D80	C75F5E10	45124F80	45155CC0	45186A00	4519A280	451ADB00	451C1380	451D4C00	451E8480
(1560)	451FB880	45217280	4522E980	45246080	4525D780	45278D00	45294280	452AF800	452CAD80	452E6300
(1600)	45309580	4532C800	4534FA80	45372D00	45395F80	453BD080	453E4180	45408280	45432380	45459480
(1640)	4548C100	454BED80	454F1A00	45524680	45557300	45595B00	455D4300	45612B00	45651300	4568FB00
(1680)	456C6000	4571C500	45762A00	457A8F00	457EF400	4583D600	4588E800	458D9A00	45927C00	45975E00
(1720)	459D3A00	45A31600	45A8F200	45AECE00	45B4AA00	45B98C00	45BE6E00	45C35000	45C83200	45CD1400
(1760)	45D75500	45E19600	45EBD700	45F69500	46100590	46150EA0	461A17B0	461F20C0	462429D0	462932E0
(1800)	463C37C0	46373CA0	463E4180	46454660	464C4B40	46543A80	465C29C0	46641900	466C0840	4673F780
(1840)	467E57C0	4688B800	46931840	469D2A60	46A7D8C0	46B59460	46C35000	46D10BA0	46DEC740	46EC82E0
(1880)	46FD4BC0	4710E14A	4711EDD8	4712FA66	471406F4	47155CC0	4716B28C	47180858	47195E24	471AB3F0
(1920)	471BF152	471D2EB4	471E8480	471FF2B6	472160EC	4722E78C	47249F00	47265674	47280DE8	4729F630
(1960)	472EDE78	472DC6C0	472FAF08	47319750	47337F98	4735C988	47381378	473A5D68	473CA758	473EF148
(2000)	4741FE88	47450BC8	47481908	474B2648	474E3388	4751A270	47551158	47588040	475BEF28	475F5E10
(2040)	423BCCCC	425A06E9	42769999	42944CCC	42B46B85	42D7F0A3	42FFBD70	4312CB5C	4315FDC2	4319A400
(2080)	431DD214	43229E3D	43282214	432E7AE1	4335CA8F	433E37D7	422BC5A1	424BD439	42683851	4284F851
(2120)	42A39EB8	42C53851	42EAA8F5	43114CF5	431449EB	4317B199	431B968F	43200DC2	43252EE1	432B1547
(2160)	4331E07A	4339B4A3	4342BB33	422E0E97	42328106	4236BB22	423ACB02	423EB999	42428E97	42464ED9
(2200)	4249FEF9	424DA24D	42513BE7	4254C0D2	42585A1C	425BE2D0	425F6978	4262EF1A	426675C2	4269FD70
(2240)	426D851E	427111EB	4274A3D7	42783AE1	427BD47A	427F7851	42831EB8	4286CF5C	428A87AE	428E47AE
(2280)	429211EB	4295E666	4299C51E	429DAB85	42A19EB8	42A59EB8	42A9A8F5	42ADC28F	42B1E666	42B6170A

(15520)	C6D3E3F1	0050013B	00000002	00060194	4313A005	FE13A835	4349A005	FE13A835	E2C3C5E3	413D70A4
(15560)	88260016	00010002	6A6A0000	FFFEFFFE	00040000	00000000	40404040	40404040	00000000	00000000
(15600)	00000000	00000000	00000000	00000000	000C0000	00000000	0000C000	00010010	00000001	0015008A
(15640)	000F0006	00000000	00000007	4118F5C2	C05C2C75	C02C5ED8	4010A3A9	4067CBDD	4067A440	3F359D83
(15680)	3F2E6F37	3F426AF8	00000010	C01478C2	40F5C28F	47BF71C0	4488DBA3	3E285EF0	3D7FBD06	3D194ACA
(15720)	3DB98DDC	3E10B8B5	3D585298	3D602640	3DD0287A	3D806ED3	3CCAE74C	3D14BD19	3D435C93	3D35E219
(15760)	3D37731E	3D37135D	3C7DAE02	00000000	00000000	CC000000	00000000	00000000	00000000	00000000
(15800)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(15840)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(15880)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(15920)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(15960)	4349A006	34EEB574	4349A006	34EEB574	4241A460	421A5827	4182675A	C1EB8660	C14F96D1	C127F3D0
(16000)	42473306	4168F60B	42257000	40C9FC8F	C09A86F4	401D4E19	40174666	C011CE65	C0FE5131	409B8CB9
(16040)	40C852E5	00000000	C01F4B22	C0BD6F56	C0A55357	C03DDF68	C09FC9A1	40BE32F7	C0F66E78	40402CA1
(16080)	C01A4086	BFF8D893	C02DAB1F	C0FB69BB	40F6451F	C045DC85	BF28B6EA	C04427D8	C0F2030E	40302D5B
(16120)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(16160)	00270053	0086008D	009D00C6	00FF00FF	00FF00FF	C0FF00FF	0000004A	0083008C		

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FILE 1 RECORD 2222 LENGTH 9188BYTES

(0)	23E40000	08E40000	D3C6D440	C7E260F3	C6D3E3F1	0050013B	00160007	002F004D	4313EEC0	CF437FC1
(40)	4349EEC0	CF437FC1	E2C3C5E3	42300000	88B9003A	00010000	88A0C000	30643054	00010000	00000000
(80)	40404040	40404040	00000000	00000000	00000000	00000000	0000C000	00000000	00000000	00000000
(120)	00000000	00500028	00100008	68420218	412C57D8	412BFFE7	C23C347E	42E0C525	C09A6FD0	4125653B
(160)	41151492	4051A464	401EC792	40135B15	00000005	412B89A1	412C82D8	412E19B6	412B7CDD	412CCEA3
(200)	41288134	412C70E5	412DE9CB	412B51BA	412C899E	C239FE3C	C23C006E	C23BB26B	C2397E6D	C23E1D74
(240)	42E9748E	42DDDFEB	42DAAAC0	42CD818B	42F6B68C	C0BF2B7C	C08AE886	C07C157C	C0231398	C111B221
(280)	412302CC	41262517	4127C9AD	4126C8B2	41233FE6	4116E4DF	4115171D	41158F3F	41132BF7	4114AFAA
(320)	4018D786	3FC7A217	3F8E9422	40108DA7	4028777F	40156253	40419A38	3FE7DED7	3F8868A0	403B150D
(360)	3FD8B6EB	3FE40487	4049A3DB	401CB777	401924A3	00000005	00000005	00000005	00000005	00000005
(400)	412C5BC6	412BB9F6	412C1C1C	412B1CF5	412A7607	412A8297	412A6168	412D610A	412E7BA8	412DE184
(440)	412CCB82	412E6F76	412EF741	412EE7A6	412D84A4	412C9BAD	412B7E8C	412A65FB	412B9CE2	412B6A6D
(480)	412ACDF4	412B0FF3	412DB795	412F1644	412D9760	412C57F3	412BB613	412C11FB	412B1B41	412A74EB
(520)	412A8153	412A5A64	41205BCF	412E78A8	412DDE10	412CC6D8	412E6D9B	412EF173	412ED6DD	412D83D7
(560)	412C9A17	412B7DBC	412A551F	412B9B88	412B67DF	412AB9E7	412AFF52	412DB45D	412F0586	412D961E
(600)	C23AFD28	C23B7198	C239C23D	C2385EC5	C23916AA	C237867E	C23BDB80	C23F65D7	C23D279F	C23B784C
(640)	C23BAB97	C23EE98A	C23CABE9	C23A6C24	C23738E7	C236E47C	C2372AB2	C238712C	C23BD191	C23BC7AA
(680)	C23D15D8	C23E9EDF	C23DAF56	C23C0D21	C23E0EA0	42E66819	42ED74D1	42EE31FA	42E7A144	42E5AEC3
(720)	42E28679	42E1D41E	42DE07C0	42D9D0FF	42D93B86	42DEC973	42E6B530	42DEB599	42D79F43	42CC80EF
(760)	42C7DBC0	42C52222	42C8746D	42D72793	42D9784B	42E45E18	4310029B	4310A1E5	42F4BBF3	42EE450B
(800)	C0B4A6AD	C0DC0080	C0DD4FE1	C0AC78F4	C0A16981	C087F987	C09813DB	C0A153A2	C081E7A0	C072520F
(840)	C08F3B69	C0D07545	C09B9991	C064D90C	BFC484DA	3FEBDA68	4018E9F1	BF1F6C51	C064E815	C0702AB5
(880)	C0AD7968	C1140C40	C118931E	C111C8FD	C0F3AB4F	41248084	41230EAD	41229FDA	41226C47	4122727B
(920)	41227868	4123C3D7	4127CABF	4128CA98	4127E7DA	41263313	412761B9	412858AA	4128B1E0	4128510D
(960)	4128101D	412779DD	41264D13	41264AFB	4125C974	41240933	4120F50B	412142A6	4124B54C	4125494E
(1000)	411680F8	411631BF	41177EB1	411799F6	4116ACFD	41175F4B	41149943	41134BC8	4114BAD0	4115746D
(1040)	411593FC	4114DAB9	4115F003	41165194	41151BEF	411394E8	41122F60	4112077A	4113E319	41142CFC
(1080)	41143BB9	4112FDD2	41137611	41176491	41155A27	3F9D9E0A	3FF71443	3F84F620	3F8BCE7B	3FD6381A
(1120)	3FB62660	3FD573D9	401AC3ED	3F56CCA5	3F3908F0	3F31620D	3FCB09BC	3F4969B4	3F86D879	3F3BE3F5
(1160)	3F4BE860	3F83A903	3F56A767	3FEE70F7	3FE834E9	3FE3DCD0	3FB8A159	40157593	3FE932AF	3F4135B5
(1200)	3F82DE16	3FEAE98A	3F67E391	3FBC5F68	3FC765BD	401A8B7A	401AD783	3F6A11E7	3F5B05D3	3F7BA139
(1240)	3F4B0776	3FE188F3	40127155	3F75B9BA	3FD706DE	3F5495C8	3FEAC93F	3FE204D3	3FE68A85	3FB18E84
(1280)	3F7E614F	3F436411	3F9D4F74	3F46D07A	3F5F8E42	3F710728	3F781431	40120BA2	4020B49E	3FC01C49
(1320)	3F7001FB	3F7EE788	3F57109D	3F6BE905	3FCEA3EC	3F726CEB	402251F4	40169CEA	3F716231	401F9CF7
(1360)	4014D28B	4015E950	4012E198	3F73A541	40140733	401F6863	4015F8B1	3F70D24D	3F9DAE75	3F6007FB
(1400)	00000020	00000020	00000020	00000020	00000020	00000020	00000020	00000020	00000020	00000020
(1440)	00000020	00000020	00000020	00000020	00000020	00000020	00000020	00000020	00000020	00000020
(1480)	00000020	00000020	00000020	00000020	00000020	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)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(1640)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(1680)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(1720)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(1760)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(1800)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(1840)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000

D-61730
November 14, 1980 -
November 18, 1980

TAPE OF TAPE DOUTS

INPUT TAPE DOUTS ON TAU
DATA INPUT [illegible] 1 1 84 , LAST 1

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY PERM	ZERO B	SHORT	UNDEF.	INPUT RETRIES #RECS.	TOTAL#
	1	1	80	0	0	0	0	0	0

1980 004319

FILE 0 RECORD 1 LENGTH 1920 BYTES

(0)	47000000	01540000	C8C4D9F1	C7E240F3	C4D5E3F1	02200E3F	0016C009	0017004D	00000078	00000012
(40)	40D1C1D5	00000012	C3D9E4C9	E2C54040	D3F14040	00000000	00000000	00080000	00000000	
(80)	C3D1D6C1	F0F1D5C4	C8C5D5C3	C6C6C6C6	C6C6C6C6	00000000	00000000	C0000000	00000000	
(120)	00000000	00000000	00000000	00010044	F1F3F0F6	F6C74040	D5D6D5C5	40404040	D5D6D5C5	40404040
(160)	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040
(200)	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040
(240)	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040	D5D6D5C5	40404040
(280)	01010100	00000000	01000000	00000000	00010001	01000000	00000000	00000000	00010100	00000000
(320)	00000000	00000000	00700200	00000000	00000000	00000000	00000000	00000000	00010001	01000000
(360)	01000100	00000000	00000000	00010000	40404040	40404040	40404040	40404040	40404040	40404040
(400)	00000000	00000000	10840000	C8C4D9F3	00000000	00000000	0050013F	00160009	0017004D	00000000
(440)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	000A0000
(480)	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(520)	00000000	00000000	00000000	00000000	00020400	00060000	00000000	00000000	00000000	00000000
(560)	00000001	00000000	0004FFFE	43A157AE	439804F8	43AD2C28	43C15333	43D4DB0A	43E8C385	43FAF8F5
(600)	44100D0F	44100299	44178040	44147DF3	4417A87A	4416E4DE	44182607	44196F19	441ABE54	43A04147
(640)	43F141EB	4413DD21	4418D694	441E381C	44242B07	442AD54C	44325DE6	443AEEE5	4444B6CC	444FEA66
(680)	44[illegible]	44[illegible]	44[illegible]	44[illegible]	44[illegible]	4317D4CC	4315C4CC	43148999	4313C4CC	43134833
(720)	43[illegible]	43[illegible]	43[illegible]	4312F6A6	43181E36	4313E666	4313CCCC	4313F000	43144E66	43148999
(760)	43182E66	4358E000	434C2000	434D0000	43522000	435A1000	43645000	4370F000	43802000	43920000
(800)	43A1C000	43AF7000	43BFC000	43FD0000	44123000	4414F800	44183000	41199E81	4116ED91	411553F7
(840)	411420C4	41138937	4112F9DB	41128B43	41123126	4111EB85	4111B22D	41117CED	411153F7	41113333
(880)	4111126E	4110F5C2	4110E147	00000000	00000000	00000000	00000000	41100000	41100000	41100000
(920)	41[illegible]	41[illegible]	41[illegible]	41[illegible]	41100000	41100000	41100000	41100000	41100000	3F28F5C2
(960)	00[illegible]	00[illegible]	461[illegible]	4616FFC0	00000025	00030007	3F3A92A3	3F3A92A3	41100000	41100000
(1000)	41599999	41219999	41100000	42230000	C5186A00	C519A280	C51A9C80	C51B5800	C51C5200	C51D4C00
(1040)	C51[illegible]	C51[illegible]	C51[illegible]	C5213400	C5226E00	C5236680	C5249F00	C5271000	C52B4880	
(1080)	C5[illegible]	C5[illegible]	C51[illegible]	C52D8A80	C52E6300	C5301880	C5310F00	C5338380	C5353900	C536EE80
(1120)	C5399E00	C53C4D80	C53EFD00	C541AC80	C5445C00	C5484400	C54C2C00	C5501400	C553FC00	C557E400
(1160)	C5[illegible]	C5[illegible]	C5[illegible]	C56A6C00	C5704E00	C5762A00	C57C0600	C5815200	C587BE00	C58D9A00
(1200)	C59[illegible]	C59[illegible]	C59[illegible]	C5A12E00	C5A69400	C5AFF000	C5B1B000	C5B79800	C5BD7400	C5C35000
(1240)	C5CA2600	C5D0FC00	C5D7D200	C5DEA800	C5E57E00	C6118C30	C614C080	C6181BE0	C61B5030	C61E8480
(1280)	C6[illegible]	C6[illegible]	C6[illegible]	C636EE80	C63CC900	C644B000	C648AF00	C65B0200	C665A500	C661A800
(1320)	C6[illegible]	C6[illegible]	C6[illegible]	C6883800	C6927C00	C6A037A0	C6ADF340	C6BA2840	C6C7E3E0	C6D59F80
(1360)	C6E66860	C6F73140	C7107FA2	C7118C30	C71298BE	C713A54C	C714B1DA	C715BE68	C716CAF6	C717D784
(1400)	C71[illegible]	C71[illegible]	C71[illegible]	C71D8EF4	C71E8460	C71FDA4C	C7213018	C72285E4	C723DBB0	C7253170
(1440)	C7[illegible]	C7[illegible]	C7[illegible]	C7288A74	C7289280	C73ED400	C73EED10	C7350638	C7371F54	C7393870
(1480)	C73E8408	C73E8FA0	C7413B38	C743E6D0	C7469268	C74A0150	C74D7038	C750DF20	C7544E08	C757BCF0
(1520)	C7[illegible]	C7[illegible]	4[illegible]	4[illegible]	4[illegible]	4819A280	481AD800	481C1380	481D4C00	481E8480
(1560)	47[illegible]	4[illegible]	4[illegible]	4[illegible]	4[illegible]	4827BCC0	48294280	482AF800	482CAD80	482E6300
(1600)	48309880	4832C800	4834FA80	48372D00	48395F80	483BD080	483E4180	4840B280	48432380	48459480
(1640)	4847C1C0	484[illegible]	48[illegible]	48[illegible]	48[illegible]	48[illegible]	48[illegible]	48[illegible]	4868FBC0	
(1680)	4[illegible]	4[illegible]	4[illegible]	487A8F00	487EF400	4883D900	48888E00	488D9A00	48927C00	48975E00
(1720)	489D3A00	48A31600	48A8F200	48AECE00	48B4AA00	48B98C00	48BE6E00	48C35000	48C83200	48CD1400
(1760)	48D72600	48[illegible]	48[illegible]	48F69C00	4810053C	4813DEA0	4817B780	481F2DC0	48242D00	48293200
(1800)	48[illegible]	48[illegible]	48[illegible]	484[illegible]	484[illegible]	48543A80	48593C80	485E3E80	48643080	486E3480
(1840)	487E57C0	48888BC0	48931840	489D2A60	48A7D8C0	48B59460	48C35000	48D10BA0	48DEC740	48EC82E0
(1880)	48FD48C0	4710E14A	4711EDD8	4712FA66	471406F4	47155CC0	4716B28C	47180858	47195E24	471AB3F0
(1920)	471[illegible]	471[illegible]	471[illegible]	471FF2B8	47210C4C	4722E78C	47249F00	47265674	4728CDE8	4729F630
(1960)	472DD578	472DCAC0	472FAF08	47319750	47337F98	4735C988	47381378	473A5D68	473CA758	473EF148
(2000)	474[illegible]	474[illegible]	47[illegible]	474[illegible]	474[illegible]	4751B270	475F1150	47588040	475BEF28	475F5E10
(2040)	47[illegible]	47[illegible]	47[illegible]	42[illegible]	42[illegible]	42D7F0A3	42FF8D70	4312CE3C	4315FDC2	4319A400
(2080)	431DD214	43229E3D	43282214	432E7AE1	4335CA8F	433E37D7	422BC5A1	424BD439	42683851	4284F851
(2120)	42[illegible]	42[illegible]	42[illegible]	47114CF5	43144BD[illegible]	4317[illegible]	431[illegible]	43[illegible]	432B2EE1	432B1547

(18000)	[illegible]	[illegible]	00100000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
(18040)	00000000	3F13985E	3EE4A1CE	3EF1586C	00000190	3F944B71	402DFAFE	3F10F183	402EEACF	4349F006
(18080)	[illegible]	[illegible]	[illegible]	CC173DED	C026E0AF	40137100	00000000	00000000	00000000	42314AA5
(18120)	[illegible]	[illegible]	[illegible]	40EABAFC	4064F860	3F6AF930	4064FFA5	C0EB3F28	C0FF792C	4010F387
(18160)	00000000	40165187	40A0854D	40C62023	3F0DD779	C0C75459	409FF548	40FE9D3C	BF3745BA	C01A602C
(18200)	[illegible]	C0A5BF14	4034E218	C0E3EC7F	C0471A96	405CED00	C015BBEF	C0AD5F10	C0BB1954	

FILE 2 RECORD 1803 LENGTH 15292BYTES

1980 323

(0)	3FBC0000	04240000	D3404040	C7E260F3	C6D3E3F1	00500143	00160037	0017029D	43142F48	3BB5B585
(40)	40400F48	38B5B585	E2C3C5E3	413D70A4	8932003A	00010002	2F2F0000	02F00000	C0050000	77777777
(80)	40404040	40404040	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(120)	77777777	00040010	00000001	5497008B	00853706	000A000A	00090010	41247AE0	4013C869	408B61EB
(160)	3F..8437	40804003	4080C006	3F301413	3F2FEE04	3F291F00	00000010	C0147F19	40F5C28F	41400000
(200)	41300000	41400000	41100000	4017649C	40174C95	40164ED9	3E27112B	4319C302	43198858	431640D3
(240)	433377D7	41EF0492	4239DA20	431A1FEA	431AEB04	41E409E8	4256A738	4235468C	4239B571	4223061F
(280)	00000000	40170000	40FFD2B3	4231A64E	41100000	FB9C2CC7	4231B76C	42337831	4225F996	00000000
(320)	C2100465	3E381D8E	41B87121	42565213	43196499	40164B36	42240D3C	41B9E620	7FFFFFFF	7FFFFFFF
(360)	7FFFFFFF	7FFFFFFF	7FFFFFFF	7FFFFFFF	7FFFFFFF	7FFFFFFF	7FFFFFFF	41B87121	42565213	43196499
(400)	40164B36	4224AD21	4210EB64	7FFFFFFF	7FFFFFFF	7FFFFFFF	7FFFFFFF	7FFFFFFF	7FFFFFFF	7FFFFFFF
(440)	7FFFFFFF	7FFFFFFF	7FFFFFFF	7FFFFFFF	7FFFFFFF	41286F63	7FFFFFFF	41500000	41100000	41600000
(480)	41500000	41600000	41100000	40FCF635	40FC5178	40F70180	4017AC8D	4017A39D	40170CE0	C052260F
(520)	C05..E8B	C0238040	4286E295	42722276	C31830FE	431AEB02	C23FFD0E	C2252D38	42A0CCFF	426F937D
(560)	C316E88B	4319F840	C23DE622	C222C185	7FFFFFFF	7FFFFFFF	7FFFFFFF	7FFFFFFF	7FFFFFFF	7FFFFFFF
(600)	7FFFFFFF	7FFFFFFF	7FFFFFFF	7FFFFFFF	7FFFFFFF	7FFFFFFF	7FFFFFFF	7FFFFFFF	41700000	7FFFFFFF
(640)	7FFFFFFF	7FFFFFFF	7FFFFFFF	C0492FEB	C033F1FD	40430B54	4230AB5E	77777777	77777777	77777777
(680)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(720)	77777777	77777777	77777777	77777777	434A2F47	111F0C34	434A2F49	57A9DB48	C2398EE1	C26E8680
(760)	423AF6EA	00000000	00000000	00000000	4289DC65	4219542E	42E87000	C08295FF	40BF08E7	406D7E91
(800)	C03DCA55	405A6438	C0E766F6	C0D35772	C0907792	00000000	3FA71A55	40F63097	40456882	4018D5A4
(840)	C04.....	40F4F4AF	40F49413	BF3429FA	C01AB542	407A1753	C0B34C11	4087F31A	C0DFDE7A	C0513B8E
(880)	407..E..	C01EA.0.	C0A5AD.9	C0C088DA	77777777	77777777	77777777	77777777	77777777	77777777
(920)	77777777	77777777	77777777	77777777	00000000	000A004D	00000000	0033002C	009400D3	005C008D
(960)	00.4.00.	00..005A	00000000	00000000	00100000	00480000	00A10001	0046008F	00600042	00560069
(1000)	00230000	00000027	0000002C	00560065	00D00071	007A006D	003A0044	0032003A	00000000	001A0040
(1040)	00000000	00210000	0000003A	002B0000	00350040	004AC066	02AC0000	C5F24040	C7E260F3	C6D3E3F1
(1080)	00500143	00160037	00..0276	43142F49	21D1DEB1	434A2F49	21D1DEB1	E2C3C5E3	413D70A4	8932003A
(1120)	0001000.	2FAF0000	FFFFFFFF	00000000	77777777	40404040	40404040	77777777	77777777	77777777
(1160)	77777777	77777777	77777777	77777777	77777777	77777777	00010010	00000001	5498008A	00213706
(1200)	00010000	00000005	41..811D	3FF5ED40	408A1B83	3FC30630	408B9C2C	408B8918	3F3E007B	3F24DDBC
(1240)	3F29.40.	00000010	40291087	40F5C28F	48106EFF	45C96F60	3F15D98C	3EA3F23C	3E55C059	3E222090
(1280)	3C9B523D	3C12997A	3BDF31D4	3C17EBC6	3B7D7BFC	3B5E18AD	3C576095	3C34CB6A	3C1298DA	3C2C19AA
(1320)	3C2.8...	3C49F455	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(1360)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(1400)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(1440)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777
(1480)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	434A2F47
(1520)	111F0C34	434A2F49	57A9DB48	C2398EE1	C26E8680	423AF6EA	00000000	00000000	00000000	4289DC65
(1560)	4019B400	42E87000	C0821783	40BF5F16	406D7EA0	C03D8E87	405A8D8E	C0E766EF	C0D3B6D0	C08FEBAB
(1600)	00000000	3FA84169	40F6011.5	40460B34	4018D6A8	C046C058	40F4C573	40FE9337	BF342572	C01AC67B
(1640)	407A1BE5	C0B34C90	4087EE58	C0DFDB5C	C0513C2A	405DF0F9	C016A932	C0A3AC32	C0C388D7	77777777
(1680)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	77777777	00440000
(1720)	00010000	00330000	00000017	00000000	0055004D	0058005B	00610076	08E40000	D3C6D440	C7E260F3
(1760)	C6D3E3F1	00500143	00160036	00360095	43142F47	1220EB71	434A2F47	1220EB71	E2C3C5E3	42300000
(1800)	89320038	00017777	38400000	30643054	00010000	77777777	40404040	40404040	77777777	77777777
(1840)	77777777	77777777	77777777	77777777	77777777	77777777	77777777	00500028	00100008	54990218
(1880)	408C5EDC	408C4435	41692E98	4315EB9C	C0501576	C037A989	C064D81C	3F378689	3F124FAA	3F31EAE3
(1920)	00000000	408CD408	40803006	408C11A3	408FEDCC	408BA5AC	408CDDFF	408D6C5D	408C0D18	408FECE7
(1960)	4161A31.	4178BF13	41703B46	4172FB1E	4138941D	41520D25	431613B9	431600BF	4315E865	4315006B
(2000)	4316C073	C04B4BDC	C040A739	C04F84A9	C0538F60	C0546A40	C037B826	C03B87EC	C0390233	C036FA26
(2040)	C03EE353	C06B28F3	C0A7B306	C0643430	C061D940	C0614EB3	3EE35C9B	3F11E88C	3F16B818	3EF8FA12
(2080)	3EE1364	3EAD..9A	3F1..EF3	3F139C1E	3E9DD355	3EAA1B64	3EC76764	3E63F73E	3F18218C	3E985AD5
(2120)	35A86F31	00000005	00000005	00000005	00000005	00000005	408D2868	408D1730	408E3F08	408BE398
(2160)	408.16..	408.0.28	408C4480	408D3060	408F0708	408DA870	408C3E10	408B4E08	408C1038	408BDBF0
(2200)	408.40F.	408.0198	408FD40	408BEF30	408C85B8	408B60D0	408BA448	408BD318	408BDA58	408C7F80
(2240)	408AD1D8	408D1CC7	408D072D	408E2D93	408BCC45	408C0679	408C1A09	408CA1AF	408CF5EB	408FC4A3
(2280)	408DAA0A	408C0.00	408.8800	408BF548	408.CF8F	408D01F2	408F5719	408CA95D	408BD0D2	408C2233