

#414

Earth Sc

NIMBUS-4

TOTAL OZONE CONTENT

70-025A-05C

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1. INTRODUCTION:

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 This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system.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

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

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

2. ERRATA/CHANGE LOG:

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

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

Version	Date	Person	Page	Description of Change
01				
02				

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

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

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

4. CATALOG MATERIALS:

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

- b. Core Catalog Materials

REQ. AGENT
DEW

RAND NO.
RD3217

ACQ. AGENT
BCD

NIMBUS-4

TOTAL OZONE CONTENT

70-025A-05C

This data set consists of 4 Total ozone content data tapes. The tapes are 1600 BPI, Binary, 9 track and contains 3 to 4 files of data. The tapes were created on the IBM 360 computer.

<u>D#</u>	<u>C#</u>	<u>FILES</u>	<u>TIME SPAN</u>
D-32701	C-20265	4	1/01/72 - 12/07/73
D-35172	C-20799	3	4/10/70 - 12/31/70
D-30906	C-19721	4	1/11/74 - 5/06/77
D-34037	C-20665	4	1/01/71 - 12/31/71

TAPE FORMATS AND DESCRIPTIONS TO ACCOMPANY THE
TOTAL OZONE TAPES (DTOZ AND CTOZ)
FOR THE NIMBUS 4 BACKSCATTER ULTRAVIOLET EXPERIMENT

(RELEASE II)

OZONE PROCESSING TEAM

NOVEMBER 1979

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I. INTRODUCTION

This brief document contains the tape formats and descriptions of the tape contents for the release II detailed total ozone tapes (DTOZ) and the compressed total ozone tapes (CTOZ). There have been several changes made to the CTOZ and DTOZ data record formats and to the DTOZ trailer record format. User's of the original data set should be aware that these formats are different and should use the formats given in this document for the release II tapes.

The release II data set represents a cleaner ozone data set. In the course of our investigations into the quality of the data set we discovered an instrument related problem that was related to the performance of the spectrometer cam. Fortunately, we were able to identify scans which were affected by this problem and delete them from the data set.

The frequency of the cam problem was low in the first year of operation affecting less than 0.2% of the scan. However, the frequency of error due to the cam problem increased with time such that in 1977 almost 33% of the scans were affected and discarded.

We will describe in more detail at a later time the differences between releases I and II and will not go into detail here in order to expedite the release of this data set however, our analysis shows very little difference in the weekly zonal ozone averages even in later years despite the large data rejection.

II. THE DETAILED TOTAL OZONE TAPE

The Detailed Total Ozone (DTOZ) tape contains the total ozone data calculated from the calibrated backscattered ultraviolet radiances on the U-tape. Data for 7 years of the satellite's operation, covering the period April 10, 1970 to May 5, 1977 is stored on 15 tapes, each contains 3 months to 1 year's worth of data. A single file on the DTOZ tape contains data from one or more orbits.

A DTOZ tape, is made up of a header file, a number of data files and a trailer file. The data file contains a header record, a number of data records (one for each scan of data) and a trailer record. The header file is the first file of a tape and contains tape identification information. The format of the header file records is presented in Table 2.1. The header record, which is the first record of a data file, contains information required to identify the orbit data on that file. The format of the header record is described in 2.2.

A data record, described below, contains the measurements and position during one scan. Table 2.3 describes the format of a data record. The last record on a data file is the trailer record which contains a summary of the data processed in the data file. The trailer record, described in Table 2.4 also contains an error summary for data rejected during the processing. The last file on a DTOZ tape is the trailer file, which contains a list of all the input tapes which were processed to generate the DTOZ tape. The format of the trailer file is described in Table 2.5.

The header file, the header record, the trailer record, and the trailer file are primarily used for data management by the production team and may not be of much use to an outside user of DTOZ tape. Hence, these records will not be described in any detail.

The data record contains one complete 12-wavelength scan of the BUV monochromator spanning 32 seconds. The first word is the logical sequence number within the file of the scan in question. Logical sequence number of a data record always starts with two, since one is the logical sequence number of the header record. The logical sequence number of a particular record on the DTOZ tape may be different from the logical sequence number of the same record on the U-tape. This is because scans are rejected in the total ozone computation if the data is during twilight or nighttime, if the solar zenith angle is larger than 82.7° (sun near the horizon), if "bad" data is found or if a calibration procedure occurred during the scan. Words 2 through 6 of the DTOZ data record are self explanatory and are copied unaltered from the U-tape data record. Words 7,8, and 9 contain the latitude, longitude (longitude convention: 0° to 360° WESTWARD) and

the solar zenith angle given as average values for the satellite during the time of the four monochromator readings used to compute the total ozone. Words 10, 11, and 12 contain the same averages during the time the eight monochromator readings used to calculate the ozone profile were taken.

Words 13 and 14 contain resistor flags for each of the 12 monochromator wavelength positions; likewise, words 15 and 16 contain the resistor flags for the photometer channel at the same times. The meaning of these flags is given in Table 2.3a. Because the backscattered radiance decreases rapidly with decreasing wavelengths, the instrument increases gain by switching from feedback resistor and the resistor number used at each wavelength is given in the flag.

Words 17 through 28 contain the twelve monochromator U-values input from the U-tape. A U-value is a radiance in resolution units of the digitizer. In this instrument quantization error in the digitizer exceeds error due to photomultiplier noise in most cases. The instrument uses a logarithmic amplifier such that the U-value is defined as $U = 100 \log E$ where E the event rate is the photomultiplier cathode current divided by the electronic charge Q. A wavelength dependent calibration factor relates the cathode current to the radiance. The U-values recorded are exactly as they appear on the U-tape. Before being used to calculate total ozone, they are normalized to 1 A.U. sun-earth distance; the dark current is subtracted; and a scene stabilization correction factor designed to insure long term instrument calibration is applied. This corrected U-value is used to compute N values.

Words 29-40 contain the N-values for the 12 wavelength channels. The N-value is defined as

$$N = -100 \log (I/F_0)$$

where I is the backscattered radiance and F_0 is the extra-terrestrial solar irradiance.

Words 41-52 contain twelve photometer ($\lambda = 380.0$ nm) N-values measured simultaneously with the monochromator measurements to monitor scene change. These are used in the total ozone algorithm to calculate effective reflectivity.

The remaining elements of the array contain results of the total ozone computation. Total ozone Ω is computed using a pair of wavelengths, and since radiances at four wavelengths are available, two independent estimates of the total ozone can be made. The A wavelength pair is 312.5 nm and 331.2 nm; the B wavelength pair is 317.5 nm and 339.8 nm. The reflecting surface

in the field of view may be at atmospheric pressures other than sea level due to the presence of clouds and elevated terrain. Because of this, the A and B pair ozone values are computed for two surface pressures 1.0 atm and 0.4 atm. Consequently, four ozone and reflectivity sets are derived. The algorithm mixes these ozone amounts based on solar zenith angle and the effective reflectivity to obtain the recommended ozone value.

Words 53, 57, 61, and 65 are ozone termination flags for the four derived ozone values. If this flag is non-zero, no ozone retrieval was possible. This flag can assume the following values listed here along with the reason for setting the flag:

- 1 - N-value too small (i.e. less than 180 d.u.)
- 5 - N-value missing or negative
- 6 - Bad radiance due to cam position problem
- 9 - N-value too large, exceeds table range

This flag code applies to the unit digit normally, but in intermediate latitude zones the calculation is done for both latitude tables and the results are combined. In this case, the tens digit is as above and applies to the higher latitude computation. The hundreds digit is set to unity if the reflectivity calculated for the 339.8 monochromator channel causes too large a difference in total ozone from that calculated using the photometer reflectivity.

Words 54, 58, 62 and 66 are the derived values of the effective surface reflectivity. This quantity is not the true surface reflectivity for several reasons. Non-uniform cloud cover, non-Lambertian reflectivity, atmospheric haze and terrain elevation are among the functions which will affect this value.

Words 55, 59, 63, and 67 are the derived ozone values in atm-cm.

Words 56, 60, 64 and 68 are the slopes of the N-values curves, i.e. $dN/d\Omega$ where Ω is the total ozone. This quantity is a measure of the sensitivity of the N-value to total ozone.

Word 69 contains the terrain pressure. The terrain pressure is interpolated from tables based on the NOAA/NMC terrain height tape.

Word 70 is the difference between the reflectivity derived using the photometer channel and that derived using the 339.8 nm monochromator channel. This quantity is used by the algorithm as a gross check on the data quality.

The combined reflectivity, total ozone and sensitivity for the A and B pairs are given in words 71 through 76. The combination of the 0.4 and 1.0 atm values is based on a tea-mix rule which uses the 1.0 atm reflectivity as a determinant. Roughly speaking, this rule assigns the terrain pressure for low reflectivities and a nominal cloud top pressure - 0.4 atm for high reflectivities.

Word 79 is the error code for the recommended total ozone. The following situations are possible:

<u>FLAG</u>	<u>MEANING</u>
0	Good Scan
1	Solar zenith angle too large ($>85.7^\circ$)
2	All necessary ozone values not available
3	Sensitivity ($dN/d\Omega$) too low
4	$R_{3800} - R_{3398}$ exceeds 0.1
5	A and B pair ozone differ by more than 10%
6	Cam position error in one or more of total ozone channels

For error flags 1, 2, 3, 4, and 6, no recommended ozone value is computed. For error flag 5, the recommended ozone appears as a negative number.

Table 2.1

Header File of DTOZ Tape

(A) RECORD 1

<u>WORD</u>	<u>DESCRIPTION</u>	<u>TYPE</u>
1	SATELLITE ID (NIMBUS 4)	R*8 EBCDIC
2	EXPERIMENT ID (BUV)	R*8 EBCDIC
3	PROGRAM NAME (BUVALL)	R*8 EBCDIC
4	DATE OF PROGRAM VERSION (SEP 1977)	R*8 EBCDIC
5	VERSION NO. OF PROGRAM (VERSN 07)	R*8 EBCDIC
6	UNIQUE NO. OF OUTPUT TAPE	R*8 EBCDIC
7-10	DCB OF THE OUTPUT TAPE 4 WORDS (RECM=FB, LRECL=320, BLK=1600, DEN=1600)	R*8 EBCDIC
11-12	DAY OF WEEK AND DATE OF JOB RUN (THRU 20 OCT 77) TWO R*8 WORDS	R*8 EPCDIC
13	STARTING WEEK NUMBER OF DATA	R*8 EBCDIC
14	ENDING WEEK NUMBER OF DATA	R*8 EBCDIC
15	CALENDAR YEAR OF DATA (E.G. 70)	R*8 EBCDIC
REST	ANNOTATION (= 77777777)	R*8 EBCDIC

(B) RECORD 2

1	NUMBER OF FILES ON OUTPUT TAPE (-77.)	R*4
2	LOCAL SEQ. NO. (ALWAYS 2.)	R*4
3	START DAY OF FIRST ORBIT	R*4
4	START TIME OF FIRST ORBIT	R*4
5	LAT (-90. TO +90.) OF FIRST ORBIT	R*4
6	LONG. (0 to 360W) OF FIRST ORBIT	R*4
7-LAST	SPARES (= -77.)	

Tape Specification = RECFM = FB, LRECL = 320, BLKSIZE = 16000
Density = 1600 B.P.I. (Den = 3)

Table 2.2

Header Record of DTOZ Tape

<u>4-BYTE WORD</u>	<u>DESCRIPTION</u>	<u>TYPE</u>
1	LOGICAL SEQUENCE NUMBER (ALWAYS 1.0)	R*4
2	SPARE (0.0)	R*4
3-4	UNIQUE NO. OF INPUT TAPE	R*8 EBCDIC
5-8	DAY AND DATE OF THE JOB RUN TWO R*8 WORDS (E.G. TUE 18 JAN 77)	R*8 EBCDIC
9-10	JOB ID (E.G. ZMRKKALL)	R*8 EBCDIC
11	DAY OF THE BEGINNING OF THE FIRST GOOD SCAN OF THE FIRST ORBIT ON THE OUTPUT TAPE	R*4
12	TIME IN SECS. OF DAY FOR (11) ABOVE	R*4
13	LAT. (-90 TO +90°) AT (11) ABOVE	R*4
14	LONG. (0 TO 360°W) AT (11) ABOVE	R*4
15	WEEK NO. OF THE START OF THE ORBIT	R*4
16	ORBIT NO.	R*4
17-18	PROGRAM NAME (BUVALL)	R*8 EBCDIC
19-20	VERSION DATE (SEP 77)	R*8 EBCDIC
21-22	VERSION NO. (E.G. VERSN 07)	R*8 EBCDIC
23	β_0 , PHOTOMETER	R*4
24	β_0 , MONOCHROMATOR	R*4
25-26	DATE OF JOB RUN (E.G. 77.018)	R*8 EBCDIC
27-LAST	ANNOTATION = (-77.)	R*4

Table 2.3

DATA RECORD FORMAT OF DTOZ TAPE

<u>WORD</u>	<u>DESCRIPTION</u>
1	LOGICAL SEQUENCE NUMBER
2	ORBIT NUMBER OF THE DATA
3	DAY AT START OF SCAN
4	SECONDS OF THE DAY (UT)
5	SOLAR ZENITH ANGLE AT START OF SCAN
6	SOLAR ZENITH ANGLE AT END OF SCAN
7	LATITUDE (AVERAGE FOR TOTAL OZONE)
8	LONGITUDE (AVERAGE FOR TOTAL OZONE)
9	SOLAR ZENITH ANGLE (AVERAGE FOR TOTAL OZONE)
10	LATITUDE (AVERAGE FOR PROFILE COMPUTATION)
11	LONGITUDE (AVERAGE FOR PROFILE COMPUTATION)
12	SOLAR ZENITH ANGLE (AVERAGE FOR PROFILE COMPUTATION)
13	RESISTOR FLAG FOR MONOCHROMATOR 2555-2975 MEASUREMENTS #
14	RESISTOR FLAG FOR MONOCHROMATOR 3019-3398 MEASUREMENTS ##
15	RESISTOR FLAG FOR PHOTOMETER MEASUREMENT at 3800 ^o Å AT THE SAME TIME WORD 13 WAS TAKEN
16	SAME AS WORD 15 BUT AT THE TIME WORD 14 WAS TAKEN
17-28	12 MONOCHROMATOR U VALUES 2555-3398
29-40	12 MONOCHROMATOR N VALUES 255.5-339.8 NM
41-52	12 PHOTOMETER N VALUES 2555-3398
53	TERMINATION CODE FOR A-PAIR, 1.0 ATM. *
54	REFLECTIVITY FOR A PAIR, 1.0 ATM.
55	TOTAL OZONE FOR A PAIR, 1.0 ATM.
56	DNDX FOR A PAIR, 1.0 ATM.
57-60	SAME AS 53-56 FOR B PAIR, 1.0 ATM.
61-64	SAME AS 53-56 FOR A PAIR, 0.4 ATM.
65-68	SAME AS 53-56 FOR B PAIR, 0.4 ATM.
69	SURFACE PRESSURE
70	R3800-R3398 (RDIF)
71	COMBINED REFLECTIVITY FOR A PAIR
72	COMBINED TOTAL OZONE FOR A PAIR
73	DNA
74	COMBINED REFLECTIVITY FOR B PAIR
75	COMBINED TOTAL OZONE FOR B PAIR
76	DNB
77	RECOMMENDED REFLECTIVITY
78	RECOMMENDED TOTAL OZONE
79	COMBINATION CODE **
80	-77. SPARE

Table 2.3a

SIX DIGITS TO THE LEFT OF THE DECIMAL POINT ARE SIGNIFICANT
 E.G. $R_1 R_2 R_3 R_4 R_5 R_6 .0$.

WHERE R_1 - Resistors used for 255.5nm channel

R_2	"	273.5nm	"
R_3	"	283.0	"
R_4	"	287.6nm	"
R_5	"	292.2nm	"
R_6	"	297.5nm	"

##SIX DIGITS TO THE LEFT OF THE DECIMAL POINT ARE SIGNIFICANT

$R_7 R_8 R_9 R_{10} R_{11} R_{12} .0$.

WHERE R_7 - Resistors used for 301.9nm channel

R_8	"	305.8nm	"
R_9	"	312.5nm	"
R_{10}	"	317.3nm	"
R_{11}	"	331.2nm	"
R_{12}	"	339.8nm	"

Table 2.4

Trailer Record of DTOZ Tape

<u>4-BYTE WORD</u>	<u>DESCRIPTION</u>	<u>TYPE</u>
1	NEGATIVE OF LOG. SEQ. NO. (=N, WHERE N-2= NO. OF SCANS FOR THIS ORBIT)	R*4
2	ORBIT NO	R*4
3	DAY AT THE END OF THE LAST SCAN OF THE ORBIT	R*4
4	TIME IN SECS. OF DAY FOR 2	R*4
5	LAT. (-90.0 TO +90.0) AT (3) ABOVE	R*4
6	LONG. (0 TO 360.0) AT (3) ABOVE	R*4
7	NO. OF RECORDS (SCANS) READ	R*4
8	NO. OF BUVALL RECORDS (SCANS) WRITTEN	R*4
9-10	UNIQUE NO. OF THE INPUT TAPE	R*8
11	NO. OF SCAN READ FROM U TAPE	R*4
12	NO. OF GOOD BEST OZONE SCANS	R*4
13	NO. OF NEGATIVE BEST OZONE SCANS	R*4
14	NO. OF SCANS REJECTED	R*4
15	NO. OF NIGHT SCAN	R*4
16	NO. OF SCANS REJECTED FOR BAD U-VALUES	R*4
17	NO. OF MCSA SCANS	R*4
18	NO. OF SCANS WITH N VALUE TOO LOW	R*4
19	NO. OF SCANS WITH N VALUE TOO HIGH	R*4
20	NO. OF SCANS WITH PHOTOMETER AND MONOCHROMATOR REFLECTIVITY DIFFERENCE GREATER THAN LIMIT	R*4
21	NO. OF SCANS WITH BOTH PAIRS COMPLETE	R*4
22	NO. OF SCANS WITH A ONLY	R*4
23	NO. OF SCANS WITH B ONLY	R*4
24	NO. OF SCANS WITH NEITHER PAIR COMPLETE	R*4
25	NO. OF SCANS WITH A PAIR AND B PAIR OZONE DIFFERENCE GREATER THAN LIMIT	R*4
26	NO. OF SCANS REJECTED FOR SOLAR ZENITH ANGLE GREATER THAN 85.7	R*4
27	NO. OF SCANS WITH CAM MOTION IN TOTAL OZONE CHANNEL (S)	R*4
28-80	SPARE (BLANK FILLED WITH -77.)	R*4

Table 2.5

Trailer File of DTOZ Tape

<u>4-BYTE WORD</u>	<u>DESCRIPTION</u>	<u>TYPE</u>	
1	TRAILER FILE IDENTIFIER (ALWAYS -1.0)	R*4	
2	NO. OF FILES ON THE OUTPUT TAPE (INCLUDING HEADER FILE AND THE TRAILER FILE)	R*4	
3	DAY AT THE END OF THE LAST SCAN OF THE LAST ORBIT ON TAPE	R*4	
4	TIME IN SECS OF DAY FOR (3) ABOVE	R*4	
5	LAT. (-90.0 TO +90.0) AT (4) ABOVE	R*4	
6	LONG. (0.0 TO 360.0 W) AT (4) ABOVE	R*4	
7	NO. OF U-TAPE FILES READ	R*4	
8	SPARE (=0.0)	R*4	
9-10	UNIQUE NO. OF THE FIRST INPUT TAPE	R*8	EBCDIC
11-12	UNIQUE NO. OF THE SECOND INPUT TAPE	R*8	EBCDIC
13-(MM-2)	UNIQUE NO. OF THIRD - LAST INPUT TAPE	R*8	EBCDIC
(MM-1)-MM	= LAST, INDICATING THAT THERE ARE NO MORE INPUT TAPES	R*8	EBCDIC
(MM+1)-80	SPARES (= -77.)	R*4	

III. THE COMPRESSED TOTAL OZONE TAPE

The Compressed Total Ozone (CTOZ) tapes together represent an abridged version of the seven year set of DTOZ tapes. The CTOZ data record is only 20 words in length and the format is given in Table 3.1. There are no header or trailer files or records on this tape. The CTOZ are available in both 1600 BPI on 4 tapes and 6250 BPI on a single tape.

All the information on the CTOZ tape except for word 3 is also on the DTOZ tape. In table 3.1 the DTOZ word position corresponding to each CTOZ word is given in parenthesis. For a detailed description of each word we refer the user to the text in the previous section on the DTOZ tape.

Table 3.1

Data Record of CTOZ Tape

	20 (R*4) WORDS	<u>CORRESPONDING DOTZ LOCATION</u>
1	ERROR CODE FOR RECOMMENDED TOTAL OZONE	(79)
2	ORBIT NUMBER	(2)
3	YEAR	
4	DAY	(3)
5	SECONDS OF DAY (UT)	(4)
6	LATITUDE (AVERAGE FOR TOTAL OZONE)*	(7)
7	LONGITUDE (AVERAGE FOR TOTAL OZONE)**	(8)
8	SOLAR ZENITH ANGLE (AVERAGE FOR TOTAL OZONE)	(9)
9-12	MONOCHROMATOR N-VALUES 312.5-339.8	(37-40)
13-16	PHOTOMETER N-VALUES 312.5-339.8	(49-52)
17	A PAIR TOTAL OZONE	(72)
18	B PAIR TOTAL OZONE	(75)
19	RECOMMENDED REFLECTIVITY	(77)
20	RECOMMENDED TOTAL OZONE	(78)

The tape specifications for the Compressed Total Ozone tape (CTOZ) are:

RECFM = FB, LRECL = 80 bytes, BLKSIZE = 8000 bytes
 9 TRACK IBM 360 NL TAPE
 Available in both 1600 B.P.I. (Den = 3) and 6250
 B.P.I. (Den = 4)

*Latitude is +90 to -90°

** Longitude is 0 to 360° WESTWARD

IV. TAPE CATALOG

The entire DTOZ data set is contained in fifteen 1600 B.P.I. 9-track tapes, the tape specification of which is described in the footnote of Table 2.1. Each DTOZ tape contains three months to one year's worth of data, Table 4.1 contains a list of these tapes and describes the time coverage for each DTOZ tape. The number of files in each tape varies from about 254 files in 1977 to slightly over 1100 files for Oct. - Dec. 1971. When reading the tapes, a check for the presence of the trailer file (see word 1 of Table 2.5) should be made to ensure the end of data on the tape (likewise a check for the presence of a trailer record should be made for the end of each data file).

Since the CTOZ tapes is a stripped-down data set from the DTOZ, the entire CTOZ data set is contained in only four 1600 B.P.I. 9-track tapes with a total of 15 files each of which corresponds to one DTOZ tape coverage. Table 4.2 lists these tapes and describes the time coverage for each CTOZ tape and file. The tape specification for the CTOZ tapes is contained in Table 3.1.

TABLE 4.1: TAPE CATALOG FOR DTOZ TAPES

<u>TAPE #</u>	<u>TIME RANGE</u>
1	April - June 1970
2	July - September 1970
3	October - December 1970
4	January - March 1971
5	April - June 1971
6	July - September 1971
7	October - December 1971
8	January - March 1972
9	April - June 1972
10	July - December 1972
11	January - December 1973
12	January - December 1974
13	January - December 1975
14	January - December 1976
15	January - May 1977

TABLE 4.2: TAPE CATALOG FOR CTOZ TAPES

<u>TAPE #</u>	<u>FILE #</u>	<u>TIME RANGE</u>
1	1	April - June 1970
1	2	July - September 1970
1	3	October - December 1970
2	1	January - March 1971
2	2	April - June 1971
2	3	July - September 1971
2	4	October - December 1971
3	1	January - March 1972
3	2	April - June 1972
3	3	July - December 1972
3	4	January - December 1973
4	1	January - December 1974
4	2	January - December 1975
4	3	January - December 1976
4	4	January - May 1977

INPUT TAPE X-445 ON MT3
DATA INPUT H9 NF 4 FL 1 1 1 SR 4 1 1 SR 4 LAST 1

12/7/73
1/1/72 - ~~8/29/73~~
D 32701

FILE	1	RECORD	1	LENGTH	1972	2000BYTES
()			4421207F	437B4000	41100000	44143000
(4)	4256AA5	425A582	42543087	42557AD	42566720	42575DA0
(8)	4256899	42547E87	42516230	425DD70	42519667	42524F50
(12)	42522401	424F9B00	42400260	42408720	424004E0	42404020
(16)	42531E60	4251D447	4250DD70	42502470	424F20B0	424EB270
(20)	42409EAE	42473020	4242E160	4242E160	42439AA0	424491A0
(24)	42462107	42461530	424588E0	4244CF60	424453E0	42441620
(28)	42610DC	425F486	42658D20	426459A0	4262AB20	4260BEE0
(32)	42695BA1	42600D60	426E3160	426E6ED0	426E3160	426E6ED0
(36)	4266F9B7	42679411	42686FE0	426964B0	426A97F0	426BCB20
(40)	42647F1	42636860	4269A230	4268E9D0	42686EE0	42683170
(44)	425D622	425E19E0	425D2300	425E1A00	425F4D80	4260BEE0
(48)	4261210	425EC5A0	42649720	42641020	42632620	42623020
(52)	4265EF9	4264A400	426078A0	4266540	426A97F0	426A5A80
(56)	4267E48	42688FA0	426812E0	426008A0	426D3B00	426D3B00
(60)	42610090	4261B580	4261B510	4261F2A0	4262A920	426363A0
(64)	4259793	42596420	4256A4D0	425891B0	425A1340	42583740
(68)	4253DB1	425238B0	42572010	42553310	42543090	42534600
(72)	4265FF57	4265DD90	4267B600	42686FE	426964B0	4269DFA0
(76)	42610701	42617590	42610650	42618160	4261BEE0	426139F0
(80)	4261578	425F813	425E9520	425ED2A0	425ED2A0	425F8B40
(84)	42630C50	4262A830	42650AA0	42654FA0	4264D4A0	4263A120
(88)	42648620	4264A390	4268E9D0	42692740	4268E9D0	4267F3E0
(92)	41100000	442131A0	437B4000	41100000	44501000	4241E399
(96)	42F41EF7	420FF870	42001010	420F7030	42E130FF	42E3A060
(200)	41100000	442131A0	437B4000	41100000	44503000	42437F19
(204)	420F1E60	42011700	42070DEF0	42094570	42CA7E60	42CEB740
(208)	42070B5	4200704	42047600	42057110	42072850	4208A700
(212)	42070B5	4200704	42047600	42057110	42072850	4208A700
(216)	42070B5	4200704	42047600	42057110	42072850	4208A700
(220)	42070B5	4200704	42047600	42057110	42072850	4208A700
(224)	414	442131A0	437B4000	41100000	44509000	424823E

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(743)	42AD85	429E57C	4296DF37	42962800	4295EAE1	4294B983	42781FCF	424E7F0D	4310D4DB	42DF443D
(744)	415...	443558F3	437B5000	42130000	44EE5E...	4239C2D1	426202D0	4253C1D9	43117A7C	42EAC7BD
(748)	42AA158D	429DBE8D	429E063D	429D8C3D	429C5B3C	429BE12D	4D7AE49A	4D6B7197	4D8D956D	CD6B7197
(752)	...	443558F3	437B5000	42130000	44EE7E...	423B7412	42634574	42528992	43122B45	42F7816D
(756)	42B2E2C...	42A75336	42A3C29E	42A383AD	42A375D...	42A344CD	4D71F837	4D696E74	4D98AE41	47696E74
(760)	41133333	443558F3	437B5000	42130000	44EE9E...	423D2247	4264A636	425451D0	4312F8E2	43104FF3
(764)	42BAF31C	42AC364D	42AA25AD	42A9A7EC	42A92A3D	42A82EBD	C24D0000	C24D0000	C24D0000	C24D0000
(768)	411...	443558F3	437B5000	42130000	44EEBE...	423ECD38	42662AAE	42561B9E	4313F86C	43118F48
(772)	42CA1EDC	42B0352D	42B7E29D	42B62B44	42B4B2B...	42B3F66D	C24D0000	C24D0000	C24D0000	C24D0000
(776)	41100000	443558F3	437B5000	42130000	44FB9E0C	C242CF2E	4312C0D1	42590FA2	4315B831	431404CA
(780)	43118CF	42F5254...	42E1B3E...	42E3A19D	42E747F...	42E4EEE0	C24D0000	C24D0000	C24D0000	C24D0000
(784)	411...	443558F3	437B5000	42130000	44FBBE...	C24465E8	4312E471	42574843	43142316	43120D23
(788)	42DEEEDC	42D1B18D	42C3653D	42C4DD0D	42C6D21C	42C8C6FD	C24D0000	C24D0000	C24D0000	C24D0000
(792)	411...	443558F3	437B5000	42130000	44FBDE0D	C245F4F2	4313DD12	42558DDE	4312EADA	43109F8D
(796)	42CEAC	42BD227...	42B143DD	42B27DD0	42B3B7B...	42E5385D	C24D0000	C24D0000	C24D0000	C24D0000

Year 1973 DAY 341

FILE	4	RECORD	F73	LENGTH	576	BYTES				
(0)	00000000	44463D5E	437B5000	43155000	4513810D	423790C3	42B1ECC8	42509B9B	4310E71E	42E19B3D
(4)	42A7116	429D74E	429A56D5	429A17FD	4299104E	4298DD5D	405D3B5E	405A762D	4098E4B5	405A063D
(8)	...	44463D5E	437B5000	43155000	451383C1	42394469	42B3DDE2	42525AE8	431177B2	42ED1B0D
(12)	42AF5E0D	42A3F7FD	42A1F44D	42A3F8C0	42A13C2D	429FFD5D	405F5CAD	405A6AF3	40A2746E	405A6AF3
(16)	...	44463D5E	437B5000	43155000	451385C0	423AF5B3	42B4478D	425416E0	43125898	42FEC57D
(20)	42BD0E3...	42AF7DC...	42AFEF6E	42AEB5BD	42ACFE6D	42AC035D	40630F84	405D189B	4096D611	405D189B
(24)	41600000	444646CE	437B5000	43156000	44AFFC0D	423BCF34	42236916	4255990F	43132BC5	4310E863
(28)	42D6CAFD	42CAC33D	42C9A42D	42C8E89D	42C7716D	42C638BD	C24D0000	C33E700D	C24D0000	C33E700D
(32)	411...	444646CE	437B5000	43156000	44B11000	423D7C48	4224CFD7	42575B38	431451EA	4312315B
(36)	42E8665...	42D9227...	42D6D0BD	42D4DD6D	42D4221C	42D26D1D	C24D0000	C24D0000	C24D0000	C24D0000
(40)	41600000	444646CE	437B5000	43156000	44BD100D	C2431D4C	42EC4D25	4257AE34	43160DE6	43119739
(44)	42CEFF52	42BFFEB7	42B8D04D	42B84847	42B9819D	42BAF97D	C33E700D	C24D0000	C24D0000	C33E700D
(48)	411...	444646CE	437B5000	43156000	44BD3C7D	C244B3A9	42EE9566	4255EDBE	4312DB97	431067E6
(52)	42BD963D	42AF592D	42A79E6D	42A85ADD	42A9172D	42AA8FFD	C24D0000	C24D0000	C24D0000	C24D0000
(56)	00000000	444646CE	437B5000	43156000	44BD5C0D	C24641B9	42F13DA8	42542A66	431204E9	42F5C49D
(60)	42AF65F	42A2DD5...	429A5BE...	429B18AD	429C145D	429D8DBD	406BDD5E	406D865C	41109537	406D865C
(64)	00000000	444646CE	437B5000	43156000	44BD7C7D	C247C5CC	42F43274	42526A1B	43111C61	42E45E0D
(68)	42A32F2D	4297A3D3	428F0B9D	428FC89D	4291D3AD	4291CDA0	40655BF6	405D728A	411076A6	405D728A
(72)	...	444646CE	437B5000	43156000	44BD9C7D	C24AA357	42FBCE26	424EF39B	42F72E1D	42CA2B6D
(76)	42919DC	42870197	427D3CD3	427E31AD	427EAC1D	427FA7ED	405F98D9	405C0B5C	4110559B	405C0B5C
(80)	00000000	444646CE	437B5000	43156000	44BDFC0D	C24D291D	431066ED	424B5D62	42E11B8D	42B673ED
(84)	42824E9D	427B87B7	42723BDD	4272F2FD	4273AADD	427462AD	4060DD44	405B9614	40F89BF0	405BAD04
(88)	...	444646CE	437B5000	43156000	44BE1C0D	C24E3911	4310D44B	42499738	42D68F2D	42AD67AD
(92)	427CAD5F	427433AD	426C7B1D	426D331D	426CF5CD	426D707D	405D3BDD	405BFE2A	40FD627C	405B9D7C
(96)	00000000	444646CE	437B5000	43156000	44BE3C7D	C24F19A4	4311547E	4247D1D5	42CDBDE0	42A5187D
(100)	4278D11...	426FA487	4267ECE5	42682A5D	4268A517	4268E27D	405E72CF	405B3DDC	40FC6567	405B2CEE
(104)	00000000	444646CE	437B5000	43156000	44BE5C7D	C24FBEA2	4311E726	42460E14	42C5697D	429D033D
(108)	4271AFFD	426973AD	4264165D	4264165D	426453CD	4264CEAD	405E16DD	405DC4F2	40FA6DC9	405C8E86
(112)	...	444646CE	437B5000	43156000	44BE7C5D	C25C1C83	4312886F	424447FD	42BD186D	4297A82D
(116)	426D4E1	426D095...	4261D1B7	42617C8C	426135DD	4260F79D	405E237D	405AF04E	40F8E24A	405AE486
(120)	00000000	444646CE	437B5000	43156000	44BE9C7D	C25C2B64	43133093	42427EB3	42B84B9D	4292C63D
(124)	4268A7ED	4262F1AD	425C677D	425C677D	425CE27D	425D5D8D	406DD85D	405DDF15	40FB1838	405DA4A5
(128)	...	444646CE	437B5000	43156000	44BEB07D	C24FE9E4	4313D584	4240B8B7	42B329BD	428D66FD
(132)	4264FEB7	425EB65D	425947E8	4259856D	4259C2FD	4259856D	4062788E	405D4C54	40FAB9C2	405E5798
(136)	00000000	444646CE	437B5000	43156000	44BEF00D	C24E9161	4314F58C	423D263E	42A672BD	4283A21D
(140)	425E673	425980D	425382CD	4253FDE0	4254F42D	42556F4D	4061AC07	405D3ABF	40F5E741	405DF15C
(144)	...	444646CE	437B5000	43156000	44BF107D	C24D9125	431569C1	423B6D1E	42A0566D	427EBFC0
(148)	425B3AD7	4255E0D3	425CDD5C	42511AFD	42511AFD	4251588D	405E6FB7	405A52A6	40F96E44	405AEA92
(152)	00000000	444646CE	437B5000	43156000	44BF3C7D	C24C688A	4315CC05	423993CD	429AF6ED	427AD81D
(156)	42580EB	4252AB7...	424E754E	424EB2E7	424EB2E7	424EF18E	405DCBC7	405B8165	40F8EE07	405ABE48
(160)	00000000	444646CE	437B5000	43156000	44BF5C7D	C24E21B8	43161ECC	4237C745	4298084D	4277E9FD
(164)	42555F31	4251B8FD	424CDD0D	424C884D	424C4AAD	424D038D	405FE223	405C5156	40F8F124	405C7C2E
(168)	...	444646CE	437B5000	43156000	44BF7C7D	C249C153	4316649E	4235FAF3	4295D5E0	4275B79D
(172)	4252EE7	424F106...	4249A487	4249E237	424A1FD0	424A5D8D	4062EC77	405F8D22	40FA215C	405F7A21
(176)	00000000	444646CE	437B5000	43156000	44BF9C7D	C2484F79	411FF1C7	42342E5A	4292239D	4272485D
(180)	4251B8B	424C2757	424832A7	4247F4E7	424832A7	424832AD	40621D11	405D7085	40F8AC19	405E7E28
(184)	...	444646CE	437B5000	43156000	44BFBC7D	C246CFA6	4152B818	423261F7	4298C637	4279A1B7

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INPUT TAPE X-441 CV MTS
DATA INPUT 59 NF 1 FL 1 1 1 SR 3 1 1 SR 3 LAST 1

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FILE	RECORD	LENGTH	BYTES	BYTES	BYTES	BYTES	BYTES	BYTES	BYTES	BYTES	BYTES
(4)	425F0C01	42591A8	42569AF	4256D8B0	4256D8B0	42579200	407D44FC	4079BE6E	40CBA6AC	4079122D	
(80)	425F8D50	4256C600	4253B590	4253F360	425462FC	42552840	407EE2CD	407ADB01	40E46928	407A8BF5	
(120)	425F12	4256D25	42543120	4253F360	42543120	425339FD	4080EC95	407CD897	40F26A41	407C88ED	
(240)	4264AD20	425E03F0	42590470	42590470	42590470	425888F0	40841AE8	4080B4F8	40E6F84A	407FE0BF	
(320)	4265E580	425CAD90	425A3920	42598DB0	42594230	42597470	4084A085	40846DF9	40F39EC7	4081A02C	
(400)	426A4A7	426E54	425E526	42509950	4250D700	4250E020	40893581	4085D016	40EFAD3E	4084FFC6	
(480)	426DF3A0	42642A4	4261B200	426136A0	4261BB40	42603FF0	42BFA93	42435CB7	42D7B0FF	42A92BE0	
(560)	42763410	426CA8	4269A400	4269A400	42696660	4269A400	40919F51	40911E3A	40EE6385	408F700D	
(640)	427E1060	4273580	426EB120	42603600	4260F870	42603F00	40951E5C	4092267F	40FC9F75	40918CAB	
(720)	4284A790	4277005	4273FAE0	4273FAE0	42734260	42724C40	40980732	408E9AB8	40EF94AB	408F377C	
(800)	4288FA60	427D8DE0	4279FC10	4279FC10	427943AC	4278C8B0	409A6DDB	408E2A22	40ED8276	408E2F4B	
(880)	42938050	42641120	42312EFC	42807600	427FE800	427F4300	C33E7000	408E9A0A	C24D0000	C33E7000	
(960)	429C410	4280001	42899290	428917E0	4287E540	42872D30	C33E7000	408F41F4	C24D0000	C33E7000	
(1040)	42A6FF70	4294D4A0	429325E0	42926E20	42917920	4290C160	C33E7000	4097F90D	C24D0000	C33E7000	
(1120)	42CC03FB0	42C0540	42B55400	42B50E20	42B80890	42B900B0	C24D0000	C24D0000	C24D0000	C24D0000	
(1200)	42BC7F30	42B0F050	42A84C00	42A94800	42A9C600	42AA8310	40530F71	404D470B	40F0B57A	404D470B	
(1280)	42B2B950	42A72960	42A1E500	42A22410	42A2A230	42A2E140	40592521	4053D0CC	40CAB342	4053D0CC	
(1360)	42A9B0B0	42A14E30	42954D10	42957F10	4297EE50	4298E320	40583056	405178BB	C24D0000	C33E7000	
(1440)	429C02B	42932180	4230E700	428B3FD0	428B7280	428AC930	405609R7	405D48A6	40E21780	405D48A6	
(1520)	429C4210	42949A3	426CECF0	428DE210	428DA4D0	428D2A40	405840D8	4050ED89	C24D0000	C33E7000	
(1600)	42865CF0	427FD600	4276DC00	4276DC00	42781060	4279BEA0	405A1F82	4058AF39	40D940F4	4058748F	
(1680)	4283E050	427CE0	427943E0	42781060	42771A70	42762470	405C5B2B	405840A9	40C0DFB1	4058794B	
(1760)	42923D0	429099E0	428CED10	428BBA90	4289D000	4287E560	406C5820	405D0706	405B90E1	405D0281	
(1840)	4293CE30	428FEC6	4290C190	4290C190	42908450	42908450	405F4DD1	405D1BD5	403348D4	405C9B9F	
(1920)	429063D0	428F5710	428F8F40	428F51F0	428F1480	428F1480	406D26DA	406D07C80	402E005A	405E98E6	
(2000)	428FD6A2	428FD54	4290FEE0	42917960	42913020	42917960	40603EE0	405F9A70	40202044	405E0B96	
(2080)	42856A30	42817D2	428394E0	42835780	428394E0	42844D10	40616FF8	405FC967	4043E662	405EB008	
(2160)	427AE6F0	4270005	42752E80	42752480	4277D300	42790680	40590F43	4058C00B	4057ED68	4056A9CB	
(2240)		42236FA6	437B2000	42640000	45140E10	C2303F4D	42A5C0C2	4238E25F	42A4A670	42AA655D	

(596)	42A0E888	42A4EE4	429D7700	429E39D0	429F76D0	42A3B1C0	42546837	424D33B4	40D3B411	424D33B4
(600)	42A15577	4298B36	4291A7E0	4293E3E0	42942300	42951F50	40516F11	4040C0CA	40D528FE	4040C0CA
(612)	42979010	4298B670	42894A10	4289C490	428A3F00	428B33D0	404DAC94	4049EE76	40DB0587	4049EE76
(616)	429E9CE0	4286DE00	4280E9E0	42810F10	428259A0	4282D430	404E43A2	404B7DE0	40DDA0B9	404B7DE0
(624)	42868E30	428116E0	427A3490	427A71F0	427B6750	427BA4B0	404CCA11	40497354	40E6F84D	404973D9
(632)	427F7990	4273B4D0	42747350	4274B0C0	42752B90	42752B90	404A6822	40484845	40E29219	40483606
(644)	4275E220	42737F80	426F2B00	426F6940	426F6940	42705F10	404856F8	4045C890	40E2FC39	4045CA39
(652)	426F5CD0	42667870	42632860	426365F0	42645C30	426514D0	40491790	404602FD	40F2DC45	40463ECA
(664)	4266D1E0	42614490	425CE720	425D24C0	425D6260	425D24C0	404EC8A3	404B583A	40F1B080	404B58C9
(672)	42636710	425EFD60	425A7EE0	425A4140	425ABC80	425AFA20	40525371	404EFFE8	40EE818F	404F47BB
(684)	4263E430	425E0370	425F11A0	425DA000	425C2F40	425B37C0	405730B5	4052E127	40D1D4E0	40530B25
(692)	427279E0	42600730	426C87C0	426C0CD0	426B91D0	426AD950	405E80FD	40584EE4	4086E9AB	405A6067
(704)	4275F770	4270E9C0	42711770	42719250	42719250	427154E0	40680589	4062FA4C	406A263C	4064086A
(712)	4274FFF0	427098C0	427154FC	427154F0	42711780	427154F0	407BC997	407468D5	40550391	4076F576
(724)	4272C000	426DFE60	426D4040	426D7DB0	426E7390	426E7390	407F4B28	407877A9	405A4003	407A80C1
(732)	4266D080	4263E450	425C6BF0	425D0DB0	425F4F40	42613C00	407EC857	407A8E10	408C0B04	407A5EC2
(744)	425A60B0	4254E860	425382A0	4252C990	42528BE0	42528BE0	407AC3BE	40751581	406B6422	4076542C
(748)	426231B0	425BC740	4262EAF0	4261FE60	425F8CE0	425DA020	4072D2C0	406E78E6	4075B066	406E06E2
(752)	42705D40	426CB370	426D7DC0	426E3630	426EB120	426F6970	406DE105	406C8580	4044E013	406A33CD
(764)	426D6F60	42691E90	426D7DC0	426DF8B0	426D7DC0	426E73A0	406FAD5D	40706023	403EA71F	406BF4DB
(768)	426B3CC0	426824B0	426EEE90	426E73A0	426E3630	426CC560	406A3B5E	4065B4BD	4037DBF9	40667D8B
(776)	42697A40	42668430	426A9BF0	426A9BF0	426B91F0	426BCF70	406DC3D8	406DAD1F	403FF6A5	405D6FCC
(784)	4266BAA0	4267CCC0	426FA7D0	426EEEA0	426E73A0	426DBB40	405B92A4	405B60A5	4030690D	40586454
(792)	426E2C10	426C0F70	4273F8C0	4273F8C0	42743620	4273BB50	405BA1BF	405A8E3F	40224A8B	40586CB9

FILE	3	RECORD	668	LENGTH	3920BYTES
(4)	4272C090	4270F9E0	427E5B40	427E1DF0	427DA340
(120)	425724E0	42531060	42573660	4255C470	42545280
(24)	425084E0	425AB970	4258E5D0	425A1A70	425AD2E0
(28)	4253AE30	4253A350	42531E40	425358C0	42545280
(32)	42518790	424FF920	424EC7C0	424F80C0	42513A10
(40)	42518790	424FF920	424EC7C0	424F80C0	42513A10

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INPUT TAPE X-449 ON MT3
DATA INPUT H9 NF 4 FL 1 1 1 SR 4 1 1 SR 4 LAST 1

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FILE	1	RECORD	1	LENGTH	8000BYTES
(0)	41100000	43E7C6FA	437B3000	41100000	444E6500 C2430A17 426F0C7E 425784C0 4314426E 4312597D
(4)	42E6B7C7	42DB6977	42D120E0	42D31540	42D53980 42D6FDA0 C24D0000 C24D0000 C24D0000 C24D0000
(8)	43E7C6FA	437B3000	41100000	444EA570	C2462CAD 4273E9E9 4253F74F 431203F8 42FA31D0
(12)	42BE1C40	42B580B0	42AAAA60	42ABE4C0	42AD9C00 42AF54C0 40638E37 4057CA09 40963F1B 4057CA09
(16)	43E7C6FA	437B3000	41100000	444EC500	C247AFC5 4276E689 425230C0 4310FBF4 42E618F0
(20)	42AC43F7	42A2E977	429BE9C0	429C28D0	429CE5D0 429DA2D0 425F9A28 4256A6B1 42B6E5D7 4256A6B1
(24)	43E7C6FA	437B3000	41100000	444EE500	C2492632 427A5FC4 42556A3D 42FFCC10 42D5F450
(28)	42A10897	4298A770	428E6310	428F94E0	4291D0E0 42930C50 405AAD73 4055029F 40C58629 4055029F
(32)	43E7C6FA	437B3000	41100000	444F7500	C24A8C24 427E7260 424EA3D9 42F110B0 42C746A0
(36)	42951717	428CEC10	42845830	42849570	42857FF0 428604F0 42564E94 42520833 40DB6FDA 42520833
(40)	43E7C6FA	437B3000	41100000	444F2500	C24BDCE3 428341EF 424CDD76 42E48F70 42BBA020
(44)	428AE3A7	42842407	427BB9B0	427C71B0	427CAF00 427CEC50 40576131 40515FAC 40E59949 40515FAC
(48)	43E7C6FA	437B3000	41100000	444F4500	C24D11EA 4288F645 424B1726 42DA8380 42031230
(52)	42648A40	427D0B70	4274C650	42754110	42757E70 4275F930 4056F707 42548B82 40ED5DA4 40547B09
(56)	43E7C6FA	437B3000	41100000	444F6500	C24E22C0 428FB719 424950E5 42D0B8B0 42AA4640
(60)	427E6FB7	42778277	426FFA20	42717500	42717500 4272B270 4056DD11 42534A12 40ECB855 40536970
(64)	43E7C6FA	437B3000	41100000	444FA500	C24FACDE 42AFAEFB 4245C472 42C1CAE0 429D14C0
(68)	42742E40	426D1650	426690B0	426717B0	426792B0 426888B0 40595866 405902F7 40EAE560 4057D5E9
(72)	43E7C6FA	437B3000	41100000	444FC500	C2500EB7 42AAA9C2 4243FE2A 42BAC820 4295FED0
(76)	426F8A77	4262DA60	42624930	4262C440	4262C440 4263BA60 40591180 42564375 40EDABBE 42561BED
(80)	43E7C6FA	437B3000	41100000	444FE500	C2512286 42B51869 42423806 42B1FBC0 428F6760
(84)	426A6A60	4264F2F0	425EADB0	425EEB40	425EEB40 425FA400 40572BA3 4053C1FE 40EE3AAB 4053F5AB
(88)	43E7C6FA	437B3000	41100000	44505000	C24FE680 42BF6038 424071B1 42AAA6E0 42898B40
(92)	426675B7	42616457	425B4F60	425B8D00	425B8D00 425C0830 40563D3E 4253BEB8 40EE2BA1 42536C70
(96)	43E7C6FA	437B3000	41100000	44512500	C24F5FDC 42C8EF3F 423EAB8A 42A54630 42862010
(100)	4263D330	425F1730	425924C0	4259A000	4259DDA0 425A58E0 40559262 4052F03B 40E74DED 4052B316
(104)	43E7C6FA	437B3000	41100000	44514500	C24E98AF 42D16E5C 423CE51D 429F29C0 427F87D0
(108)	425EF110	4259E110	42550C00	4254CF10	42554A70 42560370 40558657 405348DF 40EF51D7 4052C1D1
(112)	43E7C6FA	437B3000	41100000	44516500	C24D9D2F 42D06BF6B 423B1EE0 429BFD90 427C08D0
(116)	425B8677	4255F957	425228E0	4252A420	4252A420 4252A420 4058B7D2 40561475 40FC1A33 4055BC12
(120)	43E7C6FA	437B3000	41100000	44518500	C246EB26 42EF9357 42323DD0 42892DC0 426BFFED
(124)	424D0AB0	42499A30	4245D8D0	42459E10	4245DBD0 4245DBD0 405A655C 4056229D 40F9EF63 40571787
(128)	43E7C6FA	437B3000	41100000	44512500	4256246 42F25714 423076EA 4284C820 4268D360
(132)	424869C7	424752D7	42433410	4243AF90	4243ED50 4243ED50 4059EB4A 40557DD5 40FC82BF 4256A24F
(136)	43E7C6FA	437B3000	41100000	44514500	C243D066 42F4C2EC 422EAFEA 428CA190 4265E5B0
(140)	42497610	4245B270	4241FED0	42423CD0	42427A90 42423CD0 40578C60 4052F3D9 40FAD6E6 4054589F
(144)	43E7C6FA	437B3000	41100000	44516500	C2423736 42F6E482 422CE8BA 4283CEC0 4269CDE0
(148)	424E96D7	42499B17	424AED20	424A7190	4248C150 424845D0 4053FBDE 4053EA35 40CDA76F 425178E9
(152)	43E7C6FA	437B3000	41100000	4451A500	C23FF427 42FA7A48 42294D41 4294EB50 427E9170
(156)	42687047	4266EFBC	4265A6C0	4266DA60	42680DEC 42697EED 40580550 40547556 40555E00 4054EB06
(160)	43E7C6FA	437B3000	41100000	4451C500	C23D4C30 42FC0123 422785BF 42FE13A0 4270C090
(164)	425F3317	425D6757	425A1B50	425B4F70	425C8370 425D3C50 405B5E6E 40547727 4078A4C2 40580C1F
(168)	43E7C6FA	437B3000	41100000	4451E500	C23BA09B 42FD6447 4225BDE3 4288F200 427066F0
(172)	4256E547	42540930	42535D20	42535D20	42535D20 42535D20 405D9F0F 40579F1B 4091831D 405A48C5
(176)	43E7C6FA	437B3000	41100000	44520500	C239F249 42FEA8D8 4223F611 42883740 426F6D70
(180)	4255AD30	42522A60	4251EB30	4251AD70	425228F0 4251AD70 40602B02 405BB2DE 4092680C 405CC9FC
(184)	43E7C6FA	437B3000	41100000	44522500	C2384138 42FFD38D 4222D0D6 428875FD 426FEA90
(188)	425668D7	425324C0	4251AD70	4251EB30	42526670 4251EB30 406153E6 405BBF31 408E84FC 405DEA79
(192)	43E7C6FA	437B3000	41100000	44524500	C2368E2F 43100E7E 422365A8 4286FEC0 426DF660
(196)	42553150	42522AB0	4251B6B0	4251B6B0	4251B6B0 4251B6B0 4060A781 405A8E38 408FE3FD 405D457B
(200)	43E7C6FA	437B3000	41100000	44526500	C234D8FF 43101E8B 421E9D0D 4286C0FD 426DF6E0
(204)	425531C0	42522B60	4251AD70	42526670	42526670 4251EB30 4062B8D9 425A2CD3 408792AC 425F444C
(208)	43E7C6FA	437B3000	41100000	4452A500	C23189F9 43103BA3 421B0B7E 427FAAB0 42672B40
(212)	424CE310	424A44E0	424619A0	42469560	4247CA20 4065F68E 4063BF93 40AFFE88 40626525
(216)	43E7C6FA	437B3000	41100000	4452C500	C22FBC65 431048EB 42194272 427DB690 426470C0
(220)	424A91B7	42470B77	4244E4A0	4244A6E0	4244E4A0 4244E4A0 40648657 40617D38 40E271A0 426171A3
(224)	43E7C6FA	437B3000	41100000	4452E500	C22DF58E 4310557D 42177925 4281DE20 426914B0

(788)	4263F661	42646290	426A8360	426A8360	426A8360	426FB6A0	40457E2E	033E7000	40293651	033E7000
(792)	4263F661	44105010	437B3000	43112000	4454AD00	02117640	4310FF23	41E92969	427FC9C0	426F8D30
(796)	425F929	425E842	426BF427	426B3BC7	42698D91	42685A47	40490700	40482342	4027C027	404678B8

FILE	RECORD	1	2	LENGTH	1760BYTES						
(1)	0000000	44212A71	437B3000	43160000	4511F700	41BBB691	4285F598	4223B5L5	42808410	426F8CA0	
(4)	4268BB	425FF8F	425FC960	425FC960	425FC960	426006F0	403DF650	40372CD3	40612E80	403BBEBD	
(8)	0000000	44212A71	437B3000	43160000	4511F977	41D80B17	42866A3F	422580E8	427ECD00	426DD6A0	
(12)	42545890	4250C500	42506BA0	425CA930	42509F70	4250DD00	403EF7A8	4038BE83	406E62D8	403CAE26	
(16)	0000000	44212A71	437B3000	43160000	4511FD00	42110AEB	42875774	422918C9	4273CF70	4260A6A0	
(20)	424EB6E7	42405610	4248AC30	424831BC	4247B530	42486E70	403FA76D	403D262E	40CF67F2	403D69F3	
(24)	0000000	44212A71	437B3000	43160000	4511FF00	4212CFDE	4287D067	422AE4CF	428043FC	426864B0	
(28)	4257FE10	42538000	42589250	4255EC80	42547ACC	4252CB40	40409BE2	403E96D5	4094073A	403E5C89	
(32)	0000000	44212A71	437B3000	43160000	45121100	42149459	42884B24	422CA6FF	42807500	42798EAD	
(36)	42662837	42632370	426683A7	42660880	42658D00	4264D530	40452A58	40435BA9	40612E9B	4042C9E4	
(40)	0000000	44212A71	437B3000	43160000	45120300	421658B8	4288C7F8	422E72D3	42919C20	4270BB20	
(44)	426954C	42675FA7	4269A2B7	42692700	42686F60	4267B700	4045E235	403F7181	40500F34	4043163F	
(48)	0000000	44212A71	437B3000	43160000	45120500	42181CAA	42894715	42303E71	42987430	42830DD0	
(52)	426FED80	42609160	427262F0	42720830	42718D70	4270D550	4047A47F	4045A56B	404379BB	4045305E	
(56)	0000000	44212A71	437B3000	43160000	45120700	4219E05A	4289C8CB	42320A0C	429F89AC	42896E40	
(60)	42754C87	427273A1	4279B357	42780620	42778870	42769620	4049E9EE	4048D2CD	4033D750	40478379	
(64)	0000000	44212A71	437B3000	43160000	45120900	421BA3A2	428A4D5E	4233D584	42A52880	428ECDE0	
(68)	4279F070	4278A4D0	427C0030	427C92E0	427C92E0	427C0D30	40408BC4	4049F3E1	402CE6D5	4049E11E	
(72)	0000000	44212A71	437B3000	43160000	45120B00	421D6683	428AD524	4235A0DE	42A8A000	4292F560	
(76)	4270A1B7	427A99E7	42806740	42806740	42802A00	427F7240	40503541	404D43FA	402F35BE	404D60B4	
(80)	0000000	44212A71	437B3000	43160000	45120D00	421F28FE	428B6079	42376025	42ACBB70	42952710	
(84)	427F8E00	427F6660	42811F00	4281D6C0	42828E80	42834620	404E291E	40484526	40284343	404ACE4D	
(88)	0000000	44212A71	437B3000	43160000	45120F00	4220EAEB	428BEFBE	42393738	42AE7120	429620E0	
(92)	427F4F00	427E6B20	42815C30	428116F0	4280E1B0	42815C30	4040C394	4047D85E	402F7394	404992DA	
(96)	0000000	44212A71	437B3000	43160000	45121100	4222AC70	428C836D	423B0248	42ABFDFC	429275F0	
(100)	4279EE30	427985E1	4278BE00	427880B0	427938AD	427975F0	4040CF73	40444F4D	4051E2BB	4048BB29	
(104)	0000000	44212A71	437B3000	43160000	45121300	42246D3E	428D1BF5	423CCD11	42B6439C	42903C10	
(108)	42827B51	4280B1E0	4285E790	42847850	4283F000	42825130	404E0EA9	40482EB3	4031D0D5	404A656E	
(112)	0000000	44212A71	437B3000	43160000	45121500	42262D9A	428DB9F8	423E97E3	42B875B0	429DB270	
(116)	4283B331	4282A577	428213F0	428308E0	4282CBA0	42834610	404D3EE7	40462406	40403E90	40490E62	
(120)	0000000	44212A71	437B3000	43160000	45121700	4227E017	428E5DFB	4240625F	42BBE080	429EEA00	
(124)	428334E7	42815B10	42825120	42819960	42811EE0	4280A460	404D975E	404753E1	404E29C5	4049820D	
(128)	0000000	44212A71	437B3000	43160000	45121900	4229AC0E	428FD8D3	424220EE	42C55490	428AFF00	
(132)	428AC760	4287D9E0	428AEC50	428AAF30	428A34DC	4289BA80	404F3F49	404C9616	40370DEE	404085EF	
(136)	0000000	44212A71	437B3000	43160000	45121B00	422B69F8	428FBB2A	4243F71C	42CB7170	42AC5980	
(140)	42803DC0	4287AE90	4289BA80	4289F7A0	4289F7A7	4289F7A0	40520C94	4050DAB3	40444BDA	405005CB	
(144)	0000000	44212A71	437B3000	43160000	45121D00	422D2742	42907617	4245C16B	42D18D00	42B0BE00	
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(152)	0000000	44212A71	437B3000	43160000	45121F00	422EE356	42913A80	42478B5A	42D9A080	42B5A0C0	
(156)	428E2FC	42892267	4285E767	4285E760	4285E760	4285E760	40578AA1	4053D323	4070DBFD	40540AE3	
(160)	0000000	44212A71	437B3000	43160000	45122100	42309E7B	429209C4	42495550	42DFBDE0	42B88E50	
(164)	4280731	42876AA0	42828F40	42825100	42828F40	428308B0	4059A6A2	40569AF4	408F586D	40569590	
(168)	0000000	44212A71	437B3000	43160000	45122300	42325846	4292E535	424B1F02	42EB42B0	4200C7FC	
(172)	42914560	428E1470	42880E20	4286DC20	4285E760	4284F270	4050C6B9	4054D78C	4095A371	40555061	

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ ERROR SUMMARY				INPUT RETRIES	
				PERM	ZERO B	SHORT	UNDEF.	#RECS.	TOTAL#
4	752	773	8100		3	0	0	3	3

DDJ DUMP STOPPED AFTER FILE 4 # OF PERMANENT READ ERRORS 0

START TIME 11/29/79 20:14:25 STOP TIME 11/29/79 20:17:05

14:26
L:39

0-30906

1/11/74 - 5/6/77

INPUT TAPE X-447 01 MT2
DATA INPUT BY MF 4 FL 1 1 1 SR 4 1 1 SR 4 LAST 1

FILE	RECORD	1	LENGTH	2	3	4	5	6	7	8	9	10	11	12
()	000000	44480075	437B6000	41B00000	4483AC00	C16560DD	4314A12A	421316A3	4277CAED	42678830				
(4)	42508780	42565240	42664790	42645040	4262AE40	4260C2B0	40405CC0	403D3C5B	403FA47F	403E1C10				
(8)	41500000	44480075	437B6000	41B00000	4483CC00	C1490522	4314A83E	4214BDF6	4285C34F	427733B0				
(12)	426A6E90	42688090	42783F30	427704B0	42770CE0	427617D0	4041AED0	4046626B	4015697E	C03F624F				
(16)	00000000	44480075	437B6000	41B00000	4483EC00	C12CAA80	4314AF4B	421668F4	42824F00	42740030				
(20)	4267F580	4268B630	426EAB40	426EE890	426F6340	427CD330	403E2AE0	403C9245	4027BDC2	403BFDDA				
(24)	00000000	44480075	437B6000	41B00000	44840C00	C1104065	4314B654	421818BB	42834B10	42740110				
(28)	426600A0	42640930	4270D330	42705290	426FADA0	426EE8A0	4041D211	40422A04	40261CE2	403F8450				
(32)	41500000	44480075	437B6000	41B00000	44842C00	40CCFFFC	4314BD5D	4219CC07	4288E030	427A53D0				
(36)	42684D00	426051B0	42783E60	42780120	42780120	42783E60	40416E2B	4045F69E	40175087	C03F23E9				
(40)	00000000	44480075	437B6000	41B00000	44844C00	41286DF3	4314C466	42188286	428C8610	427DFA70				
(44)	4271AF10	42722A40	428116D0	42805F50	42805F50	42802210	4041A7CF	40421171	3F96E600	403F5B88				
(48)	00000000	44480075	437B6000	41B00000	44846C00	4144C8BE	4314CB72	421D3B41	429C6880	42819F60				
(52)	42760EE0	427605A0	42856330	4285DD70	4285DD70	4285A050	404291D1	4041A1FD	3F2400E2	40403D5A				
(56)	00000000	44480075	437B6000	41B00000	44848C00	41612738	4314D285	421EF64D	42906720	4281DCED				
(60)	42768AC0	4277BE50	428694C0	428694C0	4286D1D0	428694C0	4040F8E7	403F45E6	3F12A69F	403EB2C0				
(64)	00000000	44480075	437B6000	41B00000	4484CC00	4199DC3D	4314E0C5	422270F6	42934DF0	42848680				
(68)	427676F0	427A89D0	42887D30	42884010	42880300	42880300	4040F652	403D3A42	3EC8848A	403EAED7				
(72)	41200000	44480075	437B6000	41B00000	4484EC00	41B63398	4314E7F8	4224302F	42925380	42838C30				
(76)	4277BB20	42774020	4283F3D0	4283F3D0	4283B6B0	4283F3D0	403DF7BE	C03E7000	C24D0000	C03E7000				
(80)	00000000	44480075	437B6000	41B00000	44850C00	41D28A08	4314EF3C	4225F081	429444E0	428483D0				
(84)	42773A90	42772BE0	42852560	4284E840	428430E0	4283F3B0	4040D733	40405ED1	3FC26043	403E9CF8				
(88)	41500000	44480075	437B6000	41B00000	44852C00	41EEDD47	4314F692	4227B1A6	42973110	4287ED80				
(92)	427AE290	427E9F30	42887CE0	42883FC0	4287C590	42874B60	403F9F56	40472380	3F78F7AF	C03DBB46				
(96)	41500000	44480075	437B6000	41B00000	44854C00	4210B2D7	4314FDFE	42297386	4299E030	4289E0E0				
(100)	42701480	427E8D10	4288F710	4288B9F0	4289AE50	42897140	4040E2B8	40461436	3F63FCB1	C03EF67C				
(104)	00000000	44480075	437B6000	41B00000	44856C00	421277AF	43150583	422B3617	4298E490	42886890				
(108)	427A2460	427A3CD0	427CC850	427F2C40	4281CD30	4282FEE0	4043E2D4	40446FDB	4019AC30	4041AF7F				
(112)	00000000	44480075	437B6000	41B00000	44870C00	422954FE	43157822	42413732	42BEFD70	429AF240				
(116)	42757880	426FC220	4273B0F0	4272F910	4272F910	427203F0	40623AF4	405C82B2	40698615	405DD52				
(120)	00000000	44480075	437B6000	41B00000	44872C00	422B133C	43158328	42430620	42CC5D00	42AA5720				
(124)	42849D40	427F5120	4288B9680	4288B980	4286D5A0	4283F320	405E27D0	405964D1	40462900	405A2BFB				
(128)	00000000	44480075	437B6000	41B00000	44874C00	422C00A6	43158EB4	4244D514	42D46F00	42B36110				
(132)	4291F680	428DFA60	428F5CD0	429115D0	4292CE90	42940970	4058C9A2	40572296	402D8F3D	405676B7				
(136)	41500000	44480075	437B6000	41B00000	44876C00	422E8D06	43159AD3	4246A71B	42D0C120	42AD8280				
(140)	429866A0	42814290	4282C160	428209F0	4282C160	4281B870	C03E7000	4054252B	4077F270	C03E7000				
(144)	00000000	44480075	437B6000	41B00000	44878C00	42304870	4315A79C	424872D7	42D56770	42AFF3C0				
(148)	428595B0	427F4090	427FE370	427FE370	427FA640	42802090	4057ED62	4056E7D1	409117D4	405652F1				
(152)	00000000	44480075	437B6000	41B00000	4487AC00	42321287	4315B522	424A418F	42DEB520	42B74860				
(156)	42867210	4283B320	4283F310	4283B5F0	4283B5F0	4282FE80	40571E53	40554391	40960CB0	405510E3				
(160)	00000000	44480075	437B6000	41B00000	4487CC00	4233BB71	4315C382	424C1062	42E97D30	42CC3DE0				
(164)	42923300	428E5B30	428D7EFC	428CC700	428B9670	428A6500	40574598	40504F9B	408A9489	40506587				
(168)	41400000	44480075	437B6000	41B00000	4487EC00	423572AA	4315D2D7	424DDEF2	42F67E20	42CCB6E0				
(172)	429A8150	42916260	429374A0	4293EEA0	4293B1A0	429374A0	405BA858	4058E56F	C24D0000	C03E7000				
(176)	00000000	44480075	437B6000	41B00000	44880C00	42372863	4315E349	424FB0D3	43100107	42D3CE30				
(180)	429CF1F0	42935500	4294A590	42942B90	42937490	4292FA90	405C73F7	4056E58F	40A1EA79	4056E58F				
(184)	00000000	44480075	437B6000	41B00000	44882C00	4238DBED	4315F4FF	42517F34	4310B9E4	42DE53D0				
(188)	42A38A50	4299B030	429A6D70	4299B0B0	4298F400	42987630	405E2D18	4054E151	40B2D346	4054E151				
(192)	41400000	44480075	437B6000	41B00000	44884C00	423A8D7B	43160833	42534DC3	4311BA67	42EEFD70				
(196)	42A676E0	42A20130	42A6B3E0	42A53B20	42A47EB0	42A34490	406AAAE6	405B0160	C24D0000	C03E7000				
(200)	41100000	44480075	437B6000	41B00000	44886C00	423C3C37	43161D1D	425518CF	4312CC95	431055C2				
(204)	42C21CA0	4283DF00	428B0920	42899150	428E1970	428662E0	C24D0000	C24D0000	C24D0000	C24D0000				
(208)	41100000	44480075	437B6000	41B00000	44888C00	423DE80D	43163411	4256ED7E	4313F8CE	4311BD53				
(212)	42B091A0	42C0DCE0	42D104C0	42CE9430	42C0CA70	42CAEB10	C24D0000	C24D0000	C24D0000	C24D0000				
(216)	00000000	44480075	437B6000	41B00000	4490AC00	C1837C40	4316468F	42115FC4	42858630	42774CD0				
(220)	423BAFB0	426C8000	42784800	42788550	42780AB0	42779110	4041EF45	403F283C	3FDED398	403FA07E				
(224)	00000000	44480075	437B6000	41B00000	4490CC00	C1672546	43164DAB	4212FCC3	42866E70	42787840				

(5760)	4261689	42610050	4266BE40	4266BE40	42664380	426680E0	4043639A	423CD507	403507A8	4041070B
(5800)	4261690	4480FE00	437B9000	41100000	448FCA90	C217E5AB	43161029	4213830B	426119FC	426FF960
(5840)	4262103	42611EF	4256FD47	42660707	42658000	42649770	40448D14	413E66F7	4036010C	414226DC
(5880)	4262104	4480FE00	437B9000	41100000	448FEA70	C2162210	43162403	4213F711	4284AE80	4274BF00
(5920)	426219E0	42628F80	426EA960	426E6C10	426DF170	426CFC10	40430F45	413B4293	4022F8BA	4040B66A
(5960)	4262200	4480FE00	437B9000	41100000	4490AACC	C2145DFA	43162BB9	42148F62	4280A820	4270F1D0
(7000)	42639260	42645020	42696620	42696620	4269A380	426A5B90	404297EA	413D91FF	402E5E80	4140307B
(7040)	42639270	4480FE00	437B9000	41100000	44912A00	C21299R2	4316334F	421548DD	42824970	42720950
(7080)	426531E0	426404B0	426A1FAD	42687200	42673F10	42668660	403F2C2D	4038E608	4030FEAF	4030F626
(7120)	41600000	4480FE00	437B9000	41100000	44904A00	C210D4FE	43163AC9	42162065	42B50240	426E2970
(7160)	426053B0	42607B20	42623600	4262B190	42632070	4263A750	C33E7000	403CAD9E	C24D0000	C33E7000
(7200)	40000000	4480FE00	437B9000	41100000	44906A00	C1F101A7	4316422A	4217129A	42780DC0	42678C90
(7240)	42587580	4258D2F0	4258DA90	42591810	425A8920	425B4190	40459516	403D7F61	40618C6B	404325A0
(7280)	42587590	4480FE00	437B9000	41100000	44918A00	C1D4AED8	43164976	42181073	4279BF40	4267C140
(7320)	425768F0	425530E0	42563550	425501A0	42544900	42531540	40429EDA	403C098B	40722246	404049EE
(7360)	40000000	4480FE00	437B9000	41100000	4490AA00	C1B85875	431650AE	42193B03	4270FF00	426CFA40
(7400)	425EE6A0	425EE6E0	42610450	426006E0	42604BF0	425FD100	403EDF21	4037BA83	404D6A5A	403CABCC
(7440)	425EE6B0	4480FE00	437B9000	41100000	4490CA00	C19BFF8F	431657D6	421A6B9E	427FE4A0	426F2200
(7480)	42608BE0	425F2060	42632C20	42623660	4260C500	425FCFF0	403F1FA0	4038C707	404ACE7E	403CEA09
(7520)	40000000	4480FE00	437B9000	41100000	4490EA00	C17FA2AA	43165EF2	421BAC0D	42794B30	426957A0
(7560)	42503650	4250F91	425BF7A0	425E20D0	42600C80	42623560	4041A820	403B17D3	40596BC4	403F58D7
(7600)	41200000	4480FE00	437B9000	41100000	44910A00	C163451C	431666D2	421CFA10	42826BD0	42703600
(7640)	425FDA30	424610B0	425FCE00	425D2A10	425A85E0	42585080	403E6719	C33E7000	C24D0000	C33E7000
(7680)	425FD400	4480FE00	437B9000	41100000	44912A00	C146E345	43166D0A	421E543A	4280C120	42728F80
(7720)	4260E800	4268E740	4260BF50	427019D0	427241A0	4274E3B0	403FBF1D	413BCFE9	40297E46	413D83F1
(7760)	40000000	4480FE00	437B9000	41100000	44914A00	C12A8274	4316740C	421FB8A9	427E7540	426D51F0
(7800)	425CAE60	42590080	425CEAC0	425B3C80	42595000	42589840	403D2F2D	403C1EBB	406996C9	403BCAF6
(7840)	425CAE70	4480FE00	437B9000	41100000	44916A00	C1E1D348	43167B0B	4221264E	428AD150	427AE060
(7880)	4260BCF0	426073A0	42771950	42751F40	4272F7D0	426FDB00	403D1E06	40375CAD	4020295A	403AFA69
(7920)	40000000	4480FE00	437B9000	41100000	44918A00	C1E457BE	40209C76	42229BC8	428B9C30	427CB390
(7960)	42708500	4270E500	4279A870	427A22E0	427ADA80	427B54F0	403EEA42	403E4263	4016B1FE	403CB85F

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FILE	4	RECORD	234	LENGTH	4240	BYTES				
(0)	40000000	4487918E	437B9000	427E0000	45101640	422494DA	4280DCD6	4223AD18	42A004C0	42867AD0
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(80)	426D3750	4487918E	437B9000	427E0000	45101840	422655BF	428179A1	4224C88F	429C19FC	42830E80
(120)	426A0980	4268B010	4267EBFC	42699930	426A5120	426B83A0	4066ECA8	40617F94	40440D60	40634ABE
(160)	41600000	4487918E	437B9000	427E0000	45101A40	4228160B	42821070	4225EF96	42901E50	42755FC0
(200)	42617040	42587040	4255B0F0	425721D0	42585530	42598880	C33E7000	4061B293	4084A347	C33E7000
(240)	41600000	4487918E	437B9000	427E0000	45101C40	4229D58F	4282C615	4227210A	428A7F30	42717740
(280)	42503420	4254DAB0	42519860	42519860	42519860	4251D8F0	405CECA8	C33E7000	409BF646	C33E7000
(320)	41200000	4487918E	437B9000	427E0000	45101E40	422B9468	42837748	42285015	42832A60	4269E500
(360)	424FA800	4239D240	4247FCE0	4248B5B0	42493DE0	4249E9A0	405E49B2	C33E7000	C24D0000	C33E7000
(400)	41600000	4487918E	437B9000	427E0000	45102040	422D5243	428430EF	42299FA9	42884BB0	426D8EA0
(440)	425218F0	42406200	42423DE0	424D0A10	424B98B0	424AA260	40507C03	405B9F1B	40B5AFE0	40595C75
(480)	41600000	4487918E	437B9000	427E0000	45102240	422F0F54	4284F436	422AEB31	42950DE0	427AFD60
(520)	426042F0	425004F0	4261EE00	425F8820	425D90D0	425EB170	405A133D	C33E7000	407273FC	C33E7000
(560)	40000000	4487918E	437B9000	427E0000	45102440	4230CB24	4285023C	422B5891	42A13A80	428B1D70
(600)	4270BD40	42737E00	427D35F0	427CF8D0	427BC700	427A5810	4054D2FF	40551E0C	401D468F	40520DEF
(640)	41600000	4487918E	437B9000	427E0000	45102640	423285FB	42869098	422CA823	42E42670	428B1D30
(680)	4276BD00	42750650	427EE1E0	427E67A0	427DB030	427DB030	C33E7000	40512DC6	C24D0000	C33E7000
(720)	40000000	4487918E	437B9000	427E0000	45102840	42343F40	428784D0	422E0300	42A5A170	428F4500
(760)	427A6700	42795D40	42842240	42836B00	42827690	42823980	40560DCE	405378E5	4012E0DF	405313FC
(800)	41600000	4487918E	437B9000	427E0000	45102A40	4235F744	42887D1B	422F61B8	42A69D20	428FC2E0
(840)	427A29D0	42795E70	42814530	42823990	428276A0	42832DF0	4058A29D	405609C5	4017B6AF	405594F2
(880)	40000000	4487918E	437B9000	427E0000	45102C40	4237AD57	428987A2	4230C78A	429FC190	4286B6A0
(920)	426F2910	426E44C0	4268E120	426B4640	426D6DD0	426F9550	405AD06R	4053AA15	405AE439	405731E0
(960)	41600000	4487918E	437B9000	427E0000	45102E40	42396199	428AA76F	42323516	4298A920	427BB780
(1000)	425E0A80	425002E0	425535E0	4255B0E0	42566950	425721D0	405F84F9	C33E7000	40AE30FA	C33E7000
(1040)	40000000	4487918E	437B9000	427E0000	45103040	423B1372	428BD0C8	4233A9B9	429A5F30	427BB780
(1080)	425B5F30	42560070	425253E0	425253E0	42529160	42529160	40622035	405E31A6	40C3DF9A	405E9EA6
(1120)	41600000	4487918E	437B9000	427E0000	45103240	423002B4	428D34F7	42352544	42AAC140	428B1B30
(1160)	427500B0	42647B30	425E1790	425D21F0	425BEE00	425A4000	C33E7000	405D177C	C24D0000	C33E7000
(1200)	41600000	4487918E	437B9000	427E0000	45103440	423E6ECA	428EAC00	4236A41B	42AC7620	428B1A60