RELAY 1

L - ORDERED ELECTRON-PROTON DATA TAPE

62-068A-02A

This data set has been restored. There was originally 2 Binary 9-Track, 1600 BPI tapes. There is one restored tape. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The tape was created on a 7094 computer. The DR and DS number along with the corresponding D numbers and the time span is as follows:

DR#	DS#	D#	FILES	TIME SPAN
)3062	DS03062	D00072	1 - 63	12/01/62 - 03/31/64
		D00073	64 - 126	12/13/62 - 03/31/64

RELAY I

DOCUMENTATION OF THE BTL SATELLITE DATA TAPES

62-068A-02A

I. TAPE FORMAT

The BTL satellite data tapes were written with Fortran programs on an IBM 7094 under control of the BE-SYS monitor. These Fortran output routines generate tapes where the logical records produced by individual WRITE TAPE or WRITE ØUTPUT TAPE statements do not correspond to the actual physical records. The following description of this tape blocking process is provided to enable a user to decode the tapes.

BE-SYS uses word lengths of 36 bits, which can also be described as 12 octal digits, or as 6 characters, where a character is denoted by 2 octal digits. Character or BCD information is written on tape so as to be directly meaningful to the 1460. Since information is encoded there differently than in the 7094, a translation is necessary between tape and the 7094. Table I-1 contains a list of the character codes for the 7094 and their translation for the 1460 or for tapes.

Most of the data on the Bell Labs satellite output tapes is binary information written with the Fortran "WRITE TAPE" statement. The list of data written by one such statement is called a logical record, and can consist of up to 999 words. For uniformity, BE-SYS writes all tape output in physical records (or blocks) which normally contain up to 167 words. Each block is a single 800 bit per inch binary tape

record and can contain either part of a logical record, or one or more logical records.

Logical records are separated in the blocks (physical records) by control words(of 6 characters). The first character in the control word is always octal 77. The second character is a control character or flag. The third character, the file identification character, is generally blank and can be ignored. The last three characters indicate the length (word count in 1460 BCD code) of the logical record that follows. Records written with a Fortran "WRITE TAPE" statement will have only P and Q flags as control characters. If the logical record fits within the block, it is assigned a Q flag. However, if it overflows the block, it is broken into two or more logical records, the last of which has a Q flag, all others having P flags. Thus on reading, a sequence of logical records flagged P, followed by one flagged Q, should be considered as a single logical record.

Each block is terminated with a control word containing an E flag as the control character. The word count field in this control word is used to indicate the number of logical records within the block. This count includes only records which have been completed.

There is also some information on the tapes, generally identification files or records, which has been generated by Fortran "WRITE ØUTPUT TAPE" statements. This

information has been encoded by means of a specified format into BCD or Hollerith information. BE-SYS blocks this data in the same manner as binary data (i.e. in physical records of up to 167 words which contain logical records separated by control words). This information is distinguished from binary information by the use of different control characters or flags.

The flags which are valid for a Fortran "READ INPUT TAPE" statement are H, L, and M. All indicate that the logical record contains BCD or Hollerith information to be decoded character by character according to some Format. An H flag indicates a BCD card image with a maximum length of 14 words (84 characters). Records written with a Fortran "WRITE ØUTPUT TAPE" statement will have L and M flags as control characters. If the logical record is greater than 22 words, it is broken up into two or more records, the last of which has an L flag; all others having M flags. If the logical record contains 22 words or less, it is assigned an L flag. Thus, on reading, a sequence of logical records flagged M, followed by one flagged L should be treated as a single record.

Multireel Tapes: On some occasions, data runs over from one reel to a second. The BE-SYS monitor uses a double end-of-file mark to signify the end of a reel. Thus on reading a

double end of file, the user should proceed to the second tape and continue reading. This should not be interpreted as an end of file.

Examples of Tape Blocking

Example 1: This is an octal dump of the first file of the Relay I electron L-tables tape. This file is an identification file which was generated by a Fortran "WRITE ØUTPUT TAPE" statement. It contains only one physical record (or block). The numbers in the first column of the dump refer to word number within the block.

The first word of the block (octal 774300120102) is a control word, as indicated by the octal 77. The second character in the word is denoted by the octal 43 which represents the character L (see Table I-1). This L indicates that the following logical record contains BCD information, and that the record is completed within the block. The last 6 octal digits (120102) represent the characters 012 and indicate that the logical record contains 12 words. Translating the next 12 words character by character yields: bRELAYbI bbELECTRØNbDATAbTAPEbFØRb12/01/62b(DAYb335)b-b03/31/64b (DAYb091), where b represents a blank.

The final word in the block is another control word. Its second character is an E (octal 65) which indicates that this is the end of the block. The word count (octal 121201) specifies that one logical record was completed within the block.

EXAMPLE 1

RECØRD NØ. 0001

0001	774300120102	005165436130	007100006543	656323514645	006461236100	236147650066
0007	465100010221	120121060200	346461300003	030574004000	120321030121	060400346461
0[illegible]	300012110174	776500121201				

[illegible] OF FILE

Example 2: This is an octal dump of the first file of the Explorer XV L-files tape. This is a data file which was generated by Fortran "WRITE TAPE" statements. It is contained in three physical records (or blocks).

The Q flag (octal 50) in the first control word (775000120104) indicates that the logical record contains binary information and is complete within the block; the word count (octal 120104) specifies that there are 14 words in the logical record. The next 14 words should be interpreted as explained in the Explorer XV write-up in section II: the first 13 as floating point data, and the fourteenth as an octal flag.

The first word following these 14 data words (word 16 of the block) is another control word. It indicates another 14-word binary logical record which follows.

The last logical record in the block begins with the control word at word 151 of the physical record. It is also 14 words long and is completed within the block. The final control word (word 166) contains an E flag (octal 65), and a word count (octal 120101) which indicates that 11 logical records have been completed within this block.

Example 3: This is an octal dump of the first two physical records of a data file on the Relay I electron L-tables tape.

The Q flag (octal 50) in the first control word (775000121206) indicates that the logical record contains

EXAMPLE 2

RECORD NO. 0001

001	775000120104	201431463146	176741166710	211455330337	203607653304	000000000000
	203431075547	000000000000	202527431503	000000000000	202621276113	000000000000
	174746022545	207426172532	022223004440	775000120104	201431463146	177424044026
019	211465230656	000000000000	000000000000	000000000000	000000000000	000000000000
025	000000000000	000000000000	000000000000	177563245023	206734465706	032223004440
031	775000120104	201431463146	177420513447	211502157137	000000000000	000000000000
037	000000000000	200500677735	000000000001	000000000000	000000000000	000000000000
043	177[illegible]460332	207407430193	031333000000	775000120104	201431463146	176765056452
049	211506123644	200561426500	175702630507	176641564217	177607553334	201675410203
055	177516214501	177463777430	177516562023	176650572712	207417137766	000003000440
061	775000120104	201431463146	177403324377	211510104100	200740560420	175631463160
067	177412366657	176422361173	201755073227	176407166640	203463002417	176423407377
	177431630653	207434652464	000003000000	775000120104	201431463146	176774611235
	211511161163	000000000000	000000000000	000000000000	000000000000	000000000000
085	175404422576	000000000000	175402565767	176752707515	206770526034	033113000000
091	775000120104	201431463146	176760101422	211521066705	000000000000	175764407712
097	000000000000	200426234723	000000000000	177455445532	000000000000	177575507534
103	176566400576	207411104161	010003000000	775000120104	201431463146	176777717041
109	211523046654	000000000000	000000000000	000000000000	000000000000	000000000000
115	175634626322	000000000000	175654266237	177401370133	207431505661	032003004440
121	775000120104	201431463146	176742337633	211524130303	000000000000	000000000000
127	000000000000	000000000000	000000000000	000000000000	177400000000	000000000000
133	175475404654	206622201240	032223000000	775000120104	201431463146	176736605471
139	211526110531	000000000000	175537604433	000000000000	200434631656	200573222671
145	177642661503	201432543667	177710220322	000000000000	206655110442	010003000000
	775000120104	201431463146	176740710102	211530071000	000000000000	000000000000
	203713230643	000000000000	203556423771	000000000000	202563775760	000000000000
	174862361554	206715354522	032223004440	776500120101		

RECORD NO. 0002

	775000120104	201431463146	176741204677	211531145413	203440702723	000000000000
	202414274076	000000000000	202434210766	000000000000	203414637436	176733653775
3	174751731461	206760545130	022203000000	775000120104	201431463146	176746557250
0019	211532051014	000000000000	000000000000	000000000000	000000000000	000000000000
0025	000000000000	000000000000	000000000000	175761354651	206761126035	032223000000
0031	775000120104	201431463146	176760054441	211534030642	000000000000	000000000000
0037	000000000000	000000000000	000000000000	000000000000	000000000000	000000000000
0043	176566033634	207413137320	032223000000	775000120104	201431463146	176740452660
0049	211543032356	000000000000	000000000000	177402453753	000000000000	000000000000
0055	000000000000	000000000000	000000000000	174576053707	206731701523	032223004440
0061	775000120104	200610421046	176740131102	211550053614	202513247131	000000000000
0067	200425461621	201431463146	200707511736	000000000000	222561047000	000000000000
0073	174452067650	000000000000	022223000000	775000120104	201431463146	176737547751
0079	211552033423	206604470321	175624340765	201473471621	176434621060	201566205005
0085	176400137575	203626425247	175644154410	173457550261	206646551021	000003004440
0091	775000120104	223404342550	1[illegible]754703425	211555074552	203443467063	000000000000
0097	202447426457	201431463146	20[illegible]625774137	000000000000	222501027417	000000000000
3	176520762646	000000000000	022223000000	775000120104	201431463146	176743730013
	211557054462	206504174237	000000000000	000000000000	176436460051	000000000000
0115	175712751671	000000000000	000000000000	175605661104	206541726370	031133000000
0121	775000120104	000000000000	176743730013	211557054462	000000000000	000000000000
0127	000000000000	201431463146	000000000000	175712751671	000000000000	000000000000
0133	175605661104	176436460051	031133000000	775000120104	201431463146	176741600420
0139	211561034216	206541537564	000000000000	202577317356	000000000000	201724462302
0145	000000000000	000000000000	000000000000	175425464071	206575660510	032223000000
0151	775000120104	222632043000	000000000000	211566055271	000000000000	000000000000
0157	202405560742	201431463146	176747061241	000000000000	217777120000	000000000000
0163	175776161466	000000000000	202462475403	776500120101		
		206527111346	032223000000			

RECORD NO. 0003

001	775000120104	201431463146	176750741021	211600116702	202702257374	000000000000
	200535503412	000000000000	200755407242	000000000000	221615155505	000000000000
	176433770550	206600416277	022223000000	775000120104	201431463146	176741652362
029	211604056362	000000000000	000000000000	201757650453	000000000000	202433544725
025	000000000000	221602620266	000000000000	175432526573	206646373401	032223004440
0031	776500121202					

END OF FILE

binary information and is complete within the block; the word count (octal 121206) specifies six words. These next six words should be interpreted as explained in the Relay I write-up in section V: the first two as floating point, and the last four as decrement integers.

In interpreting the remainder of the block one proceeds as in Example 2. At the end of the block an example of the use of the P flag occurs. The control word at word 163 of the block contains a P flag (octal 47) which indicates that only the first part of this logical record is contained in the block. The word count indicates that two words are in this block.

The final word of the block (a control word with an E flag) specifies that four logical records were completed in the block; this count does not include the record with the P flag.

The remaining portion of the incomplete record is found at the beginning of the next block. The first logical record there has a Q flag and contains 14 words. In unblocking, these 14 words should be appended to the two words from the preceding block to form a single 16 word logical record.

EXAMPLE 3

RECORD NO. 0001

0001	775000121206	201531463145	201546111563	000076000000	000533000000	000100000000
0007	000133000000	775000120402	000076000000	000534000000	000003000000	176664247073
0013	176653226712	176423126527	201546111565	201535341217	201546111565	211533076373
0019	211533076105	211533053776	000610002500	000667002577	000323002551	600527642420
0025	600534357656	600676246621	176452504751	176424600662	176452504751	177426631070
0031	176731260524	175447102330	200000020000	200077140016	010000010100	210454000000
0037	621674363517	214464554251	213645400000	621674363517	217545026057	212600000000
0043	621674363517	216617731174	211716666667	621674363517	215772473376	175501636721
0049	604554076566	201782543276	775000121104	000077000000	000033000000	000007000000
0055	175767044152	176421051077	176455220007	176401472150	176431673407	176411032551
0061	176443247737	201535341217	201534324774	201544672274	201534121727	201536152376
0067	201533513615	201541014223	211607075562	211607077666	211607076623	211607075274
0073	211607077400	211607075006	211607077112	001431002550	001376002477	001115002550
0079	001465002550	001305002572	001461002550	001210002550	600722226506	600700012270
0085	600652125462	600714611635	600670765135	600706517400	600661506203	176424600662
0091	176422110320	176447346362	176421371540	176426550466	176420133400	176435647567
0097	167405275000	174415165040	175665225010	171713152200	174664512220	173427017700
0103	175477627240	007000000003	007000000003	005000000003	007000000103	007100000003
0109	007000000003	007000000003	215404266667	215405507514	213757511112	215414733334
0115	214477000000	215420224744	214535733334	217667442223	217673257035	217422133334
0121	217703335556	217635762223	217710454160	217540273334	217462431111	217465022456
0127	216513415556	217473422222	217422751111	217502476654	216472644445	216560411111
0133	216574312742	215601255556	216605762223	216511373334	216604467665	216410051111
0139	202400422773	201770725370	202637243604	202472004717	177546126655	202514076331
0145	203520216457	775000120106	000077000000	000151000000	000001000000	176566561746
0151	201535747331	211725062046	000424002473	600571522535	176426033462	176550365430
0157	004000000001	212532362023	215673474405	214640224744	214421303373	177627173107
0163	774700121202	000077000000	000153000000	776500121204		

RECORD NO. 0002

0001	775000120104	000001000000	176642503326	201536152376	211727071107	000371002470
0007	600541013562	176426550466	176714770320	000000000005	210700451710	214441056427
0013	213401530337	212505056427	175640313200	775000120106	000077000000	000154000000
0019	000001000000	176614374240	201541625402	211730062561	000371002474	600555065365
0025	176437605264	176667647500	006000000004	211616161616	214737252525	213677434343
0031	213437070707	176573324311	775000120106	000077000000	000160000000	000001000000
0037	177413154750	201544467227	211734072663	000302002425	600452562000	176446637534
0043	177553202206	000000000000	000000000000	200707070707	000000000000	000000000000
0049	000000000000	775000120106	000077000000	000163000000	000001000000	176635556654
0055	201534121727	211737074011	000436002475	600543514251	176421371540	176662651164
0061	000000000000	210765252525	214530252525	213512707070	212616525252	175773332626
0067	775000120106	000077000000	000167000000	000001000000	177404165236	201534530041
0073	211743060144	000370002420	600460471010	176422626707	177501347026	000000000001
0079	000000000000	000000000000	000000000000	000000000000	000000000000	775000120106
0085	000077000000	000172000000	000001000000	176654651247	201533513615	211746062324
0091	000466002477	600533527245	176420123400	176716642544	000000000004	210422522162
0097	213601417576	212615075641	211650171227	175443741245	775000120106	000077000000
0103	000174000000	000001000000	176603401041	201541217270	211750070404	000500002420
0109	600562150607	176436361657	176637437750	000000000006	211602525252	215450307470
0115	214452070707	213555070707	177415500534	775000120106	000077000000	000202000000
0121	000001000000	176631030052	201537371666	211756067740	000532002433	600546150454
0127	176431746004	176702075124	000000000000	210732525252	214560434343	213564707070
0133	212605616161	176502124277	775000120106	000077000000	000203000000	000001000000
0139	176605134713	201534121727	211757060222	000564002430	600561174335	176421371540
0145	176574350644	000000000000	211634440767	215516302600	214531147521	213565017552
0151	177502201772	774700120103	000077000000	000211000000	000001000000	176633441652
0157	201535544264	211765054154	000606002427	600544635502	176425316256	176671741770
0163	000000000003	210730707070	214530707070	776500121211		

TABLE I-1

Description or Function	7094 Octal Code	Blocked Tape Code (1460 BCD Code)
Zero	00	12
One	01	01
Two	02	02
Three	03	03
Four	04	04
Five	05	05
Six	06	06
Seven	07	07
Eight	10	10
Nine	11	11
—	12	20
Equals	13	13
Quotes	14	14
	15	15
	16	16
Tape Mark	17	17
Plus	20	60
A	21	61
B	22	62
C	23	63
D	24	64
E	25	65
F	26	66
G	27	67
H	30	70
I	31	71
Plus Zero	32	72
Period	33	73
Right Paren	34	74
	35	75
	36	76

TABLE I-1 (con't.)

Description or Function	7094 Octal Code	Blocked Tape Code (1460 BCD Code)
Group Mark	37	77
Minus	40	40
J	41	41
K	42	42
L	43	43
M	44	44
N	45	45
Ø	46	46
P	47	47
Q	50	50
R	51	51
Minus Zero	52	52
Dollar Sign	53	53
Asterisk	54	54
	55	55
	56	56
Mode Change	57	57
Blank	60	00
Slash	61	21
S	62	22
T	63	23
U	64	24
V	65	25
W	66	26
X	67	27
Y	70	30
Z	71	31
Record Mark	72	32
Comma	73	33
Left Paren	74	34
Word Separator	75	35
	76	36
Tape Seg. Mark	77	37

V. RELAY I

The Relay L-tables program has two tapes as output: an electron L-tables tape and a proton L-tables tape. Both tapes are file structured.

The first file is a BCD identification file describing the tape in one or two records which can be read in (12A6) format. For example,

RELAY I ELECTRØN DATA TAPE FØR 12/01/62 (DAY 335) - 3/31/64 (DAY 091)

Files 2 to 62 contain the data divided up into L slices; for example, file 2 contains all data occurring on L shells from L = 1.00 to L = 1.049. Table V shows the correspondence between file number and L-range.

File 63 contains only a one-word record (= 777777000000) indicating the end-of-tape.

The electron and proton L-tables tapes differ only in the structure of the data files.

ELECTRON L-TABLES TAPE - Structure of Data Files (2 to 62)

The first record within each data file consists of six words as follows:

Word 1: Minimum L for this file (floating point)

Word 2: Maximum L for this file (floating point)

Word 3: Year of first data on tape - 1900 (e.g. 64) } decrement integers

Word 4: Day of year of first data } decrement integers

Word 5: Year of final data on tape

Word 6: Day of year of final data

The remaining records in each file of the electron tape are all of the same type and can be read with a Fortran statement as follows:

```
READ TAPE IT, IYR, IDAY, NPTS, ((DATA(I,J), I = 1,NPTS),
     J = 1,13)
```

where IT is the input tape

IYR is the year - 1900 for the data in the record

IDAY is the day

NPTS is the number of points in the record

DATA(I,J) is an array of data where the index J denotes the kind of data

J = 1	B, magnetic induction in Gauss
2	L, magnetic shell parameter
3	time in fractions of days of 1962 (1/1/62 at noon = 0.5)
4	co-gamma x 10. in bits 0 to 17; live time in bits 18 to 35
5	log B
6	log L
7	log B/B_o
8	Flag = XXXWYYZZZZVZ in octal digits
9	F4
10	F1
11	F2
12	F3
13	F3B

in counts/second

In the flag word (J = 8), the octal digits labelled Y refer to the electron detectors. If YY = 00, all electron data is good. If YY ≠ 00, consider YY = abcdef in bits, then if a = 1, F4 data is bad, if b = 1, live time is bad, if c = 1 F3B data is bad, if d = 1, F3 data is bad, if e = 1, F2 data is bad, if f = 1, F1 data is bad.

PROTON L-TABLES TAPE - Structure of Data Files (2 to 62)

The first record in each data file is the same as on the electron tape. The remaining records are in sets of nine (three proton detectors which are read in each of three bias states). In each set of nine:

Record 1 contains E1 at 100v.

Record 2 contains E1 at 5v.

Record 3 contains E1 at 22v.

Record 4 contains E2 at 100v.

Record 5 contains E2 at 5v.

Record 6 contains E2 at 22v.

Record 7 contains E3 at 100v.

Record 8 contains E3 at 5v.

Record 9 contains E3 at 22v.

The records can be read with a Fortran statement as follows:

```
READ TAPE IT, IYR, IDAY, NPTS, ((DATA(I,J),I = 1,NPTS),J = 1,9)
```

The variables are defined as for the electron tape, however the DATA array has a smaller second dimension. The

words with J = 9 contain the detector reading in counts/second for the appropriate proton detector. In the flag word (J = 8) the octal digit labelled W refers to the proton detectors. If W = 0, all proton data is good. If W $\neq$ 0, consider it equal to xyz in bits: if x = 1, E3 data is bad, if y = 1, E2 data is bad, if z = 1, E1 data is bad.

If there is no data for a particular record, NPTS in that record equals 0.

More details on the Bell Labs experiments on this satellite can be found in the "Final Report on the Relay I Program", NASA SP-76, Chapter 6.

TABLE V-1

File Number		File Number	
2	1.000-1.049	32	3.000-3.099
3	1.050-1.099	33	3.100-3.199
4	1.100-1.149	34	3.200-3.299
5	1.150-1.199	35	3.300-3.399
6	1.200-1.249	36	3.400-3.499
7	1.250-1.299	37	3.500-3.599
8	1.300-1.349	38	3.600-3.699
9	1.350-1.399	39	3.700-3.799
10	1.400-1.449	40	3.800-3.899
11	1.450-1.499	41	3.900-3.999
12	1.500-1.549	42	4.000-4.099
13	1.550-1.559	43	4.100-4.199
14	1.600-1.649	44	4.200-4.299
15	1.650-1.699	45	4.300-4.399
16	1.700-1.749	46	4.400-4.499
17	1.750-1.799	47	4.500-4.599
18	1.800-1.849	48	4.600-4.699
19	1.850-1.899	49	4.700-4.799
20	1.900-1.949	50	4.800-4.899
21	1.950-1.999	51	4.900-4.999
22	2.000-2.099	52	5.000-5.099
23	2.100-2.199	53	5.100-5.199
24	2.200-2.299	54	5.200-5.299
25	2.300-2.399	55	5.300-5.399
26	2.400-2.499	56	5.400-5.499
27	2.500-2.599	57	5.500-5.599
28	2.600-2.699	58	5.600-5.699
29	2.700-2.799	59	5.700-5.799
30	2.800-2.899	60	5.800-5.899
31	2.900-2.999	61	5.900-5.999
		62	6.000-6.999

NSSDC Master Catalog Display: Data Set

L-Ordered Electron and Proton Data

NSSDC ID:SPMS-00215

Other ID(s)

62-068A-02A

Availability: At NSSDC, Ready for Offline Distribution (or Staging if Digital)
Time Span: 1962-12-01 to 1964-03-31 (as determined by NSSDC)

Description

This investigator-supplied data set containing electron and proton count rates is on 7-track, 800-bpi, BCD magnetic tapes written on an IBM 7094 computer. The tapes have a 167-word block size, and each word contains 36 bits. Both tapes are ordered by McIlwain's L-shell values; one tape contains electron count rates, and the other tape contains proton count rates. There are 62 files dividing the data into L intervals from 1 to 7. Each record on a tape is headed by the maximum and minimum L value for the file, and by the time period included in the file. In addition, the file contains, at discrete intervals, values for McIlwain's L-shell parameter, geomagnetic field value, log B/Bo, and detector counts. On the electron-data tape, count rates for particles with energies greater than 1 MeV, between 0.20 and 0.35 MeV, between 0.35 and 0.55 MeV, between 0.55 and 0.75 MeV, and between 0.75 and 1.00 MeV are given in units of counts per second. On the proton-data tape, counts per second are given for protons with energies between 1.8 and 3.2 MeV, between 3.2 and 4.7 MeV, and greater than 4.7 MeV.

Mission Name(s): Experiment(s)

Relay 1: Solid-State Ion Chamber Electron and Proton Detector

Discipline(s)

Space Physics: Magnetospheric Studies

Media Information

1 Restored Tape
2 Digital Magnetic Tape

Personnel Information

Experiment Information
Mission Information

NSSDC Master Catalog Display: Data Set

Proton Flux FORTRAN Programs, Cards

NSSDC ID:SPMS-00508

Other ID(s)

62-068A-03A

Availability: At NSSDC, Ready for Offline Distribution (or Staging if Digital)
Time Span: 1963-01-01 to 1963-07-01 (as determined by NSSDC)

Description

This data set consists of a Fortran (IV or 63) program generated by the experimenter to compute proton fluxes at an arbitrary point in B, L space appropriate to either January 1, 1963 (6 energy interval modes or July 1, 1963 (2 energy threshold modes). Input to the program consists of series of coefficients obtained from least squares fits of the time and B dependences of the fluxes of mirroring protons in each of the 8 energy modes at discrete L values between 1.2 and 2.2. Card decks for both the coefficients and the program itself are available.

Mission Name(s): Experiment(s)

Relay 1: Proton-Electron Detectors

Discipline(s)

Space Physics: Magnetospheric Studies

Media Information

1 Digital Magnetic Tape

Personnel Information

Experiment Information
Mission Information

NSSDC Space Physics page

NSSDC home page

For questions about the NSSDC Master Catalog, please contact:
Dr. James Thieman