DATA SET CATALOG # 6

Explorer 12 Charged Particle

61-020A-03A 3 tapes

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 This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system.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

EXPLORER 12

PARTICLE COUNT RATE & EPHEMERIS

L-ORDERED ELECTRON COUNT RATE

61-020A-03A

61-020A-03C

THIS DATA SET HAS BEEN RESTORED. ORIGINALLY IT CONTAINED FOUR 7-TRACK, 556 BPI TAPES WRITTEN IN BCD. THERE IS ONE RESTORED TAPE WRITTEN IN EBCDIC. FILES 1-3 ARE DATA SET 61-020A-03A AND FILE 4 IS DATA SET 61-020A-03C. THE DR AND DS TAPES ARE 9-TRACK, 6250 BPI. THE ORIGINAL TAPES WERE CREATED ON A 7094 COMPUTER. THE DR AND DS TAPES ALONG WITH THE CORRESPONDING D NUMBERS AND THE TIME SPANS ARE AS FOLLOWS:

DR#	DS#	D#	FILES	TIME SPAN
DR01738	DS01738	D00042	1	08/01/61 - 10/01/61
		D00043	2	10/01/61 - 11/22/61
		D00044	3	11/22/61 - 12/06/61
		D05520	4	08/16/61 - 12/06/61

Data Set Catalog
EXPLORER 12
Charged Particle Experiment

This data set catalog for the data set is composed of the following:

1. Description of the data set.
2. Listing as described for each of 3 tapes
3. Sample BCD list of one tape
4. List of program used to produce 2.
5. DUN

The tapes in this data set are 556 BPI, BCD tapes with 342 characters per logical record, 5 logical records per block.

The tapes are

TAPE	PERIOD	SAMPLES
D-00042	8/16/61 - 10/1/61	36745
D-00043	10/1/61 - 11/22/61	36835
D-00044	11/22/61 - 12/6/61	5625

DATA USERS' NOTE

NSSDC 67-16

EXPLORER 12 (1961 UPSILON 1)

CHARGED PARTICLE EXPERIMENT

FEBRUARY 1967

NATIONAL SPACE SCIENCE DATA CENTER

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION • GODDARD SPACE FLIGHT CENTER, GREENBELT, MD.

DATA USERS' NOTE
NSSDC 67-16

EXPLORER 12 (1961 UPSILON 1)
CHARGED PARTICLE EXPERIMENT

EXPERIMENTERS
B. J. O'Brien
L. A. Frank

FEBRUARY 1967

FOREWORD

This Data Users' Note is specifically designed to help potential data users decide if they can make use of the data obtained in the Explorer 12 (1961 Upsilon 1) charged particle experiment. Once a data user decides that he requires the data, it will serve as the unifying element - the key - in the actual use of the data available at the National Space Science Data Center (NSSDC). To achieve these goals, the Note briefly describes the experiment, including the instrumentation and measurements, the telemetry, and the operational experience. All available details are then provided on the actual reduction techniques and format of recorded data. For those desiring more details, a list of experimenters is provided to facilitate direct contact. As a further aid, detailed references (and bibliography) are also included. When available, NASA accession numbers* are given. The primary purpose of these references is to identify the sources containing complete information concerning the subject under discussion. Most of these references are physically available at NSSDC - those that are not are readily obtainable.

Inquiries concerning the availability of data should be directed to:

National Space Science Data Center
Goddard Space Flight Center
Greenbelt, Maryland 20771
Area Code 301 982-6695

*For example, N64-2243 is an accession number for an article reported in the *Scientific and Technical Aerospace Reports* (STAR), and A63-5921 refers to an entry in the *International Aerospace Abstracts* (IAA).

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EXPLORER 12 (1961 UPSILON 1)
CHARGED PARTICLE EXPERIMENT

BACKGROUND

Investigators at the University of Iowa designed the charged particle experiment in Explorer 12 to measure the characteristics of particle radiation over the entire spacecraft orbit. The instrumentation for this experiment measured trapped radiation, solar particle radiation, and cosmic rays.

This experiment was one of six (see Figure 1) carried aboard Explorer 12 (1961 Upsilon 1). The satellite was launched at 0321 UT on August 16, 1961, and achieved an apogee of 77 300 km and a perigee of 300 km. The orbital period of Explorer 12 was 26.5 hr and the inclination was 33.0 deg. The sun angle with the spin axis, X, varied from 105 deg after launch to a maximum of 135 deg in mid-October. The spin rate increased from 27.8 to 30.5 rpm in the same period.[1,2]

FIGURE 1
EXPLORER 12 EXPERIMENTS

No.	Experiment	Investigator(s)	Affiliation
01	Proton Analyzer	M. Bader	Ames Research Center
02	Magnetometer	L. Cahill	University of New Hampshire
03	Charged Particle	B. J. O'Brien L. A. Frank	Rice University University of Iowa
04	Cosmic-Ray	F. B. McDonald	GSFC*
05	Ion-Electron Detector	L. R. Davis	GSFC*
06	Solar Cell	G. W. Longanecker	GSFC*

EXPERIMENTERS

B. J. O'Brien - Rice University**
L. A. Frank - University of Iowa ***

*Goddard Space Flight Center
**Address: Dept. of Space Science, Rice University, Houston, Texas
***Address: Dept. of Physics and Astronomy, University of Iowa, Iowa City, Iowa

EXPERIMENT

Instrumentation and Measurements

The characteristics of the University of Iowa detectors on board Explorer 12 are listed in Figure 2. These instruments included a shielded Anton type 302 Geiger-Mueller (GM) tube, a magnetic spectrometer utilizing three thin-windowed Anton type 213 GM tubes, and three cadmium sulfide crystals for measurements of the total energy flux of protons and electrons.[3,4]

The Anton type 302 GM tube was similar to the detectors flown by Iowa experimenters in Explorer 4, Pioneers 3 and 4, and Explorer 7, and by the Minnesota group in Pioneer 5 and Explorer 6. Of particular concern in the 302 GM detector is a laboratory calibration of the relative proportions of penetrating and nonpenetrating electrons. The 302 GM tube was located outside the main body of the satellite and was essentially an omnidirectional intensity detector. The detector was sensitive directly to electrons and protons and indirectly to bremsstrahlung from electrons of $E \gtrsim 30$ kev.[1,6]

Three crystals of cadmium sulfide were selected to provide, in part, an extended range of particle energies and absorbed energy flux over which the electrical conductivity was approximately proportional to the absorbed energy flux and independent of particle energy and type. The current resulting from the crystal conductivity was monitored by a neon bulb relaxation oscillator whose output frequency was a linear function of the crystal's conduction current.[2,7]

The cadmium sulfide total energy detector (CdSTE) consisted of a bare photoconductive single crystal of CdS mounted in a cylindrical lead shield situated behind a series of beam-collimating and light-baffling apertures. The unshielded aperture of 10^{-2} ster enabled the CdSTE to detect energy fluxes exceeding 1 erg $(cm^2 sec\ ster)^{-1}$. The lead shielding covered 12 ster of the detector and Mg covered a total of .66 ster.[2, 4, 7]

The cadmium sulfide detector with a broom magnet (CdSB) was identical to CdSTE except that a magnetic "broom" within the collimator prevented electrons of energy $E \lesssim 250$ kev and protons of $E \lesssim 400$ kev from striking the crystal.[2,7]

The third CdS crystal (CdSO) served as an optical monitor and was identical to CdSTE except for a 2-mm-thick transparent quartz window. The CdSO monitored the background response of the cadmium sulfide crystals to light and X rays. All three CdS crystals were sensitive to light from the Sun, Earth, and Moon. Whenever the output of CdSO exceeded its dark current, the data from CdSTE and CdSB were rejected.[2,4,7]

FIGURE 2

GEOMETRIC FACTORS AND PARTICLE ENERGY THRESHOLDS FOR THE UNIVERSITY OF IOWA DETECTORS ON EXPLORER 12

Detector	Symbol	Omnidirectional Measurements			Unidirectional Measurements***		
		Shielding	Penetrating Particles	Geometric Factor (cm^2)	Shielding	Penetrating Particles Detected	Geometric Factor (cm^2-ster)
302 GM Tube	302	265 $mg(cm)^{-2}$ Mg 400 $mg(cm)^{-2}$ Stainless Steel	Protons > 23 Mev Electrons ≥ 1.6 Mev	0.6*			
Electron Magnetic Spectrometer	SPL	3.5 $g(cm)^{-2}$ Pb	Protons > 70 Mev	0.2	1.2 $mg(cm)^{-2}$ Mica	Electrons 40 kev ≤ E_e ≤ 50 kev	10^{-5}
	SPH	1 $g(cm)^{-2}$ Mg	Electrons ≳ 20 Mev	0.2	1.2 $mg(cm)^{-2}$ Mica	Electrons 80 kev ≤ E_e ≤ 100 kev	10^{-5}
	SPB	860 $mg(cm)^{-2}$ Stainless Steel		0.2			
CdS Total Energy Flux Detector	CDSTE**	~1 $g(cm)^{-2}$ Mg	Protons ≳25 Mev Electrons ≳3 Mev	(0.66 ster)		Electrons 200 ev ≲ E_e ≲ 500 kev Protons 1 kev ≲ E_p ≲ 10 Mev (LIGHT)	3×10^{-4}
CdS Proton Energy Flux Detector	CDSB**	~2.6 $g(cm)^{-2}$ Pb	Protons ≳50 Mev Electrons ≳6 Mev	(12 ster)	(MAGNET)	Protons 1 kev ≲ E_p ≲ 10 Mev Electrons E_e ≳ 250 kev (LIGHT)	3×10^{-4}
CdS Light Monitor	CDSO**				550 $mg(cm)^{-2}$ Quartz	(LIGHT)	3×10^{-4}

*See reference 5.

**See reference 2.

***All unidirectional detectors were mounted so that the axes of their fields-of-view were perpendicular to the satellite spin axis.

The magnetic spectrometer was enclosed in a lead cylinder. A low-energy passband (SpL) detected electron energies between 40 and 50 kev which were magnetically focused into a mica window. For high-energy electron detection, a second GM tube (SpH) measured energy between 80 and 100 kev. The counting rates of these detectors were corrected for background penetrating radiation by deducting the count rate of an identical tube (SpB) with the same omnidirectional shielding but with no aperture.[2,7,8]

Telemetry

The telemetry format of Explorer 12 was set up to supply a new readout of counts once every 79 sec for each Iowa detector, although the actual time of monitoring was only about 30 sec. The output, in digital form, was accumulated over a 10.24-sec interval (approximately 5 rotations of the satellite). Each new readout is defined as a data point. Where continuous data permitted, a three-data-point average of the count rate was taken and was considered to cover a time interval of approximately 4 min.[2,3,7]

Operational Experience

Explorer 12 transmitted data from the charged particle experiment from the August 16, 1961, launch date to December 6 of the same year. Data were recorded throughout the active lifetime of the satellite. All instruments, with the exception of the SpB detector, functioned until the end of transmission on December 6. The SpB detector failed to transmit data after September 20, 1961. Figure 3 illustrates the longitudinal differences which occurred during the active lifetime of Explorer 12 in relation to the Earth-Sun line and the equatorial plane of the earth.[2,4]

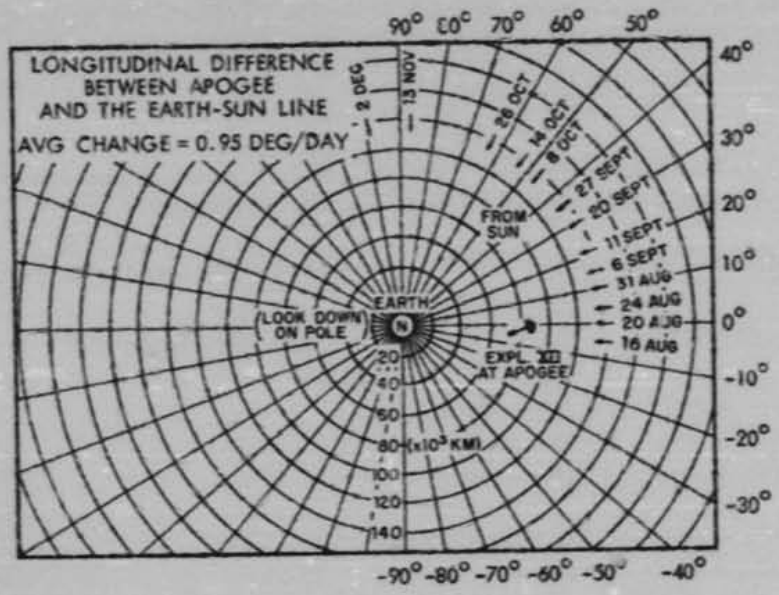
DATA

Reduction Techniques

The SpL, SpH, and SpB counters normally responded only to penetrating cosmic-ray particles. The counting rates of the three detectors at apogee were within 5% and were equal to ~ 0.4 cps. It was assumed that the three counters had almost the same geometric factors for penetrating particles. Inside the radiation zones, the actual SpB rates were subtracted from the raw SpL and SpH rates to allow for penetration.[2]

Data from the charged particle detectors were received in digitized form on magnetic tape at the Goddard Space Flight Center and were processed by University of Iowa investigators on an IBM 7070. The computer program found frame

FIGURE 3
LONGITUDINAL DIFFERENCE BETWEEN
APOGEE AND EARTH-SUN LINE



synchronization by searching for the Iowa sync words. The program also rejected noisy data by requiring perfect redundancy between redundantly telemetered detector count rates.[2]

A second program, designed to operate on the output of the first, provided for automatic plotting and more detailed data analysis. This second program: (1) computed the three-point average for count rates; (2) corrected detector count rates for dead time, scaling factors, and background; (3) computed magnetic coordinates for each data point; (4) provided data from each detector on a separate output for automatic graphing; and (5) merged and sorted data from all stations to provide a chronologically ordered output. Whereas some time and space resolutions were lost in the averaging process, the highly variable areas that were suspect were hand-plotted with every data point.[2,3]

The data were punched on IBM cards and separated into successive inbound and outbound passes. Count-rate data from each pass were plotted as a function of geocentric position.[2]

Timespan of Data

The timespan of the data available at NSSDC is from 1812 UT on August 16 to 1029 UT on December 6, 1961.[2]

Format of Available Data

The following computer format, which is a guide to the magnetic tapes stored at NSSDC, was supplied by L. A. Frank of the University of Iowa.[9]

EXPLORER 12 (UPSILON I) DATA FORMAT

Note: The data is packed at 556 bpi, in BCD mode, 5 records per block, with a logical record length of 342 characters.

Format: The convention used is that the first character is character number 1.

Record Positions	Description of Contents
1,2*	Month
3,4*	Day
5	Year
6,7*	Hour
8,9*	Minute
10-13	SUI Reel Number
14-19*	Radial Distance
20-24*	Geomagnetic Latitude (decimal point in 23)
25-30*	L - McIlwain's parameter (decimal point in 27)
31-35*	B - Magnitude of the earth's magnetic field based on the Jensen and Cain coefficients[3]
36-41	Log (A) + 1 (A) = counting rate of the CdSO detector
42-47	Log (B) + 1 (B) = counting rate of 302 GM tube
48-53	Log (C) + 1 (C) = counting rate of the SpB detector's high-energy passband
54-59	Log (D) + 1 (D) = counting rate of SpL detector
60-65	Log (E) + 1 (E) = counting rate of the CdSTE detector
66-71	Log (F) + 1 (F) = counting rate of the CdSB detector
72-77	Log (G) + 1 (G) = counting rate of the SpH detector
78-83	Log (H) + 1 (H) = counting rate of SpB detector's low-energy passband
84	ID (see positions 121-264)
85-90	X
91-96	Y
97-99	θ
100-107*	Longitude (decimal point in 104)

*These items have leading zeros suppressed.

Record Positions	Description of Contents
108-114*	Latitude (decimal point in 111)
115-120	Zero
121-156	First 6 words of S-3 data** ID = 1 (detectors A and E)
157-192	First 6 words of S-3 data** ID = 2 (detectors B and F)
193-228	First 6 words of S-3 data** ID = 3 (detectors C and G)
229-264	First 6 words of S-3 data** ID = 4 (detectors D and H)
265-267	Zeros
268-270	Daycount
271-276	100 (hour count)
277-282	Orbit Numbers
283-288	PHSUN - Sun angle (decimal point in 287)
289-294	RASUN - Right ascension of sun (decimal in 293)
295-300	DECSUN - Declination of sun (decimal in 299)
301-306	RASAT - Right ascension of satellite (decimal in 305)
307-312	DECSAT - Declination of satellite (decimal in 311)
313-318	THETSE - Solar ecliptic latitude (decimal in 317)
319-324	PHISE - Solar ecliptic longitude (decimal in 323)
325-330	THETSM - Solar magnetic latitude (decimal in 329)
331-336	PHISM - Solar magnetic longitude (decimal in 335)
337-342	SESA - Sun, Earth, satellite angle (decimal in 341)

The first six words of S-3 data are:

1-6	SUI tape number
7-9	Analog tape number
10-11	Station number
12	Year
13-14	Month
15-16	Day
17-18	Hour
19-20	Minute
21-22	Second
23	Q - Data quality flag
24	N1 - Noise for data readout (detectors A-D)

*These items have leading zeros suppressed.
**See breakdown that follows at the end of this listing.

25	N2 - Noise for detector redundant readout (detectors A-D)
26-27	RED - Redundant bit
28-29	C - Confidence level
30	ID
31	Blank
32	N3 - Noise for detector readout (detectors E-H)
33	N4 - Noise for detector redundant readout (detectors E-H)
34-36	Blank

The above data are also available in graphic form in the University of Iowa publication NsG-233-62, by Frank et al.[3]

REFERENCES

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2. Freeman, J. W., Jr., "The Morphology of the Electron Distribution in the Outer Radiation Zone and Near the Magnetospheric Boundary as Observed by Explorer 12," J. Geophys. Res., 69, 1691-1723, May 1, 1964. A64-17903.

3. Frank, L. A., R. C. Bohlin, and R. J. DeCoster, "Graphic Summary of the Responses of Iowa Charged Particle Detectors on Explorer 12," University of Iowa, Apr. 1966. NsG-233-62.

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8. Frank, L. A., J. W. Freeman, Jr., and J. A. Van Allen, "Recent Observations of Electron Intensities in the Earth's Outer Magnetosphere and Beyond," Space Res. IV, 588-605, 1964. N64-33152.

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FILE 0001 REC 0001 CH 1710

DD-42

0001	0 0 1 6 1 0	3 5 3 0 0 1	2 [illegible] 1 0 5 4	2 0 2 3 3 6
0049	0 1 7 3 2 0	0 2 0 3 3 0	0 2 1 1 3 0	0 3 0 1 3 0
0097	0 7 3 0 0 1	5 3 2 1 4 0	2 5 3 3 0 6	0 0 0 0 0 0
0145	0 0 0 1 1 1	0 0 0 0 0 0	0 0 0 0 1 2	0 0 1 1 1 1
0193	0 0 0 0 1 2	0 0 1 1 1 1	0 0 1 6 0 3	5 3 2 0 1 0
0241	0 0 1 6 0 3	5 3 4 0 1 0	0 0 0 1 1 4	0 0 0 0 0 0
0289	0 1 4 4 3 1	0 0 1 3 3 1	0 0 3 1 3 2	0 0 2 5 3 3
0337	0 1 0 1 3 1	0 0 1 6 1 0	3 5 5 0 0 1	2 0 1 1 1 1
0385	0 3 0 0 0 0	0 1 3 1 7 0	0 2 0 6 0 0	0 2 1 7 1 0
0433	0 0 1 1 3 1	0 7 7 0 0 1	0 3 1 1 7 0	2 6 3 7 0 3
0481	5 4 0 7 1 2	1 1 0 1 1 1	0 0 0 0 0 0	0 0 0 0 1 2
0529	0 0 0 0 0 0	0 0 0 0 1 2	0 0 1 1 1 1	0 0 1 6 0 3
0577	0 0 1 1 1 1	0 0 1 6 0 3	5 5 0 6 1 0	0 0 0 1 1 4
0625	0 1 4 2 3 6	0 1 4 4 3 1	0 0 1 3 3 1	0 0 4 3 3 5
0673	0 2 5 1 3 1	0 1 0 6 3 3	0 0 1 6 1 0	3 5 6 0 0 1
0721	0 3 0 7 3 0	0 0 0 0 0 0	0 1 2 3 0 0	0 1 1 1 5 0
0769	0 1 7 1 7 0	0 0 0 7 0 0	0 7 1 0 0 2	0 3 7 6 3 0
0817	0 0 1 6 0 3	5 5 2 5 1 0	0 0 0 1 1 1	0 0 0 0 0 0
0865	1 1 0 1 1 2	0 0 0 0 0 0	0 0 0 0 1 2	0 0 1 1 1 1
0913	0 0 0 0 1 2	0 0 1 1 1 1	0 0 1 6 0 3	5 6 2 3 1 0
0961	0 0 0 0 0 1	0 1 4 2 3 6	0 1 4 4 3 1	0 0 1 3 3 1
1009	0 0 2 6 3 0	0 2 5 3 3 6	0 1 0 4 3 6	0 0 1 6 1 0
1057	0 5 1 1 1 0	0 3 0 4 2 0	0 0 0 0 0 0	0 0 6 0 2 0
1105	0 0 1 0 3 1	0 1 0 3 0 1	0 0 0 4 3 1	0 0 1 0 0 2
1153	0 0 1 1 1 1	0 0 1 6 0 3	5 6 4 3 1 0	0 0 0 1 1 1
1201	5 7 0 2 1 1	0 1 0 1 1 2	0 0 0 0 0 0	0 0 0 0 1 2
1249	0 0 0 0 0 0	0 0 0 0 1 2	0 0 1 1 1 1	0 0 1 6 0 3
1297	0 0 0 3 1 4	0 0 0 0 0 1	0 1 4 2 3 6	0 1 4 4 3 1
1345	0 2 5 1 3 0	0 0 2 7 3 0	0 2 5 5 3 3	0 1 0 3 3 0
1393	0 2 3 7 5 4	0 5 2 6 5 0	0 3 0 5 7 0	0 3 3 4 3 0
1441	0 2 1 4 6 0	0 0 1 5 4 1	0 1 1 0 0 3	0 0 7 7 6 1
1489	0 0 0 0 1 2	0 0 1 1 1 1	0 0 1 6 0 3	5 0 0 1 1 0
1537	0 0 1 6 0 3	5 0 2 0 1 0	0 0 0 1 1 2	0 0 0 0 0 0
1585	2 0 0 1 1 3	0 0 0 0 0 0	0 0 0 0 1 2	0 0 1 1 1 1
1633	0 0 0 2 2 0	0 0 0 3 1 0	0 0 0 0 0 1	0 1 4 2 3 6
1681	0 0 4 5 3 7	0 2 5 5 3 5	0 0 2 0 3 0	0 2 5 0 3 5

FILE 0001 REC 0002 CH 1710

0001	0 0 1 6 1 0	4 0 0 0 0 1	2 0 1 2 5 6	1 0 3 0 3 0
0049	0 1 2 3 0 0	0 0 0 0 0 0	0 1 2 7 0 0	0 1 1 3 4 0
0097	0 0 7 0 0 2	7 3 0 0 1 0	2 1 3 4 3 0	0 0 0 0 0 0
0145	0 0 0 1 1 1	0 0 0 0 0 0	0 0 0 0 1 2	0 0 1 1 1 1
0193	0 0 0 0 1 2	0 0 1 1 1 1	0 0 1 6 0 3	5 1 5 7 1 0
0241	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0
0289	0 1 4 4 3 1	0 0 1 3 3 1	0 0 5 2 3 0	0 0 2 1 3 4
0337	0 0 1 0 3 6	0 0 1 6 1 0	4 0 1 0 0 1	2 0 1 2 0 5
0385	0 0 0 0 0 0	0 1 5 7 1 0	0 2 1 7 0 0	0 0 0 0 0 0
0433	0 0 7 1 5 2	0 0 0 0 0 2	0 3 4 1 2 0	2 1 3 0 3 1
0481	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0
0529	0 0 0 0 0 0	0 0 0 0 1 2	0 0 2 1 1 1	0 0 1 6 0 4
0577	0 0 2 1 1 1	0 0 1 6 0 4	0 1 3 5 1 0	0 0 0 1 1 4
0625	0 1 4 2 3 6	0 1 4 4 3 1	0 0 1 3 3 1	0 0 5 4 3 5
0673	0 2 6 1 3 5	0 0 1 7 3 3	0 0 1 6 1 0	4 0 3 0 0 1
0721	0 1 2 0 4 0	0 4 1 0 7 0	0 1 7 1 2 0	0 2 2 6 0 0
0769	1 0 0 4 3 6	0 0 6 5 7 7	0 1 1 0 0 3	1 3 1 3 1 0
0817	0 0 1 6 0 4	0 1 5 4 1 0	0 0 0 1 1 1	0 0 0 0 0 0
0865	1 0 0 1 1 2	0 0 0 0 0 0	0 0 0 0 1 2	0 0 2 1 1 1
0913	0 0 0 0 1 2	0 0 2 1 1 1	0 0 1 6 0 4	0 2 5 3 1 0
0961	0 0 0 0 0 1	0 1 4 2 3 6	0 1 4 4 3 1	0 0 1 3 3 1
1009	0 0 3 1 3 6	0 2 6 4 3 3	0 0 1 4 3 0	0 0 1 6 1 0
1057	0 3 1 0 7 0	0 1 2 5 5 0	0 4 1 1 0 0	0 1 0 6 3 0
1105	0 0 0 0 0 1	1 0 0 0 0 1	0 0 6 3 0 5	0 1 3 0 0 3

19	20					24	25					30	31					35	Coin Diff					
2	0	2	3	3	6		0	2	3	1	1	1	0	7	5	6	0	0	0	3	0	6	1	0	0	4	0	1	0	0
0	3	0	1	3	0		0	2	5	2	1	0	0	1	6	0	1	1	0	1	6	1	1	7	0	0	1	0	1	4
0	0	0	0	0	0		0	0	0	0	1	2	0	0	1	1	1	1	0	0	1	6	0	3	5	2	5	0	1	0
0	0	1	1	1	1		0	0	1	6	0	3	5	3	0	1	1	0	0	0	0	1	1	2	0	0	0	0	0	0
5	3	2	0	1	0		0	0	0	1	1	3	0	0	2	0	0	0	0	0	0	0	1	2	0	0	1	1	1	1
0	0	0	0	0	0		0	0	0	2	2	0	0	0	0	3	0	0	0	0	0	0	0	1	0	1	4	2	3	6
0	0	2	5	3	3		0	0	3	0	3	2	0	2	4	4	3	2	0	0	2	2	3	6	0	2	4	0	3	2
2	0	1	1	1	1		4	0	2	5	3	0	0	2	3	3	7	6	0	6	6	7	0	0	0	0	0	0	0	0
0	2	1	7	1	0		0	3	1	3	0	0	0	2	3	1	6	0	0	1	3	0	1	1	0	1	7	6	3	0
2	6	3	7	0	3		0	0	0	0	0	0	0	0	0	0	1	2	0	0	1	1	1	1	0	0	1	6	0	3
0	0	0	0	1	2		0	0	1	1	1	1	0	0	1	6	0	3	5	4	2	7	1	0	0	0	0	1	1	2
0	0	1	6	0	3		5	4	4	6	1	0	0	0	0	1	1	3	0	0	0	0	0	0	0	0	0	0	1	2
0	0	0	1	1	4		0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	3	1	1	0	0	0	0	0	1
0	0	4	3	3	5		0	0	2	6	3	7	0	0	4	1	3	1	0	2	4	0	3	0	0	0	2	5	3	0
3	5	6	0	0	1		2	0	1	1	4	0	2	0	2	6	3	7	0	2	3	4	6	1	0	6	2	0	5	0
0	1	1	1	5	0		0	2	1	3	1	0	0	3	0	4	2	0	0	2	3	0	1	0	0	1	0	0	0	1
0	3	7	6	3	0		2	7	3	4	2	2	0	0	0	0	0	0	0	0	0	0	1	2	0	0	1	1	1	1
0	0	0	0	0	0		0	0	0	0	1	2	0	0	1	1	1	1	0	0	1	6	0	3	5	5	4	5	1	0
0	0	1	1	1	1		0	0	1	6	0	3	5	8	0	4	1	0	0	0	0	1	1	3	0	0	0	0	0	0
5	6	2	3	1	0		0	0	0	1	1	4	0	1	0	0	0	0	0	0	0	2	2	0	0	0	0	3	1	3
0	0	1	3	3	1		0	0	4	5	3	5	0	0	2	7	3	4	0	0	4	2	3	4	0	2	4	1	3	1
0	0	1	6	1	0		3	5	7	0	0	1	2	0	1	1	6	1	1	0	2	7	3	7	0	2	3	5	6	4
0	0	6	0	2	0		0	1	1	5	4	0	0	2	1	0	0	0	0	3	0	6	1	0	0	2	2	1	2	0
0	0	1	0	0	2		2	3	4	5	1	0	2	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2
0	0	0	1	1	1		0	0	0	0	0	0	0	0	0	0	1	2	0	0	1	1	1	1	0	0	1	6	0	3
0	0	0	0	1	2		0	0	1	1	1	1	0	0	1	6	0	3	5	7	2	2	1	0	0	0	0	1	1	3
0	0	1	6	0	3		5	7	4	1	1	0	0	0	0	1	1	4	0	0	0	0	0	0	0	0	0	2	2	0
0	1	4	4	3	1		0	0	1	3	3	1	0	0	4	7	3	4	0	0	2	0	3	0	0	0	4	3	3	5
0	1	0	3	3	0		0	0	1	6	1	0	3	5	1	0	0	1	2	0	1	2	2	7	1	0	2	4	3	3
0	3	3	4	3	0		0	0	7	7	0	0	0	1	0	0	0	0	0	2	0	6	5	0	0	3	1	0	0	0
0	0	7	7	6	1		0	0	5	0	0	2	5	3	6	0	7	0	2	1	3	0	0	5	0	0	0	0	0	0
5	0	0	1	1	0		0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	2	0	0	1	1	1	1
0	0	0	0	0	0		0	0	0	0	1	2	0	0	1	1	1	1	0	0	1	6	0	3	5	0	4	0	1	0
0	0	1	1	1	1		0	0	1	6	0	3	5	0	5	1	1	2	1	0	0	1	1	4	0	0	0	0	0	0
0	1	4	2	3	6		0	1	4	4	3	1	0	0	1	3	3	1	0	0	5	1	3	1	0	0	2	1	3	0
0	2	5	0	3	5		0	1	0	0	3	0																		
1	0	3	0	3	0		0	2	3	0	4	1	0	4	1	7	2	0	0	1	1	4	6	0	0	4	2	4	1	0
0	1	1	3	4	0		0	2	1	3	0	0	0	0	0	0	0	1	0	1	1	3	5	6	0	0	7	4	5	5
0	0	0	0	0	0		0	0	0	0	1	2	0	0	1	1	1	1	0	0	1	6	0	3	5	1	1	1	1	0
0	0	1	1	1	1		0	0	1	6	0	3	5	1	3	0	1	0	0	0	0	1	1	2	0	0	0	0	0	0
5	1	5	7	1	0		0	0	0	1	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0		0	0	0	2	2	0	0	0	0	4	0	0	0	0	0	0	0	1	0	1	4	2	3	6
0	0	2	1	3	4		0	0	4	6	3	6	0	2	5	7	3	3	0	0	2	1	3	5	0	2	6	0	3	0
2	0	1	2	0	5		1	0	3	0	3	7	0	2	3	1	4	4	0	4	6	1	1	0	0	0	0	0	0	0
0	0	0	0	0	0		0	0	0	0	0	0	0	2	1	1	0	0	0	1	0	0	0	1	0	1	1	7	1	4
2	1	3	0	3	1		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	6	0	4		0	1	1	5	1	0	0	0	0	1	1	3	0	0	0	0	0	0	0	0	0	0	1	2
0	0	0	1	1	4		0	2	0	0	0	0	0	0	0	2	2	0	0	0	0	4	0	1	0	0	0	0	0	1
0	0	5	4	3	5		0	0	2	1	3	0	0	0	4	7	3	5	0	2	5	1	3	1	0	0	3	0	3	3
4	0	3	0	0	1		2	0	1	3	4	3	0	0	3	1	3	1	0	3	3	1	3	4	0	4	2	0	0	0
0	2	2	6	0	0		0	1	3	4	2	0	0	1	1	7	3	0	0	2	2	1	2	0	0	1	1	1	1	1
1	3	1	3	1	0		3	0	3	5	0	1	0	0	0	0	0	0	0	0	0	0	1	2	0	0	2	1	1	1
0	0	0	0	0	0		0	0	0	0	1	2	0	0	2	1	1	1	0	0	1	6	0	4	0	2	1	4	1	0
0	0	2	1	1	1		0	0	1	6	0	4	0	2	3	3	1	0	0	0	0	1	1	3	0	0	0	0	0	0
0	2	5	3	1	0		0	0	0	1	1	4	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	4	0	4
0	0	1	3	3	1		0	0	5	7	3	6	0	0	3	0	3	5	0	0	4	1	3	0	0	2	6	2	3	6
0	0	1	6	1	0		4	0	4	0	0	1	2	0	1	3	7	1	0	0	3	2	3	4	0	3	3	2	2	1
0	1	0	6	3	0		0	2	2	3	2	0	0	1	0	0	0	0	0	1	1	1	5	0	0	2	1	7	0	0
0	1	3	0	0	3		2	3	3	6	6	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2

FILE 0001 REC 0002 CH 1710

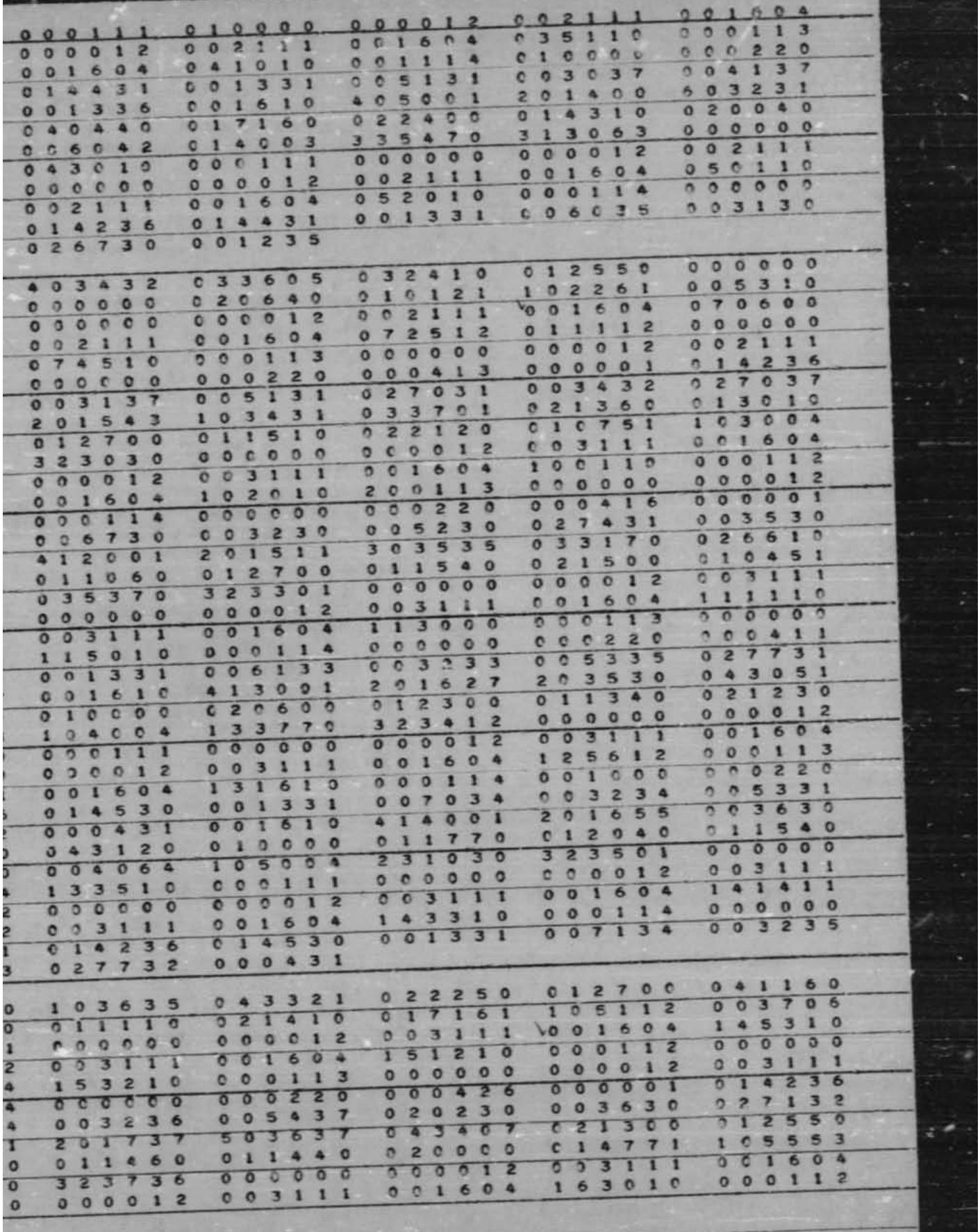
1153	0	0	2	1	1	1	0	0	1	6	0	4	0	3	1	2	1	0	0	0	1	1	1
1201	0	3	3	1	1	0	0	0	0	1	1	2	0	0	2	0	0	0	0	0	0	1	2
1249	0	0	0	0	0	0	0	0	0	0	1	2	0	0	2	1	1	1	0	0	1	6	0	4
1297	0	0	0	4	0	6	0	0	0	0	0	1	0	1	4	2	3	6	0	1	4	4	3	1
1345	0	2	6	4	3	3	0	0	3	2	3	2	0	2	6	5	3	7	0	0	1	3	3	6
1393	0	3	3	3	2	4	0	3	7	0	1	0	0	1	2	3	0	0	0	4	0	4	4	0
1441	0	2	1	3	6	0	0	1	7	1	6	1	1	0	1	1	6	6	0	0	6	0	4	2
1489	0	0	0	0	1	2	0	0	2	1	1	1	0	0	1	6	0	4	0	4	3	0	1	0
1537	0	0	1	6	0	4	0	4	4	1	1	0	0	0	0	1	1	2	0	0	0	0	0	0
1585	0	0	0	1	1	3	0	0	0	0	0	0	0	0	0	0	1	2	0	0	2	1	1	1
1633	0	0	0	2	2	0	0	0	0	4	0	0	0	0	0	0	0	1	0	1	4	2	3	6
1681	0	0	5	0	3	3	0	2	6	6	3	0	0	0	3	2	3	7	0	2	6	7	3	0

FILE 0001 REC 0003 CH 1710

0001	0	0	1	6	1	0	4	0	0	0	0	1	2	0	1	4	0	6	4	0	3	4	3	2
0049	0	1	6	0	1	0	0	2	1	3	1	0	0	1	3	1	7	0	0	0	0	0	0	0
0097	0	1	0	0	0	3	6	3	0	0	1	0	3	1	3	7	0	1	0	0	0	0	0	0
0145	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	2	0	0	2	1	1	1
0193	0	0	0	0	1	2	0	0	2	1	1	1	0	0	1	6	0	4	0	7	4	5	1	0
0241	0	0	1	6	0	4	0	0	0	4	1	0	0	0	0	1	1	4	0	0	0	0	0	0
0289	0	1	4	4	3	1	0	0	1	3	3	1	0	0	6	4	3	5	0	0	3	1	3	7
0337	0	0	0	1	3	3	0	0	1	6	1	0	4	1	0	0	0	1	2	0	1	5	4	3
0385	0	4	5	6	6	0	0	1	0	6	1	0	0	2	1	3	3	0	0	1	2	7	0	0
0433	0	0	4	0	6	4	1	0	1	0	0	3	0	3	7	4	0	0	3	2	3	0	3	0
0481	0	1	4	1	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	2
0529	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	1	1	1	0	0	1	6	0	4
0577	0	0	3	1	1	1	0	0	1	6	0	4	1	0	4	0	1	0	0	0	0	1	1	4
0625	0	1	4	2	3	6	0	1	4	5	3	0	0	0	1	3	3	1	0	0	6	7	3	0
0673	0	2	7	3	3	0	0	0	0	7	3	5	0	0	1	6	1	0	4	1	2	0	0	1
0721	0	1	3	2	2	0	0	4	5	0	6	0	0	1	0	1	2	0	0	1	1	0	6	0
0769	1	0	3	7	3	0	0	0	4	4	5	0	1	0	3	0	0	4	0	3	5	3	7	0
0817	0	0	1	6	0	4	1	0	5	1	1	0	0	0	0	1	1	1	0	0	0	0	0	0
0865	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	1	1	1
0913	0	0	0	0	1	2	0	0	3	1	1	1	0	0	1	6	0	4	1	1	5	0	1	0
0961	0	0	0	0	0	1	0	1	4	2	3	6	0	1	4	5	3	0	0	0	1	3	3	1
1009	0	0	3	5	3	7	0	2	7	5	3	2	0	0	0	5	3	7	0	0	1	6	1	0
1057	0	2	5	4	7	0	0	1	3	0	1	0	0	4	4	1	5	0	0	1	0	0	0	0
1105	0	1	0	0	6	1	1	0	4	1	0	3	0	0	4	2	5	3	1	0	4	0	0	4
1153	0	0	3	1	1	1	0	0	1	6	0	4	1	2	1	7	1	0	0	0	0	1	1	1
1201	1	2	3	7	1	0	1	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	1	2
1249	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	1	1	1	0	0	1	6	0	4
1297	0	0	0	4	2	1	0	0	0	0	0	1	0	1	4	2	3	6	0	1	4	5	3	0
1345	0	2	7	0	3	6	0	0	3	6	3	0	0	2	7	6	3	2	0	0	0	4	3	1
1393	0	4	3	1	4	7	0	2	4	3	3	0	0	1	2	7	0	0	0	4	3	1	2	0
1441	0	2	1	0	3	0	0	1	0	1	1	1	1	0	4	4	6	0	0	0	4	0	6	4
1489	0	0	0	0	1	2	0	0	3	1	1	1	0	0	1	6	0	4	1	3	3	5	1	0
1537	0	0	1	6	0	4	1	3	5	4	1	0	0	0	0	1	1	2	0	0	0	0	0	0
1585	0	0	0	1	1	3	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	1	1	1
1633	0	0	0	2	2	0	0	0	0	4	2	3	0	0	0	0	0	1	0	1	4	2	3	6
1681	0	0	5	4	3	2	0	2	0	0	3	0	0	0	3	6	3	3	0	2	7	7	3	3

FILE 0001 REC 0004 CH 1710

0001	0	0	1	6	1	0	4	1	6	0	0	1	2	0	1	7	1	0	1	0	3	6	3	1
0049	0	1	6	5	3	0	0	2	0	1	2	0	0	1	1	7	6	0	0	1	1	1	1	1
0097	1	0	7	0	0	4	3	3	6	1	0	0	3	2	3	6	7	1	0	0	0	0	0	0
0145	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	1	1	1
0193	0	0	0	0	1	2	0	0	3	1	1	1	0	0	1	6	0	4	1	5	3	2	1	1
0241	0	0	1	6	0	4	1	5	5	1	1	0	0	0	0	1	1	4	0	0	0	0	0	0
0289	0	1	4	5	3	0	0	0	1	3	3	1	0	0	7	3	3	4	0	0	3	2	3	3
0337	0	0	0	2	3	6	0	0	1	6	1	0	4	1	7	0	0	1	2	0	1	7	3	3
0385	0	4	0	1	3	0	0	1	3	1	7	0	0	2	0	7	5	0	0	1	1	4	6	3
0433	0	0	3	5	3	6	1	0	0	0	0	4	4	3	4	1	0	0	3	2	3	7	3	3
0481	1	6	1	1	1	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	3



FILE 0001 REC 0004 CH 1710

0529	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	1	1	1	0	0	1	6	0	4
0577	0	0	3	1	1	1	0	0	1	6	0	4	1	7	0	1	1	0	0	0	0	1	1	4
0625	0	1	4	2	3	6	0	1	4	5	3	0	0	0	1	3	3	1	0	0	7	4	3	4
0673	0	2	0	0	3	1	0	0	0	1	3	0	0	0	1	6	1	0	4	1	0	0	0	1
0721	0	1	2	3	0	0	0	3	1	6	0	0	0	1	4	1	1	0	0	1	1	6	3	0
0769	1	0	5	1	1	1	0	0	3	3	7	2	1	0	1	0	0	4	5	3	0	1	3	0
0817	0	0	1	6	0	4	1	7	2	1	1	0	0	0	0	1	1	1	0	0	0	0	0	0
0865	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	1	1	1
0913	0	0	0	0	1	2	0	0	3	1	1	1	0	0	1	6	0	4	1	0	2	7	1	0
0961	0	0	0	0	0	1	0	1	4	2	3	6	0	1	4	5	3	0	0	0	1	3	3	1
1009	0	0	3	7	3	3	0	2	0	1	3	1	0	0	0	1	3	1	0	0	1	6	1	0
1057	0	1	1	5	6	0	0	1	2	5	5	0	0	3	0	6	1	0	0	1	4	7	7	0
1105	0	1	4	4	7	1	1	0	6	2	6	0	0	0	3	2	1	3	1	1	0	0	0	4
1153	0	0	3	1	1	1	0	0	1	6	0	4	1	0	4	7	1	0	0	0	0	1	1	1
1201	1	1	0	6	1	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	1	2
1249	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	1	1	1	0	0	1	6	0	4
1297	0	0	0	4	3	1	0	0	0	0	0	1	0	1	4	2	3	6	0	1	4	5	3	0
1345	0	2	0	6	3	0	0	0	3	7	3	5	0	2	0	2	3	0	0	0	0	0	3	5
1393	0	4	3	7	3	1	0	1	0	0	2	0	0	1	2	5	5	0	0	3	7	6	2	0
1441	0	1	7	1	1	0	0	1	1	4	6	1	1	0	6	1	7	7	0	0	2	1	1	3
1489	0	0	0	0	1	2	0	0	3	1	1	1	0	0	1	6	0	4	2	0	0	5	1	0
1537	0	0	1	6	0	4	2	0	2	4	1	0	0	0	0	1	1	2	0	0	0	0	0	0
1585	0	0	0	1	1	3	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	1	1	1
1633	0	0	0	2	2	0	0	0	0	4	3	4	0	0	0	0	0	1	0	1	4	2	3	6
1681	0	0	5	5	3	6	0	2	0	1	3	3	0	0	3	7	3	1	0	2	0	3	3	7

FILE 0001 REC 0005 CH 1710

0001	0	0	1	6	1	0	4	2	2	0	0	1	2	0	1	0	7	2	3	0	3	7	3	5
0049	0	1	3	4	2	0	0	1	1	7	3	0	0	1	1	4	6	0	0	1	1	1	1	0
0097	1	1	3	0	0	4	7	3	5	6	5	0	3	2	3	1	4	2	0	0	0	0	0	0
0145	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	1	1	1
0193	0	0	0	0	1	2	0	0	3	1	1	1	0	0	1	6	0	4	2	2	0	1	1	0
0241	0	0	1	6	0	4	2	2	2	1	0	0	0	0	0	1	1	4	0	0	0	0	0	0
0289	0	1	4	5	3	0	0	0	1	3	3	1	0	0	7	0	3	0	0	0	3	2	3	1
0337	0	0	7	0	3	5	0	0	1	6	1	0	4	2	3	0	0	1	2	0	1	0	1	0
0385	0	3	5	6	1	0	0	1	1	1	3	0	0	1	1	6	3	0	0	1	1	7	6	0
0433	0	0	2	6	3	2	1	1	3	0	0	4	0	3	1	2	4	0	3	2	3	1	6	2
0481	2	2	4	0	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	2
0529	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	1	1	1	0	0	1	6	0	4
0577	0	0	3	1	1	1	0	0	1	6	0	4	2	3	3	1	0	0	0	0	0	1	1	4
0625	0	1	4	2	3	6	0	1	4	5	3	0	0	0	1	3	3	1	0	0	7	1	3	6
0673	0	2	0	5	3	3	0	0	7	7	3	1	0	0	1	6	1	0	4	2	6	0	0	1
0721	0	1	2	3	0	0	0	3	3	1	0	0	0	1	0	7	1	0	0	2	1	1	3	0
0769	1	0	0	7	1	5	0	0	2	2	4	7	1	1	6	0	0	4	1	3	6	7	1	0
0817	0	0	1	6	0	4	2	3	5	0	1	0	0	0	0	1	1	1	0	0	0	0	0	0
0865	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	1	2	0	0	4	1	1	1
0913	0	0	0	0	1	2	0	0	4	1	1	1	0	0	1	6	0	4	2	6	1	5	1	0
0961	0	0	0	0	0	1	0	1	4	2	3	6	0	1	4	5	3	0	0	0	1	3	3	1
1009	0	0	3	0	3	6	0	2	0	7	3	7	0	0	7	6	3	2	0	0	1	6	1	0
1057	0	1	4	2	0	0	0	1	2	3	0	0	0	3	3	1	0	0	0	1	0	7	1	0
1105	0	0	0	4	5	1	1	0	1	0	5	7	0	0	2	1	2	6	1	1	6	0	0	5
1153	0	0	4	1	1	1	0	0	1	6	0	4	2	6	3	4	1	0	0	0	0	1	1	1
1201	2	6	5	4	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	1	2
1249	0	0	0	0	0	0	0	0	0	0	1	2	0	0	4	1	1	1	0	0	1	6	0	4
1297	0	0	0	4	4	4	0	0	0	0	0	1	0	1	4	2	3	6	0	1	4	5	3	0
1345	0	2	1	6	3	2	0	0	3	0	3	7	0	2	0	0	3	4	0	0	7	5	3	7
1393	0	5	3	3	5	5	0	1	3	2	0	0	0	1	2	3	0	0	0	1	0	0	0	0
1441	0	0	0	0	0	0	0	0	0	4	5	1	1	0	1	7	3	4	0	0	1	0	1	0
1489	0	0	0	0	1	2	0	0	4	1	1	1	0	0	1	6	0	4	2	7	5	2	0	0
1537	0	0	1	6	0	4	2	0	1	2	1	2	0	0	0	1	1	2	0	0	0	0	0	0
1585	0	0	1	1	1	3	0	0	0	0	0	0	0	0	0	0	1	2	0	0	4	1	1	1
1633	0	0	0	2	2	0	0	0	0	4	4	0	0	0	0	0	0	1	0	1	4	2	3	6

0 1 6 0 4	1 6 5 0 1 0	0 0 0 1 1 3	0 0 0 0 0 0	0 0 0 0 1 2
0 0 1 1 4	0 0 0 0 0 0	0 0 0 2 2 0	0 0 0 4 2 0	0 0 0 0 0 1
0 7 4 3 4	0 0 3 2 3 7	0 0 5 4 3 1	0 2 0 4 3 2	0 0 3 7 3 1
1 0 0 0 1	2 0 1 7 6 4	7 0 3 6 3 1	0 4 3 4 1 1	0 2 0 4 1 0
1 1 6 3 0	0 1 1 4 6 0	0 1 1 0 3 0	0 1 1 1 5 0	0 1 6 2 3 1
3 0 1 3 0	3 2 3 7 1 3	0 0 0 0 0 0	0 0 0 0 1 2	0 0 3 1 1 1
0 0 0 0 0	0 0 0 0 1 2	0 0 3 1 1 1	0 0 1 6 0 4	1 7 4 0 1 0
0 3 1 1 1	0 0 1 6 0 4	1 0 0 0 1 0	0 0 0 1 1 3	0 0 0 0 0 0
0 2 7 1 0	0 0 0 1 1 4	0 0 0 0 0 0	0 0 0 2 2 0	0 0 0 4 2 1
0 1 3 3 1	0 0 7 5 3 3	0 0 3 2 3 7	0 0 5 5 3 1	0 2 0 5 3 5
0 1 6 1 0	4 1 1 0 0 1	2 0 1 7 1 1	1 0 3 7 3 1	0 4 3 5 7 5
1 4 7 7 0	0 1 1 2 1 0	0 1 1 4 6 0	0 1 1 2 1 0	0 1 0 0 6 0
1 0 0 0 4	5 3 7 4 1 0	3 2 3 0 4 1	0 0 0 0 0 0	0 0 0 0 1 2
0 0 1 1 1	0 0 0 0 0 0	0 0 0 0 1 2	0 0 3 1 1 1	0 0 1 6 0 4
0 0 0 1 2	0 0 3 1 1 1	0 0 1 6 0 4	1 1 2 6 1 0	0 0 0 1 1 3
0 1 6 0 4	1 1 4 5 1 0	0 0 0 1 1 4	0 0 0 0 0 0	0 0 0 2 2 0
1 4 5 3 0	0 0 1 3 3 1	0 0 7 6 3 2	0 0 3 2 3 0	0 0 5 5 3 3
0 0 0 3 5	0 0 1 6 1 0	4 2 1 0 0 1	2 0 1 0 4 5	6 0 3 7 3 4
3 7 6 2 0	0 1 3 1 7 0	0 2 0 0 0 0	0 1 1 4 6 0	0 1 0 0 0 0
0 2 1 1 3	1 1 2 0 0 4	6 3 1 0 4 0	3 2 3 1 1 5	0 0 0 0 0 0
0 0 6 1 0	0 0 0 1 1 1	0 0 0 0 0 0	0 0 0 0 1 2	0 0 3 1 1 1
0 0 0 0 0	0 0 0 0 1 2	0 0 3 1 1 1	0 0 1 6 0 4	2 0 4 3 1 0
0 3 1 1 1	0 0 1 6 0 4	2 1 0 3 1 0	0 0 0 1 1 4	0 0 0 0 0 0
1 4 2 3 6	0 1 4 5 3 0	0 0 1 3 3 1	0 0 7 0 3 0	0 0 3 2 3 1
2 0 3 3 7	0 0 7 1 3 2			

0 3 7 3 5	0 4 3 0 1 1	0 1 7 3 1 0	0 1 2 5 5 0	0 3 6 6 2 0
1 1 1 1 0	0 1 0 6 3 0	0 1 2 5 5 1	1 0 7 3 2 0	0 0 2 7 7 0
0 0 0 0 0	0 0 0 0 1 2	0 0 3 1 1 1	0 0 1 6 0 4	2 1 2 2 1 0
0 3 1 1 1	0 0 1 6 0 4	2 1 4 2 1 0	0 0 0 1 1 2	0 0 0 0 0 0
2 0 1 1 0	0 0 0 1 1 3	0 0 0 0 0 0	0 0 0 0 1 2	0 0 3 1 1 1
0 0 0 0 0	0 0 0 2 2 0	0 0 0 4 3 6	0 0 0 0 0 1	0 1 4 2 3 6
0 3 2 3 1	0 0 5 5 3 7	0 2 1 0 3 5	0 0 3 0 3 0	0 2 0 4 3 5
0 1 0 1 0	1 0 3 7 3 6	0 4 3 0 1 1	0 1 6 6 3 0	0 1 2 5 5 0
1 1 7 6 0	0 1 0 0 6 0	0 1 7 1 1 0	0 1 2 3 0 1	1 0 7 6 7 0
2 3 1 6 2	0 0 0 0 0 0	0 0 0 0 0 1 2	0 0 3 1 1 1	0 0 1 6 0 4
0 0 0 1 2	0 0 3 1 1 1	0 0 1 6 0 4	2 2 6 0 0 0	0 0 0 1 1 2
0 1 6 0 4	2 3 1 1 0 0	0 0 0 1 1 3	0 0 0 0 0 0	0 0 0 0 0 1 2
0 0 1 1 4	0 0 0 0 0 0	0 0 0 2 2 0	0 0 0 4 3 0	0 0 0 0 0 1
0 7 1 3 6	0 0 3 2 3 1	0 0 5 5 3 0	0 2 1 1 3 7	0 0 3 0 3 2
2 6 0 0 1	2 0 1 1 7 7	7 0 3 0 3 0	0 5 3 1 3 1	0 1 4 0 2 0
2 1 1 3 0	0 1 1 4 6 0	0 1 0 1 2 0	0 1 7 2 4 0	0 0 6 1 0 1
3 6 7 1 0	3 2 3 1 1 3	0 0 0 0 0 0	0 0 0 0 1 2	0 0 3 1 1 1
0 0 0 0 0	0 0 0 0 1 2	0 0 4 1 1 1	0 0 1 6 0 4	2 5 3 6 1 0
0 4 1 1 1	0 0 1 6 0 4	2 5 5 5 1 0	0 0 0 1 1 3	0 0 0 0 0 0
6 1 5 1 0	0 0 0 1 1 4	0 0 0 0 0 0	0 0 0 2 2 0	0 0 0 4 4 3
0 1 3 3 1	0 0 0 1 3 1	0 0 3 2 3 1	0 0 5 6 3 0	0 2 1 5 3 1
0 1 6 1 0	4 2 7 0 0 1	2 0 2 0 0 3	7 0 3 0 3 1	0 5 3 2 0 6
1 0 7 1 0	0 2 1 1 3 0	0 1 2 0 4 0	0 1 1 2 4 0	0 1 7 5 5 0
1 6 0 0 5	0 3 1 4 6 0	3 2 3 1 1 4	0 0 0 0 0 0	0 0 0 0 1 2
0 0 1 1 1	0 0 0 0 0 0	0 0 0 0 1 2	0 0 4 1 1 1	0 0 1 6 0 4
0 0 0 1 2	0 0 4 1 1 1	0 0 1 6 0 4	2 7 1 3 0 0	0 0 0 1 1 3
0 1 6 0 4	2 7 3 3 1 0	0 0 0 1 1 4	0 0 0 0 0 0	0 0 0 2 2 0
1 4 5 3 0	0 0 1 3 3 1	0 0 0 2 3 6	0 0 3 2 3 1	0 0 5 6 3 1
0 7 5 3 7	0 0 1 6 1 0	4 2 1 0 0 1	2 0 2 0 5 5	3 0 3 0 3 2
1 0 0 0 0	0 1 1 4 6 0	0 2 0 5 3 0	0 1 2 0 4 0	0 1 0 0 6 0
0 1 0 1 0	1 1 0 0 0 5	1 3 0 4 3 0	3 2 3 1 0 4	0 0 0 0 0 0
7 5 2 0 0	0 0 0 1 1 1	0 0 0 0 0 0	0 0 0 0 1 2	0 0 4 1 1 1
0 0 0 0 0	0 0 0 0 1 2	0 0 4 1 1 1	0 0 1 6 0 4	2 0 3 1 1 0
0 4 1 1 1	0 0 1 6 0 4	2 0 5 1 1 0	0 0 0 1 1 4	0 0 0 0 0 0
1 4 2 3 6	0 1 4 5 3 0	0 0 1 3 3 1	0 0 0 4 3 0	0 0 3 2 3 1

FILE 0001 REC 0005 CH 1710

1681	005632	021033	003031	020130

FILE 0001 REC 0006 CH 1710

0001	001610	430001	202000	103033
0049	011130	011240	012040	011130
0097	110005	134650	323173	000000
0145	000111	000000	000012	004111
0193	000012	004111	001604	214110
0241	001604	300100	000114	000000
0289	014530	001331	000437	003231
0337	007431	001610	431001	202106
0385	030740	000450	022430	013010
0433	001605	111005	130710	323160
0481	302010	000111	000000	000012
0529	000000	000012	004111	001604
0577	004111	001604	312610	000114
0625	014236	014530	001331	000534
0673	021132	007336	001610	432001
0721	012040	030010	010000	022050
0769	110735	001503	120005	232610
0817	001604	314610	000111	000000
0865	000112	000000	000012	004111
0913	000012	004111	001604	324410
0961	000001	014236	014530	001331
1009	003132	021130	007332	001610
1057	010010	012040	031420	006020
1105	001031	111716	001211	122005
1153	005111	001604	342200	000111
1201	344100	000112	000000	000012
1249	000000	000012	005111	001604
1297	000450	000001	014236	014530
1345	030431	003134	021337	007130
1393	053043	010470	012300	031230
1441	026660	010001	112031	001210
1489	000012	005111	001604	354010
1537	001604	355100	000112	000000
1585	000113	000000	000012	005111
1633	000220	000451	000001	014236
1681	005632	030530	003135	021433

FILE 0001 REC 0007 CH 1710

0001	001610	430001	202200	103036
0049	006100	025110	015100	011110
0097	123005	432110	323712	000000
0145	000111	000000	000012	005111
0193	000012	005111	001604	373700
0241	001604	375600	000114	000000
0289	014530	001331	000135	003237
0337	007035	001610	443001	202401
0385	021710	010000	026650	015050
0433	000664	126005	536560	323616
0481	421010	000111	000000	000012
0529	000000	000012	005111	001604
0577	005111	001604	430000	000114
0625	014236	014530	001331	001232
0673	021032	006036	001610	444001
0721	012700	020030	004770	026200
0769	114553	000516	126005	530150
0817	001604	432010	000111	000000
0865	000112	000000	000012	005111
0913	000012	005111	001604	442600
0961	000001	014236	014530	001331
1009	003130	021037	006032	001610

0 2 0 1 3 0	0 0 7 4 3 6		
1 0 3 0 3 3	0 5 3 4 2 7	0 1 2 0 2 0	0 1 2 0 4 0	0 3 1 1 4 0
0 1 1 1 3 0	0 1 7 0 5 0	0 0 4 7 7 1	1 1 0 0 7 0	0 0 1 7 0 1
0 0 0 0 0 0	0 0 0 0 1 2	0 0 4 1 1 1	0 0 1 6 0 4	2 1 1 0 1 0
0 0 4 1 1 1	0 0 1 6 0 4	2 1 3 0 0 0	0 0 0 1 1 2	0 0 0 0 0 0
2 1 4 1 1 0	0 0 0 1 1 3	0 0 0 0 0 0	0 0 0 0 1 2	0 0 4 1 1 1
0 0 0 0 0 0	0 0 0 2 2 0	0 0 0 4 5 0	0 0 0 0 0 1	0 1 4 2 3 6
0 0 3 2 3 1	0 0 5 6 3 2	0 2 1 1 3 4	0 0 3 1 3 0	0 2 1 0 3 5
2 0 2 1 0 6	3 0 3 0 3 4	0 5 3 4 1 1	0 1 2 3 0 0	0 1 2 3 0 0
0 1 3 0 1 0	0 1 0 0 6 0	0 2 0 5 3 0	0 1 0 0 0 1	1 1 0 4 0 3
3 2 3 1 6 0	0 0 0 0 0 0	0 0 0 0 1 2	0 0 4 1 1 1	0 0 1 6 0 4
0 0 0 0 1 2	0 0 4 1 1 1	0 0 1 6 0 4	3 0 4 7 0 0	0 0 0 1 1 2
0 0 1 6 0 4	3 1 0 7 0 0	0 0 0 1 1 3	0 0 0 0 0 0	0 0 0 0 1 2
0 0 0 1 1 4	0 0 0 0 0 0	0 0 0 2 2 0	0 0 0 4 5 1	0 0 0 0 0 1
0 0 0 5 3 4	0 0 3 2 3 1	0 0 5 6 3 2	0 3 0 0 3 3	0 0 3 1 3 1
4 3 2 0 0 1	2 0 2 1 3 1	7 0 3 0 3 4	0 5 3 5 7 0	0 1 1 1 6 0
0 2 2 0 5 0	0 1 3 6 1 0	0 1 1 1 3 0	0 2 2 1 6 0	0 0 1 5 4 1
2 3 2 6 1 0	3 2 3 1 4 3	0 0 0 0 0 0	0 0 0 0 1 2	0 0 4 1 1 1
0 0 0 0 0 0	0 0 0 0 1 2	0 0 4 1 1 1	0 0 1 6 0 4	3 2 0 5 0 0
0 0 4 1 1 1	0 0 1 6 0 4	3 2 2 5 0 0	0 0 0 1 1 3	0 0 0 0 0 0
3 2 4 4 1 0	0 0 0 1 1 4	0 0 0 0 0 0	0 0 0 2 2 0	0 0 0 4 5 3
0 0 1 3 3 1	0 0 0 6 3 0	0 0 3 2 3 1	0 0 5 6 3 3	0 3 0 1 3 3
0 0 1 6 1 0	4 3 5 0 0 1	2 0 2 2 0 6	0 0 3 0 3 6	0 5 3 7 7 6
0 0 6 0 2 0	0 2 4 5 0 0	0 1 4 3 1 0	0 1 1 1 1 0	0 2 5 1 4 0
1 2 2 0 0 5	3 3 3 4 1 0	3 2 3 0 7 7	0 0 0 0 0 0	0 0 0 0 1 2
0 0 0 1 1 1	0 0 0 0 0 0	0 0 0 0 1 2	0 0 5 1 1 1	0 0 1 6 0 4
0 0 0 0 1 2	0 0 5 1 1 1	0 0 1 6 0 4	3 5 0 1 0 0	0 0 0 1 1 3
0 0 1 6 0 4	3 5 2 0 0 0	0 0 0 1 1 4	0 0 0 0 0 0	0 0 0 2 2 0
0 1 4 5 3 0	0 0 1 3 3 1	0 0 0 7 3 0	0 0 3 2 3 0	0 0 5 6 3 2
0 0 7 1 3 0	0 0 1 6 1 0	4 3 6 0 0 1	2 0 2 2 3 1	6 0 3 0 3 6
0 3 1 2 3 0	0 0 1 0 3 0	0 2 5 5 3 0	0 1 4 6 2 0	0 1 0 1 2 0
0 0 1 2 1 0	1 2 2 0 0 5	3 3 6 7 3 0	3 2 3 0 5 1	0 0 0 0 0 0
3 5 4 0 1 0	0 0 0 1 1 1	0 0 0 0 0 0	0 0 0 0 1 2	0 0 5 1 1 1
0 0 0 0 0 0	0 0 0 0 1 2	0 0 5 1 1 1	0 0 1 6 0 4	3 6 1 1 1 0
0 0 5 1 1 1	0 0 1 6 0 4	3 6 3 0 1 0	0 0 0 1 1 4	0 2 0 0 0 0
0 1 4 2 3 6	0 1 4 5 3 0	0 0 1 3 3 1	0 0 0 0 3 4	0 0 3 2 3 0
0 2 1 4 3 3	0 0 7 1 3 4			
1 0 3 0 3 6	0 5 3 1 7 5	0 0 1 0 2 0	0 1 2 0 4 0	0 3 0 5 6 0
0 1 1 1 1 0	0 2 7 2 4 0	0 1 0 0 0 1	1 1 2 6 0 0	0 0 1 0 4 0
0 0 0 0 0 0	0 0 0 0 1 2	0 0 5 1 1 1	0 0 1 6 0 4	3 6 5 0 1 0
0 0 5 1 1 1	0 0 1 6 0 4	3 7 1 7 0 0	0 0 0 1 1 2	0 0 0 0 0 0
3 7 3 7 0 0	0 0 0 1 1 3	0 0 0 0 0 0	0 0 0 0 1 2	0 0 5 1 1 1
0 0 0 0 0 0	0 0 0 2 2 0	0 0 0 4 6 3	0 0 0 0 0 1	0 1 4 2 3 6
0 0 3 2 3 7	0 0 5 6 3 2	0 3 0 6 3 7	0 0 3 1 3 6	0 2 1 5 3 5
2 0 2 4 0 1	7 0 3 0 3 7	0 6 3 2 0 1	0 0 0 4 4 0	0 1 2 3 0 0
0 1 5 0 5 0	0 1 1 1 1 0	0 2 6 5 5 0	0 0 0 4 5 1	1 1 4 2 4 6
3 2 3 6 1 6	0 0 0 0 0 0	0 0 0 0 1 2	0 0 5 1 1 1	0 0 1 6 0 4
0 0 0 0 1 2	0 0 5 1 1 1	0 0 1 6 0 4	4 2 2 1 0 0	0 0 0 1 1 2
0 0 1 6 0 4	4 2 4 1 0 2	0 0 0 1 1 3	0 0 0 0 0 0	0 0 0 0 1 2
0 0 0 1 1 4	0 0 0 0 0 0	0 0 0 2 2 0	0 0 0 4 7 1	0 0 0 0 0 1
0 0 1 2 3 2	0 0 3 2 3 6	0 0 5 6 3 0	0 3 1 0 3 6	0 0 3 1 3 7
4 4 4 0 0 1	2 0 2 4 2 5	5 0 3 0 3 7	0 6 3 3 4 1	0 0 0 1 1 0
0 2 6 2 0 0	0 1 5 0 5 0	0 1 0 0 6 0	0 2 6 2 0 0	0 0 1 5 4 1
5 3 0 1 5 0	3 2 3 5 7 7	0 0 0 0 0 0	0 0 0 0 1 2	0 0 5 1 1 1
0 0 0 0 0 0	0 0 0 0 1 2	0 0 5 1 1 1	0 0 1 6 0 4	4 3 4 7 0 0
0 0 5 1 1 1	0 0 1 6 0 4	5 4 0 7 0 0	0 0 0 1 1 3	0 0 0 0 0 0
4 4 2 6 0 0	0 0 0 1 1 4	0 0 0 0 0 0	0 0 0 2 2 0	0 0 0 4 7 3
0 0 1 3 3 1	0 0 1 2 3 6	0 0 3 2 3 5	0 0 5 5 3 1	0 3 1 1 3 3
0 0 1 6 1 0	4 4 5 0 0 1	2 0 2 4 4 1	2 0 3 0 3 7	0 6 3 4 0 1

FILE C001 REC 0007 CH 1710

1057	0	0	7	1	6	0	0	1	2	0	4	0	0	2	0	6	0	0	0	0	6	1	0	0
1105	0	0	0	4	5	1	1	1	4	0	5	0	0	0	0	5	3	0	1	2	7	0	0	5
1153	0	0	5	1	1	1	0	0	1	6	0	4	4	4	4	6	1	0	0	0	0	1	1	1
1201	4	5	0	5	0	0	0	0	0	1	1	2	0	1	0	0	0	0	0	0	0	0	1	2
1249	0	0	0	0	0	0	0	0	0	0	1	2	0	0	5	1	1	1	0	0	1	6	0	4
1297	0	0	0	4	7	5	0	0	0	0	0	1	0	1	4	2	3	6	0	1	4	5	3	0
1345	0	3	1	2	3	1	0	0	3	1	3	0	0	2	1	1	3	2	0	0	6	7	3	1
1393	0	6	3	5	2	6	0	0	7	5	3	0	0	1	2	3	0	0	0	2	0	2	2	0
1441	0	2	5	2	2	0	0	0	5	0	2	1	1	1	5	4	6	4	0	0	0	4	0	4
1489	0	0	0	0	1	2	0	0	5	1	2	1	0	0	1	6	0	4	4	6	0	4	1	0
1537	0	0	1	6	0	4	4	6	2	4	0	0	0	0	0	1	1	2	0	0	0	0	0	0
1585	0	0	0	1	1	3	0	0	0	0	0	0	0	0	0	0	1	2	0	0	5	1	1	1
1633	0	0	0	2	2	0	0	0	0	4	7	0	0	0	0	0	0	1	0	1	4	2	3	6
1681	0	0	5	5	3	0	0	3	1	3	3	4	0	0	3	1	3	0	0	3	0	0	3	2

FILE 0001 REC 0008 CH 1710

0001	0	0	1	6	1	0	4	4	0	0	0	1	2	0	2	5	1	1	6	0	3	0	3	7
0049	0	0	0	4	5	0	0	2	6	0	0	0	0	1	4	7	7	0	0	1	1	1	1	0
0097	1	2	0	0	0	5	6	3	7	5	5	0	3	2	3	4	1	0	0	0	0	0	0	0
0145	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	2	0	0	5	1	1	1
0193	0	0	0	0	1	2	0	0	5	1	1	1	0	0	1	6	0	4	4	0	0	1	0	0
0241	0	0	1	6	0	4	4	0	2	1	0	0	0	0	0	1	1	4	0	0	0	0	0	0
0289	0	1	4	5	3	0	0	0	1	3	3	1	0	0	1	4	3	5	0	0	3	2	3	4
0337	0	0	6	6	3	1	0	0	1	6	1	0	4	4	1	0	0	1	2	0	2	5	4	2
0385	0	2	7	7	5	0	0	0	3	0	1	0	0	0	0	0	0	0	0	1	4	1	1	0
0433	0	0	0	2	0	7	1	2	1	0	0	5	6	3	1	4	0	0	3	2	3	3	6	7
0481	4	0	4	0	1	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	2
0529	0	0	0	0	0	0	0	0	0	0	1	2	0	0	5	1	1	1	0	0	1	6	0	4
0577	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0625	0	1	4	2	3	6	0	1	4	5	3	0	0	0	1	3	3	1	0	0	1	5	3	0
0673	0	3	0	1	3	2	0	0	6	6	3	5	0	0	1	6	1	0	4	5	1	0	0	1
0721	0	1	2	0	4	0	0	2	7	7	3	0	0	0	4	7	7	0	0	2	6	3	0	0
0769	1	1	6	6	5	2	0	0	0	1	7	7	1	3	0	0	0	5	7	3	3	0	0	0
0817	0	0	1	6	0	4	4	1	5	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0
0865	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	1	2	0	0	6	1	1	1
0913	0	0	0	0	1	2	0	0	6	1	1	1	0	0	1	6	0	4	5	0	5	7	1	0
0961	0	0	0	0	0	1	0	1	4	2	3	6	0	1	4	5	3	0	0	0	1	3	3	1
1009	0	0	3	1	3	0	0	3	0	2	3	1	0	0	6	5	3	1	0	0	1	6	1	0
1057	0	0	6	4	1	0	0	1	2	0	4	0	0	2	6	1	7	0	0	0	3	0	1	0
1105	0	0	7	7	0	1	1	1	7	2	3	6	0	0	0	0	7	5	1	3	0	0	0	5
1153	0	0	6	1	1	1	0	0	1	6	0	4	5	2	3	4	0	0	0	0	0	1	1	1
1201	5	2	5	4	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	1	2
1249	0	0	0	0	0	0	0	0	0	0	1	2	0	0	6	1	1	1	0	0	1	6	0	4
1297	0	0	0	4	0	0	0	0	0	0	0	1	0	1	4	2	3	6	0	1	4	5	3	0
1345	0	3	1	7	3	3	0	0	3	1	3	1	0	3	0	2	3	1	0	0	6	5	3	3
1393	0	6	3	1	6	7	0	0	6	0	1	0	0	1	2	3	0	0	0	0	0	0	0	0
1441	0	2	4	2	0	0	0	0	6	1	0	1	1	1	7	0	1	2	0	7	1	1	7	1
1489	0	0	0	0	1	2	0	0	6	1	1	1	0	0	1	6	0	4	5	3	5	2	1	0
1537	0	0	1	6	0	4	5	4	1	2	0	0	0	1	0	1	1	2	0	0	0	0	0	0
1585	0	0	0	1	1	3	0	0	0	0	0	0	0	0	0	0	1	2	0	0	6	1	1	1
1633	0	0	0	2	2	0	0	0	0	4	1	1	0	0	0	0	0	1	0	1	4	2	3	5
1681	0	0	5	5	3	2	0	3	1	0	3	4	0	0	3	1	3	0	0	3	0	3	3	0

FILE 0001 REC 0009 CH 1710

0001	0	0	1	6	1	0	4	5	6	0	0	1	2	0	2	7	0	2	2	0	3	0	3	6
0049	0	1	0	4	1	0	0	2	6	7	4	0	0	1	4	3	1	0	0	1	1	2	4	0
0097	1	3	2	0	0	5	0	3	0	7	4	0	3	2	3	0	4	3	0	0	0	0	0	0
0145	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	2	0	0	6	1	1	1
0193	0	0	0	0	1	2	0	0	6	1	1	1	0	0	1	6	0	4	5	5	4	1	1	0
0241	0	0	1	6	0	4	5	6	0	1	1	0	0	0	0	1	1	4	0	0	0	0	0	0
0289	0	1	4	5	3	0	0	0	1	3	3	1	0	0	1	7	3	0	0	0	3	2	3	0
0337	0	0	6	4	3	4	0	0	1	6	1	0	4	5	7	0	0	1	2	0	2	7	2	4
0385	0	0	0	0	0	0	0	0	6	1	0	0	0	2	6	0	4	0	0	1	4	1	4	0

```
0 0 6 1 0 0   0 2 6 1 6 0   0 1 4 1 1 0   0 1 0 0 0 0   0 2 5 5 5 0
1 2 7 0 0 5   5 3 1 2 4 0   3 2 3 5 3 7   0 0 0 0 0 0   0 0 0 0 1 2
0 0 0 1 1 1   0 0 0 0 0 0   0 0 0 0 1 2   0 0 5 1 1 1   0 0 1 6 0 4
0 0 0 0 1 2   0 0 5 1 1 1   0 0 1 6 0 4   4 5 2 5 0 0   0 0 0 1 1 3
0 0 1 6 0 4   4 5 4 5 0 0   0 0 0 1 1 4   0 0 0 0 0 0   0 0 0 2 2 0
0 1 4 5 3 0   0 0 1 3 3 1   0 0 1 3 3 1   0 0 3 2 3 5   0 0 5 5 3 1
0 0 6 7 3 1   0 0 1 6 1 0   4 4 7 0 0 1   2 0 2 4 1 6   2 0 3 0 3 7
0 2 0 2 2 0   0 0 0 4 5 0   0 2 6 1 1 0   0 1 4 7 7 0   0 1 0 0 0 0
0 0 0 4 0 4   1 2 0 0 0 5   6 3 5 5 4 0   3 2 3 4 5 3   0 0 0 0 0 0
4 6 0 4 1 0   0 0 0 1 1 1   0 0 0 0 0 0   0 0 0 0 1 2   0 0 5 1 1 1
0 0 0 0 0 0   0 0 0 0 1 2   0 0 5 1 1 1   0 0 1 6 0 4   4 6 4 3 0 0
0 0 5 1 1 1   0 0 1 6 0 4   4 7 0 3 1 0   0 0 0 1 1 4   0 0 0 0 0 0
0 1 4 2 3 6   0 1 4 5 3 0   0 0 1 3 3 1   0 0 1 4 3 1   0 0 3 2 3 4
0 3 0 0 3 2   0 0 6 7 3 2

6 0 3 0 3 7   0 6 3 5 0 4   0 0 7 3 2 0   0 1 2 0 4 0   0 2 0 0 1 0
0 1 1 1 1 0   0 2 5 4 1 0   0 0 3 0 1 1   1 1 5 7 6 4   0 0 0 3 4 4
0 0 0 0 0 0   0 0 0 0 1 2   0 0 5 1 1 1   0 0 1 6 0 4   4 7 2 2 1 0
0 0 5 1 1 1   0 0 1 6 0 4   4 7 4 2 0 0   0 0 0 1 1 2   0 0 0 0 0 0
4 0 0 1 0 0   0 0 0 1 1 3   0 0 0 0 0 0   0 0 0 0 1 2   0 0 5 1 1 1
0 0 0 0 0 0   0 0 0 2 2 0   0 0 0 4 7 1   0 0 0 0 0 1   0 1 4 2 3 6
0 0 3 2 3 4   0 0 5 5 3 7   0 3 1 4 3 1   0 0 3 1 3 0   0 3 0 0 3 7
2 0 2 5 4 2   0 0 3 0 3 7   0 6 3 6 4 1   0 0 7 1 2 0   0 1 2 0 4 0
0 1 4 1 1 0   0 1 0 7 5 0   0 2 5 5 1 0   0 0 0 0 0 1   1 1 6 0 6 2
3 2 3 3 6 7   0 0 0 0 0 0   0 0 0 0 1 2   0 0 5 1 1 1   0 0 1 6 0 4
0 0 0 0 1 2   0 0 5 1 1 1   0 0 1 6 0 4   4 0 6 0 1 0   0 0 0 1 1 2
0 0 1 6 0 4   4 1 1 1 0 0   0 0 0 1 1 3   0 0 0 0 0 0   0 0 0 0 0 0
0 0 0 0 0 0   0 0 0 0 0 0   0 0 0 2 2 0   0 0 0 4 0 1   0 0 0 0 0 1
0 0 1 5 3 0   0 0 3 2 3 3   0 0 5 5 3 6   0 3 1 4 3 0   0 0 3 1 3 0
4 5 1 0 0 1   2 0 2 5 0 0   1 0 3 0 3 7   0 6 3 7 5 2   0 0 6 7 5 0
0 2 6 3 0 0   0 0 0 0 0 0   0 1 1 1 3 0   0 2 5 5 7 0   0 0 6 1 0 1
7 3 3 0 0 0   3 2 3 2 7 7   0 0 0 0 0 0   0 0 0 0 1 2   0 0 6 1 1 1
0 0 0 0 0 0   0 0 0 0 1 2   0 0 6 1 1 1   0 0 1 6 0 4   5 0 1 0 1 0
0 0 6 1 1 1   0 0 1 6 0 4   5 0 3 7 1 0   0 0 0 1 1 3   0 0 0 0 0 0
5 0 5 7 1 0   0 0 0 1 1 4   0 0 0 0 0 0   0 0 0 2 2 0   0 0 0 4 0 4
0 0 1 3 3 1   0 0 1 5 3 0   0 0 3 2 3 2   0 0 5 5 3 5   0 3 1 6 3 1
0 0 1 6 1 0   4 5 3 0 0 1   2 0 2 6 3 4   5 0 3 0 3 7   0 6 3 0 6 1
0 0 3 0 1 0   0 2 6 7 4 0   0 1 4 3 1 0   0 1 1 1 3 0   0 2 4 4 0 0
1 3 0 0 0 5   7 3 6 3 7 0   3 2 3 1 0 5   0 0 0 0 0 0   0 0 0 0 1 2
0 0 0 1 1 1   0 0 0 0 0 0   0 0 0 0 1 2   0 0 6 1 1 1   0 0 1 6 0 4
0 0 0 0 1 2   0 0 6 1 1 1   0 0 1 6 0 4   5 3 1 3 1 0   0 0 0 1 1 3
0 0 1 6 0 4   5 3 3 3 1 0   0 0 0 1 1 4   0 0 0 0 0 0   0 0 0 2 2 0
0 1 4 5 3 0   0 0 1 3 3 1   0 0 1 6 3 6   0 0 3 2 3 1   0 0 5 5 3 3
0 0 6 5 3 3   0 0 1 6 1 0   4 5 5 0 0 1   2 0 2 6 7 1   7 0 3 0 3 6
0 0 0 0 0 0   0 0 3 0 1 0   0 2 6 2 3 0   0 1 4 4 7 0   0 1 0 1 7 0
0 7 1 1 7 1   1 3 1 0 0 5   7 3 1 3 5 0   3 2 3 0 1 1   0 0 0 0 0 0
5 3 5 2 1 0   0 0 0 1 1 1   0 0 0 0 0 0   0 0 0 0 1 2   0 0 6 1 1 1
0 0 0 0 0 0   0 0 0 0 1 2   0 0 6 1 1 1   0 0 1 6 0 4   5 4 3 1 0 0
0 0 6 1 1 1   0 0 1 6 0 4   5 4 5 1 1 0   0 0 0 1 1 4   0 0 0 0 0 0
0 1 4 2 3 5   0 1 4 5 3 0   0 0 1 3 3 1   0 0 1 7 3 4   0 0 3 2 3 0
0 3 0 3 3 0   0 0 6 4 3 7

2 0 3 0 3 6   0 7 3 0 2 0   0 0 5 1 4 0   0 1 2 3 0 0   0 0 0 0 0 0
0 1 1 2 4 0   0 2 3 0 3 0   0 0 0 0 0 1   1 1 0 0 1 0   0 7 1 1 3 4
0 0 0 0 0 0   0 0 0 0 1 2   0 0 6 1 1 1   0 0 1 6 0 4   5 5 1 0 0 0
0 0 6 1 1 1   0 0 1 6 0 4   5 5 3 0 0 0   0 1 0 1 1 2   0 0 0 0 0 0
5 5 4 1 1 0   0 0 0 1 1 3   0 0 0 0 0 0   0 0 0 0 1 2   0 0 6 1 1 1
0 0 0 0 0 0   0 0 0 2 2 0   0 0 0 4 1 3   0 0 0 0 0 0   0 1 4 2 3 5
0 0 3 2 3 0   0 0 5 5 3 1   0 3 1 1 3 0   0 0 3 1 3 0   0 3 0 4 3 2
2 0 2 7 2 4   5 0 3 0 3 6   0 7 3 0 7 1   0 0 5 7 1 0   0 0 0 0 0 0
0 1 4 1 4 0   0 1 1 0 0 0   0 0 0 0 0 0   0 0 7 7 0 1   1 1 0 3 0 2
```

FILE 0001 REC 0009 CH 1710

0433	0 7 1 0 1 0	1 3 2 0 0 5	0 3 2 0 5 0	3 1 3 1 1 5	0
0481	5 6 2 0 1 0	0 1 0 1 1 1	0 0 0 0 0 0	0 0 0 0 1 2	0
0529	0 0 0 0 0 0	0 0 0 0 1 2	0 0 6 1 1 1	0 0 1 6 0 4	5
0577	0 0 6 1 1 1	0 0 1 6 0 4	5 7 2 7 1 0	0 0 0 1 1 4	0
0625	0 1 4 2 3 6	0 1 4 5 3 0	0 0 1 3 3 1	0 0 1 0 3 2	0
0673	0 3 0 4 3 6	0 0 6 4 3 1	0 0 1 6 1 0	4 5 0 0 0 1	2
0721	0 0 0 0 0 0	0 0 0 0 0 0	0 0 3 0 1 0	0 2 5 1 0 0	0
0769	1 1 0 6 6 4	0 7 1 0 4 0	1 3 2 0 0 5	0 3 3 3 2 0	3
0817	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0
0865	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 1 2	0 0 7 1 1 1	0
0913	0 0 0 0 1 2	0 0 7 1 1 1	0 0 1 6 0 4	5 0 4 5 1 0	0
0961	0 0 0 0 0 1	0 1 4 2 3 6	0 1 4 5 3 0	0 0 1 3 3 1	0
1009	0 0 3 1 3 0	0 3 0 5 3 0	0 0 6 3 3 0	0 0 1 6 1 0	5
1057	0 0 5 3 1 0	0 1 2 0 4 0	0 2 6 2 1 0	0 0 6 1 0 0	0
1105	0 0 4 7 7 1	1 1 1 2 2 4	0 7 1 7 6 0	1 3 3 0 0 5	0
1153	0 0 7 1 1 1	0 0 1 6 0 4	5 1 0 5 0 0	0 0 1 1 1 1	0
1201	5 1 2 4 0 0	0 0 0 1 1 2	0 0 0 0 0 0	0 0 0 0 1 2	0
1249	0 0 0 0 0 0	0 0 0 0 1 2	0 0 7 1 1 1	0 0 1 6 0 5	0
1297	0 0 0 5 0 0	0 0 0 0 0 1	0 1 4 2 3 6	0 1 4 5 3 0	0
1345	0 3 2 1 3 2	0 0 3 1 3 0	0 3 0 5 3 7	0 0 6 3 3 3	0
1393	0 7 3 3 2 1	0 0 5 1 4 0	0 1 2 3 0 0	0 2 6 3 1 0	0
1441	0 2 2 0 3 0	0 0 0 0 0 1	1 1 1 7 7 0	0 7 1 6 1 4	1
1489	0 0 0 0 1 2	0 0 7 1 1 1	0 0 1 6 0 5	0 1 4 1 0 0	0
1537	0 0 1 6 0 5	0 2 0 0 0 0	0 0 0 1 1 2	0 0 0 0 0 0	0
1585	0 0 0 1 1 3	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0
1633	0 0 0 2 2 0	0 0 0 5 0 3	0 0 0 0 0 1	0 1 4 2 3 6	0
1681	0 0 5 4 3 6	0 3 2 2 3 2	0 0 3 1 3 0	0 3 0 6 3 5	0

FILE 0001 REC 0010 CH 1710

0001	0 0 1 6 1 0	5 0 5 0 0 1	2 0 2 0 1 1	5 0 3 0 3 3	0
0049	0 0 6 0 2 0	0 2 4 0 5 0	0 0 0 0 3 0	0 1 1 1 3 0	0
0097	1 3 5 0 0 5	1 3 0 3 1 0	3 1 3 6 0 1	0 0 0 0 0 0	0
0145	0 1 1 0 1 1	0 1 0 0 0 0	0 0 0 0 1 2	0 0 7 1 1 1	0
0193	0 0 0 0 1 2	0 0 7 1 1 1	0 0 1 6 0 5	0 4 5 6 0 0	0
0241	0 0 1 6 0 5	0 5 1 5 0 0	0 0 0 1 1 4	0 0 0 0 0 0	0
0289	0 1 4 5 3 0	0 0 1 3 3 1	0 1 0 1 3 1	0 0 3 1 3 6	0
0337	0 0 6 2 3 0	0 0 1 6 1 0	5 0 6 0 0 1	2 0 2 1 2 0	1
0385	0 2 5 3 4 0	0 0 4 7 7 0	0 2 5 1 7 0	0 1 3 4 2 0	0
0433	0 7 1 5 6 0	1 3 5 0 0 5	1 3 1 1 0 0	3 1 3 5 5 1	0
0481	0 5 3 5 0 0	0 0 0 1 1 1	0 0 0 0 0 0	0 0 0 0 1 2	0
0529	0 0 0 0 0 0	0 0 0 0 1 2	0 0 7 1 1 1	0 0 1 6 0 5	0
0577	0 0 7 1 1 1	0 0 1 6 0 5	0 6 3 3 0 0	0 0 0 1 1 4	0
0625	0 1 4 2 3 6	0 1 4 5 3 0	0 0 1 3 3 1	0 1 0 1 3 4	[illegible]
0673	0 3 0 7 3 1	0 0 6 1 3 7	0 0 1 6 1 0	5 0 0 0 0 1	2
0721	0 1 2 0 4 0	0 2 5 3 1 0	0 0 6 1 0 0	0 2 5 2 0 0	[illegible]
0769	1 2 1 4 0 1	0 7 1 5 0 1	1 3 6 0 0 5	1 3 2 6 0 0	3
0817	0 0 1 6 0 5	0 6 5 3 0 0	0 0 0 1 1 1	0 0 0 0 0 0	[illegible]
0865	0 0 0 1 1 2	0 0 0 0 0 0	0 0 0 0 1 2	0 0 7 1 1 1	[illegible]
0913	0 0 0 0 1 2	0 0 7 1 1 1	0 0 1 6 0 5	0 7 5 2 0 0	[illegible]
0961	0 0 0 0 0 1	0 1 4 2 3 6	0 1 4 5 3 0	0 0 1 3 3 1	[illegible]
1009	0 0 3 1 3 7	0 3 0 0 3 6	0 0 6 1 3 3	0 0 1 6 1 0	[illegible]
1057	0 0 4 2 1 0	0 1 2 3 0 0	0 2 4 0 1 0	0 0 0 4 5 0	[illegible]
1105	0 0 6 0 2 1	1 2 2 1 1 3	0 7 1 4 2 1	1 3 7 0 0 5	[illegible]
1153	0 0 7 1 1 1	0 0 1 6 0 5	1 0 4 7 0 0	0 0 0 1 1 1	[illegible]
1201	1 1 0 7 0 0	0 0 0 1 1 2	0 0 0 0 0 0	0 0 0 0 1 2	[illegible]
1249	0 0 0 0 0 0	0 0 0 0 1 2	0 0 7 1 1 1	0 0 1 6 0 5	[illegible]
1297	0 0 0 5 1 0	0 0 0 0 0 1	0 1 4 2 3 6	0 1 4 5 3 0	[illegible]
1345	0 3 2 6 3 3	0 0 3 1 3 6	0 3 0 1 3 5	0 0 6 0 3 6	[illegible]
1393	0 7 3 0 6 5	0 0 3 1 6 0	0 1 2 3 0 0	0 2 3 1 7 0	[illegible]
1441	0 1 1 0 3 0	0 0 0 0 0 1	1 2 2 1 7 2	0 7 1 3 5 0	[illegible]
1489	0 0 0 0 1 2	0 0 7 1 1 1	0 0 1 6 0 5	1 3 2 3 0 0	[illegible]
1537	0 0 1 6 0 5	1 3 4 3 1 0	0 0 0 1 1 2	0 0 0 0 0 0	[illegible]

13115	000000	000012	006111	201604
00012	006111	001604	564000	010112
01604	570700	001113	000000	000012
00114	002000	000220	000414	000001
01032	003131	005530	031136	003130
50001	202746	703035	073122	005650
25100	000000	000000	023550	003011
33320	313147	000000	000000	000000
00000	000000	000000	000000	000000
07111	001604	502500	000113	000000
04510	000114	000000	000220	000416
01331	001036	003131	005530	032031
01610	500001	202710	103035	073223
06100	025170	000000	011130	023360
33005	035630	313041	000000	000012
01111	000000	000012	007111	001604
00012	007111	001604	514400	000113
01605	000300	000114	000000	000220
14530	001331	001133	003130	005430
06333	001610	502001	202034	603034
26310	000450	000000	013420	011000
71614	134005	037710	313751	000000
14100	000111	000000	000012	007111
00000	000012	007111	001605	022010
00000	000000	000000	000000	000000
14236	014530	001331	010030	003137
30635	006237			

03033	073464	004000	000000	025030
11130	022200	007701	120516	071511
00000	000012	007111	001605	040100
07111	001605	043600	000112	000000
45600	000113	000000	000012	007111
00000	000220	000500	000001	014236
03136	005434	032336	003137	030735
02120	103033	073510	004610	012300
13420	011210	022200	006021	120066
13551	000000	000012	007111	001605
00012	007111	001605	055400	000112
01605	061400	000113	000000	000012
00114	000000	000220	000501	000001
10134	003135	005433	032431	003137
00001	202163	503032	073602	004410
25200	013010	011110	021500	006101
32600	313451	000000	000012	007111
00000	000012	007111	001605	071300
07111	001605	073200	000113	000000
75200	000114	022000	000220	000513
01331	010230	003134	065431	032530
01610	511001	203026	603031	073736
00450	025060	013420	011130	021300
37005	134300	313300	000000	000012
00111	000000	000012	007111	001605
00012	007111	001605	112600	200113
01605	114600	000114	000000	000220
14530	001331	010330	003132	005330
06036	001610	514001	203000	103030
23170	000000	000000	012700	011030
71350	130005	135740	313141	000000
32300	200111	000000	000012	007111
00000	000012	007111	001605	140300

FILE 0001 REC 0010 CH 1710

1585	0 0 0 1 1 3	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0
1633	0 0 0 2 2 0	0 0 0 5 2 3	0 0 0 0 0 1	0 1 4 2 3 6
1681	0 0 5 3 3 6	0 3 2 7 3 5	0 0 3 1 3 5	0 3 1 0 3 5

FILE 0001 REC 0011 CH 1710

0001	0 0 1 6 1 0	5 1 5 0 0 1	2 0 3 1 0 1	5 0 3 7 3 1
0049	0 1 0 0 0 0	0 2 5 6 1 0	0 0 0 0 0 0	0 1 1 1 3 0
0097	1 3 0 0 0 5	1 3 6 1 1 0	3 1 3 0 1 1	0 0 0 0 0 0
0145	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 1 2	0 0 0 1 1 1
0193	0 0 0 0 1 2	0 0 0 1 1 1	0 0 1 6 0 5	1 5 2 1 0 2
0241	0 0 1 6 0 5	1 5 4 0 0 0	0 0 0 1 1 4	0 0 0 0 0 0
0289	0 1 4 5 3 0	0 0 1 3 3 1	0 1 0 4 3 1	0 0 3 1 3 0
0337	0 0 5 1 3 7	0 0 1 6 1 0	5 1 7 0 0 1	2 0 3 1 5 0
0385	0 2 4 1 0 0	0 0 6 1 0 0	0 2 4 1 4 0	0 1 2 7 0 0
0433	0 7 1 2 0 1	1 3 0 0 0 5	1 3 6 7 3 0	3 0 3 1 1 0
0481	1 5 6 0 1 0	0 0 0 1 1 1	0 0 0 0 0 0	0 0 0 0 1 2
0529	0 0 0 0 0 0	0 0 0 0 1 2	0 0 0 1 1 1	0 0 1 6 0 5
0577	0 0 0 1 1 1	0 0 1 6 0 5	1 6 5 0 1 0	0 0 0 1 1 4
0625	0 1 4 2 3 6	0 1 4 5 3 0	0 0 1 3 3 1	0 1 0 4 3 7
0673	0 3 1 1 3 3	0 0 5 1 3 3	0 0 1 6 1 0	5 1 0 0 0 1
0721	0 1 2 3 0 0	0 2 4 5 1 0	0 0 7 7 0 0	0 2 5 3 1 0
0769	1 2 3 1 1 1	0 7 1 2 7 0	1 3 1 0 0 5	1 3 6 1 0 0
0817	0 0 1 6 0 5	1 7 1 0 0 0	0 0 0 1 1 1	0 0 0 0 0 0
0865	0 0 0 1 1 2	0 0 0 0 0 0	0 0 0 0 1 2	0 0 0 1 1 1
0913	0 0 0 0 1 2	0 0 0 1 1 1	0 0 1 6 0 5	1 0 1 6 0 0
0961	0 0 0 0 0 1	0 1 4 2 3 6	0 1 4 5 3 0	0 0 1 3 3 1
1009	0 0 3 1 3 4	0 3 1 1 3 6	0 0 5 1 3 1	0 0 1 6 1 0
1057	0 0 3 4 5 0	0 1 2 3 0 0	0 2 4 2 4 0	0 0 7 7 0 0
1105	0 0 1 5 4 1	1 2 4 7 4 2	0 7 1 2 1 1	1 4 0 0 0 5
1153	0 0 0 1 1 1	0 0 1 6 0 5	1 1 5 4 0 0	0 0 0 1 1 1
1201	2 0 1 4 0 0	0 0 0 1 1 2	0 0 0 0 0 0	0 0 0 0 1 2
1249	0 0 0 0 0 0	0 0 0 0 1 2	0 0 0 1 1 1	0 0 1 6 0 5
1297	0 0 0 5 3 4	0 0 0 0 0 1	0 1 4 2 3 6	0 1 4 5 3 0
1345	0 3 3 0 3 2	0 0 3 1 3 3	0 3 1 2 3 5	0 0 5 0 3 5
1393	0 0 3 1 1 2	0 0 3 3 0 0	0 1 2 0 4 0	0 2 4 1 4 0
1441	0 1 7 4 0 0	0 0 1 0 3 1	1 2 4 1 1 0	0 7 1 2 0 4
1489	0 0 0 0 1 2	0 0 0 1 1 1	0 0 1 6 0 5	2 1 1 2 0 0
1537	0 0 1 6 0 5	2 1 3 2 0 0	0 0 0 1 1 2	0 0 0 0 0 0
1585	0 0 0 1 1 3	0 0 0 0 0 0	0 0 0 0 1 2	0 0 0 1 1 1
1633	0 0 0 2 2 0	0 0 0 5 3 6	0 0 0 0 0 1	0 1 4 2 3 6
1681	0 0 5 2 3 1	0 3 3 0 3 5	0 0 3 1 3 3	0 3 1 2 3 7

FILE 0001 REC 0012 CH 1710

0001	0 0 1 6 1 0	5 2 3 0 0 1	2 0 3 2 7 1	0 0 3 7 3 6
0049	0 0 6 0 2 0	0 2 4 4 4 0	0 0 0 0 0 0	0 1 1 1 1 0
0097	1 4 0 0 0 5	1 3 7 6 1 0	3 0 3 6 1 0	0 0 0 0 0 0
0145	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 1 2	0 0 1 1 1 1
0193	0 0 0 0 1 2	0 0 1 1 1 1	0 0 1 6 0 5	2 3 0 1 0 0
0241	0 0 1 6 0 5	2 3 2 1 0 0	0 0 0 1 1 4	0 2 2 0 0 0
0289	0 1 4 5 3 0	0 0 1 3 3 1	0 1 0 6 3 3	0 0 3 0 3 6
0337	0 0 5 0 3 1	0 0 1 6 1 0	5 2 4 0 0 1	2 0 3 2 1 0
0385	0 2 3 5 1 0	0 0 3 0 1 0	0 2 5 1 1 0	0 1 2 3 0 0
0433	0 7 1 1 7 6	1 4 0 0 0 5	1 3 7 7 2 0	3 0 3 6 4 0
0481	2 3 4 1 0 0	0 0 0 1 1 1	0 0 0 0 0 0	0 0 0 0 1 2
0529	0 0 0 0 0 0	0 0 0 0 1 2	0 0 1 1 1 1	0 0 1 6 0 5
0577	0 0 1 1 1 1	0 0 1 6 0 5	2 4 4 7 0 0	0 0 0 1 1 4
0625	0 1 4 2 3 6	0 1 4 5 3 0	0 0 1 3 3 1	0 1 0 6 3 5
0673	0 3 1 3 3 3	0 0 5 7 3 1	0 0 1 6 1 0	5 2 6 0 0 1
0721	0 1 2 3 0 0	0 2 3 1 4 0	0 0 6 1 0 0	0 2 5 7 6 0
0769	1 2 5 1 6 0	0 7 1 1 5 3	1 4 1 0 0 5	1 3 7 7 0 0
0817	0 0 1 6 0 5	2 5 0 7 0 0	0 0 0 1 1 1	0 0 0 0 0 0
0865	0 0 0 1 1 2	0 0 0 0 0 0	0 0 0 0 1 2	0 0 1 1 1 1
0913	0 0 0 0 1 2	0 0 1 1 1 1	0 0 1 6 0 5	2 5 0 5 0 0

0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0
0 1 4 2 3 6	0 1 4 5 3 0	0 0 1 3 3 1	0 1 0 3 3 0	0 0 3 1 3 1
0 3 1 0 3 5	0 0 5 1 3 1			
5 0 3 7 3 1	0 7 3 1 0 0	0 0 3 0 0 0	0 0 0 0 0 0	0 2 3 6 5 0
1 1 1 3 0	0 1 0 3 2 0	0 0 7 7 0 1	1 2 3 2 2 1	0 7 1 3 2 0
0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0
0 0 1 1 1	0 0 1 6 0 5	1 5 0 1 0 0	1 0 0 1 1 2	0 0 0 0 0 0
5 2 1 0 2	0 0 0 1 1 3	0 0 0 0 0 0	0 0 0 0 1 2	0 0 0 1 1 1
0 0 0 0 0	0 0 0 2 2 0	0 0 0 5 2 5	0 0 0 0 0 1	0 1 4 2 3 6
0 3 1 3 0	0 0 5 3 3 5	0 3 2 7 3 1	0 0 3 1 3 5	0 3 1 0 3 0
0 3 1 5 0	3 0 3 7 3 1	0 7 3 1 1 1	0 0 3 7 2 0	0 1 2 3 0 0
1 2 7 0 0	0 1 0 0 6 0	0 1 0 6 3 0	0 0 7 7 0 1	1 2 3 7 3 0
0 3 1 1 0	0 0 0 0 0 0	0 0 0 0 1 2	0 0 0 1 1 1	0 0 1 6 0 5
0 0 0 1 2	0 0 0 1 1 1	0 0 1 6 0 5	1 6 1 1 1 0	0 0 0 1 1 2
0 1 6 0 5	1 6 3 1 0 0	0 0 0 1 1 3	0 0 0 0 0 0	0 0 0 0 1 2
0 0 1 1 4	0 0 0 0 0 0	0 0 0 2 2 0	0 0 0 5 2 0	0 0 0 0 0 1
1 0 4 3 7	0 0 3 0 3 1	0 0 5 3 3 3	0 3 2 0 3 7	0 0 3 1 3 4
1 0 0 0 1	2 0 3 1 7 0	7 0 3 7 3 0	0 0 3 0 3 2	0 0 3 6 5 0
2 5 3 1 0	0 1 2 7 0 0	0 1 1 2 4 0	0 1 0 5 1 0	0 0 1 5 4 1
3 6 1 0 0	3 0 3 1 4 0	0 0 0 0 0 0	0 0 0 0 1 2	0 0 0 1 1 1
0 0 0 0 0	0 0 0 0 1 2	0 0 0 1 1 1	0 0 1 6 0 5	1 7 3 7 0 0
0 0 1 1 1	0 0 1 6 0 5	1 7 5 7 0 0	0 0 0 1 1 3	0 0 0 0 0 0
0 1 6 0 0	0 0 0 1 1 4	0 0 0 0 0 0	0 0 0 2 2 0	0 0 0 5 2 1
0 1 3 3 1	0 1 0 5 3 0	0 0 3 0 3 1	0 0 5 3 3 2	0 3 2 1 3 1
0 1 6 1 0	5 2 1 0 0 1	2 0 3 2 3 1	1 0 3 7 3 7	0 0 3 1 5 2
0 7 7 0 0	0 2 5 3 1 0	0 1 2 5 5 0	0 1 1 2 4 0	0 1 7 1 2 0
4 0 0 0 5	1 3 7 5 1 0	3 0 3 7 1 0	0 0 0 0 0 0	0 0 0 0 1 2
0 0 1 1 1	0 0 0 0 0 0	0 0 0 0 1 2	0 0 0 1 1 1	0 0 1 6 0 5
0 0 0 1 2	0 0 0 1 1 1	0 0 1 6 0 5	2 0 3 3 0 0	0 0 0 1 1 3
0 1 6 0 5	2 0 5 3 1 0	2 0 0 1 1 4	0 0 0 0 0 0	0 0 0 2 2 0
1 4 5 3 0	0 0 1 3 3 1	0 1 0 5 3 0	0 0 3 0 3 7	0 0 5 2 3 1
0 5 0 3 5	0 0 1 6 1 0	5 2 2 0 0 1	2 0 3 2 5 1	1 0 3 7 3 6
2 4 1 4 0	0 0 6 1 0 0	0 2 5 1 0 0	0 1 2 5 5 0	0 1 1 0 3 0
7 1 2 0 4	1 4 0 0 0 5	1 3 7 6 2 0	3 0 3 7 4 0	0 0 0 0 0 0
1 1 2 0 0	0 0 0 1 1 1	0 0 0 0 0 0	0 0 0 0 1 2	0 0 0 1 1 1
0 0 0 0 0	0 0 0 0 1 2	0 0 0 1 1 1	0 0 1 6 0 5	2 1 5 1 0 0
0 0 1 1 1	0 0 1 6 0 5	2 2 1 1 1 0	0 0 0 1 1 4	0 0 0 0 0 0
1 4 2 3 6	0 1 4 5 3 0	0 0 1 3 3 1	0 1 0 6 3 0	0 0 3 0 3 7
3 1 2 3 7	0 0 5 0 3 3			
0 3 7 3 6	0 0 3 2 3 1	0 0 3 3 2 0	0 0 0 0 0 0	0 2 3 1 4 0
1 1 1 1 0	0 1 7 1 6 0	0 0 4 7 7 1	1 2 5 2 3 7	0 7 1 1 1 0
0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0
0 1 1 1 1	0 0 1 6 0 5	2 2 5 0 0 0	0 0 0 1 1 2	0 0 0 0 0 0
3 0 1 0 0	0 0 0 1 1 3	0 0 0 0 0 0	0 0 0 0 1 2	0 0 1 1 1 1
2 2 0 0 0	0 0 0 2 2 0	0 0 0 5 3 0	0 0 0 0 0 1	0 1 4 2 3 6
0 3 0 3 6	0 0 5 2 3 0	0 3 3 0 3 1	0 0 3 1 3 2	0 3 1 3 3 0
0 3 2 1 0	0 0 3 7 3 5	0 0 3 2 6 1	0 0 3 2 6 0	0 1 2 0 4 0
1 2 3 0 0	0 1 1 0 0 0	0 1 0 5 1 0	0 0 0 4 5 1	1 2 5 4 0 2
0 3 6 4 0	0 0 0 0 0 0	0 0 0 0 1 2	0 0 1 1 1 1	0 0 1 6 0 5
0 0 0 1 2	0 0 1 1 1 1	0 0 1 6 0 5	2 4 0 0 0 0	0 0 0 1 1 2
0 1 6 0 5	2 4 2 0 0 0	0 0 0 1 1 3	0 0 0 0 0 0	0 0 0 0 1 2
0 0 1 1 4	0 0 0 0 0 0	0 0 0 2 2 0	0 0 0 5 3 1	0 0 0 0 0 1
1 0 6 3 6	0 0 3 0 3 6	0 0 5 2 3 7	0 3 3 1 3 2	0 0 3 1 3 2
2 6 0 0 1	2 0 3 3 3 0	1 0 3 7 3 4	0 0 3 3 4 5	0 0 3 1 4 0
2 5 7 6 0	0 1 2 7 0 0	0 1 1 2 4 0	0 1 7 0 5 0	0 0 6 0 2 1
3 7 7 0 0	3 0 3 5 4 1	0 0 0 0 0 0	0 0 0 0 1 2	0 0 1 1 1 1
0 0 0 0 0	0 0 0 0 1 2	0 0 1 1 1 1	0 0 1 6 0 5	2 5 2 6 0 0
0 1 1 1 1	0 0 1 6 0 5	2 5 4 6 1 0	0 0 0 1 1 3	0 0 0 0 0 0
5 0 5 0 0	0 0 0 1 1 4	0 0 0 0 0 0	0 0 0 2 2 0	0 0 0 5 4 3

FILE 0001 REC 0012 CH 1710

0961	0 0 0 0 0 1	0 1 4 2 3 6	0 1 4 5 3 0	0 0 1 3 3 1
1009	0 0 3 1 3 2	0 3 1 3 3 0	0 0 5 7 3 5	0 0 1 6 1 0
1057	0 0 3 0 0 0	0 1 2 3 0 0	0 2 3 4 4 0	0 0 3 0 1 0
1105	0 0 3 0 1 1	1 2 6 2 1 0	0 7 1 1 4 1	1 4 1 0 0 5
1153	0 0 1 1 1 1	0 0 1 6 0 5	2 6 2 5 0 0	0 0 0 1 1 1
1201	2 6 4 4 0 0	0 0 0 1 1 2	0 0 0 0 0 0	0 0 0 0 1 2
1249	0 0 1 0 0 0	0 0 0 0 1 2	0 0 1 1 1 1	0 0 1 6 0 5
1297	0 0 0 5 4 4	0 0 0 0 0 1	0 1 4 2 3 7	0 1 4 5 3 0
1345	0 3 3 2 3 2	0 0 3 1 3 1	0 3 1 4 3 0	0 0 5 7 3 3
1393	0 0 3 4 2 0	0 0 3 0 3 0	0 1 2 3 0 0	0 2 4 1 1 0
1441	0 1 1 1 1 0	0 0 6 0 2 1	1 2 6 4 5 0	0 7 1 1 3 1
1489	0 0 0 0 1 2	0 0 1 1 1 1	0 0 1 6 0 5	2 7 4 3 0 0
1537	0 0 1 6 0 5	2 0 0 2 0 0	0 0 0 1 1 2	0 0 0 0 0 0
1585	0 0 0 1 1 3	0 0 0 0 0 0	0 0 0 0 1 2	0 0 1 1 1 1
1633	0 0 0 2 2 0	0 0 0 5 4 6	0 0 0 0 0 1	0 1 4 2 3 7
1681	0 0 5 2 3 3	0 3 3 2 3 5	0 0 3 1 3 1	0 3 1 4 3 3

FILE 0001 REC 0013 CH 1710

0001	0 0 1 6 1 0	5 3 0 0 0 1	2 0 3 4 0 7	1 0 3 7 3 2
0049	0 0 4 7 7 0	0 2 5 3 1 0	0 1 0 0 0 0	0 1 1 2 4 0
0097	1 4 2 0 0 5	1 3 7 2 0 0	3 0 3 3 5 3	0 0 0 0 0 0
0145	0 0 0 1 1 1	0 2 0 0 0 0	0 0 0 0 1 2	0 0 1 1 1 1
0193	0 0 0 0 1 2	0 0 1 1 1 1	0 0 1 6 0 5	2 1 4 0 0 0
0241	0 0 1 6 0 5	2 1 6 0 0 0	0 0 0 1 1 4	0 0 0 0 0 0
0289	0 1 4 5 3 0	0 0 1 3 3 1	0 1 0 0 3 0	0 0 3 0 3 3
0337	0 0 5 6 3 0	0 0 1 6 1 0	5 3 1 0 0 1	2 0 3 4 2 7
0385	0 2 3 5 6 0	0 0 0 0 0 0	0 2 4 1 0 0	0 1 2 5 5 0
0433	0 7 1 1 0 5	1 4 2 0 0 5	1 3 7 1 0 0	3 0 3 3 0 4
0481	3 0 1 1 0 0	0 0 0 1 1 1	0 0 0 0 0 0	0 0 0 0 1 2
0529	0 0 0 0 0 0	0 0 0 0 1 2	0 0 1 1 1 1	0 0 1 6 0 5
0577	0 0 1 1 1 1	0 0 1 6 0 5	3 1 1 0 0 0	0 0 0 1 1 4
0625	0 1 4 2 3 7	0 1 4 5 3 0	0 0 1 3 3 1	0 1 0 0 3 2
0673	0 3 1 5 3 0	0 0 5 6 3 6	0 0 1 6 1 0	5 3 2 0 0 1
0721	0 1 2 0 4 0	0 2 4 2 1 0	0 0 6 0 2 0	0 2 4 4 0 0
0769	1 2 7 4 0 0	0 7 1 0 1 7	1 4 2 0 0 5	1 3 6 0 1 0
0817	0 0 1 6 0 5	3 1 3 7 0 0	0 0 0 1 1 1	0 0 0 0 0 0
0865	0 0 0 1 1 2	0 0 0 0 0 0	0 0 0 0 1 2	0 0 1 1 1 1
0913	0 0 0 0 1 2	0 0 1 1 1 1	0 0 1 6 0 5	3 2 3 6 0 0
0961	0 0 0 0 0 1	0 1 4 2 3 7	0 1 4 5 3 0	0 0 1 3 3 1
1009	0 0 3 0 3 1	0 3 1 5 3 2	0 0 5 6 3 4	0 0 1 6 1 0
1057	0 0 2 7 3 0	0 1 2 3 0 0	0 2 3 0 0 0	0 0 3 0 1 0
1105	0 0 6 1 0 1	1 2 7 0 6 0	0 7 1 0 0 4	1 4 3 0 0 5
1153	0 0 1 1 1 1	0 0 1 6 0 5	3 2 5 6 0 0	0 0 0 1 1 1
1201	3 3 1 5 1 0	0 0 0 1 1 2	0 0 0 0 0 0	0 0 0 0 1 2
1249	0 0 0 0 0 0	0 0 0 0 1 2	0 0 1 1 1 1	0 0 1 6 0 5
1297	0 0 0 5 5 6	0 0 0 0 0 1	0 1 4 2 3 7	0 1 4 5 3 0
1345	0 3 3 4 3 3	0 0 3 0 3 1	0 3 1 5 3 7	0 0 5 6 3 1
1393	0 0 3 6 7 0	0 0 2 6 0 0	0 1 2 3 0 0	0 2 4 4 0 0
1441	0 1 7 4 0 0	0 0 4 7 7 1	1 2 0 1 0 0	0 7 1 0 7 1
1489	0 0 0 0 1 2	0 0 1 1 1 1	0 0 1 6 0 5	3 4 1 4 0 0

001331	010730	003035	005235	033131
001610	527001	203341	703734	003303
003010	025010	012550	011130	011030
141005	137640	303500	000000	000012
000111	000000	000012	001111	001605
000012	001111	001605	270400	000113
001605	272300	000114	000000	000220
014530	001331	010733	003034	005234
005733	001610	520001	203361	203733
024110	000450	024260	012550	011110
071131	141005	137550	303451	000000
274300	000111	000000	000012	001111
000000	000012	001111	001605	202210
001111	001605	204200	000114	000000
014237	014530	001331	010735	003034
031433	005731			
103732	003413	002120	012300	023720
011240	017160	006021	126120	071113
000000	000012	001111	001605	210100
001111	001605	212100	000112	000000
214000	000113	000000	000012	001111
000000	000220	000550	000001	014237
003033	005231	033331	003130	031437
203427	103732	003521	002070	012300
012550	011210	010510	001031	127164
303304	000000	000012	001111	001605
000012	001111	001605	303110	000112
001605	305000	000113	000000	000012
000114	000000	000220	000551	000001
010032	003033	005230	033334	003130
532001	203446	303731	003565	002020
024400	012550	011240	017120	000451
136010	303255	000000	000012	001111
000000	000012	001111	001605	315700
001111	001605	321600	000113	001000
323600	000114	000000	000220	000553
001331	010035	003032	005230	033337
001610	534001	203404	403730	003635
003010	025210	012550	010170	016100
143005	136310	303150	000000	000012
000111	000000	000012	001111	001605
000012	001111	001605	333500	000113
001605	335400	000114	002000	000220
014530	001331	010031	003031	005130
005631	001610	535001	203503	303730
024400	004770	024010	012300	011110
071071	143005	136100	303110	000000
341400	000111	000000	000012	001111

61-020A-03A

EXPLORER - 12 (Upsilon-1)

December, 1967

This program reads data taken from EXPLORER 12 and checks time data was obtained. If a 30 minute time gap has elapsed between date gatherings then a message is printed out with the location of first and last record in group before the 30 minute time gap was discovered, date of record, time in hours and minutes that record was read and finally the "B" and "L" of the first and last record in the group.

The program also has routines which compare the "L" with local time for all records and the "L" with universal time for all records. These values are then printed out in matrices of 150 values "L" versus 24 values of time, both local and universal.

Finally, the "B" and "L" values are recorded in a matrix with 50 values of "L" ranging from o.o to 6.0 (incremented by 0.1) and 20 values of "B" ranging from 0 to 100K (Incremented by 1K from zero to 10K, 5K from 10 to 50K and 25K from 50 to 100K); and 100 values of "L" ranging from 6.0 to 16.0 (incremented by 0.1) and 20 values of "B" ranging from zero to 2000 (incremented by 100S).

The final matrix compares latitude versus longitude with total number of orbits.

```
C     ***AR. LUNDSTROM. 30 OCT. 67. WRDC. GSFC
C
      DIMENSION A1(285), A2(19), A3(21,5), I1(285), I2(19), I3(21,5)
      DIMENSION TEMP1(21), TEMP2(21), TEMP3(21), TEMP4(21)
      EQUIVALENCE (I1,A1), (I2,A2), (I3,A3)
      ITP1=0
      ITP2=0
      ITP3=1
C     ********************************************************************
C     ****INITIALIZING ROUTINE
      LINE=0
      N=0
      KOUNT=0
      KEY=1
      NW=57
      CALL SETHD
      CALL MATLT (KEY,N,N)
      CALL MAT8L (KEY,N,N)
      CALL MATPSN (KEY,N,N)
      CALL MATLU  (KEY,N,N)
    4 CONTINUE
      J=0
      NI=1
      II=1
      KI=5
      KEY=0
      NPAR=5
C     ****READ IN FIRST RECORD
    5 CALL INBCD (A1,IP,IE,NW)
C     ****CHECK FOR EOF PARITY ERROR.
      IF  (IE.NE.0) GO TO 70
   10 IF (IP.EQ.0) GO TO 14
      NPAR=NPAR-1
      IF (NPAR) 70,70,5
C     ****INCREASE PHYSICAL RECORD COUNTER BY 1.
   14 KOUNT=KOUNT+1
C     ****CONVERT LOGICAL RECORD.
   15 CALL CVTNUM  (1,A1(II),2,A2(1),2,A2(2),1,A2(3),2,A2(4),2,A2(5),
     1             -4,6,A2(6),5,A2(7),6,A2(8),5,A2(9),6,A2(10),6,A2(11),
     2               6,A2(12),6,A2(13),6,A2(14),5,A2(15),6,A2(16),
     3               6,A2(17),-16,8,A2(18),7,A2(19))
      A2(9)=FLOAT(A2(9))
      J=J+1
      DO 20 I=1,19
   20 A3(I,J)=A2(I)
C     ****CHECK, SEE IF ALL 5 LOGICAL RECORDS HAVE BEEN CONVERTED.
      II=II+57
      IF(II.GT.285) GO TO 24
      GO TO 15
C     ****CONVERT 'Z' TIME TO LOCAL TIME
   24 DO 25 J=1,5
C     ****CONVERT FIXED TO FLOATING POINT - HRS. AND MIN. TO MINUTES.
      TIMEX= FLOAT (A3(4,J))+ FLOAT(A3(5,J))/60.
C     ****CALL SUBROUTINE TO CONVERT 'U' TIME TO LOCAL.
      CALL LOCTIM (TIMEX,A3(18,J),A3(20,J))
```

INTERNAL FORMULA NUMBER(S)

21,5)

,1
,2

****

,3
,4
,5
,6
,7
,8
,9
,10
,11
,12
,13
,14
,15
,16
,17
,18
,19

,20

,21
,22 ,23 ,24
,25 ,26 ,27
,28

,29

,30

2(5),
A2(11),
,

,31
,32
,33
,34

D. ,35 ,36
,37
,38 ,39 ,40

,41

UTES. ,42

,43
,44

```
                EXPLOR
          EXTERNAL FORMULA NUMBER   -   SOURCE STATEMENT    -   INTERNA

      CALL TIMCHG (A3(1,J ),A3(2,J ),A3(3,J ), A3(4,J ), FLOAT(A3(5,J ))
     1   , A3(21,J))
   25 CONTINUE
C     ****CHECK FOR RECORD IN TEMP HOLD.
   27 IF (ITP1.EQ.1) GO TO 29
      ITP1=1
      DO 28 K=1,21
      TEMP2(K)=A3(K,1)
      TEMP1(K)=A3(K,1)
   28 CONTINUE
C     **********************************************************************
C     ****TIME CHECK ROUTINE- HAS THERE BEEN A 30 MINUTE GAP BETWEEN
C     ****ANY RECORDS.
   29 DO 32 I=1,5
      K=21
      ITP2=ITP2+1
      IF (A3(K ,I)-TEMP2(K).GT.30./1440.) GO TO 35
      DO 32 K=1,21
      TEMP2(K)=A3(K,I)
   32 CONTINUE
      DO 34 I=1,5
      CALL MATLT (0.,A3(8,I),A3(20,I))
      CALL MATLU  (0.       A3(8,I) ,FLOAT(A3( 4,I)))
      CALL MTBL (0.,A3(9,I),A3(8,I))
      CALL MATPSN (0.,A3(18,I),A3(19,I))
   34 CONTINUE
      GO TO 4
C     **********************************************************************
   40 CALL HEADER
      LINE=55
      GO TO 35
C     ****PRINT ROUTINE- A 30 MINUTE RECORD GAP HAS BEEN FOUND.
   35 CONTINUE
      IF (LINE.LE.0) GO TO 40
      LINE=LINE-1
      WRITE (3,38) ITP3, (TEMP1(N),N=1,5), TEMP1(9), TEMP1(8),
     1             ITP2, (TEMP2(N),N=1,5), TEMP2(9), TEMP2(8)

   38 FORMAT   (1H , 9X, I7,4X,I2, 1H/,I2,1H/,I2,3X,I4,5X,I5,3X,
     1 F7.0,2X,F7.2,    9X,I6,8X,I2,1H/,I2,1H/,I2,2X,I3,4X,I3,2X,
     2     F7.0,2X,F7.2)
      ITP3=ITP3+ITP2
      ITP2=0
      DO 37 JJ=1,21
      TEMP1(JJ)=A3(JJ,I)
      TEMP2(JJ)=A3(JJ,I)
   37 CONTINUE
      IF (KEY.EQ.-1) GO TO 71
C     ****RETURN TO RECORD CHECK ROUTINE.
      GO TO 32
C     **********************************************************************
C     ****EXIT ROUTINE- ALL RECORDS HAVE BEEN PROCESSED.
   70 KEY=-1
      GO TO 35
   71 ITP3=ITP3-1
      WRITE (3,74)
```

INTERNAL FORMULA NUMBER(S)

A3(5,J))

.45

.46 .47
.48 .49 .50
.51
.52
.53
.54

****

TWEEN

.55 .56
.57
.58
.59
.60 .61 .62
.63
.64
.65 .66 .67
.68
.69
.70
.71
.72
.73 .74

********** .75
.76
.77

.78
.79
.80 .81 .82
.83

.84 .85 .86 .87 .88 .89
.90 .91 .92 .93 .94

X.

.95
.96
.97
.98
.99
.100 .101

.102 .103 .104

****

.105
.106
.107
.108
.109 .110

```
     74 FORMAT (1H0,10X,34H END 30 MINUTE RECORD GAP ROUTINE.)
        CALL MATLT (KEY,N,N)
        CALL MATLU (KEY,N,N)
        CALL MTBL (KEY,N,N)
        CALL MATPSN (KEY,N,N)
C       ****EXIT ROUTINE HAS BEEN COMPLETED, STOP RUN.
        WRITE (3,72) KOUNT, ITP3
     72 FORMAT (1H1,9X,43H UPSILON-1 (EXPLORER 12) HAS COMPLETED RUN./
       1    10X,  16H THERE HAVE BEEN,  I6,1X,  12HPHYSICAL AND,
       2  I7,1X,  36HLOGICAL RECORDS READ FROM THIS TAPE.)
        STOP
        END
```

INTERNAL FORMULA NUMBER(S)

.111
.112
.113

.114
.115 .116 .117

UN./

.118
.119

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT, REF. DATA USERS

THIS ROUTINE WILL READ AN EXPLORER 12 TAPE AND COMPUTE THE LOCA

. DATA USERS NOTE- NSSDC 67-16. DTD. FEB. 67. DATA FROM TAPE D-00042.

UTE THE LOCAL TIME OF THE SATELLITE CHARGED PARTICLE READING.

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT. REF. DATA USERS NOTE-

RECORD NO.	DTD.	HRS.	MIN.	B	L	RECORD
1	8/16/ 1	3	53	7560.	2.19	1000
1001	8/17/ 1	7	11	893.	5.00	1
1092	8/17/ 1	9	44	76.	9.54	862
1864	8/18/ 1	8	53	12557.	1.36	1026
2890	8/19/ 1	11	20	23711.	1.09	461
3351	8/20/ 1	-0	38	16.	14.71	496
3847	8/20/ 1	14	19	4013.	2.57	926
4773	8/21/ 1	16	48	6525.	2.66	949
5722	8/22/ 1	19	35	3172.	4.22	881
6603	8/23/ 1	20	54	3341.	3.84	3
6606	8/23/ 1	21	53	8835.	2.90	4071
10677	8/28/ 1	8	41	1095.	3.96	48
10725	8/28/ 1	12	37	41.	9.88	738
11463	8/29/ 1	10	18	28729.	1.13	7
11470	8/29/ 1	11	58	319.	5.40	835
12305	8/30/ 1	13	19	5879.	2.24	493
12798	8/31/ 1	4	28	17.	14.83	237
13035	8/31/ 1	12	52	118.	6.59	25
13060	8/31/ 1	15	35	25778.	1.21	44
13104	8/31/ 1	18	32	103.	8.35	565
13669	9/ 1/ 1	11	32	25.	10.80	38
13707	9/ 1/ 1	13	7	37.	9.46	176
13883	9/ 1/ 1	18	14	19533.	1.66	235
14118	9/ 2/ 1	2	19	25.	15.51	158
14276	9/ 2/ 1	7	12	16.	14.84	469
14745	9/ 2/ 1	20	58	8900.	2.96	510
15255	9/ 3/ 1	10	18	14.	13.65	429
15684	9/ 3/ 1	23	21	15061.	1.64	335
16019	9/ 4/ 1	10	9	15.	13.60	1377
17396	9/ 6/ 1	1	2	79.	7.32	128
17524	9/ 6/ 1	4	36	6936.	1.98	272
17796	9/ 6/ 1	12	54	18.	12.31	724
18520	9/ 7/ 1	6	58	18279.	1.20	670
19190	9/ 8/ 1	3	42	33.	10.54	137
19327	9/ 8/ 1	9	39	11193.	1.51	464
19791	9/ 8/ 1	22	58	15.	14.19	105
19896	9/ 9/ 1	2	55	19.	13.45	364
20260	9/ 9/ 1	13	5	733.	4.24	817
21077	9/10/ 1	8	42	30.	10.36	208
21285	9/10/ 1	14	43	20541.	1.47	620
21905	9/11/ 1	7	14	17.	13.40	369
22274	9/11/ 1	17	31	7658.	3.04	576
22850	9/12/ 1	8	56	15.	13.30	381
23231	9/12/ 1	19	59	11782.	2.51	178
23409	9/13/ 1	-0	49	49.	13.45	361
23770	9/13/ 1	10	29	14.	13.25	894
24664	9/14/ 1	9	42	15.	13.52	232
24896	9/14/ 1	16	13	18.	12.18	335
25231	9/15/ 1	1	21	3696.	3.73	409
25640	9/15/ 1	19	44	20.	11.47	15
25655	9/16/ 1	1	41	304.	4.79	58
25713	9/16/ 1	3	40	7239.	1.98	55
25768	9/16/ 1	6	12	124.	8.86	180
25948	9/16/ 1	12	45	16.	12.54	25
25973	9/16/ 1	15	30	14.	13.12	29

NOTE- NSSDC 67-16. DTD. FEB. 67. DATA FROM TAPE D-00042.

RECORD NO.	DTD.	HRS.	MIN.	B	L
1000	8/17/ 1	6	8	33617.	1.24
1	8/17/ 1	7	11	893.	5.00
862	8/18/ 1	8	10	4000.	2.30
1026	8/19/ 1	10	25	1348.	3.03
461	8/20/ 1	-0	3	16.	14.57
403	8/20/ 1	13	17	3783.	2.43
926	8/21/ 1	15	58	6389.	2.27
949	8/22/ 1	18	33	7220.	2.50
881	8/23/ 1	20	20	751.	4.84
3	8/23/ 1	20	56	3779.	3.77
4071	8/28/ 1	7	43	31235.	1.27
48	8/28/ 1	11	12	76.	8.52
738	8/29/ 1	9	24	1047.	3.27
7	8/29/ 1	10	26	22743.	1.11
835	8/30/ 1	12	22	3687.	2.47
493	8/31/ 1	3	12	17.	15.32
237	8/31/ 1	12	19	81.	7.34
25	8/31/ 1	13	56	361.	4.89
44	8/31/ 1	16	41	689.	4.96
565	9/ 1/ 1	10	59	22.	11.25
38	9/ 1/ 1	12	36	32.	9.91
176	9/ 1/ 1	17	36	6076.	2.67
235	9/ 1/ 1	23	36	41.	13.18
158	9/ 2/ 1	6	38	16.	15.14
469	9/ 2/ 1	20	20	14590.	2.28
510	9/ 3/ 1	9	45	14.	13.85
429	9/ 3/ 1	22	49	11346.	3.29
335	9/ 4/ 1	9	16	17.	13.72
1377	9/ 5/ 1	22	36	31.	10.04
128	9/ 6/ 1	4	6	23598.	1.91
272	9/ 6/ 1	12	17	20.	12.09
724	9/ 7/ 1	8	19	3949.	2.38
670	9/ 8/ 1	3	9	29.	11.09
137	9/ 8/ 1	7	9	158.	5.81
464	9/ 8/ 1	22	4	15.	14.00
105	9/ 9/ 1	2	23	19.	13.73
364	9/ 9/ 1	11	25	3448.	2.53
817	9/10/ 1	7	58	26.	11.13
208	9/10/ 1	13	39	1209.	3.59
620	9/11/ 1	5	52	17.	14.37
369	9/11/ 1	16	39	5394.	2.76
576	9/12/ 1	8	19	15.	13.65
381	9/12/ 1	19	23	12500.	2.43
178	9/13/ 1	-0	5	83.	12.63
361	9/13/ 1	9	51	14.	13.47
894	9/14/ 1	9	8	15.	13.60
232	9/14/ 1	15	38	17.	12.43
335	9/15/ 1	0	42	31407.	1.75
409	9/15/ 1	17	13	15.	12.69
15	9/15/ 1	20	35	24.	10.89
58	9/16/ 1	3	2	10938.	2.29
55	9/16/ 1	5	40	188.	8.12
180	9/16/ 1	12	2	18.	12.31
25	9/16/ 1	13	53	15.	12.85
29	9/16/ 1	17	38	14.	13.10

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT, REF. DATA USERS NOTE-

RECORD NO.	DTD.		HRS.	MIN.	B	L	PAGE RECO
26002	9/16/	1	18	32	14.	12.96	713
26715	9/17/	1	16	33	15.	12.87	563
27277	9/18/	1	8	53	4974.	2.09	157
27434	9/18/	1	14	15	30.	10.42	2
27436	9/18/	1	15	18	24.	11.20	231
27667	9/18/	1	22	30	15.	13.99	412
28079	9/19/	1	11	39	2605.	2.87	157
28236	9/19/	1	16	9	38.	10.01	634
28870	9/20/	1	9	2	43.	8.99	128
28998	9/20/	1	14	45	757.	4.63	51
29049	9/20/	1	18	13	48.	10.08	600
29649	9/21/	1	16	25	15789.	2.03	436
30085	9/22/	1	4	40	16.	15.01	57
30142	9/22/	1	8	50	16.	12.81	277
30419	9/22/	1	18	58	16529.	1.96	146
30565	9/22/	1	23	53	48.	13.15	406
30971	9/23/	1	15	19	29.	10.75	181
31152	9/23/	1	21	22	23139.	1.16	198
31350	9/24/	1	3	19	37.	13.56	52
31402	9/24/	1	7	6	18.	13.74	58
31460	9/24/	1	12	42	14.	12.99	381
31841	9/25/	1	1	46	317.	8.59	53
31894	9/25/	1	6	3	32.	12.38	68
31962	9/25/	1	9	22	17.	12.90	19
31981	9/25/	1	11	44	14.	13.13	78
32059	9/25/	1	16	29	16.	12.66	381
32440	9/26/	1	2	42	8460.	1.83	43
32483	9/26/	1	7	5	48.	10.50	8
32491	9/26/	1	8	43	28.	11.37	883
33374	9/27/	1	11	25	26.	10.96	629
34003	9/28/	1	7	33	26437.	1.10	358
34361	9/28/	1	18	21	15.	13.08	588
34949	9/29/	1	10	27	7651.	1.98	1027
35976	9/30/	1	12	56	12882.	1.91	770

END 30 MINUTE RECORD GAP ROUTINE.

A USERS NOTE- NSSDC 67-16. DTD. FEB. 67. DATA FROM TAPE D-00042.

RECORD NO.	DTD.	HRS.	MIN.	B	L
713	9/17/ 1	15	53	16.	12.67
562	9/18/ 1	7	32	1058.	3.30
157	9/18/ 1	12	49	47.	9.13
2	9/18/ 1	14	18	30.	10.46
231	9/18/ 1	21	56	15.	13.93
412	9/19/ 1	10	21	2185.	2.85
157	9/19/ 1	15	22	49.	9.19
634	9/20/ 1	8	32	36.	9.53
128	9/20/ 1	13	0	2954.	2.83
51	9/20/ 1	17	41	59.	9.42
600	9/21/ 1	15	6	891.	4.50
436	9/22/ 1	3	55	17.	15.27
57	9/22/ 1	8	15	16.	13.14
277	9/22/ 1	18	0	2260.	4.30
146	9/22/ 1	23	10	62.	12.33
406	9/23/ 1	14	44	25.	11.14
181	9/23/ 1	20	12	900.	4.74
198	9/24/ 1	2	26	49.	13.13
52	9/24/ 1	6	35	19.	13.81
58	9/24/ 1	11	45	14.	13.13
381	9/25/ 1	0	49	1344.	5.86
53	9/25/ 1	4	52	47.	11.93
68	9/25/ 1	8	12	20.	12.77
19	9/25/ 1	10	51	15.	13.05
76	9/25/ 1	15	20	15.	12.98
381	9/26/ 1	2	3	8360.	2.48
43	9/26/ 1	5	59	80.	9.65
8	9/26/ 1	7	29	41.	10.74
883	9/27/ 1	10	44	30.	10.51
529	9/28/ 1	6	54	2561.	2.67
358	9/28/ 1	17	24	16.	12.74
588	9/29/ 1	9	26	2324.	2.82
1027	9/30/ 1	12	11	4777.	2.48
770	10/ 1/ 1	11	7	52.	8.69

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT. REF. DATA USERS NOTE
MATRIX OF VALUES OF L AND LOCAL TIME FO

TIME / L RANGE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.0-1.1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
1.1-1.2	2	0	0	0	0	0	0	0	0	0	0	0	0	0
1.2-1.3	7	2	0	0	0	0	0	0	0	0	0	0	0	0
1.3-1.4	2	4	1	0	0	0	0	0	0	0	0	0	0	0
1.4-1.5	5	5	0	0	0	0	0	0	0	0	0	0	0	0
1.5-1.6	2	3	6	0	0	0	0	0	0	0	0	0	0	0
1.6-1.7	3	8	5	1	0	0	0	0	0	0	0	0	0	0
1.7-1.8	0	5	4	0	1	0	0	0	0	0	0	0	0	0
1.8-1.9	1	2	3	2	1	0	0	0	0	0	0	0	0	0
1.9-2.0	1	5	4	1	2	0	0	0	0	0	0	0	0	0
2.0-2.1	0	7	2	4	2	0	0	0	0	0	0	0	0	0
2.1-2.2	0	1	6	5	3	1	0	0	0	0	0	0	0	0
2.2-2.3	0	4	6	5	1	2	0	0	0	0	0	0	0	0
2.3-2.4	0	3	3	6	1	3	0	0	0	0	0	0	0	0
2.4-2.5	0	2	6	7	6	1	0	0	0	0	0	0	0	0
2.5-2.6	0	0	4	6	5	4	0	0	0	0	0	0	0	3
2.6-2.7	0	1	3	10	7	5	0	0	0	0	0	0	0	5
2.7-2.8	0	0	6	5	8	4	0	0	0	0	0	0	0	13
2.8-2.9	0	0	3	6	9	4	2	0	0	0	0	0	0	9
2.9-3.0	0	0	3	9	7	6	1	0	0	0	0	0	0	15
3.0-3.1	0	0	1	5	10	4	4	0	0	0	0	0	4	10
3.1-3.2	0	0	2	5	7	8	2	0	0	0	0	0	7	11
3.2-3.3	0	0	2	0	14	6	4	0	0	0	0	0	6	19
3.3-3.4	0	0	0	6	10	8	3	0	0	0	0	0	9	19
3.4-3.5	0	0	1	3	12	4	3	0	0	0	0	0	8	20
3.5-3.6	0	0	1	4	7	8	1	1	0	0	0	0	9	22
3.6-3.7	0	0	1	4	7	7	3	2	0	0	0	0	20	17
3.7-3.8	0	0	0	1	11	11	1	0	0	0	0	0	13	16
3.8-3.9	0	0	0	3	4	10	1	3	0	0	0	0	21	19
3.9-4.0	0	0	0	5	8	8	10	2	0	0	0	0	27	20
4.0-4.1	0	0	0	2	14	9	9	2	0	0	0	0	24	20
4.1-4.2	0	0	0	2	7	13	8	3	0	0	0	0	23	21
4.2-4.3	0	0	0	2	7	14	12	6	0	0	0	4	19	21
4.3-4.4	0	0	0	2	9	16	7	4	0	0	0	6	22	3
4.4-4.5	0	0	0	0	5	16	13	8	0	0	0	9	20	2
4.5-4.6	0	0	0	0	7	21	11	11	0	0	0	11	18	2
4.6-4.7	0	0	0	1	2	11	18	11	0	0	0	11	26	3
4.7-4.8	0	0	0	1	3	16	14	8	2	0	0	10	27	3
4.8-4.9	0	0	0	1	3	14	17	12	0	0	0	9	30	2
4.9-5.0	0	0	0	0	2	15	17	4	4	0	0	16	32	2
5.0-5.1	0	0	0	0	1	10	21	11	4	0	0	15	32	2
5.1-5.2	0	0	0	0	4	12	11	9	3	0	0	16	36	3
5.2-5.3	0	0	0	0	2	15	15	10	3	0	0	17	34	3
5.3-5.4	0	0	0	0	2	9	13	13	6	0	0	21	34	3
5.4-5.5	0	0	0	0	3	11	18	16	3	0	0	18	28	3
5.5-5.6	0	0	0	0	3	14	17	11	6	0	0	25	26	4
5.6-5.7	0	0	0	0	1	4	17	14	10	0	0	21	29	4
5.7-5.8	0	0	0	0	2	6	24	12	12	0	0	28	32	3
5.8-5.9	0	0	0	0	3	5	20	14	12	0	0	27	31	3
5.9-6.0	0	0	0	0	1	5	23	16	14	0	0			

ERS NOTE- NSSOC 67-16, DTD. FEB. 67, DATA FROM TAPE D-00042.
TIME FOR THIS TAPE

13	14	15	16	17	18	19	20	21	22	23	24
0	0	0	0	0	0	0	0	0	3	1	2
0	0	0	0	0	0	0	0	0	0	3	1
0	0	0	0	0	0	0	0	0	1	0	6
0	0	0	0	0	0	0	0	0	1	0	2
0	0	0	0	0	0	0	0	2	0	0	1
0	0	0	0	0	0	3	1	0	0	0	0
0	0	0	0	0	0	4	0	0	0	0	0
0	0	0	0	0	3	1	0	1	2	0	0
0	0	0	0	0	4	1	2	1	1	0	0
0	0	0	0	0	3	2	4	2	1	0	0
0	0	0	1	4	0	6	1	1	0	0	0
0	0	0	3	1	6	2	1	2	0	0	0
0	0	1	2	5	6	1	2	1	0	0	0
0	0	3	4	8	2	1	1	0	0	0	0
0	0	5	12	11	2	2	2	0	0	0	0
0	0	9	16	7	4	6	0	0	0	0	0
0	3	10	9	7	13	0	1	0	0	0	0
0	5	12	13	10	6	0	1	0	0	0	0
0	13	14	12	16	2	0	0	0	0	0	0
0	9	9	18	6	0	1	0	0	0	0	0
0	15	11	26	1	1	2	0	0	0	0	0
4	10	19	16	2	2	0	0	0	0	0	0
7	11	20	11	3	4	0	0	0	0	0	0
6	19	19	9	9	1	0	0	0	0	0	0
9	19	18	14	9	0	0	0	0	0	0	0
8	20	19	16	3	0	0	0	0	0	0	0
9	22	17	15	0	0	0	0	0	0	0	0
20	17	32	13	1	0	0	0	0	0	0	0
13	16	30	9	0	0	0	0	0	0	0	0
21	16	33	5	0	0	0	0	0	0	0	0
27	20	26	3	0	0	0	0	0	0	0	0
24	26	23	1	0	0	0	0	0	0	0	0
23	23	25	0	0	0	0	0	0	0	0	0
19	28	23	0	0	0	0	0	0	0	0	0
22	32	22	0	0	0	0	0	0	0	0	0
20	29	18	0	0	0	0	0	0	0	0	0
18	29	10	0	0	0	0	0	0	0	0	0
26	30	14	0	0	0	0	0	0	0	0	0
27	31	17	0	0	0	0	0	0	0	0	0
30	20	16	0	0	0	0	0	0	0	0	0
32	26	13	0	0	0	0	0	0	0	0	0
32	26	12	0	0	0	0	0	0	0	0	0
36	30	9	0	0	0	0	0	0	0	0	0
34	31	8	0	0	0	0	0	0	0	0	0
34	37	6	0	0	0	0	0	0	0	0	0
28	34	0	0	0	0	0	0	0	0	0	0
26	40	0	0	0	0	0	0	0	0	0	0
29	40	0	0	0	0	0	0	0	0	0	0
32	34	0	0	0	0	0	0	0	0	0	0
31	33	0	0	0	0	0	0	0	0	0	0

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT, REF. DATA USERS NOTE
MATRIX OF VALUES OF L AND LOCAL TIME FO

TIME / L RANGE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
6.0-6.1	0	0	0	0	0	5	22	10	16	0	0	29	31	33
6.1-6.2	0	0	0	0	2	3	25	13	15	0	0	29	32	35
6.2-6.3	0	0	0	0	1	2	15	19	15	0	0	31	33	29
6.3-6.4	0	0	0	0	0	7	25	21	11	0	2	33	42	23
6.4-6.5	0	0	0	0	0	1	26	21	12	2	4	22	35	21
6.5-6.6	0	0	0	0	0	8	19	24	15	1	5	28	39	23
6.6-6.7	0	0	0	0	0	1	21	28	12	4	8	32	48	23
6.7-6.8	0	0	0	0	0	5	15	34	12	8	12	29	46	24
6.8-6.9	0	0	0	0	0	4	14	27	12	8	13	29	45	24
6.9-7.0	0	0	0	0	0	2	21	25	14	8	10	28	45	22
7.0-7.1	0	0	0	0	0	4	20	26	17	8	14	33	41	20
7.1-7.2	0	0	0	0	0	1	12	25	18	5	15	32	43	20
7.2-7.3	0	0	0	0	0	2	16	25	16	5	13	37	38	21
7.3-7.4	0	0	0	0	0	1	17	23	23	4	11	33	34	22
7.4-7.5	0	0	0	0	0	2	20	24	18	8	13	40	38	21
7.5-7.6	0	0	0	0	0	1	20	26	22	12	16	46	33	22
7.6-7.7	0	0	0	0	0	2	16	31	19	11	20	43	37	22
7.7-7.8	0	0	0	0	0	2	13	31	25	9	19	46	34	25
7.8-7.9	0	0	0	0	0	1	13	35	21	11	21	46	29	20
7.9-8.0	0	0	0	0	0	1	11	30	31	11	16	47	39	14
8.0-8.1	0	0	0	0	0	0	9	33	29	18	18	48	44	13
8.1-8.2	0	0	0	0	0	0	9	35	30	13	20	45	45	13
8.2-8.3	0	0	0	0	0	0	11	38	26	19	19	45	42	11
8.3-8.4	0	0	0	0	0	0	7	40	29	18	16	47	49	9
8.4-8.5	0	0	0	0	0	0	9	37	31	23	26	43	47	6
8.5-8.6	0	0	0	0	0	0	7	33	31	19	25	47	37	8
8.6-8.7	0	0	0	0	0	0	7	28	31	20	31	45	39	8
8.7-8.8	0	0	0	0	0	0	7	33	39	20	28	41	42	11
8.8-8.9	0	0	0	0	0	0	4	39	33	24	34	37	48	7
8.9-9.0	0	0	0	0	0	0	5	32	38	23	42	41	46	5
9.0-9.1	0	0	0	0	0	0	4	31	38	29	40	49	41	7
9.1-9.2	0	0	0	0	0	0	3	32	44	28	42	44	37	5
9.2-9.3	0	0	0	0	0	0	2	34	30	24	49	38	47	0
9.3-9.4	0	0	0	0	0	0	4	28	28	21	48	42	49	0
9.4-9.5	0	0	0	0	0	0	1	30	26	29	53	43	44	0
9.5-9.6	0	0	0	0	0	0	5	30	34	27	60	41	45	0
9.6-9.7	0	0	0	0	0	0	3	26	38	27	67	44	48	0
9.7-9.8	0	0	0	0	0	0	1	23	43	27	63	41	45	0
9.8-9.9	0	0	0	0	0	0	2	28	45	25	69	53	51	0
9.9-0.0	0	0	0	0	0	0	2	27	41	40	74	51	49	0
10.0-0.1	0	0	0	0	0	0	3	30	45	32	64	46	50	0
10.1-0.2	0	0	0	0	0	0	0	32	42	38	76	53	53	0
10.2-0.3	0	0	0	0	0	0	0	36	38	46	77	55	52	0
10.3-0.4	0	0	0	0	0	0	0	36	44	49	74	53	55	0
10.4-0.5	0	0	0	0	0	0	0	31	33	58	79	56	49	0
10.5-0.6	0	0	0	0	0	0	0	32	32	53	70	65	55	0
10.6-0.7	0	0	0	0	0	0	0	24	34	63	77	52	52	0
10.7-0.8	0	0	0	0	0	0	0	20	38	75	87	57	48	0
10.8-0.9	0	0	0	0	0	0	0	20	36	78	76	59	42	0
10.9-1.0	0	0	0	0	0	0	0	25	39	76	85	59	38	0

USERS NOTE- NSSDC 67-16. DTD. FEB. 67. DATA FROM TAPE D-00042.
AL TIME FOR THIS TAPE

13	14	15	16	17	18	19	20	21	22	23	24
31	33	0	0	0	0	0	0	0	0	0	0
32	35	0	0	0	0	0	0	0	0	0	0
33	29	0	0	0	0	0	0	0	0	0	0
42	23	0	0	0	0	0	0	0	0	0	0
35	21	0	0	0	0	0	0	0	0	0	0
39	23	0	0	0	0	0	0	0	0	0	0
48	23	0	0	0	0	0	0	0	0	0	0
46	24	0	0	0	0	0	0	0	0	0	0
45	24	0	0	0	0	0	0	0	0	0	0
45	22	0	0	0	0	0	0	0	0	0	0
41	20	0	0	0	0	0	0	0	0	0	0
43	20	0	0	0	0	0	0	0	0	0	0
38	21	0	0	0	0	0	0	0	0	0	0
34	22	0	0	0	0	0	0	0	0	0	0
38	21	0	0	0	0	0	0	0	0	0	0
33	22	0	0	0	0	0	0	0	0	0	0
37	22	0	0	0	0	0	0	0	0	0	0
34	25	0	0	0	0	0	0	0	0	0	0
29	20	0	0	0	0	0	0	0	0	0	0
39	14	0	0	0	0	0	0	0	0	0	0
44	13	0	0	0	0	0	0	0	0	0	0
45	13	0	0	0	0	0	0	0	0	0	0
42	11	0	0	0	0	0	0	0	0	0	0
49	9	0	0	0	0	0	0	0	0	0	0
47	6	0	0	0	0	0	0	0	0	0	0
37	8	0	0	0	0	0	0	0	0	0	0
39	8	0	0	0	0	0	0	0	0	0	0
42	11	0	0	0	0	0	0	0	0	0	0
48	7	0	0	0	0	0	0	0	0	0	0
46	5	0	0	0	0	0	0	0	0	0	0
41	7	0	0	0	0	0	0	0	0	0	0
37	5	0	0	0	0	0	0	0	0	0	0
47	0	0	0	0	0	0	0	0	0	0	0
49	0	0	0	0	0	0	0	0	0	0	0
44	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0
48	0	0	0	0	0	0	0	0	0	0	0
45	0	0	0	0	0	0	0	0	0	0	0
51	0	0	0	0	0	0	0	0	0	0	0
49	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0
53	0	0	0	0	0	0	0	0	0	0	0
52	0	0	0	0	0	0	0	0	0	0	0
55	0	0	0	0	0	0	0	0	0	0	0
49	0	0	0	0	0	0	0	0	0	0	0
55	0	0	0	0	0	0	0	0	0	0	0
52	0	0	0	0	0	0	0	0	0	0	0
48	0	0	0	0	0	0	0	0	0	0	0
42	0	0	0	0	0	0	0	0	0	0	0
38	0	0	0	0	0	0	0	0	0	0	0

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT. REF. DATA USERS NOTE
MATRIX OF VALUES OF L AND LOCAL TIME FO

TIME L RANGE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
11.0-1.1	0	0	0	0	0	0	0	22	49	95	78	56	36	0
11.1-1.2	0	0	0	0	0	0	0	15	49	80	97	63	39	0
11.2-1.3	0	0	0	0	0	0	0	16	62	78	92	74	44	0
11.3-1.4	0	0	0	0	0	0	0	13	77	76	109	68	42	0
11.4-1.5	0	0	0	0	0	0	0	7	86	74	119	75	47	0
11.5-1.6	0	0	0	0	0	0	0	14	74	84	125	90	33	0
11.6-1.7	0	0	0	0	0	0	0	12	67	93	116	88	32	0
11.7-1.8	0	0	0	0	0	0	0	10	79	92	109	97	27	0
11.8-1.9	0	0	0	0	0	0	0	13	60	108	120	106	28	0
11.9-2.0	0	0	0	0	0	0	0	10	66	112	120	103	28	0
12.0-2.1	0	0	0	0	0	0	0	8	65	114	119	96	31	0
12.1-2.2	0	0	0	0	0	0	0	9	69	121	136	102	34	0
12.2-2.3	0	0	0	0	0	0	0	7	62	144	147	98	37	0
12.3-2.4	0	0	0	0	0	0	0	5	75	145	150	106	31	0
12.4-2.5	0	0	0	0	0	0	0	5	78	150	175	119	37	0
12.5-2.6	0	0	0	0	0	0	0	5	76	162	183	130	30	0
12.6-2.7	0	0	0	0	0	0	0	4	69	181	211	114	33	0
12.7-2.8	0	0	0	0	0	0	0	5	78	172	221	133	41	0
12.8-2.9	0	0	0	0	0	0	0	7	67	179	243	151	44	0
12.9-3.0	0	0	0	0	0	0	0	5	74	186	317	169	38	0
13.0-3.1	0	0	0	0	0	0	0	0	94	208	328	235	16	0
13.1-3.2	0	0	0	0	0	0	0	0	76	423	492	315	16	0
13.2-3.3	0	0	0	0	0	0	0	0	53	230	230	340	15	0
13.3-3.4	0	0	0	0	0	0	0	0	50	160	168	103	15	0
13.4-3.5	0	0	0	0	0	0	0	0	57	148	162	105	16	0
13.5-3.6	0	0	0	0	0	0	0	0	62	107	155	114	17	0
13.6-3.7	0	0	0	0	0	0	0	0	81	102	121	116	13	0
13.7-3.8	0	0	0	0	0	0	0	0	53	189	132	124	6	0
13.8-3.9	0	0	0	0	0	0	0	0	64	197	115	92	6	0
13.9-4.0	0	0	0	0	0	0	0	0	38	195	157	57	5	0
14.0-4.1	0	0	0	0	0	0	0	0	31	106	77	57	6	0
14.1-4.2	0	0	0	0	0	0	0	0	26	79	86	63	0	0
14.2-4.3	0	0	0	0	0	0	0	0	40	90	98	68	0	0
14.3-4.4	0	0	0	0	0	0	0	0	48	87	83	71	0	0
14.4-4.5	0	0	0	0	0	0	0	0	38	105	85	79	0	0
14.5-4.6	0	0	0	0	0	0	0	0	61	138	85	88	0	0
14.6-4.7	0	0	0	0	0	0	0	0	30	105	74	37	0	0
14.7-4.8	0	0	0	0	0	0	0	0	37	126	93	75	0	0
14.8-4.9	0	0	0	0	0	0	0	0	62	133	94	76	0	0
14.9-5.0	0	0	0	0	0	0	0	0	92	86	105	28	0	0
15.0-5.1	0	0	0	0	0	0	0	0	53	131	136	29	0	0
15.1-5.2	0	0	0	0	0	0	0	0	59	71	145	22	0	0
15.2-5.3	0	0	0	0	0	0	0	0	14	84	101	26	0	0
15.3-5.4	0	0	0	0	0	0	0	0	17	119	119	29	0	0
15.4-5.5	0	0	0	0	0	0	0	0	6	92	88	22	0	0
15.5-5.6	0	0	0	0	0	0	0	0	0	56	67	43	0	0
15.6-5.7	0	0	0	0	0	0	0	0	0	111	66	45	0	0
15.7-5.8	0	0	0	0	0	0	0	0	0	0	75	49	0	0
15.8-5.9	0	0	0	0	0	0	0	0	0	0	116	19	0	0
15.9-6.0	0	0	0	0	0	0	0	0	0	0	126	122	0	0

SERS NOTE- NSSDC 67-16, DTD. FEB. 67. DATA FROM TAPE D-00042.
. TIME FOR THIS TAPE

13	14	15	16	17	18	19	20	21	22	23	24
36	0	0	0	0	0	0	0	0	0	0	0
39	0	0	0	0	0	0	0	0	0	0	0
44	0	0	0	0	0	0	0	0	0	0	0
42	0	0	0	0	0	0	0	0	0	0	0
47	0	0	0	0	0	0	0	0	0	0	0
33	0	0	0	0	0	0	0	0	0	0	0
32	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0
34	0	0	0	0	0	0	0	0	0	0	0
37	0	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0
37	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0
33	0	0	0	0	0	0	0	0	0	0	0
41	0	0	0	0	0	0	0	0	0	0	0
44	0	0	0	0	0	0	0	0	0	0	0
38	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT, REF. DATA USERS NOTE-
MATRIX OF VALUES OF L AND UNIVERSAL TIME

TIME L RANGE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.0-1.1	0	0	0	0	0	0	3	0	0	4	1	0	0	0
1.1-1.2	0	0	0	0	0	2	0	0	0	3	0	0	0	0
1.2-1.3	0	0	0	0	7	4	1	0	0	0	0	0	0	0
1.3-1.4	0	0	0	0	1	2	3	1	0	0	0	0	0	0
1.4-1.5	0	0	0	0	2	1	4	0	0	0	0	0	0	1
1.5-1.6	0	1	0	2	3	2	1	0	2	0	0	0	0	1
1.6-1.7	2	2	0	1	4	1	2	0	1	0	1	0	0	0
1.7-1.8	2	1	0	2	1	0	3	0	2	0	1	0	0	2
1.8-1.9	0	2	0	1	4	0	4	0	1	0	1	0	0	1
1.9-2.0	1	1	1	7	5	0	5	0	1	1	1	1	0	0
2.0-2.1	1	1	0	6	3	0	4	1	3	1	1	1	0	0
2.1-2.2	1	1	2	5	4	0	4	1	1	1	2	0	0	2
2.2-2.3	1	2	4	3	4	1	1	2	2	2	1	0	2	1
2.3-2.4	0	3	5	4	5	2	3	3	1	1	2	0	1	0
2.4-2.5	1	5	7	5	4	2	2	5	3	2	0	2	5	2
2.5-2.6	4	8	3	5	7	2	3	3	4	1	3	3	2	2
2.6-2.7	4	7	5	4	3	4	1	3	3	2	4	3	7	3
2.7-2.8	7	6	6	5	6	3	6	1	2	3	1	2	3	1
2.8-2.9	7	6	3	7	4	5	5	1	6	5	4	3	6	1
2.9-3.0	4	3	3	4	5	7	4	2	2	4	3	2	5	1
3.0-3.1	7	5	2	5	5	5	2	1	3	6	7	1	4	2
3.1-3.2	8	2	3	6	9	5	2	0	4	5	4	3	5	1
3.2-3.3	6	3	3	8	5	4	3	2	5	2	6	5	0	1
3.3-3.4	5	3	0	8	6	5	5	1	5	2	6	5	4	2
3.4-3.5	2	4	4	6	5	5	5	2	6	4	8	5	1	1
3.5-3.6	2	2	3	3	5	6	6	1	5	9	4	4	3	1
3.6-3.7	5	3	4	3	2	5	3	2	4	4	7	5	2	2
3.7-3.8	7	3	5	9	3	5	7	1	7	1	9	4	4	0
3.8-3.9	4	1	7	6	2	5	4	2	6	5	3	6	1	2
3.9-4.0	4	2	8	5	3	5	4	3	10	2	5	5	6	1
4.0-4.1	6	3	7	8	4	5	4	5	9	3	6	6	5	1
4.1-4.2	2	5	6	8	4	4	6	5	8	2	6	7	3	1
4.2-4.3	6	5	2	5	1	6	5	7	9	3	5	6	6	4
4.3-4.4	8	2	4	6	4	6	3	8	6	3	6	11	5	1
4.4-4.5	7	3	6	8	2	9	4	6	8	2	6	6	6	4
4.5-4.6	6	4	6	5	5	8	2	7	7	4	7	7	6	3
4.6-4.7	5	3	5	5	3	9	3	9	8	3	4	8	4	3
4.7-4.8	2	3	5	6	7	6	1	6	6	3	6	10	6	7
4.8-4.9	2	2	3	8	5	13	0	10	11	1	4	5	7	6
4.9-5.0	1	5	4	5	5	8	1	5	6	4	4	7	5	4
5.0-5.1	0	3	7	7	6	4	3	6	12	5	9	7	4	9
5.1-5.2	0	3	6	10	6	6	0	8	6	9	9	4	5	6
5.2-5.3	0	3	8	7	4	5	2	7	7	8	9	6	4	6
5.3-5.4	0	7	6	7	6	4	0	4	10	12	6	2	3	7
5.4-5.5	2	3	6	8	7	6	1	7	9	10	10	7	5	7
5.5-5.6	1	3	3	7	6	5	1	8	6	6	8	7	3	9
5.6-5.7	0	5	6	3	5	8	2	7	8	11	8	7	5	7
5.7-5.8	1	6	9	6	5	5	5	4	6	8	7	9	7	8
5.8-5.9	0	6	6	3	4	5	8	7	5	9	7	10	6	5
5.9-6.0	5	4	7	4	6	5	6	3	3	8	6	10	10	9

USERS NOTE- NSSDC 67-16, DTD. FEB. 67, DATA FROM TAPE D-00042.
VERSAL TIME FOR THIS TAPE

13	14	15	16	17	18	19	20	21	22	23	24
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0
0	0	1	0	0	0	0	0	1	1	0	1
0	0	1	0	0	0	0	0	1	0	0	1
0	1	2	0	0	0	0	0	1	1	0	1
0	1	1	0	0	0	0	0	0	1	0	1
0	0	0	0	0	1	0	0	1	1	1	3
0	2	1	0	0	0	0	0	0	1	0	1
0	1	1	0	0	1	0	0	0	0	0	2
0	0	1	0	0	2	0	0	0	2	1	1
0	0	1	1	0	0	0	0	1	1	0	2
0	2	1	0	0	1	0	0	1	1	2	1
2	1	2	1	0	1	1	1	1	0	1	2
1	0	2	1	0	0	1	0	0	0	0	1
5	2	3	1	0	1	2	1	0	1	1	1
2	2	2	1	0	2	2	1	0	2	1	0
7	3	3	1	1	3	0	0	1	2	2	3
3	1	3	3	1	0	2	2	1	0	3	3
6	1	4	2	2	3	1	1	1	0	1	3
5	1	3	2	0	2	1	2	1	1	4	4
4	2	4	3	3	1	1	2	2	0	5	4
5	1	2	3	2	2	0	0	3	0	5	3
0	1	4	4	2	1	3	1	2	1	7	4
4	2	3	4	1	3	1	2	2	3	9	5
1	1	4	2	2	3	0	2	4	4	8	5
3	1	3	4	2	2	3	3	4	4	6	3
2	2	4	3	3	1	2	2	5	5	9	2
4	0	3	4	4	4	1	3	5	7	7	4
1	2	2	4	1	3	3	3	5	6	5	3
6	1	2	6	6	2	6	1	5	7	6	4
5	1	5	3	3	4	5	1	4	5	7	3
3	1	1	5	5	5	2	1	4	7	5	5
6	4	4	5	7	2	5	0	5	10	5	3
5	1	3	6	6	5	3	1	5	7	3	2
6	4	4	5	7	4	4	1	5	8	4	5
6	3	5	10	8	4	4	1	4	7	2	4
4	3	8	4	7	3	1	0	6	4	4	2
6	7	5	3	12	5	2	3	7	7	3	4
7	6	6	4	8	3	4	8	6	7	4	5
5	4	7	3	8	5	1	10	4	7	3	5
4	9	6	1	9	6	3	8	2	9	3	5
5	6	7	3	7	4	4	6	2	4	4	5
4	6	9	2	8	6	5	7	2	9	6	6
3	7	8	4	9	4	9	5	2	10	2	6
5	7	5	2	8	4	11	4	3	12	4	8
3	9	2	4	9	4	10	5	7	6	6	5
5	7	5	4	7	4	9	6	6	7	4	3
7	8	5	5	8	8	6	5	7	6	5	5
6	5	6	6	10	8	8	6	8	7	3	5
10	9	4	5	11	5	8	5	6	8	4	8

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT, REF, DATA USERS NOTE-
MATRIX OF VALUES OF L AND UNIVERSAL TIME

TIME L RANGE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
6.0-6.1	4	5	6	1	5	8	9	4	7	6	3	8	8	10
6.1-6.2	2	6	4	5	6	10	8	7	7	8	5	7	7	9
6.2-6.3	2	7	9	3	7	6	7	8	5	8	5	9	7	9
6.3-6.4	6	7	7	7	7	8	9	5	6	11	4	8	6	9
6.4-6.5	4	4	7	9	4	7	4	6	6	9	3	8	8	7
6.5-6.6	4	3	8	7	6	7	6	6	5	9	6	7	10	6
6.6-6.7	5	8	5	9	9	6	8	7	6	10	6	5	10	8
6.7-6.8	4	8	9	10	7	3	7	8	10	10	8	7	11	8
6.8-6.9	3	10	9	7	8	4	6	9	8	16	5	4	11	6
6.9-7.0	6	7	10	7	9	6	5	8	11	14	6	5	9	7
7.0-7.1	6	5	4	8	6	6	11	11	8	6	10	8	7	6
7.1-7.2	7	7	8	8	6	7	9	6	8	10	10	7	5	8
7.2-7.3	7	9	4	7	8	9	4	9	0	8	8	7	8	6
7.3-7.4	10	8	6	6	4	8	8	6	3	7	6	6	14	6
7.4-7.5	6	7	4	8	7	4	10	7	8	9	9	7	12	7
7.5-7.6	6	9	5	7	9	9	13	4	7	12	9	5	11	17
7.6-7.7	9	9	3	10	9	9	10	4	9	9	11	7	13	12
7.7-7.8	7	8	5	10	10	8	7	4	9	10	13	10	11	10
7.8-7.9	9	7	8	10	7	10	9	8	4	11	9	7	7	11
7.9-8.0	6	9	6	7	8	6	5	3	9	12	8	11	11	12
8.0-8.1	7	9	7	8	9	6	8	9	9	13	12	8	10	10
8.1-8.2	5	10	10	13	7	10	8	7	4	8	13	10	11	9
8.2-8.3	9	10	5	8	5	9	6	11	6	5	13	11	10	12
8.3-8.4	9	7	6	9	6	6	8	12	9	6	9	11	14	10
8.4-8.5	10	6	9	8	5	9	10	10	10	6	8	14	14	14
8.5-8.6	11	7	9	9	7	8	7	9	7	7	5	9	12	14
8.6-8.7	10	6	8	7	8	6	9	11	4	6	4	8	11	12
8.7-8.8	10	5	9	7	8	8	12	15	4	8	11	15	7	10
8.8-8.9	10	5	8	8	11	7	8	14	7	11	13	10	5	12
8.9-9.0	8	5	10	7	9	6	9	14	7	13	10	11	9	17
9.0-9.1	9	6	8	11	9	11	7	13	9	11	8	12	7	14
9.1-9.2	13	10	10	8	10	7	13	6	10	12	10	12	4	12
9.2-9.3	10	7	11	6	10	5	11	6	10	11	7	14	5	18
9.3-9.4	12	8	9	9	12	3	10	5	9	6	8	14	8	19
9.4-9.5	11	9	8	6	8	6	8	7	7	6	8	10	9	22
9.5-9.6	11	14	8	3	10	6	10	10	11	4	14	9	9	19
9.6-9.7	8	11	9	4	10	12	14	11	8	7	11	7	15	10
9.7-9.8	7	10	7	8	8	9	9	10	17	11	13	4	12	4
9.8-9.9	6	11	8	10	10	10	8	9	12	14	13	7	17	6
9.9-0.0	6	10	10	11	11	12	9	9	13	23	9	12	16	8
10.0-0.1	5	12	11	8	10	9	7	15	9	19	10	7	10	11
10.1-0.2	7	12	12	10	9	13	13	10	14	16	11	5	17	6
10.2-0.3	8	14	10	8	11	10	9	14	12	15	7	9	20	10
10.3-0.4	11	13	11	11	11	7	7	12	17	19	11	14	9	13
10.4-0.5	11	10	10	10	12	12	8	9	14	13	10	14	13	13
10.5-0.6	11	10	7	10	12	9	13	15	9	19	14	14	17	12
10.6-0.7	14	10	1	12	11	10	7	13	12	14	14	12	13	11
10.7-0.8	12	10	2	9	13	11	11	12	12	11	16	15	14	10
10.8-0.9	14	14	9	12	11	12	13	6	13	16	5	15	15	12
10.9-1.0	16	10	8	10	12	8	14	11	15	13	10	9	13	16

TA USERS NOTE- NSSDC 67-16, DTD. FEB. 67, DATA FROM TAPE D-00042.
UNIVERSAL TIME FOR THIS TAPE

12	13	14	15	16	17	18	19	20	21	22	23	24
8	8	10	9	8	7	3	8	4	10	3	4	6
7	7	9	7	10	6	5	4	4	10	5	7	5
9	7	9	10	8	5	3	0	8	5	4	7	3
8	6	9	11	8	6	6	6	9	5	4	7	2
8	8	7	9	9	5	6	4	8	6	4	4	3
7	10	6	7	11	5	6	11	7	7	6	10	2
5	10	8	8	12	6	8	13	5	8	4	10	1
7	11	8	8	12	3	10	9	6	8	10	8	1
4	11	6	7	10	4	11	6	7	9	9	5	2
5	9	7	8	11	3	14	7	6	8	2	6	0
8	7	6	9	11	4	16	5	9	10	7	8	2
7	5	8	7	10	4	11	7	8	8	4	7	0
7	8	6	8	12	7	9	7	9	11	8	8	0
6	14	6	8	9	6	11	8	12	5	5	4	2
7	12	7	13	8	6	12	7	10	10	7	6	0
5	11	17	10	9	3	11	7	15	3	6	9	2
7	13	12	14	6	6	10	5	12	7	13	3	1
10	11	10	16	7	6	10	10	13	5	12	4	1
7	7	11	11	11	5	9	9	13	5	11	4	2
11	11	12	10	10	6	14	7	11	9	15	4	1
9	10	10	13	8	10	11	10	9	8	13	3	2
10	11	9	13	8	10	10	9	10	11	10	3	1
11	10	12	14	12	11	9	5	15	8	12	3	2
11	14	10	12	12	14	7	8	16	5	11	3	5
14	14	14	12	11	11	6	12	13	4	13	2	5
9	12	14	9	14	8	8	10	12	8	8	4	5
8	11	12	14	7	15	7	12	11	8	11	5	9
15	7	10	11	7	9	7	14	10	10	9	6	9
10	5	12	15	9	12	9	18	5	7	6	4	12
11	9	17	11	11	12	13	12	3	13	6	4	12
12	7	14	11	14	13	13	14	8	14	5	4	8
12	4	12	13	9	15	6	15	8	20	2	4	6
14	5	18	7	11	16	3	14	11	16	3	4	8
14	8	19	7	17	8	3	11	7	16	3	5	11
10	9	22	12	16	9	5	16	11	15	4	3	10
9	9	19	12	13	8	10	13	9	17	6	7	9
7	15	10	13	15	9	12	15	7	16	4	12	13
4	12	4	13	19	9	11	12	10	15	3	11	11
7	17	6	13	19	14	19	10	15	9	5	17	11
12	16	8	14	16	12	20	8	12	9	5	19	10
7	10	11	10	21	14	15	9	17	6	9	14	12
5	17	6	13	21	12	14	16	23	5	7	13	15
9	20	10	22	16	10	21	18	17	6	10	15	12
14	9	13	24	12	9	23	12	18	5	13	13	16
14	13	13	21	14	14	21	6	18	6	17	16	14
14	17	12	17	12	13	15	14	18	9	12	12	13
12	13	11	13	9	27	11	15	12	14	16	15	16
15	14	10	15	22	27	15	20	13	13	20	11	11
15	15	12	10	14	19	10	17	14	15	20	13	12
9	13	16	13	16	21	18	20	7	16	20	13	13

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT, REF. DATA USERS NOTE-
MATRIX OF VALUES OF L AND UNIVERSAL TIME

TIME L RANGE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
11.0-1.1	16	15	8	8	9	14	9	11	19	13	14	17	11	12
11.1-1.2	11	15	10	6	15	15	10	9	12	13	14	24	8	17
11.2-1.3	11	14	9	7	15	14	12	11	14	16	18	17	13	17
11.3-1.4	11	10	11	4	13	12	15	9	21	11	15	23	16	27
11.4-1.5	14	9	7	10	14	13	19	10	22	15	17	22	16	32
11.5-1.6	16	7	14	10	13	16	18	6	16	16	21	25	16	29
11.6-1.7	17	8	13	12	14	12	18	11	8	13	20	25	25	16
11.7-1.8	16	12	7	5	15	17	17	12	15	16	21	14	21	16
11.8-1.9	15	14	11	12	11	16	18	13	7	22	15	16	21	16
11.9-2.0	11	15	12	11	13	15	16	17	8	21	25	10	29	23
12.0-2.1	13	12	15	10	8	18	11	20	9	15	18	16	36	14
12.1-2.2	12	12	12	11	10	15	16	20	20	20	24	14	30	17
12.2-2.3	11	15	10	15	4	15	17	24	16	18	20	18	32	26
12.3-2.4	10	16	18	11	9	25	13	22	18	13	13	16	29	35
12.4-2.5	16	16	20	10	9	22	14	27	24	20	18	21	21	41
12.5-2.6	21	14	15	14	10	31	12	25	22	27	20	27	21	38
12.6-2.7	17	15	10	17	9	17	24	18	25	30	30	22	25	39
12.7-2.8	14	22	16	11	10	15	18	28	31	41	46	24	31	27
12.8-2.9	21	17	17	15	3	13	5	7	21	43	48	37	31	38
12.9-3.0	23	21	21	11	15	7	6	4	15	41	57	54	63	17
13.0-3.1	25	22	25	9	14	1	5	1	13	23	56	51	79	56
13.1-3.2	19	18	24	20	17	5	5	6	15	15	29	75	141	149
13.2-3.3	14	11	19	24	11	8	11	10	23	19	37	28	25	48
13.3-3.4	12	15	19	16	25	7	7	5	17	29	33	42	25	0
13.4-3.5	17	11	15	17	24	10	3	12	32	48	41	30	0	0
13.5-3.6	25	7	13	20	16	6	6	20	30	41	44	0	0	0
13.6-3.7	37	8	18	21	25	5	20	40	20	35	17	0	0	0
13.7-3.8	12	17	16	32	17	11	12	35	34	27	6	0	0	0
13.8-3.9	9	21	15	31	58	54	50	43	25	11	0	0	0	0
13.9-4.0	21	17	16	14	11	91	75	44	15	11	0	0	0	0
14.0-4.1	20	19	12	15	9	9	19	17	20	11	0	0	0	0
14.1-4.2	37	20	10	20	9	12	14	25	17	3	0	0	0	0
14.2-4.3	27	27	13	18	8	15	22	14	20	0	0	0	0	0
14.3-4.4	35	28	20	8	9	17	24	19	18	0	0	0	0	0
14.4-4.5	34	26	34	1	14	27	21	16	10	0	0	0	0	0
14.5-4.6	29	25	34	8	22	29	15	17	1	0	0	0	0	0
14.6-4.7	16	24	36	10	18	32	13	19	0	0	0	0	0	0
14.7-4.8	35	55	27	16	22	24	18	20	0	0	0	0	0	0
14.8-4.9	53	66	35	15	26	15	10	16	0	0	0	0	0	0
14.9-5.0	7	32	92	25	29	19	23	6	0	0	0	0	0	0
15.0-5.1	29	30	54	65	19	24	25	0	0	0	0	0	0	0
15.1-5.2	72	3	13	53	42	19	20	0	0	0	0	0	0	0
15.2-5.3	38	24	5	45	28	39	8	0	0	0	0	0	0	0
15.3-5.4	115	30	19	18	48	31	6	0	0	0	0	0	0	0
15.4-5.5	52	83	29	22	15	6	1	0	0	0	0	0	0	0
15.5-5.6	49	33	20	35	12	17	0	0	0	0	0	0	0	0
15.6-5.7	32	81	62	17	19	13	0	0	0	0	0	0	0	0
15.7-5.8	9	31	35	18	22	9	0	0	0	0	0	0	0	0
15.8-5.9	0	26	45	45	7	12	0	0	0	0	0	0	0	0
15.9-6.0	0	33	78	87	50	0	0	0	0	0	0	0	0	0

ENT. REF. DATA USERS NOTE- NSSDC 67-16. DTD. FEB. 67. DATA FROM TAPE D-00042.
ES OF L AND UNIVERSAL TIME FOR THIS TAPE

10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
13	14	17	11	12	20	16	14	16	26	7	14	22	10	15
13	14	24	8	17	12	11	20	18	26	7	17	17	15	21
16	18	17	13	17	18	12	28	15	30	7	20	20	16	12
11	15	23	16	27	19	23	22	17	26	19	14	18	13	16
15	17	22	16	32	25	19	16	23	25	16	22	19	11	12
16	21	25	16	29	28	16	13	27	14	23	23	23	11	19
13	20	25	25	16	21	24	17	32	10	15	30	18	10	19
16	21	14	21	16	21	33	27	28	12	23	23	13	11	19
22	15	16	21	16	26	24	24	32	19	29	31	16	12	15
21	25	10	29	23	35	20	25	28	26	20	23	16	12	8
15	18	16	36	14	38	23	29	20	24	25	19	18	8	14
20	24	14	30	17	20	38	36	12	26	37	15	17	18	19
18	20	18	32	26	21	25	44	14	39	33	20	19	20	19
13	13	16	29	35	17	26	36	28	41	34	22	13	23	20
20	18	21	21	41	21	34	31	34	43	31	29	26	13	23
27	20	27	21	38	21	35	32	32	49	31	30	25	28	6
30	30	22	25	39	37	31	27	52	45	32	26	28	30	6
41	46	24	31	27	44	26	26	58	44	41	26	10	30	11
43	48	37	31	38	53	36	40	64	40	44	35	30	20	13
41	57	54	63	17	49	56	59	67	71	22	23	48	4	15
23	56	51	79	56	62	79	89	64	59	63	26	42	9	8
15	29	75	141	149	104	124	168	113	112	49	65	21	20	8
19	37	28	25	48	78	51	22	94	126	103	43	13	26	24
29	33	42	25	0	0	0	0	0	72	70	24	37	8	33
48	41	30	0	0	0	0	0	0	26	103	42	22	8	27
41	44	0	0	0	0	0	0	0	8	53	81	21	48	17
35	17	0	0	0	0	0	0	0	0	49	55	54	22	7
27	6	0	0	0	0	0	0	0	0	20	98	84	27	56
11	0	0	0	0	0	0	0	0	0	7	48	26	47	29
11	0	0	0	0	0	0	0	0	0	0	46	43	33	15
11	0	0	0	0	0	0	0	0	0	0	25	59	40	2
3	0	0	0	0	0	0	0	0	0	0	20	36	27	4
0	0	0	0	0	0	0	0	0	0	0	10	40	63	19
0	0	0	0	0	0	0	0	0	0	0	0	49	52	10
0	0	0	0	0	0	0	0	0	0	0	0	44	57	23
0	0	0	0	0	0	0	0	0	0	0	0	24	90	78
0	0	0	0	0	0	0	0	0	0	0	0	10	48	20
0	0	0	0	0	0	0	0	0	0	0	0	0	67	47
0	0	0	0	0	0	0	0	0	0	0	0	0	47	82
0	0	0	0	0	0	0	0	0	0	0	0	0	21	81
0	0	0	0	0	0	0	0	0	0	0	0	0	6	97
0	0	0	0	0	0	0	0	0	0	0	0	0	0	75
0	0	0	0	0	0	0	0	0	0	0	0	0	0	38
0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT. REF. DATA USERS NOTE-
MATRIX OF VALUES OF B AND L FOR THI
B GIVEN IN GAMMA = 10 TO THE MINUS

B RANGE 0 -1K	-2K	-3K	-4K	-5K	-6K	-7K	-8K	-9K	-10K	-15K	-20
L RANGE											
1.0-1.1	0	0	0	0	0	0	0	0	0	0	0
1.1-1.2	0	0	0	0	0	0	0	0	0	0	0
1.2-1.3	0	0	0	0	0	0	0	0	0	0	0
1.3-1.4	0	0	0	0	0	0	0	0	0	0	0
1.4-1.5	0	0	0	0	0	0	0	0	0	0	0
1.5-1.6	0	0	0	0	0	0	0	0	2	2	0
1.6-1.7	0	0	0	0	0	0	0	1	2	3	0
1.7-1.8	0	0	0	0	0	0	0	4	1	0	0
1.8-1.9	0	0	0	0	0	0	3	1	1	0	0
1.9-2.0	0	0	0	0	0	3	2	2	1	3	0
2.0-2.1	0	0	0	0	2	5	1	3	2	0	0
2.1-2.2	0	0	0	0	7	0	3	4	0	1	0
2.2-2.3	0	0	0	1	6	8	2	1	2	5	0
2.3-2.4	0	0	0	9	9	4	3	2	3	0	0
2.4-2.5	0	0	1	20	11	4	4	4	2	1	0
2.5-2.6	0	0	12	20	6	4	3	3	0	1	0
2.6-2.7	0	0	22	15	4	5	7	1	3	3	0
2.7-2.8	0	4	27	9	4	8	2	1	2	2	0
2.8-2.9	0	13	35	6	7	7	2	2	2	0	0
2.9-3.0	0	24	16	6	6	2	1	4	4	2	0
3.0-3.1	0	36	15	6	8	3	0	3	5	1	0
3.1-3.2	0	44	10	10	3	1	3	4	0	0	0
3.2-3.3	1	47	4	13	5	0	4	2	1	1	0
3.3-3.4	12	42	11	8	0	5	5	4	0	1	0
3.4-3.5	32	31	11	1	4	3	6	2	1	1	0
3.5-3.6	33	26	12	2	2	7	3	1	2	0	0
3.6-3.7	31	28	10	5	5	3	4	1	0	0	0
3.7-3.8	50	32	8	3	11	3	0	0	0	0	0
3.8-3.9	49	22	3	10	3	2	0	0	0	0	0
3.9-4.0	60	30	6	8	0	4	0	0	0	0	0
4.0-4.1	72	21	7	6	4	2	0	0	0	0	0
4.1-4.2	72	19	7	4	5	0	0	0	0	0	0
4.2-4.3	79	22	7	3	5	0	0	0	0	0	0
4.3-4.4	85	13	12	0	4	0	0	0	0	0	0
4.4-4.5	92	17	11	3	1	0	0	0	0	0	0
4.5-4.6	98	14	9	5	0	0	0	0	0	0	0
4.6-4.7	97	7	4	3	0	0	0	0	0	0	0
4.7-4.8	102	15	3	5	0	0	0	0	0	0	0
4.8-4.9	114	11	2	5	0	0	0	0	0	0	0
4.9-5.0	102	10	4	1	0	0	0	0	0	0	0
5.0-5.1	122	8	4	0	0	0	0	0	0	0	0
5.1-5.2	111	8	5	0	0	0	0	0	0	0	0
5.2-5.3	122	6	8	0	0	0	0	0	0	0	0
5.3-5.4	120	9	4	0	0	0	0	0	0	0	0
5.4-5.5	133	10	6	0	0	0	0	0	0	0	0
5.5-5.6	115	6	10	0	0	0	0	0	0	0	0
5.6-5.7	130	4	3	0	0	0	0	0	0	0	0
5.7-5.8	134	12	0	0	0	0	0	0	0	0	0
5.8-5.9	138	10	0	0	0	0	0	0	0	0	0
5.9-6.0	138	12	0	0	0	0	0	0	0	0	0

EF. DATA USERS NOTE- NSSDC 67-16. DTD. FEB. 67. DATA FROM TAPE D-00042.
S OF B AND L FOR THIS TAPE
A = 10 TO THE MINUS 5 GAUSS

-9K	-10K	-15K	-20K	-25K	-30K	-35K	-40K	-45K	-50K	-75K	-100K
0	0	0	0	0	0	2	6	0	0	0	0
0	0	0	0	0	2	2	2	0	0	0	0
0	0	0	0	0	6	4	3	3	0	0	0
0	0	0	0	6	2	1	0	1	0	0	0
0	0	0	0	5	3	3	2	0	0	0	0
2	2	0	0	3	4	4	0	0	0	0	0
2	3	0	0	7	6	2	0	0	0	0	0
1	0	0	0	3	6	0	0	2	1	0	0
1	0	0	0	7	2	1	1	1	1	0	0
1	3	0	0	9	5	3	1	2	0	0	0
2	0	0	0	9	4	0	1	1	0	0	0
0	1	0	0	12	0	1	2	1	0	0	0
2	5	0	0	8	0	0	3	0	0	0	0
3	0	0	0	3	0	0	2	0	0	0	0
2	1	0	0	5	0	4	0	0	0	0	0
0	1	0	0	6	4	2	0	0	0	0	0
3	3	0	0	3	5	1	0	0	0	0	0
2	2	0	0	7	4	0	0	0	0	0	0
2	0	0	0	5	2	0	0	0	0	0	0
4	2	0	0	3	1	0	0	0	0	0	0
5	1	0	0	2	1	0	0	0	0	0	0
0	0	0	0	2	0	0	0	0	0	0	0
1	1	0	0	4	0	0	0	0	0	0	0
0	1	0	0	2	0	0	0	0	0	0	0
1	1	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0
0

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT. REF. DATA USERS NOT
MATRIX OF VALUES OF B AND L FOR T
B GIVEN IN GAMMA = 10 TO THE MINU

B RANGE / L RANGE	0	-100	-200	-300	-400	-500	-600	-700	-800	-900	-1000	-1100	-
6.0-6.1	0	68	54	9	0	4	2	0	0	0	2		
6.1-6.2	0	4	42	6	1	9	3	0	0	0	1		
6.2-6.3	0	96	32	0	3	3	2	0	1	3	0		
6.3-6.4	0	112	22	0	8	5	1	0	2	4	1		
6.4-6.5	0	98	22	1	10	2	1	1	2	2	0		
6.5-6.6	0	114	18	2	9	3	0	3	1	2	2		
6.6-6.7	0	134	18	6	8	1	0	1	3	1	2		
6.7-6.8	4	147	8	5	5	0	1	3	2	2	2		
6.8-6.9	45	103	3	8	1	0	2	4	2	3	2		
6.9-7.0	65	78	6	12	0	0	4	5	2	1	2		
7.0-7.1	68	84	2	10	2	2	4	1	4	3	3		
7.1-7.2	74	75	6	7	0	2	4	2	0	2	0		
7.2-7.3	74	72	5	6	0	4	2	4	2	4	0		
7.3-7.4	78	60	10	5	0	7	1	1	6	0	0		
7.4-7.5	102	57	9	0	1	6	4	2	3	0	0		
7.5-7.6	124	41	14	2	4	5	2	6	0	0	0		
7.6-7.7	139	30	13	0	7	6	2	4	0	0	0		
7.7-7.8	152	21	13	0	10	1	5	2	0	0	0		
7.8-7.9	141	24	13	3	6	4	6	0	0	0	0		
7.9-8.0	152	19	8	4	9	2	6	0	0	0	0		
8.0-8.1	171	20	5	4	5	3	4	0	0	0	0		
8.1-8.2	165	19	4	12	4	6	0	0	0	0	0		
8.2-8.3	172	14	2	12	4	7	0	0	0	0	0		
8.3-8.4	176	19	0	12	3	5	0	0	0	0	0		
8.4-8.5	183	16	4	10	8	1	0	0	0	0	0		
8.5-8.6	188	18	5	11	5	0	0	0	0	0	0		
8.6-8.7	173	13	11	4	8	0	0	0	0	0	0		
8.7-8.8	177	17	15	6	6	0	0	0	0	0	0		
8.8-8.9	187	16	13	6	4	0	0	0	0	0	0		
8.9-9.0	197	12	14	9	0	0	0	0	0	0	0		
9.0-9.1	202	17	11	9	0	0	0	0	0	0	0		
9.1-9.2	192	14	20	9	0	0	0	0	0	0	0		
9.2-9.3	188	14	15	7	0	0	0	0	0	0	0		
9.3-9.4	188	11	16	5	0	0	0	0	0	0	0		
9.4-9.5	197	16	10	3	0	0	0	0	0	0	0		
9.5-9.6	207	22	11	2	0	0	0	0	0	0	0		
9.6-9.7	216	24	13	0	0	0	0	0	0	0	0		
9.7-9.8	216	15	12	0	0	0	0	0	0	0	0		
9.8-9.9	242	21	10	0	0	0	0	0	0	0	0		
9.9-0.0	248	26	10	0	0	0	0	0	0	0	0		
10.0-0.1	236	24	10	0	0	0	0	0	0	0	0		
10.1-0.2	261	25	7	0	0	0	0	0	0	0	0		
10.2-0.3	272	29	3	0	0	0	0	0	0	0	0		
10.3-0.4	276	33	2	0	0	0	0	0	0	0	0		
10.4-0.5	270	35	1	0	0	0	0	0	0	0	0		
10.5-0.6	277	30	0	0	0	0	0	0	0	0	0		
10.6-0.7	270	32	0	0	0	0	0	0	0	0	0		
10.7-0.8	305	20	0	0	0	0	0	0	0	0	0		
10.8-0.9	292	19	0	0	0	0	0	0	0	0	0		
10.9-1.0	306	16	0	0	0	0	0	0	0	0	0		

'A USERS NOTE- NSSDC 67-16, DTD. FEB. 67. DATA FROM TAPE D-00042.
AND L FOR THIS TAPE
TO THE MINUS 5 GAUSS

000 -1100 -1200 -1300 -1400 -1500 -1600 -1700 -1800 -1900 -2000

0	2	1	0	1	3	0	2	0	0	0
0	1	0	1	1	1	2	3	0	0	0
3	0	0	1	1	1	2	0	0	0	0
4	1	2	3	1	2	1	0	0	0	0
2	0	1	2	2	0	0	0	0	0	0
2	2	1	5	2	0	0	0	0	0	0
1	2	1	2	0	0	0	0	0	0	0
2	2	4	2	0	0	0	0	0	0	0
3	2	3	0	0	0	0	0	0	0	0
1	2	0	0	0	0	0	0	0	0	0
3	3	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0
0

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT. REF. DATA USERS NOTE- NS
MATRIX OF VALUES OF B AND L FOR THIS
B GIVEN IN GAMMA = 10 TO THE MINUS 5

B RANGE 0 / L RANGE	-100	-200	-300	-400	-500	-600	-700	-800	-900	-1000	-1100	-1200
11.0-1.1	315	21	0	0	0	0	0	0	0	0	0	0
11.1-1.2	320	23	0	0	0	0	0	0	0	0	0	0
11.2-1.3	345	18	0	0	0	0	0	0	0	0	0	0
11.3-1.4	370	15	0	0	0	0	0	0	0	0	0	0
11.4-1.5	391	17	0	0	0	0	0	0	0	0	0	0
11.5-1.6	405	15	0	0	0	0	0	0	0	0	0	0
11.6-1.7	395	13	0	0	0	0	0	0	0	0	0	0
11.7-1.8	406	8	0	0	0	0	0	0	0	0	0	0
11.8-1.9	428	7	0	0	0	0	0	0	0	0	0	0
11.9-2.0	435	4	0	0	0	0	0	0	0	0	0	0
12.0-2.1	433	0	0	0	0	0	0	0	0	0	0	0
12.1-2.2	471	0	0	0	0	0	0	0	0	0	0	0
12.2-2.3	495	0	0	0	0	0	0	0	0	0	0	0
12.3-2.4	512	0	0	0	0	0	0	0	0	0	0	0
12.4-2.5	564	0	0	0	0	0	0	0	0	0	0	0
12.5-2.6	586	0	0	0	0	0	0	0	0	0	0	0
12.6-2.7	612	0	0	0	0	0	0	0	0	0	0	0
12.7-2.8	650	0	0	0	0	0	0	0	0	0	0	0
12.8-2.9	691	0	0	0	0	0	0	0	0	0	0	0
12.9-3.0	769	0	0	0	0	0	0	0	0	0	0	0
13.0-3.1	881	0	0	0	0	0	0	0	0	0	0	0
13.1-3.2	1322	0	0	0	0	0	0	0	0	0	0	0
13.2-3.3	868	0	0	0	0	0	0	0	0	0	0	0
13.3-3.4	496	0	0	0	0	0	0	0	0	0	0	0
13.4-3.5	488	0	0	0	0	0	0	0	0	0	0	0
13.5-3.6	455	0	0	0	0	0	0	0	0	0	0	0
13.6-3.7	433	0	0	0	0	0	0	0	0	0	0	0
13.7-3.8	504	0	0	0	0	0	0	0	0	0	0	0
13.8-3.9	474	0	0	0	0	0	0	0	0	0	0	0
13.9-4.0	452	0	0	0	0	0	0	0	0	0	0	0
14.0-4.1	277	0	0	0	0	0	0	0	0	0	0	0
14.1-4.2	254	0	0	0	0	0	0	0	0	0	0	0
14.2-4.3	295	0	0	0	0	0	0	0	0	0	0	0
14.3-4.4	289	0	0	0	0	0	0	0	0	0	0	0
14.4-4.5	307	0	0	0	0	0	0	0	0	0	0	0
14.5-4.6	372	0	0	0	0	0	0	0	0	0	0	0
14.6-4.7	246	0	0	0	0	0	0	0	0	0	0	0
14.7-4.8	331	0	0	0	0	0	0	0	0	0	0	0
14.8-4.9	365	0	0	0	0	0	0	0	0	0	0	0
14.9-5.0	311	0	0	0	0	0	0	0	0	0	0	0
15.0-5.1	349	0	0	0	0	0	0	0	0	0	0	0
15.1-5.2	297	0	0	0	0	0	0	0	0	0	0	0
15.2-5.3	225	0	0	0	0	0	0	0	0	0	0	0
15.3-5.4	284	0	0	0	0	0	0	0	0	0	0	0
15.4-5.5	208	0	0	0	0	0	0	0	0	0	0	0
15.5-5.6	166	0	0	0	0	0	0	0	0	0	0	0
15.6-5.7	224	0	0	0	0	0	0	0	0	0	0	0
15.7-5.8	124	0	0	0	0	0	0	0	0	0	0	0
15.8-5.9	135	0	0	0	0	0	0	0	0	0	0	0
15.9-6.0	248	0	0	0	0	0	0	0	0	0	0	0

DATA USERS NOTE- NSSDC 67-16, DTD. FEB. 67, DATA FROM TAPE D-00042.
B AND L FOR THIS TAPE
10 TO THE MINUS 5 GAUSS

-1000 -1100 -1200 -1300 -1400 -1500 -1600 -1700 -1800 -1900 -2000

0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT. REF. DATA USERS NOTE-

NUMBER OF SAMPLES PER POSITION ON THIS TA

LONG (E) LAT	0	10	20	30	40	50	60	70	80	90	100	110
90	0	0	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0
40	14	35	78	48	8	69	68	38	23	81	102	37
30	157	186	208	191	125	220	280	231	148	247	289	228
20	243	323	311	294	258	309	345	322	345	322	386	358
10	241	191	225	223	216	223	247	225	227	208	217	218
0	101	83	70	135	121	65	103	139	127	75	88	158
-10	63	19	0	26	101	30	0	54	79	31	0	47
-20	11	0	13	35	19	1	18	49	12	1	15	37
-30	0	3	5	4	7	10	5	4	10	18	14	9
-40	0	0	0	0	0	0	0	0	0	0	0	0
-50	0	0	0	0	0	0	0	0	0	0	0	0
-60	0	0	0	0	0	0	0	0	0	0	0	0
-70	0	0	0	0	0	0	0	0	0	0	0	0
-80	0	0	0	0	0	0	0	0	0	0	0	0
-90	0	0	0	0	0	0	0	0	0	0	0	0

LONG (W) LAT	-180	-170	-160	-150	-140	-130	-120	-110	-100	-90	-80	-70
90	0	0	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0
40	94	43	22	54	94	38	26	70	104	44	22	29
30	236	204	118	186	228	150	117	205	245	191	104	108
20	365	362	402	408	368	346	329	323	363	360	310	292
10	328	325	340	323	350	345	286	356	346	353	322	265
0	48	94	154	119	138	161	167	113	137	167	168	90
-10	1	57	82	53	0	85	104	43	0	89	49	32
-20	23	55	20	6	27	53	25	0	12	17	4	0
-30	8	7	8	10	2	0	0	0	0	0	0	0
-40	0	0	0	0	0	0	0	0	0	0	0	0
-50	0	0	0	0	0	0	0	0	0	0	0	0
-60	0	0	0	0	0	0	0	0	0	0	0	0
-70	0	0	0	0	0	0	0	0	0	0	0	0
-80	0	0	0	0	0	0	0	0	0	0	0	0
-90	0	0	0	0	0	0	0	0	0	0	0	0

USERS NOTE- NSSDC 67-16, DTD. FEB. 67, DATA FROM TAPE D-00042.

ON ON THIS TAPE

100	110	120	130	140	150	160	170	180
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
102	37	29	56	60	46	19	51	94
289	228	163	205	191	157	130	173	236
386	358	445	371	390	398	400	399	365
217	218	246	256	286	287	274	275	328
88	158	130	76	118	158	118	42	48
0	47	100	23	0	69	84	25	1
15	37	15	3	34	49	19	3	23
14	9	13	20	5	7	19	18	8
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0

-80	-70	-60	-50	-40	-30	-20	-10	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
22	29	86	77	20	35	71	21	14
104	108	204	197	122	145	207	155	157
310	292	256	278	278	281	241	219	243
322	265	244	237	195	219	234	185	241
168	90	113	133	124	81	124	152	101
49	32	0	88	76	30	0	101	63
4	0	17	32	17	4	25	30	11
0	0	0	0	1	3	2	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0

UPSILON-1 (EXPLORER 12) HAS COMPLETED RUN.
THERE HAVE BEEN 7349 PHYSICAL AND 36745 LOGICAL RECORDS READ FROM THIS TAPE.

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT. REF. DATA USERS NOTE- NSS

THIS ROUTINE WILL READ AN EXPLORER 12 TAPE AND COMPUTE THE LOCAL TIME OF

TA USERS NOTE- NSSDC 67-16, DTD. FEB, 67. DATA FROM TAPE 0-06044.

THE LOCAL TIME OF THE SATELLITE CHARGED PARTICLE READING.

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT. REF. DATA USERS NO

RECORD NO.	DTD.	HRS.	MIN.	B	L	
1	11/22/ 1	13	58	406.	6.55	
61	11/22/ 1	15	53	13212.	2.47	
178	11/22/ 1	21	32	37.	12.66	
193	11/22/ 1	23	32	24.	13.50	
203	11/23/ 1	1	33	18.	13.62	
215	11/23/ 1	3	31	15.	13.41	
225	11/23/ 1	5	11	14.	13.18	
243	11/23/ 1	7	32	15.	12.90	
257	11/23/ 1	9	32	19.	12.52	
277	11/23/ 1	11	31	27.	11.67	
294	11/23/ 1	13	37	50.	9.95	
309	11/23/ 1	14	36	77.	8.82	
470	11/24/ 1	-0	1	36.	12.15	
490	11/24/ 1	2	4	22.	12.71	
493	11/24/ 1	4	1	16.	12.91	
510	11/24/ 1	6	2	14.	13.07	
525	11/24/ 1	8	1	14.	13.22	
538	11/24/ 1	10	4	15.	13.16	
550	11/24/ 1	12	39	21.	12.30	
686	11/24/ 1	21	34	1674.	5.03	
694	11/24/ 1	22	33	332.	7.54	
721	11/25/ 1	-0	50	63.	10.21	
880	11/25/ 1	8	9	14.	13.01	
881	11/25/ 1	9	6	14.	13.21	
883	11/25/ 1	9	46	14.	13.30	
993	11/25/ 1	16	33	25.	10.93	
1001	11/25/ 1	18	32	42.	9.13	
1004	11/25/ 1	19	10	54.	8.43	
1128	11/25/ 1	23	47	3736.	2.95	
1142	11/26/ 1	0	41	511.	5.81	
1223	11/26/ 1	5	0	31.	10.46	
1241	11/26/ 1	7	1	20.	11.62	
1253	11/26/ 1	11	1	14.	13.11	
1269	11/26/ 1	13	10	14.	13.17	
1275	11/26/ 1	15	1	15.	12.79	
1284	11/26/ 1	17	3	18.	12.02	
1286	11/26/ 1	19	1	24.	10.86	
1304	11/26/ 1	21	10	43.	8.96	
1317	11/26/ 1	22	9	65.	7.83	
1568	11/27/ 1	7	32	30.	10.16	
1585	11/27/ 1	9	31	20.	11.53	
1601	11/27/ 1	11	32	16.	12.46	
1615	11/27/ 1	13	31	14.	12.96	
1634	11/27/ 1	15	49	14.	13.05	
1636	11/27/ 1	17	32	15.	12.83	
1646	11/27/ 1	19	31	18.	12.21	
1667	11/27/ 1	21	34	25.	10.99	
1681	11/28/ 1	-0	37	61.	7.97	
1782	11/28/ 1	4	14	18184.	1.37	
1870	11/28/ 1	6	51	136.	6.52	
1911	11/28/ 1	10	1	31.	10.05	
1931	11/28/ 1	12	2	21.	11.49	
1950	11/28/ 1	18	1	15.	13.38	
1965	11/28/ 1	20	2	16.	13.22	
1985	11/28/ 1	22	3	19.	12.45	
2001	11/29/ 1	0	2	24.	11.10	
2004	11/29/ 1	3	11	61.	8.03	
2115	11/29/ 1	7	21	6684.	2.26	
2215	11/29/ 1	10	36	66.	8.10	

T. REF. DATA USERS NOTE- NSSDC 67-16, DTD. FEB. 67. DATA FROM TAPE D-00044.

L	RECORD NO.	DTD.	HRS.	MIN.	B	L
6.55	60	11/22/ 1	15	20	12460.	2.24
2.47	117	11/22/ 1	19	28	78.	10.75
12.66	15	11/22/ 1	22	4	32.	12.98
13.50	10	11/23/ 1	-0	1	22.	13.58
13.62	12	11/23/ 1	2	2	17.	13.58
13.41	10	11/23/ 1	4	0	14.	13.34
13.18	18	11/23/ 1	6	3	14.	13.07
12.90	14	11/23/ 1	8	4	16.	12.82
12.52	20	11/23/ 1	10	15	21.	12.28
11.67	17	11/23/ 1	12	2	30.	11.33
9.95	15	11/23/ 1	14	2	59.	9.50
8.82	161	11/23/ 1	21	36	96.	10.39
12.15	20	11/24/ 1	-0	39	30.	12.38
12.71	3	11/24/ 1	2	9	22.	12.72
12.91	17	11/24/ 1	4	29	16.	12.95
13.07	15	11/24/ 1	6	30	14.	13.11
13.22	13	11/24/ 1	8	32	14.	13.24
13.16	12	11/24/ 1	10	25	16.	13.10
12.30	136	11/24/ 1	20	1	2478.	3.63
5.03	8	11/24/ 1	22	3	654.	6.49
7.54	27	11/25/ 1	-0	6	93.	9.58
10.21	159	11/25/ 1	7	37	15.	12.88
13.01	1	11/25/ 1	8	9	14.	13.01
13.21	2	11/25/ 1	9	10	14.	13.22
13.30	110	11/25/ 1	14	38	19.	12.20
10.93	6	11/25/ 1	16	59	27.	10.58
9.13	3	11/25/ 1	18	35	43.	9.08
8.43	124	11/25/ 1	23	16	25385.	1.24
2.95	14	11/26/ 1	0	10	1335.	4.44
5.81	81	11/26/ 1	3	1	68.	8.99
10.46	18	11/26/ 1	5	32	27.	10.79
11.62	12	11/26/ 1	7	27	19.	11.84
13.11	16	11/26/ 1	11	31	14.	13.17
13.17	6	11/26/ 1	13	33	14.	13.12
12.79	9	11/26/ 1	15	30	16.	12.64
12.02	2	11/26/ 1	17	12	18.	11.94
10.86	18	11/26/ 1	19	28	27.	10.52
8.96	13	11/26/ 1	21	29	48.	8.62
7.83	251	11/27/ 1	5	29	66.	8.29
10.16	17	11/27/ 1	7	59	27.	10.51
11.53	16	11/27/ 1	9	59	19.	11.80
12.48	14	11/27/ 1	11	52	16.	12.59
12.96	19	11/27/ 1	13	57	14.	13.01
13.05	2	11/27/ 1	15	58	14.	13.04
12.83	10	11/27/ 1	17	58	16.	12.74
12.21	21	11/27/ 1	19	59	19.	11.99
10.99	14	11/27/ 1	22	-0	27.	10.65
7.97	101	11/28/ 1	3	14	698.	3.93
1.37	88	11/28/ 1	6	18	228.	5.65
6.52	41	11/28/ 1	7	55	68.	7.93
10.05	20	11/28/ 1	10	31	27.	10.46
11.49	19	11/28/ 1	12	32	19.	11.78
13.38	15	11/28/ 1	18	30	15.	13.39
13.22	20	11/28/ 1	20	32	16.	13.08
12.45	16	11/28/ 1	22	29	19.	12.20
11.10	3	11/29/ 1	-0	29	26.	10.73
8.03	111	11/29/ 1	6	9	1598.	3.33
2.26	100	11/29/ 1	9	43	110.	6.54
8.10	17	11/29/ 1	10	59	54.	8.55

2232	11/29/ 1	12	32	32.	10.12	20	11
2252	11/29/ 1	14	33	22.	11.70	15	11
2267	11/29/ 1	16	31	13.	12.86	10	11
2277	11/29/ 1	18	33	16.	13.66	18	11
2295	11/29/ 1	22	32	16.	13.45	15	11
2310	11/30/ 1	-0	32	18.	12.44	18	11
2328	11/30/ 1	4	54	43.	9.11	7	11
2335	11/30/ 1	5	46	63.	8.27	120	11
2455	11/30/ 1	10	43	701.	4.61	39	11
2494	11/30/ 1	15	2	36.	10.58	17	11
2511	11/30/ 1	17	1	24.	12.34	18	11
2529	11/30/ 1	19	0	19.	13.59	16	11
2545	11/30/ 1	21	9	16.	14.17	6	11
2551	11/30/ 1	23	1	15.	13.99	22	11
2573	12/ 1/ 1	1	2	15.	13.26	325	12
2898	12/ 1/ 1	12	13	24948.	1.45	374	12
3272	12/ 1/ 1	23	31	16.	14.05	225	12
3497	12/ 2/ 1	9	48	44.	10.36	36	12
3533	12/ 2/ 1	13	14	557.	6.33	43	12
3576	12/ 2/ 1	15	12	4721.	4.40	67	12
3643	12/ 2/ 1	17	40	123.	9.39	195	12
3838	12/ 2/ 1	23	46	20.	13.58	18	12
3856	12/ 3/ 1	2	55	14.	13.35	35	12
3891	12/ 3/ 1	5	5	14.	13.07	70	12
3961	12/ 3/ 1	9	6	20.	12.41	17	12
3978	12/ 3/ 1	11	31	34.	11.15	15	12
3993	12/ 3/ 1	13	37	78.	9.05	103	12
4096	12/ 3/ 1	17	55	2750.	5.09	314	12
4410	12/ 4/ 1	6	38	14.	13.19	454	12
4864	12/ 5/ 1	0	30	49.	10.63	174	12
5038	12/ 5/ 1	7	22	14.	13.06	519	12
5557	12/ 6/ 1	1	55	74.	8.86	6	12
5563	12/ 6/ 1	4	40	26.	10.84	2	12
5565	12/ 6/ 1	6	1	20.	11.59	14	12
5579	12/ 6/ 1	8	1	16.	12.53	23	12
5602	12/ 6/ 1	10	1	14.	13.14	25	12

10.12	20	11/29/	1	12	59	29.	10.51
11.70	15	11/29/	1	14	59	20.	11.99
12.86	10	11/29/	1	16	55	17.	13.06
13.66	18	11/29/	1	18	59	16.	13.76
13.45	15	11/29/	1	22	59	16.	13.26
12.44	18	11/30/	1	0	59	19.	12.15
9.11	7	11/30/	1	5	3	45.	8.97
8.27	120	11/30/	1	9	3	4973.	2.58
4.61	39	11/30/	1	13	18	66.	8.63
10.58	17	11/30/	1	15	28	32.	11.01
12.34	18	11/30/	1	17	27	22.	12.66
13.59	16	11/30/	1	19	29	18.	13.79
14.17	6	11/30/	1	21	28	16.	14.18
13.99	22	11/30/	1	23	42	15.	13.79
13.26	325	12/ 1/	1	11	37	5142.	2.93
1.45	374	12/ 1/	1	21	52	19.	14.04
14.05	225	12/ 2/	1	9	5	35.	10.83
10.36	36	12/ 2/	1	11	30	102.	8.79
6.33	43	12/ 2/	1	14	19	9550.	2.69
4.40	67	12/ 2/	1	16	48	246.	8.05
9.39	195	12/ 2/	1	23	12	21.	13.52
13.58	18	12/ 3/	1	1	42	16.	13.50
13.35	35	12/ 3/	1	4	34	14.	13.13
13.07	70	12/ 3/	1	7	48	17.	12.72
12.41	17	12/ 3/	1	9	50	23.	12.14
11.15	15	12/ 3/	1	12	3	41.	10.71
9.05	103	12/ 3/	1	17	21	17299.	1.53
5.09	314	12/ 4/	1	6	7	14.	13.15
13.19	454	12/ 4/	1	23	40	71.	10.03
10.63	174	12/ 5/	1	6	9	15.	12.73
13.06	519	12/ 6/	1	1	25	101.	8.36
8.86	6	12/ 6/	1	2	5	63.	9.02
10.84	2	12/ 6/	1	4	49	25.	10.93
11.59	14	12/ 6/	1	6	29	19.	11.83
12.53	23	12/ 6/	1	8	29	15.	12.71
13.14	25	12/ 6/	1	10	26	14.	13.21

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT. REF. DATA USERS

MATRIX OF VALUES OF L AND LOCAL TIM

TIME / L RANGE	1	2	3	4	5	6	7	8	9	10	11	12	13
1.0-1.1	0	0	0	0	0	0	0	0	0	0	0	0	0
1.1-1.2	0	0	0	0	0	0	0	0	0	0	0	0	0
1.2-1.3	0	0	0	0	0	0	0	0	0	0	0	0	0
1.3-1.4	0	0	0	0	0	0	0	0	0	0	0	0	0
1.4-1.5	0	0	0	0	0	0	0	0	0	0	0	0	0
1.5-1.6	0	0	0	0	0	0	0	0	0	0	0	0	0
1.6-1.7	0	0	0	0	0	0	0	0	0	0	0	0	0
1.7-1.8	0	0	0	0	0	0	0	0	0	0	0	0	0
1.8-1.9	0	0	0	0	0	0	0	0	0	0	0	0	0
1.9-2.0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.0-2.1	0	0	0	0	0	0	0	0	0	0	0	0	0
2.1-2.2	0	0	0	0	0	0	0	0	0	0	0	0	2
2.2-2.3	0	0	0	0	0	0	0	0	0	0	0	0	2
2.3-2.4	0	0	0	0	0	0	0	0	0	0	0	1	1
2.4-2.5	0	0	0	0	0	0	0	0	0	0	0	0	1
2.5-2.6	0	0	0	0	0	0	0	0	0	0	2	3	0
2.6-2.7	0	0	0	0	0	0	0	0	0	0	2	1	3
2.7-2.8	0	0	0	0	0	0	0	0	0	0	3	1	2
2.8-2.9	0	0	0	0	0	0	0	0	0	0	5	1	3
2.9-3.0	0	0	0	0	0	0	0	0	0	2	2	0	0
3.0-3.1	2	0	0	0	0	0	0	0	0	2	4	1	2
3.1-3.2	4	0	0	0	0	0	0	0	0	4	2	1	0
3.2-3.3	4	0	0	0	0	0	0	0	0	6	1	0	0
3.3-3.4	6	0	0	0	0	0	0	0	0	7	3	1	0
3.4-3.5	4	0	0	0	0	0	0	0	1	6	2	3	1
3.5-3.6	6	0	0	0	0	0	0	0	1	7	3	1	0
3.6-3.7	7	0	0	0	0	0	0	0	5	7	3	1	0
3.7-3.8	1	1	0	0	0	0	0	0	5	5	1	1	0
3.8-3.9	2	4	0	0	0	0	0	0	9	7	1	3	0
3.9-4.0	3	4	0	0	0	0	0	0	8	7	1	2	0
4.0-4.1	0	6	0	0	0	0	0	0	13	3	2	3	0
4.1-4.2	2	7	0	0	0	0	0	0	14	3	3	1	0
4.2-4.3	2	4	0	0	0	0	0	0	14	2	4	0	0
4.3-4.4	3	8	0	0	0	0	0	1	15	1	7	0	0
4.4-4.5	4	5	0	0	0	0	0	0	15	4	5	0	0
4.5-4.6	0	7	0	0	0	0	0	1	13	9	1	0	0
4.6-4.7	3	8	0	0	0	0	0	1	19	5	1	0	0
4.7-4.8	5	7	0	0	0	0	0	2	13	8	2	0	0
4.8-4.9	4	7	0	0	0	0	0	6	9	4	2	0	0
4.9-5.0	0	3	4	0	0	0	0	13	12	5	0	0	0
5.0-5.1	4	1	4	0	0	0	0	11	12	7	0	0	0
5.1-5.2	5	2	4	0	0	0	0	15	10	2	0	0	0
5.2-5.3	6	3	5	0	0	0	0	13	9	4	0	0	0
5.3-5.4	4	5	5	0	0	0	0	15	7	3	0	0	0
5.4-5.5	5	3	5	0	0	0	0	19	7	2	0	0	0
5.5-5.6	4	4	7	0	0	0	0	17	8	2	0	0	0
5.6-5.7	4	5	5	0	0	0	0	19	5	3	0	0	0
5.7-5.8	4	5	3	0	0	0	0	21	5	0	0	0	0
5.8-5.9	4	8	8	0	0	0	0	19	6	0	0	0	0
5.9-6.0	5	7	10	0	0	0	2	17	5	0	0	0	0

PERIMENT. REF. DATA USERS NOTE- NSSDC 67-16. DTD. FEB. 67. DATA FROM TAPE D-00044.
VALUES OF L AND LOCAL TIME FOR THIS TAPE

9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
0	0	0	0	0	0	0	1	2	2	1	0	0	0	0	0
0	0	0	0	0	0	0	3	1	1	0	0	0	0	0	0
0	0	0	0	0	0	2	1	3	0	1	0	0	0	0	0
0	0	0	0	0	0	1	3	0	0	0	1	2	0	0	0
0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	0
0	0	0	0	0	1	1	0	0	0	0	1	0	3	0	0
0	0	0	0	0	1	3	0	0	0	0	1	1	3	0	0
0	0	0	0	0	1	2	0	0	0	0	1	0	0	0	0
0	0	0	0	0	3	2	0	0	0	0	0	2	3	0	0
0	0	0	0	0	1	0	0	0	0	0	0	1	1	2	0
0	0	0	0	2	2	1	0	0	0	0	0	0	1	2	0
0	0	0	0	2	3	0	0	0	0	0	0	2	1	4	0
0	0	0	1	1	1	0	0	0	0	0	0	1	1	5	0
0	0	0	0	1	1	0	0	0	0	0	0	1	2	1	2
0	0	2	3	0	1	0	0	0	0	0	0	0	1	2	3
0	0	2	1	3	0	0	0	0	0	0	0	0	1	1	3
0	0	3	1	2	1	0	0	0	0	0	0	0	0	2	5
0	0	5	1	3	0	0	0	0	0	0	0	0	1	1	3
0	2	2	0	0	1	0	0	0	0	0	0	0	1	2	5
0	2	4	1	2	0	0	0	0	0	0	0	0	0	3	2
0	4	2	1	0	0	0	0	0	0	0	0	0	1	1	1
0	6	1	3	0	0	0	0	0	0	0	0	0	0	2	1
0	7	3	1	0	0	0	0	0	0	0	0	0	0	0	1
1	6	2	3	1	0	0	0	0	0	0	0	0	0	2	1
1	7	3	1	0	0	0	0	0	0	0	0	0	0	2	1
5	7	3	1	0	0	0	0	0	0	0	0	0	0	2	0
5	5	1	1	0	0	0	0	0	0	0	0	0	0	1	1
9	7	1	3	0	0	0	0	0	0	0	0	0	0	0	3
8	7	1	2	0	0	0	0	0	0	0	0	0	0	0	4
13	3	2	3	0	0	0	0	0	0	0	0	0	0	0	5
14	3	3	1	0	0	0	0	0	0	0	0	0	0	0	2
14	2	4	0	0	0	0	0	0	0	0	0	0	0	0	5
15	1	7	0	0	0	0	0	0	0	0	0	0	0	0	3
15	4	5	0	0	0	0	0	0	0	0	0	0	0	0	5
13	9	1	0	0	0	0	0	0	0	0	0	0	0	0	1
19	5	1	0	0	0	0	0	0	0	0	0	0	0	0	2
13	8	2	0	0	0	0	0	0	0	0	0	0	0	0	2
9	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0
12	5	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12	7	0	0	0	0	0	0	0	0	0	0	0	0	0	2
10	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT, REF. DATA USERS N

MATRIX OF VALUES OF L AND LOCAL TIME

TIME L RANGE	1	2	3	4	5	6	7	8	9	10	11	12	13
6.0-6.1	2	10	7	0	0	0	1	23	7	0	0	0	0
6.1-6.2	0	12	11	0	0	0	1	20	6	0	0	0	0
6.2-6.3	0	7	12	0	0	0	0	17	4	0	0	0	0
6.3-6.4	0	8	13	0	0	0	2	17	4	0	0	0	0
6.4-6.5	0	8	12	0	0	0	0	22	2	0	0	0	0
6.5-6.6	0	10	15	0	0	0	5	20	2	0	0	0	0
6.6-6.7	0	8	15	0	0	0	1	23	0	0	0	0	0
6.7-6.8	0	7	16	0	0	0	3	18	0	0	0	0	0
6.8-6.9	0	9	14	3	0	0	3	19	0	0	0	0	0
6.9-7.0	0	3	12	7	0	0	5	19	0	0	0	0	0
7.0-7.1	0	6	6	6	0	0	10	13	0	0	0	0	0
7.1-7.2	0	6	9	5	0	0	6	13	0	0	0	0	0
7.2-7.3	0	4	12	5	0	0	12	15	0	0	0	0	0
7.3-7.4	0	4	11	4	0	0	14	11	0	0	0	0	0
7.4-7.5	0	2	16	8	0	0	13	10	0	0	0	0	0
7.5-7.6	0	3	14	8	0	0	13	11	0	0	0	0	0
7.6-7.7	0	3	15	11	0	0	19	6	0	0	0	0	0
7.7-7.8	0	1	10	8	0	0	16	3	0	0	0	0	0
7.8-7.9	0	1	12	9	0	0	19	1	0	0	0	0	0
7.9-8.0	0	1	15	5	0	0	13	2	0	0	0	0	0
8.0-8.1	0	0	18	6	0	0	19	4	0	0	0	0	0
8.1-8.2	0	0	8	8	0	0	16	4	0	0	0	0	0
8.2-8.3	0	0	8	10	0	0	15	5	0	0	0	0	0
8.3-8.4	0	0	7	10	0	0	12	3	0	0	0	0	0
8.4-8.5	0	0	9	15	0	0	12	2	0	0	0	0	0
8.5-8.6	0	0	3	12	0	0	11	0	0	0	0	0	0
8.6-8.7	0	0	7	12	0	0	13	1	0	0	0	0	0
8.7-8.8	0	0	5	11	0	0	17	3	0	0	0	0	0
8.8-8.9	0	0	6	11	0	0	19	1	0	0	0	0	0
8.9-9.0	0	0	6	10	0	0	23	0	0	0	0	0	0
9.0-9.1	0	0	4	6	0	0	20	0	0	0	0	0	0
9.1-9.2	0	0	3	6	0	3	14	0	0	0	0	0	0
9.2-9.3	0	0	4	8	0	1	9	0	0	0	0	0	0
9.3-9.4	0	0	6	6	0	1	7	0	0	0	0	0	0
9.4-9.5	0	0	5	7	0	2	9	0	0	0	0	0	0
9.5-9.6	0	0	7	8	0	0	9	0	0	0	0	0	0
9.6-9.7	0	0	7	9	0	1	10	0	0	0	0	0	0
9.7-9.8	0	0	3	8	0	0	14	0	0	0	0	0	0
9.8-9.9	0	0	4	9	0	1	15	0	0	0	0	0	0
9.9-0.0	0	0	4	12	0	3	13	0	0	0	0	0	0
10.0-0.1	0	0	2	14	3	5	2	0	0	0	0	0	0
10.1-0.2	0	0	4	14	5	5	8	0	0	0	0	0	0
10.2-0.3	0	0	1	22	12	6	11	0	0	0	0	0	0
10.3-0.4	0	0	0	23	7	5	5	0	0	0	0	0	0
10.4-0.5	0	0	0	19	15	6	2	0	0	0	0	0	0
10.5-0.6	0	0	0	14	7	10	8	0	0	0	0	0	0
10.6-0.7	0	0	0	16	7	11	11	0	0	0	0	0	0
10.7-0.8	0	0	0	16	10	11	17	0	0	0	0	0	0
10.8-0.9	0	0	0	24	4	16	12	0	0	0	0	0	0
10.9-1.0	0	0	0	20	7	29	7	0	0	0	0	0	0

A USERS NOTE- NSSDC 67-16, DTD. FEB. 67. DATA FROM TAPE D-00044.
OCAL TIME FOR THIS TAPE

12	13	14	15	16	17	18	19	20	21	22	23	24
0	0	0	0	0	0	0	0	0	0	0	0	0

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT. REF. DATA USERS
MATRIX OF VALUES OF L AND LOCAL TIME

TIME / L RANGE	1	2	3	4	5	6	7	8	9	10	11	12	13
11.0-1.1	0	0	0	16	8	22	0	0	0	0	0	0	0
11.1-1.2	0	0	0	19	8	24	1	0	0	0	0	0	0
11.2-1.3	0	0	0	17	6	24	4	0	0	0	0	0	0
11.3-1.4	0	0	0	17	10	19	4	0	0	0	0	0	0
11.4-1.5	0	0	0	23	7	17	8	0	0	0	0	0	0
11.5-1.6	0	0	0	24	12	20	5	0	0	0	0	0	0
11.6-1.7	0	0	0	29	25	11	5	0	0	0	0	0	0
11.7-1.8	0	0	0	26	31	17	1	0	0	0	0	0	0
11.8-1.9	0	0	0	29	15	14	3	0	0	0	0	0	0
11.9-2.0	0	0	0	19	9	25	1	0	0	0	0	0	0
12.0-2.1	0	0	0	17	11	39	2	0	0	0	0	0	0
12.1-2.2	0	0	0	16	21	36	2	0	0	0	0	0	0
12.2-2.3	0	0	0	18	26	37	2	0	0	0	0	0	0
12.3-2.4	0	0	0	23	32	42	7	0	0	0	0	0	0
12.4-2.5	0	0	0	17	21	32	10	0	0	0	0	0	0
12.5-2.6	0	0	0	10	50	29	3	0	0	0	0	0	0
12.6-2.7	0	0	0	1	53	35	0	0	0	0	0	0	0
12.7-2.8	0	0	0	5	39	54	0	0	0	0	0	0	0
12.8-2.9	0	0	0	7	38	73	0	0	0	0	0	0	0
12.9-3.0	0	0	0	7	46	79	0	0	0	0	0	0	0
13.0-3.1	0	0	0	9	44	91	0	0	0	0	0	0	0
13.1-3.2	0	0	0	0	70	108	0	0	0	0	0	0	0
13.2-3.3	0	0	0	0	134	75	0	0	0	0	0	0	0
13.3-3.4	0	0	0	0	118	61	0	0	0	0	0	0	0
13.4-3.5	0	0	0	0	48	11	0	0	0	0	0	0	0
13.5-3.6	0	0	0	0	50	6	0	0	0	0	0	0	0
13.6-3.7	0	0	0	0	34	6	0	0	0	0	0	0	0
13.7-3.8	0	0	0	0	40	2	0	0	0	0	0	0	0
13.8-3.9	0	0	0	0	15	8	0	0	0	0	0	0	0
13.9-4.0	0	0	0	0	22	12	0	0	0	0	0	0	0
14.0-4.1	0	0	0	0	22	0	0	0	0	0	0	0	0
14.1-4.2	0	0	0	0	6	0	0	0	0	0	0	0	0
14.2-4.3	0	0	0	0	0	0	0	0	0	0	0	0	0
14.3-4.4	0	0	0	0	0	0	0	0	0	0	0	0	0
14.4-4.5	0	0	0	0	0	0	0	0	0	0	0	0	0
14.5-4.6	0	0	0	0	0	0	0	0	0	0	0	0	0
14.6-4.7	0	0	0	0	0	0	0	0	0	0	0	0	0
14.7-4.8	0	0	0	0	0	0	0	0	0	0	0	0	0
14.8-4.9	0	0	0	0	0	0	0	0	0	0	0	0	0
14.9-5.0	0	0	0	0	0	0	0	0	0	0	0	0	0
15.0-5.1	0	0	0	0	0	0	0	0	0	0	0	0	0
15.1-5.2	0	0	0	0	0	0	0	0	0	0	0	0	0
15.2-5.3	0	0	0	0	0	0	0	0	0	0	0	0	0
15.3-5.4	0	0	0	0	0	0	0	0	0	0	0	0	0
15.4-5.5	0	0	0	0	0	0	0	0	0	0	0	0	0
15.5-5.6	0	0	0	0	0	0	0	0	0	0	0	0	0
15.6-5.7	0	0	0	0	0	0	0	0	0	0	0	0	0
15.7-5.8	0	0	0	0	0	0	0	0	0	0	0	0	0
15.8-5.9	0	0	0	0	0	0	0	0	0	0	0	0	0
15.9-6.0	0	0	0	0	0	0	0	0	0	0	0	0	0

ATA USERS NOTE- NSSDC 67-16, DTD. FEB. 67. DATA FROM TAPE D-00044.
LOCAL TIME FOR THIS TAPE

12	13	14	15	16	17	18	19	20	21	22	23	24
0	0	0	0	0	0	0	0	0	0	0	0	0

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT. REF. DATA USERS NO

MATRIX OF VALUES OF L AND UNIVERSAL T

TIME L RANGE	1	2	3	4	5	6	7	8	9	10	11	12	13
1.0-1.1	0	0	0	1	0	0	0	0	0	0	0	0	0
1.1-1.2	0	0	0	6	0	0	0	0	0	0	0	0	0
1.2-1.3	2	0	0	2	0	0	0	0	0	0	0	0	0
1.3-1.4	0	0	0	2	0	0	0	0	0	0	0	0	0
1.4-1.5	2	2	0	0	0	0	0	0	0	0	0	1	0
1.5-1.6	0	0	0	0	0	0	0	0	0	0	0	0	0
1.6-1.7	1	2	0	1	0	0	0	0	0	0	0	1	0
1.7-1.8	1	1	0	2	0	0	0	0	0	0	0	1	0
1.8-1.9	1	0	0	0	0	0	0	0	0	0	0	1	0
1.9-2.0	0	1	0	2	0	0	0	0	0	0	0	0	0
2.0-2.1	0	1	0	1	0	0	0	0	0	0	0	0	0
2.1-2.2	1	0	0	2	0	0	0	0	0	0	0	0	0
2.2-2.3	0	1	0	2	0	0	1	0	0	0	0	1	0
2.3-2.4	1	2	0	1	0	0	2	0	0	0	0	1	0
2.4-2.5	0	0	0	2	0	0	1	0	0	0	0	1	0
2.5-2.6	1	2	0	1	0	0	2	0	1	0	0	0	0
2.6-2.7	0	1	0	1	0	0	1	0	1	0	0	0	0
2.7-2.8	2	1	0	1	0	0	3	0	0	0	0	0	0
2.8-2.9	2	0	0	0	2	0	1	2	0	0	0	1	0
2.9-3.0	2	0	0	0	2	0	2	1	0	0	1	1	0
3.0-3.1	2	0	0	0	2	0	1	1	0	0	1	0	0
3.1-3.2	2	0	0	0	1	0	3	1	0	0	1	1	0
3.2-3.3	0	1	0	0	2	0	1	2	0	0	1	0	0
3.3-3.4	0	1	0	0	2	2	3	1	0	0	1	0	0
3.4-3.5	0	1	0	0	2	1	1	1	0	0	1	0	0
3.5-3.6	0	2	0	0	1	2	2	2	0	0	1	0	0
3.6-3.7	0	2	0	0	2	2	2	1	0	0	1	0	0
3.7-3.8	0	1	0	0	3	0	0	1	0	0	0	0	0
3.8-3.9	0	2	0	0	6	0	1	2	0	0	1	1	0
3.9-4.0	0	2	2	0	2	0	1	3	0	0	2	1	0
4.0-4.1	0	1	1	0	5	0	0	4	0	0	1	2	0
4.1-4.2	0	2	3	0	5	0	0	4	0	0	1	0	0
4.2-4.3	0	2	3	0	2	0	0	4	0	0	2	2	0
4.3-4.4	0	2	2	0	5	0	0	4	0	0	1	0	0
4.4-4.5	0	3	0	0	5	0	0	5	0	0	2	1	0
4.5-4.6	0	2	2	0	4	0	0	4	0	0	1	0	0
4.6-4.7	0	4	1	0	5	0	0	4	0	1	2	1	0
4.7-4.8	0	1	3	0	5	0	0	4	0	0	1	1	2
4.8-4.9	0	2	2	0	4	0	0	5	0	0	3	0	2
4.9-5.0	0	3	2	0	5	0	0	4	0	0	1	0	3
5.0-5.1	0	3	1	0	5	0	0	5	0	0	2	0	2
5.1-5.2	0	3	0	0	2	2	0	4	0	2	0	0	3
5.2-5.3	0	2	0	0	4	3	0	4	0	2	0	0	3
5.3-5.4	0	3	0	0	2	3	2	2	0	2	1	0	5
5.4-5.5	0	2	0	0	3	2	3	2	0	2	1	0	2
5.5-5.6	0	2	0	1	2	3	3	3	0	2	1	0	5
5.6-5.7	0	4	0	2	0	2	2	2	0	2	1	0	6
5.7-5.8	0	3	0	3	0	0	3	2	0	0	1	0	3
5.8-5.9	0	3	2	2	0	0	2	1	2	1	1	0	4
5.9-6.0	0	2	3	4	0	0	2	0	3	2	1	0	4

ATA USERS NOTE- NSSDC 67-16, DTD. FEB. 67, DATA FROM TAPE D-00044.
UNIVERSAL TIME FOR THIS TAPE

12	13	14	15	16	17	18	19	20	21	22	23	24
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	1	0
0	0	0	0	0	0	1	0	0	0	2	2	0
1	0	0	0	0	0	0	1	0	0	1	0	0
0	0	0	0	0	1	0	1	0	0	0	1	0
1	0	0	0	0	0	0	0	0	0	1	0	0
1	0	0	0	0	0	1	1	0	0	1	1	0
1	0	0	0	0	0	0	1	0	0	0	1	0
0	0	0	0	0	1	1	0	0	0	3	2	0
0	0	0	0	0	1	1	0	0	0	1	0	0
0	0	0	0	0	1	1	0	0	0	1	2	0
1	0	0	1	0	1	0	1	1	0	3	0	0
1	0	0	0	0	0	0	1	0	0	2	0	0
1	0	0	1	0	0	0	1	0	0	2	0	0
0	0	0	1	0	0	1	0	0	0	3	0	0
0	0	1	1	0	0	1	1	0	2	1	0	0
0	0	0	0	1	1	1	1	0	0	3	0	0
1	0	1	2	1	0	0	1	0	0	1	0	0
1	0	0	0	0	1	1	0	0	0	1	1	0
0	0	1	2	1	0	0	0	0	0	4	1	0
1	0	0	0	0	0	1	1	0	0	2	1	0
0	0	1	1	0	0	1	2	0	0	2	1	2
0	0	1	0	0	0	0	2	0	1	3	0	1
0	0	1	1	1	1	1	1	1	1	2	0	3
0	0	0	0	2	0	0	2	1	0	2	2	2
0	0	1	1	1	0	0	4	2	2	1	1	2
0	0	1	1	0	0	0	3	1	0	1	1	3
1	0	1	1	3	0	1	4	0	1	3	0	2
1	0	0	0	2	2	2	1	0	1	2	2	4
2	0	1	1	2	2	5	2	0	2	1	1	1
0	0	1	1	1	1	2	2	0	1	2	1	5
2	0	1	1	2	1	3	0	1	2	1	2	2
0	0	1	2	3	3	2	2	1	4	0	1	5
1	0	1	2	3	3	1	3	2	2	0	2	3
0	0	3	0	4	3	1	2	1	3	0	0	2
1	0	1	1	2	3	4	2	2	3	0	1	2
1	2	2	2	5	3	0	1	2	2	0	2	3
0	2	2	0	4	2	1	1	0	1	0	1	2
0	3	1	1	3	3	4	2	2	4	0	2	4
0	2	3	1	4	4	2	3	1	2	0	1	2
0	3	1	2	3	1	3	2	4	1	0	5	1
0	3	3	2	7	0	1	1	3	2	0	3	0
0	5	3	1	2	0	4	2	3	0	0	4	0
0	2	2	3	3	0	4	0	4	4	0	4	0
0	5	2	3	3	0	4	0	3	2	0	3	0
0	6	3	2	2	2	3	1	2	2	0	3	0
0	3	2	3	3	3	2	0	4	3	0	3	0
0	4	2	4	3	3	2	2	3	1	0	5	2
0	4	1	4	4	1	0	1	5	3	0	3	3

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT. REF. DATA USERS NOTE-
MATRIX OF VALUES OF L AND UNIVERSAL TIME

TIME / L RANGE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
6.0-6.1	0	3	1	2	0	0	3	0	2	2	2	0	7	3
6.1-6.2	2	0	3	2	0	0	3	0	3	2	3	0	4	3
6.2-6.3	2	0	3	2	0	0	2	0	3	2	1	0	3	2
6.3-6.4	2	0	3	1	0	0	1	0	3	3	2	0	5	3
6.4-6.5	3	0	0	6	0	0	3	0	3	2	1	0	3	2
6.5-6.6	6	0	0	5	0	3	3	0	3	2	1	0	4	0
6.6-6.7	5	0	0	5	0	4	4	0	2	3	1	0	0	1
6.7-6.8	6	0	0	6	0	0	5	0	1	2	1	0	0	3
6.8-6.9	6	0	0	5	0	1	4	0	3	3	1	2	0	1
6.9-7.0	3	0	0	8	0	4	4	0	3	2	0	0	0	2
7.0-7.1	1	0	3	3	0	2	3	0	3	0	0	1	0	1
7.1-7.2	2	0	2	3	0	0	2	0	2	0	0	1	0	5
7.2-7.3	3	0	1	2	0	2	3	0	4	0	0	1	0	6
7.3-7.4	6	0	3	3	0	1	1	0	3	0	0	1	0	3
7.4-7.5	7	0	2	4	0	2	4	0	4	0	0	0	0	4
7.5-7.6	3	0	4	3	0	1	3	0	3	0	0	0	0	2
7.6-7.7	3	0	3	4	0	3	3	0	2	0	0	1	0	6
7.7-7.8	2	0	1	2	1	2	2	0	3	0	0	1	0	2
7.8-7.9	3	0	3	0	3	4	2	0	4	0	0	1	0	3
7.9-8.0	3	2	2	0	2	2	1	0	1	0	0	0	0	1
8.0-8.1	4	2	1	0	4	2	0	0	3	1	0	2	0	5
8.1-8.2	2	0	0	0	5	0	0	0	4	4	0	2	0	1
8.2-8.3	0	0	0	0	8	0	0	3	0	3	0	0	1	2
8.3-8.4	1	3	0	0	0	0	0	4	0	4	0	0	1	5
8.4-8.5	0	4	0	0	0	0	0	4	0	4	0	0	1	4
8.5-8.6	0	4	0	0	0	0	0	5	0	1	0	0	1	1
8.6-8.7	0	5	0	0	0	0	0	4	0	0	0	0	1	1
8.7-8.8	0	5	0	0	0	0	0	6	0	0	1	0	1	3
8.8-8.9	2	5	0	0	0	0	0	4	0	0	1	0	2	1
8.9-9.0	1	4	2	0	2	0	0	4	0	0	4	0	3	0
9.0-9.1	0	2	0	4	0	0	0	3	0	0	1	0	2	0
9.1-9.2	0	0	0	1	0	0	2	3	0	0	2	0	0	0
9.2-9.3	0	0	0	0	0	0	4	0	0	0	4	0	0	0
9.3-9.4	0	0	0	0	0	0	4	0	0	2	1	0	0	0
9.4-9.5	0	0	0	0	0	0	5	0	0	2	0	0	0	1
9.5-9.6	0	0	0	0	0	0	2	0	0	2	0	0	3	1
9.6-9.7	0	0	0	0	0	0	3	0	0	3	0	0	2	0
9.7-9.8	0	0	0	0	0	0	3	0	0	4	0	0	2	2
9.8-9.9	0	0	0	0	0	0	4	0	0	1	0	0	3	4
9.9-0.0	0	0	0	0	0	5	1	0	0	0	0	0	3	2
10.0-0.1	0	0	0	0	0	1	0	0	0	4	0	0	0	3
10.1-0.2	0	0	0	0	0	3	1	0	0	7	0	5	0	3
10.2-0.3	0	0	0	0	0	6	6	0	2	7	0	3	0	3
10.3-0.4	0	0	0	0	0	3	4	0	1	3	0	5	0	2
10.4-0.5	5	0	0	0	2	3	5	0	0	4	0	6	0	3
10.5-0.6	5	0	0	0	5	5	1	0	0	0	0	1	0	3
10.6-0.7	5	0	0	0	9	0	0	0	0	0	0	0	0	3
10.7-0.8	3	0	0	0	12	0	0	0	0	0	1	2	3	3
10.8-0.9	4	0	0	1	5	0	0	1	4	0	3	0	3	2
10.9-1.0	9	3	0	1	7	0	0	7	0	0	4	0	5	0

DATA USERS NOTE- NSSDC 67-16, DTD. FEB. 67. DATA FROM TAPE 3-00044.
D UNIVERSAL TIME FOR THIS TAPE

12	13	14	15	16	17	18	19	20	21	22	23	24
0	7	3	5	2	3	3	1	4	1	0	4	2
0	4	3	4	4	4	0	1	5	0	0	5	2
0	3	2	2	2	2	0	1	3	1	0	6	3
0	5	3	4	3	2	0	3	2	1	0	3	3
0	3	2	6	3	2	2	0	2	0	1	2	3
0	4	0	5	3	3	3	3	1	1	0	3	3
0	0	1	3	5	0	5	1	2	1	0	3	2
0	0	3	1	4	1	3	3	2	0	3	0	3
2	0	1	1	4	2	4	2	2	2	3	0	2
0	0	2	3	1	6	3	2	0	0	2	0	3
1	0	1	3	2	6	3	3	1	1	2	0	3
1	0	5	2	3	5	2	3	2	1	2	0	2
1	0	6	0	5	5	2	6	2	0	3	0	3
1	0	3	2	2	3	3	2	3	1	4	0	3
0	0	4	2	5	5	1	5	0	1	0	0	3
0	0	2	3	5	3	2	5	0	3	3	0	6
1	0	6	2	5	3	5	4	0	1	4	0	5
1	0	2	1	4	2	2	2	0	1	3	0	7
1	0	3	1	4	2	3	1	0	1	2	0	5
0	0	1	1	5	3	1	6	0	1	3	0	2
2	0	5	1	5	5	2	7	0	2	1	0	0
2	0	1	1	3	6	4	4	0	0	0	0	0
0	1	2	3	2	6	1	6	2	0	1	0	0
0	1	5	2	0	4	2	5	1	0	0	0	0
0	1	4	4	3	3	2	3	1	0	4	1	0
0	1	1	3	2	3	2	3	0	0	0	1	0
0	1	1	7	1	1	2	4	2	3	1	1	0
0	1	3	4	1	0	5	3	1	4	1	1	0
0	2	1	7	3	2	1	3	1	3	1	1	0
0	3	0	6	1	3	0	2	1	3	2	1	0
0	2	0	8	1	3	2	3	0	0	0	1	0
0	0	0	5	3	3	1	3	2	0	0	1	0
0	0	0	3	1	1	0	3	2	0	1	3	0
0	0	0	4	0	2	0	4	0	0	1	2	0
0	0	1	2	1	4	0	2	2	0	0	3	1
0	3	1	5	0	1	1	0	3	0	0	3	3
0	2	0	3	2	5	3	0	4	0	0	2	0
0	2	2	3	3	1	3	0	3	1	0	0	0
0	3	4	3	4	1	2	0	4	3	0	0	0
0	3	2	2	6	0	5	0	4	4	0	0	0
0	0	3	0	6	0	6	0	2	3	0	1	0
5	0	3	2	6	0	2	2	4	1	0	0	0
3	0	3	2	7	0	4	3	5	3	0	0	1
5	0	2	1	7	0	4	3	4	3	0	0	0
6	0	3	0	4	0	4	3	2	0	0	0	0
1	0	3	2	8	0	3	6	0	0	0	0	0
0	0	3	3	10	0	3	9	0	1	1	0	1
2	3	3	6	7	0	4	7	0	3	0	0	5
0	3	2	8	3	3	4	3	0	5	0	0	7
0	5	0	9	1	4	2	0	0	10	0	0	1

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT. REF. DATA USE
MATRIX OF VALUES OF L AND UNIVER

TIME L RANGE	1	2	3	4	5	6	7	8	9	10	11	12
11.0-1.1	4	8	0	0	7	0	0	9	0	0	2	0
11.1-1.2	8	8	0	1	6	0	0	9	0	0	3	0
11.2-1.3	7	6	0	7	0	0	0	9	0	0	0	0
11.3-1.4	9	10	0	7	0	0	0	6	0	0	2	2
11.4-1.5	0	12	6	6	0	0	2	0	0	0	4	1
11.5-1.6	0	11	2	5	0	1	4	0	4	0	4	6
11.6-1.7	0	11	10	2	0	7	5	0	5	0	5	9
11.7-1.8	0	2	14	2	0	3	10	0	7	0	0	7
11.8-1.9	0	0	15	9	0	7	2	0	0	0	0	1
11.9-2.0	0	0	14	3	0	5	0	0	0	0	0	3
12.0-2.1	0	0	16	4	0	5	0	0	0	0	0	5
12.1-2.2	0	0	3	8	12	2	0	0	5	0	0	5
12.2-2.3	0	0	2	8	13	0	0	0	4	1	0	3
12.3-2.4	0	1	0	12	17	0	0	0	8	4	4	1
12.4-2.5	0	0	0	3	19	1	0	0	12	0	11	0
12.5-2.6	0	4	0	11	11	8	0	9	3	0	20	0
12.6-2.7	1	3	0	6	10	13	0	12	0	0	8	3
12.7-2.8	18	7	0	6	0	4	15	2	0	4	4	6
12.8-2.9	8	20	3	0	0	11	20	3	0	6	0	10
12.9-3.0	4	0	25	22	6	18	0	0	0	3	0	16
13.0-3.1	6	0	6	16	28	14	7	1	7	10	1	19
13.1-3.2	3	2	1	6	20	9	17	1	22	29	25	8
13.2-3.3	3	10	16	1	0	4	32	71	8	8	33	1
13.3-3.4	0	13	17	1	0	0	0	18	28	48	10	0
13.4-3.5	5	4	1	0	0	0	0	0	15	2	0	0
13.5-3.6	23	1	0	0	0	0	0	0	0	0	0	0
13.6-3.7	15	0	0	0	0	0	0	0	0	0	0	0
13.7-3.8	6	0	0	0	0	0	0	0	0	0	0	0
13.8-3.9	0	0	0	0	0	0	0	0	0	0	0	0
13.9-4.0	0	0	0	0	0	0	0	0	0	0	0	0
14.0-4.1	0	0	0	0	0	0	0	0	0	0	0	0
14.1-4.2	0	0	0	0	0	0	0	0	0	0	0	0
14.2-4.3	0	0	0	0	0	0	0	0	0	0	0	0
14.3-4.4	0	0	0	0	0	0	0	0	0	0	0	0
14.4-4.5	0	0	0	0	0	0	0	0	0	0	0	0
14.5-4.6	0	0	0	0	0	0	0	0	0	0	0	0
14.6-4.7	0	0	0	0	0	0	0	0	0	0	0	0
14.7-4.8	0	0	0	0	0	0	0	0	0	0	0	0
14.8-4.9	0	0	0	0	0	0	0	0	0	0	0	0
14.9-5.0	0	0	0	0	0	0	0	0	0	0	0	0
15.0-5.1	0	0	0	0	0	0	0	0	0	0	0	0
15.1-5.2	0	0	0	0	0	0	0	0	0	0	0	0
15.2-5.3	0	0	0	0	0	0	0	0	0	0	0	0
15.3-5.4	0	0	0	0	0	0	0	0	0	0	0	0
15.4-5.5	0	0	0	0	0	0	0	0	0	0	0	0
15.5-5.6	0	0	0	0	0	0	0	0	0	0	0	0
15.6-5.7	0	0	0	0	0	0	0	0	0	0	0	0
15.7-5.8	0	0	0	0	0	0	0	0	0	0	0	0
15.8-5.9	0	0	0	0	0	0	0	0	0	0	0	0
15.9-6.0	0	0	0	0	0	0	0	0	0	0	0	0

EF. DATA USERS NOTE- NSSDC 67-16. DTD. FEB. 67. DATA FROM TAPE D-00044.
L AND UNIVERSAL TIME FOR THIS TAPE

11	12	13	14	15	16	17	18	19	20	21	22	23	24
2	0	3	0	2	0	3	2	1	0	5	0	0	0
3	0	3	1	1	0	5	0	4	0	2	0	0	1
0	0	4	4	4	0	5	0	5	0	0	0	0	0
2	2	4	0	2	0	3	0	4	0	1	0	0	0
4	1	8	1	4	0	4	0	4	0	3	0	0	0
4	6	7	5	0	0	3	0	4	0	0	5	0	0
5	9	0	5	0	0	3	0	3	0	0	5	0	0
0	7	1	12	0	0	4	0	6	0	0	7	0	0
0	1	3	8	0	0	5	0	5	0	0	6	0	0
0	3	1	11	0	0	1	5	3	0	0	8	0	0
0	5	2	7	0	0	1	5	8	4	0	4	4	0
0	5	4	1	0	0	0	4	9	4	0	1	8	9
0	3	7	5	0	0	0	5	2	5	0	5	8	15
4	1	8	5	0	0	4	5	0	6	0	6	12	11
11	0	1	4	0	0	5	3	0	7	0	4	3	7
20	0	4	2	0	0	5	6	0	3	0	0	0	6
8	3	13	0	2	0	4	6	0	1	3	0	0	4
4	6	5	0	7	0	6	3	2	2	7	0	0	0
0	10	12	0	0	3	4	0	7	0	11	0	0	0
0	16	17	0	0	4	0	0	6	0	8	3	0	0
1	19	6	0	2	3	0	0	6	2	10	0	0	0
25	6	6	0	0	0	0	0	7	14	8	0	0	0
33	1	0	0	0	0	0	0	7	4	1	10	0	0
10	0	0	0	0	0	0	15	8	1	0	20	0	0
0	0	0	0	0	0	0	0	0	7	0	23	2	0
0	0	0	0	0	0	0	0	1	10	0	0	13	8
0	0	0	0	0	0	0	7	9	9	0	0	0	0
0	0	0	0	0	0	0	11	6	10	0	0	2	7
0	0	0	0	0	0	0	0	0	1	6	0	8	8
0	0	0	0	0	0	0	0	0	0	17	0	15	2
0	0	0	0	0	0	0	0	0	0	10	0	12	0
0	0	0	0	0	0	0	0	0	0	6	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT. REF. DATA USERS N
MATRIX OF VALUES OF B AND L FOR
B GIVEN IN GAMMA = 10 TO THE MI

B RANGE 0 -1K / L RANGE	-2K	-3K	-4K	-5K	-6K	-7K	-8K	-9K	-10K	-15K
1.0-1.1	0	0	0	0	0	0	0	0	0	0
1.1-1.2	0	0	0	0	0	0	0	0	0	0
1.2-1.3	0	0	0	0	0	0	0	0	0	0
1.3-1.4	0	0	0	0	0	0	0	0	0	0
1.4-1.5	0	0	0	0	0	0	0	0	0	0
1.5-1.6	0	0	0	0	0	0	0	0	0	0
1.6-1.7	0	0	0	0	0	0	0	2	1	0
1.7-1.8	0	0	0	0	0	0	1	1	1	0
1.8-1.9	0	0	0	0	0	0	0	0	0	0
1.9-2.0	0	0	0	0	0	2	2	0	0	0
2.0-2.1	0	0	0	0	1	1	1	0	0	0
2.1-2.2	0	0	0	0	2	0	1	0	0	0
2.2-2.3	0	0	0	3	0	2	0	1	0	0
2.3-2.4	0	0	2	1	3	1	0	0	1	0
2.4-2.5	0	0	2	0	2	0	0	1	0	0
2.5-2.6	0	1	3	3	0	3	0	0	0	0
2.6-2.7	0	1	1	3	1	1	0	0	2	0
2.7-2.8	0	3	4	3	0	0	0	1	0	0
2.8-2.9	0	5	3	0	0	0	0	1	1	0
2.9-3.0	0	6	2	1	1	0	1	0	0	0
3.0-3.1	3	4	4	1	0	0	1	1	0	0
3.1-3.2	4	5	1	1	0	0	1	0	2	0
3.2-3.3	7	3	1	1	0	0	4	1	0	0
3.3-3.4	12	2	1	0	1	2	0	0	0	0
3.4-3.5	11	1	1	2	0	3	0	0	0	0
3.5-3.6	12	2	3	1	0	0	1	0	1	0
3.6-3.7	12	4	3	1	1	1	1	0	0	0
3.7-3.8	6	3	1	0	2	0	0	0	0	0
3.8-3.9	7	3	0	1	3	1	2	0	0	0
3.9-4.0	10	3	0	1	1	3	0	0	0	0
4.0-4.1	10	1	2	3	4	0	0	0	0	0
4.1-4.2	7	1	0	4	1	0	0	0	0	0
4.2-4.3	6	3	1	4	1	0	0	0	0	0
4.3-4.4	6	2	4	4	0	0	0	0	0	0
4.4-4.5	5	6	5	2	0	0	0	0	0	0
4.5-4.6	1	4	5	1	0	0	0	0	0	0
4.6-4.7	7	4	2	0	0	0	0	0	0	0
4.7-4.8	7	7	4	0	0	0	0	0	0	0
4.8-4.9	11	2	1	0	0	0	0	0	0	0
4.9-5.0	11	3	1	0	0	0	0	0	0	0
5.0-5.1	10	4	1	0	0	0	0	0	0	0
5.1-5.2	7	2	0	0	0	0	0	0	0	0
5.2-5.3	9	3	0	0	0	0	0	0	0	0
5.3-5.4	6	3	0	0	0	0	0	0	0	0
5.4-5.5	8	1	0	0	0	0	0	0	0	0
5.5-5.6	10	1	0	0	0	0	0	0	0	0
5.6-5.7	7	0	0	0	0	0	0	0	0	0
5.7-5.8	6	0	0	0	0	0	0	0	0	0
5.8-5.9	8	0	0	0	0	0	0	0	0	0
5.9-6.0	6	0	0	0	0	0	0	0	0	0

TA USERS NOTE-- NSSDC 67-16, DTD. FEB. 67. DATA FROM TAPE D-00044.
AND L FOR THIS TAPE
TO THE MINUS 5 GAUSS

10K	-15K	-20K	-25K	-30K	-35K	-40K	-45K	-50K	-75K	-100K
0	0	0	0	0	1	0	0	0	0	0
0	0	0	0	0	6	0	0	0	0	0
0	0	0	0	1	3	1	0	0	0	0
0	0	0	0	3	0	4	0	0	0	0
0	0	0	2	1	3	1	0	0	0	0
0	0	0	0	1	2	0	0	0	0	0
1	0	0	0	1	2	0	0	0	0	0
1	0	0	2	0	4	0	0	0	0	0
0	0	0	1	1	2	0	0	0	0	0
0	0	0	1	5	0	0	0	0	0	0
0	0	0	1	1	0	0	0	0	0	0
0	0	0	4	1	0	0	0	0	0	0
0	0	0	3	2	1	0	0	0	0	0
1	0	0	0	2	0	0	0	0	0	0
0	0	0	2	1	0	0	0	0	0	0
0	0	0	2	0	0	0	0	0	0	0
2	0	0	1	1	0	0	0	0	0	0
0	0	0	3	0	0	0	0	0	0	0
1	0	0	4	0	0	0	0	0	0	0
0	0	0	2	0	0	0	0	0	0	0
0	0	0	2	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
0	0	0	2	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0
0

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT. REF. DATA USERS NOTE-
MATRIX OF VALUES OF B AND L FOR THI
B GIVEN IN GAMMA = 10 TO THE MINUS

B RANGE 0 -100	-200	-300	-400	-500	-600	-700	-800	-900	-1000	-1100	-12
L RANGE											
6.0-6.1	0	13	11	1	12	0	4	2	2	0	1
6.1-6.2	0	13	13	5	7	3	2	0	2	1	1
6.2-6.3	0	16	6	9	1	2	1	1	0	2	1
6.3-6.4	0	20	1	12	2	3	0	1	2	1	1
6.4-6.5	0	23	1	12	2	0	1	3	2	0	0
6.5-6.6	0	28	5	10	2	0	2	1	1	1	2
6.6-6.7	0	27	12	1	0	1	2	2	1	1	0
6.7-6.8	0	26	12	0	0	1	3	0	2	0	0
6.8-6.9	7	23	9	0	0	5	1	2	1	0	0
6.9-7.0	7	22	11	0	1	2	1	2	0	0	0
7.0-7.1	10	15	9	0	3	1	2	1	0	0	0
7.1-7.2	11	11	8	0	4	1	4	0	0	0	0
7.2-7.3	15	21	3	1	3	1	4	0	0	0	0
7.3-7.4	15	22	0	1	2	4	0	0	0	0	0
7.4-7.5	18	23	0	3	3	2	0	0	0	0	0
7.5-7.6	23	15	0	8	2	1	0	0	0	0	0
7.6-7.7	27	16	0	6	5	0	0	0	0	0	0
7.7-7.8	21	11	3	1	2	0	0	0	0	0	0
7.8-7.9	20	14	4	3	1	0	0	0	0	0	0
7.9-8.0	15	8	7	6	0	0	0	0	0	0	0
8.0-8.1	21	15	7	4	0	0	0	0	0	0	0
8.1-8.2	24	7	3	2	0	0	0	0	0	0	0
8.2-8.3	25	4	6	3	0	0	0	0	0	0	0
8.3-8.4	20	6	6	0	0	0	0	0	0	0	0
8.4-8.5	21	11	6	0	0	0	0	0	0	0	0
8.5-8.6	17	3	6	0	0	0	0	0	0	0	0
8.6-8.7	20	6	7	0	0	0	0	0	0	0	0
8.7-8.8	26	6	4	0	0	0	0	0	0	0	0
8.8-8.9	30	3	4	0	0	0	0	0	0	0	0
8.9-9.0	33	5	1	0	0	0	0	0	0	0	0
9.0-9.1	26	4	0	0	0	0	0	0	0	0	0
9.1-9.2	20	6	0	0	0	0	0	0	0	0	0
9.2-9.3	13	9	0	0	0	0	0	0	0	0	0
9.3-9.4	12	8	0	0	0	0	0	0	0	0	0
9.4-9.5	14	9	0	0	0	0	0	0	0	0	0
9.5-9.6	19	5	0	0	0	0	0	0	0	0	0
9.6-9.7	16	11	0	0	0	0	0	0	0	0	0
9.7-9.8	17	8	0	0	0	0	0	0	0	0	0
9.8-9.9	19	10	0	0	0	0	0	0	0	0	0
9.9-0.0	22	10	0	0	0	0	0	0	0	0	0
10.0-0.1	19	7	0	0	0	0	0	0	0	0	0
10.1-0.2	31	5	0	0	0	0	0	0	0	0	0
10.2-0.3	49	3	0	0	0	0	0	0	0	0	0
10.3-0.4	40	0	0	0	0	0	0	0	0	0	0
10.4-0.5	41	0	0	0	0	0	0	0	0	0	0
10.5-0.6	39	0	0	0	0	0	0	0	0	0	0
10.6-0.7	45	0	0	0	0	0	0	0	0	0	0
10.7-0.8	56	0	0	0	0	0	0	0	0	0	0
10.8-0.9	56	0	0	0	0	0	0	0	0	0	0
10.9-1.0	63	0	0	0	0	0	0	0	0	0	0

ATA USERS NOTE- NSSDC 67-16. DTD. FEB. 67. DATA FROM TAPE 0-00044.
E AND L FOR THIS TAPE
O TO THE MINUS 5 GAUSS

-1000 -1100 -1200 -1300 -1400 -1500 -1600 -1700 -1800 -1900 -2000

0	1	1	1	0	2	0	0	0	0	0
1	1	3	0	0	0	0	0	0	0	0
2	1	0	1	0	0	0	0	0	0	0
1	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1	2	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0
0

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT. REF. DATA USERS NOTE-
MATRIX OF VALUES OF B AND L FOR TH
B GIVEN IN GAMMA = 10 TO THE MINUS

B RANGE 0 -100	-200	-300	-400	-500	-600	-700	-800	-900	-1000	-1100	-1
L RANGE											
11.0-1.1	46	0	0	0	0	0	0	0	0	0	0
11.1-1.2	52	0	0	0	0	0	0		0	0	0
11.2-1.3	51	0	0	0	0	0	0	0	0	0	0
11.3-1.4	50	0	0	0	0	0	0	0	0	0	0
11.4-1.5	55	0	0	0	0	0	0	0	0	0	0
11.5-1.6	61	0	0	0	0	0	0	0	0	0	0
11.6-1.7	70	0	0	0	0	0	0	0	0	0	0
11.7-1.8	75	0	0	0	0	0	0	0	0	0	0
11.8-1.9	61	0	0	0	0	0	0	0	0	0	0
11.9-2.0	54	0	0	0	0	0	0	0	0	0	0
12.0-2.1	69	0	0	0	0	0	0	0	0	0	0
12.1-2.2	75	0	0	0	0	0	0	0	0	0	0
12.2-2.3	83	0	0	0	0	0	0	0	0	0	0
12.3-2.4	104	0	0	0	0	0	0	0	0	0	0
12.4-2.5	80	0	0	0	0	0	0	0	0	0	0
12.5-2.6	92	0	0	0	0	0	0	0	0	0	0
12.6-2.7	89	0	0	0	0	0	0	0	0	0	0
12.7-2.8	98	0	0	0	0	0	0	0	0	0	0
12.8-2.9	118	0	0	0	0	0	0	0	0	0	0
12.9-3.0	132	0	0	0	0	0	0	0	0	0	0
13.0-3.1	144	0	0	0	0	0	0	0	0	0	0
13.1-3.2	178	0	0	0	0	0	0	0	0	0	0
13.2-3.3	209	0	0	0	0	0	0	0	0	0	0
13.3-3.4	179	0	0	0	0	0	0	0	0	0	0
13.4-3.5	59	0	0	0	0	0	0	0	0	0	0
13.5-3.6	56	0	0	0	0	0	0	0	0	0	0
13.6-3.7	40	0	0	0	0	0	0	0	0	0	0
13.7-3.8	42	0	0	0	0	0	0	0	0	0	0
13.8-3.9	23	0	0	0	0	0	0	0	0	0	0
13.9-4.0	34	0	0	0	0	0	0	0	0	0	0
14.0-4.1	22	0	0	0	0	0	0	0	0	0	0
14.1-4.2	6	0	0	0	0	0	0	0	0	0	0
14.2-4.3	0	0	0	0	0	0	0	0	0	0	0
14.3-4.4	0	0	0	0	0	0	0	0	0	0	0
14.4-4.5	0	0	0	0	0	0	0	0	0	0	0
14.5-4.6	0	0	0	0	0	0	0	0	0	0	0
14.6-4.7	0	0	0	0	0	0	0	0	0	0	0
14.7-4.8	0	0	0	0	0	0	0	0	0	0	0
14.8-4.9	0	0	0	0	0	0	0	0	0	0	0
14.9-5.0	0	0	0	0	0	0	0	0	0	0	0
15.0-5.1	0	0	0	0	0	0	0	0	0	0	0
15.1-5.2	0	0	0	0	0	0	0	0	0	0	0
15.2-5.3	0	0	0	0	0	0	0	0	0	0	0
15.3-5.4	0	0	0	0	0	0	0	0	0	0	0
15.4-5.5	0	0	0	0	0	0	0	0	0	0	0
15.5-5.6	0	0	0	0	0	0	0	0	0	0	0
15.6-5.7	0	0	0	0	0	0	0	0	0	0	0
15.7-5.8	0	0	0	0	0	0	0	0	0	0	0
15.8-5.9	0	0	0	0	0	0	0	0	0	0	0
15.9-6.0	0	0	0	0	0	0	0	0	0	0	0

RIMENT. REF. DATA USERS NOTE- NSSDC 67-16, DTD. FEB. 67, DATA FROM TAPE D-00044.
OF VALUES OF B AND L FOR THIS TAPE
IN GAMMA = 10 TO THE MINUS 5 GAUSS

0 -800 -900 -1000 -1100 -1200 -1300 -1400 -1500 -1600 -1700 -1800 -1900 -2000

0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0

EXPLORER-12 (1961 UPSILON-1) CHARGED PARTICLE EXPERIMENT, REF. DATA USERS NOTE-

NUMBER OF SAMPLES PER POSITION ON THIS TA

LONG (E) LAT	0	10	20	30	40	50	60	70	80	90	100	110
90	0	0	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0
40	8	5	15	10	3	4	17	11	7	5	16	11
30	0	0	74	3	0	2	71	3	2	23	41	3
20	20	35	5	19	11	17	0	5	12	20	0	25
10	57	68	75	42	57	60	85	54	54	75	56	30
0	38	38	22	30	30	28	18	19	43	33	37	54
-10	31	0	17	45	29	0	16	13	0	1	5	38
-20	28	0	0	18	24	3	0	27	41	2	0	32
-30	0	5	7	6	6	9	18	6	4	7	16	5
-40	0	0	0	0	0	0	0	0	0	0	0	0
-50	0	0	0	0	0	0	0	0	0	0	0	0
-60	0	0	0	0	0	0	0	0	0	0	0	0
-70	0	0	0	0	0	0	0	0	0	0	0	0
-80	0	0	0	0	0	0	0	0	0	0	0	0
-90	0	0	0	0	0	0	0	0	0	0	0	0

LONG (W) LAT	-180	-170	-160	-150	-140	-130	-120	-110	-100	-90	-80	-70
90	0	0	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0
40	12	3	4	0	31	20	11	5	14	8	4	3
30	42	0	0	33	70	17	1	55	80	8	0	25
20	12	61	39	34	47	83	62	30	54	44	55	38
10	20	12	10	12	35	0	5	28	26	18	18	12
0	11	13	10	17	13	12	8	10	0	3	8	10
-10	20	55	39	0	0	30	47	0	0	36	42	0
-20	1	19	41	0	0	10	30	0	0	0	23	0
-30	6	2	1	1	5	3	0	0	0	0	0	0
-40	0	0	0	0	0	0	0	0	0	0	0	0
-50	0	0	0	0	0	0	0	0	0	0	0	0
-60	0	0	0	0	0	0	0	0	0	0	0	0
-70	0	0	0	0	0	0	0	0	0	0	0	0
-80	0	0	0	0	0	0	0	0	0	0	0	0
-90	0	0	0	0	0	0	0	0	0	0	0	0

TA USERS NOTE- NSSDC 67-16, DTD. FEB. 67, DATA FROM TAPE D-00044.

TION ON THIS TAPE

90	100	110	120	130	140	150	160	170	180
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
5	16	11	6	5	2	0	0	0	12
3	41	3	0	16	17	0	0	39	42
0	0	25	11	20	3	12	5	17	12
5	56	30	14	19	8	2	3	0	20
3	37	54	64	67	40	23	22	19	11
1	5	38	41	0	24	66	45	0	20
2	0	32	38	3	2	22	44	1	1
7	16	5	3	3	10	4	5	3	6
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0

0	-80	-70	-60	-50	-40	-30	-20	-10	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
8	4	3	26	7	4	0	17	14	8
8	0	25	34	4	3	57	74	6	0
4	55	38	36	11	65	65	51	55	20
8	18	12	48	50	28	49	47	51	57
3	8	10	0	3	8	27	33	40	38
6	42	0	0	36	34	0	2	32	31
0	23	0	0	12	29	0	0	16	28
0	0	0	0	0	0	3	7	1	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0

UPSILON-1 (EXPLORER 12) HAS COMPLETED RUN.
THERE HAVE BEEN 1125 PHYSICAL AND 5625 LOGICAL RECORDS READ FROM THIS TAPE.

UPSILON-1 (EXPLORER 12) HAS COMPLETED RUN.
THERE HAVE BEEN 1125 PHYSICAL AND 5625 LOGICAL RECORDS READ FROM THIS TAPE.