

DATA SET CATALOG #71

Explorer 26
L-Interpolated Data Tapes
Charged Particle 'D'

64-086A-01D

7 tapes

Table of Contents

1. Introduction
2. Errata/Change Log
3. LINKS TO RELEVANT INFORMATION IN THE ONLINE NSSDC
INFORMATION SYSTEM
4. Catalog Materials
 - a. Associated Documents
 - b. Core Catalog Materials

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 This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system.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

EPE-D

L-Ordered Electron Count Rate Tapes

64-086A-01D

This data set has been restored. There were originally 6 7-track, 556 BPI tapes written in BCD. There are three restored tapes written in EBCDIC. The DR tapes are 3480 cartridges and the DS tapes are 9-track, 6250 BPI. The tapes were created on a 360 computer. The DR and DS numbers along with the corresponding D numbers and the time spans are as follows:

DR#	DS#	DD#	FILES	TIME SPAN
DR03397	DS03397	D05502	1	12/21/64 - 02/27/66
		D05503	2	12/21/64 - 02/27/66
DR03398	DS03398	D05504	1	12/21/64 - 02/27/66
		D05505	2	12/21/64 - 02/27/66
DR03399	DS03399	D05506	1	12/21/64 - 02/27/66
		D05507	2	12/21/64 - 02/27/66

Documentation for Explorer 26 (Brown/BTL.)
L-Interpolated Data Tapes
Data Set Number 64-086A-01D

I. Introduction

Experiment number 64-086A-01 was designed and flown by the Bell Telephone Laboratories to investigate electron and proton particle populations in the trapped radiation belts.¹ Six solid state partially depleted p-n junction detectors were each operated in high and low bias and high and low gain modes for a total of four operating modes for each detector. Time ordered data from this experiment were deposited at the NSSDC by BTL on 65 magnetic tapes. To use this data for studies of outer zone electron populations, NSSDC extracted the electron data for each detector and interpolated it to given L-values.

Interpolation was accomplished using program Satellite Data Interpolator (SADI), written at NSSDC. Ephemeris parameters were interpolated linearly. Detector rates were interpolated using least squares polynomial curve fits over short successive intervals.

II. Description of L-interpolated electron data tapes

Data set 64-086A-01D consists of 6 556 SPI, 7 track, even parity BCD, data tapes. Each tape contains L-interpolated electron count rate data from the high bias, high gain mode of one detector. The contents and format are specified in Table 1. Table 2 is a sample listing of the beginning of one tape. Data were interpolated to the following L-values: 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 6.5, 7.0⁷⁵. The data were sorted on L and ordered chronologically within each L-set.

¹See Williams, Alens, and Lanzeratti, J. Geophys. Res., 73, p. 5674, Sept. 1968.

III. Details

Table 3 lists the NSSDC numbers of the data set number 64-086A-01A from which the interpolated tapes were made. These tapes were made at Bell Laboratories using program EXPLOR. Each of these tapes contain approximately 2 weeks of data from Explorer 26. Data on each tape was ordered chronologically by station pass. Some redundancy of data existed where more than one station recorded data at the same time.

Flags on each record indicated the mode of operation for which each detector rate was taken. Data quality flags also signaled bad data. These flags were used to extract only valid high bias, high gain rates from each detector.

The method of interpolation used by the program SADI is given in Appendix A. After interpolation unreliable data records were removed. All redundant records resulting from redundancy on the input tapes were also removed. Data from each detector was then sorted on L and written on one tape.

TABLE 1

Format for Interpolated Tapes
Explorer 26 64-083A-01D

COLUMNS	FORMAT	SYMBOL	DESCRIPTION
FORMAT (E8.2, 4F7.3, 1X, 3(I2, 1X), F7.1, 1X, F5.1, F9.4, 1X, 15, F5.2)			
1-8	E8.2		detector count rate. High bias, high gain. Counts per second.
9-15	F7.3	B/BO	B/Bo Equatorial ratio of magnetic field strength.
16-22	F7.3	PHI	Local time in hours. $PHI = UT + \frac{LONG}{15}$
23-29	F7.3		Solar rotation time in days. The time from the beginning of a solar rotation.
30-36	F7.3	UT	Universal time of day in hours and decimal fraction.
38-39	I2	MM	Month
40-41	I2	IDA	Day
43-44	I2	IVR	Year
46-52	F7.1		Blank
54-58	F5.1		Longitude in degrees east.
59-67	F9.4		Latitude in degrees north.
69-75	I5	ID	Detector identification number assigned by NSSDC.
76-80	F5.2	L	L value

TABLE 2

Sample Listing from FI Interpolated Tape

Count Rate TIME	B/Bo	PHI	S.R.T.	UT	MO	DA	YR	BLANK	LONG	LAT	ID	L	NET
6.69E-01	2.332	14.067	11.423	10.152	12	21	64	-0.0	56.7	-18.4375	48211	3.50	
2.10E-01	1.306	20.732	11.647	15.540	12	21	64	-0.0	77.9	-4.9535	48211	3.50	
4.92E-01	1.091	14.839	11.753	18.070	12	21	64	-0.0	311.5	-19.5375	48211	3.50	
6.00E-01	1.091	14.838	11.753	18.070	12	21	64	-0.0	311.5	250.3125	48211	3.50	
2.06E-01	1.024	20.604	11.962	23.081	12	21	64	-0.0	322.8	-5.4531	48211	3.50	
1.47E-01	1.024	20.604	11.962	23.081	12	21	64	-0.0	322.8	-5.4571	48211	3.50	
1.42E-01	1.014	14.463	12.062	1.489	12	22	64	-0.0	195.7	-19.1795	48211	3.50	
3.14E-01	1.039	20.689	12.275	6.624	12	22	64	-0.0	206.0	-9.9278	48211	3.50	
5.11E-02	2.016	13.936	12.372	8.923	12	22	64	-0.0	75.2	-19.3750	48211	3.50	
2.09E-01	1.345	20.705	12.598	14.348	12	22	64	-0.0	95.3	-4.5125	48211	3.50	
6.02E-01	1.157	14.731	12.702	16.439	12	22	64	-0.0	328.4	-19.5637	48211	3.50	
1.85E-01	1.002	20.552	12.912	21.377	12	22	64	-0.0	340.1	-5.2315	48211	3.50	
4.54E-01	1.511	14.572	13.016	0.372	12	23	64	-0.0	213.0	-19.5413	48211	3.50	
2.52E-01	1.003	20.438	13.226	5.419	12	23	64	-0.0	225.3	-5.6597	48211	3.50	
4.40E-01	2.055	13.850	13.321	7.793	12	23	64	-0.0	91.9	-18.3750	48211	3.50	
3.92E-01	1.336	20.653	13.548	13.150	12	23	64	-0.0	112.0	-4.3474	48211	3.50	
2.14E-01	1.775	16.589	13.550	15.592	12	23	64	-0.0	345.0	-19.6250	48211	3.50	
5.08E-01	1.018	20.511	13.562	20.650	12	23	64	-0.0	357.5	-4.9979	48211	3.50	
2.65E-01	1.209	14.686	13.968	23.242	12	23	64	-0.0	231.7	-19.7499	48211	3.50	
1.97E-01	1.209	14.686	13.968	23.242	12	23	64	-0.0	231.7	-19.7499	48211	3.50	
4.49E-02	1.033	20.422	14.177	4.239	12	24	64	-0.0	262.8	-5.2431	48211	3.50	
5.07E-01	2.000	13.753	14.271	6.493	12	24	64	-0.0	104.7	-18.4132	48211	3.50	
1.88E-01	1.000	20.495	14.692	11.413	12	24	64	-0.0	129.3	-4.1042	48211	3.50	
2.11E-01	1.000	14.617	14.597	16.335	12	24	64	-0.0	1.2	-19.5300	48211	3.50	
4.59E-01	1.172	15.750	14.980	22.049	12	24	64	-0.0	232.9	-19.3750	48211	3.50	
2.40E-01	1.047	13.775	15.221	5.590	12	25	64	-0.0	126.4	-18.5823	48211	3.50	
1.85E-01	1.273	20.520	15.467	10.720	12	25	64	-0.0	147.0	-4.0155	48211	3.50	
4.55E-01	1.570	14.232	15.545	13.072	12	25	64	-0.0	17.3	-19.4375	48211	3.50	
4.55E-01	1.112	14.738	15.871	20.912	12	25	64	-0.0	257.7	-19.4375	48211	3.50	

TABLE 3
EXPLORER 26 DATA TAPES
DATA SET 64-086A-01A

Tape Number	Orbit Number Start	Orbit Number End	Time Start	Time End
D0125	1	33	12-21-64	1-1-65
D0126	35	78	1-1-65	1-15-65
D0127	78	131	1-14-65	1-31-65
D0128	132	168	1-31-65	2-12-65
D0138	172	219	2-13-65	2-28-65
D0139	221	271	3-1-65	3-17-65
D0140	272	312	3-17-65	3-30-65
D0141	313	359	3-3-65	4-13-65
D0142	360	400	4-4-65	4-26-65
D0143	401	421	4-27-65	5-3-65
D0144	422	465	5-3-65	5-17-65
D0145	466	512	5-17-65	6-1-65
D0146	513	557	6-1-65	6-15-65
D0147	556	601	6-14-65	6-29-65
D2201	601	643	6-29-65	7-12-65
D2202	644	690	7-12-65	7-29-65
D2203	697	744	8-13-65	8-28-65
D2204	745	792	7-29-65	8-13-65
D2205	793	840	8-28-65	9-12-65
D2206	841	884	9-12-65	9-26-65
D2207	885	932	9-26-65	10-11-65
D2208	933	978	10-11-65	10-25-65
D2209	979	1023	10-26-65	11-10-65
D2210	1029	1075	11-10-65	11-25-65
D2211	1076	1093	11-25-65	11-30-65
D2212	1094	1141	12-1-65	12-16-65
D2213	1142	1176	12-16-65	12-26-65
D2214	1177	1224	12-27-65	1-11-66
D2215	1225	1236	1-11-66	1-14-66
D2216	1237	1284	1-14-66	1-29-66
D2217	1285	1338	1-29-66	2-15-66
D2218	1339	1386	2-16-66	3-2-66
D2219	1387	1434	3-2-66	3-17-66
D2220	1435	1479	3-17-66	3-31-66
D2221	1480	1530	3-31-66	4-16-66
D2222	1531	1580	4-16-66	5-2-66
D2223	1581	1627	5-2-66	5-16-66
D2224	1628	1672	5-17-66	5-30-66
D2225	1673	1717	5-30-66	6-13-66
D2226	1718	1769	6-13-66	6-29-66
D2227	1770	1814	6-30-66	7-13-66
D2228	1815	1859	7-13-66	7-27-66

Tap Number	Orbit Number Start	Orbit Number End	Time Start	Time End
D2229	1860	1905	7-27-66	8-10-66
D2230	1906	1944	8-11-66	8-22-66
D2231	1945	1987	8-23-66	9-5-66
D2232	1988	2032	9-5-66	9-18-66
D2233	2033	2068	9-19-66	9-30-66
D2234	2069	2096	9-30-66	10-8-66
D2235			10-8-66	10-19-66
D2236	2130	2170	10-19-66	10-31-66
D2237	2171	2210	10-31-66	11-10-66
D2238	2211	2249	11-12-66	11-24-66
D2239	2250	2280	11-24-66	12-4-66
D2240	2281	2319	12-4-66	12-16-66
D2241	2320	2361	12-16-66	12-29-66
D2242	2362	2376	12-29-66	1-2-67
D2243	2377	2392	1-2-67	1-7-67
D2244	2393	2425	1-7-67	1-17-67
D2245	2426	2473	1-18-67	2-1-67
D2246			2-1-67	2-14-67
D2247	2516	2560	2-14-67	2-28-67
D2248	2561	2606	2-28-67	3-14-67
D2249	2607	2642	3-14-67	3-25-67
D2250	2643	2660	3-25-67	4-8-67
D2251	2669	2731	4-8-67	4-21-67
D2252	2732	2771	4-21-67	5-3-67
D2253	2772	2803	5-4-67	5-15-67
D2254	2809	2836	5-15-67	5-23-67

APPENDIX A

Method of interpolation in program SADI

Two methods of interpolation are utilized by the program. Linear interpolation between two adjacent points is for use with data for which each point is highly reliable. Linear interpolation has been used on such calculated parameters as latitude, longitude, magnetic field strength, and others. It is much faster than the alternate method.

Data which may have a large amount of scatter is not reliably interpolated linearly. Since linear interpolation is based upon only two points, interpolation can be very poor if one of the points is bad. A fitting procedure has been employed which increases the number of points upon which a given interpolation is based. A polynomial is fitted, using least squares, to approximately 20 points of the data. The resulting equation is used to calculate the dependent variable for the desired values of the independent variable. Depending upon the data range, the fit may be used to calculate one or several points.

The fitted polynomial may be unreliable near the endpoints of the fitting interval. To avoid errors resulting from using the fits near the endpoints, calculation of a dependent variable is limited to values of the independent variable which are not near the endpoints of its range whenever possible. This is accomplished by requiring that the last 5 input points of one set also be used as the first 5 input points of the next set. Breaks in the data stream predicate this procedure of course.

The fitting technique obviously introduces smoothing. The amount of smoothing will depend upon the degree of the polynomial used and the degree of scatter in the data. If a low order polynomial is used, significant smoothing may result. On the other hand, a high order polynomial, while fitting the data points well, may have wide excursions between points.

Interpolation using this kind of fit may introduce errors.

The program is written to use second or fourth order polynomials. Second order is fit first, but a fourth order is used if the second order has slopes of opposite sign at the endpoints, i.e., is double valued. This has been found to be a reliable procedure for time ordered trapped particle data. The fitting routine which is used, however, will handle up to tenth order polynomials.

Occasionally the data stream will provide only a few points useful for fitting, rather than 20 as desired. This can happen due to excessively noisy or bad data, or because of a break in the data stream. When this happens, the fit may be unreliable. To make it possible to check the reliability, plots may be made for those fits based upon less than 6 data points. The plots show the input data, the fitted curve, and the interpolated points calculated. Unreliable output can then be removed by hand.

NATIONAL SPACE SCIENCE DATA CENTER					
DENSITY	MODE	PARITY	TRACK	FILES	MACHINE
556	BCD	EVEN	7	1	7094
EXPERIMENT			NUMBER		
64-086A-01D			D-05502		
CONTENTS					
EXPLORER 26 CHGD PART. 'D'					
(BROWN/BTL) L-INTERPOLATED TAPES					
ORDERED BY L VALUES 3.5 TO 7.5					
DETECTOR ID. # 48211 (C-03969)					
601-B (11/67)					

NATIONAL SPACE SCIENCE DATA CENTER					
DENSITY	MODE	PARITY	TRACK	FILES	MACHINE
EXPERIMENT			NUMBER		
			D-05504		
CONTENTS					
DETECTOR ID. # 48213					
(C-03971)					
601-B (11/67)					

NATIONAL SPACE SCIENCE DATA CENTER					
DENSITY	MODE	PARITY	TRACK	FILES	MACHINE
EXPERIMENT			NUMBER		
			D-05506		
CONTENTS					
DETECTOR ID. # 57215					
(C-03973)					
601-B (11/67)					

NATIONAL SPACE SCIENCE DATA CENTER					
DENSITY	MODE	PARITY	TRACK	FILES	MACHINE
EXPERIMENT			NUMBER		
CONTENTS					
601-B (11/67)					

NATIONAL SPACE SCIENCE DATA CENTER					
DENSITY	MODE	PARITY	TRACK	FILES	MACHINE
556	BCD	EVEN	7	1	7094
EXPERIMENT			NUMBER		
64-086A-01D			D-05503		
CONTENTS					
EXPLORER 26 CHARGED PARTICLE 'D'					
(BROWN/BTL) L-INTERPOLATED TAPES					
ORDERED BY L VALUES 3.5 TO 7.5					
DETECTOR ID. # 48212					
(C-03970)					
601-B (11/67)					

NATIONAL SPACE SCIENCE DATA CENTER					
DENSITY	MODE	PARITY	TRACK	FILES	MACHINE
EXPERIMENT			NUMBER		
			D-05505		
CONTENTS					
DETECTOR ID. # 57214					
(C-03972)					
601-B (11/67)					

NATIONAL SPACE SCIENCE DATA CENTER					
DENSITY	MODE	PARITY	TRACK	FILES	MACHINE
EXPERIMENT			NUMBER		
			D-05507		
CONTENTS					
DETECTOR ID. # 57216					
(C-03974)					
601-B (11/67)					

NATIONAL SPACE SCIENCE DATA CENTER					
DENSITY	MODE	PARITY	TRACK	FILES	MACHINE
EXPERIMENT			NUMBER		
CONTENTS					
601-B (11/67)					

D-05502

6.69E-01	2.332	14.067	11.423	10.152	12	21	64	-0.0	58.7	-18.375	48211	3.50
2.10E-01	1.306	20.732	11.647	15.540	12	21	64	-0.0	77.9	-4.9635	48211	3.50
4.92E-01	1.091	14.839	11.753	18.070	12	21	64	-0.0	311.5	-19.5975	48211	3.50
6.00E-01	1.091	14.838	11.753	18.070	12	21	64	-0.0	311.5	250.3125	48211	3.50
2.06E-01	1.024	20.604	11.962	23.081	12	21	64	-0.0	322.8	-5.5531	48211	3.50
1.47E-01	1.024	20.604	11.962	23.081	12	21	64	-0.0	322.8	-5.5531	48211	3.50
1.42E-01	1.814	14.403	12.062	1.469	12	22	64	-0.0	193.7	-19.1795	48211	3.50
3.14E-01	1.049	20.488	12.275	0.004	12	22	64	-0.0	208.0	-5.9278	48211	3.50
5.11E-02	2.616	13.936	12.372	8.923	12	22	64	-0.0	75.2	-18.3750	48211	3.50
2.09E-01	1.345	20.705	12.598	14.348	12	22	64	-0.0	95.3	-4.6125	48211	3.50
6.02E-01	1.157	14.731	12.702	16.839	12	22	64	-0.0	328.4	-19.5637	48211	3.50
1.85E-01	1.002	20.552	12.912	21.877	12	22	64	-0.0	340.1	-5.2315	48211	3.50
4.54E-01	1.511	14.572	13.016	0.372	12	23	64	-0.0	213.0	-19.5413	48211	3.50
2.52E-01	1.003	20.438	13.226	5.419	12	23	64	-0.0	225.3	-5.0597	48211	3.50
4.48E-01	2.855	13.830	13.321	7.703	12	23	64	-0.0	91.9	-18.3750	48211	3.50
3.92E-01	1.356	20.658	13.548	13.150	12	23	64	-0.0	112.6	-4.3474	48211	3.50
2.14E-01	1.278	14.590	13.650	15.592	12	23	64	-0.0	345.0	-19.6250	48211	3.50
5.08E-01	1.006	20.511	13.862	20.680	12	23	64	-0.0	357.5	-4.3079	48211	3.50
2.65E-01	1.299	14.688	13.968	23.242	12	23	64	-0.0	231.7	-19.7490	48211	3.50
1.97E-01	1.299	14.688	13.968	23.242	12	23	64	-0.0	231.7	-19.7490	48211	3.50
4.49E-02	1.008	20.422	14.177	4.238	12	24	64	-0.0	242.9	-5.2431	48211	3.50
5.07E-03	3.028	13.753	14.271	6.493	12	24	64	-0.0	108.9	-18.4132	48211	3.50
1.80E-01	1.332	20.595	14.498	11.943	12	24	64	-0.0	129.8	-4.1042	48211	3.50
3.11E-01	1.461	14.417	14.597	14.335	12	24	64	-0.0	1.2	-19.5000	48211	3.50
4.59E-01	1.170	14.750	14.920	22.089	12	24	64	-0.0	249.9	-19.3750	48211	3.50
2.60E-01	3.047	13.725	15.221	5.300	12	25	64	-0.0	126.4	-18.5820	48211	3.50
1.85E-01	1.273	20.524	15.447	10.726	12	25	64	-0.0	147.0	-4.0155	48211	3.50
4.56E-01	1.698	14.232	15.545	13.078	12	25	64	-0.0	17.3	-19.4375	48211	3.50
4.55E-01	1.102	14.758	15.871	20.912	12	25	64	-0.0	267.7	-19.4375	48211	3.50
8.16E-01	1.098	20.470	16.080	1.915	12	26	64	-0.0	278.3	-3.5994	48211	3.50
6.24E-02	2.376	13.771	15.172	4.126	12	26	64	-0.0	144.7	-18.8375	48211	3.50
0.	1.193	20.431	16.396	9.500	12	26	64	-0.0	16.0	-3.5524	48211	3.50
3.58E-01	1.972	14.045	16.493	11.826	12	26	64	-0.0	33.3	-19.3125	48211	3.50
1.54E-01	1.139	20.449	16.713	17.120	12	26	64	-0.0	49.7	-3.5763	48211	3.50
8.30E-02	2.527	13.887	17.124	2.979	12	27	64	-0.0	163.6	-19.1696	48211	3.50
1.54E-03	1.109	20.334	17.345	8.272	12	27	64	-0.0	180.9	-3.9375	48211	3.50
1.65E-01	1.193	20.427	17.664	15.931	12	27	64	-0.0	67.4	-3.2500	48211	3.50
1.61E-01	1.081	14.674	17.771	18.057	12	27	64	-0.0	302.5	-20.0000	48211	3.50
1.41E-01	1.089	20.423	17.981	23.638	12	27	64	-0.0	313.3	-3.0556	48211	3.50
1.82E-01	1.089	20.423	17.981	23.638	12	27	64	-0.0	313.3	-3.0556	48211	3.50
1.56E-01	2.093	14.070	18.077	1.858	12	28	64	-0.0	183.2	-19.5625	48211	3.50
4.76E-01	1.040	20.248	18.294	7.048	12	28	64	-0.0	198.0	-3.3264	48211	3.50
2.62E-01	1.236	20.397	18.614	14.739	12	28	64	-0.0	84.9	-2.8920	48211	3.50
1.46E-01	1.126	14.588	18.720	17.283	12	28	64	-0.0	319.6	-20.0000	48211	3.50
1.43E-01	1.039	20.352	19.930	22.322	12	28	64	-0.0	330.4	-2.9375	48211	3.50
1.75E-01	1.003	20.195	19.243	5.841	12	29	64	-0.0	215.3	-3.6250	48211	3.50
5.15E-02	2.872	13.617	19.338	8.122	12	29	64	-0.0	82.4	-19.1132	48211	3.50
3.87E-01	1.259	20.359	19.564	13.542	12	29	64	-0.0	102.2	-2.5156	48211	3.50
4.45E-01	1.220	14.460	19.668	16.043	12	29	64	-0.0	336.2	-20.0000	48211	3.50
1.93E-01	1.005	20.282	19.879	21.107	12	29	64	-0.0	347.6	-2.7708	48211	3.50
3.69E-01	1.419	14.420	19.985	23.630	12	29	64	-0.0	221.8	-20.0000	48211	3.50
7.98E-02	1.008	20.180	20.194	4.657	12	30	64	-0.0	232.8	-3.2031	48211	3.50
1.31E-01	3.119	13.513	20.288	6.905	12	30	64	-0.0	99.1	-19.1250	48211	3.50
8.97E-01	1.256	20.312	20.514	12.339	12	30	64	-0.0	119.6	-2.2670	48211	3.50
1.72E-01	1.377	14.294	20.616	14.789	12	30	64	-0.0	352.6	-19.9868	48211	3.50
2.33E-01	1.002	20.238	20.829	19.904	12	30	64	-0.0	5.0	-2.4945	48211	3.50
5.30E-01	1.238	14.517	20.937	22.492	12	30	64	-0.0	240.4	-20.0625	48211	3.50
3.21E-01	1.058	20.205	21.146	3.497	12	31	64	-0.0	250.0	-2.5000	48211	3.50
1.52E-01	1.224	20.246	21.464	11.127	12	31	64	-0.0	136.8	-2.1062	48211	3.50
3.39E-01	1.597	14.106	21.564	13.526	12	31	64	-0.0	8.7	-19.9243	48211	3.50
9.03E-02	1.136	14.558	21.889	21.328	12	31	64	-0.0	258.5	22.2193	48211	3.50
2.67E-01	3.150	13.468	22.188	4.515	1	1	65	-0.0	134.3	-19.3527	48211	3.50

4.48E-02 3.542 1.165 7.229 5.490 4 17 66
0. 3.511 1.674 7.251 6.036 4 17 66
1.02E-01 3.511 1.674 7.251 6.036 4 17 66
2.73E 02 1.137 2.421 12.500 11.998 2 27 66
2.73E 02 1.125 3.351 12.500 12.000 2 27 66

-0.0 295.1 19.9375 48211 7.00
-0.0 294.6 19.9125 48211 7.00
-0.0 294.6 19.9125 48211 7.00
-0.0 216.3 29.8182 48211 7.50
-0.0 230.3 27.9125 48211 7.50

DUPE OF DC 1861 LAST 5 RECS.

D-05502

5.85E 01	3.033	14.681	0.930	19.925	3 27 67	-0.0	291.0	17.7981	57215	6.50
8.36E 01	3.267	13.195	1.087	16.487	3 28 67	-0.0	310.6	19.9673	57215	6.50
1.00E 02	2.876	14.440	1.741	17.773	3 28 67	-0.0	310.0	18.0375	57215	6.50
9.48E 01	3.535	12.597	4.741	17.773	3 31 67	-0.0	286.9	19.9397	57215	6.50
1.05E 02	2.956	14.438	4.806	19.346	3 31 67	-0.0	285.4	17.3125	57215	6.50
6.00E 00	2.970	13.411	5.001	16.344	4 1 67	-0.0	316.0	17.2500	57215	6.50
7.95E 00	2.787	13.928	5.704	16.886	4 1 67	-0.0	315.5	18.3125	57215	6.50
2.55E 01	3.469	12.848	8.723	17.347	4 4 67	-0.0	292.3	19.5563	57215	6.50
3.00E 01	2.857	14.151	8.779	18.684	4 4 67	-0.0	292.0	16.9211	57215	6.50
3.35E 02	3.216	12.938	12.709	17.021	4 8 67	-0.0	298.7	18.8125	57215	6.50
3.42E 02	2.805	13.770	12.745	17.892	4 8 67	-0.0	298.2	16.8413	57215	6.50
7.28E 01	3.394	13.174	1.758	18.199	4 27 65	-0.0	284.6	19.2500	57215	7.00
5.85E 01	3.574	13.876	3.790	18.959	4 27 65	-0.0	283.7	20.0525	57215	7.00
1.04E 02	3.338	13.293	4.713	17.110	4 28 65	-0.0	302.7	19.5625	57215	7.00
1.03E 02	3.451	13.702	4.732	17.550	4 28 65	-0.0	302.1	20.7000	57215	7.00
1.67E 01	3.451	12.821	9.754	18.087	5 3 65	-0.0	291.0	139.6250	57215	7.00
1.89E 01	3.595	13.708	0.794	19.058	5 3 65	-0.0	279.7	20.2500	57215	7.00
1.88E 01	3.432	12.783	10.701	16.824	5 4 65	-0.0	299.4	19.7250	57215	7.00
9.70E 00	3.574	13.697	10.743	17.822	5 4 65	-0.0	298.1	20.2500	57215	7.00
8.70E 01	3.511	12.564	15.753	18.064	5 9 65	-0.0	277.5	20.3000	57215	7.00
9.61E 01	3.532	13.432	15.792	19.007	5 9 65	-0.0	276.4	20.1875	57215	7.00
9.62E 01	3.532	13.432	15.792	19.007	5 9 65	-0.0	276.4	20.1875	57215	7.00
2.42E 02	3.532	12.442	16.696	16.709	5 10 65	-0.0	295.0	20.3000	57215	7.00
2.12E 02	3.580	13.510	10.744	17.860	5 10 65	-0.0	294.7	20.0820	57215	7.00
1.03E 02	3.511	12.383	21.754	18.091	5 15 65	-0.0	274.4	20.1875	57215	7.00
1.02E 02	3.451	13.087	21.786	18.657	5 15 65	-0.0	273.5	20.0000	57215	7.00
1.24E 01	3.617	12.167	22.693	16.634	5 16 65	-0.0	293.0	20.1875	57215	7.00
1.22E 01	3.617	12.167	22.693	16.634	5 16 65	-0.0	293.0	20.1875	57215	7.00
1.68E 01	3.518	13.251	22.742	17.801	5 16 65	-0.0	291.7	19.7595	57215	7.00
1.69E 01	3.518	13.251	22.742	17.801	5 16 65	-0.0	291.7	19.7595	57215	7.00
1.30E 01	3.638	11.993	1.693	16.626	5 22 65	-0.0	290.5	20.1875	57215	7.00
1.82E 03	1.130	1.819	12.500	11.998	2 27 66	-0.0	297.3	22.8252	57215	7.00
1.82E 03	1.105	3.700	12.500	12.001	2 27 66	-0.0	238.5	29.8125	57215	7.00
1.40E 00	3.491	1.599	24.252	6.041	4 7 66	-0.0	293.4	19.6875	57215	7.00
1.31E 00	3.553	2.093	24.274	6.576	4 7 66	-0.0	292.7	19.9375	57215	7.00
1.92E 01	3.528	1.337	2.239	5.745	4 12 66	-0.0	293.9	19.3750	57215	7.00
1.97E 01	3.553	1.927	2.266	6.377	4 12 66	-0.0	293.2	19.9375	57215	7.00
1.79E 00	3.542	1.165	7.229	5.490	4 17 66	-0.0	295.1	19.9375	57215	7.00
3.93E 00	3.511	1.674	7.251	6.036	4 17 66	-0.0	294.6	19.8125	57215	7.00
3.62E 00	3.511	1.674	7.251	6.036	4 17 66	-0.0	294.6	19.8125	57215	7.00
1.81E 03	1.137	2.421	12.500	11.998	2 27 66	-0.0	216.3	29.8132	57215	7.50
1.81E 03	1.125	3.351	12.500	12.000	2 27 66	-0.0	230.3	29.8125	57215	7.50

DUPE OF DC-0074 LAST COUPLE OF RECS.

2.32E-01 2.332 14.067 11.423 10.152 12 21 64
0. 1.306 20.732 11.647 15.540 12 21 64
0. 1.091 14.839 11.753 18.070 12 21 64
1.12E-01 1.091 14.838 11.753 18.070 12 21 64
2.51E-01 1.024 20.604 11.962 23.081 12 21 64
6.23E-01 1.024 20.604 11.962 23.081 12 21 64
1.84E-01 1.814 14.443 12.062 15.449 12 22 64
0. 1.039 20.488 12.276 6.624 12 22 64
1.96E-01 2.616 13.936 12.372 8.923 12 22 64
2.08E-01 1.345 20.705 12.598 14.348 12 22 64
2.20E-01 1.157 14.721 12.702 16.839 12 22 64
3.38E-01 1.002 20.552 12.912 21.877 12 22 64
4.49E-02 1.511 14.572 13.016 0.372 12 23 64
0. 1.003 20.438 13.226 5.419 12 23 64
0. 2.865 13.830 13.321 7.703 12 23 64
1.86E-01 1.356 20.658 13.548 13.150 12 23 64
1.09E-02 1.278 14.590 13.650 15.592 12 23 64
7.79E-02 1.006 20.511 13.862 20.680 12 23 64
1.65E-01 1.299 14.688 13.968 23.242 12 23 64
1.64E-01 1.299 14.688 13.968 23.242 12 23 64
0. 1.008 20.422 14.177 4.238 12 24 64
1.89E-02 3.028 13.753 14.271 6.493 12 24 64
2.85E-01 1.332 20.595 14.498 11.943 12 24 64
2.07E-01 1.461 14.417 14.597 14.335 12 24 64
3.27E-01 1.170 14.750 14.920 22.089 12 24 64
1.52E-01 3.047 13.725 15.221 5.300 12 25 64
1.42E-01 1.273 20.524 15.447 10.726 12 25 64
1.42E-01 1.698 14.232 15.545 13.078 12 25 64
7.29E-02 1.102 14.758 15.871 20.912 12 25 64
4.54E-01 1.098 20.470 16.080 1.915 12 26 64
4.12E-01 2.876 13.771 16.172 4.126 12 26 64
0. 1.193 20.431 16.396 9.500 12 26 64
8.09E-02 1.972 14.048 16.493 11.826 12 26 64
3.73E-01 1.139 20.449 16.713 17.120 12 26 64
7.78E-01 2.527 13.887 17.124 2.979 12 27 64
4.79E-01 1.109 20.334 17.345 8.272 12 27 64
3.73E-01 1.193 20.427 17.664 15.931 12 27 64

-0.0 58.7 -18.4375 57215 3.50
-0.0 77.9 -4.9935 57216 3.50
-0.0 311.5 -19.6975 57216 3.50
-0.0 311.5 260.3125 57216 3.50
-0.0 322.8 -5.4531 57216 3.50
-0.0 322.8 -5.4531 57216 3.50
-0.0 193.7 -19.1796 57216 3.50
-0.0 208.0 -5.0278 57216 3.50
-0.0 75.2 -18.3750 57216 3.50
-0.0 95.3 -4.6125 57216 3.50
-0.0 95.3 -4.6125 57216 3.50
-0.0 328.4 -19.6637 57216 3.50
-0.0 340.1 -5.2315 57216 3.50
-0.0 213.0 -19.5413 57216 3.50
-0.0 225.3 -5.0597 57216 3.50
-0.0 91.9 -18.3750 57216 3.50
-0.0 112.6 -4.3474 57216 3.50
-0.0 345.0 -19.6250 57216 3.50
-0.0 357.5 -4.9079 57216 3.50
-0.0 231.7 -19.7490 57216 3.50
-0.0 231.7 -19.7490 57216 3.50
-0.0 242.8 -5.2431 57216 3.50
-0.0 103.9 -18.4132 57216 3.50
-0.0 129.8 -4.1042 57216 3.50
-0.0 1.2 -19.5000 57216 3.50
-0.0 249.9 -19.8750 57216 3.50
-0.0 125.4 -18.5820 57216 3.50
-0.0 147.0 -4.0156 57216 3.50
-0.0 17.3 -19.4375 57216 3.50
-0.0 267.7 -19.9375 57216 3.50
-0.0 278.3 -3.9394 57216 3.50
-0.0 144.7 -18.8375 57216 3.50
-0.0 164.0 -3.9524 57216 3.50
-0.0 33.3 -19.3125 57216 3.50
-0.0 49.9 -3.5763 57216 3.50
-0.0 163.6 -19.1696 57216 3.50
-0.0 180.9 -3.9375 57216 3.50
-0.0 67.4 -3.2500 57216 3.50

DUPE OF DC-A1B3

1% COUPLES OF RECS

C-03974