DATA SET CATALOG #106

ATS-2
PARTICLE COUNT RATES

67-031A-05A 31 tapes

67-031A-05A

This data set consists of 31, 800 BPI, 7-track, binary tapes made on CDC/3600.

D#	C#	Start	Stop
D-02696	C-01827	4/7/67	4/8/67
D-04824	C-02379	4/9/67	4/21/67
D-04825	C-02380	4/21/67	4/28/67
D-04826	C-02381	5/5/67	5/13/67
D-04827	C-02382	5/13/67	5/20/67
D-04828	C-02383	5/20/67	5/23/67
D-04829	C-02384	5/24/67	5/26/67
D-04830	C-02385	5/29/67	6/1/67
D-04831	C-02386	6/1/67	6/3/67
D-04832	C-02387	6/3/67	6/14/67
D-04833	C-02388	6/14/67	6/19/67
D-04834	C-02389	6/19/67	6/23/67
D-04835	C-02390	6/23/67	6/24/67
D-04836	C-02391	6/24/67	6/25/67
D-04837	C-02392	6/25/67	6/29/67
D-04838	C-02393	7/1/67	7/8/67
D-04839	C-02394	7/12/67	7/22/67
D-04840	C-02395	7/22/67	7/24/67

D#	C#	Start	Stop
D-04841	C-02396	7/28/67	7/30/67
D-04842	C-02397	8/4/67	8/7/67
D-04843	C-02398	8/7/67	8/13/67
D-04844	C-02399	8/13/67	8/28/67
D-04845	C-02400	8/28/67	8/31/67
D-04846	C-02401	9/1/67	
D-04847	C-02402	9/5/67	9/12/67
D-04848	C-02403	9/12/67	
D-04849	C-02404	9/17/67	
D-04850	C-02405	9/24/67	9/27/67
D-04851	C-02406	10/1/67	10/7/67
D-04852	C-02407	10/8/67	10/15/67
D-04853	C-02408	10/15/67	10/23/67

DESCRIPTION OF OUTPUTS

Binary Tape

The binary compression tape is a high or hyperdensity tape containing one file of data written in odd parity. The physical record on the binary reduction tapes are 270 CDC3000 words that are composed of 10 logical data records. The data records are composed of 27 integer words. The following table describes the contents of each word in the record format.

FORMAT COMPRESSION TAPE

Reduction Tape	Identification	Units
1	Sequence counter	Sequence
2	Time	Milliseconds since 0000 UT, 1 January 1900
3	SD1	Count per 1000 seconds
4	SD2	
5	SD3	
6	SD4	
7	B	Micro gauss
8	L	Micro earth radii
9	Local time	Milliseconds from 0 to 24 hours
10	Radial distance	Micro earth radii
11	Colatitude	Micro radian from north pole
12	Longitude	Micro radian east of Greenwich
13	SDT1	Hundredths of a degree K
14	SDT2	
15	SDT3	
16	SMTOT	Hundredths of a volt — packed 3 per word PP3 PP7 PP9 on even and odd sequences
17	RMS V and I	PP13 on odd sequences (saved from last even sequence) PP14 on even sequences

FORMAT COMPRESSION TAPE (continued)

Reduction Tape	Identification	Units
18	RA of Z vector	Micro radian
19	Codeclination	
20	RA of sun	
21	Codeclination	
22	Angle in X, Y plane from X to sun component	
23	Angle in Z, Y plane from Z to sun component	
24	Codeclination of sun from detector	
25	RA of sun from Z	
26	Error flags	Error flag convention — [illegible]
27	Labels	Satellite number, orbit number, station number, and tape number

All quantities are positive integers except unusable data which are flagged with a minus sign. If PP6, PP7, or PP8 are bad the appropriate 12 bit byte in word 16 is set to 4000B. All words contain a single value except the following:

Word 16

	UNUSED	PP6	PP7	PP8
Bits	12	12	12	12

Word 26-27

	FSATNO	ORBIT	STATION	ANALOGNO
Bits	6	15	6	15

	1	2	3	4	5	6	7	8	UNUSED
Bits	3	3	3	3	3	3	3	3	27

Data record are packed into the physical records in the order they are received from COROUT. At the end of a pass the unused portion of the last physical record would be filled with "-1's" before a file mark is written by the system. On restart the -1 fill and the end-of-file mark are eliminated. The -1 filled data records are used for the first records of the new pass.

BCD Tape

The BCD tape is written in high density so that it can be listed on the IBM1401. If the variable BCDTAPE1 contains a tape label the second BCD tape is assigned when the first one is filled. The following is a description of the values printed on the BCD listing:

Line 1

4//1967	month and year of the time shown on data line 1
SATELLITE 07011	object number of spacecraft
ORBIT 102	orbit number
Compressed from Tapes M13 ___ M13 ___	reduction tapes containing time segment
BINTAPE M13000	binary compression tape in use
RECORD 5502	logical record number corresponding to the last line on the previous page

Line 2

111 DAY + F	day number within the year
Data line 1-48	If the line is blank a data gap greater than 8000 milliseconds occurred between data records
DD	day of reading within the month given in line 1
HH	hour within the day