

DATA SET CATALOG # 118

OG0-1, Condensed Orbit, Tape
64-054A-00G 1 tape

OG0-1, Prot. $\frac{1}{2}$ Elect Reduc. 1K Bit 'K'
64-054A-16A 4 tapes

OG0-1, Prot $\frac{1}{2}$ Elect, Hi-Rate 'B'
64-054A-16B 7 tapes

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 This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system.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

OGO 2

CONDENSED ORBIT TAPE FOR EXPER.16

64-054A-00G

This data set has been restored. There was originally one 9-track, 1600 BPI tape written in Binary. There is one restored tape. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The original tape was created on an IBM 360 computer and the restored tape was created on an IBM 9021 computer. The DR and DS numbers along with the corresponding D number are as follows:

DR#	DS#	D#	FILES	TIME SPAN
-----	-----	-----	-----	-----
DR005843	DS005843	D005842	1	09/05/64 - 12/02/64

PROT + ELEC RTES, ALL TM EQUIV 1 XBS

64-054A-16A

THIS DATA SET HAS BEEN RESTORED. THE ORIGINAL 4 TAPES WERE 7-TRACK, 800 BPI, WITH ONE FILE OF DATA EACH. THE TAPES WERE CREATED ON AN IBM 360 COMPUTER. THE RESTORED TAPE IS 9-TRACK, 6250 BPI WITH 4 FILES OF DATA. THE DR AND DS NUMBERS ALONG WITH THE CORRESPONDING D NUMBERS AND THE TIME SPAN IS AS FOLLOWS:

DR#	DS#	D#	FILES	TIME SPAN
DR02846	DS02846	D05844	1	09/07/64 - 10/21/64
		D05845	2	10/21/64 - 11/12/64
		D05846	3	11/12/64 - 10/20/65
		D05847	4	10/20/65 - 11/16/65

OGO-1

PROTON & ELECTRIC, HI-RATE DATA ONLY, TAPES

64-054A-16B

This data set has been restored. There were originally seven 7-track, 800 BPI tapes written in Binary. There is one restored tape. The DR tape is a 3480 cartridge and the DS tape is 9-track, 6250 BPI. The original tapes were created on an IBM 360 computer. The DR and DS number along with the corresponding D numbers and the time spans are as follows:

DR#	DS#	D#	FILES	TIME SPAN
DR003339	DS003339	D005848 *	1	09/07/64 - 10/02/64
		D005849	2	10/02/64 - 10/12/64
		D005850	3	10/12/64 - 10/20/64
		D005851	4	10/20/64 - 11/03/64
		D005852	5	11/03/64 - 11/13/64
		D005853	6	11/13/64 - 11/21/64
		D005854	7	11/21/64 - 12/02/64

* Read error occurred in Record 1793 of File 1 of D005848

64-054A-00G
 OGO-1, CONDENSED ORBIT TAPE FOR EXP 16

1600 BPI, BINARY, 9 TRACK, IBM 360

<u>D#</u>	<u>C#</u>	<u>FILES</u>	<u>START</u>	<u>STOP</u>
D-05842	C-04950	2	09/05/64	12/02/64

64-054A-16A
 OGO-1, PROT & ELECT REDUC. 1 K BIT 'A'

800 BPI, BINARY, 9 TRACK, IBM 360

<u>D#</u>	<u>C#</u>	<u>FILES</u>	<u>START</u>	<u>STOP</u>
D-05844	C-04882	1	09/07/64	10/21/64
D-05845	C-04883	1	10/21/64	11/12/64
D-05846	C-04884	1	11/12/64	10/20/65
D-05847	C-04885	1	10/20/65	11/16/65

64-054A-16B
 OGO-1, PROT & ELECT, HI-RATE 'B'

800 BPI, BINARY, 7 TRACK, IBM 360

<u>D#</u>	<u>C#</u>	<u>FILES</u>	<u>START</u>	<u>STOP</u>
D-05848	C-04886	1	09/07/64	10/02/64
D-05849	C-04887	1	10/02/64	10/12/64
D-05850	C-04888	1	10/12/64	10/20/64
D-05851	C-04889	1	10/20/64	11/03/64
D-05852	C-04890	1	11/03/64	11/13/64
D-05853	C-04891	1	11/13/64	11/21/64
D-05854	C-04892	1	11/21/64	12/02/64

The last few records of the last tapes in data sets
 64-054A-16A and 64-054A-16B have various fields padded with
 the Hexidecimal NUMBER FC19₁₆

from 'Description of Data Proc. Syst' ...
and Tape Format for 000-142
Experimental 0005

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ECO DPS
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Final Condensed and Noncondensed Tape Format

General Information

All Final tapes are odd parity written in binary at a density of 800 bytes per inch and contain IBM System/360 standard labels. The Final Condensed tapes are nine track tapes with a data set name of EGFNALC and contain fixed blocked records with a block size of 5154 bytes and a logical record size of 648 bytes. The Final Non-condensed tapes are seven track tapes with a data set name of EGFNALN and contain fixed blocked records with a block size of 5064 bytes and a logical record size of 1016 bytes. *(in logical records on disk)*

All items (i.e., spacecraft clock, temperature, etc.) in the records are referenced from the first main frame of data in the record. Also all references to a frame sequence number use zero as a base. In other words, the frame sequence number of the first main frame of data in the record is zero, the second is one, etc. Most items, -999 or -990, are used for all pad. Pad may exist in any of the data items of the record except for fields 1, 2, 3, 7, 8, 12, and 15 described in the tape format given below. The user should check for pad to avoid using a negative number in any calculations or accumulations. Finally, no calibration was performed on any of the data items in the record.

Detail Descriptions

The absolute file number given below (Field 6) may be used to relate the data of the record to a file on the Decon tape. By searching the file catalog, produced in Phase I processing, for the entry with this unique absolute file number, one can obtain all the necessary identification and previous processing information desired.

The wheel position sequence number (Field 12) will always be set to "1" if the record belongs to a Final Condensed tape. If, however, it belongs to a Final Non-condensed tape, then the value of this field will be in the range 1 to 16 inclusively. If the record belongs to a Final Non-condensed tape and the data was transmitted at

eight kilobits per second (Field 7 equals "2"), then Field 12 will always be either a "1" or a "9".

Since most of the orbital parameters (fields 23-35 and 96-97) change slowly over the time period covered by one record of data, it is possible to express those that do as a quadratic function of the sequential number of the frame pertaining to the data item in question. This way instead of storing on tape all the required parameters for each data item, one can save a huge amount of tape by storing only a set of two or three coefficients per item. Then using the coefficients and the frame sequence number, one can reconstitute the value of any of the data items as needed. The coefficients of the independent variable (frame sequence number) are stored in ascending order with respect to the power of the independent variable.

To determine the angle of the scanning orbital plane experiment package (OPEP) relative to the spacecraft velocity vector for any frame of data within the record, the following algorithm written in FORTRAN should be used:

$$A=C + F*S1$$

$$IF(ABS(A).GT.110.)A=SIGN(110.,A)-S2*(F-(SIGN(110.,A)-C)/S1)$$

where: A is the desired angle in degrees of the OPEP at frame F
C is the angle in degrees of the OPEP at the first frame of the record (field 104)
F is the frame sequence number
S1 is the slope of the first line defined by the OPEP (field 105)
S2 is the slope of the second line defined by the OPEP (field 106). This item is used only when the OPEP changes its direction within the record.

The above algorithm assumes that the OPEP makes a complete scan of ±110 degrees. If the range of the scan is different, then the user must adjust C proportionally and replace 110. with the new limit.