DATA SET CATALOG # 74

MARINER 4

64-077A-02B

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 This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system.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

MARINER 4

50.4 SECOND AVERAGE VECTOR MAGNETIC FIELD

64-077A-02B

PSFP 00049

THIS DATA SET HAS BEEN RESTORED. ORIGINALLY IT CONTAINED THREE 7-TRACK, 556 BPI WRITTEN IN BINARY. THERE IS ONE RESTORED TAPE. THE DR AND DS TAPE ARE 9-TRACK, 6250 BPI. THE ORIGINAL TAPES WERE CREATED ON TWO DIFFERENT MACHINES, FILES 1 AND 2 WERE CREATED ON A 7094 COMPUTER AND FILE 3 WAS CREATED ON AN IBM 360 COMPUTER. THE DR AND DS NUMBERS ALONG WITH THE CORRESPONDING D NUMBERS AND THE TIME SPANS ARE AS FOLLOWS:

| DR# | DS# | D# | FILES | TIME SPAN |
|---|---|---|---|---|
| DR01714 | DS01714 | D00039 | 1 | 11/28/64 - 03/07/65 |
| | | D00040 | 2 | 03/07/65 - 06/12/65 |
| | | D00041 | 3 | 06/12/65 - 10/01/65 |

MARINER 4
50.4 Sec. Avg. Vector Magnetic Field

64-077A-02B

556 BPI, Binary, 7-track and 1 file. IBM 7094
Data Set processing on the following tapes.

| DØ | CØ | START | STOP |
|---|---|---|---|
| D-00039 | C-03456 | 11/28/64 | 03/07/65 |
| D-00040 | C-03457 | 03/07/65 | 06/12/65 |
| D-00041 | C-03458 | 06/12/65 | 10/01/65 |

NOTE: These tapes were run against the program Mariner IV, it determines the number of 10 point data gaps (time greater than 504 secs.), and indicates start and stop times that 100 point data gaps occurred.

BIBLIOGRAPHY

Mariner 4 Magnetometer 64-077A-02

Instrument description Space Research 6 (p907)

Operational Characteristics JGR 72, 1, (p. 1) 1967

See Also B2189

STOP

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/12/65
/01/65

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UCLA SPACE SCIENCE CENTER
INSTITUTE OF GEOPHYSICS AND PLANETARY PHYSICS
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April 21, 1970

EXTFP-Mariner 4 Interplanetary
Magnetic Field Tape

Spacecraft Mariner 4 was launched November 27, 1964. The data on the tapes are for the period from November 28, 1964, to ~~September~~ OCTOBER 1 1965. During this time, Mariner 4 traveled from earth to the vicinity of Mars. This tape, EXTFP, consists of 3 reels and is a nonpacked binary tape generated on the 7094 machine. The blocksize of each record is 253 words (6 bytes/word) which includes the Fortran control word. The time increment between each data point given is 50.4 seconds. On each logical record 21 data points are returned by the following READ statement:

```
DIMENSION KALTIM(21), BIN(21,9), NCYC(21),NFRAME(21)
READ(20) (KALTIM(L), NCYC(L), NFRAME(L), (BIN(L,J), J=1, 9),
L = 1, 21)
```

A good format to write the Lth data point is FORMAT (1X, 3I8, 9F9.3). For the Lth data point in a record:

KALTIM(L): The Greenwich Mean Time at which the data were taken in seconds = day of year * 86,400 + hour * 3600 + minute * 60 + seconds. As an example, the first data point on tape is day 333 of 1964, 15 hours, 7 minutes, 6 seconds =

28825626 seconds. January 1, 1964, would have been day 1, not day 0 in our scheme. January 1, 1965, is taken to be day 1 again. Check your tape to see if this is so.

NCYC(L): The cycle number.

NFRAME(L): The frame number. It starts over again at the next cycle. Several frame readings were averaged to give 1 data point.

BIN: 9 interplanetary magnetic field varibles. If a number in BIN is greater than or equal to 1.0E31, then that number is dummy data, i.e., don't use it. For the Lth data point in the record the 9 variables (BIN (L,J), J = 1, 9)) are: BR, BT, BN, BP = SQRT ($BN^2$ + $BT^2$), BL = SQRT ($BR^2$ + $BT^2$), B, |BR|, |BT|, and |BN|where the last 3 quantities are absolute values. Some of these quantities are averages from points at higher data rates so sometimes |BIN(L, 1)| ≠ BIN(L,7), etc. B is the magnitude of the magnetic field. The $B_R$ component is in the radial direction from the sun. BT = $B_\phi$ is the east-west component. $B_\theta$ = -BN is the "north-south" component. ($B_r$, $B_\theta$, $B_\phi$ form the right-handed spherical polar coordinate system with θ measured from the sun's axis of rotation and where the r-φ plane is the sun's equatorial plane. For much additional information including the r, θ,φ position of spacecraft Mariner 5 as a function of time see:)