DATA SET CATALOG # 73

Mariner 6, Celestial Mechanics
69-014A-05A 2 tapes

Mariner 7, Celestial Mechanics
69-030A-05A 2 tapes

69-014A-05A

MARINER 6
CELESTIAL MECHANICS

556 BPI, BIN, 7 track, 1 file tapes.

D#	C#	TIME SPAN	FORMAT TYPE
D-05407	C-01226	3/5/69 - 9/2/69	Single Precision
D-05408	C-02766	3/5/69 - 9/2/69	Double Precision

69-030A-05A

MARINER 7
CELESTIAL MECHANICS

556 BPI, BIN 7 track, 1 file tapes.

D#	C#	TIME SPAN	FORMAT TYPE
D-05409	C-03584	4/12/69- 9/7/69	Single Precision
D-05410	C-03585	4/12/69- 9/7/69	Double Precision

NOTE: In each data set, tapes have the same time-span, but 1 tape is in single precision and the other is in double precision.

69-014A-05A
69-030A-05A

JET PROPULSION LABORATORY California Institute of Technology • 4800 Oak Grove Drive, Pasadena, California 91103

14 May 1970

Mr. Kenneth Michlovitz
National Space Science Data Center
Code 601
Goddard Space Flight Center
Greenbelt, Maryland 20771

Dear Mr. Michlovitz:

Under separate cover I am returning four magnetic tapes for deposit in the NSSDC. These tapes have been used to record the range and two way Doppler radio tracking data from Mariners 6 and 7. Two tapes have been used for each spacecraft, one containing portions of each data record in single precision and the second in which all station frequencies and observables are in double precision. The formats of the single precision (SP) and double precision (DP) data tapes is described in the attachment to this letter. All tapes are written with a density of 556 bpi, unblocked. Tape identification is as follows:

Tape No.	Spacecraft	Format
A 98947	MA 6	DP
A 98948	MA 6	SP
A 98950	MA 7	DP
A 98952	MA 7	SP

Each of the tapes covers the period from the Midcourse maneuver, (M/C), through 30 days beyond encounter, (E), with Mars. The count time for the Doppler tracking data is 600 seconds, except near encounter where it is as summarized below.

Interval	Count Time
M/C to E-4hrs	600 sec
E-4hrs to E-1hr	60 sec
E-1hr to E+1hr	10 sec
E+1hr to E+4hrs	60 sec
E+4hr to E+30days	600 sec

I will retain the two NSSCD provided blank tapes still in my possession for use in transmitting the Mariner 6 and 7 radio tracking data from encounter plus 30 days through the end of the extended mission.

Very truly yours,

Leonard Efron

Leonard Efron
Member of Technical Staff
Systems Analysis Research Section

cc: J. D. Anderson
J. R. Casani
J. A. Stallkamp
W. W. Cunningham, NASA

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69-014A-05A
D-05407

SINGLE PRECISION DATA TAPE FORMAT

HEADER RECORDS

RECORD 1

WORD	CONTENTS	FORM
0-8	FILE LABEL	BCD
9	CHECKSUM WORD	

RECORD 2

WORD	CONTENTS	FORM
0	MISSION NUMBER	BI
1-3	MISSION IDENTIFICATION	
4-8	DISCBJ FILE CONTROL BLOCK INFORMATION	
9	NOT USED	
10-39	EACH OF THESE 15 DOUBLE WORDS CONTAINS THE TIME OF THE LAST OBSERVATION (EXPRESSED IN SECONDS ELAPSED SINCE INJECTION) FOR EACH OF THE 15 STATIONS IN DESCENDING ORDER	DFFP
40-54	EACH OF THESE 15 WORDS CONTAINS THE TOTAL NUMBER OF EACH OF THE 15 DATA TYPES (IN ASCENDING SEQUENCE) OBSERVED AT STATION 15	BI
55-56	START TIME OF STATION 15 (EXPRESSED IN SECONDS ELAPSED SINCE INJECTION)	DFFP
295-17N to 309-17N	EACH OF THESE 15 WORDS CONTAINS THE TOTAL NUMBER OF EACH OF THE 15 DATA TYPES (IN ASCENDING SEQUENCE) OBSERVED AT STATION N WHERE $7 \leq N \leq 15$	BI
310-17N to 311-17N	START TIME OF STATION N (EXPRESSED IN SECONDS ELAPSED SINCE INJECTION)	DFFP
193-199	EACH OF THESE 7 WORDS CONTAINS THE TOTAL NUMBER OF EACH OF THE FIRST SEVEN DATA TYPES OBSERVED AT STATION 6	BI
200	CHECKSUM WORD	