DATA SET CATALOG # 83

Explorer 41 Ephemeris
69-053A-00D 1 tape

EXPLORER 41 Ephemeris

69-053A-00D

556 BPI, BIN, ODD, 7 Track, 1 File, 7094

D#	C#	Start	Stop
D-05769	C-04455	9/15/70	9/18/70

9.3.1.2 [illegible] — The format of the [illegible] tape is shown in Figure 9-9. The tape contains the satellite, sun, and moon positions computed in geocentric equatorial inertial, geocentric solar ecliptic, and geocentric solar magnetic data coordinate systems. The tape has a density of [illegible] bpi written in binary mode, with a title record (Table 9-12), data records (Table 9-13), two end-of-data sentinel records (Table 9-14) following the last data record, and two end-of-file marks at the end of the tape. The number of data records varies from tape to tape and is a function of the time period covered and time interval between data records.

Figure 9-9. IMP-[illegible] UCB Tape Format

Table 5-12

IMP-[illegible] Tape Title Record

Word No.	Form	Data	
0	Floating Pt.	Fortran II record size indicator (=[illegible]$_{8}$). This indicates a word count of 253$_{10}$ words, exclusive of 2 record size indicator words and check sum word	
1	Floating Pt	Form of data identification = [illegible]$_{10}$	
2-3	Floating Pt	Satellite identification	
4	Floating Pt	Data	U T start time of satellite data
5	Floating Pt	Day count of year	
6	Floating Pt	Seconds of day	
7	Floating Pt	Data	U T stop time of satellite data
8	Floating Pt	Day count of year	
9	Floating Pt	Seconds of day	
10	Floating Pt	= [illegible] if tape has equal intervals between data records = 0 if tape has unequal intervals	
11-13	Floating Pt	Spares	
14	Floating Pt	Number of words per data record = 75$_{10}$	
17	Floating Pt	Spare (Zero)	
18-25	Floating Pt	Run identification data	
27	Floating Pt	Data	Coordinate sys reference data
28	Floating Pt	Day count of year	
29	Floating Pt	Apparent sidereal time in radians	
30-40	Floating Pt	Harmonics (if applicable)	
41	Floating Pt	Data	Epoch for orbit
42	Floating Pt	Day count	
43	Floating Pt	Seconds of day	
44	Floating Pt	Semi-major axis, a (km)	
45	Floating Pt	Eccentricity, e	

Table [illegible]-13 (Continued)

Word No	Form	Data
[illegible]	Floating Pt	Inclination, I (deg)
47	Floating Pt	Right ascension of the ascending node, Ω (deg)
[illegible]	Floating Pt	Rate of change of Ω, $\dot{\Omega}$ (deg/day)
49	Floating Pt	Argument of perigee, ω (deg)
50	Floating Pt	Rate of change of ω, $\dot{\omega}$ (deg/day)
51	Floating Pt	Period, P (min)
52	Floating Pt	Rate of change of P, $\dot{P}$ (min/day)
53-[illegible]	Floating Pt	Orbital elements, coefficients of drag, etc., as applicable to individual orbit generators.
[illegible]	Fixed Pt	Check sum of words in words numbered 1 thru [illegible].
[illegible]	Fixed Pt	Fortran record size indicator ([illegible]) sum as word 0.