

DATA SET CATALOG #40

ERS-17 Ephemeris

65-058C-00D

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 This inventory information is now no longer maintained in the DSCs, but is now managed in the inventory part of the NSSDC information system.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

ERS-17

MASTER ORBIT

65-058C-00D

THIS DATA SET HAS BEEN RESTORED. THERE WERE ORIGINALLY 10
7-TRACK, 556 BPI TAPES, WRITTEN IN BCD. THERE ARE TWO
RESTORED TAPES, WRITTEN IN ASCII. THE DR TAPES ARE 3480
CARTRIDGES AND THE DS TAPES ARE 9-TRACK, 6250 BPI. THE ORIGINAL
TAPES WERE CREATED ON AN IBM 360 COMPUTER. THE DR AND DS
NUMBERS ALONG WITH THE CORRESPONDING D NUMBERS AND TIME SPANS
ARE AS FOLLOWS:

DR#	DS#	DD#	FILES	TIME SPAN
-----	-----	-----	-----	-----
DR004077	DS004077	D001276	1	07/20/65 - 07/30/65
		D001277	2	07/30/65 - 08/09/65
		D001278	3	08/07/65 - 08/21/65
		D001279	4	08/21/65 - 09/05/65
		D001280	5	09/03/65 - 09/19/65
DR004078	DS00478	D001281	1	09/19/65 - 10/04/65
		D001282	2	10/02/65 - 10/19/65
		D001283	3	10/18/65 - 11/08/65
		D001284	4	11/02/65 - 11/18/65
		D001285	5	11/18/65 - 12/04/65

ERS-17

MASTER ORBIT

65-0580-000

THIS DATA SET HAS BEEN RESTORED. THERE WERE ORIGINALLY 10
7-TRACK, 556 BPI TAPES, WRITTEN IN BCD. THERE ARE TWO
RESTORED TAPES, WRITTEN IN ASCII. THE DR TAPES ARE 3480
CARTRIDGES AND THE DS TAPES ARE 9-TRACK, 6250 BPI. THE ORIGINAL
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NUMBERS ALONG WITH THE CORRESPONDING D NUMBERS AND TIME SPANS
ARE AS FOLLOWS:

DR#	DS#	DD#	FILES	TIME SPAN
DR004077	DS004077	D001276	1	07/20/65 - 07/30/65
		D001277	2	07/30/65 - 08/09/65
		D001278	3	08/07/65 - 08/21/65
		D001279	4	08/21/65 - 09/05/65
		D001280	5	09/03/65 - 09/19/65
DR004078	DS00478	D001281	1	09/19/65 - 10/04/65
		D001282	2	10/02/65 - 10/19/65
		D001283	3	10/18/65 - 11/08/65
		D001284	4	11/02/65 - 11/18/65
		D001285	5	11/18/65 - 12/04/65

ERS 17 EPHEMERIS TAPES

556 BCD EVEN 1 FILE EACH

C#	D#	START	STOP	DATA SET NO.
C-01034	D-01276	7/20/65	7/30/65	65-058C-00D
C-01035	D-01277	7/30/65	8/9/65	
C-01036	D-01278	8/7/65	8/21/65	
C-01037	D-01279	8/21/65	9/5/65	
C-01038	D-01280	9/3/65	9/19/65	
C-01039	D-01281	9/19/65	10/4/65	
C-01040	D-01282	10/2/65	10/19/65	
C-01041	D-01283	10/18/65	11/8/65	
C-01042	D-01284	11/2/65	11/18/65	
C-01043	D-01285	11/18/65	12/4/65	

Data Record

BCD ~~FORMAT~~ FORMAT - ERS 17 EPHEMERIS

Characters	Format	Unit	Description
1			Carriage Control
2 - 3	12		Month of Year
4 - 5	12		Day of Month
6			Blank
7 - 8	12		Hour
9 - 12	F4.1		Minutes
13 - 20	F8.3	Degrees	Longitude
21 - 27	F7.3	Degrees	Latitude
28			Blank
29 - 34	16	Kilometers	Distance
35			Blank
36 - 41	F6.2		Inertial right ascension
42			Blank
43 - 47	F5.1		Right ascension
48 - 52	F5.1		Declination
53			Blank
54 - 57	F4.1	KM/SEC	Velocity
58			Blank
59 - 63	F5.2		R_0
64 - 68	F5.1	Degrees	Latitude
69			Blank
70 - 75	F6.3	E. R.	L
76			Blank
77 - 81	15	Gamma	B
82			Blank
83 - 88	F6.3		B/B_0
89			Blank

Geocentric

Velocity Vector

Geomagnetic Coordinates

BCD TAPE Data Records
FORMAT

Characters	Format	Unit	Description
90 - 94	F5.1		Right ascension
95			Blank
96 - 98	F4.1		Declination

B-Vector

ERS 17 EPHEMERIS TAPES
BCD TAPE FORMAT

Each tape consists of the following: 34 records of BCD information at the beginning of the tape; including the time intervals, constants used, harmonics, etc. Every 'page' thereafter contains 2 lines of BCD heading followed by 47 data records. The last record of the tape contains the work "END" in characters 2 - 4.

Record length is 120 characters. There are two exceptions to the format: The first data section in P3500A (C-01034 & D-01276) contains 44 data records, and the title information at the beginning of tape P3507A (C-01041 & D-01283) consists of 33 records.

In all other respects these tapes follow the normal format.

ERS 17 EPHEMERIS TAPES
BCD TAPE FORMAT

Each tape consists of the following; 34 records of BCD information at the beginning of the tape; including the time intervals, constants used, harmonics, etc. Every 'page' thereafter contains 2 lines of BCD heading followed by 47 data records. The last record of the tape contains the word "END" in characters 2-4. Record length is 120 characters.

There are two exceptions to the format: The first data section in P3500A (C-01034 & D-01276) contains 44 data records; and the title information at the beginning of tape P3507A (C-01041 & D-01283) consists of 33 records. In all other respects these tapes follow the normal format.

	D-1276	C-1034	OCTAL	
FILE 0001 REC 0001 CH 0120	0001 012020202020	202020202020	202020202020	202
	0049 202020202020	202020202020	202020202020	202
	0097 202020202020	202020202020	202020202020	
FILE 0001 REC 0002 CH 0120	0001 122020202020	202020202020	202020202020	202
	0049 202020202020	202020202020	202020202020	202
	0097 202020202020	202020202020	202020202020	
FILE 0001 REC 0003 CH 0120	0001 122020202020	202020202020	202020202020	202
	0049 202020202020	202020202020	202020202020	202
	0097 202020202020	202020202020	202020202020	
FILE 0001 REC 0004 CH 0120	0001 122020202020	202020202020	202020202020	202
	0049 202020202020	202020202020	202020202020	202
	0097 202020202020	202020202020	202020202020	
FILE 0001 REC 0005 CH 0120	0001 122020202020	202020202020	202020202020	202
	0049 202020202020	202020202020	202020202020	202
	0097 202020202020	202020202020	202020202020	
FILE 0001 REC 0006 CH 0120	0001 122020202020	202020202020	202020202020	202
	0049 202020202020	202020202020	202020202020	202
	0097 202020202020	202020202020	202020202020	
FILE 0001 REC 0007 CH 0120	0001 122020202020	202020202020	202020202020	202
	0049 202020202020	202020202020	202020202020	202
	0097 202020202020	202020202020	202020202020	
FILE 0001 REC 0008 CH 0120	0001 122020202020	202020202020	202020202020	202
	0049 732373202020	202020202020	202020202020	202
	0097 202020202020	202020202020	202020202020	
FILE 0001 REC 0009 CH 0120	0001 202020202020	202020202020	202020202020	202
	0049 202020202020	202020202020	202020202020	202
	0097 202020202020	202020202020	202020202020	
FILE 0001 REC 0010 CH 0120	0001 202020202020	202020202020	202020202020	202
	0049 103465202020	202020202020	202020202020	202
	0097 202020202020	202020202020	202020202020	
FILE 0001 REC 0011 CH 0120	0001 122020202020	202020202020	202020202020	202
	0049 204761512020	202020202020	202020202020	202
	0097 202020202020	202020202020	202020202020	
FILE 0001 REC 0012 CH 0120	0001 202020202020	202020202020	202020202020	202
	0049 202020202020	202020202020	202020202020	202
	0097 202020202020	202020202020	202020202020	
FILE 0001 REC 0013 CH 0120	0001 202020202020	202020202020	202020202020	202
	0049 23552060501	121211202020	434605472020	202
	0097 202020202020	202020202020	202020202020	
FILE 0001 REC 0014 CH 0120	0001 122071647345	467320516566	736461236520	436144625461
	0049 434371236520	202020202020	202020202020	202020202020
	0097 202020202020	202020202020	202020202020	202020202020
FILE 0001 REC 0015 CH 0120	0001 202020202020	032020202020	120720202120	011120051220
	0049 717171202020	202020202020	202020202020	202020202020
	0097 202020202020	202020202020	202020202020	202020202020
FILE 0001 REC 0016 CH 0120	0001 125461236120	665146442045	516271236143	202361476520

[illegible]

FILE 0001 REC 0016 CH 0120	0049 202020202020	202020202020	202020202020	202020202020
	0097 202020202020	202020202020	202020202020	202020202020
FILE 0001 REC 0017 CH 0120	0001 126547465370	202020202020	120720021220	121020041220
	0049 202020202020	202020202020	202020202020	202020202020
	0097 202020202020	202020202020	202020202020	202020202020
FILE 0001 REC 0018 CH 0120	0001 122020202020	272020202020	202020202020	302020202020
	0049 202020202020	644623202020	202020202020	644623202020
	0097 202020202020	202020202020	202020202020	202020202020
FILE 0001 REC 0019 CH 0120	0001 202011050111	120407062012	122004010712	050407022012
	0049 122001010410	031206122012	014006070406	120202042012
	0097 202020202020	202020202020	202020202020	202020202020
FILE 0001 REC 0020 CH 0120	0001 122020202020	612020202020	202020202020	652020202020
	0049 202020204644	656761202020	202020202020	652361202020
	0097 202020202020	202020202020	202020202020	202020202020
FILE 0001 REC 0021 CH 0120	0001 202011100112	050105052012	012010110512	110207012012
	0049 022002041104	070606072012	012003100110	040105122012
	0097 202020202020	202020202020	202020202020	202020202020
FILE 0001 REC 0022 CH 0120	0001 126451616720	656666656323	222020202020	2334473350
	0049 335074202020	202020202020	202020202020	202020202020
	0097 202020202020	202020202020	202020202020	202020202020
FILE 0001 REC 0023 CH 0120	0001 202020202020	202020202020	202020202020	0702122012
	0049 121212122012	122020202020	202020202020	202020202020
	0097 202020202020	202020202020	202020202020	202020202020
FILE 0001 REC 0024 CH 0120	0001 126561512370	206346452223	614523222020	2020202044
	0049 712422202020	202020206643	612345652222	2020202020
	0097 202020202020	202020202020	202020202020	2020202020
FILE 0001 REC 0025 CH 0120	0001 202020202020	202020202020	202020202020	0112121212
	0049 121212122012	012020030306	071212030740	1202202020
	0097 202020202020	202020202020	202020202020	2020202020
FILE 0001 REC 0026 CH 0120	0001 127051514445	457163222020	202020202020	2020202020
	0049 202020202020	202020202020	202020202020	2020202020
	0097 202020202020	202020202020	202020202020	2020202020
FILE 0001 REC 0027 CH 0120	0001 202020202042	022020202020	202020202020	4203202020
	0049 202020202020	202020202020	202020202020	2020202020
	0097 202020202020	202020202020	202020202020	2020202020
FILE 0001 REC 0028 CH 0120	0001 202005040112	1104111114012	012020020210	0411111111
	0049 114012062020	202020202020	202020202020	2020202020
	0097 202020202020	202020202020	202020202020	2020202020
FILE 0001 REC 0029 CH 0120	0001 122020202041	202020202020	202020202020	7020202020
	0049 202020202020	202020202020	202020202020	2020202020
	0097 202020202020	202020202020	202020202020	2020202020
FILE 0001 REC 0030 CH 0120	0001 202001060203	021004114012	022020121212	1212121212
	0049 122012122020	202020202020	202020202020	2020202020
	0097 202020202020	202020202020	202020202020	2020202020
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	0049 202020202020	202020202020	202020202020	2020202020

20202020	202020202020	202020202020	202020202020	202020202020
20202020				
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20202020	202020202020	202020202020	202020202020	202020202020
20202020				
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23202020	202020202020	202020202020	202020202020	202020202020
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020202020				
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361202020	202020202020	202020202020	202020202020	202020202020
020202020				
207012012	122006121211	041204052012	122010020710	040502044012
00522012	012020202020	202020202020	202020202020	202020202020
2020202020				
3447335074	202020202020	202045340233	507420202020	202020453403
2020202020	202020202020	202020202020	202020202020	202020202020
2020202020				
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2020202020	202020202020	202020202020	202020202020	202020202020
2020202020				
02020204424	202020202020	202051462361	237146452020	202020516164
02020202020	202020202020	202020202020	202020202020	202020202020
02020202020				
11212121212	121220120120	200510100305	010204401201	202001121212
202020202020	202020202020	202020202020	202020202020	202020202020
02020202020				
02020202020	202020202020	202020202020	202020202020	202020202020
02020202020	202020202020	202020202020	202020202020	202020202020
02020202020				
02020202020	202020202020	204204202020	202020202020	202042052020
02020202020	202020202020	202020202020	202020202020	202020202020
02020202020				
041111111140	120520200711	060102041107	401206202002	030111111111
202020202020	202020202020	202020202020	202020202020	202020202020
202020202020				
702020202020	202020202020	204220202020	202020202020	202043202020
202020202020	202020202020	202020202020	202020202020	202020202020
202020202020				
121212121220	121220201212	121212121212	201212202012	121212121212
202020202020	202020202020	202020202020	202020202020	202020202020
202020202020				
232451526123	714645222020	202020202020	202020202020	202020202020
202020202020	202020202020	202020202020	202020202020	202020202020

DATE	TIME	GEOCENTRIC	INER.	VEL. VECTOR	GEOMAG.	REAL F.	5
MMDD	HHMM	LENG. LAT. DIST	R.A.	R.A. DECL. VE.	PO	LAT. L	B
1118	1200.0	060.853-21.257	093617	176.47	204.0-03.0 01.5	15.09-09.6	15.108 00010
1118	1205.0	061.974-21.189	093985	176.60	204.2-02.8 01.5	15.15-09.5	15.247 00010
1118	1210.0	063.095-21.115	094352	175.73	204.5-02.7 01.4	15.20-09.4	15.295 00010
1118	1215.0	064.219-21.044	094714	176.86	204.7-02.5 01.4	15.25-09.3	15.345 00010
1118	1220.0	065.343-20.973	095073	175.99	204.9-02.3 01.4	15.30-09.2	15.394 00010
1118	1225.0	066.468-20.901	095423	177.12	205.2-02.1 01.4	15.35-09.1	15.443 00000
1118	1230.0	067.591-20.831	095731	177.24	205.4-02.0 01.4	15.40-09.0	15.492 00000
1118	1235.0	068.722-20.760	096130	177.37	205.6-01.8 01.4	15.45-08.9	15.541 00000
1118	1240.0	069.850-20.690	096475	177.50	205.9-01.6 01.4	15.50-08.8	15.590 00000
1118	1245.0	070.983-20.621	096818	177.62	206.1-01.4 01.4	15.55-08.8	15.638 00000
1118	1250.0	072.110-20.551	097157	177.74	206.4-01.3 01.4	15.59-08.9	15.687 00000
1118	1255.0	073.241-20.483	097492	177.87	206.6-01.1 01.3	15.54-08.7	15.735 00000
1118	1300.0	074.373-20.414	097825	177.99	206.8-00.9 01.3	15.69-08.7	15.783 00000
1118	1305.0	075.507-20.346	098154	178.11	207.1-00.7 01.3	15.74-08.6	15.832 00000
1118	1310.0	076.640-20.279	098483	178.23	207.3-00.5 01.3	15.79-08.5	15.880 00000
1118	1315.0	077.775-20.211	098802	178.34	207.6-00.3 01.3	15.84-08.5	15.927 00000
1118	1320.0	078.911-20.144	099122	178.46	207.8-00.2 01.3	15.89-08.5	15.975 00000
1118	1325.0	080.048-20.078	099448	178.58	208.1-00.0 01.3	15.94-08.5	16.023 00000
1118	1330.0	081.185-20.012	099751	178.69	208.3-00.2 01.3	15.99-08.5	16.070 00000
1118	1335.0	082.324-19.946	100062	178.81	208.6-00.4 01.3	16.03-08.4	16.117 00000
1118	1340.0	083.461-19.880	100359	178.92	208.8-00.6 01.3	16.08-08.4	16.164 00000
1118	1345.0	084.603-19.815	100673	179.04	209.1-00.8 01.2	16.13-08.4	16.212 00000
1118	1350.0	085.741-19.750	100974	179.15	209.3-01.0 01.2	16.18-08.4	16.259 00000
1118	1355.0	086.885-19.685	101271	179.26	209.6-01.2 01.2	16.23-08.4	16.306 00000
1118	1400.0	088.023-19.621	101566	179.37	209.9-01.4 01.2	16.27-08.4	16.352 00000
1118	1405.0	089.171-19.557	101858	179.48	210.1-01.5 01.2	16.32-08.4	16.399 00000
1118	1410.0	090.313-19.494	102147	179.59	210.4-01.7 01.2	16.37-08.5	16.446 00000
1118	1415.0	091.458-19.430	102431	179.70	210.6-01.9 01.2	16.42-08.5	16.493 00000
1118	1420.0	092.601-19.367	102716	179.81	210.9-02.1 01.2	16.46-08.5	16.539 00000
1118	1425.0	093.749-19.304	102996	179.92	211.2-02.3 01.2	16.51-08.5	16.586 00000
1118	1430.0	094.895-19.242	103273	180.03	211.5-02.5 01.2	16.56-08.6	16.633 00000
1118	1435.0	096.043-19.179	103547	180.13	211.7-02.7 01.2	16.61-08.6	16.679 00000
1118	1440.0	097.190-19.117	103818	180.24	212.0-02.9 01.1	16.65-08.6	16.725 00000
1118	1445.0	098.339-19.055	104086	180.34	212.3-03.2 01.1	16.70-08.7	16.772 00000
1118	1450.0	099.487-18.994	104351	180.45	212.6-03.4 01.1	16.75-08.7	16.819 00000
1118	1455.0	100.637-18.933	104614	180.55	212.8-03.6 01.1	16.79-08.8	16.865 00000
1118	1500.0	101.787-18.872	104873	180.65	213.1-03.8 01.1	16.84-08.9	16.911 00000
1118	1505.0	102.939-18.811	105130	180.76	213.4-04.0 01.1	16.89-08.9	16.957 00000
1118	1510.0	104.089-18.750	105384	180.86	213.7-04.2 01.1	16.94-09.0	17.004 00000
1118	1515.0	105.241-18.690	105635	180.96	214.0-04.4 01.1	16.99-09.1	17.050 00000
1118	1520.0	106.393-18.630	105884	181.05	214.3-04.6 01.1	17.03-09.1	17.097 00000
1118	1525.0	107.546-18.570	106129	181.16	214.6-04.9 01.1	17.08-09.2	17.143 00000
1118	1530.0	108.700-18.511	106372	181.25	214.9-05.1 01.1	17.12-09.3	17.190 00000
1118	1535.0	109.853-18.451	106612	181.36	215.2-05.3 01.1	17.17-09.4	17.236 00000
1118	1540.0	111.003-18.392	106849	181.46	215.5-05.5 01.0	17.22-09.5	17.283 00000
1118	1545.0	112.163-18.333	107084	181.56	215.8-05.7 01.0	17.27-09.6	17.329 00000
1118	1550.0	113.318-18.274	107315	181.65	216.1-06.0 01.0	17.31-09.7	17.376 00000

ALT
 12000 40000
 KM
 6000
 12 sec

25AL 2 55533 1965 322 P.001
 L B B/BO P.A. DECL.
 6 15,198 00010 01,134 173.7 50.0
 5 15,247 00010 01,131 174.1 50.2
 4 15,295 00010 01,128 174.6 50.5
 3 15,345 00010 01,125 175.1 50.8
 2 15,394 00010 01,122 175.6 51.0
 1 15,443 00009 01,120 176.1 51.2
 0 15,492 00009 01,118 176.5 51.5
 9 15,541 00009 01,115 177.0 51.7
 8 15,590 00009 01,114 177.5 51.9
 7 15,638 00009 01,112 178.1 52.1
 6 15,687 00009 01,110 178.6 52.3
 5 15,735 00009 01,109 179.1 52.4
 4 15,783 00009 01,108 179.6 52.6
 3 15,832 00009 01,106 180.1 52.7
 2 15,879 00009 01,105 180.6 52.9
 1 15,927 00009 01,104 181.1 53.0
 0 15,975 00008 01,104 181.6 53.1
 9 16,023 00008 01,103 182.1 53.2
 8 16,070 00008 01,102 182.6 53.3
 7 16,117 00008 01,102 183.2 53.4
 6 16,164 00008 01,102 183.7 53.5
 5 16,212 00008 01,101 184.2 53.5
 4 16,259 00008 01,101 184.7 53.6
 3 16,306 00008 01,101 185.2 53.6
 2 16,352 00008 01,102 185.7 53.6
 1 16,399 00008 01,102 186.1 53.7
 0 16,446 00008 01,102 186.6 53.7
 9 16,493 00008 01,103 187.1 53.7
 8 16,539 00008 01,104 187.6 53.6
 7 16,586 00008 01,104 188.0 53.6
 6 16,633 00007 01,105 188.5 53.6
 5 16,679 00007 01,106 189.0 53.5
 4 16,725 00007 01,107 189.4 53.5
 3 16,772 00007 01,109 189.8 53.4
 2 16,819 00007 01,110 190.3 53.3
 1 16,865 00007 01,112 190.7 53.3
 0 16,911 00007 01,113 191.1 53.2
 9 16,957 00007 01,115 191.5 53.1
 8 17,004 00007 01,117 191.9 53.0
 7 17,050 00007 01,119 192.3 52.8
 6 17,097 00007 01,121 192.7 52.7
 5 17,143 00007 01,124 193.0 52.6
 4 17,190 00007 01,126 193.4 52.4
 3 17,236 00007 01,129 193.7 52.3
 2 17,283 00007 01,131 194.0 52.1
 1 17,329 00007 01,134 194.4 52.0
 0 17,375 00007 01,137 194.7 51.8

M/K
 M/A
 E.M.W.

→ DA

12 see

T. M. W.
 J. M. W.
 R

DATE	TIME	GEOCENTRIC		INER.		VEL. VECTOR		GEOMAG.		REAL F.	
MMDD	HHMM	LONG.	LAT.	DIST.	R.A.	R.A.	DECL.	VEL.	RD	LAT.	L
1118	1555.0	-114.471	-18.215	107545	181.70	216.4	06.2	01.0	17.36-09.8	17.423	000
1118	1600.0	-115.631	-18.157	107771	181.85	216.7	06.4	01.0	17.41-07.2	17.471	000
1118	1605.0	-115.788	-18.099	107995	181.95	217.1	06.7	01.0	17.46-10.0	17.518	000
1118	1610.0	-117.245	-18.041	108216	182.04	217.4	06.9	01.0	17.50-10.1	17.566	000
1118	1615.0	-117.103	-17.987	108434	182.14	217.7	07.1	01.0	17.55-10.2	17.614	000
1118	1620.0	-123.261	-17.926	108650	182.24	218.0	07.4	01.0	17.50-10.3	17.662	000
1118	1625.0	-121.420	-17.858	108862	182.33	218.4	07.6	01.0	17.65-10.5	17.710	000
1118	1630.0	-122.579	-17.811	109073	182.42	218.7	07.9	01.0	17.70-10.6	17.758	000
1118	1635.0	-123.738	-17.754	109280	182.52	219.1	08.1	01.0	17.75-10.7	17.805	000
1118	1640.0	-124.898	-17.697	109485	182.61	219.4	08.3	01.0	17.80-10.9	17.854	000
1118	1645.0	-125.059	-17.640	109698	182.70	219.7	08.6	00.9	17.85-11.0	17.903	000
1118	1650.0	-127.219	-17.584	109988	182.80	220.1	08.8	00.9	17.89-11.1	17.952	000
1118	1655.0	-128.381	-17.527	110135	182.89	220.5	09.1	00.9	17.94-11.3	18.001	000
1118	1700.0	-129.542	-17.471	110279	182.98	220.8	09.3	00.9	17.99-11.4	18.050	000
1118	1705.0	-130.704	-17.415	110471	183.07	221.2	09.6	00.9	18.04-11.6	18.100	000
1118	1710.0	-131.866	-17.359	110661	183.16	221.5	09.9	00.9	18.10-11.7	18.150	000
1118	1715.0	-133.029	-17.303	110848	183.25	221.9	10.1	00.9	18.15-11.9	18.200	000
1118	1720.0	-134.192	-17.247	111032	183.35	222.3	10.4	00.9	18.20-12.0	18.251	000
1118	1725.0	-135.355	-17.192	111214	183.44	222.7	10.6	00.9	18.25-12.2	18.302	000
1118	1730.0	-136.519	-17.136	111393	183.53	223.1	10.9	00.9	18.30-12.3	18.353	000
1118	1735.0	-137.683	-17.081	111559	183.61	223.4	11.2	00.9	18.35-12.5	18.404	000
1118	1740.0	-138.847	-17.026	111743	183.70	223.8	11.5	00.9	18.40-12.7	18.457	000
1118	1745.0	-140.012	-16.971	111915	183.79	224.2	11.7	00.9	18.46-12.8	18.509	000
1118	1750.0	-141.177	-16.916	112084	183.88	224.6	12.0	00.9	18.51-13.0	18.561	000
1118	1755.0	-142.342	-16.861	112251	183.97	225.0	12.3	00.9	18.56-13.2	18.613	000
1118	1800.0	-143.508	-16.807	112415	184.06	225.4	12.6	00.8	18.52-13.3	18.666	000
1118	1805.0	-144.674	-16.752	112576	184.14	225.9	12.8	00.8	18.67-13.5	18.719	000
1118	1810.0	-145.840	-16.698	112735	184.23	226.3	13.1	00.8	18.72-13.7	18.772	000
1118	1815.0	-147.007	-16.643	112892	184.32	226.7	13.4	00.8	18.78-13.9	18.825	000
1118	1820.0	-148.173	-16.589	113046	184.41	227.1	13.7	00.8	18.83-14.0	18.880	000
1118	1825.0	-149.341	-16.535	113198	184.49	227.6	14.0	00.8	18.89-14.2	18.934	000
1118	1830.0	-150.508	-16.481	113347	184.58	228.0	14.3	00.8	18.94-14.4	18.989	000
1118	1835.0	-151.675	-16.427	113493	184.66	228.5	14.6	00.8	19.00-14.6	19.045	000
1118	1840.0	-152.844	-16.374	113638	184.75	228.9	14.9	00.8	19.05-14.8	19.100	000
1118	1845.0	-154.012	-16.320	113779	184.83	229.4	15.2	00.8	19.11-15.0	19.155	000
1118	1850.0	-155.180	-16.267	113919	184.92	229.9	15.5	00.8	19.17-15.1	19.211	000
1118	1855.0	-156.349	-16.213	114056	185.00	230.3	15.8	00.8	19.22-15.3	19.257	000
1118	1900.0	-157.518	-16.160	114190	185.09	230.8	16.1	00.8	19.28-15.5	19.323	000
1118	1905.0	-158.687	-16.107	114322	185.17	231.3	16.4	00.8	19.34-15.7	19.379	000
1118	1910.0	-159.856	-16.053	114452	185.26	231.8	16.7	00.8	19.40-15.9	19.435	000
1118	1915.0	-161.025	-16.000	114579	185.34	232.3	17.0	00.8	19.45-16.1	19.491	000
1118	1920.0	-162.195	-15.947	114704	185.42	232.8	17.3	00.8	19.51-16.3	19.548	000
1118	1925.0	-163.365	-15.894	114825	185.51	233.3	17.6	00.8	19.57-16.4	19.605	000
1118	1930.0	-164.536	-15.842	114946	185.59	233.8	17.9	00.8	19.53-16.6	19.663	000
1118	1935.0	-165.707	-15.789	115068	185.67	234.3	18.2	00.7	19.69-16.8	19.720	000
1118	1940.0	-166.877	-15.736	115179	185.76	234.9	18.6	00.7	19.75-17.0	19.778	000
1118	1945.0	-168.048	-15.683	115292	185.84	235.4	18.9	00.7	19.81-17.2	19.835	000

65503 1965 322 0.002

4 B/80 R.A. DECL.

00007	01.140	195.0	51.6
00007	01.144	195.3	51.5
00007	01.147	195.6	51.3
00007	01.151	195.8	51.1
00007	01.155	195.1	50.9
00007	01.159	196.3	50.7
00007	01.163	196.6	50.5
00006	01.167	196.8	50.3
00006	01.172	197.0	50.1
00006	01.176	197.2	49.8
00006	01.181	197.4	49.6
00006	01.186	197.6	49.4
00005	01.191	197.8	49.2
00006	01.197	198.0	48.9
00006	01.202	198.1	48.7
00006	01.208	198.3	48.5
00006	01.214	198.4	48.2
00006	01.220	198.6	48.0
00005	01.226	198.7	47.7
00006	01.233	198.8	47.5
00005	01.240	198.9	47.2
00006	01.247	199.0	47.0
00005	01.254	199.1	46.7
00006	01.261	199.2	46.5
00005	01.269	199.3	46.2
00006	01.276	199.3	46.0
00006	01.284	199.4	45.7
00006	01.292	199.5	45.5
00006	01.300	199.5	45.2
00006	01.309	199.6	45.0
00005	01.318	199.6	44.7
00006	01.327	199.6	44.5
00005	01.336	199.6	44.2
00006	01.346	199.7	44.0
00006	01.355	199.7	43.7
00006	01.365	199.7	43.5
00005	01.375	199.7	43.2
00006	01.385	199.7	43.0
00006	01.396	199.6	42.7
00006	01.406	199.6	42.5
00005	01.417	199.6	42.3
00006	01.428	199.6	42.0
00006	01.439	199.5	41.8
00006	01.450	199.5	41.6
00006	01.462	199.5	41.3
00006	01.474	199.4	41.1
00006	01.486	199.4	40.9