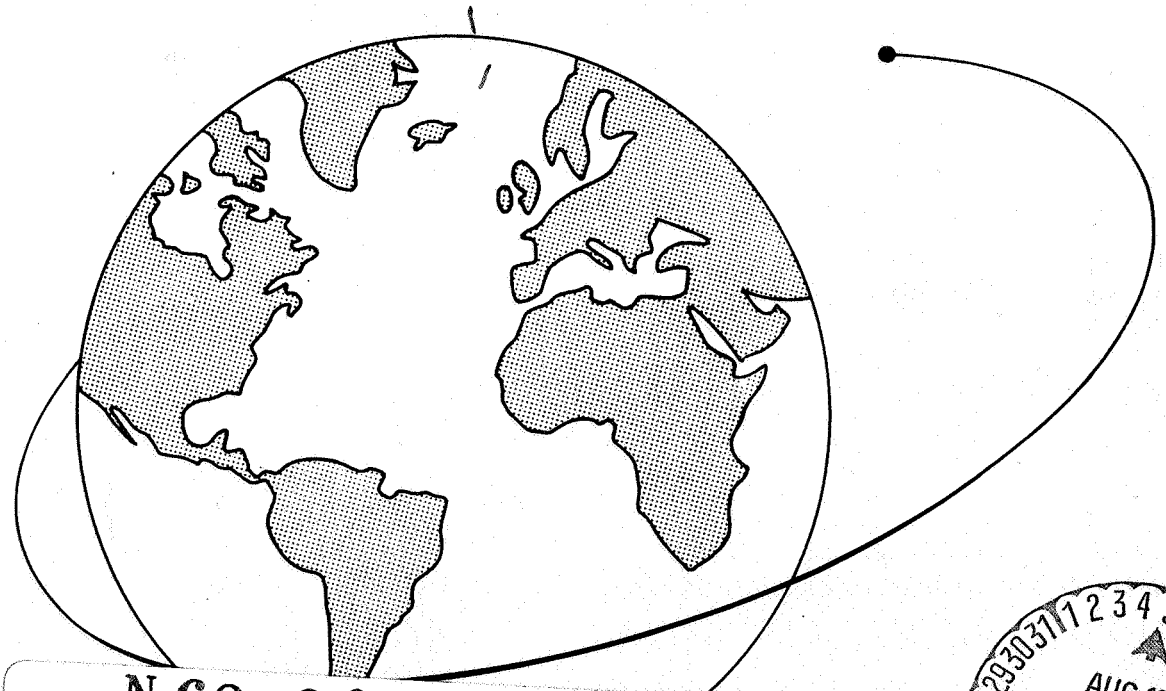
CATALOG OF SATELLITE ORBITAL DATA



Smithsonian Astrophysical Observatory

SPECIAL REPORT 276
Catalog E-7

Research in Space Science
SAO Special Report No. 276

SATELLITE ORBITAL DATA

No. E-7

Material prepared under the supervision of
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May 15, 1968

Smithsonian Institution
Astrophysical Observatory
Cambridge, Massachusetts 02138

803-105

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SATELLITE ORBITAL DATA

1. ORBITAL INFORMATION

The orbital elements have been derived by the indicated staff members of the Satellite-Tracking Program, Smithsonian Astrophysical Observatory, employing the SAO Differential Orbit Improvement Program (DOI).

As opposed to osculating elements, the elements presented here are mean elements in the sense that the effects of the short-period perturbations due to the earth's oblateness have been eliminated.

SAO mean elements have been derived from precisely reduced observations covering several days and are given in the form of a table. The successive sets of elements are essentially independent of each other. They are dependent, however, in the sense that high-order coefficients in the secular and the long-periodic terms are generally considered as known and as constant for periods of several weeks or months, as dictated by convenience.

The times of epoch in the mean elements are reckoned in Julian Days, but for the sake of convenience the number 2400000.5 has been subtracted to provide an abbreviated notation, which we call "Modified Julian Days," or "MJD."

The units of the orbital elements are degrees for angular quantities, megameters (Mm = 10^6 meters) for linear quantities, and revolutions for the mean anomaly M and its derivatives.

This work was supported by grant NsG 87-60 from the National Aeronautics and Space Administration.

The tabulated values of the SAO mean elements give the values of arguments of perigee ω, right ascension of the ascending node Ω, inclination i, eccentricity e, and mean anomaly M as functions of time $t = T - T_0$ (where T_0 is the reference epoch) expressed in days. The two-digit number placed at the right of each value represents the standard error for that element and refers to the last digits given.

The same tabulation also gives the mean (anomalistic) motion n, the orbital acceleration $n'/2$ or $n'(dn/dt)$, and the semimajor axis a or the geocentric distance of perigee q (in megameters). Of the last three columns, the one headed N indicates the number of observations used for the computation of a set of elements; the one headed D, the number of days used; and the one headed σ, the standard error of the representation of the observations relative to their assumed accuracy.

In our computer program, the inclination and the argument of perigee are referred to the true equator of date; the right ascension of the ascending node, however, is reckoned from the mean equinox of 1950.0 along the corresponding mean equator to the intersection with the moving true equator of date, and then along the true equator of date. To transform from right ascension of the node as determined by the DOI to right ascension of the node referred to the mean equinox of date, one uses

$$\Omega^\circ = \Omega^\circ\,(\mathrm{DOI}) + 3\overset{\circ}{.}508 \times 10^{-5}(\mathrm{MJD} - 33281) \quad ,$$

where MJD stands for the Modified Julian Day of the date.

Tables 1, 2, 3, and 4 show the station coordinates, the values of the tesseral harmonics, the values of the constants GM and J, and the zonal harmonics. The data were obtained using DOI 3.7 and include the use of lunisolar perturbations and tesseral harmonics.

Table 1. Station coordinates

Station no.	X (Mm)	Y (Mm)	Z (Mm)	Stations
9001	-1.535759	-5.166995	3.401041	Organ Pass, New Mexico
9002	5.056126	2.716485	-2.775816	Olifantsfontein, South Africa
9003	-3.983750	3.743101	-3.275593	Woomera, Australia
9004	5.105593	-0.555232	3.769674	San Fernando, Spain
9005	-3.946697	3.366286	3.698843	Tokyo, Japan
9006	1.018205	5.471100	3.109614	Naini Tal, India
9007	1.942769	-5.804078	-1.796961	Arequipa, Peru
9008	3.376882	4.403985	3.136254	Shiraz, Iran
9009	2.251820	-5.816915	1.327164	Curaçao, Netherlands Antilles
9010	0.976282	-5.601389	2.880242	Jupiter, Florida
9011	2.280575	-4.914569	-3.355457	Villa Dolores, Argentina
9012	-5.466055	-2.404275	2.242170	Maui, Hawaii
9023	-3.977738	3.725115	-3.303060	Island Lagoon, Australia
9114	-1.264846	-3.466880	5.185464	Cold Lake, Canada
9115	3.121268	0.592616	5.512673	Oslo, Norway
9117	-6.007395	-1.111893	1.825725	Johnston Island

Table 2. Tesseral harmonics

The values of the coefficients are:

C	2	2	0.23790E-5	S	2	2	-0.13510E-5	C	3	1	0.19360E-5	S	3	1	0.26600E-6
C	3	2	0.73400E-6	S	3	2	-0.53800E-6	C	3	3	0.56100E-6	S	3	3	0.16200E-5
C	4	1	-0.57200E-6	S	4	1	-0.46900E-6	C	4	2	0.33000E-6	S	4	2	0.66100E-6
C	4	3	0.85100E-6	S	4	3	-0.19000E-6	C	4	4	-0.53000E-7	S	4	4	0.23000E-6
C	5	1	-0.79000E-7	S	5	1	-0.10300E-6	C	5	2	0.63100E-6	S	5	2	-0.23200E-6
C	5	3	-0.52000E-6	S	5	3	0.70000E-8	C	5	4	-0.26500E-6	S	5	4	0.64000E-7
C	5	5	0.15600E-6	S	5	5	-0.59200E-6	C	6	1	-0.47000E-7	S	6	1	-0.27000E-7
C	6	2	0.69000E-7	S	6	2	-0.36600E-6	C	6	3	-0.54000E-7	S	6	3	0.31000E-7
C	6	4	-0.44000E-7	S	6	4	-0.51800E-6	C	6	5	-0.31300E-6	S	6	5	-0.45800E-6
C	6	6	-0.40000E-7	S	6	6	-0.15500E-6	C	7	1	0.19700E-6	S	7	1	0.15600E-6
C	7	2	0.36400E-6	S	7	2	0.16300E-6	C	7	3	0.25000E-6	S	7	3	0.18000E-7
C	7	4	-0.15200E-6	S	7	4	-0.10200E-6	C	7	5	0.76000E-7	S	7	5	0.54000E-7
C	7	6	-0.20900E-6	S	7	6	0.63000E-7	C	7	7	0.55000E-7	S	7	7	0.96000E-7
C	8	1	-0.75000E-7	S	8	1	0.65000E-7	C	8	2	0.26000E-7	S	8	2	0.39000E-7
C	8	3	-0.37000E-7	S	8	3	0.40000E-8	C	8	4	-0.21200E-6	S	8	4	-0.12000E-7
C	8	5	-0.53000E-7	S	8	5	0.11800E-6	C	8	6	-0.17000E-7	S	8	6	0.31800E-6
C	8	7	-0.87000E-8	S	8	7	0.31000E-7	C	8	8	-0.24800E-6	S	8	8	0.10200E-6
C	9	1	0.11700E-6	S	9	1	0.12000E-7	C	9	2	-0.40000E-8	S	9	2	0.35000E-7
C	10	1	0.10500E-6	S	10	1	-0.12600E-6	C	10	2	-0.10500E-6	S	10	2	-0.42000E-7
C	10	3	-0.65000E-7	S	10	3	0.30000E-7	C	10	4	-0.74000E-7	S	10	4	-0.11100E-6
C	11	1	-0.53000E-7	S	11	1	0.15000E-7	C	12	1	-0.16300E-6	S	12	1	-0.71000E-7
C	12	2	-0.10300E-6	S	12	2	-0.51000E-8	C	12	12	-0.31000E-7	S	12	12	0.80000E-9
C	13	12	-0.59000E-7	S	13	12	0.50000E-7	C	13	13	-0.59000E-7	S	13	13	0.77000E-7
C	14	1	-0.15000E-7	S	14	1	0.53000E-8	C	14	11	0.20000E-9	S	14	11	-0.10000E-9
C	14	12	0.94000E-7	S	14	12	-0.28000E-7	C	14	14	-0.14000E-7	S	14	14	-0.30000E-8
C	15	9	-0.90000E-9	S	15	9	-0.18000E-8	C	15	12	-0.61900E-7	S	15	12	0.57800E-7
C	15	13	-0.58000E-7	S	15	13	-0.46000E-7	C	15	14	0.43000E-8	S	15	14	-0.21100E-7

Table 3. Values of the constants GM and J used in orbit calculation

GM	J
274.53848	0.0660644

Table 4. Zonal harmonics used in orbit calculation

J_2	1082.645
J_3	-2.546
J_4	-1.649
J_5	-0.210
J_6	0.646
J_7	-0.333
J_8	-0.270
J_9	-0.053
J_{10}	-0.054
J_{11}	0.302
J_{12}	-0.357
J_{13}	-0.114
J_{14}	0.179

T (MJD)	ω	Ω	i	e	M	n	n'/2	q	N	D	σ
38307.0	68.0181 5	.7719 2	32.87644 5	.164779 1	.609142 1	11.4797277 5	-.513E-6 26	6.931620	42	08	1.16
38309.0	78.5757 6	353.7299 3	32.87609 6	.164810 1	.568668 1	11.4797272 5	-.371E-6 22	6.931340	46	08	1.47
38311.0	89.1355 8	346.6891 4	32.87469 8	.164829 1	.528187 1	11.4797265 7	-.87E-7 24	6.931186	40	08	1.59
38313.0	99.6956 5	339.6450 3	32.87553 7	.164797 1	.487711 1	11.4797267 4	.129E-6 22	6.931457	28	08	.83
38315.0	110.2405 6	332.6040 4	32.8745 1	.164784 1	.447257 1	11.4797293 5	.358E-6 36	6.931613	22	08	1.24
38317.0	120.8014 8	325.5611 5	32.8749 2	.164711 2	.406787 1	11.4797270 7	.339E-6 30	6.932199	19	08	1.07
38319.0	131.3598 5	318.5189 3	32.8748 2	.164655 2	.366318 1	11.4797282 5	.320E-6 30	6.932665	20	08	.91
38321.0	141.9232 4	311.4760 2	32.8755 2	.164593 2	.325839 1	11.4797297 2	.364E-6 16	6.933185	22	08	.70
38323.0	152.4926 4	304.4332 3	32.8762 4	.164525 4	.285343 1	11.4797314 3	.409E-6 26	6.933761	21	08	.60
38325.0	163.064 1	297.3908 7	32.8771 6	.164457 6	.244840 5	11.47975 1	.440E-6 71	6.934325	18	08	.64
38327.0	173.637 6	290.3504 8	32.8788 7	.16438 2	.20433 3	11.47974 1	.349E-6 97	6.934933	23	08	.69
38329.0	184.227 9	283.310 1	32.8794 8	.16431 2	.16380 4	11.47968 2	.42E-7 78	6.935549	25	08	.74
38331.0	194.813 7	276.2660 6	32.8794 3	.16423 2	.12328 3	11.479717 8	.166E-6 89	6.936156	29	08	.79
38333.0	205.430 5	269.2260 4	32.8820 2	.16413 1	.08265 2	11.47974 1	-.328E-6 50	6.937078	35	08	.83
38335.0	216.018 1	262.1846 4	32.8829 1	.164049 4	.04211 4	11.479739 7	-.924E-6 46	6.937706	40	08	.65
38337.0	226.6209 3	255.1433 2	32.88325 7	.163998 2	.001523 0	11.4797351 1	-.884E-6 32	6.938012	49	08	.63
38339.0	237.2264 3	248.1041 4	32.88356 5	.163956 2	.960921 2	11.479735 3	-.755E-6 33	6.938389	50	08	.54
38341.0	247.8343 2	241.0629 2	32.88358 5	.163929 1	.920316 0	11.4797326 2	-.295E-6 35	6.938665	61	08	.69
38343.0	258.4488 1	234.0243 1	32.88346 3	.163912 1	.879692 0	11.4797326 1	.27E-7 12	6.938781	75	08	.62
38345.0	269.0535 1	226.9847 1	32.88494 3	.163901 1	.839088 0	11.4797332 1	-.12E-6 21	6.938981	77	08	.60
38347.0	279.6613 1	219.9418 1	32.88497 3	.163877 1	.798474 0	11.4797317 1	-.207E-6 15	6.939144	89	08	.66
38349.0	290.2709 2	212.9045 1	32.88430 3	.163883 1	.757843 1	11.4797296 2	.50E-7 17	6.939052	92	08	.69
38351.0	300.8773 2	205.86622 9	32.88290 3	.163919 1	.717239 1	11.4797288 2	.410E-6 19	6.938720	76	08	.48
38353.0	311.4827 2	198.82579 9	32.88126 3	.163964 1	.676636 1	11.4797253 3	.437E-6 18	6.938336	81	08	.62
38355.0	322.0898 2	191.7827 2	32.88021 3	.164003 1	.636036 1	11.4797265 4	.352E-6 18	6.938053	71	08	.79
38357.0	332.6935 4	184.7414 2	32.87980 4	.164060 2	.595443 1	11.4797304 5	.664E-6 27	6.937583	49	08	1.07
38359.0	343.2957 4	177.7019 2	32.87880 4	.164123 2	.554846 2	11.4797303 6	.1150E-5 66	6.937066	30	08	.73
38361.0											
38369.0											
38371.0	46.7781 7	135.4502 3	32.87249 9	.164586 2	.311931 2	11.479764 1	.446E-6 71	6.933217	20	08	.83
38373.0	57.3448 5	128.4075 3	32.8717 1	.164646 2	.271512 1	11.4797670 4	.90E-7 73	6.932734	21	08	.98

T (MJD)	ω	Ω	i	e	M	n	n′/2	q	N	D	σ
38375.0	67.9058 5	121.3647 2	32.8712 1	.164690 2	.231112 1	11.4797682 3	-.117E-6 32	6.932409	23	08	1.16
38377.0	78.4607 4	114.3222 3	32.87171 8	.164712 3	.190729 1	11.4797681 3	-.101E-6 42	6.932256	25	08	1.02
38379.0	89.0104 5	107.2808 2	32.87132 9	.164718 2	.150341 1	11.47976779 5	-.273E-6 50	6.932106	23	08	1.08
38381.0	99.5600 6	100.2385 4	32.8736 1	.164702 3	.109982 1	11.4797661 4	-.312E-6 48	6.932290	28	08	1.64
38383.0	110.1062 9	93.1992 7	32.87300 9	.164683 3	.069607 1	11.4797654 6	-.267E-6 31	6.932370	35	08	2.19
38385.0	120.6665 9	86.1568 8	32.87361 8	.164640 3	.029196 2	11.479765 1	-.300E-6 37	6.932771	28	08	2.02
38387.0	131.219 2	79.1169 9	32.87532 8	.164579 3	.988790 3	11.4797612 9	-.568E-6 37	6.933280	33	08	2.00
38389.0	141.781 2	72.0753 7	32.87485 6	.164509 5	.948366 4	11.479759 1	-.846E-6 35	6.933904	27	08	1.47
38391.0	152.34 3	65.033 1	32.8775 2	.16436 6	.90794 5	11.47976 1	-.685E-6 45	6.935039	17	08	1.89
38393.0	162.91 2	57.992 1	32.8785 3	.16426 4	.86747 3	11.479743 8	-.523E-6 33	6.936021	19	08	1.36

T (MJD)	ω	Ω	i	e	M	n	n'/2	q	N	D	σ
38306.0	151.111 1	65.0651 2	33.34821 6	.188654 2	.890595 3	11.088994 2	.80E-6 18	6.890867	26	06	.67
38308.0	160.8995 9	58.4908 3	33.35037 6	.188566 2	.068595 3	11.089000 2	.1577E-5 64	6.891524	38	06	.89
38310.0	170.6877 8	51.9168 3	33.35191 7	.188482 2	.246609 3	11.089009 2	.3216E-5 75	6.892270	55	06	1.15
38312.0	180.4755 9	45.3438 3	33.35319 8	.188396 2	.424646 3	11.089029 2	.5805E-5 80	6.893011	61	06	1.43
38314.0	190.2568 6	38.7708 1	33.35480 5	.188306 1	.602756 2	11.089051 1	.1025E-4 6	6.893701	70	06	.85
38316.0	200.0524 4	32.1978 1	33.35589 4	.188245 1	.780898 1	11.0891023 8	.1131E-4 4	6.894281	89	06	.76
38318.0	209.8548 4	25.6232 1	33.35755 4	.188208 1	.959122 1	11.0891504 9	.1085E-4 4	6.894566	87	06	.80
38320.0	219.6569 4	19.0524 1	33.35960 4	.188159 1	.137416 2	11.0891895 9	.1031E-4 3	6.894937	72	06	.67
38322.0	229.4605 3	12.4808 1	33.35968 4	.188123 1	.315798 1	11.0892355 4	.1020E-4 4	6.895205	67	06	.63
38324.0	239.2715 4	5.9055 2	33.36102 5	.188100 1	.494250 1	11.089278 1	.9468E-5 66	6.895381	63	06	.79
38326.0	249.0819 4	359.3349 3	33.36079 5	.188064 2	.672763 2	11.0893095 7	.9201E-5 47	6.895723	60	06	.78
38328.0	258.893 1	352.7612 4	33.3609 1	.188041 4	.851364 3	11.089342 2	.7674E-5 93	6.895870	52	06	1.05
38330.0	268.699 1	346.1892 5	33.3608 1	.188033 3	.030033 3	11.089376 2	.6505E-5 79	6.895953	53	06	.77
38332.0	278.53 1	339.6158 7	33.3619 2	.18799 2	.20865 6	11.08935 3	.899E-5 11	6.896261	45	06	.74
38333.0	283.411 2	336.3293 6	33.3612 2	.188076 4	.298146 4	11.0894202 8	.8219E-5 46	6.895565	48	08	.79
38335.0	293.207 2	329.7567 6	33.3604 3	.188107 5	.477000 5	11.089442 2	.7050E-5 83	6.895237	44	08	1.20
38337.0	303.0278 7	323.1809 2	33.3588 2	.188155 2	.655845 2	11.089472 1	.6238E-5 66	6.894803	35	08	.74
38339.0	312.8369 4	316.6066 1	33.3581 2	.188190 2	.834760 1	11.0894965 5	.6927E-5 44	6.894562	32	08	.68
38341.0	322.6478 4	310.0328 2	33.3571 2	.188234 2	.013714 1	11.0895261 4	.7328E-5 27	6.894180	39	08	.92
38343.0	332.447 1	303.4590 8	33.3555 6	.188280 5	.192769 2	11.0895533 9	.6929E-5 45	6.893693	40	08	1.86
38345.0	342.2506 6	296.8828 4	33.3530 2	.188335 2	.371883 1	11.0895782 5	.5918E-5 31	6.893319	42	08	1.26
38347.0	352.0471 4	290.3081 3	33.3529 2	.188415 1	.551051 1	11.0896001 3	.5608E-5 18	6.892596	45	08	1.00
38349.0	01.8365 6	283.7334 6	33.3514 2	.188517 2	.730273 1	11.0896230 5	.5792E-5 29	6.891720	44	08	1.33
38351.0	11.628 1	277.1598 8	33.3502 2	.188600 3	.909555 2	11.0896488 7	.6705E-5 23	6.890980	45	08	1.46
38353.0	21.4069 8	270.5829 5	33.3480 1	.188705 2	.088894 1	11.0896782 4	.6749E-5 23	6.890005	38	08	1.32
38355.0	31.199 3	264.0080 5	33.3461 1	.188763 7	.268292 5	11.089713 2	.6578E-5 29	6.889519	30	08	1.00
38357.0	40.972 2	257.432 1	33.3441 2	.188863 7	.447765 3	11.089736 8	.7147E-5 66	6.888727	18	08	1.93
38359.0	50.75 2	250.852 2	33.3448 2	.18892 3	.62731 3	11.08976 1	.694E-5 11	6.888210	13	08	2.53
38361.0	60.51 2	244.277 3	33.3428 3	.18898 3	.80693 3	11.08980 2	.5782E-5 84	6.887741	10	08	.94
38363.0	70.27 1	237.698 2	33.3427 2	.18902 2	.98661 2	11.089817 9	.5678E-5 36	6.887334	14	08	.85
38365.0	80.031 4	231.123 1	33.3398 2	.189052 6	.166333 8	11.089838 3	.5555E-5 36	6.887044	18	08	1.43

T (MJD)	ω	Ω	i	e	M	n	n'/2	q	N	D	σ
38367.0	89.797 1	224.5459 5	33.3387 2	.189074 3	.346094 2	11.089861 1	.5312E-5 73	6.886887	21	08	1.36
38369.0	99.571 1	217.9677 8	33.3400 3	.189048 7	.525892 2	11.089880 1	.490E-5 11	6.887092	23	08	2.32
38371.0	109.3308 6	211.3904 4	33.3401 1	.189031 3	.705742 1	11.0898966 7	.3729E-5 84	6.887249	27	08	1.15
38373.0	119.1103 5	204.8104 4	33.3406 1	.188977 3	.885587 2	11.089905 1	.2154E-5 73	6.887740	31	08	1.02
38375.0	128.8688 6	198.2355 3	33.34106 9	.188923 4	.065480 2	11.0899126 6	.1555E-5 56	6.888123	35	08	.87
38377.0	138.6434 6	191.6577 3	33.34098 7	.188860 3	.245352 2	11.089913 1	.1286E-5 48	6.888691	32	08	.73
38379.0	148.4202 8	185.0784 4	33.3413 1	.188792 5	.425231 3	11.089919 1	.1080E-5 56	6.889274	33	08	1.18
38381.0	158.2006 6	178.5027 3	33.34246 9	.188723 3	.605113 2	11.0899214 7	.1044E-5 42	6.889809	37	08	1.00
38383.0	167.9964 7	171.9231 3	33.3437 1	.188644 4	.784967 2	11.0899311 8	.1883E-5 47	6.890532	38	08	1.16
38385.0	177.7901 3	165.3469 2	33.34551 8	.188563 3	.964825 1	11.0899383 7	.2867E-5 69	6.891157	39	08	.94
38387.0	187.5775 4	158.7731 3	33.3479 1	.188479 4	.144708 1	11.0899536 9	.3743E-5 44	6.891924	42	08	1.36
38389.0	197.3838 5	152.1965 2	33.35014 8	.188404 3	.324589 2	11.0899645 8	.4386E-5 68	6.892518	39	08	1.29
38391.0	207.1802 5	145.6194 2	33.35028 6	.188327 3	.504529 2	11.089980 1	.4602E-5 61	6.893160	41	08	.90
38393.0	217.9805 6	139.0449 2	33.35176 8	.188267 3	.684501 3	11.0900007 9	.4847E-5 51	6.893686	45	08	1.41

T (MJD)	ω	Ω	i	e	M	n	n'/2	q	N	D	σ
38306.0	182.742 4	297.52153 8	47.23127 5	.011380 1	.56519 1	12.197062 5	-.576E-6 34	7.880790	75	06	.67
38308.0	188.817 2	291.31687 4	47.23125 4	.011309 1	.958944 7	12.197070 2	-.837E-6 24	7.881211	02	06	.68
38310.0	194.868 2	285.11331 4	47.23106 3	.011257 1	.352781 6	12.197083 2	-.264E-6 21	7.881685	37	06	.75
38312.0	200.838 2	278.91009 4	47.23211 4	.011198 1	.746812 5	12.197083 2	.474E-6 25	7.882170	19	06	.69
38314.0	206.949 2	272.70891 5	47.23189 4	.011135 1	.140485 5	12.197088 2	.991E-6 21	7.882663	14	06	.61
38316.0	213.134 2	266.50684 8	47.23180 7	.011043 2	.533943 6	12.197072 3	.965E-6 30	7.883449	82	06	.72
38318.0	219.294 3	260.3030 1	47.2305 1	.010996 2	.927479 8	12.197054 5	.292E-6 35	7.883755	66	06	.73
38320.0	225.487 2	254.1003 1	47.23201 8	.010952 2	.320920 6	12.197052 2	-.382E-6 28	7.884185	65	06	.64
38322.0	231.717 2	247.8978 1	47.23240 6	.010896 1	.714250 6	12.197042 3	-.891E-6 33	7.884619	64	06	.52
38324.0	237.995 1	241.6961 1	47.23273 6	.010867 1	.107463 4	12.197039 2	-.719E-6 29	7.884768	65	06	.54
38326.0	244.214 2	235.4925 1	47.23016 8	.010829 1	.500813 6	12.197045 3	.234E-6 39	7.885153	57	06	.82
38328.0	250.525 2	229.2916 1	47.23119 7	.010810 1	.893934 6	12.197036 3	.1048E-5 40	7.885325	51	06	.71
38330.0	256.743 2	223.0895 1	47.23108 7	.010767 1	.287295 5	12.197036 4	.1209E-5 64	7.885536	41	06	.58
38332.0	263.008 2	216.8853 1	47.23303 6	.010763 1	.680550 5	12.197037 3	.847E-6 43	7.885685	38	06	.53
38334.0	269.343 3	210.6838 2	47.23306 6	.010756 2	.073606 7	12.197034 3	-.120E-6 42	7.885672	43	06	.81
38336.0	275.673 3	204.4817 1	47.23258 4	.010758 1	.466670 7	12.197033 3	-.575E-6 35	7.885635	59	06	.77
38338.0	281.979 2	198.27975 9	47.23125 4	.010762 1	.859797 7	12.197033 3	-.566E-6 37	7.885695	70	06	.70
38340.0	288.393 2	192.07792 7	47.23126 3	.010795 1	.252651 7	12.197030 2	-.59E-7 27	7.885383	85	06	.70
38342.0	294.628 2	185.87346 6	47.22964 4	.010803 1	.645976 6	12.197033 3	.1074E-5 31	7.885296	94	06	.82
38344.0	300.858 2	179.67286 5	47.23177 4	.010828 1	.039315 5	12.197047 2	.1568E-5 25	7.885134	99	06	.66
38346.0	307.136 2	173.47059 5	47.23183 4	.010863 1	.432531 4	12.197059 2	.1263E-5 27	7.884790	96	06	.67
38348.0	313.462 2	167.26831 5	47.22914 4	.010908 1	.825645 5	12.197066 3	.234E-6 26	7.884507	75	06	.58
38350.0	319.530 3	161.06421 7	47.23048 6	.010940 1	.219476 8	12.197072 4	-.764E-6 30	7.884177	60	06	.62
38352.0	325.788 2	154.86282 7	47.22941 5	.011009 1	.612775 7	12.197068 5	-.846E-6 53	7.883668	48	06	.60
38354.0	331.934 2	148.65981 8	47.22958 4	.011083 1	.006356 6	12.197071 5	-.377E-6 46	7.883098	49	06	.63
38356.0	338.082 5	142.4576 1	47.22904 6	.011131 1	.39993 1	12.197067 7	.484E-6 43	7.882699	53	06	1.00
38358.0	344.094 7	136.25495 8	47.23055 6	.011184 1	.79389 2	12.197078 9	.1285E-5 36	7.882290	53	06	.87
38360.0	350.121 9	130.05204 7	47.23049 7	.011246 1	.18783 3	12.197130 9	.1250E-5 36	7.881732	50	06	.84
38362.0	356.07 1	123.84680 6	47.23030 8	.011306 1	.58200 3	12.19717 1	.577E-6 45	7.881259	50	06	.75
38364.0	2.04 2	117.6435 1	47.2309 1	.011380 1	.97609 5	12.19716 2	-.800E-6 56	7.880710	38	06	.82
38366.0	7.98 1	111.4411 1	47.2308 1	.011436 1	.37026 3	12.19714 2	-.1694E-5 52	7.880302	33	06	.69

T (M.JD)	ω	Ω	i	e	M	n	n'/2	q	N	D	σ
38368.0	13.86 1	105.2412 2	47.2310 1	.011534 1	.76461 4	12.19706 2	-.822E-6 55	7.879537	31	06	.85
38370.0	19.695 8	99.0401 1	47.23314 8	.011584 1	.15906 2	12.19704 1	.198E-6 44	7.879058	34	06	.69
38372.0	25.526 8	92.8377 1	47.23307 8	.011670 1	.55351 2	12.19702 1	.973E-6 47	7.878422	29	06	.66
38374.0	31.37 1	86.6341 2	47.2328 1	.011716 1	.94794 3	12.19711 2	.789E-6 96	7.878050	22	06	.99
38376.0	37.081 9	80.4316 1	47.2341 1	.011765 1	.34276 2	12.19712 2	.29E-9 50	7.877597	25	06	.68
38378.0	42.829 9	74.2302 1	47.2339 1	.011818 1	.73748 3	12.19705 1	-.1229E-5 52	7.877185	33	06	.85
38380.0	48.458 8	68.0291 2	47.2345 1	.011877 1	.13249 2	12.197036 9	-.1510E-5 47	7.876711	44	06	.85
38382.0	54.124 8	61.8269 2	47.2346 1	.011917 1	.52741 2	12.197044 6	-.1029E-5 42	7.876407	44	06	.69
38384.0	59.744 8	55.6240 2	47.2347 1	.011955 1	.92244 2	12.197011 7	-.21E-7 38	7.876199	52	06	.69
38386.0	65.513 8	49.4213 2	47.2327 1	.011994 1	.31709 2	12.19703 1	.694E-6 42	7.875838	48	06	.60
38388.0	71.077 9	43.2194 2	47.2350 1	.012012 1	.71226 2	12.19704 1	.765E-6 36	7.875673	46	06	.59
38390.0	76.70 1	37.0172 2	47.2354 2	.012022 1	.10731 3	12.19703 1	.242E-6 41	7.875555	39	06	.84
38392.0	82.353 8	30 .8138 2	47.2334 1	.012023 1	.50229 2	12.19706 1	-.354E-6 40	7.875587	52	06	.82
38394.0	87.940 5	24.61133 8	47.23339 7	.012032 0	.89742 1	12.197051 6	-.989E-6 24	7.875557	61	06	.59

T (MJD)	ω	Ω	i	e	M	n	n'/2	q	N	D	σ
38313.0	75.59 5	234.8721 3	66.8136 5	.008252 7	.7169 1	13.8704323 1	.702E-6 31	7.257533	24	08	.91
38315.0	74.38 6	230.0226 6	66.8163 8	.008226 7	.4573 2	13.8704354 1	.734E-6 33	7.257804	21	08	.81
38317.0	72.8 1	225.173 1	66.815 2	.00825 1	.1986 3	13.8704394 3	.111E-5 9	7.257555	15	08	.64
38319.0	71.3 2	220.324 2	66.815 2	.00822 2	.9400 5	13.8704413 4	.824E-6 39	7.257853	12	08	.71
38321.0											
38333.0											
38335.0	60.44 1	181.5255 4	66.8139 1	.008246 3	.86638 3	13.8704636 2	.566E-6 43	7.257627	18	08	.94
38337.0	59.267 7	176.6782 3	66.8126 1	.008231 2	.60673 2	13.8704676 4	.146E-6 59	7.257797	39	08	.97
38339.0	57.969 7	171.8289 1	66.8145 1	.008198 2	.34740 2	13.8704681 2	.377E-6 35	7.257956	55	08	1.28
38341.0	56.368 8	166.9785 1	66.8130 1	.008215 2	.08892 2	13.8704698 1	.539E-6 24	7.257818	66	08	1.52
38343.0	55.259 7	162.1299 1	66.8146 1	.008207 2	.82909 2	13.8704720 1	.588E-6 23	7.257873	67	08	1.44
38345.0	53.858 9	157.2791 1	66.8133 1	.008208 3	.57007 3	13.8704744 1	.619E-6 30	7.257935	53	08	1.54
38347.0	52.37 2	152.4303 2	66.8137 3	.008209 5	.31127 5	13.8704762 2	.499E-6 37	7.257921	31	08	1.59
38349.0											
38357.0											
38359.0	44.28 1	123.3280 1	66.8116 1	.008204 2	.75635 4	13.8704855 1	.360E-6 34	7.257963	22	08	1.00
38361.0	42.91 2	118.4778 1	66.8124 1	.008200 2	.49727 4	13.8704872 1	.394E-6 28	7.257921	22	08	1.06
38363.0	41.63 2	113.6293 1	66.8149 1	.008166 2	.23793 4	13.8704892 2	.458E-6 60	7.258137	20	08	1.03
38365.0	40.10 3	108.7799 1	66.8155 1	.008192 2	.97932 7	13.8704910 2	.381E-6 55	7.258024	11	08	.81
38367.0	39.00 2	103.9292 1	66.8147 1	.008153 1	.71945 5	13.8704930 1	.584E-6 32	7.258262	14	08	.63
38369.0	37.40 3	99.084 1	66.813 1	.00808 2	.46103 9	13.8704959 2	.28E-6 10	7.258785	08	08	.61
38371.0	36.00 3	94.2344 9	66.8125 9	.00809 2	.20204 8	13.8704956 1	.324E-6 47	7.258662	10	08	.57
38373.0	34.75 6	89.382 2	66.813 2	.00810 3	.9426 2	13.8704974 2	.434E-6 63	7.258648	14	08	.83
38375.0	33.5 1	84.526 4	66.821 4	.00819 6	.6832 3	13.8704998 2	.416E-6 47	7.257953	14	08	.97
38377.0	32.12 7	79.680 3	66.819 3	.00815 3	.4243 2	13.8705058 2	.385E-6 39	7.258325	14	08	.90
38379.0	30.81 5	74.829 4	66.820 4	.00817 2	.1651 1	13.8705053 2	.316E-6 39	7.258166	16	08	1.02
38381.0	29.36 5	69.9812 7	66.8174 9	.00814 1	.9062 1	13.8705080 1	.219E-6 34	7.258298	17	08	.94
38383.0	27.86 4	65.1317 3	66.8155 5	.008123 9	.6475 1	13.8705078 1	.277E-6 37	7.258552	20	08	.84
38385.0	26.41 4	60.2813 3	66.8151 4	.008120 8	.3887 1	13.8705086 1	.221E-6 68	7.258504	20	08	.80
38387.0	24.93 4	55.4317 3	66.8160 4	.008115 7	.12997 9	13.8705099 5	.37E-6 15	7.258517	16	08	.73
38389.0	23.59 1	50.5836 3	66.8163 3	.008113 2	.87084 3	13.8705096 2	-.33E-7 61	7.258566	15	08	.83

T (MJD)	ω	Ω	i	e	M	n	n'/2	q	N	D	σ
38308.0	78.59 2	247.4134 1	66.8159 2	.008286 2	.33377 5	13.8690976 2	.342E-6 70	7.257854	11	10	.85
38310.0	77.35 7	242.5653 2	66.8171 3	.00832 1	.0715 2	13.8690997 3	.189E-6 32	7.257515	12	10	.62
38312.0	75.98 8	237.7156 3	66.8132 4	.00829 1	.8097 2	13.8691007 2	.172E-6 39	7.257762	14	10	.86
38314.0	74.53 8	232.8673 4	66.8140 4	.008292 9	.5480 2	13.8691014 1	.279E-6 21	7.257689	19	10	.98
38316.0	73.0 1	228.0170 6	66.8129 7	.00828 1	.2866 3	13.8691029 2	.354E-6 78	7.257866	13	10	.71
38318.0	71.7 1	223.1684 7	66.8137 7	.008278 9	.0247 3	13.8691037 1	.436E-6 35	7.257919	16	10	.78
38320.0	70.6 6	218.325 6	66.820 5	.00829 4	.762 2	13.8691051 5	.360E-6 40	7.257670	14	10	.67
38322.0											
38339.0											
38341.0	56.116 6	167.41248 7	66.81460 9	.008269 2	.01308 2	13.8691258 4	.423E-6 23	7.257886	37	10	.84
38343.0	54.697 6	162.56387 9	66.81491 9	.008266 3	.75141 2	13.8691270 3	.497E-6 19	7.257935	38	10	.88
38345.0	53.50 1	157.7144 2	66.8123 2	.008254 7	.48912 3	13.8691283 5	.397E-6 24	7.258033	31	10	1.39
38347.0	52.33 1	152.8656 3	66.8112 4	.008233 7	.22674 3	13.8691298 6	.334E-6 43	7.258248	22	10	1.13
38349.0	50.85 3	148.0173 3	66.8094 6	.008232 7	.96530 7	13.8691294 8	.387E-6 66	7.258173	15	10	1.18
38351.0	49.61 3	143.1674 2	66.8106 7	.008246 6	.70311 8	13.8691324 5	.57E-6 11	7.258056	15	10	1.11
38353.0	48.21 1	138.3183 1	66.8115 2	.008246 2	.44143 4	13.8691340 3	.86E-7 74	7.258040	15	10	.96
38355.0											
38366.0											
38368.0	37.85 4	101.9544 4	66.8139 4	.00823 2	.4783 1	13.869140 1	.185E-6 25	7.258134	9	12	.69
38370.0	36.7 1	97.106 3	66.816 2	.00835 8	.2161 3	13.869141 2	.218E-6 28	7.257269	11	12	.78
38372.0	35.2 1	92.257 3	66.816 3	.00826 1	.9547 4	13.869143 3	.131E-6 34	7.257927	11	12	.87
38374.0	34.0 1	87.407 3	66.816 3	.0084 1	.6924 4	13.869140 3	.138E-6 25	7.257153	12	12	1.02
38376.0	32.6 1	82.559 3	66.818 3	.00834 8	.4307 4	13.869141 3	.159E-6 25	7.257395	13	12	.94
38378.0	31.2 1	77.708 3	66.817 3	.00823 5	.1690 4	13.869145 2	.151E-6 18	7.258284	17	12	.82
38380.0	29.7 1	72.858 2	66.824 3	.00827 4	.9074 3	13.869145 1	.204E-6 22	7.257864	19	12	1.00
38382.0	28.3 1	68.010 2	66.824 2	.00821 4	.6459 4	13.869150 1	.239E-6 22	7.258268	19	12	1.05
38384.0	26.80 9	63.1655 7	66.818 1	.00816 2	.3844 3	13.8691515 5	.292E-6 21	7.258756	19	12	1.02
38386.0	25.46 2	58.3154 3	66.8150 4	.008154 4	.12254 5	13.8691489 2	.274E-6 10	7.258725	23	12	.74
38388.0	24.00 1	53.4670 2	66.8174 3	.008175 2	.86104 3	13.8691499 2	.266E-6 13	7.258592	22	12	.71
38390.0	22.661 9	48.6190 3	66.8177 3	.008169 1	.59918 3	13.8691509 1	.196E-6 23	7.258570	19	12	.58

T (MJD)	ω	Ω	i	e	M	n	n'/2	q	N	D	σ
38304.0	56.479 4	85.6781 1	95.8537 1	.012754 1	.53467 1	8.676662 5	.92E-7 39	9.877329	56	06	.63
38306.0	54.627 4	86.0987 1	95.8545 1	.012732 1	.88770 1	8.676654 6	-.30E-7 45	9.877493	63	06	.62
38308.0	52.744 3	86.5201 0	95.8558 1	.012720 0	.240823 9	8.676661 5	-.9E-8 34	9.877649	66	06	.54
38310.0	50.910 3	86.9410 0	95.8563 1	.012706 0	.593801 9	8.676658 5	.73E-7 31	9.877819	69	06	.51
38312.0	49.048 3	87.3617 0	95.8566 1	.012682 0	.946857 8	8.676665 4	.14E-7 29	9.878006	72	06	.46
38314.0	47.165 4	87.7825 0	95.8559 1	.012668 1	.29997 1	8.676646 6	-.23E-7 25	9.878172	76	06	.47
38316.0	45.322 4	88.2030 0	95.8562 1	.012652 1	.652982 9	8.676660 6	-.186E-6 27	9.878334	76	06	.52
38318.0	43.445 4	88.6242 0	95.8556 1	.012633 1	.00609 1	8.676704 8	-.124E-6 26	9.878478	67	06	.47
38320.0	41.566 4	89.0450 0	95.8573 1	.012610 1	.35921 1	8.676671 6	.179E-6 27	9.878738	68	06	.50
38322.0	39.687 5	89.4661 0	95.8582 1	.012594 1	.71231 1	8.676672 8	.138E-6 30	9.878926	74	06	.48
38324.0	37.819 3	89.8873 0	95.8592 1	.012573 1	.065382 8	8.676668 5	.8E-8 31	9.879150	84	06	.47
38326.0	35.932 3	90.3086 0	95.8593 1	.012552 0	.418516 9	8.676672 5	-.195E-6 23	9.879311	64	06	.50
38328.0	34.046 3	90.7292 0	95.8590 0	.012526 0	.771640 8	8.676662 5	-.109E-6 14	9.879603	26	06	.46
38330.0											
38332.0	30.271 6	91.5708 0	95.8578 0	.012485 0	.47791 2	8.676649 7	-.162E-6 31	9.879984	03	04	.41
38333.0	29.313 6	91.7814 0	95.8578 0	.012469 0	.15452 2	8.676645 7	.215E-6 33	9.880182	29	04	.41
38334.0	28.36 1	91.9921 1	95.8588 1	.012459 1	.83112 4	8.67669 2	-.32E-7 55	9.880224	39	04	.52
38335.0	27.40 1	92.2029 0	95.8597 1	.012448 1	.50772 3	8.67664 2	-.234E-6 71	9.880390	26	04	.58
38336.0	26.47 1	92.4136 0	95.8609 1	.012435 1	.18425 3	8.67663 2	.166E-6 89	9.880523	09	04	.53
38337.0											
38338.0	24.592 9	92.8351 1	95.8613 1	.012411 1	.53735 3	8.67665 2	.182E-6 50	9.880753	42	04	.52
38339.0	23.597 9	93.0457 0	95.8616 1	.012394 1	.21405 3	8.67665 2	.278E-6 57	9.880924	12	04	.44
38340.0	22.698 8	93.2566 0	95.8610 1	.012384 1	.89049 2	8.67664 1	.83E-7 43	9.881033	35	04	.43
38341.0	21.716 7	93.4667 0	95.8609 1	.012373 1	.56716 2	8.67665	.184E-6 49	9.881124	46	04	.43
38342.0	20.769 6	93.6771 0	95.8608 0	.012359 0	.24375 2	8.676657 7	-.50E-7 35	9.881258	52	04	.42
38343.0	19.819 5	93.8876 0	95.8610 0	.012347 0	.92033 1	8.676672 7	-.407E-6 33	9.881365	04	04	.42
38344.0	18.867 5	94.0982 0	95.8602 0	.012337 0	.59692 1	8.676672 8	-.80E-7 40	9.881483	05	04	.46
38345.0											
38346.0	16.932 5	94.5193 0	95.8613 0	.012309 0	.95018 1	8.676669 7	.139E-6 30	9.881759	05	04	.40
38347.0	15.979 6	94.7300 0	95.8613 0	.012293 0	.62679 2	8.676670 8	.320E-6 40	9.881910	59	04	.42
38348.0	14.997 6	94.9410 0	95.8615 0	.012284 0	.30346 2	8.676669 6	.273E-6 34	9.882006	54	04	.41

T (MJD)	ω	Ω	i	e	M	n	n′/2	q	N	D	σ
38349.0	14.053 6	95.1521 0	95.8621 0	.012267 0	.98003 2	8.676647 7	.142E-6 41	9.882192	81	04	.40
38350.0	13.054 7	95.3626 0	95.8628 0	.012258 0	.65674 2	8.67665 1	.425E-6 44	9.882281	35	04	.42
38351.0	12.101 6	95.5735 0	95.8637 0	.012243 0	.33333 2	8.676647 8	.32E-7 44	9.882409	87	04	.43
38352.0	11.141 6	95.7842 0	95.8637 0	.012228 0	.00995 2	8.676655 8	-.213E-6 48	9.882559	97	04	.44
38353.0	10.182 6	95.9949 0	95.8640 0	.012215 0	.68656 2	8.676653 9	.94E-7 65	9.882714	68	04	.44
38354.0	09.207 6	96.2057 0	95.8637 1	.012203 0	.36321 2	8.676678 7	.111E-6 54	9.882820	91	04	.47
38355.0	08.233 7	96.4163 0	95.8646 1	.012192 1	.03986 2	8.67663 1	-.488E-6 78	9.882950	26	04	.46
38356.0	07.259 7	96.6267 0	95.8642 1	.012175 1	.71651 2	8.67663 1	-.134E-6 88	9.883109	96	04	.49
38357.0	06.296 9	96.8373 0	95.8635 1	.012165 1	.39313 3	8.67662 2	.40E-6 18	9.883226	84	04	.48
38358.0	05.34 2	97.0480 1	95.8632 1	.012150 1	.06973 4	8.67660 3	-.16E-6 14	9.883390	31	04	.46
38359.0	04.35 1	97.2585 1	95.8636 1	.012135 1	.74645 3	8.67665 3	.33E-6 19	9.883501	36	04	.44
38360.0											
38361.0	02.392 7	97.6800 0	95.8638 1	.012111 1	.09977 2	8.6766619 1	.1E-8 59	9.883768	60	06	.44
38363.0	00.434 7	98.1021 1	95.8643 1	.012084 1	.45311 2	8.6766608 2	-.276E-6 83	9.883998	56	06	.43
38365.0											
38367.0	357.2 4	98.946 2	95.867 3	.01208 3	.158 1	8.6766564 9	-.106E-5 49	9.884087	18	06	3.70
38369.0	355.5 2	99.3671 7	95.865 1	.01210 2	.5104 7	8.6766853 6	.198E-4 4	9.883897	24	06	2.40
38371.0	352.6 6	99.788 1	95.866 3	.01198 3	.867 2	8.676764 1	.192E-4 6	9.884955	24	06	5.11
38373.0	351.9 1	100.2092 3	95.8654 5	.011961 7	.2169 3	8.6768217 2	.963E-5 12	9.885119	26	06	1.34
38375.0	350.08 7	100.6309 2	95.8661 4	.011944 5	.5701 2	8.6768579 2	.817E-5 10	9.885266	22	06	.76
38377.0	347.7 2	101.0529 5	95.8671 9	.01188 1	.9249 4	8.6768805 4	.398E-5 26	9.885863	25	06	2.00
38379.0	345.91 7	101.4746 1	95.8680 3	.011866 3	.2783 2	8.6768873 1	.74E-7 70	9.886021	23	06	.54
38381.0	344.4 2	101.8962 3	95.8682 6	.011859 7	.6310 5	8.6768905 2	.156E-5 14	9.886102	31	06	1.55
38383.0	342.2 1	102.3177 3	95.8676 6	.011818 7	.9854 4	8.6769008 2	.331E-5 13	9.886488	35	06	1.44
38385.0	340.12 8	102.7387 2	95.8667 3	.011781 3	.3395 2	8.6769088 2	.772E-6 88	9.886853	36	06	.89
38387.0	338.15 6	103.1601 2	95.8663 3	.011759 2	.6933 2	8.6769104 1	.407E-6 63	9.887056	30	06	.64
38389.0	336.05 5	103.5819 1	95.8666 2	.011729 1	.0476 2	8.6769110 1	.154E-6 50	9.887364	28	06	.45
38391.0	334.04 7	104.0040 2	95.8676 3	.011704 2	.4016 2	8.6769114 1	.69E-7 57	9.887597	22	06	.42
38393.0	331.98 7	104.4257 2	95.8684 3	.011678 2	.7557 2	8.6769115 1	-.34E-7 52	9.887872	18	06	.38

T (MJD)	ω	Ω	i	σ	M	n	n'/2	q	N	D	σ
38307.0	342.127 2	84.0891 2	44.8050 2	.242276 3	.656182 4	9.126149 1	-.853E-6 63	7.328686	19	08	.95
38309.0	346.099 1	80.3701 2	44.8048 2	.242306 2	.908451 3	9.126137 1	-.1434E-5 44	7.328424	24	08	1.13
38311.0	350.0757 7	76.6530 2	44.8045 1	.242320 1	.160700 1	9.1261333 5	-.688E-6 22	7.328274	38	08	1.09
38313.0	354.0488 6	72.9350 1	44.8043 1	.242348 1	.412951 1	9.1261292 4	-.52E-7 37	7.328013	53	08	1.06
38315.0	358.0202 5	69.2164 1	44.8034 1	.242376 1	.665209 1	9.1261305 4	.120E-6 21	7.327747	61	08	1.07
38317.0	1.9919 5	65.4970 1	44.8045 1	.242407 1	.917471 1	9.1261288 4	.337E-6 21	7.327445	65	08	1.28
38319.0	5.9670 5	61.7791 1	44.80444 9	.242467 1	.169732 1	9.1261306 4	.417E-6 21	7.326878	61	08	1.15
38321.0	9.9390 7	58.0611 2	44.8055 1	.242522 1	.421993 2	9.1261334 8	.116E-6 32	7.326314	58	08	1.62
38323.0	13.9151 7	54.3445 2	44.80599 8	.242562 1	.674240 1	9.1261331 6	-.323E-6 31	7.325925	57	08	1.47
38325.0	17.8872 7	50.6262 2	44.80602 8	.242594 1	.926497 2	9.1261274 5	-.773E-6 25	7.325687	48	08	1.30
38327.0	21.8615 6	46.9079 2	44.80454 6	.242616 1	.178746 1	9.1261224 5	-.780E-6 26	7.325455	42	08	.92
38329.0	25.8292 8	43.1904 4	44.80445 7	.242649 1	.431009 2	9.1261202 7	-.540E-6 25	7.325103	36	08	.89
38331.0	29.7906 8	39.4714 4	44.8049 1	.242703 1	.683280 2	9.1261190 7	-.181E-6 40	7.324559	29	08	.82
38333.0	33.7573 8	35.7531 3	44.8050 1	.242761 1	.935536 2	9.1261172 6	-.375E-6 29	7.324048	29	08	1.03
38335.0	37.727 1	32.0361 4	44.8052 2	.242814 2	.187776 2	9.1261155 7	-.237E-6 42	7.323482	29	08	1.23
38337.0	41.703 1	28.3166 2	44.8046 2	.242846 1	.440006 2	9.1261160 6	.169E-6 41	7.323219	24	08	.82
38339.0	45.6685 6	24.5972 1	44.8043 1	.242883 0	.692255 1	9.1261175 3	.329E-6 18	7.322833	31	08	.54
38341.0	49.6403 7	20.8791 2	44.8029 1	.242900 0	.944505 1	9.1261190 4	.146E-6 18	7.322713	36	08	.59
38343.0	53.6028 6	17.1601 2	44.8027 1	.242919 1	.196776 1	9.1261212 5	-.195E-6 29	7.322451	37	08	.59
38345.0	57.5635 4	13.4416 1	44.80288 7	.242947 0	.449048 1	9.1261191 3	-.279E-6 13	7.322221	39	08	.48
38347.0											
38349.0	65.4919 4	6.0048 2	44.8018 1	.243042 0	.953562 1	9.1261153 3	-.403E-6 17	7.321351	48	08	.65
38351.0	69.4622 3	2.2852 1	44.80055 8	.243064 0	.205803 1	9.1261139 4	-.451E-6 23	7.321032	46	08	.48
38353.0	73.4318 3	358.5648 1	44.80032 9	.243072 0	.458043 1	9.1261130 3	-.207E-6 17	7.321021	48	08	.48
38355.0	77.3991 3	354.8449 1	44.80063 8	.243071 0	.710286 1	9.1261122 2	-.145E-6 29	7.321006	41	08	.44
38357.0	81.3623 3	351.1260 2	44.8004 2	.243068 1	.962541 1	9.1261146 3	.490E-6 19	7.321004	36	08	.66
38359.0	85.3202 3	347.4073 1	44.7997 1	.243084 0	.214813 1	9.1261177 3	.651E-6 23	7.320885	42	08	.58
38361.0	89.2803 5	343.6871 1	44.7986 1	.243091 1	.467089 1	9.1261166 6	.176E-6 42	7.320848	38	08	.55
38363.0	93.2479 4	339.96664 8	44.7981 2	.243110 1	.719346 1	9.1261163 4	.421E-6 30	7.320634	53	08	.74
38365.0	97.2173 3	336.24606 6	44.7984 1	.243116 0	.971596 1	9.1261142 4	-.830E-6 22	7.320664	54	08	.67
38367.0	101.1862 3	332.52606 7	44.7988 1	.243096 0	.223836 1	9.1261106 4	-.860E-6 20	7.320744	54	08	.57

T (MJD)	ω	Ω	i	e	M	n	n'/2	q	N	D	σ
38369.0	105.1524 5	328.8065 1	44.7986 2	.243070 1	.476076 1	9.1261097 5	-.311E-6 30	7.321062	59	08	1.00
38371.0	109.1157 4	325.0874 2	44.7986 2	.243042 1	.728321 1	9.1261098 4	.290E-6 34	7.321300	55	08	.82
38373.0	113.0769 4	321.3692 2	44.7992 2	.243029 1	.980572 1	9.1261126 4	.126E-5 26	7.321424	54	08	.83
38375.0	117.0406 7	317.6483 2	44.7991 1	.243020 3	.232839 1	9.1261180 3	.1406E-5 21	7.321469	50	08	.57
38377.0	121.015 1	313.9279 4	44.7994 2	.243018 5	.485094 1	9.1261240 6	.877E-6 36	7.321519	43	08	.89
38379.0	124.9822 6	310.2095 3	44.8002 2	.242994 2	.737356 1	9.1261259 4	-.460E-6 40	7.321717	45	08	.89
38381.0	128.9508 7	306.4893 4	44.8003 2	.242952 1	.989617 2	9.1261166 5	-.1495E-5 34	7.322115	57	08	1.29
38383.0	132.9217 5	302.7706 3	44.8003 2	.242914 1	.241857 1	9.1261109 4	-.1602E-5 29	7.322516	64	08	1.07
38385.0	136.8899 3	299.0537 2	44.80016 9	.242866 0	.494094 1	9.1261043 4	-.982E-6 29	7.323011	57	08	.67
38387.0	140.8541 7	295.3336 3	44.8001 2	.242832 1	.746336 2	9.1261025 7	.431E-6 46	7.323353	57	08	1.17
38389.0	144.8256 4	291.6149 2	44.8014 1	.242801 0	.998569 1	9.1261102 4	.1599E-5 36	7.323588	44	08	.74
38391.0	148.7996 6	287.8949 3	44.8020 1	.242793 1	.250801 1	9.1261187 5	.1888E-5 31	7.323691	37	08	.78
38393.0	152.7739 8	284.1762 4	44.8023 2	.242746 1	.503051 2	9.1261252 7	.1232E-5 52	7.324126	50	08	1.61

T (MJD)	ω	Ω	i	e	M	n	n'/2	q	N	D	σ
38275.5	42.7 1	25.8031 5	50.1436 6	.007546 4	.5223 3	13.34507 7	-.21E-7 7	7.450935	13	05	.59
38278.0											
38280.0	54.787 7	09.5645 1	50.1449 0	.007680 1	.57768 2	13.34482 2	.176E-6 5	7.450046	60	06	.88
38282.0	60.151 5	02.3472 1	50.1454 0	.007714 7	.26903 1	13.344845 7	.185E-6 3	7.449758	73	06	.83
38284.0	65.782 3	355.1284 0	50.1454 0	.007742 1	.959629 9	13.344844 5	-.120E-6 3	7.449554	86	06	.83
38286.0	70.967 3	347.9106 1	50.1450 0	.007783 1	.651458 8	13.344821 5	.67E-7 31	7.449283	89	06	.96
38288.0	76.278 3	340.6932 0	50.1449 0	.007804 1	.342939 7	13.344809 4	.34E-7 27	7.449100	13	06	1.20
38290.0	81.868 3	333.4730 1	50.1436 0	.007818 1	.033658 7	13.344798 5	.12E-7 34	7.449090	94	06	1.17
38292.0	87.155 2	326.2568 0	50.1449 0	.007816 1	.725209 7	13.344787 4	.85E-7 32	7.449104	81	06	1.11
38294.0	92.454 3	319.0380 1	50.1420 0	.007830 1	.416741 8	13.344793 5	-.144E-6 33	7.448908	57	06	1.07
38296.0	97.659 4	311.8211 1	50.1428 0	.007815 1	.108514 9	13.344808 6	-.82E-7 34	7.449071	56	06	.94
38298.0	103.061 4	304.6033 1	50.1434 0	.007806 1	.799762 9	13.344819 6	.256E-6 41	7.449179	46	06	.69
38300.0	108.441 8	297.3849 1	50.1436 1	.007778 1	.49105 2	13.34477 1	-.92E-7 31	7.449359	46	06	.73
38302.0	113.844 8	290.1682 1	50.1429 1	.007739 1	.18228 2	13.34484 1	.77E-7 41	7.449672	42	06	.85
38304.0	119.196 9	282.9480 1	50.1403 1	.007700 1	.87367 3	13.34488 1	.326E-6 41	7.449958	44	06	.98
38306.0	124.564 8	275.7297 0	50.1423 1	.007660 1	.56498 2	13.344869 9	-.165E-6 29	7.450164	52	06	.85
38308.0	129.990 9	268.5103 1	50.1418 1	.007610 1	.25615 3	13.34490 1	.117E-6 35	7.450514	51	06	.86
38310.0	135.59 1	261.2921 2	50.1424 1	.007537 2	.94685 3	13.34491 1	.64E-7 35	7.451044	53	06	.71
38312.0	141.11 2	254.0740 1	50.1413 1	.007481 1	.63774 4	13.34490 2	.167E-6 28	7.451497	50	06	.70
38314.0	146.65 2	246.8559 1	50.1416 1	.007428 4	.32861 5	13.34492 2	.294E-6 41	7.451855	46	06	.72
38316.0	152.23 1	239.6378 1	50.1422 1	.007352 1	.01936 3	13.34494 1	.214E-6 69	7.452451	51	06	.94
38318.0	157.811 7	232.4189 1	50.1422 1	.007304 1	.71010 2	13.34495 2	.26E-7 71	7.452861	48	06	.93
38320.0	163.542 7	225.2010 1	50.1412 1	.007209 0	.40042 2	13.344985 9	.226E-6 46	7.453581	50	06	.87
38322.0	169.321 8	217.9833 1	50.1415 1	.007133 0	.09062 2	13.344984 7	.175E-6 21	7.454097	75	06	1.08
38324.0	175.223 9	210.7659 1	50.1411 1	.007050 1	.78047 3	13.34494 1	-.133E-6 63	7.454757	55	06	.99
38326.0	181.153 9	203.5458 1	50.1402 1	.006991 1	.47025 3	13.34496 1	.290E-6 62	7.455171	55	06	1.13
38328.0	187.07 1	196.3300 2	50.1425 1	.006908 1	.16008 3	13.34491 2	-.33E-7 67	7.455819	37	06	.96
38330.0	193.21 1	189.1127 1	50.1425 1	.006827 1	.84927 3	13.34496 1	.160E-6 43	7.456350	36	06	.76
38332.0	199.34 2	181.8949 2	50.1426 1	.006728 1	.53850 4	13.34499 2	-.144E-6 34	7.457169	30	06	.62
38334.0	205.45 2	174.6763 2	50.1425 1	.006675 1	.22777 4	13.34494 2	.111E-6 46	7.457551	40	06	.81
38336.0	211.68 2	167.4588 1	50.1397 1	.006593 1	.91674 4	13.34493 2	.187E-6 34	7.458163	40	06	.72

T (MJD)	ω	Ω	i	e	M	n	n'/2	q	N	D	σ
38338.0	217.94 1	160.2401 1	50.1405 1	.006534 1	.60559 3	13.34495 2	-.174E-6 49	7.458595	40	06	.86
38340.0	224.50 1	153.0217 1	50.1409 1	.006466 1	.29363 4	13.34495 2	-.479E-6 65	7.459130	24	06	.62
38342.0	231.00 2	145.8043 1	50.1431 1	.006419 1	.98181 4	13.34486 2	.131E-6 43	7.459507	27	06	.81
38344.0	237.27 1	138.5836 1	50.1398 1	.006380 1	.67065 4	13.34486 2	.121E-6 50	7.459893	28	06	.68
38346.0	243.735 9	131.3647 1	50.1406 1	.006344 1	.35894 3	13.34484 1	-.97E-7 36	7.460038	37	06	.68
38348.0	250.373 7	124.1465 1	50.1410 1	.006306 1	.04677 2	13.34482 1	-.37E-7 40	7.460331	38	06	.75
38350.0	257.283 5	116.9300 1	50.1404 1	.006275 1	.73383 1	13.344818 8	.3E-8 36	7.460568	41	06	.71
38352.0	263.927 6	109.7117 1	50.1412 1	.006282 1	.42164 2	13.34482 1	.132E-6 50	7.460581	37	06	.79
38354.0	270.621 6	102.4950 2	50.1421 1	.006265 2	.10928 2	13.344819 9	-.28E-7 51	7.460718	44	06	1.09
38356.0	277.062 8	95.2749 2	50.1420 1	.006269 3	.79764 2	13.34484 2	.22E-6 11	7.460584	30	06	.94
38358.0	283.808 4	88.0596 1	50.1423 0	.006274 2	.48516 1	13.344832 6	.146E-6 48	7.460601	33	06	.70
38360.0	290.465 6	80.8411 2	50.1439 1	.006327 3	.17293 2	13.34483 1	.185E-6 91	7.460183	24	06	.80
38362.0	297.026 6	73.6237 2	50.1434 1	.006353 2	.86096 2	13.344833 7	.314E-6 59	7.460010	24	06	.68
38364.0	303.63 1	66.4064 9	50.1450 4	.006388 7	.54886 4	13.34481 2	-.326E-6 82	7.459788	16	06	.72
38366.0	310.0 1	59.188 2	50.142 1	.00645 2	.2373 3	13.3450 2	.9E-7 10	7.459224	12	06	.94
38368.0	316.397 6	51.9684 3	50.1435 1	.006487 4	.92591 2	13.34487 2	.30E-6 17	7.458988	21	06	.62
38370.0	322.758 4	44.7533 1	50.1460 1	.006565 2	.61449 1	13.344929 7	-.132E-6 62	7.458463	53	06	.80
38372.0	329.180 4	37.5352 1	50.1464 1	.006637 1	.30297 1	13.344939 9	-.22E-7 38	7.457843	57	06	.76
38374.0	335.338 4	30.3175 1	50.1458 1	.006715 1	.99207 1	13.344958 5	-.15E-7 36	7.457237	64	06	.82
38376.0	341.415 3	23.1001 1	50.1451 1	.006786 1	.681447 8	13.344965 5	-.84E-7 34	7.456751	67	06	.80
38378.0	347.661 3	15.8793 1	50.1439 1	.006820 1	.370341 7	13.344967 4	.69E-7 31	7.456542	74	06	.82
38380.0	353.594 2	08.6624 1	50.1430 1	.006923 1	.060129 6	13.344990 3	.40E-7 31	7.455668	93	06	.96
38382.0	359.685 2	01.4435 0	50.1434 0	.006990 1	.749458 6	13.344993 4	.1E-8 33	7.455146	03	06	1.04
38384.0	05.523 2	354.2270 0	50.1453 0	.007071 1	.439497 7	13.344992 4	-.9E-8 39	7.454580	16	06	1.03
38386.0	11.511 6	347.0101 1	50.1444 1	.007170 1	.12913 2	13.344991 7	-.76E-7 25	7.453840	89	06	1.03
38388.0	17.281 4	339.7928 1	50.1447 1	.007251 1	.81936 1	13.344964 5	.320E-6 31	7.453177	55	06	.84
38390.0	22.94 1	332.5736 2	50.1429 3	.007345 4	.50990 3	13.34485 3	.215E-6 45	7.452546	34	06	.80
38392.0	28.648 6	325.3523 2	50.1434 2	.007389 2	.20030 2	13.34491 2	-.99E-7 57	7.452212	26	06	.57
38394.0	34.128 5	318.1352 2	50.1452 1	.007446 2	.89134 2	13.344970 6	.190E-6 33	7.451807	17	06	.44

T (MJD)	ω	Ω	i	e	M	n	n′/2	q	N	D	σ
38312.0	181.206 1	194.6817 4	47.5114 2	.284270 2	.339194 2	7.7808966 2	-.263E-6 24	7.699240	77	10	2.11
38314.0	183.632 2	192.1231 5	47.5118 3	.284260 4	.900995 3	7.7808956 2	-.148E-6 26	7.699385	65	10	2.11
38316.0	186.052 2	189.5660 5	47.5143 3	.284222 7	.462788 3	7.7808943 4	.43E-7 31	7.699751	59	10	2.23
38318.0	188.522 2	187.0019 6	47.5201 4	.284316 6	.024518 3	7.7808946 2	.24E-7 24	7.698808	51	10	1.86
38320.0	190.951 2	184.4442 5	47.5209 4	.284275 4	.586287 3	7.7808949 2	.46E-7 25	7.699175	43	10	1.70
38322.0	193.377 2	181.8874 5	47.5189 4	.284245 3	.148068 3	7.7808951 4	.7E-8 42	7.699530	36	10	1.96
38324.0	195.804 2	179.3282 5	47.5178 4	.284212 4	.709860 3	7.7808956 2	.145E-6 23	7.699878	42	10	1.85
38326.0	198.222 2	176.7699 4	47.5189 4	.284175 7	.271668 3	7.7808959 3	.156E-6 43	7.700254	35	10	1.70
38328.0	200.61 7	174.218 2	47.513 3	.2841 2	.83351 8	7.780898 1	.220E-6 86	7.701317	26	10	1.71
38330.0	203.22 6	171.660 1	47.514 2	.2845 2	.39507 8	7.780903 1	.99E-6 17	7.696610	16	10	1.05
38332.0	205.59 5	169.102 2	47.515 2	.2844 1	.95693 7	7.780899 2	-.329E-6 68	7.697853	13	10	.93
38334.0											
38345.0											
38347.0	223.714 4	149.9161 3	47.5114 5	.284064 8	.670426 5	7.7809005 2	-.46E-7 32	7.701453	12	10	.87
38349.0											
38387.0											
38389.0	274.705 3	96.1907 7	47.5226 4	.28424 4	.46810 2	7.780896 6	.406E-6 45	7.699505	15	12	.42

T (MJD)	ω	Ω	i	e	M	n	n'/2	q	N	D	σ
38310.0	358.6617 5	23.0658 2	42.7814 1	.401326 1	.105342 1	6.3913800 3	.122E-6 19	7.342360	74	08	1.57
38312.0	1.0934 4	20.9559 2	42.78096 8	.401318 1	.888118 1	6.3913798 3	-.326E-6 22	7.342504	84	08	1.53
38314.0	3.5240 4	18.8460 2	42.78093 7	.401352 1	.670895 1	6.3913770 2	-.339E-6 17	7.342074	93	08	1.44
38316.0	5.9591 4	16.7369 2	42.78179 7	.401400 1	.453657 1	6.3913770 2	.65E-7 18	7.341490	95	08	1.55
38318.0	8.3980 3	14.6276 1	42.78232 6	.401453 0	.236402 0	6.3913776 2	.285E-6 16	7.340810	85	08	1.17
38320.0	10.8399 4	12.5188 1	42.78154 6	.401482 0	.019137 0	6.3913796 2	.152E-6 18	7.340493	83	08	1.20
38322.0	13.2798 4	10.4099 2	42.78000 8	.401476 1	.801882 1	6.3913794 2	-.136E-6 18	7.340566	86	08	1.44
38324.0	15.7164 4	8.3004 2	42.77826 7	.401459 1	.584638 1	6.3913805 2	-.186E-6 15	7.340769	75	08	1.12
38326.0	18.1466 6	6.1896 3	42.77775 9	.401443 1	.367417 1	6.3913808 3	.106E-6 22	7.340944	71	08	1.43
38328.0	20.5776 6	4.0795 2	42.77668 9	.401464 1	.150197 1	6.3913816 2	.382E-6 17	7.340714	64	08	1.16
38330.0	23.013 1	1.9701 5	42.7768 1	.401507 2	.932963 1	6.3913813 4	.173E-6 30	7.340176	55	08	1.71
38332.0	25.454 1	359.8598 6	42.7763 1	.401545 4	.715716 1	6.3913797 4	-.114E-6 37	7.339712	42	08	1.04
38334.0	27.895 1	357.7493 5	42.7741 1	.401575 2	.498457 1	6.3913827 4	-.16E-7 45	7.339342	41	08	1.57
38336.0	30.327 2	355.6404 6	42.7721 2	.401590 5	.281212 2	6.3913820 8	.413E-6 42	7.339148	37	08	1.78
38338.0	32.769 1	353.5267 4	42.7705 1	.401539 4	.063982 1	6.3913859 9	.159E-6 46	7.339739	27	08	1.05
38340.0	35.197 1	351.4168 5	42.7693 2	.401537 2	.846770 2	6.3913858 6	.7E-8 43	7.339812	36	08	1.93
38342.0	37.6259 9	349.3079 4	42.7683 1	.401563 2	.629558 1	6.3913840 4	-.33E-7 42	7.339476	35	08	1.26
38344.0	40.060 1	347.1971 4	42.7672 2	.401600 1	.412338 1	6.3913865 5	.359E-6 32	7.339016	41	08	1.35
38346.0	42.4972 6	345.0858 3	42.7659 1	.401643 1	.195104 1	6.3913873 4	.639E-6 30	7.338461	51	08	1.18
38348.0	44.9389 5	342.9751 3	42.7631 1	.401660 1	.977864 1	6.3913906 3	.372E-6 23	7.338312	65	08	1.35
38350.0	47.3772 4	340.8622 2	42.7612 1	.401643 1	.760637 1	6.3913919 2	.118E-6 24	7.338509	76	08	1.17
38352.0	49.8107 3	338.7489 1	42.76088 8	.401611 1	.543427 0	6.3913922 2	-.16E-7 17	7.338897	69	08	.88
38354.0	52.2407 4	336.6381 1	42.7607 1	.401578 1	.326227 1	6.3913928 2	.204E-6 27	7.339284	68	08	1.16
38356.0	54.6697 4	334.5273 1	42.7595 1	.401583 1	.109032 1	6.3913934 2	.478E-6 24	7.339239	56	08	1.23
38358.0	57.1000 5	332.4176 2	42.7583 1	.401609 1	.891833 1	6.3913952 4	.363E-6 35	7.338841	47	08	1.46
38360.0	59.5362 4	330.3055 2	42.7567 1	.401640 1	.674623 1	6.3913960 3	.94E-7 25	7.338511	52	08	1.46
38362.0	61.9734 5	328.1923 2	42.7546 1	.401648 1	.457408 1	6.3913961 2	.215E-6 21	7.338414	51	08	1.70
38364.0	64.4130 4	326.0795 1	42.7542 1	.401615 1	.240195 1	6.3913981 2	.517E-6 19	7.338803	51	08	1.51
38366.0	66.8454 4	323.9675 2	42.7545 1	.401568 1	.022999 1	6.3913996 3	.412E-6 16	7.339394	53	08	1.70
38368.0	69.2738 3	321.8571 2	42.7538 1	.401533 1	.805818 0	6.3914015 2	.241E-6 14	7.339818	48	08	1.17
38370.0	71.6994 4	319.7464 2	42.7529 1	.401534 1	.588642 1	6.3914027 2	.347E-6 23	7.339822	56	08	1.53

T (MJD)	ω	Ω	i	e	M	n	n'/2	q	N	D	σ
38372.0	74.1288 3	317.6363 1	42.75189 8	.401550 1	.371465 0	6.3914024 2	.367E-6 29	7.339624	47	08	.95
38374.0	76.5631 2	315.5238 1	42.75078 7	.401565 0	.154275 0	6.3914058 1	.506E-6 11	7.339483	48	08	.81
38376.0	78.9990 3	313.4118 2	42.74990 8	.401552 1	.937086 0	6.3914075 1	.251E-6 11	7.339585	50	08	.96
38378.0	81.4359 3	311.2999 2	42.75005 9	.401511 1	.719895 0	6.3914081 2	.194E-6 29	7.340098	38	08	.86
38380.0	83.8678 6	309.1894 4	42.75008 1	.401452 1	.502715 1	6.3914089 3	.303E-6 14	7.340836	44	08	1.34
38382.0	86.2940 5	307.0810 3	42.7505 1	.401402 1	.285552 1	6.3914104 3	.458E-6 23	7.341444	34	08	1.10
38384.0	88.7184 4	304.9723 2	42.74993 9	.401381 1	.068400 0	6.3914135 2	.6268E-6 84	7.341655	31	08	.68
38386.0	91.1444 4	302.8621 2	42.7488 1	.401385 1	.851246 0	6.3914160 2	.576E-6 19	7.341658	21	08	.54
38388.0	93.5799 6	300.7506 3	42.7479 2	.401388 1	.634082 1	6.3914169 2	.150E-6 30	7.341604	23	08	1.04
38390.0	96.0154 9	298.6380 5	42.7487 2	.401362 2	.416909 1	6.3914181 9	.135E-6 22	7.341900	23	08	1.36
38392.0	98.449 1	296.5287 6	42.7491 2	.401308 2	.199734 1	6.3914164 8	.684E-6 40	7.342572	22	08	1.29
38394.0	100.879 3	294.420 1	42.7485 1	.401239 3	.982577 3	6.3914201 8	.575E-6 23	7.343473	25	08	1.31

T (MJD)	ω	Ω	i	e	M	n	n'/2	q	N	D	σ
38307.0	117.56 3	333.1638 9	49.741 1	.06194 2	.31395 8	14.101288 1	.558E-5 13	6.788413	13	06	.84
38309.0	124.52 3	324.822 1	49.743 2	.06189 2	.5167 1	14.101316 1	.818E-5 13	6.788811	16	06	.98
38311.0	131.426 2	316.4838 6	49.7376 6	.061878 5	.719655 7	14.101358 1	.951E-5 30	6.788806	12	06	.12
38313.0	138.377 1	308.1437 2	49.7383 2	.061802 2	.922585 2	14.1013859 4	.1026E-4 22	6.789417	29	06	1.79
38315.0	145.3294 7	299.8032 1	49.7370 1	.061723 1	.125569 2	14.1014370 3	.1491E-4 7	6.789961	43	06	1.68
38317.0	152.3021 6	291.4611 1	49.7356 1	.061641 2	.328618 2	14.1015004 3	.1550E-4 6	6.790537	57	06	1.56
38319.0	159.286 1	283.1194 2	49.7356 2	.061541 3	.531753 3	14.1015576 5	.1462E-4 7	6.791256	56	06	1.46
38321.0	166.255 4	274.7816 5	49.7397 4	.061440 9	.73505 1	14.1016185 8	.1664E-4 6	6.791996	50	06	1.18
38323.0	173.253 5	266.441 1	49.7388 6	.06138 2	.93840 2	14.101689 2	.1550E-4 9	6.792448	43	06	1.49
38325.0	180.33 1	258.103 3	49.742 1	.06128 3	.14166 5	14.101754 4	.935E-5 39	6.793082	27	06	1.75
38327.0	187.29 1	249.756 3	49.739 2	.06128 2	.34538 4	14.101789 4	.1907E-4 58	6.793068	19	06	4.01
38329.0	194.319 3	241.4217 4	49.7378 3	.061081 3	.549005 8	14.1018658 5	.1151E-4 25	6.794477	13	06	.84
38331.0											
38337.0											
38339.0	229.65 1	199.721 3	49.742 1	.06066 5	.56826 5	14.102161 2	.828E-5 18	6.797396	23	06	1.69
38341.0	236.710 4	191.382 1	49.7415 6	.06063 2	.77240 2	14.102152 1	.1250E-4 8	6.797582	34	06	1.30
38343.0	243.797 3	183.0450 6	49.7410 4	.06056 1	.97653 1	14.102211 1	.1582E-4 7	6.798144	38	06	1.17
38345.0	250.893 3	174.7041 6	49.7387 6	.06055 1	.18080 1	14.102274 2	.1471E-4 1	6.798200	38	06	1.33
38347.0	258.015 5	166.3657 9	49.7421 7	.060513 9	.38508 1	14.102335 3	.1118E-4 2	6.798404	22	06	1.01
38349.0	265.118 3	158.0279 3	49.7388 4	.060524 9	.589526 7	14.102363 1	.887E-5 1	6.798346	18	06	1.09
38351.0	272.210 4	149.6881 4	49.7389 5	.060530 4	.79409 1	14.102389 3	.972E-5 37	6.798340	09	06	1.16
38353.0	279.289 4	141.3469 4	49.7391 4	.060519 2	.998726 9	14.1024359 4	.924E-5 19	6.798320	15	06	1.55
38355.0	286.399 2	133.0052 6	49.7357 8	.060527 3	.20337 2	14.102473 2	.1131E-4 5	6.798297	14	06	1.05
38357.0	293.519 5	124.6691 7	49.7401 7	.06057 2	.40806 2	14.102520 2	.1531E-4 9	6.797935	18	06	1.29
38359.0	300.603 3	116.3310 8	49.7413 7	.06059 5	.61298 2	14.102585 9	.1428E-4 2	6.797818	23	06	1.56
38361.0	307.669 2	107.9866 5	49.7397 4	.06065 1	.818060 6	14.102639 4	.789E-5 18	6.797316	24	06	1.00
38363.0	314.751 4	99.646 1	49.7410 8	.06073 2	.02317 1	14.102665 4	.807E-5 12	6.796818	24	06	1.05
38365.0	321.841 4	91.3108 5	49.7416 2	.06082 2	.22832 2	14.102701 2	.889E-5 17	6.796087	19	06	1.26
38367.0	328.891 3	82.9670 6	49.7419 2	.06085 1	.43366 1	14.102744 5	.1465E-4 42	6.795935	14	06	.67
38369.0	335.939 3	74.6287 4	49.7416 1	.060910 2	.639127 8	14.1028027 9	.1612E-4 23	6.795422	13	06	.77
38371.0	342.989 6	66.289 1	49.7420 5	.061012 1	.84471 2	14.102860 6	.99E-5 12	6.794615	09	06	.56

T (MJD)	ω	Ω	i	e	M	n	n′/2	q	N	D	σ
38373.0	350.050 5	57.9486 6	49.7403 6	.061116 3	.05032 2	14.1028890 6	.476E-5 19	6.793998	11	06	.96
38375.0	357.056 2	49.6064 4	49.7417 3	.061198 2	.256144 6	14.1029029 6	.481E-5 12	6.793245	16	06	1.30
38377.0	4.086 3	41.2657 9	49.7409 6	.061308 5	.461920 9	14.102923 2	.930E-5 69	6.792466	18	06	2.13
38379.0	11.079 4	32.9257 9	49.7368 7	.06139 1	.66788 1	14.102985 2	.1622E-4 23	6.791868	27	06	2.50
38381.0	18.079 5	24.5781 9	49.7416 7	.06149 2	.87395 2	14.103060 2	.1479E-4 6	6.791175	34	06	1.19
38383.0	25.037 6	16.2388 7	49.7407 7	.06157 2	.08030 2	14.103106 1	.1052E-4 7	6.790614	47	06	1.59
38385.0	32.010 1	7.8969 2	49.7388 2	.06165 3	.286644 4	14.1031445 7	.1084E-4 6	6.789867	48	06	1.31
38387.0	38.974 1	359.5553 2	49.7400 2	.061737 5	.493099 4	14.103185 1	.1038E-4 8	6.789332	32	06	1.25
38389.0	45.967 2	351.2096 1	49.7373 2	.061793 3	.699570 4	14.1032283 4	.1122E-4 14	6.788901	22	06	1.30
38391.0	52.905 2	342.8700 4	49.7380 4	.061864 2	.906297 5	14.1032789 3	.1265E-4 34	6.788384	13	06	1.25
38393.0	59.871 3	334.5228 6	49.7384 5	.061894 2	.113035 6	14.1033292 4	.1129E-4 26	6.788152	18	06	2.22

NOTICE

This series of Special Reports was instituted under the supervision of Dr. F. L. Whipple, Director of the Astrophysical Observatory of the Smithsonian Institution, shortly after the launching of the first artificial earth satellite on October 4, 1957. Contributions come from the Staff of the Observatory.

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