

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

20/22	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°	20/22	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°										
462041 2007 DL₈										30717 1937 UD																			
12 27	1 40.69	-17 11.1	1.382	1.830	32.0	20.8	100E	28	81*	7 25	8 29.93	+25 35.6	3.546	2.540	2.6	20.0	7E	—	—	<i>(continuation)</i>									
1 6	1 53.75	-13 52.9	1.583	1.935	30.4	21.1	95E	31	76*	8 4	8 47.99	+24 31.8	3.571	2.568	2.9	20.0	7W	1*	—										
1 16	2 6.70	-10 56.2	1.789	2.037	28.9	21.5	90E	34	70*	8 14	9 5.50	+23 24.0	3.581	2.595	4.4	20.1	11W	5*	—										
1 26	2 19.70	-8 17.5	1.998	2.135	27.3	21.8	84E	37	64*	8 24	9 22.45	+22 13.3	3.578	2.621	6.1	20.2	16W	10*	—										
2 5	2 32.80	-5 54.2	2.208	2.231	25.7	22.0	78E	39*	58*	9 3	9 38.82	+21 0.6	3.560	2.646	8.0	20.3	21W	15*	3*										
383449 2006 WK₁₂₇										30717 1937 UD																			
12 27	1 40.89	-22 51.2	1.269	1.701	35.0	19.3	97E	22	87*	9 13	9 54.60	+19 46.9	3.527	2.669	9.8	20.4	27W	21*	6*										
1 1	1 44.90	-20 19.3	1.293	1.689	35.5	19.4	95E	25	83*	9 23	10 9.75	+18 33.3	3.481	2.692	11.6	20.5	33W	26*	9*										
1 6	1 49.62	-17 45.3	1.317	1.677	35.8	19.4	92E	27	78*	10 3	10 24.27	+17 20.8	3.420	2.713	13.3	20.5	39W	32*	13*										
1 11	1 55.02	-15 10.1	1.343	1.667	36.2	19.4	90E	30	74*	10 13	10 38.09	+16 10.5	3.346	2.733	15.0	20.5	45W	38*	16*										
1 16	2 1.05	-12 34.5	1.371	1.656	36.4	19.5	88E	32	70*	10 23	10 51.15	+15 3.9	3.259	2.752	16.4	20.5	51W	43*	20*										
1 21	2 7.66	-9 59.2	1.400	1.647	36.6	19.5	86E	35	66*	11 2	11 3.39	+14 2.0	3.160	2.770	17.7	20.5	58W	49*	25*										
1 26	2 14.81	-7 25.1	1.430	1.638	36.7	19.5	83E	38	62*	11 12	11 14.68	+13 6.3	3.051	2.786	18.8	20.5	65W	53*	29*										
1 31	2 22.46	-4 52.7	1.461	1.630	36.7	19.6	81E	40	59*	11 22	11 24.89	+12 18.3	2.932	2.801	19.7	20.5	73W	56*	34*										
2 5	2 30.59	-2 22.5	1.493	1.623	36.6	19.6	79E	43*	56*	12 2	11 33.86	+11 39.6	2.806	2.816	20.2	20.4	80W	57*	40*										
2 15	2 48.21	+2 29.2	1.561	1.610	36.2	19.7	75E	46*	50*	12 12	11 41.37	+11 11.7	2.676	2.829	20.4	20.3	89W	56	45*										
2 25	3 7.53	+7 6.5	1.633	1.602	35.6	19.7	70E	48*	44*	12 22	11 47.20	+10 56.2	2.543	2.841	20.1	20.2	97W	56	50*										
3 7	3 28.42	+11 26.2	1.707	1.596	34.8	19.8	66E	49	40*	1 1	11 51.06	+10 54.5	2.413	2.851	19.3	20.1	106W	56	53*										
3 17	3 50.86	+15 26.0	1.784	1.595	33.7	19.9	63E	48*	36*	1 11	11 52.68	+11 7.8	2.287	2.861	18.0	19.9	116W	56	53										
3 27	4 14.78	+19 3.6	1.862	1.596	32.4	19.9	59E	46*	32*	1 21	11 51.81	+11 36.0	2.172	2.869	16.0	19.7	127W	57	52										
4 6	4 40.10	+22 17.0	1.941	1.602	31.0	20.0	55E	44*	29*	138843 2000 VF₃₉																			
4 16	5 6.76	+25 4.6	2.020	1.611	29.4	20.0	52E	41*	26*	12 27	1 42.33	+29 11.8	1.148	1.825	28.5	21.1	118E	74	35										
4 26	5 34.61	+27 25.2	2.099	1.623	27.8	20.1	49E	38*	24*	1 1	1 41.80	+29 53.1	1.207	1.829	29.7	21.2	113E	75	34*										
5 6	6 3.46	+29 17.7	2.176	1.638	26.1	20.1	46E	35*	22*	1 6	1 42.52	+30 34.3	1.268	1.833	30.6	21.3	108E	76	33*										
5 16	6 33.11	+30 41.8	2.252	1.657	24.4	20.2	43E	32*	21*	1 11	1 44.37	+31 16.1	1.329	1.836	31.3	21.5	104E	76	31*										
5 26	7 3.26	+31 37.4	2.327	1.678	22.7	20.2	40E	28*	19*	1 16	1 47.25	+31 58.6	1.390	1.839	31.8	21.6	100E	77	29*										
6 5	7 33.59	+32 5.3	2.399	1.702	21.0	20.3	37E	26*	18*	46598 1993 FT₂																			
6 15	8 3.83	+32 6.9	2.470	1.728	19.3	20.3	34E	23*	16*	12 27	1 42.68	+50 21.3	0.961	1.686	30.3	16.3	120E	85	14										
6 25	8 33.67	+31 44.2	2.537	1.756	17.7	20.4	32E	21*	15*	1 1	1 47.12	+50 0.9	0.986	1.680	31.4	16.3	117E	85	14*										
7 5	9 2.88	+30 59.5	2.602	1.786	16.2	20.4	29E	19*	13*	1 6	1 53.17	+49 42.0	1.012	1.676	32.4	16.4	114E	85	14*										
7 15	9 31.31	+29 55.6	2.664	1.818	14.7	20.4	27E	17*	12*	1 11	2 0.71	+49 24.7	1.040	1.672	33.2	16.5	111E	86	14*										
7 25	9 58.84	+28 35.7	2.723	1.851	13.3	20.5	25E	16*	10*	1 16	2 9.61	+49 9.0	1.069	1.668	34.0	16.6	109E	86	14*										
8 4	10 25.41	+27 2.5	2.778	1.885	12.0	20.5	23E	15*	7*	1 21	2 19.76	+48 54.7	1.098	1.666	34.6	16.6	106E	86	14*										
8 14	10 51.04	+25 19.2	2.830	1.919	10.9	20.6	21E	14*	5*	1 26	2 31.03	+48 41.2	1.129	1.664	35.1	16.7	104E	86	14*										
8 24	11 15.73	+23 28.6	2.877	1.955	10.0	20.6	20E	13*	2*	1 31	2 43.29	+48 28.1	1.161	1.663	35.5	16.8	101E	87	14*										
9 3	11 39.57	+21 33.4	2.920	1.991	9.3	20.6	19E	13*	—	2 5	2 56.48	+48 14.5	1.194	1.662	35.9	16.9	99E	87	14*										
9 13	12 2.60	+19 35.9	2.958	2.027	9.0	20.7	18E	12*	—	2 10	3 10.39	+47 59.8	1.227	1.663	36.1	16.9	97E	87	14*										
9 23	12 24.90	+17 38.5	2.990	2.064	9.0	20.8	19E	11*	—	2 15	3 25.02	+47 43.4	1.262	1.664	36.3	17.0	95E	87*	14*										
10 3	12 46.54	+15 43.3	3.015	2.101	9.3	20.8	20E	10*	—	2 20	3 40.23	+47 24.7	1.297	1.666	36.4	17.1	93E	85*	14*										
10 13	13 7.56	+13 51.9	3.034	2.138	9.9	20.9	22W	10*	—	2 25	3 55.91	+47 3.0	1.333	1.669	36.4	17.1	91E	84*	15*										
10 23	13 28.01	+12 6.2	3.045	2.174	10.7	21.0	24W	14*	—	3 2	4 11.94	+46 37.8	1.370	1.672	36.3	17.2	89E	82*	15*										
11 2	13 47.91	+10 27.6	3.048	2.210	11.8	21.1	27W	19*	—	3 7	4 28.22	+46 8.6	1.409	1.677	36.2	17.2	87E	81*	16*										
11 12	14 7.28	+8 57.4	3.042	2.246	12.9	21.1	31W	24*	—	3 12	4 44.67	+45 35.2	1.448	1.682	36.1	17.3	85E	79*	16*										
11 22	14 26.09	+7 36.7	3.027	2.282	14.2	21.2	34W	28*	—	3 17	5 1.19	+44 57.4	1.488	1.687	35.8	17.4	83E	77*	17*										
12 2	14 44.33	+6 26.4	3.002	2.317	15.5	21.3	39W	33*	5*	3 22	5 17.68	+44 15.1	1.530	1.694	35.6	17.4	81E	75*	18*										
12 12	15 1.94	+5 27.4	2.967	2.351	16.7	21.3	43W	37*	10*	3 27	5 34.08	+43 28.1	1.572	1.701	35.2	17.5	79E	73*	19*										
12 22	15 18.83	+4 40.4	2.923	2.385	17.9	21.4	48W	40*	16*	4 1	5 50.29	+42 36.7	1.616	1.708	34.8	17.5	78E	71*	20*										
1 1	15 34.93	+4 5.6	2.869	2.418	19.1	21.4	54W	43*	23*	4 6	6 6.27	+41 40.8	1.660	1.717	34.4	17.6	76E	69*	21*										
1 11	15 50.10	+3 43.4	2.805	2.451	20.2	21.4	59W	45*	30*	4 11	6 21.98	+40 40.8	1.706	1.726	34.0	17.7	74E	67*	22*										
1 21	16 4.19	+3 33.7	2.733	2.483	21.1	21.4	65W	46*	37*	4 16	6 37.38	+39 36.8	1.753	1.735	33.4	17.7	72E	65*	23*										
143624 2003 HM₁₆										30717 1937 UD																			
12 27	1 41.30	-9 39.1	2.503	2.896	19.3	21.2	104E	35	74*	4 21	6 52.44	+38 29.3	1.800	1.745	32.9	17.8	71E	62*	24*										
1 6	1 43.34	-9 7.5	2.674	2.923	19.6	21.4	95E	36	71*	4 26	7 7.13	+37 18.4	1.849	1.756	32.3	17.8	69E	60*	25*										
1 16	1 47.31	-8 25.4	2.845	2.947	19.5	21.5	86E	37	65*	5 1	7 21.45	+36 4.6	1.898	1.767	31.7	17.9	67E	57*	26*										
1 26	1 52.93	-7 35.9	3.013	2.970	18.9	21.6	78E	37	58*	5 6	7 35.40	+34 48.0	1.948	1.779	31.0	17.9	65E	54*	27*										
2 5	1 59.93	-6 41.9	3.175	2.991	18.1	21.7	70E	37*	53*	5 11	7 48.97	+33 29.2	1.999	1.791	30.3	18.0	63E	51*	28*										
30717 1937 UD										30717 1937 UD																			
12 27	1 41.54</																												

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

20/22	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°	20/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°
46598 1993 FT₂ (continuation)										488621 2002 TR₂₅₉ (continuation)									
1 1	15 9.59	-27 37.4	3.072	2.528	16.9	19.3	48 W	15*	41*	2 25	3 42.78	+ 5 44.5	1.447	1.586	37.7	21.0	79 E	49*	51*
1 11	15 24.54	-29 29.2	2.993	2.556	18.3	19.3	55 W	14*	48*	3 2	3 55.28	+ 6 37.3	1.483	1.590	37.4	21.1	77 E	49*	50*
1 21	15 38.77	-31 17.7	2.904	2.584	19.6	19.3	62 W	13*	55*	3 7	4 8.05	+ 7 28.4	1.521	1.594	37.1	21.1	76 E	49*	49*
130386 2000 JY₃₃										177651 2004 XM₁₄									
12 27	1 43.37	+16 30.4	1.104	1.755	30.7	18.5	114 E	62	47	12 27	1 46.99	-28 30.5	0.781	1.314	48.1	19.4	96 E	16	87
1 6	1 58.40	+16 54.8	1.223	1.788	31.6	18.7	108 E	62	47*	1 1	1 54.70	-22 53.2	0.849	1.361	45.9	19.6	96 E	22	86*
1 16	2 14.83	+17 30.4	1.349	1.822	31.9	19.0	102 E	63	45*	1 6	2 1.82	-17 58.4	0.923	1.406	44.2	19.8	95 E	27	80*
1 26	2 32.41	+18 13.6	1.481	1.857	31.9	19.2	96 E	63	43*	1 11	2 8.60	-13 40.4	1.002	1.449	42.6	20.0	94 E	31	75*
2 5	2 50.87	+19 0.6	1.617	1.892	31.4	19.5	90 E	64	41*	1 16	2 15.21	- 9 53.4	1.084	1.489	41.3	20.2	92 E	35	70*
2 15	3 10.05	+19 48.6	1.756	1.927	30.7	19.7	84 E	64*	38*	1 21	2 21.75	- 6 32.6	1.169	1.528	40.1	20.3	90 E	38	66*
2 25	3 29.81	+20 35.1	1.897	1.963	29.6	19.8	79 E	63*	37*	1 26	2 28.28	- 3 33.8	1.256	1.564	39.0	20.5	88 E	41	62*
3 7	3 50.01	+21 17.8	2.038	2.000	28.4	20.0	74 E	60*	35*	1 31	2 34.83	- 0 53.6	1.345	1.599	37.9	20.7	85 E	44	58*
3 17	4 10.56	+21 55.2	2.179	2.036	27.0	20.1	68 E	56*	33*	2 5	2 41.45	+ 1 30.9	1.434	1.632	36.8	20.8	83 E	47	54*
3 27	4 31.36	+22 25.8	2.318	2.072	25.5	20.3	63 E	51*	32*	2 10	2 48.15	+ 3 42.1	1.524	1.663	35.7	21.0	80 E	48	51*
4 6	4 52.30	+22 48.6	2.453	2.107	23.8	20.4	58 E	46*	30*	2 15	2 54.96	+ 5 41.9	1.614	1.692	34.7	21.1	77 E	50	48*
4 16	5 13.32	+23 2.8	2.585	2.143	22.1	20.5	53 E	41*	29*	2 20	3 1.87	+ 7 31.8	1.703	1.720	33.6	21.2	74 E	50	45*
4 26	5 34.31	+23 8.0	2.712	2.178	20.2	20.6	48 E	35*	27*	2 25	3 8.88	+ 9 13.2	1.790	1.745	32.5	21.3	71 E	50	43*
5 6	5 55.20	+23 3.7	2.832	2.212	18.3	20.6	43 E	29*	26*	3 2	3 16.01	+10 47.1	1.877	1.770	31.4	21.4	68 E	50	40*
5 16	6 15.91	+22 50.1	2.946	2.246	16.3	20.7	39 E	24*	24*	249103 2007 VO₂₄₄									
5 26	6 36.39	+22 27.1	3.051	2.279	14.3	20.7	34 E	18*	22*	12 27	1 48.29	+11 38.2	1.533	2.130	25.0	21.0	114 E	57	52
6 5	6 56.56	+21 55.1	3.148	2.312	12.2	20.7	29 E	13*	19*	1 6	1 56.79	+11 55.7	1.675	2.161	26.0	21.3	106 E	57	51*
6 15	7 16.39	+21 14.4	3.235	2.343	10.1	20.8	24 E	8*	16*	1 16	2 7.16	+12 26.7	1.824	2.191	26.4	21.5	98 E	57	49*
6 25	7 35.81	+20 25.5	3.312	2.374	8.0	20.7	19 E	4*	12*	1 26	2 19.09	+13 7.6	1.975	2.221	26.3	21.7	91 E	58	46*
7 5	7 54.81	+19 29.1	3.378	2.404	5.9	20.7	14 E	—	8*	2 5	2 32.28	+13 55.2	2.128	2.251	25.8	21.9	84 E	59	43*
7 15	8 13.36	+18 25.7	3.432	2.434	3.8	20.7	9 E	—	3*	15817 Lucianotesi									
7 25	8 31.43	+17 16.0	3.474	2.462	1.7	20.6	4 E	—	—	12 27	1 48.59	-13 22.6	0.894	1.474	40.4	20.6	103 E	32	77
8 4	8 49.01	+16 0.8	3.503	2.489	0.9	20.5	2 W	—	—	1 1	1 54.63	-11 52.9	0.933	1.477	40.9	20.7	101 E	33	76*
8 14	9 6.09	+14 40.7	3.519	2.516	2.7	20.7	7 W	—	—	1 6	2 1.23	-10 21.7	0.973	1.478	41.2	20.8	98 E	35	73*
8 24	9 22.65	+13 16.7	3.521	2.541	4.8	20.9	12 W	4*	4*	1 11	2 8.36	- 8 49.5	1.013	1.480	41.4	20.9	96 E	36	71*
9 3	9 38.69	+11 49.3	3.510	2.566	6.8	21.0	18 W	9*	7*	1 16	2 15.99	- 7 16.9	1.053	1.480	41.6	21.0	93 E	38	68*
9 13	9 54.19	+10 19.4	3.484	2.589	8.8	21.1	23 W	14*	11*	1 21	2 24.07	- 5 44.2	1.093	1.481	41.6	21.1	91 E	39	65*
9 23	10 9.12	+ 8 47.9	3.445	2.612	10.7	21.1	29 W	20*	15*	1 26	2 32.57	- 4 12.1	1.133	1.481	41.6	21.2	88 E	41	63*
10 3	10 23.47	+ 7 15.5	3.392	2.633	12.5	21.2	35 W	25*	18*	1 31	2 41.46	- 2 40.7	1.172	1.481	41.6	21.2	86 E	42	60*
10 13	10 37.17	+ 5 43.1	3.326	2.654	14.3	21.2	41 W	30*	22*	2 5	2 50.71	- 1 10.6	1.211	1.480	41.5	21.3	84 E	44	58*
10 23	10 50.17	+ 4 11.6	3.246	2.673	15.9	21.3	47 W	35*	27*	2 10	3 0.32	+ 0 18.2	1.250	1.479	41.3	21.4	82 E	45	56*
11 2	11 2.41	+ 2 41.9	3.155	2.691	17.3	21.3	54 W	39*	31*	2 15	3 10.28	+ 1 45.2	1.288	1.477	41.1	21.4	80 E	46	54*
11 12	11 13.77	+ 1 15.1	3.052	2.709	18.6	21.2	61 W	42*	37*	2 20	3 20.57	+ 3 10.2	1.326	1.476	40.9	21.5	78 E	47	52*
11 22	11 24.12	- 0 7.7	2.939	2.725	19.6	21.2	68 W	44*	43*	165383 2000 WA₁₇₃									
12 2	11 33.33	+ 1 25.3	2.819	2.740	20.4	21.2	75 W	44*	49*	12 27	1 48.72	-13 43.9	1.298	1.800	32.1	18.7	103 E	31	78
12 12	11 41.17	+ 2 36.4	2.692	2.754	20.8	21.1	83 W	42	56*	1 1	1 53.62	-11 29.2	1.350	1.812	32.2	18.8	101 E	34	75*
12 22	11 47.44	+ 3 39.4	2.561	2.767	20.8	21.0	91 W	41	63*	1 6	1 59.00	- 9 17.5	1.405	1.825	32.2	18.9	98 E	36	72*
1 1	11 51.87	+ 4 32.6	2.430	2.779	20.4	20.9	100 W	40	68*	1 11	2 4.83	- 7 9.4	1.461	1.838	32.2	19.0	95 E	38	69*
1 11	11 54.20	+ 5 14.0	2.302	2.790	19.4	20.7	110 W	40	69	1 16	2 11.07	- 5 4.9	1.520	1.851	32.1	19.1	93 E	40	66*
1 21	11 54.18	+ 5 41.4	2.181	2.800	17.8	20.6	120 W	39	70	1 26	2 24.65	- 1 8.0	1.642	1.878	31.6	19.3	88 E	44	59*
466277 2013 PH										2 5	2 39.47	+ 2 31.9	1.769	1.907	30.8	19.5	82 E	48	53*
12 27	1 43.59	+19 53.5	1.598	2.207	23.7	21.4	115 E	65	44	2 15	2 55.37	+ 5 54.8	1.899	1.936	29.8	19.6	77 E	50	48*
1 6	1 52.14	+19 30.2	1.741	2.238	24.8	21.6	107 E	65	44*	2 25	3 12.21	+ 9 0.7	2.032	1.966	28.6	19.8	72 E	50	44*
1 16	2 2.59	+19 23.9	1.890	2.269	25.3	21.8	99 E	64	42*	3 7	3 29.85	+11 49.6	2.165	1.997	27.2	19.9	67 E	49	40*
1 26	2 14.62	+19 31.5	2.044	2.299	25.3	22.0	92 E	65	40*	3 17	3 48.21	+14 22.0	2.298	2.028	25.6	20.0	62 E	46	36*
2 5	2 27.91	+19 49.2	2.199	2.329	24.9	22.2	85 E	65	37*	3 27	4 7.19	+16 38.2	2.428	2.059	23.9	20.1	57 E	43	33*
19877 9086 P-L										4 6	4 26.70	+18 38.5	2.554	2.091	22.1	20.2	52 E	39	30*
12 27	1 43.90	+ 7 6.0	1.032	1.664	33.4	19.3	111 E	52	57	4 16	4 46.68	+20 23.4	2.677	2.122	20.2	20.3	47 E	34	27*
1 6	2 0.53	+ 8 21.1	1.142	1.692	34.1	19.5	105 E	53	55*	4 26	5 7.03	+21 53.2	2.793	2.153	18.2	20.3	42 E	29	24*
1 16	2 18.35	+ 9 43.5	1.257	1.723	34.2	19.8	100 E	55	53*	5 6	5 27.66	+23 8.4	2.902	2.185	16.2	20.4	37 E	25	21*
1 26	2 37.16	+11 9.1	1.379	1.755	34.0	20.0	94 E	56	50*	5 16	5 48.50	+24 9.5	3.003	2.216	14.1	20.4	32 E	20	18*
2 5	2 56.73	+12 34.3	1.504	1.789	33.4	20.2	89 E	58	47*	5 26	6 9.46	+24 57.1	3.096	2.246	12.0	20.4	27 E	15	15*
2 15	3 16.92	+13 56.3	1.634	1.824	32.6	20.4	84 E	59*	44*	6 5	6 30.43	+25 31.8	3.179	2.277	9.9	20.4	23 E	11	12*
2 25	3 37.64	+15 12.8	1.766	1.860	31.6	20.6	79 E	58*	42*	6 15	6 51.36	+25 54.3	3.252	2.307	7.8	20.4	18 E	7	8*
3 7	3 58.74	+16 21.7	1.900	1.896	30.3	20.8	75 E	56*	40*	6 25	7 12.15	+26 5.6	3.314	2.336	5.7	20.4	13 E	2*	4*
3 17	4 20.14	+17 21.8	2.034	1.933	28.9	20.9	70 E	53*	38*	7 5	7 32.73	+26 6.6	3.364	2.365	3.8	20.4	9 E	2*	—
3 27	4 41.75	+18 11.8	2.168	1.971	27.4	21.1	65 E	50*	37*	7 15	7 53.04	+25 58.3	3.403	2.393	2.4	20.3	6 E	—	—
4 6	5 3.46	+18 50.9	2.301	2.008	25.7	21.2	61 E	45*	35*	7 25	8 13.02	+25 41.8	3.429	2.421	2.5	20.4	6 W	—	—
4 16	5 25.20	+19 18.8	2.432	2.046	24.0	21.3	56 E	40*	34*	8 4	8 32.63	+25 18.2	3.442	2.448	4.0	20.5	10 W	4	—
4 26	5 46.89	+19 35.1	2.559	2.083	22.1	21.4	51 E	35*	32*	8 14	8 51.84	+24 48.9	3.443	2.474	5.8	20.6	14 W	8	—
5 6	6 8.42</																		

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

20/22	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°	20/22	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°
165383 2000 WA ₁₇₃ (continuation)										8651 Alineraynal (continuation)									
10 23	10 51.93	+20 43.1	3.093	2.637	17.8	21.0	54 W	47*	17*	9 3	9 56.72	+11 18.9	3.486	2.514	5.2	19.6	13 W	5*	4*
11 2	11 6.56	+20 22.1	2.998	2.657	19.0	21.0	61 W	53*	20*	9 13	10 12.91	+9 46.7	3.474	2.540	7.2	19.8	19 W	11*	7*
11 12	11 20.35	+20 10.4	2.894	2.676	20.0	20.9	67 W	58*	24*	9 23	10 28.56	+8 13.5	3.449	2.566	9.2	19.8	24 W	16*	11*
11 22	11 33.17	+20 10.3	2.784	2.694	20.7	20.9	75 W	63*	27*	10 3	10 43.65	+6 39.9	3.411	2.592	11.1	19.9	30 W	21*	14*
12 2	11 44.87	+20 23.9	2.669	2.712	21.1	20.8	82 W	65*	31*	10 13	10 58.16	+5 6.9	3.359	2.616	12.9	20.0	36 W	26*	18*
12 12	11 55.24	+20 53.6	2.551	2.728	21.2	20.7	90 W	66	35*	10 23	11 12.04	+3 35.4	3.294	2.639	14.6	20.0	42 W	31*	22*
12 22	12 4.05	+21 41.3	2.434	2.744	20.8	20.6	98 W	67	38*	11 2	11 25.23	+2 6.5	3.217	2.662	16.2	20.0	48 W	36*	27*
1 1	12 11.01	+22 48.4	2.320	2.758	20.0	20.5	106 W	68	40*	11 12	11 37.66	+0 41.1	3.127	2.684	17.6	20.0	55 W	39*	32*
1 11	12 15.78	+24 15.4	2.214	2.772	18.8	20.4	115 W	69	40*	11 22	11 49.20	-0 39.7	3.027	2.705	18.8	20.0	62 W	42*	38*
1 21	12 18.06	+26 0.6	2.119	2.785	17.2	20.3	123 W	71	38	12 2	11 59.75	-1 54.8	2.918	2.725	19.7	20.0	69 W	43*	44*
122421 2000 QZ ₁₀₁										2212 Hephaistos									
12 27	1 48.96	+10 2.3	2.078	2.630	20.1	20.5	113 E	55	54	12 27	1 49.23	+15 42.8	3.070	3.604	14.3	19.3	115 E	61	48
1 6	1 52.18	+10 41.9	2.227	2.646	21.1	20.7	104 E	56	52*	1 6	1 48.23	+15 32.6	3.257	3.638	15.1	19.5	105 E	61	48*
1 16	1 57.59	+11 30.6	2.380	2.662	21.6	20.9	96 E	57	49*	1 16	1 49.22	+15 33.1	3.450	3.671	15.5	19.7	95 E	61	45*
1 26	2 4.89	+12 26.6	2.534	2.677	21.6	21.0	87 E	57	45*	1 26	1 51.94	+15 43.4	3.644	3.702	15.4	19.8	86 E	61	41*
2 5	2 13.77	+13 27.7	2.687	2.691	21.1	21.1	80 E	58*	41*	2 5	1 56.11	+16 1.9	3.835	3.731	14.9	19.9	77 E	59*	36*
2 15	2 24.02	+14 32.5	2.836	2.704	20.4	21.2	72 E	56*	37*	2 15	2 1.52	+16 27.4	4.018	3.758	14.1	20.0	68 E	55*	32*
2 25	2 35.43	+15 39.4	2.979	2.716	19.3	21.3	65 E	52*	33*	2 25	2 7.96	+16 58.4	4.190	3.783	13.0	20.1	59 E	49*	27*
3 7	2 47.83	+16 47.0	3.115	2.727	18.0	21.4	58 E	47*	29*	3 7	2 15.24	+17 33.8	4.349	3.807	11.7	20.1	51 E	42*	23*
3 17	3 1.09	+17 54.0	3.241	2.736	16.6	21.4	52 E	42*	25*	3 17	2 23.22	+18 12.4	4.492	3.829	10.3	20.1	43 E	35*	18*
3 27	3 15.09	+18 59.4	3.356	2.746	14.9	21.5	45 E	36*	22*	3 27	2 31.77	+18 53.3	4.618	3.849	8.7	20.1	36 E	28*	14*
4 6	3 29.73	+20 2.1	3.459	2.754	13.2	21.5	39 E	30*	19*	4 6	2 40.76	+19 35.6	4.724	3.868	7.0	20.1	28 E	21*	10*
4 16	3 44.94	+21 1.4	3.550	2.761	11.4	21.5	33 E	24*	15*	4 16	2 50.10	+20 18.6	4.809	3.885	5.2	20.1	21 E	14*	5*
4 26	4 0.62	+21 56.5	3.627	2.767	9.4	21.4	27 E	18*	12*	4 26	2 59.69	+21 1.7	4.873	3.901	3.4	20.0	13 E	7*	—
5 6	4 16.71	+22 46.6	3.690	2.772	7.5	21.4	21 E	12*	9*	5 6	3 9.45	+21 44.3	4.915	3.915	1.7	19.9	7 E	1*	—
5 16	4 33.15	+23 31.3	3.739	2.776	5.5	21.3	15 E	7*	5*	5 16	3 19.29	+22 26.1	4.934	3.927	1.1	19.9	4 W	—	—
5 26	4 49.86	+24 10.2	3.773	2.779	3.4	21.2	10 E	2*	1*	5 26	3 29.12	+23 6.7	4.931	3.937	2.5	20.0	10 W	2*	2*
6 5	5 6.78	+24 42.8	3.792	2.781	1.5	21.1	4 E	—	—	6 5	3 38.86	+23 45.8	4.907	3.946	4.3	20.1	17 W	6*	8*
6 15	5 23.84	+25 9.0	3.796	2.782	1.0	21.1	3 W	—	—	6 15	3 48.42	+24 23.3	4.861	3.954	6.0	20.2	24 W	10*	14*
6 25	5 40.97	+25 28.7	3.786	2.783	2.9	21.2	8 W	—	—	6 25	3 57.69	+24 59.0	4.794	3.960	7.6	20.2	31 W	16*	19*
7 5	5 58.09	+25 41.9	3.760	2.782	4.9	21.3	14 W	4*	4*	7 5	4 6.58	+25 33.0	4.707	3.964	9.2	20.3	39 W	22*	24*
7 15	6 15.14	+25 48.8	3.720	2.780	6.9	21.4	19 W	9*	8*	7 15	4 14.96	+26 5.4	4.603	3.967	10.6	20.3	46 W	30*	28*
7 25	6 32.03	+25 49.5	3.665	2.777	8.9	21.4	25 W	15*	12*	7 25	4 22.68	+26 36.1	4.481	3.968	11.9	20.3	54 W	38*	31*
8 4	6 48.69	+25 44.7	3.597	2.773	10.8	21.5	31 W	21*	15*	8 4	4 29.59	+27 5.3	4.345	3.967	13.0	20.2	62 W	46*	33*
8 14	7 5.03	+25 34.7	3.515	2.769	12.6	21.5	37 W	27*	18*	8 14	4 35.51	+27 33.3	4.196	3.965	13.9	20.2	70 W	54*	35*
8 24	7 20.96	+25 20.4	3.421	2.763	14.3	21.5	43 W	33*	20*	8 24	4 40.23	+28 0.1	4.038	3.962	14.5	20.1	78 W	62*	35*
9 3	7 36.39	+25 2.5	3.315	2.756	16.0	21.5	49 W	39*	23*	9 3	4 43.54	+28 25.8	3.874	3.956	14.8	20.1	87 W	69*	36*
9 13	7 51.21	+24 42.3	3.197	2.748	17.5	21.4	55 W	46*	25*	9 13	4 45.17	+28 50.2	3.707	3.950	14.7	19.9	97 W	74*	35
9 23	8 5.29	+24 20.9	3.070	2.740	18.8	21.4	62 W	52*	28*	9 23	4 44.87	+29 13.0	3.541	3.941	14.2	19.8	106 W	74	35
10 3	8 18.53	+23 59.8	2.935	2.730	19.9	21.3	68 W	58*	30*	10 3	4 42.42	+29 33.3	3.383	3.931	13.2	19.7	116 W	75	34
10 13	8 30.74	+23 40.6	2.793	2.719	20.8	21.2	75 W	63*	32*	10 13	4 37.64	+29 49.7	3.236	3.920	11.7	19.5	127 W	75	34
10 23	8 41.74	+23 25.2	2.645	2.708	21.4	21.1	83 W	67*	35*	10 23	4 30.49	+30 0.3	3.107	3.906	9.8	19.4	138 W	75	34
11 2	8 51.31	+23 15.7	2.495	2.695	21.6	21.0	91 W	68*	37*	11 2	4 21.13	+30 2.9	3.002	3.892	7.4	19.2	150 W	75	34
11 12	8 59.17	+23 14.3	2.344	2.682	21.4	20.8	99 W	68	39*	11 12	4 9.97	+29 55.2	2.925	3.875	4.7	19.0	161 W	75	34
11 22	9 5.01	+23 23.3	2.196	2.667	20.7	20.7	108 W	68	40*	11 22	4 3.93	+29 47.2	2.898	3.866	3.4	18.9	167 W	75	34
12 2	9 8.49	+23 44.5	2.055	2.652	19.4	20.5	117 W	69	40	11 27	3 57.72	+29 36.4	2.880	3.857	2.5	18.8	170 W	75	34
12 12	9 9.21	+24 19.4	1.923	2.635	17.4	20.2	127 W	69	40	11 27	3 51.44	+29 22.9	2.871	3.848	2.4	18.8	171 E	74	35
12 22	9 6.88	+25 7.6	1.806	2.618	14.7	20.0	138 W	70	39	12 2	3 45.23	+29 7.0	2.870	3.837	3.3	18.8	167 E	74	35
1 1	9 1.34	+26 6.8	1.708	2.600	11.3	19.7	149 W	71	38	12 7	3 39.19	+28 49.0	2.878	3.827	4.5	18.9	162 E	74	35
1 6	8 57.39	+26 39.1	1.668	2.591	9.4	19.6	155 W	72	37	12 12	3 33.44	+28 29.4	2.894	3.816	5.9	19.0	156 E	73	36
1 11	8 52.74	+27 11.9	1.634	2.581	7.4	19.5	160 W	72	37	12 17	3 28.07	+28 8.9	2.918	3.805	7.3	19.1	150 E	73	36
1 16	8 47.48	+27 44.3	1.607	2.571	5.6	19.3	165 W	73	36	12 22	3 23.16	+27 47.9	2.949	3.793	8.7	19.1	144 E	73	36
1 21	8 41.75	+28 15.2	1.588	2.561	4.1	19.2	169 W	73	36	12 27	3 18.77	+27 26.9	2.987	3.781	9.9	19.2	139 E	72	37
8651 Alineraynal										18398 Bregenz									
12 27	1 49.17	+13 1.4	1.106	1.759	30.6	17.3	115 E	58	51	12 27	1 49.42	+8 23.8	1.525	2.113	25.4	18.6	113 E	53	56
1 6	2 2.97	+13 54.4	1.216	1.782	31.7	17.5	108 E	59	50*	1 6	1 58.44	+8 52.4	1.673	2.149	26.2	18.9	105 E	54	55*
1 16	2 18.57	+14 56.1	1.332	1.807	32.2	17.8	102 E	60	48*	1 16	2 9.15	+9 33.4	1.827	2.186	26.5	19.1	98 E	55	52*
1 26	2 35.66	+16 3.0	1.454	1.834	32.3	18.0	96 E	61	45*	1 26	2 21.27	+10 23.1	1.983	2.222	26.3	19.3	91 E	55	49*
2 5	2 53.93	+17 11.5	1.579	1.862	32.0	18.2	90 E	62	43*	2 5	2 34.53	+11 18.2	2.141	2.258	25.7	19.5	84 E	56*	45*
2 15	3 13.18	+18 18.8	1.708	1.891	31.3	18.4	85 E	63*	40*	2 15	2 48.74	+12 16.2	2.299	2.294	24.8	19.7	77 E	56*	42*
2 25	3 33.21	+19 22.3	1.839	1.921	30.4	18.6	79 E	62*	38*	2 25	3 3.73	+13 14.8	2.455	2.329	23.7	19.8	71 E	53*	39*
3 7	3 53.86	+20 20.1	1.971	1.952	29.3	18.7	74 E	59*	36*	3 7	3 19.36	+14 12.0	2.606	2.363	22.4	19.9	65 E	50*	36*
3 17	4 15.00	+21 10.4	2.103	1.984	28.0	18.8	69 E	56*	34*	3 17	3 35.54	+15 6.4	2.753	2.397	20.8	20.0	59 E	45*	33*
3 27	4 36.51	+21 52.0	2.																

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

20/22	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°	20/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°
18398 Bregenz										426481 2013 RY₁₆									
<i>(continuation)</i>										<i>(continuation)</i>									
5 26	5 36.47	+18 44.0	3.540	2.613	7.7	20.3	20 E	5*	13*	2 25	4 8.28	+50 57.6	1.673	1.994	29.7	20.2	93 E	83*	12*
6 5	5 53.97	+18 45.4	3.607	2.640	5.7	20.3	15 E	—	9*	3 2	4 21.65	+50 11.0	1.732	2.010	29.5	20.3	91 E	82*	12*
6 15	6 11.32	+18 38.8	3.661	2.667	3.8	20.2	10 E	—	4*	3 7	4 35.00	+49 24.3	1.793	2.026	29.3	20.4	88 E	81*	13*
6 25	6 28.46	+18 24.4	3.702	2.693	2.2	20.1	6 E	—	—	3 12	4 48.30	+48 37.1	1.854	2.042	29.0	20.5	86 E	79*	14*
7 5	6 45.33	+18 2.5	3.728	2.718	2.0	20.2	5 W	—	—	3 17	5 1.52	+47 49.5	1.917	2.058	28.7	20.5	84 E	77*	14*
7 15	7 1.88	+17 33.4	3.740	2.741	3.4	20.3	9 W	—	3*	3 22	5 14.64	+47 1.4	1.980	2.075	28.3	20.6	81 E	75*	15*
7 25	7 18.03	+16 57.5	3.738	2.764	5.2	20.4	14 W	1*	8*	3 27	5 27.61	+46 12.6	2.045	2.091	27.9	20.7	79 E	73*	16*
8 4	7 33.74	+16 15.4	3.720	2.786	7.1	20.5	20 W	6*	12*	4 1	5 40.43	+45 23.1	2.109	2.108	27.4	20.8	76 E	70*	16*
8 14	7 48.95	+15 27.5	3.689	2.808	8.9	20.6	25 W	12*	16*	4 6	5 53.06	+44 32.7	2.174	2.124	26.9	20.8	74 E	68*	17*
8 24	8 3.59	+14 34.6	3.643	2.828	10.7	20.6	31 W	18*	19*	4 11	6 5.52	+43 41.5	2.240	2.141	26.3	20.9	71 E	65*	18*
9 3	8 17.60	+13 37.4	3.582	2.847	12.4	20.7	37 W	24*	23*	4 16	6 17.78	+42 49.4	2.305	2.157	25.7	21.0	69 E	62*	18*
9 13	8 30.90	+12 36.7	3.509	2.865	14.0	20.7	44 W	30*	27*	4 21	6 29.84	+41 56.4	2.371	2.173	25.1	21.0	66 E	60*	19*
9 23	8 43.40	+11 33.3	3.422	2.882	15.5	20.7	50 W	36*	30*	4 26	6 41.68	+41 2.6	2.436	2.190	24.4	21.1	64 E	57*	20*
10 3	8 55.02	+10 28.3	3.323	2.898	16.8	20.7	57 W	42*	34*	5 1	6 53.31	+40 7.9	2.501	2.206	23.7	21.1	62 E	54*	20*
10 13	9 5.63	+9 22.6	3.214	2.913	17.9	20.7	64 W	46*	38*	5 6	7 4.73	+39 12.3	2.565	2.222	22.9	21.2	59 E	51*	21*
10 23	9 15.08	+8 17.6	3.095	2.928	18.7	20.6	71 W	50*	43*	5 11	7 15.93	+38 15.8	2.629	2.239	22.1	21.2	57 E	48*	21*
11 2	9 23.23	+7 14.7	2.969	2.941	19.3	20.6	79 W	52*	47*	5 16	7 26.93	+37 18.6	2.692	2.255	21.3	21.3	54 E	44*	21*
11 12	9 29.87	+6 15.3	2.838	2.953	19.6	20.5	87 W	51*	52*	5 21	7 37.71	+36 20.6	2.753	2.271	20.5	21.3	52 E	41*	21*
11 22	9 34.78	+5 21.3	2.705	2.964	19.4	20.4	95 W	50*	56*	5 26	7 48.28	+35 21.9	2.814	2.287	19.6	21.3	49 E	38*	22*
12 2	9 37.76	+4 34.7	2.573	2.975	18.7	20.3	104 W	50*	59*	5 31	7 58.65	+34 22.5	2.873	2.303	18.7	21.4	47 E	35*	22*
12 12	9 38.57	+3 57.7	2.446	2.984	17.6	20.1	114 W	49	60	6 5	8 8.81	+33 22.4	2.931	2.318	17.8	21.4	44 E	32*	21*
12 22	9 37.03	+3 32.6	2.328	2.992	15.8	20.0	124 W	49	60	6 10	8 18.79	+32 21.8	2.988	2.334	16.9	21.4	42 E	29*	21*
1 1	9 33.08	+3 21.5	2.225	2.999	13.5	19.8	135 W	48	61	6 15	8 28.58	+31 20.5	3.042	2.349	16.0	21.4	40 E	27*	20*
1 11	9 26.84	+3 25.9	2.141	3.006	10.6	19.6	146 W	48	61	6 20	8 38.18	+30 18.8	3.095	2.365	15.0	21.5	37 E	24*	20*
1 21	9 18.67	+3 46.2	2.081	3.011	7.4	19.4	157 W	49	60	6 25	8 47.61	+29 16.6	3.146	2.380	14.0	21.5	35 E	21*	19*
511795 2015 FR₃₅										161513 2004 RK₁₉₅									
12 27	1 49.87	+13 23.9	1.032	1.698	31.7	21.1	115 E	58	51	7 5	9 5.94	+27 11.0	3.241	2.410	12.0	21.5	30 E	19*	18*
1 6	2 1.39	+13 26.6	1.101	1.680	34.0	21.2	107 E	58	50*	7 10	9 14.87	+26 7.7	3.285	2.425	11.0	21.5	27 E	15*	15*
1 16	2 15.95	+13 49.6	1.174	1.664	35.5	21.4	101 E	59	49*	7 15	9 23.65	+25 4.1	3.326	2.440	10.0	21.5	25 E	13*	13*
1 26	2 33.10	+14 27.8	1.249	1.651	36.5	21.6	95 E	59	46*	7 20	9 32.27	+24 0.3	3.365	2.454	9.0	21.5	22 E	11*	11*
2 5	2 52.45	+15 15.9	1.326	1.640	36.9	21.7	89 E	60	44*	7 25	9 40.75	+22 56.3	3.400	2.468	8.0	21.5	20 E	9*	9*
385875 2006 RJ₁₀₁										149223 2002 RM₆₅									
12 27	1 49.91	+4 46.5	1.197	1.808	30.3	19.7	112 E	50	59	7 30	9 49.08	+21 52.1	3.433	2.483	7.0	21.5	17 E	8*	7*
1 6	1 57.32	+8 39.6	1.319	1.835	31.2	20.0	105 E	54	55*	8 4	9 57.29	+20 47.9	3.464	2.497	6.0	21.5	15 E	6*	5*
1 16	2 7.32	+12 12.7	1.449	1.862	31.5	20.2	98 E	57	49*	8 9	10 5.37	+19 43.5	3.490	2.510	5.0	21.4	13 E	5*	3*
1 26	2 19.51	+15 27.6	1.585	1.891	31.4	20.4	92 E	60	44*	8 14	10 13.32	+18 39.2	3.514	2.524	4.1	21.4	10 E	3*	1*
2 5	2 33.53	+18 25.7	1.724	1.921	30.8	20.6	86 E	63*	39*	8 19	10 21.14	+17 34.9	3.535	2.537	3.3	21.4	8 E	2*	—
2 15	2 49.12	+21 8.4	1.864	1.952	29.9	20.8	80 E	64*	35*	8 24	10 28.85	+16 30.7	3.552	2.551	2.7	21.4	7 E	1*	—
2 25	3 6.09	+23 36.6	2.005	1.983	28.7	21.0	74 E	63*	31*	8 29	10 36.44	+15 26.6	3.565	2.564	2.4	21.4	6 E	—	—
3 7	3 24.26	+25 50.8	2.144	2.015	27.4	21.1	69 E	60*	28*	9 3	10 43.92	+14 22.6	3.576	2.577	2.7	21.4	7 W	—	—
3 17	3 43.50	+27 51.4	2.280	2.047	25.9	21.2	64 E	56*	25*	9 8	10 51.28	+13 18.8	3.582	2.589	3.2	21.5	8 W	2*	—
3 27	4 3.69	+29 38.4	2.413	2.080	24.2	21.3	59 E	51*	22*	161513 2004 RK₁₉₅									
4 6	4 24.69	+31 11.9	2.540	2.113	22.5	21.4	54 E	46*	20*	12 27	1 53.78	+17 53.3	1.741	2.359	21.8	20.8	117 E	63	46
259490 2003 SW₂₂₈										149223 2002 RM₆₅									
12 27	1 51.35	+16 29.8	1.457	2.087	25.0	20.5	116 E	61	48	1 6	1 59.00	+17 53.0	1.883	2.381	23.1	21.1	108 E	63	46*
1 6	1 59.24	+17 13.7	1.596	2.119	26.2	20.7	108 E	62	46*	1 16	2 6.51	+18 6.4	2.030	2.403	23.8	21.3	100 E	63	44*
1 16	2 9.31	+18 5.5	1.742	2.151	26.7	21.0	100 E	63	44*	1 26	2 15.96	+18 31.1	2.181	2.423	24.0	21.4	92 E	64	41*
1 26	2 21.21	+19 3.1	1.891	2.182	26.8	21.2	93 E	64	41*	2 5	2 27.02	+19 4.3	2.332	2.443	23.7	21.6	85 E	64*	38*
2 5	2 34.59	+20 4.0	2.043	2.214	26.4	21.4	87 E	65*	38*	149223 2002 RM₆₅									
4486 Mithra										149223 2002 RM₆₅									
12 27	1 51.76	+9 10.4	2.557	3.088	16.9	20.9	114 E	54	55	12 27	1 54.23	+9 55.9	1.290	1.921	27.7	19.2	115 E	55	54
1 6	1 52.72	+9 27.0	2.744	3.130	17.8	21.1	104 E	54	54*	1 6	2 3.91	+11 45.2	1.426	1.959	28.6	19.5	107 E	57	52*
1 16	1 55.69	+9 53.5	2.936	3.171	18.0	21.3	95 E	55	50*	1 16	2 15.55	+13 32.8	1.570	1.998	29.0	19.8	100 E	59	49*
1 26	2 0.36	+10 28.0	3.130	3.210	17.8	21.4	86 E	55	46*	1 26	2 28.83	+15 17.5	1.718	2.037	28.8	20.0	94 E	60	45*
2 5	2 6.45	+11 8.5	3.320	3.247	17.2	21.6	77 E	55*	41*	2 5	2 43.42	+16 58.0	1.870	2.076	28.3	20.2	88 E	62*	42*
152978 2000 GJ₁₄₇										149223 2002 RM₆₅									
12 27	1 53.41	+35 48.3	0.538	1.342	38.9	20.4	121 E	81	28	2 15	2 59.12	+18 33.4	2.023	2.116	27.5	20.4	81 E	62*	38*
1 1	1 54.65	+36 57.1	0.587	1.354	40.3	20.7	117 E	82	27*	2 25	3 15.75	+20 2.7	2.177	2.155	26.4	20.6	76 E	61*	35*
1 6	1 57.60	+37 58.6	0.637	1.366	41.5	20.9	113 E	83	26*	3 7	3 33.14	+21 25.0	2.329	2.194	25.1	20.7	70 E	58*	33*
1 11	2 0.04	+38 55.0	0.687	1.376	42.3	21.1	110 E	84	24*	3 17	3 51.16	+22 39.6	2.479	2.233	23.6	20.8	64 E	53*	30*
1 16	2 7.78	+39 47.5	0.737	1.386	42.9	21.3	106 E	85	23*	3 27									

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

20/22	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°	20/22	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°
488490 2000 AF₂₀₅										14017 1994 NS (continuation)									
12 27	1 54.53	- 8 23.2	0.102	1.018	67.4	19.2	107E	37	72	6 15	5 48.12	+19 9.0	3.669	2.660	2.1	20.0	5E	—	—
12 29	2 15.39	- 5 43.0	0.109	1.027	63.3	19.2	111E	39	70	6 25	6 5.37	+19 6.4	3.678	2.666	1.8	20.0	5W	—	—
12 31	2 33.58	- 3 19.6	0.117	1.037	59.9	19.3	114E	42	67	7 5	6 22.53	+18 55.9	3.672	2.672	3.3	20.1	9W	—	3*
1 2	2 49.49	- 1 12.6	0.126	1.046	57.1	19.4	117E	44	65	7 15	6 39.52	+18 37.6	3.653	2.676	5.2	20.2	14W	—	7*
1 4	3 3.48	+ 0 39.4	0.136	1.055	54.7	19.5	119E	46	63	7 25	6 56.26	+18 11.9	3.619	2.680	7.1	20.3	19W	5*	11*
1 6	3 15.87	+ 2 18.3	0.146	1.064	52.9	19.6	120E	47	62	8 4	7 12.70	+17 39.0	3.572	2.683	9.1	20.3	25W	11*	15*
1 8	3 26.93	+ 3 45.7	0.156	1.073	51.3	19.7	122E	49	60	8 14	7 28.76	+16 59.4	3.511	2.685	11.0	20.4	30W	17*	19*
1 10	3 36.89	+ 5 3.5	0.167	1.082	50.1	19.9	122E	50	59	8 24	7 44.36	+16 13.7	3.437	2.685	12.8	20.4	36W	23*	22*
1 12	3 45.95	+ 6 13.0	0.179	1.091	49.2	20.0	123E	51	58	9 3	7 59.44	+15 22.4	3.350	2.685	14.5	20.4	42W	29*	25*
1 14	3 54.25	+ 7 15.5	0.191	1.100	48.4	20.1	123E	52	57	9 13	8 13.92	+14 26.5	3.252	2.684	16.2	20.4	48W	35*	29*
1 16	4 1.93	+ 8 11.9	0.203	1.108	47.8	20.3	123E	53	56	9 23	8 27.69	+13 26.6	3.143	2.682	17.7	20.4	54W	40*	32*
1 18	4 9.08	+ 9 3.1	0.215	1.117	47.4	20.4	123E	54	55	10 3	8 40.65	+12 24.0	3.024	2.678	19.0	20.3	61W	45*	35*
1 20	4 15.80	+ 9 49.9	0.227	1.125	47.0	20.5	123E	55	54	10 13	8 52.68	+11 19.5	2.896	2.674	20.1	20.2	67W	50*	39*
1 22	4 22.15	+10 32.7	0.240	1.133	46.8	20.6	123E	56	53	10 23	9 3.62	+10 14.7	2.761	2.669	21.0	20.2	74W	53*	43*
1 24	4 28.20	+11 12.2	0.253	1.141	46.6	20.8	123E	56	53	11 2	9 13.31	+ 9 10.9	2.620	2.663	21.6	20.1	82W	54*	47*
1 26	4 33.98	+11 48.5	0.267	1.149	46.6	20.9	122E	57	52	11 12	9 21.52	+ 8 9.9	2.476	2.656	21.9	19.9	89W	53	51*
1 31	4 47.53	+13 8.4	0.301	1.168	46.5	21.2	121E	58	51	11 22	9 28.01	+ 7 13.8	2.331	2.648	21.7	19.8	98W	52	55*
2 5	5 0.16	+14 15.3	0.336	1.185	46.7	21.5	119E	59	50	12 2	9 32.51	+ 6 24.8	2.188	2.639	21.0	19.6	106W	51	57*
2 10	5 12.21	+15 12.0	0.372	1.202	47.0	21.7	117E	60	49	12 12	9 34.70	+ 5 45.7	2.050	2.629	19.8	19.4	116W	51	58
2 15	5 23.92	+16 0.3	0.410	1.218	47.4	22.0	115E	61	48	12 22	9 34.32	+ 5 19.2	1.922	2.618	17.8	19.2	125W	50	59
12 27	1 55.77	- 9 16.7	1.158	1.724	33.1	18.7	107E	36	73	1 1	9 31.18	+ 5 8.0	1.807	2.606	15.2	19.0	136W	50	59
1 6	2 6.00	- 4 16.5	1.268	1.756	33.3	18.9	102E	41	68*	1 11	9 25.27	+ 5 14.4	1.711	2.593	11.9	18.8	147W	50	59
1 16	2 18.14	+ 0 19.4	1.388	1.789	33.1	19.2	96E	45	61*	1 21	9 16.92	+ 5 39.1	1.639	2.580	8.0	18.5	159W	51	58
1 26	2 31.88	+ 4 30.7	1.517	1.824	32.7	19.4	91E	50	55*	112221 2002 KH₄									
2 5	2 46.96	+ 8 18.1	1.651	1.860	31.9	19.6	86E	53	50*	12 27	1 57.09	+15 53.8	2.709	3.278	15.5	21.1	117E	61	48
2 15	3 3.18	+11 42.8	1.791	1.897	30.9	19.8	81E	56*	45*	1 6	1 56.76	+14 22.0	2.859	3.278	16.7	21.3	107E	59	49*
2 25	3 20.41	+14 46.5	1.933	1.935	29.7	20.0	75E	56*	40*	1 16	1 58.56	+13 10.5	3.017	3.276	17.4	21.4	96E	58	48*
3 7	3 38.50	+17 30.1	2.076	1.973	28.2	20.1	70E	55*	36*	1 26	2 2.22	+12 17.0	3.177	3.273	17.5	21.5	87E	57	45*
3 17	3 57.35	+19 55.0	2.219	2.012	26.6	20.3	65E	52*	33*	2 5	2 7.44	+11 38.8	3.335	3.268	17.1	21.6	78E	56*	41*
3 27	4 16.86	+22 2.1	2.360	2.051	24.9	20.4	60E	48*	30*	216722 2005 EC₂₈₆									
4 6	4 36.92	+23 52.2	2.498	2.090	23.1	20.5	55E	44*	27*	12 27	1 57.16	+16 44.2	1.864	2.478	20.6	20.1	118E	62	47
4 16	4 57.44	+25 26.1	2.631	2.129	21.2	20.6	50E	39*	25*	1 6	1 59.29	+17 46.1	2.020	2.508	21.9	20.4	108E	63	46*
4 26	5 18.33	+26 44.4	2.758	2.168	19.2	20.7	45E	35*	22*	1 16	2 4.00	+18 52.3	2.182	2.538	22.5	20.6	100E	64	43*
5 6	5 39.47	+27 47.9	2.878	2.207	17.2	20.7	40E	30*	20*	1 26	2 10.89	+20 2.2	2.347	2.567	22.5	20.8	91E	65	39*
5 16	6 0.79	+28 37.2	2.991	2.245	15.1	20.8	35E	25*	17*	2 5	2 19.61	+21 14.7	2.513	2.595	22.2	20.9	84E	66*	35*
5 26	6 22.16	+29 13.1	3.095	2.283	13.1	20.8	31E	20*	15*	2 15	2 29.88	+22 29.0	2.676	2.622	21.5	21.1	76E	64*	31*
6 5	6 43.50	+29 36.4	3.189	2.320	11.1	20.8	26E	16*	12*	2 25	2 41.46	+23 44.0	2.834	2.648	20.4	21.2	69E	59*	28*
6 15	7 4.71	+29 48.0	3.273	2.357	9.1	20.8	21E	12*	8*	3 7	2 54.15	+24 58.7	2.985	2.674	19.2	21.3	62E	54*	24*
6 25	7 25.72	+29 48.9	3.345	2.393	7.2	20.8	17E	9*	5*	3 17	3 7.80	+26 12.2	3.129	2.699	17.8	21.4	56E	48*	21*
7 5	7 46.44	+29 40.1	3.407	2.428	5.5	20.8	13E	6*	1*	3 27	3 22.88	+27 23.7	3.262	2.722	16.2	21.4	50E	42*	18*
7 15	8 6.82	+29 22.7	3.456	2.463	4.2	20.8	10E	4*	—	4 6	3 37.48	+28 32.2	3.385	2.745	14.5	21.5	43E	37*	15*
7 25	8 26.80	+28 58.0	3.492	2.496	3.9	20.9	10E	3*	—	4 16	3 53.31	+29 37.3	3.495	2.767	12.8	21.5	37E	31*	12*
8 4	8 46.35	+28 27.1	3.516	2.529	4.5	20.9	11W	4*	—	4 26	4 9.69	+30 38.2	3.593	2.788	11.0	21.5	32E	25*	9*
8 14	9 5.42	+27 51.4	3.527	2.562	5.9	21.0	15W	8*	—	5 6	4 26.53	+31 34.4	3.677	2.808	9.2	21.5	26E	20*	5*
8 24	9 23.99	+27 12.2	3.524	2.593	7.5	21.1	19W	13*	—	5 16	4 43.77	+32 25.6	3.747	2.828	7.4	21.5	21E	15*	2*
9 3	9 42.04	+26 31.0	3.508	2.623	9.2	21.2	24W	18*	—	5 26	5 1.33	+33 11.4	3.803	2.846	5.8	21.4	16E	10*	—
9 13	9 59.54	+25 49.1	3.478	2.653	10.9	21.3	30W	24*	—	6 5	5 19.12	+33 51.6	3.844	2.863	4.5	21.4	13E	7*	—
9 23	10 16.47	+25 8.2	3.436	2.681	12.5	21.4	35W	29*	5*	6 15	5 37.10	+34 26.3	3.869	2.880	3.9	21.4	11E	4*	—
10 3	10 32.80	+24 29.9	3.381	2.709	14.1	21.4	41W	35*	7*	6 25	5 55.16	+34 55.4	3.880	2.895	4.3	21.4	12W	6*	—
10 13	10 48.49	+23 55.7	3.314	2.736	15.5	21.4	47W	41*	10*	306772 2001 CY₁									
10 23	11 3.48	+23 27.6	3.235	2.762	16.8	21.5	53W	47*	13*	12 27	1 57.23	+20 30.5	0.960	1.672	31.0	18.0	119E	66	43
11 2	11 17.71	+23 7.4	3.147	2.786	18.0	21.4	60W	53*	16*	1 6	2 11.74	+21 24.3	1.048	1.686	32.7	18.2	112E	66	42*
11 12	11 31.08	+22 57.1	3.049	2.810	18.9	21.4	67W	59*	20*	1 16	2 28.80	+22 23.7	1.143	1.702	33.7	18.5	106E	67	41*
11 22	11 43.46	+22 58.7	2.944	2.833	19.6	21.4	74W	64*	24*	1 26	2 47.96	+23 25.3	1.244	1.722	34.2	18.7	101E	68	39*
12 2	11 54.70	+23 14.3	2.834	2.855	20.0	21.3	81W	68*	28*	2 5	3 8.76	+24 25.5	1.351	1.745	34.2	18.9	95E	69	37*
12 12	12 4.61	+23 45.6	2.721	2.876	20.0	21.3	89W	69	32*	2 15	3 30.87	+25 21.4	1.463	1.771	33.9	19.1	90E	70*	35*
12 22	12 12.94	+24 34.4	2.609	2.896	19.7	21.2	97W	70	35*	2 25	3 53.99	+26 10.4	1.580	1.799	33.3	19.3	86E	70*	34*
1 1	12 19.43	+25 41.4	2.499	2.914	19.0	21.1	105W	71	37*	3 7	4 17.83	+26 50.1	1.700	1.829	32.4	19.4	81E	68*	33*
1 11	12 23.75	+27 6.6	2.397	2.932	17.9	21.0	114W	72	37*	3 17	4 42.17	+27 19.1	1.824	1.861	31.3	19.6	76E	64*	32*
1 21	12 25.61	+28 48.0	2.306	2.949	16.4	20.8	122W	74	35	3 27	5 6.77	+27 36.0	1.949	1.896	30.0	19.7	72E	60*	31*
12 27	1 56.37	+ 7 35.7	1.827	2.405	21.9	19.1	114E	53	56	4 6	5 31.43	+27 40.3	2.076	1.931	28.6	19.9	68E	56*	31*
1 6	2 1.26	+ 8 0.8	1.973	2.427	23.0	19.3	105E	53	56*	4 16	5 55.98	+27 31.7	2.204	1.968	27.1	20.0	63E	51*	31*
1 16	2 8.27	+ 8 38.1	2.124	2.448	23.5	19.5	97E	54	53*	4 26	6 20.26	+27 10.4							

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

20/22	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°	20/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°
306772 2001 CY₁										154330 2002 VX₉₄									
<i>(continuation)</i>										<i>(continuation)</i>									
10 13	11 44.57	+ 2 42.3	3.551	2.672	8.8	21.1	24 W	17*	9*	5 7	3 25.76	-59 14.7	0.130	0.986	96.4	17.0	76 E	—	27*
10 23	11 58.67	+ 1 3.3	3.521	2.708	10.7	21.2	30 W	22*	13*	5 8	3 19.79	-61 16.3	0.130	0.991	94.2	16.9	78 E	—	26*
11 2	12 12.20	- 0 32.1	3.477	2.743	12.4	21.2	36 W	27*	18*	5 9	3 13.04	-63 15.9	0.130	0.996	92.0	16.8	81 E	—	25*
11 12	12 25.11	- 2 3.3	3.419	2.777	14.1	21.3	43 W	31*	23*	5 10	3 5.36	-65 12.8	0.131	1.002	89.8	16.8	83 W	—	24*
11 22	12 37.30	- 3 29.3	3.347	2.811	15.5	21.3	50 W	35*	29*	5 11	2 56.56	-67 6.9	0.132	1.007	87.6	16.7	85 W	—	26*
12 2	12 48.69	- 4 49.7	3.264	2.843	16.8	21.3	57 W	37*	35*	5 12	2 46.40	-68 57.5	0.132	1.012	85.3	16.6	87 W	—	27*
12 12	12 59.13	- 6 3.5	3.169	2.875	17.9	21.3	64 W	38*	42*	5 13	2 34.59	-70 44.1	0.133	1.018	83.1	16.6	89 W	—	29*
12 22	13 8.48	- 7 10.0	3.064	2.906	18.7	21.3	72 W	38*	50*	5 14	2 20.75	-72 25.9	0.135	1.023	80.9	16.5	92 W	—	30*
1 1	13 16.54	- 8 8.5	2.952	2.937	19.2	21.3	79 W	37	58*	5 15	2 4.40	-74 2.0	0.136	1.029	78.6	16.5	94 W	—	31*
1 11	13 23.10	- 8 58.0	2.835	2.966	19.3	21.2	88 W	36	66*	5 16	1 44.99	-75 31.3	0.137	1.034	76.4	16.4	96 W	—	32*
1 21	13 27.92	- 9 37.6	2.716	2.995	19.0	21.1	97 W	35	72*	5 17	1 21.89	-76 52.1	0.139	1.040	74.3	16.4	98 W	—	33*
378160 2006 WX₁																			
12 27	1 58.39	+56 15.7	0.322	1.187	44.4	19.2	122 E	79	8	5 20	23 45.97	-79 42.6	0.144	1.057	67.9	16.3	105 W	—	35*
12 29	1 58.45	+54 45.2	0.327	1.186	45.2	19.3	121 E	80	9	5 21	23 6.12	-80 7.6	0.146	1.063	65.8	16.3	107 W	—	35*
12 31	1 59.02	+53 17.0	0.332	1.184	46.1	19.3	120 E	82	11*	5 22	22 24.95	-80 14.2	0.148	1.069	63.7	16.3	109 W	—	36*
1 2	2 0.03	+51 51.3	0.337	1.182	47.0	19.4	119 E	83	12*	5 23	21 44.94	-80 2.7	0.150	1.075	61.7	16.2	111 W	—	36
1 4	2 1.43	+50 28.2	0.342	1.180	47.9	19.4	117 E	85	13*	5 24	21 8.17	-79 35.1	0.152	1.081	59.7	16.2	113 W	—	36
1 6	2 3.16	+49 7.9	0.348	1.177	48.8	19.5	116 E	86	15*	5 25	20 35.82	-78 54.5	0.155	1.087	57.8	16.2	115 W	—	37
1 11	2 8.72	+45 59.4	0.362	1.169	51.1	19.6	112 E	89	18*	5 26	20 8.13	-78 3.9	0.157	1.093	55.9	16.2	117 W	—	38
1 16	2 15.70	+43 8.4	0.377	1.160	53.5	19.8	109 E	88	20*	5 27	19 44.77	-77 5.9	0.160	1.099	54.0	16.2	119 W	—	39
1 21	2 23.74	+40 34.0	0.393	1.150	55.8	19.9	105 E	86	22*	5 28	19 25.14	-76 2.9	0.163	1.105	52.1	16.2	121 W	—	40
1 26	2 32.56	+38 14.6	0.408	1.137	58.1	20.0	101 E	83	24*	5 29	19 8.62	-74 56.3	0.165	1.111	50.3	16.2	122 W	—	41
1 31	2 41.96	+36 8.0	0.422	1.124	60.3	20.1	98 E	81	25*	5 30	18 54.64	-73 47.6	0.168	1.117	48.6	16.2	124 W	—	42
2 5	2 51.79	+34 11.9	0.436	1.108	62.5	20.2	94 E	79	27*	5 31	18 42.72	-72 37.5	0.172	1.123	46.9	16.2	126 W	—	43
2 10	3 1.94	+32 24.5	0.449	1.092	64.7	20.3	91 E	77*	28*	6 1	18 32.48	-71 26.9	0.175	1.130	45.2	16.2	128 W	—	45
2 15	3 12.33	+30 43.8	0.460	1.073	66.8	20.4	88 E	75*	29*	6 2	18 23.62	-70 16.0	0.178	1.136	43.6	16.2	129 W	—	46
2 20	3 22.83	+29 8.0	0.469	1.054	69.1	20.5	85 E	72*	30*	6 3	18 15.89	-69 5.4	0.182	1.142	42.0	16.2	131 W	—	47
2 25	3 33.34	+27 35.1	0.477	1.033	71.4	20.6	81 E	69*	31*	6 4	18 9.10	-67 55.3	0.185	1.148	40.4	16.2	133 W	—	48
3 2	3 43.73	+26 3.4	0.482	1.010	73.8	20.6	78 E	66*	32*	6 5	18 3.10	-66 45.9	0.189	1.154	39.0	16.2	134 W	—	49
3 7	3 53.88	+24 31.1	0.485	0.987	76.5	20.7	75 E	63*	33*	6 6	17 57.76	-65 37.3	0.193	1.161	37.5	16.3	136 W	—	50
3 12	4 3.66	+22 56.8	0.485	0.962	79.3	20.7	72 E	59*	33*	6 7	17 53.00	-64 29.8	0.196	1.167	36.1	16.3	137 W	—	52
3 17	4 12.91	+21 18.9	0.482	0.936	82.4	20.8	69 E	56*	34*	6 8	17 48.74	-63 23.3	0.201	1.173	34.8	16.3	139 W	—	53
3 22	4 21.40	+19 35.9	0.477	0.909	85.9	20.8	66 E	52*	35*	6 9	17 44.90	-62 18.0	0.205	1.180	33.5	16.3	140 W	—	54
3 27	4 28.84	+17 46.3	0.469	0.882	89.8	20.9	62 E	47*	35*	6 10	17 41.43	-61 13.9	0.209	1.186	32.3	16.3	141 W	—	55
4 1	4 34.89	+15 48.6	0.459	0.854	94.3	20.9	58 E	43*	35*	6 11	17 38.30	-60 11.1	0.213	1.192	31.1	16.4	143 W	—	56
4 6	4 39.12	+13 42.0	0.446	0.826	99.5	21.0	54	37*	35*	6 12	17 35.46	-59 9.5	0.218	1.199	30.0	16.4	144 W	—	57
4 11	4 41.01	+11 26.0	0.431	0.798	105.4	21.2	50	32*	35*	6 13	17 32.88	-58 9.3	0.223	1.205	28.9	16.4	145 W	—	58
4 16	4 39.92	+ 9 1.2	0.416	0.770	112.2	21.4	45 E	25*	33*	6 14	17 30.54	-57 10.5	0.228	1.211	27.9	16.4	146 W	—	59
270588 2002 LA₆																			
12 27	1 59.02	+19 46.5	1.480	2.136	23.8	20.6	119 E	65	44	6 17	17 24.73	-54 22.0	0.243	1.230	25.3	16.5	149 E	—	62
1 6	2 7.16	+19 38.1	1.628	2.178	25.0	20.9	111 E	65	44*	6 19	17 21.69	-52 36.5	0.254	1.243	23.9	16.6	150 E	—	63
1 16	2 17.28	+19 44.5	1.785	2.220	25.6	21.2	103 E	65	43*	6 21	17 19.21	-50 56.4	0.265	1.256	22.7	16.7	151 E	—	65
1 26	2 29.02	+20 2.4	1.946	2.261	25.7	21.4	95 E	65	41*	6 23	17 17.20	-49 21.6	0.277	1.268	21.9	16.8	152 E	—	67
2 5	2 42.06	+20 28.5	2.110	2.302	25.3	21.6	88 E	65*	38*	6 25	17 15.61	-47 51.9	0.289	1.281	21.2	16.9	153 E	—	68
154330 2002 VX₉₄																			
12 27	2 0.37	+31 7.3	0.468	1.293	40.3	18.5	122 E	76	33	6 27	17 14.37	-46 27.2	0.302	1.293	20.9	17.0	153 E	—	70
1 1	1 57.21	+29 44.6	0.468	1.261	44.5	18.6	116 E	75	34*	6 29	17 13.45	-45 7.2	0.316	1.306	20.7	17.1	153 E	—	71
1 6	1 56.07	+28 27.6	0.469	1.230	48.4	18.6	111 E	73	35*	7 1	17 12.82	-43 51.8	0.330	1.319	20.7	17.2	153 E	1	72
1 11	1 56.80	+27 17.3	0.469	1.198	52.3	18.7	106 E	72	35*	7 3	17 12.45	-42 40.8	0.345	1.331	21.0	17.3	152 E	2	73
1 16	1 59.25	+26 13.9	0.468	1.166	55.9	18.7	101 E	71	36*	7 5	17 12.32	-41 33.8	0.360	1.343	21.3	17.5	151 E	3	74
1 21	2 3.23	+25 16.8	0.466	1.135	59.5	18.8	96 E	70	35*	7 10	17 12.94	-39 3.1	0.400	1.374	22.5	17.8	149 E	6	77
1 26	2 8.57	+24 24.9	0.462	1.104	63.0	18.8	92 E	69	35*	7 15	17 14.72	-36 53.9	0.443	1.405	24.1	18.1	146 E	8	79
1 31	2 15.07	+23 36.6	0.456	1.074	66.4	18.8	88 E	69*	35*	7 20	17 17.51	-35 3.2	0.489	1.435	25.7	18.4	142 E	10	81
2 5	2 22.60	+22 49.9	0.448	1.045	70.0	18.8	85 E	67*	34*	7 25	17 21.12	-33 28.3	0.539	1.464	27.3	18.7	139 E	12	83
2 10	2 31.01	+22 2.9	0.437	1.017	73.5	18.8	81 E	66*	34*	7 30	17 25.43	-32 6.7	0.590	1.493	28.7	19.0	135 E	13	84
2 15	2 40.16	+21 13.2	0.424	0.991	77.2	18.8	78 E	64*	34*	8 4	17 30.35	-30 56.1	0.645	1.521	29.9	19.3	132 E	14	85
2 20	2 49.91	+20 18.3	0.408	0.966	81.1	18.8	75 E	61*	34*	8 9	17 35.81	-29 54.8	0.702	1.549	31.0	19.5	128 E	15	86
2 25	3 0.05	+19 15.0	0.390	0.944	85.1	18.8	72 E	58*	34*	8 14	17 41.76	-29 1.1	0.762	1.576	31.9	19.8	125 E	16	87
3 2	3 10.39	+17 59.7	0.370	0.924	89.3	18.8	6												

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

20/22	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°	20/22	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°										
118337 1999 BQ₉										29451 1997 RM₁ (continuation)																			
12 27	2 0.90	+ 7 13.8	1.593	2.199	23.9	18.5	115E	52	57	1 6	7 58.77	+27 31.4	2.296	3.262	3.8	19.4	167W	73	36	1 6	7 53.44	+27 45.4	2.286	3.262	2.5	19.3	172W	73	36
1 6	2 1.33	+ 9 4.5	1.674	2.160	26.0	18.7	106E	54	54*	1 11	7 47.97	+27 57.6	2.283	3.262	2.1	19.3	173E	73	36	1 21	7 42.49	+28 7.6	2.288	3.261	3.1	19.4	170E	73	36
1 16	2 5.01	+11 3.2	1.760	2.120	27.4	18.8	97E	56	50*	509563 2008 CG₂₁																			
1 26	2 11.66	+13 7.9	1.847	2.081	28.2	18.9	89E	58	45*	12 27	2 1.47	+30 22.0	0.655	1.441	35.4	19.7	122E	75	34	1 1	2 8.09	+30 26.7	0.672	1.432	37.1	19.8	119E	75	34
2 5	2 20.97	+15 16.7	1.932	2.041	28.6	18.9	82E	60*	40*	1 6	2 16.07	+30 34.1	0.691	1.424	38.6	19.9	115E	76	33*	1 11	2 25.34	+30 43.7	0.711	1.417	39.9	20.0	113E	76	33*
2 15	2 32.70	+17 27.9	2.013	2.003	28.5	19.0	75E	59*	36*	1 16	2 35.80	+30 54.9	0.732	1.411	41.0	20.1	110E	76	33*	1 21	2 47.35	+31 7.0	0.754	1.407	41.9	20.2	107E	76	32*
2 25	2 46.66	+19 40.0	2.089	1.964	28.1	19.0	69E	57*	31*	1 26	2 59.90	+31 19.3	0.777	1.404	42.6	20.2	105E	76	32*	1 31	3 13.33	+31 30.7	0.801	1.403	43.2	20.3	103E	77	32*
3 7	3 2.69	+21 51.1	2.159	1.926	27.4	19.0	63E	53*	28*	2 5	3 27.53	+31 40.4	0.827	1.403	43.6	20.4	101E	77	31*	3 2	4 46.84	+31 37.1	0.972	1.423	44.1	20.8	93E	77	31*
3 17	3 20.72	+23 59.3	2.221	1.889	26.5	19.0	58E	49*	24*	3 7	5 3.63	+31 23.0	1.005	1.431	43.9	20.9	92E	76*	32*	3 12	5 20.50	+31 2.8	1.040	1.440	43.6	21.0	90E	75*	32*
3 27	3 40.69	+26 2.6	2.275	1.854	25.4	19.0	53E	45*	22*	3 17	5 37.37	+30 37.1	1.077	1.450	43.3	21.0	89E	74*	33*	3 22	5 54.16	+30 6.0	1.115	1.462	42.9	21.1	87E	73*	33*
4 6	4 2.57	+27 58.5	2.322	1.819	24.3	19.0	48E	41*	19*	3 27	6 10.81	+29 29.5	1.155	1.474	42.5	21.2	86E	71*	34*	4 1	6 27.23	+28 48.0	1.197	1.488	42.0	21.3	85E	69*	35*
4 16	4 26.35	+29 44.4	2.362	1.786	23.1	18.9	44E	37*	17*	4 6	6 43.38	+28 1.6	1.240	1.502	41.4	21.4	84E	67*	35*	4 11	6 59.24	+27 10.8	1.285	1.518	40.8	21.5	82E	65*	36*
4 26	4 52.00	+31 17.4	2.395	1.755	21.8	18.9	40E	33*	15*	385395 2002 VO₁₄																			
5 6	5 19.42	+32 34.2	2.421	1.726	20.6	18.8	37E	29*	13*	12 27	2 2.12	+ 7 58.6	0.859	1.562	34.6	19.0	116E	53	56	1 1	2 11.28	+ 6 31.9	0.907	1.570	35.4	19.1	112E	52	57
5 16	5 48.51	+33 31.7	2.443	1.699	19.4	18.8	34E	26*	12*	1 6	2 20.63	+ 5 20.7	0.958	1.579	36.1	19.3	109E	50	59*	1 11	2 39.16	+ 4 23.3	1.010	1.589	36.6	19.4	106E	49	59*
5 26	6 19.04	+34 6.9	2.459	1.675	18.2	18.7	31E	23*	11*	1 16	2 39.84	+ 3 37.8	1.064	1.600	36.9	19.6	103E	49	60*	1 21	2 49.66	+ 3 2.7	1.120	1.612	37.0	19.7	100E	48	60*
6 5	6 50.71	+34 16.8	2.473	1.654	17.0	18.7	29E	20*	10*	1 26	2 59.61	+ 2 36.3	1.177	1.624	37.0	19.8	97E	48	60*	1 31	3 9.66	+ 2 17.3	1.235	1.638	36.8	19.9	94E	47	59*
6 15	7 23.18	+33 59.6	2.484	1.636	16.0	18.6	26E	18*	9*	2 5	3 19.80	+ 2 4.4	1.293	1.652	36.6	20.0	92E	47	59*	2 10	3 30.03	+ 1 56.6	1.352	1.667	36.3	20.1	89E	47	58*
6 25	7 56.00	+33 14.1	2.493	1.621	14.9	18.6	24E	16*	8*	2 15	3 40.35	+ 1 53.0	1.412	1.682	35.9	20.2	87E	47	58*	2 20	3 50.76	+ 1 52.5	1.472	1.698	35.4	20.3	85E	47	57*
7 5	8 28.76	+32 0.4	2.502	1.610	14.0	18.5	22E	14*	7*	2 25	4 1.23	+ 1 54.5	1.533	1.715	34.9	20.4	83E	46*	57*	3 7	4 22.34	+ 2 3.2	1.654	1.749	33.8	20.6	78E	45*	55*
7 15	9 1.10	+30 19.7	2.512	1.603	13.0	18.5	21E	13*	6*	3 17	4 43.66	+ 2 14.5	1.775	1.786	32.4	20.8	74E	43*	54*	3 27	5 5.15	+ 2 24.9	1.896	1.824	31.0	20.9	70E	40*	53*
7 25	9 32.69	+28 14.4	2.523	1.599	12.1	18.5	19E	12*	5*	4 6	5 26.72	+ 2 31.6	2.016	1.863	29.6	21.1	67E	36*	51*	5 6	6 31.40	+ 2 11.7	2.368	1.985	24.9	21.4	56E	21*	47*
8 4	10 3.34	+25 47.5	2.536	1.600	11.2	18.4	18E	11*	4*	30512 2001 HO₈																			
8 14	10 32.95	+23 2.7	2.550	1.604	10.2	18.4	16E	10*	2*	12 27	2 3.70	-17 26.5	4.138	4.488	12.2	19.8	105E	28	81	1 6	2 3.71	-16 24.7	4.254	4.467	12.6	19.8	96E	29	79*
8 24	11 1.48	+20 4.2	2.567	1.612	9.3	18.4	15E	9*	1*	1 6	2 3.71	-16 24.7	4.254	4.467	12.6	19.8	96E	29	79*	1 16	2 5.19	-15 16.0	4.374	4.446	12.8	19.9	88E	30	73*
9 3	11 28.96	+16 56.0	2.586	1.624	8.5	18.4	14E	8*	—	1 26	2 8.06	-14 2.5	4.493	4.424	12.6	19.9	80E	31	65*	1 26	2 8.06	-14 2.5	4.493	4.424	12.6	19.9	80E	31	65*
9 13	11 55.49	+13 41.9	2.607	1.639	7.7	18.4	13E	6*	—	2 5	2 12.19	-12 46.1	4.609	4.402	12.3	20.0	72E	32*	58*	2 5	2 12.19	-12 46.1	4.609	4.402	12.3	20.0	72E	32*	58*
9 23	12 21.15	+10 25.7	2.628	1.657	7.0	18.4	12E	5*	—	2 15	2 17.47	-11 28.4	4.717	4.380	11.7	20.0	64E	31*	52*	2 15	2 17.47	-11 28.4	4.717	4.380	11.7	20.0	64E	31*	52*
10 3	12 46.06	+ 7 10.6	2.649	1.679	6.7	18.4	11E	4*	—	2 25	2 23.76	-10 10.7	4.817	4.357	11.0	20.0	57E	28*	46*	3 7	2 30.94	- 8 54.2	4.905	4.334	10.1	20.0	50E	24*	41*
10 13	13 10.34	+ 3 59.3	2.669	1.704	6.8	18.5	12W	3*	—	3 7	2 30.94	- 8 54.2	4.905	4.334	10.1	20.0	50E	24*	41*	3 17	2 38.89	- 7 39.6	4.980	4.311	9.1	20.0	43E	19*	35*
10 23	13 34.05	+ 0 54.4	2.687	1.731	7.3	18.6	13W	5*	—	3 27	2 47.50	- 6 27.9	5.040	4.287	8.1	19.9	37E	13*	30*	4 6	2 56.68	- 5 19.8	5.084	4.263	7.0	19.9	32E	6*	25*
11 2	13 57.31	- 2 2.5	2.702	1.760	8.3	18.7	15W	8*	—	4 6	3 6.34	- 4 15.8	5.113	4.239	6.1	19.9	27E	—	20*	4 16	3 6.34	- 4 15.8	5.113	4.239	6.1	19.9	27E	—	20*
11 12	14 20.16	- 4 49.6	2.712	1.792	9.5	18.8	17W	11*	—	4 26	3 16.38	- 3 16.6	5.124	4.215	5.3	19.8	23E	—	15*	5 6	3 26.73	- 2 22.5	5.118	4.190	4.9	19.8	21E	—	10*
11 22	14 42.62	- 7 26.0	2.716	1.825	11.0	18.9	21W	14*	3*	5 16	3 37.32	- 1 34.1	5.096	4.165	4.9	19.7	21E	—	4*	6 15	3 48.06	- 0 51.6	5.056	4.139	5.4	19.7	23W	—	9*
12 2	15 4.74	- 9 50.8	2.714	1.860	12.6	19.0	24W	17*	7*	6 5	3 58.88	- 0 15.5	5.000	4.114	6.2	19.7	26W	—	16*	6 15	4 9.71	+ 0 13.9	4.928	4.088	7.3	19.8	31W	—	23*
12 12	15 26.48	-12 3.7	2.705	1.896	14.2	19.1	28W	19*	12*	6 25	4 20.45	+ 0 36.4	4.841	4.061	8.4	19.8	36W	—	29*	7 5	4 21.03	+ 0 51.9	4.740	4.035	9.6	19.7	42W	1*	35*
12 22	15 47.81	-14 4.6	2.687	1.933	15.9	19.1	33W	20*	18*	7 15	4 41.34	+ 1 0.1	4.625	4.008	10.8	19.7	47W	8*	41*	7 25	4 51.28	+ 1 0.9	4.498	3.981	11.9	19.7	54W	15*	46*
1 1	16 8.68	-15 53.9	2.660	1.970	17.6	19.2	37W	21*	24*	8 4	5 0.74	+ 0 54.5	4.361	3.954	12.9	19.6	60W	22*	51*	8 14	5 9.57	+ 0 40.8	4.214	3.926	13.7	19.6	67W	29*	55*
1 11	16 29.00	-17 32.0	2.624	2.009	19.2	19.3	42W	21*	31*	8 24	5 17.65	+ 0 20.2	4.060	3.898	14.4	19.5	74W	35*	59*	9 3	5 24.81	- 0 6.9	3.901	3.870	14.9	19.4	81W	39*	62*
1 21	16 48.65	-18 59.9	2.579	2.048	20.8	19.3	48W	21*	37*	9 13	5 30.87	- 0 39.8	3.738	3.842	15.2	19.3	88W	43*	64*	9 23	5 35.65	- 1 17.5	3.576	3.814	15.2				

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

20/22	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°-26°	2021	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°-26°
30512 2001 HO₈ (continuation)									248590 2006 CS (continuation)								
10 13	5 40.64	-2 41.6	3.263	3.756	14.2	18.9	112 W	42 67	3 19	3 56.01	-15 2.4	0.369	0.881	97.0	17.5	61 E	21* 54*
10 23	5 40.51	-3 23.7	3.119	3.727	13.3	18.8	121 W	42 67	3 21	4 2.19	-9 45.7	0.348	0.880	99.1	17.5	61 E	25* 52*
11 2	5 38.52	-4 2.0	2.989	3.698	12.0	18.6	129 W	41 68	3 23	4 8.56	-3 50.4	0.330	0.880	100.9	17.5	60 E	30* 49*
11 12	5 34.67	-4 33.0	2.876	3.669	10.5	18.5	138 W	40 69	3 25	4 15.15	+2 41.7	0.316	0.882	102.2	17.5	60 E	35* 45*
11 22	5 29.16	-4 52.9	2.785	3.639	8.9	18.3	145 W	40 69	3 27	4 21.98	+9 44.3	0.306	0.884	102.8	17.4	60 E	40* 40*
12 2	5 22.33	-4 58.3	2.719	3.610	7.7	18.2	150 W	40 69	3 28	4 25.50	+13 23.7	0.303	0.886	102.9	17.4	60 E	43* 38*
12 12	5 14.71	-4 46.4	2.680	3.580	7.4	18.1	152 E	40 69	3 29	4 29.10	+17 6.4	0.301	0.888	102.8	17.4	60 E	45* 35*
12 22	5 6.98	-4 16.1	2.668	3.550	8.1	18.2	149 E	41 68	3 30	4 32.79	+20 50.4	0.301	0.890	102.4	17.4	60 E	48* 32*
1 1	4 59.80	-3 27.8	2.684	3.521	9.6	18.2	143 E	42 67	3 31	4 36.57	+24 33.7	0.301	0.892	101.9	17.4	61 E	50* 29*
1 11	4 53.81	-2 23.7	2.724	3.491	11.5	18.3	135 E	43 66	4 1	4 40.45	+28 14.3	0.303	0.895	101.2	17.4	61 E	52* 26*
1 21	4 49.47	-1 7.1	2.786	3.461	13.3	18.4	126 E	44 65	4 2	4 44.44	+31 50.4	0.307	0.898	100.4	17.3	62 E	54* 23*
173444 2000 LG₃																	
12 27	2 3.82	+45 13.6	1.457	2.163	22.2	19.0	124 E	90 19	4 3	4 48.57	+35 20.5	0.311	0.901	99.4	17.3	63 E	56* 21*
1 1	2 8.29	+43 49.3	1.511	2.179	22.9	19.1	120 E	89 20	4 4	4 52.82	+38 43.0	0.317	0.904	98.3	17.3	63 E	57* 18*
1 6	2 13.44	+42 31.2	1.568	2.195	23.6	19.2	117 E	88 21*	4 5	4 57.23	+41 57.1	0.323	0.908	97.1	17.3	64 E	58* 15*
1 11	2 19.17	+41 19.3	1.629	2.211	24.1	19.3	113 E	86 22*	4 6	5 1.81	+45 1.9	0.331	0.911	95.8	17.3	65 E	59* 13*
1 16	2 25.43	+40 13.7	1.693	2.227	24.6	19.4	110 E	85 23*	4 8	5 11.52	+50 42.2	0.349	0.920	93.1	17.3	67 E	60* 8*
1 21	2 32.14	+39 14.1	1.759	2.243	24.9	19.5	106 E	84 24*	4 10	5 22.12	+55 42.9	0.369	0.929	90.4	17.4	68 E	60* 4*
1 26	2 39.23	+38 20.3	1.828	2.258	25.2	19.6	103 E	83 24*	4 12	5 33.78	+60 5.7	0.392	0.939	87.6	17.4	69 E	60* 1*
2 5	2 54.36	+36 48.2	1.970	2.288	25.4	19.8	96 E	82 24*	4 14	5 46.73	+63 53.7	0.417	0.950	84.9	17.5	71 E	59*
2 15	3 10.52	+35 33.7	2.118	2.318	25.2	20.0	89 E	79* 24*	4 16	6 1.21	+67 10.4	0.443	0.961	82.3	17.5	72 E	59*
2 25	3 27.47	+34 33.2	2.268	2.348	24.7	20.2	82 E	74* 24*	4 17	6 9.12	+68 38.1	0.457	0.967	81.1	17.6	72 E	58*
3 7	3 44.98	+33 43.1	2.418	2.376	23.9	20.3	76 E	68* 24*	4 18	6 17.53	+69 59.2	0.471	0.974	79.9	17.6	73 E	58*
3 17	4 2.93	+33 0.1	2.567	2.404	22.8	20.4	69 E	62* 23*	4 19	6 26.46	+71 14.1	0.484	0.980	78.7	17.6	73 E	57*
3 27	4 21.19	+32 21.7	2.712	2.431	21.5	20.5	63 E	56* 22*	4 20	6 35.98	+72 23.2	0.499	0.986	77.5	17.7	73 E	57*
4 6	4 39.65	+31 45.4	2.852	2.457	20.0	20.6	57 E	49* 22*	4 21	6 46.10	+73 26.7	0.513	0.993	76.4	17.7	74 E	57*
4 16	4 58.22	+31 9.4	2.985	2.483	18.4	20.7	51 E	43* 21*	4 22	6 56.87	+74 24.8	0.527	1.000	75.3	17.7	74 E	56*
4 26	5 16.82	+30 32.0	3.109	2.508	16.6	20.7	45 E	37* 19*	4 23	7 8.32	+75 17.8	0.541	1.007	74.2	17.8	75 E	56*
5 6	5 35.36	+29 52.2	3.224	2.531	14.7	20.8	40 E	30* 18*	4 24	7 20.46	+76 6.0	0.556	1.014	73.2	17.8	75 E	56*
5 16	5 53.79	+29 8.8	3.329	2.554	12.8	20.8	34	24* 16*	4 25	7 33.31	+76 49.4	0.570	1.021	72.2	17.9	75 E	56*
5 26	6 12.04	+28 21.3	3.422	2.576	10.8	20.8	28	18* 13*	4 26	7 46.85	+77 28.2	0.584	1.029	71.2	17.9	75 E	55*
6 5	6 30.05	+27 29.2	3.503	2.597	8.7	20.8	23	12* 11*	4 27	8 1.07	+78 2.5	0.599	1.036	70.2	17.9	76 E	55*
6 15	6 47.78	+26 32.0	3.570	2.617	6.6	20.8	17	7* 7*	4 28	8 15.91	+78 32.5	0.613	1.044	69.3	18.0	76 E	55*
6 25	7 5.18	+25 29.8	3.624	2.637	4.5	20.7	12	3* 3*	4 29	8 31.29	+78 58.3	0.628	1.052	68.4	18.0	76 E	55*
7 5	7 22.19	+24 22.4	3.664	2.655	2.4	20.6	6	—	4 30	8 47.13	+79 19.9	0.642	1.060	67.5	18.0	76 E	55*
7 15	7 38.81	+23 9.9	3.688	2.672	0.6	20.5	2	—	5 1	9 3.30	+79 37.6	0.656	1.068	66.6	18.1	77 E	55*
7 25	7 54.97	+21 52.4	3.698	2.689	2.1	20.6	6 W	—	5 2	9 19.65	+79 51.5	0.670	1.076	65.8	18.1	77 E	55*
8 4	8 10.66	+20 30.2	3.692	2.704	4.2	20.8	11 W	3* 2*	5 3	9 36.05	+80 1.7	0.685	1.084	65.0	18.2	77 E	55*
8 14	8 25.84	+19 3.5	3.671	2.718	6.2	20.9	17 W	8* 6*	5 4	9 52.33	+80 8.5	0.699	1.092	64.2	18.2	77 E	55*
8 24	8 40.47	+17 32.6	3.635	2.732	8.3	21.0	23 W	14* 10*	5 5	10 8.35	+80 12.2	0.713	1.101	63.4	18.2	77 E	55*
9 3	8 54.51	+15 57.9	3.584	2.744	10.2	21.0	29 W	20* 14*	5 6	10 23.97	+80 12.8	0.727	1.109	62.6	18.3	78 E	55*
9 13	9 7.92	+14 19.8	3.518	2.755	12.1	21.1	35 W	25* 18*	5 7	10 39.08	+80 10.8	0.741	1.118	61.9	18.3	78 E	55*
9 23	9 20.62	+12 38.6	3.438	2.766	13.9	21.1	41 W	31* 23*	5 8	10 53.60	+80 6.3	0.755	1.126	61.2	18.3	78 E	55
10 3	9 32.57	+10 54.9	3.345	2.775	15.5	21.1	48 W	36* 27*	5 9	11 7.45	+79 59.5	0.768	1.135	60.5	18.4	78 E	55
10 13	9 43.65	+9 8.9	3.240	2.784	17.0	21.1	55 W	41* 31*	5 10	11 20.60	+79 50.8	0.782	1.144	59.8	18.4	78 E	55
10 23	9 53.76	+7 21.5	3.124	2.791	18.3	21.0	62 W	45* 36*	5 11	11 33.02	+79 40.3	0.796	1.153	59.1	18.4	78 E	55
11 2	10 2.77	+5 32.9	2.998	2.797	19.3	21.0	69 W	48* 42*	5 12	11 44.72	+79 28.3	0.809	1.162	58.4	18.5	79 E	56
11 12	10 10.48	+3 44.1	2.865	2.803	20.1	20.9	76 W	48* 47*	5 13	11 55.72	+79 14.9	0.823	1.171	57.8	18.5	79 E	56
11 22	10 16.71	+1 55.8	2.727	2.807	20.5	20.8	84 W	47* 53*	5 14	12 6.02	+79 0.4	0.836	1.180	57.2	18.5	79 E	56
12 2	10 21.20	+0 9.1	2.587	2.810	20.5	20.7	93 W	45 60*	5 15	12 15.68	+78 44.8	0.849	1.189	56.6	18.6	79 E	56
12 12	10 23.68	-1 34.5	2.448	2.813	20.1	20.6	101 W	43 65*	5 16	12 24.71	+78 28.3	0.862	1.198	56.0	18.6	79 E	57
12 22	10 23.86	-3 13.2	2.313	2.814	19.1	20.4	111 W	42 67	5 17	12 33.17	+78 10.9	0.875	1.207	55.4	18.6	79 E	57
1 1	10 21.50	-4 44.5	2.188	2.814	17.6	20.3	120 W	40 69	5 18	12 41.08	+77 53.0	0.888	1.216	54.8	18.7	79 E	57
1 11	10 16.44	-6 5.1	2.076	2.813	15.5	20.1	130 W	39 70	5 19	12 48.50	+77 34.4	0.901	1.226	54.2	18.7	79 E	57
1 21	10 8.71	-7 11.2	1.983	2.812	12.9	19.9	140 W	38 71	5 20	12 55.45	+77 15.2	0.914	1.235	53.7	18.7	80 E	58
248590 2006 CS																	
12 27	2 3.95	-60 50.2	1.266	1.477	41.1	19.5	81 E	— 55	5 21	13 1.98	+76 55.6	0.926	1.244	53.2	18.8	80 E	58
1 1	2 0.43	-60 18.2	1.243	1.428	42.5	19.4	79 E	— 56*	5 22	13 8.11	+76 35.6	0.939	1.254	52.6	18.8	80 E	58
1 6	1 58.55	-59 38.1	1.216	1.379	44.0	19.3	77 E	— 56*	5 23	13 13.89	+76 15.3	0.951	1.263	52.1	18.8	80 E	59
1 11	1 58.30	-58 50.6	1.185	1.330	45.6	19.2	75 E	— 56*	5 24	13 19.33	+75 54.6	0.963	1.273	51.6	18.8	80 E	59
1 16	1 59.63	-57 56.4	1.149	1.282	47.3	19.1	73 E	— 56*	5 25	13 24.47	+75 33.6	0.976	1.282	51.1	18.9	80 E	59
1 21	2 2.47	-56 55.4	1.109	1.235	49.3	19.0											

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

20/22										20/21									
α ₂₀₀₀	δ ₂₀₀₀	Δ	r	β	V	ψ	45°	-26°		α ₂₀₀₀	δ ₂₀₀₀	Δ	r	β	V	ψ	45°	-26°	
29566 1998 FK₅										68359 2001 OZ₁₃									
<i>(continuation)</i>										<i>(continuation)</i>									
12 22	14 50.87	-17 18.5	2.501	1.929	21.0	19.6	45 W	23*	32*	7 10	11 40.34	+11 18.9	1.563	1.437	39.3	21.1	64 E	30*	48*
1 1	15 10.62	-19 54.1	2.404	1.918	23.0	19.6	50 W	22*	38*	7 15	11 53.70	+9 32.5	1.602	1.449	38.5	21.2	63 E	28*	49*
1 11	15 30.70	-22 27.5	2.300	1.907	24.9	19.6	55 W	21*	45*	7 20	12 6.86+	+7 46.3	1.641	1.461	37.7	21.2	62 E	26*	49*
1 21	15 51.13	-24 59.1	2.190	1.896	26.6	19.5	60 W	19*	52*	7 25	12 19.83+	+6 0.9	1.681	1.474	36.8	21.3	60 E	25*	49*
41223 1999 XD₁₆										469234 2016 JG₅									
12 27	2 14.28	+24 37.3	1.248	1.970	24.6	16.7	124 E	70	39	12 27	2 15.26+	+0 26.0	1.566	2.181	24.0	21.4	116 E	45	64
1 6	2 22.17	+25 21.3	1.379	2.009	26.2	17.0	116 E	70	39*	1 6	2 20.23+	+2 14.8	1.708	2.214	25.0	21.6	108 E	47	62*
27031 1998 RO₄										216464 1974 PB									
12 27	2 15.43	+7 39.0	1.475	2.130	23.9	21.3	119 E	53	56	12 27	2 15.46+	+3 5.8	1.303	1.955	26.7	20.5	117 E	48	61
1 6	2 21.34	+8 22.0	1.635	2.179	25.1	21.6	110 E	53	56*	1 6	2 23.85+	+4 41.8	1.441	1.996	27.7	20.8	109 E	50	59*
1863 Antinous										508453 2016 NF₁									
12 27	2 15.83	+36 55.2	2.762	3.430	13.5	21.0	126 E	82	27	12 27	2 16.83	-22 26.4	1.174	1.710	33.8	19.9	105 E	23	86
1 6	2 14.21	+35 51.4	2.907	3.453	14.8	21.1	116 E	81	28*	1 1	2 21.75	-20 9.3	1.212	1.718	34.0	20.0	103 E	25	84
513022 2017 VD₁										370633 2003 YK₁₂₃									
12 27	2 17.40	+22 43.4	1.302	2.021	23.8	21.3	124 E	68	41	12 27	2 17.89	+17 37.3	0.960	1.704	29.1	20.1	123 E	63	46
1 6	2 23.62	+22 47.4	1.427	2.049	25.7	21.6	115 E	68	41*	1 6	2 30.02	+18 3.4	1.055	1.722	31.1	20.4	115 E	63	46
337103 1999 JA₅										480990 2004 BV₁₁₄									
12 27	2 18.10	+12 40.2	2.155	2.793	17.6	21.2	121 E	58	51	12 27	2 19.18	-1 50.5	1.469	2.090	25.1	21.4	116 E	43	66
1 6	2 20.51	+12 10.9	2.317	2.827	18.9	21.4	111 E	57	52*	1 6	2 21.79	+0 24.6	1.533	2.048	27.3	21.5	107 E	45	64*

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

20/22	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°	20/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°
5999 Plescia (continuation)										155002 2005 NN₁₀₂ (continuation)									
11 12	14 49.08	-7 9.5	2.859	1.899	5.9	18.6	11 W	5*	—	3 17	4 7.70	+18 39.3	2.508	2.312	23.4	21.1	67 E	53*	36*
159542 2001 QN₂₉₄										360643 2004 HY₅₃									
12 27	2 22.87	+16 18.5	1.906	2.581	18.6	21.4	123 E	61	48	12 27	2 24.17	+24 11.1	1.311	2.047	23.0	20.1	126 E	69	40
16834 1997 WU₂₂										429845 2012 QX₄₀									
12 27	2 23.16	+22 12.0	1.378	2.103	22.5	19.0	125 E	67	42	12 27	2 24.78	+27 44.5	1.904	2.611	17.6	21.4	126 E	73	36
100333 1995 SN₅										358453 2007 EH₈₈									
12 27	2 23.24	+20 38.3	1.483	2.092	25.3	19.2	115 E	66	43*	12 27	2 25.17	+69 56.8	0.317	1.182	44.8	19.5	122 E	65	—
30800 1989 ST										155002 2005 NN₁₀₂									
12 27	2 23.77	+9 52.7	1.288	1.987	25.0	19.4	121 E	55	54	12 27	2 27.03	+19 54.7	1.558	2.273	20.7	18.4	125 E	65	44

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

20/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°	20/22	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°
138893 2000 YH₆₆																			
12 27	2 54.54	+25 37.3	1.243	2.042	20.7	21.1	133 E	71	38	7 15	9 31.66	+30 6.9	2.470	1.632	16.5	20.2	27 E	18*	11*
334055 2001 OK₂₁																			
12 27	2 55.54	+27 11.2	1.533	2.320	18.0	20.6	133 E	72	37	7 25	10 1.55	+28 6.4	2.489	1.629	15.4	20.2	25 E	16*	10*
76828 2000 SL₁₆₁																			
12 27	2 56.73	+16 56.0	1.592	2.360	18.2	20.1	131 E	62	47	8 4	10 30.74	+25 47.3	2.508	1.629	14.4	20.2	24 E	15*	9*
328508 2009 QH₉																			
12 27	2 57.42	+19 48.0	1.274	2.067	20.6	21.0	132 E	65	44	8 14	10 59.16	+23 12.3	2.527	1.631	13.4	20.2	22 E	14*	8*
79571 1998 QG₉₂																			
12 27	2 57.67	+11 25.5	1.317	2.087	21.2	19.1	130 E	56	53	9 3	11 53.72	+17 28.4	2.563	1.641	11.4	20.1	19 E	12*	4*
148433 2000 XW																			
12 27	2 57.91	+2 35.3	1.235	1.982	23.6	19.4	126 E	48	61	9 13	12 19.96	+14 25.9	2.582	1.649	10.5	20.1	17 E	11*	2*
252087 2000 UK₃																			
12 27	2 59.13	+19 53.1	1.394	2.183	19.4	20.0	133 E	65	44	10 3	13 10.78	+ 8 15.7	2.618	1.671	8.9	20.1	15 E	9*	—
4055 Magellan																			
12 27	2 59.36	-21 41.0	1.173	1.801	30.2	17.6	113 E	23	86	10 13	13 35.54	+ 5 13.7	2.634	1.684	8.3	20.1	14 E	7*	—

