

EPIHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

Table with columns: 20/21, α2000, δ2000, Δ, r, β, V, ψ, 45°-26°. Contains three main sections: 506515 2004 RG174 (continuation), 484462 2008 CM20 (continuation), and 380282 2002 AO148 (continuation). Each section lists astronomical data for various dates and includes sub-headers like 'h m', 's', '°', and 'W'.

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

20/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°-26°	20/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°-26°
220219 2002 VM₉₉									523585 1998 MW₅ <i>(continuation)</i>								
6 20	0 15.74	-12 37.0	2.781	2.967	20.0	21.5	90 W	21* 77*	8 4	3 12.51	+ 5 17.2	0.578	1.121	64.3	20.3	85 W	42* 59*
483406 1999 RK₃₀									221980 1996 EO								
6 20	0 20.55	+ 0 59.8	1.864	2.024	29.9	21.4	84 W	32* 63*	6 20	0 40.05	-23 8.0	0.909	1.357	48.5	21.3	90 W	9* 84*
523585 1998 MW₅									221980 1996 EO								
6 20	0 28.50	- 4 40.2	0.939	1.312	50.4	21.3	84 W	26* 68*	10 13	10 46.51	+29 35.8	0.836	0.808	74.7	20.8	51 W	45* 7*

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20/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°	2020	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°
221980 1996 EO (continuation)										523792 2015 MR₁₀₁ (continuation)									
11 12	12 23.28	+14 47.7	1.075	0.913	59.0	21.1	52 W	45*	15*	7 30	4 34.50	+51 46.2	1.112	1.028	56.5	20.7	58 W	52*	9*
11 17	12 35.96	+12 20.1	1.103	0.940	57.2	21.1	53 W	45*	17*	8 4	5 14.79	+51 20.4	1.096	0.983	58.1	20.7	55 W	49*	7*
11 22	12 48.00	+9 55.5	1.127	0.969	55.6	21.2	54 W	45*	20*	8 9	5 54.70	+50 1.2	1.086	0.937	59.6	20.6	53 W	47*	7*
11 27	12 59.47	+7 34.2	1.146	0.999	54.2	21.3	55 W	45*	23*	8 14	6 32.78	+47 49.6	1.081	0.892	60.9	20.5	50 W	44*	6*
12 2	13 10.44	+5 16.4	1.162	1.030	53.0	21.3	57 W	45*	26*	8 19	7 8.06	+44 50.0	1.082	0.847	61.9	20.4	48 W	42*	6*
12 7	13 20.94	+3 2.3	1.174	1.062	52.0	21.4	58 W	44*	29*	8 24	7 40.19	+41 8.9	1.089	0.804	62.4	20.3	45 W	39*	7*
12 12	13 31.02	+0 51.8	1.181	1.094	51.1	21.4	60 W	43*	32*	8 29	8 9.27	+36 53.7	1.102	0.764	62.5	20.2	42 W	36*	7*
12 17	13 40.68	-1 15.2	1.185	1.127	50.3	21.5	62 W	42*	36*	8 31	8 20.13	+35 3.7	1.109	0.749	62.3	20.2	41 W	35*	8*
										9 2	8 30.61	+33 9.8	1.116	0.734	62.1	20.2	40 W	34*	8*
										9 4	8 40.74	+31 12.4	1.125	0.720	61.7	20.1	39 W	33*	9*
										9 6	8 50.55	+29 12.1	1.134	0.707	61.3	20.1	38 W	32*	9*
										9 8	9 0.08	+27 9.2	1.145	0.695	60.7	20.1	37 W	31*	10*
										9 13	9 22.92	+21 53.5	1.175	0.668	58.8	20.0	35 W	28*	11*
										9 18	9 44.74	+16 30.9	1.209	0.650	56.2	19.9	32 W	25*	13*
										9 23	10 5.94	+11 7.9	1.249	0.639	53.0	19.9	31 W	22*	14*
										9 28	10 26.86	+5 50.8	1.292	0.639	49.4	19.8	29 W	19*	15*
										10 3	10 47.69	+0 45.4	1.338	0.647	45.8	19.8	28 W	16*	16*
										10 8	11 8.55	-4 3.6	1.386	0.665	42.2	19.9	27 W	14*	17*
										10 13	11 29.47	-8 32.4	1.436	0.690	38.8	19.9	26 W	11*	17*
										10 18	11 50.45	-12 39.1	1.487	0.721	35.8	20.0	25 W	9*	18*
										10 28	12 32.36	-19 42.7	1.591	0.798	30.8	20.2	24 W	5*	18*
										11 7	13 13.85	-25 16.3	1.693	0.884	27.1	20.5	24 W	2*	18*
										11 17	13 54.49	-29 29.8	1.790	0.975	24.0	20.7	24 W	-	18*
										11 27	14 33.84	-32 35.1	1.881	1.066	22.7	21.0	25 W	-	19*
										12 7	15 11.55	-34 43.5	1.961	1.154	21.7	21.2	26 W	-	20*
										12 17	15 47.36	-36 5.7	2.029	1.239	21.3	21.4	27 W	-	21*
										302100 2001 FA₉₇									
6 20	0 50.57	-3 0.8	2.653	2.645	6.0	18.2	170 W	68	41	6 20	0 50.57	-3 0.8	2.653	2.645	22.1	21.5	79 W	24*	65*
6 30	0 58.47	-2 17.2	2.564	2.689	2.8	18.1	175 W	68	41	6 30	0 58.47	-2 17.2	2.564	2.689	22.2	21.5	86 W	30*	66*
7 10	1 4.64	-1 45.2	2.472	2.733	2.4	18.1	176 E	67	42	7 10	1 4.64	-1 45.2	2.472	2.733	21.8	21.4	94 W	36*	66
7 20	1 8.89	-1 25.3	2.380	2.775	2.1	18.1	176 E	67	42	7 20	1 8.89	-1 25.3	2.380	2.775	21.0	21.3	102 W	40*	65
7 30	1 10.97	-1 18.1	2.290	2.818	1.9	18.3	171 E	67	42	7 30	1 10.97	-1 18.1	2.290	2.818	19.7	21.2	111 W	43*	65
8 9	1 10.72	-1 23.5	2.208	2.859	1.8	18.5	165 E	67	42	8 9	1 10.72	-1 23.5	2.208	2.859	17.8	21.1	120 W	44	65
8 19	1 8.04	-1 40.8	2.137	2.900	1.7	18.7	160 E	66	43	8 19	1 8.04	-1 40.8	2.137	2.900	15.4	21.0	131 W	43	66
8 29	1 2.96	-2 8.3	2.082	2.940	1.7	18.9	154 E	66	43	8 29	1 2.96	-2 8.3	2.082	2.940	12.4	20.9	141 W	43	66
9 8	0 55.78	-2 43.1	2.048	2.979	1.7	19.1	149 E	66	43	9 8	0 55.78	-2 43.1	2.048	2.979	8.9	20.7	153 W	42	67
9 18	0 46.99	-3 21.2	2.039	3.017	1.9	19.3	144 E	66	43	9 18	0 46.99	-3 21.2	2.039	3.017	5.3	20.6	164 W	42	67
9 28	0 37.37	-3 57.7	2.059	3.055	2.1	19.5	139 E	65	44	9 28	0 37.37	-3 57.7	2.059	3.055	2.5	20.5	172 W	41	68
10 8	0 27.81	-4 27.7	2.108	3.091	2.3	19.7	134 E	65	44	10 8	0 27.81	-4 27.7	2.108	3.091	4.0	20.6	168 E	41	68
10 18	0 19.13	-4 47.5	2.187	3.127	2.5	19.9	130 E	65	44	10 18	0 19.13	-4 47.5	2.187	3.127	7.2	20.9	157 E	40	69
10 28	0 12.05	-4 54.9	2.292	3.163	2.6	20.0	126 E	65	44	10 28	0 12.05	-4 54.9	2.292	3.163	10.2	21.2	146 E	40	69
11 7	0 6.97	-4 49.1	2.421	3.197	2.7	20.2	122 E	66	43	11 7	0 6.97	-4 49.1	2.421	3.197	12.7	21.4	135 E	40	69
										468540 2006 MD₁₂									
6 20	1 12.83	+24 45.6	0.916	1.022	36.9	21.4	79 W	27*	64*	6 20	1 12.83	+24 45.6	0.916	1.022	63.0	21.5	64 W	41*	37*
6 25	1 39.10	+28 49.1	0.881	0.977	37.3	21.3	83 W	31*	63*	6 25	1 39.10	+28 49.1	0.881	0.977	66.1	21.4	61 W	43*	33*
6 30	2 9.80	+32 47.7	0.854	0.928	37.5	21.2	87 W	36*	62	6 30	2 9.80	+32 47.7	0.854	0.928	69.4	21.3	59 W	43*	29*
7 5	2 45.67	+36 26.3	0.837	0.876	37.4	21.1	91 W	41*	60	7 5	2 45.67	+36 26.3	0.837	0.876	72.8	21.3	55 W	43*	24*
7 10	3 27.03	+39 24.6	0.831	0.820	36.8	21.0	96 W	46*	59	7 10	3 27.03	+39 24.6	0.831	0.820	76.0	21.2	51 W	41*	20*
7 15	4 13.21	+41 20.4	0.838	0.760	35.8	20.8	102 W	50*	58	7 15	4 13.21	+41 20.4	0.838	0.760	78.8	21.2	47 W	39*	15*
7 20	5 2.28	+41 55.2	0.859	0.696	34.2	20.7	108 W	52*	57	7 20	5 2.28	+41 55.2	0.859	0.696	80.9	21.1	43 W	35*	11*
7 25	5 51.40	+41 0.3	0.894	0.628	31.9	20.5	115 W	52	57	7 25	5 51.40	+41 0.3	0.894	0.628	81.6	21.0	38 W	31*	8*
7 30	6 38.01	+38 38.8	0.945	0.558	28.9	20.3	123 W	53	56	7 30	6 38.01	+38 38.8	0.945	0.558	80.5	20.8	33 W	27*	6*
8 4	7 20.77	+35 0.6	1.010	0.487	24.9	20.1	132 W	53	56	8 4	7 20.77	+35 0.6	1.010	0.487	76.6	20.5	28 W	22*	4*
8 9	7 59.86	+30 16.2	1.088	0.419	20.0	19.9	142 W	53	56	8 9	7 59.86	+30 16.2	1.088	0.419	68.7	20.1	23 W	16*	3*
8 11	8 14.72	+28 5.6	1.122	0.394	11.2	19.5	159 W	52	57	8 11	8 14.72	+28 5.6	1.122	0.394	64.1	19.9	20 W	14*	2*
8 13	8 29.28	+25 46.2	1.157	0.372	8.1	19.4	165 W	52	57	8 13	8 29.28	+25 46.2	1.157	0.372	58.5	19.7	18 W	12*	2*
8 15	8 43.63	+23 18.6	1.192	0.354	5.3	19.3	170 W	52	57	8 15	8 43.63	+23 18.6	1.192	0.354	52.0	19.4	16 W	10*	1*
8 17	8 57.85	+20 43.9	1.226	0.341	3.7	19.3	173 W	52	57	8 17	8 57.85	+20 43.9	1.226	0.341	44.6	19.2	14 W	7*	1*
8 19	9 11.99	+18 3.8	1.259	0.333	2.6	19.3	173 W	52	57	8 19	9 11.99	+18 3.8	1.259	0.333	36.8	19.0	11 W	5*	1*
8 21	9 26.05	+15 20.6	1.289	0.331	1.9	19.6	166 E	52	57	8 21	9 26.05	+15 20.6	1.289	0.331	28.9	18.8	9 W	2*	-
8 23	9 39.99	+12 36.8	1.316	0.336	1.7	19.6	166 E	52	57	8 23	9 39.99	+12 36.8	1.316	0.336	21.7	18.7	7 W	-	-
8 25	9 53.76	+9 55.2	1.339	0.347	1.6	20.0	155 E	52	57	8 25	9 53.76	+9 55.2	1.339	0.347	16.2	18.6	6 W	-	-
8 27	10 7.30	+7 17.8	1.360	0.363	1.5	20.3	144 E	52	57	8 27	10 7.30	+7 17.8	1.360	0.363	13.5	18.7	5 W	-	-
8 29	10 20.60	+4 46.2	1.378	0.384	1.5	21.3	116 E	55	54	8 29	10 20.60	+4 46.2	1.378	0.384	13.9	18.8	5 W	-	-
9 3	10 52.60	-1 2.6	1.417	0.446	1.6	21.5	66 W	52*	28*	9 3	10 52.60	-1 2.6	1.417	0.446	19.9	19.4	9 E	-	-
9 8	11 22.96	-6 6.5	1.452	0.516	2.0	21.4	66 W	54*	25*	9 8	11 22.96	-6 6.5	1.452	0.516	25.0	19.9	12 E	-	3*
9 13	11 51.88	-10 28.1	1.488	0.587	2.7	21.2	65 W	56*	22*	9 13	11 51.88	-10 28.1	1.488	0.587	27.8	20.3	16 E	-	6*
9 18	12 19.56	-14 11.5	1.527	0.657	3.4	21.1	64 W	56*	20*	9 18	12 19.56	-14 11.5	1.527	0.657	29.1	20.7	19 E	-	9*
9 23	12 46.14	-17 20.8																	

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20/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°	20/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°
141527 2002 FG ₇ (continuation)										365937 2012 AB ₁ (continuation)									
7 10	3 14.48	+21 34.2	0.936	0.920	66.5	20.9	56 W	33*	37*	12 17	4 17.32	+17 11.5	0.720	1.679	11.6	17.7	160 E	62	47
7 15	3 50.35	+22 33.7	0.930	0.863	68.9	20.8	52 W	32*	34*	12 22	4 13.02	+14 53.3	0.730	1.668	15.5	17.9	153 E	60	49
7 20	4 27.52	+23 4.6	0.937	0.808	70.8	20.8	49 W	30*	31*	12 27	4 9.77	+12 44.6	0.746	1.658	19.1	18.0	147 E	58	51
7 25	5 5.18	+23 4.6	0.956	0.754	71.8	20.7	45 W	28*	28*	1 1	4 7.65	+10 47.7	0.767	1.648	22.3	18.2	140 E	56	53
7 30	5 42.56	+22 34.6	0.988	0.703	71.5	20.6	41 W	26*	25*	1 6	4 6.70	+9 4.0	0.791	1.639	25.3	18.3	135 E	54	55
8 4	6 19.07	+21 37.9	1.033	0.657	69.8	20.5	37 W	23*	23*	1 11	4 6.92	+7 33.8	0.819	1.630	27.9	18.5	129 E	53	56
8 9	6 54.37	+20 19.1	1.087	0.617	66.5	20.4	34 W	21*	20*	1 16	4 8.29	+6 17.1	0.851	1.622	30.1	18.6	124 E	51	58
8 14	7 28.32	+18 43.1	1.151	0.587	61.6	20.2	31 W	18*	18*	275611 1999 XX ₂₆₂									
8 19	8 0.91	+16 54.5	1.221	0.569	55.3	20.1	28 W	16*	16*	6 20	2 18.99	+17 13.6	1.810	1.407	34.0	21.4	51 W	24*	37*
8 24	8 32.08	+14 57.2	1.295	0.565	48.3	20.0	25 W	14*	14*	6 25	2 34.06	+18 46.8	1.776	1.395	34.8	21.4	52 W	26*	37*
8 29	9 1.78	+12 54.6	1.369	0.576	41.2	20.0	22 W	12*	12*	6 30	2 49.52	+20 17.0	1.743	1.383	35.7	21.4	52 W	29*	36*
9 3	9 29.89	+10 50.0	1.443	0.599	34.6	20.0	20 W	10*	10*	7 5	3 5.40	+21 43.7	1.711	1.372	36.5	21.3	53 W	31*	35*
9 8	9 56.37	+8 45.8	1.514	0.634	28.9	20.1	18 W	8*	8*	7 10	3 21.71	+23 6.1	1.680	1.360	37.2	21.3	54 W	33*	34*
9 13	10 21.20	+6 44.2	1.583	0.677	24.3	20.2	16 W	7*	7*	7 15	3 38.48	+24 23.6	1.649	1.349	38.0	21.3	55 W	35*	34*
9 18	10 44.45	+4 46.7	1.650	0.725	20.7	20.3	15 W	6*	6*	7 20	3 55.69	+25 35.5	1.620	1.339	38.7	21.2	55 W	37*	33*
9 23	11 6.23	+2 54.3	1.713	0.778	18.0	20.5	14 W	6*	5*	7 25	4 13.34	+26 41.2	1.592	1.329	39.4	21.2	56 W	39*	32*
9 28	11 26.67	+1 7.6	1.775	0.832	16.1	20.6	13 W	5*	4*	7 30	4 31.40	+27 39.7	1.564	1.319	40.1	21.2	57 W	41*	31*
10 3	11 45.90	+0 33.3	1.833	0.888	14.8	20.8	13 W	5*	4*	8 4	4 49.86	+28 30.6	1.538	1.310	40.8	21.1	57 W	43*	30*
10 8	12 4.06	+2 8.1	1.889	0.944	14.0	21.0	13 W	6*	4*	8 9	5 8.68	+29 13.1	1.513	1.301	41.4	21.1	58 W	45*	29*
10 13	12 21.27	+3 37.1	1.943	1.000	13.5	21.1	14 W	6*	4*	8 14	5 27.80	+29 46.7	1.488	1.293	42.0	21.1	59 W	47*	28*
10 18	12 37.64	+5 0.3	1.993	1.056	13.4	21.3	14 W	7*	4*	8 19	5 47.15	+30 10.9	1.465	1.286	42.6	21.0	59 W	48*	27*
10 23	12 53.26	+6 18.0	2.040	1.110	13.5	21.5	15 W	8*	4*	8 24	6 6.66	+30 25.3	1.442	1.279	43.1	21.0	60 W	49*	27*
480833 1999 VC ₁																			
6 20	1 29.31	+8 27.2	1.879	1.719	32.4	21.4	65 W	27*	51*	8 29	6 26.25	+30 29.7	1.421	1.273	43.6	21.0	60 W	51*	26*
6 30	1 54.19	+10 33.6	1.785	1.694	33.9	21.3	68 W	32*	51*	9 3	6 45.82	+30 23.9	1.400	1.268	44.1	20.9	61 W	52*	26*
7 10	2 19.46	+12 30.7	1.695	1.672	35.1	21.2	71 W	37*	50*	9 8	7 5.31	+30 8.2	1.380	1.264	44.5	20.9	62 W	53*	25*
7 20	2 45.00	+14 16.5	1.608	1.653	36.3	21.1	74 W	42*	49*	9 13	7 24.62	+29 42.6	1.361	1.260	44.9	20.9	62 W	54*	25*
7 30	3 10.64	+15 48.5	1.526	1.639	37.2	21.0	77 W	47*	48*	9 18	7 43.67	+29 7.5	1.342	1.257	45.3	20.9	63 W	54*	25*
8 9	3 36.14	+17 5.1	1.446	1.628	37.9	20.9	81 W	52*	47*	9 23	8 2.38	+28 23.4	1.324	1.255	45.7	20.8	64 W	55*	25*
8 19	4 1.20	+18 5.0	1.370	1.621	38.4	20.8	84 W	56*	46*	9 28	8 20.70	+27 30.8	1.306	1.254	46.0	20.8	64 W	56*	25*
8 29	4 25.42	+18 47.7	1.298	1.619	38.6	20.7	88 W	60*	45*	10 3	8 38.59	+26 30.5	1.289	1.254	46.3	20.8	65 W	56*	25*
9 8	4 48.36	+19 13.8	1.227	1.621	38.4	20.5	92 W	63*	45	10 8	8 56.01	+25 23.0	1.271	1.255	46.6	20.8	66 W	57*	26*
9 18	5 9.52	+19 24.5	1.160	1.627	37.8	20.4	97 W	64*	45	10 13	9 12.94	+24 9.2	1.254	1.256	46.8	20.8	67 W	58*	26*
9 28	5 28.33	+19 22.2	1.095	1.637	36.7	20.3	102 W	64	45	10 18	9 29.35	+22 49.8	1.237	1.258	47.1	20.7	68 W	58*	27*
10 8	5 44.22	+19 10.0	1.034	1.651	35.0	20.1	109 W	64	45	10 23	9 45.23	+21 25.6	1.220	1.262	47.2	20.7	69 W	58*	28*
10 18	5 56.57	+18 51.8	0.977	1.669	32.6	19.9	116 W	64	45	10 28	10 0.58	+19 57.4	1.202	1.266	47.4	20.7	70 W	59*	29*
10 28	6 4.79	+18 31.5	0.925	1.690	29.4	19.8	123 W	64	45	11 2	10 15.42	+18 25.8	1.185	1.270	47.5	20.7	71 W	59*	30*
11 7	6 8.46	+18 13.3	0.882	1.715	25.2	19.6	133 W	63	46	11 7	10 29.74	+16 51.4	1.166	1.276	47.6	20.7	72 W	58*	32*
11 17	6 7.39	+18 0.4	0.850	1.743	20.1	19.4	143 W	63	46	11 12	10 43.57	+15 15.0	1.148	1.282	47.7	20.6	73 W	58*	34*
11 27	6 1.97	+17 54.9	0.833	1.773	14.2	19.2	154 W	63	46	11 17	10 56.88	+13 37.2	1.129	1.289	47.7	20.6	75 W	57*	35*
12 2	5 57.97	+17 55.1	0.832	1.789	11.0	19.0	160 W	63	46	11 22	11 9.70	+11 58.5	1.109	1.297	47.7	20.6	76 W	56*	37*
12 7	5 53.36	+17 57.4	0.835	1.806	7.8	18.9	166 W	63	46	11 27	11 22.03	+10 19.3	1.088	1.305	47.6	20.6	78 W	55*	40*
12 12	5 48.39	+18 1.5	0.844	1.823	4.8	18.8	171 W	63	46	12 2	11 33.88	+8 40.2	1.067	1.314	47.5	20.5	79 W	54*	42*
12 17	5 43.32	+18 7.3	0.859	1.841	2.8	18.8	175 W	63	46	12 7	11 45.24	+7 1.5	1.045	1.323	47.4	20.5	81 W	52	45*
12 22	5 38.42	+18 14.8	0.879	1.859	3.9	18.9	173 E	63	46	12 17	12 6.46	+3 46.9	0.999	1.343	46.9	20.4	85 W	49	51*
12 27	5 33.93	+18 23.7	0.906	1.878	6.6	19.2	167 E	63	46	12 27	12 25.54	+0 38.0	0.951	1.365	46.1	20.3	90 W	46	57*
1 1	5 30.05	+18 34.0	0.938	1.897	9.3	19.4	162 E	64	45	1 6	12 42.24	+2 23.4	0.899	1.389	44.9	20.2	95 W	43	63*
1 6	5 26.93	+18 45.4	0.975	1.916	12.0	19.6	156 E	64	45	1 16	12 56.17	+1 15.6	0.846	1.413	43.1	20.1	101 W	40	69*
1 11	5 24.65	+18 57.9	1.017	1.936	14.4	19.8	151 E	64	45	430478 2001 SQ ₁₁₅									
1 16	5 23.28	+19 11.3	1.065	1.956	16.6	20.0	145 E	64	45	6 20	2 32.83	+17 14.8	1.920	1.444	31.3	21.5	48 W	22*	35*
6 20	1 43.11	+28 51.7	2.596	2.199	22.6	21.5	56 W	38*	31*	6 25	2 48.65	+18 39.4	1.889	1.431	32.0	21.4	48 W	24*	35*
6 30	2 2.29	+30 37.6	2.478	2.170	24.1	21.4	61 W	43*	31*	6 30	3 4.82	+19 59.9	1.859	1.419	32.8	21.4	49 W	26*	34*
7 10	2 21.65	+32 16.8	2.356	2.141	25.6	21.3	65 W	49*	31*	7 5	3 21.34	+21 15.8	1.831	1.407	33.5	21.4	50 W	28*	34*
7 20	2 41.15	+33 48.2	2.229	2.111	26.9	21.2	70 W	55*	30*	7 10	3 38.19	+22 26.3	1.804	1.397	34.1	21.3	50 W	30*	33*
7 30	3 0.63	+35 10.3	2.100	2.081	28.1	21.0	75 W	62*	29*	7 15	3 55.35	+23 30.9	1.779	1.389	34.7	21.3	51 W	32*	32*
8 9	3 19.95	+36 21.8	1.968	2.050	29.1	20.9	80 W	68*	28	7 20	4 12.79	+24 29.0	1.755	1.381	35.3	21.3	52 W	34*	32*
8 19	3 38.88	+37 21.4	1.835	2.020	30.0	20.7	85 W	74*	27	7 25	4 30.45	+25 20.0	1.732	1.375	35.9	21.3	52 W	36*	31*
8 29	3 57.08	+38 7.6	1.701	1.989	30.5	20.6	91 W	80*	26	7 30	4 48.30	+26 3.5	1.711	1.370					

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

20/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45° - 26°	20/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45° - 26°	
253106 2002 UR₃ (continuation)									301965 2000 EN₁₇₂ (continuation)									
11 19	14 46.46	+10 14.6	0.706	0.544	103.8	18.3	32 W	24*	—	11 12	8 53.92	+41 12.8	1.298	1.818	31.8	19.5	104 W	86
11 12	8 53.92	+41 12.8	1.298	1.818	31.8	19.5	104 W	86	22*	11 17	9 6.92	+42 39.7	1.247	1.802	31.7	19.4	107 W	88
377204 2003 WM₁₄₁									141498 2002 EZ₁₆									
6 20	3 39.97	+8 35.2	3.071	2.320	14.8	21.5	36 W	4*	29*	6 20	4 10.53	+34 14.5	0.879	0.435	95.4	19.7	25 W	17*
418265 2008 EA₃₂																		
6 20	4 26.26	+13 14.0	0.752	0.442	114.1	18.4	23 W	—	17*	6 22	4 29.70	+11 57.8	0.790	0.449	106.9	18.1	25 W	—
301965 2000 EN₁₇₂																		
6 20	3 49.83	+15 13.5	3.221	2.402	12.4	21.5	31 W	7*	23*	10 3	11 12.91	+12 36.7	1.513	0.763	35.9	18.2	27 W	20*
10 8	11 37.06	+11 19.1	1.502	0.744	35.9	18.1	26 W	20*	4*	10 8	11 37.06	+11 19.1	1.502	0.744	35.9	18.1	26 W	20*
10 13	12 1.85	+9 45.9	1.492	0.723	35.6	18.0	25 W	19*	2*	10 13	12 1.85	+9 45.9	1.492	0.723	35.6	18.0	25 W	19*
10 18	12 27.30	+7 56.2	1.482	0.697	35.2	17.9	24 W	18*	1*	10 18	12 27.30	+7 56.2	1.482	0.697	35.2	17.9	24 W	18*

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

20/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°	20/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°
418265 2008 EA₃₂ (continuation)										441641 2008 WZ₁₃ (continuation)									
12 13	18 21.14	-27 46.8	1.321	0.440	33.4	16.6	14 E	—	8*	7 20	8 20.92	+23 39.2	2.069	1.064	5.8	20.8	6 E	—	—
12 15	18 36.87	-28 46.2	1.303	0.447	37.2	16.7	16 E	—	10*	7 25	8 41.86	+22 27.7	2.033	1.029	6.1	20.7	6 E	—	—
12 17	18 52.71	-29 37.8	1.283	0.456	40.7	16.8	18 E	—	11*	7 30	9 3.13	+21 3.2	1.999	0.997	6.6	20.6	7 E	—	—
12 19	19 8.64	-30 21.3	1.263	0.466	44.1	16.9	19 E	—	13*	8 4	9 24.66	+19 25.7	1.967	0.968	7.2	20.5	7 E	—	—
12 21	19 24.60	-30 56.2	1.243	0.477	47.2	17.0	21 E	—	15*	8 9	9 46.38	+17 35.3	1.938	0.942	8.0	20.5	7 E	—	—
12 23	19 40.55	-31 22.2	1.223	0.489	50.1	17.1	22 E	—	16*	8 14	10 8.24	+15 32.5	1.912	0.920	8.9	20.4	8 E	—	1*
12 25	19 56.45	-31 39.1	1.202	0.502	52.8	17.2	24 E	—	18*	8 19	10 30.18	+13 18.2	1.888	0.902	10.0	20.4	9 E	—	2*
12 27	20 12.25	-31 46.9	1.182	0.515	55.2	17.3	25 E	—	19*	8 24	10 52.15	+10 53.6	1.868	0.889	11.2	20.4	10 E	1*	3*
12 29	20 27.89	-31 45.6	1.162	0.529	57.3	17.4	27 E	—	21*	8 29	11 14.10	+8 20.3	1.852	0.881	12.4	20.4	11 E	1*	4*
12 31	20 43.35	-31 35.2	1.143	0.542	59.3	17.5	28 E	—	22*	9 3	11 36.01	+5 40.2	1.840	0.878	13.7	20.4	12 E	1*	5*
1 2	20 58.56	-31 16.1	1.124	0.557	61.0	17.6	30 E	—	23*	9 8	11 57.86	+2 55.6	1.832	0.880	15.0	20.5	13 E	1*	7*
1 4	21 13.50	-30 48.3	1.106	0.571	62.5	17.6	31 E	—	25*	9 13	12 19.64	+0 8.6	1.828	0.888	16.2	20.5	14 E	1*	8*
1 6	21 28.12	-30 12.3	1.089	0.584	63.9	17.7	32 E	—	26*	9 18	12 41.34	+2 38.3	1.830	0.901	17.2	20.6	15 E	1*	9*
1 8	21 42.40	-29 28.3	1.073	0.598	65.0	17.7	33 E	—	27*	9 23	13 2.97	+5 22.7	1.836	0.919	18.0	20.7	16 E	1*	10*
1 10	21 56.31	-28 36.9	1.057	0.612	66.1	17.8	35 E	—	28*	9 28	13 24.51	+8 2.4	1.847	0.940	18.7	20.8	18 E	1*	11*
1 12	22 9.84	-27 38.5	1.043	0.625	66.9	17.8	36 E	—	29*	10 3	13 45.95	+10 35.3	1.862	0.966	19.1	20.8	18 E	1*	12*
1 14	22 22.96	-26 33.5	1.029	0.638	67.7	17.9	37 E	—	30*	10 8	14 7.30	+12 59.8	1.883	0.995	19.3	20.9	19 E	1*	13*
1 16	22 35.68	-25 22.4	1.016	0.651	68.3	17.9	38 E	—	30*	10 13	14 28.53	+15 14.4	1.908	1.027	19.3	21.0	20 E	1*	14*
										10 18	14 49.63	+17 18.2	1.937	1.061	19.1	21.1	20 E	2*	14*
										10 23	15 10.54	+19 10.2	1.970	1.097	18.7	21.2	21 E	2*	15*
										10 28	15 31.25	+20 50.1	2.006	1.135	18.2	21.3	21 E	2*	15*
										11 2	15 51.69	+22 17.6	2.046	1.174	17.6	21.4	21 E	2*	15*
189173 2002 XY₄										155785 2000 SS₃₅₁									
6 20	5 51.74	+24 10.4	2.335	1.319	0.8	21.5	1 W	—	—	6 20	6 32.45	+22 47.6	3.658	2.658	3.3	21.5	9 E	—	2*
6 30	6 22.21	+21 31.8	2.244	1.231	3.1	21.4	4 W	—	—	6 30	6 50.16	+22 47.8	3.706	2.691	1.2	21.4	3 E	—	—
7 10	6 53.95	+18 16.3	2.147	1.144	6.1	21.3	7 W	—	1*	7 10	7 7.57	+22 40.7	3.739	2.724	0.9	21.4	2 W	—	—
7 20	7 27.30	+14 19.4	2.046	1.059	9.3	21.2	10 W	—	3*	7 20	7 24.62	+22 27.1	3.758	2.755	2.9	21.6	8 W	—	—
7 30	8 2.69	+9 38.1	1.946	0.978	12.8	21.0	12 W	—	6*	7 30	7 41.25	+22 7.6	3.762	2.786	5.0	21.7	14 W	5*	4*
8 9	8 40.76	+4 13.0	1.851	0.906	16.3	20.9	15 W	—	7*										
8 19	9 22.35	+1 48.0	1.767	0.847	19.9	20.8	17 W	—	7*										
8 29	10 8.30	-8 6.1	1.702	0.808	23.1	20.7	18 W	—	7*										
9 8	10 59.08	-14 9.1	1.662	0.793	25.7	20.7	20 W	—	4*										
9 18	11 54.17	-19 17.8	1.652	0.805	27.1	20.7	21 E	—	6*										
9 28	12 51.63	-22 59.7	1.674	0.841	27.1	20.9	22 E	—	10*										
10 8	13 48.52	-25 2.6	1.726	0.897	25.9	21.0	23 E	—	14*										
10 18	14 42.11	-25 36.1	1.802	0.968	23.8	21.2	23 E	—	16*										
10 28	15 30.79	-25 1.6	1.894	1.047	21.3	21.4	22 E	—	16*										
382395 1990 SM										228283 2000 AO₆₀									
6 20	6 9.63	+17 42.0	3.643	2.636	2.6	21.4	7 E	—	—	6 20	6 32.48	+24 7.9	2.975	1.976	4.4	21.4	9 E	—	1*
6 30	6 24.99	+17 47.0	3.575	2.566	2.4	21.3	6 W	—	—	6 30	6 56.76	+23 29.2	2.943	1.932	2.4	21.2	5 E	—	—
7 10	6 40.93	+17 44.8	3.490	2.494	4.0	21.3	10 W	—	4*	7 10	7 21.50	+22 35.1	2.904	1.888	0.5	21.0	1 E	—	—
7 20	6 57.47	+17 35.3	3.387	2.418	6.1	21.2	15 W	1*	8*	7 20	7 46.65	+21 24.9	2.858	1.844	1.5	21.0	3 W	—	—
7 30	7 14.60	+17 17.7	3.269	2.339	8.5	21.2	20 W	6*	12*	7 30	8 12.11	+19 58.2	2.807	1.801	3.5	21.1	6 W	—	—
8 9	7 32.36	+16 51.8	3.135	2.257	10.9	21.1	25 W	12*	15*	8 9	8 37.82	+18 14.7	2.751	1.759	5.4	21.1	9 W	2*	1*
8 19	7 50.82	+16 16.8	2.988	2.171	13.5	21.0	30 W	17*	18*	8 19	9 3.74	+16 14.7	2.691	1.718	7.4	21.1	13 W	5*	3*
8 29	8 10.05	+15 32.3	2.829	2.081	16.1	20.9	35 W	23*	21*	8 29	9 29.85	+13 58.6	2.629	1.678	9.3	21.0	16 W	8*	5*
9 8	8 30.18	+14 37.2	2.659	1.987	18.8	20.8	39 W	28*	23*	9 8	9 56.13	+11 27.3	2.566	1.641	11.1	21.0	18 W	10*	7*
9 18	8 51.44	+13 30.5	2.481	1.889	21.6	20.6	44 W	32*	25*	9 18	10 22.62	+8 42.0	2.502	1.605	13.0	21.0	21 W	13*	9*
9 28	9 14.07	+12 10.8	2.296	1.787	24.6	20.4	48 W	36*	27*	9 28	10 49.36	+5 44.4	2.439	1.573	14.8	20.9	24 W	15*	10*
10 8	9 38.50	+10 36.1	2.108	1.680	27.8	20.2	52 W	39*	29*	10 8	11 16.39	+2 36.8	2.378	1.543	16.5	20.9	26 W	17*	12*
10 18	10 5.30	+8 43.4	1.919	1.568	31.2	19.9	55 W	42*	30*	10 18	11 43.82	+0 38.4	2.319	1.517	18.2	20.9	28 W	19*	14*
10 23	10 19.82	+7 39.2	1.826	1.510	33.0	19.8	56 W	42*	31*	10 28	12 11.71	+3 57.8	2.262	1.495	19.8	20.8	31 W	20*	16*
10 28	10 35.26	+6 29.1	1.734	1.451	35.0	19.6	57 W	43*	32*	11 7	12 40.15	+7 17.9	2.210	1.477	21.3	20.8	33 W	21*	18*
11 2	10 51.76	+5 12.3	1.644	1.390	37.0	19.5	57 W	43*	33*	11 17	13 9.23	+10 34.7	2.160	1.464	22.8	20.8	35 W	22*	21*
11 7	11 9.52	+3 48.1	1.557	1.328	39.2	19.3	58 W	42*	33*	11 27	13 38.97	+13 43.8	2.115	1.455	24.1	20.8	37 W	22*	24*
11 12	11 28.73	+2 15.8	1.474	1.264	41.5	19.2	58 W	42*	33*	12 7	14 9.40	+16 40.8	2.073	1.452	25.5	20.8	39 W	21*	27*
11 17	11 49.62	+0 34.9	1.395	1.199	44.0	19.0	57 W	41*	33*	12 17	14 40.47	+19 21.7	2.033	1.453	26.7	20.8	42 W	20*	30*
11 27	12 37.39	-3 13.5	1.259	1.065	49.4	18.7	55 W	38*	33*	12 27	15 12.02	+21 42.6	1.997	1.460	27.9	20.8	44 W	19*	34*
12 7	13 34.61	-7 31.4	1.160	0.927	55.0	18.4	50 W	33*	31*	1 6	15 43.88	+23 40.3	1.962	1.471	29.1	20.8	47 W	18*	38*
12 17	14 41.88	-11 54.8	1.112	0.787	59.5	18.0	44 W	27*	27*	1 16	16 15.76	+25 13.0	1.927	1.488	30.1	20.8	49 W	17*	41*
12 22	15 18.78	-13 55.3	1.112	0.719	60.6	17.9	40 W	24*	25*	6 20	6 33.15	+29 9.4	1.697	0.720	14.6	21.5	10 E	4*	—
12 27	15 57.26	-15 40.4	1.128	0.653	60.2	17.7	35 W	20*	22*	6 25	7 2.95	+28 24.9	1.662	0.698	17.2	21.4	12 E	4*	1*
1 1	16 36.77	-17 5.7	1.161	0.594	57.8	17.5	31 W	17*	19*	6 30	7 32.99	+27 11.0	1.628	0.680	20.2	21.4	13 E	5*	3*
1 6	17 16.77	-18 8.4	1.209	0.545	53.1	17.2	26 W	14*	15*	7 5	8 2.88	+25 27.6	1.595	0.669	23.5	21.4	15 E	5*	6*
1 11	17 56.77	-18 47.1	1.268	0.511	45.9	17.0	22 W	10*	12*	7 10	8 32.26	+23 16.0	1.563	0.664	26.9	21.5	17 E	6*	9*
1 16	18 36.21	-19 1.4	1.335	0.497	36.9	16.8	18 W	7*	9*										
120352 Gordonwong										491734 2012 VS₁₀									
6 20	6 11.17	+22 12.8	3.744	2.731	1.5	21.4	4 E	—	—	6 20	6 45.47	+11 32.1	2.586	1.640	10.4	21.5	17 E	—	10*
6 30	6 28.29	+22 13.2	3.766	2.750	0.8	21.4	2 W	—	—	6 30	7 13.38	+10 14.8	2.595	1.639	9.6	21.5	16 E	—	8*
7 10	6 45.21	+22 6.6	3.773	2.768	2.8	21.6	8 W	—	1*	7 10	7 41.11	+8 42.8	2.605	1.642	9.0	21.5	15 E	—	5*
7																			

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

20/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45° -26°	20/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45° -26°	
153349 2001 PJ9 (continuation)									380476 2003 YO1 (continuation)									
7 10	h m	° ' "							7 10	h m	° ' "							
7 15	8 3.65	+17 54.2	1.969	0.995	11.9	20.7	12 E	— 6*	7 15	9 52.00	+19 14.8	1.217	0.718	56.6	21.2	36 E	16*	26*
7 20	8 22.67	+16 31.1	1.915	0.942	12.6	20.5	12 E	— 6*	7 20	10 13.64	+16 21.3	1.159	0.705	60.4	21.1	37 E	15*	28*
7 30	9 24.59	+11 11.0	1.745	0.794	17.4	20.1	13 E	— 7*	7 25	10 56.17	+9 34.5	1.045	0.696	68.1	21.1	39 E	13*	32*
153340 2006 SK198									216519 2001 FP24									
6 20	7 22.28	+17 56.6	3.375	2.454	8.6	21.5	21 E	3* 14*	6 20	8 34.45	+12 42.9	2.659	1.979	19.0	21.5	39 E	11*	31*
6 30	7 39.39	+17 11.2	3.371	2.409	6.6	21.3	16 E	— 10*	6 30	8 55.77	+11 36.1	2.686	1.944	17.5	21.4	35 E	7*	28*
148480 2001 FE155									380636 2004 XN14									
6 20	8 15.38	+19 45.7	2.695	1.921	16.6	21.5	33 E	13* 23*	6 20	8 47.47	+24 34.9	1.135	0.731	61.6	21.5	39 E	22*	25*
6 30	8 38.24	+18 33.4	2.718	1.891	15.0	21.4	29 E	9* 21*	6 25	9 9.45	+23 36.0	1.082	0.714	65.2	21.4	40 E	21*	26*
237495 2000 QF56									380476 2003 YO1 (continued)									
6 20	9 7.12	+17 53.9	2.642	2.054	20.5	21.5	45 E	21* 33*	6 20	8 24.38	+27 27.0	1.429	0.814	44.1	21.4	34 E	20*	19*
6 30	9 27.15	+16 50.0	2.685	2.022	19.0	21.4	40 E	16* 30*	6 25	8 46.24	+25 53.2	1.380	0.785	46.7	21.3	34 E	19*	21*
7 10	9 1.42	+17 8.1	2.734	1.862	13.3	21.3	25 E	6* 18*	6 30	9 8.21	+24 0.5	1.328	0.758	49.7	21.3	35 E	18*	22*
7 20	9 24.85	+15 30.2	2.743	1.833	11.6	21.2	21 E	4* 14*	7 5	9 30.16	+21 47.8	1.273	0.736	53.0	21.2	35 E	17*	24*
7 30	9 48.50	+13 40.2	2.747	1.806	9.8	21.1	18 E	2* 11*										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45° – 26°	2020	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45° – 26°
163683 2002 YP ₂									508815 2000 XE ₂ (continuation)								
6 20	11 11.17	+13 16.0	1.033	1.246	52.0	21.5	75 E	39* 50*	7 10	19 1.06	-33 6.8	1.675	2.679	4.3	22.3	169 E	12 83
6 30	11 13.85	+9 41.4	1.021	1.129	56.2	21.3	67 E	30* 51*	7 15	18 54.42	-33 19.9	1.666	2.660	5.8	22.4	165 E	12 83
7 10	11 18.08	+5 48.8	0.990	1.006	61.3	21.2	60 E	22* 50*	7 20	18 47.91	-33 29.0	1.663	2.641	7.6	22.5	160 E	12 83
7 20	11 22.37	+1 36.8	0.935	0.878	68.1	21.0	53 E	14* 46*	7 25	18 41.69	-33 34.1	1.668	2.621	9.6	22.5	154 E	11 82
7 30	11 24.15	-2 52.0	0.855	0.749	78.2	20.8	46 E	7* 40*	492815 2014 QS ₂₆₉								
8 9	11 17.97	-7 13.6	0.751	0.626	94.4	20.7	38 E	— 31*	6 20	19 27.43	-0 22.6	3.436	4.330	7.2	22.4	148 W	45 64
8 19	10 53.38	-9 47.6	0.640	0.529	119.7	21.5	27 E	— 17*	6 30	19 20.79	-0 30.8	3.367	4.309	5.8	22.3	155 W	44 65
463380 2013 BY ₄₅									7 10	19 15.15	-0 50.6	3.325	4.287	5.0	22.2	159 E	44 65
6 20	18 49.93	+2 10.1	2.024	2.955	9.6	23.6	151 W	47 62	7 20	19 8.64	-1 21.3	3.310	4.265	5.3	22.2	157 E	44 65
6 30	18 39.12	+1 17.8	2.006	2.962	8.2	23.5	156 W	46 63	7 30	19 2.52	-2 1.7	3.323	4.243	6.6	22.2	151 E	43 66
7 10	18 28.25	+0 5.7	2.016	2.967	8.4	23.6	155 E	45 64	494231 2016 NA ₄₇								
7 20	18 18.24	+0 22.1	2.054	2.971	10.2	23.7	149 E	44 65	6 20	19 29.53	-19 33.5	1.975	2.941	7.5	22.3	158 W	25 84
7 30	18 9.86	-3 0.5	2.118	2.973	12.5	23.8	141 E	42 67	6 30	19 20.79	-19 53.5	1.897	2.902	3.8	22.0	169 W	25 84
306173 2010 NK ₈₃									7 10	19 10.77	-20 16.1	1.845	2.861	0.9	21.7	177 E	25 84
6 20	18 53.69	-22 20.5	7.885	8.876	1.5	23.0	166 W	23 86	7 20	19 0.37	-20 39.3	1.823	2.821	4.8	21.9	166 E	24 85
6 30	18 49.65	-22 28.7	7.847	8.862	0.4	22.9	177 W	23 86	7 30	18 50.69	-21 1.0	1.827	2.779	9.0	22.0	155 E	24 85
7 10	18 45.53	-22 36.7	7.839	8.848	0.9	22.9	173 E	22 87	438105 2005 GO ₂₂								
7 20	18 41.52	-22 44.3	7.862	8.834	2.0	23.0	162 E	22 87	6 20	19 30.51	-23 26.7	1.661	2.632	8.3	22.5	158 W	22 87
7 30	18 37.82	-22 51.3	7.913	8.820	3.1	23.1	152 E	22 87	6 25	19 22.91	-23 45.6	1.604	2.598	6.0	22.3	165 W	21 88
508805 2000 TT ₂₈									6 30	19 14.47	-24 4.3	1.554	2.564	3.4	22.0	171 W	21 88
6 20	19 8.23	-26 6.5	2.548	3.533	4.8	23.0	163 W	19 90	7 5	19 5.31	-24 22.0	1.512	2.529	1.0	21.8	178 W	21 88
6 30	18 58.52	-26 13.1	2.497	3.510	1.7	22.7	174 W	19 90	7 10	18 55.60	-24 37.9	1.479	2.493	2.3	21.8	174 E	20 89
7 10	18 48.28	-26 15.2	2.476	3.486	2.3	22.7	172 E	19 90	7 15	18 45.56	-24 51.5	1.453	2.455	5.1	21.9	167 E	20 89
7 20	18 38.31	-26 12.2	2.485	3.461	5.5	22.9	161 E	19 90	7 20	18 35.42	-25 2.0	1.436	2.418	8.1	22.0	160 E	20 89
7 30	18 29.45	-26 4.1	2.522	3.435	8.6	23.1	149 E	19 90	7 25	18 25.46	-25 9.4	1.426	2.379	11.0	22.0	153 E	20 89
497091 2003 YO ₆									7 30	18 15.93	-25 13.7	1.424	2.339	13.8	22.1	147 E	20 89
6 20	19 13.46	-29 55.1	2.038	3.018	6.2	22.9	161 W	15 86	8 4	18 7.05	-25 15.2	1.428	2.298	16.6	22.2	140 E	20 89
6 25	19 8.30	-30 6.6	2.014	3.012	4.5	22.8	167 W	15 86	371467 2006 SF ₄₀₉								
6 30	19 2.82	-30 16.3	1.997	3.005	3.1	22.7	171 W	15 86	6 20	19 30.92	-18 54.6	1.982	2.946	7.7	22.4	157 W	26 83
7 5	18 57.16	-30 23.8	1.987	2.998	2.6	22.7	172 E	15 86	6 30	19 21.80	-19 24.9	1.920	2.924	3.9	22.1	169 W	26 83
7 10	18 51.46	-30 28.9	1.985	2.991	3.4	22.7	170 E	15 86	7 10	19 11.52	-19 58.3	1.885	2.901	0.9	21.8	177 E	25 84
7 15	18 45.84	-30 31.4	1.989	2.984	5.0	22.8	165 E	14 85	7 20	19 1.02	-20 32.1	1.879	2.877	4.7	22.1	167 E	24 85
7 20	18 40.46	-30 31.3	2.001	2.976	6.7	22.9	160 E	14 85	7 30	18 51.35	-21 4.1	1.900	2.852	8.7	22.3	155 E	24 85
496230 2012 CL ₂									476093 2007 TC ₆₆								
6 20	19 13.59	+15 38.7	2.174	2.993	13.5	23.1	136 W	61 48	6 20	19 32.82	-21 40.1	1.478	2.448	9.2	22.9	157 W	23 86
6 30	19 3.27	+15 18.1	2.103	2.963	12.5	23.0	141 W	60 49	6 25	19 24.74	-22 12.4	1.489	2.482	6.4	22.8	164 W	23 86
7 10	18 52.09	+14 26.0	2.056	2.931	12.1	22.9	143 E	59 50	6 30	19 16.46	-22 43.1	1.507	2.516	3.7	22.7	171 W	22 87
7 20	18 40.97	+13 2.5	2.034	2.898	12.7	22.9	141 E	58 51	7 5	19 8.19	-23 11.6	1.533	2.549	1.0	22.6	177 W	22 87
7 30	18 30.86	+11 11.5	2.037	2.863	14.0	22.9	137 E	56 53	7 10	19 0.13	-23 37.4	1.566	2.581	1.7	22.7	176 E	21 88
162695 2000 UL ₁₁									7 15	18 52.47	-24 0.2	1.607	2.612	4.2	23.0	169 E	21 88
6 20	19 15.10	-24 54.7	2.031	3.012	6.1	24.5	162 W	20 89	7 20	18 45.37	-24 19.9	1.655	2.643	6.5	23.2	163 E	21 88
6 25	19 8.73	-25 5.2	2.031	3.032	4.1	24.4	168 W	20 89	7 25	18 38.96	-24 36.8	1.711	2.674	8.7	23.4	157 E	20 89
6 30	19 2.19	-25 14.3	2.039	3.051	2.1	24.3	174 W	20 89	505590 2014 CA ₅								
7 5	18 55.63	-25 21.8	2.054	3.070	0.9	24.2	177 E	20 89	6 20	19 35.58	-57 0.1	2.784	3.637	9.9	23.4	142 W	— 59
7 10	18 49.18	-25 27.7	2.077	3.088	2.4	24.4	173 E	20 89	6 25	19 28.57	-57 18.4	2.763	3.632	9.6	23.3	144 W	— 59
7 15	18 42.98	-25 31.8	2.108	3.106	4.3	24.6	167 E	19 90	6 30	19 21.05	-57 30.7	2.749	3.627	9.3	23.3	145 W	— 58
7 20	18 37.15	-25 34.2	2.146	3.123	6.2	24.7	161 E	19 90	7 5	19 13.23	-57 36.6	2.741	3.621	9.3	23.3	145 W	— 58
248083 2004 QU ₂₄									7 10	19 5.28	-57 35.8	2.739	3.615	9.4	23.3	145 E	— 58
6 20	19 16.82	+5 47.1	4.454	5.315	6.4	23.4	145 W	51 58	7 15	18 57.43	-57 28.0	2.743	3.609	9.7	23.3	143 E	— 59
6 30	19 10.77	+5 49.9	4.403	5.306	5.5	23.3	150 W	51 58	7 20	18 49.86	-57 13.4	2.753	3.603	10.1	23.3	141 E	— 59
7 10	19 4.42	+5 41.8	4.379	5.297	5.2	23.3	152 E	51 58	7 25	18 42.78	-56 52.5	2.769	3.597	10.7	23.4	139 E	— 59
7 20	18 58.12	+5 23.0	4.383	5.288	5.5	23.3	150 E	50 59	267729 2003 FC ₅								
7 30	18 52.23	+4 54.4	4.413	5.277	6.3	23.3	145 E	50 59	6 20	19 36.25	-13 6.3	2.117	3.063	8.4	22.9	154 W	32 77
497009 2003 BU ₃₅									6 30	19 25.28	-13 20.2	2.060	3.053	5.0	22.7	165 W	32 77
6 20	19 23.51	-15 24.0	4.675	5.628	3.9	23.9	158 W	30 79	7 10	19 13.20	-13 40.9	2.031	3.040	2.9	22.6	171 E	31 78
6 30	19 17.51	-15 25.1	4.640	5.637	2.2	23.7	168 W	30 79	7 20	19 0.98	-14 6.5	2.034	3.026	5.0	22.7	165 E	31 78
7 10	19 11.22	-15 28.5	4.635	5.645	1.2	23.7	173 E	30 79	7 30	18 49.65	-14 35.1	2.065	3.010	8.6	22.9	154 E	30 79
7 20	19 4.98	-15 33.7	4.661	5.653	2.4	23.8	166 E	29 80	307877 2004 BG ₆₉								
7 30	18 59.16	-15 40.2	4.716	5.660	4.1	23.9	156 E	29 80	6 20	19 41.96	-10 5.8	2.738	3.661	7.7	21.5	151 W	35 74
497245 2005 FH									6 30	19 34.68	-10 18.2	2.663	3.640	5.2	21.3	161 W	35 74
6 20	19 25.20	+6 11.4	3.613	4.467	7.9	24.0	143 W	51 58	7 10	19 26.49	-10 38.8	2.616	3.617	3.3	21.1	168 W	34 75
6 30	19 17.69	+5 56.3	3.562	4.466	6.7	23.9	149 W	51 58	7 20	19 17.97	-11 6.6	2.598	3.594	3.8	21.1	166 E	34 75
7 10	19 9.75	+5 27.3	3.539	4.463	6.1	23.9	152 E	50 59	7 30	19 9.82	-11 39.8	2.610	3.570	6.2	21.2	158 E	33 76
7 20	19 1.83	+4 45.0	3.544	4.460	6.3	23.9	151 E	50 59	8 9	19 2.67	-12 16.4	2.648	3.545	8.8	21.4	147 E	33 76
7 30	18 54.43	+3 51.3	3.577	4.456	7.3	23.9	146 E	49 60	8 19	18 57.03	-12 54.5	2.711	3.519	11.3	21.5	137 E	32 77
508815 2000 XE ₂									405105 2002 BJ ₂₆								
6 20	19 25.31	-31 43.3	1.781	2.751	7.8	22.7	158 W	13 84	6 20	19 47.23	-50 22.8	2.014	2.908	11.5	22.5	145 W	— 66
6 25	19 19.90	-32 7.6	1.744	2.734	6.1	22.6	163 W	13 84	6 25	19 40.15	-50 40.9	1.985	2.899	10.7	22.5	148 W	— 65
6 30	19 13.96	-32 30.2	1.714	2.716	4.6	22.4	168 W	12 83	6 30	19 32.39	-50 52.7	1.962	2.889	10.1	22.4	150 W	— 65
7 5	19 7.63	-32 50.1	1.691	2.697	3.9	22.4	170 W	12 83	7 5	19 24.15	-50 57.2	1.944	2.878	9.8	22.4	151 W	— 65
									7 10	19 15.65	-50 54.0	1.934	2.868	9.8	22.4	151 E	— 65
									7 15	19 7.13	-50 42.6	1.930	2.857	10.2	22.4	150 E	— 65

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20/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°	20/21	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°		
189552 2000 RL77																					
6	20	20 19.74	+21 45.1	2.221	2.899	17.2	21.8	123 W	67	42	7	30	19 46.21	-30 58.1	2.719	3.702	4.6	21.9	163 E	14	85
6	25	20 16.75	+22 21.0	2.161	2.875	16.7	21.7	126 W	67	42	8	9	19 37.69	-31 20.2	2.791	3.721	7.2	22.1	153 E	14	85
										377463 2004 XE45 (continuation)											
6	20	20 22.63	-55 19.1	2.419	3.248	12.1	22.4	138 W			6	20	20 16.91	-55 47.5	2.382	3.234	11.5	22.3	141 W		
										513479 2009 DK39											
6	20	20 10.32	-56 11.3	2.351	3.220	11.0	22.3	143 W			6	25	20 10.32	-56 11.3	2.351	3.220	11.0	22.3	143 W		
										508905 2003 WX87											
6	20	20 25.98	-23 32.7	1.712	2.614	12.7	22.2	145 W			6	20	20 25.98	-23 32.7	1.712	2.614	12.7	22.2	145 W		
										461419 2001 UH1											
6	20	20 27.18	-50 45.3	1.980	2.834	13.3	21.5	140 W			6	20	20 27.18	-50 45.3	1.980	2.834	13.3	21.5	140 W		
										414960 2011 CS4											
6	20	20 33.60	-20 5.5	0.683	1.615	22.2	21.2	143 W			6	20	20 33.60	-20 5.5	0.683	1.615	22.2	21.2	143 W		
										523619 2007 RX19											
6	20	20 20.14	-76 55.5	2.291	2.978	16.5	23.6	124 W			7	25	19 55.36	-14 45.4	0.442	1.455	5.1	19.4	173 E		
										377463 2004 XE45											
6	20	20 21.45	-28 2.5	2.720	3.614	8.9	22.1	147 W			6	20	20 34.79	-19 28.6	1.052	1.960	18.3	21.1	143 W		
										523616 2007 LC15											
6	20	20 21.45	-28 2.5	2.720	3.614	8.9	22.1	147 W			6	20	20 21.45	-28 2.5	2.720	3.614	8.9	22.1	147 W		

