

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

2021	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°	2021	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°
88213 2001 AF₂										415949 2001 XY₁₀ <i>(continuation)</i>									
1 26	17 15.22	-8 51.0	1.023	0.833	63.1	21.3	49 W	30*	33*	3 22	22 44.08	-12 32.2	1.275	0.543	47.9	20.3	24 W	-	18*
1 31	17 48.84	-9 57.9	1.013	0.773	65.4	21.2	45 W	27*	31*	3 27	23 18.44	-11 45.6	1.320	0.535	43.0	20.2	21 W	-	15*
2 5	18 24.32	-10 57.0	1.014	0.710	67.1	21.1	42 W	23*	29*	4 1	23 52.15	-10 23.4	1.367	0.536	37.8	20.1	19 W	-	11*
2 10	19 1.35	-11 45.1	1.029	0.646	67.8	20.9	37 W	20*	27*	4 6	0 24.64	-8 29.9	1.416	0.547	32.7	20.1	17 W	-	8*
2 15	19 39.65	-12 18.6	1.058	0.580	67.0	20.7	33 W	16*	23*	4 11	0 55.52	-6 12.3	1.466	0.567	28.1	20.1	15 W	-	5*
2 20	20 18.99	-12 33.9	1.101	0.517	63.9	20.4	28 W	12*	20*	4 16	1 24.61	-3 38.9	1.515	0.593	24.1	20.2	14 W	-	3*
2 25	20 59.33	-12 26.5	1.156	0.459	57.7	20.1	23 W	7*	16*	4 21	1 51.90	-0 57.4	1.565	0.625	20.7	20.3	13 W	-	-
3 2	21 40.64	-11 50.2	1.221	0.413	47.7	19.7	18 W	3*	12*	4 26	2 17.54	+1 45.9	1.614	0.661	18.0	20.4	12 E	-	-
3 7	22 22.59	-10 38.2	1.288	0.388	34.4	19.3	13 W	-	7*	5 1	2 41.69	+4 26.3	1.662	0.698	15.7	20.5	11 E	-	1*
3 12	23 4.14	-8 47.9	1.350	0.392	20.7	19.0	8 W	-	2*	5 6	3 4.59	+7 0.4	1.710	0.737	13.7	20.6	10 E	-	1*
3 17	23 43.81	-6 25.7	1.404	0.422	11.9	19.0	5 W	-	-	5 11	3 26.42	+9 26.1	1.756	0.776	11.9	20.7	9 E	-	1*
3 19	23 58.90	-5 22.7	1.424	0.440	11.1	19.1	5 E	-	-	5 16	3 47.36	+11 42.3	1.801	0.814	10.4	20.8	8 E	-	1*
3 21	0 13.49	-4 17.6	1.443	0.460	11.7	19.2	5 E	-	-	5 21	4 7.56	+13 48.2	1.844	0.851	8.9	20.9	7 E	-	-
3 23	0 27.58	-3 11.2	1.461	0.483	13.1	19.4	6 E	-	-	5 26	4 27.14	+15 43.6	1.885	0.887	7.5	21.0	7 E	-	-
3 25	0 41.17	-2 4.2	1.479	0.507	14.7	19.6	7 E	-	1*	5 31	4 46.21	+17 28.5	1.924	0.921	6.2	21.0	6 E	-	-
3 27	0 54.28	-0 57.2	1.497	0.531	16.2	19.8	9 E	-	3*	6 5	5 4.86	+19 3.2	1.961	0.953	4.9	21.1	5 E	-	-
4 1	1 25.11	+1 47.2	1.543	0.596	19.2	20.2	11 E	-	5*	6 10	5 23.17	+20 28.0	1.995	0.984	3.7	21.1	4 E	-	-
4 6	1 53.47	+4 23.3	1.590	0.661	20.9	20.5	14 E	2*	7*	6 15	5 41.20	+21 43.1	2.027	1.013	2.4	21.1	2 E	-	-
4 11	2 19.74	+6 47.9	1.640	0.725	21.6	20.8	15 E	4*	8*	6 20	5 58.98	+22 48.8	2.055	1.040	1.3	21.1	1 E	-	-
4 16	2 44.21	+8 59.9	1.692	0.787	21.6	21.1	17 E	5*	9*	6 25	6 16.55	+23 45.7	2.081	1.065	0.5	21.1	1 E	-	-
4 21	3 7.16	+10 58.8	1.746	0.846	21.2	21.3	18 E	6*	10*	6 30	6 33.95	+24 34.0	2.104	1.088	1.3	21.3	1 W	-	-
4 26	3 28.79	+12 44.8	1.801	0.903	20.5	21.5	18 E	6*	11*	7 5	6 51.21	+25 14.0	2.123	1.109	2.4	21.4	3 W	-	-
469393 2001 TZ₉₀										531899 2013 BE₁₉									
1 26	17 22.58	-18 41.5	2.362	1.806	22.7	21.4	45 W	20*	35*	1 26	17 47.96	-43 24.0	1.030	0.731	65.4	21.5	42 W	-	35*
2 5	17 51.08	-18 9.8	2.249	1.757	24.8	21.3	48 W	21*	39*	1 28	18 4.04	-43 15.9	1.046	0.721	64.7	21.5	41 W	-	34*
2 15	18 20.21	-17 14.9	2.139	1.712	26.9	21.2	52 W	21*	43*	1 30	18 19.87	-42 58.1	1.061	0.712	64.0	21.5	40 W	-	33*
2 25	18 49.76	-15 55.8	2.035	1.669	28.9	21.1	55 W	22*	46*	2 1	18 35.38	-42 31.2	1.078	0.703	63.1	21.4	39 W	-	31*
3 7	19 19.55	-14 12.5	1.936	1.629	30.8	21.0	57 W	23*	49*	2 3	18 50.49	-41 55.4	1.095	0.694	62.1	21.4	39 W	-	30*
3 17	19 49.39	-12 5.7	1.845	1.594	32.6	20.9	60 W	23*	52*	2 5	19 5.16	-41 11.5	1.113	0.686	61.1	21.4	38 W	-	29*
3 27	20 19.05	-9 37.5	1.762	1.564	34.3	20.8	62 W	25*	53*	2 7	19 19.34	-40 19.9	1.132	0.678	60.0	21.4	37 W	-	28*
4 6	20 48.38	-6 51.1	1.686	1.538	35.8	20.7	64 W	26*	55*	2 9	19 33.01	-39 21.4	1.151	0.671	58.7	21.4	36 W	-	27*
4 16	21 17.24	-3 50.7	1.619	1.518	37.1	20.7	66 W	27*	56*	2 11	19 46.17	-38 16.5	1.170	0.665	57.4	21.3	35 W	-	26*
4 26	21 45.47	-0 41.1	1.559	1.504	38.3	20.6	68 W	29*	56*	2 13	19 58.81	-37 5.8	1.190	0.659	56.1	21.3	34 W	-	25*
5 6	22 12.99	+2 32.3	1.507	1.496	39.3	20.5	70 W	31*	56*	2 15	20 10.94	-35 49.9	1.210	0.654	54.6	21.3	33 W	-	24*
5 16	22 39.68	+5 44.1	1.459	1.495	40.0	20.5	72 W	33*	55*	2 17	20 22.58	-34 29.3	1.230	0.650	53.2	21.3	32 W	-	24*
5 21	22 52.68	+7 17.8	1.437	1.496	40.3	20.5	73 W	35*	55*	2 19	20 33.76	-33 4.7	1.250	0.646	51.6	21.2	31 W	-	23*
5 26	23 5.42	+8 49.1	1.416	1.500	40.5	20.4	74 W	36*	54*	2 21	20 44.49	-31 36.5	1.270	0.643	50.1	21.2	30 W	-	22*
5 31	23 17.91	+10 17.7	1.395	1.505	40.7	20.4	75 W	38*	53*	2 23	20 54.82	-30 5.1	1.290	0.642	48.5	21.2	29 W	-	21*
6 5	23 30.11	+11 43.0	1.375	1.511	40.8	20.4	77 W	40*	52*	2 25	21 4.76	-28 31.0	1.309	0.641	46.9	21.2	28 W	-	21*
6 10	23 42.00	+13 4.5	1.356	1.519	40.9	20.4	78 W	41*	51*	3 2	21 28.16	-24 26.8	1.358	0.642	43.0	21.2	26 W	-	19*
6 15	23 53.55	+14 21.8	1.336	1.529	40.8	20.4	80 W	44*	50*	3 3	21 49.80	-20 13.8	1.405	0.648	39.3	21.2	24 W	-	18*
6 25	0 15.52	+16 42.1	1.298	1.552	40.6	20.3	83 W	48*	47	3 12	22 10.10	-15 56.8	1.449	0.660	35.9	21.2	23 W	-	17*
7 5	0 35.76	+18 41.6	1.258	1.580	40.0	20.3	87 W	54*	45	3 17	22 29.37	-11 39.7	1.491	0.675	33.0	21.2	22 W	-	16*
7 15	0 53.92	+20 18.1	1.218	1.614	39.0	20.2	92 W	59*	44	3 22	22 47.88	-7 25.6	1.530	0.695	30.5	21.2	21 W	2*	15*
7 25	1 9.58	+21 29.4	1.176	1.651	37.6	20.2	97 W	64*	43	3 27	23 5.85	+3 16.9	1.567	0.717	28.6	21.3	20 W	3*	14*
7 30	1 16.35	+21 55.2	1.155	1.671	36.7	20.1	101 W	66*	42	4 1	23 23.48	+0 44.6	1.601	0.742	27.1	21.4	20 W	5*	13*
8 4	1 22.32	+22 13.9	1.134	1.692	35.6	20.1	104 W	67*	42	4 6	23 40.91	+4 37.4	1.634	0.769	25.9	21.5	20 W	6*	12*
8 9	1 27.44	+22 25.3	1.113	1.714	34.4	20.0	107 W	67	42	438105 2005 GO₂₂									
8 14	1 31.64	+22 29.0	1.092	1.737	33.0	20.0	111 W	67	42	1 26	18 12.16	-22 4.4	0.648	0.567	108.1	20.6	33 W	12*	25*
8 24	1 37.15	+22 12.3	1.054	1.784	29.5	19.9	119 W	67	42	1 28	18 5.37	-22 4.5	0.663	0.603	102.0	20.4	37 W	13*	29*
9 3	1 38.64	+21 21.5	1.023	1.834	25.3	19.7	129 W	66	43	1 30	17 59.79	-22 4.0	0.679	0.639	96.7	20.4	40 W	15*	32*
9 13	1 36.21	+19 55.6	1.002	1.885	20.2	19.6	140 W	65	44	2 1	17 55.21	-22 3.3	0.694	0.675	92.1	20.3	43 W	16*	35*
9 18	1 33.72	+19 0.2	0.998	1.912	17.4	19.5	145 W	64	45	2 3	17 51.44	-22 2.5	0.709	0.710	88.0	20.3	46 W	17*	38*
9 23	1 30.54	+17 57.5	0.997	1.938	14.4	19.4	151 W	63	46	2 5	17 48.33	-22 1.7	0.723	0.746	84.3	20.3	49 W	17*	41*
9 28	1 26.83	+16 48.6	1.002	1.965	11.3	19.4	157 W	62	47	2 7	17 45.73	-22 1.1	0.736	0.781	81.1	20.3	51 W	18*	44*
10 3	1 22.78	+15 35.2	1.013	1.992	8.2	19.3	164 W	61	48	2 9	17 43.55	-22 0.5	0.748	0.816	78.1	20.4	54 W	19*	46*
10 8	1 18.56	+14 19.2	1.029	2.020	5.2	19.2	170 W	59	50	2 11	17 41.67	-22 0.0	0.759	0.850	75.5	20.4	56 W	19*	49*
10 13	1 14.40	+13 2.5	1.052	2.047	2.6	19.1	175 W	58	51	2 13	17 40.03	-21 59.5	0.769	0.883	73.0	20.4	59 W	20*	51*
10 18	1 10.47	+11 47.5	1.081	2.075	2.6	19.2	174 E	57	52	2 15	17 38.56	-21 59.1	0.778	0.917	70.8	20.4	61 W	20*	54*
10 23	1 6.93	+10 35.8	1.117	2.103	5.0	19.5	169 E	56	53	2 20	17 35.29	-21 58.2	0.795	0.998	65.8	20.5	67 W	21*	60*
10 28	1 3.89	+9 29.1	1.159	2.131	7.5	19.7	164 E	54	55	2 25	17 32.08	-21 57.0	0.807	1.077	61.4	20.6	73 W	22*	66*
11 2	1 1.44	+8 28.6	1.207	2.159	10.0	19.9	158 E	53	56	3 2	17 28.47	-21 55.2	0.814	1.152	57.5	20.6	79 W	22*	72*
11 12	0 58.54	+6 49.2	1.321	2.215	14.2	20.3	147 E	52	57	3 7	17 24.12	-21 52.5	0.817	1.225	53.7	20.7	85 W	23*	77*
11 22	0 58.38	+5 40.0	1.454	2.271	17.6	20.7	136 E	51	58										

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

2021	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°	2021	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°		
438105 2005 GO ₂₂ (continuation)										483560 2004 BV ₁											
5	31	14 19.22	-13 23.3	1.257	2.182	14.5	21.7	147 E	32	77	1	26	19 27.05	-21 41.7	1.917	1.006	15.5	21.5	16 W	2*	9*
6	5	14 14.31	-13 1.9	1.340	2.225	16.5	22.0	141 E	32	77	1	31	19 50.51	-21 23.8	1.901	0.987	15.4	21.4	15 W	1*	9*
333755 2010 VC ₁										379841 2011 UV ₁₇₃											
1	26	18 31.55	-28 47.9	0.658	0.524	112.3	21.3	30 W	4*	23*	1	26	20 26.73	-19 31.8	2.857	1.874	0.9	21.5	2 W	—	—
1	31	18 45.84	-23 50.7	0.747	0.511	101.3	20.9	31 W	8*	24*	2	5	20 52.40	-18 17.3	2.825	1.846	3.0	21.6	6 W	—	—
2	5	19 2.99	-19 43.6	0.844	0.514	89.7	20.7	31 W	11*	24*	2	15	21 18.12	-16 49.1	2.787	1.820	5.2	21.7	10 W	—	4*
2	10	19 22.00	-16 19.1	0.942	0.532	78.7	20.5	32 W	13*	24*	2	25	21 43.83	-15 8.3	2.744	1.795	7.3	21.7	13 W	—	7*
2	15	19 41.85	-13 28.0	1.037	0.562	69.1	20.6	32 W	15*	23*	3	7	22 9.49	-13 16.2	2.698	1.771	9.3	21.7	17 W	—	11*
2	20	20 1.73	-11 2.2	1.128	0.603	61.1	20.6	32 W	15*	23*	405471 2004 VQ ₃₆										
2	25	20 21.11	-8 55.2	1.212	0.650	54.6	20.8	32 W	16*	23*	1	26	20 35.94	-20 47.4	2.694	1.711	1.2	21.4	2 E	—	—
3	2	20 39.72	-7 2.2	1.289	0.701	49.6	20.9	33 W	16*	23*	2	5	21 3.97	-18 57.7	2.674	1.692	2.2	21.4	4 W	—	—
3	7	20 57.45	-5 19.8	1.360	0.754	45.7	21.1	33 W	17*	24*	2	15	21 31.71	-16 51.9	2.652	1.675	4.0	21.5	7 W	—	1*
3	12	21 14.27	-3 45.6	1.423	0.808	42.6	21.3	33 W	17*	24*	2	25	21 59.08	-14 32.3	2.627	1.660	5.8	21.6	10 W	—	4*
3	17	21 30.22	-2 18.2	1.481	0.861	40.3	21.4	34 W	17*	25*	3	7	22 26.06	-12 1.0	2.602	1.649	7.6	21.6	13 W	—	7*
457912 2009 UW ₁₈										280853 2005 UY ₂₈₂											
1	26	18 45.81	-19 58.6	1.533	0.769	33.2	21.3	25 W	9*	17*	1	26	20 49.85	-17 49.6	2.608	1.627	2.4	21.4	4 E	—	—
1	31	19 14.72	-18 14.1	1.538	0.748	31.8	21.3	24 W	9*	16*	2	5	21 18.51	-15 54.5	2.615	1.629	0.6	21.3	1 E	—	—
2	5	19 43.34	-16 15.0	1.549	0.732	30.0	21.2	22 W	8*	14*	2	15	21 46.51	-13 46.0	2.620	1.634	1.2	21.3	2 W	—	—
2	10	20 11.49	-14 4.3	1.565	0.722	27.9	21.1	20 W	8*	12*	2	25	22 13.80	-11 27.1	2.624	1.641	3.1	21.5	5 W	—	—
2	15	20 39.07	-11 45.2	1.585	0.718	25.6	21.1	18 W	7*	10*	3	7	22 40.41	-9 0.5	2.627	1.651	4.9	21.6	8 W	—	2*
2	20	21 5.97	-9 21.2	1.609	0.720	23.1	21.0	17 W	7*	8*	326741 2003 QW ₂₆										
2	25	21 32.13	-6 55.4	1.637	0.728	20.7	21.0	15 W	6*	6*	1	26	20 57.30	-26 40.6	3.323	2.358	4.0	21.4	10 E	—	3*
3	2	21 57.52	-4 30.7	1.668	0.742	18.3	21.0	14 W	5*	5*	2	5	21 16.98	-24 45.3	3.292	2.323	3.7	21.4	9 E	—	—
3	7	22 22.11	-2 9.4	1.701	0.761	16.1	21.0	12 W	5*	3*	2	15	21 36.50	-22 42.2	3.250	2.287	4.6	21.4	11 W	—	2*
3	12	22 45.91	+0 6.8	1.736	0.785	14.1	21.1	11 W	4*	2*	2	25	21 55.82	-20 31.7	3.197	2.251	6.3	21.4	14 W	—	7*
3	17	23 8.92	+2 16.5	1.773	0.813	12.4	21.1	10 W	3*	1*	3	7	22 14.96	-18 14.0	3.133	2.215	8.2	21.4	19 W	—	12*
3	22	23 31.16	+4 18.7	1.812	0.844	10.9	21.2	9 W	3*	—	3	17	22 33.93	-15 49.4	3.060	2.178	10.3	21.4	23 W	—	16*
3	27	23 52.66	+6 12.8	1.851	0.877	9.6	21.3	8 W	2*	—	3	27	22 52.74	-13 18.3	2.978	2.142	12.4	21.4	27 W	—	21*
4	1	0 13.45	+7 58.6	1.891	0.911	8.5	21.4	8 W	1*	—	4	6	23 11.43	-10 41.0	2.888	2.105	14.5	21.3	32 W	1*	26*
4	6	0 33.58	+9 36.1	1.932	0.947	7.6	21.5	7 W	1*	—	4	16	23 30.04	-7 57.7	2.791	2.068	16.7	21.3	36 W	3*	30*
416002 2002 BN										326741 2003 QW ₂₆											
1	26	18 52.03	-11 18.3	1.061	0.458	67.8	21.1	26 W	16*	13*	5	6	23 48.61	-5 8.7	2.688	2.031	18.8	21.2	40 W	6*	34*
1	31	19 29.48	-12 57.8	1.149	0.419	56.9	20.8	21 W	11*	10*	5	16	0 7.21	-2 14.1	2.581	1.994	20.8	21.2	45 W	9*	39*
2	5	20 7.91	-14 26.8	1.237	0.398	43.3	20.4	16 W	6*	8*	5	26	0 25.90	+0 45.9	2.470	1.958	22.9	21.1	49 W	12*	42*
2	10	20 46.99	-15 32.2	1.319	0.403	29.1	20.2	11 W	1*	5*	5	26	0 44.73	+3 51.3	2.356	1.923	24.8	21.0	53 W	16*	45*
2	15	21 25.58	-16 3.2	1.389	0.430	17.6	20.1	8 W	—	2*	6	5	1 3.81	+7 1.9	2.241	1.888	26.7	20.9	57 W	20*	47*
2	20	22 2.49	-15 57.2	1.449	0.475	11.7	20.2	6 W	—	—	6	15	1 23.20	+10 17.7	2.125	1.855	28.6	20.8	61 W	26*	47*
2	25	22 36.99	-15 18.8	1.503	0.530	11.7	20.5	6 E	—	—	6	25	1 42.98	+13 38.6	2.009	1.822	30.3	20.7	65 W	32*	47*
3	2	23 8.84	-14 15.4	1.552	0.589	13.9	20.9	8 E	—	1*	7	5	2 3.28	+17 4.3	1.895	1.791	31.9	20.6	68 W	38*	45*
3	7	23 38.14	-12 54.3	1.600	0.649	15.8	21.2	10 E	—	4*	7	15	2 24.17	+20 34.6	1.784	1.761	33.3	20.5	72 W	45*	43*
408982 2002 SP										513358 2008 CA ₅											
1	26	18 56.71	-27 46.2	0.994	0.410	76.7	21.3	24 W	2*	18*	1	26	19 11.94	-34 12.6	1.549	0.760	31.5	21.5	24 W	—	17*
1	28	19 5.44	-28 31.9	1.044	0.431	70.0	21.3	24 W	1*	18*	1	31	19 42.82	-32 31.3	1.591	0.771	28.6	21.5	22 W	—	15*
1	30	19 14.71	-29 5.6	1.093	0.454	64.3	21.4	25 W	—	19*	2	5	20 11.28	-30 25.8	1.635	0.789	25.8	21.5	20 W	—	13*
2	1	19 24.30	-29 28.7	1.139	0.479	59.3	21.4	25 W	—	19*	2	10	20 37.30	-28 3.0	1.681	0.813	23.2	21.6	19 W	—	12*
2	3	19 34.01	-29 42.8	1.183	0.505	55.1	21.5	25 W	—	19*	2	15	21 1.01	-25 28.9	1.728	0.843	21.0	21.6	18 W	—	11*
141614 2002 JV ₁₅																					
1	26	19 7.12	-19 9.9	1.790	0.932	21.6	21.5	20 W	7*	12*											
1	31	19 32.77	-18 15.5	1.763	0.895	21.4	21.3	19 W	6*	12*											
2	5	19 58.93	-17 6.3	1.742	0.861	20.8	21.2	18 W	5*	11*											
2	10	20 25.48	-15 42.7	1.725	0.830	19.9	21.1	17 W	4*	9*											
2	15	20 52.26	-14 5.5	1.715	0.803	18.6	20.9	15 W	3*	8*											
2	20	21 19.12	-12 15.9	1.709	0.781	16.9	20.8	13 W	2*	6*											
2	25	21 45.91	-10 16.1	1.709	0.765	14.9	20.7	11 W	1*	5*											
3	2	22 12.51	-8 8.2	1.714	0.755	12.6	20.6	10 W	—	3*											
3	7	22 38.81	-5 54.7	1.724	0.753	10.2	20.5	8 W	—	1*											
3	12	23 4.70	-3 38.5	1.739	0.757	7.7	20.4	6 W	—	—											
3	17	23 30.10	-1 22.0	1.757	0.768	5.3	20.4	4 W	—	—											
3	22	23 54.94	+0 52.2	1.780	0.786	3.1	20.3	2 W	—	—											
3	27	0 19.18	+3 2.2	1.806	0.809	1.3	20.3	1 W	—	—											
4	1	0 42.79	+5 6.1	1.836	0.837	0.9	20.4	1 E	—	—											
4	6	1 5.75	+7 2.7	1.868	0.869	2.0	20.6	2 E	—	—											
4	11	1 28.06	+8 51.1	1.904	0.904	2.9	20.8	3 E	—	—											
4	16	1 49.72	+10 30.6	1.941	0.942	3.6	21.0	3 E	—	—											
4	21	2 10.73	+12 1.0	1.981	0.981	4.0	21.1	4 E	—	—											
4	26	2 31.09	+13 22.1	2.023	1.022	4.2	21.3	4 E	—	—											
5	1	2 50.83	+14 34.1	2.066	1.064	4.2	21.4	4 E	—	—											
8	9	3 19.71	+29 36.2	1.523	1.696	36.2	20.1	81 W	64*	34*											
8	14	3 31.48	+31 26.2	1.474	1.685	36.6	20.1	83 W	67*	33											
8	19	3 43.49	+33 16.4	1.427	1.674	37.0	20.0	85 W	71*	31											
8	24	3 55.75	+35 6.5	1.382	1.665	37.3	19.9	87 W	74*	29											
8	29	4 8.26	+36 56.2	1.338	1.655	37.6	19.8	89 W	77*	27											
9	3	4 21.01	+38 45.4	1.295	1.647	37.8	19.8	90 W	80*	25											
9	8	4 33.98	+40 33.6	1.254	1.639	37.9	19.7	92 W	83*	23											
9	13	4 47.15	+42 20.6	1.215	1.632	37.9	19.6	94 W	86*	22											
9	18	5 0.50	+44 6.0	1.178	1.626	37.9	19.5	96 W	89*	20											
9	23	5 13.98	+45 49.5	1.142	1.621	37.8	19.5	98 W	89	18											
9	28	5 27.54	+47 30.																		

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

21/22	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°	21/22	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°
326741 2003 QW₂₆ (continuation)										307877 2004 BG₆₉ (continuation)									
11 17	7 18.73	+61 43.7	0.865	1.620	31.3	18.7	122 W	73	2	1 16	2 47.84	+ 0 24.9	1.084	1.626	36.0	18.5	104 E	45	63*
11 22	7 22.90	+62 47.8	0.850	1.626	30.2	18.6	124 W	72	1	1 21	2 55.88	+ 1 36.2	1.118	1.625	36.5	18.6	101 E	47	62*
11 27	7 24.77	+63 45.4	0.838	1.632	29.1	18.6	127 W	71	—	469046 2015 AB₂₆₀									
12 2	7 24.14	+64 34.9	0.828	1.638	27.9	18.5	129 W	70	—	1 26	21 22.94	-16 23.0	3.117	2.164	5.5	21.5	12 E	4*	3*
12 7	7 20.93	+65 14.0	0.821	1.646	26.8	18.5	131 W	70	—	2 5	21 44.03	-15 27.3	3.101	2.127	3.3	21.3	7 E	—	—
12 12	7 15.28	+65 40.1	0.816	1.654	25.7	18.4	133 W	69	—	2 15	22 5.49	-14 22.8	3.074	2.089	1.5	21.1	3 E	—	—
12 14	7 12.41	+65 46.4	0.815	1.658	25.3	18.4	134 W	69	—	2 25	22 27.28	-13 10.3	3.037	2.051	2.0	21.1	4 W	—	—
12 16	7 9.25	+65 50.1	0.814	1.662	24.9	18.4	135 W	69	—	3 7	22 49.40	-11 50.9	2.991	2.014	4.0	21.2	8 W	—	1*
12 18	7 5.84	+65 51.1	0.814	1.665	24.5	18.4	135 W	69	—	3 17	23 11.87	-10 25.5	2.937	1.977	6.2	21.2	12 W	—	6*
12 20	7 2.21	+65 49.2	0.815	1.669	24.1	18.4	136 W	69	—	3 27	23 34.72	- 8 55.4	2.875	1.940	8.4	21.2	17 W	—	10*
12 22	6 58.42	+65 44.4	0.816	1.673	23.8	18.4	137 W	69	—	4 6	23 57.97	- 7 21.8	2.808	1.903	10.6	21.2	21 W	—	14*
12 24	6 54.51	+65 36.7	0.817	1.678	23.5	18.4	137 W	69	—	4 16	0 21.68	- 5 46.0	2.736	1.868	12.8	21.2	24 W	—	18*
12 26	6 50.55	+65 25.9	0.819	1.682	23.2	18.4	138 W	70	—	4 26	0 45.89	- 4 9.7	2.660	1.834	14.9	21.2	28 W	—	21*
12 28	6 46.58	+65 12.1	0.822	1.686	23.0	18.4	138 W	70	—	5 6	1 10.63	- 2 34.4	2.583	1.800	17.0	21.1	31 W	—	25*
12 30	6 42.66	+64 55.3	0.825	1.691	22.8	18.4	138 W	70	—	5 16	1 35.96	- 1 1.7	2.505	1.769	19.0	21.1	35 W	—	28*
1 1	6 38.83	+64 35.5	0.829	1.695	22.6	18.4	138 E	70	—	5 26	2 1.88	+ 0 26.2	2.427	1.739	20.8	21.1	38 W	—	32*
1 3	6 35.16	+64 12.8	0.833	1.700	22.5	18.4	139 E	71	—	6 5	2 28.40	+ 1 47.8	2.350	1.711	22.7	21.0	40 W	2*	34*
1 5	6 31.67	+63 47.4	0.838	1.705	22.4	18.5	139 E	71	—	6 15	2 55.48	+ 3 0.9	2.276	1.685	24.4	21.0	43 W	4*	37*
1 7	6 28.42	+63 19.4	0.844	1.709	22.4	18.5	138 E	72	1	6 25	3 23.06	+ 4 3.7	2.204	1.661	26.0	20.9	46 W	7*	39*
1 9	6 25.41	+62 49.0	0.850	1.714	22.4	18.5	138 E	72	2	7 5	3 51.03	+ 4 54.6	2.135	1.641	27.5	20.8	48 W	11*	41*
1 11	6 22.69	+62 16.3	0.857	1.719	22.5	18.5	138 E	73	1	7 15	4 19.27	+ 5 32.3	2.070	1.623	28.8	20.8	50 W	15*	42*
1 13	6 20.26	+61 41.6	0.865	1.724	22.6	18.5	138 E	73	2	7 25	4 47.58	+ 5 55.9	2.008	1.609	30.1	20.8	53 W	19*	44*
1 15	6 18.13	+61 5.0	0.873	1.730	22.7	18.6	137 E	74	3	8 4	5 15.80	+ 6 5.0	1.949	1.598	31.3	20.7	55 W	23*	45*
1 17	6 16.30	+60 26.7	0.882	1.735	22.8	18.6	137 E	75	4	8 14	5 43.69	+ 5 59.8	1.893	1.591	32.4	20.7	57 W	27*	45*
1 19	6 14.78	+59 47.0	0.891	1.740	23.0	18.6	136 E	75	4	8 24	6 11.05	+ 5 41.2	1.838	1.587	33.3	20.6	60 W	31*	46*
1 21	6 13.56	+59 6.1	0.902	1.746	23.2	18.7	136 E	76	5	9 3	6 37.68	+ 5 10.6	1.784	1.587	34.2	20.6	62 W	35*	47*
162000 1990 OS										307877 2004 BG₆₉									
1 26	21 3.24	-17 4.2	1.975	1.006	7.2	21.4	7 E	—	—	9 13	7 3.38	+ 4 30.1	1.731	1.591	34.9	20.5	65 W	38*	48*
2 5	21 45.56	-13 38.2	1.927	0.960	8.1	21.3	8 E	1*	—	9 23	7 27.97	+ 3 42.1	1.676	1.598	35.6	20.5	68 W	41*	49*
2 15	22 28.43	- 9 35.3	1.888	0.926	9.7	21.2	9 E	2*	—	10 3	7 51.31	+ 2 49.4	1.620	1.609	36.1	20.5	71 W	43*	51*
2 25	23 11.62	- 5 4.3	1.861	0.906	11.6	21.2	11 E	4*	1*	10 13	8 13.21	+ 1 55.2	1.561	1.623	36.5	20.4	75 W	45*	53*
3 7	23 54.95	- 0 17.6	1.847	0.903	13.6	21.3	12 E	6*	2*	10 23	8 33.52	+ 1 3.0	1.499	1.641	36.6	20.3	79 W	45*	55*
3 17	0 38.34	+ 4 30.2	1.847	0.916	15.5	21.4	14 E	7*	3*	11 2	8 52.05	+ 0 16.8	1.434	1.661	36.5	20.3	84 W	45*	57*
11 17	9 15.96	- 0 31.3	1.331	1.697	35.6	20.1	93 W	44	61*	11 12	9 8.55	+ 0 19.0	1.366	1.685	36.0	20.2	90 W	45	60*
11 22	9 22.76	- 0 39.1	1.296	1.711	35.0	20.1	96 W	44	63*	11 27	9 28.91	- 0 41.6	1.260	1.724	34.4	20.0	99 W	44	64*
12 2	9 34.36	- 0 38.0	1.225	1.739	33.5	19.9	103 W	44	64*	12 7	9 39.05	- 0 27.4	1.190	1.753	32.5	19.9	107 W	45	64*
12 7	9 39.05	- 0 27.4	1.190	1.753	32.5	19.9	107 W	45	64*	12 12	9 42.92	- 0 8.8	1.155	1.769	31.3	19.8	111 W	45	64
12 12	9 42.92	- 0 8.8	1.155	1.769	31.3	19.8	111 W	45	64	12 17	9 45.95	+ 0 18.4	1.122	1.784	29.8	19.7	116 W	45	64
12 17	9 45.95	+ 0 18.4	1.122	1.784	29.8	19.7	116 W	45	64	12 22	9 48.09	+ 0 55.2	1.090	1.800	28.1	19.6	120 W	46	63
12 22	9 48.09	+ 0 55.2	1.090	1.800	28.1	19.6	120 W	46	63	12 27	9 49.28	+ 1 42.1	1.060	1.817	26.2	19.5	125 W	47	62
1 1	9 49.51	+ 2 39.7	1.033	1.834	23.9	19.4	131 W	48	61	1 1	9 49.51	+ 2 39.7	1.033	1.834	23.9	19.4	131 W	48	61
1 6	9 48.77	+ 3 48.2	1.009	1.851	21.5	19.3	137 W	49	60	1 6	9 48.77	+ 3 48.2	1.009	1.851	21.5	19.3	137 W	49	60
1 11	9 47.08	+ 5 7.4	0.989	1.868	18.7	19.2	142 W	50	59	1 11	9 47.08	+ 5 7.4	0.989	1.868	18.7	19.2	142 W	50	59
1 16	9 44.52	+ 6 36.4	0.974	1.886	15.7	19.1	149 W	52	57	1 16	9 44.52	+ 6 36.4	0.974	1.886	15.7	19.1	149 W	52	57
1 21	9 41.18	+ 8 13.6	0.965	1.903	12.5	19.0	155 W	53	56	1 21	9 41.18	+ 8 13.6	0.965	1.903	12.5	19.0	155 W	53	56
427583 2003 QK₁₀₃										411655 2011 WW₄									
1 26	21 25.06	-16 0.5	2.690	1.742	7.1	21.5	13 E	4*	4*	1 26	21 30.57	-13 38.6	2.179	1.252	11.5	21.5	15 E	7*	4*
2 5	21 51.73	-14 23.6	2.689	1.722	5.2	21.4	9 E	1*	1*	1 31	21 47.87	-11 52.3	2.187	1.255	11.1	21.5	14 E	7*	3*
2 15	22 18.40	-12 34.1	2.684	1.705	3.5	21.2	6 E	—	—	2 5	22 4.91	-10 2.3	2.196	1.260	10.7	21.5	14 E	7*	2*
2 25	22 45.01	-10 34.2	2.676	1.689	2.0	21.1	3 E	—	—	2 10	22 21.69	- 8 9.4	2.208	1.267	10.3	21.5	13 E	7*	1*
3 7	23 11.55	- 8 25.9	2.667	1.677	1.8	21.1	3 E	—	—	2 15	22 38.20	- 6 14.5	2.221	1.276	9.8	21.5	13 E	6*	1*
3 17	23 38.02	- 6 11.4	2.655	1.667	3.1	21.1	5 W	—	—	1 26	21 36.84	-22 5.7	3.478	2.541	5.8	21.4	15 E	1*	9*
3 27	0 4.43	- 3 53.4	2.643	1.660	4.7	21.2	8 W	—	1*	2 5	21 54.42	-20 31.9	3.454	2.491	4.2	21.2	11 E	—	5*
4 6	0 30.79	- 1 34.3	2.629	1.656	6.4	21.3	11 W	—	4*	2 15	22 12.30	-18 51.6	3.415	2.440	3.0	21.1	8 E	—	1*
4 16	0 57.12	+ 0 43.5	2.615	1.655	8.1	21.3	13 W	—	7*	2 25	22 30.44	-17 5.1	3.364	2.387	3.3	21.0	8 W	—	—
4 26	1 23.44	+ 2 57.3	2.600	1.657	9.8	21.4	16 W	—	10*	3 7	22 48.82	-15 12.7	3.300	2.334	4.7	21.0	11 W	—	3*
5 6	1 49.75	+ 5 4.9	2.584	1.663	11.4	21.5	19 W	—	13*	3 17	23 7.48	-13 14.6	3.226	2.281	6.6	21.0	15 W	—	8*
306642 2000 SP₄₂										411655 2011 WW₄									
1 26	21 36.84	-22 5.7	3.478	2.541	5.8	21.4	15 E	1*	9*	1 26	21 30.57	-13 38.6	2.179	1.252	11.5	21.5	15 E</		

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

21/22	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°	21/22	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°
306642 2000 SP₄₂										509280 2006 VQ₄									
<i>(continuation)</i>										<i>(continuation)</i>									
5 16	1 7.04	+ 0 8.7	2.614	1.951	19.5	20.7	40 W	4*	34*	3 7	0 5.47	- 2 47.2	2.646	1.701	8.2	21.1	14 E	6*	5*
5 26	1 28.89	+ 2 33.4	2.497	1.896	21.6	20.6	44 W	7*	37*	3 17	0 29.86	+ 0 14.8	2.654	1.688	6.4	21.0	11 E	3*	3*
6 5	1 51.56	+ 4 59.4	2.380	1.842	23.7	20.5	47 W	11*	40*	3 27	0 54.51	+ 3 16.5	2.660	1.678	4.7	21.0	8 E	—	1*
6 15	2 15.17	+ 7 25.5	2.263	1.788	25.8	20.4	50 W	15*	42*	4 6	1 19.48	+ 6 15.5	2.665	1.671	3.0	20.8	5 E	—	—
6 25	2 39.84	+ 9 50.4	2.148	1.736	27.8	20.3	53 W	19*	43*	4 16	1 44.83	+ 9 9.5	2.669	1.667	1.4	20.7	2 E	—	—
7 5	3 5.72	+12 12.6	2.037	1.686	29.8	20.2	56 W	24*	43*	4 26	2 10.61	+11 55.9	2.671	1.666	1.0	20.7	2 W	—	—
7 15	3 32.91	+14 29.9	1.929	1.638	31.8	20.0	58 W	29*	43*	5 6	2 36.83	+14 32.3	2.673	1.668	2.5	20.8	4 W	—	—
7 25	4 1.51	+16 40.0	1.827	1.593	33.7	19.9	60 W	35*	42*	5 16	3 3.52	+16 56.6	2.673	1.673	4.1	20.9	7 W	—	1*
7 30	4 16.37	+17 41.5	1.778	1.571	34.6	19.9	61 W	37*	41*	5 26	3 30.63	+19 6.6	2.672	1.682	5.8	21.0	10 W	—	3*
8 4	4 31.61	+18 40.1	1.731	1.550	35.5	19.8	63 W	40*	40*	6 5	3 58.11	+21 0.5	2.669	1.693	7.5	21.1	13 W	1*	6*
8 9	4 47.21	+19 35.4	1.685	1.531	36.4	19.7	64 W	42*	40*	6 15	4 25.88	+22 37.1	2.665	1.708	9.1	21.2	15 W	3*	8*
8 14	5 3.17	+20 27.0	1.641	1.512	37.2	19.7	64 W	45*	39*	6 25	4 53.78	+23 55.2	2.658	1.725	10.8	21.3	19 W	6*	10*
8 19	5 19.47	+21 14.6	1.599	1.495	38.0	19.6	65 W	47*	38*	7 5	5 21.67	+24 54.4	2.648	1.744	12.4	21.4	22 W	10*	12*
8 24	5 36.09	+21 57.6	1.559	1.479	38.8	19.6	66 W	49*	37*	7 15	5 49.37	+25 34.9	2.635	1.766	14.0	21.4	25 W	13*	13*
8 29	5 53.02	+22 35.9	1.520	1.464	39.5	19.5	67 W	51*	37*	37479 1130 T-1									
9 3	6 10.19	+23 8.9	1.484	1.450	40.2	19.5	68 W	53*	36*	1 26	23 4.09	- 4 25.7	2.807	2.141	17.0	21.5	39 E	28*	21*
9 8	6 27.58	+23 36.5	1.449	1.438	40.8	19.4	69 W	55*	35*	2 5	23 22.17	- 2 52.8	2.853	2.110	15.2	21.4	34 E	25*	16*
9 13	6 45.11	+23 58.5	1.416	1.427	41.4	19.4	70 W	58*	34*	2 15	23 40.82	- 1 13.8	2.887	2.078	13.3	21.4	29 E	20*	13*
9 18	7 2.73	+24 14.7	1.385	1.418	42.0	19.3	71 W	58*	34*	2 25	0 0.01	+ 0 30.2	2.911	2.045	11.3	21.3	24 E	16*	9*
9 23	7 20.39	+24 25.1	1.356	1.410	42.5	19.3	72 W	59*	33*	3 7	0 19.74	+ 2 17.9	2.923	2.012	9.3	21.2	19 E	12*	6*
9 28	7 38.01	+24 29.9	1.328	1.405	42.9	19.2	73 W	60*	33*	3 17	0 40.05	+ 4 8.2	2.926	1.978	7.2	21.0	14 E	7*	4*
10 3	7 55.52	+24 29.3	1.302	1.401	43.3	19.2	74 W	61*	32*	3 27	1 0.96	+ 5 59.6	2.918	1.944	5.2	20.9	10 E	3*	1*
10 13	8 29.91	+24 13.1	1.254	1.397	43.8	19.1	76 W	64*	32*	4 6	1 22.53	+ 7 50.7	2.901	1.909	3.1	20.7	6 E	—	—
10 23	9 3.02	+23 40.5	1.210	1.401	44.0	19.0	78 W	65*	32*	4 16	1 44.83	+ 9 39.9	2.876	1.874	1.2	20.5	2 E	—	—
11 2	9 34.37	+22 56.6	1.169	1.412	44.0	19.0	81 W	66*	33*	4 26	2 7.90	+11 25.5	2.843	1.838	1.3	20.5	2 W	—	—
11 12	10 3.51	+22 7.7	1.131	1.429	43.6	18.9	84 W	67*	34*	5 6	2 31.80	+13 5.7	2.803	1.803	3.3	20.5	6 W	—	—
11 22	10 30.09	+21 20.0	1.094	1.453	42.8	18.9	88 W	66*	36*	5 16	2 56.60	+14 38.5	2.758	1.768	5.3	20.6	9 W	—	3*
12 2	10 53.79	+20 40.0	1.058	1.482	41.6	18.8	93 W	66*	38*	5 26	3 22.33	+16 1.9	2.708	1.733	7.3	20.6	13 W	—	7*
12 12	11 14.23	+20 13.6	1.022	1.516	40.0	18.7	98 W	65*	40*	6 5	3 49.00	+17 13.6	2.654	1.699	9.3	20.6	16 W	—	9*
12 22	11 31.04	+20 5.5	0.986	1.555	37.8	18.6	104 W	65*	42*	6 15	4 16.63	+18 11.4	2.597	1.666	11.2	20.6	19 W	1*	12*
1 1	11 43.78	+20 19.3	0.952	1.597	35.0	18.6	111 W	65*	43*	6 25	4 45.15	+18 53.0	2.538	1.634	13.1	20.6	21 W	4*	14*
1 11	11 51.93	+20 56.4	0.921	1.643	31.5	18.4	119 W	66	43	7 5	5 14.49	+19 16.4	2.478	1.603	14.9	20.5	24 W	7*	16*
1 21	11 55.10	+21 54.1	0.897	1.691	27.3	18.3	128 W	67	42	7 15	5 44.52	+19 19.9	2.418	1.574	16.7	20.5	26 W	10*	18*
1 26	21 46.18	-15 14.5	1.112	0.347	59.9	21.1	18 E	8*	8*	7 25	5 15.08	+19 2.0	2.359	1.547	18.4	20.5	29 W	13*	19*
1 28	21 55.28	-14 25.8	1.047	0.325	70.1	21.1	18 E	9*	8*	8 4	6 45.99	+18 22.0	2.301	1.523	20.0	20.4	31 W	16*	20*
1 30	22 3.19	-13 38.3	0.980	0.309	82.0	21.3	18 E	9*	8*	8 14	7 17.05	+17 19.8	2.245	1.501	21.6	20.4	33 W	19*	21*
2 1	22 9.29	-12 54.7	0.910	0.301	95.5	21.6	18 E	9*	7*	9 24	7 48.05	+15 56.2	2.191	1.482	23.1	20.4	35 W	22*	22*
2 3	22 13.01	-12 17.7	0.841	0.302	109.9	22.2	17 E	8*	6*	9 3	8 18.83	+14 12.5	2.139	1.466	24.5	20.3	37 W	25*	23*
1 26	21 56.15	-10 12.8	2.531	1.658	12.7	21.5	22 E	14*	8*	9 13	8 49.26	+12 10.9	2.090	1.454	25.9	20.3	39 W	27*	23*
2 5	22 22.62	- 7 35.7	2.541	1.638	11.1	21.4	19 E	12*	5*	9 23	9 19.21	+ 9 54.3	2.043	1.446	27.1	20.3	41 W	29*	24*
2 15	22 49.18	- 4 48.9	2.550	1.622	9.5	21.3	16 E	9*	3*	10 3	9 48.64	+ 7 25.9	1.998	1.441	28.4	20.2	43 W	31*	26*
2 25	23 15.83	- 1 55.1	2.559	1.610	8.0	21.2	13 E	7*	—	10 13	10 17.49	+ 4 49.1	1.955	1.441	29.5	20.2	45 W	33*	27*
3 7	23 42.57	+ 1 3.0	2.569	1.603	6.4	21.2	10 E	4*	—	10 23	10 45.75	+ 2 7.6	1.913	1.444	30.6	20.2	48 W	34*	29*
3 17	0 9.45	+ 4 2.2	2.580	1.601	4.9	21.1	8 E	2*	—	11 2	11 13.45	- 0 34.8	1.872	1.452	31.7	20.2	50 W	35*	31*
3 27	0 36.47	+ 6 59.3	2.592	1.602	3.5	21.0	6 E	—	—	11 12	11 40.56	- 3 14.8	1.830	1.463	32.6	20.2	53 W	35*	33*
4 6	1 3.68	+ 9 51.2	2.606	1.609	2.3	21.0	4 E	—	—	11 22	12 7.09	- 5 48.8	1.787	1.477	33.6	20.2	56 W	35*	37*
4 16	1 31.09	+12 34.8	2.621	1.620	1.8	21.0	3 W	—	—	12 2	12 33.01	- 8 14.0	1.742	1.496	34.4	20.2	59 W	35*	40*
4 26	1 58.69	+15 7.4	2.637	1.635	2.5	21.0	4 W	—	—	12 12	12 58.26	-10 27.5	1.695	1.517	35.2	20.2	62 W	34*	45*
5 6	2 26.46	+17 26.4	2.653	1.654	3.7	21.2	6 W	—	—	12 22	13 22.74	-12 26.9	1.645	1.540	35.8	20.2	66 W	32*	50*
5 16	2 54.35	+19 29.9	2.669	1.676	5.2	21.3	9 W	—	1*	1 1	13 46.32	-14 10.5	1.591	1.567	36.3	20.2	71 W	31*	55*
5 26	3 22.25	+21 16.1	2.684	1.703	6.7	21.4	11 W	1*	4*	1 11	14 8.76	-15 36.4	1.534	1.595	36.6	20.1	75 W	29	61*
										1 21	14 29.83	-16 43.7	1.473	1.625	36.6	20.1	80 W	28	67*
403775 2011 HS₄										477051 2009 BD₂									
1 26	21 46.18	-15 14.5	1.112	0.347	59.9	21.1	18 E	8*	8*	1 26	23 9.23	- 9 50.0	2.185	1.545	23.5	21.4	39 E	24*	24*
1 28	21 55.28	-14 25.8	1.047	0.325	70.1	21.1	18 E	9*	8*	2 5	23 35.66	- 7 54.0	2.181	1.492	22.6	21.3	35 E	22*	22*
1 30	22 3.19	-13 38.3	0.980	0.309	82.0	21.3	18 E	9*	8*	2 15	0 3.28	- 5 45.1	2.172	1.442	21.7	21.2	33 E	20*	20*
2 1	22 9.29	-12 54.7	0.910	0.301	95.5	21.6	18 E	9*	7*	2 25	0 32.08	- 3 25.3	2.160	1.398	20.9	21.1	30 E	19*	18*
2 3	22 13.01	-12 17.7	0.841	0.302	109.9	22.2	17 E	8*	6*	3 7	1 2.09	- 0 57.2	2.148	1.359	20.3	21.0	28 E	17*	17*
1 26	22 18.90	-16 12.8	1.615	0.838	30.1	21.4	25 E	12*	15*	3 17	1 33.32	+ 1 35.9	2.137	1.327	19.8	21.0	27 E	15*	17*
2 5	23 0.09	-12 10.6	1.547	0.789	33.1	21.2	26 E	14*	15*	3 27	2 5.77	+ 4 10.0	2.128	1.303	19.4	20.9	26 E	13*	16*
2 15	23 41.96	- 7 26.0	1.469	0.742	37.3	21.1	27 E	16*	16*	4 6	2 39.38	+ 6 40.3	2.125	1.287	19.1	20.9	25 E	12*	16*
2 25	0 24.73	- 2 2.8	1.382	0.703	42.8	21.0	29 E	18*	16*	4 16	3 14.06	+ 9 1.8	2.128	1.280	18.7	20.8	24 E	10*	16*
3 7	1 8.71	+ 3 51.6	1.288	0.675	49.5	20.9	31 E	21*	16*	4 26	3 49.60	+11 9.1	2.139	1.282	18.3	20.8	24 E	9*	16*
3 17	1 54.32	+10 5.7	1.190	0.662	56.8	20.9	34 E	25*	17*	5 6	4 25.74	+12 57.3	2.160	1.					

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

21/22	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45° - 26°	2021	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45° - 26°
162214 1999 TC₁₀ (continuation)									337078 1998 RZ₁₃								
3 7	1 36.82	+21 17.9	1.370	0.967	46.4	21.0	45 E	38* 13*	2 5	10 6.06	+ 8 36.0	1.953	2.918	4.9	22.3	165 W	54 55
3 17	2 18.41	+26 59.5	1.331	0.966	48.2	21.0	46 E	40* 12*	2 10	10 1.37	+ 9 5.8	1.940	2.919	2.9	22.2	171 W	54 55
3 27	3 6.27	+32 2.3	1.302	0.983	49.4	21.0	48 E	42* 12*	2 15	9 56.52	+ 9 36.8	1.933	2.920	1.1	22.0	177 W	55 54
4 6	4 0.61	+35 55.9	1.289	1.017	49.8	21.0	51 E	45* 13*	2 20	9 51.63	+10 8.4	1.935	2.921	1.8	22.1	175 E	55 54
4 16	4 59.96	+38 11.3	1.294	1.066	49.2	21.1	53 E	47* 15*	2 25	9 46.84	+10 39.7	1.944	2.921	3.8	22.2	169 E	56 53
4 26	6 0.72	+38 32.4	1.322	1.126	47.7	21.3	56 E	48* 18*	3 2	9 42.27	+11 10.1	1.961	2.922	5.8	22.4	163 E	56 53
5 6	6 58.52	+37 5.9	1.373	1.194	45.6	21.4	58 E	49* 22*	3 7	9 38.02	+11 38.8	1.985	2.922	7.8	22.5	156 E	57 52
329437 2002 OA₂₂									517735 2015 MN₅₄								
2 5	0 1.81	- 4 5.7	1.245	0.850	52.1	21.4	43 E	29* 26*	2 5	10 6.52	+17 17.9	1.841	2.812	4.4	22.3	167 W	62 47
2 15	0 38.34	- 0 41.0	1.182	0.807	55.8	21.3	42 E	30* 25*	2 10	10 1.57	+17 51.5	1.824	2.805	2.6	22.1	173 W	63 46
2 25	1 16.06	+ 2 54.1	1.105	0.768	60.7	21.2	43 E	30* 25*	2 15	9 56.41	+18 24.3	1.814	2.798	2.0	22.1	174 W	63 46
3 7	1 55.08	+ 6 35.6	1.018	0.736	66.7	21.1	43 E	31* 25*	2 20	9 51.17	+18 55.5	1.812	2.791	3.4	22.1	170 E	64 45
3 17	2 35.46	+10 19.9	0.921	0.716	73.7	21.1	44 E	32* 25*	2 25	9 46.01	+19 24.1	1.817	2.784	5.3	22.3	165 E	64 45
3 27	3 17.17	+14 3.9	0.819	0.708	81.2	21.1	45 E	33* 26*	3 2	9 41.05	+19 49.7	1.829	2.777	7.4	22.4	159 E	65 44
4 6	4 0.30	+17 46.4	0.717	0.714	88.7	21.1	46 E	34* 26*	3 7	9 36.44	+20 11.7	1.848	2.769	9.4	22.5	153 E	65 44
4 16	4 45.45	+21 27.4	0.620	0.734	95.3	21.1	47 E	35* 26*									
4 26	5 33.91	+25 4.9	0.532	0.765	100.3	21.1	48 E	36* 26*									
5 6	6 27.68	+28 29.0	0.457	0.803	102.9	21.0	51 E	38* 26*									
5 16	7 29.15	+31 13.3	0.397	0.846	102.8	20.8	55 E	42* 27*									
5 26	8 39.04	+32 30.2	0.354	0.890	99.9	20.5	60 E	46* 29*									
6 5	9 53.94	+31 27.7	0.329	0.934	94.5	20.2	67 E	50* 32*									
6 10	10 31.06	+29 56.6	0.323	0.956	91.2	20.1	70 E	51* 34*									
6 15	11 6.66	+27 49.3	0.322	0.976	87.7	20.0	74 E	52* 36*									
6 20	11 40.05	+25 13.0	0.324	0.996	84.2	19.9	77 E	52* 39									
6 25	12 10.84	+22 16.8	0.330	1.016	80.8	19.8	81 E	52* 42									
6 30	12 38.96	+19 9.2	0.339	1.034	77.7	19.8	83 E	51* 45									
7 5	13 4.58	+15 57.5	0.351	1.051	74.8	19.8	86 E	50* 48									
7 10	13 27.99	+12 47.3	0.366	1.067	72.2	19.9	88 E	49* 51									
7 15	13 49.50	+ 9 42.5	0.382	1.082	70.0	19.9	89 E	46* 54									
7 20	14 9.42	+ 6 45.6	0.401	1.095	68.1	20.0	90 E	44* 57									
7 25	14 28.02	+ 3 58.3	0.421	1.108	66.4	20.1	91 E	42* 60									
8 4	15 2.23	- 1 6.2	0.465	1.129	63.9	20.3	92 E	38* 65									
8 14	15 33.81	- 5 31.1	0.512	1.145	62.1	20.5	91 E	35* 70									
8 24	16 3.88	- 9 18.6	0.561	1.156	61.0	20.6	90 E	32* 73*									
9 3	16 33.16	-12 31.3	0.611	1.162	60.2	20.8	88 E	30* 75*									
9 13	17 2.25	-15 12.1	0.659	1.162	59.7	21.0	86 E	28* 76*									
9 23	17 31.45	-17 22.5	0.706	1.157	59.4	21.1	83 E	26* 75*									
10 3	18 0.94	-19 3.9	0.749	1.147	59.4	21.2	81 E	25* 73*									
10 13	18 30.89	-20 17.3	0.788	1.132	59.5	21.3	78 E	24* 70*									
10 23	19 1.29	-21 3.2	0.820	1.111	59.8	21.3	75 E	23* 67*									
11 2	19 32.11	-21 22.4	0.846	1.086	60.3	21.4	72 E	23* 64*									
11 12	20 3.34	-21 15.6	0.864	1.055	61.1	21.4	69 E	23* 60*									
11 22	20 34.86	-20 43.7	0.871	1.021	62.4	21.4	66 E	24* 56*									
12 2	21 6.57	-19 48.1	0.869	0.982	64.0	21.3	64 E	25* 53*									
12 12	21 38.40	-18 30.4	0.854	0.940	66.4	21.3	61 E	26* 49*									
12 22	22 10.15	-16 53.1	0.826	0.896	69.5	21.2	59 E	27* 45*									
1 1	22 41.58	-14 59.5	0.785	0.852	73.7	21.1	56 E	28* 42*									
1 11	23 12.30	-12 53.8	0.730	0.809	79.3	21.0	54 E	29* 39*									
1 21	23 41.49	-10 41.8	0.662	0.770	86.5	21.0	51 E	30* 36*									
337558 2001 SG₂₆₂																	
2 5	0 11.47	+ 4 50.0	1.147	0.889	56.2	21.4	49 E	38* 24*									
2 10	0 29.12	+ 6 58.6	1.105	0.864	58.6	21.3	48 E	38* 23*									
2 15	0 47.83	+ 9 11.0	1.062	0.844	61.2	21.2	48 E	39* 22*									
2 20	1 7.73	+11 25.8	1.017	0.829	63.8	21.2	49 E	40* 22*									
2 25	1 28.96	+13 41.4	0.972	0.820	66.4	21.2	49 E	41* 22*									
3 2	1 51.68	+15 55.6	0.927	0.818	68.9	21.1	50 E	42* 22*									
3 7	2 16.09	+18 6.0	0.884	0.822	71.0	21.1	52 E	43* 22*									
3 12	2 42.38	+20 9.2	0.844	0.833	72.7	21.1	53 E	44* 23*									
3 17	3 10.71	+22 1.4	0.808	0.849	73.8	21.1	55 E	46* 24*									
3 22	3 41.14	+23 37.7	0.777	0.871	74.2	21.0	57 E	48* 26*									
3 27	4 13.58	+24 52.8	0.751	0.898	73.9	21.0	60 E	50* 27*									
4 1	4 47.69	+25 41.5	0.733	0.928	72.9	21.0	63 E	52* 29*									
4 6	5 22.91	+25 59.6	0.723	0.962	71.3	21.0	66 E	53* 32*									
4 11	5 58.46	+25 45.0	0.721	0.999	69.1	21.0	69 E	55* 34*									
4 16	6 33.45	+24 58.8	0.728	1.038	66.6	21.0	72 E	56* 36*									
4 21	7 7.08	+23 44.8	0.743	1.078	63.9	21.1	74 E	56* 39*									
4 26	7 38.72	+22 9.0	0.767	1.120	61.1	21.2	77 E	55* 41*									
5 1	8 8.02	+20 18.0	0.799	1.163	58.3	21.2	79 E	54* 43*									
5 6	8 34.89	+18 18.1	0.838	1.207	55.7	21.3	81 E	53* 46*									
5 11	8 59.41	+16 14.6	0.883	1.251	53.2	21.5	82 E	51* 48*									
361861 2008 ED₆₉																	
2 5	10 4.40	+ 9 30.5	4.073	5.036	2.7	23.8	166 W	55 54									
2 15	9 57.28	+10 29.4	4.041	5.028	0.5	23.6	178 W	55 54									
2 25	9 50.04	+11 29.1	4.044	5.020	2.1	23.8	169 E	56 53									
3 7	9 43.12	+12 26.7	4.079	5.010	4.3	23.9	157 E	57 52									
3 17	9 36.95	+13 19.7	4.146	5.000	6.4	24.1	146 E	58 51									
									517739 2015 MS₁₀₁								
2 5	10 15.64	+14 23.2	2.068	3.032	4.8	22.3	165 W	59 50									
2 10	10 10.95	+14 49.9	2.050	3.029	2.9	22.2	171 W	60 49									
2 15	10 6.04	+15 16.5	2.039	3.025	1.3	22.0	176 W	60 49									
2 20	10 1.03	+15 42.3	2.036	3.021	1.8	22.1	174 E	61 48									
2 25	9 56.05	+16 6.6	2.040	3.017	3.7	22.2	169 E	61 48									
3 2	9 51.23	+16 29.0	2.052	3.013	5.6	22.3	163 E	61 48									
3 7	9 46.67	+16 48.8	2.072	3.008	7.5	22.4	157 E	62 47									
									447022 2004 NO								
2 5	10 18.20	+18 32.6	2.089	3.050	4.9	22.8	165 W	64 45									
2 10	10 13.58	+19 9.6	2.066	3.042	3.4	22.7	169 W	64 45									
2 15	10 8.70	+19 45.8	2.052	3.033	2.5	22.6	172 W	65 44									
2 20	10 3.67	+20 20.4	2.045	3.024	3.1	22.7	170 E	65 44									
2 25	9 58.63	+20 52.5	2.046	3.015	4.6	22.8	166 E	66 43									
3 2	9 53.71	+21 21.5	2.055	3.006	6.4	22.8	160 E	66 43									
3 7	9 49.02	+21 46.9	2.070	2.996	8.2	22.9	155 E	67 42									
									518635 2008 HO₃								
2 5	10 19.94	- 4 27.5	3.907	4.812	5.2	24.9	154 W	41 68									
2 15	10 13.19	- 3 51.7	3.862	4.814	3.5	24.8	163 W	41 68									
2 25	10 6.20	- 3 7.6	3.849	4.816	2.8	24.7	166 E	42 67									
3 7	9 59.44	- 2 17.6	3.868	4.816	3.9	24.8	161 E	43 66									
3 17	9 53.32	- 1 25.0	3.918	4.816	5.6	24.9											

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

2021	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45° - 26°	2021	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45° - 26°
489233 2006 QP ₂₇									488453 1994 XD <i>(continuation)</i>								
2 5	10 23.71	+ 9 30.9	1.605	2.561	6.9	22.4	162 W	55 54	3 7	9 59.91	+17 16.8	2.812	3.756	5.4	24.7	159 E	62 47
2 10	10 18.33	+ 9 49.5	1.599	2.573	4.5	22.3	168 W	55 54	3 12	9 55.49	+17 37.6	2.857	3.771	6.8	24.8	153 E	63 46
2 15	10 12.73	+10 9.2	1.599	2.584	2.0	22.1	175 W	55 54	17274 2000 LC ₁₆								
2 20	10 7.06	+10 29.0	1.607	2.595	0.6	22.0	178 E	55 54	2 5	10 29.71	+ 6 1.4	3.292	4.227	4.8	22.8	159 W	51 58
2 25	10 1.49	+10 48.4	1.622	2.606	2.9	22.2	172 E	56 53	2 15	10 22.18	+ 6 37.1	3.243	4.221	2.2	22.6	171 W	52 57
3 2	9 56.18	+11 6.5	1.645	2.617	5.3	22.4	166 E	56 53	2 25	10 14.21	+ 7 16.6	3.226	4.213	1.1	22.5	175 E	52 57
3 7	9 51.25	+11 22.9	1.674	2.628	7.5	22.6	160 E	56 53	3 7	10 6.39	+ 7 56.6	3.242	4.205	3.7	22.7	164 E	53 56
449968 2015 PU ₁₂									3 17	9 59.26	+ 8 34.1	3.288	4.195	6.3	22.9	152 E	54 55
2 5	10 25.01	- 4 45.4	1.941	2.854	9.1	22.3	153 W	40 69	474205 2000 SJ ₃₅								
2 15	10 15.97	- 4 11.3	1.884	2.840	6.1	22.1	162 W	41 68	2 5	10 29.75	+ 9 19.8	1.733	2.683	7.1	22.4	160 W	54 55
2 25	10 6.20	- 3 19.5	1.856	2.826	4.9	22.0	166 E	42 67	2 10	10 25.09	+ 9 51.9	1.711	2.681	4.8	22.2	167 W	55 54
3 7	9 56.70	- 2 15.1	1.857	2.811	6.9	22.1	160 E	43 66	2 15	10 20.09	+10 25.6	1.696	2.679	2.5	22.1	173 W	55 54
3 17	9 48.45	- 1 4.6	1.886	2.794	10.1	22.3	150 E	44 65	2 20	10 14.91	+11 0.1	1.689	2.677	0.2	21.8	180 W	56 53
446826 2001 PE ₁									2 25	10 9.68	+11 34.4	1.689	2.675	2.2	22.0	174 E	57 52
2 5	10 25.93	+ 6 53.3	2.177	3.122	6.1	22.8	160 W	52 57	3 2	10 4.55	+12 7.5	1.697	2.673	4.6	22.2	168 E	57 52
2 10	10 21.13	+ 7 23.3	2.181	3.149	4.2	22.8	167 W	52 57	3 7	9 59.66	+12 38.8	1.711	2.670	6.9	22.3	161 E	58 51
2 15	10 16.19	+ 7 54.2	2.193	3.175	2.3	22.7	173 W	53 56	3 12	9 55.14	+13 7.5	1.733	2.667	9.0	22.4	155 E	58 51
2 20	10 11.24	+ 8 25.5	2.213	3.201	0.8	22.6	177 E	53 56	480960 2003 UU ₃₀								
2 25	10 6.40	+ 8 56.3	2.241	3.226	2.0	22.7	174 E	54 55	2 5	10 29.78	+ 5 42.2	1.731	2.674	7.7	22.6	159 W	51 58
3 2	10 1.76	+ 9 26.2	2.277	3.252	3.7	22.9	168 E	54 55	2 15	10 19.87	+ 6 25.3	1.693	2.673	3.3	22.3	171 W	51 58
3 7	9 57.42	+ 9 54.4	2.320	3.277	5.5	23.1	162 E	55 54	2 25	10 9.23	+ 7 15.3	1.684	2.671	2.2	22.2	174 E	52 57
434451 2005 PV ₆									3 7	9 59.00	+ 8 6.0	1.705	2.667	6.5	22.5	162 E	53 56
2 5	10 26.18	+21 8.9	1.951	2.905	6.0	22.3	162 W	66 43	3 17	9 50.27	+ 8 51.7	1.754	2.663	10.7	22.7	150 E	54 55
2 10	10 21.32	+21 41.9	1.938	2.907	4.5	22.2	167 W	67 42	529753 2010 MF ₁								
2 15	10 16.20	+22 13.1	1.932	2.908	3.7	22.2	169 W	67 42	2 5	10 30.07	- 0 3.2	2.772	3.691	6.4	25.1	155 W	45 64
2 20	10 10.94	+22 41.6	1.933	2.909	3.9	22.2	168 E	68 41	2 15	10 21.45	+ 0 27.9	2.699	3.665	3.8	24.9	166 W	45 64
2 25	10 5.69	+23 6.7	1.943	2.909	5.2	22.3	165 E	68 41	2 25	10 12.17	+ 1 8.5	2.657	3.637	2.6	24.8	171 E	46 63
3 2	10 0.59	+23 27.8	1.959	2.909	6.8	22.4	160 E	68 41	3 7	10 2.92	+ 1 55.0	2.648	3.609	4.6	24.9	163 E	47 62
3 7	9 55.76	+23 44.6	1.983	2.910	8.5	22.5	154 E	69 40	3 17	9 54.43	+ 2 43.6	2.670	3.579	7.5	25.0	152 E	48 61
356948 2012 VE ₅									396686 2002 TJ ₅₁								
2 5	10 26.37	+12 56.2	2.188	3.141	5.5	23.1	162 W	58 51	2 5	10 31.88	+15 20.4	2.402	3.351	5.4	22.4	161 W	60 49
2 10	10 21.70	+13 25.8	2.167	3.140	3.6	23.0	168 W	58 51	2 10	10 27.54	+15 44.8	2.394	3.363	3.8	22.3	167 W	61 48
2 15	10 16.78	+13 55.9	2.154	3.138	1.8	22.9	174 W	59 50	2 15	10 23.00	+16 8.9	2.393	3.374	2.3	22.2	172 W	61 48
2 20	10 11.72	+14 25.6	2.149	3.136	1.1	22.8	177 E	59 50	2 20	10 18.37	+16 31.8	2.400	3.386	1.6	22.2	174 W	62 47
2 25	10 6.65	+14 54.1	2.152	3.134	2.7	22.9	172 E	60 49	2 25	10 13.75	+16 53.2	2.416	3.397	2.6	22.2	171 E	62 47
3 2	10 1.67	+15 21.0	2.162	3.131	4.6	23.0	165 E	60 49	3 2	10 9.25	+17 12.4	2.439	3.408	4.1	22.4	166 E	62 47
3 7	9 56.90	+15 45.6	2.180	3.129	6.4	23.2	159 E	61 48	3 7	10 4.95	+17 29.2	2.469	3.419	5.7	22.5	160 E	62 47
495857 2003 MT									3 12	10 0.96	+17 43.2	2.507	3.429	7.2	22.6	154 E	63 46
2 5	10 26.68	-25 48.8	2.676	3.441	11.8	24.5	135 W	19 90	187044 2005 LF ₁₅								
2 15	10 17.66	-26 2.0	2.575	3.398	10.6	24.4	141 W	19 90	2 5	10 35.21	+ 2 3.6	2.055	2.981	7.8	22.3	156 W	47 62
2 25	10 7.71	-25 48.3	2.498	3.354	9.9	24.3	144 E	19 90	2 15	10 26.49	+ 3 0.6	1.999	2.971	4.2	22.0	167 W	48 61
3 7	9 57.64	-25 7.9	2.447	3.308	10.0	24.2	145 E	20 89	2 25	10 16.92	+ 4 8.2	1.973	2.959	2.1	21.9	174 E	49 60
3 17	9 48.32	-24 3.5	2.423	3.262	10.9	24.2	142 E	21 88	3 7	10 7.45	+ 5 20.6	1.977	2.946	5.2	22.1	164 E	50 59
494689 2004 JR									3 17	9 58.99	+ 6 31.3	2.011	2.931	9.0	22.3	153 E	52 57
2 5	10 27.59	-43 8.2	2.322	2.924	17.2	23.9	119 W	2 73	345131 2005 SC ₁								
2 10	10 20.98	-42 57.6	2.298	2.938	16.6	23.8	122 W	2 73	2 5	10 38.16	+12 35.5	1.823	2.768	7.2	22.2	159 W	58 51
2 15	10 14.09	-42 36.1	2.278	2.951	16.0	23.8	124 W	2 73	2 10	10 33.68	+13 5.8	1.790	2.757	5.1	22.1	166 W	58 51
2 20	10 7.12	-42 3.5	2.263	2.964	15.5	23.8	127 E	3 74	2 15	10 28.78	+13 37.3	1.765	2.745	3.1	21.9	171 W	59 50
2 25	10 0.23	-41 20.1	2.252	2.976	15.0	23.8	129 E	4 75	2 20	10 23.59	+14 9.0	1.747	2.734	1.5	21.8	176 W	59 50
3 2	9 53.61	-40 26.5	2.248	2.987	14.6	23.8	130 E	5 76	2 25	10 18.25	+14 40.0	1.736	2.722	2.3	21.8	174 E	60 49
3 7	9 47.39	-39 23.5	2.249	2.998	14.4	23.8	131 E	6 77	3 2	10 12.91	+15 9.4	1.733	2.710	4.4	21.9	168 E	60 49
516428 2003 UR ₁₂									3 7	10 7.71	+15 36.5	1.738	2.698	6.6	22.1	162 E	61 48
2 5	10 28.24	-43 3.4	3.135	3.708	13.5	23.9	119 W	2 73	3 12	10 2.79	+16 0.5	1.749	2.685	8.8	22.2	156 E	61 48
2 10	10 23.13	-42 51.9	3.086	3.700	13.1	23.9	122 W	2 73	3 17	9 58.28	+16 21.1	1.767	2.672	10.9	22.3	149 E	61 48
2 15	10 17.76	-42 32.2	3.043	3.692	12.7	23.8	124 W	2 73	3 22	9 54.30	+16 37.7	1.791	2.659	12.9	22.3	144 E	62 47
2 20	10 12.23	-42 3.9	3.004	3.684	12.4	23.8	127 E	3 74	138325 2000 GO ₈₂								
2 25	10 6.68	-41 27.1	2.970	3.675	12.1	23.7	129 E	4 75	2 5	10 42.37	- 2 57.4	2.989	3.882	7.0	22.6	151 W	42 67
3 2	10 1.20	-40 42.0	2.942	3.666	11.8	23.7	131 E	4 75	2 15	10 33.35	- 1 55.2	2.936	3.889	4.4	22.5	162 W	43 66
3 7	9 55.93	-39 48.8	2.920	3.656	11.7	23.7	132 E	5 76	2 25	10 23.74	- 0 42.3	2.917	3.895	2.6	22.4	170 E	44 65
339739 2005 SU ₅₀									3 7	10 14.20	+ 0 36.7	2.931	3.899	3.7	22.4	165 E	46 63
2 5	10 29.50	+ 2 49.5	2.047	2.981	7.3	22.8	157 W	48 61	3 17	10 5.39	+ 1 57.0	2.979	3.902	6.3	22.6	155 E	47 62
2 15	10 20.65	+ 3 44.8	2.009	2.984	3.7	22.5	169 W	49 60	458145 2010 JH ₁								
2 25	10 11.20	+ 4 49.0	2.001	2.986	2.3	22.4	173 E	50 59	2 5	10 44.28	- 0 57.1	2.873	3.772	7.0	22.5	152 W	44 65
3 7	10 2.08	+ 5 56.0	2.023	2.987	5.5	22.7	163 E	51 58	2 15	10 37.13	- 0 5.9	2.818	3.774	4.3	22.3	163 W	45 64

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

2021	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°	2021	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45°	-26°		
285540 2000 GU₁₂₇										434834 2006 SX₅₆ <i>(continuation)</i>											
2	5	10 47.86	+ 3 30.4	2.092	3.008	8.3	23.1	154 W	49	60	3	12	10 22.70	+21 41.7	1.790	2.726	8.6	22.2	156 E	67	42
2	15	10 37.39	+ 4 40.4	1.989	2.958	4.5	22.7	167 W	50	59	3	17	10 18.03	+21 55.5	1.817	2.726	10.4	22.3	150 E	67	42
2	25	10 25.29	+ 6 3.4	1.918	2.906	1.2	22.4	176 E	51	58	3	22	10 13.87	+22 4.1	1.850	2.725	12.2	22.4	145 E	67	42
3	7	10 12.54	+ 7 33.1	1.880	2.852	5.0	22.6	166 E	53	56	217257 Valemangano										
3	17	10 0.26	+ 9 1.7	1.875	2.795	9.5	22.7	153 E	54	55	2	5	10 58.87	- 0 41.6	1.944	2.836	10.2	22.2	149 W	44	65
453100 2007 WU₄										2	15	10 50.49	+ 0 4.1	1.867	2.819	6.5	21.9	161 W	45	64	
2	5	10 49.69	+49 36.5	2.610	3.435	10.4	24.3	141 W	85	14	2	25	10 40.67	+ 1 5.1	1.818	2.801	2.9	21.6	172 W	46	63
2	10	10 43.67	+50 15.6	2.622	3.450	10.3	24.3	142 W	85	14	3	7	10 30.33	+ 2 15.8	1.800	2.781	3.7	21.6	170 E	47	62
2	15	10 37.27	+50 47.8	2.641	3.464	10.3	24.4	141 W	84	13	3	17	10 20.55	+ 3 29.7	1.811	2.761	7.6	21.8	158 E	48	61
2	20	10 30.67	+51 12.3	2.665	3.478	10.6	24.4	140 W	84	13	3	27	10 12.31	+ 4 39.5	1.850	2.739	11.6	22.0	147 E	50	59
2	25	10 24.03	+51 28.8	2.696	3.492	11.0	24.5	138 E	84	13	154656 2004 FE₃										
3	2	10 17.54	+51 37.3	2.733	3.506	11.5	24.5	135 E	83	12	2	5	10 59.18	+ 8 46.7	2.591	3.500	7.2	21.6	153 W	54	55
3	7	10 11.35	+51 38.1	2.775	3.519	12.1	24.6	132 E	83	12	2	15	10 49.43	+ 9 17.0	2.504	3.470	4.0	21.4	166 W	54	55
3	12	10 5.60	+51 31.5	2.823	3.532	12.6	24.6	129 E	83	12	2	25	10 38.43	+ 9 50.5	2.449	3.439	0.5	21.0	178 W	55	54
543201 2013 TD₁₂₄										3	7	10 26.98	+10 23.2	2.428	3.406	3.4	21.2	168 E	55	54	
2	5	10 49.94	+ 8 10.3	1.625	2.555	9.3	22.3	155 W	53	56	3	17	10 15.95	+10 51.1	2.440	3.371	7.0	21.4	156 E	56	53
2	15	10 40.35	+ 9 0.6	1.580	2.555	4.6	22.0	168 W	54	55	3	27	10 6.19	+11 11.2	2.481	3.335	10.3	21.5	143 E	56	53
2	25	10 29.50	+ 9 56.1	1.564	2.554	0.4	21.7	179 E	55	54	155684 2000 JT₅₄										
3	7	10 18.63	+10 49.6	1.577	2.552	5.3	22.1	166 E	56	53	2	5	10 59.37	+ 1 43.4	2.032	2.930	9.6	21.4	150 W	47	62
3	17	10 8.95	+11 34.7	1.618	2.549	9.9	22.3	154 E	57	52	2	15	10 51.64	+ 2 31.0	1.952	2.909	5.9	21.1	162 W	48	61
453012 2007 PG₂₄										2	25	10 42.52	+ 3 31.0	1.901	2.887	2.1	20.8	174 W	49	60	
2	5	10 50.25	+ 2 21.5	1.945	2.857	9.1	22.4	153 W	47	62	3	7	10 32.88	+ 4 38.2	1.880	2.864	3.2	20.9	171 E	50	59
2	15	10 42.39	+ 3 13.3	1.869	2.834	5.3	22.2	165 W	48	61	3	17	10 23.69	+ 5 46.1	1.890	2.840	7.2	21.1	159 E	51	58
2	25	10 33.25	+ 4 17.4	1.823	2.810	1.7	21.9	175 W	49	60	4	6	10 10.21	+ 7 40.3	1.986	2.790	14.5	21.4	136 E	53	56
3	7	10 23.75	+ 5 27.9	1.806	2.786	4.1	22.0	169 E	50	59	254419 2004 VT₆₀										
3	17	10 14.90	+ 6 38.3	1.819	2.760	8.2	22.2	157 E	52	57	2	5	10 59.81	+73 8.7	2.323	2.953	16.6	22.7	121 W	62	—
3	27	10 7.64	+ 7 41.8	1.858	2.734	12.2	22.4	145 E	53	56	2	7	10 54.57	+73 26.9	2.326	2.951	16.7	22.7	120 W	62	—
415690 1992 UB										2	9	10 49.01	+73 43.3	2.330	2.950	16.8	22.7	120 W	61	—	
2	5	10 54.18	+29 44.7	2.984	3.890	6.5	22.3	153 W	75	34	2	11	10 43.16	+73 57.7	2.335	2.948	17.0	22.7	119 W	61	—
2	10	10 50.09	+30 17.4	2.986	3.910	5.8	22.3	156 W	75	34	2	13	10 37.07	+74 9.9	2.340	2.946	17.1	22.7	119 W	61	—
2	15	10 45.75	+30 47.4	2.994	3.929	5.3	22.3	158 W	76	33	2	15	10 30.77	+74 20.0	2.345	2.944	17.2	22.7	118 W	61	—
2	20	10 41.27	+31 14.1	3.011	3.949	5.2	22.3	159 W	76	33	2	17	10 24.32	+74 27.8	2.352	2.942	17.3	22.7	118 W	61	—
2	25	10 36.73	+31 36.9	3.035	3.968	5.5	22.3	158 W	77	32	2	19	10 17.77	+74 33.4	2.359	2.940	17.5	22.7	117 W	60	—
3	2	10 32.23	+31 55.5	3.066	3.987	6.0	22.4	155 E	77	32	2	21	10 11.20	+74 36.7	2.366	2.938	17.6	22.7	116 W	60	—
3	7	10 27.85	+32 9.8	3.105	4.005	6.8	22.5	151 E	77	32	2	23	10 4.64	+74 37.7	2.374	2.936	17.7	22.7	115 E	60	—
3	12	10 23.69	+32 19.5	3.151	4.023	7.6	22.6	147 E	77	32	2	25	9 58.17	+74 36.5	2.383	2.933	17.9	22.8	114 E	60	—
3	17	10 19.81	+32 24.9	3.203	4.042	8.5	22.6	143 E	77	32	2	27	9 51.84	+74 33.2	2.392	2.931	18.0	22.8	114 E	60	—
273264 2006 LW										3	1	9 45.71	+74 27.8	2.401	2.929	18.2	22.8	113 E	61	—	
2	5	10 55.31	+11 35.9	1.749	2.675	8.9	22.5	155 W	57	52	3	3	9 39.81	+74 20.3	2.411	2.926	18.3	22.8	112 E	61	—
2	10	10 51.12	+12 8.8	1.719	2.672	6.8	22.3	161 W	57	52	3	5	9 34.18	+74 10.9	2.421	2.924	18.5	22.8	111 E	61	—
2	15	10 46.46	+12 43.2	1.697	2.669	4.7	22.2	167 W	58	51	3	7	9 28.87	+73 59.7	2.432	2.921	18.6	22.8	110 E	61	—
2	20	10 41.45	+13 18.1	1.681	2.665	2.7	22.0	173 W	58	51	3	9	9 23.90	+73 46.7	2.443	2.919	18.8	22.8	109 E	61	—
2	25	10 36.23	+13 52.6	1.674	2.661	1.8	22.0	175 W	59	50	3	11	9 19.28	+73 32.2	2.455	2.916	18.9	22.8	108 E	61	—
3	2	10 30.95	+14 25.6	1.673	2.657	3.2	22.1	171 E	59	50	272560 2005 UC₄₆₉										
3	7	10 25.74	+14 56.3	1.680	2.653	5.3	22.2	166 E	60	49	2	5	11 0.33	+ 2 34.9	1.981	2.881	9.7	21.4	151 W	48	61
3	12	10 20.76	+15 23.8	1.694	2.648	7.5	22.3	160 E	60	49	2	15	10 52.15	+ 3 12.9	1.913	2.871	5.9	21.2	163 W	48	61
3	17	10 16.15	+15 47.6	1.715	2.643	9.7	22.4	154 E	61	48	2	25	10 42.62	+ 4 1.8	1.873	2.859	2.0	20.9	174 W	49	60
436724 2011 UW₁₅₈										3	7	10 32.66	+ 4 56.3	1.863	2.847	3.2	20.9	171 E	50	59	
2	5	10 55.43	+ 0 21.3	1.077	1.995	14.1	22.4	151 W	45	64	3	17	10 23.28	+ 5 50.6	1.883	2.833	7.3	21.2	159 E	51	58
2	15	10 43.43	+ 0 49.9	0.996	1.961	8.5	21.9	163 W	46	63	3	27	10 15.42	+ 6 38.8	1.930	2.819	11.1	21.4	147 E	52	57
2	25	10 28.33	+ 1 42.5	0.940	1.925	3.9	21.5	172 E	47	62	477162 2009 ES										
3	7	10 11.91	+ 2 52.2	0.910	1.887	7.6	21.6	165 E	48	61	2	5	11 0.52	+31 43.4	0.890	1.817	15.2	22.5	151 W	77	32
3	17	9 56.45	+ 4 8.2	0.906	1.847	14.5	21.8	152 E	49	60	2	10	10 48.02	+31 43.0	0.860	1.806	12.9	22.3	156 W	77	32
306441 1998 UV₁₆										2	15	10 34.10	+31 30.2	0.836	1.794	11.3	22.2	159 W	77	32	
2	5	10 56.29	+18 30.4	2.261	3.185	7.4	21.8	156 W	64	45	2	20	10 19.27	+31 2.3	0.820	1.781	11.0	22.1	160 W	76	34
2	10	10 52.44	+19 12.9	2.249	3.197	5.9	21.7	161 W	64	45	2	25	10 4.12	+30 17.7	0.811	1.768	12.2	22.1	158 E	75	34
2	15	10 48.28	+19 54.6	2.245	3.210	4.5	21.7	165 W	65	44	3	2	9 49.30	+29 16.8	0.809	1.754	14.5	22.2	154 E	74	35
2	20	10 43.90	+20 34.7	2.249	3.223	3.7	21.6	168 W	66	43	3	7	9 35.40	+28 1.2	0.815	1.739	17.5	22.3	148 E	73	36
2	25	10 39.41	+21 12.2	2.260	3.235	3.7	21.7	168 W	66	43	3	12	9 22.88	+26 33.8	0.828	1.724	20.7	22.4	142 E	72	37
3	2	10 34.92	+21 46.4	2.279	3.247	4.5	21.7	165 E	67	42	330809 2008 VK₁₄										
3	7	10 30.54	+22 16.9	2.306	3.259	5.8	21.8	161 E	67	42	2	5	11 0.82	+ 0 59.3	1.410	2.315	12.4	22.5	150 W	46	63
3	12	10 26.37	+22 43.1	2.340	3.270	7.2	21.9	156 E	68	41	2	15	10 47.38	+ 1 46.5	1.358	2.320	7.2	22.2	163 W	47	62
3	17	10 22.51	+23 4.8	2.380	3.282	8.6	22.1	150 E	68	41	2	25	10 32.09	+ 2 49.6	1.335	2.322	2.7	21.9	174 E	48	61
3	22	10 19.04	+23 21.9	2.427	3.29																

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

2021	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45° - 26°	2021	α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45° - 26°						
385203 1999 SO ₁₅									397262 2006 RN ₁₆														
2	5	11	3.19	+ 8 12.7	1.954	2.864	9.2	22.0	152 W	53	56	2	5	11	8.50	-10 13.6	5.340	6.142	5.7	22.2	141 W	35	74
2	15	10	53.99	+ 8 48.3	1.906	2.871	5.2	21.7	165 W	54	55	2	15	11	4.34	-10 0.6	5.250	6.135	4.4	22.1	151 W	35	74
2	25	10	43.53	+ 9 28.1	1.888	2.877	1.0	21.4	177 W	54	55	2	25	10	59.67	- 9 39.5	5.188	6.127	3.2	22.0	160 W	35	74
3	7	10	32.84	+10 6.5	1.901	2.882	3.5	21.6	170 E	55	54	3	7	10	54.78	- 9 11.2	5.156	6.120	2.4	22.0	165 E	36	73
3	17	10	22.96	+10 38.7	1.943	2.887	7.6	21.9	157 E	56	53	3	17	10	49.94	- 8 37.6	5.155	6.112	2.8	22.0	163 E	36	73
3	27	10	14.78	+11 0.9	2.013	2.890	11.3	22.1	145 E	56	53	3	27	10	45.48	- 8 0.5	5.184	6.104	3.9	22.1	155 E	37	72
474536 2003 WS ₁₂									455215 2001 PM ₃₅														
2	5	11	3.26	+19 35.6	1.907	2.826	8.8	22.5	154 W	65	44	2	5	11	9.31	-28 58.6	2.507	3.200	14.2	22.1	127 W	16	87
2	10	10	58.69	+20 10.5	1.889	2.833	7.2	22.4	159 W	65	44	2	10	11	4.90	-29 22.3	2.483	3.218	13.4	22.1	131 W	16	87
2	15	10	53.69	+20 44.5	1.878	2.840	5.6	22.3	164 W	66	43	2	15	11	0.08	-29 39.1	2.464	3.235	12.5	22.1	135 W	15	86
2	20	10	48.37	+21 16.5	1.875	2.846	4.6	22.2	167 W	66	43	2	20	10	54.95	-29 48.6	2.451	3.253	11.7	22.0	138 W	15	86
2	25	10	42.88	+21 45.5	1.879	2.852	4.4	22.2	167 W	67	42	2	25	10	49.64	-29 50.7	2.443	3.270	11.0	22.0	141 W	15	86
3	2	10	37.36	+22 10.7	1.890	2.858	5.2	22.3	165 E	67	42	3	2	10	44.25	-29 45.6	2.442	3.287	10.5	22.0	143 E	15	86
3	7	10	31.95	+22 31.6	1.909	2.864	6.6	22.4	161 E	68	41	3	7	10	38.91	-29 33.5	2.447	3.304	10.1	22.0	144 E	15	86
3	12	10	26.79	+22 47.6	1.935	2.869	8.2	22.5	156 E	68	41	3	12	10	33.73	-29 14.8	2.459	3.320	9.9	22.0	145 E	16	87
3	17	10	22.00	+22 58.6	1.968	2.874	9.9	22.6	150 E	68	41	3	17	10	28.83	-28 50.4	2.477	3.337	10.0	22.0	144 E	16	87
339669 2005 QB ₁₁₄									518528 2006 SE ₂₈₅														
2	5	11	3.59	+ 5 40.7	1.969	2.873	9.5	22.1	151 W	51	58	2	5	11	10.90	-28 37.8	2.935	3.618	12.5	22.4	127 W	16	87
2	15	10	56.09	+ 6 55.5	1.904	2.865	5.6	21.8	164 W	52	57	2	15	11	3.92	-28 36.1	2.859	3.628	11.0	22.3	135 W	16	87
2	25	10	47.19	+ 8 19.6	1.867	2.856	1.3	21.5	176 W	53	56	2	25	10	55.85	-28 9.5	2.804	3.637	9.6	22.2	142 W	17	88
3	7	10	37.79	+ 9 45.6	1.861	2.846	3.1	21.6	171 E	55	54	3	7	10	47.35	-27 18.1	2.774	3.646	8.6	22.1	147 E	18	89
3	17	10	28.89	+11 6.1	1.885	2.834	7.4	21.9	158 E	56	53	3	17	10	39.17	-26 4.5	2.771	3.653	8.3	22.1	148 E	19	90
3	27	10	21.41	+12 14.6	1.937	2.822	11.3	22.1	146 E	57	52	3	27	10	32.01	-24 34.1	2.795	3.660	8.9	22.2	145 E	20	89
387845 2004 NE ₂₅									445132 2008 VD ₆₄														
2	5	11	3.68	+ 5 3.6	2.160	3.060	9.0	21.8	151 W	50	59	2	5	11	11.18	- 4 56.0	2.206	3.061	10.8	22.3	144 W	40	69
2	15	10	55.68	+ 5 41.1	2.094	3.053	5.4	21.6	163 W	51	58	2	15	11	3.12	- 4 48.6	2.132	3.057	7.7	22.1	155 W	40	69
2	25	10	46.40	+ 6 26.3	2.056	3.044	1.4	21.3	176 W	51	58	2	25	10	53.66	- 4 25.9	2.085	3.053	4.7	21.9	165 W	41	68
3	7	10	36.70	+ 7 14.0	2.050	3.035	2.7	21.4	172 E	52	57	3	7	10	43.63	- 3 50.7	2.068	3.047	3.7	21.8	169 E	41	68
3	17	10	27.50	+ 7 59.3	2.073	3.025	6.7	21.6	159 E	53	56	3	17	10	33.94	- 3 7.3	2.081	3.040	6.0	22.0	161 E	42	67
3	27	10	19.66	+ 8 37.3	2.125	3.013	10.3	21.8	147 E	54	55	3	27	10	25.50	- 2 21.2	2.123	3.032	9.3	22.2	151 E	43	66
369883 2012 QR ₁₈									368231 2001 UR ₁₆														
2	5	11	6.43	+12 28.3	1.969	2.881	9.1	21.9	153 W	57	52	2	5	11	11.39	-29 45.1	2.675	3.353	13.7	22.2	126 W	15	86
2	10	11	2.72	+13 8.3	1.940	2.881	7.2	21.8	158 W	58	51	2	15	11	4.52	-30 0.3	2.565	3.328	12.3	22.0	134 W	15	86
2	15	10	58.57	+13 49.6	1.918	2.882	5.3	21.7	164 W	59	50	2	25	10	56.16	-29 48.0	2.476	3.302	11.0	21.8	141 W	15	86
2	20	10	54.07	+14 31.3	1.904	2.882	3.6	21.5	169 W	60	49	2	25	10	47.03	-29 6.7	2.411	3.274	10.0	21.7	145 E	16	87
2	25	10	49.34	+15 12.3	1.897	2.881	2.5	21.5	173 W	60	49	3	7	10	37.96	-27 57.3	2.371	3.246	9.8	21.7	146 E	17	88
3	2	10	44.49	+15 51.8	1.897	2.881	3.0	21.5	171 E	61	48	3	17	10	29.84	-26 24.3	2.357	3.217	10.5	21.7	144 E	19	90
3	7	10	39.66	+16 28.7	1.905	2.880	4.6	21.6	167 E	61	48	525421 2005 ED ₁₆₉											
3	12	10	34.97	+17 2.4	1.921	2.879	6.4	21.7	161 E	62	47	2	5	11	11.74	-13 59.5	1.058	1.910	20.1	21.4	138 W	31	78
3	17	10	30.55	+17 32.1	1.943	2.878	8.3	21.8	155 E	63	46	2	15	11	4.74	-11 51.7	0.996	1.915	15.1	21.1	150 W	33	76
3	22	10	26.51	+17 57.5	1.973	2.876	10.1	21.9	150 E	63	46	2	25	10	55.27	- 8 51.0	0.957	1.920	9.6	20.9	161 W	36	73
3	27	10	22.95	+18 18.2	2.008	2.875	11.8	22.0	144 E	63	46	3	7	10	44.81	- 5 9.8	0.942	1.924	6.3	20.7	168 W	40	69
459451 2012 WG ₃₂									486006 2012 PD ₁₉														
2	5	11	7.05	+30 32.4	1.844	2.745	10.2	21.7	150 W	76	33	2	5	11	11.80	- 4 46.8	2.156	3.011	11.0	21.9	144 W	40	69
2	10	11	0.91	+31 13.7	1.824	2.745	9.1	21.6	154 W	76	33	2	15	11	4.42	- 4 3.7	2.087	3.015	7.7	21.7	156 W	41	68
2	15	10	54.18	+31 51.1	1.810	2.744	8.3	21.6	156 W	77	32	2	25	10	55.71	- 3 4.0	2.047	3.018	4.4	21.5	166 W	42	67
2	20	10	47.02	+32 23.2	1.804	2.743	8.0	21.5	157 W	77	32	3	7	10	46.47	- 1 52.1	2.036	3.019	3.0	21.5	171 E	43	66
2	25	10	39.60	+32 48.9	1.805	2.741	8.3	21.6	156 W	78	31	3	17	10	37.59	- 0 34.2	2.056	3.020	5.6	21.6	163 E	44	65
3	2	10	32.14	+33 7.3	1.814	2.739	9.2	21.6	154 E	78	31	3	27	10	29.94	+ 0 42.9	2.104	3.019	9.1	21.8	152 E	46	63
3	7	10	24.82	+33 18.1	1.830	2.736	10.4	21.7	150 E	78	31	183592 2003 SJ ₃₁₃											
3	12	10	17.83	+33 21.0	1.853	2.733	11.8	21.7	146 E	78	31	2	5	11	12.74	+ 3 58.9	1.813	2.703	11.0	21.6	149 W	49	60
3	17	10	11.35	+33 16.4	1.882	2.729	13.2	21.8	141 E	78	31	2	15	11	5.00	+ 4 57.7	1.751	2.704	6.9	21.4	161 W	50	59
3	22	10	5.52	+33 4.6	1.917	2.725	14.7	21.9	136 E	78	31	2	25	10	55.65	+ 6 7.5	1.717	2.703	2.4	21.1	173 W	51	58
3	27	10	0.44	+32 46.4	1.957	2.720	16.0	22.0	131 E	78	31	3	7	10	45.67	+ 7 21.1	1.713	2.702	2.3	21.1	174 E	52	57
331984 2005 EM ₇₆									516541 2006 SX ₂₉₄														
2	5	11	7.07	+ 1 56.4	1.792	2.685	10.9	21.6	149 W	47	62	2	5	11	12.84	+ 0 0.1	1.779	2.658	11.8	22.4	147 W	45	64
2	15	10	59.52	+ 2 58.4	1.719	2.673	6.9	21.3	161 W	48	61	2	15	11	5.40	+ 0 50.0	1.705	2.649	7.8	22.1	159 W	46	63
2	25	10	50.33	+ 4 14.6	1.674	2.660	2.5	21.0	173 W	49	60	2	25	10	56.23	+ 1 55.8	1.657	2.639	3.5	21.8	171 W	47	62
3	7	10	40.47	+ 5 38.3	1.659	2.646	2.7	21.0	173 E	51	58	3	7	10	46.28	+ 3 11.6	1.639	2.628	2.4	21.7	174 E	48	61
3	17	10	31.04	+ 7 1.3	1.673	2.631	7.3	21.2	160 E	52	57	3	17	10	36.64	+ 4 29.7	1.650	2.616	6.6	22.0	162 E	49	60
3	27	10	23.10	+ 8 15.9	1.714	2.615	11.6	21.5	148 E	53	56	3	27	10	28.42	+ 5 42.3	1.689	2.603	11.0	22.2	150 E	51	58

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

21/22		α_{2000}	δ_{2000}	Δ	r	β	V	ψ	45° - 26°												
205284 2000 SQ₁₅₄ (continuation)											183023 2002 PG₁₁₃ (continuation)										
11	12	18 39.85	-25 23.9	2.034	1.582	28.4	20.7	50 E	15*	42*	5	26	13 38.47	-21 31.6	0.845	1.771	19.4	19.2	145 E	23	86
5	26	13 38.47	-21 31.6	0.845	1.771	19.4	19.2	145 E	23	86	5	31	13 35.67	-21 24.8	0.857	1.755	22.1	19.3	139 E	24	85
272475 2005 UU₈₀											19958 1985 RN₄										
2	5	14 7.59	-5 3.4	2.177	2.605	21.5	21.3	104 W	40	69	2	5	14 14.60	-11 45.3	2.549	2.899	19.5	21.4	101 W	33	76*
2	15	14 14.60	-11 45.3	2.549	2.899	19.5	21.4	101 W	33	76*	2	15	14 18.67	-12 4.5	2.390	2.878	18.8	21.2	110 W	33	76
228810 2003 BZ₂											259221 2003 BA₂₁										
2	5	14 8.08	+17 30.5	2.222	2.723	19.9	21.4	110 W	63	46	2	5	14 14.83	-42 21.2	0.811	1.275	50.7	21.1	90 W	3	74*
2	5	14 14.83	-42 21.2	0.811	1.275	50.7	21.1	90 W	3	74*	2	7	14 23.25	-44 5.7	0.778	1.251	52.0	21.0	90 W	1	72*
183023 2002 PG₁₁₃											259221 2003 BA₂₁										
2	15	14 23.58	-15 51.0	1.598	2.116	26.4	21.1	107 W	29	80	2	9	14 32.72	-45 55.8	0.746	1.227	53.5	20.9	89 W	-	70*

EPHEMERIDES OF NEAS AND SOME UNUSUAL MINOR PLANETS

Table with columns for year, alpha, delta, Delta, r, beta, V, psi, 45-26 degrees. Major sections include 357618 2005 EM30 and 161995 1983 LB. Each section contains multiple columns of data representing celestial coordinates and magnitudes for various objects.

