

EPHEMERIDES

8 20.9

8 21.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
76230	2000 <i>EP</i> ₇₅		8 20.9 102°79	2°9/18.2	18		509997	2009 <i>VS</i> ₄₁		8 21.0 289°27	1°6/19.8	18	
7 20	22 23.69	-17 38.7	2.012	2.907	11.4	19.3	7 20	22 23.70	-12 59.8	1.539	2.438	14.0	21.5
7 30	22 18.15	-18 45.9	1.965	2.922	8.1	19.2	7 30	22 18.89	-13 48.8	1.459	2.419	10.1	21.2
8 9	22 10.96	-19 55.8	1.942	2.937	4.7	19.0	8 9	22 11.77	-14 48.7	1.402	2.400	5.6	20.9
8 19	22 2.80	-21 2.1	1.947	2.952	2.9	18.9	8 19	22 3.02	-15 53.2	1.370	2.380	1.6	20.6
8 29	21 54.55	-21 58.8	1.980	2.966	5.1	19.1	8 29	21 53.75	-16 54.5	1.363	2.361	5.0	20.8
9 8	21 47.11	-22 41.5	2.040	2.981	8.4	19.3	9 8	21 45.22	-17 45.3	1.382	2.342	9.8	21.0
9 18	21 41.23	-23 8.1	2.125	2.994	11.5	19.5	9 18	21 38.54	-18 20.6	1.424	2.322	14.2	21.2
9 28	21 37.42	-23 18.5	2.231	3.008	14.0	19.7	9 28	21 34.56	-18 38.0	1.485	2.303	18.0	21.4
20619	1999 <i>SB</i> ₁₀		8 20.9 32°57	3°1/23.2	18		473370	2015 <i>UB</i> ₁₂		8 21.0 255°29	3°8/25.3	18	
7 20	22 22.46	- 3 29.7	1.284	2.170	17.2	17.6	7 20	22 19.33	+ 2 50.6	2.395	3.224	12.1	21.0
7 30	22 17.84	- 3 36.2	1.237	2.183	12.9	17.4	7 30	22 14.95	+ 2 31.8	2.311	3.219	9.6	20.8
8 9	22 10.99	- 4 2.1	1.210	2.196	8.2	17.2	8 9	22 9.19	+ 1 56.9	2.251	3.213	6.8	20.6
8 19	22 2.81	- 4 43.7	1.205	2.211	3.8	17.0	8 19	22 2.55	+ 1 7.1	2.216	3.208	4.4	20.4
8 29	21 54.52	- 5 34.8	1.224	2.226	4.4	17.1	8 29	21 55.69	+ 0 5.9	2.210	3.202	4.0	20.4
9 8	21 47.37	- 6 27.6	1.268	2.242	8.7	17.4	9 8	21 49.30	- 1 2.0	2.231	3.197	6.1	20.5
9 18	21 42.32	- 7 15.4	1.334	2.259	13.0	17.7	9 18	21 44.03	- 2 11.3	2.278	3.191	9.0	20.7
9 28	21 39.98	- 7 53.0	1.421	2.276	16.7	17.9	9 28	21 40.39	- 3 17.0	2.351	3.185	11.6	20.9
7472	Kumakiri		8 20.9 154°19	3°8/16.8	18		276071	2002 <i>CU</i> ₁₈₂		8 21.0 122°77	2°4/18.8	17	
7 20	22 22.88	-22 22.1	2.402	3.296	9.8	17.3	7 20	22 23.35	-14 53.8	1.728	2.626	12.8	20.8
7 30	22 17.45	-23 23.8	2.346	3.301	7.1	17.2	7 30	22 18.22	-16 6.2	1.671	2.631	9.1	20.6
8 9	22 10.54	-24 24.8	2.316	3.305	4.7	17.0	8 9	22 11.16	-17 25.6	1.638	2.635	5.1	20.4
8 19	22 2.73	-25 19.6	2.314	3.309	3.9	17.0	8 19	22 2.89	-18 44.8	1.631	2.639	2.4	20.2
8 29	21 54.78	-26 3.4	2.340	3.313	5.6	17.1	8 29	21 54.41	-19 56.0	1.651	2.643	5.2	20.4
9 8	21 47.48	-26 32.8	2.393	3.316	8.2	17.3	9 8	21 46.78	-20 53.2	1.698	2.647	9.1	20.7
9 18	21 41.50	-26 46.7	2.471	3.319	10.8	17.4	9 18	21 40.86	-21 32.8	1.769	2.651	12.7	20.9
9 28	21 37.37	-26 45.1	2.571	3.322	13.0	17.6	9 28	21 37.29	-21 53.9	1.860	2.655	15.8	21.1
414553	2009 <i>SP</i> ₂₄₁		8 20.9 244°45	7°3/29.7	18		481319	2006 <i>AG</i> ₇₄		8 21.0 202°06	0°4/21.3	18	
7 20	22 20.06	+14 49.2	2.695	3.441	13.0	20.8	7 20	22 27.56	-11 18.6	2.550	3.416	10.3	21.0
7 30	22 15.40	+15 11.4	2.605	3.432	11.3	20.7	7 30	22 20.66	-11 3.3	2.473	3.414	7.5	20.8
8 9	22 9.41	+15 14.4	2.534	3.424	9.5	20.5	8 9	22 12.31	-10 52.2	2.421	3.412	4.3	20.6
8 19	22 2.56	+14 57.2	2.487	3.415	8.0	20.4	8 19	22 3.08	-10 43.6	2.399	3.410	0.9	20.3
8 29	21 55.44	+14 20.3	2.466	3.407	7.3	20.4	8 29	21 53.68	-10 35.3	2.406	3.407	2.7	20.5
9 8	21 48.73	+13 26.9	2.470	3.398	7.8	20.4	9 8	21 44.91	-10 25.4	2.444	3.404	6.0	20.7
9 18	21 43.04	+12 21.4	2.501	3.389	9.3	20.5	9 18	21 37.40	-10 12.4	2.509	3.402	9.1	20.9
9 28	21 38.89	+11 9.3	2.555	3.379	11.1	20.6	9 28	21 31.68	-9 55.3	2.598	3.398	11.6	21.0
78929	2003 <i>SL</i> ₁₃₇		8 20.9 278°57	4°3/24.1	18		448977	2011 <i>YL</i> ₂₉		8 21.0 255°36	2°4/18.4	18	
7 20	22 23.34	- 0 4.9	1.443	2.308	16.8	20.1	7 20	22 21.00	-16 28.0	2.211	3.105	10.6	21.6
7 30	22 18.61	- 0 13.7	1.367	2.299	13.1	19.9	7 30	22 16.29	-17 34.4	2.141	3.099	7.5	21.3
8 9	22 11.57	- 0 44.9	1.311	2.289	8.9	19.6	8 9	22 10.00	-18 45.7	2.096	3.092	4.3	21.1
8 19	22 2.95	- 1 36.6	1.279	2.280	5.0	19.3	8 19	22 2.70	-19 56.2	2.079	3.085	2.4	21.0
8 29	21 53.86	- 2 43.7	1.271	2.270	5.0	19.3	8 29	21 55.14	-21 0.2	2.090	3.078	4.7	21.1
9 8	21 45.56	- 3 58.1	1.288	2.260	8.9	19.5	9 8	21 48.16	-21 52.6	2.128	3.071	8.0	21.3
9 18	21 39.18	- 5 11.5	1.329	2.251	13.3	19.8	9 18	21 42.49	-22 30.4	2.191	3.064	11.0	21.5
9 28	21 35.51	- 6 16.4	1.390	2.241	17.2	20.0	9 28	21 38.70	-22 52.3	2.276	3.056	13.7	21.7
454973	2015 <i>TU</i> ₂₀₈		8 20.9 303°27	4°6/25.4	18		431065	2006 <i>BR</i> ₂₀₇		8 21.0 160°81	1°4/19.6	18	
7 20	22 20.31	+ 3 10.5	2.196	3.027	13.0	20.9	7 20	22 22.81	-11 39.0	1.915	2.803	12.2	21.1
7 30	22 15.77	+ 3 17.5	2.111	3.017	10.4	20.7	7 30	22 17.70	-12 57.0	1.852	2.807	8.7	20.9
8 9	22 9.69	+ 3 7.9	2.048	3.007	7.6	20.5	8 9	22 10.83	-14 24.8	1.814	2.810	4.7	20.6
8 19	22 2.61	+ 2 42.4	2.010	2.997	5.2	20.3	8 19	22 2.85	-15 55.8	1.803	2.813	1.4	20.4
8 29	21 55.24	+ 2 3.3	1.999	2.987	4.8	20.3	8 29	21 54.63	-17 22.6	1.820	2.816	4.2	20.6
9 8	21 48.38	+ 1 14.8	2.014	2.978	6.9	20.4	9 8	21 47.12	-18 38.4	1.865	2.818	8.1	20.9
9 18	21 42.74	+ 0 22.0	2.056	2.969	9.8	20.6	9 18	21 41.14	-19 38.8	1.935	2.820	11.7	21.1
9 28	21 38.90	- 0 29.9	2.121	2.959	12.6	20.7	9 28	21 37.29	-20 21.5	2.027	2.822	14.6	21.3
40550	1999 <i>RM</i> ₁₁₃		8 20.9 97°69	1°1/21.7	18		515278	2012 <i>TJ</i> ₁₄₅		8 21.0 286°29	7°5/15.1	18	
7 20	22 27.58	- 8 3.9	1.432	2.318	15.7	19.0	7 20	22 29.99	-30 2.3	1.774	2.669	12.7	21.4
7 30	22 21.40	- 8 18.6	1.379	2.329	11.5	18.7	7 30	22 23.43	-31 2.6	1.696	2.641	10.0	21.2
8 9	22 12.96	- 8 46.4	1.347	2.339	6.7	18.5	8 9	22 14.33	-31 56.4	1.640	2.613	7.9	21.0
8 19	22 3.16	- 9 22.9	1.339	2.350	1.8	18.2	8 19	22 3.47	-32 35.1	1.610	2.584	7.7	20.9
8 29	21 53.22	-10 2.1	1.358	2.361	3.9	18.4	8 29	21 52.07	-32 51.3	1.605	2.556	9.7	21.0
9 8	21 44.42	-10 37.9	1.402	2.371	8.7	18.7	9 8	21 41.53	-32 41.2	1.625	2.527	12.7	21.1
9 18	21 37.73	-11 5.7	1.470	2.381	13.0	19.0	9 18	21 33.03	-32 5.5	1.666	2.498	15.9	21.3
9 28	21 33.81	-11 22.4	1.559	2.391	16.6	19.2	9 28	21 27.46	-31 7.4	1.726	2.468	18.8	21.4
478915	2012 <i>XV</i> ₁		8 20.9 0°64	10°8/29.2	18		250692	2005 <i>QA</i> ₁₁₅		8 21.0 283°09	2°4/19.1	18	
7 20	22 18.24	+11 9.1	1.240	2.072	21.0	20.3	7 20	22 25.06	-18 7.5	2.078	2.971	11.2	20.1
7 30	22 15.12	+12 5.4	1.178	2.069	18.0	20.1	7 30	22 19.25	-18 30.0	2.005	2.961	8.0	19.9
8 9	22 9.66	+12 29.2	1.133	2.067	14.8	19.9	8 9	22 11.68	-18 54.3	1.956	2.951	4.6	19.7
8 19	22 2.63	+12 17.0	1.106	2.067	12.0	19.7	8 19	22 2.99	-19 16.1	1.934	2.941	2.4	19.5
8 29	21 55.21	+11 30.0	1.099	2.068	10.8	19.7	8 29	21 54.06	-19 30.9	1.940	2.932	4.6	19.7
9 8	21 48.72	+10 14.9	1.114	2.071	11.9	19.7	9 8	21 45.84	-19 35.6	1.973	2.922	8.1	19.9
9 18	21 44.27	+ 8 42.3	1.149	2.075	14.6	19.9	9 18	21 39.12	-19 28.6	2.031	2.912	11.4	20.1
9 28	21 42.66	+ 7 4.4	1.205	2.080	17.7	20.1	9 28	21 34.52	-19 9.8	2.111	2.903	14.3	20.2
289038	2004 <i>TO</i> ₁₃₈		8 20.9										

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
56350	2000 AB ₉₂		8 21.0 146°56'	3°1/23.9	18		509797	2008 UQ ₂₉₁		8 21.0 293°76'	0°8/21.6	18	
7 20	22 23.55	- 1 12.3	2.172	3.018	12.6	19.3	7 20	22 23.80	- 8 31.4	1.645	2.531	14.0	21.9
7 30	22 17.99	- 1 17.4	2.103	3.024	9.7	19.2	7 30	22 18.78	- 8 47.7	1.565	2.516	10.3	21.6
8 9	22 10.90	- 1 36.3	2.056	3.031	6.5	19.0	8 9	22 11.64	- 9 16.1	1.507	2.500	6.0	21.4
8 19	22 2.86	- 2 7.3	2.036	3.036	3.6	18.8	8 19	22 3.05	- 9 53.0	1.474	2.485	1.5	21.0
8 29	21 54.64	- 2 47.0	2.044	3.042	3.7	18.8	8 29	21 54.01	-10 33.4	1.468	2.470	3.7	21.1
9 8	21 47.07	- 3 31.0	2.080	3.047	6.5	19.0	9 8	21 45.70	-11 11.3	1.487	2.455	8.4	21.4
9 18	21 40.84	- 4 14.6	2.142	3.051	9.6	19.2	9 18	21 39.10	-11 41.9	1.530	2.440	12.7	21.6
9 28	21 36.50	- 4 53.9	2.228	3.056	12.4	19.4	9 28	21 34.99	-12 1.8	1.594	2.426	16.4	21.8
469600	2004 FV ₅₅		8 21.0 93°42'	3°9/18.1	17		61921	2000 RW ₁		8 21.0 1°47'	2°6/19.7	18	
7 20	22 29.11	-19 54.3	1.605	2.504	13.6	21.3	7 20	22 25.41	-16 28.0	0.985	1.908	17.8	18.6
7 30	22 22.26	-20 49.4	1.568	2.526	9.7	21.1	7 30	22 20.72	-16 40.6	0.935	1.905	12.8	18.3
8 9	22 13.33	-21 44.5	1.553	2.547	5.8	20.9	8 9	22 12.97	-16 58.9	0.904	1.904	7.2	18.0
8 19	22 3.25	-22 32.4	1.565	2.568	3.9	20.9	8 19	22 3.27	-17 15.7	0.894	1.904	2.7	17.7
8 29	21 53.23	-23 6.6	1.604	2.588	6.3	21.1	8 29	21 53.31	-17 23.4	0.906	1.905	6.4	18.0
9 8	21 44.42	-23 23.6	1.668	2.608	9.9	21.3	9 8	21 44.86	-17 16.9	0.940	1.908	12.0	18.3
9 18	21 37.71	-23 22.8	1.755	2.628	13.3	21.6	9 18	21 39.23	-16 54.6	0.993	1.911	17.0	18.6
9 28	21 33.64	-23 5.7	1.863	2.647	16.2	21.8	9 28	21 37.17	-16 16.8	1.063	1.916	21.2	18.9
351142	2003 XX ₁₅		8 21.0 320°31'	5°6/25.3	18		308462	2005 SU ₂₈₆		8 21.0 105°90'	3°2/17.7	18	
7 20	22 22.30	+ 2 56.6	1.707	2.551	15.6	20.5	7 20	22 21.92	-19 13.0	2.147	3.045	10.7	20.4
7 30	22 17.57	+ 3 15.0	1.630	2.544	12.5	20.3	7 30	22 16.93	-20 17.8	2.090	3.048	7.6	20.2
8 9	22 10.88	+ 3 13.6	1.574	2.537	9.1	20.1	8 9	22 10.36	-21 24.5	2.058	3.052	4.6	20.0
8 19	22 2.88	+ 2 52.3	1.541	2.530	6.3	19.9	8 19	22 2.80	-22 27.4	2.053	3.055	3.3	19.9
8 29	21 54.52	+ 2 13.9	1.534	2.524	5.8	19.9	8 29	21 55.08	-23 20.6	2.076	3.058	5.3	20.1
9 8	21 46.86	+ 1 23.6	1.551	2.517	8.3	20.0	9 8	21 48.04	-24 0.0	2.125	3.061	8.4	20.2
9 18	21 40.80	+ 0 27.9	1.594	2.512	11.7	20.2	9 18	21 42.40	-24 23.5	2.200	3.064	11.3	20.4
9 28	21 37.07	- 0 26.5	1.658	2.506	15.0	20.4	9 28	21 38.72	-24 30.9	2.295	3.068	13.8	20.6
92166	1999 XK ₁₆₂		8 21.0 84°14'	6°5/22.9	18		427702	2004 FV ₄₆		8 21.0 87°69'	0°5/21.4	17	
7 20	22 40.22	- 4 12.1	1.043	1.918	21.0	18.0	7 20	22 26.69	- 8 50.2	1.540	2.426	14.8	21.0
7 30	22 31.27	- 4 24.3	0.988	1.925	16.3	17.8	7 30	22 20.61	- 9 17.9	1.492	2.443	10.7	20.8
8 9	22 18.86	- 4 50.6	0.952	1.932	11.1	17.5	8 9	22 12.48	- 9 57.2	1.466	2.460	6.1	20.6
8 19	22 4.24	+ 0 24.7	0.939	1.938	7.0	17.3	8 19	22 3.16	-10 43.2	1.466	2.477	1.3	20.3
8 29	21 49.34	+ 1 19.6	0.951	1.945	7.6	17.4	8 29	21 53.78	-11 29.6	1.492	2.494	3.7	20.5
9 8	21 36.18	+ 1 55.6	0.987	1.951	12.1	17.6	9 8	21 45.48	-12 10.6	1.544	2.510	8.3	20.8
9 18	21 26.28	+ 2 17.3	1.044	1.958	16.8	17.9	9 18	21 39.16	-12 41.9	1.620	2.527	12.3	21.1
9 28	21 20.47	+ 2 31.1	1.120	1.964	20.9	18.2	9 28	21 35.40	-13 1.1	1.718	2.543	15.6	21.4
395917	2013 AQ ₈₉		8 21.0 352°66'	6°4/14.9	18		521485	2015 OE ₆₄		8 21.0 277°38'	0°6/21.5	18	
7 20	22 20.98	-24 12.3	1.588	2.502	12.8	19.7	7 20	22 21.88	- 8 32.3	2.089	2.966	11.8	21.4
7 30	22 16.83	-25 55.1	1.537	2.498	9.5	19.4	7 30	22 16.97	- 8 57.0	2.010	2.957	8.6	21.2
8 9	22 10.52	-27 36.9	1.509	2.495	6.9	19.3	8 9	22 10.43	- 9 31.7	1.956	2.948	5.0	20.9
8 19	22 2.82	-29 7.9	1.506	2.493	6.6	19.3	8 19	22 2.83	-10 13.0	1.928	2.939	1.2	20.6
8 29	21 54.84	-30 18.9	1.528	2.491	8.9	19.4	8 29	21 54.95	-10 56.5	1.928	2.930	3.1	20.8
9 8	21 47.76	-31 4.5	1.574	2.490	12.2	19.6	9 8	21 47.66	-11 37.3	1.955	2.920	6.9	21.0
9 18	21 42.58	-31 23.4	1.641	2.490	15.3	19.8	9 18	21 41.71	-12 11.7	2.008	2.911	10.4	21.2
9 28	21 39.98	-31 17.0	1.726	2.489	18.0	20.0	9 28	21 37.71	-12 36.7	2.083	2.902	13.5	21.4
403709	2010 VB ₁₈₅		8 21.0 143°89'	2°8/23.8	18		72562	2001 EM ₇		8 21.0 252°90'	1°5/19.6	18	
7 20	22 22.11	- 1 47.5	2.481	3.326	11.3	21.4	7 20	22 23.33	-13 17.7	2.005	2.894	11.7	19.5
7 30	22 16.83	- 1 45.5	2.408	3.330	8.6	21.2	7 30	22 18.16	-14 12.0	1.924	2.879	8.4	19.3
8 9	22 10.20	- 1 55.0	2.359	3.333	5.8	21.0	8 9	22 11.18	-15 14.5	1.868	2.864	4.7	19.0
8 19	22 2.75	- 2 14.7	2.337	3.337	3.2	20.9	8 19	22 2.97	-16 19.9	1.838	2.849	1.5	18.8
8 29	21 55.15	- 2 41.9	2.344	3.340	3.3	20.9	8 29	21 54.39	-17 21.9	1.837	2.833	4.2	19.0
9 8	21 48.08	- 3 13.1	2.378	3.344	5.8	21.1	9 8	21 46.41	-18 14.9	1.863	2.817	8.1	19.2
9 18	21 42.17	- 3 44.9	2.440	3.347	8.7	21.3	9 18	21 39.86	-18 55.0	1.914	2.800	11.7	19.4
9 28	21 37.90	- 4 13.8	2.525	3.350	11.2	21.4	9 28	21 35.43	-19 19.9	1.987	2.783	14.8	19.5
181423	2006 SF ₂₇₄		8 21.0 242°80'	0°1/21.1	18		311383	2005 SO ₂₇₉		8 21.0 210°03'	4°4/16.8	18	
7 20	22 24.16	- 8 42.0	1.600	2.487	14.3	20.8	7 20	22 24.95	-24 40.1	2.269	3.163	10.4	20.9
7 30	22 19.04	- 9 29.7	1.527	2.479	10.4	20.6	7 30	22 19.07	-25 25.5	2.209	3.161	7.6	20.8
8 9	22 11.77	-10 31.5	1.477	2.471	5.9	20.3	8 9	22 11.54	-26 8.2	2.174	3.159	5.2	20.6
8 19	22 3.05	-11 42.0	1.451	2.463	1.0	19.9	8 19	22 3.02	-26 42.8	2.165	3.157	4.5	20.6
8 29	21 53.94	-12 53.9	1.453	2.454	4.0	20.1	8 29	21 54.34	-27 4.7	2.185	3.154	6.2	20.7
9 8	21 45.61	-13 59.6	1.480	2.445	8.7	20.4	9 8	21 46.38	-27 11.3	2.231	3.151	8.8	20.8
9 18	21 39.08	-14 53.2	1.532	2.436	13.0	20.6	9 18	21 39.90	-27 2.0	2.301	3.149	11.5	21.0
9 28	21 35.09	-15 31.3	1.605	2.427	16.7	20.8	9 28	21 35.44	-26 37.8	2.392	3.146	13.8	21.2
512050	2015 MH ₈₉		8 21.0 95°49'	2°7/23.4	18		248329	2005 QO ₃₁		8 21.0 6°83'	4°3/23.1	18	
7 20	22 23.40	- 2 44.9	1.990	2.847	13.2	21.6	7 20	22 27.65	- 4 40.6	1.470	2.344	16.1	19.7
7 30	22 17.95	- 2 54.0	1.929	2.859	9.9	21.5	7 30	22 21.53	- 3 34.6	1.407	2.345	12.3	19.4
8 9	22 10.90	- 3 16.9	1.891	2.871	6.4	21.3	8 9	22 13.13	- 2 40.8	1.366	2.347	8.2	19.2
8 19	22 2.88	- 3 51.3	1.879	2.883	3.2	21.1	8 19	22 3.31	- 1 59.9	1.349	2.350	4.7	19.0
8 29	21 54.73	- 4 33.2	1.894	2.894	3.5	21.1	8 29	21 53.25	- 1 31.1	1.357	2.354	5.2	19.1
9 8	21 47.32	- 5 17.6	1.937	2.905	6.7	21.4	9 8	21 44.21	- 1 11.9	1.391	2.359	8.8	19.3
9 18	21 41.38	- 5 59.9	2.006	2.917	10.1	21.6	9 18	21 37.22	- 0 59.1	1.449	2.365	12.8	19.5
9 28	21 37.45	- 6 36.2	2.098	2.928	13.0	21.8	9 28	21 32.98	- 0 48.4	1.527	2.373	16.2	19.8
90709	1999 VO ₃₆		8 21.0 214°34'	6°5/14.4	18		272242	2005 QN ₁₂₃		8 21.0 12°42'	0°2/21.1	15	
7 20	22 26												

EPHEMERIDES

8 21.0

8 21.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
48267	2001 YA ₁₁₈		8 21.0 267°12	0°2/21.2	18	R	236616	Gray		8 21.0 268°60	1°1/20.1	18	
7 20	22 24.70	-9 41.5	1.732	2.617	13.5	19.3	7 20	22 24.19	-13 1.5	1.771	2.663	12.9	20.7
7 30	22 19.35	-10 5.7	1.653	2.604	9.8	19.0	7 30	22 18.87	-13 36.4	1.703	2.659	9.2	20.5
8 9	22 11.93	-10 40.8	1.597	2.591	5.6	18.7	8 9	22 11.60	-14 18.9	1.658	2.654	5.1	20.2
8 19	22 3.12	-11 22.7	1.566	2.578	1.1	18.4	8 19	22 3.09	-15 4.1	1.639	2.650	1.2	20.0
8 29	21 53.91	-12 6.1	1.562	2.564	3.7	18.6	8 29	21 54.30	-15 46.1	1.646	2.645	4.1	20.2
9 8	21 45.41	-12 45.1	1.585	2.550	8.2	18.8	9 8	21 46.29	-16 19.8	1.681	2.640	8.4	20.4
9 18	21 38.58	-13 15.5	1.632	2.537	12.4	19.0	9 18	21 39.95	-16 41.7	1.739	2.636	12.2	20.6
9 28	21 34.17	-13 34.2	1.701	2.523	15.9	19.2	9 28	21 35.95	-16 50.3	1.819	2.631	15.4	20.8
296985	2010 ED ₁₀₉		8 21.0 125°52	3°7/24.8	18		167356	2003 WA ₃₂		8 21.0 3°64	1°9/19.6	18	
7 20	22 21.06	+1 57.0	1.912	2.756	14.2	20.6	7 20	22 25.45	-15 41.1	1.732	2.628	12.9	20.0
7 30	22 16.44	+1 22.9	1.841	2.759	11.1	20.4	7 30	22 19.76	-16 8.1	1.670	2.628	9.2	19.7
8 9	22 10.15	+0 28.9	1.792	2.762	7.6	20.2	8 9	22 12.08	-16 39.8	1.632	2.628	5.1	19.5
8 19	22 2.80	-0 42.3	1.768	2.766	4.5	20.0	8 19	22 3.16	-17 10.9	1.619	2.629	1.9	19.3
8 29	21 55.23	-2 5.4	1.772	2.769	4.1	20.0	8 29	21 54.05	-17 36.1	1.633	2.629	4.6	19.5
9 8	21 48.32	-3 33.5	1.802	2.772	7.0	20.2	9 8	21 45.83	-17 51.2	1.673	2.629	8.7	19.7
9 18	21 42.85	-4 59.4	1.859	2.775	10.4	20.4	9 18	21 39.38	-17 54.1	1.737	2.630	12.4	19.9
9 28	21 39.40	-6 17.1	1.939	2.778	13.6	20.6	9 28	21 35.34	-17 44.1	1.822	2.630	15.6	20.2
358434	2007 DB ₄₁		8 21.0 101°92	7°2/13.8	18		488414	2016 XA ₃		8 21.0 223°27	5°4/15.3	18	
7 20	22 28.01	-35 31.1	2.410	3.287	10.5	21.0	7 20	22 24.63	-27 57.4	2.384	3.276	10.0	21.5
7 30	22 21.15	-36 26.4	2.376	3.301	8.6	20.9	7 30	22 18.87	-28 57.1	2.324	3.270	7.6	21.4
8 9	22 12.63	-37 10.5	2.366	3.315	7.3	20.8	8 9	22 11.47	-29 52.3	2.289	3.265	5.8	21.2
8 19	22 3.20	-37 38.2	2.383	3.328	7.4	20.8	8 19	22 3.06	-30 37.3	2.281	3.259	5.5	21.2
8 29	21 53.79	-37 45.6	2.426	3.342	8.6	20.9	8 29	21 54.44	-31 7.1	2.301	3.253	7.1	21.3
9 8	21 45.34	-37 32.1	2.494	3.355	10.4	21.1	9 8	21 46.51	-31 19.1	2.346	3.246	9.4	21.4
9 18	21 38.55	-36 59.3	2.584	3.368	12.2	21.2	9 18	21 40.01	-31 13.0	2.415	3.240	11.8	21.6
9 28	21 33.94	-36 10.0	2.694	3.381	13.9	21.4	9 28	21 35.50	-30 50.1	2.505	3.233	13.9	21.7
343982	2011 MA ₃		8 21.0 358°76	6°1/15.9	18		415383	2013 MN ₇		8 21.0 88°35	2°9/19.1	17	
7 20	22 21.01	-21 54.5	1.341	2.261	14.3	19.3	7 20	22 27.80	-15 32.6	1.287	2.193	15.8	20.8
7 30	22 17.10	-23 32.2	1.292	2.259	10.4	19.1	7 30	22 21.82	-16 32.1	1.242	2.205	11.2	20.6
8 9	22 10.78	-25 11.5	1.264	2.257	7.0	18.9	8 9	22 13.34	-17 38.2	1.220	2.217	6.3	20.3
8 19	22 2.93	-26 41.3	1.261	2.256	6.3	18.9	8 19	22 3.38	-18 42.3	1.221	2.230	2.9	20.2
8 29	21 54.79	-27 51.2	1.282	2.256	8.9	19.0	8 29	21 53.31	-19 35.6	1.248	2.242	6.1	20.4
9 8	21 47.71	-28 35.0	1.325	2.257	12.7	19.2	9 8	21 44.57	-20 11.8	1.299	2.254	10.7	20.7
9 18	21 42.79	-28 50.8	1.389	2.258	16.4	19.5	9 18	21 38.20	-20 28.5	1.372	2.266	15.0	21.0
9 28	21 40.72	-28 40.3	1.470	2.261	19.4	19.7	9 28	21 34.86	-20 25.9	1.464	2.277	18.4	21.3
80454	2000 AW ₃		8 21.0 256°08	5°2/24.3	18	R	482771	2013 GO ₉₃		8 21.0 139°02	3°8/17.2	18	
7 20	22 27.37	+0 30.8	1.649	2.497	15.9	20.2	7 20	22 23.84	-22 46.3	2.366	3.260	10.0	21.4
7 30	22 21.38	+1 3.5	1.567	2.486	12.5	20.0	7 30	22 18.19	-23 33.3	2.310	3.264	7.3	21.2
8 9	22 13.14	+1 19.0	1.505	2.474	8.9	19.8	8 9	22 11.03	-24 18.9	2.280	3.269	4.7	21.1
8 19	22 3.35	+1 17.0	1.468	2.462	5.8	19.6	8 19	22 2.97	-24 58.0	2.277	3.273	3.8	21.0
8 29	21 53.06	+0 59.3	1.457	2.449	5.7	19.5	8 29	21 54.80	-25 26.3	2.302	3.277	5.5	21.1
9 8	21 43.48	+0 30.4	1.472	2.436	8.8	19.7	9 8	21 47.32	-25 40.9	2.354	3.281	8.2	21.3
9 18	21 35.68	-0 4.2	1.511	2.423	12.6	19.9	9 18	21 41.21	-25 41.1	2.431	3.285	10.8	21.5
9 28	21 30.47	-0 38.6	1.571	2.410	16.2	20.1	9 28	21 36.99	-25 27.2	2.530	3.288	13.0	21.7
301384	2009 DV ₇		8 21.0 199°16	1°9/23.1	18		175570	2006 TO ₁₉		8 21.0 35°09	0°2/20.8	18	
7 20	22 21.84	-3 8.0	2.329	3.183	11.6	21.6	7 20	22 22.92	-10 59.9	1.917	2.804	12.3	20.6
7 30	22 16.79	-3 40.9	2.250	3.180	8.7	21.4	7 30	22 17.77	-11 26.6	1.853	2.806	8.8	20.4
8 9	22 10.28	-4 27.1	2.195	3.177	5.5	21.2	8 9	22 10.90	-12 1.6	1.813	2.808	4.9	20.2
8 19	22 2.84	-5 23.5	2.167	3.173	2.5	21.0	8 19	22 2.97	-12 40.8	1.798	2.810	0.8	19.9
8 29	21 55.16	-6 26.1	2.168	3.169	2.9	21.0	8 29	21 54.85	-13 19.1	1.811	2.812	3.4	20.1
9 8	21 48.01	-7 29.6	2.197	3.164	6.1	21.2	9 8	21 47.47	-13 52.1	1.851	2.814	7.4	20.3
9 18	21 42.05	-8 29.4	2.253	3.159	9.3	21.4	9 18	21 41.61	-14 16.3	1.916	2.817	11.0	20.5
9 28	21 37.84	-9 21.5	2.334	3.154	12.2	21.6	9 28	21 37.84	-14 29.7	2.003	2.819	14.0	20.8
315069	2007 DW ₃₇		8 21.0 232°56	1°5/22.9	18		248157	2004 TJ ₃₂₆		8 21.0 188°73	1°6/22.7	18	
7 20	22 20.42	-3 56.7	2.691	3.544	10.3	22.1	7 20	22 23.96	-5 47.7	2.812	3.664	9.9	20.6
7 30	22 15.66	-4 31.3	2.601	3.532	7.7	21.9	7 30	22 18.06	-5 42.3	2.733	3.663	7.4	20.4
8 9	22 9.61	-5 17.3	2.537	3.520	4.8	21.7	8 9	22 10.90	-5 44.6	2.680	3.662	4.6	20.3
8 19	22 2.72	-6 12.0	2.500	3.507	2.0	21.5	8 19	22 2.96	-5 53.0	2.654	3.661	2.0	20.1
8 29	21 55.59	-7 11.9	2.493	3.494	2.6	21.5	8 29	21 54.86	-6 5.6	2.659	3.659	2.6	20.1
9 8	21 48.85	-8 12.4	2.515	3.481	5.5	21.7	9 8	21 47.24	-6 19.5	2.692	3.656	5.3	20.3
9 18	21 43.12	-9 9.7	2.564	3.467	8.5	21.8	9 18	21 40.68	-6 32.6	2.754	3.654	8.1	20.5
9 28	21 38.89	-10 0.0	2.638	3.453	11.1	22.0	9 28	21 35.65	-6 42.4	2.840	3.651	10.5	20.6
155878	2001 ED ₄		8 21.0 124°94	0°2/21.2	18		29675	1998 XV ₁₅		8 21.0 66°03	1°4/20.1	18	
7 20	22 20.19	-8 30.1	2.578	3.450	10.1	20.2	7 20	22 27.60	-14 15.6	1.467	2.365	14.7	19.1
7 30	22 15.43	-9 19.4	2.515	3.459	7.2	20.0	7 30	22 21.49	-14 36.3	1.413	2.371	10.5	18.9
8 9	22 9.43	-10 17.1	2.477	3.469	4.1	19.8	8 9	22 13.11	-15 3.4	1.381	2.378	5.8	18.6
8 19	22 2.68	-11 19.5	2.467	3.478	0.8	19.6	8 19	22 3.35	-15 31.4	1.374	2.384	1.5	18.4
8 29	21 55.81	-12 22.1	2.486	3.487	2.6	19.8	8 29	21 53.44	-15 54.5	1.392	2.391	4.7	18.6
9 8	21 49.46	-13 20.4	2.535	3.496	5.8	20.0	9 8	21 44.67	-16 7.9	1.437	2.398	9.3	18.9
9 18	21 44.21	-14 11.0	2.610	3.505	8.7	20.2	9 18	21 38.01	-16 9.3	1.504	2.405	13.4	19.2
9 28	21 40.50	-14 51.5	2.709	3.513	11.1	20.4	9 28	21 34.11	-15 58.0	1.592	2.412	16.9	19.4
448978	2011 YM ₅₀		8 21.0 185°28	2°0/23.2	18		33784	1999 RE ₁₈₇		8 21.0 86°09	2°8/18.7	18	
7 20	22 21.82	-3 38.3	2.621	3.471	10.6	21.8	7 20						

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8 21.0

8 21.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
163065	2001 YC ₁₃₁		8 21.0	89°06'	4°3'/18.3	18	43984	1997 HR ₇		8 21.0	25°57'	0°8'/20.4	18
7 20	22 28.72	-19 23.3	1.312	2.221	15.3	19.8	7 20	22 24.36	-12 40.1	1.584	2.480	13.9	18.8
7 30	22 22.57	-20 16.3	1.263	2.226	11.0	19.5	7 30	22 19.08	-13 3.7	1.526	2.484	9.9	18.5
8 9	22 13.82	-21 11.4	1.236	2.232	6.6	19.3	8 9	22 11.75	-13 35.3	1.491	2.488	5.5	18.3
8 19	22 3.48	-22 0.1	1.233	2.237	4.3	19.2	8 19	22 3.15	-14 9.8	1.481	2.492	1.1	18.0
8 29	21 52.98	-22 34.0	1.254	2.242	7.1	19.4	8 29	21 54.39	-14 41.5	1.497	2.497	4.2	18.2
9 8	21 43.79	-22 48.5	1.300	2.248	11.5	19.6	9 8	21 46.57	-15 5.5	1.539	2.502	8.6	18.5
9 18	21 37.02	-22 42.4	1.367	2.253	15.5	19.9	9 18	21 40.61	-15 18.6	1.604	2.508	12.6	18.8
9 28	21 33.38	-22 17.5	1.453	2.258	18.9	20.1	9 28	21 37.14	-15 19.3	1.690	2.513	15.9	19.0
440241	2004 RG ₉		8 21.0	338°42'	0°9'/20.2	18	198512	2004 XF ₈₅		8 21.0	228°93'	0°5'/21.5	18
7 20	22 19.63	-11 54.8	1.698	2.597	13.0	20.5	7 20	22 24.11	- 8 39.7	1.964	2.841	12.5	20.9
7 30	22 15.71	-12 37.7	1.626	2.585	9.3	20.2	7 30	22 18.69	- 9 4.9	1.888	2.835	9.1	20.7
8 9	22 9.89	-13 30.6	1.577	2.575	5.2	20.0	8 9	22 11.48	- 9 40.5	1.836	2.828	5.3	20.4
8 19	22 2.82	-14 28.1	1.554	2.565	1.1	19.7	8 19	22 3.12	-10 22.8	1.811	2.822	1.2	20.1
8 29	21 55.44	-15 23.9	1.556	2.556	4.1	19.9	8 29	21 54.47	-11 7.0	1.813	2.815	3.2	20.3
9 8	21 48.76	-16 11.7	1.584	2.547	8.4	20.1	9 8	21 46.48	-11 48.1	1.842	2.807	7.3	20.5
9 18	21 43.68	-16 47.1	1.636	2.540	12.4	20.3	9 18	21 39.97	-12 22.0	1.897	2.800	11.0	20.7
9 28	21 40.86	-17 7.5	1.709	2.533	15.7	20.5	9 28	21 35.57	-12 45.8	1.975	2.792	14.2	20.9
2640	Hällström		8 21.0	121°07'	2°8'/19.2	18	339117	2004 RZ ₂₄₆		8 21.0	36°10'	7°4'/27.4	16
7 20	22 28.98	-17 31.0	1.601	2.498	13.7	16.8	7 20	22 22.63	+ 8 32.4	1.698	2.513	16.9	20.4
7 30	22 22.35	-18 5.5	1.548	2.506	9.8	16.6	7 30	22 17.83	+ 8 50.4	1.627	2.514	14.0	20.3
8 9	22 13.54	-18 42.7	1.518	2.514	5.6	16.4	8 9	22 11.08	+ 8 43.5	1.575	2.515	10.9	20.1
8 19	22 3.44	-19 16.7	1.514	2.522	2.8	16.2	8 19	22 3.06	+ 8 11.1	1.545	2.516	8.3	19.9
8 29	21 53.22	-19 41.3	1.537	2.530	5.4	16.4	8 29	21 54.72	+ 7 15.7	1.540	2.517	7.5	19.9
9 8	21 44.11	-19 52.6	1.586	2.537	9.5	16.6	9 8	21 47.13	+ 6 3.5	1.560	2.518	9.0	20.0
9 18	21 37.05	-19 49.2	1.658	2.544	13.3	16.9	9 18	21 41.19	+ 4 42.2	1.604	2.519	11.9	20.2
9 28	21 32.66	-19 31.5	1.751	2.551	16.4	17.1	9 28	21 37.57	+ 3 20.4	1.671	2.521	14.9	20.4
16298	6529 P-L		8 21.0	1°05'	0°5'/20.6	18	448607	2010 UA ₃₁		8 21.0	3°96'	6°8'/27.1	15
7 20	22 20.28	-11 12.6	1.728	2.623	13.0	18.3	7 20	22 19.93	+ 7 9.6	1.783	2.606	15.9	20.9
7 30	22 16.06	-11 47.9	1.665	2.622	9.3	18.1	7 30	22 15.80	+ 7 29.6	1.712	2.606	13.1	20.7
8 9	22 10.03	-12 32.7	1.625	2.621	5.2	17.9	8 9	22 9.90	+ 7 27.0	1.661	2.606	10.1	20.5
8 19	22 2.85	-13 22.1	1.610	2.621	0.9	17.6	8 19	22 2.85	+ 7 1.6	1.633	2.607	7.6	20.4
8 29	21 55.46	-14 10.3	1.621	2.622	3.8	17.8	8 29	21 55.54	+ 6 15.9	1.629	2.609	6.8	20.4
9 8	21 48.83	-14 51.6	1.659	2.624	8.0	18.1	9 8	21 48.91	+ 5 15.1	1.651	2.611	8.4	20.5
9 18	21 43.80	-15 22.2	1.720	2.626	11.8	18.3	9 18	21 43.79	+ 4 6.3	1.697	2.614	11.2	20.6
9 28	21 40.97	-15 39.6	1.803	2.628	15.0	18.5	9 28	21 40.79	+ 2 56.7	1.765	2.618	14.1	20.8
509374	2007 BX ₆₉		8 21.0	112°29'	0°5'/20.6	18	143436	2003 BX ₆₆		8 21.0	99°44'	0°3'/20.8	18
7 20	22 25.72	-13 13.9	2.522	3.398	10.1	21.2	7 20	22 20.95	- 9 24.4	2.060	2.942	11.8	19.9
7 30	22 19.32	-13 20.0	2.464	3.412	7.2	21.1	7 30	22 16.30	-10 21.0	1.996	2.946	8.4	19.7
8 9	22 11.59	-13 29.9	2.432	3.425	4.0	20.9	8 9	22 10.08	-11 27.9	1.956	2.950	4.7	19.5
8 19	22 3.10	-13 40.9	2.427	3.439	0.7	20.6	8 19	22 2.88	-12 40.0	1.943	2.954	0.8	19.2
8 29	21 54.57	-13 50.1	2.453	3.452	2.9	20.8	8 29	21 55.49	-13 51.3	1.958	2.958	3.3	19.4
9 8	21 46.71	-13 55.0	2.507	3.465	6.1	21.1	9 8	21 48.75	-14 56.2	2.001	2.963	7.1	19.7
9 18	21 40.13	-13 54.2	2.589	3.478	8.9	21.3	9 18	21 43.37	-15 50.3	2.070	2.967	10.5	19.9
9 28	21 35.29	-13 46.5	2.694	3.490	11.4	21.5	9 28	21 39.90	-16 30.9	2.161	2.970	13.4	20.1
94084	2000 YL ₅₂		8 21.0	292°36'	1°7'/22.2	18	350401	2012 VT ₃₀		8 21.1	342°15'	2°1'/22.5	18
7 20	22 25.32	- 7 14.8	1.668	2.547	14.2	18.7	7 20	22 19.21	- 5 24.2	1.262	2.159	16.6	20.0
7 30	22 19.94	- 7 11.4	1.582	2.527	10.6	18.5	7 30	22 15.91	- 5 40.7	1.192	2.146	12.5	19.7
8 9	22 12.38	- 7 19.9	1.519	2.508	6.5	18.2	8 9	22 10.23	- 6 16.4	1.143	2.135	7.7	19.4
8 19	22 3.29	- 7 37.9	1.480	2.489	2.3	17.9	8 19	22 2.94	- 7 7.7	1.115	2.124	2.9	19.1
8 29	21 53.71	- 8 1.4	1.468	2.470	3.7	17.9	8 29	21 55.20	- 8 7.9	1.111	2.115	4.2	19.1
9 8	21 44.79	- 8 25.6	1.482	2.451	8.3	18.2	9 8	21 48.35	- 9 8.4	1.131	2.107	9.3	19.4
9 18	21 37.59	- 8 46.1	1.520	2.432	12.6	18.4	9 18	21 43.52	-10 1.7	1.172	2.100	14.1	19.7
9 28	21 32.90	- 8 59.2	1.579	2.413	16.4	18.6	9 28	21 41.52	-10 41.8	1.233	2.095	18.3	19.9
58833	1998 HM ₃₃		8 21.0	343°15'	4°3'/17.8	18	82706	2001 PZ ₄₁		8 21.1	288°25'	4°4'/25.1	18
7 20	22 26.57	-23 24.9	1.901	2.799	11.8	18.0	7 20	22 20.96	+ 2 12.2	1.975	2.815	13.9	18.8
7 30	22 20.48	-23 53.3	1.840	2.796	8.7	17.8	7 30	22 16.48	+ 2 5.8	1.889	2.802	11.0	18.6
8 9	22 12.46	-24 19.0	1.804	2.793	5.6	17.7	8 9	22 10.29	+ 1 40.8	1.824	2.790	7.8	18.4
8 19	22 3.27	-24 36.6	1.793	2.791	4.3	17.6	8 19	22 2.94	+ 0 58.4	1.784	2.777	5.0	18.2
8 29	21 53.93	-24 41.2	1.810	2.789	6.3	17.7	8 29	21 55.23	+ 0 2.0	1.771	2.765	4.7	18.2
9 8	21 45.49	-24 30.6	1.852	2.787	9.5	17.9	9 8	21 48.07	- 1 3.0	1.785	2.752	7.2	18.3
9 18	21 38.81	-24 4.4	1.918	2.786	12.6	18.1	9 18	21 42.27	- 2 10.4	1.824	2.740	10.6	18.5
9 28	21 34.49	-23 24.2	2.005	2.784	15.3	18.3	9 28	21 38.47	- 3 14.1	1.886	2.728	13.8	18.6
104034	2000 EK ₁		8 21.0	328°85'	0°5'/20.6	18	91259	1999 CB ₈₅		8 21.1	128°91'	0°4'/20.8	18
7 20	22 21.81	-12 15.0	2.029	2.917	11.6	19.2	7 20	22 29.83	-11 40.6	1.441	2.332	15.4	19.0
7 30	22 16.99	-12 34.3	1.955	2.909	8.4	19.0	7 30	22 23.15	-11 58.1	1.385	2.339	11.1	18.7
8 9	22 10.50	-13 0.4	1.905	2.900	4.7	18.7	8 9	22 14.09	-12 24.8	1.352	2.347	6.2	18.5
8 19	22 2.94	-13 29.7	1.881	2.893	0.8	18.4	8 19	22 3.59	-12 55.5	1.343	2.354	1.0	18.2
8 29	21 55.14	-13 57.8	1.885	2.885	3.4	18.6	8 29	21 52.92	-13 24.4	1.360	2.361	4.3	18.4
9 8	21 47.98	-14 20.6	1.915	2.878	7.3	18.8	9 8	21 43.41	-13 46.0	1.404	2.368	9.2	18.7
9 18	21 42.22	-14 35.3	1.971	2.871	10.8	19.0	9 18	21 36.10	-13 57.2	1.470	2.374	13.5	19.0
9 28	21 38.46	-14 39.9	2.049	2.864	13.8	19.2	9 28	21 31.68	-13 56.5	1.558	2.380	17.1	19.3
139064	2001 FK ₅		8 21.0	221°82'	0°5'/21.4	18	477561	2010 GY ₁₁₃		8 21.1	180°45'	1°3'/19.9	18
7 20	22 28.26	- 9 45.4	1.647	2.5									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
237081	2008 <i>SM</i> ₂₉₀		8 21.1 227°28	0°1/21.2	18		112002	2002 <i>GH</i> ₁₃₈		8 21.1 292°57	5°2/17.8	18	
7 20	22 23.83	- 9 7.4	2.151	3.026	11.6	21.3	7 20	22 27.97	-21 26.1	1.334	2.244	15.0	19.6
7 30	22 18.41	- 9 47.4	2.070	3.016	8.5	21.1	7 30	22 22.29	-22 19.3	1.271	2.234	11.0	19.4
8 9	22 11.32	-10 37.5	2.012	3.005	4.8	20.8	8 9	22 13.86	-23 13.6	1.230	2.224	7.0	19.1
8 19	22 3.12	-11 33.7	1.982	2.993	0.9	20.5	8 19	22 3.61	-23 59.9	1.213	2.214	5.2	19.0
8 29	21 54.60	-12 31.0	1.980	2.981	3.2	20.7	8 29	21 52.94	-24 29.6	1.220	2.204	8.0	19.1
9 8	21 46.63	-13 24.1	2.007	2.968	7.0	20.9	9 8	21 43.40	-24 37.5	1.250	2.194	12.2	19.3
9 18	21 40.00	-14 8.8	2.059	2.955	10.6	21.1	9 18	21 36.26	-24 22.7	1.302	2.184	16.4	19.6
9 28	21 35.33	-14 42.3	2.135	2.942	13.6	21.3	9 28	21 32.33	-23 47.1	1.372	2.175	20.0	19.8
175130	2005 <i>CR</i> ₄		8 21.1 305°31	1°2/20.2	18		5033	Mistral		8 21.1 40°32	0°1/20.9	18	
7 20	22 22.94	-11 10.8	1.253	2.159	16.1	20.1	7 20	22 21.94	-10 4.4	1.906	2.791	12.4	16.8
7 30	22 18.74	-12 5.9	1.182	2.145	11.6	19.8	7 30	22 17.11	-10 40.8	1.843	2.795	8.9	16.6
8 9	22 11.91	-13 16.5	1.132	2.131	6.5	19.5	8 9	22 10.58	-11 26.8	1.804	2.799	5.0	16.3
8 19	22 3.26	-14 35.3	1.106	2.117	1.4	19.1	8 19	22 3.01	-12 17.9	1.791	2.802	0.8	16.0
8 29	21 54.04	-15 52.3	1.104	2.104	5.3	19.4	8 29	21 55.25	-13 8.6	1.805	2.806	3.4	16.3
9 8	21 45.75	-16 58.0	1.125	2.091	10.8	19.6	9 8	21 48.23	-13 53.6	1.846	2.810	7.4	16.5
9 18	21 39.66	-17 45.7	1.168	2.078	15.7	19.9	9 18	21 42.69	-14 29.2	1.913	2.815	11.0	16.7
9 28	21 36.65	-18 12.2	1.229	2.066	19.9	20.1	9 28	21 39.22	-14 52.8	2.001	2.819	14.0	17.0
168083	2006 <i>DE</i> ₆₂		8 21.1 44°17	5°3/26.0	18		102543	1999 <i>UV</i> ₁₂		8 21.1 332°96	5°3/24.8	18	
7 20	22 23.50	+ 5 36.2	1.276	2.125	19.5	18.6	7 20	22 20.97	+ 1 10.8	1.223	2.097	18.6	18.6
7 30	22 18.38	+ 4 43.5	1.249	2.167	15.2	18.5	7 30	22 17.26	+ 1 12.1	1.153	2.088	14.7	18.3
8 9	22 11.24	+ 3 21.7	1.242	2.209	10.6	18.4	8 9	22 11.06	+ 0 47.1	1.102	2.079	10.3	18.1
8 19	22 3.06	+ 1 36.9	1.257	2.251	6.5	18.3	8 19	22 3.14	+ 0 3.1	1.072	2.070	6.3	17.8
8 29	21 55.07	+ 0 20.8	1.298	2.294	5.5	18.3	8 29	21 54.72	+ 1 13.3	1.064	2.063	5.9	17.8
9 8	21 48.39	- 2 19.7	1.364	2.337	8.4	18.6	9 8	21 47.20	- 2 34.3	1.080	2.056	9.7	18.0
9 18	21 43.81	- 4 9.7	1.454	2.379	12.1	18.9	9 18	21 41.80	- 3 55.9	1.118	2.050	14.3	18.2
9 28	21 41.78	- 5 43.5	1.566	2.422	15.4	19.2	9 28	21 39.37	- 5 8.8	1.175	2.044	18.5	18.5
154919	2004 <i>SY</i> ₂₉		8 21.1 333°16	1°9/22.7	18		237858	2002 <i>GB</i> ₁₂₉		8 21.1 66°39	3°1/17.4	18	
7 20	22 19.42	- 4 44.4	1.818	2.694	13.4	19.5	7 20	22 21.50	-23 22.1	2.950	3.840	8.3	20.2
7 30	22 15.46	- 5 7.9	1.740	2.682	10.0	19.3	7 30	22 16.29	-23 52.9	2.896	3.848	6.1	20.1
8 9	22 9.75	- 5 46.2	1.684	2.672	6.2	19.0	8 9	22 9.93	-24 21.8	2.868	3.856	4.0	20.0
8 19	22 2.86	- 6 36.3	1.653	2.661	2.5	18.8	8 19	22 2.89	-24 45.3	2.868	3.863	3.2	19.9
8 29	21 55.66	- 7 33.3	1.649	2.652	3.3	18.8	8 29	21 55.80	-25 0.4	2.897	3.871	4.5	20.0
9 8	21 49.07	- 8 31.0	1.671	2.643	7.3	19.1	9 8	21 49.26	-25 5.0	2.953	3.879	6.7	20.2
9 18	21 43.94	- 9 24.0	1.718	2.634	11.1	19.3	9 18	21 43.79	-24 58.7	3.035	3.887	8.9	20.4
9 28	21 40.90	-10 7.5	1.787	2.626	14.5	19.5	9 28	21 39.82	-24 41.5	3.140	3.895	10.8	20.5
319237	2006 <i>AO</i> ₃₈		8 21.1 2°44	4°2/18.1	18		338044	2002 <i>LD</i> ₁₀		8 21.1 63°89	2°7/18.7	18	
7 20	22 18.30	-17 1.9	1.036	1.967	16.5	19.3	7 20	22 23.39	-15 44.2	1.634	2.536	13.2	20.3
7 30	22 15.54	-18 13.6	0.990	1.964	11.8	19.1	7 30	22 18.35	-16 52.8	1.586	2.547	9.3	20.1
8 9	22 10.09	-19 33.0	0.963	1.963	6.9	18.8	8 9	22 11.34	-18 7.0	1.561	2.558	5.3	19.8
8 19	22 2.93	-20 49.4	0.957	1.964	4.3	18.7	8 19	22 3.15	-19 19.5	1.561	2.569	2.7	19.7
8 29	21 55.49	-21 51.5	0.974	1.967	7.7	18.9	8 29	21 54.83	-20 22.7	1.588	2.580	5.4	19.9
9 8	21 49.32	-22 31.2	1.012	1.971	12.5	19.1	9 8	21 47.46	-21 10.9	1.641	2.591	9.3	20.2
9 18	21 45.56	-22 45.2	1.069	1.977	17.1	19.4	9 18	21 41.89	-21 41.1	1.718	2.603	12.9	20.4
9 28	21 44.95	-22 33.9	1.143	1.984	20.8	19.7	9 28	21 38.72	-21 52.9	1.814	2.614	15.9	20.6
52318	1992 <i>BC</i> ₃		8 21.1 157°62	1°7/22.4	18		316741	Jane Fletcher		8 21.1 20°06	2°2/20.1	18	
7 20	22 28.50	- 6 26.3	1.986	2.848	13.0	19.9	7 20	22 34.29	-20 2.6	1.754	2.641	13.2	19.1
7 30	22 21.71	- 6 27.6	1.919	2.855	9.6	19.7	7 30	22 25.93	-19 28.0	1.695	2.648	9.5	18.9
8 9	22 13.12	- 6 39.4	1.876	2.862	5.8	19.5	8 9	22 15.48	-18 50.5	1.661	2.655	5.5	18.7
8 19	22 3.44	- 6 59.2	1.860	2.868	2.2	19.3	8 19	22 3.86	-18 7.3	1.654	2.663	2.2	18.5
8 29	21 53.58	- 7 23.5	1.872	2.873	3.3	19.4	8 29	21 52.28	-17 16.7	1.675	2.671	4.6	18.7
9 8	21 44.52	- 7 48.1	1.912	2.878	7.0	19.6	9 8	21 41.92	-16 18.7	1.725	2.680	8.6	18.9
9 18	21 37.06	- 8 9.5	1.979	2.882	10.6	19.9	9 18	21 33.68	-15 14.6	1.801	2.690	12.2	19.2
9 28	21 31.79	- 8 24.8	2.069	2.885	13.7	20.1	9 28	21 28.12	-14 6.0	1.899	2.700	15.3	19.4
38472	1999 <i>TJ</i> ₅₁		8 21.1 86°16	2°6/18.8	18		176685	2002 <i>PV</i> ₁₀₂		8 21.1 317°98	6°9/24.6	17	
7 20	22 24.75	-19 9.1	2.184	3.077	10.8	18.6	7 20	22 24.36	+ 1 56.3	1.506	2.358	16.9	19.6
7 30	22 18.93	-19 37.2	2.126	3.081	7.7	18.4	7 30	22 19.66	+ 2 55.6	1.407	2.326	13.8	19.4
8 9	22 11.51	-20 6.0	2.092	3.086	4.5	18.2	8 9	22 12.49	+ 3 38.2	1.329	2.293	10.3	19.1
8 19	22 3.15	-20 31.2	2.085	3.091	2.6	18.1	8 19	22 3.44	+ 4 1.6	1.273	2.261	7.5	18.8
8 29	21 54.69	-20 48.6	2.107	3.095	4.6	18.3	8 29	21 53.54	+ 4 5.0	1.242	2.229	7.3	18.7
9 8	21 46.97	-20 55.3	2.156	3.100	7.8	18.5	9 8	21 44.12	+ 3 51.3	1.234	2.198	10.2	18.8
9 18	21 40.72	-20 50.2	2.229	3.105	10.8	18.7	9 18	21 36.44	+ 3 25.6	1.249	2.168	14.2	19.0
9 28	21 36.45	-20 33.4	2.325	3.109	13.3	18.9	9 28	21 31.54	+ 2 54.8	1.284	2.139	18.2	19.1
142292	2002 <i>RF</i> ₁₄₂		8 21.1 194°63	3°5/23.9	18		205096	1999 <i>TX</i> ₁₇₂		8 21.1 316°85	1°5/22.1	18	
7 20	22 24.52	- 0 44.5	1.672	2.530	15.3	20.7	7 20	22 20.46	- 6 9.9	1.412	2.304	15.5	20.3
7 30	22 19.22	- 1 0.3	1.600	2.529	11.7	20.5	7 30	22 16.90	- 6 37.2	1.318	2.270	11.7	20.0
8 9	22 11.89	- 1 35.1	1.550	2.527	7.8	20.2	8 9	22 10.94	- 7 23.4	1.244	2.237	7.1	19.6
8 19	22 3.25	- 2 26.7	1.524	2.526	4.2	20.0	8 19	22 3.16	- 8 25.3	1.194	2.204	2.3	19.3
8 29	21 54.29	- 3 29.8	1.525	2.524	4.3	20.0	8 29	21 54.63	- 9 36.5	1.168	2.172	4.1	19.3
9 8	21 46.09	- 4 37.6	1.552	2.522	7.9	20.2	9 8	21 46.65	-10 48.3	1.167	2.140	9.5	19.5
9 18	21 39.61	- 5 43.2	1.604	2.519	11.8	20.4	9 18	21 40.47	-11 52.6	1.188	2.109	14.6	19.7
9 28	21 35.53	- 6 40.8	1.677	2.516	15.3	20.7	9 28	21 37.11	-12 42.8	1.228	2.079	19.1	19.9
307076	2002 <i>AM</i> ₅₂		8 21.1 154°20	0°9/20.1	18		74749	1999 <i>RK</i> ₁₉₅		8 21.1 84°61	7°6/		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
224171	2005 <i>QF</i> ₁₀₉		8 21.1 332°25	1.4°/21.9	18		96946	1999 <i>TT</i> ₁₆₃		8 21.1 59°36	5.9°/15.7	18	
7 20	22 21.00	- 7 37.3	1.179	2.083	17.0	20.0	7 20	22 23.77	-23 7.7	1.585	2.494	13.1	18.5
7 30	22 17.43	- 7 49.4	1.108	2.067	12.7	19.6	7 30	22 18.77	-24 50.3	1.546	2.507	9.6	18.3
8 9	22 11.23	- 8 18.9	1.056	2.051	7.6	19.3	8 9	22 11.65	-26 31.2	1.532	2.520	6.7	18.1
8 19	22 3.20	- 9 1.6	1.026	2.036	2.2	19.0	8 19	22 3.26	-28 0.5	1.542	2.532	6.1	18.1
8 29	21 54.61	- 9 50.9	1.019	2.023	4.4	19.1	8 29	21 54.75	-29 9.7	1.579	2.546	8.4	18.3
9 8	21 46.95	-10 38.4	1.035	2.010	10.0	19.3	9 8	21 47.27	-29 54.2	1.640	2.559	11.6	18.5
9 18	21 41.49	-11 17.0	1.072	1.999	15.2	19.6	9 18	21 41.75	-30 13.1	1.722	2.572	14.6	18.8
9 28	21 39.14	-11 41.5	1.127	1.989	19.7	19.8	9 28	21 38.79	-30 8.5	1.823	2.585	17.2	19.0
263394	2008 <i>DY</i> ₆		8 21.1 273°39	0.4°/21.3	18 R		278499	2007 <i>YC</i> ₁₁		8 21.1 243°67	1°1°/21.8	18	
7 20	22 27.60	-10 10.1	1.468	2.358	15.2	21.0	7 20	22 27.79	- 7 58.7	1.674	2.551	14.3	21.5
7 30	22 21.83	-10 18.8	1.391	2.344	11.1	20.8	7 30	22 21.74	- 8 11.8	1.592	2.537	10.6	21.2
8 9	22 13.58	-10 38.5	1.335	2.329	6.4	20.5	8 9	22 13.45	- 8 37.2	1.532	2.523	6.3	20.9
8 19	22 3.60	-11 5.3	1.303	2.314	1.3	20.1	8 19	22 3.62	- 9 11.4	1.498	2.508	1.7	20.6
8 29	21 53.11	-11 33.6	1.297	2.300	4.1	20.2	8 29	21 53.29	- 9 49.4	1.491	2.493	3.7	20.7
9 8	21 43.47	-11 57.8	1.317	2.285	9.3	20.5	9 8	21 43.70	-10 25.6	1.510	2.477	8.4	20.9
9 18	21 35.86	-12 13.5	1.360	2.270	14.0	20.7	9 18	21 35.88	-10 55.3	1.555	2.461	12.7	21.2
9 28	21 31.12	-12 18.0	1.423	2.255	18.0	21.0	9 28	21 30.65	-11 15.0	1.620	2.444	16.5	21.4
77607	2001 <i>KO</i> ₃₁		8 21.1 74°90	4.3°/25.1	17		77815	2001 <i>QM</i> ₁₅₇		8 21.1 177°15	1°1°/22.3	18	
7 20	22 22.02	+ 2 12.2	1.831	2.674	14.7	19.5	7 20	22 20.52	- 6 43.2	2.645	3.509	10.1	19.8
7 30	22 17.19	+ 1 58.3	1.767	2.683	11.5	19.3	7 30	22 15.74	- 6 59.5	2.571	3.509	7.4	19.6
8 9	22 10.66	+ 1 24.9	1.726	2.693	8.1	19.1	8 9	22 9.72	- 7 24.4	2.522	3.509	4.5	19.4
8 19	22 3.06	+ 0 34.0	1.708	2.703	5.0	18.9	8 19	22 2.93	- 7 55.5	2.500	3.509	1.5	19.2
8 29	21 55.29	- 0 29.9	1.718	2.713	4.6	18.9	8 29	21 55.98	- 8 29.6	2.508	3.509	2.5	19.3
9 8	21 48.27	- 1 40.2	1.754	2.722	7.3	19.1	9 8	21 49.51	- 9 3.3	2.543	3.510	5.5	19.5
9 18	21 42.76	- 2 50.6	1.815	2.732	10.6	19.3	9 18	21 44.10	- 9 33.6	2.606	3.509	8.3	19.7
9 28	21 39.36	- 3 55.0	1.899	2.742	13.6	19.6	9 28	21 40.20	- 9 57.8	2.693	3.509	10.8	19.9
511374	2014 <i>FL</i> ₆₅		8 21.1 29°41	9°9°/12.5	18		56046	1998 <i>XC</i> ₂₆		8 21.1 213°20	1°7°/19.9	18	
7 20	22 26.90	-36 4.4	1.641	2.535	13.6	20.3	7 20	22 29.76	-16 7.5	1.859	2.745	12.6	18.5
7 30	22 21.14	-37 31.0	1.609	2.542	11.4	20.2	7 30	22 22.87	-16 22.1	1.787	2.741	9.1	18.3
8 9	22 13.00	-38 42.8	1.599	2.549	10.1	20.1	8 9	22 13.92	-16 40.0	1.740	2.735	5.1	18.0
8 19	22 3.46	-39 30.7	1.613	2.557	10.3	20.1	8 19	22 3.68	-16 56.7	1.720	2.730	1.8	17.8
8 29	21 53.87	-39 49.0	1.649	2.565	11.9	20.3	8 29	21 53.18	-17 7.6	1.727	2.724	4.4	18.0
9 8	21 45.55	-39 36.4	1.708	2.574	14.1	20.4	9 8	21 43.53	-17 9.3	1.763	2.717	8.4	18.2
9 18	21 39.51	-38 55.9	1.786	2.583	16.4	20.6	9 18	21 35.65	-17 0.3	1.823	2.710	12.2	18.4
9 28	21 36.33	-37 52.5	1.880	2.592	18.4	20.8	9 28	21 30.23	-16 40.2	1.905	2.703	15.3	18.6
444752	2007 <i>RW</i> ₃₄		8 21.1 295°79	7°8°/19.6	15		385527	2004 <i>OK</i> ₁₄		8 21.1 343°98	0°0°/21.1	13 C	
7 20	22 49.02	-29 10.7	0.969	1.869	20.2	20.4	7 20	22 4.23	-11 47.0	33.062	33.933	0.9	23.0
7 30	22 38.57	-28 44.4	0.904	1.857	15.6	20.1	7 30	22 3.44	-11 51.5	32.985	33.930	0.6	23.0
8 9	22 23.48	-27 58.7	0.858	1.845	10.7	19.8	8 9	22 2.58	-11 56.4	32.935	33.927	0.4	22.9
8 19	22 5.35	-26 42.7	0.835	1.833	7.8	19.6	8 19	22 1.68	-12 1.5	32.913	33.924	0.1	22.9
8 29	21 46.86	-24 51.8	0.835	1.821	10.2	19.7	8 29	22 0.77	-12 6.7	32.920	33.921	0.2	22.9
9 8	21 30.82	-22 31.9	0.860	1.810	15.5	19.9	9 8	21 59.88	-12 11.7	32.957	33.918	0.5	22.9
9 18	21 19.14	-19 55.1	0.905	1.799	20.8	20.2	9 18	21 59.06	-12 16.3	33.022	33.915	0.8	23.0
9 28	21 12.63	-17 13.2	0.968	1.788	25.3	20.5	9 28	21 58.33	-12 20.4	33.113	33.912	1.0	23.0
189259	2004 <i>VR</i> ₇₇		8 21.1 352°77	2°1°/19.2	18		361460	2007 <i>CP</i> ₃₃		8 21.1 185°42	0°1°/21.1	18	
7 20	22 19.67	-14 48.2	1.737	2.641	12.5	19.5	7 20	22 21.84	- 9 58.7	2.661	3.532	9.8	22.1
7 30	22 15.71	-15 43.3	1.674	2.636	8.9	19.2	7 30	22 16.69	-10 30.4	2.587	3.532	7.0	21.9
8 9	22 9.92	-16 45.6	1.634	2.632	4.9	19.0	8 9	22 10.26	-11 9.1	2.539	3.532	4.0	21.7
8 19	22 2.95	-17 48.7	1.619	2.629	2.1	18.8	8 19	22 3.03	-11 51.6	2.519	3.531	0.7	21.5
8 29	21 55.74	-18 46.0	1.631	2.626	4.8	19.0	8 29	21 55.63	-12 34.2	2.529	3.530	2.6	21.6
9 8	21 49.27	-19 31.6	1.669	2.624	8.8	19.2	9 8	21 48.73	-13 13.2	2.567	3.528	5.8	21.8
9 18	21 44.39	-20 2.1	1.730	2.623	12.4	19.4	9 18	21 42.90	-13 45.8	2.632	3.526	8.7	22.0
9 28	21 41.71	-20 15.8	1.811	2.622	15.5	19.6	9 28	21 38.63	-14 9.9	2.722	3.523	11.1	22.2
278684	2008 <i>RQ</i> ₁₁₁		8 21.1 85°56	7°1°/16.2	18		28242	Mingantu		8 21.1 288°73	2°9°/23.1	18	
7 20	22 31.14	-29 21.9	1.658	2.554	13.4	20.4	7 20	22 23.83	- 3 32.8	1.547	2.420	15.4	18.5
7 30	22 23.94	-30 11.6	1.617	2.565	10.3	20.2	7 30	22 18.99	- 3 40.9	1.468	2.407	11.8	18.3
8 9	22 14.47	-30 52.3	1.599	2.575	7.8	20.1	8 9	22 11.94	- 4 6.5	1.409	2.394	7.5	18.0
8 19	22 3.73	-31 16.4	1.606	2.585	7.2	20.1	8 19	22 3.37	- 4 47.2	1.375	2.381	3.5	17.7
8 29	21 53.00	-31 18.5	1.638	2.595	9.0	20.2	8 29	21 54.31	- 5 38.1	1.366	2.367	4.1	17.7
9 8	21 43.58	-30 57.4	1.695	2.605	11.8	20.4	9 8	21 45.99	- 6 32.6	1.382	2.354	8.4	17.9
9 18	21 36.41	-30 15.1	1.774	2.615	14.7	20.7	9 18	21 39.45	- 7 24.0	1.423	2.341	12.8	18.2
9 28	21 32.06	-29 15.6	1.873	2.625	17.2	20.9	9 28	21 35.49	- 8 6.8	1.484	2.328	16.7	18.4
482761	2013 <i>GZ</i> ₄₈		8 21.1 247°76	8°9°/11.9	18		184011	Andypuckett		8 21.1 75°19	2°6°/23.2	17	
7 20	22 31.52	-40 44.4	2.366	3.227	11.2	21.1	7 20	22 23.67	- 2 44.1	1.488	2.361	16.0	20.0
7 30	22 24.05	-41 42.2	2.313	3.216	9.7	21.0	7 30	22 18.68	- 3 16.7	1.432	2.371	12.0	19.8
8 9	22 14.53	-42 25.9	2.283	3.206	8.9	20.9	8 9	22 11.63	- 4 8.7	1.396	2.381	7.5	19.6
8 19	22 3.75	-42 49.0	2.279	3.195	9.1	20.9	8 19	22 3.29	- 5 15.6	1.385	2.392	3.3	19.3
8 29	21 52.82	-42 47.2	2.299	3.183	10.3	21.0	8 29	21 54.76	- 6 30.6	1.400	2.402	3.9	19.4
9 8	21 42.89	-42 19.7	2.343	3.172	12.0	21.1	9 8	21 47.20	- 7 45.3	1.441	2.413	8.1	19.7
9 18	21 34.86	-41 28.7	2.408	3.160	13.9	21.2	9 18	21 41.51	- 8 52.8	1.506	2.424	12.3	19.9
9 28	21 29.35	-40 18.2	2.491	3.148	15.5	21.3	9 28	21 38.35	- 9 47.8	1.592	2.434	15.9	20.2
123826	2001 <i>CH</i> ₆		8 21.1 272°63	0°9°/20.3	18		272322	2005 <i>SK</i> <					

EPHEMERIDES

8 21.1

8 21.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
103863	2000 <i>DR</i> ₄₁		8 21.1	4°04'	0°9'/20.4	18	141727	2002 <i>LQ</i> ₂₂		8 21.1	5°38'	6°7'/24.7	18
7 20	22 24.67	-13 10.9	1.742	2.634	13.0	19.5	7 20	22 17.80	-1 4.8	0.828	1.738	21.7	18.6
7 30	22 19.25	-13 33.3	1.678	2.634	9.3	19.2	7 30	22 15.50	-0 9.7	0.783	1.737	17.1	18.4
8 9	22 11.90	-14 2.6	1.638	2.634	5.2	19.0	8 9	22 10.26	+0 18.2	0.753	1.738	12.0	18.1
8 19	22 3.34	-14 34.2	1.623	2.634	1.1	18.7	8 19	22 3.10	+0 17.9	0.741	1.742	7.7	17.9
8 29	21 54.57	-15 2.8	1.635	2.635	4.0	18.9	8 29	21 55.62	-0 6.7	0.748	1.748	7.3	17.9
9 8	21 46.64	-15 24.0	1.674	2.635	8.2	19.2	9 8	21 49.52	-0 46.6	0.775	1.756	11.2	18.2
9 18	21 40.42	-15 34.9	1.737	2.636	12.0	19.4	9 18	21 46.09	-1 31.7	0.820	1.767	16.1	18.5
9 28	21 36.54	-15 34.1	1.821	2.637	15.2	19.6	9 28	21 46.11	-2 12.3	0.881	1.779	20.4	18.8
224862	2007 <i>AG</i> ₇		8 21.1	216°59'	0°5'/20.6	18	318383	2004 <i>WB</i> ₁₁		8 21.1	310°48'	3°9'/18.9	18
7 20	22 25.44	-10 53.6	1.829	2.713	12.9	21.1	7 20	22 25.99	-17 47.6	1.136	2.053	16.5	20.5
7 30	22 19.83	-11 35.5	1.756	2.708	9.3	20.9	7 30	22 21.39	-18 27.6	1.063	2.031	12.0	20.2
8 9	22 12.26	-12 27.3	1.706	2.701	5.2	20.6	8 9	22 13.69	-19 14.5	1.010	2.008	7.1	19.9
8 19	22 3.42	-13 24.1	1.683	2.695	0.9	20.3	8 19	22 3.75	-19 59.4	0.979	1.987	3.9	19.6
8 29	21 54.25	-14 19.8	1.687	2.687	3.8	20.5	8 29	21 53.05	-20 32.8	0.971	1.965	7.3	19.7
9 8	21 45.79	-15 8.5	1.719	2.680	8.1	20.8	9 8	21 43.39	-20 47.2	0.985	1.945	12.7	20.0
9 18	21 38.97	-15 46.0	1.775	2.672	12.0	21.0	9 18	21 36.28	-20 39.4	1.019	1.925	17.9	20.2
9 28	21 34.44	-16 9.8	1.853	2.663	15.3	21.2	9 28	21 32.77	-20 9.9	1.070	1.906	22.3	20.4
469968	2006 <i>DK</i> ₉₉		8 21.1	298°12'	1°5'/22.8	17	10036	McGaha		8 21.1	346°43'	1°9'/22.1	18
7 20	22 19.25	-3 21.5	2.132	2.996	12.2	21.2	7 20	22 20.98	-8 37.1	1.022	1.936	18.2	16.3
7 30	22 15.28	-4 18.1	2.035	2.971	9.2	20.9	7 30	22 17.65	-8 16.8	0.959	1.922	13.6	16.0
8 9	22 9.69	-5 31.5	1.961	2.947	5.7	20.7	8 9	22 11.48	-8 11.3	0.913	1.910	8.2	15.7
8 19	22 2.97	-6 58.3	1.914	2.922	2.2	20.4	8 19	22 3.34	-8 17.9	0.889	1.899	2.7	15.3
8 29	21 55.85	-8 32.9	1.895	2.898	3.0	20.4	8 29	21 54.67	-8 31.5	0.886	1.890	4.7	15.4
9 8	21 49.14	-10 8.2	1.905	2.874	6.8	20.6	9 8	21 47.13	-8 45.6	0.904	1.883	10.5	15.7
9 18	21 43.62	-11 37.6	1.941	2.849	10.5	20.8	9 18	21 42.07	-8 54.7	0.942	1.878	15.9	16.0
9 28	21 39.95	-12 55.6	2.000	2.825	13.8	20.9	9 28	21 40.38	-8 54.1	0.998	1.874	20.5	16.3
467932	2012 <i>BS</i> ₆₉		8 21.1	82°75'	0°1'/21.1	17	19947	1981 <i>EE</i> ₃₉		8 21.1	322°31'	1°1'/22.2	18
7 20	22 29.88	-10 32.8	1.382	2.272	15.9	21.0	7 20	22 20.26	-5 57.6	2.019	2.892	12.3	19.1
7 30	22 23.10	-10 50.0	1.339	2.292	11.4	20.8	7 30	22 15.94	-6 34.5	1.944	2.887	9.1	18.9
8 9	22 14.05	-11 17.6	1.317	2.312	6.4	20.6	8 9	22 10.01	-7 24.4	1.893	2.882	5.4	18.6
8 19	22 3.70	-11 50.2	1.320	2.332	1.1	20.3	8 19	22 3.05	-8 23.5	1.868	2.877	1.7	18.4
8 29	21 53.37	-12 21.8	1.350	2.352	4.1	20.6	8 29	21 55.82	-9 26.9	1.870	2.873	3.0	18.5
9 8	21 44.35	-12 47.0	1.405	2.371	9.0	20.9	9 8	21 49.20	-10 28.6	1.900	2.869	6.8	18.7
9 18	21 37.59	-13 2.3	1.483	2.390	13.2	21.2	9 18	21 43.90	-11 23.7	1.955	2.864	10.4	18.9
9 28	21 33.69	-13 6.0	1.582	2.409	16.7	21.5	9 28	21 40.53	-12 8.3	2.034	2.860	13.5	19.1
291352	2006 <i>BP</i> ₂₄₉		8 21.1	287°37'	0°8'/20.2	18	515236	2012 <i>BC</i> ₁₃₇		8 21.1	173°90'	0°1'/21.2	18
7 20	22 19.83	-11 2.8	2.276	3.161	10.7	20.1	7 20	22 21.59	-9 55.4	2.644	3.517	9.8	22.5
7 30	22 15.48	-12 3.6	2.205	3.157	7.6	19.9	7 30	22 16.52	-10 23.9	2.573	3.518	7.1	22.3
8 9	22 9.68	-13 13.0	2.159	3.154	4.2	19.6	8 9	22 10.19	-10 59.2	2.527	3.520	4.0	22.1
8 19	22 2.95	-14 26.4	2.140	3.151	0.9	19.4	8 19	22 3.07	-11 38.4	2.509	3.521	0.7	21.9
8 29	21 56.00	-15 38.0	2.149	3.148	3.3	19.6	8 29	21 55.79	-12 17.8	2.521	3.522	2.6	22.0
9 8	21 49.59	-16 42.6	2.187	3.145	6.8	19.8	9 8	21 49.02	-12 53.8	2.560	3.522	5.7	22.2
9 18	21 44.38	-17 36.2	2.251	3.141	10.0	20.0	9 18	21 43.33	-13 23.7	2.627	3.522	8.6	22.4
9 28	21 40.91	-18 16.4	2.337	3.138	12.8	20.2	9 28	21 39.19	-13 45.4	2.718	3.522	11.1	22.6
244409	2002 <i>PP</i> ₁₇₁		8 21.1	249°87'	1°7'/19.5	18	158731	2003 <i>MS</i> ₈		8 21.1	36°76'	2°3'/22.8	17
7 20	22 23.22	-14 13.1	1.961	2.853	11.8	21.0	7 20	22 22.28	-4 2.9	1.187	2.079	17.8	18.7
7 30	22 18.15	-15 5.5	1.889	2.845	8.4	20.7	7 30	22 17.86	-4 35.6	1.151	2.102	13.2	18.5
8 9	22 11.29	-16 5.0	1.840	2.837	4.7	20.5	8 9	22 11.19	-5 28.6	1.135	2.125	8.0	18.3
8 19	22 3.25	-17 6.1	1.819	2.828	1.7	20.3	8 19	22 3.24	-6 35.8	1.141	2.150	3.1	18.1
8 29	21 54.91	-18 2.5	1.825	2.820	4.4	20.4	8 29	21 55.30	-7 48.7	1.172	2.175	4.1	18.2
9 8	21 47.22	-18 49.0	1.858	2.811	8.2	20.7	9 8	21 48.62	-8 58.0	1.227	2.202	8.8	18.6
9 18	21 41.02	-19 22.0	1.915	2.802	11.7	20.9	9 18	21 44.13	-9 56.8	1.304	2.228	13.2	18.9
9 28	21 36.95	-19 39.9	1.995	2.793	14.7	21.1	9 28	21 42.37	-10 40.5	1.401	2.256	16.9	19.2
3657	<i>Ermolova</i>		8 21.1	352°60'	5°8'/24.8	18	507295	2011 <i>KJ</i> ₁₁		8 21.1	103°59'	7°2'/15.0	17
7 20	22 21.75	+0 41.4	1.143	2.023	19.3	15.5	7 20	22 29.69	-30 8.2	1.843	2.736	12.4	21.3
7 30	22 17.92	+1 0.8	1.081	2.018	15.2	15.2	7 30	22 22.77	-31 23.0	1.810	2.754	9.6	21.1
8 9	22 11.49	+0 54.7	1.036	2.014	10.7	15.0	8 9	22 13.80	-32 28.7	1.802	2.772	7.6	21.0
8 19	22 3.31	+0 23.5	1.012	2.011	6.7	14.7	8 19	22 3.69	-33 17.5	1.819	2.789	7.3	21.1
8 29	21 54.70	-0 28.0	1.011	2.009	6.3	14.7	8 29	21 53.59	-33 43.9	1.862	2.806	9.0	21.2
9 8	21 47.12	-1 31.4	1.032	2.008	10.0	14.9	9 8	21 44.66	-33 46.1	1.930	2.822	11.5	21.4
9 18	21 41.80	-2 37.1	1.074	2.007	14.6	15.2	9 18	21 37.75	-33 25.9	2.019	2.838	14.0	21.6
9 28	21 39.57	-3 36.3	1.135	2.008	18.8	15.4	9 28	21 33.42	-32 46.5	2.128	2.854	16.1	21.8
7756	<i>Scientia</i>		8 21.1	6°19'	4°8'/15.6	18	398910	2013 <i>CO</i> ₁₄₅		8 21.1	25°62'	0°9'/20.1	18
7 20	22 21.38	-23 42.0	2.217	3.117	10.3	17.5	7 20	22 20.14	-10 38.7	1.902	2.792	12.2	20.4
7 30	22 16.70	-25 9.6	2.162	3.117	7.6	17.3	7 30	22 15.91	-11 50.4	1.840	2.795	8.7	20.1
8 9	22 10.41	-26 36.4	2.132	3.117	5.3	17.1	8 9	22 10.01	-13 12.8	1.802	2.798	4.8	19.9
8 19	22 3.09	-27 55.4	2.130	3.117	4.9	17.1	8 19	22 3.05	-14 39.5	1.790	2.801	1.1	19.7
8 29	21 55.56	-29 0.5	2.155	3.117	6.8	17.2	8 29	21 55.88	-16 3.6	1.806	2.805	3.9	19.9
9 8	21 48.67	-29 47.6	2.206	3.118	9.4	17.4	9 8	21 49.39	-17 18.2	1.850	2.808	7.8	20.1
9 18	21 43.16	-30 14.9	2.281	3.118	12.0	17.6	9 18	21 44.34	-18 18.8	1.918	2.812	11.3	20.4
9 28	21 39.59	-30 22.9	2.376	3.118	14.2	17.8	9 28	21 41.31	-19 2.7	2.008	2.816	14.3	20.6
23175	2000 <i>HL</i> ₈₇		8 21.1	339°56'	6°2'/16.9	18	27532	2000 <i>HL</i> ₆₆		8 21.1	348°81'	5°7'/25.6	18
7 20	22 25.29	-23											

EPHEMERIDES

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8 21.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
356195	2009 <i>MD</i> ₁₀		8 21.1	58°92	2°8/23.2	18	229502	2005 <i>VS</i> ₈₀		8 21.1	323°50	5°3/17.1	18
7 20	22 27.67	- 4 33.1	1.963	2.821	13.3	20.0	7 20	22 22.82	-20 23.0	1.306	2.223	14.7	19.9
7 30	22 21.02	- 4 5.0	1.912	2.843	10.0	19.8	7 30	22 18.71	-21 41.8	1.242	2.209	10.7	19.7
8 9	22 12.73	- 3 48.3	1.885	2.865	6.4	19.7	8 9	22 11.99	-23 5.0	1.200	2.195	6.9	19.4
8 19	22 3.52	- 3 41.5	1.883	2.887	3.3	19.5	8 19	22 3.49	-24 22.6	1.182	2.182	5.5	19.3
8 29	21 54.31	- 3 42.4	1.910	2.909	3.7	19.6	8 29	21 54.52	-25 24.0	1.187	2.170	8.3	19.4
9 8	21 45.98	- 3 47.6	1.965	2.931	6.8	19.8	9 8	21 46.53	-26 1.9	1.215	2.158	12.6	19.6
9 18	21 39.27	- 3 54.1	2.045	2.953	10.0	20.1	9 18	21 40.75	-26 13.6	1.264	2.147	16.8	19.9
9 28	21 34.68	- 3 58.7	2.149	2.976	12.9	20.3	9 28	21 38.04	-25 59.9	1.330	2.136	20.3	20.1
197598	2004 <i>HR</i> ₆₂		8 21.1	357°05	0°8/21.5	18	237064	2008 <i>SA</i> ₂₀₂		8 21.1	199°09	5°9/16.2	18
7 20	22 21.78	- 9 7.3	0.895	1.815	19.4	19.0	7 20	22 29.54	-27 59.3	2.024	2.914	11.6	21.0
7 30	22 18.40	- 9 18.2	0.843	1.811	14.3	18.7	7 30	22 22.69	-28 50.1	1.966	2.912	8.8	20.8
8 9	22 11.95	- 9 47.3	0.809	1.807	8.3	18.4	8 9	22 13.85	-29 35.0	1.932	2.910	6.5	20.6
8 19	22 3.45	-10 29.0	0.794	1.805	1.9	18.0	8 19	22 3.79	-30 7.5	1.925	2.907	6.0	20.6
8 29	21 54.53	-11 14.4	0.800	1.805	5.0	18.2	8 29	21 53.56	-30 22.2	1.945	2.903	7.7	20.7
9 8	21 46.99	-11 54.0	0.827	1.805	11.3	18.6	9 8	21 44.24	-30 17.0	1.991	2.900	10.4	20.9
9 18	21 42.22	-12 20.9	0.873	1.808	16.9	18.9	9 18	21 36.73	-29 52.3	2.060	2.895	13.1	21.0
9 28	21 41.06	-12 30.8	0.936	1.811	21.6	19.2	9 28	21 31.64	-29 10.4	2.150	2.891	15.5	21.2
236870	2007 <i>RB</i> ₂₄₂		8 21.1	37°54	5°1/25.9	16	182828	2002 <i>BJ</i> ₃		8 21.1	159°31	4°1/17.3	18
7 20	22 19.90	+ 4 30.6	1.448	2.299	17.5	19.9	7 20	22 25.63	-23 51.9	2.257	3.150	10.4	20.0
7 30	22 16.01	+ 3 56.5	1.394	2.313	13.8	19.7	7 30	22 19.65	-24 33.3	2.199	3.152	7.7	19.9
8 9	22 10.15	+ 2 55.2	1.360	2.327	9.8	19.5	8 9	22 12.05	-25 12.3	2.167	3.153	5.1	19.7
8 19	22 3.09	+ 1 30.2	1.348	2.342	6.2	19.4	8 19	22 3.47	-25 43.8	2.161	3.155	4.2	19.6
8 29	21 55.87	- 0 11.4	1.362	2.358	5.4	19.4	8 29	21 54.76	-26 3.2	2.183	3.156	5.9	19.8
9 8	21 49.58	- 1 59.5	1.401	2.374	8.2	19.6	9 8	21 46.80	-26 8.1	2.232	3.158	8.6	19.9
9 18	21 45.09	- 3 44.3	1.464	2.391	11.9	19.8	9 18	21 40.31	-25 57.9	2.306	3.159	11.3	20.1
9 28	21 42.99	- 5 17.5	1.549	2.408	15.4	20.1	9 28	21 35.84	-25 33.6	2.401	3.160	13.6	20.3
278323	2007 <i>HU</i> ₄₇		8 21.1	67°71	4°7/17.5	17	417913	2007 <i>RC</i> ₁₅₈		8 21.1	23°04	4°6/18.9	17
7 20	22 26.35	-21 20.0	1.557	2.463	13.5	20.6	7 20	22 28.29	-19 59.5	0.978	1.901	17.9	20.0
7 30	22 20.64	-22 22.3	1.512	2.472	9.8	20.4	7 30	22 22.84	-20 27.0	0.937	1.907	12.9	19.7
8 9	22 12.74	-23 24.3	1.489	2.481	6.2	20.2	8 9	22 14.28	-20 55.2	0.916	1.914	7.7	19.5
8 19	22 3.55	-24 18.0	1.491	2.491	4.7	20.2	8 19	22 3.87	-21 15.1	0.916	1.922	4.6	19.3
8 29	21 54.24	-24 56.5	1.519	2.500	7.1	20.3	8 29	21 53.40	-21 18.8	0.938	1.932	7.7	19.5
9 8	21 46.04	-25 15.5	1.572	2.509	10.7	20.6	9 8	21 44.65	-21 2.7	0.982	1.942	12.7	19.9
9 18	21 39.88	-25 14.3	1.648	2.519	14.1	20.8	9 18	21 38.86	-20 27.3	1.045	1.953	17.4	20.2
9 28	21 36.37	-24 54.4	1.742	2.529	17.0	21.0	9 28	21 36.68	-19 35.2	1.125	1.964	21.2	20.5
513299	2007 <i>BW</i> ₇₉		8 21.1	164°88	1°3/19.6	18	151459	2002 <i>GS</i> ₁₀₉		8 21.1	135°04	7°6/11.5	18
7 20	22 21.06	-13 9.5	2.376	3.262	10.3	21.6	7 20	22 27.91	-39 51.9	2.782	3.643	9.7	20.6
7 30	22 16.31	-14 10.2	2.310	3.264	7.3	21.4	7 30	22 21.18	-41 2.5	2.752	3.655	8.4	20.5
8 9	22 10.15	-15 17.3	2.270	3.265	4.0	21.2	8 9	22 12.86	-42 0.8	2.746	3.667	7.7	20.5
8 19	22 3.11	-16 26.0	2.257	3.267	1.3	21.0	8 19	22 3.60	-42 41.7	2.767	3.678	7.9	20.5
8 29	21 55.88	-17 31.0	2.273	3.269	3.6	21.2	8 29	21 54.29	-43 1.5	2.813	3.689	8.9	20.6
9 8	21 49.20	-18 27.6	2.318	3.270	6.9	21.4	9 8	21 45.80	-42 59.6	2.883	3.700	10.4	20.7
9 18	21 43.72	-19 12.5	2.388	3.271	9.9	21.6	9 18	21 38.84	-42 37.4	2.975	3.710	11.8	20.8
9 28	21 39.94	-19 44.0	2.481	3.272	12.4	21.8	9 28	21 33.92	-41 57.6	3.085	3.720	13.1	21.0
426801	2013 <i>TA</i> ₁₃₅		8 21.1	355°35	3°2/19.2	15	307212	2002 <i>GN</i> ₄₃		8 21.1	122°32	0°4/21.4	17
7 20	22 21.03	-16 12.6	0.991	1.919	17.3	20.1	7 20	22 26.30	- 9 18.9	2.001	2.875	12.4	21.2
7 30	22 17.72	-16 50.3	0.939	1.912	12.4	19.8	7 30	22 20.15	- 9 41.7	1.944	2.889	9.0	21.1
8 9	22 11.51	-17 36.0	0.906	1.907	7.1	19.5	8 9	22 12.33	-10 13.3	1.911	2.903	5.1	20.8
8 19	22 3.39	-18 21.1	0.894	1.903	3.2	19.3	8 19	22 3.52	-10 49.9	1.904	2.916	1.1	20.6
8 29	21 54.91	-18 56.0	0.903	1.901	6.8	19.5	8 29	21 54.61	-11 27.0	1.927	2.928	3.1	20.8
9 8	21 47.75	-19 13.3	0.934	1.901	12.2	19.8	9 8	21 46.51	-12 0.2	1.976	2.940	7.0	21.0
9 18	21 43.20	-19 10.2	0.984	1.902	17.2	20.1	9 18	21 39.95	-12 26.1	2.052	2.952	10.4	21.3
9 28	21 42.04	-18 46.4	1.050	1.905	21.3	20.3	9 28	21 35.48	-12 42.7	2.151	2.963	13.3	21.5
209989	2006 <i>HU</i> ₉₀		8 21.1	295°96	1°5/22.2	17	186961	2004 <i>RN</i> ₁₀₇		8 21.1	350°15	1°1/22.1	18
7 20	22 23.86	- 5 41.8	1.287	2.177	16.8	20.8	7 20	22 19.75	- 6 40.9	1.773	2.656	13.3	20.1
7 30	22 19.32	- 6 18.1	1.219	2.171	12.5	20.6	7 30	22 15.77	- 7 12.1	1.703	2.651	9.8	19.9
8 9	22 12.28	- 7 14.4	1.172	2.164	7.5	20.3	8 9	22 10.03	- 7 56.9	1.655	2.646	5.8	19.7
8 19	22 3.53	- 8 25.6	1.147	2.157	2.3	19.9	8 19	22 3.14	- 8 51.4	1.633	2.643	1.7	19.4
8 29	21 54.31	- 9 43.5	1.147	2.151	4.2	20.0	8 29	21 55.98	- 9 49.9	1.637	2.640	3.3	19.5
9 8	21 46.04	-10 58.5	1.172	2.144	9.5	20.3	9 8	21 49.51	-10 46.3	1.667	2.637	7.4	19.8
9 18	21 39.90	-12 2.6	1.219	2.138	14.4	20.6	9 18	21 44.53	-11 35.3	1.722	2.635	11.3	20.0
9 28	21 36.71	-12 50.5	1.285	2.132	18.6	20.8	9 28	21 41.68	-12 13.0	1.798	2.634	14.6	20.2
274812	2009 <i>BP</i> ₆		8 21.1	249°54	0°6/20.5	18	399235	2014 <i>HY</i> ₁		8 21.1	61°45	1°8/19.3	18
7 20	22 22.30	- 9 56.7	2.046	2.928	11.9	20.9	7 20	22 21.46	-13 8.1	1.899	2.792	12.1	20.4
7 30	22 17.50	-11 1.5	1.964	2.915	8.5	20.7	7 30	22 16.79	-14 25.6	1.852	2.809	8.5	20.3
8 9	22 10.98	-12 17.8	1.907	2.901	4.8	20.4	8 9	22 10.49	-15 50.3	1.829	2.826	4.7	20.1
8 19	22 3.28	-13 40.5	1.876	2.888	0.9	20.1	8 19	22 3.22	-17 15.4	1.833	2.843	1.8	19.9
8 29	21 55.22	-15 2.9	1.874	2.874	3.6	20.3	8 29	21 55.84	-18 33.9	1.865	2.860	4.4	20.1
9 8	21 47.69	-16 18.4	1.900	2.859	7.6	20.5	9 8	21 49.24	-19 40.0	1.925	2.877	8.0	20.4
9 18	21 41.52	-17 21.8	1.952	2.845	11.2	20.7	9 18	21 44.14	-20 30.2	2.009	2.894	11.3	20.6
9 28	21 37.36	-18 10.1	2.026	2.830	14.4	20.9	9 28	21 41.08	-21 3.0	2.114	2.911	14.1	20.8
281330	2007 <i>TO</i> ₂₄₄		8 21.1	276°79	7°2/27.5	18	52829	1998 <i>RP</i>					

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
261159	2005 <i>TK</i> ₉₆		8 21.1 272°11	4.8/25.9	18		11712	Kemcook		8 21.1 273°76	2°0/19.5	18	
7 20	22 20.81	+ 4 29.5	2.228	3.050	13.2	20.7	7 20	22 24.64	-14 58.4	1.746	2.642	12.8	18.1
7 30	22 16.29	+ 4 26.9	2.142	3.041	10.6	20.5	7 30	22 19.43	-15 42.9	1.674	2.632	9.2	17.8
8 9	22 10.25	+ 4 6.5	2.077	3.032	7.8	20.4	8 9	22 12.19	-16 34.0	1.626	2.623	5.2	17.6
8 19	22 3.20	+ 3 29.0	2.038	3.022	5.4	20.2	8 19	22 3.61	-17 26.1	1.604	2.613	2.0	17.4
8 29	21 55.85	+ 2 37.1	2.026	3.013	4.9	20.1	8 29	21 54.68	-18 12.6	1.608	2.604	4.8	17.5
9 8	21 49.00	+ 1 35.5	2.040	3.004	6.8	20.2	9 8	21 46.51	-18 48.1	1.639	2.594	8.9	17.7
9 18	21 43.34	+ 0 29.6	2.081	2.995	9.6	20.4	9 18	21 40.04	-19 9.3	1.694	2.585	12.8	18.0
9 28	21 39.47	- 0 34.9	2.146	2.985	12.4	20.6	9 28	21 35.95	-19 14.9	1.769	2.575	16.0	18.2
221849	2008 <i>FQ</i> ₁₀₉		8 21.1 43°73	3°1/24.4	16		47831	2000 <i>ED</i> ₁₁₂		8 21.1 226°36	5°2/26.4	18	
7 20	22 19.67	+ 0 28.2	1.881	2.734	14.0	20.9	7 20	22 22.19	+ 5 55.5	2.196	3.008	13.6	19.5
7 30	22 15.53	- 0 13.2	1.821	2.747	10.7	20.7	7 30	22 17.32	+ 5 50.4	2.110	3.001	11.1	19.3
8 9	22 9.80	- 1 13.2	1.783	2.759	7.1	20.5	8 9	22 10.87	+ 5 26.1	2.046	2.994	8.3	19.1
8 19	22 3.11	- 2 28.3	1.771	2.772	3.8	20.3	8 19	22 3.37	+ 4 43.3	2.006	2.986	5.9	19.0
8 29	21 56.27	- 3 52.7	1.785	2.785	3.7	20.3	8 29	21 55.56	+ 3 44.5	1.994	2.978	5.3	18.9
9 8	21 50.14	- 5 19.3	1.827	2.799	6.7	20.5	9 8	21 48.27	+ 2 34.9	2.009	2.970	7.1	19.0
9 18	21 45.42	- 6 41.3	1.894	2.812	10.2	20.8	9 18	21 42.22	+ 1 20.4	2.050	2.961	9.8	19.2
9 28	21 42.66	- 7 53.4	1.985	2.826	13.2	21.0	9 28	21 38.02	+ 0 7.2	2.115	2.952	12.6	19.3
342391	2008 <i>UG</i> ₄₁		8 21.1 316°61	6°4/16.6	18		457719	2009 <i>FT</i> ₅₅		8 21.1 118°58	13°0/9.3	16	
7 20	22 25.66	-24 36.0	1.432	2.344	14.1	20.1	7 20	22 36.28	-43 38.5	1.624	2.490	15.2	21.1
7 30	22 20.69	-25 35.7	1.364	2.325	10.6	19.9	7 30	22 28.32	-45 47.6	1.611	2.507	13.6	21.0
8 9	22 13.11	-26 33.8	1.318	2.307	7.4	19.7	8 9	22 17.32	-47 32.4	1.619	2.524	13.0	21.0
8 19	22 3.75	-27 21.0	1.295	2.289	6.5	19.6	8 19	22 4.52	-48 42.2	1.650	2.540	13.5	21.1
8 29	21 53.90	-27 49.0	1.297	2.271	8.9	19.6	8 29	21 51.70	-49 11.3	1.703	2.555	14.9	21.2
9 8	21 45.04	-27 52.8	1.322	2.254	12.7	19.8	9 8	21 40.61	-49 0.8	1.775	2.570	16.7	21.4
9 18	21 38.37	-27 31.6	1.368	2.238	16.5	20.0	9 18	21 32.49	-48 16.4	1.865	2.585	18.4	21.6
9 28	21 34.75	-26 47.8	1.431	2.223	19.8	20.2	9 28	21 27.98	-47 5.8	1.968	2.598	19.8	21.7
283867	2003 <i>WC</i> ₁₀₄		8 21.1 293°73	3°9/17.8	18		212390	2006 <i>HD</i> ₁₁₁		8 21.1 130°52	1°4/22.1	17	
7 20	22 24.13	-19 25.8	1.734	2.637	12.5	19.8	7 20	22 27.87	- 6 50.2	1.458	2.339	15.8	20.9
7 30	22 19.21	-20 26.6	1.657	2.617	9.1	19.6	7 30	22 21.87	- 7 10.8	1.399	2.346	11.6	20.7
8 9	22 12.13	-21 31.3	1.602	2.597	5.6	19.3	8 9	22 13.58	- 7 46.3	1.362	2.353	6.9	20.4
8 19	22 3.58	-22 32.9	1.574	2.577	3.9	19.2	8 19	22 3.87	- 8 32.1	1.350	2.360	2.1	20.2
8 29	21 54.56	-23 23.9	1.572	2.557	6.4	19.3	8 29	21 53.94	- 9 22.0	1.363	2.366	3.8	20.3
9 8	21 46.23	-23 58.4	1.595	2.537	10.2	19.5	9 8	21 45.04	-10 9.1	1.403	2.372	8.6	20.6
9 18	21 39.63	-24 13.7	1.642	2.517	14.0	19.7	9 18	21 38.19	-10 48.1	1.466	2.378	13.0	20.9
9 28	21 35.51	-24 9.5	1.708	2.497	17.2	19.9	9 28	21 34.09	-11 15.3	1.550	2.383	16.7	21.1
387988	2005 <i>QM</i> ₄₀		8 21.1 340°24	4°2/23.6	18		349227	2007 <i>TW</i> ₂₅		8 21.1 273°73	2°6/23.5	18	
7 20	22 18.58	- 3 22.3	1.040	1.943	18.9	19.7	7 20	22 22.44	- 2 29.1	1.866	2.728	13.7	21.1
7 30	22 15.98	- 3 4.7	0.970	1.924	14.6	19.4	7 30	22 17.66	- 2 48.8	1.793	2.725	10.4	20.9
8 9	22 10.64	- 3 9.3	0.918	1.907	9.7	19.1	8 9	22 11.12	- 3 24.4	1.742	2.723	6.7	20.7
8 19	22 3.34	- 3 35.2	0.886	1.891	5.1	18.7	8 19	22 3.43	- 4 13.2	1.716	2.721	3.3	20.5
8 29	21 55.41	- 4 17.6	0.875	1.877	5.4	18.7	8 29	21 55.47	- 5 10.7	1.717	2.718	3.6	20.5
9 8	21 48.42	- 5 8.1	0.885	1.865	10.4	18.9	9 8	21 48.17	- 6 10.8	1.746	2.716	7.1	20.7
9 18	21 43.76	- 5 57.6	0.915	1.855	15.7	19.2	9 18	21 42.34	- 7 7.9	1.799	2.714	10.8	20.9
9 28	21 42.40	- 6 38.1	0.962	1.846	20.4	19.5	9 28	21 38.62	- 7 57.0	1.875	2.711	14.1	21.1
361975	2008 <i>KP</i> ₁₅		8 21.1 53°32	1°3/19.7	18		423437	2005 <i>QA</i> ₁₉₀		8 21.1 45°95	4°0/18.7	17	
7 20	22 20.59	-12 20.3	2.015	2.906	11.6	20.4	7 20	22 28.13	-19 31.7	1.332	2.241	15.1	20.5
7 30	22 16.14	-13 27.7	1.962	2.918	8.2	20.3	7 30	22 22.18	-20 11.2	1.287	2.250	10.9	20.3
8 9	22 10.13	-14 42.8	1.932	2.929	4.5	20.1	8 9	22 13.77	-20 51.9	1.263	2.259	6.5	20.1
8 19	22 3.19	-15 59.7	1.930	2.941	1.4	19.9	8 19	22 3.90	-21 26.2	1.264	2.269	4.0	20.0
8 29	21 56.10	-17 12.2	1.956	2.952	3.9	20.1	8 29	21 53.95	-21 47.1	1.289	2.279	6.7	20.1
9 8	21 49.71	-18 14.7	2.009	2.964	7.5	20.3	9 8	21 45.30	-21 50.5	1.339	2.290	10.9	20.4
9 18	21 44.71	-19 3.4	2.087	2.977	10.8	20.5	9 18	21 39.00	-21 36.1	1.410	2.300	14.9	20.7
9 28	21 41.63	-19 36.7	2.187	2.989	13.5	20.8	9 28	21 35.68	-21 5.0	1.500	2.311	18.2	20.9
137735	1999 <i>XF</i> ₁₂₄		8 21.1 228°27	0°3/20.9	18		68065	2000 <i>YG</i> ₆₈		8 21.2 231°83	0°2/20.9	18	
7 20	22 28.04	-11 16.6	1.839	2.720	13.0	20.2	7 20	22 24.16	- 9 57.2	2.221	3.096	11.3	19.9
7 30	22 21.80	-11 40.8	1.760	2.709	9.5	19.9	7 30	22 18.76	-10 38.9	2.136	3.083	8.2	19.7
8 9	22 13.51	-12 13.7	1.704	2.698	5.3	19.7	8 9	22 11.71	-11 30.1	2.077	3.070	4.6	19.4
8 19	22 3.83	-12 51.1	1.675	2.686	0.9	19.3	8 19	22 3.55	-12 26.6	2.045	3.056	0.8	19.1
8 29	21 53.77	-13 27.7	1.673	2.674	3.7	19.5	8 29	21 55.06	-13 23.4	2.042	3.042	3.2	19.3
9 8	21 44.41	-13 58.6	1.699	2.661	8.1	19.7	9 8	21 47.09	-14 15.5	2.067	3.027	7.0	19.5
9 18	21 36.71	-14 20.1	1.750	2.647	12.1	20.0	9 18	21 40.41	-14 58.8	2.118	3.012	10.4	19.7
9 28	21 31.41	-14 30.2	1.823	2.633	15.5	20.2	9 28	21 35.63	-15 30.6	2.193	2.996	13.4	19.9
16468	1990 <i>HW</i> ₁		8 21.1 250°24	1°9/19.2	18		448437	2009 <i>WS</i> ₈₆		8 21.2 303°25	4°6/16.4	18	
7 20	22 22.32	-12 9.6	1.738	2.633	13.0	17.8	7 20	22 23.40	-25 33.5	2.383	3.277	9.9	21.2
7 30	22 17.76	-13 40.6	1.669	2.627	9.2	17.5	7 30	22 18.10	-26 22.0	2.321	3.273	7.4	21.0
8 9	22 11.25	-15 23.4	1.625	2.622	5.1	17.3	8 9	22 11.26	-27 7.5	2.285	3.268	5.2	20.9
8 19	22 3.43	-17 10.3	1.606	2.616	1.9	17.0	8 19	22 3.46	-27 44.8	2.276	3.263	4.6	20.9
8 29	21 55.26	-18 52.2	1.616	2.610	4.9	17.2	8 29	21 55.48	-28 9.4	2.294	3.259	6.2	21.0
9 8	21 47.78	-20 20.9	1.652	2.605	9.1	17.5	9 8	21 48.16	-28 18.7	2.338	3.254	8.7	21.1
9 18	21 41.91	-21 30.9	1.713	2.599	12.9	17.7	9 18	21 42.18	-28 12.1	2.407	3.250	11.2	21.3
9 28	21 38.35	-22 19.6	1.795	2.593	16.1	17.9	9 28	21 38.09	-27 50.3	2.496	3.246	13.4	21.4
76995	2001 <i>BQ</i> ₇₅		8 21.1 41°57	0°8/21.5	18		389041	2008 <i>UE</i> ₃₆₄					

EPHEMERIDES

8 21.2

8 21.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
480091	2015 <i>EE</i> ₁₄		8 21.2 58°44'	1°0'/20.5	16		481746	2008 <i>GX</i> ₁₃₂		8 21.2 55°37'	1°9'/19.1	18	
7 20	22 28.68	-12 52.3	1.387	2.284	15.4	21.2	7 20	22 21.01	-14 31.4	2.114	3.007	11.0	20.7
7 30	22 22.23	-13 17.4	1.353	2.311	11.0	21.0	7 30	22 16.48	-15 37.6	2.054	3.011	7.8	20.5
8 9	22 13.62	-13 50.0	1.341	2.338	6.0	20.8	8 9	22 10.40	-16 49.9	2.019	3.016	4.4	20.3
8 19	22 3.86	-14 24.3	1.353	2.365	1.3	20.5	8 19	22 3.36	-18 2.5	2.012	3.020	1.9	20.1
8 29	21 54.22	-14 54.0	1.392	2.392	4.4	20.8	8 29	21 56.13	-19 9.3	2.032	3.025	4.3	20.3
9 8	21 45.91	-15 14.4	1.455	2.419	9.0	21.1	9 8	21 49.54	-20 5.4	2.079	3.029	7.7	20.5
9 18	21 39.81	-15 23.1	1.542	2.446	13.0	21.4	9 18	21 44.29	-20 47.3	2.152	3.034	10.8	20.8
9 28	21 36.43	-15 19.2	1.650	2.473	16.2	21.7	9 28	21 40.93	-21 13.8	2.247	3.039	13.5	21.0
3937	Bretagnon		8 21.2 214°77'	2°2'/19.2	18		520092	2013 <i>YQ</i> ₁₅₃		8 21.2 183°41'	2°3'/19.0	18	
7 20	22 24.87	-17 51.1	2.246	3.135	10.6	16.6	7 20	22 25.07	-15 57.2	2.055	2.945	11.4	21.8
7 30	22 19.14	-18 17.0	2.180	3.134	7.6	16.4	7 30	22 19.46	-16 54.5	1.990	2.946	8.1	21.6
8 9	22 11.84	-18 44.7	2.138	3.133	4.4	16.2	8 9	22 12.12	-17 56.8	1.950	2.946	4.6	21.4
8 19	22 3.57	-19 10.1	2.124	3.132	2.2	16.1	8 19	22 3.67	-18 58.2	1.938	2.945	2.3	21.2
8 29	21 55.13	-19 29.1	2.139	3.130	4.2	16.2	8 29	21 55.00	-19 52.8	1.953	2.944	4.6	21.4
9 8	21 47.36	-19 38.7	2.180	3.129	7.5	16.4	9 8	21 47.02	-20 35.9	1.996	2.943	8.1	21.6
9 18	21 40.98	-19 37.4	2.248	3.127	10.5	16.6	9 18	21 40.52	-21 4.6	2.064	2.941	11.4	21.8
9 28	21 36.53	-19 24.7	2.337	3.126	13.1	16.8	9 28	21 36.11	-21 18.0	2.153	2.939	14.2	22.0
358449	2007 <i>EM</i> ₃₆		8 21.2 185°33'	6°4'/14.7	18	R	260011	2004 <i>FO</i> ₁₃₀		8 21.2 85°95'	2°2'/18.9	18	
7 20	22 27.11	-32 26.1	2.423	3.306	10.2	20.5	7 20	22 22.75	-15 19.3	1.987	2.881	11.6	20.5
7 30	22 20.76	-33 17.4	2.371	3.306	8.1	20.3	7 30	22 17.76	-16 26.2	1.935	2.892	8.2	20.3
8 9	22 12.74	-34 0.5	2.345	3.306	6.6	20.2	8 9	22 11.12	-17 38.2	1.907	2.903	4.6	20.1
8 19	22 3.72	-34 29.9	2.344	3.305	6.5	20.2	8 19	22 3.49	-18 49.2	1.907	2.915	2.2	20.0
8 29	21 54.60	-34 41.4	2.371	3.305	7.9	20.3	8 29	21 55.72	-19 52.9	1.934	2.926	4.6	20.2
9 8	21 46.26	-34 33.5	2.423	3.304	9.9	20.5	9 8	21 48.70	-20 44.2	1.989	2.937	8.1	20.4
9 18	21 39.47	-34 6.8	2.498	3.303	12.0	20.6	9 18	21 43.16	-21 20.3	2.068	2.948	11.3	20.6
9 28	21 34.76	-33 23.8	2.594	3.303	13.9	20.8	9 28	21 39.65	-21 40.3	2.169	2.959	14.0	20.8
253545	2003 <i>SL</i> ₂₃₆		8 21.2 283°63'	1°9'/19.9	18		374776	2006 <i>SA</i> ₄₀₃		8 21.2 16°04'	6°0'/18.1	16	
7 20	22 27.03	-14 15.6	1.391	2.293	15.1	20.3	7 20	22 22.35	-21 22.4	0.846	1.783	18.4	19.8
7 30	22 21.67	-14 50.1	1.317	2.277	10.9	20.0	7 30	22 18.83	-22 8.9	0.815	1.791	13.3	19.6
8 9	22 13.72	-15 33.4	1.264	2.262	6.2	19.7	8 9	22 12.18	-22 54.3	0.802	1.801	8.4	19.4
8 19	22 3.95	-16 19.3	1.236	2.246	1.9	19.4	8 19	22 3.68	-23 27.6	0.809	1.812	6.1	19.3
8 29	21 53.65	-17 0.0	1.233	2.231	5.3	19.5	8 29	21 55.19	-23 39.7	0.836	1.826	9.1	19.5
9 8	21 44.23	-17 29.1	1.254	2.215	10.4	19.8	9 8	21 48.45	-23 26.7	0.882	1.842	13.8	19.8
9 18	21 36.95	-17 42.5	1.298	2.200	15.1	20.0	9 18	21 44.65	-22 49.8	0.947	1.859	18.3	20.2
9 28	21 32.69	-17 39.0	1.361	2.185	19.0	20.2	9 28	21 44.36	-21 52.6	1.028	1.878	22.0	20.5
259920	2004 <i>EZ</i> ₂₅		8 21.2 171°00'	0°9'/20.4	18		47607	2000 <i>AN</i> ₂₄₂		8 21.2 319°52'	3°3'/18.9	18	
7 20	22 26.48	-11 53.0	1.814	2.699	13.0	21.5	7 20	22 28.88	-20 19.1	1.776	2.671	12.7	18.0
7 30	22 20.60	-12 37.2	1.750	2.702	9.3	21.3	7 30	22 22.39	-20 35.8	1.712	2.668	9.2	17.8
8 9	22 12.79	-13 30.1	1.709	2.704	5.2	21.1	8 9	22 13.83	-20 52.0	1.672	2.665	5.5	17.6
8 19	22 3.75	-14 26.3	1.695	2.706	1.1	20.8	8 19	22 3.99	-21 2.6	1.657	2.662	3.3	17.4
8 29	21 54.49	-15 19.7	1.709	2.708	3.9	21.0	8 29	21 53.95	-21 3.0	1.670	2.659	5.5	17.6
9 8	21 46.02	-16 4.6	1.750	2.709	8.1	21.2	9 8	21 44.85	-20 50.4	1.709	2.657	9.2	17.8
9 18	21 39.24	-16 37.4	1.815	2.709	11.9	21.5	9 18	21 37.62	-20 24.5	1.772	2.654	12.8	18.0
9 28	21 34.78	-16 56.2	1.903	2.709	15.1	21.7	9 28	21 32.91	-19 46.2	1.857	2.652	15.8	18.2
425771	2011 <i>CB</i> ₃₂		8 21.2 74°30'	1°3'/21.9	17		63754	2001 <i>QP</i> ₂₆₇		8 21.2 208°87'	15°2'/2.4	17	
7 20	22 27.83	- 8 0.8	1.489	2.372	15.4	20.7	7 20	22 27.32	+22 24.2	1.395	2.133	23.4	19.2
7 30	22 21.70	- 8 5.6	1.437	2.385	11.3	20.5	7 30	22 22.04	+23 37.7	1.323	2.129	21.2	19.0
8 9	22 13.42	- 8 22.6	1.407	2.399	6.6	20.2	8 9	22 14.05	+24 13.9	1.265	2.126	18.8	18.8
8 19	22 3.86	- 8 48.1	1.402	2.412	2.0	20.0	8 19	22 4.09	+24 5.6	1.223	2.121	16.7	18.7
8 29	21 54.19	- 9 16.9	1.423	2.426	3.7	20.1	8 29	21 53.45	+23 9.9	1.201	2.116	15.4	18.6
9 8	21 45.62	- 9 43.7	1.470	2.440	8.3	20.4	9 8	21 43.65	+21 31.3	1.199	2.110	15.5	18.6
9 18	21 39.08	-10 4.3	1.541	2.453	12.4	20.7	9 18	21 36.04	+19 20.4	1.217	2.104	16.9	18.6
9 28	21 35.19	-10 15.8	1.633	2.467	15.9	21.0	9 28	21 31.60	+16 52.4	1.255	2.098	19.2	18.8
255026	2005 <i>TV</i> ₆₃		8 21.2 52°27'	3°9'/25.0	18		259642	2003 <i>WS</i> ₆₄		8 21.2 285°31'	2°1'/22.6	18	
7 20	22 20.99	+ 1 39.2	1.950	2.793	13.9	19.9	7 20	22 24.96	- 5 20.1	1.425	2.307	16.0	21.1
7 30	22 16.50	+ 1 22.4	1.885	2.802	10.9	19.7	7 30	22 20.10	- 5 34.4	1.347	2.293	12.0	20.8
8 9	22 10.41	+ 0 47.4	1.842	2.811	7.6	19.5	8 9	22 12.82	- 6 6.0	1.290	2.279	7.5	20.5
8 19	22 3.34	- 0 3.5	1.824	2.820	4.6	19.4	8 19	22 3.85	- 6 51.9	1.257	2.265	2.9	20.2
8 29	21 56.09	- 1 6.1	1.833	2.829	4.2	19.4	8 29	21 54.34	- 7 46.1	1.248	2.251	4.1	20.2
9 8	21 49.53	- 2 14.4	1.869	2.839	6.8	19.5	9 8	21 45.61	- 8 41.2	1.265	2.237	9.0	20.5
9 18	21 44.35	- 3 22.2	1.931	2.848	10.0	19.7	9 18	21 38.83	- 9 30.5	1.305	2.224	13.7	20.7
9 28	21 41.13	- 4 24.3	2.015	2.858	13.0	20.0	9 28	21 34.85	-10 8.6	1.365	2.210	17.8	20.9
84556	2002 <i>UQ</i> ₄₅		8 21.2 118°78'	2°3'/19.5	18		53519	2000 <i>AQ</i> ₁₄₂		8 21.2 266°38'	0°3'/20.9	18	
7 20	22 28.39	-16 0.8	1.608	2.503	13.8	19.7	7 20	22 24.13	- 8 43.1	1.676	2.560	13.9	19.5
7 30	22 22.09	-16 38.9	1.554	2.512	9.8	19.5	7 30	22 19.31	- 9 46.5	1.589	2.540	10.1	19.2
8 9	22 13.66	-17 21.7	1.524	2.520	5.5	19.3	8 9	22 12.31	-11 5.8	1.525	2.519	5.8	18.9
8 19	22 3.93	-18 2.9	1.519	2.528	2.3	19.1	8 19	22 3.76	-12 35.4	1.487	2.498	1.0	18.5
8 29	21 54.06	-18 36.3	1.541	2.536	5.1	19.3	8 29	21 54.63	-14 7.0	1.476	2.477	4.1	18.7
9 8	21 45.23	-18 57.3	1.589	2.543	9.2	19.5	9 8	21 46.10	-15 32.1	1.492	2.455	8.9	18.9
9 18	21 38.39	-19 3.8	1.661	2.551	13.0	19.8	9 18	21 39.20	-16 43.8	1.532	2.432	13.3	19.1
9 28	21 34.15	-18 55.7	1.753	2.558	16.2	20.0	9 28	21 34.79	-17 37.7	1.593	2.409	17.1	19.3
373651	2002 <i>PZ</i> ₁₇₆		8 21.2 347°14'	3°8'/23.9	17		390290	2013 <i>AR</i> ₂₄					

EPHEMERIDES

8 21.2

8 21.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
221053	2005 <i>QJ</i> ₁₁₈		8 21.2 289°48	0°9/20.5	18		127349	2002 <i>JU</i> ₁₂₁		8 21.2 138°03	2°7/18.4	18	
7 20	22 25.27	-12 2.4	1.504	2.400	14.5	20.5	7 20	22 24.91	-16 40.8	2.126	3.016	11.1	20.0
7 30	22 20.22	-12 35.4	1.429	2.387	10.5	20.2	7 30	22 19.25	-17 55.2	2.072	3.028	7.9	19.8
8 9	22 12.83	-13 19.0	1.377	2.374	5.9	19.9	8 9	22 11.95	-19 13.5	2.044	3.039	4.5	19.7
8 19	22 3.85	-14 7.6	1.349	2.361	1.2	19.6	8 19	22 3.67	-20 29.3	2.044	3.049	2.7	19.6
8 29	21 54.40	-14 54.4	1.347	2.348	4.5	19.8	8 29	21 55.23	-21 36.4	2.072	3.059	4.9	19.7
9 8	21 45.77	-15 32.9	1.371	2.335	9.4	20.0	9 8	21 47.51	-22 30.1	2.129	3.069	8.1	19.9
9 18	21 39.06	-15 58.5	1.417	2.322	13.8	20.3	9 18	21 41.25	-23 7.7	2.210	3.078	11.1	20.2
9 28	21 35.07	-16 8.9	1.484	2.310	17.6	20.5	9 28	21 37.00	-23 28.7	2.313	3.086	13.7	20.4
467720	2009 <i>DW</i> ₁₁		8 21.2 158°45	0°9/20.5	17		311421	2005 <i>UA</i> ₁₀₁		8 21.2 357°38	5°5/15.9	18	
7 20	22 29.81	-12 27.1	1.585	2.473	14.4	21.4	7 20	22 23.97	-25 51.3	2.013	2.913	11.2	20.4
7 30	22 23.19	-12 58.0	1.525	2.478	10.3	21.1	7 30	22 18.78	-26 57.1	1.959	2.912	8.4	20.3
8 9	22 14.34	-13 37.2	1.488	2.483	5.8	20.9	8 9	22 11.77	-27 59.6	1.929	2.912	6.1	20.1
8 19	22 4.09	-14 19.3	1.477	2.488	1.2	20.6	8 19	22 3.65	-28 51.9	1.926	2.911	5.6	20.1
8 29	21 53.63	-14 57.9	1.492	2.492	4.3	20.8	8 29	21 55.33	-29 28.3	1.949	2.911	7.4	20.2
9 8	21 44.18	-15 27.7	1.535	2.495	8.9	21.1	9 8	21 47.80	-29 45.6	1.997	2.911	10.1	20.4
9 18	21 36.74	-15 45.5	1.601	2.498	13.0	21.4	9 18	21 41.88	-29 43.1	2.069	2.911	12.8	20.6
9 28	21 31.99	-15 49.9	1.688	2.501	16.4	21.6	9 28	21 38.14	-29 22.2	2.160	2.912	15.2	20.7
286997	2002 <i>QK</i> ₅₉		8 21.2 349°08	1°6/22.3	18		360991	2005 <i>UD</i> ₃₆₅		8 21.2 150°73	4°0/25.8	18	
7 20	22 25.10	- 7 16.9	1.679	2.557	14.1	20.9	7 20	22 21.01	+ 3 41.2	2.464	3.284	12.1	21.5
7 30	22 19.74	- 7 13.6	1.610	2.555	10.5	20.6	7 30	22 16.29	+ 3 28.5	2.388	3.288	9.6	21.3
8 9	22 12.39	- 7 21.9	1.564	2.553	6.3	20.4	8 9	22 10.24	+ 2 59.9	2.335	3.292	6.9	21.1
8 19	22 3.75	- 7 39.1	1.543	2.552	2.3	20.1	8 19	22 3.37	+ 2 16.8	2.308	3.296	4.6	21.0
8 29	21 54.84	- 8 1.2	1.548	2.550	3.5	20.2	8 29	21 56.31	+ 1 22.2	2.309	3.299	4.2	21.0
9 8	21 46.74	- 8 23.5	1.579	2.549	7.8	20.5	9 8	21 49.75	+ 0 20.6	2.338	3.302	6.0	21.1
9 18	21 40.36	- 8 42.1	1.635	2.548	11.8	20.7	9 18	21 44.31	- 0 43.2	2.394	3.305	8.6	21.3
9 28	21 36.37	- 8 53.6	1.712	2.548	15.2	20.9	9 28	21 40.47	- 1 44.3	2.474	3.308	11.2	21.5
439077	2011 <i>LB</i> ₁₄		8 21.2 126°04	1°6/22.7	17		285355	1999 <i>RF</i> ₂₁₂		8 21.2 354°16	7°1/24.5	18	
7 20	22 24.85	- 4 43.8	1.963	2.826	13.1	21.4	7 20	22 22.03	- 0 22.4	1.237	2.115	18.2	18.9
7 30	22 19.24	- 5 14.8	1.903	2.839	9.7	21.2	7 30	22 18.14	+ 1 2.7	1.169	2.103	14.6	18.7
8 9	22 11.96	- 5 59.1	1.866	2.851	5.9	21.0	8 9	22 11.77	+ 2 10.7	1.121	2.093	10.8	18.4
8 19	22 3.66	- 6 53.0	1.855	2.863	2.3	20.8	8 19	22 3.69	+ 2 58.7	1.094	2.085	7.7	18.2
8 29	21 55.22	- 7 51.4	1.872	2.874	3.1	20.9	8 29	21 55.14	+ 3 25.8	1.089	2.080	7.5	18.2
9 8	21 47.53	- 8 48.7	1.917	2.885	6.8	21.1	9 8	21 47.52	+ 3 34.9	1.107	2.076	10.4	18.4
9 18	21 41.34	- 9 40.0	1.988	2.895	10.3	21.4	9 18	21 41.99	+ 3 31.1	1.146	2.075	14.3	18.6
9 28	21 37.20	-10 21.8	2.082	2.905	13.3	21.6	9 28	21 39.40	+ 3 21.1	1.204	2.075	18.0	18.8
471198	2010 <i>SM</i>		8 21.2 326°03	1°5/22.2	17		82713	2001 <i>PH</i> ₄₆		8 21.2 286°02	7°4/14.9	18	
7 20	22 20.24	- 5 55.6	1.100	2.005	18.0	20.9	7 20	22 29.25	-31 44.2	1.951	2.841	12.0	18.6
7 30	22 17.17	- 6 28.8	1.029	1.988	13.4	20.5	7 30	22 22.82	-32 38.4	1.884	2.824	9.5	18.5
8 9	22 11.38	- 7 24.9	0.976	1.971	8.1	20.2	8 9	22 14.18	-33 24.3	1.840	2.807	7.7	18.3
8 19	22 3.62	- 8 39.2	0.945	1.955	2.5	19.8	8 19	22 4.11	-33 54.4	1.822	2.790	7.6	18.3
8 29	21 55.22	-10 2.7	0.936	1.941	4.5	19.9	8 29	21 53.71	-34 2.9	1.830	2.772	9.2	18.3
9 8	21 47.74	-11 24.0	0.950	1.927	10.5	20.2	9 8	21 44.21	-33 47.4	1.862	2.755	11.8	18.5
9 18	21 42.53	-12 33.4	0.985	1.914	16.0	20.4	9 18	21 36.60	-33 8.9	1.916	2.738	14.5	18.6
9 28	21 40.58	-13 23.7	1.037	1.903	20.7	20.7	9 28	21 31.59	-32 10.5	1.989	2.721	16.9	18.8
155169	2005 <i>UF</i> ₁₈₆		8 21.2 176°01	0°9/20.2	18		181943	1999 <i>TT</i> ₁₇₉		8 21.2 27°46	5°4/26.7	18	
7 20	22 22.46	-13 9.7	2.544	3.424	9.9	21.5	7 20	22 20.45	+ 5 54.0	2.031	2.852	14.3	19.9
7 30	22 17.30	-13 46.1	2.475	3.426	7.0	21.4	7 30	22 16.13	+ 5 51.8	1.959	2.855	11.6	19.7
8 9	22 10.79	-14 27.8	2.432	3.427	3.9	21.2	8 9	22 10.26	+ 5 29.4	1.909	2.859	8.7	19.6
8 19	22 3.45	-15 10.9	2.417	3.427	1.0	20.9	8 19	22 3.38	+ 4 47.7	1.882	2.863	6.2	19.4
8 29	21 55.95	-15 51.5	2.430	3.428	3.1	21.1	8 29	21 56.29	+ 3 49.9	1.882	2.867	5.5	19.4
9 8	21 48.98	-16 26.0	2.472	3.428	6.3	21.3	9 8	21 49.81	+ 2 41.4	1.908	2.871	7.2	19.5
9 18	21 43.15	-16 51.7	2.541	3.428	9.2	21.5	9 18	21 44.65	+ 1 28.5	1.959	2.876	10.0	19.7
9 28	21 38.96	-17 7.3	2.633	3.428	11.7	21.7	9 28	21 41.38	+ 0 17.4	2.035	2.881	12.7	19.9
193495	2000 <i>YK</i> ₁₀		8 21.2 242°02	5°9/26.2	18		478583	2012 <i>TE</i> ₉₆		8 21.2 349°56	0°1/21.2	18	
7 20	22 25.50	+ 5 58.0	2.153	2.960	14.0	20.2	7 20	22 24.91	-10 15.6	1.690	2.577	13.7	21.5
7 30	22 19.85	+ 6 22.2	2.059	2.946	11.5	20.0	7 30	22 19.61	-10 37.6	1.624	2.576	9.9	21.3
8 9	22 12.43	+ 6 28.7	1.988	2.931	8.8	19.8	8 9	22 12.32	-11 9.6	1.581	2.575	5.6	21.0
8 19	22 3.78	+ 6 16.7	1.941	2.916	6.6	19.7	8 19	22 3.77	-11 47.3	1.564	2.575	1.0	20.7
8 29	21 54.70	+ 5 47.5	1.921	2.900	6.0	19.6	8 29	21 54.96	-12 25.3	1.573	2.575	3.6	20.9
9 8	21 46.10	+ 5 4.8	1.928	2.883	7.8	19.7	9 8	21 46.97	-12 58.3	1.608	2.574	8.0	21.1
9 18	21 38.80	+ 4 13.7	1.961	2.866	10.6	19.8	9 18	21 40.70	-13 22.3	1.668	2.574	12.0	21.4
9 28	21 33.49	+ 3 20.0	2.018	2.849	13.4	20.0	9 28	21 36.82	-13 35.0	1.749	2.574	15.4	21.6
491743	2012 <i>VD</i> ₃₈		8 21.2 317°21	7°8/14.6	18		144993	2005 <i>EH</i> ₁₈₅		8 21.2 214°20	12°9/ 2.3	17	
7 20	22 24.88	-27 58.2	1.506	2.416	13.6	20.8	7 20	22 23.83	+20 55.4	1.363	2.119	23.1	20.0
7 30	22 20.11	-29 24.9	1.446	2.401	10.6	20.6	7 30	22 19.45	+21 9.1	1.288	2.116	20.5	19.8
8 9	22 12.83	-30 47.1	1.408	2.387	8.3	20.4	8 9	22 12.53	+20 40.4	1.226	2.113	17.6	19.6
8 19	22 3.86	-31 54.7	1.394	2.373	8.1	20.4	8 19	22 3.84	+19 24.4	1.183	2.109	14.9	19.4
8 29	21 54.46	-32 38.6	1.404	2.360	10.3	20.5	8 29	21 54.61	+17 21.7	1.160	2.105	13.1	19.3
9 8	21 46.04	-32 54.0	1.437	2.347	13.5	20.6	9 8	21 46.25	+14 41.1	1.159	2.100	13.2	19.3
9 18	21 39.76	-32 40.9	1.490	2.335	16.8	20.8	9 18	21 39.99	+11 37.6	1.182	2.096	15.3	19.4
9 28	21 36.43	-32 2.1	1.561	2.323	19.7	21.0	9 28	21 36.73	+ 8 28.8	1.227	2.091	18.2	19.6
381904	Beatita		8 21.2 226°36	2°8/18.5	18		297280	1997 <i>GG</i>					

EPHEMERIDES

8 21.2

8 21.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
394703	2008 <i>DO</i> ₁₅		8 21.2 177°14	1.7°/22.8	18		392278	2010 <i>AJ</i> ₈₉		8 21.2 152°17	2°0'/23.3	18	
7 20	22 23.75	- 5 7.3	2.236	3.096	11.8	21.2	7 20	22 22.74	- 2 19.8	2.095	2.949	12.7	21.4
7 30	22 18.38	- 5 23.6	2.163	3.097	8.8	21.0	7 30	22 17.74	- 3 4.8	2.025	2.955	9.6	21.2
8 9	22 11.48	- 5 51.2	2.114	3.098	5.4	20.8	8 9	22 11.18	- 4 5.1	1.979	2.960	6.1	21.0
8 19	22 3.63	- 6 27.5	2.091	3.098	2.2	20.6	8 19	22 3.62	- 5 17.2	1.960	2.965	2.7	20.8
8 29	21 55.56	- 7 8.6	2.097	3.099	2.9	20.7	8 29	21 55.86	- 6 35.7	1.968	2.970	3.1	20.8
9 8	21 48.08	- 7 50.2	2.131	3.099	6.3	20.9	9 8	21 48.72	- 7 54.2	2.005	2.974	6.5	21.1
9 18	21 41.89	- 8 28.3	2.192	3.098	9.5	21.1	9 18	21 42.91	- 9 7.3	2.069	2.978	9.9	21.3
9 28	21 37.52	- 8 59.7	2.276	3.098	12.4	21.3	9 28	21 39.00	-10 10.2	2.156	2.982	12.9	21.5
256485	2007 <i>DK</i> ₁₁₁		8 21.2 340°38	0°3'/21.5	18		40084	1998 <i>MS</i> ₂₂		8 21.2 4°26	8°1'/13.8	18	
7 20	22 21.00	- 9 3.0	1.822	2.708	12.8	20.4	7 20	22 24.73	-28 58.4	1.559	2.467	13.4	17.9
7 30	22 16.74	- 9 31.3	1.750	2.701	9.4	20.2	7 30	22 19.86	-30 43.5	1.515	2.467	10.4	17.7
8 9	22 10.70	-10 10.7	1.701	2.695	5.4	19.9	8 9	22 12.64	-32 22.1	1.493	2.467	8.4	17.6
8 19	22 3.50	-10 57.0	1.677	2.689	1.1	19.6	8 19	22 3.90	-33 43.5	1.496	2.467	8.5	17.6
8 29	21 56.02	-11 45.1	1.681	2.683	3.3	19.8	8 29	21 54.90	-34 39.3	1.523	2.468	10.5	17.7
9 8	21 49.20	-12 29.3	1.710	2.678	7.5	20.0	9 8	21 46.94	-35 5.5	1.573	2.469	13.4	17.9
9 18	21 43.88	-13 5.4	1.764	2.673	11.3	20.3	9 18	21 41.09	-35 2.4	1.643	2.471	16.3	18.1
9 28	21 40.67	-13 30.0	1.840	2.669	14.6	20.5	9 28	21 38.03	-34 33.6	1.731	2.472	18.7	18.3
116450	2004 <i>AW</i>		8 21.2 155°84	6°1'/29.6	18		505684	2014 <i>WP</i> ₂₇₉		8 21.2 287°20	0°3'/21.4	17	
7 20	22 19.92	+13 30.8	2.969	3.718	11.9	19.9	7 20	22 24.26	- 7 53.6	1.291	2.187	16.4	21.8
7 30	22 15.38	+13 39.6	2.888	3.721	10.1	19.8	7 30	22 19.88	- 8 40.1	1.214	2.170	12.1	21.5
8 9	22 9.70	+13 31.1	2.828	3.725	8.3	19.7	8 9	22 12.88	- 9 45.7	1.158	2.153	7.0	21.2
8 19	22 3.30	+13 4.9	2.792	3.728	6.8	19.6	8 19	22 3.99	-11 4.5	1.125	2.136	1.4	20.8
8 29	21 56.73	+12 22.5	2.782	3.731	6.1	19.6	8 29	21 54.46	-12 27.7	1.117	2.119	4.5	21.0
9 8	21 50.58	+11 26.8	2.800	3.734	6.7	19.6	9 8	21 45.73	-13 45.0	1.132	2.102	10.1	21.2
9 18	21 45.35	+10 22.1	2.844	3.737	8.1	19.7	9 18	21 39.11	-14 48.4	1.170	2.086	15.2	21.5
9 28	21 41.48	+ 9 13.3	2.913	3.740	9.9	19.8	9 28	21 35.55	-15 32.8	1.227	2.069	19.6	21.7
410676	2008 <i>UA</i> ₇₅		8 21.2 264°43	1°3'/20.4	17		102774	1999 <i>VH</i> ₁₄₄		8 21.2 257°60	7°0'/15.3	18	
7 20	22 28.50	-12 58.5	1.295	2.195	16.1	21.5	7 20	22 29.40	-30 8.2	1.910	2.802	12.1	20.0
7 30	22 22.85	-13 29.2	1.227	2.186	11.6	21.3	7 30	22 22.94	-31 8.1	1.848	2.791	9.5	19.8
8 9	22 14.47	-14 10.2	1.180	2.177	6.5	20.9	8 9	22 14.28	-32 0.8	1.809	2.780	7.5	19.6
8 19	22 4.23	-14 55.2	1.157	2.168	1.6	20.6	8 19	22 4.21	-32 38.9	1.795	2.768	7.2	19.6
8 29	21 53.50	-15 36.5	1.159	2.159	5.1	20.8	8 29	21 53.85	-32 56.1	1.808	2.756	8.9	19.7
9 8	21 43.80	-16 7.0	1.185	2.149	10.5	21.1	9 8	21 44.39	-32 49.8	1.845	2.744	11.6	19.8
9 18	21 36.41	-16 22.6	1.233	2.140	15.3	21.4	9 18	21 36.84	-32 20.7	1.905	2.732	14.4	20.0
9 28	21 32.20	-16 21.8	1.300	2.130	19.4	21.6	9 28	21 31.89	-31 31.8	1.983	2.719	16.8	20.2
371855	2008 <i>AA</i> ₂₉		8 21.2 244°36	2°0'/22.7	18		396212	2013 <i>YH</i> ₄₂		8 21.2 100°97	3°1'/23.7	16 R	
7 20	22 26.37	- 5 8.7	1.569	2.443	15.2	21.4	7 20	22 27.25	- 2 40.1	1.928	2.780	13.7	20.5
7 30	22 20.93	- 5 24.9	1.492	2.434	11.4	21.1	7 30	22 20.97	- 2 29.4	1.869	2.795	10.4	20.4
8 9	22 13.24	- 5 57.1	1.437	2.424	7.1	20.8	8 9	22 12.98	- 2 32.2	1.833	2.810	6.9	20.2
8 19	22 4.01	- 6 42.3	1.406	2.414	2.8	20.5	8 19	22 3.96	- 2 46.8	1.823	2.825	3.7	20.0
8 29	21 54.33	- 7 34.9	1.402	2.404	3.8	20.6	8 29	21 54.82	- 3 10.1	1.841	2.839	3.8	20.0
9 8	21 45.41	- 8 28.1	1.423	2.393	8.4	20.8	9 8	21 46.51	- 3 37.8	1.886	2.853	7.0	20.3
9 18	21 38.31	- 9 16.0	1.469	2.383	12.8	21.1	9 18	21 39.78	- 4 5.6	1.957	2.867	10.3	20.5
9 28	21 33.84	- 9 53.5	1.536	2.371	16.6	21.3	9 28	21 35.20	- 4 29.6	2.051	2.881	13.3	20.7
385238	2000 <i>SX</i> ₂₈₆		8 21.2 322°71	5°3'/24.4	18		350223	2012 <i>SH</i> ₅₅		8 21.2 359°13	9°6'/26.7	18	
7 20	22 22.60	- 0 24.8	1.348	2.220	17.4	19.9	7 20	22 25.46	+ 6 55.7	1.350	2.186	19.4	18.9
7 30	22 18.57	+ 0 3.0	1.265	2.199	13.7	19.6	7 30	22 20.51	+ 8 19.7	1.285	2.183	16.2	18.7
8 9	22 12.09	+ 0 10.7	1.202	2.179	9.7	19.3	8 9	22 13.10	+ 9 19.6	1.238	2.182	13.0	18.5
8 19	22 3.83	- 0 2.1	1.161	2.159	6.0	19.1	8 19	22 4.03	+ 9 51.6	1.212	2.181	10.4	18.4
8 29	21 54.92	- 0 32.7	1.144	2.141	5.9	19.0	8 29	21 54.51	+ 9 54.8	1.209	2.181	9.7	18.3
9 8	21 46.72	- 1 15.4	1.150	2.123	9.5	19.2	9 8	21 45.89	+ 9 33.4	1.228	2.182	11.4	18.4
9 18	21 40.46	- 2 2.8	1.178	2.106	14.0	19.4	9 18	21 39.34	+ 8 54.3	1.269	2.184	14.3	18.6
9 28	21 37.07	- 2 47.4	1.225	2.090	18.2	19.6	9 28	21 35.67	+ 8 6.6	1.330	2.187	17.5	18.8
110134	2001 <i>SF</i> ₁₄₉		8 21.2 282°61	3°9'/24.3	18		322042	2010 <i>VZ</i> ₄₅		8 21.2 26°74	4°1'/25.1	18	
7 20	22 23.17	- 0 1.8	1.624	2.482	15.6	19.4	7 20	22 21.88	+ 1 27.9	2.131	2.969	13.1	20.2
7 30	22 18.63	- 0 14.7	1.538	2.465	12.2	19.1	7 30	22 17.13	+ 1 33.2	2.059	2.972	10.3	20.0
8 9	22 11.96	- 0 48.4	1.473	2.449	8.3	18.9	8 9	22 10.85	+ 1 22.7	2.009	2.974	7.3	19.8
8 19	22 3.80	- 1 41.3	1.431	2.432	4.7	18.6	8 19	22 3.60	+ 0 57.6	1.984	2.977	4.7	19.7
8 29	21 55.11	- 2 48.7	1.416	2.415	4.6	18.6	8 29	21 56.13	+ 0 20.7	1.986	2.979	4.4	19.6
9 8	21 47.04	- 4 3.4	1.426	2.398	8.2	18.7	9 8	21 49.26	- 0 23.5	2.016	2.982	6.6	19.8
9 18	21 40.62	- 5 17.7	1.461	2.381	12.4	18.9	9 18	21 43.68	- 1 10.3	2.071	2.985	9.6	20.0
9 28	21 36.65	- 6 24.6	1.517	2.365	16.2	19.1	9 28	21 39.94	- 1 54.8	2.149	2.988	12.4	20.2
313287	2002 <i>CL</i> ₂₈		8 21.2 228°20	3°6'/17.2	18		282983	2007 <i>TL</i> ₉₄		8 21.2 300°55	7°0'/27.4	18	
7 20	22 22.52	-20 25.2	2.281	3.177	10.2	20.9	7 20	22 20.93	+ 8 18.7	1.760	2.577	16.3	20.2
7 30	22 17.61	-21 38.2	2.216	3.172	7.4	20.7	7 30	22 16.92	+ 8 23.6	1.669	2.559	13.6	19.9
8 9	22 11.12	-22 52.9	2.176	3.167	4.7	20.5	8 9	22 10.98	+ 8 3.4	1.598	2.541	10.6	19.7
8 19	22 3.61	-24 3.4	2.164	3.162	3.7	20.4	8 19	22 3.66	+ 7 17.2	1.549	2.523	8.0	19.5
8 29	21 55.85	-25 3.8	2.180	3.157	5.6	20.5	8 29	21 55.85	+ 6 7.4	1.524	2.505	7.1	19.4
9 8	21 48.68	-25 49.6	2.223	3.151	8.5	20.7	9 8	21 48.57	+ 4 40.0	1.525	2.488	8.8	19.5
9 18	21 42.81	-26 18.8	2.290	3.146	11.3	20.9	9 18	21 42.78	+ 3 3.3	1.551	2.471	11.9	19.6
9 28	21 38.81	-26 30.8	2.379	3.140	13.7	21.1	9 28	21 39.23	+ 1 26.2	1.599	2.454	15.2	19.8
518409	2018 <i>CW</i> ₁₁		8 21.2 143°91	1°4'/22.8	18		477952	2011 <i>RL</i> ₁₂					

EPHEMERIDES

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8 21.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
445788	2012 AN ₂		8 21.2 77°09	3:2/24.2	18		138895	2000 YL ₇₄		8 21.2 289°77	0°3/21.0	18	
7 20	22 23.04	- 1 15.5	2.201	3.048	12.5	20.5	7 20	22 22.94	-10 54.2	2.104	2.986	11.6	20.3
7 30	22 17.90	- 1 11.4	2.132	3.053	9.6	20.3	7 30	22 18.11	-11 21.7	2.016	2.966	8.4	20.1
8 9	22 11.26	- 1 20.6	2.085	3.058	6.5	20.1	8 9	22 11.55	-11 57.8	1.951	2.945	4.8	19.8
8 19	22 3.69	- 1 41.6	2.064	3.063	3.7	20.0	8 19	22 3.83	-12 38.8	1.913	2.925	0.9	19.5
8 29	21 55.94	- 2 11.6	2.071	3.068	3.7	20.0	8 29	21 55.71	-13 20.1	1.903	2.904	3.3	19.6
9 8	21 48.79	- 2 46.4	2.106	3.073	6.3	20.1	9 8	21 48.11	-13 57.0	1.920	2.883	7.2	19.8
9 18	21 42.93	- 3 22.1	2.166	3.078	9.4	20.3	9 18	21 41.81	-14 25.8	1.963	2.863	10.8	20.0
9 28	21 38.88	- 3 54.5	2.250	3.083	12.1	20.5	9 28	21 37.48	-14 43.9	2.028	2.842	14.0	20.2
217343	2004 RX ₁₈₆		8 21.2 25°96	2°2/22.9	18		65120	2002 CB ₅₄		8 21.2 336°22	0°3/21.5	18	
7 20	22 24.00	- 5 18.6	1.985	2.851	12.8	19.5	7 20	22 19.09	- 7 40.0	1.655	2.545	13.7	18.3
7 30	22 18.71	- 5 11.0	1.919	2.855	9.6	19.3	7 30	22 15.61	- 8 31.8	1.580	2.533	10.0	18.1
8 9	22 11.76	- 5 14.7	1.875	2.859	6.0	19.1	8 9	22 10.24	- 9 39.0	1.527	2.521	5.8	17.8
8 19	22 3.79	- 5 27.7	1.857	2.863	2.7	18.9	8 19	22 3.59	-10 56.4	1.499	2.510	1.2	17.5
8 29	21 55.63	- 5 46.8	1.866	2.867	3.3	19.0	8 29	21 56.56	-12 16.8	1.497	2.500	3.6	17.6
9 8	21 48.16	- 6 8.2	1.903	2.872	6.7	19.2	9 8	21 50.19	-13 32.4	1.521	2.490	8.1	17.9
9 18	21 42.15	- 6 28.2	1.965	2.877	10.2	19.4	9 18	21 45.38	-14 36.7	1.569	2.481	12.3	18.1
9 28	21 38.14	- 6 43.6	2.050	2.882	13.2	19.6	9 28	21 42.81	-15 25.4	1.638	2.473	15.8	18.3
183059	2002 QF ₉₇		8 21.2 262°73	1°7/20.1	18		353888	2012 XF ₁₆		8 21.2 346°17	12°7/ 9.6	18	
7 20	22 27.69	-14 21.3	1.491	2.388	14.5	20.8	7 20	22 20.17	-34 40.1	1.142	2.063	16.1	18.8
7 30	22 21.97	-14 52.8	1.424	2.382	10.5	20.5	7 30	22 17.48	-36 56.9	1.099	2.049	13.7	18.7
8 9	22 13.88	-15 31.9	1.379	2.376	5.9	20.2	8 9	22 11.73	-39 0.1	1.076	2.036	12.7	18.6
8 19	22 4.22	-16 12.4	1.359	2.370	1.8	20.0	8 19	22 3.88	-40 34.5	1.074	2.025	13.5	18.6
8 29	21 54.19	-16 47.6	1.365	2.364	4.9	20.2	8 29	21 55.56	-41 28.3	1.092	2.016	15.8	18.7
9 8	21 45.10	-17 11.9	1.397	2.357	9.6	20.4	9 8	21 48.56	-41 37.3	1.128	2.008	18.8	18.8
9 18	21 38.06	-17 22.2	1.451	2.351	13.9	20.7	9 18	21 44.28	-41 4.0	1.180	2.002	21.7	19.0
9 28	21 33.80	-17 17.4	1.526	2.345	17.6	20.9	9 28	21 43.53	-39 55.0	1.245	1.997	24.2	19.2
144383	2004 DK ₆₅		8 21.2 121°86	0°5/20.8	17		267655	2002 TX ₆₄		8 21.2 275°54	4°3/25.4	18	
7 20	22 27.55	-11 7.3	1.665	2.551	13.9	20.8	7 20	22 23.14	+ 4 18.5	1.743	2.577	15.7	20.7
7 30	22 21.49	-11 42.5	1.610	2.561	10.0	20.6	7 30	22 18.68	+ 3 24.6	1.639	2.550	12.6	20.5
8 9	22 13.41	-12 27.1	1.577	2.572	5.6	20.4	8 9	22 12.11	+ 2 2.3	1.556	2.522	8.9	20.2
8 19	22 4.11	-13 15.6	1.570	2.582	1.0	20.1	8 19	22 3.97	+ 0 13.2	1.497	2.493	5.3	19.9
8 29	21 54.66	-14 1.9	1.591	2.592	3.9	20.3	8 29	21 55.15	- 1 56.8	1.466	2.464	4.7	19.8
9 8	21 46.15	-14 40.6	1.638	2.601	8.2	20.6	9 8	21 46.75	- 4 17.8	1.463	2.434	8.1	19.9
9 18	21 39.49	-15 8.0	1.710	2.610	12.1	20.9	9 18	21 39.82	- 6 38.6	1.486	2.404	12.4	20.1
9 28	21 35.28	-15 22.2	1.803	2.619	15.4	21.1	9 28	21 35.26	- 8 48.6	1.533	2.373	16.4	20.3
346667	2008 YS ₂₅		8 21.2 340°35	2°7/23.1	18		210163	2006 SH ₃₂₀		8 21.2 12°59	1°5/19.9	18	
7 20	22 22.81	- 4 34.3	1.442	2.324	15.8	20.0	7 20	22 23.17	-13 43.0	1.802	2.696	12.6	20.1
7 30	22 18.48	- 4 34.8	1.371	2.316	12.0	19.7	7 30	22 18.33	-14 26.6	1.740	2.697	9.0	19.9
8 9	22 11.93	- 4 52.0	1.322	2.309	7.6	19.5	8 9	22 11.67	-15 17.3	1.702	2.698	5.0	19.6
8 19	22 3.89	- 5 23.3	1.295	2.302	3.4	19.2	8 19	22 3.84	-16 9.6	1.689	2.700	1.6	19.4
8 29	21 55.46	- 6 4.0	1.294	2.296	4.1	19.2	8 29	21 55.80	-16 57.5	1.704	2.701	4.2	19.6
9 8	21 47.85	- 6 47.6	1.317	2.291	8.5	19.5	9 8	21 48.53	-17 35.8	1.744	2.703	8.2	19.8
9 18	21 42.11	- 7 27.9	1.363	2.286	12.9	19.7	9 18	21 42.85	-18 1.3	1.810	2.705	11.8	20.1
9 28	21 39.00	- 7 59.7	1.430	2.283	16.7	20.0	9 28	21 39.37	-18 12.4	1.896	2.707	14.9	20.3
408619	2014 KK ₅₃		8 21.2 10°19	6°0/27.0	18		91608	1999 TW ₂₁		8 21.2 254°07	2°2/19.0	18	
7 20	22 20.09	+ 6 30.2	1.817	2.642	15.6	20.5	7 20	22 23.95	-17 33.2	2.428	3.316	10.0	20.2
7 30	22 16.10	+ 6 31.8	1.746	2.643	12.7	20.3	7 30	22 18.60	-18 9.6	2.349	3.303	7.2	20.0
8 9	22 10.40	+ 6 10.6	1.696	2.646	9.6	20.1	8 9	22 11.73	-18 48.7	2.296	3.290	4.1	19.8
8 19	22 3.59	+ 5 27.5	1.668	2.648	6.9	19.9	8 19	22 3.86	-19 26.3	2.270	3.276	2.2	19.6
8 29	21 56.52	+ 4 25.6	1.666	2.651	6.1	19.9	8 29	21 55.73	-19 58.0	2.272	3.263	4.2	19.7
9 8	21 50.12	+ 3 11.2	1.690	2.655	7.8	20.0	9 8	21 48.12	-20 20.5	2.303	3.249	7.3	19.9
9 18	21 45.17	+ 1 51.4	1.738	2.659	10.8	20.2	9 18	21 41.74	-20 31.6	2.359	3.235	10.2	20.1
9 28	21 42.28	+ 0 33.7	1.810	2.664	13.7	20.4	9 28	21 37.14	-20 30.5	2.438	3.221	12.8	20.2
204126	2003 XF ₁₉		8 21.2 319°97	8°9/12.9	18		329744	2004 BV ₂₄		8 21.2 103°43	0°8/21.8	17	
7 20	22 25.01	-31 24.9	1.597	2.502	13.3	19.4	7 20	22 28.06	- 7 48.3	1.643	2.520	14.5	21.4
7 30	22 20.21	-33 7.3	1.545	2.491	10.7	19.2	7 30	22 21.80	- 8 17.0	1.593	2.539	10.6	21.2
8 9	22 12.96	-34 41.8	1.515	2.481	9.1	19.1	8 9	22 13.57	- 8 57.7	1.566	2.557	6.1	21.0
8 19	22 4.08	-35 57.9	1.509	2.471	9.3	19.1	8 19	22 4.19	- 9 45.9	1.564	2.575	1.6	20.7
8 29	21 54.82	-36 47.1	1.527	2.461	11.3	19.2	8 29	21 54.72	-10 35.5	1.589	2.592	3.5	20.9
9 8	21 46.54	-37 5.3	1.567	2.452	14.1	19.3	9 8	21 46.27	-11 20.7	1.642	2.609	7.8	21.2
9 18	21 40.36	-36 53.0	1.627	2.443	16.9	19.5	9 18	21 39.68	-11 57.1	1.719	2.625	11.7	21.5
9 28	21 37.06	-36 14.1	1.703	2.435	19.3	19.7	9 28	21 35.53	-12 22.0	1.818	2.641	15.0	21.7
2532	Sutton		8 21.2 341°50	1°3/20.5	18		139823	2001 RA ₂₉		8 21.2 282°59	0°3/21.5	18	
7 20	22 24.88	-14 3.7	1.112	2.027	16.9	15.7	7 20	22 23.53	- 9 18.5	1.953	2.833	12.4	20.3
7 30	22 20.53	-14 11.2	1.050	2.016	12.3	15.4	7 30	22 18.52	- 9 42.9	1.880	2.828	9.0	20.0
8 9	22 13.32	-14 27.3	1.006	2.005	7.0	15.0	8 9	22 11.76	-10 17.1	1.830	2.823	5.2	19.8
8 19	22 4.17	-14 46.2	0.985	1.996	1.6	14.7	8 19	22 3.88	-10 57.4	1.807	2.818	1.1	19.5
8 29	21 54.55	-15 1.1	0.987	1.988	5.3	14.9	8 29	21 55.71	-11 39.0	1.810	2.812	3.2	19.7
9 8	21 46.08	-15 6.0	1.011	1.981	10.9	15.2	9 8	21 48.20	-12 17.1	1.841	2.807	7.2	19.9
9 18	21 40.10	-14 57.7	1.055	1.976	16.0	15.5	9 18	21 42.13	-12 47.8	1.897	2.802	10.9	20.1
9 28	21 37.45	-14 35.0	1.118	1.971	20.4	15.7	9 28	21 38.13	-13 8.2	1.976	2.797	14.0	20.3
278052	2006 WB ₁₉₀		8 21.2 305°41	3°3/23.5	18		508420	2016 JL ₂₇		8 21.2 2°23	3°5/23.8	17	
7 20	22 22.17	-											

EPHEMERIDES

8 21.2

8 21.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
415342	2013 <i>JU</i>		8 21.2 49°21	4.2/18.4	17		291872	2006 <i>PE</i> ₁₂		8 21.2 304°75	1.9/22.4	17	
7 20	22 25.85	-16 15.6	1.030	1.950	17.5	19.9	7 20	22 24.25	-6 19.8	1.293	2.184	16.7	20.3
7 30	22 21.04	-17 43.1	0.997	1.967	12.4	19.7	7 30	22 20.02	-6 30.8	1.208	2.159	12.6	20.0
8 9	22 13.43	-19 17.4	0.985	1.984	7.1	19.5	8 9	22 13.12	-6 59.7	1.142	2.134	7.8	19.7
8 19	22 4.18	-20 46.4	0.994	2.001	4.2	19.4	8 19	22 4.23	-7 43.7	1.099	2.109	2.7	19.3
8 29	21 54.88	-21 58.2	1.027	2.019	7.5	19.6	8 29	21 54.55	-8 36.7	1.081	2.084	4.3	19.3
9 8	21 47.14	-22 45.3	1.082	2.038	12.4	20.0	9 8	21 45.56	-9 30.6	1.085	2.060	9.8	19.6
9 18	21 42.05	-23 5.7	1.158	2.057	16.7	20.3	9 18	21 38.62	-10 18.0	1.112	2.036	15.1	19.8
9 28	21 40.23	-23 1.1	1.250	2.076	20.3	20.6	9 28	21 34.77	-10 52.7	1.158	2.013	19.7	20.0
389986	2012 <i>TT</i> ₂₈₁		8 21.2 306°28	5.9/25.3	18		488267	2016 <i>SM</i> ₆		8 21.2 318°55	1.2/21.5	17	
7 20	22 25.48	+ 2 34.2	1.683	2.524	15.9	20.6	7 20	22 41.74	-14 23.9	1.343	2.223	16.9	20.7
7 30	22 20.21	+ 3 9.2	1.606	2.517	12.8	20.4	7 30	22 33.29	-13 0.8	1.232	2.179	12.8	20.3
8 9	22 12.86	+ 3 25.6	1.549	2.510	9.4	20.2	8 9	22 21.07	-11 30.9	1.143	2.135	7.7	19.9
8 19	22 4.11	+ 3 22.7	1.516	2.503	6.5	20.0	8 19	22 5.80	-9 52.7	1.080	2.091	2.0	19.4
8 29	21 54.94	+ 3 2.2	1.508	2.496	6.1	20.0	8 29	21 48.99	-8 6.7	1.046	2.047	5.1	19.5
9 8	21 46.47	+ 2 28.6	1.525	2.490	8.6	20.1	9 8	21 32.68	-6 15.9	1.039	2.004	11.5	19.7
9 18	21 39.66	+ 1 47.8	1.567	2.483	12.0	20.3	9 18	21 18.84	-4 24.8	1.057	1.961	17.5	19.9
9 28	21 35.28	+ 1 6.1	1.631	2.477	15.3	20.5	9 28	21 8.92	-2 36.4	1.096	1.920	22.7	20.1
234329	2001 <i>DO</i> ₉₈		8 21.2 141°83	2.7/23.1	18		270983	2002 <i>WO</i> ₂₆		8 21.2 345°47	6.2/25.2	18	
7 20	22 31.46	- 4 39.6	2.181	3.027	12.6	20.6	7 20	22 14.74	+ 0 33.5	0.929	1.830	20.7	19.7
7 30	22 23.91	- 4 9.5	2.112	3.036	9.5	20.5	7 30	22 13.48	+ 0 53.2	0.863	1.812	16.5	19.4
8 9	22 14.68	- 3 49.1	2.068	3.045	6.1	20.3	8 9	22 9.50	+ 0 42.9	0.813	1.796	11.8	19.0
8 19	22 4.41	- 3 37.5	2.051	3.054	3.1	20.1	8 19	22 3.56	+ 0 1.9	0.781	1.781	7.4	18.8
8 29	21 53.99	- 3 32.8	2.064	3.062	3.5	20.1	8 29	21 56.97	- 1 5.0	0.768	1.769	6.7	18.7
9 8	21 44.33	- 3 32.4	2.106	3.070	6.6	20.4	9 8	21 51.37	- 2 27.1	0.776	1.759	10.8	18.9
9 18	21 36.19	- 3 33.6	2.176	3.077	9.9	20.6	9 18	21 48.14	- 3 51.6	0.803	1.752	16.0	19.1
9 28	21 30.14	- 3 33.7	2.269	3.084	12.7	20.8	9 28	21 48.27	- 5 6.7	0.846	1.747	20.8	19.4
266092	2006 <i>SM</i> ₅₃		8 21.2 301°63	1°0/21.9	17		481146	2005 <i>UJ</i> ₁₁₉		8 21.2 264°65	0°3/20.9	17	
7 20	22 24.09	- 7 30.2	1.346	2.238	16.1	20.9	7 20	22 23.26	-11 13.9	2.339	3.217	10.7	23.0
7 30	22 19.78	- 7 53.6	1.262	2.215	12.0	20.6	7 30	22 18.18	-11 42.2	2.252	3.200	7.8	22.7
8 9	22 12.91	- 8 34.1	1.199	2.193	7.2	20.2	8 9	22 11.55	-12 17.9	2.190	3.184	4.4	22.5
8 19	22 4.16	- 9 27.7	1.159	2.170	2.0	19.8	8 19	22 3.89	-12 57.5	2.155	3.167	0.8	22.2
8 29	21 54.70	-10 27.5	1.144	2.148	4.2	19.9	8 29	21 55.90	-13 36.9	2.149	3.150	3.0	22.4
9 8	21 45.95	-11 25.3	1.153	2.125	9.7	20.2	9 8	21 48.39	-14 11.9	2.171	3.132	6.6	22.6
9 18	21 39.20	-12 13.8	1.184	2.104	14.8	20.4	9 18	21 42.08	-14 39.2	2.219	3.115	9.9	22.7
9 28	21 35.41	-12 47.9	1.235	2.082	19.2	20.6	9 28	21 37.54	-14 56.8	2.290	3.097	12.8	22.9
319441	2006 <i>KW</i> ₅₂		8 21.2 191°02	3°5/23.9	17		357797	2005 <i>TP</i> ₆₀		8 21.2 349°21	1°7/22.7	18	
7 20	22 25.50	- 1 4.0	1.463	2.328	16.6	21.8	7 20	22 22.56	- 5 41.2	1.899	2.771	13.1	21.1
7 30	22 20.39	- 1 24.5	1.395	2.328	12.8	21.5	7 30	22 17.85	- 5 53.1	1.828	2.769	9.7	20.9
8 9	22 13.02	- 2 6.4	1.347	2.327	8.4	21.3	8 9	22 11.41	- 6 17.4	1.780	2.767	6.0	20.6
8 19	22 4.14	- 3 6.7	1.323	2.327	4.3	21.0	8 19	22 3.86	- 6 51.5	1.757	2.765	2.3	20.4
8 29	21 54.90	- 4 19.4	1.325	2.326	4.4	21.0	8 29	21 56.05	- 7 31.0	1.761	2.763	3.2	20.5
9 8	21 46.52	- 5 36.1	1.352	2.324	8.5	21.3	9 8	21 48.91	- 8 11.0	1.792	2.762	7.0	20.7
9 18	21 40.06	- 6 48.7	1.403	2.323	12.8	21.5	9 18	21 43.23	- 8 47.0	1.848	2.761	10.6	20.9
9 28	21 36.27	- 7 50.7	1.475	2.322	16.7	21.8	9 28	21 39.60	- 9 15.3	1.926	2.761	13.8	21.1
349198	2007 <i>RJ</i> ₂₁₁		8 21.2 250°27	1°1/20.3	18		521611	2015 <i>PE</i> ₃₂₀		8 21.2 314°40	0°7/21.9	18	
7 20	22 26.10	-13 47.7	2.238	3.119	11.0	20.7	7 20	22 20.57	- 6 59.0	2.147	3.021	11.7	20.9
7 30	22 20.30	-14 15.7	2.151	3.101	7.9	20.5	7 30	22 16.28	- 7 41.6	2.073	3.017	8.6	20.7
8 9	22 12.78	-14 49.4	2.088	3.083	4.5	20.2	8 9	22 10.47	- 8 35.9	2.022	3.012	5.0	20.4
8 19	22 4.10	-15 24.8	2.054	3.064	1.2	20.0	8 19	22 3.68	- 9 38.0	1.997	3.008	1.3	20.2
8 29	21 55.06	-15 57.4	2.047	3.045	3.6	20.1	8 29	21 56.64	-10 43.0	2.001	3.004	2.8	20.3
9 8	21 46.53	-16 23.3	2.069	3.026	7.3	20.3	9 8	21 50.14	-11 45.2	2.033	3.000	6.5	20.5
9 18	21 39.33	-16 39.6	2.117	3.005	10.7	20.5	9 18	21 44.90	-12 40.0	2.090	2.996	10.0	20.7
9 28	21 34.10	-16 44.9	2.188	2.985	13.7	20.7	9 28	21 41.46	-13 24.0	2.170	2.992	12.9	20.9
438766	2008 <i>UN</i> ₂₂₃		8 21.2 323°25	10°1/29.3	18		301376	2009 <i>CJ</i> ₆₂		8 21.2 166°62	2°0/23.2	18	
7 20	22 22.07	+12 43.6	1.579	2.376	18.7	20.2	7 20	22 22.30	- 3 30.9	1.941	2.804	13.2	20.8
7 30	22 17.96	+13 30.9	1.499	2.365	16.2	20.0	7 30	22 17.62	- 4 1.7	1.869	2.804	9.9	20.6
8 9	22 11.70	+13 50.4	1.437	2.354	13.5	19.8	8 9	22 11.27	- 4 47.6	1.821	2.804	6.2	20.4
8 19	22 3.92	+13 38.8	1.395	2.344	11.1	19.7	8 19	22 3.83	- 5 45.3	1.798	2.804	2.7	20.2
8 29	21 55.63	+12 56.0	1.375	2.335	10.1	19.6	8 29	21 56.14	- 6 49.6	1.802	2.805	3.2	20.2
9 8	21 48.00	+11 47.0	1.379	2.325	11.0	19.6	9 8	21 49.09	- 7 54.4	1.834	2.805	6.8	20.5
9 18	21 42.06	+10 19.9	1.405	2.317	13.4	19.7	9 18	21 43.45	- 8 54.4	1.892	2.805	10.5	20.7
9 28	21 38.64	+ 8 45.0	1.452	2.309	16.3	19.9	9 28	21 39.83	- 9 45.0	1.972	2.805	13.6	20.9
427361	2014 <i>WL</i> ₄₂₇		8 21.2 154°62	4°9/24.8	18		504018	2005 <i>MP</i> ₂₉		8 21.3 47°63	4°2/24.2	17	
7 20	22 27.21	+ 1 3.6	1.636	2.483	16.0	20.9	7 20	22 25.33	- 1 3.9	1.269	2.143	18.1	20.7
7 30	22 21.41	+ 1 21.1	1.568	2.486	12.6	20.7	7 30	22 20.29	- 1 2.5	1.221	2.157	13.9	20.5
8 9	22 13.50	+ 1 19.5	1.520	2.488	8.9	20.5	8 9	22 12.92	- 1 23.1	1.192	2.172	9.2	20.3
8 19	22 4.24	+ 0 59.7	1.497	2.491	5.7	20.3	8 19	22 4.14	- 2 3.0	1.185	2.187	5.1	20.1
8 29	21 54.66	+ 0 24.7	1.499	2.493	5.3	20.3	8 29	21 55.22	- 2 56.3	1.203	2.203	5.0	20.1
9 8	21 45.91	- 0 19.9	1.527	2.495	8.3	20.5	9 8	21 47.45	- 3 54.7	1.245	2.220	8.9	20.4
9 18	21 38.96	- 1 7.8	1.580	2.496	11.9	20.7	9 18	21 41.85	- 4 50.8	1.310	2.236	13.1	20.7
9 28	21 34.49	- 1 52.8	1.655	2.498	15.3	20.9	9 28	21 39.05	- 5 38.0	1.395	2.253	16.8	21.0
17188	1999 <i>WC</i> ₂		8 21.2 78°03	13°8/ 8.3	17 R		137297	1999 <i>RC</i> ₂₂₆					

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
19855	Borisalexeev		8 21.3	2°89	4.3/25.3	18	12166	Oliverherrmann		8 21.3	228°02	0°2/21.0	18
7 20	22 20.70	+ 2 13.4	1.883	2.727	14.4	18.8	7 20	22 24.02	- 9 46.1	2.167	3.043	11.5	19.1
7 30	22 16.53	+ 2 2.1	1.811	2.727	11.3	18.6	7 30	22 18.82	-10 33.7	2.086	3.033	8.3	18.9
8 9	22 10.68	+ 1 31.5	1.760	2.727	8.0	18.4	8 9	22 11.97	-11 31.2	2.029	3.022	4.7	18.6
8 19	22 3.74	+ 0 43.4	1.733	2.727	5.1	18.2	8 19	22 4.01	-12 34.4	2.000	3.011	0.8	18.3
8 29	21 56.54	- 0 18.3	1.733	2.728	4.6	18.2	8 29	21 55.72	-13 37.8	1.999	3.000	3.2	18.5
9 8	21 49.98	- 1 27.4	1.759	2.729	7.1	18.3	9 8	21 47.97	-14 35.9	2.027	2.988	7.0	18.7
9 18	21 44.82	- 2 37.5	1.810	2.730	10.4	18.5	9 18	21 41.52	-15 24.6	2.080	2.976	10.5	18.9
9 28	21 41.67	- 3 42.6	1.884	2.732	13.5	18.7	9 28	21 36.99	-16 1.0	2.157	2.963	13.5	19.1
38946	2000 SS ₂₇₄		8 21.3	144°20	0°1/21.3	18	413482	2005 JU ₁₄₅		8 21.3	129°37	6°4/16.1	17
7 20	22 26.96	- 9 10.2	1.486	2.373	15.2	19.2	7 20	22 32.45	-27 25.2	1.828	2.718	12.6	21.5
7 30	22 21.38	- 9 50.2	1.426	2.378	11.0	18.9	7 30	22 24.99	-28 37.8	1.789	2.735	9.5	21.4
8 9	22 13.55	-10 43.3	1.387	2.382	6.3	18.7	8 9	22 15.41	-29 43.7	1.775	2.752	7.0	21.3
8 19	22 4.28	-11 43.9	1.374	2.385	1.2	18.3	8 19	22 4.62	-30 35.1	1.787	2.767	6.5	21.3
8 29	21 54.74	-12 44.7	1.387	2.389	4.0	18.6	8 29	21 53.81	-31 6.0	1.826	2.782	8.3	21.4
9 8	21 46.17	-13 38.4	1.425	2.392	8.8	18.9	9 8	21 44.14	-31 14.0	1.890	2.796	11.0	21.6
9 18	21 39.58	-14 20.0	1.488	2.395	13.1	19.1	9 18	21 36.52	-31 0.1	1.978	2.809	13.8	21.8
9 28	21 35.66	-14 46.6	1.571	2.398	16.8	19.4	9 28	21 31.55	-30 27.5	2.085	2.821	16.1	22.0
184203	2004 PG ₇₅		8 21.3	358°42	0°6/20.8	18	245573	2005 UH ₂₂₄		8 21.3	343°09	0°8/21.9	18
7 20	22 20.33	-11 6.0	1.547	2.447	13.9	19.7	7 20	22 22.91	- 8 18.2	1.954	2.832	12.5	20.8
7 30	22 16.56	-11 40.9	1.484	2.443	10.0	19.4	7 30	22 18.08	- 8 34.7	1.883	2.829	9.2	20.5
8 9	22 10.80	-12 26.6	1.444	2.441	5.6	19.2	8 9	22 11.55	- 9 1.4	1.836	2.827	5.4	20.3
8 19	22 3.78	-13 17.7	1.428	2.440	1.0	18.9	8 19	22 3.94	- 9 35.0	1.814	2.824	1.5	20.0
8 29	21 56.48	-14 7.8	1.438	2.439	4.0	19.1	8 29	21 56.07	-10 11.2	1.819	2.822	3.0	20.2
9 8	21 50.00	-14 50.5	1.472	2.440	8.5	19.4	9 8	21 48.87	-10 45.4	1.852	2.820	7.0	20.4
9 18	21 45.23	-15 21.4	1.530	2.442	12.6	19.6	9 18	21 43.10	-11 13.6	1.910	2.819	10.6	20.6
9 28	21 42.83	-15 37.9	1.608	2.444	16.0	19.8	9 28	21 39.35	-11 33.0	1.990	2.817	13.7	20.8
183230	2002 TC ₅₈		8 21.3	356°90	7°5/11.2	18	41606	2000 SO ₁₀₈		8 21.3	240°84	1°2/22.1	18
7 20	21 50.15	-12 2.2	0.638	1.607	17.4	15.6	7 20	22 26.42	- 6 38.0	1.547	2.426	15.1	19.2
7 30	21 55.63	-16 45.2	0.593	1.588	11.8	15.2	7 30	22 21.10	- 7 8.4	1.471	2.417	11.2	18.9
8 9	21 59.27	-22 8.9	0.568	1.573	7.7	14.9	8 9	22 13.49	- 7 54.5	1.417	2.408	6.7	18.7
8 19	22 1.62	-27 35.9	0.564	1.564	9.6	15.0	8 19	22 4.33	- 8 52.2	1.388	2.398	2.0	18.3
8 29	22 3.83	-32 23.3	0.581	1.559	15.2	15.2	8 29	21 54.70	- 9 54.9	1.385	2.388	3.7	18.4
9 8	22 7.18	-36 0.4	0.616	1.559	20.7	15.5	9 8	21 45.84	-10 55.2	1.408	2.378	8.6	18.7
9 18	22 12.67	-38 16.1	0.665	1.565	25.3	15.9	9 18	21 38.83	-11 46.8	1.455	2.367	13.1	19.0
9 28	22 20.89	-39 13.9	0.727	1.576	28.8	16.2	9 28	21 34.46	-12 25.4	1.523	2.356	16.9	19.2
479184	2013 CC ₅₉		8 21.3	217°37	0°1/21.1	18	92266	2000 BX ₂₄		8 21.3	258°22	11°0/17.2	18
7 20	22 21.75	- 8 18.0	2.205	3.080	11.4	21.5	7 20	22 46.45	-34 23.6	1.150	2.040	18.4	19.3
7 30	22 17.13	- 9 24.9	2.130	3.076	8.2	21.3	7 30	22 36.65	-34 58.2	1.091	2.029	15.0	19.1
8 9	22 10.97	-10 43.5	2.078	3.071	4.7	21.0	8 9	22 22.69	-35 14.0	1.051	2.018	12.0	18.9
8 19	22 3.80	-12 8.7	2.055	3.066	0.8	20.7	8 19	22 6.05	-34 57.7	1.033	2.006	11.1	18.8
8 29	21 56.36	-13 34.6	2.061	3.061	3.1	20.9	8 29	21 49.12	-34 1.0	1.039	1.994	13.0	18.8
9 8	21 49.44	-14 54.7	2.095	3.056	6.8	21.1	9 8	21 34.36	-32 25.4	1.067	1.982	16.6	19.0
9 18	21 43.76	-16 4.3	2.155	3.051	10.2	21.3	9 18	21 23.50	-30 20.2	1.116	1.970	20.6	19.2
9 28	21 39.89	-16 59.9	2.239	3.045	13.1	21.5	9 28	21 17.32	-27 56.4	1.182	1.958	24.1	19.4
92087	1999 XL ₂₃		8 21.3	335°39	4°9/16.4	18	297356	2000 BG ₄₆		8 21.3	196°77	0°1/21.3	18
7 20	22 22.27	-23 4.8	1.942	2.845	11.4	19.0	7 20	22 25.03	-10 9.5	1.901	2.782	12.6	20.7
7 30	22 17.75	-24 19.8	1.882	2.840	8.4	18.8	7 30	22 19.63	-10 30.8	1.833	2.781	9.2	20.5
8 9	22 11.41	-25 34.5	1.846	2.834	5.7	18.7	8 9	22 12.44	-11 1.1	1.788	2.781	5.2	20.2
8 19	22 3.89	-26 41.9	1.837	2.829	5.0	18.6	8 19	22 4.10	-11 36.5	1.769	2.781	1.0	19.9
8 29	21 56.10	-27 35.1	1.854	2.825	7.0	18.7	8 29	21 55.53	-12 12.4	1.778	2.780	3.3	20.1
9 8	21 49.03	-28 9.8	1.897	2.820	10.0	18.9	9 8	21 47.68	-12 43.9	1.814	2.780	7.4	20.3
9 18	21 43.51	-28 24.3	1.962	2.816	12.9	19.1	9 18	21 41.37	-13 7.6	1.876	2.779	11.1	20.6
9 28	21 40.15	-28 19.2	2.048	2.813	15.5	19.3	9 28	21 37.20	-13 21.1	1.959	2.778	14.2	20.8
402433	2006 AD ₆₁		8 21.3	58°99	1°0/20.2	18	136601	1993 FC ₄₉		8 21.3	100°75	0°4/20.9	18
7 20	22 21.06	-12 10.4	2.258	3.143	10.7	21.4	7 20	22 23.51	-11 9.6	2.090	2.971	11.6	20.2
7 30	22 16.56	-13 4.7	2.192	3.145	7.7	21.2	7 30	22 18.39	-11 40.1	2.025	2.975	8.4	20.0
8 9	22 10.60	-14 6.2	2.151	3.147	4.2	21.0	8 9	22 11.67	-12 18.2	1.984	2.978	4.7	19.8
8 19	22 3.73	-15 10.4	2.137	3.148	1.1	20.8	8 19	22 3.96	-13 0.0	1.970	2.981	0.8	19.5
8 29	21 56.67	-16 11.8	2.152	3.150	3.4	21.0	8 29	21 56.06	-13 40.8	1.984	2.985	3.2	19.7
9 8	21 50.17	-17 5.8	2.195	3.152	6.8	21.2	9 8	21 48.83	-14 16.1	2.025	2.988	6.9	19.9
9 18	21 44.91	-17 48.8	2.263	3.154	10.0	21.4	9 18	21 42.98	-14 42.8	2.092	2.991	10.3	20.1
9 28	21 41.40	-18 18.7	2.354	3.156	12.7	21.6	9 28	21 39.06	-14 58.9	2.182	2.994	13.2	20.3
239855	1999 WA ₁₉		8 21.3	273°96	2°0/19.6	18	1092	Lilium		8 21.3	57°15	1°2/22.2	18
7 20	22 24.86	-14 56.5	1.808	2.702	12.6	20.9	7 20	22 24.85	- 7 45.9	1.884	2.759	13.0	15.2
7 30	22 19.71	-15 40.6	1.734	2.690	9.0	20.7	7 30	22 19.43	- 7 53.1	1.823	2.767	9.6	15.0
8 9	22 12.58	-16 31.4	1.683	2.679	5.1	20.4	8 9	22 12.28	- 8 10.6	1.785	2.774	5.7	14.7
8 19	22 4.13	-17 23.2	1.658	2.668	2.0	20.2	8 19	22 4.07	- 8 35.4	1.773	2.782	1.8	14.5
8 29	21 55.31	-18 9.8	1.661	2.656	4.6	20.3	8 29	21 55.70	- 9 3.4	1.788	2.790	3.1	14.6
9 8	21 47.19	-18 45.8	1.690	2.645	8.7	20.5	9 8	21 48.10	- 9 30.2	1.830	2.798	7.0	14.9
9 18	21 40.69	-19 7.9	1.743	2.633	12.5	20.8	9 18	21 42.05	- 9 52.1	1.897	2.806	10.6	15.1
9 28	21 36.50	-19 14.8	1.817	2.622	15.7	20.9	9 28	21 38.11	-10 6.5	1.987	2.815	13.7	15.3
156920	2003 FS ₅₅		8 21.3	232°22	0°4/20.9	18	339151	2004 TJ ₁₃		8 21.3	280°14	17°6/29.8	16
7 20	22 26.86	-11 7.2	1.866	2.747									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
94286	2001 <i>DK</i> ₅₈		8 21.3 48°82	3°1/24.1	18		315042	2007 <i>CE</i> ₃₅		8 21.3 28°17	1°5/19.7	18	
7 20	22 23.38	- 1 45.9	2.168	3.017	12.5	19.1	7 20	22 20.86	-12 43.4	2.006	2.897	11.6	19.9
7 30	22 18.22	- 1 36.6	2.100	3.023	9.6	18.9	7 30	22 16.60	-13 52.0	1.945	2.901	8.2	19.7
8 9	22 11.55	- 1 40.3	2.055	3.029	6.5	18.8	8 9	22 10.72	-15 8.7	1.908	2.904	4.6	19.5
8 19	22 3.94	- 1 55.4	2.036	3.035	3.7	18.6	8 19	22 3.83	-16 27.6	1.898	2.908	1.5	19.3
8 29	21 56.15	- 2 19.4	2.044	3.041	3.7	18.6	8 29	21 56.73	-17 42.1	1.916	2.912	4.0	19.5
9 8	21 48.98	- 2 48.2	2.080	3.048	6.4	18.8	9 8	21 50.27	-18 46.4	1.961	2.916	7.7	19.7
9 18	21 43.12	- 3 18.1	2.141	3.054	9.4	19.0	9 18	21 45.19	-19 36.7	2.031	2.921	11.0	20.0
9 28	21 39.09	- 3 45.2	2.227	3.061	12.2	19.2	9 28	21 42.04	-20 10.8	2.123	2.925	13.8	20.2
478880	2012 <i>VP</i> ₁₀₆		8 21.3 286°53	9°0/13.2	18		287031	2002 <i>QT</i> ₁₀₄		8 21.3 232°18	2°6/23.9	18	
7 20	22 28.77	-34 0.7	1.759	2.651	12.9	21.1	7 20	22 23.28	- 1 27.8	2.289	3.134	12.1	21.2
7 30	22 22.80	-35 22.4	1.706	2.642	10.6	20.9	7 30	22 18.24	- 1 50.8	2.200	3.123	9.3	21.0
8 9	22 14.43	-36 33.7	1.676	2.633	9.2	20.8	8 9	22 11.65	- 2 28.2	2.135	3.111	6.1	20.8
8 19	22 4.50	-37 25.2	1.670	2.623	9.3	20.8	8 19	22 4.02	- 3 17.9	2.097	3.099	3.2	20.6
8 29	21 54.25	-37 50.0	1.688	2.614	11.0	20.9	8 29	21 56.06	- 4 16.1	2.087	3.086	3.2	20.6
9 8	21 45.04	-37 45.5	1.729	2.605	13.5	21.0	9 8	21 48.58	- 5 17.8	2.105	3.073	6.3	20.7
9 18	21 37.95	-37 13.5	1.791	2.596	16.0	21.2	9 18	21 42.28	- 6 18.1	2.150	3.060	9.5	20.9
9 28	21 33.68	-36 17.8	1.870	2.587	18.3	21.4	9 28	21 37.76	- 7 12.3	2.219	3.046	12.5	21.1
111864	2002 <i>EZ</i> ₈₆		8 21.3 118°81	1°0/20.4	17		516370	2017 <i>DE</i> ₁₁₂		8 21.3 283°39	7°3/14.3	18	
7 20	22 26.67	-12 39.7	2.000	2.882	12.1	20.4	7 20	22 29.36	-33 45.6	2.252	3.132	10.9	21.0
7 30	22 20.62	-13 19.1	1.947	2.898	8.6	20.2	7 30	22 22.85	-34 37.1	2.181	3.112	8.9	20.9
8 9	22 12.90	-14 5.0	1.918	2.913	4.8	20.0	8 9	22 14.34	-35 19.8	2.135	3.092	7.5	20.7
8 19	22 4.19	-14 52.4	1.916	2.927	1.1	19.8	8 19	22 4.53	-35 47.0	2.115	3.071	7.4	20.7
8 29	21 55.37	-15 36.3	1.943	2.941	3.6	20.0	8 29	21 54.41	-35 53.6	2.121	3.051	8.9	20.8
9 8	21 47.37	-16 12.1	1.997	2.955	7.4	20.3	9 8	21 45.06	-35 37.7	2.152	3.030	11.1	20.9
9 18	21 40.92	-16 37.1	2.077	2.968	10.7	20.5	9 18	21 37.39	-35 0.0	2.205	3.009	13.4	21.0
9 28	21 36.56	-16 50.0	2.179	2.980	13.5	20.7	9 28	21 32.06	-34 3.3	2.278	2.988	15.6	21.1
490763	2010 <i>TL</i> ₁₉₂		8 21.3 275°71	0°6/22.3	17		239086	2006 <i>HO</i> ₃		8 21.3 174°60	9°6/4.0	18	
7 20	22 15.75	- 7 22.5	4.341	5.199	6.6	21.9	7 20	22 24.13	+25 17.6	2.624	3.277	15.3	21.5
7 30	22 12.21	- 7 44.3	4.259	5.195	4.8	21.7	7 30	22 18.73	+25 23.0	2.538	3.281	13.8	21.4
8 9	22 7.96	- 8 11.3	4.204	5.190	2.9	21.6	8 9	22 11.87	+25 2.4	2.469	3.284	12.2	21.3
8 19	22 3.27	- 8 41.8	4.177	5.186	0.9	21.4	8 19	22 4.06	+24 14.1	2.421	3.286	10.7	21.2
8 29	21 58.47	- 9 13.9	4.179	5.181	1.5	21.5	8 29	21 56.01	+22 58.4	2.397	3.287	9.7	21.1
9 8	21 53.92	- 9 45.7	4.211	5.177	3.5	21.6	9 8	21 48.50	+21 19.3	2.397	3.287	9.6	21.1
9 18	21 49.94	-10 15.1	4.272	5.172	5.4	21.8	9 18	21 42.17	+19 22.8	2.424	3.287	10.5	21.2
9 28	21 46.82	-10 40.5	4.358	5.168	7.1	21.9	9 28	21 37.59	+17 16.9	2.476	3.286	11.9	21.3
487782	2015 <i>RT</i> ₂₂₆		8 21.3 271°77	2°9/18.1	18		154873	2004 <i>RQ</i> ₁₀₆		8 21.3 9°25	3°5/18.5	18	
7 20	22 22.59	-19 4.9	2.351	3.244	10.1	21.7	7 20	22 26.11	-21 21.4	1.994	2.889	11.5	19.3
7 30	22 17.74	-19 58.6	2.276	3.232	7.2	21.5	7 30	22 20.36	-21 48.2	1.935	2.890	8.3	19.1
8 9	22 11.34	-20 54.8	2.226	3.219	4.4	21.3	8 9	22 12.84	-22 14.0	1.899	2.891	5.1	18.9
8 19	22 3.92	-21 48.4	2.203	3.206	2.9	21.1	8 19	22 4.24	-22 34.0	1.891	2.893	3.5	18.8
8 29	21 56.23	-22 34.4	2.209	3.194	4.9	21.3	8 29	21 55.49	-22 43.7	1.909	2.894	5.4	19.0
9 8	21 49.06	-23 8.6	2.242	3.181	7.9	21.4	9 8	21 47.56	-22 40.4	1.954	2.896	8.6	19.2
9 18	21 43.13	-23 28.8	2.300	3.168	10.8	21.6	9 18	21 41.23	-22 23.5	2.024	2.898	11.7	19.4
9 28	21 39.01	-23 34.3	2.380	3.155	13.3	21.8	9 28	21 37.07	-21 53.5	2.114	2.901	14.4	19.6
439493	2013 <i>YU</i> ₁₄₉		8 21.3 241°62	0°9/22.1	18		151491	2002 <i>JU</i> ₄₆		8 21.3 37°60	1°4/20.2	18	
7 20	22 24.53	- 6 38.2	1.891	2.763	13.1	21.6	7 20	22 25.16	-15 11.6	1.880	2.773	12.2	18.8
7 30	22 19.41	- 7 14.5	1.810	2.752	9.7	21.3	7 30	22 19.64	-15 27.8	1.829	2.784	8.7	18.6
8 9	22 12.42	- 8 4.5	1.751	2.741	5.8	21.1	8 9	22 12.40	-15 47.9	1.800	2.796	4.9	18.4
8 19	22 4.15	- 9 4.2	1.719	2.729	1.7	20.8	8 19	22 4.15	-16 7.9	1.798	2.809	1.5	18.2
8 29	21 55.49	-10 8.0	1.714	2.717	3.2	20.9	8 29	21 55.83	-16 23.4	1.824	2.822	3.9	18.4
9 8	21 47.43	-11 9.7	1.737	2.705	7.4	21.1	9 8	21 48.36	-16 31.1	1.876	2.835	7.7	18.7
9 18	21 40.84	-12 3.8	1.785	2.692	11.4	21.3	9 18	21 42.51	-16 29.3	1.952	2.849	11.1	18.9
9 28	21 36.43	-12 46.5	1.856	2.679	14.7	21.5	9 28	21 38.80	-16 17.1	2.051	2.862	13.9	19.1
348054	2003 <i>UD</i> ₂₀₈		8 21.3 3°02	10°0/29.6	18		343537	2010 <i>EP</i> ₁₄₃		8 21.3 154°95	2°3/18.9	17	
7 20	22 18.29	+11 13.1	1.271	2.100	20.7	19.6	7 20	22 23.06	-13 58.8	1.848	2.742	12.3	20.3
7 30	22 15.46	+11 49.1	1.208	2.099	17.6	19.3	7 30	22 18.34	-15 25.1	1.786	2.743	8.7	20.0
8 9	22 10.38	+11 51.7	1.162	2.098	14.3	19.1	8 9	22 11.79	-16 59.9	1.748	2.745	4.9	19.8
8 19	22 3.77	+11 18.6	1.135	2.099	11.4	19.0	8 19	22 4.06	-18 35.7	1.738	2.746	2.3	19.7
8 29	21 56.79	+10 11.9	1.129	2.102	10.0	18.9	8 29	21 56.05	-20 4.5	1.755	2.747	4.9	19.8
9 8	21 50.69	+ 8 39.7	1.145	2.106	11.1	19.0	9 8	21 48.75	-21 19.4	1.800	2.749	8.7	20.1
9 18	21 46.54	+ 6 53.3	1.182	2.111	13.9	19.2	9 18	21 43.00	-22 16.3	1.869	2.750	12.2	20.3
9 28	21 45.09	+ 5 5.0	1.239	2.118	17.1	19.4	9 28	21 39.42	-22 53.5	1.959	2.751	15.2	20.5
144276	2004 <i>CN</i> ₉₉		8 21.3 240°59	0°7/20.7	18		62781	2000 <i>UE</i> ₂₃		8 21.3 8°11	4°8/16.6	18 R	
7 20	22 25.66	-10 36.7	1.673	2.560	13.8	20.2	7 20	22 24.10	-23 51.8	2.017	2.916	11.2	19.2
7 30	22 20.44	-11 27.5	1.598	2.551	10.0	20.0	7 30	22 18.99	-24 57.0	1.961	2.917	8.3	19.1
8 9	22 13.09	-12 30.4	1.546	2.541	5.6	19.7	8 9	22 12.11	-26 0.6	1.931	2.917	5.7	18.9
8 19	22 4.29	-13 39.6	1.519	2.531	1.1	19.4	8 19	22 4.11	-26 55.9	1.926	2.917	4.9	18.9
8 29	21 55.07	-14 47.8	1.520	2.520	4.1	19.6	8 29	21 55.92	-27 37.0	1.948	2.918	6.8	19.0
9 8	21 46.58	-15 48.0	1.547	2.509	8.7	19.8	9 8	21 48.48	-28 0.4	1.996	2.918	9.6	19.2
9 18	21 39.80	-16 34.9	1.599	2.498	12.9	20.1	9 18	21 42.59	-28 4.9	2.068	2.919	12.5	19.3
9 28	21 35.49	-17 5.8	1.671	2.487	16.4	20.3	9 28	21 38.85	-27 51.5	2.159	2.920	14.9	19.5
447083	2004 <i>TC</i> ₄₂		8 21.3 343°74	2°1/19.7	17		432648	2010 <i>WQ</i>					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
9685	Korteweg		8 21.3 113°03	0°8/21.9 18			392821	2012 TU ₂₉₄		8 21.3 324°98	2°8/23.6 18		
7 20	22 27.37	- 7 49.2	1.668	2.545	14.3	18.3	7 20	22 23.87	- 2 45.2	1.762	2.625	14.3	21.1
7 30	22 21.42	- 8 16.9	1.612	2.557	10.4	18.1	7 30	22 18.96	- 2 55.8	1.691	2.624	10.9	20.9
8 9	22 13.50	- 8 56.9	1.579	2.570	6.1	17.9	8 9	22 12.17	- 3 22.4	1.642	2.623	7.1	20.7
8 19	22 4.38	- 9 44.5	1.571	2.582	1.6	17.6	8 19	22 4.16	- 4 2.5	1.617	2.622	3.5	20.5
8 29	21 55.11	-10 34.0	1.591	2.594	3.4	17.8	8 29	21 55.86	- 4 51.7	1.619	2.620	3.7	20.5
9 8	21 46.77	-11 19.4	1.638	2.605	7.8	18.1	9 8	21 48.26	- 5 44.1	1.648	2.619	7.4	20.7
9 18	21 40.23	-11 56.4	1.709	2.616	11.7	18.4	9 18	21 42.24	- 6 34.0	1.702	2.618	11.2	20.9
9 28	21 36.10	-12 21.9	1.802	2.627	15.0	18.6	9 28	21 38.45	- 7 16.6	1.777	2.617	14.5	21.2
447526	2006 SF ₁₃₉		8 21.3 287°16	4°7/16.9 18			200546	2001 FV ₁₃₈		8 21.3 198°30	2°6/24.0 18		
7 20	22 26.54	-23 13.0	2.052	2.947	11.2	21.1	7 20	22 24.85	- 1 17.1	2.538	3.374	11.3	21.8
7 30	22 21.00	-24 10.3	1.963	2.916	8.4	20.9	7 30	22 19.20	- 1 29.1	2.453	3.370	8.7	21.6
8 9	22 13.43	-25 8.1	1.899	2.886	5.7	20.6	8 9	22 12.14	- 1 53.5	2.393	3.365	5.8	21.4
8 19	22 4.41	-25 59.7	1.861	2.855	4.7	20.5	8 19	22 4.15	- 2 28.6	2.360	3.360	3.2	21.2
8 29	21 54.86	-26 38.8	1.851	2.824	6.8	20.6	8 29	21 55.91	- 3 11.4	2.356	3.354	3.2	21.2
9 8	21 45.85	-27 0.6	1.866	2.792	10.0	20.7	9 8	21 48.14	- 3 58.0	2.381	3.347	5.8	21.4
9 18	21 38.35	-27 3.3	1.906	2.760	13.2	20.9	9 18	21 41.49	- 4 44.3	2.434	3.340	8.7	21.5
9 28	21 33.12	-26 47.2	1.966	2.728	16.1	21.0	9 28	21 36.50	- 5 26.4	2.511	3.332	11.4	21.7
36280	2000 CJ ₇₇		8 21.3 43°60	0°1/21.3 18			218893	2007 DX ₃₅		8 21.3 19°45	0°5/20.9 18		
7 20	22 24.80	-10 6.0	1.810	2.693	13.1	19.3	7 20	22 23.19	-12 1.8	1.890	2.779	12.3	20.0
7 30	22 19.56	-10 32.1	1.743	2.694	9.5	19.1	7 30	22 18.30	-12 22.5	1.829	2.783	8.9	19.8
8 9	22 12.47	-11 7.8	1.700	2.694	5.4	18.8	8 9	22 11.71	-12 50.5	1.792	2.787	5.0	19.6
8 19	22 4.20	-11 49.0	1.683	2.694	1.0	18.5	8 19	22 4.07	-13 21.6	1.781	2.792	0.9	19.3
8 29	21 55.68	-12 30.4	1.693	2.695	3.4	18.7	8 29	21 56.25	-13 51.2	1.797	2.798	3.4	19.5
9 8	21 47.91	-13 6.9	1.730	2.695	7.6	19.0	9 8	21 49.19	-14 15.2	1.839	2.803	7.4	19.8
9 18	21 41.75	-13 34.7	1.791	2.696	11.4	19.2	9 18	21 43.64	-14 30.5	1.906	2.810	10.9	20.0
9 28	21 37.80	-13 51.2	1.874	2.696	14.6	19.4	9 28	21 40.16	-14 35.3	1.996	2.816	13.9	20.2
349369	2007 VE ₂₇₂		8 21.3 74°04	4°3/25.1 18			326211	2012 CP ₃₈		8 21.3 150°84	0°8/22.1 18		
7 20	22 23.78	+ 1 26.7	1.851	2.694	14.6	20.5	7 20	22 21.87	- 7 26.4	2.578	3.443	10.3	21.6
7 30	22 18.74	+ 1 26.6	1.787	2.702	11.4	20.3	7 30	22 17.00	- 7 52.4	2.507	3.446	7.5	21.4
8 9	22 11.97	+ 1 8.4	1.744	2.711	8.0	20.1	8 9	22 10.85	- 8 27.0	2.462	3.450	4.4	21.2
8 19	22 4.11	+ 0 33.6	1.725	2.720	5.0	20.0	8 19	22 3.90	- 9 7.4	2.444	3.454	1.3	21.0
8 29	21 56.04	- 0 14.0	1.734	2.728	4.6	20.0	8 29	21 56.79	- 9 49.9	2.454	3.457	2.4	21.1
9 8	21 48.71	- 1 8.9	1.768	2.737	7.2	20.2	9 8	21 50.19	-10 30.7	2.494	3.460	5.6	21.3
9 18	21 42.89	- 2 5.1	1.828	2.746	10.5	20.4	9 18	21 44.66	-11 6.7	2.560	3.463	8.5	21.5
9 28	21 39.17	- 2 57.1	1.911	2.754	13.6	20.6	9 28	21 40.69	-11 35.2	2.651	3.465	11.0	21.7
163004	2001 SK ₂₃₄		8 21.3 345°14	2°7/24.4 18			431656	2008 CD ₅		8 21.3 225°04	1°4/22.1 17		
7 20	22 19.19	- 0 38.6	2.361	3.208	11.7	19.6	7 20	22 36.41	- 9 27.4	1.846	2.706	13.9	21.4
7 30	22 15.22	- 1 3.0	2.282	3.205	9.0	19.4	7 30	22 28.06	- 8 55.8	1.760	2.696	10.3	21.1
8 9	22 9.90	- 1 41.8	2.228	3.202	6.0	19.2	8 9	22 17.40	- 8 30.6	1.698	2.685	6.2	20.9
8 19	22 3.71	- 2 32.6	2.199	3.199	3.3	19.1	8 19	22 5.18	- 8 10.1	1.664	2.674	2.0	20.6
8 29	21 57.31	- 3 31.8	2.197	3.196	3.2	19.0	8 29	21 52.51	- 7 52.3	1.660	2.661	3.6	20.7
9 8	21 51.39	- 4 34.6	2.224	3.194	5.8	19.2	9 8	21 40.64	- 7 34.8	1.685	2.648	8.0	20.9
9 18	21 46.57	- 5 36.0	2.277	3.192	8.8	19.4	9 18	21 30.62	- 7 15.9	1.736	2.635	12.1	21.1
9 28	21 43.35	- 6 31.8	2.355	3.191	11.6	19.6	9 28	21 23.25	- 6 53.9	1.811	2.620	15.6	21.3
478596	2012 TC ₁₂₂		8 21.3 35°52	4°3/19.1 16			58562	1997 NG ₁		8 21.3 203°29	0°9/22.1 18		
7 20	22 31.74	-22 4.8	1.336	2.241	15.3	20.7	7 20	22 23.71	- 7 8.6	1.949	2.822	12.7	19.8
7 30	22 24.87	-22 13.6	1.294	2.254	11.1	20.5	7 30	22 18.70	- 7 37.0	1.878	2.821	9.4	19.5
8 9	22 15.51	-22 19.4	1.274	2.267	6.8	20.3	8 9	22 11.97	- 8 17.0	1.831	2.821	5.5	19.3
8 19	22 4.75	-22 15.9	1.277	2.281	4.3	20.2	8 19	22 4.13	- 9 5.3	1.809	2.820	1.6	19.0
8 29	21 54.06	-21 58.5	1.306	2.296	6.7	20.4	8 29	21 56.04	- 9 56.6	1.816	2.818	3.0	19.2
9 8	21 44.84	-21 25.6	1.360	2.311	10.7	20.7	9 8	21 48.60	-10 45.7	1.849	2.817	7.0	19.4
9 18	21 38.09	-20 38.6	1.436	2.327	14.6	20.9	9 18	21 42.61	-11 28.1	1.908	2.816	10.7	19.6
9 28	21 34.39	-19 39.8	1.531	2.343	17.8	21.2	9 28	21 38.67	-12 0.3	1.990	2.815	13.8	19.8
276006	2001 YC ₃₉		8 21.3 169°37	0°2/21.4 17			153218	2000 YU ₂₃		8 21.3 176°50	1°2/22.6 18		
7 20	22 26.51	- 9 33.5	2.006	2.880	12.4	21.3	7 20	22 22.94	- 6 18.8	2.560	3.420	10.5	20.9
7 30	22 20.64	-10 2.9	1.938	2.884	9.0	21.1	7 30	22 17.78	- 6 35.1	2.486	3.421	7.8	20.7
8 9	22 13.02	-10 41.6	1.895	2.887	5.1	20.9	8 9	22 11.31	- 7 0.4	2.436	3.422	4.7	20.5
8 19	22 4.31	-11 25.6	1.878	2.889	1.0	20.6	8 19	22 4.00	- 7 32.3	2.414	3.422	1.7	20.3
8 29	21 55.37	-12 9.9	1.889	2.891	3.2	20.8	8 29	21 56.51	- 8 7.7	2.421	3.423	2.5	20.4
9 8	21 47.14	-12 49.7	1.929	2.892	7.1	21.1	9 8	21 49.53	- 8 42.8	2.456	3.423	5.6	20.6
9 18	21 40.41	-13 21.4	1.994	2.893	10.7	21.3	9 18	21 43.64	- 9 14.6	2.519	3.423	8.6	20.8
9 28	21 35.77	-13 42.5	2.082	2.894	13.7	21.5	9 28	21 39.35	- 9 40.2	2.605	3.422	11.1	20.9
325818	2010 RP ₁₄₅		8 21.3 234°81	2°8/23.5 17			126522	2002 CK ₈₁		8 21.3 278°72	1°0/20.7 18		
7 20	22 26.25	- 2 24.9	1.680	2.541	15.0	21.1	7 20	22 30.83	-14 36.1	1.711	2.598	13.6	20.4
7 30	22 20.88	- 2 44.0	1.599	2.530	11.5	20.8	7 30	22 24.25	-14 34.5	1.626	2.578	9.9	20.2
8 9	22 13.38	- 3 21.1	1.539	2.520	7.5	20.6	8 9	22 15.34	-14 37.2	1.565	2.559	5.6	19.9
8 19	22 4.41	- 4 13.7	1.504	2.509	3.6	20.3	8 19	22 4.82	-14 40.4	1.529	2.540	1.3	19.5
8 29	21 54.96	- 5 16.6	1.496	2.497	3.9	20.3	8 29	21 53.79	-14 39.8	1.520	2.520	4.2	19.7
9 8	21 46.19	- 6 23.1	1.514	2.485	8.0	20.5	9 8	21 43.50	-14 32.0	1.539	2.500	8.8	19.9
9 18	21 39.10	- 7 26.1	1.558	2.472	12.2	20.8	9 18	21 35.06	-14 15.0	1.582	2.480	13.0	20.1
9 28	21 34.46	- 8 20.1	1.623	2.459	15.9	21.0	9 28	21 29.27	-13 48.2	1.646	2.460	16.7	20.3
392359	2010 GN ₉₇		8 21.3 111°90	3°1/18.7 18			219308	2000 EH ₂		8 21.3 272°79	0°1/21.4 17		
7 20	22 26.33	-18 34.5	1.861	2.756	12.2	21.1	7 20	22 22.40	- 9 50.				

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
318617	2005 <i>JP</i> ₈₂		8 21.3 66°55'	0°4/21.6	17		449627	2014 <i>KQ</i> ₆		8 21.3 221°06'	2°5/19.1	18	
7 20	22 27.07	- 8 38.3	1.328	2.220	16.3	20.8	7 20	22 25.26	-17 17.6	2.072	2.963	11.3	20.8
7 30	22 21.54	- 9 10.5	1.283	2.236	11.8	20.6	7 30	22 19.80	-18 0.6	2.005	2.960	8.1	20.6
8 9	22 13.69	- 9 56.5	1.258	2.252	6.8	20.4	8 9	22 12.61	-18 46.9	1.962	2.956	4.7	20.4
8 19	22 4.47	-10 50.4	1.257	2.268	1.5	20.1	8 19	22 4.31	-19 31.4	1.946	2.952	2.5	20.3
8 29	21 55.14	-11 44.7	1.281	2.284	4.0	20.3	8 29	21 55.78	-20 8.9	1.957	2.948	4.6	20.4
9 8	21 47.00	-12 32.2	1.331	2.300	8.9	20.6	9 8	21 47.92	-20 35.2	1.996	2.944	8.1	20.6
9 18	21 41.03	-13 8.2	1.403	2.317	13.3	20.9	9 18	21 41.52	-20 48.2	2.060	2.940	11.3	20.8
9 28	21 37.85	-13 29.7	1.496	2.333	16.9	21.2	9 28	21 37.19	-20 47.2	2.146	2.935	14.1	21.0
96786	1999 <i>RN</i> ₁₀₃		8 21.3 321°64'	2°0/22.3	18		37811	1998 <i>AR</i> ₄		8 21.3 48°08'	2°6/22.6	18	
7 20	22 28.81	- 8 47.0	1.461	2.346	15.5	18.6	7 20	22 31.22	- 7 2.3	1.078	1.971	19.1	17.6
7 30	22 23.02	- 8 10.9	1.382	2.330	11.6	18.4	7 30	22 24.71	- 6 37.5	1.042	1.994	14.1	17.4
8 9	22 14.73	- 7 43.7	1.324	2.314	7.1	18.1	8 9	22 15.52	- 6 29.0	1.026	2.017	8.6	17.2
8 19	22 4.72	- 7 24.0	1.291	2.300	2.6	17.7	8 19	22 4.84	- 6 33.6	1.032	2.040	3.4	16.9
8 29	21 54.17	- 7 9.5	1.283	2.285	4.1	17.8	8 29	21 54.26	- 6 46.2	1.061	2.064	4.6	17.1
9 8	21 44.46	- 6 56.9	1.300	2.272	8.9	18.1	9 8	21 45.28	- 7 0.8	1.114	2.089	9.6	17.5
9 18	21 36.76	- 6 43.5	1.341	2.259	13.5	18.3	9 18	21 38.99	- 7 12.2	1.189	2.114	14.3	17.8
9 28	21 31.93	- 6 26.3	1.403	2.246	17.5	18.5	9 28	21 35.95	- 7 16.7	1.284	2.139	18.1	18.1
217826	2001 <i>FW</i> ₁₁₉		8 21.3 236°41'	2°1/23.7	18		264395	2000 <i>EZ</i> ₂₆		8 21.3 185°49'	0°2/21.1	17	
7 20	22 20.75	- 2 10.8	2.470	3.319	11.2	20.6	7 20	22 25.30	- 8 59.6	1.705	2.588	13.8	20.9
7 30	22 16.32	- 2 42.9	2.388	3.313	8.5	20.4	7 30	22 20.10	- 9 54.5	1.638	2.588	10.0	20.7
8 9	22 10.54	- 3 28.1	2.329	3.307	5.5	20.2	8 9	22 12.89	-11 2.4	1.594	2.588	5.7	20.4
8 19	22 3.88	- 4 23.9	2.297	3.301	2.7	20.0	8 19	22 4.38	-12 17.5	1.576	2.587	1.0	20.1
8 29	21 56.99	- 5 26.5	2.294	3.295	2.8	20.0	8 29	21 55.56	-13 32.5	1.585	2.586	3.7	20.3
9 8	21 50.54	- 6 31.1	2.319	3.289	5.7	20.2	9 8	21 47.50	-14 40.3	1.621	2.585	8.2	20.6
9 18	21 45.16	- 7 33.1	2.372	3.282	8.7	20.4	9 18	21 41.13	-15 35.6	1.682	2.583	12.2	20.8
9 28	21 41.37	- 8 28.3	2.448	3.275	11.5	20.5	9 28	21 37.12	-16 15.1	1.764	2.582	15.6	21.0
114354	2002 <i>XR</i> ₇₉		8 21.3 261°87'	4°7/17.5	18		67123	2000 <i>AL</i> ₁₂₄		8 21.3 331°41'	4°3/16.1	18	
7 20	22 27.09	-20 56.0	1.619	2.521	13.3	19.8	7 20	22 19.55	-17 15.3	1.818	2.723	11.9	17.9
7 30	22 21.64	-22 4.3	1.552	2.511	9.7	19.6	7 30	22 16.06	-19 34.9	1.747	2.710	8.5	17.7
8 9	22 13.87	-23 15.0	1.508	2.500	6.2	19.4	8 9	22 10.68	-22 4.0	1.703	2.697	5.3	17.4
8 19	22 4.55	-24 19.7	1.489	2.489	4.8	19.3	8 19	22 3.98	-24 32.3	1.686	2.684	4.5	17.4
8 29	21 54.80	-25 10.3	1.497	2.477	7.2	19.4	8 29	21 56.81	-26 48.5	1.698	2.672	7.1	17.5
9 8	21 45.90	-25 41.2	1.530	2.466	11.0	19.6	9 8	21 50.21	-28 43.6	1.736	2.661	10.7	17.7
9 18	21 38.93	-25 50.3	1.585	2.455	14.7	19.8	9 18	21 45.07	-30 12.1	1.799	2.651	14.0	17.9
9 28	21 34.66	-25 38.4	1.659	2.443	17.8	20.0	9 28	21 42.15	-31 12.6	1.881	2.641	16.9	18.1
444660	2007 <i>CL</i> ₃₁		8 21.3 102°55'	0°1/21.2	18		433141	2012 <i>TM</i> ₂₂₈		8 21.3 63°70'	1°5/20.2	16	
7 20	22 22.36	- 9 54.1	2.211	3.089	11.2	21.6	7 20	22 26.60	-13 43.6	1.567	2.463	14.1	21.0
7 30	22 17.55	-10 30.9	2.145	3.093	8.1	21.4	7 30	22 20.96	-14 21.1	1.521	2.478	10.0	20.8
8 9	22 11.24	-11 16.2	2.103	3.096	4.6	21.2	8 9	22 13.29	-15 5.4	1.498	2.494	5.6	20.6
8 19	22 4.02	-12 6.0	2.088	3.100	0.8	20.9	8 19	22 4.44	-15 50.5	1.500	2.510	1.6	20.4
8 29	21 56.60	-12 55.8	2.102	3.103	2.9	21.1	8 29	21 55.50	-16 30.2	1.528	2.526	4.4	20.6
9 8	21 49.79	-13 40.8	2.143	3.107	6.5	21.3	9 8	21 47.61	-16 59.5	1.582	2.543	8.7	20.9
9 18	21 44.24	-14 17.6	2.210	3.110	9.8	21.5	9 18	21 41.63	-17 15.5	1.660	2.559	12.5	21.2
9 28	21 40.50	-14 43.8	2.301	3.113	12.6	21.7	9 28	21 38.14	-17 17.4	1.758	2.575	15.7	21.4
461308	2015 <i>XC</i> ₁₇₀		8 21.3 331°50'	6°0/26.3	17		81059	2000 <i>EN</i> ₆₇		8 21.3 359°77'	0°8/21.9	18	
7 20	22 22.26	+ 5 2.2	1.985	2.809	14.5	21.0	7 20	22 23.15	- 8 12.2	1.602	2.489	14.3	18.9
7 30	22 17.74	+ 5 34.1	1.902	2.799	11.8	20.9	7 30	22 18.60	- 8 31.5	1.537	2.487	10.5	18.7
8 9	22 11.50	+ 5 47.9	1.840	2.789	9.0	20.7	8 9	22 12.06	- 9 3.3	1.494	2.486	6.2	18.4
8 19	22 4.10	+ 5 43.1	1.802	2.779	6.7	20.5	8 19	22 4.23	- 9 43.5	1.475	2.486	1.6	18.1
8 29	21 56.33	+ 5 20.9	1.789	2.770	6.1	20.5	8 29	21 56.12	-10 26.7	1.483	2.486	3.5	18.3
9 8	21 49.11	+ 4 45.3	1.802	2.762	7.9	20.5	9 8	21 48.82	-11 7.0	1.516	2.487	8.0	18.5
9 18	21 43.23	+ 4 1.2	1.840	2.754	10.6	20.7	9 18	21 43.23	-11 39.6	1.573	2.488	12.1	18.8
9 28	21 39.34	+ 3 14.5	1.900	2.746	13.5	20.9	9 28	21 40.03	-12 1.1	1.652	2.490	15.6	19.0
105658	2000 <i>SF</i> ₂₉		8 21.3 69°22'	2°5/19.4	18		509230	2006 <i>SB</i> ₄₀₆		8 21.3 334°11'	7°4/16.8	17	
7 20	22 28.15	-18 51.7	2.031	2.921	11.6	19.6	7 20	22 26.83	-24 52.0	1.153	2.072	16.1	20.2
7 30	22 21.79	-19 6.1	1.970	2.924	8.3	19.4	7 30	22 22.15	-25 56.0	1.097	2.061	12.1	19.9
8 9	22 13.67	-19 21.2	1.933	2.927	4.9	19.2	8 9	22 14.44	-26 57.3	1.061	2.051	8.5	19.7
8 19	22 4.49	-19 32.6	1.924	2.930	2.5	19.0	8 19	22 4.71	-27 44.9	1.047	2.041	7.5	19.6
8 29	21 55.17	-19 36.4	1.942	2.934	4.6	19.2	8 29	21 54.54	-28 8.6	1.056	2.033	10.1	19.7
9 8	21 46.68	-19 30.1	1.987	2.937	8.0	19.4	9 8	21 45.65	-28 3.6	1.086	2.025	14.2	19.9
9 18	21 39.80	-19 12.9	2.058	2.940	11.2	19.6	9 18	21 39.42	-27 30.5	1.135	2.018	18.3	20.1
9 28	21 35.09	-18 44.9	2.151	2.944	14.0	19.8	9 28	21 36.67	-26 32.9	1.201	2.012	21.9	20.4
152818	1999 <i>UK</i> ₄		8 21.3 318°22'	0°8/20.6	18		296125	2009 <i>BQ</i> ₇₀		8 21.3 171°46'	1°7/19.8	18	
7 20	22 23.60	-12 57.6	2.001	2.889	11.8	20.0	7 20	22 25.07	-14 37.7	1.865	2.757	12.3	20.7
7 30	22 18.66	-13 19.4	1.927	2.881	8.5	19.8	7 30	22 19.78	-15 19.1	1.801	2.757	8.8	20.5
8 9	22 11.99	-13 47.7	1.877	2.872	4.8	19.6	8 9	22 12.64	-16 6.4	1.761	2.757	4.9	20.2
8 19	22 4.19	-14 18.5	1.853	2.864	1.0	19.3	8 19	22 4.33	-16 54.4	1.748	2.757	1.8	20.0
8 29	21 56.12	-14 47.3	1.856	2.856	3.5	19.5	8 29	21 55.79	-17 37.3	1.761	2.758	4.3	20.2
9 8	21 48.69	-15 10.0	1.886	2.848	7.4	19.7	9 8	21 48.01	-18 10.2	1.802	2.758	8.2	20.5
9 18	21 42.68	-15 23.6	1.941	2.841	11.0	19.9	9 18	21 41.81	-18 30.3	1.866	2.758	11.7	20.7
9 28	21 38.71	-15 26.5	2.019	2.834	14.0	20.1	9 28	21 37.82	-18 36.5	1.953	2.758	14.8	20.9
381178	2007 <i>JM</i> ₂₈		8 21.3 80°22'	7°5/14.8	17		121666	1999 <i>XM</i> _{40</}					

EPHEMERIDES

8 21.3

8 21.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
33190	Sigrest		8 21.3 56°35'	2°8/19.1	18		195156	2002 CK ₂₁₇		8 21.3 79°98'	1°0/20.5	18	
7 20	22 26.90	-19 14.3	1.979	2.872	11.7	18.8	7 20	22 24.91	-11 36.1	1.665	2.556	13.6	20.3
7 30	22 20.95	-19 39.4	1.921	2.876	8.4	18.6	7 30	22 19.78	-12 24.9	1.609	2.563	9.8	20.1
8 9	22 13.23	-20 5.4	1.888	2.881	5.0	18.4	8 9	22 12.70	-13 23.2	1.575	2.571	5.4	19.9
8 19	22 4.45	-20 27.2	1.881	2.886	2.8	18.3	8 19	22 4.40	-14 25.2	1.568	2.579	1.2	19.6
8 29	21 55.53	-20 40.6	1.901	2.891	4.9	18.4	8 29	21 55.91	-15 24.0	1.587	2.587	4.0	19.8
9 8	21 47.45	-20 42.6	1.949	2.896	8.3	18.6	9 8	21 48.28	-16 13.4	1.632	2.594	8.3	20.1
9 18	21 40.97	-20 32.1	2.021	2.901	11.5	18.8	9 18	21 42.39	-16 49.6	1.702	2.602	12.2	20.4
9 28	21 36.67	-20 9.4	2.115	2.907	14.2	19.0	9 28	21 38.86	-17 10.6	1.793	2.610	15.4	20.6
284261	2006 GB ₃₉		8 21.3 122°83'	3°2/18.0	18		360735	2004 TH ₃₄₈		8 21.3 346°29'	4°8/26.1	18	
7 20	22 24.92	-17 23.7	1.977	2.870	11.6	20.6	7 20	22 20.14	+ 3 54.1	1.968	2.801	14.2	20.5
7 30	22 19.57	-18 49.1	1.925	2.882	8.3	20.4	7 30	22 16.20	+ 3 47.5	1.890	2.797	11.4	20.3
8 9	22 12.47	-20 18.3	1.900	2.893	4.9	20.2	8 9	22 10.64	+ 3 21.2	1.833	2.793	8.3	20.1
8 19	22 4.31	-21 44.1	1.901	2.904	3.2	20.1	8 19	22 4.02	+ 2 36.4	1.801	2.789	5.6	20.0
8 29	21 55.97	-22 59.4	1.931	2.915	5.5	20.3	8 29	21 57.10	+ 1 36.5	1.795	2.786	5.0	19.9
9 8	21 48.39	-23 58.8	1.988	2.925	8.8	20.5	9 8	21 50.76	+ 0 27.1	1.815	2.783	7.1	20.0
9 18	21 42.34	-24 39.7	2.069	2.935	11.9	20.7	9 18	21 45.73	- 0 45.4	1.860	2.781	10.2	20.2
9 28	21 38.40	-25 1.8	2.171	2.945	14.5	20.9	9 28	21 42.62	- 1 54.6	1.929	2.779	13.2	20.4
389927	2012 TD ₁₂₆		8 21.3 295°02'	6°2/17.2	18		452037	2014 OW ₁₆₇		8 21.3 273°54'	3°0/18.5	17	
7 20	22 31.14	-26 47.3	1.656	2.553	13.3	20.0	7 20	22 24.83	-20 18.3	2.350	3.241	10.2	21.6
7 30	22 24.63	-27 24.6	1.584	2.535	10.1	19.8	7 30	22 19.39	-20 51.7	2.277	3.231	7.4	21.4
8 9	22 15.62	-27 56.5	1.535	2.518	7.3	19.6	8 9	22 12.37	-21 25.7	2.229	3.220	4.5	21.2
8 19	22 4.95	-28 15.5	1.512	2.501	6.3	19.5	8 19	22 4.34	-21 55.8	2.208	3.210	3.0	21.1
8 29	21 53.88	-28 15.2	1.514	2.484	8.3	19.6	8 29	21 56.08	-22 17.6	2.215	3.200	4.8	21.2
9 8	21 43.78	-27 52.7	1.540	2.467	11.7	19.7	9 8	21 48.40	-22 28.2	2.249	3.190	7.7	21.3
9 18	21 35.79	-27 8.8	1.590	2.450	15.1	19.9	9 18	21 42.02	-22 26.1	2.309	3.179	10.6	21.5
9 28	21 30.69	-26 6.6	1.659	2.434	18.2	20.1	9 28	21 37.52	-22 11.2	2.391	3.169	13.2	21.7
319210	2005 YU ₂₀₇		8 21.3 286°66'	2°7/18.3	18		39460	4332 T-3		8 21.3 149°61'	6°4/14.2	18	
7 20	22 21.79	-17 28.6	2.232	3.127	10.5	20.3	7 20	22 28.02	-34 1.0	2.677	3.553	9.6	19.1
7 30	22 17.27	-18 34.0	2.164	3.120	7.5	20.1	7 30	22 21.52	-34 56.2	2.633	3.560	7.8	19.0
8 9	22 11.19	-19 43.5	2.120	3.114	4.4	19.9	8 9	22 13.48	-35 42.7	2.614	3.566	6.5	18.9
8 19	22 4.09	-20 51.4	2.103	3.108	2.7	19.8	8 19	22 4.54	-36 15.3	2.622	3.573	6.5	19.0
8 29	21 56.74	-21 52.0	2.115	3.102	4.8	19.9	8 29	21 55.51	-36 30.3	2.657	3.579	7.7	19.0
9 8	21 49.95	-22 40.6	2.154	3.096	7.9	20.1	9 8	21 47.23	-36 26.4	2.718	3.584	9.4	19.2
9 18	21 44.42	-23 14.3	2.218	3.090	10.9	20.3	9 18	21 40.39	-36 4.4	2.801	3.589	11.3	19.3
9 28	21 40.74	-23 32.1	2.303	3.084	13.5	20.4	9 28	21 35.49	-35 26.5	2.905	3.594	12.9	19.5
383082	2005 SM ₇₁		8 21.3 289°52'	1°1/20.6	18		24852	1995 XX ₄		8 21.3 53°67'	2°2/22.9	18	
7 20	22 27.04	-12 50.0	1.541	2.435	14.3	21.0	7 20	22 24.75	- 4 1.9	1.295	2.178	17.2	18.5
7 30	22 21.81	-13 16.3	1.455	2.411	10.5	20.7	7 30	22 19.97	- 4 34.9	1.246	2.192	12.8	18.2
8 9	22 14.14	-13 52.0	1.392	2.388	6.0	20.4	8 9	22 12.91	- 5 27.8	1.218	2.207	7.9	18.0
8 19	22 4.71	-14 32.2	1.353	2.364	1.4	20.0	8 19	22 4.45	- 6 35.2	1.213	2.221	3.1	17.8
8 29	21 54.64	-15 10.4	1.340	2.340	4.5	20.2	8 29	21 55.83	- 7 49.3	1.233	2.236	3.9	17.9
9 8	21 45.26	-15 40.3	1.353	2.317	9.5	20.4	9 8	21 48.32	- 9 0.9	1.277	2.252	8.7	18.2
9 18	21 37.73	-15 57.7	1.389	2.293	14.1	20.6	9 18	21 42.90	-10 3.0	1.345	2.267	13.1	18.5
9 28	21 32.98	-16 0.4	1.444	2.269	18.1	20.8	9 28	21 40.23	-10 50.5	1.433	2.283	16.9	18.8
315989	2009 DU ₄₂		8 21.3 255°04'	0°7/20.9	17		512479	2016 QP ₇₂		8 21.3 15°65'	2°1/19.9	18	
7 20	22 29.65	-12 17.2	1.374	2.269	15.7	20.8	7 20	22 26.03	-15 33.8	1.462	2.364	14.4	20.7
7 30	22 23.72	-12 35.1	1.306	2.262	11.4	20.6	7 30	22 20.84	-16 2.8	1.406	2.367	10.3	20.5
8 9	22 15.18	-13 2.6	1.260	2.255	6.5	20.3	8 9	22 13.39	-16 37.5	1.372	2.369	5.8	20.2
8 19	22 4.89	-13 34.6	1.237	2.249	1.3	19.9	8 19	22 4.55	-17 11.7	1.363	2.373	2.2	20.0
8 29	21 54.16	-14 4.4	1.240	2.241	4.5	20.1	8 29	21 55.48	-17 39.2	1.379	2.377	5.0	20.2
9 8	21 44.44	-14 26.1	1.268	2.234	9.7	20.4	9 8	21 47.45	-17 55.1	1.420	2.381	9.5	20.5
9 18	21 36.91	-14 36.2	1.319	2.227	14.4	20.7	9 18	21 41.42	-17 57.0	1.484	2.386	13.5	20.7
9 28	21 32.41	-14 32.7	1.390	2.220	18.4	20.9	9 28	21 38.07	-17 44.4	1.568	2.391	17.0	21.0
285215	1997 EG ₆		8 21.3 133°76'	1°0/20.7	17		513858	2013 GZ ₁₃₂		8 21.3 163°23'	0°4/20.9	18	
7 20	22 31.65	-14 47.9	1.959	2.838	12.4	20.3	7 20	22 22.24	-10 38.4	2.534	3.409	10.1	21.9
7 30	22 24.33	-14 46.3	1.897	2.846	8.9	20.1	7 30	22 17.35	-11 25.5	2.466	3.413	7.2	21.8
8 9	22 15.14	-14 47.9	1.860	2.854	5.0	19.8	8 9	22 11.15	-12 19.8	2.423	3.416	4.1	21.6
8 19	22 4.84	-14 49.5	1.850	2.861	1.2	19.6	8 19	22 4.11	-13 17.6	2.407	3.419	0.8	21.3
8 29	21 54.43	-14 47.5	1.869	2.868	3.6	19.8	8 29	21 56.90	-14 14.4	2.421	3.421	2.8	21.5
9 8	21 44.92	-14 39.4	1.915	2.874	7.5	20.0	9 8	21 50.19	-15 5.8	2.464	3.424	6.1	21.7
9 18	21 37.14	-14 24.0	1.988	2.881	11.1	20.3	9 18	21 44.59	-15 48.6	2.533	3.426	9.0	21.9
9 28	21 31.67	-14 0.8	2.084	2.887	14.0	20.5	9 28	21 40.59	-16 20.7	2.627	3.427	11.5	22.1
521392	2015 MD ₁₄₃		8 21.3 88°60'	6°6/27.4	18		435214	2007 RV ₂₃₉		8 21.3 1°08'	9°6/15.4	18	
7 20	22 24.87	+ 8 15.1	2.175	2.970	14.3	20.9	7 20	22 18.01	-27 40.9	0.916	1.855	17.1	18.6
7 30	22 19.41	+ 8 50.9	2.105	2.978	11.9	20.7	7 30	22 16.06	-28 53.9	0.878	1.850	13.3	18.3
8 9	22 12.37	+ 9 8.0	2.056	2.986	9.4	20.6	8 9	22 11.06	-29 58.1	0.858	1.847	10.2	18.2
8 19	22 4.33	+ 9 5.6	2.031	2.994	7.3	20.5	8 19	22 4.13	-30 40.8	0.858	1.847	9.8	18.1
8 29	21 56.06	+ 8 44.9	2.033	3.001	6.6	20.4	8 29	21 56.96	-30 52.1	0.877	1.849	12.3	18.3
9 8	21 48.39	+ 8 9.6	2.061	3.009	7.8	20.5	9 8	21 51.28	-30 28.7	0.915	1.855	16.0	18.5
9 18	21 42.06	+ 7 24.7	2.114	3.017	10.0	20.7	9 18	21 48.33	-29 33.1	0.970	1.863	19.7	18.8
9 28	21 37.62	+ 6 35.8	2.191	3.024	12.4	20.8	9 28	21 48.75	-28 11.1	1.040	1.873	23.0	19.0
307565	2003 FV ₁₀		8 21.3 122°77'	1°1/22.5	18		312546	2009 FV ₁₉		8 21.3 159°91'	4°6/17.9	17	
7 20	22 23.26	- 6 18.1</											

EPHEMERIDES

8 21.3

8 21.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
427	Galene		8 21.3	15°96	1.7°/22.7	18 R	352412	2007 XX ₅₂		8 21.4	177°19	4.2°/16.5	18
7 20	22 24.00	- 6 36.2	1.745	2.621	13.8	14.2	7 20	22 23.25	-21 0.0	2.173	3.070	10.6	21.3
7 30	22 19.07	- 6 36.9	1.681	2.624	10.3	14.0	7 30	22 18.41	-22 35.1	2.115	3.071	7.7	21.1
8 9	22 12.29	- 6 49.5	1.640	2.628	6.3	13.8	8 9	22 11.91	-24 11.8	2.082	3.071	5.1	21.0
8 19	22 4.35	- 7 11.4	1.623	2.632	2.4	13.5	8 19	22 4.33	-25 43.0	2.078	3.072	4.3	20.9
8 29	21 56.19	- 7 38.4	1.633	2.636	3.3	13.6	8 29	21 56.48	-27 1.7	2.101	3.072	6.3	21.0
9 8	21 48.81	- 8 5.9	1.670	2.641	7.3	13.9	9 8	21 49.25	-28 2.9	2.151	3.072	9.1	21.2
9 18	21 43.04	- 8 29.7	1.731	2.646	11.1	14.1	9 18	21 43.39	-28 44.2	2.226	3.072	11.9	21.4
9 28	21 39.49	- 8 46.4	1.814	2.652	14.4	14.3	9 28	21 39.50	-29 5.6	2.321	3.071	14.3	21.6
186510	2002 VA ₈		8 21.3	207°68	1.4°/22.3	17	306130	2010 JZ ₁₁₁		8 21.4	353°00	4.0°/18.1	18
7 20	22 27.66	- 7 4.2	1.697	2.571	14.3	20.5	7 20	22 24.31	-19 33.8	1.637	2.542	13.0	20.3
7 30	22 21.85	- 7 15.9	1.625	2.568	10.6	20.3	7 30	22 19.54	-20 33.5	1.579	2.540	9.4	20.0
8 9	22 13.95	- 7 40.2	1.576	2.565	6.4	20.0	8 9	22 12.68	-21 35.7	1.544	2.538	5.8	19.8
8 19	22 4.69	- 8 13.7	1.552	2.562	2.1	19.7	8 19	22 4.48	-22 33.1	1.534	2.537	4.0	19.7
8 29	21 55.09	- 8 51.7	1.555	2.558	3.4	19.8	8 29	21 56.02	-23 18.6	1.550	2.536	6.4	19.9
9 8	21 46.27	- 9 28.6	1.585	2.554	7.9	20.1	9 8	21 48.43	-23 47.0	1.591	2.535	10.1	20.1
9 18	21 39.18	- 9 59.8	1.640	2.550	12.0	20.3	9 18	21 42.65	-23 56.3	1.655	2.535	13.6	20.3
9 28	21 34.55	-10 21.8	1.716	2.545	15.5	20.6	9 28	21 39.35	-23 47.0	1.738	2.535	16.7	20.5
339115	2004 RW ₂₃₂		8 21.3	339°28	4.4°/19.1	18	446252	2013 HP ₆₉		8 21.4	96°79	3.8°/17.9	15
7 20	22 21.60	-19 26.5	1.007	1.936	16.9	20.5	7 20	22 25.99	-22 48.1	2.276	3.168	10.4	21.8
7 30	22 18.73	-19 46.8	0.937	1.910	12.4	20.2	7 30	22 20.19	-23 24.8	2.220	3.173	7.6	21.6
8 9	22 12.75	-20 10.0	0.886	1.885	7.5	19.9	8 9	22 12.81	-23 59.7	2.189	3.177	4.9	21.4
8 19	22 4.52	-20 28.1	0.855	1.862	4.4	19.6	8 19	22 4.49	-24 28.1	2.185	3.182	3.8	21.4
8 29	21 55.56	-20 32.3	0.845	1.841	7.6	19.7	8 29	21 56.05	-24 45.7	2.209	3.187	5.5	21.5
9 8	21 47.66	-20 16.5	0.855	1.822	13.0	19.9	9 8	21 48.33	-24 49.9	2.260	3.191	8.2	21.7
9 18	21 42.38	-19 38.9	0.885	1.806	18.3	20.2	9 18	21 42.04	-24 40.2	2.335	3.196	10.9	21.8
9 28	21 40.74	-18 40.6	0.930	1.792	22.8	20.4	9 28	21 37.70	-24 17.3	2.432	3.200	13.2	22.0
358761	2008 CL ₁₉₆		8 21.3	21°77	3°8/18.2	18	159390	1998 QJ ₁₁		8 21.4	20°78	1°9/22.2	18
7 20	22 27.30	-22 20.8	2.075	2.968	11.2	20.7	7 20	22 30.05	- 9 32.8	1.331	2.220	16.4	18.4
7 30	22 21.26	-22 51.0	2.015	2.968	8.2	20.6	7 30	22 23.80	- 8 49.7	1.277	2.227	12.1	18.2
8 9	22 13.45	-23 19.6	1.979	2.969	5.2	20.4	8 9	22 15.11	- 8 16.1	1.244	2.235	7.3	18.0
8 19	22 4.58	-23 41.5	1.970	2.969	3.8	20.3	8 19	22 4.95	- 7 50.4	1.235	2.244	2.5	17.7
8 29	21 55.55	-23 52.3	1.988	2.970	5.6	20.4	8 29	21 54.63	- 7 30.2	1.251	2.254	4.0	17.8
9 8	21 47.31	-23 49.5	2.034	2.970	8.6	20.6	9 8	21 45.53	- 7 12.5	1.293	2.265	8.8	18.1
9 18	21 40.66	-23 32.4	2.103	2.971	11.6	20.8	9 18	21 38.69	- 6 54.4	1.357	2.277	13.2	18.4
9 28	21 36.16	-23 2.0	2.195	2.972	14.2	21.0	9 28	21 34.78	- 6 33.5	1.442	2.289	16.9	18.7
50181	2000 AH ₁₆₇		8 21.3	240°87	2°0/23.1	18	467205	2016 EU ₁₃₈		8 21.4	65°31	0°6/21.8	17
7 20	22 24.26	- 3 4.8	1.668	2.535	14.8	19.4	7 20	22 27.06	- 7 44.5	1.218	2.112	17.3	21.0
7 30	22 19.50	- 3 49.2	1.590	2.527	11.2	19.1	7 30	22 21.78	- 8 21.7	1.172	2.126	12.6	20.7
8 9	22 12.69	- 4 52.8	1.534	2.518	7.0	18.9	8 9	22 14.02	- 9 15.3	1.146	2.140	7.3	20.5
8 19	22 4.47	- 6 11.7	1.502	2.510	2.9	18.6	8 19	22 4.74	-10 18.8	1.143	2.154	1.7	20.2
8 29	21 55.83	- 7 39.1	1.498	2.501	3.5	18.6	8 29	21 55.32	-11 23.6	1.165	2.168	4.1	20.4
9 8	21 47.85	- 9 6.7	1.520	2.491	7.9	18.8	9 8	21 47.13	-12 21.3	1.211	2.182	9.4	20.7
9 18	21 41.51	-10 26.9	1.568	2.482	12.1	19.1	9 18	21 41.24	-13 6.0	1.279	2.197	14.0	21.0
9 28	21 37.56	-11 34.0	1.637	2.472	15.8	19.3	9 28	21 38.32	-13 34.3	1.367	2.211	17.9	21.3
320804	2008 EW ₁₆₃		8 21.3	31°69	4.4°/24.5	17	266279	2007 BD ₄		8 21.4	181°11	0°7/20.8	17
7 20	22 23.80	- 0 15.2	1.259	2.133	18.2	19.6	7 20	22 26.15	-10 49.6	1.845	2.728	12.9	21.3
7 30	22 19.43	- 0 19.2	1.204	2.140	14.1	19.4	7 30	22 20.63	-11 39.6	1.778	2.728	9.3	21.0
8 9	22 12.70	- 0 47.0	1.169	2.148	9.5	19.1	8 9	22 13.23	-12 39.6	1.735	2.729	5.2	20.8
8 19	22 4.47	- 1 35.8	1.156	2.157	5.4	18.9	8 19	22 4.60	-13 44.2	1.718	2.729	1.0	20.5
8 29	21 55.98	- 2 39.4	1.166	2.166	5.1	18.9	8 29	21 55.69	-14 47.0	1.729	2.729	3.7	20.7
9 8	21 48.54	- 3 49.1	1.200	2.176	8.9	19.2	9 8	21 47.51	-15 41.9	1.767	2.728	7.9	21.0
9 18	21 43.20	- 4 56.3	1.257	2.186	13.3	19.5	9 18	21 40.93	-16 24.8	1.830	2.726	11.7	21.2
9 28	21 40.67	- 5 53.8	1.335	2.197	17.1	19.7	9 28	21 36.59	-16 53.3	1.915	2.725	14.9	21.4
179676	2002 QF ₆₄		8 21.3	72°35	1.7°/20.2	17	417248	2005 YY ₁₉₁		8 21.4	325°59	0°5/21.6	17
7 20	22 28.08	-13 13.9	1.347	2.246	15.6	20.9	7 20	22 27.57	-10 41.9	1.063	1.970	18.2	20.3
7 30	22 22.32	-14 1.6	1.304	2.263	11.1	20.6	7 30	22 22.82	-10 34.8	0.997	1.958	13.4	20.0
8 9	22 14.22	-14 58.0	1.282	2.279	6.2	20.4	8 9	22 14.99	-10 40.2	0.950	1.947	7.9	19.7
8 19	22 4.74	-15 55.6	1.285	2.295	1.8	20.2	8 19	22 5.01	-10 53.9	0.925	1.936	1.7	19.3
8 29	21 55.19	-16 46.6	1.313	2.312	4.9	20.4	8 29	21 54.40	-11 9.7	0.922	1.926	4.7	19.5
9 8	21 46.85	-17 24.7	1.366	2.328	9.6	20.7	9 8	21 44.94	-11 21.4	0.942	1.917	10.8	19.8
9 18	21 40.71	-17 46.7	1.442	2.344	13.8	21.0	9 18	21 38.08	-11 24.1	0.982	1.908	16.3	20.0
9 28	21 37.40	-17 51.9	1.538	2.361	17.3	21.3	9 28	21 34.79	-11 14.8	1.039	1.901	21.0	20.3
205011	1997 LH ₂		8 21.4	292°74	3.2°/18.5	18	258043	2001 MT ₆		8 21.4	92°58	15°1/7.0	17
7 20	22 24.35	-17 28.2	1.767	2.667	12.5	20.2	7 20	22 29.79	-35 42.1	1.015	1.930	18.2	19.2
7 30	22 19.46	-18 31.7	1.703	2.662	9.0	20.0	7 30	22 25.11	-39 35.3	0.996	1.937	15.8	19.1
8 9	22 12.61	-19 40.1	1.662	2.657	5.3	19.8	8 9	22 16.56	-43 6.0	0.999	1.943	15.2	19.1
8 19	22 4.46	-20 46.5	1.647	2.652	3.2	19.6	8 19	22 5.31	-45 52.2	1.022	1.950	16.5	19.2
8 29	21 56.00	-21 43.6	1.659	2.648	5.6	19.8	8 29	21 53.51	-47 39.9	1.066	1.956	19.0	19.4
9 8	21 48.30	-22 26.0	1.697	2.643	9.4	20.0	9 8	21 43.49	-48 27.4	1.126	1.962	21.8	19.6
9 18	21 42.26	-22 50.6	1.758	2.639	12.9	20.2	9 18	21 37.00	-48 22.2	1.200	1.969	24.3	19.8
9 28	21 38.55	-22 57.0	1.840	2.634	16.0	20.4	9 28	21 34.91	-47 35.1	1.285	1.975	26.4	20.0
30246	2000 HC ₁₃		8 21.4	227°98	6°5/15.4	18	127710	2003 EZ ₃₁		8 21.4	61°83	3°8/24.1	17
7 20	22												

EPHEMERIDES

8 21.4

8 21.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
309707	2008 GC ₁		8 21.4 289°64	7°9/ 8.1	16		293405	2007 EP ₇₉		8 21.4 151°94	1°0/20.3	18	
7 20	22 18.70	+32 36.9	4.477	5.021	10.4	19.5	7 20	22 23.80	-13 58.8	2.599	3.478	9.7	21.6
7 30	22 14.57	+33 16.6	4.387	5.016	9.7	19.4	7 30	22 18.47	-14 27.7	2.534	3.483	6.9	21.4
8 9	22 9.53	+33 40.5	4.312	5.011	9.1	19.4	8 9	22 11.83	-15 0.9	2.494	3.488	3.9	21.3
8 19	22 3.90	+33 47.1	4.256	5.006	8.5	19.3	8 19	22 4.38	-15 34.8	2.481	3.492	1.1	21.1
8 29	21 58.06	+33 35.9	4.221	5.001	8.0	19.3	8 29	21 56.78	-16 5.8	2.498	3.496	3.1	21.2
9 8	21 52.47	+33 7.7	4.207	4.995	7.9	19.3	9 8	21 49.73	-16 30.8	2.544	3.500	6.1	21.4
9 18	21 47.53	+32 24.6	4.216	4.990	8.0	19.3	9 18	21 43.82	-16 47.5	2.616	3.503	8.9	21.6
9 28	21 43.61	+31 29.6	4.247	4.985	8.4	19.3	9 28	21 39.51	-16 54.7	2.712	3.507	11.4	21.8
92080	1999 XX ₁₃		8 21.4 220°48	5°5/28.2	18		97426	2000 AH ₁₉₄		8 21.4 205°40	1°8/23.6	18	
7 20	22 21.15	+ 9 53.9	2.741	3.518	12.1	19.9	7 20	22 20.70	- 2 25.1	2.714	3.560	10.4	19.9
7 30	22 16.61	+ 9 51.2	2.650	3.511	10.1	19.8	7 30	22 16.27	- 3 5.8	2.632	3.557	7.9	19.7
8 9	22 10.80	+ 9 30.9	2.581	3.504	8.0	19.6	8 9	22 10.60	- 3 58.5	2.575	3.553	5.0	19.5
8 19	22 4.16	+ 8 53.2	2.537	3.497	6.2	19.5	8 19	22 4.15	- 5 0.9	2.544	3.549	2.3	19.3
8 29	21 57.27	+ 7 59.9	2.520	3.489	5.5	19.5	8 29	21 57.48	- 6 8.9	2.544	3.545	2.5	19.3
9 8	21 50.77	+ 6 54.7	2.531	3.482	6.4	19.5	9 8	21 51.22	- 7 18.0	2.572	3.541	5.3	19.5
9 18	21 45.24	+ 5 42.3	2.569	3.474	8.4	19.6	9 18	21 45.93	- 8 23.9	2.628	3.536	8.1	19.7
9 28	21 41.17	+ 4 28.2	2.632	3.465	10.6	19.8	9 28	21 42.09	- 9 22.8	2.709	3.531	10.6	19.9
37959	1998 HM ₆₂		8 21.4 135°79	1°7/19.9	18 R		451854	2014 DR ₅₀		8 21.4 18°31	0°2/21.5	18	
7 20	22 26.01	-14 13.6	1.756	2.648	13.0	19.0	7 20	22 20.43	- 7 15.9	1.502	2.394	14.8	20.0
7 30	22 20.60	-14 57.2	1.695	2.650	9.3	18.8	7 30	22 16.79	- 8 21.5	1.445	2.399	10.7	19.8
8 9	22 13.24	-15 47.4	1.657	2.652	5.2	18.5	8 9	22 11.16	- 9 43.3	1.410	2.405	6.2	19.5
8 19	22 4.65	-16 38.6	1.645	2.655	1.8	18.3	8 19	22 4.27	-11 14.7	1.400	2.411	1.3	19.2
8 29	21 55.81	-17 24.6	1.660	2.657	4.4	18.5	8 29	21 57.13	-12 46.9	1.415	2.418	3.7	19.4
9 8	21 47.80	-18 0.1	1.701	2.659	8.5	18.8	9 8	21 50.83	-14 11.2	1.456	2.426	8.4	19.7
9 18	21 41.48	-18 22.2	1.767	2.660	12.2	19.0	9 18	21 46.25	-15 21.0	1.521	2.434	12.5	20.0
9 28	21 37.49	-18 29.5	1.854	2.662	15.3	19.2	9 28	21 44.03	-16 12.5	1.607	2.443	16.0	20.2
312368	2008 EF ₅		8 21.4 195°05	1°8/19.4	18		382020	2011 BR ₆₂		8 21.4 154°62	3°7/18.2	17	
7 20	22 22.55	-14 21.2	2.288	3.175	10.6	20.4	7 20	22 27.19	-18 33.6	1.688	2.586	13.1	21.1
7 30	22 17.80	-15 26.7	2.220	3.174	7.5	20.2	7 30	22 21.57	-19 43.7	1.632	2.590	9.4	20.9
8 9	22 11.54	-16 38.3	2.177	3.172	4.2	20.0	8 9	22 13.85	-20 57.2	1.600	2.593	5.7	20.6
8 19	22 4.32	-17 50.9	2.162	3.171	1.8	19.8	8 19	22 4.80	-22 6.5	1.593	2.597	3.8	20.5
8 29	21 56.85	-18 58.5	2.176	3.169	4.0	20.0	8 29	21 55.49	-23 3.9	1.614	2.599	6.2	20.7
9 8	21 49.94	-19 56.3	2.218	3.167	7.3	20.2	9 8	21 47.09	-23 44.0	1.660	2.602	9.9	20.9
9 18	21 44.25	-20 40.9	2.285	3.165	10.3	20.4	9 18	21 40.52	-24 4.7	1.730	2.604	13.4	21.1
9 28	21 40.36	-21 10.7	2.375	3.163	13.0	20.5	9 28	21 36.44	-24 6.0	1.820	2.606	16.4	21.4
362929	2012 DV ₇₇		8 21.4 140°80	5°0/15.6	18		91512	1999 RL ₁₆₅		8 21.4 253°43	1°4/20.3	18	
7 20	22 23.66	-26 25.9	2.409	3.303	9.8	20.2	7 20	22 29.90	-15 21.0	2.094	2.973	11.7	19.2
7 30	22 18.58	-27 35.0	2.356	3.305	7.4	20.1	7 30	22 23.33	-15 34.6	2.006	2.955	8.5	18.9
8 9	22 11.97	-28 40.7	2.328	3.306	5.5	20.0	8 9	22 14.83	-15 51.9	1.942	2.936	4.8	18.7
8 19	22 4.40	-29 37.3	2.327	3.308	5.1	20.0	8 19	22 5.00	-16 9.2	1.906	2.916	1.5	18.4
8 29	21 56.64	-30 19.8	2.353	3.309	6.7	20.1	8 29	21 54.76	-16 22.1	1.899	2.896	3.9	18.6
9 8	21 49.52	-30 45.2	2.406	3.311	9.0	20.2	9 8	21 45.12	-16 27.3	1.920	2.876	7.8	18.8
9 18	21 43.71	-30 52.7	2.482	3.312	11.3	20.4	9 18	21 36.97	-16 22.8	1.967	2.855	11.4	18.9
9 28	21 39.76	-30 43.1	2.579	3.313	13.4	20.5	9 28	21 31.02	-16 7.7	2.036	2.833	14.5	19.1
316437	2010 UA ₁		8 21.4 257°55	1°3/22.6	18		418914	2009 BW ₁₇₇		8 21.4 320°62	0°7/20.9	17	
7 20	22 24.79	- 7 9.6	2.302	3.166	11.4	20.4	7 20	22 21.82	- 9 21.8	1.070	1.982	17.7	20.6
7 30	22 19.37	- 7 9.6	2.222	3.160	8.5	20.2	7 30	22 18.69	-10 16.1	1.000	1.965	13.0	20.2
8 9	22 12.43	- 7 18.4	2.167	3.153	5.1	20.0	8 9	22 12.71	-11 31.1	0.950	1.948	7.4	19.9
8 19	22 4.50	- 7 33.9	2.139	3.147	1.9	19.8	8 19	22 4.64	-12 59.5	0.921	1.932	1.4	19.4
8 29	21 56.31	- 7 53.1	2.139	3.141	2.8	19.8	8 29	21 55.87	-14 30.0	0.915	1.917	5.2	19.7
9 8	21 48.67	- 8 12.7	2.167	3.135	6.2	20.0	9 8	21 48.03	-15 50.4	0.930	1.903	11.3	19.9
9 18	21 42.26	- 8 29.6	2.222	3.128	9.4	20.2	9 18	21 42.56	-16 51.8	0.967	1.890	16.9	20.2
9 28	21 37.65	- 8 41.2	2.300	3.122	12.3	20.4	9 28	21 40.47	-17 29.1	1.020	1.877	21.6	20.5
246605	2008 VR ₂₀		8 21.4 311°64	2°8/19.5	17		163964	2003 UR ₈₁		8 21.4 315°41	2°6/19.3	18 R	
7 20	22 26.70	-14 31.9	1.165	2.076	16.7	20.4	7 20	22 22.02	-14 14.6	1.456	2.363	14.2	19.9
7 30	22 21.97	-15 30.2	1.105	2.070	12.0	20.1	7 30	22 18.38	-15 20.6	1.370	2.334	10.3	19.6
8 9	22 14.41	-16 39.4	1.066	2.064	6.8	19.8	8 9	22 12.36	-16 39.0	1.307	2.305	5.9	19.3
8 19	22 4.92	-17 50.7	1.049	2.059	2.8	19.6	8 19	22 4.57	-18 2.7	1.267	2.276	2.6	19.0
8 29	21 54.95	-18 53.5	1.057	2.054	6.3	19.8	8 29	21 56.09	-19 22.0	1.253	2.248	5.8	19.1
9 8	21 46.12	-19 39.3	1.087	2.049	11.6	20.0	9 8	21 48.22	-20 28.0	1.263	2.221	10.7	19.3
9 18	21 39.72	-20 3.6	1.138	2.044	16.4	20.3	9 18	21 42.16	-21 14.5	1.295	2.194	15.3	19.5
9 28	21 36.61	-20 5.6	1.207	2.039	20.5	20.6	9 28	21 38.87	-21 38.5	1.345	2.168	19.3	19.7
339368	2005 AG ₄₆		8 21.4 251°10	1°8/22.9	18		511465	2014 KA ₅₄		8 21.4 57°47	5°7/15.6	18	
7 20	22 25.58	- 5 9.8	2.071	2.932	12.6	22.0	7 20	22 24.08	-25 24.2	1.953	2.854	11.4	20.6
7 30	22 20.20	- 5 25.0	1.981	2.915	9.5	21.7	7 30	22 19.13	-26 50.3	1.909	2.863	8.5	20.5
8 9	22 13.04	- 5 52.8	1.915	2.899	5.9	21.5	8 9	22 12.38	-28 13.1	1.890	2.872	6.2	20.4
8 19	22 4.64	- 6 30.6	1.874	2.882	2.4	21.2	8 19	22 4.51	-29 25.1	1.898	2.881	5.8	20.4
8 29	21 55.83	- 7 14.5	1.862	2.864	3.1	21.2	8 29	21 56.48	-30 19.7	1.931	2.891	7.7	20.5
9 8	21 47.52	- 7 59.6	1.878	2.846	6.9	21.5	9 8	21 49.27	-30 53.3	1.990	2.900	10.3	20.7
9 18	21 40.55	- 8 41.3	1.920	2.828	10.6	21.6	9 18	21 43.66	-31 5.2	2.072	2.910	13.0	20.9
9 28	21 35.60	- 9 15.8	1.984	2.809	13.8	21.8	9 28	21 40.24	-30 56.8	2.173	2.919	15.2	21.1
66102	1998 SR ₂₂		8 21.4 322°24	2°0/19.7	18		117335	2004 XT ₁₁		8 21.4 290°22	1°1/22.4	18	
7 20	22 24.54	-16 31.8											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
52294	Detlef		8 21.4	14° 97'	1.7°/22.5	18	153263	2001 CD ₁₂		8 21.4	323° 87'	4.0°/16.9	18
7 20	22 22.67	- 6 38.4	1.104	2.007	18.0	17.7	7 20	22 21.07	-19 0.2	1.950	2.852	11.4	19.3
7 30	22 18.89	- 6 52.8	1.054	2.011	13.4	17.4	7 30	22 17.08	-20 38.4	1.883	2.843	8.2	19.1
8 9	22 12.55	- 7 25.8	1.023	2.016	8.0	17.1	8 9	22 11.32	-22 21.4	1.842	2.835	5.2	18.9
8 19	22 4.58	- 8 12.6	1.013	2.023	2.6	16.8	8 19	22 4.37	-24 1.4	1.828	2.827	4.1	18.8
8 29	21 56.33	- 9 5.3	1.027	2.031	4.2	17.0	8 29	21 57.07	-25 30.2	1.841	2.819	6.4	19.0
9 8	21 49.27	- 9 55.5	1.063	2.040	9.5	17.3	9 8	21 50.36	-26 41.4	1.880	2.811	9.6	19.1
9 18	21 44.51	-10 36.1	1.120	2.050	14.4	17.6	9 18	21 45.08	-27 31.7	1.943	2.804	12.8	19.3
9 28	21 42.75	-11 2.6	1.197	2.061	18.5	17.9	9 28	21 41.89	-28 0.1	2.026	2.797	15.5	19.5
483198	2015 PW ₂₈₉		8 21.4	191° 47'	7.2°/14.3	18	243435	2009 DL ₅₅		8 21.4	353° 42'	0.9°/20.6	18
7 20	22 28.80	-33 49.1	2.268	3.150	10.9	21.3	7 20	22 22.72	-11 19.2	1.695	2.588	13.3	20.3
7 30	22 22.42	-34 46.6	2.219	3.149	8.8	21.1	7 30	22 18.34	-12 9.1	1.631	2.586	9.6	20.1
8 9	22 14.20	-35 34.6	2.194	3.149	7.4	21.0	8 9	22 12.05	-13 9.3	1.589	2.585	5.4	19.8
8 19	22 4.87	-36 6.9	2.194	3.148	7.4	21.0	8 19	22 4.51	-14 14.3	1.572	2.584	1.2	19.5
8 29	21 55.40	-36 19.0	2.221	3.148	8.7	21.1	8 29	21 56.68	-15 17.2	1.582	2.583	4.0	19.7
9 8	21 46.79	-36 9.2	2.272	3.147	10.7	21.2	9 8	21 49.60	-16 11.5	1.619	2.582	8.3	20.0
9 18	21 39.84	-35 38.7	2.346	3.146	12.9	21.4	9 18	21 44.14	-16 52.8	1.679	2.582	12.2	20.2
9 28	21 35.14	-34 50.3	2.439	3.145	14.8	21.5	9 28	21 40.96	-17 18.5	1.760	2.582	15.5	20.4
78587	2002 SZ ₁₂		8 21.4	101° 33'	10° 3'/31.3	18	393326	2014 BV ₇		8 21.4	242° 55'	0.2°/21.2	18
7 20	22 32.08	+17 41.0	1.912	2.643	18.1	19.3	7 20	22 26.80	-10 42.9	1.975	2.853	12.4	22.1
7 30	22 24.76	+18 37.3	1.861	2.673	15.7	19.1	7 30	22 21.16	-11 10.2	1.893	2.840	9.0	21.9
8 9	22 15.52	+19 5.8	1.829	2.702	13.3	19.0	8 9	22 13.64	-11 46.6	1.834	2.827	5.2	21.6
8 19	22 5.13	+19 4.1	1.819	2.730	11.3	19.0	8 19	22 4.83	-12 28.0	1.802	2.813	1.0	21.3
8 29	21 54.63	+18 33.0	1.832	2.758	10.3	19.0	8 29	21 55.63	-13 9.4	1.797	2.799	3.4	21.4
9 8	21 45.05	+17 37.4	1.871	2.784	10.7	19.1	9 8	21 47.02	-13 45.9	1.821	2.784	7.5	21.7
9 18	21 37.26	+16 24.8	1.934	2.810	12.1	19.2	9 18	21 39.89	-14 13.6	1.870	2.769	11.3	21.9
9 28	21 31.85	+15 3.7	2.019	2.834	14.0	19.4	9 28	21 34.91	-14 30.3	1.941	2.753	14.6	22.1
91726	1999 TE ₁₅₉		8 21.4	59° 06'	2° 2°/23.5	18	476148	2007 TS ₃₂₀		8 21.4	356° 07'	1° 7°/22.7	18
7 20	22 22.98	- 3 31.4	1.982	2.844	13.0	19.0	7 20	22 23.31	- 5 46.0	1.575	2.455	14.8	21.0
7 30	22 18.16	- 3 49.6	1.923	2.856	9.8	18.8	7 30	22 18.87	- 6 3.6	1.508	2.453	11.1	20.7
8 9	22 11.76	- 4 21.3	1.887	2.869	6.2	18.6	8 9	22 12.39	- 6 36.2	1.463	2.452	6.8	20.5
8 19	22 4.41	- 5 3.8	1.877	2.882	2.9	18.5	8 19	22 4.59	- 7 20.5	1.442	2.451	2.5	20.2
8 29	21 56.91	- 5 52.5	1.894	2.896	3.1	18.5	8 29	21 56.47	- 8 10.9	1.447	2.450	3.5	20.3
9 8	21 50.11	- 6 42.4	1.938	2.909	6.5	18.8	9 8	21 49.14	- 9 0.8	1.477	2.450	7.9	20.6
9 18	21 44.71	- 7 28.7	2.008	2.923	9.9	19.0	9 18	21 43.53	- 9 44.6	1.531	2.450	12.1	20.8
9 28	21 41.24	- 8 7.5	2.101	2.936	12.8	19.2	9 28	21 40.33	-10 18.0	1.607	2.451	15.6	21.0
444955	2008 CD ₂₀₄		8 21.4	112° 32'	1° 5°/20.1	18	515653	2014 OY ₇₇		8 21.4	14° 03'	4° 9°/16.4	18
7 20	22 24.88	-14 44.0	2.118	3.005	11.3	21.5	7 20	22 23.19	-23 57.2	2.057	2.957	11.0	20.8
7 30	22 19.53	-15 15.3	2.054	3.007	8.1	21.3	7 30	22 18.46	-25 8.6	2.004	2.959	8.1	20.6
8 9	22 12.55	-15 51.4	2.015	3.010	4.5	21.1	8 9	22 12.02	-26 18.4	1.975	2.960	5.6	20.5
8 19	22 4.57	-16 27.8	2.003	3.013	1.5	20.9	8 19	22 4.50	-27 20.0	1.972	2.962	5.0	20.5
8 29	21 56.40	-16 59.9	2.019	3.016	3.8	21.1	8 29	21 56.78	-28 7.4	1.997	2.964	6.8	20.6
9 8	21 48.91	-17 24.0	2.062	3.018	7.3	21.3	9 8	21 49.77	-28 36.9	2.047	2.967	9.6	20.7
9 18	21 42.83	-17 37.6	2.130	3.021	10.5	21.5	9 18	21 44.25	-28 47.1	2.120	2.969	12.3	20.9
9 28	21 38.70	-17 39.7	2.221	3.023	13.3	21.7	9 28	21 40.78	-28 39.0	2.213	2.972	14.7	21.1
69993	1998 WS ₃₇		8 21.4	228° 51'	2° 9°/18.2	18	382605	2002 GU ₈₅		8 21.4	87° 99'	7° 2°/14.8	18
7 20	22 23.80	-20 13.8	2.558	3.447	9.5	19.5	7 20	22 27.51	-28 0.3	1.723	2.624	12.7	20.0
7 30	22 18.60	-20 57.8	2.488	3.441	6.9	19.3	7 30	22 21.82	-29 38.0	1.687	2.637	9.8	19.9
8 9	22 11.98	-21 42.6	2.444	3.436	4.2	19.1	8 9	22 14.00	-31 9.2	1.675	2.650	7.6	19.8
8 19	22 4.46	-22 23.7	2.428	3.430	2.9	19.0	8 19	22 4.89	-32 24.5	1.689	2.663	7.4	19.8
8 29	21 56.73	-22 57.0	2.441	3.424	4.6	19.1	8 29	21 55.65	-33 16.9	1.728	2.676	9.3	19.9
9 8	21 49.53	-23 19.2	2.481	3.417	7.3	19.3	9 8	21 47.44	-33 43.1	1.791	2.689	11.9	20.1
9 18	21 43.51	-23 28.8	2.547	3.411	10.0	19.4	9 18	21 41.20	-33 43.7	1.876	2.702	14.6	20.3
9 28	21 39.18	-23 25.5	2.635	3.404	12.3	19.6	9 28	21 37.52	-33 21.7	1.979	2.715	16.9	20.5
246620	2008 WH ₃₁		8 21.4	282° 17'	0.7°/20.8	18	441624	2008 VH ₁		8 21.4	328° 05'	20.8°/ 2.4	18
7 20	22 25.51	-11 54.0	1.746	2.634	13.2	20.7	7 20	22 26.55	+30 4.3	1.527	2.195	24.1	19.4
7 30	22 20.37	-12 23.7	1.672	2.625	9.6	20.4	7 30	22 22.17	+32 57.4	1.449	2.173	23.1	19.2
8 9	22 13.22	-13 2.3	1.621	2.616	5.4	20.2	8 9	22 14.88	+35 20.7	1.384	2.152	22.1	19.0
8 19	22 4.72	-13 45.2	1.596	2.607	1.1	19.9	8 19	22 5.20	+37 3.6	1.334	2.131	21.3	18.9
8 29	21 55.86	-14 26.6	1.597	2.598	3.8	20.0	8 29	21 54.24	+37 57.5	1.299	2.112	20.8	18.8
9 8	21 47.72	-15 1.2	1.625	2.589	8.2	20.3	9 8	21 43.60	+37 59.7	1.279	2.093	20.9	18.8
9 18	21 41.22	-15 25.0	1.678	2.580	12.2	20.5	9 18	21 34.89	+37 13.4	1.274	2.076	21.4	18.8
9 28	21 37.07	-15 36.0	1.751	2.571	15.6	20.7	9 28	21 29.50	+35 48.1	1.283	2.060	22.4	18.8
479686	2014 DY ₉₀		8 21.4	155° 03'	0.8°/22.2	18	514960	2009 BT ₅₄		8 21.4	282° 82'	3° 5°/17.9	18
7 20	22 23.59	- 6 19.9	1.996	2.866	12.6	21.3	7 20	22 23.30	-16 49.9	1.806	2.706	12.3	21.4
7 30	22 18.69	- 7 5.6	1.928	2.869	9.3	21.1	7 30	22 18.89	-18 20.5	1.729	2.689	8.8	21.1
8 9	22 12.12	- 8 4.1	1.883	2.872	5.5	20.9	8 9	22 12.47	-19 59.3	1.677	2.672	5.3	20.9
8 19	22 4.50	- 9 11.2	1.865	2.875	1.6	20.7	8 19	22 4.63	-21 38.2	1.651	2.655	3.5	20.7
8 29	21 56.63	-10 21.2	1.875	2.878	2.9	20.8	8 29	21 56.32	-23 8.4	1.652	2.637	6.1	20.9
9 8	21 49.41	-11 28.1	1.912	2.880	6.9	21.0	9 8	21 48.58	-24 22.4	1.679	2.620	9.9	21.1
9 18	21 43.58	-12 26.6	1.976	2.882	10.4	21.2	9 18	21 42.40	-25 15.8	1.730	2.603	13.5	21.2
9 28	21 39.73	-13 13.4	2.062	2.884	13.5	21.5	9 28	21 38.53	-25 47.0	1.802	2.585	16.6	21.4
218549	2005 AZ ₃₂		8 21.4	203° 01'	11.4°/26.3	18	152463	2005 VE ₇₇		8 21.4	232° 37'	4.7°/26.4	18 R

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
61577	2000 <i>QL</i> ₈₁		8 21.4 351°65	0°7/21.9	18		342335	2008 <i>TV</i> ₁₁₇		8 21.4 314°84	10°0/13.6	18	
7 20	22 22.33	- 8 13.1	1.676	2.562	13.8	19.4	7 20	22 29.01	-33 18.6	1.462	2.363	14.5	20.0
7 30	22 18.08	- 8 36.9	1.608	2.558	10.1	19.1	7 30	22 23.64	-34 40.1	1.402	2.345	11.9	19.8
8 9	22 11.92	- 9 13.1	1.562	2.554	5.9	18.9	8 9	22 15.42	-35 51.3	1.364	2.327	10.2	19.7
8 19	22 4.51	- 9 57.6	1.541	2.551	1.5	18.6	8 19	22 5.26	-36 41.0	1.348	2.310	10.3	19.6
8 29	21 56.80	-10 44.9	1.546	2.549	3.3	18.7	8 29	21 54.61	-37 0.5	1.355	2.292	12.3	19.7
9 8	21 49.83	-11 29.1	1.577	2.547	7.7	19.0	9 8	21 45.08	-36 46.2	1.384	2.276	15.2	19.8
9 18	21 44.46	-12 5.4	1.632	2.546	11.7	19.2	9 18	21 37.98	-36 0.2	1.432	2.260	18.2	20.0
9 28	21 41.35	-12 30.4	1.708	2.546	15.2	19.4	9 28	21 34.16	-34 47.4	1.496	2.244	21.0	20.2
47697	2000 <i>CZ</i> ₁₀₁		8 21.4 171°66	2°8/24.0	18		510699	2012 <i>UC</i> ₁₄₆		8 21.4 263°29	6°1/26.2	18	
7 20	22 24.15	- 1 40.2	2.099	2.948	12.9	19.7	7 20	22 25.84	+ 4 57.4	1.916	2.736	15.1	21.6
7 30	22 19.04	- 1 56.1	2.025	2.950	9.9	19.5	7 30	22 20.57	+ 5 25.5	1.828	2.724	12.3	21.4
8 9	22 12.33	- 2 26.6	1.975	2.951	6.5	19.3	8 9	22 13.39	+ 5 34.9	1.762	2.712	9.3	21.2
8 19	22 4.58	- 3 9.4	1.950	2.952	3.4	19.1	8 19	22 4.88	+ 5 24.7	1.720	2.699	6.8	21.0
8 29	21 56.59	- 4 0.7	1.953	2.953	3.4	19.1	8 29	21 55.91	+ 4 56.5	1.703	2.686	6.2	21.0
9 8	21 49.19	- 4 55.3	1.984	2.954	6.5	19.3	9 8	21 47.48	+ 4 14.2	1.713	2.673	8.2	21.1
9 18	21 43.13	- 5 48.2	2.041	2.954	9.8	19.5	9 18	21 40.48	+ 3 23.6	1.748	2.660	11.2	21.2
9 28	21 38.96	- 6 35.1	2.121	2.954	12.8	19.7	9 28	21 35.65	+ 2 31.0	1.805	2.647	14.3	21.4
440765	2006 <i>GV</i>		8 21.4 303°12	7°6/28.7	17		346576	2008 <i>VJ</i> ₅₁		8 21.4 331°21	3°0/19.5	18	
7 20	22 20.09	+13 17.4	1.036	1.870	24.1	20.4	7 20	22 22.92	-16 10.0	1.246	2.161	15.5	20.0
7 30	22 17.51	+11 48.7	0.958	1.860	20.1	20.1	7 30	22 19.28	-16 48.9	1.174	2.140	11.2	19.7
8 9	22 12.11	+ 9 21.3	0.896	1.850	15.3	19.7	8 9	22 13.00	-17 35.9	1.122	2.120	6.5	19.4
8 19	22 4.62	+ 5 54.4	0.853	1.840	10.3	19.4	8 19	22 4.83	-18 23.7	1.092	2.101	3.0	19.1
8 29	21 56.37	+ 1 40.0	0.834	1.831	7.6	19.3	8 29	21 56.07	-19 3.7	1.087	2.084	6.2	19.3
9 8	21 49.02	- 2 56.9	0.841	1.822	10.7	19.4	9 8	21 48.18	-19 28.8	1.104	2.067	11.2	19.5
9 18	21 44.03	- 7 26.7	0.872	1.813	16.1	19.7	9 18	21 42.46	-19 34.8	1.141	2.051	16.0	19.7
9 28	21 42.45	-11 24.5	0.925	1.805	21.4	20.0	9 28	21 39.83	-19 20.7	1.197	2.037	20.1	19.9
512925	2016 <i>XW</i> ₁₉		8 21.4 20°63	6°3/26.9	18		283682	2002 <i>QX</i> ₁₀₃		8 21.4 306°79	3°3/24.7	18	
7 20	22 25.71	+ 7 28.6	2.389	3.182	13.3	20.2	7 20	22 21.34	+ 0 52.9	1.789	2.641	14.7	20.6
7 30	22 20.05	+ 8 15.7	2.310	3.182	11.0	20.0	7 30	22 17.35	+ 0 9.9	1.710	2.634	11.4	20.4
8 9	22 12.87	+ 8 46.7	2.254	3.182	8.7	19.9	8 9	22 11.54	- 0 54.6	1.653	2.628	7.7	20.1
8 19	22 4.69	+ 9 0.7	2.222	3.183	6.8	19.8	8 19	22 4.51	- 2 17.4	1.620	2.621	4.2	19.9
8 29	21 56.24	+ 8 58.1	2.216	3.183	6.3	19.7	8 29	21 57.12	- 3 52.7	1.615	2.615	3.8	19.9
9 8	21 48.30	+ 8 41.5	2.238	3.184	7.5	19.8	9 8	21 50.34	- 5 32.3	1.636	2.609	7.2	20.1
9 18	21 41.55	+ 8 14.6	2.286	3.184	9.6	19.9	9 18	21 45.00	- 7 8.2	1.683	2.603	11.0	20.3
9 28	21 36.57	+ 7 42.3	2.358	3.185	11.8	20.1	9 28	21 41.79	- 8 33.4	1.752	2.597	14.5	20.5
323268	2003 <i>SD</i> ₃₃₇		8 21.4 341°46	0°7/20.7	18		355674	2008 <i>EB</i> ₁₅₀		8 21.4 159°22	2°0/19.2	18	
7 20	22 23.57	-12 53.8	2.116	3.001	11.4	20.8	7 20	22 23.90	-16 12.1	2.429	3.315	10.1	21.6
7 30	22 18.64	-13 15.1	2.046	2.998	8.2	20.6	7 30	22 18.72	-17 3.7	2.366	3.319	7.2	21.4
8 9	22 12.10	-13 42.5	2.000	2.995	4.6	20.4	8 9	22 12.10	-17 58.8	2.329	3.323	4.1	21.2
8 19	22 4.54	-14 12.2	1.981	2.992	1.0	20.1	8 19	22 4.60	-18 53.0	2.319	3.326	2.0	21.1
8 29	21 56.76	-14 39.9	1.990	2.990	3.3	20.3	8 29	21 56.92	-19 41.4	2.338	3.330	4.0	21.2
9 8	21 49.60	-15 1.9	2.025	2.987	7.0	20.5	9 8	21 49.80	-20 20.3	2.385	3.333	7.0	21.4
9 18	21 43.79	-15 15.4	2.086	2.985	10.3	20.7	9 18	21 43.90	-20 47.1	2.459	3.335	9.8	21.6
9 28	21 39.90	-15 18.9	2.170	2.983	13.2	20.9	9 28	21 39.73	-21 1.0	2.554	3.338	12.3	21.8
72040	2000 <i>XH</i> ₅₀		8 21.4 108°65	4°9/16.8	18		251804	1999 <i>TY</i> ₅₃		8 21.4 186°21	5°1/15.8	18	
7 20	22 27.19	-23 27.2	1.942	2.838	11.7	19.1	7 20	22 27.99	-29 59.3	2.769	3.649	9.2	21.5
7 30	22 21.33	-24 41.6	1.899	2.852	8.6	19.0	7 30	22 21.57	-30 42.4	2.712	3.649	7.1	21.4
8 9	22 13.63	-25 53.9	1.880	2.866	5.8	18.8	8 9	22 13.68	-31 19.6	2.680	3.648	5.5	21.3
8 19	22 4.84	-26 56.9	1.888	2.879	5.0	18.8	8 19	22 4.91	-31 46.3	2.676	3.647	5.2	21.3
8 29	21 55.93	-27 44.3	1.923	2.893	6.9	18.9	8 29	21 56.01	-31 58.7	2.699	3.645	6.5	21.4
9 8	21 47.90	-28 12.6	1.984	2.905	9.8	19.1	9 8	21 47.75	-31 55.3	2.750	3.643	8.4	21.5
9 18	21 41.56	-28 21.2	2.069	2.918	12.6	19.3	9 18	21 40.80	-31 36.2	2.826	3.641	10.5	21.6
9 28	21 37.47	-28 11.3	2.174	2.930	15.0	19.6	9 28	21 35.65	-31 2.8	2.922	3.639	12.3	21.8
474339	2002 <i>NH</i> ₆₄		8 21.4 355°28	0°9/20.8	16		286226	2001 <i>UY</i> ₁₃₃		8 21.4 44°30	1°0/20.6	18	
7 20	22 23.33	-12 31.6	1.336	2.241	15.3	20.8	7 20	22 24.71	-12 52.7	1.852	2.741	12.5	20.4
7 30	22 19.19	-12 53.3	1.275	2.237	11.1	20.6	7 30	22 19.61	-13 24.9	1.792	2.745	9.0	20.2
8 9	22 12.71	-13 24.7	1.235	2.233	6.3	20.3	8 9	22 12.73	-14 4.0	1.755	2.751	5.0	19.9
8 19	22 4.69	-14 0.5	1.219	2.230	1.3	20.0	8 19	22 4.73	-14 45.5	1.745	2.756	1.2	19.7
8 29	21 56.35	-14 34.0	1.227	2.228	4.4	20.2	8 29	21 56.55	-15 23.9	1.762	2.761	3.7	19.9
9 8	21 48.97	-14 59.1	1.258	2.228	9.4	20.5	9 8	21 49.13	-15 54.6	1.805	2.767	7.7	20.1
9 18	21 43.62	-15 11.9	1.313	2.228	13.9	20.7	9 18	21 43.28	-16 14.6	1.873	2.773	11.3	20.4
9 28	21 41.02	-15 10.3	1.386	2.229	17.7	21.0	9 28	21 39.58	-16 22.3	1.963	2.779	14.3	20.6
73384	2002 <i>LK</i> ₉		8 21.4 162°52	2°0/23.0	18		123208	2000 <i>UO</i> ₂₉		8 21.4 323°10	18°1/30.4	18	
7 20	22 26.67	- 3 53.2	1.624	2.491	15.1	20.4	7 20	22 40.89	-58 2.2	1.568	2.376	18.4	18.8
7 30	22 21.25	- 4 27.0	1.557	2.494	11.4	20.1	7 30	22 33.52	-60 1.0	1.548	2.365	18.1	18.8
8 9	22 13.75	- 5 18.2	1.513	2.498	7.1	19.9	8 9	22 21.52	-61 25.9	1.545	2.356	18.4	18.8
8 19	22 4.90	- 6 22.7	1.493	2.501	2.8	19.7	8 19	22 6.50	-62 5.7	1.558	2.346	19.1	18.8
8 29	21 55.74	- 7 34.1	1.500	2.503	3.5	19.7	8 29	21 51.21	-61 54.5	1.586	2.337	20.2	18.9
9 8	21 47.40	- 8 44.8	1.534	2.505	7.9	20.0	9 8	21 38.46	-60 54.8	1.629	2.329	21.4	18.9
9 18	21 40.82	- 9 48.3	1.593	2.507	12.0	20.2	9 18	21 30.02	-59 14.1	1.683	2.321	22.7	19.0
9 28	21 36.70	-10 39.8	1.673	2.508	15.6	20.5	9 28	21 26.56	-57 1.9	1.748	2.313	23.7	19.2
446744	2015 <i>PZ</i> ₁		8 21.4 8°60	3°0/19.7	18		474622	2004 <i></i>					

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8 21.4

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
35105	1991 <i>RP</i> ₂₃		8 21.4 38°15'	7.7/16.9	18		366118	2012 <i>DM</i> ₃₃		8 21.5 239°05'	2°0'/23.9	18	
7 20	22 34.19	-30 18.3	1.500	2.396	14.5	17.2	7 20	22 21.06	-1 22.1	2.602	3.445	10.9	20.9
7 30	22 26.87	-30 54.2	1.456	2.402	11.3	17.0	7 30	22 16.71	-2 7.2	2.513	3.435	8.3	20.8
8 9	22 17.00	-31 19.3	1.434	2.409	8.6	16.9	8 9	22 11.05	-3 6.2	2.449	3.425	5.4	20.6
8 19	22 5.66	-31 25.7	1.435	2.415	7.8	16.9	8 19	22 4.52	-4 16.4	2.411	3.415	2.6	20.4
8 29	21 54.31	-31 8.2	1.462	2.423	9.5	17.0	8 29	21 57.73	-5 33.7	2.403	3.405	2.7	20.3
9 8	21 44.41	-30 26.1	1.513	2.430	12.5	17.2	9 8	21 51.32	-6 53.0	2.424	3.394	5.5	20.5
9 18	21 36.98	-29 22.6	1.585	2.438	15.6	17.4	9 18	21 45.91	-8 9.2	2.473	3.383	8.5	20.7
9 28	21 32.65	-28 2.6	1.677	2.446	18.3	17.6	9 28	21 42.00	-9 18.1	2.547	3.372	11.1	20.9
92744	2000 <i>QV</i> ₁₀₈		8 21.4 248°60'	0°4'/21.9	18		104476	2000 <i>GO</i> ₂₀		8 21.5 156°69'	3°7'/18.8	18	
7 20	22 23.15	-5 48.3	1.749	2.624	13.8	19.4	7 20	22 30.38	-19 47.1	1.679	2.574	13.3	19.9
7 30	22 18.75	-7 2.7	1.673	2.618	10.2	19.2	7 30	22 23.96	-20 28.3	1.622	2.577	9.6	19.6
8 9	22 12.42	-8 34.8	1.621	2.612	6.0	18.9	8 9	22 15.35	-21 10.6	1.588	2.580	5.8	19.4
8 19	22 4.79	-10 18.6	1.594	2.605	1.4	18.6	8 19	22 5.38	-21 47.4	1.579	2.583	3.7	19.3
8 29	21 56.77	-12 5.8	1.596	2.599	3.4	18.7	8 29	21 55.20	-22 12.5	1.598	2.586	5.9	19.4
9 8	21 49.37	-13 47.6	1.625	2.592	7.9	19.0	9 8	21 46.00	-22 22.1	1.642	2.588	9.7	19.7
9 18	21 43.51	-15 16.6	1.679	2.585	12.0	19.2	9 18	21 38.76	-22 15.1	1.711	2.590	13.3	19.9
9 28	21 39.89	-16 28.0	1.755	2.578	15.5	19.4	9 28	21 34.12	-21 52.5	1.799	2.591	16.3	20.1
440479	2005 <i>TX</i> ₆		8 21.5 276°83'	15°6'/15.8	15		59124	1998 <i>XJ</i> ₁₉		8 21.5 282°59'	1°8'/20.2	18	
7 20	22 52.38	-41 23.2	1.035	1.914	20.8	20.8	7 20	22 27.55	-13 8.3	1.278	2.181	16.1	19.3
7 30	22 42.13	-42 19.1	0.978	1.898	18.1	20.6	7 30	22 22.57	-13 54.7	1.211	2.171	11.6	19.0
8 9	22 26.63	-42 47.2	0.938	1.882	16.0	20.4	8 9	22 14.89	-14 52.8	1.164	2.161	6.6	18.7
8 19	22 7.67	-42 28.8	0.918	1.865	15.7	20.3	8 19	22 5.34	-15 55.3	1.140	2.151	2.0	18.4
8 29	21 48.30	-41 13.0	0.919	1.848	17.4	20.4	8 29	21 55.24	-16 53.0	1.142	2.141	5.4	18.6
9 8	21 31.72	-39 2.7	0.939	1.832	20.5	20.5	9 8	21 46.10	-17 38.0	1.167	2.131	10.7	18.9
9 18	21 20.01	-36 11.8	0.978	1.815	24.1	20.7	9 18	21 39.20	-18 5.3	1.215	2.122	15.5	19.1
9 28	21 13.91	-32 57.0	1.032	1.798	27.5	20.9	9 28	21 35.43	-18 13.1	1.280	2.112	19.6	19.3
97743	2000 <i>HQ</i> ₄₂		8 21.5 258°48'	5°5'/26.9	18		121443	1999 <i>TP</i> ₁₈₆		8 21.5 306°50'	4°8'/25.8	18	
7 20	22 22.86	+6 50.7	2.168	2.975	14.0	19.3	7 20	22 23.10	+3 1.8	2.127	2.955	13.5	19.7
7 30	22 18.29	+6 44.0	2.074	2.960	11.5	19.1	7 30	22 18.42	+3 16.4	2.044	2.947	10.8	19.5
8 9	22 12.08	+6 16.9	2.001	2.945	8.7	18.9	8 9	22 12.13	+3 14.5	1.982	2.940	7.9	19.3
8 19	22 4.73	+5 29.6	1.952	2.930	6.3	18.8	8 19	22 4.76	+2 56.4	1.946	2.932	5.4	19.1
8 29	21 56.98	+4 24.8	1.930	2.914	5.5	18.7	8 29	21 57.06	+2 24.4	1.935	2.924	4.9	19.1
9 8	21 49.67	+3 7.5	1.935	2.898	7.2	18.8	9 8	21 49.87	+1 42.4	1.952	2.917	7.0	19.2
9 18	21 43.57	+1 44.1	1.967	2.881	10.0	18.9	9 18	21 43.93	+0 55.5	1.995	2.910	9.9	19.4
9 28	21 39.32	+0 21.4	2.023	2.865	12.9	19.1	9 28	21 39.86	+0 8.8	2.060	2.903	12.7	19.5
123615	2000 <i>YS</i> ₂₀		8 21.5 322°07'	0°6'/21.0	18		181978	1999 <i>VV</i> ₆₆		8 21.5 351°52'	5°9'/16.1	18	
7 20	22 25.39	-11 39.1	1.531	2.425	14.4	19.3	7 20	22 25.26	-26 41.0	1.925	2.824	11.6	19.3
7 30	22 20.57	-12 5.2	1.461	2.417	10.5	19.0	7 30	22 20.16	-27 41.9	1.870	2.822	8.8	19.1
8 9	22 13.54	-12 41.3	1.414	2.409	5.9	18.7	8 9	22 13.15	-28 38.6	1.839	2.820	6.5	19.0
8 19	22 5.03	-13 22.5	1.390	2.402	1.2	18.4	8 19	22 4.95	-29 24.2	1.834	2.818	6.0	18.9
8 29	21 56.12	-14 2.6	1.393	2.395	4.0	18.6	8 29	21 56.53	-29 53.0	1.854	2.816	7.7	19.0
9 8	21 48.03	-14 35.5	1.421	2.388	8.8	18.9	9 8	21 48.92	-30 1.7	1.900	2.815	10.4	19.2
9 18	21 41.79	-14 57.2	1.472	2.381	13.1	19.1	9 18	21 42.98	-29 50.2	1.968	2.814	13.2	19.4
9 28	21 38.12	-15 5.1	1.544	2.375	16.8	19.3	9 28	21 39.31	-29 20.0	2.056	2.814	15.7	19.6
221872	2008 <i>GO</i> ₁₃₀		8 21.5 332°19'	3°1'/23.5	18		479775	2014 <i>EP</i> ₃₂		8 21.5 325°07'	0°8'/22.1	18	
7 20	22 21.82	-3 46.4	1.185	2.077	17.9	20.0	7 20	22 23.19	-6 52.1	1.760	2.638	13.6	21.1
7 30	22 18.51	-3 51.9	1.112	2.061	13.7	19.7	7 30	22 18.72	-7 33.2	1.689	2.635	10.0	20.9
8 9	22 12.62	-4 19.0	1.058	2.046	8.8	19.4	8 9	22 12.38	-8 28.3	1.642	2.632	5.9	20.6
8 19	22 4.88	-5 5.3	1.026	2.033	4.1	19.1	8 19	22 4.81	-9 32.9	1.620	2.630	1.6	20.4
8 29	21 56.53	-6 4.6	1.017	2.020	4.5	19.1	8 29	21 56.93	-10 40.9	1.624	2.628	3.2	20.5
9 8	21 49.02	-7 8.1	1.030	2.009	9.6	19.3	9 8	21 49.73	-11 45.5	1.656	2.625	7.5	20.7
9 18	21 43.63	-8 7.0	1.065	1.998	14.7	19.6	9 18	21 44.07	-12 41.1	1.712	2.623	11.5	21.0
9 28	21 41.28	-8 54.1	1.118	1.989	19.2	19.8	9 28	21 40.61	-13 23.8	1.790	2.621	14.8	21.2
73527	2003 <i>NC</i> ₃		8 21.5 319°18'	1°0'/22.4	18		32045	2000 <i>JD</i> ₂₈		8 21.5 333°24'	4°7'/24.2	18	
7 20	22 19.92	-5 50.2	1.892	2.769	12.9	18.0	7 20	22 22.12	-2 11.2	1.175	2.062	18.3	17.8
7 30	22 16.41	-6 36.8	1.798	2.742	9.6	17.7	7 30	22 18.80	-1 47.8	1.099	2.043	14.3	17.5
8 9	22 11.12	-7 39.2	1.727	2.716	5.8	17.4	8 9	22 12.84	-1 45.4	1.042	2.025	9.8	17.2
8 19	22 4.56	-8 53.9	1.681	2.691	1.8	17.1	8 19	22 4.95	-2 3.6	1.006	2.008	5.6	16.9
8 29	21 57.52	-10 14.8	1.662	2.665	3.1	17.1	8 29	21 56.39	-2 39.0	0.992	1.993	5.5	16.8
9 8	21 50.93	-11 35.0	1.670	2.641	7.4	17.4	9 8	21 48.64	-3 24.3	1.000	1.979	9.8	17.0
9 18	21 45.65	-12 47.7	1.703	2.616	11.4	17.5	9 18	21 43.01	-4 11.5	1.030	1.966	14.8	17.3
9 28	21 42.41	-13 47.8	1.758	2.593	14.9	17.7	9 28	21 40.48	-4 52.8	1.078	1.954	19.3	17.5
151496	2002 <i>JC</i> ₇₂		8 21.5 121°23'	1°1'/22.8	18		64964	2001 <i>YF</i> ₁₄₉		8 21.5 128°27'	1°0'/20.5	18	
7 20	22 22.09	-5 6.1	2.574	3.431	10.6	20.3	7 20	22 26.55	-14 16.1	2.314	3.194	10.7	19.6
7 30	22 17.33	-5 48.0	2.510	3.443	7.8	20.1	7 30	22 20.65	-14 35.8	2.253	3.202	7.7	19.4
8 9	22 11.33	-6 40.4	2.470	3.454	4.7	20.0	8 9	22 13.26	-14 59.5	2.216	3.209	4.3	19.2
8 19	22 4.56	-7 40.0	2.457	3.466	1.7	19.8	8 19	22 4.96	-15 23.7	2.206	3.217	1.2	19.0
8 29	21 57.65	-8 42.6	2.474	3.477	2.4	19.8	8 29	21 56.53	-15 44.6	2.226	3.224	3.3	19.2
9 8	21 51.25	-9 43.7	2.520	3.488	5.4	20.1	9 8	21 48.76	-15 59.2	2.274	3.231	6.6	19.4
9 18	21 45.92	-10 39.3	2.594	3.499	8.3	20.3	9 18	21 42.33	-16 5.6	2.348	3.238	9.7	19.6
9 28	21 42.11	-11 26.4	2.692	3.509	10.8	20.5	9 28	21 37.73	-16 2.6	2.445	3.245	12.3	19.8
162214	1999 <i>TC</i> ₁₀		8 21.5 302°84'	12°3'/10.3	07 C		21072	1991 <i>PU</i> ₈		8 21.5 54°08'	3°3'/23.7	18	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
390293	2013 AK ₃₁		8 21.5 161°04	0°4/21.9	18		428570	2008 CG ₁₉₇		8 21.5 253°80	0°1/21.5	18	
7 20	22 23.62	- 7 29.4	2.098	2.969	12.0	21.3	7 20	22 26.87	- 8 55.3	1.605	2.488	14.5	21.9
7 30	22 18.74	- 8 19.0	2.029	2.972	8.8	21.1	7 30	22 21.69	- 9 34.9	1.525	2.474	10.6	21.7
8 9	22 12.27	- 9 20.1	1.985	2.975	5.1	20.9	8 9	22 14.26	-10 28.3	1.468	2.461	6.2	21.4
8 19	22 4.78	-10 28.4	1.967	2.977	1.2	20.6	8 19	22 5.25	-11 30.6	1.436	2.447	1.3	21.0
8 29	21 57.05	-11 38.2	1.977	2.980	2.9	20.7	8 29	21 55.72	-12 34.9	1.430	2.433	3.8	21.2
9 8	21 49.93	-12 43.8	2.016	2.981	6.7	21.0	9 8	21 46.88	-13 33.9	1.451	2.418	8.7	21.4
9 18	21 44.13	-13 40.6	2.080	2.983	10.2	21.2	9 18	21 39.80	-14 21.9	1.496	2.403	13.1	21.6
9 28	21 40.22	-14 25.2	2.168	2.985	13.1	21.4	9 28	21 35.29	-14 55.0	1.562	2.388	16.9	21.9
442859	2013 AZ ₁₃₇		8 21.5 229°26	0°4/21.8	18		7069	1994 YG ₂		8 21.5 203°51	3°5/18.7	18	
7 20	22 24.56	- 8 43.2	2.012	2.887	12.3	21.8	7 20	22 27.51	-18 13.2	1.630	2.529	13.4	17.5
7 30	22 19.50	- 9 9.6	1.940	2.885	9.0	21.5	7 30	22 22.01	-19 10.4	1.570	2.528	9.7	17.2
8 9	22 12.74	- 9 45.9	1.892	2.883	5.2	21.3	8 9	22 14.33	-20 11.5	1.533	2.527	5.8	17.0
8 19	22 4.88	-10 28.8	1.869	2.880	1.3	21.0	8 19	22 5.24	-21 9.1	1.521	2.526	3.5	16.9
8 29	21 56.75	-11 13.3	1.875	2.877	3.0	21.2	8 29	21 55.85	-21 55.9	1.536	2.525	6.0	17.0
9 8	21 49.25	-11 54.6	1.908	2.875	6.9	21.4	9 8	21 47.36	-22 26.6	1.577	2.524	9.9	17.2
9 18	21 43.14	-12 28.7	1.966	2.872	10.5	21.6	9 18	21 40.74	-22 39.1	1.640	2.523	13.6	17.5
9 28	21 39.04	-12 52.8	2.047	2.869	13.6	21.8	9 28	21 36.70	-22 33.2	1.724	2.521	16.7	17.7
444263	2005 UD ₂₅₈		8 21.5 337°88	0°7/21.9	15		390137	2012 VJ ₇₃		8 21.5 193°27	0°5/21.9	18	
7 20	22 21.09	- 8 10.2	1.579	2.470	14.2	21.4	7 20	22 24.62	- 8 4.2	1.910	2.786	12.8	21.5
7 30	22 17.45	- 8 35.3	1.504	2.456	10.5	21.1	7 30	22 19.62	- 8 39.6	1.840	2.785	9.4	21.3
8 9	22 11.77	- 9 14.1	1.449	2.443	6.2	20.8	8 9	22 12.85	- 9 26.6	1.793	2.784	5.5	21.0
8 19	22 4.71	-10 2.6	1.419	2.430	1.6	20.5	8 19	22 4.94	-10 20.9	1.773	2.784	1.3	20.8
8 29	21 57.23	-10 54.8	1.415	2.418	3.5	20.6	8 29	21 56.75	-11 17.2	1.780	2.783	3.1	20.9
9 8	21 50.43	-11 44.1	1.435	2.408	8.1	20.9	9 8	21 49.22	-12 9.7	1.814	2.782	7.2	21.1
9 18	21 45.27	-12 24.9	1.480	2.398	12.4	21.1	9 18	21 43.16	-12 54.0	1.874	2.781	10.9	21.4
9 28	21 42.48	-12 53.3	1.544	2.389	16.1	21.3	9 28	21 39.19	-13 26.7	1.956	2.779	14.1	21.6
239658	2008 WG ₁₂₅		8 21.5 4°65	0°4/21.2	18		389652	2011 OK ₁₄		8 21.5 349°43	1°5/22.7	18	
7 20	22 24.98	-10 53.8	1.612	2.503	14.0	20.5	7 20	22 23.06	- 5 17.7	1.654	2.530	14.4	20.8
7 30	22 20.11	-11 22.0	1.549	2.503	10.1	20.3	7 30	22 18.72	- 5 50.6	1.585	2.528	10.8	20.6
8 9	22 13.20	-12 0.3	1.508	2.503	5.8	20.0	8 9	22 12.44	- 6 39.5	1.538	2.526	6.6	20.3
8 19	22 4.98	-12 43.8	1.492	2.503	1.1	19.7	8 19	22 4.87	- 7 40.1	1.516	2.525	2.3	20.1
8 29	21 56.48	-13 26.7	1.502	2.504	3.7	19.9	8 29	21 56.98	- 8 46.4	1.520	2.524	3.3	20.1
9 8	21 48.80	-14 3.0	1.538	2.505	8.2	20.2	9 8	21 49.82	- 9 51.4	1.551	2.523	7.7	20.4
9 18	21 42.88	-14 28.9	1.598	2.507	12.3	20.4	9 18	21 44.28	-10 48.8	1.605	2.522	11.7	20.7
9 28	21 39.38	-14 41.9	1.679	2.508	15.7	20.7	9 28	21 41.03	-11 34.2	1.682	2.522	15.2	20.9
476726	2008 UW ₂₁		8 21.5 340°57	11°4/14.3	18		41382	2000 AV ₁₂₄		8 21.5 331°10	1°1/20.3	18	
7 20	22 32.74	-36 42.7	1.337	2.233	16.0	20.3	7 20	22 19.95	-10 2.4	1.968	2.855	12.0	17.8
7 30	22 26.49	-37 44.4	1.288	2.223	13.4	20.2	7 30	22 16.31	-11 27.5	1.893	2.846	8.6	17.5
8 9	22 17.12	-38 29.0	1.260	2.215	11.7	20.0	8 9	22 11.01	-13 5.2	1.842	2.838	4.8	17.3
8 19	22 5.77	-38 45.6	1.252	2.207	11.6	20.0	8 19	22 4.59	-14 49.3	1.819	2.830	1.2	17.0
8 29	21 54.20	-38 26.9	1.267	2.200	13.4	20.1	8 29	21 57.83	-16 32.0	1.823	2.822	3.8	17.2
9 8	21 44.18	-37 32.3	1.303	2.193	16.0	20.2	9 8	21 51.61	-18 5.6	1.856	2.815	7.7	17.4
9 18	21 37.02	-36 6.6	1.358	2.188	18.9	20.4	9 18	21 46.70	-19 24.3	1.913	2.808	11.3	17.7
9 28	21 33.43	-34 17.3	1.429	2.184	21.5	20.6	9 28	21 43.73	-20 24.8	1.993	2.801	14.4	17.8
384459	2010 BM ₄		8 21.5 186°05	0°9/22.4	18		483879	2005 YZ ₁₇₅		8 21.5 306°87	0°4/21.1	17	
7 20	22 27.17	- 7 10.3	2.541	3.396	10.7	22.4	7 20	22 23.23	-11 15.4	2.011	2.895	11.9	21.5
7 30	22 21.07	- 7 29.1	2.463	3.396	7.9	22.2	7 30	22 18.67	-11 42.7	1.928	2.879	8.7	21.3
8 9	22 13.52	- 7 56.6	2.409	3.395	4.7	22.0	8 9	22 12.36	-12 18.6	1.869	2.863	4.9	21.1
8 19	22 5.05	- 8 30.2	2.384	3.393	1.5	21.7	8 19	22 4.86	-12 59.1	1.836	2.847	1.0	20.7
8 29	21 56.35	- 9 6.3	2.389	3.391	2.5	21.8	8 29	21 57.01	-13 39.5	1.830	2.832	3.3	20.9
9 8	21 48.16	- 9 41.4	2.423	3.388	5.8	22.0	9 8	21 49.69	-14 14.9	1.852	2.816	7.3	21.1
9 18	21 41.14	-10 12.2	2.485	3.384	8.9	22.2	9 18	21 43.73	-14 41.6	1.898	2.801	11.0	21.3
9 28	21 35.82	-10 36.3	2.571	3.379	11.5	22.4	9 28	21 39.78	-14 57.1	1.967	2.787	14.1	21.5
444402	2006 AE ₈		8 21.5 267°34	0°8/20.5	17		355530	2008 AX ₈₅		8 21.5 93°68	1°8/19.7	18	
7 20	22 22.36	-10 40.4	2.572	3.446	10.0	21.3	7 20	22 24.06	-14 31.5	2.066	2.955	11.4	20.8
7 30	22 17.78	-11 49.3	2.476	3.422	7.2	21.1	7 30	22 19.06	-15 26.7	2.010	2.964	8.1	20.6
8 9	22 11.75	-13 8.0	2.405	3.398	4.1	20.8	8 9	22 12.46	-16 27.4	1.978	2.973	4.6	20.4
8 19	22 4.71	-14 32.0	2.362	3.373	1.0	20.6	8 19	22 4.86	-17 28.3	1.973	2.982	1.8	20.3
8 29	21 57.28	-15 56.0	2.350	3.348	3.1	20.7	8 29	21 57.10	-18 23.6	1.997	2.992	4.1	20.5
9 8	21 50.18	-17 14.2	2.367	3.322	6.5	20.9	9 8	21 50.03	-19 8.6	2.047	3.000	7.5	20.7
9 18	21 44.08	-18 22.3	2.411	3.296	9.7	21.0	9 18	21 44.36	-19 40.5	2.123	3.009	10.7	20.9
9 28	21 39.57	-19 17.3	2.479	3.270	12.4	21.2	9 28	21 40.65	-19 58.0	2.221	3.018	13.5	21.1
177005	2003 AV ₉₂		8 21.5 273°47	7°8/14.1	18		295266	2008 GB ₆₈		8 21.5 51°08	4°6/18.1	17	
7 20	22 30.66	-33 46.7	2.088	2.970	11.6	20.0	7 20	22 27.30	-19 43.0	1.389	2.297	14.7	20.3
7 30	22 24.20	-34 49.2	2.021	2.952	9.5	19.8	7 30	22 22.06	-20 52.2	1.342	2.304	10.6	20.1
8 9	22 15.56	-35 42.6	1.977	2.933	8.0	19.7	8 9	22 14.41	-22 3.8	1.317	2.311	6.6	19.9
8 19	22 5.48	-36 19.5	1.959	2.914	8.0	19.6	8 19	22 5.27	-23 8.6	1.316	2.318	4.7	19.8
8 29	21 55.03	-36 34.1	1.966	2.895	9.5	19.7	8 29	21 55.92	-23 58.0	1.340	2.325	7.2	20.0
9 8	21 45.39	-36 23.7	1.998	2.875	11.9	19.8	9 8	21 47.70	-24 26.7	1.388	2.333	11.2	20.2
9 18	21 37.56	-35 49.4	2.052	2.856	14.3	19.9	9 18	21 41.65	-24 33.2	1.459	2.341	15.0	20.5
9 28	21 32.24	-34 54.3	2.125	2.836	16.5	20.1	9 28	21 38.44	-24 18.8	1.547	2.349	18.2	20.7
241689	2000 SO ₅₀		8 21.5 351°41	4°9/26.0	18		202716	2007 HC ₁₉		8 21.5 54°47	0°8/22.1	18	
7 20	22 22.												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
288277	2003 YD ₁₇₂		8 21.5 240°74	1°7/19.9	18		106712	2000 WH ₁₇₃		8 21.5 214°81	2°4/19.4	18	
7 20	22 26.18	-15 6.5	2.033	2.920	11.7	20.9	7 20	22 28.34	-15 3.4	1.803	2.692	12.9	20.6
7 30	22 20.74	-15 42.7	1.960	2.913	8.4	20.7	7 30	22 22.55	-16 6.5	1.730	2.684	9.2	20.4
8 9	22 13.50	-16 24.0	1.911	2.905	4.8	20.4	8 9	22 14.67	-17 16.9	1.682	2.677	5.3	20.1
8 19	22 5.10	-17 5.8	1.888	2.898	1.8	20.2	8 19	22 5.38	-18 28.2	1.660	2.668	2.4	19.9
8 29	21 56.40	-17 42.9	1.894	2.890	4.1	20.4	8 29	21 55.68	-19 32.8	1.666	2.659	5.0	20.1
9 8	21 48.33	-18 10.9	1.926	2.882	7.8	20.6	9 8	21 46.68	-20 24.5	1.699	2.649	9.0	20.3
9 18	21 41.72	-18 27.0	1.984	2.873	11.3	20.8	9 18	21 39.36	-20 59.7	1.756	2.639	12.8	20.5
9 28	21 37.20	-18 30.2	2.064	2.865	14.2	21.0	9 28	21 34.45	-21 17.1	1.834	2.628	16.0	20.7
379188	2009 RF ₆₉		8 21.5 336°72	3°8/23.4	18		519115	2010 MA ₂₅		8 21.5 50°34	0°5/21.1	18	
7 20	22 27.27	-4 45.7	1.237	2.122	17.8	20.1	7 20	22 26.58	-12 33.9	2.001	2.882	12.1	21.3
7 30	22 22.40	-4 7.9	1.167	2.112	13.6	19.8	7 30	22 20.93	-12 44.3	1.937	2.886	8.7	21.1
8 9	22 14.84	-3 45.8	1.117	2.103	9.0	19.6	8 9	22 13.56	-13 0.5	1.896	2.890	4.9	20.9
8 19	22 5.42	-3 38.9	1.089	2.094	4.6	19.3	8 19	22 5.14	-13 19.2	1.883	2.894	1.0	20.6
8 29	21 55.45	-3 44.3	1.085	2.087	5.0	19.3	8 29	21 56.53	-13 36.4	1.897	2.898	3.2	20.8
9 8	21 46.43	-3 57.0	1.105	2.080	9.6	19.5	9 8	21 48.65	-13 48.5	1.939	2.902	7.1	21.1
9 18	21 39.64	-4 11.5	1.146	2.074	14.4	19.8	9 18	21 42.27	-13 53.2	2.006	2.907	10.6	21.3
9 28	21 35.95	-4 22.5	1.206	2.069	18.6	20.0	9 28	21 37.96	-13 49.0	2.095	2.911	13.5	21.5
315372	2007 VQ ₂₆		8 21.5 331°96	2°7/19.5	18		477165	2009 EY ₁₈		8 21.5 199°33	1°3/20.4	18	
7 20	22 22.70	-13 9.0	1.108	2.025	16.9	20.4	7 20	22 28.39	-14 58.8	2.030	2.913	11.9	21.8
7 30	22 19.33	-14 22.9	1.046	2.014	12.2	20.0	7 30	22 22.27	-15 14.9	1.961	2.912	8.5	21.6
8 9	22 13.18	-15 52.0	1.005	2.004	6.9	19.7	8 9	22 14.36	-15 35.2	1.916	2.910	4.8	21.3
8 19	22 5.09	-17 26.6	0.985	1.995	2.7	19.5	8 19	22 5.31	-15 55.5	1.898	2.909	1.5	21.1
8 29	21 56.43	-18 54.3	0.989	1.986	6.4	19.7	8 29	21 56.03	-16 11.8	1.909	2.907	3.7	21.3
9 8	21 48.80	-20 4.2	1.015	1.979	11.8	19.9	9 8	21 47.48	-16 20.6	1.947	2.905	7.5	21.5
9 18	21 43.51	-20 49.9	1.061	1.972	16.8	20.2	9 18	21 40.46	-16 19.9	2.010	2.903	11.0	21.7
9 28	21 41.47	-21 9.2	1.124	1.966	21.1	20.5	9 28	21 35.57	-16 8.9	2.096	2.900	13.9	21.9
218197	2002 TH ₁₁₁		8 21.5 285°03	1°2/22.2	18		341105	2007 KK ₄		8 21.5 34°11	4°6/25.7	18	
7 20	22 28.15	-8 12.6	1.532	2.413	15.1	20.2	7 20	22 20.46	+ 3 52.6	1.190	2.056	19.6	19.9
7 30	22 22.82	-8 17.4	1.444	2.391	11.3	19.9	7 30	22 17.15	+ 2 55.5	1.148	2.077	15.2	19.7
8 9	22 15.04	-8 34.9	1.378	2.369	6.8	19.6	8 9	22 11.63	+ 1 27.2	1.124	2.098	10.5	19.5
8 19	22 5.47	-9 2.0	1.336	2.346	2.0	19.2	8 19	22 4.76	- 0 26.5	1.121	2.120	6.0	19.4
8 29	21 55.23	-9 33.9	1.320	2.323	3.8	19.3	8 29	21 57.76	- 2 34.9	1.143	2.144	5.0	19.4
9 8	21 45.62	-10 4.6	1.330	2.301	8.8	19.5	9 8	21 51.87	- 4 44.5	1.189	2.168	8.5	19.6
9 18	21 37.84	-10 29.2	1.363	2.278	13.6	19.7	9 18	21 47.99	- 6 43.7	1.259	2.193	12.8	20.0
9 28	21 32.82	-10 43.8	1.417	2.255	17.7	19.9	9 28	21 46.74	- 8 23.9	1.350	2.218	16.6	20.3
121548	1999 VH ₃₁		8 21.5 289°85	5°3/16.1	18		448824	2011 UT ₄₃		8 21.5 88°96	5°0/26.2	18	
7 20	22 25.08	-25 48.6	2.172	3.067	10.7	19.7	7 20	22 23.71	+ 4 13.5	2.004	2.828	14.3	21.0
7 30	22 20.01	-26 51.8	2.100	3.050	8.1	19.5	7 30	22 18.91	+ 4 16.3	1.932	2.832	11.5	20.8
8 9	22 13.13	-27 52.8	2.053	3.034	5.9	19.3	8 9	22 12.45	+ 4 0.2	1.881	2.837	8.4	20.6
8 19	22 5.04	-28 45.3	2.032	3.017	5.4	19.3	8 19	22 4.94	+ 3 26.0	1.855	2.841	5.8	20.5
8 29	21 56.60	-29 23.4	2.038	3.000	7.1	19.4	8 29	21 57.17	+ 2 36.8	1.856	2.845	5.1	20.4
9 8	21 48.77	-29 43.3	2.070	2.984	9.8	19.5	9 8	21 50.02	+ 1 37.8	1.883	2.849	7.1	20.6
9 18	21 42.37	-29 43.9	2.125	2.967	12.5	19.6	9 18	21 44.23	+ 0 34.9	1.936	2.853	10.0	20.8
9 28	21 38.06	-29 26.1	2.200	2.950	15.0	19.8	9 28	21 40.40	- 0 25.9	2.012	2.857	12.9	21.0
128052	2003 MW ₈		8 21.5 142°30	6°0/27.3	18		121661	1999 XQ ₂₁		8 21.5 294°98	5°5/15.1	18	
7 20	22 25.18	+ 7 15.9	1.985	2.791	15.1	20.1	7 20	22 23.82	-24 59.2	2.161	3.058	10.6	19.8
7 30	22 19.96	+ 7 20.2	1.913	2.798	12.4	19.9	7 30	22 19.26	-26 32.5	2.078	3.030	8.1	19.6
8 9	22 13.04	+ 7 3.1	1.862	2.804	9.4	19.7	8 9	22 12.83	-28 6.9	2.021	3.002	6.0	19.4
8 19	22 5.01	+ 6 25.1	1.836	2.810	6.9	19.6	8 19	22 5.05	-29 34.5	1.990	2.973	5.7	19.3
8 29	21 56.73	+ 5 29.1	1.835	2.816	6.0	19.5	8 29	21 56.75	-30 48.0	1.987	2.944	7.6	19.4
9 8	21 49.09	+ 4 20.5	1.861	2.821	7.6	19.6	9 8	21 48.89	-31 41.8	2.010	2.915	10.5	19.5
9 18	21 42.88	+ 3 5.9	1.913	2.826	10.3	19.8	9 18	21 42.39	-32 13.2	2.056	2.887	13.3	19.6
9 28	21 38.69	+ 1 52.1	1.989	2.831	13.1	20.0	9 28	21 37.99	-32 22.4	2.121	2.858	15.9	19.8
358437	2007 DU ₇₇		8 21.5 108°58	4°3/27.5	18		41081	1999 VW ₄₇		8 21.5 32°25	4°0/24.9	18	
7 20	22 21.62	+ 8 2.8	2.594	3.385	12.4	20.7	7 20	22 24.11	+ 0 16.6	2.005	2.848	13.6	18.8
7 30	22 17.03	+ 7 12.5	2.522	3.399	10.0	20.5	7 30	22 19.17	+ 0 29.4	1.936	2.852	10.7	18.6
8 9	22 11.21	+ 6 3.2	2.472	3.413	7.4	20.4	8 9	22 12.59	+ 0 26.9	1.889	2.857	7.5	18.4
8 19	22 4.63	+ 4 37.1	2.449	3.427	5.1	20.2	8 19	22 4.97	+ 0 10.1	1.868	2.862	4.6	18.2
8 29	21 57.92	+ 2 58.3	2.455	3.441	4.3	20.2	8 29	21 57.12	+ 0 18.2	1.873	2.868	4.3	18.2
9 8	21 51.70	+ 1 12.7	2.490	3.454	5.7	20.3	9 8	21 49.91	- 0 53.8	1.905	2.873	6.8	18.4
9 18	21 46.54	- 0 33.4	2.554	3.467	8.1	20.5	9 18	21 44.07	- 1 31.9	1.962	2.879	9.9	18.6
9 28	21 42.89	- 2 14.1	2.645	3.480	10.5	20.7	9 28	21 40.19	- 2 7.8	2.043	2.885	12.8	18.8
25292	1998 WQ ₁₆		8 21.5 316°88	4°4/17.3	18		515107	2010 WJ ₁₁		8 21.5 240°20	1°3/20.3	18	
7 20	22 23.84	-22 28.5	2.020	2.919	11.2	18.0	7 20	22 25.57	-15 8.8	2.374	3.256	10.4	21.8
7 30	22 19.16	-23 23.9	1.950	2.906	8.2	17.8	7 30	22 20.06	-15 29.2	2.300	3.251	7.5	21.6
8 9	22 12.65	-24 19.4	1.904	2.893	5.4	17.6	8 9	22 13.04	-15 53.3	2.252	3.246	4.2	21.4
8 19	22 4.95	-25 8.9	1.884	2.880	4.4	17.6	8 19	22 5.06	-16 17.5	2.231	3.241	1.4	21.2
8 29	21 56.93	-25 46.4	1.890	2.867	6.3	17.7	8 29	21 56.85	-16 38.1	2.238	3.235	3.4	21.3
9 8	21 49.54	-26 7.9	1.923	2.855	9.4	17.8	9 8	21 49.21	-16 51.9	2.274	3.230	6.7	21.5
9 18	21 43.63	-26 11.6	1.979	2.842	12.4	18.0	9 18	21 42.82	-16 57.0	2.335	3.224	9.8	21.7
9 28	21 39.83	-25 58.0	2.055	2.831	15.1	18.2	9 28	21 38.23	-16 52.2	2.420	3.219	12.4	21.9
200513	2001 BC ₄₁		8 21.5 253°79	0°7/22.1	18		18333	1987 OV		8 21.5 352°58	4°8/25.3	18	
7 20	22 24.33	- 7 2.9	1.856										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
255204	2005 <i>UM</i> ₃₃₀		8 21.5 135°03	3°9/25.8	18		431862	2008 <i>SP</i> ₁₁₂		8 21.5 76°16	6°0/16.9	16	
7 20	22 22.63	+ 2 54.8	2.377	3.200	12.4	20.7	7 20	22 29.67	-25 31.8	1.638	2.538	13.3	20.6
7 30	22 17.91	+ 2 47.4	2.302	3.205	9.8	20.6	7 30	22 23.54	-26 31.4	1.593	2.546	9.9	20.4
8 9	22 11.80	+ 2 24.3	2.250	3.209	7.1	20.4	8 9	22 15.19	-27 26.5	1.571	2.555	7.0	20.2
8 19	22 4.81	+ 1 46.9	2.224	3.213	4.6	20.3	8 19	22 5.52	-28 9.2	1.574	2.563	6.1	20.2
8 29	21 57.61	+ 0 58.1	2.225	3.217	4.1	20.2	8 29	21 55.72	-28 33.1	1.603	2.572	8.0	20.3
9 8	21 50.92	+ 0 2.3	2.254	3.221	6.1	20.4	9 8	21 47.02	-28 35.3	1.656	2.580	11.1	20.5
9 18	21 45.37	- 0 55.7	2.310	3.224	8.8	20.6	9 18	21 40.37	-28 16.2	1.732	2.589	14.2	20.8
9 28	21 41.47	- 1 51.1	2.390	3.228	11.4	20.7	9 28	21 36.39	-27 38.5	1.827	2.597	16.9	21.0
508276	2015 <i>HH</i> ₁₈₁		8 21.5 158°30	6°6/15.7	17		376154	2011 <i>BQ</i> ₇₂		8 21.5 289°08	2°5/23.3	18	
7 20	22 30.71	-29 0.3	1.951	2.841	12.0	21.2	7 20	22 25.48	- 3 40.5	1.495	2.368	15.9	22.2
7 30	22 24.11	-30 9.1	1.903	2.846	9.3	21.1	7 30	22 21.00	- 3 59.0	1.403	2.342	12.2	21.9
8 9	22 15.46	-31 11.1	1.879	2.851	7.1	21.0	8 9	22 14.09	- 4 37.0	1.331	2.316	7.8	21.6
8 19	22 5.55	-31 59.1	1.880	2.855	6.8	21.0	8 19	22 5.38	- 5 32.1	1.283	2.290	3.4	21.3
8 29	21 55.47	-32 27.0	1.908	2.858	8.4	21.1	8 29	21 55.91	- 6 38.9	1.261	2.264	4.0	21.2
9 8	21 46.33	-32 32.4	1.962	2.862	11.0	21.2	9 8	21 46.97	- 7 49.5	1.264	2.237	8.8	21.5
9 18	21 39.05	-32 15.9	2.038	2.865	13.6	21.4	9 18	21 39.79	- 8 55.9	1.290	2.211	13.7	21.7
9 28	21 34.24	-31 40.3	2.134	2.867	15.9	21.6	9 28	21 35.33	- 9 51.5	1.337	2.185	18.0	21.9
53902	2000 <i>FW</i> ₅₂		8 21.5 310°04	0°1/21.6	18		129895	1999 <i>TM</i> ₃₅		8 21.5 50°03	13°7/4.3	17	
7 20	22 24.44	- 9 18.9	1.343	2.240	15.8	19.5	7 20	22 21.82	+22 49.3	1.062	1.837	27.2	19.0
7 30	22 20.35	- 9 47.9	1.263	2.219	11.7	19.2	7 30	22 18.76	+22 36.5	1.000	1.841	24.2	18.8
8 9	22 13.73	-10 32.3	1.204	2.199	6.8	18.8	8 9	22 12.90	+21 27.9	0.950	1.846	20.6	18.5
8 19	22 5.27	-11 27.1	1.168	2.180	1.4	18.4	8 19	22 5.11	+19 18.3	0.915	1.852	16.9	18.3
8 29	21 56.15	-12 25.0	1.157	2.160	4.2	18.6	8 29	21 56.84	+16 10.9	0.899	1.857	14.2	18.2
9 8	21 47.76	-13 17.8	1.170	2.141	9.6	18.8	9 8	21 49.69	+12 21.1	0.906	1.863	13.9	18.2
9 18	21 41.35	-13 59.0	1.205	2.123	14.7	19.1	9 18	21 44.98	+ 8 12.6	0.935	1.869	16.1	18.4
9 28	21 37.86	-14 24.2	1.259	2.105	19.0	19.3	9 28	21 43.58	+ 4 10.5	0.986	1.875	19.5	18.6
42703	1998 <i>MM</i> ₂₉		8 21.5 121°54	6°0/15.6	18		420270	2011 <i>KO</i> ₃₇		8 21.5 40°20	2°9/18.0	18	
7 20	22 27.24	-25 44.6	1.911	2.808	11.8	18.5	7 20	22 20.94	-19 52.2	2.599	3.493	9.2	20.3
7 30	22 21.61	-27 15.7	1.866	2.817	8.9	18.3	7 30	22 16.61	-20 47.2	2.549	3.504	6.6	20.2
8 9	22 14.04	-28 43.1	1.847	2.826	6.5	18.2	8 9	22 11.02	-21 43.0	2.524	3.515	4.1	20.0
8 19	22 5.27	-29 58.8	1.853	2.835	6.1	18.2	8 19	22 4.68	-22 35.1	2.526	3.527	2.9	19.9
8 29	21 56.30	-30 55.9	1.887	2.844	8.0	18.3	8 29	21 58.21	-23 19.1	2.557	3.539	4.5	20.1
9 8	21 48.20	-31 30.5	1.946	2.853	10.7	18.5	9 8	21 52.29	-23 51.8	2.615	3.551	7.0	20.3
9 18	21 41.81	-31 42.1	2.027	2.861	13.4	18.7	9 18	21 47.47	-24 11.7	2.698	3.563	9.5	20.4
9 28	21 37.75	-31 32.7	2.128	2.869	15.7	18.9	9 28	21 44.20	-24 18.2	2.803	3.575	11.6	20.6
387530	2000 <i>DZ</i> ₇₂		8 21.5 144°06	1°3/20.3	18		218151	2002 <i>RF</i> ₁₁₁		8 21.5 326°93	2°3/22.7	18	
7 20	22 27.68	-14 43.1	2.443	3.319	10.4	22.0	7 20	22 24.70	- 7 33.6	1.124	2.026	17.9	19.3
7 30	22 21.44	-15 10.7	2.383	3.330	7.4	21.8	7 30	22 20.93	- 7 12.9	1.047	2.003	13.6	19.0
8 9	22 13.75	-15 42.1	2.348	3.341	4.2	21.6	8 9	22 14.26	- 7 7.0	0.988	1.980	8.5	18.6
8 19	22 5.20	-16 13.3	2.341	3.351	1.3	21.5	8 19	22 5.44	- 7 14.0	0.950	1.959	3.2	18.3
8 29	21 56.53	-16 40.6	2.364	3.361	3.3	21.6	8 29	21 55.80	- 7 29.6	0.935	1.939	4.6	18.3
9 8	21 48.50	-17 0.8	2.415	3.370	6.5	21.8	9 8	21 46.99	- 7 47.7	0.941	1.920	10.3	18.5
9 18	21 41.77	-17 12.1	2.493	3.378	9.4	22.1	9 18	21 40.47	- 8 2.1	0.969	1.902	15.8	18.8
9 28	21 36.82	-17 13.4	2.595	3.386	11.9	22.2	9 28	21 37.33	- 8 7.9	1.014	1.886	20.6	19.0
262049	2006 <i>QU</i> ₁₈₂		8 21.5 279°78	0°1/21.5	18		348088	2003 <i>WY</i> ₁₁₅		8 21.5 317°89	6°0/17.1	18	
7 20	22 26.49	- 9 14.7	1.518	2.405	14.9	21.7	7 20	22 26.81	-24 9.5	1.507	2.414	13.8	20.2
7 30	22 21.66	- 9 53.1	1.432	2.383	11.0	21.5	7 30	22 21.94	-25 5.5	1.437	2.395	10.3	19.9
8 9	22 14.42	-10 46.3	1.368	2.361	6.4	21.1	8 9	22 14.56	-26 0.4	1.389	2.377	7.2	19.7
8 19	22 5.42	-11 49.3	1.328	2.339	1.3	20.7	8 19	22 5.46	-26 45.7	1.365	2.359	6.1	19.6
8 29	21 55.75	-12 54.9	1.314	2.317	4.0	20.9	8 29	21 55.86	-27 13.2	1.365	2.341	8.3	19.7
9 8	21 46.71	-13 55.2	1.326	2.294	9.2	21.1	9 8	21 47.13	-27 18.1	1.390	2.324	12.0	19.9
9 18	21 39.47	-14 43.8	1.362	2.271	13.9	21.3	9 18	21 40.45	-26 59.5	1.436	2.308	15.7	20.1
9 28	21 34.95	-15 16.6	1.417	2.249	18.0	21.6	9 28	21 36.65	-26 19.2	1.500	2.292	19.0	20.3
389503	2010 <i>FW</i> ₉₂		8 21.5 74°84	10°2/12.3	17		427992	2006 <i>AX</i> ₇₄		8 21.5 91°73	5°6/15.4	15	
7 20	22 32.11	-38 23.6	1.788	2.666	13.4	20.4	7 20	22 29.31	-24 35.8	2.050	2.941	11.4	21.2
7 30	22 25.27	-40 0.6	1.772	2.690	11.4	20.3	7 30	22 22.86	-26 33.0	2.025	2.974	8.5	21.1
8 9	22 16.12	-41 20.2	1.779	2.713	10.3	20.3	8 9	22 14.65	-28 25.5	2.027	3.006	6.1	21.0
8 19	22 5.68	-42 14.0	1.810	2.736	10.5	20.3	8 19	22 5.42	-30 4.9	2.058	3.038	5.8	21.0
8 29	21 55.28	-42 37.0	1.864	2.759	11.9	20.5	8 29	21 56.13	-31 24.3	2.116	3.069	7.5	21.2
9 8	21 46.22	-42 29.2	1.941	2.782	13.7	20.6	9 8	21 47.76	-32 20.2	2.201	3.100	10.0	21.4
9 18	21 39.45	-41 54.0	2.037	2.804	15.6	20.8	9 18	21 41.06	-32 52.5	2.310	3.129	12.4	21.6
9 28	21 35.50	-40 56.8	2.150	2.827	17.2	21.0	9 28	21 36.59	-33 3.1	2.439	3.158	14.4	21.8
313355	2002 <i>GG</i> ₁₃₆		8 21.5 52°74	4°4/17.6	18		18619	1998 <i>DG</i> ₁₀		8 21.5 313°38	2°6/23.3	18	
7 20	22 26.92	-24 6.3	2.139	3.032	10.9	20.4	7 20	22 23.74	- 3 39.0	1.258	2.144	17.5	17.4
7 30	22 21.16	-24 45.8	2.084	3.036	8.1	20.3	7 30	22 19.88	- 4 0.7	1.184	2.130	13.3	17.1
8 9	22 13.69	-25 22.7	2.054	3.040	5.4	20.1	8 9	22 13.48	- 4 44.6	1.130	2.118	8.5	16.8
8 19	22 5.21	-25 51.4	2.050	3.044	4.4	20.1	8 19	22 5.26	- 5 47.4	1.097	2.105	3.6	16.5
8 29	21 56.58	-26 7.7	2.074	3.048	6.1	20.2	8 29	21 56.43	- 7 1.9	1.089	2.093	4.2	16.5
9 8	21 48.73	-26 8.8	2.123	3.052	8.8	20.4	9 8	21 48.42	- 8 18.6	1.105	2.081	9.3	16.7
9 18	21 42.40	-25 54.4	2.198	3.056	11.6	20.5	9 18	21 42.45	- 9 28.6	1.142	2.070	14.4	17.0
9 28	21 38.15	-25 25.6	2.293	3.060	14.0	20.7	9 28	21 39.46	-10 24.6	1.199	2.060	18.8	17.2
256545	2007 <i>GO</i> ₇₄		8 21.5 198°14	5°5/28.5	18		175243	2					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
60895	2000 <i>JM</i> ₂₂		8 21.5 27°83	5°3/24.5	18		311981	2007 <i>EO</i> ₁₉₉		8 21.5 212°00	4°2/17.2	18	
7 20	22 25.41	-1 30.4	0.914	1.810	21.5	18.2	7 20	22 25.85	-24 9.1	2.420	3.310	9.9	20.8
7 30	22 21.28	-1 2.5	0.874	1.821	16.6	18.0	7 30	22 20.33	-24 58.4	2.357	3.307	7.4	20.6
8 9	22 14.23	-1 1.1	0.850	1.834	11.2	17.8	8 9	22 13.25	-25 45.9	2.319	3.304	5.0	20.4
8 19	22 5.37	-1 24.6	0.846	1.848	6.4	17.6	8 19	22 5.20	-26 26.2	2.309	3.300	4.2	20.4
8 29	21 56.32	-2 6.6	0.863	1.864	6.0	17.6	8 29	21 56.94	-26 55.0	2.327	3.297	5.8	20.5
9 8	21 48.74	-2 57.5	0.901	1.881	10.4	17.9	9 8	21 49.29	-27 9.2	2.371	3.293	8.3	20.6
9 18	21 43.85	-3 47.8	0.959	1.898	15.2	18.2	9 18	21 42.96	-27 8.0	2.440	3.289	10.9	20.8
9 28	21 42.33	-4 29.4	1.035	1.917	19.4	18.6	9 28	21 38.49	-26 51.9	2.531	3.285	13.1	21.0
257816	2000 <i>GP</i> ₂₇		8 21.5 68°57	0°7/22.0	17		136158	2003 <i>UU</i> ₁₄		8 21.5 168°85	4°2/24.7	18	
7 20	22 27.35	-7 31.3	1.432	2.316	15.8	20.8	7 20	22 26.89	+0 16.9	1.527	2.382	16.6	20.1
7 30	22 21.87	-8 7.1	1.387	2.335	11.5	20.6	7 30	22 21.69	+0 11.3	1.459	2.383	12.9	19.9
8 9	22 14.24	-8 57.0	1.363	2.355	6.7	20.3	8 9	22 14.30	-0 15.4	1.411	2.384	8.8	19.6
8 19	22 5.36	-9 55.4	1.364	2.375	1.7	20.1	8 19	22 5.44	-1 1.1	1.386	2.385	5.1	19.4
8 29	21 56.38	-10 55.1	1.391	2.395	3.6	20.3	8 29	21 56.22	-2 1.1	1.387	2.386	4.7	19.4
9 8	21 48.49	-11 48.9	1.444	2.414	8.3	20.6	9 8	21 47.81	-3 7.9	1.414	2.386	8.2	19.6
9 18	21 42.60	-12 31.9	1.520	2.434	12.5	20.9	9 18	21 41.24	-4 14.1	1.465	2.387	12.3	19.9
9 28	21 39.30	-13 1.0	1.618	2.454	15.9	21.2	9 28	21 37.23	-5 13.0	1.538	2.387	16.0	20.1
34607	2000 <i>UD</i> ₃		8 21.5 355°08	6°6/16.2	18		73723	1993 <i>FJ</i> ₂₀		8 21.5 150°25	1°0/22.3	18	
7 20	22 27.17	-27 59.6	1.752	2.652	12.6	18.2	7 20	22 28.22	-7 6.7	1.797	2.666	13.8	20.3
7 30	22 21.76	-28 53.8	1.699	2.649	9.6	18.0	7 30	22 22.32	-7 34.1	1.733	2.674	10.2	20.1
8 9	22 14.22	-29 42.0	1.669	2.647	7.2	17.9	8 9	22 14.50	-8 13.8	1.692	2.680	6.0	19.9
8 19	22 5.36	-30 16.8	1.664	2.646	6.7	17.8	8 19	22 5.47	-9 1.8	1.677	2.687	1.8	19.6
8 29	21 56.30	-30 32.3	1.684	2.645	8.4	17.9	8 29	21 56.20	-9 52.8	1.689	2.692	3.2	19.7
9 8	21 48.19	-30 25.9	1.729	2.644	11.3	18.1	9 8	21 47.72	-10 40.8	1.729	2.697	7.4	20.0
9 18	21 41.97	-29 57.9	1.795	2.644	14.2	18.3	9 18	21 40.89	-11 21.4	1.795	2.702	11.2	20.2
9 28	21 38.27	-29 11.1	1.881	2.645	16.7	18.5	9 28	21 36.35	-11 51.4	1.882	2.706	14.5	20.5
33868	2000 <i>JF</i> ₂₉		8 21.5 9°52	2°8/19.9	18		185839	2000 <i>CF</i> ₆₈		8 21.5 107°57	0°3/21.8	17	
7 20	22 25.80	-16 22.4	1.116	2.032	16.7	18.4	7 20	22 27.99	-8 41.6	1.617	2.497	14.5	21.0
7 30	22 21.39	-16 46.2	1.067	2.034	12.1	18.1	7 30	22 22.26	-9 15.9	1.561	2.509	10.6	20.8
8 9	22 14.25	-17 15.8	1.038	2.037	6.9	17.8	8 9	22 14.49	-10 2.2	1.529	2.521	6.1	20.6
8 19	22 5.39	-17 44.0	1.031	2.041	2.8	17.6	8 19	22 5.47	-10 55.5	1.521	2.532	1.4	20.3
8 29	21 56.29	-18 3.4	1.048	2.046	5.9	17.8	8 29	21 56.26	-11 49.4	1.541	2.544	3.5	20.5
9 8	21 48.47	-18 8.4	1.087	2.053	11.0	18.1	9 8	21 47.98	-12 37.5	1.587	2.555	8.0	20.8
9 18	21 43.11	-17 57.0	1.146	2.061	15.6	18.4	9 18	21 41.52	-13 15.5	1.658	2.566	12.0	21.1
9 28	21 40.90	-17 29.5	1.224	2.070	19.4	18.7	9 28	21 37.52	-13 40.6	1.750	2.576	15.3	21.3
116065	2003 <i>WX</i> ₁₁₈		8 21.5 257°18	3°2/18.8	18		214108	2004 <i>RX</i> ₉₃		8 21.5 310°03	3°7/24.0	18	
7 20	22 26.67	-18 39.9	1.928	2.822	11.9	20.1	7 20	22 24.29	-2 15.3	1.462	2.333	16.3	20.0
7 30	22 21.26	-19 27.1	1.858	2.813	8.6	19.9	7 30	22 20.12	-2 9.6	1.374	2.310	12.7	19.8
8 9	22 13.93	-20 17.2	1.811	2.805	5.2	19.7	8 9	22 13.60	-2 22.7	1.307	2.288	8.5	19.5
8 19	22 5.33	-21 4.3	1.791	2.796	3.2	19.5	8 19	22 5.35	-2 53.6	1.263	2.266	4.6	19.2
8 29	21 56.41	-21 42.5	1.799	2.787	5.3	19.6	8 29	21 56.42	-3 38.4	1.243	2.244	4.6	19.1
9 8	21 48.18	-22 7.3	1.833	2.778	8.8	19.8	9 8	21 48.09	-4 30.5	1.248	2.223	8.7	19.3
9 18	21 41.52	-22 16.6	1.891	2.769	12.2	20.0	9 18	21 41.53	-5 23.0	1.276	2.202	13.4	19.5
9 28	21 37.09	-22 10.1	1.970	2.760	15.2	20.2	9 28	21 37.66	-6 8.9	1.324	2.182	17.5	19.7
416649	2004 <i>TP</i> ₁₀₁		8 21.5 3°12	6°9/18.6	17		37228	2000 <i>WE</i> ₁₄₆		8 21.5 221°58	8°1/12.7	18	
7 20	22 25.01	-23 19.7	0.782	1.721	19.3	19.5	7 20	22 26.34	-28 57.6	1.755	2.655	12.5	18.9
7 30	22 21.65	-23 44.9	0.742	1.718	14.3	19.2	7 30	22 21.40	-31 14.0	1.707	2.653	9.9	18.7
8 9	22 14.72	-24 5.6	0.719	1.717	9.4	19.0	8 9	22 14.19	-33 25.6	1.683	2.651	8.2	18.6
8 19	22 5.51	-24 11.4	0.715	1.718	6.9	18.9	8 19	22 5.44	-35 21.2	1.686	2.649	8.5	18.6
8 29	21 56.06	-23 53.6	0.729	1.721	9.7	19.0	8 29	21 56.25	-36 51.2	1.715	2.647	10.5	18.8
9 8	21 48.41	-23 9.5	0.763	1.727	14.7	19.3	9 8	21 47.88	-37 50.5	1.768	2.644	13.2	18.9
9 18	21 43.98	-22 2.0	0.813	1.734	19.5	19.6	9 18	21 41.36	-38 18.6	1.841	2.641	15.8	19.1
9 28	21 43.46	-20 35.9	0.879	1.744	23.6	19.9	9 28	21 37.48	-38 18.4	1.931	2.639	18.1	19.3
472207	2014 <i>EU</i> ₂₀		8 21.5 292°81	3°7/18.8	18		114	<i>Kassandra</i>		8 21.5 169°31	0°6/22.2	18	
7 20	22 27.95	-18 36.1	1.603	2.503	13.6	20.6	7 20	22 25.17	-7 16.3	2.165	3.031	11.9	13.1
7 30	22 22.73	-19 23.8	1.518	2.476	9.9	20.3	7 30	22 19.90	-7 54.5	2.095	3.034	8.7	12.9
8 9	22 15.07	-20 16.4	1.455	2.449	6.0	20.0	8 9	22 13.04	-8 43.5	2.048	3.037	5.2	12.7
8 19	22 5.62	-21 7.0	1.417	2.422	3.7	19.8	8 19	22 5.18	-9 39.7	2.029	3.039	1.4	12.4
8 29	21 55.51	-21 47.7	1.406	2.395	6.3	19.9	8 29	21 57.08	-10 38.0	2.038	3.041	2.8	12.5
9 8	21 46.04	-22 12.5	1.419	2.368	10.6	20.1	9 8	21 49.57	-11 33.3	2.076	3.043	6.5	12.8
9 18	21 38.41	-22 18.3	1.455	2.341	14.8	20.3	9 18	21 43.37	-12 21.3	2.140	3.044	9.9	13.0
9 28	21 33.54	-22 4.8	1.511	2.314	18.4	20.5	9 28	21 39.05	-12 59.0	2.227	3.044	12.8	13.2
50160	2000 <i>AF</i> ₁₄₄		8 21.5 210°76	2°6/23.3	18		246314	2007 <i>TV</i> ₁₆₄		8 21.5 338°34	3°9/18.6	18	R
7 20	22 28.81	-4 29.7	1.684	2.548	14.9	19.0	7 20	22 25.37	-19 19.9	1.519	2.426	13.7	19.9
7 30	22 22.94	-4 24.8	1.611	2.545	11.3	18.8	7 30	22 20.71	-20 8.5	1.457	2.418	10.0	19.7
8 9	22 14.96	-4 34.0	1.560	2.542	7.2	18.5	8 9	22 13.78	-21 0.1	1.416	2.411	6.1	19.4
8 19	22 5.57	-4 55.3	1.533	2.539	3.3	18.3	8 19	22 5.36	-21 47.4	1.400	2.404	4.0	19.3
8 29	21 55.81	-5 24.8	1.534	2.536	3.8	18.3	8 29	21 56.58	-22 23.0	1.409	2.398	6.4	19.4
9 8	21 46.81	-5 57.3	1.561	2.532	7.8	18.5	9 8	21 48.69	-22 41.9	1.443	2.393	10.4	19.7
9 18	21 39.55	-6 27.9	1.613	2.528	11.8	18.8	9 18	21 42.72	-22 42.0	1.499	2.388	14.2	19.9
9 28	21 34.74	-6 52.4	1.687	2.524	15.3	19.0	9 28	21 39.40	-22 23.5	1.574	2.383	17.6	20.1
397652	2007 <i>YV</i> ₉		8 21.5 296°84	5°9/15.9	18		362917	2012 <i>CK</i> ₄₃		8 21.5 111°60	4°1/16.9	18	

EPHEMERIDES

8 21.5

8 21.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
473117	2015 <i>HZ</i> ₁₇₅		8 21.5 106°73	6°7/15.2	17		4206	Verulamium		8 21.6 47°65	0°6/22.1	18	
7 20	22 29.82	-28 29.6	1.942	2.834	11.9	21.3	7 20	22 24.69	-8 12.0	1.947	2.822	12.7	16.7
7 30	22 23.42	-29 57.8	1.909	2.853	9.2	21.2	7 30	22 19.72	-8 35.6	1.879	2.823	9.3	16.5
8 9	22 15.07	-31 18.9	1.901	2.873	7.1	21.1	8 9	22 13.04	-9 9.8	1.834	2.824	5.5	16.3
8 19	22 5.59	-32 25.1	1.919	2.891	6.8	21.1	8 19	22 5.26	-9 51.0	1.815	2.826	1.5	16.0
8 29	21 56.03	-33 10.3	1.963	2.910	8.5	21.3	8 29	21 57.23	-10 34.4	1.824	2.827	2.9	16.2
9 8	21 47.45	-33 31.8	2.033	2.928	10.9	21.5	9 8	21 49.87	-11 15.0	1.860	2.829	6.9	16.4
9 18	21 40.71	-33 30.5	2.125	2.945	13.3	21.7	9 18	21 43.95	-11 48.8	1.922	2.830	10.5	16.6
9 28	21 36.35	-33 9.0	2.237	2.962	15.4	21.9	9 28	21 40.06	-12 12.9	2.005	2.832	13.7	16.9
397712	2008 <i>CA</i> ₂₁₄		8 21.5 26°31	1°5/20.1	18		13244	Dannymeyer		8 21.6 77°25	7°0/28.1	18	
7 20	22 22.92	-13 4.2	1.856	2.748	12.4	20.3	7 20	22 25.90	+10 4.7	2.374	3.150	13.8	16.9
7 30	22 18.49	-13 57.9	1.797	2.752	8.8	20.3	7 30	22 20.41	+10 52.8	2.295	3.151	11.6	16.7
8 9	22 12.32	-14 59.4	1.761	2.757	4.9	19.8	8 9	22 13.38	+11 23.2	2.238	3.153	9.5	16.6
8 19	22 5.05	-16 3.0	1.751	2.761	1.6	19.6	8 19	22 5.34	+11 34.6	2.205	3.154	7.7	16.5
8 29	21 57.56	-17 2.3	1.769	2.766	4.0	19.8	8 29	21 57.00	+11 27.3	2.198	3.155	7.0	16.4
9 8	21 50.78	-17 51.8	1.812	2.772	7.9	20.1	9 8	21 49.16	+11 4.0	2.217	3.156	7.9	16.5
9 18	21 45.49	-18 28.0	1.881	2.777	11.4	20.3	9 18	21 42.51	+10 28.8	2.262	3.157	9.8	16.6
9 28	21 42.28	-18 48.9	1.971	2.783	14.4	20.5	9 28	21 37.64	+9 46.9	2.331	3.158	11.9	16.8
431194	2006 <i>SB</i> ₁₀₃		8 21.5 252°41	2°2/23.3	17		193448	2000 <i>WG</i> ₁₄₃		8 21.6 261°10	3°9/25.4	18	
7 20	22 26.16	-3 34.1	1.638	2.504	15.1	22.3	7 20	22 24.18	+2 39.0	2.043	2.873	13.9	20.4
7 30	22 21.22	-4 1.4	1.556	2.492	11.4	22.0	7 30	22 19.51	+2 7.9	1.943	2.852	11.0	20.2
8 9	22 14.10	-4 46.8	1.496	2.480	7.3	21.8	8 9	22 13.05	+1 16.3	1.866	2.831	7.8	20.0
8 19	22 5.48	-5 47.2	1.460	2.467	3.1	21.5	8 19	22 5.30	+0 5.6	1.814	2.809	4.7	19.7
8 29	21 56.34	-6 56.6	1.451	2.454	3.6	21.5	8 29	21 57.06	-1 19.9	1.790	2.786	4.2	19.7
9 8	21 47.85	-8 7.7	1.469	2.441	8.0	21.7	9 8	21 49.22	-2 53.6	1.793	2.763	7.0	19.8
9 18	21 41.02	-9 13.5	1.511	2.427	12.3	22.0	9 18	21 42.64	-4 28.2	1.823	2.740	10.6	20.0
9 28	21 36.66	-10 8.2	1.574	2.413	16.2	22.2	9 28	21 38.05	-5 56.6	1.877	2.716	14.0	20.1
172328	2002 <i>VV</i> ₃		8 21.5 296°81	0°1/21.5	18		521696	2015 <i>RG</i> ₂₆₃		8 21.6 198°96	5°2/28.5	18	
7 20	22 26.24	-10 50.4	1.889	2.770	12.7	19.8	7 20	22 21.31	+10 3.2	2.628	3.406	12.5	21.8
7 30	22 20.91	-11 6.1	1.818	2.766	9.3	19.6	7 30	22 16.98	+9 39.7	2.541	3.404	10.4	21.6
8 9	22 13.74	-11 30.1	1.770	2.762	5.3	19.4	8 9	22 11.37	+8 56.9	2.476	3.402	8.1	21.5
8 19	22 5.38	-11 58.7	1.748	2.759	1.1	19.1	8 19	22 4.92	+7 55.5	2.435	3.400	6.1	21.4
8 29	21 56.72	-12 27.3	1.753	2.755	3.2	19.2	8 29	21 58.24	+6 38.2	2.422	3.397	5.2	21.3
9 8	21 48.76	-12 51.7	1.786	2.752	7.4	19.5	9 8	21 51.98	+5 9.8	2.437	3.394	6.3	21.4
9 18	21 42.32	-13 8.4	1.843	2.749	11.1	19.7	9 18	21 46.73	+3 36.0	2.480	3.391	8.4	21.5
9 28	21 38.05	-13 15.3	1.923	2.745	14.3	19.9	9 28	21 42.96	+2 2.9	2.549	3.388	10.7	21.7
514735	2007 <i>BP</i> ₄₇		8 21.5 248°38	1°2/20.5	18		515086	2010 <i>TS</i> ₁₅₅		8 21.6 331°34	2°5/24.0	18	
7 20	22 27.21	-15 1.1	2.261	3.142	10.9	21.2	7 20	22 21.27	-1 44.5	1.907	2.766	13.6	21.3
7 30	22 21.36	-15 12.9	2.187	3.137	7.9	21.0	7 30	22 17.36	-2 17.2	1.829	2.760	10.4	21.1
8 9	22 13.89	-15 28.2	2.138	3.132	4.5	20.8	8 9	22 11.76	-3 7.2	1.774	2.753	6.8	20.9
8 19	22 5.40	-15 43.7	2.116	3.127	1.3	20.6	8 19	22 5.02	-4 11.6	1.743	2.747	3.3	20.6
8 29	21 56.67	-15 55.6	2.123	3.122	3.4	20.7	8 29	21 57.97	-5 25.0	1.740	2.742	3.3	20.6
9 8	21 48.56	-16 1.2	2.158	3.116	6.9	21.0	9 8	21 51.47	-6 41.1	1.763	2.736	6.8	20.8
9 18	21 41.80	-15 58.5	2.219	3.111	10.1	21.1	9 18	21 46.33	-7 53.3	1.812	2.731	10.5	21.0
9 28	21 36.94	-15 46.7	2.303	3.106	12.9	21.3	9 28	21 43.16	-8 56.3	1.884	2.727	13.7	21.2
217473	2005 <i>WU</i> ₁₁₁		8 21.5 248°60	4°1/25.7	18		510246	2011 <i>FY</i> ₁₃₃		8 21.6 198°94	0°4/21.9	17	
7 20	22 22.93	+2 36.6	2.313	3.139	12.6	20.4	7 20	22 27.67	-8 41.8	1.881	2.754	13.1	22.8
7 30	22 18.27	+2 36.4	2.231	3.135	10.0	20.2	7 30	22 21.99	-9 12.0	1.808	2.752	9.6	22.6
8 9	22 12.14	+2 20.5	2.172	3.131	7.2	20.0	8 9	22 14.41	-9 53.1	1.758	2.749	5.6	22.4
8 19	22 5.05	+1 49.9	2.138	3.127	4.8	19.8	8 19	22 5.58	-10 41.2	1.735	2.746	1.3	22.1
8 29	21 57.68	+1 7.2	2.132	3.123	4.3	19.8	8 29	21 56.42	-11 30.9	1.739	2.742	3.2	22.2
9 8	21 50.79	+0 16.7	2.153	3.119	6.3	19.9	9 8	21 47.93	-12 16.6	1.771	2.737	7.4	22.5
9 18	21 45.06	+0 36.8	2.200	3.115	9.1	20.1	9 18	21 41.00	-12 54.1	1.828	2.732	11.3	22.7
9 28	21 41.03	-1 28.6	2.272	3.111	11.8	20.3	9 28	21 36.28	-13 20.4	1.908	2.727	14.5	22.9
363896	2005 <i>SD</i> ₁₅₀		8 21.5 288°63	0°4/21.2	18		302795	2002 <i>XT</i> ₁₀₇		8 21.6 348°19	10°9/28.6	18	
7 20	22 23.54	-10 42.6	2.087	2.967	11.7	21.3	7 20	22 21.00	+9 41.8	1.297	2.129	20.2	18.7
7 30	22 18.95	-11 18.7	2.001	2.950	8.5	21.0	7 30	22 17.91	+11 2.0	1.224	2.115	17.4	18.5
8 9	22 12.65	-12 4.0	1.938	2.932	4.9	20.8	8 9	22 12.43	+11 55.2	1.168	2.103	14.4	18.3
8 19	22 5.17	-12 54.7	1.902	2.914	1.0	20.5	8 19	22 5.22	+12 16.5	1.132	2.092	11.9	18.1
8 29	21 57.31	-13 45.7	1.894	2.896	3.2	20.6	8 29	21 57.41	+12 4.5	1.116	2.083	10.9	18.0
9 8	21 49.93	-14 31.7	1.914	2.878	7.2	20.8	9 8	21 50.32	+11 23.3	1.121	2.076	12.1	18.1
9 18	21 43.84	-15 8.7	1.959	2.860	10.8	21.0	9 18	21 45.16	+10 20.8	1.147	2.071	14.8	18.2
9 28	21 39.70	-15 34.0	2.026	2.842	13.9	21.2	9 28	21 42.82	+9 7.7	1.192	2.067	17.9	18.4
190605	2000 <i>UX</i> ₉₁		8 21.5 321°84	1°5/22.4	18		89743	2002 <i>AD</i> ₁₇		8 21.6 86°64	4°2/25.6	18	
7 20	22 24.35	-7 50.9	1.314	2.209	16.3	19.7	7 20	22 24.59	+1 59.7	2.152	2.982	13.3	19.4
7 30	22 20.42	-7 49.8	1.230	2.183	12.3	19.4	7 30	22 19.50	+2 8.8	2.082	2.989	10.5	19.2
8 9	22 13.92	-8 3.3	1.166	2.159	7.5	19.0	8 9	22 12.86	+2 2.1	2.035	2.996	7.5	19.1
8 19	22 5.50	-8 28.6	1.125	2.135	2.5	18.7	8 19	22 5.25	+1 40.6	2.013	3.003	4.9	18.9
8 29	21 56.35	-9 0.5	1.108	2.112	4.0	18.7	8 29	21 57.43	+1 6.9	2.018	3.010	4.4	18.9
9 8	21 47.88	-9 32.5	1.114	2.089	9.4	19.0	9 8	21 50.20	+0 25.4	2.050	3.017	6.6	19.1
9 18	21 41.39	-9 58.6	1.142	2.068	14.6	19.2	9 18	21 44.27	-0 19.3	2.109	3.023	9.5	19.2
9 28	21 37.86	-10 13.9	1.189	2.048	19.0	19.4	9 28	21 40.17	-1 2.3	2.191	3.030	12.2	19.4
391637	2007 <i>VT</i> ₂₃₂		8 21.5 328°84	1°1/20.7	18		274160	2008 <i>FR</i> ₁₁₃		8 21.6 336°86	6°4/16.2	18	
7 20	22 24.51	-12											

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
313160	2001 <i>DF</i> ₁₀₃		8 21.6 149°05	3°0/17.4	18		439452	2013 <i>YB</i> ₃		8 21.6 136°19	9°1/ 2.1	18	
7 20	22 23.57	-20 42.5	2.912	3.798	8.6	21.4	7 20	22 29.24	+22 11.9	2.767	3.434	14.3	21.9
7 30	22 18.49	-21 53.4	2.856	3.807	6.2	21.3	7 30	22 22.66	+23 0.3	2.697	3.452	12.8	21.8
8 9	22 12.18	-23 4.9	2.827	3.815	4.0	21.1	8 9	22 14.62	+23 27.1	2.647	3.469	11.2	21.7
8 19	22 5.11	-24 12.1	2.827	3.823	3.1	21.1	8 19	22 5.65	+23 30.0	2.618	3.485	9.9	21.6
8 29	21 57.87	-25 10.7	2.856	3.831	4.6	21.2	8 29	21 56.45	+23 9.1	2.614	3.500	9.2	21.6
9 8	21 51.10	-25 57.3	2.914	3.838	6.9	21.4	9 8	21 47.77	+22 26.8	2.635	3.515	9.3	21.7
9 18	21 45.36	-26 30.1	2.998	3.845	9.1	21.5	9 18	21 40.29	+21 27.7	2.682	3.529	10.1	21.7
9 28	21 41.09	-26 48.9	3.104	3.852	11.1	21.7	9 28	21 34.52	+20 17.8	2.752	3.542	11.3	21.8
424467	2008 <i>CP</i> ₁₅₀		8 21.6 220°97	0°7/22.1	17		434666	2005 <i>YN</i> ₁₇₃		8 21.6 101°17	7°0/27.6	16	
7 20	22 29.51	- 8 13.5	1.873	2.742	13.4	22.6	7 20	22 34.31	+ 9 12.6	2.227	2.997	14.7	20.9
7 30	22 23.42	- 8 35.1	1.792	2.733	9.9	22.4	7 30	22 26.32	+10 6.0	2.171	3.027	12.2	20.8
8 9	22 15.30	- 9 7.9	1.733	2.723	5.9	22.1	8 9	22 16.68	+10 40.3	2.139	3.056	9.7	20.7
8 19	22 5.79	- 9 48.4	1.701	2.712	1.6	21.8	8 19	22 6.06	+10 54.3	2.132	3.085	7.6	20.6
8 29	21 55.85	-10 31.6	1.697	2.700	3.2	21.9	8 29	21 55.35	+10 49.0	2.153	3.112	7.0	20.6
9 8	21 46.55	-11 12.2	1.721	2.688	7.6	22.2	9 8	21 45.45	+10 27.8	2.202	3.139	8.1	20.8
9 18	21 38.82	-11 45.8	1.770	2.675	11.6	22.4	9 18	21 37.11	+ 9 55.3	2.278	3.166	10.1	20.9
9 28	21 33.39	-12 9.2	1.842	2.661	15.0	22.6	9 28	21 30.85	+ 9 17.3	2.378	3.191	12.2	21.1
280114	2002 <i>GC</i> ₁₅₂		8 21.6 29°76	3°2/19.1	16		234335	2001 <i>FU</i>		8 21.6 43°55	1°8/19.9	18	
7 20	22 24.50	-16 0.7	1.350	2.259	14.9	20.0	7 20	22 23.16	- 9 42.1	1.351	2.250	15.6	19.0
7 30	22 20.13	-17 5.5	1.305	2.269	10.7	19.7	7 30	22 18.99	-11 40.2	1.319	2.278	11.0	18.8
8 9	22 13.46	-18 16.8	1.281	2.279	6.1	19.5	8 9	22 12.73	-13 51.2	1.309	2.306	6.0	18.6
8 19	22 5.39	-19 26.2	1.282	2.289	3.2	19.4	8 19	22 5.25	-16 3.8	1.324	2.335	1.9	18.4
8 29	21 57.13	-20 24.7	1.307	2.301	6.0	19.6	8 29	21 57.71	-18 6.0	1.367	2.364	5.0	18.7
9 8	21 49.94	-21 6.2	1.356	2.313	10.3	19.8	9 8	21 51.25	-19 48.4	1.434	2.394	9.5	19.0
9 18	21 44.80	-21 27.6	1.428	2.325	14.2	20.1	9 18	21 46.73	-21 5.9	1.525	2.424	13.5	19.3
9 28	21 42.36	-21 28.8	1.519	2.339	17.6	20.4	9 28	21 44.71	-21 57.3	1.637	2.454	16.6	19.6
181689	3093 <i>T</i> -2		8 21.6 5°28	4°5/18.2	18		416756	2005 <i>EW</i> ₁₄₃		8 21.6 154°43	0°8/20.9	17	
7 20	22 28.08	-23 15.1	1.805	2.702	12.4	19.5	7 20	22 29.94	-11 46.0	1.704	2.586	13.8	21.8
7 30	22 22.33	-23 45.4	1.748	2.703	9.1	19.3	7 30	22 23.73	-12 24.1	1.643	2.592	10.0	21.6
8 9	22 14.59	-24 13.3	1.714	2.703	6.0	19.1	8 9	22 15.44	-13 11.2	1.605	2.599	5.6	21.4
8 19	22 5.62	-24 33.0	1.706	2.704	4.5	19.0	8 19	22 5.83	-14 1.6	1.593	2.604	1.2	21.1
8 29	21 56.48	-24 39.3	1.725	2.706	6.4	19.1	8 29	21 55.99	-14 49.3	1.609	2.609	3.9	21.3
9 8	21 48.24	-24 29.8	1.769	2.707	9.6	19.3	9 8	21 47.01	-15 28.6	1.652	2.614	8.2	21.6
9 18	21 41.78	-24 4.2	1.836	2.710	12.8	19.5	9 18	21 39.85	-15 55.9	1.719	2.618	12.2	21.8
9 28	21 37.72	-23 24.0	1.925	2.712	15.6	19.7	9 28	21 35.15	-16 9.5	1.808	2.621	15.5	22.0
429487	2011 <i>AX</i> ₃₅		8 21.6 198°56	2°5/23.6	17		58152	Natsöderblom		8 21.6 23°15	10°4/28.0	18	
7 20	22 28.74	- 3 27.0	1.952	2.804	13.6	22.0	7 20	22 26.49	+ 7 42.0	1.139	1.984	21.7	18.2
7 30	22 22.73	- 3 31.5	1.874	2.801	10.4	21.8	7 30	22 21.84	+ 9 10.1	1.093	1.995	18.2	18.0
8 9	22 14.83	- 3 49.8	1.819	2.798	6.7	21.5	8 9	22 14.59	+10 8.0	1.064	2.008	14.5	17.9
8 19	22 5.70	- 4 19.7	1.789	2.794	3.2	21.3	8 19	22 5.68	+10 32.1	1.054	2.023	11.5	17.8
8 29	21 56.21	- 4 57.5	1.788	2.789	3.5	21.3	8 29	21 56.49	+10 22.8	1.065	2.038	10.5	17.7
9 8	21 47.35	- 5 38.3	1.814	2.784	7.0	21.5	9 8	21 48.48	+ 9 46.4	1.097	2.056	11.9	17.9
9 18	21 40.00	- 6 17.4	1.867	2.778	10.7	21.7	9 18	21 42.81	+ 8 52.5	1.150	2.074	14.8	18.1
9 28	21 34.81	- 6 50.6	1.942	2.771	13.9	22.0	9 28	21 40.21	+ 7 51.8	1.223	2.093	17.9	18.4
270159	2001 <i>SH</i> ₁₄₀		8 21.6 320°73	1°4/22.5	18		180117	2003 <i>FW</i> ₄₆		8 21.6 95°09	0°9/20.7	18	
7 20	22 23.16	- 6 31.3	1.304	2.197	16.5	20.2	7 20	22 24.95	-12 42.8	2.112	2.995	11.5	20.8
7 30	22 19.52	- 6 53.1	1.226	2.178	12.4	19.9	7 30	22 19.81	-13 15.3	2.049	2.999	8.3	20.6
8 9	22 13.38	- 7 33.1	1.168	2.160	7.6	19.6	8 9	22 13.08	-13 54.1	2.010	3.004	4.6	20.4
8 19	22 5.44	- 8 27.7	1.133	2.143	2.4	19.2	8 19	22 5.34	-14 35.1	1.997	3.008	1.1	20.2
8 29	21 56.87	- 9 29.9	1.121	2.126	3.9	19.2	8 29	21 57.41	-15 13.5	2.013	3.012	3.3	20.3
9 8	21 49.04	-10 31.2	1.134	2.110	9.3	19.5	9 8	21 50.13	-15 45.3	2.056	3.017	7.0	20.6
9 18	21 43.18	-11 23.9	1.169	2.095	14.3	19.8	9 18	21 44.22	-16 7.5	2.125	3.021	10.3	20.8
9 28	21 40.20	-12 2.3	1.223	2.080	18.7	20.0	9 28	21 40.23	-16 18.5	2.216	3.025	13.1	21.0
43551	2001 <i>FY</i> ₂₈		8 21.6 47°00	5°0/16.8	18		268912	2007 <i>CS</i> ₁₅		8 21.6 243°74	2°0/20.1	18	
7 20	22 26.62	-26 14.8	2.186	3.079	10.7	18.2	7 20	22 29.59	-15 27.7	1.663	2.554	13.6	21.0
7 30	22 21.02	-27 1.7	2.135	3.084	8.1	18.1	7 30	22 23.67	-15 57.5	1.592	2.547	9.9	20.8
8 9	22 13.74	-27 44.6	2.108	3.088	5.8	17.9	8 9	22 15.52	-16 33.0	1.545	2.539	5.6	20.5
8 19	22 5.45	-28 17.7	2.107	3.093	5.1	17.9	8 19	22 5.88	-17 8.5	1.522	2.532	2.1	20.3
8 29	21 57.03	-28 36.6	2.133	3.098	6.6	18.0	8 29	21 55.86	-17 38.0	1.527	2.524	4.7	20.4
9 8	21 49.37	-28 38.7	2.186	3.103	9.2	18.2	9 8	21 46.66	-17 56.7	1.558	2.516	9.0	20.7
9 18	21 43.21	-28 24.0	2.262	3.109	11.7	18.3	9 18	21 39.30	-18 2.0	1.613	2.508	13.0	20.9
9 28	21 39.11	-27 53.8	2.359	3.114	14.0	18.5	9 28	21 34.52	-17 53.0	1.688	2.499	16.5	21.1
523064	2016 <i>QT</i> ₉₁		8 21.6 231°28	4°2/24.9	18		429501	2011 <i>AQ</i> ₇₆		8 21.6 164°33	1°1/20.7	17	
7 20	22 27.98	+ 0 27.1	2.017	2.852	13.9	21.5	7 20	22 28.69	-12 29.3	1.819	2.701	13.1	21.8
7 30	22 22.19	+ 0 46.4	1.932	2.844	10.9	21.3	7 30	22 22.75	-13 9.6	1.755	2.705	9.4	21.6
8 9	22 14.55	+ 0 50.6	1.870	2.835	7.7	21.1	8 9	22 14.86	-13 57.8	1.715	2.709	5.3	21.4
8 19	22 5.65	+ 0 40.3	1.832	2.826	4.9	20.9	8 19	22 5.74	-14 48.6	1.701	2.712	1.3	21.1
8 29	21 56.36	+ 0 17.5	1.823	2.816	4.6	20.9	8 29	21 56.35	-15 36.2	1.716	2.715	3.9	21.3
9 8	21 47.61	- 0 13.8	1.840	2.806	7.2	21.0	9 8	21 47.75	-16 15.1	1.757	2.717	8.0	21.6
9 18	21 40.28	- 0 48.9	1.884	2.796	10.5	21.2	9 18	21 40.82	-16 42.2	1.823	2.719	11.7	21.8
9 28	21 35.03	- 1 23.0	1.951	2.786	13.7	21.4	9 28	21 36.20	-16 55.6	1.911	2.720	14.9	22.0
449302	2013 <i>EF</i> ₁₁₄		8 21.6 124°90	6°7/14.2	18		505115	2012 <i>DB</i> ₅₉		8 21.6 1			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
61732	2000 <i>QB</i> ₁₅₀		8 21.6 154°72	1°1/22.6	18		73311	2002 <i>JX</i> ₇₇		8 21.6 8°71	0°5/21.3	18	
7 20	22 26.51	- 7 43.7	2.182	3.047	11.9	19.2	7 20	22 24.93	-11 10.8	1.020	1.934	18.2	18.9
7 30	22 20.90	- 7 45.5	2.111	3.049	8.8	19.0	7 30	22 21.03	-11 29.8	0.970	1.935	13.2	18.6
8 9	22 13.70	- 7 56.1	2.063	3.050	5.3	18.8	8 9	22 14.27	-12 2.6	0.939	1.937	7.6	18.3
8 19	22 5.49	- 8 13.2	2.043	3.052	1.8	18.6	8 19	22 5.67	-12 42.7	0.929	1.940	1.5	18.0
8 29	21 57.06	- 8 33.5	2.050	3.053	2.7	18.7	8 29	21 56.72	-13 21.8	0.941	1.944	4.8	18.2
9 8	21 49.25	- 8 53.4	2.086	3.054	6.3	18.9	9 8	21 49.04	-13 52.1	0.975	1.950	10.6	18.6
9 18	21 42.76	- 9 9.8	2.148	3.055	9.7	19.1	9 18	21 43.89	-14 8.5	1.029	1.957	15.7	18.9
9 28	21 38.17	- 9 20.3	2.233	3.056	12.6	19.3	9 28	21 42.03	-14 8.6	1.102	1.964	20.0	19.2
166487	2002 <i>PG</i> ₁₅₇		8 21.6 309°09	1°6/20.1	18		392690	2011 <i>WW</i> ₄₂		8 21.6 240°92	2°5/26.2	16	
7 20	22 21.90	-11 2.4	1.620	2.515	13.7	19.6	7 20	22 17.13	+ 3 5.1	4.561	5.365	7.2	21.6
7 30	22 18.27	-12 22.7	1.537	2.494	9.9	19.4	7 30	22 13.55	+ 3 2.8	4.473	5.362	5.8	21.5
8 9	22 12.54	-13 58.3	1.477	2.473	5.6	19.1	8 9	22 9.28	+ 2 52.4	4.410	5.358	4.2	21.3
8 19	22 5.30	-15 42.1	1.442	2.453	1.7	18.8	8 19	22 4.58	+ 2 34.4	4.373	5.355	2.9	21.2
8 29	21 57.50	-17 24.7	1.434	2.433	4.7	18.9	8 29	21 59.77	+ 2 10.3	4.366	5.352	2.6	21.2
9 8	21 50.26	-18 56.8	1.452	2.413	9.3	19.1	9 8	21 55.17	+ 1 41.7	4.388	5.349	3.6	21.3
9 18	21 44.61	-20 11.3	1.494	2.393	13.6	19.4	9 18	21 51.11	+ 1 10.6	4.438	5.345	5.1	21.4
9 28	21 41.38	-21 4.3	1.556	2.374	17.3	19.5	9 28	21 47.85	+ 0 39.2	4.514	5.342	6.6	21.5
71353	2000 <i>AT</i> ₁₁₀		8 21.6 326°82	3°9/17.8	18		87432	2000 <i>QG</i> ₁₀₅		8 21.6 282°87	1°6/23.2	18	
7 20	22 21.87	-15 59.4	1.532	2.440	13.6	18.5	7 20	22 22.72	- 2 23.9	1.696	2.561	14.7	18.8
7 30	22 18.30	-17 47.0	1.466	2.429	9.7	18.3	7 30	22 18.74	- 3 33.9	1.610	2.546	11.1	18.6
8 9	22 12.55	-19 44.8	1.423	2.419	5.8	18.0	8 9	22 12.76	- 5 6.3	1.546	2.531	6.9	18.3
8 19	22 5.29	-21 43.1	1.405	2.410	3.9	17.9	8 19	22 5.37	- 6 56.3	1.508	2.516	2.6	18.0
8 29	21 57.57	-23 30.8	1.414	2.401	6.7	18.1	8 29	21 57.46	- 8 55.8	1.497	2.500	3.3	18.0
9 8	21 50.56	-24 58.7	1.448	2.392	10.8	18.3	9 8	21 50.09	-10 54.7	1.513	2.485	7.8	18.2
9 18	21 45.30	-26 1.6	1.504	2.384	14.7	18.5	9 18	21 44.24	-12 43.9	1.555	2.470	12.2	18.5
9 28	21 42.58	-26 38.0	1.580	2.377	18.0	18.7	9 28	21 40.68	-14 16.3	1.620	2.455	16.0	18.7
131059	2000 <i>YP</i> ₅₉		8 21.6 304°83	0°1/21.5	18		392613	2011 <i>TY</i> ₈		8 21.6 212°42	2°2/23.7	18	
7 20	22 25.86	-10 24.2	1.550	2.440	14.5	19.3	7 20	22 25.16	- 3 29.4	2.141	2.995	12.5	21.0
7 30	22 21.22	-10 43.8	1.466	2.419	10.7	19.0	7 30	22 20.02	- 3 41.5	2.063	2.991	9.5	20.8
8 9	22 14.27	-11 14.9	1.404	2.398	6.2	18.7	8 9	22 13.26	- 4 6.5	2.008	2.988	6.1	20.6
8 19	22 5.67	-11 53.3	1.366	2.377	1.3	18.3	8 19	22 5.44	- 4 42.3	1.979	2.984	2.9	20.4
8 29	21 56.47	-12 33.1	1.354	2.357	3.8	18.5	8 29	21 57.32	- 5 25.0	1.978	2.980	3.1	20.4
9 8	21 47.92	-13 8.2	1.367	2.336	8.8	18.7	9 8	21 49.76	- 6 10.1	2.005	2.976	6.4	20.6
9 18	21 41.12	-13 33.6	1.403	2.316	13.4	18.9	9 18	21 43.48	- 6 53.0	2.059	2.971	9.8	20.8
9 28	21 36.95	-13 46.2	1.460	2.297	17.3	19.1	9 28	21 39.09	- 7 29.9	2.135	2.966	12.8	21.0
328507	2009 <i>QV</i> ₇		8 21.6 280°53	2°6/24.4	18		410827	2009 <i>PK</i> ₇		8 21.6 356°45	1°4/20.5	18	
7 20	22 21.71	- 0 59.8	2.323	3.168	11.9	20.8	7 20	22 26.32	-15 12.6	2.003	2.891	11.8	20.6
7 30	22 17.44	- 1 24.0	2.241	3.162	9.2	20.6	7 30	22 20.91	-15 25.2	1.937	2.890	8.5	20.4
8 9	22 11.74	- 2 2.6	2.181	3.156	6.1	20.4	8 9	22 13.77	-15 41.6	1.894	2.888	4.8	20.2
8 19	22 5.10	- 2 53.5	2.148	3.149	3.3	20.2	8 19	22 5.54	-15 58.1	1.877	2.888	1.5	20.0
8 29	21 58.18	- 3 52.8	2.143	3.143	3.1	20.2	8 29	21 57.09	-16 10.7	1.889	2.887	3.7	20.1
9 8	21 51.72	- 4 55.7	2.166	3.137	5.9	20.3	9 8	21 49.34	-16 16.1	1.927	2.887	7.4	20.4
9 18	21 46.38	- 5 57.2	2.215	3.131	9.0	20.5	9 18	21 43.08	-16 12.3	1.990	2.887	10.8	20.6
9 28	21 42.70	- 6 52.8	2.289	3.125	11.9	20.7	9 28	21 38.89	-15 58.6	2.076	2.888	13.8	20.8
75314	1999 <i>XG</i> ₄₂		8 21.6 135°10	5°5/17.3	17		245226	2004 <i>XM</i> ₈₈		8 21.6 315°24	2°2/22.8	18	
7 20	22 31.87	-24 5.6	1.691	2.586	13.2	19.3	7 20	22 25.76	- 6 28.4	1.139	2.035	18.1	20.6
7 30	22 25.19	-25 10.7	1.644	2.596	9.8	19.1	7 30	22 21.77	- 6 26.0	1.063	2.016	13.7	20.2
8 9	22 16.28	-26 12.8	1.620	2.605	6.7	18.9	8 9	22 14.89	- 6 41.6	1.006	1.998	8.6	19.9
8 19	22 6.03	-27 4.0	1.622	2.614	5.6	18.9	8 19	22 5.88	- 7 12.7	0.971	1.980	3.2	19.5
8 29	21 55.63	-27 37.4	1.651	2.623	7.6	19.0	8 29	21 56.09	- 7 53.4	0.958	1.963	4.4	19.6
9 8	21 46.29	-27 49.7	1.705	2.631	10.8	19.2	9 8	21 47.13	- 8 35.6	0.968	1.946	10.2	19.8
9 18	21 38.99	-27 40.8	1.782	2.638	13.9	19.5	9 18	21 40.46	- 9 12.1	0.999	1.930	15.7	20.1
9 28	21 34.35	-27 13.2	1.879	2.645	16.6	19.7	9 28	21 37.13	- 9 36.9	1.048	1.915	20.4	20.3
357772	2005 <i>SN</i> ₁₇₆		8 21.6 129°42	1°9/23.4	18		508814	2000 <i>WF</i> ₁₈₆		8 21.6 267°23	2°7/19.1	18	
7 20	22 24.36	- 4 19.2	2.294	3.149	11.7	21.4	7 20	22 27.11	-16 14.2	1.982	2.870	11.9	22.0
7 30	22 19.28	- 4 33.8	2.225	3.154	8.8	21.2	7 30	22 21.82	-17 15.4	1.892	2.845	8.6	21.7
8 9	22 12.75	- 4 59.7	2.179	3.160	5.6	21.0	8 9	22 14.51	-18 23.6	1.826	2.820	5.0	21.5
8 19	22 5.30	- 5 34.6	2.160	3.166	2.5	20.8	8 19	22 5.76	-19 32.8	1.787	2.794	2.7	21.3
8 29	21 57.66	- 6 14.9	2.169	3.171	2.8	20.9	8 29	21 56.45	-20 35.9	1.776	2.767	5.0	21.4
9 8	21 50.59	- 6 56.3	2.207	3.176	5.9	21.1	9 8	21 47.62	-21 27.0	1.792	2.740	8.9	21.6
9 18	21 44.73	- 7 35.0	2.271	3.181	9.1	21.3	9 18	21 40.21	-22 2.1	1.833	2.712	12.6	21.7
9 28	21 40.60	- 8 7.5	2.358	3.186	11.8	21.5	9 28	21 35.02	-22 19.6	1.896	2.684	15.8	21.9
371549	2006 <i>VF</i> ₂		8 21.6 349°58	0°3/21.7	18		351183	2004 <i>BN</i> ₁₁₇		8 21.6 219°66	3°6/17.7	18	
7 20	22 22.80	-13 33.8	0.827	1.757	19.5	18.8	7 20	22 26.30	-20 54.4	2.327	3.216	10.3	20.9
7 30	22 20.12	-12 48.1	0.768	1.741	14.4	18.4	7 30	22 20.85	-21 57.3	2.256	3.208	7.5	20.7
8 9	22 14.08	-12 8.7	0.727	1.727	8.5	18.1	8 9	22 13.75	-23 1.4	2.211	3.200	4.8	20.6
8 19	22 5.67	-11 33.0	0.704	1.715	1.9	17.6	8 19	22 5.57	-24 1.2	2.193	3.191	3.6	20.5
8 29	21 56.59	-10 57.5	0.701	1.706	5.0	17.8	8 29	21 57.09	-24 50.9	2.204	3.182	5.4	20.6
9 8	21 48.83	-10 18.8	0.717	1.700	11.6	18.1	9 8	21 49.15	-25 26.6	2.242	3.172	8.3	20.7
9 18	21 43.96	- 9 35.0	0.752	1.696	17.5	18.4	9 18	21 42.53	-25 46.2	2.305	3.162	11.1	20.9
9 28	21 42.96	- 8 44.6	0.802	1.695	22.4	18.7	9 28	21 37.80	-25 49.7	2.390	3.152	13.6	21.1
97939	2000 <i>QP</i> ₁₁₆		8 21.6 27°58	3°6/19.5	18		159056	2004 <i>TG</i> ₁₄₄					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
224927	2007 <i>DF</i> ₄₂		8 21.6 278°87	0°2/21.5 17			6516	Gross		8 21.6 337°10	1°4/22.4 18		
7 20	22 27.75	-10 36.3	1.579	2.465	14.5	20.8	7 20	22 23.10	-8 4.6	1.062	1.969	18.2	17.1
7 30	22 22.56	-10 59.6	1.498	2.449	10.6	20.5	7 30	22 19.89	-8 4.6	0.993	1.953	13.6	16.8
8 9	22 15.04	-11 34.2	1.439	2.433	6.2	20.2	8 9	22 13.83	-8 21.7	0.944	1.938	8.3	16.5
8 19	22 5.89	-12 15.4	1.405	2.416	1.3	19.8	8 19	22 5.71	-8 52.3	0.914	1.925	2.6	16.1
8 29	21 56.18	-12 57.3	1.397	2.400	3.8	20.0	8 29	21 56.93	-9 29.8	0.908	1.912	4.4	16.2
9 8	21 47.16	-13 33.6	1.415	2.383	8.8	20.2	9 8	21 49.11	-10 6.1	0.922	1.902	10.3	16.5
9 18	21 39.94	-13 59.8	1.457	2.366	13.2	20.5	9 18	21 43.64	-10 34.2	0.958	1.892	15.8	16.8
9 28	21 35.34	-14 12.8	1.519	2.349	17.1	20.7	9 28	21 41.50	-10 48.9	1.010	1.884	20.5	17.0
513463	2009 <i>BB</i> ₄₅		8 21.6 194°64	0°1/21.7 18			476571	2008 <i>RZ</i> ₂₈		8 21.6 345°75	3°3/24.4 16		
7 20	22 26.67	-10 8.7	2.155	3.028	11.7	22.1	7 20	22 20.67	-0 28.2	1.338	2.213	17.3	21.5
7 30	22 21.10	-10 29.7	2.082	3.026	8.5	21.9	7 30	22 17.57	-1 7.4	1.268	2.206	13.3	21.2
8 9	22 13.88	-10 58.8	2.033	3.025	4.9	21.7	8 9	22 12.23	-2 12.4	1.218	2.200	8.8	20.9
8 19	22 5.60	-11 32.5	2.012	3.023	1.1	21.4	8 19	22 5.35	-3 39.3	1.190	2.194	4.4	20.7
8 29	21 57.06	-12 6.5	2.018	3.020	2.9	21.5	8 29	21 58.02	-5 20.2	1.186	2.190	4.1	20.6
9 8	21 49.13	-12 36.9	2.053	3.018	6.7	21.8	9 8	21 51.47	-7 4.6	1.208	2.186	8.5	20.9
9 18	21 42.55	-13 0.2	2.113	3.015	10.1	22.0	9 18	21 46.75	-8 42.1	1.252	2.183	13.1	21.2
9 28	21 37.90	-13 14.4	2.197	3.012	13.0	22.2	9 28	21 44.66	-10 4.4	1.317	2.181	17.2	21.4
519203	2010 <i>RA</i> ₂₆		8 21.6 322°97	0°6/22.2 18			474674	2005 <i>CZ</i> ₆		8 21.6 314°30	1°0/21.9 16 C		
7 20	22 21.37	-6 28.2	1.851	2.728	13.1	20.6	7 20	22 43.16	-12 59.6	1.481	2.352	16.2	22.7
7 30	22 17.56	-7 23.2	1.773	2.719	9.7	20.3	7 30	22 34.95	-12 3.2	1.353	2.294	12.4	22.3
8 9	22 11.99	-8 33.3	1.719	2.709	5.7	20.1	8 9	22 23.01	-11 4.5	1.247	2.236	7.6	21.9
8 19	22 5.22	-9 53.8	1.690	2.700	1.5	19.8	8 19	22 7.81	-10 1.1	1.167	2.178	2.1	21.4
8 29	21 58.09	-11 18.1	1.688	2.692	3.1	19.9	8 29	21 50.62	-8 51.1	1.116	2.118	4.7	21.4
9 8	21 51.53	-12 38.7	1.714	2.684	7.3	20.1	9 8	21 33.34	-7 34.2	1.094	2.058	11.1	21.6
9 18	21 46.35	-13 49.6	1.765	2.676	11.2	20.4	9 18	21 17.98	-6 12.0	1.097	1.997	17.3	21.7
9 28	21 43.23	-14 46.3	1.837	2.668	14.5	20.6	9 28	21 6.18	-4 46.3	1.122	1.937	22.8	21.9
240982	2006 <i>JL</i> ₅₇		8 21.6 218°56	5°3/26.6 18			68081	2000 <i>YQ</i> ₉₇		8 21.6 222°35	0°5/21.2 18 R		
7 20	22 25.67	+5 25.3	2.135	2.946	14.0	20.6	7 20	22 26.46	-11 5.8	1.982	2.861	12.3	20.3
7 30	22 20.48	+5 32.3	2.050	2.940	11.4	20.4	7 30	22 21.15	-11 42.0	1.907	2.855	8.9	20.1
8 9	22 13.59	+5 20.7	1.985	2.933	8.6	20.2	8 9	22 14.02	-12 27.1	1.856	2.849	5.1	19.8
8 19	22 5.56	+4 50.7	1.946	2.926	6.1	20.1	8 19	22 5.71	-13 16.6	1.832	2.843	1.1	19.5
8 29	21 57.17	+4 4.6	1.933	2.918	5.4	20.0	8 29	21 57.06	-14 5.3	1.836	2.837	3.4	19.7
9 8	21 49.28	+3 6.9	1.948	2.910	7.2	20.1	9 8	21 49.03	-14 47.8	1.867	2.830	7.4	19.9
9 18	21 42.67	+2 3.4	1.988	2.901	10.0	20.3	9 18	21 42.45	-15 20.5	1.923	2.823	11.0	20.2
9 28	21 37.98	+1 0.0	2.053	2.892	12.9	20.4	9 28	21 37.95	-15 41.0	2.002	2.815	14.2	20.4
320474	2007 <i>VP</i> ₃₀₆		8 21.6 184°00	2°1/20.0 17			344771	2003 <i>WP</i> ₁₀₆		8 21.6 240°30	4°9/26.1 18		
7 20	22 29.84	-14 35.2	1.650	2.540	13.8	21.4	7 20	22 25.67	+3 56.9	2.194	3.012	13.5	21.0
7 30	22 23.85	-15 24.1	1.586	2.540	9.9	21.2	7 30	22 20.49	+4 7.0	2.104	3.000	10.9	20.8
8 9	22 15.65	-16 20.3	1.545	2.540	5.7	20.9	8 9	22 13.64	+4 0.1	2.036	2.989	8.1	20.6
8 19	22 6.02	-17 17.2	1.530	2.540	2.1	20.7	8 19	22 5.64	+3 36.5	1.993	2.976	5.6	20.4
8 29	21 56.05	-18 7.7	1.542	2.539	4.8	20.9	8 29	21 57.25	+2 58.3	1.977	2.964	5.0	20.4
9 8	21 46.95	-18 46.0	1.581	2.537	9.1	21.1	9 8	21 49.32	+2 9.5	1.988	2.951	7.0	20.5
9 18	21 39.71	-19 8.9	1.644	2.535	13.0	21.4	9 18	21 42.62	+1 15.4	2.025	2.938	9.9	20.6
9 28	21 35.04	-19 15.5	1.727	2.533	16.4	21.6	9 28	21 37.79	+0 21.4	2.087	2.924	12.8	20.8
496400	2013 <i>TR</i> ₁₀₂		8 21.6 29°20	1°6/20.7 17			371505	2006 <i>UN</i> ₆₃		8 21.6 318°89	2°7/19.9 18		
7 20	22 26.88	-13 38.0	0.987	1.905	18.3	20.0	7 20	22 25.07	-15 6.8	1.151	2.065	16.5	20.2
7 30	22 22.30	-14 1.2	0.953	1.920	13.2	19.8	7 30	22 21.42	-15 44.7	1.072	2.038	12.1	19.8
8 9	22 14.89	-14 34.1	0.937	1.936	7.4	19.5	8 9	22 14.81	-16 33.5	1.014	2.012	7.0	19.5
8 19	22 5.84	-15 9.0	0.943	1.954	2.0	19.3	8 19	22 5.97	-17 25.7	0.977	1.987	2.8	19.1
8 29	21 56.76	-15 37.7	0.971	1.973	5.3	19.5	8 29	21 56.26	-18 11.8	0.963	1.962	6.2	19.3
9 8	21 49.20	-15 54.1	1.021	1.993	10.7	19.9	9 8	21 47.36	-18 43.1	0.972	1.938	11.9	19.5
9 18	21 44.28	-15 55.3	1.092	2.014	15.5	20.3	9 18	21 40.77	-18 54.4	1.000	1.916	17.2	19.7
9 28	21 42.58	-15 40.5	1.181	2.036	19.4	20.6	9 28	21 37.60	-18 44.0	1.046	1.894	21.8	19.9
371914	2008 <i>DS</i> ₅₈		8 21.6 106°91	1°7/20.4 15			389148	2009 <i>BC</i> ₃₀		8 21.6 283°95	1°6/20.3 18		
7 20	22 30.33	-13 53.4	1.563	2.453	14.4	22.1	7 20	22 25.35	-13 27.4	1.803	2.693	12.8	20.9
7 30	22 24.11	-14 33.5	1.513	2.467	10.3	21.9	7 30	22 20.52	-14 13.3	1.731	2.685	9.2	20.7
8 9	22 15.72	-15 20.5	1.485	2.480	5.8	21.7	8 9	22 13.75	-15 7.2	1.682	2.677	5.2	20.4
8 19	22 6.02	-16 8.2	1.483	2.493	1.8	21.5	8 19	22 5.67	-16 3.8	1.659	2.669	1.7	20.1
8 29	21 56.18	-16 50.0	1.508	2.506	4.5	21.7	8 29	21 57.23	-16 56.6	1.663	2.661	4.2	20.3
9 8	21 47.37	-17 20.7	1.558	2.518	8.8	22.0	9 8	21 49.46	-17 40.0	1.693	2.653	8.3	20.5
9 18	21 40.55	-17 37.3	1.633	2.530	12.8	22.2	9 18	21 43.25	-18 10.1	1.748	2.645	12.1	20.8
9 28	21 36.34	-17 39.2	1.729	2.542	16.0	22.5	9 28	21 39.30	-18 25.1	1.824	2.637	15.4	21.0
326588	2002 <i>QL</i> ₁₀₈		8 21.6 311°05	0°2/21.8 17			139260	2001 <i>HL</i> ₄₉		8 21.6 82°78	6°8/26.9 17		
7 20	22 25.63	-8 42.3	1.359	2.252	15.9	21.1	7 20	22 27.28	+5 49.9	1.508	2.338	18.0	19.6
7 30	22 21.20	-9 17.8	1.289	2.243	11.7	20.8	7 30	22 22.05	+6 9.1	1.447	2.348	14.6	19.4
8 9	22 14.33	-10 8.9	1.241	2.235	6.9	20.5	8 9	22 14.65	+6 3.4	1.406	2.358	11.0	19.2
8 19	22 5.78	-11 10.1	1.216	2.227	1.5	20.2	8 19	22 5.86	+5 32.7	1.386	2.368	7.8	19.0
8 29	21 56.74	-12 13.7	1.216	2.219	4.0	20.3	8 29	21 56.77	+4 40.4	1.392	2.378	6.9	19.0
9 8	21 48.54	-13 11.6	1.241	2.212	9.2	20.6	9 8	21 48.57	+3 33.5	1.422	2.387	8.9	19.2
9 18	21 42.33	-13 57.3	1.288	2.205	14.0	20.9	9 18	21 42.24	+2 20.4	1.476	2.397	12.2	19.4
9 28	21 38.95	-14 26.9	1.355	2.198	18.0	21.1	9 28	21 38.46	+1 9.2	1.552	2.407	15.5	19.6
415841	2001 <i>RS</i> ₁₅₀		8 21.6 4°00	3°7/24.7 17			66979	1999 <i>XR</i> ₈₆		8 21.6 335°38	5°0/15.9 18		
7													

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8 21.6

8 21.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
449651	2014 <i>KV</i> ₅₁		8 21.6	38°34	5°9/28.1	15	256714	2008 <i>AO</i> ₄₄		8 21.6	291°14	1°3/20.6	18
7 20	22 21.11	+ 8 17.8	1.731	2.549	16.5	20.9	7 20	22 24.68	-10 10.5	1.376	2.273	15.5	20.6
7 30	22 17.29	+ 7 48.2	1.676	2.568	13.4	20.7	7 30	22 20.61	-11 23.2	1.302	2.260	11.3	20.3
8 9	22 11.78	+ 6 52.6	1.640	2.587	10.1	20.6	8 9	22 14.09	-12 52.9	1.251	2.247	6.4	20.0
8 19	22 5.24	+ 5 33.2	1.628	2.607	7.1	20.5	8 19	22 5.82	-14 32.0	1.223	2.234	1.5	19.7
8 29	21 58.55	+ 3 55.6	1.641	2.628	5.9	20.4	8 29	21 56.97	-16 10.1	1.221	2.221	4.8	19.9
9 8	21 52.62	+ 2 8.1	1.680	2.649	7.5	20.6	9 8	21 48.87	-17 36.9	1.244	2.208	10.0	20.1
9 18	21 48.18	+ 0 19.7	1.745	2.671	10.4	20.8	9 18	21 42.71	-18 44.9	1.289	2.196	14.8	20.4
9 28	21 45.78	- 1 21.6	1.834	2.693	13.3	21.0	9 28	21 39.37	-19 30.3	1.354	2.184	18.8	20.6
223688	2004 <i>QQ</i> ₁₇		8 21.6	291°93	4°5/18.4	17	285854	2001 <i>FH</i> ₁₉₀		8 21.6	124°55	1°0/22.4	18
7 20	22 34.10	-25 55.2	2.232	3.112	11.1	19.7	7 20	22 29.92	- 8 37.8	2.001	2.867	12.8	20.3
7 30	22 26.68	-26 6.7	2.142	3.086	8.4	19.5	7 30	22 23.48	- 8 34.7	1.937	2.876	9.4	20.2
8 9	22 17.24	-26 13.2	2.078	3.059	5.7	19.3	8 9	22 15.29	- 8 40.1	1.897	2.885	5.6	19.9
8 19	22 6.42	-26 9.6	2.040	3.033	4.5	19.2	8 19	22 6.02	- 8 51.4	1.884	2.893	1.7	19.7
8 29	21 55.21	-25 51.9	2.032	3.006	6.1	19.2	8 29	21 56.58	- 9 5.3	1.899	2.902	2.9	19.8
9 8	21 44.67	-25 18.2	2.051	2.980	9.1	19.3	9 8	21 47.90	- 9 18.3	1.942	2.910	6.8	20.1
9 18	21 35.73	-24 29.2	2.096	2.953	12.1	19.5	9 18	21 40.76	- 9 27.4	2.011	2.917	10.3	20.3
9 28	21 29.09	-23 26.7	2.164	2.926	14.8	19.6	9 28	21 35.75	- 9 30.4	2.104	2.925	13.3	20.5
274126	2008 <i>EN</i> ₅₂		8 21.6	19°26	2°4/20.2	17	268946	2007 <i>DQ</i> ₄₄		8 21.6	263°72	1°2/22.6	17
7 20	22 27.90	-15 29.9	1.201	2.110	16.4	19.8	7 20	22 26.59	- 6 25.8	1.680	2.554	14.4	21.1
7 30	22 22.92	-15 57.4	1.151	2.114	11.8	19.5	7 30	22 21.63	- 6 54.5	1.597	2.539	10.8	20.8
8 9	22 15.29	-16 31.6	1.121	2.119	6.7	19.3	8 9	22 14.53	- 7 38.2	1.535	2.524	6.5	20.5
8 19	22 6.01	-17 5.5	1.115	2.124	2.5	19.0	8 19	22 5.91	- 8 33.4	1.499	2.509	2.1	20.2
8 29	21 56.48	-17 31.6	1.132	2.131	5.5	19.3	8 29	21 56.77	- 9 34.0	1.490	2.493	3.4	20.3
9 8	21 48.18	-17 44.4	1.172	2.138	10.4	19.6	9 8	21 48.24	-10 33.4	1.507	2.477	8.0	20.5
9 18	21 42.34	-17 41.4	1.235	2.146	15.0	19.8	9 18	21 41.34	-11 25.5	1.548	2.461	12.3	20.7
9 28	21 39.37	-17 22.5	1.316	2.154	18.8	20.1	9 28	21 36.86	-12 5.6	1.611	2.445	16.1	20.9
480724	2015 <i>UG</i> ₃₃		8 21.6	294°21	3°4/25.3	18	278200	Olegpopov		8 21.6	262°78	1°3/22.9	18
7 20	22 21.84	+ 1 10.8	2.273	3.109	12.5	20.9	7 20	22 23.34	- 5 36.5	2.312	3.173	11.4	21.6
7 30	22 17.63	+ 0 53.5	2.190	3.102	9.8	20.7	7 30	22 18.74	- 6 3.8	2.226	3.161	8.6	21.4
8 9	22 11.95	+ 0 20.4	2.129	3.096	6.8	20.5	8 9	22 12.63	- 6 42.7	2.164	3.149	5.3	21.2
8 19	22 5.31	- 0 27.0	2.094	3.089	4.1	20.3	8 19	22 5.50	- 7 30.3	2.128	3.136	1.9	21.0
8 29	21 58.37	- 1 15.1	2.086	3.082	3.7	20.3	8 29	21 58.05	- 8 22.7	2.120	3.124	2.6	21.0
9 8	21 51.90	- 2 29.1	2.105	3.076	6.1	20.4	9 8	21 51.04	- 9 15.0	2.141	3.111	6.1	21.2
9 18	21 46.56	- 3 33.8	2.152	3.069	9.1	20.6	9 18	21 45.17	-10 2.9	2.188	3.098	9.4	21.4
9 28	21 42.91	- 4 33.9	2.222	3.063	12.0	20.8	9 28	21 41.02	-10 42.9	2.259	3.085	12.4	21.6
193718	2001 <i>FW</i> ₁₀₆		8 21.6	256°67	4°1/18.6	18	119352	2001 <i>ST</i> ₂₂₆		8 21.6	292°99	1°2/22.6	18
7 20	22 31.95	-22 36.3	1.949	2.837	12.1	20.2	7 20	22 24.44	- 5 48.1	1.536	2.416	15.2	20.3
7 30	22 25.27	-23 4.7	1.873	2.823	8.9	20.0	7 30	22 20.20	- 6 28.6	1.458	2.403	11.3	20.0
8 9	22 16.47	-23 31.5	1.821	2.809	5.7	19.8	8 9	22 13.77	- 7 26.9	1.400	2.390	6.9	19.7
8 19	22 6.27	-23 51.1	1.795	2.794	4.1	19.7	8 19	22 5.78	- 8 38.6	1.367	2.377	2.2	19.4
8 29	21 55.71	-23 58.1	1.797	2.779	6.0	19.8	8 29	21 57.28	- 9 56.8	1.360	2.364	3.5	19.5
9 8	21 45.90	-23 49.7	1.826	2.764	9.4	19.9	9 8	21 49.43	-11 12.9	1.379	2.351	8.4	19.7
9 18	21 37.81	-23 25.3	1.880	2.749	12.7	20.1	9 18	21 43.30	-12 19.6	1.421	2.338	12.9	20.0
9 28	21 32.15	-22 46.3	1.955	2.733	15.7	20.3	9 28	21 39.69	-13 11.8	1.484	2.326	16.8	20.2
500054	2011 <i>UE</i> ₁₃₅		8 21.6	351°93	1°0/21.1	17	256539	2007 <i>GV</i> ₁₂		8 21.6	249°44	3°2/18.3	18
7 20	22 25.22	-12 52.9	0.888	1.811	19.2	20.2	7 20	22 25.52	-20 30.1	2.394	3.283	10.1	20.5
7 30	22 21.73	-13 0.1	0.834	1.804	14.1	19.9	7 30	22 20.29	-21 16.5	2.321	3.274	7.3	20.3
8 9	22 14.99	-13 19.5	0.798	1.798	8.1	19.6	8 9	22 13.50	-22 4.0	2.274	3.264	4.6	20.2
8 19	22 6.01	-13 44.7	0.782	1.794	1.8	19.2	8 19	22 5.69	-22 47.5	2.253	3.254	3.2	20.0
8 29	21 56.50	-14 7.3	0.787	1.790	5.4	19.4	8 29	21 57.61	-23 22.4	2.261	3.244	4.9	20.1
9 8	21 48.34	-14 19.7	0.812	1.789	11.7	19.7	9 8	21 50.06	-23 45.2	2.297	3.234	7.8	20.3
9 18	21 43.02	-14 17.5	0.856	1.789	17.3	20.0	9 18	21 43.75	-23 54.1	2.357	3.223	10.6	20.5
9 28	21 41.41	-13 58.8	0.916	1.790	22.0	20.3	9 28	21 39.27	-23 48.9	2.440	3.213	13.1	20.6
511258	2014 <i>BS</i> ₆₅		8 21.6	251°44	2°6/24.2	18	29507	1997 <i>XV</i>		8 21.6	135°44	1°0/20.8	18
7 20	22 24.12	- 0 49.9	1.889	2.740	14.0	21.9	7 20	22 26.73	-13 21.9	2.033	2.915	11.9	18.5
7 30	22 19.60	- 1 32.4	1.803	2.729	10.8	21.6	7 30	22 21.26	-13 46.9	1.967	2.917	8.6	18.3
8 9	22 13.25	- 2 34.4	1.739	2.717	7.1	21.4	8 9	22 14.07	-14 17.7	1.925	2.919	4.8	18.1
8 19	22 5.61	- 3 52.6	1.701	2.705	3.5	21.2	8 19	22 5.81	-14 50.2	1.910	2.921	1.2	17.8
8 29	21 57.54	- 5 21.4	1.690	2.692	3.4	21.1	8 29	21 57.32	-15 19.9	1.923	2.922	3.5	18.0
9 8	21 49.99	- 6 53.4	1.707	2.680	7.1	21.3	9 8	21 49.51	-15 42.7	1.963	2.924	7.2	18.2
9 18	21 43.83	- 8 21.2	1.750	2.667	10.9	21.5	9 18	21 43.16	-15 56.1	2.029	2.926	10.7	18.4
9 28	21 39.77	- 9 38.6	1.816	2.654	14.4	21.7	9 28	21 38.84	-15 58.5	2.117	2.927	13.6	18.6
487707	2015 <i>RF</i> ₃₁		8 21.6	317°98	9°5/13.4	18	479863	2014 <i>GE</i> ₃₆		8 21.6	196°93	0°6/21.1	18
7 20	22 31.30	-37 7.0	1.870	2.751	12.8	20.5	7 20	22 24.80	-10 44.1	2.045	2.925	11.9	21.4
7 30	22 25.16	-38 5.7	1.804	2.728	10.9	20.3	7 30	22 19.90	-11 29.0	1.976	2.924	8.6	21.2
8 9	22 16.56	-38 51.7	1.760	2.705	9.6	20.2	8 9	22 13.32	-12 23.0	1.930	2.923	4.9	21.0
8 19	22 6.31	-39 16.7	1.740	2.683	9.7	20.2	8 19	22 5.66	-13 21.4	1.911	2.922	1.0	20.7
8 29	21 55.66	-39 14.4	1.743	2.661	11.2	20.2	8 29	21 57.72	-14 18.8	1.920	2.921	3.2	20.9
9 8	21 45.97	-38 42.7	1.770	2.640	13.5	20.3	9 8	21 50.38	-15 9.9	1.956	2.919	7.1	21.1
9 18	21 38.35	-37 43.7	1.817	2.619	16.0	20.5	9 18	21 44.42	-15 50.6	2.018	2.917	10.6	21.3
9 28	21 33.58	-36 21.9	1.882	2.599	18.2	20.6	9 28	21 40.41	-16 18.6	2.103	2.916	13.6	21.5
402995	2007 <i>VC</i> ₁₉₉		8 21.6	344°67	5°9/17.1	18	79621	1998 <i>RF</i> ₆₂	</				

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8 21.6

8 21.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
386357	2008 TL ₄₅		8 21.6	55°67'	0°7/21.1	16	47574	2000 AF ₁₇₁		8 21.7	133°41'	3°2/18.2	18
7 20	22 26.96	-11 43.3	1.654	2.542	13.8	21.5	7 20	22 25.91	-17 46.2	2.091	2.982	11.3	19.5
7 30	22 21.73	-12 14.2	1.593	2.546	10.0	21.3	7 30	22 20.68	-19 10.4	2.037	2.991	8.0	19.3
8 9	22 14.46	-12 54.1	1.555	2.549	5.7	21.0	8 9	22 13.77	-20 38.1	2.008	3.001	4.8	19.1
8 19	22 5.90	-13 38.0	1.542	2.553	1.2	20.7	8 19	22 5.80	-22 2.5	2.007	3.010	3.2	19.0
8 29	21 57.08	-14 19.8	1.556	2.557	3.8	21.0	8 29	21 57.61	-23 16.9	2.035	3.018	5.3	19.2
9 8	21 49.11	-14 54.2	1.595	2.561	8.2	21.2	9 8	21 50.09	-24 16.0	2.089	3.027	8.4	19.4
9 18	21 42.87	-15 17.5	1.659	2.565	12.1	21.5	9 18	21 44.00	-24 57.2	2.169	3.035	11.4	19.6
9 28	21 39.03	-15 27.7	1.745	2.569	15.5	21.7	9 28	21 39.92	-25 20.1	2.270	3.042	14.0	19.8
394947	2008 YE ₃₃		8 21.6	257°97'	0°4/21.3	18	168242	2006 KO ₈₆		8 21.7	87°98'	5°3/26.7	18
7 20	22 26.17	-10 6.6	2.148	3.022	11.7	22.6	7 20	22 26.28	+ 5 11.7	1.910	2.729	15.2	20.3
7 30	22 21.01	-10 50.7	2.055	3.000	8.6	22.3	7 30	22 20.92	+ 5 11.3	1.853	2.748	12.2	20.2
8 9	22 14.05	-11 45.0	1.986	2.978	4.9	22.1	8 9	22 13.88	+ 4 50.5	1.816	2.768	9.0	20.0
8 19	22 5.85	-12 45.5	1.944	2.955	1.0	21.8	8 19	22 5.82	+ 4 10.6	1.804	2.787	6.2	19.9
8 29	21 57.16	-13 46.7	1.930	2.931	3.2	21.9	8 29	21 57.61	+ 3 15.2	1.819	2.806	5.4	19.9
9 8	21 48.90	-14 43.1	1.945	2.907	7.2	22.1	9 8	21 50.15	+ 2 10.2	1.860	2.825	7.2	20.0
9 18	21 41.90	-15 30.3	1.986	2.883	10.9	22.3	9 18	21 44.18	+ 1 2.0	1.927	2.843	10.1	20.2
9 28	21 36.86	-16 5.0	2.049	2.858	14.1	22.4	9 28	21 40.26	- 0 3.2	2.017	2.862	12.9	20.5
174412	2002 VU ₁₀₁		8 21.6	285°14'	4°0/25.0	18	157603	2005 WL ₁₃		8 21.7	169°56'	1°5/20.4	17
7 20	22 25.41	+ 0 57.5	2.100	2.935	13.4	20.4	7 20	22 28.19	-13 37.8	1.960	2.843	12.3	21.5
7 30	22 20.56	+ 0 56.6	1.992	2.904	10.6	20.2	7 30	22 22.41	-14 21.8	1.895	2.846	8.8	21.3
8 9	22 13.87	+ 0 39.1	1.906	2.872	7.5	19.9	8 9	22 14.80	-15 12.4	1.855	2.848	5.0	21.0
8 19	22 5.83	+ 0 5.7	1.846	2.840	4.7	19.7	8 19	22 6.03	-16 4.5	1.841	2.851	1.6	20.8
8 29	21 57.18	- 0 41.1	1.812	2.808	4.3	19.6	8 29	21 57.01	-16 52.3	1.855	2.853	3.9	21.0
9 8	21 48.85	- 1 36.8	1.806	2.775	7.1	19.7	9 8	21 48.69	-17 30.8	1.897	2.854	7.7	21.2
9 18	21 41.72	- 2 35.8	1.826	2.741	10.6	19.9	9 18	21 41.92	-17 57.1	1.964	2.855	11.3	21.4
9 28	21 36.55	- 3 32.3	1.869	2.708	14.0	20.0	9 28	21 37.29	-18 9.8	2.053	2.855	14.2	21.6
190561	2000 SY ₉₉		8 21.6	317°15'	1°0/22.1	18	400756	2010 AR ₁₂₁		8 21.7	38°72'	5°2/26.7	18
7 20	22 31.08	-10 57.6	1.422	2.309	15.7	19.4	7 20	22 24.69	+ 4 58.9	2.334	3.143	13.0	20.4
7 30	22 25.26	-10 26.9	1.341	2.291	11.7	19.2	7 30	22 19.66	+ 5 25.4	2.258	3.146	10.6	20.2
8 9	22 16.79	-10 3.2	1.281	2.273	7.0	18.8	8 9	22 13.15	+ 5 36.1	2.204	3.148	8.0	20.1
8 19	22 6.47	- 9 44.5	1.246	2.256	2.0	18.5	8 19	22 5.68	+ 5 31.0	2.175	3.151	5.9	19.9
8 29	21 55.51	- 9 27.8	1.236	2.240	3.9	18.6	8 29	21 57.97	+ 5 11.6	2.173	3.153	5.3	19.9
9 8	21 45.37	- 9 9.9	1.252	2.224	9.1	18.8	9 8	21 50.76	+ 4 41.1	2.198	3.156	6.8	20.0
9 18	21 37.30	- 8 48.4	1.290	2.208	13.9	19.1	9 18	21 44.73	+ 4 3.9	2.249	3.159	9.2	20.2
9 28	21 32.21	- 8 21.5	1.349	2.193	18.1	19.3	9 28	21 40.41	+ 3 24.5	2.324	3.162	11.6	20.3
309753	2008 VT ₃₈		8 21.7	12°06'	1°8/22.6	17	149163	Stevensonard		8 21.7	152°22'	0°4/22.1	18
7 20	22 25.83	- 7 43.9	0.906	1.818	20.1	20.3	7 20	22 23.60	- 8 6.1	2.799	3.659	9.7	20.8
7 30	22 21.99	- 7 39.0	0.858	1.820	15.0	20.0	7 30	22 18.62	- 8 43.4	2.730	3.667	7.1	20.6
8 9	22 15.05	- 7 52.9	0.828	1.823	9.1	19.7	8 9	22 12.44	- 9 28.5	2.686	3.675	4.1	20.4
8 19	22 6.08	- 8 21.4	0.817	1.827	3.0	19.4	8 19	22 5.52	-10 18.4	2.671	3.682	1.0	20.2
8 29	21 56.74	- 8 56.8	0.827	1.833	4.6	19.5	8 29	21 58.43	-11 9.3	2.686	3.688	2.2	20.3
9 8	21 48.80	- 9 30.5	0.859	1.839	10.6	19.9	9 8	21 51.80	-11 57.5	2.729	3.694	5.2	20.6
9 18	21 43.59	- 9 55.6	0.910	1.847	16.1	20.2	9 18	21 46.16	-12 39.8	2.801	3.700	8.0	20.7
9 28	21 41.92	-10 7.3	0.979	1.856	20.7	20.5	9 28	21 41.96	-13 13.8	2.897	3.705	10.4	20.9
511323	2014 DU ₁₂₈		8 21.7	316°65'	0°2/21.8	18	248554	2005 YW ₃₄		8 21.7	254°23'	0°9/20.5	18
7 20	22 23.66	- 8 23.9	1.560	2.448	14.5	20.8	7 20	22 23.07	-11 24.1	2.681	3.554	9.7	20.9
7 30	22 19.60	- 9 4.5	1.485	2.436	10.7	20.6	7 30	22 18.47	-12 28.4	2.588	3.535	7.0	20.7
8 9	22 13.40	- 9 59.7	1.431	2.424	6.3	20.3	8 9	22 12.49	-13 40.9	2.522	3.515	3.9	20.5
8 19	22 5.74	-11 4.7	1.402	2.413	1.4	19.9	8 19	22 5.55	-14 57.7	2.485	3.495	1.0	20.3
8 29	21 57.60	-12 12.4	1.399	2.402	3.6	20.1	8 29	21 58.28	-16 13.5	2.477	3.475	3.0	20.4
9 8	21 50.15	-13 15.3	1.421	2.391	8.4	20.3	9 8	21 51.33	-17 23.5	2.498	3.454	6.2	20.6
9 18	21 44.38	-14 7.2	1.467	2.381	12.8	20.6	9 18	21 45.35	-18 23.7	2.547	3.433	9.2	20.7
9 28	21 41.08	-14 44.0	1.533	2.371	16.6	20.8	9 28	21 40.89	-19 11.4	2.620	3.411	11.8	20.9
449015	2012 BR ₁₁₀		8 21.7	244°98'	1°1/20.4	18	402522	2006 DB ₂₀₅		8 21.7	322°45'	0°4/21.3	18
7 20	22 22.70	-12 6.3	2.353	3.234	10.5	21.0	7 20	22 26.29	-12 33.4	2.223	3.101	11.2	21.2
7 30	22 18.26	-13 4.4	2.279	3.229	7.6	20.8	7 30	22 20.86	-12 41.4	2.151	3.098	8.1	21.0
8 9	22 12.35	-14 10.3	2.229	3.223	4.3	20.6	8 9	22 13.85	-12 54.7	2.102	3.095	4.6	20.8
8 19	22 5.49	-15 19.2	2.207	3.218	1.2	20.3	8 19	22 5.84	-13 10.4	2.081	3.092	1.0	20.5
8 29	21 58.35	-16 25.9	2.214	3.212	3.3	20.5	8 29	21 57.59	-13 25.0	2.088	3.089	2.9	20.7
9 8	21 51.69	-17 25.3	2.249	3.207	6.7	20.7	9 8	21 49.93	-13 35.2	2.123	3.087	6.6	20.9
9 18	21 46.17	-18 13.8	2.310	3.201	9.8	20.9	9 18	21 43.59	-13 38.8	2.184	3.084	9.9	21.1
9 28	21 42.35	-18 49.0	2.394	3.195	12.5	21.1	9 28	21 39.11	-13 34.3	2.268	3.082	12.7	21.3
264208	2010 OC ₁₂₆		8 21.7	286°92'	0°4/21.3	18	208601	2002 CQ ₁₉₉		8 21.7	48°85'	1°5/20.5	17
7 20	22 25.79	-11 53.5	2.159	3.038	11.5	20.5	7 20	22 25.95	-10 37.0	1.123	2.029	17.5	19.7
7 30	22 20.66	-12 10.4	2.072	3.020	8.4	20.3	7 30	22 21.56	-11 52.0	1.082	2.044	12.5	19.5
8 9	22 13.82	-12 34.1	2.010	3.003	4.8	20.0	8 9	22 14.58	-13 21.7	1.061	2.059	7.0	19.2
8 19	22 5.82	-13 1.4	1.974	2.985	1.0	19.7	8 19	22 6.00	-14 56.3	1.064	2.075	1.8	18.9
8 29	21 57.45	-13 28.0	1.966	2.967	3.1	19.8	8 29	21 57.24	-16 24.2	1.090	2.091	5.2	19.2
9 8	21 49.57	-13 50.2	1.985	2.950	6.9	20.1	9 8	21 49.75	-17 35.7	1.140	2.107	10.4	19.6
9 18	21 42.98	-14 4.9	2.031	2.932	10.5	20.2	9 18	21 44.60	-18 25.5	1.212	2.124	15.1	19.9
9 28	21 38.32	-14 10.1	2.099	2.914	13.5	20.4	9 28	21 42.47	-18 52.0	1.302	2.141	18.8	20.2
45076	1999 XQ ₃₈		8 21.7	294°51'	5°5/16.7	18	448973	2011 YR ₂₀		8 21.7	109°17'	3°1/24.7	18
7 20	22 27.28	-22 58											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
381778	2009 <i>SC</i> ₃₄₆		8 21.7 277°63	1°0/20.9	18		501990	2015 <i>AP</i> ₃		8 21.7 287°37	2°1/20.1	17	
7 20	22 26.68	-11 19.9	1.618	2.506	14.1	21.4	7 20	22 26.50	-12 47.7	1.351	2.251	15.5	21.2
7 30	22 21.87	-12 6.0	1.535	2.488	10.3	21.2	7 30	22 21.99	-13 53.5	1.284	2.243	11.2	20.9
8 9	22 14.79	-13 4.3	1.474	2.469	5.9	20.9	8 9	22 14.96	-15 12.2	1.238	2.235	6.4	20.6
8 19	22 6.10	-14 9.1	1.439	2.450	1.4	20.5	8 19	22 6.18	-16 35.6	1.217	2.227	2.2	20.3
8 29	21 56.81	-15 13.2	1.430	2.430	4.2	20.7	8 29	21 56.87	-17 53.9	1.221	2.219	5.3	20.5
9 8	21 48.14	-16 9.2	1.446	2.411	9.0	20.9	9 8	21 48.44	-18 58.1	1.249	2.211	10.3	20.8
9 18	21 41.18	-16 51.7	1.487	2.391	13.4	21.1	9 18	21 42.06	-19 42.8	1.300	2.203	14.9	21.0
9 28	21 36.77	-17 17.7	1.549	2.371	17.2	21.3	9 28	21 38.58	-20 5.6	1.370	2.196	18.8	21.3
99791	2002 <i>KD</i> ₄		8 21.7 124°33	10°2/30.5	18		209143	2003 <i>SH</i> ₂₇₆		8 21.7 299°66	0°6/22.2	18	
7 20	22 32.39	+17 35.9	2.182	2.901	16.4	19.7	7 20	22 25.80	- 8 34.1	1.674	2.556	14.0	21.0
7 30	22 25.42	+18 59.2	2.113	2.912	14.5	19.6	7 30	22 21.15	- 8 52.2	1.588	2.535	10.4	20.7
8 9	22 16.56	+19 59.8	2.064	2.923	12.6	19.4	8 9	22 14.36	- 9 22.6	1.524	2.515	6.2	20.4
8 19	22 6.45	+20 34.1	2.037	2.934	11.0	19.4	8 19	22 6.05	-10 1.9	1.484	2.495	1.7	20.1
8 29	21 55.96	+20 40.8	2.034	2.945	10.2	19.3	8 29	21 57.18	-10 44.9	1.471	2.475	3.4	20.1
9 8	21 46.09	+20 22.3	2.057	2.955	10.6	19.4	9 8	21 48.88	-11 25.4	1.484	2.455	8.1	20.4
9 18	21 37.69	+19 43.4	2.103	2.965	11.9	19.5	9 18	21 42.20	-11 58.7	1.521	2.436	12.4	20.6
9 28	21 31.46	+18 51.3	2.172	2.974	13.6	19.6	9 28	21 37.92	-12 20.7	1.580	2.416	16.2	20.8
335763	2007 <i>ET</i> ₁₁₆		8 21.7 113°94	0°2/21.5	17		337253	2000 <i>SA</i> ₁₁		8 21.7 285°51	5°1/18.6	18	
7 20	22 26.83	- 9 10.2	1.770	2.649	13.5	20.8	7 20	22 38.02	-25 6.9	1.832	2.714	13.0	20.7
7 30	22 21.52	- 9 59.2	1.712	2.660	9.8	20.6	7 30	22 30.19	-25 26.8	1.735	2.680	9.9	20.5
8 9	22 14.33	-10 59.5	1.678	2.670	5.6	20.4	8 9	22 19.68	-25 42.4	1.662	2.646	6.7	20.2
8 19	22 5.98	-12 5.7	1.669	2.681	1.2	20.1	8 19	22 7.21	-25 46.7	1.615	2.611	5.1	20.1
8 29	21 57.41	-13 11.2	1.689	2.691	3.4	20.3	8 29	21 54.01	-25 33.8	1.597	2.575	7.1	20.1
9 8	21 49.64	-14 9.7	1.735	2.701	7.6	20.6	9 8	21 41.49	-25 0.6	1.605	2.539	10.8	20.2
9 18	21 43.49	-14 56.8	1.806	2.710	11.4	20.8	9 18	21 30.93	-24 7.7	1.639	2.502	14.6	20.4
9 28	21 39.57	-15 29.7	1.899	2.719	14.6	21.1	9 28	21 23.27	-22 58.1	1.693	2.465	18.0	20.5
483208	2015 <i>PR</i> ₃₁₀		8 21.7 17°10	7°9/14.5	18		12267	Denneau		8 21.7 201°71	16°6/3.6	18	
7 20	22 27.98	-32 9.5	1.864	2.757	12.3	20.1	7 20	22 30.09	+23 33.8	1.332	2.062	24.6	19.1
7 30	22 22.52	-33 21.4	1.820	2.759	9.9	19.9	7 30	22 24.92	+25 7.6	1.263	2.061	22.5	19.0
8 9	22 14.95	-34 24.1	1.799	2.762	8.2	19.9	8 9	22 16.84	+26 3.4	1.208	2.059	20.2	18.8
8 19	22 6.11	-35 9.7	1.802	2.765	8.1	19.9	8 19	22 6.62	+26 12.9	1.169	2.056	18.1	18.6
8 29	21 57.08	-35 32.5	1.831	2.768	9.6	20.0	8 29	21 55.61	+25 31.9	1.148	2.053	16.8	18.6
9 8	21 49.00	-35 30.2	1.883	2.771	12.0	20.1	9 8	21 45.41	+24 4.0	1.145	2.049	16.7	18.5
9 18	21 42.78	-35 4.0	1.957	2.775	14.4	20.3	9 18	21 37.48	+21 59.4	1.163	2.045	17.9	18.6
9 28	21 39.05	-34 17.1	2.049	2.780	16.5	20.5	9 28	21 32.87	+19 33.4	1.199	2.041	20.0	18.7
232818	2004 <i>RP</i> ₃₂₅		8 21.7 284°14	2°9/19.8	18		515209	2011 <i>WX</i> ₈₇		8 21.7 163°31	7°3/10.5	18	
7 20	22 31.64	-18 35.8	1.699	2.590	13.4	20.3	7 20	22 29.38	-41 16.3	3.168	4.018	9.0	22.8
7 30	22 25.39	-18 52.1	1.618	2.572	9.8	20.0	7 30	22 22.98	-42 35.8	3.134	4.025	7.9	22.8
8 9	22 16.78	-19 10.3	1.561	2.554	5.8	19.8	8 9	22 15.05	-43 44.1	3.124	4.031	7.3	22.7
8 19	22 6.55	-19 24.9	1.528	2.536	2.9	19.5	8 19	22 6.15	-44 36.2	3.141	4.036	7.6	22.8
8 29	21 55.80	-19 30.5	1.523	2.517	5.2	19.7	8 29	21 57.05	-45 8.4	3.184	4.041	8.5	22.8
9 8	21 45.82	-19 23.5	1.544	2.499	9.4	19.9	9 8	21 48.56	-45 19.7	3.251	4.045	9.8	22.9
9 18	21 37.69	-19 2.4	1.589	2.480	13.5	20.1	9 18	21 41.38	-45 11.0	3.339	4.049	11.1	23.0
9 28	21 32.22	-18 27.8	1.655	2.461	16.9	20.3	9 28	21 36.04	-44 44.5	3.445	4.052	12.2	23.2
217355	2004 <i>RU</i> ₂₉₀		8 21.7 346°77	0°6/21.2	18		403401	2009 <i>RW</i> ₄₄		8 21.7 313°65	1°2/20.7	17	
7 20	22 24.85	-12 24.9	1.769	2.658	13.0	19.4	7 20	22 25.01	-14 3.4	1.981	2.869	11.9	21.1
7 30	22 20.20	-12 39.5	1.699	2.652	9.4	19.2	7 30	22 20.30	-14 24.5	1.894	2.847	8.6	20.8
8 9	22 13.65	-13 1.5	1.652	2.647	5.4	18.9	8 9	22 13.74	-14 51.6	1.831	2.825	4.9	20.6
8 19	22 5.85	-13 26.9	1.630	2.642	1.2	18.6	8 19	22 5.91	-15 20.8	1.793	2.804	1.4	20.3
8 29	21 57.74	-13 51.0	1.635	2.637	3.5	18.8	8 29	21 57.64	-15 47.3	1.783	2.783	3.7	20.4
9 8	21 50.34	-14 9.4	1.666	2.633	7.7	19.1	9 8	21 49.90	-16 6.8	1.800	2.762	7.7	20.6
9 18	21 44.51	-14 18.9	1.722	2.630	11.6	19.3	9 18	21 43.54	-16 16.4	1.842	2.742	11.4	20.8
9 28	21 40.91	-14 17.6	1.799	2.628	14.9	19.5	9 28	21 39.27	-16 14.3	1.905	2.722	14.6	21.0
513845	2013 <i>GD</i> ₅₇		8 21.7 175°60	1°3/23.2	18		428531	2008 <i>AE</i> ₁₀₃		8 21.7 256°61	1°2/22.5	17	
7 20	22 23.12	- 4 31.0	2.471	3.325	11.0	21.9	7 20	22 30.23	- 7 35.8	1.605	2.479	14.9	21.8
7 30	22 18.47	- 5 8.2	2.395	3.326	8.2	21.7	7 30	22 24.47	- 7 44.0	1.520	2.463	11.2	21.6
8 9	22 12.46	- 5 56.9	2.344	3.327	5.1	21.5	8 9	22 16.33	- 8 5.1	1.457	2.446	6.8	21.3
8 19	22 5.59	- 6 54.2	2.320	3.328	2.0	21.3	8 19	22 6.49	- 8 36.0	1.419	2.429	2.2	20.9
8 29	21 58.49	- 7 55.9	2.325	3.328	2.4	21.3	8 29	21 56.04	- 9 11.8	1.408	2.411	3.6	21.0
9 8	21 51.85	- 8 57.2	2.359	3.329	5.6	21.5	9 8	21 46.24	- 9 46.6	1.423	2.393	8.4	21.2
9 18	21 46.31	- 9 53.7	2.420	3.329	8.7	21.7	9 18	21 38.23	-10 15.6	1.462	2.375	13.0	21.5
9 28	21 42.35	-10 42.2	2.505	3.328	11.4	21.9	9 28	21 32.87	-10 34.8	1.523	2.356	16.9	21.7
268306	2005 <i>QJ</i> ₁₂₃		8 21.7 338°30	0°7/22.2	18		455113	2015 <i>VZ</i> ₇		8 21.7 25°89	0°1/21.7	18	
7 20	22 25.81	- 8 6.6	1.362	2.253	16.0	20.5	7 20	22 25.54	-10 35.5	1.814	2.698	13.0	20.4
7 30	22 21.37	- 8 29.7	1.296	2.248	11.9	20.2	7 30	22 20.56	-10 47.8	1.755	2.704	9.5	20.2
8 9	22 14.53	- 9 7.9	1.250	2.243	7.0	20.0	8 9	22 13.78	-11 8.5	1.718	2.711	5.5	20.0
8 19	22 6.07	- 9 56.6	1.228	2.239	1.9	19.6	8 19	22 5.89	-11 34.0	1.707	2.718	1.2	19.7
8 29	21 57.18	-10 48.8	1.231	2.235	3.8	19.7	8 29	21 57.81	-11 59.8	1.723	2.726	3.1	19.9
9 8	21 49.16	-11 37.2	1.258	2.232	8.9	20.0	9 8	21 50.50	-12 21.5	1.765	2.734	7.2	20.1
9 18	21 43.13	-12 15.8	1.309	2.229	13.6	20.3	9 18	21 44.74	-12 36.1	1.832	2.742	10.9	20.4
9 28	21 39.86	-12 40.7	1.379	2.226	17.5	20.6	9 28	21 41.13	-12 41.3	1.922	2.751	14.0	20.6
351897	2006 <i>SF</i> ₂₄₁		8 21.7 244°49	1°4/20.4	18		292400	2006 <i>SH</i> ₂₇₉					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
264157	2009 <i>YM</i>	8 21.7 285°50		2°3/25.7 17		R	429502	2011 <i>BZ</i> ₂	8 21.7 151°50		1°1/20.8 17		
7 20	22 17.44	+ 1 19.7	4.325	5.140	7.4	20.1	7 20	22 30.20	-12 59.8	1.836	2.716	13.0	22.4
7 30	22 13.94	+ 1 11.8	4.235	5.133	5.8	19.9	7 30	22 23.96	-13 33.6	1.775	2.724	9.4	22.1
8 9	22 9.71	+ 0 55.7	4.170	5.127	4.1	19.8	8 9	22 15.77	-14 14.5	1.737	2.730	5.3	21.9
8 19	22 5.01	+ 0 32.5	4.132	5.121	2.7	19.7	8 19	22 6.37	-14 57.2	1.726	2.737	1.4	21.7
8 29	22 0.19	+ 0 3.4	4.123	5.115	2.4	19.7	8 29	21 56.73	-15 36.4	1.743	2.742	3.8	21.9
9 8	21 55.60	- 0 29.5	4.143	5.109	3.6	19.8	9 8	21 47.92	-16 7.1	1.787	2.748	7.9	22.1
9 18	21 51.55	- 1 4.0	4.192	5.103	5.3	19.9	9 18	21 40.79	-16 26.5	1.857	2.752	11.6	22.4
9 28	21 48.35	- 1 37.9	4.267	5.096	6.9	20.0	9 28	21 35.98	-16 33.2	1.948	2.756	14.7	22.6
286598	2002 <i>CF</i> ₃₀₃	8 21.7 258°40		0°5/21.3 18			180409	2004 <i>BX</i> ₃₇	8 21.7 124°75		0°3/21.9 18		
7 20	22 29.33	-12 15.6	1.760	2.642	13.4	21.3	7 20	22 30.97	-10 11.3	1.570	2.450	14.9	20.1
7 30	22 23.53	-12 29.0	1.684	2.634	9.8	21.1	7 30	22 24.77	-10 19.4	1.508	2.456	10.9	19.8
8 9	22 15.64	-12 49.9	1.632	2.625	5.6	20.8	8 9	22 16.34	-10 37.3	1.469	2.461	6.3	19.6
8 19	22 6.33	-13 14.2	1.605	2.616	1.2	20.5	8 19	22 6.50	-11 1.0	1.455	2.466	1.5	19.3
8 29	21 56.63	-13 37.2	1.605	2.607	3.6	20.7	8 29	21 56.39	-11 25.5	1.467	2.470	3.5	19.4
9 8	21 47.65	-13 54.3	1.633	2.598	8.0	20.9	9 8	21 47.23	-11 45.9	1.506	2.475	8.2	19.7
9 18	21 40.36	-14 2.5	1.685	2.589	12.1	21.1	9 18	21 40.00	-11 58.6	1.570	2.479	12.4	20.0
9 28	21 35.48	-14 0.1	1.758	2.580	15.5	21.3	9 28	21 35.40	-12 1.3	1.654	2.484	15.9	20.2
481706	2008 <i>CT</i> ₃₅	8 21.7 225°26		0°2/21.5 18			309636	2008 <i>CO</i> ₁₆₅	8 21.7 122°72		1°2/22.8 18		
7 20	22 27.79	-11 44.3	2.272	3.144	11.2	22.0	7 20	22 25.03	- 6 23.0	2.256	3.117	11.7	21.4
7 30	22 21.98	-11 54.5	2.194	3.138	8.1	21.8	7 30	22 19.93	- 6 43.6	2.189	3.124	8.6	21.3
8 9	22 14.56	-12 10.7	2.141	3.132	4.7	21.5	8 9	22 13.35	- 7 14.4	2.145	3.131	5.3	21.1
8 19	22 6.08	-12 29.9	2.115	3.126	1.0	21.3	8 19	22 5.84	- 7 52.5	2.129	3.138	1.8	20.8
8 29	21 57.33	-12 48.5	2.118	3.119	2.9	21.4	8 29	21 58.14	- 8 34.1	2.141	3.144	2.6	20.9
9 8	21 49.14	-13 3.2	2.149	3.113	6.5	21.6	9 8	21 51.02	- 9 14.7	2.181	3.150	6.0	21.2
9 18	21 42.25	-13 11.5	2.206	3.105	9.8	21.8	9 18	21 45.14	- 9 50.8	2.247	3.156	9.2	21.4
9 28	21 37.24	-13 11.7	2.287	3.098	12.7	22.0	9 28	21 41.03	-10 19.4	2.338	3.162	12.0	21.6
357315	2003 <i>FL</i> ₁₂₂	8 21.7 26°55		3°7/24.2 18			254916	2005 <i>SM</i> ₁₀₆	8 21.7 52°85		3°4/25.3 18		
7 20	22 27.16	- 2 53.1	1.659	2.521	15.1	20.1	7 20	22 22.78	+ 1 8.0	2.110	2.949	13.2	20.9
7 30	22 21.84	- 2 23.2	1.600	2.530	11.6	19.9	7 30	22 18.45	+ 0 44.5	2.036	2.950	10.3	20.8
8 9	22 14.57	- 2 8.0	1.563	2.540	7.8	19.7	8 9	22 12.57	+ 0 3.9	1.983	2.952	7.1	20.6
8 19	22 6.08	- 2 6.3	1.550	2.550	4.4	19.6	8 19	22 5.69	- 0 51.7	1.956	2.953	4.2	20.4
8 29	21 57.39	- 2 15.5	1.562	2.561	4.3	19.6	8 29	21 58.55	- 1 58.0	1.957	2.955	3.7	20.4
9 8	21 49.54	- 2 31.4	1.601	2.573	7.5	19.8	9 8	21 51.95	- 3 9.5	1.984	2.956	6.3	20.5
9 18	21 43.39	- 2 49.5	1.664	2.585	11.1	20.1	9 18	21 46.59	- 4 20.3	2.039	2.958	9.5	20.7
9 28	21 39.56	- 3 5.5	1.750	2.598	14.4	20.3	9 28	21 43.04	- 5 25.0	2.117	2.959	12.4	20.9
516118	2015 <i>UY</i> ₅₄	8 21.7 216°15		1°0/20.6 18			224196	2005 <i>RM</i> ₂₁	8 21.7 37°77		4°3/24.6 18		
7 20	22 24.09	-13 27.0	2.558	3.436	9.9	22.1	7 20	22 27.26	- 1 10.6	1.371	2.237	17.4	19.9
7 30	22 19.17	-14 0.7	2.484	3.432	7.1	21.9	7 30	22 22.30	- 0 59.1	1.312	2.243	13.5	19.7
8 9	22 12.89	-14 39.5	2.435	3.429	4.0	21.7	8 9	22 15.02	- 1 7.9	1.273	2.250	9.2	19.5
8 19	22 5.72	-15 19.8	2.415	3.425	1.1	21.5	8 19	22 6.23	- 1 35.2	1.256	2.257	5.2	19.3
8 29	21 58.33	-15 57.7	2.422	3.421	3.0	21.6	8 29	21 57.14	- 2 16.4	1.264	2.264	4.8	19.3
9 8	21 51.42	-16 29.6	2.459	3.417	6.2	21.8	9 8	21 49.00	- 3 4.8	1.297	2.272	8.5	19.5
9 18	21 45.61	-16 52.9	2.522	3.413	9.1	22.0	9 18	21 42.86	- 3 53.1	1.353	2.280	12.7	19.8
9 28	21 41.39	-17 6.0	2.608	3.408	11.6	22.2	9 28	21 39.44	- 4 35.1	1.430	2.288	16.4	20.1
360985	2005 <i>UJ</i> ₃₂₇	8 21.7 109°47		5°1/16.7 18			171403	2006 <i>QV</i> ₁₃₆	8 21.7 20°33		0°8/22.3 18		
7 20	22 27.34	-26 22.9	2.256	3.147	10.6	20.9	7 20	22 26.20	- 8 24.4	1.746	2.624	13.7	19.7
7 30	22 21.68	-27 16.2	2.204	3.151	8.0	20.8	7 30	22 21.17	- 8 38.1	1.680	2.626	10.1	19.5
8 9	22 14.37	-28 5.5	2.177	3.156	5.8	20.6	8 9	22 14.23	- 9 2.9	1.637	2.628	6.0	19.2
8 19	22 6.04	-28 45.2	2.176	3.161	5.1	20.6	8 19	22 6.06	- 9 35.1	1.620	2.630	1.7	19.0
8 29	21 57.56	-29 10.5	2.203	3.166	6.6	20.7	8 29	21 57.61	-10 10.0	1.629	2.633	3.1	19.1
9 8	21 49.79	-29 18.9	2.256	3.170	9.1	20.9	9 8	21 49.92	-10 42.4	1.665	2.635	7.4	19.3
9 18	21 43.49	-29 9.9	2.333	3.175	11.6	21.1	9 18	21 43.84	-11 8.4	1.725	2.638	11.3	19.6
9 28	21 39.19	-28 45.1	2.430	3.179	13.8	21.2	9 28	21 40.00	-11 24.8	1.807	2.641	14.6	19.8
291121	2005 <i>YB</i> ₂₀₀	8 21.7 215°84		0°8/20.8 18			309118	2006 <i>WQ</i> ₁₄₉	8 21.7 232°44		0°7/22.4 18		
7 20	22 24.06	-12 29.6	2.632	3.507	9.8	21.8	7 20	22 25.40	- 8 5.5	2.247	3.114	11.5	21.4
7 30	22 19.13	-13 4.9	2.555	3.501	7.0	21.6	7 30	22 20.29	- 8 23.5	2.169	3.108	8.5	21.2
8 9	22 12.86	-13 46.0	2.503	3.496	4.0	21.4	8 9	22 13.62	- 8 50.8	2.115	3.103	5.1	21.0
8 19	22 5.73	-14 29.4	2.479	3.490	1.0	21.1	8 19	22 5.92	- 9 24.4	2.088	3.098	1.5	20.7
8 29	21 58.36	-15 11.1	2.485	3.484	2.8	21.3	8 29	21 57.95	-10 0.5	2.089	3.092	2.6	20.8
9 8	21 51.43	-15 47.4	2.519	3.478	6.0	21.5	9 8	21 50.50	-10 34.9	2.118	3.086	6.2	21.1
9 18	21 45.56	-16 15.7	2.579	3.471	8.9	21.7	9 18	21 44.28	-11 4.2	2.174	3.080	9.6	21.3
9 28	21 41.24	-16 34.2	2.664	3.464	11.4	21.8	9 28	21 39.87	-11 25.5	2.253	3.074	12.5	21.4
434094	2002 <i>EP</i> ₅₇	8 21.7 103°24		1°7/23.3 17			223371	2003 <i>SN</i> ₄₅	8 21.7 330°84		2°8/24.9 18		
7 20	22 26.92	- 3 54.5	1.909	2.767	13.6	21.3	7 20	22 20.52	+ 0 43.1	2.097	2.942	13.1	19.5
7 30	22 21.42	- 4 31.0	1.854	2.786	10.2	21.1	7 30	22 16.89	- 0 4.9	2.015	2.935	10.1	19.3
8 9	22 14.23	- 5 21.7	1.822	2.805	6.3	20.9	8 9	22 11.72	- 1 11.7	1.955	2.928	6.8	19.1
8 19	22 6.01	- 6 22.7	1.816	2.824	2.5	20.7	8 19	22 5.52	- 2 34.2	1.921	2.922	3.7	18.9
8 29	21 57.66	- 7 28.5	1.839	2.842	3.0	20.8	8 29	21 59.01	- 4 7.2	1.915	2.916	3.2	18.9
9 8	21 50.07	- 8 32.9	1.889	2.859	6.7	21.1	9 8	21 52.99	- 5 43.8	1.936	2.910	6.3	19.0
9 18	21 44.00	- 9 30.7	1.965	2.876	10.2	21.3	9 18	21 48.15	- 7 17.0	1.984	2.904	9.7	19.2
9 28	21 39.98	-10 18.2	2.064	2.893	13.2	21.6	9 28	21 45.08	- 8 41.0	2.057	2.899	12.8	19.4
330460	2007 <i>EV</i> ₁₃₉	8 21.7 178°76		2°9/18.7 18			320773	2008 <i>EE</i> ₁₁₈	8 21.7 67°62		0°3/21.9 17		
7 20	22 26.95	-											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
449018	2012 <i>BN</i> ₁₂₇		8 21.7 134°26	1°9/23.5	18		64371	2001 <i>UH</i> ₁₁₂		8 21.7 199°02	0°6/22.3	18	
7 20	22 26.16	- 5 6.9	2.366	3.218	11.5	21.0	7 20	22 25.00	- 7 54.1	2.186	3.054	11.7	20.5
7 30	22 20.72	- 5 2.8	2.293	3.221	8.7	20.8	7 30	22 20.03	- 8 20.2	2.112	3.053	8.6	20.3
8 9	22 13.81	- 5 8.4	2.244	3.224	5.5	20.6	8 9	22 13.50	- 8 56.3	2.063	3.052	5.1	20.1
8 19	22 5.98	- 5 22.1	2.222	3.227	2.5	20.5	8 19	22 5.95	- 9 38.9	2.040	3.050	1.4	19.9
8 29	21 57.94	- 5 41.1	2.228	3.230	2.8	20.5	8 29	21 58.14	-10 23.9	2.045	3.049	2.7	20.0
9 8	21 50.45	- 6 2.1	2.263	3.233	5.8	20.7	9 8	21 50.89	-11 6.6	2.079	3.047	6.3	20.2
9 18	21 44.16	- 6 21.9	2.325	3.235	8.9	20.9	9 18	21 44.89	-11 43.2	2.138	3.045	9.7	20.4
9 28	21 39.59	- 6 37.7	2.410	3.238	11.6	21.1	9 28	21 40.73	-12 10.7	2.221	3.043	12.6	20.6
166392	2002 <i>ND</i> ₁₃		8 21.7 340°66	4°1/18.2	18		179234	2001 <i>UT</i> ₆₂		8 21.7 341°66	0°6/22.2	18	
7 20	22 19.56	-15 46.7	1.263	2.182	15.0	18.6	7 20	22 24.79	- 8 20.0	1.784	2.664	13.4	20.2
7 30	22 17.13	-17 21.5	1.197	2.165	10.8	18.3	7 30	22 20.19	- 8 41.4	1.714	2.660	9.9	19.9
8 9	22 12.28	-19 8.6	1.152	2.150	6.4	18.1	8 9	22 13.72	- 9 14.1	1.666	2.656	5.9	19.7
8 19	22 5.71	-20 57.7	1.131	2.137	4.1	17.9	8 19	22 6.02	- 9 54.6	1.643	2.653	1.6	19.4
8 29	21 58.60	-22 36.4	1.133	2.124	7.2	18.0	8 29	21 58.00	-10 37.8	1.647	2.650	3.1	19.5
9 8	21 52.29	-23 54.3	1.159	2.113	11.9	18.3	9 8	21 50.64	-11 18.2	1.677	2.648	7.3	19.8
9 18	21 47.96	-24 45.5	1.205	2.103	16.3	18.5	9 18	21 44.81	-11 51.4	1.732	2.646	11.2	20.0
9 28	21 46.47	-25 8.1	1.269	2.095	20.0	18.7	9 28	21 41.16	-12 14.1	1.809	2.644	14.6	20.2
369912	2013 <i>CQ</i> ₁₆₅		8 21.7 40°41	0°1/21.7	18		350299	2012 <i>TY</i> ₃₁₃		8 21.7 352°65	2°1/23.2	18	
7 20	22 24.21	- 9 43.4	1.882	2.763	12.7	20.4	7 20	22 20.79	- 5 8.2	1.178	2.075	17.5	19.8
7 30	22 19.56	-10 14.0	1.826	2.774	9.2	20.2	7 30	22 18.01	- 5 24.5	1.114	2.067	13.2	19.5
8 9	22 13.23	-10 54.0	1.793	2.786	5.3	20.0	8 9	22 12.77	- 6 1.4	1.069	2.060	8.3	19.2
8 19	22 5.86	-11 39.3	1.786	2.797	1.1	19.8	8 19	22 5.84	- 6 54.8	1.046	2.055	3.2	18.9
8 29	21 58.33	-12 24.5	1.807	2.810	3.0	19.9	8 29	21 58.45	- 7 57.6	1.046	2.051	4.0	18.9
9 8	21 51.53	-13 4.7	1.854	2.822	7.0	20.2	9 8	21 51.96	- 9 0.7	1.069	2.049	9.1	19.2
9 18	21 46.20	-13 36.3	1.926	2.835	10.5	20.5	9 18	21 47.51	- 9 55.8	1.113	2.048	14.1	19.5
9 28	21 42.88	-13 56.6	2.021	2.848	13.5	20.7	9 28	21 45.92	-10 36.8	1.177	2.048	18.3	19.8
391558	2007 <i>TF</i> ₈₁		8 21.7 28°81	2°0/20.2	18		180355	2003 <i>YK</i> ₇₈		8 21.7 328°13	1°4/22.6	18 R	
7 20	22 26.90	-15 9.9	1.642	2.538	13.5	20.9	7 20	22 29.61	- 7 51.8	1.407	2.289	16.1	20.1
7 30	22 21.79	-15 46.1	1.585	2.541	9.7	20.7	7 30	22 24.10	- 7 51.4	1.341	2.287	12.0	19.9
8 9	22 14.63	-16 28.2	1.550	2.545	5.5	20.4	8 9	22 16.15	- 8 4.2	1.295	2.285	7.3	19.6
8 19	22 6.18	-17 10.3	1.540	2.550	2.1	20.2	8 19	22 6.57	- 8 26.9	1.274	2.284	2.4	19.3
8 29	21 57.49	-17 46.3	1.557	2.554	4.6	20.4	8 29	21 56.58	- 8 54.5	1.278	2.282	3.7	19.4
9 8	21 49.66	-18 11.3	1.599	2.559	8.7	20.7	9 8	21 47.52	- 9 21.0	1.307	2.281	8.7	19.7
9 18	21 43.61	-18 22.7	1.665	2.564	12.5	20.9	9 18	21 40.50	- 9 41.7	1.360	2.279	13.3	19.9
9 28	21 39.97	-18 19.4	1.752	2.569	15.7	21.1	9 28	21 36.30	- 9 53.0	1.433	2.278	17.1	20.2
163027	2001 <i>XX</i> ₅₆		8 21.7 257°54	3°4/19.2	18		183683	2003 <i>YW</i> ₆		8 21.7 181°75	0°2/21.8	18	
7 20	22 29.42	-16 25.7	1.412	2.313	15.0	20.1	7 20	22 31.17	-10 3.3	1.857	2.728	13.3	21.1
7 30	22 24.16	-17 28.6	1.343	2.302	10.9	19.8	7 30	22 24.73	-10 20.4	1.787	2.730	9.8	20.9
8 9	22 16.29	-18 39.6	1.295	2.290	6.4	19.6	8 9	22 16.31	-10 46.5	1.740	2.730	5.7	20.6
8 19	22 6.59	-19 50.3	1.272	2.279	3.4	19.3	8 19	22 6.59	-11 17.8	1.719	2.730	1.3	20.3
8 29	21 56.33	-20 51.4	1.274	2.267	6.2	19.5	8 29	21 56.56	-11 49.5	1.727	2.729	3.2	20.5
9 8	21 46.92	-21 35.4	1.301	2.255	10.9	19.7	9 8	21 47.28	-12 17.1	1.762	2.728	7.5	20.8
9 18	21 39.61	-21 58.5	1.350	2.243	15.3	19.9	9 18	21 39.65	-12 37.0	1.823	2.726	11.4	21.0
9 28	21 35.27	-22 0.0	1.419	2.230	19.0	20.2	9 28	21 34.35	-12 46.9	1.906	2.723	14.6	21.2
103750	2000 <i>CZ</i> ₁₁₆		8 21.7 271°99	5°1/17.3	18		423038	2003 <i>UQ</i> ₇₈		8 21.7 5°75	2°2/22.8	17	
7 20	22 26.89	-19 56.9	1.538	2.443	13.7	18.9	7 20	22 28.59	- 7 47.5	1.093	1.991	18.5	20.1
7 30	22 22.18	-21 31.0	1.472	2.431	10.0	18.6	7 30	22 23.78	- 7 24.6	1.037	1.991	13.9	19.9
8 9	22 15.09	-23 10.4	1.429	2.420	6.5	18.4	8 9	22 16.12	- 7 16.7	0.999	1.991	8.6	19.6
8 19	22 6.33	-24 45.3	1.411	2.409	5.1	18.3	8 19	22 6.57	- 7 21.0	0.984	1.993	3.2	19.3
8 29	21 57.04	-26 5.3	1.419	2.398	7.7	18.4	8 29	21 56.62	- 7 33.0	0.991	1.995	4.3	19.4
9 8	21 48.52	-27 3.1	1.451	2.386	11.6	18.6	9 8	21 47.86	- 7 46.4	1.021	1.998	9.8	19.7
9 18	21 41.91	-27 35.4	1.506	2.375	15.3	18.8	9 18	21 41.58	- 7 56.2	1.072	2.003	14.9	20.0
9 28	21 38.04	-27 42.4	1.579	2.363	18.6	19.0	9 28	21 38.58	- 7 58.0	1.142	2.008	19.2	20.3
516281	2016 <i>WC</i> ₂₅		8 21.7 304°70	1°7/20.2	18		93540	2000 <i>UG</i> ₁₉		8 21.7 242°13	0°3/21.4	18	
7 20	22 25.40	-14 27.6	1.895	2.785	12.3	21.6	7 20	22 24.94	- 8 26.8	1.955	2.830	12.6	19.8
7 30	22 20.59	-15 7.4	1.823	2.777	8.8	21.4	7 30	22 20.29	- 9 35.9	1.874	2.819	9.2	19.5
8 9	22 13.93	-15 53.7	1.775	2.770	5.0	21.2	8 9	22 13.80	-10 58.6	1.816	2.808	5.3	19.3
8 19	22 6.05	-16 41.4	1.754	2.763	1.8	20.9	8 19	22 6.07	-12 29.6	1.786	2.797	1.1	19.0
8 29	21 57.84	-17 24.7	1.759	2.757	4.1	21.1	8 29	21 57.90	-14 1.7	1.784	2.785	3.3	19.1
9 8	21 50.27	-17 58.7	1.791	2.750	8.0	21.3	9 8	21 50.25	-15 27.5	1.809	2.773	7.5	19.3
9 18	21 44.19	-18 20.2	1.848	2.743	11.6	21.5	9 18	21 43.98	-16 41.0	1.861	2.760	11.3	19.6
9 28	21 40.25	-18 27.6	1.926	2.737	14.7	21.7	9 28	21 39.77	-17 38.5	1.935	2.748	14.6	19.7
265115	2003 <i>TF</i> ₄₇		8 21.7 258°01	1°6/23.4	18		481227	2005 <i>WP</i> ₂₉		8 21.7 110°14	5°7/27.8	18	
7 20	22 23.31	- 4 43.2	2.516	3.369	10.9	21.0	7 20	22 24.54	+ 7 43.9	2.389	3.182	13.2	20.8
7 30	22 18.68	- 4 58.6	2.432	3.361	8.2	20.8	7 30	22 19.58	+ 8 0.6	2.316	3.189	10.9	20.6
8 9	22 12.67	- 5 24.5	2.372	3.353	5.2	20.6	8 9	22 13.20	+ 7 59.7	2.264	3.196	8.5	20.5
8 19	22 5.77	- 5 58.7	2.339	3.345	2.2	20.4	8 19	22 5.91	+ 7 41.3	2.237	3.204	6.4	20.4
8 29	21 58.59	- 6 38.1	2.334	3.336	2.5	20.4	8 29	21 58.39	+ 7 7.1	2.236	3.211	5.7	20.3
9 8	21 51.85	- 7 18.7	2.358	3.328	5.6	20.6	9 8	21 51.39	+ 6 20.9	2.263	3.218	6.8	20.4
9 18	21 46.14	- 7 56.9	2.409	3.320	8.6	20.8	9 18	21 45.53	+ 5 27.5	2.316	3.225	9.0	20.6
9 28	21 42.01	- 8 29.5	2.484	3.311	11.3	21.0	9 28	21 41.36	+ 4 32.0	2.393	3.231	11.3	20.7
184954	2005 <i>WA</i> ₁₀₀		8 21.7 351°14	4°2/17.8	18		143926	2003 <i>YX</i>					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
390117	2012 VQ ₄₃		8 21.7 268°52	1°9/23.3	18		136750	1995 YL ₅		8 21.7 309°80	0°8/21.1	18	
7 20	22 25.99	- 4 49.4	1.826	2.691	13.8	21.6	7 20	22 25.07	-11 18.3	1.554	2.448	14.3	20.4
7 30	22 21.11	- 5 5.6	1.745	2.681	10.4	21.4	7 30	22 20.81	-11 55.8	1.475	2.430	10.4	20.1
8 9	22 14.31	- 5 36.1	1.686	2.671	6.6	21.2	8 9	22 14.31	-12 44.9	1.418	2.414	6.0	19.8
8 19	22 6.18	- 6 18.3	1.653	2.660	2.7	20.9	8 19	22 6.23	-13 40.6	1.386	2.397	1.3	19.5
8 29	21 57.64	- 7 7.3	1.647	2.650	3.2	20.9	8 29	21 57.62	-14 35.8	1.379	2.381	4.1	19.7
9 8	21 49.69	- 7 57.7	1.667	2.639	7.2	21.1	9 8	21 49.66	-15 23.5	1.397	2.365	8.9	19.9
9 18	21 43.22	- 8 43.9	1.713	2.629	11.2	21.4	9 18	21 43.44	-15 58.6	1.439	2.349	13.3	20.1
9 28	21 38.94	- 9 21.6	1.781	2.618	14.6	21.6	9 28	21 39.75	-16 18.1	1.501	2.334	17.1	20.3
245576	2005 UL ₂₇₄		8 21.7	1°12	1°7/22.9	18	192647	1999 RU ₇₁		8 21.7	8°25	2°1/20.3	18
7 20	22 26.93	- 7 14.2	1.816	2.688	13.6	19.6	7 20	22 25.24	-14 21.5	1.293	2.201	15.6	19.1
7 30	22 21.68	- 7 1.8	1.747	2.687	10.1	19.4	7 30	22 21.04	-14 58.7	1.240	2.202	11.2	18.9
8 9	22 14.56	- 6 59.7	1.700	2.687	6.3	19.2	8 9	22 14.41	-15 44.4	1.206	2.204	6.4	18.6
8 19	22 6.22	- 7 5.8	1.679	2.687	2.4	18.9	8 19	22 6.23	-16 31.5	1.197	2.207	2.2	18.4
8 29	21 57.61	- 7 17.0	1.684	2.687	3.1	19.0	8 29	21 57.75	-17 12.4	1.211	2.211	5.1	18.6
9 8	21 49.71	- 7 29.3	1.716	2.688	7.1	19.2	9 8	21 50.30	-17 40.8	1.249	2.215	9.9	18.9
9 18	21 43.36	- 7 39.4	1.773	2.690	10.8	19.5	9 18	21 44.94	-17 53.1	1.310	2.221	14.3	19.1
9 28	21 39.21	- 7 44.3	1.853	2.691	14.1	19.7	9 28	21 42.39	-17 48.4	1.389	2.227	18.0	19.4
46854	1998 QY ₄₂		8 21.7 117°74	1°3/22.9	18		97008	1999 TX ₂₅₁		8 21.7 282°97	8°4/14.5	18	
7 20	22 26.92	- 4 12.9	1.669	2.536	14.8	18.1	7 20	22 31.17	-32 9.0	1.759	2.650	13.0	19.3
7 30	22 21.74	- 5 12.1	1.610	2.548	11.0	17.9	7 30	22 25.23	-33 23.3	1.697	2.635	10.5	19.1
8 9	22 14.60	- 6 28.4	1.574	2.561	6.7	17.6	8 9	22 16.83	-34 29.3	1.657	2.620	8.7	19.0
8 19	22 6.23	- 7 56.5	1.563	2.573	2.3	17.4	8 19	22 6.78	-35 17.9	1.642	2.605	8.6	18.9
8 29	21 57.62	- 9 28.7	1.580	2.584	3.2	17.5	8 29	21 56.28	-35 41.7	1.652	2.590	10.4	19.0
9 8	21 49.83	-10 56.6	1.624	2.595	7.5	17.8	9 8	21 46.69	-35 37.6	1.685	2.575	13.0	19.1
9 18	21 43.72	-12 13.6	1.694	2.606	11.5	18.0	9 18	21 39.13	-35 6.4	1.739	2.560	15.8	19.3
9 28	21 39.92	-13 15.2	1.786	2.616	14.9	18.3	9 28	21 34.39	-34 11.8	1.811	2.545	18.3	19.5
298214	2002 TN ₃₅₅		8 21.7 319°66	2°8/24.2	18		444976	2008 EL ₇₇		8 21.7 18°40	5°6/17.5	18	
7 20	22 24.56	- 2 10.1	1.832	2.690	14.1	21.0	7 20	22 28.53	-25 48.9	1.753	2.652	12.6	19.9
7 30	22 20.00	- 2 26.4	1.758	2.687	10.8	20.8	7 30	22 22.93	-26 30.1	1.704	2.656	9.5	19.7
8 9	22 13.62	- 2 59.2	1.706	2.685	7.1	20.5	8 9	22 15.28	-27 6.7	1.678	2.661	6.7	19.6
8 19	22 6.03	- 3 45.8	1.679	2.683	3.6	20.3	8 19	22 6.40	-27 32.1	1.676	2.667	5.7	19.5
8 29	21 58.11	- 4 41.7	1.679	2.680	3.5	20.3	8 29	21 57.37	-27 41.0	1.701	2.672	7.4	19.6
9 8	21 50.81	- 5 41.0	1.705	2.678	7.0	20.5	9 8	21 49.31	-27 30.9	1.750	2.679	10.3	19.8
9 18	21 44.97	- 6 37.7	1.756	2.676	10.7	20.7	9 18	21 43.09	-27 2.3	1.822	2.686	13.3	20.0
9 28	21 41.23	- 7 26.8	1.831	2.674	14.0	20.9	9 28	21 39.33	-26 17.2	1.915	2.693	16.0	20.2
325466	2009 QR ₅₃		8 21.7 41°48	2°8/19.9	17		310690	2002 GP ₁₂₇		8 21.7 158°33	2°7/19.2	18	
7 20	22 28.53	-15 29.6	1.170	2.079	16.7	19.8	7 20	22 27.72	-19 39.0	2.378	3.263	10.3	20.7
7 30	22 23.42	-16 13.8	1.131	2.094	12.0	19.6	7 30	22 21.90	-20 7.5	2.315	3.265	7.4	20.5
8 9	22 15.71	-17 4.6	1.113	2.110	6.8	19.4	8 9	22 14.54	-20 36.5	2.277	3.268	4.5	20.4
8 19	22 6.47	-17 53.9	1.118	2.127	2.8	19.2	8 19	22 6.24	-21 1.8	2.266	3.270	2.7	20.2
8 29	21 57.13	-18 33.3	1.147	2.144	5.7	19.4	8 29	21 57.77	-21 19.4	2.283	3.272	4.4	20.4
9 8	21 49.13	-18 56.8	1.199	2.162	10.5	19.7	9 8	21 49.92	-21 26.7	2.329	3.273	7.3	20.5
9 18	21 43.54	-19 2.4	1.273	2.180	14.9	20.0	9 18	21 43.40	-21 22.3	2.400	3.275	10.1	20.7
9 28	21 40.96	-18 50.1	1.365	2.199	18.4	20.3	9 28	21 38.71	-21 6.4	2.494	3.276	12.6	20.9
65709	1992 RP ₁		8 21.7 355°64	1°2/22.7	18		47283	1999 VF ₁₇₃		8 21.7 64°98	6°0/17.5	18	
7 20	22 20.89	- 6 49.5	1.545	2.433	14.6	18.3	7 20	22 30.21	-22 42.3	1.354	2.261	15.1	18.5
7 30	22 17.60	- 7 12.2	1.478	2.427	10.9	18.1	7 30	22 24.61	-23 55.4	1.310	2.269	11.1	18.3
8 9	22 12.33	- 7 49.6	1.432	2.423	6.6	17.8	8 9	22 16.43	-25 7.2	1.288	2.277	7.4	18.1
8 19	22 5.76	- 8 37.9	1.409	2.419	2.1	17.5	8 19	22 6.67	-26 8.0	1.290	2.285	6.0	18.0
8 29	21 58.85	- 9 31.1	1.412	2.417	3.3	17.6	8 29	21 56.70	-26 49.1	1.316	2.294	8.3	18.2
9 8	21 52.65	-10 22.6	1.440	2.416	7.8	17.9	9 8	21 47.94	-27 6.0	1.366	2.303	12.0	18.4
9 18	21 48.07	-11 6.6	1.492	2.416	12.0	18.1	9 18	21 41.50	-26 58.5	1.438	2.311	15.7	18.7
9 28	21 45.78	-11 38.8	1.564	2.417	15.6	18.3	9 28	21 38.04	-26 29.1	1.527	2.320	18.7	18.9
276868	2004 RQ ₁₈₂		8 21.7 11°22	0°6/21.4	18		413763	2006 DX ₁₈₃		8 21.7 81°94	1°5/20.7	17	
7 20	22 31.28	-13 47.6	1.333	2.230	16.0	19.8	7 20	22 29.31	-11 52.3	1.281	2.179	16.4	20.7
7 30	22 25.33	-13 33.1	1.275	2.231	11.6	19.6	7 30	22 23.93	-12 48.0	1.233	2.191	11.8	20.5
8 9	22 16.84	-13 24.6	1.238	2.233	6.7	19.3	8 9	22 16.04	-13 55.3	1.207	2.203	6.7	20.2
8 19	22 6.74	-13 18.1	1.225	2.236	1.4	19.0	8 19	22 6.60	-15 6.3	1.204	2.215	1.8	19.9
8 29	21 56.36	-13 9.5	1.237	2.240	4.1	19.2	8 29	21 56.92	-16 11.7	1.226	2.226	4.8	20.2
9 8	21 47.12	-12 55.2	1.274	2.244	9.2	19.5	9 8	21 48.41	-17 3.9	1.273	2.238	9.8	20.5
9 18	21 40.14	-12 33.5	1.334	2.249	13.7	19.8	9 18	21 42.14	-17 38.4	1.343	2.250	14.3	20.8
9 28	21 36.13	-12 3.4	1.414	2.255	17.5	20.0	9 28	21 38.80	-17 53.9	1.431	2.261	17.9	21.1
342353	2008 TG ₁₇₀		8 21.7 247°48	5°7/15.9	18		452167	2015 RR ₇₂		8 21.7 54°97	4°5/18.0	18	
7 20	22 27.70	-24 42.8	1.951	2.846	11.7	20.4	7 20	22 29.01	-24 20.6	2.044	2.936	11.4	20.4
7 30	22 22.43	-26 11.1	1.883	2.834	8.8	20.2	7 30	22 22.99	-24 55.0	1.995	2.945	8.5	20.2
8 9	22 15.11	-27 38.9	1.840	2.822	6.4	20.1	8 9	22 15.21	-25 26.0	1.970	2.955	5.7	20.1
8 19	22 6.38	-28 58.2	1.823	2.809	5.9	20.0	8 19	22 6.39	-25 48.4	1.971	2.965	4.5	20.0
8 29	21 57.21	-30 1.1	1.834	2.796	7.8	20.1	8 29	21 57.48	-25 57.6	1.999	2.975	6.1	20.1
9 8	21 48.68	-30 42.6	1.870	2.782	10.7	20.3	9 8	21 49.42	-25 51.6	2.054	2.985	8.9	20.3
9 18	21 41.75	-31 1.0	1.929	2.768	13.7	20.4	9 18	21 42.98	-25 30.3	2.133	2.995	11.7	20.5
9 28	21 37.15	-30 57.3	2.007	2.754	16.3	20.6	9 28	21 38.70	-24 55.1	2.233	3.006	14.1	20.7
155867	2001 DO ₁₈		8 21.7 190°47	1°1/20.3	18		235343	2003 UR ₂₄₂		8 21.7 358°18	6°5/17.1	18	
7 20	22 22.9												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
279849	2000 YD ₈		8 21.7 301°63	8°2/13.8	18		280184	2002 RD ₁₈₄		8 21.8 0°65	7°5/27.0	18	
7 20	22 26.45	-28 13.5	1.588	2.493	13.3	19.9	7 20	22 22.13	+ 4 33.8	1.286	2.141	19.0	19.4
7 30	22 22.00	-30 8.4	1.529	2.480	10.5	19.7	7 30	22 18.85	+ 5 14.5	1.222	2.138	15.6	19.1
8 9	22 15.08	-32 0.2	1.494	2.468	8.5	19.5	8 9	22 13.24	+ 5 29.4	1.176	2.136	11.8	18.9
8 19	22 6.45	-33 37.5	1.483	2.455	8.5	19.5	8 19	22 6.06	+ 5 17.3	1.151	2.136	8.6	18.7
8 29	21 57.27	-34 50.2	1.497	2.442	10.7	19.6	8 29	21 58.45	+ 4 40.6	1.148	2.137	7.6	18.7
9 8	21 48.92	-35 32.7	1.534	2.430	13.7	19.7	9 8	21 51.68	+ 3 45.8	1.168	2.139	9.7	18.8
9 18	21 42.53	-35 44.0	1.591	2.418	16.7	19.9	9 18	21 46.82	+ 2 41.7	1.210	2.143	13.3	19.0
9 28	21 38.96	-35 26.7	1.665	2.407	19.4	20.1	9 28	21 44.68	+ 1 37.5	1.272	2.149	16.9	19.3
440218	2004 PR ₂₁		8 21.7 6°40	0°1/21.8	18		147044	2002 RW ₇₇		8 21.8 351°01	2°3/20.5	18	
7 20	22 24.32	-11 6.1	1.416	2.314	15.1	20.2	7 20	22 23.45	-14 47.8	0.970	1.895	17.9	19.3
7 30	22 20.17	-11 9.1	1.359	2.316	11.0	20.0	7 30	22 20.45	-15 9.4	0.914	1.885	13.1	18.9
8 9	22 13.85	-11 21.9	1.323	2.318	6.4	19.7	8 9	22 14.43	-15 40.7	0.876	1.876	7.5	18.6
8 19	22 6.14	-11 40.4	1.311	2.322	1.4	19.4	8 19	22 6.35	-16 14.4	0.859	1.869	2.5	18.3
8 29	21 58.18	-11 59.4	1.323	2.327	3.6	19.6	8 29	21 57.74	-16 41.5	0.863	1.864	5.8	18.5
9 8	21 51.13	-12 14.0	1.361	2.334	8.4	19.9	9 8	21 50.32	-16 54.9	0.888	1.861	11.6	18.8
9 18	21 45.97	-12 20.6	1.421	2.341	12.7	20.2	9 18	21 45.48	-16 50.5	0.932	1.860	16.8	19.1
9 28	21 43.35	-12 16.8	1.501	2.350	16.3	20.4	9 28	21 44.06	-16 27.5	0.993	1.860	21.3	19.4
188526	2004 RR ₁₂₃		8 21.7 290°28	7°0/28.9	18		508039	2015 BN ₅₀₀		8 21.8 250°27	0°9/22.4	17	
7 20	22 23.53	+10 54.2	2.256	3.035	14.3	19.8	7 20	22 29.52	- 7 44.3	1.631	2.506	14.7	23.0
7 30	22 19.06	+11 15.5	2.172	3.030	12.1	19.6	7 30	22 23.99	- 8 5.0	1.548	2.491	11.0	22.7
8 9	22 13.04	+11 16.5	2.108	3.025	9.8	19.5	8 9	22 16.17	- 8 39.1	1.487	2.477	6.6	22.4
8 19	22 5.97	+10 56.3	2.067	3.020	7.8	19.3	8 19	22 6.72	- 9 23.1	1.452	2.462	1.9	22.1
8 29	21 58.57	+10 16.1	2.051	3.015	7.0	19.3	8 29	21 56.70	-10 11.3	1.443	2.446	3.4	22.2
9 8	21 51.63	+ 9 19.9	2.062	3.010	7.8	19.3	9 8	21 47.31	-10 57.2	1.460	2.430	8.3	22.4
9 18	21 45.86	+ 8 12.8	2.098	3.005	9.9	19.4	9 18	21 39.67	-11 35.6	1.502	2.414	12.7	22.6
9 28	21 41.86	+ 7 1.5	2.158	3.000	12.2	19.6	9 28	21 34.59	-12 2.5	1.565	2.397	16.6	22.9
351181	2004 BB ₉₈		8 21.8 211°15	0°4/22.2	18		515235	2012 BE ₁₂₁		8 21.8 186°95	0°7/22.6	18	
7 20	22 24.76	- 7 26.6	2.404	3.266	11.0	22.0	7 20	22 22.72	- 6 30.5	2.431	3.294	10.9	21.7
7 30	22 19.83	- 8 10.9	2.322	3.261	8.1	21.8	7 30	22 18.31	- 7 12.8	2.356	3.294	8.0	21.5
8 9	22 13.43	- 9 5.7	2.266	3.254	4.8	21.5	8 9	22 12.54	- 8 5.8	2.306	3.293	4.8	21.3
8 19	22 6.05	-10 7.4	2.237	3.247	1.3	21.3	8 19	22 5.88	- 9 6.0	2.283	3.293	1.5	21.1
8 29	21 58.38	-11 11.2	2.237	3.240	2.5	21.4	8 29	21 58.98	-10 8.9	2.289	3.292	2.4	21.2
9 8	21 51.16	-12 12.2	2.266	3.232	6.0	21.6	9 8	21 52.55	-11 9.6	2.323	3.292	5.8	21.4
9 18	21 45.06	-13 6.2	2.322	3.224	9.3	21.8	9 18	21 47.20	-12 4.1	2.385	3.291	8.9	21.6
9 28	21 40.65	-13 49.9	2.402	3.216	12.1	22.0	9 28	21 43.45	-12 49.1	2.470	3.290	11.6	21.8
50288	2000 CV ₂₆		8 21.8 46°11	2°5/23.3	18		67231	2000 EH		8 21.8 291°97	0°4/21.3	18	
7 20	22 30.89	- 6 21.2	1.633	2.501	15.0	17.9	7 20	22 23.22	-10 29.8	2.230	3.108	11.2	20.0
7 30	22 24.60	- 5 51.2	1.576	2.513	11.3	17.7	7 30	22 18.89	-11 10.5	2.145	3.092	8.1	19.8
8 9	22 16.26	- 5 32.7	1.541	2.525	7.1	17.5	8 9	22 12.98	-12 0.3	2.084	3.076	4.7	19.5
8 19	22 6.67	- 5 24.2	1.531	2.537	3.2	17.3	8 19	22 6.00	-12 55.3	2.049	3.061	1.0	19.2
8 29	21 56.89	- 5 22.8	1.547	2.549	3.6	17.3	8 29	21 58.66	-13 50.5	2.043	3.045	3.0	19.4
9 8	21 48.06	- 5 25.1	1.591	2.562	7.6	17.6	9 8	21 51.77	-14 41.0	2.065	3.029	6.7	19.6
9 18	21 41.08	- 5 27.5	1.659	2.575	11.4	17.9	9 18	21 46.05	-15 22.8	2.112	3.013	10.1	19.8
9 28	21 36.57	- 5 26.7	1.749	2.589	14.7	18.1	9 28	21 42.11	-15 53.1	2.182	2.998	13.1	19.9
315057	2007 DG ₁₆		8 21.8 204°11	1°6/20.0	18		523009	2016 PZ ₁₂₁		8 21.8 354°65	9°9/14.9	17	
7 20	22 23.67	-13 45.1	2.314	3.198	10.6	21.0	7 20	22 31.08	-32 46.5	1.378	2.280	15.2	20.9
7 30	22 19.08	-14 43.6	2.245	3.197	7.6	20.8	7 30	22 25.50	-33 59.5	1.333	2.277	12.3	20.7
8 9	22 13.00	-15 48.5	2.201	3.195	4.3	20.6	8 9	22 17.10	-35 0.5	1.309	2.275	10.2	20.6
8 19	22 5.96	-16 54.9	2.184	3.194	1.6	20.4	8 19	22 6.91	-35 38.8	1.307	2.273	10.0	20.6
8 29	21 58.66	-17 57.4	2.196	3.192	3.6	20.6	8 29	21 56.46	-35 46.8	1.328	2.272	11.9	20.7
9 8	21 51.88	-18 51.2	2.236	3.190	6.9	20.8	9 8	21 47.34	-35 22.5	1.370	2.271	14.7	20.9
9 18	21 46.29	-19 32.9	2.302	3.188	10.0	21.0	9 18	21 40.73	-34 28.8	1.432	2.271	17.6	21.1
9 28	21 42.43	-20 0.8	2.390	3.186	12.7	21.2	9 28	21 37.36	-33 11.3	1.511	2.272	20.3	21.3
322680	1999 VF ₃		8 21.8 74°44	5°2/25.8	17		249375	2009 BK ₃		8 21.8 269°07	3°5/24.8	18	
7 20	22 26.76	+ 2 45.2	1.440	2.288	17.7	21.0	7 20	22 25.30	- 0 14.6	1.905	2.751	14.1	20.7
7 30	22 21.91	+ 2 40.0	1.380	2.297	14.0	20.8	7 30	22 20.62	- 0 23.5	1.818	2.738	11.0	20.5
8 9	22 14.86	+ 2 10.4	1.340	2.307	9.9	20.6	8 9	22 14.09	- 0 49.8	1.754	2.726	7.6	20.2
8 19	22 6.38	+ 1 18.3	1.322	2.316	6.3	20.4	8 19	22 6.28	- 1 31.8	1.714	2.713	4.3	20.0
8 29	21 57.60	+ 0 8.9	1.329	2.325	5.4	20.4	8 29	21 58.02	- 2 25.8	1.701	2.700	4.0	20.0
9 8	21 49.72	- 1 9.4	1.361	2.335	8.4	20.6	9 8	21 50.27	- 3 26.2	1.715	2.687	7.1	20.1
9 18	21 43.72	- 2 28.1	1.418	2.344	12.3	20.8	9 18	21 43.91	- 4 26.9	1.755	2.674	10.7	20.3
9 28	21 40.32	- 3 39.3	1.495	2.353	15.9	21.1	9 28	21 39.63	- 5 22.3	1.817	2.661	14.1	20.5
510895	2013 CA ₁₈₁		8 21.8 72°53	2°8/24.2	18		198133	2004 TX ₃₃		8 21.8 319°33	2°3/20.1	18	
7 20	22 26.36	- 2 39.7	2.089	2.938	12.9	20.8	7 20	22 25.70	-14 29.2	1.444	2.346	14.6	19.8
7 30	22 21.02	- 2 34.3	2.025	2.949	9.9	20.6	7 30	22 21.42	-15 14.8	1.372	2.332	10.6	19.5
8 9	22 14.09	- 2 41.7	1.985	2.960	6.5	20.4	8 9	22 14.75	-16 9.5	1.323	2.319	6.1	19.2
8 19	22 6.19	- 3 0.2	1.970	2.972	3.5	20.3	8 19	22 6.44	-17 6.6	1.297	2.307	2.3	18.9
8 29	21 58.11	- 3 26.7	1.983	2.983	3.4	20.3	8 29	21 57.61	-17 58.3	1.297	2.295	5.1	19.1
9 8	21 50.68	- 3 57.1	2.024	2.994	6.3	20.5	9 8	21 49.57	-18 37.6	1.321	2.283	9.8	19.3
9 18	21 44.61	- 4 27.4	2.091	3.006	9.5	20.7	9 18	21 43.42	-19 0.1	1.368	2.272	14.2	19.6
9 28	21 40.44	- 4 53.8	2.181	3.017	12.3	20.9	9 28	21 40.00	-19 4.3	1.434	2.262	18.0	19.8
444981	2008 ET ₁₆₁		8 21.8 65°18	1°7/23.4	15		270216	2001 TA ₁₄₆		8 21.8 307°25	2°7/19.8	18	
7 20	22 23.99	- 4 23.											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
285416	1999 VX ₄₂		8 21.8 226°03	0°9/20.8	18		104332	2000 FD ₉		8 21.8 81°61	1°4/22.8	17	
7 20	22 24.39	-12 42.0	2.577	3.452	9.9	21.9	7 20	22 28.32	-6 2.4	1.534	2.409	15.5	20.1
7 30	22 19.51	-13 19.5	2.498	3.445	7.2	21.7	7 30	22 22.89	-6 28.3	1.481	2.424	11.5	19.9
8 9	22 13.24	-14 2.9	2.445	3.438	4.1	21.5	8 9	22 15.37	-7 9.1	1.450	2.438	6.9	19.7
8 19	22 6.07	-14 48.5	2.420	3.431	1.1	21.3	8 19	22 6.57	-8 0.4	1.443	2.453	2.4	19.4
8 29	21 58.65	-15 32.2	2.424	3.423	2.9	21.4	8 29	21 57.57	-8 55.8	1.463	2.467	3.3	19.5
9 8	21 51.66	-16 10.3	2.456	3.415	6.1	21.6	9 8	21 49.52	-9 48.6	1.509	2.481	7.8	19.8
9 18	21 45.75	-16 39.9	2.515	3.407	9.1	21.8	9 18	21 43.33	-10 33.3	1.579	2.495	11.9	20.1
9 28	21 41.42	-16 59.1	2.597	3.398	11.6	21.9	9 28	21 39.62	-11 6.3	1.670	2.509	15.4	20.4
186385	2002 JX ₉₈		8 21.8 15°49	2°0/19.5	18		72316	2001 BX ₄₄		8 21.8 200°80	2°7/19.4	18	
7 20	22 22.04	-12 49.0	1.953	2.844	11.9	19.3	7 20	22 29.54	-15 51.2	1.888	2.774	12.5	19.5
7 30	22 18.15	-14 19.8	1.891	2.847	8.5	19.1	7 30	22 23.72	-16 57.5	1.818	2.770	9.0	19.3
8 9	22 12.59	-15 59.8	1.853	2.849	4.8	18.9	8 9	22 15.88	-18 10.0	1.772	2.766	5.2	19.1
8 19	22 5.94	-17 42.2	1.843	2.852	2.0	18.7	8 19	22 6.70	-19 22.3	1.754	2.761	2.7	18.9
8 29	21 59.00	-19 19.0	1.860	2.855	4.4	18.9	8 29	21 57.14	-20 26.9	1.763	2.755	5.0	19.1
9 8	21 52.66	-20 43.2	1.905	2.858	8.0	19.1	9 8	21 48.24	-21 18.2	1.800	2.748	8.8	19.3
9 18	21 47.67	-21 50.2	1.975	2.862	11.4	19.4	9 18	21 40.95	-21 52.8	1.861	2.741	12.4	19.5
9 28	21 44.64	-22 37.8	2.067	2.865	14.3	19.6	9 28	21 35.96	-22 9.6	1.944	2.733	15.4	19.7
291222	2006 BL ₅		8 21.8 151°25	0°8/20.8	18		17574	1994 PT ₁₃		8 21.8 319°13	1°3/23.1	18	
7 20	22 23.85	-12 21.7	2.658	3.532	9.7	21.3	7 20	22 22.44	-4 42.8	1.993	2.859	12.8	18.1
7 30	22 19.01	-13 5.4	2.591	3.538	7.0	21.1	7 30	22 18.43	-5 27.6	1.915	2.853	9.6	17.9
8 9	22 12.90	-13 54.8	2.550	3.543	3.9	20.9	8 9	22 12.77	-6 27.2	1.861	2.847	5.9	17.7
8 19	22 5.99	-14 46.2	2.537	3.548	1.0	20.7	8 19	22 6.01	-7 37.9	1.832	2.841	2.1	17.4
8 29	21 58.90	-15 35.4	2.553	3.552	2.8	20.9	8 29	21 58.92	-8 53.9	1.831	2.835	2.8	17.5
9 8	21 52.28	-16 18.7	2.598	3.556	5.9	21.1	9 8	21 52.35	-10 8.9	1.858	2.830	6.6	17.7
9 18	21 46.70	-16 53.3	2.670	3.560	8.6	21.3	9 18	21 47.08	-11 17.0	1.910	2.825	10.3	17.9
9 28	21 42.65	-17 17.4	2.765	3.564	11.1	21.5	9 28	21 43.71	-12 13.7	1.986	2.820	13.5	18.1
54196	2000 HH ₇₈		8 21.8 354°35	5°7/25.0	18		511322	2014 DE ₁₂₈		8 21.8 73°33	0°8/22.5	18	
7 20	22 25.31	-0 41.4	1.175	2.053	19.0	17.6	7 20	22 25.15	-6 49.6	1.817	2.690	13.5	21.2
7 30	22 21.39	-0 0.6	1.112	2.047	15.0	17.3	7 30	22 20.42	-7 28.5	1.755	2.698	9.9	21.0
8 9	22 14.84	+0 18.7	1.066	2.043	10.6	17.1	8 9	22 13.90	-8 20.4	1.717	2.706	5.9	20.8
8 19	22 6.48	+0 16.1	1.042	2.040	6.6	16.8	8 19	22 6.26	-9 20.8	1.704	2.714	1.7	20.5
8 29	21 57.61	-0 5.6	1.040	2.038	6.1	16.8	8 29	21 58.37	-10 23.9	1.718	2.721	3.0	20.7
9 8	21 49.69	-0 40.0	1.060	2.037	9.7	17.0	9 8	21 51.20	-11 23.5	1.759	2.729	7.1	20.9
9 18	21 43.94	-1 19.6	1.102	2.037	14.1	17.3	9 18	21 45.54	-12 14.4	1.825	2.737	10.8	21.2
9 28	21 41.22	-1 56.6	1.163	2.039	18.2	17.5	9 28	21 41.98	-12 53.3	1.914	2.745	14.0	21.4
345085	2005 LJ ₂₁		8 21.8 157°58	5°6/28.2	16		72288	2001 BC ₁₃		8 21.8 165°64	6°2/27.8	18	
7 20	22 25.95	+9 19.3	2.604	3.379	12.7	21.9	7 20	22 27.16	+8 25.2	2.200	2.989	14.3	19.7
7 30	22 20.56	+9 26.0	2.526	3.387	10.6	21.7	7 30	22 21.69	+8 43.6	2.122	2.993	11.9	19.5
8 9	22 13.82	+9 15.2	2.470	3.394	8.3	21.6	8 9	22 14.59	+8 42.4	2.066	2.997	9.3	19.4
8 19	22 6.21	+8 46.9	2.440	3.400	6.3	21.5	8 19	22 6.41	+8 21.5	2.034	3.000	7.1	19.2
8 29	21 58.37	+8 3.0	2.436	3.406	5.6	21.4	8 29	21 57.94	+7 42.5	2.029	3.002	6.3	19.2
9 8	21 51.00	+7 7.3	2.461	3.412	6.6	21.5	9 8	21 50.02	+6 49.7	2.051	3.004	7.5	19.3
9 18	21 44.72	+6 4.5	2.512	3.417	8.6	21.7	9 18	21 43.38	+5 48.6	2.098	3.006	9.8	19.4
9 28	21 40.03	+4 59.9	2.589	3.421	10.8	21.8	9 28	21 38.61	+4 45.2	2.170	3.007	12.4	19.6
337126	1999 TQ ₆₁		8 21.8 33°35	5°5/19.4	18		298235	2002 VC ₄		8 21.8 314°29	2°3/23.6	18	
7 20	22 35.20	-24 0.4	1.133	2.042	17.2	18.8	7 20	22 24.75	-4 16.7	1.735	2.603	14.3	20.5
7 30	22 28.16	-24 6.1	1.104	2.064	12.6	18.6	7 30	22 20.36	-4 27.4	1.655	2.592	10.9	20.2
8 9	22 18.37	-24 5.8	1.096	2.087	8.0	18.5	8 9	22 14.01	-4 53.3	1.598	2.581	7.0	20.0
8 19	22 7.16	-23 52.8	1.110	2.112	5.5	18.4	8 19	22 6.32	-5 31.9	1.564	2.571	3.1	19.7
8 29	21 56.20	-23 22.7	1.149	2.137	7.6	18.6	8 29	21 58.19	-6 18.7	1.557	2.561	3.4	19.7
9 8	21 47.04	-22 35.3	1.211	2.163	11.6	18.9	9 8	21 50.67	-7 7.8	1.577	2.551	7.4	20.0
9 18	21 40.69	-21 33.4	1.294	2.191	15.5	19.2	9 18	21 44.66	-7 53.6	1.621	2.541	11.4	20.2
9 28	21 37.62	-20 20.5	1.396	2.218	18.7	19.5	9 28	21 40.89	-8 31.4	1.686	2.532	14.9	20.4
347259	2011 KS ₁₇		8 21.8 35°40	4°4/18.1	18		96542	1998 SA ₄₄		8 21.8 350°49	0°8/21.2	18	
7 20	22 27.51	-20 14.6	1.639	2.540	13.2	20.4	7 20	22 23.52	-12 16.6	1.642	2.537	13.5	18.9
7 30	22 22.42	-21 23.6	1.584	2.541	9.6	20.2	7 30	22 19.50	-12 39.7	1.574	2.530	9.8	18.6
8 9	22 15.17	-22 34.8	1.551	2.543	6.1	20.0	8 9	22 13.50	-13 11.5	1.528	2.524	5.6	18.4
8 19	22 6.53	-23 40.1	1.544	2.544	4.5	19.9	8 19	22 6.20	-13 47.3	1.507	2.518	1.3	18.1
8 29	21 57.59	-24 31.9	1.562	2.545	6.7	20.0	8 29	21 58.55	-14 21.6	1.512	2.513	3.7	18.2
9 8	21 49.51	-25 4.9	1.606	2.547	10.3	20.2	9 8	21 51.62	-14 49.1	1.541	2.510	8.1	18.5
9 18	21 43.27	-25 17.2	1.673	2.548	13.7	20.4	9 18	21 46.32	-15 6.2	1.595	2.507	12.1	18.7
9 28	21 39.55	-25 9.6	1.760	2.550	16.7	20.7	9 28	21 43.31	-15 10.6	1.670	2.505	15.5	19.0
145965	1999 YM ₈		8 21.8 173°39	1°1/20.8	18		4092	Tyr		8 21.8 340°35	3°9/24.2	18	
7 20	22 29.24	-12 16.6	1.802	2.684	13.2	21.5	7 20	22 21.97	-3 23.7	1.200	2.090	17.8	16.1
7 30	22 23.47	-13 1.6	1.737	2.686	9.5	21.3	7 30	22 19.04	-3 5.4	1.126	2.072	13.8	15.8
8 9	22 15.70	-13 55.1	1.695	2.688	5.4	21.0	8 9	22 13.57	-3 6.7	1.070	2.055	9.3	15.5
8 19	22 6.64	-14 51.7	1.679	2.690	1.4	20.8	8 19	22 6.26	-3 26.6	1.034	2.039	4.9	15.2
8 29	21 57.28	-15 45.1	1.691	2.691	3.9	20.9	8 29	21 58.31	-4 1.1	1.022	2.025	4.8	15.2
9 8	21 48.67	-16 29.6	1.730	2.691	8.0	21.2	9 8	21 51.12	-4 43.3	1.032	2.012	9.3	15.4
9 18	21 41.72	-17 1.5	1.795	2.691	11.8	21.4	9 18	21 45.95	-5 25.5	1.063	2.001	14.2	15.6
9 28	21 37.08	-17 19.0	1.881	2.691	15.1	21.7	9 28	21 43.74	-6 0.5	1.114	1.992	18.6	15.9
128921	2004 TT ₆₆		8 21.8 28°41	0°4/22.1	18		262730	2006 XV ₃₇		8 21.8 29°20	3°7/18.0	18	
7 20	22 23.77	-7 11.4	1.357	2.248	16.0	19.0	7 20	22 24.37	-19 10.6				

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
217323	2004 <i>PV</i> ₁₀₈		8 21.8	20°40'	0°4'/22.2	18	93877	2000 <i>WS</i> ₁₂₇		8 21.8	296°78'	1°9'/23.3	18
7 20	22 21.17	- 6 23.9	1.643	2.527	14.2	19.3	7 20	22 26.39	- 5 12.1	1.666	2.537	14.6	19.5
7 30	22 17.70	- 7 28.1	1.586	2.534	10.4	19.1	7 30	22 21.62	- 5 24.6	1.590	2.529	11.1	19.2
8 9	22 12.40	- 8 48.0	1.551	2.543	6.1	18.9	8 9	22 14.79	- 5 51.9	1.536	2.522	6.9	19.0
8 19	22 5.95	-10 17.5	1.541	2.552	1.5	18.6	8 19	22 6.55	- 6 31.3	1.507	2.514	2.8	18.7
8 29	21 59.25	-11 48.8	1.558	2.562	3.2	18.7	8 29	21 57.89	- 7 17.7	1.503	2.507	3.3	18.7
9 8	21 53.28	-13 13.7	1.601	2.572	7.5	19.0	9 8	21 49.89	- 8 5.1	1.526	2.500	7.6	19.0
9 18	21 48.85	-14 25.9	1.668	2.583	11.5	19.3	9 18	21 43.52	- 8 48.1	1.574	2.493	11.8	19.2
9 28	21 46.56	-15 21.4	1.758	2.595	14.8	19.5	9 28	21 39.50	- 9 21.9	1.643	2.486	15.4	19.4
514810	2007 <i>TO</i> ₂₆₆		8 21.8	274°67'	2°2'/23.9	18	171784	2001 <i>BV</i> ₆₇		8 21.8	161°41'	0°2'/21.7	17
7 20	22 24.21	- 2 6.3	1.945	2.799	13.5	22.0	7 20	22 32.17	-10 36.9	2.222	3.084	11.8	21.4
7 30	22 19.89	- 2 47.8	1.851	2.780	10.4	21.7	7 30	22 25.22	-11 2.6	2.155	3.094	8.6	21.2
8 9	22 13.74	- 3 47.4	1.780	2.760	6.7	21.5	8 9	22 16.60	-11 35.6	2.113	3.102	4.9	21.0
8 19	22 6.28	- 5 2.2	1.735	2.740	3.1	21.2	8 19	22 6.92	-12 12.0	2.099	3.110	1.1	20.7
8 29	21 58.31	- 6 26.9	1.717	2.720	3.1	21.2	8 29	21 57.03	-12 47.6	2.115	3.116	2.9	20.9
9 8	21 50.79	- 7 54.3	1.727	2.700	7.0	21.4	9 8	21 47.83	-13 18.4	2.159	3.122	6.6	21.1
9 18	21 44.57	- 9 17.4	1.763	2.679	10.9	21.6	9 18	21 40.06	-13 41.4	2.231	3.126	9.9	21.4
9 28	21 40.39	-10 30.2	1.822	2.659	14.4	21.7	9 28	21 34.30	-13 54.8	2.327	3.129	12.8	21.6
47221	1999 <i>VM</i> ₄		8 21.8	42°57'	6°8'/17.3	18	112850	2002 <i>QX</i> ₂₂		8 21.8	91°07'	0°3'/21.6	18
7 20	22 30.38	-23 58.0	1.233	2.144	15.9	18.5	7 20	22 27.28	-10 40.1	1.830	2.711	13.1	19.8
7 30	22 24.97	-25 10.8	1.192	2.152	11.8	18.3	7 30	22 22.00	-11 7.0	1.768	2.716	9.5	19.6
8 9	22 16.81	-26 20.5	1.173	2.161	8.1	18.1	8 9	22 14.86	-11 43.0	1.728	2.720	5.5	19.4
8 19	22 6.94	-27 16.6	1.176	2.170	6.9	18.0	8 19	22 6.54	-12 23.7	1.714	2.725	1.2	19.1
8 29	21 56.88	-27 50.1	1.203	2.179	9.2	18.2	8 29	21 57.98	-13 3.7	1.728	2.730	3.2	19.3
9 8	21 48.17	-27 56.9	1.252	2.189	12.9	18.4	9 8	21 50.17	-13 38.3	1.768	2.735	7.4	19.6
9 18	21 41.96	-27 37.7	1.322	2.198	16.6	18.7	9 18	21 43.92	-14 3.6	1.834	2.740	11.1	19.8
9 28	21 38.93	-26 56.1	1.410	2.209	19.7	19.0	9 28	21 39.85	-14 17.6	1.921	2.744	14.3	20.0
321571	2009 <i>SS</i> ₃₆₂		8 21.8	300°76'	0°4'/21.4	18	165074	2000 <i>FB</i> ₄₀		8 21.8	226°92'	0°9'/22.8	18
7 20	22 25.02	-11 39.9	2.214	3.092	11.2	20.8	7 20	22 25.18	- 5 59.1	2.342	3.200	11.4	20.9
7 30	22 20.19	-11 59.3	2.134	3.081	8.2	20.6	7 30	22 20.27	- 6 39.9	2.256	3.190	8.5	20.7
8 9	22 13.76	-12 25.6	2.078	3.070	4.7	20.3	8 9	22 13.82	- 7 32.7	2.194	3.179	5.2	20.4
8 19	22 6.27	-12 55.5	2.049	3.060	1.0	20.0	8 19	22 6.32	- 8 33.9	2.159	3.168	1.7	20.2
8 29	21 58.47	-13 24.9	2.047	3.049	2.9	20.2	8 29	21 58.49	- 9 39.1	2.153	3.157	2.5	20.2
9 8	21 51.18	-13 49.8	2.074	3.039	6.6	20.4	9 8	21 51.08	-10 42.9	2.176	3.144	6.1	20.5
9 18	21 45.13	-14 7.4	2.126	3.029	10.0	20.6	9 18	21 44.81	-11 40.8	2.226	3.132	9.5	20.6
9 28	21 40.91	-14 15.6	2.201	3.019	12.9	20.8	9 28	21 40.27	-12 29.0	2.300	3.119	12.4	20.8
516820	2010 <i>RO</i> ₁₁₁		8 21.8	272°16'	2°3'/24.2	18	519495	2012 <i>DR</i> ₁₀₄		8 21.8	220°34'	1°4'/23.4	18
7 20	22 23.00	- 1 49.3	2.200	3.049	12.4	21.3	7 20	22 23.68	- 4 53.8	2.722	3.572	10.2	22.4
7 30	22 18.75	- 2 21.0	2.115	3.040	9.5	21.1	7 30	22 18.95	- 5 12.9	2.638	3.566	7.7	22.2
8 9	22 12.94	- 3 7.9	2.053	3.030	6.2	20.9	8 9	22 12.95	- 5 41.6	2.579	3.560	4.8	22.0
8 19	22 6.10	- 4 7.4	2.018	3.021	3.1	20.6	8 19	22 6.12	- 6 17.9	2.547	3.553	2.0	21.8
8 29	21 58.92	- 5 15.1	2.010	3.011	3.0	20.6	8 29	21 59.04	- 6 58.7	2.544	3.547	2.3	21.8
9 8	21 52.19	- 6 25.5	2.030	3.002	6.1	20.8	9 8	21 52.36	- 7 40.3	2.570	3.540	5.2	22.0
9 18	21 46.63	- 7 33.2	2.076	2.992	9.5	21.0	9 18	21 46.64	- 8 19.4	2.624	3.533	8.1	22.2
9 28	21 42.82	- 8 33.2	2.146	2.983	12.5	21.2	9 28	21 42.38	- 8 52.9	2.702	3.525	10.6	22.4
70152	1999 <i>NX</i> ₃₃		8 21.8	49°27'	6°0'/17.6	18	482101	2010 <i>MB</i> ₄₃		8 21.8	95°44'	17°1'/3.3	16
7 20	22 29.27	-21 32.6	1.239	2.151	15.8	18.3	7 20	23 2.50	-66 1.0	2.027	2.749	17.4	20.9
7 30	22 24.17	-22 54.8	1.197	2.159	11.6	18.1	7 30	22 49.47	-67 23.3	2.029	2.759	17.1	20.9
8 9	22 16.36	-24 17.5	1.175	2.166	7.6	17.9	8 9	22 31.14	-68 11.0	2.046	2.770	17.2	21.0
8 19	22 6.86	-25 29.9	1.177	2.175	6.0	17.8	8 19	22 10.04	-68 15.2	2.079	2.780	17.5	21.0
8 29	21 57.10	-26 21.9	1.202	2.183	8.6	18.0	8 29	21 49.76	-67 33.0	2.127	2.790	18.0	21.1
9 8	21 48.61	-26 48.1	1.251	2.192	12.5	18.2	9 8	21 33.38	-66 9.2	2.190	2.800	18.6	21.2
9 18	21 42.52	-26 47.9	1.321	2.201	16.4	18.5	9 18	21 22.40	-64 12.7	2.265	2.810	19.3	21.3
9 28	21 39.55	-26 23.7	1.408	2.210	19.6	18.8	9 28	21 16.97	-61 52.8	2.352	2.820	19.8	21.4
347042	2010 <i>EN</i> ₁₁₃		8 21.8	158°67'	0°9'/21.0	16	95590	2002 <i>FQ</i> ₉		8 21.8	301°77'	12°8'/6.0	18
7 20	22 28.97	-12 44.7	2.063	2.940	12.0	21.8	7 20	22 22.58	+26 14.2	1.798	2.485	20.4	18.9
7 30	22 23.04	-13 12.6	1.998	2.945	8.6	21.6	7 30	22 18.99	+26 27.8	1.706	2.472	18.7	18.7
8 9	22 15.38	-13 46.7	1.957	2.950	4.9	21.4	8 9	22 13.36	+26 4.8	1.628	2.459	16.7	18.5
8 19	22 6.63	-14 22.9	1.943	2.954	1.2	21.2	8 19	22 6.26	+25 0.3	1.568	2.447	14.7	18.3
8 29	21 57.66	-14 56.5	1.957	2.957	3.3	21.3	8 29	21 58.63	+23 13.2	1.527	2.434	13.2	18.2
9 8	21 49.37	-15 23.5	1.999	2.961	7.1	21.6	9 8	21 51.57	+20 48.0	1.510	2.422	12.8	18.2
9 18	21 42.54	-15 41.0	2.067	2.964	10.5	21.8	9 18	21 46.05	+17 54.6	1.516	2.410	13.8	18.2
9 28	21 37.76	-15 47.5	2.158	2.966	13.5	22.0	9 28	21 42.87	+14 46.8	1.546	2.398	15.7	18.3
220558	2004 <i>HE</i> ₅		8 21.8	139°10'	0°9'/21.0	18	340530	2006 <i>JR</i> ₄₈		8 21.8	72°06'	7°4'/16.6	16
7 20	22 28.95	-11 30.7	1.733	2.615	13.6	20.9	7 20	22 34.28	-30 36.4	1.711	2.600	13.4	20.0
7 30	22 23.29	-12 15.6	1.673	2.623	9.8	20.7	7 30	22 27.14	-31 26.1	1.675	2.616	10.4	19.9
8 9	22 15.62	-13 9.8	1.637	2.630	5.6	20.4	8 9	22 17.78	-32 5.8	1.661	2.631	8.1	19.8
8 19	22 6.70	-14 7.7	1.626	2.637	1.3	20.1	8 19	22 7.17	-32 28.1	1.673	2.647	7.5	19.8
8 29	21 57.51	-15 2.8	1.643	2.644	3.7	20.3	8 29	21 56.57	-32 28.1	1.710	2.663	9.0	19.9
9 8	21 49.15	-15 49.3	1.687	2.650	8.0	20.6	9 8	21 47.23	-32 4.6	1.772	2.679	11.6	20.1
9 18	21 42.49	-16 23.2	1.755	2.655	11.9	20.9	9 18	21 40.06	-31 20.1	1.856	2.694	14.2	20.3
9 28	21 38.17	-16 42.8	1.845	2.661	15.1	21.1	9 28	21 35.63	-30 18.4	1.960	2.710	16.6	20.5
477172	2009 <i>FJ</i> ₁₅		8 21.8	347°91'	0°7'/22.4	18	31105	Oguniyamagata					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
271075	2003 <i>LS</i> ₄		8 21.8 72°58'	8°3/14.1	18		92225	2000 <i>AX</i> ₈₇		8 21.8 320°16'	5°7/25.6	17	
7 20	22 28.50	-29 2.1	1.582	2.484	13.6	19.9	7 20	22 26.94	+ 2 2.1	1.881	2.715	14.8	18.5
7 30	22 23.35	-30 57.4	1.544	2.492	10.6	19.7	7 30	22 22.00	+ 2 52.4	1.787	2.693	12.0	18.2
8 9	22 15.82	-32 45.4	1.529	2.500	8.6	19.6	8 9	22 15.06	+ 3 28.0	1.713	2.671	9.0	18.0
8 19	22 6.78	-34 15.5	1.539	2.507	8.6	19.6	8 19	22 6.68	+ 3 47.6	1.664	2.649	6.4	17.8
8 29	21 57.46	-35 18.9	1.574	2.516	10.5	19.8	8 29	21 57.72	+ 3 51.3	1.641	2.628	5.9	17.7
9 8	21 49.17	-35 51.7	1.631	2.524	13.2	19.9	9 8	21 49.20	+ 3 41.8	1.643	2.607	8.1	17.8
9 18	21 42.96	-35 54.7	1.710	2.532	16.0	20.1	9 18	21 42.06	+ 3 23.2	1.671	2.587	11.4	18.0
9 28	21 39.51	-35 31.5	1.805	2.540	18.3	20.4	9 28	21 37.09	+ 3 0.6	1.720	2.567	14.6	18.1
370622	2003 <i>YC</i> ₄₀		8 21.8 158°83'	1°9/23.1	18		59980	1999 <i>SG</i> ₆		8 21.8 242°70'	0°6/21.2	18	
7 20	22 30.80	- 6 3.1	1.664	2.530	14.9	21.1	7 20	22 23.29	-10 6.3	2.229	3.105	11.2	18.1
7 30	22 24.73	- 6 5.4	1.597	2.534	11.2	20.8	7 30	22 18.94	-11 4.9	2.156	3.103	8.1	17.9
8 9	22 16.53	- 6 20.8	1.552	2.537	6.9	20.6	8 9	22 13.06	-12 13.2	2.108	3.101	4.6	17.7
8 19	22 6.95	- 6 46.5	1.532	2.540	2.7	20.3	8 19	22 6.20	-13 26.3	2.087	3.098	1.0	17.4
8 29	21 57.04	- 7 18.0	1.539	2.543	3.4	20.4	8 29	21 59.05	-14 38.7	2.095	3.096	3.0	17.6
9 8	21 47.95	- 7 50.1	1.573	2.545	7.7	20.7	9 8	21 52.40	-15 44.8	2.130	3.093	6.6	17.8
9 18	21 40.64	- 8 18.2	1.632	2.547	11.7	20.9	9 18	21 46.95	-16 40.3	2.192	3.090	9.9	18.0
9 28	21 35.81	- 8 38.5	1.713	2.548	15.2	21.1	9 28	21 43.25	-17 22.5	2.277	3.088	12.8	18.2
79658	1998 <i>SO</i> ₂₅		8 21.8 323°79'	6°3/17.7	18		45498	2000 <i>BH</i>		8 21.8 236°77'	0°4/22.1	18	
7 20	22 26.38	-22 3.3	1.150	2.070	16.1	18.2	7 20	22 26.82	- 8 52.2	1.960	2.833	12.7	19.3
7 30	22 22.68	-23 3.9	1.079	2.045	12.1	17.8	7 30	22 21.68	- 9 17.5	1.884	2.828	9.3	19.1
8 9	22 15.92	-24 7.5	1.027	2.021	8.1	17.6	8 9	22 14.73	- 9 53.1	1.832	2.822	5.5	18.8
8 19	22 6.89	-25 3.5	0.997	1.997	6.4	17.4	8 19	22 6.58	-10 35.4	1.806	2.816	1.4	18.5
8 29	21 57.05	-25 40.9	0.990	1.975	9.2	17.5	8 29	21 58.09	-11 19.5	1.807	2.810	2.9	18.6
9 8	21 48.13	-25 52.0	1.004	1.954	13.8	17.7	9 8	21 50.19	-12 0.3	1.836	2.804	7.0	18.9
9 18	21 41.67	-25 34.6	1.037	1.934	18.5	17.9	9 18	21 43.71	-12 33.7	1.890	2.798	10.8	19.1
9 28	21 38.69	-24 50.6	1.087	1.915	22.5	18.1	9 28	21 39.31	-12 56.8	1.967	2.791	14.0	19.3
435668	2008 <i>SF</i> ₃₀₄		8 21.8 114°04'	1°4/20.5	17		137650	1999 <i>WZ</i> ₂₄		8 21.8 348°96'	7°8/15.9	18	
7 20	22 26.74	-12 24.7	1.801	2.687	13.0	21.3	7 20	22 28.69	-25 42.5	1.308	2.220	15.2	19.7
7 30	22 21.65	-13 23.8	1.743	2.695	9.3	21.1	7 30	22 23.89	-27 17.2	1.259	2.217	11.5	19.4
8 9	22 14.68	-14 31.6	1.708	2.702	5.3	20.9	8 9	22 16.34	-28 48.8	1.232	2.215	8.6	19.3
8 19	22 6.53	-15 41.9	1.700	2.710	1.6	20.6	8 19	22 6.96	-30 5.7	1.228	2.214	7.9	19.2
8 29	21 58.13	-16 47.8	1.719	2.717	4.0	20.8	8 29	21 57.19	-30 57.7	1.247	2.213	10.2	19.4
9 8	21 50.49	-17 43.4	1.765	2.724	8.0	21.1	9 8	21 48.55	-31 19.5	1.289	2.212	13.8	19.6
9 18	21 44.44	-18 24.7	1.835	2.731	11.7	21.3	9 18	21 42.28	-31 11.2	1.351	2.211	17.3	19.8
9 28	21 40.59	-18 49.9	1.928	2.738	14.7	21.5	9 28	21 39.15	-30 36.2	1.429	2.211	20.3	20.0
445440	2010 <i>US</i> ₆₅		8 21.8 330°74'	5°5/26.8	18		473236	2015 <i>LM</i> ₃		8 21.8 273°30'	8°8/28.6	18	
7 20	22 24.14	+ 4 51.9	2.017	2.838	14.4	20.7	7 20	22 27.78	+10 38.3	1.746	2.538	17.4	20.5
7 30	22 19.69	+ 5 9.3	1.937	2.832	11.7	20.5	7 30	22 22.64	+11 28.8	1.669	2.535	14.8	20.4
8 9	22 13.56	+ 5 8.1	1.877	2.827	8.8	20.3	8 9	22 15.42	+11 55.7	1.610	2.531	12.1	20.2
8 19	22 6.30	+ 4 48.5	1.842	2.822	6.3	20.2	8 19	22 6.76	+11 56.3	1.574	2.528	9.7	20.0
8 29	21 58.68	+ 4 12.4	1.832	2.818	5.6	20.1	8 29	21 57.61	+11 31.0	1.561	2.524	8.8	20.0
9 8	21 51.58	+ 3 24.2	1.849	2.813	7.3	20.2	9 8	21 49.08	+10 43.7	1.573	2.520	9.9	20.0
9 18	21 45.78	+ 2 29.5	1.891	2.809	10.2	20.4	9 18	21 42.13	+ 9 41.3	1.608	2.517	12.3	20.2
9 28	21 41.90	+ 1 34.3	1.956	2.806	13.0	20.6	9 28	21 37.54	+ 8 31.9	1.666	2.513	15.0	20.3
365957	2012 <i>BW</i> ₁₄		8 21.8 225°98'	1°2/20.5	18		104522	2000 <i>GQ</i> ₄₉		8 21.8 91°03'	1°0/22.6	17	
7 20	22 24.66	-13 22.6	2.639	3.515	9.7	22.3	7 20	22 27.39	- 6 42.1	1.559	2.436	15.1	20.4
7 30	22 19.75	-14 9.0	2.558	3.506	7.0	22.1	7 30	22 22.36	- 7 13.3	1.497	2.441	11.2	20.2
8 9	22 13.46	-15 1.2	2.503	3.496	4.0	21.9	8 9	22 15.22	- 7 59.4	1.457	2.446	6.7	20.0
8 19	22 6.26	-15 55.3	2.476	3.486	1.3	21.7	8 19	22 6.69	- 8 55.7	1.441	2.451	2.1	19.7
8 29	21 58.78	-16 46.9	2.477	3.475	3.1	21.8	8 29	21 57.86	- 9 55.8	1.452	2.456	3.3	19.8
9 8	21 51.71	-17 32.0	2.508	3.464	6.2	22.0	9 8	21 49.87	-10 52.6	1.489	2.461	7.9	20.1
9 18	21 45.67	-18 7.6	2.566	3.452	9.1	22.1	9 18	21 43.65	-11 40.5	1.550	2.466	12.1	20.3
9 28	21 41.19	-18 31.8	2.647	3.440	11.6	22.3	9 28	21 39.91	-12 15.6	1.632	2.470	15.7	20.6
228454	2001 <i>QY</i> ₂₄₅		8 21.8 328°06'	2°2/23.3	18		229217	2004 <i>VN</i> ₇₃		8 21.8 355°92'	7°3/14.4	18	
7 20	22 20.38	- 5 2.6	1.117	2.018	18.0	19.0	7 20	22 10.67	-16 49.1	0.877	1.822	17.0	17.7
7 30	22 18.21	- 5 19.4	1.032	1.987	13.8	18.6	7 30	22 11.32	-19 55.8	0.830	1.811	12.2	17.4
8 9	22 13.33	- 5 59.6	0.965	1.957	8.8	18.3	8 9	22 9.32	-23 19.6	0.803	1.802	8.1	17.2
8 19	22 6.35	- 7 0.7	0.919	1.928	3.4	17.9	8 19	22 5.43	-26 39.4	0.798	1.796	7.9	17.1
8 29	21 58.43	- 8 15.7	0.895	1.900	4.2	17.8	8 29	22 1.01	-29 31.9	0.814	1.793	11.8	17.3
9 8	21 51.13	- 9 34.2	0.893	1.874	10.1	18.1	9 8	21 57.63	-31 40.6	0.850	1.793	16.6	17.6
9 18	21 45.91	-10 45.5	0.911	1.849	15.9	18.3	9 18	21 56.58	-32 58.8	0.904	1.795	21.0	17.9
9 28	21 43.93	-11 41.0	0.946	1.826	21.0	18.5	9 28	21 58.70	-33 27.8	0.971	1.800	24.6	18.2
19278	1995 <i>YN</i>		8 21.8 265°84'	5°4/15.6	18		34531	2000 <i>SY</i> ₂₁₂		8 21.8 76°47'	4°3/17.5	18	
7 20	22 25.19	-25 19.3	2.200	3.095	10.6	17.8	7 20	22 25.90	-21 58.0	2.063	2.958	11.2	18.9
7 30	22 20.48	-26 47.3	2.138	3.088	8.0	17.7	7 30	22 20.94	-23 6.0	2.009	2.962	8.2	18.7
8 9	22 14.03	-28 14.0	2.101	3.080	5.9	17.5	8 9	22 14.25	-24 14.0	1.979	2.966	5.4	18.6
8 19	22 6.41	-29 32.2	2.091	3.073	5.5	17.5	8 19	22 6.47	-25 15.6	1.975	2.970	4.3	18.5
8 29	21 58.45	-30 35.4	2.108	3.065	7.2	17.6	8 29	21 58.46	-26 4.6	1.999	2.974	6.1	18.6
9 8	21 51.06	-31 19.2	2.151	3.058	9.8	17.7	9 8	21 51.14	-26 37.2	2.049	2.978	9.0	18.8
9 18	21 45.03	-31 42.1	2.217	3.050	12.4	17.9	9 18	21 45.27	-26 51.7	2.123	2.983	11.9	19.0
9 28	21 41.00	-31 44.5	2.303	3.042	14.7	18.1	9 28	21 41.45	-26 48.6	2.218	2.987	14.3	19.2
278293	2007 <i>GG</i> ₅₁		8 21.8 119°39'	1°2/20.8	17		8377	Elmerreese		8 21.8 344°94'			

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
358804	2008 <i>EB</i> ₇₇		8 21.8 57°28	0°2/22.0	15		509949	2009 <i>SN</i> ₂₀		8 21.8 343°93	1°8/20.7	18	
7 20	22 25.35	- 8 22.3	1.904	2.780	12.9	20.9	7 20	22 20.77	-13 0.2	0.969	1.894	17.9	20.3
7 30	22 20.40	- 9 5.6	1.860	2.805	9.3	20.7	7 30	22 18.65	-13 32.4	0.906	1.877	13.1	20.0
8 9	22 13.85	- 9 59.1	1.840	2.830	5.4	20.5	8 9	22 13.60	-14 18.7	0.862	1.862	7.5	19.7
8 19	22 6.37	-10 58.0	1.845	2.856	1.3	20.3	8 19	22 6.45	-15 11.6	0.837	1.848	2.1	19.3
8 29	21 58.81	-11 56.6	1.879	2.882	2.9	20.5	8 29	21 58.63	-16 1.3	0.834	1.837	5.6	19.5
9 8	21 52.04	-12 49.5	1.939	2.907	6.7	20.8	9 8	21 51.83	-16 38.1	0.851	1.827	11.6	19.8
9 18	21 46.74	-13 32.8	2.025	2.933	10.1	21.0	9 18	21 47.48	-16 55.8	0.888	1.819	17.0	20.0
9 28	21 43.40	-14 4.1	2.134	2.959	13.0	21.3	9 28	21 46.52	-16 51.8	0.941	1.814	21.7	20.3
288400	2004 <i>DO</i> ₃		8 21.8 224°44	2°1/20.1	18		49693	1999 <i>UR</i> ₁₀		8 21.8 227°36	13°1/10.4	18	
7 20	22 30.59	-17 36.1	2.194	3.074	11.2	20.4	7 20	22 42.56	-46 5.8	1.768	2.613	15.1	18.9
7 30	22 24.26	-17 54.2	2.119	3.068	8.1	20.2	7 30	22 34.00	-47 32.5	1.726	2.606	13.7	18.8
8 9	22 16.16	-18 14.2	2.069	3.061	4.8	20.0	8 9	22 22.19	-48 37.2	1.705	2.598	13.1	18.7
8 19	22 6.92	-18 32.0	2.046	3.053	2.2	19.8	8 19	22 8.31	-49 9.6	1.705	2.590	13.4	18.7
8 29	21 57.39	-18 43.6	2.052	3.046	4.1	19.9	8 29	21 54.15	-49 3.1	1.728	2.581	14.7	18.8
9 8	21 48.50	-18 45.9	2.085	3.038	7.5	20.1	9 8	21 41.59	-48 18.0	1.770	2.572	16.4	18.9
9 18	21 41.04	-18 37.6	2.145	3.030	10.7	20.3	9 18	21 32.00	-46 59.4	1.831	2.562	18.3	19.0
9 28	21 35.63	-18 18.3	2.228	3.021	13.5	20.5	9 28	21 26.13	-45 15.1	1.908	2.552	20.0	19.1
436196	2009 <i>WM</i> ₁₆₄		8 21.8 253°57	4°7/17.9	17		402054	2003 <i>SF</i> ₃₃₀		8 21.8 323°53	0°2/21.9	17	
7 20	22 29.20	-21 13.4	1.706	2.603	13.0	21.7	7 20	22 23.88	- 9 41.0	1.983	2.863	12.3	21.2
7 30	22 23.78	-22 18.2	1.639	2.594	9.6	21.5	7 30	22 19.59	-10 2.3	1.903	2.850	9.0	21.0
8 9	22 16.11	-23 24.8	1.595	2.585	6.2	21.3	8 9	22 13.57	-10 33.3	1.845	2.837	5.3	20.7
8 19	22 6.94	-24 25.4	1.578	2.576	4.7	21.1	8 19	22 6.38	-11 10.3	1.813	2.824	1.2	20.4
8 29	21 57.33	-25 12.3	1.586	2.567	6.9	21.3	8 29	21 58.83	-11 48.9	1.808	2.811	2.9	20.5
9 8	21 48.51	-25 40.3	1.620	2.557	10.4	21.5	9 8	21 51.80	-12 24.3	1.830	2.800	7.0	20.8
9 18	21 41.48	-25 47.6	1.677	2.547	14.0	21.6	9 18	21 46.09	-12 52.6	1.877	2.788	10.7	21.0
9 28	21 37.01	-25 34.8	1.754	2.538	17.0	21.8	9 28	21 42.37	-13 10.8	1.947	2.777	13.9	21.2
509403	2007 <i>DN</i> ₅₅		8 21.8 258°14	1°2/20.8	17		206300	2003 <i>FX</i> ₂₀		8 21.8 77°92	0°1/21.8	17	
7 20	22 27.73	-11 45.5	1.745	2.629	13.4	21.9	7 20	22 29.58	- 8 22.1	1.250	2.141	17.2	19.7
7 30	22 22.69	-12 36.7	1.663	2.614	9.8	21.6	7 30	22 24.20	- 9 15.6	1.206	2.158	12.5	19.5
8 9	22 15.51	-13 39.0	1.603	2.597	5.6	21.3	8 9	22 16.35	-10 24.7	1.182	2.176	7.2	19.3
8 19	22 6.82	-14 46.8	1.570	2.581	1.5	21.0	8 19	22 6.99	-11 42.0	1.182	2.194	1.6	19.0
8 29	21 57.59	-15 52.9	1.564	2.564	4.1	21.2	8 29	21 57.45	-12 57.9	1.208	2.211	4.0	19.2
9 8	21 48.94	-16 50.5	1.584	2.546	8.5	21.4	9 8	21 49.12	-14 3.8	1.258	2.228	9.3	19.6
9 18	21 41.89	-17 34.5	1.629	2.529	12.7	21.6	9 18	21 43.03	-14 53.9	1.331	2.246	13.8	19.9
9 28	21 37.22	-18 2.3	1.696	2.511	16.2	21.8	9 28	21 39.84	-15 25.5	1.423	2.263	17.6	20.2
216959	2000 <i>AG</i> ₂₆		8 21.8 260°67	1°3/22.7	18		22167	Lane-Cline		8 21.8 237°79	3°3/19.6	18	
7 20	22 29.07	- 6 58.6	1.632	2.505	14.8	20.3	7 20	22 32.05	-18 2.0	1.521	2.416	14.4	19.0
7 30	22 23.75	- 7 12.6	1.550	2.491	11.1	20.0	7 30	22 25.99	-18 40.1	1.455	2.410	10.5	18.8
8 9	22 16.16	- 7 40.3	1.489	2.477	6.8	19.7	8 9	22 17.46	-19 22.0	1.411	2.404	6.3	18.5
8 19	22 6.97	- 8 18.6	1.453	2.462	2.3	19.4	8 19	22 7.27	-20 0.7	1.392	2.398	3.3	18.3
8 29	21 57.22	- 9 2.2	1.444	2.447	3.4	19.5	8 29	21 56.65	-20 29.2	1.399	2.392	5.8	18.5
9 8	21 48.11	- 9 45.2	1.460	2.432	8.1	19.7	9 8	21 46.96	-20 42.5	1.432	2.385	10.1	18.7
9 18	21 40.70	-10 22.0	1.502	2.417	12.5	19.9	9 18	21 39.33	-20 38.8	1.487	2.379	14.2	18.9
9 28	21 35.82	-10 48.6	1.565	2.401	16.4	20.2	9 28	21 34.53	-20 18.3	1.563	2.372	17.7	19.2
183175	2002 <i>SM</i> ₄₀		8 21.8 321°46	2°0/20.4	18		398673	2012 <i>VA</i> ₃₆		8 21.8 170°79	3°9/18.3	18	
7 20	22 26.52	-13 34.2	1.289	2.194	15.8	20.3	7 20	22 27.70	-20 3.6	1.892	2.787	12.1	21.0
7 30	22 22.30	-14 19.4	1.222	2.183	11.5	20.0	7 30	22 22.40	-21 5.6	1.833	2.788	8.8	20.8
8 9	22 15.47	-15 15.6	1.175	2.172	6.6	19.7	8 9	22 15.19	-22 9.4	1.797	2.788	5.5	20.6
8 19	22 6.83	-16 15.7	1.152	2.162	2.2	19.4	8 19	22 6.74	-23 8.3	1.788	2.789	3.9	20.5
8 29	21 57.64	-17 11.0	1.153	2.152	5.2	19.6	8 29	21 58.02	-23 55.8	1.806	2.789	5.9	20.7
9 8	21 49.33	-17 53.5	1.177	2.143	10.4	19.9	9 8	21 50.03	-24 27.3	1.850	2.790	9.2	20.9
9 18	21 43.13	-18 18.4	1.224	2.135	15.1	20.1	9 18	21 43.65	-24 40.9	1.918	2.790	12.4	21.1
9 28	21 39.90	-18 23.9	1.289	2.127	19.1	20.4	9 28	21 39.50	-24 36.9	2.007	2.790	15.2	21.3
352430	2007 <i>YB</i> ₇₄		8 21.8 206°60	0°1/21.7	18		182716	2001 <i>WZ</i> ₄₀		8 21.8 217°62	4°9/15.9	18	
7 20	22 25.07	- 9 23.9	2.605	3.470	10.2	21.9	7 20	22 25.67	-24 26.9	2.322	3.214	10.2	19.8
7 30	22 20.06	-10 9.5	2.523	3.464	7.4	21.7	7 30	22 20.76	-25 53.6	2.260	3.210	7.7	19.7
8 9	22 13.68	-11 3.6	2.468	3.458	4.3	21.5	8 9	22 14.19	-27 19.5	2.224	3.205	5.5	19.5
8 19	22 6.38	-12 2.4	2.440	3.451	0.9	21.3	8 19	22 6.52	-28 37.7	2.216	3.201	5.0	19.5
8 29	21 58.81	-13 1.7	2.442	3.444	2.5	21.4	8 29	21 58.54	-29 42.2	2.235	3.196	6.7	19.6
9 8	21 51.66	-13 57.0	2.473	3.436	5.8	21.6	9 8	21 51.10	-30 28.7	2.281	3.190	9.2	19.7
9 18	21 45.54	-14 44.7	2.531	3.428	8.8	21.8	9 18	21 44.96	-30 55.5	2.351	3.185	11.8	19.9
9 28	21 40.99	-15 22.1	2.614	3.419	11.5	22.0	9 28	21 40.72	-31 3.1	2.441	3.179	14.0	20.0
253603	2003 <i>UM</i> ₂₃		8 21.8 347°91	4°8/18.8	18		396053	2013 <i>CR</i> ₄₃		8 21.8 162°43	1°1/20.8	18	
7 20	22 30.94	-20 26.0	1.323	2.229	15.4	20.1	7 20	22 25.62	-12 40.2	2.078	2.960	11.7	21.6
7 30	22 25.40	-21 16.8	1.267	2.227	11.3	19.9	7 30	22 20.71	-13 22.4	2.011	2.961	8.4	21.4
8 9	22 17.18	-22 9.2	1.233	2.226	7.1	19.6	8 9	22 14.15	-14 11.7	1.968	2.962	4.8	21.1
8 19	22 7.20	-22 54.7	1.222	2.225	4.8	19.5	8 19	22 6.51	-15 3.6	1.952	2.963	1.3	20.9
8 29	21 56.85	-23 24.8	1.237	2.224	7.3	19.6	8 29	21 58.62	-15 52.6	1.964	2.963	3.4	21.1
9 8	21 47.63	-23 34.6	1.274	2.224	11.5	19.9	9 8	21 51.34	-16 34.1	2.003	2.964	7.1	21.3
9 18	21 40.74	-23 22.9	1.334	2.223	15.6	20.1	9 18	21 45.40	-17 4.8	2.067	2.964	10.5	21.5
9 28	21 36.92	-22 51.5	1.412	2.223	19.1	20.4	9 28	21 41.40	-17 22.8	2.154	2.964	13.4	21.7
261794	2006 <i>BV</i> ₁₈₃		8 21.8 318°62	0°6/21.3	18		349681	2008 <i>WE</i> ₈₉	</				

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
54520	2000 <i>PJ</i> ₃₀		8 21.8	12°08'	0°1'/23.2	02 C	176380	Goran		8 21.9	24°33'	1°6'/20.6	18
7 20	22 6.20	- 7 56.8	52.057	52.908	0.6	25.3	7 20	22 26.40	-14 1.3	1.778	2.668	12.9	20.5
7 30	22 5.66	- 7 59.3	51.996	52.926	0.4	25.3	7 30	22 21.50	-14 37.3	1.717	2.671	9.3	20.3
8 9	22 5.08	- 8 2.2	51.962	52.945	0.3	25.3	8 9	22 14.71	-15 19.9	1.680	2.674	5.3	20.1
8 19	22 4.47	- 8 5.3	51.956	52.963	0.1	25.2	8 19	22 6.71	-16 3.9	1.667	2.678	1.7	19.9
8 29	22 3.85	- 8 8.6	51.979	52.982	0.1	25.2	8 29	21 58.46	-16 43.4	1.682	2.681	4.0	20.0
9 8	22 3.25	- 8 12.0	52.031	53.000	0.3	25.3	9 8	21 50.96	-17 13.7	1.723	2.685	8.0	20.3
9 18	22 2.69	- 8 15.2	52.112	53.019	0.5	25.3	9 18	21 45.06	-17 31.7	1.789	2.689	11.7	20.5
9 28	22 2.19	- 8 18.2	52.219	53.038	0.6	25.3	9 28	21 41.38	-17 36.1	1.876	2.694	14.8	20.7
195213	2002 <i>DV</i> ₉		8 21.8	101°96'	6°9'/16.7	17	73383	2002 <i>LM</i> ₈		8 21.9	156°46'	3°9'/24.9	18
7 20	22 35.20	-29 51.6	1.842	2.727	12.8	20.1	7 20	22 28.30	+ 0 24.5	1.598	2.447	16.2	19.6
7 30	22 27.74	-30 44.4	1.805	2.745	9.9	19.9	7 30	22 23.08	+ 0 9.0	1.529	2.451	12.6	19.4
8 9	22 18.17	-31 28.4	1.792	2.762	7.6	19.8	8 9	22 15.72	- 0 27.4	1.482	2.454	8.6	19.2
8 19	22 7.40	-31 56.4	1.804	2.779	7.0	19.8	8 19	22 6.96	- 1 22.2	1.458	2.457	4.9	19.0
8 29	21 56.63	-32 3.5	1.843	2.795	8.5	19.9	8 29	21 57.83	- 2 30.3	1.461	2.460	4.3	19.0
9 8	21 47.04	-31 48.3	1.907	2.812	11.0	20.1	9 8	21 49.47	- 3 44.1	1.489	2.463	7.8	19.2
9 18	21 39.50	-31 12.6	1.994	2.828	13.6	20.3	9 18	21 42.84	- 4 56.1	1.543	2.465	11.8	19.4
9 28	21 34.58	-30 20.1	2.100	2.843	15.8	20.5	9 28	21 38.68	- 5 59.7	1.619	2.467	15.4	19.7
294353	2007 <i>VQ</i> ₉₅		8 21.8	355°40'	0°8'/22.4	18	38849	2000 <i>SS</i> ₆₈		8 21.9	214°03'	2°3'/20.2	18
7 20	22 27.20	- 8 44.2	1.709	2.588	13.9	20.4	7 20	22 29.37	-14 0.3	1.443	2.338	15.0	19.5
7 30	22 22.15	- 8 52.9	1.641	2.586	10.3	20.2	7 30	22 24.13	-14 57.5	1.380	2.337	10.9	19.2
8 9	22 15.10	- 9 12.2	1.595	2.585	6.1	20.0	8 9	22 16.45	-16 4.2	1.339	2.334	6.2	19.0
8 19	22 6.76	- 9 39.0	1.574	2.585	1.8	19.7	8 19	22 7.14	-17 12.9	1.323	2.332	2.4	18.7
8 29	21 58.10	-10 8.4	1.580	2.584	3.1	19.8	8 29	21 57.40	-18 15.0	1.332	2.330	5.2	18.9
9 8	21 50.17	-10 35.6	1.612	2.584	7.5	20.0	9 8	21 48.56	-19 3.3	1.367	2.327	9.8	19.2
9 18	21 43.88	-10 56.7	1.669	2.584	11.5	20.3	9 18	21 41.73	-19 33.7	1.425	2.324	14.1	19.4
9 28	21 39.90	-11 8.5	1.748	2.584	14.9	20.5	9 28	21 37.69	-19 44.8	1.502	2.321	17.8	19.6
517813	2015 <i>QR</i> ₁₄		8 21.8	289°71'	2°5'/24.7	18	359949	2012 <i>BM</i>		8 21.9	184°79'	2°0'/23.8	18
7 20	22 22.05	- 0 29.5	2.320	3.162	12.1	21.7	7 20	22 26.54	- 4 26.2	2.432	3.280	11.4	20.8
7 30	22 18.04	- 1 7.6	2.237	3.156	9.3	21.5	7 30	22 21.18	- 4 24.8	2.355	3.280	8.6	20.6
8 9	22 12.60	- 2 1.2	2.177	3.150	6.2	21.3	8 9	22 14.38	- 4 33.6	2.302	3.280	5.5	20.4
8 19	22 6.20	- 3 7.9	2.143	3.144	3.2	21.1	8 19	22 6.64	- 4 50.7	2.275	3.280	2.6	20.2
8 29	21 59.52	- 4 23.1	2.137	3.138	2.9	21.0	8 29	21 58.66	- 5 13.6	2.278	3.279	2.7	20.3
9 8	21 53.27	- 5 41.4	2.160	3.133	5.8	21.2	9 8	21 51.17	- 5 38.7	2.309	3.278	5.7	20.5
9 18	21 48.11	- 6 57.2	2.210	3.127	9.0	21.4	9 18	21 44.83	- 6 2.9	2.366	3.277	8.7	20.6
9 28	21 44.58	- 8 5.6	2.284	3.121	11.8	21.6	9 28	21 40.17	- 6 23.2	2.448	3.276	11.4	20.8
509397	2007 <i>DX</i> ₁₇		8 21.9	44°22'	0°5'/22.3	18	12544	1998 <i>QX</i> ₉		8 21.9	326°22'	1°8'/20.2	18
7 20	22 23.08	- 7 6.0	2.106	2.977	12.0	20.9	7 20	22 22.96	-13 42.2	1.784	2.679	12.6	18.1
7 30	22 18.84	- 7 54.3	2.039	2.981	8.8	20.7	7 30	22 19.18	-14 32.9	1.705	2.662	9.1	17.9
8 9	22 13.08	- 8 54.4	1.996	2.985	5.2	20.5	8 9	22 13.49	-15 32.5	1.649	2.645	5.2	17.6
8 19	22 6.32	-10 1.9	1.979	2.990	1.4	20.3	8 19	22 6.48	-16 35.5	1.619	2.628	1.9	17.4
8 29	21 59.33	-11 11.4	1.991	2.994	2.7	20.4	8 29	21 59.01	-17 35.0	1.615	2.613	4.3	17.5
9 8	21 52.90	-12 17.2	2.030	2.999	6.4	20.6	9 8	21 52.11	-18 24.8	1.636	2.597	8.4	17.7
9 18	21 47.72	-13 14.5	2.095	3.004	9.8	20.8	9 18	21 46.67	-19 0.5	1.682	2.583	12.3	17.9
9 28	21 44.34	-14 0.0	2.183	3.009	12.7	21.0	9 28	21 43.42	-19 19.8	1.749	2.569	15.6	18.1
378225	2007 <i>BD</i> ₂₇		8 21.9	241°03'	1°2'/20.8	18	380792	2005 <i>WG</i> ₄₄		8 21.9	140°83'	2°9'/19.3	17
7 20	22 29.04	-12 19.6	1.906	2.785	12.7	22.6	7 20	22 29.71	-17 40.3	2.018	2.903	11.8	21.2
7 30	22 23.53	-13 6.7	1.822	2.770	9.2	22.3	7 30	22 23.69	-18 35.4	1.962	2.914	8.5	21.0
8 9	22 15.98	-14 3.2	1.761	2.754	5.3	22.1	8 9	22 15.89	-19 33.5	1.932	2.924	5.0	20.8
8 19	22 7.01	-15 3.9	1.727	2.738	1.5	21.8	8 19	22 6.98	-20 28.5	1.928	2.933	2.9	20.7
8 29	21 57.54	-16 2.4	1.722	2.721	3.9	21.9	8 29	21 57.87	-21 14.7	1.953	2.942	4.8	20.8
9 8	21 48.62	-16 52.7	1.743	2.703	8.1	22.1	9 8	21 49.52	-21 47.8	2.005	2.951	8.2	21.0
9 18	21 41.18	-17 30.6	1.790	2.685	12.0	22.3	9 18	21 42.73	-22 5.8	2.082	2.958	11.4	21.2
9 28	21 36.00	-17 53.6	1.859	2.666	15.3	22.5	9 28	21 38.06	-22 8.5	2.181	2.966	14.1	21.5
198501	2004 <i>XN</i> ₇₄		8 21.9	300°50'	2°3'/23.5	18	351413	2005 <i>GJ</i> ₇		8 21.9	94°23'	1°2'/20.8	18
7 20	22 26.47	- 4 54.0	1.616	2.488	15.0	19.7	7 20	22 26.61	-12 38.6	1.912	2.796	12.4	21.3
7 30	22 21.99	- 4 59.3	1.524	2.463	11.5	19.4	7 30	22 21.52	-13 24.6	1.854	2.805	8.9	21.1
8 9	22 15.27	- 5 20.2	1.453	2.438	7.3	19.1	8 9	22 14.66	-14 18.1	1.820	2.814	5.1	20.9
8 19	22 6.89	- 5 54.7	1.406	2.413	3.2	18.8	8 19	22 6.71	-15 13.8	1.812	2.822	1.4	20.6
8 29	21 57.82	- 6 38.3	1.385	2.388	3.6	18.7	8 29	21 58.54	-16 5.9	1.831	2.831	3.7	20.8
9 8	21 49.26	- 7 25.0	1.389	2.364	8.1	18.9	9 8	21 51.09	-16 49.3	1.878	2.839	7.5	21.1
9 18	21 42.29	- 8 8.6	1.418	2.340	12.6	19.2	9 18	21 45.14	-17 20.7	1.950	2.848	11.0	21.3
9 28	21 37.82	- 8 44.0	1.468	2.316	16.6	19.3	9 28	21 41.27	-17 38.2	2.044	2.856	14.0	21.5
253396	2003 <i>OL</i> ₆		8 21.9	124°67'	6°1'/28.4	18	285831	2001 <i>DF</i> ₆₃		8 21.9	194°69'	0°2'/22.0	17
7 20	22 26.45	+ 9 41.3	2.569	3.342	12.9	20.5	7 20	22 30.88	- 9 31.2	1.707	2.582	14.2	21.8
7 30	22 21.05	+10 12.5	2.495	3.351	10.9	20.4	7 30	22 24.89	- 9 53.1	1.636	2.580	10.4	21.6
8 9	22 14.26	+10 26.8	2.443	3.359	8.7	20.3	8 9	22 16.77	-10 25.8	1.588	2.578	6.1	21.3
8 19	22 6.59	+10 23.5	2.415	3.368	6.9	20.2	8 19	22 7.22	-11 5.0	1.565	2.576	1.5	21.0
8 29	21 58.69	+10 3.7	2.414	3.376	6.1	20.1	8 29	21 57.29	-11 45.2	1.570	2.573	3.3	21.2
9 8	21 51.26	+ 9 30.3	2.440	3.385	7.0	20.2	9 8	21 48.12	-12 21.0	1.602	2.570	7.9	21.4
9 18	21 44.94	+ 8 47.6	2.493	3.392	8.8	20.3	9 18	21 40.69	-12 48.2	1.659	2.566	12.0	21.7
9 28	21 40.22	+ 8 0.4	2.570	3.400	10.9	20.5	9 28	21 35.72	-13 4.1	1.737	2.562	15.5	21.9
238555	2004 <i>XL</i> ₁₅		8 21.9	243°77'	0°4'/22.2	18	131827	2002 <i>AO</i> ₁₀₂		8 21.9	103°74'	1°3'/2	

EPHEMERIDES

8 21.9

8 21.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
179875	Budavari		8 21.9 186°73	1°9/23.5	18		299886	2006 SG ₃₃₃		8 21.9 339°03	1°9/20.3	18	
7 20	22 27.02	- 3 38.9	1.650	2.515	15.1	20.9	7 20	22 25.84	-14 26.8	1.745	2.638	13.0	20.4
7 30	22 22.14	- 4 18.2	1.579	2.515	11.4	20.7	7 30	22 21.23	-15 7.7	1.678	2.634	9.4	20.1
8 9	22 15.20	- 5 15.6	1.530	2.514	7.1	20.5	8 9	22 14.65	-15 55.5	1.634	2.629	5.4	19.9
8 19	22 6.88	- 6 26.9	1.507	2.514	2.9	20.2	8 19	22 6.78	-16 44.7	1.616	2.626	1.9	19.7
8 29	21 58.17	- 7 45.5	1.509	2.513	3.3	20.2	8 29	21 58.58	-17 29.2	1.624	2.622	4.3	19.8
9 8	21 50.17	- 9 3.5	1.539	2.512	7.6	20.5	9 8	21 51.08	-18 3.4	1.658	2.619	8.4	20.1
9 18	21 43.82	-10 14.0	1.593	2.511	11.8	20.7	9 18	21 45.18	-18 24.2	1.717	2.616	12.1	20.3
9 28	21 39.83	-11 11.8	1.670	2.509	15.4	21.0	9 28	21 41.55	-18 30.1	1.796	2.614	15.4	20.5
289663	2005 GP ₁₂₇		8 21.9 38°60	0°5/21.6	17		371500	2006 UH ₃₆		8 21.9 263°30	1°1/22.6	18	
7 20	22 29.26	-11 15.8	1.137	2.040	17.6	20.1	7 20	22 29.02	- 7 16.9	1.628	2.502	14.8	21.0
7 30	22 24.19	-11 34.7	1.094	2.053	12.8	19.9	7 30	22 23.81	- 7 36.1	1.544	2.487	11.1	20.7
8 9	22 16.48	-12 5.5	1.071	2.067	7.3	19.7	8 9	22 16.32	- 8 9.3	1.482	2.471	6.7	20.4
8 19	22 7.15	-12 42.0	1.070	2.081	1.6	19.3	8 19	22 7.21	- 8 53.0	1.445	2.455	2.1	20.1
8 29	21 57.65	-13 16.6	1.093	2.097	4.3	19.6	8 29	21 57.50	- 9 41.7	1.434	2.438	3.4	20.1
9 8	21 49.47	-13 42.9	1.140	2.113	9.7	19.9	9 8	21 48.41	-10 28.9	1.450	2.421	8.2	20.4
9 18	21 43.69	-13 56.7	1.208	2.129	14.4	20.3	9 18	21 41.00	-11 9.1	1.490	2.404	12.6	20.6
9 28	21 40.98	-13 56.2	1.295	2.146	18.3	20.6	9 28	21 36.14	-11 38.1	1.551	2.387	16.5	20.8
217191	2002 TP ₂		8 21.9 344°10	1°3/22.7	18		99797	2002 KJ ₁₃		8 21.9 98°31	3°8/24.7	17	
7 20	22 23.84	- 7 6.0	1.124	2.025	17.9	19.5	7 20	22 29.58	- 0 53.7	1.462	2.320	17.0	20.0
7 30	22 20.58	- 7 22.3	1.059	2.015	13.4	19.2	7 30	22 24.09	- 0 56.6	1.403	2.330	13.1	19.7
8 9	22 14.63	- 7 57.5	1.013	2.007	8.2	18.9	8 9	22 16.36	- 1 19.7	1.365	2.340	8.8	19.5
8 19	22 6.80	- 8 47.1	0.989	1.999	2.6	18.6	8 19	22 7.18	- 2 0.5	1.350	2.350	4.8	19.3
8 29	21 58.40	- 9 43.5	0.988	1.993	4.0	18.6	8 29	21 57.71	- 2 53.9	1.360	2.360	4.4	19.3
9 8	21 50.93	-10 37.6	1.009	1.987	9.7	18.9	9 8	21 49.17	- 3 52.5	1.396	2.370	8.1	19.6
9 18	21 45.67	-11 21.9	1.051	1.983	14.9	19.2	9 18	21 42.56	- 4 49.4	1.457	2.380	12.2	19.8
9 28	21 43.51	-11 50.8	1.111	1.980	19.4	19.5	9 28	21 38.58	- 5 38.4	1.538	2.389	15.9	20.1
445790	2012 AY ₄		8 21.9 45°19	8°0/28.6	18		420469	2012 DN ₈₈		8 21.9 175°99	0°2/22.0	14	C
7 20	22 29.47	+11 26.6	2.255	3.019	14.7	20.3	7 20	22 31.19	- 9 16.3	1.788	2.659	13.8	22.1
7 30	22 23.52	+12 33.6	2.176	3.020	12.6	20.1	7 30	22 25.03	- 9 44.0	1.720	2.662	10.1	21.9
8 9	22 15.86	+13 22.2	2.119	3.022	10.5	20.0	8 9	22 16.83	-10 22.3	1.674	2.664	5.9	21.6
8 19	22 7.03	+13 50.0	2.085	3.023	8.7	19.9	8 19	22 7.29	-11 7.0	1.655	2.665	1.4	21.3
8 29	21 57.83	+13 56.4	2.077	3.024	8.0	19.9	8 29	21 57.42	-11 52.5	1.663	2.666	3.2	21.5
9 8	21 49.13	+13 43.7	2.095	3.025	8.8	19.9	9 8	21 48.31	-12 33.3	1.699	2.666	7.6	21.7
9 18	21 41.70	+13 16.0	2.138	3.027	10.6	20.0	9 18	21 40.87	-13 5.2	1.760	2.665	11.6	22.0
9 28	21 36.20	+12 38.9	2.204	3.028	12.7	20.2	9 28	21 35.79	-13 25.6	1.843	2.664	14.9	22.2
384314	2009 SV ₁₅₂		8 21.9 316°01	0°1/21.8	18		446229	2013 GH ₆₄		8 21.9 82°74	3°7/25.9	18	
7 20	22 27.97	-11 18.5	1.245	2.145	16.6	21.2	7 20	22 23.78	+ 2 15.4	2.258	3.085	12.8	21.1
7 30	22 23.70	-11 20.1	1.161	2.118	12.4	20.9	7 30	22 19.28	+ 2 2.3	2.187	3.093	10.1	20.9
8 9	22 16.58	-11 32.9	1.097	2.092	7.3	20.5	8 9	22 13.34	+ 1 33.0	2.140	3.101	7.2	20.7
8 19	22 7.29	-11 53.0	1.055	2.066	1.7	20.1	8 19	22 6.49	+ 0 49.3	2.117	3.109	4.5	20.6
8 29	21 57.12	-12 14.3	1.038	2.042	4.3	20.2	8 29	21 59.42	- 0 5.5	2.122	3.117	3.9	20.6
9 8	21 47.64	-12 30.4	1.043	2.017	10.1	20.5	9 8	21 52.87	- 1 6.4	2.155	3.125	6.0	20.7
9 18	21 40.29	-12 36.6	1.070	1.994	15.5	20.7	9 18	21 47.51	- 2 8.4	2.214	3.133	8.9	20.9
9 28	21 36.17	-12 29.5	1.115	1.972	20.2	20.9	9 28	21 43.84	- 3 6.4	2.298	3.141	11.6	21.1
67701	2000 TP ₁₀		8 21.9 301°56	3°1/24.0	18		435565	2008 RM ₃₉		8 21.9 128°27	2°5/20.1	17	
7 20	22 27.31	- 2 42.6	1.344	2.217	17.3	20.0	7 20	22 31.78	-17 21.1	1.838	2.724	12.8	21.2
7 30	22 22.77	- 2 55.8	1.274	2.212	13.3	19.7	7 30	22 25.34	-17 48.6	1.780	2.732	9.2	21.0
8 9	22 15.77	- 3 29.9	1.224	2.207	8.7	19.5	8 9	22 16.93	-18 18.7	1.747	2.739	5.4	20.7
8 19	22 7.05	- 4 22.1	1.197	2.202	4.1	19.2	8 19	22 7.31	-18 46.2	1.739	2.747	2.5	20.6
8 29	21 57.82	- 5 26.2	1.194	2.198	4.1	19.2	8 29	21 57.50	-19 6.1	1.759	2.754	4.6	20.7
9 8	21 49.40	- 6 33.8	1.217	2.193	8.7	19.4	9 8	21 48.56	-19 14.8	1.807	2.761	8.3	21.0
9 18	21 42.97	- 7 36.9	1.262	2.189	13.4	19.7	9 18	21 41.36	-19 10.8	1.879	2.767	11.8	21.2
9 28	21 39.36	- 8 28.9	1.327	2.184	17.5	19.9	9 28	21 36.52	-18 54.1	1.973	2.774	14.8	21.4
496266	2012 RU ₂₇		8 21.9 54°83	4°5/19.4	16		364555	2007 GA ₇₅		8 21.9 179°98	4°0/16.5	18	
7 20	22 35.29	-22 19.5	1.440	2.337	15.0	20.4	7 20	22 25.27	-23 59.5	2.835	3.720	8.8	21.3
7 30	22 28.13	-22 36.1	1.399	2.353	11.0	20.2	7 30	22 20.24	-25 13.6	2.774	3.721	6.5	21.2
8 9	22 18.55	-22 49.8	1.379	2.370	6.9	20.0	8 9	22 13.86	-26 26.8	2.741	3.722	4.6	21.0
8 19	22 7.61	-22 54.1	1.385	2.387	4.5	19.9	8 19	22 6.62	-27 33.7	2.735	3.722	4.1	21.0
8 29	21 56.69	-22 44.2	1.416	2.404	6.5	20.1	8 29	21 59.14	-28 29.8	2.759	3.722	5.5	21.1
9 8	21 47.12	-22 18.3	1.472	2.421	10.3	20.3	9 8	21 52.11	-29 11.8	2.810	3.721	7.6	21.2
9 18	21 39.90	-21 37.4	1.552	2.439	13.9	20.6	9 18	21 46.14	-29 38.1	2.887	3.720	9.8	21.4
9 28	21 35.61	-20 43.9	1.651	2.457	17.0	20.8	9 28	21 41.73	-29 48.7	2.985	3.719	11.8	21.5
342267	2008 ST ₃₀₉		8 21.9 264°47	0°8/22.6	18		14055	1996 AS		8 21.9 191°89	0°7/21.3	18	R
7 20	22 26.46	- 6 58.5	1.913	2.782	13.1	21.3	7 20	22 27.79	-10 14.3	1.643	2.526	14.2	18.6
7 30	22 21.65	- 7 31.9	1.826	2.766	9.8	21.1	7 30	22 22.74	-11 6.5	1.576	2.526	10.3	18.4
8 9	22 14.93	- 8 18.7	1.761	2.749	5.9	20.8	8 9	22 15.59	-12 10.9	1.532	2.525	5.9	18.1
8 19	22 6.86	- 9 15.1	1.722	2.732	1.8	20.5	8 19	22 7.04	-13 21.4	1.513	2.524	1.3	17.8
8 29	21 58.31	-10 15.9	1.711	2.714	3.0	20.5	8 29	21 58.11	-14 30.6	1.522	2.523	3.8	18.0
9 8	21 50.24	-11 15.0	1.727	2.697	7.2	20.8	9 8	21 49.93	-15 31.6	1.556	2.522	8.3	18.2
9 18	21 43.57	-12 6.8	1.768	2.679	11.2	21.0	9 18	21 43.45	-16 19.1	1.615	2.520	12.4	18.5
9 28	21 39.02	-12 47.5	1.832	2.661	14.7	21.2	9 28	21 39.40	-16 50.5	1.695	2.518	15.9	18.7
40296	1999 JE ₇₄		8 21.9 4°29	0°7/22.3	18		470778	2008 UU ₂₆₃		8 21.9 286°71	8°0/14.0	18	
7 20	22 21.37	- 6 28.2											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
206651	2003 <i>YU</i> ₂₄		8 21.9 164°80	8°0/13.7	18		275979	2001 <i>XH</i> ₄₈		8 21.9 200°09	17°9/3.7	17	
7 20	22 32.39	-35 28.1	2.223	3.097	11.3	20.6	7 20	22 32.60	+24 12.6	1.317	2.041	25.1	19.8
7 30	22 25.79	-36 42.1	2.179	3.101	9.4	20.5	7 30	22 27.16	+26 18.0	1.252	2.040	23.1	19.6
8 9	22 17.20	-37 45.4	2.159	3.104	8.1	20.4	8 9	22 18.68	+27 46.9	1.201	2.039	21.0	19.5
8 19	22 7.39	-38 31.0	2.165	3.107	8.2	20.4	8 19	22 7.90	+28 30.0	1.165	2.037	19.2	19.4
8 29	21 57.38	-38 53.7	2.197	3.110	9.5	20.5	8 29	21 56.19	+28 21.3	1.146	2.035	18.0	19.3
9 8	21 48.23	-38 52.0	2.252	3.112	11.4	20.6	9 8	21 45.28	+27 22.9	1.146	2.033	18.0	19.3
9 18	21 40.83	-38 27.0	2.330	3.114	13.4	20.8	9 18	21 36.69	+25 43.7	1.164	2.031	19.0	19.3
9 28	21 35.79	-37 42.2	2.426	3.115	15.2	20.9	9 28	21 31.54	+23 38.1	1.199	2.029	20.7	19.5
438831	2009 <i>BN</i> ₄₀		8 21.9 135°92	2°1/19.7	18		335047	2004 <i>RS</i> ₁₀₀		8 21.9 218°59	1°3/21.1	18	
7 20	22 26.07	-14 44.1	2.062	2.948	11.6	21.4	7 20	22 34.00	-15 15.0	1.753	2.634	13.5	20.1
7 30	22 21.12	-15 51.0	2.002	2.954	8.3	21.2	7 30	22 27.15	-15 13.7	1.684	2.632	9.9	19.9
8 9	22 14.48	-17 4.0	1.966	2.960	4.8	21.0	8 9	22 18.12	-15 15.9	1.637	2.630	5.7	19.6
8 19	22 6.78	-18 17.2	1.958	2.966	2.2	20.9	8 19	22 7.67	-15 17.9	1.617	2.627	1.6	19.3
8 29	21 58.83	-19 24.2	1.977	2.971	4.3	21.0	8 29	21 56.91	-15 15.4	1.624	2.625	3.9	19.5
9 8	21 51.51	-20 19.6	2.024	2.976	7.7	21.3	9 8	21 47.01	-15 5.6	1.659	2.622	8.2	19.8
9 18	21 45.57	-21 0.4	2.097	2.981	11.0	21.5	9 18	21 38.94	-14 47.0	1.719	2.619	12.1	20.0
9 28	21 41.60	-21 25.0	2.191	2.985	13.7	21.7	9 28	21 33.41	-14 19.2	1.801	2.616	15.4	20.2
79544	1998 <i>QD</i> ₄₁		8 21.9 306°00	1°5/22.9	18		445364	2010 <i>OK</i> ₅₉		8 21.9 335°75	2°7/23.5	17	
7 20	22 25.53	-5 42.1	1.385	2.269	16.3	19.3	7 20	22 28.76	-6 14.3	1.701	2.570	14.5	20.1
7 30	22 21.55	-6 11.7	1.307	2.254	12.3	19.0	7 30	22 23.47	-5 38.8	1.621	2.558	11.0	19.9
8 9	22 15.15	-7 0.2	1.250	2.240	7.6	18.7	8 9	22 16.07	-5 13.7	1.563	2.546	7.1	19.6
8 19	22 7.00	-8 3.5	1.216	2.225	2.6	18.3	8 19	22 7.23	-4 58.0	1.530	2.535	3.4	19.4
8 29	21 58.24	-9 14.7	1.207	2.211	3.6	18.4	8 29	21 57.92	-4 49.8	1.523	2.525	3.7	19.4
9 8	21 50.16	-10 24.9	1.222	2.198	8.8	18.6	9 8	21 49.27	-4 45.9	1.543	2.516	7.6	19.6
9 18	21 43.95	-11 26.5	1.260	2.184	13.7	18.9	9 18	21 42.26	-4 43.2	1.587	2.507	11.6	19.8
9 28	21 40.49	-12 13.6	1.319	2.172	17.9	19.1	9 28	21 37.63	-4 38.3	1.653	2.499	15.2	20.0
13543	Butler		8 21.9 124°98	2°5/19.6	18		399016	2013 <i>GM</i> ₃₅		8 21.9 57°30	7°9/12.9	18	
7 20	22 28.98	-14 50.2	1.747	2.635	13.2	17.9	7 20	22 27.06	-33 38.7	2.137	3.023	11.2	19.7
7 30	22 23.43	-16 3.4	1.694	2.647	9.4	17.7	7 30	22 21.99	-35 14.9	2.102	3.033	9.2	19.6
8 9	22 15.90	-17 23.3	1.665	2.659	5.4	17.5	8 9	22 15.06	-36 41.4	2.091	3.042	8.0	19.6
8 19	22 7.12	-18 42.6	1.662	2.670	2.6	17.3	8 19	22 6.96	-37 50.9	2.106	3.052	8.1	19.6
8 29	21 58.10	-19 53.6	1.687	2.680	4.9	17.5	8 29	21 58.65	-38 37.6	2.146	3.062	9.5	19.7
9 8	21 49.92	-20 50.1	1.739	2.691	8.8	17.7	9 8	21 51.12	-38 59.2	2.210	3.072	11.5	19.9
9 18	21 43.45	-21 29.0	1.815	2.701	12.3	18.0	9 18	21 45.20	-38 56.4	2.295	3.082	13.5	20.0
9 28	21 39.31	-21 49.4	1.912	2.710	15.3	18.2	9 28	21 41.48	-38 31.8	2.398	3.092	15.3	20.2
371578	2006 <i>VU</i> ₁₄₂		8 21.9 295°45	2°5/23.5	17		52362	1993 <i>FS</i> ₃₁		8 21.9 29°52	3°7/19.4	18	
7 20	22 27.73	-4 52.7	1.424	2.300	16.4	21.4	7 20	22 29.28	-17 48.5	1.339	2.244	15.3	17.7
7 30	22 23.19	-4 56.1	1.339	2.280	12.5	21.1	7 30	22 24.17	-18 39.8	1.287	2.248	11.1	17.5
8 9	22 16.15	-5 16.6	1.274	2.260	8.0	20.8	8 9	22 16.55	-19 35.6	1.257	2.252	6.6	17.3
8 19	22 7.25	-5 52.2	1.232	2.240	3.5	20.4	8 19	22 7.32	-20 27.8	1.250	2.256	3.7	17.1
8 29	21 57.63	-6 37.9	1.216	2.220	3.9	20.4	8 29	21 57.80	-21 8.2	1.268	2.261	6.3	17.3
9 8	21 48.61	-7 26.7	1.224	2.200	8.8	20.6	9 8	21 49.35	-21 31.0	1.311	2.266	10.6	17.5
9 18	21 41.45	-8 11.9	1.255	2.180	13.7	20.9	9 18	21 43.09	-21 34.3	1.375	2.272	14.7	17.8
9 28	21 37.09	-8 47.6	1.307	2.161	17.9	21.1	9 28	21 39.72	-21 18.5	1.458	2.277	18.2	18.0
300638	2007 <i>UA</i> ₅₉		8 21.9 271°39	1°4/23.1	18		71269	2000 <i>AK</i> ₃₁		8 21.9 300°87	1°7/20.6	18	
7 20	22 26.40	-5 48.8	2.001	2.864	12.9	21.7	7 20	22 26.62	-13 32.7	1.662	2.554	13.6	18.5
7 30	22 21.55	-6 8.0	1.911	2.847	9.7	21.5	7 30	22 22.13	-14 13.3	1.577	2.531	9.9	18.2
8 9	22 14.88	-6 39.9	1.845	2.830	6.0	21.3	8 9	22 15.41	-15 3.4	1.514	2.509	5.7	18.0
8 19	22 6.93	-7 21.9	1.804	2.812	2.3	21.0	8 19	22 7.11	-15 57.3	1.476	2.486	1.8	17.6
8 29	21 58.51	-8 9.6	1.791	2.794	2.9	21.0	8 29	21 58.19	-16 48.3	1.464	2.463	4.4	17.8
9 8	21 50.56	-8 57.8	1.805	2.777	6.8	21.2	9 8	21 49.84	-17 29.9	1.478	2.441	9.0	18.0
9 18	21 43.94	-9 41.5	1.845	2.758	10.7	21.4	9 18	21 43.12	-17 57.5	1.516	2.419	13.2	18.2
9 28	21 39.33	-10 16.9	1.908	2.740	14.0	21.6	9 28	21 38.86	-18 8.9	1.574	2.397	16.9	18.4
349850	2009 <i>CR</i> ₆₅		8 21.9 187°46	0°2/22.1	18		448621	2010 <i>UN</i> ₇₅		8 21.9 20°92	6°8/15.6	18	
7 20	22 25.62	-8 6.2	2.066	2.937	12.2	21.1	7 20	22 30.23	-31 44.1	2.160	3.044	11.2	20.6
7 30	22 20.81	-8 51.3	1.994	2.936	9.0	20.9	7 30	22 24.19	-32 36.2	2.109	3.045	8.9	20.4
8 9	22 14.35	-9 47.7	1.946	2.936	5.3	20.7	8 9	22 16.29	-33 20.0	2.083	3.046	7.2	20.3
8 19	22 6.79	-10 51.1	1.925	2.935	1.3	20.4	8 19	22 7.24	-33 49.3	2.082	3.047	6.9	20.3
8 29	21 58.93	-11 56.0	1.931	2.934	2.8	20.6	8 29	21 58.02	-33 59.6	2.107	3.048	8.3	20.4
9 8	21 51.64	-12 56.6	1.966	2.933	6.7	20.8	9 8	21 49.63	-33 48.9	2.157	3.050	10.5	20.6
9 18	21 45.66	-13 48.4	2.026	2.932	10.2	21.0	9 18	21 42.89	-33 18.1	2.230	3.051	12.8	20.7
9 28	21 41.60	-14 28.2	2.110	2.930	13.3	21.2	9 28	21 38.38	-32 29.9	2.323	3.053	14.8	20.9
200192	1999 <i>RT</i> ₁₁₉		8 21.9 349°90	2°1/23.5	18		133264	2003 <i>SO</i> ₁		8 21.9 27°80	0°3/22.1	18	
7 20	22 20.57	-4 25.6	1.189	2.085	17.6	18.8	7 20	22 27.21	-9 18.9	1.571	2.455	14.6	20.1
7 30	22 18.08	-4 53.4	1.123	2.075	13.3	18.5	7 30	22 22.34	-9 41.3	1.510	2.459	10.7	19.8
8 9	22 13.17	-5 43.7	1.076	2.066	8.4	18.2	8 9	22 15.37	-10 15.4	1.471	2.463	6.3	19.6
8 19	22 6.57	-6 52.0	1.051	2.059	3.3	17.9	8 19	22 7.06	-10 56.6	1.456	2.467	1.5	19.3
8 29	21 59.46	-8 10.4	1.048	2.054	3.8	17.9	8 29	21 58.45	-11 39.0	1.468	2.471	3.3	19.4
9 8	21 53.17	-9 28.8	1.069	2.049	9.0	18.2	9 8	21 50.67	-12 16.8	1.505	2.476	8.0	19.7
9 18	21 48.87	-10 38.0	1.112	2.047	14.0	18.5	9 18	21 44.65	-12 45.6	1.566	2.481	12.1	20.0
9 28	21 47.38	-11 31.0	1.173	2.045	18.3	18.7	9 28	21 41.06	-13 2.3	1.649	2.487	15.6	20.2
383224	2006 <i>AR</i> ₇₄		8 21.9 195°95	5°2/26.5	17		252195	2001 <i>FP</i> ₃₁		8 21.9 117°44	2°7/19.0</		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
335504	2005 YN ₆₅		8 21.9	0°48	2°7/23.6	18	202197	2004 XQ ₇₃		8 21.9	299°67	2°1/23.4	18
7 20	22 27.85	- 5 24.9	1.356	2.237	16.8	20.1	7 20	22 27.25	- 5 21.1	1.619	2.491	15.0	19.9
7 30	22 23.11	- 5 10.6	1.292	2.235	12.7	19.9	7 30	22 22.52	- 5 24.3	1.538	2.477	11.4	19.6
8 9	22 15.97	- 5 11.9	1.248	2.234	8.1	19.6	8 9	22 15.62	- 5 42.3	1.478	2.463	7.2	19.3
8 19	22 7.22	- 5 26.6	1.227	2.234	3.6	19.3	8 19	22 7.18	- 6 12.4	1.443	2.450	3.0	19.1
8 29	21 58.06	- 5 50.5	1.231	2.235	4.0	19.4	8 29	21 58.21	- 6 50.4	1.433	2.437	3.5	19.1
9 8	21 49.80	- 6 17.6	1.259	2.236	8.5	19.6	9 8	21 49.86	- 7 30.4	1.449	2.424	7.8	19.3
9 18	21 43.54	- 6 42.4	1.310	2.238	13.0	19.9	9 18	21 43.17	- 8 7.1	1.490	2.411	12.2	19.5
9 28	21 40.04	- 7 0.3	1.382	2.240	16.9	20.2	9 28	21 38.92	- 8 35.6	1.551	2.398	16.0	19.7
26289	1998 SL ₇₄		8 21.9	191°63	6°2/16.4	18	470762	2008 US ₁₉₈		8 21.9	303°58	9°7/13.7	18
7 20	22 31.13	-28 14.9	1.991	2.880	11.8	18.5	7 20	22 31.03	-33 0.7	1.557	2.453	14.1	20.6
7 30	22 24.98	-29 13.3	1.936	2.879	9.1	18.3	7 30	22 25.75	-34 28.1	1.494	2.433	11.6	20.4
8 9	22 16.82	-30 6.2	1.904	2.879	6.9	18.2	8 9	22 17.68	-35 46.7	1.453	2.414	9.9	20.3
8 19	22 7.38	-30 46.5	1.899	2.878	6.3	18.2	8 19	22 7.67	-36 45.7	1.434	2.394	10.0	20.2
8 29	21 57.70	-31 8.7	1.920	2.877	7.9	18.3	8 29	21 57.05	-37 15.9	1.440	2.375	11.9	20.3
9 8	21 48.86	-31 9.9	1.967	2.875	10.5	18.4	9 8	21 47.38	-37 13.4	1.467	2.355	14.7	20.4
9 18	21 41.74	-30 50.5	2.036	2.874	13.2	18.6	9 18	21 39.94	-36 39.1	1.514	2.337	17.6	20.6
9 28	21 36.99	-30 12.7	2.126	2.872	15.5	18.8	9 28	21 35.63	-35 37.5	1.578	2.318	20.3	20.7
191291	2003 FH ₁₀₃		8 21.9	270°40	1°4/24.6	17	178865	2001 KF ₇₀		8 21.9	78°91	3°4/24.7	18
7 20	22 17.78	- 2 18.8	4.465	5.297	6.9	20.1	7 20	22 27.69	- 0 37.5	1.464	2.324	16.9	20.0
7 30	22 14.43	- 2 39.2	4.377	5.291	5.3	20.0	7 30	22 22.74	- 1 0.0	1.408	2.336	13.0	19.7
8 9	22 10.39	- 3 6.5	4.314	5.286	3.5	19.8	8 9	22 15.63	- 1 43.8	1.372	2.349	8.6	19.5
8 19	22 5.90	- 3 39.5	4.280	5.280	1.8	19.7	8 19	22 7.15	- 2 45.5	1.360	2.362	4.5	19.3
8 29	22 1.28	- 4 16.4	4.274	5.275	1.7	19.7	8 29	21 58.40	- 3 58.5	1.373	2.375	4.1	19.3
9 8	21 56.88	- 4 55.1	4.299	5.269	3.3	19.8	9 8	21 50.57	- 5 14.6	1.412	2.387	7.9	19.6
9 18	21 52.99	- 5 33.4	4.352	5.263	5.1	19.9	9 18	21 44.60	- 6 25.9	1.475	2.400	12.0	19.9
9 28	21 49.91	- 6 9.2	4.432	5.258	6.7	20.0	9 28	21 41.16	- 7 26.5	1.560	2.413	15.6	20.1
350406	2012 VE ₃₅		8 21.9	285°52	1°6/20.6	18	396655	2002 JL ₁₂₂		8 21.9	112°01	9°1/ 9.7	18
7 20	22 26.81	-13 22.4	1.752	2.641	13.1	20.9	7 20	22 31.19	-42 48.0	2.571	3.422	10.7	20.8
7 30	22 22.02	-14 7.6	1.680	2.633	9.5	20.7	7 30	22 24.91	-44 25.6	2.551	3.438	9.6	20.7
8 9	22 15.22	-15 1.3	1.630	2.625	5.5	20.4	8 9	22 16.73	-45 48.4	2.555	3.453	9.1	20.7
8 19	22 7.05	-15 57.8	1.607	2.617	1.7	20.1	8 19	22 7.38	-46 49.9	2.584	3.468	9.4	20.8
8 29	21 58.48	-16 50.7	1.610	2.609	4.2	20.3	8 29	21 57.84	-47 26.2	2.637	3.483	10.4	20.9
9 8	21 50.56	-17 33.9	1.640	2.601	8.4	20.5	9 8	21 49.12	-47 36.2	2.712	3.497	11.8	21.0
9 18	21 44.24	-18 3.6	1.693	2.593	12.3	20.7	9 18	21 42.06	-47 22.0	2.807	3.511	13.1	21.1
9 28	21 40.22	-18 17.8	1.768	2.585	15.6	21.0	9 28	21 37.25	-46 46.9	2.918	3.524	14.3	21.3
348122	2004 AD ₂₆		8 21.9	324°81	5°8/26.3	18	482916	2014 HO ₁₁₂		8 21.9	282°73	2°1/19.9	18
7 20	22 22.68	+ 2 58.9	1.449	2.302	17.4	19.9	7 20	22 25.69	-14 36.6	1.906	2.796	12.2	21.4
7 30	22 19.45	+ 3 10.5	1.361	2.280	14.1	19.7	7 30	22 21.10	-15 33.2	1.832	2.786	8.8	21.1
8 9	22 13.97	+ 2 58.2	1.293	2.259	10.4	19.4	8 9	22 14.66	-16 37.2	1.782	2.777	5.1	20.9
8 19	22 6.82	+ 2 21.5	1.247	2.238	6.9	19.1	8 19	22 6.94	-17 42.8	1.758	2.767	2.1	20.7
8 29	21 58.99	+ 1 23.3	1.224	2.219	6.0	19.0	8 29	21 58.84	-18 43.3	1.762	2.757	4.4	20.8
9 8	21 51.71	+ 0 10.3	1.225	2.200	8.8	19.2	9 8	21 51.31	-19 33.1	1.792	2.748	8.2	21.0
9 18	21 46.10	+ 1 8.7	1.248	2.182	13.0	19.3	9 18	21 45.23	-20 8.3	1.847	2.738	11.8	21.2
9 28	21 43.07	+ 2 24.6	1.293	2.165	17.0	19.5	9 28	21 41.28	-20 27.1	1.923	2.729	14.9	21.4
294891	2008 DP ₉		8 21.9	206°29	0°8/22.6	17	298232	2002 UA ₇₇		8 21.9	267°94	0°1/21.9	18
7 20	22 28.89	- 6 38.7	1.846	2.711	13.7	21.4	7 20	22 26.20	- 9 13.5	2.102	2.974	12.0	21.5
7 30	22 23.44	- 7 19.7	1.768	2.707	10.2	21.2	7 30	22 21.38	- 9 47.8	2.012	2.956	8.8	21.3
8 9	22 16.02	- 8 14.6	1.714	2.701	6.1	20.9	8 9	22 14.79	-10 32.6	1.947	2.937	5.2	21.0
8 19	22 7.25	- 9 19.2	1.685	2.695	1.8	20.6	8 19	22 6.98	-11 24.0	1.908	2.918	1.2	20.7
8 29	21 58.05	-10 27.5	1.685	2.689	3.0	20.7	8 29	21 58.72	-12 17.3	1.896	2.899	2.9	20.8
9 8	21 49.47	-11 32.8	1.712	2.681	7.4	20.9	9 8	21 50.90	-13 7.0	1.913	2.880	6.9	21.0
9 18	21 42.41	-12 29.6	1.765	2.673	11.4	21.2	9 18	21 44.35	-13 48.9	1.956	2.861	10.6	21.2
9 28	21 37.58	-13 13.8	1.841	2.665	14.8	21.4	9 28	21 39.74	-14 19.6	2.021	2.841	13.8	21.4
202862	2008 TT ₁₂₈		8 21.9	26°41	1°6/23.2	16	383994	2008 TG ₁₆₆		8 21.9	139°92	3°0/19.4	18
7 20	22 24.52	- 4 50.3	1.365	2.248	16.5	19.9	7 20	22 28.21	-17 12.3	1.792	2.685	12.7	21.1
7 30	22 20.60	- 5 28.5	1.308	2.254	12.3	19.7	7 30	22 22.93	-18 7.7	1.732	2.687	9.2	20.9
8 9	22 14.46	- 6 25.6	1.273	2.261	7.6	19.4	8 9	22 15.69	-19 7.6	1.696	2.689	5.4	20.6
8 19	22 6.88	- 7 36.6	1.260	2.269	2.7	19.2	8 19	22 7.17	-20 5.2	1.686	2.692	3.0	20.5
8 29	21 58.99	- 8 53.4	1.273	2.278	3.4	19.2	8 29	21 58.36	-20 54.1	1.702	2.694	5.2	20.6
9 8	21 52.00	-10 7.4	1.310	2.287	8.2	19.6	9 8	21 50.31	-21 29.1	1.745	2.696	8.8	20.9
9 18	21 46.90	-11 11.3	1.371	2.296	12.7	19.8	9 18	21 43.92	-21 47.8	1.812	2.697	12.4	21.1
9 28	21 44.36	-11 59.9	1.452	2.306	16.5	20.1	9 28	21 39.83	-21 49.7	1.900	2.699	15.4	21.3
144348	2004 DR ₃₆		8 21.9	147°01	0°5/22.4	17	266265	2007 AY ₃		8 21.9	167°42	1°6/20.7	18
7 20	22 30.23	- 8 8.8	1.823	2.691	13.7	20.9	7 20	22 31.62	-14 39.4	1.802	2.684	13.2	20.6
7 30	22 24.29	- 8 37.0	1.759	2.700	10.1	20.7	7 30	22 25.37	-15 7.7	1.738	2.688	9.5	20.4
8 9	22 16.41	- 9 16.5	1.719	2.708	6.0	20.5	8 9	22 17.09	-15 41.6	1.697	2.690	5.5	20.1
8 19	22 7.32	-10 3.1	1.705	2.715	1.6	20.2	8 19	22 7.49	-16 15.9	1.683	2.692	1.8	19.9
8 29	21 57.96	-10 51.4	1.718	2.722	3.0	20.4	8 29	21 57.61	-16 45.2	1.696	2.694	4.1	20.1
9 8	21 49.37	-11 35.8	1.760	2.728	7.3	20.6	9 8	21 48.54	-17 5.2	1.736	2.696	8.1	20.3
9 18	21 42.40	-12 12.2	1.826	2.734	11.1	20.9	9 18	21 41.19	-17 13.3	1.801	2.697	11.9	20.6
9 28	21 37.69	-12 37.7	1.915	2.739	14.3	21.1	9 28	21 36.22	-17 8.8	1.888	2.697	15.1	20.8
207241	2005 EJ ₁₇₂		8 21.9	232°67	1°5/20.6	18	231760	1999 UP ₁₁		8 21.9	358°10	4°4/19.9	18
7 20	22 26.93												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
449802	2014 <i>OH</i> ₃₀₁		8 21.9 295°26	1°6/20.3	17		92328	2000 <i>GW</i> ₆₀		8 21.9 333°83	3°4/20.1	18	
7 20	22 23.79	-13 36.3	2.198	3.083	11.0	21.4	7 20	22 26.93	-16 15.2	0.979	1.901	18.1	18.9
7 30	22 19.56	-14 29.7	2.116	3.067	8.0	21.2	7 30	22 23.39	-16 47.6	0.918	1.886	13.3	18.6
8 9	22 13.70	-15 30.6	2.058	3.052	4.6	21.0	8 9	22 16.61	-17 28.8	0.874	1.873	7.8	18.2
8 19	22 6.74	-16 34.2	2.027	3.036	1.6	20.8	8 19	22 7.51	-18 10.2	0.851	1.861	3.4	17.9
8 29	21 59.40	-17 34.8	2.024	3.021	3.7	20.9	8 29	21 57.68	-18 42.0	0.850	1.849	6.7	18.1
9 8	21 52.51	-18 27.2	2.048	3.006	7.3	21.1	9 8	21 48.99	-18 56.1	0.870	1.839	12.4	18.4
9 18	21 46.81	-19 7.7	2.098	2.990	10.6	21.3	9 18	21 42.97	-18 48.9	0.908	1.831	17.8	18.6
9 28	21 42.94	-19 34.0	2.171	2.975	13.5	21.4	9 28	21 40.62	-18 20.4	0.963	1.823	22.4	18.9
174618	2003 <i>SC</i> ₅₂		8 21.9 315°35	1°1/22.7	18		478029	2011 <i>SF</i> ₂₃₆		8 21.9 23°37	1°1/22.8	18	
7 20	22 25.07	- 6 7.0	1.241	2.133	17.2	19.8	7 20	22 26.85	- 7 23.1	1.683	2.559	14.2	21.1
7 30	22 21.45	- 6 44.9	1.168	2.120	12.9	19.5	7 30	22 22.00	- 7 35.8	1.619	2.562	10.6	20.9
8 9	22 15.23	- 7 43.7	1.115	2.107	7.9	19.2	8 9	22 15.19	- 8 0.9	1.577	2.566	6.4	20.6
8 19	22 7.15	- 8 58.3	1.085	2.095	2.4	18.9	8 19	22 7.12	- 8 34.7	1.560	2.569	2.1	20.4
8 29	21 58.40	-10 20.4	1.078	2.083	3.9	18.9	8 29	21 58.75	- 9 12.5	1.569	2.573	3.1	20.4
9 8	21 50.44	-11 39.5	1.095	2.072	9.5	19.2	9 8	21 51.13	- 9 48.8	1.605	2.578	7.4	20.7
9 18	21 44.53	-12 46.9	1.135	2.061	14.6	19.5	9 18	21 45.15	-10 19.0	1.665	2.582	11.3	21.0
9 28	21 41.58	-13 36.5	1.193	2.051	19.0	19.7	9 28	21 41.44	-10 39.8	1.746	2.587	14.7	21.2
58960	1998 <i>QH</i> ₉₉		8 21.9 306°99	2°7/20.1	18		360222	1999 <i>TE</i> ₆₂		8 21.9 245°02	7°8/13.6	18	
7 20	22 27.95	-15 22.7	1.340	2.243	15.4	19.0	7 20	22 31.38	-36 31.9	2.389	3.260	10.8	20.8
7 30	22 23.56	-16 4.4	1.262	2.222	11.3	18.7	7 30	22 25.07	-37 32.8	2.336	3.253	9.0	20.7
8 9	22 16.48	-16 55.3	1.205	2.201	6.6	18.4	8 9	22 16.88	-38 23.2	2.306	3.247	7.0	20.6
8 19	22 7.44	-17 48.2	1.171	2.180	2.8	18.1	8 19	22 7.49	-38 56.9	2.302	3.240	8.0	20.6
8 29	21 57.67	-18 34.7	1.162	2.160	5.7	18.3	8 29	21 57.87	-39 9.2	2.324	3.234	9.2	20.7
9 8	21 48.64	-19 7.2	1.177	2.140	10.7	18.5	9 8	21 49.02	-38 58.4	2.370	3.227	11.0	20.8
9 18	21 41.67	-19 21.5	1.214	2.121	15.5	18.7	9 18	21 41.78	-38 25.8	2.438	3.220	12.9	20.9
9 28	21 37.72	-19 15.9	1.269	2.102	19.6	18.9	9 28	21 36.75	-37 34.2	2.525	3.213	14.7	21.1
286728	2002 <i>GM</i> ₁₁₆		8 21.9 159°65	1°8/19.9	18		514057	2014 <i>OZ</i> ₂₁₂		8 21.9 117°62	2°7/24.5	18	
7 20	22 25.28	-15 26.2	2.542	3.423	9.9	21.0	7 20	22 28.17	- 2 15.2	2.526	3.360	11.4	21.2
7 30	22 20.33	-16 15.2	2.477	3.426	7.1	20.9	7 30	22 22.34	- 2 2.2	2.457	3.372	8.8	21.1
8 9	22 13.99	-17 8.4	2.437	3.430	4.1	20.7	8 9	22 15.14	- 2 0.0	2.413	3.383	5.9	20.9
8 19	22 6.78	-18 1.3	2.425	3.433	1.8	20.5	8 19	22 7.09	- 2 7.1	2.396	3.394	3.3	20.8
8 29	21 59.37	-18 49.5	2.442	3.436	3.5	20.7	8 29	21 58.87	- 2 21.6	2.407	3.405	3.1	20.8
9 8	21 52.45	-19 29.2	2.488	3.439	6.5	20.9	9 8	21 51.19	- 2 40.5	2.448	3.416	5.5	21.0
9 18	21 46.65	-19 57.8	2.559	3.442	9.3	21.0	9 18	21 44.66	- 3 0.5	2.516	3.426	8.3	21.2
9 28	21 42.46	-20 14.2	2.654	3.444	11.7	21.2	9 28	21 39.77	- 3 18.7	2.608	3.436	10.8	21.3
18853	1999 <i>RO</i> ₉₂		8 21.9 271°41	0°2/22.1	18 R		13262	1998 <i>QF</i> ₁₇		8 21.9 49°62	2°2/20.2	18 R	
7 20	22 24.48	- 8 50.0	2.240	3.111	11.4	18.5	7 20	22 27.16	-12 48.3	1.306	2.208	15.9	17.0
7 30	22 19.97	- 9 24.8	2.159	3.102	8.4	18.3	7 30	22 22.65	-13 59.1	1.258	2.217	11.4	16.7
8 9	22 13.90	-10 9.4	2.103	3.092	4.9	18.1	8 9	22 15.73	-15 21.0	1.230	2.226	6.5	16.5
8 19	22 6.78	-11 0.1	2.072	3.083	1.2	17.8	8 19	22 7.26	-16 45.4	1.226	2.236	2.3	16.3
8 29	21 59.34	-11 52.5	2.070	3.074	2.6	17.9	8 29	21 58.51	-18 2.3	1.248	2.246	5.2	16.5
9 8	21 52.36	-12 41.7	2.096	3.064	6.3	18.1	9 8	21 50.79	-19 3.6	1.294	2.256	10.0	16.8
9 18	21 46.57	-13 23.5	2.149	3.055	9.7	18.3	9 18	21 45.17	-19 44.6	1.362	2.267	14.3	17.1
9 28	21 42.54	-13 55.2	2.224	3.045	12.7	18.5	9 28	21 42.33	-20 4.2	1.449	2.278	17.9	17.3
94548	2001 <i>VP</i> ₄		8 21.9 172°78	1°0/21.2	17		293213	2007 <i>BJ</i> ₂₄		8 21.9 5°81	1°4/20.8	18	
7 20	22 33.24	-12 16.1	1.854	2.728	13.3	20.7	7 20	22 22.36	-12 13.0	1.460	2.363	14.5	19.4
7 30	22 26.52	-12 51.7	1.787	2.732	9.6	20.5	7 30	22 19.00	-13 2.9	1.404	2.363	10.4	19.2
8 9	22 17.75	-13 35.3	1.744	2.736	5.5	20.2	8 9	22 13.56	-14 3.5	1.369	2.365	5.9	18.9
8 19	22 7.67	-14 21.5	1.728	2.739	1.4	20.0	8 19	22 6.76	-15 8.2	1.357	2.368	1.7	18.6
8 29	21 57.27	-15 4.8	1.740	2.741	3.6	20.1	8 29	21 59.66	-16 9.2	1.371	2.372	4.3	18.8
9 8	21 47.65	-15 40.0	1.780	2.741	7.8	20.4	9 8	21 53.37	-16 59.6	1.410	2.377	8.8	19.1
9 18	21 39.73	-16 3.9	1.846	2.741	11.6	20.6	9 18	21 48.82	-17 34.7	1.472	2.384	12.9	19.4
9 28	21 34.17	-16 14.9	1.934	2.740	14.8	20.8	9 28	21 46.68	-17 52.4	1.553	2.391	16.4	19.6
10268	1979 <i>HW</i> ₆		8 21.9 61°34	0°3/22.1	18		46290	2001 <i>KY</i> ₅₁		8 21.9 168°94	4°0/25.9	18	
7 20	22 30.21	- 8 52.2	1.208	2.101	17.5	17.3	7 20	22 25.15	+ 2 33.0	1.979	2.811	14.2	19.4
7 30	22 24.89	- 9 20.2	1.162	2.115	12.8	17.1	7 30	22 20.59	+ 2 12.5	1.904	2.812	11.3	19.2
8 9	22 16.99	-10 3.0	1.136	2.129	7.5	16.9	8 9	22 14.32	+ 1 32.8	1.850	2.813	8.0	19.0
8 19	22 7.51	-10 54.4	1.132	2.143	1.8	16.5	8 19	22 6.94	+ 0 35.7	1.820	2.814	4.9	18.9
8 29	21 57.81	-11 46.5	1.154	2.158	3.9	16.7	8 29	21 59.23	- 0 34.4	1.818	2.814	4.2	18.8
9 8	21 49.33	-12 31.6	1.199	2.172	9.2	17.1	9 8	21 52.08	- 1 51.5	1.843	2.815	6.7	19.0
9 18	21 43.15	-13 4.4	1.267	2.187	13.9	17.4	9 18	21 46.27	- 3 8.8	1.894	2.815	10.0	19.2
9 28	21 39.96	-13 22.1	1.355	2.202	17.8	17.7	9 28	21 42.42	- 4 20.4	1.969	2.815	13.1	19.4
371856	2008 <i>AP</i> ₆₄		8 21.9 247°56	1°5/20.6	18		22607	1998 <i>HD</i> ₁₄₉		8 21.9 38°34	1°0/22.7	18	
7 20	22 26.67	-10 20.5	1.484	2.375	15.0	20.7	7 20	22 26.95	- 7 10.8	1.551	2.431	15.1	18.2
7 30	22 22.25	-11 42.8	1.416	2.370	10.9	20.4	7 30	22 22.19	- 7 32.2	1.492	2.437	11.2	18.0
8 9	22 15.52	-13 20.6	1.370	2.365	6.2	20.1	8 9	22 15.35	- 8 7.6	1.454	2.444	6.7	17.8
8 19	22 7.21	-15 5.8	1.349	2.360	1.7	19.8	8 19	22 7.17	- 8 52.5	1.441	2.451	2.1	17.5
8 29	21 58.39	-16 48.3	1.355	2.355	4.6	20.0	8 29	21 58.71	- 9 41.1	1.453	2.458	3.2	17.6
9 8	21 50.33	-18 18.4	1.387	2.349	9.4	20.3	9 8	21 51.09	-10 27.0	1.492	2.465	7.8	17.9
9 18	21 44.08	-19 29.2	1.442	2.344	13.8	20.5	9 18	21 45.23	-11 5.2	1.554	2.473	11.9	18.1
9 28	21 40.46	-20 17.6	1.517	2.339	17.5	20.8	9 28	21 41.79	-11 31.9	1.638	2.481	15.4	18.4
316527	2010 <i>VW</i> ₂₀₁		8 21.9 245°16	3°1/26.1	18		183225	2002 <i>TX</i> ₄₄					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
510808	2013 <i>BE</i> ₂₉		8 21.9 87°60	2°2/20.3	18		385612	2005 <i>GQ</i> ₇₉		8 21.9 85°49	2°5/19.8	18	
7 20	22 35.03	-19 36.8	2.366	3.238	10.8	20.7	7 20	22 28.16	-16 42.0	1.869	2.759	12.4	20.7
7 30	22 27.23	-19 35.6	2.316	3.259	7.8	20.5	7 30	22 22.84	-17 25.0	1.810	2.764	8.9	20.5
8 9	22 17.89	-19 33.5	2.291	3.280	4.6	20.4	8 9	22 15.65	-18 12.0	1.775	2.768	5.2	20.3
8 19	22 7.71	-19 27.2	2.295	3.301	2.3	20.3	8 19	22 7.28	-18 57.4	1.765	2.773	2.5	20.1
8 29	21 57.55	-19 14.2	2.329	3.322	3.8	20.4	8 29	21 58.67	-19 35.4	1.783	2.777	4.6	20.3
9 8	21 48.25	-18 53.0	2.393	3.343	6.8	20.6	9 8	21 50.81	-20 1.7	1.828	2.782	8.3	20.5
9 18	21 40.48	-18 23.5	2.484	3.363	9.7	20.8	9 18	21 44.53	-20 14.0	1.897	2.786	11.7	20.7
9 28	21 34.72	-17 46.4	2.598	3.383	12.1	21.0	9 28	21 40.44	-20 11.7	1.988	2.791	14.6	20.9
306196	2011 <i>PJ</i> ₈		8 21.9 124°25	1°0/22.9	18		394649	2008 <i>AL</i> ₄₆		8 21.9 159°38	2°8/24.7	18	
7 20	22 26.18	- 6 28.8	1.931	2.798	13.1	20.9	7 20	22 26.92	- 1 29.1	2.239	3.079	12.5	21.2
7 30	22 21.35	- 6 58.7	1.862	2.801	9.7	20.7	7 30	22 21.68	- 1 33.4	2.165	3.082	9.7	21.1
8 9	22 14.78	- 7 41.0	1.816	2.803	5.9	20.5	8 9	22 14.90	- 1 51.1	2.114	3.085	6.5	20.9
8 19	22 7.07	- 8 32.1	1.796	2.805	1.9	20.2	8 19	22 7.11	- 2 20.4	2.089	3.088	3.6	20.7
8 29	21 59.08	- 9 26.9	1.804	2.808	2.8	20.3	8 29	21 59.06	- 2 58.2	2.092	3.091	3.3	20.7
9 8	21 51.70	-10 19.7	1.838	2.810	6.7	20.6	9 8	21 51.54	- 3 40.1	2.123	3.093	6.0	20.9
9 18	21 45.74	-11 5.9	1.899	2.812	10.4	20.8	9 18	21 45.26	- 4 21.9	2.180	3.096	9.2	21.1
9 28	21 41.81	-11 41.9	1.982	2.814	13.6	21.0	9 28	21 40.77	- 4 59.6	2.262	3.097	12.0	21.3
447433	2006 <i>DZ</i> ₁₁₆		8 21.9 241°87	7°3/14.2	18		163758	2003 <i>OS</i> ₁₃		8 21.9 240°83	27°6/20.0	18	
7 20	22 32.83	-36 48.2	2.606	3.470	10.2	20.7	7 20	23 12.44	+50 58.8	1.809	2.175	27.6	21.6
7 30	22 26.00	-37 35.9	2.547	3.461	8.5	20.6	7 30	23 0.64	+54 24.1	1.708	2.146	27.7	21.5
8 9	22 17.38	-38 13.4	2.513	3.452	7.4	20.5	8 9	22 41.47	+57 22.2	1.614	2.112	27.7	21.3
8 19	22 7.66	-38 35.1	2.504	3.442	7.4	20.5	8 19	22 14.21	+59 32.3	1.530	2.074	27.7	21.1
8 29	21 57.73	-38 37.0	2.522	3.433	8.5	20.6	8 29	21 40.38	+60 30.8	1.457	2.030	28.0	21.0
9 8	21 48.53	-38 17.6	2.565	3.423	10.2	20.7	9 8	21 4.55	+60 1.4	1.396	1.982	28.5	20.9
9 18	21 40.86	-37 38.3	2.631	3.412	12.1	20.8	9 18	20 32.60	+58 3.9	1.347	1.928	29.5	20.8
9 28	21 35.30	-36 41.7	2.717	3.402	13.8	20.9	9 28	20 8.68	+54 55.2	1.309	1.868	30.8	20.7
477118	2009 <i>BQ</i> ₁₈₉		8 21.9 299°63	3°8/19.3	18		424508	2008 <i>DC</i> ₈₂		8 21.9 67°11	1°6/20.8	16	
7 20	22 30.19	-19 59.8	1.691	2.586	13.2	21.2	7 20	22 30.70	-13 2.2	1.368	2.263	15.8	21.2
7 30	22 24.75	-20 32.3	1.612	2.567	9.7	20.9	7 30	22 25.01	-13 45.2	1.326	2.282	11.3	21.0
8 9	22 17.00	-21 6.5	1.555	2.547	6.0	20.7	8 9	22 16.99	-14 36.9	1.306	2.301	6.4	20.8
8 19	22 7.63	-21 36.4	1.524	2.527	3.8	20.5	8 19	22 7.59	-15 30.1	1.310	2.321	1.9	20.5
8 29	21 57.72	-21 55.5	1.518	2.508	5.9	20.6	8 29	21 58.07	-16 17.3	1.340	2.340	4.5	20.8
9 8	21 48.51	-21 59.3	1.539	2.489	9.8	20.8	9 8	21 49.72	-16 52.4	1.395	2.360	9.2	21.1
9 18	21 41.07	-21 46.3	1.582	2.470	13.7	20.9	9 18	21 43.51	-17 12.5	1.473	2.379	13.3	21.4
9 28	21 36.23	-21 16.8	1.646	2.451	17.1	21.1	9 28	21 40.04	-17 16.4	1.571	2.398	16.7	21.7
47250	1999 <i>VW</i> ₅₈		8 21.9 238°93	0°9/21.3	18		266817	2009 <i>TU</i> ₁₀		8 21.9 320°57	1°2/20.9	18	
7 20	22 30.19	-11 40.6	1.759	2.639	13.6	19.4	7 20	22 25.05	-13 33.4	2.113	2.997	11.4	20.6
7 30	22 24.60	-12 18.5	1.679	2.627	9.9	19.2	7 30	22 20.50	-14 3.0	2.037	2.988	8.3	20.4
8 9	22 16.85	-13 6.4	1.621	2.614	5.7	18.9	8 9	22 14.29	-14 38.8	1.985	2.979	4.7	20.2
8 19	22 7.59	-13 59.2	1.590	2.601	1.4	18.6	8 19	22 6.99	-15 16.7	1.960	2.970	1.4	19.9
8 29	21 57.82	-14 50.6	1.586	2.587	3.8	18.7	8 29	21 59.36	-15 52.0	1.962	2.961	3.4	20.1
9 8	21 48.66	-15 34.4	1.609	2.573	8.3	19.0	9 8	21 52.27	-16 20.5	1.991	2.953	7.1	20.3
9 18	21 41.13	-16 6.5	1.656	2.558	12.4	19.2	9 18	21 46.47	-16 39.2	2.046	2.945	10.5	20.5
9 28	21 36.01	-16 24.3	1.726	2.542	15.9	19.4	9 28	21 42.56	-16 46.3	2.122	2.938	13.4	20.7
22317	1991 <i>LL</i> ₂		8 21.9 24°30	0°9/22.8	18		250932	2005 <i>WO</i> ₁₂₄		8 21.9 264°89	4°3/26.5	18	
7 20	22 24.44	- 7 13.8	1.895	2.769	13.0	18.2	7 20	22 24.06	+ 4 3.6	2.397	3.212	12.6	20.9
7 30	22 20.07	- 7 35.7	1.833	2.775	9.6	18.0	7 30	22 19.66	+ 3 57.1	2.303	3.197	10.1	20.7
8 9	22 14.02	- 8 9.1	1.793	2.781	5.8	17.8	8 9	22 13.78	+ 3 34.0	2.231	3.183	7.5	20.5
8 19	22 6.90	- 8 50.5	1.779	2.788	1.8	17.5	8 19	22 6.87	+ 2 55.1	2.184	3.169	5.1	20.3
8 29	21 59.54	- 9 35.0	1.792	2.796	2.8	17.6	8 29	21 59.60	+ 2 2.7	2.164	3.154	4.4	20.3
9 8	21 52.84	-10 17.6	1.831	2.803	6.7	17.9	9 8	21 52.69	+ 1 1.2	2.172	3.139	6.2	20.3
9 18	21 47.55	-10 53.9	1.896	2.812	10.3	18.1	9 18	21 46.84	- 0 4.3	2.207	3.124	9.0	20.5
9 28	21 44.23	-11 20.7	1.983	2.820	13.4	18.3	9 28	21 42.62	- 1 8.4	2.266	3.109	11.7	20.7
434744	2006 <i>GW</i> ₅₂		8 21.9 113°32	2°9/25.2	18		45324	2000 <i>AG</i> ₆₉		8 21.9 308°92	3°5/19.2	18	
7 20	22 25.73	+ 1 36.2	2.012	2.846	13.9	20.9	7 20	22 26.25	-15 15.9	1.335	2.241	15.3	18.6
7 30	22 20.90	+ 0 39.1	1.947	2.860	10.8	20.7	7 30	22 22.26	-16 34.9	1.268	2.230	11.1	18.3
8 9	22 14.46	- 0 37.3	1.904	2.874	7.2	20.5	8 9	22 15.71	-18 5.0	1.223	2.219	6.5	18.1
8 19	22 7.00	- 2 9.3	1.888	2.888	3.9	20.3	8 19	22 7.37	-19 36.9	1.201	2.208	3.5	17.9
8 29	21 59.31	- 3 50.6	1.900	2.901	3.3	20.3	8 29	21 58.43	-20 59.9	1.204	2.198	6.4	18.0
9 8	21 52.26	- 5 33.5	1.941	2.914	6.3	20.5	9 8	21 50.31	-22 4.7	1.232	2.188	11.1	18.2
9 18	21 46.56	- 7 11.1	2.009	2.927	9.7	20.8	9 18	21 44.22	-22 46.2	1.280	2.178	15.5	18.5
9 28	21 42.76	- 8 37.4	2.102	2.939	12.7	21.0	9 28	21 41.03	-23 3.0	1.348	2.169	19.3	18.7
404040	2012 <i>DO</i> ₁		8 21.9 232°23	0°7/21.3	18		346700	2008 <i>YT</i> ₁₃₈		8 21.9 287°85	2°8/24.2	18	
7 20	22 27.10	-13 0.1	2.401	3.276	10.6	21.0	7 20	22 27.21	- 3 9.7	1.820	2.678	14.2	20.8
7 30	22 21.75	-13 15.8	2.327	3.272	7.7	20.9	7 30	22 22.27	- 3 9.9	1.743	2.672	10.9	20.6
8 9	22 14.91	-13 36.6	2.277	3.269	4.4	20.6	8 9	22 15.42	- 3 24.7	1.687	2.666	7.2	20.4
8 19	22 7.10	-13 59.3	2.255	3.266	1.1	20.4	8 19	22 7.27	- 3 52.4	1.656	2.660	3.6	20.2
8 29	21 59.06	-14 20.3	2.261	3.262	2.8	20.5	8 29	21 58.71	- 4 29.1	1.652	2.654	3.5	20.1
9 8	21 51.53	-14 36.3	2.296	3.259	6.2	20.8	9 8	21 50.76	- 5 9.9	1.675	2.648	7.1	20.4
9 18	21 45.20	-14 45.2	2.357	3.255	9.3	20.9	9 18	21 44.30	- 5 49.5	1.723	2.643	10.9	20.6
9 28	21 40.59	-14 45.5	2.442	3.252	12.0	21.1	9 28	21 40.01	- 6 23.4	1.793	2.637	14.3	20.8
18672	Ashleyamini		8 21.9 210°89	0°7/22.5	18 R		318445	2005 <i>CF</i> ₆₀		8 21.9 1			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
212402	2006 <i>JN</i> ₄₈		8 21.9 54°85	2°6/23.7	17		208626	2002 <i>EU</i> ₆₁		8 21.9 52°80	1°0/22.7	17	
7 20	22 28.95	- 4 7.0	1.239	2.119	18.0	20.5	7 20	22 28.32	- 6 32.4	1.188	2.079	17.9	19.8
7 30	22 24.05	- 4 19.9	1.185	2.127	13.6	20.3	7 30	22 23.60	- 7 8.2	1.142	2.093	13.2	19.6
8 9	22 16.62	- 4 52.9	1.150	2.136	8.6	20.0	8 9	22 16.35	- 8 2.2	1.115	2.107	7.9	19.3
8 19	22 7.55	- 5 41.8	1.138	2.145	3.7	19.8	8 19	22 7.52	- 9 8.4	1.111	2.121	2.4	19.0
8 29	21 58.16	- 6 39.7	1.151	2.155	4.0	19.8	8 29	21 58.44	-10 17.8	1.131	2.136	3.8	19.2
9 8	21 49.84	- 7 38.2	1.187	2.164	8.8	20.1	9 8	21 50.53	-11 21.4	1.175	2.151	9.1	19.5
9 18	21 43.70	- 8 29.9	1.247	2.174	13.5	20.4	9 18	21 44.85	-12 12.4	1.242	2.166	13.8	19.8
9 28	21 40.47	- 9 9.4	1.326	2.184	17.5	20.7	9 28	21 42.10	-12 47.0	1.328	2.182	17.7	20.1
499035	2009 <i>DM</i> ₅₃		8 21.9 242°56	1°4/20.9	17		49937	1999 <i>XO</i> ₁₈₀		8 21.9 244°68	6°0/17.1	18	
7 20	22 29.90	-11 48.3	1.452	2.342	15.3	21.5	7 20	22 32.64	-25 5.5	1.753	2.645	13.0	18.2
7 30	22 24.75	-12 40.7	1.380	2.333	11.2	21.2	7 30	22 26.55	-26 13.7	1.683	2.632	9.8	18.0
8 9	22 17.09	-13 45.7	1.330	2.324	6.4	20.9	8 9	22 18.07	-27 20.2	1.636	2.618	7.0	17.8
8 19	22 7.70	-14 56.4	1.304	2.315	1.8	20.6	8 19	22 7.95	-28 16.6	1.615	2.604	6.1	17.7
8 29	21 57.73	-16 4.4	1.305	2.305	4.5	20.8	8 29	21 57.31	-28 55.2	1.621	2.589	8.1	17.8
9 8	21 48.54	-17 1.6	1.331	2.295	9.6	21.1	9 8	21 47.44	-29 11.4	1.652	2.574	11.3	17.9
9 18	21 41.31	-17 42.6	1.380	2.285	14.1	21.3	9 18	21 39.46	-29 4.3	1.705	2.558	14.6	18.1
9 28	21 36.88	-18 4.9	1.449	2.274	18.0	21.5	9 28	21 34.15	-28 35.8	1.778	2.542	17.5	18.3
99622	2002 <i>GD</i> ₈₈		8 21.9 196°67	0°1/21.9	18		319261	2006 <i>BQ</i> ₄		8 21.9 312°91	2°3/19.5	18	
7 20	22 27.51	- 8 57.4	2.205	3.072	11.7	20.3	7 20	22 23.76	-15 13.2	2.103	2.993	11.2	20.3
7 30	22 22.21	- 9 41.5	2.129	3.069	8.6	20.1	7 30	22 19.62	-16 21.0	2.031	2.986	8.1	20.1
8 9	22 15.26	-10 35.7	2.076	3.066	5.0	19.8	8 9	22 13.83	-17 35.4	1.985	2.979	4.7	19.9
8 19	22 7.23	-11 35.8	2.051	3.062	1.2	19.6	8 19	22 6.94	-18 50.5	1.965	2.972	2.3	19.7
8 29	21 58.88	-12 36.6	2.055	3.058	2.8	19.7	8 29	21 59.71	-20 0.1	1.973	2.965	4.4	19.8
9 8	21 51.04	-13 33.0	2.087	3.053	6.5	19.9	9 8	21 53.00	-20 58.4	2.008	2.959	7.8	20.0
9 18	21 44.47	-14 20.6	2.146	3.047	10.0	20.1	9 18	21 47.57	-21 42.0	2.068	2.953	11.1	20.2
9 28	21 39.76	-14 56.8	2.228	3.041	12.9	20.3	9 28	21 44.01	-22 9.0	2.150	2.947	13.9	20.4
62573	2000 <i>SR</i> ₂₇₆		8 21.9 5°14	4°1/18.7	18		301907	1998 <i>XB</i> ₉		8 21.9 317°08	2°3/22.9	17	
7 20	22 29.04	-21 57.5	1.874	2.768	12.2	18.7	7 20	22 34.05	- 7 59.4	1.524	2.395	15.7	19.8
7 30	22 23.53	-22 32.8	1.815	2.768	8.9	18.5	7 30	22 28.40	- 7 24.7	1.401	2.340	12.2	19.4
8 9	22 16.09	-23 7.1	1.779	2.768	5.7	18.3	8 9	22 19.74	- 6 57.9	1.299	2.285	7.8	19.0
8 19	22 7.42	-23 34.8	1.769	2.769	4.1	18.2	8 19	22 8.49	- 6 38.1	1.221	2.228	3.2	18.6
8 29	21 58.51	-23 50.7	1.786	2.770	5.9	18.3	8 29	21 55.69	- 6 23.2	1.169	2.172	4.2	18.5
9 8	21 50.40	-23 51.5	1.829	2.771	9.1	18.5	9 8	21 42.83	- 6 10.2	1.143	2.115	9.8	18.7
9 18	21 43.96	-23 36.6	1.896	2.772	12.3	18.7	9 18	21 31.51	- 5 55.8	1.141	2.058	15.4	18.8
9 28	21 39.79	-23 6.8	1.983	2.774	15.1	18.9	9 28	21 23.15	- 5 36.8	1.159	2.001	20.5	18.9
97948	2000 <i>QF</i> ₁₂₄		8 21.9 252°73	0°4/21.7	18		43181	1999 <i>XY</i> ₂₀₆		8 21.9 313°08	7°6/14.2	18	R
7 20	22 31.87	-11 8.2	1.518	2.401	15.1	19.9	7 20	22 27.37	-31 12.7	1.970	2.862	11.7	18.0
7 30	22 26.12	-11 26.7	1.441	2.390	11.2	19.7	7 30	22 22.60	-32 30.9	1.903	2.843	9.5	17.8
8 9	22 17.88	-11 55.6	1.385	2.377	6.5	19.4	8 9	22 15.73	-33 43.1	1.859	2.823	7.8	17.7
8 19	22 7.89	-12 30.3	1.354	2.365	1.5	19.0	8 19	22 7.40	-34 41.2	1.841	2.804	7.8	17.6
8 29	21 57.32	-13 4.9	1.349	2.352	3.8	19.2	8 29	21 58.62	-35 18.3	1.847	2.786	9.5	17.7
9 8	21 47.49	-13 33.4	1.370	2.339	8.9	19.4	9 8	21 50.50	-35 30.7	1.878	2.767	11.9	17.8
9 18	21 39.58	-13 51.4	1.416	2.326	13.5	19.7	9 18	21 44.03	-35 18.1	1.930	2.749	14.5	17.9
9 28	21 34.45	-13 56.6	1.481	2.312	17.4	19.9	9 28	21 39.93	-34 42.6	2.000	2.731	16.9	18.1
207972	1996 <i>JZ</i> ₁₃		8 21.9 136°41	4°9/17.3	18		119226	2001 <i>QB</i> ₂₂₄		8 21.9 29°49	5°0/26.1	17	
7 20	22 29.57	-24 24.3	2.081	2.971	11.3	20.6	7 20	22 24.74	+ 2 42.7	1.328	2.185	18.4	19.7
7 30	22 23.78	-25 27.7	2.030	2.978	8.4	20.4	7 30	22 20.91	+ 2 26.9	1.268	2.191	14.6	19.4
8 9	22 16.18	-26 28.7	2.003	2.985	5.9	20.2	8 9	22 14.80	+ 1 44.3	1.227	2.197	10.3	19.2
8 19	22 7.45	-27 20.8	2.003	2.992	5.0	20.2	8 19	22 7.19	+ 0 37.3	1.208	2.205	6.3	19.0
8 29	21 58.51	-27 58.4	2.030	2.998	6.6	20.3	8 29	21 59.20	- 0 47.8	1.214	2.212	5.3	19.0
9 8	21 50.33	-28 18.0	2.083	3.004	9.3	20.5	9 8	21 52.10	- 2 21.1	1.243	2.220	8.4	19.2
9 18	21 43.71	-28 19.1	2.160	3.010	12.1	20.7	9 18	21 46.91	- 3 52.6	1.296	2.229	12.6	19.5
9 28	21 39.22	-28 2.9	2.258	3.016	14.4	20.9	9 28	21 44.35	- 5 13.9	1.370	2.238	16.4	19.7
95245	2002 <i>CV</i> ₅₁		8 21.9 69°97	1°0/21.2	18		60233	1999 <i>VZ</i> ₁₅₃		8 21.9 173°81	2°4/24.7	18	
7 20	22 29.29	-14 7.8	2.113	2.991	11.7	19.2	7 20	22 25.93	- 0 43.9	2.332	3.168	12.2	19.7
7 30	22 23.42	-14 16.5	2.052	2.999	8.4	19.0	7 30	22 20.96	- 1 20.4	2.254	3.170	9.4	19.5
8 9	22 15.90	-14 29.5	2.015	3.008	4.8	18.8	8 9	22 14.51	- 2 11.8	2.200	3.173	6.2	19.3
8 19	22 7.38	-14 43.3	2.006	3.016	1.3	18.6	8 19	22 7.09	- 3 15.5	2.173	3.174	3.2	19.1
8 29	21 58.68	-14 54.3	2.024	3.025	3.2	18.8	8 29	21 59.40	- 4 27.1	2.174	3.176	2.9	19.1
9 8	21 50.70	-14 59.4	2.071	3.034	6.8	19.0	9 8	21 52.20	- 5 41.0	2.205	3.176	5.8	19.3
9 18	21 44.15	-14 56.9	2.143	3.042	10.1	19.2	9 18	21 46.15	- 6 52.1	2.263	3.176	8.9	19.5
9 28	21 39.58	-14 45.7	2.238	3.051	12.9	19.4	9 28	21 41.80	- 7 55.7	2.345	3.176	11.8	19.7
349733	2008 <i>YW</i> ₉₇		8 21.9 210°63	2°5/19.6	18		440675	2005 <i>YP</i> ₂₀		8 21.9 155°15	2°0/20.1	17	
7 20	22 27.21	-16 6.4	2.003	2.891	11.8	21.4	7 20	22 29.10	-14 58.8	2.068	2.949	11.8	21.7
7 30	22 22.16	-17 3.4	1.936	2.888	8.5	21.2	7 30	22 23.40	-15 52.6	2.006	2.956	8.5	21.5
8 9	22 15.30	-18 5.6	1.892	2.886	5.0	21.0	8 9	22 15.97	-16 51.7	1.970	2.962	4.9	21.3
8 19	22 7.27	-19 7.3	1.876	2.883	2.5	20.8	8 19	22 7.43	-17 50.7	1.960	2.968	2.1	21.2
8 29	21 58.90	-20 2.4	1.887	2.879	4.6	21.0	8 29	21 58.65	-18 43.8	1.979	2.974	4.1	21.3
9 8	21 51.16	-20 45.6	1.925	2.876	8.1	21.2	9 8	21 50.53	-19 26.2	2.025	2.979	7.6	21.5
9 18	21 44.85	-21 14.0	1.988	2.872	11.5	21.4	9 18	21 43.87	-19 55.2	2.097	2.983	10.9	21.8
9 28	21 40.60	-21 26.5	2.073	2.869	14.3	21.6	9 28	21 39.24	-20 9.5	2.192	2.987	13.7	22.0
5695	Remillieux		8 21.9 257°26	2°8/24.8	18		216566	2001 <i>YB</i> ₅₁		8 21.9 330			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
87147	2000 <i>NM</i> ₁₆		8 21.9 344°86	3°2/23.3	18		44048	1998 <i>FF</i> ₄		8 21.9 173°70	2°1/20.2	18	
7 20	22 31.67	- 7 45.7	1.218	2.106	17.8	18.3	7 20	22 28.92	-13 10.9	1.563	2.454	14.3	18.8
7 30	22 26.35	- 6 44.5	1.148	2.095	13.6	18.0	7 30	22 23.81	-14 20.2	1.501	2.455	10.4	18.6
8 9	22 18.18	- 5 53.3	1.099	2.086	8.7	17.7	8 9	22 16.46	-15 39.8	1.461	2.456	5.9	18.3
8 19	22 8.02	- 5 12.3	1.071	2.078	4.1	17.4	8 19	22 7.62	-17 1.9	1.447	2.457	2.2	18.1
8 29	21 57.26	- 4 40.3	1.068	2.071	4.6	17.4	8 29	21 58.38	-18 18.0	1.460	2.457	4.8	18.3
9 8	21 47.47	- 4 14.9	1.088	2.065	9.5	17.7	9 8	21 49.96	-19 20.6	1.499	2.458	9.3	18.5
9 18	21 39.98	- 3 53.0	1.131	2.060	14.4	17.9	9 18	21 43.37	-20 5.0	1.561	2.458	13.3	18.8
9 28	21 35.70	- 3 30.9	1.193	2.057	18.7	18.2	9 28	21 39.35	-20 29.7	1.644	2.457	16.8	19.0
446962	2003 <i>SV</i> ₄₀₈		8 21.9 54°96	3°4/25.8	18		420327	2012 <i>BQ</i> ₂		8 21.9 177°74	0°2/22.1	15	
7 20	22 23.27	+ 1 51.6	2.331	3.159	12.4	21.4	7 20	22 33.18	- 9 47.6	1.704	2.576	14.3	22.6
7 30	22 19.04	+ 1 33.2	2.254	3.161	9.8	21.2	7 30	22 26.72	-10 5.0	1.636	2.578	10.5	22.4
8 9	22 13.40	+ 0 58.9	2.200	3.163	6.9	21.0	8 9	22 18.07	-10 32.5	1.590	2.580	6.2	22.1
8 19	22 6.85	+ 0 10.5	2.171	3.165	4.2	20.9	8 19	22 7.99	-11 5.9	1.570	2.580	1.5	21.8
8 29	22 0.04	- 0 48.4	2.171	3.167	3.6	20.8	8 29	21 57.54	-11 40.1	1.577	2.581	3.3	22.0
9 8	21 53.70	- 1 53.1	2.197	3.169	5.8	21.0	9 8	21 47.91	-12 9.8	1.612	2.580	7.9	22.3
9 18	21 48.46	- 2 58.4	2.251	3.171	8.7	21.2	9 18	21 40.06	-12 31.3	1.672	2.579	12.0	22.5
9 28	21 44.85	- 3 59.4	2.329	3.173	11.4	21.3	9 28	21 34.72	-12 42.1	1.754	2.577	15.4	22.7
509058	2005 <i>TH</i> ₄₆		8 21.9 357°46	5°5/24.9	17		267726	2003 <i>EG</i> ₅₇		8 21.9 64°97	2°8/19.5	18	
7 20	22 22.73	- 2 20.7	0.968	1.866	20.4	19.9	7 20	22 27.97	-13 26.3	1.459	2.355	14.9	19.6
7 30	22 20.12	- 1 34.5	0.910	1.859	16.0	19.6	7 30	22 22.96	-15 6.8	1.423	2.381	10.5	19.4
8 9	22 14.66	- 1 10.7	0.870	1.854	11.1	19.3	8 9	22 15.83	-16 55.4	1.411	2.406	6.0	19.2
8 19	22 7.21	- 1 10.0	0.849	1.851	6.6	19.1	8 19	22 7.43	-18 42.3	1.424	2.432	2.8	19.1
8 29	21 59.20	- 1 28.9	0.849	1.850	6.0	19.1	8 29	21 58.92	-20 17.5	1.464	2.458	5.4	19.3
9 8	21 52.24	- 2 0.3	0.869	1.851	10.2	19.3	9 8	21 51.45	-21 33.5	1.530	2.484	9.5	19.6
9 18	21 47.68	- 2 35.7	0.909	1.854	15.1	19.6	9 18	21 45.92	-22 26.8	1.619	2.509	13.3	19.9
9 28	21 46.39	- 3 7.0	0.967	1.859	19.5	19.9	9 28	21 42.90	-22 56.9	1.728	2.535	16.3	20.2
49583	1999 <i>CU</i> ₁₃₂		8 21.9 290°25	2°7/20.0	18		482203	2010 <i>VV</i> ₁₆₀		8 21.9 269°61	5°4/16.6	18	
7 20	22 28.46	-15 10.1	1.494	2.392	14.5	19.0	7 20	22 28.40	-27 18.9	2.263	3.151	10.6	21.0
7 30	22 23.77	-16 1.2	1.415	2.372	10.6	18.7	7 30	22 22.94	-28 13.1	2.201	3.146	8.1	20.9
8 9	22 16.62	-17 1.5	1.358	2.353	6.2	18.4	8 9	22 15.74	-29 3.2	2.165	3.141	6.0	20.7
8 19	22 7.67	-18 4.0	1.325	2.334	2.7	18.1	8 19	22 7.42	-29 43.4	2.154	3.135	5.5	20.7
8 29	21 58.06	-19 0.3	1.318	2.315	5.4	18.3	8 29	21 58.85	-30 8.5	2.171	3.130	7.0	20.8
9 8	21 49.12	-19 43.2	1.336	2.296	10.1	18.5	9 8	21 50.92	-30 15.9	2.214	3.125	9.4	20.9
9 18	21 42.05	-20 8.2	1.377	2.277	14.5	18.7	9 18	21 44.41	-30 5.1	2.280	3.120	11.9	21.1
9 28	21 37.74	-20 13.6	1.437	2.258	18.4	18.9	9 28	21 39.93	-29 37.3	2.367	3.114	14.1	21.2
230905	2004 <i>TW</i> ₈₈		8 21.9 170°05	1°6/20.7	18		396096	2013 <i>CZ</i> ₁₂₀		8 21.9 279°66	0°1/21.9	18	
7 20	22 29.12	-13 47.6	1.901	2.784	12.6	21.1	7 20	22 25.01	- 9 5.2	2.059	2.933	12.1	20.8
7 30	22 23.58	-14 29.4	1.836	2.786	9.1	20.9	7 30	22 20.53	- 9 45.8	1.983	2.928	8.9	20.6
8 9	22 16.15	-15 17.8	1.795	2.788	5.2	20.6	8 9	22 14.38	-10 36.9	1.932	2.922	5.2	20.4
8 19	22 7.50	-16 7.7	1.779	2.789	1.7	20.4	8 19	22 7.12	-11 34.4	1.906	2.917	1.2	20.1
8 29	21 58.56	-16 53.3	1.792	2.791	3.9	20.6	8 29	21 59.53	-12 32.9	1.908	2.912	2.9	20.2
9 8	21 50.31	-17 29.6	1.832	2.791	7.8	20.8	9 8	21 52.46	-13 27.0	1.938	2.906	6.8	20.5
9 18	21 43.62	-17 53.4	1.897	2.792	11.4	21.0	9 18	21 46.69	-14 12.4	1.994	2.901	10.3	20.7
9 28	21 39.10	-18 3.5	1.984	2.792	14.5	21.2	9 28	21 42.82	-14 45.9	2.072	2.895	13.4	20.9
100105	1993 <i>FK</i> ₃₅		8 21.9 4°53	2°8/19.8	18		149444	2003 <i>CP</i> ₂		8 21.9 235°53	10°7/29.6	18	
7 20	22 26.82	-17 18.6	1.752	2.648	12.8	19.2	7 20	22 33.57	+16 31.1	2.054	2.784	17.0	20.1
7 30	22 22.04	-17 56.8	1.691	2.648	9.2	19.0	7 30	22 27.08	+17 54.8	1.961	2.771	15.1	19.9
8 9	22 15.30	-18 38.7	1.654	2.648	5.5	18.8	8 9	22 18.41	+18 56.9	1.888	2.758	13.1	19.7
8 19	22 7.31	-19 18.6	1.642	2.649	2.8	18.6	8 19	22 8.12	+19 32.9	1.836	2.744	11.4	19.6
8 29	21 59.04	-19 50.7	1.656	2.650	4.9	18.7	8 29	21 57.10	+19 40.1	1.809	2.730	10.7	19.5
9 8	21 51.54	-20 10.6	1.696	2.652	8.6	19.0	9 8	21 46.46	+19 19.9	1.806	2.714	11.3	19.6
9 18	21 45.67	-20 16.0	1.761	2.654	12.2	19.2	9 18	21 37.22	+18 36.9	1.828	2.699	13.0	19.6
9 28	21 42.07	-20 6.5	1.846	2.657	15.3	19.4	9 28	21 30.26	+17 38.6	1.871	2.682	15.1	19.7
105644	2000 <i>SY</i> ₁₉		8 21.9 8°62	4°5/25.7	18		224132	2005 <i>QA</i> ₃₃		8 21.9 0°80	0°7/22.4	15	
7 20	22 26.17	+ 1 9.0	1.879	2.719	14.6	18.7	7 20	22 22.13	- 7 47.0	1.030	1.940	18.4	20.1
7 30	22 21.44	+ 1 26.6	1.807	2.719	11.5	18.5	7 30	22 19.55	- 8 15.8	0.975	1.936	13.7	19.8
8 9	22 14.93	+ 1 27.4	1.756	2.720	8.2	18.3	8 9	22 14.26	- 9 4.1	0.939	1.934	8.2	19.5
8 19	22 7.23	+ 1 12.0	1.730	2.722	5.3	18.1	8 19	22 7.13	-10 6.1	0.923	1.934	2.2	19.1
8 29	21 59.21	+ 0 43.1	1.729	2.723	4.7	18.1	8 29	21 59.54	-11 12.4	0.930	1.935	4.1	19.2
9 8	21 51.80	+ 0 5.3	1.755	2.725	7.1	18.2	9 8	21 52.99	-12 12.9	0.958	1.938	9.9	19.6
9 18	21 45.81	- 0 36.3	1.806	2.728	10.4	18.4	9 18	21 48.72	-12 59.6	1.007	1.942	15.1	19.9
9 28	21 41.88	- 1 16.3	1.880	2.730	13.4	18.6	9 28	21 47.54	-13 27.8	1.075	1.948	19.5	20.2
30914	1993 <i>FV</i> ₈₂		8 21.9 319°70	3°0/20.2	18		353722	2011 <i>WT</i> ₁₉		8 21.9 31°97	2°8/24.4	18	
7 20	22 25.71	-14 28.3	1.047	1.964	17.5	18.1	7 20	22 25.91	- 2 27.0	1.868	2.723	14.0	20.6
7 30	22 22.54	-15 17.1	0.975	1.942	12.9	17.7	7 30	22 21.25	- 2 34.2	1.799	2.726	10.7	20.4
8 9	22 16.27	-16 19.5	0.922	1.921	7.6	17.4	8 9	22 14.81	- 2 56.7	1.752	2.730	7.1	20.2
8 19	22 7.65	-17 27.1	0.890	1.900	3.1	17.1	8 19	22 7.22	- 3 32.1	1.730	2.733	3.6	20.0
8 29	21 58.12	-18 28.5	0.880	1.880	6.4	17.2	8 29	21 59.34	- 4 16.3	1.735	2.737	3.4	20.0
9 8	21 49.46	-19 13.5	0.892	1.861	12.3	17.4	9 8	21 52.09	- 5 4.1	1.767	2.741	6.7	20.2
9 18	21 43.23	-19 35.8	0.923	1.843	17.8	17.7	9 18	21 46.28	- 5 50.2	1.824	2.745	10.3	20.5
9 28	21 40.57	-19 33.2	0.970	1.826	22.6	17.9	9 28	21 42.52	- 6 30.0	1.904	2.749	13.5	20.7
232972	2005 <i>EZ</i> ₉₁		8 21.9 129°35	0°2/21.8	18		476704	2008 <i>TH</i> ₁₅₂ </					

EPHEMERIDES

8 21.9

8 22.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
304264	2006 <i>RU</i> ₈₅		8 21.9 35°16	0°4/21.7	18		370857	2005 <i>EK</i> ₂		8 22.0 92°91	0°2/21.9	17	
7 20	22 27.10	-11 2.6	1.851	2.732	12.9	21.1	7 20	22 30.72	-9 7.0	1.457	2.339	15.7	21.0
7 30	22 22.13	-11 29.1	1.786	2.734	9.4	20.9	7 30	22 25.02	-9 51.6	1.408	2.356	11.4	20.8
8 9	22 15.33	-12 4.3	1.745	2.737	5.4	20.6	8 9	22 17.09	-10 49.0	1.381	2.373	6.6	20.6
8 19	22 7.35	-12 43.9	1.729	2.740	1.2	20.4	8 19	22 7.79	-11 53.0	1.379	2.390	1.5	20.3
8 29	21 59.09	-13 22.8	1.740	2.743	3.2	20.5	8 29	21 58.29	-12 55.8	1.403	2.406	3.6	20.5
9 8	21 51.53	-13 56.0	1.779	2.746	7.3	20.8	9 8	21 49.83	-13 50.5	1.453	2.423	8.4	20.8
9 18	21 45.48	-14 20.0	1.842	2.750	11.0	21.0	9 18	21 43.36	-14 32.2	1.528	2.438	12.6	21.1
9 28	21 41.57	-14 32.6	1.927	2.753	14.2	21.2	9 28	21 39.52	-14 58.3	1.623	2.454	16.1	21.4
236432	2006 <i>DF</i> ₁₃₂		8 22.0 123°04	1°8/20.4	17 R		171215	2005 <i>JJ</i> ₇₇		8 22.0 107°96	2°1/23.8	18	
7 20	22 27.94	-13 50.8	1.755	2.643	13.2	20.4	7 20	22 28.90	-4 41.3	1.988	2.843	13.3	19.8
7 30	22 22.86	-14 41.5	1.693	2.646	9.5	20.2	7 30	22 23.29	-4 40.4	1.922	2.851	10.0	19.6
8 9	22 15.80	-15 39.6	1.654	2.648	5.4	20.0	8 9	22 15.95	-4 51.5	1.879	2.859	6.4	19.4
8 19	22 7.47	-16 39.3	1.641	2.651	1.9	19.7	8 19	22 7.53	-5 12.5	1.862	2.867	2.9	19.2
8 29	21 58.83	-17 33.9	1.656	2.654	4.3	19.9	8 29	21 58.86	-5 39.9	1.872	2.875	3.0	19.3
9 8	21 50.94	-18 17.6	1.697	2.656	8.3	20.1	9 8	21 50.86	-6 9.3	1.910	2.882	6.5	19.5
9 18	21 44.67	-18 47.1	1.762	2.659	12.0	20.4	9 18	21 44.30	-6 36.8	1.974	2.889	10.0	19.7
9 28	21 40.69	-19 0.7	1.848	2.661	15.2	20.6	9 28	21 39.77	-6 58.8	2.062	2.897	13.0	19.9
272839	2006 <i>BD</i> ₁₇		8 22.0 163°91	1°8/19.9	18		447084	2004 <i>TX</i> ₄₃		8 22.0 253°20	2°6/19.4	18	
7 20	22 24.88	-15 37.6	2.679	3.559	9.5	20.7	7 20	22 27.26	-18 49.3	2.455	3.338	10.1	21.6
7 30	22 20.07	-16 27.2	2.613	3.562	6.8	20.6	7 30	22 21.99	-19 23.9	2.378	3.328	7.3	21.4
8 9	22 13.96	-17 20.7	2.572	3.565	3.9	20.4	8 9	22 15.17	-20 0.3	2.327	3.318	4.4	21.2
8 19	22 7.02	-18 13.9	2.559	3.567	1.8	20.2	8 19	22 7.35	-20 34.1	2.303	3.307	2.6	21.1
8 29	21 59.87	-19 2.5	2.576	3.569	3.4	20.3	8 29	21 59.23	-21 1.3	2.308	3.297	4.2	21.2
9 8	21 53.18	-19 42.8	2.621	3.571	6.3	20.5	9 8	21 51.61	-21 18.4	2.340	3.286	7.2	21.4
9 18	21 47.53	-20 12.5	2.692	3.573	8.9	20.7	9 18	21 45.18	-21 23.8	2.398	3.275	10.0	21.5
9 28	21 43.41	-20 30.3	2.787	3.575	11.3	20.9	9 28	21 40.50	-21 16.8	2.479	3.264	12.6	21.7
371390	2006 <i>RD</i> ₁₉		8 22.0 328°22	2°2/23.5	18		373187	2012 <i>DG</i> ₅₉		8 22.0 145°92	1°5/20.8	17	
7 20	22 19.67	-4 9.6	1.035	1.938	18.9	19.9	7 20	22 32.37	-13 26.8	1.726	2.607	13.7	22.0
7 30	22 18.05	-4 39.3	0.953	1.909	14.5	19.5	7 30	22 26.06	-14 8.3	1.667	2.616	9.9	21.7
8 9	22 13.66	-5 36.8	0.889	1.881	9.3	19.1	8 9	22 17.66	-14 57.0	1.632	2.625	5.7	21.5
8 19	22 7.09	-6 59.4	0.845	1.854	3.6	18.7	8 19	22 7.94	-15 47.2	1.623	2.633	1.8	21.3
8 29	21 59.55	-8 38.4	0.823	1.829	4.2	18.7	8 29	21 57.96	-16 32.4	1.642	2.641	4.1	21.5
9 8	21 52.66	-10 21.1	0.822	1.805	10.4	18.9	9 8	21 48.85	-17 7.5	1.687	2.648	8.3	21.7
9 18	21 47.93	-11 54.2	0.841	1.783	16.4	19.2	9 18	21 41.53	-17 29.4	1.758	2.654	12.1	22.0
9 28	21 46.56	-13 7.4	0.877	1.762	21.7	19.4	9 28	21 36.66	-17 36.9	1.850	2.660	15.3	22.2
342132	2008 <i>SK</i> ₁₂₄		8 22.0 252°41	0°5/22.4	18		514639	2004 <i>XY</i> ₁₇₇		8 22.0 289°07	4°9/17.9	18	
7 20	22 28.33	-8 34.4	1.890	2.761	13.1	21.9	7 20	22 28.56	-21 4.6	1.651	2.551	13.2	20.9
7 30	22 23.14	-8 57.2	1.808	2.750	9.7	21.6	7 30	22 23.70	-22 12.1	1.578	2.535	9.8	20.6
8 9	22 16.01	-9 31.0	1.750	2.739	5.8	21.4	8 9	22 16.52	-23 22.5	1.528	2.518	6.4	20.4
8 19	22 7.55	-10 12.4	1.717	2.727	1.6	21.1	8 19	22 7.72	-24 27.7	1.503	2.502	4.9	20.3
8 29	21 58.64	-10 56.3	1.711	2.715	3.0	21.1	8 29	21 58.37	-25 19.4	1.504	2.485	7.1	20.4
9 8	21 50.28	-11 37.5	1.733	2.703	7.2	21.4	9 8	21 49.70	-25 51.8	1.530	2.469	10.8	20.6
9 18	21 43.39	-12 11.4	1.781	2.690	11.2	21.6	9 18	21 42.82	-26 2.2	1.579	2.453	14.5	20.8
9 28	21 38.67	-12 35.0	1.850	2.678	14.6	21.8	9 28	21 38.54	-25 51.1	1.647	2.437	17.7	20.9
134027	Deanbooyer		8 22.0 133°86	3°6/19.6	18		480039	2015 <i>BK</i> ₂₆₆		8 22.0 124°60	1°1/22.9	17	
7 20	22 33.48	-17 59.7	1.417	2.313	15.2	19.8	7 20	22 30.63	-6 54.0	1.734	2.600	14.4	21.7
7 30	22 27.27	-18 46.5	1.363	2.319	11.0	19.6	7 30	22 24.74	-7 15.8	1.674	2.612	10.6	21.5
8 9	22 18.51	-19 37.1	1.331	2.324	6.6	19.4	8 9	22 16.87	-7 50.3	1.636	2.623	6.4	21.3
8 19	22 8.13	-20 23.7	1.323	2.329	3.6	19.2	8 19	22 7.75	-8 33.5	1.625	2.634	2.1	21.0
8 29	21 57.44	-20 58.7	1.341	2.334	6.0	19.4	8 29	21 58.40	-9 19.9	1.640	2.644	3.0	21.1
9 8	21 47.85	-21 16.7	1.385	2.338	10.3	19.6	9 8	21 49.86	-10 4.0	1.683	2.654	7.3	21.4
9 18	21 40.48	-21 16.3	1.451	2.343	14.4	19.9	9 18	21 43.01	-10 41.2	1.751	2.664	11.2	21.6
9 28	21 36.48	-20 58.1	1.536	2.346	17.9	20.1	9 28	21 38.50	-11 8.0	1.842	2.673	14.5	21.9
217603	Grove Creek		8 22.0 34°95	8°3/30.9	18		72189	2000 <i>YA</i> ₁₂₁		8 22.0 158°37	3°2/24.4	18	
7 20	22 23.97	+14 10.8	2.058	2.821	16.0	19.6	7 20	22 31.27	-2 18.2	1.633	2.486	15.7	19.5
7 30	22 19.77	+14 36.6	1.987	2.828	13.8	19.4	7 30	22 25.40	-2 17.1	1.565	2.491	12.1	19.3
8 9	22 13.95	+14 38.1	1.935	2.835	11.4	19.3	8 9	22 17.36	-2 32.8	1.518	2.495	8.0	19.1
8 19	22 7.06	+14 14.5	1.905	2.843	9.4	19.2	8 19	22 7.89	-3 3.3	1.496	2.498	4.2	18.8
8 29	21 59.88	+13 26.8	1.900	2.852	8.3	19.1	8 29	21 58.06	-3 44.3	1.500	2.501	4.0	18.8
9 8	21 53.26	+12 19.8	1.919	2.860	8.8	19.2	9 8	21 49.01	-4 29.9	1.531	2.504	7.7	19.1
9 18	21 47.94	+10 59.9	1.962	2.869	10.5	19.3	9 18	21 41.73	-5 14.2	1.587	2.506	11.7	19.3
9 28	21 44.50	+9 34.5	2.030	2.878	12.7	19.5	9 28	21 36.93	-5 52.2	1.665	2.508	15.2	19.5
140438	2001 <i>TJ</i> ₁₀₈		8 22.0 198°85	0°3/21.8	18		257079	2008 <i>FU</i> ₁₃₁		8 22.0 340°50	3°9/25.7	18	
7 20	22 28.35	-11 24.9	2.439	3.307	10.7	20.4	7 20	22 22.26	+1 34.7	1.775	2.622	14.9	20.0
7 30	22 22.70	-11 42.4	2.363	3.304	7.8	20.2	7 30	22 18.79	+1 13.1	1.696	2.614	11.8	19.8
8 9	22 15.55	-12 6.0	2.311	3.301	4.5	20.0	8 9	22 13.51	+0 30.6	1.638	2.607	8.2	19.5
8 19	22 7.43	-12 32.7	2.286	3.297	1.0	19.7	8 19	22 7.00	+0 30.6	1.603	2.600	4.9	19.3
8 29	21 59.04	-12 58.9	2.291	3.294	2.6	19.9	8 29	22 0.09	-1 46.0	1.595	2.594	4.2	19.3
9 8	21 51.15	-13 21.1	2.325	3.289	6.0	20.1	9 8	21 53.73	-3 8.4	1.613	2.588	7.0	19.4
9 18	21 44.45	-13 36.8	2.385	3.285	9.2	20.3	9 18	21 48.75	-4 30.5	1.655	2.583	10.7	19.6
9 28	21 39.47	-13 44.2	2.470	3.280	11.9	20.5	9 28	21 45.84	-5 45.3	1.721	2.579	14.1	19.8
20024	Mayrémartínez		8 22.0 248°97	0°4/21.6	18		382415	1998 <i>FJ</i> ₁₂₄		8 22.0 114°67	2°1/20.0	17	
7 20													