

EPHEMERIDES

10 10.9

10 11.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
451959	2014 <i>MN</i> ₅₉		10 10.9 80°62	3°6/15.2	18		38290	1999 <i>RY</i> ₇₁		10 10.9 10°30	1°7/12.4	18	
9 8	1 26.14	+21 14.6	2.215	3.026	13.3	21.3	9 8	1 30.07	+12 6.1	1.895	2.745	13.6	18.6
9 18	1 21.50	+20 54.2	2.140	3.031	10.5	21.1	9 18	1 24.58	+12 16.3	1.824	2.746	10.2	18.4
9 28	1 15.24	+20 15.4	2.087	3.035	7.4	20.9	9 28	1 17.15	+12 14.5	1.776	2.748	6.4	18.1
10 8	1 7.98	+19 19.8	2.060	3.039	4.5	20.8	10 8	1 8.49	+12 2.5	1.755	2.749	2.6	17.9
10 18	1 0.53	+18 11.4	2.061	3.044	3.7	20.7	10 18	0 59.55	+11 43.4	1.761	2.751	3.0	17.9
10 28	0 53.73	+16 56.0	2.090	3.048	6.0	20.9	10 28	0 51.34	+11 21.8	1.796	2.753	6.8	18.2
11 7	0 48.31	+15 40.7	2.148	3.052	9.1	21.1	11 7	0 44.76	+11 3.0	1.856	2.756	10.6	18.4
11 17	0 44.77	+14 31.7	2.230	3.057	11.9	21.3	11 17	0 40.37	+10 51.0	1.940	2.759	13.8	18.6
66721	1999 <i>TX</i> ₁₀₆		10 10.9 6°25	8°2/18.9	18		178304	1994 <i>GW</i> ₂		10 10.9 78°42	0°4/11.1	17	
9 8	1 23.25	+29 20.0	1.285	2.097	20.9	18.0	9 8	1 50.22	+3 56.0	1.065	1.935	20.4	19.6
9 18	1 20.51	+29 19.7	1.219	2.098	17.6	17.8	9 18	1 40.41	+5 11.9	1.012	1.947	15.1	19.3
9 28	1 15.10	+28 42.4	1.170	2.099	13.8	17.5	9 28	1 26.77	+6 23.6	0.980	1.958	8.9	19.0
10 8	1 7.99	+27 27.2	1.141	2.102	10.2	17.4	10 8	1 10.75	+7 30.2	0.972	1.970	2.2	18.7
10 18	1 0.51	+25 38.8	1.135	2.106	8.3	17.3	10 18	0 54.43	+8 31.2	0.992	1.982	4.7	18.9
10 28	0 54.12	+23 28.6	1.152	2.111	9.6	17.4	10 28	0 40.02	+9 27.9	1.039	1.994	10.9	19.3
11 7	0 50.00	+21 12.0	1.193	2.117	12.9	17.6	11 7	0 29.11	+10 23.3	1.109	2.005	16.3	19.6
11 17	0 48.80	+19 3.5	1.256	2.125	16.6	17.8	11 17	0 22.42	+11 20.4	1.198	2.017	20.5	19.9
13442	2646 <i>P-L</i>		10 10.9 341°97	0°1/10.9	18		466789	2015 <i>BS</i> ₁₈		10 10.9 209°70	1°7/ 8.2	18	
9 8	1 29.19	+7 35.7	1.394	2.274	15.8	18.2	9 8	1 23.04	+0 10.9	3.732	4.597	7.1	22.2
9 18	1 24.53	+7 33.9	1.324	2.265	11.7	17.9	9 18	1 18.67	-0 21.0	3.657	4.593	5.1	22.1
9 28	1 17.35	+7 20.7	1.275	2.257	6.9	17.6	9 28	1 13.41	-0 54.8	3.609	4.588	3.0	21.9
10 8	1 8.53	+6 59.7	1.251	2.249	1.6	17.3	10 8	1 7.61	-1 27.7	3.591	4.582	1.7	21.8
10 18	0 59.25	+6 36.2	1.252	2.242	3.8	17.4	10 18	1 1.69	-1 57.0	3.603	4.577	3.0	21.9
10 28	0 50.88	+6 16.5	1.279	2.237	9.0	17.7	10 28	0 56.10	-2 20.3	3.645	4.571	5.1	22.0
11 7	0 44.57	+6 6.4	1.329	2.232	13.7	17.9	11 7	0 51.24	-2 35.6	3.715	4.565	7.1	22.2
11 17	0 41.03	+6 9.9	1.400	2.227	17.6	18.2	11 17	0 47.44	-2 41.7	3.810	4.559	8.9	22.3
222223	2000 <i>FL</i> ₂₀		10 10.9 243°44	0°9/10.0	17		301276	2009 <i>BJ</i> ₉₀		10 10.9 70°16	1°0/11.9	18	
9 8	1 29.38	+4 21.5	2.674	3.531	9.9	20.2	9 8	1 28.91	+11 46.9	1.782	2.639	14.0	21.1
9 18	1 23.61	+4 11.3	2.588	3.519	7.2	20.0	9 18	1 23.79	+11 24.1	1.715	2.643	10.4	20.8
9 28	1 16.39	+3 56.5	2.528	3.507	4.1	19.8	9 28	1 16.70	+10 47.3	1.672	2.646	6.3	20.6
10 8	1 8.27	+3 39.7	2.497	3.495	1.1	19.6	10 8	1 8.41	+10 0.1	1.654	2.650	2.0	20.3
10 18	0 59.89	+3 23.9	2.497	3.482	2.9	19.7	10 18	0 59.88	+9 7.6	1.664	2.654	3.0	20.4
10 28	0 51.97	+3 12.4	2.526	3.469	6.1	19.9	10 28	0 52.16	+8 16.4	1.702	2.658	7.2	20.7
11 7	0 45.17	+3 7.8	2.584	3.456	9.0	20.1	11 7	0 46.13	+7 33.0	1.765	2.662	11.1	21.0
11 17	0 39.97	+3 12.2	2.666	3.442	11.6	20.2	11 17	0 42.33	+7 1.7	1.852	2.667	14.5	21.2
253406	2003 <i>QY</i> ₃		10 10.9 20°83	2°8/ 9.1	17		421516	2014 <i>OH</i> ₁₀₄		10 10.9 347°40	4°9/ 5.6	18	
9 8	1 25.54	+5 12.6	0.895	1.808	19.3	19.4	9 8	1 25.38	-4 52.9	2.055	2.941	11.2	20.3
9 18	1 22.36	+4 12.9	0.858	1.816	13.9	19.2	9 18	1 20.97	-6 6.8	1.997	2.939	8.3	20.1
9 28	1 16.17	+2 59.2	0.839	1.826	7.9	18.9	9 28	1 14.96	-7 20.8	1.965	2.938	5.7	20.0
10 8	1 8.23	+1 42.3	0.841	1.838	2.9	18.6	10 8	1 8.00	-8 27.9	1.959	2.937	5.0	19.9
10 18	1 0.14	+0 34.7	0.865	1.851	6.4	18.9	10 18	1 0.86	-9 21.9	1.981	2.936	6.8	20.0
10 28	0 53.54	-0 12.8	0.911	1.866	12.1	19.3	10 28	0 54.38	-9 57.8	2.030	2.935	9.7	20.2
11 7	0 49.60	-0 34.2	0.976	1.881	17.1	19.6	11 7	0 49.27	-10 13.3	2.103	2.934	12.5	20.4
11 17	0 48.86	-0 28.8	1.059	1.898	21.2	20.0	11 17	0 46.00	-10 8.3	2.196	2.933	14.9	20.6
97384	2000 <i>AF</i> ₈₂		10 10.9 311°15	2°9/14.2	18		474705	2005 <i>GG</i> ₁₁₇		10 10.9 219°49	0°5/10.6	18	
9 8	1 25.63	+18 23.1	2.113	2.941	13.2	19.4	9 8	1 32.48	+6 9.5	2.137	2.994	12.0	21.8
9 18	1 21.27	+18 4.9	2.029	2.933	10.3	19.2	9 18	1 26.18	+6 2.6	2.058	2.988	8.8	21.5
9 28	1 15.19	+17 29.4	1.967	2.925	7.0	19.0	9 28	1 18.04	+5 48.7	2.003	2.981	5.1	21.3
10 8	1 8.00	+16 38.3	1.931	2.918	3.8	18.8	10 8	1 8.74	+5 30.7	1.976	2.974	1.2	21.0
10 18	1 0.52	+15 35.7	1.924	2.911	3.3	18.8	10 18	0 59.12	+5 12.1	1.979	2.967	3.1	21.2
10 28	0 53.63	+14 27.4	1.944	2.903	6.3	18.9	10 28	0 50.15	+4 57.2	2.011	2.959	7.0	21.4
11 7	0 48.13	+13 20.5	1.992	2.896	9.7	19.1	11 7	0 42.65	+4 49.6	2.071	2.951	10.6	21.6
11 17	0 44.57	+12 20.9	2.063	2.890	12.8	19.3	11 17	0 37.18	+4 52.0	2.153	2.943	13.6	21.8
458410	2011 <i>AK</i> ₂		10 10.9 320°12	0°4/11.3	16		432356	2009 <i>VV</i> ₁₁₀		10 10.9 35°54	2°7/ 6.6	16	
9 8	1 26.97	+9 22.4	1.729	2.598	13.8	21.6	9 8	1 23.61	-6 46.7	4.111	4.978	6.5	20.3
9 18	1 22.68	+9 11.0	1.637	2.572	10.3	21.3	9 18	1 18.97	-7 3.0	4.049	4.980	4.8	20.1
9 28	1 16.24	+8 47.4	1.567	2.546	6.2	21.0	9 28	1 13.54	-7 17.5	4.014	4.983	3.3	20.0
10 8	1 8.30	+8 14.6	1.523	2.521	1.6	20.6	10 8	1 7.65	-7 27.9	4.009	4.986	2.7	20.0
10 18	0 59.80	+7 37.1	1.506	2.496	3.2	20.7	10 18	1 1.69	-7 32.2	4.035	4.988	3.7	20.1
10 28	0 51.87	+7 1.1	1.516	2.472	7.9	20.9	10 28	0 56.06	-7 28.9	4.089	4.991	5.3	20.2
11 7	0 45.55	+6 32.8	1.550	2.449	12.3	21.1	11 7	0 51.13	-7 17.0	4.171	4.994	6.9	20.3
11 17	0 41.56	+6 16.8	1.606	2.426	16.1	21.3	11 17	0 47.18	-6 56.3	4.278	4.997	8.4	20.4
324101	2005 <i>WA</i> ₂₀₃		10 10.9 286°53	3°2/ 7.8	18		492264	2013 <i>WT</i> ₇₆		10 11.0 289°30	0°4/11.3	18	
9 8	1 27.49	-1 0.0	2.126	3.004	11.2	20.5	9 8	1 29.25	+10 36.7	1.485	2.354	15.6	22.0
9 18	1 22.49	-1 41.4	2.054	2.996	8.1	20.3	9 18	1 24.62	+10 6.7	1.401	2.336	11.7	21.7
9 28	1 15.83	-2 25.5	2.008	2.988	5.0	20.1	9 28	1 17.50	+9 19.8	1.339	2.318	7.0	21.4
10 8	1 8.16	-3 7.1	1.990	2.979	3.2	20.0	10 8	1 8.67	+8 20.0	1.302	2.299	1.8	21.0
10 18	1 0.24	-3 41.1	1.999	2.971	5.1	20.1	10 18	0 59.24	+7 14.0	1.291	2.281	3.7	21.1
10 28	0 52.94	-4 2.9	2.037	2.963	8.4	20.3	10 28	0 50.57	+6 10.6	1.306	2.263	8.9	21.4
11 7	0 47.00	-4 9.8	2.099	2.956	11.5	20.5	11 7	0 43.84	+5 18.3	1.345	2.245	13.8	21.6
11 17	0 42.93	-4 0.7	2.184	2.948	14.2	20.6	11 17	0 39.83	+4 43.1	1.405	2.227	17.9	21.8
221942	1543 <i>T-2</i>		10 10.9 57°47	0°7/11.5	16		513983	2014 <i>GG</i> ₅₇		10 11.0 8°12	1°0/10.2	18	
9 8	1 32.83	+10 28.0	1.256	2.130	17.6	20.2	9 8	1 30.33	+5				

EPHEMERIDES

10 11.0

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
333458	2004 <i>PS</i> ₂		10 11.0	77°74'	19°0'/22.3	17	518274	2016 <i>XA</i> ₇		10 11.0	336°84'	1°3'/10.3	18
9 8	1 30.69	-26 21.2	0.971	1.858	20.4	19.4	9 8	1 32.82	+ 3 16.5	1.321	2.207	16.2	19.8
9 18	1 26.18	-30 9.4	0.968	1.868	19.1	19.4	9 18	1 27.42	+ 3 34.6	1.249	2.193	11.9	19.5
9 28	1 18.40	-33 16.6	0.984	1.878	19.2	19.4	9 28	1 19.21	+ 3 47.5	1.198	2.180	6.9	19.2
10 8	1 8.82	-35 25.1	1.019	1.888	20.5	19.5	10 8	1 9.11	+ 3 58.9	1.170	2.168	1.9	18.8
10 18	0 59.23	-36 27.3	1.071	1.898	22.5	19.7	10 18	0 58.41	+ 4 12.4	1.169	2.157	4.6	19.0
10 28	0 51.43	-36 25.7	1.136	1.908	24.5	19.9	10 28	0 48.66	+ 4 32.7	1.193	2.147	9.9	19.3
11 7	0 46.58	-35 30.3	1.213	1.918	26.4	20.1	11 7	0 41.15	+ 5 2.9	1.240	2.138	14.7	19.5
11 17	0 45.14	-33 53.0	1.299	1.928	27.9	20.3	11 17	0 36.69	+ 5 44.9	1.307	2.131	18.9	19.8
183321	2002 <i>VE</i> ₄₄		10 11.0	305°13'	5°4'/6.9	18	235345	2003 <i>UL</i> ₂₅₅		10 11.0	39°94'	3°7'/8.5	18
9 8	1 30.81	- 3 19.3	1.429	2.321	14.8	19.7	9 8	1 31.15	- 0 10.2	1.363	2.254	15.4	19.6
9 18	1 25.57	- 4 18.0	1.369	2.316	10.9	19.5	9 18	1 25.62	- 0 43.9	1.322	2.269	11.1	19.4
9 28	1 17.90	- 5 18.4	1.332	2.310	7.1	19.3	9 28	1 17.79	- 1 20.6	1.303	2.285	6.6	19.2
10 8	1 8.74	- 6 11.8	1.320	2.305	5.4	19.2	10 8	1 8.70	- 1 53.4	1.309	2.302	3.7	19.0
10 18	0 59.25	- 6 50.1	1.333	2.300	7.8	19.3	10 18	0 59.56	- 2 15.8	1.341	2.319	6.1	19.2
10 28	0 50.76	- 7 6.9	1.371	2.296	11.8	19.5	10 28	0 51.62	- 2 22.7	1.398	2.337	10.3	19.5
11 7	0 44.32	- 6 59.8	1.432	2.291	15.7	19.7	11 7	0 45.83	- 2 11.8	1.478	2.355	14.2	19.8
11 17	0 40.56	- 6 29.4	1.511	2.287	19.0	20.0	11 17	0 42.68	- 1 43.4	1.578	2.374	17.4	20.1
155796	2000 <i>UQ</i> ₁₃		10 11.0	26°11'	1°4'/9.9	18	160491	2007 <i>CC</i> ₁₁		10 11.0	357°37'	4°8'/6.1	18
9 8	1 26.34	+ 7 18.5	1.145	2.040	17.4	19.3	9 8	1 25.70	- 3 28.7	1.860	2.749	12.0	20.4
9 18	1 22.51	+ 6 26.5	1.103	2.052	12.5	19.0	9 18	1 21.36	- 4 43.7	1.803	2.747	8.8	20.2
9 28	1 16.13	+ 5 20.2	1.081	2.066	7.1	18.8	9 28	1 15.26	- 6 0.0	1.770	2.747	5.9	20.0
10 8	1 8.30	+ 4 7.8	1.082	2.080	1.8	18.5	10 8	1 8.12	- 7 10.2	1.764	2.746	4.9	19.9
10 18	1 0.35	+ 2 59.3	1.107	2.095	4.8	18.7	10 18	1 0.79	- 8 7.2	1.786	2.746	6.9	20.1
10 28	0 53.65	+ 2 4.2	1.157	2.112	10.1	19.1	10 28	0 54.19	- 8 45.4	1.833	2.746	10.0	20.3
11 7	0 49.21	+ 1 29.0	1.229	2.129	14.7	19.4	11 7	0 49.09	- 9 2.3	1.904	2.746	13.1	20.5
11 17	0 47.56	+ 1 16.3	1.320	2.148	18.5	19.7	11 17	0 45.98	- 8 57.6	1.996	2.747	15.8	20.7
164254	2004 <i>TF</i> ₂₃₈		10 11.0	78°43'	1°2'/10.1	18	401349	2013 <i>AG</i> ₁₂₀		10 11.0	188°06'	2°8'/8.1	18
9 8	1 32.89	+ 6 58.5	1.235	2.117	17.3	20.7	9 8	1 28.17	+ 0 43.2	2.162	3.036	11.2	21.7
9 18	1 27.19	+ 6 18.5	1.186	2.129	12.5	20.5	9 18	1 22.94	- 0 9.1	2.096	3.036	8.1	21.5
9 28	1 18.83	+ 5 25.3	1.159	2.141	7.2	20.2	9 28	1 16.11	- 1 5.7	2.055	3.035	4.8	21.3
10 8	1 8.93	+ 4 25.9	1.156	2.154	1.8	19.9	10 8	1 8.32	- 2 1.0	2.042	3.034	2.8	21.2
10 18	0 58.89	+ 3 28.7	1.178	2.166	4.7	20.1	10 18	1 0.34	- 2 49.6	2.058	3.033	4.8	21.3
10 28	0 50.16	+ 2 42.6	1.226	2.178	10.0	20.5	10 28	0 53.00	- 3 26.5	2.103	3.031	8.0	21.5
11 7	0 43.82	+ 2 13.8	1.296	2.190	14.6	20.8	11 7	0 47.03	- 3 48.5	2.173	3.029	11.2	21.7
11 17	0 40.47	+ 2 4.8	1.386	2.202	18.4	21.1	11 17	0 42.91	- 3 54.1	2.265	3.027	13.8	21.9
10448	Schawlow		10 11.0	72°07'	1°8'/9.3	18	140250	2001 <i>SC</i> ₂₅₅		10 11.0	18°38'	0°3'/10.8	18
9 8	1 27.81	+ 4 23.8	1.913	2.787	12.5	17.6	9 8	1 27.07	+ 8 52.8	1.743	2.612	13.7	19.9
9 18	1 22.82	+ 3 40.2	1.852	2.792	9.0	17.4	9 18	1 22.49	+ 8 17.3	1.679	2.615	10.0	19.7
9 28	1 16.07	+ 2 49.2	1.815	2.796	5.1	17.2	9 28	1 15.98	+ 7 29.6	1.637	2.617	5.8	19.4
10 8	1 8.29	+ 1 56.1	1.805	2.801	1.8	16.9	10 8	1 8.30	+ 6 34.6	1.622	2.620	1.3	19.1
10 18	1 0.33	+ 1 6.7	1.823	2.806	4.1	17.1	10 18	1 0.40	+ 5 38.2	1.634	2.623	3.3	19.3
10 28	0 53.12	+ 0 26.7	1.869	2.811	7.9	17.4	10 28	0 53.29	+ 4 47.3	1.674	2.627	7.7	19.6
11 7	0 47.43	+ 0 0.3	1.940	2.816	11.4	17.6	11 7	0 47.82	+ 4 7.6	1.738	2.631	11.6	19.8
11 17	0 43.78	- 0 10.5	2.034	2.821	14.3	17.8	11 17	0 44.53	+ 3 42.8	1.825	2.635	14.9	20.0
224048	2005 <i>MJ</i> ₃₁		10 11.0	25°49'	0°4'/11.3	18	454583	2014 <i>PW</i> ₂₅		10 11.0	26°60'	5°0'/5.5	18
9 8	1 28.03	+10 4.8	1.033	1.926	19.0	19.9	9 8	1 25.73	- 5 44.7	2.108	2.993	11.0	21.1
9 18	1 23.99	+ 9 43.6	0.991	1.938	14.0	19.6	9 18	1 21.18	- 6 55.6	2.054	2.995	8.2	20.9
9 28	1 17.10	+ 9 4.1	0.968	1.950	8.2	19.4	9 28	1 15.08	- 8 5.4	2.025	2.997	5.7	20.8
10 8	1 8.54	+ 8 12.4	0.966	1.964	2.1	19.0	10 8	1 8.08	- 9 7.7	2.023	2.999	5.1	20.7
10 18	0 59.83	+ 7 17.4	0.988	1.979	4.1	19.2	10 18	1 0.92	- 9 56.5	2.049	3.001	6.8	20.9
10 28	0 52.52	+ 6 29.0	1.034	1.996	9.9	19.6	10 28	0 54.43	-10 27.2	2.102	3.003	9.5	21.0
11 7	0 47.75	+ 5 55.4	1.100	2.013	14.9	20.0	11 7	0 49.29	-10 38.0	2.178	3.005	12.2	21.2
11 17	0 46.08	+ 5 40.7	1.186	2.032	19.0	20.3	11 17	0 45.95	-10 29.1	2.275	3.008	14.6	21.4
210592	1999 <i>XW</i> ₉₇		10 11.0	322°49'	4°5'/7.9	18	233623	2007 <i>TG</i> ₂₄₃		10 11.0	76°13'	6°0'/16.7	18
9 8	1 28.39	- 1 5.2	1.324	2.221	15.3	19.9	9 8	1 35.73	+24 52.0	1.791	2.582	16.7	20.0
9 18	1 24.31	- 1 42.5	1.239	2.190	11.4	19.6	9 18	1 28.71	+25 18.1	1.743	2.613	13.5	19.9
9 28	1 17.50	- 2 25.0	1.176	2.159	7.1	19.2	9 28	1 19.52	+25 20.8	1.715	2.644	10.1	19.7
10 8	1 8.73	- 3 4.9	1.136	2.128	4.5	19.0	10 8	1 9.12	+24 59.9	1.711	2.674	7.1	19.6
10 18	0 59.17	- 3 33.9	1.121	2.099	7.3	19.1	10 18	0 58.66	+24 18.3	1.735	2.704	6.1	19.6
10 28	0 50.33	- 3 44.4	1.130	2.070	12.1	19.3	10 28	0 49.34	+23 22.5	1.786	2.734	7.7	19.8
11 7	0 43.53	- 3 31.7	1.161	2.042	16.9	19.5	11 7	0 42.05	+22 20.9	1.863	2.763	10.5	20.0
11 17	0 39.69	- 2 54.8	1.209	2.016	21.1	19.7	11 17	0 37.34	+21 21.5	1.964	2.791	13.3	20.3
80389	1999 <i>XC</i> ₁₇₀		10 11.0	342°16'	6°7'/15.0	18	451969	2014 <i>NS</i> ₂₂		10 11.0	33°97'	10°0'/23.2	17
9 8	1 22.78	+19 4.0	0.944	1.824	21.5	17.9	9 8	1 30.20	+38 47.0	2.114	2.810	17.2	20.4
9 18	1 20.99	+19 51.5	0.873	1.804	17.4	17.6	9 18	1 25.05	+39 30.8	2.036	2.813	15.3	20.2
9 28	1 15.90	+20 11.2	0.819	1.785	12.6	17.3	9 28	1 17.63	+39 47.2	1.975	2.817	13.2	20.1
10 8	1 8.39	+20 0.6	0.784	1.769	8.1	17.0	10 8	1 8.73	+39 32.8	1.935	2.820	11.4	20.0
10 18	0 59.94	+19 21.3	0.768	1.754	7.0	16.9	10 18	0 59.42	+38 47.3	1.917	2.824	10.2	19.9
10 28	0 52.52	+18 22.2	0.773	1.742	10.9	17.0	10 28	0 50.92	+37 34.4	1.924	2.828	10.2	19.9
11 7	0 47.83	+17 16.9	0.798	1.732	16.1	17.3	11 7	0 44.25	+36 2.2	1.956	2.832	11.3	20.0
11 17	0 46.90	+16 18.5	0.839	1.725	21.1	17.5	11 17	0 40.09	+34 20.3	2.011	2.836	13.1	20.1
152489	2005 <i>WE</i> ₈₉		10 11.0	127°84'	3°1'/7.9	18	3173	McNaught		10 11.0	52°97'	7°0'/7.1	18
9 8	1												

EPHEMERIDES

10 11.0

10 11.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
38851	2000 <i>SM</i> ₆₉		10 11.0 114°02'	2.1°/ 9.3 18			383520	2007 <i>CQ</i> ₅₅		10 11.0 145°72'	1.4°/ 9.7 17		
9 8	1 30.68	+ 3 37.8	1.660	2.537	13.9	19.4	9 8	1 31.31	+ 5 55.5	1.930	2.794	12.8	21.8
9 18	1 25.18	+ 3 1.1	1.598	2.539	10.0	19.2	9 18	1 25.33	+ 5 7.2	1.869	2.804	9.2	21.6
9 28	1 17.57	+ 2 17.0	1.559	2.541	5.8	18.9	9 28	1 17.54	+ 4 10.1	1.833	2.814	5.3	21.4
10 8	1 8.70	+ 1 31.1	1.547	2.543	2.2	18.7	10 8	1 8.69	+ 3 9.6	1.825	2.822	1.6	21.2
10 18	0 59.59	+ 0 49.6	1.562	2.545	4.6	18.9	10 18	0 59.70	+ 2 11.5	1.846	2.831	3.8	21.3
10 28	0 51.37	+ 0 18.8	1.604	2.547	8.9	19.2	10 28	0 51.53	+ 1 22.2	1.896	2.838	7.8	21.6
11 7	0 44.95	+ 0 2.9	1.670	2.549	12.8	19.4	11 7	0 44.98	+ 0 46.2	1.971	2.845	11.3	21.8
11 17	0 40.91	+ 0 3.7	1.758	2.551	16.1	19.6	11 17	0 40.55	+ 0 25.9	2.070	2.852	14.3	22.1
270848	2002 <i>TJ</i> ₂₂		10 11.0 320°51'	2.5°/11.6 18			395400	2011 <i>SA</i> ₁₁₈		10 11.0 28°19'	2.6°/ 8.5 18		
9 8	1 43.91	+ 6 21.9	1.165	2.035	19.0	19.6	9 8	1 24.99	+ 5 7.6	1.471	2.360	14.6	19.9
9 18	1 36.79	+ 8 1.5	1.069	2.002	14.6	19.3	9 18	1 21.15	+ 3 43.2	1.421	2.369	10.4	19.7
9 28	1 25.52	+ 9 43.7	0.994	1.971	9.2	18.9	9 28	1 15.25	+ 2 7.9	1.393	2.377	5.9	19.5
10 8	1 10.82	+ 11 25.7	0.944	1.939	3.5	18.4	10 8	1 8.16	+ 0 30.5	1.391	2.387	2.6	19.3
10 18	0 54.27	+ 13 3.5	0.920	1.909	5.1	18.4	10 18	1 0.92	+ 0 59.3	1.416	2.397	5.4	19.5
10 28	0 38.18	+ 14 34.2	0.922	1.880	11.6	18.7	10 28	0 54.62	+ 2 12.5	1.466	2.407	9.7	19.8
11 7	0 24.82	+ 15 58.2	0.949	1.852	17.7	18.9	11 7	0 50.13	+ 3 3.4	1.540	2.419	13.7	20.0
11 17	0 15.71	+ 17 18.8	0.994	1.825	22.9	19.2	11 17	0 47.96	+ 3 30.0	1.635	2.430	16.9	20.3
2300	Stebbins		10 11.0 348°72'	0.4°/10.7 18			178972	2001 <i>QS</i> ₂₃₉		10 11.0 2°05'	6.2°/14.7 18		
9 8	1 28.15	+ 7 51.3	1.766	2.635	13.6	15.9	9 8	1 32.59	+ 18 57.7	1.396	2.237	18.1	19.5
9 18	1 23.31	+ 7 28.3	1.696	2.633	9.9	15.7	9 18	1 27.27	+ 20 9.6	1.329	2.235	14.5	19.3
9 28	1 16.50	+ 6 54.8	1.650	2.630	5.8	15.4	9 28	1 19.16	+ 21 2.6	1.282	2.234	10.6	19.1
10 8	1 8.46	+ 6 14.8	1.630	2.628	1.3	15.1	10 8	1 9.15	+ 21 34.0	1.258	2.235	7.1	18.9
10 18	1 0.13	+ 5 33.6	1.638	2.627	3.3	15.3	10 18	0 58.56	+ 21 43.7	1.258	2.237	6.4	18.8
10 28	0 52.57	+ 4 57.1	1.673	2.626	7.7	15.6	10 28	0 48.94	+ 21 35.8	1.284	2.240	9.2	19.0
11 7	0 46.65	+ 4 30.7	1.733	2.625	11.6	15.8	11 7	0 41.59	+ 21 18.2	1.333	2.244	13.0	19.2
11 17	0 42.95	+ 4 17.7	1.815	2.624	15.0	16.0	11 17	0 37.31	+ 20 58.7	1.403	2.249	16.6	19.5
191880	2004 <i>XJ</i> ₁₀₈		10 11.0 211°97'	1.4°/ 9.7 18			23618	1996 <i>JS</i> ₅		10 11.0 83°01'	0.8°/10.1 18		
9 8	1 30.55	+ 4 37.2	2.094	2.959	11.9	20.2	9 8	1 26.29	+ 6 52.5	2.246	3.110	11.3	18.9
9 18	1 24.80	+ 4 5.2	2.018	2.953	8.6	20.0	9 18	1 21.51	+ 6 10.0	2.185	3.120	8.1	18.7
9 28	1 17.27	+ 3 26.2	1.968	2.948	5.0	19.7	9 28	1 15.25	+ 5 19.5	2.150	3.130	4.6	18.5
10 8	1 8.63	+ 2 44.3	1.945	2.942	1.6	19.5	10 8	1 8.16	+ 4 25.2	2.142	3.140	1.2	18.3
10 18	0 59.72	+ 2 4.5	1.951	2.935	3.7	19.6	10 18	1 0.94	+ 3 32.2	2.163	3.150	3.1	18.5
10 28	0 51.46	+ 1 31.9	1.985	2.928	7.5	19.9	10 28	0 54.36	+ 2 45.4	2.213	3.160	6.6	18.7
11 7	0 44.65	+ 1 10.5	2.047	2.920	11.0	20.1	11 7	0 49.08	+ 2 9.1	2.290	3.169	9.7	18.9
11 17	0 39.84	+ 1 2.7	2.131	2.912	14.0	20.3	11 17	0 45.53	+ 1 45.7	2.391	3.179	12.4	19.1
284759	2008 <i>WT</i> ₂		10 11.0 184°62'	0.5°/10.5 18			398091	2009 <i>OM</i> ₂₁		10 11.0 330°65'	2.6°/ 6.9 15		
9 8	1 28.07	+ 9 39.8	1.900	2.761	13.1	20.6	9 8	1 23.83	+ 5 38.6	3.979	4.846	6.7	20.6
9 18	1 23.11	+ 8 35.4	1.829	2.761	9.6	20.3	9 18	1 19.21	+ 5 53.5	3.909	4.842	4.9	20.5
9 28	1 16.31	+ 7 17.3	1.782	2.761	5.5	20.1	9 28	1 13.75	+ 6 7.2	3.867	4.838	3.3	20.4
10 8	1 8.41	+ 5 51.1	1.763	2.761	1.2	19.8	10 8	1 7.80	+ 6 17.2	3.854	4.834	2.6	20.3
10 18	1 0.27	+ 4 23.9	1.772	2.760	3.4	20.0	10 18	1 1.74	+ 6 21.5	3.871	4.830	3.6	20.4
10 28	0 52.87	+ 3 3.7	1.810	2.759	7.6	20.2	10 28	0 56.01	+ 6 18.3	3.918	4.827	5.3	20.5
11 7	0 47.02	+ 1 57.0	1.875	2.757	11.4	20.5	11 7	0 50.99	+ 6 6.7	3.993	4.823	7.1	20.6
11 17	0 43.25	+ 1 7.9	1.962	2.755	14.6	20.7	11 17	0 46.98	+ 5 46.3	4.092	4.819	8.6	20.8
327098	2004 <i>XM</i> ₁₄₀		10 11.0 282°45'	7.4°/ 1.9 18			4311	Zguridi		10 11.0 21°95'	1.9°/12.6 18		
9 8	1 26.57	+ 15 23.2	2.306	3.179	10.6	20.4	9 8	1 26.41	+ 14 54.9	1.226	2.098	18.1	16.9
9 18	1 21.80	+ 16 39.7	2.247	3.166	8.7	20.3	9 18	1 22.64	+ 14 18.6	1.170	2.104	13.6	16.6
9 28	1 15.48	+ 17 48.7	2.213	3.154	7.5	20.2	9 28	1 16.32	+ 13 18.7	1.135	2.110	8.5	16.4
10 8	1 8.21	+ 18 43.5	2.206	3.141	7.7	20.2	10 8	1 8.45	+ 12 0.5	1.123	2.118	3.3	16.1
10 18	1 0.72	+ 19 18.7	2.225	3.128	9.1	20.2	10 18	1 0.31	+ 10 32.8	1.135	2.126	3.7	16.2
10 28	0 53.82	+ 19 30.8	2.269	3.115	11.2	20.3	10 28	0 53.32	+ 9 7.0	1.172	2.136	8.8	16.5
11 7	0 48.21	+ 19 19.3	2.335	3.103	13.4	20.5	11 7	0 48.55	+ 7 53.5	1.233	2.146	13.6	16.8
11 17	0 44.36	+ 18 45.9	2.420	3.090	15.3	20.6	11 17	0 46.59	+ 6 59.4	1.313	2.157	17.7	17.1
163973	2003 <i>UL</i> ₁₀₇		10 11.0 57°87'	0.2°/11.2 18			468430	2001 <i>RO</i> ₁₂₅		10 11.0 46°23'	4.1°/ 7.9 16		
9 8	1 31.49	+ 9 15.8	1.512	2.381	15.5	20.1	9 8	1 29.54	+ 1 46.4	1.160	2.059	16.9	20.5
9 18	1 25.77	+ 8 58.1	1.465	2.399	11.3	19.9	9 18	1 24.64	+ 0 29.1	1.129	2.081	12.1	20.3
9 28	1 17.88	+ 8 27.7	1.440	2.418	6.6	19.7	9 28	1 17.28	+ 0 54.2	1.120	2.104	7.1	20.1
10 8	1 8.76	+ 7 49.3	1.440	2.438	1.6	19.4	10 8	1 8.62	+ 2 12.9	1.135	2.128	4.1	20.0
10 18	0 59.56	+ 7 8.5	1.467	2.457	3.4	19.6	10 18	1 0.03	+ 3 17.0	1.174	2.152	6.9	20.2
10 28	0 51.47	+ 6 32.1	1.521	2.476	8.0	19.9	10 28	0 52.83	+ 3 58.9	1.238	2.176	11.4	20.6
11 7	0 45.39	+ 6 5.7	1.599	2.496	12.1	20.2	11 7	0 47.94	+ 4 15.5	1.323	2.201	15.5	20.9
11 17	0 41.83	+ 5 52.7	1.700	2.516	15.5	20.5	11 17	0 45.82	+ 4 7.6	1.427	2.227	18.8	21.2
38689	2000 <i>QS</i> ₂₇		10 11.0 349°64'	3.0°/12.7 18			9341	Gracekelly		10 11.0 42°58'	0.9°/10.3 18		
9 8	1 30.47	+ 12 55.8	1.050	1.931	19.7	18.0	9 8	1 29.56	+ 7 12.0	1.497	2.375	15.1	18.1
9 18	1 26.22	+ 13 22.5	0.987	1.925	15.1	17.7	9 18	1 24.52	+ 6 38.7	1.441	2.381	11.0	17.9
9 28	1 18.74	+ 13 29.6	0.943	1.919	9.7	17.4	9 28	1 17.25	+ 5 53.9	1.406	2.388	6.3	17.6
10 8	1 9.06	+ 13 18.3	0.920	1.915	4.3	17.1	10 8	1 8.66	+ 5 3.0	1.397	2.395	1.5	17.3
10 18	0 58.75	+ 12 52.8	0.920	1.911	4.5	17.1	10 18	0 59.86	+ 4 12.8	1.414	2.403	4.0	17.5
10 28	0 49.64	+ 12 21.6	0.944	1.909	10.0	17.4	10 28	0 52.05	+ 3 30.6	1.458	2.410	8.7	17.8
11 7	0 43.23	+ 11 54.1	0.988	1.908	15.4	17.7	11 7	0 46.19	+ 3 2.0	1.526	2.418	12.9	18.1
11 17	0 40.35	+ 11 37.8	1.051	1.908	20.0	18.0	11 17	0 42.83	+ 2 50.1	1.615	2.427	16.4	18.3
515250	2012 <i>CS</i> ₅₂		10 11.0 113°48'	2.5°/13.9 18			517496	2014 <i>QB</i> ₂₈₉		10 11.0 351°95'	4.4°/ 6.7 18		

EPHEMERIDES

10 11.0

10 11.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
166285	2002 GY ₁₂₇		10 11.0 275°99	0°1/11.3 18			341049	2007 HE		10 11.0 61°27	2°8/ 8.8 16		
9 8	1 19.81	+ 9 26.1	4.388	5.233	6.6	20.4	9 8	1 30.88	+ 3 8.0	1.424	2.309	15.2	20.4
9 18	1 16.32	+ 9 0.6	4.305	5.228	4.8	20.3	9 18	1 25.32	+ 2 9.6	1.387	2.332	10.9	20.2
9 28	1 12.09	+ 8 30.0	4.249	5.224	2.8	20.1	9 28	1 17.61	+ 1 4.5	1.373	2.356	6.2	20.0
10 8	1 7.43	+ 7 56.0	4.221	5.219	0.7	19.9	10 8	1 8.76	+ 0 0.3	1.384	2.379	2.9	19.9
10 18	1 2.66	+ 7 20.7	4.225	5.214	1.4	20.0	10 18	0 59.94	- 0 55.0	1.422	2.403	5.4	20.1
10 28	0 58.14	+ 6 46.5	4.259	5.209	3.5	20.2	10 28	0 52.31	- 1 34.7	1.486	2.427	9.7	20.4
11 7	0 54.22	+ 6 15.8	4.322	5.205	5.4	20.3	11 7	0 46.72	- 1 55.2	1.573	2.450	13.5	20.7
11 17	0 51.15	+ 5 50.3	4.411	5.200	7.1	20.4	11 17	0 43.65	- 1 55.7	1.681	2.474	16.7	21.0
141840	2002 OU ₂₀		10 11.0 50°38	1°1/11.8 17			493548	2015 HB ₆₂		10 11.1 200°26	0°1/11.1 17		
9 8	1 32.58	+11 9.2	1.185	2.061	18.3	19.3	9 8	1 32.40	+ 9 0.1	1.796	2.654	13.9	21.9
9 18	1 27.05	+10 57.3	1.141	2.078	13.5	19.1	9 18	1 26.45	+ 8 36.4	1.722	2.652	10.2	21.7
9 28	1 18.82	+10 27.9	1.118	2.096	8.1	18.8	9 28	1 18.40	+ 8 0.9	1.671	2.649	6.0	21.4
10 8	1 9.04	+ 9 45.6	1.117	2.114	2.5	18.5	10 8	1 9.01	+ 7 17.4	1.647	2.645	1.4	21.1
10 18	0 59.16	+ 8 57.8	1.142	2.133	3.8	18.7	10 18	0 59.30	+ 6 31.2	1.652	2.641	3.2	21.2
10 28	0 50.68	+ 8 13.1	1.192	2.152	9.1	19.1	10 28	0 50.37	+ 5 48.5	1.685	2.637	7.7	21.5
11 7	0 44.68	+ 7 39.1	1.265	2.172	13.8	19.4	11 7	0 43.17	+ 5 15.0	1.743	2.632	11.8	21.7
11 17	0 41.71	+ 7 20.6	1.357	2.191	17.7	19.7	11 17	0 38.32	+ 4 54.8	1.825	2.626	15.2	21.9
116744	2004 DD ₄₈		10 11.0 84°10	2°9/ 8.6 18			316804	1999 UF ₃₅		10 11.1 13°43	0°8/10.3 18		
9 8	1 29.84	+ 3 52.4	1.466	2.350	15.0	19.6	9 8	1 27.21	+ 6 32.1	1.802	2.675	13.1	20.6
9 18	1 24.64	+ 2 38.4	1.418	2.363	10.7	19.4	9 18	1 22.57	+ 6 4.7	1.739	2.678	9.5	20.4
9 28	1 17.27	+ 1 15.5	1.394	2.376	6.1	19.2	9 28	1 16.07	+ 5 28.3	1.699	2.680	5.5	20.1
10 8	1 8.67	- 0 7.9	1.395	2.390	2.9	19.0	10 8	1 8.45	+ 4 47.2	1.686	2.684	1.3	19.9
10 18	0 59.96	- 1 22.7	1.423	2.403	5.6	19.2	10 18	1 0.61	+ 4 6.8	1.700	2.687	3.5	20.0
10 28	0 52.33	- 2 21.0	1.477	2.416	9.9	19.5	10 28	0 53.54	+ 3 32.8	1.741	2.692	7.6	20.3
11 7	0 46.67	- 2 57.9	1.555	2.428	13.8	19.8	11 7	0 48.05	+ 3 9.9	1.808	2.696	11.4	20.5
11 17	0 43.50	- 3 12.2	1.653	2.441	17.1	20.0	11 17	0 44.67	+ 3 0.8	1.896	2.702	14.6	20.8
479761	2014 EJ ₂₅		10 11.0 268°09	4°0/ 7.7 18			238862	2005 WV ₁₅₀		10 11.1 253°05	1°1/11.9 18		
9 8	1 30.10	- 1 8.2	1.704	2.587	13.3	20.7	9 8	1 31.22	+11 49.8	1.783	2.636	14.2	21.0
9 18	1 24.83	- 2 0.0	1.634	2.578	9.7	20.5	9 18	1 25.74	+11 35.2	1.699	2.623	10.7	20.7
9 28	1 17.46	- 2 55.5	1.589	2.568	6.0	20.2	9 28	1 18.08	+11 6.2	1.637	2.611	6.6	20.5
10 8	1 8.75	- 3 48.0	1.569	2.559	4.0	20.1	10 8	1 8.96	+10 25.8	1.602	2.598	2.2	20.1
10 18	0 59.70	- 4 30.4	1.577	2.549	6.3	20.2	10 18	0 59.39	+ 9 38.3	1.595	2.585	3.1	20.2
10 28	0 51.44	- 4 56.8	1.612	2.540	10.1	20.4	10 28	0 50.50	+ 8 50.4	1.615	2.572	7.6	20.4
11 7	0 44.90	- 5 3.7	1.670	2.530	13.8	20.6	11 7	0 43.31	+ 8 8.8	1.662	2.558	11.8	20.7
11 17	0 40.70	- 4 50.5	1.749	2.520	16.9	20.8	11 17	0 38.50	+ 7 38.5	1.730	2.544	15.4	20.9
6325	1991 EA ₁		10 11.0 170°43	1°8/ 9.2 18			364549	2007 GJ ₂₆		10 11.1 67°05	0°5/10.5 18		
9 8	1 30.80	+ 2 26.0	2.409	3.271	10.7	18.3	9 8	1 26.30	+ 8 19.3	2.129	2.992	11.8	21.1
9 18	1 24.72	+ 1 57.5	2.341	3.275	7.7	18.1	9 18	1 21.60	+ 7 35.7	2.071	3.004	8.6	21.0
9 28	1 17.13	+ 1 24.7	2.299	3.278	4.4	17.9	9 28	1 15.38	+ 6 42.5	2.037	3.016	4.9	20.8
10 8	1 8.65	+ 0 51.6	2.285	3.280	1.8	17.7	10 8	1 8.27	+ 5 44.3	2.031	3.029	1.1	20.5
10 18	1 0.00	+ 0 22.2	2.302	3.283	3.7	17.8	10 18	1 1.05	+ 4 46.3	2.053	3.041	2.9	20.7
10 28	0 51.98	+ 0 0.3	2.348	3.284	6.9	18.0	10 28	0 54.52	+ 3 54.1	2.105	3.054	6.6	20.9
11 7	0 45.25	- 0 11.1	2.422	3.285	9.9	18.2	11 7	0 49.35	+ 3 12.3	2.182	3.067	9.9	21.2
11 17	0 40.28	- 0 10.5	2.519	3.286	12.5	18.4	11 17	0 45.97	+ 2 43.8	2.283	3.079	12.7	21.4
322755	2001 CT ₂₃		10 11.0 250°04	4°8/16.3 18			267769	2003 SO ₁₄		10 11.1 328°75	4°5/14.1 17		
9 8	1 28.47	+23 50.6	2.353	3.143	13.2	20.5	9 8	1 31.76	+17 15.6	1.790	2.622	15.1	20.0
9 18	1 23.36	+24 1.1	2.265	3.137	10.8	20.3	9 18	1 26.37	+18 7.7	1.698	2.602	12.0	19.7
9 28	1 16.51	+23 53.7	2.199	3.131	8.1	20.2	9 28	1 18.60	+18 45.9	1.628	2.583	8.5	19.5
10 8	1 8.54	+23 28.4	2.158	3.124	5.6	20.0	10 8	1 9.13	+19 8.8	1.583	2.565	5.3	19.3
10 18	1 0.23	+22 47.0	2.145	3.118	4.8	19.9	10 18	0 58.96	+19 16.5	1.565	2.547	4.9	19.2
10 28	0 52.48	+21 53.9	2.161	3.111	6.4	20.0	10 28	0 49.35	+19 12.3	1.574	2.530	7.8	19.4
11 7	0 46.07	+20 55.1	2.203	3.105	9.0	20.2	11 7	0 41.43	+19 1.5	1.609	2.513	11.5	19.5
11 17	0 41.58	+19 57.0	2.271	3.098	11.7	20.4	11 17	0 36.04	+18 50.2	1.666	2.498	15.0	19.7
172920	2005 GL ₁₃₈		10 11.0 25°12	1°7/ 9.6 18			305543	2008 QY ₄₀		10 11.1 358°09	0°4/ 5.3 15		
9 8	1 28.08	+ 5 13.5	1.703	2.581	13.6	20.2	9 8	1 8.75	- 7 52.0	35.989	36.862	0.8	21.2
9 18	1 23.27	+ 4 29.4	1.641	2.583	9.8	20.0	9 18	1 8.00	- 7 57.0	35.928	36.861	0.6	21.2
9 28	1 16.49	+ 3 36.2	1.603	2.585	5.6	19.7	9 28	1 7.18	- 8 1.8	35.895	36.860	0.4	21.2
10 8	1 8.52	+ 2 39.7	1.590	2.587	1.8	19.5	10 8	1 6.32	- 8 6.0	35.890	36.860	0.4	21.2
10 18	1 0.33	+ 1 46.2	1.605	2.590	4.2	19.7	10 18	1 5.45	- 8 9.6	35.915	36.859	0.5	21.2
10 28	0 52.96	+ 1 2.6	1.647	2.593	8.4	19.9	10 28	1 4.61	- 8 12.3	35.968	36.858	0.7	21.2
11 7	0 47.27	+ 0 33.5	1.714	2.596	12.3	20.2	11 7	1 3.82	- 8 14.0	36.048	36.857	0.9	21.3
11 17	0 43.82	+ 0 21.6	1.802	2.599	15.5	20.4	11 17	1 3.11	- 8 14.5	36.153	36.856	1.1	21.3
4980	Magomaev		10 11.0 321°04	0°7/10.4 18			367754	2010 VJ ₁₈₀		10 11.1 202°29	6°0/ 4.7 18		
9 8	1 26.26	+ 6 54.2	2.032	2.901	12.1	17.0	9 8	1 30.42	-12 34.3	2.448	3.316	10.3	20.9
9 18	1 21.81	+ 6 27.2	1.953	2.889	8.8	16.8	9 18	1 24.44	-13 17.4	2.390	3.313	8.1	20.8
9 28	1 15.62	+ 5 51.1	1.897	2.878	5.1	16.5	9 28	1 16.99	-13 54.2	2.358	3.311	6.4	20.7
10 8	1 8.33	+ 5 9.9	1.869	2.867	1.2	16.2	10 8	1 8.66	-14 19.5	2.354	3.308	6.1	20.6
10 18	1 0.72	+ 4 28.3	1.868	2.856	3.2	16.4	10 18	1 0.21	-14 29.1	2.377	3.305	7.4	20.7
10 28	0 53.71	+ 3 51.7	1.895	2.846	7.2	16.6	10 28	0 52.39	-14 20.8	2.428	3.302	9.6	20.8
11 7	0 48.06	+ 3 24.7	1.949	2.836	10.8	16.8	11 7	0 45.88	-13 54.3	2.503	3.299	11.8	21.0
11 17	0 44.35	+ 3 10.6	2.025	2.826	13.9	17.0	11 17	0 41.12	-13 10.9	2.599	3.295	13.8	21.2
321256	2009 DB ₁₃		10 11.0 301°97	3°5/13.4 18			53548	2000 BA ₁₄		10 11.1 199°60	0°2/10.9 18		
9 8	1 32.21	+15 50.5	1.274	2.133	18.4	21.0	9 8	1 31.86	+ 8				

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
121741	1999 XT ₁₉₈	10 11.1 339°42		0°1/10.9 18			210321	2007 TG ₂₃₂	10 11.1 4°65		0°2/11.2 18		
9 8	1 28.47	+ 7 30.2	1.756	2.626	13.6	18.9	9 8	1 27.36	+10 6.8	1.580	2.450	14.8	20.5
9 18	1 23.68	+ 7 26.8	1.681	2.617	10.0	18.7	9 18	1 22.97	+ 9 32.0	1.514	2.450	10.9	20.2
9 28	1 16.85	+ 7 14.1	1.628	2.608	5.9	18.4	9 28	1 16.46	+ 8 42.7	1.471	2.450	6.4	20.0
10 8	1 8.69	+ 6 55.2	1.601	2.599	1.4	18.1	10 8	1 8.62	+ 7 43.7	1.453	2.451	1.6	19.7
10 18	1 0.15	+ 6 34.3	1.602	2.592	3.2	18.2	10 18	1 0.50	+ 6 41.6	1.462	2.452	3.4	19.8
10 28	0 52.32	+ 6 16.4	1.630	2.585	7.7	18.5	10 28	0 53.24	+ 5 44.2	1.498	2.454	8.1	20.1
11 7	0 46.12	+ 6 6.4	1.682	2.578	11.7	18.7	11 7	0 47.76	+ 4 58.3	1.558	2.456	12.3	20.3
11 17	0 42.19	+ 6 7.3	1.757	2.572	15.1	18.9	11 17	0 44.67	+ 4 28.4	1.639	2.458	15.9	20.6
90416	2003 YK ₁₁₈	10 11.1 180°78		4°1/14.2 18			223368	2003 SP ₃₂	10 11.1 26°51		1°6/12.6 18		
9 8	1 44.99	+20 1.3	1.719	2.519	16.9	22.7	9 8	1 27.74	+12 54.5	1.812	2.666	14.0	19.2
9 18	1 35.93	+19 56.1	1.637	2.525	13.3	22.5	9 18	1 22.98	+12 49.3	1.751	2.675	10.5	19.0
9 28	1 24.08	+19 28.2	1.578	2.528	9.2	22.2	9 28	1 16.34	+12 30.3	1.713	2.685	6.5	18.8
10 8	1 10.42	+18 37.7	1.546	2.529	5.2	22.0	10 8	1 8.58	+12 0.3	1.701	2.695	2.6	18.6
10 18	0 56.32	+17 28.6	1.543	2.527	4.6	22.0	10 18	1 0.63	+11 23.4	1.716	2.706	2.9	18.6
10 28	0 43.28	+16 9.0	1.571	2.523	8.2	22.2	10 28	0 53.48	+10 45.4	1.758	2.718	6.8	18.9
11 7	0 32.55	+14 49.1	1.627	2.517	12.3	22.4	11 7	0 47.94	+10 12.0	1.827	2.730	10.5	19.2
11 17	0 24.89	+13 38.0	1.706	2.509	16.1	22.6	11 17	0 44.56	+ 9 47.7	1.918	2.742	13.7	19.4
198281	2004 TW ₂₉₃	10 11.1 56°23		0°1/11.1 18			138388	2000 GX ₁₇₃	10 11.1 298°97		2°5/14.5 17		
9 8	1 30.56	+ 9 2.0	1.544	2.413	15.2	20.8	9 8	1 23.81	+18 42.1	2.977	3.790	10.2	19.5
9 18	1 25.25	+ 8 38.6	1.485	2.421	11.1	20.6	9 18	1 19.65	+18 29.9	2.884	3.778	8.0	19.3
9 28	1 17.74	+ 8 2.4	1.449	2.429	6.5	20.3	9 28	1 14.26	+18 5.3	2.814	3.767	5.5	19.2
10 8	1 8.90	+ 7 17.9	1.439	2.436	1.5	20.0	10 8	1 8.09	+17 29.5	2.772	3.755	3.2	19.0
10 18	0 59.84	+ 6 31.3	1.455	2.445	3.5	20.2	10 18	1 1.70	+16 44.9	2.759	3.744	2.7	19.0
10 28	0 51.76	+ 5 49.4	1.498	2.453	8.2	20.5	10 28	0 55.69	+15 55.3	2.776	3.733	4.8	19.1
11 7	0 45.61	+ 5 18.4	1.565	2.461	12.4	20.8	11 7	0 50.62	+15 5.1	2.820	3.721	7.3	19.2
11 17	0 41.97	+ 5 1.9	1.655	2.470	15.9	21.0	11 17	0 46.94	+14 18.3	2.891	3.710	9.7	19.4
6402	Holstein	10 11.1 3°19		2°9/ 8.6 18			443350	2014 GJ ₃₁	10 11.1 357°39		1°1/10.2 18		
9 8	1 26.84	+ 2 44.4	1.532	2.421	14.2	16.4	9 8	1 30.17	+ 5 29.7	1.668	2.542	14.0	21.0
9 18	1 22.58	+ 1 50.6	1.473	2.420	10.2	16.1	9 18	1 24.92	+ 5 9.6	1.602	2.541	10.2	20.8
9 28	1 16.20	+ 0 49.2	1.437	2.420	5.9	15.9	9 28	1 17.57	+ 4 40.9	1.559	2.540	5.9	20.6
10 8	1 8.54	+ 0 12.8	1.426	2.421	2.9	15.7	10 8	1 8.90	+ 4 8.2	1.542	2.540	1.5	20.3
10 18	1 0.63	+ 1 7.8	1.441	2.422	5.4	15.9	10 18	0 59.94	+ 3 36.7	1.552	2.540	3.9	20.4
10 28	0 53.60	+ 1 48.7	1.483	2.424	9.6	16.1	10 28	0 51.83	+ 3 12.3	1.590	2.540	8.3	20.7
11 7	0 48.36	+ 2 10.8	1.547	2.426	13.6	16.4	11 7	0 45.48	+ 2 59.4	1.652	2.540	12.3	21.0
11 17	0 45.49	+ 2 12.6	1.632	2.429	16.9	16.6	11 17	0 41.50	+ 3 0.7	1.736	2.541	15.7	21.2
195206	2002 DF ₁	10 11.1 200°99		3°3/ 8.4 18			75286	1999 XZ ₂₄	10 11.1 0°39		7°1/17.0 18		
9 8	1 32.07	+ 0 22.0	1.777	2.654	13.1	19.9	9 8	1 19.18	+24 30.8	0.927	1.792	23.1	17.5
9 18	1 26.16	+ 0 57.5	1.712	2.653	9.5	19.7	9 18	1 18.23	+24 25.9	0.869	1.787	18.9	17.2
9 28	1 18.21	+ 1 36.2	1.672	2.652	5.7	19.5	9 28	1 14.21	+23 39.4	0.827	1.785	14.0	16.9
10 8	1 9.02	+ 2 12.3	1.658	2.650	3.3	19.3	10 8	1 8.17	+22 11.6	0.803	1.784	9.2	16.7
10 18	0 59.57	+ 2 40.2	1.672	2.648	5.5	19.5	10 18	1 1.62	+20 10.5	0.800	1.785	7.1	16.6
10 28	0 50.96	+ 2 55.0	1.714	2.646	9.2	19.7	10 28	0 56.31	+17 52.0	0.818	1.789	10.1	16.8
11 7	0 44.07	+ 2 53.7	1.780	2.644	12.8	19.9	11 7	0 53.61	+15 35.9	0.857	1.794	14.9	17.1
11 17	0 39.48	+ 2 35.7	1.867	2.642	15.9	20.1	11 17	0 54.20	+13 38.1	0.915	1.802	19.6	17.4
102261	1999 TF ₃₄	10 11.1 340°76		3°2/ 8.6 18			387615	2002 EY ₁₁₈	10 11.1 173°26		2°1/13.2 18		
9 8	1 22.23	+ 3 51.5	1.123	2.031	16.6	19.5	9 8	1 31.92	+15 16.8	2.227	3.054	12.7	22.8
9 18	1 19.98	+ 2 53.9	1.054	2.011	12.1	19.2	9 18	1 25.80	+15 8.4	2.150	3.057	9.7	22.6
9 28	1 15.07	+ 1 42.5	1.005	1.992	7.1	18.8	9 28	1 17.94	+14 46.2	2.097	3.060	6.3	22.4
10 8	1 8.34	+ 0 26.3	0.979	1.975	3.2	18.6	10 8	1 8.99	+14 12.0	2.071	3.062	2.9	22.2
10 18	1 1.02	+ 0 43.8	0.975	1.959	6.5	18.7	10 18	0 59.79	+13 29.3	2.075	3.063	2.8	22.2
10 28	0 54.62	+ 1 36.7	0.994	1.945	11.9	19.0	10 28	0 51.25	+12 43.2	2.108	3.064	6.1	22.4
11 7	0 50.40	+ 2 4.8	1.034	1.933	16.9	19.2	11 7	0 44.16	+11 59.1	2.169	3.064	9.5	22.6
11 17	0 49.12	+ 2 5.0	1.091	1.923	21.2	19.4	11 17	0 39.06	+11 22.0	2.255	3.064	12.4	22.8
489151	2006 DR ₁₉₃	10 11.1 179°67		2°0/13.3 17			127223	2002 JW ₅	10 11.1 73°07		5°5/ 5.2 18		
9 8	1 28.81	+15 2.2	2.600	3.426	11.1	22.2	9 8	1 27.42	+ 7 55.1	2.128	3.009	11.1	20.1
9 18	1 23.35	+15 3.9	2.520	3.426	8.5	22.1	9 18	1 22.37	+ 9 3.8	2.089	3.025	8.3	20.0
9 28	1 16.42	+14 54.4	2.465	3.427	5.5	21.9	9 28	1 15.82	+10 8.7	2.075	3.041	6.1	19.9
10 8	1 8.59	+14 35.0	2.437	3.427	2.7	21.7	10 8	1 8.46	+11 3.4	2.088	3.056	5.6	19.9
10 18	1 0.52	+14 8.2	2.439	3.427	2.6	21.7	10 18	1 1.05	+11 42.8	2.128	3.072	7.2	20.0
10 28	0 52.97	+13 37.7	2.471	3.427	5.3	21.9	10 28	0 54.39	+12 3.3	2.196	3.088	9.6	20.2
11 7	0 46.60	+13 7.8	2.530	3.426	8.3	22.1	11 7	0 49.12	+12 3.9	2.287	3.103	12.1	20.4
11 17	0 41.89	+12 42.3	2.615	3.425	10.9	22.2	11 17	0 45.66	+11 45.6	2.398	3.119	14.2	20.6
322550	2011 YT ₄₅	10 11.1 252°71		0°3/11.6 18			487795	2015 RZ ₂₄₀	10 11.1 305°22		5°8/ 4.9 18		
9 8	1 20.83	+ 9 34.8	4.506	5.348	6.5	21.4	9 8	1 27.71	+ 9 15.2	2.161	3.041	11.0	21.1
9 18	1 17.07	+ 9 20.1	4.423	5.344	4.7	21.3	9 18	1 22.70	+10 14.0	2.104	3.038	8.4	20.9
9 28	1 12.59	+ 9 0.7	4.366	5.340	2.8	21.1	9 28	1 16.10	+11 8.9	2.072	3.035	6.3	20.8
10 8	1 7.66	+ 8 38.0	4.339	5.336	0.8	21.0	10 8	1 8.55	+11 53.7	2.066	3.032	5.9	20.7
10 18	1 2.62	+ 8 13.7	4.342	5.332	1.4	21.0	10 18	1 0.83	+12 23.1	2.088	3.029	7.5	20.8
10 28	0 57.84	+ 7 50.0	4.376	5.328	3.4	21.2	10 28	0 53.76	+12 33.6	2.137	3.027	10.0	21.0
11 7	0 53.64	+ 7 29.0	4.439	5.324	5.3	21.3	11 7	0 48.06	+12 24.1	2.209	3.024	12.5	21.2
11 17	0 50.28	+ 7 12.3	4.529	5.320	6.9	21.4	11 17	0 44.20	+11 55.4	2.301	3.021	14.8	21.3
483797	2005 VK ₉₇	10 11.1 331°95		2°4/ 9.1 18			220203	2002 VA ₂₆	10 11.1 329°99		1°2/11.9 18		
9 8	1 29.04	+ 1 35.4	1.820	2.699	12.8	21.1	9 8	1 27.25	+11 27.8	1.185	2.068	17.8	20.6
9 18													

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
429563	2011 <i>CO</i> ₈₉		10 11.1	53°09	6°1/15.9	18	517512	2014 <i>QW</i> ₄₅₀		10 11.1	147°66	1°6/ 9.2	18
9 8	1 32.14	+22 38.1	1.363	2.191	19.1	20.6	9 8	1 27.88	+ 2 44.2	2.696	3.559	9.6	22.1
9 18	1 26.84	+22 57.9	1.307	2.204	15.4	20.4	9 18	1 22.55	+ 2 14.1	2.631	3.566	6.9	22.0
9 28	1 18.86	+22 50.7	1.270	2.217	11.2	20.2	9 28	1 15.93	+ 1 40.2	2.593	3.572	4.0	21.8
10 8	1 9.25	+22 16.5	1.256	2.231	7.4	20.1	10 8	1 8.57	+ 1 5.8	2.583	3.578	1.6	21.6
10 18	0 59.36	+21 19.3	1.266	2.245	6.2	20.0	10 18	1 1.08	+ 0 34.6	2.603	3.584	3.3	21.8
10 28	0 50.68	+20 7.9	1.301	2.260	8.7	20.2	10 28	0 54.13	+ 0 10.2	2.653	3.589	6.2	22.0
11 7	0 44.34	+18 53.4	1.361	2.275	12.5	20.5	11 7	0 48.28	- 0 4.9	2.730	3.595	8.9	22.2
11 17	0 40.97	+17 45.5	1.442	2.289	16.1	20.8	11 17	0 43.95	- 0 9.0	2.831	3.599	11.2	22.3
350017	2010 <i>JD</i> ₄₀		10 11.1	209°90	3°2/14.6	18	514476	2016 <i>VW</i> ₈		10 11.1	10°86	1°1/10.2	18
9 8	1 28.52	+20 6.1	2.096	2.912	13.7	21.0	9 8	1 28.72	+ 7 0.3	1.630	2.505	14.2	21.5
9 18	1 23.51	+19 34.4	2.012	2.908	10.8	20.8	9 18	1 23.93	+ 6 19.0	1.566	2.505	10.3	21.2
9 28	1 16.69	+18 43.0	1.950	2.903	7.4	20.6	9 28	1 17.05	+ 5 26.5	1.525	2.506	5.9	21.0
10 8	1 8.73	+17 33.9	1.914	2.898	4.2	20.4	10 8	1 8.88	+ 4 28.1	1.509	2.507	1.5	20.7
10 18	1 0.47	+16 11.6	1.907	2.893	3.5	20.3	10 18	1 0.44	+ 3 30.7	1.520	2.508	3.9	20.9
10 28	0 52.87	+14 43.1	1.928	2.887	6.4	20.5	10 28	0 52.85	+ 2 41.4	1.559	2.509	8.4	21.1
11 7	0 46.75	+13 16.4	1.978	2.881	9.8	20.7	11 7	0 47.03	+ 2 6.0	1.622	2.510	12.5	21.4
11 17	0 42.65	+11 58.4	2.052	2.874	13.0	20.9	11 17	0 43.54	+ 1 47.8	1.706	2.512	15.9	21.6
73397	2002 <i>LC</i> ₁₉		10 11.1	109°15	5°5/18.6	18	12000	1996 <i>CK</i> ₂		10 11.1	208°38	0°5/11.6	18
9 8	1 27.72	+29 10.9	2.537	3.291	13.3	18.8	9 8	1 30.16	+ 9 30.4	2.437	3.283	11.1	18.0
9 18	1 22.67	+29 4.6	2.461	3.302	11.1	18.6	9 18	1 24.44	+ 9 26.3	2.357	3.280	8.2	17.8
9 28	1 16.07	+28 37.8	2.407	3.314	8.7	18.5	9 28	1 17.16	+ 9 13.9	2.303	3.276	4.9	17.6
10 8	1 8.56	+27 50.9	2.378	3.325	6.5	18.4	10 8	1 8.90	+ 8 55.1	2.276	3.273	1.4	17.4
10 18	1 0.89	+26 46.3	2.377	3.336	5.5	18.3	10 18	1 0.39	+ 8 33.2	2.279	3.269	2.4	17.4
10 28	0 53.86	+25 28.8	2.404	3.347	6.3	18.4	10 28	0 52.42	+ 8 11.8	2.313	3.265	5.9	17.7
11 7	0 48.17	+24 5.2	2.459	3.358	8.3	18.6	11 7	0 45.70	+ 7 54.7	2.373	3.261	9.1	17.9
11 17	0 44.27	+22 42.1	2.540	3.368	10.6	18.7	11 17	0 40.73	+ 7 45.0	2.459	3.257	11.8	18.0
206553	2003 <i>UO</i> ₂₃₇		10 11.1	241°58	3°1/ 8.5	18	191139	2002 <i>GG</i> ₇₆		10 11.1	350°47	0°7/11.7	18
9 8	1 32.35	- 0 49.6	2.026	2.897	12.0	20.8	9 8	1 25.93	+11 35.5	1.306	2.185	16.8	18.8
9 18	1 26.27	- 1 16.2	1.950	2.887	8.7	20.5	9 18	1 22.40	+11 3.2	1.239	2.178	12.5	18.5
9 28	1 18.30	- 1 45.2	1.899	2.877	5.3	20.3	9 28	1 16.38	+10 11.9	1.194	2.173	7.5	18.2
10 8	1 9.13	- 2 11.8	1.875	2.867	3.1	20.2	10 8	1 8.75	+ 9 6.5	1.172	2.169	2.2	17.9
10 18	0 59.65	- 2 31.2	1.881	2.856	5.0	20.3	10 18	1 0.72	+ 7 54.9	1.174	2.166	3.6	18.0
10 28	0 50.83	- 2 39.3	1.914	2.845	8.5	20.5	10 28	0 53.63	+ 6 46.9	1.202	2.163	8.9	18.3
11 7	0 43.53	- 2 33.3	1.974	2.834	11.9	20.7	11 7	0 48.60	+ 5 51.7	1.253	2.162	13.8	18.6
11 17	0 38.33	- 2 12.5	2.056	2.823	14.9	20.8	11 17	0 46.30	+ 5 15.0	1.324	2.161	17.9	18.8
408544	2013 <i>JJ</i> ₆₀		10 11.1	73°80	0°8/10.2	18	58645	1997 <i>WT</i> ₃₃		10 11.1	349°64	0°7/10.7	18
9 8	1 26.06	+ 7 40.3	2.214	3.077	11.4	21.2	9 8	1 28.73	+ 7 16.3	1.246	2.134	16.8	17.9
9 18	1 21.42	+ 6 50.1	2.156	3.090	8.2	21.0	9 18	1 24.53	+ 6 58.0	1.183	2.128	12.3	17.6
9 28	1 15.33	+ 5 51.0	2.124	3.104	4.7	20.8	9 28	1 17.67	+ 6 26.5	1.140	2.123	7.2	17.3
10 8	1 8.40	+ 4 47.8	2.119	3.117	1.1	20.6	10 8	1 9.08	+ 5 47.0	1.120	2.119	1.7	17.0
10 18	1 1.37	+ 3 45.7	2.144	3.131	3.0	20.7	10 18	1 0.04	+ 5 6.5	1.126	2.115	4.3	17.2
10 28	0 55.01	+ 2 50.3	2.197	3.144	6.6	21.0	10 28	0 52.03	+ 4 33.1	1.155	2.113	9.7	17.5
11 7	0 49.94	+ 2 5.9	2.277	3.158	9.7	21.2	11 7	0 46.23	+ 4 13.5	1.207	2.111	14.6	17.8
11 17	0 46.59	+ 1 35.4	2.381	3.171	12.4	21.4	11 17	0 43.35	+ 4 11.4	1.279	2.111	18.7	18.0
313605	2003 <i>QG</i> ₂₅		10 11.1	60°82	4°5/14.2	17	220150	2002 <i>TQ</i> ₁₉₇		10 11.1	357°78	1°5/12.1	18
9 8	1 34.65	+18 10.9	1.201	2.051	19.8	20.1	9 8	1 30.26	+12 16.8	1.074	1.957	19.3	19.8
9 18	1 28.75	+18 23.6	1.154	2.071	15.4	19.8	9 18	1 25.65	+12 1.0	1.033	1.973	14.4	19.6
9 28	1 19.98	+18 11.1	1.127	2.090	10.4	19.6	9 28	1 18.22	+11 24.7	1.011	1.989	8.7	19.3
10 8	1 9.54	+17 35.3	1.123	2.110	5.8	19.4	10 8	1 9.17	+10 33.1	1.011	2.007	2.9	19.0
10 18	0 58.96	+16 41.6	1.143	2.130	5.0	19.5	10 18	0 59.99	+ 9 34.7	1.034	2.026	3.9	19.2
10 28	0 49.82	+15 39.9	1.188	2.150	8.9	19.7	10 28	0 52.24	+ 8 39.5	1.082	2.046	9.4	19.5
11 7	0 43.29	+14 40.7	1.256	2.170	13.3	20.1	11 7	0 47.04	+ 7 56.5	1.152	2.066	14.3	19.9
11 17	0 39.95	+13 52.4	1.346	2.191	17.2	20.4	11 17	0 44.93	+ 7 30.8	1.241	2.087	18.3	20.2
168199	2006 <i>JY</i> ₁₈		10 11.1	101°83	1°5/ 9.7	18	387952	2005 <i>ER</i> ₂₄₂		10 11.1	131°44	2°2/ 9.3	18
9 8	1 29.20	+ 5 47.2	1.799	2.670	13.2	20.8	9 8	1 32.99	+ 1 32.2	2.017	2.885	12.2	20.6
9 18	1 24.02	+ 4 58.0	1.740	2.678	9.5	20.6	9 18	1 26.60	+ 1 12.0	1.957	2.893	8.8	20.4
9 28	1 16.97	+ 3 59.6	1.705	2.687	5.4	20.3	9 28	1 18.42	+ 0 48.1	1.921	2.901	5.1	20.2
10 8	1 8.82	+ 2 57.7	1.697	2.695	1.7	20.1	10 8	1 9.20	+ 0 24.8	1.913	2.908	2.2	20.0
10 18	1 0.50	+ 1 58.9	1.718	2.702	4.0	20.3	10 18	0 59.83	+ 0 6.3	1.935	2.916	4.2	20.1
10 28	0 53.01	+ 1 9.5	1.765	2.710	8.1	20.6	10 28	0 51.25	- 0 3.3	1.985	2.923	7.8	20.4
11 7	0 47.16	+ 0 34.4	1.839	2.718	11.7	20.8	11 7	0 44.24	- 0 1.4	2.061	2.929	11.1	20.6
11 17	0 43.46	+ 0 16.1	1.934	2.725	14.8	21.0	11 17	0 39.33	+ 0 13.2	2.160	2.936	14.0	20.8
358764	2008 <i>CW</i> ₂₁₁		10 11.1	108°43	2°4/13.6	18	428594	2008 <i>EY</i> ₅₆		10 11.1	226°19	2°6/ 9.1	18
9 8	1 31.37	+15 58.7	2.306	3.129	12.4	21.2	9 8	1 32.84	+ 2 35.9	1.612	2.488	14.2	21.3
9 18	1 25.29	+16 1.5	2.241	3.145	9.5	21.1	9 18	1 27.03	+ 1 54.8	1.542	2.482	10.4	21.1
9 28	1 17.60	+15 51.1	2.201	3.160	6.3	20.9	9 28	1 18.93	+ 1 6.5	1.495	2.476	6.1	20.8
10 8	1 8.96	+15 29.0	2.187	3.176	3.2	20.7	10 8	1 9.37	+ 0 16.9	1.474	2.469	2.7	20.6
10 18	1 0.18	+14 58.2	2.204	3.191	2.9	20.7	10 18	0 59.44	- 0 27.0	1.481	2.462	5.2	20.7
10 28	0 52.09	+14 23.1	2.249	3.205	5.8	20.9	10 28	0 50.36	- 0 58.6	1.515	2.455	9.6	21.0
11 7	0 45.42	+13 48.7	2.322	3.219	8.8	21.2	11 7	0 43.16	- 1 13.5	1.573	2.447	13.7	21.2
11 17	0 40.64	+13 19.2	2.421	3.233	11.6	21.4	11 17	0 38.50	- 1 9.9	1.651	2.439	17.1	21.4
190516	2000 <i>JT</i> ₇₃		10 11.1	184°87	7°3/ 4.4	18	25622	2000 <i>AN</i> ₄₆		10 11.1	153°84	1°0/10.0	18

EPHEMERIDES

10 11.1

10 11.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V	
351136	2003 <i>WM</i> ₁₄₂	10 11.1 325°37' 11.4"/ 1.5 18						19987	1990 <i>QJ</i> ₃	10 11.1 329°50' 4.4"/ 14.3 18				
9 8	1 29.57	-17 47.3	1.403	2.290	15.3	19.3	9 8	1 31.84	+17 46.5	1.747	2.579	15.4	17.5	
9 18	1 25.04	-19 11.3	1.344	2.268	13.0	19.1	9 18	1 26.46	+18 28.2	1.664	2.568	12.2	17.3	
9 28	1 17.94	-20 22.1	1.306	2.247	11.6	18.9	9 28	1 18.73	+18 54.1	1.602	2.557	8.6	17.1	
10 8	1 9.15	-21 8.1	1.290	2.226	11.9	18.9	10 8	1 9.39	+19 3.2	1.564	2.546	5.3	16.8	
10 18	0 59.91	-21 20.5	1.297	2.206	13.8	19.0	10 18	0 59.47	+18 56.7	1.554	2.536	4.8	16.8	
10 28	0 51.62	-20 55.0	1.324	2.187	16.6	19.1	10 28	0 50.21	+18 38.7	1.570	2.527	7.7	16.9	
11 7	0 45.43	-19 53.0	1.371	2.169	19.6	19.3	11 7	0 42.73	+18 15.3	1.612	2.518	11.4	17.1	
11 17	0 42.04	-18 19.9	1.433	2.152	22.3	19.4	11 17	0 37.77	+17 53.1	1.676	2.510	14.9	17.4	
174465	2002 <i>YK</i> ₃₂	10 11.1 27°87' 12.4"/ 23.2 18						77670	2001 <i>MH</i> ₁₁	10 11.1 220°98' 10.5"/ 21.7 18				
9 8	1 30.98	+36 0.8	1.324	2.085	22.9	18.1	9 8	1 39.08	+39 26.7	2.274	2.944	16.7	19.7	
9 18	1 26.48	+37 16.8	1.276	2.102	20.1	17.9	9 18	1 31.90	+40 29.8	2.175	2.932	15.0	19.6	
9 28	1 18.90	+37 55.2	1.244	2.122	17.1	17.8	9 28	1 22.03	+41 8.0	2.094	2.920	13.2	19.4	
10 8	1 9.38	+37 51.2	1.229	2.142	14.4	17.7	10 8	1 10.22	+41 16.1	2.035	2.907	11.5	19.3	
10 18	0 59.49	+37 5.0	1.235	2.164	12.7	17.7	10 18	0 57.60	+40 51.4	2.000	2.892	10.6	19.2	
10 28	0 50.96	+35 44.1	1.262	2.186	12.6	17.8	10 28	0 45.58	+39 55.9	1.990	2.877	10.7	19.2	
11 7	0 45.12	+34 1.5	1.312	2.210	14.1	17.9	11 7	0 35.46	+38 36.5	2.005	2.861	12.0	19.2	
11 17	0 42.64	+32 11.6	1.382	2.234	16.4	18.1	11 17	0 28.12	+37 3.2	2.044	2.844	13.8	19.3	
403415	2009 <i>SU</i> ₇₅	10 11.1 57°89' 3.0"/ 8.2 18						405277	2003 <i>SF</i> ₃₃₉	10 11.1 282°75' 2.9"/ 8.2 18				
9 8	1 28.06	- 0 14.0	2.067	2.944	11.5	20.7	9 8	1 28.97	- 1 20.9	2.292	3.165	10.7	21.1	
9 18	1 22.96	- 0 54.8	2.014	2.955	8.3	20.5	9 18	1 23.62	- 1 48.6	2.222	3.160	7.8	20.9	
9 28	1 16.28	- 1 38.2	1.987	2.967	5.0	20.4	9 28	1 16.72	- 2 17.8	2.177	3.155	4.8	20.7	
10 8	1 8.69	- 2 18.9	1.987	2.978	3.0	20.3	10 8	1 8.86	- 2 44.3	2.160	3.150	2.9	20.6	
10 18	1 1.01	- 2 52.0	2.015	2.990	4.8	20.4	10 18	1 0.78	- 3 4.0	2.171	3.145	4.7	20.7	
10 28	0 54.05	- 3 13.4	2.071	3.001	8.0	20.6	10 28	0 53.30	- 3 13.2	2.211	3.140	7.7	20.9	
11 7	0 48.51	- 3 20.4	2.152	3.013	11.1	20.8	11 7	0 47.09	- 3 9.6	2.277	3.135	10.7	21.0	
11 17	0 44.84	- 3 12.4	2.256	3.025	13.7	21.1	11 17	0 42.67	- 2 52.4	2.366	3.130	13.3	21.2	
2568	<i>Maksutov</i>	10 11.1 69°61' 6.7"/ 6.9 18 R						181078	2005 <i>QH</i> ₂₆	10 11.1 329°39' 1.7"/ 9.5 18				
9 8	1 35.80	- 5 15.3	1.173	2.068	17.1	16.2	9 8	1 28.00	+ 4 15.6	1.891	2.765	12.6	20.5	
9 18	1 29.26	- 6 21.2	1.144	2.090	12.6	16.0	9 18	1 23.22	+ 3 39.6	1.821	2.761	9.1	20.3	
9 28	1 20.11	- 7 23.6	1.136	2.112	8.4	15.9	9 28	1 16.60	+ 2 56.4	1.776	2.757	5.2	20.1	
10 8	1 9.60	- 8 12.2	1.152	2.134	6.7	15.9	10 8	1 8.85	+ 2 10.6	1.757	2.754	1.8	19.8	
10 18	0 59.21	- 8 39.0	1.193	2.157	9.1	16.1	10 18	1 0.82	+ 1 27.9	1.766	2.750	4.0	20.0	
10 28	0 50.39	- 8 39.8	1.258	2.179	12.9	16.3	10 28	0 53.49	+ 0 53.9	1.803	2.747	8.0	20.2	
11 7	0 44.11	- 8 14.9	1.343	2.201	16.6	16.6	11 7	0 47.67	+ 0 32.8	1.864	2.744	11.6	20.5	
11 17	0 40.83	- 7 27.6	1.447	2.222	19.7	16.9	11 17	0 43.91	+ 0 26.9	1.948	2.741	14.7	20.7	
261727	2006 <i>AN</i> ₄₄	10 11.1 345°85' 3.3"/ 14.1 18						76190	2000 <i>EG</i> ₄₂	10 11.1 298°14' 2.6"/ 8.4 18				
9 8	1 29.03	+17 20.2	2.015	2.845	13.7	20.3	9 8	1 25.48	+ 5 9.8	1.715	2.597	13.3	19.3	
9 18	1 24.00	+17 31.8	1.937	2.842	10.7	20.1	9 18	1 21.66	+ 3 39.8	1.633	2.577	9.6	19.1	
9 28	1 17.07	+17 28.0	1.881	2.839	7.3	19.9	9 28	1 15.84	+ 1 56.3	1.575	2.558	5.6	18.8	
10 8	1 8.93	+17 9.6	1.851	2.837	4.1	19.7	10 8	1 8.69	+ 0 6.8	1.543	2.538	2.6	18.5	
10 18	1 0.45	+16 39.3	1.849	2.835	3.6	19.6	10 18	1 1.12	- 1 39.0	1.540	2.519	5.3	18.7	
10 28	0 52.62	+16 1.9	1.875	2.833	6.5	19.8	10 28	0 54.18	- 3 11.4	1.563	2.500	9.6	18.9	
11 7	0 46.29	+15 23.4	1.927	2.831	9.9	20.0	11 7	0 48.80	- 4 22.9	1.611	2.481	13.6	19.1	
11 17	0 42.07	+14 49.3	2.002	2.830	13.0	20.2	11 17	0 45.63	- 5 9.6	1.680	2.462	17.1	19.3	
185328	2006 <i>VS</i> ₂₅	10 11.1 175°46' 0.4"/ 10.8 18						72786	2001 <i>FZ</i> ₁₇₀	10 11.1 331°66' 1.8"/ 12.9 18				
9 8	1 29.11	+ 7 45.0	2.153	3.012	11.9	21.0	9 8	1 23.26	+17 13.4	1.446	2.304	16.6	18.1	
9 18	1 23.80	+ 7 19.0	2.082	3.013	8.7	20.8	9 18	1 20.36	+16 2.2	1.365	2.291	12.7	17.8	
9 28	1 16.84	+ 6 44.2	2.035	3.014	5.0	20.6	9 28	1 15.20	+14 23.1	1.306	2.278	8.1	17.5	
10 8	1 8.86	+ 6 4.1	2.016	3.014	1.2	20.3	10 8	1 8.54	+12 21.2	1.272	2.266	3.2	17.2	
10 18	1 0.65	+ 5 23.1	2.026	3.014	2.9	20.4	10 18	1 1.46	+10 6.2	1.264	2.255	3.3	17.2	
10 28	0 53.09	+ 4 46.3	2.065	3.015	6.7	20.7	10 28	0 55.18	+ 7 51.3	1.282	2.245	8.3	17.5	
11 7	0 46.91	+ 4 18.0	2.130	3.015	10.1	20.9	11 7	0 50.75	+ 5 49.5	1.326	2.235	13.1	17.7	
11 17	0 42.62	+ 4 1.2	2.219	3.014	13.0	21.1	11 17	0 48.82	+ 4 10.1	1.391	2.226	17.3	18.0	
449501	2014 <i>GO</i> ₁₅	10 11.1 76°13' 0.6"/ 10.7 18						202843	2008 <i>SV</i> ₂₆₄	10 11.1 44°60' 3.9"/ 8.8 18				
9 8	1 34.22	+ 5 27.6	1.783	2.647	13.7	20.7	9 8	1 35.24	- 0 53.8	1.216	2.108	16.9	19.6	
9 18	1 27.74	+ 5 30.2	1.721	2.655	10.0	20.4	9 18	1 28.77	- 1 15.4	1.186	2.133	12.2	19.4	
9 28	1 19.20	+ 5 25.8	1.683	2.662	5.8	20.2	9 28	1 19.81	- 1 38.7	1.178	2.159	7.2	19.3	
10 8	1 9.43	+ 5 17.6	1.672	2.670	1.4	19.9	10 8	1 9.57	- 1 56.8	1.193	2.186	3.9	19.1	
10 18	0 59.44	+ 5 9.4	1.690	2.678	3.4	20.1	10 18	0 59.47	- 2 3.8	1.234	2.214	6.3	19.4	
10 28	0 50.35	+ 5 5.3	1.736	2.686	7.7	20.4	10 28	0 50.86	- 1 55.6	1.300	2.241	10.7	19.7	
11 7	0 43.05	+ 5 9.0	1.807	2.694	11.5	20.6	11 7	0 44.70	- 1 30.7	1.388	2.269	14.7	20.0	
11 17	0 38.11	+ 5 22.7	1.901	2.702	14.7	20.9	11 17	0 41.44	- 0 50.1	1.497	2.298	18.0	20.3	
259635	2003 <i>WY</i> ₃₈	10 11.1 269°66' 4.8"/ 14.8 18						12042	<i>Laques</i>	10 11.1 144°07' 4.9"/ 5.5 18				
9 8	1 31.83	+20 15.6	1.541	2.370	17.2	20.6	9 8	1 27.07	- 6 12.7	2.262	3.141	10.6	18.0	
9 18	1 26.76	+20 22.6	1.453	2.355	13.8	20.4	9 18	1 22.20	- 7 23.8	2.208	3.145	7.9	17.9	
9 28	1 19.04	+20 6.3	1.386	2.340	9.8	20.1	9 28	1 15.86	- 8 33.5	2.179	3.149	5.6	17.7	
10 8	1 9.47	+19 26.4	1.342	2.324	6.0	19.8	10 8	1 8.65	- 9 35.6	2.179	3.152	5.0	17.7	
10 18	0 59.22	+18 26.0	1.324	2.308	5.1	19.8	10 18	1 1.30	-10 24.6	2.207	3.155	6.6	17.8	
10 28	0 49.73	+17 12.6	1.332	2.292	8.4	19.9	10 28	0 54.59	-10 56.3	2.261	3.158	9.2	18.0	
11 7	0 42.25	+15 56.5	1.366	2.276	12.7	20.1	11 7	0 49.15	-11 8.8	2.341	3.161	11.7	18.2	
11 17	0 37.63	+14 47.3	1.421	2.260	16.8	20.3	11 17	0 45.45	-11 2.3	2.441	3.164	13.9	18.3	
278190	2007 <i>EP</i> ₁	10 11.1 291°93' 0.5"/ 10.7 18						135838	2002 <i>SG</i> ₁₉	10 11.1 43°39' 1.5"/ 9.9 18				
9 8	1 29.27	+ 8 50.8	1.474	2.348	15.5	21.3	9 8	1 30.79	+ 4 30.2	1.707	2.581	13.7	19.5	
9 18	1 24.79	+ 8 11.8	1.392	2.330	11.4	21.1	9 18	1 25.34	+ 4 7.2	1.				

EPHEMERIDES

10 11.1

10 11.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
230181	2001 RA ₁₃₄		10 11.1 334°09	4°1/ 7.9	18		245988	2006 SM ₂₂₈		10 11.1 57°55	2°3/13.3	18	
9 8	1 24.38	+ 2 35.3	1.154	2.059	16.4	19.1	9 8	1 29.25	+15 32.4	1.898	2.738	14.0	20.3
9 18	1 21.57	+ 1 20.1	1.087	2.042	12.0	18.8	9 18	1 24.20	+15 21.7	1.826	2.740	10.7	20.1
9 28	1 16.08	- 0 7.9	1.041	2.026	7.1	18.4	9 28	1 17.23	+14 55.0	1.776	2.742	7.0	19.9
10 8	1 8.79	- 1 38.5	1.018	2.011	4.1	18.2	10 8	1 9.06	+14 14.5	1.753	2.744	3.3	19.6
10 18	1 0.96	- 2 59.7	1.018	1.998	7.3	18.4	10 18	1 0.61	+13 24.4	1.757	2.746	3.1	19.6
10 28	0 54.06	- 4 0.1	1.042	1.985	12.4	18.6	10 28	0 52.89	+12 30.8	1.789	2.748	6.7	19.9
11 7	0 49.33	- 4 32.5	1.085	1.974	17.2	18.9	11 7	0 46.77	+11 40.5	1.847	2.750	10.4	20.1
11 17	0 47.55	- 4 34.8	1.147	1.964	21.4	19.1	11 17	0 42.80	+10 58.9	1.929	2.753	13.6	20.3
236593	2006 HD ₁₅₁		10 11.1 191°70	0°1/11.0	18		354327	2002 WO ₃₀		10 11.1 301°18	2°0/ 9.4	18	
9 8	1 29.29	+ 9 44.9	2.037	2.893	12.6	21.4	9 8	1 29.26	+ 3 34.4	1.825	2.700	12.9	21.0
9 18	1 24.06	+ 9 1.7	1.963	2.892	9.2	21.2	9 18	1 24.24	+ 3 0.6	1.753	2.693	9.4	20.8
9 28	1 17.06	+ 8 6.4	1.913	2.890	5.4	21.0	9 28	1 17.27	+ 2 19.9	1.706	2.687	5.4	20.5
10 8	1 8.97	+ 7 3.3	1.891	2.888	1.3	20.7	10 8	1 9.07	+ 1 37.1	1.684	2.681	2.1	20.3
10 18	1 0.62	+ 5 58.1	1.897	2.886	2.9	20.8	10 18	1 0.57	+ 0 58.0	1.691	2.674	4.3	20.5
10 28	0 52.95	+ 4 57.1	1.932	2.883	7.0	21.0	10 28	0 52.77	+ 0 28.2	1.725	2.668	8.3	20.7
11 7	0 46.74	+ 4 6.1	1.994	2.880	10.6	21.3	11 7	0 46.56	+ 0 12.0	1.784	2.662	12.1	20.9
11 17	0 42.52	+ 3 29.0	2.080	2.877	13.7	21.5	11 17	0 42.51	+ 0 11.4	1.864	2.656	15.3	21.1
292183	2006 SM ₂₀		10 11.1 30°97	2°5/ 9.0	18		352400	2007 XM ₅		10 11.1 223°44	1°5/ 9.6	18	
9 8	1 28.86	+ 2 44.7	1.663	2.544	13.6	20.3	9 8	1 29.69	+ 4 23.5	2.179	3.043	11.5	21.7
9 18	1 23.95	+ 2 2.5	1.605	2.549	9.8	20.1	9 18	1 24.29	+ 3 48.5	2.101	3.037	8.4	21.5
9 28	1 17.05	+ 1 13.9	1.572	2.554	5.7	19.9	9 28	1 17.20	+ 3 6.7	2.049	3.029	4.8	21.3
10 8	1 8.96	+ 0 24.9	1.564	2.559	2.5	19.7	10 8	1 9.05	+ 2 22.3	2.025	3.022	1.6	21.0
10 18	1 0.67	- 0 18.2	1.583	2.565	4.9	19.9	10 18	1 0.62	+ 1 40.2	2.030	3.014	3.6	21.2
10 28	0 53.25	- 0 49.3	1.629	2.570	8.9	20.1	10 28	0 52.79	+ 1 5.3	2.064	3.006	7.3	21.4
11 7	0 47.55	- 1 4.6	1.699	2.577	12.6	20.4	11 7	0 46.31	+ 0 41.8	2.124	2.997	10.7	21.6
11 17	0 44.11	- 1 2.4	1.790	2.583	15.8	20.6	11 17	0 41.72	+ 0 31.8	2.207	2.988	13.6	21.8
517872	2015 RU ₂₅₇		10 11.1 156°58	2°5/13.4	18		365351	2009 SL ₂₈₂		10 11.1 102°10	2°0/ 8.8	18	
9 8	1 32.74	+15 13.8	2.268	3.093	12.5	21.9	9 8	1 25.52	+ 4 10.2	2.278	3.149	10.9	21.1
9 18	1 26.47	+15 29.2	2.191	3.096	9.6	21.7	9 18	1 21.11	+ 3 3.8	2.215	3.154	7.8	20.9
9 28	1 18.44	+15 32.2	2.139	3.100	6.4	21.5	9 28	1 15.26	+ 1 50.6	2.177	3.158	4.5	20.7
10 8	1 9.30	+15 23.8	2.114	3.103	3.3	21.3	10 8	1 8.57	+ 0 36.0	2.168	3.163	2.0	20.5
10 18	0 59.89	+15 6.1	2.119	3.106	3.1	21.3	10 18	1 1.72	- 0 34.2	2.188	3.168	3.9	20.7
10 28	0 51.11	+14 43.2	2.153	3.109	6.0	21.5	10 28	0 55.48	- 1 34.3	2.237	3.173	7.2	20.9
11 7	0 43.76	+14 19.6	2.215	3.111	9.2	21.7	11 7	0 50.46	- 2 20.3	2.313	3.178	10.2	21.1
11 17	0 38.39	+13 59.8	2.301	3.113	12.1	21.9	11 17	0 47.10	- 2 50.0	2.411	3.182	12.8	21.3
309030	2006 UZ ₁₅₅		10 11.1 10°50	3°3/ 8.3	18		7771	Tvären		10 11.1 133°96	0°9/10.3	18	
9 8	1 28.67	+ 0 23.6	1.681	2.566	13.3	20.5	9 8	1 28.53	+ 7 43.6	1.829	2.696	13.3	17.6
9 18	1 23.82	- 0 21.3	1.622	2.567	9.6	20.3	9 18	1 23.65	+ 6 55.5	1.762	2.698	9.6	17.4
9 28	1 16.99	- 1 10.6	1.587	2.568	5.8	20.1	9 28	1 16.89	+ 5 56.3	1.720	2.700	5.5	17.2
10 8	1 8.95	- 1 57.8	1.577	2.570	3.3	20.0	10 8	1 8.98	+ 4 51.0	1.704	2.701	1.4	16.9
10 18	1 0.69	- 2 36.5	1.595	2.572	5.6	20.1	10 18	1 0.84	+ 3 46.1	1.716	2.703	3.5	17.1
10 28	0 53.27	- 3 1.1	1.639	2.574	9.4	20.3	10 28	0 53.46	+ 2 48.7	1.756	2.705	7.7	17.3
11 7	0 47.54	- 3 8.4	1.707	2.577	13.0	20.6	11 7	0 47.66	+ 2 4.1	1.821	2.706	11.5	17.6
11 17	0 44.07	- 2 57.4	1.795	2.580	16.1	20.8	11 17	0 43.99	+ 1 35.9	1.909	2.708	14.7	17.8
13493	Lockwood		10 11.1 21°95	8°4/ 3.7	18		515561	2014 HG ₂₃		10 11.2 202°78	3°9/ 7.9	18	
9 8	1 25.08	- 7 46.5	1.253	2.161	15.3	16.6	9 8	1 35.17	- 4 9.6	2.050	2.918	12.0	21.9
9 18	1 21.57	- 9 43.6	1.221	2.170	11.6	16.4	9 18	1 28.30	- 4 30.8	1.981	2.915	8.9	21.7
9 28	1 15.77	-11 35.7	1.210	2.180	8.9	16.3	9 28	1 19.55	- 4 50.9	1.938	2.912	5.7	21.5
10 8	1 8.65	-13 9.8	1.223	2.191	8.7	16.3	10 8	1 9.64	- 5 5.2	1.923	2.908	3.9	21.4
10 18	1 1.43	-14 15.8	1.260	2.203	11.0	16.5	10 18	0 59.50	- 5 9.5	1.936	2.904	5.7	21.5
10 28	0 55.33	-14 47.9	1.319	2.217	14.3	16.7	10 28	0 50.11	- 5 0.5	1.979	2.900	8.9	21.7
11 7	0 51.25	-14 46.0	1.397	2.231	17.5	17.0	11 7	0 42.31	- 4 36.8	2.047	2.896	12.1	21.9
11 17	0 49.70	-14 13.8	1.493	2.246	20.2	17.2	11 17	0 36.66	- 3 58.7	2.138	2.890	14.8	22.1
85478	1997 MK ₅		10 11.1 33°17	0°1/11.2	18		95751	2003 EL ₂₈		10 11.2 176°04	0°4/10.8	18	
9 8	1 30.28	+ 9 10.4	1.111	1.999	18.4	18.7	9 8	1 33.28	+ 7 17.6	1.854	2.713	13.5	20.0
9 18	1 25.62	+ 8 50.3	1.070	2.014	13.5	18.4	9 18	1 27.12	+ 7 0.0	1.784	2.715	9.9	19.8
9 28	1 18.23	+ 8 14.2	1.048	2.030	7.9	18.2	9 28	1 18.94	+ 6 33.0	1.738	2.716	5.7	19.5
10 8	1 9.27	+ 7 28.1	1.048	2.046	1.9	17.9	10 8	1 9.50	+ 6 0.2	1.719	2.717	1.3	19.2
10 18	1 0.19	+ 6 40.0	1.073	2.064	4.0	18.1	10 18	0 59.79	+ 5 26.4	1.729	2.718	3.3	19.4
10 28	0 52.47	+ 5 58.8	1.123	2.083	9.5	18.5	10 28	0 50.86	+ 4 57.1	1.767	2.718	7.6	19.7
11 7	0 47.22	+ 5 31.5	1.194	2.102	14.4	18.8	11 7	0 43.63	+ 4 37.0	1.831	2.717	11.4	19.9
11 17	0 44.97	+ 5 21.8	1.285	2.123	18.3	19.1	11 17	0 38.67	+ 4 29.1	1.918	2.716	14.7	20.1
45111	1999 XJ ₇₇		10 11.1 225°86	2°8/14.5	18		426139	2012 HU ₂₈		10 11.2 135°55	4°3/ 7.5	17	
9 8	1 26.79	+18 59.0	2.377	3.194	12.3	18.8	9 8	1 33.32	- 1 38.7	1.696	2.575	13.6	21.9
9 18	1 22.12	+18 40.7	2.295	3.192	9.6	18.7	9 18	1 27.10	- 2 43.4	1.646	2.586	9.8	21.7
9 28	1 15.90	+18 6.6	2.235	3.189	6.6	18.5	9 28	1 18.86	- 3 50.3	1.620	2.598	6.2	21.5
10 8	1 8.71	+17 18.4	2.202	3.187	3.7	18.3	10 8	1 9.46	- 4 52.0	1.621	2.608	4.3	21.4
10 18	1 1.27	+16 19.4	2.198	3.184	3.1	18.2	10 18	0 59.95	- 5 41.4	1.650	2.618	6.5	21.6
10 28	0 54.38	+15 15.0	2.223	3.181	5.7	18.4	10 28	0 51.40	- 6 12.9	1.705	2.627	10.0	21.8
11 7	0 48.75	+14 11.1	2.276	3.178	8.7	18.6	11 7	0 44.70	- 6 23.9	1.785	2.636	13.5	22.0
11 17	0 44.88	+13 13.3	2.353	3.175	11.5	18.8	11 17	0 40.36	- 6 14.5	1.885	2.644	16.3	22.3
67309	2000 HO ₂		10 11.1 33°18	2°4/ 9.6	18		21639	Davidkaufman		10 11.2 299°07	4°8/ 7.5	18	
9 8	1 28.85	+ 5 56.5	0.908	1.815	19.7	18.5	9 8	1 30.01	- 0 26.2	1.313			

EPHEMERIDES

10 11.2

10 11.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
267617	2002 <i>RP</i> ₁₈₉		10 11.2 316°69	4.2/13.7	18		317805	2003 <i>SH</i> ₂₁₆		10 11.2 80°86	0.9/11.9	18	
9 8	1 30.16	+16 3.5	1.244	2.106	18.5	20.0	9 8	1 36.35	+9 39.0	2.347	3.183	11.8	20.2
9 18	1 26.10	+16 28.9	1.159	2.083	14.6	19.7	9 18	1 28.82	+9 59.2	2.293	3.209	8.7	20.0
9 28	1 19.00	+16 33.7	1.094	2.061	9.9	19.4	9 28	1 19.69	+10 11.3	2.264	3.235	5.3	19.9
10 8	1 9.64	+16 17.3	1.050	2.040	5.4	19.1	10 8	1 9.68	+10 16.7	2.265	3.260	1.8	19.7
10 18	0 59.34	+15 42.3	1.030	2.019	4.9	19.0	10 18	0 59.60	+10 17.5	2.296	3.286	2.4	19.8
10 28	0 49.79	+14 56.0	1.034	1.998	9.6	19.2	10 28	0 50.33	+10 16.7	2.358	3.311	5.8	20.0
11 7	0 42.55	+14 8.7	1.061	1.979	14.8	19.4	11 7	0 42.55	+10 17.7	2.449	3.335	8.9	20.3
11 17	0 38.62	+13 29.7	1.106	1.961	19.5	19.7	11 17	0 36.73	+10 23.2	2.565	3.360	11.5	20.5
183952	2004 <i>DL</i> ₄₄		10 11.2 98°05	0.2/11.3	18		319320	2006 <i>BG</i> ₁₆₇		10 11.2 108°92	3.8/6.5	18	
9 8	1 33.83	+9 44.7	1.592	2.452	15.2	20.5	9 8	1 25.95	-2 49.2	2.337	3.216	10.3	20.6
9 18	1 27.60	+9 20.0	1.539	2.470	11.2	20.3	9 18	1 21.39	-3 57.7	2.281	3.221	7.5	20.5
9 28	1 19.20	+8 42.2	1.510	2.487	6.6	20.1	9 28	1 15.43	-5 7.4	2.250	3.226	4.9	20.3
10 8	1 9.55	+7 56.0	1.506	2.504	1.7	19.8	10 8	1 8.66	-6 12.6	2.248	3.230	3.9	20.3
10 18	0 59.79	+7 7.2	1.530	2.520	3.3	20.0	10 18	1 1.74	-7 7.8	2.274	3.235	5.6	20.4
10 28	0 51.09	+6 22.8	1.582	2.536	7.9	20.3	10 28	0 55.42	-7 48.5	2.328	3.240	8.3	20.6
11 7	0 44.37	+5 48.7	1.658	2.552	12.0	20.6	11 7	0 50.30	-8 12.1	2.408	3.244	10.9	20.7
11 17	0 40.17	+5 28.5	1.757	2.567	15.4	20.8	11 17	0 46.82	-8 18.0	2.509	3.249	13.2	20.9
4357	Korinthos		10 11.2 123°97	0.3/11.5	18		223922	2004 <i>WA</i> ₃		10 11.2 107°99	4.4/6.6	18	
9 8	1 26.35	+11 24.8	2.258	3.109	11.7	16.6	9 8	1 28.95	-5 58.9	2.292	3.168	10.6	20.1
9 18	1 21.76	+10 33.3	2.189	3.114	8.6	16.5	9 18	1 23.56	-6 43.0	2.238	3.174	7.9	19.9
9 28	1 15.68	+9 29.6	2.144	3.120	5.1	16.3	9 28	1 16.69	-7 25.3	2.208	3.179	5.4	19.8
10 8	1 8.70	+8 18.0	2.128	3.125	1.3	16.0	10 8	1 8.96	-8 0.6	2.207	3.184	4.4	19.7
10 18	1 1.56	+7 3.8	2.140	3.130	2.5	16.1	10 18	1 1.11	-8 24.4	2.233	3.190	6.0	19.8
10 28	0 55.03	+5 53.1	2.182	3.135	6.2	16.4	10 28	0 53.92	-8 33.5	2.288	3.195	8.6	20.0
11 7	0 49.78	+4 51.5	2.251	3.140	9.5	16.6	11 7	0 48.04	-8 26.5	2.367	3.200	11.2	20.2
11 17	0 46.26	+4 2.9	2.345	3.145	12.3	16.8	11 17	0 43.91	-8 3.6	2.468	3.205	13.5	20.4
323336	2003 <i>UL</i> ₁₉₃		10 11.2 80°27	0.9/11.9	17		56843	2000 <i>QK</i> ₄₅		10 11.2 253°78	2.1/8.9	18	
9 8	1 33.63	+9 23.5	2.306	3.148	11.8	20.5	9 8	1 27.11	+3 48.1	2.024	2.898	11.9	19.6
9 18	1 27.09	+9 43.9	2.230	3.150	8.8	20.3	9 18	1 22.49	+2 51.2	1.957	2.897	8.6	19.4
9 28	1 18.82	+9 56.7	2.179	3.151	5.3	20.1	9 28	1 16.19	+1 47.1	1.913	2.895	4.9	19.1
10 8	1 9.48	+10 3.1	2.157	3.153	1.8	19.9	10 8	1 8.86	+0 41.1	1.898	2.893	2.2	18.9
10 18	0 59.86	+10 5.2	2.164	3.154	2.5	19.9	10 18	1 1.31	-0 20.5	1.910	2.891	4.3	19.1
10 28	0 50.86	+10 6.0	2.202	3.156	6.1	20.2	10 28	0 54.41	-1 11.6	1.951	2.889	7.9	19.3
11 7	0 43.26	+10 8.7	2.267	3.157	9.4	20.4	11 7	0 48.90	-1 48.0	2.017	2.887	11.3	19.5
11 17	0 37.58	+10 16.3	2.358	3.158	12.2	20.6	11 17	0 45.29	-2 7.3	2.106	2.885	14.2	19.7
380954	2006 <i>KR</i> ₁₂₄		10 11.2 179°18	2.3/8.1	18		304842	2007 <i>RJ</i> ₃₉		10 11.2 307°51	8.3/6.3	18	
9 8	1 29.70	+0 31.1	2.947	3.807	9.0	22.6	9 8	1 40.84	-15 21.7	1.706	2.569	14.3	19.6
9 18	1 23.85	-0 21.1	2.877	3.809	6.5	22.4	9 18	1 32.87	-15 35.0	1.637	2.555	11.5	19.4
9 28	1 16.77	-1 16.4	2.834	3.811	3.9	22.2	9 28	1 22.41	-15 35.4	1.591	2.541	9.1	19.2
10 8	1 8.96	-2 10.6	2.821	3.812	2.3	22.1	10 8	1 10.40	-15 16.0	1.572	2.528	8.3	19.2
10 18	1 1.01	-2 59.7	2.840	3.812	3.8	22.2	10 18	0 58.05	-14 32.3	1.579	2.515	9.8	19.2
10 28	0 53.54	-3 39.8	2.889	3.811	6.4	22.4	10 28	0 46.73	-13 23.4	1.613	2.502	12.7	19.4
11 7	0 47.11	-4 8.3	2.965	3.809	8.9	22.6	11 7	0 37.51	-11 51.8	1.671	2.490	15.8	19.6
11 17	0 42.12	-4 23.9	3.066	3.806	11.0	22.7	11 17	0 31.05	-10 2.4	1.751	2.477	18.5	19.7
436408	2010 <i>XW</i> ₄₁		10 11.2 237°48	2.9/13.7	18		356135	2009 <i>FL</i> ₅₉		10 11.2 134°25	1.1/12.3	18	
9 8	1 32.40	+16 59.0	1.765	2.598	15.2	21.5	9 8	1 28.34	+13 16.2	2.135	2.978	12.5	21.6
9 18	1 26.84	+16 48.5	1.678	2.587	11.8	21.3	9 18	1 23.31	+12 40.8	2.065	2.985	9.4	21.4
9 28	1 18.98	+16 19.0	1.613	2.575	7.9	21.0	9 28	1 16.63	+11 51.7	2.020	2.991	5.8	21.2
10 8	1 9.57	+15 31.9	1.573	2.562	4.0	20.8	10 8	1 8.97	+10 52.5	2.002	2.997	2.0	20.9
10 18	0 59.65	+14 31.3	1.561	2.549	3.6	20.7	10 18	1 1.12	+9 48.0	2.012	3.003	2.5	21.0
10 28	0 50.42	+13 24.3	1.576	2.535	7.5	20.9	10 28	0 53.95	+8 44.5	2.052	3.009	6.2	21.2
11 7	0 42.97	+12 19.3	1.618	2.521	11.6	21.2	11 7	0 48.17	+7 47.7	2.119	3.014	9.7	21.5
11 17	0 37.99	+11 23.4	1.683	2.506	15.3	21.4	11 17	0 44.29	+7 2.1	2.210	3.019	12.6	21.7
398995	2013 <i>EV</i> ₁₂₀		10 11.2 77°76	1.4/12.4	18		315915	2008 <i>RB</i> ₁₂₃		10 11.2 259°42	1.4/13.9	18	
9 8	1 31.56	+11 43.0	2.064	2.909	12.9	20.4	9 8	1 21.15	+16 9.8	4.395	5.209	7.1	21.0
9 18	1 25.71	+11 48.8	1.997	2.916	9.6	20.3	9 18	1 17.46	+15 57.1	4.307	5.206	5.4	20.9
9 28	1 18.05	+11 43.6	1.953	2.924	6.0	20.1	9 28	1 13.00	+15 37.0	4.245	5.202	3.6	20.8
10 8	1 9.30	+11 29.3	1.937	2.932	2.3	19.8	10 8	1 8.08	+15 10.7	4.212	5.199	1.9	20.6
10 18	1 0.33	+11 9.0	1.949	2.939	2.7	19.9	10 18	1 3.03	+14 39.9	4.209	5.196	1.7	20.6
10 28	0 52.08	+10 47.1	1.990	2.947	6.4	20.1	10 28	0 58.24	+14 6.7	4.236	5.192	3.3	20.7
11 7	0 45.34	+10 28.2	2.058	2.955	9.8	20.4	11 7	0 54.06	+13 33.8	4.292	5.189	5.1	20.9
11 17	0 40.66	+10 16.1	2.150	2.962	12.8	20.6	11 17	0 50.77	+13 3.5	4.376	5.186	6.8	21.0
355814	2008 <i>TU</i> ₃₇		10 11.2 305°55	0.7/12.5	18		437480	2013 <i>YZ</i> ₅₀		10 11.2 201°00	2.1/9.3	18	
9 8	1 21.75	+11 58.2	4.156	4.989	7.1	21.2	9 8	1 31.49	+3 50.6	1.825	2.696	13.1	22.0
9 18	1 17.92	+11 47.3	4.069	4.983	5.3	21.1	9 18	1 25.86	+3 3.8	1.755	2.693	9.5	21.8
9 28	1 13.27	+11 30.3	4.009	4.978	3.3	20.9	9 28	1 18.25	+2 9.1	1.710	2.690	5.5	21.6
10 8	1 8.12	+11 8.6	3.977	4.972	1.2	20.8	10 8	1 9.39	+1 12.2	1.691	2.687	2.2	21.3
10 18	1 2.84	+10 44.1	3.976	4.966	1.4	20.8	10 18	1 0.25	+0 19.4	1.701	2.683	4.5	21.5
10 28	0 57.83	+10 19.0	4.005	4.960	3.5	20.9	10 28	0 51.86	-0 22.9	1.738	2.678	8.5	21.7
11 7	0 53.46	+9 55.6	4.063	4.955	5.5	21.1	11 7	0 45.12	-0 50.2	1.801	2.674	12.3	21.9
11 17	0 50.01	+9 36.0	4.148	4.949	7.3	21.2	11 17	0 40.61	-1 0.3	1.886	2.668	15.5	22.2
352847	2008 <i>WB</i> ₂₂		10 11.2 308°83	1.3/12.1	18		308258	2005 <i>GO</i> ₈₆		10 11.2 165°60	0.3/11.5	18	
9 8	1 28.98	+12 5.7	1.534	2.398	15.5	20.9	9 8	1 28.					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
80795	2000 <i>CE</i> ₈₇		10 11.2 245°65	3°5/ 8.1	18		513939	2014 <i>DM</i> ₈₃		10 11.2 348°66	4°6/ 7.3	18	
9 8	1 29.81	+ 1 52.0	1.558	2.442	14.2	19.6	9 8	1 25.59	+ 0 42.4	1.299	2.200	15.3	20.2
9 18	1 24.91	+ 0 41.3	1.493	2.438	10.3	19.4	9 18	1 22.15	- 0 40.6	1.241	2.194	11.1	20.0
9 28	1 17.80	- 0 37.4	1.451	2.433	6.1	19.1	9 28	1 16.31	- 2 11.9	1.205	2.189	6.8	19.7
10 8	1 9.31	- 1 56.2	1.436	2.428	3.5	19.0	10 8	1 8.97	- 3 41.0	1.193	2.184	4.6	19.6
10 18	1 0.48	- 3 6.2	1.447	2.423	6.1	19.1	10 18	1 1.28	- 4 57.4	1.206	2.180	7.4	19.7
10 28	0 52.51	- 3 59.6	1.485	2.418	10.3	19.3	10 28	0 54.54	- 5 51.7	1.243	2.177	11.8	20.0
11 7	0 46.38	- 4 31.4	1.546	2.413	14.2	19.6	11 7	0 49.79	- 6 18.9	1.302	2.175	16.0	20.2
11 17	0 42.71	- 4 40.0	1.627	2.408	17.6	19.8	11 17	0 47.67	- 6 18.4	1.378	2.174	19.5	20.5
476915	2008 <i>WH</i> ₆₃		10 11.2 326°94	14°4/29.6	17		368517	2003 <i>UF</i> ₃₂₆		10 11.2 44°40	5°2/15.1	17	
9 8	1 28.55	+48 16.0	1.667	2.315	22.7	20.1	9 8	1 31.27	+20 45.2	1.040	1.897	21.8	20.5
9 18	1 24.97	+48 48.7	1.578	2.303	21.0	19.9	9 18	1 26.62	+20 39.4	1.001	1.918	17.0	20.3
9 28	1 18.29	+48 40.9	1.501	2.293	19.1	19.8	9 28	1 18.95	+20 1.7	0.979	1.940	11.8	20.1
10 8	1 9.48	+47 45.3	1.440	2.282	17.0	19.6	10 8	1 9.58	+18 55.1	0.978	1.963	6.8	19.9
10 18	1 0.06	+45 58.2	1.396	2.273	15.3	19.5	10 18	1 0.13	+17 28.2	1.000	1.987	5.5	19.9
10 28	0 51.79	+43 23.2	1.374	2.263	14.4	19.4	10 28	0 52.24	+15 54.1	1.045	2.011	9.3	20.2
11 7	0 46.10	+40 12.7	1.376	2.255	14.9	19.4	11 7	0 47.09	+14 26.3	1.114	2.036	13.8	20.6
11 17	0 43.78	+36 43.4	1.401	2.247	16.6	19.5	11 17	0 45.19	+13 14.6	1.202	2.061	17.9	20.9
509139	2006 <i>AR</i> ₇₆		10 11.2 194°63	2°9/ 8.4	18		60535	2000 <i>EM</i> ₅₆		10 11.2 168°24	0°2/10.9	18	
9 8	1 30.21	+ 1 44.4	1.929	2.803	12.4	22.1	9 8	1 31.72	+ 9 14.7	1.834	2.692	13.7	19.8
9 18	1 24.83	+ 0 46.5	1.862	2.801	8.9	21.9	9 18	1 26.02	+ 8 35.9	1.766	2.696	10.0	19.5
9 28	1 17.60	- 0 17.3	1.819	2.799	5.3	21.7	9 28	1 18.33	+ 7 44.8	1.721	2.699	5.9	19.3
10 8	1 9.24	- 1 20.9	1.804	2.797	2.9	21.5	10 8	1 9.44	+ 6 45.9	1.703	2.701	1.4	19.0
10 18	1 0.64	- 2 17.8	1.818	2.794	5.0	21.7	10 18	1 0.30	+ 5 45.2	1.714	2.703	3.2	19.1
10 28	0 52.76	- 3 2.0	1.859	2.791	8.7	21.9	10 28	0 51.95	+ 4 49.6	1.753	2.705	7.5	19.4
11 7	0 46.41	- 3 29.5	1.926	2.788	12.1	22.1	11 7	0 45.28	+ 4 4.8	1.819	2.706	11.4	19.7
11 17	0 42.15	- 3 38.7	2.014	2.784	15.1	22.3	11 17	0 40.84	+ 3 34.9	1.907	2.706	14.7	19.9
388957	2008 <i>TW</i> ₇₂		10 11.2 240°58	1°4/12.5	18		171782	2001 <i>BK</i> ₅₂		10 11.2 271°90	2°7/ 9.2	18	
9 8	1 29.85	+13 49.8	1.958	2.802	13.5	21.4	9 8	1 31.27	+ 3 44.3	1.415	2.298	15.4	20.1
9 18	1 24.72	+13 21.3	1.872	2.791	10.2	21.1	9 18	1 26.20	+ 2 53.2	1.349	2.293	11.2	19.8
9 28	1 17.64	+12 37.0	1.810	2.780	6.4	20.9	9 28	1 18.67	+ 1 52.2	1.306	2.288	6.5	19.6
10 8	1 9.28	+11 39.9	1.773	2.768	2.5	20.6	10 8	1 9.55	+ 0 48.4	1.287	2.283	2.7	19.3
10 18	1 0.53	+10 34.8	1.766	2.756	2.8	20.6	10 18	1 0.05	- 0 9.7	1.295	2.278	5.5	19.5
10 28	0 52.40	+ 9 28.5	1.786	2.744	6.9	20.9	10 28	0 51.49	- 0 54.0	1.329	2.273	10.2	19.8
11 7	0 45.80	+ 8 28.0	1.834	2.731	10.8	21.1	11 7	0 44.97	- 1 18.9	1.386	2.268	14.6	20.0
11 17	0 41.33	+ 7 39.0	1.905	2.718	14.2	21.3	11 17	0 41.18	- 1 22.2	1.462	2.263	18.4	20.2
63944	2001 <i>SQ</i> ₅₇		10 11.2 48°96	1°6/ 9.9	18		142605	2002 <i>TQ</i> ₁₂₅		10 11.2 92°84	3°7/14.3	18	
9 8	1 30.34	+ 6 46.4	1.262	2.148	16.8	18.5	9 8	1 32.68	+18 44.3	1.509	2.345	17.2	19.7
9 18	1 25.41	+ 5 54.8	1.221	2.165	12.1	18.2	9 18	1 27.07	+18 33.9	1.450	2.358	13.4	19.4
9 28	1 18.06	+ 4 50.8	1.200	2.183	6.9	18.0	9 28	1 19.07	+18 0.9	1.411	2.371	9.0	19.2
10 8	1 9.34	+ 3 42.1	1.204	2.202	1.9	17.7	10 8	1 9.62	+17 7.5	1.397	2.384	4.9	19.0
10 18	1 0.56	+ 2 37.7	1.234	2.221	4.7	18.0	10 18	0 59.95	+15 59.2	1.409	2.396	4.2	19.0
10 28	0 53.01	+ 1 46.2	1.288	2.240	9.6	18.3	10 28	0 51.36	+14 44.8	1.448	2.409	7.8	19.3
11 7	0 47.68	+ 1 13.2	1.366	2.260	14.0	18.6	11 7	0 44.86	+13 33.8	1.512	2.421	11.9	19.5
11 17	0 45.07	+ 1 1.0	1.464	2.280	17.6	18.9	11 17	0 41.06	+12 33.8	1.598	2.433	15.5	19.8
509857	2008 <i>YL</i> ₁₃₇		10 11.2 127°72	7°4/18.9	18		260003	2004 <i>FK</i> ₁₁₈		10 11.2 233°53	2°1/ 9.4	18	
9 8	1 31.35	+29 59.4	1.956	2.718	16.4	21.4	9 8	1 31.47	+ 4 24.8	1.707	2.580	13.8	20.8
9 18	1 25.97	+30 19.9	1.879	2.722	13.9	21.2	9 18	1 26.05	+ 3 35.6	1.633	2.572	10.0	20.6
9 28	1 18.41	+30 15.3	1.822	2.727	11.1	21.1	9 28	1 18.47	+ 2 36.9	1.582	2.563	5.8	20.3
10 8	1 9.47	+29 44.0	1.788	2.731	8.6	20.9	10 8	1 9.50	+ 1 34.7	1.557	2.553	2.2	20.0
10 18	1 0.16	+28 47.6	1.779	2.735	7.4	20.9	10 18	1 0.14	+ 0 36.1	1.560	2.544	4.7	20.2
10 28	0 51.66	+27 31.7	1.798	2.739	8.2	20.9	10 28	0 51.54	- 0 11.9	1.591	2.533	9.0	20.4
11 7	0 44.93	+26 5.1	1.842	2.742	10.6	21.1	11 7	0 44.68	- 0 43.8	1.647	2.523	13.1	20.7
11 17	0 40.62	+24 37.1	1.910	2.746	13.2	21.3	11 17	0 40.19	- 0 57.0	1.724	2.512	16.5	20.9
196445	2003 <i>HW</i> ₃₇		10 11.2 60°04	4°3/15.1	18		374713	2006 <i>SR</i> ₁₅		10 11.2 12°14	3°8/13.4	18	
9 8	1 30.60	+21 11.0	1.468	2.299	17.8	19.7	9 8	1 33.13	+14 28.7	1.134	2.003	19.5	20.4
9 18	1 25.48	+20 47.5	1.419	2.322	14.0	19.5	9 18	1 28.14	+15 4.9	1.076	2.005	15.0	20.1
9 28	1 18.05	+19 58.3	1.390	2.345	9.7	19.3	9 28	1 20.04	+15 21.2	1.037	2.007	9.9	19.8
10 8	1 9.34	+18 46.7	1.385	2.368	5.6	19.1	10 8	1 9.92	+15 17.9	1.020	2.011	5.0	19.6
10 18	1 0.55	+17 19.4	1.405	2.391	4.5	19.1	10 18	0 59.30	+14 58.6	1.026	2.016	4.7	19.6
10 28	0 52.93	+15 46.3	1.453	2.415	7.6	19.4	10 28	0 49.92	+14 30.5	1.057	2.021	9.4	19.9
11 7	0 47.39	+14 18.0	1.526	2.438	11.5	19.7	11 7	0 43.16	+14 2.9	1.110	2.027	14.3	20.2
11 17	0 44.46	+13 2.4	1.621	2.461	15.0	19.9	11 17	0 39.77	+13 43.3	1.182	2.034	18.6	20.5
81432	2000 <i>GL</i> ₁₀₇		10 11.2 118°28	1°1/ 9.9	18		20071	1994 <i>AG</i>		10 11.2 311°92	0°2/11.1	18	
9 8	1 27.87	+ 7 12.5	2.052	2.916	12.1	19.1	9 8	1 28.86	+ 9 35.1	1.239	2.122	17.2	18.3
9 18	1 22.96	+ 6 11.5	1.991	2.926	8.8	18.9	9 18	1 24.93	+ 9 2.9	1.163	2.105	12.8	18.0
9 28	1 16.43	+ 5 0.7	1.955	2.935	5.0	18.7	9 28	1 18.19	+ 8 12.5	1.108	2.089	7.6	17.7
10 8	1 8.95	+ 3 45.6	1.946	2.944	1.4	18.5	10 8	1 9.50	+ 7 8.9	1.075	2.073	1.9	17.3
10 18	1 1.33	+ 2 32.5	1.967	2.952	3.5	18.7	10 18	1 0.15	+ 6 0.2	1.067	2.058	4.2	17.4
10 28	0 54.41	+ 1 27.8	2.016	2.961	7.2	18.9	10 28	0 51.68	+ 4 56.9	1.084	2.043	10.0	17.7
11 7	0 48.91	+ 0 36.5	2.092	2.969	10.6	19.1	11 7	0 45.42	+ 4 8.3	1.123	2.029	15.3	19.9
11 17	0 45.30	+ 0 1.6	2.191	2.977	13.5	19.4	11 17	0 42.22	+ 3 40.5	1.181	2.015	19.8	18.2
266656	2008 <i>TG</i> ₁₄₂		10 11.2 145°90	0°5/10.3	18		405287	2003 <i>SK</i> ₄₃₃		10 11.2 208°09	2°2/ 9.1		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
234331	2001 <i>EN</i> ₁₀		10 11.2 212°41	1.2°/ 9.9	18		72785	2001 <i>FB</i> ₁₇₀		10 11.2 263°10	3.9°/15.8	18	
9 8	1 29.89	+ 5 41.1	2.235	3.096	11.4	21.5	9 8	1 27.28	+22 12.5	2.333	3.134	13.0	19.4
9 18	1 24.45	+ 4 58.9	2.156	3.089	8.3	21.3	9 18	1 22.64	+22 4.2	2.248	3.131	10.4	19.2
9 28	1 17.36	+ 4 8.6	2.103	3.082	4.8	21.1	9 28	1 16.34	+21 38.0	2.185	3.127	7.5	19.0
10 8	1 9.23	+ 3 14.6	2.077	3.074	1.4	20.8	10 8	1 9.01	+20 54.8	2.148	3.123	4.9	18.8
10 18	1 0.82	+ 2 21.8	2.081	3.066	3.4	21.0	10 18	1 1.39	+19 57.5	2.139	3.119	4.0	18.8
10 28	0 52.99	+ 1 35.8	2.115	3.058	7.1	21.2	10 28	0 54.33	+18 51.3	2.159	3.115	6.0	18.9
11 7	0 46.48	+ 1 0.8	2.175	3.048	10.4	21.4	11 7	0 48.58	+17 42.6	2.206	3.111	8.8	19.1
11 17	0 41.83	+ 0 39.7	2.258	3.039	13.3	21.6	11 17	0 44.66	+16 37.6	2.278	3.107	11.6	19.3
359937	2011 <i>YQ</i> ₂₄		10 11.2 337°15	2.4°/ 6.7	16		310624	2002 <i>AN</i> ₁₃₇		10 11.2 227°96	2.3°/ 8.4	18	
9 8	1 20.95	- 4 9.2	4.199	5.070	6.3	20.5	9 8	1 28.36	+ 0 53.4	2.606	3.472	9.8	21.6
9 18	1 17.32	- 4 44.1	4.133	5.069	4.6	20.4	9 18	1 23.16	+ 0 10.1	2.526	3.461	7.1	21.4
9 28	1 12.94	- 5 18.6	4.095	5.068	3.0	20.3	9 28	1 16.55	- 0 36.9	2.471	3.450	4.2	21.2
10 8	1 8.11	- 5 50.4	4.085	5.067	2.4	20.2	10 8	1 9.05	- 1 23.5	2.446	3.438	2.3	21.1
10 18	1 3.20	- 6 16.9	4.106	5.065	3.4	20.3	10 18	1 1.31	- 2 5.4	2.450	3.426	4.0	21.2
10 28	0 58.56	- 6 36.2	4.156	5.064	5.0	20.4	10 28	0 54.04	- 2 38.4	2.484	3.413	6.9	21.4
11 7	0 54.54	- 6 46.8	4.232	5.063	6.7	20.6	11 7	0 47.87	- 2 59.4	2.544	3.399	9.8	21.5
11 17	0 51.41	- 6 47.9	4.333	5.062	8.2	20.7	11 17	0 43.27	- 3 6.8	2.628	3.386	12.2	21.7
241019	2006 <i>QS</i> ₂₉		10 11.2 46°43	2.7°/ 9.1	18		34286	2000 <i>QF</i> ₁₄₇		10 11.2 52°82	5.4°/ 8.1	18	
9 8	1 30.35	+ 2 19.3	1.534	2.418	14.4	19.9	9 8	1 37.28	- 5 42.7	1.415	2.298	15.5	16.8
9 18	1 25.10	+ 1 39.6	1.490	2.434	10.4	19.7	9 18	1 30.20	- 5 59.4	1.377	2.317	11.4	16.6
9 28	1 17.79	+ 0 54.2	1.468	2.450	6.0	19.5	9 28	1 20.76	- 6 12.3	1.360	2.335	7.4	16.4
10 8	1 9.31	+ 0 9.6	1.472	2.467	2.7	19.3	10 8	1 10.05	- 6 14.9	1.369	2.354	5.4	16.4
10 18	1 0.75	+ 0 27.9	1.502	2.484	5.1	19.5	10 18	0 59.38	- 6 2.8	1.405	2.374	7.3	16.5
10 28	0 53.23	- 0 52.4	1.559	2.502	9.1	19.8	10 28	0 50.04	- 5 33.4	1.467	2.394	10.9	16.8
11 7	0 47.59	- 1 0.7	1.640	2.520	12.9	20.0	11 7	0 42.98	- 4 47.0	1.551	2.413	14.5	17.1
11 17	0 44.34	- 0 51.8	1.742	2.538	16.0	20.3	11 17	0 38.68	- 3 45.7	1.657	2.433	17.5	17.3
424429	2008 <i>BG</i> ₃₈		10 11.2 136°00	2.2°/ 9.1	17		385335	2002 <i>GS</i> ₁₂₈		10 11.2 197°53	1°0'/12.1	18	
9 8	1 31.93	+ 4 41.4	1.749	2.619	13.6	21.8	9 8	1 32.51	+11 35.2	2.157	2.998	12.5	22.3
9 18	1 26.13	+ 3 35.1	1.693	2.631	9.8	21.6	9 18	1 26.46	+11 23.7	2.076	2.995	9.4	22.1
9 28	1 18.36	+ 2 20.1	1.662	2.642	5.6	21.4	9 28	1 18.59	+11 0.6	2.021	2.992	5.8	21.9
10 8	1 9.47	+ 1 3.0	1.657	2.653	2.3	21.2	10 8	1 9.57	+10 28.5	1.992	2.988	2.0	21.6
10 18	1 0.43	- 0 8.5	1.682	2.663	4.6	21.4	10 18	1 0.24	+ 9 50.9	1.993	2.983	2.6	21.7
10 28	0 52.30	- 1 7.3	1.734	2.673	8.7	21.6	10 28	0 51.54	+ 9 13.0	2.024	2.978	6.4	21.9
11 7	0 45.92	- 1 48.6	1.812	2.682	12.4	21.9	11 7	0 44.28	+ 8 39.6	2.082	2.973	10.0	22.1
11 17	0 41.80	- 2 10.4	1.911	2.690	15.4	22.1	11 17	0 39.05	+ 8 15.1	2.164	2.967	13.1	22.3
89186	2001 <i>UA</i> ₇₅		10 11.2 306°31	1.8°/ 9.5	18		6545	1986 <i>TR</i> ₆		10 11.2 320°36	2.9°/16.7	18	
9 8	1 28.18	+ 4 13.5	1.890	2.764	12.6	19.7	9 8	1 21.82	+23 40.0	4.191	4.964	8.1	17.3
9 18	1 23.45	+ 3 32.8	1.818	2.758	9.1	19.5	9 18	1 18.06	+23 35.3	4.100	4.961	6.6	17.1
9 28	1 16.87	+ 2 44.5	1.771	2.752	5.3	19.3	9 28	1 13.43	+23 20.1	4.033	4.958	4.9	17.0
10 8	1 9.13	+ 1 53.5	1.750	2.746	1.9	19.0	10 8	1 8.28	+22 55.2	3.993	4.956	3.4	16.9
10 18	1 1.09	+ 1 5.7	1.756	2.740	4.1	19.2	10 18	1 2.98	+22 21.9	3.982	4.953	2.9	16.9
10 28	0 53.73	+ 0 27.0	1.791	2.734	8.1	19.4	10 28	0 57.97	+21 42.5	4.001	4.950	3.8	16.9
11 7	0 47.86	+ 0 1.9	1.850	2.729	11.7	19.6	11 7	0 53.64	+20 59.9	4.049	4.948	5.3	17.0
11 17	0 44.07	- 0 7.2	1.932	2.723	14.9	19.8	11 17	0 50.28	+20 17.3	4.124	4.945	7.0	17.2
233798	2008 <i>US</i> ₉₄		10 11.2 84°09	2.4°/ 9.5	18		39480	1981 <i>DU</i>		10 11.2 64°66	4°5'/14.9	18	
9 8	1 34.72	+ 1 36.6	1.665	2.538	14.0	19.7	9 8	1 32.17	+20 24.8	1.285	2.126	19.3	18.0
9 18	1 28.21	+ 1 19.7	1.612	2.551	10.2	19.5	9 18	1 26.96	+20 10.8	1.235	2.144	15.1	17.8
9 28	1 19.60	+ 0 58.6	1.583	2.563	5.9	19.3	9 28	1 19.10	+19 29.3	1.204	2.162	10.4	17.5
10 8	1 9.77	+ 0 38.2	1.580	2.576	2.5	19.1	10 8	1 9.69	+18 22.9	1.195	2.181	5.9	17.3
10 18	0 59.81	+ 0 23.4	1.606	2.588	4.7	19.3	10 18	1 0.12	+16 58.8	1.212	2.199	4.8	17.3
10 28	0 50.87	+ 0 18.6	1.659	2.601	8.7	19.6	10 28	0 51.85	+15 28.0	1.254	2.217	8.4	17.6
11 7	0 43.83	+ 0 26.5	1.737	2.613	12.5	19.8	11 7	0 45.95	+14 2.0	1.321	2.236	12.7	17.9
11 17	0 39.23	+ 0 48.2	1.836	2.625	15.6	20.1	11 17	0 43.00	+12 49.9	1.409	2.254	16.5	18.2
200822	2001 <i>XG</i> ₂₁₀		10 11.2 273°28	0.7°/10.5	18		369053	2008 <i>CT</i> ₁₉₄		10 11.2 189°86	2.0°/ 9.3	18	
9 8	1 29.01	+ 8 39.7	1.693	2.561	14.1	20.3	9 8	1 28.86	+ 7 22.0	1.592	2.467	14.5	20.5
9 18	1 24.38	+ 7 48.3	1.609	2.545	10.4	20.0	9 18	1 24.20	+ 5 51.3	1.526	2.466	10.5	20.2
9 28	1 17.58	+ 6 42.3	1.549	2.529	6.1	19.7	9 28	1 17.40	+ 4 5.9	1.484	2.466	6.0	20.0
10 8	1 9.34	+ 5 26.9	1.514	2.512	1.4	19.4	10 8	1 9.30	+ 2 14.0	1.468	2.465	2.1	19.7
10 18	1 0.62	+ 4 9.3	1.507	2.495	3.8	19.5	10 18	1 0.92	+ 0 25.6	1.481	2.464	4.8	19.9
10 28	0 52.57	+ 2 58.1	1.527	2.478	8.5	19.8	10 28	0 53.39	- 1 9.0	1.520	2.463	9.3	20.2
11 7	0 46.19	+ 2 0.6	1.572	2.461	12.8	20.0	11 7	0 47.65	- 2 22.4	1.585	2.461	13.5	20.4
11 17	0 42.18	+ 1 21.7	1.639	2.443	16.5	20.2	11 17	0 44.28	- 3 11.2	1.670	2.459	16.9	20.7
144700	2004 <i>GF</i> ₁₃		10 11.2 117°20	1.4°/12.7	18		317719	2003 <i>QX</i> ₄₀		10 11.2 45°03	4.1°/13.9	16	
9 8	1 29.14	+13 52.5	2.201	3.039	12.4	20.5	9 8	1 34.34	+16 25.5	1.089	1.953	20.5	20.6
9 18	1 23.85	+13 25.6	2.135	3.051	9.3	20.3	9 18	1 28.88	+16 46.4	1.044	1.969	15.8	20.3
9 28	1 16.96	+12 45.6	2.093	3.062	5.8	20.1	9 28	1 20.37	+16 42.9	1.018	1.986	10.5	20.1
10 8	1 9.13	+11 55.3	2.079	3.073	2.3	19.9	10 8	1 10.04	+16 16.7	1.014	2.004	5.5	19.9
10 18	1 1.15	+10 59.3	2.094	3.084	2.5	19.9	10 18	0 59.51	+15 33.3	1.034	2.022	4.9	19.9
10 28	0 53.85	+10 3.1	2.138	3.095	6.0	20.2	10 28	0 50.48	+14 42.5	1.077	2.041	9.3	20.2
11 7	0 47.94	+ 9 12.1	2.209	3.105	9.3	20.4	11 7	0 44.19	+13 54.7	1.143	2.061	14.0	20.6
11 17	0 43.88	+ 8 30.8	2.305	3.115	12.1	20.6	11 17	0 41.25	+13 17.9	1.229	2.081	18.1	20.9
282369	2003 <i>OB</i> ₁₉		10 11.2 111°57	0.4°/10.8	18		312335	2008 <i>CQ</i> ₁₇₉		10 11.2 185°54	6.1°/18.3	18	</

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10 11.2

10 11.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
430135	2013 <i>TT</i> ₃₉		10 11.2 302°96	0°7/10.7	17		273776	2007 <i>ET</i> ₁₉₈		10 11.2 189°52	5°2/7.2	18	
9 8	1 31.14	+ 8 12.3	1.430	2.305	15.8	21.4	9 8	1 39.03	- 8 12.1	2.074	2.936	12.2	21.4
9 18	1 26.12	+ 7 35.8	1.364	2.303	11.6	21.1	9 18	1 31.16	- 8 37.1	2.008	2.935	9.2	21.2
9 28	1 18.66	+ 6 45.3	1.320	2.301	6.8	20.8	9 28	1 21.32	- 8 57.8	1.968	2.933	6.4	21.0
10 8	1 9.64	+ 5 46.3	1.301	2.299	1.6	20.5	10 8	1 10.32	- 9 8.8	1.956	2.931	5.2	20.9
10 18	1 0.25	+ 4 46.3	1.308	2.297	4.0	20.7	10 18	0 59.10	- 9 5.7	1.974	2.928	6.8	21.0
10 28	0 51.81	+ 3 53.6	1.342	2.296	9.1	21.0	10 28	0 48.72	- 8 46.0	2.020	2.924	9.7	21.2
11 7	0 45.40	+ 3 15.2	1.399	2.294	13.6	21.2	11 7	0 40.03	- 8 9.4	2.092	2.920	12.7	21.4
11 17	0 41.69	+ 2 55.1	1.477	2.292	17.5	21.5	11 17	0 33.60	- 7 17.3	2.187	2.915	15.2	21.6
60307	1999 <i>XR</i> ₁₉₃		10 11.2 15°01	3°6/7.9	18		165466	2001 <i>AF</i> ₂₈		10 11.2 262°07	5°9/15.7	18	
9 8	1 29.84	- 2 32.2	2.013	2.891	11.8	18.9	9 8	1 35.49	+22 15.6	1.853	2.655	15.8	19.7
9 18	1 24.49	- 3 2.1	1.953	2.892	8.6	18.7	9 18	1 29.25	+23 4.1	1.767	2.647	12.9	19.5
9 28	1 17.42	- 3 32.5	1.917	2.894	5.4	18.6	9 28	1 20.58	+23 34.2	1.703	2.639	9.7	19.3
10 8	1 9.32	- 3 58.6	1.908	2.896	3.6	18.5	10 8	1 10.20	+23 43.9	1.663	2.630	6.8	19.1
10 18	1 1.03	- 4 15.7	1.927	2.898	5.4	18.6	10 18	0 59.21	+23 33.1	1.650	2.622	6.0	19.1
10 28	0 53.46	- 4 20.0	1.974	2.901	8.6	18.8	10 28	0 48.87	+23 5.9	1.664	2.614	8.1	19.2
11 7	0 47.36	- 4 9.6	2.045	2.903	11.7	19.0	11 7	0 40.33	+22 29.0	1.705	2.605	11.3	19.3
11 17	0 43.24	- 3 44.1	2.139	2.906	14.4	19.2	11 17	0 34.39	+21 50.1	1.769	2.597	14.5	19.5
206645	2003 <i>XZ</i> ₃₄		10 11.2 2°05	8°5/17.5	18		177714	2005 <i>GZ</i> ₁₄₅		10 11.2 111°68	0°8/11.8	16	
9 8	1 33.17	+26 31.5	1.521	2.320	18.8	19.6	9 8	1 33.97	+10 50.1	1.493	2.354	16.0	21.0
9 18	1 27.95	+27 39.2	1.449	2.319	15.8	19.4	9 18	1 28.06	+10 33.7	1.432	2.362	11.9	20.8
9 28	1 19.94	+28 22.1	1.397	2.318	12.5	19.2	9 28	1 19.74	+10 2.4	1.394	2.370	7.2	20.5
10 8	1 10.02	+28 36.4	1.366	2.319	9.7	19.0	10 8	1 9.95	+ 9 20.0	1.380	2.377	2.1	20.2
10 18	0 59.46	+28 21.6	1.359	2.319	8.5	19.0	10 18	0 59.89	+ 8 32.4	1.394	2.385	3.3	20.3
10 28	0 49.80	+27 42.4	1.377	2.321	9.9	19.1	10 28	0 50.87	+ 7 47.2	1.435	2.392	8.2	20.7
11 7	0 42.34	+26 48.0	1.418	2.323	12.8	19.2	11 7	0 43.93	+ 7 11.0	1.500	2.399	12.6	20.9
11 17	0 37.92	+25 48.8	1.481	2.326	15.9	19.5	11 17	0 39.68	+ 6 48.6	1.587	2.406	16.3	21.2
407572	2011 <i>AY</i> ₆		10 11.2 320°57	4°0/15.3	18		430971	2005 <i>WL</i> ₇₈		10 11.2 297°55	0°5/11.9	16	
9 8	1 27.65	+20 44.8	2.084	2.898	13.9	20.6	9 8	1 24.58	+10 48.0	2.974	3.817	9.4	22.1
9 18	1 23.13	+20 45.9	1.999	2.891	11.0	20.4	9 18	1 20.37	+10 28.8	2.881	3.802	7.0	21.9
9 28	1 16.76	+20 28.9	1.937	2.884	7.9	20.2	9 28	1 14.94	+10 1.2	2.814	3.787	4.2	21.7
10 8	1 9.19	+19 54.5	1.899	2.877	5.0	20.0	10 8	1 8.75	+ 9 27.5	2.776	3.772	1.3	21.5
10 18	1 1.27	+19 5.4	1.889	2.871	4.1	19.9	10 18	1 2.32	+ 8 50.4	2.767	3.757	1.9	21.5
10 28	0 53.94	+18 7.0	1.907	2.865	6.5	20.1	10 28	0 56.24	+ 8 13.7	2.787	3.742	4.9	21.7
11 7	0 48.04	+17 6.1	1.951	2.859	9.7	20.3	11 7	0 51.08	+ 7 40.9	2.836	3.727	7.7	21.9
11 17	0 44.17	+16 9.2	2.020	2.853	12.7	20.5	11 17	0 47.24	+ 7 15.0	2.910	3.712	10.1	22.0
319243	2006 <i>AL</i> ₄₇		10 11.2 141°22	4°2/6.7	18		234010	1997 <i>FO</i> ₄		10 11.2 147°68	0°2/10.9	16	
9 8	1 28.52	- 5 5.8	2.317	3.193	10.5	20.2	9 8	1 29.01	+13 9.9	2.186	3.028	12.4	20.1
9 18	1 23.34	- 5 53.8	2.259	3.196	7.8	20.0	9 18	1 23.77	+11 20.8	2.115	3.036	9.1	19.9
9 28	1 16.67	- 6 40.9	2.226	3.198	5.2	19.9	9 28	1 16.95	+ 9 15.2	2.070	3.045	5.3	19.7
10 8	1 9.14	- 7 21.9	2.221	3.201	4.2	19.8	10 8	1 9.23	+ 6 59.6	2.055	3.052	1.2	19.5
10 18	1 1.46	- 7 52.0	2.245	3.203	5.8	19.9	10 18	1 1.38	+ 4 42.8	2.071	3.059	2.9	19.6
10 28	0 54.40	- 8 7.8	2.296	3.205	8.5	20.1	10 28	0 54.24	+ 2 33.8	2.120	3.066	6.8	19.9
11 7	0 48.61	- 8 7.4	2.372	3.207	11.1	20.3	11 7	0 48.48	+ 0 40.6	2.197	3.072	10.3	20.1
11 17	0 44.55	- 7 50.9	2.470	3.210	13.4	20.5	11 17	0 44.56	- 0 52.2	2.299	3.078	13.2	20.3
305185	2007 <i>VM</i> ₃₀₉		10 11.2 61°71	3°5/8.1	18		235302	2003 <i>UD</i> ₉₃		10 11.2 45°54	3°3/13.5	18	
9 8	1 29.80	- 0 26.9	1.809	2.690	12.7	20.4	9 8	1 34.66	+14 58.9	1.434	2.283	17.2	19.4
9 18	1 24.62	- 1 15.0	1.751	2.693	9.2	20.2	9 18	1 28.60	+15 27.0	1.382	2.300	13.2	19.2
9 28	1 17.56	- 2 6.5	1.717	2.696	5.6	20.0	9 28	1 20.05	+15 37.4	1.352	2.318	8.7	19.0
10 8	1 9.38	- 2 55.0	1.709	2.699	3.5	19.9	10 8	1 10.02	+15 31.1	1.346	2.336	4.4	18.8
10 18	1 0.99	- 3 34.6	1.729	2.703	5.6	20.0	10 18	0 59.78	+15 11.7	1.366	2.354	4.1	18.8
10 28	0 53.41	- 3 59.9	1.776	2.706	9.1	20.2	10 28	0 50.70	+14 45.2	1.412	2.373	7.9	19.1
11 7	0 47.43	- 4 8.1	1.847	2.710	12.5	20.4	11 7	0 43.83	+14 19.1	1.483	2.392	12.0	19.4
11 17	0 43.60	- 3 58.3	1.940	2.713	15.4	20.7	11 17	0 39.78	+13 59.3	1.576	2.411	15.6	19.7
401342	2013 <i>AU</i> ₉₃		10 11.2 218°01	0°7/10.5	18		291285	2006 <i>BQ</i> ₁₂₂		10 11.2 155°82	0°1/11.2	18	
9 8	1 29.04	+ 7 29.1	2.101	2.961	12.1	21.7	9 8	1 30.83	+ 9 38.5	1.873	2.730	13.4	21.6
9 18	1 23.96	+ 6 50.7	2.025	2.957	8.8	21.5	9 18	1 25.39	+ 9 5.5	1.805	2.734	9.9	21.4
9 28	1 17.16	+ 6 2.5	1.974	2.952	5.1	21.3	9 28	1 18.04	+ 8 20.5	1.761	2.737	5.8	21.2
10 8	1 9.29	+ 5 8.9	1.950	2.947	1.2	21.0	10 8	1 9.53	+ 7 27.6	1.743	2.741	1.5	20.9
10 18	1 1.15	+ 4 14.9	1.955	2.942	3.1	21.1	10 18	1 0.76	+ 6 32.2	1.754	2.744	3.0	21.0
10 28	0 53.62	+ 3 26.4	1.988	2.937	7.0	21.4	10 28	0 52.77	+ 5 40.8	1.793	2.746	7.2	21.3
11 7	0 47.48	+ 2 48.2	2.049	2.931	10.6	21.6	11 7	0 46.38	+ 4 59.1	1.858	2.748	11.1	21.5
11 17	0 43.26	+ 2 23.6	2.132	2.925	13.6	21.8	11 17	0 42.16	+ 4 31.0	1.947	2.750	14.3	21.8
358276	2006 <i>UX</i> ₁₆		10 11.2 20°20	0°2/11.4	18		41289	1999 <i>XN</i> ₁₀₇		10 11.2 15°55	0°4/11.5	18	
9 8	1 28.01	+10 6.1	1.637	2.505	14.5	21.1	9 8	1 28.00	+ 9 40.3	1.714	2.580	14.0	18.4
9 18	1 23.55	+ 9 35.5	1.574	2.508	10.7	20.9	9 18	1 23.47	+ 9 24.2	1.651	2.584	10.4	18.2
9 28	1 17.03	+ 8 51.3	1.534	2.512	6.3	20.6	9 28	1 16.97	+ 8 56.2	1.611	2.589	6.2	18.0
10 8	1 9.26	+ 7 57.9	1.519	2.517	1.6	20.3	10 8	1 9.27	+ 8 19.9	1.597	2.594	1.7	17.7
10 18	1 1.24	+ 7 1.5	1.531	2.522	3.1	20.4	10 18	1 1.32	+ 7 40.4	1.610	2.600	3.0	17.8
10 28	0 54.06	+ 6 9.4	1.571	2.527	7.7	20.7	10 28	0 54.17	+ 7 3.7	1.649	2.607	7.3	18.1
11 7	0 48.61	+ 5 27.8	1.635	2.533	11.8	21.0	11 7	0 48.68	+ 6 35.3	1.714	2.614	11.3	18.4
11 17	0 45.45	+ 5 0.9	1.720	2.540	15.2	21.2	11 17	0 45.40	+ 6 19.0	1.802	2.622	14.6	18.6
520491	2014 <i>KH</i> ₁₁₂		10 11.2 82°07	2°0/9.2	18		237293	2008 <i>XA</i> ₄₈		10 11.2 97°78	0°5/11.7	18	
9													

EPHEMERIDES

10 11.2

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
229680	2007 CX ₁₁		10 11.2 144°66	2°4/13.5	17		217694	1999 RP ₂₂₅		10 11.2	4°40	2°7/ 8.3	18
9 8	1 32.49	+16 10.9	1.863	2.696	14.5	21.3	9 8	1 24.19	+ 4 34.0	1.718	2.602	13.1	19.8
9 18	1 26.65	+15 53.1	1.795	2.704	11.1	21.1	9 18	1 20.67	+ 3 5.5	1.656	2.602	9.4	19.6
9 28	1 18.80	+15 18.2	1.749	2.712	7.2	20.9	9 28	1 15.33	+ 1 26.9	1.620	2.603	5.4	19.4
10 8	1 9.72	+14 28.5	1.729	2.719	3.4	20.7	10 8	1 8.89	- 0 14.0	1.609	2.604	2.7	19.2
10 18	1 0.40	+13 28.9	1.737	2.726	3.1	20.7	10 18	1 2.22	- 1 48.3	1.626	2.605	5.2	19.4
10 28	0 51.90	+12 26.0	1.774	2.733	6.8	20.9	10 28	0 56.28	- 3 7.6	1.670	2.608	9.1	19.6
11 7	0 45.12	+11 27.0	1.838	2.738	10.6	21.2	11 7	0 51.87	- 4 6.2	1.739	2.610	12.7	19.8
11 17	0 40.61	+10 37.9	1.925	2.744	13.9	21.4	11 17	0 49.50	- 4 41.6	1.829	2.614	15.8	20.1
306718	2000 WW ₇₁		10 11.2 341°54	3°5/13.7	18		329008	2010 XZ ₆₄		10 11.2 288°41	2°1/ 7.3	18	
9 8	1 29.13	+15 49.5	1.343	2.203	17.6	19.8	9 8	1 21.30	- 2 48.2	4.196	5.066	6.3	21.2
9 18	1 25.01	+16 1.8	1.270	2.194	13.6	19.5	9 18	1 17.65	- 3 21.5	4.123	5.059	4.6	21.1
9 28	1 18.23	+15 53.7	1.218	2.185	9.1	19.2	9 28	1 13.23	- 3 55.2	4.078	5.053	2.9	21.0
10 8	1 9.64	+15 26.5	1.187	2.178	4.7	19.0	10 8	1 8.35	- 4 26.7	4.061	5.046	2.1	20.9
10 18	1 0.49	+14 44.1	1.182	2.171	4.2	18.9	10 18	1 3.36	- 4 53.8	4.075	5.040	3.2	21.0
10 28	0 52.22	+13 54.4	1.202	2.166	8.5	19.2	10 28	0 58.63	- 5 14.2	4.118	5.033	4.9	21.1
11 7	0 46.09	+13 6.3	1.245	2.161	13.2	19.4	11 7	0 54.52	- 5 26.4	4.189	5.027	6.6	21.2
11 17	0 42.86	+12 27.9	1.308	2.157	17.4	19.7	11 17	0 51.30	- 5 29.5	4.284	5.021	8.2	21.3
360861	2005 QK ₁₃₇		10 11.2 314°03	0°5/10.7	18		516328	2017 BU ₁₅		10 11.2 358°62	1°7/ 9.5	18	
9 8	1 27.83	+ 8 9.9	1.938	2.803	12.7	21.0	9 8	1 27.17	+ 4 51.6	2.024	2.896	12.0	21.4
9 18	1 23.21	+ 7 33.4	1.865	2.799	9.3	20.8	9 18	1 22.62	+ 4 2.5	1.957	2.896	8.7	21.2
9 28	1 16.78	+ 6 46.0	1.816	2.795	5.4	20.6	9 28	1 16.40	+ 3 5.5	1.914	2.895	5.0	20.9
10 8	1 9.23	+ 5 52.3	1.793	2.791	1.3	20.3	10 8	1 9.16	+ 2 5.7	1.899	2.895	1.8	20.7
10 18	1 1.39	+ 4 57.5	1.799	2.788	3.2	20.4	10 18	1 1.69	+ 1 9.1	1.912	2.895	3.9	20.9
10 28	0 54.22	+ 4 8.0	1.833	2.784	7.3	20.7	10 28	0 54.88	+ 0 21.4	1.953	2.895	7.6	21.1
11 7	0 48.50	+ 3 29.0	1.892	2.781	11.0	20.9	11 7	0 49.45	- 0 13.0	2.019	2.896	11.0	21.3
11 17	0 44.81	+ 3 4.2	1.974	2.777	14.1	21.1	11 17	0 45.92	- 0 31.6	2.108	2.896	13.9	21.5
402217	2005 AY ₃₀		10 11.2 269°65	8°5/30.4	18		24396	2000 AS ₁₈₆		10 11.2 327°85	6°1/ 5.0	18	
9 8	1 28.02	-20 14.1	2.379	3.239	10.9	20.6	9 8	1 26.93	- 7 46.5	1.878	2.765	12.0	18.6
9 18	1 23.06	-21 32.7	2.331	3.232	9.3	20.5	9 18	1 22.59	- 8 58.0	1.816	2.756	9.2	18.4
9 28	1 16.57	-22 40.2	2.308	3.224	8.5	20.4	9 28	1 16.44	-10 7.4	1.779	2.747	6.8	18.3
10 8	1 9.16	-23 30.0	2.310	3.217	8.8	20.5	10 8	1 9.18	-11 6.9	1.769	2.738	6.2	18.2
10 18	1 1.57	-23 57.2	2.337	3.209	10.1	20.5	10 18	1 1.65	-11 49.8	1.784	2.730	8.1	18.3
10 28	0 54.60	-23 59.4	2.388	3.201	11.8	20.6	10 28	0 54.80	-12 11.4	1.825	2.723	11.0	18.5
11 7	0 48.93	-23 36.9	2.460	3.194	13.7	20.8	11 7	0 49.44	-12 9.6	1.889	2.716	13.9	18.6
11 17	0 45.02	-22 52.2	2.550	3.186	15.3	20.9	11 17	0 46.09	-11 45.5	1.972	2.709	16.4	18.8
106559	2000 WC ₈₁		10 11.2 59°48	0°7/11.7	18		8396	1993 UR ₂		10 11.2 217°16	2°3/ 9.2	18	
9 8	1 31.64	+10 24.0	1.584	2.447	15.2	19.3	9 8	1 30.75	+ 5 33.0	1.538	2.415	14.8	17.6
9 18	1 26.25	+10 9.1	1.523	2.454	11.3	19.1	9 18	1 25.73	+ 4 21.5	1.470	2.411	10.7	17.3
9 28	1 18.65	+ 9 40.6	1.484	2.461	6.8	18.8	9 28	1 18.44	+ 2 57.5	1.425	2.407	6.2	17.1
10 8	1 9.69	+ 9 2.3	1.471	2.468	2.0	18.5	10 8	1 9.69	+ 1 28.6	1.406	2.402	2.4	16.8
10 18	1 0.48	+ 8 19.5	1.485	2.475	3.2	18.6	10 18	1 0.59	+ 0 3.9	1.414	2.397	5.1	17.0
10 28	0 52.21	+ 7 39.1	1.525	2.483	7.8	18.9	10 28	0 52.36	- 1 7.4	1.450	2.392	9.7	17.2
11 7	0 45.83	+ 7 7.2	1.591	2.491	12.0	19.2	11 7	0 46.01	- 1 58.6	1.509	2.386	13.9	17.5
11 17	0 41.94	+ 6 48.0	1.679	2.498	15.5	19.5	11 17	0 42.18	- 2 26.8	1.589	2.380	17.5	17.7
2579	Spartacus		10 11.2 117°65	4°3/14.7	18		329954	2005 QD ₇₀		10 11.2 36°54	3°0/ 9.2	16	
9 8	1 33.77	+19 36.9	1.440	2.274	18.0	16.9	9 8	1 30.40	+ 3 44.2	1.061	1.961	18.1	20.3
9 18	1 28.14	+19 34.1	1.376	2.281	14.1	16.7	9 18	1 25.79	+ 2 52.6	1.028	1.980	13.0	20.1
9 28	1 19.90	+19 7.1	1.332	2.289	9.8	16.5	9 28	1 18.47	+ 1 51.7	1.014	1.999	7.4	19.9
10 8	1 10.02	+18 17.2	1.311	2.296	5.6	16.2	10 8	1 9.66	+ 0 50.9	1.024	2.020	3.1	19.7
10 18	0 59.80	+17 9.5	1.317	2.303	4.7	16.2	10 18	1 0.83	- 0 0.3	1.057	2.041	6.0	19.9
10 28	0 50.67	+15 53.1	1.349	2.310	8.2	16.4	10 28	0 53.44	- 0 33.8	1.113	2.063	11.0	20.3
11 7	0 43.76	+14 38.2	1.406	2.316	12.4	16.7	11 7	0 48.52	- 0 45.3	1.191	2.086	15.5	20.6
11 17	0 39.73	+13 33.7	1.484	2.322	16.2	17.0	11 17	0 46.56	- 0 34.6	1.288	2.110	19.2	20.9
4315	Pronik		10 11.2 49°13	2°3/ 9.8	18		189426	1997 SF ₃₃		10 11.2 10°49	3°9/15.5	18	
9 8	1 37.69	+ 0 34.4	1.633	2.503	14.4	16.3	9 8	1 27.22	+20 58.7	2.103	2.917	13.8	19.4
9 18	1 30.21	+ 0 41.4	1.596	2.533	10.4	16.1	9 18	1 22.75	+20 54.5	2.026	2.918	11.0	19.2
9 28	1 20.70	+ 0 45.9	1.584	2.563	6.0	15.9	9 28	1 16.53	+20 32.0	1.972	2.919	7.8	19.1
10 8	1 10.14	+ 0 51.8	1.598	2.593	2.4	15.8	10 8	1 9.20	+19 52.2	1.942	2.921	4.9	18.9
10 18	0 59.68	+ 1 2.3	1.641	2.624	4.4	16.0	10 18	1 1.60	+18 58.5	1.940	2.922	4.0	18.8
10 28	0 50.44	+ 1 20.5	1.711	2.655	8.4	16.3	10 28	0 54.63	+17 56.3	1.966	2.924	6.3	19.0
11 7	0 43.25	+ 1 48.0	1.808	2.686	12.0	16.6	11 7	0 49.09	+16 52.6	2.019	2.927	9.4	19.2
11 17	0 38.54	+ 2 25.3	1.926	2.717	14.9	16.8	11 17	0 45.52	+15 53.6	2.096	2.929	12.3	19.4
315104	2007 EP ₁₄		10 11.2 241°23	4°6/ 6.0	18		116532	2004 BM ₅₆		10 11.2 128°66	0°8/10.5	18	
9 8	1 27.11	- 4 44.8	2.217	3.097	10.7	20.4	9 8	1 32.75	+ 8 1.6	1.793	2.654	13.8	20.6
9 18	1 22.45	- 5 53.8	2.154	3.093	8.0	20.2	9 18	1 26.75	+ 7 14.3	1.736	2.668	10.0	20.4
9 28	1 16.24	- 7 3.1	2.117	3.089	5.4	20.0	9 28	1 18.81	+ 6 15.8	1.703	2.681	5.8	20.2
10 8	1 9.09	- 8 6.5	2.107	3.085	4.6	20.0	10 8	1 9.75	+ 5 11.5	1.697	2.694	1.4	19.9
10 18	1 1.74	- 8 58.1	2.125	3.080	6.4	20.1	10 18	1 0.55	+ 4 8.0	1.719	2.707	3.5	20.1
10 28	0 54.98	- 9 33.2	2.171	3.076	9.1	20.2	10 28	0 52.25	+ 3 12.0	1.770	2.719	7.7	20.4
11 7	0 49.49	- 9 49.3	2.241	3.071	11.8	20.4	11 7	0 45.69	+ 2 29.0	1.847	2.730	11.5	20.6
11 17	0 45.76	- 9 46.3	2.332	3.067	14.2	20.6	11 17	0 41.38	+ 2 2.1	1.946	2.740	14.7	20.9
315817	2008 GJ ₈₃		10 11.2 73°18	2°0/ 9.1	18		291162	2006 AY ₆		10 11.2 99°10	5°1/16.7	18	
9 8	1 27.19	+ 4 34.5	2.045	2.917	11.9	20.6	9 8	1 30.42	+24 24.8	2.3			

EPHEMERIDES

10 11.2

10 11.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
400650	2009 <i>HW</i> ₁₆	10 11.2 244°90		1°1/ 9.9 18			516527	2006 <i>RC</i> ₇₇	10 11.3 312°08		1°9/ 9.3 18		
9 8	1 27.83	+ 7 50.7	2.182	3.042	11.7	22.1	9 8	1 27.41	+ 5 2.8	1.835	2.710	12.8	21.6
9 18	1 23.12	+ 6 43.4	2.095	3.028	8.5	21.9	9 18	1 23.00	+ 4 4.0	1.766	2.706	9.3	21.4
9 28	1 16.74	+ 5 24.3	2.034	3.013	4.9	21.7	9 28	1 16.73	+ 2 55.7	1.721	2.702	5.4	21.2
10 8	1 9.28	+ 3 58.6	2.000	2.998	1.4	21.4	10 8	1 9.30	+ 1 44.0	1.702	2.698	2.0	21.0
10 18	1 1.49	+ 2 32.5	1.997	2.982	3.4	21.5	10 18	1 1.60	+ 0 35.8	1.712	2.695	4.3	21.1
10 28	0 54.23	+ 1 13.3	2.022	2.966	7.3	21.7	10 28	0 54.60	- 0 21.9	1.748	2.691	8.3	21.3
11 7	0 48.26	+ 0 6.9	2.075	2.950	10.8	21.9	11 7	0 49.11	- 1 3.8	1.811	2.688	12.0	21.6
11 17	0 44.12	- 0 42.7	2.151	2.933	13.8	22.1	11 17	0 45.69	- 1 27.3	1.894	2.684	15.1	21.8
519782	2013 <i>FF</i> ₁₆	10 11.2 236°63		0°7/10.6 18			8078	Carolejordan	10 11.3 5°39		1°4/10.2 18		
9 8	1 30.99	+ 6 16.4	2.391	3.245	11.0	22.3	9 8	1 23.56	+ 8 8.9	0.996	1.901	18.5	16.5
9 18	1 25.30	+ 5 56.3	2.304	3.233	8.1	22.1	9 18	1 21.23	+ 7 14.0	0.947	1.901	13.5	16.3
9 28	1 17.97	+ 5 29.1	2.242	3.219	4.7	21.9	9 28	1 16.08	+ 6 0.3	0.916	1.902	7.8	16.0
10 8	1 9.59	+ 4 57.9	2.208	3.205	1.2	21.6	10 8	1 9.18	+ 4 36.9	0.906	1.904	2.0	15.6
10 18	1 0.87	+ 4 26.3	2.204	3.191	2.9	21.7	10 18	1 1.91	+ 3 15.5	0.919	1.909	5.1	15.8
10 28	0 52.64	+ 3 58.7	2.229	3.176	6.5	21.9	10 28	0 55.83	+ 2 8.4	0.955	1.915	10.9	16.2
11 7	0 45.66	+ 3 39.0	2.282	3.161	9.8	22.1	11 7	0 52.13	+ 1 24.2	1.011	1.923	16.0	16.5
11 17	0 40.45	+ 3 29.7	2.360	3.145	12.6	22.3	11 17	0 51.42	+ 1 6.5	1.086	1.932	20.3	16.8
446208	2013 <i>GE</i> ₂₄	10 11.2 227°70		1°7/12.9 18			366796	2004 <i>VA</i> ₇₂	10 11.3 325°69		4°6/ 7.1 18		
9 8	1 28.34	+14 33.5	2.129	2.968	12.7	21.1	9 8	1 30.33	- 5 39.5	2.037	2.915	11.6	20.7
9 18	1 23.51	+14 10.7	2.051	2.966	9.7	20.9	9 18	1 24.94	- 6 12.5	1.972	2.909	8.7	20.5
9 28	1 16.96	+13 33.4	1.996	2.963	6.2	20.6	9 28	1 17.79	- 6 43.9	1.931	2.903	5.8	20.3
10 8	1 9.33	+12 44.4	1.967	2.960	2.6	20.4	10 8	1 9.56	- 7 8.1	1.917	2.898	4.6	20.2
10 18	1 1.42	+11 47.9	1.967	2.958	2.6	20.4	10 18	1 1.09	- 7 20.5	1.931	2.893	6.3	20.3
10 28	0 54.13	+10 49.6	1.996	2.955	6.2	20.6	10 28	0 53.31	- 7 17.5	1.972	2.887	9.3	20.5
11 7	0 48.21	+ 9 55.6	2.052	2.952	9.7	20.8	11 7	0 46.98	- 6 57.7	2.037	2.883	12.3	20.7
11 17	0 44.22	+ 9 11.0	2.132	2.949	12.8	21.0	11 17	0 42.63	- 6 21.6	2.125	2.878	14.9	20.9
484983	2009 <i>UZ</i> ₆₀	10 11.2 276°23		2°6/ 8.7 18			354440	2003 <i>YG</i> ₈₉	10 11.3 313°08		9°9/ 1.5 18		
9 8	1 29.82	- 0 13.0	2.260	3.130	10.9	20.7	9 8	1 28.24	-14 37.1	1.549	2.438	14.0	19.7
9 18	1 24.43	- 0 38.0	2.186	3.123	8.0	20.5	9 18	1 24.07	-16 18.7	1.485	2.414	11.6	19.5
9 28	1 17.44	- 1 5.5	2.138	3.117	4.8	20.3	9 28	1 17.59	-17 52.7	1.444	2.391	10.1	19.3
10 8	1 9.44	- 1 31.3	2.118	3.110	2.6	20.2	10 8	1 9.56	-19 7.8	1.426	2.368	10.4	19.3
10 18	1 1.20	- 1 51.2	2.126	3.103	4.4	20.3	10 18	1 1.05	-19 54.6	1.432	2.346	12.4	19.4
10 28	0 53.53	- 2 1.5	2.163	3.096	7.6	20.5	10 28	0 53.31	-20 7.2	1.460	2.324	15.3	19.5
11 7	0 47.15	- 1 59.6	2.226	3.089	10.7	20.7	11 7	0 47.39	-19 44.9	1.508	2.302	18.3	19.6
11 17	0 42.59	- 1 44.5	2.313	3.083	13.3	20.8	11 17	0 43.99	-18 50.9	1.571	2.281	20.9	19.8
412560	2014 <i>NP</i> ₅₄	10 11.2 13°74		5°3/ 6.2 18			472524	2015 <i>CR</i> ₄₈	10 11.3 59°75		5°2/ 7.0 16		
9 8	1 28.46	- 6 40.3	1.931	2.815	11.9	20.3	9 8	1 30.48	- 0 56.4	1.326	2.220	15.5	20.5
9 18	1 23.57	- 7 32.3	1.877	2.816	8.9	20.1	9 18	1 25.44	- 2 28.8	1.292	2.241	11.2	20.3
9 28	1 16.95	- 8 21.9	1.848	2.819	6.3	20.0	9 28	1 18.14	- 4 3.7	1.282	2.262	7.0	20.1
10 8	1 9.31	- 9 2.7	1.845	2.821	5.4	19.9	10 8	1 9.62	- 5 30.6	1.296	2.283	5.2	20.1
10 18	1 1.51	- 9 29.1	1.869	2.824	7.1	20.0	10 18	1 1.10	- 6 40.0	1.336	2.304	7.7	20.3
10 28	0 54.44	- 9 37.3	1.920	2.827	9.9	20.2	10 28	0 53.79	- 7 24.8	1.401	2.326	11.5	20.6
11 7	0 48.88	- 9 25.9	1.994	2.831	12.8	20.4	11 7	0 48.58	- 7 42.9	1.488	2.347	15.2	20.9
11 17	0 45.30	- 8 55.8	2.088	2.835	15.3	20.6	11 17	0 45.93	- 7 35.5	1.594	2.369	18.2	21.1
174985	2004 <i>EV</i> ₅	10 11.2 179°29		0°7/11.9 18			327668	2006 <i>QV</i> ₁₆₁	10 11.3 8°77		3°2/ 8.9 17		
9 8	1 32.69	+ 9 54.7	2.204	3.049	12.2	20.6	9 8	1 26.27	+ 4 54.8	1.055	1.959	17.8	20.2
9 18	1 26.58	+ 9 54.0	2.128	3.049	9.0	20.4	9 18	1 23.08	+ 3 39.7	1.006	1.960	12.9	19.9
9 28	1 18.73	+ 9 43.9	2.077	3.050	5.5	20.2	9 28	1 17.11	+ 2 10.3	0.976	1.962	7.4	19.6
10 8	1 9.77	+ 9 26.6	2.054	3.050	1.7	19.9	10 8	1 9.43	+ 0 37.3	0.969	1.965	3.2	19.4
10 18	1 0.54	+ 9 5.3	2.060	3.050	2.5	20.0	10 18	1 1.43	- 0 46.8	0.985	1.969	6.5	19.6
10 28	0 51.94	+ 8 44.2	2.096	3.050	6.3	20.2	10 28	0 54.62	- 1 50.5	1.024	1.974	11.8	19.9
11 7	0 44.76	+ 8 27.3	2.159	3.049	9.7	20.4	11 7	0 50.17	- 2 27.1	1.084	1.980	16.6	20.2
11 17	0 39.55	+ 8 18.1	2.246	3.048	12.7	20.6	11 17	0 48.70	- 2 35.0	1.162	1.987	20.6	20.5
487336	2014 <i>QY</i> ₁₉₀	10 11.3 37°97		3°8/ 6.9 17			378208	2007 <i>AK</i> ₁	10 11.3 182°60		1°5/ 9.9 18		
9 8	1 25.34	- 0 29.3	1.974	2.858	11.7	21.2	9 8	1 31.89	+ 5 39.1	1.798	2.666	13.4	21.1
9 18	1 21.26	- 1 53.3	1.921	2.866	8.4	21.0	9 18	1 26.28	+ 4 53.3	1.730	2.666	9.8	20.9
9 28	1 15.59	- 3 21.0	1.894	2.873	5.3	20.8	9 28	1 18.67	+ 3 58.0	1.686	2.667	5.6	20.6
10 8	1 8.99	- 4 45.0	1.895	2.881	3.9	20.7	10 8	1 9.81	+ 2 58.6	1.669	2.666	1.8	20.4
10 18	1 2.24	- 5 58.3	1.923	2.890	5.9	20.9	10 18	1 0.68	+ 2 1.6	1.680	2.666	4.0	20.5
10 28	0 56.18	- 6 54.9	1.979	2.898	9.0	21.1	10 28	0 52.33	+ 1 13.5	1.720	2.665	8.2	20.8
11 7	0 51.50	- 7 31.4	2.059	2.907	12.0	21.3	11 7	0 45.66	+ 0 39.5	1.784	2.663	12.1	21.0
11 17	0 48.65	- 7 47.0	2.160	2.916	14.6	21.5	11 17	0 41.23	+ 0 22.3	1.871	2.661	15.3	21.2
13896	3310 <i>T</i> ₋₂	10 11.3 351°80		2°1/ 9.8 18			383219	2005 <i>YD</i> ₂₈₇	10 11.3 281°67		0°8/10.7 18		
9 8	1 29.17	+ 5 4.8	1.196	2.090	16.9	18.2	9 8	1 31.06	+ 7 20.8	1.625	2.495	14.5	21.1
9 18	1 25.07	+ 4 24.7	1.137	2.085	12.4	17.9	9 18	1 26.06	+ 6 52.1	1.543	2.480	10.7	20.8
9 28	1 18.26	+ 3 32.6	1.098	2.082	7.2	17.6	9 28	1 18.75	+ 6 11.5	1.484	2.464	6.3	20.5
10 8	1 9.71	+ 2 35.7	1.082	2.079	2.4	17.3	10 8	1 9.87	+ 5 23.4	1.451	2.449	1.5	20.2
10 18	1 0.74	+ 1 42.7	1.090	2.077	5.3	17.5	10 18	1 0.48	+ 4 34.0	1.444	2.433	3.8	20.3
10 28	0 52.83	+ 1 2.8	1.123	2.076	10.6	17.8	10 28	0 51.78	+ 3 50.3	1.465	2.417	8.6	20.5
11 7	0 47.19	+ 0 42.1	1.177	2.075	15.4	18.1	11 7	0 44.87	+ 3 18.8	1.510	2.402	13.0	20.8
11 17	0 44.50	+ 0 43.2	1.251	2.076	19.5	18.4	11 17	0 40.45	+ 3 3.5	1.577	2.386	16.8	21.0
327525	2006 <i>BN</i> ₁₁₂	10 11.3 233°37		2°7/ 8.0 18			201489	2003 <i>HT</i> ₃₉	10 11.3 67°84		1°7/ 9.9 18		
9 8	1 27.11	+ 0 12.0	2.438	3.310	10.2	21.5	9 8</						

EPHEMERIDES

10 11.3

10 11.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
115353	2003 <i>SJ</i> ₂₄₄		10 11.3 297°41'	2°1'	8.9	18	308835	2006 <i>RU</i> ₃₈		10 11.3 339°87'	4°1'	7.9	18
9 8	1 25.85	+ 3 47.7	2.219	3.091	11.1	19.2	9 8	1 26.50	+ 0 14.4	1.454	2.349	14.4	20.1
9 18	1 21.59	+ 2 46.6	2.148	3.087	8.0	19.0	9 18	1 22.79	- 0 44.8	1.389	2.338	10.5	19.8
9 28	1 15.81	+ 1 38.4	2.103	3.084	4.6	18.8	9 28	1 16.82	- 1 50.3	1.345	2.327	6.4	19.6
10 8	1 9.09	+ 0 28.6	2.085	3.080	2.1	18.6	10 8	1 9.41	- 2 54.0	1.326	2.318	4.1	19.4
10 18	1 2.16	- 0 37.2	2.097	3.077	4.1	18.7	10 18	1 1.60	- 3 47.5	1.333	2.309	6.6	19.5
10 28	0 55.79	- 1 33.1	2.137	3.074	7.4	18.9	10 28	0 54.61	- 4 23.3	1.364	2.301	10.8	19.8
11 7	0 50.66	- 2 14.9	2.203	3.070	10.6	19.1	11 7	0 49.43	- 4 37.0	1.418	2.294	14.8	20.0
11 17	0 47.24	- 2 40.3	2.291	3.067	13.3	19.3	11 17	0 46.73	- 4 27.5	1.492	2.288	18.3	20.2
65639	1981 <i>DS</i> ₂		10 11.3 55°32'	6°8'	17.4	18	163699	2003 <i>FW</i> ₉		10 11.3 104°05'	1°1'	10.4	18
9 8	1 31.67	+26 5.4	1.663	2.460	17.5	18.1	9 8	1 35.03	+ 7 38.4	1.406	2.277	16.3	20.2
9 18	1 26.51	+26 28.2	1.595	2.467	14.5	17.9	9 18	1 28.79	+ 6 48.5	1.359	2.295	11.8	20.0
9 28	1 18.97	+26 25.4	1.546	2.474	11.1	17.7	9 28	1 20.17	+ 5 45.8	1.333	2.314	6.8	19.8
10 8	1 9.92	+25 56.0	1.520	2.481	8.1	17.5	10 8	1 10.20	+ 4 37.2	1.333	2.331	1.7	19.5
10 18	1 0.49	+25 2.5	1.519	2.489	6.8	17.5	10 18	1 0.14	+ 3 30.8	1.360	2.348	4.2	19.7
10 28	0 51.98	+23 51.5	1.545	2.497	8.3	17.6	10 28	0 51.29	+ 2 35.0	1.414	2.365	9.1	20.0
11 7	0 45.45	+22 32.8	1.595	2.504	11.3	17.8	11 7	0 44.63	+ 1 55.8	1.493	2.381	13.4	20.3
11 17	0 41.56	+21 15.8	1.669	2.512	14.5	18.0	11 17	0 40.70	+ 1 36.1	1.592	2.396	16.9	20.6
38401	1999 <i>RJ</i> ₁₉₇		10 11.3 27°51'	3°7'	15.0	18	129546	1996 <i>TZ</i> ₁		10 11.3 208°94'	1°0'	11.6	17
9 8	1 29.60	+19 45.4	2.123	2.937	13.6	19.0	9 8	1 49.69	+ 5 26.6	1.091	1.958	20.2	18.9
9 18	1 24.52	+19 51.9	2.045	2.938	10.8	18.8	9 18	1 40.82	+ 6 38.4	1.025	1.957	15.2	18.6
9 28	1 17.62	+19 41.6	1.990	2.939	7.6	18.6	9 28	1 27.94	+ 7 45.5	0.979	1.956	9.2	18.2
10 8	1 9.56	+19 15.3	1.960	2.940	4.7	18.4	10 8	1 12.27	+ 8 47.0	0.958	1.955	2.7	17.8
10 18	1 1.20	+18 35.6	1.958	2.941	3.9	18.4	10 18	0 55.78	+ 9 42.2	0.963	1.954	4.5	18.0
10 28	0 53.47	+17 47.5	1.985	2.942	6.3	18.5	10 28	0 40.77	+10 32.8	0.995	1.952	11.0	18.3
11 7	0 47.20	+16 57.2	2.038	2.943	9.5	18.7	11 7	0 29.07	+11 22.1	1.051	1.951	16.6	18.6
11 17	0 42.94	+16 10.8	2.116	2.945	12.4	18.9	11 17	0 21.66	+12 14.0	1.126	1.949	21.3	18.9
352911	2008 <i>YF</i> ₁₂₄		10 11.3 352°21'	3°1'	13.8	18	515392	2013 <i>GQ</i> ₄₇		10 11.3 96°13'	1°6'	9.5	18
9 8	1 28.38	+16 36.2	1.471	2.323	16.7	20.7	9 8	1 28.77	+ 4 8.3	2.340	3.204	10.9	22.1
9 18	1 24.24	+16 28.7	1.400	2.319	12.9	20.4	9 18	1 23.50	+ 3 26.2	2.288	3.222	7.8	21.9
9 28	1 17.70	+16 0.3	1.350	2.316	8.6	20.2	9 28	1 16.82	+ 2 38.8	2.261	3.240	4.5	21.7
10 8	1 9.61	+15 13.1	1.323	2.314	4.3	19.9	10 8	1 9.35	+ 1 50.2	2.262	3.258	1.7	21.5
10 18	1 1.10	+14 12.3	1.323	2.312	3.8	19.9	10 18	1 1.81	+ 1 5.2	2.293	3.276	3.4	21.7
10 28	0 53.45	+13 6.0	1.347	2.311	7.9	20.1	10 28	0 54.93	+ 0 28.2	2.353	3.293	6.6	21.9
11 7	0 47.75	+12 3.6	1.397	2.310	12.3	20.4	11 7	0 49.32	+ 0 2.4	2.439	3.310	9.6	22.2
11 17	0 44.68	+11 12.4	1.468	2.311	16.1	20.6	11 17	0 45.40	- 0 10.5	2.549	3.326	12.1	22.4
433294	2013 <i>CO</i> ₁₉₇		10 11.3 176°75'	0°1'	11.6	16	409703	2006 <i>BP</i> ₁₀₉		10 11.3 97°76'	4°8'	5.8	18
9 8	1 20.42	+ 9 37.3	4.725	5.566	6.2	21.9	9 8	1 27.23	- 6 10.8	2.290	3.169	10.5	21.2
9 18	1 16.98	+ 9 11.5	4.645	5.566	4.5	21.8	9 18	1 22.48	- 7 16.3	2.237	3.174	7.8	21.0
9 28	1 12.86	+ 8 41.0	4.593	5.566	2.7	21.6	9 28	1 16.27	- 8 20.4	2.211	3.180	5.5	20.9
10 8	1 8.34	+ 8 7.4	4.569	5.567	0.7	21.5	10 8	1 9.23	- 9 16.9	2.211	3.185	4.8	20.9
10 18	1 3.73	+ 7 32.5	4.577	5.567	1.3	21.5	10 18	1 2.05	-10 0.8	2.240	3.191	6.4	21.0
10 28	0 59.36	+ 6 58.7	4.615	5.567	3.2	21.7	10 28	0 55.49	-10 28.1	2.297	3.196	8.9	21.1
11 7	0 55.52	+ 6 27.9	4.683	5.567	5.0	21.8	11 7	0 50.19	-10 37.0	2.377	3.202	11.4	21.3
11 17	0 52.49	+ 6 2.0	4.777	5.567	6.6	21.9	11 17	0 46.57	-10 27.7	2.479	3.207	13.6	21.5
482270	2011 <i>RM</i> ₁₇		10 11.3 328°25'	1°3'	9.9	17	282365	2003 <i>NU</i> ₁₁		10 11.3 88°43'	5°9'	5.5	18
9 8	1 25.72	+ 8 12.0	1.569	2.447	14.5	21.8	9 8	1 28.77	- 4 44.6	1.670	2.559	13.2	20.0
9 18	1 22.10	+ 7 1.9	1.496	2.437	10.6	21.6	9 18	1 24.06	- 6 18.9	1.620	2.562	9.8	19.8
9 28	1 16.37	+ 5 36.4	1.446	2.428	6.1	21.3	9 28	1 17.38	- 7 53.7	1.593	2.566	6.8	19.7
10 8	1 9.28	+ 4 2.3	1.422	2.419	1.7	21.0	10 8	1 9.52	- 9 19.4	1.593	2.570	6.0	19.6
10 18	1 1.82	+ 2 28.5	1.424	2.411	4.2	21.2	10 18	1 1.48	-10 27.7	1.620	2.573	8.1	19.8
10 28	0 55.11	+ 1 4.8	1.453	2.403	8.9	21.4	10 28	0 54.28	-11 12.4	1.672	2.577	11.4	20.0
11 7	0 50.10	- 0 1.1	1.507	2.396	13.2	21.7	11 7	0 48.78	-11 31.1	1.747	2.580	14.5	20.2
11 17	0 47.41	- 0 44.7	1.581	2.389	16.8	21.9	11 17	0 45.50	-11 24.6	1.841	2.584	17.2	20.4
490610	2009 <i>WF</i> ₂₀₃		10 11.3 358°65'	5°4'	17.6	18	65183	2002 <i>CU</i> ₂₃₅		10 11.3 38°37'	6°2'	5.0	18
9 8	1 25.86	+26 28.0	2.053	2.841	14.9	20.4	9 8	1 27.94	- 8 17.9	1.895	2.780	12.0	18.9
9 18	1 21.91	+26 15.7	1.972	2.840	12.3	20.2	9 18	1 23.24	- 9 31.0	1.849	2.786	9.1	18.8
9 28	1 16.13	+25 40.2	1.912	2.839	9.4	20.0	9 28	1 16.80	-10 40.3	1.826	2.792	6.8	18.6
10 8	1 9.21	+24 41.9	1.875	2.838	6.6	19.8	10 8	1 9.37	-11 38.4	1.830	2.798	6.3	18.6
10 18	1 2.00	+23 24.0	1.866	2.838	5.4	19.8	10 18	1 1.80	-12 19.1	1.861	2.805	8.0	18.8
10 28	0 55.45	+21 53.2	1.883	2.838	6.8	19.8	10 28	0 55.00	-12 38.3	1.917	2.811	10.7	18.9
11 7	0 50.38	+20 17.8	1.928	2.839	9.6	20.0	11 7	0 49.71	-12 34.9	1.997	2.818	13.4	19.1
11 17	0 47.34	+18 46.1	1.998	2.840	12.5	20.2	11 17	0 46.40	-12 10.2	2.096	2.826	15.8	19.3
385822	2006 <i>FW</i> ₅₃		10 11.3 195°61'	0°6'	10.8	18	128137	2003 <i>QQ</i> ₅₂		10 11.3 298°10'	4°5'	6.0	18
9 8	1 34.61	+ 6 0.9	1.975	2.832	12.9	21.4	9 8	1 26.28	- 4 6.5	2.162	3.044	10.9	19.5
9 18	1 28.18	+ 5 54.4	1.901	2.831	9.4	21.2	9 18	1 21.94	- 5 19.6	2.098	3.038	8.0	19.3
9 28	1 19.77	+ 5 40.5	1.851	2.829	5.5	20.9	9 28	1 16.05	- 6 33.8	2.059	3.032	5.5	19.1
10 8	1 10.12	+ 5 22.4	1.829	2.826	1.4	20.7	10 8	1 9.19	- 7 42.6	2.048	3.027	4.6	19.1
10 18	1 0.15	+ 5 4.0	1.836	2.824	3.2	20.8	10 18	1 2.11	- 8 39.6	2.065	3.021	6.4	19.2
10 28	0 50.90	+ 4 49.6	1.871	2.821	7.3	21.0	10 28	0 55.62	- 9 20.0	2.108	3.016	9.2	19.3
11 7	0 43.25	+ 4 43.2	1.934	2.817	11.0	21.3	11 7	0 50.40	- 9 40.9	2.177	3.010	12.0	19.5
11 17	0 37.79	+ 4 47.4	2.020	2.814	14.2	21.5	11 17	0 46.94	- 9 41.9	2.266	3.005	14.4	19.7
234111	1999 <i>VU</i> ₁₃₀		10 11.3 126°52'	0°4'	10.9	18	44745						

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
291530	2006 <i>EY</i> ₁₅		10 11.3 83°04	1.3°/12.1	17		72249	2001 <i>AX</i> ₂₈		10 11.3 321°97	0.4°/11.5	18	
9 8	1 37.14	+10 50.5	1.288	2.153	17.9	21.1	9 8	1 32.02	+8 38.8	1.177	2.060	17.9	18.7
9 18	1 30.68	+10 53.6	1.236	2.166	13.3	20.9	9 18	1 27.52	+8 40.3	1.105	2.046	13.4	18.3
9 28	1 21.46	+10 41.0	1.204	2.180	8.1	20.7	9 28	1 19.98	+8 27.3	1.052	2.032	8.1	18.0
10 8	1 10.57	+10 15.8	1.197	2.193	2.7	20.4	10 8	1 10.30	+8 3.4	1.022	2.019	2.2	17.6
10 18	0 59.44	+9 43.7	1.215	2.206	3.6	20.5	10 18	0 59.88	+7 34.2	1.016	2.007	4.0	17.7
10 28	0 49.60	+9 11.9	1.260	2.219	8.8	20.8	10 28	0 50.43	+7 7.8	1.034	1.995	10.0	18.0
11 7	0 42.22	+8 47.7	1.328	2.232	13.5	21.1	11 7	0 43.37	+6 51.6	1.074	1.985	15.4	18.3
11 17	0 37.93	+8 35.8	1.417	2.245	17.4	21.4	11 17	0 39.60	+6 50.9	1.133	1.975	20.0	18.5
49712	1999 <i>VP</i> ₂₉		10 11.3 233°68	2°8'/9.3	18		419075	2009 <i>SN</i> ₇₄		10 11.3 90°49	0°8'/10.2	18	
9 8	1 34.56	+1 46.8	1.513	2.391	14.9	19.2	9 8	1 26.01	+9 40.3	2.319	3.175	11.3	21.0
9 18	1 28.60	+1 18.6	1.447	2.388	10.9	19.0	9 18	1 21.57	+8 9.6	2.258	3.188	8.1	20.9
9 28	1 20.21	+0 44.6	1.404	2.385	6.4	18.7	9 28	1 15.74	+6 27.6	2.223	3.202	4.6	20.7
10 8	1 10.27	+0 10.7	1.387	2.382	2.9	18.5	10 8	1 9.12	+4 40.2	2.218	3.215	1.2	20.4
10 18	0 59.96	+0 16.8	1.396	2.378	5.3	18.6	10 18	1 2.41	+2 54.4	2.243	3.229	3.0	20.6
10 28	0 50.59	+0 32.1	1.432	2.375	9.8	18.9	10 28	0 56.32	+1 17.3	2.298	3.242	6.5	20.9
11 7	0 43.24	+0 31.3	1.492	2.371	14.0	19.1	11 7	0 51.45	+0 5.6	2.381	3.255	9.6	21.1
11 17	0 38.56	+0 13.1	1.573	2.367	17.5	19.4	11 17	0 48.21	+1 10.9	2.488	3.268	12.2	21.3
453462	2009 <i>SK</i> ₁₀₀		10 11.3 344°28	4°8'/16.7	17		478773	2012 <i>UA</i> ₁₃₀		10 11.3 46°14	2°7'/13.1	16	
9 8	1 27.67	+24 21.4	2.180	2.973	14.0	21.1	9 8	1 34.97	+13 29.9	1.495	2.347	16.5	20.7
9 18	1 23.13	+24 16.1	2.098	2.972	11.4	20.9	9 18	1 28.94	+13 54.7	1.435	2.355	12.6	20.5
9 28	1 16.83	+23 50.4	2.037	2.971	8.5	20.7	9 28	1 20.42	+14 3.9	1.396	2.364	8.1	20.3
10 8	1 9.41	+23 5.0	2.002	2.970	5.8	20.5	10 8	1 10.34	+13 58.7	1.382	2.374	3.8	20.0
10 18	1 1.70	+22 2.8	1.994	2.969	4.8	20.5	10 18	0 59.94	+13 42.3	1.394	2.383	3.7	20.1
10 28	0 54.60	+20 49.2	2.013	2.968	6.4	20.6	10 28	0 50.57	+13 20.5	1.433	2.393	7.9	20.3
11 7	0 48.93	+19 31.7	2.060	2.968	9.2	20.7	11 7	0 43.31	+12 59.9	1.497	2.404	12.1	20.6
11 17	0 45.21	+18 17.3	2.132	2.967	12.1	20.9	11 17	0 38.83	+12 46.0	1.583	2.414	15.7	20.9
263817	2008 <i>RJ</i> ₁₂₆		10 11.3 47°26	0°1'/11.5	18		481928	2009 <i>BL</i> ₉₅		10 11.3 90°84	3°8'/14.7	18	
9 8	1 21.82	+8 49.9	4.263	5.106	6.8	21.1	9 8	1 31.90	+18 48.0	1.824	2.649	15.1	20.7
9 18	1 18.06	+8 32.9	4.185	5.107	4.9	21.0	9 18	1 26.44	+18 56.5	1.753	2.653	11.9	20.5
9 28	1 13.54	+8 11.2	4.134	5.109	2.9	20.8	9 28	1 18.86	+18 46.5	1.703	2.658	8.2	20.3
10 8	1 8.55	+7 46.4	4.113	5.110	0.8	20.6	10 8	1 9.95	+18 19.1	1.679	2.662	4.8	20.1
10 18	1 3.46	+7 20.4	4.121	5.111	1.4	20.7	10 18	1 0.71	+17 37.3	1.682	2.666	4.1	20.0
10 28	0 58.64	+6 55.6	4.161	5.112	3.6	20.9	10 28	0 52.26	+16 47.0	1.712	2.671	7.0	20.2
11 7	0 54.44	+6 33.9	4.229	5.114	5.5	21.0	11 7	0 45.54	+15 55.7	1.769	2.675	10.6	20.4
11 17	0 51.13	+6 17.3	4.324	5.115	7.2	21.2	11 17	0 41.16	+15 9.8	1.849	2.679	13.8	20.7
218506	2004 <i>TZ</i> ₁₀₃		10 11.3 151°77	1°5'/9.5	18		407535	2010 <i>VQ</i> ₂₁₇		10 11.3 309°65	1°2'/10.2	18	
9 8	1 26.55	+5 40.0	2.261	3.127	11.1	20.1	9 8	1 31.00	+4 20.8	2.032	2.898	12.2	20.8
9 18	1 22.06	+4 40.3	2.193	3.129	8.0	19.9	9 18	1 25.52	+4 8.6	1.959	2.894	8.9	20.6
9 28	1 16.08	+3 32.6	2.150	3.130	4.6	19.7	9 28	1 18.22	+3 50.4	1.910	2.889	5.2	20.3
10 8	1 9.21	+2 21.8	2.135	3.132	1.6	19.5	10 8	1 9.78	+3 29.8	1.888	2.885	1.5	20.1
10 18	1 2.15	+1 13.7	2.150	3.134	3.5	19.7	10 18	1 1.05	+3 10.9	1.894	2.881	3.4	20.2
10 28	0 55.67	+0 13.9	2.194	3.135	6.9	19.9	10 28	0 52.96	+2 57.8	1.929	2.877	7.3	20.5
11 7	0 50.43	+0 33.1	2.264	3.136	10.1	20.1	11 7	0 46.33	+2 54.0	1.991	2.873	10.8	20.7
11 17	0 46.88	+1 4.7	2.357	3.138	12.8	20.3	11 17	0 41.72	+3 1.8	2.075	2.869	13.9	20.9
267297	2001 <i>SZ</i> ₂₀₂		10 11.3 75°86	1°5'/10.1	18		313345	2002 <i>GT</i> ₁₀₀		10 11.3 82°13	0°4'/11.7	18	
9 8	1 30.89	+6 38.6	1.490	2.366	15.2	20.5	9 8	1 31.22	+9 9.7	2.171	3.021	12.1	20.0
9 18	1 25.80	+5 48.0	1.435	2.375	11.0	20.2	9 18	1 25.50	+9 5.8	2.106	3.031	8.9	19.8
9 28	1 18.48	+4 45.7	1.402	2.383	6.3	20.0	9 28	1 18.11	+8 53.0	2.066	3.041	5.3	19.6
10 8	1 9.83	+3 38.3	1.394	2.392	1.8	19.7	10 8	1 9.74	+8 33.8	2.054	3.051	1.5	19.4
10 18	1 0.96	+2 33.7	1.413	2.400	4.3	19.9	10 18	1 1.18	+8 11.8	2.070	3.061	2.5	19.5
10 28	0 53.09	+1 39.8	1.459	2.409	9.0	20.2	10 28	0 53.30	+7 51.0	2.116	3.070	6.2	19.7
11 7	0 47.16	+1 2.4	1.529	2.417	13.1	20.5	11 7	0 46.84	+7 35.4	2.189	3.080	9.6	20.0
11 17	0 43.73	+0 44.3	1.620	2.426	16.6	20.8	11 17	0 42.29	+7 28.0	2.285	3.090	12.4	20.2
141257	2001 <i>YK</i> ₂₀		10 11.3 56°12	0°2'/11.1	18		389803	2011 <i>UU</i> ₂₈₅		10 11.3 110°16	1°8'/9.6	18	
9 8	1 29.66	+8 26.9	1.887	2.750	13.1	20.0	9 8	1 29.65	+4 25.1	1.916	2.786	12.6	21.3
9 18	1 24.58	+8 2.7	1.823	2.755	9.6	19.8	9 18	1 24.53	+3 41.8	1.853	2.791	9.1	21.1
9 28	1 17.65	+7 28.2	1.783	2.761	5.6	19.6	9 28	1 17.61	+2 51.0	1.815	2.796	5.2	20.9
10 8	1 9.62	+6 47.2	1.769	2.767	1.4	19.3	10 8	1 9.62	+1 58.1	1.804	2.800	1.9	20.6
10 18	1 1.36	+6 4.8	1.783	2.772	3.0	19.5	10 18	1 1.42	+1 8.7	1.821	2.804	4.0	20.8
10 28	0 53.84	+5 26.7	1.825	2.778	7.1	19.7	10 28	0 53.96	+0 28.7	1.866	2.809	7.8	21.1
11 7	0 47.89	+4 57.7	1.893	2.784	10.8	20.0	11 7	0 48.03	+0 2.1	1.936	2.813	11.4	21.3
11 17	0 44.02	+4 41.1	1.984	2.791	13.9	20.2	11 17	0 44.13	+0 8.7	2.029	2.817	14.3	21.5
103988	2000 <i>DE</i> ₉₃		10 11.3 142°40	1°5'/12.5	17		139283	2001 <i>JZ</i> ₅		10 11.3 106°62	1°4'/12.5	18	
9 8	1 34.02	+12 54.7	1.744	2.590	14.8	20.5	9 8	1 34.21	+13 32.2	1.666	2.512	15.4	20.3
9 18	1 27.93	+12 42.6	1.678	2.597	11.1	20.3	9 18	1 28.01	+13 4.8	1.611	2.531	11.5	20.1
9 28	1 19.70	+12 15.6	1.634	2.604	6.9	20.1	9 28	1 19.68	+12 21.1	1.579	2.550	7.1	19.8
10 8	1 10.14	+11 36.6	1.616	2.611	2.6	19.8	10 8	1 10.14	+11 24.9	1.573	2.568	2.6	19.6
10 18	1 0.31	+10 50.2	1.627	2.617	3.0	19.9	10 18	1 0.48	+10 22.4	1.595	2.586	3.0	19.7
10 28	0 51.35	+10 2.9	1.665	2.623	7.3	20.1	10 28	0 51.85	+9 20.9	1.646	2.604	7.3	20.0
11 7	0 44.22	+9 21.4	1.730	2.629	11.3	20.4	11 7	0 45.13	+8 27.6	1.722	2.620	11.3	20.3
11 17	0 39.51	+8 50.7	1.818	2.633	14.7	20.6	11 17	0 40.87	+7 47.5	1.821	2.636	14.7	20.5
408597	2013 <i>LB</i> ₃₅		10 11.3 104°31	3°0'/7.7	18		292098	2006 <i>RO</i> ₄₆		10 11.3 19°09	1°3'/10.0	18	
9 8	1 26.47	+0 10.2	2.331	3.206	10.5	21.5	9 8</						

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
304235	2006 <i>RS</i> ₉		10 11.3 328°88	4.6/14.3	18		251541	2008 <i>YG</i> ₁₇₂		10 11.3 71°23	2.3/9.6	18	
9 8	1 33.20	+17 13.8	1.598	2.435	16.3	19.3	9 8	1 36.33	+0 59.0	1.894	2.759	13.0	20.4
9 18	1 27.90	+18 1.9	1.514	2.422	13.0	19.1	9 18	1 29.14	+0 47.8	1.854	2.788	9.3	20.2
9 28	1 20.03	+18 34.0	1.452	2.409	9.1	18.8	9 28	1 20.17	+0 33.8	1.839	2.818	5.4	20.0
10 8	1 10.33	+18 48.8	1.414	2.397	5.6	18.6	10 8	1 10.29	+0 21.2	1.852	2.847	2.4	19.9
10 18	0 59.93	+18 47.0	1.401	2.385	5.0	18.5	10 18	1 0.45	+0 13.7	1.894	2.876	4.2	20.1
10 28	0 50.22	+18 32.7	1.416	2.374	8.2	18.7	10 28	0 51.63	+0 14.8	1.965	2.904	7.8	20.3
11 7	0 42.43	+18 12.5	1.455	2.364	12.2	18.9	11 7	0 44.57	+0 26.5	2.062	2.933	11.0	20.6
11 17	0 37.39	+17 53.4	1.516	2.354	15.9	19.1	11 17	0 39.71	+0 49.4	2.182	2.961	13.8	20.8
62460	2000 <i>SY</i> ₂₁₁		10 11.3 73°95	6.2/6.7	18		514996	2009 <i>KT</i> ₇		10 11.3 183°45	1.9/9.4	18	
9 8	1 34.25	-6 49.6	1.537	2.421	14.4	18.8	9 8	1 31.31	+2 33.4	2.348	3.210	10.9	22.1
9 18	1 28.00	-7 46.0	1.501	2.440	10.7	18.6	9 18	1 25.51	+2 3.8	2.277	3.211	7.9	21.9
9 28	1 19.62	-8 38.1	1.488	2.459	7.5	18.5	9 28	1 18.14	+1 29.8	2.232	3.211	4.6	21.7
10 8	1 10.11	-9 18.2	1.501	2.478	6.2	18.4	10 8	1 9.82	+0 55.1	2.215	3.210	1.9	21.5
10 18	1 0.61	-9 39.9	1.540	2.496	8.1	18.6	10 18	1 1.28	+0 24.1	2.228	3.209	3.7	21.6
10 28	0 52.25	-9 39.8	1.604	2.515	11.3	18.8	10 28	0 53.34	+0 0.8	2.270	3.208	7.0	21.8
11 7	0 45.91	-9 17.5	1.692	2.534	14.5	19.1	11 7	0 46.69	-0 11.7	2.339	3.206	10.1	22.0
11 17	0 42.04	-8 35.4	1.799	2.552	17.2	19.3	11 17	0 41.82	-0 11.7	2.432	3.204	12.7	22.2
92958	2000 <i>RP</i> ₄₆		10 11.3 101°91	3.0/13.7	18		328951	2010 <i>VM</i> ₉₄		10 11.3 170°01	2.7/9.3	17	
9 8	1 35.98	+15 39.1	1.785	2.617	15.1	18.5	9 8	1 34.85	+2 25.8	1.547	2.422	14.8	21.5
9 18	1 29.33	+15 56.2	1.724	2.631	11.6	18.3	9 18	1 28.75	+1 49.4	1.485	2.425	10.8	21.3
9 28	1 20.51	+15 57.6	1.684	2.646	7.7	18.1	9 28	1 20.29	+1 6.4	1.446	2.426	6.3	21.0
10 8	1 10.38	+15 44.3	1.671	2.660	4.0	17.9	10 8	1 10.38	+0 22.9	1.432	2.428	2.8	20.8
10 18	1 0.01	+15 19.4	1.686	2.674	3.6	17.9	10 18	1 0.17	-0 14.5	1.447	2.429	5.1	21.0
10 28	0 50.56	+14 48.2	1.729	2.687	7.0	18.2	10 28	0 50.92	-0 39.5	1.487	2.429	9.5	21.2
11 7	0 42.99	+14 17.2	1.799	2.700	10.7	18.4	11 7	0 43.67	-0 48.0	1.553	2.430	13.6	21.5
11 17	0 37.89	+13 51.7	1.892	2.713	14.0	18.6	11 17	0 39.03	-0 38.8	1.639	2.430	17.1	21.7
490519	2009 <i>UL</i> ₁₂₁		10 11.3 314°60	1.7/10.0	17		365322	2009 <i>SF</i> ₁₂₀		10 11.3 58°32	0.6/11.9	18	
9 8	1 32.82	+2 2.4	1.961	2.829	12.5	21.0	9 8	1 27.51	+11 46.9	2.030	2.883	12.7	21.0
9 18	1 27.06	+2 5.7	1.874	2.810	9.2	20.7	9 18	1 22.89	+11 9.6	1.971	2.896	9.4	20.8
9 28	1 19.27	+2 5.6	1.811	2.790	5.4	20.5	9 28	1 16.64	+10 19.8	1.935	2.909	5.7	20.6
10 8	1 10.10	+2 5.4	1.775	2.772	1.9	20.2	10 8	1 9.43	+9 21.3	1.926	2.923	1.7	20.4
10 18	1 0.46	+2 8.5	1.768	2.753	3.9	20.3	10 18	1 2.08	+8 19.6	1.946	2.937	2.5	20.5
10 28	0 51.39	+2 18.5	1.789	2.735	7.9	20.5	10 28	0 55.45	+7 20.6	1.994	2.950	6.4	20.7
11 7	0 43.82	+2 38.1	1.836	2.717	11.7	20.7	11 7	0 50.24	+6 30.0	2.068	2.964	9.8	21.0
11 17	0 38.42	+3 8.8	1.906	2.700	14.9	20.9	11 17	0 46.91	+5 51.7	2.167	2.978	12.8	21.2
390002	2012 <i>TN</i> ₃₀₃		10 11.3 261°41	0.2/11.2	18		132627	2002 <i>LH</i> ₂₁		10 11.3 157°77	11°2/2.5	18	
9 8	1 32.23	+8 19.5	1.658	2.522	14.5	20.9	9 8	1 28.51	-15 58.4	1.265	2.162	16.0	18.2
9 18	1 26.77	+8 2.0	1.589	2.522	10.7	20.7	9 18	1 24.33	-17 33.3	1.235	2.167	13.2	18.0
9 28	1 19.10	+7 33.2	1.543	2.521	6.3	20.4	9 28	1 17.71	-18 52.7	1.226	2.174	11.4	17.9
10 8	1 10.05	+6 56.8	1.523	2.520	1.6	20.1	10 8	1 9.71	-19 45.3	1.239	2.182	11.5	18.0
10 18	1 0.66	+6 18.3	1.530	2.520	3.3	20.3	10 18	1 1.61	-20 3.7	1.274	2.191	13.4	18.1
10 28	0 52.09	+5 43.8	1.565	2.519	8.0	20.5	10 28	0 54.72	-19 45.2	1.330	2.202	16.0	18.3
11 7	0 45.33	+5 18.9	1.624	2.519	12.1	20.8	11 7	0 49.98	-18 52.9	1.404	2.213	18.7	18.5
11 17	0 41.01	+5 7.4	1.706	2.518	15.6	21.0	11 17	0 47.91	-17 32.7	1.495	2.225	21.1	18.7
451170	2009 <i>SD</i> ₂₁₈		10 11.3 48°03	0.9/10.4	18		266947	2010 <i>TP</i> ₁₄₉		10 11.3 302°01	4.7/16.3	17	
9 8	1 28.68	+6 14.7	2.043	2.909	12.1	21.3	9 8	1 28.33	+23 4.2	2.152	2.952	14.0	20.4
9 18	1 23.74	+5 47.4	1.981	2.916	8.8	21.1	9 18	1 23.76	+23 10.7	2.062	2.941	11.3	20.2
9 28	1 17.14	+5 12.2	1.944	2.923	5.1	20.9	9 28	1 17.33	+22 58.2	1.993	2.930	8.4	20.0
10 8	1 9.55	+4 33.3	1.933	2.931	1.3	20.6	10 8	1 9.66	+22 26.7	1.949	2.920	5.7	19.8
10 18	1 1.77	+3 55.3	1.951	2.938	3.2	20.8	10 18	1 1.58	+21 38.4	1.932	2.909	4.8	19.8
10 28	0 54.68	+3 23.1	1.997	2.946	6.9	21.1	10 28	0 54.05	+20 38.1	1.943	2.899	6.6	19.9
11 7	0 49.01	+3 1.0	2.069	2.954	10.3	21.3	11 7	0 47.93	+19 32.8	1.981	2.888	9.6	20.0
11 17	0 45.25	+2 51.2	2.164	2.962	13.2	21.5	11 17	0 43.82	+18 29.5	2.044	2.878	12.5	20.2
247042	2000 <i>FB</i> ₅₅		10 11.3 194°04	4.9/5.7	18		184428	2005 <i>NT</i> ₁₃		10 11.3 99°43	0.9/12.1	18	
9 8	1 28.79	-5 25.7	2.200	3.078	10.9	20.7	9 8	1 33.83	+12 21.8	1.629	2.481	15.4	20.5
9 18	1 23.75	-6 42.8	2.140	3.076	8.1	20.6	9 18	1 27.76	+11 48.9	1.577	2.501	11.4	20.3
9 28	1 17.13	-7 59.8	2.105	3.074	5.7	20.4	9 28	1 19.58	+11 0.4	1.548	2.521	6.9	20.1
10 8	1 9.55	-9 10.0	2.098	3.072	5.0	20.4	10 8	1 10.18	+10 0.9	1.544	2.540	2.2	19.8
10 18	1 1.77	-10 7.2	2.119	3.070	6.7	20.5	10 18	1 0.69	+8 56.7	1.568	2.559	3.0	19.9
10 28	0 54.60	-10 46.5	2.168	3.067	9.4	20.6	10 28	0 52.24	+7 55.5	1.621	2.578	7.5	20.2
11 7	0 48.76	-11 5.7	2.241	3.063	12.1	20.8	11 7	0 45.71	+7 4.2	1.699	2.595	11.5	20.5
11 17	0 44.71	-11 4.7	2.335	3.059	14.5	21.0	11 17	0 41.64	+6 27.2	1.799	2.613	14.9	20.8
176124	2001 <i>DL</i> ₉₀		10 11.3 153°66	5.0/16.0	17		212214	2005 <i>GN</i> ₁₈₂		10 11.3 144°21	1.4/10.0	18	
9 8	1 34.21	+23 10.9	1.843	2.642	16.0	19.9	9 8	1 30.83	+5 7.2	2.027	2.892	12.3	21.1
9 18	1 28.16	+23 10.0	1.770	2.650	12.8	19.7	9 18	1 25.34	+4 32.6	1.962	2.897	8.9	20.9
9 28	1 19.90	+22 46.5	1.718	2.657	9.4	19.5	9 28	1 18.11	+3 50.5	1.922	2.902	5.1	20.7
10 8	1 10.27	+22 0.8	1.690	2.663	6.1	19.3	10 8	1 9.83	+3 5.6	1.909	2.906	1.6	20.4
10 18	1 0.33	+20 56.4	1.691	2.669	5.1	19.3	10 18	1 1.34	+2 22.9	1.925	2.911	3.6	20.6
10 28	0 51.24	+19 40.1	1.719	2.674	7.3	19.4	10 28	0 53.57	+1 47.6	1.970	2.915	7.3	20.8
11 7	0 44.00	+18 20.9	1.774	2.679	10.6	19.7	11 7	0 47.27	+1 23.8	2.041	2.919	10.8	21.1
11 17	0 39.20	+17 7.0	1.853	2.683	13.8	19.9	11 17	0 42.95	+1 13.9	2.134	2.922	13.7	21.3
436255	2010 <i>BV</i> ₁₀₅		10 11.3 338°66	5.3/2.3	16		229458	2005 <i>UC</i> ₁₉₆		10 11.3 189°11	0.5/11.7	18	
9 8	1 24.89	-18 52.3	3.788	4.640	7.4								

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V	
405314	2003 <i>UJ</i> ₈₂	10 11.3 339°97' 1.7°/10.0 16						34851	2001 <i>TT</i> ₈	10 11.3 356°22' 0.2°/11.2 18				
9 8	1 28.13	+ 3 41.0	1.627	2.510	13.8	20.3	9 8	1 34.90	+ 7 15.9	1.144	2.028	18.3	17.7	
9 18	1 23.92	+ 3 27.9	1.551	2.494	10.1	20.1	9 18	1 29.55	+ 7 19.1	1.084	2.026	13.6	17.4	
9 28	1 17.55	+ 3 8.0	1.497	2.479	5.9	19.8	9 28	1 21.13	+ 7 9.7	1.043	2.024	8.0	17.1	
10 8	1 9.74	+ 2 45.7	1.467	2.465	2.0	19.5	10 8	1 10.69	+ 6 51.9	1.026	2.023	2.0	16.7	
10 18	1 1.47	+ 2 26.1	1.465	2.451	4.2	19.7	10 18	0 59.73	+ 6 31.3	1.032	2.023	4.2	16.9	
10 28	0 53.89	+ 2 14.7	1.488	2.439	8.7	19.9	10 28	0 49.97	+ 6 15.4	1.064	2.023	10.1	17.2	
11 7	0 47.99	+ 2 15.7	1.536	2.428	12.8	20.1	11 7	0 42.78	+ 6 10.5	1.117	2.024	15.3	17.5	
11 17	0 44.44	+ 2 31.2	1.605	2.419	16.4	20.3	11 17	0 38.91	+ 6 20.3	1.189	2.025	19.6	17.8	
515429	2013 <i>JA</i> ₄₇	10 11.3 148°17' 2.6°/ 7.8 18						449508	2014 <i>GY</i> ₃₆	10 11.3 112°97' 2.4°/ 8.9 18				
9 8	1 27.03	+ 0 3.8	2.738	3.606	9.3	22.3	9 8	1 30.71	+ 2 18.0	2.031	2.901	12.0	22.1	
9 18	1 22.17	- 0 56.2	2.678	3.614	6.7	22.1	9 18	1 25.17	+ 1 30.4	1.977	2.914	8.7	21.9	
9 28	1 16.10	- 1 58.9	2.645	3.622	4.1	22.0	9 28	1 17.97	+ 0 37.9	1.947	2.927	5.1	21.7	
10 8	1 9.31	- 2 59.8	2.641	3.630	2.6	21.9	10 8	1 9.81	- 0 14.2	1.945	2.939	2.4	21.6	
10 18	1 2.41	- 3 54.4	2.666	3.637	4.2	22.0	10 18	1 1.53	- 1 0.5	1.972	2.952	4.4	21.7	
10 28	0 56.01	- 4 38.5	2.722	3.643	6.7	22.2	10 28	0 54.01	- 1 35.9	2.028	2.964	7.8	21.9	
11 7	0 50.66	- 5 9.5	2.804	3.650	9.2	22.4	11 7	0 47.96	- 1 57.0	2.109	2.975	11.0	22.2	
11 17	0 46.75	- 5 26.1	2.909	3.656	11.4	22.5	11 17	0 43.86	- 2 2.5	2.212	2.986	13.7	22.4	
378624	2008 <i>FV</i> ₇₆	10 11.3 94°30' 1.8°/ 9.9 16						450504	2005 <i>YF</i> ₂₇₇	10 11.3 41°05' 5.4°/ 6.2 18				
9 8	1 32.69	+ 5 12.4	1.437	2.315	15.6	22.0	9 8	1 29.75	- 7 5.2	1.936	2.817	12.0	21.1	
9 18	1 27.32	+ 4 33.9	1.376	2.317	11.3	21.7	9 18	1 24.57	- 7 57.5	1.885	2.822	9.0	20.9	
9 28	1 19.53	+ 3 45.1	1.337	2.318	6.6	21.5	9 28	1 17.66	- 8 46.9	1.859	2.828	6.4	20.8	
10 8	1 10.23	+ 2 52.1	1.323	2.320	2.1	21.2	10 8	1 9.74	- 9 27.0	1.859	2.833	5.5	20.8	
10 18	1 0.61	+ 2 2.3	1.336	2.322	4.6	21.4	10 18	1 1.67	- 9 52.3	1.886	2.839	7.2	20.9	
10 28	0 51.98	+ 1 23.3	1.375	2.324	9.4	21.6	10 28	0 54.37	- 9 59.1	1.939	2.845	10.0	21.1	
11 7	0 45.39	+ 1 0.5	1.437	2.325	13.8	21.9	11 7	0 48.60	- 9 46.3	2.017	2.851	12.8	21.3	
11 17	0 41.49	+ 0 56.4	1.520	2.327	17.5	22.2	11 17	0 44.83	- 9 14.8	2.115	2.858	15.3	21.4	
297311	1998 <i>VR</i> ₄	10 11.3 9°56' 2.0°/13.1 18						40242	1998 <i>VU</i> ₄₆	10 11.3 36°49' 2.2°/ 9.4 18				
9 8	1 26.85	+14 56.3	1.421	2.284	16.6	19.6	9 8	1 29.42	+ 2 25.9	1.854	2.730	12.7	18.3	
9 18	1 23.14	+14 29.8	1.358	2.285	12.6	19.4	9 18	1 24.37	+ 1 57.8	1.802	2.742	9.2	18.1	
9 28	1 17.11	+13 42.6	1.316	2.288	8.0	19.2	9 28	1 17.56	+ 1 24.9	1.773	2.754	5.3	17.9	
10 8	1 9.63	+12 38.6	1.297	2.291	3.4	18.9	10 8	1 9.71	+ 0 52.0	1.771	2.766	2.2	17.7	
10 18	1 1.82	+11 24.8	1.304	2.295	3.3	18.9	10 18	1 1.73	+ 0 24.1	1.796	2.779	4.2	17.9	
10 28	0 54.92	+10 10.4	1.337	2.300	7.9	19.2	10 28	0 54.55	+ 0 5.8	1.849	2.792	7.9	18.1	
11 7	0 49.96	+ 9 4.5	1.393	2.306	12.4	19.5	11 7	0 48.93	+ 0 0.3	1.927	2.805	11.3	18.4	
11 17	0 47.54	+ 8 13.8	1.472	2.313	16.2	19.7	11 17	0 45.35	+ 0 8.8	2.028	2.819	14.2	18.6	
181468	2006 <i>TN</i> ₅₆	10 11.3 153°80' 0.1°/11.3 16						453539	2009 <i>WM</i> ₉₉	10 11.3 355°41' 2.9°/14.6 17				
9 8	1 35.96	+ 8 8.4	1.578	2.440	15.3	21.0	9 8	1 26.60	+18 48.9	2.120	2.945	13.3	21.4	
9 18	1 29.58	+ 7 59.2	1.513	2.444	11.3	20.7	9 18	1 22.37	+18 28.6	2.042	2.944	10.4	21.2	
9 28	1 20.82	+ 7 38.8	1.470	2.448	6.7	20.5	9 28	1 16.45	+17 50.9	1.986	2.943	7.1	21.0	
10 8	1 10.56	+ 7 10.8	1.453	2.451	1.7	20.2	10 8	1 9.46	+16 57.7	1.956	2.942	3.9	20.8	
10 18	0 59.97	+ 6 40.2	1.464	2.454	3.4	20.3	10 18	1 2.21	+15 53.1	1.954	2.941	3.2	20.7	
10 28	0 50.33	+ 6 13.2	1.502	2.457	8.2	20.6	10 28	0 55.56	+14 43.1	1.980	2.941	6.0	20.9	
11 7	0 42.70	+ 5 55.2	1.566	2.459	12.6	20.9	11 7	0 50.28	+13 34.6	2.034	2.941	9.3	21.1	
11 17	0 37.72	+ 5 49.9	1.651	2.461	16.2	21.1	11 17	0 46.89	+12 33.6	2.111	2.941	12.4	21.3	
203164	2000 <i>XY</i> ₁₅	10 11.3 329°38' 9.5°/18.1 18						184679	2005 <i>SM</i> ₇₈	10 11.3 243°82' 1.3°/10.0 18				
9 8	1 32.04	+27 53.2	1.445	2.242	19.7	19.0	9 8	1 28.45	+ 5 41.5	2.080	2.946	11.9	20.9	
9 18	1 27.57	+29 3.1	1.363	2.229	16.8	18.8	9 18	1 23.65	+ 5 0.6	2.009	2.944	8.7	20.7	
9 28	1 20.12	+29 47.1	1.299	2.217	13.6	18.6	9 28	1 17.17	+ 4 11.5	1.963	2.942	5.0	20.4	
10 8	1 10.48	+30 0.0	1.256	2.205	10.8	18.4	10 8	1 9.64	+ 3 18.9	1.943	2.940	1.5	20.2	
10 18	0 59.96	+29 40.2	1.236	2.194	9.5	18.3	10 18	1 1.87	+ 2 27.9	1.953	2.938	3.5	20.3	
10 28	0 50.20	+28 51.8	1.239	2.184	10.8	18.3	10 28	0 54.73	+ 1 44.1	1.991	2.936	7.2	20.6	
11 7	0 42.69	+27 44.8	1.266	2.174	13.7	18.5	11 7	0 48.95	+ 1 12.0	2.055	2.934	10.7	20.8	
11 17	0 38.40	+26 30.9	1.313	2.165	17.1	18.7	11 17	0 45.06	+ 0 54.2	2.141	2.932	13.6	21.0	
482991	2014 <i>OA</i> ₃₃₃	10 11.3 108°22' 3.3°/14.7 18						228892	2003 <i>QL</i> ₁₁₅	10 11.3 341°08' 5.6°/ 6.9 18				
9 8	1 31.81	+18 41.0	2.290	3.102	12.9	21.2	9 8	1 29.71	- 6 42.7	1.705	2.592	13.1	19.5	
9 18	1 26.00	+18 52.5	2.220	3.112	10.1	21.0	9 18	1 24.91	- 7 17.0	1.639	2.580	9.9	19.3	
9 28	1 18.50	+18 49.3	2.172	3.123	7.0	20.9	9 28	1 18.05	- 7 48.5	1.596	2.569	6.8	19.1	
10 8	1 9.96	+18 32.1	2.152	3.133	4.2	20.7	10 8	1 9.89	- 8 10.7	1.579	2.558	5.6	19.0	
10 18	1 1.18	+18 3.3	2.160	3.143	3.5	20.7	10 18	1 1.39	- 8 17.8	1.588	2.549	7.5	19.1	
10 28	0 53.06	+17 27.3	2.197	3.153	5.9	20.9	10 28	0 53.65	- 8 6.0	1.622	2.540	10.7	19.3	
11 7	0 46.35	+16 49.3	2.261	3.162	8.9	21.1	11 7	0 47.58	- 7 34.0	1.680	2.532	14.1	19.4	
11 17	0 41.55	+16 14.3	2.351	3.172	11.6	21.3	11 17	0 43.79	- 6 42.9	1.757	2.525	17.0	19.6	
328489	2009 <i>OP</i> ₁	10 11.3 69°41' 0.4°/11.6 15						391806	2008 <i>RS</i> ₁₂₈	10 11.3 99°55' 0.4°/10.5 18				
9 8	1 34.02	+10 46.9	1.328	2.196	17.2	21.6	9 8	1 20.97	+ 6 25.8	4.414	5.265	6.4	21.6	
9 18	1 28.21	+10 15.2	1.284	2.217	12.7	21.4	9 18	1 17.48	+ 5 58.1	4.338	5.266	4.6	21.5	
9 28	1 19.94	+ 9 27.4	1.262	2.239	7.5	21.2	9 28	1 13.27	+ 5 26.6	4.290	5.267	2.7	21.4	
10 8	1 10.31	+ 8 29.1	1.264	2.261	2.1	20.9	10 8	1 8.64	+ 4 53.2	4.270	5.268	0.7	21.2	
10 18	1 0.61	+ 7 27.9	1.292	2.283	3.5	21.1	10 18	1 3.90	+ 4 19.9	4.282	5.269	1.6	21.3	
10 28	0 52.18	+ 6 32.5	1.347	2.305	8.6	21.4	10 28	0 59.42	+ 3 49.1	4.324	5.270	3.6	21.4	
11 7	0 46.02	+ 5 50.0	1.426	2.327	13.0	21.8	11 7	0 55.52	+ 3 22.9	4.394	5.270	5.5	21.6	
11 17	0 42.63	+ 5 24.3	1.525	2.348	16.7	22.1	11 17	0 52.47	+ 3 2.9	4.491	5.271	7.2	21.7	
42974	1999 <i>TX</i> ₁₈₆	10 11.3 183°12' 4.9°/16.6 18						246583	2008 <i>UT</i> ₇₁	10 11.3 68°05' 1.7°/12.4 17				
9 8	1 29.30	+24 37.0	1.879	2.678	15.7	18.8	9 8	1 37.31	+12 4.1	1.109	1.980	19.7	20.4	
9 18	1 24.60	+24 16.2	1.799	2.678	12.7	18.6	9 18	1 31.07						

EPHEMERIDES

10 11.3

10 11.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V		
7318	Dyukov		10 11.3	19°41'	9°5'	2.9	18 R	121872	2000 CE ₁₀₀		10 11.3	106°26'	5°0'	17.5	18
9 8	1 26.33	-10 26.7	1.254	2.159	15.5	15.5	9 8	1 30.77	+26 10.1	2.608	3.374	12.7	20.0		
9 18	1 22.78	-12 27.6	1.221	2.165	12.2	15.3	9 18	1 25.17	+26 26.8	2.535	3.387	10.4	19.8		
9 28	1 16.86	-14 20.2	1.211	2.173	9.9	15.2	9 28	1 18.01	+26 26.3	2.485	3.400	8.0	19.7		
10 8	1 9.58	-15 51.5	1.223	2.182	9.9	15.3	10 8	1 9.90	+26 8.2	2.460	3.413	5.9	19.6		
10 18	1 2.16	-16 51.6	1.258	2.191	12.1	15.4	10 18	1 1.57	+25 34.4	2.463	3.426	5.0	19.6		
10 28	0 55.83	-17 15.3	1.316	2.202	15.2	15.6	10 28	0 53.83	+24 48.4	2.494	3.439	6.1	19.6		
11 7	0 51.56	-17 3.4	1.392	2.213	18.2	15.9	11 7	0 47.39	+23 55.9	2.554	3.451	8.1	19.8		
11 17	0 49.86	-16 20.2	1.484	2.226	20.7	16.1	11 17	0 42.71	+23 2.4	2.639	3.463	10.4	20.0		
127565	2003 AM ₅		10 11.3	327°12'	0°4'	11.6	18	320120	2007 EZ ₁₇₃		10 11.3	266°41'	2°4'	13.6	17
9 8	1 28.84	+ 9 58.1	1.236	2.118	17.3	19.8	9 8	1 31.27	+15 16.7	2.280	3.107	12.4	21.4		
9 18	1 25.09	+ 9 39.6	1.162	2.103	13.0	19.5	9 18	1 25.80	+15 26.2	2.189	3.095	9.6	21.2		
9 28	1 18.56	+ 9 3.7	1.108	2.089	7.8	19.2	9 28	1 18.53	+15 23.2	2.121	3.082	6.4	21.0		
10 8	1 10.10	+ 8 14.8	1.077	2.075	2.2	18.8	10 8	1 10.06	+15 8.7	2.081	3.070	3.2	20.7		
10 18	1 0.99	+ 7 19.8	1.071	2.062	3.8	18.9	10 18	1 1.19	+14 44.9	2.069	3.057	3.0	20.7		
10 28	0 52.75	+ 6 28.2	1.088	2.050	9.6	19.2	10 28	0 52.81	+14 15.8	2.087	3.045	6.0	20.9		
11 7	0 46.71	+ 5 48.7	1.128	2.039	14.8	19.4	11 7	0 45.74	+13 46.4	2.132	3.032	9.4	21.1		
11 17	0 43.69	+ 5 27.3	1.187	2.029	19.3	19.7	11 17	0 40.59	+13 21.3	2.201	3.019	12.4	21.3		
304303	2006 SN ₁₂₁		10 11.3	3°50'	2°8'	13.5	17	452552	2004 XJ ₆₈		10 11.3	277°59'	5°2'	5.1	18
9 8	1 28.22	+15 12.6	1.459	2.317	16.5	20.4	9 8	1 27.63	- 7 57.8	2.364	3.241	10.3	21.4		
9 18	1 24.17	+15 12.7	1.393	2.317	12.7	20.2	9 18	1 22.96	- 9 3.0	2.290	3.223	7.8	21.2		
9 28	1 17.77	+14 53.8	1.348	2.317	8.3	19.9	9 28	1 16.77	-10 6.6	2.241	3.206	5.8	21.0		
10 8	1 9.86	+14 18.2	1.326	2.318	4.0	19.7	10 8	1 9.60	-11 2.6	2.221	3.188	5.3	21.0		
10 18	1 1.55	+13 30.7	1.330	2.320	3.6	19.7	10 18	1 2.14	-11 45.5	2.228	3.171	6.9	21.1		
10 28	0 54.13	+12 38.8	1.359	2.323	7.8	19.9	10 28	0 55.17	-12 11.1	2.262	3.153	9.4	21.2		
11 7	0 48.64	+11 50.9	1.412	2.327	12.1	20.2	11 7	0 49.39	-12 17.2	2.320	3.135	12.0	21.3		
11 17	0 45.74	+11 13.3	1.488	2.331	15.9	20.5	11 17	0 45.29	-12 3.9	2.399	3.117	14.3	21.5		
442975	2013 CV ₁₄₁		10 11.3	344°33'	4°5'	7.9	16	169994	2002 TE ₂₅₀		10 11.3	9°09'	1°6'	10.1	18
9 8	1 27.75	- 0 58.7	1.346	2.244	15.1	20.7	9 8	1 30.49	+ 4 32.6	1.569	2.447	14.5	19.9		
9 18	1 23.92	- 1 47.4	1.283	2.233	11.1	20.5	9 18	1 25.58	+ 4 8.5	1.507	2.448	10.5	19.7		
9 28	1 17.67	- 2 40.5	1.242	2.223	6.9	20.2	9 28	1 18.49	+ 3 36.2	1.468	2.450	6.1	19.5		
10 8	1 9.84	- 3 29.9	1.224	2.215	4.5	20.1	10 8	1 10.05	+ 3 1.0	1.454	2.452	1.9	19.2		
10 18	1 1.59	- 4 7.5	1.231	2.207	7.0	20.2	10 18	1 1.31	+ 2 28.6	1.467	2.454	4.2	19.4		
10 28	0 54.24	- 4 26.1	1.263	2.201	11.3	20.4	10 28	0 53.44	+ 2 5.1	1.507	2.457	8.7	19.6		
11 7	0 48.85	- 4 22.2	1.316	2.195	15.5	20.7	11 7	0 47.40	+ 1 54.8	1.570	2.460	12.7	19.9		
11 17	0 46.12	- 3 55.5	1.388	2.191	19.0	20.9	11 17	0 43.78	+ 2 0.0	1.655	2.464	16.2	20.1		
104313	2000 EM ₂₀₁		10 11.3	214°94'	5°6'	5.9	18	39137	2000 WX ₆₂		10 11.3	46°43'	4°4'	16.1	18 R
9 8	1 32.37	- 8 47.8	2.168	3.039	11.3	20.2	9 8	1 28.44	+22 32.5	1.923	2.733	15.0	18.4		
9 18	1 26.44	- 9 37.2	2.104	3.034	8.6	20.0	9 18	1 23.86	+22 24.1	1.855	2.742	12.0	18.3		
9 28	1 18.78	-10 22.9	2.065	3.028	6.3	19.9	9 28	1 17.39	+21 54.5	1.808	2.751	8.7	18.1		
10 8	1 10.08	-10 59.1	2.054	3.022	5.6	19.8	10 8	1 9.76	+21 5.0	1.785	2.761	5.6	17.9		
10 18	1 1.15	-11 20.6	2.070	3.016	7.2	19.9	10 18	1 1.89	+19 59.4	1.790	2.771	4.5	17.9		
10 28	0 52.89	-11 23.9	2.114	3.009	9.8	20.1	10 28	0 54.78	+18 44.6	1.822	2.781	6.6	18.0		
11 7	0 46.05	-11 8.0	2.183	3.002	12.5	20.2	11 7	0 49.26	+17 28.3	1.881	2.791	9.8	18.2		
11 17	0 41.16	-10 33.8	2.272	2.995	14.9	20.4	11 17	0 45.88	+16 18.0	1.963	2.801	12.9	18.5		
487132	2014 OB ₁₈₆		10 11.3	350°61'	5°7'	5.7	18	99980	1981 ER ₁₈		10 11.3	282°72'	1°9'	12.8	18
9 8	1 28.49	- 7 49.6	1.997	2.879	11.7	20.9	9 8	1 32.05	+13 16.6	1.740	2.588	14.7	19.3		
9 18	1 23.70	- 8 46.9	1.940	2.877	8.8	20.7	9 18	1 26.88	+13 15.4	1.651	2.571	11.3	19.0		
9 28	1 17.20	- 9 41.2	1.908	2.875	6.4	20.6	9 28	1 19.41	+12 59.2	1.583	2.553	7.2	18.8		
10 8	1 9.68	-10 26.0	1.902	2.874	5.7	20.5	10 8	1 10.34	+12 29.7	1.541	2.535	3.0	18.5		
10 18	1 1.96	-10 55.7	1.923	2.872	7.4	20.6	10 18	1 0.67	+11 50.5	1.526	2.516	3.2	18.4		
10 28	0 54.93	-11 6.2	1.971	2.871	10.1	20.8	10 28	0 51.60	+11 7.9	1.539	2.498	7.5	18.7		
11 7	0 49.33	-10 56.3	2.042	2.871	12.9	21.0	11 7	0 44.23	+10 28.6	1.577	2.480	11.8	18.9		
11 17	0 45.68	-10 26.9	2.133	2.870	15.3	21.2	11 17	0 39.31	+ 9 58.6	1.637	2.462	15.6	19.1		
475381	2006 FV ₅₄		10 11.3	120°82'	0°1'	11.4	16	13596	1994 PD ₁₈		10 11.3	83°19'	2°9'	8.8	18
9 8	1 28.38	+12 24.6	1.862	2.715	13.7	21.1	9 8	1 31.09	+ 3 56.1	1.461	2.343	15.1	17.9		
9 18	1 23.72	+11 10.7	1.796	2.723	10.1	20.9	9 18	1 25.98	+ 2 42.4	1.413	2.356	10.9	17.7		
9 28	1 17.25	+ 9 40.5	1.754	2.729	6.0	20.7	9 28	1 18.67	+ 1 19.6	1.387	2.369	6.3	17.5		
10 8	1 9.70	+ 7 59.8	1.739	2.736	1.6	20.4	10 8	1 10.08	- 0 3.9	1.388	2.382	2.9	17.3		
10 18	1 1.96	+ 6 16.4	1.753	2.743	2.9	20.5	10 18	1 1.35	- 1 19.0	1.415	2.395	5.5	17.5		
10 28	0 54.98	+ 4 39.1	1.796	2.749	7.2	20.8	10 28	0 53.67	- 2 17.6	1.468	2.408	9.8	17.8		
11 7	0 49.55	+ 3 15.5	1.865	2.755	11.0	21.0	11 7	0 47.94	- 2 54.9	1.545	2.421	13.8	18.1		
11 17	0 46.18	+ 2 10.4	1.958	2.761	14.2	21.3	11 17	0 44.70	- 3 9.3	1.642	2.433	17.1	18.3		
29096	1981 EW ₁₁		10 11.3	194°21'	0°7'	11.9	18	124003	2001 FP ₇₉		10 11.3	213°36'	2°0'	13.9	18
9 8	1 32.28	+11 39.3	1.887	2.735	13.7	20.5	9 8	1 26.50	+17 51.8	2.585	3.403	11.4	19.8		
9 18	1 26.68	+11 9.1	1.811	2.734	10.3	20.2	9 18	1 22.04	+17 7.5	2.498	3.399	8.8	19.6		
9 28	1 19.06	+10 24.9	1.758	2.732	6.2	20.0	9 28	1 16.18	+16 7.9	2.436	3.395	5.8	19.4		
10 8	1 10.18	+ 9 30.3	1.733	2.729	1.9	19.7	10 8	1 9.46	+14 55.7	2.401	3.390	2.9	19.3		
10 18	1 0.97	+ 8 30.4	1.735	2.726	2.8	19.8	10 18	1 2.51	+13 35.0	2.397	3.386	2.4	19.2		
10 28	0 52.48	+ 7 32.1	1.767	2.722	7.1	20.0	10 28	0 56.06	+12 11.5	2.422	3.381	5.2	19.4		
11 7	0 45.61	+ 6 41.8	1.825	2.718	11.0	20.3	11 7	0 50.74	+10 51.3	2.476	3.375	8.2	19.6		
11 17	0 40.95	+ 6 4.2	1.906	2.713	14.4	20.5	11 17	0 46.99	+ 9 39.7	2.556	3.370	11.0	19.8		
121945	2000 EK ₃₁		10 11.3	203°19'	1°4'	12.7	18	510293	2011 OO ₁₂		10 11.3	198°95'	7°9'	19.0	18
9 8															

EPHEMERIDES

10 11.3

10 11.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
232109	2001 <i>XS</i> ₂₅₃		10 11.3 343°68	3°8/ 8.9 18			376546	2013 <i>HW</i> ₂₈		10 11.4 24°08	0°7/10.8 16		
9 8	1 28.32	+ 1 20.0	1.155	2.057	16.8	19.7	9 8	1 25.07	+11 6.7	0.942	1.842	19.8	19.5
9 18	1 24.71	+ 0 41.3	1.093	2.045	12.3	19.4	9 18	1 22.44	+ 9 49.0	0.902	1.852	14.5	19.2
9 28	1 18.31	- 0 4.9	1.050	2.035	7.4	19.1	9 28	1 16.92	+ 8 7.4	0.880	1.864	8.4	19.0
10 8	1 10.07	- 0 50.6	1.031	2.025	3.8	18.9	10 8	1 9.69	+ 6 13.2	0.879	1.877	2.0	18.6
10 18	1 1.30	- 1 26.9	1.035	2.017	6.6	19.0	10 18	1 2.26	+ 4 20.6	0.902	1.892	4.7	18.9
10 28	0 53.54	- 1 45.8	1.062	2.011	11.6	19.3	10 28	0 56.18	+ 2 44.5	0.947	1.908	10.7	19.3
11 7	0 48.04	- 1 42.5	1.111	2.005	16.4	19.5	11 7	0 52.58	+ 1 34.7	1.013	1.925	15.9	19.6
11 17	0 45.56	- 1 16.2	1.177	2.001	20.5	19.8	11 17	0 51.99	+ 0 55.3	1.097	1.943	20.2	19.9
351232	2004 <i>PF</i> ₅₆		10 11.3 90°45	2°8/ 8.1 18			396371	2014 <i>DV</i> ₁₀₅		10 11.4 16°93	2°0/ 9.6 18		
9 8	1 27.61	+ 1 43.2	2.151	3.025	11.3	20.4	9 8	1 29.03	+ 5 16.7	1.541	2.422	14.6	20.4
9 18	1 22.87	+ 0 30.5	2.100	3.039	8.1	20.2	9 18	1 24.55	+ 4 23.4	1.481	2.423	10.6	20.1
9 28	1 16.64	- 0 46.7	2.075	3.054	4.8	20.0	9 28	1 17.91	+ 3 19.6	1.443	2.425	6.1	19.9
10 8	1 9.56	- 2 2.4	2.077	3.069	2.8	19.9	10 8	1 9.95	+ 2 12.2	1.431	2.427	2.2	19.7
10 18	1 2.37	- 3 10.4	2.109	3.083	4.7	20.1	10 18	1 1.71	+ 1 8.7	1.445	2.430	4.6	19.8
10 28	0 55.87	- 4 5.3	2.169	3.098	7.8	20.3	10 28	0 54.34	+ 0 17.0	1.486	2.433	9.1	20.1
11 7	0 50.70	- 4 43.6	2.255	3.112	10.8	20.5	11 7	0 48.77	- 0 17.4	1.550	2.436	13.1	20.4
11 17	0 47.27	- 5 3.9	2.363	3.126	13.3	20.7	11 17	0 45.60	- 0 32.0	1.636	2.439	16.6	20.6
29679	1998 <i>XF</i> ₂₃		10 11.3 145°39	0°7/11.9 18			487375	2014 <i>QV</i> ₂₆₅		10 11.4 29°31	4°5/16.1 18		
9 8	1 33.26	+11 37.5	1.917	2.762	13.7	19.3	9 8	1 29.44	+22 26.3	2.203	3.002	13.7	21.1
9 18	1 27.25	+11 7.4	1.851	2.773	10.2	19.1	9 18	1 24.49	+22 36.8	2.124	3.004	11.0	20.9
9 28	1 19.33	+10 23.9	1.809	2.782	6.1	18.9	9 28	1 17.76	+22 29.4	2.068	3.006	8.1	20.7
10 8	1 10.26	+ 9 30.8	1.794	2.791	1.9	18.6	10 8	1 9.91	+22 4.5	2.037	3.008	5.5	20.6
10 18	1 0.98	+ 8 33.4	1.808	2.799	2.7	18.7	10 18	1 1.75	+21 24.2	2.033	3.010	4.5	20.5
10 28	0 52.51	+ 7 38.0	1.852	2.807	6.9	19.0	10 28	0 54.20	+20 33.2	2.058	3.012	6.3	20.6
11 7	0 45.68	+ 6 50.6	1.921	2.814	10.6	19.2	11 7	0 48.06	+19 38.0	2.109	3.015	9.2	20.8
11 17	0 41.03	+ 6 15.6	2.015	2.820	13.8	19.5	11 17	0 43.88	+18 44.7	2.185	3.017	11.9	21.0
352343	2007 <i>VO</i> ₇₅		10 11.3 270°92	1°3/10.2 18			247783	2003 <i>RE</i> ₁₁		10 11.4 56°65	6°2/ 7.2 17		
9 8	1 29.98	+ 5 53.3	1.866	2.734	13.0	21.8	9 8	1 33.53	- 2 50.7	1.123	2.022	17.3	19.7
9 18	1 25.03	+ 5 17.4	1.790	2.726	9.5	21.6	9 18	1 28.08	- 4 9.0	1.092	2.042	12.7	19.5
9 28	1 18.13	+ 4 32.2	1.738	2.718	5.5	21.3	9 28	1 19.98	- 5 27.4	1.083	2.062	8.2	19.3
10 8	1 9.98	+ 3 42.5	1.712	2.710	1.6	21.0	10 8	1 10.43	- 6 34.6	1.096	2.082	6.2	19.3
10 18	1 1.48	+ 2 53.8	1.715	2.701	3.7	21.2	10 18	1 0.91	- 7 21.0	1.134	2.102	8.7	19.5
10 28	0 53.64	+ 2 12.4	1.745	2.693	7.9	21.4	10 28	0 52.85	- 7 40.7	1.195	2.123	12.8	19.8
11 7	0 47.34	+ 1 43.3	1.801	2.685	11.7	21.6	11 7	0 47.26	- 7 32.7	1.277	2.144	16.7	20.1
11 17	0 43.17	+ 1 29.4	1.879	2.676	15.0	21.8	11 17	0 44.61	- 6 59.6	1.377	2.165	19.9	20.4
242238	2003 <i>SV</i> ₁₅₇		10 11.3 11°34	2°2/13.3 18			403419	2009 <i>SA</i> ₉₆		10 11.4 72°81	0°1/11.3 18		
9 8	1 26.43	+14 36.7	1.612	2.469	15.3	19.8	9 8	1 30.94	+ 7 46.1	2.191	3.045	11.9	21.1
9 18	1 22.62	+14 25.6	1.550	2.473	11.6	19.6	9 18	1 25.40	+ 7 39.3	2.123	3.050	8.7	21.0
9 28	1 16.76	+13 57.2	1.509	2.479	7.4	19.4	9 28	1 18.21	+ 7 24.7	2.079	3.056	5.1	20.7
10 8	1 9.63	+13 14.6	1.492	2.485	3.3	19.2	10 8	1 10.01	+ 7 5.0	2.063	3.061	1.3	20.5
10 18	1 2.22	+12 22.9	1.502	2.493	3.1	19.2	10 18	1 1.59	+ 6 43.7	2.076	3.066	2.6	20.6
10 28	0 55.63	+11 29.1	1.538	2.501	7.1	19.4	10 28	0 53.81	+ 6 24.9	2.118	3.071	6.3	20.9
11 7	0 50.74	+10 40.6	1.599	2.511	11.1	19.7	11 7	0 47.41	+ 6 12.2	2.187	3.076	9.7	21.1
11 17	0 48.14	+10 2.9	1.683	2.521	14.6	20.0	11 17	0 42.88	+ 6 8.4	2.280	3.082	12.5	21.3
81442	2000 <i>GO</i> ₁₁₄		10 11.4 317°84	2°2/13.3 18			87545	2000 <i>QB</i> ₂₁₈		10 11.4 315°54	4°1/15.6 18		
9 8	1 30.47	+14 38.2	1.797	2.641	14.5	19.0	9 8	1 27.68	+21 25.6	2.003	2.816	14.4	18.6
9 18	1 25.52	+14 35.0	1.720	2.636	11.1	18.8	9 18	1 23.39	+21 17.0	1.917	2.808	11.5	18.4
9 28	1 18.48	+14 16.1	1.665	2.632	7.2	18.5	9 28	1 17.21	+20 48.4	1.853	2.800	8.2	18.1
10 8	1 10.09	+13 43.4	1.635	2.627	3.3	18.3	10 8	1 9.79	+20 0.8	1.814	2.792	5.2	18.0
10 18	1 1.30	+13 0.9	1.633	2.623	3.1	18.3	10 18	1 1.98	+18 57.3	1.802	2.785	4.2	17.9
10 28	0 53.21	+12 14.6	1.659	2.619	7.0	18.5	10 28	0 54.79	+17 44.3	1.818	2.777	6.6	18.0
11 7	0 46.77	+11 31.3	1.710	2.615	10.9	18.7	11 7	0 49.07	+16 29.4	1.860	2.770	9.9	18.2
11 17	0 42.62	+10 56.6	1.784	2.611	14.4	19.0	11 17	0 45.43	+15 20.0	1.927	2.763	13.1	18.4
422122	2014 <i>QJ</i> ₄₁₈		10 11.4 91°74	2°3/13.8 18			300688	2007 <i>VK</i> ₄₄		10 11.4 193°83	2°6/13.9 18		
9 8	1 29.14	+15 58.2	2.414	3.240	11.9	21.0	9 8	1 31.15	+16 47.1	2.088	2.914	13.4	20.9
9 18	1 24.06	+15 58.3	2.336	3.241	9.1	20.8	9 18	1 25.77	+16 40.0	2.009	2.913	10.4	20.7
9 28	1 17.41	+15 45.8	2.282	3.242	6.1	20.6	9 28	1 18.53	+16 17.3	1.952	2.912	6.9	20.5
10 8	1 9.79	+15 22.1	2.255	3.244	3.1	20.4	10 8	1 10.11	+15 40.7	1.922	2.910	3.6	20.3
10 18	1 1.91	+14 49.8	2.257	3.245	2.8	20.4	10 18	1 1.37	+14 53.5	1.920	2.908	3.1	20.2
10 28	0 54.58	+14 13.2	2.288	3.246	5.5	20.6	10 28	0 53.27	+14 1.2	1.947	2.906	6.3	20.4
11 7	0 48.48	+13 37.1	2.347	3.248	8.6	20.8	11 7	0 46.63	+13 10.1	2.002	2.904	9.8	20.7
11 17	0 44.13	+13 5.8	2.430	3.249	11.3	21.0	11 17	0 42.05	+12 25.8	2.080	2.901	12.9	20.9
495188	2012 <i>VM</i> ₁₀₆		10 11.4 7°27	21°3/ 4.9 17			138679	2000 <i>SD</i> ₃₀		10 11.4 21°22	1°3/10.2 18		
9 8	1 52.18	-34 40.9	0.949	1.789	24.7	20.4	9 8	1 29.23	+ 5 26.8	1.791	2.663	13.2	19.7
9 18	1 42.59	-35 29.8	0.921	1.788	22.8	20.3	9 18	1 24.44	+ 4 55.5	1.728	2.666	9.6	19.4
9 28	1 28.71	-35 33.0	0.907	1.789	21.6	20.2	9 28	1 17.75	+ 4 15.8	1.689	2.670	5.6	19.2
10 8	1 12.60	-34 35.7	0.910	1.790	21.3	20.2	10 8	1 9.91	+ 3 32.7	1.676	2.673	1.6	19.0
10 18	0 56.85	-32 33.9	0.930	1.792	22.3	20.3	10 18	1 1.82	+ 2 51.5	1.691	2.677	3.7	19.1
10 28	0 43.85	-29 34.9	0.967	1.795	24.1	20.4	10 28	0 54.49	+ 2 18.1	1.732	2.682	7.8	19.4
11 7	0 34.99	-25 55.1	1.022	1.799	26.2	20.6	11 7	0 48.76	+ 1 57.0	1.800	2.686	11.6	19.6
11 17	0 30.62	-21 51.8	1.092	1.804	28.3	20.8	11 17	0 45.16	+ 1 50.5	1.889	2.691	14.7	19.9
104556	2000 <i>GR</i> ₆₇		10 11.4 177°59	0°6/10.8 18			212179	2005 <i>GE</i> ₇₆		10 11.4 161°62	2°3/ 8.8 18</		

EPHEMERIDES

10 11.4

10 11.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
13123	Tyson		10 11.4	26°07'	22.2/	7.8 18	157410	2004 <i>TP</i> ₂₇₀		10 11.4	261°70'	2.7/	8.8 18
9 8	1 48.58	-39 8.3	0.948	1.776	25.5	14.7	9 8	1 31.03	-0 39.0	2.260	3.129	11.0	19.7
9 18	1 39.18	-39 35.7	0.944	1.794	23.8	14.7	9 18	1 25.47	-1 1.9	2.188	3.124	8.0	19.5
9 28	1 26.18	-39 12.4	0.954	1.813	22.6	14.7	9 28	1 18.29	-1 26.8	2.141	3.119	4.9	19.3
10 8	1 11.87	-37 49.8	0.979	1.835	22.2	14.7	10 8	1 10.10	-1 49.5	2.122	3.114	2.7	19.2
10 18	0 58.61	-35 29.3	1.020	1.858	22.6	14.9	10 18	1 1.66	-2 6.1	2.132	3.109	4.4	19.3
10 28	0 48.28	-32 21.2	1.079	1.883	23.6	15.1	10 28	0 53.81	-2 12.9	2.171	3.104	7.6	19.5
11 7	0 41.78	-28 41.4	1.154	1.909	25.0	15.3	11 7	0 47.27	-2 7.6	2.236	3.099	10.6	19.7
11 17	0 39.17	-24 44.8	1.245	1.936	26.3	15.5	11 17	0 42.55	-1 49.2	2.324	3.094	13.3	19.9
7441	Láska		10 11.4	171°59'	0.4/11.0 18		483259	2015 <i>TT</i> ₆₇		10 11.4	230°37'	1.5/12.9 17	
9 8	1 31.74	+9 45.9	1.621	2.484	14.9	18.8	9 8	1 29.25	+13 39.2	2.462	3.295	11.4	21.5
9 18	1 26.50	+8 54.4	1.554	2.486	11.0	18.5	9 18	1 24.17	+13 27.2	2.376	3.288	8.7	21.4
9 28	1 19.07	+7 47.9	1.510	2.488	6.4	18.3	9 28	1 17.53	+13 3.7	2.315	3.282	5.5	21.2
10 8	1 10.27	+6 32.0	1.491	2.489	1.6	18.0	10 8	1 9.91	+12 30.6	2.282	3.275	2.3	20.9
10 18	1 1.17	+5 14.3	1.500	2.490	3.5	18.1	10 18	1 2.00	+11 51.1	2.277	3.268	2.3	20.9
10 28	0 52.93	+4 3.3	1.537	2.490	8.2	18.4	10 28	0 54.58	+11 9.6	2.303	3.260	5.5	21.1
11 7	0 46.52	+3 6.2	1.600	2.491	12.5	18.6	11 7	0 48.35	+10 30.8	2.356	3.253	8.7	21.3
11 17	0 42.55	+2 27.4	1.683	2.490	16.0	18.9	11 17	0 43.81	+9 58.8	2.434	3.245	11.5	21.5
309682	2008 <i>ES</i> ₁₃₇		10 11.4	80°27'	1.9/9.9 16		133330	2003 <i>SJ</i> ₉₅		10 11.4	290°01'	2.1/13.7 18	
9 8	1 33.78	+5 36.1	1.463	2.338	15.5	21.0	9 8	1 27.19	+16 9.2	2.281	3.112	12.3	19.8
9 18	1 27.87	+4 43.3	1.421	2.360	11.2	20.8	9 18	1 22.79	+15 47.7	2.195	3.104	9.4	19.6
9 28	1 19.75	+3 40.9	1.402	2.383	6.4	20.6	9 28	1 16.78	+15 11.6	2.133	3.095	6.2	19.4
10 8	1 10.42	+2 35.8	1.408	2.405	2.1	20.4	10 8	1 9.73	+14 22.8	2.096	3.087	3.0	19.2
10 18	1 1.05	+1 36.0	1.442	2.427	4.5	20.6	10 18	1 2.37	+13 25.2	2.089	3.078	2.6	19.1
10 28	0 52.85	+0 48.7	1.502	2.449	9.0	20.9	10 28	0 55.52	+12 24.3	2.110	3.070	5.8	19.3
11 7	0 46.70	+0 18.5	1.587	2.470	13.0	21.2	11 7	0 49.93	+11 25.9	2.159	3.062	9.1	19.5
11 17	0 43.09	+0 7.5	1.692	2.491	16.3	21.5	11 17	0 46.11	+10 35.2	2.232	3.053	12.1	19.7
31522	McCutchen		10 11.4	310°36'	3.9/8.0 18		444564	2006 <i>SW</i> ₄₀₇		10 11.4	358°70'	2.0/13.1 15	
9 8	1 28.35	+2 6.7	1.430	2.320	14.9	19.2	9 8	1 30.27	+13 38.8	1.684	2.535	15.0	21.6
9 18	1 24.32	+0 48.2	1.362	2.310	10.8	19.0	9 18	1 25.48	+13 38.8	1.613	2.534	11.4	21.4
9 28	1 17.94	-0 40.3	1.317	2.300	6.5	18.7	9 28	1 18.53	+13 23.4	1.563	2.533	7.3	21.1
10 8	1 10.03	-2 9.8	1.297	2.290	3.9	18.5	10 8	1 10.20	+12 54.9	1.539	2.533	3.1	20.9
10 18	1 1.68	-3 30.3	1.303	2.280	6.5	18.7	10 18	1 1.49	+12 17.3	1.542	2.532	3.1	20.9
10 28	0 54.17	-4 32.2	1.334	2.271	11.0	18.9	10 28	0 53.55	+11 36.8	1.572	2.533	7.2	21.1
11 7	0 48.54	-5 9.9	1.388	2.262	15.2	19.1	11 7	0 47.34	+11 0.0	1.627	2.534	11.3	21.4
11 17	0 45.47	-5 21.4	1.461	2.253	18.8	19.3	11 17	0 43.52	+10 32.3	1.704	2.535	14.8	21.6
476181	2007 <i>TS</i> ₄₄₇		10 11.4	354°45'	4.9/8.2 18		434478	2005 <i>QF</i> ₁₅₉		10 11.4	330°41'	4.1/8.4 18	
9 8	1 32.75	-3 38.2	1.419	2.308	15.0	20.1	9 8	1 27.72	+1 41.2	1.195	2.095	16.4	20.4
9 18	1 27.46	-4 2.3	1.360	2.304	11.1	19.9	9 18	1 24.30	+0 43.1	1.127	2.079	12.0	20.1
9 28	1 19.73	-4 25.8	1.323	2.301	7.1	19.6	9 28	1 18.15	-0 24.9	1.080	2.064	7.3	19.8
10 8	1 10.47	-4 42.1	1.311	2.299	4.9	19.5	10 8	1 10.15	-1 33.7	1.056	2.050	4.1	19.5
10 18	1 0.87	-4 45.0	1.324	2.298	7.0	19.6	10 18	1 1.56	-2 33.2	1.056	2.036	6.9	19.7
10 28	0 52.27	-4 30.3	1.363	2.297	11.0	19.9	10 28	0 53.88	-3 13.5	1.079	2.024	11.9	19.9
11 7	0 45.71	-3 56.6	1.424	2.297	14.9	20.1	11 7	0 48.37	-3 28.7	1.123	2.012	16.7	20.2
11 17	0 41.85	-3 4.8	1.505	2.298	18.3	20.3	11 17	0 45.81	-3 17.4	1.185	2.002	20.8	20.4
442876	2013 <i>BE</i> ₂₄		10 11.4	251°51'	6.6/4.4 18		107369	2001 <i>CL</i> ₃₀		10 11.4	287°67'	2.8/8.6 18	
9 8	1 29.37	-9 12.0	1.928	2.809	12.0	21.5	9 8	1 28.09	+4 36.6	1.746	2.624	13.3	19.3
9 18	1 24.49	-10 34.8	1.869	2.803	9.3	21.3	9 18	1 23.95	+3 13.3	1.656	2.598	9.7	19.0
9 28	1 17.79	-11 54.4	1.835	2.796	7.1	21.2	9 28	1 17.71	+1 36.8	1.590	2.572	5.7	18.7
10 8	1 9.96	-13 2.8	1.827	2.790	6.8	21.1	10 8	1 10.03	-0 5.8	1.551	2.546	2.8	18.5
10 18	1 1.87	-13 52.9	1.846	2.783	8.6	21.2	10 18	1 1.80	-1 45.4	1.540	2.519	5.3	18.6
10 28	0 54.47	-14 19.9	1.891	2.777	11.3	21.4	10 28	0 54.13	-3 12.4	1.556	2.492	9.7	18.8
11 7	0 48.57	-14 22.2	1.959	2.770	14.0	21.6	11 7	0 47.99	-4 19.4	1.596	2.466	13.8	19.0
11 17	0 44.71	-14 1.1	2.046	2.763	16.5	21.7	11 17	0 44.10	-5 2.3	1.658	2.439	17.3	19.1
91041	1998 <i>FG</i> ₁₄		10 11.4	54°84'	6.1/5.5 17		449301	2013 <i>EC</i> ₁₁₄		10 11.4	296°66'	6.0/6.7 18	
9 8	1 27.33	+6 47.1	0.955	1.859	19.1	18.2	9 8	1 33.94	-8 24.6	1.815	2.692	12.9	20.6
9 18	1 24.17	+3 1.5	0.907	1.863	13.6	17.9	9 18	1 28.03	-8 59.3	1.743	2.676	9.9	20.4
9 28	1 18.03	-1 10.5	0.882	1.867	8.1	17.6	9 28	1 20.00	-9 29.8	1.694	2.661	7.1	20.2
10 8	1 10.05	-5 23.9	0.882	1.872	6.3	17.6	10 8	1 10.59	-9 49.6	1.672	2.646	6.0	20.1
10 18	1 1.77	-9 10.9	0.909	1.876	10.6	17.8	10 18	1 0.79	-9 53.3	1.676	2.631	7.8	20.2
10 28	0 54.83	-12 9.8	0.960	1.881	16.0	18.1	10 28	0 51.71	-9 37.0	1.707	2.616	10.9	20.3
11 7	0 50.43	-14 11.9	1.030	1.885	20.7	18.5	11 7	0 44.32	-9 0.0	1.762	2.601	14.1	20.5
11 17	0 49.18	-15 19.1	1.116	1.890	24.5	18.8	11 17	0 39.25	-8 3.8	1.837	2.586	17.0	20.7
217198	2002 <i>TQ</i> ₁₄₁		10 11.4	340°42'	0.4/11.7 18		475396	2006 <i>HE</i> ₅₈		10 11.4	111°44'	0.3/11.1 16	
9 8	1 22.99	+13 56.8	1.112	1.997	18.6	18.7	9 8	1 29.27	+11 25.6	1.955	2.807	13.2	21.2
9 18	1 20.95	+12 40.8	1.043	1.985	13.9	18.4	9 18	1 24.28	+10 6.1	1.895	2.822	9.6	21.0
9 28	1 16.19	+10 54.9	0.993	1.974	8.5	18.0	9 28	1 17.60	+8 32.4	1.860	2.837	5.6	20.8
10 8	1 9.62	+8 46.9	0.966	1.964	2.4	17.7	10 8	1 9.93	+6 50.4	1.853	2.851	1.4	20.5
10 18	1 2.51	+6 29.5	0.963	1.955	4.0	17.7	10 18	1 2.15	+5 7.9	1.875	2.865	3.0	20.7
10 28	0 56.35	+4 19.4	0.984	1.947	10.1	18.1	10 28	0 55.14	+3 33.0	1.927	2.878	7.0	20.9
11 7	0 52.40	+2 30.9	1.027	1.940	15.6	18.4	11 7	0 49.64	+2 12.6	2.006	2.891	10.6	21.2
11 17	0 51.39	+1 12.6	1.089	1.935	20.3	18.6	11 17	0 46.12	+1 10.5	2.109	2.904	13.6	21.4
159216	2005 <i>WD</i> ₇₂		10 11.4	273°40'	7.8/3.7 18		1915	Quetzálcoatl		10 11.4	287°20'	5.4/4.9 04 C	
9 8	1 29.71	-9 1.7	1.618	2.507	13.5	19.9	9 8	1 33.04	-4 18.6	2.187	3.0		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
187715	2008 <i>EZ</i> ₇₇		10 11.4 359°65	1.3°/10.1	18		240197	2002 <i>RZ</i> ₃₅		10 11.4 21°73	0.3°/11.1	18	
9 8	1 28.26	+ 5 58.1	1.884	2.755	12.8	20.7	9 8	1 26.59	+10 28.4	1.405	2.282	15.9	19.2
9 18	1 23.72	+ 5 15.5	1.817	2.754	9.3	20.5	9 18	1 22.94	+ 9 30.3	1.349	2.288	11.7	19.0
9 28	1 17.37	+ 4 23.8	1.774	2.754	5.4	20.3	9 28	1 17.07	+ 8 15.3	1.316	2.296	6.8	18.7
10 8	1 9.90	+ 3 28.0	1.757	2.754	1.6	20.0	10 8	1 9.86	+ 6 50.1	1.306	2.304	1.7	18.4
10 18	1 2.17	+ 2 34.1	1.768	2.754	3.7	20.2	10 18	1 2.40	+ 5 23.7	1.323	2.313	3.6	18.6
10 28	0 55.13	+ 1 48.1	1.806	2.754	7.7	20.4	10 28	0 55.90	+ 4 6.0	1.366	2.323	8.6	18.9
11 7	0 49.57	+ 1 14.9	1.871	2.755	11.3	20.7	11 7	0 51.28	+ 3 4.6	1.433	2.334	12.9	19.2
11 17	0 46.04	+ 0 57.4	1.957	2.755	14.4	20.9	11 17	0 49.10	+ 2 24.2	1.520	2.345	16.6	19.4
505448	2013 <i>SA</i> ₁₀₀		10 11.4 252°46	0°/10.8	17		154433	2003 <i>BE</i> ₅₅		10 11.4 153°72	0°/11.2	18	
9 8	1 9.34	+ 5 41.1	48.839	49.690	0.6	23.1	9 8	1 33.47	+ 8 49.3	1.941	2.794	13.2	20.6
9 18	1 8.77	+ 5 37.7	48.758	49.686	0.4	23.1	9 18	1 27.46	+ 8 19.8	1.874	2.801	9.7	20.4
9 28	1 8.15	+ 5 34.1	48.706	49.683	0.3	23.1	9 28	1 19.54	+ 7 39.6	1.832	2.808	5.7	20.2
10 8	1 7.50	+ 5 30.3	48.682	49.680	0.1	23.0	10 8	1 10.48	+ 6 52.5	1.817	2.814	1.4	19.9
10 18	1 6.85	+ 5 26.6	48.688	49.676	0.1	23.1	10 18	1 1.19	+ 6 3.8	1.830	2.820	2.9	20.1
10 28	1 6.21	+ 5 22.9	48.724	49.673	0.3	23.1	10 28	0 52.67	+ 5 19.3	1.873	2.825	7.1	20.3
11 7	1 5.60	+ 5 19.6	48.789	49.669	0.5	23.1	11 7	0 45.76	+ 4 44.2	1.942	2.829	10.8	20.6
11 17	1 5.06	+ 5 16.7	48.881	49.666	0.7	23.1	11 17	0 40.99	+ 4 21.8	2.035	2.833	13.9	20.8
303196	2004 <i>GN</i> ₁₈		10 11.4 273°24	7.3°/4.6	17		120199	2004 <i>DN</i> ₄₃		10 11.4 159°87	3.9°/7.9	18	
9 8	1 36.20	-14 19.3	2.164	3.024	11.8	20.4	9 8	1 31.92	+ 0 26.1	1.660	2.539	13.7	20.2
9 18	1 29.53	-15 7.3	2.081	2.996	9.5	20.2	9 18	1 26.55	- 0 45.1	1.601	2.543	10.0	20.0
9 28	1 20.85	-15 47.9	2.022	2.968	7.8	20.0	9 28	1 19.09	- 2 1.7	1.567	2.546	6.1	19.8
10 8	1 10.83	-16 14.4	1.990	2.939	7.5	20.0	10 8	1 10.37	- 3 16.0	1.559	2.549	3.9	19.7
10 18	1 0.35	-16 21.1	1.986	2.909	9.0	20.0	10 18	1 1.41	- 4 19.9	1.579	2.552	6.1	19.8
10 28	0 50.44	-16 4.6	2.009	2.879	11.5	20.1	10 28	0 53.32	- 5 6.6	1.625	2.554	9.9	20.0
11 7	0 42.02	-15 24.6	2.056	2.848	14.1	20.2	11 7	0 47.00	- 5 32.3	1.695	2.556	13.6	20.3
11 17	0 35.72	-14 23.3	2.123	2.817	16.6	20.4	11 17	0 43.01	- 5 36.0	1.786	2.557	16.7	20.5
188268	2003 <i>AV</i> ₂₆		10 11.4 351°88	6°/6.9	18		487387	2014 <i>QP</i> ₃₀₂		10 11.4 358°35	4°/6.2	18	
9 8	1 28.08	- 2 16.8	1.169	2.074	16.4	19.1	9 8	1 25.85	- 2 28.4	2.065	2.948	11.3	20.8
9 18	1 24.44	- 3 33.7	1.116	2.069	12.1	18.8	9 18	1 21.81	- 3 56.2	2.005	2.948	8.2	20.6
9 28	1 18.14	- 4 54.6	1.083	2.064	7.9	18.6	9 28	1 16.20	- 5 26.6	1.972	2.947	5.4	20.5
10 8	1 10.15	- 6 8.4	1.074	2.061	6.1	18.5	10 8	1 9.62	- 6 52.3	1.966	2.947	4.5	20.4
10 18	1 1.77	- 7 4.5	1.088	2.058	8.7	18.6	10 18	1 2.84	- 8 6.2	1.987	2.947	6.4	20.5
10 28	0 54.46	- 7 34.3	1.125	2.057	13.1	18.9	10 28	0 56.67	- 9 2.5	2.036	2.947	9.3	20.7
11 7	0 49.37	- 7 34.8	1.183	2.056	17.3	19.1	11 7	0 51.81	- 9 37.9	2.110	2.947	12.2	20.9
11 17	0 47.15	- 7 6.9	1.258	2.056	20.9	19.4	11 17	0 48.73	- 9 51.8	2.204	2.948	14.7	21.1
512076	2015 <i>NS</i> ₄		10 11.4 107°91	6°/18.3	18		409136	2003 <i>UM</i> ₅₄		10 11.4 303°98	1°/12.4	17	
9 8	1 33.88	+28 23.0	2.102	2.864	15.4	21.7	9 8	1 32.34	+10 38.6	2.155	3.000	12.4	20.7
9 18	1 27.78	+28 32.9	2.036	2.883	12.8	21.6	9 18	1 26.78	+10 54.8	2.059	2.979	9.4	20.5
9 28	1 19.73	+28 19.7	1.992	2.903	10.0	21.5	9 28	1 19.29	+11 1.9	1.987	2.958	5.9	20.2
10 8	1 10.51	+27 43.0	1.972	2.921	7.4	21.3	10 8	1 10.47	+11 1.2	1.942	2.937	2.2	19.9
10 18	1 1.09	+26 45.5	1.978	2.939	6.2	21.3	10 18	1 1.12	+10 54.9	1.926	2.916	2.6	19.9
10 28	0 52.52	+25 32.8	2.013	2.957	7.2	21.4	10 28	0 52.23	+10 46.4	1.939	2.896	6.5	20.1
11 7	0 45.66	+24 12.9	2.074	2.974	9.6	21.6	11 7	0 44.68	+10 40.0	1.979	2.876	10.1	20.3
11 17	0 41.02	+22 53.8	2.161	2.991	12.1	21.8	11 17	0 39.14	+10 39.3	2.043	2.855	13.4	20.5
186925	2004 <i>PC</i> ₆₁		10 11.4 40°17	3°/8.3	18		50142	2000 <i>AY</i> ₁₂₉		10 11.4 13°34	1°/10.3	18	
9 8	1 27.00	+ 3 16.6	1.576	2.462	14.0	19.6	9 8	1 29.29	+ 6 54.3	1.762	2.632	13.6	18.9
9 18	1 22.82	+ 1 49.2	1.539	2.485	10.0	19.5	9 18	1 24.59	+ 6 8.9	1.696	2.632	9.9	18.7
9 28	1 16.78	+ 0 15.1	1.527	2.509	5.8	19.3	9 28	1 17.95	+ 5 12.9	1.653	2.633	5.7	18.4
10 8	1 9.73	- 1 16.9	1.541	2.534	3.2	19.2	10 8	1 10.09	+ 4 11.5	1.636	2.633	1.6	18.2
10 18	1 2.64	- 2 38.2	1.582	2.559	5.5	19.4	10 18	1 1.96	+ 3 11.2	1.647	2.634	3.7	18.3
10 28	0 56.50	- 3 41.7	1.649	2.585	9.3	19.7	10 28	0 54.57	+ 2 18.9	1.685	2.635	8.0	18.6
11 7	0 52.06	- 4 23.3	1.740	2.611	12.8	19.9	11 7	0 48.80	+ 1 40.1	1.749	2.636	11.8	18.8
11 17	0 49.74	- 4 42.3	1.852	2.637	15.6	20.2	11 17	0 45.20	+ 1 18.0	1.834	2.637	15.1	19.1
331168	2011 <i>AO</i> ₁₃		10 11.4 266°17	4°/6.3	17		340102	2005 <i>WS</i> ₁₀₉		10 11.4 306°71	0°/11.9	18	
9 8	1 30.12	- 7 10.9	2.411	3.283	10.3	21.1	9 8	1 25.09	+10 33.3	2.789	3.635	9.8	20.9
9 18	1 24.80	- 7 54.8	2.335	3.267	7.8	20.9	9 18	1 21.04	+10 9.1	2.694	3.616	7.3	20.7
9 28	1 17.93	- 8 36.8	2.285	3.252	5.5	20.7	9 28	1 15.70	+ 9 35.9	2.625	3.598	4.4	20.5
10 8	1 10.06	- 9 11.9	2.262	3.236	4.7	20.6	10 8	1 9.51	+ 8 56.0	2.583	3.580	1.3	20.2
10 18	1 1.91	- 9 35.3	2.268	3.219	6.2	20.7	10 18	1 3.05	+ 8 12.9	2.571	3.561	2.0	20.2
10 28	0 54.27	- 9 43.5	2.301	3.203	8.8	20.8	10 28	0 56.94	+ 7 30.4	2.588	3.543	5.2	20.4
11 7	0 47.83	- 9 34.8	2.360	3.187	11.4	21.0	11 7	0 51.79	+ 6 52.7	2.633	3.525	8.1	20.6
11 17	0 43.11	- 9 9.4	2.440	3.170	13.8	21.1	11 17	0 48.04	+ 6 23.0	2.703	3.507	10.7	20.8
320086	2007 <i>EC</i> ₈₀		10 11.4 189°72	0°/10.1	18		200237	1999 <i>VT</i> ₅₁		10 11.4 317°67	3°/13.6	18	
9 8	1 26.73	+ 7 31.5	2.985	3.835	9.2	21.7	9 8	1 28.71	+15 38.1	1.454	2.310	16.7	19.9
9 18	1 22.03	+ 6 28.3	2.906	3.833	6.6	21.5	9 18	1 24.96	+15 39.1	1.362	2.284	13.0	19.6
9 28	1 16.16	+ 5 17.4	2.854	3.831	3.8	21.3	9 28	1 18.60	+15 20.0	1.291	2.259	8.7	19.3
10 8	1 9.59	+ 4 2.4	2.832	3.829	1.1	21.1	10 8	1 10.36	+14 41.9	1.243	2.234	4.3	19.0
10 18	1 2.85	+ 2 48.0	2.841	3.826	2.6	21.3	10 18	1 1.32	+13 48.6	1.220	2.210	3.9	18.9
10 28	0 56.53	+ 1 38.9	2.880	3.822	5.5	21.5	10 28	0 52.90	+12 47.8	1.222	2.186	8.4	19.1
11 7	0 51.16	+ 0 39.2	2.949	3.818	8.1	21.6	11 7	0 46.38	+11 49.0	1.248	2.164	13.3	19.3
11 17	0 47.11	- 0 8.5	3.043	3.814	10.4	21.8	11 17	0 42.65	+11 0.7	1.295	2.142	17.6	19.5
324384	2006 <i>RJ</i> ₈₈		10 11.4 83°94	1°/12.4	17		66						

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
395934	2013 AQ ₁₀₆		10 11.4 348°16	3°8/ 7.8 18			476934	2008 WB ₁₂₈		10 11.4 57°55	9°7/ 3.1 18		
9 8	1 28.21	+ 0 33.4	1.687	2.572	13.3	20.7	9 8	1 32.91	-16 48.4	1.643	2.518	14.1	20.2
9 18	1 23.86	- 0 36.7	1.625	2.570	9.6	20.4	9 18	1 27.24	-18 6.1	1.607	2.525	11.6	20.1
9 28	1 17.54	- 1 52.5	1.588	2.568	5.9	20.2	9 28	1 19.46	-19 10.7	1.593	2.533	10.0	20.0
10 8	1 10.00	- 3 6.5	1.576	2.566	3.8	20.1	10 8	1 10.51	-19 53.1	1.604	2.540	9.9	20.0
10 18	1 2.19	- 4 10.8	1.592	2.565	6.0	20.2	10 18	1 1.46	-20 7.6	1.640	2.548	11.5	20.1
10 28	0 55.14	- 4 58.6	1.633	2.564	9.7	20.4	10 28	0 53.45	-19 51.8	1.698	2.556	13.8	20.3
11 7	0 49.72	- 5 25.7	1.699	2.563	13.3	20.7	11 7	0 47.33	-19 7.6	1.778	2.564	16.2	20.5
11 17	0 46.49	- 5 30.9	1.785	2.563	16.4	20.9	11 17	0 43.61	-17 59.3	1.875	2.572	18.4	20.7
37861	1998 FA ₅		10 11.4 224°69	1°5/12.6 18			33293	1998 KM ₃₁		10 11.4 77°22	5°6/ 5.9 18		
9 8	1 35.08	+12 2.5	1.957	2.797	13.7	20.0	9 8	1 30.24	- 8 12.1	2.058	2.936	11.6	18.4
9 18	1 28.85	+12 9.4	1.873	2.790	10.3	19.8	9 18	1 24.97	- 9 7.8	2.008	2.942	8.8	18.3
9 28	1 20.52	+12 4.4	1.814	2.783	6.5	19.5	9 28	1 18.04	- 9 59.8	1.982	2.947	6.4	18.1
10 8	1 10.80	+11 49.0	1.781	2.775	2.6	19.2	10 8	1 10.15	-10 41.9	1.983	2.953	5.7	18.1
10 18	1 0.62	+11 26.4	1.777	2.767	2.8	19.3	10 18	1 2.12	-11 8.8	2.012	2.959	7.3	18.2
10 28	0 51.09	+11 1.1	1.801	2.758	6.9	19.5	10 28	0 54.81	-11 17.2	2.067	2.965	9.8	18.4
11 7	0 43.16	+10 38.5	1.853	2.750	10.7	19.7	11 7	0 48.95	-11 5.9	2.146	2.971	12.5	18.6
11 17	0 37.50	+10 23.1	1.928	2.741	14.1	19.9	11 17	0 45.00	-10 36.0	2.246	2.977	14.8	18.8
339153	2004 TT ₂₈		10 11.4 307°90	0°1/11.3 18			53029	Wodetzky		10 11.4 179°34	2°5/13.3 18		
9 8	1 27.30	+ 7 36.2	2.787	3.638	9.7	20.4	9 8	1 34.33	+14 36.9	1.648	2.491	15.7	18.9
9 18	1 22.66	+ 7 27.8	2.691	3.617	7.2	20.2	9 18	1 28.57	+14 39.9	1.576	2.491	12.0	18.7
9 28	1 16.67	+ 7 12.8	2.620	3.596	4.2	20.0	9 28	1 20.46	+14 26.2	1.525	2.492	7.8	18.5
10 8	1 9.78	+ 6 53.6	2.578	3.575	1.1	19.7	10 8	1 10.83	+13 57.8	1.500	2.492	3.6	18.2
10 18	1 2.58	+ 6 32.9	2.565	3.555	2.2	19.8	10 18	1 0.78	+13 18.4	1.502	2.492	3.4	18.2
10 28	0 55.73	+ 6 13.9	2.582	3.534	5.4	19.9	10 28	0 51.57	+12 34.6	1.531	2.492	7.5	18.4
11 7	0 49.84	+ 5 59.9	2.626	3.513	8.3	20.1	11 7	0 44.26	+11 53.6	1.586	2.491	11.7	18.7
11 17	0 45.40	+ 5 53.5	2.696	3.493	10.9	20.3	11 17	0 39.51	+11 21.4	1.664	2.491	15.3	18.9
464957	2005 WX ₁₅		10 11.4 295°30	2°4/ 8.3 16			5800	Pollock		10 11.4 8°03	1°9/ 9.8 18		
9 8	1 25.94	- 0 57.6	2.969	3.838	8.7	21.5	9 8	1 27.42	+ 4 26.9	1.710	2.590	13.4	17.0
9 18	1 21.52	- 1 29.0	2.889	3.825	6.3	21.3	9 18	1 23.27	+ 3 48.4	1.649	2.591	9.7	16.8
9 28	1 15.92	- 2 2.2	2.836	3.813	3.9	21.1	9 28	1 17.20	+ 3 2.0	1.611	2.593	5.6	16.6
10 8	1 9.58	- 2 33.7	2.811	3.801	2.4	21.0	10 8	1 9.96	+ 2 13.0	1.599	2.596	2.0	16.3
10 18	1 3.03	- 3 0.2	2.816	3.788	3.8	21.1	10 18	1 2.47	+ 1 27.8	1.614	2.600	4.2	16.5
10 28	0 56.86	- 3 18.5	2.849	3.776	6.3	21.2	10 28	0 55.74	+ 0 52.3	1.656	2.604	8.2	16.7
11 7	0 51.59	- 3 26.4	2.910	3.764	8.7	21.4	11 7	0 50.61	+ 0 31.0	1.722	2.609	12.0	17.0
11 17	0 47.64	- 3 22.7	2.994	3.752	10.9	21.5	11 17	0 47.60	+ 0 26.1	1.810	2.614	15.2	17.2
325913	2010 UW ₇₇		10 11.4 247°31	1°5/12.9 17			157205	2004 RT ₁₈		10 11.4 324°40	2°6/ 8.6 18		
9 8	1 31.21	+13 9.4	2.596	3.425	11.0	21.9	9 8	1 26.40	+ 3 21.3	2.000	2.876	11.9	19.8
9 18	1 25.63	+13 6.9	2.499	3.409	8.4	21.7	9 18	1 22.33	+ 2 9.9	1.931	2.872	8.6	19.6
9 28	1 18.48	+12 54.1	2.427	3.392	5.4	21.5	9 28	1 16.58	+ 0 50.7	1.887	2.868	5.0	19.4
10 8	1 10.26	+12 32.3	2.382	3.375	2.3	21.3	10 8	1 9.80	+ 0 30.0	1.870	2.864	2.6	19.2
10 18	1 1.67	+12 4.1	2.368	3.358	2.3	21.3	10 18	1 2.76	+ 1 45.2	1.881	2.860	4.7	19.4
10 28	0 53.49	+11 33.3	2.384	3.340	5.5	21.4	10 28	0 56.34	+ 2 48.3	1.921	2.856	8.2	19.6
11 7	0 46.44	+11 4.1	2.428	3.322	8.6	21.6	11 7	0 51.26	+ 3 34.5	1.985	2.853	11.6	19.8
11 17	0 41.06	+10 40.3	2.497	3.303	11.4	21.8	11 17	0 48.04	+ 4 1.5	2.072	2.849	14.4	20.0
169775	2002 PM ₉₉		10 11.4 86°46	2°9/13.6 18			292985	2006 VT ₁₆₈		10 11.4 41°16	1°9/ 9.7 18		
9 8	1 36.43	+14 56.3	1.830	2.661	14.8	19.9	9 8	1 29.35	+ 4 20.2	1.817	2.691	13.0	20.6
9 18	1 29.81	+15 23.4	1.765	2.673	11.4	19.7	9 18	1 24.56	+ 3 37.3	1.757	2.696	9.4	20.4
9 28	1 21.04	+15 36.2	1.723	2.685	7.5	19.5	9 28	1 17.91	+ 2 46.7	1.719	2.700	5.5	20.2
10 8	1 10.93	+15 35.4	1.708	2.696	3.9	19.3	10 8	1 10.14	+ 1 54.1	1.709	2.705	2.0	20.0
10 18	1 0.53	+15 23.3	1.720	2.708	3.5	19.3	10 18	1 2.15	+ 1 5.2	1.726	2.710	4.1	20.1
10 28	0 50.98	+15 4.5	1.761	2.719	6.9	19.5	10 28	0 54.91	+ 0 26.2	1.771	2.715	8.0	20.4
11 7	0 43.26	+14 44.7	1.829	2.730	10.6	19.8	11 7	0 49.24	+ 0 1.3	1.840	2.721	11.7	20.6
11 17	0 37.94	+14 28.9	1.920	2.742	13.8	20.0	11 17	0 45.66	+ 0 7.4	1.932	2.726	14.7	20.8
156102	2001 SH ₂₃₇		10 11.4 315°14	2°0/ 9.9 18			494357	2016 TN ₉₀		10 11.4 314°54	5°8/ 7.9 16		
9 8	1 29.68	+ 5 15.3	1.352	2.238	15.8	19.9	9 8	1 35.66	- 6 5.0	1.450	2.334	15.1	20.9
9 18	1 25.58	+ 4 35.0	1.277	2.222	11.7	19.6	9 18	1 29.96	- 6 25.1	1.370	2.310	11.4	20.6
9 28	1 18.90	+ 3 42.5	1.223	2.206	6.8	19.3	9 28	1 21.51	- 6 42.1	1.312	2.286	7.8	20.3
10 8	1 10.44	+ 2 43.9	1.193	2.190	2.3	18.9	10 8	1 11.16	- 6 49.0	1.278	2.262	5.8	20.2
10 18	1 1.38	+ 1 47.6	1.188	2.175	5.0	19.1	10 18	1 0.10	- 6 39.3	1.271	2.239	7.9	20.2
10 28	0 53.12	+ 1 2.2	1.208	2.160	10.1	19.3	10 28	0 49.82	- 6 8.5	1.288	2.217	12.0	20.4
11 7	0 46.87	+ 0 34.7	1.251	2.146	15.0	19.6	11 7	0 41.59	- 5 15.7	1.329	2.195	16.2	20.6
11 17	0 43.42	+ 0 28.6	1.314	2.132	19.1	19.8	11 17	0 36.25	- 4 2.7	1.388	2.174	19.9	20.8
186724	2004 BT ₁₂₀		10 11.4 262°88	6°2/ 6.7 18			257720	1999 XF ₂₁₇		10 11.4 280°46	0°9/10.5 17		
9 8	1 35.09	- 6 20.9	1.572	2.453	14.3	20.4	9 8	1 28.25	+ 6 24.0	2.269	3.130	11.3	22.0
9 18	1 29.21	- 7 15.2	1.501	2.439	10.8	20.2	9 18	1 23.60	+ 5 51.0	2.183	3.115	8.2	21.7
9 28	1 20.87	- 8 8.3	1.454	2.425	7.6	20.0	9 28	1 17.33	+ 5 9.7	2.122	3.100	4.8	21.5
10 8	1 10.93	- 8 51.9	1.432	2.410	6.3	19.9	10 8	1 10.01	+ 4 23.9	2.088	3.085	1.3	21.2
10 18	1 0.50	- 9 18.4	1.436	2.395	8.4	20.0	10 18	1 2.35	+ 3 38.2	2.083	3.070	3.1	21.3
10 28	0 50.90	- 9 22.3	1.466	2.380	12.0	20.1	10 28	0 55.18	+ 2 57.5	2.107	3.055	6.7	21.5
11 7	0 43.22	- 9 1.8	1.519	2.364	15.7	20.3	11 7	0 49.22	+ 2 26.4	2.158	3.040	10.1	21.7
11 17	0 38.19	- 8 18.3	1.590	2.348	18.9	20.5	11 17	0 45.03	+ 2 7.8	2.232	3.025	13.0	21.9
80702	2000 CC ₅		10 11.4 243°06	2°3/13.3 18			475393	2006 HW ₃₅		10 11.4 103°36	1°7/ 9.9 18		
9 8	1 32.38												

EPHEMERIDES

10 11.4

10 11.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
76710	2000 <i>HC</i> ₁₀₅	10 11.4 228°48'		6°1'/ 4.4 18			128652	2004 <i>RJ</i> ₄₅	10 11.4 86°87'		1°8'/12.7 17		
9 8	1 29.00	- 8 25.9	2.114	2.992	11.2	19.7	9 8	1 37.12	+13 22.7	1.278	2.136	18.4	20.6
9 18	1 24.16	- 9 53.3	2.052	2.986	8.6	19.5	9 18	1 30.79	+13 7.9	1.230	2.156	13.8	20.4
9 28	1 17.64	-11 18.5	2.016	2.979	6.6	19.4	9 28	1 21.76	+12 33.5	1.203	2.175	8.6	20.2
10 8	1 10.08	-12 34.2	2.008	2.971	6.2	19.4	10 8	1 11.15	+11 43.8	1.200	2.195	3.2	19.9
10 18	1 2.26	-13 33.4	2.027	2.963	8.0	19.5	10 18	1 0.40	+10 45.6	1.223	2.214	3.5	20.0
10 28	0 55.06	-14 11.4	2.072	2.955	10.5	19.6	10 28	0 51.01	+ 9 48.2	1.272	2.233	8.6	20.4
11 7	0 49.21	-14 26.1	2.141	2.947	13.2	19.8	11 7	0 44.06	+ 9 0.1	1.345	2.251	13.2	20.7
11 17	0 45.23	-14 18.1	2.229	2.939	15.5	19.9	11 17	0 40.14	+ 8 26.9	1.439	2.269	17.1	21.0
411047	2009 <i>VS</i> ₂₀	10 11.4		2°76' 0°7'/10.7 18			185768	1999 <i>TZ</i> ₁₃₇	10 11.4 322°44'		0°4'/11.6 18		
9 8	1 27.63	+ 7 22.5	2.028	2.893	12.2	21.1	9 8	1 33.55	+ 7 50.4	1.195	2.077	17.8	19.5
9 18	1 23.21	+ 6 49.2	1.959	2.893	8.9	20.9	9 18	1 28.88	+ 8 4.2	1.120	2.060	13.4	19.2
9 28	1 17.09	+ 6 6.7	1.914	2.893	5.2	20.6	9 28	1 21.10	+ 8 6.2	1.064	2.044	8.1	18.9
10 8	1 9.94	+ 5 19.0	1.896	2.894	1.3	20.4	10 8	1 11.10	+ 7 59.0	1.031	2.029	2.2	18.5
10 18	1 2.53	+ 4 31.2	1.906	2.894	3.0	20.5	10 18	1 0.27	+ 7 47.1	1.022	2.014	4.0	18.5
10 28	0 55.75	+ 3 48.8	1.944	2.895	6.9	20.8	10 28	0 50.33	+ 7 37.3	1.038	2.000	9.9	18.8
11 7	0 50.35	+ 3 16.6	2.007	2.896	10.4	21.0	11 7	0 42.75	+ 7 36.0	1.076	1.987	15.4	19.1
11 17	0 46.84	+ 2 57.6	2.094	2.898	13.4	21.2	11 17	0 38.50	+ 7 48.0	1.133	1.975	20.0	19.3
12103	1998 <i>KL</i>	10 11.4 325°52'		1°6'/10.2 18			78490	2002 <i>RF</i> ₆₁	10 11.4 121°53'		0°4'/11.8 18		
9 8	1 26.89	+ 8 2.9	1.166	2.059	17.4	17.1	9 8	1 36.11	+ 9 10.8	2.323	3.161	11.8	19.2
9 18	1 23.82	+ 7 1.4	1.096	2.044	12.8	16.8	9 18	1 29.07	+ 9 10.1	2.262	3.180	8.7	19.1
9 28	1 17.98	+ 5 40.4	1.045	2.029	7.5	16.5	9 28	1 20.40	+ 9 1.2	2.226	3.199	5.2	18.9
10 8	1 10.25	+ 4 7.7	1.017	2.015	2.1	16.1	10 8	1 10.79	+ 8 46.1	2.220	3.216	1.5	18.7
10 18	1 1.89	+ 2 34.4	1.014	2.002	5.1	16.3	10 18	1 1.05	+ 8 27.9	2.243	3.233	2.4	18.8
10 28	0 54.45	+ 1 13.1	1.034	1.990	10.8	16.5	10 28	0 52.04	+ 8 10.5	2.297	3.250	5.9	19.0
11 7	0 49.21	+ 0 13.8	1.076	1.979	16.1	16.8	11 7	0 44.48	+ 7 57.4	2.380	3.266	9.1	19.3
11 17	0 46.96	- 0 18.2	1.136	1.969	20.6	17.1	11 17	0 38.85	+ 7 51.5	2.487	3.281	11.8	19.5
261630	2005 <i>YS</i> ₃₅	10 11.4 237°24'		0°6'/10.7 18			322159	2010 <i>WE</i> ₆₃	10 11.4 275°60'		1°7'/ 9.7 18		
9 8	1 28.28	+ 7 24.0	2.501	3.356	10.6	21.4	9 8	1 28.89	+ 3 49.4	2.190	3.057	11.4	20.8
9 18	1 23.46	+ 6 49.0	2.418	3.346	7.7	21.2	9 18	1 24.03	+ 3 14.5	2.118	3.054	8.3	20.6
9 28	1 17.18	+ 6 5.7	2.359	3.337	4.5	21.0	9 28	1 17.55	+ 2 33.6	2.071	3.051	4.8	20.4
10 8	1 9.97	+ 5 17.7	2.329	3.327	1.1	20.7	10 8	1 10.08	+ 1 50.9	2.051	3.047	1.8	20.2
10 18	1 2.48	+ 4 29.2	2.329	3.317	2.7	20.8	10 18	1 2.35	+ 1 11.2	2.061	3.044	3.6	20.3
10 28	0 55.47	+ 3 44.7	2.358	3.306	6.1	21.0	10 28	0 55.20	+ 0 39.1	2.098	3.041	7.1	20.5
11 7	0 49.58	+ 3 8.6	2.414	3.295	9.2	21.2	11 7	0 49.35	+ 0 18.5	2.162	3.038	10.4	20.8
11 17	0 45.29	+ 2 43.7	2.495	3.284	11.9	21.4	11 17	0 45.30	+ 0 11.5	2.249	3.035	13.2	20.9
494612	2017 <i>BR</i> ₁₂₉	10 11.4 276°92'		0°6'/11.9 17			186507	2002 <i>UE</i> ₅₉	10 11.4 202°11'		5°1'/ 7.2 16		
9 8	1 31.76	+10 13.1	2.163	3.010	12.3	21.7	9 8	1 33.00	- 3 0.6	1.611	2.494	13.9	21.2
9 18	1 26.38	+10 4.8	2.064	2.986	9.2	21.5	9 18	1 27.48	- 4 5.2	1.551	2.492	10.3	21.0
9 28	1 19.10	+ 9 45.9	1.989	2.962	5.7	21.2	9 28	1 19.76	- 5 11.7	1.515	2.490	6.7	20.8
10 8	1 10.51	+ 9 18.8	1.941	2.938	1.8	20.9	10 8	1 10.67	- 6 12.1	1.504	2.488	5.1	20.7
10 18	1 1.40	+ 8 46.8	1.923	2.913	2.6	20.9	10 18	1 1.28	- 6 58.8	1.520	2.486	7.2	20.8
10 28	0 52.73	+ 8 14.7	1.933	2.889	6.6	21.1	10 28	0 52.77	- 7 25.6	1.562	2.484	10.9	21.0
11 7	0 45.38	+ 7 47.4	1.971	2.863	10.4	21.3	11 7	0 46.09	- 7 29.9	1.628	2.481	14.4	21.2
11 17	0 40.00	+ 7 29.2	2.032	2.838	13.7	21.5	11 17	0 41.86	- 7 11.9	1.714	2.478	17.5	21.5
265228	2004 <i>CM</i> ₁₂₉	10 11.4 255°91'		1°0'/12.2 18			280085	2002 <i>CQ</i> ₃₀₁	10 11.4 82°31'		3°0'/ 8.6 18		
9 8	1 33.06	+11 50.1	1.664	2.518	15.0	22.0	9 8	1 30.23	+ 3 0.9	1.641	2.520	13.9	20.0
9 18	1 27.76	+11 28.6	1.578	2.503	11.4	21.8	9 18	1 25.28	+ 1 47.6	1.591	2.533	10.0	19.8
9 28	1 20.08	+10 51.3	1.514	2.488	7.0	21.5	9 28	1 18.35	+ 0 27.0	1.565	2.546	5.9	19.6
10 8	1 10.78	+10 1.1	1.476	2.472	2.3	21.2	10 8	1 10.28	- 0 53.2	1.565	2.558	3.0	19.4
10 18	1 0.90	+ 9 3.4	1.465	2.456	3.1	21.2	10 18	1 2.07	- 2 5.0	1.592	2.571	5.3	19.6
10 28	0 51.69	+ 8 5.8	1.481	2.439	7.9	21.5	10 28	0 54.76	- 3 1.2	1.647	2.583	9.2	19.9
11 7	0 44.25	+ 7 15.8	1.523	2.423	12.5	21.7	11 7	0 49.19	- 3 37.4	1.726	2.596	12.9	20.1
11 17	0 39.35	+ 6 39.3	1.588	2.405	16.3	21.9	11 17	0 45.86	- 3 52.3	1.826	2.608	15.9	20.4
38128	1999 <i>JN</i> ₄₅	10 11.4 101°06'		1°4'/12.6 18			33023	1997 <i>PJ</i> ₃	10 11.4 144°47'		3°4'/ 7.6 18		
9 8	1 33.50	+14 20.3	1.451	2.304	16.9	19.0	9 8	1 29.04	+ 0 23.9	2.098	2.973	11.5	18.6
9 18	1 27.96	+13 38.5	1.396	2.319	12.7	18.8	9 18	1 24.11	- 0 56.2	2.041	2.980	8.3	18.4
9 28	1 20.03	+12 36.7	1.362	2.334	7.9	18.6	9 28	1 17.58	- 2 20.7	2.008	2.986	5.1	18.2
10 8	1 10.70	+11 19.9	1.353	2.348	2.9	18.3	10 8	1 10.10	- 3 42.9	2.004	2.992	3.4	18.1
10 18	1 1.20	+ 9 56.0	1.371	2.363	3.2	18.4	10 18	1 2.44	- 4 56.1	2.029	2.998	5.3	18.3
10 28	0 52.79	+ 8 34.7	1.417	2.377	8.0	18.7	10 28	0 55.46	- 5 54.4	2.082	3.004	8.5	18.5
11 7	0 46.48	+ 7 24.8	1.487	2.390	12.4	19.0	11 7	0 49.84	- 6 34.1	2.160	3.009	11.5	18.7
11 17	0 42.83	+ 6 32.2	1.579	2.403	16.1	19.3	11 17	0 46.07	- 6 54.2	2.261	3.014	14.1	18.9
226488	2003 <i>SE</i> ₂₄₉	10 11.4 54°91'		0°8'/10.7 18			480947	2003 <i>SG</i> ₂₇₈	10 11.4 354°39'		5°7'/15.7 18		
9 8	1 30.89	+ 5 27.6	2.167	3.027	11.7	19.8	9 8	1 29.27	+20 34.5	1.344	2.185	18.6	20.2
9 18	1 25.43	+ 5 16.8	2.103	3.034	8.5	19.6	9 18	1 25.43	+21 4.0	1.274	2.180	15.0	19.9
9 28	1 18.34	+ 4 59.7	2.063	3.041	5.0	19.4	9 28	1 18.89	+21 9.5	1.222	2.176	10.9	19.7
10 8	1 10.26	+ 4 39.6	2.051	3.049	1.3	19.2	10 8	1 10.52	+20 50.1	1.193	2.173	7.0	19.5
10 18	1 1.99	+ 4 20.2	2.068	3.056	3.0	19.3	10 18	1 1.57	+20 8.4	1.188	2.170	5.8	19.4
10 28	0 54.38	+ 4 5.4	2.114	3.064	6.6	19.6	10 28	0 53.53	+19 12.0	1.207	2.169	8.7	19.6
11 7	0 48.14	+ 3 58.4	2.187	3.071	9.9	19.8	11 7	0 47.64	+18 10.8	1.249	2.170	12.8	19.8
11 17	0 43.77	+ 4 1.5	2.283	3.079	12.7	20.0	11 17	0 44.68	+17 14.7	1.313	2.171	16.7	20.1
201146	2002 <i>JM</i> ₁₂₇	10 11.4 106°93'		6°5'/ 6.2 18			150656	2001 <i>EE</i> ₆	10 11.4 142°58'		0°8'/10.5 18		
9 8	1 35.49	-10 4.2	1.842	2.715	12.9								

EPHEMERIDES

10 11.4

10 11.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
374903	2006 <i>WG</i> ₁₈₁		10 11.4 271°61	2°1/ 9.8 18			356134	2009 <i>FS</i> ₅₈		10 11.4 25°46	0°1/11.3 18		
9 8	1 32.59	+ 4 35.3	1.577	2.452	14.6	21.5	9 8	1 30.48	+ 8 43.1	1.720	2.585	14.1	21.0
9 18	1 27.49	+ 3 52.6	1.495	2.434	10.7	21.2	9 18	1 25.57	+ 8 20.4	1.655	2.587	10.4	20.8
9 28	1 19.97	+ 2 59.4	1.435	2.416	6.3	20.9	9 28	1 18.63	+ 7 46.1	1.613	2.590	6.1	20.6
10 8	1 10.80	+ 2 1.5	1.401	2.398	2.3	20.6	10 8	1 10.43	+ 7 4.4	1.596	2.594	1.6	20.3
10 18	1 1.04	+ 1 6.2	1.394	2.379	4.8	20.7	10 18	1 1.95	+ 6 20.8	1.607	2.597	3.1	20.4
10 28	0 51.97	+ 0 21.1	1.414	2.360	9.5	20.9	10 28	0 54.25	+ 5 41.3	1.645	2.601	7.5	20.7
11 7	0 44.73	- 0 7.5	1.458	2.341	14.0	21.2	11 7	0 48.23	+ 5 11.6	1.709	2.605	11.5	20.9
11 17	0 40.05	- 0 16.5	1.522	2.322	17.8	21.4	11 17	0 44.47	+ 4 55.3	1.795	2.609	14.9	21.2
479925	2014 <i>HW</i> ₁₂₁		10 11.4 283°67	1°7/ 9.8 18			344400	2002 <i>AA</i> ₇		10 11.4 114°16	6°1/17.9 17		
9 8	1 28.78	+ 5 53.3	1.836	2.707	13.0	21.6	9 8	1 32.56	+27 30.8	1.887	2.665	16.4	20.4
9 18	1 24.21	+ 4 56.0	1.768	2.706	9.5	21.4	9 18	1 27.11	+27 28.4	1.817	2.677	13.6	20.2
9 28	1 17.77	+ 3 48.6	1.724	2.705	5.5	21.2	9 28	1 19.54	+27 0.6	1.768	2.688	10.4	20.0
10 8	1 10.17	+ 2 37.1	1.707	2.703	1.9	20.9	10 8	1 10.67	+26 7.6	1.742	2.700	7.5	19.9
10 18	1 2.30	+ 1 28.2	1.717	2.702	4.0	21.1	10 18	1 1.54	+24 52.5	1.742	2.711	6.1	19.8
10 28	0 55.13	+ 0 29.0	1.756	2.701	8.1	21.3	10 28	0 53.28	+23 22.4	1.770	2.722	7.5	20.0
11 7	0 49.48	- 0 15.1	1.819	2.700	11.8	21.6	11 7	0 46.81	+21 46.9	1.825	2.732	10.3	20.1
11 17	0 45.91	- 0 41.2	1.905	2.698	15.0	21.8	11 17	0 42.72	+20 15.0	1.905	2.742	13.2	20.4
58771	1998 <i>FP</i> ₄₉		10 11.4 6°28	0°1/11.4 18			361913	2008 <i>GE</i> ₉₇		10 11.4 34°81	4°3/ 7.8 18		
9 8	1 28.60	+ 9 36.4	1.888	2.749	13.2	18.8	9 8	1 31.12	- 3 43.4	1.834	2.714	12.6	20.3
9 18	1 24.06	+ 9 3.7	1.818	2.749	9.7	18.6	9 18	1 25.81	- 4 19.8	1.782	2.722	9.3	20.1
9 28	1 17.68	+ 8 19.1	1.772	2.749	5.8	18.4	9 28	1 18.65	- 4 55.7	1.754	2.729	6.0	20.0
10 8	1 10.15	+ 7 26.6	1.752	2.750	1.5	18.1	10 8	1 10.42	- 5 25.4	1.752	2.737	4.3	19.9
10 18	1 2.35	+ 6 31.8	1.760	2.751	2.9	18.2	10 18	1 2.03	- 5 43.8	1.777	2.745	6.1	20.0
10 28	0 55.23	+ 5 40.8	1.796	2.752	7.0	18.5	10 28	0 54.45	- 5 46.8	1.829	2.754	9.3	20.2
11 7	0 49.61	+ 4 59.5	1.858	2.753	10.8	18.7	11 7	0 48.48	- 5 33.0	1.906	2.763	12.5	20.4
11 17	0 46.04	+ 4 31.5	1.943	2.754	14.0	18.9	11 17	0 44.61	- 5 2.7	2.004	2.772	15.2	20.7
126668	2002 <i>CR</i> ₂₁₂		10 11.4 88°69	1°0/10.4 18			291302	2006 <i>BE</i> ₁₄₂		10 11.4 274°31	1°5/ 9.7 18		
9 8	1 29.09	+ 6 35.6	2.129	2.991	11.9	20.4	9 8	1 27.03	+ 5 19.0	2.265	3.131	11.1	20.6
9 18	1 24.14	+ 5 56.9	2.068	3.001	8.6	20.3	9 18	1 22.69	+ 4 26.4	2.188	3.123	8.0	20.4
9 28	1 17.59	+ 5 10.2	2.032	3.010	5.0	20.1	9 28	1 16.81	+ 3 25.8	2.135	3.115	4.7	20.2
10 8	1 10.11	+ 4 19.6	2.023	3.020	1.4	19.8	10 8	1 9.96	+ 2 21.8	2.110	3.106	1.7	20.0
10 18	1 2.46	+ 3 30.3	2.042	3.029	3.1	20.0	10 18	1 2.84	+ 1 19.8	2.114	3.098	3.5	20.1
10 28	0 55.48	+ 2 47.5	2.091	3.039	6.8	20.2	10 28	0 56.24	+ 0 25.4	2.147	3.089	7.0	20.3
11 7	0 49.85	+ 2 15.3	2.166	3.048	10.1	20.4	11 7	0 50.84	- 0 16.8	2.206	3.081	10.2	20.5
11 17	0 46.06	+ 1 56.3	2.264	3.058	12.9	20.7	11 17	0 47.14	- 0 44.0	2.288	3.072	13.0	20.7
383585	2007 <i>GP</i> ₈		10 11.4 292°04	0°8/10.9 18			261249	2005 <i>UR</i> ₇₂		10 11.5 270°56	2°0/ 9.6 18		
9 8	1 33.87	+ 6 18.0	1.534	2.405	15.2	20.5	9 8	1 31.46	+ 2 8.9	2.119	2.986	11.7	20.1
9 18	1 28.43	+ 6 7.3	1.458	2.394	11.2	20.2	9 18	1 25.99	+ 1 48.3	2.046	2.981	8.5	19.9
9 28	1 20.51	+ 5 46.8	1.405	2.384	6.6	19.9	9 28	1 18.78	+ 1 23.4	1.998	2.977	5.0	19.7
10 8	1 10.94	+ 5 20.4	1.377	2.374	1.7	19.6	10 8	1 10.48	+ 0 58.1	1.977	2.972	2.1	19.5
10 18	1 0.85	+ 4 53.4	1.375	2.365	3.8	19.7	10 18	1 1.90	+ 0 36.7	1.985	2.968	3.9	19.6
10 28	0 51.54	+ 4 32.0	1.401	2.355	8.8	20.0	10 28	0 53.93	+ 0 23.4	2.022	2.964	7.4	19.8
11 7	0 44.17	+ 4 21.5	1.450	2.345	13.3	20.2	11 7	0 47.35	+ 0 21.2	2.085	2.959	10.8	20.0
11 17	0 39.45	+ 4 25.1	1.521	2.336	17.1	20.5	11 17	0 42.69	+ 0 31.7	2.171	2.955	13.7	20.2
378197	2006 <i>XG</i> ₇₀		10 11.4 181°22	3°7/ 7.9 18			45951	2001 <i>AE</i> ₂₉		10 11.5 127°58	4°3/ 8.2 18		
9 8	1 32.52	- 0 16.3	1.852	2.726	12.8	21.3	9 8	1 36.49	- 1 45.7	1.588	2.464	14.4	18.9
9 18	1 26.89	- 1 20.7	1.789	2.727	9.3	21.1	9 18	1 29.93	- 2 33.2	1.537	2.476	10.6	18.7
9 28	1 19.33	- 2 29.4	1.750	2.728	5.8	20.9	9 28	1 21.15	- 3 22.6	1.510	2.487	6.6	18.5
10 8	1 10.59	- 3 35.6	1.739	2.728	3.7	20.7	10 8	1 11.08	- 4 6.8	1.509	2.498	4.3	18.4
10 18	1 1.59	- 4 32.3	1.756	2.727	5.8	20.9	10 18	1 0.85	- 4 39.1	1.535	2.508	6.4	18.5
10 28	0 53.35	- 5 13.5	1.800	2.726	9.3	21.1	10 28	0 51.67	- 4 54.4	1.589	2.517	10.1	18.8
11 7	0 46.73	- 5 35.7	1.870	2.725	12.7	21.3	11 7	0 44.47	- 4 50.6	1.666	2.526	13.8	19.0
11 17	0 42.28	- 5 37.9	1.960	2.723	15.7	21.5	11 17	0 39.82	- 4 27.8	1.764	2.535	16.8	19.2
177268	2003 <i>WF</i> ₉₅		10 11.4 13°19	5°3/ 8.5 18			25303	1998 <i>XE</i> ₁₇		10 11.5 293°11	0°8/10.6 18		
9 8	1 33.49	- 2 26.6	1.050	1.953	18.0	19.1	9 8	1 27.33	+ 7 9.0	2.271	3.132	11.3	18.0
9 18	1 28.62	- 2 57.6	1.004	1.955	13.3	18.8	9 18	1 22.89	+ 6 28.5	2.195	3.128	8.2	17.8
9 28	1 20.73	- 3 29.7	0.977	1.959	8.3	18.6	9 28	1 16.92	+ 5 39.4	2.145	3.124	4.8	17.5
10 8	1 10.99	- 3 53.8	0.973	1.963	5.4	18.4	10 8	1 9.99	+ 4 45.5	2.122	3.120	1.3	17.3
10 18	1 0.95	- 4 2.3	0.991	1.969	7.8	18.6	10 18	1 2.82	+ 3 51.8	2.128	3.116	2.9	17.4
10 28	0 52.26	- 3 49.6	1.033	1.976	12.6	18.9	10 28	0 56.18	+ 3 3.5	2.163	3.112	6.5	17.6
11 7	0 46.18	- 3 14.2	1.095	1.983	17.1	19.2	11 7	0 50.76	+ 2 25.2	2.224	3.108	9.8	17.8
11 17	0 43.34	- 2 18.1	1.174	1.992	21.0	19.5	11 17	0 47.04	+ 1 59.7	2.309	3.104	12.6	18.0
365395	2009 <i>WM</i> ₄₇		10 11.4 204°44	3°6/16.5 18			229434	2005 <i>TH</i> ₁₄₃		10 11.5 309°02	2°6/ 9.5 18		
9 8	1 27.12	+24 35.2	2.515	3.299	12.6	20.7	9 8	1 29.86	+ 4 16.8	1.362	2.249	15.7	20.6
9 18	1 22.68	+23 45.1	2.426	3.297	10.2	20.6	9 18	1 25.82	+ 3 30.5	1.282	2.227	11.6	20.3
9 28	1 16.75	+22 34.6	2.360	3.295	7.4	20.4	9 28	1 19.17	+ 2 32.3	1.223	2.206	6.8	20.0
10 8	1 9.92	+21 5.6	2.320	3.293	4.7	20.2	10 8	1 10.66	+ 1 28.8	1.188	2.184	2.7	19.7
10 18	1 2.89	+19 22.5	2.310	3.291	3.6	20.1	10 18	1 1.48	+ 0 28.7	1.178	2.163	5.4	19.8
10 28	0 56.41	+17 31.8	2.331	3.289	5.4	20.3	10 28	0 53.01	- 0 19.0	1.194	2.142	10.6	20.0
11 7	0 51.15	+15 41.1	2.381	3.287	8.2	20.4	11 7	0 46.53	- 0 47.0	1.231	2.122	15.4	20.2
11 17	0 47.57	+13 57.6	2.458	3.285	11.0	20.6	11 17	0 42.86	- 0 52.2	1.288	2.103	19.6	20.5
242048	2002 <i>RF</i> ₁₄₃		10 11.4 52°49	1°0/10.4 18			224159	2005 <i>QQ</i> ₇₃		10 11.5 32°41	2°2/13.1 18</		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
515669	2014 <i>OH</i> ₃₁₇		10 11.5 126°99	4.5/ 5.6	18		415019	2011 <i>HJ</i> ₁₀₂		10 11.5 324°23	2.7/ 8.0	18	
9 8	1 26.76	- 5 15.4	2.467	3.344	9.9	21.5	9 8	1 24.86	+ 2 10.7	2.341	3.215	10.5	20.8
9 18	1 22.28	- 6 36.7	2.414	3.350	7.4	21.4	9 18	1 21.06	+ 0 55.2	2.269	3.210	7.5	20.7
9 28	1 16.46	- 7 57.5	2.388	3.357	5.2	21.2	9 28	1 15.83	- 0 26.5	2.224	3.204	4.5	20.5
10 8	1 9.86	- 9 11.9	2.389	3.363	4.6	21.2	10 8	1 9.74	- 1 48.4	2.207	3.199	2.7	20.3
10 18	1 3.11	-10 14.2	2.420	3.369	6.1	21.3	10 18	1 3.42	- 3 4.6	2.219	3.193	4.5	20.4
10 28	0 56.92	-11 0.1	2.479	3.375	8.5	21.5	10 28	0 57.60	- 4 9.3	2.260	3.188	7.5	20.6
11 7	0 51.85	-11 27.6	2.562	3.380	10.9	21.7	11 7	0 52.91	- 4 58.3	2.326	3.184	10.5	20.8
11 17	0 48.33	-11 36.2	2.667	3.386	13.0	21.8	11 17	0 49.79	- 5 29.5	2.415	3.179	13.0	21.0
24853	1995 <i>YJ</i>		10 11.5 283°90	1.6/12.9	18		129752	1999 <i>CX</i> ₁₄₆		10 11.5 11°95	0.5/11.8	17	
9 8	1 29.98	+14 4.9	1.800	2.647	14.4	18.8	9 8	1 32.64	+10 44.6	1.241	2.115	17.8	20.2
9 18	1 25.42	+13 41.3	1.708	2.628	11.0	18.5	9 18	1 27.87	+10 19.6	1.180	2.116	13.3	20.0
9 28	1 18.70	+13 0.6	1.639	2.609	7.0	18.3	9 28	1 20.31	+ 9 36.6	1.138	2.116	8.0	19.7
10 8	1 10.52	+12 5.3	1.596	2.590	2.8	18.0	10 8	1 10.96	+ 8 40.5	1.120	2.117	2.3	19.3
10 18	1 1.79	+11 0.4	1.580	2.571	2.9	17.9	10 18	1 1.18	+ 7 38.9	1.127	2.119	3.7	19.4
10 28	0 53.64	+ 9 53.0	1.591	2.552	7.3	18.2	10 28	0 52.47	+ 6 41.5	1.159	2.120	9.3	19.8
11 7	0 47.07	+ 8 51.1	1.629	2.532	11.5	18.4	11 7	0 46.07	+ 5 56.8	1.214	2.122	14.3	20.1
11 17	0 42.79	+ 8 0.9	1.689	2.513	15.2	18.6	11 17	0 42.68	+ 5 30.2	1.290	2.124	18.5	20.3
353332	2010 <i>NX</i> ₈₁		10 11.5 98°30	7.0/19.5	18		11689	1998 <i>FA</i> ₅₆		10 11.5 154°07	3.7/ 7.5	18	
9 8	1 31.80	+30 40.9	2.091	2.843	15.8	20.5	9 8	1 28.73	+ 1 51.7	1.755	2.636	13.1	17.9
9 18	1 26.47	+30 52.6	2.019	2.855	13.4	20.4	9 18	1 24.23	+ 0 12.8	1.695	2.638	9.4	17.7
9 28	1 19.14	+30 39.8	1.967	2.866	10.7	20.2	9 28	1 17.83	- 1 33.9	1.660	2.640	5.7	17.5
10 8	1 10.59	+30 1.6	1.939	2.878	8.3	20.1	10 8	1 10.27	- 3 19.6	1.652	2.641	3.8	17.4
10 18	1 1.76	+29 0.1	1.936	2.890	7.0	20.1	10 18	1 2.48	- 4 55.3	1.672	2.643	6.1	17.5
10 28	0 53.72	+27 40.9	1.960	2.901	7.7	20.1	10 28	0 55.44	- 6 12.7	1.719	2.644	9.7	17.7
11 7	0 47.34	+26 12.2	2.011	2.912	9.8	20.3	11 7	0 49.98	- 7 7.1	1.791	2.646	13.2	17.9
11 17	0 43.19	+24 42.8	2.087	2.923	12.3	20.5	11 17	0 46.64	- 7 36.8	1.883	2.647	16.2	18.2
165497	2001 <i>BC</i> ₅₃		10 11.5 262°69	5°1/ 7.2	18		322668	1999 <i>TP</i> ₈₁		10 11.5 99°24	1°9/12.8	17	
9 8	1 33.05	- 2 9.8	1.569	2.452	14.2	20.1	9 8	1 36.83	+12 44.4	1.467	2.319	16.8	20.8
9 18	1 27.82	- 3 19.8	1.493	2.434	10.5	19.9	9 18	1 30.54	+12 49.2	1.407	2.329	12.7	20.5
9 28	1 20.18	- 4 34.6	1.440	2.417	6.9	19.6	9 28	1 21.71	+12 38.0	1.369	2.340	8.0	20.3
10 8	1 10.91	- 5 45.7	1.413	2.398	5.1	19.5	10 8	1 11.30	+12 13.1	1.356	2.350	3.2	20.0
10 18	1 1.09	- 6 44.3	1.412	2.380	7.5	19.6	10 18	1 0.59	+11 39.0	1.370	2.360	3.3	20.1
10 28	0 52.01	- 7 22.7	1.438	2.360	11.5	19.8	10 28	0 50.95	+11 2.6	1.410	2.370	8.0	20.4
11 7	0 44.76	- 7 36.6	1.486	2.341	15.4	20.0	11 7	0 43.49	+10 31.1	1.476	2.380	12.4	20.7
11 17	0 40.10	- 7 25.6	1.553	2.321	18.9	20.1	11 17	0 38.84	+10 9.9	1.563	2.390	16.1	20.9
355124	2006 <i>UE</i> ₁₃₉		10 11.5 167°35	0°6/12.0	18		115569	2003 <i>UR</i> ₈₄		10 11.5 265°88	0°3/11.2	18	
9 8	1 31.95	+10 6.1	2.093	2.942	12.6	21.2	9 8	1 30.05	+ 9 17.0	1.964	2.821	12.9	20.5
9 18	1 26.39	+ 9 58.2	2.020	2.943	9.4	21.0	9 18	1 25.25	+ 8 35.6	1.874	2.804	9.6	20.2
9 28	1 19.03	+ 9 40.0	1.970	2.944	5.7	20.8	9 28	1 18.52	+ 7 41.5	1.809	2.785	5.7	20.0
10 8	1 10.56	+ 9 14.3	1.948	2.945	1.7	20.5	10 8	1 10.49	+ 6 38.6	1.770	2.767	1.4	19.6
10 18	1 1.80	+ 8 44.5	1.955	2.945	2.5	20.6	10 18	1 2.01	+ 5 32.5	1.759	2.749	3.0	19.7
10 28	0 53.68	+ 8 15.5	1.990	2.946	6.4	20.8	10 28	0 54.07	+ 4 30.3	1.777	2.730	7.4	20.0
11 7	0 47.00	+ 7 51.9	2.052	2.946	10.0	21.1	11 7	0 47.57	+ 3 38.3	1.821	2.710	11.3	20.2
11 17	0 42.31	+ 7 37.2	2.138	2.947	13.0	21.3	11 17	0 43.13	+ 3 0.9	1.888	2.691	14.7	20.4
412113	2013 <i>GC</i> ₁₈		10 11.5 106°35	0°7/12.1	18		211958	2004 <i>YT</i> ₇		10 11.5 188°29	6°2/ 6.8	18	
9 8	1 32.16	+10 14.6	2.283	3.126	11.8	20.8	9 8	1 36.16	- 5 44.7	1.536	2.417	14.6	20.7
9 18	1 26.34	+10 10.8	2.217	3.137	8.8	20.6	9 18	1 29.93	- 6 47.5	1.479	2.417	11.0	20.5
9 28	1 18.90	+ 9 57.8	2.176	3.148	5.3	20.4	9 28	1 21.31	- 7 49.1	1.445	2.416	7.6	20.3
10 8	1 10.51	+ 9 37.7	2.162	3.158	1.7	20.2	10 8	1 11.21	- 8 40.8	1.437	2.415	6.2	20.2
10 18	1 1.93	+ 9 13.9	2.178	3.169	2.3	20.3	10 18	1 0.82	- 9 15.0	1.455	2.414	8.3	20.3
10 28	0 53.99	+ 8 50.4	2.223	3.179	5.9	20.5	10 28	0 51.41	- 9 26.3	1.498	2.412	11.8	20.5
11 7	0 47.41	+ 8 31.2	2.296	3.189	9.1	20.7	11 7	0 44.03	- 9 13.2	1.565	2.409	15.4	20.7
11 17	0 42.66	+ 8 19.5	2.394	3.199	11.9	20.9	11 17	0 39.28	- 8 37.3	1.651	2.406	18.4	20.9
141200	2001 <i>XP</i> ₂₀₃		10 11.5 24°47	8°4/ 4.1	18		66265	1999 <i>HZ</i> ₆		10 11.5 49°88	0°1/11.5	18	
9 8	1 30.61	-13 25.0	1.685	2.567	13.4	19.1	9 8	1 33.28	+ 9 30.7	1.209	2.087	17.9	18.8
9 18	1 25.59	-14 36.5	1.643	2.572	10.7	18.9	9 18	1 28.24	+ 9 3.9	1.157	2.096	13.2	18.6
9 28	1 18.59	-15 38.6	1.625	2.577	8.8	18.8	9 28	1 20.46	+ 8 20.8	1.125	2.105	7.8	18.3
10 8	1 10.44	-16 23.0	1.632	2.583	8.5	18.8	10 8	1 11.00	+ 7 27.0	1.117	2.114	2.0	18.0
10 18	1 2.14	-16 43.5	1.663	2.589	10.2	18.9	10 18	1 1.25	+ 6 30.6	1.133	2.124	3.8	18.2
10 28	0 54.76	-16 37.0	1.719	2.596	12.7	19.1	10 28	0 52.71	+ 5 40.6	1.175	2.134	9.3	18.5
11 7	0 49.13	-16 4.4	1.796	2.603	15.3	19.3	11 7	0 46.54	+ 5 4.8	1.239	2.145	14.2	18.8
11 17	0 45.75	-15 8.6	1.891	2.610	17.6	19.5	11 17	0 43.36	+ 4 47.2	1.324	2.155	18.2	19.1
75791	2000 <i>AH</i> ₂₁₉		10 11.5 111°13	2°2/13.5	18		268017	2004 <i>NO</i> ₁₀		10 11.5 41°44	2°9/ 9.3	18	
9 8	1 31.92	+15 19.2	1.936	2.771	14.0	19.7	9 8	1 31.39	+ 3 25.5	1.245	2.135	16.6	20.0
9 18	1 26.47	+15 8.5	1.869	2.780	10.7	19.6	9 18	1 26.61	+ 2 33.8	1.204	2.151	12.0	19.8
9 28	1 19.12	+14 42.3	1.824	2.788	6.9	19.3	9 28	1 19.36	+ 1 33.7	1.184	2.167	7.0	19.6
10 8	1 10.60	+14 3.0	1.805	2.796	3.2	19.1	10 8	1 10.69	+ 0 33.6	1.188	2.184	3.0	19.4
10 18	1 1.83	+13 14.8	1.814	2.804	2.9	19.1	10 18	1 1.91	- 0 18.1	1.218	2.201	5.6	19.6
10 28	0 53.81	+12 23.4	1.852	2.812	6.5	19.4	10 28	0 54.34	- 0 53.8	1.272	2.219	10.2	19.9
11 7	0 47.37	+11 35.5	1.917	2.820	10.1	19.6	11 7	0 48.97	- 1 9.2	1.349	2.238	14.5	20.2
11 17	0 43.08	+10 56.0	2.005	2.827	13.3	19.8	11 17	0 46.32	- 1 3.4	1.445	2.257	18.0	20.5
364059	2005 <i>WZ</i> ₁₈₆		10 11.5 242°59	3°9/15.9	18		183702	2003 <i>YX</i> ₃₆		10 11.5 147°21	0°1/11.4	16	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
150610	2000 YY ₁₀	10 11.5 173°32' 8°9/30.5 18					483139	2015 OS ₄₀	10 11.5 122°77' 3°6/15.0 18				
9 8	1 32.20	-23 52.8	2.522	3.362	11.0	20.1	9 8	1 33.06	+19 27.5	2.121	2.931	13.8	21.5
9 18	1 26.28	-24 58.1	2.483	3.363	9.6	20.0	9 18	1 27.24	+19 31.7	2.051	2.942	10.8	21.3
9 28	1 18.84	-25 49.8	2.469	3.365	8.9	20.0	9 28	1 19.58	+19 19.2	2.004	2.953	7.6	21.1
10 8	1 10.54	-26 21.9	2.480	3.366	9.2	20.0	10 8	1 10.79	+18 50.9	1.983	2.963	4.5	20.9
10 18	1 2.15	-26 30.9	2.516	3.366	10.2	20.1	10 18	1 1.76	+18 9.8	1.990	2.973	3.7	20.9
10 28	0 54.44	-26 15.0	2.575	3.367	11.7	20.2	10 28	0 53.43	+17 21.0	2.025	2.983	6.2	21.1
11 7	0 48.09	-25 35.8	2.656	3.367	13.3	20.3	11 7	0 46.62	+16 30.8	2.089	2.992	9.3	21.3
11 17	0 43.52	-24 36.1	2.756	3.367	14.7	20.5	11 17	0 41.88	+15 44.9	2.176	3.001	12.3	21.5
404586	2013 LZ ₂₃	10 11.5 181°59' 4°5/ 6.3 18					344629	2003 JL ₁₈	10 11.5 296°71' 1°2/ 9.4 18				
9 8	1 28.83	- 5 49.1	2.374	3.249	10.3	21.2	9 8	1 22.73	+ 2 7.6	4.233	5.092	6.5	20.9
9 18	1 23.88	- 6 47.4	2.314	3.249	7.7	21.0	9 18	1 18.97	+ 1 45.4	4.154	5.087	4.7	20.7
9 28	1 17.48	- 7 44.7	2.280	3.249	5.4	20.9	9 28	1 14.43	+ 1 21.0	4.103	5.081	2.7	20.6
10 8	1 10.21	- 8 35.4	2.273	3.249	4.6	20.8	10 8	1 9.42	+ 0 56.4	4.081	5.075	1.2	20.5
10 18	1 2.75	- 9 14.5	2.295	3.249	6.1	20.9	10 18	1 4.29	+ 0 33.8	4.089	5.070	2.2	20.5
10 28	0 55.86	- 9 38.3	2.345	3.248	8.6	21.1	10 28	0 59.41	+ 0 15.3	4.127	5.064	4.2	20.7
11 7	0 50.18	- 9 44.9	2.419	3.248	11.1	21.3	11 7	0 55.13	+ 0 2.7	4.194	5.058	6.0	20.8
11 17	0 46.17	- 9 34.2	2.516	3.247	13.4	21.4	11 17	0 51.74	- 0 2.8	4.286	5.053	7.7	20.9
207300	2005 GA ₄₈	10 11.5 157°53' 5°8/ 5.1 18					450494	2005 YC ₁₃₂	10 11.5 357°46' 5°8/ 5.8 18				
9 8	1 30.64	- 8 36.3	2.179	3.053	11.1	20.6	9 8	1 27.20	- 5 48.4	1.732	2.622	12.7	20.3
9 18	1 25.28	- 9 52.3	2.127	3.058	8.5	20.5	9 18	1 23.17	- 7 1.0	1.677	2.619	9.5	20.1
9 28	1 18.32	-11 5.0	2.102	3.063	6.4	20.3	9 28	1 17.25	- 8 12.6	1.646	2.617	6.7	20.0
10 8	1 10.42	-12 7.6	2.104	3.068	5.9	20.3	10 8	1 10.19	- 9 15.3	1.640	2.616	5.9	19.9
10 18	1 2.37	-12 54.4	2.133	3.072	7.5	20.4	10 18	1 2.88	-10 2.0	1.661	2.616	7.8	20.0
10 28	0 54.99	-13 21.2	2.190	3.076	9.9	20.6	10 28	0 56.32	-10 27.2	1.707	2.616	10.9	20.2
11 7	0 48.98	-13 26.8	2.270	3.079	12.4	20.8	11 7	0 51.31	-10 29.1	1.775	2.617	14.0	20.4
11 17	0 44.82	-13 12.0	2.371	3.082	14.6	20.9	11 17	0 48.40	-10 8.3	1.863	2.618	16.6	20.6
365680	2010 VJ ₈₉	10 11.5 60°31' 4°2/16.2 18					43615	2002 AQ ₁₉₃	10 11.5 82°97' 1°6/13.3 18				
9 8	1 28.88	+22 33.3	2.139	2.940	14.0	20.5	9 8	1 27.88	+15 33.6	2.120	2.956	12.9	19.4
9 18	1 24.23	+22 25.0	2.063	2.945	11.2	20.3	9 18	1 23.43	+14 54.9	2.047	2.960	9.8	19.3
9 28	1 17.83	+21 57.3	2.009	2.949	8.1	20.1	9 28	1 17.32	+14 0.6	1.998	2.964	6.3	19.0
10 8	1 10.32	+21 11.3	1.980	2.954	5.3	20.0	10 8	1 10.20	+12 53.8	1.975	2.968	2.7	18.8
10 18	1 2.55	+20 10.2	1.978	2.958	4.3	19.9	10 18	1 2.85	+11 39.7	1.981	2.972	2.5	18.8
10 28	0 55.42	+18 59.9	2.005	2.963	6.2	20.1	10 28	0 56.14	+10 24.7	2.016	2.976	6.0	19.1
11 7	0 49.72	+17 47.4	2.059	2.968	9.2	20.2	11 7	0 50.78	+ 9 15.5	2.078	2.980	9.5	19.3
11 17	0 45.98	+16 39.5	2.138	2.972	12.1	20.4	11 17	0 47.28	+ 8 17.4	2.165	2.984	12.5	19.5
251655	1993 TH ₁₁	10 11.5 339°35' 1°7/12.6 18					58874	1998 HH ₁₁₉	10 11.5 200°83' 3°0/ 7.9 18				
9 8	1 27.11	+12 30.9	1.017	1.906	19.6	20.2	9 8	1 28.82	- 0 33.6	2.510	3.378	10.1	19.8
9 18	1 24.44	+12 23.1	0.950	1.892	14.9	19.9	9 18	1 23.85	- 1 30.4	2.439	3.375	7.3	19.6
9 28	1 18.65	+11 52.4	0.900	1.879	9.4	19.6	9 28	1 17.48	- 2 30.3	2.395	3.371	4.5	19.4
10 8	1 10.65	+11 2.3	0.871	1.867	3.5	19.2	10 8	1 10.24	- 3 28.3	2.379	3.367	3.0	19.3
10 18	1 1.89	+10 0.1	0.864	1.857	4.0	19.2	10 18	1 2.78	- 4 19.5	2.393	3.363	4.6	19.4
10 28	0 54.14	+ 8 57.3	0.880	1.848	10.1	19.5	10 28	0 55.83	- 4 59.3	2.435	3.358	7.4	19.6
11 7	0 48.90	+ 8 5.4	0.916	1.840	15.8	19.8	11 7	0 50.01	- 5 25.0	2.504	3.352	10.1	19.8
11 17	0 47.04	+ 7 32.5	0.970	1.834	20.8	20.1	11 17	0 45.78	- 5 35.1	2.596	3.347	12.5	19.9
514174	2015 MS ₄₆	10 11.5 96°13' 2°8/ 8.9 18					97038	1999 UX ₁₄	10 11.5 227°76' 3°1/ 8.9 18				
9 8	1 31.88	+ 1 26.1	1.906	2.778	12.6	21.5	9 8	1 34.77	- 0 39.4	1.957	2.825	12.5	19.4
9 18	1 26.31	+ 0 40.5	1.854	2.792	9.1	21.3	9 18	1 28.59	- 1 3.0	1.884	2.819	9.2	19.1
9 28	1 18.96	- 0 9.5	1.827	2.806	5.4	21.1	9 28	1 20.44	- 1 29.0	1.835	2.812	5.6	18.9
10 8	1 10.60	- 0 58.2	1.827	2.820	2.8	21.0	10 8	1 11.03	- 1 52.6	1.814	2.806	3.1	18.7
10 18	1 2.12	- 1 39.9	1.855	2.834	4.7	21.1	10 18	1 1.30	- 2 9.1	1.822	2.799	4.9	18.9
10 28	0 54.44	- 2 9.5	1.911	2.847	8.2	21.4	10 28	0 52.25	- 2 14.3	1.858	2.792	8.5	19.1
11 7	0 48.34	- 2 24.1	1.993	2.860	11.5	21.6	11 7	0 44.78	- 2 5.5	1.919	2.784	12.0	19.3
11 17	0 44.29	- 2 22.6	2.097	2.873	14.3	21.8	11 17	0 39.47	- 1 42.2	2.003	2.776	15.0	19.5
386996	2012 QN ₄₀	10 11.5 356°85' 0°2/11.6 18					510588	2012 SG ₁₆	10 11.5 56°59' 3°0/13.9 18				
9 8	1 23.80	+11 8.7	1.053	1.948	18.6	19.1	9 8	1 33.46	+16 11.2	1.448	2.295	17.2	21.0
9 18	1 21.70	+10 24.4	0.995	1.942	13.9	18.8	9 18	1 28.05	+16 10.3	1.395	2.312	13.2	20.8
9 28	1 16.82	+ 9 17.5	0.955	1.937	8.3	18.5	9 28	1 20.23	+15 49.5	1.364	2.329	8.7	20.6
10 8	1 10.13	+ 7 54.9	0.936	1.934	2.2	18.1	10 8	1 10.97	+15 11.1	1.356	2.346	4.3	20.4
10 18	1 2.95	+ 6 27.2	0.941	1.933	4.0	18.3	10 18	1 1.50	+14 20.6	1.374	2.363	3.7	20.4
10 28	0 56.82	+ 5 7.3	0.969	1.933	10.0	18.6	10 28	0 53.13	+13 25.6	1.418	2.381	7.7	20.7
11 7	0 52.95	+ 4 5.8	1.018	1.936	15.3	18.9	11 7	0 46.86	+12 34.7	1.488	2.399	11.9	21.0
11 17	0 52.06	+ 3 28.8	1.085	1.939	19.7	19.2	11 17	0 43.27	+11 54.1	1.579	2.417	15.5	21.3
337002	Robertbodzon	10 11.5 42°70' 5°1/15.6 18					268705	2006 HB ₂₁	10 11.5 255°33' 2°0/ 9.3 18				
9 8	1 31.67	+21 3.0	1.329	2.166	19.0	20.1	9 8	1 28.42	+ 2 20.4	2.471	3.337	10.3	20.8
9 18	1 27.03	+21 6.5	1.273	2.178	15.1	19.9	9 18	1 23.63	+ 1 44.2	2.394	3.329	7.5	20.6
9 28	1 19.75	+20 43.3	1.237	2.191	10.7	19.6	9 28	1 17.39	+ 1 3.4	2.342	3.321	4.4	20.4
10 8	1 10.86	+19 54.9	1.223	2.205	6.6	19.5	10 8	1 10.23	+ 0 22.0	2.318	3.313	2.0	20.3
10 18	1 1.66	+18 46.4	1.234	2.219	5.2	19.4	10 18	1 2.83	- 0 15.7	2.324	3.304	3.7	20.4
10 28	0 53.61	+17 27.6	1.270	2.233	8.3	19.6	10 28	0 55.90	- 0 45.5	2.358	3.296	6.8	20.6
11 7	0 47.80	+16 9.4	1.330	2.248	12.4	19.9	11 7	0 50.10	- 1 4.2	2.420	3.287	9.7	20.7
11 17	0 44.87	+15 1.2	1.412	2.263	16.1	20.2	11 17	0 45.91	- 1 10.0	2.504	3.279	12.3	20.9
298687	2004 DS ₄₄	10 11.5 320°03' 5°0/ 6.4 18					440091	2002 TC ₃₁₉	10 11.5 33°39' 1°3/12.5 16				
9 8	1 25.61	- 0 8.6	1.529	2.423	13.8	19.7	9 8	1 30.68	+12 21.2	1.622	2.479	15.2	21.6
9 18	1 22.38	- 1 53.9	1.457	2.405	10.1	19.5	9 18	1 25.88	+12 5.2	1.559	2.485	11.4	21.3
9 28	1 16.98	- 3 48.3	1.408	2.388</									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
373201	2012 <i>DF</i> ₈₃		10 11.5 110°98	2.4/ 9.5	17		26012	2001 <i>FG</i> ₁₄₈		10 11.5	8°84	8°9/18.2	18
9 8	1 33.16	+ 4 58.4	1.452	2.329	15.5	20.8	9 8	1 34.82	+27 33.4	1.533	2.323	19.1	17.8
9 18	1 27.75	+ 3 53.2	1.399	2.340	11.2	20.6	9 18	1 29.56	+28 45.6	1.462	2.324	16.1	17.6
9 28	1 20.03	+ 2 37.6	1.369	2.350	6.5	20.3	9 28	1 21.47	+29 32.7	1.411	2.326	12.9	17.4
10 8	1 10.93	+ 1 19.2	1.364	2.360	2.6	20.1	10 8	1 11.42	+29 50.4	1.381	2.328	10.2	17.3
10 18	1 1.63	+ 0 6.9	1.386	2.369	5.1	20.3	10 18	1 0.71	+29 37.9	1.374	2.331	8.9	17.2
10 28	0 53.36	- 0 50.9	1.434	2.378	9.6	20.6	10 28	0 50.88	+28 59.5	1.393	2.334	10.1	17.3
11 7	0 47.10	- 1 28.7	1.507	2.387	13.8	20.9	11 7	0 43.25	+28 4.6	1.435	2.338	12.7	17.5
11 17	0 43.43	- 1 44.7	1.599	2.396	17.2	21.1	11 17	0 38.66	+27 3.6	1.498	2.343	15.7	17.7
71810	2000 <i>TJ</i> ₁₅		10 11.5 118°70	0°1/11.5	18		344686	2003 <i>SW</i> ₂₇₈		10 11.5 296°96	4°1/14.2	18	
9 8	1 35.04	+ 8 53.0	1.376	2.245	16.7	19.8	9 8	1 35.72	+16 47.1	1.716	2.546	15.7	20.3
9 18	1 29.45	+ 8 36.9	1.313	2.247	12.4	19.6	9 18	1 29.94	+17 28.2	1.626	2.530	12.4	20.0
9 28	1 21.21	+ 8 7.0	1.270	2.248	7.4	19.3	9 28	1 21.63	+17 54.3	1.557	2.513	8.7	19.8
10 8	1 11.28	+ 7 27.5	1.252	2.250	1.9	19.0	10 8	1 11.48	+18 4.3	1.513	2.497	5.1	19.5
10 18	1 0.94	+ 6 44.7	1.260	2.251	3.6	19.1	10 18	1 0.58	+17 59.1	1.496	2.481	4.5	19.4
10 28	0 51.61	+ 6 6.3	1.294	2.252	8.9	19.4	10 28	0 50.26	+17 42.6	1.507	2.465	7.8	19.6
11 7	0 44.47	+ 5 38.9	1.353	2.253	13.6	19.7	11 7	0 41.73	+17 21.1	1.543	2.449	11.8	19.8
11 17	0 40.20	+ 5 27.0	1.432	2.254	17.6	20.0	11 17	0 35.86	+17 1.3	1.601	2.433	15.6	20.0
521352	2015 <i>LF</i> ₄₆		10 11.5 241°08	8°2/19.2	18		452018	2014 <i>OJ</i> ₁₁₉		10 11.5 28°34	1°2/10.3	18	
9 8	1 34.44	+30 44.2	1.939	2.692	16.8	21.5	9 8	1 29.13	+ 5 42.6	1.972	2.839	12.4	21.6
9 18	1 28.87	+31 27.3	1.852	2.686	14.4	21.3	9 18	1 24.41	+ 5 8.8	1.907	2.842	9.0	21.4
9 28	1 20.89	+31 46.2	1.785	2.680	11.8	21.1	9 28	1 17.96	+ 4 27.1	1.866	2.846	5.2	21.2
10 8	1 11.23	+31 37.8	1.740	2.674	9.4	21.0	10 8	1 10.44	+ 3 41.9	1.852	2.849	1.6	20.9
10 18	1 0.95	+31 1.9	1.720	2.667	8.3	20.9	10 18	1 2.69	+ 2 58.3	1.866	2.853	3.4	21.1
10 28	0 51.35	+30 2.5	1.726	2.661	9.0	20.9	10 28	0 55.61	+ 2 21.8	1.908	2.857	7.2	21.3
11 7	0 43.55	+28 47.7	1.758	2.654	11.2	21.0	11 7	0 49.96	+ 1 56.6	1.976	2.861	10.8	21.5
11 17	0 38.32	+27 27.2	1.813	2.647	13.9	21.2	11 17	0 46.27	+ 1 45.3	2.067	2.865	13.8	21.8
348711	2006 <i>CA</i> ₄₄		10 11.5 103°10	3°2/ 8.5	16		365759	2010 <i>XS</i> ₃		10 11.5 224°67	1°2/12.9	18	
9 8	1 34.57	- 0 57.3	2.103	2.969	11.8	21.3	9 8	1 27.95	+13 59.5	2.314	3.152	11.9	21.0
9 18	1 28.02	- 1 40.8	2.061	2.995	8.6	21.1	9 18	1 23.43	+13 23.7	2.233	3.148	9.0	20.8
9 28	1 19.86	- 2 25.7	2.044	3.020	5.2	21.0	9 28	1 17.34	+12 34.4	2.177	3.145	5.6	20.6
10 8	1 10.85	- 3 6.9	2.055	3.044	3.2	20.9	10 8	1 10.28	+11 34.6	2.147	3.141	2.2	20.4
10 18	1 1.83	- 3 39.5	2.096	3.068	4.9	21.1	10 18	1 2.95	+10 28.7	2.147	3.138	2.3	20.4
10 28	0 53.65	- 3 59.7	2.165	3.091	8.0	21.3	10 28	0 56.16	+ 9 22.4	2.176	3.134	5.8	20.6
11 7	0 47.00	- 4 5.5	2.260	3.114	10.9	21.5	11 7	0 50.60	+ 8 21.6	2.232	3.130	9.1	20.8
11 17	0 42.32	- 3 56.4	2.378	3.136	13.4	21.7	11 17	0 46.77	+ 7 30.9	2.313	3.126	12.0	21.0
471524	2012 <i>GV</i> ₂₆		10 11.5 171°99	0°3/11.2	16		511610	2015 <i>BB</i> ₂₃		10 11.5 328°76	2°6/ 9.6	17	
9 8	1 35.31	+ 8 35.4	1.831	2.685	13.9	23.2	9 8	1 28.52	+ 5 49.0	1.134	2.030	17.5	20.8
9 18	1 29.07	+ 8 4.2	1.762	2.689	10.2	22.9	9 18	1 25.14	+ 4 44.4	1.069	2.019	12.8	20.5
9 28	1 20.75	+ 7 21.6	1.716	2.692	6.0	22.7	9 28	1 18.91	+ 3 23.6	1.024	2.009	7.5	20.2
10 8	1 11.14	+ 6 31.7	1.697	2.694	1.5	22.4	10 8	1 10.77	+ 1 55.3	1.002	1.999	2.8	19.9
10 18	1 1.24	+ 5 40.2	1.707	2.696	3.1	22.5	10 18	1 2.05	+ 0 31.0	1.004	1.990	5.8	20.1
10 28	0 52.13	+ 4 53.4	1.745	2.697	7.5	22.8	10 28	0 54.32	- 0 37.2	1.030	1.982	11.4	20.4
11 7	0 44.73	+ 4 16.9	1.810	2.697	11.5	23.0	11 7	0 48.88	- 1 21.1	1.076	1.974	16.5	20.6
11 17	0 39.64	+ 3 54.3	1.898	2.697	14.8	23.3	11 17	0 46.48	- 1 37.0	1.141	1.968	20.8	20.9
296425	2009 <i>HZ</i> ₃₅		10 11.5 135°63	2°7/ 8.8	18		280194	2002 <i>SH</i> ₅₃		10 11.5 13°26	9°8/ 3.9	18	
9 8	1 30.26	+ 1 41.8	1.994	2.867	12.1	20.4	9 8	1 23.96	- 9 7.0	1.030	1.947	16.9	17.8
9 18	1 25.18	+ 0 52.5	1.932	2.870	8.8	20.2	9 18	1 21.57	-10 56.4	1.003	1.955	13.1	17.6
9 28	1 18.37	- 0 1.8	1.894	2.873	5.2	20.0	9 28	1 16.58	-12 37.2	0.995	1.965	10.3	17.5
10 8	1 10.50	- 0 55.7	1.883	2.876	2.7	19.9	10 8	1 10.08	-13 55.4	1.009	1.978	10.0	17.5
10 18	1 2.42	- 1 43.3	1.901	2.879	4.6	20.0	10 18	1 3.44	-14 40.8	1.045	1.992	12.3	17.7
10 28	0 55.03	- 2 19.3	1.947	2.882	8.1	20.2	10 28	0 58.01	-14 48.4	1.101	2.008	15.7	18.0
11 7	0 49.09	- 2 40.2	2.018	2.885	11.4	20.4	11 7	0 54.80	-14 19.9	1.175	2.026	19.0	18.2
11 17	0 45.10	- 2 44.5	2.111	2.887	14.2	20.6	11 17	0 54.27	-13 20.5	1.265	2.045	21.8	18.5
318576	2005 <i>GY</i> ₁₄₈		10 11.5 108°22	2°5/ 9.4	17		58229	1993 <i>FZ</i> ₂₇		10 11.5 266°07	1°1/12.6	18	
9 8	1 34.79	+ 3 43.3	1.589	2.462	14.6	20.9	9 8	1 29.42	+12 43.1	2.152	2.995	12.5	20.3
9 18	1 28.70	+ 2 47.9	1.541	2.479	10.6	20.7	9 18	1 24.68	+12 19.3	2.065	2.983	9.4	20.1
9 28	1 20.48	+ 1 44.9	1.516	2.496	6.2	20.5	9 28	1 18.18	+11 42.4	2.001	2.971	5.9	19.8
10 8	1 11.05	+ 0 41.2	1.518	2.513	2.6	20.3	10 8	1 10.53	+10 55.0	1.964	2.959	2.1	19.6
10 18	1 1.50	- 0 15.9	1.547	2.529	4.9	20.5	10 18	1 2.50	+10 1.3	1.956	2.947	2.4	19.6
10 28	0 53.00	- 0 59.5	1.604	2.545	9.0	20.8	10 28	0 55.00	+ 9 7.0	1.976	2.934	6.3	19.8
11 7	0 46.42	- 1 25.6	1.685	2.560	12.9	21.0	11 7	0 48.82	+ 8 17.8	2.023	2.921	9.9	20.0
11 17	0 42.29	- 1 32.7	1.787	2.575	16.0	21.3	11 17	0 44.53	+ 7 38.6	2.095	2.909	13.1	20.2
310176	2011 <i>SZ</i> ₃₅		10 11.5 83°68	0°5/11.1	18		180747	2004 <i>LU</i> ₁₄		10 11.5 163°79	3°1/ 8.1	18	
9 8	1 37.27	+ 6 16.3	1.878	2.732	13.5	20.6	9 8	1 28.04	+ 1 31.0	2.034	2.909	11.8	20.4
9 18	1 30.22	+ 6 15.8	1.829	2.756	9.9	20.5	9 18	1 23.58	+ 0 20.2	1.970	2.910	8.5	20.2
9 28	1 21.27	+ 6 7.9	1.803	2.780	5.8	20.3	9 28	1 17.46	- 0 56.4	1.931	2.910	5.1	20.0
10 8	1 11.25	+ 5 55.8	1.805	2.803	1.5	20.0	10 8	1 10.32	- 2 12.2	1.919	2.910	3.1	19.8
10 18	1 1.16	+ 5 43.0	1.837	2.826	3.0	20.2	10 18	1 2.96	- 3 20.8	1.936	2.911	5.0	20.0
10 28	0 52.02	+ 5 33.9	1.897	2.849	7.1	20.5	10 28	0 56.23	- 4 15.9	1.981	2.911	8.4	20.2
11 7	0 44.65	+ 5 31.8	1.984	2.871	10.6	20.8	11 7	0 50.86	- 4 53.5	2.051	2.911	11.6	20.4
11 17	0 39.54	+ 5 39.0	2.095	2.893	13.6	21.0	11 17	0 47.35	- 5 12.0	2.143	2.911	14.3	20.6
108483	2001 <i>KJ</i> ₆₁		10 11.5 54°10	4°6/ 8.1	17		42185	2001 <i>CS</i> ₃₀		10 11.5 31°67	4°3/ 7.		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V	
400985	2010 YA ₁	10 11.5 350°60 6°9/19.4 18						105577	2000 RP ₇₄	10 11.5 346°05 2°6/14.6 18				
9 8	1 28.98	+29 59.6	2.057	2.819	15.7	20.3	9 8	1 26.20	+18 18.8	2.337	3.159	12.3	19.4	
9 18	1 24.61	+30 11.6	1.974	2.817	13.3	20.1	9 18	1 22.19	+17 56.7	2.255	3.155	9.6	19.2	
9 28	1 18.24	+29 59.5	1.911	2.815	10.7	19.9	9 28	1 16.65	+17 18.8	2.196	3.152	6.5	19.0	
10 8	1 10.56	+29 21.9	1.870	2.814	8.2	19.8	10 8	1 10.15	+16 27.3	2.163	3.149	3.5	18.8	
10 18	1 2.50	+28 20.7	1.855	2.812	7.0	19.7	10 18	1 3.38	+15 25.6	2.159	3.147	2.9	18.8	
10 28	0 55.10	+27 1.0	1.867	2.811	7.7	19.8	10 28	0 57.12	+14 19.4	2.184	3.145	5.5	18.9	
11 7	0 49.27	+25 31.2	1.905	2.811	10.0	19.9	11 7	0 52.07	+13 14.5	2.236	3.143	8.6	19.1	
11 17	0 45.62	+24 0.0	1.967	2.810	12.6	20.1	11 17	0 48.72	+12 16.5	2.313	3.141	11.5	19.3	
80678	2000 BR ₂₅	10 11.5 85°23 4°7/ 7.8 17 R						336608	2009 UD ₅₁	10 11.5 312°31 1°7/12.8 18				
9 8	1 33.04	- 1 3.1	1.463	2.349	14.9	18.8	9 8	1 30.26	+13 33.8	1.388	2.251	16.9	20.5	
9 18	1 27.61	- 2 13.4	1.418	2.361	10.8	18.6	9 18	1 26.17	+13 15.7	1.309	2.238	12.9	20.2	
9 28	1 19.94	- 3 27.0	1.395	2.374	6.8	18.4	9 28	1 19.47	+12 37.6	1.251	2.225	8.2	19.9	
10 8	1 10.98	- 4 35.0	1.398	2.386	4.7	18.3	10 8	1 10.97	+11 42.6	1.217	2.212	3.2	19.6	
10 18	1 1.87	- 5 29.2	1.427	2.399	6.9	18.5	10 18	1 1.85	+10 36.8	1.208	2.200	3.4	19.6	
10 28	0 53.81	- 6 3.2	1.483	2.411	10.7	18.7	10 28	0 53.52	+ 9 29.3	1.225	2.188	8.5	19.8	
11 7	0 47.75	- 6 14.2	1.561	2.423	14.4	19.0	11 7	0 47.20	+ 8 29.7	1.265	2.176	13.5	20.1	
11 17	0 44.20	- 6 2.5	1.658	2.435	17.5	19.2	11 17	0 43.69	+ 7 45.1	1.326	2.166	17.7	20.3	
477407	2009 VF ₇₀	10 11.5 253°97 0°1/11.5 18						92032	1999 VE ₁₇₈	10 11.5 16°50 4°0/ 7.8 18				
9 8	1 33.17	+ 9 16.9	1.779	2.636	14.1	22.1	9 8	1 30.97	- 3 32.7	2.107	2.981	11.5	19.0	
9 18	1 27.79	+ 8 53.2	1.694	2.622	10.5	21.8	9 18	1 25.66	- 4 10.1	2.045	2.982	8.4	18.8	
9 28	1 20.19	+ 8 16.9	1.632	2.608	6.3	21.5	9 28	1 18.67	- 4 47.5	2.008	2.982	5.5	18.6	
10 8	1 11.11	+ 7 31.5	1.596	2.593	1.7	21.2	10 8	1 10.67	- 5 19.9	1.998	2.983	4.0	18.5	
10 18	1 1.50	+ 6 42.3	1.587	2.578	3.1	21.3	10 18	1 2.47	- 5 42.4	2.016	2.983	5.6	18.6	
10 28	0 52.53	+ 5 56.0	1.607	2.562	7.8	21.5	10 28	0 54.91	- 5 51.3	2.062	2.984	8.6	18.8	
11 7	0 45.20	+ 5 18.7	1.653	2.546	12.0	21.7	11 7	0 48.75	- 5 44.4	2.133	2.984	11.5	19.0	
11 17	0 40.23	+ 4 55.1	1.721	2.530	15.6	22.0	11 17	0 44.48	- 5 21.8	2.226	2.985	14.1	19.2	
437114	2012 UE ₁₂₇	10 11.5 11°69 2°3/13.3 16						26418	1999 XP ₉₄	10 11.5 320°77 9°3/ 3.2 18				
9 8	1 29.62	+14 19.5	1.310	2.175	17.6	21.0	9 8	1 29.74	-12 43.6	1.500	2.390	14.3	18.0	
9 18	1 25.60	+14 12.7	1.249	2.178	13.4	20.8	9 18	1 25.49	-14 12.8	1.440	2.374	11.6	17.8	
9 28	1 19.01	+13 45.9	1.209	2.181	8.6	20.5	9 28	1 18.90	-15 35.0	1.403	2.358	9.6	17.6	
10 8	1 10.79	+13 2.0	1.191	2.185	3.7	20.2	10 8	1 10.79	-16 39.6	1.390	2.343	9.5	17.6	
10 18	1 2.17	+12 7.1	1.198	2.190	3.5	20.2	10 18	1 2.25	-17 17.6	1.400	2.328	11.5	17.7	
10 28	0 54.55	+11 9.9	1.231	2.196	8.3	20.5	10 28	0 54.53	-17 23.6	1.434	2.314	14.5	17.8	
11 7	0 49.04	+10 19.4	1.287	2.202	12.9	20.8	11 7	0 48.68	-16 57.1	1.487	2.301	17.6	18.0	
11 17	0 46.32	+ 9 42.2	1.363	2.210	16.9	21.1	11 17	0 45.35	-16 1.2	1.557	2.288	20.3	18.2	
390352	2013 CY ₁₇₃	10 11.5 283°51 1°1/ 9.3 18						408724	2014 OR ₃₃	10 11.5 333°03 5°7/ 5.7 18				
9 8	1 21.65	+ 2 55.5	4.298	5.158	6.4	21.3	9 8	1 28.66	- 7 8.1	1.939	2.822	11.9	20.8	
9 18	1 18.22	+ 2 21.2	4.219	5.151	4.6	21.2	9 18	1 24.14	- 8 14.1	1.880	2.817	9.0	20.6	
9 28	1 14.05	+ 1 44.1	4.166	5.145	2.7	21.0	9 28	1 17.85	- 9 18.3	1.845	2.812	6.5	20.5	
10 8	1 9.42	+ 1 6.5	4.143	5.138	1.2	20.9	10 8	1 10.48	-10 13.3	1.836	2.808	5.8	20.4	
10 18	1 4.66	+ 0 30.7	4.151	5.131	2.2	21.0	10 18	1 2.85	-10 53.1	1.854	2.804	7.6	20.5	
10 28	1 0.15	- 0 0.9	4.188	5.125	4.1	21.1	10 28	0 55.89	-11 13.0	1.898	2.800	10.4	20.7	
11 7	0 56.22	- 0 26.3	4.254	5.118	6.0	21.3	11 7	0 50.37	-11 11.1	1.965	2.796	13.2	20.9	
11 17	0 53.14	- 0 44.0	4.346	5.111	7.6	21.4	11 17	0 46.81	-10 48.2	2.052	2.792	15.7	21.0	
422093	2014 QE ₃₉₈	10 11.5 175°17 2°3/14.1 18						13650	Perimedes	10 11.5 298°12 0°4/12.2 18				
9 8	1 30.15	+16 28.3	2.585	3.403	11.4	21.6	9 8	1 21.65	+11 12.7	4.208	5.044	7.0	19.0	
9 18	1 24.92	+16 28.1	2.505	3.404	8.8	21.5	9 18	1 18.27	+10 43.0	4.120	5.037	5.2	18.8	
9 28	1 18.20	+16 15.8	2.448	3.405	5.9	21.3	9 28	1 14.11	+10 7.1	4.059	5.029	3.2	18.7	
10 8	1 10.54	+15 52.4	2.419	3.405	3.1	21.1	10 8	1 9.46	+ 9 26.7	4.026	5.022	1.0	18.5	
10 18	1 2.62	+15 20.7	2.418	3.406	2.7	21.1	10 18	1 4.69	+ 8 44.2	4.025	5.015	1.3	18.5	
10 28	0 55.19	+14 44.3	2.448	3.406	5.2	21.2	10 28	1 0.16	+ 8 2.2	4.054	5.009	3.5	18.7	
11 7	0 48.93	+14 7.9	2.506	3.406	8.1	21.4	11 7	0 56.23	+ 7 23.2	4.112	5.002	5.5	18.8	
11 17	0 44.31	+13 35.6	2.589	3.406	10.8	21.6	11 17	0 53.19	+ 6 49.6	4.196	4.995	7.3	18.9	
523181	2016 TU ₉₉	10 11.5 243°94 4°6/ 7.6 18						232154	2002 CG ₂₀₃	10 11.5 146°20 0°4/11.1 18				
9 8	1 34.67	- 5 13.2	2.012	2.882	12.1	21.3	9 8	1 32.39	+ 8 30.3	1.944	2.799	13.1	21.4	
9 18	1 28.53	- 5 47.5	1.938	2.872	9.0	21.1	9 18	1 26.83	+ 7 54.0	1.878	2.806	9.6	21.2	
9 28	1 20.46	- 6 20.7	1.890	2.861	6.1	20.9	9 28	1 19.42	+ 7 7.1	1.836	2.813	5.6	21.0	
10 8	1 11.15	- 6 47.2	1.869	2.851	4.6	20.8	10 8	1 10.88	+ 6 13.8	1.822	2.819	1.4	20.7	
10 18	1 1.51	- 7 2.0	1.876	2.839	6.3	20.9	10 18	1 2.12	+ 5 19.6	1.836	2.825	3.0	20.9	
10 28	0 52.53	- 7 1.1	1.911	2.828	9.4	21.1	10 28	0 54.10	+ 4 30.5	1.879	2.830	7.1	21.2	
11 7	0 45.07	- 6 42.8	1.971	2.816	12.6	21.3	11 7	0 47.63	+ 3 51.8	1.948	2.835	10.8	21.4	
11 17	0 39.73	- 6 7.6	2.053	2.804	15.4	21.4	11 17	0 43.24	+ 3 26.8	2.040	2.840	13.9	21.6	
345468	2006 GG ₄₂	10 11.5 145°55 5°4/ 6.2 18						147177	2002 VN ₄₅	10 11.5 81°39 1°5/12.7 18				
9 8	1 33.86	- 8 9.3	2.160	3.029	11.4	20.6	9 8	1 34.96	+12 35.8	1.458	2.314	16.6	19.6	
9 18	1 27.64	- 9 4.3	2.109	3.039	8.7	20.4	9 18	1 29.21	+12 26.6	1.401	2.326	12.5	19.4	
9 28	1 19.76	- 9 55.7	2.084	3.048	6.3	20.3	9 28	1 21.01	+12 0.8	1.365	2.338	7.8	19.2	
10 8	1 10.94	-10 37.4	2.087	3.057	5.5	20.3	10 8	1 11.32	+11 21.7	1.355	2.350	2.9	18.9	
10 18	1 1.99	-11 4.5	2.118	3.065	7.0	20.4	10 18	1 1.36	+10 35.0	1.370	2.362	3.2	19.0	
10 28	0 53.80	-11 13.6	2.177	3.072	9.5	20.6	10 28	0 52.47	+ 9 48.1	1.413	2.374	7.9	19.3	
11 7	0 47.07	-11 3.8	2.260	3.080	12.1	20.7	11 7	0 45.68	+ 9 8.4	1.480	2.386	12.3	19.6	
11 17	0 42.28	-10 36.1	2.364	3.086	14.4	20.9	11 17	0 41.60	+ 8 41.2	1.569	2.397	16.0	19.8	
2069	Hubble	10 11.5 281°15 2°1/ 9.4 18						305078	2007 UC ₁₁₁	10 11.5 145°76 1°9/13.8 18				
9 8	1 30.31	+ 1 35.4	2.338	3.204	10.8	16.4	9 8	1 29.86	+17 12.5	2.125	2.950	13.2	21.7	
9 18	1 25.20	+ 1 9.2	2.251	3.186	7.9	16.1	9 18	1 24.91	+16 26.3	2.052	2.957	10.1	21.5	
9 28	1 18.45	+ 0 39.0	2.189											

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
195765	2002 <i>PK</i> ₁₂₁		10 11.5 312°68	4°1/ 6.3 18			410889	2009 <i>SW</i> ₆₆		10 11.5 308°33	1°1/10.2 18		
9 8	1 25.17	— 0 53.5	2.114	2.997	11.1	19.4	9 8	1 26.16	+ 7 54.3	2.195	3.058	11.5	20.7
9 18	1 21.54	— 2 32.1	2.041	2.984	8.1	19.2	9 18	1 22.19	+ 6 44.0	2.120	3.054	8.4	20.5
9 28	1 16.32	— 4 16.2	1.995	2.971	5.2	19.0	9 28	1 16.67	+ 5 22.7	2.070	3.050	4.8	20.3
10 8	1 10.08	— 5 58.3	1.975	2.959	4.2	18.9	10 8	1 10.19	+ 3 55.8	2.048	3.046	1.4	20.1
10 18	1 3.56	— 7 30.6	1.985	2.947	6.2	19.0	10 18	1 3.47	+ 2 29.6	2.056	3.042	3.3	20.2
10 28	0 57.54	— 8 46.1	2.022	2.935	9.2	19.2	10 28	0 57.29	+ 1 11.0	2.092	3.038	6.9	20.4
11 7	0 52.76	— 9 40.4	2.084	2.923	12.3	19.4	11 7	0 52.34	+ 0 5.5	2.155	3.034	10.3	20.6
11 17	0 49.71	— 10 11.9	2.167	2.912	14.9	19.5	11 17	0 49.10	— 0 43.2	2.241	3.030	13.1	20.8
341883	2008 <i>GS</i> ₁₀₄		10 11.5 294°77	1°3/ 9.7 16			400995	2011 <i>GN</i> ₄₁		10 11.5 133°76	9°1/ 2.6 17		
9 8	1 24.49	+ 4 43.2	2.964	3.826	8.9	20.9	9 8	1 31.97	— 3 55.4	1.157	2.058	16.8	20.7
9 18	1 20.64	+ 3 56.3	2.876	3.810	6.4	20.7	9 18	1 27.39	— 7 24.2	1.118	2.066	12.6	20.5
9 28	1 15.64	+ 3 3.4	2.815	3.794	3.7	20.5	9 28	1 20.07	— 10 56.2	1.103	2.073	9.5	20.3
10 8	1 9.89	+ 2 8.1	2.782	3.778	1.4	20.3	10 8	1 11.11	— 14 10.6	1.114	2.080	9.7	20.4
10 18	1 3.91	+ 1 14.3	2.780	3.763	2.9	20.4	10 18	1 1.90	— 16 49.0	1.150	2.086	12.7	20.6
10 28	0 58.28	+ 0 26.2	2.806	3.747	5.6	20.6	10 28	0 53.91	— 18 39.9	1.210	2.092	16.6	20.8
11 7	0 53.52	— 0 12.8	2.861	3.732	8.3	20.7	11 7	0 48.27	— 19 41.9	1.289	2.097	20.1	21.1
11 17	0 50.03	— 0 40.4	2.939	3.716	10.6	20.9	11 17	0 45.57	— 19 59.5	1.383	2.102	23.0	21.3
222180	2000 <i>CM</i> ₂₄		10 11.5 305°88	5°9/17.2 17			269858	2000 <i>EB</i> ₄		10 11.5 287°52	2°5/ 9.6 18		
9 8	1 30.40	+ 25 18.0	2.125	2.910	14.6	19.9	9 8	1 32.10	+ 4 3.2	1.476	2.356	15.1	20.7
9 18	1 25.71	+ 25 44.8	2.028	2.893	12.1	19.7	9 18	1 27.39	+ 3 18.0	1.396	2.338	11.1	20.5
9 28	1 18.98	+ 25 52.3	1.953	2.876	9.4	19.5	9 28	1 20.16	+ 2 22.1	1.338	2.319	6.6	20.2
10 8	1 10.84	+ 25 39.0	1.901	2.860	6.9	19.3	10 8	1 11.20	+ 1 21.8	1.305	2.301	2.6	19.9
10 18	1 2.14	+ 25 5.8	1.876	2.844	5.9	19.2	10 18	1 1.61	+ 0 25.1	1.298	2.282	5.2	20.0
10 28	0 53.93	+ 24 16.7	1.878	2.828	7.3	19.3	10 28	0 52.73	— 0 19.7	1.317	2.264	10.0	20.2
11 7	0 47.15	+ 23 18.1	1.907	2.812	10.0	19.4	11 7	0 45.75	— 0 46.3	1.360	2.246	14.6	20.4
11 17	0 42.51	+ 22 17.6	1.959	2.796	12.9	19.6	11 17	0 41.45	— 0 51.7	1.422	2.227	18.6	20.7
186788	2004 <i>EP</i> ₁		10 11.5 149°12	0°9/10.7 18			230740	2003 <i>WZ</i> ₁₉		10 11.5 319°79	1°9/10.1 17		
9 8	1 33.64	+ 7 27.8	1.785	2.646	13.8	21.4	9 8	1 32.91	+ 1 44.5	1.969	2.837	12.4	19.5
9 18	1 27.87	+ 6 44.2	1.722	2.653	10.1	21.2	9 18	1 27.41	+ 1 44.3	1.884	2.819	9.1	19.2
9 28	1 20.09	+ 5 49.7	1.682	2.661	5.9	20.9	9 28	1 19.92	+ 1 40.8	1.823	2.801	5.4	19.0
10 8	1 11.08	+ 4 49.4	1.670	2.667	1.6	20.6	10 8	1 11.10	+ 1 37.5	1.789	2.784	2.1	18.7
10 18	1 1.84	+ 3 49.8	1.685	2.673	3.5	20.8	10 18	1 1.81	+ 1 37.9	1.783	2.768	3.9	18.8
10 28	0 53.42	+ 2 57.6	1.729	2.679	7.8	21.1	10 28	0 53.07	+ 1 45.6	1.805	2.751	7.8	19.0
11 7	0 46.71	+ 2 18.3	1.799	2.684	11.7	21.3	11 7	0 45.80	+ 2 3.5	1.854	2.736	11.5	19.2
11 17	0 42.25	+ 1 54.9	1.891	2.688	14.9	21.6	11 17	0 40.65	+ 2 32.8	1.925	2.720	14.8	19.4
518046	2015 <i>XB</i> ₀₃		10 11.5 100°04	0°3/11.2 18			312378	2008 <i>EN</i> ₅₀		10 11.5 112°51	0°3/11.3 18		
9 8	1 27.17	+ 9 38.9	2.324	3.177	11.3	21.6	9 8	1 30.62	+ 8 16.7	2.021	2.879	12.6	21.2
9 18	1 22.80	+ 8 48.3	2.255	3.182	8.3	21.5	9 18	1 25.54	+ 7 52.3	1.951	2.880	9.3	21.0
9 28	1 16.97	+ 7 47.2	2.210	3.186	4.9	21.3	9 28	1 18.69	+ 7 18.2	1.904	2.881	5.5	20.7
10 8	1 10.25	+ 6 39.8	2.193	3.191	1.2	21.0	10 8	1 10.74	+ 6 37.9	1.885	2.882	1.4	20.5
10 18	1 3.35	+ 5 31.2	2.206	3.195	2.5	21.1	10 18	1 2.52	+ 5 56.2	1.894	2.884	2.8	20.6
10 28	0 57.01	+ 4 27.3	2.248	3.200	6.1	21.4	10 28	0 54.94	+ 5 18.4	1.931	2.885	6.8	20.8
11 7	0 51.86	+ 3 32.9	2.317	3.204	9.3	21.6	11 7	0 48.80	+ 4 49.2	1.995	2.886	10.4	21.1
11 17	0 48.37	+ 2 51.5	2.410	3.208	12.0	21.8	11 17	0 44.64	+ 4 31.9	2.082	2.887	13.5	21.3
124862	2001 <i>TG</i> ₂₈		10 11.5 57°62	3°4/13.7 18			317947	2003 <i>WX</i> ₈₀		10 11.5 25°40	0°2/11.5 18		
9 8	1 36.84	+ 15 10.6	1.141	2.002	19.9	19.4	9 8	1 34.81	+ 6 45.3	0.943	1.839	20.2	18.7
9 18	1 31.14	+ 15 26.4	1.091	2.016	15.3	19.2	9 18	1 29.89	+ 7 3.0	0.903	1.850	14.9	18.4
9 28	1 22.38	+ 15 20.1	1.060	2.029	10.0	18.9	9 28	1 21.71	+ 7 8.0	0.881	1.863	8.8	18.2
10 8	1 11.73	+ 14 53.4	1.052	2.043	4.8	18.7	10 8	1 11.56	+ 7 4.3	0.880	1.878	2.3	17.8
10 18	1 0.76	+ 14 11.8	1.067	2.057	4.3	18.7	10 18	1 1.16	+ 6 57.8	0.902	1.893	4.2	18.0
10 28	0 51.16	+ 13 24.3	1.107	2.072	9.1	19.0	10 28	0 52.33	+ 6 55.5	0.947	1.910	10.3	18.4
11 7	0 44.24	+ 12 40.8	1.171	2.086	13.9	19.3	11 7	0 46.37	+ 7 3.0	1.012	1.929	15.5	18.8
11 17	0 40.63	+ 12 8.7	1.254	2.101	18.1	19.6	11 17	0 43.88	+ 7 23.6	1.097	1.948	19.8	19.1
367232	2007 <i>HJ</i> ₃₇		10 11.5 142°00	2°6/ 8.8 18			162046	1996 <i>RQ</i> ₃₁		10 11.5 295°30	0°6/10.4 18		
9 8	1 30.74	— 0 22.8	2.386	3.253	10.6	20.7	9 8	1 22.21	+ 5 38.3	4.225	5.077	6.6	20.3
9 18	1 25.32	— 0 53.0	2.322	3.256	7.7	20.5	9 18	1 18.67	+ 5 11.6	4.144	5.073	4.8	20.1
9 28	1 18.42	— 1 25.2	2.283	3.260	4.7	20.4	9 28	1 14.36	+ 4 41.1	4.091	5.068	2.8	20.0
10 8	1 10.64	— 1 55.5	2.272	3.263	2.7	20.2	10 8	1 9.58	+ 4 8.9	4.066	5.063	0.8	19.8
10 18	1 2.67	— 2 19.8	2.291	3.267	4.2	20.3	10 18	1 4.67	+ 3 37.1	4.072	5.059	1.8	19.9
10 28	0 55.28	— 2 34.4	2.339	3.270	7.2	20.5	10 28	1 0.02	+ 3 8.2	4.109	5.054	3.8	20.0
11 7	0 49.13	— 2 37.1	2.412	3.273	10.0	20.7	11 7	0 55.96	+ 2 44.2	4.174	5.050	5.8	20.2
11 17	0 44.68	— 2 26.8	2.510	3.276	12.5	20.9	11 17	0 52.78	+ 2 26.7	4.265	5.045	7.5	20.3
324149	2005 <i>YL</i> ₁₅₃		10 11.5 276°36	5°0/16.8 18			441726	2009 <i>BT</i> ₅₂		10 11.5 326°77	7°7/18.0 16		
9 8	1 30.93	+ 24 1.9	2.256	3.043	13.8	20.3	9 8	1 34.29	+ 27 26.8	1.777	2.556	17.2	21.7
9 18	1 25.86	+ 24 19.6	2.170	3.039	11.3	20.1	9 18	1 28.91	+ 28 15.7	1.696	2.553	14.5	21.5
9 28	1 18.94	+ 24 19.1	2.106	3.035	8.5	19.9	9 28	1 21.03	+ 28 41.4	1.636	2.550	11.5	21.3
10 8	1 10.81	+ 24 0.1	2.067	3.031	6.0	19.8	10 8	1 11.44	+ 28 41.0	1.598	2.547	8.9	21.1
10 18	1 2.30	+ 23 24.0	2.056	3.028	5.0	19.7	10 18	1 1.24	+ 28 14.4	1.585	2.545	7.7	21.1
10 28	0 54.33	+ 22 35.2	2.072	3.024	6.5	19.8	10 28	0 51.76	+ 27 26.2	1.598	2.542	8.9	21.1
11 7	0 47.75	+ 21 39.9	2.116	3.020	9.2	19.9	11 7	0 44.16	+ 26 24.7	1.637	2.540	11.5	21.3
11 17	0 43.15	+ 20 44.5	2.184	3.016	11.9	20.1	11 17	0 39.23	+ 25 19.0	1.698	2.537	14.5	21.5
222593	2001 <i>XJ</i> ₄		10 11.5 43°50	15°2/26.7 17			16						

EPHEMERIDES

10 11.5

10 11.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V	
58669	1997 YF ₅	10 11.5 354°00 3°2/13.9 18						454161	2013 EL ₁₁₉	10 11.6 265°10 2°1/ 9.9 18				
9 8	1 26.73	+16 47.4	1.019	1.896	20.5	18.3	9 8	1 33.82	+1 47.3	2.013	2.879	12.3	20.5	
9 18	1 24.14	+16 29.6	0.957	1.891	15.9	18.1	9 18	1 27.92	+1 35.0	1.942	2.876	9.0	20.2	
9 28	1 18.50	+15 42.3	0.914	1.886	10.5	17.8	9 28	1 20.14	+1 18.8	1.895	2.873	5.3	20.0	
10 8	1 10.79	+14 28.9	0.890	1.883	5.0	17.4	10 8	1 11.18	+1 2.8	1.875	2.870	2.2	19.8	
10 18	1 2.48	+12 57.8	0.889	1.881	4.2	17.4	10 18	1 1.92	+0 50.8	1.884	2.867	4.0	19.9	
10 28	0 55.30	+11 22.6	0.911	1.880	9.5	17.7	10 28	0 53.33	+0 46.8	1.922	2.864	7.7	20.2	
11 7	0 50.62	+9 57.1	0.954	1.881	15.0	18.0	11 7	0 46.24	+0 53.6	1.985	2.861	11.2	20.4	
11 17	0 49.21	+8 51.7	1.016	1.883	19.8	18.3	11 17	0 41.22	+1 12.6	2.072	2.858	14.1	20.6	
471078	2009 WG ₁₅₂	10 11.5 144°61 4°7/22.6 16						246821	Satyarthi	10 11.6 49°31 0°4/11.9 18				
9 8	1 23.70	+36 36.2	4.604	5.271	8.8	20.9	9 8	1 31.02	+9 33.4	1.949	2.804	13.1	20.3	
9 18	1 19.83	+36 32.0	4.508	5.271	7.7	20.8	9 18	1 25.84	+9 22.1	1.889	2.816	9.7	20.1	
9 28	1 15.07	+36 14.2	4.433	5.271	6.5	20.7	9 28	1 18.87	+9 0.5	1.853	2.828	5.8	19.9	
10 8	1 9.77	+35 42.7	4.383	5.272	5.4	20.7	10 8	1 10.83	+8 31.7	1.844	2.840	1.7	19.6	
10 18	1 4.34	+34 58.2	4.359	5.272	4.8	20.6	10 18	1 2.60	+8 0.0	1.862	2.853	2.6	19.7	
10 28	0 59.21	+34 2.7	4.364	5.272	4.8	20.6	10 28	0 55.11	+7 30.3	1.909	2.866	6.6	20.0	
11 7	0 54.80	+32 59.4	4.396	5.273	5.5	20.7	11 7	0 49.14	+7 7.2	1.982	2.879	10.1	20.2	
11 17	0 51.41	+31 51.8	4.456	5.273	6.6	20.8	11 17	0 45.18	+6 54.1	2.078	2.892	13.2	20.5	
208927	2002 UW ₄₇	10 11.5 349°28 0°8/10.9 18						413755	2006 DS ₃₀	10 11.6 212°61 2°5/14.1 17				
9 8	1 32.45	+6 7.1	1.766	2.632	13.7	19.7	9 8	1 31.08	+16 13.6	2.462	3.282	11.8	21.4	
9 18	1 27.14	+5 52.4	1.697	2.631	10.1	19.5	9 18	1 25.74	+16 20.4	2.380	3.280	9.2	21.2	
9 28	1 19.75	+5 29.2	1.651	2.630	5.9	19.3	9 28	1 18.80	+16 15.0	2.321	3.278	6.2	21.0	
10 8	1 11.06	+5 1.4	1.631	2.629	1.6	19.0	10 8	1 10.84	+15 58.3	2.290	3.276	3.3	20.8	
10 18	1 2.04	+4 33.7	1.639	2.628	3.4	19.1	10 18	1 2.57	+15 32.6	2.287	3.275	2.8	20.8	
10 28	0 53.75	+4 11.5	1.675	2.628	7.7	19.4	10 28	0 54.81	+15 1.8	2.314	3.272	5.5	20.9	
11 7	0 47.13	+3 59.3	1.736	2.627	11.7	19.6	11 7	0 48.26	+14 30.4	2.369	3.270	8.5	21.1	
11 17	0 42.78	+3 59.7	1.819	2.627	15.0	19.8	11 17	0 43.46	+14 2.7	2.449	3.268	11.2	21.3	
450342	2004 TV ₂₀₇	10 11.5 27°81 0°8/12.3 16						461136	2015 TC ₁₀₂	10 11.6 244°17 4°7/ 6.4 18				
9 8	1 27.23	+12 38.5	1.648	2.509	14.8	20.9	9 8	1 30.08	-7 0.9	2.408	3.279	10.3	20.8	
9 18	1 23.31	+11 58.7	1.593	2.521	11.0	20.7	9 18	1 24.92	-7 47.7	2.341	3.273	7.8	20.7	
9 28	1 17.45	+11 3.0	1.560	2.534	6.7	20.5	9 28	1 18.26	-8 32.6	2.300	3.267	5.5	20.5	
10 8	1 10.44	+9 56.1	1.552	2.548	2.2	20.2	10 8	1 10.69	-9 10.3	2.286	3.260	4.7	20.5	
10 18	1 3.23	+8 44.8	1.571	2.562	2.8	20.3	10 18	1 2.88	-9 36.4	2.301	3.253	6.2	20.6	
10 28	0 56.86	+7 36.9	1.617	2.577	7.1	20.6	10 28	0 55.62	-9 47.3	2.344	3.246	8.6	20.7	
11 7	0 52.14	+6 39.4	1.688	2.593	11.1	20.9	11 7	0 49.56	-9 41.4	2.412	3.239	11.2	20.9	
11 17	0 49.59	+5 56.9	1.782	2.609	14.4	21.2	11 17	0 45.17	-9 19.0	2.501	3.232	13.4	21.0	
374740	2006 SN ₁₂₉	10 11.5 9°77 2°4/12.7 18						443155	2014 CU ₇	10 11.6 102°64 12°7/28.4 18				
9 8	1 34.93	+10 26.1	1.009	1.893	20.1	20.1	9 8	1 47.13	+48 4.7	2.286	2.871	18.4	21.4	
9 18	1 30.17	+11 12.7	0.956	1.895	15.3	19.8	9 18	1 38.64	+49 40.2	2.225	2.894	17.0	21.3	
9 28	1 22.06	+11 44.0	0.921	1.898	9.7	19.5	9 28	1 26.97	+50 46.4	2.180	2.917	15.5	21.3	
10 8	1 11.75	+12 0.7	0.907	1.902	3.9	19.2	10 8	1 13.10	+51 17.2	2.153	2.940	14.0	21.2	
10 18	1 0.87	+12 5.7	0.916	1.908	4.2	19.3	10 18	0 58.50	+51 9.6	2.147	2.962	13.0	21.2	
10 28	0 51.31	+12 5.4	0.948	1.915	9.8	19.6	10 28	0 44.92	+50 25.9	2.163	2.984	12.7	21.2	
11 7	0 44.56	+12 6.9	1.002	1.923	15.1	20.0	11 7	0 33.83	+49 13.5	2.202	3.005	13.0	21.3	
11 17	0 41.38	+12 16.2	1.075	1.933	19.6	20.3	11 17	0 26.12	+47 42.8	2.262	3.025	13.8	21.4	
358303	2006 UJ ₁₆₂	10 11.5 331°37 1°9/ 9.9 18						267123	2000 DY ₉₀	10 11.6 309°32 0°2/11.4 18				
9 8	1 29.21	+4 41.6	1.694	2.571	13.7	20.8	9 8	1 28.37	+8 51.6	2.048	2.907	12.4	20.9	
9 18	1 24.86	+4 0.7	1.623	2.563	10.0	20.5	9 18	1 24.03	+8 24.4	1.963	2.892	9.2	20.7	
9 28	1 18.46	+3 10.8	1.575	2.556	5.8	20.3	9 28	1 17.92	+7 46.5	1.901	2.878	5.5	20.4	
10 8	1 10.74	+2 17.4	1.553	2.550	2.1	20.0	10 8	1 10.63	+7 1.3	1.867	2.864	1.4	20.1	
10 18	1 2.66	+1 27.0	1.558	2.544	4.3	20.2	10 18	1 2.96	+6 13.6	1.860	2.851	2.8	20.2	
10 28	0 55.28	+0 46.3	1.590	2.538	8.5	20.4	10 28	0 55.81	+5 29.0	1.882	2.837	6.8	20.4	
11 7	0 49.52	+0 20.3	1.646	2.533	12.5	20.6	11 7	0 49.99	+4 52.8	1.930	2.824	10.5	20.6	
11 17	0 45.99	+0 11.8	1.724	2.528	15.9	20.9	11 17	0 46.09	+4 28.8	2.001	2.811	13.7	20.8	
410913	2009 SS ₁₈₁	10 11.5 106°23 0°7/10.7 18						41266	1999 XP ₅₈	10 11.6 306°97 3°5/15.4 18				
9 8	1 27.88	+8 5.5	2.291	3.148	11.3	21.3	9 8	1 27.97	+20 33.6	2.139	2.953	13.6	19.3	
9 18	1 23.33	+7 12.7	2.226	3.156	8.2	21.1	9 18	1 23.73	+20 16.0	2.053	2.946	10.8	19.1	
9 28	1 17.30	+6 10.6	2.186	3.164	4.8	20.9	9 28	1 17.72	+19 39.8	1.989	2.939	7.6	18.9	
10 8	1 10.40	+5 3.6	2.174	3.171	1.2	20.7	10 8	1 10.58	+18 46.3	1.951	2.932	4.6	18.7	
10 18	1 3.33	+3 57.1	2.191	3.179	2.8	20.8	10 18	1 3.09	+17 39.2	1.940	2.925	3.6	18.6	
10 28	0 56.84	+2 56.8	2.238	3.187	6.3	21.1	10 28	0 56.16	+16 24.4	1.958	2.919	6.1	18.8	
11 7	0 51.59	+2 7.2	2.311	3.194	9.5	21.3	11 7	0 50.59	+15 9.1	2.003	2.912	9.4	18.9	
11 17	0 48.01	+1 31.3	2.409	3.201	12.2	21.5	11 17	0 46.93	+14 0.1	2.072	2.906	12.4	19.1	
380783	2005 UD ₅₂₁	10 11.6 160°20 1°5/10.5 18						417229	2005 YK ₅₂	10 11.6 318°23 1°7/12.8 18				
9 8	1 35.59	+4 45.7	1.631	2.499	14.6	21.1	9 8	1 32.97	+13 43.6	1.230	2.096	18.4	20.7	
9 18	1 29.55	+4 26.9	1.566	2.501	10.7	20.8	9 18	1 28.36	+13 20.3	1.164	2.094	14.0	20.4	
9 28	1 21.23	+4 0.3	1.523	2.503	6.3	20.6	9 28	1 20.87	+12 34.9	1.118	2.092	8.8	20.1	
10 8	1 11.48	+3 30.2	1.507	2.504	1.9	20.3	10 8	1 11.47	+11 31.3	1.094	2.090	3.3	19.8	
10 18	1 1.39	+3 2.2	1.518	2.506	4.0	20.5	10 18	1 1.53	+10 16.9	1.096	2.088	3.6	19.8	
10 28	0 52.18	+2 41.9	1.557	2.507	8.5	20.7	10 28	0 52.64	+9 2.6	1.122	2.086	9.1	20.2	
11 7	0 44.84	+2 33.6	1.621	2.508	12.6	21.0	11 7	0 46.09	+7 58.8	1.172	2.084	14.2	20.4	
11 17	0 40.02	+2 39.6	1.706	2.509	16.1	21.2	11 17	0 42.62	+7 12.9	1.241	2.082	18.6	20.7	
46100	2001 FD ₆	10 11.6 108°52 0°6/10.8 18						15184	3232 T ₋₁	10 11.6 313°81 0°8/10.7 18 R				
9 8	1 29.55	+7 2.1	2.556	3.408	10.5	19.7	9 8	1 26.73	+8 56.2	1.958	2.822	12.7	18.3	
9 18	1 24.36	+6 30.6	2.496	3.424	7.6	19.5	9 18	1 22.85	+7 54.3	1.880	2.814	9.3	18.0	
9 28	1 17.83	+5 52.2	2.462	3.439	4.4	19.3	9 28	1 17.21						

EPHEMERIDES

10 11.6

10 11.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
223822	2004 <i>TJ</i> ₁₁₀		10 11.6 268°05	4.2/ 7.9	18		293981	2007 <i>TL</i> ₆₃		10 11.6 356°39	2.1/10.2	17	
9 8	1 35.08	- 6 3.1	2.295	3.159	11.0	20.1	9 8	1 28.98	+ 3 58.5	1.214	2.108	16.6	19.9
9 18	1 28.67	- 6 18.7	2.219	3.149	8.3	19.9	9 18	1 25.32	+ 3 40.8	1.154	2.102	12.2	19.7
9 28	1 20.54	- 6 31.8	2.169	3.139	5.6	19.7	9 28	1 19.01	+ 3 14.1	1.114	2.098	7.2	19.4
10 8	1 11.32	- 6 38.1	2.147	3.129	4.2	19.6	10 8	1 10.98	+ 2 44.4	1.098	2.095	2.4	19.1
10 18	1 1.81	- 6 34.1	2.155	3.118	5.6	19.7	10 18	1 2.48	+ 2 18.6	1.105	2.093	4.9	19.2
10 28	0 52.90	- 6 16.9	2.191	3.108	8.4	19.8	10 28	0 54.97	+ 2 3.8	1.137	2.093	10.0	19.5
11 7	0 45.34	- 5 45.6	2.254	3.098	11.3	20.0	11 7	0 49.61	+ 2 4.9	1.191	2.094	14.8	19.8
11 17	0 39.68	- 5 0.7	2.340	3.087	13.8	20.2	11 17	0 47.10	+ 2 24.0	1.263	2.097	18.8	20.1
72897	2001 <i>KM</i> ₅₅		10 11.6 207°91	6.8/ 3.5	18		171374	2006 <i>NE</i>		10 11.6 40°25	9.3/ 5.8	18	
9 8	1 30.40	-15 25.4	2.530	3.393	10.2	19.0	9 8	1 36.88	-15 0.4	1.443	2.321	15.5	18.7
9 18	1 25.08	-16 23.8	2.477	3.391	8.3	18.9	9 18	1 30.40	-15 44.2	1.411	2.337	12.4	18.5
9 28	1 18.32	-17 14.6	2.449	3.388	7.0	18.8	9 28	1 21.60	-16 14.4	1.402	2.353	10.0	18.4
10 8	1 10.71	-17 52.1	2.448	3.385	6.9	18.8	10 8	1 11.57	-16 22.9	1.416	2.369	9.3	18.4
10 18	1 2.94	-18 12.1	2.474	3.382	8.1	18.9	10 18	1 1.57	-16 5.1	1.454	2.386	10.8	18.6
10 28	0 55.74	-18 12.0	2.526	3.379	10.0	19.0	10 28	0 52.86	-15 19.9	1.517	2.404	13.4	18.8
11 7	0 49.74	-17 51.7	2.602	3.376	12.0	19.1	11 7	0 46.34	-14 10.4	1.601	2.422	16.2	19.0
11 17	0 45.40	-17 12.8	2.697	3.372	13.8	19.3	11 17	0 42.48	-12 41.5	1.704	2.441	18.6	19.3
182955	2002 <i>JO</i> ₁₀		10 11.6 28°17	14.9/ 3.0	18		262254	2006 <i>SH</i> ₃₁₆		10 11.6 260°47	1.3/10.3	18	
9 8	1 41.51	-33 0.0	1.578	2.397	17.3	17.8	9 8	1 29.47	+ 6 25.4	1.975	2.841	12.5	21.2
9 18	1 33.54	-33 39.7	1.566	2.416	15.8	17.8	9 18	1 24.81	+ 5 39.5	1.902	2.836	9.1	21.0
9 28	1 23.25	-33 49.4	1.574	2.436	15.0	17.8	9 28	1 18.35	+ 4 44.1	1.852	2.831	5.3	20.7
10 8	1 11.94	-33 22.2	1.602	2.457	15.0	17.8	10 8	1 10.76	+ 3 43.8	1.829	2.826	1.6	20.5
10 18	1 0.99	-32 16.6	1.651	2.478	15.8	17.9	10 18	1 2.86	+ 2 44.7	1.835	2.821	3.5	20.6
10 28	0 51.68	-30 35.6	1.721	2.501	17.0	18.1	10 28	0 55.58	+ 1 52.9	1.869	2.817	7.4	20.8
11 7	0 44.84	-28 26.4	1.810	2.524	18.5	18.2	11 7	0 49.71	+ 1 13.6	1.928	2.812	11.1	21.1
11 17	0 40.81	-25 57.4	1.916	2.548	19.8	18.4	11 17	0 45.82	+ 0 49.8	2.011	2.807	14.2	21.3
484952	2009 <i>SB</i> ₂₉₈		10 11.6 15°42	2°1/ 9.8	18		513887	2013 <i>SJ</i> ₁₀₁		10 11.6 333°88	0°8/11.1	18	
9 8	1 31.79	+ 1 49.0	1.954	2.825	12.4	20.8	9 8	1 36.07	+ 5 43.3	1.262	2.141	17.2	20.7
9 18	1 26.44	+ 1 34.2	1.890	2.827	9.0	20.6	9 18	1 30.60	+ 5 48.3	1.195	2.135	12.8	20.4
9 28	1 19.26	+ 1 15.5	1.850	2.829	5.3	20.4	9 28	1 22.21	+ 5 43.8	1.149	2.129	7.6	20.1
10 8	1 10.98	+ 0 56.9	1.837	2.832	2.2	20.2	10 8	1 11.85	+ 5 33.6	1.126	2.124	2.0	19.7
10 18	1 2.45	+ 0 42.7	1.852	2.835	4.0	20.4	10 18	1 0.90	+ 5 22.9	1.129	2.120	4.1	19.9
10 28	0 54.63	+ 0 36.9	1.895	2.839	7.7	20.6	10 28	0 50.96	+ 5 17.7	1.158	2.115	9.7	20.2
11 7	0 48.30	+ 0 42.3	1.964	2.843	11.1	20.8	11 7	0 43.37	+ 5 23.3	1.209	2.112	14.7	20.5
11 17	0 44.00	+ 1 0.1	2.055	2.847	14.1	21.0	11 17	0 38.90	+ 5 42.5	1.280	2.109	18.9	20.7
28817	Simoneflood		10 11.6 119°47	2°1/13.3	18		372853	2010 <i>VK</i> ₁₅₀		10 11.6 65°47	4°5/ 8.5	18	
9 8	1 33.62	+14 50.3	1.660	2.502	15.6	18.4	9 8	1 34.85	- 0 16.8	1.258	2.148	16.5	20.2
9 18	1 28.12	+14 34.3	1.594	2.510	11.9	18.2	9 18	1 29.27	- 1 12.8	1.216	2.161	12.0	20.0
9 28	1 20.40	+14 0.8	1.550	2.517	7.6	18.0	9 28	1 21.12	- 2 12.8	1.195	2.175	7.4	19.8
10 8	1 11.30	+13 12.6	1.531	2.524	3.3	17.8	10 8	1 11.48	- 3 7.8	1.198	2.189	4.5	19.7
10 18	1 1.89	+12 14.8	1.540	2.531	3.1	17.8	10 18	1 1.70	- 3 49.6	1.227	2.203	6.9	19.9
10 28	0 53.36	+11 15.0	1.576	2.537	7.2	18.0	10 28	0 53.17	- 4 11.4	1.280	2.217	11.2	20.2
11 7	0 46.68	+10 20.7	1.639	2.544	11.4	18.3	11 7	0 46.93	- 4 10.6	1.355	2.231	15.3	20.4
11 17	0 42.45	+ 9 37.7	1.724	2.550	14.9	18.5	11 17	0 43.53	- 3 47.9	1.450	2.246	18.7	20.7
478581	2012 <i>TF</i> ₉₃		10 11.6 348°81	2°3/ 9.8	18		346239	2008 <i>BP</i> ₄₀		10 11.6 267°14	1°8/13.2	18	
9 8	1 30.02	+ 4 27.0	1.367	2.254	15.7	21.3	9 8	1 32.66	+13 33.5	2.098	2.933	13.0	20.9
9 18	1 25.84	+ 3 43.6	1.304	2.249	11.5	21.0	9 18	1 27.26	+13 34.6	2.004	2.917	10.0	20.7
9 28	1 19.22	+ 2 49.9	1.263	2.245	6.7	20.8	9 28	1 19.90	+13 22.9	1.935	2.901	6.4	20.4
10 8	1 11.01	+ 1 52.7	1.246	2.242	2.5	20.5	10 8	1 11.21	+13 0.0	1.892	2.884	2.8	20.2
10 18	1 2.40	+ 0 59.9	1.254	2.239	5.0	20.7	10 18	1 2.01	+12 28.7	1.877	2.867	2.7	20.1
10 28	0 54.69	+ 0 19.6	1.287	2.237	9.8	20.9	10 28	0 53.32	+11 53.8	1.892	2.850	6.4	20.4
11 7	0 48.96	- 0 2.5	1.344	2.236	14.3	21.2	11 7	0 46.02	+11 20.8	1.933	2.833	10.2	20.5
11 17	0 45.88	- 0 3.9	1.420	2.235	18.1	21.4	11 17	0 40.78	+10 54.5	1.998	2.816	13.5	20.7
273305	2006 <i>SV</i> ₁₈₃		10 11.6 290°11	0°1/11.5	18		156676	2002 <i>JL</i> ₁₂₃		10 11.6 184°30	5°3/ 5.7	18	
9 8	1 33.48	+ 8 50.8	1.416	2.286	16.2	21.3	9 8	1 29.77	- 8 16.6	2.271	3.145	10.7	20.2
9 18	1 28.61	+ 8 34.6	1.333	2.268	12.2	21.0	9 18	1 24.74	- 9 14.8	2.213	3.145	8.2	20.1
9 28	1 21.04	+ 8 4.1	1.272	2.251	7.4	20.7	9 28	1 18.18	-10 10.0	2.181	3.145	6.0	20.0
10 8	1 11.55	+ 7 23.1	1.236	2.233	2.0	20.3	10 8	1 10.70	-10 56.3	2.177	3.145	5.4	19.9
10 18	1 1.35	+ 6 37.6	1.225	2.216	3.6	20.4	10 18	1 3.02	-11 28.7	2.200	3.145	6.9	20.0
10 28	0 51.87	+ 5 55.6	1.240	2.198	9.1	20.7	10 28	0 55.96	-11 43.6	2.250	3.144	9.3	20.2
11 7	0 44.41	+ 5 24.5	1.279	2.181	14.1	20.9	11 7	0 50.17	-11 39.5	2.324	3.144	11.8	20.3
11 17	0 39.82	+ 5 9.3	1.338	2.164	18.4	21.2	11 17	0 46.13	-11 17.2	2.420	3.144	14.0	20.5
274784	2008 <i>VR</i> ₅₇		10 11.6 44°53	2°2/10.0	18		217402	2005 <i>HP</i> ₅		10 11.6 123°89	0°6/11.1	17	
9 8	1 33.73	+ 3 57.3	1.286	2.171	16.6	19.4	9 8	1 34.45	+ 9 1.7	1.688	2.546	14.6	21.0
9 18	1 28.32	+ 3 25.8	1.248	2.191	12.0	19.2	9 18	1 28.54	+ 8 13.7	1.632	2.561	10.7	20.8
9 28	1 20.48	+ 2 46.2	1.231	2.213	6.9	19.0	9 28	1 20.55	+ 7 13.0	1.598	2.575	6.3	20.6
10 8	1 11.29	+ 2 5.4	1.239	2.235	2.5	18.8	10 8	1 11.34	+ 6 5.1	1.591	2.589	1.6	20.3
10 18	1 2.04	+ 1 30.4	1.272	2.258	4.8	19.0	10 18	1 1.95	+ 4 57.0	1.613	2.602	3.3	20.4
10 28	0 54.03	+ 1 7.6	1.330	2.281	9.5	19.3	10 28	0 53.50	+ 3 56.0	1.662	2.614	7.8	20.7
11 7	0 48.24	+ 1 1.0	1.412	2.305	13.7	19.7	11 7	0 46.86	+ 3 8.4	1.738	2.626	11.8	21.0
11 17	0 45.17	+ 1 11.7	1.514	2.328	17.2	19.9	11 17	0 42.59	+ 2 37.6	1.835	2.637	15.1	21.3
266793	2009 <i>SQ</i> ₂₇₇		10 11.6 311°69	2°1/ 9.2	18		329041	2011 <i>AP</i> ₄₂		10 11.6 93°78	1°9/ 9.5	18</	

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
320340	2007 <i>TJ</i> ₁₄₆		10 11.6 332°50	0°8/11.1 18			61422	2000 <i>QN</i> ₁₅		10 11.6 326°01	0°7/12.3 18		
9 8	1 31.55	+ 6 59.2	1.060	1.953	18.6	20.2	9 8	1 29.95	+11 24.1	1.936	2.788	13.3	19.4
9 18	1 27.74	+ 6 48.9	0.993	1.940	13.9	19.9	9 18	1 25.24	+11 2.0	1.861	2.785	9.9	19.2
9 28	1 20.74	+ 6 24.4	0.945	1.927	8.3	19.6	9 28	1 18.65	+10 27.1	1.810	2.783	6.1	19.0
10 8	1 11.52	+ 5 50.7	0.918	1.916	2.2	19.2	10 8	1 10.88	+ 9 42.5	1.784	2.781	2.0	18.7
10 18	1 1.52	+ 5 15.2	0.915	1.906	4.5	19.3	10 18	1 2.78	+ 8 53.0	1.787	2.778	2.6	18.8
10 28	0 52.55	+ 4 47.0	0.935	1.896	10.7	19.6	10 28	0 55.32	+ 8 4.6	1.818	2.776	6.7	19.0
11 7	0 46.10	+ 4 33.7	0.975	1.888	16.3	19.9	11 7	0 49.33	+ 7 23.0	1.875	2.774	10.5	19.2
11 17	0 43.05	+ 4 39.8	1.034	1.881	21.0	20.2	11 17	0 45.40	+ 6 52.7	1.955	2.772	13.7	19.5
27827	Ukai		10 11.6 326°03	4°2/ 8.1 18			429510	2011 <i>BR</i> ₂₀		10 11.6 327°87	4°5/ 8.1 18		
9 8	1 30.83	- 1 35.8	1.660	2.543	13.5	17.7	9 8	1 31.90	+ 0 1.1	1.360	2.250	15.5	21.1
9 18	1 26.10	- 2 21.0	1.593	2.535	10.0	17.5	9 18	1 27.22	- 1 4.0	1.301	2.247	11.4	20.8
9 28	1 19.24	- 3 9.1	1.549	2.527	6.3	17.2	9 28	1 20.04	- 2 15.1	1.263	2.244	7.1	20.6
10 8	1 11.03	- 3 53.3	1.530	2.519	4.2	17.1	10 8	1 11.27	- 3 23.6	1.250	2.241	4.5	20.4
10 18	1 2.45	- 4 27.2	1.539	2.512	6.2	17.2	10 18	1 2.11	- 4 20.1	1.262	2.238	7.0	20.6
10 28	0 54.62	- 4 45.0	1.573	2.505	10.0	17.4	10 28	0 53.91	- 4 56.7	1.300	2.235	11.3	20.8
11 7	0 48.47	- 4 43.6	1.631	2.499	13.6	17.6	11 7	0 47.75	- 5 9.4	1.359	2.233	15.4	21.1
11 17	0 44.64	- 4 22.7	1.710	2.493	16.8	17.8	11 17	0 44.29	- 4 57.7	1.438	2.231	19.0	21.3
121784	2000 <i>AS</i> ₈₂		10 11.6 18°21	10°0/ 1.1 18			334437	2002 <i>GE</i> ₁₄₈		10 11.6 169°15	2°3/14.0 18		
9 8	1 29.08	-19 19.2	1.828	2.700	13.0	18.6	9 8	1 31.78	+17 9.0	2.091	2.915	13.5	21.1
9 18	1 24.55	-20 49.1	1.795	2.705	11.1	18.5	9 18	1 26.46	+16 41.3	2.015	2.918	10.4	20.9
9 28	1 18.16	-22 5.0	1.785	2.710	10.0	18.5	9 28	1 19.32	+15 56.8	1.961	2.921	6.9	20.7
10 8	1 10.70	-22 58.5	1.798	2.715	10.3	18.5	10 8	1 11.05	+14 57.9	1.934	2.923	3.4	20.5
10 18	1 3.11	-23 24.0	1.836	2.721	11.7	18.6	10 18	1 2.50	+13 49.1	1.936	2.925	2.8	20.5
10 28	0 56.35	-23 19.1	1.895	2.727	13.7	18.8	10 28	0 54.61	+12 36.8	1.967	2.927	6.1	20.7
11 7	0 51.21	-22 45.3	1.975	2.734	15.8	18.9	11 7	0 48.19	+11 28.1	2.026	2.928	9.7	20.9
11 17	0 48.15	-21 46.5	2.072	2.742	17.6	19.1	11 17	0 43.78	+10 28.7	2.109	2.928	12.8	21.1
69169	4066 <i>P-L</i>		10 11.6 339°90	1°7/12.5 18			102	Miriam		10 11.6 11°46	1°0/12.4 18		
9 8	1 31.47	+10 31.3	1.020	1.908	19.6	18.7	9 8	1 24.50	+13 6.0	1.112	1.998	18.5	11.9
9 18	1 27.84	+10 52.2	0.953	1.895	15.0	18.4	9 18	1 22.11	+12 25.3	1.061	2.002	13.9	11.7
9 28	1 20.89	+10 56.3	0.905	1.884	9.4	18.1	9 28	1 17.11	+11 21.6	1.030	2.009	8.5	11.4
10 8	1 11.58	+10 45.6	0.877	1.873	3.4	17.7	10 8	1 10.49	+10 1.6	1.021	2.017	2.8	11.1
10 18	1 1.42	+10 24.7	0.872	1.864	4.0	17.7	10 18	1 3.54	+ 8 35.1	1.035	2.027	3.5	11.2
10 28	0 52.29	+10 1.9	0.889	1.856	10.2	18.0	10 28	0 57.68	+ 7 14.0	1.073	2.039	9.0	11.6
11 7	0 45.80	+ 9 45.8	0.927	1.850	15.9	18.3	11 7	0 53.98	+ 6 8.6	1.133	2.052	13.9	11.9
11 17	0 42.86	+ 9 42.9	0.983	1.845	20.7	18.6	11 17	0 53.05	+ 5 24.8	1.213	2.067	18.1	12.2
86604	2000 <i>EM</i> ₇₈		10 11.6 317°18	1°7/10.5 18			317710	2003 <i>QM</i> ₂₅		10 11.6 52°50	4°3/16.1 18		
9 8	1 31.45	+ 5 25.1	1.242	2.130	16.9	19.3	9 8	1 30.68	+21 45.6	2.153	2.955	13.9	20.3
9 18	1 27.39	+ 5 2.5	1.164	2.109	12.5	19.0	9 18	1 25.68	+21 56.1	2.080	2.962	11.1	20.1
9 28	1 20.45	+ 4 27.8	1.107	2.089	7.4	18.7	9 28	1 18.87	+21 49.0	2.028	2.969	8.1	20.0
10 8	1 11.44	+ 3 46.7	1.073	2.070	2.2	18.3	10 8	1 10.93	+21 24.6	2.002	2.975	5.3	19.8
10 18	1 1.65	+ 3 6.4	1.063	2.051	4.8	18.4	10 18	1 2.70	+20 45.4	2.004	2.982	4.4	19.8
10 28	0 52.65	+ 2 35.5	1.077	2.033	10.5	18.7	10 28	0 55.11	+19 56.1	2.033	2.989	6.3	19.9
11 7	0 45.82	+ 2 21.0	1.114	2.016	15.7	18.9	11 7	0 48.96	+19 3.2	2.090	2.997	9.1	20.1
11 17	0 42.07	+ 2 26.6	1.169	2.000	20.2	19.1	11 17	0 44.80	+18 12.7	2.171	3.004	12.0	20.3
289816	2005 <i>JA</i> ₁₈₄		10 11.6 57°97	3°8/ 8.3 18			324277	2006 <i>CA</i> ₂₆		10 11.6 39°62	4°5/15.9 18		
9 8	1 31.53	- 0 39.3	1.695	2.575	13.5	20.4	9 8	1 31.31	+21 25.5	2.075	2.881	14.2	20.2
9 18	1 26.34	- 1 30.0	1.648	2.589	9.8	20.2	9 18	1 26.20	+21 43.5	2.003	2.887	11.4	20.0
9 28	1 19.22	- 2 23.4	1.625	2.603	6.0	20.0	9 28	1 19.21	+21 43.8	1.952	2.893	8.3	19.8
10 8	1 10.99	- 3 12.9	1.628	2.618	3.8	19.9	10 8	1 11.03	+21 26.5	1.926	2.899	5.5	19.7
10 18	1 2.63	- 3 52.0	1.658	2.632	5.7	20.1	10 18	1 2.53	+20 54.0	1.928	2.906	4.5	19.6
10 28	0 55.17	- 4 15.7	1.715	2.647	9.3	20.3	10 28	0 54.69	+20 10.7	1.957	2.913	6.5	19.8
11 7	0 49.41	- 4 21.4	1.796	2.662	12.7	20.5	11 7	0 48.34	+19 23.2	2.013	2.920	9.4	20.0
11 17	0 45.85	- 4 8.9	1.898	2.677	15.5	20.8	11 17	0 44.07	+18 37.6	2.093	2.928	12.3	20.2
310555	2001 <i>PU</i> ₃₃		10 11.6 348°49	7°9/ 6.1 18			175230	2005 <i>GA</i> ₁₃₁		10 11.6 69°88	0°6/11.1 18		
9 8	1 30.27	- 9 20.7	1.323	2.220	15.4	19.5	9 8	1 32.76	+ 7 5.3	1.807	2.669	13.6	20.0
9 18	1 26.10	-10 10.7	1.267	2.210	11.9	19.3	9 18	1 27.29	+ 6 48.0	1.744	2.676	10.0	19.8
9 28	1 19.41	-10 54.7	1.231	2.200	8.9	19.1	9 28	1 19.84	+ 6 21.6	1.705	2.683	5.9	19.6
10 8	1 11.10	-11 23.4	1.219	2.192	8.0	19.0	10 8	1 11.19	+ 5 49.9	1.692	2.690	1.5	19.3
10 18	1 2.39	-11 29.2	1.230	2.185	10.0	19.1	10 18	1 2.29	+ 5 17.8	1.707	2.697	3.1	19.4
10 28	0 54.65	-11 7.6	1.265	2.180	13.4	19.3	10 28	0 54.17	+ 4 50.5	1.750	2.704	7.4	19.7
11 7	0 48.96	-10 18.7	1.320	2.175	17.0	19.5	11 7	0 47.70	+ 4 32.5	1.819	2.711	11.2	20.0
11 17	0 46.00	- 9 5.7	1.393	2.173	20.1	19.7	11 17	0 43.43	+ 4 26.9	1.910	2.718	14.4	20.2
162282	1999 <i>VS</i> ₆₉		10 11.6 286°14	0°2/11.7 18			329866	2004 <i>XM</i> ₁₀₃		10 11.6 301°80	9°1/ 1.9 17		
9 8	1 30.55	+10 13.3	1.743	2.602	14.2	20.1	9 8	1 32.89	-19 2.6	2.097	2.957	12.1	20.6
9 18	1 25.91	+ 9 42.1	1.663	2.593	10.6	19.8	9 18	1 27.43	-20 7.7	2.023	2.927	10.3	20.4
9 28	1 19.17	+ 8 56.9	1.607	2.583	6.4	19.6	9 28	1 20.00	-21 2.4	1.972	2.898	9.2	20.3
10 8	1 11.04	+ 8 1.9	1.576	2.574	1.8	19.3	10 8	1 11.27	-21 38.9	1.946	2.868	9.4	20.3
10 18	1 2.47	+ 7 2.7	1.573	2.564	3.0	19.3	10 18	1 2.10	-21 51.1	1.946	2.838	10.8	20.3
10 28	0 54.57	+ 6 6.4	1.598	2.555	7.6	19.6	10 28	0 53.50	-21 35.5	1.969	2.809	13.0	20.4
11 7	0 48.29	+ 5 20.0	1.648	2.545	11.8	19.8	11 7	0 46.37	-20 52.3	2.015	2.779	15.3	20.5
11 17	0 44.28	+ 4 47.9	1.720	2.536	15.3	20.0	11 17	0 41.33	-19 44.3	2.078	2.749	17.5	20.6
305898	2009 <i>FG</i> ₃₁		10 11.6 136°31	1°1/10.4 18			376999	2002 <i>PJ</i> ₁₉₈		10 11.6 60°66	2°1/10.2 13 C		
9 8	1 29.41	+ 7											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
79154	1993 <i>FF</i> ₅		10 11.6 266°80	0°7/11.1	18		45177	1999 <i>XS</i> ₁₄₀		10 11.6 187°91	1°5/ 9.7	18	
9 8	1 33.86	+ 7 31.6	1.572	2.439	15.1	20.1	9 8	1 28.59	+ 3 54.9	2.730	3.589	9.7	19.6
9 18	1 28.59	+ 7 7.7	1.493	2.427	11.2	19.8	9 18	1 23.73	+ 3 15.4	2.657	3.588	7.0	19.4
9 28	1 20.89	+ 6 31.9	1.436	2.415	6.6	19.5	9 28	1 17.57	+ 2 30.9	2.609	3.587	4.1	19.2
10 8	1 11.54	+ 5 48.3	1.405	2.403	1.7	19.2	10 8	1 10.62	+ 1 44.9	2.590	3.586	1.6	19.0
10 18	1 1.64	+ 5 3.0	1.401	2.390	3.6	19.3	10 18	1 3.47	+ 1 1.3	2.601	3.584	3.1	19.2
10 28	0 52.47	+ 4 23.2	1.423	2.378	8.6	19.5	10 28	0 56.78	+ 0 24.2	2.642	3.582	6.0	19.4
11 7	0 45.15	+ 3 55.0	1.470	2.365	13.1	19.8	11 7	0 51.11	+ 0 3.2	2.711	3.580	8.8	19.5
11 17	0 40.43	+ 3 42.6	1.539	2.352	17.0	20.0	11 17	0 46.91	+ 0 19.0	2.803	3.578	11.1	19.7
47138	1999 <i>FS</i> ₃₅		10 11.6 309°18	4°9/ 5.1	18		262094	2006 <i>RF</i> ₈₈		10 11.6 358°80	0°5/11.1	18	
9 8	1 25.36	- 3 8.0	2.142	3.026	10.9	18.3	9 8	1 29.33	+ 8 13.4	1.604	2.475	14.6	20.5
9 18	1 21.74	- 5 1.1	2.071	3.012	8.1	18.1	9 18	1 25.08	+ 7 41.6	1.537	2.473	10.7	20.3
9 28	1 16.54	- 6 58.2	2.026	2.998	5.6	18.0	9 28	1 18.70	+ 6 57.4	1.493	2.472	6.3	20.0
10 8	1 10.34	- 8 51.3	2.009	2.985	5.0	17.9	10 8	1 10.97	+ 6 5.8	1.474	2.472	1.6	19.7
10 18	1 3.82	-10 32.0	2.021	2.972	7.0	18.0	10 18	1 2.89	+ 5 13.0	1.482	2.472	3.4	19.8
10 28	0 57.81	-11 53.3	2.061	2.959	9.9	18.2	10 28	0 55.59	+ 4 26.3	1.516	2.472	8.0	20.1
11 7	0 53.00	-12 51.1	2.124	2.946	12.7	18.3	11 7	0 50.00	+ 3 51.6	1.575	2.473	12.2	20.4
11 17	0 49.92	-13 24.2	2.208	2.933	15.2	18.5	11 17	0 46.74	+ 3 32.7	1.656	2.475	15.7	20.6
407049	2009 <i>SR</i> ₁₂₃		10 11.6 346°08	3°0/14.1	17		265619	2005 <i>SQ</i> ₁₁₉		10 11.6 32°92	4°9/14.9	18	
9 8	1 30.96	+15 57.2	1.873	2.709	14.3	21.4	9 8	1 34.37	+18 22.1	1.251	2.099	19.3	20.0
9 18	1 26.16	+16 15.1	1.794	2.703	11.2	21.2	9 18	1 29.36	+18 50.7	1.195	2.107	15.2	19.7
9 28	1 19.31	+16 18.3	1.737	2.698	7.5	21.0	9 28	1 21.47	+18 55.9	1.157	2.116	10.6	19.5
10 8	1 11.10	+16 7.3	1.706	2.693	4.1	20.8	10 8	1 11.74	+18 37.7	1.142	2.126	6.3	19.3
10 18	1 2.45	+15 44.7	1.701	2.689	3.5	20.7	10 18	1 1.57	+18 0.1	1.150	2.136	5.2	19.3
10 28	0 54.43	+15 15.3	1.725	2.686	6.7	20.9	10 28	0 52.56	+17 10.8	1.184	2.147	8.7	19.5
11 7	0 47.98	+14 45.0	1.774	2.683	10.4	21.1	11 7	0 45.97	+16 20.1	1.241	2.159	13.1	19.8
11 17	0 43.73	+14 19.3	1.846	2.680	13.7	21.4	11 17	0 42.48	+15 36.6	1.318	2.171	17.0	20.1
222470	2001 <i>RX</i> ₁₅₄		10 11.6 322°23	1°9/10.4	18		153674	2001 <i>TE</i> ₁₉₀		10 11.6 125°81	0°1/11.7	18	
9 8	1 34.38	+ 3 45.1	1.389	2.269	15.9	19.7	9 8	1 35.42	+ 8 31.0	1.648	2.507	14.9	20.2
9 18	1 29.15	+ 3 32.2	1.319	2.260	11.7	19.4	9 18	1 29.49	+ 8 22.9	1.582	2.511	11.0	20.0
9 28	1 21.29	+ 3 11.7	1.271	2.252	6.9	19.1	9 28	1 21.29	+ 8 3.8	1.538	2.514	6.6	19.7
10 8	1 11.66	+ 2 48.4	1.248	2.244	2.3	18.8	10 8	1 11.66	+ 7 37.1	1.520	2.518	1.8	19.4
10 18	1 1.50	+ 2 28.2	1.250	2.237	4.6	18.9	10 18	1 1.69	+ 7 7.4	1.530	2.521	3.1	19.5
10 28	0 52.22	+ 2 17.4	1.278	2.230	9.6	19.2	10 28	0 52.58	+ 6 40.6	1.568	2.524	7.8	19.8
11 7	0 45.03	+ 2 20.4	1.329	2.224	14.3	19.5	11 7	0 45.32	+ 6 22.1	1.631	2.528	11.9	20.1
11 17	0 40.67	+ 2 39.6	1.401	2.217	18.2	19.7	11 17	0 40.57	+ 6 15.4	1.716	2.530	15.5	20.3
20797	2000 <i>SD</i> ₁₇₂		10 11.6 37°21	9°7/ 5.5	18		333167	2012 <i>CF</i> ₂₉		10 11.6 198°47	1°6/ 9.7	18	
9 8	1 35.74	-14 9.7	1.308	2.194	16.3	16.0	9 8	1 27.73	+ 5 29.2	2.254	3.119	11.2	20.5
9 18	1 29.79	-15 5.8	1.278	2.208	13.0	15.8	9 18	1 23.35	+ 4 26.9	2.184	3.118	8.1	20.3
9 28	1 21.36	-15 48.3	1.269	2.223	10.4	15.7	9 28	1 17.45	+ 3 16.4	2.138	3.117	4.7	20.1
10 8	1 11.59	-16 7.9	1.283	2.239	9.8	15.7	10 8	1 10.61	+ 2 2.7	2.120	3.116	1.8	19.9
10 18	1 1.84	-15 59.0	1.321	2.256	11.4	15.9	10 18	1 3.55	+ 0 51.7	2.132	3.115	3.6	20.1
10 28	0 53.42	-15 20.2	1.382	2.273	14.2	16.1	10 28	0 57.03	+ 0 10.6	2.173	3.114	7.0	20.3
11 7	0 47.31	-14 14.7	1.463	2.291	17.1	16.3	11 7	0 51.73	+ 0 59.8	2.240	3.113	10.2	20.5
11 17	0 43.97	-12 47.6	1.563	2.309	19.6	16.6	11 17	0 48.13	+ 1 33.0	2.330	3.112	12.9	20.7
157706	2006 <i>AD</i> ₅₁		10 11.6 62°12	11°3/27.2	18		407181	2009 <i>UR</i> ₈₁		10 11.6 263°42	2°5/ 9.2	17	
9 8	1 30.47	-27 49.0	2.142	2.979	12.7	19.5	9 8	1 32.64	- 0 28.3	2.375	3.238	10.7	21.3
9 18	1 25.41	-29 28.4	2.121	2.987	11.6	19.4	9 18	1 26.89	- 0 43.0	2.298	3.231	7.9	21.1
9 28	1 18.63	-30 48.6	2.124	2.995	11.3	19.4	9 28	1 19.54	- 0 59.4	2.248	3.224	4.8	20.9
10 8	1 10.88	-31 42.4	2.150	3.003	11.8	19.5	10 8	1 11.18	- 1 14.0	2.225	3.217	2.5	20.7
10 18	1 3.02	-32 5.7	2.198	3.011	12.9	19.6	10 18	1 2.54	- 1 23.2	2.232	3.210	4.1	20.8
10 28	0 55.98	-31 57.4	2.266	3.019	14.3	19.7	10 28	0 54.44	- 1 23.7	2.268	3.203	7.2	21.0
11 7	0 50.48	-31 19.8	2.353	3.027	15.6	19.8	11 7	0 47.58	- 1 13.4	2.331	3.196	10.2	21.2
11 17	0 46.96	-30 17.3	2.455	3.035	16.9	20.0	11 17	0 42.49	- 0 51.5	2.418	3.189	12.8	21.4
513510	2009 <i>RL</i> ₅₈		10 11.6 12°14	4°2/13.5	18		197095	2003 <i>UW</i> ₁₈₇		10 11.6 308°42	1°3/10.2	18	
9 8	1 36.84	+12 20.4	1.000	1.877	20.8	19.9	9 8	1 27.24	+ 6 8.4	2.150	3.016	11.6	20.1
9 18	1 31.72	+13 38.8	0.948	1.881	16.1	19.6	9 18	1 23.14	+ 5 21.7	2.069	3.004	8.5	19.9
9 28	1 23.11	+14 41.2	0.914	1.886	10.7	19.4	9 28	1 17.41	+ 4 26.0	2.013	2.993	4.9	19.6
10 8	1 12.19	+15 25.4	0.902	1.893	5.5	19.1	10 8	1 10.62	+ 3 25.9	1.984	2.981	1.5	19.4
10 18	1 0.67	+15 51.7	0.912	1.902	5.1	19.1	10 18	1 3.51	+ 2 26.7	1.984	2.970	3.4	19.5
10 28	0 50.52	+16 5.0	0.946	1.912	9.9	19.4	10 28	0 56.92	+ 1 34.3	2.012	2.959	7.0	19.7
11 7	0 43.30	+16 12.8	1.001	1.924	15.0	19.8	11 7	0 51.57	+ 0 53.7	2.066	2.949	10.5	19.9
11 17	0 39.80	+16 22.3	1.075	1.937	19.4	20.1	11 17	0 47.99	+ 0 27.8	2.143	2.938	13.5	20.1
319784	2006 <i>US</i> ₃₀₅		10 11.6 150°41	1°2/10.4	17		511476	2014 <i>LX</i> ₁₁		10 11.6 146°46	1°4/10.1	18	
9 8	1 34.60	+ 7 12.5	1.835	2.693	13.6	21.5	9 8	1 31.53	+ 4 48.2	2.340	3.198	11.1	22.2
9 18	1 28.58	+ 6 16.2	1.773	2.704	9.9	21.2	9 18	1 26.00	+ 4 12.1	2.275	3.206	8.1	22.0
9 28	1 20.59	+ 5 9.2	1.736	2.713	5.8	21.0	9 28	1 18.96	+ 3 29.9	2.236	3.214	4.7	21.8
10 8	1 11.43	+ 3 57.0	1.725	2.722	1.7	20.8	10 8	1 11.01	+ 2 45.4	2.225	3.221	1.6	21.6
10 18	1 2.06	+ 2 46.6	1.744	2.730	3.7	20.9	10 18	1 2.88	+ 2 3.3	2.244	3.228	3.2	21.7
10 28	0 53.53	+ 1 45.1	1.791	2.738	7.8	21.2	10 28	0 55.36	+ 1 28.0	2.292	3.235	6.6	21.9
11 7	0 46.67	+ 0 57.9	1.865	2.744	11.6	21.5	11 7	0 49.11	+ 1 3.0	2.367	3.241	9.6	22.2
11 17	0 42.04	+ 0 28.0	1.961	2.750	14.8	21.7	11 17	0 44.60	+ 0 50.4	2.466	3.247	12.3	22.4
259782	2004 <i>BB</i> ₄₀		10 11.6 252°04	1°2/12.6	18		71284	2000 <i>AE</i> ₅₀		10 11.6 268°02	1°2		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
285451	1999 <i>XK</i> ₁₁₁		10 11.6 313°56	12.7/ 5.5	18		232846	2004 <i>TS</i> ₁₃₇		10 11.6 321°55	1.8/10.2	18	
9 8	1 51.38	-23 37.3	1.503	2.340	17.2	19.7	9 8	1 30.15	+ 5 33.3	1.431	2.313	15.4	19.8
9 18	1 42.13	-23 59.1	1.416	2.304	15.0	19.5	9 18	1 26.03	+ 4 53.9	1.358	2.300	11.3	19.6
9 28	1 29.30	-23 58.1	1.351	2.268	13.2	19.3	9 28	1 19.47	+ 4 2.8	1.306	2.288	6.7	19.3
10 8	1 13.95	-23 22.5	1.309	2.232	12.8	19.2	10 8	1 11.26	+ 3 6.0	1.279	2.276	2.2	19.0
10 18	0 57.67	-22 4.4	1.292	2.197	14.2	19.2	10 18	1 2.53	+ 2 11.1	1.277	2.265	4.6	19.1
10 28	0 42.44	-20 2.9	1.301	2.162	17.0	19.2	10 28	0 54.57	+ 1 26.3	1.302	2.254	9.5	19.4
11 7	0 29.87	-17 24.9	1.334	2.128	20.3	19.4	11 7	0 48.50	+ 0 58.0	1.349	2.244	14.1	19.6
11 17	0 20.96	-14 20.8	1.387	2.094	23.4	19.5	11 17	0 45.06	+ 0 49.7	1.417	2.234	18.0	19.8
41477	2000 <i>PP</i> ₂₆		10 11.6 344°52	3.4/14.8	18		454944	2015 <i>TS</i> ₁₈₈		10 11.6 313°18	0.5/12.1	18	
9 8	1 21.61	+20 26.8	1.156	2.019	19.6	17.2	9 8	1 27.59	+11 41.4	1.930	2.785	13.2	20.9
9 18	1 20.23	+19 31.0	1.081	2.004	15.5	16.9	9 18	1 23.63	+11 2.6	1.846	2.772	9.9	20.7
9 28	1 16.21	+17 59.0	1.024	1.991	10.6	16.6	9 28	1 17.82	+10 9.2	1.785	2.759	6.0	20.4
10 8	1 10.39	+15 54.5	0.989	1.980	5.4	16.3	10 8	1 10.79	+ 9 5.1	1.750	2.747	1.9	20.1
10 18	1 3.98	+13 27.6	0.978	1.970	4.0	16.2	10 18	1 3.37	+ 7 55.7	1.743	2.735	2.6	20.2
10 28	0 58.46	+10 54.6	0.991	1.961	8.8	16.4	10 28	0 56.50	+ 6 48.1	1.764	2.723	6.9	20.4
11 7	0 55.06	+ 8 32.8	1.027	1.955	14.2	16.7	11 7	0 51.04	+ 5 49.1	1.811	2.711	10.8	20.6
11 17	0 54.51	+ 6 35.6	1.084	1.950	18.9	17.0	11 17	0 47.58	+ 5 3.6	1.882	2.700	14.2	20.8
167179	2003 <i>SK</i> ₂₇₃		10 11.6 333°18	6.4/14.9	18		230051	2000 <i>SZ</i> ₁₁₄		10 11.6 196°74	0.2/11.4	18	
9 8	1 32.68	+18 17.8	1.289	2.138	18.8	18.8	9 8	1 33.00	+ 8 45.8	1.818	2.676	13.8	19.7
9 18	1 28.63	+19 28.9	1.203	2.114	15.3	18.5	9 18	1 27.60	+ 8 19.1	1.746	2.675	10.2	19.5
9 28	1 21.46	+20 22.8	1.135	2.091	11.2	18.2	9 28	1 20.16	+ 7 41.0	1.697	2.673	6.1	19.3
10 8	1 11.89	+20 56.0	1.089	2.069	7.5	17.9	10 8	1 11.41	+ 6 55.4	1.674	2.672	1.6	19.0
10 18	1 1.19	+21 6.9	1.067	2.049	6.6	17.8	10 18	1 2.32	+ 6 7.5	1.680	2.670	3.0	19.1
10 28	0 51.09	+20 59.0	1.069	2.030	9.8	17.9	10 28	0 53.95	+ 5 23.8	1.714	2.668	7.4	19.3
11 7	0 43.20	+20 40.0	1.093	2.012	14.3	18.1	11 7	0 47.21	+ 4 49.6	1.773	2.666	11.4	19.6
11 17	0 38.65	+20 18.9	1.137	1.996	18.6	18.3	11 17	0 42.70	+ 4 28.9	1.855	2.663	14.7	19.8
2462	Nehalennia		10 11.6 235°22	1.8/10.0	18		446659	2015 <i>MS</i> ₉		10 11.6 64°15	0.3/11.9	18	
9 8	1 33.23	+ 4 58.5	1.798	2.664	13.5	17.9	9 8	1 30.46	+11 19.8	1.708	2.566	14.5	21.0
9 18	1 27.84	+ 4 14.9	1.719	2.654	9.9	17.6	9 18	1 25.70	+10 38.0	1.651	2.578	10.7	20.8
9 28	1 20.34	+ 3 22.0	1.665	2.644	5.8	17.4	9 28	1 18.97	+ 9 41.8	1.616	2.591	6.4	20.6
10 8	1 11.45	+ 2 24.9	1.637	2.633	2.0	17.1	10 8	1 11.07	+ 8 35.9	1.607	2.604	1.9	20.3
10 18	1 2.13	+ 1 30.1	1.637	2.622	4.1	17.2	10 18	1 2.98	+ 7 27.0	1.626	2.617	2.8	20.4
10 28	0 53.48	+ 0 44.3	1.665	2.611	8.4	17.5	10 28	0 55.73	+ 6 22.5	1.673	2.631	7.2	20.7
11 7	0 46.44	+ 0 12.8	1.719	2.599	12.4	17.7	11 7	0 50.17	+ 5 29.1	1.745	2.644	11.2	21.0
11 17	0 41.68	- 0 1.5	1.794	2.586	15.8	17.9	11 17	0 46.80	+ 4 50.8	1.840	2.657	14.5	21.3
352933	2009 <i>AU</i> ₂₈		10 11.6 137°64	4.8/16.6	18		186429	2002 <i>RK</i> ₉₁		10 11.6 28°19	0.6/11.2	16	
9 8	1 33.84	+23 36.0	2.197	2.983	14.1	21.0	9 8	1 29.34	+10 19.8	1.199	2.081	17.7	19.9
9 18	1 28.01	+23 46.6	2.122	2.992	11.5	20.8	9 18	1 25.55	+ 9 19.8	1.146	2.088	13.1	19.7
9 28	1 20.30	+23 38.3	2.070	3.001	8.5	20.7	9 28	1 19.16	+ 8 0.5	1.114	2.094	7.7	19.4
10 8	1 11.42	+23 11.2	2.043	3.010	5.8	20.5	10 8	1 11.16	+ 6 29.8	1.104	2.102	2.0	19.1
10 18	1 2.24	+22 27.5	2.043	3.018	4.8	20.5	10 18	1 2.85	+ 4 58.1	1.120	2.110	4.0	19.2
10 28	0 53.74	+21 32.3	2.073	3.025	6.5	20.6	10 28	0 55.64	+ 3 36.9	1.161	2.119	9.5	19.6
11 7	0 46.75	+20 32.1	2.129	3.033	9.2	20.8	11 7	0 50.63	+ 2 35.2	1.224	2.129	14.4	19.9
11 17	0 41.83	+19 33.6	2.211	3.040	12.0	21.0	11 17	0 48.42	+ 1 57.5	1.307	2.139	18.4	20.2
402767	2007 <i>BF</i> ₄₇		10 11.6 102°19	4.8/ 6.3	18		436385	2010 <i>TK</i> ₄₇		10 11.6 326°84	0.5/11.4	17	
9 8	1 29.03	- 5 17.7	2.145	3.023	11.1	21.4	9 8	1 34.62	+ 6 41.6	1.154	2.038	18.1	21.3
9 18	1 24.32	- 6 25.6	2.089	3.026	8.3	21.2	9 18	1 29.90	+ 6 44.8	1.085	2.027	13.5	21.0
9 28	1 18.03	- 7 33.0	2.059	3.029	5.8	21.0	9 28	1 22.05	+ 6 36.3	1.035	2.016	8.1	20.7
10 8	1 10.80	- 8 33.3	2.055	3.032	4.9	21.0	10 8	1 12.02	+ 6 20.0	1.008	2.006	2.1	20.3
10 18	1 3.37	- 9 20.9	2.080	3.035	6.5	21.1	10 18	1 1.25	+ 6 1.5	1.005	1.996	4.2	20.4
10 28	0 56.58	- 9 51.2	2.132	3.038	9.2	21.3	10 28	0 51.46	+ 5 48.3	1.027	1.988	10.2	20.7
11 7	0 51.10	-10 2.2	2.208	3.040	11.9	21.5	11 7	0 44.12	+ 5 46.6	1.070	1.980	15.5	21.0
11 17	0 47.41	- 9 54.0	2.305	3.043	14.3	21.6	11 17	0 40.10	+ 6 0.3	1.133	1.973	20.1	21.2
135636	2002 <i>JS</i> ₈₉		10 11.6 32°89	1.4/12.5	18		68822	2002 <i>GD</i> ₇₆		10 11.6 352°58	0.7/12.2	18	
9 8	1 31.93	+12 21.1	1.049	1.930	19.8	19.3	9 8	1 20.75	+15 12.7	1.098	1.983	18.7	17.6
9 18	1 27.69	+12 5.4	1.004	1.943	14.8	19.1	9 18	1 19.57	+13 49.7	1.032	1.973	14.2	17.3
9 28	1 20.49	+11 28.6	0.979	1.956	9.1	18.8	9 28	1 15.79	+11 55.0	0.986	1.965	8.7	17.0
10 8	1 11.49	+10 35.8	0.974	1.971	3.2	18.5	10 8	1 10.30	+ 9 36.5	0.961	1.959	2.7	16.7
10 18	1 2.24	+ 9 35.4	0.994	1.986	3.7	18.6	10 18	1 4.32	+ 7 8.2	0.961	1.954	3.7	16.7
10 28	0 54.34	+ 8 38.1	1.037	2.002	9.3	19.0	10 28	0 59.26	+ 4 47.2	0.985	1.951	9.7	17.1
11 7	0 49.00	+ 7 53.1	1.102	2.019	14.4	19.4	11 7	0 56.30	+ 2 48.6	1.032	1.950	15.1	17.4
11 17	0 46.80	+ 7 26.0	1.186	2.037	18.6	19.7	11 17	0 56.10	+ 1 21.5	1.097	1.951	19.6	17.6
344036	2012 <i>MG</i> ₁₁		10 11.6 44°05	1.7/10.3	16		33319	Kunqu		10 11.6 328°05	24.4/15.9	18	R
9 8	1 30.85	+ 8 12.2	1.145	2.033	18.0	19.9	9 8	1 38.11	-40 15.7	0.980	1.813	24.6	17.4
9 18	1 26.41	+ 6 55.4	1.114	2.059	13.0	19.7	9 18	1 33.16	-42 48.0	0.968	1.804	24.4	17.3
9 28	1 19.46	+ 5 24.0	1.103	2.085	7.4	19.4	9 28	1 24.06	-44 30.7	0.969	1.795	24.8	17.3
10 8	1 11.17	+ 3 47.9	1.115	2.113	2.2	19.2	10 8	1 12.49	-45 9.0	0.982	1.787	25.8	17.4
10 18	1 2.87	+ 2 18.5	1.153	2.141	4.7	19.5	10 18	1 0.72	-44 37.2	1.007	1.780	27.2	17.5
10 28	0 55.91	+ 1 6.0	1.215	2.169	9.8	19.8	10 28	0 51.03	-42 58.1	1.042	1.773	28.7	17.6
11 7	0 51.22	+ 0 16.6	1.301	2.198	14.3	20.2	11 7	0 44.89	-40 22.9	1.087	1.767	30.1	17.7
11 17	0 49.26	- 0 7.7	1.405	2.227	17.9	20.5	11 17	0 42.82	-37 4.8	1.141	1.762	31.5	17.9
191902	2005 <i>BU</i> ₄₅		10 11.6 333°66	4.4/16.3	18		284953	2010 <i>EL</i> ₁₂₇		10 11.6 244°45	6.2/ 5.1	18	

EPHEMERIDES

10 11.6

10 11.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
396258	2014 <i>CO</i> ₇		10 11.6 117°34	4.5/16.1	18		8499	1990 <i>SC</i> ₁₃		10 11.6 140°50	0.4/12.1	18	
9 8	1 36.10	+22 15.0	2.127	2.919	14.4	21.2	9 8	1 30.14	+10 45.3	2.077	2.926	12.6	17.7
9 18	1 29.64	+22 30.9	2.061	2.936	11.5	21.0	9 18	1 25.30	+10 19.0	2.004	2.927	9.4	17.5
9 28	1 21.26	+22 28.5	2.016	2.952	8.4	20.9	9 28	1 18.72	+9 41.1	1.954	2.928	5.7	17.2
10 8	1 11.71	+22 8.0	1.998	2.969	5.6	20.7	10 8	1 11.06	+8 54.8	1.932	2.929	1.7	17.0
10 18	1 1.91	+21 31.6	2.008	2.984	4.6	20.7	10 18	1 3.12	+8 4.9	1.938	2.929	2.5	17.0
10 28	0 52.88	+20 44.2	2.046	3.000	6.5	20.8	10 28	0 55.79	+7 16.8	1.973	2.930	6.4	17.3
11 7	0 45.47	+19 52.5	2.112	3.014	9.3	21.0	11 7	0 49.85	+6 36.0	2.034	2.930	10.0	17.5
11 17	0 40.22	+19 2.9	2.203	3.028	12.1	21.3	11 17	0 45.82	+6 6.2	2.120	2.931	13.0	17.7
55392	2001 <i>SA</i> ₂₈₀		10 11.6 23°46	1.2/10.6	18		453537	2009 <i>WH</i> ₈₂		10 11.6 324°35	4.2/16.5	17	
9 8	1 30.81	+5 54.7	1.765	2.634	13.6	18.4	9 8	1 29.26	+22 53.7	2.340	3.133	13.2	21.1
9 18	1 25.97	+5 25.7	1.701	2.637	9.9	18.2	9 18	1 24.64	+22 54.6	2.256	3.132	10.6	20.9
9 28	1 19.17	+4 47.9	1.661	2.640	5.8	18.0	9 28	1 18.34	+22 38.0	2.194	3.130	7.8	20.7
10 8	1 11.16	+4 6.0	1.646	2.644	1.7	17.7	10 8	1 10.96	+22 4.2	2.158	3.128	5.3	20.6
10 18	1 2.87	+3 25.5	1.660	2.648	3.6	17.9	10 18	1 3.26	+21 15.6	2.150	3.127	4.3	20.5
10 28	0 55.33	+2 52.2	1.700	2.652	7.7	18.1	10 28	0 56.10	+20 17.0	2.170	3.126	6.0	20.6
11 7	0 49.41	+2 30.8	1.766	2.656	11.6	18.4	11 7	0 50.23	+19 14.5	2.217	3.124	8.7	20.8
11 17	0 45.65	+2 23.8	1.854	2.661	14.8	18.6	11 17	0 46.18	+18 14.2	2.289	3.123	11.4	21.0
515971	2015 <i>RU</i> ₁₁₄		10 11.6 356°52	1.3/12.4	18		398860	2013 <i>CF</i> ₅₂		10 11.6 289°36	3.4/8.4	18	
9 8	1 36.49	+9 3.4	1.612	2.469	15.3	20.4	9 8	1 29.98	+0 48.2	1.828	2.706	12.8	20.7
9 18	1 30.48	+9 40.3	1.540	2.466	11.5	20.2	9 18	1 25.39	-0 9.5	1.757	2.698	9.3	20.5
9 28	1 22.04	+10 8.0	1.491	2.464	7.1	19.9	9 28	1 18.87	-1 12.8	1.710	2.689	5.7	20.3
10 8	1 11.98	+10 27.6	1.467	2.462	2.5	19.7	10 8	1 11.12	-2 15.4	1.690	2.681	3.4	20.1
10 18	1 1.42	+10 41.0	1.470	2.462	3.1	19.7	10 18	1 3.01	-3 10.3	1.697	2.673	5.4	20.2
10 28	0 51.66	+10 51.8	1.502	2.461	7.6	20.0	10 28	0 55.55	-3 51.3	1.731	2.665	9.1	20.4
11 7	0 43.81	+11 4.1	1.558	2.462	11.9	20.2	11 7	0 49.61	-4 14.2	1.790	2.657	12.7	20.6
11 17	0 38.59	+11 21.8	1.637	2.463	15.6	20.5	11 17	0 45.77	-4 17.6	1.870	2.649	15.7	20.8
78114	2002 <i>MO</i> ₄		10 11.6 301°13	7.0/4.4	18		514480	2016 <i>VD</i> ₁₅		10 11.6 312°12	4.3/14.6	18	
9 8	1 28.62	-7 2.2	1.660	2.550	13.2	19.3	9 8	1 35.88	+17 28.2	1.644	2.474	16.3	20.8
9 18	1 24.58	-8 45.8	1.596	2.536	10.1	19.1	9 18	1 30.21	+18 7.4	1.564	2.467	12.9	20.6
9 28	1 18.47	-10 29.6	1.556	2.523	7.6	18.9	9 28	1 22.00	+18 29.9	1.504	2.459	9.0	20.3
10 8	1 11.00	-12 3.6	1.542	2.510	7.2	18.9	10 8	1 12.01	+18 34.9	1.469	2.452	5.4	20.1
10 18	1 3.14	-13 18.1	1.554	2.498	9.3	19.0	10 18	1 1.39	+18 23.6	1.461	2.446	4.7	20.1
10 28	0 55.97	-14 6.1	1.591	2.485	12.5	19.1	10 28	0 51.47	+18 0.6	1.480	2.439	7.8	20.2
11 7	0 50.42	-14 24.8	1.649	2.473	15.7	19.3	11 7	0 43.44	+17 32.8	1.524	2.433	11.8	20.5
11 17	0 47.13	-14 15.0	1.726	2.461	18.5	19.5	11 17	0 38.12	+17 7.3	1.590	2.426	15.4	20.7
24591	2139 <i>T</i> ₋₃		10 11.6 233°93	1.7/13.2	18		300532	2007 <i>TA</i> ₂₂₈		10 11.6 350°29	0.6/12.2	18	
9 8	1 31.20	+14 25.0	1.914	2.754	13.9	18.1	9 8	1 30.06	+11 12.5	1.593	2.456	15.1	21.1
9 18	1 26.28	+14 2.6	1.835	2.750	10.6	17.9	9 18	1 25.72	+10 47.0	1.523	2.453	11.3	20.9
9 28	1 19.40	+13 24.3	1.778	2.746	6.8	17.7	9 28	1 19.17	+10 6.3	1.475	2.450	6.9	20.6
10 8	1 11.24	+12 32.9	1.748	2.741	2.8	17.4	10 8	1 11.21	+9 14.4	1.451	2.448	2.2	20.3
10 18	1 2.71	+11 33.1	1.745	2.736	2.7	17.4	10 18	1 2.85	+8 17.1	1.455	2.447	3.0	20.4
10 28	0 54.82	+10 31.4	1.771	2.731	6.6	17.6	10 28	0 55.27	+7 22.1	1.485	2.445	7.7	20.6
11 7	0 48.47	+9 34.8	1.823	2.726	10.5	17.8	11 7	0 49.44	+6 36.5	1.540	2.445	12.0	20.9
11 17	0 44.24	+8 48.8	1.899	2.721	13.9	18.1	11 17	0 46.01	+6 5.3	1.617	2.444	15.7	21.1
360431	2002 <i>JX</i> ₆		10 11.6 72°48	4.4/17.9	17		448282	2008 <i>YG</i> ₁₆₄		10 11.6 267°76	7.8/19.1	18	
9 8	1 30.36	+27 51.1	2.293	3.058	14.2	20.7	9 8	1 33.03	+29 56.6	1.912	2.673	16.8	21.0
9 18	1 25.19	+26 55.2	2.232	3.087	11.6	20.6	9 18	1 28.03	+30 26.6	1.822	2.663	14.3	20.8
9 28	1 18.47	+25 36.5	2.193	3.115	8.6	20.5	9 28	1 20.66	+30 31.9	1.751	2.654	11.6	20.6
10 8	1 10.93	+23 57.3	2.180	3.144	5.8	20.3	10 8	1 11.65	+30 9.9	1.703	2.644	9.1	20.5
10 18	1 3.37	+22 3.1	2.197	3.172	4.4	20.3	10 18	1 2.04	+29 20.9	1.679	2.634	7.8	20.4
10 28	0 56.61	+20 1.5	2.244	3.200	5.8	20.4	10 28	0 53.06	+28 9.6	1.683	2.624	8.6	20.4
11 7	0 51.30	+18 1.2	2.320	3.228	8.3	20.6	11 7	0 45.83	+26 44.7	1.711	2.614	11.1	20.5
11 17	0 47.84	+16 9.7	2.424	3.255	10.9	20.9	11 17	0 41.10	+25 16.0	1.764	2.604	14.0	20.7
131369	2001 <i>KX</i> ₁₈		10 11.6 260°45	8.5/19.5	16		314589	2006 <i>AW</i> ₁₈		10 11.6 188°77	7.5/20.9	17	
9 8	1 31.63	+32 15.6	1.180	1.974	23.5	19.7	9 8	1 36.82	+35 38.7	2.945	3.627	13.0	21.1
9 18	1 28.03	+31 38.5	1.096	1.963	20.0	19.5	9 18	1 30.18	+36 32.8	2.854	3.626	11.5	21.0
9 28	1 21.08	+30 12.7	1.028	1.952	15.7	19.2	9 28	1 21.68	+37 8.5	2.782	3.625	9.8	20.9
10 8	1 11.79	+27 54.3	0.979	1.941	11.3	18.9	10 8	1 11.90	+37 23.1	2.735	3.623	8.3	20.8
10 18	1 1.74	+24 47.9	0.954	1.929	8.6	18.7	10 18	1 1.61	+37 15.7	2.714	3.621	7.5	20.7
10 28	0 52.83	+21 10.2	0.953	1.917	10.2	18.8	10 28	0 51.76	+36 48.1	2.720	3.619	7.8	20.7
11 7	0 46.60	+17 26.0	0.978	1.905	14.8	19.0	11 7	0 43.18	+36 4.9	2.754	3.616	8.9	20.8
11 17	0 43.92	+13 58.7	1.026	1.893	19.6	19.2	11 17	0 36.51	+35 12.0	2.812	3.613	10.4	20.9
345482	2006 <i>HT</i> ₈₈		10 11.6 95°77	7.0/5.7	18		282705	2006 <i>BD</i> ₉₆		10 11.6 12°46	5.1/6.7	18	
9 8	1 36.17	-11 55.2	1.905	2.773	12.8	20.3	9 8	1 29.03	-1 14.6	1.563	2.452	13.9	20.1
9 18	1 29.50	-12 50.4	1.870	2.794	9.9	20.1	9 18	1 24.86	-2 53.8	1.508	2.453	10.2	19.9
9 28	1 21.04	-13 37.5	1.860	2.814	7.7	20.0	9 28	1 18.60	-4 37.9	1.476	2.454	6.6	19.7
10 8	1 11.62	-14 9.8	1.876	2.834	7.1	20.1	10 8	1 11.04	-6 17.1	1.470	2.454	5.2	19.6
10 18	1 2.20	-14 22.5	1.920	2.853	8.5	20.2	10 18	1 3.21	-7 41.7	1.491	2.455	7.5	19.8
10 28	0 53.75	-14 13.3	1.989	2.873	10.9	20.4	10 28	0 56.19	-8 43.6	1.537	2.457	11.1	20.0
11 7	0 47.02	-13 42.8	2.082	2.891	13.4	20.6	11 7	0 50.91	-9 19.0	1.606	2.458	14.7	20.2
11 17	0 42.45	-12 53.7	2.196	2.910	15.6	20.8	11 17	0 47.91	-9 27.5	1.695	2.460	17.7	20.4
48100	2001 <i>FW</i> ₅₇		10 11.6 160°95	2.8/14.2	18		107874	2001 <i>FD</i> ₈₈		10 11.6 145°65	3.8/7.4	18	
9 8	1 35.52	+16 23.6											

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
252077	2000 <i>SC</i> ₂₈₆		10 11.6 354°92	2°0/ 9.9 18			178854	2001 <i>KR</i> ₁₆		10 11.6 98°34	3°0/ 9.1 18	R	
9 8	1 29.10	+ 4 11.1	1.696	2.574	13.6	20.5	9 8	1 35.27	+ 2 23.6	1.590	2.464	14.6	20.3
9 18	1 24.84	+ 3 31.6	1.631	2.571	9.9	20.3	9 18	1 29.20	+ 1 25.0	1.546	2.484	10.5	20.1
9 28	1 18.57	+ 2 44.0	1.588	2.569	5.8	20.0	9 28	1 21.03	+ 0 20.4	1.525	2.504	6.2	19.9
10 8	1 11.04	+ 1 53.8	1.571	2.567	2.2	19.8	10 8	1 11.69	- 0 42.9	1.530	2.524	3.1	19.7
10 18	1 3.20	+ 1 7.5	1.581	2.566	4.3	19.9	10 18	1 2.26	- 1 37.8	1.563	2.543	5.2	19.9
10 28	0 56.07	+ 0 31.2	1.618	2.566	8.4	20.2	10 28	0 53.88	- 2 17.8	1.624	2.562	9.2	20.2
11 7	0 50.56	+ 0 9.6	1.680	2.566	12.3	20.4	11 7	0 47.40	- 2 39.3	1.708	2.580	12.9	20.5
11 17	0 47.23	+ 0 5.1	1.762	2.566	15.6	20.6	11 17	0 43.34	- 2 41.5	1.814	2.598	16.0	20.7
283683	2002 <i>QV</i> ₁₁₂		10 11.6 316°44	3°2/ 7.8 18			101461	1998 <i>WU</i> ₇		10 11.6 353°58	0°6/ 11.9 18		
9 8	1 26.13	+ 1 10.7	2.134	3.012	11.2	20.5	9 8	1 33.73	+ 7 57.9	1.125	2.010	18.4	18.8
9 18	1 22.34	- 0 7.9	2.062	3.003	8.1	20.3	9 18	1 29.23	+ 8 19.7	1.063	2.004	13.8	18.5
9 28	1 16.97	- 1 32.7	2.015	2.994	5.0	20.1	9 28	1 21.64	+ 8 29.4	1.020	1.999	8.4	18.2
10 8	1 10.60	- 2 57.2	1.995	2.985	3.2	20.0	10 8	1 11.97	+ 8 29.6	0.999	1.996	2.5	17.9
10 18	1 3.96	- 4 14.6	2.004	2.976	5.1	20.1	10 18	1 1.66	+ 8 24.7	1.002	1.994	3.8	18.0
10 28	0 57.83	- 5 18.5	2.041	2.968	8.3	20.3	10 28	0 52.42	+ 8 20.9	1.028	1.992	9.6	18.3
11 7	0 52.93	- 6 4.5	2.103	2.960	11.5	20.5	11 7	0 45.66	+ 8 24.6	1.077	1.993	14.9	18.6
11 17	0 49.76	- 6 30.7	2.187	2.952	14.2	20.7	11 17	0 42.19	+ 8 39.8	1.145	1.994	19.3	18.9
225784	2001 <i>TW</i> ₁₈₃		10 11.6 104°43	0°2/ 11.7 18			426248	2012 <i>PJ</i> ₃₀		10 11.6 67°35	1°1/ 10.8 18		
9 8	1 35.34	+ 9 18.9	1.653	2.510	14.9	20.3	9 8	1 34.87	+ 6 46.9	1.437	2.309	15.9	20.4
9 18	1 29.37	+ 9 0.5	1.594	2.522	11.0	20.1	9 18	1 29.14	+ 6 16.5	1.391	2.327	11.6	20.2
9 28	1 21.21	+ 8 30.1	1.558	2.534	6.6	19.9	9 28	1 21.10	+ 5 35.3	1.366	2.346	6.8	19.9
10 8	1 11.74	+ 7 51.5	1.548	2.545	1.8	19.6	10 8	1 11.73	+ 4 49.0	1.367	2.365	1.8	19.7
10 18	1 2.04	+ 7 10.1	1.566	2.557	3.0	19.7	10 18	1 2.22	+ 4 4.3	1.395	2.384	3.8	19.9
10 28	0 53.27	+ 6 32.3	1.612	2.568	7.6	20.0	10 28	0 53.83	+ 3 28.1	1.449	2.402	8.6	20.2
11 7	0 46.36	+ 6 3.6	1.683	2.579	11.7	20.3	11 7	0 47.50	+ 3 5.6	1.527	2.421	12.8	20.5
11 17	0 41.89	+ 5 47.8	1.777	2.590	15.1	20.6	11 17	0 43.78	+ 2 59.3	1.627	2.440	16.2	20.8
89934	2002 <i>EH</i> ₉₅		10 11.6 27°94	0°5/ 12.5 18			304469	2006 <i>UU</i> ₆₅		10 11.6 57°55	1°9/ 10.1 18		
9 8	1 24.04	+ 10 43.8	4.006	4.841	7.4	19.3	9 8	1 32.95	+ 3 32.4	1.747	2.618	13.6	20.2
9 18	1 20.14	+ 10 33.3	3.929	4.844	5.5	19.1	9 18	1 27.49	+ 3 7.3	1.692	2.629	9.9	20.0
9 28	1 15.40	+ 10 17.0	3.877	4.847	3.3	19.0	9 28	1 20.06	+ 2 36.1	1.660	2.639	5.8	19.8
10 8	1 10.15	+ 9 56.6	3.855	4.850	1.1	18.8	10 8	1 11.45	+ 2 3.5	1.654	2.650	2.1	19.6
10 18	1 4.77	+ 9 33.9	3.862	4.853	1.4	18.9	10 18	1 2.65	+ 1 34.7	1.675	2.661	4.0	19.7
10 28	0 59.67	+ 9 11.3	3.901	4.857	3.6	19.0	10 28	0 54.68	+ 1 14.9	1.725	2.672	8.0	20.0
11 7	0 55.23	+ 8 50.9	3.968	4.860	5.6	19.2	11 7	0 48.40	+ 1 7.6	1.799	2.683	11.7	20.2
11 17	0 51.74	+ 8 34.9	4.061	4.864	7.5	19.3	11 17	0 44.35	+ 1 14.6	1.896	2.694	14.8	20.5
171342	2006 <i>KY</i> ₉		10 11.6 36°20	0°6/ 11.1 18			415915	2001 <i>UC</i> ₁₀₆		10 11.6 64°04	2°8/ 10.1 17		
9 8	1 29.84	+ 8 56.2	1.409	2.285	16.0	19.4	9 8	1 38.42	+ 2 12.7	1.205	2.088	17.6	20.4
9 18	1 25.56	+ 8 10.4	1.359	2.298	11.7	19.2	9 18	1 32.26	+ 1 55.5	1.153	2.096	12.9	20.2
9 28	1 19.03	+ 7 10.5	1.331	2.311	6.8	19.0	9 28	1 23.19	+ 1 31.8	1.122	2.103	7.6	19.9
10 8	1 11.16	+ 6 2.8	1.328	2.326	1.7	18.7	10 8	1 12.33	+ 1 8.0	1.114	2.110	3.0	19.7
10 18	1 3.11	+ 4 55.4	1.351	2.341	3.6	18.8	10 18	1 1.15	+ 0 50.8	1.132	2.118	5.4	19.8
10 28	0 56.05	+ 3 56.6	1.399	2.356	8.5	19.2	10 28	0 51.25	+ 0 46.2	1.175	2.125	10.5	20.2
11 7	0 50.92	+ 3 13.2	1.472	2.372	12.7	19.5	11 7	0 43.84	+ 0 58.0	1.241	2.133	15.2	20.5
11 17	0 48.26	+ 2 48.4	1.566	2.389	16.3	19.7	11 17	0 39.60	+ 1 27.0	1.326	2.141	19.1	20.7
280573	2004 <i>TG</i> ₅₅		10 11.6 39°30	2°1/ 10.1 18			432674	2011 <i>BE</i> ₈		10 11.6 152°05	1°6/ 10.2 17		
9 8	1 34.41	+ 3 13.8	1.505	2.382	15.1	20.0	9 8	1 34.36	+ 5 35.5	1.873	2.734	13.3	22.3
9 18	1 28.88	+ 2 53.1	1.447	2.387	11.0	19.8	9 18	1 28.45	+ 4 49.4	1.810	2.742	9.7	22.1
9 28	1 21.02	+ 2 25.6	1.412	2.392	6.5	19.5	9 28	1 20.61	+ 3 54.5	1.771	2.750	5.6	21.9
10 8	1 11.72	+ 1 56.8	1.402	2.398	2.4	19.3	10 8	1 11.61	+ 2 56.1	1.760	2.757	1.8	21.7
10 18	1 2.13	+ 1 32.3	1.418	2.404	4.5	19.5	10 18	1 2.37	+ 2 0.3	1.778	2.763	3.8	21.8
10 28	0 53.50	+ 1 17.9	1.461	2.410	9.0	19.7	10 28	0 53.92	+ 1 13.4	1.824	2.769	7.8	22.1
11 7	0 46.82	+ 1 17.4	1.528	2.416	13.1	20.0	11 7	0 47.10	+ 0 40.1	1.896	2.774	11.5	22.3
11 17	0 42.71	+ 1 32.3	1.616	2.423	16.6	20.3	11 17	0 42.46	+ 0 22.9	1.990	2.778	14.6	22.5
10226	Seishika		10 11.6 108°35	3°4/ 14.9 18			285173	1996 <i>ES</i> ₈		10 11.6 233°42	1°3/ 12.9 18		
9 8	1 33.65	+ 19 9.6	1.759	2.581	15.7	17.0	9 8	1 33.39	+ 12 38.7	2.189	3.024	12.6	21.4
9 18	1 28.14	+ 18 56.7	1.694	2.594	12.3	16.8	9 18	1 27.76	+ 12 31.1	2.100	3.013	9.5	21.1
9 28	1 20.51	+ 18 23.5	1.651	2.606	8.4	16.7	9 28	1 20.27	+ 12 11.4	2.035	3.002	6.0	20.9
10 8	1 11.58	+ 17 32.0	1.633	2.618	4.7	16.5	10 8	1 11.55	+ 11 41.7	1.996	2.990	2.4	20.6
10 18	1 2.38	+ 16 26.9	1.643	2.630	3.7	16.4	10 18	1 2.40	+ 11 5.2	1.988	2.978	2.5	20.6
10 28	0 54.06	+ 15 15.5	1.680	2.641	6.9	16.6	10 28	0 53.77	+ 10 26.7	2.008	2.966	6.2	20.9
11 7	0 47.53	+ 14 6.1	1.744	2.652	10.6	16.9	11 7	0 46.49	+ 9 51.5	2.056	2.953	9.8	21.1
11 17	0 43.36	+ 13 5.7	1.831	2.663	13.9	17.1	11 17	0 41.19	+ 9 24.1	2.128	2.939	13.0	21.2
58490	1996 <i>TZ</i> ₃₅		10 11.6 257°83	0°5/ 12.1 18			470576	2008 <i>HM</i> ₅		10 11.6 74°54	0°1/ 11.6 16		
9 8	1 30.48	+ 10 48.9	2.054	2.904	12.7	19.7	9 8	1 37.31	+ 8 31.3	1.432	2.296	16.4	21.3
9 18	1 25.62	+ 10 25.5	1.976	2.900	9.5	19.5	9 18	1 30.92	+ 8 16.2	1.387	2.318	12.1	21.1
9 28	1 18.97	+ 9 50.3	1.923	2.896	5.8	19.3	9 28	1 22.14	+ 7 48.9	1.363	2.340	7.1	20.8
10 8	1 11.17	+ 9 6.4	1.896	2.892	1.8	19.0	10 8	1 12.01	+ 7 14.0	1.365	2.362	1.9	20.6
10 18	1 3.04	+ 8 18.3	1.897	2.888	2.5	19.1	10 18	1 1.77	+ 6 37.3	1.394	2.384	3.3	20.7
10 28	0 55.51	+ 7 31.6	1.927	2.884	6.5	19.3	10 28	0 52.73	+ 6 5.5	1.449	2.406	8.2	21.1
11 7	0 49.37	+ 6 51.8	1.983	2.880	10.1	19.5	11 7	0 45.85	+ 5 44.2	1.530	2.428	12.5	21.4
11 17	0 45.19	+ 6 22.9	2.063	2.876	13.3	19.7	11 17	0 41.68	+ 5 36.6	1.632	2.449	16.0	21.7
450555	2006 <i>DN</i> ₁₇₁		10 11.6 222°98	0°3/ 11.9 17			219952	2002 <i>GA</i> ₁₇₄		10 11.6 46°56	3		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
424565	2008 <i>FH</i> ₆₉		10 11.6 140°42'	1.7°/10.2	17		260401	2004 <i>XW</i> ₃		10 11.7 261°30'	6.2°/5.3	18	
9 8	1 35.20	+ 5 2.2	1.811	2.673	13.6	21.6	9 8	1 32.71	-12 23.1	2.377	3.242	10.7	20.2
9 18	1 29.10	+ 4 20.2	1.752	2.684	9.9	21.4	9 18	1 27.00	-13 5.7	2.312	3.233	8.4	20.0
9 28	1 21.01	+ 3 30.1	1.716	2.694	5.8	21.2	9 28	1 19.70	-13 42.3	2.271	3.223	6.6	19.9
10 8	1 11.72	+ 2 37.0	1.708	2.704	2.0	21.0	10 8	1 11.40	-14 7.4	2.258	3.213	6.2	19.9
10 18	1 2.23	+ 1 47.2	1.728	2.713	3.9	21.1	10 18	1 2.87	-14 16.6	2.272	3.203	7.5	20.0
10 28	0 53.59	+ 1 6.6	1.776	2.722	8.0	21.4	10 28	0 54.92	-14 7.3	2.313	3.193	9.7	20.1
11 7	0 46.64	+ 0 39.7	1.851	2.729	11.7	21.6	11 7	0 48.24	-13 38.9	2.379	3.183	12.1	20.2
11 17	0 41.95	+ 0 28.8	1.947	2.737	14.8	21.9	11 17	0 43.35	-12 52.8	2.466	3.172	14.2	20.4
382885	2004 <i>NY</i> ₂₅		10 11.6 42°66'	6.7°/6.5	16		403411	2009 <i>SF</i> ₂₄		10 11.7 38°89'	3.0°/14.5	18	
9 8	1 30.96	- 3 57.2	1.233	2.132	16.1	20.2	9 8	1 31.06	+17 11.7	1.948	2.777	14.2	20.4
9 18	1 26.48	- 5 30.2	1.200	2.148	11.9	20.0	9 18	1 26.13	+17 16.5	1.881	2.785	11.0	20.2
9 28	1 19.58	- 7 2.3	1.190	2.166	8.1	19.8	9 28	1 19.30	+17 5.3	1.837	2.794	7.5	20.0
10 8	1 11.33	- 8 22.0	1.203	2.184	6.7	19.8	10 8	1 11.31	+16 39.5	1.818	2.804	4.1	19.8
10 18	1 3.00	- 9 19.7	1.241	2.203	9.0	20.0	10 18	1 3.04	+16 2.4	1.826	2.814	3.4	19.8
10 28	0 55.87	- 9 49.4	1.302	2.222	12.7	20.3	10 28	0 55.48	+15 19.3	1.862	2.824	6.3	20.0
11 7	0 50.90	- 9 49.8	1.385	2.242	16.2	20.5	11 7	0 49.45	+14 36.5	1.925	2.834	9.7	20.2
11 17	0 48.57	- 9 23.5	1.485	2.262	19.2	20.8	11 17	0 45.51	+13 59.4	2.012	2.844	12.8	20.4
20238	1998 <i>DT</i> ₇		10 11.6 129°48'	2.4°/13.7	18		173473	2000 <i>RD</i> ₉₀		10 11.7 339°59'	4.7°/14.5	17	
9 8	1 36.22	+15 54.0	1.659	2.494	15.9	18.4	9 8	1 31.55	+17 2.6	1.091	1.956	20.3	19.7
9 18	1 30.12	+15 39.9	1.596	2.506	12.2	18.1	9 18	1 27.93	+17 30.9	1.022	1.946	16.1	19.4
9 28	1 21.73	+15 7.5	1.554	2.518	8.0	17.9	9 28	1 21.07	+17 35.2	0.971	1.937	11.1	19.1
10 8	1 11.94	+14 19.1	1.538	2.529	3.7	17.7	10 8	1 11.92	+17 14.9	0.941	1.929	6.2	18.8
10 18	1 1.88	+13 20.0	1.550	2.540	3.2	17.7	10 18	1 1.93	+16 33.6	0.933	1.922	5.2	18.7
10 28	0 52.76	+12 17.7	1.589	2.550	7.2	18.0	10 28	0 52.95	+15 39.9	0.948	1.916	9.6	18.9
11 7	0 45.56	+11 20.0	1.655	2.559	11.3	18.2	11 7	0 46.50	+14 45.5	0.985	1.911	14.8	19.2
11 17	0 40.90	+10 33.2	1.743	2.568	14.8	18.5	11 17	0 43.53	+14 0.6	1.041	1.907	19.5	19.5
208063	1999 <i>UM</i> ₃₃		10 11.7 320°42'	0.9°/11.1	18		423397	2005 <i>KO</i> ₉		10 11.7 129°77'	1.3°/10.5	17	
9 8	1 31.11	+ 6 41.9	1.434	2.312	15.6	21.1	9 8	1 36.32	+ 6 3.2	1.805	2.664	13.8	21.8
9 18	1 26.92	+ 6 26.3	1.352	2.292	11.6	20.8	9 18	1 29.89	+ 5 22.5	1.750	2.680	10.1	21.6
9 28	1 20.16	+ 5 59.3	1.292	2.272	6.9	20.5	9 28	1 21.46	+ 4 32.9	1.718	2.695	5.9	21.4
10 8	1 11.61	+ 5 25.1	1.255	2.253	1.9	20.1	10 8	1 11.88	+ 3 39.5	1.713	2.710	1.8	21.2
10 18	1 2.36	+ 4 49.6	1.244	2.234	3.9	20.2	10 18	1 2.14	+ 2 48.5	1.737	2.724	3.7	21.3
10 28	0 53.80	+ 4 20.0	1.259	2.217	9.1	20.4	10 28	0 53.30	+ 2 5.9	1.790	2.737	7.8	21.6
11 7	0 47.13	+ 4 2.6	1.297	2.199	13.9	20.7	11 7	0 46.20	+ 1 36.3	1.869	2.749	11.5	21.9
11 17	0 43.18	+ 4 1.6	1.356	2.183	18.1	20.9	11 17	0 41.39	+ 1 22.0	1.970	2.761	14.6	22.1
397329	2006 <i>TV</i> ₃₂		10 11.7 45°16'	0.8°/12.5	18		178608	2000 <i>DJ</i> ₇₀		10 11.7 338°15'	4.9°/14.7	18	
9 8	1 29.40	+12 48.7	1.916	2.765	13.5	21.5	9 8	1 35.60	+17 31.3	1.545	2.379	16.9	19.1
9 18	1 24.91	+12 10.2	1.844	2.766	10.2	21.3	9 18	1 30.21	+18 25.1	1.466	2.370	13.5	18.9
9 28	1 18.58	+11 16.9	1.796	2.768	6.3	21.1	9 28	1 22.14	+19 2.5	1.408	2.362	9.6	18.6
10 8	1 11.10	+10 12.6	1.774	2.769	2.1	20.8	10 8	1 12.17	+19 21.7	1.373	2.355	6.0	18.4
10 18	1 3.33	+ 9 2.8	1.780	2.771	2.5	20.8	10 18	1 1.49	+19 23.3	1.365	2.348	5.2	18.4
10 28	0 56.24	+ 7 54.6	1.814	2.773	6.6	21.1	10 28	0 51.52	+19 11.3	1.383	2.342	8.2	18.5
11 7	0 50.62	+ 6 54.6	1.874	2.775	10.4	21.3	11 7	0 43.55	+18 52.5	1.425	2.336	12.2	18.7
11 17	0 47.04	+ 6 7.8	1.958	2.776	13.7	21.6	11 17	0 38.42	+18 34.0	1.489	2.332	16.0	19.0
172222	2002 <i>RH</i> ₆₀		10 11.7 34°43'	2.1°/10.2	18		226508	2003 <i>TJ</i> ₁₀		10 11.7 10°76'	9.2°/21.1	17	
9 8	1 31.94	+ 4 23.0	1.317	2.203	16.2	18.7	9 8	1 28.26	+32 14.7	1.645	2.412	18.9	18.4
9 18	1 27.12	+ 3 50.5	1.277	2.221	11.7	18.5	9 18	1 24.71	+32 53.8	1.577	2.417	16.3	18.2
9 28	1 19.96	+ 3 9.6	1.258	2.240	6.8	18.3	9 28	1 18.75	+33 3.5	1.527	2.422	13.4	18.0
10 8	1 11.45	+ 2 26.7	1.263	2.260	2.4	18.0	10 8	1 11.22	+32 41.2	1.497	2.429	10.8	17.9
10 18	1 2.83	+ 1 49.1	1.294	2.281	4.6	18.2	10 18	1 3.23	+31 48.0	1.490	2.437	9.3	17.8
10 28	0 55.35	+ 1 23.2	1.350	2.302	9.2	18.6	10 28	0 56.08	+30 29.7	1.507	2.446	9.6	17.9
11 7	0 49.97	+ 1 13.3	1.429	2.324	13.4	18.9	11 7	0 50.87	+28 56.4	1.548	2.457	11.6	18.0
11 17	0 47.18	+ 1 20.7	1.529	2.347	16.9	19.2	11 17	0 48.26	+27 19.2	1.612	2.468	14.2	18.2
51710	2001 <i>KZ</i> ₂₈		10 11.7 118°34'	1.5°/12.9	18		469095	2015 <i>CC</i> ₄		10 11.7 344°41'	6.0°/7.3	18	
9 8	1 36.37	+13 12.0	1.717	2.559	15.2	19.8	9 8	1 26.06	+ 0 17.3	0.957	1.872	18.1	20.2
9 18	1 30.09	+12 55.5	1.658	2.575	11.4	19.6	9 18	1 23.80	- 1 13.3	0.902	1.861	13.3	19.9
9 28	1 21.65	+12 23.7	1.621	2.590	7.2	19.3	9 28	1 18.51	- 2 54.7	0.866	1.851	8.5	19.6
10 8	1 11.92	+11 39.6	1.610	2.605	2.7	19.1	10 8	1 11.19	- 4 33.4	0.852	1.842	6.0	19.5
10 18	1 1.98	+10 48.5	1.628	2.619	2.8	19.1	10 18	1 3.28	- 5 54.8	0.859	1.835	9.2	19.6
10 28	0 52.98	+ 9 57.2	1.674	2.633	7.1	19.4	10 28	0 56.47	- 6 46.7	0.887	1.829	14.3	19.9
11 7	0 45.84	+ 9 12.3	1.746	2.646	11.1	19.7	11 7	0 52.11	- 7 3.3	0.934	1.825	19.2	20.1
11 17	0 41.12	+ 8 38.7	1.841	2.658	14.4	20.0	11 17	0 50.95	- 6 45.0	0.997	1.822	23.3	20.4
421984	2014 <i>QT</i> ₃₀₄		10 11.7 317°47'	4.9°/5.9	18		98714	2000 <i>XU</i> ₄₇		10 11.7 114°22'	3.0°/13.8	18	
9 8	1 27.71	- 5 4.5	2.173	3.053	10.9	21.1	9 8	1 37.67	+15 29.7	1.491	2.332	17.1	19.3
9 18	1 23.44	- 6 20.6	2.112	3.050	8.2	20.9	9 18	1 31.47	+15 38.7	1.428	2.341	13.2	19.1
9 28	1 17.61	- 7 36.9	2.077	3.047	5.7	20.8	9 28	1 22.69	+15 29.2	1.386	2.350	8.7	18.9
10 8	1 10.83	- 8 46.7	2.069	3.044	4.9	20.7	10 8	1 12.27	+15 2.7	1.369	2.359	4.3	18.6
10 18	1 3.82	- 9 43.9	2.088	3.041	6.6	20.8	10 18	1 1.47	+14 23.3	1.378	2.368	3.7	18.6
10 28	0 57.38	-10 23.6	2.135	3.039	9.3	21.0	10 28	0 51.70	+13 38.0	1.415	2.376	7.8	18.9
11 7	0 52.19	-10 43.2	2.206	3.036	12.0	21.2	11 7	0 44.07	+12 55.0	1.476	2.384	12.1	19.2
11 17	0 48.73	-10 42.5	2.298	3.034	14.4	21.3	11 17	0 39.27	+12 20.9	1.560	2.392	15.9	19.4
179227	2001 <i>UG</i> ₁₄		10 11.7 285°58'	7.2°/13.8	18		240827	2006 <i>BT</i> ₂₁		10 11.7 28°85'	3.		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
362609	2011 <i>BL</i> ₂		10 11.7	20°97'	5°9'/	6.2 18	437988	2003 <i>SB</i> ₄₀₈		10 11.7	34°13'	9°7'/	4.3 18
9 8	1 30.39	- 8 6.2	1.922	2.802	12.1	19.8	9 8	1 32.40	-13 38.3	1.381	2.270	15.4	20.1
9 18	1 25.51	- 8 59.8	1.871	2.806	9.2	19.6	9 18	1 27.43	-15 0.2	1.350	2.282	12.3	20.0
9 28	1 18.88	- 9 49.8	1.844	2.810	6.7	19.5	9 28	1 20.14	-16 10.1	1.341	2.294	10.1	19.9
10 8	1 11.20	-10 29.4	1.843	2.814	5.9	19.4	10 8	1 11.56	-16 58.0	1.355	2.307	9.8	19.9
10 18	1 3.35	-10 53.2	1.869	2.819	7.5	19.6	10 18	1 2.89	-17 17.0	1.392	2.320	11.6	20.1
10 28	0 56.22	-10 57.7	1.921	2.825	10.2	19.7	10 28	0 55.37	-17 4.2	1.452	2.334	14.3	20.3
11 7	0 50.59	-10 41.7	1.997	2.830	13.0	19.9	11 7	0 49.91	-16 21.6	1.532	2.349	17.0	20.5
11 17	0 46.95	-10 6.6	2.093	2.836	15.4	20.1	11 17	0 47.02	-15 14.0	1.630	2.364	19.4	20.7
92283	2000 <i>DC</i> ₄₅		10 11.7	178°23'	0°2'/	11.9 18	172085	2002 <i>CV</i> ₉₇		10 11.7	53°00'	3°0'/	13.4 17
9 8	1 25.49	+ 9 57.8	3.476	4.315	8.3	20.0	9 8	1 39.61	+13 37.2	1.107	1.970	20.2	18.8
9 18	1 21.34	+ 9 31.1	3.397	4.315	6.1	19.8	9 18	1 33.22	+14 2.0	1.067	1.993	15.4	18.6
9 28	1 16.21	+ 8 57.7	3.344	4.316	3.7	19.6	9 28	1 23.78	+14 6.5	1.047	2.017	9.9	18.4
10 8	1 10.47	+ 8 19.7	3.319	4.316	1.1	19.4	10 8	1 12.57	+13 52.6	1.049	2.042	4.5	18.1
10 18	1 4.58	+ 7 39.9	3.326	4.316	1.6	19.5	10 18	1 1.23	+13 25.6	1.076	2.066	4.0	18.2
10 28	0 59.02	+ 7 1.4	3.362	4.316	4.2	19.7	10 28	0 51.46	+12 53.6	1.127	2.091	8.9	18.6
11 7	0 54.23	+ 6 27.2	3.428	4.316	6.5	19.8	11 7	0 44.46	+12 25.4	1.202	2.117	13.7	18.9
11 17	0 50.56	+ 5 59.6	3.519	4.316	8.6	20.0	11 17	0 40.80	+12 7.2	1.296	2.142	17.7	19.2
327655	2006 <i>QF</i> ₅₉		10 11.7	16°51'	9°7'/	17.5 18	128194	2003 <i>SP</i> ₁₄		10 11.7	231°79'	1°5'/	9.9 18
9 8	1 34.26	+24 4.9	1.002	1.845	23.4	19.2	9 8	1 27.85	+ 5 30.1	2.349	3.211	10.9	19.7
9 18	1 30.15	+25 33.9	0.951	1.850	19.5	19.0	9 18	1 23.49	+ 4 36.8	2.276	3.209	7.9	19.5
9 28	1 22.45	+26 31.9	0.916	1.857	15.1	18.8	9 28	1 17.65	+ 3 35.8	2.228	3.207	4.6	19.3
10 8	1 12.30	+26 53.6	0.900	1.866	11.3	18.6	10 8	1 10.91	+ 2 31.7	2.208	3.204	1.6	19.1
10 18	1 1.45	+26 38.6	0.904	1.876	9.7	18.6	10 18	1 3.93	+ 1 29.7	2.218	3.202	3.3	19.2
10 28	0 51.96	+25 54.3	0.930	1.888	11.5	18.7	10 28	0 57.46	+ 0 35.1	2.256	3.199	6.6	19.4
11 7	0 45.47	+24 54.1	0.977	1.900	15.2	19.0	11 7	0 52.16	- 0 7.7	2.321	3.197	9.8	19.6
11 17	0 42.80	+23 51.9	1.043	1.915	19.0	19.3	11 17	0 48.48	- 0 36.0	2.410	3.194	12.5	19.8
506497	2003 <i>VP</i> ₁₂		10 11.7	302°84'	1°4'/	12.6 18	476789	2008 <i>UJ</i> ₁₄₉		10 11.7	334°58'	1°3'/	10.7 18
9 8	1 30.79	+13 2.7	1.301	2.169	17.5	21.6	9 8	1 30.62	+ 6 27.6	1.394	2.275	15.8	21.2
9 18	1 27.07	+12 38.2	1.213	2.144	13.4	21.3	9 18	1 26.48	+ 5 56.1	1.325	2.266	11.7	20.9
9 28	1 20.48	+11 52.0	1.145	2.120	8.5	20.9	9 28	1 19.85	+ 5 12.4	1.276	2.258	6.9	20.6
10 8	1 11.79	+10 46.8	1.099	2.095	3.1	20.5	10 8	1 11.57	+ 4 22.1	1.252	2.250	2.0	20.3
10 18	1 2.20	+ 9 29.2	1.078	2.071	3.5	20.5	10 18	1 2.79	+ 3 32.4	1.254	2.243	4.2	20.4
10 28	0 53.27	+ 8 9.9	1.083	2.046	9.3	20.7	10 28	0 54.83	+ 2 51.2	1.281	2.236	9.2	20.7
11 7	0 46.42	+ 7 0.1	1.110	2.023	14.8	21.0	11 7	0 48.82	+ 2 25.1	1.331	2.230	13.9	21.0
11 17	0 42.61	+ 6 8.3	1.157	2.000	19.6	21.2	11 17	0 45.47	+ 2 17.5	1.401	2.225	17.8	21.2
374815	2006 <i>US</i> ₈₈		10 11.7	347°27'	1°3'/	12.5 18	298078	2002 <i>QU</i> ₁₃₁		10 11.7	52°11'	0°3'/	11.9 18
9 8	1 28.55	+11 55.9	1.077	1.962	19.0	20.8	9 8	1 33.53	+ 9 37.6	1.550	2.413	15.5	20.9
9 18	1 25.54	+11 43.0	1.012	1.953	14.4	20.5	9 18	1 28.14	+ 9 23.2	1.499	2.430	11.4	20.7
9 28	1 19.54	+11 8.9	0.966	1.945	9.0	20.2	9 28	1 20.57	+ 8 56.3	1.470	2.446	6.8	20.5
10 8	1 11.50	+10 17.7	0.942	1.938	3.1	19.8	10 8	1 11.71	+ 8 20.7	1.467	2.464	2.0	20.2
10 18	1 2.81	+ 9 16.9	0.940	1.933	3.7	19.8	10 18	1 2.66	+ 7 42.0	1.490	2.481	3.0	20.3
10 28	0 55.12	+ 8 17.4	0.962	1.929	9.6	20.2	10 28	0 54.60	+ 7 6.8	1.540	2.499	7.6	20.7
11 7	0 49.83	+ 7 29.5	1.005	1.926	15.1	20.5	11 7	0 48.44	+ 6 40.5	1.615	2.517	11.7	21.0
11 17	0 47.74	+ 7 0.2	1.067	1.924	19.8	20.8	11 17	0 44.74	+ 6 26.9	1.712	2.535	15.1	21.2
296718	2009 <i>ST</i> ₃₄₆		10 11.7	274°52'	0°2'/	11.5 17	385802	2006 <i>DO</i> ₁₁		10 11.7	251°45'	7°9'/	3.5 18
9 8	1 34.06	+ 6 42.4	2.291	3.140	11.6	20.6	9 8	1 31.44	-11 8.4	1.811	2.691	12.8	20.7
9 18	1 28.17	+ 6 47.3	2.204	3.129	8.6	20.4	9 18	1 26.56	-12 47.7	1.751	2.680	10.1	20.5
9 28	1 20.52	+ 6 45.9	2.142	3.117	5.1	20.2	9 28	1 19.67	-14 22.7	1.715	2.669	8.2	20.4
10 8	1 11.69	+ 6 40.3	2.108	3.106	1.4	19.9	10 8	1 11.49	-15 44.0	1.705	2.658	8.1	20.3
10 18	1 2.47	+ 6 33.3	2.104	3.094	2.5	19.9	10 18	1 2.95	-16 43.3	1.721	2.647	9.9	20.4
10 28	0 53.75	+ 6 28.3	2.129	3.082	6.3	20.2	10 28	0 55.11	-17 15.2	1.762	2.635	12.7	20.6
11 7	0 46.31	+ 6 28.5	2.182	3.070	9.7	20.4	11 7	0 48.85	-17 18.3	1.825	2.623	15.4	20.7
11 17	0 40.74	+ 6 36.6	2.259	3.059	12.7	20.5	11 17	0 44.79	-16 54.3	1.906	2.611	17.9	20.9
308693	2006 <i>EK</i> ₁		10 11.7	14°60'	4°0'/	14.3 18	164682	1997 <i>LQ</i> ₁		10 11.7	322°30'	10°4'/	2.3 18
9 8	1 37.58	+16 4.4	1.561	2.397	16.7	19.7	9 8	1 31.00	-15 48.7	1.504	2.388	14.6	19.0
9 18	1 31.50	+16 48.2	1.490	2.398	13.1	19.4	9 18	1 26.62	-17 20.5	1.448	2.373	12.2	18.8
9 28	1 22.81	+17 15.9	1.440	2.399	9.0	19.2	9 28	1 19.86	-18 41.9	1.415	2.359	10.6	18.7
10 8	1 12.35	+17 26.7	1.415	2.401	5.1	19.0	10 8	1 11.56	-19 41.8	1.405	2.345	10.7	18.7
10 18	1 1.35	+17 22.2	1.417	2.403	4.4	19.0	10 18	1 2.85	-20 11.8	1.418	2.331	12.6	18.7
10 28	0 51.20	+17 7.0	1.445	2.405	7.9	19.2	10 28	0 54.99	-20 7.1	1.453	2.318	15.3	18.9
11 7	0 43.10	+16 47.9	1.499	2.407	11.9	19.4	11 7	0 49.03	-19 28.5	1.508	2.306	18.1	19.0
11 17	0 37.81	+16 31.3	1.575	2.410	15.6	19.7	11 17	0 45.62	-18 20.0	1.579	2.295	20.6	19.2
108198	2001 <i>HS</i> ₂₁		10 11.7	106°88'	0°5'/	12.2 18	120779	1998 <i>ET</i> ₈		10 11.7	154°76'	5°1'/	16.1 18
9 8	1 31.25	+12 1.7	1.968	2.815	13.3	20.2	9 8	1 36.17	+22 5.9	1.916	2.715	15.5	19.6
9 18	1 26.14	+11 19.2	1.906	2.828	9.9	20.0	9 18	1 30.11	+22 32.1	1.840	2.719	12.5	19.4
9 28	1 19.25	+10 23.2	1.868	2.841	6.0	19.8	9 28	1 21.83	+22 39.1	1.785	2.723	9.2	19.2
10 8	1 11.32	+ 9 17.8	1.857	2.853	1.9	19.5	10 8	1 12.10	+22 26.0	1.755	2.726	6.2	19.1
10 18	1 3.21	+ 8 8.9	1.874	2.865	2.5	19.6	10 18	1 1.92	+21 54.7	1.752	2.729	5.2	19.0
10 28	0 55.84	+ 7 3.1	1.921	2.878	6.5	19.9	10 28	0 52.47	+21 10.1	1.777	2.732	7.2	19.2
11 7	0 49.97	+ 6 6.4	1.994	2.889	10.1	20.2	11 7	0 44.75	+20 19.4	1.829	2.734	10.4	19.4
11 17	0 46.10	+ 5 23.1	2.091	2.901	13.2	20.4	11 17	0 39.43	+19 30.0	1.905	2.736	13.5	19.6
442825	2013 <i>AY</i> ₇₅		10 11.7	231°47'	2°1'/	9.5 18	510777	2013 <i>AZ</i> ₅₈		10 11.7	105°8		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
406763	2008 <i>KX</i> ₉		10 11.7 134°86	1°9/14.2 18			399038	2013 <i>HT</i> ₅₃		10 11.7 46°06	2°5/14.4 17		
9 8	1 29.44	+17 20.0	2.606	3.421	11.4	22.2	9 8	1 28.98	+17 48.4	1.842	2.675	14.7	20.6
9 18	1 24.51	+16 46.2	2.533	3.432	8.8	22.0	9 18	1 24.60	+17 15.2	1.787	2.695	11.3	20.4
9 28	1 18.20	+15 58.5	2.485	3.442	5.8	21.8	9 28	1 18.41	+16 23.4	1.754	2.715	7.5	20.2
10 8	1 11.06	+14 59.5	2.464	3.453	2.9	21.6	10 8	1 11.16	+15 16.6	1.746	2.735	3.7	20.0
10 18	1 3.76	+13 53.0	2.473	3.462	2.3	21.6	10 18	1 3.77	+14 0.4	1.766	2.756	2.9	20.0
10 28	0 57.00	+12 44.2	2.512	3.472	5.0	21.8	10 28	0 57.18	+12 42.3	1.814	2.777	6.2	20.3
11 7	0 51.39	+11 38.3	2.580	3.481	7.9	22.0	11 7	0 52.16	+11 29.8	1.889	2.799	9.8	20.6
11 17	0 47.35	+10 40.1	2.674	3.489	10.5	22.2	11 17	0 49.19	+10 28.6	1.987	2.820	12.9	20.8
67024	1999 <i>XS</i> ₁₅₃		10 11.7 342°98	7°5/ 3.9 18			128205	2003 <i>SW</i> ₅₆		10 11.7 287°75	1°1/10.4 18		
9 8	1 27.56	-10 31.4	1.759	2.647	12.7	17.8	9 8	1 27.28	+ 7 34.5	2.260	3.120	11.3	19.7
9 18	1 23.72	-11 57.6	1.704	2.639	10.0	17.6	9 18	1 23.16	+ 6 33.8	2.185	3.117	8.3	19.5
9 28	1 17.97	-13 19.1	1.672	2.631	7.9	17.5	9 28	1 17.53	+ 5 23.2	2.136	3.114	4.8	19.3
10 8	1 11.04	-14 27.1	1.666	2.624	7.7	17.5	10 8	1 10.94	+ 4 7.5	2.114	3.111	1.4	19.1
10 18	1 3.80	-15 14.2	1.684	2.618	9.5	17.5	10 18	1 4.11	+ 2 52.3	2.121	3.108	3.1	19.2
10 28	0 57.27	-15 35.3	1.728	2.612	12.2	17.7	10 28	0 57.80	+ 1 44.0	2.157	3.105	6.6	19.4
11 7	0 52.26	-15 29.3	1.792	2.607	15.0	17.9	11 7	0 52.69	+ 0 47.6	2.221	3.102	9.9	19.6
11 17	0 49.33	-14 57.9	1.875	2.603	17.4	18.1	11 17	0 49.25	+ 0 6.4	2.307	3.099	12.7	19.8
310329	2011 <i>UW</i> ₁₇₈		10 11.7 10°91	4°1/ 8.3 18			111814	2002 <i>CW</i> ₂₉₉		10 11.7 330°81	0°7/12.3 18		
9 8	1 30.92	- 1 9.1	1.636	2.520	13.7	20.5	9 8	1 29.78	+11 16.6	1.899	2.752	13.4	20.3
9 18	1 26.23	- 1 57.5	1.579	2.521	10.0	20.2	9 18	1 25.31	+10 53.8	1.823	2.748	10.1	20.0
9 28	1 19.47	- 2 48.9	1.544	2.523	6.3	20.0	9 28	1 18.95	+10 18.1	1.770	2.743	6.2	19.8
10 8	1 11.44	- 3 36.3	1.535	2.525	4.1	19.9	10 8	1 11.36	+ 9 32.6	1.742	2.739	2.0	19.5
10 18	1 3.14	- 4 13.2	1.553	2.527	6.1	20.0	10 18	1 3.41	+ 8 42.2	1.743	2.734	2.6	19.6
10 28	0 55.65	- 4 34.0	1.597	2.530	9.7	20.3	10 28	0 56.08	+ 7 52.9	1.771	2.731	6.8	19.8
11 7	0 49.87	- 4 35.8	1.665	2.534	13.3	20.5	11 7	0 50.22	+ 7 10.8	1.826	2.727	10.6	20.1
11 17	0 46.36	- 4 18.3	1.753	2.537	16.4	20.7	11 17	0 46.43	+ 6 40.4	1.904	2.724	13.9	20.3
14129	Dibucci		10 11.7 349°78	0°8/12.3 18			333554	2005 <i>V7</i> ₈		10 11.7 40°89	2°8/ 9.7 18		
9 8	1 26.56	+13 28.4	1.153	2.033	18.4	17.4	9 8	1 33.53	+ 3 3.3	1.316	2.201	16.3	20.7
9 18	1 23.87	+12 36.9	1.088	2.026	13.9	17.1	9 18	1 28.49	+ 2 24.8	1.266	2.210	11.8	20.5
9 28	1 18.45	+11 20.2	1.042	2.020	8.6	16.8	9 28	1 20.95	+ 1 38.5	1.238	2.219	7.0	20.2
10 8	1 11.23	+ 9 44.4	1.019	2.016	2.8	16.5	10 8	1 11.89	+ 0 51.5	1.234	2.229	2.9	20.0
10 18	1 3.48	+ 7 59.9	1.020	2.012	3.6	16.5	10 18	1 2.59	+ 0 11.5	1.255	2.240	5.3	20.2
10 28	0 56.69	+ 6 20.0	1.045	2.009	9.4	16.8	10 28	0 54.39	- 0 14.7	1.302	2.250	9.9	20.5
11 7	0 52.10	+ 4 56.8	1.092	2.008	14.7	17.1	11 7	0 48.33	- 0 22.9	1.372	2.262	14.2	20.8
11 17	0 50.41	+ 3 57.8	1.159	2.008	19.1	17.4	11 17	0 45.00	- 0 11.7	1.462	2.273	17.8	21.0
68181	2001 <i>BK</i> ₄₉		10 11.7 28°78	8°4/17.8 18 R			400724	2009 <i>SU</i> ₁₅₅		10 11.7 10°08	0°1/11.7 18		
9 8	1 35.79	+25 39.4	1.395	2.202	19.8	17.6	9 8	1 28.23	+ 9 24.2	1.657	2.526	14.3	20.3
9 18	1 30.51	+26 48.0	1.338	2.213	16.5	17.4	9 18	1 24.30	+ 8 58.1	1.595	2.528	10.6	20.1
9 28	1 22.35	+27 30.1	1.298	2.224	12.9	17.3	9 28	1 18.37	+ 8 19.4	1.554	2.532	6.3	19.9
10 8	1 12.29	+27 42.3	1.280	2.237	9.7	17.1	10 8	1 11.19	+ 7 32.5	1.539	2.537	1.7	19.6
10 18	1 1.70	+27 25.0	1.285	2.250	8.4	17.1	10 18	1 3.72	+ 6 43.2	1.551	2.542	2.9	19.7
10 28	0 52.19	+26 44.0	1.315	2.264	9.8	17.2	10 28	0 57.00	+ 5 58.1	1.589	2.548	7.4	20.0
11 7	0 45.04	+25 49.4	1.369	2.279	12.7	17.4	11 7	0 51.91	+ 5 23.3	1.652	2.555	11.4	20.2
11 17	0 40.99	+24 51.7	1.443	2.295	15.9	17.7	11 17	0 49.01	+ 5 2.4	1.738	2.563	14.8	20.5
331435	2012 <i>GC</i> ₁₇		10 11.7 48°32	7°5/ 6.2 16			40464	1999 <i>RM</i> ₄₄		10 11.7 19°45	0°7/11.0 18		
9 8	1 32.45	- 5 6.6	1.152	2.052	16.9	19.7	9 8	1 23.09	+14 37.2	1.137	2.020	18.5	17.3
9 18	1 27.69	- 6 46.4	1.124	2.072	12.6	19.5	9 18	1 21.10	+12 25.1	1.088	2.029	13.6	17.0
9 28	1 20.37	- 8 23.0	1.118	2.093	8.8	19.3	9 28	1 16.65	+ 9 44.0	1.059	2.040	8.0	16.7
10 8	1 11.67	- 9 44.0	1.136	2.114	7.6	19.3	10 8	1 10.73	+ 6 46.7	1.055	2.053	2.0	16.4
10 18	1 2.94	-10 39.7	1.177	2.135	9.8	19.5	10 18	1 4.57	+ 3 50.6	1.076	2.066	4.3	16.6
10 28	0 55.56	-11 4.2	1.241	2.157	13.5	19.8	10 28	0 59.47	+ 1 13.4	1.124	2.082	9.9	17.0
11 7	0 50.48	-10 57.6	1.326	2.180	17.0	20.1	11 7	0 56.40	- 0 52.4	1.194	2.098	14.8	17.3
11 17	0 48.17	-10 23.3	1.428	2.202	20.0	20.4	11 17	0 55.88	- 2 21.4	1.285	2.116	18.7	17.6
222167	2000 <i>AB</i> ₁₁₁		10 11.7 260°55	3°5/15.7 18			383549	2007 <i>ET</i> ₅		10 11.7 32°99	3°9/14.4 18		
9 8	1 29.62	+20 41.2	2.346	3.150	12.8	20.5	9 8	1 34.95	+16 39.9	1.373	2.219	18.0	20.7
9 18	1 24.95	+20 35.7	2.261	3.147	10.2	20.3	9 18	1 29.74	+17 1.6	1.311	2.225	14.0	20.4
9 28	1 18.63	+20 13.7	2.198	3.143	7.3	20.1	9 28	1 21.84	+17 3.1	1.269	2.231	9.5	20.2
10 8	1 11.24	+19 36.2	2.161	3.139	4.5	20.0	10 8	1 12.18	+16 45.1	1.250	2.238	5.2	20.0
10 18	1 3.53	+18 45.8	2.152	3.135	3.6	19.9	10 18	1 2.08	+16 11.3	1.257	2.245	4.3	19.9
10 28	0 56.32	+17 47.4	2.172	3.131	5.7	20.0	10 28	0 52.99	+15 28.7	1.289	2.252	8.2	20.2
11 7	0 50.38	+16 47.1	2.220	3.127	8.7	20.2	11 7	0 46.10	+14 46.1	1.345	2.260	12.5	20.5
11 17	0 46.24	+15 50.6	2.293	3.123	11.5	20.4	11 17	0 42.14	+14 10.9	1.423	2.269	16.4	20.7
258787	2002 <i>JD</i> ₁₃₅		10 11.7 180°18	1°3/10.4 18			407584	2011 <i>AL</i> ₄₇		10 11.7 319°36	8°7/ 1.7 18		
9 8	1 31.95	+ 4 6.4	2.343	3.201	11.1	20.5	9 8	1 29.00	-16 31.4	2.016	2.889	12.0	20.0
9 18	1 26.49	+ 3 48.3	2.271	3.202	8.1	20.3	9 18	1 24.62	-18 0.1	1.964	2.880	10.0	19.9
9 28	1 19.46	+ 3 25.0	2.224	3.202	4.7	20.1	9 28	1 18.48	-19 19.6	1.936	2.871	8.8	19.8
10 8	1 11.46	+ 2 59.9	2.205	3.202	1.6	19.8	10 8	1 11.24	-20 21.8	1.933	2.862	9.0	19.8
10 18	1 3.21	+ 2 36.6	2.216	3.202	3.1	20.0	10 18	1 3.73	-21 0.3	1.956	2.854	10.5	19.9
10 28	0 55.51	+ 2 19.0	2.256	3.201	6.5	20.2	10 28	0 56.87	-21 11.6	2.002	2.846	12.6	20.0
11 7	0 49.07	+ 2 10.2	2.322	3.201	9.6	20.4	11 7	0 51.42	-20 55.5	2.069	2.838	14.8	20.2
11 17	0 44.36	+ 2 12.2	2.413	3.201	12.3	20.6	11 17	0 47.92	-20 14.4	2.154	2.830	16.8	20.3
504492	2008 <i>GK</i> ₁₁₂		10 11.7 187°85	9°8/ 2.0 17			409825	2006 <i>KL</i> ₆₀		10 11.7 276°75	1°0/12.9 17		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
157391	2004 <i>TM</i> ₂₀₅		10 11.7 164°39	3°2/ 8.5 18			513065	2017 <i>WH</i> ₁₈		10 11.7 138°87	2°6/13.9 17		
9 8	1 32.26	- 2 17.9	2.339	3.206	10.8	20.0	9 8	1 35.66	+16 47.4	1.516	2.354	17.0	21.7
9 18	1 26.70	- 2 44.8	2.273	3.207	7.9	19.8	9 18	1 30.02	+16 24.2	1.450	2.362	13.1	21.4
9 28	1 19.59	- 3 12.3	2.233	3.208	5.0	19.6	9 28	1 21.90	+15 39.4	1.406	2.370	8.6	21.2
10 8	1 11.53	- 3 36.3	2.220	3.208	3.2	19.5	10 8	1 12.24	+14 36.1	1.386	2.377	4.1	21.0
10 18	1 3.27	- 3 52.8	2.237	3.209	4.7	19.6	10 18	1 2.22	+13 20.4	1.394	2.384	3.4	20.9
10 28	0 55.58	- 3 58.5	2.282	3.210	7.6	19.8	10 28	0 53.18	+12 1.4	1.428	2.390	7.7	21.2
11 7	0 49.16	- 3 51.3	2.354	3.210	10.4	20.0	11 7	0 46.20	+10 48.6	1.488	2.396	12.1	21.5
11 17	0 44.49	- 3 30.8	2.449	3.211	12.9	20.1	11 17	0 41.91	+ 9 49.3	1.570	2.401	15.9	21.7
391920	2008 <i>UR</i> ₂₄₃		10 11.7 308°28	1°4/12.7 18			72889	2001 <i>KG</i> ₂₆		10 11.7 126°36	1°5/13.5 18		
9 8	1 35.05	+11 17.7	1.640	2.492	15.3	20.7	9 8	1 29.68	+14 29.4	2.624	3.450	11.0	20.2
9 18	1 29.54	+11 27.3	1.564	2.487	11.6	20.5	9 18	1 24.73	+14 11.3	2.551	3.458	8.3	20.0
9 28	1 21.65	+11 24.0	1.510	2.481	7.3	20.2	9 28	1 18.40	+13 41.9	2.503	3.467	5.4	19.8
10 8	1 12.16	+11 9.6	1.481	2.476	2.7	19.9	10 8	1 11.24	+13 3.3	2.483	3.475	2.4	19.6
10 18	1 2.16	+10 47.9	1.479	2.471	3.0	19.9	10 18	1 3.88	+12 18.8	2.493	3.483	2.1	19.6
10 28	0 52.90	+10 24.1	1.505	2.466	7.5	20.2	10 28	0 57.03	+11 32.6	2.532	3.491	5.0	19.9
11 7	0 45.47	+10 4.4	1.556	2.461	11.9	20.4	11 7	0 51.31	+10 49.3	2.599	3.499	7.9	20.1
11 17	0 40.58	+ 9 53.4	1.630	2.456	15.6	20.7	11 17	0 47.13	+10 12.7	2.692	3.506	10.5	20.2
378552	2008 <i>CZ</i> ₁₁₀		10 11.7 264°94	1°7/12.8 17			381068	2006 <i>YP</i> ₂₃		10 11.7 242°56	1°6/13.0 18		
9 8	1 36.46	+12 2.2	1.501	2.354	16.4	21.1	9 8	1 34.32	+13 21.4	1.704	2.549	15.1	21.9
9 18	1 30.88	+12 7.0	1.420	2.343	12.5	20.9	9 18	1 28.99	+13 7.2	1.621	2.540	11.5	21.7
9 28	1 22.61	+11 56.6	1.360	2.331	7.9	20.6	9 28	1 21.34	+12 36.8	1.561	2.530	7.3	21.4
10 8	1 12.46	+11 32.9	1.324	2.319	3.1	20.2	10 8	1 12.12	+11 52.7	1.525	2.520	2.9	21.1
10 18	1 1.62	+10 59.8	1.316	2.307	3.3	20.2	10 18	1 2.36	+10 59.4	1.518	2.509	2.9	21.1
10 28	0 51.53	+10 24.0	1.334	2.295	8.3	20.5	10 28	0 53.28	+10 4.2	1.538	2.498	7.4	21.4
11 7	0 43.44	+ 9 52.9	1.376	2.282	13.0	20.7	11 7	0 45.94	+ 9 14.3	1.584	2.487	11.8	21.6
11 17	0 38.19	+ 9 32.4	1.441	2.270	17.1	21.0	11 17	0 41.07	+ 8 35.9	1.652	2.476	15.5	21.8
309975	2009 <i>HZ</i> ₅₉		10 11.7 246°54	1°3/10.5 18			316500	2010 <i>VF</i> ₁₁₂		10 11.7 14°12	0°7/11.1 18		
9 8	1 32.17	+ 5 14.6	1.971	2.834	12.6	21.3	9 8	1 28.67	+ 8 0.2	1.601	2.474	14.5	20.1
9 18	1 26.97	+ 4 47.6	1.898	2.831	9.2	21.1	9 18	1 24.69	+ 7 26.4	1.541	2.478	10.7	19.9
9 28	1 19.90	+ 4 13.0	1.849	2.827	5.4	20.8	9 28	1 18.65	+ 6 40.8	1.503	2.483	6.3	19.6
10 8	1 11.65	+ 3 34.9	1.827	2.824	1.7	20.6	10 8	1 11.34	+ 5 48.5	1.491	2.489	1.6	19.4
10 18	1 3.07	+ 2 58.3	1.833	2.820	3.4	20.7	10 18	1 3.75	+ 4 56.0	1.505	2.495	3.3	19.5
10 28	0 55.13	+ 2 28.3	1.868	2.817	7.4	20.9	10 28	0 56.95	+ 4 10.1	1.546	2.502	7.8	19.8
11 7	0 48.65	+ 2 9.2	1.929	2.813	11.0	21.2	11 7	0 51.84	+ 3 36.6	1.611	2.511	11.9	20.1
11 17	0 44.20	+ 2 3.6	2.012	2.809	14.1	21.4	11 17	0 48.97	+ 3 18.9	1.699	2.519	15.3	20.3
47064	1998 <i>XT</i> ₅₃		10 11.7 7°16	4°7/ 8.5 18			73080	2002 <i>GJ</i> ₉		10 11.7 101°33	2°2/ 9.4 18		
9 8	1 33.95	- 3 27.4	1.515	2.399	14.6	18.1	9 8	1 30.76	+ 2 0.6	2.332	3.196	10.9	20.0
9 18	1 28.63	- 3 54.4	1.459	2.400	10.8	17.9	9 18	1 25.56	+ 1 22.3	2.275	3.209	7.9	19.9
9 28	1 21.00	- 4 21.0	1.425	2.401	6.9	17.7	9 28	1 18.89	+ 0 40.0	2.244	3.222	4.7	19.7
10 8	1 11.96	- 4 40.9	1.415	2.403	4.7	17.6	10 8	1 11.37	- 0 1.8	2.240	3.234	2.2	19.6
10 18	1 2.62	- 4 48.3	1.432	2.405	6.6	17.7	10 18	1 3.71	- 0 38.8	2.266	3.246	3.8	19.7
10 28	0 54.20	- 4 39.0	1.475	2.408	10.4	17.9	10 28	0 56.66	- 1 6.8	2.321	3.258	6.9	19.9
11 7	0 47.70	- 4 11.3	1.541	2.412	14.1	18.2	11 7	0 50.87	- 1 23.0	2.402	3.270	9.8	20.1
11 17	0 43.72	- 3 26.1	1.627	2.416	17.3	18.4	11 17	0 46.76	- 1 26.0	2.507	3.282	12.3	20.3
303206	2004 <i>HH</i> ₇		10 11.7 299°54	0°5/12.1 18			35906	1999 <i>JL</i> ₉₂		10 11.7 35°85	10°9/ 2.9 18		
9 8	1 29.42	+11 28.7	1.820	2.676	13.8	20.6	9 8	1 31.13	-14 16.3	1.263	2.157	16.1	18.1
9 18	1 25.21	+10 53.0	1.736	2.662	10.4	20.4	9 18	1 26.72	-16 8.1	1.238	2.170	13.1	18.0
9 28	1 18.99	+10 2.4	1.675	2.649	6.4	20.1	9 28	1 19.87	-17 45.9	1.234	2.184	11.1	17.9
10 8	1 11.43	+ 9 0.5	1.640	2.637	2.0	19.8	10 8	1 11.66	-18 57.4	1.253	2.199	11.1	18.0
10 18	1 3.42	+ 7 53.1	1.632	2.624	2.7	19.8	10 18	1 3.36	-19 34.6	1.295	2.215	13.0	18.2
10 28	0 56.01	+ 6 47.5	1.653	2.611	7.2	20.1	10 28	0 56.28	-19 34.5	1.358	2.231	15.7	18.4
11 7	0 50.09	+ 5 50.8	1.698	2.599	11.3	20.3	11 7	0 51.35	-18 59.6	1.440	2.247	18.4	18.6
11 17	0 46.33	+ 5 8.2	1.767	2.587	14.9	20.5	11 17	0 49.05	-17 55.6	1.538	2.265	20.7	18.8
445188	2009 <i>BB</i> ₁₈₀		10 11.7 194°37	3°0/14.5 18			476788	2008 <i>UB</i> ₁₄₉		10 11.7 319°78	0°1/11.8 18		
9 8	1 33.19	+17 28.3	2.015	2.837	14.0	21.4	9 8	1 31.54	+ 9 22.2	1.500	2.368	15.6	21.2
9 18	1 27.81	+17 28.4	1.935	2.836	10.9	21.2	9 18	1 27.14	+ 9 3.3	1.423	2.357	11.6	20.9
9 28	1 20.45	+17 12.2	1.878	2.835	7.4	21.0	9 28	1 20.32	+ 8 30.4	1.369	2.346	7.0	20.7
10 8	1 11.82	+16 40.9	1.847	2.833	4.1	20.8	10 8	1 11.86	+ 7 47.5	1.339	2.336	2.0	20.3
10 18	1 2.80	+15 57.8	1.844	2.832	3.3	20.7	10 18	1 2.86	+ 7 0.3	1.335	2.326	3.3	20.4
10 28	0 54.42	+15 8.2	1.870	2.830	6.4	20.9	10 28	0 54.59	+ 6 16.5	1.357	2.316	8.3	20.7
11 7	0 47.55	+14 18.6	1.922	2.828	9.9	21.1	11 7	0 48.17	+ 5 42.8	1.403	2.307	12.9	20.9
11 17	0 42.81	+13 35.0	1.999	2.826	13.1	21.3	11 17	0 44.34	+ 5 24.2	1.471	2.299	16.9	21.1
260603	2005 <i>GY</i> ₁₂		10 11.7 136°17	2°8/ 9.4 17			452299	1993 <i>TX</i> ₄₇		10 11.7 17°24	0°2/11.6 16		
9 8	1 35.97	+ 2 32.8	1.719	2.587	13.9	20.9	9 8	1 24.37	+11 43.8	1.304	2.185	16.6	19.5
9 18	1 29.80	+ 1 40.4	1.664	2.600	10.1	20.7	9 18	1 21.79	+10 37.3	1.258	2.198	12.3	19.2
9 28	1 21.56	+ 0 41.7	1.633	2.611	6.0	20.5	9 28	1 17.00	+ 9 11.9	1.233	2.213	7.3	19.0
10 8	1 12.09	- 0 16.9	1.628	2.622	2.9	20.3	10 8	1 10.89	+ 7 35.6	1.232	2.229	1.9	18.7
10 18	1 2.43	- 1 8.7	1.652	2.632	4.9	20.5	10 18	1 4.59	+ 5 58.5	1.256	2.247	3.4	18.9
10 28	0 53.68	- 1 47.5	1.704	2.642	8.8	20.8	10 28	0 59.24	+ 4 31.2	1.305	2.267	8.4	19.2
11 7	0 46.72	- 2 9.3	1.780	2.651	12.5	21.0	11 7	0 55.74	+ 3 22.0	1.378	2.287	12.8	19.5
11 17	0 42.10	- 2 13.0	1.879	2.659	15.6	21.2	11 17	0 54.59	+ 2 35.4	1.472	2.309	16.4	19.8
401249	2012 <i>BV</i> ₆₂		10 11.7 221°71	1°4/10.3 18			227936	2007 <i>GA</i> ₂₂		10 11.7 41°76	0°2/11.9 18		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
44560	1999 <i>CM</i> ₄₂		10 11.7 76°53	1.9°/13.4	18		50075	2000 <i>AT</i> ₈₄		10 11.7 272°55	0.1°/11.7	18	
9 8	1 33.24	+13 48.6	1.939	2.777	13.8	18.5	9 8	1 32.90	+10 0.1	1.582	2.444	15.3	19.2
9 18	1 27.86	+13 50.2	1.866	2.779	10.6	18.3	9 18	1 28.15	+9 24.2	1.496	2.426	11.4	18.9
9 28	1 20.50	+13 38.3	1.815	2.781	6.8	18.1	9 28	1 20.98	+8 32.4	1.432	2.408	6.9	18.6
10 8	1 11.89	+13 14.6	1.791	2.783	3.0	17.9	10 8	1 12.11	+7 29.0	1.393	2.390	1.9	18.2
10 18	1 2.92	+12 42.5	1.794	2.785	2.8	17.9	10 18	1 2.60	+6 20.4	1.381	2.372	3.3	18.3
10 28	0 54.62	+12 7.1	1.826	2.787	6.5	18.1	10 28	0 53.73	+5 15.4	1.396	2.353	8.4	18.6
11 7	0 47.88	+11 34.3	1.885	2.788	10.2	18.4	11 7	0 46.64	+4 22.0	1.436	2.335	13.1	18.8
11 17	0 43.28	+11 8.7	1.967	2.790	13.4	18.6	11 17	0 42.12	+3 45.6	1.497	2.316	17.1	19.0
513481	2009 <i>DB</i> ₅₆		10 11.7 228°07	4.7°/6.3	18		129578	1997 <i>RM</i> ₁₀		10 11.7 171°26	0.8°/12.4	18	
9 8	1 29.92	-3 23.9	2.122	2.998	11.3	21.9	9 8	1 35.39	+12 5.2	1.525	2.379	16.1	20.8
9 18	1 25.24	-4 52.3	2.053	2.990	8.4	21.7	9 18	1 29.85	+11 33.4	1.457	2.381	12.1	20.5
9 28	1 18.87	-6 23.4	2.010	2.982	5.7	21.5	9 28	1 21.86	+10 44.4	1.410	2.383	7.5	20.3
10 8	1 11.43	-7 49.8	1.994	2.973	4.8	21.5	10 8	1 12.31	+9 42.5	1.389	2.385	2.4	20.0
10 18	1 3.70	-9 4.4	2.008	2.964	6.6	21.6	10 18	1 2.35	+8 34.2	1.394	2.386	3.1	20.0
10 28	0 56.51	-10 1.0	2.048	2.954	9.5	21.7	10 28	0 53.29	+7 28.2	1.427	2.386	8.0	20.3
11 7	0 50.64	-10 36.4	2.114	2.944	12.4	21.9	11 7	0 46.21	+6 32.5	1.485	2.387	12.6	20.6
11 17	0 46.60	-10 49.7	2.200	2.934	15.0	22.1	11 17	0 41.78	+5 52.7	1.565	2.386	16.4	20.8
25030	1998 <i>QL</i> ₂₉		10 11.7 124°48	2.1°/13.7	18		155196	2005 <i>UM</i> ₄₁₉		10 11.7 161°12	3.2°/9.1	18	
9 8	1 35.53	+16 2.5	1.776	2.607	15.2	19.7	9 8	1 35.38	+0 33.4	1.771	2.642	13.5	20.2
9 18	1 29.54	+15 36.8	1.714	2.623	11.6	19.5	9 18	1 29.44	-0 7.0	1.709	2.645	9.9	20.0
9 28	1 21.47	+14 53.3	1.674	2.638	7.5	19.3	9 28	1 21.44	-0 51.7	1.671	2.649	6.0	19.8
10 8	1 12.14	+13 54.9	1.661	2.652	3.4	19.1	10 8	1 12.16	-1 34.8	1.659	2.651	3.2	19.6
10 18	1 2.59	+12 47.1	1.675	2.665	2.9	19.1	10 18	1 2.61	-2 10.1	1.676	2.654	5.2	19.8
10 28	0 53.93	+11 37.4	1.718	2.679	6.8	19.3	10 28	0 53.87	-2 32.6	1.720	2.656	8.9	20.0
11 7	0 47.06	+10 33.4	1.788	2.691	10.7	19.6	11 7	0 46.83	-2 38.8	1.789	2.658	12.5	20.2
11 17	0 42.54	+9 41.0	1.881	2.703	14.0	19.8	11 17	0 42.08	-2 27.9	1.880	2.659	15.6	20.5
384857	2012 <i>ST</i> ₂₄		10 11.7 316°14	0.4°/12.2	15		47753	2000 <i>DY</i> ₉₂		10 11.7 225°39	1.4°/10.5	18	
9 8	1 28.55	+9 42.7	2.578	3.424	10.6	21.0	9 8	1 32.21	+5 29.6	1.842	2.708	13.2	19.1
9 18	1 24.13	+9 36.4	2.478	3.399	7.9	20.8	9 18	1 27.12	+4 57.0	1.774	2.708	9.7	18.8
9 28	1 18.21	+9 21.9	2.402	3.374	4.9	20.6	9 28	1 20.08	+4 16.0	1.729	2.707	5.7	18.6
10 8	1 11.27	+9 1.0	2.353	3.349	1.5	20.3	10 8	1 11.80	+3 31.1	1.710	2.707	1.8	18.3
10 18	1 3.93	+8 36.7	2.334	3.325	2.1	20.3	10 18	1 3.21	+2 48.0	1.720	2.707	3.6	18.5
10 28	0 56.92	+8 12.6	2.344	3.301	5.5	20.5	10 28	0 55.32	+2 12.4	1.757	2.706	7.7	18.7
11 7	0 50.93	+7 52.5	2.381	3.277	8.7	20.7	11 7	0 48.98	+1 48.9	1.820	2.706	11.5	19.0
11 17	0 46.49	+7 39.6	2.443	3.253	11.5	20.8	11 17	0 44.79	+1 40.2	1.905	2.706	14.7	19.2
465250	2007 <i>RT</i> ₃₁₅		10 11.7 4°15	2.3°/9.9	18		32764	1981 <i>EL</i> ₃₆		10 11.7 84°62	1.7°/13.1	18	
9 8	1 29.58	+7 17.3	1.088	1.982	18.2	20.2	9 8	1 35.11	+14 4.2	1.556	2.403	16.2	19.9
9 18	1 26.16	+6 3.7	1.033	1.981	13.3	19.9	9 18	1 29.41	+13 42.3	1.503	2.422	12.2	19.7
9 28	1 19.88	+4 32.0	0.997	1.981	7.8	19.6	9 28	1 21.45	+13 2.9	1.471	2.440	7.7	19.5
10 8	1 11.76	+2 51.9	0.985	1.982	2.6	19.3	10 8	1 12.16	+12 9.7	1.465	2.459	3.1	19.3
10 18	1 3.20	+1 16.0	0.996	1.983	5.5	19.5	10 18	1 2.69	+11 8.8	1.485	2.477	2.9	19.3
10 28	0 55.75	-0 3.0	1.031	1.985	11.1	19.8	10 28	0 54.24	+10 8.1	1.533	2.495	7.4	19.6
11 7	0 50.65	-0 56.6	1.087	1.988	16.2	20.1	11 7	0 47.76	+9 15.1	1.607	2.512	11.5	19.9
11 17	0 48.56	-1 21.4	1.161	1.991	20.4	20.4	11 17	0 43.80	+8 35.2	1.703	2.530	15.0	20.2
437410	2013 <i>WE</i> ₉₁		10 11.7 271°97	4.4°/8.6	18		472534	2015 <i>DG</i>		10 11.7 220°22	3.9°/8.3	17	
9 8	1 35.70	-1 46.9	1.567	2.445	14.5	21.1	9 8	1 33.00	+1 3.2	1.583	2.462	14.3	21.4
9 18	1 30.09	-2 25.6	1.493	2.433	10.8	20.9	9 18	1 27.99	-0 10.1	1.517	2.458	10.5	21.1
9 28	1 22.04	-3 7.1	1.443	2.420	6.8	20.6	9 28	1 20.72	-1 30.7	1.475	2.454	6.4	20.9
10 8	1 12.36	-3 44.6	1.418	2.408	4.4	20.5	10 8	1 12.01	-2 50.4	1.458	2.449	3.9	20.7
10 18	1 2.15	-4 11.4	1.420	2.395	6.4	20.6	10 18	1 2.91	-4 0.6	1.469	2.444	6.2	20.9
10 28	0 52.72	-4 21.5	1.448	2.382	10.5	20.8	10 28	0 54.62	-4 53.2	1.506	2.439	10.3	21.1
11 7	0 45.16	-4 11.9	1.500	2.369	14.5	21.0	11 7	0 48.12	-5 23.6	1.567	2.433	14.2	21.3
11 17	0 40.21	-3 42.3	1.572	2.356	18.0	21.2	11 17	0 44.06	-5 30.5	1.648	2.428	17.5	21.5
118550	2000 <i>EC</i> ₁₅₆		10 11.7 144°52	3.4°/14.6	18		252187	2001 <i>ER</i> ₁		10 11.7 200°53	2.6°/9.5	17	
9 8	1 35.32	+17 55.3	1.709	2.535	15.9	20.1	9 8	1 36.57	+1 53.3	1.981	2.842	12.7	21.5
9 18	1 29.64	+17 56.5	1.637	2.540	12.4	19.9	9 18	1 30.24	+1 12.2	1.906	2.838	9.3	21.3
9 28	1 21.68	+17 38.6	1.588	2.545	8.5	19.7	9 28	1 21.92	+0 25.6	1.856	2.833	5.6	21.1
10 8	1 12.23	+17 2.7	1.563	2.549	4.7	19.5	10 8	1 12.33	-0 21.3	1.833	2.827	2.7	20.9
10 18	1 2.39	+16 12.8	1.565	2.553	3.8	19.5	10 18	1 2.38	-1 3.0	1.840	2.820	4.5	21.0
10 28	0 53.38	+15 15.6	1.596	2.557	7.1	19.7	10 28	0 53.09	-1 33.9	1.876	2.813	8.3	21.2
11 7	0 46.20	+14 19.0	1.652	2.560	11.1	19.9	11 7	0 45.36	-1 50.4	1.938	2.804	11.8	21.4
11 17	0 41.52	+13 30.0	1.731	2.563	14.6	20.2	11 17	0 39.79	-1 50.6	2.022	2.795	14.9	21.6
411314	2010 <i>TJ</i> ₁₄₉		10 11.7 315°44	4.2°/8.8	18		368002	2012 <i>FU</i> ₄₄		10 11.7 214°85	2.6°/15.1	18	
9 8	1 32.17	+1 17.1	1.211	2.105	16.7	20.6	9 8	1 29.53	+19 4.7	2.773	3.577	11.1	21.4
9 18	1 28.01	+0 20.2	1.145	2.093	12.3	20.3	9 18	1 24.71	+18 48.4	2.682	3.570	8.7	21.2
9 28	1 21.02	-0 45.7	1.099	2.081	7.6	20.0	9 28	1 18.49	+18 18.3	2.615	3.564	6.0	21.0
10 8	1 12.11	-1 51.5	1.077	2.070	4.3	19.8	10 8	1 11.36	+17 35.8	2.574	3.557	3.5	20.8
10 18	1 2.59	-2 47.2	1.079	2.059	6.9	19.9	10 18	1 3.96	+16 43.6	2.564	3.549	2.7	20.8
10 28	0 54.00	-3 23.7	1.105	2.049	11.8	20.2	10 28	0 56.98	+15 45.8	2.583	3.542	4.9	20.9
11 7	0 47.62	-3 35.4	1.153	2.039	16.6	20.4	11 7	0 51.04	+14 47.7	2.631	3.534	7.7	21.1
11 17	0 44.26	-3 21.1	1.218	2.030	20.7	20.7	11 17	0 46.63	+13 53.8	2.705	3.525	10.2	21.3
158557	2002 <i>JQ</i> ₅₂		10 11.7 119°44	2.7°/8.9	18		444978	2008 <i>EW</i> ₁₁₈		10 11.7 276°96	2.7°/8.9	18	
9 8	1 31.48	-0 16.2	2.389	3.254	10.6								

EPHEMERIDES

10 11.7

10 11.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
389487	2010 <i>EL</i> ₁₃₁		10 11.7 130°39	1.5°/13.2	18		396154	2013 <i>EN</i> ₁₃		10 11.8 34°45	0.7°/11.2	18	
9 8	1 32.99	+13 55.4	1.995	2.832	13.6	21.7	9 8	1 30.83	+7 45.7	1.643	2.512	14.4	20.5
9 18	1 27.57	+13 34.8	1.927	2.840	10.3	21.5	9 18	1 26.22	+7 15.7	1.587	2.522	10.6	20.3
9 28	1 20.28	+12 59.9	1.882	2.848	6.5	21.3	9 28	1 19.58	+6 34.7	1.554	2.532	6.2	20.1
10 8	1 11.86	+12 13.5	1.863	2.856	2.7	21.1	10 8	1 11.70	+5 47.7	1.545	2.543	1.6	19.8
10 18	1 3.19	+11 20.1	1.873	2.864	2.5	21.1	10 18	1 3.60	+5 0.5	1.564	2.554	3.3	19.9
10 28	0 55.22	+10 25.8	1.912	2.872	6.3	21.4	10 28	0 56.33	+4 19.8	1.610	2.566	7.7	20.2
11 7	0 48.76	+9 36.6	1.978	2.879	9.9	21.6	11 7	0 50.76	+3 50.8	1.681	2.578	11.6	20.5
11 17	0 44.37	+8 57.3	2.067	2.885	13.1	21.8	11 17	0 47.44	+3 36.6	1.774	2.590	14.9	20.7
302756	2002 <i>VX</i> ₂₈		10 11.7 310°83	4.3°/16.2	18		113326	2002 <i>RT</i> ₂₀₅		10 11.8 210°49	0.3°/12.1	18	
9 8	1 28.57	+22 37.5	1.767	2.582	16.0	20.1	9 8	1 32.77	+9 57.3	1.884	2.737	13.6	19.8
9 18	1 24.80	+22 13.1	1.679	2.569	12.9	19.8	9 18	1 27.56	+9 39.4	1.811	2.736	10.1	19.6
9 28	1 18.88	+21 23.9	1.611	2.557	9.3	19.6	9 28	1 20.39	+9 9.9	1.761	2.735	6.1	19.4
10 8	1 11.53	+20 10.9	1.567	2.545	5.8	19.4	10 8	1 11.95	+8 32.1	1.738	2.735	1.8	19.1
10 18	1 3.68	+18 38.5	1.549	2.534	4.4	19.3	10 18	1 3.16	+7 50.5	1.742	2.734	2.7	19.2
10 28	0 56.48	+16 55.0	1.559	2.523	7.0	19.4	10 28	0 55.04	+7 10.9	1.775	2.733	6.9	19.4
11 7	0 50.89	+15 10.6	1.595	2.512	10.8	19.6	11 7	0 48.47	+6 38.7	1.834	2.731	10.8	19.7
11 17	0 47.61	+13 35.0	1.655	2.501	14.5	19.8	11 17	0 44.05	+6 18.0	1.916	2.730	14.1	19.9
223974	2004 <i>XF</i> ₁₇₄		10 11.7 318°77	0.4°/12.1	18		21400	Ahdout		10 11.8 67°10	1.4°/12.8	18	
9 8	1 30.36	+9 40.0	2.054	2.908	12.6	20.6	9 8	1 37.78	+12 15.4	1.291	2.151	18.1	18.4
9 18	1 25.71	+9 28.8	1.972	2.898	9.4	20.4	9 18	1 31.65	+12 6.9	1.247	2.174	13.6	18.1
9 28	1 19.26	+9 7.3	1.914	2.888	5.7	20.2	9 28	1 22.89	+11 40.9	1.224	2.197	8.4	17.9
10 8	1 11.61	+8 38.2	1.882	2.878	1.7	19.9	10 8	1 12.61	+11 1.3	1.224	2.220	3.0	17.7
10 18	1 3.57	+8 5.4	1.878	2.869	2.5	19.9	10 18	1 2.21	+10 14.7	1.251	2.243	3.2	17.8
10 28	0 56.06	+7 33.9	1.902	2.860	6.5	20.2	10 28	0 53.11	+9 29.1	1.304	2.266	8.3	18.1
11 7	0 49.91	+7 8.4	1.953	2.851	10.2	20.4	11 7	0 46.37	+8 52.2	1.381	2.289	12.8	18.5
11 17	0 45.70	+6 52.7	2.027	2.843	13.4	20.6	11 17	0 42.56	+8 28.8	1.479	2.312	16.6	18.8
97551	2000 <i>DO</i> ₆₀		10 11.7 252°69	1°1/12.9	17		116666	2004 <i>CQ</i> ₄₀		10 11.8 127°00	2°2/13.7	18	
9 8	1 30.29	+12 28.7	2.488	3.323	11.2	20.2	9 8	1 36.68	+15 17.9	1.820	2.650	14.9	20.0
9 18	1 25.39	+12 16.9	2.401	3.315	8.5	20.0	9 18	1 30.40	+15 6.3	1.757	2.665	11.4	19.9
9 28	1 18.95	+11 54.5	2.338	3.306	5.4	19.8	9 28	1 22.03	+14 38.5	1.716	2.679	7.4	19.6
10 8	1 11.51	+11 23.5	2.303	3.297	2.1	19.5	10 8	1 12.39	+13 56.7	1.702	2.693	3.4	19.4
10 18	1 3.75	+10 47.0	2.297	3.288	2.1	19.5	10 18	1 2.50	+13 5.5	1.715	2.706	2.9	19.4
10 28	0 56.44	+10 9.3	2.321	3.279	5.4	19.7	10 28	0 53.48	+12 11.5	1.758	2.718	6.7	19.7
11 7	0 50.26	+9 34.9	2.372	3.270	8.6	19.9	11 7	0 46.23	+11 21.4	1.827	2.729	10.5	20.0
11 17	0 45.73	+9 7.5	2.448	3.261	11.4	20.1	11 17	0 41.33	+10 40.8	1.920	2.741	13.8	20.2
271203	2003 <i>SX</i> ₃₅₄		10 11.7 346°57	4.8°/16.2	17		167247	2003 <i>UU</i> ₉₇		10 11.8 52°58	0.8°/11.1	18	
9 8	1 32.06	+21 39.5	2.044	2.847	14.5	20.8	9 8	1 33.14	+7 7.9	1.617	2.485	14.7	20.1
9 18	1 27.11	+22 7.1	1.962	2.844	11.7	20.6	9 18	1 27.98	+6 43.2	1.558	2.492	10.8	19.9
9 28	1 20.17	+22 17.3	1.902	2.841	8.6	20.5	9 28	1 20.66	+6 8.0	1.522	2.500	6.4	19.7
10 8	1 11.88	+22 9.5	1.867	2.838	5.8	20.3	10 8	1 12.02	+5 27.2	1.511	2.508	1.7	19.4
10 18	1 3.15	+21 45.1	1.858	2.835	4.9	20.2	10 18	1 3.11	+4 46.3	1.527	2.516	3.4	19.6
10 28	0 54.99	+21 8.5	1.877	2.833	6.8	20.3	10 28	0 55.06	+4 11.9	1.570	2.525	7.9	19.9
11 7	0 48.32	+20 25.8	1.923	2.831	9.7	20.5	11 7	0 48.80	+3 49.0	1.638	2.534	12.0	20.1
11 17	0 43.78	+19 43.4	1.993	2.830	12.7	20.7	11 17	0 44.92	+3 40.5	1.729	2.542	15.4	20.4
353073	2009 <i>DE</i> ₈₈		10 11.8 288°91	1°1/10.7	18		93997	2000 <i>XT</i> ₁₉		10 11.8 74°56	3°1/9.7	18	
9 8	1 30.33	+7 33.5	1.794	2.660	13.5	21.3	9 8	1 39.18	-0 32.1	1.600	2.470	14.7	18.4
9 18	1 26.01	+6 45.4	1.704	2.638	10.0	21.0	9 18	1 32.28	-0 41.4	1.550	2.485	10.7	18.2
9 28	1 19.60	+5 44.4	1.638	2.617	5.9	20.7	9 28	1 23.13	-0 52.4	1.523	2.500	6.5	18.0
10 8	1 11.75	+4 35.4	1.598	2.596	1.7	20.4	10 8	1 12.68	-1 0.5	1.523	2.516	3.2	17.8
10 18	1 3.36	+3 25.2	1.586	2.574	3.6	20.5	10 18	1 2.08	-1 1.0	1.550	2.531	5.1	18.0
10 28	0 55.50	+2 21.3	1.601	2.552	8.1	20.7	10 28	0 52.53	-0 50.3	1.605	2.546	9.0	18.3
11 7	0 49.14	+1 30.6	1.642	2.531	12.3	20.9	11 7	0 45.00	-0 26.5	1.685	2.561	12.8	18.5
11 17	0 44.99	+0 57.5	1.704	2.509	15.9	21.1	11 17	0 40.01	+0 10.3	1.786	2.576	15.9	18.8
271030	2003 <i>BX</i> ₃₀		10 11.8 239°59	1.7°/10.3	18		96915	1999 <i>TC</i> ₁₀₅		10 11.8 343°16	2°9/13.8	18	
9 8	1 33.33	+5 38.6	1.768	2.634	13.7	21.5	9 8	1 35.23	+14 58.4	1.392	2.243	17.6	19.4
9 18	1 28.13	+4 53.3	1.690	2.624	10.1	21.3	9 18	1 30.08	+15 6.3	1.322	2.241	13.6	19.1
9 28	1 20.81	+3 57.6	1.635	2.614	5.9	21.0	9 28	1 22.21	+14 55.1	1.273	2.240	8.9	18.9
10 8	1 12.07	+2 57.0	1.606	2.603	2.0	20.7	10 8	1 12.51	+14 26.3	1.248	2.239	4.3	18.6
10 18	1 2.87	+1 58.0	1.606	2.592	4.0	20.9	10 18	1 2.26	+13 44.2	1.247	2.238	3.7	18.6
10 28	0 54.34	+1 7.7	1.633	2.581	8.4	21.1	10 28	0 52.93	+12 56.4	1.273	2.237	8.2	18.8
11 7	0 47.43	+0 31.7	1.686	2.569	12.4	21.3	11 7	0 45.75	+12 11.6	1.324	2.237	12.9	19.1
11 17	0 42.81	+0 13.3	1.761	2.557	15.9	21.5	11 17	0 41.47	+11 36.8	1.395	2.236	16.9	19.4
43512	2001 <i>CL</i> ₄₉		10 11.8 76°64	9°1/3.8	18		93321	2000 <i>SA</i> ₂₂₀		10 11.8 141°28	6°5/6.5	18	
9 8	1 34.24	-15 28.1	1.694	2.568	13.8	18.8	9 8	1 36.94	-9 41.9	1.854	2.724	13.0	18.6
9 18	1 28.56	-16 48.0	1.660	2.580	11.2	18.7	9 18	1 30.46	-10 30.2	1.802	2.730	10.0	18.4
9 28	1 20.86	-17 56.2	1.650	2.592	9.5	18.6	9 28	1 22.00	-11 12.8	1.775	2.736	7.4	18.3
10 8	1 12.02	-18 44.0	1.664	2.604	9.3	18.6	10 8	1 12.37	-11 43.1	1.775	2.742	6.5	18.2
10 18	1 3.09	-19 5.4	1.702	2.616	10.8	18.7	10 18	1 2.58	-11 55.6	1.801	2.747	8.1	18.3
10 28	0 55.14	-18 58.0	1.765	2.628	13.1	18.9	10 28	0 53.65	-11 47.2	1.854	2.752	10.8	18.5
11 7	0 49.01	-18 23.3	1.849	2.640	15.5	19.1	11 7	0 46.45	-11 17.8	1.931	2.757	13.6	18.7
11 17	0 45.19	-17 24.9	1.951	2.651	17.6	19.3	11 17	0 41.50	-10 29.3	2.029	2.762	16.1	18.9
521711	2015 <i>RL</i> ₂₆₅		10 11.8 238°64	1.4°/10.4	18		395002	2009 <i>BN</i> ₁₁₆		10 11.8 255°12	7°4/3.9	18	
9 8	1 32.46	+3 55.2	2.235	3									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
304250	2006 <i>RP</i> ₄₉		10 11.8 73°02	0°2/11.9	18		254328	2004 <i>SF</i> ₂₅		10 11.8 243°24	1°7/ 9.9	17	
9 8	1 30.31	+10 47.4	1.910	2.764	13.4	21.0	9 8	1 31.39	+ 2 55.2	2.639	3.495	10.0	21.8
9 18	1 25.70	+10 8.4	1.841	2.767	9.9	20.8	9 18	1 26.12	+ 2 26.6	2.550	3.480	7.3	21.6
9 28	1 19.25	+ 9 16.3	1.795	2.770	6.0	20.6	9 28	1 19.38	+ 1 53.3	2.488	3.465	4.4	21.4
10 8	1 11.65	+ 8 15.3	1.776	2.773	1.7	20.3	10 8	1 11.70	+ 1 18.7	2.455	3.450	1.8	21.2
10 18	1 3.76	+ 7 11.0	1.784	2.775	2.6	20.4	10 18	1 3.69	+ 0 46.8	2.451	3.434	3.2	21.2
10 28	0 56.55	+ 6 10.2	1.821	2.778	6.8	20.6	10 28	0 56.09	+ 0 21.2	2.477	3.417	6.3	21.4
11 7	0 50.82	+ 5 19.0	1.884	2.781	10.6	20.9	11 7	0 49.55	+ 0 5.3	2.531	3.401	9.3	21.6
11 17	0 47.11	+ 4 41.5	1.971	2.784	13.8	21.1	11 17	0 44.56	+ 0 0.8	2.609	3.384	11.9	21.7
207534	2006 <i>KZ</i> ₂₅		10 11.8 340°80	10°9/ 1.6	18		407179	2009 <i>UQ</i> ₆₇		10 11.8 320°59	3°4/ 8.8	18	
9 8	1 27.44	-13 30.8	1.279	2.179	15.6	19.2	9 8	1 31.67	- 1 32.9	1.979	2.853	12.1	20.5
9 18	1 24.37	-15 32.2	1.230	2.167	12.8	19.0	9 18	1 26.70	- 2 0.2	1.904	2.841	8.9	20.3
9 28	1 18.78	-17 25.1	1.203	2.155	11.1	18.9	9 28	1 19.88	- 2 29.3	1.853	2.830	5.6	20.0
10 8	1 11.56	-18 55.7	1.198	2.145	11.4	18.9	10 8	1 11.85	- 2 55.3	1.829	2.819	3.4	19.9
10 18	1 3.91	-19 52.9	1.215	2.136	13.6	19.0	10 18	1 3.46	- 3 13.3	1.833	2.808	5.1	20.0
10 28	0 57.17	-20 10.6	1.253	2.128	16.6	19.1	10 28	0 55.65	- 3 19.2	1.864	2.798	8.5	20.2
11 7	0 52.44	-19 48.8	1.309	2.121	19.7	19.3	11 7	0 49.26	- 3 10.2	1.920	2.788	11.9	20.4
11 17	0 50.39	-18 52.1	1.381	2.115	22.3	19.5	11 17	0 44.88	- 2 45.8	1.999	2.778	14.8	20.6
511823	2015 <i>FV</i> ₁₇₃		10 11.8 205°01	5°0/ 7.4	17		178042	2006 <i>RV</i> ₇₇		10 11.8 335°80	1°7/10.2	18	
9 8	1 33.07	- 2 8.2	1.608	2.490	14.0	21.5	9 8	1 29.50	+ 5 50.1	1.730	2.602	13.6	20.6
9 18	1 27.98	- 3 22.2	1.548	2.488	10.3	21.3	9 18	1 25.30	+ 4 59.0	1.660	2.598	10.0	20.3
9 28	1 20.71	- 4 39.5	1.511	2.487	6.7	21.1	9 28	1 19.10	+ 3 57.4	1.614	2.594	5.8	20.1
10 8	1 12.07	- 5 51.7	1.500	2.485	5.0	21.0	10 8	1 11.64	+ 2 51.3	1.593	2.590	2.0	19.8
10 18	1 3.09	- 6 50.5	1.516	2.483	7.1	21.1	10 18	1 3.82	+ 1 47.5	1.600	2.586	4.0	20.0
10 28	0 54.93	- 7 29.2	1.558	2.481	10.7	21.3	10 28	0 56.69	+ 0 53.2	1.634	2.583	8.2	20.2
11 7	0 48.55	- 7 44.5	1.623	2.478	14.3	21.5	11 7	0 51.13	+ 0 14.1	1.693	2.580	12.1	20.4
11 17	0 44.56	- 7 36.2	1.708	2.476	17.4	21.7	11 17	0 47.72	- 0 6.8	1.774	2.577	15.5	20.7
149180	2002 <i>JD</i> ₆₀		10 11.8 121°85	4°1/ 7.3	18		350941	2002 <i>UA</i> ₅₉		10 11.8 21°86	4°8/ 7.5	18	
9 8	1 33.17	- 6 40.4	2.644	3.506	9.8	20.1	9 8	1 28.40	- 0 23.2	1.423	2.317	14.7	20.2
9 18	1 27.17	- 7 14.6	2.593	3.521	7.3	19.9	9 18	1 24.66	- 1 47.2	1.376	2.323	10.7	20.0
9 28	1 19.85	- 7 46.2	2.569	3.535	5.1	19.8	9 28	1 18.75	- 3 16.1	1.351	2.331	6.8	19.8
10 8	1 11.78	- 8 11.2	2.573	3.548	4.1	19.8	10 8	1 11.52	- 4 40.1	1.351	2.339	4.8	19.7
10 18	1 3.61	- 8 26.1	2.606	3.562	5.3	19.9	10 18	1 4.07	- 5 49.9	1.376	2.348	7.1	19.9
10 28	0 56.04	- 8 28.3	2.669	3.575	7.6	20.0	10 28	0 57.52	- 6 38.0	1.427	2.357	10.9	20.1
11 7	0 49.65	- 8 16.7	2.757	3.587	9.9	20.2	11 7	0 52.79	- 7 0.9	1.500	2.368	14.6	20.4
11 17	0 44.84	- 7 51.7	2.869	3.599	11.9	20.4	11 17	0 50.43	- 6 58.5	1.592	2.379	17.7	20.6
448636	2010 <i>VD</i> ₅₇		10 11.8 355°20	1°1/10.8	18		170617	2003 <i>YW</i> ₅₀		10 11.8 280°75	4°5/15.9	17	
9 8	1 29.31	+ 6 50.9	1.834	2.702	13.2	21.2	9 8	1 32.67	+21 46.7	2.006	2.809	14.7	20.8
9 18	1 25.04	+ 6 12.9	1.765	2.700	9.7	21.0	9 18	1 27.82	+21 50.3	1.899	2.783	11.9	20.5
9 28	1 18.90	+ 5 25.0	1.720	2.699	5.7	20.8	9 28	1 20.78	+21 34.3	1.814	2.756	8.8	20.3
10 8	1 11.56	+ 4 31.8	1.700	2.698	1.6	20.5	10 8	1 12.16	+20 57.9	1.754	2.729	5.7	20.1
10 18	1 3.92	+ 3 39.3	1.709	2.697	3.4	20.6	10 18	1 2.86	+20 3.1	1.721	2.702	4.6	19.9
10 28	0 56.93	+ 2 53.7	1.744	2.696	7.5	20.9	10 28	0 53.97	+18 55.2	1.716	2.674	7.0	20.0
11 7	0 51.43	+ 2 20.1	1.805	2.696	11.3	21.1	11 7	0 46.55	+17 42.0	1.737	2.646	10.6	20.2
11 17	0 47.97	+ 2 1.8	1.889	2.697	14.5	21.4	11 17	0 41.35	+16 31.5	1.783	2.618	14.1	20.3
375667	2009 <i>EP</i> ₂₀		10 11.8 102°91	1°1/12.6	16		396934	2005 <i>GK</i> ₁₂₄		10 11.8 251°24	2°8/14.1	18	
9 8	1 40.58	+11 23.1	1.534	2.381	16.4	21.8	9 8	1 34.39	+15 55.2	1.946	2.774	14.2	21.5
9 18	1 33.43	+11 18.3	1.483	2.403	12.3	21.6	9 18	1 28.91	+16 3.3	1.860	2.765	11.0	21.2
9 28	1 23.87	+10 59.1	1.454	2.425	7.5	21.4	9 28	1 21.31	+15 56.5	1.797	2.756	7.4	21.0
10 8	1 12.91	+10 28.6	1.451	2.446	2.6	21.1	10 8	1 12.28	+15 35.5	1.759	2.747	3.8	20.8
10 18	1 1.80	+ 9 52.0	1.476	2.467	3.0	21.2	10 18	1 2.75	+15 3.1	1.749	2.738	3.2	20.7
10 28	0 51.83	+ 9 15.8	1.528	2.487	7.7	21.5	10 28	0 53.79	+14 24.4	1.768	2.728	6.6	20.9
11 7	0 44.03	+ 8 46.4	1.606	2.506	11.9	21.8	11 7	0 46.39	+13 45.6	1.813	2.719	10.4	21.1
11 17	0 38.96	+ 8 28.2	1.707	2.525	15.4	22.1	11 17	0 41.21	+13 12.3	1.883	2.709	13.8	21.3
232103	2001 <i>XN</i> ₂₀₄		10 11.8 314°34	4°8/ 8.0	18		13141	1994 <i>WW</i> ₂		10 11.8 52°85	0°2/11.9	18	
9 8	1 30.69	- 0 23.6	1.371	2.263	15.3	20.3	9 8	1 32.91	+ 9 23.0	1.730	2.589	14.3	17.9
9 18	1 26.74	- 1 27.8	1.299	2.246	11.3	20.0	9 18	1 27.76	+ 9 5.4	1.665	2.594	10.6	17.6
9 28	1 20.24	- 2 39.1	1.249	2.229	7.2	19.7	9 28	1 20.55	+ 8 36.1	1.623	2.599	6.4	17.4
10 8	1 12.00	- 3 48.6	1.222	2.212	4.8	19.6	10 8	1 12.04	+ 7 58.7	1.607	2.604	1.8	17.1
10 18	1 3.16	- 4 46.7	1.221	2.196	7.2	19.7	10 18	1 3.22	+ 7 18.3	1.619	2.610	2.8	17.2
10 28	0 55.09	- 5 24.9	1.245	2.181	11.6	19.9	10 28	0 55.19	+ 6 41.0	1.658	2.615	7.3	17.5
11 7	0 48.95	- 5 38.2	1.290	2.166	16.0	20.1	11 7	0 48.84	+ 6 12.2	1.722	2.621	11.3	17.8
11 17	0 45.51	- 5 25.5	1.354	2.152	19.7	20.3	11 17	0 44.76	+ 5 55.7	1.809	2.627	14.6	18.0
44276	1998 <i>QZ</i> ₇₁		10 11.8 304°94	1°4/10.1	18		9270	1978 <i>VO</i> ₈		10 11.8 237°90	1°1/10.5	18	
9 8	1 28.04	+10 9.4	1.740	2.604	14.0	18.6	9 8	1 29.89	+ 5 48.5	2.500	3.356	10.5	18.6
9 18	1 24.22	+ 8 20.9	1.666	2.600	10.2	18.3	9 18	1 25.07	+ 5 12.4	2.417	3.346	7.7	18.4
9 28	1 18.45	+ 6 14.2	1.616	2.595	5.9	18.1	9 28	1 18.78	+ 4 29.2	2.359	3.336	4.5	18.2
10 8	1 11.45	+ 3 57.4	1.594	2.591	1.8	17.8	10 8	1 11.54	+ 3 42.5	2.329	3.326	1.4	17.9
10 18	1 4.12	+ 1 41.0	1.601	2.587	4.0	18.0	10 18	1 4.01	+ 2 56.4	2.329	3.316	2.9	18.0
10 28	0 57.47	- 0 23.7	1.637	2.583	8.4	18.2	10 28	0 56.92	+ 2 15.7	2.358	3.305	6.2	18.2
11 7	0 52.37	- 2 7.9	1.698	2.579	12.5	18.4	11 7	0 50.94	+ 1 44.3	2.415	3.294	9.3	18.4
11 17	0 49.37	- 3 26.7	1.782	2.575	15.9	18.7	11 17	0 46.55	+ 1 24.7	2.496	3.283	12.0	18.6
516052	2015 <i>TY</i> ₁₄₉		10 11.8 31°73	0°4/12.1	18		53740	2000 <i>EN</i> ₅₀		10 11.8 352°18	12		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
104706	2000 GZ ₁₆₇		10 11.8 241°01	1.4/10.6	18		482596	2012 XZ ₁₁₉		10 11.8 309°63	4.3/8.5	18	
9 8	1 34.52	+ 5 47.7	1.726	2.590	14.1	20.3	9 8	1 32.96	- 1 45.3	1.613	2.495	14.0	21.3
9 18	1 29.11	+ 5 12.9	1.647	2.580	10.4	20.0	9 18	1 28.09	- 2 24.6	1.539	2.480	10.4	21.1
9 28	1 21.46	+ 4 28.2	1.592	2.570	6.1	19.7	9 28	1 20.92	- 3 6.7	1.488	2.466	6.6	20.8
10 8	1 12.34	+ 3 38.3	1.563	2.560	1.9	19.4	10 8	1 12.23	- 3 45.2	1.463	2.452	4.3	20.7
10 18	1 2.73	+ 2 49.3	1.561	2.549	3.9	19.6	10 18	1 3.05	- 4 13.2	1.463	2.438	6.3	20.7
10 28	0 53.79	+ 2 8.1	1.588	2.537	8.4	19.8	10 28	0 54.56	- 4 25.1	1.490	2.425	10.2	20.9
11 7	0 46.55	+ 1 40.1	1.640	2.526	12.5	20.0	11 7	0 47.81	- 4 17.6	1.541	2.412	14.1	21.2
11 17	0 41.67	+ 1 28.4	1.713	2.514	16.1	20.2	11 17	0 43.49	- 3 50.2	1.612	2.399	17.5	21.4
367045	2006 EC ₃₅		10 11.8 237°52	0°2/11.6	17		72582	2001 EH ₂₇		10 11.8 157°98	0°1/11.8	18	
9 8	1 30.72	+ 8 13.2	2.600	3.445	10.5	21.5	9 8	1 30.02	+ 9 21.8	2.622	3.466	10.5	20.4
9 18	1 25.65	+ 7 55.2	2.514	3.437	7.8	21.3	9 18	1 25.07	+ 8 53.3	2.549	3.470	7.7	20.2
9 28	1 19.12	+ 7 29.5	2.453	3.427	4.6	21.1	9 28	1 18.74	+ 8 16.4	2.501	3.474	4.6	20.0
10 8	1 11.65	+ 6 58.8	2.421	3.418	1.3	20.9	10 8	1 11.58	+ 7 33.9	2.481	3.478	1.3	19.8
10 18	1 3.88	+ 6 26.3	2.418	3.408	2.2	20.9	10 18	1 4.21	+ 6 49.6	2.491	3.481	2.1	19.8
10 28	0 56.53	+ 5 56.0	2.446	3.399	5.6	21.1	10 28	0 57.32	+ 6 7.8	2.531	3.485	5.4	20.1
11 7	0 50.27	+ 5 31.6	2.501	3.389	8.7	21.3	11 7	0 51.53	+ 5 32.3	2.599	3.488	8.4	20.3
11 17	0 45.57	+ 5 16.1	2.581	3.378	11.4	21.5	11 17	0 47.27	+ 5 6.2	2.692	3.490	10.9	20.4
350001	2010 GX ₉₈		10 11.8 97°87	1°6/10.3	18		282563	2004 XR ₆₈		10 11.8 335°55	9°9/2.5	18	
9 8	1 32.11	+ 5 38.0	1.766	2.634	13.6	21.7	9 8	1 27.06	- 10 18.0	1.268	2.171	15.5	19.3
9 18	1 27.11	+ 4 53.9	1.703	2.639	9.9	21.5	9 18	1 24.16	- 12 23.1	1.214	2.157	12.3	19.1
9 28	1 20.14	+ 4 0.7	1.664	2.643	5.8	21.3	9 28	1 18.73	- 14 24.5	1.182	2.143	10.2	19.0
10 8	1 11.94	+ 3 3.7	1.651	2.648	1.9	21.0	10 8	1 11.65	- 16 8.3	1.173	2.131	10.3	18.9
10 18	1 3.47	+ 2 9.3	1.666	2.652	3.8	21.2	10 18	1 4.08	- 17 22.2	1.186	2.119	12.7	19.1
10 28	0 55.76	+ 1 23.9	1.708	2.657	8.0	21.4	10 28	0 57.38	- 17 58.1	1.222	2.109	16.0	19.2
11 7	0 49.67	+ 0 52.5	1.776	2.661	11.8	21.7	11 7	0 52.67	- 17 54.9	1.275	2.099	19.4	19.4
11 17	0 45.75	+ 0 37.7	1.866	2.665	15.0	21.9	11 17	0 50.63	- 17 15.7	1.344	2.091	22.3	19.6
423601	2005 WP ₂₈		10 11.8 278°49	0°5/12.5	16		450551	2006 DY ₁₁₀		10 11.8 252°99	1°9/9.9	17	
9 8	1 26.66	+ 10 59.2	3.172	4.008	9.0	22.0	9 8	1 36.47	+ 0 22.0	2.700	3.549	10.0	21.6
9 18	1 22.48	+ 10 39.8	3.081	3.997	6.7	21.9	9 18	1 29.86	+ 0 18.2	2.606	3.531	7.4	21.4
9 28	1 17.15	+ 10 12.5	3.016	3.986	4.1	21.7	9 28	1 21.67	+ 0 12.7	2.539	3.513	4.5	21.1
10 8	1 11.10	+ 9 39.3	2.979	3.974	1.4	21.5	10 8	1 12.42	+ 0 8.3	2.501	3.494	2.1	20.9
10 18	1 4.80	+ 9 3.0	2.972	3.963	1.7	21.5	10 18	1 2.81	+ 0 7.7	2.494	3.475	3.4	21.0
10 28	0 58.84	+ 8 26.9	2.995	3.952	4.5	21.7	10 28	0 53.59	+ 0 13.6	2.519	3.456	6.4	21.2
11 7	0 53.70	+ 7 54.4	3.047	3.940	7.1	21.8	11 7	0 45.49	+ 0 28.0	2.572	3.436	9.4	21.4
11 17	0 49.79	+ 7 28.2	3.124	3.929	9.4	22.0	11 17	0 39.03	+ 0 52.0	2.650	3.416	11.9	21.5
174459	2002 YL ₄		10 11.8 284°05	4°8/15.8	18		220409	2003 SQ ₇₆		10 11.8 336°37	0°3/11.4	18	
9 8	1 34.17	+ 20 58.7	2.001	2.806	14.7	20.0	9 8	1 25.14	+ 12 4.7	1.838	2.698	13.5	19.1
9 18	1 28.90	+ 21 26.1	1.904	2.788	11.9	19.7	9 18	1 22.09	+ 10 40.4	1.756	2.686	10.0	18.8
9 28	1 21.43	+ 21 36.3	1.829	2.770	8.7	19.5	9 28	1 17.23	+ 8 57.8	1.698	2.675	6.0	18.6
10 8	1 12.39	+ 21 28.3	1.779	2.752	5.8	19.3	10 8	1 11.20	+ 7 2.7	1.667	2.665	1.6	18.2
10 18	1 2.69	+ 21 3.1	1.756	2.734	4.9	19.2	10 18	1 4.81	+ 5 3.8	1.665	2.655	3.0	18.3
10 28	0 53.46	+ 20 24.9	1.760	2.716	7.1	19.3	10 28	0 59.00	+ 3 11.0	1.691	2.646	7.4	18.6
11 7	0 45.73	+ 19 40.1	1.791	2.698	10.4	19.5	11 7	0 54.57	+ 1 32.9	1.743	2.637	11.4	18.8
11 17	0 40.27	+ 18 55.6	1.846	2.680	13.7	19.7	11 17	0 52.11	+ 0 15.4	1.818	2.629	14.8	19.0
205154	1999 XP ₁₈₇		10 11.8 314°64	9°4/19.3	18		189405	2008 KP ₃₅		10 11.8 362°25	5°8/5.6	18	
9 8	1 32.05	+ 30 1.5	1.597	2.375	18.9	19.5	9 8	1 29.38	- 7 18.3	1.985	2.866	11.8	19.7
9 18	1 28.07	+ 30 53.9	1.503	2.353	16.4	19.2	9 18	1 24.91	- 8 33.4	1.935	2.870	8.9	19.5
9 28	1 21.29	+ 31 19.9	1.426	2.332	13.5	19.0	9 28	1 18.76	- 9 46.1	1.909	2.875	6.5	19.4
10 8	1 12.42	+ 31 14.7	1.370	2.311	10.8	18.8	10 8	1 11.60	- 10 49.1	1.910	2.879	5.9	19.4
10 18	1 2.59	+ 30 36.6	1.337	2.291	9.4	18.7	10 18	1 4.25	- 11 36.3	1.937	2.884	7.5	19.5
10 28	0 53.31	+ 29 29.6	1.327	2.271	10.3	18.7	10 28	0 57.57	- 12 3.1	1.991	2.889	10.2	19.7
11 7	0 46.01	+ 28 3.0	1.342	2.251	13.0	18.8	11 7	0 52.29	- 12 8.0	2.069	2.895	12.8	19.8
11 17	0 41.66	+ 26 29.0	1.378	2.233	16.3	18.9	11 17	0 48.89	- 11 51.7	2.166	2.900	15.2	20.0
339316	2004 XW ₁₀₈		10 11.8 288°13	4°4/15.3	18		126793	2002 EN ₂₁		10 11.8 151°07	1°4/10.6	18	
9 8	1 33.61	+ 19 29.3	1.715	2.538	16.0	20.3	9 8	1 34.42	+ 5 18.6	1.848	2.710	13.4	20.6
9 18	1 28.68	+ 19 44.8	1.628	2.526	12.8	20.0	9 18	1 28.77	+ 4 48.9	1.782	2.714	9.8	20.4
9 28	1 21.36	+ 19 40.7	1.563	2.514	9.1	19.8	9 28	1 21.14	+ 4 11.1	1.740	2.718	5.8	20.1
10 8	1 12.37	+ 19 17.0	1.522	2.503	5.6	19.6	10 8	1 12.28	+ 3 29.9	1.725	2.721	1.8	19.9
10 18	1 2.75	+ 18 35.9	1.506	2.491	4.5	19.5	10 18	1 3.13	+ 2 50.5	1.738	2.725	3.6	20.0
10 28	0 53.76	+ 17 43.2	1.518	2.479	7.5	19.6	10 28	0 54.72	+ 2 18.6	1.779	2.728	7.7	20.3
11 7	0 46.52	+ 16 47.2	1.556	2.468	11.4	19.8	11 7	0 47.93	+ 1 58.5	1.846	2.730	11.4	20.5
11 17	0 41.79	+ 15 55.5	1.616	2.457	15.0	20.0	11 17	0 43.31	+ 1 52.6	1.935	2.733	14.6	20.7
266194	2006 VW ₁₃₂		10 11.8 252°84	1°2/12.9	17		116982	2004 HU ₃₀		10 11.8 229°09	5°2/7.0	18	R
9 8	1 32.26	+ 13 55.1	1.560	2.411	15.9	20.8	9 8	1 34.73	- 7 47.5	2.181	3.048	11.4	19.8
9 18	1 27.67	+ 13 15.9	1.482	2.405	12.1	20.6	9 18	1 28.76	- 8 24.9	2.114	3.042	8.7	19.6
9 28	1 20.71	+ 12 17.0	1.427	2.398	7.6	20.3	9 28	1 21.05	- 8 59.3	2.071	3.036	6.2	19.5
10 8	1 12.17	+ 11 2.2	1.396	2.392	2.8	20.0	10 8	1 12.25	- 9 25.1	2.056	3.030	5.2	19.4
10 18	1 3.14	+ 9 38.5	1.393	2.385	2.9	20.0	10 18	1 3.18	- 9 37.7	2.070	3.023	6.6	19.5
10 28	0 54.87	+ 8 15.2	1.416	2.377	7.8	20.3	10 28	0 54.73	- 9 33.7	2.111	3.017	9.3	19.6
11 7	0 48.44	+ 7 1.6	1.465	2.370	12.4	20.5	11 7	0 47.67	- 9 12.2	2.177	3.010	12.1	19.8
11 17	0 44.54	+ 6 4.4	1.535	2.363	16.3	20.8	11 17	0 42.55	- 8 33.9	2.265	3.003	14.5	20.0
96541	1998 SR ₃₁		10 11.8 77°46	0°1/11.9	18		403615	2010 RJ ₁₀₁		10 11.8 293°10	2°4/13.8	18	
9 8	1 30.47												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
286778	2002 <i>JA</i> ₇₁		10 11.8 150°29	2°9/ 9.3 18			428288	2007 <i>EX</i> ₁₂₀		10 11.8 51°02	11°7/21.3 18		
9 8	1 33.64	+ 4 16.5	1.542	2.416	14.9	20.5	9 8	1 42.34	+33 0.2	1.343	2.104	22.6	20.1
9 18	1 28.48	+ 3 0.3	1.482	2.422	10.8	20.3	9 18	1 35.77	+34 36.4	1.297	2.129	19.5	20.0
9 28	1 21.08	+ 1 33.7	1.446	2.426	6.4	20.0	9 28	1 25.82	+35 38.6	1.268	2.154	16.3	19.9
10 8	1 12.29	+ 0 4.9	1.436	2.431	3.0	19.8	10 8	1 13.68	+36 0.8	1.259	2.180	13.4	19.8
10 18	1 3.20	- 1 17.1	1.453	2.435	5.3	20.0	10 18	1 1.06	+35 41.9	1.271	2.206	11.8	19.8
10 28	0 55.00	- 2 23.5	1.498	2.438	9.6	20.2	10 28	0 49.86	+34 48.5	1.307	2.232	12.2	19.9
11 7	0 48.67	- 3 8.7	1.566	2.441	13.6	20.5	11 7	0 41.53	+33 33.0	1.365	2.259	14.0	20.0
11 17	0 44.79	- 3 30.8	1.655	2.444	17.0	20.7	11 17	0 36.82	+32 9.0	1.444	2.285	16.4	20.3
114220	2002 <i>VJ</i> ₁₁₂		10 11.8 29°47	5°7/ 8.2 18			482758	2013 <i>GB</i> ₂₈		10 11.8 76°62	5°1/ 7.0 18		
9 8	1 34.64	- 3 12.3	1.187	2.082	16.9	19.0	9 8	1 32.57	- 6 27.5	2.034	2.908	11.8	20.6
9 18	1 29.62	- 3 59.4	1.143	2.090	12.5	18.7	9 18	1 27.18	- 7 15.3	1.982	2.916	8.9	20.4
9 28	1 21.88	- 4 46.7	1.120	2.098	8.1	18.5	9 28	1 20.09	- 8 0.6	1.955	2.924	6.2	20.3
10 8	1 12.51	- 5 25.2	1.120	2.107	5.7	18.4	10 8	1 12.01	- 8 37.6	1.955	2.932	5.1	20.2
10 18	1 2.90	- 5 47.1	1.144	2.117	7.9	18.6	10 18	1 3.75	- 9 1.2	1.983	2.940	6.6	20.3
10 28	0 54.51	- 5 46.6	1.192	2.128	12.1	18.8	10 28	0 56.22	- 9 7.9	2.038	2.948	9.3	20.5
11 7	0 48.47	- 5 22.6	1.262	2.139	16.1	19.1	11 7	0 50.14	- 8 56.3	2.117	2.956	12.1	20.7
11 17	0 45.35	- 4 36.8	1.350	2.150	19.6	19.4	11 17	0 45.99	- 8 27.3	2.217	2.964	14.5	20.9
174908	2004 <i>BP</i> ₁₃₄		10 11.8 59°93	4°0/ 8.3 18			148242	2000 <i>EN</i> ₅₈		10 11.8 191°10	1°0/12.7 18		
9 8	1 32.29	- 1 27.6	1.786	2.663	13.0	19.9	9 8	1 36.01	+11 41.5	1.802	2.646	14.5	20.8
9 18	1 27.20	- 2 18.1	1.729	2.668	9.6	19.7	9 18	1 30.14	+11 30.4	1.726	2.645	10.9	20.6
9 28	1 20.20	- 3 10.8	1.697	2.674	6.0	19.6	9 28	1 22.09	+11 5.8	1.674	2.644	6.8	20.3
10 8	1 12.03	- 3 59.5	1.691	2.679	4.0	19.4	10 8	1 12.62	+10 30.4	1.647	2.642	2.4	20.1
10 18	1 3.62	- 4 37.9	1.712	2.684	5.8	19.6	10 18	1 2.73	+ 9 48.7	1.649	2.640	2.7	20.1
10 28	0 55.99	- 5 0.9	1.760	2.690	9.2	19.8	10 28	0 53.56	+ 9 6.6	1.679	2.638	7.1	20.4
11 7	0 49.96	- 5 5.8	1.833	2.695	12.6	20.0	11 7	0 46.09	+ 8 30.4	1.736	2.635	11.2	20.6
11 17	0 46.07	- 4 52.2	1.926	2.701	15.5	20.2	11 17	0 40.97	+ 8 4.8	1.815	2.632	14.7	20.8
171382	2006 <i>OO</i> ₁₇		10 11.8 90°22	6°3/ 6.9 18			444488	2006 <i>QJ</i> ₁₈₅		10 11.8 6°30	1°3/12.9 18		
9 8	1 36.60	- 9 21.6	1.824	2.695	13.1	20.0	9 8	1 32.46	+11 55.7	1.699	2.552	14.8	21.2
9 18	1 30.26	-10 1.5	1.774	2.703	10.0	19.9	9 18	1 27.61	+11 51.0	1.629	2.552	11.2	21.0
9 28	1 21.95	-10 35.8	1.749	2.712	7.3	19.7	9 28	1 20.60	+11 32.5	1.582	2.553	7.0	20.7
10 8	1 12.50	-10 58.0	1.750	2.720	6.3	19.7	10 8	1 12.20	+11 2.9	1.559	2.554	2.6	20.5
10 18	1 2.89	-11 3.1	1.778	2.728	7.8	19.8	10 18	1 3.41	+10 26.4	1.563	2.555	2.7	20.5
10 28	0 54.17	-10 48.3	1.833	2.736	10.6	20.0	10 28	0 55.37	+ 9 49.2	1.595	2.557	7.1	20.8
11 7	0 47.19	-10 13.6	1.911	2.744	13.5	20.2	11 7	0 49.01	+ 9 17.3	1.652	2.559	11.2	21.0
11 17	0 42.45	- 9 20.9	2.011	2.752	16.0	20.4	11 17	0 44.99	+ 8 55.6	1.732	2.561	14.7	21.3
191700	2004 <i>RG</i> ₁₆₈		10 11.8 106°79	2°9/14.7 16			322642	1998 <i>TO</i> ₄		10 11.8 23°19	2°8/13.9 18		
9 8	1 34.12	+18 59.3	1.809	2.629	15.4	20.5	9 8	1 36.90	+14 14.3	1.979	2.808	14.0	20.2
9 18	1 28.56	+18 27.2	1.748	2.648	11.9	20.4	9 18	1 30.67	+14 53.8	1.906	2.812	10.8	20.0
9 28	1 21.00	+17 34.7	1.709	2.666	8.0	20.2	9 28	1 22.36	+15 21.5	1.856	2.816	7.2	19.8
10 8	1 12.24	+16 25.0	1.696	2.683	4.2	20.0	10 8	1 12.69	+15 37.5	1.833	2.820	3.8	19.6
10 18	1 3.30	+15 3.6	1.711	2.700	3.3	19.9	10 18	1 2.62	+15 42.9	1.838	2.825	3.3	19.6
10 28	0 55.25	+13 38.6	1.755	2.716	6.5	20.2	10 28	0 53.21	+15 41.2	1.871	2.830	6.5	19.8
11 7	0 48.93	+12 18.4	1.825	2.732	10.2	20.4	11 7	0 45.41	+15 36.8	1.932	2.836	10.0	20.0
11 17	0 44.87	+11 9.5	1.920	2.748	13.5	20.7	11 17	0 39.83	+15 34.3	2.017	2.842	13.1	20.3
436105	2009 <i>SM</i> ₃₀₆		10 11.8 359°83	2°5/10.3 18			65352	2002 <i>NJ</i> ₄₀		10 11.8 346°06	1°4/10.5 18		
9 8	1 29.20	+ 4 17.1	1.002	1.906	18.5	20.2	9 8	1 28.70	+ 5 25.9	1.906	2.776	12.7	18.6
9 18	1 26.17	+ 3 49.7	0.949	1.902	13.6	19.9	9 18	1 24.62	+ 4 51.5	1.834	2.770	9.3	18.3
9 28	1 20.12	+ 3 10.9	0.915	1.899	8.1	19.6	9 28	1 18.73	+ 4 8.9	1.785	2.765	5.4	18.1
10 8	1 12.09	+ 2 28.2	0.902	1.899	2.9	19.3	10 8	1 11.68	+ 3 22.5	1.763	2.760	1.8	17.9
10 18	1 3.54	+ 1 50.6	0.911	1.899	5.5	19.4	10 18	1 4.29	+ 2 37.7	1.768	2.756	3.5	18.0
10 28	0 56.12	+ 1 27.1	0.943	1.902	11.1	19.8	10 28	0 57.50	+ 2 0.4	1.801	2.752	7.5	18.2
11 7	0 51.16	+ 1 23.7	0.995	1.906	16.3	20.1	11 7	0 52.12	+ 1 35.1	1.860	2.748	11.1	18.4
11 17	0 49.38	+ 1 42.1	1.064	1.911	20.6	20.4	11 17	0 48.70	+ 1 24.5	1.940	2.746	14.3	18.6
407131	2009 <i>SH</i> ₃₅₅		10 11.8 347°51	0°1/11.7 17			289798	2005 <i>JK</i> ₁₃₀		10 11.8 67°30	2°6/ 9.9 17		
9 8	1 29.01	+ 8 49.2	1.796	2.661	13.6	21.2	9 8	1 36.69	+ 3 36.3	1.303	2.182	16.7	20.4
9 18	1 24.97	+ 8 28.4	1.722	2.654	10.1	21.0	9 18	1 30.83	+ 2 54.4	1.262	2.203	12.1	20.2
9 28	1 18.98	+ 7 56.3	1.671	2.648	6.1	20.7	9 28	1 22.47	+ 2 4.6	1.243	2.223	7.1	19.9
10 8	1 11.73	+ 7 16.7	1.646	2.643	1.7	20.4	10 8	1 12.69	+ 1 14.1	1.248	2.244	2.9	19.7
10 18	1 4.09	+ 6 34.5	1.647	2.638	2.8	20.5	10 18	1 2.81	+ 0 30.7	1.280	2.265	5.1	19.9
10 28	0 57.08	+ 5 55.9	1.676	2.634	7.2	20.8	10 28	0 54.18	+ 0 1.3	1.337	2.285	9.7	20.3
11 7	0 51.57	+ 5 26.1	1.730	2.631	11.1	21.0	11 7	0 47.79	+ 0 10.2	1.418	2.306	14.0	20.6
11 17	0 48.16	+ 5 9.2	1.807	2.628	14.5	21.2	11 17	0 44.19	- 0 2.7	1.519	2.327	17.4	20.9
305456	2008 <i>DU</i> ₈		10 11.8 173°80	0°8/10.9 18			88521	2001 <i>QN</i> ₁₆₈		10 11.8 347°92	5°2/ 8.7 18 R		
9 8	1 31.44	+ 6 46.5	2.507	3.357	10.7	21.8	9 8	1 35.77	- 5 31.1	1.492	2.374	14.8	17.8
9 18	1 26.18	+ 6 11.1	2.434	3.360	7.8	21.6	9 18	1 30.25	- 5 40.8	1.427	2.366	11.2	17.5
9 28	1 19.45	+ 5 28.3	2.386	3.362	4.6	21.4	9 28	1 22.27	- 5 47.1	1.385	2.359	7.4	17.3
10 8	1 11.83	+ 4 41.7	2.367	3.364	1.3	21.2	10 8	1 12.69	- 5 44.1	1.367	2.352	5.2	17.2
10 18	1 3.98	+ 3 55.3	2.377	3.365	2.6	21.3	10 18	1 2.69	- 5 26.9	1.375	2.347	7.0	17.3
10 28	0 56.65	+ 3 13.8	2.418	3.366	6.0	21.5	10 28	0 53.57	- 4 52.2	1.409	2.343	10.8	17.5
11 7	0 50.47	+ 2 41.0	2.486	3.366	9.0	21.7	11 7	0 46.42	- 3 59.6	1.467	2.339	14.6	17.7
11 17	0 45.91	+ 2 19.5	2.578	3.366	11.6	21.9	11 17	0 41.92	- 2 50.8	1.545	2.337	17.9	17.9
185656	1981 <i>ET</i> ₃₅		10 11.8 137°13	2°1/14.3 18			415554	2014 <i>QK</i> ₂₁₀		10 11.8 260°86	3°		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
517155	2013 <i>LS</i> ₂		10 11.8 132°98	0°6/11.1 18			411825	2012 <i>DC</i> ₄₄		10 11.8 180°75	0°8/10.9 18		
9 8	1 30.14	+ 7 26.2	2.555	3.405	10.5	22.5	9 8	1 29.62	+ 6 43.7	2.551	3.404	10.4	21.5
9 18	1 25.17	+ 6 50.8	2.488	3.414	7.7	22.3	9 18	1 24.86	+ 6 8.2	2.476	3.404	7.6	21.3
9 28	1 18.84	+ 6 8.0	2.447	3.423	4.5	22.1	9 28	1 18.70	+ 5 25.4	2.428	3.404	4.5	21.1
10 8	1 11.69	+ 5 21.3	2.434	3.431	1.2	21.9	10 8	1 11.68	+ 4 38.9	2.407	3.404	1.3	20.8
10 18	1 4.36	+ 4 34.6	2.451	3.439	2.4	22.0	10 18	1 4.43	+ 3 52.7	2.416	3.404	2.6	21.0
10 28	0 57.55	+ 3 52.4	2.497	3.447	5.7	22.2	10 28	0 57.66	+ 3 11.4	2.455	3.404	5.8	21.2
11 7	0 51.86	+ 3 18.4	2.572	3.455	8.6	22.4	11 7	0 51.98	+ 2 38.5	2.521	3.403	8.8	21.4
11 17	0 47.72	+ 2 55.2	2.670	3.462	11.2	22.6	11 17	0 47.85	+ 2 16.8	2.611	3.402	11.4	21.5
16087	1999 <i>TR</i> ₁₀₂		10 11.8 64°85	8°7/ 3.5 18			76844	2000 <i>UC</i> ₄₀		10 11.8 188°45	1°7/13.3 18		
9 8	1 31.67	-11 45.4	1.578	2.463	14.0	17.4	9 8	1 35.02	+14 41.6	1.614	2.457	15.9	19.7
9 18	1 26.86	-13 36.7	1.548	2.479	11.1	17.3	9 18	1 29.65	+14 14.0	1.540	2.456	12.2	19.4
9 28	1 20.01	-15 19.2	1.542	2.495	9.0	17.2	9 28	1 21.91	+13 27.6	1.488	2.456	7.8	19.2
10 8	1 12.01	-16 42.5	1.560	2.511	8.9	17.3	10 8	1 12.63	+12 25.4	1.461	2.455	3.2	18.9
10 18	1 3.91	-17 38.7	1.604	2.527	10.7	17.4	10 18	1 2.91	+11 13.4	1.462	2.453	3.0	18.9
10 28	0 56.77	-18 3.9	1.671	2.543	13.3	17.6	10 28	0 54.00	+10 0.0	1.490	2.451	7.5	19.2
11 7	0 51.44	-17 58.6	1.759	2.559	15.9	17.8	11 7	0 46.95	+ 8 53.7	1.544	2.449	11.9	19.4
11 17	0 48.38	-17 26.1	1.864	2.575	18.1	18.0	11 17	0 42.46	+ 8 1.3	1.620	2.446	15.7	19.6
447195	2005 <i>SV</i> ₁₈₆		10 11.8 238°36	0°4/11.5 18			356449	2010 <i>XO</i> ₇₉		10 11.8 257°45	1°9/ 8.1 18		
9 8	1 30.39	+ 8 41.9	2.150	3.004	12.1	21.9	9 8	1 23.17	- 1 44.7	4.410	5.273	6.2	21.1
9 18	1 25.69	+ 8 7.1	2.074	3.001	8.9	21.7	9 18	1 19.67	- 2 18.9	4.337	5.269	4.5	21.0
9 28	1 19.30	+ 7 22.1	2.022	2.997	5.3	21.4	9 28	1 15.43	- 2 54.0	4.291	5.265	2.8	20.9
10 8	1 11.85	+ 6 30.7	1.997	2.994	1.4	21.2	10 8	1 10.74	- 3 27.6	4.274	5.261	1.9	20.8
10 18	1 4.09	+ 5 37.7	2.000	2.990	2.6	21.3	10 18	1 5.94	- 3 57.2	4.288	5.257	2.8	20.9
10 28	0 56.88	+ 4 48.7	2.033	2.987	6.5	21.5	10 28	1 1.36	- 4 20.9	4.332	5.253	4.5	21.0
11 7	0 50.97	+ 4 8.7	2.092	2.983	10.0	21.7	11 7	0 57.35	- 4 37.0	4.403	5.248	6.2	21.1
11 17	0 46.90	+ 3 41.2	2.175	2.979	13.0	21.9	11 17	0 54.17	- 4 44.6	4.499	5.244	7.7	21.2
275078	2009 <i>UU</i> ₁₄₅		10 11.8 25°33	10°5/29.0 18			400398	2008 <i>AJ</i> ₉₂		10 11.8 48°99	3°7/15.1 18		
9 8	1 30.27	-23 47.0	2.060	2.913	12.6	19.6	9 8	1 33.81	+18 27.7	1.888	2.708	14.9	20.9
9 18	1 25.62	-25 23.6	2.030	2.917	11.2	19.6	9 18	1 28.52	+18 42.2	1.814	2.711	11.7	20.7
9 28	1 19.22	-26 44.0	2.024	2.921	10.5	19.5	9 28	1 21.14	+18 39.5	1.762	2.715	8.2	20.5
10 8	1 11.80	-27 40.6	2.041	2.925	11.0	19.6	10 8	1 12.40	+18 20.3	1.736	2.718	4.8	20.3
10 18	1 4.22	-28 8.4	2.082	2.929	12.2	19.7	10 18	1 3.27	+17 47.3	1.736	2.721	3.9	20.2
10 28	0 57.39	-28 5.5	2.144	2.934	13.8	19.8	10 28	0 54.83	+17 5.5	1.764	2.725	6.7	20.4
11 7	0 52.06	-27 33.6	2.225	2.938	15.5	19.9	11 7	0 48.01	+16 21.8	1.819	2.728	10.2	20.6
11 17	0 48.68	-26 36.5	2.322	2.943	16.9	20.1	11 17	0 43.45	+15 42.4	1.898	2.732	13.4	20.8
107080	2001 <i>AY</i> ₂₃		10 11.8 224°42	6°5/ 6.5 18			97323	1999 <i>XU</i> ₂₃₂		10 11.8 157°64	0°1/11.7 18		
9 8	1 36.36	- 9 40.7	1.842	2.713	13.0	19.5	9 8	1 30.03	+ 8 55.3	2.722	3.565	10.2	21.2
9 18	1 30.24	-10 27.1	1.782	2.710	10.0	19.3	9 18	1 25.07	+ 8 27.7	2.649	3.570	7.5	21.0
9 28	1 22.06	-11 8.4	1.745	2.707	7.5	19.1	9 28	1 18.79	+ 7 52.1	2.601	3.575	4.5	20.8
10 8	1 12.62	-11 37.5	1.735	2.703	6.6	19.1	10 8	1 11.70	+ 7 11.6	2.582	3.579	1.2	20.6
10 18	1 2.89	-11 48.9	1.752	2.699	8.2	19.1	10 18	1 4.42	+ 6 29.6	2.593	3.583	2.1	20.7
10 28	0 53.95	-11 39.1	1.795	2.695	11.0	19.3	10 28	0 57.60	+ 5 50.1	2.633	3.586	5.2	20.9
11 7	0 46.69	-11 7.6	1.862	2.691	13.9	19.5	11 7	0 51.83	+ 5 17.0	2.702	3.590	8.1	21.1
11 17	0 41.70	-10 16.4	1.950	2.687	16.5	19.7	11 17	0 47.54	+ 4 52.8	2.796	3.593	10.6	21.3
342215	2008 <i>SV</i> ₂₄₆		10 11.8 331°25	14°3/28.9 18			41215	1999 <i>XH</i> ₄		10 11.8 258°93	1°0/10.8 18		
9 8	1 37.63	-29 2.4	1.604	2.443	16.2	19.6	9 8	1 29.85	+ 6 29.0	2.235	3.094	11.5	19.6
9 18	1 31.52	-30 31.1	1.571	2.439	14.9	19.5	9 18	1 25.23	+ 5 52.1	2.160	3.091	8.4	19.4
9 28	1 22.91	-31 35.3	1.559	2.436	14.3	19.5	9 28	1 19.01	+ 5 7.1	2.110	3.087	4.9	19.2
10 8	1 12.84	-32 5.1	1.567	2.432	14.7	19.5	10 8	1 11.79	+ 4 17.8	2.087	3.084	1.5	18.9
10 18	1 2.60	-31 55.0	1.597	2.430	16.0	19.6	10 18	1 4.28	+ 3 29.2	2.093	3.081	3.0	19.1
10 28	0 53.53	-31 4.4	1.645	2.427	17.7	19.7	10 28	0 57.30	+ 2 46.3	2.128	3.077	6.6	19.3
11 7	0 46.63	-29 38.1	1.712	2.424	19.5	19.9	11 7	0 51.56	+ 2 13.4	2.189	3.074	9.9	19.5
11 17	0 42.47	-27 43.0	1.793	2.422	21.1	20.0	11 17	0 47.56	+ 1 53.3	2.274	3.071	12.7	19.7
185551	2007 <i>YT</i> ₅₈		10 11.8 243°00	2°9/13.9 16			129627	1998 <i>HA</i> ₃		10 11.8 59°75	10°1/ 9.6 17		
9 8	1 36.98	+15 10.5	1.543	2.384	16.6	20.9	9 8	1 57.00	-14 44.5	0.966	1.838	21.9	18.5
9 18	1 31.35	+15 19.9	1.464	2.377	12.9	20.7	9 18	1 46.73	-14 25.7	0.921	1.846	17.3	18.3
9 28	1 23.08	+15 11.6	1.405	2.369	8.6	20.4	9 28	1 32.33	-13 45.6	0.894	1.855	12.8	18.1
10 8	1 12.98	+14 46.5	1.371	2.362	4.2	20.1	10 8	1 15.51	-12 35.5	0.890	1.863	10.1	18.0
10 18	1 2.24	+14 8.2	1.364	2.354	3.6	20.1	10 18	0 58.58	-10 53.1	0.911	1.872	11.5	18.1
10 28	0 52.26	+13 23.4	1.383	2.346	7.9	20.3	10 28	0 43.92	- 8 43.1	0.957	1.881	15.6	18.3
11 7	0 44.27	+12 40.0	1.428	2.337	12.4	20.6	11 7	0 33.09	- 6 15.0	1.024	1.891	19.9	18.6
11 17	0 39.06	+12 5.0	1.495	2.329	16.4	20.8	11 17	0 26.69	- 3 38.0	1.110	1.900	23.6	18.9
187138	2005 <i>QW</i> ₁₃₇		10 11.8 321°95	0°8/11.1 18			445487	2010 <i>VM</i> ₁₇₃		10 11.8 11°99	1°1/11.0 17		
9 8	1 31.24	+ 6 54.2	1.918	2.780	13.0	20.5	9 8	1 29.54	+ 6 21.0	1.436	2.317	15.4	20.0
9 18	1 26.50	+ 6 28.0	1.844	2.776	9.5	20.3	9 18	1 25.63	+ 5 59.4	1.380	2.321	11.3	19.7
9 28	1 19.87	+ 5 52.5	1.794	2.771	5.6	20.0	9 28	1 19.48	+ 5 27.5	1.347	2.328	6.6	19.5
10 8	1 12.02	+ 5 11.8	1.770	2.767	1.6	19.8	10 8	1 11.93	+ 4 50.5	1.337	2.335	1.9	19.2
10 18	1 3.83	+ 4 30.8	1.774	2.763	3.1	19.9	10 18	1 4.08	+ 4 14.4	1.354	2.343	3.7	19.4
10 28	0 56.25	+ 3 55.2	1.807	2.760	7.2	20.1	10 28	0 57.12	+ 3 46.0	1.396	2.353	8.4	19.7
11 7	0 50.14	+ 3 29.8	1.865	2.756	11.0	20.3	11 7	0 52.00	+ 3 30.4	1.461	2.364	12.6	19.9
11 17	0 46.06	+ 3 17.5	1.945	2.753	14.2	20.5	11 17	0 49.31	+ 3 30.2	1.548	2.376	16.2	20.2
471551	2012 <i>LY</i> ₁₆		10 11.8 112°34	0°6/12.3 16			238572	2004 <i>XO</i> ₈₉		10 11.8 308°89			

EPHEMERIDES

10 11.8

10 11.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
241576	1995 <i>SE</i> ₃₁		10 11.8 289°71	1.2°/14.1	18		144251	2004 <i>CU</i> ₈₃		10 11.8 110°39	1.4°/10.5	18	
9 8	1 24.64	+14 55.8	4.376	5.189	7.2	20.9	9 8	1 30.93	+6 21.6	1.911	2.775	12.9	20.4
9 18	1 20.79	+14 51.0	4.287	5.185	5.5	20.8	9 18	1 26.22	+5 33.8	1.844	2.777	9.4	20.2
9 28	1 16.12	+14 39.4	4.224	5.182	3.6	20.6	9 28	1 19.69	+4 36.5	1.801	2.779	5.5	19.9
10 8	1 10.95	+14 22.1	4.190	5.178	1.8	20.5	10 8	1 12.02	+3 34.8	1.784	2.781	1.7	19.7
10 18	1 5.63	+14 0.7	4.186	5.175	1.5	20.5	10 18	1 4.07	+2 34.7	1.796	2.783	3.5	19.8
10 28	1 0.55	+13 37.1	4.213	5.172	3.2	20.6	10 28	0 56.78	+1 42.8	1.836	2.785	7.5	20.1
11 7	0 56.06	+13 13.8	4.269	5.168	5.1	20.7	11 7	0 50.95	+1 3.9	1.901	2.786	11.1	20.3
11 17	0 52.45	+12 52.7	4.352	5.165	6.8	20.9	11 17	0 47.14	+0 41.0	1.990	2.788	14.2	20.5
223161	2002 <i>XD</i> ₇₁		10 11.8 291°94	3°6'/14.6	18		220776	2004 <i>TB</i> ₁₃₇		10 11.8 44°77	4°5'/16.9	18	
9 8	1 33.31	+17 38.5	1.510	2.349	17.0	19.9	9 8	1 30.25	+23 24.2	2.101	2.897	14.4	19.6
9 18	1 28.74	+17 40.1	1.427	2.337	13.4	19.6	9 18	1 25.75	+23 20.2	2.026	2.903	11.6	19.5
9 28	1 21.58	+17 20.6	1.365	2.325	9.2	19.3	9 28	1 19.42	+22 56.2	1.972	2.908	8.6	19.3
10 8	1 12.60	+16 40.6	1.326	2.313	5.0	19.1	10 8	1 11.95	+22 13.0	1.943	2.914	5.7	19.1
10 18	1 2.94	+15 44.1	1.312	2.301	4.0	19.0	10 18	1 4.18	+21 13.7	1.942	2.920	4.5	19.1
10 28	0 53.99	+14 38.7	1.325	2.289	7.9	19.2	10 28	0 57.04	+20 4.0	1.968	2.926	6.3	19.2
11 7	0 46.96	+13 33.8	1.363	2.277	12.4	19.4	11 7	0 51.33	+18 51.1	2.021	2.932	9.2	19.4
11 17	0 42.68	+12 38.0	1.422	2.266	16.5	19.6	11 17	0 47.61	+17 42.0	2.099	2.939	12.1	19.6
118511	2000 <i>DR</i> ₉₃		10 11.8 166°81	1°0'/12.7	16		187218	2005 <i>SY</i> ₁₁₉		10 11.8 84°05	0°1'/11.8	16	
9 8	1 36.32	+12 0.8	1.898	2.737	14.0	21.3	9 8	1 35.40	+10 18.0	1.521	2.380	15.9	21.4
9 18	1 30.25	+11 45.5	1.825	2.742	10.6	21.1	9 18	1 29.71	+9 37.2	1.472	2.401	11.7	21.2
9 28	1 22.12	+11 16.9	1.776	2.746	6.6	20.8	9 28	1 21.79	+8 41.9	1.446	2.422	7.0	20.9
10 8	1 12.68	+10 37.8	1.754	2.749	2.4	20.6	10 8	1 12.59	+7 37.8	1.445	2.442	1.9	20.7
10 18	1 2.90	+9 52.7	1.760	2.752	2.6	20.6	10 18	1 3.25	+6 32.0	1.472	2.463	3.1	20.8
10 28	0 53.85	+9 7.4	1.796	2.754	6.8	20.9	10 28	0 54.97	+5 32.6	1.526	2.483	7.8	21.1
11 7	0 46.45	+8 28.0	1.858	2.755	10.6	21.1	11 7	0 48.65	+4 46.1	1.605	2.503	12.0	21.4
11 17	0 41.29	+7 59.1	1.943	2.756	14.0	21.3	11 17	0 44.83	+4 16.1	1.706	2.522	15.5	21.7
54003	2000 <i>GN</i> ₉₁		10 11.8 28°36	10°2'/5.6	18		480134	2015 <i>FN</i> ₁₅₂		10 11.8 179°04	0°7'/11.2	16	
9 8	1 37.71	-17 17.8	1.424	2.299	15.9	17.5	9 8	1 34.43	+8 14.3	1.860	2.715	13.6	22.4
9 18	1 31.44	-17 59.8	1.392	2.311	13.0	17.4	9 18	1 28.87	+7 30.8	1.789	2.717	10.0	22.2
9 28	1 22.78	-18 25.8	1.381	2.324	10.8	17.3	9 28	1 21.31	+6 35.7	1.742	2.718	5.9	21.9
10 8	1 12.82	-18 27.4	1.393	2.338	10.3	17.3	10 8	1 12.49	+5 33.7	1.721	2.718	1.6	21.7
10 18	1 2.84	-18 0.3	1.429	2.353	11.7	17.4	10 18	1 3.34	+4 31.1	1.729	2.718	3.2	21.8
10 28	0 54.14	-17 3.9	1.488	2.368	14.1	17.6	10 28	0 54.90	+3 34.6	1.766	2.718	7.5	22.0
11 7	0 47.65	-15 42.0	1.569	2.385	16.7	17.9	11 7	0 48.05	+2 50.0	1.829	2.716	11.4	22.3
11 17	0 43.85	-14 0.1	1.668	2.402	19.1	18.1	11 17	0 43.40	+2 20.9	1.915	2.715	14.6	22.5
204911	2008 <i>QE</i> ₅		10 11.8 24°17	0°9'/10.1	18		521934	2015 <i>UM</i> ₆₀		10 11.8 99°48	5°7'/4.8	18	
9 8	1 22.68	+5 4.9	4.171	5.024	6.7	19.9	9 8	1 28.90	-7 44.1	2.216	3.093	10.9	21.0
9 18	1 19.36	+4 23.2	4.096	5.025	4.8	19.8	9 18	1 24.46	-9 15.4	2.168	3.101	8.3	20.8
9 28	1 15.27	+3 37.6	4.049	5.026	2.8	19.6	9 28	1 18.51	-10 44.4	2.146	3.108	6.2	20.7
10 8	1 10.72	+2 50.6	4.031	5.027	1.0	19.5	10 8	1 11.67	-12 3.7	2.151	3.115	5.8	20.7
10 18	1 6.06	+2 4.8	4.044	5.028	1.9	19.6	10 18	1 4.66	-13 7.3	2.185	3.123	7.4	20.8
10 28	1 1.64	+1 22.8	4.087	5.029	4.0	19.7	10 28	0 58.24	-13 50.6	2.244	3.130	9.8	21.0
11 7	0 57.82	+0 46.9	4.159	5.030	5.9	19.9	11 7	0 53.08	-14 11.8	2.328	3.137	12.2	21.1
11 17	0 54.87	+0 18.9	4.256	5.031	7.6	20.0	11 17	0 49.62	-14 11.6	2.432	3.144	14.3	21.3
305236	2007 <i>XY</i> ₂₄		10 11.8 297°89	4°4'/7.9	18		168639	2000 <i>DC</i> ₉		10 11.8 110°31	2°8'/8.9	18	
9 8	1 31.80	-2 3.2	1.770	2.649	13.0	20.6	9 8	1 31.86	+2 2.0	2.056	2.924	12.0	20.5
9 18	1 27.07	-2 56.2	1.698	2.638	9.7	20.4	9 18	1 26.66	+0 58.0	2.004	2.939	8.7	20.3
9 28	1 20.30	-3 52.3	1.651	2.627	6.2	20.2	9 28	1 19.82	-0 10.9	1.976	2.954	5.2	20.2
10 8	1 12.20	-4 44.5	1.629	2.616	4.4	20.0	10 8	1 12.04	-1 18.9	1.976	2.968	2.8	20.0
10 18	1 3.69	-5 26.1	1.635	2.605	6.3	20.1	10 18	1 4.10	-2 19.7	2.006	2.983	4.6	20.2
10 28	0 55.83	-5 51.3	1.667	2.594	9.8	20.3	10 28	0 56.88	-3 7.9	2.063	2.996	7.8	20.4
11 7	0 49.54	-5 57.0	1.723	2.584	13.3	20.5	11 7	0 51.07	-3 40.0	2.146	3.010	11.0	20.6
11 17	0 45.44	-5 42.3	1.799	2.574	16.4	20.7	11 17	0 47.13	-3 54.7	2.252	3.023	13.6	20.9
209263	2003 <i>WZ</i> ₁₈₉		10 11.8 309°16	2°9'/13.5	18		187427	2005 <i>WH</i> ₆		10 11.8 33°25	4°2'/16.4	18	
9 8	1 41.85	+12 49.6	1.760	2.592	15.3	19.5	9 8	1 29.15	+22 26.7	1.796	2.610	15.8	19.1
9 18	1 34.72	+13 44.1	1.679	2.587	11.8	19.3	9 18	1 25.12	+22 6.3	1.729	2.619	12.6	18.9
9 28	1 25.04	+14 28.0	1.621	2.583	7.9	19.1	9 28	1 19.11	+21 23.1	1.683	2.628	9.0	18.7
10 8	1 13.57	+15 0.3	1.589	2.579	3.9	18.8	10 8	1 11.87	+20 18.8	1.661	2.638	5.6	18.6
10 18	1 1.46	+15 21.5	1.586	2.574	3.6	18.8	10 18	1 4.35	+18 58.2	1.665	2.649	4.3	18.5
10 28	0 50.03	+15 34.2	1.612	2.570	7.4	19.0	10 28	0 57.59	+17 29.2	1.697	2.660	6.6	18.7
11 7	0 40.48	+15 43.0	1.665	2.566	11.4	19.3	11 7	0 52.45	+16 0.7	1.755	2.671	10.0	18.9
11 17	0 33.58	+15 52.6	1.741	2.563	15.0	19.5	11 17	0 49.48	+14 40.7	1.838	2.683	13.3	19.1
227910	2007 <i>ER</i> ₁₉₄		10 11.8 261°76	0°1'/11.9	18		481390	2006 <i>RV</i> ₆₄		10 11.8 330°60	2°8'/14.2	17	
9 8	1 34.58	+9 31.8	1.700	2.556	14.6	21.6	9 8	1 27.43	+16 52.8	1.473	2.326	16.7	21.1
9 18	1 29.36	+9 10.0	1.614	2.541	11.0	21.4	9 18	1 24.41	+16 31.4	1.389	2.308	13.0	20.8
9 28	1 21.82	+8 35.0	1.551	2.526	6.7	21.1	9 28	1 19.00	+15 47.0	1.324	2.291	8.7	20.5
10 8	1 12.67	+7 50.3	1.513	2.510	1.9	20.7	10 8	1 11.91	+14 42.0	1.283	2.274	4.3	20.2
10 18	1 2.92	+7 1.1	1.503	2.494	3.0	20.8	10 18	1 4.20	+13 21.8	1.267	2.258	3.4	20.1
10 28	0 53.78	+6 14.4	1.521	2.478	7.9	21.0	10 28	0 57.13	+11 55.7	1.277	2.244	7.8	20.3
11 7	0 46.34	+5 36.8	1.564	2.462	12.3	21.3	11 7	0 51.86	+10 34.3	1.311	2.230	12.5	20.6
11 17	0 41.35	+5 13.1	1.630	2.445	16.1	21.5	11 17	0 49.15	+9 26.3	1.367	2.217	16.7	20.8
365037	2008 <i>SQ</i> ₂₆₁		10 11.8 299°60	0°1'/12.1	18		247814	2003 <i>SF</i> ₁₄₁		10 11.8 335°80	8°9'/19.4	17	
9 8	1 24.53	+9 2.4	4.174										

EPHEMERIDES

10 11.8

10 11.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
398350	2011 <i>RL</i> ₁₇		10 11.8 208°81	1°8/ 9.8 18			226355	2003 <i>GR</i> ₂₄		10 11.9 332°17	1°7/ 8.8 18		
9 8	1 30.26	+ 6 19.7	2.107	2.968	12.0	21.8	9 8	1 23.32	+ 0 56.2	3.908	4.770	6.9	19.8
9 18	1 25.63	+ 5 3.5	2.032	2.964	8.7	21.6	9 18	1 19.90	+ 0 16.9	3.833	4.766	5.0	19.6
9 28	1 19.32	+ 3 36.7	1.981	2.960	5.1	21.4	9 28	1 15.65	- 0 24.7	3.786	4.763	3.0	19.5
10 8	1 11.93	+ 2 5.4	1.959	2.955	1.9	21.1	10 8	1 10.89	- 1 5.8	3.768	4.759	1.7	19.4
10 18	1 4.25	+ 0 36.4	1.966	2.950	3.8	21.3	10 18	1 5.99	- 1 43.8	3.780	4.756	2.7	19.5
10 28	0 57.13	- 0 42.9	2.003	2.944	7.5	21.5	10 28	1 1.36	- 2 15.9	3.822	4.752	4.7	19.6
11 7	0 51.32	- 1 47.0	2.066	2.938	10.9	21.7	11 7	0 57.36	- 2 40.2	3.891	4.749	6.6	19.7
11 17	0 47.36	- 2 32.6	2.152	2.932	13.9	21.9	11 17	0 54.29	- 2 55.3	3.985	4.746	8.3	19.9
66122	1998 <i>SC</i> ₈₇		10 11.8 357°22	1°6/13.4 18			133057	2003 <i>EC</i> ₅₄		10 11.9 309°31	1°0/12.9 17		
9 8	1 24.19	+16 53.6	1.285	2.151	17.8	18.4	9 8	1 25.97	+21 18.8	0.970	1.837	22.2	17.7
9 18	1 22.08	+15 41.8	1.218	2.146	13.6	18.2	9 18	1 24.20	+18 53.4	0.893	1.823	17.2	17.4
9 28	1 17.56	+14 1.3	1.170	2.143	8.7	17.9	9 28	1 19.24	+15 31.7	0.836	1.809	11.0	17.0
10 8	1 11.48	+11 58.4	1.146	2.140	3.4	17.6	10 8	1 12.06	+11 22.7	0.801	1.797	3.9	16.5
10 18	1 4.97	+ 9 43.8	1.147	2.139	3.1	17.6	10 18	1 4.14	+ 6 48.6	0.791	1.784	4.1	16.5
10 28	0 59.31	+ 7 32.0	1.173	2.140	8.3	17.9	10 28	0 57.29	+ 2 22.0	0.808	1.772	11.5	16.9
11 7	0 55.56	+ 5 36.2	1.224	2.141	13.3	18.2	11 7	0 52.97	- 1 27.9	0.849	1.761	18.2	17.2
11 17	0 54.36	+ 4 5.3	1.296	2.144	17.5	18.4	11 17	0 52.01	- 4 24.3	0.908	1.751	23.7	17.5
492354	2014 <i>HX</i> ₂₃		10 11.8 185°85	1°7/13.7 18			290845	2005 <i>WJ</i> ₃₀		10 11.9 11°19	0°6/12.4 18		
9 8	1 31.79	+15 37.5	2.169	2.997	12.9	21.9	9 8	1 30.87	+10 30.8	1.791	2.648	14.0	20.6
9 18	1 26.77	+15 6.2	2.089	2.997	9.9	21.7	9 18	1 26.36	+10 15.4	1.723	2.649	10.4	20.4
9 28	1 20.00	+14 19.5	2.033	2.996	6.4	21.5	9 28	1 19.88	+ 9 47.7	1.677	2.652	6.4	20.1
10 8	1 12.12	+13 20.1	2.004	2.995	2.9	21.3	10 8	1 12.14	+ 9 10.9	1.658	2.654	2.0	19.9
10 18	1 3.94	+12 12.5	2.003	2.994	2.4	21.3	10 18	1 4.08	+ 8 29.8	1.665	2.657	2.6	19.9
10 28	0 56.34	+11 2.8	2.032	2.992	5.9	21.5	10 28	0 56.71	+ 7 50.4	1.701	2.661	6.9	20.2
11 7	0 50.10	+ 9 57.7	2.089	2.990	9.4	21.7	11 7	0 50.90	+ 7 18.2	1.761	2.665	10.8	20.4
11 17	0 45.76	+ 9 2.3	2.170	2.988	12.5	21.9	11 17	0 47.24	+ 6 57.4	1.845	2.669	14.1	20.7
45515	2000 <i>BF</i> ₂₅		10 11.8 124°49	0°9/10.8 18			482440	2012 <i>DS</i> ₁₂		10 11.9 180°38	3°4/15.9 17		
9 8	1 30.03	+ 6 15.4	2.581	3.434	10.3	18.8	9 8	1 33.52	+20 46.0	2.888	3.673	11.1	21.4
9 18	1 25.11	+ 5 40.3	2.516	3.443	7.5	18.6	9 18	1 27.74	+21 1.4	2.801	3.674	8.9	21.3
9 28	1 18.84	+ 4 58.7	2.476	3.453	4.4	18.4	9 28	1 20.50	+21 4.1	2.738	3.674	6.4	21.1
10 8	1 11.78	+ 4 14.0	2.465	3.462	1.3	18.2	10 8	1 12.31	+20 54.0	2.702	3.674	4.2	21.0
10 18	1 4.54	+ 3 30.4	2.484	3.471	2.6	18.4	10 18	1 3.81	+20 32.7	2.696	3.674	3.5	20.9
10 28	0 57.81	+ 2 51.9	2.532	3.480	5.8	18.6	10 28	0 55.74	+20 3.2	2.720	3.673	5.1	21.0
11 7	0 52.19	+ 2 22.1	2.608	3.488	8.6	18.8	11 7	0 48.74	+19 29.6	2.773	3.672	7.5	21.2
11 17	0 48.10	+ 2 3.3	2.708	3.496	11.1	19.0	11 17	0 43.31	+18 56.2	2.852	3.671	9.8	21.3
257758	2000 <i>BJ</i> ₂₈		10 11.9 318°75	8°2/20.0 17			229833	2009 <i>BQ</i> ₂₅		10 11.9 83°57	1°7/10.7 17		
9 8	1 30.53	+31 15.3	1.954	2.710	16.7	19.7	9 8	1 38.27	+ 5 59.3	1.272	2.147	17.4	21.0
9 18	1 26.52	+31 50.1	1.856	2.691	14.4	19.5	9 18	1 32.15	+ 5 20.0	1.228	2.166	12.7	20.8
9 28	1 20.21	+32 0.5	1.777	2.672	11.9	19.3	9 28	1 23.40	+ 4 29.4	1.206	2.185	7.4	20.5
10 8	1 12.27	+31 43.5	1.720	2.653	9.6	19.1	10 8	1 13.12	+ 3 34.6	1.207	2.204	2.3	20.3
10 18	1 3.65	+30 58.7	1.687	2.635	8.3	19.0	10 18	1 2.70	+ 2 43.6	1.235	2.223	4.5	20.5
10 28	0 55.53	+29 49.9	1.679	2.618	8.9	19.0	10 28	0 53.56	+ 2 4.2	1.289	2.242	9.5	20.8
11 7	0 49.01	+28 25.0	1.696	2.601	11.1	19.1	11 7	0 46.77	+ 1 41.8	1.366	2.260	14.0	21.1
11 17	0 44.89	+26 53.8	1.737	2.584	13.8	19.3	11 17	0 42.88	+ 1 38.4	1.464	2.278	17.7	21.4
86681	2000 <i>FK</i> ₃₃		10 11.9 98°99	1°5/10.8 17			515402	2013 <i>GM</i> ₁₃₅		10 11.9 110°65	0°4/11.4 18		
9 8	1 37.48	+ 4 58.5	1.599	2.464	15.0	19.5	9 8	1 28.76	+10 17.2	2.296	3.145	11.6	21.6
9 18	1 31.24	+ 4 37.8	1.544	2.477	10.9	19.3	9 18	1 24.36	+ 9 11.0	2.229	3.153	8.5	21.4
9 28	1 22.75	+ 4 9.1	1.512	2.490	6.4	19.1	9 28	1 18.49	+ 7 53.3	2.187	3.162	5.0	21.2
10 8	1 12.90	+ 3 37.1	1.506	2.503	2.0	18.8	10 8	1 11.73	+ 6 28.9	2.173	3.170	1.3	21.0
10 18	1 2.84	+ 3 7.5	1.528	2.516	3.8	19.0	10 18	1 4.79	+ 5 3.8	2.189	3.178	2.5	21.1
10 28	0 53.74	+ 2 45.8	1.577	2.528	8.3	19.3	10 28	0 58.42	+ 3 44.3	2.234	3.186	6.1	21.3
11 7	0 46.58	+ 2 36.2	1.652	2.540	12.3	19.5	11 7	0 53.26	+ 2 35.9	2.308	3.194	9.4	21.6
11 17	0 41.92	+ 2 40.8	1.748	2.552	15.7	19.8	11 17	0 49.76	+ 1 42.4	2.405	3.202	12.1	21.8
203249	2001 <i>QU</i> ₃₄		10 11.9 79°74	4°3/ 7.6 18			74722	1999 <i>RB</i> ₁₆₈		10 11.9 114°01	2°7/ 9.5 17		
9 8	1 32.94	- 1 43.5	1.869	2.744	12.7	19.8	9 8	1 36.45	+ 3 50.8	1.671	2.538	14.3	19.4
9 18	1 27.46	- 3 0.2	1.834	2.771	9.2	19.6	9 18	1 30.29	+ 2 41.2	1.624	2.559	10.4	19.3
9 28	1 20.28	- 4 17.8	1.823	2.798	5.9	19.5	9 28	1 22.09	+ 1 23.9	1.601	2.580	6.1	19.1
10 8	1 12.17	- 5 29.3	1.839	2.824	4.3	19.5	10 8	1 12.74	+ 0 6.4	1.605	2.600	2.8	18.9
10 18	1 4.03	- 6 28.0	1.884	2.850	6.0	19.6	10 18	1 3.27	- 1 3.6	1.638	2.619	4.8	19.1
10 28	0 56.75	- 7 8.9	1.956	2.876	9.1	19.9	10 28	0 54.80	- 1 59.2	1.698	2.637	8.8	19.4
11 7	0 51.05	- 7 29.8	2.053	2.901	12.0	20.1	11 7	0 48.15	- 2 35.9	1.784	2.655	12.5	19.6
11 17	0 47.36	- 7 30.8	2.171	2.926	14.5	20.3	11 17	0 43.84	- 2 52.5	1.891	2.671	15.5	19.9
148469	2001 <i>DL</i> ₂₈		10 11.9 216°07	1°6/10.6 18			387970	2005 <i>JH</i> ₃₃		10 11.9 87°62	0°4/12.3 15		
9 8	1 35.76	+ 5 33.5	1.657	2.522	14.5	20.5	9 8	1 33.32	+11 12.6	1.986	2.831	13.3	21.7
9 18	1 30.14	+ 4 56.9	1.584	2.517	10.7	20.3	9 18	1 27.80	+10 38.6	1.933	2.854	9.8	21.5
9 28	1 22.23	+ 4 10.3	1.533	2.511	6.3	20.0	9 28	1 20.54	+ 9 52.7	1.904	2.876	5.9	21.4
10 8	1 12.80	+ 3 19.0	1.509	2.506	2.1	19.7	10 8	1 12.30	+ 8 58.7	1.902	2.898	1.8	21.1
10 18	1 2.92	+ 2 29.3	1.512	2.499	4.0	19.9	10 18	1 3.94	+ 8 2.0	1.929	2.920	2.4	21.2
10 28	0 53.80	+ 1 48.2	1.543	2.493	8.6	20.1	10 28	0 56.37	+ 7 8.5	1.984	2.941	6.3	21.5
11 7	0 46.45	+ 1 21.1	1.600	2.486	12.8	20.4	11 7	0 50.31	+ 6 23.5	2.067	2.963	9.8	21.8
11 17	0 41.57	+ 1 11.1	1.677	2.478	16.3	20.6	11 17	0 46.25	+ 5 50.7	2.174	2.983	12.8	22.0
389127	2008 <i>YB</i> ₁₄₈		10 11.9 345°40	6°6/ 6.6 18			298016	2002 <i>PO</i> ₂₅		10 11.9 34°83	2°6/14.0 18		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
314420	2005 <i>UG</i> ₃₇₄		10 11.9 274°36	0°4/12.3	18		355449	2007 <i>VH</i> ₁₄₈		10 11.9 280°28	3°5/8.6	18	
9 8	1 30.84	+10 34.0	2.159	3.007	12.3	21.5	9 8	1 31.67	+0 5.7	1.867	2.742	12.7	20.7
9 18	1 26.13	+10 11.7	2.076	2.998	9.2	21.3	9 18	1 26.96	-0 47.5	1.791	2.730	9.3	20.5
9 28	1 19.69	+9 38.2	2.016	2.989	5.6	21.1	9 28	1 20.28	-1 45.6	1.740	2.717	5.8	20.2
10 8	1 12.11	+8 56.5	1.983	2.980	1.8	20.8	10 8	1 12.32	-2 42.5	1.715	2.705	3.5	20.1
10 18	1 4.16	+8 10.7	1.979	2.970	2.3	20.8	10 18	1 3.95	-3 31.7	1.717	2.693	5.4	20.2
10 28	0 56.72	+7 26.1	2.004	2.961	6.2	21.0	10 28	0 56.17	-4 7.1	1.747	2.680	9.1	20.4
11 7	0 50.57	+6 47.8	2.055	2.952	9.8	21.3	11 7	0 49.86	-4 24.7	1.802	2.668	12.6	20.6
11 17	0 46.28	+6 20.0	2.131	2.943	12.9	21.4	11 17	0 45.65	-4 23.1	1.878	2.655	15.7	20.7
240195	2002 <i>RL</i> ₂₀		10 11.9 45°07	1°9/10.4	18		498217	2007 <i>TP</i> ₄₄₀		10 11.9 10°30	2°8/9.7	17	
9 8	1 33.46	+4 33.2	1.491	2.367	15.2	19.6	9 8	1 32.31	+2 16.0	1.525	2.406	14.7	20.8
9 18	1 28.36	+4 1.2	1.444	2.383	11.1	19.4	9 18	1 27.65	+1 39.0	1.465	2.407	10.7	20.6
9 28	1 21.06	+3 21.1	1.420	2.400	6.5	19.2	9 28	1 20.75	+0 55.6	1.428	2.408	6.4	20.4
10 8	1 12.47	+2 38.7	1.420	2.416	2.3	18.9	10 8	1 12.45	+0 11.9	1.416	2.411	3.0	20.2
10 18	1 3.70	+2 0.5	1.447	2.434	4.2	19.1	10 18	1 3.80	-0 25.2	1.430	2.413	5.0	20.3
10 28	0 55.93	+1 32.6	1.500	2.451	8.6	19.4	10 28	0 56.01	-0 49.7	1.470	2.416	9.2	20.6
11 7	0 50.07	+1 19.3	1.578	2.469	12.6	19.7	11 7	0 50.03	-0 57.5	1.534	2.420	13.3	20.8
11 17	0 46.64	+1 22.3	1.677	2.487	15.9	20.0	11 17	0 46.47	-0 47.1	1.619	2.424	16.7	21.1
69084	2003 <i>BB</i>		10 11.9 299°90	0°2/12.0	18		177027	2003 <i>BR</i> ₈₄		10 11.9 209°75	1°6/10.3	18	
9 8	1 31.91	+10 32.1	1.447	2.314	16.1	19.7	9 8	1 32.65	+3 59.7	2.263	3.122	11.4	20.7
9 18	1 27.79	+10 2.2	1.363	2.295	12.2	19.4	9 18	1 27.32	+3 30.6	2.188	3.118	8.3	20.5
9 28	1 21.10	+9 15.1	1.300	2.276	7.5	19.1	9 28	1 20.34	+2 55.6	2.137	3.114	4.9	20.3
10 8	1 12.59	+8 14.8	1.261	2.258	2.2	18.7	10 8	1 12.32	+2 18.6	2.114	3.110	1.8	20.1
10 18	1 3.38	+7 8.2	1.248	2.239	3.3	18.8	10 18	1 3.99	+1 43.9	2.121	3.106	3.3	20.2
10 28	0 54.82	+6 4.1	1.261	2.221	8.7	19.0	10 28	0 56.21	+1 16.1	2.156	3.101	6.8	20.4
11 7	0 48.13	+5 11.5	1.298	2.203	13.7	19.3	11 7	0 49.70	+0 58.7	2.219	3.096	10.1	20.6
11 17	0 44.16	+4 36.3	1.355	2.186	17.9	19.5	11 17	0 44.98	+0 53.9	2.305	3.091	12.9	20.8
393409	2001 <i>CY</i> ₂₀		10 11.9 218°10	10°9/25.6	18		259563	2003 <i>UD</i> ₁₆₅		10 11.9 48°16	4°3/9.1	17	
9 8	1 37.75	-33 9.1	2.683	3.473	11.7	22.2	9 8	1 35.71	+1 32.1	1.032	1.929	18.7	19.6
9 18	1 30.99	-34 34.8	2.643	3.462	11.0	22.1	9 18	1 30.50	+0 29.0	1.004	1.953	13.5	19.3
9 28	1 22.47	-35 42.7	2.626	3.450	10.9	22.1	9 28	1 22.45	-0 39.8	0.996	1.978	8.1	19.1
10 8	1 12.87	-36 26.2	2.633	3.436	11.3	22.1	10 8	1 12.88	-1 44.1	1.011	2.004	4.4	19.0
10 18	1 3.04	-36 41.2	2.662	3.422	12.2	22.1	10 18	1 3.32	-2 33.8	1.049	2.030	6.9	19.3
10 28	0 53.87	-36 26.5	2.713	3.408	13.4	22.2	10 28	0 55.29	-3 1.7	1.111	2.057	11.6	19.6
11 7	0 46.14	-35 44.0	2.781	3.392	14.6	22.3	11 7	0 49.83	-3 5.0	1.194	2.084	15.9	19.9
11 17	0 40.38	-34 37.5	2.865	3.376	15.6	22.4	11 17	0 47.40	-2 44.8	1.296	2.111	19.5	20.3
188422	2004 <i>FH</i> ₅₈		10 11.9 109°09	0°8/11.3	16		26493	<i>Paulsuala</i>		10 11.9 136°36	2°2/9.9	18	
9 8	1 35.90	+7 47.1	1.645	2.506	14.8	20.8	9 8	1 35.70	+4 3.8	1.768	2.633	13.8	19.2
9 18	1 30.06	+7 12.9	1.589	2.519	10.9	20.6	9 18	1 29.81	+3 14.9	1.710	2.644	10.0	19.0
9 28	1 22.06	+6 27.5	1.556	2.533	6.4	20.4	9 28	1 21.89	+2 18.5	1.676	2.654	5.9	18.8
10 8	1 12.77	+5 36.0	1.549	2.546	1.8	20.1	10 8	1 12.75	+1 20.3	1.668	2.664	2.4	18.6
10 18	1 3.26	+4 44.6	1.569	2.559	3.3	20.2	10 18	1 3.39	+0 26.8	1.689	2.673	4.3	18.8
10 28	0 54.67	+4 0.1	1.618	2.571	7.8	20.6	10 28	0 54.87	-0 15.6	1.738	2.682	8.3	19.0
11 7	0 47.92	+3 27.9	1.692	2.583	11.9	20.8	11 7	0 48.06	-0 42.7	1.813	2.690	12.0	19.3
11 17	0 43.57	+3 11.0	1.788	2.595	15.2	21.1	11 17	0 43.51	-0 52.4	1.910	2.697	15.1	19.5
496604	2015 <i>DC</i> ₁₃₆		10 11.9 55°81	4°0/4.6	18		460702	2014 <i>UQ</i> ₂₀₉		10 11.9 342°17	4°3/16.6	17	
9 8	1 24.98	-12 38.1	4.066	4.927	6.7	21.0	9 8	1 29.27	+22 20.5	2.200	3.000	13.7	21.1
9 18	1 21.06	-13 16.0	4.016	4.933	5.3	20.9	9 18	1 25.09	+22 26.7	2.115	2.995	11.1	20.9
9 28	1 16.32	-13 49.8	3.993	4.939	4.2	20.9	9 28	1 19.13	+22 14.8	2.051	2.989	8.2	20.7
10 8	1 11.13	-14 16.8	3.998	4.946	4.1	20.8	10 8	1 12.01	+21 45.4	2.013	2.984	5.4	20.5
10 18	1 5.83	-14 34.5	4.031	4.952	4.9	20.9	10 18	1 4.50	+21 0.7	2.001	2.980	4.4	20.5
10 28	1 0.84	-14 41.2	4.092	4.958	6.2	21.0	10 28	0 57.50	+20 5.3	2.017	2.976	6.1	20.6
11 7	0 56.52	-14 36.3	4.179	4.964	7.6	21.1	11 7	0 51.82	+19 5.8	2.061	2.972	9.0	20.7
11 17	0 53.14	-14 19.8	4.288	4.971	8.9	21.2	11 17	0 48.03	+18 8.4	2.129	2.969	11.9	20.9
266172	2006 <i>UW</i> ₂₆₆		10 11.9 348°77	5°5/15.5	18		218568	2005 <i>GQ</i> ₁₂₃		10 11.9 73°71	6°2/8.1	17	
9 8	1 34.18	+19 27.9	1.254	2.097	19.6	20.1	9 8	1 41.16	-5 58.1	1.347	2.226	16.3	20.5
9 18	1 29.83	+20 1.7	1.184	2.093	15.7	19.8	9 18	1 33.96	-6 42.4	1.315	2.252	12.2	20.2
9 28	1 22.47	+20 11.7	1.133	2.089	11.2	19.6	9 28	1 24.33	-7 22.6	1.307	2.278	8.2	20.1
10 8	1 13.01	+19 56.6	1.104	2.086	7.0	19.3	10 8	1 13.40	-7 50.6	1.323	2.304	6.2	20.1
10 18	1 2.82	+19 19.0	1.098	2.083	5.7	19.3	10 18	1 2.53	-8 0.3	1.365	2.329	8.0	20.3
10 28	0 53.57	+18 26.3	1.117	2.082	9.0	19.4	10 28	0 53.07	-7 48.5	1.432	2.355	11.5	20.5
11 7	0 46.66	+17 29.3	1.159	2.080	13.5	19.7	11 7	0 45.95	-7 15.5	1.523	2.380	15.0	20.8
11 17	0 42.95	+16 37.9	1.221	2.080	17.7	19.9	11 17	0 41.65	-6 23.9	1.633	2.404	18.0	21.1
298512	2003 <i>WL</i> ₁₇		10 11.9 245°67	7°4/19.2	18		327555	2006 <i>CE</i> ₂₅		10 11.9 302°45	5°2/17.0	17	
9 8	1 34.57	+29 46.1	2.022	2.778	16.2	20.2	9 8	1 32.75	+23 47.1	2.173	2.961	14.2	20.5
9 18	1 29.35	+30 17.1	1.933	2.771	13.8	20.0	9 18	1 27.76	+24 13.4	2.084	2.953	11.7	20.4
9 28	1 21.86	+30 24.8	1.863	2.764	11.1	19.8	9 28	1 20.80	+24 21.7	2.016	2.945	8.9	20.2
10 8	1 12.80	+30 6.9	1.816	2.756	8.7	19.7	10 8	1 12.50	+24 11.2	1.973	2.937	6.3	20.0
10 18	1 3.15	+29 23.6	1.795	2.749	7.4	19.6	10 18	1 3.71	+23 42.8	1.957	2.929	5.3	19.9
10 28	0 54.10	+28 19.4	1.800	2.741	8.2	19.6	10 28	0 55.42	+23 0.6	1.969	2.922	6.8	20.0
11 7	0 46.70	+27 2.0	1.831	2.733	10.5	19.8	11 7	0 48.53	+22 10.7	2.008	2.914	9.5	20.2
11 17	0 41.68	+25 40.5	1.887	2.725	13.3	19.9	11 17	0 43.71	+21 19.8	2.071	2.907	12.3	20.3
243901	2001 <i>EJ</i> ₂		10 11.9 253°96	7°1/3.9	18		359346	2009 <i>SE</i> ₂₀₅		10 11.9 330°87	0°5/12.9	18	
9 8	1 32.28	-10 42.0	2.048	2.921	11.8								

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
454065	2012 <i>KA</i> ₂₇	10 11.9 245°29 0°5/12.5 18					152097	2004 <i>RB</i> ₉₀	10 11.9 62°74 3°9/15.8 18				
9 8	1 28.41	+12 13.8	2.497	3.337	11.1	21.6	9 8	1 32.54	+20 15.0	2.084	2.892	14.1	19.8
9 18	1 24.14	+11 31.5	2.413	3.330	8.3	21.4	9 18	1 27.48	+20 23.4	2.010	2.898	11.2	19.6
9 28	1 18.43	+10 37.4	2.354	3.324	5.1	21.2	9 28	1 20.55	+20 14.7	1.959	2.904	8.0	19.4
10 8	1 11.80	+9 34.6	2.322	3.318	1.7	20.9	10 8	1 12.43	+19 49.4	1.932	2.910	5.0	19.3
10 18	1 4.89	+8 27.7	2.319	3.311	2.0	21.0	10 18	1 3.98	+19 10.2	1.934	2.916	4.0	19.2
10 28	0 58.43	+7 22.0	2.347	3.304	5.5	21.2	10 28	0 56.17	+18 22.0	1.963	2.923	6.2	19.4
11 7	0 53.06	+6 22.7	2.402	3.297	8.7	21.4	11 7	0 49.81	+17 31.3	2.020	2.929	9.3	19.6
11 17	0 49.26	+5 33.9	2.482	3.290	11.4	21.6	11 17	0 45.49	+16 44.1	2.101	2.935	12.3	19.8
305932	2009 <i>FV</i> ₇₃	10 11.9 348°94 1°3/10.8 18					439298	2012 <i>VL</i> ₁₇	10 11.9 25°92 12°3/28.1 18				
9 8	1 33.70	+5 0.8	1.844	2.708	13.3	20.5	9 8	1 30.56	+44 58.4	1.552	2.233	23.0	19.3
9 18	1 28.41	+4 42.1	1.775	2.707	9.8	20.2	9 18	1 27.09	+44 56.3	1.479	2.240	20.8	19.1
9 28	1 21.13	+4 16.0	1.729	2.707	5.8	20.0	9 28	1 20.70	+44 10.7	1.420	2.248	18.2	19.0
10 8	1 12.58	+3 46.6	1.709	2.706	1.8	19.7	10 8	1 12.50	+42 36.7	1.377	2.257	15.4	18.8
10 18	1 3.68	+3 18.7	1.718	2.706	3.4	19.9	10 18	1 3.95	+40 14.9	1.355	2.266	13.2	18.7
10 28	0 55.48	+2 57.4	1.754	2.705	7.6	20.1	10 28	0 56.63	+37 14.0	1.356	2.276	12.3	18.7
11 7	0 48.84	+2 46.7	1.816	2.705	11.4	20.4	11 7	0 51.72	+33 50.0	1.383	2.287	13.2	18.8
11 17	0 44.37	+2 49.0	1.901	2.705	14.6	20.6	11 17	0 49.83	+30 21.3	1.436	2.298	15.3	18.9
432588	2010 <i>RZ</i> ₉₉	10 11.9 341°81 1°6/12.9 17					485791	2012 <i>DF</i> ₂₁	10 11.9 202°05 3°4/15.4 17				
9 8	1 30.09	+12 53.7	1.072	1.953	19.4	20.8	9 8	1 34.88	+19 10.8	2.543	3.341	12.1	21.6
9 18	1 27.01	+12 38.0	1.006	1.943	14.8	20.5	9 18	1 28.98	+19 33.9	2.456	3.338	9.6	21.4
9 28	1 20.87	+11 59.3	0.958	1.935	9.4	20.2	9 28	1 21.39	+19 43.9	2.393	3.336	6.9	21.2
10 8	1 12.60	+11 1.6	0.932	1.927	3.5	19.8	10 8	1 12.68	+19 40.8	2.356	3.333	4.3	21.1
10 18	1 3.61	+9 52.5	0.928	1.921	3.6	19.8	10 18	1 3.59	+19 26.0	2.349	3.330	3.6	21.0
10 28	0 55.61	+8 43.6	0.948	1.916	9.6	20.1	10 28	0 54.95	+19 2.6	2.372	3.327	5.6	21.1
11 7	0 50.02	+7 46.0	0.989	1.912	15.2	20.4	11 7	0 47.54	+18 35.0	2.422	3.324	8.3	21.3
11 17	0 47.69	+7 7.7	1.049	1.908	19.9	20.7	11 17	0 41.90	+18 8.1	2.499	3.320	11.0	21.5
306771	2001 <i>BS</i> ₂₇	10 11.9 149°61 5°4/19.2 18					410156	2007 <i>HO</i> ₉₇	10 11.9 95°13 4°9/18.8 18				
9 8	1 33.19	+29 31.2	2.886	3.619	12.3	20.8	9 8	1 29.51	+28 35.4	2.476	3.232	13.5	20.7
9 18	1 27.60	+29 48.0	2.803	3.627	10.3	20.7	9 18	1 25.01	+28 3.3	2.396	3.242	11.2	20.5
9 28	1 20.47	+29 47.5	2.742	3.635	8.3	20.6	9 28	1 18.95	+27 9.5	2.338	3.251	8.6	20.4
10 8	1 12.38	+29 28.9	2.706	3.642	6.4	20.5	10 8	1 11.96	+25 55.2	2.305	3.260	6.2	20.3
10 18	1 4.00	+28 53.3	2.698	3.649	5.5	20.4	10 18	1 4.77	+24 23.5	2.300	3.269	4.9	20.2
10 28	0 56.12	+28 4.1	2.719	3.655	6.0	20.5	10 28	0 58.19	+22 40.7	2.324	3.278	5.8	20.3
11 7	0 49.40	+27 6.1	2.768	3.661	7.7	20.6	11 7	0 52.89	+20 54.3	2.378	3.286	8.1	20.4
11 17	0 44.34	+26 5.1	2.843	3.667	9.7	20.7	11 17	0 49.32	+19 11.6	2.458	3.295	10.6	20.6
395646	2011 <i>WR</i> ₃₇	10 11.9 26°02 1°8/13.6 18					407984	2012 <i>DB</i> ₆₀	10 11.9 174°30 3°2/ 8.0 18				
9 8	1 30.26	+15 14.5	1.710	2.555	15.1	20.6	9 8	1 29.15	- 0 15.6	2.334	3.204	10.6	21.1
9 18	1 26.04	+14 45.1	1.642	2.559	11.5	20.4	9 18	1 24.68	- 1 20.9	2.269	3.205	7.8	21.0
9 28	1 19.77	+13 57.5	1.596	2.563	7.4	20.2	9 28	1 18.75	- 2 29.7	2.229	3.206	4.9	20.8
10 8	1 12.20	+12 55.3	1.574	2.567	3.2	20.0	10 8	1 11.91	- 3 36.6	2.218	3.206	3.2	20.7
10 18	1 4.31	+11 44.2	1.580	2.572	2.7	19.9	10 18	1 4.85	- 4 35.8	2.236	3.206	4.8	20.8
10 28	0 57.15	+10 31.9	1.614	2.577	6.8	20.2	10 28	0 58.31	- 5 22.5	2.282	3.207	7.7	21.0
11 7	0 51.64	+9 26.3	1.673	2.582	10.9	20.5	11 7	0 52.94	- 5 53.4	2.354	3.207	10.5	21.2
11 17	0 48.36	+8 33.5	1.755	2.588	14.4	20.7	11 17	0 49.20	- 6 7.1	2.448	3.207	13.0	21.3
98822	2000 <i>YR</i> ₁₃₂	10 11.9 157°20 4°9/17.7 18					116133	2003 <i>WO</i> ₁₄₂	10 11.9 76°63 17°3/30.0 18 R				
9 8	1 35.06	+25 56.1	2.501	3.264	13.2	20.1	9 8	1 45.01	-35 42.5	1.448	2.258	19.1	18.7
9 18	1 29.10	+26 2.3	2.421	3.272	10.9	20.0	9 18	1 36.87	-37 12.6	1.447	2.280	17.8	18.7
9 28	1 21.42	+25 50.2	2.362	3.280	8.3	19.8	9 28	1 26.01	-38 6.9	1.464	2.301	17.3	18.7
10 8	1 12.66	+25 19.5	2.329	3.287	5.9	19.7	10 8	1 13.87	-38 17.1	1.500	2.322	17.5	18.8
10 18	1 3.60	+24 32.2	2.325	3.293	4.9	19.6	10 18	1 2.07	-37 40.5	1.554	2.343	18.4	19.0
10 28	0 55.12	+23 32.6	2.350	3.299	6.1	19.7	10 28	0 52.08	-36 20.6	1.626	2.364	19.5	19.1
11 7	0 47.99	+22 26.8	2.403	3.304	8.4	19.9	11 7	0 44.85	-34 25.7	1.714	2.384	20.8	19.3
11 17	0 42.74	+21 21.3	2.482	3.308	10.9	20.1	11 17	0 40.75	-32 5.0	1.815	2.405	21.9	19.5
521967	2015 <i>VY</i> ₁₆₀	10 11.9 180°48 5°3/ 5.9 18					356180	2009 <i>HM</i> ₉₆	10 11.9 115°52 3°1/ 8.9 18				
9 8	1 32.78	-10 26.4	2.576	3.439	10.0	21.2	9 8	1 32.50	+ 0 3.0	2.098	2.966	11.8	21.5
9 18	1 27.18	-11 9.2	2.517	3.439	7.8	21.0	9 18	1 27.22	- 0 42.7	2.040	2.975	8.6	21.3
9 28	1 20.15	-11 47.4	2.484	3.440	5.9	20.9	9 28	1 20.28	- 1 31.5	2.007	2.984	5.3	21.1
10 8	1 12.28	-12 16.2	2.478	3.440	5.3	20.9	10 8	1 12.34	- 2 18.1	2.001	2.992	3.1	21.0
10 18	1 4.23	-12 31.8	2.501	3.440	6.5	21.0	10 18	1 4.21	- 2 57.4	2.025	3.000	4.7	21.1
10 28	0 56.72	-12 31.3	2.552	3.439	8.7	21.1	10 28	0 56.75	- 3 24.7	2.076	3.008	7.9	21.3
11 7	0 50.38	-12 14.2	2.628	3.438	10.9	21.3	11 7	0 50.67	- 3 37.2	2.153	3.016	11.0	21.5
11 17	0 45.66	-11 41.1	2.726	3.438	12.9	21.4	11 17	0 46.46	- 3 34.0	2.252	3.023	13.6	21.8
400629	2009 <i>DO</i> ₁₀₆	10 11.9 170°72 3°1/14.9 18					137559	1999 <i>VE</i> ₉₀	10 11.9 28°82 0°2/11.9 18				
9 8	1 36.11	+17 53.6	2.313	3.120	12.9	22.0	9 8	1 31.38	+10 6.2	0.907	1.803	20.7	19.0
9 18	1 29.96	+18 7.6	2.232	3.123	10.1	21.8	9 18	1 27.81	+9 39.1	0.873	1.820	15.3	18.8
9 28	1 21.99	+18 7.7	2.175	3.125	7.0	21.6	9 28	1 21.12	+8 52.2	0.857	1.839	9.2	18.5
10 8	1 12.84	+17 54.2	2.145	3.127	4.1	21.4	10 8	1 12.61	+7 53.0	0.861	1.859	2.6	18.2
10 18	1 3.33	+17 29.4	2.144	3.129	3.3	21.4	10 18	1 3.91	+6 51.8	0.888	1.880	3.9	18.4
10 28	0 54.39	+16 57.1	2.173	3.130	5.8	21.5	10 28	0 56.70	+5 59.5	0.937	1.903	10.0	18.8
11 7	0 46.81	+16 22.5	2.229	3.131	8.9	21.7	11 7	0 52.17	+5 24.7	1.007	1.927	15.2	19.2
11 17	0 41.19	+15 50.8	2.311	3.131	11.8	21.9	11 17	0 50.84	+5 10.9	1.095	1.952	19.5	19.5
485263	2010 <i>VY</i> ₂₁₄	10 11.9 355°85 2°0/13.7 17					324155	2005 <i>YE</i> ₁₇₇	10 11.9 110°79 1°9/ 9.9 18				
9 8	1 28.07	+15 11.9	1.617	2.469	15.5	21.1	9 8	1 30.35	+ 3 32.0	2.264	3.127	11.2	20.6
9 18	1 24.60	+14 47.6	1.545	2.466	11.9	20.8	9 18	1 25.59	+ 2 50.2	2.198	3.131	8.1	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
103365	2000 AZ ₁₀₃		10 11.9 286°93	3°2/ 8.9 18			218074	2002 GR ₇₀		10 11.9 17°84	6°0/ 8.6 18		
9 8	1 31.55	+ 2 10.8	1.802	2.676	13.1	20.0	9 8	1 36.79	- 7 42.2	1.399	2.283	15.5	17.7
9 18	1 27.10	+ 1 8.9	1.712	2.650	9.7	19.7	9 18	1 30.91	- 7 45.0	1.357	2.296	11.7	17.5
9 28	1 20.54	- 0 1.8	1.646	2.625	5.9	19.4	9 28	1 22.64	- 7 41.4	1.338	2.309	8.0	17.3
10 8	1 12.50	- 1 15.0	1.606	2.599	3.2	19.2	10 8	1 13.02	- 7 25.7	1.342	2.324	6.0	17.2
10 18	1 3.87	- 2 23.1	1.594	2.573	5.3	19.3	10 18	1 3.29	- 6 54.0	1.373	2.341	7.5	17.4
10 28	0 55.74	- 3 18.5	1.610	2.547	9.4	19.5	10 28	0 54.72	- 6 4.9	1.428	2.358	10.9	17.6
11 7	0 49.08	- 3 55.3	1.650	2.520	13.3	19.7	11 7	0 48.28	- 4 59.4	1.507	2.377	14.4	17.9
11 17	0 44.63	- 4 10.9	1.711	2.494	16.8	19.8	11 17	0 44.48	- 3 40.2	1.607	2.397	17.4	18.1
441875	2010 AX ₁₂₈		10 11.9 107°41	7°2/20.8 15			163359	2002 OJ ₅		10 11.9 132°16	4°5/ 6.9 18		
9 8	1 41.31	+33 38.1	2.561	3.260	14.4	21.6	9 8	1 31.68	- 2 34.6	2.005	2.879	12.0	20.3
9 18	1 33.70	+34 18.6	2.497	3.289	12.4	21.5	9 18	1 26.69	- 3 59.0	1.952	2.888	8.8	20.2
9 28	1 24.17	+34 37.5	2.454	3.317	10.2	21.4	9 28	1 19.99	- 5 25.3	1.924	2.897	5.8	20.0
10 8	1 13.46	+34 33.0	2.436	3.345	8.3	21.3	10 8	1 12.29	- 6 46.1	1.925	2.906	4.6	19.9
10 18	1 2.50	+34 5.5	2.444	3.372	7.3	21.3	10 18	1 4.40	- 7 54.4	1.953	2.914	6.3	20.1
10 28	0 52.30	+33 18.6	2.481	3.398	7.6	21.4	10 28	0 57.19	- 8 44.6	2.009	2.922	9.3	20.3
11 7	0 43.72	+32 18.7	2.546	3.423	9.0	21.5	11 7	0 51.41	- 9 13.9	2.090	2.929	12.2	20.5
11 17	0 37.31	+31 12.9	2.636	3.447	10.8	21.7	11 17	0 47.54	- 9 22.0	2.191	2.936	14.7	20.7
426102	2012 FV ₂₁		10 11.9 160°02	1°5/10.8 17			167360	2003 WQ ₄₀		10 11.9 282°82	0°1/11.9 18		
9 8	1 36.41	+ 6 13.8	1.544	2.410	15.3	22.1	9 8	1 33.57	+ 8 56.8	1.802	2.659	13.9	20.1
9 18	1 30.71	+ 5 35.5	1.480	2.414	11.3	21.9	9 18	1 28.46	+ 8 40.8	1.727	2.654	10.4	19.9
9 28	1 22.64	+ 4 46.3	1.439	2.417	6.7	21.6	9 28	1 21.26	+ 8 13.7	1.674	2.649	6.3	19.6
10 8	1 13.06	+ 3 51.8	1.423	2.420	2.0	21.3	10 8	1 12.70	+ 7 38.7	1.647	2.644	1.8	19.3
10 18	1 3.11	+ 2 58.9	1.434	2.422	4.0	21.5	10 18	1 3.71	+ 7 0.7	1.648	2.639	2.8	19.4
10 28	0 54.06	+ 2 15.1	1.473	2.424	8.7	21.8	10 28	0 55.38	+ 6 25.5	1.677	2.635	7.2	19.7
11 7	0 46.93	+ 1 45.9	1.537	2.426	13.0	22.0	11 7	0 48.64	+ 5 58.4	1.732	2.630	11.3	19.9
11 17	0 42.39	+ 1 34.3	1.621	2.427	16.6	22.3	11 17	0 44.14	+ 5 43.4	1.809	2.625	14.7	20.1
363294	2002 JT ₁₀₆		10 11.9 102°85	2°9/15.6 18			365367	2009 TA ₃₀		10 11.9 353°71	9°6/ 2.9 18		
9 8	1 31.47	+20 13.2	2.592	3.389	11.9	21.2	9 8	1 30.05	-16 22.8	1.673	2.553	13.6	19.5
9 18	1 26.25	+19 55.0	2.527	3.410	9.4	21.1	9 18	1 25.90	-17 40.2	1.626	2.547	11.3	19.4
9 28	1 19.61	+19 22.0	2.485	3.430	6.5	20.9	9 28	1 19.69	-18 46.2	1.602	2.543	9.8	19.3
10 8	1 12.15	+18 35.9	2.470	3.450	3.9	20.8	10 8	1 12.23	-19 31.9	1.602	2.539	9.8	19.3
10 18	1 4.54	+17 39.8	2.485	3.470	3.0	20.8	10 18	1 4.50	-19 50.7	1.625	2.536	11.4	19.4
10 28	0 57.52	+16 38.6	2.530	3.489	5.0	20.9	10 28	0 57.57	-19 39.4	1.671	2.534	13.7	19.5
11 7	0 51.69	+15 37.6	2.603	3.507	7.7	21.2	11 7	0 52.31	-18 58.9	1.738	2.533	16.2	19.7
11 17	0 47.50	+14 41.7	2.702	3.526	10.2	21.3	11 17	0 49.28	-17 52.9	1.822	2.533	18.4	19.9
289482	2005 EK ₈₄		10 11.9 243°48	3°8/15.1 18			405746	2005 YF ₈₁		10 11.9 347°45	5°4/ 6.6 18		
9 8	1 36.32	+18 27.9	2.007	2.819	14.4	21.0	9 8	1 30.10	- 5 47.6	1.909	2.790	12.2	20.8
9 18	1 30.51	+18 49.6	1.917	2.810	11.4	20.8	9 18	1 25.70	- 6 50.8	1.849	2.787	9.2	20.6
9 28	1 22.54	+18 55.6	1.850	2.800	8.1	20.5	9 28	1 19.49	- 7 53.2	1.814	2.784	6.4	20.4
10 8	1 13.07	+18 45.6	1.809	2.790	4.8	20.3	10 8	1 12.17	- 8 47.7	1.805	2.781	5.4	20.3
10 18	1 3.02	+18 21.3	1.795	2.779	4.0	20.3	10 18	1 4.57	- 9 28.1	1.823	2.779	7.1	20.4
10 28	0 53.52	+17 47.1	1.810	2.769	6.7	20.4	10 28	0 57.62	- 9 49.5	1.867	2.777	10.0	20.6
11 7	0 45.55	+17 9.2	1.852	2.758	10.2	20.6	11 7	0 52.11	- 9 49.9	1.935	2.776	13.0	20.8
11 17	0 39.83	+16 33.7	1.918	2.747	13.5	20.8	11 17	0 48.56	- 9 29.7	2.023	2.775	15.6	21.0
450542	2006 BT ₂₇₆		10 11.9 177°42	4°3/17.4 17			151371	2002 EK ₁₄		10 11.9 88°94	1°2/10.4 18		
9 8	1 33.34	+24 50.7	3.011	3.772	11.3	22.1	9 8	1 30.03	+ 7 17.6	2.308	3.163	11.3	19.9
9 18	1 27.65	+25 8.6	2.923	3.773	9.2	21.9	9 18	1 25.23	+ 6 10.4	2.256	3.185	8.2	19.8
9 28	1 20.51	+25 12.1	2.858	3.774	7.1	21.8	9 28	1 19.01	+ 4 55.0	2.230	3.207	4.8	19.6
10 8	1 12.44	+25 1.0	2.819	3.775	5.1	21.7	10 8	1 11.99	+ 3 36.5	2.232	3.229	1.5	19.4
10 18	1 4.05	+24 36.4	2.809	3.776	4.3	21.6	10 18	1 4.88	+ 2 20.6	2.264	3.250	3.0	19.5
10 28	0 56.08	+24 1.2	2.829	3.776	5.3	21.7	10 28	0 58.40	+ 1 13.1	2.326	3.271	6.3	19.8
11 7	0 49.16	+23 19.5	2.878	3.775	7.3	21.8	11 7	0 53.15	+ 0 18.3	2.414	3.292	9.4	20.0
11 17	0 43.79	+22 36.2	2.953	3.774	9.5	22.0	11 17	0 49.55	+ 0 21.2	2.527	3.312	11.9	20.2
399203	2014 GN ₂₆		10 11.9 125°44	0°4/12.3 18			216112	2006 RP ₉₀		10 11.9 151°21	0°1/12.0 18		
9 8	1 33.07	+10 26.4	1.897	2.748	13.6	21.5	9 8	1 33.21	+ 9 14.8	1.970	2.822	13.1	20.9
9 18	1 27.94	+10 6.5	1.826	2.750	10.2	21.3	9 18	1 27.99	+ 8 58.6	1.898	2.823	9.8	20.7
9 28	1 20.86	+ 9 34.5	1.779	2.752	6.2	21.0	9 28	1 20.89	+ 8 31.9	1.849	2.824	5.9	20.5
10 8	1 12.55	+ 8 53.9	1.758	2.754	1.9	20.8	10 8	1 12.58	+ 7 57.9	1.827	2.824	1.7	20.2
10 18	1 3.91	+ 8 9.3	1.765	2.756	2.5	20.8	10 18	1 3.94	+ 7 21.1	1.834	2.825	2.6	20.2
10 28	0 55.94	+ 7 26.5	1.800	2.758	6.7	21.1	10 28	0 55.94	+ 6 46.6	1.868	2.825	6.7	20.5
11 7	0 49.51	+ 6 51.2	1.861	2.760	10.6	21.3	11 7	0 49.41	+ 6 19.4	1.930	2.826	10.4	20.7
11 17	0 45.19	+ 6 27.2	1.946	2.762	13.8	21.5	11 17	0 44.94	+ 6 3.0	2.014	2.827	13.6	21.0
268836	2006 WY ₁₀₀		10 11.9 277°67	3°3/14.4 18			152178	2005 QB ₄		10 11.9 13°90	1°7/12.9 18		
9 8	1 34.44	+17 14.1	1.571	2.408	16.6	20.8	9 8	1 30.70	+12 16.6	1.048	1.931	19.6	19.5
9 18	1 29.69	+17 12.2	1.479	2.388	13.1	20.5	9 18	1 27.31	+12 14.1	0.997	1.936	14.9	19.3
9 28	1 22.32	+16 49.7	1.408	2.369	9.0	20.2	9 28	1 20.94	+11 50.9	0.964	1.941	9.3	19.0
10 8	1 13.06	+16 7.4	1.361	2.349	4.7	19.9	10 8	1 12.64	+11 11.2	0.953	1.949	3.5	18.7
10 18	1 3.01	+15 8.7	1.340	2.329	3.8	19.8	10 18	1 3.89	+10 22.0	0.964	1.957	3.5	18.7
10 28	0 53.55	+14 1.1	1.345	2.309	7.9	20.0	10 28	0 56.32	+ 9 33.3	0.999	1.967	9.2	19.1
11 7	0 45.93	+12 54.0	1.376	2.288	12.5	20.2	11 7	0 51.21	+ 8 54.5	1.056	1.979	14.4	19.4
11 17	0 41.02	+11 56.1	1.428	2.268	16.7	20.4	11 17	0 49.23	+ 8 31.7	1.131	1.991	18.7	19.7
26834	1990 RM ₉		10 11.9 15°77	4°4/15.2 18			505383	2013 MM ₉		10 11.9 80°35	5°7/ 8.1 17		
9 8	1 25.38	+18 54.8	0.899	1.780	22								

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
216307	2007 <i>TM</i> ₉₂		10 11.9 354°12	0°0/11.9 18			100587	1997 <i>MH</i>		10 11.9 19°37	1°2/12.9 18		
9 8	1 24.62	+ 8 36.4	3.940	4.781	7.3	20.4	9 8	1 29.88	+13 52.6	1.211	2.082	18.3	18.9
9 18	1 20.91	+ 8 20.1	3.860	4.780	5.4	20.3	9 18	1 26.41	+13 9.8	1.154	2.086	13.9	18.6
9 28	1 16.34	+ 7 58.7	3.806	4.779	3.2	20.1	9 28	1 20.28	+12 4.0	1.116	2.091	8.7	18.3
10 8	1 11.25	+ 7 34.1	3.781	4.778	0.9	19.9	10 8	1 12.47	+10 41.0	1.101	2.097	3.1	18.0
10 18	1 6.01	+ 7 8.3	3.787	4.777	1.4	20.0	10 18	1 4.25	+ 9 9.9	1.111	2.104	3.2	18.1
10 28	1 1.04	+ 6 43.7	3.822	4.777	3.7	20.2	10 28	0 57.07	+ 7 42.5	1.146	2.111	8.7	18.4
11 7	0 56.71	+ 6 22.6	3.887	4.776	5.8	20.3	11 7	0 52.05	+ 6 29.2	1.204	2.120	13.6	18.7
11 17	0 53.33	+ 6 7.0	3.977	4.776	7.7	20.4	11 17	0 49.85	+ 5 36.9	1.282	2.129	17.8	19.0
242639	2005 <i>MP</i> ₄₉		10 11.9 148°02	0°8/12.8 18			440852	2006 <i>SF</i> ₁₈₇		10 11.9 343°17	0°8/12.7 18		
9 8	1 30.88	+14 4.9	2.277	3.109	12.2	21.0	9 8	1 30.09	+12 31.9	1.698	2.553	14.7	21.3
9 18	1 26.01	+13 7.6	2.204	3.117	9.2	20.8	9 18	1 26.02	+11 58.6	1.624	2.549	11.1	21.1
9 28	1 19.58	+11 56.0	2.156	3.124	5.7	20.6	9 28	1 19.86	+11 9.2	1.573	2.546	6.9	20.8
10 8	1 12.19	+10 33.9	2.136	3.131	2.0	20.4	10 8	1 12.34	+10 7.4	1.547	2.542	2.4	20.5
10 18	1 4.59	+ 9 7.0	2.146	3.137	2.1	20.4	10 18	1 4.43	+ 8 59.4	1.548	2.540	2.7	20.6
10 28	0 57.59	+ 7 42.0	2.185	3.143	5.8	20.6	10 28	0 57.20	+ 7 52.7	1.576	2.537	7.2	20.8
11 7	0 51.87	+ 6 25.2	2.253	3.149	9.1	20.9	11 7	0 51.58	+ 6 54.9	1.629	2.535	11.3	21.1
11 17	0 47.89	+ 5 21.3	2.346	3.154	12.0	21.1	11 17	0 48.20	+ 6 11.4	1.705	2.533	14.9	21.3
522843	2016 <i>NT</i> ₈₄		10 11.9 343°48	10°4/ 2.3 18			275170	2009 <i>WM</i> ₃₁		10 11.9 337°01	0°3/11.7 18		
9 8	1 30.29	-12 41.0	1.339	2.234	15.4	20.4	9 8	1 29.03	+ 8 48.8	1.939	2.800	12.9	20.8
9 18	1 26.50	-14 44.2	1.294	2.228	12.5	20.2	9 18	1 25.02	+ 8 20.1	1.861	2.791	9.6	20.6
9 28	1 20.24	-16 39.3	1.271	2.224	10.6	20.1	9 28	1 19.17	+ 7 40.3	1.807	2.783	5.7	20.4
10 8	1 12.43	-18 13.1	1.272	2.220	10.7	20.1	10 8	1 12.14	+ 6 53.4	1.778	2.776	1.6	20.1
10 18	1 4.24	-19 15.1	1.295	2.216	12.8	20.2	10 18	1 4.73	+ 6 4.2	1.778	2.768	2.7	20.1
10 28	0 56.99	-19 39.3	1.340	2.213	15.8	20.4	10 28	0 57.88	+ 5 18.9	1.805	2.762	6.9	20.4
11 7	0 51.74	-19 25.9	1.404	2.211	18.8	20.6	11 7	0 52.41	+ 4 42.6	1.858	2.756	10.6	20.6
11 17	0 49.11	-18 39.2	1.483	2.209	21.4	20.8	11 17	0 48.90	+ 4 19.4	1.934	2.750	13.9	20.8
279683	2011 <i>FM</i> ₃₃		10 11.9 171°71	1°9/10.2 16			73470	2002 <i>OM</i> ₁₅		10 11.9 112°41	0°8/12.9 18		
9 8	1 34.31	+ 4 50.6	1.857	2.720	13.3	21.7	9 8	1 28.71	+13 18.8	2.377	3.215	11.6	19.6
9 18	1 28.84	+ 4 2.5	1.790	2.722	9.7	21.5	9 18	1 24.42	+12 38.6	2.301	3.216	8.8	19.4
9 28	1 21.40	+ 3 5.9	1.747	2.725	5.7	21.2	9 28	1 18.66	+11 45.7	2.249	3.218	5.5	19.2
10 8	1 12.73	+ 2 6.3	1.730	2.726	2.1	21.0	10 8	1 11.96	+10 43.3	2.225	3.220	2.0	19.0
10 18	1 3.76	+ 1 9.9	1.743	2.728	4.0	21.1	10 18	1 5.03	+ 9 36.1	2.230	3.221	2.0	19.0
10 28	0 55.50	+ 0 23.1	1.783	2.728	8.0	21.4	10 28	0 58.61	+ 8 29.6	2.264	3.223	5.5	19.3
11 7	0 48.82	- 0 9.3	1.850	2.729	11.7	21.6	11 7	0 53.34	+ 7 29.4	2.326	3.225	8.7	19.5
11 17	0 44.29	- 0 24.9	1.938	2.729	14.8	21.8	11 17	0 49.72	+ 6 39.6	2.412	3.226	11.6	19.7
96071	6127 <i>P-L</i>		10 11.9 12°05	3°7/13.9 18			326791	2003 <i>SJ</i> ₂₉₂		10 11.9 63°36	3°5/16.4 18		
9 8	1 36.79	+13 33.6	1.207	2.069	19.0	18.3	9 8	1 29.01	+22 27.8	2.298	3.095	13.3	20.5
9 18	1 31.70	+14 26.5	1.148	2.072	14.7	18.0	9 18	1 24.77	+21 59.4	2.218	3.099	10.6	20.4
9 28	1 23.58	+15 3.0	1.108	2.076	9.8	17.7	9 28	1 18.91	+21 12.0	2.162	3.103	7.6	20.2
10 8	1 13.42	+15 22.4	1.091	2.082	5.0	17.5	10 8	1 12.04	+20 7.3	2.131	3.107	4.7	20.0
10 18	1 2.68	+15 26.5	1.098	2.088	4.4	17.5	10 18	1 4.93	+18 49.2	2.128	3.111	3.6	19.9
10 28	0 53.02	+15 20.8	1.130	2.096	8.8	17.8	10 28	0 58.37	+17 23.7	2.154	3.115	5.6	20.1
11 7	0 45.80	+15 12.5	1.185	2.104	13.5	18.1	11 7	0 53.09	+15 58.1	2.208	3.119	8.5	20.3
11 17	0 41.81	+15 8.3	1.261	2.114	17.6	18.4	11 17	0 49.59	+14 38.7	2.288	3.123	11.4	20.5
158115	2001 <i>CQ</i> ₁		10 11.9 303°68	4°0/ 7.8 18			59719	1999 <i>KN</i> ₃		10 11.9 99°63	0°7/11.3 18		
9 8	1 29.70	- 1 45.4	2.031	2.908	11.7	19.8	9 8	1 35.22	+ 8 22.1	1.805	2.660	14.0	19.3
9 18	1 25.39	- 2 44.5	1.958	2.897	8.6	19.6	9 18	1 29.39	+ 7 40.1	1.754	2.681	10.2	19.1
9 28	1 19.33	- 3 46.8	1.910	2.886	5.6	19.4	9 28	1 21.65	+ 6 47.4	1.726	2.702	6.0	18.9
10 8	1 12.15	- 4 46.1	1.889	2.875	4.0	19.2	10 8	1 12.80	+ 5 48.9	1.725	2.722	1.6	18.7
10 18	1 4.63	- 5 36.2	1.896	2.865	5.7	19.3	10 18	1 3.83	+ 4 50.8	1.752	2.741	3.0	18.8
10 28	0 57.65	- 6 11.5	1.930	2.854	8.9	19.5	10 28	0 55.72	+ 3 59.4	1.808	2.761	7.2	19.1
11 7	0 51.99	- 6 28.8	1.988	2.844	12.1	19.7	11 7	0 49.30	+ 3 20.1	1.890	2.779	10.9	19.4
11 17	0 48.20	- 6 27.0	2.068	2.834	14.8	19.9	11 17	0 45.06	+ 2 55.6	1.995	2.798	14.0	19.6
129651	1998 <i>MF</i> ₂₄		10 11.9 109°96	2°3/ 9.7 18			112143	2002 <i>JY</i> ₆₂		10 11.9 206°43	2°1/ 9.8 18		
9 8	1 33.20	+ 3 29.9	1.876	2.743	13.0	20.5	9 8	1 31.99	+ 4 39.2	1.971	2.836	12.6	20.0
9 18	1 27.90	+ 2 37.5	1.819	2.754	9.4	20.3	9 18	1 27.10	+ 3 38.8	1.899	2.833	9.2	19.8
9 28	1 20.76	+ 1 38.5	1.788	2.766	5.6	20.1	9 28	1 20.37	+ 2 29.6	1.851	2.829	5.4	19.5
10 8	1 12.53	+ 0 38.6	1.783	2.777	2.5	19.9	10 8	1 12.48	+ 1 17.4	1.830	2.826	2.2	19.3
10 18	1 4.10	- 0 15.9	1.806	2.788	4.3	20.1	10 18	1 4.26	+ 0 8.8	1.838	2.821	4.1	19.4
10 28	0 56.44	- 0 59.2	1.857	2.799	8.0	20.3	10 28	0 56.66	- 0 49.7	1.875	2.817	7.9	19.7
11 7	0 50.32	- 1 27.2	1.934	2.809	11.5	20.6	11 7	0 50.48	- 1 32.8	1.937	2.812	11.4	19.9
11 17	0 46.26	- 1 38.2	2.034	2.819	14.4	20.8	11 17	0 46.28	- 1 58.1	2.022	2.807	14.5	20.1
394561	2007 <i>UE</i> ₁₄₀		10 11.9 60°34	1°4/13.3 18			443465	2014 <i>HA</i> ₁₉₁		10 11.9 30°68	2°7/ 9.2 18		
9 8	1 31.76	+14 6.3	1.724	2.570	14.9	20.7	9 8	1 30.75	+ 3 2.5	1.826	2.700	13.0	21.3
9 18	1 27.09	+13 36.7	1.662	2.580	11.3	20.5	9 18	1 26.26	+ 2 0.3	1.762	2.701	9.5	21.1
9 28	1 20.39	+12 50.4	1.621	2.590	7.1	20.2	9 28	1 19.88	+ 0 50.7	1.722	2.701	5.6	20.9
10 8	1 12.45	+11 51.2	1.606	2.600	2.8	20.0	10 8	1 12.34	- 0 19.9	1.709	2.702	2.8	20.7
10 18	1 4.24	+10 44.9	1.619	2.611	2.6	20.0	10 18	1 4.50	- 1 24.5	1.723	2.703	4.7	20.8
10 28	0 56.82	+ 9 38.8	1.659	2.621	6.8	20.3	10 28	0 57.34	- 2 16.4	1.765	2.704	8.5	21.1
11 7	0 51.06	+ 8 40.3	1.725	2.631	10.8	20.6	11 7	0 51.68	- 2 51.1	1.831	2.705	12.1	21.3
11 17	0 47.53	+ 7 54.6	1.814	2.642	14.2	20.8	11 17	0 48.07	- 3 6.5	1.920	2.706	15.1	21.5
410115	2007 <i>EW</i> ₂₁₈		10 11.9 85°94	2°3/ 9.8 18			318681	2005 <i>QZ</i> ₂₂		10 11.9 317°46	0°9/12.6 18		
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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
432663	2011 <i>AF</i> ₃₀		10 11.9 175°34	1°9/10.2 17			116035	2003 <i>WN</i> ₉₆		10 11.9 210°65	0°9/10.9 18		
9 8	1 35.31	+ 4 47.8	1.888	2.748	13.2	22.2	9 8	1 30.48	+ 5 51.8	2.618	3.471	10.2	20.3
9 18	1 29.57	+ 3 59.2	1.820	2.751	9.7	22.0	9 18	1 25.61	+ 5 25.2	2.541	3.468	7.5	20.2
9 28	1 21.86	+ 3 2.2	1.776	2.753	5.7	21.8	9 28	1 19.35	+ 4 52.3	2.488	3.464	4.4	20.0
10 8	1 12.91	+ 2 2.2	1.759	2.755	2.1	21.6	10 8	1 12.21	+ 4 16.4	2.464	3.461	1.3	19.7
10 18	1 3.65	+ 1 5.5	1.771	2.755	4.0	21.7	10 18	1 4.82	+ 3 41.0	2.470	3.458	2.6	19.8
10 28	0 55.10	+ 0 18.3	1.811	2.755	7.9	22.0	10 28	0 57.88	+ 3 10.1	2.505	3.454	5.7	20.0
11 7	0 48.14	- 0 14.7	1.878	2.755	11.6	22.2	11 7	0 51.99	+ 2 47.1	2.568	3.450	8.7	20.2
11 17	0 43.33	- 0 30.9	1.967	2.754	14.8	22.4	11 17	0 47.62	+ 2 34.3	2.656	3.446	11.3	20.4
239660	2008 <i>WR</i> ₁₃₂		10 11.9 281°30	7°4/ 4.2 18			445833	2012 <i>CT</i> ₄₁		10 11.9 341°25	1°9/10.2 18		
9 8	1 30.77	- 8 8.2	1.696	2.581	13.2	19.9	9 8	1 29.87	+ 4 44.1	1.780	2.653	13.3	20.6
9 18	1 26.54	- 9 56.3	1.631	2.567	10.3	19.7	9 18	1 25.75	+ 4 3.6	1.709	2.647	9.7	20.4
9 28	1 20.20	-11 44.0	1.590	2.553	7.9	19.5	9 28	1 19.67	+ 3 14.6	1.661	2.641	5.8	20.2
10 8	1 12.48	-13 20.9	1.576	2.539	7.6	19.5	10 8	1 12.34	+ 2 22.3	1.639	2.636	2.1	19.9
10 18	1 4.31	-14 37.5	1.587	2.524	9.7	19.5	10 18	1 4.63	+ 1 32.9	1.645	2.631	4.0	20.0
10 28	0 56.80	-15 26.5	1.623	2.510	12.7	19.7	10 28	0 57.56	+ 0 52.5	1.677	2.626	8.0	20.3
11 7	0 50.89	-15 45.5	1.681	2.496	15.8	19.9	11 7	0 51.99	+ 0 26.2	1.735	2.623	11.9	20.5
11 17	0 47.22	-15 35.3	1.756	2.482	18.5	20.0	11 17	0 48.52	+ 0 16.5	1.814	2.619	15.1	20.7
228521	2001 <i>UX</i> ₂		10 11.9 37°12	4°9/ 8.9 18			405228	2003 <i>SP</i> ₆₂		10 11.9 272°05	2°2/14.5 18		
9 8	1 35.20	- 1 14.2	1.129	2.025	17.6	20.1	9 8	1 29.45	+17 7.1	2.318	3.140	12.4	20.8
9 18	1 30.14	- 1 58.0	1.094	2.042	12.9	19.9	9 18	1 25.11	+16 42.4	2.234	3.136	9.6	20.7
9 28	1 22.37	- 2 43.9	1.080	2.060	8.0	19.7	9 28	1 19.16	+16 2.5	2.174	3.132	6.4	20.5
10 8	1 13.06	- 3 23.1	1.088	2.079	4.9	19.6	10 8	1 12.18	+15 9.5	2.140	3.128	3.3	20.3
10 18	1 3.63	- 3 47.7	1.120	2.098	7.1	19.8	10 18	1 4.89	+14 7.3	2.135	3.125	2.5	20.2
10 28	0 55.54	- 3 52.2	1.177	2.119	11.5	20.1	10 28	0 58.10	+13 1.3	2.159	3.121	5.5	20.4
11 7	0 49.86	- 3 34.7	1.255	2.140	15.6	20.4	11 7	0 52.52	+11 57.6	2.211	3.117	8.7	20.6
11 17	0 47.09	- 2 56.7	1.351	2.162	19.1	20.7	11 17	0 48.68	+11 1.5	2.287	3.113	11.7	20.8
450724	2007 <i>EY</i> ₆₈		10 11.9 137°71	0°4/11.4 18			275866	2001 <i>SZ</i> ₁₉₇		10 11.9 348°31	1°0/12.6 18		
9 8	1 31.44	+ 7 34.4	2.617	3.463	10.4	22.1	9 8	1 34.20	+ 9 51.4	1.237	2.111	17.8	19.9
9 18	1 26.24	+ 7 8.5	2.549	3.472	7.7	21.9	9 18	1 29.80	+10 2.9	1.170	2.105	13.5	19.6
9 28	1 19.67	+ 6 35.5	2.506	3.480	4.5	21.7	9 28	1 22.50	+10 0.1	1.123	2.099	8.4	19.3
10 8	1 12.28	+ 5 58.4	2.491	3.489	1.2	21.5	10 8	1 13.22	+ 9 45.5	1.098	2.095	2.9	19.0
10 18	1 4.70	+ 5 20.9	2.507	3.497	2.3	21.6	10 18	1 3.29	+ 9 24.0	1.098	2.091	3.3	19.0
10 28	0 57.62	+ 4 46.9	2.553	3.504	5.5	21.8	10 28	0 54.28	+ 9 2.4	1.123	2.088	8.9	19.4
11 7	0 51.66	+ 4 19.9	2.626	3.512	8.4	22.0	11 7	0 47.53	+ 8 47.8	1.171	2.086	14.0	19.6
11 17	0 47.23	+ 4 2.4	2.724	3.518	10.9	22.2	11 17	0 43.83	+ 8 45.4	1.239	2.085	18.3	19.9
292005	2006 <i>QS</i> ₁₂₁		10 11.9 8°95	3°7/ 9.9 18			444359	2005 <i>XL</i> ₂₆		10 11.9 350°91	8°3/ 5.8 16		
9 8	1 30.36	+ 1 47.6	0.865	1.778	19.8	19.4	9 8	1 26.50	- 8 13.3	1.199	2.107	15.8	20.2
9 18	1 27.40	+ 1 27.1	0.822	1.779	14.6	19.1	9 18	1 24.01	- 9 18.6	1.142	2.091	12.3	19.9
9 28	1 21.14	+ 0 59.0	0.797	1.783	8.7	18.9	9 28	1 18.94	-10 20.0	1.106	2.078	9.2	19.7
10 8	1 12.79	+ 0 31.9	0.792	1.788	3.9	18.6	10 8	1 12.18	-11 6.7	1.092	2.066	8.4	19.6
10 18	1 3.99	+ 0 14.6	0.809	1.796	6.4	18.8	10 18	1 4.91	-11 29.3	1.099	2.057	10.5	19.7
10 28	0 56.56	+ 0 14.8	0.846	1.805	12.0	19.1	10 28	0 58.51	-11 21.7	1.129	2.050	14.1	19.9
11 7	0 51.86	+ 0 36.1	0.903	1.817	17.2	19.5	11 7	0 54.13	-10 42.9	1.178	2.045	17.8	20.1
11 17	0 50.54	+ 1 18.5	0.977	1.830	21.5	19.8	11 17	0 52.47	- 9 36.0	1.245	2.042	21.1	20.4
104397	2000 <i>FN</i> ₄₃		10 11.9 105°94	3°7/ 8.9 18			243213	2007 <i>UX</i> ₅₀		10 11.9 29°10	9°5/ 6.4 18		
9 8	1 35.28	+ 0 41.6	1.629	2.504	14.2	19.6	9 8	1 36.07	- 9 49.9	1.043	1.944	18.3	19.4
9 18	1 29.65	- 0 17.8	1.579	2.517	10.4	19.4	9 18	1 31.09	-11 0.1	1.008	1.951	14.2	19.2
9 28	1 21.91	- 1 21.9	1.552	2.530	6.3	19.2	9 28	1 23.09	-12 1.4	0.992	1.960	10.7	19.0
10 8	1 12.93	- 2 23.3	1.552	2.543	3.7	19.0	10 8	1 13.32	-12 41.5	0.998	1.969	9.6	19.0
10 18	1 3.76	- 3 15.0	1.579	2.555	5.7	19.2	10 18	1 3.34	-12 51.8	1.025	1.979	11.6	19.1
10 28	0 55.51	- 3 50.6	1.632	2.567	9.4	19.4	10 28	0 54.79	-12 28.5	1.075	1.990	15.2	19.4
11 7	0 49.08	- 4 7.0	1.711	2.579	13.1	19.7	11 7	0 48.85	-11 33.8	1.144	2.002	18.8	19.7
11 17	0 44.99	- 4 3.4	1.810	2.590	16.1	19.9	11 17	0 46.08	-10 13.3	1.229	2.014	22.0	19.9
517826	2015 <i>RY</i> ₇₂		10 11.9 263°49	0°4/11.6 18			91650	1999 <i>TR</i> ₁₀₀		10 11.9 291°82	4°6/ 7.5 18		
9 8	1 31.99	+ 8 12.0	2.046	2.900	12.6	21.7	9 8	1 32.04	- 4 53.4	2.087	2.960	11.6	19.0
9 18	1 27.08	+ 7 47.3	1.971	2.898	9.3	21.5	9 18	1 27.10	- 5 39.2	2.015	2.950	8.7	18.8
9 28	1 20.37	+ 7 12.9	1.920	2.896	5.6	21.3	9 28	1 20.39	- 6 24.7	1.968	2.939	5.9	18.6
10 8	1 12.51	+ 6 32.3	1.896	2.893	1.5	21.0	10 8	1 12.56	- 7 4.3	1.948	2.928	4.6	18.5
10 18	1 4.33	+ 5 50.3	1.900	2.891	2.7	21.1	10 18	1 4.38	- 7 32.6	1.955	2.917	6.2	18.6
10 28	0 56.72	+ 5 12.0	1.933	2.888	6.7	21.3	10 28	0 56.76	- 7 45.2	1.990	2.907	9.1	18.7
11 7	0 50.50	+ 4 42.2	1.993	2.886	10.3	21.6	11 7	0 50.49	- 7 40.0	2.049	2.896	12.1	18.9
11 17	0 46.22	+ 4 24.4	2.076	2.883	13.4	21.8	11 17	0 46.11	- 7 16.8	2.130	2.886	14.8	19.1
396750	2003 <i>SM</i> ₃₂₇		10 11.9 22°50	4°2/17.2 16			3323	Turgenev		10 11.9 340°80	0°1/11.9 18		
9 8	1 26.15	+26 28.8	1.618	2.423	17.6	20.1	9 8	1 30.30	+ 9 8.3	1.282	2.162	17.0	16.6
9 18	1 23.15	+25 5.0	1.553	2.436	14.1	19.9	9 18	1 26.82	+ 8 51.6	1.211	2.150	12.7	16.3
9 28	1 18.10	+23 8.9	1.508	2.451	10.2	19.7	9 28	1 20.69	+ 8 19.5	1.160	2.139	7.7	16.0
10 8	1 11.86	+20 45.2	1.488	2.466	6.2	19.5	10 8	1 12.71	+ 7 36.4	1.132	2.129	2.2	15.7
10 18	1 5.43	+18 3.1	1.496	2.482	4.2	19.4	10 18	1 4.11	+ 6 48.9	1.128	2.120	3.5	15.7
10 28	0 59.87	+15 15.9	1.532	2.499	6.7	19.6	10 28	0 56.31	+ 6 5.7	1.150	2.113	9.0	16.0
11 7	0 56.01	+12 37.4	1.597	2.517	10.5	19.9	11 7	0 50.55	+ 5 34.4	1.193	2.106	14.0	16.3
11 17	0 54.33	+10 18.3	1.687	2.536	14.0	20.2	11 17	0 47.61	+ 5 20.1	1.257	2.100	18.3	16.6
267665	2002 <i>TL</i> ₂₂₉		10 11.9 0°02	0°1/11.9 18			11459	Andráspál		10 11.9 138°72	2°4/14.2 17		
9 8													

EPHEMERIDES

10 11.9

10 11.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
381394	2008 <i>GQ</i> ₆₂		10 11.9 130°45	0°6/12.5 16			411503	2011 <i>AK</i> ₇₇		10 11.9 251°35	1°8/13.9 17		
9 8	1 35.50	+12 12.8	1.768	2.612	14.7	21.7	9 8	1 31.91	+14 41.4	2.597	3.418	11.2	21.5
9 18	1 29.80	+11 35.4	1.705	2.625	11.0	21.5	9 18	1 26.83	+14 38.4	2.502	3.406	8.6	21.3
9 28	1 22.04	+10 43.0	1.665	2.636	6.7	21.3	9 28	1 20.20	+14 24.1	2.432	3.393	5.7	21.1
10 8	1 13.02	+ 9 39.8	1.652	2.648	2.2	21.1	10 8	1 12.53	+13 59.9	2.390	3.380	2.7	20.9
10 18	1 3.75	+ 8 31.8	1.667	2.659	2.6	21.1	10 18	1 4.49	+13 28.2	2.377	3.367	2.3	20.9
10 28	0 55.31	+ 7 26.6	1.710	2.669	7.0	21.4	10 28	0 56.83	+12 53.0	2.394	3.353	5.2	21.1
11 7	0 48.60	+ 6 30.9	1.780	2.678	11.0	21.7	11 7	0 50.26	+12 18.6	2.438	3.340	8.3	21.2
11 17	0 44.17	+ 5 49.4	1.873	2.687	14.4	21.9	11 17	0 45.31	+11 49.1	2.509	3.326	11.1	21.4
73190	2002 <i>JJ</i> ₁		10 11.9 3°52	2°6/10.0 18			346487	2008 <i>UJ</i> ₄₇		10 11.9 50°98	2°7/10.2 18		
9 8	1 31.33	+ 5 39.7	1.168	2.058	17.5	18.9	9 8	1 37.76	+ 1 12.5	1.490	2.364	15.3	19.9
9 18	1 27.59	+ 4 38.9	1.111	2.057	12.8	18.7	9 18	1 31.70	+ 1 0.4	1.438	2.375	11.2	19.7
9 28	1 21.09	+ 3 23.9	1.075	2.057	7.6	18.4	9 28	1 23.27	+ 0 44.3	1.408	2.386	6.7	19.4
10 8	1 12.80	+ 2 3.5	1.061	2.058	2.9	18.1	10 8	1 13.40	+ 0 29.4	1.403	2.398	3.0	19.2
10 18	1 4.06	+ 0 48.2	1.072	2.059	5.4	18.3	10 18	1 3.28	+ 0 20.7	1.425	2.409	4.8	19.4
10 28	0 56.36	- 0 11.5	1.107	2.061	10.7	18.6	10 28	0 54.19	+ 0 22.8	1.474	2.421	9.1	19.7
11 7	0 50.87	- 0 48.3	1.165	2.063	15.5	18.9	11 7	0 47.13	+ 0 38.3	1.547	2.434	13.1	19.9
11 17	0 48.30	- 0 59.7	1.240	2.066	19.6	19.1	11 17	0 42.68	+ 1 8.1	1.642	2.446	16.5	20.2
216322	2007 <i>UN</i> ₂₂		10 11.9 121°68	0°4/12.3 17			228024	2008 <i>FQ</i> ₇₁		10 11.9 38°43	0°2/12.0 17		
9 8	1 34.64	+12 31.9	1.452	2.309	16.6	21.0	9 8	1 37.87	+ 8 8.9	1.035	1.919	19.8	19.6
9 18	1 29.56	+11 37.0	1.391	2.318	12.4	20.8	9 18	1 32.35	+ 8 14.9	1.000	1.940	14.6	19.4
9 28	1 22.05	+10 22.8	1.352	2.326	7.6	20.5	9 28	1 23.81	+ 8 6.7	0.984	1.963	8.8	19.1
10 8	1 13.05	+ 8 55.4	1.338	2.334	2.3	20.2	10 8	1 13.55	+ 7 48.8	0.990	1.987	2.5	18.8
10 18	1 3.72	+ 7 23.3	1.351	2.342	3.1	20.3	10 18	1 3.16	+ 7 27.6	1.020	2.012	3.7	19.0
10 28	0 55.37	+ 5 56.7	1.391	2.350	8.2	20.6	10 28	0 54.31	+ 7 10.5	1.074	2.038	9.4	19.4
11 7	0 49.02	+ 4 44.6	1.455	2.357	12.7	20.9	11 7	0 48.15	+ 7 3.7	1.150	2.064	14.3	19.8
11 17	0 45.29	+ 3 52.3	1.542	2.364	16.5	21.2	11 17	0 45.22	+ 7 10.6	1.246	2.091	18.3	20.1
75593	2000 <i>AT</i> ₁₉		10 11.9 267°51	3°3/14.5 18			19549	1999 <i>JS</i> ₅₈		10 11.9 29°93	5°7/ 8.9 18		
9 8	1 34.83	+17 4.4	1.519	2.357	17.0	19.4	9 8	1 35.55	- 2 16.7	0.923	1.830	19.5	16.4
9 18	1 29.91	+17 2.5	1.443	2.353	13.3	19.1	9 18	1 30.85	- 2 53.5	0.892	1.844	14.4	16.2
9 28	1 22.42	+16 40.1	1.387	2.348	9.0	18.9	9 28	1 22.99	- 3 30.8	0.879	1.860	9.1	16.0
10 8	1 13.20	+15 58.3	1.355	2.344	4.7	18.6	10 8	1 13.32	- 3 58.8	0.887	1.878	5.8	15.9
10 18	1 3.41	+15 1.7	1.350	2.339	3.7	18.5	10 18	1 3.53	- 4 9.4	0.918	1.897	8.0	16.1
10 28	0 54.40	+13 57.9	1.371	2.335	7.7	18.8	10 28	0 55.32	- 3 57.2	0.970	1.917	12.7	16.4
11 7	0 47.35	+12 56.0	1.417	2.331	12.1	19.0	11 7	0 49.87	- 3 21.6	1.043	1.938	17.2	16.7
11 17	0 43.01	+12 4.0	1.485	2.326	16.1	19.3	11 17	0 47.71	- 2 25.3	1.133	1.960	21.0	17.1
432716	2011 <i>CU</i> ₅₄		10 11.9 101°92	0°2/12.1 16			321482	2009 <i>RU</i> ₇₁		10 11.9 115°19	0°3/11.6 18		
9 8	1 36.09	+10 13.8	1.648	2.501	15.2	22.2	9 8	1 33.58	+ 7 7.0	2.462	3.308	11.0	21.0
9 18	1 30.30	+ 9 44.6	1.592	2.517	11.2	22.0	9 18	1 27.91	+ 6 57.4	2.395	3.318	8.1	20.9
9 28	1 22.35	+ 9 2.0	1.558	2.532	6.8	21.8	9 28	1 20.74	+ 6 41.1	2.354	3.328	4.8	20.7
10 8	1 13.11	+ 8 10.6	1.550	2.547	2.0	21.5	10 8	1 12.67	+ 6 20.8	2.341	3.338	1.3	20.4
10 18	1 3.65	+ 7 16.2	1.571	2.562	2.9	21.6	10 18	1 4.39	+ 5 59.6	2.357	3.347	2.3	20.5
10 28	0 55.11	+ 6 26.0	1.619	2.576	7.4	21.9	10 28	0 56.67	+ 5 41.3	2.404	3.357	5.7	20.8
11 7	0 48.41	+ 5 46.0	1.692	2.590	11.5	22.2	11 7	0 50.17	+ 5 28.9	2.478	3.366	8.7	21.0
11 17	0 44.11	+ 5 20.2	1.789	2.604	14.9	22.5	11 17	0 45.35	+ 5 24.9	2.577	3.375	11.4	21.2
319557	2006 <i>SO</i> ₂₈		10 11.9 91°02	2°5/14.0 17			454032	2012 <i>FG</i> ₂₅		10 11.9 277°00	2°0/ 9.6 18		
9 8	1 36.97	+16 46.2	1.459	2.298	17.5	21.2	9 8	1 28.83	+ 4 37.1	2.191	3.057	11.4	21.5
9 18	1 31.16	+16 17.0	1.408	2.319	13.4	21.0	9 18	1 24.70	+ 3 32.6	2.113	3.048	8.3	21.3
9 28	1 22.93	+15 26.2	1.377	2.341	8.7	20.8	9 28	1 18.97	+ 2 19.7	2.059	3.038	4.9	21.1
10 8	1 13.27	+14 17.7	1.371	2.362	4.0	20.6	10 8	1 12.19	+ 1 3.8	2.033	3.028	2.1	20.9
10 18	1 3.44	+12 58.5	1.391	2.382	3.2	20.6	10 18	1 5.10	- 0 9.2	2.036	3.019	3.9	21.0
10 28	0 54.72	+11 38.2	1.439	2.402	7.5	20.9	10 28	0 58.50	- 1 12.8	2.068	3.009	7.3	21.2
11 7	0 48.13	+10 25.9	1.512	2.422	11.8	21.2	11 7	0 53.10	- 2 2.1	2.126	2.999	10.6	21.4
11 17	0 44.22	+ 9 28.3	1.608	2.441	15.5	21.5	11 17	0 49.43	- 2 34.4	2.207	2.990	13.5	21.6
436414	2011 <i>AR</i> ₄₄		10 11.9 214°68	1°3/10.9 17			347807	2002 <i>JX</i> ₁₄₆		10 11.9 75°55	8°0/ 6.2 18		
9 8	1 35.21	+ 6 37.2	1.768	2.628	14.0	22.4	9 8	1 38.31	-12 47.7	1.669	2.540	14.1	20.0
9 18	1 29.75	+ 5 57.1	1.692	2.622	10.3	22.2	9 18	1 31.84	-13 35.9	1.627	2.551	11.2	19.9
9 28	1 22.13	+ 5 6.3	1.639	2.617	6.1	21.9	9 28	1 23.22	-14 14.7	1.609	2.562	8.7	19.8
10 8	1 13.09	+ 4 9.7	1.613	2.610	1.9	21.6	10 8	1 13.38	-14 36.5	1.615	2.573	8.0	19.8
10 18	1 3.61	+ 3 13.6	1.615	2.603	3.6	21.8	10 18	1 3.42	-14 36.1	1.647	2.584	9.5	19.9
10 28	0 54.82	+ 2 24.8	1.646	2.596	8.0	22.0	10 28	0 54.49	-14 11.1	1.705	2.595	12.1	20.1
11 7	0 47.68	+ 1 49.1	1.701	2.588	12.1	22.2	11 7	0 47.47	-13 22.9	1.785	2.606	14.8	20.3
11 17	0 42.84	+ 1 29.8	1.779	2.580	15.6	22.5	11 17	0 42.88	-12 14.9	1.886	2.617	17.2	20.5
457816	2009 <i>RS</i> ₅₄		10 11.9 17°79	0°9/11.0 16			326220	2012 <i>CM</i> ₄₇		10 11.9 139°54	1°7/10.6 17		
9 8	1 26.62	+ 9 33.0	1.619	2.491	14.4	20.4	9 8	1 38.20	+ 5 11.5	1.663	2.525	14.7	21.5
9 18	1 23.41	+ 8 23.3	1.562	2.499	10.6	20.2	9 18	1 31.89	+ 4 36.0	1.604	2.535	10.7	21.3
9 28	1 18.27	+ 6 59.1	1.528	2.507	6.2	20.0	9 28	1 23.35	+ 3 51.7	1.568	2.545	6.3	21.1
10 8	1 11.96	+ 5 27.2	1.519	2.517	1.7	19.7	10 8	1 13.45	+ 3 4.1	1.558	2.555	2.1	20.8
10 18	1 5.40	+ 3 56.0	1.538	2.527	3.4	19.9	10 18	1 3.29	+ 2 19.3	1.577	2.564	3.9	21.0
10 28	0 59.59	+ 2 34.4	1.583	2.538	7.8	20.2	10 28	0 54.04	+ 1 43.6	1.623	2.572	8.3	21.3
11 7	0 55.35	+ 1 29.3	1.654	2.551	11.8	20.4	11 7	0 46.65	+ 1 21.6	1.695	2.580	12.3	21.5
11 17	0 53.20	+ 0 44.5	1.746	2.563	15.1	20.7	11 17	0 41.71	+ 1 15.8	1.789	2.587	15.6	21.8
261500	2005 <i>WL</i> ₂₈		10 11.9 276°67	3°5/15.8 18			96741	1999 <i>NY</i> ₅₉		10 11.9 338°83	2°5/ 9.6 18		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
324847	2007 <i>LS</i> ₁		10 11.9 84°91	0°6/11.2	18		477233	2009 <i>RT</i> ₁₄		10 11.9 312°18	0°6/12.4	18	
9 8	1 28.92	+ 8 26.3	2.316	3.169	11.3	21.0	9 8	1 35.28	+ 9 28.9	1.365	2.232	16.9	20.8
9 18	1 24.63	+ 7 37.3	2.245	3.173	8.3	20.8	9 18	1 30.54	+ 9 31.1	1.287	2.219	12.8	20.5
9 28	1 18.85	+ 6 38.8	2.200	3.176	4.9	20.6	9 28	1 23.00	+ 9 19.8	1.230	2.206	7.9	20.2
10 8	1 12.16	+ 5 34.9	2.182	3.180	1.4	20.4	10 8	1 13.49	+ 8 57.6	1.196	2.193	2.5	19.9
10 18	1 5.23	+ 4 30.8	2.194	3.183	2.6	20.5	10 18	1 3.22	+ 8 29.5	1.188	2.180	3.3	19.9
10 28	0 58.84	+ 3 31.8	2.235	3.186	6.1	20.7	10 28	0 53.70	+ 8 2.2	1.206	2.168	8.7	20.2
11 7	0 53.61	+ 2 42.9	2.302	3.190	9.3	20.9	11 7	0 46.25	+ 7 42.8	1.247	2.156	13.8	20.4
11 17	0 50.03	+ 2 7.2	2.394	3.193	12.1	21.1	11 17	0 41.73	+ 7 36.3	1.308	2.145	18.1	20.7
508810	2000 <i>WD</i> ₁₃		10 11.9 237°92	9°9/26.7	18		376398	2012 <i>FR</i> ₂₇		10 11.9 99°31	3°0/14.5	17	
9 8	1 38.03	-30 19.1	2.849	3.649	10.9	22.1	9 8	1 36.59	+17 45.5	1.512	2.345	17.3	21.2
9 18	1 31.29	-31 44.6	2.794	3.627	10.1	22.0	9 18	1 30.94	+17 24.8	1.454	2.362	13.4	21.0
9 28	1 22.86	-32 55.3	2.763	3.605	9.9	21.9	9 28	1 22.88	+16 42.3	1.417	2.378	8.9	20.7
10 8	1 13.32	-33 44.7	2.756	3.581	10.3	21.9	10 8	1 13.35	+15 40.8	1.405	2.394	4.5	20.5
10 18	1 3.45	-34 8.3	2.774	3.556	11.3	22.0	10 18	1 3.56	+14 26.5	1.420	2.410	3.5	20.5
10 28	0 54.10	-34 4.2	2.814	3.530	12.5	22.0	10 28	0 54.80	+13 8.4	1.461	2.425	7.4	20.8
11 7	0 46.03	-33 33.4	2.874	3.503	13.9	22.1	11 7	0 48.09	+11 55.8	1.529	2.440	11.6	21.1
11 17	0 39.77	-32 38.8	2.950	3.476	15.0	22.2	11 17	0 44.03	+10 55.9	1.619	2.454	15.2	21.3
466807	2015 <i>BY</i> ₈₉		10 11.9 269°19	0°3/12.4	16		449263	2013 <i>EC</i> ₁₂		10 11.9 299°47	2°9/ 9.4	18	
9 8	1 27.73	+10 8.4	3.280	4.116	8.8	21.8	9 8	1 31.71	+ 2 9.2	1.751	2.627	13.4	21.2
9 18	1 23.45	+ 9 51.4	3.188	4.104	6.5	21.7	9 18	1 27.28	+ 1 22.2	1.671	2.609	9.8	20.9
9 28	1 18.05	+ 9 27.2	3.121	4.092	4.0	21.5	9 28	1 20.75	+ 0 28.0	1.613	2.592	6.0	20.7
10 8	1 11.93	+ 8 57.9	3.083	4.079	1.3	21.3	10 8	1 12.79	- 0 27.6	1.582	2.575	3.0	20.5
10 18	1 5.56	+ 8 26.1	3.076	4.067	1.6	21.3	10 18	1 4.32	- 1 17.8	1.578	2.559	5.0	20.5
10 28	0 59.50	+ 7 54.6	3.098	4.054	4.4	21.5	10 28	0 56.43	- 1 56.0	1.600	2.542	9.0	20.8
11 7	0 54.23	+ 7 26.8	3.149	4.042	6.9	21.6	11 7	0 50.07	- 2 17.3	1.647	2.525	12.9	21.0
11 17	0 50.15	+ 7 5.2	3.226	4.029	9.2	21.8	11 17	0 45.93	- 2 19.4	1.716	2.509	16.3	21.1
470704	2008 <i>TG</i> ₁₁₂		10 11.9 341°82	2°7/13.6	18		163763	2003 <i>OD</i> ₂₃		10 11.9 26°46	3°7/13.9	18	
9 8	1 29.62	+13 12.8	1.143	2.020	18.8	20.3	9 8	1 38.59	+13 23.0	1.174	2.036	19.4	18.7
9 18	1 26.75	+13 31.6	1.070	2.004	14.6	20.0	9 18	1 32.95	+14 21.2	1.128	2.051	15.0	18.5
9 28	1 20.90	+13 31.4	1.014	1.988	9.6	19.7	9 28	1 24.31	+15 2.0	1.101	2.068	9.9	18.2
10 8	1 12.90	+13 13.4	0.980	1.974	4.3	19.3	10 8	1 13.80	+15 25.1	1.096	2.086	5.1	18.0
10 18	1 4.04	+12 41.8	0.970	1.962	3.8	19.3	10 18	1 2.93	+15 32.5	1.116	2.106	4.3	18.0
10 28	0 55.98	+12 4.6	0.982	1.951	9.1	19.5	10 28	0 53.35	+15 29.7	1.161	2.126	8.6	18.4
11 7	0 50.18	+11 30.9	1.016	1.942	14.4	19.8	11 7	0 46.33	+15 24.2	1.229	2.148	13.1	18.7
11 17	0 47.56	+11 8.7	1.069	1.935	19.1	20.0	11 17	0 42.52	+15 22.3	1.318	2.170	17.0	19.0
453512	2009 <i>UO</i> ₁₀₈		10 11.9 319°13	4°2/ 8.4	17		128477	2004 <i>PH</i> ₃		10 11.9 0°07	6°2/ 5.9	18	
9 8	1 32.63	- 3 27.0	1.931	2.807	12.3	21.1	9 8	1 30.22	- 7 16.2	1.805	2.689	12.6	19.1
9 18	1 27.76	- 3 56.1	1.852	2.788	9.2	20.9	9 18	1 25.93	- 8 29.6	1.751	2.688	9.6	18.9
9 28	1 20.94	- 4 25.8	1.796	2.770	6.0	20.7	9 28	1 19.78	- 9 40.8	1.721	2.687	7.0	18.7
10 8	1 12.81	- 4 50.6	1.767	2.753	4.2	20.5	10 8	1 12.47	-10 41.9	1.716	2.687	6.3	18.7
10 18	1 4.23	- 5 5.4	1.765	2.736	5.8	20.6	10 18	1 4.89	-11 26.1	1.738	2.687	8.0	18.8
10 28	0 56.20	- 5 5.7	1.790	2.719	9.2	20.7	10 28	0 58.00	-11 48.3	1.785	2.688	10.9	19.0
11 7	0 49.60	- 4 49.4	1.840	2.703	12.5	20.9	11 7	0 52.63	-11 47.1	1.855	2.689	13.8	19.2
11 17	0 45.06	- 4 16.1	1.911	2.687	15.5	21.1	11 17	0 49.30	-11 23.3	1.944	2.690	16.3	19.4
448683	2010 <i>WB</i> ₁₃		10 11.9 7°48	4°2/ 8.4	18		514846	2008 <i>EQ</i> ₇		10 11.9 161°03	6°6/ 8.4	18	
9 8	1 31.74	- 2 18.9	1.770	2.650	13.0	20.7	9 8	1 51.07	+ 2 29.4	0.793	1.683	23.5	24.3
9 18	1 27.07	- 3 1.5	1.711	2.651	9.6	20.5	9 18	1 43.14	+ 0 24.1	0.750	1.696	17.4	24.0
9 28	1 20.46	- 3 45.6	1.676	2.652	6.2	20.3	9 28	1 30.81	- 1 57.1	0.726	1.706	10.7	23.7
10 8	1 12.64	- 4 24.9	1.667	2.654	4.2	20.2	10 8	1 15.70	- 4 15.3	0.723	1.714	6.6	23.6
10 18	1 4.55	- 4 53.6	1.684	2.656	5.9	20.3	10 18	1 0.19	- 6 10.1	0.744	1.720	10.1	23.8
10 28	0 57.18	- 5 6.9	1.728	2.659	9.3	20.5	10 28	0 46.83	- 7 25.7	0.787	1.724	16.3	24.1
11 7	0 51.38	- 5 2.4	1.796	2.662	12.7	20.7	11 7	0 37.35	- 7 57.4	0.848	1.726	22.0	24.5
11 17	0 47.69	- 4 39.9	1.885	2.665	15.6	21.0	11 17	0 32.44	- 7 48.8	0.924	1.725	26.6	24.8
381377	2008 <i>FE</i> ₅₅		10 11.9 204°62	0°9/11.3	16		338446	2003 <i>EV</i> ₄₇		10 11.9 329°69	13°0/27.6	17	
9 8	1 36.09	+ 7 25.3	1.738	2.596	14.3	22.2	9 8	1 23.46	- 4 59.8	0.831	1.758	18.7	19.1
9 18	1 30.44	+ 6 52.8	1.664	2.593	10.6	21.9	9 18	1 22.57	-10 8.1	0.788	1.747	14.7	18.8
9 28	1 22.59	+ 6 9.2	1.613	2.589	6.3	21.7	9 28	1 18.49	-15 27.4	0.769	1.736	13.0	18.7
10 8	1 13.29	+ 5 19.0	1.588	2.585	1.8	21.4	10 8	1 12.21	-20 21.1	0.774	1.727	15.0	18.8
10 18	1 3.55	+ 4 28.1	1.591	2.580	3.3	21.5	10 18	1 5.25	-24 16.9	0.802	1.718	19.2	19.0
10 28	0 54.52	+ 3 43.2	1.622	2.575	7.9	21.8	10 28	0 59.41	-26 57.3	0.847	1.710	23.6	19.2
11 7	0 47.21	+ 3 10.0	1.679	2.569	12.0	22.0	11 7	0 56.10	-28 21.8	0.907	1.704	27.4	19.5
11 17	0 42.25	+ 2 52.1	1.758	2.563	15.5	22.2	11 17	0 56.10	-28 40.1	0.976	1.698	30.4	19.7
139522	2001 <i>QX</i> ₁		10 11.9 139°77	3°8/15.8	18		187646	2007 <i>DB</i> ₃		10 11.9 294°24	3°4/ 7.3	16	
9 8	1 36.02	+20 25.4	2.304	3.099	13.3	20.3	9 8	1 27.37	- 3 58.2	2.980	3.849	8.7	20.7
9 18	1 29.97	+20 39.9	2.229	3.108	10.6	20.2	9 18	1 23.29	- 4 44.8	2.898	3.831	6.4	20.5
9 28	1 22.12	+20 38.8	2.176	3.117	7.6	20.0	9 28	1 18.00	- 5 32.1	2.842	3.813	4.3	20.4
10 8	1 13.13	+20 22.2	2.150	3.126	4.8	19.8	10 8	1 11.95	- 6 16.0	2.815	3.796	3.4	20.3
10 18	1 3.82	+19 52.2	2.153	3.134	3.9	19.8	10 18	1 5.64	- 6 52.6	2.817	3.778	4.6	20.3
10 28	0 55.11	+19 13.1	2.185	3.141	5.9	19.9	10 28	0 59.66	- 7 18.5	2.847	3.760	6.9	20.5
11 7	0 47.81	+18 30.3	2.245	3.149	8.8	20.1	11 7	0 54.54	- 7 31.5	2.904	3.743	9.2	20.6
11 17	0 42.46	+17 49.5	2.330	3.155	11.5	20.3	11 17	0 50.69	- 7 30.6	2.983	3.725	11.2	20.7
165512	2001 <i>CQ</i> ₆		10 11.9 154°16	2°1/ 9.9	18		168155	2006 <i>HY</i> ₄₆		10 11.9 39°86	1°5/10.7		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
63851	2001 <i>RH</i> ₈₇		10 11.9 306°09	1.2°/12.9	18	R	521978	2015 <i>VE</i> ₁₆₃		10 11.9 15°53	3.6°/ 8.8	18	
9 8	1 33.22	+12 3.2	1.447	2.308	16.5	19.5	9 8	1 32.86	- 1 57.3	1.997	2.869	12.1	20.8
9 18	1 28.90	+11 52.3	1.366	2.293	12.6	19.2	9 18	1 27.72	- 2 28.0	1.935	2.871	8.9	20.6
9 28	1 21.97	+11 24.5	1.305	2.278	8.0	18.9	9 28	1 20.80	- 3 0.0	1.897	2.872	5.6	20.4
10 8	1 13.20	+10 42.4	1.268	2.263	2.9	18.6	10 8	1 12.78	- 3 28.1	1.886	2.875	3.6	20.3
10 18	1 3.73	+ 9 51.5	1.257	2.249	3.1	18.6	10 18	1 4.51	- 3 47.7	1.903	2.877	5.2	20.4
10 28	0 54.93	+ 8 59.6	1.271	2.235	8.3	18.8	10 28	0 56.90	- 3 54.7	1.947	2.879	8.3	20.6
11 7	0 48.05	+ 8 14.9	1.310	2.221	13.1	19.1	11 7	0 50.71	- 3 46.9	2.017	2.882	11.5	20.8
11 17	0 43.91	+ 7 44.0	1.370	2.208	17.4	19.3	11 17	0 46.49	- 3 24.0	2.109	2.885	14.3	21.0
295630	2008 <i>SZ</i> ₂₄₄		10 11.9 324°62	0.4°/11.4	18		318256	2004 <i>RN</i> ₃₃₈		10 11.9 28°76	0.6°/11.6	18	
9 8	1 25.06	+ 6 34.4	4.102	4.947	7.0	20.3	9 8	1 33.62	+ 7 48.0	1.264	2.143	17.2	20.9
9 18	1 21.28	+ 6 18.4	4.020	4.943	5.1	20.1	9 18	1 29.05	+ 7 29.7	1.214	2.152	12.7	20.6
9 28	1 16.67	+ 5 58.5	3.965	4.939	3.0	20.0	9 28	1 21.89	+ 6 58.4	1.183	2.163	7.6	20.4
10 8	1 11.55	+ 5 36.3	3.939	4.936	0.8	19.8	10 8	1 13.13	+ 6 19.4	1.177	2.174	2.1	20.1
10 18	1 6.28	+ 5 13.9	3.943	4.933	1.6	19.8	10 18	1 4.04	+ 5 39.6	1.195	2.186	3.6	20.2
10 28	1 1.26	+ 4 53.5	3.978	4.929	3.7	20.0	10 28	0 56.04	+ 5 6.5	1.239	2.199	8.8	20.6
11 7	0 56.85	+ 4 37.2	4.042	4.926	5.8	20.2	11 7	0 50.21	+ 4 46.2	1.306	2.213	13.5	20.9
11 17	0 53.35	+ 4 26.6	4.132	4.923	7.5	20.3	11 17	0 47.16	+ 4 42.2	1.393	2.227	17.3	21.2
362574	2010 <i>VH</i> ₁₀₃		10 11.9 177°12	4.0°/ 7.8	18		279066	2008 <i>WU</i> ₃₈		10 11.9 32°85	4.2°/ 9.5	18	
9 8	1 32.52	- 4 17.1	2.357	3.224	10.7	20.7	9 8	1 35.39	+ 0 3.6	1.072	1.969	18.2	19.6
9 18	1 27.23	- 4 57.6	2.293	3.225	7.9	20.5	9 18	1 30.34	- 0 28.5	1.043	1.992	13.2	19.4
9 28	1 20.40	- 5 37.9	2.255	3.225	5.3	20.3	9 28	1 22.55	- 1 3.9	1.035	2.016	8.0	19.2
10 8	1 12.64	- 6 13.0	2.244	3.226	4.0	20.3	10 8	1 13.26	- 1 34.5	1.049	2.042	4.3	19.0
10 18	1 4.66	- 6 38.5	2.262	3.226	5.4	20.4	10 18	1 3.96	- 1 52.9	1.087	2.069	6.4	19.3
10 28	0 57.23	- 6 50.8	2.308	3.226	8.0	20.5	10 28	0 56.10	- 1 53.7	1.148	2.097	11.0	19.6
11 7	0 51.03	- 6 48.1	2.380	3.226	10.7	20.7	11 7	0 50.71	- 1 35.2	1.232	2.125	15.2	19.9
11 17	0 46.52	- 6 30.1	2.475	3.225	13.1	20.9	11 17	0 48.26	- 0 58.2	1.334	2.155	18.7	20.3
93830	2000 <i>WE</i> ₇₇		10 11.9 36°47	3.7°/14.8	18		345851	2007 <i>PY</i> ₃		10 11.9 46°24	3.1°/10.3	18	
9 8	1 34.05	+17 34.2	1.428	2.270	17.7	18.1	9 8	1 41.01	- 0 24.0	1.387	2.261	16.2	19.3
9 18	1 29.32	+17 41.5	1.368	2.279	13.8	17.9	9 18	1 34.15	- 0 18.5	1.342	2.279	11.9	19.0
9 28	1 22.05	+17 27.7	1.328	2.288	9.4	17.6	9 28	1 24.77	- 0 14.6	1.319	2.297	7.2	18.8
10 8	1 13.17	+16 54.1	1.311	2.298	5.2	17.4	10 8	1 13.92	- 0 7.9	1.321	2.316	3.3	18.7
10 18	1 3.89	+16 5.2	1.320	2.308	4.0	17.4	10 18	1 2.93	+ 0 5.9	1.351	2.335	5.1	18.8
10 28	0 55.57	+15 8.9	1.354	2.319	7.7	17.6	10 28	0 53.16	+ 0 29.9	1.406	2.354	9.4	19.1
11 7	0 49.30	+14 14.0	1.413	2.330	11.9	17.9	11 7	0 45.66	+ 1 5.8	1.487	2.374	13.5	19.4
11 17	0 45.75	+13 28.1	1.494	2.342	15.6	18.2	11 17	0 40.99	+ 1 53.3	1.588	2.394	16.9	19.7
67855	2000 <i>WO</i> ₁₃		10 11.9 340°16	9.3°/ 6.3	18		84366	2002 <i>TD</i> ₁₁₂		10 11.9 319°23	1.3°/11.2	18	
9 8	1 36.82	-12 38.3	1.297	2.184	16.4	17.3	9 8	1 36.82	+ 5 8.5	1.315	2.192	16.8	19.1
9 18	1 31.55	-13 23.4	1.241	2.174	13.1	17.1	9 18	1 31.69	+ 5 5.4	1.244	2.182	12.5	18.8
9 28	1 23.48	-13 58.3	1.205	2.164	10.3	16.9	9 28	1 23.69	+ 4 53.3	1.193	2.172	7.5	18.5
10 8	1 13.59	-14 12.9	1.192	2.156	9.4	16.9	10 8	1 13.72	+ 4 36.3	1.166	2.163	2.2	18.2
10 18	1 3.25	-14 0.0	1.202	2.149	11.1	17.0	10 18	1 3.07	+ 4 20.0	1.165	2.155	4.1	18.3
10 28	0 53.94	-13 16.4	1.236	2.142	14.4	17.1	10 28	0 53.28	+ 4 10.6	1.189	2.147	9.5	18.6
11 7	0 46.89	-12 3.7	1.290	2.136	17.9	17.3	11 7	0 45.66	+ 4 13.5	1.236	2.139	14.5	18.8
11 17	0 42.81	-10 27.1	1.363	2.132	21.0	17.5	11 17	0 41.05	+ 4 31.4	1.304	2.132	18.7	19.1
346260	2008 <i>ER</i> ₁₃₀		10 11.9 238°32	1.6°/ 9.4	18		353379	2011 <i>LO</i> ₂₈		10 11.9 22°89	0.7°/12.4	16	
9 8	1 26.62	+ 2 7.2	3.423	4.281	7.9	21.7	9 8	1 30.57	+10 41.3	1.119	2.002	18.6	19.7
9 18	1 22.57	+ 1 28.6	3.343	4.274	5.7	21.5	9 18	1 26.95	+10 25.8	1.079	2.019	13.8	19.5
9 28	1 17.50	+ 0 46.7	3.289	4.266	3.4	21.4	9 28	1 20.65	+ 9 52.9	1.058	2.037	8.4	19.2
10 8	1 11.80	+ 0 4.5	3.265	4.258	1.7	21.2	10 8	1 12.76	+ 9 7.9	1.060	2.057	2.7	19.0
10 18	1 5.92	- 0 34.9	3.271	4.250	2.8	21.3	10 18	1 4.65	+ 8 18.6	1.085	2.078	3.3	19.1
10 28	1 0.33	- 1 8.4	3.307	4.242	5.1	21.5	10 28	0 57.75	+ 7 34.0	1.135	2.101	8.7	19.5
11 7	0 55.50	- 1 33.4	3.370	4.234	7.4	21.6	11 7	0 53.11	+ 7 1.5	1.207	2.125	13.4	19.8
11 17	0 51.77	- 1 48.4	3.459	4.226	9.4	21.7	11 17	0 51.28	+ 6 45.4	1.299	2.150	17.3	20.1
399960	2006 <i>BZ</i> ₃₅		10 11.9 346°21	1.0°/11.1	16		391502	2007 <i>PL</i> ₄₃		10 11.9 340°22	5.6°/ 6.6	18	
9 8	1 30.17	+ 6 30.5	1.742	2.612	13.7	20.9	9 8	1 26.52	- 0 7.9	1.341	2.240	15.1	19.8
9 18	1 26.08	+ 6 3.9	1.670	2.605	10.1	20.6	9 18	1 23.85	- 1 59.5	1.278	2.228	11.1	19.6
9 28	1 19.99	+ 5 27.7	1.620	2.599	6.0	20.4	9 28	1 18.84	- 4 0.5	1.238	2.218	7.3	19.3
10 8	1 12.58	+ 4 46.2	1.596	2.594	1.8	20.1	10 8	1 12.28	- 5 59.0	1.223	2.208	5.7	19.2
10 18	1 4.77	+ 4 5.0	1.600	2.589	3.3	20.2	10 18	1 5.26	- 7 42.6	1.232	2.200	8.3	19.3
10 28	0 57.59	+ 3 30.0	1.630	2.585	7.7	20.5	10 28	0 59.00	- 9 0.4	1.266	2.192	12.4	19.6
11 7	0 51.96	+ 3 6.5	1.685	2.581	11.6	20.7	11 7	0 54.54	- 9 46.6	1.321	2.185	16.4	19.8
11 17	0 48.47	+ 2 57.6	1.762	2.579	15.0	20.9	11 17	0 52.57	- 10 0.4	1.394	2.180	19.8	20.0
275333	2010 <i>VT</i> ₁₉₂		10 11.9 73°20	0.5°/11.2	18		253440	2003 <i>QS</i> ₁₁₁		10 11.9 55°45	6.4°/ 7.9	17	
9 8	1 24.99	+ 6 0.3	4.284	5.129	6.7	20.8	9 8	1 37.45	- 3 47.8	1.125	2.019	17.7	19.6
9 18	1 21.19	+ 5 43.4	4.207	5.130	4.9	20.7	9 18	1 31.85	- 4 51.8	1.092	2.037	13.1	19.4
9 28	1 16.60	+ 5 22.8	4.156	5.131	2.9	20.5	9 28	1 23.47	- 5 54.7	1.080	2.056	8.7	19.2
10 8	1 11.54	+ 5 0.4	4.135	5.132	0.8	20.4	10 8	1 13.54	- 6 46.1	1.091	2.076	6.4	19.2
10 18	1 6.34	+ 4 38.1	4.144	5.132	1.6	20.4	10 18	1 3.54	- 7 17.2	1.126	2.095	8.6	19.4
10 28	1 1.39	+ 4 18.1	4.184	5.133	3.6	20.6	10 28	0 54.95	- 7 22.8	1.185	2.115	12.6	19.6
11 7	0 57.04	+ 4 2.2	4.252	5.134	5.6	20.7	11 7	0 48.85	- 7 2.3	1.264	2.136	16.5	19.9
11 17	0 53.55	+ 3 52.1	4.347	5.134	7.3	20.9	11 17	0 45.74	- 6 18.5	1.362	2.156	19.8	20.2
516017	2015 <i>RW</i> ₂₅₆		10 11.9 0°57	0.1°/12.0	18		469371	2001 <i>QM</i> ₂₃₁		10 11.9 5°18	14.0°/21.		

EPHEMERIDES

10 11.9

10 11.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
132162	2002 <i>EJ</i> ₈		10 11.9 61°61'	3°2/ 9.1	18		468781	2011 <i>YR</i> ₇₄		10 11.9 351°77'	6°3/28.0	18	
9 8	1 31.56	+ 3 48.6	1.523	2.403	14.8	19.4	9 8	1 24.74	-25 28.4	4.092	4.921	7.3	19.9
9 18	1 27.10	+ 2 26.3	1.475	2.417	10.7	19.2	9 18	1 21.12	-26 34.3	4.057	4.920	6.6	19.8
9 28	1 20.53	+ 0 55.2	1.450	2.430	6.3	19.0	9 28	1 16.61	-27 31.1	4.046	4.920	6.3	19.8
10 8	1 12.72	- 0 36.1	1.451	2.445	3.2	18.9	10 8	1 11.58	-28 15.5	4.062	4.919	6.6	19.8
10 18	1 4.71	- 1 58.5	1.479	2.459	5.4	19.0	10 18	1 6.42	-28 44.9	4.102	4.918	7.3	19.9
10 28	0 57.61	- 3 3.8	1.533	2.473	9.5	19.3	10 28	1 1.56	-28 57.7	4.166	4.917	8.2	19.9
11 7	0 52.29	- 3 47.2	1.611	2.488	13.3	19.6	11 7	0 57.39	-28 54.0	4.252	4.917	9.2	20.0
11 17	0 49.28	- 4 7.1	1.710	2.502	16.4	19.8	11 17	0 54.22	-28 34.7	4.355	4.916	10.1	20.1
108411	2001 <i>KK</i> ₃₂		10 11.9 222°11'	11°9/26.9	18		423298	2005 <i>EW</i> ₉₅		10 11.9 110°36'	6°4/ 6.7	17	
9 8	1 37.09	-26 41.5	2.031	2.864	13.5	19.9	9 8	1 37.39	- 6 6.5	1.572	2.450	14.5	20.9
9 18	1 31.09	-28 43.7	1.988	2.853	12.3	19.8	9 18	1 31.26	- 7 27.1	1.533	2.467	10.9	20.8
9 28	1 22.96	-30 28.7	1.968	2.841	11.9	19.8	9 28	1 22.96	- 8 45.0	1.517	2.484	7.7	20.6
10 8	1 13.45	-31 47.0	1.973	2.828	12.5	19.8	10 8	1 13.42	- 9 51.2	1.526	2.501	6.5	20.6
10 18	1 3.56	-32 31.7	2.000	2.815	13.9	19.8	10 18	1 3.77	-10 38.2	1.563	2.517	8.3	20.8
10 28	0 54.41	-32 40.3	2.048	2.800	15.6	19.9	10 28	0 55.16	-11 0.8	1.625	2.532	11.5	21.0
11 7	0 46.94	-32 14.5	2.114	2.785	17.3	20.1	11 7	0 48.49	-10 58.4	1.710	2.547	14.6	21.2
11 17	0 41.77	-31 18.7	2.195	2.769	18.8	20.2	11 17	0 44.26	-10 32.7	1.815	2.562	17.3	21.4
112005	2002 <i>GL</i> ₁₄₆		10 11.9 319°02'	3°7/ 9.4	18		657	<i>Gunlöd</i>		10 11.9 204°66'	5°3/17.3	18	
9 8	1 31.15	+ 3 25.6	1.130	2.026	17.5	19.2	9 8	1 35.10	+24 46.8	2.115	2.895	14.8	15.7
9 18	1 27.83	+ 2 26.5	1.059	2.009	13.0	18.9	9 18	1 29.65	+25 0.2	2.028	2.892	12.2	15.5
9 28	1 21.54	+ 1 14.1	1.009	1.992	7.9	18.6	9 28	1 22.14	+24 53.6	1.963	2.888	9.2	15.3
10 8	1 13.14	- 0 2.8	0.981	1.976	3.8	18.3	10 8	1 13.25	+24 26.1	1.922	2.884	6.5	15.1
10 18	1 3.97	- 1 13.0	0.977	1.961	6.5	18.4	10 18	1 3.89	+23 39.5	1.908	2.880	5.3	15.1
10 28	0 55.64	- 2 5.3	0.996	1.946	11.9	18.7	10 28	0 55.11	+22 38.7	1.922	2.875	6.8	15.2
11 7	0 49.57	- 2 32.0	1.035	1.932	17.1	18.9	11 7	0 47.83	+21 30.9	1.964	2.870	9.7	15.3
11 17	0 46.63	- 2 30.6	1.092	1.920	21.5	19.2	11 17	0 42.73	+20 23.6	2.030	2.865	12.6	15.5
279637	2011 <i>EX</i> ₇₀		10 11.9 205°05'	1°2/10.9	17		50199	2000 <i>AS</i> ₂₀₁		10 11.9 196°35'	1°8/13.8	18	
9 8	1 33.73	+ 7 35.8	1.740	2.602	14.1	21.3	9 8	1 33.52	+16 25.4	1.810	2.642	14.9	19.2
9 18	1 28.70	+ 6 43.5	1.668	2.599	10.4	21.0	9 18	1 28.55	+15 39.9	1.731	2.640	11.5	19.0
9 28	1 21.56	+ 5 38.9	1.619	2.596	6.2	20.8	9 28	1 21.49	+14 34.4	1.674	2.638	7.5	18.8
10 8	1 13.06	+ 4 27.5	1.596	2.593	1.8	20.5	10 8	1 13.06	+13 12.5	1.643	2.636	3.3	18.5
10 18	1 4.16	+ 3 16.3	1.601	2.589	3.6	20.6	10 18	1 4.23	+11 40.3	1.641	2.632	2.7	18.5
10 28	0 55.96	+ 2 13.1	1.634	2.585	8.0	20.9	10 28	0 56.10	+10 6.5	1.667	2.629	6.8	18.7
11 7	0 49.40	+ 1 24.1	1.692	2.581	12.1	21.1	11 7	0 49.59	+ 8 39.9	1.720	2.624	10.9	19.0
11 17	0 45.10	+ 0 53.2	1.773	2.576	15.5	21.4	11 17	0 45.33	+ 7 27.4	1.796	2.620	14.5	19.2
519487	2012 <i>DO</i> ₁₀₂		10 11.9 242°65'	1°3/13.4	18		189403	2008 <i>KW</i> ₁₃		10 11.9 72°87'	3°2/ 8.3	18	
9 8	1 31.92	+13 7.3	2.381	3.213	11.8	21.8	9 8	1 29.80	+ 1 3.5	2.091	2.963	11.6	19.9
9 18	1 26.95	+12 57.2	2.295	3.206	9.0	21.6	9 18	1 25.32	- 0 14.5	2.042	2.980	8.4	19.7
9 28	1 20.35	+12 35.6	2.234	3.199	5.7	21.4	9 28	1 19.29	- 1 36.7	2.020	2.997	5.2	19.5
10 8	1 12.69	+12 4.6	2.199	3.192	2.4	21.2	10 8	1 12.37	- 2 56.5	2.025	3.014	3.2	19.4
10 18	1 4.68	+11 27.4	2.194	3.185	2.2	21.2	10 18	1 5.31	- 4 7.4	2.058	3.031	5.0	19.6
10 28	0 57.13	+10 48.3	2.218	3.178	5.5	21.4	10 28	0 58.92	- 5 3.8	2.120	3.048	8.0	19.8
11 7	0 50.77	+10 12.2	2.270	3.171	8.8	21.6	11 7	0 53.84	- 5 42.4	2.208	3.065	11.0	20.0
11 17	0 46.14	+ 9 43.1	2.346	3.163	11.7	21.8	11 17	0 50.51	- 6 2.0	2.317	3.082	13.5	20.2
357321	2003 <i>GZ</i> ₅₄		10 11.9 165°10'	0°9/11.0	18		331139	2010 <i>VE</i> ₁₆₀		10 11.9 15°81'	30°5/14.7	17	
9 8	1 32.75	+ 6 5.5	2.362	3.214	11.2	22.0	9 8	1 42.01	-47 53.7	0.777	1.596	30.5	18.8
9 18	1 27.44	+ 5 39.1	2.291	3.217	8.2	21.8	9 18	1 36.92	-49 53.8	0.784	1.599	30.5	18.8
9 28	1 20.57	+ 5 5.8	2.244	3.220	4.9	21.6	9 28	1 26.92	-50 46.6	0.800	1.603	30.7	18.9
10 8	1 12.74	+ 4 28.9	2.225	3.222	1.4	21.4	10 8	1 14.50	-50 22.2	0.824	1.609	31.1	18.9
10 18	1 4.65	+ 3 52.7	2.236	3.224	2.7	21.5	10 18	1 2.57	-48 40.2	0.856	1.617	31.7	19.1
10 28	0 57.11	+ 3 21.4	2.276	3.226	6.2	21.7	10 28	0 53.60	-45 48.8	0.896	1.626	32.4	19.2
11 7	0 50.78	+ 2 58.7	2.344	3.228	9.4	21.9	11 7	0 48.78	-42 3.3	0.944	1.636	33.2	19.3
11 17	0 46.17	+ 2 47.1	2.436	3.229	12.1	22.1	11 17	0 48.21	-37 39.9	1.001	1.648	33.8	19.5
321590	2009 <i>UE</i> ₇₂		10 11.9 311°73'	1°2/ 9.9	18		135154	2001 <i>QR</i> ₂₂₄		10 11.9 324°95'	5°3/ 6.9	18	
9 8	1 26.01	+ 1 56.6	4.098	4.952	6.8	20.4	9 8	1 28.92	- 2 3.2	1.580	2.469	13.8	18.6
9 18	1 21.97	+ 1 41.3	4.018	4.946	4.9	20.3	9 18	1 25.37	- 3 27.6	1.511	2.456	10.2	18.4
9 28	1 17.10	+ 1 24.0	3.965	4.941	2.9	20.2	9 28	1 19.67	- 4 57.1	1.466	2.442	6.8	18.2
10 8	1 11.72	+ 1 6.7	3.942	4.936	1.3	20.0	10 8	1 12.55	- 6 22.7	1.445	2.429	5.3	18.1
10 18	1 6.18	+ 0 51.3	3.949	4.931	2.2	20.1	10 18	1 4.98	- 7 35.0	1.451	2.417	7.5	18.2
10 28	1 0.89	+ 0 39.9	3.987	4.926	4.2	20.2	10 28	0 58.06	- 8 26.2	1.482	2.405	11.2	18.4
11 7	0 56.23	+ 0 34.3	4.053	4.922	6.1	20.4	11 7	0 52.77	- 8 51.7	1.536	2.394	14.8	18.6
11 17	0 52.49	+ 0 35.5	4.144	4.917	7.8	20.5	11 17	0 49.76	- 8 51.0	1.608	2.384	18.0	18.8
322568	2011 <i>YF</i> ₆₄		10 11.9 297°78'	5°4/30.9	18		117178	2004 <i>RC</i> ₆₅		10 11.9 23°83'	3°2/ 8.8	18	
9 8	1 25.01	-20 21.6	4.113	4.958	7.0	20.8	9 8	1 28.11	+ 3 3.9	1.650	2.532	13.7	19.3
9 18	1 21.29	-21 14.4	4.060	4.949	6.0	20.7	9 18	1 24.49	+ 1 45.6	1.598	2.541	9.9	19.1
9 28	1 16.71	-22 0.5	4.033	4.941	5.4	20.6	9 28	1 18.97	+ 0 19.6	1.569	2.550	5.9	18.9
10 8	1 11.60	-22 36.6	4.032	4.932	5.6	20.6	10 8	1 12.31	- 1 6.3	1.567	2.559	3.2	18.7
10 18	1 6.36	-23 0.0	4.059	4.923	6.4	20.7	10 18	1 5.41	- 2 23.7	1.591	2.570	5.3	18.9
10 28	1 1.40	-23 9.1	4.111	4.914	7.5	20.8	10 28	0 59.27	- 3 25.2	1.642	2.581	9.0	19.1
11 7	0 57.09	-23 3.4	4.186	4.905	8.6	20.9	11 7	0 54.69	- 4 6.2	1.717	2.593	12.6	19.4
11 17	0 53.74	-22 43.6	4.281	4.897	9.7	20.9	11 17	0 52.18	- 4 25.1	1.813	2.605	15.6	19.6
366930	2005 <i>UF</i> ₄₃₉		10 11.9 221°62'	9°6/25.6	17		270277	2001 <i>UC</i> ₂₂₇		10 11.9 53°40'	2°5/10.0	18	

EPHEMERIDES

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10 12.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
515444	2013 <i>TQ</i> ₁₄₁		10 11.9 315°32	2°3/10.4	18		155557	1999 <i>VW</i> ₉₆		10 12.0 292°68	3°1/9.4	18	
9 8	1 31.23	+ 5 43.0	1.213	2.101	17.1	21.7	9 8	1 34.72	- 1 13.3	2.105	2.971	11.8	20.0
9 18	1 27.83	+ 4 57.8	1.135	2.080	12.7	21.4	9 18	1 29.18	- 1 31.2	2.024	2.957	8.8	19.8
9 28	1 21.55	+ 3 57.5	1.077	2.059	7.6	21.1	9 28	1 21.78	- 1 50.8	1.967	2.943	5.5	19.6
10 8	1 13.18	+ 2 49.0	1.041	2.038	2.7	20.7	10 8	1 13.16	- 2 7.7	1.938	2.929	3.1	19.4
10 18	1 3.98	+ 1 41.6	1.030	2.018	5.2	20.8	10 18	1 4.12	- 2 17.8	1.938	2.915	4.7	19.5
10 28	0 55.51	+ 0 46.2	1.043	1.999	10.8	21.1	10 28	0 55.61	- 2 17.2	1.965	2.901	8.0	19.6
11 7	0 49.15	+ 0 11.2	1.078	1.981	16.1	21.3	11 7	0 48.46	- 2 3.6	2.019	2.888	11.3	19.8
11 17	0 45.83	+ 0 0.9	1.131	1.963	20.7	21.6	11 17	0 43.27	- 1 36.1	2.096	2.874	14.3	20.0
362874	2012 <i>BE</i> ₈₉		10 11.9 145°77	5°3/5.9	18		35166	1993 <i>QD</i> ₈		10 12.0 173°59	1°8/13.4	18	
9 8	1 30.97	- 7 34.5	2.300	3.172	10.7	20.9	9 8	1 38.36	+13 19.8	1.567	2.411	16.3	19.2
9 18	1 26.14	- 8 40.9	2.245	3.175	8.2	20.7	9 18	1 32.42	+13 16.7	1.496	2.412	12.5	18.9
9 28	1 19.79	- 9 45.1	2.215	3.178	6.0	20.6	9 28	1 23.95	+12 57.3	1.446	2.414	8.0	18.7
10 8	1 12.53	-10 40.9	2.213	3.181	5.3	20.6	10 8	1 13.82	+12 23.7	1.422	2.415	3.3	18.4
10 18	1 5.07	-11 23.0	2.238	3.184	6.7	20.7	10 18	1 3.19	+11 40.5	1.424	2.416	3.0	18.4
10 28	0 58.18	-11 47.5	2.291	3.187	9.1	20.8	10 28	0 53.41	+10 54.8	1.454	2.416	7.6	18.7
11 7	0 52.53	-11 52.9	2.368	3.189	11.6	21.0	11 7	0 45.61	+10 13.8	1.510	2.416	12.1	18.9
11 17	0 48.56	-11 39.5	2.467	3.192	13.8	21.2	11 17	0 40.50	+ 9 43.6	1.588	2.415	15.9	19.2
15228	Ronmiller		10 12.0 215°61	0°7/11.5	18		404986	2000 <i>BL</i> ₃₉		10 12.0 165°98	2°9/8.4	18	
9 8	1 36.29	+ 9 5.4	1.571	2.430	15.5	18.6	9 8	1 29.90	- 0 40.5	2.653	3.518	9.7	21.9
9 18	1 30.89	+ 8 19.3	1.495	2.424	11.5	18.3	9 18	1 25.20	- 1 33.0	2.588	3.521	7.1	21.7
9 28	1 23.04	+ 7 18.1	1.441	2.417	6.9	18.0	9 28	1 19.19	- 2 27.9	2.548	3.523	4.4	21.6
10 8	1 13.54	+ 6 7.0	1.413	2.410	1.9	17.7	10 8	1 12.37	- 3 20.8	2.538	3.525	2.9	21.5
10 18	1 3.53	+ 4 53.5	1.412	2.402	3.5	17.8	10 18	1 5.37	- 4 7.2	2.556	3.527	4.3	21.6
10 28	0 54.27	+ 3 46.3	1.439	2.394	8.5	18.1	10 28	0 58.82	- 4 43.0	2.604	3.529	6.9	21.7
11 7	0 46.87	+ 2 53.0	1.491	2.384	13.0	18.3	11 7	0 53.32	- 5 5.7	2.678	3.531	9.4	21.9
11 17	0 42.07	+ 2 18.3	1.564	2.375	16.9	18.5	11 17	0 49.28	- 5 14.0	2.776	3.532	11.7	22.1
317693	2003 <i>OP</i> ₂₄		10 12.0 131°08	2°1/13.7	17		428598	2008 <i>EF</i> ₇₃		10 12.0 114°33	1°3/10.9	16	
9 8	1 37.11	+15 29.5	1.546	2.385	16.7	21.9	9 8	1 37.49	+ 6 16.5	1.651	2.512	14.8	21.8
9 18	1 31.39	+15 6.0	1.482	2.396	12.8	21.7	9 18	1 31.38	+ 5 42.2	1.596	2.527	10.8	21.6
9 28	1 23.24	+14 22.8	1.440	2.406	8.3	21.5	9 28	1 23.10	+ 4 58.3	1.564	2.541	6.4	21.4
10 8	1 13.57	+13 23.2	1.423	2.415	3.6	21.2	10 8	1 13.52	+ 4 10.0	1.558	2.555	1.9	21.1
10 18	1 3.55	+12 13.1	1.432	2.424	3.0	21.2	10 18	1 3.72	+ 3 23.6	1.580	2.569	3.6	21.3
10 28	0 54.49	+11 1.2	1.470	2.432	7.5	21.5	10 28	0 54.85	+ 2 45.2	1.630	2.582	8.0	21.6
11 7	0 47.41	+ 9 56.3	1.533	2.440	11.8	21.8	11 7	0 47.84	+ 2 20.0	1.706	2.594	12.0	21.9
11 17	0 42.97	+ 9 4.7	1.618	2.448	15.5	22.0	11 17	0 43.24	+ 2 10.2	1.804	2.606	15.3	22.1
435448	2008 <i>DH</i> ₇₈		10 12.0 218°78	0°7/11.4	18		93363	2000 <i>SA</i> ₂₆₄		10 12.0 70°90	1°6/10.6	18	
9 8	1 36.45	+ 7 57.5	1.804	2.658	14.0	22.4	9 8	1 33.33	+ 6 28.5	1.558	2.428	15.0	19.8
9 18	1 30.75	+ 7 25.3	1.723	2.650	10.4	22.2	9 18	1 28.47	+ 5 38.0	1.502	2.438	11.0	19.6
9 28	1 22.85	+ 6 41.6	1.666	2.642	6.3	21.9	9 28	1 21.43	+ 4 36.5	1.468	2.448	6.4	19.4
10 8	1 13.48	+ 5 50.5	1.636	2.633	1.8	21.6	10 8	1 13.05	+ 3 30.2	1.460	2.457	2.1	19.1
10 18	1 3.62	+ 4 57.8	1.634	2.623	3.2	21.7	10 18	1 4.41	+ 2 26.8	1.480	2.467	4.0	19.3
10 28	0 54.41	+ 4 10.1	1.660	2.613	7.7	21.9	10 28	0 56.65	+ 1 33.7	1.526	2.477	8.4	19.6
11 7	0 46.84	+ 3 33.3	1.712	2.602	11.8	22.2	11 7	0 50.69	+ 0 56.6	1.596	2.487	12.5	19.8
11 17	0 41.58	+ 3 11.3	1.787	2.591	15.4	22.4	11 17	0 47.11	+ 0 38.2	1.688	2.497	15.9	20.1
74267	1998 <i>SY</i> ₁₀₇		10 12.0 172°35	2°4/14.2	18		278173	2007 <i>DK</i> ₈₂		10 12.0 25°43	0°5/12.3	18	
9 8	1 36.97	+15 20.4	2.162	2.981	13.3	19.2	9 8	1 36.44	+ 9 1.7	1.336	2.205	17.1	20.6
9 18	1 30.82	+15 32.5	2.083	2.983	10.3	19.0	9 18	1 31.20	+ 9 5.8	1.277	2.209	12.8	20.3
9 28	1 22.75	+15 31.6	2.027	2.985	6.9	18.8	9 28	1 23.28	+ 8 57.1	1.238	2.214	7.8	20.0
10 8	1 13.43	+15 18.6	1.999	2.987	3.5	18.6	10 8	1 13.63	+ 8 38.7	1.223	2.219	2.4	19.7
10 18	1 3.72	+14 55.9	1.999	2.988	2.9	18.6	10 18	1 3.53	+ 8 15.6	1.233	2.225	3.2	19.8
10 28	0 54.60	+14 27.7	2.029	2.989	6.0	18.8	10 28	0 54.43	+ 7 54.4	1.270	2.232	8.4	20.1
11 7	0 46.94	+13 59.1	2.087	2.989	9.4	19.0	11 7	0 47.51	+ 7 41.0	1.330	2.239	13.1	20.4
11 17	0 41.32	+13 34.9	2.169	2.989	12.5	19.2	11 17	0 43.46	+ 7 39.9	1.411	2.246	17.1	20.7
488208	2015 <i>XW</i> ₂₇₈		10 12.0 289°31	2°4/14.8	18		13132	Ortelius		10 12.0 217°58	3°8/15.1	18	
9 8	1 29.45	+18 1.2	2.235	3.055	12.9	21.2	9 8	1 36.03	+18 49.0	1.717	2.538	16.1	18.2
9 18	1 25.28	+17 34.8	2.147	3.046	10.0	21.0	9 18	1 30.66	+18 52.5	1.636	2.534	12.7	17.9
9 28	1 19.42	+16 51.7	2.082	3.038	6.8	20.8	9 28	1 22.90	+18 36.3	1.577	2.530	8.9	17.7
10 8	1 12.46	+15 54.1	2.043	3.030	3.6	20.6	10 8	1 13.53	+18 0.9	1.542	2.526	5.1	17.5
10 18	1 5.15	+14 45.7	2.033	3.022	2.7	20.5	10 18	1 3.62	+17 9.6	1.534	2.521	4.0	17.4
10 28	0 58.32	+13 32.6	2.052	3.014	5.7	20.7	10 28	0 54.40	+16 9.0	1.554	2.516	7.2	17.6
11 7	0 52.75	+12 21.4	2.098	3.007	9.0	20.9	11 7	0 46.97	+15 7.5	1.599	2.510	11.2	17.8
11 17	0 48.97	+11 18.0	2.169	2.999	12.1	21.1	11 17	0 42.05	+14 12.6	1.668	2.505	14.8	18.0
475341	2006 <i>BF</i> ₄₈		10 12.0 79°88	4°4/15.6	18		256678	2007 <i>YZ</i> ₃₁		10 12.0 263°45	6°1/16.9	18	
9 8	1 36.09	+19 43.1	1.661	2.480	16.6	21.3	9 8	1 34.87	+23 58.0	1.490	2.300	18.6	20.2
9 18	1 30.67	+20 0.2	1.591	2.486	13.2	21.1	9 18	1 30.24	+24 7.2	1.408	2.293	15.2	20.0
9 28	1 22.86	+19 57.2	1.542	2.492	9.4	20.8	9 28	1 22.86	+23 49.4	1.346	2.286	11.4	19.7
10 8	1 13.48	+19 34.1	1.517	2.497	5.7	20.6	10 8	1 13.56	+23 3.4	1.306	2.278	7.7	19.5
10 18	1 3.65	+18 54.0	1.519	2.503	4.6	20.6	10 18	1 3.56	+21 51.9	1.291	2.270	6.1	19.4
10 28	0 54.64	+18 3.0	1.547	2.509	7.3	20.8	10 28	0 54.35	+20 23.0	1.302	2.263	8.4	19.5
11 7	0 47.50	+17 9.3	1.602	2.514	11.1	21.0	11 7	0 47.19	+18 48.2	1.337	2.255	12.4	19.7
11 17	0 42.92	+16 20.4	1.679	2.520	14.5	21.2	11 17	0 42.93	+17 18.9	1.395	2.247	16.3	20.0
518751	2009 <i>SQ</i> ₃₃₂		10 12.0 11°45	7°5/21.2	18		259778	2004 <i>BH</i> ₃₁		10 12.0 229°89	0°3/12.2	18	
9 8													