

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
5477	Holmes		4 4.9 209°90	14.0°/29.1	18		205659	2001 XO₁₅₀		4 4.9 209°04	2°1/ 3.1	17	
3 2	13 40.07	+23 25.9	1.219	2.055	19.4	17.0	3 2	13 23.50	- 2 54.8	1.873	2.715	13.3	21.8
3 12	13 31.11	+24 23.8	1.164	2.052	16.6	16.8	3 12	13 17.82	- 2 8.1	1.790	2.709	9.8	21.6
3 22	13 18.30	+24 59.0	1.130	2.049	14.5	16.6	3 22	13 9.97	- 1 12.3	1.730	2.702	5.9	21.3
4 1	13 3.02	+24 57.3	1.117	2.045	14.1	16.6	4 1	13 0.63	- 0 12.7	1.699	2.694	2.3	21.1
4 11	12 47.31	+24 10.4	1.128	2.041	15.7	16.7	4 11	12 50.80	+ 0 43.7	1.696	2.685	4.2	21.2
4 21	12 33.18	+22 39.2	1.161	2.036	18.5	16.8	4 21	12 41.54	+ 1 30.7	1.721	2.676	8.4	21.4
5 1	12 22.19	+20 31.3	1.213	2.030	21.7	17.0	5 1	12 33.78	+ 2 3.2	1.771	2.665	12.3	21.6
5 11	12 15.06	+17 57.7	1.283	2.025	24.5	17.2	5 11	12 28.20	+ 2 18.5	1.844	2.654	15.6	21.8
485702	2011 YH₃₉		4 4.9 104°70	21°2/15.2	17		323427	2004 FP₄₆		4 4.9 312°34	3°7/ 5.6	18	
3 2	13 29.17	+36 26.5	1.081	1.906	22.0	20.4	3 2	13 40.16	- 5 27.2	0.969	1.818	22.2	19.9
3 12	13 23.29	+39 26.5	1.077	1.918	21.3	20.4	3 12	13 32.90	- 7 33.0	0.885	1.803	17.3	19.5
3 22	13 13.57	+41 41.3	1.091	1.929	21.4	20.5	3 22	13 20.61	- 9 42.9	0.820	1.787	11.4	19.1
4 1	13 1.59	+42 56.5	1.121	1.940	22.4	20.6	4 1	13 4.07	-11 51.7	0.779	1.773	5.1	18.7
4 11	12 49.56	+43 6.9	1.165	1.950	23.8	20.7	4 11	12 45.32	-13 52.3	0.763	1.759	5.6	18.7
4 21	12 39.43	+42 17.3	1.221	1.960	25.4	20.9	4 21	12 27.13	-15 38.6	0.772	1.745	12.4	19.0
5 1	12 32.52	+40 37.8	1.289	1.970	26.9	21.0	5 1	12 12.18	-17 10.1	0.803	1.733	19.0	19.3
5 11	12 29.32	+38 21.0	1.365	1.979	28.2	21.2	5 11	12 2.14	-18 32.0	0.852	1.721	24.5	19.6
167157	2003 SA₂₃₄		4 4.9 37°97	2°7/ 3.2	18		76749	2000 JV₇₃		4 4.9 53°72	2°7/ 2.2	18	
3 2	13 23.19	- 1 11.1	1.373	2.235	16.1	19.5	3 2	13 16.69	- 2 3.0	1.879	2.735	12.7	18.6
3 12	13 18.05	- 0 46.6	1.311	2.240	11.8	19.3	3 12	13 12.58	- 0 55.7	1.820	2.747	9.2	18.4
3 22	13 10.24	- 0 15.0	1.271	2.245	7.1	19.0	3 22	13 6.66	+ 0 19.2	1.785	2.759	5.5	18.2
4 1	13 0.69	+ 0 17.7	1.255	2.251	3.0	18.8	4 1	12 59.63	+ 1 35.0	1.778	2.772	2.7	18.0
4 11	12 50.72	+ 0 44.2	1.266	2.257	5.0	18.9	4 11	12 52.38	+ 2 44.3	1.798	2.784	4.6	18.2
4 21	12 41.66	+ 0 58.7	1.301	2.263	9.8	19.2	4 21	12 45.77	+ 3 41.1	1.846	2.797	8.2	18.4
5 1	12 34.63	+ 0 57.2	1.360	2.270	14.2	19.5	5 1	12 40.54	+ 4 20.9	1.918	2.810	11.6	18.7
5 11	12 30.31	+ 0 38.3	1.438	2.276	17.9	19.7	5 11	12 37.19	+ 4 41.9	2.012	2.823	14.5	18.9
427811	2005 GT₁₇₁		4 4.9 319°29	10°2/25.9	17		171252	2005 MF₅₃		4 4.9 261°07	4°5/10.0	18	
3 2	13 20.80	+19 32.8	1.732	2.586	13.7	19.6	3 2	13 18.06	-22 8.4	2.369	3.137	13.2	20.4
3 12	13 16.07	+20 47.7	1.664	2.565	11.6	19.5	3 12	13 13.57	-22 15.8	2.274	3.132	10.8	20.2
3 22	13 9.00	+21 51.4	1.618	2.545	10.3	19.3	3 22	13 7.31	-22 5.4	2.202	3.127	8.1	20.1
4 1	13 0.34	+22 34.3	1.596	2.526	10.5	19.3	4 1	12 59.85	-21 37.0	2.155	3.122	5.6	19.9
4 11	12 51.19	+22 48.6	1.599	2.506	12.2	19.3	4 11	12 51.98	-20 53.0	2.136	3.118	4.5	19.8
4 21	12 42.68	+22 31.1	1.623	2.488	14.6	19.5	4 21	12 44.52	-19 57.6	2.145	3.113	6.0	19.9
5 1	12 35.83	+21 42.2	1.668	2.470	17.3	19.6	5 1	12 38.25	-18 56.8	2.181	3.108	8.7	20.0
5 11	12 31.32	+20 25.8	1.729	2.453	19.7	19.7	5 11	12 33.73	-17 56.8	2.241	3.103	11.5	20.2
521182	2015 FL₄₁₁		4 4.9 256°80	4°6/29.9	17		416893	2005 QU₁₄₄		4 4.9 168°04	0°0/ 4.8	17	
3 2	13 15.62	+ 5 43.3	2.404	3.261	10.2	21.2	3 2	13 24.28	- 6 59.7	2.053	2.880	12.9	21.5
3 12	13 11.58	+ 7 8.3	2.327	3.251	7.6	21.0	3 12	13 18.17	- 6 54.9	1.974	2.883	9.6	21.3
3 22	13 6.01	+ 8 35.6	2.277	3.241	5.3	20.9	3 22	13 10.06	- 6 41.0	1.919	2.886	5.8	21.1
4 1	12 59.44	+ 9 58.5	2.255	3.230	4.6	20.8	4 1	13 0.64	- 6 20.5	1.892	2.889	1.7	20.8
4 11	12 52.55	+11 10.5	2.262	3.219	6.3	20.9	4 11	12 50.83	- 5 57.6	1.894	2.891	2.5	20.9
4 21	12 46.06	+12 6.6	2.296	3.209	8.9	21.0	4 21	12 41.61	- 5 36.5	1.925	2.892	6.6	21.1
5 1	12 40.62	+12 43.5	2.354	3.198	11.5	21.2	5 1	12 33.82	- 5 21.4	1.983	2.893	10.3	21.4
5 11	12 36.72	+13 0.5	2.434	3.186	13.9	21.3	5 11	12 28.06	- 5 15.5	2.063	2.894	13.5	21.6
282767	2006 HT₁₀₃		4 4.9 292°67	2°2/ 2.4	17		248551	2005 XH₁₁₅		4 4.9 260°92	0°6/ 5.6	17	
3 2	13 15.35	- 4 33.3	1.936	2.788	12.5	20.6	3 2	13 19.81	- 9 30.3	1.973	2.802	13.3	21.0
3 12	13 11.74	- 3 10.5	1.851	2.776	9.2	20.4	3 12	13 15.02	- 9 15.8	1.888	2.798	10.0	20.8
3 22	13 6.27	- 1 35.0	1.790	2.764	5.4	20.1	3 22	13 8.25	- 8 48.9	1.827	2.793	6.2	20.5
4 1	12 59.54	+ 0 6.6	1.757	2.752	2.3	19.9	4 1	13 0.13	- 8 12.5	1.792	2.788	2.1	20.2
4 11	12 52.40	+ 1 45.8	1.752	2.740	4.4	20.0	4 11	12 51.58	- 7 31.2	1.786	2.784	2.4	20.3
4 21	12 45.72	+ 3 14.5	1.776	2.729	8.3	20.2	4 21	12 43.53	- 6 50.4	1.808	2.779	6.6	20.5
5 1	12 40.31	+ 4 26.1	1.824	2.717	12.0	20.4	5 1	12 36.86	- 6 15.5	1.855	2.774	10.4	20.7
5 11	12 36.78	+ 5 16.7	1.894	2.706	15.2	20.6	5 11	12 32.18	- 5 50.8	1.926	2.770	13.8	20.9
406506	2007 VM₁₄₁		4 4.9 126°67	0°7/ 5.7	18		204154	2003 YJ₁₆₉		4 4.9 21°74	9°4/26.1	18	
3 2	13 23.06	-10 46.8	1.871	2.693	14.2	22.5	3 2	13 19.23	+18 37.7	1.822	2.676	13.0	19.3
3 12	13 17.31	-10 16.4	1.804	2.709	10.6	22.3	3 12	13 14.57	+20 1.4	1.777	2.680	10.9	19.2
3 22	13 9.51	- 9 31.5	1.760	2.724	6.6	22.1	3 22	13 7.89	+21 13.6	1.756	2.685	9.6	19.1
4 1	13 0.45	- 8 36.0	1.743	2.739	2.2	21.8	4 1	12 59.99	+22 5.5	1.760	2.689	9.7	19.1
4 11	12 51.12	- 7 35.6	1.755	2.753	2.5	21.9	4 11	12 51.86	+22 30.9	1.789	2.694	11.2	19.2
4 21	12 42.52	- 6 37.0	1.795	2.766	6.7	22.2	4 21	12 44.50	+22 27.4	1.840	2.700	13.4	19.4
5 1	12 35.50	- 5 46.3	1.862	2.778	10.6	22.4	5 1	12 38.70	+21 55.9	1.911	2.706	15.7	19.5
5 11	12 30.63	- 5 8.0	1.952	2.790	13.9	22.7	5 11	12 35.00	+20 59.9	2.000	2.712	17.7	19.7
153159	2000 SA₃₁₁		4 4.9 126°20	5°9/12.3	17		298753	2004 HU₂₇		4 4.9 323°64	2°5/ 2.5	17	
3 2	13 20.45	-28 2.2	2.691	3.411	12.9	20.2	3 2	13 16.79	- 1 14.7	1.960	2.815	12.3	20.1
3 12	13 15.15	-28 30.7	2.605	3.419	10.9	20.0	3 12	13 12.77	- 0 30.8	1.879	2.805	9.0	19.9
3 22	13 8.17	-28 41.0	2.541	3.428	8.8	19.9	3 22	13 6.87	+ 0 20.2	1.822	2.795	5.4	19.7
4 1	13 0.07	-28 32.0	2.501	3.436	6.9	19.8	4 1	12 59.73	+ 1 12.7	1.792	2.786	2.6	19.5
4 11	12 51.63	-28 4.9	2.489	3.444	5.9	19.7	4 11	12 52.19	+ 2 0.6	1.790	2.777	4.4	19.6
4 21	12 43.62	-27 22.7	2.504	3.452	6.5	19.8	4 21	12 45.13	+ 2 38.3	1.814	2.769	8.1	19.8
5 1	12 36.78	-26 30.6	2.547	3.460	8.2	19.9	5 1	12 39.36	+ 3 1.7	1.864	2.760	11.6	20.0
5 11	12 31.63	-25 34.4	2.615	3.467	10.3	20.0	5 11	12 35.47	+ 3 8.6	1.935	2.753	14.8	20.2
128539	2004 PD₆₅		4 4.9 186°19	0°9/ 5.8	18		190190	2005 WD₈₈		4 5.0 300°26	3°4/ 1		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
507444	2012 <i>ST</i> ₄₉		4 5.0 239°31'	0°6'	4.4	17							
3 2	13 19.03	- 6 9.4	2.133	2.969	12.1	21.6							
3 12	13 14.28	- 5 42.3	2.049	2.965	9.0	21.4							
3 22	13 7.72	- 5 5.7	1.990	2.960	5.4	21.2							
4 1	12 59.97	- 4 23.3	1.958	2.956	1.5	20.9							
4 11	12 51.85	- 3 40.0	1.955	2.951	2.8	21.0							
4 21	12 44.20	- 3 0.9	1.981	2.946	6.6	21.2							
5 1	12 37.80	- 2 30.5	2.032	2.941	10.2	21.4							
5 11	12 33.21	- 2 12.0	2.107	2.936	13.3	21.6							
124343	2001 <i>QF</i> ₁₁₇		4 5.0 226°30'	4°0'	8.4	18							
3 2	13 23.34	-18 26.4	1.745	2.542	16.1	20.2							
3 12	13 18.10	-18 26.4	1.651	2.533	12.9	20.0							
3 22	13 10.35	-18 5.0	1.578	2.523	9.1	19.7							
4 1	13 0.80	-17 22.3	1.530	2.512	5.4	19.5							
4 11	12 50.56	-16 21.8	1.508	2.500	4.2	19.4							
4 21	12 40.85	-15 10.3	1.515	2.488	7.4	19.5							
5 1	12 32.79	-13 56.5	1.547	2.475	11.5	19.7							
5 11	12 27.19	-12 49.1	1.601	2.462	15.3	19.9							
82689	2001 <i>PX</i> ₃₃		4 5.0 143°31'	4°4'	30.9	18							
3 2	13 19.87	+ 7 29.8	2.442	3.291	10.4	19.4							
3 12	13 14.55	+ 8 17.4	2.379	3.297	7.8	19.2							
3 22	13 7.71	+ 9 3.6	2.342	3.304	5.4	19.1							
4 1	12 59.93	+ 9 43.2	2.334	3.310	4.5	19.0							
4 11	12 51.96	+10 11.6	2.354	3.315	5.8	19.1							
4 21	12 44.51	+10 25.6	2.402	3.321	8.3	19.3							
5 1	12 38.21	+10 23.8	2.476	3.326	10.8	19.5							
5 11	12 33.54	+10 6.3	2.571	3.331	13.1	19.6							
278959	2008 <i>UF</i> ₉₂		4 5.0 172°25'	3°4'	31.9	18							
3 2	13 20.58	+ 4 14.2	2.587	3.431	10.0	21.3							
3 12	13 15.03	+ 5 0.0	2.516	3.434	7.4	21.1							
3 22	13 7.99	+ 5 46.9	2.471	3.437	4.8	21.0							
4 1	13 0.02	+ 6 30.2	2.456	3.440	3.4	20.9							
4 11	12 51.83	+ 7 5.4	2.470	3.442	4.8	21.0							
4 21	12 44.10	+ 7 29.0	2.513	3.443	7.4	21.1							
5 1	12 37.47	+ 7 38.7	2.582	3.444	10.1	21.3							
5 11	12 32.39	+ 7 34.1	2.674	3.444	12.4	21.5							
135987	2002 <i>UC</i> ₁₉		4 5.0 238°01'	0°4'	5.4	18							
3 2	13 21.67	- 7 49.8	2.191	3.016	12.2	19.9							
3 12	13 16.21	- 7 51.1	2.105	3.013	9.2	19.7							
3 22	13 8.89	- 7 43.4	2.043	3.009	5.6	19.5							
4 1	13 0.32	- 7 29.0	2.009	3.005	1.8	19.2							
4 11	12 51.35	- 7 11.1	2.004	3.001	2.3	19.3							
4 21	12 42.84	- 6 53.7	2.028	2.998	6.2	19.5							
5 1	12 35.60	- 6 40.8	2.079	2.994	9.7	19.7							
5 11	12 30.22	- 6 35.5	2.153	2.989	12.8	19.9							
462006	2006 <i>WZ</i> ₂₀₀		4 5.0 7°68'	5°8'	30.4	17							
3 2	13 17.51	+ 4 28.7	1.569	2.439	13.9	20.8							
3 12	13 13.60	+ 6 0.0	1.508	2.440	10.3	20.6							
3 22	13 7.47	+ 7 35.0	1.471	2.440	7.0	20.4							
4 1	12 59.91	+ 9 3.7	1.460	2.441	5.8	20.3							
4 11	12 52.00	+10 16.4	1.475	2.442	8.0	20.4							
4 21	12 44.79	+11 6.2	1.515	2.443	11.5	20.6							
5 1	12 39.23	+11 29.7	1.577	2.445	15.0	20.9							
5 11	12 35.91	+11 27.2	1.657	2.447	18.0	21.1							
430321	2013 <i>YJ</i> ₁₈		4 5.0 196°41'	1°6'	3.2	17							
3 2	13 19.92	- 2 58.5	2.418	3.255	10.9	22.1							
3 12	13 14.71	- 2 20.3	2.335	3.252	8.0	21.9							
3 22	13 7.89	- 1 35.5	2.278	3.249	4.7	21.7							
4 1	13 0.02	- 0 48.1	2.250	3.245	1.8	21.4							
4 11	12 51.83	- 0 2.9	2.251	3.241	3.3	21.5							
4 21	12 44.09	+ 0 35.5	2.281	3.236	6.6	21.7							
5 1	12 37.47	+ 1 3.4	2.338	3.231	9.8	21.9							
5 11	12 32.48	+ 1 18.7	2.419	3.225	12.5	22.1							
409322	2004 <i>TN</i> ₃₃₃		4 5.0 207°06'	1°4'	6.3	17							
3 2	13 21.22	-13 15.0	1.755	2.576	15.0	21.7							
3 12	13 16.33	-12 37.9	1.669	2.572	11.5	21.5							
3 22	13 9.16	-11 41.6	1.606	2.567	7.4	21.2							
4 1	13 0.44	-10 29.5	1.568	2.562	2.9	20.9							
4 11	12 51.22	- 9 8.0	1.559	2.556	2.7	20.9							
4 21	12 42.59	- 7 45.3	1.577	2.550	7.2	21.1							
5 1	12 35.54	- 6 29.7	1.621	2.543	11.5	21.4							
5 11	12 30.76	- 5 28.0	1.688	2.536	15.2	21.6							
361107	2006 <i>DN</i> ₁₆₁		4 5.0 334°13'	0°5'	4.6	17							
3 2	13 16.20	- 7 36.2	1.114	1.986	18.2	20.8							
3 12	13 13.63	- 7 7.9	1.038	1.971	13.7	20.4							
3 22	13 8.02	- 6 20.3	0.982	1.958	8.3	20.1							
4 1	13 0.20	- 5 18.6	0.947	1.945	2.3	19.7							
4 11	12 51.54	- 4 12.4	0.936	1.933	4.1	19.8							
4 21	12 43.61	- 3 12.3	0.947	1.923	10.2	20.1							
5 1	12 37.81	- 2 28.2	0.979	1.913	15.8	20.3							
5 11	12 35.09	- 2 6.1	1.029	1.906	20.6	20.6							
264562	2001 <i>TH</i> ₂		4 5.0 118°26'	0°1'	5.2	18							
3 2	13 22.21	- 8 47.9	2.083	2.907	12.8	21.8							
3 12	13 16.49	- 8 20.3	2.017	2.925	9.5	21.6							
3 22	13 8.96	- 7 41.5	1.976	2.942	5.8	21.4							
4 1	13 0.33	- 6 55.1	1.962	2.959	1.7	21.1							
4 11	12 51.48	- 6 6.1	1.978	2.975	2.4	21.2							
4 21	12 43.29	- 5 19.9	2.023	2.991	6.3	21.5							
5 1	12 36.51	- 4 41.4	2.094	3.006	9.8	21.7							
5 11	12 31.65	- 4 14.1	2.189	3.020	12.8	22.0							
425102	2009 <i>SN</i> ₁₁₁		4 5.0 78°30'	3°4'	7.8	18							
3 2	13 24.43	-15 40.2	1.792	2.597	15.4	21.2							
3 12	13 18.50	-16 0.9	1.727	2.615	12.0	21.0							
3 22	13 10.33	-16 4.9	1.684	2.633	8.2	20.8							
4 1	13 0.75	-15 52.6	1.667	2.652	4.6	20.6							
4 11	12 50.85	-15 27.5	1.677	2.670	3.7	20.6							
4 21	12 41.72	-14 54.7	1.715	2.688	6.7	20.8							
5 1	12 34.30	-14 20.5	1.779	2.705	10.3	21.1							
5 11	12 29.20	-13 50.8	1.866	2.723	13.6	21.3		</					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
219536	2001 QV ₁₉₉		4 5.0 204°09	1.7/ 6.9	17		430446	2000 QV ₁₃₇		4 5.0 248°76	1.1/ 3.5	16	
3 2	13 19.89	-14 40.8	2.310	3.112	12.5	21.2	3 2	13 17.71	- 4 11.6	2.924	3.754	9.4	22.4
3 12	13 14.87	-14 9.2	2.216	3.107	9.6	21.0	3 12	13 12.97	- 3 31.2	2.819	3.733	6.9	22.2
3 22	13 8.08	-13 22.0	2.146	3.101	6.3	20.8	3 22	13 6.83	- 2 43.9	2.741	3.711	4.1	22.0
4 1	13 0.12	-12 21.4	2.104	3.095	2.9	20.6	4 1	12 59.76	- 1 52.8	2.692	3.689	1.4	21.8
4 11	12 51.77	-11 12.0	2.091	3.088	2.3	20.5	4 11	12 52.34	- 1 2.1	2.674	3.666	2.7	21.8
4 21	12 43.86	- 9 59.6	2.107	3.080	5.7	20.7	4 21	12 45.17	- 0 15.8	2.686	3.642	5.7	22.0
5 1	12 37.15	- 8 50.4	2.152	3.072	9.2	20.9	5 1	12 38.86	+ 0 22.4	2.726	3.618	8.6	22.2
5 11	12 32.20	- 7 50.0	2.221	3.063	12.3	21.1	5 11	12 33.87	+ 0 49.7	2.790	3.593	11.1	22.3
172860	2005 EC ₇₉		4 5.0 0°04	3.7/ 2.5	18		505296	2012 WL ₁₈		4 5.0 171°01	0.7/ 5.9	17	
3 2	13 20.45	+ 0 12.7	1.238	2.111	16.7	19.5	3 2	13 18.18	-10 42.1	2.590	3.405	10.9	22.6
3 12	13 16.34	+ 0 47.6	1.175	2.109	12.3	19.2	3 12	13 13.37	-10 20.0	2.506	3.407	8.2	22.4
3 22	13 9.39	+ 1 29.5	1.133	2.108	7.5	18.9	3 22	13 7.07	- 9 47.4	2.447	3.409	5.1	22.2
4 1	13 0.55	+ 2 10.8	1.114	2.108	3.8	18.7	4 1	12 59.82	- 9 6.6	2.416	3.411	1.9	22.0
4 11	12 51.18	+ 2 42.7	1.120	2.108	6.1	18.8	4 11	12 52.29	- 8 21.5	2.414	3.412	1.9	22.0
4 21	12 42.70	+ 2 58.6	1.149	2.109	10.9	19.1	4 21	12 45.19	- 7 36.4	2.443	3.413	5.2	22.2
5 1	12 36.32	+ 2 54.3	1.200	2.112	15.5	19.4	5 1	12 39.12	- 6 55.6	2.499	3.414	8.3	22.4
5 11	12 32.77	+ 2 29.0	1.270	2.114	19.5	19.6	5 11	12 34.57	- 6 22.6	2.579	3.414	11.0	22.6
498830	2008 WU ₁		4 5.0 190°86	1.6/ 3.1	17		153973	2002 AH ₈₂		4 5.0 116°87	2.7/ 2.3	18	
3 2	13 19.22	- 2 44.8	2.589	3.425	10.3	22.5	3 2	13 19.98	- 1 23.6	1.952	2.801	12.5	20.2
3 12	13 14.11	- 2 11.4	2.507	3.423	7.5	22.3	3 12	13 14.96	- 0 23.2	1.890	2.813	9.1	20.0
3 22	13 7.50	- 1 11.7	2.450	3.421	4.5	22.1	3 22	13 8.11	+ 0 43.9	1.853	2.825	5.5	19.8
4 1	12 59.93	- 0 19.9	2.423	3.418	1.8	21.9	4 1	13 0.12	+ 1 51.5	1.843	2.837	2.7	19.7
4 11	12 52.09	+ 0 29.5	2.426	3.415	3.2	22.0	4 11	12 51.90	+ 2 52.7	1.863	2.848	4.5	19.8
4 21	12 44.65	+ 1 12.1	2.458	3.411	6.3	22.2	4 21	12 44.33	+ 3 41.8	1.910	2.859	8.1	20.1
5 1	12 38.26	+ 1 44.3	2.518	3.407	9.3	22.4	5 1	12 38.18	+ 4 15.0	1.982	2.870	11.5	20.3
5 11	12 33.38	+ 2 3.9	2.601	3.402	11.9	22.6	5 11	12 33.96	+ 4 30.5	2.075	2.880	14.4	20.5
134317	4117 T ₋₁		4 5.0 295°81	1.3/ 4.2	17		160476	2006 SO ₁₂₄		4 5.0 199°35	5.9/ 30.1	17	
3 2	13 22.07	- 4 49.9	1.393	2.250	16.2	19.6	3 2	13 20.61	+ 6 52.7	1.797	2.658	12.9	20.6
3 12	13 17.59	- 4 30.9	1.307	2.232	12.1	19.3	3 12	13 15.69	+ 8 15.5	1.732	2.656	9.8	20.4
3 22	13 10.27	- 3 59.8	1.241	2.215	7.3	18.9	3 22	13 8.68	+ 9 39.1	1.691	2.654	6.9	20.2
4 1	13 0.86	- 3 21.1	1.200	2.198	2.2	18.6	4 1	13 0.31	+10 54.9	1.677	2.652	6.0	20.1
4 11	12 50.61	- 2 41.9	1.185	2.181	4.1	18.6	4 11	12 51.58	+11 54.6	1.690	2.649	7.9	20.2
4 21	12 40.93	- 2 9.7	1.195	2.164	9.5	18.9	4 21	12 43.49	+12 32.7	1.729	2.646	11.0	20.4
5 1	12 33.14	- 1 50.9	1.228	2.147	14.6	19.1	5 1	12 36.94	+12 46.6	1.791	2.642	14.2	20.6
5 11	12 28.14	- 1 49.7	1.280	2.131	19.0	19.3	5 11	12 32.51	+12 36.7	1.872	2.639	17.0	20.8
315424	2007 VU ₂₅₄		4 5.0 169°02	2.5/ 2.7	18		316758	1999 RY ₂₄₆		4 5.0 172°80	1.9/ 2.7	17	
3 2	13 22.84	- 1 38.2	1.941	2.785	12.8	21.9	3 2	13 17.50	- 4 21.9	2.217	3.059	11.5	20.8
3 12	13 17.16	- 0 47.3	1.869	2.790	9.4	21.7	3 12	13 13.04	- 3 5.4	2.141	3.061	8.4	20.6
3 22	13 9.49	+ 0 10.7	1.822	2.793	5.6	21.5	3 22	13 6.94	- 1 39.2	2.090	3.063	4.9	20.3
4 1	13 0.53	+ 1 10.2	1.803	2.797	2.6	21.3	4 1	12 59.79	- 0 9.1	2.069	3.064	2.0	20.1
4 11	12 51.23	+ 2 4.4	1.812	2.799	4.4	21.4	4 11	12 52.36	+ 1 18.0	2.077	3.065	3.8	20.3
4 21	12 42.57	+ 2 47.8	1.850	2.801	8.2	21.6	4 21	12 45.43	+ 2 35.5	2.114	3.066	7.3	20.5
5 1	12 35.39	+ 3 16.2	1.913	2.802	11.8	21.9	5 1	12 39.68	+ 3 38.2	2.178	3.066	10.5	20.7
5 11	12 30.26	+ 3 27.6	1.998	2.802	14.8	22.1	5 11	12 35.62	+ 4 23.4	2.264	3.066	13.4	20.9
365809	2011 QT ₉₈		4 5.0 170°26	1.2/ 3.5	18		327407	2005 VG ₄₂		4 5.0 223°03	0.8/ 4.1	18	
3 2	13 16.01	- 5 2.8	2.614	3.450	10.2	21.0	3 2	13 19.81	- 6 45.8	2.368	3.196	11.4	22.2
3 12	13 11.73	- 4 10.3	2.535	3.452	7.4	20.8	3 12	13 14.77	- 5 55.4	2.272	3.184	8.4	22.0
3 22	13 6.06	- 3 9.8	2.482	3.454	4.4	20.7	3 22	13 8.03	- 4 54.2	2.202	3.172	5.0	21.7
4 1	12 59.51	- 2 5.6	2.458	3.455	1.4	20.4	4 1	13 0.13	- 3 46.2	2.161	3.158	1.4	21.5
4 11	12 52.73	- 1 2.5	2.464	3.456	2.8	20.5	4 11	12 51.83	- 2 37.0	2.150	3.144	2.8	21.5
4 21	12 46.35	- 0 5.4	2.500	3.457	5.9	20.8	4 21	12 43.91	- 1 32.2	2.168	3.129	6.5	21.8
5 1	12 40.96	+ 0 41.8	2.562	3.458	8.9	20.9	5 1	12 37.11	- 0 37.1	2.214	3.113	9.9	21.9
5 11	12 37.00	+ 1 16.3	2.648	3.458	11.4	21.1	5 11	12 31.99	+ 0 4.6	2.283	3.097	12.9	22.1
177002	2003 AG ₅₉		4 5.0 15°85	10.2/ 25.3	18		348892	2006 SA ₂₉₄		4 5.0 165°97	0.4/ 5.5	17	
3 2	13 15.33	+17 16.7	1.558	2.428	14.0	18.4	3 2	13 17.16	- 9 58.4	2.690	3.508	10.5	22.1
3 12	13 11.96	+19 5.5	1.522	2.436	11.6	18.3	3 12	13 12.55	- 9 24.9	2.607	3.511	7.8	22.0
3 22	13 6.44	+20 42.3	1.509	2.444	10.3	18.2	3 22	13 6.55	- 8 41.2	2.550	3.514	4.8	21.8
4 1	12 59.63	+21 56.3	1.520	2.454	10.6	18.2	4 1	12 59.67	- 7 50.3	2.521	3.517	1.6	21.5
4 11	12 52.61	+22 40.0	1.555	2.465	12.3	18.4	4 11	12 52.55	- 6 56.1	2.522	3.520	1.9	21.6
4 21	12 46.40	+22 50.3	1.611	2.477	14.7	18.5	4 21	12 45.82	- 6 3.1	2.553	3.522	5.1	21.8
5 1	12 41.84	+22 28.4	1.686	2.489	17.1	18.7	5 1	12 40.09	- 5 15.7	2.612	3.524	8.1	22.0
5 11	12 39.47	+21 38.5	1.777	2.503	19.2	18.9	5 11	12 35.79	- 4 37.2	2.695	3.525	10.7	22.2
341606	2007 UA ₁₁₅		4 5.0 123°34	3.0/ 8.5	17		100285	1995 CG ₃		4 5.0 308°86	3.5/ 1.3	18	
3 2	13 17.59	-18 24.2	2.309	3.099	12.9	20.8	3 2	13 16.29	+ 0 12.1	1.869	2.729	12.5	19.4
3 12	13 13.14	-18 7.4	2.226	3.104	10.2	20.7	3 12	13 12.51	+ 1 22.7	1.790	2.718	9.2	19.1
3 22	13 7.02	-17 33.5	2.165	3.109	7.1	20.5	3 22	13 6.80	+ 2 40.7	1.735	2.708	5.7	18.9
4 1	12 59.80	-16 44.2	2.132	3.114	4.1	20.3	4 1	12 59.78	+ 3 59.3	1.707	2.697	3.5	18.8
4 11	12 52.29	-15 43.3	2.126	3.118	3.1	20.2	4 11	12 52.36	+ 5 10.6	1.707	2.687	5.5	18.9
4 21	12 45.27	-14 36.2	2.149	3.123	5.5	20.4	4 21	12 45.43	+ 6 7.6	1.733	2.677	9.2	19.0
5 1	12 39.45	-13 29.0	2.200	3.127	8.6	20.6	5 1	12 39.83	+ 6 45.8	1.783	2.668	12.7	19.2
5 11	12 35.34	-12 27.6	2.275	3.132	11.5	20.8	5 11	12 36.18	+ 7 2.9	1.854	2.658	15.8	19.4
439825	2015 KP ₇₃		4 5.0 76°30	0.9/ 3.9	17		143785	2003 WR ₇₆		4 5.0 62°01	2.3/ 6.7	18	
3 2	13 15.78	- 6 44.4	2.237	3.076	11.6								

EPHEMERIDES

4 5.0

4 5.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
497294	2005 <i>SK</i> ₁₁₀		4 5.0 241°29	0°0/ 4.8 17			394182	2006 <i>RO</i> ₇₀		4 5.0 144°50	1°3/ 6.4 17		
3 2	13 20.55	- 8 53.8	2.157	2.982	12.4	22.8	3 2	13 20.20	-11 13.2	2.427	3.239	11.6	20.9
3 12	13 15.54	- 8 17.8	2.057	2.966	9.3	22.5	3 12	13 14.97	-11 11.9	2.345	3.243	8.8	20.7
3 22	13 8.61	- 7 29.0	1.982	2.949	5.7	22.3	3 22	13 8.10	-11 0.0	2.287	3.247	5.6	20.5
4 1	13 0.33	- 6 30.7	1.935	2.931	1.7	22.0	4 1	13 0.18	-10 39.2	2.257	3.250	2.3	20.3
4 11	12 51.55	- 5 28.2	1.916	2.913	2.5	22.0	4 11	12 51.94	-10 12.9	2.257	3.254	2.1	20.3
4 21	12 43.15	- 4 27.4	1.927	2.894	6.6	22.2	4 21	12 44.16	- 9 44.7	2.285	3.257	5.4	20.5
5 1	12 35.97	- 3 34.3	1.965	2.875	10.4	22.4	5 1	12 37.52	- 9 18.7	2.342	3.260	8.6	20.7
5 11	12 30.66	- 2 53.5	2.026	2.855	13.8	22.6	5 11	12 32.55	- 8 58.8	2.422	3.263	11.4	20.9
178830	Anne-Véronique		4 5.0 284°32	1°2/ 4.0 17			206907	2004 <i>KA</i> ₁₄		4 5.0 314°42	2°4/ 2.4 17		
3 2	13 20.67	- 5 23.6	1.624	2.473	14.7	21.1	3 2	13 14.77	- 3 12.5	1.970	2.825	12.2	20.1
3 12	13 16.22	- 4 51.1	1.531	2.454	10.9	20.9	3 12	13 11.36	- 2 3.7	1.883	2.809	9.0	19.8
3 22	13 9.30	- 4 6.0	1.462	2.434	6.6	20.6	3 22	13 6.12	- 0 44.4	1.820	2.794	5.3	19.6
4 1	13 0.59	- 3 13.0	1.417	2.415	2.0	20.2	4 1	12 59.63	+ 0 39.5	1.784	2.779	2.4	19.3
4 11	12 51.18	- 2 19.0	1.400	2.395	3.8	20.3	4 11	12 52.72	+ 2 0.5	1.776	2.764	4.4	19.4
4 21	12 42.23	- 1 31.4	1.409	2.375	8.7	20.5	4 21	12 46.23	+ 3 11.3	1.796	2.749	8.2	19.6
5 1	12 34.87	- 0 56.6	1.442	2.355	13.3	20.7	5 1	12 40.96	+ 4 6.1	1.840	2.735	11.8	19.8
5 11	12 29.92	- 0 39.1	1.496	2.335	17.3	20.9	5 11	12 37.52	+ 4 41.7	1.906	2.721	15.0	20.0
121355	1999 <i>TQ</i> ₄₉		4 5.0 38°24	0°6/ 4.4 17			188024	2001 <i>UO</i> ₇₁		4 5.0 234°90	1°1/ 6.2 17		
3 2	13 18.04	- 7 16.7	1.686	2.533	14.3	20.2	3 2	13 18.23	-13 8.6	1.924	2.745	13.9	20.6
3 12	13 13.88	- 6 36.1	1.619	2.540	10.6	19.9	3 12	13 13.97	-12 21.3	1.834	2.738	10.6	20.4
3 22	13 7.63	- 5 42.6	1.575	2.547	6.3	19.7	3 22	13 7.71	-11 15.7	1.769	2.731	6.7	20.1
4 1	13 0.04	- 4 41.3	1.557	2.554	1.7	19.4	4 1	13 0.10	- 9 55.4	1.729	2.724	2.6	19.8
4 11	12 52.12	- 3 39.2	1.566	2.562	3.2	19.5	4 11	12 52.05	- 8 27.0	1.718	2.716	2.4	19.8
4 21	12 44.89	- 2 43.4	1.602	2.570	7.6	19.8	4 21	12 44.51	- 6 58.1	1.736	2.709	6.7	20.1
5 1	12 39.21	- 1 59.9	1.662	2.578	11.6	20.1	5 1	12 38.34	- 5 36.8	1.780	2.701	10.7	20.3
5 11	12 35.66	- 1 32.3	1.744	2.587	15.1	20.3	5 11	12 34.18	- 4 29.3	1.847	2.693	14.2	20.5
430792	2004 <i>TG</i> ₃₀₉		4 5.0 139°57	3°6/ 9.6 17			506703	2006 <i>UD</i> ₇₇		4 5.0 180°48	1°2/ 6.6 18		
3 2	13 19.25	-21 48.2	2.379	3.146	13.2	21.4	3 2	13 18.11	-12 34.4	2.873	3.676	10.3	22.8
3 12	13 14.31	-21 19.8	2.296	3.157	10.6	21.3	3 12	13 13.23	-12 17.7	2.784	3.677	7.8	22.6
3 22	13 7.70	-20 32.0	2.237	3.168	7.6	21.1	3 22	13 6.98	-11 50.4	2.720	3.677	5.0	22.4
4 1	13 0.04	-19 26.3	2.204	3.178	4.8	20.9	4 1	12 59.85	-11 14.6	2.685	3.677	2.2	22.2
4 11	12 52.13	-18 6.8	2.200	3.188	3.7	20.9	4 11	12 52.46	-10 33.2	2.680	3.677	1.9	22.2
4 21	12 44.76	-16 39.5	2.226	3.197	5.5	21.0	4 21	12 45.43	- 9 50.1	2.705	3.676	4.7	22.4
5 1	12 38.63	-15 11.3	2.279	3.206	8.4	21.2	5 1	12 39.33	- 9 9.3	2.758	3.675	7.5	22.6
5 11	12 34.25	-13 49.0	2.358	3.214	11.2	21.4	5 11	12 34.63	- 8 34.3	2.837	3.674	10.0	22.7
419836	2010 <i>XJ</i> ₇₁		4 5.0 110°74	1°0/ 3.9 18			161729	2006 <i>SZ</i> ₂₃		4 5.0 202°23	3°8/ 31.1 18		
3 2	13 21.55	- 6 11.6	2.050	2.883	12.7	22.0	3 2	13 16.41	+ 3 55.7	2.452	3.305	10.2	20.3
3 12	13 16.00	- 5 21.5	1.990	2.905	9.3	21.8	3 12	13 12.13	+ 5 6.4	2.380	3.303	7.5	20.1
3 22	13 8.68	- 4 21.5	1.956	2.926	5.4	21.6	3 22	13 6.38	+ 6 19.5	2.334	3.301	5.0	20.0
4 1	13 0.31	- 3 16.8	1.950	2.947	1.6	21.4	4 1	12 59.68	+ 7 29.5	2.317	3.299	3.8	19.9
4 11	12 51.78	- 2 13.6	1.973	2.967	3.0	21.5	4 11	12 52.72	+ 8 30.2	2.329	3.297	5.4	20.0
4 21	12 43.94	- 1 17.6	2.025	2.986	6.8	21.8	4 21	12 46.19	+ 9 17.4	2.369	3.294	8.0	20.1
5 1	12 37.51	- 0 33.4	2.104	3.005	10.3	22.1	5 1	12 40.71	+ 9 47.9	2.434	3.291	10.7	20.3
5 11	12 32.98	- 0 3.8	2.205	3.023	13.2	22.3	5 11	12 36.74	+10 0.9	2.520	3.288	13.1	20.5
321834	2010 <i>RK</i> ₇₈		4 5.0 143°32	0°3/ 5.3 18			141265	2001 <i>YE</i> ₂₈		4 5.0 348°29	9°4/ 25.1 17		
3 2	13 22.67	- 9 19.8	2.000	2.824	13.3	21.8	3 2	13 19.04	+20 48.1	2.015	2.862	12.3	19.2
3 12	13 17.00	- 8 51.0	1.928	2.835	9.9	21.6	3 12	13 14.39	+22 8.8	1.965	2.859	10.5	19.1
3 22	13 9.39	- 8 9.8	1.879	2.845	6.1	21.4	3 22	13 7.84	+23 17.7	1.939	2.856	9.5	19.0
4 1	13 0.54	- 7 19.7	1.858	2.855	1.9	21.2	4 1	13 0.11	+24 6.6	1.938	2.854	9.8	19.1
4 11	12 51.40	- 6 26.2	1.867	2.864	2.5	21.2	4 11	12 52.12	+24 29.7	1.961	2.852	11.2	19.1
4 21	12 42.90	- 5 35.0	1.904	2.872	6.6	21.5	4 21	12 44.78	+24 24.7	2.007	2.850	13.2	19.3
5 1	12 35.86	- 4 51.5	1.967	2.880	10.3	21.7	5 1	12 38.88	+23 52.4	2.074	2.848	15.2	19.4
5 11	12 30.83	- 4 19.9	2.054	2.887	13.5	21.9	5 11	12 34.94	+22 55.9	2.157	2.847	17.1	19.5
453871	2011 <i>UE</i> ₁₁₆		4 5.0 107°08	3°5/ 1.9 18			342935	2009 <i>AV</i> ₂₁		4 5.0 283°73	0°5/ 5.6 17		
3 2	13 24.19	+ 0 6.8	1.655	2.508	14.3	21.7	3 2	13 17.91	-10 8.3	2.102	2.930	12.6	21.4
3 12	13 18.25	+ 1 10.3	1.605	2.529	10.4	21.5	3 12	13 13.52	- 9 40.7	2.021	2.929	9.5	21.2
3 22	13 10.14	+ 2 19.3	1.578	2.549	6.3	21.3	3 22	13 7.34	- 9 0.5	1.963	2.929	5.9	21.0
4 1	13 0.74	+ 3 26.4	1.578	2.570	3.6	21.2	4 1	12 59.98	- 8 10.7	1.932	2.928	2.0	20.7
4 11	12 51.18	+ 4 23.5	1.606	2.589	5.5	21.3	4 11	12 52.28	- 7 16.4	1.930	2.928	2.3	20.7
4 21	12 42.52	+ 5 4.9	1.662	2.608	9.3	21.6	4 21	12 45.07	- 6 23.2	1.956	2.927	6.2	21.0
5 1	12 35.64	+ 5 27.2	1.741	2.626	12.9	21.9	5 1	12 39.12	- 5 36.5	2.008	2.927	9.8	21.2
5 11	12 31.07	+ 5 29.7	1.841	2.644	16.0	22.1	5 11	12 34.98	- 5 0.8	2.084	2.926	13.0	21.4
430165	2013 <i>TQ</i> ₈₀		4 5.0 188°09	1°3/ 3.7 17			103855	2000 <i>DP</i> ₃₇		4 5.0 97°76	0°9/ 4.1 17		
3 2	13 18.77	- 5 39.4	2.042	2.882	12.4	22.0	3 2	13 18.15	- 5 58.7	2.044	2.884	12.4	20.2
3 12	13 14.16	- 4 45.9	1.964	2.882	9.1	21.8	3 12	13 13.69	- 5 19.2	1.968	2.886	9.1	20.0
3 22	13 7.71	- 3 41.5	1.910	2.881	5.4	21.5	3 22	13 7.43	- 4 29.7	1.917	2.888	5.4	19.8
4 1	13 0.07	- 2 31.6	1.884	2.881	1.7	21.3	4 1	13 0.01	- 3 34.5	1.893	2.890	1.6	19.5
4 11	12 52.09	- 1 22.4	1.886	2.879	3.3	21.4	4 11	12 52.27	- 2 39.5	1.898	2.892	3.0	19.6
4 21	12 44.63	- 0 20.4	1.917	2.878	7.2	21.6	4 21	12 45.06	- 1 50.3	1.930	2.894	6.9	19.8
5 1	12 38.48	+ 0 29.1	1.974	2.876	10.8	21.9	5 1	12 39.14	- 1 11.7	1.988	2.896	10.5	20.1
5 11	12 34.18	+ 1 2.8	2.053	2.874	13.9	22.1	5 11	12 35.06	- 0 46.9	2.069	2.898	13.5	20.3
32600	2001 <i>QF</i> ₁₇₃		4 5.0 114°35	0°2/ 4.7 18 R			30621	4189 <i>P-L</i>		4 5.0 69°02	2°7/ 7.4 18		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
238732	2005 <i>GO</i> ₁₀₈		4 5.0 276°58	1.5/ 3.6	17		289974	2005 <i>NF</i> ₁₁₆		4 5.1 100°45	2.2/ 2.9	18	
3 2	13 18.81	- 3 38.8	2.170	3.012	11.7	21.0	3 2	13 21.99	- 2 47.9	1.872	2.717	13.2	22.0
3 12	13 14.22	- 3 6.8	2.077	2.996	8.7	20.8	3 12	13 16.46	- 1 53.2	1.818	2.739	9.6	21.8
3 22	13 7.81	- 2 26.9	2.009	2.981	5.2	20.5	3 22	13 9.04	- 0 51.0	1.788	2.760	5.7	21.6
4 1	13 0.15	- 1 43.1	1.968	2.965	1.8	20.3	4 1	13 0.48	+ 0 12.6	1.786	2.781	2.4	21.4
4 11	12 52.04	- 1 0.6	1.956	2.949	3.3	20.3	4 11	12 51.76	+ 1 10.9	1.812	2.801	4.1	21.6
4 21	12 44.32	- 0 24.2	1.973	2.933	7.1	20.5	4 21	12 43.81	+ 1 58.1	1.867	2.821	7.9	21.9
5 1	12 37.79	+ 0 1.6	2.015	2.917	10.6	20.7	5 1	12 37.39	+ 2 30.2	1.946	2.840	11.3	22.1
5 11	12 33.03	+ 0 14.1	2.080	2.900	13.8	20.9	5 11	12 33.00	+ 2 45.6	2.048	2.859	14.3	22.3
221894	2008 <i>JK</i> ₃₅		4 5.0 283°29	1.6/ 3.6	17		243951	2001 <i>QX</i> ₁₆₃		4 5.1 160°58	1.3/ 7.1	18	
3 2	13 18.47	- 5 17.3	1.726	2.575	13.9	20.2	3 2	13 16.82	- 14 52.7	3.033	3.826	10.0	21.7
3 12	13 14.37	- 4 25.7	1.639	2.562	10.3	20.0	3 12	13 12.20	- 14 11.2	2.947	3.833	7.7	21.5
3 22	13 8.08	- 3 21.2	1.576	2.549	6.1	19.7	3 22	13 6.34	- 13 17.6	2.886	3.839	5.0	21.3
4 1	13 0.26	- 2 9.4	1.539	2.535	2.0	19.4	4 1	12 59.70	- 12 14.1	2.855	3.845	2.3	21.2
4 11	12 51.90	- 0 57.9	1.529	2.522	3.9	19.5	4 11	12 52.86	- 11 4.6	2.854	3.850	1.8	21.1
4 21	12 44.05	+ 0 5.6	1.546	2.509	8.4	19.7	4 21	12 46.41	- 9 53.6	2.883	3.855	4.4	21.3
5 1	12 37.68	+ 0 54.4	1.588	2.495	12.6	19.9	5 1	12 40.85	- 8 45.8	2.942	3.859	7.1	21.5
5 11	12 33.48	+ 1 24.7	1.650	2.482	16.3	20.1	5 11	12 36.58	- 7 45.1	3.027	3.863	9.5	21.7
249493	2009 <i>VF</i> ₃₂		4 5.0 199°64	1.4/ 3.5	17		428723	2008 <i>RK</i> ₅₉		4 5.1 174°72	1.7/ 3.1	17	
3 2	13 19.93	- 4 32.3	2.260	3.096	11.6	21.9	3 2	13 18.98	- 3 24.1	2.378	3.216	11.0	22.0
3 12	13 14.89	- 3 43.9	2.176	3.092	8.5	21.7	3 12	13 14.07	- 2 32.9	2.300	3.218	8.0	21.8
3 22	13 8.13	- 2 46.5	2.117	3.088	5.0	21.5	3 22	13 7.58	- 1 34.3	2.249	3.220	4.7	21.6
4 1	13 0.23	- 1 44.9	2.087	3.083	1.7	21.3	4 1	13 0.08	- 0 33.0	2.226	3.222	1.9	21.4
4 11	12 51.99	- 0 44.5	2.087	3.078	3.3	21.4	4 11	12 52.31	+ 0 25.7	2.233	3.223	3.4	21.5
4 21	12 44.21	+ 0 9.1	2.115	3.072	6.9	21.6	4 21	12 45.00	+ 1 16.7	2.269	3.223	6.7	21.7
5 1	12 37.62	+ 0 51.4	2.170	3.066	10.3	21.8	5 1	12 38.83	+ 1 56.1	2.332	3.223	9.8	21.9
5 11	12 32.77	+ 1 19.4	2.248	3.059	13.2	22.0	5 11	12 34.28	+ 2 21.4	2.417	3.222	12.5	22.1
157730	2006 <i>BS</i> ₈₈		4 5.0 261°89	0.5/ 6.1	18		83217	2001 <i>RF</i> ₂₇		4 5.1 142°43	0.2/ 4.8	18	
3 2	13 11.51	- 10 21.2	4.501	5.309	6.7	21.3	3 2	13 18.68	- 7 17.6	2.343	3.172	11.4	20.0
3 12	13 7.99	- 10 7.3	4.410	5.307	5.1	21.2	3 12	13 13.88	- 6 51.4	2.265	3.176	8.5	19.8
3 22	13 3.69	- 9 47.7	4.345	5.305	3.2	21.0	3 22	13 7.48	- 6 15.9	2.212	3.180	5.1	19.6
4 1	12 58.90	- 9 23.8	4.309	5.303	1.2	20.9	4 1	13 0.05	- 5 34.5	2.187	3.184	1.4	19.3
4 11	12 53.96	- 8 57.5	4.304	5.301	1.2	20.9	4 11	12 52.35	- 4 51.5	2.192	3.188	2.3	19.4
4 21	12 49.22	- 8 30.7	4.329	5.299	3.1	21.0	4 21	12 45.11	- 4 11.7	2.225	3.191	5.9	19.6
5 1	12 45.01	- 8 5.7	4.383	5.297	5.0	21.2	5 1	12 39.03	- 3 39.0	2.285	3.195	9.2	19.8
5 11	12 41.59	- 7 44.4	4.463	5.296	6.7	21.3	5 11	12 34.59	- 3 16.7	2.369	3.198	12.0	20.0
347291	2011 <i>MQ</i> ₁₀		4 5.0 141°92	4.2/ 30.4	17		455523	2003 <i>YY</i> ₈₁		4 5.1 68°07	4.4/ 1.6	16	
3 2	13 17.14	+ 6 13.3	2.623	3.474	9.7	21.1	3 2	13 24.00	+ 2 7.5	1.446	2.307	15.4	21.6
3 12	13 12.53	+ 7 23.2	2.562	3.482	7.2	21.0	3 12	13 18.28	+ 3 6.7	1.406	2.334	11.2	21.4
3 22	13 6.56	+ 8 33.3	2.528	3.490	5.0	20.8	3 22	13 10.22	+ 4 8.8	1.389	2.361	7.0	21.2
4 1	12 59.75	+ 9 37.9	2.522	3.498	4.2	20.8	4 1	13 0.82	+ 5 5.6	1.398	2.387	4.5	21.1
4 11	12 52.75	+ 10 32.0	2.546	3.505	5.6	20.9	4 11	12 51.35	+ 5 49.1	1.433	2.414	6.4	21.3
4 21	12 46.20	+ 11 11.9	2.598	3.512	7.9	21.1	4 21	12 42.96	+ 6 14.0	1.494	2.440	10.2	21.6
5 1	12 40.68	+ 11 35.3	2.675	3.518	10.3	21.2	5 1	12 36.55	+ 6 18.2	1.579	2.466	13.9	21.8
5 11	12 36.60	+ 11 42.0	2.773	3.525	12.4	21.4	5 11	12 32.61	+ 6 2.3	1.682	2.492	17.0	22.1
484787	2009 <i>CC</i> ₃₀		4 5.0 148°03	13°1/ 12.3	18		341051	2007 <i>HN</i> ₁		4 5.1 304°27	2°8/ 3.2	17	
3 2	13 36.51	- 30 44.5	1.342	2.079	22.9	21.6	3 2	13 24.34	+ 0 38.4	1.662	2.514	14.2	20.0
3 12	13 29.30	- 32 51.5	1.270	2.086	20.0	21.4	3 12	13 19.02	+ 0 46.4	1.564	2.488	10.7	19.7
3 22	13 17.93	- 34 30.1	1.214	2.092	17.0	21.2	3 22	13 11.09	+ 0 58.4	1.489	2.461	6.6	19.4
4 1	13 3.33	- 35 29.8	1.180	2.098	14.3	21.1	4 1	13 1.23	+ 1 9.7	1.440	2.435	3.0	19.1
4 11	12 47.33	- 35 44.7	1.167	2.104	13.1	21.0	4 11	12 50.52	+ 1 14.6	1.419	2.408	4.9	19.2
4 21	12 32.18	- 35 17.3	1.178	2.108	13.8	21.1	4 21	12 40.21	+ 1 8.6	1.424	2.382	9.4	19.4
5 1	12 19.91	- 34 18.3	1.211	2.113	16.1	21.2	5 1	12 31.50	+ 0 48.3	1.453	2.356	13.9	19.6
5 11	12 11.77	- 33 3.4	1.263	2.116	19.0	21.4	5 11	12 25.27	+ 0 12.3	1.503	2.331	17.8	19.8
233150	2005 <i>UR</i> ₂₃₀		4 5.1 135°31	1°1/ 3.9	18		27653	4208 <i>T</i> ₋₃		4 5.1 176°63	2°1/ 2.9	18	
3 2	13 19.98	- 5 51.1	2.063	2.900	12.5	20.5	3 2	13 22.35	- 1 32.0	2.216	3.055	11.6	19.5
3 12	13 14.97	- 5 2.2	1.993	2.909	9.1	20.3	3 12	13 16.65	- 0 53.2	2.140	3.057	8.5	19.3
3 22	13 8.17	- 4 3.3	1.948	2.919	5.4	20.1	3 22	13 9.18	- 0 8.6	2.089	3.059	5.1	19.1
4 1	13 0.24	- 2 59.3	1.931	2.928	1.6	19.9	4 1	13 0.56	+ 0 37.3	2.066	3.060	2.3	18.9
4 11	12 52.05	- 1 56.3	1.943	2.936	3.1	20.0	4 11	12 51.63	+ 1 19.2	2.073	3.061	3.8	19.0
4 21	12 44.46	- 1 0.2	1.983	2.944	6.9	20.2	4 21	12 43.24	+ 1 52.4	2.109	3.061	7.3	19.2
5 1	12 38.20	+ 0 15.9	2.050	2.952	10.5	20.5	5 1	12 36.12	+ 2 13.5	2.171	3.060	10.6	19.4
5 11	12 33.80	+ 0 13.6	2.139	2.959	13.4	20.7	5 11	12 30.82	+ 2 20.6	2.256	3.059	13.4	19.6
91211	1998 <i>YJ</i> ₂		4 5.1 329°41	4°8/ 8.2	18		272938	2006 <i>BV</i> ₂₅₆		4 5.1 182°97	0°8/ 5.8	17	
3 2	13 21.74	- 16 59.1	1.319	2.144	18.8	18.7	3 2	13 20.96	- 10 4.9	2.099	2.922	12.8	21.2
3 12	13 17.56	- 17 26.4	1.240	2.138	15.0	18.4	3 12	13 15.81	- 9 52.3	2.017	2.922	9.7	21.0
3 22	13 10.37	- 17 31.1	1.180	2.132	10.6	18.2	3 22	13 8.76	- 9 27.8	1.958	2.922	6.1	20.8
4 1	13 1.01	- 17 12.4	1.142	2.126	6.3	17.9	4 1	13 0.46	- 8 53.9	1.926	2.922	2.2	20.5
4 11	12 50.83	- 16 33.4	1.128	2.121	5.0	17.8	4 11	12 51.78	- 8 14.9	1.924	2.921	2.3	20.5
4 21	12 41.35	- 15 41.4	1.139	2.117	8.6	18.0	4 21	12 43.61	- 7 35.7	1.949	2.920	6.2	20.8
5 1	12 33.96	- 14 46.1	1.174	2.113	13.3	18.2	5 1	12 36.75	- 7 1.5	2.001	2.920	9.9	21.0
5 11	12 29.57	- 13 57.0	1.228	2.109	17.6	18.5	5 11	12 31.80	- 6 36.3	2.077	2.918	13.0	21.2
262706	2006 <i>XS</i> ₄		4 5.1 132										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
499678	2010 VE ₂₀₅		4 5.1 244°08	3°1/ 7.8 17			132332	2002 GL ₃₇		4 5.1 181°75	0°5/ 5.5 18		
3 2	13 23.90	-16 19.3	2.032	2.827	14.2	22.4	3 2	13 23.00	-10 6.4	2.032	2.852	13.3	20.8
3 12	13 18.34	-16 21.4	1.925	2.808	11.2	22.2	3 12	13 17.37	-9 35.2	1.949	2.854	10.0	20.6
3 22	13 10.52	-16 6.6	1.841	2.789	7.8	21.9	3 22	13 9.73	-8 50.4	1.890	2.854	6.2	20.3
4 1	13 1.05	-15 35.1	1.784	2.769	4.3	21.7	4 1	13 0.78	-7 55.5	1.858	2.854	2.0	20.1
4 11	12 50.86	-14 50.0	1.755	2.748	3.4	21.5	4 11	12 51.42	-6 55.8	1.856	2.853	2.4	20.1
4 21	12 41.03	-13 56.2	1.754	2.726	6.7	21.7	4 21	12 42.62	-5 57.5	1.883	2.852	6.6	20.3
5 1	12 32.56	-13 0.7	1.780	2.704	10.5	21.9	5 1	12 35.24	-5 6.5	1.936	2.849	10.4	20.6
5 11	12 26.23	-12 10.1	1.830	2.681	14.1	22.1	5 11	12 29.87	-4 27.3	2.013	2.846	13.7	20.8
202990	1999 VN ₁₀₁		4 5.1 106°28	2°2/ 2.9 18			388374	2006 UE ₇₉		4 5.1 262°25	2°2/ 7.6 17		
3 2	13 20.35	-1 39.9	1.973	2.820	12.5	20.2	3 2	13 16.99	-15 54.7	2.339	3.141	12.4	21.5
3 12	13 15.35	-1 4.1	1.903	2.825	9.2	20.0	3 12	13 12.81	-15 33.1	2.244	3.132	9.6	21.3
3 22	13 8.46	-0 22.2	1.858	2.830	5.5	19.7	3 22	13 6.95	-14 55.9	2.172	3.124	6.5	21.1
4 1	13 0.37	+0 21.1	1.840	2.835	2.3	19.5	4 1	12 59.96	-14 4.7	2.127	3.115	3.4	20.8
4 11	12 51.97	+0 59.9	1.850	2.839	4.0	19.7	4 11	12 52.59	-13 3.6	2.111	3.106	2.6	20.8
4 21	12 44.17	+1 29.5	1.888	2.844	7.7	19.9	4 21	12 45.61	-11 57.9	2.123	3.098	5.5	20.9
5 1	12 37.76	+1 46.2	1.951	2.848	11.2	20.1	5 1	12 39.75	-10 53.6	2.163	3.089	8.8	21.1
5 11	12 33.29	+1 48.1	2.037	2.853	14.2	20.3	5 11	12 35.55	-9 56.1	2.227	3.080	11.8	21.3
214596	2006 QF ₁₄₈		4 5.1 317°03	1°6/ 3.8 17			454370	2014 MC ₄₄		4 5.1 178°45	0°8/ 5.9 18		
3 2	13 18.69	-5 9.5	1.366	2.228	16.1	20.4	3 2	13 23.08	-11 37.2	2.096	2.909	13.2	21.8
3 12	13 15.07	-4 30.9	1.285	2.214	12.0	20.1	3 12	13 17.37	-11 2.4	2.012	2.912	10.0	21.6
3 22	13 8.77	-3 37.9	1.225	2.200	7.2	19.8	3 22	13 9.71	-10 12.9	1.952	2.914	6.3	21.4
4 1	13 0.55	-2 36.4	1.190	2.187	2.3	19.4	4 1	13 0.77	-9 12.1	1.920	2.915	2.2	21.1
4 11	12 51.63	-1 35.1	1.179	2.174	4.4	19.5	4 11	12 51.46	-8 5.2	1.917	2.915	2.3	21.1
4 21	12 43.33	-0 42.7	1.194	2.162	9.7	19.8	4 21	12 42.70	-6 58.6	1.944	2.914	6.3	21.4
5 1	12 36.87	-0 6.7	1.231	2.150	14.6	20.0	5 1	12 35.32	-5 58.5	1.998	2.912	10.1	21.6
5 11	12 33.07	+0 8.6	1.287	2.139	18.8	20.3	5 11	12 29.91	-5 10.0	2.076	2.910	13.3	21.8
312896	2011 UG ₂₈₁		4 5.1 151°28	3°0/ 2.5 18			380600	2004 SV ₄₀		4 5.1 215°21	0°3/ 5.5 18		
3 2	13 24.32	-0 28.1	1.761	2.609	13.7	20.9	3 2	13 18.62	-11 6.5	2.514	3.328	11.2	21.7
3 12	13 18.44	+0 20.3	1.695	2.617	10.1	20.7	3 12	13 13.86	-10 14.4	2.417	3.319	8.4	21.5
3 22	13 10.39	+1 14.9	1.653	2.625	6.1	20.5	3 22	13 7.52	-9 9.0	2.346	3.309	5.2	21.3
4 1	13 0.94	+2 9.5	1.639	2.631	3.1	20.3	4 1	13 0.12	-7 53.6	2.303	3.299	1.7	21.0
4 11	12 51.16	+2 57.1	1.652	2.638	5.0	20.4	4 11	12 52.38	-6 33.4	2.291	3.288	2.1	21.0
4 21	12 42.13	+3 31.9	1.693	2.643	8.9	20.7	4 21	12 45.02	-5 14.3	2.309	3.276	5.6	21.2
5 1	12 34.76	+3 50.2	1.759	2.648	12.6	20.9	5 1	12 38.70	-4 2.0	2.355	3.264	9.0	21.4
5 11	12 29.63	+3 50.7	1.846	2.653	15.8	21.1	5 11	12 33.96	-3 1.1	2.425	3.251	11.9	21.6
435036	2006 VX ₁₇₀		4 5.1 114°02	7°5/16.1 18			489649	2007 UG ₁₇		4 5.1 172°97	0°1/ 4.9 17		
3 2	13 18.08	-35 55.7	2.551	3.222	14.6	20.9	3 2	13 19.10	-7 42.1	2.388	3.215	11.3	22.4
3 12	13 13.65	-35 55.1	2.459	3.227	12.8	20.8	3 12	13 14.21	-7 16.4	2.307	3.217	8.4	22.2
3 22	13 7.44	-35 29.6	2.385	3.232	10.9	20.6	3 22	13 7.71	-6 41.2	2.251	3.218	5.1	22.0
4 1	13 0.07	-34 37.8	2.335	3.237	9.0	20.5	4 1	13 0.17	-5 59.7	2.222	3.219	1.5	21.8
4 11	12 52.40	-33 21.2	2.309	3.241	7.7	20.4	4 11	12 52.33	-5 16.2	2.223	3.220	2.2	21.8
4 21	12 45.26	-31 44.4	2.311	3.246	7.7	20.4	4 21	12 44.95	-4 35.3	2.254	3.221	5.8	22.1
5 1	12 39.43	-29 54.3	2.339	3.251	8.9	20.5	5 1	12 38.70	-4 1.1	2.311	3.221	9.1	22.3
5 11	12 35.42	-27 59.4	2.394	3.255	10.8	20.6	5 11	12 34.07	-3 37.0	2.392	3.221	11.9	22.5
319547	2006 RF ₁₀₄		4 5.1 224°88	2°4/ 2.7 16			319871	2006 WZ ₈₉		4 5.1 259°16	5°0/31.6 16		
3 2	13 19.86	-3 22.3	1.829	2.677	13.3	21.6	3 2	13 20.94	+4 26.2	1.708	2.569	13.5	20.8
3 12	13 15.24	-2 15.7	1.747	2.671	9.8	21.4	3 12	13 16.12	+5 27.9	1.638	2.565	10.0	20.6
3 22	13 8.54	-0 58.2	1.690	2.663	5.8	21.1	3 22	13 9.10	+6 32.2	1.591	2.560	6.7	20.4
4 1	13 0.43	+0 23.8	1.661	2.656	2.5	20.9	4 1	13 0.61	+7 31.6	1.571	2.555	5.0	20.2
4 11	12 51.87	+1 42.3	1.659	2.648	4.5	21.0	4 11	12 51.70	+8 18.0	1.578	2.550	6.9	20.3
4 21	12 43.85	+2 49.7	1.685	2.639	8.6	21.2	4 21	12 43.43	+8 46.0	1.611	2.546	10.5	20.5
5 1	12 37.28	+3 40.2	1.736	2.630	12.5	21.4	5 1	12 36.75	+8 52.4	1.667	2.541	14.0	20.7
5 11	12 32.79	+4 10.7	1.808	2.621	15.8	21.6	5 11	12 32.29	+8 37.2	1.742	2.536	17.1	20.9
282188	2001 TS ₁₈₁		4 5.1 218°65	2°2/ 6.9 17			498728	2008 TA ₁₂₀		4 5.1 189°87	1°1/ 6.1 17		
3 2	13 23.65	-14 13.5	1.810	2.621	15.0	21.9	3 2	13 20.77	-10 55.5	2.204	3.022	12.5	21.6
3 12	13 18.24	-13 58.7	1.717	2.613	11.7	21.7	3 12	13 15.61	-10 44.0	2.119	3.021	9.5	21.4
3 22	13 10.47	-13 25.8	1.647	2.603	7.7	21.4	3 22	13 8.64	-10 20.5	2.058	3.020	6.0	21.1
4 1	13 1.03	-12 36.5	1.602	2.593	3.6	21.1	4 1	13 0.46	-9 47.2	2.024	3.019	2.3	20.9
4 11	12 50.97	-11 35.6	1.586	2.583	2.9	21.1	4 11	12 51.90	-9 8.2	2.020	3.017	2.2	20.9
4 21	12 41.43	-10 29.9	1.598	2.571	7.0	21.3	4 21	12 43.82	-8 28.1	2.044	3.015	5.9	21.1
5 1	12 33.47	-9 27.2	1.636	2.559	11.3	21.5	5 1	12 36.99	-7 52.0	2.095	3.013	9.5	21.3
5 11	12 27.82	-8 34.4	1.696	2.546	15.1	21.7	5 11	12 31.99	-7 24.1	2.169	3.011	12.5	21.5
160816	2000 WO ₆₉		4 5.1 188°96	1°8/ 6.7 16			310880	2003 OS ₁₇		4 5.1 236°60	3°0/ 2.5 16		
3 2	13 24.66	-12 58.8	2.009	2.816	13.9	20.8	3 2	13 23.31	-0 40.9	1.824	2.672	13.4	21.2
3 12	13 18.69	-12 52.1	1.921	2.816	10.7	20.5	3 12	13 17.89	+0 6.9	1.737	2.659	9.9	21.0
3 22	13 10.59	-12 30.7	1.857	2.815	7.0	20.3	3 22	13 10.21	+1 2.3	1.673	2.645	6.0	20.7
4 1	13 1.03	-11 56.3	1.821	2.812	3.1	20.1	4 1	13 0.96	+1 59.3	1.637	2.630	3.0	20.5
4 11	12 51.00	-11 13.0	1.813	2.809	2.6	20.0	4 11	12 51.14	+2 50.9	1.629	2.615	5.0	20.6
4 21	12 41.51	-10 26.2	1.834	2.806	6.4	20.2	4 21	12 41.82	+3 30.7	1.649	2.600	9.0	20.8
5 1	12 33.49	-9 41.9	1.882	2.801	10.3	20.5	5 1	12 34.01	+3 54.2	1.694	2.583	13.0	21.0
5 11	12 27.58	-9 5.5	1.953	2.796	13.7	20.7	5 11	12 28.41	+3 59.0	1.759	2.566	16.4	21.2
31460	Jongsowfei		4 5.1 213°19	4°1/ 8.4 18			187692	2008 DM ₅₆		4 5.1 301°98	0°0/ 5.1 18		
3 2	13 25.19	-18 12.6	1.838	2.629	15.6	18.6	3 2	13 15.14	-6 29.9	4.364	5.179	6.8	20.1

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
496449	2014 <i>PJ</i> ₂₉		4 5.1 213°65	2°5/ 2.7	17		472232	2014 <i>FW</i> ₇₁		4 5.1 282°93	0°2/ 9.5	16	
3 2	13 22.25	- 2 41.2	1.788	2.635	13.6	22.7	3 2	12 59.43	-17 49.5	41.869	42.631	0.9	22.2
3 12	13 17.08	- 1 42.3	1.707	2.629	10.0	22.4	3 12	12 58.78	-17 46.8	41.771	42.630	0.7	22.2
3 22	13 9.69	- 0 33.4	1.650	2.622	6.0	22.2	3 22	12 58.07	-17 43.3	41.699	42.628	0.5	22.1
4 1	13 0.79	+ 0 39.3	1.619	2.614	2.7	21.9	4 1	12 57.31	-17 39.0	41.655	42.626	0.3	22.1
4 11	12 51.41	+ 1 47.8	1.618	2.606	4.7	22.0	4 11	12 56.55	-17 34.2	41.640	42.625	0.3	22.1
4 21	12 42.60	+ 2 45.2	1.643	2.597	8.8	22.2	4 21	12 55.80	-17 29.0	41.654	42.623	0.4	22.1
5 1	12 35.33	+ 3 25.8	1.694	2.587	12.8	22.5	5 1	12 55.09	-17 23.5	41.697	42.622	0.5	22.2
5 11	12 30.25	+ 3 46.9	1.766	2.577	16.2	22.7	5 11	12 54.46	-17 18.1	41.767	42.620	0.7	22.2
272565	2005 <i>UV</i> ₄₉₁		4 5.1 239°63	6°8/28.6	17		499521	2010 <i>PK</i> ₆₅		4 5.1 282°87	1°7/ 3.7	17	
3 2	13 21.11	+11 17.7	2.044	2.898	11.9	21.0	3 2	13 20.80	- 5 15.3	1.547	2.399	15.1	22.4
3 12	13 16.01	+12 39.5	1.970	2.885	9.3	20.8	3 12	13 16.54	- 4 29.5	1.451	2.375	11.3	22.1
3 22	13 8.95	+13 59.0	1.921	2.872	7.3	20.6	3 22	13 9.68	- 3 29.0	1.377	2.350	6.8	21.8
4 1	13 0.56	+15 8.0	1.899	2.858	6.9	20.6	4 1	13 0.89	- 2 19.3	1.329	2.326	2.2	21.4
4 11	12 51.75	+15 59.1	1.905	2.844	8.6	20.7	4 11	12 51.26	- 1 8.4	1.307	2.300	4.3	21.5
4 21	12 43.45	+16 27.6	1.936	2.829	11.3	20.8	4 21	12 42.05	- 0 5.2	1.311	2.275	9.4	21.7
5 1	12 36.50	+16 31.7	1.990	2.814	14.1	20.9	5 1	12 34.48	+ 0 42.5	1.339	2.250	14.3	21.9
5 11	12 31.50	+16 12.2	2.063	2.798	16.6	21.1	5 11	12 29.43	+ 1 9.8	1.387	2.224	18.5	22.1
430107	2013 <i>TP</i> ₁		4 5.1 139°29	5°7/11.5	17		501561	2014 <i>MG</i> ₃₇		4 5.1 269°83	5°0/31.8	17	
3 2	13 23.13	-26 20.6	2.448	3.180	13.7	22.0	3 2	13 20.33	+ 1 18.4	1.432	2.299	15.2	21.5
3 12	13 17.30	-26 39.5	2.365	3.193	11.5	21.9	3 12	13 16.15	+ 2 42.2	1.356	2.288	11.3	21.3
3 22	13 9.62	-26 38.9	2.305	3.205	9.0	21.7	3 22	13 9.37	+ 4 15.3	1.303	2.276	7.2	21.0
4 1	13 0.74	-26 18.0	2.269	3.217	6.7	21.6	4 1	13 0.76	+ 5 48.1	1.275	2.263	5.0	20.8
4 11	12 51.52	-25 38.4	2.262	3.228	5.7	21.6	4 11	12 51.52	+ 7 9.4	1.273	2.251	7.4	20.9
4 21	12 42.83	-24 44.4	2.282	3.238	6.5	21.6	4 21	12 42.94	+ 8 9.9	1.296	2.239	11.8	21.1
5 1	12 35.46	-23 41.8	2.330	3.248	8.7	21.8	5 1	12 36.16	+ 8 43.9	1.341	2.226	16.0	21.3
5 11	12 29.96	-22 37.5	2.403	3.257	11.1	22.0	5 11	12 31.97	+ 8 50.2	1.404	2.213	19.7	21.6
45287	2000 <i>AB</i> ₂₉		4 5.1 258°19	3°5/ 7.9	18		410452	2008 <i>CU</i> ₁₀₈		4 5.1 162°41	0°4/ 4.7	16	
3 2	13 22.87	-16 41.0	1.882	2.683	14.9	18.3	3 2	13 23.81	- 6 35.7	2.025	2.854	13.0	22.1
3 12	13 17.75	-16 48.3	1.779	2.664	11.9	18.1	3 12	13 17.91	- 6 11.8	1.949	2.860	9.6	21.9
3 22	13 10.26	-16 37.8	1.698	2.645	8.3	17.8	3 22	13 10.04	- 5 37.8	1.897	2.865	5.8	21.6
4 1	13 1.02	-16 9.4	1.642	2.626	4.7	17.6	4 1	13 0.89	- 4 57.7	1.873	2.870	1.6	21.4
4 11	12 51.02	-15 25.9	1.613	2.606	3.8	17.5	4 11	12 51.39	- 4 16.3	1.878	2.874	2.7	21.5
4 21	12 41.40	-14 32.8	1.612	2.586	7.0	17.6	4 21	12 42.50	- 3 38.8	1.912	2.878	6.8	21.7
5 1	12 33.23	-13 37.2	1.638	2.565	11.0	17.8	5 1	12 35.04	- 3 10.0	1.973	2.880	10.5	21.9
5 11	12 27.33	-12 46.5	1.686	2.544	14.8	18.0	5 11	12 29.60	- 2 53.1	2.057	2.883	13.7	22.2
462321	2008 <i>HR</i> ₂₉		4 5.1 272°92	6°1/30.1	17		43806	Augustepiccard		4 5.1 131°01	1°9/ 6.9	18	
3 2	13 19.44	+ 6 48.1	1.723	2.588	13.2	21.1	3 2	13 22.51	-14 7.3	1.935	2.744	14.3	19.4
3 12	13 15.03	+ 8 10.6	1.653	2.580	10.0	20.9	3 12	13 17.02	-13 45.2	1.862	2.757	10.9	19.2
3 22	13 8.45	+ 9 34.7	1.607	2.571	7.1	20.7	3 22	13 9.52	-13 6.5	1.813	2.770	7.1	19.0
4 1	13 0.43	+10 51.4	1.588	2.563	6.2	20.6	4 1	13 0.73	-12 13.8	1.791	2.782	3.2	18.8
4 11	12 51.97	+11 51.8	1.595	2.555	8.2	20.7	4 11	12 51.64	-11 12.5	1.797	2.793	2.6	18.8
4 21	12 44.11	+12 30.0	1.627	2.547	11.4	20.9	4 21	12 43.22	-10 8.9	1.831	2.804	6.3	19.0
5 1	12 37.79	+12 43.0	1.682	2.538	14.8	21.1	5 1	12 36.32	- 9 9.8	1.892	2.815	10.1	19.3
5 11	12 33.64	+12 31.2	1.755	2.530	17.7	21.3	5 11	12 31.51	- 8 20.7	1.976	2.824	13.3	19.5
351485	2005 <i>QO</i> ₁₀₀		4 5.1 247°48	0°1/ 5.3	17		238047	2003 <i>BN</i> ₃₀		4 5.1 52°42	2°1/ 6.4	18	
3 2	13 17.12	- 9 4.9	2.631	3.453	10.5	21.9	3 2	13 24.95	-11 6.1	1.235	2.079	18.7	20.0
3 12	13 12.72	- 8 32.1	2.533	3.440	7.9	21.7	3 12	13 19.79	-11 19.9	1.174	2.088	14.3	19.8
3 22	13 6.82	- 7 49.1	2.460	3.426	4.8	21.4	3 22	13 11.60	-11 15.7	1.133	2.098	9.1	19.5
4 1	12 59.93	- 6 58.5	2.416	3.412	1.5	21.2	4 1	13 1.40	-10 55.7	1.115	2.109	3.8	19.2
4 11	12 52.69	- 6 4.6	2.401	3.398	2.0	21.2	4 11	12 50.69	-10 25.2	1.122	2.119	3.4	19.2
4 21	12 45.77	- 5 11.9	2.416	3.384	5.4	21.4	4 21	12 40.99	- 9 51.7	1.153	2.130	8.6	19.5
5 1	12 39.80	- 4 24.9	2.458	3.369	8.6	21.6	5 1	12 33.60	- 9 23.1	1.208	2.142	13.5	19.8
5 11	12 35.30	- 3 47.3	2.524	3.354	11.4	21.7	5 11	12 29.26	- 9 5.4	1.283	2.153	17.7	20.1
377820	2006 <i>BP</i> ₈₀		4 5.1 167°55	0°1/ 5.2	17		503157	2015 <i>GZ</i> ₃₂		4 5.1 10°75	6°0/30.0	17	
3 2	13 21.41	- 7 47.4	2.026	2.856	12.9	21.1	3 2	13 19.23	+ 9 25.9	1.976	2.836	12.0	21.1
3 12	13 16.19	- 7 34.7	1.947	2.858	9.7	20.9	3 12	13 14.54	+10 27.0	1.915	2.836	9.2	20.9
3 22	13 9.03	- 7 11.7	1.891	2.859	5.9	20.6	3 22	13 8.00	+11 25.5	1.878	2.837	6.8	20.7
4 1	13 0.59	- 6 41.4	1.863	2.860	1.8	20.4	4 1	13 0.29	+12 14.3	1.868	2.838	6.0	20.7
4 11	12 51.77	- 6 8.1	1.863	2.860	2.5	20.4	4 11	12 52.29	+12 47.2	1.885	2.839	7.6	20.8
4 21	12 43.49	- 5 36.7	1.892	2.861	6.5	20.7	4 21	12 44.90	+13 0.4	1.928	2.840	10.3	21.0
5 1	12 36.58	- 5 11.9	1.947	2.862	10.3	20.9	5 1	12 38.89	+12 52.4	1.994	2.842	13.1	21.1
5 11	12 31.63	- 4 57.2	2.024	2.862	13.5	21.1	5 11	12 34.80	+12 24.3	2.079	2.843	15.6	21.3
158511	2002 <i>EJ</i> ₁₀₄		4 5.1 6°52	6°8/30.6	18		430168	2013 <i>TV</i> ₈₃		4 5.1 111°47	2°5/ 7.9	17	
3 2	13 21.29	+ 9 20.4	1.560	2.426	14.2	19.4	3 2	13 17.66	-17 39.1	1.965	2.768	14.3	21.6
3 12	13 16.48	+10 14.5	1.501	2.427	10.9	19.2	3 12	13 13.49	-16 53.4	1.885	2.773	11.2	21.4
3 22	13 9.33	+11 5.0	1.466	2.427	7.9	19.0	3 22	13 7.42	-15 46.9	1.828	2.779	7.5	21.2
4 1	13 0.68	+11 43.7	1.455	2.429	6.9	19.0	4 1	13 0.13	-14 22.5	1.796	2.784	3.9	21.0
4 11	12 51.68	+12 3.2	1.470	2.431	8.7	19.1	4 11	12 52.51	-12 46.5	1.794	2.790	2.8	20.9
4 21	12 43.49	+11 59.5	1.509	2.433	11.9	19.2	4 21	12 45.49	-11 6.9	1.819	2.795	6.1	21.1
5 1	12 37.06	+11 31.9	1.570	2.436	15.2	19.5	5 1	12 39.85	- 9 32.0	1.872	2.800	9.8	21.3
5 11	12 33.01	+10 42.5	1.650	2.439	18.1	19.7	5 11	12 36.16	- 8 8.9	1.948	2.805	13.1	21.6
170068	2002 <i>VE</i> ₁₁₀		4 5.1 65°89	0°9/ 4.2	18		366830	2005 <i>JT</i> ₁₆₇		4 5.1 317°04	5°5/31.5</		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
97264	1999 <i>XB</i> ₁₂₅		4 5.1 224°35	3°7/ 9.1	18		374125	2004 <i>TM</i> ₆₉		4 5.1 170°32	1°0/ 4.1	17	
3 2	13 20.85	-20 2.0	2.504	3.275	12.5	20.3	3 2	13 23.20	-3 47.1	2.387	3.216	11.2	21.7
3 12	13 15.66	-20 3.7	2.401	3.264	10.1	20.1	3 12	13 17.21	-3 29.9	2.308	3.220	8.3	21.5
3 22	13 8.71	-19 49.3	2.321	3.253	7.3	19.9	3 22	13 9.53	-3 6.5	2.254	3.223	4.9	21.3
4 1	13 0.53	-19 18.8	2.267	3.242	4.7	19.7	4 1	13 0.76	-2 40.2	2.229	3.226	1.5	21.1
4 11	12 51.89	-18 34.7	2.243	3.229	3.7	19.7	4 11	12 51.69	-2 14.9	2.235	3.228	2.8	21.2
4 21	12 43.60	-17 41.1	2.247	3.216	5.7	19.7	4 21	12 43.11	-1 54.4	2.270	3.230	6.3	21.4
5 1	12 36.43	-16 43.4	2.279	3.203	8.5	19.9	5 1	12 35.75	-1 41.8	2.332	3.231	9.5	21.6
5 11	12 30.97	-15 47.6	2.336	3.189	11.4	20.1	5 11	12 30.11	-1 39.4	2.418	3.231	12.3	21.8
140691	2001 <i>UZ</i> ₆₃		4 5.1 125°81	1°6/ 7.1	18		439341	2012 <i>XM</i> ₁₂		4 5.1 25°91	3°4/ 1.4	15	
3 2	13 17.11	-14 28.3	2.426	3.232	11.8	20.6	3 2	13 16.57	+1 17.2	2.014	2.872	11.8	21.3
3 12	13 12.74	-13 56.9	2.346	3.238	9.1	20.4	3 12	13 12.55	+2 16.4	1.949	2.876	8.7	21.1
3 22	13 6.83	-13 11.4	2.289	3.245	5.9	20.2	3 22	13 6.80	+3 20.0	1.910	2.881	5.4	20.9
4 1	12 59.94	-12 14.3	2.260	3.251	2.7	20.0	4 1	12 59.96	+4 21.8	1.897	2.886	3.4	20.8
4 11	12 52.80	-11 9.9	2.260	3.257	2.1	20.0	4 11	12 52.86	+5 15.3	1.912	2.892	5.1	20.9
4 21	12 46.11	-10 3.7	2.289	3.263	5.2	20.2	4 21	12 46.31	+5 55.4	1.954	2.898	8.4	21.1
5 1	12 40.54	-9 1.1	2.346	3.269	8.4	20.4	5 1	12 41.04	+6 18.8	2.021	2.904	11.5	21.3
5 11	12 36.55	-8 6.9	2.427	3.274	11.2	20.6	5 11	12 37.54	+6 24.4	2.109	2.910	14.3	21.5
465347	2007 <i>VE</i> ₃₁₄		4 5.1 83°21	2°2/ 3.3	18		313651	2003 <i>SW</i> ₁₅₅		4 5.1 155°96	0°3/ 4.8	16	
3 2	13 23.66	-3 22.1	1.536	2.387	15.2	21.8	3 2	13 23.92	-7 11.3	1.887	2.717	13.7	21.3
3 12	13 18.07	-2 35.8	1.485	2.408	11.1	21.6	3 12	13 18.14	-6 46.2	1.812	2.724	10.2	21.1
3 22	13 10.18	-1 40.4	1.457	2.430	6.6	21.3	3 22	13 10.25	-6 9.9	1.762	2.731	6.1	20.9
4 1	13 0.92	-0 42.5	1.455	2.451	2.5	21.1	4 1	13 1.00	-5 26.4	1.739	2.736	1.7	20.6
4 11	12 51.47	+0 10.2	1.481	2.472	4.4	21.3	4 11	12 51.39	-4 41.1	1.745	2.741	2.8	20.7
4 21	12 42.98	+0 51.2	1.533	2.493	8.7	21.6	4 21	12 42.43	-3 59.7	1.779	2.746	7.1	21.0
5 1	12 36.34	+1 16.1	1.609	2.513	12.7	21.9	5 1	12 35.01	-3 27.4	1.839	2.750	11.0	21.2
5 11	12 32.12	+1 23.1	1.706	2.533	16.0	22.1	5 11	12 29.73	-3 7.8	1.922	2.753	14.3	21.4
163810	2003 <i>QQ</i> ₁₀₉		4 5.1 169°26	3°4/ 1.8	18		188097	2001 <i>YM</i> ₆		4 5.1 94°91	14°2/ 19.1	18	
3 2	13 23.40	+1 7.3	1.963	2.810	12.6	20.7	3 2	13 27.41	+36 39.7	1.948	2.731	15.1	19.9
3 12	13 17.63	+2 2.6	1.893	2.815	9.3	20.5	3 12	13 20.65	+38 23.6	1.942	2.751	14.3	19.8
3 22	13 9.88	+3 2.6	1.849	2.818	5.7	20.2	3 22	13 11.61	+39 40.0	1.958	2.771	14.2	19.9
4 1	13 0.85	+4 1.1	1.832	2.822	3.4	20.1	4 1	13 1.33	+40 21.1	1.993	2.790	14.7	19.9
4 11	12 51.51	+4 51.5	1.844	2.824	5.2	20.2	4 11	12 51.07	+40 23.6	2.049	2.809	15.6	20.1
4 21	12 42.80	+5 28.5	1.883	2.826	8.7	20.4	4 21	12 41.96	+39 49.3	2.122	2.827	16.8	20.2
5 1	12 35.55	+5 48.7	1.949	2.827	12.1	20.6	5 1	12 34.88	+38 42.6	2.211	2.846	18.0	20.3
5 11	12 30.35	+5 51.0	2.035	2.827	15.0	20.8	5 11	12 30.27	+37 10.4	2.313	2.863	18.9	20.5
499800	2011 <i>CD</i> ₈₅		4 5.1 209°26	2°8/ 7.7	17		269471	2009 <i>TP</i> ₂₁		4 5.1 208°04	2°8/ 2.2	17	
3 2	13 21.28	-15 40.4	1.986	2.790	14.1	21.7	3 2	13 20.39	-0 23.9	2.049	2.897	12.1	20.7
3 12	13 16.27	-15 40.4	1.899	2.788	11.1	21.5	3 12	13 15.43	+0 28.5	1.971	2.893	8.9	20.5
3 22	13 9.18	-15 23.8	1.834	2.785	7.5	21.3	3 22	13 8.60	+1 27.0	1.918	2.889	5.4	20.3
4 1	13 0.69	-14 51.9	1.795	2.782	4.0	21.1	4 1	13 0.53	+2 26.1	1.892	2.885	2.9	20.1
4 11	12 51.71	-14 8.2	1.784	2.779	3.2	21.0	4 11	12 52.09	+3 19.4	1.896	2.880	4.6	20.2
4 21	12 43.25	-13 18.2	1.801	2.775	6.3	21.2	4 21	12 44.16	+4 1.4	1.927	2.875	8.1	20.4
5 1	12 36.19	-12 28.0	1.845	2.772	10.0	21.4	5 1	12 37.55	+4 28.3	1.983	2.869	11.5	20.6
5 11	12 31.20	-11 44.0	1.912	2.768	13.4	21.6	5 11	12 32.83	+4 38.1	2.061	2.863	14.5	20.8
258828	2002 <i>OH</i> ₂₇		4 5.1 313°41	4°5/ 8.4	17		278773	2008 <i>SN</i> ₁₅₆		4 5.1 228°58	0°7/ 4.2	18	
3 2	13 20.31	-17 28.8	1.449	2.268	17.7	20.2	3 2	13 18.36	-7 44.6	2.548	3.373	10.8	21.8
3 12	13 16.35	-17 45.3	1.362	2.257	14.2	19.9	3 12	13 13.69	-6 42.8	2.449	3.359	8.0	21.6
3 22	13 9.63	-17 39.5	1.295	2.246	10.1	19.7	3 22	13 7.47	-5 29.5	2.376	3.345	4.8	21.4
4 1	13 0.89	-17 10.8	1.252	2.236	6.0	19.4	4 1	13 0.20	-4 8.7	2.333	3.330	1.4	21.1
4 11	12 51.36	-16 22.9	1.233	2.225	4.7	19.3	4 11	12 52.56	-2 46.0	2.320	3.314	2.6	21.2
4 21	12 42.41	-15 22.6	1.239	2.216	8.1	19.5	4 21	12 45.27	-1 27.3	2.337	3.298	6.1	21.4
5 1	12 35.32	-14 19.4	1.268	2.207	12.6	19.7	5 1	12 38.98	-0 18.1	2.383	3.281	9.3	21.6
5 11	12 30.97	-13 22.6	1.319	2.198	16.8	19.9	5 11	12 34.22	+0 37.8	2.452	3.264	12.2	21.7
286404	2001 <i>YH</i> ₈₃		4 5.1 105°31	3°0/ 2.7	18		396810	2004 <i>PS</i> ₁₀₀		4 5.1 212°54	3°4/ 8.3	16	
3 2	13 24.70	-1 22.7	1.571	2.423	14.9	21.3	3 2	13 25.40	-18 3.2	2.175	2.956	13.8	22.6
3 12	13 18.84	-0 30.6	1.517	2.441	10.9	21.1	3 12	13 19.30	-18 3.2	2.074	2.947	11.0	22.4
3 22	13 10.66	+0 28.7	1.487	2.459	6.5	20.9	3 22	13 11.06	-17 45.9	1.995	2.936	7.8	22.2
4 1	13 1.08	+1 28.2	1.483	2.476	3.1	20.7	4 1	13 1.30	-17 11.4	1.944	2.925	4.6	22.0
4 11	12 51.28	+2 20.2	1.506	2.493	5.0	20.9	4 11	12 50.96	-16 22.7	1.921	2.912	3.6	21.9
4 21	12 42.40	+2 58.3	1.556	2.510	9.2	21.2	4 21	12 41.04	-15 24.7	1.928	2.898	6.3	22.0
5 1	12 35.39	+3 18.7	1.631	2.526	13.1	21.4	5 1	12 32.47	-14 24.1	1.962	2.883	9.8	22.2
5 11	12 30.79	+3 20.2	1.725	2.541	16.3	21.7	5 11	12 25.96	-13 27.6	2.021	2.868	13.1	22.4
492309	2014 <i>BC</i> ₆		4 5.1 125°47	1°3/ 6.7	17		127282	2002 <i>JD</i> ₆₉		4 5.1 331°00	8°4/ 29.1	18	
3 2	13 19.76	-12 50.8	2.703	3.504	10.9	22.6	3 2	13 19.49	+11 41.8	1.466	2.337	14.6	18.3
3 12	13 14.47	-12 32.4	2.629	3.521	8.3	22.4	3 12	13 15.51	+12 49.8	1.396	2.321	11.6	18.1
3 22	13 7.78	-12 2.8	2.581	3.537	5.3	22.2	3 22	13 8.98	+13 53.4	1.348	2.305	9.1	17.9
4 1	13 0.22	-11 24.2	2.561	3.553	2.3	22.1	4 1	13 0.71	+14 42.5	1.325	2.290	8.5	17.8
4 11	12 52.47	-10 40.2	2.571	3.568	1.9	22.0	4 11	12 51.86	+15 8.1	1.325	2.276	10.5	17.9
4 21	12 45.19	-9 54.8	2.611	3.583	4.8	22.3	4 21	12 43.69	+15 5.0	1.349	2.263	13.7	18.0
5 1	12 38.97	-9 12.2	2.680	3.597	7.7	22.5	5 1	12 37.31	+14 32.2	1.393	2.250	17.2	18.2
5 11	12 34.24	-8 36.2	2.773	3.610	10.2	22.7	5 11	12 33.45	+13 32.3	1.454	2.239	20.3	18.4
297428	2000 <i>SB</i> ₉₂		4 5.1 183°27	3°2/ 9.4	18		93741	2000 <i>VV</i> ₅₅		4 5.1 247°77	3°0/ 2.4	18	
3 2	13 17.37	-20 27.0	2.738										

EPHEMERIDES

4 5.1

4 5.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
291064	2005 YW ₈₈		4 5.1 166°00	0°1/ 5.3 17			56393	2000 ER ₁₂₀		4 5.1 265°67	6°1/31.2 18		
3 2	13 16.32	- 8 44.9	2.724	3.547	10.2	21.7	3 2	13 22.92	+ 4 58.3	1.449	2.315	15.1	19.3
3 12	13 12.03	- 8 18.1	2.641	3.548	7.6	21.5	3 12	13 18.13	+ 6 11.4	1.372	2.301	11.4	19.0
3 22	13 6.39	- 7 42.3	2.583	3.549	4.6	21.3	3 22	13 10.64	+ 7 28.7	1.318	2.287	7.8	18.7
4 1	12 59.87	- 7 0.2	2.553	3.549	1.4	21.1	4 1	13 1.24	+ 8 40.6	1.290	2.272	6.1	18.6
4 11	12 53.11	- 6 15.6	2.553	3.550	1.9	21.1	4 11	12 51.16	+ 9 36.8	1.287	2.257	8.4	18.7
4 21	12 46.71	- 5 32.6	2.582	3.551	5.1	21.3	4 21	12 41.73	+10 9.6	1.308	2.242	12.4	18.9
5 1	12 41.26	- 4 55.0	2.639	3.551	8.0	21.5	5 1	12 34.16	+10 15.3	1.351	2.227	16.5	19.1
5 11	12 37.19	- 4 26.0	2.720	3.552	10.6	21.7	5 11	12 29.25	+ 9 54.1	1.412	2.212	20.1	19.3
94731	2001 XA ₆₇		4 5.1 193°02	3°7/ 8.4 18			12271	1990 RC ₂		4 5.1 190°92	0°1/ 5.2 18		
3 2	13 23.21	-18 5.9	1.755	2.553	16.0	20.0	3 2	13 18.85	- 9 26.8	2.041	2.870	12.9	18.4
3 12	13 18.00	-18 2.0	1.669	2.552	12.7	19.8	3 12	13 14.34	- 8 48.6	1.960	2.870	9.6	18.2
3 22	13 10.39	-17 37.0	1.604	2.550	8.9	19.6	3 22	13 7.97	- 7 57.3	1.902	2.869	5.9	18.0
4 1	13 1.12	-16 51.7	1.565	2.548	5.1	19.3	4 1	13 0.38	- 6 56.5	1.872	2.868	1.8	17.7
4 11	12 51.29	-15 50.1	1.553	2.545	3.9	19.2	4 11	12 52.43	- 5 52.2	1.870	2.867	2.4	17.7
4 21	12 42.07	-14 39.3	1.568	2.542	7.1	19.4	4 21	12 44.99	- 4 50.5	1.897	2.866	6.5	18.0
5 1	12 34.52	-13 27.7	1.609	2.538	11.0	19.6	5 1	12 38.85	- 3 57.2	1.950	2.865	10.2	18.2
5 11	12 29.34	-12 23.2	1.673	2.534	14.7	19.9	5 11	12 34.58	- 3 16.8	2.025	2.863	13.5	18.4
88090	2000 WE ₄₈		4 5.1 192°88	4°1/10.6 18			375871	2009 VK ₄₆		4 5.1 129°93	1°6/ 3.5 17		
3 2	13 17.04	-23 28.6	2.747	3.501	11.9	19.4	3 2	13 19.97	- 4 20.7	1.961	2.804	12.8	21.3
3 12	13 12.69	-23 18.9	2.652	3.500	9.8	19.3	3 12	13 15.13	- 3 34.4	1.891	2.811	9.4	21.0
3 22	13 6.84	-22 52.1	2.580	3.499	7.4	19.1	3 22	13 8.42	- 2 38.9	1.845	2.817	5.5	20.8
4 1	13 0.02	-22 8.6	2.534	3.497	5.1	19.0	4 1	13 0.50	- 1 39.5	1.826	2.823	1.9	20.6
4 11	12 52.89	-21 11.0	2.516	3.495	4.1	18.9	4 11	12 52.29	- 0 42.5	1.836	2.828	3.5	20.7
4 21	12 46.15	-20 3.5	2.526	3.494	5.3	19.0	4 21	12 44.67	+ 0 6.5	1.874	2.834	7.4	21.0
5 1	12 40.42	-18 51.6	2.565	3.491	7.6	19.1	5 1	12 38.43	+ 0 42.6	1.938	2.839	11.0	21.2
5 11	12 36.19	-17 41.1	2.630	3.489	10.0	19.3	5 11	12 34.13	+ 1 3.2	2.023	2.844	14.1	21.4
297663	2001 US ₄₅		4 5.1 154°80	2°3/ 3.3 18			31186	1997 YQ ₅		4 5.1 121°28	3°1/ 1.8 18		
3 2	13 24.97	- 2 33.8	1.639	2.486	14.6	21.4	3 2	13 21.69	+ 0 55.1	2.162	3.007	11.7	19.7
3 12	13 19.16	- 1 56.1	1.571	2.492	10.8	21.1	3 12	13 16.12	+ 1 54.1	2.105	3.025	8.5	19.5
3 22	13 10.99	- 1 9.9	1.526	2.498	6.4	20.9	3 22	13 8.87	+ 2 56.9	2.073	3.043	5.2	19.3
4 1	13 1.27	- 0 21.0	1.507	2.502	2.5	20.7	4 1	13 0.61	+ 3 57.6	2.071	3.060	3.1	19.2
4 11	12 51.15	+ 0 23.6	1.516	2.507	4.4	20.8	4 11	12 52.18	+ 4 50.5	2.097	3.077	4.7	19.4
4 21	12 41.80	+ 0 57.7	1.552	2.511	8.8	21.0	4 21	12 44.40	+ 5 30.7	2.152	3.093	7.8	19.6
5 1	12 34.22	+ 1 16.9	1.613	2.514	12.9	21.3	5 1	12 37.94	+ 5 55.4	2.232	3.108	10.9	19.8
5 11	12 29.05	+ 1 18.9	1.695	2.517	16.3	21.5	5 11	12 33.29	+ 6 3.7	2.335	3.123	13.4	20.0
116762	2004 ER ₇		4 5.1 331°27	2°0/ 2.9 18			423826	2006 KM ₁₁₉		4 5.1 286°61	3°6/ 1.2 17		
3 2	13 15.10	- 4 19.9	1.861	2.715	12.8	19.6	3 2	13 17.33	+ 0 58.5	1.976	2.833	12.1	21.3
3 12	13 11.74	- 3 16.1	1.779	2.705	9.4	19.3	3 12	13 13.26	+ 2 7.9	1.899	2.826	8.9	21.0
3 22	13 6.48	- 2 1.0	1.722	2.696	5.6	19.1	3 22	13 7.35	+ 3 23.4	1.847	2.819	5.6	20.8
4 1	12 59.95	- 0 40.5	1.691	2.687	2.2	18.8	4 1	13 0.21	+ 4 38.3	1.823	2.812	3.6	20.7
4 11	12 53.00	+ 0 37.8	1.689	2.679	4.1	18.9	4 11	12 52.70	+ 5 45.3	1.826	2.805	5.5	20.8
4 21	12 46.54	+ 1 46.4	1.713	2.671	8.1	19.2	4 21	12 45.67	+ 6 38.2	1.856	2.797	8.9	21.0
5 1	12 41.40	+ 2 39.5	1.761	2.664	11.9	19.4	5 1	12 39.93	+ 7 12.9	1.911	2.790	12.2	21.2
5 11	12 38.15	+ 3 13.6	1.831	2.657	15.1	19.6	5 11	12 36.05	+ 7 27.5	1.986	2.783	15.2	21.4
12674	Rybalka		4 5.1 257°57	1°0/ 5.9 18			42628	1998 FH ₄₁		4 5.1 303°94	0°2/ 4.9 18		
3 2	13 22.19	-10 56.3	1.833	2.657	14.3	18.2	3 2	13 18.83	- 8 34.8	1.397	2.250	16.4	18.7
3 12	13 17.24	-10 37.0	1.733	2.639	11.0	18.0	3 12	13 15.33	- 8 2.2	1.305	2.228	12.4	18.4
3 22	13 9.98	-10 2.3	1.656	2.620	7.0	17.7	3 22	13 9.10	- 7 11.2	1.234	2.206	7.6	18.0
4 1	13 1.03	- 9 14.5	1.605	2.600	2.6	17.4	4 1	13 0.84	- 6 6.0	1.187	2.185	2.2	17.6
4 11	12 51.39	- 8 18.7	1.582	2.580	2.6	17.3	4 11	12 51.72	- 4 54.4	1.166	2.164	3.5	17.6
4 21	12 42.16	- 7 21.4	1.587	2.560	7.2	17.6	4 21	12 43.08	- 3 45.9	1.170	2.143	9.1	17.9
5 1	12 34.37	- 6 29.7	1.618	2.539	11.6	17.8	5 1	12 36.21	- 2 49.6	1.196	2.122	14.3	18.1
5 11	12 31.81	- 5 49.6	1.671	2.517	15.5	18.0	5 11	12 32.03	- 2 12.3	1.242	2.102	18.9	18.3
285419	1999 VE ₇₃		4 5.1 184°95	0°0/ 5.2 17			433266	2012 XM ₁₂₉		4 5.1 187°32	6°8/27.3 18		
3 2	13 23.38	- 8 39.1	2.184	3.004	12.5	22.3	3 2	13 19.48	+16 23.3	2.530	3.374	10.2	20.7
3 12	13 17.57	- 8 11.8	2.099	3.005	9.3	22.1	3 12	13 14.43	+17 31.1	2.473	3.374	8.3	20.6
3 22	13 9.87	- 7 33.2	2.039	3.005	5.7	21.9	3 22	13 7.86	+18 32.0	2.441	3.373	7.0	20.5
4 1	13 0.93	- 6 46.5	2.007	3.004	1.7	21.6	4 1	13 0.33	+19 20.0	2.436	3.372	7.0	20.5
4 11	12 51.61	- 5 56.5	2.005	3.002	2.4	21.7	4 11	12 52.58	+19 50.1	2.458	3.371	8.3	20.6
4 21	12 42.80	- 5 8.5	2.032	2.999	6.3	21.9	4 21	12 45.32	+19 59.8	2.506	3.370	10.2	20.7
5 1	12 35.29	- 4 27.6	2.086	2.995	10.0	22.1	5 1	12 39.19	+19 48.7	2.577	3.368	12.2	20.8
5 11	12 29.68	- 3 57.6	2.164	2.991	13.1	22.3	5 11	12 34.66	+19 18.3	2.668	3.366	14.0	21.0
170182	2003 MR ₈		4 5.1 241°86	2°8/ 7.6 18			457519	2008 WE ₇		4 5.1 213°54	1°7/ 3.8 17		
3 2	13 21.52	-16 2.1	1.716	2.528	15.7	20.6	3 2	13 25.68	- 3 49.2	1.818	2.655	13.8	22.6
3 12	13 16.85	-15 46.1	1.623	2.517	12.3	20.4	3 12	13 19.70	- 3 15.5	1.731	2.647	10.3	22.4
3 22	13 9.77	-15 9.4	1.552	2.506	8.4	20.1	3 22	13 11.38	- 2 32.4	1.668	2.639	6.2	22.1
4 1	13 0.97	-14 13.2	1.506	2.495	4.3	19.9	4 1	13 1.44	- 1 44.4	1.633	2.629	2.1	21.8
4 11	12 51.52	-13 2.6	1.487	2.483	3.3	19.8	4 11	12 50.94	- 0 58.0	1.626	2.619	3.8	21.9
4 21	12 42.59	-11 45.2	1.495	2.471	7.2	20.0	4 21	12 40.99	- 0 19.1	1.648	2.608	8.2	22.1
5 1	12 35.27	-10 29.6	1.529	2.459	11.5	20.2	5 1	12 32.61	+ 0 6.9	1.695	2.596	12.4	22.4
5 11	12 30.31	- 9 24.1	1.585	2.446	15.4	20.4	5 11	12 26.53	+ 0 17.3	1.764	2.583	15.9	22.6
405222	2003 RV ₂₀		4 5.1 177°97	1°2/ 3.9 18			431054	2006 BM ₁₂₂		4 5.1 29°03	4°1/ 8.3 15		
3 2	13 23.06	- 5 17.9	1.993	2.828	12.9	22.2	3 2						

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
188067	2001 <i>WO</i> ₄₄	4 5.1 159°99	1.2°/ 3.9 17				268394	2005 <i>UJ</i> ₁₄₈	4 5.1 87°41	0.2°/ 5.4 18			
3 2	13 20.73	- 5 10.5	2.088	2.925	12.3	21.8	3 2	13 23.25	- 8 45.1	1.878	2.706	13.9	21.5
3 12	13 15.62	- 4 26.2	2.013	2.930	9.1	21.6	3 12	13 17.52	- 8 23.8	1.820	2.730	10.3	21.3
3 22	13 8.69	- 3 32.5	1.964	2.934	5.4	21.3	3 22	13 9.82	- 7 50.7	1.786	2.753	6.3	21.1
4 1	13 0.60	- 2 34.0	1.942	2.939	1.7	21.1	4 1	13 0.95	- 7 9.5	1.779	2.776	1.9	20.9
4 11	12 52.21	- 1 36.7	1.949	2.942	3.2	21.2	4 11	12 51.89	- 6 25.7	1.801	2.798	2.5	21.0
4 21	12 44.37	- 0 46.2	1.985	2.946	7.0	21.5	4 21	12 43.60	- 5 44.7	1.851	2.821	6.6	21.3
5 1	12 37.84	- 0 7.1	2.047	2.948	10.5	21.7	5 1	12 36.88	- 5 11.5	1.927	2.842	10.3	21.6
5 11	12 33.18	+ 0 17.6	2.131	2.951	13.5	21.9	5 11	12 32.24	- 4 49.7	2.026	2.864	13.4	21.8
308427	2005 <i>SJ</i> ₁₃₉	4 5.1 248°42	0°9/ 4.0 16				171960	2001 <i>TO</i> ₆₄	4 5.1 115°23	0°4/ 4.7 18			
3 2	13 17.58	- 5 10.7	2.732	3.563	9.9	21.5	3 2	13 19.00	- 6 41.2	2.542	3.369	10.7	21.0
3 12	13 13.05	- 4 34.4	2.634	3.547	7.3	21.3	3 12	13 14.02	- 6 12.2	2.473	3.383	7.9	20.9
3 22	13 7.08	- 3 50.5	2.562	3.531	4.4	21.1	3 22	13 7.60	- 5 35.3	2.428	3.397	4.7	20.7
4 1	13 0.14	- 3 2.2	2.518	3.515	1.3	20.8	4 1	13 0.30	- 4 53.6	2.413	3.410	1.3	20.5
4 11	12 52.85	- 2 13.8	2.505	3.498	2.5	20.9	4 11	12 52.79	- 4 11.5	2.427	3.423	2.2	20.6
4 21	12 45.86	- 1 29.3	2.520	3.481	5.7	21.1	4 21	12 45.77	- 3 32.9	2.471	3.436	5.5	20.8
5 1	12 39.78	- 0 52.7	2.564	3.464	8.7	21.2	5 1	12 39.82	- 3 1.5	2.542	3.448	8.5	21.0
5 11	12 35.11	- 0 26.9	2.631	3.446	11.4	21.4	5 11	12 35.40	- 2 40.1	2.637	3.460	11.1	21.2
366423	2001 <i>UF</i> ₁₆₅	4 5.1 180°38	2°8/ 1.9 16				386955	2011 <i>SS</i> ₁₈₄	4 5.1 268°01	1°5/ 3.3 17			
3 2	13 21.13	+ 0 27.0	2.443	3.283	10.7	22.6	3 2	13 16.80	- 3 53.0	2.391	3.232	10.8	21.0
3 12	13 15.69	+ 1 22.5	2.367	3.285	7.8	22.4	3 12	13 12.65	- 3 5.8	2.301	3.220	8.0	20.8
3 22	13 8.65	+ 2 22.6	2.317	3.286	4.8	22.2	3 22	13 6.92	- 2 10.4	2.237	3.209	4.7	20.6
4 1	13 0.59	+ 3 22.3	2.296	3.286	2.8	22.1	4 1	13 0.13	- 1 11.3	2.201	3.197	1.7	20.4
4 11	12 52.25	+ 4 16.0	2.305	3.286	4.3	22.2	4 11	12 53.00	- 0 13.6	2.194	3.185	3.2	20.4
4 21	12 44.38	+ 4 59.4	2.343	3.284	7.3	22.4	4 21	12 46.23	+ 0 37.5	2.216	3.173	6.6	20.6
5 1	12 37.65	+ 5 28.9	2.408	3.282	10.2	22.5	5 1	12 40.50	+ 1 17.8	2.264	3.161	9.8	20.8
5 11	12 32.54	+ 5 43.3	2.496	3.279	12.8	22.7	5 11	12 36.34	+ 1 44.4	2.335	3.149	12.7	21.0
58137	1981 <i>EJ</i> ₄₄	4 5.1 233°39	0°1/ 4.9 18				517187	2013 <i>RO</i> ₁₀₂	4 5.1 137°91	0°3/ 5.4 17			
3 2	13 16.36	- 8 46.6	2.457	3.284	11.0	19.7	3 2	13 19.30	- 9 46.2	2.154	2.979	12.5	22.0
3 12	13 12.25	- 8 0.9	2.369	3.280	8.2	19.5	3 12	13 14.55	- 9 10.8	2.078	2.985	9.3	21.8
3 22	13 6.62	- 7 4.0	2.307	3.274	5.0	19.3	3 22	13 8.06	- 8 23.0	2.026	2.992	5.7	21.6
4 1	13 0.01	- 5 59.7	2.272	3.269	1.4	19.0	4 1	13 0.46	- 7 26.5	2.002	2.998	1.8	21.3
4 11	12 53.08	- 4 52.8	2.267	3.264	2.2	19.1	4 11	12 52.57	- 6 26.5	2.006	3.004	2.2	21.4
4 21	12 46.55	- 3 48.9	2.292	3.259	5.7	19.3	4 21	12 45.20	- 5 28.8	2.039	3.009	6.1	21.6
5 1	12 41.05	- 2 52.7	2.343	3.253	9.0	19.5	5 1	12 39.10	- 4 38.6	2.100	3.015	9.6	21.8
5 11	12 37.07	- 2 8.2	2.418	3.247	11.8	19.7	5 11	12 34.78	- 4 0.0	2.183	3.020	12.7	22.0
16707	Norman	4 5.1 54°37	3°4/ 1.1 18				390003	2012 <i>TH</i> ₃₀₇	4 5.1 130°36	4°2/ 31.5 17			
3 2	13 16.00	+ 0 14.2	2.033	2.890	11.8	17.9	3 2	13 19.80	+ 5 23.3	2.284	3.135	10.9	21.1
3 12	13 12.12	+ 1 36.8	1.973	2.900	8.6	17.7	3 12	13 14.76	+ 6 15.4	2.221	3.142	8.1	20.9
3 22	13 6.57	+ 3 5.1	1.938	2.910	5.3	17.5	3 22	13 8.11	+ 7 7.9	2.184	3.149	5.4	20.7
4 1	12 59.98	+ 4 32.1	1.931	2.920	3.4	17.4	4 1	13 0.46	+ 7 55.2	2.174	3.155	4.2	20.7
4 11	12 53.17	+ 5 50.2	1.953	2.931	5.2	17.5	4 11	12 52.59	+ 8 32.1	2.193	3.162	5.6	20.8
4 21	12 46.92	+ 6 53.5	2.002	2.941	8.4	17.7	4 21	12 45.26	+ 8 54.7	2.240	3.168	8.3	20.9
5 1	12 41.92	+ 7 38.2	2.075	2.952	11.5	17.9	5 1	12 39.13	+ 9 1.2	2.312	3.173	11.1	21.1
5 11	12 38.65	+ 8 2.8	2.170	2.963	14.2	18.1	5 11	12 34.68	+ 8 51.2	2.405	3.179	13.5	21.3
36643	2000 <i>QW</i> ₁₈₈	4 5.1 269°46	2°6/ 3.2 18				502253	2015 <i>BP</i> ₁₀₇	4 5.1 95°28	1°4/ 3.7 18			
3 2	13 22.73	- 2 16.0	1.485	2.342	15.4	19.4	3 2	13 19.80	- 5 11.0	1.904	2.747	13.1	21.1
3 12	13 17.93	- 1 37.3	1.405	2.332	11.4	19.1	3 12	13 15.02	- 4 19.0	1.842	2.761	9.6	20.9
3 22	13 10.50	- 0 48.6	1.348	2.322	6.9	18.8	3 22	13 8.36	- 3 17.1	1.803	2.775	5.6	20.6
4 1	13 1.24	+ 0 3.7	1.316	2.312	2.9	18.5	4 1	13 0.55	- 2 10.8	1.792	2.788	1.8	20.4
4 11	12 51.32	+ 0 51.6	1.311	2.302	4.9	18.6	4 11	12 52.49	- 1 6.8	1.809	2.802	3.5	20.6
4 21	12 42.05	+ 1 28.0	1.331	2.291	9.7	18.9	4 21	12 45.09	- 0 11.3	1.854	2.815	7.4	20.8
5 1	12 34.58	+ 1 47.3	1.374	2.281	14.3	19.1	5 1	12 39.13	+ 0 30.7	1.924	2.828	11.0	21.1
5 11	12 30.71	+ 1 46.7	1.438	2.271	18.2	19.3	5 11	12 35.11	+ 0 56.7	2.017	2.840	14.0	21.3
330585	2008 <i>CQ</i> ₁₂₉	4 5.1 260°60	2°6/ 2.6 17				433683	2014 <i>UF</i> ₁₁₂	4 5.1 143°45	2°5/ 2.6 15			
3 2	13 19.37	- 3 13.1	1.749	2.601	13.6	21.2	3 2	13 22.34	- 1 44.9	2.032	2.874	12.4	22.3
3 12	13 15.10	- 2 5.4	1.663	2.588	10.0	20.9	3 12	13 16.79	- 0 47.1	1.967	2.886	9.1	22.1
3 22	13 8.64	- 0 45.8	1.601	2.574	6.0	20.6	3 22	13 9.40	+ 0 17.5	1.926	2.897	5.4	21.9
4 1	13 0.66	+ 0 39.0	1.565	2.560	2.7	20.4	4 1	13 0.85	+ 1 23.2	1.914	2.908	2.6	21.7
4 11	12 52.14	+ 2 0.4	1.558	2.546	4.8	20.5	4 11	12 52.06	+ 2 23.3	1.931	2.918	4.3	21.8
4 21	12 44.12	+ 3 10.4	1.577	2.532	9.0	20.7	4 21	12 43.91	+ 3 12.2	1.977	2.927	7.8	22.1
5 1	12 37.57	+ 4 2.5	1.621	2.517	13.1	20.9	5 1	12 37.15	+ 3 46.1	2.048	2.935	11.2	22.3
5 11	12 33.18	+ 4 33.4	1.686	2.502	16.6	21.1	5 11	12 32.33	+ 4 3.1	2.141	2.943	14.1	22.5
298747	2004 <i>GU</i> ₇₆	4 5.1 275°96	6°0/ 31.1 17				301620	2010 <i>DY</i> ₇₅	4 5.1 335°90	0°3/ 5.4 15			
3 2	13 24.17	+ 4 37.5	1.540	2.401	14.7	20.8	3 2	13 19.04	- 8 54.6	1.125	1.989	18.7	21.1
3 12	13 19.21	+ 5 55.4	1.444	2.370	11.2	20.5	3 12	13 15.88	- 8 39.8	1.052	1.980	14.2	20.8
3 22	13 11.46	+ 7 20.4	1.372	2.339	7.7	20.2	3 22	13 9.60	- 8 5.5	0.998	1.971	8.8	20.5
4 1	13 1.58	+ 8 43.0	1.325	2.307	6.1	20.0	4 1	13 1.05	- 7 16.1	0.965	1.962	2.8	20.1
4 11	12 50.73	+ 9 52.2	1.304	2.274	8.4	20.0	4 11	12 51.69	- 6 19.6	0.957	1.955	3.6	20.1
4 21	12 40.25	+ 10 39.3	1.309	2.240	12.7	20.2	4 21	12 43.10	- 5 25.9	0.971	1.949	9.7	20.4
5 1	12 31.44	+ 10 58.6	1.335	2.205	17.0	20.3	5 1	12 36.71	- 4 44.6	1.007	1.943	15.3	20.7
5 11	12 25.28	+ 10 49.0	1.380	2.170	21.0	20.5	5 11	12 33.44	- 4 22.0	1.060	1.938	20.0	21.0
260530	2005 <i>EX</i> ₁₃₃	4 5.1 307°26	2°7/ 3.0 17				64106	2001 <i>TT</i> ₇	4 5.1 100°29	0°4/ 5.5 18			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
261914	2006 <i>KX</i> ₈		4 5.1 358°31	4.1/ 2.7	18		341740	2007 <i>VQ</i> ₂₅₇		4 5.1 178°26	0.4/ 5.6	18	
3 2	13 20.52	+ 0 50.5	1.069	1.951	18.0	19.8	3 2	13 19.49	- 9 21.8	2.594	3.411	10.8	21.2
3 12	13 16.91	+ 1 15.8	1.008	1.947	13.4	19.5	3 12	13 14.47	- 9 2.5	2.509	3.412	8.1	21.0
3 22	13 10.13	+ 1 47.3	0.967	1.944	8.3	19.2	3 22	13 7.95	- 8 33.7	2.449	3.413	5.0	20.8
4 1	13 1.18	+ 2 16.9	0.948	1.943	4.3	19.0	4 1	13 0.45	- 7 57.7	2.418	3.414	1.7	20.6
4 11	12 51.60	+ 2 35.8	0.952	1.942	6.6	19.1	4 11	12 52.66	- 7 18.4	2.416	3.414	1.9	20.6
4 21	12 42.99	+ 2 37.1	0.979	1.944	11.7	19.4	4 21	12 45.28	- 6 39.7	2.444	3.414	5.3	20.8
5 1	12 36.71	+ 2 17.2	1.026	1.946	16.7	19.7	5 1	12 38.93	- 6 5.6	2.500	3.413	8.4	21.0
5 11	12 33.58	+ 1 36.1	1.090	1.950	20.9	20.0	5 11	12 34.11	- 5 39.6	2.580	3.412	11.1	21.2
365098	2009 <i>BF</i> ₁₅₀		4 5.1 32°94	0°6/ 4.7	18		72420	2001 <i>CY</i> ₃₅		4 5.1 298°26	3°2/ 2.1	18	
3 2	13 20.03	- 7 54.5	1.341	2.195	16.8	20.9	3 2	13 19.08	+ 0 7.0	1.886	2.741	12.7	19.5
3 12	13 15.99	- 7 13.9	1.275	2.199	12.5	20.7	3 12	13 14.65	+ 0 58.6	1.811	2.737	9.3	19.3
3 22	13 9.32	- 6 16.5	1.231	2.204	7.5	20.4	3 22	13 8.26	+ 1 56.3	1.761	2.733	5.7	19.1
4 1	13 0.90	- 5 8.3	1.211	2.209	2.1	20.1	4 1	13 0.57	+ 2 54.0	1.737	2.729	3.2	18.9
4 11	12 52.02	- 3 58.3	1.217	2.214	3.6	20.2	4 11	12 52.50	+ 3 44.8	1.741	2.725	5.0	19.0
4 21	12 43.97	- 2 55.4	1.248	2.219	8.9	20.5	4 21	12 44.97	+ 4 23.2	1.772	2.721	8.6	19.2
5 1	12 37.87	- 2 7.5	1.302	2.225	13.6	20.8	5 1	12 38.82	+ 4 45.2	1.827	2.717	12.2	19.4
5 11	12 34.41	- 1 39.2	1.376	2.231	17.6	21.1	5 11	12 34.66	+ 4 49.0	1.903	2.713	15.3	19.6
498590	2008 <i>QE</i> ₃₈		4 5.1 237°70	0°0/ 4.9	17		133218	2003 <i>QC</i> ₇₇		4 5.1 204°26	0°7/ 5.8	17	
3 2	13 20.80	- 8 20.3	2.261	3.086	12.0	22.5	3 2	13 21.84	- 11 25.7	1.993	2.812	13.5	21.0
3 12	13 15.75	- 7 55.4	2.165	3.073	9.0	22.3	3 12	13 16.70	- 10 46.4	1.904	2.807	10.3	20.8
3 22	13 8.88	- 7 19.7	2.093	3.059	5.5	22.1	3 22	13 9.52	- 9 51.4	1.838	2.802	6.4	20.6
4 1	13 0.76	- 6 35.9	2.048	3.045	1.7	21.8	4 1	13 0.96	- 8 44.1	1.800	2.795	2.2	20.3
4 11	12 52.17	- 5 48.7	2.034	3.031	2.3	21.8	4 11	12 51.94	- 7 30.4	1.791	2.789	2.4	20.3
4 21	12 43.95	- 5 3.1	2.048	3.016	6.2	22.0	4 21	12 43.43	- 6 17.2	1.810	2.781	6.7	20.5
5 1	12 36.91	- 4 23.9	2.089	3.000	9.8	22.2	5 1	12 36.30	- 5 11.4	1.857	2.773	10.6	20.7
5 11	12 31.63	- 3 55.3	2.153	2.984	13.0	22.4	5 11	12 31.19	- 4 18.4	1.926	2.764	14.1	20.9
302190	2001 <i>TR</i> ₂₅₁		4 5.1 213°93	1°3/ 3.9	17		230657	2003 <i>SQ</i> ₁₁₅		4 5.1 220°29	1°3/ 6.4	17	
3 2	13 23.12	- 6 0.0	1.775	2.613	14.1	22.6	3 2	13 20.85	- 11 27.4	2.105	2.922	13.0	20.8
3 12	13 17.86	- 5 11.1	1.689	2.606	10.5	22.4	3 12	13 15.87	- 11 18.6	2.018	2.919	9.9	20.6
3 22	13 10.31	- 4 9.3	1.628	2.599	6.3	22.1	3 22	13 8.98	- 10 57.0	1.954	2.915	6.3	20.4
4 1	13 1.20	- 2 59.8	1.593	2.590	1.9	21.8	4 1	13 0.80	- 10 24.7	1.918	2.911	2.6	20.1
4 11	12 51.55	- 1 49.9	1.587	2.581	3.6	21.9	4 11	12 52.18	- 9 45.6	1.909	2.907	2.3	20.1
4 21	12 42.46	- 0 47.2	1.609	2.571	8.2	22.2	4 21	12 44.03	- 9 4.8	1.930	2.903	6.1	20.3
5 1	12 34.91	+ 0 2.1	1.656	2.561	12.4	22.4	5 1	12 37.18	- 8 27.5	1.977	2.898	9.8	20.5
5 11	12 29.62	+ 0 33.8	1.724	2.549	16.0	22.6	5 11	12 32.23	- 7 58.3	2.047	2.894	13.0	20.7
361592	2007 <i>RO</i> ₂₆₀		4 5.1 261°67	0°9/ 5.9	17		418053	2007 <i>VV</i> ₁₄₁		4 5.1 224°27	0°2/ 4.9	17	
3 2	13 21.10	- 11 33.0	1.678	2.508	15.2	22.0	3 2	13 22.55	- 8 32.9	1.955	2.783	13.4	22.6
3 12	13 16.64	- 10 58.5	1.581	2.490	11.6	21.7	3 12	13 17.31	- 7 53.6	1.862	2.772	10.1	22.3
3 22	13 9.74	- 10 5.3	1.506	2.471	7.4	21.4	3 22	13 9.95	- 7 0.6	1.792	2.760	6.1	22.0
4 1	13 1.07	- 8 56.4	1.457	2.453	2.6	21.0	4 1	13 1.11	- 5 57.7	1.751	2.747	1.8	21.7
4 11	12 51.68	- 7 38.2	1.435	2.433	2.8	21.0	4 11	12 51.73	- 4 50.9	1.738	2.734	2.8	21.8
4 21	12 42.73	- 6 19.2	1.441	2.414	7.7	21.3	4 21	12 42.81	- 3 47.1	1.753	2.720	7.2	22.0
5 1	12 35.35	- 5 8.1	1.471	2.393	12.4	21.5	5 1	12 35.28	- 2 52.6	1.795	2.705	11.2	22.2
5 11	12 30.34	- 4 11.8	1.523	2.373	16.5	21.7	5 11	12 29.82	- 2 12.2	1.860	2.690	14.8	22.4
326427	2001 <i>TT</i> ₁₅₈		4 5.1 95°13	0°0/ 5.0	18		328989	2010 <i>WG</i> ₅₅		4 5.1 151°49	0°8/ 5.9	16	
3 2	13 19.09	- 10 26.5	1.798	2.630	14.2	20.9	3 2	13 22.11	- 11 5.1	2.145	2.960	12.8	21.9
3 12	13 14.62	- 9 20.7	1.732	2.645	10.6	20.7	3 12	13 16.65	- 10 39.1	2.068	2.969	9.7	21.7
3 22	13 8.18	- 7 58.7	1.691	2.659	6.4	20.5	3 22	13 9.35	- 10 0.0	2.015	2.977	6.1	21.5
4 1	13 0.51	- 6 26.3	1.676	2.673	1.9	20.2	4 1	13 0.88	- 9 10.9	1.990	2.984	2.2	21.2
4 11	12 52.60	- 4 51.7	1.690	2.687	2.7	20.3	4 11	12 52.11	- 8 16.6	1.994	2.991	2.2	21.2
4 21	12 45.38	- 3 23.1	1.732	2.700	7.1	20.6	4 21	12 43.89	- 7 22.7	2.027	2.998	6.0	21.5
5 1	12 39.66	- 2 7.6	1.800	2.714	11.0	20.8	5 1	12 37.01	- 6 34.6	2.087	3.003	9.6	21.7
5 11	12 35.98	- 1 9.9	1.890	2.727	14.3	21.1	5 11	12 32.02	- 5 56.6	2.171	3.009	12.7	21.9
502914	2015 <i>EW</i> ₁₇		4 5.1 0°66	0°3/ 5.4	17		326401	2001 <i>SP</i> ₁₀₀		4 5.1 250°58	0°7/ 4.4	17	
3 2	13 22.55	- 7 15.0	1.709	2.547	14.5	21.3	3 2	13 17.89	- 9 0.0	1.772	2.612	14.1	21.2
3 12	13 17.46	- 7 21.1	1.632	2.547	10.9	21.1	3 12	13 13.94	- 7 50.2	1.689	2.606	10.5	21.0
3 22	13 10.07	- 7 16.9	1.578	2.546	6.7	20.8	3 22	13 7.92	- 6 23.4	1.630	2.601	6.3	20.7
4 1	13 1.12	- 7 4.9	1.550	2.546	2.1	20.5	4 1	13 0.49	- 4 45.4	1.598	2.596	1.8	20.4
4 11	12 51.69	- 6 49.4	1.549	2.546	2.7	20.6	4 11	12 52.63	- 3 4.7	1.595	2.590	3.2	20.5
4 21	12 42.88	- 6 35.1	1.575	2.547	7.3	20.8	4 21	12 45.32	- 1 30.4	1.618	2.585	7.8	20.8
5 1	12 35.68	- 6 26.6	1.626	2.548	11.5	21.1	5 1	12 39.46	- 0 10.4	1.668	2.579	11.9	21.0
5 11	12 30.79	- 6 27.6	1.699	2.549	15.1	21.3	5 11	12 35.68	+ 0 50.1	1.739	2.573	15.5	21.2
70917	1999 <i>VN</i> ₁₉₅		4 5.1 232°57	1°7/ 3.5	18		119548	2001 <i>VZ</i> ₂₉		4 5.1 52°48	5°7/ 31.9	18	
3 2	13 20.98	- 2 44.3	2.049	2.892	12.3	19.5	3 2	13 23.89	+ 6 59.3	1.588	2.449	14.3	19.2
3 12	13 15.94	- 2 14.3	1.968	2.887	9.1	19.3	3 12	13 18.34	+ 7 41.2	1.534	2.459	10.8	19.0
3 22	13 9.00	- 1 37.4	1.910	2.882	5.4	19.0	3 22	13 10.49	+ 8 21.1	1.504	2.469	7.3	18.8
4 1	13 0.79	- 0 57.7	1.881	2.876	2.0	18.8	4 1	13 1.22	+ 8 51.9	1.499	2.480	5.7	18.7
4 11	12 52.17	- 0 20.5	1.879	2.871	3.6	18.9	4 11	12 51.69	+ 9 6.8	1.520	2.490	7.4	18.8
4 21	12 44.05	+ 0 9.2	1.906	2.865	7.4	19.1	4 21	12 43.05	+ 9 2.4	1.567	2.502	10.7	19.0
5 1	12 37.24	+ 0 27.5	1.959	2.859	11.0	19.3	5 1	12 36.21	+ 8 37.7	1.638	2.513	14.1	19.3
5 11	12 32.34	+ 0 32.0	2.034	2.853	14.1	19.5	5 11	12 31.76	+ 7 54.2	1.727	2.524	17.1	19.5
324481	2006 <i>US</i> ₁₀₈		4 5.1 249°78	2°0/ 3.3	17		467902	2011 <i>HA</i> ₆₈		4 5.1 245°49			

EPHEMERIDES

4 5.1

4 5.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
51294	2000 <i>KT</i> ₃₀		4 5.1 266°55	4.2/ 9.1	18		159975	2006 <i>BP</i> ₁₄₈		4 5.2 1°13	7.4/29.3	18	
3 2	13 20.47	-19 52.9	1.955	2.743	14.9	19.2	3 2	13 21.73	+12 16.6	1.782	2.641	13.1	19.3
3 12	13 15.99	-19 49.3	1.849	2.724	12.1	18.9	3 12	13 16.67	+13 22.2	1.724	2.641	10.3	19.2
3 22	13 9.28	-19 25.0	1.765	2.704	8.8	18.7	3 22	13 9.49	+14 22.4	1.689	2.640	8.0	19.0
4 1	13 0.95	-18 39.7	1.706	2.684	5.5	18.4	4 1	13 0.96	+15 8.8	1.680	2.640	7.5	19.0
4 11	12 51.95	-17 36.4	1.674	2.664	4.2	18.3	4 11	12 52.12	+15 34.7	1.697	2.641	9.1	19.1
4 21	12 43.31	-16 21.2	1.670	2.644	6.8	18.4	4 21	12 43.98	+15 36.4	1.739	2.641	11.9	19.2
5 1	12 36.05	-15 1.8	1.692	2.623	10.5	18.6	5 1	12 37.42	+15 13.5	1.803	2.641	14.7	19.4
5 11	12 30.94	-13 46.9	1.737	2.602	14.1	18.8	5 11	12 33.03	+14 28.3	1.885	2.642	17.2	19.6
174112	2002 <i>JS</i> ₈₂		4 5.1 237°21	1°0/ 4.3	18		263882	2009 <i>EW</i> ₂₀		4 5.2 0°62	0°9/ 4.3	16	
3 2	13 23.67	- 5 18.3	1.787	2.626	14.0	20.4	3 2	13 17.86	- 8 45.0	1.395	2.248	16.3	20.4
3 12	13 18.31	- 4 52.3	1.698	2.615	10.4	20.1	3 12	13 14.35	- 7 38.2	1.324	2.248	12.2	20.1
3 22	13 10.64	- 4 15.6	1.633	2.604	6.3	19.8	3 22	13 8.35	- 6 11.8	1.274	2.247	7.3	19.8
4 1	13 1.34	- 3 32.5	1.595	2.592	1.9	19.5	4 1	13 0.67	- 4 32.9	1.250	2.247	2.1	19.5
4 11	12 51.45	- 2 48.9	1.585	2.580	3.4	19.6	4 11	12 52.50	- 2 52.0	1.251	2.247	3.8	19.6
4 21	12 42.07	- 2 10.7	1.602	2.567	7.9	19.8	4 21	12 45.07	- 1 19.9	1.279	2.248	9.0	19.9
5 1	12 34.23	- 1 43.6	1.645	2.554	12.2	20.0	5 1	12 39.44	- 0 5.8	1.329	2.249	13.7	20.2
5 11	12 28.65	- 1 31.0	1.710	2.541	15.8	20.3	5 11	12 36.32	+ 0 45.0	1.400	2.250	17.7	20.4
371672	2007 <i>CS</i> ₆₃		4 5.1 327°44	5°8/30.2	17		345681	2006 <i>UZ</i> ₁₁₂		4 5.2 74°10	0°2/ 5.4	17	
3 2	13 15.45	+ 2 44.8	1.502	2.376	14.2	19.8	3 2	13 19.70	- 8 18.5	2.249	3.076	11.9	21.3
3 12	13 12.44	+ 4 35.6	1.431	2.366	10.5	19.5	3 12	13 14.74	- 8 2.2	2.182	3.091	8.9	21.1
3 22	13 7.15	+ 6 34.8	1.385	2.356	7.1	19.3	3 22	13 8.14	- 7 36.4	2.140	3.106	5.4	21.0
4 1	13 0.30	+ 8 31.3	1.364	2.346	5.8	19.2	4 1	13 0.54	- 7 3.8	2.125	3.122	1.7	20.7
4 11	12 52.95	+10 13.1	1.369	2.337	8.3	19.3	4 11	12 52.71	- 6 28.9	2.139	3.137	2.1	20.8
4 21	12 46.21	+11 30.8	1.399	2.329	12.1	19.5	4 21	12 45.44	- 5 55.9	2.182	3.152	5.8	21.0
5 1	12 41.07	+12 19.0	1.450	2.321	15.9	19.7	5 1	12 39.40	- 5 28.8	2.252	3.167	9.0	21.3
5 11	12 38.21	+12 36.8	1.519	2.314	19.1	19.9	5 11	12 35.06	- 5 10.9	2.346	3.183	11.9	21.5
387713	2003 <i>BN</i> ₅₉		4 5.1 108°00	5°3/28.9	17		337610	2001 <i>TC</i> ₁₆		4 5.2 131°05	4°0/31.1	17	
3 2	13 18.14	+ 9 54.3	2.548	3.399	9.9	21.0	3 2	13 17.85	+ 5 2.4	2.464	3.316	10.2	20.9
3 12	13 13.36	+11 18.2	2.502	3.418	7.6	20.9	3 12	13 13.26	+ 6 8.9	2.403	3.324	7.6	20.8
3 22	13 7.20	+12 39.1	2.484	3.436	5.8	20.8	3 22	13 7.21	+ 7 16.3	2.367	3.332	5.1	20.6
4 1	13 0.23	+13 50.8	2.494	3.454	5.4	20.8	4 1	13 0.26	+ 8 19.0	2.360	3.340	4.0	20.6
4 11	12 53.12	+14 48.1	2.533	3.472	6.7	20.9	4 11	12 53.11	+ 9 11.6	2.382	3.347	5.5	20.7
4 21	12 46.53	+15 27.5	2.598	3.490	8.8	21.1	4 21	12 46.43	+ 9 50.1	2.432	3.355	8.0	20.8
5 1	12 41.02	+15 47.7	2.688	3.507	11.0	21.3	5 1	12 40.84	+10 12.2	2.507	3.362	10.6	21.0
5 11	12 37.01	+15 49.3	2.799	3.524	12.9	21.4	5 11	12 36.78	+10 17.3	2.604	3.369	12.8	21.2
423623	2005 <i>WJ</i> ₁₅₅		4 5.1 106°49	7°4/28.7	17		43563	2001 <i>FB</i> ₁₀₂		4 5.2 295°14	4°4/ 9.3	18	
3 2	13 21.51	+12 24.8	1.863	2.720	12.7	20.9	3 2	13 18.67	-20 6.8	1.934	2.724	15.0	18.2
3 12	13 16.33	+13 46.5	1.815	2.730	10.0	20.7	3 12	13 14.63	-20 9.4	1.835	2.710	12.1	18.0
3 22	13 9.19	+15 2.5	1.790	2.739	7.9	20.6	3 22	13 8.43	-19 51.6	1.758	2.696	8.9	17.8
4 1	13 0.84	+16 4.3	1.793	2.749	7.5	20.6	4 1	13 0.71	-19 13.3	1.705	2.682	5.7	17.6
4 11	12 52.27	+16 45.2	1.821	2.758	9.1	20.7	4 11	12 52.39	-18 17.3	1.679	2.668	4.4	17.4
4 21	12 44.44	+17 1.5	1.875	2.767	11.7	20.9	4 21	12 44.49	-17 9.5	1.680	2.654	6.7	17.6
5 1	12 38.14	+16 52.8	1.951	2.776	14.3	21.1	5 1	12 37.96	-15 57.4	1.707	2.641	10.3	17.7
5 11	12 33.91	+16 21.3	2.045	2.784	16.6	21.3	5 11	12 33.53	-14 48.9	1.757	2.627	13.7	17.9
89449	2001 <i>WG</i> ₉₃		4 5.1 24°33	9°0/25.7	17		465934	2010 <i>XZ</i> ₇₁		4 5.2 44°31	10°8/27.7	18	
3 2	13 20.67	+21 0.5	2.145	2.986	11.9	19.3	3 2	13 22.99	+17 19.3	1.359	2.224	16.0	20.6
3 12	13 15.58	+22 13.4	2.098	2.987	10.1	19.1	3 12	13 17.86	+18 48.7	1.331	2.243	13.1	20.4
3 22	13 8.69	+23 14.5	2.075	2.989	9.1	19.1	3 22	13 10.21	+20 3.2	1.325	2.263	11.1	20.4
4 1	13 0.69	+23 56.4	2.077	2.991	9.3	19.1	4 1	13 1.14	+20 51.9	1.343	2.284	11.0	20.4
4 11	12 52.48	+24 14.0	2.104	2.993	10.6	19.2	4 11	12 52.00	+21 8.0	1.383	2.305	12.6	20.6
4 21	12 44.92	+24 5.3	2.154	2.996	12.4	19.3	4 21	12 44.02	+20 50.1	1.445	2.327	15.1	20.8
5 1	12 38.75	+23 31.3	2.226	2.998	14.4	19.4	5 1	12 38.15	+20 1.2	1.526	2.349	17.7	21.0
5 11	12 34.47	+22 35.1	2.315	3.000	16.2	19.6	5 11	12 34.85	+18 46.9	1.624	2.371	20.0	21.2
201926	2004 <i>CU</i> ₉₄		4 5.2 53°65	0°2/ 5.4	17		471360	2011 <i>SL</i> ₂₁		4 5.2 217°32	5°3/12.1	16	
3 2	13 18.02	- 9 29.5	2.003	2.835	13.0	20.3	3 2	13 21.14	-27 56.0	3.138	3.847	11.4	22.7
3 12	13 13.74	- 8 57.7	1.931	2.842	9.7	20.1	3 12	13 15.75	-28 18.9	3.030	3.838	9.7	22.6
3 22	13 7.65	- 8 13.3	1.883	2.850	5.9	19.9	3 22	13 8.80	-28 26.0	2.944	3.828	7.8	22.4
4 1	13 0.40	- 7 20.1	1.862	2.858	1.9	19.7	4 1	13 0.78	-28 16.1	2.883	3.817	6.1	22.3
4 11	12 52.87	- 6 23.5	1.869	2.866	2.3	19.7	4 11	12 52.34	-27 50.1	2.851	3.806	5.3	22.2
4 21	12 45.89	- 5 29.5	1.903	2.874	6.3	20.0	4 21	12 44.16	-27 10.3	2.848	3.794	5.9	22.2
5 1	12 40.24	- 4 43.5	1.964	2.883	10.0	20.2	5 1	12 36.93	-26 20.9	2.872	3.782	7.5	22.3
5 11	12 36.43	- 4 9.5	2.048	2.891	13.1	20.4	5 11	12 31.15	-25 26.9	2.922	3.770	9.5	22.4
345663	2006 <i>TP</i> ₁₁₈		4 5.2 35°95	5°1/31.2	17		366413	2001 <i>TS</i> ₂₈		4 5.2 160°99	1°5/ 6.9	15	
3 2	13 20.45	+ 8 7.5	2.063	2.918	11.7	20.7	3 2	13 22.13	-13 28.3	2.435	3.235	12.0	23.1
3 12	13 15.42	+ 8 50.5	2.003	2.923	8.9	20.5	3 12	13 16.52	-13 9.5	2.352	3.243	9.2	22.9
3 22	13 8.60	+ 9 31.3	1.967	2.929	6.2	20.4	3 22	13 9.24	-12 37.7	2.294	3.250	6.0	22.7
4 1	13 0.68	+10 3.9	1.959	2.934	5.2	20.3	4 1	13 0.89	-11 55.0	2.265	3.256	2.7	22.5
4 11	12 52.51	+10 23.2	1.978	2.940	6.6	20.4	4 11	12 52.24	-11 5.2	2.265	3.261	2.2	22.5
4 21	12 44.96	+10 25.9	2.023	2.946	9.3	20.6	4 21	12 44.08	-10 13.2	2.294	3.266	5.4	22.7
5 1	12 38.75	+10 10.8	2.093	2.952	12.1	20.8	5 1	12 37.11	- 9 23.9	2.352	3.270	8.6	22.9
5 11	12 34.40	+ 9 38.6	2.183	2.959	14.6	21.0	5 11	12 31.84	- 8 41.9	2.435	3.274	11.4	23.1
153971	2002 <i>AT</i> ₈₀		4 5.2 87°32	8°9/27.4	18		473702	2015 <i>YL</i> ₈		4 5.2 106°96	0°2/ 4.9	18	

EPHEMERIDES

4 5.2

4 5.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
196836	2003 SY ₂₄₈	4 5.2 198°09	1°1/ 3.9 18				226772	2004 RX ₁₁₉	4 5.2 291°86	2°6/ 2.6 17			
3 2	13 18.96	- 5 30.6	2.267	3.102	11.5	20.8	3 2	13 18.30	- 2 44.7	1.758	2.613	13.4	21.0
3 12	13 14.30	- 4 46.1	2.184	3.100	8.5	20.6	3 12	13 14.26	- 1 41.5	1.681	2.607	9.9	20.7
3 22	13 7.96	- 3 52.5	2.127	3.098	5.1	20.4	3 22	13 8.14	- 0 28.1	1.627	2.600	5.9	20.5
4 1	13 0.52	- 2 53.7	2.098	3.095	1.6	20.2	4 1	13 0.62	+ 0 49.0	1.600	2.594	2.7	20.3
4 11	12 52.76	- 1 55.4	2.098	3.092	2.9	20.3	4 11	12 52.66	+ 2 1.6	1.600	2.588	4.7	20.4
4 21	12 45.44	- 1 2.8	2.127	3.089	6.5	20.5	4 21	12 45.25	+ 3 2.5	1.627	2.582	8.7	20.6
5 1	12 39.28	- 0 20.6	2.183	3.085	9.9	20.7	5 1	12 39.29	+ 3 46.1	1.678	2.576	12.6	20.8
5 11	12 34.81	+ 0 8.3	2.261	3.081	12.8	20.9	5 11	12 35.40	+ 4 9.5	1.750	2.570	16.0	21.0
205821	2002 CD ₂₄₆	4 5.2 51°57	1°3/ 4.1 18				31923	2000 GN ₇₃	4 5.2 287°70	1°4/ 6.6 18			
3 2	13 21.41	- 5 55.4	1.401	2.256	16.2	20.9	3 2	13 18.09	- 12 35.2	2.103	2.922	12.9	19.0
3 12	13 16.94	- 5 14.4	1.335	2.259	12.0	20.6	3 12	13 13.87	- 12 13.1	2.016	2.917	9.9	18.8
3 22	13 9.90	- 4 19.5	1.290	2.263	7.2	20.4	3 22	13 7.81	- 11 36.4	1.952	2.912	6.4	18.6
4 1	13 1.14	- 3 16.9	1.270	2.267	2.2	20.0	4 1	13 0.52	- 10 47.8	1.914	2.907	2.7	18.3
4 11	12 51.92	- 2 15.1	1.276	2.271	4.0	20.2	4 11	12 52.83	- 9 51.7	1.905	2.902	2.3	18.3
4 21	12 43.50	- 1 22.1	1.307	2.275	9.0	20.5	4 21	12 45.59	- 8 54.0	1.923	2.898	6.0	18.5
5 1	12 36.99	- 0 44.8	1.362	2.280	13.6	20.7	5 1	12 39.59	- 8 0.5	1.969	2.893	9.6	18.7
5 11	12 33.08	- 0 26.8	1.437	2.284	17.5	21.0	5 11	12 35.41	- 7 16.4	2.038	2.888	12.9	18.9
251605	2009 HB ₉₀	4 5.2 256°24	1°0/ 4.3 17				242168	2003 GY ₁₀	4 5.2 326°45	0°2/ 5.3 16			
3 2	13 20.48	- 6 47.3	1.611	2.458	14.9	20.5	3 2	13 22.71	- 7 8.9	1.214	2.072	18.0	19.8
3 12	13 16.10	- 6 1.1	1.531	2.451	11.1	20.3	3 12	13 18.55	- 7 15.3	1.136	2.061	13.6	19.5
3 22	13 9.35	- 5 0.6	1.472	2.444	6.6	20.0	3 22	13 11.25	- 7 7.9	1.078	2.050	8.4	19.2
4 1	13 0.99	- 3 51.0	1.440	2.437	1.9	19.7	4 1	13 1.66	- 6 49.7	1.043	2.040	2.6	18.8
4 11	12 52.08	- 2 40.1	1.435	2.430	3.6	19.8	4 11	12 51.18	- 6 26.6	1.033	2.031	3.5	18.8
4 21	12 43.77	- 1 36.1	1.456	2.423	8.4	20.0	4 21	12 41.41	- 6 5.6	1.046	2.023	9.4	19.2
5 1	12 37.10	- 0 45.9	1.502	2.416	12.8	20.3	5 1	12 33.79	- 5 53.5	1.082	2.015	14.8	19.4
5 11	12 32.76	- 0 14.1	1.569	2.408	16.6	20.5	5 11	12 29.28	- 5 55.6	1.136	2.008	19.5	19.7
492237	2013 TC ₉₇	4 5.2 189°99	1°1/ 6.6 17				428711	2008 RR ₂₅	4 5.2 158°74	0°3/ 5.5 17			
3 2	13 19.42	- 13 45.0	2.528	3.329	11.5	22.7	3 2	13 21.65	- 8 51.5	2.397	3.215	11.6	21.8
3 12	13 14.52	- 13 0.0	2.436	3.328	8.8	22.5	3 12	13 16.17	- 8 33.6	2.318	3.222	8.7	21.7
3 22	13 8.04	- 12 0.7	2.369	3.326	5.7	22.3	3 22	13 9.05	- 8 5.9	2.263	3.227	5.3	21.5
4 1	13 0.55	- 10 49.8	2.331	3.324	2.3	22.1	4 1	13 0.86	- 7 30.9	2.237	3.233	1.7	21.2
4 11	12 52.74	- 9 32.3	2.323	3.320	2.0	22.1	4 11	12 52.38	- 6 52.9	2.240	3.237	2.1	21.2
4 21	12 45.35	- 8 13.6	2.345	3.316	5.3	22.3	4 21	12 44.38	- 6 15.9	2.273	3.242	5.6	21.5
5 1	12 39.04	- 6 59.8	2.395	3.312	8.5	22.5	5 1	12 37.55	- 5 44.3	2.333	3.245	8.9	21.7
5 11	12 34.30	- 5 55.7	2.471	3.306	11.4	22.7	5 11	12 32.41	- 5 21.5	2.418	3.249	11.8	21.9
306594	2000 GJ ₁₂₀	4 5.2 217°76	0°3/ 4.8 17				151592	2002 VX ₁₁	4 5.2 45°99	2°9/ 3.2 18 R			
3 2	13 17.02	- 8 55.2	2.266	3.096	11.8	21.0	3 2	13 24.39	- 0 29.0	1.339	2.202	16.4	19.3
3 12	13 12.89	- 7 59.1	2.181	3.092	8.7	20.8	3 12	13 18.98	- 0 6.9	1.292	2.220	12.0	19.1
3 22	13 7.12	- 6 50.3	2.120	3.089	5.3	20.6	3 22	13 11.00	+ 0 20.9	1.266	2.240	7.2	18.9
4 1	13 0.28	- 5 33.2	2.088	3.085	1.5	20.3	4 1	13 1.44	+ 0 48.2	1.265	2.260	3.2	18.7
4 11	12 53.11	- 4 13.6	2.085	3.081	2.4	20.4	4 11	12 51.68	+ 1 8.1	1.290	2.281	5.1	18.9
4 21	12 46.38	- 2 58.0	2.110	3.077	6.2	20.6	4 21	12 42.98	+ 1 15.5	1.340	2.302	9.5	19.2
5 1	12 40.77	- 1 52.0	2.163	3.072	9.7	20.8	5 1	12 36.37	+ 1 7.5	1.413	2.323	13.7	19.5
5 11	12 36.82	- 0 59.8	2.240	3.068	12.7	21.0	5 11	12 32.42	+ 0 43.4	1.506	2.345	17.2	19.7
234818	2002 QL ₁₃₆	4 5.2 241°52	1°0/ 4.2 17				6890	Savinykh	4 5.2 263°46	0°0/ 4.9 18			
3 2	13 19.70	- 5 15.5	2.082	2.920	12.3	21.2	3 2	13 17.46	- 8 17.1	2.572	3.396	10.7	17.4
3 12	13 15.00	- 4 46.0	2.000	2.917	9.1	20.9	3 12	13 13.11	- 7 49.0	2.474	3.382	8.0	17.2
3 22	13 8.45	- 4 7.6	1.943	2.914	5.4	20.7	3 22	13 7.25	- 7 11.2	2.401	3.368	4.9	17.0
4 1	13 0.69	- 3 24.1	1.913	2.910	1.6	20.4	4 1	13 0.35	- 6 26.5	2.356	3.353	1.5	16.7
4 11	12 52.54	- 2 40.8	1.912	2.907	3.0	20.5	4 11	12 53.08	- 5 38.9	2.341	3.338	2.1	16.7
4 21	12 44.88	- 2 2.7	1.939	2.903	6.8	20.8	4 21	12 46.13	- 4 52.9	2.355	3.324	5.5	16.9
5 1	12 38.50	- 1 34.3	1.992	2.900	10.4	21.0	5 1	12 40.15	- 4 12.8	2.397	3.308	8.7	17.1
5 11	12 33.95	- 1 18.6	2.067	2.896	13.6	21.2	5 11	12 35.66	- 3 42.1	2.462	3.293	11.6	17.3
458822	2011 UB ₁	4 5.2 167°81	0°6/ 5.6 18				362034	2008 YD ₁₄₆	4 5.2 25°85	7°3/ 30.5 18			
3 2	13 25.79	- 9 19.4	1.813	2.637	14.5	22.5	3 2	13 18.32	+ 5 3.0	1.117	2.003	17.1	20.0
3 12	13 19.74	- 9 6.3	1.735	2.641	10.9	22.3	3 12	13 14.97	+ 6 40.4	1.072	2.010	12.8	19.7
3 22	13 11.42	- 8 40.2	1.680	2.645	6.8	22.0	3 22	13 8.80	+ 8 20.2	1.048	2.019	8.8	19.5
4 1	13 1.59	- 8 4.0	1.653	2.649	2.3	21.8	4 1	13 0.83	+ 9 49.0	1.047	2.028	7.4	19.5
4 11	12 51.30	- 7 22.8	1.653	2.651	2.6	21.8	4 11	12 52.52	+ 10 54.5	1.069	2.039	9.8	19.6
4 21	12 41.67	- 6 42.4	1.682	2.653	7.1	22.1	4 21	12 45.26	+ 11 29.4	1.113	2.050	13.8	19.9
5 1	12 33.67	- 6 8.6	1.738	2.654	11.2	22.3	5 1	12 40.17	+ 11 31.3	1.177	2.062	17.8	20.2
5 11	12 27.96	- 5 45.9	1.816	2.655	14.7	22.5	5 11	12 37.87	+ 11 3.0	1.257	2.075	21.1	20.4
299946	2006 TR ₅₄	4 5.2 209°25	0°9/ 4.3 17				6749	Ireentje	4 5.2 197°50	0°8/ 6.2 18			
3 2	13 21.26	- 3 54.6	2.527	3.357	10.7	20.6	3 2	13 19.61	- 12 2.4	2.539	3.348	11.3	19.1
3 12	13 15.84	- 3 43.9	2.442	3.354	7.9	20.4	3 12	13 14.67	- 11 24.0	2.447	3.344	8.6	19.0
3 22	13 8.84	- 3 27.4	2.382	3.351	4.7	20.2	3 22	13 8.16	- 10 32.7	2.380	3.340	5.4	18.7
4 1	13 0.79	- 3 8.1	2.351	3.347	1.4	20.0	4 1	13 0.61	- 9 31.5	2.341	3.335	2.0	18.5
4 11	12 52.41	- 2 49.3	2.349	3.343	2.5	20.1	4 11	12 52.74	- 8 24.7	2.332	3.330	1.9	18.5
4 21	12 44.44	- 2 34.4	2.377	3.339	5.9	20.3	4 21	12 45.26	- 7 17.7	2.353	3.323	5.4	18.7
5 1	12 37.54	- 2 26.4	2.433	3.335	9.0	20.5	5 1	12 38.84	- 6 15.7	2.402	3.317	8.6	18.9
5 11	12 32.24	- 2 27.5	2.512	3.331	11.7	20.6	5 11	12 33.99	- 5 23.1	2.476	3.309	11.5	19.1
113858	2002 TY ₂₅₂	4 5.2 137°51	0°2/ 5.4 18				183633	2003 US ₄₀₂	4 5.2 356°85	0°1/ 5.0 18			
3 2	13 25.37	- 9 18.1	1.573	2.406	15.9	20.6	3 2						

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
502261	2015 <i>BM</i> ₁₂₀		4 5.2 49°91	3°3/ 2.3 17			301537	2009 <i>FA</i> ₄₈		4 5.2 40°61	2°0/ 2.9 17		
3 2	13 20.80	+ 0 26.5	1.727	2.584	13.6	21.5	3 2	13 16.77	- 3 13.1	1.995	2.846	12.3	20.3
3 12	13 16.02	+ 1 9.9	1.663	2.589	10.0	21.3	3 12	13 12.80	- 2 18.2	1.931	2.855	8.9	20.1
3 22	13 9.14	+ 1 58.3	1.623	2.595	6.1	21.1	3 22	13 7.10	- 1 15.3	1.892	2.865	5.3	19.9
4 1	13 0.91	+ 2 45.8	1.609	2.602	3.3	20.9	4 1	13 0.32	- 0 10.0	1.880	2.875	2.2	19.7
4 11	12 52.37	+ 3 25.4	1.623	2.608	5.1	21.1	4 11	12 53.30	+ 0 51.2	1.896	2.886	3.8	19.8
4 21	12 44.51	+ 3 52.0	1.663	2.614	8.9	21.3	4 21	12 46.84	+ 1 42.5	1.939	2.896	7.4	20.1
5 1	12 38.22	+ 4 2.0	1.727	2.621	12.5	21.5	5 1	12 41.67	+ 2 19.8	2.008	2.907	10.8	20.3
5 11	12 34.08	+ 3 54.5	1.811	2.628	15.7	21.7	5 11	12 38.27	+ 2 40.7	2.099	2.919	13.7	20.5
173315	1999 <i>VF</i> ₅₁		4 5.2 131°86	2°4/ 7.2 18			374292	2005 <i>RA</i> ₁		4 5.2 192°92	5°7/ 10.5 18		
3 2	13 24.48	-13 54.3	1.785	2.597	15.2	20.7	3 2	13 21.69	-25 59.2	1.259	2.049	21.5	20.5
3 12	13 18.83	-13 56.2	1.710	2.606	11.7	20.5	3 12	13 17.78	-25 0.5	1.177	2.048	17.7	20.2
3 22	13 10.89	-13 41.8	1.658	2.614	7.8	20.2	3 22	13 10.74	-23 18.4	1.112	2.047	13.0	19.9
4 1	13 1.46	-13 12.5	1.632	2.622	3.8	20.0	4 1	13 1.51	-20 52.8	1.069	2.046	8.2	19.7
4 11	12 51.59	-12 32.8	1.633	2.629	3.0	20.0	4 11	12 51.62	-17 53.1	1.052	2.044	5.7	19.5
4 21	12 42.41	-11 48.3	1.662	2.637	6.7	20.2	4 21	12 42.65	-14 36.5	1.061	2.041	8.8	19.7
5 1	12 34.88	-11 5.6	1.718	2.644	10.7	20.5	5 1	12 35.98	-11 23.8	1.096	2.038	13.8	19.9
5 11	12 29.65	-10 30.7	1.796	2.650	14.2	20.7	5 11	12 32.42	- 8 33.1	1.153	2.034	18.6	20.2
59219	1999 <i>BJ</i> ₂₃		4 5.2 114°16	2°3/ 2.3 18			435918	2009 <i>BN</i> ₉₇		4 5.2 59°86	0°3/ 4.9 17		
3 2	13 19.78	- 0 34.7	2.506	3.346	10.4	19.7	3 2	13 22.76	- 6 5.2	1.901	2.736	13.4	20.8
3 12	13 14.60	+ 0 18.8	2.448	3.366	7.6	19.5	3 12	13 17.19	- 5 55.9	1.845	2.759	9.9	20.6
3 22	13 7.99	+ 1 16.6	2.416	3.386	4.6	19.4	3 22	13 9.71	- 5 37.7	1.813	2.782	5.9	20.4
4 1	13 0.53	+ 2 13.9	2.413	3.405	2.4	19.2	4 1	13 1.09	- 5 14.2	1.807	2.805	1.7	20.1
4 11	12 52.93	+ 3 5.6	2.440	3.424	3.8	19.4	4 11	12 52.28	- 4 49.9	1.831	2.827	2.6	20.3
4 21	12 45.87	+ 3 47.6	2.496	3.442	6.7	19.6	4 21	12 44.21	- 4 29.2	1.882	2.850	6.6	20.5
5 1	12 39.92	+ 4 17.1	2.579	3.460	9.4	19.8	5 1	12 37.66	- 4 16.1	1.959	2.873	10.2	20.8
5 11	12 35.50	+ 4 32.6	2.685	3.477	11.8	20.0	5 11	12 33.13	- 4 13.2	2.059	2.896	13.3	21.1
421110	2013 <i>QM</i> ₆₉		4 5.2 237°81	2°4/ 2.8 17			248442	2005 <i>TR</i> ₅₇		4 5.2 240°16	0°9/ 4.1 18		
3 2	13 21.47	- 2 5.6	2.114	2.955	12.0	22.0	3 2	13 18.63	- 4 27.4	2.704	3.535	10.0	21.6
3 12	13 16.39	- 1 12.3	2.021	2.940	8.9	21.8	3 12	13 13.89	- 4 1.4	2.611	3.525	7.4	21.4
3 22	13 9.38	- 0 10.7	1.953	2.924	5.4	21.5	3 22	13 7.68	- 3 28.9	2.544	3.513	4.4	21.1
4 1	13 1.03	+ 0 54.0	1.914	2.908	2.5	21.3	4 1	13 0.51	- 2 52.8	2.505	3.502	1.4	20.9
4 11	12 52.18	+ 1 55.5	1.903	2.890	4.2	21.4	4 11	12 53.00	- 2 17.1	2.497	3.490	2.5	21.0
4 21	12 43.73	+ 2 47.6	1.921	2.872	7.9	21.6	4 21	12 45.82	- 1 45.5	2.517	3.478	5.7	21.2
5 1	12 36.52	+ 3 25.7	1.965	2.854	11.5	21.7	5 1	12 39.58	- 1 21.4	2.565	3.466	8.7	21.3
5 11	12 31.20	+ 3 46.9	2.031	2.835	14.6	21.9	5 11	12 34.77	- 1 7.3	2.637	3.454	11.3	21.5
305297	2008 <i>AX</i> ₁₃		4 5.2 244°33	3°4/ 31.8 18			64089	2001 <i>SA</i> ₂₈₈		4 5.2 133°86	5°1/ 29.2 18		
3 2	13 17.23	+ 2 43.6	2.504	3.354	10.1	21.2	3 2	13 18.89	+10 55.4	2.734	3.580	9.5	19.7
3 12	13 12.93	+ 3 46.8	2.421	3.344	7.5	21.0	3 12	13 13.89	+12 3.1	2.682	3.593	7.3	19.6
3 22	13 7.12	+ 4 53.5	2.365	3.333	4.8	20.8	3 22	13 7.57	+13 7.5	2.656	3.606	5.6	19.5
4 1	13 0.32	+ 5 58.5	2.337	3.322	3.4	20.7	4 1	13 0.44	+14 3.2	2.658	3.617	5.2	19.4
4 11	12 53.20	+ 6 56.2	2.338	3.311	4.9	20.8	4 11	12 53.15	+14 45.6	2.690	3.629	6.4	19.5
4 21	12 46.44	+ 7 42.0	2.367	3.300	7.7	20.9	4 21	12 46.34	+15 11.8	2.749	3.640	8.4	19.7
5 1	12 40.70	+ 8 12.5	2.422	3.288	10.5	21.1	5 1	12 40.55	+15 20.6	2.832	3.650	10.5	19.8
5 11	12 36.44	+ 8 26.5	2.499	3.276	12.9	21.2	5 11	12 36.19	+15 12.6	2.937	3.660	12.3	20.0
499176	2009 <i>SJ</i> ₁₄₈		4 5.2 219°35	0°4/ 5.6 17			303230	2004 <i>PZ</i>		4 5.2 233°03	2°6/ 7.2 16		
3 2	13 19.58	-11 42.4	2.285	3.100	12.2	23.1	3 2	13 23.94	-14 38.6	1.704	2.517	15.7	21.7
3 12	13 14.85	-10 44.0	2.188	3.090	9.2	22.9	3 12	13 18.78	-14 31.3	1.611	2.507	12.3	21.5
3 22	13 8.37	- 9 30.0	2.116	3.080	5.7	22.6	3 22	13 11.10	-14 5.1	1.540	2.495	8.2	21.2
4 1	13 0.71	- 8 4.2	2.073	3.069	1.9	22.3	4 1	13 1.62	-13 21.3	1.494	2.484	4.0	20.9
4 11	12 52.64	- 6 32.6	2.059	3.057	2.2	22.3	4 11	12 51.42	-12 24.3	1.475	2.471	3.2	20.8
4 21	12 44.98	- 5 2.1	2.076	3.044	6.1	22.6	4 21	12 41.74	-11 21.2	1.484	2.459	7.3	21.0
5 1	12 38.48	- 3 39.5	2.120	3.031	9.7	22.8	5 1	12 33.69	-10 19.9	1.518	2.445	11.7	21.3
5 11	12 33.70	- 2 30.1	2.188	3.017	12.9	23.0	5 11	12 28.08	- 9 27.9	1.574	2.431	15.7	21.5
126470	2002 <i>CL</i> ₄₁		4 5.2 84°84	1°2/ 3.9 18			36367	2000 <i>OF</i> ₁₂		4 5.2 194°09	3°7/ 1.5 18		
3 2	13 20.06	- 7 26.4	1.873	2.711	13.5	20.7	3 2	13 23.32	+ 1 14.8	1.926	2.773	12.8	20.1
3 12	13 15.18	- 6 9.7	1.820	2.737	9.9	20.5	3 12	13 17.81	+ 2 21.2	1.850	2.771	9.4	19.9
3 22	13 8.48	- 4 40.8	1.791	2.762	5.8	20.3	3 22	13 10.23	+ 3 33.4	1.799	2.769	5.9	19.7
4 1	13 0.69	- 3 6.5	1.790	2.787	1.7	20.1	4 1	13 1.29	+ 4 44.4	1.776	2.765	3.8	19.5
4 11	12 52.77	- 1 34.7	1.818	2.812	3.3	20.3	4 11	12 51.94	+ 5 46.9	1.782	2.761	5.6	19.6
4 21	12 45.60	- 0 12.9	1.875	2.836	7.3	20.6	4 21	12 43.17	+ 6 34.7	1.816	2.756	9.1	19.8
5 1	12 39.89	+ 0 53.2	1.957	2.860	10.9	20.8	5 1	12 35.86	+ 7 3.8	1.874	2.750	12.6	20.0
5 11	12 36.14	+ 1 40.5	2.062	2.883	13.8	21.1	5 11	12 30.60	+ 7 12.9	1.954	2.743	15.7	20.2
229102	2004 <i>RV</i> ₃₁		4 5.2 253°51	2°3/ 2.9 17			211848	2004 <i>FW</i> ₁₀₇		4 5.2 248°47	0°7/ 4.5 17		
3 2	13 20.18	- 2 23.7	1.938	2.785	12.7	21.0	3 2	13 20.58	- 5 2.8	2.316	3.148	11.4	20.4
3 12	13 15.55	- 1 36.4	1.853	2.775	9.4	20.8	3 12	13 15.52	- 4 49.0	2.229	3.143	8.5	20.2
3 22	13 8.90	- 0 40.7	1.792	2.764	5.6	20.5	3 22	13 8.75	- 4 28.0	2.168	3.137	5.1	20.0
4 1	13 0.89	+ 0 18.2	1.758	2.753	2.4	20.3	4 1	13 0.84	- 4 2.7	2.135	3.132	1.5	19.7
4 11	12 52.41	+ 1 13.6	1.753	2.742	4.2	20.4	4 11	12 52.55	- 3 37.1	2.130	3.126	2.6	19.8
4 21	12 44.40	+ 1 59.5	1.775	2.731	8.1	20.6	4 21	12 44.69	- 3 15.2	2.155	3.120	6.2	20.0
5 1	12 37.74	+ 2 31.1	1.822	2.719	11.8	20.8	5 1	12 37.97	- 3 0.5	2.206	3.114	9.6	20.2
5 11	12 33.06	+ 2 45.8	1.891	2.708	15.1	21.0	5 11	12 32.96	- 2 55.7	2.281	3.108	12.5	20.4
10297	Lynnejonnes		4 5.2 278°99	3°9/ 2.4 18			184427	2005 <i>NG</i> ₁₂		4 5.2 198°65	0°4/ 5.6 17		
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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
12731	1991 <i>RW</i> ₁₂		4 5.2 269°01	0°3/ 4.9 18			239342	2007 <i>RQ</i> ₁₀₉		4 5.2 272°04	0°2/ 5.4 17		
3 2	13 20.04	- 8 34.8	1.601	2.444	15.1	17.4	3 2	13 18.74	- 9 7.3	2.072	2.902	12.7	21.4
3 12	13 15.81	- 7 52.4	1.521	2.439	11.3	17.1	3 12	13 14.33	- 8 38.8	1.991	2.901	9.5	21.2
3 22	13 9.23	- 6 54.0	1.464	2.434	6.9	16.9	3 22	13 8.10	- 7 58.3	1.933	2.900	5.8	21.0
4 1	13 1.03	- 5 44.4	1.431	2.429	2.0	16.5	4 1	13 0.66	- 7 9.0	1.902	2.898	1.8	20.7
4 11	12 52.30	- 4 31.3	1.426	2.423	3.1	16.6	4 11	12 52.85	- 6 16.2	1.899	2.897	2.3	20.8
4 21	12 44.18	- 3 22.8	1.448	2.418	8.0	16.9	4 21	12 45.53	- 5 25.3	1.925	2.896	6.3	21.0
5 1	12 37.69	- 2 26.6	1.494	2.413	12.5	17.1	5 1	12 39.48	- 4 41.8	1.977	2.894	10.0	21.2
5 11	12 33.55	- 1 47.8	1.561	2.407	16.3	17.4	5 11	12 35.25	- 4 9.8	2.052	2.893	13.2	21.4
135270	2001 <i>ST</i> ₁₁₈		4 5.2 189°59	1°8/ 7.2 18			23801	Erikgustafson		4 5.2 323°64	2°0/ 6.7 18		
3 2	13 18.89	-13 56.2	2.283	3.091	12.4	20.3	3 2	13 17.86	-12 37.3	1.325	2.171	17.5	18.1
3 12	13 14.32	-13 43.2	2.197	3.091	9.6	20.1	3 12	13 14.80	-12 27.6	1.239	2.154	13.6	17.8
3 22	13 8.04	-13 16.4	2.135	3.090	6.3	19.9	3 22	13 8.94	-11 56.6	1.172	2.138	8.9	17.5
4 1	13 0.63	-12 37.7	2.099	3.090	3.0	19.7	4 1	13 1.03	-11 6.4	1.129	2.123	3.8	17.2
4 11	12 52.86	-11 50.9	2.093	3.089	2.4	19.6	4 11	12 52.28	-10 3.3	1.109	2.108	3.2	17.1
4 21	12 45.54	-11 0.8	2.114	3.089	5.5	19.8	4 21	12 44.09	- 8 56.1	1.115	2.094	8.5	17.3
5 1	12 39.38	- 3 22.8	2.163	3.088	8.9	20.0	5 1	12 37.76	- 7 54.9	1.143	2.081	13.7	17.6
5 11	12 34.95	- 9 31.8	2.236	3.087	11.9	20.2	5 11	12 34.22	- 7 7.9	1.190	2.069	18.3	17.8
27823	1993 <i>UC</i> ₈		4 5.2 193°66	1°6/ 3.4 17			28350	1999 <i>FC</i> ₂₆		4 5.2 125°41	2°0/ 7.3 18		
3 2	13 21.05	- 3 48.4	2.287	3.122	11.5	20.7	3 2	13 21.43	-13 44.0	2.388	3.189	12.1	18.2
3 12	13 15.85	- 2 58.5	2.204	3.120	8.4	20.5	3 12	13 16.09	-13 48.1	2.308	3.197	9.4	18.1
3 22	13 8.94	- 2 0.3	2.147	3.117	5.0	20.2	3 22	13 9.06	-13 39.9	2.252	3.205	6.2	17.9
4 1	13 0.89	- 0 58.6	2.118	3.114	1.9	20.0	4 1	13 0.94	-13 20.8	2.223	3.212	3.1	17.7
4 11	12 52.51	+ 0 1.2	2.119	3.110	3.4	20.1	4 11	12 52.51	-12 53.8	2.224	3.219	2.5	17.6
4 21	12 44.58	+ 0 53.5	2.149	3.105	6.9	20.3	4 21	12 44.54	-12 22.7	2.254	3.227	5.3	17.8
5 1	12 37.83	+ 1 34.0	2.206	3.099	10.2	20.5	5 1	12 37.77	-11 52.1	2.311	3.233	8.5	18.1
5 11	12 32.81	+ 2 0.1	2.286	3.093	13.1	20.7	5 11	12 32.70	-11 26.1	2.392	3.240	11.3	18.2
465640	2009 <i>MN</i> ₉		4 5.2 257°21	0°8/ 5.9 18			367472	2009 <i>DT</i> ₅₆		4 5.2 325°29	2°0/ 3.9 17		
3 2	13 20.35	-12 9.2	1.992	2.811	13.5	21.6	3 2	13 19.53	- 3 48.1	1.220	2.090	17.1	21.0
3 12	13 15.81	-11 23.3	1.887	2.790	10.4	21.4	3 12	13 16.17	- 3 23.0	1.140	2.072	12.8	20.7
3 22	13 9.17	-10 19.5	1.805	2.768	6.6	21.1	3 22	13 9.84	- 2 45.3	1.080	2.056	7.8	20.4
4 1	13 1.02	- 9 1.0	1.750	2.746	2.4	20.8	4 1	13 1.31	- 2 0.6	1.043	2.040	2.6	20.0
4 11	12 52.26	- 7 33.9	1.724	2.722	2.4	20.7	4 11	12 51.91	- 1 17.6	1.030	2.025	4.8	20.1
4 21	12 43.86	- 6 5.6	1.727	2.698	6.8	21.0	4 21	12 43.13	- 0 44.7	1.040	2.011	10.4	20.4
5 1	12 36.75	- 4 44.2	1.756	2.674	11.0	21.1	5 1	12 36.37	- 0 28.8	1.072	1.997	15.7	20.6
5 11	12 31.64	- 3 36.2	1.809	2.649	14.7	21.3	5 11	12 32.57	- 0 33.8	1.122	1.985	20.2	20.8
371635	2007 <i>BC</i> ₂		4 5.2 38°94	5°4/ 9.0 18			30100	Christophergo		4 5.2 271°95	9°2/ 25.9 18		
3 2	13 23.88	-18 30.7	1.429	2.239	18.4	20.1	3 2	13 20.69	+15 31.9	1.794	2.651	13.1	18.5
3 12	13 18.89	-19 14.1	1.367	2.253	14.7	19.9	3 12	13 16.18	+17 20.1	1.724	2.633	10.8	18.3
3 22	13 11.15	-19 35.6	1.325	2.268	10.6	19.7	3 22	13 9.42	+19 3.1	1.678	2.614	9.3	18.1
4 1	13 1.60	-19 34.0	1.306	2.284	6.8	19.5	4 1	13 1.11	+20 30.1	1.658	2.596	9.5	18.1
4 11	12 51.56	-19 12.2	1.311	2.300	5.5	19.4	4 11	12 52.26	+21 31.9	1.663	2.577	11.4	18.2
4 21	12 42.41	-18 36.2	1.342	2.316	8.1	19.6	4 21	12 43.95	+22 3.2	1.691	2.557	14.1	18.3
5 1	12 35.31	-17 54.4	1.397	2.333	11.9	19.9	5 1	12 37.15	+22 2.4	1.740	2.538	16.8	18.4
5 11	12 30.97	-17 15.1	1.474	2.351	15.5	20.1	5 11	12 32.56	+21 32.0	1.805	2.519	19.3	18.6
264712	2002 <i>BR</i> ₂		4 5.2 114°47	1°7/ 6.7 17			89510	2001 <i>XB</i> ₅₅		4 5.2 249°49	4°7/ 1.0 18		
3 2	13 21.71	-12 43.2	1.946	2.762	13.9	21.0	3 2	13 21.71	+ 1 39.6	1.560	2.422	14.5	19.6
3 12	13 16.59	-12 32.0	1.871	2.770	10.7	20.8	3 12	13 17.13	+ 2 57.5	1.483	2.411	10.8	19.3
3 22	13 9.48	-12 6.0	1.820	2.779	6.9	20.6	3 22	13 10.09	+ 4 23.3	1.428	2.400	6.9	19.1
4 1	13 1.06	-11 27.6	1.795	2.787	3.0	20.4	4 1	13 1.32	+ 5 48.2	1.400	2.388	4.7	18.9
4 11	12 52.30	-10 41.4	1.798	2.795	2.5	20.4	4 11	12 51.97	+ 7 2.2	1.399	2.376	7.0	19.0
4 21	12 44.14	- 9 53.0	1.829	2.803	6.3	20.6	4 21	12 43.22	+ 7 57.2	1.423	2.364	11.0	19.2
5 1	12 37.43	- 9 8.5	1.887	2.811	10.0	20.9	5 1	12 36.17	+ 8 27.9	1.470	2.351	15.1	19.4
5 11	12 32.76	- 8 32.7	1.968	2.819	13.3	21.1	5 11	12 31.54	+ 8 33.2	1.535	2.338	18.6	19.6
83849	2001 <i>UG</i> ₄₀		4 5.2 28°00	3°2/ 2.1 18			303689	2005 <i>NJ</i> ₆₇		4 5.2 222°93	5°4/ 12.6 17		
3 2	13 20.72	+ 2 25.8	2.131	2.980	11.6	19.2	3 2	13 19.42	-28 44.1	3.047	3.756	11.8	21.4
3 12	13 15.66	+ 2 55.9	2.060	2.981	8.6	19.0	3 12	13 14.54	-28 55.3	2.939	3.746	10.0	21.3
3 22	13 8.82	+ 3 28.3	2.013	2.983	5.4	18.8	3 22	13 8.14	-28 49.2	2.852	3.736	8.1	21.1
4 1	13 0.85	+ 3 58.2	1.995	2.984	3.2	18.7	4 1	13 0.69	-28 25.1	2.791	3.725	6.3	21.0
4 11	12 52.58	+ 4 20.7	2.004	2.986	4.7	18.8	4 11	12 52.85	-27 43.9	2.758	3.714	5.4	20.9
4 21	12 44.85	+ 4 32.0	2.042	2.987	7.9	19.0	4 21	12 45.31	-26 48.7	2.752	3.702	5.9	20.9
5 1	12 38.39	+ 4 29.7	2.104	2.989	11.0	19.2	5 1	12 38.72	-25 44.0	2.775	3.690	7.6	21.0
5 11	12 33.75	+ 4 13.1	2.189	2.991	13.8	19.4	5 11	12 33.61	-24 35.6	2.824	3.677	9.6	21.1
458837	2011 <i>UH</i> ₄₀		4 5.2 187°24	0°1/ 5.1 16			433616	2013 <i>YZ</i> ₁₀₃		4 5.2 128°15	3°5/ 1.6 17		
3 2	13 26.09	- 7 5.3	1.691	2.525	14.9	22.5	3 2	13 20.97	+ 2 38.3	2.124	2.973	11.7	21.6
3 12	13 20.18	- 6 52.4	1.612	2.525	11.2	22.2	3 12	13 15.81	+ 3 26.2	2.059	2.981	8.6	21.4
3 22	13 11.83	- 6 27.8	1.556	2.524	6.8	22.0	3 22	13 8.90	+ 4 16.6	2.020	2.989	5.4	21.2
4 1	13 1.80	- 5 55.0	1.526	2.523	2.0	21.7	4 1	13 0.89	+ 5 4.1	2.008	2.996	3.5	21.1
4 11	12 51.25	- 5 19.4	1.524	2.521	2.9	21.7	4 11	12 52.64	+ 5 43.0	2.025	3.003	5.1	21.2
4 21	12 41.36	- 4 46.9	1.550	2.519	7.7	22.0	4 21	12 44.96	+ 6 9.0	2.070	3.010	8.2	21.4
5 1	12 33.18	- 4 22.9	1.602	2.517	12.1	22.3	5 1	12 38.58	+ 6 19.5	2.139	3.016	11.2	21.6
5 11	12 27.43	- 4 11.5	1.675	2.513	15.8	22.5	5 11	12 34.02	+ 6 13.8	2.231	3.022	13.9	21.8
498494	2008 <i>CB</i> ₁₈₁		4 5.2 83°38	6°7/ 13.9 17			74830	1999 <i>TX</i> ₂₂		4 5.2 46°34	1°7/ 3.9 18		
3 2	13 21												

EPHEMERIDES

4 5.2

4 5.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
474073	2016 <i>JF</i> ₂₅		4 5.2 265°20	0°6/ 5.7 17			434798	2006 <i>RC</i> ₄₂		4 5.2 227°56	0°9/ 3.9 17		
3 2	13 20.87	- 9 33.0	1.845	2.676	14.0	21.3	3 2	13 16.46	- 7 7.3	2.471	3.303	10.8	21.8
3 12	13 16.18	- 9 15.8	1.760	2.670	10.6	21.0	3 12	13 12.41	- 6 1.0	2.382	3.296	8.0	21.6
3 22	13 9.37	- 8 45.3	1.699	2.665	6.6	20.8	3 22	13 6.86	- 4 43.7	2.320	3.290	4.7	21.4
4 1	13 1.09	- 8 4.5	1.663	2.659	2.2	20.5	4 1	13 0.32	- 3 19.9	2.286	3.283	1.4	21.2
4 11	12 52.32	- 7 18.4	1.656	2.654	2.5	20.5	4 11	12 53.47	- 1 55.5	2.282	3.276	2.7	21.3
4 21	12 44.07	- 6 33.1	1.676	2.648	6.9	20.7	4 21	12 47.00	- 0 36.5	2.308	3.268	6.2	21.5
5 1	12 37.26	- 5 54.4	1.721	2.642	11.0	21.0	5 1	12 41.55	+ 0 31.8	2.361	3.261	9.4	21.7
5 11	12 32.57	- 5 27.1	1.789	2.637	14.5	21.2	5 11	12 37.60	+ 1 25.7	2.437	3.253	12.1	21.8
505846	2015 <i>CA</i> ₄₂		4 5.2 37°62	4°4/31.7 17			201712	2003 <i>UQ</i> ₁₇₂		4 5.2 148°17	2°3/ 2.6 17		
3 2	13 17.41	+ 1 46.5	1.732	2.596	13.2	20.4	3 2	13 18.52	- 2 4.8	2.164	3.010	11.6	20.5
3 12	13 13.53	+ 3 8.4	1.673	2.602	9.7	20.2	3 12	13 14.04	- 1 5.3	2.092	3.014	8.5	20.3
3 22	13 7.66	+ 4 35.5	1.638	2.609	6.2	20.0	3 22	13 7.86	+ 0 1.4	2.046	3.017	5.1	20.1
4 1	13 0.54	+ 5 59.6	1.629	2.616	4.4	19.9	4 1	13 0.62	+ 1 9.6	2.027	3.021	2.4	19.9
4 11	12 53.13	+ 7 12.1	1.647	2.623	6.3	20.1	4 11	12 53.09	+ 2 13.3	2.038	3.024	4.1	20.0
4 21	12 46.37	+ 8 6.6	1.692	2.630	9.8	20.3	4 21	12 46.07	+ 3 6.8	2.076	3.027	7.4	20.2
5 1	12 41.08	+ 8 39.2	1.760	2.638	13.2	20.5	5 1	12 40.26	+ 3 46.0	2.141	3.030	10.7	20.4
5 11	12 37.81	+ 8 49.1	1.848	2.646	16.1	20.7	5 11	12 36.17	+ 4 8.8	2.227	3.033	13.5	20.6
372416	2009 <i>RN</i> ₄₉		4 5.2 134°57	0°6/ 5.7 17			411800	2012 <i>CF</i> ₅₇		4 5.2 116°68	3°5/ 8.2 18		
3 2	13 26.65	- 7 59.8	2.060	2.879	13.2	20.8	3 2	13 23.87	- 17 4.4	1.724	2.527	16.0	21.1
3 12	13 20.14	- 8 9.7	1.984	2.888	9.9	20.6	3 12	13 18.50	- 17 8.1	1.651	2.537	12.6	20.9
3 22	13 11.59	- 8 10.5	1.933	2.896	6.1	20.4	3 22	13 10.79	- 16 52.2	1.599	2.547	8.7	20.6
4 1	13 1.72	- 8 4.0	1.909	2.905	2.1	20.2	4 1	13 1.53	- 16 17.6	1.572	2.557	4.9	20.4
4 11	12 51.49	- 7 53.4	1.915	2.913	2.3	20.2	4 11	12 51.84	- 15 28.6	1.573	2.566	3.8	20.4
4 21	12 41.87	- 7 42.5	1.951	2.920	6.3	20.5	4 21	12 42.86	- 14 31.7	1.600	2.575	6.9	20.6
5 1	12 33.71	- 7 35.3	2.013	2.928	10.0	20.7	5 1	12 35.59	- 13 34.5	1.654	2.584	10.8	20.8
5 11	12 27.63	- 7 34.9	2.099	2.934	13.1	20.9	5 11	12 30.69	- 12 44.1	1.730	2.592	14.3	21.1
173456	2000 <i>QV</i> ₄₁		4 5.2 247°26	0°0/ 4.9 18			13580	de Saussure		4 5.2 187°07	2°4/ 8.0 18		
3 2	13 18.45	- 8 25.6	2.684	3.504	10.4	21.3	3 2	13 20.44	- 16 28.5	2.679	3.464	11.4	19.8
3 12	13 13.83	- 7 55.6	2.582	3.488	7.8	21.1	3 12	13 15.28	- 16 17.4	2.586	3.464	8.9	19.7
3 22	13 7.72	- 7 15.9	2.505	3.471	4.8	20.9	3 22	13 8.57	- 15 52.9	2.517	3.462	6.1	19.5
4 1	13 0.57	- 6 29.3	2.457	3.454	1.4	20.6	4 1	13 0.84	- 15 16.1	2.476	3.461	3.4	19.3
4 11	12 53.05	- 5 39.7	2.439	3.436	2.0	20.7	4 11	12 52.77	- 14 30.0	2.465	3.459	2.6	19.2
4 21	12 45.81	- 4 51.5	2.451	3.418	5.4	20.9	4 21	12 45.09	- 13 38.9	2.483	3.456	5.0	19.4
5 1	12 39.52	- 4 8.9	2.490	3.399	8.5	21.0	5 1	12 38.45	- 12 47.5	2.530	3.452	7.9	19.6
5 11	12 34.66	- 3 35.5	2.554	3.381	11.3	21.2	5 11	12 33.34	- 12 0.4	2.602	3.448	10.6	19.7
404598	2013 <i>VF</i> ₁₀		4 5.2 242°46	0°7/ 6.1 18			126649	2002 <i>CA</i> ₁₉₅		4 5.2 208°37	1°9/ 2.7 17		
3 2	13 20.24	- 12 20.1	2.334	3.144	12.1	21.9	3 2	13 17.33	- 1 27.5	2.798	3.637	9.5	20.6
3 12	13 15.42	- 11 33.1	2.227	3.125	9.2	21.6	3 12	13 12.86	- 0 41.9	2.715	3.633	6.9	20.4
3 22	13 8.80	- 10 30.6	2.144	3.105	5.9	21.4	3 22	13 7.05	+ 0 8.8	2.657	3.628	4.2	20.2
4 1	13 0.93	- 9 15.4	2.090	3.084	2.1	21.1	4 1	13 0.37	+ 1 0.7	2.629	3.622	2.0	20.0
4 11	12 52.56	- 7 52.9	2.065	3.063	2.1	21.1	4 11	12 53.43	+ 1 49.3	2.630	3.617	3.3	20.1
4 21	12 44.51	- 6 29.3	2.070	3.041	6.0	21.3	4 21	12 46.83	+ 2 30.8	2.661	3.611	6.1	20.3
5 1	12 37.58	- 5 11.4	2.104	3.018	9.7	21.4	5 1	12 41.14	+ 3 1.9	2.719	3.605	8.8	20.5
5 11	12 32.37	- 4 4.8	2.161	2.994	12.9	21.6	5 11	12 36.79	+ 3 20.7	2.801	3.598	11.2	20.6
507686	2013 <i>SL</i> ₈₀		4 5.2 77°41	2°2/ 6.6 17			20032	1992 <i>PU</i>		4 5.2 212°02	0°7/ 5.8 18		
3 2	13 29.85	- 10 15.0	1.830	2.643	14.8	20.8	3 2	13 22.05	- 10 47.7	1.766	2.593	14.7	18.7
3 12	13 22.86	- 11 0.5	1.751	2.648	11.4	20.6	3 12	13 17.16	- 10 16.0	1.681	2.589	11.1	18.5
3 22	13 13.43	- 11 35.9	1.696	2.654	7.4	20.4	3 22	13 10.01	- 9 28.1	1.619	2.584	6.9	18.2
4 1	13 2.32	- 12 1.0	1.667	2.659	3.4	20.2	4 1	13 1.32	- 8 27.4	1.583	2.579	2.4	17.9
4 11	12 50.67	- 12 17.3	1.668	2.664	3.0	20.1	4 11	12 52.10	- 7 20.3	1.575	2.573	2.6	17.9
4 21	12 39.67	- 12 27.8	1.698	2.670	6.9	20.4	4 21	12 43.45	- 6 14.0	1.595	2.567	7.2	18.2
5 1	12 30.37	- 12 36.4	1.755	2.675	10.8	20.6	5 1	12 36.34	- 5 15.7	1.640	2.560	11.5	18.4
5 11	12 23.51	- 12 47.2	1.835	2.681	14.3	20.9	5 11	12 31.47	- 4 31.2	1.708	2.553	15.2	18.6
97927	2000 <i>QA</i> ₁₀₀		4 5.2 128°46	1°9/ 3.7 18			386574	2009 <i>DO</i> ₁₃₂		4 5.2 329°34	1°2/ 3.9 17		
3 2	13 25.73	- 3 9.3	1.729	2.571	14.3	19.8	3 2	13 17.80	- 4 38.8	2.010	2.855	12.4	20.9
3 12	13 19.66	- 2 36.6	1.665	2.584	10.5	19.6	3 12	13 13.72	- 4 6.1	1.927	2.848	9.2	20.7
3 22	13 11.36	- 1 55.9	1.625	2.596	6.2	19.4	3 22	13 7.79	- 3 24.4	1.869	2.841	5.5	20.5
4 1	13 1.66	- 1 12.2	1.612	2.608	2.3	19.2	4 1	13 0.63	- 2 38.0	1.838	2.835	1.8	20.2
4 11	12 51.65	- 0 32.0	1.627	2.620	3.9	19.3	4 11	12 53.06	- 1 52.4	1.835	2.829	3.2	20.3
4 21	12 42.43	- 0 0.8	1.670	2.630	8.1	19.6	4 21	12 45.96	- 1 12.9	1.859	2.823	7.1	20.5
5 1	12 34.92	+ 0 17.3	1.739	2.641	12.0	19.8	5 1	12 40.12	- 0 44.3	1.909	2.818	10.8	20.7
5 11	12 29.71	+ 0 20.0	1.828	2.650	15.3	20.1	5 11	12 36.12	- 0 29.4	1.980	2.813	13.9	20.9
429579	2011 <i>EO</i> ₁₆		4 5.2 268°15	2°7/ 2.6 17			156457	2002 <i>BU</i> ₂₄		4 5.2 67°55	9°2/26.6 18		
3 2	13 19.61	- 1 34.8	1.846	2.698	13.0	21.3	3 2	13 20.91	+ 16 43.9	1.762	2.619	13.3	19.5
3 12	13 15.18	- 0 42.5	1.768	2.692	9.6	21.1	3 12	13 16.11	+ 18 19.2	1.718	2.625	11.0	19.4
3 22	13 8.72	+ 0 17.8	1.714	2.687	5.8	20.9	3 22	13 9.21	+ 19 44.7	1.697	2.631	9.4	19.3
4 1	13 0.90	+ 1 20.1	1.687	2.681	2.8	20.7	4 1	13 1.03	+ 20 50.8	1.702	2.637	9.5	19.3
4 11	12 52.64	+ 2 17.4	1.687	2.675	4.6	20.8	4 11	12 52.59	+ 21 30.3	1.731	2.644	11.1	19.4
4 21	12 44.92	+ 3 3.4	1.715	2.669	8.5	21.0	4 21	12 44.92	+ 21 40.1	1.783	2.650	13.4	19.6
5 1	12 38.62	+ 3 33.5	1.767	2.663	12.2	21.2	5 1	12 38.86	+ 21 20.9	1.856	2.657	15.8	19.7
5 11	12 34.34	+ 3 45.3	1.841	2.657	15.5	21.4	5 11	12 34.96	+ 20 35.9	1.946	2.663	18.0	19.9
312935	5042 <i>T-3</i>		4 5.2 109°38	3°9/ 1.8 18			221097	2005					

EPHEMERIDES

4 5.2

4 5.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
188069	2001 <i>WP</i> ₄₈		4 5.2 211°57'	7.1/28.9	17		370026	2000 <i>OK</i> ₅₆		4 5.2 184°97'	3.6/8.9	17	
3 2	13 21.64	+11 24.1	1.913	2.768	12.5	20.4	3 2	13 23.91	-18 59.0	2.460	3.232	12.7	21.8
3 12	13 16.59	+12 43.3	1.849	2.765	9.8	20.2	3 12	13 18.05	-19 10.9	2.367	3.232	10.2	21.6
3 22	13 9.52	+13 58.8	1.811	2.762	7.6	20.0	3 22	13 10.36	-19 7.6	2.298	3.232	7.3	21.4
4 1	13 1.14	+15 2.4	1.798	2.758	7.2	20.0	4 1	13 1.44	-18 49.2	2.255	3.230	4.6	21.2
4 11	12 52.41	+15 46.9	1.813	2.754	8.8	20.1	4 11	12 52.09	-18 18.0	2.242	3.229	3.7	21.1
4 21	12 44.29	+16 7.8	1.853	2.750	11.5	20.2	4 21	12 43.15	-17 37.7	2.257	3.226	5.7	21.3
5 1	12 37.63	+16 3.9	1.915	2.746	14.3	20.4	5 1	12 35.41	-16 53.4	2.301	3.223	8.6	21.4
5 11	12 33.01	+15 36.7	1.997	2.741	16.8	20.6	5 11	12 29.46	-16 10.7	2.370	3.220	11.4	21.6
34425	2000 <i>SP</i> ₂₂		4 5.2 285°42'	6.3/31.1	17		359464	2010 <i>NG</i> ₆₁		4 5.2 157°51'	0.7/6.0	17	
3 2	13 22.44	+ 5 10.5	1.466	2.333	15.0	18.7	3 2	13 17.82	-10 5.9	2.836	3.649	10.1	21.4
3 12	13 18.01	+ 6 24.2	1.380	2.309	11.4	18.4	3 12	13 13.23	- 9 51.6	2.752	3.652	7.6	21.3
3 22	13 10.83	+ 7 43.1	1.317	2.285	7.9	18.1	3 22	13 7.29	- 9 28.3	2.692	3.654	4.8	21.1
4 1	13 1.64	+ 8 57.5	1.279	2.260	6.3	18.0	4 1	13 0.48	- 8 58.2	2.662	3.656	1.7	20.9
4 11	12 51.61	+ 9 56.8	1.266	2.236	8.6	18.0	4 11	12 53.42	- 8 24.4	2.661	3.658	1.7	20.9
4 21	12 42.08	+10 32.7	1.277	2.211	12.7	18.2	4 21	12 46.72	- 7 50.5	2.689	3.660	4.7	21.1
5 1	12 34.31	+10 40.7	1.310	2.186	16.9	18.4	5 1	12 40.94	- 7 19.9	2.746	3.662	7.6	21.3
5 11	12 29.19	+10 20.5	1.361	2.161	20.7	18.6	5 11	12 36.52	- 6 55.9	2.827	3.664	10.1	21.4
42308	2001 <i>VM</i> ₅₀		4 5.2 266°24'	2.4/7.6	18		508386	2016 <i>FE</i> ₆₃		4 5.2 270°79'	4.2/1.4	17	
3 2	13 20.37	-14 38.0	2.272	3.074	12.6	19.3	3 2	13 22.17	+ 3 23.0	1.907	2.759	12.6	21.6
3 12	13 15.51	-14 44.3	2.182	3.070	9.9	19.1	3 12	13 17.17	+ 4 11.4	1.818	2.741	9.5	21.3
3 22	13 8.85	-14 37.2	2.115	3.067	6.7	18.9	3 22	13 10.03	+ 5 3.6	1.753	2.722	6.2	21.1
4 1	13 0.96	-14 17.8	2.076	3.063	3.5	18.7	4 1	13 1.38	+ 5 53.1	1.716	2.702	4.2	20.9
4 11	12 52.64	-13 48.8	2.064	3.059	2.8	18.6	4 11	12 52.16	+ 6 33.1	1.706	2.683	6.0	21.0
4 21	12 44.73	-13 14.6	2.081	3.055	5.6	18.8	4 21	12 43.37	+ 6 58.3	1.723	2.663	9.5	21.1
5 1	12 38.02	-12 39.8	2.125	3.051	9.0	19.0	5 1	12 35.97	+ 7 5.0	1.765	2.643	13.1	21.3
5 11	12 33.09	-12 9.5	2.194	3.047	12.0	19.1	5 11	12 30.65	+ 6 52.3	1.827	2.622	16.3	21.5
62352	2000 <i>SG</i> ₁₄₃		4 5.2 141°85'	3.1/9.1	18		119991	2002 <i>XV</i> ₈₁		4 5.2 178°69'	0.4/5.5	18	
3 2	13 18.18	-19 10.9	2.616	3.393	11.8	19.4	3 2	13 25.90	- 9 0.7	1.645	2.475	15.4	20.2
3 12	13 13.64	-19 0.8	2.529	3.398	9.4	19.2	3 12	13 20.13	- 8 43.7	1.567	2.477	11.6	20.0
3 22	13 7.59	-18 35.5	2.467	3.403	6.7	19.0	3 22	13 11.87	- 8 12.6	1.511	2.478	7.2	19.7
4 1	13 0.55	-17 56.0	2.431	3.408	4.1	18.9	4 1	13 1.93	- 7 30.6	1.482	2.478	2.3	19.4
4 11	12 53.23	-17 5.5	2.423	3.413	3.1	18.8	4 11	12 51.45	- 6 43.7	1.481	2.478	2.8	19.4
4 21	12 46.32	-16 8.2	2.445	3.417	5.0	18.9	4 21	12 41.66	- 5 58.5	1.507	2.478	7.7	19.7
5 1	12 40.47	-15 9.4	2.495	3.422	7.8	19.1	5 1	12 33.63	- 5 21.4	1.558	2.476	12.1	20.0
5 11	12 36.15	-14 14.1	2.570	3.426	10.4	19.3	5 11	12 28.08	- 4 57.3	1.631	2.475	15.9	20.2
299889	2006 <i>SC</i> ₃₄₁		4 5.2 46°62'	1.9/3.0	17		501893	2014 <i>WE</i> ₄₂₈		4 5.2 205°46'	3.0/1.8	18	
3 2	13 16.43	- 4 1.1	2.123	2.969	11.8	20.4	3 2	13 19.18	- 0 36.2	2.115	2.963	11.7	21.2
3 12	13 12.53	- 2 57.6	2.052	2.974	8.6	20.2	3 12	13 14.63	+ 0 33.3	2.037	2.960	8.6	21.0
3 22	13 6.98	- 1 45.1	2.005	2.978	5.1	20.0	3 22	13 8.31	+ 1 49.8	1.985	2.956	5.3	20.8
4 1	13 0.38	- 0 29.2	1.987	2.982	2.0	19.8	4 1	13 0.82	+ 3 7.2	1.961	2.952	3.0	20.6
4 11	12 53.50	+ 0 43.5	1.997	2.987	3.7	19.9	4 11	12 52.97	+ 4 18.4	1.966	2.948	4.8	20.7
4 21	12 47.12	+ 1 46.9	2.035	2.992	7.2	20.1	4 21	12 45.61	+ 5 17.6	1.999	2.943	8.1	20.9
5 1	12 41.93	+ 2 36.5	2.100	2.997	10.5	20.4	5 1	12 39.48	+ 6 0.1	2.057	2.938	11.4	21.1
5 11	12 38.43	+ 3 9.4	2.186	3.002	13.4	20.6	5 11	12 35.13	+ 6 24.2	2.137	2.932	14.3	21.3
327279	2005 <i>SD</i> ₂₆₅		4 5.2 226°85'	0.3/4.8	17		141373	2002 <i>AS</i> ₅₂		4 5.2 143°67'	3.3/1.1	18	
3 2	13 19.15	- 9 42.5	2.083	2.910	12.7	22.2	3 2	13 17.38	+ 2 35.6	2.463	3.313	10.2	19.9
3 12	13 14.72	- 8 37.4	1.991	2.901	9.5	21.9	3 12	13 13.02	+ 3 33.6	2.394	3.316	7.5	19.7
3 22	13 8.41	- 7 16.7	1.924	2.891	5.8	21.7	3 22	13 7.21	+ 4 34.3	2.350	3.319	4.8	19.6
4 1	13 0.84	- 5 45.3	1.884	2.881	1.7	21.4	4 1	13 0.46	+ 5 32.7	2.335	3.321	3.3	19.5
4 11	12 52.84	- 4 10.0	1.874	2.870	2.7	21.4	4 11	12 53.48	+ 6 23.4	2.349	3.324	4.8	19.6
4 21	12 45.28	- 2 38.5	1.893	2.859	6.8	21.7	4 21	12 46.93	+ 7 2.2	2.391	3.326	7.5	19.7
5 1	12 38.97	- 1 17.9	1.939	2.847	10.6	21.9	5 1	12 41.43	+ 7 26.4	2.458	3.328	10.2	19.9
5 11	12 34.50	- 0 13.4	2.008	2.835	13.9	22.1	5 11	12 37.44	+ 7 34.8	2.548	3.331	12.6	20.1
69808	1998 <i>RO</i> ₂₉		4 5.2 231°97'	2.0/7.1	18		359112	2009 <i>BP</i> ₃₀		4 5.2 293°29'	3.7/2.4	17	
3 2	13 23.33	-12 52.8	2.311	3.113	12.4	20.3	3 2	13 21.19	- 0 54.0	1.403	2.267	15.6	20.4
3 12	13 17.73	-13 2.8	2.213	3.104	9.6	20.1	3 12	13 17.14	+ 0 0.2	1.318	2.248	11.7	20.1
3 22	13 10.23	-13 1.1	2.140	3.094	6.4	19.9	3 22	13 10.34	+ 1 5.0	1.255	2.229	7.2	19.8
4 1	13 1.40	-12 48.6	2.094	3.084	3.1	19.7	4 1	13 1.54	+ 2 13.1	1.216	2.210	3.7	19.5
4 11	12 52.08	-12 27.7	2.078	3.074	2.5	19.6	4 11	12 51.94	+ 3 14.7	1.203	2.191	6.1	19.6
4 21	12 43.11	-12 2.3	2.091	3.063	5.7	19.8	4 21	12 42.88	+ 4 1.2	1.215	2.172	10.9	19.8
5 1	12 35.35	-11 36.9	2.131	3.052	9.2	20.0	5 1	12 35.63	+ 4 26.0	1.250	2.153	15.6	20.0
5 11	12 29.40	-11 16.0	2.196	3.041	12.3	20.2	5 11	12 31.05	+ 4 26.7	1.302	2.135	19.7	20.2
469391	2001 <i>SV</i> ₃₃₃		4 5.2 214°56'	0.8/6.1	17		171234	2005 <i>JO</i> ₁₆₅		4 5.2 124°09'	1.6/3.3	18	
3 2	13 19.78	-10 14.6	2.435	3.251	11.5	21.6	3 2	13 17.14	- 4 58.0	2.178	3.020	11.7	20.3
3 12	13 14.92	-10 1.3	2.345	3.247	8.7	21.4	3 12	13 13.04	- 3 51.0	2.104	3.023	8.6	20.1
3 22	13 8.42	- 9 37.5	2.281	3.243	5.5	21.2	3 22	13 7.30	- 2 34.2	2.055	3.027	5.1	19.9
4 1	13 0.83	- 9 5.3	2.244	3.239	2.0	20.9	4 1	13 0.51	- 1 13.0	2.035	3.031	1.9	19.7
4 11	12 52.89	- 8 28.5	2.237	3.234	2.0	20.9	4 11	12 53.44	+ 0 5.9	2.043	3.034	3.4	19.8
4 21	12 45.34	- 7 51.2	2.258	3.230	5.5	21.2	4 21	12 46.86	+ 1 16.2	2.080	3.038	7.0	20.0
5 1	12 38.88	- 7 17.8	2.307	3.225	8.8	21.4	5 1	12 41.46	+ 2 13.0	2.144	3.041	10.3	20.2
5 11	12 34.04	- 6 52.0	2.380	3.220	11.6	21.5	5 11	12 37.73	+ 2 53.3	2.230	3.044	13.2	20.4
71480	Roberthatt		4 5.2 42°83'	1.7/6.6	18		94516	2001 <i>UA</i> ₁₀₉		4 5.2 139°47'	1.4/4.1	18	
3 2	13 22.44												

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
190814	2001 <i>RZ</i> ₁₂₅		4 5.2 180°77	0°7/ 4.7	18		508247	2015 <i>HG</i> ₅₆		4 5.2 241°99	5°3/11.8	17	
3 2	13 25.81	- 6 19.6	1.782	2.615	14.3	20.9	3 2	13 18.41	-26 16.6	2.454	3.195	13.5	21.2
3 12	13 19.88	- 5 52.9	1.703	2.616	10.7	20.6	3 12	13 14.11	-26 17.9	2.355	3.189	11.3	21.0
3 22	13 11.64	- 5 14.9	1.648	2.617	6.4	20.4	3 22	13 8.05	-25 58.9	2.278	3.183	8.9	20.8
4 1	13 1.87	- 4 29.9	1.620	2.617	1.9	20.1	4 1	13 0.80	-25 19.2	2.226	3.178	6.6	20.6
4 11	12 51.62	- 3 43.7	1.621	2.617	3.1	20.2	4 11	12 53.13	-24 20.9	2.200	3.172	5.4	20.6
4 21	12 42.00	- 3 2.5	1.650	2.616	7.7	20.4	4 21	12 45.87	-23 8.5	2.203	3.165	6.3	20.6
5 1	12 34.02	- 2 31.6	1.704	2.613	11.8	20.7	5 1	12 39.76	-21 48.2	2.233	3.159	8.5	20.7
5 11	12 28.34	- 2 14.8	1.780	2.611	15.3	20.9	5 11	12 35.38	-20 27.2	2.287	3.153	11.1	20.9
238143	2003 <i>SP</i> ₁₈		4 5.2 69°56	0°1/ 5.1	17		477963	2011 <i>SG</i> ₃₅		4 5.2 208°03	0°8/ 4.3	17	
3 2	13 18.87	- 8 39.8	1.932	2.767	13.3	21.0	3 2	13 19.90	- 4 33.3	2.609	3.439	10.4	21.6
3 12	13 14.56	- 8 1.6	1.855	2.768	9.9	20.8	3 12	13 14.89	- 4 15.1	2.523	3.435	7.7	21.4
3 22	13 8.34	- 7 10.6	1.801	2.770	6.0	20.6	3 22	13 8.37	- 3 50.5	2.463	3.432	4.6	21.2
4 1	13 0.85	- 6 10.7	1.774	2.771	1.8	20.3	4 1	13 0.87	- 3 22.6	2.432	3.429	1.4	21.0
4 11	12 53.00	- 5 8.0	1.775	2.773	2.6	20.3	4 11	12 53.06	- 2 55.0	2.430	3.425	2.4	21.1
4 21	12 45.70	- 4 9.0	1.804	2.774	6.8	20.6	4 21	12 45.63	- 2 31.2	2.458	3.421	5.7	21.3
5 1	12 39.74	- 3 19.5	1.859	2.776	10.6	20.8	5 1	12 39.21	- 2 14.4	2.513	3.417	8.7	21.5
5 11	12 35.73	- 2 43.7	1.937	2.777	13.9	21.0	5 11	12 34.29	- 2 7.0	2.593	3.412	11.4	21.6
73589	1114 <i>T</i> -2		4 5.2 172°92	0°2/ 5.4	18		500608	2012 <i>UK</i> ₁₃₂		4 5.2 146°39	3°2/ 8.8	17	
3 2	13 23.24	- 9 18.7	2.033	2.855	13.2	21.2	3 2	13 20.13	-18 26.7	2.488	3.269	12.3	21.5
3 12	13 17.71	- 8 47.6	1.953	2.859	9.9	21.0	3 12	13 15.18	-18 26.2	2.403	3.274	9.8	21.3
3 22	13 10.21	- 8 3.8	1.896	2.862	6.1	20.7	3 22	13 8.60	-18 10.6	2.341	3.280	6.9	21.1
4 1	13 1.42	- 7 10.8	1.868	2.864	1.9	20.5	4 1	13 0.95	-17 40.8	2.306	3.285	4.2	21.0
4 11	12 52.24	- 6 14.0	1.868	2.865	2.4	20.5	4 11	12 52.98	-16 59.6	2.300	3.290	3.2	20.9
4 21	12 43.62	- 5 19.3	1.897	2.866	6.5	20.8	4 21	12 45.44	-16 11.3	2.323	3.295	5.3	21.1
5 1	12 36.40	- 4 32.5	1.953	2.866	10.3	21.0	5 1	12 39.03	-15 20.9	2.373	3.299	8.1	21.2
5 11	12 31.16	- 3 57.7	2.032	2.866	13.6	21.2	5 11	12 34.27	-14 33.8	2.448	3.303	10.8	21.4
275492	1991 <i>TW</i> ₁₆		4 5.2 142°02	1°2/ 4.1	18		170683	2004 <i>AO</i> ₄		4 5.2 39°58	1°2/ 4.2	18	
3 2	13 22.90	- 5 37.0	2.058	2.890	12.7	21.9	3 2	13 20.57	- 4 19.0	1.811	2.657	13.5	20.1
3 12	13 17.32	- 4 50.5	1.989	2.903	9.3	21.7	3 12	13 15.84	- 3 58.2	1.747	2.667	10.0	19.9
3 22	13 9.89	- 3 54.4	1.945	2.915	5.5	21.5	3 22	13 9.11	- 3 29.1	1.705	2.677	5.9	19.7
4 1	13 1.30	- 2 53.4	1.929	2.926	1.7	21.3	4 1	13 1.10	- 2 56.1	1.691	2.688	1.9	19.4
4 11	12 52.44	- 1 53.6	1.942	2.936	3.1	21.4	4 11	12 52.80	- 2 24.4	1.704	2.698	3.2	19.5
4 21	12 44.20	- 1 0.7	1.985	2.946	7.0	21.7	4 21	12 45.15	- 1 59.1	1.744	2.710	7.3	19.8
5 1	12 37.35	- 0 19.5	2.053	2.955	10.5	21.9	5 1	12 39.00	- 1 44.3	1.809	2.721	11.1	20.1
5 11	12 32.43	+ 0 7.2	2.145	2.963	13.5	22.1	5 11	12 34.89	- 1 42.4	1.896	2.733	14.3	20.3
341289	2007 <i>RC</i> ₂₉₄		4 5.2 9°20	0°3/ 5.6	17		86487	2000 <i>CQ</i> ₁₄₄		4 5.2 267°73	1°7/ 6.5	18	
3 2	13 18.67	- 9 31.3	2.023	2.853	12.9	21.2	3 2	13 23.43	-11 50.1	1.404	2.239	17.3	19.4
3 12	13 14.36	- 9 3.0	1.943	2.853	9.7	21.0	3 12	13 18.84	-11 43.9	1.321	2.231	13.3	19.1
3 22	13 8.20	- 8 22.1	1.887	2.854	6.0	20.7	3 22	13 11.40	-11 18.8	1.258	2.222	8.6	18.8
4 1	13 0.82	- 7 32.0	1.858	2.854	1.9	20.5	4 1	13 1.91	-10 37.1	1.220	2.214	3.5	18.5
4 11	12 53.07	- 6 37.9	1.856	2.854	2.3	20.5	4 11	12 51.62	- 9 44.5	1.207	2.205	3.1	18.4
4 21	12 45.83	- 5 45.6	1.883	2.855	6.3	20.7	4 21	12 41.98	- 8 48.9	1.220	2.196	8.3	18.7
5 1	12 39.88	- 5 0.6	1.936	2.855	10.1	21.0	5 1	12 34.26	- 7 59.1	1.256	2.187	13.3	19.0
5 11	12 35.79	- 4 27.3	2.012	2.856	13.3	21.2	5 11	12 29.34	- 7 22.3	1.313	2.178	17.7	19.2
198087	2004 <i>ST</i> ₂₄		4 5.2 133°14	0°9/ 6.2	17		70129	1999 <i>ND</i> ₆		4 5.2 240°17	1°2/ 4.1	16	
3 2	13 20.57	-11 15.7	2.061	2.881	13.1	20.9	3 2	13 22.48	- 6 0.7	1.901	2.737	13.4	20.7
3 12	13 15.71	-10 50.8	1.984	2.887	9.9	20.7	3 12	13 17.45	- 5 15.1	1.806	2.722	10.0	20.4
3 22	13 8.98	-10 12.3	1.931	2.894	6.2	20.5	3 22	13 10.25	- 4 17.2	1.736	2.706	6.0	20.1
4 1	13 1.05	- 9 23.3	1.905	2.900	2.3	20.3	4 1	13 1.51	- 3 11.5	1.693	2.690	1.9	19.8
4 11	12 52.79	- 8 28.7	1.908	2.906	2.2	20.3	4 11	12 52.18	- 2 4.7	1.678	2.673	3.4	19.9
4 21	12 45.08	- 7 34.3	1.939	2.912	6.1	20.5	4 21	12 43.27	- 1 3.7	1.692	2.655	7.8	20.1
5 1	12 38.71	- 6 45.9	1.997	2.917	9.7	20.8	5 1	12 35.76	- 0 14.8	1.731	2.637	11.9	20.3
5 11	12 34.22	- 6 7.7	2.078	2.922	12.9	21.0	5 11	12 30.35	+ 0 17.7	1.793	2.617	15.5	20.5
221781	2007 <i>RD</i> ₆₂		4 5.2 193°11	0°2/ 5.5	18	R	18012	Marsland		4 5.2 338°29	3°0/ 7.6	18	
3 2	13 19.99	- 8 49.3	2.279	3.103	11.9	20.9	3 2	13 17.98	-15 29.2	1.260	2.099	18.7	17.1
3 12	13 15.16	- 8 25.7	2.195	3.102	8.9	20.7	3 12	13 14.98	-15 15.8	1.182	2.091	14.6	16.8
3 22	13 8.62	- 7 51.5	2.135	3.101	5.5	20.4	3 22	13 9.13	-14 36.7	1.123	2.084	9.9	16.5
4 1	13 0.95	- 7 9.5	2.103	3.099	1.7	20.2	4 1	13 1.23	-13 33.8	1.087	2.078	4.9	16.2
4 11	12 52.93	- 6 24.3	2.100	3.098	2.2	20.2	4 11	12 52.59	-12 14.0	1.075	2.073	3.6	16.1
4 21	12 45.35	- 5 40.7	2.126	3.096	5.9	20.5	4 21	12 44.66	-10 47.7	1.087	2.068	8.4	16.3
5 1	12 38.94	- 5 3.3	2.179	3.093	9.3	20.7	5 1	12 38.73	- 9 26.4	1.122	2.064	13.5	16.6
5 11	12 34.25	- 4 35.8	2.255	3.091	12.3	20.9	5 11	12 35.65	- 8 20.1	1.176	2.060	18.1	16.9
333180	2012 <i>DP</i> ₅₉		4 5.2 280°96	0°4/ 4.9	17		129460	1992 <i>PW</i> ₂		4 5.2 228°40	0°9/ 6.4	18	
3 2	13 23.25	- 6 16.7	1.654	2.496	14.8	20.7	3 2	13 18.95	-12 19.7	2.791	3.595	10.5	21.0
3 12	13 18.31	- 6 6.1	1.566	2.483	11.1	20.4	3 12	13 14.21	-11 47.3	2.687	3.581	8.0	20.8
3 22	13 10.89	- 5 44.4	1.500	2.470	6.8	20.2	3 22	13 7.99	-11 3.0	2.609	3.567	5.1	20.6
4 1	13 1.71	- 5 15.0	1.460	2.457	2.0	19.8	4 1	13 0.79	-10 9.0	2.559	3.552	2.0	20.3
4 11	12 51.84	- 4 43.2	1.447	2.444	3.1	19.9	4 11	12 53.22	- 9 9.2	2.539	3.537	1.8	20.3
4 21	12 42.49	- 4 15.0	1.461	2.431	8.0	20.1	4 21	12 45.95	- 8 8.0	2.549	3.521	4.9	20.5
5 1	12 34.75	- 3 55.8	1.499	2.418	12.5	20.3	5 1	12 39.60	- 7 10.3	2.589	3.504	8.0	20.7
5 11	12 29.41	- 3 49.8	1.559	2.405	16.4	20.6	5 11	12 34.66	- 6 20.2	2.653	3.487	10.8	20.8
183348	2002 <i>VE</i> ₁₀₉		4 5.2 111°32	2°0/ 3.4	18		234019	1998 <i>QH</i> ₅₈		4 5.2 272°13	2°3/ 6.7	18	
3 2	13 2												

EPHEMERIDES

4 5.2

4 5.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
128787	2004 <i>RS</i> ₂₁₃		4 5.2 249°59	6°3/11.5	18		175359	2005 <i>QB</i> ₅₃		4 5.2 17°30	0°1/ 5.4	17	
3 2	13 22.46	-26 17.9	2.231	2.972	14.7	20.4	3 2	13 17.96	- 8 43.9	2.299	3.127	11.7	21.0
3 12	13 17.44	-26 40.7	2.123	2.956	12.4	20.2	3 12	13 13.65	- 8 16.1	2.218	3.127	8.7	20.8
3 22	13 10.27	-26 42.9	2.036	2.939	9.9	20.0	3 22	13 7.71	- 7 37.7	2.160	3.127	5.3	20.6
4 1	13 1.54	-26 22.5	1.973	2.922	7.5	19.8	4 1	13 0.72	- 6 51.8	2.131	3.127	1.7	20.3
4 11	12 52.14	-25 40.1	1.937	2.904	6.3	19.7	4 11	12 53.40	- 6 3.1	2.130	3.128	2.1	20.4
4 21	12 43.07	-24 39.7	1.928	2.886	7.3	19.8	4 21	12 46.52	- 5 16.4	2.158	3.128	5.8	20.6
5 1	12 35.29	-23 27.8	1.945	2.868	9.8	19.9	5 1	12 40.76	- 4 36.4	2.212	3.128	9.2	20.8
5 11	12 29.55	-22 12.4	1.987	2.849	12.7	20.0	5 11	12 36.64	- 4 6.7	2.291	3.128	12.1	21.0
125469	2001 <i>WM</i> ₁₁		4 5.2 324°97	6°7/31.7	18		502565	2015 <i>BN</i> ₄₉₃		4 5.2 118°53	5°9/29.3	17	
3 2	13 23.27	+ 6 4.2	1.261	2.134	16.4	18.4	3 2	13 20.00	+ 8 33.7	2.085	2.941	11.6	21.6
3 12	13 18.77	+ 7 2.1	1.195	2.126	12.5	18.2	3 12	13 15.15	+10 7.9	2.035	2.954	8.8	21.5
3 22	13 11.33	+ 8 1.2	1.150	2.119	8.6	17.9	3 22	13 8.58	+11 40.4	2.011	2.968	6.6	21.4
4 1	13 1.87	+ 8 51.4	1.130	2.113	6.7	17.8	4 1	13 0.96	+13 3.2	2.015	2.981	6.0	21.4
4 11	12 51.78	+ 9 22.8	1.133	2.106	8.9	17.9	4 11	12 53.13	+14 9.2	2.047	2.993	7.6	21.5
4 21	12 42.53	+ 9 29.0	1.160	2.101	13.0	18.1	4 21	12 45.92	+14 54.1	2.104	3.005	10.2	21.7
5 1	12 35.39	+ 9 7.7	1.207	2.095	17.2	18.3	5 1	12 40.04	+15 16.0	2.186	3.017	12.7	21.8
5 11	12 31.16	+ 8 20.7	1.272	2.091	20.9	18.6	5 11	12 35.95	+15 15.7	2.287	3.028	15.0	22.0
214247	2005 <i>EA</i> ₂₅₇		4 5.2 230°84	0°8/ 5.9	17		343849	2011 <i>HQ</i> ₄₁		4 5.2 281°15	2°3/ 8.0	18	
3 2	13 22.89	-10 53.5	2.048	2.865	13.3	21.4	3 2	13 16.82	-18 53.0	2.028	2.824	14.2	20.6
3 12	13 17.65	-10 27.9	1.950	2.852	10.1	21.2	3 12	13 13.16	-17 44.0	1.926	2.811	11.2	20.4
3 22	13 10.33	- 9 47.9	1.876	2.838	6.4	20.9	3 22	13 7.59	-16 10.5	1.848	2.798	7.6	20.1
4 1	13 1.54	- 8 56.2	1.829	2.824	2.3	20.6	4 1	13 0.71	-14 15.3	1.797	2.785	3.8	19.9
4 11	12 52.19	- 7 57.9	1.811	2.808	2.3	20.6	4 11	12 53.39	-12 5.6	1.775	2.772	2.6	19.7
4 21	12 43.24	- 6 58.9	1.821	2.792	6.6	20.8	4 21	12 46.52	- 9 50.5	1.783	2.759	6.2	19.9
5 1	12 35.62	- 6 5.5	1.859	2.776	10.6	21.0	5 1	12 40.93	- 7 40.4	1.818	2.746	10.1	20.1
5 11	12 29.99	- 5 23.1	1.920	2.758	14.0	21.2	5 11	12 37.23	- 5 44.2	1.878	2.733	13.7	20.3
501570	2014 <i>OQ</i> ₄₃		4 5.2 191°07	3°2/ 1.9	17		196115	2002 <i>TN</i> ₁₇₀		4 5.2 136°55	5°0/10.8	18	
3 2	13 23.17	+ 0 38.7	2.157	2.999	11.8	22.2	3 2	13 19.80	-23 44.1	2.237	2.997	14.1	20.0
3 12	13 17.57	+ 1 38.5	2.078	2.997	8.7	22.0	3 12	13 15.22	-23 50.5	2.149	2.999	11.6	19.9
3 22	13 10.11	+ 2 43.6	2.026	2.995	5.4	21.8	3 22	13 8.77	-23 37.1	2.083	3.002	8.9	19.7
4 1	13 1.43	+ 3 48.3	2.002	2.992	3.2	21.6	4 1	13 1.06	-23 3.5	2.042	3.005	6.2	19.5
4 11	12 52.39	+ 4 46.1	2.007	2.988	4.9	21.7	4 11	12 52.94	-22 12.2	2.029	3.007	5.0	19.4
4 21	12 43.86	+ 5 31.7	2.041	2.983	8.2	21.9	4 21	12 45.31	-21 8.3	2.042	3.009	6.3	19.5
5 1	12 36.62	+ 6 1.3	2.101	2.977	11.4	22.1	5 1	12 38.96	-19 58.1	2.083	3.012	9.0	19.7
5 11	12 31.24	+ 6 13.5	2.183	2.971	14.3	22.3	5 11	12 34.48	-18 48.8	2.148	3.014	11.7	19.9
152850	1999 <i>VG</i> ₁₈₃		4 5.2 166°04	2°0/ 6.9	18		119645	2001 <i>XF</i> ₄₀		4 5.2 27°16	12°2/26.8	18	
3 2	13 23.70	-14 15.5	1.533	2.355	16.8	20.8	3 2	13 29.08	+25 13.4	1.622	2.453	15.5	19.2
3 12	13 18.69	-13 50.2	1.457	2.358	13.0	20.5	3 12	13 22.38	+26 13.9	1.579	2.457	13.6	19.0
3 22	13 11.11	-13 3.7	1.401	2.361	8.5	20.3	3 22	13 13.11	+26 54.6	1.558	2.461	12.4	19.0
4 1	13 1.78	-11 58.9	1.371	2.363	3.7	20.0	4 1	13 2.32	+27 6.0	1.560	2.465	12.4	19.0
4 11	12 51.92	-10 42.6	1.368	2.365	3.0	20.0	4 11	12 51.36	+26 42.7	1.586	2.470	13.7	19.1
4 21	12 42.79	- 9 23.4	1.391	2.367	7.6	20.2	4 21	12 41.50	+25 44.8	1.633	2.475	15.7	19.2
5 1	12 35.51	- 8 10.8	1.439	2.368	12.2	20.5	5 1	12 33.75	+24 16.4	1.700	2.480	17.9	19.4
5 11	12 30.80	- 7 12.0	1.509	2.368	16.1	20.7	5 11	12 28.66	+22 24.1	1.784	2.486	19.9	19.5
489627	2007 <i>TJ</i> ₃₃₄		4 5.2 126°95	1°6/ 3.6	17		330404	2007 <i>BJ</i> ₁₈		4 5.2 69°08	2°3/ 7.2	17	
3 2	13 21.69	- 1 55.7	2.337	3.174	11.2	22.1	3 2	13 22.82	-13 32.2	1.658	2.479	15.8	20.7
3 12	13 16.28	- 1 35.4	2.265	3.181	8.2	22.0	3 12	13 17.78	-13 32.6	1.590	2.490	12.1	20.5
3 22	13 9.24	- 1 10.1	2.218	3.188	4.9	21.8	3 22	13 10.42	-13 16.0	1.544	2.502	8.0	20.3
4 1	13 1.15	- 0 43.6	2.199	3.194	1.9	21.6	4 1	13 1.56	-12 44.4	1.523	2.514	3.8	20.1
4 11	12 52.80	- 0 19.9	2.210	3.201	3.2	21.7	4 11	12 52.31	-12 2.5	1.529	2.526	3.0	20.0
4 21	12 44.96	- 0 2.8	2.249	3.207	6.5	21.9	4 21	12 43.80	-11 16.8	1.562	2.538	6.9	20.3
5 1	12 38.30	+ 0 5.0	2.316	3.213	9.6	22.1	5 1	12 36.99	-10 34.0	1.620	2.550	11.0	20.6
5 11	12 33.34	+ 0 1.7	2.405	3.219	12.3	22.3	5 11	12 32.54	- 9 59.9	1.701	2.562	14.5	20.8
141268	2001 <i>YG</i> ₃₂		4 5.2 151°46	4°0/10.1	18		277794	2006 <i>EY</i> ₃₄		4 5.2 31°30	1°0/ 4.3	17	
3 2	13 19.18	-21 45.3	2.571	3.334	12.4	20.2	3 2	13 20.94	- 5 2.8	1.853	2.696	13.4	20.9
3 12	13 14.50	-21 46.1	2.483	3.338	10.1	20.0	3 12	13 16.18	- 4 38.7	1.779	2.698	9.9	20.6
3 22	13 8.20	-21 30.4	2.417	3.342	7.5	19.9	3 22	13 9.38	- 4 5.3	1.728	2.699	5.9	20.4
4 1	13 0.86	-20 58.5	2.378	3.346	5.0	19.7	4 1	13 1.25	- 3 26.9	1.704	2.701	1.8	20.1
4 11	12 53.18	-20 13.0	2.366	3.349	4.0	19.7	4 11	12 52.72	- 2 48.8	1.708	2.703	3.1	20.2
4 21	12 45.92	-19 17.9	2.384	3.352	5.4	19.8	4 21	12 44.78	- 2 16.6	1.739	2.705	7.3	20.5
5 1	12 39.76	-18 18.7	2.429	3.355	7.9	19.9	5 1	12 38.29	- 1 54.7	1.795	2.707	11.2	20.7
5 11	12 35.20	-17 20.9	2.499	3.358	10.5	20.1	5 11	12 33.84	- 1 46.0	1.874	2.710	14.5	20.9
379413	2010 <i>AA</i> ₆₁		4 5.2 65°28	2°7/ 2.5	18		190678	2001 <i>BQ</i> ₆₃		4 5.2 78°18	2°8/ 2.4	18	
3 2	13 19.21	- 2 29.8	1.765	2.618	13.5	20.5	3 2	13 19.65	- 1 50.5	1.856	2.707	13.0	19.8
3 12	13 14.78	- 1 20.0	1.712	2.637	9.8	20.3	3 12	13 15.04	- 0 43.1	1.801	2.725	9.5	19.6
3 22	13 8.42	- 0 2.2	1.684	2.657	5.8	20.1	3 22	13 8.57	+ 0 31.4	1.770	2.742	5.7	19.4
4 1	13 0.91	+ 1 16.5	1.682	2.676	2.8	20.0	4 1	13 0.97	+ 1 46.3	1.766	2.760	2.8	19.2
4 11	12 53.20	+ 2 28.2	1.708	2.696	4.6	20.1	4 11	12 53.16	+ 2 54.2	1.791	2.777	4.6	19.4
4 21	12 46.21	+ 3 26.5	1.762	2.715	8.3	20.4	4 21	12 46.04	+ 3 49.1	1.843	2.794	8.2	19.6
5 1	12 40.73	+ 4 6.9	1.840	2.734	11.9	20.6	5 1	12 40.36	+ 4 26.7	1.920	2.811	11.6	19.9
5 11	12 37.24	+ 4 27.7	1.939	2.754	14.8	20.9	5 11	12 36.63	+ 4 45.6	2.018	2.828	14.5	20.1
466166	2012 <i>JS</i> ₁₆		4 5.2 251°09	4°3/ 1.1	17		199054	2005 <i>WB</i> ₁₉₅		4 5.2 107°52	0°3/ 5.5		

EPHEMERIDES

4 5.2

4 5.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
299749	2006 <i>RB</i> ₉₄		4 5.2 114°59	1°0/ 6.4 18			496113	2009 <i>WN</i> ₁₆₃		4 5.3 108°55	3°3/ 8.8 17		
3 2	13 19.69	-11 13.4	2.485	3.297	11.4	20.9	3 2	13 21.23	-18 52.0	2.099	2.885	14.1	21.5
3 12	13 14.78	-11 0.0	2.409	3.307	8.6	20.7	3 12	13 16.21	-18 37.8	2.025	2.901	11.1	21.3
3 22	13 8.33	-10 35.9	2.357	3.317	5.5	20.5	3 22	13 9.31	-18 5.1	1.974	2.916	7.8	21.2
4 1	13 0.90	-10 3.3	2.332	3.326	2.2	20.3	4 1	13 1.23	-17 15.4	1.950	2.931	4.6	21.0
4 11	12 53.22	-9 25.8	2.338	3.335	1.9	20.3	4 11	12 52.87	-16 13.1	1.953	2.945	3.4	20.9
4 21	12 45.99	-8 47.5	2.372	3.345	5.2	20.5	4 21	12 45.11	-15 4.0	1.985	2.959	5.9	21.1
5 1	12 39.87	-8 12.7	2.434	3.353	8.3	20.7	5 1	12 38.75	-13 55.1	2.044	2.973	9.1	21.3
5 11	12 35.32	-7 45.0	2.521	3.362	11.0	20.9	5 11	12 34.30	-12 52.6	2.128	2.986	12.1	21.5
436628	2011 <i>OC</i> ₂		4 5.3 306°83	4°7/10.2 17			434623	2005 <i>VU</i> ₁₃		4 5.3 235°88	2°3/ 8.7 18		
3 2	13 18.97	-21 56.5	2.122	2.896	14.3	21.2	3 2	13 16.93	-19 10.1	2.941	3.715	10.8	21.9
3 12	13 14.75	-22 4.7	2.029	2.891	11.7	21.0	3 12	13 12.69	-18 23.6	2.833	3.702	8.5	21.7
3 22	13 8.56	-21 53.3	1.957	2.885	8.8	20.8	3 22	13 7.08	-17 20.9	2.749	3.689	5.9	21.5
4 1	13 1.03	-21 22.1	1.911	2.880	6.0	20.6	4 1	13 0.56	-16 3.9	2.694	3.676	3.3	21.3
4 11	12 53.01	-20 33.7	1.891	2.875	4.7	20.5	4 11	12 53.74	-14 36.4	2.669	3.662	2.4	21.2
4 21	12 45.42	-19 32.9	1.899	2.869	6.4	20.6	4 21	12 47.23	-13 3.5	2.674	3.648	4.6	21.3
5 1	12 39.13	-18 26.5	1.933	2.864	9.4	20.7	5 1	12 41.61	-11 31.1	2.710	3.634	7.3	21.5
5 11	12 34.76	-17 21.6	1.991	2.860	12.4	20.9	5 11	12 37.34	-10 4.6	2.772	3.619	10.0	21.7
435894	2009 <i>AL</i> ₂₆		4 5.3 81°72	1°0/ 4.2 17			53513	2000 <i>AB</i> ₁₃₆		4 5.3 292°71	6°6/29.3 18		
3 2	13 19.76	-5 23.6	2.099	2.937	12.2	21.7	3 2	13 19.73	+10 22.0	1.953	2.812	12.1	18.6
3 12	13 14.99	-4 47.5	2.035	2.951	9.0	21.5	3 12	13 15.23	+11 36.0	1.887	2.806	9.4	18.4
3 22	13 8.51	-4 2.7	1.995	2.965	5.3	21.3	3 22	13 8.79	+12 47.5	1.846	2.801	7.2	18.3
4 1	13 0.96	-3 13.7	1.983	2.979	1.6	21.1	4 1	13 1.10	+13 48.6	1.831	2.795	6.7	18.2
4 11	12 53.18	-2 25.7	1.999	2.993	2.9	21.2	4 11	12 53.05	+14 32.3	1.843	2.790	8.3	18.3
4 21	12 45.98	-1 43.8	2.044	3.007	6.6	21.4	4 21	12 45.56	+14 54.1	1.880	2.784	11.0	18.5
5 1	12 40.07	-1 12.2	2.114	3.021	10.0	21.7	5 1	12 39.43	+14 52.5	1.940	2.779	13.8	18.6
5 11	12 35.95	-0 53.6	2.208	3.035	12.9	21.9	5 11	12 35.24	+14 28.4	2.019	2.774	16.3	18.8
467762	2009 <i>UY</i> ₁₄₉		4 5.3 297°29	4°0/ 9.1 17			268095	2004 <i>RJ</i> ₂₅₇		4 5.3 173°01	1°0/ 4.2 17		
3 2	13 17.81	-19 56.6	1.710	2.511	16.2	20.8	3 2	13 20.64	-5 46.9	2.217	3.049	11.9	21.6
3 12	13 14.35	-19 35.4	1.611	2.494	13.1	20.6	3 12	13 15.66	-5 3.9	2.138	3.052	8.8	21.4
3 22	13 8.55	-18 49.1	1.533	2.477	9.4	20.3	3 22	13 8.97	-4 11.5	2.085	3.054	5.2	21.2
4 1	13 1.07	-17 38.2	1.479	2.461	5.6	20.1	4 1	13 1.14	-3 13.9	2.059	3.056	1.6	20.9
4 11	12 52.93	-16 7.5	1.451	2.444	4.1	19.9	4 11	12 53.00	-2 16.7	2.063	3.057	2.9	21.0
4 21	12 45.24	-14 25.1	1.450	2.428	7.1	20.1	4 21	12 45.35	-1 25.1	2.095	3.058	6.6	21.2
5 1	12 39.06	-12 41.3	1.474	2.412	11.3	20.3	5 1	12 38.91	-0 43.8	2.155	3.058	10.0	21.4
5 11	12 35.18	-11 6.3	1.521	2.396	15.2	20.4	5 11	12 34.23	-0 15.8	2.237	3.058	12.9	21.6
12355	Coelho		4 5.3 142°15	0°0/ 5.1 18			501233	2013 <i>VS</i> ₄		4 5.3 223°89	5°2/10.9 18		
3 2	13 19.63	-8 24.4	2.164	2.992	12.3	18.4	3 2	13 23.48	-24 51.0	2.534	3.273	13.2	22.5
3 12	13 14.95	-7 51.2	2.087	2.997	9.2	18.2	3 12	13 17.92	-25 5.9	2.426	3.260	11.0	22.3
3 22	13 8.53	-7 6.8	2.034	3.001	5.6	18.0	3 22	13 10.46	-25 2.6	2.339	3.247	8.6	22.1
4 1	13 0.98	-6 14.9	2.009	3.005	1.7	17.7	4 1	13 1.65	-24 40.0	2.279	3.233	6.3	21.9
4 11	12 53.13	-5 20.7	2.012	3.009	2.3	17.8	4 11	12 52.28	-23 59.3	2.246	3.218	5.2	21.8
4 21	12 45.77	-4 29.4	2.044	3.013	6.2	18.0	4 21	12 43.23	-23 4.2	2.242	3.203	6.3	21.9
5 1	12 39.65	-3 46.2	2.103	3.016	9.7	18.2	5 1	12 35.34	-22 0.4	2.266	3.186	8.8	22.0
5 11	12 35.29	-3 14.7	2.185	3.020	12.7	18.4	5 11	12 29.23	-20 54.4	2.316	3.169	11.4	22.1
56151	1999 <i>CX</i> ₁₀₄		4 5.3 99°23	4°1/31.9 18			245492	2005 <i>QT</i> ₄₀		4 5.3 242°36	0°2/ 4.9 17		
3 2	13 21.53	+1 19.4	1.876	2.729	12.8	19.0	3 2	13 17.62	-8 9.8	2.888	3.707	9.8	21.5
3 12	13 16.35	+2 49.0	1.828	2.752	9.4	18.8	3 12	13 13.20	-7 28.2	2.785	3.691	7.3	21.3
3 22	13 9.32	+4 22.7	1.805	2.775	5.9	18.7	3 22	13 7.41	-6 37.1	2.707	3.674	4.4	21.1
4 1	13 1.19	+5 52.6	1.811	2.797	4.1	18.6	4 1	13 0.68	-5 39.6	2.659	3.656	1.3	20.8
4 11	12 52.91	+7 10.5	1.845	2.819	5.9	18.7	4 11	12 53.62	-4 39.5	2.642	3.638	2.0	20.8
4 21	12 45.38	+8 10.7	1.906	2.840	9.1	19.0	4 21	12 46.83	-3 41.5	2.654	3.619	5.2	21.0
5 1	12 39.34	+8 49.8	1.992	2.861	12.2	19.2	5 1	12 40.89	-2 49.7	2.695	3.600	8.1	21.2
5 11	12 35.26	+9 7.4	2.098	2.881	14.9	19.4	5 11	12 36.27	-2 7.5	2.760	3.581	10.7	21.4
469111	2015 <i>DG</i> ₄₈		4 5.3 157°23	2°9/ 2.2 17			211896	2004 <i>JY</i> ₃₄		4 5.3 346°45	6°2/30.6 17		
3 2	13 19.33	-0 36.1	2.023	2.873	12.1	21.6	3 2	13 19.04	+8 40.6	1.730	2.595	13.1	19.7
3 12	13 14.82	+0 21.6	1.952	2.875	8.9	21.3	3 12	13 14.94	+9 34.1	1.662	2.587	10.0	19.5
3 22	13 8.49	+1 25.7	1.905	2.876	5.4	21.1	3 22	13 8.72	+10 25.6	1.618	2.580	7.3	19.3
4 1	13 0.99	+2 30.1	1.886	2.878	2.9	21.0	4 1	13 1.11	+11 7.5	1.600	2.574	6.3	19.3
4 11	12 53.16	+3 28.4	1.895	2.879	4.6	21.1	4 11	12 53.09	+11 32.7	1.607	2.568	8.0	19.3
4 21	12 45.87	+4 14.9	1.932	2.880	8.1	21.3	4 21	12 45.68	+11 37.1	1.639	2.564	11.0	19.5
5 1	12 39.87	+4 45.7	1.993	2.881	11.4	21.5	5 1	12 39.77	+11 19.0	1.694	2.560	14.2	19.7
5 11	12 35.71	+4 58.9	2.077	2.882	14.3	21.7	5 11	12 35.97	+10 39.5	1.768	2.556	17.1	19.9
21637	Ninahuffman		4 5.3 230°46	4°0/ 8.7 18			14853	Shimokawa		4 5.3 165°02	0°6/ 4.6 18		
3 2	13 24.58	-18 27.5	1.938	2.725	15.0	19.6	3 2	13 23.48	-5 55.3	2.480	3.301	11.1	19.2
3 12	13 19.16	-18 37.7	1.839	2.714	12.1	19.4	3 12	13 17.57	-5 27.4	2.401	3.308	8.2	19.0
3 22	13 11.40	-18 29.2	1.762	2.702	8.6	19.2	3 22	13 10.04	-4 51.6	2.348	3.315	4.9	18.8
4 1	13 1.95	-18 1.8	1.710	2.690	5.3	18.9	4 1	13 1.47	-4 11.2	2.323	3.320	1.5	18.5
4 11	12 51.81	-17 18.1	1.686	2.677	4.1	18.8	4 11	12 52.63	-3 30.4	2.330	3.325	2.4	18.6
4 21	12 42.08	-16 23.3	1.690	2.663	6.8	19.0	4 21	12 44.26	-2 53.5	2.366	3.329	5.9	18.8
5 1	12 33.83	-15 24.5	1.721	2.648	10.6	19.2	5 1	12 37.04	-2 24.3	2.430	3.332	9.1	19.0
5 11	12 27.81	-14 29.2	1.775	2.633	14.1	19.4	5 11	12 31.49	-2 5.4	2.518	3.334	11.8	19.2
401917	2001 <i>VG</i> ₁₂₈		4 5.3 249°63	5°1/31.8 17			128352	2004 <i>GY</i> ₃₇		4 5.3 211°70	2°0/ 3.7 18		
3 2	13 24.13	+3 31.6	1.661	2.517	14.0	21.8	3 2	13 26.18	-				

EPHEMERIDES

4 5.3

4 5.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
8400	Tomizo		4 5.3 164°27'	5°7/29.5	18		293142	2006 XQ ₆₉		4 5.3 136°90'	6°8/28.7	18	
3 2	13 21.21	+ 9 8.6	2.230	3.080	11.1	17.7	3 2	13 18.88	+ 8 21.8	1.785	2.649	12.8	20.1
3 12	13 16.04	+10 32.7	2.170	3.085	8.5	17.5	3 12	13 14.72	+10 10.1	1.727	2.650	9.8	19.9
3 22	13 9.16	+11 55.0	2.136	3.090	6.4	17.4	3 22	13 8.54	+11 58.3	1.694	2.652	7.4	19.8
4 1	13 1.21	+13 8.5	2.130	3.095	5.8	17.4	4 1	13 1.06	+13 36.3	1.687	2.653	6.9	19.8
4 11	12 53.00	+14 6.6	2.152	3.098	7.4	17.5	4 11	12 53.24	+14 55.1	1.708	2.654	8.9	19.9
4 21	12 45.34	+14 45.1	2.202	3.101	9.8	17.6	4 21	12 46.05	+15 48.7	1.753	2.655	11.8	20.1
5 1	12 38.93	+15 2.1	2.275	3.104	12.4	17.8	5 1	12 40.32	+16 14.6	1.820	2.656	14.7	20.2
5 11	12 34.27	+14 58.2	2.369	3.106	14.6	18.0	5 11	12 36.62	+16 13.9	1.906	2.657	17.3	20.4
140824	2001 UC ₁₆₇		4 5.3 157°70'	4°6/10.5	18		430185	2013 TS ₁₀₉		4 5.3 169°51'	1°0/ 6.2	17	
3 2	13 20.30	-22 50.0	2.436	3.194	13.1	20.4	3 2	13 22.39	-10 37.6	2.142	2.959	12.8	21.5
3 12	13 15.48	-23 2.4	2.346	3.197	10.8	20.3	3 12	13 17.09	-10 28.6	2.060	2.961	9.7	21.3
3 22	13 8.91	-22 57.1	2.279	3.199	8.2	20.1	3 22	13 9.91	-10 7.7	2.002	2.963	6.2	21.0
4 1	13 1.16	-22 34.2	2.238	3.201	5.7	19.9	4 1	13 1.49	-9 37.2	1.970	2.965	2.4	20.8
4 11	12 53.03	-21 55.6	2.224	3.203	4.6	19.9	4 11	12 52.67	-9 1.1	1.968	2.966	2.2	20.8
4 21	12 45.31	-21 5.3	2.238	3.204	5.9	19.9	4 21	12 44.35	-8 24.1	1.995	2.967	6.0	21.0
5 1	12 38.78	-20 9.0	2.280	3.206	8.4	20.1	5 1	12 37.34	-7 51.1	2.048	2.968	9.6	21.2
5 11	12 33.98	-19 12.7	2.346	3.207	11.0	20.3	5 11	12 32.20	-7 26.3	2.125	2.968	12.7	21.5
117312	2004 VO ₂₄		4 5.3 145°22'	2°4/ 7.7	17		435020	2006 VH ₇₀		4 5.3 208°64'	5°8/28.9	18	
3 2	13 22.17	-15 8.4	2.225	3.023	13.0	20.6	3 2	13 20.55	+13 35.8	2.650	3.492	9.8	21.1
3 12	13 16.87	-15 5.0	2.144	3.030	10.1	20.4	3 12	13 15.36	+14 29.2	2.583	3.489	7.8	20.9
3 22	13 9.74	-14 47.0	2.086	3.037	6.8	20.2	3 22	13 8.70	+15 17.6	2.542	3.485	6.2	20.8
4 1	13 1.41	-14 16.0	2.056	3.043	3.5	20.0	4 1	13 1.09	+15 55.8	2.529	3.480	5.9	20.8
4 11	12 52.74	-13 35.3	2.054	3.049	2.7	20.0	4 11	12 53.24	+16 19.3	2.544	3.476	7.1	20.9
4 21	12 44.57	-12 49.8	2.081	3.055	5.6	20.2	4 21	12 45.83	+16 25.6	2.586	3.471	9.1	21.0
5 1	12 37.68	-12 4.9	2.135	3.060	9.0	20.4	5 1	12 39.47	+16 13.6	2.652	3.466	11.2	21.1
5 11	12 32.64	-11 25.7	2.214	3.065	12.0	20.6	5 11	12 34.64	+15 44.5	2.739	3.461	13.2	21.3
261292	2005 UD ₁₆₂		4 5.3 65°30'	3°5/ 1.9	18		88022	2000 UG ₇₁		4 5.3 215°81'	0°2/ 5.0	18	
3 2	13 19.87	- 0 19.9	1.716	2.573	13.6	20.1	3 2	13 22.43	- 7 8.0	2.294	3.118	11.8	20.5
3 12	13 15.52	+ 0 45.0	1.648	2.575	10.0	19.9	3 12	13 17.06	- 6 46.8	2.203	3.111	8.8	20.3
3 22	13 9.06	+ 1 57.2	1.605	2.577	6.1	19.7	3 22	13 9.89	- 6 16.2	2.136	3.103	5.4	20.0
4 1	13 1.22	+ 3 9.4	1.587	2.579	3.5	19.5	4 1	13 1.50	- 5 39.1	2.097	3.094	1.6	19.8
4 11	12 53.02	+ 4 13.6	1.598	2.581	5.4	19.6	4 11	12 52.68	- 4 59.8	2.088	3.085	2.4	19.8
4 21	12 45.45	+ 5 3.2	1.634	2.583	9.2	19.8	4 21	12 44.26	- 4 23.0	2.108	3.075	6.2	20.0
5 1	12 39.40	+ 5 33.7	1.695	2.585	12.9	20.1	5 1	12 37.02	- 3 53.0	2.156	3.065	9.7	20.2
5 11	12 35.48	+ 5 43.5	1.775	2.588	16.1	20.3	5 11	12 31.53	- 3 33.2	2.227	3.055	12.7	20.4
497030	2003 QV ₁₁₇		4 5.3 154°41'	1°5/ 6.9	17		91216	1999 AU ₃		4 5.3 87°51'	3°6/ 7.8	18	
3 2	13 21.22	-13 11.8	2.403	3.206	12.0	22.9	3 2	13 26.87	-15 12.2	1.440	2.257	17.9	19.1
3 12	13 16.02	-12 56.9	2.321	3.213	9.2	22.7	3 12	13 21.17	-15 31.2	1.375	2.271	14.0	18.9
3 22	13 9.16	-12 29.2	2.264	3.219	6.0	22.5	3 22	13 12.69	-15 30.3	1.331	2.284	9.5	18.6
4 1	13 1.23	-11 50.9	2.234	3.225	2.7	22.3	4 1	13 2.37	-15 10.1	1.311	2.298	5.1	18.4
4 11	12 53.00	-11 5.6	2.233	3.230	2.1	22.2	4 11	12 51.57	-14 34.9	1.317	2.312	3.9	18.4
4 21	12 45.23	-10 18.1	2.262	3.235	5.3	22.5	4 21	12 41.69	-13 51.6	1.349	2.325	7.7	18.6
5 1	12 38.62	- 9 33.1	2.319	3.240	8.6	22.7	5 1	12 33.88	-13 8.4	1.406	2.338	12.1	18.9
5 11	12 33.69	- 8 55.2	2.400	3.244	11.4	22.9	5 11	12 28.87	-12 32.4	1.484	2.351	15.9	19.2
200683	2001 TP ₂₀₁		4 5.3 99°04'	4°9/ 1.5	18		468814	2012 PQ ₃₉		4 5.3 324°68'	2°1/ 3.5	16	
3 2	13 25.54	+ 3 0.3	1.460	2.320	15.4	20.5	3 2	13 14.69	- 5 48.7	1.321	2.190	16.1	21.0
3 12	13 19.84	+ 4 3.8	1.410	2.336	11.4	20.3	3 12	13 12.58	- 4 50.3	1.225	2.158	12.1	20.6
3 22	13 11.68	+ 5 10.3	1.382	2.352	7.3	20.1	3 22	13 7.80	- 3 32.4	1.151	2.127	7.3	20.3
4 1	13 1.99	+ 6 11.2	1.381	2.368	5.0	20.0	4 1	13 1.00	- 2 1.3	1.099	2.096	2.5	19.9
4 11	12 52.06	+ 6 57.9	1.405	2.383	6.9	20.1	4 11	12 53.26	- 0 27.3	1.073	2.067	4.9	19.9
4 21	12 43.10	+ 7 24.8	1.456	2.398	10.7	20.4	4 21	12 45.92	+ 0 58.0	1.070	2.038	10.4	20.2
5 1	12 36.10	+ 7 29.3	1.529	2.412	14.5	20.6	5 1	12 40.27	+ 2 4.1	1.089	2.011	15.8	20.4
5 11	12 31.65	+ 7 12.0	1.621	2.426	17.7	20.9	5 11	12 37.28	+ 2 44.2	1.126	1.985	20.4	20.6
35031	1981 EE ₂₃		4 5.3 278°69'	1°6/ 6.7	18		163683	2002 YP ₂		4 5.3 285°51'	13°9/26.5	18	
3 2	13 20.84	-12 28.1	1.883	2.703	14.2	19.6	3 2	13 51.22	+17 9.6	1.343	2.162	18.8	22.3
3 12	13 16.37	-12 17.4	1.784	2.686	10.9	19.4	3 12	13 42.10	+19 28.3	1.217	2.102	16.2	21.9
3 22	13 9.72	-11 51.1	1.709	2.669	7.1	19.1	3 22	13 27.52	+21 54.0	1.114	2.038	14.2	21.6
4 1	13 1.48	-11 11.1	1.659	2.652	3.1	18.8	4 1	13 7.60	+24 6.4	1.037	1.970	14.4	21.4
4 11	12 52.60	-10 21.8	1.637	2.635	2.6	18.8	4 11	12 43.74	+25 40.5	0.988	1.898	17.6	21.3
4 21	12 44.11	- 9 28.9	1.642	2.617	6.7	19.0	4 21	12 18.59	+26 16.6	0.964	1.821	22.9	21.3
5 1	12 37.00	- 8 39.4	1.674	2.600	10.9	19.2	5 1	11 55.36	+25 47.8	0.962	1.738	28.8	21.4
5 11	12 31.99	- 7 59.0	1.727	2.583	14.6	19.4	5 11	11 36.47	+24 21.8	0.975	1.651	34.4	21.5
222280	2000 SU ₄₆		4 5.3 185°72'	2°2/ 7.9	18		32741	1978 VX ₈		4 5.3 108°91'	0°4/ 4.8	18	
3 2	13 20.48	-16 42.4	2.464	3.253	12.2	20.9	3 2	13 19.13	- 6 49.2	2.563	3.389	10.7	20.2
3 12	13 15.50	-16 11.3	2.372	3.253	9.5	20.7	3 12	13 14.30	- 6 19.2	2.494	3.403	7.9	20.0
3 22	13 8.87	-15 24.2	2.305	3.252	6.4	20.5	3 22	13 8.04	- 5 41.3	2.450	3.418	4.7	19.8
4 1	13 1.15	-14 23.2	2.264	3.251	3.3	20.3	4 1	13 0.90	- 4 58.6	2.434	3.431	1.4	19.6
4 11	12 53.10	-13 12.4	2.254	3.249	2.5	20.2	4 11	12 53.56	- 4 15.3	2.449	3.445	2.2	19.7
4 21	12 45.47	-11 57.3	2.273	3.246	5.3	20.4	4 21	12 46.69	- 3 35.6	2.492	3.458	5.4	19.9
5 1	12 38.97	-10 44.0	2.320	3.243	8.5	20.6	5 1	12 40.87	- 3 3.1	2.564	3.471	8.4	20.1
5 11	12 34.12	- 9 38.1	2.393	3.239	11.4	20.7	5 11	12 36.54	- 2 40.4	2.659	3.484	11.0	20.3
482820	2013 XL ₁₀		4 5.3 227°76'	20°2/17.5	17		507139	2009 WS ₃		4 5.3 234°28'	1°3/ 3.9	17	
3 2	13 35.26	+37 26.4	1.228	2.031	21.2	20.4	3 2	13 21					

EPHEMERIDES

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
276116	2002 <i>GD</i> ₅₉		4 5.3	5°52'	2.4/ 3.7	17	496966	2002 <i>PG</i> ₈₃		4 5.3	253°19'	4.7/ 9.1	17
3 2	13 26.50	+ 0 23.9	1.631	2.480	14.6	20.3	3 2	13 26.03	-19 56.9	2.071	2.845	14.7	22.2
3 12	13 20.60	+ 0 18.3	1.559	2.480	10.8	20.0	3 12	13 20.33	-20 20.3	1.958	2.822	12.0	21.9
3 22	13 12.25	+ 0 15.7	1.509	2.481	6.6	19.8	3 22	13 12.24	-20 26.2	1.868	2.799	8.9	21.7
4 1	13 2.25	+ 0 12.1	1.487	2.481	2.8	19.5	4 1	13 2.36	-20 13.1	1.803	2.776	5.8	21.5
4 11	12 51.78	+ 0 3.0	1.491	2.483	4.3	19.6	4 11	12 51.62	-19 42.3	1.766	2.751	4.8	21.3
4 21	12 42.02	- 0 14.7	1.523	2.485	8.6	19.9	4 21	12 41.13	-18 57.5	1.757	2.726	7.0	21.4
5 1	12 34.03	- 0 43.5	1.579	2.487	12.7	20.1	5 1	12 31.97	-18 5.3	1.775	2.700	10.5	21.6
5 11	12 28.50	- 1 23.9	1.657	2.489	16.2	20.4	5 11	12 25.00	-17 13.0	1.817	2.673	14.0	21.7
185523	2007 <i>VZ</i> ₁₄₅		4 5.3	56°05'	4.1/ 8.6	18	243009	2006 <i>UV</i> ₇₁		4 5.3	256°08'	2.1/ 7.8	17
3 2	13 22.02	-17 50.0	1.468	2.281	17.8	20.3	3 2	13 17.82	-15 54.1	2.321	3.121	12.5	20.9
3 12	13 17.60	-17 53.0	1.398	2.289	14.1	20.0	3 12	13 13.71	-15 26.9	2.225	3.113	9.7	20.7
3 22	13 10.56	-17 32.6	1.347	2.297	9.9	19.8	3 22	13 7.91	-14 43.5	2.153	3.104	6.6	20.5
4 1	13 1.76	-16 49.8	1.321	2.305	5.7	19.6	4 1	13 0.95	-13 46.0	2.107	3.095	3.3	20.3
4 11	12 52.45	-15 49.7	1.319	2.313	4.3	19.5	4 11	12 53.60	-12 38.5	2.090	3.087	2.4	20.2
4 21	12 43.92	-14 40.4	1.344	2.321	7.6	19.7	4 21	12 46.63	-11 26.7	2.102	3.078	5.5	20.4
5 1	12 37.30	-13 31.2	1.392	2.330	11.8	20.0	5 1	12 40.77	-10 16.8	2.142	3.068	8.8	20.6
5 11	12 33.29	-12 30.9	1.463	2.338	15.6	20.2	5 11	12 36.58	- 9 14.4	2.205	3.059	11.9	20.8
368711	2005 <i>TY</i> ₂₅		4 5.3	168°94'	0.5/ 4.8	17	398079	2009 <i>JT</i> ₁₁		4 5.3	327°66'	7.8/26.9	18
3 2	13 22.03	- 6 50.2	2.042	2.873	12.8	22.1	3 2	13 16.79	+13 38.6	1.960	2.822	11.9	20.4
3 12	13 16.88	- 6 19.8	1.964	2.876	9.5	21.9	3 12	13 13.15	+15 12.0	1.895	2.810	9.6	20.3
3 22	13 9.82	- 5 38.9	1.910	2.879	5.7	21.7	3 22	13 7.64	+16 41.0	1.855	2.799	8.0	20.1
4 1	13 1.51	- 4 51.5	1.884	2.881	1.7	21.4	4 1	13 0.87	+17 56.7	1.841	2.788	8.0	20.1
4 11	12 52.83	- 4 2.9	1.886	2.882	2.7	21.5	4 11	12 53.73	+18 51.5	1.852	2.778	9.7	20.2
4 21	12 44.68	- 3 18.5	1.917	2.883	6.7	21.7	4 21	12 47.08	+19 21.0	1.887	2.768	12.2	20.3
5 1	12 37.88	- 2 43.2	1.974	2.884	10.4	21.9	5 1	12 41.73	+19 23.5	1.944	2.758	14.7	20.5
5 11	12 33.00	- 2 20.5	2.054	2.885	13.5	22.1	5 11	12 38.25	+19 0.5	2.019	2.749	17.0	20.6
459671	2013 <i>LS</i> ₂₁		4 5.3	289°92'	4.2/ 2.0	17	90797	1994 <i>SU</i> ₁₂		4 5.3	82°74'	0.8/ 4.8	18
3 2	13 22.46	+ 1 23.6	1.496	2.358	15.0	21.0	3 2	13 24.93	- 6 32.8	1.381	2.229	16.8	19.8
3 12	13 17.96	+ 2 13.0	1.415	2.343	11.2	20.7	3 12	13 19.68	- 6 6.9	1.321	2.242	12.5	19.6
3 22	13 10.86	+ 3 9.1	1.356	2.328	7.1	20.4	3 22	13 11.77	- 5 27.5	1.283	2.254	7.5	19.3
4 1	13 1.90	+ 4 4.4	1.323	2.313	4.3	20.2	4 1	13 2.14	- 4 39.9	1.269	2.266	2.2	19.0
4 11	12 52.25	+ 4 50.4	1.315	2.299	6.4	20.3	4 11	12 52.12	- 3 51.8	1.282	2.278	3.5	19.2
4 21	12 43.18	+ 5 19.8	1.333	2.284	10.7	20.5	4 21	12 43.04	- 3 10.6	1.320	2.291	8.6	19.5
5 1	12 35.84	+ 5 28.1	1.374	2.270	15.0	20.7	5 1	12 35.97	- 2 42.3	1.383	2.303	13.2	19.8
5 11	12 31.06	+ 5 13.9	1.433	2.255	18.8	20.9	5 11	12 31.60	- 2 30.5	1.465	2.314	17.1	20.1
217503	2006 <i>SL</i> ₄₀₆		4 5.3	150°80'	3.0/ 2.3	18	264507	2001 <i>QR</i> ₁₇₂		4 5.3	221°69'	3.7/ 9.2	17
3 2	13 23.55	+ 0 53.4	2.101	2.944	12.0	21.0	3 2	13 22.88	-19 50.9	2.326	3.099	13.3	22.4
3 12	13 17.85	+ 1 39.1	2.034	2.953	8.8	20.8	3 12	13 17.57	-19 48.5	2.223	3.088	10.7	22.2
3 22	13 10.33	+ 2 28.8	1.992	2.961	5.5	20.6	3 22	13 10.33	-19 28.6	2.142	3.076	7.8	21.9
4 1	13 1.64	+ 3 17.2	1.977	2.968	3.1	20.5	4 1	13 1.72	-18 51.3	2.088	3.064	4.9	21.7
4 11	12 52.68	+ 3 58.5	1.992	2.975	4.6	20.6	4 11	12 52.59	-17 59.4	2.062	3.051	3.8	21.6
4 21	12 44.32	+ 4 28.3	2.036	2.981	7.9	20.8	4 21	12 43.82	-16 57.4	2.066	3.037	5.9	21.8
5 1	12 37.31	+ 4 43.4	2.105	2.987	11.1	21.0	5 1	12 36.25	-15 51.8	2.097	3.022	9.1	21.9
5 11	12 32.19	+ 4 42.9	2.196	2.992	13.9	21.2	5 11	12 30.54	-14 49.0	2.153	3.007	12.2	22.1
122296	2000 <i>PM</i> ₂₂		4 5.3	200°36'	6.3/28.7	17	336843	2011 <i>FV</i> ₂₈		4 5.3	300°89'	5.9/30.7	17
3 2	13 21.65	+11 51.9	2.298	3.146	11.0	20.4	3 2	13 20.05	+ 6 37.2	1.735	2.598	13.2	20.1
3 12	13 16.42	+13 10.3	2.231	3.142	8.6	20.2	3 12	13 15.86	+ 7 45.5	1.655	2.580	10.0	19.9
3 22	13 9.46	+14 25.3	2.191	3.138	6.8	20.1	3 22	13 9.44	+ 8 55.7	1.598	2.562	7.1	19.7
4 1	13 1.39	+15 30.0	2.178	3.133	6.4	20.1	4 1	13 1.48	+ 9 59.5	1.567	2.545	5.9	19.6
4 11	12 53.00	+16 18.1	2.193	3.127	7.9	20.1	4 11	12 52.95	+10 48.6	1.563	2.527	7.9	19.6
4 21	12 45.09	+16 45.8	2.234	3.121	10.2	20.3	4 21	12 44.92	+11 17.0	1.583	2.510	11.2	19.8
5 1	12 38.41	+16 51.5	2.299	3.115	12.7	20.4	5 1	12 38.36	+11 21.4	1.627	2.493	14.7	20.0
5 11	12 33.46	+16 36.3	2.383	3.108	14.9	20.6	5 11	12 33.97	+11 1.8	1.689	2.476	17.8	20.1
102860	1999 <i>WJ</i> ₁		4 5.3	203°01'	4.0/ 1.8	18	120382	2005 <i>QD</i> ₂₅		4 5.3	238°61'	1.0/ 4.4	17
3 2	13 24.62	+ 2 55.0	1.847	2.696	13.1	20.0	3 2	13 22.41	- 5 32.4	1.893	2.730	13.4	21.3
3 12	13 18.99	+ 3 40.0	1.772	2.694	9.8	19.7	3 12	13 17.42	- 5 4.1	1.806	2.722	10.0	21.1
3 22	13 11.19	+ 4 28.2	1.722	2.690	6.3	19.5	3 22	13 10.31	- 4 25.5	1.744	2.714	6.0	20.8
4 1	13 1.95	+ 5 13.3	1.699	2.686	4.0	19.4	4 1	13 1.73	- 3 40.8	1.708	2.705	1.8	20.5
4 11	12 52.27	+ 5 48.7	1.703	2.682	5.8	19.5	4 11	12 52.65	- 2 55.5	1.701	2.696	3.1	20.6
4 21	12 43.19	+ 6 9.4	1.735	2.678	9.3	19.7	4 21	12 44.05	- 2 15.4	1.721	2.687	7.4	20.9
5 1	12 35.64	+ 6 12.5	1.792	2.672	12.8	19.9	5 1	12 36.86	- 1 45.8	1.767	2.678	11.4	21.1
5 11	12 30.26	+ 5 57.3	1.869	2.667	15.9	20.1	5 11	12 31.75	- 1 30.1	1.836	2.668	14.9	21.3
391664	2007 <i>YG</i> ₂₂		4 5.3	265°62'	7.9/26.0	18	189251	2004 <i>TN</i> ₈		4 5.3	237°32'	3.9/ 2.3	18
3 2	13 19.27	+17 42.9	2.315	3.160	11.0	20.6	3 2	13 32.18	+ 6 24.4	2.305	3.132	11.7	20.1
3 12	13 14.71	+19 6.1	2.253	3.151	9.1	20.5	3 12	13 24.33	+ 6 31.7	2.210	3.117	8.9	19.9
3 22	13 8.46	+20 21.9	2.216	3.142	8.0	20.4	3 22	13 14.37	+ 6 37.1	2.141	3.102	5.9	19.7
4 1	13 1.09	+21 22.8	2.205	3.132	8.1	20.4	4 1	13 2.96	+ 6 36.3	2.103	3.086	4.0	19.5
4 11	12 53.41	+22 2.9	2.220	3.122	9.5	20.4	4 11	12 51.03	+ 6 25.3	2.095	3.070	5.2	19.6
4 21	12 46.19	+22 19.2	2.260	3.113	11.5	20.5	4 21	12 39.56	+ 6 1.8	2.118	3.053	8.3	19.7
5 1	12 40.17	+22 10.9	2.322	3.103	13.6	20.7	5 1	12 29.46	+ 5 24.8	2.169	3.035	11.5	19.9
5 11	12 35.85	+21 40.0	2.401	3.093	15.5	20.8	5 11	12 21.38	+ 4 34.9	2.244	3.017	14.3	20.1
286191	2001 <i>UC</i> ₆₂		4 5.3	162°28'	1.6/ 7.3	17	175756	1998 <i>RR</i> ₅₈		4 5.3	21		

EPHEMERIDES

4 5.3

4 5.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
415735	1999 <i>WN</i> ₁₅		4 5.3 203°32	0°5/ 5.9 17			32401	2000 <i>QO</i> ₂₂₆		4 5.3 46°96	2°7/ 8.4 18		
3 2	13 20.38	-10 27.5	2.489	3.302	11.3	22.6	3 2	13 17.64	-17 26.7	2.120	2.919	13.5	18.6
3 12	13 15.44	-9 57.4	2.397	3.298	8.6	22.4	3 12	13 13.66	-17 3.1	2.039	2.924	10.6	18.4
3 22	13 8.89	-9 15.9	2.330	3.292	5.4	22.2	3 22	13 7.91	-16 21.7	1.981	2.929	7.3	18.3
4 1	13 1.27	-8 25.5	2.291	3.287	1.9	21.9	4 1	13 0.99	-15 24.3	1.949	2.935	4.0	18.1
4 11	12 53.29	-7 30.7	2.283	3.280	1.9	21.9	4 11	12 53.75	-14 15.7	1.946	2.940	2.9	18.0
4 21	12 45.69	-6 36.2	2.303	3.274	5.5	22.1	4 21	12 47.01	-13 2.0	1.970	2.946	5.7	18.2
5 1	12 39.16	-5 46.9	2.352	3.266	8.8	22.3	5 1	12 41.52	-11 50.0	2.021	2.952	9.0	18.4
5 11	12 34.21	-5 6.9	2.425	3.258	11.6	22.5	5 11	12 37.83	-10 45.7	2.096	2.958	12.1	18.6
219741	2001 <i>XF</i> ₂₂₄		4 5.3 207°97	0°0/ 5.1 18			114446	2003 <i>AS</i> ₁₈		4 5.3 294°03	5°5/ 11.5 18		
3 2	13 21.94	-8 31.2	2.213	3.036	12.2	21.4	3 2	13 18.28	-25 23.5	2.177	2.932	14.6	19.1
3 12	13 16.78	-8 1.5	2.124	3.030	9.2	21.2	3 12	13 14.32	-25 24.6	2.079	2.924	12.2	19.0
3 22	13 9.79	-7 20.5	2.058	3.024	5.6	20.9	3 22	13 8.43	-25 3.7	2.002	2.916	9.5	18.8
4 1	13 1.56	-6 31.3	2.021	3.018	1.7	20.6	4 1	13 1.19	-24 20.2	1.949	2.907	6.9	18.6
4 11	12 52.91	-5 38.9	2.013	3.010	2.3	20.7	4 11	12 53.46	-23 16.4	1.923	2.899	5.5	18.5
4 21	12 44.68	-4 48.6	2.034	3.003	6.2	20.9	4 21	12 46.15	-21 57.5	1.924	2.891	6.6	18.5
5 1	12 37.67	-4 5.5	2.083	2.994	9.8	21.1	5 1	12 40.12	-20 30.8	1.951	2.883	9.3	18.7
5 11	12 32.47	-3 33.6	2.154	2.986	13.0	21.3	5 11	12 35.98	-19 4.5	2.003	2.875	12.2	18.8
171917	2001 <i>SA</i> ₉₆		4 5.3 103°26	0°8/ 4.4 17			503385	2016 <i>CX</i> ₁₀₇		4 5.3 355°50	2°4/ 7.2 17		
3 2	13 17.71	-6 59.2	2.237	3.071	11.7	20.7	3 2	13 18.63	-14 40.2	1.324	2.162	18.0	21.0
3 12	13 13.53	-6 6.7	2.163	3.077	8.6	20.5	3 12	13 15.37	-14 18.4	1.250	2.159	14.0	20.8
3 22	13 7.73	-5 5.9	2.114	3.084	5.1	20.3	3 22	13 9.39	-13 32.4	1.195	2.158	9.3	20.5
4 1	13 0.90	-5 35.1	2.093	3.090	1.5	20.1	4 1	13 1.53	-12 25.1	1.164	2.156	4.3	20.2
4 11	12 53.81	-4 46.2	2.101	3.096	2.7	20.2	4 11	12 53.04	-11 4.1	1.157	2.156	3.2	20.1
4 21	12 47.20	-4 43.1	2.138	3.102	6.3	20.4	4 21	12 45.28	-9 39.3	1.176	2.155	8.0	20.4
5 1	12 41.74	-4 05.0	2.201	3.108	9.6	20.6	5 1	12 39.45	-8 21.5	1.217	2.156	13.0	20.7
5 11	12 37.93	-3 11.8	2.288	3.114	12.5	20.8	5 11	12 36.30	-7 19.4	1.279	2.157	17.3	20.9
182468	2001 <i>SP</i> ₉₃		4 5.3 347°76	3°2/ 7.3 17			419162	2009 <i>SY</i> ₃₅₄		4 5.3 108°31	3°4/ 2.8 17		
3 2	13 22.04	-12 48.2	1.346	2.184	17.8	19.3	3 2	13 26.42	+2 26.5	1.827	2.673	13.4	20.7
3 12	13 17.99	-13 19.7	1.268	2.177	13.9	19.0	3 12	13 20.27	+2 44.0	1.759	2.679	9.9	20.5
3 22	13 11.06	-13 34.3	1.210	2.171	9.3	18.7	3 22	13 11.95	+3 3.3	1.715	2.684	6.2	20.3
4 1	13 2.04	-13 32.1	1.175	2.166	4.7	18.4	4 1	13 2.23	+3 19.6	1.699	2.690	3.5	20.1
4 11	12 52.24	-13 16.3	1.165	2.161	3.8	18.4	4 11	12 52.17	+3 27.8	1.711	2.695	5.0	20.2
4 21	12 43.08	-12 52.6	1.179	2.158	8.2	18.6	4 21	12 42.81	+3 24.3	1.750	2.701	8.6	20.5
5 1	12 35.89	-12 28.4	1.217	2.156	13.0	18.9	5 1	12 35.06	+3 7.0	1.815	2.706	12.2	20.7
5 11	12 31.55	-12 10.7	1.274	2.154	17.2	19.1	5 11	12 29.53	+2 35.8	1.901	2.711	15.3	20.9
371000	2005 <i>TD</i> ₉₀		4 5.3 215°77	1°3/ 4.0 18			23585	1995 <i>SD</i> ₅₃		4 5.3 164°47	0°8/ 4.5 18		
3 2	13 23.65	-3 47.7	2.288	3.118	11.6	22.4	3 2	13 22.10	-7 15.8	1.928	2.761	13.4	19.7
3 12	13 18.00	-3 20.5	2.197	3.109	8.6	22.2	3 12	13 17.04	-6 24.1	1.853	2.766	9.9	19.5
3 22	13 10.52	-2 46.1	2.131	3.100	5.2	21.9	3 22	13 9.99	-5 19.8	1.801	2.770	5.9	19.3
4 1	13 1.79	-2 7.9	2.094	3.090	1.8	21.7	4 1	13 1.64	-4 8.1	1.777	2.774	1.8	19.0
4 11	12 52.62	-1 30.8	2.086	3.079	3.0	21.7	4 11	12 52.93	-2 55.7	1.782	2.777	3.0	19.1
4 21	12 43.85	-0 59.3	2.108	3.068	6.7	22.0	4 21	12 44.80	-1 49.5	1.815	2.780	7.2	19.3
5 1	12 36.29	-0 37.1	2.157	3.056	10.2	22.1	5 1	12 38.10	-0 55.5	1.874	2.782	11.0	19.6
5 11	12 30.50	-0 27.1	2.229	3.044	13.2	22.3	5 11	12 33.40	-0 17.3	1.956	2.783	14.3	19.8
504187	2006 <i>TC</i> ₃₃		4 5.3 147°66	2°1/ 8.2 17			435426	2008 <i>CE</i> ₂₉		4 5.3 272°78	1°3/ 6.7 17		
3 2	13 16.73	-18 1.7	2.401	3.192	12.4	21.2	3 2	13 19.46	-11 54.6	2.348	3.161	11.9	21.7
3 12	13 12.79	-17 8.1	2.312	3.193	9.7	21.0	3 12	13 14.88	-11 46.9	2.260	3.158	9.1	21.5
3 22	13 7.29	-15 56.2	2.247	3.195	6.6	20.8	3 22	13 8.62	-11 27.5	2.196	3.155	5.9	21.3
4 1	13 0.78	-14 28.8	2.210	3.196	3.4	20.6	4 1	13 1.22	-10 58.1	2.159	3.151	2.5	21.0
4 11	12 53.99	-12 51.3	2.202	3.198	2.4	20.5	4 11	12 53.46	-10 22.4	2.151	3.148	2.1	21.0
4 21	12 47.65	-11 10.4	2.224	3.199	5.2	20.7	4 21	12 46.09	-9 44.6	2.171	3.145	5.4	21.2
5 1	12 42.40	-9 33.0	2.274	3.201	8.4	20.9	5 1	12 39.83	-9 9.4	2.219	3.142	8.8	21.4
5 11	12 38.73	-8 5.5	2.349	3.202	11.3	21.1	5 11	12 35.24	-8 40.9	2.290	3.138	11.7	21.6
34420	Peterpau		4 5.3 227°06	1°0/ 4.1 18			174486	2003 <i>AU</i> ₇₈		4 5.3 45°19	5°5/ 31.1 17		
3 2	13 19.39	-4 7.2	2.699	3.530	10.1	19.2	3 2	13 20.88	+8 14.2	1.960	2.816	12.2	19.7
3 12	13 14.60	-3 39.9	2.609	3.521	7.4	19.1	3 12	13 15.98	+9 4.2	1.906	2.827	9.2	19.6
3 22	13 8.34	-3 6.3	2.544	3.513	4.4	18.8	3 22	13 9.25	+9 51.7	1.876	2.837	6.6	19.4
4 1	13 1.11	-2 29.5	2.507	3.504	1.5	18.6	4 1	13 1.39	+10 30.4	1.874	2.848	5.5	19.4
4 11	12 53.56	-1 53.4	2.501	3.494	2.6	18.7	4 11	12 53.31	+10 54.5	1.898	2.859	7.0	19.5
4 21	12 46.34	-1 21.7	2.524	3.485	5.7	18.9	4 21	12 45.89	+11 0.9	1.948	2.871	9.7	19.7
5 1	12 40.07	-0 57.9	2.575	3.475	8.7	19.1	5 1	12 39.88	+10 48.2	2.023	2.882	12.5	19.9
5 11	12 35.22	-0 44.2	2.649	3.465	11.3	19.2	5 11	12 35.78	+10 17.4	2.117	2.894	15.0	20.1
289756	2005 <i>JF</i> ₆₉		4 5.3 210°08	10°4/ 19.2 17			150945	2001 <i>TS</i> ₁₀₆		4 5.3 150°96	0°2/ 5.1 18		
3 2	13 22.32	+32 11.6	2.658	3.451	11.3	20.9	3 2	13 22.73	-7 48.9	2.388	3.208	11.6	20.8
3 12	13 16.88	+33 42.1	2.620	3.446	10.5	20.8	3 12	13 17.12	-7 18.6	2.313	3.218	8.6	20.6
3 22	13 9.74	+34 56.1	2.605	3.441	10.4	20.8	3 22	13 9.88	-6 38.9	2.262	3.228	5.2	20.4
4 1	13 1.53	+35 47.2	2.614	3.435	10.9	20.8	4 1	13 1.59	-5 52.9	2.241	3.237	1.6	20.2
4 11	12 53.06	+36 11.1	2.645	3.429	11.9	20.9	4 11	12 53.04	-5 5.1	2.249	3.246	2.2	20.3
4 21	12 45.14	+36 6.8	2.698	3.423	13.1	21.0	4 21	12 44.99	-4 20.4	2.287	3.253	5.8	20.5
5 1	12 38.50	+35 35.8	2.768	3.416	14.4	21.1	5 1	12 38.14	-3 42.8	2.353	3.261	9.0	20.7
5 11	12 33.61	+34 41.3	2.853	3.409	15.5	21.2	5 11	12 32.97	-3 15.7	2.442	3.267	11.9	20.9
392879	2012 <i>UX</i> ₁₆₁		4 5.3 6°97	10°5/ 30.3 17			120519	1994 <i>AM</i> ₇		4 5.3 207°56	6°3/ 29.1 17		
3 2	13 33.21	+22 40.8	1.673	2.501	15.3	19.4							

EPHEMERIDES

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
425989	2011 <i>HX</i> ₈₂		4 5.3 296°02	7°5/28.1	17		431815	2008 <i>RM</i> ₅₉		4 5.3 208°29	0°4/ 5.8	17	
3 2	13 18.91	+11 25.9	1.856	2.717	12.5	20.2	3 2	13 19.58	-10 23.6	2.075	2.899	12.9	21.7
3 12	13 14.87	+12 58.7	1.786	2.704	9.9	20.0	3 12	13 15.15	-9 46.6	1.990	2.897	9.7	21.4
3 22	13 8.78	+14 29.4	1.740	2.691	7.9	19.8	3 22	13 8.87	-8 55.7	1.929	2.894	6.0	21.2
4 1	13 1.31	+15 48.5	1.721	2.678	7.6	19.8	4 1	13 1.35	-7 54.5	1.895	2.891	2.0	20.9
4 11	12 53.38	+16 47.8	1.727	2.665	9.4	19.8	4 11	12 53.44	-6 48.7	1.890	2.888	2.2	20.9
4 21	12 45.97	+17 21.9	1.759	2.652	12.2	20.0	4 21	12 46.00	-5 44.3	1.914	2.885	6.3	21.2
5 1	12 39.95	+17 28.6	1.811	2.640	15.1	20.1	5 1	12 39.82	-4 47.4	1.964	2.882	10.0	21.4
5 11	12 35.95	+17 9.2	1.882	2.627	17.6	20.3	5 11	12 35.48	-4 2.7	2.037	2.878	13.2	21.6
505306	2012 <i>XD</i> ₄₀		4 5.3 299°65	3°1/ 8.6	17		22221	2243 <i>T</i> ₋₂		4 5.3 65°62	0°9/ 4.6	18	
3 2	13 17.67	-18 1.0	2.133	2.929	13.6	20.8	3 2	13 22.22	-7 19.9	1.412	2.262	16.4	18.2
3 12	13 13.82	-17 45.4	2.036	2.918	10.8	20.5	3 12	13 17.59	-6 34.7	1.357	2.278	12.1	18.0
3 22	13 8.10	-17 11.5	1.962	2.908	7.6	20.3	3 22	13 10.49	-5 34.8	1.323	2.294	7.3	17.7
4 1	13 1.10	-16 20.5	1.914	2.897	4.3	20.1	4 1	13 1.84	-4 26.5	1.314	2.311	2.1	17.5
4 11	12 53.64	-15 16.4	1.894	2.887	3.2	20.0	4 11	12 52.89	-3 18.5	1.331	2.328	3.5	17.6
4 21	12 46.57	-14 4.7	1.901	2.877	5.9	20.2	4 21	12 44.84	-2 19.0	1.374	2.344	8.4	17.9
5 1	12 40.71	-12 52.6	1.935	2.867	9.3	20.3	5 1	12 38.70	-1 34.8	1.442	2.361	12.8	18.2
5 11	12 36.68	-11 46.5	1.993	2.858	12.6	20.5	5 11	12 35.05	-1 9.3	1.529	2.378	16.5	18.5
213191	2000 <i>SG</i> ₂₈₀		4 5.3 118°34	8°1/26.1	18		145282	2005 <i>JM</i> ₁₆₀		4 5.3 300°65	2°6/ 2.3	17	
3 2	13 23.79	+23 22.4	2.650	3.469	10.5	20.0	3 2	13 16.94	-2 12.2	2.064	2.914	11.9	20.2
3 12	13 17.70	+24 18.3	2.610	3.481	9.1	19.9	3 12	13 13.18	-1 1.6	1.984	2.908	8.7	20.0
3 22	13 10.11	+25 2.1	2.595	3.493	8.2	19.9	3 22	13 7.67	+0 17.9	1.929	2.902	5.3	19.8
4 1	13 1.64	+25 28.4	2.606	3.505	8.3	19.9	4 1	13 0.99	+1 39.9	1.902	2.895	2.7	19.6
4 11	12 53.06	+25 33.6	2.643	3.516	9.3	20.0	4 11	12 53.95	+2 57.4	1.903	2.889	4.4	19.7
4 21	12 45.11	+25 16.8	2.705	3.527	10.8	20.1	4 21	12 47.35	+4 3.9	1.932	2.883	7.9	19.9
5 1	12 38.39	+24 38.9	2.790	3.537	12.3	20.2	5 1	12 41.94	+4 54.2	1.987	2.877	11.3	20.1
5 11	12 33.33	+23 42.8	2.893	3.548	13.8	20.3	5 11	12 38.28	+5 25.8	2.063	2.871	14.3	20.3
429201	2009 <i>WQ</i> ₁₂₆		4 5.3 41°02	1°0/ 6.3	17		500607	2012 <i>UF</i> ₁₃₀		4 5.3 136°10	3°2/ 8.9	17	
3 2	13 20.04	-11 28.7	1.794	2.622	14.4	21.6	3 2	13 20.36	-18 26.6	2.397	3.179	12.7	22.0
3 12	13 15.72	-11 5.2	1.718	2.625	11.0	21.4	3 12	13 15.54	-18 27.2	2.312	3.184	10.1	21.8
3 22	13 9.29	-10 26.0	1.663	2.627	7.0	21.1	3 22	13 9.03	-18 12.2	2.251	3.189	7.2	21.6
4 1	13 1.47	-9 34.5	1.635	2.630	2.6	20.8	4 1	13 1.41	-17 42.6	2.215	3.194	4.3	21.4
4 11	12 53.23	-8 36.4	1.634	2.633	2.4	20.8	4 11	12 53.43	-17 1.1	2.209	3.199	3.3	21.4
4 21	12 45.57	-7 38.2	1.661	2.635	6.7	21.1	4 21	12 45.90	-16 12.2	2.230	3.203	5.4	21.5
5 1	12 39.39	-6 46.7	1.713	2.638	10.7	21.4	5 1	12 39.54	-15 21.3	2.280	3.208	8.3	21.7
5 11	12 35.31	-6 7.0	1.787	2.642	14.2	21.6	5 11	12 34.86	-14 33.6	2.354	3.212	11.1	21.9
365131	Hassberge		4 5.3 35°00	0°8/ 5.9	18		91503	1999 <i>RR</i> ₁₅₀		4 5.3 165°35	3°0/ 1.7	17	
3 2	13 22.05	-9 35.2	1.148	2.005	18.9	20.4	3 2	13 20.09	+0 47.6	2.459	3.301	10.5	20.4
3 12	13 17.97	-9 26.2	1.095	2.018	14.2	20.1	3 12	13 15.16	+1 52.3	2.388	3.307	7.7	20.2
3 22	13 10.94	-8 58.9	1.061	2.032	8.8	19.9	3 22	13 8.71	+3 1.4	2.343	3.311	4.8	20.1
4 1	13 1.99	-8 17.6	1.050	2.046	3.0	19.6	4 1	13 1.29	+4 9.6	2.327	3.315	3.0	19.9
4 11	12 52.61	-7 30.3	1.063	2.062	3.2	19.6	4 11	12 53.61	+5 11.1	2.340	3.319	4.4	20.0
4 21	12 44.30	-6 45.6	1.100	2.078	8.8	20.0	4 21	12 46.39	+6 1.3	2.383	3.322	7.3	20.2
5 1	12 38.25	-6 11.4	1.160	2.095	13.8	20.3	5 1	12 40.26	+6 36.9	2.452	3.324	10.1	20.4
5 11	12 35.13	-5 53.0	1.238	2.113	17.9	20.6	5 11	12 35.69	+6 56.3	2.544	3.326	12.6	20.6
256310	2006 <i>WL</i> ₁₈₆		4 5.3 121°40	4°2/ 1.7	18		211981	2005 <i>AA</i> ₃₈		4 5.3 133°77	1°6/ 6.6	18	
3 2	13 26.87	+5 2.7	2.053	2.895	12.3	20.3	3 2	13 26.08	-11 46.9	1.717	2.536	15.4	20.7
3 12	13 20.27	+5 39.5	1.996	2.912	9.2	20.1	3 12	13 20.28	-11 45.1	1.644	2.545	11.8	20.5
3 22	13 11.79	+6 16.0	1.964	2.929	6.0	20.0	3 22	13 12.11	-11 28.2	1.594	2.554	7.6	20.3
4 1	13 2.17	+6 47.0	1.961	2.945	4.2	19.9	4 1	13 2.38	-10 58.2	1.569	2.562	3.2	20.0
4 11	12 52.37	+7 7.1	1.987	2.961	5.6	20.0	4 11	12 52.20	-10 20.0	1.572	2.570	2.7	20.0
4 21	12 43.30	+7 13.2	2.041	2.976	8.6	20.2	4 21	12 42.72	-9 39.4	1.603	2.577	6.9	20.3
5 1	12 35.74	+7 3.8	2.121	2.990	11.6	20.4	5 1	12 34.96	-9 2.8	1.660	2.584	11.1	20.6
5 11	12 30.18	+6 39.1	2.222	3.004	14.2	20.6	5 11	12 29.58	-8 35.4	1.739	2.591	14.7	20.8
427503	2002 <i>CO</i> ₁₅₇		4 5.3 333°98	7°6/28.4	17		126620	2002 <i>CM</i> ₁₅₅		4 5.3 279°23	6°1/ 9.9	18	
3 2	13 16.75	+8 19.1	1.531	2.405	14.0	20.1	3 2	13 24.93	-21 59.4	1.916	2.687	15.8	19.3
3 12	13 13.58	+10 10.5	1.467	2.396	10.8	19.9	3 12	13 19.75	-22 46.4	1.812	2.669	13.1	19.1
3 22	13 8.13	+12 3.1	1.427	2.388	8.2	19.7	3 22	13 12.06	-23 15.2	1.729	2.651	10.1	18.9
4 1	13 1.14	+13 45.4	1.412	2.379	7.8	19.7	4 1	13 2.46	-23 23.2	1.670	2.633	7.3	18.6
4 11	12 53.67	+15 6.5	1.422	2.372	10.0	19.8	4 11	12 51.97	-23 10.3	1.638	2.615	6.1	18.5
4 21	12 46.82	+15 58.9	1.456	2.365	13.2	20.0	4 21	12 41.76	-22 39.7	1.632	2.596	7.9	18.6
5 1	12 41.57	+16 19.7	1.510	2.359	16.6	20.1	5 1	12 33.02	-21 57.6	1.652	2.578	11.0	18.7
5 11	12 38.57	+16 10.1	1.582	2.353	19.5	20.3	5 11	12 26.61	-21 11.9	1.695	2.559	14.4	18.9
299072	2005 <i>DF</i> ₃		4 5.3 322°99	2°6/ 7.7	17		507042	2008 <i>US</i> ₂₂₆		4 5.3 263°25	5°1/10.8	17	
3 2	13 18.50	-15 1.1	1.910	2.724	14.2	20.5	3 2	13 19.55	-24 2.1	2.148	2.909	14.6	21.6
3 12	13 14.63	-14 56.7	1.818	2.713	11.2	20.3	3 12	13 15.34	-23 56.8	2.044	2.896	12.1	21.4
3 22	13 8.69	-14 35.4	1.749	2.703	7.6	20.0	3 22	13 9.13	-23 29.5	1.961	2.882	9.2	21.2
4 1	13 1.32	-13 58.7	1.704	2.693	3.9	19.8	4 1	13 1.49	-22 39.7	1.903	2.868	6.4	21.0
4 11	12 53.41	-13 10.4	1.687	2.683	2.9	19.7	4 11	12 53.30	-21 29.9	1.873	2.854	5.1	20.9
4 21	12 45.93	-12 16.3	1.697	2.674	6.3	19.9	4 21	12 45.50	-20 5.8	1.869	2.839	6.5	20.9
5 1	12 39.79	-11 23.1	1.733	2.665	10.2	20.1	5 1	12 38.98	-18 34.9	1.893	2.825	9.5	21.1
5 11	12 35.66	-10 37.1	1.791	2.657	13.7	20.3	5 11	12 34.41	-17 5.7	1.941	2.810	12.7	21.2
109463	2001 <i>QH</i> ₂₁₃		4 5.3 99°39	0°7/ 4.6	18		284115	2005 <i>TG</i> ₁₇₃		4 5.3 124°10	0°4/ 4.9	18	
3 2	13 21.83	-7 15.3	1.817</										

EPHEMERIDES

4 5.3

4 5.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
62665	2000 <i>SU</i> ₃₇₀		4 5.3 246°49	7°0/26.1	18		151077	2001 <i>VC</i> ₆₃		4 5.3 39°08	7°3/12.6	17	
3 2	13 18.93	+16 53.5	2.649	3.491	9.9	19.4	3 2	13 19.73	-27 30.3	1.650	2.412	18.3	19.3
3 12	13 14.36	+18 16.9	2.579	3.477	8.2	19.2	3 12	13 15.90	-27 40.8	1.574	2.419	15.4	19.1
3 22	13 8.27	+19 34.7	2.536	3.462	7.1	19.1	3 22	13 9.62	-27 22.1	1.515	2.425	12.2	19.0
4 1	13 1.18	+20 40.1	2.520	3.448	7.2	19.1	4 1	13 1.66	-26 33.0	1.479	2.433	9.0	18.8
4 11	12 53.76	+21 27.9	2.531	3.433	8.5	19.2	4 11	12 53.21	-25 16.4	1.467	2.440	7.3	18.7
4 21	12 46.71	+21 54.8	2.567	3.417	10.4	19.3	4 21	12 45.45	-23 39.9	1.481	2.448	8.2	18.8
5 1	12 40.66	+21 59.6	2.626	3.402	12.4	19.4	5 1	12 39.46	-21 54.0	1.519	2.456	11.1	18.9
5 11	12 36.12	+21 43.3	2.704	3.386	14.1	19.5	5 11	12 35.93	-20 10.0	1.581	2.464	14.3	19.2
507250	2011 <i>BQ</i> ₁₀₃		4 5.3 45°53	0°7/ 4.5	17		494795	2006 <i>WM</i> ₁₇₅		4 5.3 142°24	1°9/ 3.6	17	
3 2	13 16.16	- 5 25.7	2.817	3.648	9.6	21.6	3 2	13 22.71	- 3 22.0	1.879	2.722	13.3	22.0
3 12	13 12.11	- 4 58.7	2.744	3.657	7.1	21.4	3 12	13 17.53	- 2 38.2	1.810	2.729	9.8	21.8
3 22	13 6.80	- 4 25.3	2.697	3.666	4.2	21.3	3 22	13 10.33	- 1 45.8	1.764	2.735	5.8	21.6
4 1	13 0.70	- 3 48.5	2.679	3.675	1.3	21.0	4 1	13 1.84	- 0 50.3	1.746	2.741	2.2	21.4
4 11	12 54.41	- 3 11.9	2.690	3.685	2.1	21.1	4 11	12 53.00	+ 0 1.9	1.756	2.747	3.8	21.5
4 21	12 48.48	- 2 39.1	2.730	3.694	5.1	21.3	4 21	12 44.79	+ 0 45.0	1.793	2.752	7.7	21.7
5 1	12 43.45	- 2 13.2	2.797	3.704	7.8	21.5	5 1	12 38.05	+ 1 14.6	1.857	2.757	11.4	21.9
5 11	12 39.72	- 1 56.3	2.888	3.713	10.2	21.7	5 11	12 33.35	+ 1 28.1	1.942	2.762	14.6	22.2
205469	2001 <i>QY</i> ₁₁₃		4 5.3 318°40	4°3/ 9.8	17		346737	2009 <i>BX</i> ₃		4 5.3 31°76	3°2/ 1.9	17	
3 2	13 18.84	-20 55.2	2.086	2.868	14.3	20.3	3 2	13 17.08	- 1 10.4	1.828	2.686	12.9	20.2
3 12	13 14.75	-20 54.7	1.996	2.864	11.6	20.1	3 12	13 13.39	+ 0 3.3	1.765	2.693	9.4	20.0
3 22	13 8.72	-20 34.5	1.927	2.860	8.5	19.9	3 22	13 7.82	+ 1 24.6	1.727	2.700	5.7	19.8
4 1	13 1.35	-19 54.9	1.882	2.856	5.6	19.7	4 1	13 1.07	+ 2 46.3	1.715	2.707	3.2	19.7
4 11	12 53.53	-18 59.1	1.865	2.852	4.3	19.6	4 11	12 54.02	+ 4 0.5	1.731	2.715	5.0	19.8
4 21	12 46.15	-17 52.4	1.876	2.849	6.2	19.7	4 21	12 47.55	+ 5 0.6	1.774	2.723	8.6	20.0
5 1	12 40.07	-16 41.9	1.913	2.846	9.4	19.9	5 1	12 42.46	+ 5 42.1	1.841	2.731	12.1	20.2
5 11	12 35.90	-15 34.8	1.973	2.842	12.5	20.1	5 11	12 39.26	+ 6 3.1	1.928	2.740	15.0	20.4
127871	2003 <i>FC</i> ₁₂₈		4 5.3 68°06	0°1/ 4.4	13 C		423416	2005 <i>NV</i> ₉₈		4 5.3 165°36	7°2/28.6	16	
3 2	13 0.87	- 4 7.7	33.251	34.076	0.9	22.4	3 2	13 22.21	+11 47.0	1.965	2.819	12.3	21.2
3 12	13 0.11	- 4 2.7	33.168	34.079	0.7	22.4	3 12	13 17.10	+13 17.7	1.909	2.822	9.7	21.0
3 22	12 59.26	- 3 57.2	33.112	34.081	0.4	22.3	3 22	13 10.04	+14 44.3	1.877	2.826	7.6	20.9
4 1	12 58.37	- 3 51.6	33.086	34.083	0.1	22.3	4 1	13 1.75	+15 58.3	1.873	2.828	7.3	20.9
4 11	12 57.45	- 3 46.0	33.091	34.086	0.2	22.3	4 11	12 53.15	+16 52.4	1.896	2.831	8.9	21.0
4 21	12 56.56	- 3 40.6	33.125	34.088	0.5	22.4	4 21	12 45.18	+17 22.4	1.944	2.833	11.4	21.1
5 1	12 55.73	- 3 35.6	33.187	34.090	0.8	22.4	5 1	12 38.65	+17 27.0	2.014	2.834	14.1	21.3
5 11	12 54.97	- 3 31.3	33.276	34.093	1.0	22.4	5 11	12 34.09	+17 7.9	2.103	2.836	16.4	21.5
385471	2003 <i>UD</i> ₁₈₈		4 5.3 232°26	0°4/ 5.8	17		313683	2003 <i>SO</i> ₃₀₇		4 5.3 149°62	2°5/ 7.7	18	
3 2	13 22.10	- 9 0.9	2.534	3.348	11.1	21.6	3 2	13 25.18	-15 35.6	2.029	2.825	14.2	21.9
3 12	13 16.80	- 8 45.4	2.433	3.334	8.4	21.4	3 12	13 19.33	-15 26.8	1.951	2.836	11.0	21.7
3 22	13 9.82	- 8 20.2	2.357	3.320	5.2	21.2	3 22	13 11.43	-15 1.4	1.896	2.845	7.4	21.5
4 1	13 1.68	- 7 47.5	2.310	3.305	1.8	20.9	4 1	13 2.19	-14 21.0	1.867	2.854	3.8	21.3
4 11	12 53.10	- 7 10.9	2.292	3.290	2.0	20.9	4 11	12 52.57	-13 29.9	1.867	2.863	2.9	21.2
4 21	12 44.82	- 6 34.5	2.305	3.274	5.5	21.1	4 21	12 43.55	-12 33.7	1.896	2.870	6.1	21.5
5 1	12 37.58	- 6 2.4	2.345	3.257	8.9	21.3	5 1	12 36.01	-11 38.9	1.953	2.877	9.7	21.7
5 11	12 31.94	- 5 38.3	2.409	3.240	11.8	21.5	5 11	12 30.53	-10 51.2	2.033	2.883	12.9	21.9
388752	2007 <i>WE</i> ₆		4 5.3 172°57	4°0/31.5	17		362786	2011 <i>WT</i> ₁₂₆		4 5.4 353°27	2°7/ 7.4	18	
3 2	13 22.29	+ 7 45.4	2.796	3.635	9.5	21.6	3 2	13 16.41	-15 14.7	1.146	1.994	19.5	20.0
3 12	13 16.60	+ 8 23.4	2.726	3.638	7.2	21.4	3 12	13 14.10	-14 52.2	1.074	1.989	15.2	19.7
3 22	13 9.51	+ 9 0.0	2.683	3.641	5.0	21.3	3 22	13 8.84	-14 1.5	1.021	1.985	10.2	19.4
4 1	13 1.54	+ 9 30.8	2.668	3.643	4.0	21.2	4 1	13 1.49	-12 45.7	0.990	1.982	4.8	19.1
4 11	12 53.34	+ 9 51.8	2.684	3.645	5.2	21.3	4 11	12 53.44	-11 13.2	0.981	1.980	3.5	19.0
4 21	12 45.57	+10 0.5	2.728	3.646	7.4	21.4	4 21	12 46.15	- 9 36.1	0.997	1.979	8.7	19.3
5 1	12 38.83	+ 9 55.4	2.798	3.647	9.8	21.6	5 1	12 40.97	- 8 7.5	1.034	1.979	14.0	19.6
5 11	12 33.53	+ 9 36.6	2.891	3.647	11.8	21.7	5 11	12 38.71	- 6 57.3	1.090	1.980	18.7	19.8
197503	2004 <i>BN</i> ₉₇		4 5.3 133°14	1°4/ 3.8	17		155706	2000 <i>QF</i> ₁₂₂		4 5.4 220°38	0°3/ 4.9	18	
3 2	13 19.78	- 4 7.4	2.333	3.169	11.2	20.9	3 2	13 20.22	- 8 38.1	2.250	3.074	12.0	20.6
3 12	13 15.01	- 3 27.0	2.261	3.176	8.3	20.8	3 12	13 15.55	- 7 49.5	2.157	3.066	9.0	20.4
3 22	13 8.65	- 2 39.3	2.214	3.184	4.9	20.6	3 22	13 9.12	- 6 48.4	2.090	3.057	5.5	20.2
4 1	13 1.29	- 1 48.4	2.195	3.191	1.7	20.3	4 1	13 1.49	- 5 38.7	2.050	3.047	1.6	19.9
4 11	12 53.66	- 0 59.4	2.205	3.198	3.0	20.4	4 11	12 53.45	- 4 26.0	2.040	3.037	2.4	19.9
4 21	12 46.52	- 0 16.9	2.245	3.204	6.4	20.7	4 21	12 45.81	- 3 16.5	2.059	3.026	6.3	20.2
5 1	12 40.52	+ 0 15.2	2.311	3.211	9.5	20.9	5 1	12 39.32	- 2 16.0	2.106	3.015	9.9	20.4
5 11	12 36.14	+ 0 34.5	2.400	3.217	12.3	21.1	5 11	12 34.55	- 1 28.7	2.176	3.003	13.0	20.5
294181	2007 <i>TA</i> ₃₉₅		4 5.3 290°94	1°6/ 3.7	17		457611	2009 <i>BF</i> ₆₈		4 5.4 118°30	1°3/ 6.5	18	
3 2	13 19.25	- 3 44.4	2.047	2.891	12.3	21.2	3 2	13 24.95	-11 57.7	1.655	2.477	15.7	21.6
3 12	13 14.92	- 3 4.6	1.967	2.886	9.1	21.0	3 12	13 19.46	-11 39.0	1.587	2.490	11.9	21.4
3 22	13 8.75	- 2 16.4	1.910	2.881	5.4	20.7	3 22	13 11.62	-11 3.5	1.541	2.503	7.6	21.2
4 1	13 1.36	- 1 24.4	1.881	2.877	2.0	20.5	4 1	13 2.26	-10 14.6	1.521	2.515	3.0	20.9
4 11	12 53.57	- 0 34.3	1.880	2.872	3.5	20.6	4 11	12 52.52	- 9 18.2	1.529	2.527	2.6	20.9
4 21	12 46.25	+ 0 8.3	1.907	2.867	7.2	20.8	4 21	12 43.55	- 8 21.3	1.564	2.538	7.1	21.2
5 1	12 40.18	+ 0 39.1	1.959	2.863	10.8	21.0	5 1	12 36.33	- 7 31.1	1.624	2.549	11.3	21.5
5 11	12 35.94	+ 0 55.2	2.034	2.858	13.9	21.2	5 11	12 31.49	- 6 53.0	1.707	2.560	14.9	21.7
44394	1998 <i>ST</i> ₆₆		4 5.3 291°52	1°1/ 4.2	18		384909	2012 <i>TY</i> ₃₉		4 5.4 112°52	1°9		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
122986	2000 <i>SG</i> ₂₄₄		4 5.4 107°86	4.1/31.7	18		174509	2003 <i>BU</i> ₆₄		4 5.4 103°88	1.2/3.9	18	
3 2	13 19.13	+ 0 49.8	1.889	2.745	12.6	19.8	3 2	13 19.83	- 4 13.9	2.404	3.238	11.0	20.7
3 12	13 14.83	+ 2 26.7	1.829	2.755	9.2	19.6	3 12	13 14.97	- 3 36.7	2.338	3.252	8.1	20.6
3 22	13 8.66	+ 4 9.6	1.794	2.764	5.9	19.4	3 22	13 8.61	- 2 52.8	2.297	3.267	4.8	20.4
4 1	13 1.33	+ 5 50.4	1.788	2.774	4.1	19.3	4 1	13 1.31	- 2 6.0	2.285	3.281	1.6	20.2
4 11	12 53.73	+ 7 20.3	1.809	2.784	6.0	19.5	4 11	12 53.80	- 1 21.1	2.302	3.295	2.8	20.3
4 21	12 46.74	+ 8 32.5	1.858	2.793	9.3	19.7	4 21	12 46.79	- 0 42.3	2.349	3.309	6.1	20.5
5 1	12 41.13	+ 9 22.8	1.931	2.802	12.5	19.9	5 1	12 40.92	- 0 13.2	2.422	3.323	9.1	20.7
5 11	12 37.42	+ 9 50.0	2.025	2.811	15.3	20.1	5 11	12 36.61	+ 0 4.0	2.518	3.336	11.7	20.9
35326	Lucastrabla		4 5.4 294°68	0°3/5.0	18		98758	2000 <i>YM</i> ₆₃		4 5.4 50°03	4.4/9.3	18	
3 2	13 18.10	- 7 30.2	2.243	3.075	11.8	19.5	3 2	13 21.82	- 19 9.1	1.688	2.487	16.5	19.0
3 12	13 14.02	- 7 0.8	2.149	3.062	8.8	19.3	3 12	13 17.20	- 19 21.7	1.621	2.502	13.1	18.8
3 22	13 8.22	- 6 21.1	2.080	3.048	5.4	19.0	3 22	13 10.28	- 19 13.2	1.576	2.517	9.4	18.6
4 1	13 1.23	- 5 34.1	2.038	3.035	1.6	18.8	4 1	13 1.87	- 18 44.0	1.554	2.533	5.9	18.4
4 11	12 53.81	- 4 44.7	2.024	3.021	2.4	18.8	4 11	12 53.08	- 17 58.2	1.559	2.549	4.5	18.4
4 21	12 46.74	- 3 58.0	2.039	3.008	6.2	19.0	4 21	12 45.02	- 17 2.2	1.590	2.565	6.9	18.6
5 1	12 40.78	- 3 18.8	2.080	2.994	9.7	19.2	5 1	12 38.64	- 16 3.7	1.647	2.582	10.4	18.8
5 11	12 36.49	- 2 51.0	2.144	2.981	12.8	19.4	5 11	12 34.58	- 15 10.3	1.726	2.598	13.8	19.0
498753	2008 <i>UJ</i> ₈		4 5.4 234°43	0°1/5.2	17		66399	1999 <i>LH</i>		4 5.4 275°78	2°5/3.3	18	
3 2	13 21.18	- 7 51.2	2.125	2.953	12.5	21.9	3 2	13 22.69	- 3 11.8	1.607	2.458	14.7	20.0
3 12	13 16.37	- 7 25.0	2.035	2.945	9.4	21.7	3 12	13 18.20	- 2 23.2	1.512	2.435	11.0	19.7
3 22	13 9.67	- 6 47.7	1.970	2.937	5.7	21.5	3 22	13 11.16	- 1 22.5	1.439	2.412	6.7	19.4
4 1	13 1.68	- 6 2.6	1.931	2.928	1.7	21.2	4 1	13 2.24	- 0 15.5	1.392	2.388	2.8	19.1
4 11	12 53.24	- 5 14.7	1.922	2.919	2.4	21.2	4 11	12 52.49	+ 0 49.4	1.373	2.364	4.7	19.2
4 21	12 45.21	- 4 29.3	1.941	2.910	6.4	21.5	4 21	12 43.15	+ 1 44.3	1.379	2.339	9.5	19.4
5 1	12 38.42	- 3 51.5	1.986	2.900	10.1	21.7	5 1	12 35.38	+ 2 22.3	1.410	2.315	14.1	19.6
5 11	12 33.48	- 3 25.1	2.055	2.890	13.4	21.8	5 11	12 30.05	+ 2 39.5	1.461	2.290	18.1	19.8
346245	2008 <i>CY</i> ₁₁₅		4 5.4 274°60	1°6/1.8	17		351876	2006 <i>SO</i> ₈₄		4 5.4 113°02	1°1/3.9	17	
3 2	13 11.56	- 0 30.0	4.351	5.189	6.4	21.1	3 2	13 17.27	- 6 36.1	2.486	3.317	10.8	21.4
3 12	13 8.41	+ 0 30.0	4.263	5.180	4.6	20.9	3 12	13 13.08	- 5 27.8	2.415	3.329	7.9	21.2
3 22	13 4.46	+ 1 33.3	4.203	5.172	2.8	20.8	3 22	13 7.46	- 4 9.9	2.371	3.340	4.7	21.0
4 1	13 0.02	+ 2 37.0	4.173	5.163	1.6	20.7	4 1	13 0.96	- 2 47.3	2.355	3.351	1.5	20.8
4 11	12 55.41	+ 3 38.1	4.174	5.155	2.6	20.7	4 11	12 54.25	- 1 25.8	2.369	3.362	2.7	20.9
4 21	12 50.99	+ 4 33.7	4.206	5.146	4.4	20.9	4 21	12 47.99	- 0 11.1	2.413	3.373	6.0	21.1
5 1	12 47.08	+ 5 21.5	4.266	5.138	6.2	21.0	5 1	12 42.77	+ 0 52.2	2.484	3.383	9.0	21.3
5 11	12 43.95	+ 5 59.9	4.351	5.129	7.8	21.1	5 11	12 39.03	+ 1 41.1	2.579	3.394	11.6	21.5
297578	2001 <i>RH</i> ₁₄₃		4 5.4 168°13	3°8/8.5	18		492222	2013 <i>TZ</i> ₂₉		4 5.4 258°43	0°6/4.8	17	
3 2	13 24.72	- 17 53.6	1.626	2.428	16.9	20.9	3 2	13 20.92	- 7 20.8	1.972	2.805	13.1	21.9
3 12	13 19.57	- 17 53.1	1.546	2.431	13.4	20.7	3 12	13 16.38	- 6 43.2	1.877	2.790	9.8	21.6
3 22	13 11.86	- 17 30.7	1.487	2.434	9.4	20.4	3 22	13 9.79	- 5 53.1	1.806	2.775	6.0	21.4
4 1	13 2.39	- 16 47.1	1.452	2.436	5.4	20.2	4 1	13 1.76	- 4 54.4	1.762	2.759	1.8	21.1
4 11	12 52.33	- 15 46.7	1.444	2.437	4.0	20.1	4 11	12 53.18	- 3 53.0	1.746	2.742	2.8	21.1
4 21	12 42.95	- 14 36.8	1.462	2.438	7.3	20.3	4 21	12 44.99	- 2 55.4	1.758	2.726	7.1	21.3
5 1	12 35.35	- 13 26.3	1.507	2.439	11.4	20.5	5 1	12 38.10	- 2 7.6	1.797	2.709	11.1	21.5
5 11	12 30.28	- 12 23.8	1.573	2.439	15.2	20.8	5 11	12 33.18	- 1 33.9	1.857	2.692	14.6	21.7
400534	2008 <i>UA</i> ₆₅		4 5.4 232°99	3°1/7.9	17		438426	2006 <i>VB</i> ₁₃₅		4 5.4 270°00	6°3/13.8	17	
3 2	13 24.62	- 16 37.6	1.742	2.544	15.9	22.0	3 2	13 18.12	- 30 29.3	2.442	3.156	14.2	20.5
3 12	13 19.51	- 16 26.8	1.644	2.532	12.6	21.7	3 12	13 14.07	- 30 23.6	2.346	3.155	12.2	20.4
3 22	13 11.89	- 15 55.3	1.568	2.518	8.7	21.5	3 22	13 8.25	- 29 54.7	2.271	3.154	9.9	20.2
4 1	13 2.43	- 15 3.8	1.518	2.504	4.6	21.2	4 1	13 1.25	- 29 1.8	2.219	3.153	7.7	20.1
4 11	12 52.22	- 13 56.5	1.494	2.490	3.5	21.1	4 11	12 53.88	- 27 47.1	2.193	3.152	6.3	20.0
4 21	12 42.47	- 12 40.8	1.499	2.474	7.2	21.3	4 21	12 46.96	- 26 15.6	2.195	3.151	6.8	20.0
5 1	12 34.31	- 11 25.4	1.529	2.458	11.5	21.5	5 1	12 41.26	- 24 34.1	2.225	3.150	8.6	20.1
5 11	12 28.58	- 10 18.6	1.582	2.441	15.5	21.7	5 11	12 37.31	- 22 50.9	2.280	3.149	11.0	20.3
421623	2014 <i>OW</i> ₂₉₂		4 5.4 231°85	2°1/3.4	17		135112	2001 <i>QW</i> ₁₁₂		4 5.4 118°45	4°7/10.7	18	
3 2	13 22.02	- 4 54.3	1.706	2.551	14.3	21.9	3 2	13 21.13	- 23 9.0	2.412	3.168	13.3	19.8
3 12	13 17.40	- 3 49.4	1.621	2.541	10.6	21.6	3 12	13 16.19	- 23 22.6	2.328	3.176	10.9	19.6
3 22	13 10.48	- 2 31.0	1.559	2.531	6.3	21.4	3 22	13 9.49	- 23 18.5	2.267	3.184	8.3	19.5
4 1	13 1.96	- 1 5.5	1.525	2.521	2.4	21.1	4 1	13 1.63	- 22 56.3	2.230	3.192	5.9	19.3
4 11	12 52.87	+ 0 18.6	1.518	2.510	4.3	21.2	4 11	12 53.40	- 22 18.2	2.221	3.199	4.7	19.3
4 21	12 44.30	+ 1 32.8	1.539	2.498	8.8	21.4	4 21	12 45.63	- 21 28.4	2.241	3.206	6.0	19.4
5 1	12 37.27	+ 2 30.1	1.584	2.486	13.0	21.6	5 1	12 39.07	- 20 32.4	2.287	3.213	8.4	19.5
5 11	12 32.49	+ 3 6.7	1.650	2.473	16.7	21.8	5 11	12 34.27	- 19 36.4	2.359	3.220	11.0	19.7
372690	2009 <i>WX</i> ₁₈₆		4 5.4 104°05	1°1/4.4	18		56550	2000 <i>HZ</i> ₇₇		4 5.4 201°50	2°4/7.5	18	
3 2	13 23.17	- 4 53.2	1.967	2.802	13.0	21.6	3 2	13 24.30	- 15 30.9	1.822	2.627	15.2	19.4
3 12	13 17.75	- 4 27.4	1.901	2.816	9.6	21.4	3 12	13 19.05	- 15 9.8	1.733	2.623	11.9	19.2
3 22	13 10.42	- 3 53.1	1.859	2.829	5.7	21.2	3 22	13 11.47	- 14 29.3	1.666	2.619	8.0	19.0
4 1	13 1.88	- 3 14.6	1.845	2.842	1.8	20.9	4 1	13 2.29	- 13 31.2	1.624	2.614	3.9	18.7
4 11	12 53.06	- 2 37.1	1.860	2.855	3.0	21.0	4 11	12 52.53	- 12 20.6	1.611	2.608	2.9	18.6
4 21	12 44.88	- 2 5.5	1.903	2.867	6.9	21.3	4 21	12 43.31	- 11 4.7	1.626	2.601	6.8	18.8
5 1	12 38.14	- 1 43.9	1.971	2.879	10.5	21.5	5 1	12 35.65	- 9 51.8	1.667	2.594	10.9	19.1
5 11	12 33.37	- 1 34.8	2.063	2.891	13.6	21.8	5 11	12 30.25	- 8 49.0	1.731	2.585	14.6	19.3
68878	2002 <i>JN</i> ₄₆		4 5.4 250°62	3°5/9.6	18		210038	2006 <i>OO</i> ₉		4 5.4 247°46	4°8/		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
502250	2015 <i>BV</i> ₁₀₂		4 5.4 209°08	1°5/ 6.9 17			501106	2013 <i>TN</i> ₁		4 5.4 181°23	0°8/ 4.5 17		
3 2	13 21.71	-12 44.4	2.244	3.052	12.6	22.0	3 2	13 20.90	-6 42.5	2.198	3.028	12.1	22.5
3 12	13 16.70	-12 29.3	2.152	3.047	9.7	21.8	3 12	13 16.03	-5 57.4	2.117	3.029	8.9	22.3
3 22	13 9.86	-12 0.6	2.085	3.042	6.3	21.6	3 22	13 9.41	-5 1.8	2.061	3.030	5.4	22.1
4 1	13 1.77	-11 20.5	2.044	3.036	2.7	21.4	4 1	13 1.64	-4 0.0	2.033	3.030	1.6	21.9
4 11	12 53.24	-10 32.9	2.033	3.030	2.2	21.3	4 11	12 53.52	-2 57.6	2.034	3.029	2.7	21.9
4 21	12 45.13	-9 42.7	2.050	3.024	5.7	21.5	4 21	12 45.87	-2 0.3	2.064	3.028	6.5	22.2
5 1	12 38.22	-8 55.5	2.095	3.017	9.3	21.7	5 1	12 39.44	-1 13.1	2.121	3.027	10.0	22.4
5 11	12 33.11	-8 16.0	2.164	3.010	12.4	21.9	5 11	12 34.76	-0 39.5	2.201	3.025	13.0	22.6
253201	2002 <i>XP</i> ₇₀		4 5.4 143°62	1°2/ 4.2 18			416126	2002 <i>QF</i> ₈₉		4 5.4 190°67	2°7/ 7.8 16		
3 2	13 23.42	-4 55.1	1.932	2.768	13.2	20.5	3 2	13 24.50	-15 26.5	1.993	2.792	14.3	22.1
3 12	13 18.04	-4 21.1	1.861	2.776	9.8	20.3	3 12	13 19.02	-15 26.8	1.905	2.791	11.2	21.9
3 22	13 10.66	-3 37.9	1.813	2.783	5.8	20.1	3 22	13 11.39	-15 10.8	1.839	2.789	7.6	21.7
4 1	13 2.00	-2 50.0	1.793	2.790	1.9	19.8	4 1	13 2.29	-14 39.6	1.801	2.787	4.0	21.5
4 11	12 52.99	-2 3.2	1.802	2.796	3.2	19.9	4 11	12 52.67	-13 56.7	1.790	2.785	3.1	21.4
4 21	12 44.60	-1 23.0	1.839	2.802	7.2	20.2	4 21	12 43.55	-13 7.4	1.807	2.782	6.3	21.6
5 1	12 37.65	-0 54.1	1.902	2.808	10.9	20.4	5 1	12 35.86	-12 18.1	1.852	2.778	10.0	21.8
5 11	12 32.72	-0 39.2	1.987	2.813	14.1	20.6	5 11	12 30.28	-11 34.9	1.920	2.774	13.4	22.0
382345	2013 <i>TH</i> ₆₂		4 5.4 81°32	1°4/ 6.5 17			131903	2002 <i>BE</i> ₇		4 5.4 116°68	4°2/ 2.2 18		
3 2	13 24.34	-10 34.3	1.904	2.723	14.1	20.3	3 2	13 26.22	+2 10.9	1.548	2.403	14.9	19.7
3 12	13 18.80	-10 42.0	1.831	2.733	10.7	20.1	3 12	13 20.47	+2 56.8	1.489	2.412	11.1	19.5
3 22	13 11.17	-10 37.6	1.782	2.743	6.8	19.9	3 22	13 12.29	+3 46.5	1.452	2.422	7.0	19.2
4 1	13 2.17	-10 22.9	1.759	2.752	2.8	19.6	4 1	13 2.54	+4 32.7	1.441	2.431	4.3	19.1
4 11	12 52.78	-10 1.6	1.764	2.762	2.4	19.6	4 11	12 52.44	+5 7.9	1.458	2.440	6.1	19.2
4 21	12 44.01	-9 38.2	1.797	2.771	6.3	19.9	4 21	12 43.19	+5 26.7	1.500	2.448	10.0	19.5
5 1	12 36.75	-9 17.7	1.857	2.781	10.1	20.1	5 1	12 35.79	+5 26.4	1.566	2.456	13.8	19.7
5 11	12 31.60	-9 4.3	1.940	2.790	13.4	20.3	5 11	12 30.88	+5 6.7	1.652	2.464	17.1	20.0
493642	2015 <i>PM</i> ₂₉₄		4 5.4 260°25	9°7/ 9.2 18			226713	2004 <i>PS</i> ₄		4 5.4 162°29	1°6/ 7.1 17		
3 2	13 35.80	-21 39.6	1.296	2.081	21.2	21.0	3 2	13 21.45	-13 45.0	2.288	3.092	12.5	21.4
3 12	13 29.32	-23 37.2	1.207	2.070	17.9	20.7	3 12	13 16.41	-13 21.4	2.205	3.097	9.6	21.2
3 22	13 18.76	-25 17.3	1.137	2.059	14.1	20.5	3 22	13 9.63	-12 43.6	2.146	3.101	6.3	21.0
4 1	13 4.82	-26 31.1	1.089	2.048	10.8	20.2	4 1	13 1.71	-11 54.0	2.114	3.106	2.8	20.8
4 11	12 49.10	-27 12.5	1.066	2.036	9.8	20.1	4 11	12 53.46	-10 56.8	2.112	3.109	2.2	20.7
4 21	12 33.72	-27 21.7	1.067	2.024	12.0	20.2	4 21	12 45.69	-9 57.4	2.139	3.113	5.5	21.0
5 1	12 20.79	-27 5.8	1.092	2.012	15.9	20.4	5 1	12 39.12	-9 1.4	2.193	3.115	8.9	21.2
5 11	12 11.77	-26 37.3	1.135	2.000	19.9	20.6	5 11	12 34.30	-8 13.6	2.272	3.118	11.9	21.4
410203	2007 <i>RZ</i> ₂₀₆		4 5.4 289°72	0°5/ 5.0 17			224627	2005 <i>YB</i> ₁₂₃		4 5.4 137°23	1°1/ 4.4 16		
3 2	13 24.73	-6 9.4	1.431	2.278	16.4	20.9	3 2	13 23.66	-4 26.1	2.021	2.856	12.8	20.7
3 12	13 20.11	-6 0.7	1.335	2.255	12.4	20.6	3 12	13 18.16	-4 4.9	1.948	2.863	9.4	20.5
3 22	13 12.56	-5 39.3	1.261	2.232	7.7	20.3	3 22	13 10.74	-3 35.8	1.900	2.869	5.7	20.2
4 1	13 2.75	-5 8.7	1.212	2.209	2.3	19.9	4 1	13 2.06	-3 2.7	1.879	2.875	1.8	20.0
4 11	12 51.91	-4 34.8	1.188	2.185	3.5	19.9	4 11	12 53.04	-2 30.5	1.886	2.881	3.0	20.1
4 21	12 41.46	-4 4.7	1.190	2.162	9.1	20.2	4 21	12 44.60	-2 3.9	1.923	2.887	6.9	20.3
5 1	12 32.81	-3 45.1	1.215	2.139	14.4	20.4	5 1	12 37.55	-1 46.8	1.985	2.892	10.5	20.6
5 11	12 26.96	-3 41.1	1.261	2.116	18.9	20.6	5 11	12 32.45	-1 41.7	2.070	2.897	13.6	20.8
57437	2001 <i>SB</i> ₅₂		4 5.4 94°28	3°4/ 2.7 18			279350	2010 <i>AW</i> ₈		4 5.4 218°51	2°9/ 2.3 17		
3 2	13 26.66	+2 5.7	1.799	2.645	13.6	19.4	3 2	13 19.71	-0 35.8	2.035	2.884	12.1	20.8
3 12	13 20.43	+2 30.6	1.741	2.661	10.0	19.2	3 12	13 15.28	+0 22.8	1.959	2.882	8.9	20.6
3 22	13 12.08	+2 57.9	1.707	2.676	6.2	19.0	3 22	13 9.02	+1 28.0	1.908	2.879	5.5	20.3
4 1	13 2.43	+3 22.2	1.700	2.691	3.5	18.8	4 1	13 1.54	+2 33.9	1.884	2.876	3.0	20.2
4 11	12 52.53	+3 38.2	1.722	2.706	5.0	19.0	4 11	12 53.70	+3 33.8	1.889	2.873	4.6	20.3
4 21	12 43.42	+3 42.0	1.771	2.721	8.6	19.2	4 21	12 46.36	+4 22.1	1.921	2.870	8.1	20.5
5 1	12 35.97	+3 31.6	1.845	2.735	12.1	19.4	5 1	12 40.28	+4 54.6	1.979	2.867	11.5	20.7
5 11	12 30.74	+3 6.7	1.941	2.749	15.0	19.7	5 11	12 36.03	+5 9.3	2.058	2.864	14.4	20.9
192055	2006 <i>BA</i> ₃₆		4 5.4 248°21	2°6/ 2.8 18			504402	2007 <i>WM</i> ₁		4 5.4 162°56	3°4/ 9.8 17		
3 2	13 20.57	-1 23.6	1.982	2.830	12.5	20.2	3 2	13 19.58	-21 0.7	2.662	3.427	12.0	22.2
3 12	13 16.01	-0 33.8	1.900	2.822	9.2	20.0	3 12	13 14.88	-20 47.2	2.573	3.431	9.7	22.1
3 22	13 9.50	+0 23.4	1.843	2.814	5.6	19.7	3 22	13 8.65	-20 17.4	2.506	3.435	7.0	21.9
4 1	13 1.68	+1 22.4	1.812	2.806	2.7	19.5	4 1	13 1.41	-19 32.2	2.467	3.439	4.5	21.7
4 11	12 53.42	+2 16.9	1.810	2.798	4.4	19.6	4 11	12 53.88	-18 34.5	2.456	3.443	3.4	21.7
4 21	12 45.63	+3 0.9	1.836	2.789	8.1	19.8	4 21	12 46.75	-17 28.9	2.474	3.446	5.1	21.8
5 1	12 39.14	+3 30.0	1.887	2.781	11.7	20.0	5 1	12 40.67	-16 20.9	2.521	3.448	7.7	21.9
5 11	12 34.57	+3 42.0	1.959	2.772	14.8	20.2	5 11	12 36.12	-15 15.9	2.593	3.451	10.2	22.1
107128	2001 <i>AG</i> ₄₇		4 5.4 98°83	1°1/ 4.7 18			138703	2000 <i>SK</i> ₈₉		4 5.4 87°09	2°3/ 3.1 18		
3 2	13 35.82	-2 25.7	1.730	2.554	15.0	18.7	3 2	13 22.88	+0 40.9	2.373	3.211	11.0	19.5
3 12	13 27.23	-2 43.8	1.671	2.579	11.1	18.5	3 12	13 17.24	+0 58.7	2.310	3.226	8.1	19.3
3 22	13 16.20	-2 56.8	1.637	2.603	6.7	18.3	3 22	13 10.01	+1 19.2	2.272	3.240	4.9	19.2
4 1	13 3.69	-3 7.3	1.631	2.627	2.1	18.0	4 1	13 1.81	+1 38.6	2.262	3.255	2.4	19.0
4 11	12 50.97	-3 18.6	1.655	2.650	3.2	18.1	4 11	12 53.41	+1 53.2	2.282	3.269	3.6	19.1
4 21	12 39.26	-3 33.7	1.709	2.673	7.6	18.4	4 21	12 45.55	+1 59.7	2.331	3.283	6.7	19.3
5 1	12 29.57	-3 55.0	1.790	2.695	11.6	18.7	5 1	12 38.90	+1 56.2	2.407	3.297	9.6	19.5
5 11	12 22.49	-4 24.1	1.894	2.716	14.9	19.0	5 11	12 33.92	+1 41.6	2.505	3.311	12.1	19.7
100359	1995 <i>UK</i> ₈		4 5.4 125°00	1°8/ 4.0 18			292547	2006 <i>TE</i> ₅₅		4 5.4 154°35	3°8/ 31.2 18		
3 2	13 29.06	-3 13.4	1.648	2.486	15.0	20.1</							

EPHEMERIDES

4 5.4

4 5.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
375987	2009 <i>WB</i> ₂₆₃		4 5.4 102°03	2°2/ 7.6 17			122856	2000 <i>SS</i> ₁₃₁		4 5.4 173°05	4°1/10.5 18		
3 2	13 21.32	-14 52.4	1.969	2.776	14.1	21.0	3 2	13 22.07	-23 5.3	2.598	3.347	12.6	20.7
3 12	13 16.55	-14 38.8	1.893	2.785	10.9	20.8	3 12	13 16.80	-22 56.7	2.505	3.351	10.3	20.6
3 22	13 9.82	-14 8.7	1.840	2.794	7.3	20.6	3 22	13 9.86	-22 30.2	2.435	3.354	7.7	20.4
4 1	13 1.80	-13 24.3	1.814	2.803	3.6	20.4	4 1	13 1.81	-21 46.1	2.392	3.357	5.2	20.3
4 11	12 53.42	-12 30.1	1.815	2.811	2.7	20.3	4 11	12 53.43	-20 47.2	2.377	3.359	4.1	20.2
4 21	12 45.61	-11 32.1	1.844	2.820	6.0	20.6	4 21	12 45.47	-19 38.0	2.392	3.360	5.5	20.3
5 1	12 39.22	-10 36.7	1.900	2.828	9.7	20.8	5 1	12 38.65	-18 24.5	2.435	3.360	8.0	20.4
5 11	12 34.81	-9 49.7	1.979	2.836	12.9	21.0	5 11	12 33.49	-17 12.8	2.504	3.360	10.6	20.6
323124	2003 <i>AL</i> ₇₁		4 5.4 113°33	1°8/ 7.2 18			452358	2001 <i>UC</i> ₁₉₁		4 5.4 124°46	0°6/ 5.8 18		
3 2	13 23.34	-14 10.9	1.983	2.789	14.1	21.4	3 2	13 27.10	-9 10.5	1.566	2.397	16.0	21.7
3 12	13 17.94	-13 49.3	1.914	2.807	10.8	21.2	3 12	13 21.23	-9 1.1	1.498	2.407	12.1	21.5
3 22	13 10.60	-13 11.7	1.869	2.824	7.1	21.0	3 22	13 12.83	-8 37.4	1.452	2.417	7.5	21.3
4 1	13 2.02	-12 20.7	1.850	2.841	3.2	20.8	4 1	13 2.77	-8 2.9	1.432	2.427	2.6	21.0
4 11	12 53.17	-11 21.4	1.859	2.857	2.4	20.8	4 11	12 52.25	-7 23.3	1.439	2.437	2.7	21.0
4 21	12 44.97	-10 20.1	1.898	2.872	6.0	21.1	4 21	12 42.54	-6 44.9	1.473	2.446	7.6	21.3
5 1	12 38.23	-9 23.0	1.963	2.887	9.7	21.3	5 1	12 34.70	-6 14.0	1.532	2.455	12.0	21.6
5 11	12 33.51	-8 35.4	2.052	2.902	12.8	21.5	5 11	12 29.42	-5 55.3	1.613	2.463	15.8	21.9
297679	2001 <i>UK</i> ₁₄₄		4 5.4 143°57	1°4/ 4.2 18			164538	2006 <i>JC</i> ₆		4 5.4 248°04	1°7/ 3.7 17		
3 2	13 24.61	-5 43.7	1.691	2.530	14.6	21.7	3 2	13 19.92	-3 44.2	2.011	2.855	12.5	20.5
3 12	13 19.17	-4 54.3	1.623	2.540	10.8	21.5	3 12	13 15.47	-3 2.7	1.935	2.854	9.2	20.3
3 22	13 11.48	-3 53.0	1.578	2.549	6.5	21.2	3 22	13 9.16	-2 12.6	1.882	2.853	5.5	20.1
4 1	13 2.32	-2 45.5	1.561	2.557	2.1	20.9	4 1	13 1.61	-1 18.9	1.856	2.852	2.0	19.9
4 11	12 52.79	-1 39.3	1.571	2.565	3.6	21.1	4 11	12 53.70	0 27.4	1.859	2.851	3.5	20.0
4 21	12 43.99	-0 41.8	1.609	2.572	8.1	21.3	4 21	12 46.29	+0 16.2	1.890	2.851	7.3	20.2
5 1	12 36.86	+0 1.4	1.672	2.579	12.1	21.6	5 1	12 40.17	+0 47.6	1.946	2.850	10.9	20.4
5 11	12 32.01	+0 26.9	1.756	2.585	15.6	21.8	5 11	12 35.90	+1 4.0	2.024	2.849	14.0	20.6
384064	2008 <i>UV</i> ₃₁₇		4 5.4 189°48	2°6/ 7.9 17			20661	1999 <i>UZ</i>		4 5.4 271°98	0°3/ 5.1 18		
3 2	13 21.65	-15 37.2	2.186	2.984	13.2	21.8	3 2	13 18.77	-7 9.3	2.497	3.323	10.9	19.3
3 12	13 16.73	-15 34.6	2.098	2.983	10.4	21.6	3 12	13 14.41	-6 43.5	2.398	3.308	8.1	19.1
3 22	13 9.92	-15 16.9	2.034	2.983	7.1	21.4	3 22	13 8.45	-6 8.6	2.325	3.292	5.0	18.8
4 1	13 1.85	-14 45.2	1.996	2.982	3.8	21.2	4 1	13 1.40	-5 27.4	2.280	3.277	1.5	18.6
4 11	12 53.35	-14 3.1	1.986	2.981	2.8	21.2	4 11	12 53.95	-4 44.2	2.264	3.261	2.2	18.6
4 21	12 45.29	-13 15.2	2.005	2.979	5.7	21.3	4 21	12 46.80	-4 3.3	2.277	3.245	5.7	18.8
5 1	12 38.50	-12 27.4	2.050	2.978	9.2	21.5	5 1	12 40.63	-3 29.0	2.317	3.228	9.0	19.0
5 11	12 33.55	-11 45.0	2.120	2.976	12.3	21.7	5 11	12 36.00	-3 4.5	2.381	3.212	11.9	19.1
90817	Doylehall		4 5.4 131°96	1°4/ 6.9 17			206128	2002 <i>SQ</i> ₄₀		4 5.4 153°16	2°4/ 2.5 17		
3 2	13 20.61	-13 49.4	2.134	2.942	13.1	20.5	3 2	13 19.60	-0 34.4	2.573	3.412	10.2	21.3
3 12	13 15.86	-13 15.1	2.057	2.952	10.1	20.3	3 12	13 14.79	+0 18.2	2.502	3.419	7.5	21.1
3 22	13 9.33	-12 25.3	2.004	2.961	6.5	20.1	3 22	13 8.55	+1 15.6	2.457	3.426	4.5	20.9
4 1	13 1.64	-11 23.0	1.978	2.970	2.8	19.8	4 1	13 1.39	+2 13.0	2.441	3.433	2.4	20.8
4 11	12 53.65	-10 13.3	1.981	2.978	2.2	19.8	4 11	12 54.01	+3 5.6	2.455	3.438	3.7	20.9
4 21	12 46.20	-9 2.6	2.012	2.987	5.8	20.1	4 21	12 47.05	+3 49.1	2.497	3.444	6.6	21.1
5 1	12 40.04	-7 57.0	2.071	2.994	9.3	20.3	5 1	12 41.13	+4 20.2	2.567	3.449	9.4	21.3
5 11	12 35.70	-7 1.9	2.154	3.002	12.4	20.5	5 11	12 36.69	+4 37.5	2.659	3.454	11.8	21.4
228576	2001 <i>YR</i> ₇₂		4 5.4 218°17	5°8/11.7 18			435630	2008 <i>SR</i> ₁₂₉		4 5.4 80°78	3°9/ 9.2 17		
3 2	13 23.36	-26 35.5	2.392	3.124	14.0	20.7	3 2	13 18.98	-25 2.4	1.042	1.857	23.4	20.8
3 12	13 18.09	-26 50.6	2.288	3.115	11.8	20.5	3 12	13 16.27	-23 11.8	0.972	1.863	18.8	20.6
3 22	13 10.83	-26 45.5	2.205	3.106	9.4	20.3	3 22	13 10.26	-20 27.6	0.919	1.869	13.2	20.2
4 1	13 2.16	-26 18.9	2.147	3.095	7.0	20.1	4 1	13 2.03	-16 54.7	0.888	1.875	7.0	19.9
4 11	12 52.93	-25 31.9	2.117	3.084	5.9	20.0	4 11	12 53.24	-12 51.1	0.883	1.881	4.1	19.8
4 21	12 44.06	-24 28.5	2.114	3.073	6.8	20.1	4 21	12 45.57	-8 43.4	0.904	1.887	9.2	20.1
5 1	12 36.44	-23 15.0	2.139	3.061	9.1	20.2	5 1	12 40.37	-4 58.3	0.950	1.893	15.2	20.4
5 11	12 30.71	-21 58.9	2.188	3.048	11.8	20.3	5 11	12 38.36	-1 53.8	1.017	1.899	20.4	20.7
31542	1999 <i>DR</i> ₃		4 5.4 323°61	5°8/30.6 18			20902	Kylebeighle		4 5.4 34°29	0°1/ 5.5 18		
3 2	13 21.11	+9 19.4	2.048	2.902	11.8	16.8	3 2	13 23.77	-7 25.2	1.871	2.702	13.8	18.3
3 12	13 16.30	+10 12.5	1.980	2.899	9.1	16.6	3 12	13 18.50	-7 22.8	1.792	2.702	10.4	18.1
3 22	13 9.62	+11 3.2	1.938	2.895	6.7	16.4	3 22	13 11.09	-7 10.3	1.736	2.702	6.4	17.8
4 1	13 1.74	+11 44.8	1.922	2.892	5.8	16.4	4 1	13 2.24	-6 50.3	1.706	2.703	2.0	17.6
4 11	12 53.53	+12 11.6	1.933	2.889	7.3	16.5	4 11	12 52.91	-6 27.1	1.705	2.703	2.5	17.6
4 21	12 45.85	+12 19.7	1.970	2.886	10.0	16.6	4 21	12 44.15	-6 5.4	1.732	2.703	6.8	17.9
5 1	12 39.50	+12 7.9	2.031	2.883	12.8	16.8	5 1	12 36.85	-5 49.8	1.784	2.704	10.8	18.1
5 11	12 35.02	+11 36.8	2.113	2.881	15.3	17.0	5 11	12 31.68	-5 44.0	1.859	2.704	14.2	18.3
87696	2000 <i>SQ</i> ₁₄		4 5.4 99°82	4°9/10.7 18			120407	2005 <i>SV</i> ₂₀		4 5.4 169°70	2°5/ 3.3 18		
3 2	13 22.04	-23 26.4	1.990	2.756	15.4	19.4	3 2	13 24.05	-3 46.6	1.565	2.414	15.1	20.3
3 12	13 17.12	-23 21.1	1.916	2.772	12.6	19.3	3 12	13 18.98	-2 44.2	1.495	2.417	11.2	20.1
3 22	13 10.17	-22 53.4	1.864	2.787	9.4	19.1	3 22	13 11.48	-1 30.0	1.448	2.420	6.7	19.8
4 1	13 1.91	-22 3.6	1.836	2.803	6.4	18.9	4 1	13 2.36	-0 11.0	1.427	2.422	2.7	19.6
4 11	12 53.32	-20 55.6	1.835	2.818	4.9	18.9	4 11	12 52.78	+1 3.6	1.433	2.423	4.7	19.7
4 21	12 45.39	-19 35.9	1.862	2.833	6.5	19.0	4 21	12 43.91	+2 5.9	1.466	2.424	9.2	20.0
5 1	12 38.95	-18 12.4	1.916	2.847	9.4	19.2	5 1	12 36.79	+2 49.6	1.523	2.425	13.4	20.2
5 11	12 34.59	-16 53.1	1.994	2.862	12.4	19.4	5 11	12 32.10	+3 12.1	1.601	2.425	17.0	20.4
506250	2016 <i>PR</i> ₅		4 5.4 292°85	4°5/31.1 17			30653	2190 <i>T</i> ₋₁		4 5.4 73°45	1°1/ 4.5 18		
3 2	13 18.32	+5 18.2	2.189	3.044	11.1	21.2	3 2	13					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
65332	2002 <i>LM</i> ₄₄		4 5.4 252°02	2.2/ 7.7	18		410362	2007 <i>VN</i> ₆₁		4 5.4 157°09	0.5/ 4.9	18	
3 2	13 20.80	-15 3.3	2.233	3.034	12.9	20.2	3 2	13 25.27	-6 56.6	1.981	2.808	13.3	21.8
3 12	13 16.17	-14 50.5	2.132	3.020	10.1	20.0	3 12	13 19.43	-6 27.3	1.907	2.816	9.9	21.6
3 22	13 9.66	-14 22.5	2.053	3.005	6.8	19.8	3 22	13 11.57	-5 47.2	1.856	2.823	6.0	21.4
4 1	13 1.81	-13 40.5	2.001	2.990	3.4	19.5	4 1	13 2.39	-5 0.4	1.833	2.830	1.8	21.1
4 11	12 53.45	-12 48.1	1.978	2.974	2.6	19.4	4 11	12 52.85	-4 12.4	1.839	2.836	2.7	21.2
4 21	12 45.43	-11 50.5	1.984	2.959	5.8	19.6	4 21	12 43.92	-3 28.6	1.874	2.841	6.8	21.4
5 1	12 38.57	-10 53.6	2.016	2.943	9.3	19.8	5 1	12 36.44	-2 54.2	1.936	2.845	10.6	21.7
5 11	12 33.52	-10 3.3	2.073	2.926	12.6	20.0	5 11	12 31.00	-2 32.3	2.020	2.849	13.8	21.9
194034	2001 <i>SU</i> ₇₈		4 5.4 95°36	1.6/ 3.9	18		336405	2008 <i>UL</i> ₁₅₇		4 5.4 272°13	0.4/ 5.9	17	
3 2	13 22.42	-6 50.7	1.419	2.269	16.3	20.3	3 2	13 19.74	-10 2.9	2.006	2.833	13.2	21.3
3 12	13 17.84	-5 40.4	1.360	2.282	12.0	20.1	3 12	13 15.47	-9 34.9	1.917	2.825	10.0	21.1
3 22	13 10.78	-4 14.3	1.323	2.295	7.1	19.8	3 22	13 9.25	-8 53.3	1.852	2.817	6.2	20.9
4 1	13 2.14	-2 40.3	1.311	2.308	2.3	19.6	4 1	13 1.70	-8 1.3	1.813	2.809	2.1	20.6
4 11	12 53.14	-1 8.8	1.326	2.320	4.1	19.7	4 11	12 53.69	-7 4.2	1.802	2.800	2.3	20.6
4 21	12 45.01	+0 10.7	1.368	2.333	9.0	20.0	4 21	12 46.11	-6 7.9	1.820	2.792	6.4	20.8
5 1	12 38.77	+1 10.9	1.433	2.345	13.4	20.3	5 1	12 39.81	-5 18.5	1.863	2.784	10.3	21.0
5 11	12 35.03	+1 48.2	1.518	2.356	17.1	20.6	5 11	12 35.41	-4 40.7	1.930	2.776	13.7	21.2
426192	2012 <i>JR</i> ₅₀		4 5.4 162°50	1.1/ 6.5	17		368593	2004 <i>RO</i> ₆₇		4 5.4 188°29	0.2/ 5.6	17	
3 2	13 20.16	-12 51.3	1.785	2.608	14.7	21.4	3 2	13 21.73	-9 4.4	2.332	3.151	11.8	21.5
3 12	13 15.93	-12 12.7	1.705	2.609	11.2	21.1	3 12	13 16.63	-8 36.4	2.246	3.150	8.9	21.4
3 22	13 9.56	-11 16.1	1.647	2.609	7.2	20.9	3 22	13 9.81	-7 57.5	2.185	3.149	5.5	21.1
4 1	13 1.78	-10 5.0	1.616	2.610	2.8	20.6	4 1	13 1.85	-7 10.6	2.152	3.148	1.8	20.9
4 11	12 53.56	-8 46.0	1.612	2.611	2.4	20.6	4 11	12 53.53	-6 20.4	2.148	3.145	2.1	20.9
4 21	12 45.91	-7 27.0	1.636	2.611	6.7	20.9	4 21	12 45.64	-5 31.8	2.173	3.143	5.8	21.1
5 1	12 39.74	-6 15.5	1.686	2.612	10.9	21.1	5 1	12 38.91	-4 49.5	2.226	3.139	9.2	21.3
5 11	12 35.68	-5 17.9	1.758	2.612	14.5	21.3	5 11	12 33.88	-4 17.3	2.303	3.136	12.2	21.5
463507	2013 <i>QU</i> ₅₉		4 5.4 312°13	0.7/ 4.9	17		200642	2001 <i>SN</i> ₂₆₁		4 5.4 136°14	3.0/ 8.3	18	
3 2	13 20.79	-6 39.9	1.432	2.285	16.0	21.3	3 2	13 25.78	-17 31.3	1.864	2.656	15.4	20.9
3 12	13 17.04	-6 18.3	1.344	2.267	12.1	21.0	3 12	13 19.97	-17 13.7	1.790	2.671	12.1	20.7
3 22	13 10.60	-5 42.4	1.278	2.250	7.4	20.7	3 22	13 11.95	-16 36.2	1.739	2.685	8.3	20.5
4 1	13 2.19	-4 56.4	1.236	2.233	2.2	20.4	4 1	13 2.52	-15 40.6	1.714	2.699	4.5	20.3
4 11	12 52.97	-4 7.4	1.219	2.216	3.4	20.4	4 11	12 52.74	-14 32.0	1.717	2.712	3.3	20.3
4 21	12 44.24	-3 23.1	1.228	2.200	8.8	20.7	4 21	12 43.66	-13 17.4	1.749	2.724	6.4	20.5
5 1	12 37.25	-2 50.7	1.260	2.185	13.8	20.9	5 1	12 36.21	-12 4.9	1.807	2.735	10.2	20.7
5 11	12 32.88	-2 35.4	1.311	2.170	18.1	21.1	5 11	12 31.00	-11 1.2	1.890	2.745	13.5	21.0
5894	Telč		4 5.4 329°84	4.6/ 8.3	18 R		190404	1999 <i>TA</i> ₁₉₂		4 5.4 213°27	3.1/ 8.4	18	
3 2	13 22.81	-16 10.2	1.205	2.038	19.8	16.2	3 2	13 24.24	-16 43.5	2.393	3.176	12.7	20.4
3 12	13 19.06	-16 39.6	1.127	2.030	15.8	16.0	3 12	13 18.61	-16 58.0	2.296	3.170	10.0	20.2
3 22	13 12.08	-16 45.8	1.067	2.023	11.1	15.7	3 22	13 11.11	-16 58.7	2.222	3.163	7.1	20.0
4 1	13 2.69	-16 28.0	1.029	2.016	6.4	15.4	4 1	13 2.29	-16 45.8	2.175	3.156	4.1	19.8
4 11	12 52.33	-15 49.5	1.015	2.010	4.9	15.3	4 11	12 52.97	-16 21.5	2.157	3.148	3.2	19.7
4 21	12 42.66	-14 57.9	1.024	2.004	8.9	15.5	4 21	12 44.01	-15 49.3	2.168	3.140	5.6	19.8
5 1	12 35.19	-14 3.5	1.055	1.999	14.0	15.7	5 1	12 36.21	-15 14.2	2.207	3.131	8.8	20.0
5 11	12 30.92	-13 16.6	1.106	1.994	18.6	16.0	5 11	12 30.20	-14 41.2	2.271	3.122	11.7	20.2
221290	2005 <i>UQ</i> ₄₃₉		4 5.4 199°38	4.9/ 10.7	18		199200	2006 <i>AE</i> ₆		4 5.4 294°90	7.5/ 12.5	18	
3 2	13 20.82	-23 43.4	2.014	2.780	15.3	20.8	3 2	13 21.09	-27 50.2	1.894	2.640	16.8	19.7
3 12	13 16.37	-23 29.0	1.923	2.778	12.6	20.6	3 12	13 16.94	-28 20.9	1.798	2.630	14.3	19.5
3 22	13 9.83	-22 51.0	1.852	2.776	9.4	20.4	3 22	13 10.40	-28 27.3	1.721	2.620	11.6	19.3
4 1	13 1.87	-21 49.6	1.806	2.774	6.4	20.2	4 1	13 2.13	-28 6.5	1.666	2.611	9.0	19.1
4 11	12 53.44	-20 28.4	1.787	2.771	4.9	20.1	4 11	12 53.15	-27 19.3	1.636	2.601	7.6	19.0
4 21	12 45.52	-18 54.1	1.796	2.768	6.6	20.2	4 21	12 44.62	-26 10.2	1.632	2.591	8.4	19.0
5 1	12 39.02	-17 15.4	1.832	2.764	9.7	20.4	5 1	12 37.60	-24 47.1	1.653	2.582	10.9	19.1
5 11	12 34.57	-15 41.1	1.892	2.761	12.9	20.5	5 11	12 32.90	-23 19.9	1.697	2.573	13.8	19.3
455190	2000 <i>QE</i> ₂₅		4 5.4 115°44	2.6/ 2.5	18		312124	2007 <i>TG</i> ₂₃₆		4 5.4 59°60	1.9/ 4.1	18	
3 2	13 25.51	-2 2.3	2.181	3.013	12.0	21.6	3 2	13 24.86	-4 8.2	1.328	2.184	16.9	20.6
3 12	13 19.18	-0 44.7	2.129	3.044	8.8	21.5	3 12	13 19.68	-3 34.5	1.279	2.204	12.4	20.4
3 22	13 11.18	+0 39.1	2.104	3.073	5.3	21.3	3 22	13 11.89	-2 50.2	1.252	2.225	7.4	20.2
4 1	13 2.21	+2 2.7	2.109	3.101	2.7	21.2	4 1	13 2.50	-2 1.7	1.250	2.246	2.5	19.9
4 11	12 53.13	+3 19.2	2.144	3.128	4.2	21.3	4 11	12 52.85	-1 17.1	1.273	2.267	4.2	20.1
4 21	12 44.76	+4 23.2	2.209	3.154	7.4	21.6	4 21	12 44.25	-0 43.3	1.322	2.289	9.0	20.4
5 1	12 37.79	+5 10.8	2.301	3.178	10.5	21.8	5 1	12 37.71	-0 25.2	1.394	2.310	13.4	20.7
5 11	12 32.66	+5 40.7	2.415	3.202	13.1	22.0	5 11	12 33.82	-0 24.7	1.486	2.331	17.1	21.0
377387	2004 <i>RC</i> ₂₈₈		4 5.4 194°20	0.4/ 4.9	17		497808	2006 <i>TJ</i> ₄₀		4 5.4 144°81	1.1/ 6.9	17	
3 2	13 20.32	-8 3.5	2.511	3.332	11.0	22.1	3 2	13 18.26	-13 15.1	2.829	3.630	10.5	22.2
3 12	13 15.47	-7 15.6	2.422	3.329	8.2	21.9	3 12	13 13.76	-12 41.4	2.748	3.639	8.0	22.1
3 22	13 9.05	-6 17.1	2.360	3.326	5.0	21.7	3 22	13 7.93	-11 56.1	2.691	3.647	5.1	21.9
4 1	13 1.60	-5 11.7	2.326	3.322	1.5	21.4	4 1	13 1.25	-11 1.7	2.663	3.655	2.2	21.7
4 11	12 53.83	-4 4.5	2.322	3.318	2.3	21.5	4 11	12 54.36	-10 2.1	2.665	3.662	1.7	21.7
4 21	12 46.44	-3 0.8	2.348	3.313	5.8	21.7	4 21	12 47.84	-9 1.6	2.696	3.670	4.6	21.9
5 1	12 40.10	-2 5.3	2.402	3.307	9.0	21.9	5 1	12 42.26	-8 4.7	2.757	3.676	7.4	22.1
5 11	12 35.31	-1 21.7	2.480	3.301	11.8	22.1	5 11	12 38.04	-7 15.4	2.842	3.683	9.9	22.2
287927	2003 <i>UT</i> ₂₉		4 5.4 159°58	14.2/ 30.3	17		373337	2012 <i>JL</i> ₃₄		4 5.4 262°50	0.0/ 5.2</		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
459637	2013 JJ ₂₈		4 5.4 336°76	4.2/ 7.9	17		390439	2013 YT ₆₅		4 5.4 24°28	7.4/27.5	17	
3 2	13 19.23	-14 43.1	1.143	1.990	19.7	21.0	3 2	13 18.72	+13 49.8	2.100	2.956	11.5	20.3
3 12	13 16.53	-15 13.3	1.063	1.975	15.6	20.7	3 12	13 14.51	+15 18.8	2.046	2.957	9.2	20.1
3 22	13 10.63	-15 21.5	1.000	1.961	10.9	20.3	3 22	13 8.56	+16 42.3	2.017	2.959	7.6	20.0
4 1	13 2.30	-15 7.0	0.959	1.948	6.0	20.0	4 1	13 1.49	+17 52.3	2.014	2.960	7.6	20.0
4 11	12 52.93	-14 33.2	0.940	1.937	4.6	19.9	4 11	12 54.14	+18 42.4	2.038	2.962	9.0	20.1
4 21	12 44.15	-13 47.6	0.944	1.927	9.1	20.1	4 21	12 47.34	+19 8.7	2.086	2.964	11.3	20.3
5 1	12 37.52	-13 0.4	0.970	1.918	14.4	20.4	5 1	12 41.79	+19 10.4	2.156	2.965	13.6	20.4
5 11	12 34.08	-12 21.6	1.013	1.910	19.2	20.6	5 11	12 38.03	+18 49.1	2.245	2.967	15.7	20.6
357528	2004 RC ₁₅₃		4 5.4 248°07	3.3/ 8.0	17		213773	2003 DL ₁₃		4 5.4 353°05	8.4/12.8	18	
3 2	13 23.86	-16 24.6	1.612	2.422	16.6	21.4	3 2	13 20.92	-28 14.5	1.866	2.611	17.0	19.2
3 12	13 19.17	-16 21.2	1.519	2.410	13.2	21.2	3 12	13 16.86	-29 14.5	1.778	2.606	14.7	19.1
3 22	13 11.86	-15 56.6	1.447	2.398	9.1	20.9	3 22	13 10.39	-29 51.8	1.710	2.602	12.1	18.9
4 1	13 2.61	-15 11.4	1.399	2.386	4.9	20.6	4 1	13 2.16	-30 2.7	1.663	2.599	9.7	18.7
4 11	12 52.57	-14 9.9	1.378	2.373	3.7	20.5	4 11	12 53.22	-29 46.9	1.641	2.597	8.4	18.6
4 21	12 43.03	-12 59.3	1.383	2.360	7.5	20.7	4 21	12 44.72	-29 7.8	1.644	2.595	9.0	18.7
5 1	12 35.18	-11 48.8	1.413	2.346	12.0	20.9	5 1	12 37.78	-28 12.0	1.671	2.594	11.1	18.8
5 11	12 29.87	-10 46.9	1.466	2.332	16.1	21.1	5 11	12 33.19	-27 8.6	1.720	2.593	13.8	18.9
417442	2006 KU ₁₀₁		4 5.4 252°81	1.5/ 3.9	17		478025	2011 SA ₂₁₀		4 5.4 248°69	0.6/ 4.8	17	
3 2	13 22.19	- 6 5.0	1.865	2.702	13.6	22.0	3 2	13 18.89	- 6 41.7	2.363	3.193	11.3	22.1
3 12	13 17.54	- 5 3.8	1.766	2.682	10.1	21.7	3 12	13 14.54	- 6 8.2	2.275	3.186	8.4	21.9
3 22	13 10.68	- 3 48.3	1.691	2.661	6.1	21.4	3 22	13 8.57	- 5 25.3	2.212	3.180	5.1	21.7
4 1	13 2.21	- 2 23.6	1.643	2.640	2.1	21.1	4 1	13 1.51	- 4 36.5	2.176	3.173	1.5	21.4
4 11	12 53.09	- 0 57.6	1.625	2.618	3.7	21.2	4 11	12 54.09	- 3 46.5	2.170	3.166	2.4	21.5
4 21	12 44.34	+ 0 21.7	1.634	2.595	8.2	21.4	4 21	12 47.05	- 3 0.1	2.193	3.159	6.0	21.7
5 1	12 36.95	+ 1 26.9	1.668	2.571	12.4	21.6	5 1	12 41.07	- 2 21.8	2.242	3.152	9.3	21.9
5 11	12 31.66	+ 2 13.1	1.725	2.547	16.1	21.8	5 11	12 36.70	- 1 55.0	2.315	3.145	12.2	22.0
430900	2005 SX ₂₉		4 5.4 113°98	1.3/ 6.8	18		500042	2011 SK ₁₉₂		4 5.4 154°43	0.1/ 5.3	17	
3 2	13 25.05	-12 23.0	2.392	3.191	12.2	22.9	3 2	13 17.73	- 8 52.2	2.584	3.406	10.7	21.6
3 12	13 18.86	-12 6.3	2.327	3.217	9.2	22.8	3 12	13 13.50	- 8 8.4	2.503	3.409	8.0	21.4
3 22	13 11.03	-11 37.6	2.286	3.242	5.9	22.6	3 22	13 7.84	- 7 14.4	2.447	3.413	4.9	21.2
4 1	13 2.21	-10 59.3	2.274	3.267	2.5	22.4	4 1	13 1.27	- 6 13.6	2.419	3.416	1.5	21.0
4 11	12 53.22	-10 15.4	2.293	3.290	2.0	22.4	4 11	12 54.43	- 5 10.7	2.422	3.419	2.0	21.0
4 21	12 44.82	- 9 30.4	2.341	3.313	5.3	22.7	4 21	12 47.98	- 4 10.6	2.454	3.422	5.3	21.3
5 1	12 37.70	- 8 49.1	2.418	3.335	8.4	22.9	5 1	12 42.53	- 3 17.9	2.513	3.424	8.4	21.5
5 11	12 32.33	- 8 15.3	2.519	3.356	11.2	23.1	5 11	12 38.51	- 2 35.8	2.597	3.427	11.1	21.6
499158	2009 SC ₄₄		4 5.4 124°25	1.9/ 7.3	17		499838	2011 EQ ₂		4 5.4 105°11	2°0/ 7.2	17	
3 2	13 22.10	-13 59.2	1.981	2.791	14.0	21.8	3 2	13 23.42	-13 22.6	1.882	2.695	14.5	21.9
3 12	13 17.15	-13 43.3	1.905	2.799	10.8	21.6	3 12	13 18.22	-13 16.9	1.810	2.706	11.1	21.7
3 22	13 10.23	-13 11.6	1.852	2.807	7.1	21.4	3 22	13 10.92	-12 55.9	1.760	2.716	7.3	21.5
4 1	13 2.02	-12 26.4	1.824	2.815	3.3	21.2	4 1	13 2.25	-12 21.4	1.736	2.727	3.4	21.3
4 11	12 53.44	-11 32.4	1.825	2.823	2.5	21.1	4 11	12 53.21	-11 38.1	1.740	2.737	2.6	21.3
4 21	12 45.43	-10 35.4	1.855	2.830	6.1	21.4	4 21	12 44.80	-10 51.5	1.771	2.747	6.3	21.5
5 1	12 38.82	- 9 41.9	1.911	2.837	9.8	21.6	5 1	12 37.89	-10 7.9	1.830	2.757	10.1	21.8
5 11	12 34.21	- 8 57.2	1.990	2.844	13.0	21.8	5 11	12 33.09	- 9 32.5	1.911	2.766	13.4	22.0
502960	2015 EO ₇₀		4 5.4 117°52	2°6/ 2.8	17		165975	2001 YH ₄		4 5.4 7°35	2°5/ 3.9	18	
3 2	13 20.89	- 1 6.8	2.055	2.901	12.2	22.0	3 2	13 24.51	- 1 37.0	1.198	2.065	17.6	18.7
3 12	13 16.09	- 0 17.3	1.988	2.908	8.9	21.8	3 12	13 19.99	- 1 29.2	1.135	2.065	13.1	18.4
3 22	13 9.50	+ 0 38.1	1.945	2.916	5.4	21.6	3 22	13 12.43	- 1 13.8	1.092	2.066	8.0	18.1
4 1	13 1.77	+ 1 34.2	1.930	2.924	2.7	21.4	4 1	13 2.79	- 0 56.5	1.072	2.068	3.0	17.8
4 11	12 53.76	+ 2 24.7	1.944	2.931	4.2	21.6	4 11	12 52.53	- 0 44.2	1.076	2.071	4.8	18.0
4 21	12 46.30	+ 3 4.7	1.986	2.938	7.6	21.8	4 21	12 43.18	- 0 42.8	1.105	2.074	10.1	18.3
5 1	12 40.15	+ 3 30.4	2.053	2.945	10.9	22.0	5 1	12 36.03	- 0 56.3	1.156	2.078	15.0	18.5
5 11	12 35.82	+ 3 40.1	2.142	2.952	13.8	22.2	5 11	12 31.88	- 1 26.4	1.225	2.083	19.2	18.8
499226	2009 UH ₉₁		4 5.4 150°34	4°5/ 1.2	17		433075	2012 TU ₅₇		4 5.4 330°94	1°5/ 4.2	17	
3 2	13 25.89	+ 6 33.1	2.188	3.030	11.7	21.3	3 2	13 23.50	- 2 22.6	2.076	2.914	12.4	20.9
3 12	13 19.66	+ 7 10.1	2.123	3.038	8.8	21.1	3 12	13 18.12	- 2 14.9	1.996	2.912	9.2	20.7
3 22	13 11.61	+ 7 46.0	2.083	3.045	5.9	21.0	3 22	13 10.81	- 2 1.9	1.941	2.911	5.5	20.5
4 1	13 2.42	+ 8 15.5	2.072	3.052	4.5	20.9	4 1	13 2.23	- 1 46.9	1.914	2.910	2.0	20.3
4 11	12 52.97	+ 8 33.7	2.089	3.058	5.8	21.0	4 11	12 53.24	- 1 34.1	1.915	2.908	3.2	20.3
4 21	12 44.13	+ 8 37.5	2.135	3.064	8.6	21.2	4 21	12 44.75	- 1 27.1	1.944	2.907	6.9	20.6
5 1	12 36.64	+ 8 25.3	2.206	3.069	11.5	21.4	5 1	12 37.57	- 1 29.1	2.000	2.906	10.5	20.8
5 11	12 31.05	+ 7 57.6	2.299	3.074	14.0	21.5	5 11	12 32.31	- 1 41.9	2.078	2.905	13.6	21.0
203422	2001 XG ₂₂₅		4 5.4 180°32	1.3/ 6.5	18		86269	1999 TC ₂₇₂		4 5.4 312°68	1°7/ 6.7	18	
3 2	13 25.24	-12 5.2	1.829	2.645	14.7	21.9	3 2	13 26.07	-10 9.1	2.241	3.050	12.6	18.7
3 12	13 19.70	-11 43.6	1.747	2.646	11.3	21.7	3 12	13 20.07	-10 42.7	2.147	3.042	9.7	18.5
3 22	13 11.91	-11 5.9	1.687	2.647	7.2	21.5	3 22	13 12.07	-11 8.0	2.076	3.034	6.3	18.3
4 1	13 2.57	-10 14.8	1.654	2.648	2.9	21.2	4 1	13 2.65	-11 25.1	2.034	3.026	2.8	18.0
4 11	12 52.74	- 9 15.9	1.649	2.647	2.5	21.2	4 11	12 52.68	-11 35.7	2.021	3.018	2.4	18.0
4 21	12 43.49	- 8 15.7	1.672	2.646	6.8	21.4	4 21	12 43.07	-11 42.4	2.038	3.010	5.9	18.2
5 1	12 35.81	- 7 21.2	1.722	2.644	10.9	21.7	5 1	12 34.70	-11 48.4	2.082	3.003	9.4	18.4
5 11	12 30.36	- 6 38.0	1.795	2.642	14.5	21.9	5 11	12 28.23	-11 57.1	2.151	2.996	12.5	18.6
199851	2007 ER ₇₉		4 5.4 266°01	0°0/ 5.2	18		59441	1999 GZ ₂₉		4 5.4 263°96	1°2/ 4.5	18	
3 2	13 20.22	- 9 29.1	2.052	2.878	12								

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
253864	2004 AB ₁₈		4 5.4 159°02	0°5/ 4.9 16			114470	2003 AS ₃₉		4 5.4 142°49	4°7/30.4 18		
3 2	13 23.50	- 7 45.4	2.107	2.931	12.7	22.7	3 2	13 19.27	+ 7 27.3	2.470	3.320	10.2	19.8
3 12	13 18.05	- 7 3.6	2.031	2.939	9.5	22.5	3 12	13 14.65	+ 8 36.5	2.409	3.326	7.7	19.7
3 22	13 10.73	- 6 10.5	1.979	2.946	5.7	22.3	3 22	13 8.54	+ 9 45.1	2.374	3.333	5.5	19.5
4 1	13 2.20	- 5 10.2	1.955	2.952	1.7	22.0	4 1	13 1.51	+10 47.1	2.367	3.339	4.7	19.5
4 11	12 53.34	- 4 8.4	1.961	2.957	2.6	22.1	4 11	12 54.25	+11 37.2	2.389	3.345	6.1	19.6
4 21	12 45.03	- 3 11.0	1.996	2.962	6.5	22.4	4 21	12 47.45	+12 11.5	2.438	3.350	8.5	19.7
5 1	12 38.06	- 2 23.3	2.057	2.966	10.1	22.6	5 1	12 41.72	+12 28.1	2.512	3.355	10.9	19.9
5 11	12 32.97	- 1 48.8	2.143	2.969	13.2	22.8	5 11	12 37.52	+12 27.0	2.607	3.360	13.1	20.1
370057	2000 UN ₁₀₉		4 5.4 157°97	0°7/ 6.3 16			277003	2004 XY ₇₅		4 5.4 213°83	5°4/29.9 18		
3 2	13 20.67	-12 15.3	2.619	3.423	11.1	21.5	3 2	13 23.41	+10 49.5	2.555	3.395	10.2	21.1
3 12	13 15.64	-11 27.5	2.537	3.432	8.4	21.3	3 12	13 17.76	+11 46.5	2.478	3.386	8.0	21.0
3 22	13 9.13	-10 27.1	2.481	3.440	5.3	21.1	3 22	13 10.48	+12 40.9	2.427	3.377	6.0	20.8
4 1	13 1.68	- 9 17.4	2.453	3.447	2.0	20.9	4 1	13 2.13	+13 26.9	2.405	3.367	5.4	20.8
4 11	12 53.99	- 8 3.1	2.456	3.454	1.8	20.9	4 11	12 53.45	+13 59.4	2.411	3.356	6.7	20.8
4 21	12 46.74	- 6 49.6	2.489	3.460	5.1	21.1	4 21	12 45.18	+14 15.2	2.446	3.345	9.0	21.0
5 1	12 40.53	- 5 42.0	2.551	3.465	8.2	21.3	5 1	12 38.01	+14 12.7	2.505	3.333	11.4	21.1
5 11	12 35.84	- 4 44.5	2.639	3.470	10.9	21.5	5 11	12 32.45	+13 52.4	2.586	3.320	13.6	21.3
61634	2000 QY ₁₀₃		4 5.4 71°41	0°9/ 4.5 18			93600	2000 UN ₅₇		4 5.4 172°65	2°0/ 7.4 18		
3 2	13 21.02	- 4 46.2	2.220	3.054	11.8	19.3	3 2	13 22.04	-14 4.9	2.005	2.814	13.9	20.3
3 12	13 16.04	- 4 23.1	2.157	3.071	8.7	19.1	3 12	13 17.19	-13 54.7	1.922	2.815	10.7	20.0
3 22	13 9.41	- 3 52.8	2.119	3.088	5.2	18.9	3 22	13 10.33	-13 28.9	1.861	2.816	7.1	19.8
4 1	13 1.77	- 3 18.9	2.108	3.105	1.6	18.7	4 1	13 2.12	-12 49.5	1.827	2.817	3.4	19.6
4 11	12 53.92	- 2 46.0	2.127	3.122	2.7	18.8	4 11	12 53.47	-12 0.5	1.820	2.817	2.6	19.5
4 21	12 46.62	- 2 18.3	2.174	3.139	6.2	19.0	4 21	12 45.32	-11 7.7	1.842	2.818	6.1	19.8
5 1	12 40.55	- 1 59.1	2.247	3.155	9.4	19.3	5 1	12 38.55	-10 17.2	1.891	2.818	9.8	20.0
5 11	12 36.20	- 1 50.9	2.344	3.172	12.2	19.5	5 11	12 33.75	- 9 34.6	1.963	2.818	13.1	20.2
499820	2011 DF ₁₁		4 5.4 13°26	9°5/10.8 17			173999	2001 XQ ₂₂₂		4 5.4 146°30	1°0/ 6.7 17		
3 2	13 31.37	-25 13.8	1.602	2.360	18.9	20.4	3 2	13 19.36	-12 3.9	2.582	3.390	11.1	21.1
3 12	13 25.17	-27 7.7	1.523	2.362	16.1	20.2	3 12	13 14.73	-11 40.7	2.501	3.396	8.5	20.9
3 22	13 15.77	-28 41.5	1.464	2.364	13.2	20.0	3 22	13 8.62	-11 6.0	2.443	3.402	5.4	20.7
4 1	13 3.94	-29 48.4	1.428	2.368	10.6	19.8	4 1	13 1.55	-10 22.2	2.414	3.407	2.2	20.5
4 11	12 51.04	-30 25.1	1.417	2.372	9.5	19.8	4 11	12 54.20	- 9 33.3	2.414	3.412	1.8	20.5
4 21	12 38.66	-30 32.8	1.431	2.376	10.6	19.8	4 21	12 47.26	- 8 43.5	2.444	3.417	5.0	20.7
5 1	12 28.31	-30 17.9	1.469	2.381	13.1	20.0	5 1	12 41.35	- 7 57.4	2.502	3.422	8.0	20.9
5 11	12 21.04	-29 50.4	1.528	2.387	16.0	20.2	5 11	12 36.93	- 7 18.9	2.584	3.426	10.7	21.1
417458	2006 QV ₃₅		4 5.4 198°85	0°6/ 6.0 16			497777	2006 SZ ₃₃₈		4 5.4 280°06	1°9/ 3.9 17		
3 2	13 23.57	-10 32.5	2.142	2.957	12.9	22.3	3 2	13 23.12	- 4 0.7	1.637	2.484	14.6	22.0
3 12	13 18.21	-10 4.0	2.053	2.953	9.8	22.1	3 12	13 18.58	- 3 24.8	1.541	2.462	11.0	21.7
3 22	13 10.91	- 9 22.1	1.987	2.949	6.1	21.8	3 22	13 11.51	- 2 37.4	1.468	2.439	6.7	21.4
4 1	13 2.29	- 8 30.0	1.949	2.944	2.2	21.5	4 1	13 2.58	- 1 43.5	1.420	2.416	2.4	21.0
4 11	12 53.22	- 7 32.5	1.940	2.938	2.2	21.5	4 11	12 52.83	- 0 50.2	1.400	2.393	4.1	21.1
4 21	12 44.60	- 6 35.3	1.961	2.932	6.2	21.8	4 21	12 43.47	- 0 4.8	1.406	2.370	8.9	21.3
5 1	12 37.26	- 5 44.2	2.009	2.925	9.9	22.0	5 1	12 35.66	+ 0 26.3	1.436	2.346	13.5	21.5
5 11	12 31.82	- 5 3.8	2.080	2.917	13.2	22.2	5 11	12 30.25	+ 0 39.1	1.487	2.323	17.6	21.7
192904	1999 XG ₁₈₅		4 5.4 132°84	1°5/ 7.2 18			106750	2000 XR ₃		4 5.4 132°73	3°3/ 9.1 18		
3 2	13 22.93	-13 29.0	2.681	3.474	11.2	21.4	3 2	13 20.92	-18 23.5	2.518	3.297	12.2	19.4
3 12	13 17.24	-13 15.9	2.605	3.491	8.6	21.3	3 12	13 16.03	-18 34.6	2.431	3.300	9.8	19.3
3 22	13 10.07	-12 51.3	2.555	3.508	5.6	21.1	3 22	13 9.48	-18 31.3	2.367	3.303	7.0	19.1
4 1	13 1.98	-12 17.1	2.533	3.524	2.6	20.9	4 1	13 1.84	-18 14.3	2.329	3.306	4.3	18.9
4 11	12 53.65	-11 36.6	2.542	3.539	2.0	20.9	4 11	12 53.83	-17 45.7	2.320	3.309	3.4	18.9
4 21	12 45.80	-10 53.9	2.581	3.553	4.8	21.1	4 21	12 46.21	-17 9.2	2.340	3.312	5.3	19.0
5 1	12 39.03	-10 13.1	2.648	3.567	7.7	21.3	5 1	12 39.69	-16 29.6	2.388	3.315	8.0	19.2
5 11	12 33.80	- 9 38.1	2.740	3.580	10.3	21.5	5 11	12 34.80	-15 51.7	2.460	3.317	10.7	19.3
343137	2009 FA ₂₅		4 5.4 352°08	1°6/ 4.3 17			407576	2011 AH ₁₁		4 5.4 101°61	0°4/ 5.9 18		
3 2	13 24.12	- 1 37.1	1.822	2.667	13.5	19.7	3 2	13 23.43	-11 4.3	2.058	2.873	13.3	21.7
3 12	13 18.85	- 1 43.6	1.744	2.663	10.0	19.5	3 12	13 17.87	-10 19.3	1.999	2.900	10.0	21.6
3 22	13 11.39	- 1 45.5	1.689	2.660	6.1	19.2	3 22	13 10.53	- 9 20.8	1.964	2.926	6.2	21.4
4 1	13 2.45	- 1 46.3	1.660	2.657	2.2	19.0	4 1	13 2.12	- 8 13.0	1.957	2.952	2.1	21.2
4 11	12 53.02	- 1 49.9	1.660	2.654	3.4	19.1	4 11	12 53.55	- 7 2.0	1.979	2.977	2.1	21.2
4 21	12 44.15	- 1 59.5	1.687	2.653	7.6	19.3	4 21	12 45.67	- 5 54.1	2.030	3.001	6.0	21.5
5 1	12 36.78	- 2 17.9	1.739	2.651	11.5	19.5	5 1	12 39.21	- 4 55.0	2.109	3.025	9.6	21.8
5 11	12 31.56	- 2 46.8	1.814	2.651	14.8	19.7	5 11	12 34.65	- 4 8.8	2.211	3.047	12.5	22.0
79731	1998 SU ₁₃₂		4 5.4 166°63	1°6/ 6.9 18			521300	2015 KP ₁₆₈		4 5.4 283°06	5°0/30.4 17		
3 2	13 22.29	-13 30.5	1.918	2.731	14.2	19.5	3 2	13 18.25	+ 7 17.9	2.282	3.137	10.8	21.6
3 12	13 17.41	-13 3.8	1.837	2.734	10.9	19.3	3 12	13 14.10	+ 8 27.5	2.210	3.131	8.2	21.4
3 22	13 10.47	-12 20.2	1.779	2.737	7.1	19.1	3 22	13 8.32	+ 9 37.4	2.164	3.125	5.9	21.2
4 1	13 2.15	-11 22.7	1.747	2.739	3.1	18.8	4 1	13 1.48	+10 41.0	2.146	3.119	5.1	21.2
4 11	12 53.41	-10 16.6	1.743	2.741	2.4	18.8	4 11	12 54.31	+11 32.3	2.155	3.113	6.5	21.2
4 21	12 45.22	- 9 8.6	1.768	2.743	6.3	19.0	4 21	12 47.57	+12 6.9	2.191	3.107	9.1	21.4
5 1	12 38.47	- 8 5.7	1.819	2.744	10.3	19.2	5 1	12 41.94	+12 22.4	2.252	3.101	11.8	21.5
5 11	12 33.77	- 7 13.7	1.893	2.745	13.7	19.5	5 11	12 37.93	+12 18.5	2.333	3.095	14.2	21.7
473156	2015 KS ₂₄		4 5.4 100°43	3°4/ 1.1 17			341578	2007 UB ₆₃		4 5.4 194°45	0°0/ 5.2 17</		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
406276	2007 <i>ET</i> ₁₀₁		4 5.4 340°43	4.3/ 2.3	18		312197	2007 <i>VK</i> ₁₇₃		4 5.4 173°63	1.7/ 3.8	18	
3 2	13 18.65	- 1 45.5	1.088	1.968	17.9	20.5	3 2	13 23.25	- 4 50.3	1.852	2.691	13.6	21.3
3 12	13 15.91	- 0 35.0	1.022	1.960	13.3	20.2	3 12	13 18.14	- 3 56.1	1.777	2.694	10.0	21.0
3 22	13 10.11	+ 0 49.9	0.976	1.953	8.2	19.9	3 22	13 10.93	- 2 51.0	1.726	2.696	6.0	20.8
4 1	13 2.15	+ 2 18.6	0.953	1.947	4.3	19.6	4 1	13 2.34	- 1 40.6	1.702	2.698	2.1	20.6
4 11	12 53.46	+ 3 38.3	0.952	1.941	6.9	19.7	4 11	12 53.34	- 0 32.3	1.706	2.699	3.7	20.7
4 21	12 45.58	+ 4 37.6	0.975	1.936	12.2	20.0	4 21	12 44.94	+ 0 27.3	1.739	2.699	7.8	20.9
5 1	12 39.86	+ 5 9.0	1.017	1.933	17.2	20.3	5 1	12 38.00	+ 1 12.6	1.797	2.699	11.7	21.1
5 11	12 37.15	+ 5 10.6	1.076	1.930	21.6	20.5	5 11	12 33.16	+ 1 40.4	1.877	2.699	15.0	21.4
27365	Henryfitz		4 5.4 251°25	6°8/ 10.7	18 R		161425	2003 <i>WC</i> ₄₁		4 5.4 252°76	0°2/ 5.7	17	
3 2	13 24.95	-23 53.2	1.612	2.387	18.1	19.2	3 2	13 21.70	- 9 4.7	2.428	3.245	11.5	21.4
3 12	13 20.25	-24 21.3	1.515	2.374	15.2	18.9	3 12	13 16.75	- 8 41.3	2.322	3.224	8.7	21.2
3 22	13 12.70	-24 24.3	1.438	2.361	11.7	18.7	3 22	13 10.04	- 8 7.1	2.240	3.204	5.4	20.9
4 1	13 3.00	-23 59.2	1.383	2.347	8.4	18.4	4 1	13 2.09	- 7 24.6	2.186	3.182	1.8	20.6
4 11	12 52.35	-23 7.0	1.353	2.333	6.8	18.3	4 11	12 53.62	- 6 37.7	2.162	3.160	2.0	20.6
4 21	12 42.14	-21 53.5	1.349	2.318	8.6	18.4	4 21	12 45.43	- 5 51.3	2.168	3.137	5.8	20.8
5 1	12 33.73	-20 28.2	1.369	2.303	12.2	18.5	5 1	12 38.27	- 5 10.0	2.201	3.114	9.3	21.0
5 11	12 28.05	-19 2.6	1.412	2.288	16.1	18.7	5 11	12 32.76	- 4 38.0	2.258	3.091	12.4	21.2
60619	2000 <i>FZ</i> ₄		4 5.4 199°03	0°2/ 5.2	17		305404	2008 <i>CD</i> ₈₅		4 5.4 299°80	2°7/ 8.2	17	
3 2	13 22.86	- 7 54.5	2.007	2.835	13.1	20.6	3 2	13 19.62	-15 57.3	2.290	3.087	12.7	21.0
3 12	13 17.78	- 7 24.5	1.923	2.832	9.8	20.4	3 12	13 15.29	-16 0.3	2.193	3.077	10.0	20.8
3 22	13 10.70	- 6 42.7	1.862	2.829	6.0	20.2	3 22	13 9.18	-15 48.8	2.120	3.067	6.9	20.6
4 1	13 2.26	- 5 52.8	1.829	2.826	1.8	19.9	4 1	13 1.82	-15 23.8	2.072	3.057	3.9	20.4
4 11	12 53.38	- 5 0.2	1.825	2.822	2.5	19.9	4 11	12 53.98	-14 48.1	2.053	3.047	2.9	20.3
4 21	12 44.99	- 4 10.8	1.849	2.818	6.7	20.2	4 21	12 46.49	-14 6.0	2.062	3.038	5.6	20.4
5 1	12 37.95	- 3 29.9	1.899	2.813	10.5	20.4	5 1	12 40.13	-13 22.8	2.099	3.028	8.8	20.6
5 11	12 32.87	- 3 1.5	1.973	2.808	13.9	20.6	5 11	12 35.50	-12 43.5	2.159	3.019	11.9	20.8
437129	2012 <i>UF</i> ₁₅₀		4 5.4 197°67	1°0/ 4.4	17		498966	2009 <i>BY</i> ₁₁₆		4 5.4 103°01	1°5/ 3.8	17	
3 2	13 22.02	- 4 5.5	2.450	3.279	11.0	21.8	3 2	13 21.02	- 3 23.9	2.303	3.139	11.4	21.9
3 12	13 16.79	- 3 46.5	2.366	3.277	8.1	21.6	3 12	13 16.02	- 2 48.9	2.238	3.153	8.3	21.7
3 22	13 9.93	- 3 21.2	2.307	3.275	4.9	21.4	3 22	13 9.42	- 2 7.4	2.198	3.168	5.0	21.5
4 1	13 2.00	- 2 52.7	2.276	3.273	1.6	21.2	4 1	13 1.84	- 1 23.7	2.186	3.182	1.8	21.3
4 11	12 53.72	- 2 24.8	2.275	3.270	2.6	21.2	4 11	12 54.03	- 0 42.5	2.203	3.195	3.1	21.4
4 21	12 45.85	- 2 1.5	2.304	3.267	6.0	21.5	4 21	12 46.74	- 0 8.1	2.249	3.209	6.4	21.7
5 1	12 39.07	- 1 45.9	2.359	3.263	9.2	21.6	5 1	12 40.65	+ 0 16.0	2.322	3.222	9.5	21.9
5 11	12 33.90	- 1 40.5	2.439	3.259	12.0	21.8	5 11	12 36.20	+ 0 27.8	2.418	3.235	12.2	22.1
73657	1981 <i>EJ</i> ₁₃		4 5.4 79°10	4°7/ 9.1	18		404968	1999 <i>TE</i> ₄₃		4 5.4 115°53	0°4/ 5.8	18	
3 2	13 25.15	-18 43.4	1.620	2.418	17.1	18.6	3 2	13 24.82	- 9 54.4	1.797	2.621	14.6	22.3
3 12	13 19.94	-19 6.7	1.548	2.428	13.7	18.4	3 12	13 19.26	- 9 25.6	1.732	2.638	10.9	22.1
3 22	13 12.20	-19 9.0	1.498	2.439	9.8	18.2	3 22	13 11.57	- 8 42.9	1.689	2.654	6.8	21.9
4 1	13 2.75	-18 50.1	1.471	2.450	6.1	18.0	4 1	13 2.54	- 7 50.2	1.674	2.669	2.3	21.6
4 11	12 52.79	-18 13.2	1.471	2.460	4.8	17.9	4 11	12 53.19	- 6 53.4	1.686	2.684	2.4	21.6
4 21	12 43.56	-17 24.4	1.497	2.471	7.3	18.1	4 21	12 44.57	- 5 59.1	1.727	2.699	6.8	22.0
5 1	12 36.15	-16 31.7	1.548	2.482	11.1	18.3	5 1	12 37.56	- 5 13.3	1.794	2.713	10.8	22.2
5 11	12 31.26	-15 43.1	1.621	2.492	14.6	18.6	5 11	12 32.73	- 4 40.4	1.883	2.726	14.1	22.5
80171	1999 <i>UO</i> ₆		4 5.4 163°69	0°2/ 5.6	18		192685	1999 <i>TA</i> ₈		4 5.4 195°95	1°7/ 3.4	18	
3 2	13 25.03	- 9 51.3	1.527	2.361	16.2	19.7	3 2	13 20.86	- 2 58.9	2.644	3.475	10.2	21.3
3 12	13 19.89	- 9 16.3	1.454	2.365	12.3	19.4	3 12	13 15.83	- 2 11.2	2.558	3.472	7.5	21.1
3 22	13 12.19	- 8 24.2	1.402	2.369	7.6	19.2	3 22	13 9.32	- 1 17.1	2.499	3.468	4.5	20.9
4 1	13 2.75	- 7 19.4	1.375	2.372	2.5	18.8	4 1	13 1.83	- 0 20.3	2.469	3.463	1.9	20.7
4 11	12 52.80	- 6 9.4	1.376	2.374	2.9	18.9	4 11	12 54.03	+ 0 34.1	2.469	3.458	3.1	20.8
4 21	12 43.56	- 5 2.6	1.403	2.376	8.0	19.2	4 21	12 46.59	+ 1 21.8	2.498	3.452	6.2	21.0
5 1	12 36.16	- 4 7.0	1.456	2.377	12.6	19.4	5 1	12 40.15	+ 1 59.1	2.556	3.446	9.1	21.1
5 11	12 31.30	- 3 27.8	1.529	2.378	16.5	19.7	5 11	12 35.17	+ 2 23.6	2.636	3.439	11.7	21.3
500983	2013 <i>QB</i> ₉₅		4 5.4 232°35	0°0/ 5.2	17		259125	2002 <i>XC</i> ₃₅		4 5.5 0°28	8°4/ 29.0	18	
3 2	13 23.07	- 8 20.1	2.083	2.907	12.8	22.6	3 2	13 18.92	+ 9 40.5	1.348	2.225	15.3	19.0
3 12	13 17.97	- 7 52.6	1.988	2.895	9.7	22.3	3 12	13 15.52	+11 16.9	1.294	2.223	11.9	18.8
3 22	13 10.85	- 7 13.2	1.917	2.883	6.0	22.1	3 22	13 9.58	+12 50.9	1.262	2.222	9.2	18.7
4 1	13 2.34	- 6 25.0	1.873	2.870	1.9	21.8	4 1	13 1.97	+14 10.6	1.254	2.221	8.6	18.6
4 11	12 53.28	- 5 33.1	1.859	2.856	2.4	21.8	4 11	12 53.91	+15 5.5	1.269	2.222	10.6	18.7
4 21	12 44.62	- 4 43.2	1.873	2.842	6.6	22.0	4 21	12 46.64	+15 29.5	1.308	2.223	14.0	18.9
5 1	12 37.23	- 4 0.8	1.913	2.827	10.5	22.2	5 1	12 41.22	+15 21.3	1.366	2.225	17.3	19.1
5 11	12 31.76	- 3 30.1	1.977	2.812	13.9	22.4	5 11	12 38.29	+14 43.6	1.441	2.228	20.3	19.3
423517	2005 <i>UN</i> ₆₄		4 5.4 175°11	1°6/ 3.5	15		159660	2002 <i>EW</i> ₉₀		4 5.5 269°11	0°6/ 6.0	17	
3 2	13 21.61	- 3 52.4	2.534	3.363	10.7	23.0	3 2	13 22.98	- 9 8.4	1.909	2.736	13.7	20.0
3 12	13 16.40	- 2 59.0	2.454	3.367	7.8	22.8	3 12	13 18.04	- 9 3.5	1.822	2.729	10.4	19.7
3 22	13 9.65	- 1 58.1	2.400	3.369	4.7	22.6	3 22	13 10.96	- 8 46.8	1.759	2.723	6.6	19.5
4 1	13 1.91	- 0 54.1	2.376	3.371	1.8	22.4	4 1	13 2.40	- 8 20.8	1.722	2.717	2.3	19.2
4 11	12 53.88	+ 0 7.7	2.382	3.373	3.1	22.5	4 11	12 53.32	- 7 49.7	1.712	2.711	2.3	19.2
4 21	12 46.28	+ 1 2.6	2.418	3.373	6.3	22.7	4 21	12 44.70	- 7 18.5	1.731	2.704	6.6	19.5
5 1	12 39.75	+ 1 46.4	2.481	3.373	9.3	22.9	5 1	12 37.48	- 6 52.5	1.776	2.698	10.6	19.7
5 11	12 34.76	+ 2 16.7	2.568	3.372	11.9	23.1	5 11	12 32.34	- 6 35.9	1.843	2.692	14.1	19.9
125171	2001 <i>UZ</i> ₁₀₆		4 5.4 5°71	2°7/ 3.7	18		326974	2004 <i>LO</i> ₃₁		4 5.5 311°45	5°4/ 1.5	17	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
59669	1999 <i>JM</i> ₉₉		4 5.5 31°66'	8°9'/28.4	18		498605	2008 <i>RM</i> ₄₇		4 5.5 194°82'	5°7'/10.4	17	
3 2	13 20.55	+12 18.4	1.460	2.329	14.8	18.3	3 2	13 26.20	-22 43.2	2.136	2.893	14.8	21.0
3 12	13 16.47	+13 55.4	1.416	2.337	11.7	18.1	3 12	13 20.44	-23 25.8	2.044	2.892	12.2	20.8
3 22	13 10.01	+15 25.8	1.394	2.346	9.4	18.0	3 22	13 12.47	-23 50.7	1.974	2.891	9.4	20.6
4 1	13 2.07	+16 38.6	1.397	2.355	9.0	18.0	4 1	13 2.92	-23 55.8	1.930	2.889	6.8	20.4
4 11	12 53.84	+17 24.8	1.425	2.364	10.9	18.1	4 11	12 52.74	-23 41.9	1.912	2.887	5.7	20.4
4 21	12 46.45	+17 40.3	1.475	2.374	13.7	18.3	4 21	12 42.98	-23 12.3	1.923	2.885	7.1	20.4
5 1	12 40.87	+17 24.9	1.545	2.385	16.7	18.5	5 1	12 34.63	-22 32.8	1.960	2.883	9.8	20.6
5 11	12 37.65	+16 42.2	1.632	2.396	19.2	18.7	5 11	12 28.39	-21 50.1	2.021	2.880	12.6	20.8
74576	1999 <i>NG</i> ₂₅		4 5.5 298°00'	5°0'/1.6	18		176559	2002 <i>AP</i> ₁₃₈		4 5.5 131°42'	0°4'/4.9	18	
3 2	13 23.73	+ 1 56.6	1.450	2.312	15.3	19.7	3 2	13 19.16	- 7 14.0	2.786	3.607	10.0	21.6
3 12	13 19.54	+ 2 55.6	1.348	2.276	11.7	19.3	3 12	13 14.45	- 6 38.9	2.712	3.619	7.4	21.4
3 22	13 12.44	+ 4 4.0	1.268	2.239	7.6	19.0	3 22	13 8.42	- 5 55.9	2.665	3.631	4.5	21.2
4 1	13 3.02	+ 5 13.8	1.212	2.201	5.0	18.8	4 1	13 1.56	- 5 8.0	2.646	3.642	1.3	21.0
4 11	12 52.44	+ 6 14.7	1.182	2.164	7.3	18.8	4 11	12 54.50	- 4 19.5	2.657	3.653	2.0	21.1
4 21	12 42.07	+ 6 57.3	1.177	2.126	12.1	18.9	4 21	12 47.83	- 3 34.1	2.698	3.664	5.1	21.3
5 1	12 33.36	+ 7 15.1	1.194	2.087	17.0	19.1	5 1	12 42.12	- 2 55.7	2.767	3.674	7.9	21.5
5 11	12 27.36	+ 7 5.3	1.229	2.049	21.4	19.2	5 11	12 37.78	- 2 26.7	2.861	3.684	10.3	21.7
58863	1998 <i>HA</i> ₁₀₂		4 5.5 115°54'	4°1'/1.1	18		235119	2003 <i>QF</i> ₁₁		4 5.5 208°00'	3°4'/1.3	18	
3 2	13 22.32	+ 6 38.6	2.452	3.296	10.5	18.8	3 2	13 20.88	+ 1 52.3	2.388	3.233	10.7	20.9
3 12	13 16.91	+ 7 12.8	2.388	3.304	7.9	18.6	3 12	13 15.42	+ 2 59.6	2.308	3.228	7.9	20.7
3 22	13 9.95	+ 7 46.0	2.349	3.311	5.4	18.5	3 22	13 9.15	+ 4 11.4	2.254	3.222	5.1	20.5
4 1	13 2.03	+ 8 13.4	2.339	3.318	4.1	18.4	4 1	13 1.82	+ 5 21.9	2.229	3.216	3.4	20.4
4 11	12 53.88	+ 8 30.8	2.358	3.326	5.3	18.5	4 11	12 54.15	+ 6 25.1	2.234	3.209	4.9	20.5
4 21	12 46.24	+ 8 35.5	2.404	3.333	7.8	18.7	4 21	12 46.88	+ 7 16.0	2.266	3.202	7.8	20.7
5 1	12 39.74	+ 8 25.9	2.477	3.339	10.4	18.9	5 1	12 40.69	+ 7 51.0	2.325	3.194	10.7	20.8
5 11	12 34.85	+ 8 2.2	2.572	3.346	12.7	19.0	5 11	12 36.09	+ 8 8.7	2.406	3.186	13.3	21.0
122438	2000 <i>QC</i> ₁₂₂		4 5.5 277°99'	3°8'/8.1	17		313623	2003 <i>RD</i> ₃		4 5.5 180°21'	0°4'/5.9	16	
3 2	13 25.16	-15 49.8	1.563	2.375	17.0	19.9	3 2	13 25.11	- 9 42.3	1.967	2.786	13.7	22.2
3 12	13 20.46	-16 9.3	1.462	2.354	13.6	19.7	3 12	13 19.50	- 9 19.8	1.884	2.788	10.4	22.0
3 22	13 12.91	-16 10.0	1.381	2.332	9.5	19.4	3 22	13 11.80	- 8 44.4	1.825	2.789	6.5	21.7
4 1	13 3.15	-15 51.0	1.324	2.310	5.3	19.1	4 1	13 2.68	- 7 59.0	1.794	2.789	2.2	21.4
4 11	12 52.33	-15 14.9	1.294	2.288	4.1	18.9	4 11	12 53.11	- 7 8.9	1.791	2.789	2.3	21.5
4 21	12 41.83	-14 27.2	1.289	2.266	8.0	19.1	4 21	12 44.07	- 6 19.7	1.816	2.788	6.6	21.7
5 1	12 33.03	-13 36.3	1.309	2.243	12.7	19.3	5 1	12 36.47	- 5 37.2	1.869	2.786	10.5	21.9
5 11	12 26.92	-12 50.7	1.350	2.220	17.0	19.5	5 11	12 30.95	- 5 6.0	1.945	2.783	13.9	22.2
400555	2008 <i>WK</i> ₄₁		4 5.5 279°54'	3°5'/8.3	17		306821	2001 <i>QU</i> ₂₆₆		4 5.5 208°24'	1°4'/3.9	17	
3 2	13 21.39	-17 31.4	1.441	2.258	17.9	21.1	3 2	13 19.65	- 7 23.9	1.880	2.718	13.4	20.0
3 12	13 17.71	-17 15.6	1.345	2.240	14.3	20.8	3 12	13 15.51	- 6 4.4	1.798	2.715	10.0	19.8
3 22	13 11.22	-16 33.6	1.269	2.222	10.0	20.5	3 22	13 9.39	- 4 29.8	1.741	2.712	5.9	19.5
4 1	13 2.60	-15 25.9	1.217	2.204	5.4	20.2	4 1	13 1.93	- 2 46.4	1.712	2.708	1.9	19.3
4 11	12 53.05	-13 57.7	1.189	2.185	3.9	20.0	4 11	12 54.05	- 1 2.9	1.711	2.705	3.5	19.4
4 21	12 43.96	-12 18.4	1.187	2.167	8.0	20.2	4 21	12 46.69	+ 0 32.2	1.739	2.701	7.7	19.6
5 1	12 36.67	-10 40.0	1.210	2.148	13.1	20.4	5 1	12 40.69	+ 1 51.5	1.793	2.696	11.6	19.8
5 11	12 32.12	- 9 13.5	1.253	2.129	17.7	20.7	5 11	12 36.65	+ 2 50.7	1.868	2.692	15.0	20.0
238861	2005 <i>WL</i> ₁₄₀		4 5.5 322°01'	4°5'/2.3	18		410394	2007 <i>WH</i> ₂₀		4 5.5 61°35'	1°4'/6.4	18	
3 2	13 22.84	+ 0 46.3	1.266	2.136	16.6	20.3	3 2	13 26.65	-10 5.9	1.442	2.276	17.0	21.1
3 12	13 18.73	+ 1 39.7	1.197	2.129	12.4	20.0	3 12	13 21.11	-10 15.2	1.383	2.292	12.9	20.9
3 22	13 11.73	+ 2 41.1	1.149	2.123	7.8	19.7	3 22	13 12.92	-10 9.7	1.345	2.309	8.2	20.6
4 1	13 2.70	+ 3 41.8	1.125	2.117	4.6	19.5	4 1	13 3.04	- 9 51.7	1.331	2.326	3.2	20.4
4 11	12 53.01	+ 4 31.8	1.125	2.111	6.8	19.6	4 11	12 52.76	- 9 26.2	1.344	2.343	2.8	20.4
4 21	12 44.07	+ 5 2.9	1.150	2.106	11.4	19.8	4 21	12 43.40	- 8 59.4	1.384	2.360	7.6	20.7
5 1	12 37.15	+ 5 10.4	1.196	2.101	16.1	20.1	5 1	12 36.03	- 8 37.5	1.447	2.377	12.0	21.0
5 11	12 33.07	+ 4 53.4	1.260	2.096	20.1	20.3	5 11	12 31.33	- 8 25.3	1.533	2.394	15.8	21.3
332554	2008 <i>RX</i> ₂₁		4 5.5 274°70'	4°7'/31.2	17		384684	2011 <i>GO</i> ₃₂		4 5.5 303°30'	3°1'/2.7	17	
3 2	13 20.04	+ 2 50.9	1.971	2.825	12.2	21.5	3 2	13 20.87	- 0 1.7	1.803	2.657	13.2	20.8
3 12	13 15.88	+ 4 19.3	1.876	2.800	9.2	21.2	3 12	13 16.55	+ 0 40.6	1.721	2.645	9.8	20.5
3 22	13 9.69	+ 5 55.1	1.807	2.775	6.1	21.0	3 22	13 10.11	+ 1 29.3	1.662	2.633	6.1	20.3
4 1	13 2.04	+ 7 30.5	1.766	2.749	4.7	20.8	4 1	13 2.19	+ 2 18.6	1.629	2.622	3.2	20.1
4 11	12 53.79	+ 8 56.7	1.753	2.723	6.6	20.9	4 11	12 53.74	+ 3 1.8	1.624	2.610	4.9	20.2
4 21	12 45.87	+10 6.2	1.767	2.696	10.1	21.0	4 21	12 45.78	+ 3 33.0	1.645	2.599	8.8	20.4
5 1	12 39.18	+10 53.9	1.805	2.669	13.6	21.2	5 1	12 39.22	+ 3 48.0	1.691	2.588	12.6	20.6
5 11	12 34.42	+11 17.5	1.863	2.642	16.7	21.4	5 11	12 34.74	+ 3 45.0	1.757	2.577	15.9	20.7
453337	2008 <i>YH</i> ₄₈		4 5.5 115°01'	5°5'/31.7	18		249262	2008 <i>SR</i> ₇₆		4 5.5 136°44'	1°2'/6.6	17	
3 2	13 25.91	+ 5 6.0	1.643	2.498	14.2	22.3	3 2	13 22.26	-11 30.7	2.073	2.888	13.2	21.4
3 12	13 20.13	+ 6 21.8	1.593	2.515	10.6	22.1	3 12	13 17.28	-11 19.2	1.993	2.893	10.1	21.2
3 22	13 12.11	+ 7 38.6	1.568	2.532	7.2	21.9	3 22	13 10.39	-10 54.6	1.938	2.898	6.5	20.9
4 1	13 2.72	+ 8 47.4	1.568	2.549	5.5	21.9	4 1	13 2.24	-10 19.4	1.909	2.902	2.6	20.7
4 11	12 53.10	+ 9 40.4	1.596	2.564	7.3	22.0	4 11	12 53.71	- 9 37.8	1.908	2.906	2.2	20.7
4 21	12 44.35	+10 12.2	1.650	2.579	10.6	22.2	4 21	12 45.69	- 8 54.9	1.936	2.910	6.0	20.9
5 1	12 37.35	+10 20.7	1.728	2.594	14.0	22.5	5 1	12 38.99	- 8 16.0	1.990	2.914	9.6	21.1
5 11	12 32.67	+10 7.1	1.825	2.608	16.8	22.7	5 11	12 34.19	- 7 45.6	2.068	2.918	12.8	21.4
149831	2005 <i>NG</i> ₁₀₁		4 5.5 187°47'	1°6'/3.1	18		433142	2012 <i>TQ</i> ₂₂₈		4 5.5 281°74'	0°3'/5.8		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
24154	Ayonsen		4 5.5 308°71	1°3/ 6.6 18			57414	2001 SJ		4 5.5 154°39	0°8/ 6.3 18		
3 2	13 20.19	-12 31.8	1.507	2.341	16.4	18.6	3 2	13 24.92	-10 18.3	2.209	3.021	12.7	19.5
3 12	13 16.48	-12 1.6	1.424	2.334	12.6	18.4	3 12	13 19.12	-10 7.2	2.130	3.029	9.6	19.3
3 22	13 10.26	-11 11.0	1.363	2.327	8.1	18.1	3 22	13 11.47	-9 44.6	2.076	3.036	6.0	19.1
4 1	13 2.27	-10 3.3	1.326	2.320	3.2	17.8	4 1	13 2.60	-9 13.1	2.049	3.043	2.3	18.8
4 11	12 53.65	-8 45.8	1.315	2.313	2.7	17.7	4 11	12 53.39	-8 36.4	2.051	3.049	2.1	18.8
4 21	12 45.61	-7 27.2	1.330	2.307	7.7	18.0	4 21	12 44.68	-7 59.4	2.083	3.055	5.8	19.1
5 1	12 39.26	-6 16.8	1.369	2.301	12.4	18.2	5 1	12 37.28	-7 26.7	2.142	3.060	9.3	19.3
5 11	12 35.38	-5 21.9	1.430	2.295	16.5	18.5	5 11	12 31.75	-7 2.3	2.226	3.064	12.4	19.5
239533	2008 SS ₅		4 5.5 130°63	3°3/ 2.7 18			391695	2008 AG ₁₂₇		4 5.5 70°53	0°3/ 5.2 17		
3 2	13 25.51	+1 21.0	1.603	2.453	14.8	20.9	3 2	13 21.25	-6 58.4	2.213	3.042	12.0	21.7
3 12	13 19.98	-0 17.9	1.543	2.465	10.9	20.7	3 12	13 16.28	-6 38.9	2.150	3.060	8.9	21.5
3 22	13 12.13	+0 53.4	1.506	2.477	6.6	20.5	3 22	13 9.65	-6 10.7	2.111	3.078	5.4	21.3
4 1	13 2.79	+2 5.3	1.495	2.488	3.4	20.3	4 1	13 2.01	-5 37.0	2.100	3.097	1.6	21.1
4 11	12 53.11	+3 9.3	1.513	2.499	5.2	20.4	4 11	12 54.14	-5 2.2	2.118	3.115	2.2	21.2
4 21	12 44.24	+3 58.5	1.557	2.509	9.3	20.7	4 21	12 46.84	-4 30.7	2.164	3.133	5.9	21.4
5 1	12 37.13	+4 28.5	1.625	2.519	13.2	20.9	5 1	12 40.77	-4 6.3	2.237	3.152	9.2	21.7
5 11	12 32.39	+4 37.7	1.714	2.528	16.5	21.2	5 11	12 36.42	-3 51.8	2.334	3.170	12.0	21.9
109597	2001 QU ₂₈₁		4 5.5 259°22	8°5/ 29.3 17			100843	1998 HH ₂₁		4 5.5 345°68	1°0/ 4.8 17		
3 2	13 28.15	+15 41.6	1.825	2.669	13.5	19.6	3 2	13 19.75	-6 6.0	1.179	2.045	17.8	19.4
3 12	13 21.96	+16 36.1	1.753	2.656	11.0	19.4	3 12	13 16.67	-5 45.4	1.107	2.037	13.4	19.1
3 22	13 13.40	+17 22.3	1.705	2.644	9.0	19.3	3 22	13 10.62	-5 9.5	1.055	2.030	8.2	18.8
4 1	13 3.22	+17 51.7	1.682	2.631	8.5	19.2	4 1	13 2.46	-4 23.8	1.026	2.023	2.5	18.5
4 11	12 52.55	+17 57.7	1.686	2.619	10.0	19.3	4 11	12 53.53	-3 36.4	1.020	2.018	3.9	18.5
4 21	12 42.52	+17 37.2	1.715	2.606	12.6	19.4	4 21	12 45.33	-2 56.3	1.038	2.013	9.6	18.8
5 1	12 34.15	+16 50.4	1.766	2.592	15.5	19.6	5 1	12 39.18	-2 30.9	1.078	2.010	14.9	19.1
5 11	12 28.13	+15 40.6	1.837	2.579	18.1	19.7	5 11	12 35.95	-2 24.9	1.136	2.008	19.4	19.4
247609	2002 TK ₂₇₇		4 5.5 190°67	1°8/ 7.5 17			424085	2007 DP ₅₃		4 5.5 321°28	7°3/ 9.9 17		
3 2	13 20.06	-14 23.9	2.372	3.173	12.2	21.1	3 2	13 28.25	-21 34.0	1.667	2.445	17.5	20.4
3 12	13 15.50	-14 5.0	2.283	3.173	9.4	20.9	3 12	13 22.75	-22 55.9	1.575	2.435	14.6	20.1
3 22	13 9.26	-13 32.1	2.218	3.172	6.3	20.7	3 22	13 14.33	-24 0.2	1.504	2.426	11.4	19.9
4 1	13 1.91	-12 47.1	2.181	3.170	3.0	20.5	4 1	13 3.67	-24 42.6	1.456	2.417	8.5	19.7
4 11	12 54.19	-11 53.9	2.172	3.169	2.2	20.4	4 11	12 51.96	-25 1.4	1.435	2.408	7.3	19.6
4 21	12 46.87	-10 57.5	2.192	3.167	5.3	20.6	4 21	12 40.62	-24 58.5	1.439	2.400	9.1	19.7
5 1	12 40.68	-10 3.2	2.240	3.165	8.6	20.8	5 1	12 31.04	-24 39.8	1.467	2.392	12.3	19.9
5 11	12 36.13	-9 16.0	2.312	3.163	11.5	21.0	5 11	12 24.21	-24 13.8	1.518	2.385	15.7	20.0
33484	1999 GS ₇		4 5.5 286°30	0°8/ 4.8 18			300166	2006 VQ ₁₄₂		4 5.5 220°54	2°3/ 2.7 17		
3 2	13 20.61	-7 0.7	1.767	2.608	14.0	19.0	3 2	13 19.81	+0 3.5	2.648	3.487	10.0	21.0
3 12	13 16.54	-6 22.6	1.673	2.590	10.6	18.8	3 12	13 15.11	+0 43.3	2.564	3.481	7.3	20.8
3 22	13 10.21	-5 31.0	1.601	2.571	6.4	18.5	3 22	13 8.95	+1 27.2	2.505	3.474	4.5	20.6
4 1	13 2.28	-4 30.0	1.555	2.552	2.0	18.1	4 1	13 1.81	+2 11.2	2.475	3.466	2.4	20.4
4 11	12 53.68	-3 26.2	1.537	2.534	3.1	18.2	4 11	12 54.37	+2 50.9	2.474	3.459	3.7	20.5
4 21	12 45.49	-2 26.9	1.546	2.515	7.8	18.4	4 21	12 47.27	+3 22.4	2.503	3.451	6.5	20.7
5 1	12 38.70	-1 38.9	1.580	2.496	12.1	18.6	5 1	12 41.13	+3 42.7	2.558	3.443	9.3	20.8
5 11	12 34.05	-1 7.0	1.635	2.477	15.9	18.8	5 11	12 36.43	+3 50.3	2.636	3.434	11.8	21.0
489546	2007 RB ₂₅₉		4 5.5 113°06	0°6/ 6.2 17			145469	2005 SE ₂₂₂		4 5.5 75°02	9°3/ 27.1 18		
3 2	13 20.37	-10 49.7	2.520	3.331	11.3	22.2	3 2	13 22.37	+15 55.9	1.702	2.558	13.7	19.7
3 12	13 15.47	-10 17.2	2.450	3.349	8.5	22.1	3 12	13 17.63	+17 33.6	1.655	2.563	11.2	19.5
3 22	13 9.10	-9 33.7	2.405	3.366	5.3	21.9	3 22	13 10.69	+19 2.3	1.632	2.568	9.5	19.4
4 1	13 1.82	-8 42.3	2.388	3.383	1.9	21.7	4 1	13 2.37	+20 12.0	1.634	2.573	9.5	19.4
4 11	12 54.34	-7 47.4	2.401	3.399	1.8	21.7	4 11	12 53.74	+20 54.8	1.661	2.578	11.2	19.6
4 21	12 47.33	-6 53.6	2.444	3.415	5.1	21.9	4 21	12 45.87	+21 7.4	1.710	2.583	13.6	19.7
5 1	12 41.42	-6 5.5	2.514	3.431	8.2	22.1	5 1	12 39.65	+20 50.0	1.781	2.589	16.1	19.9
5 11	12 37.03	-5 26.6	2.609	3.446	10.8	22.3	5 11	12 35.64	+20 6.0	1.868	2.594	18.4	20.1
124572	2001 SX ₅		4 5.5 115°49	9°3/ 26.3 18			225310	1996 TG ₆₇		4 5.5 75°22	1°9/ 3.9 18		
3 2	13 25.11	+14 37.4	1.733	2.585	13.7	19.8	3 2	13 25.47	-2 15.0	1.744	2.587	14.1	20.7
3 12	13 19.47	+17 1.3	1.702	2.608	11.1	19.7	3 12	13 19.78	-1 56.4	1.685	2.603	10.4	20.5
3 22	13 11.69	+19 16.0	1.696	2.630	9.4	19.7	3 22	13 11.94	-1 31.3	1.649	2.619	6.2	20.3
4 1	13 2.63	+21 9.6	1.717	2.651	9.6	19.7	4 1	13 2.75	-1 4.5	1.639	2.635	2.3	20.0
4 11	12 53.40	+22 33.3	1.765	2.671	11.3	19.9	4 11	12 53.29	-0 41.4	1.658	2.651	3.7	20.2
4 21	12 45.03	+23 23.4	1.836	2.690	13.7	20.1	4 21	12 44.59	-0 26.4	1.704	2.667	7.8	20.4
5 1	12 38.37	+23 40.2	1.928	2.709	16.0	20.3	5 1	12 37.53	-0 23.0	1.775	2.682	11.5	20.7
5 11	12 33.94	+23 27.8	2.037	2.727	18.0	20.5	5 11	12 32.68	-0 32.8	1.869	2.698	14.7	20.9
148314	2000 OH ₅₂		4 5.5 273°64	0°5/ 5.0 18			190097	2004 TY ₂₂₁		4 5.5 185°78	4°0/ 31.5 18		
3 2	13 21.34	-7 37.3	1.856	2.691	13.7	20.3	3 2	13 20.62	+3 46.7	2.396	3.242	10.6	21.0
3 12	13 16.99	-7 2.2	1.759	2.673	10.3	20.0	3 12	13 15.80	+5 1.8	2.323	3.242	7.9	20.8
3 22	13 10.46	-6 13.6	1.686	2.654	6.3	19.7	3 22	13 9.40	+6 19.7	2.277	3.242	5.3	20.7
4 1	13 2.35	-5 15.5	1.638	2.635	1.9	19.4	4 1	13 1.96	+7 34.5	2.259	3.240	4.0	20.6
4 11	12 53.61	-4 13.9	1.619	2.616	2.8	19.4	4 11	12 54.22	+8 39.8	2.271	3.239	5.5	20.7
4 21	12 45.24	-3 15.7	1.627	2.597	7.4	19.7	4 21	12 46.91	+9 30.9	2.311	3.236	8.2	20.8
5 1	12 38.22	-2 27.4	1.661	2.577	11.7	19.9	5 1	12 40.70	+10 4.5	2.376	3.233	11.0	21.0
5 11	12 33.28	-1 53.8	1.717	2.557	15.4	20.1	5 11	12 36.09	+10 19.7	2.463	3.230	13.4	21.2
90541	2004 FD ₉₃		4 5.5 239°90	1°1/ 4.1 18			502323	2015 BX ₁₆₃		4 5.5 218°92	7°0/ 11.9 17		
3 2	13 17.26	-6 57.6	2.373	3.206	11.2	19.9	3 2	13 25.61	-26 48.0	2.121	2.857	15.5	22.2

EPHEMERIDES

4 5.5

4 5.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
131727	2001 YH ₈₇		4 5.5 128°82	0°0/ 5.5 18			417503	2006 SV ₁₂₇		4 5.5 292°24	8°3/11.8 17		
3 2	13 23.11	- 8 23.0	1.945	2.773	13.5	20.6	3 2	13 22.79	-26 40.4	1.621	2.384	18.5	20.3
3 12	13 17.99	- 8 2.9	1.870	2.779	10.1	20.4	3 12	13 18.94	-27 18.8	1.509	2.355	15.9	20.0
3 22	13 10.87	- 7 31.4	1.819	2.785	6.2	20.2	3 22	13 12.18	-27 31.3	1.415	2.325	12.9	19.7
4 1	13 2.45	- 6 51.6	1.795	2.791	2.0	19.9	4 1	13 3.07	-27 13.0	1.342	2.295	9.9	19.5
4 11	12 53.64	- 6 8.8	1.799	2.797	2.4	20.0	4 11	12 52.73	-26 22.8	1.294	2.265	8.3	19.3
4 21	12 45.41	- 5 28.2	1.832	2.803	6.5	20.2	4 21	12 42.57	-25 4.5	1.269	2.234	9.6	19.3
5 1	12 38.59	- 4 55.1	1.890	2.808	10.3	20.5	5 1	12 34.08	-23 27.4	1.269	2.204	13.0	19.4
5 11	12 33.78	- 4 33.3	1.972	2.814	13.6	20.7	5 11	12 28.35	-21 44.1	1.291	2.173	16.9	19.5
372897	2011 AJ ₃₂		4 5.5 0°54	0°0/ 5.3 17			219785	2002 AK ₆₅		4 5.5 113°49	0°0/ 5.5 18		
3 2	13 22.11	- 7 49.7	1.543	2.387	15.6	20.9	3 2	13 23.75	- 9 10.0	2.338	3.152	11.9	21.3
3 12	13 17.77	- 7 38.0	1.469	2.386	11.7	20.6	3 12	13 18.01	- 8 34.5	2.275	3.177	8.9	21.1
3 22	13 10.99	- 7 13.3	1.416	2.385	7.2	20.4	3 22	13 10.67	- 7 48.5	2.237	3.201	5.4	20.9
4 1	13 2.53	- 6 39.0	1.389	2.385	2.3	20.1	4 1	13 2.35	- 6 55.5	2.228	3.224	1.7	20.7
4 11	12 53.53	- 6 1.0	1.387	2.386	2.8	20.1	4 11	12 53.87	- 6 0.6	2.249	3.247	2.0	20.8
4 21	12 45.16	- 5 25.7	1.412	2.386	7.7	20.4	4 21	12 45.97	- 5 8.6	2.300	3.268	5.6	21.0
5 1	12 38.50	- 4 59.3	1.461	2.387	12.2	20.6	5 1	12 39.32	- 4 24.1	2.378	3.289	8.8	21.3
5 11	12 34.25	- 4 46.0	1.531	2.389	16.0	20.9	5 11	12 34.39	- 3 50.3	2.481	3.309	11.6	21.5
12845	Crick		4 5.5 308°59	1°7/ 3.9 18			331899	2004 PP ₅₁		4 5.5 250°54	6°0/29.6 17		
3 2	13 20.76	- 3 54.3	1.927	2.770	12.9	18.7	3 2	13 20.98	+ 7 56.9	2.063	2.917	11.8	21.2
3 12	13 16.29	- 3 16.5	1.850	2.769	9.6	18.5	3 12	13 16.45	+ 9 25.7	1.983	2.902	9.0	21.0
3 22	13 9.87	- 2 29.8	1.796	2.768	5.7	18.2	3 22	13 9.99	+10 55.9	1.929	2.886	6.7	20.8
4 1	13 2.14	- 1 39.1	1.770	2.766	2.1	18.0	4 1	13 2.22	+12 19.5	1.902	2.870	6.0	20.8
4 11	12 54.01	- 0 50.4	1.772	2.765	3.5	18.1	4 11	12 53.96	+13 28.4	1.902	2.853	7.8	20.8
4 21	12 46.39	- 0 9.4	1.801	2.764	7.4	18.3	4 21	12 46.11	+14 16.9	1.929	2.836	10.6	21.0
5 1	12 40.11	+ 0 19.4	1.856	2.762	11.1	18.5	5 1	12 39.51	+14 41.9	1.980	2.819	13.6	21.1
5 11	12 35.78	+ 0 33.1	1.932	2.761	14.3	18.7	5 11	12 34.77	+14 43.2	2.050	2.801	16.2	21.3
276785	2004 KA ₁		4 5.5 212°60	13°5/27.1 18			496221	2011 WW ₈₃		4 5.5 241°79	5°8/31.5 17		
3 2	13 34.10	+18 7.3	1.150	2.007	18.9	21.0	3 2	13 26.25	+ 6 9.9	1.718	2.570	13.8	22.2
3 12	13 27.62	+20 5.7	1.096	2.002	15.9	20.8	3 12	13 20.75	+ 7 13.8	1.636	2.556	10.5	22.0
3 22	13 17.41	+21 52.0	1.062	1.995	13.8	20.6	3 22	13 12.81	+ 8 19.9	1.578	2.541	7.3	21.7
4 1	13 4.61	+23 8.8	1.049	1.987	13.8	20.6	4 1	13 3.14	+ 9 19.7	1.547	2.526	5.8	21.6
4 11	12 51.03	+23 42.8	1.059	1.978	15.9	20.7	4 11	12 52.82	+10 5.0	1.543	2.510	7.7	21.7
4 21	12 38.60	+23 29.2	1.090	1.968	19.2	20.8	4 21	12 43.04	+10 29.7	1.565	2.493	11.2	21.8
5 1	12 28.92	+22 30.9	1.138	1.957	22.6	21.0	5 1	12 34.85	+10 30.9	1.610	2.476	14.8	22.0
5 11	12 22.86	+20 56.6	1.199	1.945	25.8	21.2	5 11	12 29.03	+10 8.5	1.675	2.458	18.1	22.2
455620	2004 TS ₃₆₈		4 5.5 91°89	1°4/ 6.7 18			189377	2008 FU ₇₈		4 5.5 274°61	0°0/ 5.3 18		
3 2	13 26.85	-12 9.8	1.563	2.385	16.5	22.2	3 2	13 12.39	- 8 6.6	4.375	5.190	6.8	20.4
3 12	13 21.03	-11 52.0	1.506	2.408	12.5	22.0	3 12	13 9.17	- 7 37.0	4.286	5.189	5.0	20.3
3 22	13 12.78	-11 16.9	1.470	2.431	8.0	21.8	3 22	13 5.15	- 7 1.9	4.224	5.189	3.1	20.1
4 1	13 3.04	-10 28.0	1.460	2.454	3.2	21.6	4 1	13 0.63	- 6 23.2	4.192	5.188	1.0	19.9
4 11	12 53.02	- 9 31.8	1.478	2.476	2.6	21.6	4 11	12 55.96	- 5 43.3	4.190	5.187	1.2	20.0
4 21	12 43.91	- 8 35.6	1.523	2.498	7.1	21.9	4 21	12 51.48	- 5 4.6	4.219	5.187	3.3	20.1
5 1	12 36.69	- 7 46.6	1.593	2.519	11.4	22.2	5 1	12 47.52	- 4 29.4	4.276	5.186	5.3	20.3
5 11	12 31.97	- 7 10.0	1.685	2.540	15.0	22.5	5 11	12 44.36	- 3 59.7	4.359	5.186	7.0	20.4
322806	2001 RE ₁₁₃		4 5.5 267°80	1°8/ 6.9 17			158967	2004 RG ₂₃₂		4 5.5 188°24	0°0/ 5.3 17		
3 2	13 24.10	-11 53.9	1.759	2.579	15.0	21.1	3 2	13 21.76	- 8 39.5	2.273	3.094	12.0	21.1
3 12	13 19.16	-11 58.3	1.669	2.570	11.6	20.9	3 12	13 16.80	- 8 8.7	2.188	3.093	9.0	20.9
3 22	13 11.85	-11 48.0	1.602	2.561	7.6	20.6	3 22	13 10.09	- 7 27.0	2.127	3.092	5.5	20.6
4 1	13 2.83	-11 24.6	1.560	2.552	3.3	20.3	4 1	13 2.23	- 6 37.5	2.095	3.091	1.8	20.4
4 11	12 53.15	-10 51.9	1.545	2.543	2.7	20.3	4 11	12 53.99	- 5 45.1	2.091	3.089	2.1	20.4
4 21	12 43.94	-10 15.5	1.558	2.534	6.9	20.5	4 21	12 46.19	- 4 54.8	2.117	3.087	5.9	20.6
5 1	12 36.26	- 9 41.4	1.596	2.525	11.2	20.7	5 1	12 39.56	- 4 11.6	2.170	3.084	9.4	20.9
5 11	12 30.87	- 9 15.5	1.657	2.515	15.0	20.9	5 11	12 34.65	- 3 39.3	2.247	3.080	12.4	21.0
12564	Ikeller		4 5.5 260°80	0°2/ 5.3 18 R			56861	2000 QW ₈₆		4 5.5 247°92	4°1/10.0 18		
3 2	13 20.11	- 8 4.4	2.035	2.866	12.8	18.2	3 2	13 21.30	-21 11.9	2.556	3.319	12.5	19.9
3 12	13 15.77	- 7 32.1	1.951	2.863	9.6	18.0	3 12	13 16.51	-21 24.6	2.452	3.307	10.2	19.7
3 22	13 9.55	- 6 47.9	1.891	2.859	5.9	17.7	3 22	13 9.98	-21 21.7	2.371	3.295	7.6	19.5
4 1	13 2.05	- 5 55.7	1.858	2.855	1.8	17.4	4 1	13 2.22	-21 2.7	2.315	3.283	5.2	19.3
4 11	12 54.14	- 5 0.8	1.854	2.851	2.4	17.5	4 11	12 53.97	-20 29.4	2.288	3.271	4.1	19.2
4 21	12 46.68	- 4 9.1	1.877	2.847	6.5	17.7	4 21	12 46.02	-19 45.3	2.290	3.258	5.6	19.3
5 1	12 40.49	- 3 25.9	1.927	2.843	10.3	18.0	5 1	12 39.11	-18 55.5	2.319	3.245	8.3	19.5
5 11	12 36.15	- 2 55.3	1.999	2.839	13.5	18.2	5 11	12 33.84	-18 5.6	2.373	3.232	11.0	19.6
384080	2008 VC ₅₀		4 5.5 270°86	2°4/ 7.9 17			49593	1999 DX ₇		4 5.5 128°22	3°5/ 1.2 18		
3 2	13 20.26	-15 34.6	1.989	2.796	14.0	21.2	3 2	13 18.86	+ 1 53.4	2.276	3.125	11.0	18.2
3 12	13 16.06	-15 18.6	1.894	2.785	11.0	21.0	3 12	13 14.55	+ 3 3.5	2.209	3.131	8.1	18.1
3 22	13 9.83	-14 45.0	1.822	2.774	7.5	20.8	3 22	13 8.66	+ 4 17.6	2.168	3.137	5.2	17.9
4 1	13 2.17	-13 55.3	1.775	2.763	3.8	20.5	4 1	13 1.76	+ 5 29.5	2.156	3.142	3.5	17.8
4 11	12 53.97	-12 54.0	1.756	2.752	2.8	20.4	4 11	12 54.60	+ 6 33.0	2.172	3.147	5.0	17.9
4 21	12 46.17	-11 47.0	1.765	2.741	6.2	20.6	4 21	12 47.91	+ 7 23.3	2.216	3.152	7.9	18.1
5 1	12 39.68	-10 41.5	1.800	2.730	10.0	20.8	5 1	12 42.34	+ 7 56.9	2.285	3.157	10.8	18.3
5 11	12 35.16	- 9 44.1	1.858	2.719	13.5	21.0	5 11	12 38.39	+ 8 12.8	2.377	3.162	13.3	18.5
258379	2001 XR ₃₄		4 5.5 238°13	7°5/12.3 17			258825	2002 OF ₁₉		4 5.5 207°03	8°1/27.5 16		
3 2	13 24.54	-27 44.2	2.001	2.738	16.3	20.4	3 2	13					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
466129	2012 <i>FX</i> ₂₁		4 5.5 323°01	19°1/ 3.5 17			45329	2000 <i>AX</i> ₇₄		4 5.5 185°67	1°9/ 3.6 18		
3 2	13 21.11	+41 6.8	1.429	2.223	19.1	20.6	3 2	13 22.95	-3 57.1	1.993	2.831	12.8	19.1
3 12	13 18.04	+43 57.1	1.398	2.198	19.4	20.5	3 12	13 17.88	-3 1.9	1.915	2.831	9.5	18.9
3 22	13 11.63	+46 13.4	1.386	2.173	20.3	20.5	3 22	13 10.84	-1 57.1	1.861	2.831	5.7	18.7
4 1	13 2.84	+47 42.1	1.389	2.149	21.6	20.5	4 1	13 2.51	+0 48.1	1.835	2.830	2.2	18.4
4 11	12 53.27	+48 15.4	1.405	2.126	23.2	20.6	4 11	12 53.77	+0 18.4	1.837	2.828	3.7	18.5
4 21	12 44.63	+47 52.9	1.433	2.104	24.9	20.6	4 21	12 45.55	+1 15.9	1.868	2.826	7.6	18.8
5 1	12 38.39	+46 39.0	1.470	2.083	26.4	20.7	5 1	12 38.68	+1 59.5	1.925	2.823	11.3	19.0
5 11	12 35.38	+44 41.8	1.514	2.063	27.8	20.8	5 11	12 33.75	+2 26.2	2.005	2.820	14.4	19.2
235200	2003 <i>SP</i> ₁₅₄		4 5.5 197°75	1°8/ 7.5 17			439323	2012 <i>VW</i> ₁₀₇		4 5.5 123°35	2°5/ 8.6 17		
3 2	13 22.67	-13 47.3	2.459	3.256	12.0	21.0	3 2	13 19.36	-17 17.0	2.496	3.283	12.1	21.3
3 12	13 17.44	-13 42.7	2.366	3.253	9.3	20.8	3 12	13 14.90	-16 57.9	2.413	3.291	9.5	21.1
3 22	13 10.49	-13 25.7	2.298	3.250	6.2	20.6	3 22	13 8.89	-16 23.8	2.355	3.299	6.5	20.9
4 1	13 2.38	-12 57.5	2.257	3.246	3.0	20.4	4 1	13 1.87	-15 36.3	2.323	3.307	3.6	20.8
4 11	12 53.87	-12 21.3	2.246	3.242	2.3	20.4	4 11	12 54.56	-14 39.1	2.320	3.314	2.6	20.7
4 21	12 45.73	-11 41.2	2.264	3.237	5.2	20.6	4 21	12 47.68	-13 37.1	2.347	3.322	5.0	20.9
5 1	12 38.69	-11 2.0	2.309	3.232	8.5	20.7	5 1	12 41.89	-12 35.7	2.401	3.329	8.0	21.1
5 11	12 33.32	-10 28.0	2.380	3.227	11.4	20.9	5 11	12 37.66	-11 40.0	2.480	3.336	10.7	21.3
367683	2010 <i>OP</i> ₈		4 5.5 250°77	1°7/ 6.9 17			255681	2006 <i>QN</i> ₅₀		4 5.5 235°82	1°9/ 3.7 17		
3 2	13 23.51	-12 43.7	1.762	2.580	15.1	21.9	3 2	13 23.65	-3 48.8	1.968	2.805	13.0	21.7
3 12	13 18.77	-12 30.8	1.668	2.568	11.7	21.7	3 12	13 18.57	-3 2.7	1.875	2.791	9.6	21.4
3 22	13 11.65	-12 1.0	1.596	2.556	7.6	21.4	3 22	13 11.39	-2 6.6	1.807	2.777	5.8	21.2
4 1	13 2.82	-11 16.2	1.550	2.543	3.3	21.1	4 1	13 2.72	-1 5.4	1.767	2.762	2.2	20.9
4 11	12 53.29	-10 21.2	1.531	2.529	2.6	21.0	4 11	12 53.49	+0 5.8	1.755	2.747	3.8	21.0
4 21	12 44.21	-9 22.7	1.540	2.516	7.0	21.3	4 21	12 44.66	+0 46.0	1.772	2.731	7.8	21.2
5 1	12 36.63	-8 28.1	1.574	2.502	11.4	21.5	5 1	12 37.17	+1 24.7	1.814	2.714	11.7	21.4
5 11	12 31.33	-7 43.9	1.631	2.488	15.3	21.7	5 11	12 31.68	+1 46.8	1.878	2.696	15.1	21.6
43604	2001 <i>VN</i> ₁₂		4 5.5 181°04	6°3/ 12.4 18			299354	2005 <i>SM</i> ₂₄₂		4 5.5 163°59	1°7/ 7.8 17		
3 2	13 24.09	-27 42.9	2.272	3.000	14.8	19.1	3 2	13 17.46	-15 48.0	2.643	3.437	11.3	21.3
3 12	13 18.81	-28 1.6	2.179	3.001	12.5	18.9	3 12	13 13.43	-15 8.1	2.554	3.439	8.7	21.1
3 22	13 11.48	-27 58.7	2.107	3.001	10.0	18.8	3 22	13 7.97	-14 13.7	2.490	3.441	5.8	20.9
4 1	13 2.72	-27 32.7	2.059	3.001	7.6	18.6	4 1	13 1.58	-13 7.3	2.454	3.443	2.8	20.7
4 11	12 53.45	-26 44.9	2.037	3.001	6.4	18.5	4 11	12 54.92	-11 53.1	2.447	3.444	2.0	20.7
4 21	12 44.64	-25 39.7	2.043	3.000	7.1	18.6	4 21	12 48.63	-10 36.3	2.470	3.445	4.8	20.9
5 1	12 37.18	-24 23.8	2.076	2.998	9.3	18.7	5 1	12 43.31	-9 22.6	2.521	3.447	7.8	21.0
5 11	12 31.72	-23 5.1	2.134	2.996	11.9	18.9	5 11	12 39.43	-8 16.7	2.598	3.448	10.5	21.2
292515	2006 <i>TA</i> ₃₁		4 5.5 206°75	1°0/ 4.6 14 C			61984	2000 <i>RR</i> ₃₀		4 5.5 158°50	3°9/ 9.9 18		
3 2	13 24.63	-5 23.5	2.132	2.960	12.5	22.0	3 2	13 22.11	-20 43.1	2.673	3.433	12.0	20.1
3 12	13 19.08	-4 52.9	2.044	2.954	9.3	21.8	3 12	13 16.95	-20 59.5	2.583	3.437	9.8	20.0
3 22	13 11.58	-4 13.1	1.980	2.948	5.6	21.6	3 22	13 10.17	-21 1.3	2.516	3.441	7.2	19.8
4 1	13 2.74	-3 27.9	1.944	2.941	1.8	21.3	4 1	13 2.29	-20 48.4	2.476	3.444	4.9	19.7
4 11	12 53.43	-2 42.3	1.938	2.933	2.9	21.4	4 11	12 54.05	-20 22.7	2.464	3.447	3.9	19.6
4 21	12 44.57	-2 1.7	1.960	2.924	6.8	21.6	4 21	12 46.17	-19 47.4	2.482	3.450	5.3	19.7
5 1	12 36.98	-1 30.6	2.010	2.915	10.5	21.8	5 1	12 39.34	-19 7.0	2.527	3.452	7.8	19.9
5 11	12 31.29	-1 12.2	2.082	2.905	13.7	22.0	5 11	12 34.10	-18 26.6	2.598	3.454	10.3	20.0
368248	2001 <i>WU</i> ₁₀₀		4 5.5 188°41	1°0/ 4.4 17			325891	2010 <i>UC</i> ₁₅		4 5.5 177°60	0°9/ 4.6 16		
3 2	13 23.41	-5 1.9	2.388	3.214	11.4	22.4	3 2	13 22.06	-7 27.6	1.926	2.758	13.4	21.7
3 12	13 17.93	-4 28.2	2.303	3.213	8.4	22.2	3 12	13 17.29	-6 31.4	1.847	2.760	10.0	21.5
3 22	13 10.76	-3 46.4	2.244	3.211	5.1	22.0	3 22	13 10.52	-5 22.0	1.792	2.761	6.0	21.2
4 1	13 2.46	-3 0.2	2.213	3.209	1.6	21.8	4 1	13 2.42	-4 4.7	1.765	2.762	1.8	21.0
4 11	12 53.80	-2 14.4	2.212	3.206	2.7	21.8	4 11	12 53.92	-2 46.4	1.767	2.762	3.0	21.0
4 21	12 45.56	-1 33.6	2.241	3.203	6.2	22.1	4 21	12 45.96	-1 34.4	1.797	2.762	7.2	21.3
5 1	12 38.47	-1 1.7	2.297	3.199	9.5	22.3	5 1	12 39.38	-0 34.9	1.853	2.761	11.1	21.5
5 11	12 33.05	-0 41.7	2.377	3.194	12.4	22.4	5 11	12 34.79	+0 8.1	1.931	2.760	14.4	21.7
416668	2004 <i>UU</i> ₄		4 5.5 200°45	9°2/ 16.0 17			252204	2001 <i>FN</i> ₁₁₁		4 5.5 14°86	2°0/ 7.0 18		
3 2	13 26.14	-36 29.2	2.108	2.779	17.3	21.8	3 2	13 20.94	-12 45.2	1.310	2.152	18.0	20.2
3 12	13 20.72	-36 42.9	2.008	2.775	15.4	21.6	3 12	13 17.30	-12 37.8	1.242	2.154	13.8	19.9
3 22	13 12.83	-36 27.3	1.925	2.770	13.1	21.4	3 22	13 10.90	-12 9.9	1.193	2.157	9.0	19.7
4 1	13 3.18	-35 38.5	1.863	2.765	10.9	21.2	4 1	13 2.60	-11 24.1	1.167	2.161	3.9	19.4
4 11	12 52.90	-34 16.7	1.826	2.758	9.4	21.1	4 11	12 53.71	-10 27.2	1.167	2.165	3.0	19.3
4 21	12 43.19	-32 26.6	1.815	2.751	9.4	21.1	4 21	12 45.58	-9 27.7	1.190	2.170	8.0	19.6
5 1	12 35.16	-30 17.3	1.830	2.743	10.9	21.2	5 1	12 39.42	-8 34.5	1.238	2.176	12.8	19.9
5 11	12 29.54	-28 0.6	1.871	2.734	13.3	21.3	5 11	12 35.97	-7 55.0	1.305	2.182	17.0	20.2
299795	2006 <i>SE</i> ₉₅		4 5.5 303°15	0°3/ 5.9 17			89206	2001 <i>UC</i> ₉₈		4 5.5 93°83	1°2/ 4.2 18		
3 2	13 17.41	-10 57.4	2.152	2.976	12.5	21.3	3 2	13 19.93	-4 44.5	2.274	3.110	11.5	20.2
3 12	13 13.72	-10 10.7	2.063	2.970	9.4	21.1	3 12	13 15.36	-4 8.7	2.203	3.118	8.5	20.0
3 22	13 8.30	-9 9.5	1.998	2.963	5.9	20.8	3 22	13 9.18	-3 25.2	2.157	3.127	5.1	19.8
4 1	13 1.71	-7 57.5	1.960	2.956	2.0	20.6	4 1	13 1.98	-2 37.9	2.139	3.136	1.7	19.5
4 11	12 54.72	-6 40.4	1.951	2.950	2.1	20.5	4 11	12 54.50	-1 52.0	2.150	3.144	2.8	19.6
4 21	12 48.14	-5 24.7	1.971	2.943	6.0	20.8	4 21	12 47.50	-1 11.9	2.189	3.152	6.3	19.9
5 1	12 42.71	-4 16.9	2.017	2.937	9.7	21.0	5 1	12 41.66	-0 41.7	2.255	3.161	9.5	20.1
5 11	12 38.98	-3 21.7	2.086	2.931	12.9	21.2	5 11	12 37.46	-0 23.7	2.344	3.169	12.3	20.3
122818	2000 <i>SH</i> ₁₀₅		4 5.5 81°22	1°9/ 3.8 18			60662	2000 <i>FX</i> ₆₁		4 5.5 52°21	2°9/ 3.2 18		
3 2	13 23.77	-2 55.0	1.816										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
95892	2003 <i>HO</i> ₁₁		4 5.5 160°94	1.7/ 7.4	18		18339	1989 <i>GM</i> ₂		4 5.5 29°98	1.5/ 6.9	18	
3 2	13 22.26	-17 30.3	1.783	2.584	15.6	19.6	3 2	13 18.56	-13 28.6	1.465	2.300	16.7	17.5
3 12	13 17.61	-16 8.6	1.700	2.590	12.1	19.3	3 12	13 15.17	-12 54.2	1.400	2.310	12.8	17.3
3 22	13 10.77	-14 21.3	1.640	2.595	8.0	19.1	3 22	13 9.41	-11 59.0	1.357	2.321	8.2	17.1
4 1	13 2.52	-12 13.2	1.608	2.599	3.5	18.8	4 1	13 2.11	-10 47.2	1.338	2.332	3.4	16.8
4 11	12 53.87	-9 53.4	1.605	2.603	2.4	18.8	4 11	12 54.41	-9 26.7	1.345	2.344	2.6	16.8
4 21	12 45.87	-7 33.3	1.631	2.606	6.7	19.0	4 21	12 47.46	-8 6.6	1.378	2.357	7.3	17.1
5 1	12 39.45	-5 23.8	1.685	2.609	11.0	19.3	5 1	12 42.23	-6 55.8	1.436	2.370	11.7	17.4
5 11	12 35.20	-3 33.6	1.763	2.611	14.7	19.5	5 11	12 39.34	-6 0.7	1.514	2.384	15.5	17.6
170051	2002 <i>VV</i> ₅₇		4 5.5 125°80	2.0/ 3.0	18		229709	2007 <i>EZ</i> ₁₁₉		4 5.5 66°85	2.7/ 3.3	17	
3 2	13 20.37	-1 44.9	2.519	3.356	10.5	20.9	3 2	13 23.36	-0 46.4	1.781	2.630	13.6	21.0
3 12	13 15.50	-0 56.2	2.453	3.369	7.7	20.7	3 12	13 18.34	-0 14.4	1.712	2.634	10.0	20.8
3 22	13 9.18	-0 2.3	2.413	3.382	4.6	20.6	3 22	13 11.20	+0 23.5	1.666	2.637	6.1	20.6
4 1	13 1.97	+0 52.3	2.401	3.395	2.2	20.4	4 1	13 2.67	+1 1.9	1.647	2.641	2.9	20.4
4 11	12 54.55	+1 42.9	2.420	3.407	3.4	20.5	4 11	12 53.74	+1 34.7	1.656	2.645	4.4	20.5
4 21	12 47.58	+2 25.1	2.467	3.419	6.4	20.7	4 21	12 45.43	+1 57.0	1.691	2.649	8.3	20.7
5 1	12 41.69	+2 55.8	2.542	3.431	9.2	20.9	5 1	12 38.65	+2 5.0	1.752	2.653	12.0	21.0
5 11	12 37.29	+3 13.1	2.639	3.442	11.7	21.1	5 11	12 34.00	+1 57.3	1.833	2.657	15.2	21.2
341737	2007 <i>VF</i> ₂₅₂		4 5.5 148°93	1.0/ 4.4	18		740	Cantabria		4 5.5 21°34	5.9/30.4	18	
3 2	13 19.84	-5 31.2	2.427	3.257	11.0	21.2	3 2	13 19.01	+7 35.3	1.871	2.733	12.4	13.4
3 12	13 15.24	-4 51.5	2.350	3.263	8.1	21.0	3 12	13 15.00	+8 49.1	1.813	2.737	9.4	13.2
3 22	13 9.10	-4 3.6	2.299	3.267	4.9	20.8	3 22	13 9.10	+10 2.0	1.780	2.741	6.8	13.1
4 1	13 1.96	-3 11.4	2.276	3.272	1.6	20.6	4 1	13 1.99	+11 6.5	1.773	2.746	5.9	13.0
4 11	12 54.54	-2 19.7	2.282	3.276	2.6	20.6	4 11	12 54.58	+11 55.2	1.792	2.751	7.5	13.1
4 21	12 47.55	-1 33.1	2.317	3.281	6.0	20.9	4 21	12 47.75	+12 23.6	1.837	2.756	10.4	13.3
5 1	12 41.64	-0 55.8	2.380	3.284	9.1	21.1	5 1	12 42.30	+12 29.6	1.905	2.762	13.3	13.5
5 11	12 37.28	-0 30.4	2.466	3.288	11.8	21.3	5 11	12 38.75	+12 14.0	1.992	2.768	15.8	13.7
374366	2005 <i>UO</i> ₂₉₃		4 5.5 138°67	0°3/ 5.8	17		407832	2012 <i>BF</i> ₁₉		4 5.5 84°95	0°7/ 4.9	18	
3 2	13 23.50	-8 57.7	1.978	2.803	13.4	22.0	3 2	13 23.46	-7 52.7	1.561	2.401	15.6	20.6
3 12	13 18.30	-8 38.7	1.903	2.809	10.1	21.8	3 12	13 18.57	-7 7.0	1.502	2.418	11.6	20.4
3 22	13 11.11	-8 7.9	1.851	2.815	6.3	21.6	3 22	13 11.36	-6 7.1	1.466	2.435	7.0	20.2
4 1	13 2.62	-7 28.4	1.826	2.821	2.1	21.3	4 1	13 2.71	-4 58.7	1.455	2.452	2.1	19.9
4 11	12 53.75	-6 45.2	1.829	2.827	2.3	21.3	4 11	12 53.75	-3 49.8	1.471	2.468	3.1	20.0
4 21	12 45.43	-6 3.7	1.861	2.832	6.4	21.6	4 21	12 45.60	-2 48.1	1.515	2.485	7.8	20.3
5 1	12 38.52	-5 29.0	1.919	2.838	10.2	21.8	5 1	12 39.20	-2 0.0	1.583	2.501	12.0	20.6
5 11	12 33.59	-5 5.0	2.000	2.842	13.4	22.1	5 11	12 35.14	-1 29.4	1.673	2.517	15.5	20.9
287552	2003 <i>EL</i> ₅₁		4 5.5 50°63	6°0/10.1	18		145485	2005 <i>UN</i> ₃₉₈		4 5.5 173°88	1°5/ 1.5	18	
3 2	13 30.06	-21 51.0	2.111	2.866	15.0	20.0	3 2	13 12.34	+3 13.5	6.122	6.956	4.7	22.8
3 12	13 23.34	-23 4.9	2.033	2.878	12.4	19.9	3 12	13 8.92	+3 47.1	6.045	6.959	3.4	22.7
3 22	13 14.31	-24 2.5	1.977	2.891	9.5	19.7	3 22	13 4.95	+4 21.4	5.997	6.961	2.2	22.6
4 1	13 3.67	-24 41.0	1.948	2.904	7.0	19.6	4 1	13 0.63	+4 54.6	5.979	6.964	1.5	22.5
4 11	12 52.44	-25 0.0	1.947	2.917	6.0	19.5	4 11	12 56.21	+5 24.9	5.992	6.965	2.1	22.5
4 21	12 41.74	-25 1.8	1.974	2.930	7.4	19.6	4 21	12 51.94	+5 50.9	6.035	6.967	3.3	22.6
5 1	12 32.55	-24 51.2	2.028	2.944	9.9	19.8	5 1	12 48.03	+6 11.3	6.107	6.968	4.6	22.7
5 11	12 25.61	-24 34.5	2.105	2.957	12.5	20.0	5 11	12 44.70	+6 25.4	6.204	6.969	5.8	22.8
437566	2014 <i>AU</i> ₈		4 5.5 56°59	0°9/ 6.4	17		344473	2002 <i>PM</i> ₁₀₉		4 5.5 236°44	6°5/12.7	18	
3 2	13 20.88	-10 44.4	1.974	2.797	13.5	21.0	3 2	13 22.51	-28 37.2	2.452	3.171	14.0	21.5
3 12	13 16.28	-10 27.0	1.909	2.814	10.2	20.8	3 12	13 17.64	-29 0.6	2.347	3.161	12.0	21.3
3 22	13 9.82	-9 56.8	1.867	2.830	6.4	20.6	3 22	13 10.81	-29 4.0	2.263	3.150	9.8	21.1
4 1	13 2.20	-9 16.8	1.852	2.847	2.4	20.4	4 1	13 2.59	-28 45.2	2.203	3.139	7.6	20.9
4 11	12 54.30	-8 31.9	1.865	2.863	2.1	20.4	4 11	12 53.79	-28 5.2	2.169	3.127	6.5	20.9
4 21	12 47.00	-7 47.6	1.906	2.880	6.0	20.7	4 21	12 45.33	-27 7.3	2.163	3.115	7.1	20.9
5 1	12 41.07	-7 9.0	1.973	2.897	9.6	20.9	5 1	12 38.05	-25 57.1	2.184	3.103	9.1	21.0
5 11	12 37.03	-6 40.2	2.063	2.915	12.7	21.1	5 11	12 32.62	-24 42.2	2.229	3.091	11.5	21.1
35086	1990 <i>TW</i> ₈		4 5.5 242°15	0°1/ 5.4	18		7113	Ostapbender		4 5.5 177°87	5°8/11.8	18	
3 2	13 26.54	-7 22.5	1.748	2.578	14.7	19.2	3 2	13 22.45	-25 46.1	2.374	3.114	13.9	17.3
3 12	13 21.07	-7 7.1	1.654	2.564	11.1	18.9	3 12	13 17.52	-26 11.5	2.283	3.114	11.7	17.2
3 22	13 13.11	-6 39.5	1.582	2.549	6.9	18.6	3 22	13 10.68	-26 17.9	2.212	3.115	9.2	17.0
4 1	13 3.34	-6 2.8	1.537	2.534	2.2	18.3	4 1	13 2.53	-26 4.2	2.166	3.115	6.9	16.9
4 11	12 52.82	-5 22.4	1.521	2.518	2.8	18.3	4 11	12 53.89	-25 31.5	2.147	3.115	5.8	16.8
4 21	12 42.73	-4 44.3	1.531	2.502	7.7	18.6	4 21	12 45.66	-24 43.5	2.156	3.115	6.6	16.8
5 1	12 34.19	-4 14.5	1.568	2.485	12.2	18.8	5 1	12 38.66	-23 45.9	2.191	3.115	8.8	17.0
5 11	12 28.01	-3 57.6	1.626	2.467	16.1	19.0	5 11	12 33.50	-22 45.6	2.251	3.114	11.4	17.1
434818	2006 <i>RO</i> ₉₄		4 5.5 243°11	0°8/ 6.4	17		412095	2013 <i>FC</i> ₂₁		4 5.5 276°27	0°4/ 5.2	17	
3 2	13 20.07	-10 54.1	2.519	3.331	11.3	22.1	3 2	13 22.29	-8 24.8	1.509	2.352	15.9	21.3
3 12	13 15.51	-10 33.6	2.421	3.319	8.6	21.9	3 12	13 18.19	-7 48.3	1.420	2.337	12.0	21.0
3 22	13 9.34	-10 1.8	2.347	3.308	5.5	21.7	3 22	13 11.48	-6 54.7	1.353	2.322	7.4	20.7
4 1	13 2.07	-9 21.0	2.302	3.296	2.1	21.4	4 1	13 2.86	-5 48.6	1.311	2.307	2.3	20.4
4 11	12 54.39	-8 34.9	2.285	3.284	1.8	21.4	4 11	12 53.46	-4 37.5	1.295	2.292	3.2	20.4
4 21	12 47.03	-7 48.1	2.298	3.271	5.3	21.6	4 21	12 44.56	-3 30.1	1.305	2.277	8.5	20.6
5 1	12 40.67	-7 5.0	2.339	3.258	8.6	21.8	5 1	12 37.35	-2 34.8	1.339	2.262	13.4	20.9
5 11	12 35.85	-6 29.9	2.404	3.245	11.5	22.0	5 11	12 32.65	-1 57.5	1.394	2.246	17.6	21.1
293721	2007 <i>RT</i> ₄		4 5.5 141°08	1°6/ 7.4	17		502712	2015 <i>DM</i> ₂₃		4 5.5 176°32	2°2/ 3.2	17	
3 2	13 21.47	-13 46.1	2.576	3.373	11.5	21.9	3 2	13 21.00	-2 10.6	2.			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
262041	2006 <i>QG</i> ₁₅₇		4 5.5 283°05	1°1/ 6.4 17			348192	2004 <i>PP</i> ₈₈		4 5.5 212°06	2°3/ 7.6 17		
3 2	13 23.45	-10 38.3	1.573	2.405	15.9	21.3	3 2	13 25.24	-15 3.9	1.885	2.687	14.8	22.0
3 12	13 19.00	-10 31.1	1.483	2.392	12.2	21.0	3 12	13 19.94	-14 47.8	1.791	2.680	11.6	21.7
3 22	13 11.95	-10 8.1	1.415	2.380	7.8	20.7	3 22	13 12.34	-14 13.5	1.720	2.673	7.8	21.5
4 1	13 3.00	-9 31.3	1.372	2.367	3.0	20.4	4 1	13 3.11	-13 22.6	1.675	2.664	3.8	21.2
4 11	12 53.29	-8 46.2	1.355	2.354	2.7	20.3	4 11	12 53.27	-12 19.6	1.658	2.655	2.8	21.1
4 21	12 44.06	-7 59.3	1.365	2.341	7.7	20.6	4 21	12 43.89	-11 11.1	1.670	2.645	6.6	21.3
5 1	12 36.49	-7 18.1	1.399	2.328	12.4	20.8	5 1	12 35.99	-10 4.9	1.708	2.634	10.7	21.5
5 11	12 31.42	-6 48.8	1.454	2.316	16.5	21.0	5 11	12 30.30	-9 7.7	1.769	2.623	14.4	21.7
299995	2006 <i>UJ</i> ₂₄		4 5.5 159°10	0°6/ 6.2 17			174946	2004 <i>CF</i> ₈₅		4 5.5 325°80	5°8/ 10.7 17	R	
3 2	13 20.03	-10 8.2	2.584	3.398	11.0	22.1	3 2	13 20.35	-22 37.6	1.892	2.668	15.8	19.6
3 12	13 15.34	-9 47.5	2.501	3.401	8.3	21.9	3 12	13 16.44	-23 6.1	1.796	2.656	13.1	19.4
3 22	13 9.17	-9 16.6	2.443	3.405	5.2	21.7	3 22	13 10.28	-23 14.1	1.721	2.645	10.0	19.1
4 1	13 2.01	-8 38.2	2.413	3.408	1.9	21.5	4 1	13 2.48	-23 0.0	1.670	2.634	7.1	18.9
4 11	12 54.56	-7 55.9	2.412	3.410	1.8	21.5	4 11	12 54.01	-22 25.3	1.644	2.624	5.8	18.8
4 21	12 47.50	-7 13.8	2.441	3.413	5.1	21.7	4 21	12 45.92	-21 34.4	1.644	2.614	7.3	18.9
5 1	12 41.45	-6 36.2	2.497	3.415	8.2	21.9	5 1	12 39.24	-20 34.4	1.670	2.605	10.4	19.1
5 11	12 36.90	-6 6.5	2.578	3.417	10.9	22.1	5 11	12 34.74	-19 33.4	1.719	2.596	13.6	19.2
192525	1998 <i>SM</i> ₁₂		4 5.5 228°56	0°7/ 4.9 17			62851	2000 <i>UM</i> ₇₂		4 5.5 170°40	1°9/ 7.5 18		
3 2	13 24.46	-7 59.5	1.777	2.608	14.4	20.6	3 2	13 22.01	-14 22.8	2.192	2.995	13.0	19.1
3 12	13 19.43	-7 9.5	1.684	2.596	10.8	20.4	3 12	13 17.12	-14 4.0	2.107	2.997	10.1	19.0
3 22	13 12.06	-6 4.1	1.615	2.583	6.6	20.1	3 22	13 10.40	-13 30.1	2.046	2.999	6.7	18.7
4 1	13 3.01	-4 47.9	1.572	2.569	2.0	19.8	4 1	13 2.45	-12 43.2	2.011	3.001	3.2	18.5
4 11	12 53.32	-3 28.3	1.558	2.555	3.1	19.8	4 11	12 54.11	-11 47.6	2.006	3.003	2.3	18.5
4 21	12 44.08	-2 13.3	1.572	2.539	7.9	20.1	4 21	12 46.24	-10 48.7	2.029	3.004	5.6	18.7
5 1	12 36.33	-1 10.6	1.612	2.523	12.2	20.3	5 1	12 39.62	-9 52.5	2.079	3.005	9.1	18.9
5 11	12 30.83	-0 25.2	1.673	2.506	16.0	20.5	5 11	12 34.80	-9 4.1	2.154	3.005	12.3	19.1
96282	1995 <i>WX</i> ₃₈		4 5.5 9°62	1°4/ 4.5 18			107061	2001 <i>AR</i> ₉		4 5.5 2°08	0°7/ 6.1 18		
3 2	13 24.35	-3 18.6	1.749	2.593	14.0	19.4	3 2	13 16.87	-11 19.8	1.149	2.008	18.7	19.1
3 12	13 19.19	-3 9.1	1.675	2.593	10.5	19.2	3 12	13 14.56	-10 45.1	1.082	2.006	14.2	18.8
3 22	13 11.80	-2 52.3	1.623	2.594	6.3	18.9	3 22	13 9.38	-9 47.0	1.035	2.005	9.0	18.5
4 1	13 2.90	-2 32.2	1.598	2.595	2.1	18.6	4 1	13 2.22	-8 30.5	1.010	2.006	3.2	18.1
4 11	12 53.52	-2 13.7	1.601	2.596	3.4	18.7	4 11	12 54.41	-7 5.4	1.008	2.007	3.1	18.1
4 21	12 44.75	-2 1.5	1.630	2.597	7.7	19.0	4 21	12 47.40	-5 43.5	1.030	2.010	8.9	18.5
5 1	12 37.54	-1 59.4	1.685	2.598	11.7	19.2	5 1	12 42.41	-4 35.3	1.074	2.014	14.2	18.8
5 11	12 32.55	-2 9.8	1.762	2.600	15.1	19.4	5 11	12 40.23	-3 48.3	1.137	2.019	18.7	19.1
469779	2005 <i>QJ</i> ₁₃₄		4 5.5 223°18	0°4/ 4.9 17			503657	2016 <i>GO</i> ₂₁₉		4 5.5 248°50	3°0/ 3.4 17		
3 2	13 19.06	-6 52.3	2.730	3.553	10.2	22.2	3 2	13 29.94	+ 2 36.1	1.975	2.811	13.0	20.5
3 12	13 14.61	-6 20.2	2.638	3.546	7.6	22.0	3 12	13 23.22	+ 2 38.0	1.889	2.802	9.7	20.3
3 22	13 8.72	-5 39.8	2.572	3.539	4.6	21.8	3 22	13 14.25	+ 2 40.8	1.827	2.793	6.1	20.0
4 1	13 1.89	-4 54.1	2.534	3.531	1.4	21.5	4 1	13 3.71	+ 2 40.5	1.793	2.784	3.2	19.8
4 11	12 54.73	-4 7.1	2.526	3.523	2.1	21.6	4 11	12 52.62	+ 2 33.0	1.788	2.774	4.5	19.9
4 21	12 47.88	-3 23.0	2.548	3.514	5.3	21.8	4 21	12 42.04	+ 2 15.3	1.812	2.765	8.2	20.1
5 1	12 41.95	-2 45.5	2.597	3.506	8.3	22.0	5 1	12 32.95	+ 1 45.7	1.863	2.755	11.9	20.3
5 11	12 37.41	-2 17.7	2.671	3.497	10.9	22.1	5 11	12 26.05	+ 1 3.8	1.936	2.745	15.1	20.5
259002	2002 <i>TM</i> ₉₈		4 5.5 130°90	0°3/ 5.2 16			8063	Cristinathomas		4 5.5 269°18	1°0/ 4.5 18		
3 2	13 25.61	-6 50.3	1.833	2.663	14.1	21.6	3 2	13 19.71	-5 41.0	2.137	2.973	12.1	18.0
3 12	13 19.98	-6 32.7	1.761	2.672	10.5	21.4	3 12	13 15.44	-5 2.9	2.053	2.968	9.0	17.8
3 22	13 12.19	-6 4.6	1.714	2.681	6.4	21.2	3 22	13 9.40	-4 15.1	1.993	2.962	5.4	17.6
4 1	13 3.00	-5 29.5	1.693	2.689	2.0	20.9	4 1	13 2.15	-3 21.8	1.960	2.957	1.7	17.3
4 11	12 53.42	-4 52.7	1.700	2.697	2.7	21.0	4 11	12 54.51	-2 28.3	1.956	2.951	2.8	17.4
4 21	12 44.49	-4 19.7	1.735	2.705	7.0	21.3	4 21	12 47.28	-1 40.2	1.981	2.946	6.6	17.6
5 1	12 37.11	-3 55.2	1.797	2.712	10.9	21.5	5 1	12 41.24	-1 2.2	2.031	2.941	10.2	17.8
5 11	12 31.89	-3 42.7	1.881	2.719	14.3	21.8	5 11	12 36.94	-0 37.6	2.104	2.935	13.3	18.0
414769	2010 <i>NV</i> ₂₁		4 5.5 238°09	1°6/ 6.9 17			216422	2008 <i>TJ</i> ₆		4 5.5 175°51	1°9/ 3.9 18		
3 2	13 22.68	-13 24.2	1.792	2.608	14.9	21.8	3 2	13 27.18	-3 26.3	1.738	2.576	14.4	21.5
3 12	13 18.11	-12 59.2	1.700	2.599	11.6	21.5	3 12	13 21.31	-2 49.8	1.663	2.579	10.7	21.2
3 22	13 11.24	-12 16.1	1.630	2.589	7.6	21.3	3 22	13 13.11	-2 4.1	1.611	2.581	6.4	21.0
4 1	13 2.76	-11 17.2	1.587	2.579	3.3	21.0	4 1	13 3.34	-1 14.5	1.587	2.582	2.4	20.7
4 11	12 53.66	-10 8.0	1.570	2.569	2.5	20.9	4 11	12 53.09	-0 27.7	1.591	2.583	3.9	20.8
4 21	12 45.02	-8 55.8	1.582	2.558	6.8	21.1	4 21	12 43.49	+ 0 10.2	1.622	2.583	8.2	21.1
5 1	12 37.86	-7 48.5	1.619	2.546	11.1	21.4	5 1	12 35.54	+ 0 34.4	1.679	2.582	12.3	21.3
5 11	12 32.91	-6 52.9	1.679	2.535	14.9	21.6	5 11	12 29.90	+ 0 42.3	1.758	2.581	15.8	21.5
336258	2008 <i>SU</i> ₁₅₅		4 5.5 299°16	2°9/ 3.5 17			519398	2011 <i>SB</i> ₂₇₉		4 5.5 180°29	3°5/ 9.9 17		
3 2	13 26.52	+ 0 30.8	1.724	2.571	14.1	19.9	3 2	13 19.50	-20 55.7	2.667	3.431	12.0	21.9
3 12	13 21.24	+ 0 43.0	1.621	2.540	10.6	19.6	3 12	13 15.05	-20 48.5	2.574	3.432	9.7	21.8
3 22	13 13.36	+ 0 59.6	1.540	2.510	6.7	19.3	3 22	13 9.05	-20 25.4	2.504	3.432	7.1	21.6
4 1	13 3.50	+ 1 15.9	1.485	2.479	3.2	19.0	4 1	13 2.03	-19 47.0	2.461	3.432	4.6	21.4
4 11	12 52.70	+ 1 26.3	1.459	2.448	4.8	19.1	4 11	12 54.67	-18 56.0	2.446	3.432	3.5	21.4
4 21	12 42.17	+ 1 25.9	1.459	2.417	9.2	19.3	4 21	12 47.67	-17 56.7	2.460	3.432	5.1	21.5
5 1	12 33.11	+ 1 11.0	1.483	2.387	13.6	19.4	5 1	12 41.69	-16 54.2	2.502	3.431	7.6	21.6
5 11	12 26.43	+ 0 39.9	1.529	2.356	17.6	19.6	5 11	12 37.22	-15 53.9	2.570	3.430	10.2	21.8
209914	2005 <i>NC</i> ₁₀₁		4 5.5 245°55	2°4/ 2.3 16			3	Juno		4 5.5 111°85	2°5/ 2.6 18		
3 2	13 18.75	-0 10.8	2.739	3.578	9.7	21.0	3						

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
135553	2002 <i>EF</i> ₆₀		4 5.5 297°41	2°5/ 7.2 17			109387	2001 <i>QL</i> ₁₆₈		4 5.5 146°12	2°9/ 2.3 18		
3 2	13 23.45	-12 54.2	1.447	2.277	17.1	20.0	3 2	13 21.26	-1 29.0	2.070	2.914	12.1	20.2
3 12	13 19.50	-13 1.0	1.343	2.249	13.5	19.7	3 12	13 16.52	-0 12.1	2.002	2.922	8.9	20.0
3 22	13 12.60	-12 49.3	1.259	2.220	9.1	19.3	3 22	13 10.00	+1 12.4	1.960	2.930	5.4	19.8
4 1	13 3.35	-12 19.4	1.199	2.191	4.3	19.0	4 1	13 2.34	+2 37.6	1.946	2.937	3.0	19.7
4 11	12 52.93	-11 35.2	1.165	2.163	3.3	18.8	4 11	12 54.39	+3 56.4	1.961	2.944	4.6	19.8
4 21	12 42.74	-10 43.4	1.155	2.134	8.3	19.0	4 21	12 46.98	+5 2.4	2.005	2.951	8.0	20.0
5 1	12 34.25	-9 52.9	1.169	2.105	13.7	19.2	5 1	12 40.85	+5 51.2	2.074	2.957	11.2	20.2
5 11	12 28.54	-9 12.4	1.204	2.077	18.5	19.4	5 11	12 36.53	+6 20.9	2.165	2.962	14.1	20.4
111190	2001 <i>WO</i> ₁₃		4 5.5 167°16	0°0/ 5.3 17			508575	2017 <i>OF</i> ₂		4 5.5 242°73	1°0/ 4.6 17		
3 2	13 20.18	-10 55.6	2.028	2.851	13.2	20.1	3 2	13 22.83	-6 27.1	1.932	2.766	13.3	21.9
3 12	13 15.84	-9 51.7	1.947	2.853	9.9	19.9	3 12	13 18.06	-5 43.7	1.839	2.752	10.0	21.7
3 22	13 9.64	-8 31.8	1.891	2.856	6.1	19.6	3 22	13 11.17	-4 48.0	1.769	2.738	6.1	21.4
4 1	13 2.23	-7 7.8	1.862	2.858	1.9	19.4	4 1	13 2.78	-3 44.3	1.726	2.723	1.9	21.1
4 11	12 54.45	-5 25.7	1.862	2.860	2.3	19.4	4 11	12 53.80	-2 39.1	1.712	2.707	3.1	21.1
4 21	12 47.19	-3 54.3	1.891	2.861	6.5	19.7	4 21	12 45.23	-1 39.0	1.726	2.691	7.4	21.4
5 1	12 41.21	-2 33.7	1.947	2.862	10.3	19.9	5 1	12 37.99	-0 50.3	1.766	2.675	11.5	21.6
5 11	12 37.09	-1 28.9	2.027	2.863	13.5	20.1	5 11	12 32.78	-0 17.1	1.828	2.658	15.0	21.8
362710	2011 <i>UA</i> ₁₉₅		4 5.5 115°61	3°9/ 2.1 18			279020	2008 <i>UH</i> ₃₃₁		4 5.5 251°32	1°7/ 7.2 17		
3 2	13 24.01	+0 9.0	1.598	2.452	14.6	20.7	3 2	13 21.48	-13 28.3	2.102	2.911	13.3	21.3
3 12	13 18.96	+1 21.1	1.539	2.464	10.7	20.5	3 12	13 16.93	-13 13.5	2.006	2.900	10.3	21.1
3 22	13 11.63	+2 40.0	1.505	2.475	6.7	20.3	3 22	13 10.42	-12 43.6	1.933	2.889	6.8	20.8
4 1	13 2.85	+3 57.5	1.496	2.486	4.0	20.1	4 1	13 2.53	-12 0.6	1.886	2.877	3.1	20.6
4 11	12 53.75	+5 4.8	1.515	2.497	5.9	20.3	4 11	12 54.11	-11 8.5	1.868	2.866	2.3	20.5
4 21	12 45.41	+5 55.0	1.560	2.508	9.7	20.5	4 21	12 46.07	-10 12.9	1.878	2.854	6.0	20.7
5 1	12 38.79	+6 23.9	1.629	2.518	13.5	20.7	5 1	12 39.27	-9 19.7	1.915	2.842	9.7	20.9
5 11	12 34.48	+6 30.7	1.718	2.527	16.7	21.0	5 11	12 34.34	-8 34.7	1.976	2.830	13.1	21.1
180959	2005 <i>MJ</i> ₃₄		4 5.5 164°69	4°4/ 29.8 18			504299	2007 <i>EO</i> ₁₀₂		4 5.5 322°45	1°0/ 4.9 17		
3 2	13 18.64	+9 14.6	3.063	3.906	8.6	21.1	3 2	13 25.16	-3 21.5	1.448	2.300	16.0	20.6
3 12	13 14.08	+10 22.3	3.000	3.912	6.6	20.9	3 12	13 20.60	-3 36.2	1.354	2.276	12.1	20.3
3 22	13 8.30	+11 28.4	2.964	3.916	4.9	20.8	3 22	13 13.16	-3 44.3	1.282	2.254	7.5	19.9
4 1	13 1.76	+12 28.1	2.957	3.920	4.4	20.8	4 1	13 3.51	-3 48.8	1.235	2.232	2.4	19.6
4 11	12 55.02	+13 17.1	2.979	3.924	5.6	20.9	4 11	12 52.86	-3 54.2	1.213	2.210	3.5	19.6
4 21	12 48.63	+13 52.4	3.029	3.927	7.5	21.0	4 21	12 42.60	-4 4.9	1.217	2.190	8.9	19.8
5 1	12 43.10	+14 12.1	3.105	3.930	9.5	21.2	5 1	12 34.08	-4 25.0	1.245	2.170	13.9	20.1
5 11	12 38.80	+14 16.2	3.202	3.933	11.3	21.3	5 11	12 28.31	-4 57.3	1.293	2.152	18.3	20.3
312585	2009 <i>HW</i> ₈₂		4 5.5 311°82	0°4/ 5.2 17			162499	2000 <i>QZ</i> ₃₃		4 5.5 251°29	2°5/ 7.7 16		
3 2	13 21.39	-8 17.7	1.455	2.302	16.2	21.0	3 2	13 23.23	-15 30.3	1.685	2.497	15.9	20.4
3 12	13 17.49	-7 41.0	1.377	2.296	12.2	20.7	3 12	13 18.76	-15 10.3	1.589	2.483	12.5	20.1
3 22	13 11.02	-6 47.7	1.320	2.290	7.5	20.4	3 22	13 11.81	-14 29.1	1.513	2.468	8.5	19.8
4 1	13 2.74	-5 42.7	1.288	2.285	2.3	20.1	4 1	13 3.02	-13 28.3	1.463	2.453	4.2	19.6
4 11	12 53.82	-4 33.9	1.282	2.279	3.2	20.1	4 11	12 53.49	-12 13.0	1.440	2.437	3.0	19.4
4 21	12 45.53	-3 30.0	1.301	2.274	8.4	20.4	4 21	12 44.39	-10 51.2	1.444	2.421	7.2	19.6
5 1	12 38.98	-2 39.0	1.345	2.269	13.2	20.7	5 1	12 36.86	-9 32.0	1.474	2.405	11.7	19.9
5 11	12 34.95	-2 6.2	1.408	2.265	17.2	20.9	5 11	12 31.71	-8 23.8	1.525	2.388	15.8	20.1
471420	2011 <i>UL</i> ₇		4 5.5 246°38	1°5/ 7.5 17			383758	2007 <i>VH</i> ₂₀₁		4 5.5 62°02	0°0/ 5.3 17		
3 2	13 18.34	-14 36.4	2.636	3.434	11.2	22.0	3 2	13 20.54	-8 5.5	2.073	2.903	12.7	21.6
3 12	13 14.21	-14 6.5	2.535	3.423	8.7	21.8	3 12	13 16.05	-7 41.5	1.999	2.909	9.5	21.4
3 22	13 8.56	-13 22.8	2.459	3.412	5.8	21.6	3 22	13 9.75	-7 6.7	1.949	2.915	5.8	21.2
4 1	13 1.89	-12 27.4	2.410	3.400	2.7	21.4	4 1	13 2.27	-6 24.7	1.925	2.922	1.8	21.0
4 11	12 54.85	-11 24.2	2.390	3.388	2.0	21.3	4 11	12 54.47	-5 40.2	1.931	2.928	2.2	21.0
4 21	12 48.11	-10 17.9	2.400	3.376	4.9	21.5	4 21	12 47.16	-4 58.5	1.964	2.935	6.2	21.3
5 1	12 42.32	-9 13.8	2.439	3.363	8.0	21.6	5 1	12 41.13	-4 24.3	2.023	2.941	9.8	21.5
5 11	12 37.99	-8 16.8	2.502	3.350	10.9	21.8	5 11	12 36.90	-4 1.2	2.106	2.948	12.8	21.7
32725	4057 <i>T</i> ₋₃		4 5.5 282°69	2°5/ 3.8 18			381449	2008 <i>RY</i> ₁₈		4 5.5 154°39	0°8/ 6.4 17		
3 2	13 24.50	-2 44.0	1.405	2.261	16.1	18.8	3 2	13 21.12	-11 16.3	2.135	2.952	12.8	21.9
3 12	13 19.97	-2 10.0	1.324	2.250	12.1	18.5	3 12	13 16.47	-10 46.6	2.054	2.955	9.7	21.7
3 22	13 12.64	-1 25.3	1.265	2.238	7.4	18.2	3 22	13 10.02	-10 3.4	1.997	2.959	6.2	21.4
4 1	13 3.29	-0 36.0	1.231	2.226	3.0	17.9	4 1	13 2.37	-9 9.8	1.968	2.962	2.3	21.2
4 11	12 53.16	+0 9.8	1.222	2.215	4.8	18.0	4 11	12 54.36	-8 10.8	1.967	2.965	2.0	21.2
4 21	12 43.63	+0 44.5	1.238	2.203	9.8	18.2	4 21	12 46.83	-7 12.2	1.995	2.968	5.9	21.4
5 1	12 35.94	+1 2.2	1.278	2.191	14.6	18.5	5 1	12 40.55	-6 19.5	2.049	2.971	9.5	21.6
5 11	12 30.97	+0 59.9	1.337	2.180	18.7	18.7	5 11	12 36.07	-5 37.5	2.128	2.973	12.6	21.9
121525	1999 <i>UE</i> ₂₉		4 5.5 246°56	0°9/ 4.6 18			504436	2008 <i>AN</i> ₁₁₇		4 5.5 11°87	5°0/ 31.1 17		
3 2	13 20.87	-6 27.9	2.126	2.958	12.3	20.8	3 2	13 16.81	+4 10.0	1.830	2.694	12.5	20.8
3 12	13 16.38	-5 46.3	2.034	2.947	9.2	20.6	3 12	13 13.45	+5 31.0	1.769	2.697	9.3	20.6
3 22	13 10.03	-4 53.7	1.966	2.935	5.6	20.4	3 22	13 8.23	+6 54.7	1.733	2.701	6.3	20.4
4 1	13 2.39	-3 54.2	1.926	2.923	1.7	20.1	4 1	13 1.80	+8 13.3	1.724	2.705	5.0	20.4
4 11	12 54.27	-2 53.4	1.915	2.910	2.8	20.1	4 11	12 55.06	+9 18.9	1.741	2.710	6.8	20.5
4 21	12 46.53	-1 57.3	1.932	2.898	6.7	20.3	4 21	12 48.87	+10 5.6	1.784	2.715	9.8	20.7
5 1	12 39.99	-1 11.2	1.976	2.884	10.4	20.5	5 1	12 44.01	+10 30.4	1.850	2.721	13.0	20.9
5 11	12 35.24	-0 39.0	2.042	2.871	13.7	20.7	5 11	12 41.01	+10 32.8	1.936	2.728	15.7	21.1
284104	2005 <i>RF</i> ₂₁		4 5.5 201°52	0°5/ 6.1 18			499250	2009 <i>UG</i> ₁₅₂		4 5.5 181°95			

EPHEMERIDES

4 5.6

4 5.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
322395	2011 QY ₅₈		4 5.6 286°74	3°2/ 1.9 17			32344	2000 QV ₉₄		4 5.6 75°09	0°5/ 4.9 18		
3 2	13 17.94	- 0 34.7	2.103	2.954	11.7	20.3	3 2	13 18.08	- 8 14.7	2.234	3.064	11.9	19.3
3 12	13 14.19	+ 0 38.7	2.019	2.943	8.6	20.1	3 12	13 14.13	- 7 23.0	2.157	3.068	8.8	19.1
3 22	13 8.67	+ 1 59.8	1.961	2.932	5.4	19.8	3 22	13 8.56	- 6 19.9	2.105	3.073	5.3	18.9
4 1	13 1.96	+ 3 22.4	1.930	2.921	3.2	19.7	4 1	13 1.94	- 5 9.6	2.081	3.078	1.6	18.6
4 11	12 54.84	+ 4 39.1	1.928	2.910	4.9	19.8	4 11	12 55.02	- 3 58.0	2.086	3.083	2.4	18.7
4 21	12 48.11	+ 5 43.6	1.954	2.899	8.2	19.9	4 21	12 48.56	- 2 50.9	2.119	3.087	6.1	19.0
5 1	12 42.54	+ 6 31.1	2.005	2.889	11.5	20.1	5 1	12 43.22	- 1 53.6	2.180	3.092	9.4	19.2
5 11	12 38.68	+ 6 59.3	2.077	2.878	14.4	20.3	5 11	12 39.51	- 1 9.8	2.263	3.097	12.4	19.4
36504	2000 QE ₆₁		4 5.6 245°85	3°8/31.9 18			30451	2000 NX ₂₃		4 5.6 251°97	3°9/31.8 18		
3 2	13 21.46	+ 5 45.5	2.697	3.538	9.7	19.9	3 2	13 19.33	+ 3 55.9	2.374	3.223	10.6	19.2
3 12	13 16.44	+ 6 30.2	2.607	3.522	7.3	19.7	3 12	13 15.03	+ 4 59.0	2.293	3.213	7.9	19.0
3 22	13 9.91	+ 7 15.7	2.543	3.505	5.0	19.6	3 22	13 9.12	+ 6 4.9	2.237	3.202	5.3	18.8
4 1	13 2.35	+ 7 57.3	2.508	3.488	3.8	19.5	4 1	13 2.13	+ 7 8.1	2.209	3.192	3.9	18.7
4 11	12 54.42	+ 8 30.5	2.503	3.471	5.1	19.5	4 11	12 54.78	+ 8 2.5	2.210	3.181	5.4	18.8
4 21	12 46.79	+ 8 51.6	2.526	3.453	7.6	19.6	4 21	12 47.79	+ 8 43.5	2.239	3.170	8.2	18.9
5 1	12 40.12	+ 8 58.5	2.576	3.434	10.2	19.8	5 1	12 41.85	+ 9 8.0	2.293	3.158	11.0	19.1
5 11	12 34.90	+ 8 50.3	2.647	3.416	12.5	19.9	5 11	12 37.48	+ 9 14.8	2.369	3.147	13.5	19.2
135206	2001 RF ₆₁		4 5.6 176°59	2°1/ 3.2 17			160221	2002 FL ₃₂		4 5.6 159°71	2°0/ 3.8 18		
3 2	13 20.92	- 0 59.8	2.539	3.375	10.4	20.4	3 2	13 27.54	- 2 33.3	1.973	2.806	13.1	20.2
3 12	13 16.03	- 0 23.6	2.461	3.377	7.7	20.2	3 12	13 21.30	- 1 59.6	1.901	2.814	9.7	20.0
3 22	13 9.63	+ 0 17.3	2.409	3.378	4.7	20.1	3 22	13 13.00	- 1 18.8	1.853	2.821	5.9	19.8
4 1	13 2.25	+ 0 58.9	2.385	3.378	2.2	19.9	4 1	13 3.36	- 0 35.7	1.833	2.828	2.3	19.5
4 11	12 54.58	+ 1 36.7	2.391	3.379	3.4	20.0	4 11	12 53.36	+ 0 4.0	1.842	2.833	3.7	19.6
4 21	12 47.31	+ 2 6.8	2.426	3.379	6.4	20.2	4 21	12 43.97	+ 0 35.3	1.880	2.838	7.5	19.9
5 1	12 41.07	+ 2 26.2	2.488	3.379	9.3	20.3	5 1	12 36.07	+ 0 54.3	1.945	2.842	11.2	20.1
5 11	12 36.34	+ 2 33.1	2.573	3.378	11.9	20.5	5 11	12 30.25	+ 0 58.9	2.032	2.845	14.3	20.3
107323	2001 CH ₁₄		4 5.6 167°57	1°3/ 4.3 18			115133	2003 SN ₅₃		4 5.6 169°87	3°3/ 2.4 18		
3 2	13 24.77	- 5 7.5	1.986	2.818	13.1	20.2	3 2	13 26.12	+ 1 15.4	2.039	2.879	12.5	20.3
3 12	13 19.27	- 4 24.8	1.910	2.823	9.7	20.0	3 12	13 20.20	+ 2 4.3	1.967	2.884	9.2	20.1
3 22	13 11.77	- 3 32.4	1.859	2.828	5.8	19.8	3 22	13 12.31	+ 2 57.5	1.920	2.888	5.8	19.9
4 1	13 2.95	- 2 34.8	1.835	2.831	2.0	19.5	4 1	13 3.14	+ 3 49.2	1.902	2.891	3.4	19.7
4 11	12 53.75	- 1 38.3	1.840	2.834	3.2	19.6	4 11	12 53.62	+ 4 33.3	1.912	2.894	4.9	19.8
4 21	12 45.12	- 0 48.8	1.874	2.836	7.2	19.9	4 21	12 44.67	+ 5 4.8	1.951	2.895	8.3	20.0
5 1	12 37.88	- 0 11.1	1.934	2.838	10.9	20.1	5 1	12 37.12	+ 5 20.7	2.015	2.896	11.6	20.2
5 11	12 32.65	+ 0 11.7	2.017	2.839	14.1	20.3	5 11	12 31.55	+ 5 19.7	2.102	2.897	14.5	20.4
503645	2016 GO ₁₈₉		4 5.6 119°19	5°4/31.2 17			190370	1999 RZ ₇₈		4 5.6 10°72	6°6/ 9.8 17		
3 2	13 21.78	+ 5 27.7	1.824	2.681	12.9	20.9	3 2	13 27.91	- 20 14.0	1.631	2.418	17.5	19.1
3 12	13 17.14	+ 6 44.2	1.763	2.686	9.7	20.7	3 12	13 22.42	- 21 28.3	1.552	2.419	14.4	18.9
3 22	13 10.49	+ 8 2.3	1.727	2.691	6.7	20.5	3 22	13 14.15	- 22 24.4	1.492	2.421	10.9	18.7
4 1	13 2.54	+ 9 13.7	1.718	2.696	5.4	20.5	4 1	13 3.84	- 22 58.8	1.457	2.423	7.8	18.5
4 11	12 54.26	+ 10 10.9	1.735	2.701	7.1	20.6	4 11	12 52.71	- 23 11.0	1.447	2.426	6.6	18.4
4 21	12 46.61	+ 10 48.4	1.779	2.706	10.2	20.8	4 21	12 42.14	- 23 4.1	1.464	2.429	8.4	18.5
5 1	12 40.41	+ 11 3.7	1.846	2.710	13.3	21.0	5 1	12 33.39	- 22 44.4	1.505	2.433	11.7	18.7
5 11	12 36.24	+ 10 56.8	1.934	2.714	16.1	21.2	5 11	12 27.34	- 22 19.8	1.568	2.438	15.1	18.9
372429	2009 SY ₃₆		4 5.6 52°94	1°3/ 6.9 17			299867	2006 SN ₂₈₂		4 5.6 192°96	2°5/ 2.2 17		
3 2	13 19.71	- 13 45.2	1.754	2.575	15.0	20.9	3 2	13 18.78	- 0 15.0	2.743	3.582	9.7	21.8
3 12	13 15.81	- 13 1.6	1.675	2.577	11.5	20.7	3 12	13 14.38	+ 0 46.6	2.663	3.580	7.1	21.6
3 22	13 9.79	- 11 58.5	1.619	2.579	7.4	20.4	3 22	13 8.61	+ 1 53.1	2.609	3.578	4.4	21.4
4 1	13 2.35	- 10 39.9	1.588	2.581	3.1	20.2	4 1	13 1.95	+ 2 59.9	2.585	3.575	2.5	21.3
4 11	12 54.47	- 9 12.5	1.585	2.584	2.3	20.1	4 11	12 55.02	+ 4 2.0	2.591	3.572	3.8	21.4
4 21	12 47.16	- 7 44.8	1.609	2.586	6.7	20.4	4 21	12 48.43	+ 4 54.9	2.626	3.569	6.5	21.6
5 1	12 41.34	- 6 25.0	1.660	2.588	10.8	20.6	5 1	12 42.76	+ 5 35.4	2.687	3.565	9.2	21.7
5 11	12 37.61	- 5 19.6	1.732	2.591	14.4	20.9	5 11	12 38.44	+ 6 1.4	2.772	3.561	11.5	21.9
95282	2002 CX ₇₉		4 5.6 230°98	2°3/ 3.2 18			374967	2007 DL ₂₅		4 5.6 230°40	0°2/ 5.4 17		
3 2	13 21.53	- 2 15.0	2.034	2.877	12.4	20.4	3 2	13 22.03	- 8 23.3	2.071	2.897	12.8	21.7
3 12	13 16.91	- 1 26.1	1.951	2.870	9.2	20.2	3 12	13 17.32	- 7 48.2	1.980	2.888	9.7	21.5
3 22	13 10.37	- 0 29.2	1.893	2.863	5.6	19.9	3 22	13 10.67	- 7 0.7	1.912	2.879	5.9	21.3
4 1	13 2.53	+ 0 30.4	1.862	2.856	2.5	19.7	4 1	13 2.67	- 6 4.3	1.872	2.869	1.9	21.0
4 11	12 54.25	+ 1 26.3	1.860	2.849	4.0	19.8	4 11	12 54.18	- 5 4.7	1.861	2.859	2.4	21.0
4 21	12 46.42	+ 2 12.8	1.885	2.841	7.7	20.0	4 21	12 46.09	- 4 7.7	1.879	2.848	6.6	21.2
5 1	12 39.86	+ 2 45.4	1.937	2.833	11.3	20.2	5 1	12 39.26	- 3 19.1	1.923	2.837	10.4	21.4
5 11	12 35.17	+ 3 1.5	2.010	2.825	14.4	20.4	5 11	12 34.31	- 2 43.3	1.990	2.826	13.7	21.6
244666	2003 JT ₁		4 5.6 259°19	11°0/31.3 18			415573	2014 QQ ₂₆₇		4 5.6 195°61	1°3/ 6.8 17		
3 2	13 35.94	+ 13 24.2	1.031	1.895	19.9	20.2	3 2	13 24.29	- 13 2.4	1.913	2.724	14.3	22.1
3 12	13 29.53	+ 14 20.4	0.966	1.885	16.1	19.9	3 12	13 19.15	- 12 32.0	1.826	2.722	11.0	21.9
3 22	13 18.99	+ 15 7.3	0.920	1.874	12.5	19.6	3 22	13 11.84	- 11 44.6	1.761	2.719	7.1	21.6
4 1	13 5.43	+ 15 30.4	0.895	1.864	11.0	19.5	4 1	13 3.05	- 10 43.0	1.723	2.716	3.0	21.4
4 11	12 50.80	+ 15 17.9	0.894	1.852	13.0	19.6	4 11	12 53.74	- 9 32.7	1.713	2.711	2.3	21.3
4 21	12 37.29	+ 14 25.4	0.913	1.841	17.1	19.7	4 21	12 44.94	- 8 20.8	1.732	2.706	6.5	21.6
5 1	12 26.72	+ 12 56.0	0.952	1.829	21.7	20.0	5 1	12 37.58	- 7 14.4	1.778	2.701	10.6	21.8
5 11	12 20.13	+ 10 57.6	1.006	1.817	25.7	20.2	5 11	12 32.33	- 6 19.7	1.846	2.694	14.1	22.0
512986	2017 UY ₂₈		4 5.6 139°77	0°5/ 4.9 17			508706	2017 UH ₂₂		4 5.6 276°86	2°3/ 3.3 17		
3 2	13 19.04	- 7 27.2	2.741</										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
177904	2005 SV ₅		4 5.6 238°90	0°3/ 5.9 18			507459	2012 TW ₁₄₆		4 5.6 161°13	1°2/ 7.0 17		
3 2	13 19.05	- 9 51.0	2.745	3.558	10.4	20.9	3 2	13 20.03	-13 20.1	2.542	3.344	11.5	22.6
3 12	13 14.69	- 9 21.1	2.646	3.547	7.9	20.7	3 12	13 15.44	-12 46.7	2.458	3.349	8.8	22.4
3 22	13 8.87	- 8 41.1	2.572	3.535	4.9	20.5	3 22	13 9.32	-12 0.2	2.398	3.354	5.7	22.2
4 1	13 2.08	- 7 53.4	2.527	3.522	1.7	20.3	4 1	13 2.22	-11 3.2	2.366	3.358	2.4	22.0
4 11	12 54.93	- 7 1.8	2.511	3.509	1.7	20.2	4 11	12 54.82	-10 0.2	2.363	3.361	1.8	21.9
4 21	12 48.06	- 6 10.7	2.525	3.496	5.0	20.5	4 21	12 47.83	- 8 55.9	2.391	3.365	5.0	22.1
5 1	12 42.09	- 5 24.4	2.568	3.483	8.1	20.6	5 1	12 41.87	- 7 55.8	2.446	3.368	8.1	22.3
5 11	12 37.50	- 4 46.4	2.635	3.469	10.8	20.8	5 11	12 37.45	- 7 4.0	2.526	3.370	10.9	22.5
423692	2006 AL ₁₆		4 5.6 28°95	18°0/23.6 15			338887	2004 BU ₁₄₄		4 5.6 73°88	2°0/ 7.6 17		
3 2	13 35.66	-47 55.1	1.695	2.287	23.3	20.5	3 2	13 21.06	-14 3.6	2.137	2.943	13.2	21.5
3 12	13 29.94	-50 45.7	1.634	2.298	22.0	20.4	3 12	13 16.53	-13 56.8	2.052	2.944	10.2	21.3
3 22	13 19.82	-53 4.0	1.586	2.310	20.6	20.3	3 22	13 10.15	-13 35.5	1.991	2.945	6.8	21.1
4 1	13 5.94	-54 39.0	1.554	2.323	19.3	20.3	4 1	13 2.51	-13 1.6	1.957	2.946	3.3	20.8
4 11	12 50.10	-55 23.6	1.539	2.337	18.4	20.2	4 11	12 54.46	-12 18.8	1.950	2.947	2.4	20.8
4 21	12 34.72	-55 17.2	1.541	2.351	18.0	20.2	4 21	12 46.86	-11 32.1	1.972	2.948	5.7	21.0
5 1	12 22.21	-54 26.9	1.561	2.366	18.1	20.3	5 1	12 40.50	-10 47.0	2.020	2.949	9.2	21.2
5 11	12 14.13	-53 5.7	1.596	2.382	18.7	20.4	5 11	12 35.96	-10 8.6	2.093	2.950	12.3	21.4
168568	1999 XP ₁₁₉		4 5.6 86°07	3°2/ 3.2 18			13839	1999 XF ₂₉		4 5.6 34°41	4°5/ 1.9 18		
3 2	13 28.20	+ 0 37.6	1.597	2.444	14.9	19.6	3 2	13 22.97	+ 1 49.5	1.521	2.382	14.8	16.9
3 12	13 22.01	+ 1 7.1	1.544	2.464	11.0	19.4	3 12	13 18.45	+ 2 49.7	1.456	2.383	11.0	16.7
3 22	13 13.48	+ 1 40.7	1.514	2.484	6.8	19.2	3 22	13 11.51	+ 3 55.3	1.414	2.385	7.0	16.5
4 1	13 3.53	+ 2 12.5	1.511	2.504	3.4	19.0	4 1	13 2.96	+ 4 58.2	1.398	2.386	4.5	16.3
4 11	12 53.33	+ 2 36.3	1.535	2.523	5.0	19.2	4 11	12 53.96	+ 5 50.0	1.407	2.388	6.4	16.4
4 21	12 44.03	+ 2 47.5	1.586	2.542	8.9	19.4	4 21	12 45.67	+ 6 23.9	1.442	2.390	10.3	16.6
5 1	12 36.59	+ 2 43.4	1.662	2.560	12.7	19.7	5 1	12 39.10	+ 6 36.2	1.500	2.392	14.2	16.9
5 11	12 31.57	+ 2 23.5	1.759	2.579	15.9	19.9	5 11	12 34.93	+ 6 26.4	1.578	2.394	17.6	17.1
430211	2013 UX ₄		4 5.6 196°03	1°6/ 3.8 17			101925	1999 RK ₁₈		4 5.6 290°59	2°5/ 7.0 17		
3 2	13 22.51	- 3 33.3	2.401	3.231	11.1	22.6	3 2	13 27.86	-11 24.0	1.527	2.352	16.7	19.5
3 12	13 17.35	- 2 50.8	2.316	3.229	8.2	22.4	3 12	13 22.74	-11 55.5	1.425	2.327	13.1	19.2
3 22	13 10.54	- 2 1.0	2.256	3.225	5.0	22.2	3 22	13 14.62	-12 13.9	1.343	2.302	8.8	18.8
4 1	13 2.61	- 1 7.9	2.226	3.221	1.9	22.0	4 1	13 4.12	-12 18.9	1.286	2.278	4.2	18.5
4 11	12 54.32	+ 0 16.6	2.225	3.216	3.1	22.1	4 11	12 52.42	-12 12.7	1.255	2.253	3.4	18.4
4 21	12 46.44	+ 0 28.0	2.253	3.211	6.5	22.3	4 21	12 40.97	-11 59.5	1.251	2.228	8.1	18.6
5 1	12 39.66	+ 1 2.0	2.309	3.205	9.7	22.5	5 1	12 31.21	-11 45.4	1.271	2.203	13.2	18.8
5 11	12 34.51	+ 1 22.8	2.387	3.198	12.5	22.7	5 11	12 24.23	-11 37.1	1.313	2.178	17.7	19.0
272965	2006 CW ₅₇		4 5.6 128°48	0°6/ 6.1 17			210474	1995 ST ₅₈		4 5.6 94°49	0°8/ 6.5 17 R		
3 2	13 22.72	- 9 56.8	1.958	2.781	13.6	21.6	3 2	13 20.27	-10 53.6	2.261	3.078	12.2	20.8
3 12	13 17.83	- 9 37.3	1.881	2.786	10.3	21.4	3 12	13 15.79	-10 35.0	2.181	3.082	9.3	20.7
3 22	13 10.95	- 9 4.9	1.827	2.791	6.4	21.1	3 22	13 9.62	-10 4.6	2.124	3.085	5.9	20.4
4 1	13 2.76	- 8 22.8	1.801	2.796	2.3	20.9	4 1	13 2.34	- 9 24.9	2.095	3.089	2.3	20.2
4 11	12 54.17	- 7 35.9	1.802	2.801	2.2	20.9	4 11	12 54.71	- 8 40.1	2.094	3.092	1.9	20.2
4 21	12 46.12	- 6 49.8	1.832	2.805	6.3	21.1	4 21	12 47.52	- 7 55.1	2.122	3.096	5.5	20.4
5 1	12 39.45	- 6 10.2	1.888	2.810	10.1	21.4	5 1	12 41.49	- 7 14.7	2.176	3.099	8.9	20.6
5 11	12 34.77	- 5 41.2	1.967	2.814	13.4	21.6	5 11	12 37.14	- 6 42.9	2.255	3.102	11.9	20.8
329387	2001 XS ₁₅₀		4 5.6 120°19	6°8/29.4 18			348243	2004 SL ₅₀		4 5.6 126°96	0°8/ 4.8 18		
3 2	13 25.42	+13 11.1	2.151	2.994	11.8	21.3	3 2	13 25.68	- 7 16.7	1.745	2.577	14.6	21.8
3 12	13 19.46	+14 21.9	2.106	3.012	9.3	21.1	3 12	13 20.11	- 6 31.0	1.680	2.592	10.8	21.6
3 22	13 11.73	+15 26.4	2.087	3.030	7.3	21.0	3 22	13 12.35	- 5 32.6	1.639	2.607	6.5	21.4
4 1	13 2.95	+16 17.6	2.095	3.047	6.9	21.0	4 1	13 3.21	- 4 26.8	1.624	2.621	2.0	21.1
4 11	12 54.00	+16 50.1	2.130	3.063	8.2	21.1	4 11	12 53.74	- 3 20.7	1.638	2.634	3.0	21.2
4 21	12 45.75	+17 1.1	2.192	3.079	10.4	21.3	4 21	12 45.00	- 2 21.4	1.680	2.647	7.4	21.5
5 1	12 38.89	+16 50.3	2.277	3.094	12.7	21.5	5 1	12 37.91	- 1 34.7	1.748	2.659	11.4	21.7
5 11	12 33.92	+16 19.7	2.382	3.109	14.8	21.7	5 11	12 33.03	- 1 4.1	1.838	2.671	14.8	22.0
390820	2004 LQ ₂₃		4 5.6 257°30	3°7/ 1.6 18			374530	2006 AV ₅₇		4 5.6 110°40	7°2/12.7 17		
3 2	13 25.60	+ 6 39.7	2.787	3.619	9.7	21.1	3 2	13 23.92	-27 46.2	1.998	2.736	16.3	20.8
3 12	13 19.50	+ 7 0.1	2.690	3.600	7.4	20.9	3 12	13 19.03	-28 19.7	1.914	2.741	13.8	20.6
3 22	13 11.81	+ 7 19.4	2.620	3.580	5.0	20.7	3 22	13 11.86	-28 30.1	1.850	2.746	11.1	20.4
4 1	13 3.03	+ 7 34.0	2.579	3.559	3.7	20.6	4 1	13 3.11	-28 15.0	1.809	2.751	8.6	20.3
4 11	12 53.83	+ 7 39.9	2.568	3.538	4.8	20.6	4 11	12 53.80	-27 35.7	1.793	2.756	7.2	20.2
4 21	12 44.94	+ 7 34.8	2.587	3.517	7.3	20.7	4 21	12 45.01	-26 36.5	1.804	2.761	7.9	20.2
5 1	12 37.01	+ 7 17.0	2.634	3.496	9.9	20.9	5 1	12 37.76	-25 25.0	1.840	2.765	10.2	20.4
5 11	12 30.59	+ 6 46.3	2.704	3.474	12.3	21.0	5 11	12 32.73	-24 9.8	1.900	2.770	12.9	20.6
431785	2008 OZ ₉		4 5.6 169°22	16°3/18.9 18			326334	2000 QK ₇		4 5.6 255°55	3°3/ 1.7 18		
3 2	13 25.00	+22 10.1	1.119	1.985	18.6	20.5	3 2	13 21.09	- 0 27.8	2.172	3.016	11.7	21.6
3 12	13 20.87	+26 3.8	1.092	1.988	16.7	20.4	3 12	13 16.62	+ 0 53.4	2.074	2.994	8.7	21.4
3 22	13 13.37	+29 36.0	1.086	1.991	16.4	20.4	3 22	13 10.27	+ 2 23.6	2.002	2.971	5.4	21.1
4 1	13 3.60	+32 24.7	1.103	1.992	17.7	20.4	4 1	13 2.60	+ 3 56.6	1.958	2.948	3.3	20.9
4 11	12 53.23	+34 15.7	1.140	1.994	20.0	20.6	4 11	12 54.38	+ 5 24.5	1.944	2.924	5.1	21.0
4 21	12 43.98	+35 6.0	1.193	1.994	22.7	20.8	4 21	12 46.47	+ 6 40.4	1.959	2.899	8.5	21.2
5 1	12 37.25	+35 0.5	1.260	1.994	25.1	21.0	5 1	12 39.68	+ 7 38.8	1.999	2.874	12.0	21.3
5 11	12 33.77	+34 9.4	1.336	1.994	27.1	21.1	5 11	12 34.65	+ 8 16.7	2.061	2.848	15.0	21.5
241973	2002 GV ₁₆₃		4 5.6 292°85	2°6/ 3.6 17			381414	2008 JK ₃₇		4 5.6 287°35	2°9/ 3.1 17		
3 2	13 22.51	- 3 3.2	1.458	2.314	1								

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
471461	2011 UZ ₂₁₃		4 5.6 224°45	2°2/ 8.8 18			262782	2006 YF ₁₈		4 5.6 166°73	2°1/ 3.5 16		
3 2	13 18.85	-18 9.8	2.954	3.729	10.7	21.9	3 2	13 23.64	-2 35.3	2.154	2.989	12.1	21.6
3 12	13 14.49	-17 38.5	2.848	3.719	8.5	21.7	3 12	13 18.33	-1 47.8	2.079	2.994	8.9	21.4
3 22	13 8.75	-16 52.7	2.767	3.707	5.9	21.5	3 22	13 11.20	-0 53.1	2.029	2.998	5.4	21.2
4 1	13 2.07	-15 54.0	2.714	3.696	3.3	21.3	4 1	13 2.89	+0 3.8	2.008	3.002	2.3	21.0
4 11	12 55.05	-14 45.5	2.690	3.684	2.3	21.2	4 11	12 54.24	+0 57.2	2.016	3.005	3.7	21.1
4 21	12 48.32	-13 31.7	2.697	3.671	4.5	21.4	4 21	12 46.10	+1 41.7	2.052	3.008	7.2	21.3
5 1	12 42.46	-12 17.8	2.733	3.658	7.2	21.5	5 1	12 39.23	+2 13.4	2.115	3.009	10.5	21.5
5 11	12 37.93	-11 8.6	2.795	3.645	9.8	21.7	5 11	12 34.18	+2 30.1	2.201	3.011	13.5	21.7
146162	2000 SS ₁₈₈		4 5.6 169°58	0°1/ 5.4 18			417961	2007 TS ₁₀₄		4 5.6 246°00	0°7/ 6.3 15		
3 2	13 22.07	-6 43.0	2.649	3.468	10.6	20.3	3 2	13 22.48	-12 16.5	1.762	2.584	14.9	22.2
3 12	13 16.89	-6 33.3	2.565	3.470	7.9	20.1	3 12	13 18.10	-11 30.2	1.666	2.570	11.5	22.0
3 22	13 10.20	-6 16.5	2.507	3.472	4.8	19.9	3 22	13 11.40	-10 24.4	1.592	2.555	7.3	21.7
4 1	13 2.53	-5 54.8	2.477	3.473	1.5	19.7	4 1	13 3.04	-9 2.6	1.545	2.540	2.7	21.4
4 11	12 54.54	-5 31.6	2.477	3.474	1.9	19.7	4 11	12 54.00	-7 31.5	1.525	2.524	2.4	21.3
4 21	12 46.93	-5 10.1	2.507	3.475	5.2	19.9	4 21	12 45.40	-6 0.0	1.534	2.508	7.2	21.6
5 1	12 40.32	-4 53.7	2.565	3.476	8.2	20.1	5 1	12 38.25	-4 36.9	1.568	2.491	11.7	21.8
5 11	12 35.21	-4 44.8	2.647	3.477	10.9	20.3	5 11	12 33.33	-3 29.4	1.625	2.474	15.7	22.0
93623	2000 UC ₇₃		4 5.6 214°29	1°9/ 7.8 18			87981	2000 TS ₅₅		4 5.6 196°21	5°3/30.6 18 R		
3 2	13 20.59	-16 7.4	2.278	3.074	12.8	20.2	3 2	13 24.48	+9 52.6	2.429	3.270	10.7	20.5
3 12	13 16.14	-15 25.8	2.182	3.067	10.0	20.0	3 12	13 18.80	+10 48.8	2.357	3.267	8.3	20.3
3 22	13 9.90	-14 26.6	2.109	3.060	6.7	19.8	3 22	13 11.43	+11 42.6	2.311	3.263	6.1	20.2
4 1	13 2.47	-13 12.2	2.064	3.053	3.3	19.5	4 1	13 2.96	+12 28.2	2.293	3.259	5.4	20.1
4 11	12 54.62	-11 47.6	2.048	3.045	2.3	19.4	4 11	12 54.17	+13 0.3	2.304	3.254	6.7	20.2
4 21	12 47.16	-10 19.3	2.061	3.037	5.5	19.6	4 21	12 45.83	+13 15.7	2.342	3.249	9.0	20.3
5 1	12 40.85	-8 54.3	2.103	3.028	9.1	19.8	5 1	12 38.66	+13 12.7	2.406	3.242	11.5	20.5
5 11	12 36.28	-7 38.8	2.169	3.019	12.2	20.0	5 11	12 33.17	+12 52.0	2.491	3.236	13.8	20.6
238440	2004 PV ₃₅		4 5.6 210°15	5°7/29.9 17			21534	1998 OV ₁₂		4 5.6 235°06	2°0/ 3.5 18		
3 2	13 22.78	+3 46.5	1.882	2.735	12.8	20.1	3 2	13 20.52	-3 18.8	2.073	2.915	12.2	18.1
3 12	13 18.02	+5 54.0	1.807	2.728	9.6	19.9	3 12	13 16.15	-2 28.5	1.991	2.910	9.0	17.9
3 22	13 11.17	+8 8.6	1.758	2.721	6.7	19.7	3 22	13 9.95	-1 29.5	1.934	2.905	5.5	17.7
4 1	13 2.89	+10 19.8	1.737	2.712	5.7	19.6	4 1	13 2.52	-0 27.0	1.905	2.900	2.2	17.5
4 11	12 54.12	+12 16.8	1.746	2.703	7.8	19.7	4 11	12 54.67	+0 32.7	1.904	2.895	3.7	17.6
4 21	12 45.83	+13 51.1	1.782	2.693	11.1	19.9	4 21	12 47.27	+1 24.0	1.931	2.889	7.3	17.8
5 1	12 38.93	+14 57.8	1.842	2.682	14.3	20.1	5 1	12 41.09	+2 2.1	1.984	2.884	10.9	18.0
5 11	12 34.08	+15 35.9	1.921	2.671	17.2	20.3	5 11	12 36.72	+2 24.3	2.059	2.878	13.9	18.2
38892	2000 SS ₁₄₈		4 5.6 80°78	0°8/ 5.1 18			341365	2007 TB ₈₇		4 5.6 231°45	1°5/ 3.9 17		
3 2	13 31.44	-2 49.2	1.821	2.650	14.2	18.8	3 2	13 20.60	-3 51.4	2.306	3.142	11.4	21.7
3 12	13 24.46	-3 12.3	1.745	2.655	10.6	18.6	3 12	13 16.06	-3 12.8	2.220	3.135	8.4	21.5
3 22	13 15.11	-3 30.8	1.692	2.659	6.5	18.4	3 22	13 9.83	-2 26.5	2.159	3.129	5.1	21.3
4 1	13 4.14	-3 46.9	1.668	2.664	2.1	18.1	4 1	13 2.47	-1 36.5	2.126	3.122	1.9	21.0
4 11	12 52.68	-4 3.5	1.672	2.669	2.9	18.1	4 11	12 54.73	-0 48.0	2.123	3.115	3.1	21.1
4 21	12 41.88	-4 23.2	1.706	2.673	7.3	18.4	4 21	12 47.37	-0 5.9	2.147	3.108	6.5	21.3
5 1	12 32.76	-4 48.7	1.766	2.678	11.3	18.7	5 1	12 41.11	+0 25.9	2.199	3.101	9.9	21.5
5 11	12 26.01	-5 21.5	1.850	2.683	14.7	18.9	5 11	12 36.50	+0 44.5	2.273	3.093	12.8	21.7
414122	2007 UN ₆₈		4 5.6 245°17	1°7/ 4.1 15			7591	1992 WG ₃		4 5.6 90°66	0°1/ 5.8 18		
3 2	13 25.03	-4 35.3	1.846	2.683	13.7	22.0	3 2	13 24.89	-9 44.4	1.603	2.435	15.7	18.6
3 12	13 19.90	-3 52.0	1.750	2.665	10.3	21.7	3 12	13 19.67	-9 9.3	1.544	2.454	11.8	18.4
3 22	13 12.46	-2 57.3	1.678	2.647	6.3	21.4	3 22	13 12.16	-8 18.9	1.507	2.473	7.3	18.2
4 1	13 3.36	-1 56.1	1.632	2.628	2.2	21.1	4 1	13 3.21	-7 18.0	1.496	2.492	2.4	17.9
4 11	12 53.55	-0 55.0	1.615	2.609	3.7	21.2	4 11	12 53.95	-6 13.7	1.512	2.511	2.6	18.0
4 21	12 44.13	-0 1.2	1.626	2.588	8.1	21.4	4 21	12 45.51	-5 13.6	1.556	2.529	7.3	18.3
5 1	12 36.12	+0 39.5	1.663	2.567	12.3	21.6	5 1	12 38.82	-4 24.1	1.625	2.547	11.5	18.6
5 11	12 30.28	+1 3.2	1.721	2.545	16.0	21.8	5 11	12 34.47	-3 49.8	1.715	2.564	15.0	18.8
33583	Karamchedu		4 5.6 178°50	1°7/ 3.9 18			435965	2009 DK ₅₉		4 5.6 294°26	1°1/ 6.6 17		
3 2	13 23.88	-2 46.7	2.283	3.115	11.6	19.4	3 2	13 22.55	-10 12.8	2.179	2.996	12.6	20.8
3 12	13 18.43	-2 13.5	2.204	3.117	8.6	19.2	3 12	13 17.68	-10 16.4	2.088	2.989	9.6	20.6
3 22	13 11.23	-1 33.9	2.150	3.118	5.2	19.0	3 22	13 10.92	-10 9.2	2.021	2.981	6.2	20.4
4 1	13 2.89	-0 51.9	2.124	3.119	2.0	18.7	4 1	13 2.85	-9 53.2	1.981	2.974	2.5	20.1
4 11	12 54.19	-0 12.4	2.127	3.119	3.2	18.8	4 11	12 54.29	-9 31.3	1.969	2.967	2.1	20.1
4 21	12 45.95	+0 20.1	2.160	3.118	6.7	19.0	4 21	12 46.11	-9 7.8	1.986	2.960	5.8	20.3
5 1	12 38.91	+0 42.1	2.220	3.117	10.0	19.2	5 1	12 39.13	-8 46.9	2.030	2.954	9.4	20.5
5 11	12 33.60	+0 51.3	2.303	3.116	12.8	19.4	5 11	12 33.97	-8 32.7	2.097	2.947	12.6	20.7
160710	2000 QA ₅₂		4 5.6 177°64	0°6/ 6.2 17			293825	2007 RH ₂₀₂		4 5.6 124°67	0°8/ 6.3 18		
3 2	13 25.60	-10 40.9	2.053	2.866	13.4	21.2	3 2	13 26.14	-10 46.8	1.791	2.611	14.8	21.6
3 12	13 19.94	-10 11.4	1.969	2.868	10.2	21.0	3 12	13 20.48	-10 24.0	1.723	2.626	11.2	21.4
3 22	13 12.27	-9 28.1	1.909	2.870	6.4	20.8	3 22	13 12.63	-9 46.5	1.677	2.640	7.1	21.2
4 1	13 3.24	-8 34.2	1.877	2.872	2.3	20.5	4 1	13 3.37	-8 57.8	1.658	2.653	2.6	20.9
4 11	12 53.77	-7 34.8	1.874	2.872	2.2	20.5	4 11	12 53.75	-8 3.5	1.668	2.666	2.3	20.9
4 21	12 44.82	-6 36.2	1.900	2.871	6.3	20.8	4 21	12 44.83	-7 10.2	1.705	2.679	6.7	21.2
5 1	12 37.25	-5 44.1	1.953	2.870	10.1	21.0	5 1	12 37.53	-6 24.1	1.769	2.691	10.7	21.5
5 11	12 31.67	-5 3.4	2.030	2.868	13.4	21.2	5 11	12 32.44	-5 50.0	1.855	2.702	14.1	21.7
170126	2003 AT ₉		4 5.6 113°62	0°4/ 6.0 18			424817	2008 UA ₁₄₁		4 5.6 185°53	2°6/ 2.9 17		
3 2	13 21.03	-9 45.4	2.389	3.205	11.7	20.7	3 2	13 23.78	+0 51.5	2.352	3.189	11.1	21.8
3 12													

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
163944	2003 <i>UE</i> ₁₂		4 5.6 115°08	0°0/ 5.5 17			465111	2006 <i>VF</i> ₆₁		4 5.6 97°69	1°3/ 4.5 18		
3 2	13 21.67	- 8 57.7	2.295	3.114	12.0	21.1	3 2	13 25.16	- 5 0.6	1.779	2.616	14.1	21.9
3 12	13 16.73	- 8 25.3	2.224	3.129	8.9	20.9	3 12	13 19.68	- 4 27.1	1.718	2.634	10.4	21.7
3 22	13 10.16	- 7 42.4	2.179	3.143	5.5	20.7	3 22	13 12.09	- 3 44.2	1.682	2.651	6.3	21.5
4 1	13 2.56	- 6 52.2	2.161	3.157	1.8	20.5	4 1	13 3.20	- 2 56.7	1.672	2.668	2.1	21.3
4 11	12 54.70	- 5 59.7	2.172	3.170	2.0	20.5	4 11	12 54.02	- 2 10.8	1.690	2.685	3.2	21.4
4 21	12 47.35	- 5 9.8	2.213	3.183	5.7	20.8	4 21	12 45.58	- 1 32.3	1.736	2.702	7.4	21.7
5 1	12 41.19	- 4 27.2	2.281	3.196	9.0	21.0	5 1	12 38.72	- 1 5.6	1.808	2.718	11.2	22.0
5 11	12 36.70	- 3 55.2	2.373	3.208	11.8	21.2	5 11	12 34.01	- 0 53.5	1.901	2.733	14.4	22.2
512357	2016 <i>NT</i> ₂₉		4 5.6 259°21	6°4/12.9 17			463487	2013 <i>QE</i> ₂₉		4 5.6 266°61	0°2/ 5.8 17		
3 2	13 22.52	-29 7.1	2.654	3.364	13.3	21.4	3 2	13 22.59	- 9 4.2	1.737	2.569	14.6	21.7
3 12	13 17.68	-29 36.6	2.541	3.347	11.4	21.3	3 12	13 18.11	- 8 41.0	1.653	2.564	11.1	21.4
3 22	13 10.96	-29 47.6	2.449	3.329	9.4	21.1	3 22	13 11.36	- 8 3.8	1.592	2.558	6.9	21.2
4 1	13 2.89	-29 38.1	2.382	3.311	7.5	20.9	4 1	13 3.03	- 7 15.9	1.557	2.553	2.3	20.9
4 11	12 54.22	-29 8.3	2.341	3.293	6.4	20.8	4 11	12 54.14	- 6 23.3	1.549	2.547	2.5	20.9
4 21	12 45.78	-28 21.0	2.327	3.275	7.0	20.8	4 21	12 45.76	- 5 32.6	1.568	2.541	7.2	21.1
5 1	12 38.39	-27 20.8	2.340	3.256	8.7	20.9	5 1	12 38.89	- 4 50.1	1.612	2.535	11.5	21.4
5 11	12 32.73	-26 14.5	2.378	3.237	11.0	21.0	5 11	12 34.21	- 4 20.8	1.678	2.530	15.2	21.6
303882	2005 <i>TZ</i> ₆₀		4 5.6 305°82	2°1/ 7.7 17			376048	2010 <i>DW</i> ₂₇		4 5.6 81°76	8°3/26.8 17		
3 2	13 21.63	-13 34.9	2.270	3.074	12.6	20.9	3 2	13 21.54	+18 1.6	2.161	3.005	11.7	20.4
3 12	13 16.96	-13 43.0	2.178	3.068	9.8	20.7	3 12	13 16.77	+19 22.6	2.114	3.011	9.7	20.3
3 22	13 10.46	-13 38.6	2.109	3.062	6.6	20.4	3 22	13 10.23	+20 34.2	2.091	3.016	8.5	20.2
4 1	13 2.70	-13 22.8	2.067	3.056	3.3	20.2	4 1	13 2.60	+21 29.2	2.094	3.021	8.5	20.2
4 11	12 54.48	-12 58.4	2.054	3.050	2.5	20.2	4 11	12 54.72	+22 1.7	2.123	3.027	9.8	20.3
4 21	12 46.62	-12 29.2	2.069	3.044	5.5	20.3	4 21	12 47.42	+22 9.3	2.175	3.032	11.7	20.4
5 1	12 39.91	-12 0.0	2.111	3.039	8.9	20.5	5 1	12 41.44	+21 52.1	2.250	3.037	13.8	20.6
5 11	12 34.94	-11 35.3	2.177	3.033	12.0	20.7	5 11	12 37.25	+21 12.5	2.343	3.043	15.7	20.7
463404	2013 <i>HU</i> ₁₁		4 5.6 260°77	4°9/ 8.1 18			305695	2009 <i>BT</i> ₁₄₆		4 5.6 59°65	0°5/ 5.2 18		
3 2	13 35.56	-15 53.4	1.786	2.570	16.3	20.2	3 2	13 22.12	- 8 49.5	1.373	2.221	16.9	20.8
3 12	13 28.38	-17 2.2	1.677	2.550	13.2	19.9	3 12	13 18.03	- 8 1.1	1.311	2.231	12.6	20.6
3 22	13 18.10	-17 59.3	1.589	2.528	9.5	19.6	3 22	13 11.37	- 6 55.2	1.270	2.241	7.7	20.3
4 1	13 5.34	-18 41.3	1.529	2.507	6.0	19.4	4 1	13 3.02	- 5 37.9	1.254	2.251	2.4	20.0
4 11	12 51.26	-19 6.8	1.497	2.484	5.1	19.3	4 11	12 54.23	- 4 18.5	1.264	2.261	3.2	20.1
4 21	12 37.31	-19 17.2	1.494	2.461	8.1	19.4	4 21	12 46.26	- 3 6.3	1.299	2.272	8.4	20.4
5 1	12 24.97	-19 17.1	1.518	2.437	12.3	19.6	5 1	12 40.18	- 2 9.5	1.358	2.283	13.1	20.7
5 11	12 15.36	-19 13.1	1.565	2.413	16.2	19.8	5 11	12 36.64	- 1 32.6	1.438	2.294	17.0	21.0
502616	2015 <i>CW</i> ₂₁		4 5.6 243°81	5°1/10.3 18			299577	2006 <i>FK</i> ₈		4 5.6 112°05	0°0/ 5.3 18		
3 2	13 26.27	-22 24.2	2.287	3.041	14.0	21.7	3 2	13 23.01	-10 25.3	1.550	2.385	16.0	20.6
3 12	13 20.69	-22 50.1	2.175	3.023	11.6	21.5	3 12	13 18.47	- 9 30.5	1.483	2.395	12.0	20.4
3 22	13 12.93	-22 58.6	2.086	3.004	8.9	21.1	3 22	13 11.54	- 8 17.5	1.437	2.405	7.4	20.1
4 1	13 3.56	-22 48.2	2.022	2.985	6.3	21.1	4 1	13 3.07	- 6 52.0	1.418	2.414	2.4	19.8
4 11	12 53.44	-22 19.6	1.986	2.965	5.1	21.0	4 11	12 54.18	- 5 22.5	1.425	2.423	2.8	19.9
4 21	12 43.57	-21 36.3	1.979	2.944	6.6	21.0	4 21	12 46.04	- 3 58.5	1.460	2.432	7.7	20.2
5 1	12 34.91	-20 44.0	1.999	2.923	9.5	21.2	5 1	12 39.62	- 2 48.1	1.520	2.441	12.1	20.5
5 11	12 28.21	-19 49.6	2.043	2.901	12.6	21.3	5 11	12 35.58	- 1 56.5	1.601	2.450	15.9	20.7
353892	2012 <i>XA</i> ₃₅		4 5.6 235°97	7°1/28.2 17			521239	2015 <i>HO</i> ₁₈₉		4 5.6 70°91	1°4/ 6.9 17		
3 2	13 22.89	+16 23.5	2.424	3.263	10.8	20.5	3 2	13 22.93	-11 16.3	2.263	3.074	12.4	21.2
3 12	13 17.66	+17 23.2	2.359	3.257	8.8	20.3	3 12	13 17.84	-11 22.7	2.180	3.076	9.5	21.0
3 22	13 10.75	+18 15.8	2.318	3.250	7.4	20.2	3 22	13 10.96	-11 18.2	2.121	3.079	6.2	20.8
4 1	13 2.77	+18 55.2	2.305	3.243	7.2	20.2	4 1	13 2.87	-11 4.3	2.090	3.082	2.7	20.5
4 11	12 54.47	+19 16.3	2.318	3.236	8.4	20.3	4 11	12 54.39	-10 44.0	2.087	3.085	2.1	20.5
4 21	12 46.64	+19 16.6	2.357	3.229	10.4	20.4	4 21	12 46.33	-10 21.3	2.113	3.087	5.5	20.7
5 1	12 39.98	+18 55.5	2.420	3.222	12.6	20.5	5 1	12 39.48	-10 0.2	2.166	3.090	8.9	20.9
5 11	12 35.00	+18 14.8	2.502	3.214	14.5	20.6	5 11	12 34.38	- 9 44.6	2.243	3.093	11.9	21.1
81960	2000 <i>QZ</i> ₂₈		4 5.6 228°64	1°6/ 3.6 18			510075	2010 <i>JN</i> ₁₃₂		4 5.6 323°99	7°8/27.6 17		
3 2	13 19.36	- 3 16.0	2.659	3.492	10.1	19.9	3 2	13 21.87	+17 33.1	2.241	3.084	11.4	20.4
3 12	13 14.95	- 2 31.4	2.569	3.483	7.5	19.7	3 12	13 17.01	+18 36.8	2.182	3.080	9.4	20.3
3 22	13 9.08	- 1 40.0	2.505	3.474	4.5	19.5	3 22	13 10.41	+19 32.1	2.147	3.076	8.1	20.2
4 1	13 2.24	- 0 45.7	2.469	3.464	1.8	19.3	4 1	13 2.68	+20 12.2	2.139	3.072	8.0	20.1
4 11	12 55.06	+ 0 6.8	2.464	3.454	3.0	19.4	4 11	12 54.65	+20 31.8	2.156	3.068	9.2	20.2
4 21	12 48.19	+ 0 53.2	2.487	3.444	6.0	19.5	4 21	12 47.14	+20 28.4	2.198	3.065	11.2	20.3
5 1	12 42.26	+ 1 29.6	2.538	3.433	9.0	19.7	5 1	12 40.89	+20 1.8	2.262	3.062	13.4	20.5
5 11	12 37.73	+ 1 53.8	2.612	3.422	11.6	19.9	5 11	12 36.40	+19 14.2	2.346	3.058	15.4	20.6
95045	2002 <i>AM</i> ₃₆		4 5.6 151°44	1°7/ 4.0 18			33311	1998 <i>KX</i> ₅₄		4 5.6 359°95	10°9/22.1 18		
3 2	13 24.87	- 5 30.2	1.843	2.677	13.8	20.2	3 2	13 21.19	+26 42.3	2.121	2.947	12.6	18.0
3 12	13 19.48	- 4 28.9	1.773	2.687	10.2	19.9	3 12	13 16.68	+28 18.3	2.082	2.946	11.4	17.9
3 22	13 12.01	- 3 16.2	1.727	2.696	6.1	19.7	3 22	13 10.25	+29 38.3	2.066	2.946	10.9	17.9
4 1	13 3.18	- 1 57.8	1.709	2.705	2.2	19.5	4 1	13 2.62	+30 34.3	2.074	2.946	11.3	17.9
4 11	12 54.00	- 0 41.6	1.719	2.712	3.6	19.6	4 11	12 54.72	+31 0.8	2.105	2.946	12.6	18.0
4 21	12 45.46	+ 0 25.4	1.758	2.719	7.7	19.8	4 21	12 47.44	+30 56.5	2.157	2.946	14.2	18.1
5 1	12 38.43	+ 1 17.5	1.823	2.725	11.6	20.1	5 1	12 41.57	+30 22.6	2.227	2.947	15.8	18.2
5 11	12 33.51	+ 1 51.5	1.910	2.730	14.8	20.3	5 11	12 37.63	+29 23.1	2.313	2.948	17.3	18.4
370080	2001 <i>SD</i> ₁₃₁		4 5.6 211°67	1°3/ 6.9 17			406868	2009 <i>BR</i> ₁₆₉		4 5.6 159°07	2°		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
123466	2000 WZ ₁₄₅		4 5.6 179°77	5°3/30.7	17		364599	2007 RT ₁₉₅		4 5.6 50°34	0°6/ 6.1	16	
3 2	13 22.59	+ 7 45.6	2.218	3.066	11.3	20.4	3 2	13 22.37	-10 53.9	1.304	2.149	17.8	21.1
3 12	13 17.53	+ 8 56.1	2.151	3.067	8.6	20.2	3 12	13 18.33	-10 20.5	1.246	2.162	13.5	20.8
3 22	13 10.72	+10 6.0	2.110	3.068	6.2	20.0	3 22	13 11.61	- 9 27.5	1.207	2.175	8.4	20.6
4 1	13 2.79	+11 8.8	2.097	3.068	5.3	20.0	4 1	13 3.13	- 8 20.0	1.192	2.188	2.9	20.3
4 11	12 54.54	+11 58.1	2.112	3.068	6.8	20.1	4 11	12 54.22	- 7 6.6	1.203	2.202	2.8	20.3
4 21	12 46.78	+12 29.7	2.154	3.067	9.4	20.2	4 21	12 46.19	- 5 56.9	1.239	2.216	8.1	20.7
5 1	12 40.24	+12 41.5	2.221	3.066	12.1	20.4	5 1	12 40.16	- 4 59.5	1.298	2.230	12.9	21.0
5 11	12 35.46	+12 33.6	2.308	3.065	14.4	20.6	5 11	12 36.78	- 4 20.1	1.378	2.245	16.9	21.3
244626	2003 BD ₂₉		4 5.6 117°76	3°3/ 8.1	18		136317	2004 BO ₅₇		4 5.6 205°53	1°4/ 7.2	17 R	
3 2	13 26.60	-15 39.5	1.474	2.289	17.7	20.7	3 2	13 23.95	-13 45.6	2.272	3.071	12.7	20.9
3 12	13 21.43	-15 43.2	1.403	2.297	13.9	20.4	3 12	13 18.68	-13 16.0	2.176	3.065	9.8	20.7
3 22	13 13.53	-15 25.9	1.351	2.304	9.5	20.2	3 22	13 11.54	-12 31.3	2.104	3.058	6.5	20.4
4 1	13 3.76	-14 48.8	1.324	2.312	5.0	19.9	4 1	13 3.10	-11 33.5	2.059	3.050	2.9	20.2
4 11	12 53.40	-13 56.9	1.323	2.319	3.6	19.9	4 11	12 54.19	-10 27.3	2.043	3.041	2.1	20.1
4 21	12 43.81	-12 57.6	1.348	2.326	7.5	20.1	4 21	12 45.68	- 9 18.5	2.058	3.032	5.7	20.3
5 1	12 36.17	-11 59.8	1.398	2.333	12.0	20.4	5 1	12 38.36	- 8 13.1	2.100	3.021	9.3	20.5
5 11	12 31.23	-11 11.4	1.470	2.339	15.9	20.6	5 11	12 32.84	- 7 16.9	2.167	3.010	12.5	20.7
497332	2005 TV ₁₉₆		4 5.6 211°06	0°8/ 4.7	17		498802	2008 UU ₂₆₆		4 5.6 178°16	0°2/ 5.9	17	
3 2	13 23.04	- 6 18.5	2.296	3.121	11.8	23.2	3 2	13 22.67	- 8 46.6	2.208	3.029	12.3	22.2
3 12	13 17.93	- 5 39.3	2.205	3.114	8.8	23.0	3 12	13 17.68	- 8 29.1	2.125	3.030	9.3	22.0
3 22	13 11.03	- 4 50.3	2.139	3.106	5.3	22.7	3 22	13 10.88	- 8 1.0	2.066	3.030	5.8	21.7
4 1	13 2.91	- 3 55.2	2.101	3.097	1.7	22.5	4 1	13 2.88	- 7 25.1	2.035	3.031	1.9	21.5
4 11	12 54.37	- 2 59.1	2.093	3.088	2.6	22.5	4 11	12 54.48	- 6 45.7	2.033	3.031	2.0	21.5
4 21	12 46.20	- 2 7.4	2.114	3.078	6.3	22.8	4 21	12 46.52	- 6 7.6	2.059	3.031	5.9	21.7
5 1	12 39.18	- 1 24.8	2.162	3.068	9.8	22.9	5 1	12 39.78	- 5 35.2	2.112	3.030	9.4	22.0
5 11	12 33.88	- 0 54.8	2.234	3.057	12.9	23.1	5 11	12 34.81	- 5 12.4	2.189	3.030	12.5	22.2
410595	2008 HG ₄		4 5.6 57°95	5°4/ 2.2	18		196544	2003 PB ₂		4 5.6 185°12	5°2/ 11.3	17	
3 2	13 29.74	+ 6 58.9	1.559	2.411	15.0	19.7	3 2	13 24.16	-24 27.3	2.450	3.192	13.5	20.5
3 12	13 23.37	+ 7 18.8	1.501	2.420	11.4	19.5	3 12	13 18.84	-24 47.6	2.356	3.192	11.2	20.4
3 22	13 14.48	+ 7 35.9	1.466	2.430	7.7	19.3	3 22	13 11.64	-24 49.9	2.283	3.192	8.7	20.2
4 1	13 4.01	+ 7 43.9	1.456	2.439	5.5	19.2	4 1	13 3.14	-24 33.2	2.236	3.191	6.3	20.1
4 11	12 53.19	+ 7 37.2	1.474	2.449	6.9	19.3	4 11	12 54.16	-23 59.1	2.217	3.190	5.2	20.0
4 21	12 43.26	+ 7 12.9	1.517	2.459	10.4	19.5	4 21	12 45.56	-23 11.1	2.226	3.188	6.2	20.0
5 1	12 35.26	+ 6 30.8	1.585	2.469	14.0	19.8	5 1	12 38.15	-22 14.8	2.262	3.186	8.6	20.2
5 11	12 29.82	+ 5 32.5	1.673	2.480	17.2	20.0	5 11	12 32.54	-21 16.6	2.323	3.183	11.2	20.3
249387	2009 BN ₇₆		4 5.6 332°10	19°6/ 11.1	17 R		303942	2005 WF ₈₅		4 5.6 327°83	4°4/ 1.7	17	
3 2	13 33.71	-36 24.4	1.270	1.984	25.0	19.1	3 2	13 25.37	+ 7 19.8	2.222	3.064	11.5	20.0
3 12	13 29.37	-40 0.5	1.185	1.965	23.3	18.8	3 12	13 19.62	+ 7 36.9	2.145	3.060	8.7	19.8
3 22	13 20.25	-43 16.7	1.117	1.947	21.5	18.6	3 22	13 12.03	+ 7 51.9	2.094	3.055	6.0	19.6
4 1	13 6.51	-45 56.7	1.066	1.930	20.2	18.5	4 1	13 3.24	+ 8 0.1	2.071	3.051	4.4	19.5
4 11	12 49.59	-47 45.7	1.035	1.915	19.6	18.4	4 11	12 54.09	+ 7 57.3	2.076	3.047	5.6	19.6
4 21	12 32.05	-48 36.4	1.021	1.900	20.2	18.3	4 21	12 45.43	+ 7 41.1	2.109	3.043	8.4	19.7
5 1	12 17.02	-48 32.5	1.025	1.887	21.6	18.4	5 1	12 38.03	+ 7 10.3	2.168	3.039	11.3	19.9
5 11	12 6.93	-47 49.0	1.043	1.876	23.6	18.5	5 11	12 32.47	+ 6 25.5	2.249	3.036	13.9	20.1
87299	2000 PU ₂₄		4 5.6 110°43	3°1/ 1.2	18		360654	2004 RK ₁₀		4 5.6 196°94	8°0/ 11.1	16	
3 2	13 18.94	+ 1 57.9	2.698	3.540	9.7	18.9	3 2	13 35.14	-26 19.0	1.981	2.708	16.7	21.6
3 12	13 14.46	+ 3 11.6	2.640	3.559	7.1	18.8	3 12	13 27.81	-27 35.5	1.885	2.705	14.3	21.4
3 22	13 8.68	+ 4 28.0	2.610	3.577	4.5	18.6	3 22	13 17.59	-28 32.6	1.810	2.702	11.5	21.3
4 1	13 2.11	+ 5 41.9	2.609	3.594	3.1	18.6	4 1	13 5.17	-29 5.5	1.759	2.698	9.1	21.1
4 11	12 55.36	+ 6 47.9	2.638	3.611	4.4	18.7	4 11	12 51.73	-29 12.2	1.736	2.692	8.0	21.0
4 21	12 49.05	+ 7 42.1	2.696	3.628	6.9	18.9	4 21	12 38.65	-28 54.5	1.741	2.686	9.0	21.1
5 1	12 43.71	+ 8 21.5	2.780	3.645	9.3	19.0	5 1	12 27.26	-28 18.6	1.772	2.680	11.5	21.2
5 11	12 39.74	+ 8 45.1	2.887	3.661	11.5	19.2	5 11	12 18.52	-27 33.4	1.826	2.672	14.4	21.4
250349	2003 SO ₂₀₅		4 5.6 249°83	0°5/ 6.1	17		479568	2014 CE ₈		4 5.6 171°64	4°0/ 9.9	18	
3 2	13 24.16	-10 17.4	1.795	2.619	14.6	21.1	3 2	13 22.67	-20 17.4	2.472	3.238	12.7	21.2
3 12	13 19.37	- 9 50.8	1.698	2.604	11.2	20.8	3 12	13 17.65	-20 34.4	2.381	3.240	10.3	21.0
3 22	13 12.23	- 9 8.5	1.624	2.588	7.1	20.5	3 22	13 10.87	-20 36.0	2.313	3.241	7.6	20.8
4 1	13 3.37	- 8 13.5	1.575	2.571	2.5	20.2	4 1	13 2.89	-20 22.1	2.271	3.242	5.1	20.7
4 11	12 53.80	- 7 11.3	1.555	2.553	2.5	20.2	4 11	12 54.48	-19 54.6	2.258	3.242	4.0	20.6
4 21	12 44.62	- 6 9.2	1.562	2.535	7.2	20.4	4 21	12 46.45	-19 17.1	2.273	3.243	5.6	20.7
5 1	12 36.88	- 5 14.2	1.595	2.517	11.7	20.6	5 1	12 39.54	-18 34.5	2.316	3.243	8.2	20.9
5 11	12 31.37	- 4 32.3	1.651	2.498	15.5	20.8	5 11	12 34.33	-17 52.3	2.383	3.243	10.9	21.0
345619	2006 SA ₂₄₂		4 5.6 72°67	1°0/ 4.5	17		240821	2006 AA ₆₉		4 5.6 79°09	2°9/ 3.4	18	
3 2	13 20.55	- 5 28.3	2.205	3.038	11.9	21.6	3 2	13 24.74	- 2 58.5	1.337	2.194	16.7	20.8
3 12	13 15.93	- 4 52.1	2.142	3.056	8.8	21.4	3 12	13 20.00	- 2 2.9	1.280	2.206	12.3	20.6
3 22	13 9.69	- 4 7.6	2.104	3.073	5.2	21.2	3 22	13 12.59	- 0 56.4	1.245	2.218	7.4	20.3
4 1	13 2.45	- 3 19.1	2.094	3.091	1.7	21.0	4 1	13 3.45	+ 0 13.1	1.235	2.230	3.2	20.1
4 11	12 54.98	- 2 31.7	2.113	3.108	2.7	21.1	4 11	12 53.91	+ 1 16.0	1.251	2.242	5.1	20.3
4 21	12 48.05	- 1 50.1	2.161	3.126	6.2	21.3	4 21	12 45.28	+ 2 4.4	1.292	2.254	9.8	20.6
5 1	12 42.32	- 1 18.2	2.235	3.143	9.4	21.6	5 1	12 38.65	+ 2 32.7	1.356	2.265	14.2	20.8
5 11	12 38.27	- 0 58.7	2.332	3.161	12.2	21.8	5 11	12 34.67	+ 2 39.1	1.439	2.277	17.9	21.1
174022	2001 YP ₁₂₄		4 5.6 145°46	2°0/ 8.4	18		78829	2003 QA ₂₂		4 5.6 322°68	8°1/ 11.9	18	
3 2	13 20.85	-16 19.0	3.041	3									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
497687	2006 <i>SU</i> ₄₆		4 5.6 183°85	2°8/ 9.1 18			507266	2011 <i>CP</i> ₁₁₄		4 5.6 248°02	3°8/ 9.2 17		
3 2	13 22.39	-18 9.6	2.919	3.688	10.9	22.2	3 2	13 23.80	-18 49.0	2.099	2.881	14.2	21.5
3 12	13 17.16	-18 15.1	2.824	3.688	8.7	22.1	3 12	13 18.91	-18 54.8	1.995	2.867	11.5	21.3
3 22	13 10.45	-18 8.0	2.753	3.688	6.2	21.9	3 22	13 11.89	-18 42.8	1.914	2.852	8.3	21.1
4 1	13 2.75	-17 48.9	2.710	3.687	3.8	21.8	4 1	13 3.32	-18 13.0	1.858	2.836	5.1	20.8
4 11	12 54.70	-17 19.7	2.696	3.686	2.9	21.7	4 11	12 54.09	-17 27.7	1.830	2.820	3.9	20.7
4 21	12 46.95	-16 43.8	2.713	3.684	4.7	21.8	4 21	12 45.19	-16 31.9	1.830	2.804	6.3	20.8
5 1	12 40.15	-16 5.0	2.758	3.682	7.2	22.0	5 1	12 37.56	-15 32.1	1.857	2.787	9.8	21.0
5 11	12 34.77	-15 27.8	2.828	3.679	9.7	22.1	5 11	12 31.92	-14 35.3	1.908	2.770	13.1	21.2
44886	1999 <i>VF</i> ₁		4 5.6 180°83	2°4/ 8.1 18			129777	1999 <i>JO</i> ₂₃		4 5.6 296°77	2°2/ 4.1 18		
3 2	13 24.47	-16 27.7	2.223	3.011	13.3	20.0	3 2	13 24.13	-3 36.2	1.415	2.269	16.1	19.4
3 12	13 19.08	-16 6.2	2.133	3.013	10.5	19.8	3 12	13 20.06	-3 6.4	1.317	2.241	12.2	19.1
3 22	13 11.78	-15 27.9	2.067	3.014	7.1	19.6	3 22	13 13.07	-2 24.3	1.241	2.213	7.5	18.7
4 1	13 3.20	-14 34.6	2.028	3.014	3.7	19.4	4 1	13 3.81	-1 35.1	1.189	2.185	2.8	18.4
4 11	12 54.19	-13 30.3	2.018	3.013	2.6	19.3	4 11	12 53.46	-0 46.6	1.163	2.157	4.5	18.4
4 21	12 45.64	-12 20.9	2.037	3.012	5.6	19.5	4 21	12 43.41	-0 7.0	1.161	2.129	9.9	18.6
5 1	12 38.36	-11 12.9	2.084	3.010	9.1	19.7	5 1	12 35.08	+0 16.5	1.183	2.101	15.2	18.8
5 11	12 32.96	-10 12.3	2.156	3.007	12.3	19.9	5 11	12 29.50	+0 19.6	1.223	2.073	19.8	19.0
37694	1995 <i>WC</i> ₆		4 5.6 148°57	0°4/ 6.1 17 R			216524	2001 <i>HM</i> ₂₀		4 5.6 295°18	1°2/ 4.6 18		
3 2	13 22.23	-10 18.8	2.213	3.030	12.5	19.8	3 2	13 19.90	-8 10.4	1.579	2.424	15.2	20.2
3 12	13 17.31	-9 48.2	2.135	3.037	9.4	19.6	3 12	13 16.57	-7 6.0	1.475	2.395	11.5	19.8
3 22	13 10.64	-9 5.3	2.081	3.043	5.9	19.4	3 22	13 10.74	-5 41.5	1.394	2.365	7.1	19.5
4 1	13 2.82	-8 13.3	2.054	3.050	2.1	19.1	4 1	13 3.02	-4 2.0	1.338	2.335	2.2	19.1
4 11	12 54.67	-7 17.1	2.057	3.056	2.0	19.1	4 11	12 54.41	-2 16.5	1.310	2.305	3.7	19.1
4 21	12 47.00	-6 22.2	2.089	3.061	5.8	19.4	4 21	12 46.10	-0 35.6	1.307	2.275	9.0	19.4
5 1	12 40.55	-5 33.7	2.148	3.066	9.3	19.6	5 1	12 39.26	+0 50.4	1.329	2.245	13.9	19.6
5 11	12 35.86	-4 55.8	2.230	3.071	12.3	19.8	5 11	12 34.79	+1 54.1	1.371	2.215	18.3	19.8
68987	2002 <i>TT</i> ₃₂		4 5.6 146°05	0°8/ 4.8 18			36992	2000 <i>SN</i> ₃₆₁		4 5.6 211°53	2°7/ 3.1 18		
3 2	13 20.46	-6 21.4	2.303	3.132	11.6	19.8	3 2	13 23.29	-0 39.7	2.021	2.863	12.4	20.0
3 12	13 15.93	-5 42.9	2.225	3.137	8.6	19.6	3 12	13 18.30	+0 2.2	1.941	2.860	9.2	19.7
3 22	13 9.76	-4 55.1	2.173	3.141	5.2	19.4	3 22	13 11.36	+0 50.2	1.886	2.856	5.7	19.5
4 1	13 2.54	-4 2.0	2.148	3.145	1.6	19.2	4 1	13 3.10	+1 39.1	1.859	2.852	2.8	19.3
4 11	12 55.00	-3 8.7	2.152	3.148	2.5	19.2	4 11	12 54.42	+2 22.7	1.860	2.847	4.3	19.4
4 21	12 47.90	-2 20.0	2.186	3.152	6.1	19.5	4 21	12 46.21	+2 56.1	1.889	2.842	7.9	19.6
5 1	12 41.92	-1 40.5	2.246	3.155	9.4	19.7	5 1	12 39.32	+3 15.4	1.943	2.837	11.4	19.8
5 11	12 37.58	-1 13.2	2.329	3.158	12.2	19.9	5 11	12 34.33	+3 18.7	2.019	2.832	14.4	20.0
336506	2008 <i>WJ</i> ₁₁₈		4 5.6 222°93	1°7/ 3.9 17			411711	2012 <i>AX</i> ₄		4 5.6 68°64	9°7/ 13.9 18		
3 2	13 22.31	-2 54.4	2.255	3.090	11.6	21.5	3 2	13 25.93	-30 26.6	1.588	2.326	19.8	20.3
3 12	13 17.41	-2 21.2	2.169	3.084	8.6	21.3	3 12	13 21.22	-31 23.9	1.512	2.333	17.1	20.1
3 22	13 10.74	-1 41.3	2.108	3.078	5.2	21.1	3 22	13 13.61	-31 52.1	1.454	2.341	14.2	20.0
4 1	13 2.88	-0 58.5	2.076	3.071	2.0	20.9	4 1	13 3.92	-31 46.8	1.417	2.348	11.4	19.8
4 11	12 54.61	-0 17.9	2.072	3.064	3.3	20.9	4 11	12 53.47	-31 7.9	1.403	2.356	9.8	19.7
4 21	12 46.73	+0 15.9	2.097	3.056	6.8	21.1	4 21	12 43.71	-30 0.5	1.413	2.363	10.2	19.8
5 1	12 40.01	+0 39.0	2.148	3.049	10.1	21.3	5 1	12 35.97	-28 34.4	1.446	2.371	12.4	19.9
5 11	12 35.01	+0 49.0	2.223	3.041	13.1	21.5	5 11	12 31.08	-27 1.7	1.501	2.379	15.2	20.1
106718	2000 <i>WS</i> ₁₇₄		4 5.6 212°62	3°4/ 31.8 18			216791	2006 <i>SA</i> ₁₇		4 5.6 250°43	1°6/ 7.1 17		
3 2	13 18.74	+3 44.8	2.823	3.667	9.3	20.5	3 2	13 22.41	-13 39.4	1.776	2.593	15.0	20.9
3 12	13 14.42	+4 47.5	2.743	3.661	6.9	20.3	3 12	13 18.08	-13 12.1	1.683	2.582	11.7	20.6
3 22	13 8.76	+5 52.7	2.690	3.654	4.6	20.2	3 22	13 11.46	-12 26.0	1.612	2.571	7.7	20.3
4 1	13 2.21	+6 55.4	2.666	3.648	3.4	20.1	4 1	13 3.19	-11 23.5	1.567	2.559	3.4	20.0
4 11	12 55.38	+7 50.7	2.671	3.641	4.7	20.1	4 11	12 54.29	-10 10.3	1.549	2.547	2.5	20.0
4 21	12 48.87	+8 34.8	2.705	3.633	7.0	20.3	4 21	12 45.83	-8 53.9	1.558	2.535	6.8	20.2
5 1	12 43.23	+9 4.8	2.765	3.625	9.5	20.4	5 1	12 38.83	-7 42.5	1.594	2.522	11.2	20.4
5 11	12 38.91	+9 19.6	2.848	3.617	11.7	20.6	5 11	12 34.03	-6 43.0	1.652	2.510	15.0	20.6
503748	2016 <i>LQ</i> ₄₇		4 5.6 40°89	6°2/ 13.1 18			499321	2009 <i>WW</i> ₁₃₀		4 5.6 205°45	4°7/ 10.5 17		
3 2	13 18.71	-29 13.1	1.729	2.479	18.0	20.1	3 2	13 23.23	-22 30.9	2.200	2.962	14.3	22.1
3 12	13 15.32	-28 31.4	1.649	2.487	15.1	19.9	3 12	13 18.34	-22 34.4	2.105	2.958	11.7	21.9
3 22	13 9.67	-27 16.6	1.588	2.496	11.8	19.7	3 22	13 11.45	-22 18.1	2.031	2.954	8.8	21.7
4 1	13 2.54	-25 29.0	1.549	2.506	8.4	19.5	4 1	13 3.16	-21 41.9	1.982	2.949	6.0	21.5
4 11	12 55.04	-23 14.5	1.537	2.516	6.3	19.4	4 11	12 54.35	-20 48.1	1.961	2.944	4.7	21.4
4 21	12 48.24	-20 43.5	1.552	2.526	7.2	19.5	4 21	12 45.94	-19 41.7	1.968	2.938	6.2	21.5
5 1	12 43.09	-18 8.9	1.595	2.536	10.3	19.7	5 1	12 38.83	-18 29.5	2.002	2.932	9.2	21.7
5 11	12 40.16	-15 43.2	1.662	2.547	13.6	19.9	5 11	12 33.64	-17 18.9	2.061	2.926	12.2	21.8
350285	2012 <i>TE</i> ₂₈₆		4 5.6 106°12	0°0/ 5.5 17			212963	2009 <i>BZ</i> ₇₂		4 5.6 214°79	4°3/ 31.3 17		
3 2	13 18.93	-9 55.8	2.308	3.130	11.8	21.2	3 2	13 19.24	+4 33.2	2.296	3.147	10.8	20.7
3 12	13 14.79	-9 7.7	2.232	3.138	8.9	21.0	3 12	13 15.06	+5 46.7	2.224	3.145	8.1	20.5
3 22	13 9.06	-8 7.4	2.181	3.145	5.5	20.8	3 22	13 9.27	+7 2.5	2.178	3.143	5.5	20.3
4 1	13 2.32	-6 58.8	2.157	3.153	1.8	20.6	4 1	13 2.41	+8 14.5	2.160	3.140	4.3	20.2
4 11	12 55.29	-5 47.5	2.162	3.160	2.0	20.6	4 11	12 55.24	+9 16.1	2.171	3.137	5.8	20.3
4 21	12 48.72	-4 39.0	2.197	3.168	5.6	20.9	4 21	12 48.48	+10 2.7	2.209	3.134	8.5	20.5
5 1	12 43.25	-3 38.8	2.259	3.175	9.0	21.1	5 1	12 42.82	+10 31.1	2.271	3.131	11.3	20.7
5 11	12 39.38	-2 50.9	2.345	3.182	11.9	21.3	5 11	12 38.75	+10 40.5	2.355	3.128	13.8	20.8
313627	2003 <i>RW</i> ₂₀		4 5.6 151°55	1°1/ 4.6 18			127110	2002 <i>GE</i> ₉₆		4 5.6 291°71	2°4/ 7.8 17		
3 2	13 25.60	-5 50.9	2.062										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
150554	2000 <i>SS</i> ₂₀₄		4 5.6 159°19	0°6/ 4.9 18			163605	2002 <i>TU</i> ₂₄₃		4 5.7 128°99	0°4/ 5.2 17		
3 2	13 21.12	- 5 37.7	2.635	3.459	10.5	20.5	3 2	13 21.13	- 7 2.5	2.179	3.008	12.2	20.7
3 12	13 16.25	- 5 15.8	2.554	3.462	7.8	20.3	3 12	13 16.55	- 6 34.0	2.101	3.011	9.1	20.5
3 22	13 9.90	- 4 46.9	2.499	3.466	4.7	20.1	3 22	13 10.22	- 5 55.8	2.047	3.014	5.5	20.3
4 1	13 2.61	- 4 14.0	2.472	3.469	1.5	19.9	4 1	13 2.75	- 5 11.3	2.021	3.017	1.7	20.0
4 11	12 55.02	- 3 40.7	2.476	3.472	2.2	19.9	4 11	12 54.92	- 4 25.4	2.023	3.020	2.3	20.1
4 21	12 47.82	- 3 10.8	2.508	3.474	5.4	20.1	4 21	12 47.54	- 3 43.2	2.053	3.022	6.1	20.3
5 1	12 41.61	- 2 47.7	2.569	3.477	8.4	20.3	5 1	12 41.37	- 3 9.1	2.111	3.025	9.6	20.6
5 11	12 36.86	- 2 33.9	2.653	3.479	11.0	20.5	5 11	12 36.92	- 2 46.5	2.191	3.028	12.6	20.8
275227	2009 <i>WL</i> ₂₁₇		4 5.6 69°21	0°5/ 6.2 17			191970	2005 <i>WF</i> ₃		4 5.7 171°23	1°8/ 4.0 18		
3 2	13 20.67	-10 53.1	1.865	2.691	14.0	21.1	3 2	13 25.40	- 5 31.7	1.729	2.566	14.5	21.4
3 12	13 16.52	-10 17.2	1.785	2.692	10.6	20.9	3 12	13 20.13	- 4 30.6	1.654	2.570	10.7	21.2
3 22	13 10.33	- 9 26.0	1.729	2.693	6.7	20.6	3 22	13 12.59	- 3 16.8	1.604	2.573	6.5	21.0
4 1	13 2.79	- 8 23.2	1.699	2.694	2.4	20.4	4 1	13 3.54	- 1 56.6	1.580	2.576	2.3	20.7
4 11	12 54.82	- 7 14.9	1.697	2.695	2.2	20.4	4 11	12 54.04	- 0 38.0	1.585	2.578	3.8	20.8
4 21	12 47.36	- 6 8.0	1.722	2.697	6.5	20.6	4 21	12 45.16	+ 0 31.1	1.617	2.579	8.2	21.1
5 1	12 41.30	- 5 9.3	1.774	2.698	10.5	20.9	5 1	12 37.88	+ 1 24.3	1.675	2.579	12.3	21.3
5 11	12 37.22	- 4 23.9	1.848	2.699	14.0	21.1	5 11	12 32.84	+ 1 58.2	1.755	2.579	15.8	21.5
26778	1354 <i>T-2</i>		4 5.6 4°45	0°6/ 5.0 18			438827	2009 <i>BB</i> ₂		4 5.7 315°40	17°9/ 19.9 18		
3 2	13 19.40	- 7 38.6	1.848	2.687	13.6	18.5	3 2	13 25.03	-40 32.7	1.153	1.865	27.2	20.3
3 12	13 15.56	- 6 56.2	1.771	2.687	10.2	18.2	3 12	13 22.29	-42 28.5	1.078	1.859	25.1	20.1
3 22	13 9.74	- 6 1.0	1.718	2.687	6.2	18.0	3 22	13 15.27	-43 44.6	1.016	1.854	22.7	19.9
4 1	13 2.60	- 4 57.7	1.691	2.687	1.9	17.7	4 1	13 4.73	-44 8.4	0.967	1.848	20.3	19.7
4 11	12 55.04	- 3 52.7	1.691	2.688	2.7	17.8	4 11	12 52.51	-43 31.8	0.934	1.843	18.5	19.5
4 21	12 48.00	- 2 52.8	1.719	2.689	7.0	18.0	4 21	12 41.02	-41 55.8	0.919	1.839	17.9	19.5
5 1	12 42.31	- 2 4.1	1.772	2.690	10.9	18.3	5 1	12 32.53	-39 32.2	0.922	1.835	18.8	19.5
5 11	12 38.56	- 1 30.4	1.848	2.692	14.3	18.5	5 11	12 28.45	-36 41.7	0.942	1.831	21.0	19.6
322472	2011 <i>UT</i> ₁₈₇		4 5.7 219°55	3°6/ 1.2 18			96184	1990 <i>QH</i> ₃		4 5.7 250°40	5°3/ 10.4 18 R		
3 2	13 19.81	+ 4 14.3	2.602	3.447	9.9	21.0	3 2	13 27.33	-23 1.1	2.435	3.180	13.5	19.9
3 12	13 15.31	+ 5 5.0	2.525	3.443	7.4	20.8	3 12	13 21.48	-23 38.1	2.320	3.159	11.3	19.7
3 22	13 9.36	+ 5 57.4	2.473	3.438	4.9	20.7	3 22	13 13.50	-23 59.2	2.227	3.139	8.7	19.5
4 1	13 2.45	+ 6 46.5	2.450	3.433	3.6	20.6	4 1	13 3.91	-24 2.4	2.160	3.117	6.4	19.3
4 11	12 55.23	+ 7 27.7	2.457	3.428	4.9	20.6	4 11	12 53.56	-23 48.1	2.122	3.095	5.3	19.2
4 21	12 48.38	+ 7 57.2	2.491	3.423	7.4	20.8	4 21	12 43.37	-23 18.5	2.112	3.072	6.6	19.3
5 1	12 42.51	+ 8 12.4	2.551	3.417	10.0	20.9	5 1	12 34.32	-22 38.7	2.129	3.049	9.3	19.4
5 11	12 38.07	+ 8 12.5	2.633	3.412	12.3	21.1	5 11	12 27.14	-21 54.8	2.172	3.025	12.1	19.5
503970	2004 <i>RQ</i> ₁₆₂		4 5.7 246°56	3°1/ 9.2 17			396237	2014 <i>BF</i> ₃₀		4 5.7 119°61	3°3/ 1.5 17		
3 2	13 22.34	-19 26.8	2.400	3.174	12.9	22.6	3 2	13 18.81	+ 1 6.5	2.303	3.151	10.9	20.9
3 12	13 17.59	-19 5.0	2.287	3.154	10.4	22.4	3 12	13 14.71	+ 2 18.7	2.235	3.156	8.0	20.7
3 22	13 10.97	-18 24.8	2.196	3.133	7.4	22.1	3 22	13 9.04	+ 3 35.5	2.192	3.161	5.1	20.5
4 1	13 3.03	-17 27.0	2.132	3.111	4.4	21.9	4 1	13 2.38	+ 4 51.0	2.178	3.166	3.3	20.4
4 11	12 54.51	-16 14.7	2.097	3.089	3.2	21.8	4 11	12 55.43	+ 5 58.8	2.193	3.170	4.8	20.5
4 21	12 46.28	-14 53.4	2.092	3.066	5.6	21.9	4 21	12 48.93	+ 6 53.9	2.236	3.175	7.7	20.7
5 1	12 39.13	-13 29.9	2.114	3.042	8.9	22.0	5 1	12 43.52	+ 7 32.7	2.304	3.179	10.6	20.9
5 11	12 33.71	-12 11.0	2.162	3.018	12.1	22.2	5 11	12 39.68	+ 7 53.7	2.394	3.183	13.1	21.1
45790	2000 <i>ON</i> ₄₂		4 5.7 250°84	3°4/ 8.5 18			348506	2005 <i>TW</i> ₁₃₅		4 5.7 138°83	0°2/ 5.9 18		
3 2	13 23.80	-17 26.5	1.657	2.461	16.5	19.1	3 2	13 21.40	- 8 17.1	2.626	3.442	10.7	21.3
3 12	13 19.38	-17 17.8	1.562	2.449	13.2	18.9	3 12	13 16.48	- 8 4.3	2.545	3.447	8.1	21.1
3 22	13 12.40	-16 47.0	1.488	2.436	9.2	18.6	3 22	13 10.08	- 7 43.2	2.490	3.453	5.0	20.9
4 1	13 3.55	-15 54.5	1.438	2.423	5.1	18.3	4 1	13 2.71	- 7 16.2	2.462	3.458	1.7	20.7
4 11	12 53.91	-14 44.9	1.415	2.410	3.7	18.2	4 11	12 55.05	- 6 46.5	2.465	3.463	1.7	20.7
4 21	12 44.73	-13 25.4	1.419	2.396	7.2	18.4	4 21	12 47.78	- 6 17.9	2.497	3.468	5.0	20.9
5 1	12 37.16	-12 5.6	1.448	2.383	11.6	18.6	5 1	12 41.51	- 5 53.8	2.557	3.472	8.1	21.1
5 11	12 32.04	-10 54.5	1.499	2.368	15.7	18.8	5 11	12 36.72	- 5 37.3	2.641	3.477	10.7	21.3
498152	2007 <i>TK</i> ₁₁₁		4 5.7 285°20	3°3/ 7.7 17			350136	2011 <i>SB</i> ₄₃		4 5.7 338°95	0°8/ 4.9 17		
3 2	13 27.41	-14 21.4	1.567	2.381	16.9	21.4	3 2	13 18.61	- 7 1.3	2.061	2.898	12.5	20.9
3 12	13 22.59	-14 41.4	1.454	2.348	13.5	21.0	3 12	13 14.82	- 6 18.8	1.979	2.894	9.3	20.7
3 22	13 14.74	-14 44.3	1.361	2.315	9.3	20.7	3 22	13 9.25	- 5 25.0	1.922	2.891	5.6	20.5
4 1	13 4.43	-14 29.1	1.293	2.281	5.0	20.4	4 1	13 2.47	- 4 24.3	1.891	2.888	1.8	20.2
4 11	12 52.76	-13 57.9	1.251	2.247	3.8	20.2	4 11	12 55.31	- 3 22.5	1.889	2.885	2.6	20.3
4 21	12 41.17	-13 15.8	1.235	2.212	8.2	20.4	4 21	12 48.57	- 2 25.5	1.914	2.883	6.6	20.5
5 1	12 31.15	-12 30.7	1.244	2.177	13.3	20.5	5 1	12 43.03	- 1 38.8	1.966	2.880	10.2	20.7
5 11	12 23.86	-11 51.4	1.274	2.141	18.0	20.7	5 11	12 39.24	- 1 6.0	2.040	2.878	13.3	20.9
192411	1997 <i>GX</i> ₃₁		4 5.7 2°56	0°5/ 5.2 18			38647	2000 <i>OW</i> ₈		4 5.7 239°74	1°8/ 3.9 17		
3 2	13 22.42	- 8 37.5	1.279	2.131	17.6	20.5	3 2	13 24.97	- 4 33.3	1.952	2.786	13.2	19.8
3 12	13 18.62	- 7 54.7	1.209	2.131	13.3	20.2	3 12	13 19.83	- 3 40.5	1.854	2.768	9.9	19.6
3 22	13 11.99	- 6 53.0	1.160	2.131	8.2	19.9	3 22	13 12.49	- 2 36.0	1.780	2.749	6.0	19.3
4 1	13 3.40	- 5 38.1	1.134	2.131	2.5	19.6	4 1	13 3.58	- 1 25.0	1.734	2.730	2.3	19.0
4 11	12 54.16	- 4 19.5	1.133	2.131	3.4	19.6	4 11	12 54.00	- 0 14.4	1.717	2.709	3.7	19.1
4 21	12 45.68	- 3 7.6	1.157	2.132	9.0	20.0	4 21	12 44.79	+ 0 48.7	1.728	2.688	7.9	19.3
5 1	12 39.18	- 2 11.2	1.205	2.132	14.1	20.2	5 1	12 36.89	+ 1 38.3	1.766	2.666	12.0	19.5
5 11	12 35.45	- 1 35.8	1.271	2.133	18.4	20.5	5 11	12 31.05	+ 2 10.3	1.825	2.643	15.5	19.7
247873	2003 <i>UH</i> ₁₄₁		4 5.7 228°02	3°5/ 2.1 17			468801	2012 <i>HT</i> ₁₆		4 5.7 245°04	10°5/ 23.2		

EPHEMERIDES

4 5.7

4 5.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
181245	2005 <i>UW</i> ₆₅		4 5.7 192°05	2.6/ 2.5	18		65367	2002 <i>PR</i> ₂₉		4 5.7 319°43	3.2/ 7.7	17	
3 2	13 21.44	+ 2 0.8	2.844	3.680	9.5	20.4	3 2	13 21.38	-13 53.4	1.310	2.147	18.2	19.5
3 12	13 16.40	+ 2 31.7	2.764	3.678	7.0	20.3	3 12	13 18.21	-14 9.4	1.218	2.126	14.4	19.2
3 22	13 9.99	+ 3 4.7	2.710	3.676	4.4	20.1	3 22	13 12.04	-14 5.4	1.146	2.106	9.9	18.9
4 1	13 2.68	+ 3 36.2	2.685	3.674	2.6	20.0	4 1	13 3.57	-13 41.3	1.097	2.087	5.0	18.5
4 11	12 55.11	+ 4 2.5	2.691	3.672	3.7	20.0	4 11	12 54.01	-13 1.0	1.071	2.068	3.7	18.4
4 21	12 47.88	+ 4 20.4	2.725	3.669	6.2	20.2	4 21	12 44.87	-12 11.6	1.069	2.051	8.4	18.6
5 1	12 41.56	+ 4 27.7	2.787	3.666	8.8	20.3	5 1	12 37.58	-11 22.4	1.090	2.034	13.6	18.8
5 11	12 36.61	+ 4 23.4	2.872	3.663	11.1	20.5	5 11	12 33.21	-10 42.4	1.131	2.018	18.4	19.0
410186	2007 <i>RH</i> ₁₀₃		4 5.7 274°32	0.1/ 5.5	17		51638	2001 <i>HF</i> ₅₃		4 5.7 318°92	1.4/ 4.6	18	
3 2	13 24.59	- 9 19.0	1.684	2.515	15.1	21.7	3 2	13 19.55	- 6 28.7	1.371	2.228	16.3	18.9
3 12	13 20.08	- 8 38.5	1.574	2.484	11.6	21.4	3 12	13 16.50	- 5 44.6	1.286	2.212	12.3	18.6
3 22	13 12.96	- 7 39.9	1.486	2.452	7.3	21.0	3 22	13 10.77	- 4 43.8	1.223	2.196	7.5	18.3
4 1	13 3.82	- 6 26.7	1.424	2.420	2.4	20.7	4 1	13 3.10	- 3 31.9	1.184	2.181	2.4	17.9
4 11	12 53.68	- 5 5.4	1.389	2.387	2.9	20.6	4 11	12 54.63	- 2 18.1	1.169	2.166	3.9	18.0
4 21	12 43.75	- 3 44.9	1.382	2.353	8.2	20.8	4 21	12 46.67	- 1 11.8	1.180	2.152	9.3	18.2
5 1	12 35.26	- 2 34.2	1.400	2.319	13.2	21.0	5 1	12 40.44	- 0 21.7	1.213	2.138	14.3	18.5
5 11	12 29.16	- 1 40.4	1.440	2.283	17.6	21.2	5 11	12 36.80	+ 0 7.0	1.266	2.125	18.6	18.7
149375	2002 <i>XK</i> ₈₁		4 5.7 98°87	6.2/31.1	18		472387	2015 <i>BH</i> ₁₀₄		4 5.7 82°52	9.0/26.7	17	
3 2	13 26.42	+ 9 1.4	1.844	2.693	13.2	19.9	3 2	13 21.83	+15 50.8	1.814	2.669	13.1	20.8
3 12	13 20.52	+10 6.4	1.798	2.713	10.0	19.8	3 12	13 17.38	+17 34.8	1.765	2.672	10.8	20.6
3 22	13 12.61	+11 8.0	1.777	2.734	7.3	19.7	3 22	13 10.86	+19 10.7	1.740	2.675	9.2	20.6
4 1	13 3.51	+11 58.5	1.784	2.754	6.2	19.6	4 1	13 3.02	+20 28.8	1.741	2.678	9.3	20.6
4 11	12 54.24	+12 31.7	1.817	2.773	7.7	19.8	4 11	12 54.84	+21 21.3	1.767	2.681	10.8	20.7
4 21	12 45.76	+12 44.0	1.877	2.792	10.4	20.0	4 21	12 47.31	+21 44.4	1.816	2.684	13.2	20.8
5 1	12 38.88	+12 34.8	1.960	2.810	13.2	20.2	5 1	12 41.29	+21 37.9	1.886	2.687	15.6	21.0
5 11	12 34.10	+12 5.7	2.063	2.828	15.7	20.4	5 11	12 37.34	+21 4.6	1.973	2.690	17.8	21.2
123897	2001 <i>DG</i> ₆₀		4 5.7 266°57	1.4/ 6.9	17		225869	2001 <i>XA</i> ₂₃₄		4 5.7 207°61	7.1/28.5	17	
3 2	13 22.43	-11 57.4	1.975	2.791	13.7	20.2	3 2	13 26.11	+15 36.2	2.401	3.235	11.0	21.2
3 12	13 17.84	-11 49.3	1.887	2.786	10.6	20.0	3 12	13 20.16	+16 43.1	2.332	3.228	9.0	21.1
3 22	13 11.20	-11 27.3	1.822	2.781	6.9	19.7	3 22	13 12.42	+17 43.8	2.288	3.221	7.4	21.0
4 1	13 3.14	-10 53.3	1.784	2.776	2.9	19.5	4 1	13 3.52	+18 31.6	2.272	3.213	7.2	20.9
4 11	12 54.57	-10 11.6	1.773	2.771	2.3	19.4	4 11	12 54.25	+19 1.0	2.284	3.204	8.4	21.0
4 21	12 46.43	- 9 27.5	1.790	2.766	6.2	19.7	4 21	12 45.46	+19 8.9	2.322	3.194	10.5	21.1
5 1	12 39.62	- 8 46.8	1.834	2.761	10.0	19.9	5 1	12 37.90	+18 54.7	2.384	3.184	12.8	21.3
5 11	12 34.79	- 8 14.5	1.900	2.756	13.5	20.1	5 11	12 32.10	+18 20.0	2.466	3.173	14.8	21.4
518768	2009 <i>UR</i> ₁₆₀		4 5.7 173°26	1.5/ 6.9	17		120743	1997 <i>VN</i> ₅		4 5.7 124°51	3.7/ 2.2	18	
3 2	13 25.31	-11 33.3	2.058	2.868	13.5	21.6	3 2	13 25.48	+ 2 39.8	2.053	2.895	12.3	20.5
3 12	13 19.86	-11 35.2	1.974	2.870	10.4	21.4	3 12	13 19.75	+ 3 26.2	1.992	2.909	9.1	20.3
3 22	13 12.38	-11 24.7	1.913	2.871	6.7	21.2	3 22	13 12.16	+ 4 14.9	1.957	2.923	5.8	20.1
4 1	13 3.51	-11 3.3	1.880	2.872	2.9	21.0	4 1	13 3.41	+ 5 0.2	1.949	2.937	3.7	20.0
4 11	12 54.17	-10 34.7	1.875	2.873	2.3	20.9	4 11	12 54.41	+ 5 36.5	1.971	2.950	5.1	20.1
4 21	12 45.30	-10 3.4	1.898	2.873	6.0	21.2	4 21	12 46.04	+ 5 59.7	2.020	2.962	8.2	20.4
5 1	12 37.79	- 9 34.5	1.949	2.873	9.7	21.4	5 1	12 39.07	+ 6 7.1	2.095	2.974	11.3	20.6
5 11	12 32.26	- 9 12.4	2.023	2.873	13.0	21.6	5 11	12 34.00	+ 5 58.4	2.191	2.985	14.0	20.8
309426	2007 <i>TX</i> ₄₁₂		4 5.7 108°50	4.4/ 2.2	18		222525	2001 <i>TB</i> ₂₂₈		4 5.7 340°37	1.0/ 6.4	17	
3 2	13 27.81	+ 3 4.1	1.657	2.506	14.4	21.2	3 2	13 22.95	- 9 35.2	1.457	2.298	16.5	19.9
3 12	13 21.81	+ 3 53.6	1.603	2.523	10.7	21.0	3 12	13 18.88	- 9 38.8	1.377	2.291	12.6	19.6
3 22	13 13.53	+ 4 45.4	1.572	2.539	6.9	20.8	3 22	13 12.16	- 9 27.6	1.318	2.285	8.1	19.4
4 1	13 3.84	+ 5 32.5	1.568	2.555	4.4	20.7	4 1	13 3.53	- 9 4.2	1.284	2.279	3.1	19.0
4 11	12 53.88	+ 6 7.8	1.592	2.571	6.1	20.8	4 11	12 54.19	- 8 33.5	1.275	2.274	2.7	19.0
4 21	12 44.75	+ 6 26.7	1.642	2.586	9.6	21.1	4 21	12 45.43	- 8 1.9	1.292	2.270	7.7	19.3
5 1	12 37.39	+ 6 26.6	1.716	2.600	13.1	21.3	5 1	12 38.43	- 7 36.1	1.332	2.266	12.5	19.5
5 11	12 32.36	+ 6 8.0	1.811	2.614	16.2	21.6	5 11	12 34.01	- 7 21.5	1.393	2.263	16.6	19.8
349807	2009 <i>BQ</i> ₁₁₀		4 5.7 166°24	3.3/ 1.1	18		106417	2000 <i>VC</i> ₃₅		4 5.7 234°16	11.3/15.9	18	
3 2	13 19.84	+ 3 15.3	2.747	3.588	9.6	21.5	3 2	13 25.20	-35 22.2	1.346	2.072	23.3	19.5
3 12	13 15.24	+ 4 18.6	2.676	3.593	7.1	21.3	3 12	13 21.47	-35 38.6	1.254	2.064	20.6	19.3
3 22	13 9.28	+ 5 24.1	2.632	3.597	4.6	21.2	3 22	13 14.22	-35 13.0	1.176	2.054	17.4	19.0
4 1	13 2.46	+ 6 27.0	2.617	3.600	3.3	21.1	4 1	13 4.30	-33 57.7	1.116	2.044	14.1	18.8
4 11	12 55.40	+ 7 22.3	2.632	3.603	4.6	21.2	4 11	12 53.29	-31 51.3	1.078	2.033	11.7	18.6
4 21	12 48.70	+ 8 6.2	2.676	3.606	7.0	21.3	4 21	12 42.99	-29 2.0	1.063	2.022	11.7	18.6
5 1	12 42.95	+ 8 35.8	2.746	3.608	9.5	21.5	5 1	12 35.09	-25 46.9	1.072	2.010	14.4	18.7
5 11	12 38.57	+ 8 50.2	2.838	3.610	11.7	21.7	5 11	12 30.63	-22 27.7	1.103	1.998	18.2	18.9
136682	1995 <i>SC</i> ₃₁		4 5.7 283°14	1.1/ 6.4	17		496005	2007 <i>XJ</i> ₁₆		4 5.7 270°79	3.2/ 8.4	17	C
3 2	13 24.92	-10 4.6	1.569	2.401	16.0	20.7	3 2	13 29.85	-17 36.3	2.191	2.965	14.0	24.0
3 12	13 20.33	-10 3.7	1.477	2.385	12.3	20.5	3 12	13 23.74	-17 32.7	2.055	2.924	11.3	23.7
3 22	13 13.07	- 9 48.0	1.406	2.370	7.9	20.2	3 22	13 15.15	-17 11.4	1.942	2.881	8.0	23.4
4 1	13 3.83	- 9 19.4	1.360	2.355	3.1	19.8	4 1	13 4.58	-16 31.6	1.855	2.837	4.6	23.1
4 11	12 53.74	- 8 42.7	1.340	2.339	2.6	19.8	4 11	12 52.91	-15 35.2	1.798	2.791	3.4	22.9
4 21	12 44.08	- 8 4.2	1.347	2.324	7.7	20.0	4 21	12 41.22	-14 27.0	1.772	2.744	6.6	23.0
5 1	12 36.06	- 7 30.9	1.379	2.308	12.5	20.3	5 1	12 30.64	-13 14.0	1.774	2.695	10.7	23.2
5 11	12 30.59	- 7 8.7	1.431	2.293	16.7	20.5	5 11	12 22.11	-12 4.3	1.801	2.644	14.6	23.3
88805	2001 <i>SY</i> ₁₂₉		4 5.7 174°8										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
331090	2009 <i>WO</i> ₁₇₁		4 5.7 234 ^o .74	0 ^o .1/ 5.8 17	R		81988	2000 <i>QZ</i> ₁₃₃		4 5.7 192 ^o .58	0 ^o .0/ 5.4 18		
3 2	13 24.37	- 8 25.7	2.152	2.972	12.7	21.3	3 2	13 20.33	- 8 11.6	3.137	3.948	9.3	20.7
3 12	13 19.18	- 8 7.9	2.055	2.960	9.6	21.1	3 12	13 15.53	- 7 45.5	3.046	3.946	7.0	20.5
3 22	13 12.01	- 7 39.1	1.983	2.947	6.0	20.8	3 22	13 9.46	- 7 11.7	2.980	3.943	4.3	20.3
4 1	13 3.45	- 7 2.1	1.938	2.934	2.0	20.5	4 1	13 2.57	- 6 32.6	2.944	3.939	1.4	20.1
4 11	12 54.33	- 6 21.1	1.922	2.920	2.2	20.5	4 11	12 55.41	- 5 51.4	2.938	3.935	1.6	20.1
4 21	12 45.57	- 5 41.1	1.935	2.906	6.3	20.7	4 21	12 48.52	- 5 11.6	2.963	3.931	4.5	20.3
5 1	12 38.03	- 5 7.3	1.975	2.892	10.1	20.9	5 1	12 42.45	- 4 36.5	3.016	3.926	7.2	20.5
5 11	12 32.36	- 4 43.5	2.039	2.877	13.4	21.1	5 11	12 37.60	- 4 8.8	3.095	3.921	9.6	20.6
40990	1999 <i>UW</i>		4 5.7 161 ^o .84	0 ^o .4/ 5.3 18			288551	2004 <i>GF</i> ₅₀		4 5.7 147 ^o .91	1 ^o .0/ 6.7 18		
3 2	13 21.80	- 7 48.2	2.168	2.993	12.3	19.7	3 2	13 24.79	- 11 30.4	2.070	2.881	13.4	21.1
3 12	13 17.09	- 7 12.5	2.088	2.997	9.2	19.5	3 12	13 19.39	- 11 11.2	1.993	2.890	10.2	20.9
3 22	13 10.61	- 6 25.9	2.033	3.000	5.6	19.3	3 22	13 12.06	- 10 38.6	1.939	2.898	6.5	20.6
4 1	13 2.96	- 5 32.1	2.006	3.002	1.8	19.0	4 1	13 3.44	- 9 55.2	1.912	2.906	2.6	20.4
4 11	12 54.94	- 4 36.6	2.008	3.005	2.3	19.1	4 11	12 54.45	- 9 5.8	1.914	2.913	2.1	20.4
4 21	12 47.39	- 3 44.6	2.038	3.007	6.2	19.3	4 21	12 45.99	- 8 15.7	1.945	2.919	6.0	20.6
5 1	12 41.06	- 3 1.3	2.095	3.009	9.7	19.5	5 1	12 38.89	- 7 30.6	2.004	2.925	9.6	20.9
5 11	12 36.48	- 2 30.1	2.175	3.010	12.8	19.7	5 11	12 33.73	- 6 55.0	2.085	2.931	12.8	21.1
102792	1999 <i>VN</i> ₁₅₈		4 5.7 94 ^o .57	1 ^o .7/ 4.4 18			409884	2006 <i>SG</i> ₃₅₅		4 5.7 12 ^o .38	1 ^o .4/ 7.3 17		
3 2	13 26.76	- 3 28.1	1.594	2.438	15.2	20.0	3 2	13 16.39	- 15 24.4	1.913	2.729	14.1	20.2
3 12	13 21.28	- 3 8.1	1.528	2.446	11.3	19.8	3 12	13 13.33	- 14 24.5	1.833	2.732	10.9	20.0
3 22	13 13.38	- 2 39.7	1.485	2.455	6.8	19.5	3 22	13 8.41	- 13 4.5	1.777	2.735	7.1	19.8
4 1	13 3.88	- 2 7.5	1.467	2.463	2.4	19.3	4 1	13 2.28	- 11 28.3	1.746	2.738	3.1	19.5
4 11	12 53.94	- 1 37.8	1.477	2.471	3.7	19.4	4 11	12 55.78	- 9 43.1	1.743	2.742	2.1	19.4
4 21	12 44.74	- 1 15.9	1.513	2.480	8.2	19.6	4 21	12 49.79	- 7 57.6	1.769	2.747	6.0	19.7
5 1	12 37.31	- 1 6.4	1.575	2.488	12.4	19.9	5 1	12 45.07	- 6 20.1	1.821	2.752	9.9	19.9
5 11	12 32.28	- 1 11.3	1.657	2.495	15.9	20.1	5 11	12 42.19	- 4 57.4	1.897	2.757	13.3	20.2
264536	2001 <i>SR</i>		4 5.7 200 ^o .88	6 ^o .1/ 11.1 17			498362	2007 <i>VA</i> ₃₂₀		4 5.7 119 ^o .85	3 ^o .7/ 10.3 17		
3 2	13 27.78	- 24 19.0	2.145	2.891	15.1	20.8	3 2	13 21.05	- 21 34.3	2.489	3.252	12.8	22.0
3 12	13 21.96	- 25 0.0	2.050	2.888	12.6	20.6	3 12	13 16.41	- 21 23.5	2.407	3.263	10.3	21.8
3 22	13 13.85	- 25 22.0	1.976	2.884	9.9	20.4	3 22	13 10.13	- 20 55.3	2.348	3.275	7.6	21.7
4 1	13 4.08	- 25 23.0	1.927	2.880	7.3	20.3	4 1	13 2.81	- 20 10.5	2.315	3.286	4.9	21.5
4 11	12 53.63	- 25 3.3	1.905	2.876	6.1	20.2	4 11	12 55.19	- 19 12.4	2.311	3.297	3.7	21.5
4 21	12 43.55	- 24 26.3	1.911	2.871	7.3	20.2	4 21	12 48.01	- 18 5.8	2.335	3.307	5.2	21.6
5 1	12 34.88	- 23 38.0	1.943	2.865	9.9	20.4	5 1	12 41.97	- 16 56.6	2.387	3.318	7.9	21.8
5 11	12 28.36	- 22 45.9	2.000	2.859	12.7	20.5	5 11	12 37.56	- 15 50.6	2.465	3.328	10.5	21.9
427993	2006 <i>AR</i> ₁₀₅		4 5.7 312 ^o .64	4 ^o .1/ 9.1 17			358478	2007 <i>PJ</i> ₄₂		4 5.7 260 ^o .59	0 ^o .8/ 4.9 16		
3 2	13 23.72	- 18 1.1	1.867	2.660	15.3	21.0	3 2	13 23.82	- 7 36.5	1.606	2.445	15.3	21.6
3 12	13 19.03	- 18 22.1	1.779	2.657	12.3	20.8	3 12	13 19.43	- 6 52.7	1.513	2.428	11.6	21.3
3 22	13 12.07	- 18 25.3	1.713	2.653	8.8	20.6	3 22	13 12.50	- 5 52.6	1.442	2.411	7.1	21.0
4 1	13 3.50	- 18 10.4	1.671	2.650	5.5	20.4	4 1	13 3.69	- 4 41.1	1.396	2.393	2.2	20.7
4 11	12 54.31	- 17 39.9	1.656	2.647	4.2	20.3	4 11	12 54.10	- 3 25.8	1.378	2.375	3.3	20.7
4 21	12 45.57	- 16 58.6	1.669	2.644	6.7	20.4	4 21	12 44.93	- 2 15.3	1.386	2.356	8.4	21.0
5 1	12 38.30	- 16 13.1	1.707	2.641	10.2	20.6	5 1	12 37.34	- 1 17.6	1.419	2.337	13.1	21.2
5 11	12 33.22	- 15 30.3	1.768	2.638	13.7	20.8	5 11	12 32.16	- 0 38.4	1.473	2.317	17.3	21.4
88407	2001 <i>QB</i> ₂₈		4 5.7 152 ^o .31	0 ^o .4/ 5.1 18			457686	2009 <i>DF</i> ₁₁₂		4 5.7 0 ^o .22	3 ^o .9/ 2.4 16		
3 2	13 20.52	- 6 58.5	2.887	3.705	9.8	20.6	3 2	13 20.91	- 1 39.3	1.366	2.231	15.9	21.0
3 12	13 15.70	- 6 25.7	2.808	3.713	7.3	20.4	3 12	13 17.31	- 0 21.4	1.300	2.230	11.8	20.7
3 22	13 9.57	- 5 45.2	2.756	3.721	4.4	20.2	3 22	13 11.13	+ 1 8.1	1.256	2.230	7.3	20.5
4 1	13 2.59	- 5 0.2	2.732	3.728	1.4	20.0	4 1	13 3.20	+ 2 39.9	1.237	2.230	4.0	20.3
4 11	12 55.39	- 4 14.4	2.739	3.735	1.9	20.1	4 11	12 54.74	+ 4 3.0	1.244	2.230	6.1	20.4
4 21	12 48.54	- 3 31.6	2.776	3.742	4.9	20.3	4 21	12 46.98	+ 5 8.1	1.275	2.230	10.6	20.6
5 1	12 42.60	- 2 55.2	2.841	3.748	7.7	20.5	5 1	12 41.04	+ 5 49.0	1.329	2.231	14.9	20.9
5 11	12 37.99	- 2 27.9	2.931	3.754	10.1	20.7	5 11	12 37.61	+ 6 3.6	1.401	2.232	18.7	21.1
497185	2004 <i>TX</i> ₆₉		4 5.7 169 ^o .81	0 ^o .4/ 6.2 17			313759	2003 <i>WW</i> ₇₉		4 5.7 91 ^o .89	1 ^o .8/ 7.2 18		
3 2	13 22.96	- 10 8.7	2.528	3.337	11.3	22.8	3 2	13 25.90	- 13 16.6	1.658	2.474	16.0	21.3
3 12	13 17.73	- 9 41.9	2.444	3.342	8.6	22.6	3 12	13 20.52	- 12 59.7	1.596	2.494	12.2	21.1
3 22	13 10.91	- 9 4.4	2.385	3.345	5.4	22.4	3 22	13 12.84	- 12 25.4	1.556	2.514	7.9	20.9
4 1	13 3.05	- 8 18.9	2.354	3.349	1.9	22.2	4 1	13 3.70	- 11 36.5	1.541	2.533	3.5	20.7
4 11	12 54.86	- 7 29.4	2.353	3.351	1.8	22.2	4 11	12 54.22	- 10 39.1	1.554	2.552	2.5	20.7
4 21	12 47.09	- 6 40.6	2.382	3.353	5.2	22.4	4 21	12 45.54	- 9 40.1	1.594	2.571	6.7	21.0
5 1	12 40.38	- 5 57.0	2.439	3.355	8.4	22.6	5 1	12 38.58	- 8 46.9	1.660	2.589	10.8	21.2
5 11	12 35.25	- 5 22.1	2.521	3.355	11.2	22.8	5 11	12 33.96	- 8 5.0	1.749	2.607	14.3	21.5
38923	2000 <i>SM</i> ₂₂₁		4 5.7 208 ^o .86	5 ^o .4/ 31.0 18			89013	2001 <i>TD</i> ₈₃		4 5.7 294 ^o .07	4 ^o .2/ 8.8 18		
3 2	13 23.66	+ 7 55.6	2.126	2.973	11.7	19.2	3 2	13 24.37	- 17 19.8	1.398	2.213	18.4	20.0
3 12	13 18.51	+ 8 57.6	2.054	2.969	9.0	19.0	3 12	13 20.20	- 17 31.5	1.316	2.208	14.7	19.7
3 22	13 11.50	+ 9 59.0	2.007	2.965	6.4	18.9	3 22	13 13.12	- 17 20.1	1.253	2.203	10.4	19.5
4 1	13 3.26	+ 10 53.0	1.987	2.960	5.4	18.8	4 1	13 3.92	- 16 45.2	1.214	2.198	6.0	19.2
4 11	12 54.63	+ 11 33.4	1.996	2.955	6.9	18.9	4 11	12 53.89	- 15 51.1	1.199	2.194	4.4	19.1
4 21	12 46.48	+ 11 55.9	2.031	2.949	9.6	19.0	4 21	12 44.47	- 14 45.3	1.210	2.189	8.0	19.3
5 1	12 39.61	+ 11 58.4	2.091	2.943	12.5	19.2	5 1	12 36.99	- 13 37.8	1.244	2.185	12.6	19.5
5 11	12 34.59	+ 11 41.3	2.172	2.936	15.0	19.4	5 11	12 32.32</					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
426575	2013 SS ₁₇		4 5.7 55°84	2°2/ 7.4 18			297661	2001 UT ₂₇		4 5.7 182°32	1°7/ 4.4 18		
3 2	13 25.89	-12 33.2	1.646	2.465	15.9	20.9	3 2	13 27.41	-4 11.2	1.677	2.515	14.8	21.4
3 12	13 20.57	-12 45.9	1.585	2.484	12.2	20.7	3 12	13 21.81	-3 39.3	1.601	2.516	11.0	21.1
3 22	13 12.91	-12 43.2	1.545	2.502	8.0	20.5	3 22	13 13.79	-2 57.3	1.547	2.517	6.7	20.9
4 1	13 3.74	-12 26.8	1.531	2.521	3.8	20.3	4 1	13 4.11	-2 10.5	1.520	2.516	2.4	20.6
4 11	12 54.20	-12 0.7	1.543	2.541	2.8	20.3	4 11	12 53.89	-1 25.2	1.522	2.516	3.7	20.7
4 21	12 45.43	-11 30.6	1.583	2.560	6.7	20.5	4 21	12 44.29	-0 47.9	1.550	2.514	8.2	20.9
5 1	12 38.40	-11 2.4	1.648	2.580	10.7	20.8	5 1	12 36.36	-0 23.7	1.603	2.513	12.4	21.2
5 11	12 33.72	-10 41.4	1.735	2.599	14.1	21.1	5 11	12 30.81	-0 15.5	1.678	2.510	16.0	21.4
368983	2007 EA ₈₉		4 5.7 112°92	2°3/ 7.8 17			438376	2006 TZ ₅₉		4 5.7 162°09	2°6/ 9.0 17		
3 2	13 26.59	-14 4.9	1.973	2.775	14.3	21.9	3 2	13 19.53	-18 8.5	2.561	3.343	12.0	21.9
3 12	13 20.82	-14 9.9	1.901	2.789	11.1	21.7	3 12	13 15.28	-17 47.8	2.472	3.345	9.5	21.7
3 22	13 12.97	-14 0.1	1.852	2.804	7.4	21.5	3 22	13 9.48	-17 11.7	2.406	3.347	6.6	21.5
4 1	13 3.76	-13 36.8	1.830	2.818	3.7	21.3	4 1	13 2.66	-16 21.6	2.368	3.349	3.8	21.4
4 11	12 54.17	-13 3.8	1.836	2.832	2.7	21.3	4 11	12 55.51	-15 21.0	2.358	3.351	2.7	21.3
4 21	12 45.20	-12 26.1	1.870	2.845	6.0	21.5	4 21	12 48.75	-14 14.9	2.377	3.353	4.9	21.4
5 1	12 37.72	-11 49.2	1.931	2.858	9.6	21.7	5 1	12 43.01	-13 8.7	2.424	3.354	7.8	21.6
5 11	12 32.32	-11 18.4	2.016	2.871	12.8	22.0	5 11	12 38.79	-12 7.6	2.497	3.355	10.5	21.8
278253	2007 EP ₁₉₀		4 5.7 53°86	0°0/ 5.4 18			293085	2006 WD ₁₉₁		4 5.7 230°45	4°4/31.1 18		
3 2	13 22.88	-10 18.3	1.442	2.282	16.7	20.7	3 2	13 21.70	+8 8.0	2.786	3.627	9.5	21.1
3 12	13 18.34	-9 23.9	1.397	2.312	12.4	20.5	3 12	13 16.73	+8 58.4	2.703	3.615	7.2	21.0
3 22	13 11.48	-8 12.5	1.374	2.342	7.6	20.3	3 22	13 10.31	+9 47.9	2.647	3.603	5.2	20.8
4 1	13 3.24	-6 50.7	1.376	2.373	2.4	20.0	4 1	13 2.93	+10 32.0	2.619	3.590	4.4	20.8
4 11	12 54.83	-5 27.6	1.405	2.403	2.7	20.1	4 11	12 55.21	+11 5.9	2.620	3.577	5.6	20.8
4 21	12 47.37	-4 12.1	1.460	2.434	7.6	20.5	4 21	12 47.81	+11 26.4	2.650	3.564	7.8	20.9
5 1	12 41.75	-3 11.2	1.540	2.465	11.8	20.8	5 1	12 41.34	+11 31.6	2.705	3.550	10.2	21.1
5 11	12 38.48	-2 29.1	1.641	2.495	15.3	21.1	5 11	12 36.27	+11 21.2	2.782	3.535	12.3	21.2
346729	2009 AK ₂₆		4 5.7 1°11	1°9/ 3.8 17			425225	2009 VF ₈₀		4 5.7 135°03	4°3/31.4 18		
3 2	13 20.42	-3 10.3	1.970	2.815	12.6	21.3	3 2	13 22.53	+4 53.1	2.385	3.228	10.8	21.9
3 12	13 16.24	-2 30.0	1.895	2.814	9.3	21.1	3 12	13 17.38	+6 12.2	2.327	3.243	8.0	21.8
3 22	13 10.19	-1 41.7	1.843	2.814	5.7	20.8	3 22	13 10.69	+7 32.5	2.296	3.258	5.5	21.6
4 1	13 2.87	-0 50.3	1.819	2.814	2.3	20.6	4 1	13 3.03	+8 47.6	2.295	3.272	4.3	21.6
4 11	12 55.17	-0 1.7	1.822	2.814	3.6	20.7	4 11	12 55.15	+9 51.4	2.322	3.286	5.7	21.7
4 21	12 47.96	+0 38.5	1.853	2.815	7.3	20.9	4 21	12 47.79	+10 39.6	2.378	3.298	8.3	21.8
5 1	12 42.03	+1 6.1	1.910	2.815	10.9	21.1	5 1	12 41.58	+11 9.7	2.459	3.310	10.8	22.0
5 11	12 37.95	+1 18.4	1.988	2.816	14.0	21.3	5 11	12 36.98	+11 21.3	2.562	3.322	13.1	22.2
333090	2011 UE ₁₇₉		4 5.7 274°75	4°6/31.4 18			200156	1998 SA ₃		4 5.7 230°64	3°9/ 1.1 18		
3 2	13 21.53	+7 8.7	2.429	3.275	10.5	20.6	3 2	13 23.71	+5 30.3	2.650	3.487	10.0	21.0
3 12	13 16.84	+7 58.6	2.340	3.256	8.0	20.4	3 12	13 18.31	+6 16.7	2.560	3.473	7.6	20.8
3 22	13 10.49	+8 48.7	2.277	3.237	5.7	20.2	3 22	13 11.34	+7 4.2	2.496	3.458	5.1	20.6
4 1	13 2.98	+9 33.5	2.241	3.217	4.6	20.1	4 1	13 3.28	+7 48.0	2.462	3.442	3.9	20.5
4 11	12 55.04	+10 7.8	2.234	3.197	6.0	20.1	4 11	12 54.82	+8 23.2	2.457	3.425	5.1	20.6
4 21	12 47.42	+10 27.6	2.255	3.177	8.5	20.3	4 21	12 46.68	+8 46.2	2.481	3.408	7.6	20.7
5 1	12 40.83	+10 30.5	2.301	3.157	11.3	20.4	5 1	12 39.53	+8 54.5	2.531	3.390	10.3	20.8
5 11	12 35.82	+10 16.1	2.368	3.137	13.8	20.5	5 11	12 33.88	+8 47.5	2.604	3.372	12.7	21.0
196560	2003 QQ ₁₄		4 5.7 205°99	0°9/ 4.6 18			424022	2006 XZ ₂₆		4 5.7 119°75	10°9/20.9 18		
3 2	13 20.33	-7 6.7	2.307	3.134	11.6	20.9	3 2	13 31.06	-44 38.8	2.421	3.004	17.1	21.7
3 12	13 15.97	-6 7.6	2.220	3.130	8.7	20.7	3 12	13 24.51	-45 28.8	2.345	3.025	15.6	21.6
3 22	13 9.94	-4 57.2	2.158	3.126	5.2	20.5	3 22	13 15.43	-45 51.1	2.286	3.046	14.0	21.5
4 1	13 2.80	-3 40.0	2.125	3.121	1.7	20.2	4 1	13 4.64	-45 41.1	2.245	3.067	12.5	21.4
4 11	12 55.29	-2 22.0	2.121	3.116	2.7	20.3	4 11	12 53.34	-44 58.0	2.227	3.086	11.3	21.4
4 21	12 48.16	-1 9.3	2.146	3.110	6.3	20.5	4 21	12 42.77	-43 44.9	2.232	3.105	10.9	21.4
5 1	12 42.13	-0 7.3	2.199	3.104	9.7	20.7	5 1	12 34.03	-42 8.4	2.261	3.123	11.3	21.4
5 11	12 37.72	+0 40.1	2.275	3.098	12.7	20.9	5 11	12 27.81	-40 18.3	2.314	3.140	12.4	21.5
502532	2015 BU ₄₃₉		4 5.7 109°96	0°2/ 5.5 17			468841	2012 UQ ₈₅		4 5.7 267°96	3°0/ 9.1 17		
3 2	13 22.46	-7 59.5	1.965	2.794	13.3	21.8	3 2	13 19.91	-18 35.9	2.211	2.998	13.4	21.1
3 12	13 17.76	-7 32.1	1.890	2.800	10.0	21.6	3 12	13 15.90	-18 17.0	2.111	2.987	10.7	20.9
3 22	13 11.12	-6 53.3	1.838	2.805	6.1	21.3	3 22	13 10.05	-17 39.8	2.034	2.976	7.6	20.7
4 1	13 3.20	-6 6.7	1.814	2.810	1.9	21.1	4 1	13 2.90	-16 45.2	1.983	2.964	4.4	20.4
4 11	12 54.89	-5 17.8	1.818	2.816	2.4	21.1	4 11	12 55.25	-15 37.1	1.959	2.953	3.1	20.3
4 21	12 47.11	-4 32.1	1.849	2.821	6.5	21.4	4 21	12 47.96	-14 21.2	1.964	2.941	5.6	20.5
5 1	12 40.69	-3 54.9	1.907	2.826	10.2	21.6	5 1	12 41.83	-13 4.4	1.997	2.929	9.0	20.6
5 11	12 36.19	-3 29.9	1.988	2.831	13.5	21.8	5 11	12 37.46	-11 53.3	2.053	2.918	12.2	20.8
416237	2003 BS ₂₃		4 5.7 147°64	2°9/ 2.2 18			461982	2006 VQ ₁₁₁		4 5.7 22°23	2°7/ 7.6 18		
3 2	13 22.42	-1 27.3	2.258	3.096	11.5	20.8	3 2	13 22.82	-13 3.4	1.309	2.146	18.2	20.3
3 12	13 17.41	-0 3.1	2.191	3.108	8.4	20.6	3 12	13 18.92	-13 16.9	1.245	2.153	14.1	20.0
3 22	13 10.76	+1 28.0	2.150	3.119	5.2	20.5	3 22	13 12.24	-13 11.2	1.200	2.161	9.4	19.8
4 1	13 3.05	+2 59.6	2.138	3.129	2.9	20.3	4 1	13 3.64	-12 47.9	1.179	2.170	4.5	19.5
4 11	12 55.08	+4 24.8	2.156	3.138	4.4	20.4	4 11	12 54.46	-12 12.1	1.182	2.180	3.3	19.5
4 21	12 47.62	+5 37.4	2.204	3.147	7.6	20.6	4 21	12 46.09	-11 31.1	1.209	2.190	7.7	19.8
5 1	12 41.35	+6 33.3	2.278	3.155	10.6	20.9	5 1	12 39.71	-10 53.0	1.261	2.201	12.4	20.1
5 11	12 36.76	+7 10.4	2.374	3.162	13.2	21.0	5 11	12 36.06	-10 24.7	1.332	2.214	16.5	20.3
406449	2007 TO ₃₈₅		4 5.7 160°40	0°2/ 5.9 16			208203	2000 SX ₈		4 5.7 136°40	6°2/10.7 18		
3 2	13 27.77	-8 35.0	2.018	2.834	13.5	23.0	3 2	13 34.99	-23 41.9	2.091	2.828</		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
117287	2004 <i>TS</i> ₂₂₁		4 5.7 253°54	4.3/ 1.5	17		201109	2002 <i>GY</i> ₁₇₈		4 5.7 185°72	0.4/ 5.3	17	
3 2	13 22.15	+ 3 3.1	1.897	2.750	12.7	19.7	3 2	13 21.78	- 7 46.7	1.973	2.804	13.2	21.4
3 12	13 17.63	+ 4 3.0	1.823	2.745	9.5	19.5	3 12	13 17.31	- 7 12.3	1.893	2.804	9.9	21.2
3 22	13 11.11	+ 5 6.8	1.773	2.740	6.2	19.3	3 22	13 10.90	- 6 26.2	1.837	2.804	6.1	20.9
4 1	13 3.23	+ 6 7.7	1.750	2.735	4.3	19.2	4 1	13 3.19	- 5 32.1	1.807	2.804	1.9	20.7
4 11	12 54.91	+ 6 58.4	1.754	2.730	5.9	19.3	4 11	12 55.04	- 4 35.9	1.806	2.803	2.5	20.7
4 21	12 47.10	+ 7 33.6	1.786	2.725	9.3	19.5	4 21	12 47.38	- 3 43.6	1.833	2.803	6.6	21.0
5 1	12 40.65	+ 7 49.8	1.841	2.720	12.6	19.6	5 1	12 41.03	- 3 0.5	1.885	2.802	10.4	21.2
5 11	12 36.16	+ 7 46.1	1.917	2.715	15.6	19.8	5 11	12 36.59	- 2 30.6	1.961	2.802	13.7	21.4
131843	2002 <i>AM</i> ₁₁₈		4 5.7 52°63	0.5/ 6.1	18		32518	2001 <i>OZ</i> ₆₉		4 5.7 142°39	2.0/ 3.5	18 R	
3 2	13 24.57	- 9 36.6	1.296	2.142	17.9	19.2	3 2	13 23.96	- 2 35.3	2.306	3.138	11.5	20.1
3 12	13 20.13	- 9 18.1	1.237	2.153	13.5	19.0	3 12	13 18.53	- 1 43.6	2.238	3.151	8.5	19.9
3 22	13 12.90	- 8 42.3	1.197	2.165	8.4	18.8	3 22	13 11.45	- 0 45.4	2.195	3.164	5.1	19.7
4 1	13 3.83	- 7 53.5	1.181	2.177	2.9	18.5	4 1	13 3.32	+ 0 14.5	2.182	3.176	2.2	19.6
4 11	12 54.28	- 6 59.3	1.191	2.190	2.8	18.5	4 11	12 54.93	+ 1 10.5	2.198	3.187	3.5	19.7
4 21	12 45.63	- 6 8.1	1.226	2.203	8.2	18.8	4 21	12 47.06	+ 1 57.8	2.243	3.197	6.7	19.9
5 1	12 39.02	- 5 27.6	1.284	2.216	13.0	19.1	5 1	12 40.39	+ 2 32.6	2.315	3.207	9.9	20.1
5 11	12 35.15	- 5 2.9	1.362	2.229	17.1	19.4	5 11	12 35.42	+ 2 52.8	2.411	3.216	12.6	20.3
410175	2007 <i>QW</i> ₆		4 5.7 284°70	2.7/ 7.5	16		37498	1507 <i>T</i> ₋₂		4 5.7 244°61	1.4/ 4.5	18	
3 2	13 25.44	-13 28.7	1.465	2.289	17.3	21.2	3 2	13 22.90	- 7 4.1	1.602	2.444	15.2	18.8
3 12	13 21.08	-13 40.2	1.368	2.269	13.6	20.9	3 12	13 18.68	- 6 3.4	1.516	2.434	11.4	18.5
3 22	13 13.80	-13 33.5	1.292	2.250	9.2	20.6	3 22	13 12.01	- 4 46.4	1.453	2.423	6.9	18.2
4 1	13 4.26	-13 8.7	1.240	2.230	4.6	20.3	4 1	13 3.60	- 3 18.8	1.416	2.412	2.3	17.9
4 11	12 53.65	-12 29.5	1.213	2.210	3.4	20.2	4 11	12 54.54	- 1 49.5	1.406	2.401	3.7	18.0
4 21	12 43.40	-11 42.5	1.212	2.191	8.0	20.4	4 21	12 45.99	- 0 28.0	1.423	2.390	8.6	18.2
5 1	12 34.90	-10 55.9	1.235	2.171	13.1	20.6	5 1	12 39.02	+ 0 37.8	1.465	2.378	13.1	18.5
5 11	12 29.18	-10 18.1	1.278	2.151	17.6	20.8	5 11	12 34.40	+ 1 22.8	1.527	2.366	17.0	18.7
209018	2003 <i>DM</i> ₈		4 5.7 197°15	0.6/ 6.4	18		153459	2001 <i>QD</i> ₃₂₉		4 5.7 133°07	6.3/ 28.7	16	
3 2	13 21.31	-10 3.7	2.534	3.346	11.2	20.5	3 2	13 22.46	+ 9 3.1	2.170	3.019	11.5	21.4
3 12	13 16.58	- 9 49.5	2.446	3.345	8.5	20.3	3 12	13 17.51	+11 1.9	2.120	3.034	8.8	21.2
3 22	13 10.29	- 9 25.2	2.383	3.343	5.4	20.1	3 22	13 10.85	+12 59.0	2.098	3.049	6.8	21.1
4 1	13 2.94	- 8 53.2	2.347	3.341	2.0	19.9	4 1	13 3.13	+14 45.8	2.104	3.062	6.4	21.1
4 11	12 55.24	- 8 16.9	2.341	3.339	1.7	19.9	4 11	12 55.15	+16 14.3	2.139	3.075	8.0	21.3
4 21	12 47.89	- 7 40.4	2.364	3.337	5.1	20.1	4 21	12 47.74	+17 19.7	2.200	3.088	10.4	21.4
5 1	12 41.56	- 7 7.7	2.415	3.335	8.3	20.3	5 1	12 41.58	+17 59.8	2.286	3.099	12.8	21.6
5 11	12 36.76	- 6 42.4	2.490	3.332	11.1	20.5	5 11	12 37.18	+18 15.6	2.391	3.110	14.9	21.8
265724	2005 <i>UQ</i> ₄₁₀		4 5.7 22°04	0.2/ 5.5	17		371079	2005 <i>UO</i> ₃₅₂		4 5.7 209°99	3.8/ 9.8	17	
3 2	13 19.70	- 9 1.3	1.444	2.292	16.2	20.4	3 2	13 22.65	-20 36.0	2.150	2.924	14.2	21.7
3 12	13 16.29	- 8 22.4	1.379	2.298	12.2	20.1	3 12	13 18.00	-20 21.3	2.054	2.919	11.5	21.5
3 22	13 10.47	- 7 26.8	1.335	2.304	7.5	19.9	3 22	13 11.37	-19 46.5	1.980	2.914	8.3	21.3
4 1	13 3.05	- 6 19.9	1.315	2.312	2.4	19.6	4 1	13 3.36	-18 52.3	1.932	2.908	5.2	21.1
4 11	12 55.17	- 5 9.8	1.321	2.320	2.9	19.6	4 11	12 54.84	-17 42.3	1.912	2.902	3.8	21.0
4 21	12 48.00	- 4 5.1	1.353	2.328	7.9	19.9	4 21	12 46.74	-16 22.3	1.920	2.895	5.9	21.1
5 1	12 42.53	- 3 13.3	1.409	2.338	12.4	20.2	5 1	12 39.92	-14 59.8	1.956	2.887	9.2	21.3
5 11	12 39.43	- 2 39.2	1.486	2.348	16.2	20.5	5 11	12 35.01	-13 42.3	2.016	2.880	12.5	21.5
363242	2002 <i>AB</i> ₁₁₆		4 5.7 78°94	3.2/ 8.2	18		199331	2006 <i>BT</i> ₁₃₁		4 5.7 277°07	0.5/ 6.2	17	
3 2	13 27.88	-15 59.0	1.437	2.250	18.1	21.8	3 2	13 22.09	- 9 49.9	1.933	2.758	13.7	20.9
3 12	13 22.32	-15 57.6	1.381	2.274	14.1	21.6	3 12	13 17.68	- 9 31.4	1.846	2.752	10.4	20.7
3 22	13 14.11	-15 34.5	1.345	2.298	9.6	21.4	3 22	13 11.21	- 8 59.7	1.781	2.745	6.6	20.4
4 1	13 4.21	-14 51.7	1.334	2.321	5.0	21.2	4 1	13 3.31	- 8 17.9	1.743	2.739	2.4	20.2
4 11	12 53.96	-13 55.0	1.348	2.345	3.5	21.1	4 11	12 54.90	- 7 30.7	1.733	2.732	2.2	20.1
4 21	12 44.68	-12 52.7	1.389	2.368	7.3	21.4	4 21	12 46.92	- 6 43.8	1.751	2.726	6.4	20.4
5 1	12 37.45	-11 53.5	1.455	2.390	11.6	21.7	5 1	12 40.26	- 6 3.2	1.795	2.719	10.4	20.6
5 11	12 32.91	-11 4.7	1.543	2.412	15.3	22.0	5 11	12 35.59	- 5 33.4	1.861	2.712	13.9	20.8
391883	2008 <i>UW</i> ₂		4 5.7 205°73	5.9/ 29.5	17		472861	2015 <i>FE</i> ₂₉₅		4 5.7 51°24	4.7/ 31.9	17	
3 2	13 23.06	+11 26.2	2.453	3.295	10.5	21.3	3 2	13 22.37	+ 6 25.8	2.099	2.950	11.7	20.6
3 12	13 17.90	+12 34.7	2.382	3.290	8.3	21.1	3 12	13 17.55	+ 7 12.8	2.034	2.953	8.9	20.4
3 22	13 11.10	+13 40.3	2.337	3.284	6.4	21.0	3 22	13 10.94	+ 7 59.3	1.994	2.956	6.1	20.2
4 1	13 3.22	+14 36.6	2.321	3.278	5.9	21.0	4 1	13 3.18	+ 8 39.5	1.981	2.960	4.7	20.1
4 11	12 55.00	+15 18.2	2.332	3.271	7.2	21.0	4 11	12 55.11	+ 9 7.9	1.996	2.964	6.1	20.2
4 21	12 47.20	+15 41.3	2.370	3.264	9.5	21.2	4 21	12 47.56	+ 9 20.7	2.037	2.967	8.9	20.4
5 1	12 40.51	+15 44.5	2.433	3.256	11.8	21.3	5 1	12 41.29	+ 9 16.0	2.103	2.971	11.8	20.6
5 11	12 35.44	+15 28.4	2.516	3.248	14.0	21.5	5 11	12 36.82	+ 8 54.1	2.191	2.975	14.3	20.8
420811	2013 <i>HE</i> ₂₅		4 5.7 270°45	0.0/ 5.5	17		209978	2006 <i>HD</i> ₄₄		4 5.7 104°33	4.3/ 2.4	18	
3 2	13 25.78	- 8 14.6	1.683	2.514	15.1	21.6	3 2	13 26.63	+ 2 0.9	1.530	2.384	15.1	20.4
3 12	13 20.94	- 7 58.3	1.581	2.491	11.5	21.3	3 12	13 21.25	+ 2 52.0	1.471	2.394	11.2	20.2
3 22	13 13.52	- 7 28.2	1.503	2.469	7.3	21.0	3 22	13 13.42	+ 3 47.3	1.435	2.404	7.2	20.0
4 1	13 4.15	- 6 47.1	1.449	2.445	2.4	20.6	4 1	13 4.01	+ 4 39.2	1.424	2.413	4.4	19.9
4 11	12 53.86	- 6 0.5	1.423	2.422	2.7	20.6	4 11	12 54.21	+ 5 19.9	1.441	2.423	6.1	20.0
4 21	12 43.90	- 5 15.0	1.425	2.398	7.8	20.8	4 21	12 45.22	+ 5 43.6	1.483	2.432	10.0	20.2
5 1	12 35.43	- 4 37.5	1.451	2.373	12.6	21.0	5 1	12 38.05	+ 5 47.3	1.549	2.441	13.8	20.5
5 11	12 29.37	- 4 13.4	1.499	2.348	16.8	21.2	5 11	12 33.33	+ 5 30.9	1.635	2.450	17.1	20.7
504121	2006 <i>RB</i> ₄₄		4 5.7 115°70	1.0/ 4.4	17		317307	2002 <i>GR</i> ₁₁₀		4 5.7 334°22</			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
522705	2016 LZ ₅₉		4 5.7 25°62	0°9/ 4.8 17			115130	2003 SV ₅₂		4 5.7 244°62	1°0/ 6.8 18	R	
3 2	13 20.40	- 7 13.8	1.901	2.737	13.4	21.7	3 2	13 21.52	-12 10.9	2.227	3.037	12.6	20.6
3 12	13 16.34	- 6 24.7	1.823	2.738	10.0	21.4	3 12	13 17.06	-11 44.7	2.129	3.026	9.7	20.4
3 22	13 10.33	- 5 23.0	1.769	2.738	6.0	21.2	3 22	13 10.77	-11 4.5	2.055	3.014	6.3	20.1
4 1	13 3.02	- 4 13.6	1.742	2.738	1.9	20.9	4 1	13 3.19	-10 12.6	2.008	3.001	2.6	19.9
4 11	12 55.29	- 3 3.4	1.743	2.739	2.9	21.0	4 11	12 55.11	- 9 13.6	1.990	2.989	2.0	19.8
4 21	12 48.06	- 1 59.0	1.771	2.739	7.0	21.2	4 21	12 47.38	- 8 12.9	2.001	2.975	5.7	20.0
5 1	12 42.16	- 1 6.4	1.825	2.740	10.9	21.5	5 1	12 40.78	- 7 16.5	2.039	2.962	9.4	20.2
5 11	12 38.18	- 0 29.7	1.902	2.740	14.2	21.7	5 11	12 35.93	- 6 29.4	2.100	2.949	12.7	20.4
340828	2006 UW ₁₇₅		4 5.7 69°70	2°3/ 3.5 17			269021	2007 EQ ₂₁₃		4 5.7 63°35	0°6/ 5.2 17		
3 2	13 23.76	+ 0 4.6	2.201	3.040	11.7	20.6	3 2	13 21.61	- 7 44.1	1.788	2.625	14.1	21.1
3 12	13 18.51	+ 0 23.0	2.130	3.047	8.7	20.5	3 12	13 17.37	- 7 3.8	1.712	2.626	10.6	20.8
3 22	13 11.50	+ 0 45.0	2.084	3.053	5.3	20.3	3 22	13 11.03	- 6 10.3	1.658	2.627	6.4	20.6
4 1	13 3.37	+ 1 6.6	2.066	3.059	2.5	20.1	4 1	13 3.27	- 5 8.3	1.631	2.628	2.0	20.3
4 11	12 54.92	+ 1 23.4	2.077	3.065	3.7	20.2	4 11	12 55.06	- 4 4.4	1.632	2.629	2.8	20.4
4 21	12 46.97	+ 1 32.1	2.115	3.072	6.9	20.4	4 21	12 47.39	- 3 5.5	1.660	2.630	7.2	20.6
5 1	12 40.26	+ 1 30.0	2.181	3.078	10.1	20.6	5 1	12 41.16	- 2 17.8	1.713	2.631	11.2	20.9
5 11	12 35.32	+ 1 15.9	2.269	3.085	12.9	20.8	5 11	12 37.00	- 1 45.4	1.788	2.632	14.7	21.1
209465	2004 GO ₄₉		4 5.7 1°76	0°8/ 6.4 17			165226	2000 SE ₅₉		4 5.7 108°72	0°0/ 5.5 18		
3 2	13 19.97	-10 11.3	1.809	2.640	14.2	20.5	3 2	13 25.64	- 9 50.4	1.722	2.547	15.1	20.9
3 12	13 16.16	- 9 57.7	1.730	2.639	10.8	20.3	3 12	13 20.25	- 9 0.1	1.661	2.568	11.3	20.7
3 22	13 10.29	- 9 30.5	1.674	2.639	6.8	20.0	3 22	13 12.68	- 7 54.7	1.623	2.589	6.9	20.5
4 1	13 3.02	- 8 52.6	1.644	2.639	2.6	19.8	4 1	13 3.76	- 6 39.3	1.612	2.608	2.2	20.3
4 11	12 55.28	- 8 9.1	1.641	2.640	2.2	19.7	4 11	12 54.57	- 5 21.6	1.630	2.627	2.5	20.3
4 21	12 48.04	- 7 25.7	1.665	2.641	6.5	20.0	4 21	12 46.14	- 4 9.2	1.675	2.646	7.1	20.7
5 1	12 42.19	- 6 48.3	1.714	2.644	10.5	20.2	5 1	12 39.36	- 3 8.9	1.746	2.664	11.1	20.9
5 11	12 38.36	- 6 21.7	1.785	2.646	14.0	20.5	5 11	12 34.80	- 2 24.8	1.840	2.681	14.5	21.2
98455	2000 UF ₆₈		4 5.7 29°14	4°9/ 9.4 18			379706	2011 FK ₁₅₀		4 5.7 52°28	3°3/ 3.2 17		
3 2	13 23.82	-18 56.1	1.396	2.206	18.7	19.4	3 2	13 25.74	+ 1 19.9	1.700	2.550	14.1	20.5
3 12	13 19.73	-19 11.1	1.322	2.209	15.1	19.2	3 12	13 20.39	+ 1 43.4	1.638	2.559	10.4	20.3
3 22	13 12.81	-19 1.5	1.267	2.212	10.8	18.9	3 22	13 12.82	+ 2 10.3	1.600	2.569	6.5	20.1
4 1	13 3.90	-18 27.1	1.234	2.215	6.7	18.7	4 1	13 3.83	+ 2 35.1	1.587	2.579	3.5	19.9
4 11	12 54.29	-17 32.0	1.227	2.219	4.9	18.6	4 11	12 54.49	+ 2 52.1	1.602	2.589	4.9	20.0
4 21	12 45.39	-16 24.0	1.244	2.223	7.9	18.8	4 21	12 45.86	+ 2 57.1	1.644	2.600	8.6	20.2
5 1	12 38.44	-15 13.2	1.285	2.227	12.2	19.0	5 1	12 38.86	+ 2 47.7	1.710	2.610	12.3	20.5
5 11	12 34.26	-14 9.3	1.348	2.231	16.2	19.3	5 11	12 34.09	+ 2 23.1	1.798	2.621	15.5	20.7
434048	2001 TV ₂₃₄		4 5.7 136°54	0°5/ 5.2 17			155053	2005 SV ₉		4 5.7 101°89	2°1/ 4.1 18		
3 2	13 21.94	- 6 19.1	2.578	3.400	10.7	21.7	3 2	13 28.54	- 1 5.8	1.916	2.751	13.4	19.9
3 12	13 16.95	- 5 56.6	2.502	3.408	8.0	21.5	3 12	13 22.20	- 0 52.0	1.854	2.768	9.9	19.7
3 22	13 10.47	- 5 26.5	2.451	3.417	4.9	21.3	3 22	13 13.81	- 0 33.6	1.816	2.784	6.0	19.5
4 1	13 3.03	- 4 51.9	2.429	3.425	1.5	21.1	4 1	13 4.13	- 0 14.6	1.805	2.800	2.5	19.3
4 11	12 55.31	- 4 16.6	2.436	3.433	2.1	21.2	4 11	12 54.17	+ 0 0.3	1.824	2.816	3.7	19.4
4 21	12 48.01	- 3 44.4	2.473	3.440	5.4	21.4	4 21	12 44.91	+ 0 7.2	1.871	2.831	7.4	19.7
5 1	12 41.74	- 3 18.8	2.537	3.447	8.4	21.6	5 1	12 37.21	+ 0 3.5	1.944	2.846	11.0	19.9
5 11	12 36.97	- 3 2.5	2.626	3.454	11.0	21.8	5 11	12 31.61	- 0 12.1	2.040	2.861	14.0	20.1
327796	2006 UU ₂₈₁		4 5.7 37°99	0°7/ 6.3 18			475642	2006 UC ₂₆₁		4 5.7 114°50	1°8/ 7.9 17		
3 2	13 21.20	-11 19.0	1.260	2.108	18.1	20.3	3 2	13 19.27	-15 26.4	2.459	3.255	12.0	21.7
3 12	13 17.56	-10 44.8	1.210	2.127	13.7	20.0	3 12	13 15.12	-14 57.2	2.376	3.261	9.3	21.6
3 22	13 11.28	- 9 50.6	1.179	2.147	8.6	19.8	3 22	13 9.42	-14 13.4	2.317	3.267	6.2	21.4
4 1	13 3.33	- 8 41.9	1.172	2.167	3.1	19.5	4 1	13 2.71	-13 17.4	2.285	3.273	3.1	21.2
4 11	12 55.04	- 7 27.7	1.190	2.189	2.7	19.6	4 11	12 55.70	-12 13.4	2.282	3.279	2.1	21.1
4 21	12 47.69	- 6 17.7	1.232	2.211	7.9	19.9	4 21	12 49.10	-11 6.5	2.308	3.285	4.9	21.3
5 1	12 42.33	- 5 20.4	1.298	2.234	12.6	20.3	5 1	12 43.55	-10 2.3	2.362	3.290	8.1	21.5
5 11	12 39.56	- 4 41.2	1.385	2.257	16.6	20.6	5 11	12 39.55	- 9 5.6	2.441	3.296	10.9	21.7
56789	2000 OU ₅₄		4 5.7 214°07	1°0/ 6.8 18			182508	2001 SA ₂₅₃		4 5.7 228°14	1°2/ 4.6 18		
3 2	13 20.86	-11 36.9	2.564	3.370	11.2	19.9	3 2	13 23.56	- 5 25.2	2.023	2.856	12.8	21.3
3 12	13 16.28	-11 18.2	2.471	3.366	8.6	19.7	3 12	13 18.69	- 4 48.5	1.935	2.847	9.6	21.0
3 22	13 10.15	-10 48.1	2.403	3.361	5.5	19.5	3 22	13 11.81	- 4 1.6	1.870	2.838	5.8	20.8
4 1	13 2.95	-10 9.0	2.363	3.356	2.3	19.3	4 1	13 3.54	- 3 8.7	1.833	2.829	1.9	20.5
4 11	12 55.38	- 9 24.3	2.352	3.350	1.8	19.2	4 11	12 54.76	- 2 15.7	1.824	2.819	3.0	20.6
4 21	12 48.15	- 8 38.4	2.370	3.344	5.0	19.4	4 21	12 46.39	- 1 28.2	1.844	2.809	7.1	20.8
5 1	12 41.90	- 7 55.8	2.416	3.338	8.2	19.6	5 1	12 39.30	- 0 51.5	1.890	2.798	10.9	21.0
5 11	12 37.17	- 7 20.4	2.487	3.332	11.0	19.8	5 11	12 34.14	- 0 28.9	1.958	2.787	14.2	21.2
284599	2007 TE ₃₈₂		4 5.7 242°41	5°1/31.0 17			455474	2003 UG ₁₄₃		4 5.7 88°88	0°6/ 6.2 18		
3 2	13 21.83	+ 7 55.9	2.267	3.116	11.1	20.5	3 2	13 29.83	- 9 4.1	1.674	2.496	15.6	21.4
3 12	13 17.12	+ 8 53.7	2.193	3.109	8.5	20.4	3 12	13 23.37	- 8 58.4	1.618	2.523	11.7	21.2
3 22	13 10.70	+ 9 50.9	2.145	3.103	6.1	20.2	3 22	13 14.59	- 8 40.1	1.586	2.549	7.3	21.0
4 1	13 3.13	+10 41.3	2.123	3.096	5.1	20.1	4 1	13 4.39	- 8 12.2	1.579	2.574	2.6	20.7
4 11	12 55.20	+11 19.3	2.130	3.089	6.5	20.2	4 11	12 53.93	- 7 39.8	1.601	2.599	2.4	20.8
4 21	12 47.70	+11 40.7	2.164	3.082	9.1	20.3	4 21	12 44.36	- 7 8.7	1.651	2.624	6.9	21.1
5 1	12 41.35	+11 43.5	2.223	3.075	11.8	20.5	5 1	12 36.60	- 6 44.0	1.726	2.648	10.9	21.4
5 11	12 36.68	+11 27.9	2.302	3.068	14.2	20.7	5 11	12 31.24	- 6 29.7	1.825	2.672	14.3	21.6
64805	2001 XP ₂₁₂		4 5.7 176°38	0°9/ 4.7 18			341331	2007 TA ₃₄		4 5.7 49°39	1°5/ 7.4 17		
3 2	13 22.78	- 6 24.0	2.250	3.076	11.9	20.							

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
498591	2008 <i>QJ</i> ₄₀		4 5.7 181°54	4.3/ 9.6	17		329856	2004 <i>TX</i> ₃₅₆		4 5.7 208°38	5.5/30.6	17	
3 2	13 26.93	-19 25.3	2.202	2.973	14.0	21.5	3 2	13 24.73	+10 0.6	2.371	3.212	10.9	20.9
3 12	13 21.19	-19 55.7	2.112	2.973	11.3	21.3	3 12	13 19.23	+10 58.9	2.296	3.206	8.5	20.7
3 22	13 13.36	-20 10.3	2.044	2.973	8.3	21.1	3 22	13 11.99	+11 55.0	2.248	3.199	6.3	20.6
4 1	13 4.07	-20 8.3	2.002	2.973	5.5	20.9	4 1	13 3.61	+12 42.7	2.227	3.192	5.6	20.5
4 11	12 54.21	-19 51.2	1.988	2.973	4.3	20.8	4 11	12 54.86	+13 16.7	2.235	3.185	6.9	20.6
4 21	12 44.76	-19 22.5	2.003	2.972	6.2	21.0	4 21	12 46.54	+13 33.1	2.270	3.176	9.3	20.7
5 1	12 36.63	-18 47.6	2.045	2.971	9.2	21.1	5 1	12 39.38	+13 30.5	2.330	3.167	11.8	20.9
5 11	12 30.48	-18 12.3	2.111	2.970	12.2	21.3	5 11	12 33.93	+13 9.4	2.411	3.158	14.2	21.0
25309	Chrisauer		4 5.7 179°35	0.2/ 5.9	18		369868	2012 <i>KM</i> ₂₅		4 5.7 230°30	2.5/ 3.0	18	
3 2	13 26.05	- 9 57.8	1.782	2.604	14.8	18.8	3 2	13 23.31	- 1 19.6	2.242	3.079	11.6	21.4
3 12	13 20.75	- 9 23.0	1.701	2.606	11.2	18.5	3 12	13 18.35	- 0 27.1	2.150	3.066	8.6	21.2
3 22	13 13.15	- 8 32.8	1.643	2.607	7.0	18.3	3 22	13 11.56	+ 0 32.5	2.084	3.053	5.3	21.0
4 1	13 4.00	- 7 31.3	1.612	2.608	2.4	18.0	4 1	13 3.49	+ 1 34.2	2.046	3.039	2.7	20.8
4 11	12 54.33	- 6 24.7	1.609	2.608	2.4	18.0	4 11	12 54.95	+ 2 32.0	2.037	3.024	4.1	20.8
4 21	12 45.24	- 5 20.3	1.634	2.607	7.1	18.3	4 21	12 46.76	+ 3 20.4	2.057	3.009	7.5	21.0
5 1	12 37.70	- 4 25.0	1.686	2.605	11.3	18.5	5 1	12 39.70	+ 3 55.2	2.104	2.993	10.8	21.2
5 11	12 32.39	- 3 43.8	1.759	2.603	14.9	18.7	5 11	12 34.39	+ 4 13.9	2.173	2.976	13.8	21.3
117275	2004 <i>TC</i> ₁₁₃		4 5.7 22°61	3.6/ 8.6	17		6188	Robertpepin		4 5.7 226°72	0.5/ 5.1	18	
3 2	13 24.39	-16 0.6	1.725	2.531	15.9	19.2	3 2	13 20.36	- 6 21.7	2.810	3.631	10.0	18.8
3 12	13 19.67	-16 25.3	1.647	2.534	12.6	18.9	3 12	13 15.80	- 5 53.1	2.715	3.622	7.4	18.6
3 22	13 12.58	-16 32.9	1.590	2.538	8.8	18.7	3 22	13 9.83	- 5 17.0	2.646	3.612	4.5	18.4
4 1	13 3.83	-16 23.5	1.558	2.542	5.1	18.5	4 1	13 2.90	- 4 36.0	2.606	3.602	1.4	18.2
4 11	12 54.51	-15 59.9	1.552	2.546	3.8	18.4	4 11	12 55.63	- 3 53.9	2.596	3.592	2.0	18.2
4 21	12 45.75	-15 27.1	1.573	2.550	6.8	18.6	4 21	12 48.64	- 3 14.7	2.615	3.581	5.2	18.4
5 1	12 38.59	-14 51.7	1.620	2.555	10.6	18.9	5 1	12 42.52	- 2 41.9	2.662	3.571	8.1	18.6
5 11	12 33.73	-14 20.0	1.689	2.560	14.1	19.1	5 11	12 37.76	- 2 18.3	2.734	3.559	10.7	18.7
190530	2000 <i>QS</i> ₁₈₉		4 5.7 211°17	2.1/ 4.1	18		165458	2000 <i>YV</i> ₁₂₉		4 5.8 210°84	2.9/ 3.0	17	
3 2	13 26.81	- 3 5.3	1.730	2.570	14.3	20.2	3 2	13 26.27	- 0 38.3	2.021	2.858	12.7	20.7
3 12	13 21.40	- 2 31.5	1.649	2.565	10.7	20.0	3 12	13 20.70	+ 0 10.4	1.935	2.851	9.4	20.4
3 22	13 13.61	- 1 48.7	1.590	2.560	6.5	19.7	3 22	13 13.07	+ 1 5.8	1.875	2.843	5.9	20.2
4 1	13 4.18	- 1 1.9	1.559	2.554	2.5	19.5	4 1	13 4.00	+ 2 2.4	1.842	2.834	3.0	20.0
4 11	12 54.15	- 0 17.9	1.555	2.548	3.9	19.6	4 11	12 54.42	+ 2 53.9	1.838	2.824	4.5	20.1
4 21	12 44.67	+ 0 17.4	1.579	2.541	8.3	19.8	4 21	12 45.28	+ 3 34.5	1.863	2.814	8.1	20.3
5 1	12 36.76	+ 0 38.8	1.628	2.534	12.5	20.0	5 1	12 37.49	+ 4 0.0	1.913	2.802	11.7	20.5
5 11	12 31.15	+ 0 43.9	1.698	2.526	16.1	20.2	5 11	12 31.69	+ 4 8.4	1.986	2.790	14.9	20.6
261485	2005 <i>VC</i> ₁₃₃		4 5.7 253°46	1.0/ 4.3	18		270119	2001 <i>RN</i> ₇₄		4 5.8 218°72	3.9/ 9.3	17	
3 2	13 17.73	- 7 4.7	2.558	3.386	10.6	21.2	3 2	13 26.42	-18 55.4	2.182	2.956	14.0	21.4
3 12	13 13.96	- 5 56.8	2.465	3.376	7.9	21.0	3 12	13 20.90	-19 12.7	2.083	2.948	11.3	21.2
3 22	13 8.74	- 4 37.9	2.399	3.367	4.7	20.7	3 22	13 13.25	-19 13.8	2.006	2.940	8.2	21.0
4 1	13 2.53	- 3 12.6	2.361	3.357	1.6	20.5	4 1	13 4.09	-18 57.9	1.955	2.931	5.2	20.8
4 11	12 55.98	- 1 46.4	2.353	3.347	2.6	20.6	4 11	12 54.29	-18 27.2	1.933	2.921	4.0	20.7
4 21	12 49.74	- 0 25.4	2.375	3.338	5.9	20.8	4 21	12 44.84	-17 45.7	1.939	2.911	6.2	20.8
5 1	12 44.44	+ 0 45.3	2.425	3.328	9.0	20.9	5 1	12 36.67	-16 59.1	1.972	2.900	9.4	21.0
5 11	12 40.55	+ 1 41.8	2.499	3.317	11.8	21.1	5 11	12 30.48	-16 13.9	2.030	2.889	12.6	21.2
308188	2005 <i>CY</i> ₅₇		4 5.7 47°54	0.8/ 5.1	18		182599	2001 <i>UE</i> ₃₃		4 5.8 224°87	3.3/ 2.2	18	
3 2	13 22.89	- 7 44.7	1.282	2.135	17.5	20.4	3 2	13 24.91	+ 2 3.5	2.366	3.202	11.1	21.7
3 12	13 18.86	- 7 3.2	1.226	2.148	13.1	20.2	3 12	13 19.44	+ 2 52.8	2.275	3.190	8.3	21.5
3 22	13 12.14	- 6 5.5	1.191	2.162	7.9	19.9	3 22	13 12.19	+ 3 46.2	2.210	3.176	5.3	21.3
4 1	13 3.67	- 4 57.8	1.180	2.176	2.5	19.6	4 1	13 3.70	+ 4 38.4	2.174	3.161	3.3	21.1
4 11	12 54.79	- 3 49.4	1.194	2.191	3.4	19.7	4 11	12 54.75	+ 5 24.0	2.167	3.146	4.7	21.2
4 21	12 46.81	- 2 49.4	1.233	2.206	8.7	20.1	4 21	12 46.15	+ 5 58.3	2.189	3.130	7.8	21.3
5 1	12 40.82	- 2 5.1	1.295	2.222	13.4	20.4	5 1	12 38.65	+ 6 18.0	2.238	3.113	10.9	21.5
5 11	12 37.48	- 1 40.6	1.377	2.238	17.3	20.7	5 11	12 32.85	+ 6 21.6	2.309	3.095	13.6	21.7
337506	2001 <i>SE</i> ₁₃₂		4 5.7 127°40	1.1/ 6.9	17		264594	2001 <i>UM</i> ₁		4 5.8 126°60	1.5/ 4.2	17	
3 2	13 23.17	-11 19.1	2.529	3.333	11.5	21.1	3 2	13 23.65	- 4 44.8	2.044	2.877	12.7	21.9
3 12	13 17.94	-11 13.7	2.451	3.344	8.7	21.0	3 12	13 18.54	- 3 56.1	1.977	2.890	9.4	21.7
3 22	13 11.13	-10 57.9	2.397	3.354	5.6	20.8	3 22	13 11.59	- 2 58.4	1.934	2.903	5.6	21.5
4 1	13 3.30	-10 33.7	2.371	3.363	2.4	20.6	4 1	13 3.47	- 1 56.7	1.920	2.915	2.0	21.3
4 11	12 55.17	-10 4.2	2.375	3.373	1.8	20.5	4 11	12 55.06	- 0 57.3	1.934	2.927	3.2	21.4
4 21	12 47.46	- 9 33.1	2.408	3.382	5.0	20.8	4 21	12 47.22	- 0 5.7	1.977	2.938	6.9	21.6
5 1	12 40.84	- 9 4.6	2.469	3.391	8.1	21.0	5 1	12 40.72	+ 0 33.5	2.046	2.949	10.4	21.9
5 11	12 35.79	- 8 42.1	2.555	3.399	10.8	21.2	5 11	12 36.08	+ 0 57.6	2.138	2.960	13.4	22.1
116524	2004 <i>BP</i> ₄₆		4 5.7 50°89	4.6/31.5	17	R	210455	1981 <i>EY</i> ₄₄		4 5.8 314°96	0.3/ 6.1	17	
3 2	13 19.43	+ 3 50.3	2.029	2.884	11.9	19.4	3 2	13 18.08	-10 30.5	1.986	2.815	13.2	20.0
3 12	13 15.47	+ 5 9.8	1.964	2.888	8.9	19.2	3 12	13 14.75	- 9 54.1	1.888	2.796	10.1	19.8
3 22	13 9.74	+ 6 32.4	1.925	2.891	6.0	19.0	3 22	13 9.49	- 9 2.6	1.813	2.777	6.4	19.5
4 1	13 2.86	+ 7 50.7	1.913	2.895	4.6	18.9	4 1	13 2.85	- 7 59.3	1.764	2.759	2.2	19.2
4 11	12 55.67	+ 8 57.6	1.929	2.898	6.2	19.0	4 11	12 55.67	- 6 49.8	1.743	2.742	2.2	19.1
4 21	12 48.98	+ 9 47.5	1.972	2.902	9.1	19.2	4 21	12 48.81	- 5 40.7	1.749	2.724	6.4	19.4
5 1	12 43.51	+10 17.2	2.039	2.906	12.1	19.4	5 1	12 43.14	- 4 38.8	1.782	2.707	10.4	19.6
5 11	12 39.81	+10 26.1	2.127	2.910	14.7	19.6	5 11	12 39.31	- 3 49.6	1.837	2.691	13.9	19.8
294233	2007 <i>UL</i> ₂₉		4 5.7 104°11	1.3/ 4.7	18		222295	2000 <i>SJ</i> ₁₉₁		4 5.8 113°27	1.6/ 4.1	18	
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EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
465748	2009 VL ₁₀₉		4 5.8 240°58	2.2/ 3.7	17		32601	2001 QA ₁₈₁		4 5.8 124°24	0.9/ 4.6	18	
3 2	13 26.65	- 0 55.6	2.153	2.986	12.2	22.0	3 2	13 21.74	- 4 54.4	2.822	3.643	9.9	19.9
3 12	13 20.95	- 0 31.8	2.058	2.971	9.1	21.7	3 12	13 16.66	- 4 21.1	2.753	3.661	7.3	19.7
3 22	13 13.23	- 0 2.6	1.988	2.956	5.6	21.5	3 22	13 10.26	- 3 41.6	2.711	3.678	4.4	19.6
4 1	13 4.07	+ 0 27.7	1.946	2.940	2.5	21.3	4 1	13 3.04	- 2 59.1	2.698	3.694	1.5	19.4
4 11	12 54.35	+ 0 54.4	1.934	2.924	3.8	21.3	4 11	12 55.63	- 2 17.5	2.715	3.710	2.2	19.5
4 21	12 44.98	+ 1 13.0	1.950	2.907	7.4	21.5	4 21	12 48.63	- 1 40.6	2.762	3.725	5.2	19.7
5 1	12 36.84	+ 1 20.2	1.993	2.889	11.0	21.7	5 1	12 42.59	- 1 11.3	2.838	3.740	7.9	19.9
5 11	12 30.61	+ 1 13.8	2.059	2.871	14.2	21.9	5 11	12 37.92	- 0 51.8	2.938	3.754	10.3	20.1
199725	2006 HO ₈₇		4 5.8 172°09	0.1/ 5.6	17		435899	2009 AG ₄₅		4 5.8 355°27	4.7/31.5	17	
3 2	13 20.70	- 9 7.4	2.072	2.898	12.8	21.1	3 2	13 19.45	+ 4 23.2	2.021	2.877	11.9	21.1
3 12	13 16.47	- 8 23.4	1.991	2.899	9.6	20.9	3 12	13 15.54	+ 5 38.0	1.953	2.876	8.9	20.9
3 22	13 10.40	- 7 26.4	1.934	2.900	5.9	20.7	3 22	13 9.84	+ 6 55.5	1.910	2.876	6.0	20.8
4 1	13 3.12	- 6 20.5	1.904	2.901	1.9	20.4	4 1	13 2.95	+ 8 8.5	1.895	2.875	4.7	20.7
4 11	12 55.44	- 5 11.6	1.903	2.901	2.3	20.5	4 11	12 55.71	+ 9 10.0	1.906	2.875	6.3	20.8
4 21	12 48.23	- 4 6.1	1.930	2.901	6.3	20.7	4 21	12 48.95	+ 9 54.6	1.945	2.875	9.2	21.0
5 1	12 42.24	- 3 9.6	1.984	2.901	10.0	20.9	5 1	12 43.42	+ 10 19.1	2.007	2.875	12.3	21.1
5 11	12 38.06	- 2 26.6	2.061	2.902	13.1	21.2	5 11	12 39.66	+ 10 22.8	2.090	2.875	14.9	21.3
374027	2004 FS ₃		4 5.8 93°00	5.0/31.9	18		170129	2003 AF ₁₉		4 5.8 75°36	3.2/ 2.3	18	
3 2	13 21.29	- 7 38.2	1.038	1.907	19.5	20.1	3 2	13 21.21	+ 1 22.3	2.157	3.004	11.6	20.5
3 12	13 18.15	- 4 18.0	0.983	1.917	14.2	19.8	3 12	13 16.63	+ 2 12.8	2.096	3.016	8.6	20.3
3 22	13 11.93	- 0 27.9	0.951	1.927	8.5	19.5	3 22	13 10.39	+ 3 6.7	2.061	3.029	5.4	20.1
4 1	13 3.66	+ 3 31.4	0.945	1.938	5.0	19.3	4 1	13 3.10	+ 3 58.6	2.053	3.042	3.3	20.0
4 11	12 54.92	+ 7 13.9	0.966	1.948	8.5	19.6	4 11	12 55.57	+ 4 42.9	2.074	3.055	4.6	20.1
4 21	12 47.21	+ 10 18.1	1.012	1.957	13.9	19.9	4 21	12 48.57	+ 5 15.2	2.122	3.068	7.6	20.3
5 1	12 41.79	+ 12 32.7	1.080	1.967	18.8	20.2	5 1	12 42.78	+ 5 32.7	2.196	3.081	10.6	20.5
5 11	12 39.33	+ 13 56.9	1.164	1.977	22.8	20.5	5 11	12 38.69	+ 5 34.3	2.291	3.093	13.2	20.7
298755	2004 HB ₄₂		4 5.8 234°22	0.5/ 6.4	17		523545	2017 UH ₃₀		4 5.8 307°90	2.4/ 7.8	17	
3 2	13 19.30	- 11 14.5	2.484	3.296	11.4	21.3	3 2	13 20.73	- 14 37.0	1.643	2.464	15.9	21.3
3 12	13 15.21	- 10 36.9	2.391	3.290	8.6	21.1	3 12	13 17.21	- 14 26.6	1.547	2.446	12.5	21.0
3 22	13 9.55	- 9 47.0	2.323	3.283	5.5	20.9	3 22	13 11.26	- 13 56.6	1.473	2.429	8.4	20.8
4 1	13 2.85	- 8 47.5	2.282	3.277	2.0	20.6	4 1	13 3.52	- 13 8.3	1.422	2.413	4.2	20.5
4 11	12 55.77	- 7 43.0	2.271	3.270	1.7	20.6	4 11	12 55.02	- 12 6.5	1.398	2.396	2.9	20.3
4 21	12 49.03	- 6 38.8	2.289	3.262	5.2	20.8	4 21	12 46.90	- 10 58.4	1.400	2.380	7.0	20.5
5 1	12 43.28	- 5 39.9	2.335	3.255	8.5	21.0	5 1	12 40.28	- 9 52.4	1.427	2.364	11.6	20.8
5 11	12 39.04	- 4 50.9	2.405	3.248	11.4	21.2	5 11	12 35.99	- 8 56.5	1.476	2.349	15.7	21.0
379246	2009 SJ ₃₅₅		4 5.8 137°39	2.8/ 3.4	17		437815	2015 DB ₉₉		4 5.8 161°04	0.2/ 5.9	17	
3 2	13 25.40	+ 0 6.5	1.879	2.723	13.2	21.0	3 2	13 22.40	- 9 4.6	2.233	3.052	12.3	21.5
3 12	13 20.09	+ 0 33.1	1.806	2.724	9.8	20.8	3 12	13 17.61	- 8 41.5	2.151	3.055	9.2	21.3
3 22	13 12.68	+ 1 4.2	1.757	2.726	6.1	20.6	3 22	13 11.07	- 8 7.5	2.094	3.058	5.8	21.1
4 1	13 3.88	+ 1 34.9	1.735	2.728	3.0	20.4	4 1	13 3.36	- 7 25.6	2.064	3.060	2.0	20.8
4 11	12 54.66	+ 1 59.8	1.741	2.729	4.3	20.5	4 11	12 55.27	- 6 40.2	2.064	3.062	2.0	20.8
4 21	12 46.00	+ 2 14.4	1.774	2.731	8.0	20.7	4 21	12 47.62	- 5 56.3	2.092	3.064	5.8	21.1
5 1	12 38.79	+ 2 15.5	1.833	2.732	11.7	20.9	5 1	12 41.16	- 5 18.5	2.147	3.066	9.3	21.3
5 11	12 33.66	+ 2 1.8	1.914	2.734	14.8	21.1	5 11	12 36.42	- 4 50.8	2.226	3.067	12.3	21.5
420308	2011 YG ₆₄		4 5.8 148°91	5.3/10.7	16		61087	2000 LY ₂₁		4 5.8 112°68	4.2/10.4	18	
3 2	13 26.16	- 22 51.8	1.871	2.637	16.3	22.0	3 2	13 23.13	- 22 8.6	2.049	2.818	15.0	18.4
3 12	13 20.91	- 23 2.0	1.789	2.645	13.4	21.8	3 12	13 18.33	- 21 50.7	1.973	2.833	12.1	18.3
3 22	13 13.31	- 22 49.6	1.728	2.651	10.0	21.7	3 22	13 11.56	- 21 11.2	1.918	2.847	8.9	18.1
4 1	13 4.12	- 22 14.0	1.691	2.658	6.8	21.5	4 1	13 3.51	- 20 11.2	1.889	2.861	5.7	17.9
4 11	12 54.39	- 21 18.1	1.681	2.663	5.3	21.4	4 11	12 55.12	- 18 54.9	1.887	2.875	4.2	17.8
4 21	12 45.24	- 20 7.9	1.698	2.669	7.0	21.5	4 21	12 47.33	- 17 29.1	1.914	2.888	6.0	18.0
5 1	12 37.69	- 18 51.6	1.741	2.674	10.2	21.7	5 1	12 40.94	- 16 1.6	1.967	2.901	9.1	18.2
5 11	12 32.43	- 17 37.8	1.809	2.678	13.4	21.9	5 11	12 36.53	- 14 40.1	2.046	2.913	12.2	18.4
2268	Szmytowna		4 5.8 131°06	1.5/ 4.2	18 R		463191	2012 BA ₁₂₆		4 5.8 79°79	4.3/ 1.9	18	
3 2	13 21.89	- 3 50.8	2.326	3.158	11.4	16.7	3 2	13 23.16	+ 0 37.8	1.527	2.386	14.9	20.8
3 12	13 17.08	- 3 13.3	2.253	3.166	8.4	16.5	3 12	13 18.71	+ 1 52.5	1.469	2.396	11.0	20.6
3 22	13 10.66	- 2 28.7	2.206	3.174	5.1	16.3	3 22	13 11.94	+ 3 13.9	1.435	2.405	7.0	20.4
4 1	13 3.19	- 1 41.1	2.186	3.182	1.9	16.1	4 1	13 3.65	+ 4 33.2	1.426	2.415	4.3	20.3
4 11	12 55.44	- 0 55.6	2.196	3.189	2.9	16.2	4 11	12 55.00	+ 5 41.4	1.444	2.425	6.2	20.4
4 21	12 48.14	- 0 16.5	2.235	3.196	6.3	16.5	4 21	12 47.09	+ 6 31.1	1.487	2.435	10.1	20.6
5 1	12 41.98	+ 0 12.3	2.301	3.203	9.5	16.7	5 1	12 40.89	+ 6 58.3	1.554	2.444	13.9	20.9
5 11	12 37.44	+ 0 28.5	2.389	3.210	12.2	16.9	5 11	12 37.01	+ 7 2.3	1.640	2.454	17.1	21.1
422123	2014 QL ₄₁₈		4 5.8 165°65	1.8/ 7.5	16		130426	2000 PT ₂₁		4 5.8 250°63	0.6/ 6.2	17	
3 2	13 26.67	- 13 48.5	2.153	2.950	13.4	23.2	3 2	13 27.27	- 9 13.3	1.696	2.521	15.3	20.0
3 12	13 20.88	- 13 35.7	2.069	2.956	10.4	23.0	3 12	13 22.04	- 9 5.4	1.600	2.506	11.7	19.7
3 22	13 13.11	- 13 8.2	2.009	2.962	6.9	22.8	3 22	13 14.23	- 8 43.8	1.526	2.490	7.4	19.4
4 1	13 4.03	- 12 28.1	1.977	2.967	3.2	22.6	4 1	13 4.51	- 8 10.8	1.479	2.474	2.7	19.1
4 11	12 54.51	- 11 39.2	1.973	2.971	2.3	22.5	4 11	12 53.95	- 7 31.3	1.459	2.457	2.5	19.0
4 21	12 45.50	- 10 47.0	1.999	2.974	5.8	22.7	4 21	12 43.78	- 6 51.4	1.466	2.440	7.5	19.3
5 1	12 37.82	- 9 57.2	2.053	2.976	9.4	23.0	5 1	12 35.17	- 6 17.7	1.499	2.422	12.1	19.5
5 11	12 32.09	- 9 15.1	2.130	2.978	12.5	23.2	5 11	12 28.98	- 5 55.4	1.553	2.404	16.2	19.7
134381	1996 AF ₈		4 5.8 130°74	0.4/ 5.3	18		406551	2007 XF ₅₄		4 5.8 145°57	1.2/ 4.6	18	
3 2	13 20.55	- 7 16.1	2.										

EPHEMERIDES

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
100032	1991 <i>GU</i> ₆		4 5.8 322°86	0°6/ 5.4 17			523812	2008 <i>TY</i> ₃		4 5.8 224°97	0°4/ 5.5 18	C	
3 2	13 27.14	- 5 4.0	1.681	2.518	14.8	19.0	3 2	13 33.33	- 8 16.1	1.679	2.497	15.7	27.9
3 12	13 21.74	- 5 7.6	1.602	2.515	11.2	18.7	3 12	13 26.71	- 7 43.2	1.578	2.481	12.0	27.6
3 22	13 13.90	- 5 2.6	1.545	2.513	6.9	18.5	3 22	13 17.22	- 6 54.5	1.500	2.463	7.5	27.3
4 1	13 4.35	- 4 52.2	1.514	2.510	2.2	18.2	4 1	13 5.54	- 5 53.7	1.448	2.444	2.4	26.9
4 11	12 54.19	- 4 40.8	1.510	2.508	2.8	18.2	4 11	12 52.86	- 4 47.2	1.426	2.423	3.0	26.9
4 21	12 44.60	- 4 32.8	1.534	2.505	7.5	18.5	4 21	12 40.56	- 3 43.1	1.432	2.400	8.4	27.2
5 1	12 36.64	- 4 32.6	1.583	2.503	11.8	18.7	5 1	12 29.96	- 2 49.4	1.465	2.375	13.3	27.4
5 11	12 31.04	- 4 43.1	1.654	2.501	15.5	18.9	5 11	12 22.00	- 2 11.8	1.520	2.349	17.6	27.6
367352	2008 <i>EW</i> ₁₃₇		4 5.8 170°45	2°1/ 3.7 17			410283	2007 <i>TH</i> ₂₀₂		4 5.8 212°30	2°4/ 3.8 16		
3 2	13 22.64	- 4 7.1	1.863	2.705	13.4	21.2	3 2	13 27.10	- 1 53.7	1.805	2.644	13.9	21.4
3 12	13 18.07	- 3 7.9	1.789	2.707	9.9	21.0	3 12	13 21.57	- 1 19.9	1.723	2.639	10.3	21.1
3 22	13 11.47	- 1 58.3	1.738	2.708	6.0	20.7	3 22	13 13.73	- 0 38.5	1.664	2.633	6.4	20.9
4 1	13 3.51	- 0 44.2	1.714	2.710	2.4	20.5	4 1	13 4.30	+ 0 5.3	1.632	2.627	2.7	20.6
4 11	12 55.14	+ 0 26.9	1.719	2.711	3.9	20.6	4 11	12 54.30	+ 0 45.2	1.629	2.620	4.2	20.7
4 21	12 47.30	+ 1 28.2	1.752	2.711	7.8	20.8	4 21	12 44.81	+ 1 15.6	1.653	2.612	8.3	21.0
5 1	12 40.86	+ 2 14.3	1.809	2.712	11.6	21.1	5 1	12 36.84	+ 1 31.9	1.702	2.604	12.3	21.2
5 11	12 36.42	+ 2 42.2	1.889	2.712	14.9	21.3	5 11	12 31.08	+ 1 32.0	1.773	2.595	15.7	21.4
350432	2012 <i>VO</i> ₈₄		4 5.8 134°22	2°7/ 2.5 17			240568	2004 <i>SH</i> ₆₁		4 5.8 263°79	2°6/ 3.7 17		
3 2	13 22.48	+ 2 14.4	2.822	3.656	9.6	21.5	3 2	13 25.56	- 2 55.6	1.586	2.433	15.1	21.1
3 12	13 17.22	+ 2 49.0	2.755	3.668	7.1	21.3	3 12	13 20.88	- 2 9.6	1.493	2.414	11.3	20.8
3 22	13 10.61	+ 3 25.5	2.715	3.681	4.5	21.2	3 22	13 13.57	- 1 12.0	1.423	2.394	7.0	20.5
4 1	13 3.17	+ 3 59.9	2.704	3.692	2.7	21.1	4 1	13 4.32	- 0 8.9	1.379	2.374	3.0	20.2
4 11	12 55.53	+ 4 28.5	2.723	3.703	3.8	21.2	4 11	12 54.23	+ 0 51.7	1.362	2.354	4.7	20.2
4 21	12 48.30	+ 4 48.2	2.772	3.714	6.2	21.3	4 21	12 44.54	+ 1 41.8	1.372	2.333	9.4	20.4
5 1	12 42.04	+ 4 57.1	2.847	3.725	8.7	21.5	5 1	12 36.45	+ 2 14.9	1.405	2.312	14.0	20.7
5 11	12 37.16	+ 4 54.2	2.947	3.735	10.9	21.7	5 11	12 30.83	+ 2 27.4	1.459	2.290	18.1	20.9
132004	2002 <i>CK</i> ₉₉		4 5.8 342°87	1°1/ 5.1 18			208706	2002 <i>JS</i> ₄₂		4 5.8 335°41	5°2/ 1.8 17		
3 2	13 22.75	- 5 41.3	1.218	2.079	17.7	19.1	3 2	13 20.22	+ 1 1.4	1.227	2.102	16.7	19.6
3 12	13 19.22	- 5 25.1	1.145	2.072	13.4	18.9	3 12	13 17.24	+ 2 11.8	1.157	2.092	12.5	19.4
3 22	13 12.70	- 4 55.0	1.093	2.066	8.2	18.5	3 22	13 11.44	+ 3 31.7	1.108	2.082	8.0	19.1
4 1	13 4.02	- 4 16.0	1.063	2.060	2.6	18.2	4 1	13 3.62	+ 4 51.1	1.083	2.073	5.2	18.9
4 11	12 54.55	- 3 35.8	1.057	2.055	3.7	18.2	4 11	12 55.07	+ 5 58.3	1.082	2.065	7.4	19.0
4 21	12 45.76	- 3 2.6	1.076	2.051	9.4	18.5	4 21	12 47.19	+ 6 44.1	1.104	2.058	12.0	19.2
5 1	12 39.00	- 2 43.2	1.116	2.048	14.6	18.8	5 1	12 41.24	+ 7 2.5	1.147	2.052	16.6	19.4
5 11	12 35.15	- 2 41.9	1.175	2.045	19.0	19.1	5 11	12 38.04	+ 6 52.7	1.207	2.047	20.6	19.7
323436	2004 <i>GD</i> ₂₁		4 5.8 319°54	7°0/30.9 18			140847	2001 <i>UR</i> ₂₀₉		4 5.8 49°14	2°8/ 8.1 18		
3 2	13 24.47	+ 8 52.9	1.599	2.459	14.3	20.0	3 2	13 23.43	- 15 11.3	1.550	2.368	16.8	19.7
3 12	13 19.76	+ 9 57.9	1.534	2.455	11.0	19.8	3 12	13 19.06	- 15 9.9	1.483	2.380	13.1	19.5
3 22	13 12.64	+ 11 1.0	1.492	2.451	8.1	19.6	3 22	13 12.25	- 14 48.7	1.437	2.392	8.9	19.3
4 1	13 3.92	+ 11 53.4	1.475	2.448	7.0	19.5	4 1	13 3.81	- 14 9.8	1.415	2.404	4.6	19.1
4 11	12 54.70	+ 12 27.0	1.484	2.444	8.7	19.6	4 11	12 54.91	- 13 18.2	1.419	2.416	3.2	19.0
4 21	12 46.14	+ 12 36.8	1.518	2.441	11.9	19.8	4 21	12 46.73	- 12 21.2	1.450	2.429	6.9	19.2
5 1	12 39.26	+ 12 21.1	1.574	2.438	15.2	20.0	5 1	12 40.29	- 11 26.7	1.505	2.442	11.1	19.5
5 11	12 34.73	+ 11 41.7	1.648	2.435	18.2	20.2	5 11	12 36.26	- 10 41.6	1.582	2.455	14.8	19.8
153807	2001 <i>VJ</i> ₁₁₆		4 5.8 117°21	1°6/ 7.4 18			99480	2002 <i>CE</i> ₁₅₄		4 5.8 98°82	0°5/ 6.2 18		
3 2	13 24.92	- 13 37.0	2.121	2.922	13.4	20.5	3 2	13 27.06	- 9 31.2	1.539	2.370	16.3	20.2
3 12	13 19.49	- 13 19.0	2.050	2.940	10.3	20.4	3 12	13 21.70	- 9 14.8	1.475	2.384	12.3	20.0
3 22	13 12.20	- 12 46.4	2.003	2.957	6.8	20.2	3 22	13 13.83	- 8 43.5	1.432	2.397	7.7	19.7
4 1	13 3.72	- 12 1.8	1.983	2.974	3.1	20.0	4 1	13 4.32	- 8 1.0	1.414	2.410	2.7	19.4
4 11	12 54.95	- 11 9.7	1.992	2.990	2.2	19.9	4 11	12 54.37	- 7 13.5	1.424	2.423	2.5	19.5
4 21	12 46.75	- 10 15.5	2.030	3.005	5.6	20.2	4 21	12 45.22	- 6 28.0	1.460	2.435	7.4	19.8
5 1	12 39.91	- 9 25.0	2.095	3.020	9.1	20.4	5 1	12 37.89	- 5 51.0	1.522	2.448	11.8	20.1
5 11	12 34.95	- 8 42.9	2.184	3.035	12.2	20.6	5 11	12 33.06	- 5 27.1	1.605	2.460	15.6	20.3
98972	2001 <i>DT</i> ₁₄		4 5.8 294°95	2°5/ 3.3 18			134645	1999 <i>VZ</i> ₄		4 5.8 148°18	0°4/ 6.2 18		
3 2	13 21.26	- 1 54.0	1.916	2.762	12.9	19.5	3 2	13 25.03	- 10 36.3	1.974	2.791	13.8	20.3
3 12	13 17.05	- 1 5.9	1.837	2.757	9.5	19.3	3 12	13 19.75	- 10 2.1	1.899	2.800	10.4	20.1
3 22	13 10.86	- 0 10.1	1.782	2.752	5.8	19.0	3 22	13 12.46	- 9 13.8	1.847	2.809	6.5	19.9
4 1	13 3.33	+ 0 48.0	1.754	2.747	2.7	18.8	4 1	13 3.86	- 8 15.1	1.822	2.817	2.3	19.6
4 11	12 55.35	+ 1 41.7	1.753	2.743	4.2	18.9	4 11	12 54.87	- 7 11.6	1.826	2.825	2.1	19.6
4 21	12 47.84	+ 2 25.3	1.780	2.738	7.9	19.1	4 21	12 46.46	- 6 9.8	1.859	2.832	6.3	19.9
5 1	12 41.63	+ 2 54.1	1.832	2.733	11.6	19.3	5 1	12 39.45	- 5 15.7	1.919	2.838	10.1	20.1
5 11	12 37.35	+ 3 5.8	1.906	2.728	14.8	19.5	5 11	12 34.44	- 4 34.0	2.001	2.844	13.4	20.4
504592	2008 <i>UW</i> ₆₂		4 5.8 249°39	3°6/ 9.8 17			28729	<i>Moivre</i>		4 5.8 105°58	0°0/ 5.5 18		
3 2	13 20.92	- 20 43.8	2.192	2.967	13.9	21.7	3 2	13 25.17	- 9 49.4	1.462	2.298	16.7	19.7
3 12	13 16.78	- 20 21.4	2.089	2.955	11.3	21.4	3 12	13 20.40	- 9 5.7	1.397	2.309	12.6	19.5
3 22	13 10.71	- 19 38.4	2.009	2.943	8.2	21.2	3 22	13 13.08	- 8 4.3	1.354	2.321	7.8	19.2
4 1	13 3.30	- 18 35.6	1.954	2.931	5.1	21.0	4 1	13 4.09	- 6 50.7	1.336	2.332	2.5	18.9
4 11	12 55.36	- 17 16.9	1.928	2.918	3.6	20.9	4 11	12 54.65	- 5 33.3	1.345	2.343	2.8	19.0
4 21	12 47.78	- 15 48.2	1.930	2.906	5.8	21.0	4 21	12 46.02	- 4 21.0	1.380	2.354	7.9	19.3
5 1	12 41.41	- 14 17.2	1.959	2.892	9.1	21.2	5 1	12 39.23	- 3 21.8	1.440	2.364	12.5	19.6
5 11	12 36.86	- 12 51.6	2.013	2.879	12.4	21.4	5 11	12 34.97	- 2 40.8	1.521	2.374	16.3	19.9
157299	2004 <i>SV</i> ₁₄		4 5.8 261°13	4°4/ 1.2 18			245390	2005 <i>GS</i> ₁₃₁					

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
146721	2001 <i>XF</i> ₈		4 5.8 107°51	1°0/ 4.6 18			84738	2002 <i>WG</i> ₁₃		4 5.8 44°73	7°2/29.1 18		
3 2	13 21.25	- 5 2.1	2.565	3.392	10.6	20.5	3 2	13 21.25	+11 58.3	1.926	2.782	12.4	18.9
3 12	13 16.45	- 4 26.4	2.498	3.408	7.8	20.3	3 12	13 16.92	+13 17.9	1.875	2.790	9.8	18.7
3 22	13 10.22	- 3 43.7	2.457	3.424	4.7	20.1	3 22	13 10.70	+14 32.5	1.849	2.798	7.7	18.6
4 1	13 3.09	- 2 57.7	2.444	3.440	1.6	19.9	4 1	13 3.30	+15 34.3	1.849	2.806	7.3	18.6
4 11	12 55.76	- 2 12.8	2.461	3.455	2.4	20.0	4 11	12 55.61	+16 16.4	1.875	2.814	8.7	18.7
4 21	12 48.86	- 1 33.1	2.507	3.470	5.6	20.2	4 21	12 48.54	+16 35.3	1.926	2.823	11.2	18.9
5 1	12 43.01	- 1 1.9	2.581	3.485	8.5	20.5	5 1	12 42.84	+16 29.9	1.999	2.831	13.7	19.1
5 11	12 38.62	- 0 41.7	2.678	3.500	11.0	20.6	5 11	12 39.03	+16 2.1	2.091	2.840	16.0	19.2
22692	Carfrekahl		4 5.8 110°82	2°5/ 8.7 18			61367	2000 <i>PG</i> ₂₂		4 5.8 219°28	4°3/ 1.4 18		
3 2	13 23.62	-16 4.9	2.837	3.615	11.0	19.1	3 2	13 24.11	+ 4 18.3	2.156	3.001	11.7	19.7
3 12	13 18.20	-16 19.0	2.757	3.628	8.7	19.0	3 12	13 19.00	+ 5 14.0	2.076	2.993	8.8	19.5
3 22	13 11.31	-16 21.9	2.700	3.641	6.0	18.8	3 22	13 12.01	+ 6 12.0	2.022	2.986	5.9	19.3
4 1	13 3.47	-16 14.0	2.672	3.653	3.5	18.7	4 1	13 3.76	+ 7 6.4	1.995	2.977	4.3	19.1
4 11	12 55.33	-15 57.5	2.674	3.666	2.6	18.6	4 11	12 55.07	+ 7 51.0	1.996	2.968	5.7	19.2
4 21	12 47.56	-15 35.2	2.705	3.678	4.6	18.8	4 21	12 46.81	+ 8 21.0	2.025	2.959	8.7	19.4
5 1	12 40.79	-15 10.9	2.765	3.690	7.2	19.0	5 1	12 39.78	+ 8 33.5	2.080	2.949	11.8	19.6
5 11	12 35.47	-14 48.2	2.850	3.701	9.6	19.1	5 11	12 34.56	+ 8 27.9	2.156	2.939	14.6	19.7
17288	2000 <i>NZ</i> ₁₀		4 5.8 217°57	2°1/ 7.6 18			401888	2001 <i>RR</i> ₅₆		4 5.8 167°92	0°6/ 5.1 15		
3 2	13 26.76	-14 0.6	1.856	2.661	15.0	18.5	3 2	13 24.04	- 7 1.0	2.366	3.186	11.6	22.9
3 12	13 21.44	-13 53.2	1.763	2.653	11.7	18.3	3 12	13 18.73	- 6 21.7	2.286	3.191	8.7	22.7
3 22	13 13.75	-13 29.0	1.691	2.645	7.8	18.0	3 22	13 11.74	- 5 32.8	2.231	3.196	5.3	22.5
4 1	13 4.37	-12 49.3	1.646	2.636	3.8	17.7	4 1	13 3.65	- 4 37.9	2.204	3.200	1.7	22.3
4 11	12 54.31	-11 58.4	1.629	2.626	2.7	17.6	4 11	12 55.22	- 3 42.1	2.207	3.203	2.3	22.3
4 21	12 44.68	-11 2.4	1.639	2.616	6.6	17.9	4 21	12 47.23	- 2 50.3	2.240	3.206	5.9	22.5
5 1	12 36.52	-10 8.2	1.677	2.604	10.8	18.1	5 1	12 40.39	- 2 7.2	2.300	3.208	9.2	22.8
5 11	12 30.61	- 9 22.4	1.737	2.593	14.5	18.3	5 11	12 35.22	- 1 36.0	2.385	3.209	12.1	22.9
112149	2002 <i>JJ</i> ₆₇		4 5.8 307°63	2°7/ 3.7 17			109060	2001 <i>QA</i> ₁₈		4 5.8 127°38	1°0/ 6.7 18		
3 2	13 21.92	- 3 29.5	1.392	2.252	16.0	19.5	3 2	13 25.82	-11 7.2	2.028	2.840	13.6	20.7
3 12	13 18.35	- 2 40.6	1.311	2.237	12.0	19.2	3 12	13 20.29	-10 53.6	1.955	2.853	10.4	20.5
3 22	13 12.08	- 1 38.5	1.250	2.224	7.4	18.9	3 22	13 12.79	-10 27.1	1.906	2.865	6.6	20.3
4 1	13 3.86	- 0 30.1	1.215	2.210	3.1	18.6	4 1	13 4.00	- 9 50.2	1.883	2.877	2.6	20.1
4 11	12 54.86	+ 0 35.6	1.204	2.197	4.9	18.6	4 11	12 54.85	- 9 7.5	1.890	2.888	2.1	20.0
4 21	12 46.38	+ 1 29.4	1.219	2.184	9.8	18.9	4 21	12 46.28	- 8 24.2	1.925	2.899	6.0	20.3
5 1	12 39.66	+ 2 4.4	1.256	2.171	14.6	19.1	5 1	12 39.10	- 7 45.6	1.987	2.910	9.7	20.5
5 11	12 35.52	+ 2 16.8	1.312	2.159	18.8	19.3	5 11	12 33.90	- 7 16.1	2.072	2.920	12.8	20.8
17895	1999 <i>FZ</i> ₂		4 5.8 0°77	0°3/ 5.5 18			360549	2003 <i>SS</i> ₃₁₉		4 5.8 244°47	3°0/ 3.0 16		
3 2	13 20.29	-10 7.7	1.295	2.145	17.6	18.4	3 2	13 23.09	- 2 41.0	1.683	2.531	14.2	21.5
3 12	13 17.16	- 9 12.1	1.224	2.144	13.3	18.2	3 12	13 18.76	- 1 33.3	1.600	2.522	10.6	21.2
3 22	13 11.31	- 7 54.7	1.174	2.144	8.2	17.9	3 22	13 12.12	- 0 14.1	1.541	2.512	6.5	20.9
4 1	13 3.58	- 6 21.9	1.147	2.144	2.6	17.5	4 1	13 3.85	+ 1 9.6	1.507	2.501	3.1	20.7
4 11	12 55.23	- 4 44.0	1.146	2.144	3.2	17.6	4 11	12 54.97	+ 2 28.9	1.502	2.490	4.9	20.8
4 21	12 47.59	- 3 12.3	1.170	2.145	8.8	17.9	4 21	12 46.59	+ 3 35.8	1.523	2.479	9.2	21.0
5 1	12 41.83	- 1 57.2	1.216	2.146	13.8	18.2	5 1	12 39.70	+ 4 23.8	1.569	2.468	13.3	21.2
5 11	12 38.70	- 1 4.8	1.283	2.148	18.1	18.4	5 11	12 35.04	+ 4 49.8	1.635	2.456	16.9	21.4
406398	2007 <i>TZ</i> ₆₇		4 5.8 201°05	0°9/ 4.9 16			170771	2004 <i>CW</i> ₇₃		4 5.8 36°74	3°6/ 2.0 17		
3 2	13 25.01	- 7 10.2	2.028	2.853	13.1	22.5	3 2	13 21.32	+ 2 8.0	2.098	2.947	11.8	20.0
3 12	13 19.80	- 6 20.7	1.940	2.849	9.8	22.3	3 12	13 16.90	+ 2 59.7	2.027	2.947	8.8	19.8
3 22	13 12.57	- 5 18.8	1.877	2.844	6.0	22.0	3 22	13 10.69	+ 3 54.9	1.980	2.948	5.6	19.6
4 1	13 3.95	- 4 9.0	1.841	2.838	1.9	21.7	4 1	13 3.32	+ 4 48.0	1.961	2.948	3.6	19.5
4 11	12 54.83	- 2 57.6	1.835	2.831	2.8	21.8	4 11	12 55.59	+ 5 33.0	1.969	2.949	5.0	19.5
4 21	12 46.15	- 1 51.4	1.858	2.823	7.0	22.0	4 21	12 48.34	+ 6 5.2	2.006	2.949	8.1	19.7
5 1	12 38.80	- 0 56.4	1.907	2.815	10.8	22.2	5 1	12 42.30	+ 6 21.3	2.067	2.950	11.3	19.9
5 11	12 33.40	- 0 16.6	1.980	2.806	14.2	22.4	5 11	12 38.02	+ 6 20.4	2.149	2.950	14.0	20.1
359393	2010 <i>HC</i> ₂₀		4 5.8 258°34	1°8/ 4.4 16			141315	2001 <i>YZ</i> ₁₂₄		4 5.8 204°35	1°0/ 6.8 18		
3 2	13 26.46	- 4 18.9	1.649	2.490	14.9	21.4	3 2	13 24.70	-11 9.6	2.234	3.043	12.6	20.3
3 12	13 21.50	- 3 43.4	1.554	2.471	11.2	21.1	3 12	13 19.45	-10 54.8	2.142	3.038	9.7	20.1
3 22	13 13.96	- 2 56.2	1.482	2.452	6.9	20.8	3 22	13 12.32	-10 27.6	2.075	3.033	6.2	19.9
4 1	13 4.49	- 2 2.2	1.436	2.432	2.5	20.5	4 1	13 3.88	- 9 50.3	2.034	3.028	2.5	19.6
4 11	12 54.18	- 1 8.5	1.417	2.411	3.9	20.5	4 11	12 54.97	- 9 6.8	2.023	3.021	2.0	19.6
4 21	12 44.25	- 0 22.4	1.425	2.390	8.7	20.8	4 21	12 46.43	- 8 22.0	2.041	3.015	5.7	19.8
5 1	12 35.87	+ 0 9.8	1.458	2.368	13.3	21.0	5 1	12 39.10	- 7 41.1	2.086	3.007	9.3	20.0
5 11	12 29.92	+ 0 24.0	1.511	2.346	17.4	21.2	5 11	12 33.57	- 7 8.4	2.156	3.000	12.5	20.2
110864	2001 <i>UG</i> ₈₉		4 5.8 62°38	8°1/30.6 18			405007	2000 <i>VJ</i> ₁₉		4 5.8 214°78	1°9/ 4.0 17		
3 2	13 27.94	+13 10.2	1.597	2.449	14.7	18.2	3 2	13 27.39	- 3 0.6	2.103	2.932	12.6	23.2
3 12	13 22.15	+14 5.8	1.549	2.461	11.6	18.0	3 12	13 21.57	- 2 23.4	2.011	2.922	9.4	23.0
3 22	13 14.00	+14 53.4	1.524	2.473	9.0	17.9	3 22	13 13.68	- 1 38.1	1.944	2.912	5.7	22.7
4 1	13 4.37	+15 24.5	1.524	2.484	8.2	17.9	4 1	13 4.35	- 0 49.3	1.906	2.901	2.3	22.5
4 11	12 54.48	+15 32.6	1.550	2.496	9.6	18.0	4 11	12 54.47	- 0 2.5	1.897	2.888	3.5	22.5
4 21	12 45.48	+15 15.1	1.600	2.508	12.3	18.2	4 21	12 44.98	+ 0 36.7	1.916	2.875	7.4	22.7
5 1	12 38.32	+14 32.9	1.673	2.521	15.2	18.4	5 1	12 36.79	+ 1 4.1	1.963	2.861	11.1	22.9
5 11	12 33.58	+13 29.4	1.764	2.533	17.8	18.6	5 11	12 30.55	+ 1 16.8	2.032	2.846	14.3	23.1
192797	1999 <i>US</i> ₅₆		4 5.8 236°21	3°3/ 9.4 18			<						

EPHEMERIDES

4 5.8

4 5.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
7079	Baghdad		4 5.8 261°25	0°2/ 6.0 18			417020	2005 UX ₆₄		4 5.8 71°02	4°5/10.6 18		
3 2	13 25.20	-10 23.2	1.819	2.641	14.5	19.1	3 2	13 24.53	-22 44.5	1.776	2.549	16.7	21.2
3 12	13 20.46	-9 46.2	1.711	2.615	11.2	18.8	3 12	13 19.51	-22 22.0	1.719	2.581	13.5	21.0
3 22	13 13.30	-8 52.1	1.626	2.589	7.1	18.5	3 22	13 12.33	-21 34.8	1.682	2.612	9.8	20.9
4 1	13 4.31	-7 43.8	1.567	2.563	2.5	18.2	4 1	13 3.86	-20 25.0	1.670	2.642	6.3	20.7
4 11	12 54.46	-6 27.4	1.536	2.535	2.5	18.1	4 11	12 55.17	-18 58.2	1.684	2.673	4.5	20.7
4 21	12 44.87	-5 10.6	1.534	2.506	7.4	18.4	4 21	12 47.31	-17 22.8	1.727	2.703	6.4	20.8
5 1	12 36.64	-4 1.6	1.557	2.477	12.0	18.6	5 1	12 41.12	-15 48.0	1.796	2.732	9.7	21.1
5 11	12 30.63	-3 7.1	1.603	2.447	16.1	18.7	5 11	12 37.13	-14 21.8	1.890	2.761	12.8	21.3
408464	2013 HW ₆₀		4 5.8 96°13	1°9/ 7.4 18			203264	2001 QQ ₂₄₉		4 5.8 112°95	2°9/ 1.9 17		
3 2	13 25.09	-13 58.4	1.512	2.333	17.0	21.9	3 2	13 19.86	+ 0 14.2	2.602	3.441	10.1	20.4
3 12	13 20.35	-13 34.6	1.445	2.346	13.1	21.7	3 12	13 15.41	+ 1 30.0	2.541	3.459	7.4	20.3
3 22	13 13.08	-12 50.3	1.399	2.358	8.6	21.5	3 22	13 9.61	+ 2 49.9	2.508	3.475	4.6	20.1
4 1	13 4.15	-11 49.0	1.378	2.370	3.8	21.2	4 1	13 2.96	+ 4 8.6	2.504	3.492	2.9	20.0
4 11	12 54.76	-10 37.4	1.383	2.382	2.7	21.2	4 11	12 56.11	+ 5 20.5	2.530	3.508	4.2	20.1
4 21	12 46.14	-9 24.1	1.415	2.394	7.2	21.5	4 21	12 49.70	+ 6 20.9	2.585	3.524	6.8	20.3
5 1	12 39.34	-8 17.7	1.472	2.405	11.6	21.8	5 1	12 44.29	+ 7 6.7	2.666	3.539	9.4	20.5
5 11	12 35.03	-7 25.0	1.551	2.416	15.5	22.0	5 11	12 40.28	+ 7 36.3	2.771	3.554	11.7	20.7
142112	2002 RS ₂		4 5.8 195°31	0°8/ 4.9 16			299298	2005 QN ₂₉		4 5.8 188°59	2°6/ 9.1 18		
3 2	13 24.55	-6 40.2	2.090	2.916	12.7	21.2	3 2	13 20.24	-17 57.7	2.689	3.468	11.5	21.1
3 12	13 19.40	-6 0.0	2.004	2.913	9.5	21.0	3 12	13 15.87	-17 43.5	2.596	3.467	9.1	20.9
3 22	13 12.30	-5 8.9	1.944	2.910	5.8	20.7	3 22	13 10.00	-17 14.9	2.527	3.466	6.4	20.7
4 1	13 3.89	-4 11.0	1.910	2.907	1.9	20.5	4 1	13 3.12	-16 33.1	2.484	3.465	3.7	20.5
4 11	12 55.02	-3 12.0	1.906	2.902	2.7	20.5	4 11	12 55.90	-15 41.3	2.471	3.464	2.7	20.4
4 21	12 46.59	-2 17.8	1.931	2.898	6.7	20.7	4 21	12 49.01	-14 43.5	2.487	3.462	4.7	20.6
5 1	12 39.44	-1 33.6	1.983	2.892	10.4	21.0	5 1	12 43.09	-13 44.9	2.531	3.461	7.5	20.8
5 11	12 34.17	-1 3.2	2.057	2.886	13.6	21.2	5 11	12 38.63	-12 50.4	2.600	3.458	10.2	20.9
21214	1994 RV ₇		4 5.8 84°12	1°1/ 6.8 18			18670	Shantanugaur		4 5.8 305°58	0°4/ 5.4 18		
3 2	13 23.25	-11 2.8	1.937	2.756	13.9	19.0	3 2	13 19.95	-7 26.0	2.102	2.934	12.5	18.8
3 12	13 18.54	-10 51.5	1.860	2.761	10.6	18.8	3 12	13 16.05	-6 56.8	2.009	2.920	9.4	18.6
3 22	13 11.81	-10 26.8	1.805	2.766	6.8	18.6	3 22	13 10.31	-6 16.5	1.940	2.907	5.8	18.3
4 1	13 3.73	-9 51.3	1.777	2.771	2.7	18.3	4 1	13 3.27	-5 28.6	1.897	2.894	1.8	18.0
4 11	12 55.21	-9 9.4	1.777	2.776	2.1	18.3	4 11	12 55.74	-4 38.1	1.883	2.881	2.4	18.0
4 21	12 47.21	-8 26.8	1.804	2.780	6.1	18.6	4 21	12 48.54	-3 50.6	1.897	2.868	6.4	18.3
5 1	12 40.59	-7 48.8	1.858	2.785	10.0	18.8	5 1	12 42.50	-3 11.2	1.937	2.855	10.1	18.5
5 11	12 35.95	-7 20.2	1.935	2.790	13.3	19.0	5 11	12 38.22	-2 44.0	1.999	2.843	13.4	18.6
341584	2007 UY ₈₂		4 5.8 96°78	0°3/ 5.5 17			366574	2002 TT ₂₆		4 5.8 246°16	0°1/ 5.9 17		
3 2	13 22.18	-7 35.0	2.337	3.159	11.7	21.5	3 2	13 24.39	-9 35.7	1.981	2.801	13.6	21.7
3 12	13 17.30	-7 6.8	2.269	3.175	8.7	21.3	3 12	13 19.56	-9 4.3	1.880	2.784	10.3	21.5
3 22	13 10.83	-6 29.4	2.227	3.192	5.3	21.1	3 22	13 12.59	-8 18.7	1.804	2.767	6.5	21.2
4 1	13 3.36	-5 46.3	2.212	3.208	1.7	20.9	4 1	13 4.06	-7 22.1	1.754	2.749	2.2	20.9
4 11	12 55.64	-5 1.9	2.227	3.224	2.0	20.9	4 11	12 54.87	-6 19.9	1.733	2.731	2.3	20.8
4 21	12 48.42	-4 20.8	2.270	3.240	5.6	21.2	4 21	12 46.01	-5 18.4	1.740	2.712	6.7	21.1
5 1	12 42.35	-3 47.0	2.341	3.255	8.8	21.4	5 1	12 38.44	-4 24.3	1.773	2.692	10.9	21.3
5 11	12 37.90	-3 23.5	2.436	3.271	11.6	21.6	5 11	12 32.88	-3 42.8	1.830	2.672	14.5	21.5
433229	2012 VX ₁₁		4 5.8 238°23	1°4/ 4.3 17			464088	2014 WG ₃₂₇		4 5.8 62°80	0°9/ 6.8 18		
3 2	13 21.28	-4 30.0	2.279	3.112	11.6	21.8	3 2	13 20.51	-14 54.6	1.564	2.387	16.4	20.9
3 12	13 16.84	-3 50.5	2.191	3.104	8.6	21.6	3 12	13 16.75	-13 35.1	1.502	2.405	12.5	20.7
3 22	13 10.68	-3 2.5	2.128	3.097	5.2	21.3	3 22	13 10.77	-11 52.3	1.462	2.423	8.0	20.5
4 1	13 3.36	-2 10.2	2.093	3.089	1.9	21.1	4 1	13 3.38	-9 52.7	1.447	2.442	3.1	20.3
4 11	12 55.61	-1 18.7	2.087	3.081	2.9	21.1	4 11	12 55.70	-7 46.6	1.461	2.460	2.3	20.2
4 21	12 48.24	-0 33.1	2.109	3.072	6.5	21.4	4 21	12 48.78	-5 45.1	1.502	2.479	7.1	20.6
5 1	12 41.96	+ 0 2.2	2.159	3.064	9.9	21.5	5 1	12 43.51	-3 58.4	1.569	2.497	11.4	20.9
5 11	12 37.33	+ 0 24.3	2.231	3.055	12.8	21.7	5 11	12 40.43	-2 33.0	1.659	2.516	15.0	21.1
229469	2005 UV ₂₅₃		4 5.8 211°29	1°7/ 7.7 17			217975	2001 VY ₄₂		4 5.8 143°76	5°5/12.0 18		
3 2	13 23.23	-14 37.7	2.295	3.091	12.7	22.1	3 2	13 23.24	-25 58.1	2.098	2.844	15.4	20.0
3 12	13 18.36	-14 10.3	2.198	3.084	9.9	21.9	3 12	13 18.57	-25 52.0	2.012	2.850	12.8	19.8
3 22	13 11.66	-13 27.4	2.124	3.077	6.6	21.7	3 22	13 11.86	-25 22.5	1.947	2.857	9.9	19.7
4 1	13 3.69	-12 31.0	2.078	3.068	3.1	21.4	4 1	13 3.77	-24 29.2	1.906	2.863	7.1	19.5
4 11	12 55.25	-11 25.4	2.062	3.059	2.1	21.3	4 11	12 55.24	-23 15.2	1.892	2.869	5.5	19.4
4 21	12 47.17	-10 16.4	2.074	3.050	5.5	21.6	4 21	12 47.25	-21 46.7	1.906	2.874	6.6	19.5
5 1	12 40.24	-9 9.9	2.115	3.040	9.0	21.7	5 1	12 40.65	-20 11.6	1.947	2.879	9.3	19.7
5 11	12 35.06	-8 11.8	2.180	3.029	12.2	21.9	5 11	12 36.06	-18 38.6	2.013	2.884	12.2	19.8
338131	2002 QW ₉₀		4 5.8 262°89	2°3/ 7.8 17			417455	2006 QX ₁₅		4 5.8 215°28	0°3/ 5.5 16		
3 2	13 26.43	-13 14.1	2.203	3.001	13.1	21.4	3 2	13 25.65	-7 45.0	2.038	2.860	13.2	22.1
3 12	13 20.94	-13 35.3	2.101	2.987	10.3	21.1	3 12	13 20.35	-7 16.3	1.947	2.853	9.9	21.9
3 22	13 13.38	-13 44.9	2.022	2.973	7.0	20.9	3 22	13 12.99	-6 36.0	1.879	2.844	6.2	21.6
4 1	13 4.30	-13 43.2	1.970	2.958	3.6	20.7	4 1	13 4.17	-5 47.4	1.839	2.835	2.0	21.3
4 11	12 54.55	-13 32.1	1.948	2.943	2.7	20.6	4 11	12 54.80	-4 55.9	1.828	2.825	2.4	21.3
4 21	12 45.10	-13 15.1	1.954	2.928	5.9	20.8	4 21	12 45.84	-4 7.1	1.845	2.815	6.7	21.6
5 1	12 36.83	-12 56.5	1.987	2.913	9.5	20.9	5 1	12 38.19	-3 26.5	1.889	2.803	10.6	21.8
5 11	12 30.47	-12 41.1	2.045	2.898	12.7	21.1	5 11	12 32.50	-2 58.3	1.957	2.792	14.0	22.0
378354	2007 JU ₂₃		4 5.8 330°33	6°0/ 1.6 17			94779	2001 XC ₁₁₆		4 5.8 117°55	0°8/ 6.4 18		
3 2	13 24.07	+ 6 23.1	1.436	2.302	15.3	19.8	3 2	13 28.01	-9 55.8	1.588	2.414	16.1	19.5</

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
105861	2000 <i>SP</i> ₁₇₀		4 5.8 236°20	0°5/ 6.5 18			56001	1998 <i>SR</i> ₁₄₆		4 5.8 153°03	0°0/ 5.6 18		
3 2	13 20.08	-10 44.3	2.688	3.497	10.7	20.2	3 2	13 29.16	-8 7.2	1.745	2.568	15.0	19.6
3 12	13 15.77	-10 15.1	2.589	3.486	8.1	20.0	3 12	13 23.14	-7 48.8	1.671	2.577	11.3	19.4
3 22	13 9.96	-9 35.0	2.515	3.475	5.2	19.8	3 22	13 14.74	-7 18.0	1.620	2.585	7.0	19.1
4 1	13 3.14	-8 46.4	2.470	3.464	1.9	19.6	4 1	13 4.76	-6 38.3	1.596	2.592	2.3	18.8
4 11	12 55.94	-7 53.2	2.454	3.453	1.6	19.6	4 11	12 54.30	-5 55.2	1.600	2.598	2.5	18.9
4 21	12 49.02	-6 59.8	2.468	3.441	4.9	19.8	4 21	12 44.51	-5 14.8	1.633	2.604	7.1	19.2
5 1	12 43.01	-6 10.7	2.510	3.429	8.1	19.9	5 1	12 36.37	-4 42.8	1.691	2.609	11.3	19.4
5 11	12 38.42	-5 29.8	2.577	3.417	10.8	20.1	5 11	12 30.58	-4 23.1	1.772	2.613	14.9	19.7
512408	2016 <i>PE</i> ₇₂		4 5.8 329°13	1°6/ 4.6 17			205806	2002 <i>CO</i> ₁₆₇		4 5.8 111°53	0°6/ 5.4 18		
3 2	13 24.33	-2 19.2	1.900	2.741	13.2	20.7	3 2	13 28.48	-6 13.5	1.568	2.403	15.8	19.8
3 12	13 19.47	-2 14.8	1.815	2.732	9.9	20.4	3 12	13 22.78	-5 58.2	1.501	2.414	11.8	19.6
3 22	13 12.48	-2 4.8	1.753	2.723	6.1	20.2	3 22	13 14.58	-5 31.6	1.458	2.425	7.2	19.4
4 1	13 4.01	-1 52.6	1.718	2.714	2.2	19.9	4 1	13 4.71	-4 57.9	1.440	2.436	2.3	19.1
4 11	12 54.99	-1 42.6	1.712	2.706	3.3	20.0	4 11	12 54.39	-4 23.0	1.449	2.446	2.9	19.1
4 21	12 46.41	-1 38.9	1.732	2.698	7.3	20.2	4 21	12 44.83	-3 53.0	1.485	2.456	7.8	19.5
5 1	12 39.19	-1 44.7	1.778	2.691	11.2	20.4	5 1	12 37.08	-3 33.1	1.546	2.466	12.1	19.7
5 11	12 34.01	-2 2.2	1.847	2.684	14.6	20.6	5 11	12 31.83	-3 26.7	1.629	2.475	15.8	20.0
404245	2013 <i>EA</i> ₁₅		4 5.8 38°26	1°5/ 6.8 15			390376	2013 <i>TA</i> ₄₇		4 5.8 262°31	0°9/ 5.0 17		
3 2	13 26.45	-10 36.8	1.260	2.102	18.5	21.5	3 2	13 24.37	-5 32.8	1.864	2.699	13.7	20.9
3 12	13 21.88	-10 43.9	1.195	2.108	14.2	21.2	3 12	13 19.58	-5 11.1	1.776	2.689	10.3	20.7
3 22	13 14.31	-10 33.7	1.149	2.114	9.2	20.9	3 22	13 12.61	-4 39.3	1.711	2.679	6.3	20.4
4 1	13 4.66	-10 8.4	1.126	2.120	3.7	20.6	4 1	13 4.10	-4 1.3	1.672	2.669	2.1	20.1
4 11	12 54.34	-9 33.8	1.128	2.127	2.9	20.6	4 11	12 54.99	-3 22.4	1.662	2.658	2.9	20.1
4 21	12 44.86	-8 57.4	1.155	2.135	8.2	20.9	4 21	12 46.31	-2 48.2	1.679	2.648	7.3	20.4
5 1	12 37.51	-8 26.8	1.205	2.142	13.2	21.2	5 1	12 39.01	-2 23.8	1.722	2.637	11.3	20.6
5 11	12 33.10	-8 8.2	1.275	2.150	17.5	21.5	5 11	12 33.79	-2 12.7	1.787	2.627	14.9	20.8
212978	2009 <i>CT</i> ₂₅		4 5.8 33°87	2°9/ 8.5 17			416386	2003 <i>UW</i> ₁₉		4 5.8 217°20	9°8/ 24.7 17		
3 2	13 23.56	-15 25.8	2.048	2.847	13.9	20.6	3 2	13 29.76	+24 11.3	2.302	3.116	12.1	21.8
3 12	13 18.78	-15 41.4	1.967	2.851	11.0	20.4	3 12	13 23.25	+25 40.1	2.241	3.105	10.7	21.7
3 22	13 11.99	-15 42.3	1.908	2.855	7.6	20.2	3 22	13 14.69	+26 56.7	2.203	3.093	9.9	21.6
4 1	13 3.84	-15 29.3	1.874	2.859	4.2	20.0	4 1	13 4.74	+27 52.7	2.192	3.079	10.1	21.6
4 11	12 55.21	-15 4.9	1.869	2.863	3.1	20.0	4 11	12 54.36	+28 22.0	2.206	3.065	11.4	21.7
4 21	12 47.04	-14 33.7	1.891	2.868	5.9	20.1	4 21	12 44.51	+28 22.2	2.244	3.050	13.2	21.7
5 1	12 40.20	-14 0.9	1.940	2.872	9.3	20.3	5 1	12 36.06	+27 53.8	2.303	3.034	15.1	21.9
5 11	12 35.30	-13 31.8	2.013	2.877	12.5	20.6	5 11	12 29.64	+27 0.3	2.379	3.017	16.8	22.0
53408	1999 <i>LU</i> ₆		4 5.8 148°61	7°5/ 26.0 18			287888	2003 <i>SO</i> ₃₃₃		4 5.8 186°20	0°5/ 5.2 17		
3 2	13 19.70	+16 2.1	2.406	3.252	10.6	19.6	3 2	13 21.87	-7 24.7	2.224	3.050	12.1	21.8
3 12	13 15.55	+17 48.7	2.355	3.255	8.7	19.5	3 12	13 17.31	-6 46.2	2.141	3.050	9.0	21.6
3 22	13 9.82	+19 28.9	2.331	3.258	7.6	19.4	3 22	13 11.00	-5 57.1	2.083	3.049	5.5	21.4
4 1	13 3.08	+20 55.3	2.333	3.261	7.7	19.5	4 1	13 3.52	-5 1.2	2.052	3.049	1.8	21.1
4 11	12 56.05	+22 1.5	2.363	3.264	9.1	19.5	4 11	12 55.67	-4 3.7	2.051	3.048	2.3	21.1
4 21	12 49.46	+22 43.9	2.417	3.267	11.0	19.7	4 21	12 48.22	-3 10.2	2.078	3.046	6.1	21.4
5 1	12 43.96	+23 1.7	2.494	3.269	12.9	19.8	5 1	12 41.94	-2 25.4	2.132	3.045	9.6	21.6
5 11	12 40.03	+22 56.3	2.588	3.272	14.7	20.0	5 11	12 37.36	-1 53.1	2.209	3.043	12.6	21.8
379392	2009 <i>YB</i> ₁₀		4 5.8 275°49	1°9/ 7.6 17			172045	2001 <i>XR</i> ₂₂		4 5.8 67°42	5°8/ 12.2 17		
3 2	13 22.48	-13 29.8	1.951	2.763	14.1	21.2	3 2	13 23.14	-25 43.6	2.268	3.009	14.5	19.9
3 12	13 18.09	-13 20.3	1.864	2.759	10.9	20.9	3 12	13 18.38	-26 9.1	2.190	3.022	12.1	19.7
3 22	13 11.63	-12 55.4	1.800	2.755	7.3	20.7	3 22	13 11.71	-26 14.8	2.132	3.036	9.5	19.6
4 1	13 3.74	-12 16.9	1.761	2.752	3.4	20.5	4 1	13 3.77	-25 59.8	2.100	3.049	7.1	19.5
4 11	12 55.33	-11 29.0	1.750	2.748	2.4	20.4	4 11	12 55.42	-25 25.8	2.094	3.062	5.8	19.4
4 21	12 47.36	-10 37.5	1.767	2.744	6.1	20.6	4 21	12 47.55	-24 36.9	2.114	3.076	6.6	19.5
5 1	12 40.72	-9 48.5	1.810	2.741	9.9	20.8	5 1	12 40.98	-23 39.0	2.162	3.089	8.8	19.6
5 11	12 36.07	-9 7.8	1.876	2.737	13.4	21.0	5 11	12 36.28	-22 39.2	2.234	3.102	11.2	19.8
203536	2002 <i>CB</i> ₂₂		4 5.8 127°49	3°6/ 8.6 18			501082	2013 <i>SM</i> ₅₆		4 5.8 267°79	6°7/ 10.8 17		
3 2	13 27.85	-16 36.3	1.645	2.445	16.7	20.2	3 2	13 27.96	-23 12.1	1.865	2.627	16.5	20.9
3 12	13 22.40	-16 46.7	1.570	2.454	13.2	20.0	3 12	13 22.68	-24 7.4	1.768	2.616	13.8	20.7
3 22	13 14.41	-16 37.6	1.516	2.463	9.2	19.8	3 22	13 14.79	-24 43.7	1.691	2.605	10.8	20.5
4 1	13 4.67	-16 9.6	1.487	2.471	5.2	19.6	4 1	13 4.90	-24 57.7	1.637	2.594	8.0	20.3
4 11	12 54.37	-15 26.5	1.485	2.479	3.7	19.5	4 11	12 54.10	-24 49.1	1.610	2.583	6.7	20.2
4 21	12 44.73	-14 34.7	1.510	2.487	7.0	19.7	4 21	12 43.61	-24 20.9	1.609	2.572	8.1	20.3
5 1	12 36.87	-13 42.0	1.561	2.494	11.0	19.9	5 1	12 34.65	-23 39.2	1.634	2.561	11.1	20.4
5 11	12 31.51	-12 55.7	1.634	2.501	14.7	20.2	5 11	12 28.11	-22 52.6	1.682	2.550	14.3	20.6
65816	1996 <i>TW</i> ₂₈		4 5.8 150°28	2°5/ 3.5 18			508526	2016 <i>RX</i> ₆		4 5.8 205°21	3°5/ 10.2 17		
3 2	13 24.25	-3 30.9	1.752	2.595	14.0	20.2	3 2	13 21.06	-20 39.0	2.739	3.501	11.8	21.4
3 12	13 19.41	-2 25.3	1.682	2.601	10.4	20.0	3 12	13 16.54	-20 40.3	2.642	3.498	9.5	21.3
3 22	13 12.40	-1 9.4	1.637	2.607	6.3	19.7	3 22	13 10.47	-20 26.5	2.568	3.495	7.0	21.1
4 1	13 3.97	+0 10.3	1.618	2.613	2.7	19.5	4 1	13 3.35	-19 58.2	2.521	3.491	4.6	20.9
4 11	12 55.13	+1 25.4	1.628	2.618	4.3	19.6	4 11	12 55.84	-19 17.6	2.502	3.488	3.5	20.8
4 21	12 46.91	+2 28.8	1.665	2.622	8.4	19.9	4 21	12 48.65	-18 28.3	2.512	3.484	5.0	20.9
5 1	12 40.22	+3 14.9	1.727	2.626	12.2	20.1	5 1	12 42.41	-17 35.1	2.551	3.480	7.5	21.1
5 11	12 35.66	+3 41.0	1.810	2.630	15.5	20.3	5 11	12 37.66	-16 43.1	2.615	3.476	10.0	21.2
215551	2002 <i>YR</i> ₃₆		4 5.8 203°62	0°9/ 7.7 18			243954	2001 <i>QJ</i> ₁₇₃		4 5.8 154°02	0°3/ 6.2 18		
3 2	13 13.52												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
42019	2000 YE ₇₉		4 5.8 349°56	3°6/ 8.5 18			140224	2001 ST ₂₄₁		4 5.8 261°28	1°2/ 4.6 17		
3 2	13 23.08	-16 8.5	1.379	2.201	18.2	18.7	3 2	13 21.32	-4 49.4	2.273	3.106	11.6	20.7
3 12	13 19.35	-16 16.1	1.301	2.199	14.5	18.4	3 12	13 16.94	-4 16.6	2.184	3.097	8.7	20.4
3 22	13 12.80	-16 1.4	1.243	2.196	10.0	18.1	3 22	13 10.82	-3 35.5	2.119	3.087	5.3	20.2
4 1	13 4.23	-15 24.8	1.207	2.194	5.5	17.9	4 1	13 3.51	-2 49.7	2.082	3.078	1.8	20.0
4 11	12 54.90	-14 31.1	1.196	2.193	3.9	17.8	4 11	12 55.77	-2 4.2	2.073	3.068	2.8	20.0
4 21	12 46.20	-13 28.2	1.211	2.191	7.7	18.0	4 21	12 48.38	-1 23.9	2.093	3.058	6.4	20.2
5 1	12 39.38	-12 25.6	1.249	2.191	12.4	18.2	5 1	12 42.08	-0 53.0	2.140	3.048	9.8	20.4
5 11	12 35.30	-11 32.3	1.307	2.191	16.6	18.5	5 11	12 37.43	-0 34.5	2.210	3.038	12.8	20.6
203738	2002 QB ₈₈		4 5.8 152°99	0°3/ 6.2 17 R			436618	2011 LU ₂		4 5.8 181°97	4°6/ 12.9 18		
3 2	13 22.24	-9 40.4	2.482	3.294	11.4	21.5	3 2	13 20.42	-27 59.9	2.879	3.594	12.2	21.3
3 12	13 17.38	-9 14.0	2.401	3.301	8.6	21.3	3 12	13 16.02	-27 34.5	2.778	3.595	10.3	21.2
3 22	13 10.96	-8 37.2	2.345	3.307	5.4	21.1	3 22	13 10.12	-26 49.3	2.700	3.595	8.1	21.0
4 1	13 3.50	-7 52.8	2.317	3.312	1.9	20.9	4 1	13 3.25	-25 44.8	2.648	3.595	5.9	20.9
4 11	12 55.73	-7 5.0	2.319	3.318	1.8	20.8	4 11	12 56.08	-24 23.5	2.624	3.594	4.7	20.8
4 21	12 48.37	-6 18.3	2.350	3.322	5.2	21.1	4 21	12 49.28	-22 50.0	2.629	3.593	5.3	20.8
5 1	12 42.07	-5 37.1	2.409	3.327	8.4	21.3	5 1	12 43.48	-21 10.6	2.664	3.592	7.3	20.9
5 11	12 37.34	-5 5.0	2.493	3.331	11.2	21.5	5 11	12 39.14	-19 31.7	2.726	3.590	9.6	21.1
426728	2013 TW ₅₂		4 5.8 177°09	1°7/ 7.5 17			522507	2016 EP ₂₃₃		4 5.8 127°79	1°2/ 4.7 18		
3 2	13 25.26	-12 57.8	2.269	3.069	12.7	21.9	3 2	13 25.87	-4 59.9	1.992	2.822	13.1	21.5
3 12	13 19.86	-12 55.5	2.182	3.071	9.9	21.7	3 12	13 20.36	-4 29.0	1.924	2.835	9.7	21.3
3 22	13 12.60	-12 40.5	2.119	3.072	6.5	21.5	3 22	13 12.89	-3 49.4	1.880	2.847	5.9	21.1
4 1	13 4.07	-12 14.4	2.083	3.073	3.1	21.2	4 1	13 4.18	-3 5.4	1.863	2.859	2.0	20.9
4 11	12 55.10	-11 40.5	2.076	3.073	2.2	21.2	4 11	12 55.13	-2 22.4	1.875	2.870	2.9	21.0
4 21	12 46.55	-11 3.1	2.098	3.073	5.5	21.4	4 21	12 46.67	-1 45.5	1.915	2.881	6.8	21.2
5 1	12 39.21	-10 27.1	2.148	3.072	8.9	21.6	5 1	12 39.62	-1 19.1	1.982	2.891	10.4	21.5
5 11	12 33.67	-9 57.2	2.222	3.071	12.0	21.8	5 11	12 34.52	-1 5.8	2.072	2.901	13.5	21.7
480372	2015 KA ₃₆		4 5.8 286°95	7°4/ 27.3 18			434270	2003 WQ ₂₄		4 5.8 294°20	18°0/ 24.1 18		
3 2	13 20.90	+15 36.1	2.305	3.151	11.0	20.7	3 2	13 22.07	-45 55.2	1.171	1.848	28.5	20.6
3 12	13 16.63	+16 55.9	2.232	3.134	9.0	20.5	3 12	13 20.33	-47 6.0	1.089	1.839	26.6	20.4
3 22	13 10.62	+18 10.5	2.183	3.117	7.7	20.4	3 22	13 14.35	-47 28.6	1.017	1.831	24.3	20.2
4 1	13 3.42	+19 12.4	2.162	3.100	7.6	20.4	4 1	13 4.98	-46 49.6	0.956	1.822	21.8	20.0
4 11	12 55.81	+19 55.5	2.167	3.083	9.0	20.4	4 11	12 54.13	-45 0.1	0.911	1.814	19.5	19.8
4 21	12 48.56	+20 15.8	2.197	3.066	11.1	20.5	4 21	12 44.18	-42 1.5	0.883	1.806	18.1	19.7
5 1	12 42.44	+20 12.2	2.249	3.049	13.4	20.7	5 1	12 37.29	-38 7.8	0.874	1.798	18.5	19.6
5 11	12 37.99	+19 45.8	2.320	3.033	15.5	20.8	5 11	12 34.68	-33 44.9	0.886	1.790	20.6	19.7
34825	2001 SR ₁₆₁		4 5.8 88°09	1°5/ 7.2 18			501237	2013 VR ₇		4 5.8 162°38	0°8/ 6.7 17		
3 2	13 23.35	-11 46.4	2.244	3.052	12.6	18.0	3 2	13 22.87	-11 32.5	2.213	3.024	12.6	22.2
3 12	13 18.44	-11 48.6	2.160	3.055	9.7	17.8	3 12	13 18.08	-11 5.7	2.131	3.028	9.6	22.0
3 22	13 11.72	-11 39.2	2.101	3.057	6.3	17.6	3 22	13 11.50	-10 25.9	2.072	3.031	6.2	21.8
4 1	13 3.78	-11 20.0	2.068	3.060	2.8	17.4	4 1	13 3.74	-9 35.7	2.041	3.035	2.4	21.5
4 11	12 55.44	-10 54.0	2.064	3.063	2.1	17.3	4 11	12 55.59	-8 39.9	2.039	3.037	1.9	21.5
4 21	12 47.51	-10 25.4	2.089	3.065	5.4	17.6	4 21	12 47.89	-7 43.9	2.065	3.040	5.6	21.7
5 1	12 40.76	-9 58.6	2.141	3.068	8.9	17.8	5 1	12 41.38	-6 53.1	2.119	3.042	9.1	22.0
5 11	12 35.77	-9 37.8	2.217	3.070	11.9	18.0	5 11	12 36.63	-6 11.9	2.197	3.044	12.2	22.2
501275	2013 WN ₃₇		4 5.8 166°88	4°8/ 11.7 17			134582	1999 TZ ₃₁		4 5.8 193°86	0°6/ 6.4 16		
3 2	13 23.74	-25 3.5	2.580	3.316	13.0	22.1	3 2	13 25.19	-10 43.2	1.968	2.783	13.8	21.4
3 12	13 18.64	-25 6.2	2.488	3.320	10.8	22.0	3 12	13 20.08	-10 14.7	1.881	2.782	10.5	21.2
3 22	13 11.81	-24 50.4	2.418	3.325	8.4	21.8	3 22	13 12.87	-9 31.9	1.818	2.779	6.7	20.9
4 1	13 3.81	-24 16.0	2.374	3.328	6.0	21.7	4 1	13 4.22	-8 37.9	1.782	2.777	2.5	20.6
4 11	12 55.43	-23 24.9	2.357	3.332	4.8	21.6	4 11	12 55.06	-7 37.9	1.774	2.773	2.1	20.6
4 21	12 47.44	-22 21.4	2.369	3.334	5.7	21.6	4 21	12 46.37	-6 38.4	1.795	2.769	6.4	20.9
5 1	12 40.58	-21 11.3	2.410	3.336	8.0	21.8	5 1	12 39.05	-5 45.5	1.843	2.764	10.4	21.1
5 11	12 35.40	-20 0.9	2.476	3.338	10.5	22.0	5 11	12 33.75	-5 4.3	1.914	2.759	13.8	21.3
521113	2015 DG ₂₄₆		4 5.8 292°37	3°8/ 1.5 17			226028	2002 ED ₁₂₈		4 5.8 340°87	0°7/ 5.2 18 R		
3 2	13 19.58	+1 53.0	2.145	2.996	11.5	21.3	3 2	13 22.58	-6 48.3	1.834	2.670	13.8	20.8
3 12	13 15.66	+3 1.6	2.069	2.991	8.6	21.1	3 12	13 18.20	-6 16.0	1.756	2.670	10.4	20.6
3 22	13 10.02	+4 14.9	2.019	2.987	5.5	20.9	3 22	13 11.73	-5 32.1	1.701	2.670	6.3	20.4
4 1	13 3.23	+5 26.7	1.996	2.982	3.8	20.8	4 1	13 3.84	-4 40.9	1.673	2.669	2.0	20.1
4 11	12 56.06	+6 30.4	2.001	2.978	5.3	20.9	4 11	12 55.48	-3 48.3	1.672	2.669	2.7	20.1
4 21	12 49.31	+7 20.4	2.034	2.973	8.3	21.1	4 21	12 47.63	-3 0.7	1.699	2.669	7.1	20.4
5 1	12 43.70	+7 52.9	2.091	2.969	11.4	21.3	5 1	12 41.19	-2 23.5	1.751	2.669	11.0	20.6
5 11	12 39.76	+8 6.6	2.170	2.965	14.1	21.4	5 11	12 36.77	-2 0.5	1.825	2.668	14.5	20.9
108886	2001 OL ₁₀₇		4 5.8 148°63	0°4/ 6.3 18			150926	2001 TW ₆₂		4 5.8 161°61	1°0/ 4.8 18		
3 2	13 23.92	-10 47.7	2.354	3.162	12.1	20.4	3 2	13 24.95	-5 25.2	2.094	2.922	12.6	20.7
3 12	13 18.69	-10 10.1	2.276	3.173	9.1	20.2	3 12	13 19.68	-4 54.0	2.017	2.927	9.4	20.5
3 22	13 11.78	-9 20.3	2.223	3.183	5.7	20.0	3 22	13 12.50	-4 13.9	1.964	2.931	5.7	20.3
4 1	13 3.79	-8 21.6	2.199	3.193	2.1	19.8	4 1	13 4.07	-3 28.7	1.939	2.935	1.9	20.0
4 11	12 55.50	-7 18.9	2.204	3.202	1.8	19.8	4 11	12 55.25	-2 43.7	1.943	2.939	2.7	20.1
4 21	12 47.68	-6 17.5	2.239	3.211	5.5	20.0	4 21	12 46.93	-2 4.1	1.976	2.942	6.6	20.3
5 1	12 41.04	-5 22.6	2.302	3.219	8.8	20.2	5 1	12 39.91	-1 34.3	2.035	2.944	10.2	20.5
5 11	12 36.07	-4 38.3	2.389	3.226	11.7	20.4	5 11	12 34.76	-1 17.2	2.118	2.946	13.3	20.7
143490	2003 DL ₃		4 5.8 269°73	1°2/ 4.5 17 R			315189	2007 PQ ₂₀		4 5.8 240°81	0°5/ 6.3 17		
3 2	13 20.22	-4 53.0	2.303	3.137	11.4	20.4	3 2	13 25.83	-10 18.6	1.756			

EPHEMERIDES

4 5.8

4 5.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
399085	2014 <i>DU</i> ₁₄		4 5.8 319°73	8°1/26.8 17			499225	2009 <i>UQ</i> ₈₉		4 5.9 227°16	0°9/ 6.8 17		
3 2	13 18.85	+14 28.4	1.989	2.846	12.0	20.1	3 2	13 25.31	-11 19.3	2.408	3.210	12.0	22.8
3 12	13 15.36	+16 6.1	1.920	2.830	9.8	19.9	3 12	13 19.94	-11 2.6	2.304	3.197	9.2	22.6
3 22	13 9.97	+17 39.5	1.875	2.814	8.3	19.8	3 22	13 12.73	-10 33.9	2.225	3.182	6.0	22.3
4 1	13 3.26	+18 59.4	1.856	2.798	8.4	19.8	4 1	13 4.22	-9 55.1	2.174	3.167	2.4	22.1
4 11	12 56.09	+19 58.1	1.863	2.783	10.0	19.8	4 11	12 55.17	-9 9.9	2.153	3.151	1.9	22.0
4 21	12 49.34	+20 30.7	1.894	2.768	12.4	19.9	4 21	12 46.41	-8 23.0	2.161	3.134	5.5	22.2
5 1	12 43.82	+20 35.5	1.945	2.754	14.9	20.1	5 1	12 38.72	-7 39.3	2.197	3.117	9.0	22.4
5 11	12 40.15	+20 13.8	2.015	2.740	17.2	20.2	5 11	12 32.73	-7 3.4	2.258	3.098	12.2	22.6
133348	2003 <i>SX</i> ₁₁₀		4 5.8 246°27	1°0/ 5.0 18			467745	2009 <i>SM</i> ₉₄		4 5.9 125°12	0°3/ 6.2 17		
3 2	13 26.68	-3 52.1	2.131	2.959	12.5	19.6	3 2	13 23.46	-10 4.0	1.863	2.687	14.1	22.2
3 12	13 21.06	-3 48.4	2.041	2.951	9.4	19.4	3 12	13 18.80	-9 33.0	1.788	2.693	10.7	22.0
3 22	13 13.44	-3 38.4	1.976	2.942	5.7	19.2	3 22	13 12.08	-8 47.9	1.736	2.699	6.7	21.8
4 1	13 4.42	-3 24.9	1.938	2.934	1.9	18.9	4 1	13 3.99	-7 52.4	1.710	2.705	2.4	21.5
4 11	12 54.86	-3 11.8	1.929	2.925	2.7	18.9	4 11	12 55.47	-6 52.3	1.712	2.711	2.2	21.5
4 21	12 45.70	-3 2.9	1.949	2.916	6.6	19.2	4 21	12 47.51	-5 54.2	1.742	2.716	6.5	21.8
5 1	12 37.80	-3 1.5	1.996	2.907	10.3	19.4	5 1	12 40.97	-5 4.2	1.799	2.722	10.5	22.0
5 11	12 31.80	-3 10.1	2.066	2.897	13.5	19.6	5 11	12 36.46	-4 27.0	1.878	2.727	13.9	22.2
207733	2007 <i>RJ</i> ₁₉₂		4 5.8 282°20	1°4/ 4.7 16			496885	2000 <i>TA</i> ₄₅		4 5.9 203°68	2°9/ 2.3 17		
3 2	13 24.10	-5 57.7	1.463	2.311	16.1	21.0	3 2	13 22.64	+0 14.2	2.523	3.359	10.5	22.6
3 12	13 20.07	-5 19.5	1.372	2.292	12.1	20.7	3 12	13 17.73	+1 19.3	2.439	3.353	7.8	22.4
3 22	13 13.30	-4 26.2	1.303	2.274	7.5	20.4	3 22	13 11.24	+2 29.7	2.380	3.347	4.9	22.2
4 1	13 4.47	-3 23.1	1.258	2.255	2.5	20.0	4 1	13 3.69	+3 40.5	2.351	3.340	2.9	22.1
4 11	12 54.75	-2 18.0	1.240	2.236	3.8	20.1	4 11	12 55.78	+4 45.9	2.351	3.332	4.2	22.2
4 21	12 45.45	-1 19.7	1.247	2.217	9.1	20.3	4 21	12 48.20	+5 40.8	2.381	3.323	7.1	22.3
5 1	12 37.84	-0 36.2	1.278	2.198	14.1	20.5	5 1	12 41.65	+6 21.5	2.438	3.314	10.1	22.5
5 11	12 32.83	-0 12.4	1.329	2.179	18.4	20.8	5 11	12 36.61	+6 46.2	2.518	3.304	12.6	22.6
508652	2017 <i>TL</i> ₁₂		4 5.8 137°62	1°2/ 7.3 17			355254	2007 <i>JB</i> ₂₆		4 5.9 17°67	2°7/ 3.8 17		
3 2	13 24.69	-11 29.6	2.873	3.667	10.5	21.6	3 2	13 22.11	-4 32.4	1.179	2.045	17.8	20.8
3 12	13 19.02	-11 35.7	2.790	3.677	8.0	21.4	3 12	13 18.74	-3 31.2	1.117	2.047	13.3	20.6
3 22	13 11.91	-11 32.8	2.734	3.687	5.2	21.2	3 22	13 12.46	-2 14.4	1.075	2.049	8.1	20.3
4 1	13 3.86	-11 22.4	2.706	3.696	2.3	21.1	4 1	13 4.18	-0 50.8	1.057	2.052	3.2	20.0
4 11	12 55.51	-11 6.7	2.708	3.706	1.7	21.0	4 11	12 55.29	+0 28.3	1.063	2.056	5.1	20.1
4 21	12 47.53	-10 48.6	2.741	3.714	4.5	21.2	4 21	12 47.22	+1 32.4	1.092	2.060	10.4	20.4
5 1	12 40.51	-10 31.4	2.802	3.723	7.3	21.4	5 1	12 41.21	+2 14.0	1.144	2.065	15.3	20.7
5 11	12 34.92	-10 18.0	2.890	3.731	9.8	21.6	5 11	12 38.02	+2 30.0	1.214	2.070	19.5	21.0
172494	2003 <i>SH</i> ₁₅₁		4 5.8 240°80	4°4/ 2.2 18			414153	2007 <i>WK</i> ₂₈		4 5.9 172°27	0°5/ 5.5 16		
3 2	13 26.18	+2 21.5	1.723	2.572	13.9	20.5	3 2	13 27.89	-6 46.7	1.885	2.709	14.0	22.6
3 12	13 21.10	+3 15.4	1.641	2.561	10.5	20.3	3 12	13 22.13	-6 27.5	1.805	2.713	10.5	22.4
3 22	13 13.65	+4 14.4	1.583	2.550	6.8	20.0	3 22	13 14.16	-5 57.6	1.750	2.715	6.5	22.2
4 1	13 4.53	+5 11.5	1.551	2.539	4.4	19.9	4 1	13 4.69	-5 20.7	1.721	2.717	2.1	21.9
4 11	12 54.77	+5 59.0	1.547	2.527	6.1	19.9	4 11	12 54.73	-4 41.9	1.721	2.719	2.6	21.9
4 21	12 45.52	+6 30.5	1.569	2.515	9.8	20.1	4 21	12 45.32	-4 6.7	1.750	2.720	6.9	22.2
5 1	12 37.79	+6 42.1	1.616	2.502	13.7	20.3	5 1	12 37.41	-3 40.1	1.805	2.720	10.9	22.4
5 11	12 32.34	+6 32.7	1.682	2.489	17.1	20.5	5 11	12 31.64	-3 25.5	1.883	2.720	14.4	22.7
154528	2003 <i>FN</i> ₁₁₄		4 5.8 158°19	0°6/ 6.6 18			284368	2006 <i>SU</i> ₁₈₃		4 5.9 170°22	0°0/ 5.7 18		
3 2	13 21.32	-13 0.4	2.019	2.832	13.6	20.0	3 2	13 20.94	-8 20.4	2.804	3.618	10.2	22.3
3 12	13 17.08	-12 1.1	1.937	2.836	10.4	19.8	3 12	13 16.30	-7 50.7	2.719	3.621	7.6	22.1
3 22	13 10.96	-10 44.3	1.879	2.839	6.6	19.5	3 22	13 10.28	-7 12.4	2.660	3.623	4.7	21.9
4 1	13 3.59	-9 14.3	1.848	2.843	2.5	19.3	4 1	13 3.36	-6 28.2	2.630	3.626	1.5	21.7
4 11	12 55.83	-7 37.9	1.846	2.845	2.0	19.2	4 11	12 56.15	-5 41.9	2.630	3.628	1.7	21.7
4 21	12 48.57	-6 2.9	1.874	2.848	6.1	19.5	4 21	12 49.27	-4 57.5	2.659	3.629	4.9	21.9
5 1	12 42.59	-4 36.9	1.928	2.850	9.9	19.7	5 1	12 43.31	-4 18.7	2.717	3.630	7.8	22.1
5 11	12 38.47	-3 25.6	2.006	2.852	13.2	20.0	5 11	12 38.70	-3 48.6	2.800	3.631	10.3	22.3
365083	2009 <i>BY</i> ₉₀		4 5.9 57°44	3°2/ 8.2 18			217983	2001 <i>VT</i> ₉₈		4 5.9 206°91	0°3/ 6.3 18 R		
3 2	13 25.95	-14 58.4	1.399	2.220	18.1	20.7	3 2	13 22.76	-11 29.5	2.533	3.337	11.4	20.9
3 12	13 21.36	-15 7.7	1.329	2.227	14.2	20.5	3 12	13 17.87	-10 37.7	2.435	3.330	8.7	20.7
3 22	13 13.98	-14 56.3	1.280	2.235	9.7	20.2	3 22	13 11.36	-9 32.5	2.363	3.322	5.5	20.5
4 1	13 4.65	-14 25.5	1.254	2.242	5.0	20.0	4 1	13 3.74	-8 16.9	2.319	3.314	2.0	20.3
4 11	12 54.70	-13 39.9	1.253	2.250	3.5	19.9	4 11	12 55.72	-6 56.2	2.306	3.304	1.8	20.2
4 21	12 45.50	-12 47.2	1.278	2.257	7.6	20.1	4 21	12 48.04	-5 36.2	2.323	3.294	5.4	20.5
5 1	12 38.26	-11 55.9	1.326	2.265	12.1	20.4	5 1	12 41.38	-4 22.6	2.369	3.283	8.7	20.6
5 11	12 33.75	-11 13.9	1.396	2.273	16.2	20.7	5 11	12 36.27	-3 20.1	2.439	3.271	11.7	20.8
348242	2004 <i>SH</i> ₄₅		4 5.9 259°98	0°3/ 6.2 17			373493	2000 <i>WS</i> ₈₅		4 5.9 86°02	6°1/12.6 18		
3 2	13 22.84	-10 33.2	2.189	3.003	12.6	22.2	3 2	13 23.56	-26 47.1	1.968	2.713	16.3	20.6
3 12	13 18.31	-9 54.9	2.080	2.980	9.7	22.0	3 12	13 18.95	-26 52.5	1.893	2.728	13.6	20.4
3 22	13 11.83	-9 2.1	1.995	2.957	6.1	21.7	3 22	13 12.19	-26 33.4	1.837	2.743	10.6	20.3
4 1	13 3.93	-7 57.8	1.937	2.933	2.2	21.4	4 1	13 4.03	-25 49.2	1.806	2.758	7.8	20.1
4 11	12 55.41	-6 46.9	1.909	2.908	2.1	21.4	4 11	12 55.46	-24 42.9	1.800	2.773	6.2	20.1
4 21	12 47.13	-5 35.8	1.910	2.882	6.2	21.6	4 21	12 47.51	-23 20.7	1.822	2.788	7.0	20.1
5 1	12 39.97	-4 31.0	1.938	2.856	10.1	21.8	5 1	12 41.07	-21 50.9	1.870	2.803	9.5	20.3
5 11	12 34.60	-3 37.9	1.989	2.829	13.6	21.9	5 11	12 36.75	-20 22.3	1.942	2.817	12.4	20.5
277481	2005 <i>WQ</i> ₃₆		4 5.9 272°00	2°8/ 3.2 18			168501	1999 <i>RQ</i> ₂₄₉		4 5.9 104°65	5°8/11.6 18		
3 2	13 24.20	-1 15.4	1.940										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
367179	2006 XS ₅₈		4 5.9 202°26	4.6/31.9	17		13900	5211 T-2		4 5.9 97°50	2.2/ 8.4	18	
3 2	13 25.22	+ 5 23.6	2.186	3.028	11.6	21.3	3 2	13 22.34	-16 39.1	2.255	3.045	13.1	18.0
3 12	13 19.86	+ 6 25.0	2.109	3.024	8.8	21.1	3 12	13 17.61	-16 9.2	2.185	3.065	10.2	17.9
3 22	13 12.65	+ 7 27.9	2.058	3.019	6.0	20.9	3 22	13 11.18	-15 23.1	2.138	3.085	6.9	17.7
4 1	13 4.18	+ 8 26.1	2.034	3.013	4.6	20.8	4 1	13 3.69	-14 23.3	2.118	3.104	3.6	17.5
4 11	12 55.30	+ 9 13.3	2.040	3.007	6.1	20.9	4 11	12 55.96	-13 14.4	2.127	3.123	2.4	17.5
4 21	12 46.87	+ 9 44.9	2.073	3.000	8.9	21.1	4 21	12 48.75	-12 2.3	2.165	3.142	5.2	17.7
5 1	12 39.67	+ 9 58.0	2.131	2.992	11.9	21.2	5 1	12 42.78	-10 53.3	2.231	3.160	8.4	17.9
5 11	12 34.28	+ 9 52.4	2.211	2.984	14.5	21.4	5 11	12 38.52	- 9 52.5	2.322	3.178	11.3	18.1
209549	2004 VR ₅₃		4 5.9 69°27	2.6/ 4.1	18		201686	2003 UY ₁₀₇		4 5.9 244°01	1.5/ 4.4	18	
3 2	13 28.48	- 2 20.1	1.350	2.202	16.9	20.1	3 2	13 23.25	- 3 45.6	2.129	2.963	12.2	20.6
3 12	13 22.92	- 1 46.5	1.301	2.223	12.5	19.8	3 12	13 18.52	- 3 15.2	2.042	2.955	9.1	20.4
3 22	13 14.71	- 1 4.5	1.274	2.245	7.6	19.6	3 22	13 11.90	- 2 37.0	1.979	2.948	5.6	20.2
4 1	13 4.85	- 0 20.8	1.272	2.267	3.1	19.4	4 1	13 4.00	- 1 54.9	1.944	2.939	2.1	19.9
4 11	12 54.69	+ 0 16.9	1.296	2.288	4.6	19.6	4 11	12 55.61	- 1 14.2	1.937	2.931	3.1	20.0
4 21	12 45.56	+ 0 42.3	1.345	2.310	9.2	19.9	4 21	12 47.62	- 0 39.7	1.959	2.923	6.8	20.2
5 1	12 38.49	+ 0 51.3	1.418	2.331	13.5	20.2	5 1	12 40.82	- 0 15.7	2.007	2.914	10.4	20.4
5 11	12 34.10	+ 0 42.7	1.512	2.353	17.1	20.5	5 11	12 35.83	- 0 5.0	2.078	2.905	13.5	20.6
28777	2000 HK ₄₁		4 5.9 151°26	7.2/29.7	18		244127	2001 VA ₄₆		4 5.9 179°15	2.6/ 8.4	18	
3 2	13 24.68	+11 0.5	1.841	2.693	13.0	18.9	3 2	13 26.75	-16 40.9	1.975	2.765	14.7	21.0
3 12	13 19.68	+12 21.8	1.783	2.697	10.2	18.8	3 12	13 21.32	-16 21.2	1.887	2.767	11.6	20.8
3 22	13 12.60	+13 39.6	1.750	2.700	7.9	18.6	3 22	13 13.71	-15 42.9	1.822	2.769	7.9	20.6
4 1	13 4.16	+14 45.0	1.743	2.704	7.3	18.6	4 1	13 4.61	-14 47.4	1.783	2.769	4.2	20.3
4 11	12 55.37	+15 30.7	1.763	2.707	8.8	18.7	4 11	12 54.99	-13 39.3	1.773	2.769	2.9	20.3
4 21	12 47.20	+15 52.3	1.807	2.709	11.5	18.9	4 21	12 45.88	-12 25.3	1.792	2.768	6.1	20.5
5 1	12 40.52	+15 48.6	1.875	2.712	14.3	19.0	5 1	12 38.21	-11 12.8	1.838	2.766	10.0	20.7
5 11	12 35.92	+15 21.3	1.961	2.714	16.8	19.2	5 11	12 32.64	-10 8.8	1.908	2.764	13.4	20.9
391776	2008 ON ₇		4 5.9 197°75	6.1/12.5	17		258003	2001 FU ₂₅		4 5.9 339°94	1.5/ 7.1	18	
3 2	13 25.90	-27 19.8	2.458	3.179	14.0	21.6	3 2	13 15.99	-13 38.2	1.180	2.032	18.8	19.1
3 12	13 20.52	-27 45.9	2.359	3.176	11.9	21.4	3 12	13 14.41	-13 3.6	1.099	2.018	14.6	18.8
3 22	13 13.15	-27 52.7	2.281	3.173	9.5	21.2	3 22	13 10.00	-12 1.5	1.038	2.005	9.6	18.4
4 1	13 4.39	-27 38.5	2.228	3.168	7.3	21.1	4 1	13 3.49	-10 35.6	0.999	1.993	4.0	18.1
4 11	12 55.06	-27 4.1	2.202	3.164	6.1	21.0	4 11	12 56.13	- 8 54.9	0.983	1.983	2.8	17.9
4 21	12 46.07	-26 13.0	2.203	3.159	6.8	21.0	4 21	12 49.34	- 7 12.0	0.990	1.973	8.6	18.2
5 1	12 38.29	-25 10.7	2.232	3.153	8.9	21.1	5 1	12 44.44	- 5 39.8	1.020	1.966	14.1	18.5
5 11	12 32.37	-24 4.3	2.286	3.147	11.3	21.3	5 11	12 42.33	- 4 28.4	1.068	1.959	18.9	18.8
244637	2003 EQ ₇		4 5.9 292°97	4.4/10.2	17		192486	1998 HP ₇		4 5.9 19°94	24.3/ 3.2	18	
3 2	13 22.05	-20 44.9	2.254	3.025	13.7	19.9	3 2	13 39.34	+40 50.3	0.807	1.631	27.8	17.4
3 12	13 17.75	-21 1.9	2.152	3.012	11.2	19.7	3 12	13 32.03	+41 19.9	0.802	1.649	26.1	17.4
3 22	13 11.50	-21 1.9	2.071	2.999	8.4	19.4	3 22	13 20.27	+40 54.7	0.809	1.670	24.9	17.4
4 1	13 3.85	-20 44.4	2.016	2.986	5.6	19.3	4 1	13 6.50	+39 23.9	0.829	1.695	24.3	17.5
4 11	12 55.61	-20 11.2	1.988	2.973	4.4	19.1	4 11	12 53.53	+36 48.5	0.864	1.721	24.5	17.6
4 21	12 47.66	-19 26.1	1.988	2.960	6.0	19.2	4 21	12 43.40	+33 21.1	0.914	1.751	25.4	17.8
5 1	12 40.85	-18 34.8	2.015	2.947	9.0	19.4	5 1	12 37.13	+29 19.3	0.979	1.782	26.7	18.0
5 11	12 35.85	-17 43.6	2.066	2.935	12.0	19.5	5 11	12 34.84	+25 0.8	1.060	1.815	28.0	18.3
165387	2000 WF ₁₈₇		4 5.9 91°13	4.2/ 2.5	18		1838	Ursa		4 5.9 92°34	5.6/31.4	18	R
3 2	13 25.63	+ 0 41.5	1.503	2.359	15.3	19.8	3 2	13 26.62	+11 54.5	2.376	3.213	11.0	15.9
3 12	13 20.70	+ 1 43.8	1.446	2.371	11.3	19.6	3 12	13 20.70	+12 23.6	2.309	3.214	8.6	15.7
3 22	13 13.34	+ 2 52.1	1.413	2.383	7.1	19.4	3 22	13 13.06	+12 47.7	2.268	3.216	6.5	15.6
4 1	13 4.42	+ 3 58.4	1.404	2.394	4.2	19.2	4 1	13 4.34	+13 1.7	2.254	3.217	5.6	15.6
4 11	12 55.13	+ 4 54.0	1.423	2.406	6.0	19.3	4 11	12 55.33	+13 1.4	2.268	3.219	6.7	15.6
4 21	12 46.64	+ 5 32.3	1.467	2.418	9.9	19.6	4 21	12 46.84	+12 44.7	2.310	3.220	9.0	15.8
5 1	12 39.94	+ 5 49.6	1.534	2.429	13.8	19.8	5 1	12 39.57	+12 11.3	2.377	3.221	11.4	15.9
5 11	12 35.64	+ 5 45.2	1.622	2.440	17.1	20.1	5 11	12 34.04	+11 22.4	2.466	3.223	13.6	16.1
263654	2008 GR ₉₆		4 5.9 25°23	1.6/ 4.5	17		328247	2008 FM ₁₀₀		4 5.9 127°22	1.9/ 3.7	18	
3 2	13 21.10	- 6 16.7	1.467	2.319	15.8	20.2	3 2	13 23.61	- 4 57.8	2.148	2.978	12.3	21.1
3 12	13 17.49	- 5 22.3	1.400	2.322	11.8	20.0	3 12	13 18.55	- 3 43.6	2.083	2.995	9.0	20.9
3 22	13 11.48	- 4 13.3	1.355	2.327	7.1	19.7	3 22	13 11.77	- 2 19.9	2.044	3.012	5.4	20.7
4 1	13 3.84	- 2 56.3	1.335	2.331	2.4	19.4	4 1	13 3.91	- 0 52.6	2.033	3.028	2.2	20.5
4 11	12 55.72	- 1 40.5	1.341	2.337	3.7	19.5	4 11	12 55.80	+ 0 31.3	2.053	3.044	3.4	20.6
4 21	12 48.27	- 0 34.4	1.373	2.342	8.5	19.8	4 21	12 48.24	+ 1 45.3	2.102	3.058	6.9	20.9
5 1	12 42.51	+ 0 15.0	1.429	2.348	12.9	20.1	5 1	12 41.96	+ 2 44.6	2.177	3.072	10.3	21.1
5 11	12 39.09	+ 0 43.9	1.505	2.354	16.7	20.3	5 11	12 37.43	+ 3 26.6	2.276	3.086	13.1	21.3
110626	2001 TX ₁₅₈		4 5.9 67°30	0.0/ 5.8	18		32724	Woerlitz		4 5.9 60°49	2.5/ 2.7	18	
3 2	13 23.07	- 9 19.7	1.622	2.457	15.4	20.1	3 2	13 19.80	+ 1 56.7	2.863	3.702	9.3	19.2
3 12	13 18.67	- 8 38.7	1.560	2.472	11.5	19.9	3 12	13 15.38	+ 2 26.5	2.798	3.714	6.9	19.1
3 22	13 12.05	- 7 42.6	1.521	2.488	7.1	19.7	3 22	13 9.69	+ 2 58.1	2.759	3.725	4.3	18.9
4 1	13 4.00	- 6 36.6	1.507	2.504	2.3	19.4	4 1	13 3.21	+ 3 28.0	2.748	3.737	2.5	18.8
4 11	12 55.60	- 5 27.9	1.521	2.519	2.5	19.5	4 11	12 56.54	+ 3 52.5	2.767	3.749	3.5	18.9
4 21	12 47.91	- 4 24.1	1.561	2.535	7.2	19.8	4 21	12 50.23	+ 4 9.0	2.815	3.761	6.0	19.1
5 1	12 41.85	- 3 32.0	1.627	2.551	11.3	20.1	5 1	12 44.82	+ 4 15.3	2.889	3.773	8.4	19.3
5 11	12 38.00	- 2 55.8	1.715	2.567	14.8	20.3	5 11	12 40.70	+ 4 10.4	2.987	3.785	10.6	19.4
307652	2003 SD ₁₈₁		4 5.9 162°53	1.2/ 6.9	18		6723	Chrisclark		4 5.9 79°89	1.2/ 4.8	18	
3 2	13 27.99	-11 5.3	1.890	2.702	14.5	20.9	3 2	13 26.41					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
24630	1981 <i>EZ</i> ₉		4 5.9 271°34	0°4/ 5.5 18			375986	2009 <i>WN</i> ₂₅₇		4 5.9 187°97	3°4/ 2.7 17		
3 2	13 19.56	- 9 48.0	2.141	2.966	12.5	19.1	3 2	13 24.02	+ 1 7.5	1.932	2.778	12.8	20.9
3 12	13 15.84	- 8 45.3	2.044	2.951	9.5	18.8	3 12	13 19.19	+ 1 52.0	1.858	2.778	9.5	20.7
3 22	13 10.30	- 7 27.2	1.970	2.936	5.9	18.6	3 22	13 12.36	+ 2 41.1	1.809	2.778	6.0	20.5
4 1	13 3.49	- 5 58.1	1.924	2.921	1.9	18.3	4 1	13 4.19	+ 3 28.9	1.787	2.777	3.5	20.3
4 11	12 56.20	- 4 24.5	1.908	2.905	2.3	18.3	4 11	12 55.60	+ 4 9.3	1.793	2.777	4.9	20.4
4 21	12 49.23	- 2 53.9	1.920	2.890	6.4	18.5	4 21	12 47.52	+ 4 37.3	1.826	2.776	8.3	20.6
5 1	12 43.39	- 1 33.2	1.959	2.874	10.2	18.7	5 1	12 40.80	+ 4 49.3	1.884	2.776	11.8	20.8
5 11	12 39.26	- 0 27.8	2.022	2.858	13.5	18.9	5 11	12 36.04	+ 4 44.3	1.964	2.775	14.8	21.0
368195	2000 <i>WU</i> ₁₉₇		4 5.9 106°22	4°6/11.3 18			456964	2008 <i>AF</i> ₈₉		4 5.9 83°55	1°7/ 4.4 18		
3 2	13 23.90	-23 57.2	2.181	2.934	14.6	21.0	3 2	13 25.85	- 5 8.2	1.582	2.424	15.3	22.0
3 12	13 18.94	-23 43.6	2.107	2.953	12.0	20.8	3 12	13 20.73	- 4 20.0	1.527	2.444	11.3	21.8
3 22	13 12.09	-23 8.6	2.054	2.972	9.0	20.6	3 22	13 13.32	- 3 20.8	1.495	2.465	6.8	21.5
4 1	13 4.04	-22 13.0	2.026	2.991	6.1	20.5	4 1	13 4.48	- 2 16.9	1.489	2.485	2.4	21.3
4 11	12 55.69	-21 0.6	2.026	3.008	4.6	20.4	4 11	12 55.35	- 1 16.0	1.511	2.505	3.6	21.4
4 21	12 47.92	-19 37.4	2.054	3.026	5.9	20.5	4 21	12 47.04	- 0 25.1	1.559	2.525	8.0	21.7
5 1	12 41.51	-18 10.9	2.111	3.043	8.6	20.7	5 1	12 40.45	+ 0 10.6	1.632	2.544	12.1	22.0
5 11	12 36.99	-16 48.5	2.192	3.060	11.5	20.9	5 11	12 36.17	+ 0 28.5	1.727	2.564	15.4	22.3
114581	2003 <i>BX</i> ₇₇		4 5.9 307°34	4°6/10.5 18			195447	2002 <i>GY</i> ₈₁		4 5.9 328°40	2°5/ 3.5 17		
3 2	13 21.96	-21 24.9	2.194	2.964	14.1	19.7	3 2	13 20.94	- 2 58.1	1.763	2.613	13.7	19.9
3 12	13 17.72	-21 42.2	2.098	2.956	11.5	19.5	3 12	13 17.10	- 2 1.4	1.687	2.609	10.1	19.7
3 22	13 11.52	-21 41.8	2.023	2.949	8.7	19.3	3 22	13 11.17	- 0 54.9	1.634	2.605	6.2	19.4
4 1	13 3.92	-21 23.0	1.974	2.941	5.9	19.1	4 1	13 3.82	+ 0 15.4	1.607	2.602	2.8	19.2
4 11	12 55.76	-20 47.7	1.951	2.934	4.6	19.0	4 11	12 55.98	+ 1 21.7	1.608	2.598	4.3	19.3
4 21	12 47.93	-20 0.0	1.955	2.927	6.2	19.1	4 21	12 48.63	+ 2 17.0	1.635	2.595	8.3	19.5
5 1	12 41.31	-19 5.8	1.987	2.920	9.0	19.2	5 1	12 42.69	+ 2 56.1	1.687	2.592	12.2	19.7
5 11	12 36.54	-18 11.8	2.042	2.913	12.0	19.4	5 11	12 38.77	+ 3 16.0	1.760	2.589	15.5	19.9
179665	2002 <i>QM</i> ₃₂		4 5.9 151°33	1°2/ 4.7 16			472447	2015 <i>BK</i> ₃₂₁		4 5.9 258°77	3°3/ 2.8 17		
3 2	13 26.16	- 5 8.6	2.105	2.931	12.7	21.6	3 2	13 23.88	+ 0 25.9	1.944	2.790	12.8	21.5
3 12	13 20.57	- 4 31.7	2.032	2.941	9.4	21.4	3 12	13 19.20	+ 1 11.6	1.859	2.778	9.5	21.3
3 22	13 13.10	- 3 45.9	1.983	2.950	5.7	21.2	3 22	13 12.45	+ 2 3.3	1.797	2.766	6.0	21.1
4 1	13 4.39	- 2 55.6	1.962	2.958	2.0	21.0	4 1	13 4.25	+ 2 55.1	1.762	2.753	3.4	20.9
4 11	12 55.34	- 2 6.2	1.971	2.966	2.9	21.0	4 11	12 55.51	+ 3 40.7	1.756	2.741	4.8	20.9
4 21	12 46.82	- 1 22.9	2.009	2.973	6.7	21.3	4 21	12 47.17	+ 4 14.6	1.777	2.728	8.4	21.1
5 1	12 39.62	- 0 50.2	2.073	2.979	10.2	21.5	5 1	12 40.15	+ 4 32.5	1.823	2.715	12.1	21.3
5 11	12 34.31	- 0 30.8	2.161	2.985	13.2	21.7	5 11	12 35.09	+ 4 32.8	1.890	2.702	15.3	21.5
143352	2003 <i>AB</i> ₈₅		4 5.9 359°74	0°5/ 6.3 17			198112	2004 <i>TM</i> ₁		4 5.9 150°72	0°6/ 6.7 17	R	
3 2	13 24.15	- 7 53.7	1.917	2.745	13.6	19.8	3 2	13 22.77	-11 49.0	2.581	3.383	11.3	21.6
3 12	13 19.38	- 8 2.2	1.837	2.744	10.4	19.6	3 12	13 17.78	-11 10.1	2.501	3.393	8.6	21.4
3 22	13 12.53	- 8 1.1	1.779	2.743	6.5	19.3	3 22	13 11.27	-10 19.2	2.445	3.403	5.5	21.2
4 1	13 4.25	- 7 52.4	1.748	2.743	2.3	19.1	4 1	13 3.79	- 9 19.3	2.419	3.412	2.1	21.0
4 11	12 55.46	- 7 39.9	1.744	2.743	2.1	19.0	4 11	12 56.04	- 8 14.9	2.422	3.421	1.6	21.0
4 21	12 47.14	- 7 27.4	1.768	2.744	6.3	19.3	4 21	12 48.69	- 7 11.0	2.456	3.429	5.0	21.2
5 1	12 40.19	- 7 19.3	1.819	2.745	10.2	19.5	5 1	12 42.40	- 6 12.5	2.518	3.436	8.1	21.5
5 11	12 35.25	- 7 18.9	1.892	2.746	13.6	19.8	5 11	12 37.62	- 5 23.4	2.605	3.443	10.8	21.6
425912	2011 <i>FS</i> ₁₃₄		4 5.9 96°69	0°9/ 6.7 17			327299	2005 <i>TB</i> ₁₄₁		4 5.9 336°71	3°5/ 3.5 17		
3 2	13 24.53	-10 29.7	1.880	2.700	14.2	21.9	3 2	13 20.61	- 1 0.6	1.260	2.131	16.6	19.5
3 12	13 19.64	-10 18.6	1.805	2.707	10.8	21.7	3 12	13 17.72	- 0 26.1	1.183	2.115	12.5	19.2
3 22	13 12.66	- 9 54.3	1.752	2.714	6.9	21.5	3 22	13 12.00	+ 0 17.9	1.125	2.100	7.8	18.9
4 1	13 4.28	- 9 19.4	1.726	2.721	2.7	21.2	4 1	13 4.19	+ 1 4.3	1.091	2.085	3.8	18.6
4 11	12 55.46	- 8 38.7	1.728	2.727	2.1	21.2	4 11	12 55.55	+ 1 44.3	1.081	2.072	5.6	18.7
4 21	12 47.19	- 7 57.7	1.758	2.734	6.3	21.5	4 21	12 47.45	+ 2 9.9	1.094	2.061	10.5	18.9
5 1	12 40.36	- 7 22.0	1.814	2.740	10.2	21.7	5 1	12 41.20	+ 2 15.4	1.129	2.050	15.4	19.2
5 11	12 35.58	- 6 56.1	1.893	2.747	13.6	22.0	5 11	12 37.69	+ 1 58.4	1.182	2.041	19.7	19.4
140131	2001 <i>SB</i> ₁₄₅		4 5.9 286°61	0°0/ 5.6 17			341998	2008 <i>RC</i> ₂₄		4 5.9 154°29	4°8/10.5 17		
3 2	13 19.24	-10 0.4	2.128	2.953	12.6	20.3	3 2	13 25.37	-21 30.7	2.161	2.925	14.4	20.8
3 12	13 15.58	- 9 9.5	2.037	2.943	9.5	20.1	3 12	13 20.24	-21 52.9	2.073	2.928	11.8	20.6
3 22	13 10.13	- 8 4.3	1.969	2.934	5.9	19.9	3 22	13 13.06	-21 57.1	2.008	2.931	8.9	20.4
4 1	13 3.45	- 6 48.8	1.929	2.925	2.0	19.6	4 1	13 4.45	-21 42.6	1.968	2.934	6.0	20.3
4 11	12 56.32	- 5 28.8	1.917	2.916	2.1	19.6	4 11	12 55.32	-21 11.4	1.955	2.937	4.8	20.2
4 21	12 49.55	- 4 11.3	1.934	2.907	6.2	19.8	4 21	12 46.61	-20 27.5	1.970	2.939	6.3	20.3
5 1	12 43.92	- 3 2.5	1.978	2.897	9.9	20.0	5 1	12 39.23	-19 36.9	2.011	2.941	9.1	20.5
5 11	12 40.01	- 2 7.5	2.045	2.888	13.1	20.2	5 11	12 33.81	-18 46.4	2.077	2.943	12.1	20.7
466185	2012 <i>KH</i> ₁₉		4 5.9 249°66	1°3/ 4.5 17			98780	2000 <i>YZ</i> ₉₀		4 5.9 170°48	1°4/ 4.5 18		
3 2	13 23.64	- 5 19.6	2.110	2.940	12.5	22.1	3 2	13 23.35	- 4 28.0	2.117	2.950	12.3	20.2
3 12	13 18.94	- 4 36.7	2.012	2.923	9.4	21.9	3 12	13 18.54	- 3 50.5	2.039	2.952	9.2	20.0
3 22	13 12.27	- 3 43.2	1.938	2.905	5.7	21.6	3 22	13 11.90	- 3 4.6	1.986	2.954	5.6	19.8
4 1	13 4.19	- 2 43.3	1.891	2.887	2.0	21.3	4 1	13 4.04	- 2 14.5	1.959	2.955	2.0	19.6
4 11	12 55.52	- 1 42.9	1.874	2.868	3.0	21.4	4 11	12 55.79	- 1 25.7	1.962	2.956	3.0	19.6
4 21	12 47.17	- 0 47.9	1.885	2.849	7.0	21.6	4 21	12 47.99	- 0 43.4	1.993	2.957	6.7	19.9
5 1	12 39.99	- 0 3.9	1.922	2.829	10.8	21.8	5 1	12 41.43	- 0 12.0	2.051	2.958	10.2	20.1
5 11	12 34.65	+ 0 25.4	1.983	2.809	14.2	21.9	5 11	12 36.67	+ 0 5.7	2.131	2.958	13.3	20.3
17705	1997 <i>UM</i> ₂₄		4 5.9 28°43	2°4/ 4.4 18			519979	2013 <i>TE</i> ₁₆₇		4 5.9 126°73	1°3/ 7.2		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
65585	5064 <i>T</i> ₋₂		4 5.9 231°58	4.4/10.7	18		88657	2001 <i>RT</i> ₇₁		4 5.9 146°84	0°6/ 6.4	18	
3 2	13 24.00	-22 6.5	2.657	3.407	12.4	20.1	3 2	13 25.28	-11 36.2	1.609	2.434	16.0	19.8
3 12	13 18.96	-22 28.6	2.554	3.398	10.2	19.9	3 12	13 20.53	-10 53.2	1.535	2.440	12.2	19.6
3 22	13 12.17	-22 35.8	2.473	3.390	7.7	19.8	3 22	13 13.37	-9 51.7	1.483	2.446	7.7	19.3
4 1	13 4.16	-22 27.1	2.419	3.381	5.4	19.6	4 1	13 4.58	-8 36.1	1.457	2.452	2.8	19.1
4 11	12 55.63	-22 4.0	2.393	3.372	4.4	19.5	4 11	12 55.29	-7 13.8	1.458	2.457	2.4	19.0
4 21	12 47.36	-21 29.3	2.396	3.362	5.6	19.6	4 21	12 46.65	-5 53.8	1.487	2.462	7.3	19.3
5 1	12 40.10	-20 47.6	2.427	3.352	8.0	19.7	5 1	12 39.70	-4 44.2	1.541	2.466	11.7	19.6
5 11	12 34.44	-20 4.3	2.482	3.342	10.5	19.9	5 11	12 35.11	-3 51.0	1.617	2.470	15.5	19.9
414088	2007 <i>TQ</i> ₁₇₇		4 5.9 239°65	0°0/ 5.7	16		200734	2001 <i>VU</i> ₅₉		4 5.9 175°39	0°7/ 6.5	18	
3 2	13 24.66	-9 42.2	1.818	2.643	14.4	22.2	3 2	13 28.88	-10 1.6	1.783	2.600	15.0	20.9
3 12	13 20.02	-8 57.9	1.723	2.629	11.0	22.0	3 12	13 23.09	-9 50.7	1.702	2.603	11.4	20.6
3 22	13 13.10	-7 57.3	1.650	2.614	6.9	21.7	3 22	13 14.92	-9 26.1	1.644	2.605	7.3	20.4
4 1	13 4.51	-6 44.2	1.603	2.599	2.3	21.4	4 1	13 5.11	-8 50.4	1.612	2.607	2.7	20.1
4 11	12 55.25	-5 25.3	1.585	2.583	2.5	21.3	4 11	12 54.72	-8 8.5	1.609	2.607	2.3	20.1
4 21	12 46.36	-4 8.5	1.595	2.567	7.3	21.6	4 21	12 44.90	-7 26.4	1.633	2.608	6.8	20.4
5 1	12 38.89	-3 1.4	1.631	2.550	11.6	21.8	5 1	12 36.67	-6 50.1	1.684	2.607	11.1	20.6
5 11	12 33.56	-2 9.9	1.689	2.532	15.5	22.0	5 11	12 30.75	-6 24.6	1.758	2.606	14.7	20.8
466595	2014 <i>UF</i> ₁₆₄		4 5.9 74°40	7°7/15.9	18		312220	2007 <i>WR</i> ₁		4 5.9 62°34	1°8/ 4.6	18	
3 2	13 24.81	-35 26.8	1.801	2.497	19.2	20.6	3 2	13 26.21	-4 21.4	1.410	2.259	16.4	21.3
3 12	13 20.04	-34 41.1	1.729	2.522	16.5	20.5	3 12	13 21.32	-3 50.7	1.352	2.273	12.2	21.1
3 22	13 12.91	-33 19.3	1.674	2.546	13.4	20.3	3 22	13 13.86	-3 9.2	1.317	2.288	7.4	20.8
4 1	13 4.34	-31 20.8	1.642	2.571	10.3	20.2	4 1	13 4.73	-2 23.0	1.306	2.302	2.6	20.6
4 11	12 55.57	-28 51.1	1.636	2.596	8.0	20.1	4 11	12 55.19	-1 39.4	1.321	2.317	3.8	20.7
4 21	12 47.72	-26 1.0	1.658	2.620	8.0	20.2	4 21	12 46.50	-1 5.3	1.362	2.331	8.6	21.0
5 1	12 41.72	-23 4.4	1.709	2.644	10.2	20.3	5 1	12 39.72	-0 45.8	1.427	2.346	13.0	21.3
5 11	12 38.10	-20 14.9	1.787	2.668	13.0	20.6	5 11	12 35.49	-0 43.5	1.513	2.361	16.7	21.6
382890	2004 <i>PW</i> ₅₅		4 5.9 231°62	3°6/ 9.5	18		191991	2005 <i>XR</i> ₁		4 5.9 215°35	1°4/ 7.0	18	
3 2	13 26.90	-19 12.0	2.526	3.288	12.6	22.1	3 2	13 28.17	-12 0.4	1.715	2.529	15.6	20.5
3 12	13 21.23	-19 27.4	2.415	3.274	10.2	21.9	3 12	13 22.80	-11 50.1	1.624	2.522	12.1	20.3
3 22	13 13.65	-19 28.3	2.328	3.258	7.5	21.7	3 22	13 14.89	-11 23.3	1.556	2.515	7.9	20.0
4 1	13 4.68	-19 14.2	2.268	3.241	4.8	21.5	4 1	13 5.15	-10 42.3	1.514	2.507	3.3	19.7
4 11	12 55.08	-18 46.7	2.237	3.224	3.7	21.4	4 11	12 54.66	-9 51.7	1.499	2.498	2.5	19.6
4 21	12 45.71	-18 9.0	2.236	3.206	5.6	21.5	4 21	12 44.65	-8 58.3	1.512	2.488	7.1	19.9
5 1	12 37.41	-17 26.1	2.263	3.188	8.5	21.7	5 1	12 36.23	-8 9.2	1.551	2.478	11.6	20.1
5 11	12 30.82	-16 43.5	2.315	3.169	11.4	21.8	5 11	12 30.22	-7 30.7	1.612	2.467	15.5	20.3
106464	2000 <i>WU</i> ₄		4 5.9 129°54	2°9/ 9.0	18		468420	1999 <i>TS</i> ₁₃₀		4 5.9 256°43	0°5/ 5.4	17	
3 2	13 23.55	-16 56.4	2.559	3.339	12.0	20.2	3 2	13 21.80	-9 5.0	2.295	3.114	12.0	22.2
3 12	13 18.51	-17 10.1	2.472	3.343	9.5	20.0	3 12	13 17.47	-8 6.6	2.187	3.092	9.1	22.0
3 22	13 11.82	-17 10.9	2.409	3.348	6.7	19.8	3 22	13 11.34	-6 54.0	2.105	3.070	5.6	21.7
4 1	13 4.01	-16 59.2	2.372	3.352	4.0	19.7	4 1	13 3.92	-5 31.2	2.050	3.047	1.8	21.4
4 11	12 55.82	-16 37.1	2.365	3.356	3.0	19.6	4 11	12 55.94	-4 3.9	2.026	3.023	2.3	21.4
4 21	12 47.98	-16 8.2	2.386	3.360	5.0	19.7	4 21	12 48.22	-2 39.0	2.031	2.999	6.3	21.6
5 1	12 41.20	-15 36.5	2.435	3.364	7.8	19.9	5 1	12 41.55	-1 23.1	2.063	2.974	10.0	21.8
5 11	12 36.01	-15 6.7	2.510	3.368	10.5	20.1	5 11	12 36.54	-0 21.3	2.120	2.948	13.3	22.0
78379	2002 <i>PW</i> ₁₃₃		4 5.9 177°92	0°4/ 6.4	18		386552	2009 <i>DM</i> ₄₃		4 5.9 67°10	4°1/ 9.8	17	
3 2	13 22.39	-10 7.1	2.343	3.156	11.9	20.2	3 2	13 24.93	-19 15.2	2.197	2.972	13.9	20.7
3 12	13 17.72	-9 42.1	2.258	3.157	9.1	20.0	3 12	13 19.83	-19 42.8	2.114	2.979	11.2	20.5
3 22	13 11.36	-9 5.6	2.197	3.158	5.7	19.8	3 22	13 12.78	-19 54.5	2.054	2.985	8.2	20.3
4 1	13 3.86	-8 20.6	2.164	3.159	2.1	19.5	4 1	13 4.38	-19 50.1	2.020	2.992	5.4	20.1
4 11	12 55.99	-7 31.4	2.160	3.159	1.8	19.5	4 11	12 55.51	-19 31.2	2.013	2.999	4.2	20.1
4 21	12 48.51	-6 42.7	2.185	3.159	5.4	19.7	4 21	12 47.07	-19 1.8	2.035	3.006	5.9	20.2
5 1	12 42.14	-5 59.4	2.238	3.158	8.8	19.9	5 1	12 39.92	-18 26.9	2.083	3.013	8.8	20.4
5 11	12 37.40	-5 25.4	2.314	3.157	11.8	20.1	5 11	12 34.65	-17 52.3	2.155	3.021	11.7	20.6
378798	2008 <i>SG</i> ₁₁₄		4 5.9 126°40	1°8/ 3.9	17		431919	2008 <i>TZ</i> ₆₆		4 5.9 230°19	1°0/ 4.9	17	
3 2	13 22.34	-3 47.3	2.103	2.940	12.3	21.4	3 2	13 22.63	-5 52.9	2.085	2.917	12.6	21.8
3 12	13 17.76	-2 59.1	2.032	2.947	9.1	21.2	3 12	13 18.12	-5 17.9	2.000	2.912	9.4	21.5
3 22	13 11.39	-2 2.8	1.985	2.954	5.5	21.0	3 22	13 11.72	-4 33.0	1.939	2.907	5.7	21.3
4 1	13 3.87	-1 3.2	1.966	2.961	2.2	20.8	4 1	13 4.02	-3 42.1	1.906	2.902	1.9	21.0
4 11	12 56.02	-0 6.3	1.975	2.967	3.3	20.9	4 11	12 55.88	-2 50.8	1.901	2.897	2.7	21.1
4 21	12 48.65	+0 42.4	2.013	2.973	6.9	21.1	4 21	12 48.14	-2 4.5	1.924	2.891	6.6	21.3
5 1	12 42.52	+1 18.6	2.077	2.979	10.3	21.3	5 1	12 41.62	-1 28.2	1.973	2.885	10.3	21.5
5 11	12 38.15	+1 39.8	2.163	2.985	13.3	21.5	5 11	12 36.91	-1 5.1	2.046	2.880	13.5	21.7
407655	2011 <i>SF</i> ₁₀₀		4 5.9 174°40	0°9/ 5.2	17		210101	2006 <i>QU</i> ₁₁₇		4 5.9 210°41	3°0/ 9.1	18	
3 2	13 28.09	-6 8.9	1.672	2.505	15.1	21.7	3 2	13 23.66	-17 26.2	2.547	3.324	12.1	21.4
3 12	13 22.59	-5 43.8	1.596	2.507	11.3	21.5	3 12	13 18.68	-17 34.9	2.451	3.320	9.7	21.2
3 22	13 14.64	-5 7.2	1.542	2.509	7.0	21.3	3 22	13 11.98	-17 29.9	2.378	3.316	6.9	21.0
4 1	13 5.01	-4 23.4	1.514	2.510	2.3	21.0	4 1	13 4.11	-17 11.8	2.332	3.311	4.1	20.8
4 11	12 54.82	-3 38.5	1.514	2.511	3.0	21.0	4 11	12 55.78	-16 42.7	2.315	3.307	3.0	20.7
4 21	12 45.25	-2 59.0	1.542	2.511	7.7	21.3	4 21	12 47.76	-16 6.2	2.327	3.301	5.1	20.9
5 1	12 37.33	-2 30.4	1.595	2.511	12.0	21.5	5 1	12 40.79	-15 26.9	2.367	3.296	8.0	21.0
5 11	12 31.79	-2 16.5	1.669	2.510	15.7	21.8	5 11	12 35.41	-14 49.7	2.432	3.290	10.8	21.2
208217	2000 <i>SW</i> ₁₀₄		4 5.9 165°42	1°0/ 6.7	18		360266	2000 <i>SZ</i> ₈₄		4 5.9 196°42	1°2/ 4.9	16	
3 2	13 29.29	-10 3.5	1.819	2.634									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
423597	2005 <i>WP</i> ₁₁		4 5.9 150°41	0°9/ 6.9 16			153944	2001 <i>YN</i> ₁₂₇		4 5.9 182°85	0°1/ 5.8 17		
3 2	13 24.31	-12 7.8	2.450	3.251	11.9	22.8	3 2	13 25.31	-7 49.6	2.295	3.111	12.1	21.3
3 12	13 19.02	-11 37.4	2.371	3.262	9.1	22.7	3 12	13 19.94	-7 27.1	2.210	3.112	9.1	21.1
3 22	13 12.10	-10 54.6	2.316	3.272	5.8	22.5	3 22	13 12.77	-6 54.8	2.149	3.112	5.6	20.9
4 1	13 4.12	-10 2.1	2.289	3.282	2.4	22.2	4 1	13 4.39	-6 15.6	2.116	3.112	1.9	20.6
4 11	12 55.83	-9 4.2	2.292	3.291	1.7	22.2	4 11	12 55.60	-5 33.8	2.113	3.111	2.0	20.6
4 21	12 47.99	-8 6.0	2.325	3.299	5.1	22.5	4 21	12 47.22	-4 54.2	2.139	3.109	5.8	20.9
5 1	12 41.28	-7 12.6	2.386	3.306	8.4	22.7	5 1	12 40.01	-4 21.3	2.193	3.107	9.3	21.1
5 11	12 36.19	-6 28.0	2.472	3.313	11.2	22.9	5 11	12 34.54	-3 58.3	2.271	3.104	12.3	21.3
221171	2005 <i>TP</i> ₁₆₀		4 5.9 27°34	2°2/ 7.8 17			433892	2015 <i>BX</i> ₄₀₇		4 5.9 209°42	2°9/ 2.8 17		
3 2	13 23.64	-13 52.5	1.709	2.525	15.6	20.6	3 2	13 22.21	-0 57.6	2.013	2.858	12.4	21.4
3 12	13 19.29	-13 45.8	1.630	2.527	12.1	20.4	3 12	13 17.82	+0 1.9	1.936	2.855	9.2	21.2
3 22	13 12.63	-13 21.7	1.572	2.528	8.1	20.2	3 22	13 11.54	+1 8.6	1.884	2.853	5.7	21.0
4 1	13 4.37	-12 42.0	1.539	2.529	3.9	19.9	4 1	13 3.99	+2 16.4	1.859	2.850	3.0	20.8
4 11	12 55.54	-11 51.6	1.533	2.531	2.7	19.8	4 11	12 56.02	+3 18.6	1.862	2.847	4.5	20.9
4 21	12 47.26	-10 57.0	1.554	2.532	6.6	20.1	4 21	12 48.50	+4 9.3	1.893	2.844	8.0	21.1
5 1	12 40.52	-10 5.3	1.600	2.534	10.8	20.3	5 1	12 42.24	+4 44.0	1.949	2.841	11.4	21.3
5 11	12 36.03	-9 23.0	1.669	2.536	14.5	20.5	5 11	12 37.81	+5 0.7	2.027	2.838	14.4	21.5
374517	2005 <i>YC</i> ₂₆₅		4 5.9 190°98	1°6/ 4.3 17			284846	2009 <i>BM</i> ₉₁		4 5.9 176°64	5°1/30.7 17		
3 2	13 23.76	-4 3.6	2.117	2.950	12.3	21.4	3 2	13 20.52	+6 37.5	2.210	3.062	11.2	21.0
3 12	13 18.89	-3 25.6	2.036	2.949	9.2	21.2	3 12	13 16.38	+7 56.3	2.143	3.062	8.5	20.9
3 22	13 12.16	-2 39.3	1.980	2.948	5.6	21.0	3 22	13 10.56	+9 15.7	2.102	3.062	6.1	20.7
4 1	13 4.17	-1 49.1	1.951	2.946	2.1	20.7	4 1	13 3.64	+10 29.0	2.089	3.062	5.1	20.7
4 11	12 55.76	-1 0.4	1.951	2.944	3.1	20.8	4 11	12 56.39	+11 29.6	2.104	3.062	6.6	20.7
4 21	12 47.79	+0 18.5	1.979	2.942	6.8	21.0	4 21	12 49.58	+12 12.7	2.145	3.062	9.2	20.9
5 1	12 41.06	+0 12.2	2.034	2.940	10.4	21.2	5 1	12 43.90	+12 35.6	2.211	3.062	11.9	21.1
5 11	12 36.13	+0 28.9	2.112	2.937	13.4	21.4	5 11	12 39.88	+12 38.2	2.297	3.062	14.3	21.2
20792	2000 <i>SH</i> ₈₈		4 5.9 167°61	2°9/ 2.6 18			50108	2000 <i>AU</i> ₁₁₃		4 5.9 42°22	1°2/ 6.9 18		
3 2	13 26.19	+2 28.8	2.640	3.470	10.3	19.5	3 2	13 23.05	-12 55.2	1.248	2.088	18.7	18.4
3 12	13 20.26	+3 5.1	2.566	3.476	7.6	19.3	3 12	13 19.47	-12 19.5	1.181	2.093	14.4	18.2
3 22	13 12.80	+3 43.4	2.517	3.481	4.9	19.1	3 22	13 13.01	-11 19.9	1.133	2.098	9.3	17.9
4 1	13 4.34	+4 19.7	2.498	3.486	3.0	19.0	4 1	13 4.55	-10 0.9	1.108	2.103	3.7	17.6
4 11	12 55.60	+4 49.6	2.510	3.489	4.1	19.1	4 11	12 55.46	-8 31.8	1.109	2.108	2.7	17.5
4 21	12 47.29	+5 9.7	2.551	3.492	6.7	19.3	4 21	12 47.16	-7 3.5	1.134	2.114	8.3	17.9
5 1	12 40.03	+5 17.9	2.619	3.495	9.5	19.4	5 1	12 40.89	-5 47.0	1.182	2.119	13.4	18.2
5 11	12 34.32	+5 13.1	2.711	3.496	11.8	19.6	5 11	12 37.41	-4 49.9	1.250	2.125	17.8	18.4
426632	2013 <i>SR</i> ₆₄		4 5.9 115°45	1°3/ 4.5 17			422738	2001 <i>SO</i> ₃₉		4 5.9 178°19	1°2/ 4.8 17		
3 2	13 23.50	-5 34.1	2.106	2.937	12.5	22.0	3 2	13 28.17	-3 42.4	2.257	3.079	12.1	21.7
3 12	13 18.56	-4 42.2	2.041	2.953	9.2	21.8	3 12	13 22.07	-3 27.7	2.174	3.081	9.0	21.5
3 22	13 11.86	-3 41.0	2.000	2.968	5.6	21.6	3 22	13 14.09	-3 6.7	2.116	3.082	5.5	21.3
4 1	13 4.04	-2 35.3	1.988	2.984	1.9	21.4	4 1	13 4.85	-2 42.5	2.087	3.083	1.9	21.1
4 11	12 55.96	-1 31.4	2.004	2.998	2.9	21.5	4 11	12 55.19	-2 19.3	2.088	3.083	2.7	21.1
4 21	12 48.43	-0 34.7	2.049	3.013	6.6	21.8	4 21	12 45.98	-2 1.0	2.119	3.083	6.4	21.4
5 1	12 42.17	+0 9.9	2.121	3.027	10.0	22.0	5 1	12 38.02	-1 50.9	2.177	3.082	9.8	21.6
5 11	12 37.70	+0 39.7	2.216	3.040	12.9	22.2	5 11	12 31.89	-1 51.3	2.258	3.080	12.8	21.8
215682	2003 <i>WD</i> ₁₅₅		4 5.9 143°04	2°8/ 3.3 18			73783	1994 <i>UK</i> ₆		4 5.9 312°69	0°0/ 5.8 18		
3 2	13 24.40	-2 27.8	1.755	2.600	13.9	20.4	3 2	13 26.87	-5 47.2	1.400	2.246	16.7	18.4
3 12	13 19.63	-1 23.4	1.687	2.606	10.3	20.2	3 12	13 22.53	-6 2.3	1.304	2.222	12.9	18.1
3 22	13 12.71	-0 9.7	1.643	2.613	6.3	19.9	3 22	13 15.16	-6 7.7	1.229	2.197	8.1	17.7
4 1	13 4.37	+1 6.3	1.625	2.619	3.0	19.8	4 1	13 5.41	-6 5.9	1.177	2.174	2.8	17.3
4 11	12 55.63	+2 16.7	1.636	2.624	4.6	19.9	4 11	12 54.49	-6 1.2	1.152	2.150	3.0	17.3
4 21	12 47.49	+3 14.6	1.674	2.629	8.5	20.1	4 21	12 43.85	-5 58.7	1.151	2.128	8.7	17.5
5 1	12 40.86	+3 54.8	1.736	2.634	12.3	20.3	5 1	12 34.97	-6 3.8	1.174	2.105	14.0	17.8
5 11	12 36.35	+4 15.1	1.820	2.639	15.5	20.6	5 11	12 28.92	-6 20.7	1.217	2.084	18.7	18.0
469385	2001 <i>SD</i> ₂₀₉		4 5.9 223°65	0°7/ 5.1 17			360409	2002 <i>GJ</i> ₇₇		4 5.9 329°48	3°8/ 2.9 17		
3 2	13 21.99	-6 7.8	2.758	3.577	10.2	22.4	3 2	13 19.74	-2 17.0	1.215	2.087	17.0	19.9
3 12	13 17.24	-5 37.3	2.662	3.567	7.6	22.2	3 12	13 17.15	-1 10.7	1.140	2.074	12.7	19.6
3 22	13 11.02	-4 59.0	2.591	3.556	4.7	22.0	3 22	13 11.72	+0 9.9	1.086	2.061	7.9	19.3
4 1	13 3.79	-4 15.9	2.549	3.545	1.5	21.8	4 1	13 4.19	+1 36.0	1.055	2.049	4.0	19.0
4 11	12 56.19	-3 31.8	2.537	3.533	2.1	21.8	4 11	12 55.85	+2 55.9	1.047	2.037	6.2	19.1
4 21	12 48.85	-2 50.8	2.555	3.521	5.3	22.0	4 21	12 48.09	+3 58.7	1.064	2.027	11.2	19.4
5 1	12 42.42	-2 16.7	2.601	3.508	8.3	22.2	5 1	12 42.22	+4 36.7	1.101	2.017	16.2	19.6
5 11	12 37.37	-1 52.2	2.671	3.495	11.0	22.3	5 11	12 39.12	+4 46.6	1.156	2.009	20.5	19.8
123330	2000 <i>VA</i> ₃₈		4 5.9 85°49	6°4/30.6 18			150670	2001 <i>MX</i> ₁₇		4 5.9 191°18	4°9/11.6 17		
3 2	13 26.87	+10 45.1	1.998	2.842	12.5	19.5	3 2	13 24.53	-25 0.7	2.312	3.054	14.2	20.2
3 12	13 20.96	+11 54.1	1.961	2.871	9.7	19.4	3 12	13 19.56	-24 53.3	2.215	3.053	11.8	20.1
3 22	13 13.24	+12 57.9	1.950	2.900	7.3	19.3	3 22	13 12.65	-24 24.8	2.139	3.051	9.1	19.9
4 1	13 4.47	+13 49.4	1.965	2.928	6.4	19.3	4 1	13 4.40	-23 34.8	2.089	3.048	6.4	19.7
4 11	12 55.59	+14 22.9	2.009	2.955	7.7	19.4	4 11	12 55.66	-22 25.8	2.066	3.045	4.9	19.6
4 21	12 47.48	+14 35.6	2.078	2.982	10.1	19.6	4 21	12 47.33	-21 3.3	2.072	3.041	6.1	19.7
5 1	12 40.86	+14 27.2	2.172	3.009	12.6	19.8	5 1	12 40.25	-19 34.2	2.106	3.036	8.8	19.8
5 11	12 36.18	+13 59.4	2.285	3.035	14.8	20.0	5 11	12 35.04	-18 6.6	2.165	3.031	11.6	20.0
279208	2009 <i>UQ</i> ₃₅		4 5.9 217°27	0°4/ 6.4 17 R			202657	2006 <i>KV</i> ₁₅		4 5.9 138°65	0°7/ 5.2 17		
3 2	13 24.26	-10 14.9	2.366	3.175	12.0	22.0</							

EPHEMERIDES

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
59200	1999 <i>BS</i> ₇		4 5.9 332°68	3°6/ 8.5 18			143237	2002 <i>YB</i> ₂₁		4 5.9 42°80	4°9/10.1 18		
3 2	13 22.82	-15 57.1	1.273	2.103	19.1	18.4	3 2	13 23.61	-20 22.8	1.593	2.387	17.5	19.7
3 12	13 19.52	-16 3.7	1.194	2.096	15.2	18.1	3 12	13 19.52	-20 32.2	1.517	2.392	14.2	19.5
3 22	13 13.23	-15 46.3	1.133	2.089	10.5	17.8	3 22	13 12.91	-20 18.0	1.460	2.398	10.4	19.3
4 1	13 4.72	-15 5.5	1.095	2.083	5.7	17.5	4 1	13 4.55	-19 40.2	1.428	2.404	6.6	19.1
4 11	12 55.31	-14 6.2	1.080	2.077	3.9	17.4	4 11	12 55.60	-18 42.5	1.420	2.410	4.9	19.0
4 21	12 46.49	-12 57.0	1.090	2.072	8.1	17.6	4 21	12 47.28	-17 32.1	1.439	2.416	7.2	19.1
5 1	12 39.66	-11 48.8	1.122	2.067	13.2	17.9	5 1	12 40.66	-16 18.2	1.482	2.423	11.0	19.4
5 11	12 35.74	-10 51.3	1.175	2.063	17.7	18.1	5 11	12 36.48	-15 9.7	1.548	2.429	14.6	19.6
89756	2002 <i>AE</i> ₅₄		4 5.9 275°60	1°5/ 7.6 18			189603	2000 <i>XN</i> ₅		4 5.9 169°18	5°3/11.6 17		
3 2	13 21.10	-13 18.3	2.418	3.221	12.0	19.7	3 2	13 25.44	-24 44.1	2.336	3.077	14.1	20.9
3 12	13 16.91	-13 2.1	2.312	3.203	9.3	19.5	3 12	13 20.24	-24 59.9	2.245	3.080	11.7	20.7
3 22	13 11.00	-12 32.6	2.230	3.184	6.2	19.2	3 22	13 13.08	-24 56.5	2.175	3.083	9.1	20.5
4 1	13 3.87	-11 51.6	2.175	3.165	2.9	19.0	4 1	13 4.58	-24 33.0	2.131	3.086	6.6	20.4
4 11	12 56.22	-11 2.5	2.148	3.146	2.0	18.9	4 11	12 55.58	-23 51.1	2.114	3.088	5.3	20.3
4 21	12 48.82	-10 10.1	2.151	3.127	5.2	19.1	4 21	12 47.00	-22 54.9	2.125	3.089	6.3	20.4
5 1	12 42.41	-9 19.4	2.181	3.108	8.7	19.2	5 1	12 39.66	-21 50.7	2.163	3.090	8.7	20.5
5 11	12 37.60	-8 35.5	2.235	3.089	11.8	19.4	5 11	12 34.20	-20 45.3	2.226	3.091	11.4	20.7
164536	Davehinson		4 5.9 255°15	0°8/ 5.2 17			504288	2006 <i>XK</i> ₂₅		4 5.9 146°34	3°3/10.9 17		
3 2	13 22.78	-6 7.0	2.116	2.946	12.5	21.3	3 2	13 20.77	-22 48.3	3.098	3.841	10.9	22.4
3 12	13 18.25	-5 40.1	2.029	2.939	9.3	21.1	3 12	13 16.21	-22 27.0	3.009	3.851	8.9	22.2
3 22	13 11.85	-5 3.6	1.965	2.932	5.7	20.9	3 22	13 10.32	-21 50.5	2.943	3.861	6.6	22.1
4 1	13 4.14	-4 21.1	1.929	2.925	1.9	20.6	4 1	13 3.60	-20 59.6	2.904	3.870	4.4	21.9
4 11	12 55.96	-3 37.6	1.921	2.917	2.5	20.6	4 11	12 56.62	-19 57.2	2.895	3.879	3.3	21.9
4 21	12 48.17	-2 58.1	1.941	2.910	6.4	20.9	4 21	12 50.00	-18 47.3	2.916	3.887	4.4	22.0
5 1	12 41.56	-2 27.4	1.988	2.902	10.1	21.1	5 1	12 44.26	-17 34.6	2.966	3.895	6.6	22.1
5 11	12 36.75	-2 8.7	2.057	2.895	13.3	21.2	5 11	12 39.84	-16 24.1	3.043	3.902	8.8	22.3
29271	1993 <i>FF</i> ₃₁		4 5.9 88°72	2°5/ 4.0 18			353094	2009 <i>DC</i> ₁₄₁		4 5.9 308°89	1°4/ 4.4 17		
3 2	13 26.40	-3 55.4	1.381	2.232	16.6	18.9	3 2	13 19.91	-4 59.9	2.149	2.986	12.0	21.2
3 12	13 21.56	-3 3.0	1.323	2.245	12.3	18.7	3 12	13 16.07	-4 14.3	2.064	2.980	8.9	20.9
3 22	13 15.09	-1 59.0	1.286	2.258	7.5	18.5	3 22	13 10.48	-3 19.1	2.005	2.974	5.4	20.7
4 1	13 4.90	-0 50.7	1.275	2.270	3.0	18.2	4 1	13 3.70	-2 19.0	1.972	2.968	2.0	20.5
4 11	12 55.28	+ 0 12.8	1.290	2.283	4.5	18.3	4 11	12 56.50	-1 19.6	1.968	2.962	3.0	20.5
4 21	12 46.51	+ 1 3.4	1.330	2.295	9.2	18.6	4 21	12 49.68	-0 26.6	1.992	2.957	6.7	20.8
5 1	12 39.68	+ 1 35.5	1.394	2.307	13.7	18.9	5 1	12 43.99	+ 0 15.1	2.042	2.951	10.2	21.0
5 11	12 35.45	+ 1 46.6	1.478	2.319	17.4	19.2	5 11	12 39.98	+ 0 42.4	2.115	2.946	13.2	21.1
496646	2016 <i>AR</i> ₀₈		4 5.9 322°39	5°6/ 9.7 17			186016	2001 <i>QG</i> ₁₄₈		4 5.9 153°32	7°7/28.4 17		
3 2	13 25.40	-18 55.9	1.383	2.192	19.0	20.6	3 2	13 25.62	+14 55.7	2.097	2.939	12.1	20.8
3 12	13 21.42	-19 33.0	1.300	2.184	15.4	20.3	3 12	13 20.23	+16 18.9	2.045	2.946	9.8	20.6
3 22	13 14.41	-19 47.6	1.235	2.177	11.4	20.0	3 22	13 12.96	+17 35.3	2.017	2.953	8.1	20.5
4 1	13 5.14	-19 37.6	1.192	2.170	7.3	19.8	4 1	13 4.50	+18 37.1	2.017	2.958	7.8	20.5
4 11	12 54.90	-19 5.0	1.174	2.164	5.6	19.7	4 11	12 55.73	+19 17.8	2.042	2.964	9.2	20.6
4 21	12 45.17	-18 15.7	1.180	2.158	8.4	19.8	4 21	12 47.56	+19 34.2	2.094	2.969	11.4	20.8
5 1	12 37.38	-17 19.1	1.210	2.152	12.7	20.0	5 1	12 40.76	+19 25.9	2.167	2.973	13.7	20.9
5 11	12 32.48	-16 25.1	1.260	2.147	16.9	20.3	5 11	12 35.85	+18 55.1	2.260	2.977	15.8	21.1
85426	1997 <i>AK</i> ₁₂		4 5.9 307°31	0°3/ 5.7 17			88860	2001 <i>SO</i> ₂₄₇		4 5.9 80°59	1°6/ 4.3 18		
3 2	13 23.14	-8 5.7	1.207	2.063	18.2	19.2	3 2	13 22.41	-3 16.4	2.199	3.034	11.8	20.0
3 12	13 19.96	-7 42.8	1.122	2.045	14.0	18.9	3 12	13 17.78	-2 45.3	2.128	3.042	8.8	19.9
3 22	13 13.65	-7 1.3	1.057	2.028	8.8	18.6	3 22	13 11.44	-2 7.6	2.081	3.052	5.3	19.7
4 1	13 4.92	-6 5.3	1.014	2.011	2.9	18.1	4 1	13 3.99	-1 27.4	2.063	3.058	2.0	19.4
4 11	12 55.12	-5 2.9	0.995	1.994	3.4	18.1	4 11	12 56.23	-0 49.5	2.072	3.066	3.0	19.5
4 21	12 45.80	-4 4.2	1.000	1.978	9.5	18.4	4 21	12 48.94	-0 18.3	2.111	3.073	6.5	19.8
5 1	12 38.45	-3 18.7	1.027	1.962	15.2	18.7	5 1	12 42.82	+ 0 2.4	2.175	3.081	9.8	20.0
5 11	12 34.12	-2 53.1	1.072	1.947	20.1	18.9	5 11	12 38.40	+ 0 10.6	2.263	3.089	12.6	20.2
337783	2001 <i>UJ</i> ₁₈₉		4 5.9 119°63	5°6/12.1 18			214884	2007 <i>RE</i> ₂₄₄		4 5.9 178°31	2°3/ 3.4 18		
3 2	13 29.36	-26 17.7	2.788	3.500	12.7	21.1	3 2	13 24.42	-4 16.0	2.061	2.894	12.6	20.7
3 12	13 22.85	-27 3.6	2.705	3.516	10.7	21.0	3 12	13 19.43	-2 54.7	1.983	2.896	9.3	20.5
3 22	13 14.55	-27 33.5	2.645	3.532	8.5	20.8	3 22	13 12.54	-1 22.6	1.930	2.898	5.7	20.3
4 1	13 5.04	-27 45.6	2.611	3.548	6.5	20.7	4 1	13 4.38	+ 0 14.1	1.905	2.899	2.5	20.1
4 11	12 55.10	-27 40.4	2.606	3.563	5.6	20.7	4 11	12 55.82	+ 1 47.5	1.910	2.899	4.0	20.2
4 21	12 45.54	-27 20.3	2.629	3.578	6.2	20.7	4 21	12 47.74	+ 3 10.1	1.945	2.898	7.7	20.4
5 1	12 37.13	-26 49.6	2.681	3.592	7.9	20.9	5 1	12 40.95	+ 4 16.3	2.006	2.897	11.2	20.6
5 11	12 30.44	-26 13.7	2.758	3.606	10.0	21.0	5 11	12 36.01	+ 5 2.9	2.089	2.894	14.2	20.8
431895	2008 <i>SO</i> ₂₈₄		4 5.9 238°68	1°2/ 7.1 17			192212	2007 <i>LM</i> ₁		4 5.9 333°67	0°4/ 5.5 17		
3 2	13 25.05	-11 22.7	2.220	3.027	12.7	22.1	3 2	13 17.42	-10 50.1	1.553	2.395	15.6	19.8
3 12	13 19.97	-11 19.0	2.123	3.017	9.8	21.9	3 12	13 14.86	-9 36.0	1.469	2.385	11.8	19.5
3 22	13 12.95	-11 3.3	2.049	3.006	6.4	21.6	3 22	13 10.04	-8 0.2	1.406	2.375	7.3	19.3
4 1	13 4.54	-10 37.4	2.002	2.994	2.7	21.4	4 1	13 3.61	-6 8.5	1.370	2.366	2.4	18.9
4 11	12 55.58	-10 4.6	1.984	2.983	2.0	21.3	4 11	12 56.59	-4 10.8	1.360	2.358	2.9	18.9
4 21	12 46.93	-9 29.2	1.995	2.970	5.7	21.5	4 21	12 50.06	-2 18.3	1.377	2.350	7.9	19.2
5 1	12 39.45	-8 56.4	2.033	2.958	9.4	21.7	5 1	12 45.02	-0 41.3	1.418	2.343	12.6	19.5
5 11	12 33.78	-8 30.4	2.096	2.945	12.6	21.9	5 11	12 42.17	+ 0 33.3	1.480	2.337	16.6	19.7
410375	2007 <i>VP</i> ₁₈₀		4 5.9 72°88	2°7/ 3.9 18			25653	Baskaran		4 5.9 129°64	1°3/ 4.6 18		
3 2	13 27.11	-2 13.4	1.442	2.29									

EPHEMERIDES

4 5.9

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
426827	2013 <i>UG</i> ₁₄		4 5.9 217°81	2.7/ 3.0	17		185279	2006 <i>UW</i> ₁₈₈		4 5.9 202°43	3.8/10.1	18	
3 2	13 24.16	- 0 27.6	2.348	3.182	11.2	21.9	3 2	13 24.22	-20 18.0	2.641	3.401	12.2	20.6
3 12	13 19.11	+ 0 22.6	2.259	3.173	8.4	21.7	3 12	13 19.13	-20 35.7	2.544	3.398	9.9	20.4
3 22	13 12.32	+ 1 18.6	2.196	3.163	5.2	21.4	3 22	13 12.34	-20 39.0	2.470	3.395	7.3	20.3
4 1	13 4.33	+ 2 15.7	2.162	3.153	2.8	21.3	4 1	13 4.36	-20 27.7	2.423	3.392	4.9	20.1
4 11	12 55.90	+ 3 8.2	2.157	3.142	4.0	21.3	4 11	12 55.93	-20 3.4	2.404	3.388	3.8	20.0
4 21	12 47.81	+ 3 51.1	2.181	3.130	7.2	21.5	4 21	12 47.79	-19 29.4	2.414	3.384	5.3	20.1
5 1	12 40.82	+ 4 20.7	2.231	3.118	10.4	21.7	5 1	12 40.67	-18 50.0	2.452	3.380	7.8	20.2
5 11	12 35.48	+ 4 35.0	2.304	3.105	13.2	21.8	5 11	12 35.15	-18 10.4	2.516	3.375	10.4	20.4
239613	2008 <i>UW</i> ₂₂₀		4 5.9 81°78	2.6/ 3.4	17		372494	2009 <i>SO</i> ₂₄₉		4 5.9 190°45	1.4/ 4.5	17	
3 2	13 22.40	- 1 52.8	1.923	2.768	12.9	20.2	3 2	13 23.57	- 5 16.5	2.123	2.954	12.4	22.6
3 12	13 18.00	- 1 2.1	1.854	2.774	9.5	20.0	3 12	13 18.80	- 4 29.4	2.041	2.953	9.2	22.4
3 22	13 11.68	- 0 4.2	1.810	2.780	5.8	19.8	3 22	13 12.18	- 3 32.4	1.984	2.952	5.6	22.2
4 1	13 4.10	+ 0 55.3	1.793	2.786	2.8	19.6	4 1	13 4.31	- 2 30.2	1.954	2.950	2.0	21.9
4 11	12 56.16	+ 1 49.7	1.803	2.792	4.1	19.7	4 11	12 56.01	- 1 28.6	1.953	2.947	3.0	22.0
4 21	12 48.75	+ 2 33.4	1.841	2.798	7.7	19.9	4 21	12 48.15	- 0 33.6	1.981	2.945	6.8	22.2
5 1	12 42.67	+ 3 2.3	1.904	2.804	11.2	20.1	5 1	12 41.51	+ 0 10.0	2.035	2.941	10.3	22.4
5 11	12 38.49	+ 3 14.3	1.989	2.810	14.3	20.3	5 11	12 36.66	+ 0 38.8	2.113	2.938	13.4	22.6
480742	2016 <i>NE</i> ₁₂		4 5.9 284°77	4.1/ 9.9	17		433701	2014 <i>WX</i> ₄₆₇		4 5.9 23°05	3.1/ 8.2	17	
3 2	13 22.57	-19 46.2	2.085	2.866	14.4	20.8	3 2	13 25.40	-13 46.4	1.561	2.380	16.6	20.2
3 12	13 18.38	-19 55.0	1.984	2.852	11.7	20.6	3 12	13 20.82	-14 15.8	1.490	2.387	13.0	20.0
3 22	13 12.10	-19 45.8	1.904	2.838	8.6	20.4	3 22	13 13.72	-14 28.9	1.441	2.395	8.9	19.8
4 1	13 4.32	-19 18.1	1.850	2.824	5.5	20.1	4 1	13 4.87	-14 26.2	1.415	2.403	4.7	19.6
4 11	12 55.89	-18 34.3	1.822	2.811	4.1	20.0	4 11	12 55.44	-14 10.9	1.416	2.412	3.4	19.5
4 21	12 47.78	-17 39.1	1.822	2.797	6.2	20.1	4 21	12 46.65	-13 48.0	1.442	2.421	7.0	19.7
5 1	12 40.89	-16 39.0	1.848	2.783	9.5	20.3	5 1	12 39.59	-13 23.8	1.494	2.432	11.1	20.0
5 11	12 35.94	-15 41.1	1.898	2.769	12.8	20.5	5 11	12 34.99	-13 4.4	1.567	2.443	14.8	20.2
20795	2000 <i>SE</i> ₁₆₁		4 5.9 135°19	0.2/ 5.7	18		396383	2014 <i>DT</i> ₁₁₇		4 5.9 304°76	1.2/ 7.1	17	
3 2	13 27.73	- 8 3.2	1.907	2.728	14.0	19.2	3 2	13 23.87	-10 47.8	2.292	3.102	12.3	21.2
3 12	13 21.98	- 7 34.6	1.837	2.742	10.5	19.0	3 12	13 18.99	-10 53.7	2.203	3.099	9.5	21.0
3 22	13 14.13	- 6 54.2	1.791	2.755	6.5	18.8	3 22	13 12.29	-10 49.3	2.138	3.095	6.1	20.8
4 1	13 4.93	- 6 6.0	1.772	2.768	2.1	18.5	4 1	13 4.36	-10 35.9	2.100	3.092	2.6	20.5
4 11	12 55.36	- 5 15.5	1.782	2.780	2.4	18.5	4 11	12 55.96	-10 16.6	2.091	3.089	1.9	20.5
4 21	12 46.41	- 4 28.6	1.820	2.791	6.6	18.8	4 21	12 47.91	- 9 55.0	2.110	3.086	5.4	20.7
5 1	12 38.96	- 3 50.6	1.885	2.801	10.5	19.1	5 1	12 41.00	- 9 35.2	2.157	3.083	8.8	20.9
5 11	12 33.60	- 3 25.3	1.973	2.811	13.8	19.3	5 11	12 35.81	- 9 21.1	2.228	3.080	11.9	21.1
312005	2007 <i>PG</i> ₃₂		4 5.9 245°53	1.9/ 7.3	16		399654	2004 <i>RS</i> ₁₇₂		4 5.9 135°52	4.3/ 9.4	18	
3 2	13 28.50	-11 47.8	1.614	2.432	16.2	20.6	3 2	13 26.83	-18 51.6	1.563	2.360	17.6	21.2
3 12	13 23.29	-11 57.8	1.524	2.423	12.6	20.4	3 12	13 22.00	-18 58.1	1.486	2.365	14.2	20.9
3 22	13 15.38	-11 52.5	1.455	2.414	8.4	20.1	3 22	13 14.51	-18 41.8	1.429	2.370	10.1	20.7
4 1	13 5.47	-11 33.2	1.412	2.404	3.8	19.8	4 1	13 5.16	-18 2.8	1.395	2.375	6.1	20.5
4 11	12 54.72	-11 3.5	1.396	2.394	2.7	19.7	4 11	12 55.15	-17 5.2	1.387	2.380	4.4	20.4
4 21	12 44.41	-10 29.2	1.406	2.384	7.3	20.0	4 21	12 45.80	-15 56.2	1.406	2.384	7.3	20.6
5 1	12 35.78	- 9 57.0	1.442	2.373	11.9	20.2	5 1	12 38.25	-14 45.1	1.450	2.388	11.4	20.8
5 11	12 29.70	- 9 33.0	1.500	2.362	16.0	20.4	5 11	12 33.28	-13 40.9	1.516	2.392	15.2	21.0
299832	2006 <i>SB</i> ₁₈₈		4 5.9 140°80	1.2/ 4.5	17		156371	2001 <i>YN</i> ₄		4 5.9 127°43	1.0/ 5.2	18	
3 2	13 20.16	- 5 33.3	2.256	3.089	11.7	21.0	3 2	13 34.47	- 2 42.7	2.275	3.086	12.3	19.7
3 12	13 16.14	- 4 44.3	2.177	3.090	8.7	20.8	3 12	13 26.65	- 2 54.5	2.202	3.102	9.2	19.5
3 22	13 10.47	- 3 45.9	2.122	3.091	5.2	20.6	3 22	13 16.88	- 3 1.9	2.154	3.117	5.7	19.3
4 1	13 3.70	- 2 42.5	2.095	3.091	1.8	20.4	4 1	13 5.85	- 3 7.3	2.137	3.132	1.9	19.1
4 11	12 56.59	- 1 39.8	2.098	3.092	2.8	20.5	4 11	12 54.50	- 3 13.4	2.151	3.146	2.5	19.1
4 21	12 49.88	- 0 43.3	2.128	3.093	6.3	20.7	4 21	12 43.76	- 3 22.9	2.196	3.160	6.2	19.4
5 1	12 44.25	+ 0 2.5	2.185	3.093	9.6	20.9	5 1	12 34.44	- 3 37.9	2.270	3.173	9.5	19.6
5 11	12 40.24	+ 0 34.3	2.265	3.094	12.5	21.1	5 11	12 27.11	- 4 0.0	2.369	3.185	12.4	19.8
239976	2001 <i>QU</i> ₂₉₃		4 5.9 145°16	2.5/ 2.8	18		501165	2013 <i>TR</i> ₈₃		4 5.9 200°43	1.7/ 7.9	17	
3 2	13 21.63	+ 0 11.1	2.637	3.473	10.1	21.4	3 2	13 22.77	-15 26.4	2.318	3.111	12.7	22.9
3 12	13 16.94	+ 1 0.7	2.567	3.481	7.5	21.2	3 12	13 18.15	-14 50.0	2.224	3.108	9.9	22.7
3 22	13 10.82	+ 1 54.3	2.522	3.489	4.6	21.0	3 22	13 11.77	-13 57.4	2.153	3.104	6.6	22.5
4 1	13 3.79	+ 2 47.5	2.507	3.497	2.6	20.9	4 1	13 4.18	-12 50.7	2.110	3.099	3.2	22.3
4 11	12 56.52	+ 3 35.4	2.521	3.504	3.7	21.0	4 11	12 56.16	-11 34.6	2.096	3.094	2.1	22.2
4 21	12 49.63	+ 4 14.2	2.564	3.511	6.4	21.2	4 21	12 48.51	-10 15.2	2.111	3.088	5.3	22.4
5 1	12 43.73	+ 4 40.9	2.634	3.517	9.1	21.3	5 1	12 42.00	- 8 58.9	2.155	3.082	8.8	22.6
5 11	12 39.24	+ 4 54.1	2.727	3.524	11.5	21.5	5 11	12 37.18	- 7 51.6	2.223	3.075	11.9	22.8
292728	2006 <i>US</i> ₁₄₃		4 5.9 55°85	2.9/ 8.4	18		200773	2001 <i>XL</i> ₃₂		4 5.9 20°43	0.8/ 6.6	18	
3 2	13 25.04	-15 40.4	1.474	2.290	17.6	20.2	3 2	13 23.09	-10 44.2	1.196	2.045	18.8	20.2
3 12	13 20.49	-15 35.2	1.415	2.310	13.7	20.0	3 12	13 19.65	-10 25.8	1.131	2.049	14.4	19.9
3 22	13 13.42	-15 9.0	1.377	2.330	9.3	19.7	3 22	13 13.23	- 9 47.1	1.085	2.053	9.2	19.7
4 1	13 4.72	-14 24.0	1.362	2.350	4.8	19.5	4 1	13 4.76	- 8 52.1	1.062	2.058	3.4	19.3
4 11	12 55.62	-13 26.1	1.374	2.371	3.2	19.5	4 11	12 55.61	- 7 49.1	1.064	2.063	2.8	19.3
4 21	12 47.35	-12 23.3	1.411	2.391	6.9	19.8	4 21	12 47.27	- 6 47.6	1.089	2.069	8.5	19.6
5 1	12 40.94	-11 23.9	1.474	2.412	11.2	20.0	5 1	12 41.01	- 5 56.9	1.137	2.076	13.6	20.0
5 11	12 37.02	-10 35.1	1.558	2.433	14.9	20.3	5 11	12 37.61	- 5 23.5	1.205	2.084	18.1	20.2
14322	Shakura		4 5.9 173°95	1.5/ 7.1	18		472823	2015 <i>FS</i> ₁₇₃		4 5.9 289°29	3.5/ 1.7		

EPHEMERIDES

4 5.9

4 5.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
303815	2005 SE ₈₁		4 5.9 276°37	0°1/ 5.8 16			286417	2001 YY ₁₄₂		4 5.9 50°25	0°2/ 6.2 17		
3 2	13 21.98	- 7 45.3	2.388	3.209	11.5	21.7	3 2	13 21.75	- 9 13.5	2.009	2.834	13.2	20.8
3 12	13 17.58	- 7 25.5	2.286	3.191	8.7	21.5	3 12	13 17.44	- 8 49.6	1.944	2.850	9.9	20.7
3 22	13 11.45	- 6 55.9	2.209	3.173	5.4	21.3	3 22	13 11.31	- 8 14.1	1.902	2.866	6.2	20.5
4 1	13 4.10	- 6 19.4	2.160	3.155	1.8	21.0	4 1	13 4.02	- 7 30.4	1.887	2.882	2.1	20.2
4 11	12 56.25	- 5 40.0	2.139	3.137	2.0	21.0	4 11	12 56.43	- 6 43.7	1.900	2.899	2.0	20.2
4 21	12 48.65	- 5 1.9	2.147	3.119	5.7	21.2	4 21	12 49.39	- 5 59.2	1.941	2.915	5.9	20.5
5 1	12 42.06	- 4 29.8	2.183	3.100	9.2	21.4	5 1	12 43.65	- 5 21.9	2.008	2.932	9.5	20.8
5 11	12 37.06	- 4 7.2	2.242	3.082	12.3	21.5	5 11	12 39.71	- 4 55.5	2.099	2.949	12.6	21.0
31950	2000 GC ₁₂₂		4 5.9 251°59	3°9/ 2.1 18			314185	2005 GA ₁₈₁		4 5.9 340°94	2°3/ 4.4 17		
3 2	13 23.33	+ 0 59.3	1.910	2.758	12.8	19.4	3 2	13 24.85	- 2 47.1	1.348	2.205	16.6	21.0
3 12	13 18.91	+ 2 6.0	1.825	2.745	9.6	19.1	3 12	13 20.76	- 2 25.1	1.274	2.199	12.4	20.7
3 22	13 12.41	+ 3 19.7	1.764	2.732	6.2	18.9	3 22	13 13.87	- 1 53.4	1.222	2.194	7.7	20.4
4 1	13 4.44	+ 4 33.5	1.730	2.718	3.9	18.7	4 1	13 5.00	- 1 17.8	1.194	2.189	3.0	20.1
4 11	12 55.92	+ 5 39.7	1.724	2.704	5.5	18.8	4 11	12 55.40	- 0 45.6	1.190	2.185	4.3	20.2
4 21	12 47.79	+ 6 31.8	1.745	2.690	9.1	19.0	4 21	12 46.43	- 0 23.6	1.212	2.182	9.4	20.4
5 1	12 40.97	+ 7 5.0	1.791	2.675	12.7	19.2	5 1	12 39.35	- 0 17.1	1.257	2.179	14.1	20.7
5 11	12 36.11	+ 7 17.4	1.858	2.660	15.9	19.3	5 11	12 34.95	- 0 28.6	1.321	2.176	18.2	20.9
505872	2015 DD ₉₇		4 5.9 191°90	3°3/ 1.9 17			376732	1999 KP ₃		4 5.9 296°31	4°8/ 10.8 17		
3 2	13 22.01	+ 1 32.1	2.440	3.280	10.7	21.9	3 2	13 20.25	- 22 58.8	1.766	2.546	16.6	20.8
3 12	13 17.40	+ 2 37.2	2.362	3.278	7.9	21.7	3 12	13 17.03	- 22 37.4	1.663	2.528	13.7	20.5
3 22	13 11.22	+ 3 46.7	2.310	3.276	5.1	21.5	3 22	13 11.46	- 21 48.9	1.580	2.511	10.2	20.2
4 1	13 3.99	+ 4 55.1	2.287	3.274	3.3	21.4	4 1	13 4.19	- 20 33.0	1.520	2.493	6.7	20.0
4 11	12 56.41	+ 5 56.5	2.294	3.271	4.6	21.5	4 11	12 56.18	- 18 53.5	1.487	2.476	4.8	19.8
4 21	12 49.22	+ 6 46.2	2.328	3.267	7.4	21.6	4 21	12 48.55	- 16 58.5	1.481	2.459	6.9	19.9
5 1	12 43.06	+ 7 20.7	2.390	3.264	10.3	21.8	5 1	12 42.36	- 14 58.7	1.500	2.442	10.7	20.1
5 11	12 38.43	+ 7 38.5	2.473	3.259	12.8	22.0	5 11	12 38.40	- 13 5.4	1.544	2.426	14.6	20.3
502336	2015 BA ₁₈₅		4 5.9 290°93	7°8/ 28.9 17			278121	2007 CY ₁₃		4 5.9 64°54	2°2/ 7.8 18		
3 2	13 23.13	+ 12 23.0	1.825	2.680	13.0	21.1	3 2	13 25.03	- 13 47.1	1.637	2.454	16.1	20.5
3 12	13 18.82	+ 13 46.2	1.756	2.669	10.4	20.9	3 12	13 20.34	- 13 41.4	1.571	2.468	12.5	20.3
3 22	13 12.35	+ 15 5.7	1.711	2.658	8.3	20.8	3 22	13 13.31	- 13 18.0	1.526	2.482	8.3	20.1
4 1	13 4.42	+ 16 12.5	1.692	2.648	7.9	20.7	4 1	13 4.73	- 12 39.4	1.506	2.497	3.9	19.8
4 11	12 55.98	+ 16 58.6	1.699	2.637	9.6	20.8	4 11	12 55.72	- 11 50.6	1.513	2.511	2.7	19.8
4 21	12 48.04	+ 17 19.0	1.730	2.626	12.2	20.9	4 21	12 47.40	- 10 58.3	1.547	2.526	6.6	20.1
5 1	12 41.53	+ 17 12.3	1.783	2.616	15.1	21.1	5 1	12 40.75	- 10 9.8	1.606	2.540	10.7	20.3
5 11	12 37.08	+ 16 39.9	1.854	2.606	17.7	21.2	5 11	12 36.41	- 9 30.8	1.687	2.555	14.3	20.6
437620	2014 BG ₂₁		4 5.9 145°74	3°8/ 9.9 17			343144	2009 FG ₄₂		4 5.9 82°16	2°4/ 3.7 18		
3 2	13 23.64	- 19 40.6	2.350	3.121	13.2	20.7	3 2	13 26.55	+ 0 31.3	2.283	3.116	11.6	20.6
3 12	13 18.85	- 19 54.5	2.262	3.124	10.7	20.5	3 12	13 20.67	+ 0 50.3	2.226	3.138	8.5	20.4
3 22	13 12.23	- 19 52.5	2.195	3.126	7.8	20.3	3 22	13 13.14	+ 1 12.0	2.194	3.161	5.3	20.2
4 1	13 4.36	- 19 34.7	2.155	3.128	5.1	20.2	4 1	13 4.61	+ 1 32.6	2.191	3.183	2.6	20.1
4 11	12 56.03	- 19 3.4	2.143	3.130	3.8	20.1	4 11	12 55.88	+ 1 48.2	2.217	3.205	3.6	20.2
4 21	12 48.09	- 18 22.4	2.159	3.131	5.6	20.2	4 21	12 47.73	+ 1 55.5	2.271	3.226	6.6	20.4
5 1	12 41.30	- 17 36.9	2.202	3.133	8.4	20.4	5 1	12 40.85	+ 1 52.5	2.353	3.248	9.6	20.6
5 11	12 36.25	- 16 52.7	2.270	3.135	11.2	20.6	5 11	12 35.70	+ 1 38.3	2.458	3.269	12.2	20.9
194399	2001 VF ₂₄		4 5.9 114°72	1°4/ 3.9 17			468582	2007 JR ₃₈		4 5.9 25°60	0°7/ 6.6 17		
3 2	13 19.10	- 1 49.0	3.343	4.171	8.4	20.5	3 2	13 22.87	- 10 5.6	1.495	2.333	16.3	20.9
3 12	13 14.81	- 1 22.7	3.269	4.180	6.2	20.4	3 12	13 18.94	- 9 53.0	1.427	2.339	12.4	20.7
3 22	13 9.43	- 0 52.9	3.222	4.189	3.7	20.2	3 22	13 12.56	- 9 24.8	1.381	2.347	7.9	20.4
4 1	13 3.35	+ 0 22.3	3.203	4.197	1.6	20.0	4 1	13 4.52	- 8 44.3	1.359	2.354	3.0	20.1
4 11	12 57.08	+ 0 6.1	3.215	4.206	2.4	20.1	4 11	12 55.97	- 7 57.7	1.363	2.363	2.4	20.1
4 21	12 51.10	+ 0 29.6	3.257	4.214	4.7	20.3	4 21	12 48.09	- 7 12.0	1.393	2.372	7.2	20.4
5 1	12 45.86	+ 0 45.9	3.327	4.222	7.1	20.5	5 1	12 41.92	- 6 34.1	1.448	2.381	11.7	20.7
5 11	12 41.72	+ 0 53.6	3.421	4.231	9.1	20.6	5 11	12 38.13	- 6 9.1	1.523	2.391	15.5	21.0
92989	2000 RR ₇₃		4 5.9 318°79	0°5/ 5.7 18			250090	2002 GE ₄₈		4 5.9 281°54	0°2/ 6.2 17		
3 2	13 30.50	- 3 49.7	1.569	2.406	15.7	18.4	3 2	13 22.17	- 11 6.0	1.528	2.363	16.2	20.4
3 12	13 24.88	- 4 18.7	1.478	2.392	12.0	18.2	3 12	13 18.61	- 10 19.6	1.439	2.350	12.4	20.1
3 22	13 16.44	- 4 42.4	1.410	2.378	7.5	17.9	3 22	13 12.51	- 9 12.5	1.371	2.337	7.9	19.8
4 1	13 5.89	- 5 2.8	1.368	2.364	2.5	17.5	4 1	13 4.56	- 7 49.2	1.329	2.324	2.8	19.4
4 11	12 54.42	- 5 22.7	1.353	2.351	2.8	17.5	4 11	12 55.87	- 6 17.5	1.313	2.312	2.6	19.4
4 21	12 43.38	- 5 45.5	1.365	2.339	8.0	17.8	4 21	12 47.64	- 4 47.4	1.323	2.299	7.9	19.7
5 1	12 34.06	- 6 14.0	1.403	2.327	12.7	18.0	5 1	12 41.01	- 3 28.5	1.358	2.286	12.7	19.9
5 11	12 27.37	- 6 50.8	1.462	2.316	16.8	18.2	5 11	12 36.80	- 2 28.0	1.413	2.274	17.0	20.1
222273	2000 RQ ₇₉		4 5.9 140°55	1°4/ 7.6 16			117634	2005 EJ ₁₂₈		4 5.9 280°81	2°3/ 7.7 17		
3 2	13 23.28	- 14 46.2	2.355	3.150	12.5	21.0	3 2	13 25.29	- 13 33.5	1.620	2.438	16.2	20.1
3 12	13 18.38	- 14 3.1	2.277	3.162	9.6	20.8	3 12	13 21.00	- 13 34.1	1.522	2.419	12.7	19.8
3 22	13 11.81	- 13 4.9	2.222	3.174	6.3	20.6	3 22	13 14.07	- 13 17.0	1.444	2.400	8.6	19.5
4 1	13 4.18	- 11 54.3	2.195	3.185	2.9	20.4	4 1	13 5.13	- 12 42.8	1.390	2.381	4.2	19.2
4 11	12 56.25	- 10 36.4	2.198	3.196	1.9	20.4	4 11	12 55.26	- 11 55.7	1.364	2.362	2.9	19.0
4 21	12 48.80	- 9 17.4	2.230	3.206	5.2	20.6	4 21	12 45.71	- 11 2.1	1.363	2.342	7.3	19.3
5 1	12 42.50	- 8 3.3	2.291	3.216	8.5	20.8	5 1	12 37.71	- 10 10.0	1.388	2.323	12.0	19.5
5 11	12 37.87	- 6 59.1	2.377	3.225	11.4	21.0	5 11	12 32.18	- 9 26.8	1.434	2.303	16.3	19.7
305848	2009 EM ₄		4 5.9 24°69	2°7/ 4.2 18			483531	2003 UF ₂₂		4 5.9 126°16	1°8/ 4.8 17 C		
3 2	13 23												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
119434	2001 <i>TL</i> ₁₃₃		4 5.9 16° ⁰³	2.8/ 3.0	18		100169	1993 <i>UW</i> ₄		4 5.9 106° ⁵⁶	1.9/ 4.0	18	
3 2	13 18.98	- 5 27.0	1.522	2.377	15.1	19.3	3 2	13 25.05	- 4 1.1	1.949	2.784	13.2	20.3
3 12	13 15.95	- 3 46.0	1.454	2.379	11.2	19.1	3 12	13 19.88	- 3 5.9	1.889	2.804	9.7	20.2
3 22	13 10.67	- 1 48.8	1.409	2.382	6.7	18.8	3 22	13 12.81	- 2 2.1	1.854	2.823	5.9	20.0
4 1	13 3.88	+ 0 15.3	1.390	2.385	3.0	18.6	4 1	13 4.56	- 0 55.4	1.847	2.842	2.3	19.8
4 11	12 56.63	+ 2 14.5	1.399	2.388	5.0	18.7	4 11	12 56.05	+ 0 7.5	1.868	2.860	3.5	19.9
4 21	12 49.98	+ 3 58.2	1.433	2.392	9.4	19.0	4 21	12 48.17	+ 1 0.7	1.917	2.878	7.2	20.1
5 1	12 44.87	+ 5 18.4	1.492	2.396	13.5	19.2	5 1	12 41.70	+ 1 39.9	1.993	2.895	10.7	20.4
5 11	12 41.95	+ 6 11.5	1.571	2.400	17.1	19.5	5 11	12 37.15	+ 2 2.6	2.091	2.912	13.7	20.6
473053	2015 <i>HG</i> ₈₆		4 5.9 177° ⁴⁷	3.8/ 1.8	17		340770	2006 <i>SW</i> ₃₃₅		4 5.9 346° ²⁸	3.0/ 3.1	17	
3 2	13 23.66	+ 4 52.5	2.415	3.256	10.7	21.3	3 2	13 22.61	+ 0 49.1	2.040	2.886	12.2	20.6
3 12	13 18.63	+ 5 31.5	2.342	3.257	8.1	21.1	3 12	13 18.17	+ 1 23.4	1.964	2.883	9.1	20.4
3 22	13 11.98	+ 6 11.2	2.295	3.257	5.4	20.9	3 22	13 11.85	+ 2 1.8	1.913	2.881	5.7	20.2
4 1	13 4.27	+ 6 46.8	2.275	3.258	3.8	20.8	4 1	13 4.28	+ 2 39.4	1.888	2.879	3.1	20.0
4 11	12 56.24	+ 7 13.5	2.284	3.258	5.0	20.9	4 11	12 56.29	+ 3 10.7	1.892	2.878	4.4	20.1
4 21	12 48.63	+ 7 28.0	2.322	3.258	7.6	21.0	4 21	12 48.76	+ 3 31.3	1.923	2.876	7.7	20.3
5 1	12 42.12	+ 7 28.1	2.385	3.258	10.4	21.2	5 1	12 42.47	+ 3 38.0	1.979	2.875	11.1	20.5
5 11	12 37.19	+ 7 13.5	2.471	3.257	12.8	21.4	5 11	12 38.00	+ 3 29.5	2.057	2.874	14.0	20.7
522728	2016 <i>LZ</i> ₆₂		4 5.9 207° ³¹	1.3/ 7.6	17		293015	2006 <i>WN</i> ₄₄		4 5.9 23° ⁹⁸	5.5/ 30.9	17	
3 2	13 20.17	-14 7.5	2.591	3.389	11.4	21.9	3 2	13 21.84	+ 8 58.8	2.189	3.039	11.3	20.3
3 12	13 16.05	-13 32.7	2.498	3.386	8.8	21.7	3 12	13 17.42	+ 9 56.6	2.126	3.041	8.7	20.1
3 22	13 10.41	-12 44.2	2.429	3.382	5.8	21.5	3 22	13 11.30	+10 52.3	2.088	3.043	6.4	20.0
4 1	13 3.75	-11 44.5	2.388	3.379	2.6	21.3	4 1	13 4.07	+11 39.8	2.076	3.046	5.5	20.0
4 11	12 56.74	-10 37.8	2.376	3.375	1.7	21.2	4 11	12 56.52	+12 13.4	2.093	3.048	6.8	20.0
4 21	12 50.06	- 9 28.9	2.394	3.370	4.8	21.4	4 21	12 49.45	+12 29.4	2.135	3.051	9.3	20.2
5 1	12 44.34	- 8 23.4	2.440	3.366	8.0	21.6	5 1	12 43.57	+12 26.3	2.202	3.054	11.9	20.4
5 11	12 40.07	- 7 25.8	2.511	3.361	10.8	21.8	5 11	12 39.37	+12 4.6	2.289	3.057	14.3	20.5
184265	2004 <i>UL</i> ₈		4 5.9 232° ¹⁷	1.4/ 7.1	16		114442	2003 <i>AZ</i> ₁₄		4 5.9 43° ⁰⁰	4.0/ 1.9	18	
3 2	13 26.98	-11 58.5	1.705	2.522	15.6	21.2	3 2	13 19.85	- 2 30.4	1.488	2.349	15.1	19.2
3 12	13 22.02	-11 46.7	1.614	2.513	12.1	21.0	3 12	13 16.57	- 0 43.5	1.430	2.358	11.1	18.9
3 22	13 14.55	-11 18.5	1.544	2.503	7.9	20.7	3 22	13 11.03	+ 1 15.3	1.395	2.368	6.8	18.7
4 1	13 5.25	-10 35.8	1.500	2.493	3.3	20.4	4 1	13 4.01	+ 3 15.7	1.387	2.378	4.0	18.6
4 11	12 55.19	- 9 43.6	1.483	2.482	2.4	20.3	4 11	12 56.60	+ 5 5.8	1.405	2.388	6.0	18.7
4 21	12 45.58	- 8 48.6	1.494	2.471	7.0	20.6	4 21	12 49.88	+ 6 36.1	1.449	2.399	10.1	19.0
5 1	12 37.51	- 7 58.2	1.531	2.459	11.6	20.8	5 1	12 44.76	+ 7 40.3	1.516	2.410	14.0	19.2
5 11	12 31.82	- 7 18.6	1.589	2.447	15.5	21.0	5 11	12 41.85	+ 8 16.7	1.603	2.422	17.3	19.5
428039	2006 <i>DT</i> ₃₅		4 5.9 135° ⁰⁷	1.3/ 7.2	17		249446	2009 <i>FS</i> ₆₈		4 5.9 168° ⁵⁶	5.4/ 30.7	17	
3 2	13 25.05	-11 23.1	2.036	2.848	13.6	21.2	3 2	13 26.08	+13 13.4	2.777	3.607	9.8	20.4
3 12	13 20.04	-11 20.6	1.954	2.851	10.4	21.0	3 12	13 20.20	+13 48.5	2.711	3.610	7.8	20.3
3 22	13 13.04	-11 5.5	1.896	2.854	6.8	20.8	3 22	13 12.85	+14 18.5	2.671	3.612	6.0	20.2
4 1	13 4.67	-10 39.8	1.864	2.857	2.9	20.5	4 1	13 4.57	+14 38.9	2.659	3.614	5.4	20.2
4 11	12 55.83	-10 7.2	1.861	2.860	2.1	20.5	4 11	12 56.05	+14 45.9	2.676	3.616	6.4	20.2
4 21	12 47.46	- 9 32.5	1.886	2.863	5.9	20.7	4 21	12 47.96	+14 37.5	2.721	3.617	8.3	20.3
5 1	12 40.41	- 9 0.9	1.938	2.865	9.6	21.0	5 1	12 40.92	+14 13.2	2.792	3.619	10.4	20.5
5 11	12 35.29	- 8 36.9	2.013	2.868	12.9	21.2	5 11	12 35.38	+13 34.0	2.885	3.620	12.3	20.6
233976	1994 <i>RC</i> ₁₄		4 5.9 170° ⁴⁴	2.1/ 8.1	17		11218	1999 <i>JD</i> ₂₀		4 5.9 340° ¹¹	1.9/ 7.8	18	
3 2	13 25.49	-14 23.4	2.413	3.203	12.4	21.3	3 2	13 20.17	-13 56.9	1.887	2.703	14.3	17.5
3 12	13 20.11	-14 24.4	2.325	3.206	9.6	21.1	3 12	13 16.63	-13 42.6	1.800	2.697	11.1	17.3
3 22	13 12.97	-14 12.7	2.261	3.209	6.5	20.9	3 22	13 11.06	-13 11.7	1.735	2.691	7.5	17.1
4 1	13 4.63	-13 49.4	2.224	3.211	3.4	20.7	4 1	13 4.05	-12 26.3	1.694	2.685	3.6	16.8
4 11	12 55.87	-13 17.5	2.217	3.213	2.3	20.6	4 11	12 56.52	-11 30.9	1.682	2.680	2.4	16.7
4 21	12 47.49	-12 40.9	2.239	3.215	5.2	20.8	4 21	12 49.40	-10 31.8	1.696	2.675	6.1	17.0
5 1	12 40.25	-12 4.3	2.289	3.216	8.4	21.0	5 1	12 43.57	- 9 35.6	1.736	2.671	10.0	17.2
5 11	12 34.70	-11 32.4	2.364	3.216	11.3	21.2	5 11	12 39.70	- 8 48.4	1.799	2.667	13.5	17.4
316771	1999 <i>TT</i> ₅₃		4 5.9 198° ⁶⁹	0.7/ 6.6	16		97796	2000 <i>NT</i> ₁₅		4 5.9 253° ⁷⁸	0.2/ 5.8	18	
3 2	13 26.69	-10 29.6	1.927	2.742	14.1	22.0	3 2	13 27.03	- 8 3.6	1.700	2.529	15.1	19.7
3 12	13 21.43	-10 12.6	1.840	2.739	10.8	21.8	3 12	13 22.13	- 7 40.8	1.604	2.512	11.5	19.4
3 22	13 13.99	- 9 41.9	1.776	2.736	6.9	21.5	3 22	13 14.68	- 7 4.1	1.529	2.495	7.2	19.1
4 1	13 5.02	- 9 0.2	1.738	2.732	2.6	21.3	4 1	13 5.35	- 6 16.8	1.481	2.477	2.4	18.8
4 11	12 55.49	- 8 12.3	1.729	2.728	2.1	21.2	4 11	12 55.18	- 5 24.6	1.460	2.458	2.7	18.8
4 21	12 46.41	- 7 23.9	1.748	2.723	6.4	21.5	4 21	12 45.36	- 4 34.6	1.466	2.439	7.7	19.0
5 1	12 38.73	- 6 41.1	1.794	2.718	10.5	21.7	5 1	12 37.04	- 3 53.5	1.498	2.420	12.3	19.2
5 11	12 33.13	- 6 8.8	1.864	2.712	14.0	21.9	5 11	12 31.08	- 3 26.6	1.552	2.399	16.4	19.4
166796	2002 <i>VH</i> ₅₂		4 5.9 196° ³¹	2.6/ 2.9	18		1965	van de Kamp		4 5.9 112° ⁴²	1.2/ 4.9	18	R
3 2	13 21.95	- 0 23.6	2.445	3.282	10.7	20.5	3 2	13 25.09	- 5 30.4	1.831	2.666	13.9	16.2
3 12	13 17.38	+ 0 26.4	2.365	3.281	8.0	20.3	3 12	13 20.14	- 4 53.4	1.763	2.676	10.3	16.0
3 22	13 11.24	+ 1 21.5	2.311	3.278	5.0	20.1	3 22	13 13.10	- 4 6.2	1.718	2.686	6.3	15.8
4 1	13 4.04	+ 2 17.0	2.284	3.276	2.7	20.0	4 1	13 4.70	- 3 13.6	1.700	2.696	2.1	15.6
4 11	12 56.50	+ 3 7.9	2.288	3.273	3.9	20.0	4 11	12 55.92	- 2 21.9	1.710	2.705	3.0	15.6
4 21	12 49.33	+ 3 49.4	2.320	3.269	6.8	20.2	4 21	12 47.74	- 1 37.0	1.747	2.715	7.2	15.9
5 1	12 43.18	+ 4 18.2	2.378	3.266	9.8	20.4	5 1	12 41.03	- 1 3.9	1.811	2.724	11.0	16.2
5 11	12 38.57	+ 4 32.4	2.459	3.262	12.4	20.6	5 11	12 36.37	- 0 45.6	1.896	2.732	14.3	16.4
470042	2006 <i>SJ</i> ₁₀₆		4 5.9 210° ⁹⁷	0.2/ 6.2	17								

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
361621	2007 TZ ₈₆		4 5.9 233°41	0°6/ 5.4 16			145295	2005 KK ₆		4 5.9 280°83	0°6/ 6.5 17		
3 2	13 24.18	- 8 50.5	1.741	2.571	14.7	21.4	3 2	13 23.12	-11 3.5	1.677	2.505	15.3	20.7
3 12	13 19.80	- 7 58.3	1.652	2.562	11.1	21.1	3 12	13 19.24	-10 30.8	1.577	2.484	11.8	20.4
3 22	13 13.11	- 6 49.7	1.586	2.552	6.9	20.8	3 22	13 12.93	- 9 39.9	1.500	2.463	7.6	20.1
4 1	13 4.78	- 5 29.4	1.546	2.542	2.2	20.5	4 1	13 4.79	- 8 33.8	1.448	2.443	2.8	19.7
4 11	12 55.81	- 4 5.1	1.534	2.531	2.8	20.5	4 11	12 55.83	- 7 18.8	1.422	2.421	2.4	19.6
4 21	12 47.28	- 2 45.0	1.549	2.520	7.6	20.8	4 21	12 47.20	- 6 3.1	1.424	2.400	7.4	19.9
5 1	12 40.22	- 1 37.1	1.591	2.508	11.9	21.0	5 1	12 40.01	- 4 55.2	1.451	2.379	12.1	20.1
5 11	12 35.34	- 0 46.8	1.654	2.496	15.8	21.2	5 11	12 35.11	- 4 2.0	1.499	2.358	16.3	20.3
257990	2001 DV ₈₁		4 5.9 166°05	0°1/ 6.1 18			208454	2001 TT ₁₇₇		4 5.9 86°79	1°3/ 7.3 18		
3 2	13 26.89	- 9 17.8	2.006	2.822	13.6	21.9	3 2	13 23.16	-11 50.2	2.236	3.045	12.6	20.4
3 12	13 21.41	- 8 50.0	1.926	2.827	10.3	21.7	3 12	13 18.47	-11 43.9	2.157	3.051	9.7	20.2
3 22	13 13.89	- 8 9.6	1.869	2.832	6.4	21.5	3 22	13 12.01	-11 25.5	2.100	3.057	6.3	20.0
4 1	13 4.99	- 7 19.9	1.840	2.836	2.2	21.2	4 1	13 4.36	-10 57.1	2.071	3.063	2.8	19.8
4 11	12 55.64	- 6 26.4	1.841	2.839	2.1	21.2	4 11	12 56.34	-10 22.3	2.071	3.069	1.9	19.7
4 21	12 46.81	- 5 34.7	1.869	2.842	6.3	21.5	4 21	12 48.74	- 9 45.6	2.099	3.075	5.4	20.0
5 1	12 39.35	- 4 50.5	1.925	2.844	10.2	21.7	5 1	12 42.32	- 9 11.8	2.154	3.081	8.8	20.2
5 11	12 33.89	- 4 18.1	2.005	2.845	13.5	22.0	5 11	12 37.62	- 8 44.9	2.233	3.087	11.8	20.4
160398	2004 PT ₁₀₃		4 5.9 234°64	3°5/ 8.9 17			51331	2000 LH ₃₅		4 5.9 54°68	3°4/ 2.1 17		
3 2	13 26.41	-17 43.3	1.735	2.530	16.2	20.3	3 2	13 20.14	- 0 1.0	2.037	2.886	12.1	18.8
3 12	13 21.67	-17 40.1	1.639	2.519	13.0	20.0	3 12	13 16.30	+ 1 14.1	1.968	2.889	8.9	18.6
3 22	13 14.39	-17 16.0	1.564	2.508	9.2	19.8	3 22	13 10.69	+ 2 35.6	1.924	2.893	5.6	18.4
4 1	13 5.25	-16 31.2	1.514	2.497	5.3	19.5	4 1	13 3.92	+ 3 56.9	1.907	2.896	3.5	18.2
4 11	12 55.32	-15 29.4	1.490	2.485	3.7	19.4	4 11	12 56.79	+ 5 10.6	1.919	2.899	5.0	18.3
4 21	12 45.79	-14 17.4	1.494	2.472	6.9	19.6	4 21	12 50.13	+ 6 10.6	1.958	2.903	8.2	18.5
5 1	12 37.82	-13 3.8	1.524	2.459	11.1	19.8	5 1	12 44.68	+ 6 52.8	2.022	2.907	11.4	18.7
5 11	12 32.22	-11 57.1	1.577	2.445	15.1	20.0	5 11	12 40.96	+ 7 15.4	2.107	2.910	14.2	18.9
61901	2000 QX ₂₂₈		4 5.9 84°64	0°7/ 5.4 17			511989	2015 KN ₁₀₄		4 5.9 300°39	5°5/ 30.6 17		
3 2	13 24.03	- 6 50.9	1.791	2.625	14.2	19.6	3 2	13 20.79	+ 8 7.4	2.174	3.026	11.3	21.3
3 12	13 19.49	- 6 22.6	1.715	2.628	10.6	19.3	3 12	13 16.77	+ 9 16.2	2.098	3.015	8.7	21.1
3 22	13 12.80	- 5 42.7	1.662	2.630	6.5	19.1	3 22	13 11.00	+10 24.9	2.048	3.005	6.4	20.9
4 1	13 4.64	- 4 55.5	1.636	2.632	2.1	18.8	4 1	13 4.03	+11 26.7	2.025	2.995	5.6	20.9
4 11	12 56.01	- 4 6.8	1.637	2.634	2.7	18.9	4 11	12 56.66	+12 15.0	2.029	2.985	7.0	20.9
4 21	12 47.91	- 3 22.9	1.665	2.637	7.1	19.1	4 21	12 49.67	+12 45.5	2.060	2.976	9.6	21.1
5 1	12 41.27	- 2 49.1	1.719	2.639	11.1	19.4	5 1	12 43.81	+12 55.4	2.114	2.966	12.3	21.2
5 11	12 36.71	- 2 29.1	1.795	2.641	14.6	19.6	5 11	12 39.65	+12 44.9	2.189	2.956	14.8	21.4
412395	2013 TX ₁₂₇		4 5.9 227°35	0°4/ 6.9 18			328270	2008 GJ ₄₄		4 5.9 251°75	6°0/ 31.9 17		
3 2	13 14.27	-10 54.0	4.537	5.337	6.8	20.8	3 2	13 28.92	+ 9 2.5	1.912	2.755	13.0	21.1
3 12	13 11.09	-10 26.7	4.443	5.334	5.2	20.7	3 12	13 23.14	+ 9 46.1	1.831	2.742	10.1	20.9
3 22	13 7.12	- 9 53.1	4.375	5.332	3.3	20.6	3 22	13 15.09	+10 27.6	1.773	2.729	7.3	20.7
4 1	13 2.65	- 9 14.8	4.336	5.329	1.3	20.4	4 1	13 5.45	+11 0.0	1.743	2.715	6.0	20.5
4 11	12 58.01	- 8 34.1	4.328	5.327	1.0	20.4	4 11	12 55.24	+11 16.9	1.740	2.701	7.4	20.6
4 21	12 53.54	- 7 53.1	4.350	5.324	3.0	20.5	4 21	12 45.50	+11 14.3	1.763	2.687	10.4	20.7
5 1	12 49.55	- 7 14.3	4.402	5.322	4.9	20.7	5 1	12 37.21	+10 50.6	1.811	2.672	13.7	20.9
5 11	12 46.32	- 6 39.9	4.480	5.319	6.6	20.8	5 11	12 31.07	+10 6.9	1.880	2.658	16.6	21.1
206254	2002 XD ₆₆		4 5.9 21°52	14°7/ 29.6 18			347607	2001 RL ₁₀₁		4 5.9 190°44	2°2/ 8.3 18		
3 2	13 36.17	+30 38.2	1.412	2.226	18.3	17.9	3 2	13 25.60	-14 27.8	2.640	3.425	11.6	21.2
3 12	13 28.60	+31 10.0	1.388	2.245	16.4	17.8	3 12	13 20.12	-14 38.9	2.546	3.424	9.1	21.0
3 22	13 18.20	+31 13.1	1.383	2.265	15.1	17.8	3 22	13 12.98	-14 38.7	2.477	3.422	6.2	20.8
4 1	13 6.31	+30 39.1	1.400	2.287	14.8	17.9	4 1	13 4.70	-14 28.0	2.435	3.421	3.3	20.6
4 11	12 54.58	+29 25.2	1.438	2.310	15.5	18.0	4 11	12 55.99	-14 9.0	2.423	3.418	2.4	20.6
4 21	12 44.40	+27 35.2	1.497	2.335	17.1	18.1	4 21	12 47.59	-13 44.8	2.441	3.416	4.9	20.7
5 1	12 36.76	+25 16.8	1.577	2.360	18.9	18.3	5 1	12 40.21	-13 19.3	2.487	3.413	7.8	20.9
5 11	12 32.08	+22 39.2	1.674	2.387	20.6	18.5	5 11	12 34.39	-12 56.6	2.559	3.410	10.6	21.1
423640	2005 XV ₁₉		4 5.9 31°06	2°9/ 3.7 17			61297	2000 OD ₄₆		4 5.9 274°67	6°2/ 10.8 17		
3 2	13 24.74	- 0 49.8	1.561	2.414	14.9	20.6	3 2	13 25.62	-22 46.9	1.613	2.392	18.0	20.0
3 12	13 20.20	- 0 18.7	1.497	2.419	11.1	20.4	3 12	13 21.53	-23 8.3	1.508	2.371	15.0	19.7
3 22	13 13.29	+ 0 18.9	1.455	2.426	6.9	20.2	3 22	13 14.59	-23 5.1	1.422	2.349	11.5	19.4
4 1	13 4.81	+ 0 56.9	1.439	2.433	3.2	19.9	4 1	13 5.43	-22 34.4	1.359	2.327	8.0	19.2
4 11	12 55.88	+ 1 28.7	1.449	2.440	4.6	20.0	4 11	12 55.16	-21 37.4	1.321	2.305	6.2	19.0
4 21	12 47.63	+ 1 48.7	1.486	2.448	8.8	20.3	4 21	12 45.16	-20 19.7	1.308	2.282	8.2	19.0
5 1	12 41.05	+ 1 53.1	1.546	2.456	12.8	20.6	5 1	12 36.78	-18 50.8	1.320	2.259	12.1	19.2
5 11	12 36.79	+ 1 40.6	1.627	2.464	16.2	20.8	5 11	12 31.05	-17 22.3	1.354	2.236	16.3	19.4
390044	2012 UA ₆₂		4 5.9 2°61	2°7/ 3.4 17			347879	2002 TM ₅₉		4 5.9 261°75	3°9/ 9.8 18		
3 2	13 22.78	- 0 5.0	2.009	2.853	12.4	20.5	3 2	13 22.57	-24 32.2	1.244	2.041	21.3	20.7
3 12	13 18.32	+ 0 27.3	1.934	2.853	9.2	20.3	3 12	13 19.68	-23 2.1	1.146	2.026	17.5	20.3
3 22	13 11.96	+ 1 4.3	1.884	2.853	5.7	20.1	3 22	13 13.59	-20 42.6	1.067	2.010	12.6	20.0
4 1	13 4.35	+ 1 41.3	1.861	2.853	2.9	19.9	4 1	13 5.09	-17 33.6	1.010	1.994	7.1	19.6
4 11	12 56.33	+ 2 12.8	1.866	2.854	4.2	20.0	4 11	12 55.58	-13 46.1	0.980	1.977	4.0	19.4
4 21	12 48.78	+ 2 34.3	1.898	2.855	7.6	20.2	4 21	12 46.66	- 9 41.2	0.978	1.960	8.7	19.6
5 1	12 42.49	+ 2 42.6	1.955	2.856	11.0	20.4	5 1	12 39.83	- 5 44.8	1.002	1.943	14.8	19.9
5 11	12 38.05	+ 2 36.1	2.035	2.857	14.0	20.6	5 11	12 36.08	- 2 18.5	1.048	1.926	20.3	20.1
88643	2001 RK ₅₅		4 5.9 20°57	5°9/ 31.0 18			378737	2008 RH ₁₈		4 6.0 277°47			