

EPHEMERIDES

5 12.9

5 13.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
222644	2001 <i>XT</i> ₁₅₆		5 12.9 175°80	2°0/11.6 17			142193	2002 <i>RU</i> ₅₂		5 12.9 265°87	0°7/12.7 17		
4 11	15 45.20	-12 58.6	2.354	3.217	10.6	22.1	4 11	15 46.09	-17 54.0	1.701	2.573	13.6	21.2
4 21	15 38.78	-12 33.9	2.282	3.220	7.6	21.9	4 21	15 40.23	-17 38.3	1.612	2.554	9.9	20.9
5 1	15 30.77	-12 7.5	2.236	3.223	4.4	21.7	5 1	15 31.96	-17 15.6	1.547	2.536	5.6	20.6
5 11	15 21.86	-11 41.9	2.219	3.224	2.1	21.5	5 11	15 22.12	-16 48.0	1.507	2.517	1.0	20.3
5 21	15 12.83	-11 19.9	2.231	3.225	4.0	21.7	5 21	15 11.80	-16 18.7	1.494	2.497	4.1	20.4
5 31	15 4.48	-11 4.0	2.271	3.225	7.2	21.9	5 31	15 2.22	-15 52.1	1.508	2.477	8.9	20.7
6 10	14 57.49	-10 56.4	2.337	3.225	10.3	22.0	6 10	14 54.47	-15 32.5	1.546	2.457	13.2	20.9
6 20	14 52.31	-10 58.1	2.426	3.224	12.9	22.2	6 20	14 49.26	-15 23.3	1.604	2.436	17.0	21.1
131538	2001 <i>UH</i> ₁₂₃		5 12.9 173°68	1°2/12.3 18			330026	2005 <i>UV</i> ₁₂₉		5 13.0 313°77	0°2/13.1 17		
4 11	15 46.27	-18 15.7	1.531	2.407	14.6	19.6	4 11	15 42.56	-21 10.7	1.506	2.384	14.6	20.1
4 21	15 40.25	-17 31.0	1.464	2.409	10.5	19.3	4 21	15 37.82	-20 40.1	1.427	2.372	10.7	19.8
5 1	15 31.85	-16 37.2	1.420	2.410	5.8	19.0	5 1	15 30.62	-19 57.5	1.371	2.360	6.1	19.5
5 11	15 22.05	-15 38.3	1.402	2.411	1.4	18.7	5 11	15 21.89	-19 5.6	1.339	2.349	1.1	19.2
5 21	15 12.09	-14 39.8	1.410	2.411	4.6	19.0	5 21	15 12.79	-18 9.1	1.333	2.337	4.1	19.3
5 31	15 3.20	-13 48.0	1.444	2.412	9.3	19.2	5 31	15 4.63	-17 14.4	1.352	2.327	9.0	19.6
6 10	14 56.39	-13 8.1	1.502	2.412	13.6	19.5	6 10	14 58.47	-16 27.8	1.394	2.317	13.6	19.8
6 20	14 52.22	-12 43.1	1.579	2.411	17.2	19.7	6 20	14 54.98	-15 53.7	1.456	2.307	17.4	20.0
107244	2001 <i>BQ</i> ₅₈		5 12.9 67°02	5°4/10.3 18			426326	2012 <i>US</i> ₁₃₇		5 13.0 254°99	3°3/ 7.8 17		
4 11	15 44.92	- 7 40.5	1.440	2.326	14.7	19.2	4 11	15 33.78	- 2 23.9	4.501	5.360	6.0	21.6
4 21	15 39.24	- 6 52.1	1.385	2.331	10.9	19.0	4 21	15 30.11	- 1 28.8	4.432	5.356	4.6	21.5
5 1	15 31.25	- 6 6.8	1.353	2.336	7.1	18.8	5 1	15 25.76	- 0 36.3	4.391	5.352	3.6	21.4
5 11	15 21.95	- 5 30.6	1.345	2.342	5.4	18.7	5 11	15 21.03	+ 0 11.1	4.379	5.348	3.4	21.4
5 21	15 12.54	- 5 8.4	1.363	2.347	7.6	18.9	5 21	15 16.25	+ 0 51.6	4.396	5.343	4.2	21.4
5 31	15 4.23	- 5 3.6	1.405	2.353	11.3	19.1	5 31	15 11.74	+ 1 23.4	4.440	5.339	5.5	21.5
6 10	14 57.97	- 5 17.2	1.468	2.358	15.1	19.3	6 10	15 7.82	+ 1 45.9	4.511	5.335	6.9	21.6
6 20	14 54.28	- 5 47.9	1.550	2.364	18.3	19.6	6 20	15 4.71	+ 1 58.7	4.603	5.330	8.2	21.7
276127	2002 <i>GL</i> ₁₀₂		5 12.9 78°21	5°3/15.7 17			147926	2006 <i>VJ</i> ₉₄		5 13.0 213°08	0°2/12.8 18		
4 11	15 48.86	-31 32.0	1.790	2.623	14.8	20.4	4 11	15 42.71	-18 6.4	2.718	3.575	9.6	21.0
4 21	15 42.11	-32 13.7	1.728	2.636	11.6	20.2	4 21	15 36.95	-17 59.1	2.634	3.569	6.9	20.8
5 1	15 32.90	-32 39.3	1.688	2.649	8.2	20.0	5 1	15 29.76	-17 47.4	2.575	3.562	3.9	20.6
5 11	15 22.24	-32 46.7	1.673	2.662	5.7	19.9	5 11	15 21.72	-17 32.8	2.546	3.555	0.6	20.3
5 21	15 11.37	-32 36.4	1.685	2.675	5.8	19.9	5 21	15 13.50	-17 17.0	2.545	3.548	2.7	20.5
5 31	15 1.59	-32 11.8	1.723	2.688	8.3	20.1	5 31	15 5.79	-17 2.2	2.574	3.540	5.9	20.7
6 10	14 53.93	-31 39.3	1.786	2.701	11.5	20.3	6 10	14 59.24	-16 50.8	2.630	3.532	8.8	20.8
6 20	14 48.99	-31 4.8	1.869	2.713	14.4	20.5	6 20	14 54.26	-16 44.7	2.709	3.523	11.3	21.0
320504	2007 <i>XS</i> ₂₀		5 12.9 161°98	1°0/12.5 17			256776	2008 <i>CF</i> ₅		5 13.0 44°71	1°4/13.7 17		
4 11	15 47.50	-16 55.5	1.872	2.738	12.8	21.9	4 11	15 45.10	-23 19.9	1.411	2.284	15.7	20.5
4 21	15 40.78	-16 36.3	1.805	2.744	9.2	21.7	4 21	15 39.64	-23 2.8	1.348	2.289	11.5	20.3
5 1	15 32.01	-16 11.9	1.761	2.749	5.1	21.5	5 1	15 31.59	-22 32.2	1.308	2.294	6.8	20.0
5 11	15 22.08	-15 44.5	1.745	2.754	1.2	21.2	5 11	15 22.04	-21 50.1	1.292	2.300	2.0	19.7
5 21	15 12.01	-15 17.3	1.757	2.758	3.9	21.4	5 21	15 12.33	-21 0.8	1.301	2.305	4.1	19.9
5 31	15 2.85	-14 54.0	1.797	2.762	8.0	21.6	5 31	15 3.81	-20 10.6	1.335	2.311	8.9	20.1
6 10	14 55.47	-14 38.0	1.861	2.764	11.7	21.9	6 10	14 57.54	-19 26.2	1.392	2.317	13.4	20.4
6 20	14 50.39	-14 31.6	1.947	2.766	14.9	22.1	6 20	14 54.11	-18 52.3	1.469	2.323	17.1	20.7
219730	2001 <i>XE</i> ₁₄₀		5 12.9 281°92	1°5/12.2 17			161401	2003 <i>UT</i> ₁₆₆		5 13.0 288°86	0°5/13.3 18		
4 11	15 44.72	-15 50.6	1.720	2.596	13.3	19.8	4 11	15 44.30	-20 3.5	1.883	2.749	12.7	19.9
4 21	15 39.20	-15 32.1	1.631	2.575	9.6	19.5	4 21	15 38.66	-20 4.3	1.805	2.743	9.2	19.7
5 1	15 31.37	-15 8.5	1.565	2.555	5.5	19.3	5 1	15 30.94	-19 58.1	1.750	2.738	5.3	19.4
5 11	15 22.01	-14 42.5	1.526	2.534	1.6	18.9	5 11	15 21.94	-19 46.1	1.723	2.732	1.1	19.1
5 21	15 12.18	-14 17.5	1.513	2.513	4.5	19.1	5 21	15 12.66	-19 30.2	1.722	2.726	3.4	19.3
5 31	15 3.06	-13 57.5	1.526	2.492	9.0	19.3	5 31	15 4.15	-19 13.8	1.749	2.720	7.6	19.5
6 10	14 55.69	-13 46.3	1.563	2.471	13.2	19.5	6 10	14 57.31	-19 0.6	1.800	2.715	11.4	19.7
6 20	14 50.76	-13 46.3	1.620	2.450	16.9	19.7	6 20	14 52.74	-18 53.6	1.872	2.709	14.7	19.9
232358	2002 <i>XW</i> ₄₉		5 12.9 242°00	2°8/11.4 18			58923	1998 <i>KJ</i> ₆₂		5 13.0 49°64	1°0/12.1 18		
4 11	15 43.98	-10 3.6	2.200	3.068	11.0	20.2	4 11	15 41.39	-20 40.6	1.926	2.795	12.3	18.7
4 21	15 38.08	- 9 54.1	2.123	3.063	8.0	20.0	4 21	15 36.20	-19 8.7	1.867	2.809	8.8	18.5
5 1	15 30.47	- 9 45.7	2.072	3.056	4.9	19.8	5 1	15 29.34	-17 26.4	1.834	2.823	4.8	18.3
5 11	15 21.83	- 9 41.0	2.048	3.050	2.8	19.7	5 11	15 21.64	-15 39.3	1.829	2.838	1.1	18.0
5 21	15 12.99	- 9 42.0	2.052	3.044	4.6	19.8	5 21	15 13.99	-13 54.2	1.853	2.853	3.9	18.3
5 31	15 4.78	- 9 50.6	2.084	3.037	7.9	20.0	5 31	15 7.28	-12 18.1	1.904	2.868	7.8	18.5
6 10	14 57.95	-10 8.1	2.141	3.031	11.0	20.1	6 10	15 2.18	-10 56.4	1.982	2.883	11.2	18.8
6 20	14 53.00	-10 34.7	2.220	3.024	13.8	20.3	6 20	14 59.06	- 9 52.1	2.081	2.898	14.1	19.0
249	<i>llse</i>		5 12.9 235°29	5°5/16.0 18			291255	2006 <i>BZ</i> ₅₅		5 13.0 41°35	4°7/ 6.3 18		
4 11	15 49.77	-33 34.0	1.959	2.778	14.2	15.8	4 11	15 34.00	+ 5 5.3	4.240	5.082	6.7	20.1
4 21	15 42.92	-33 59.0	1.866	2.764	11.4	15.6	4 21	15 30.30	+ 5 50.0	4.185	5.084	5.6	20.0
5 1	15 33.50	-34 7.2	1.796	2.750	8.4	15.4	5 1	15 25.87	+ 6 28.5	4.157	5.087	4.8	19.9
5 11	15 22.38	-33 55.9	1.751	2.735	5.9	15.2	5 11	15 21.06	+ 6 58.3	4.155	5.089	4.8	19.9
5 21	15 10.75	-33 25.1	1.732	2.719	5.9	15.2	5 21	15 16.20	+ 7 17.8	4.181	5.091	5.5	20.0
5 31	14 59.95	-32 38.4	1.741	2.703	8.5	15.3	5 31	15 11.66	+ 7 26.2	4.233	5.094	6.6	20.1
6 10	14 51.11	-31 42.4	1.775	2.686	11.8	15.4	6 10	15 7.74	+ 7 23.1	4.309	5.096	7.8	20.2
6 20	14 44.99	-30 44.3	1.831	2.669	14.9	15.6	6 20	15 4.69	+ 7 9.3	4.405	5.099	9.0	20.3
219842	2002 <i>CY</i> ₁₄₅		5 12.9 160°96	0°2/13.2 17			292123	2006 <i>RA</i> ₆₈	</				

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
503188	2015 <i>HX</i> ₂		5 13.0 133°78	3°2/15.4	17		502710	2015 <i>DH</i> ₂₂		5 13.0 168°73	3°7/15.1	17	
4 11	15 45.35	-30 4.2	2.087	2.922	12.9	21.1	4 11	15 47.15	-28 50.4	1.946	2.786	13.5	21.3
4 21	15 39.18	-29 42.5	2.016	2.930	9.8	20.9	4 21	15 40.77	-29 9.5	1.871	2.788	10.4	21.0
5 1	15 31.09	-29 5.3	1.969	2.939	6.5	20.7	5 1	15 32.15	-29 15.1	1.819	2.789	7.0	20.8
5 11	15 21.95	-28 13.6	1.948	2.947	3.6	20.5	5 11	15 22.19	-29 6.3	1.793	2.790	4.1	20.7
5 21	15 12.76	-27 10.4	1.956	2.955	3.9	20.6	5 21	15 11.97	-28 44.2	1.795	2.791	4.5	20.7
5 31	15 4.51	-26 1.0	1.991	2.962	6.9	20.8	5 31	15 2.63	-28 12.5	1.823	2.792	7.6	20.9
6 10	14 57.98	-24 51.6	2.052	2.969	10.1	21.0	6 10	14 55.14	-27 36.6	1.876	2.793	10.9	21.1
6 20	14 53.65	-23 47.7	2.136	2.976	13.0	21.2	6 20	14 50.08	-27 1.6	1.952	2.793	14.0	21.3
107146	2001 <i>BK</i> ₈		5 13.0 67°66	1°1/13.5	17		429583	2011 <i>EL</i> ₂₈		5 13.0 25°26	4°1/10.8	17	
4 11	15 47.26	-21 27.0	1.398	2.273	15.8	19.8	4 11	15 42.51	-10 18.1	1.556	2.442	13.8	20.8
4 21	15 41.14	-21 27.2	1.343	2.284	11.5	19.5	4 21	15 37.43	-9 33.8	1.498	2.446	10.0	20.6
5 1	15 32.41	-21 17.0	1.309	2.296	6.6	19.3	5 1	15 30.24	-8 49.7	1.464	2.450	6.2	20.4
5 11	15 22.20	-20 57.7	1.299	2.308	1.7	19.0	5 11	15 21.86	-8 11.0	1.454	2.455	4.1	20.2
5 21	15 11.87	-20 32.4	1.316	2.320	4.1	19.2	5 21	15 13.35	-7 42.4	1.470	2.460	6.3	20.4
5 31	15 2.81	-20 6.0	1.357	2.332	8.9	19.5	5 31	15 5.82	-7 27.5	1.511	2.466	10.1	20.6
6 10	14 56.08	-19 44.0	1.421	2.344	13.3	19.8	6 10	15 0.15	-7 28.4	1.575	2.472	13.8	20.8
6 20	14 52.23	-19 30.2	1.505	2.356	17.0	20.0	6 20	14 56.84	-7 44.9	1.657	2.478	17.0	21.1
191665	2004 <i>PA</i> ₁₀₄		5 13.0 216°36	5°4/16.6	18		205819	2002 <i>CX</i> ₂₃₇		5 13.0 128°10	0°3/13.2	18	
4 11	15 48.63	-36 3.8	2.492	3.288	12.2	21.2	4 11	15 48.80	-20 5.3	1.589	2.457	14.6	21.0
4 21	15 41.66	-36 30.0	2.399	3.279	9.9	21.0	4 21	15 42.02	-19 57.4	1.528	2.468	10.6	20.8
5 1	15 32.61	-36 40.9	2.329	3.269	7.6	20.9	5 1	15 32.84	-19 41.0	1.490	2.478	6.0	20.5
5 11	15 22.25	-36 34.6	2.286	3.258	5.7	20.7	5 11	15 22.31	-19 17.6	1.478	2.488	1.1	20.2
5 21	15 11.53	-36 10.9	2.270	3.247	5.6	20.7	5 21	15 11.65	-18 50.3	1.493	2.497	3.9	20.4
5 31	15 1.51	-35 32.6	2.282	3.235	7.3	20.8	5 31	15 2.14	-18 23.8	1.534	2.506	8.5	20.7
6 10	14 53.08	-34 44.5	2.321	3.222	9.8	20.9	6 10	14 54.74	-18 2.5	1.600	2.514	12.6	21.0
6 20	14 46.86	-33 52.5	2.383	3.209	12.3	21.1	6 20	14 50.02	-17 49.9	1.686	2.522	16.1	21.2
131756	2002 <i>AQ</i> ₁		5 13.0 101°52	3°1/11.5	18		272145	2005 <i>NB</i> ₂₁		5 13.0 295°81	1°3/14.1	18	
4 11	15 47.24	-12 42.9	1.458	2.339	14.9	19.3	4 11	15 39.91	-23 51.9	2.995	3.842	9.1	20.3
4 21	15 40.86	-12 6.7	1.405	2.352	10.7	19.1	4 21	15 35.00	-23 52.6	2.893	3.819	6.7	20.1
5 1	15 32.14	-11 28.6	1.376	2.364	6.2	18.8	5 1	15 28.74	-23 46.4	2.816	3.796	4.1	19.9
5 11	15 22.15	-10 53.1	1.371	2.377	3.1	18.7	5 11	15 21.62	-23 33.9	2.767	3.773	1.6	19.7
5 21	15 12.12	-10 24.9	1.393	2.389	5.7	18.9	5 21	15 14.24	-23 16.2	2.748	3.750	2.5	19.7
5 31	15 3.28	-10 7.9	1.440	2.400	10.0	19.1	5 31	15 7.27	-22 55.6	2.757	3.727	5.3	19.9
6 10	14 56.59	-10 4.7	1.510	2.412	14.0	19.4	6 10	15 1.28	-22 34.5	2.793	3.704	8.0	20.0
6 20	14 52.55	-10 15.7	1.599	2.423	17.4	19.7	6 20	14 56.75	-22 15.7	2.853	3.681	10.4	20.2
23790	1998 <i>QK</i> ₁₉		5 13.0 297°97	5°6/10.2	18		317822	2003 <i>SV</i> ₂₇₇		5 13.0 226°62	6°0/16.0	17	
4 11	15 43.98	-7 11.8	1.468	2.353	14.5	17.4	4 11	15 50.32	-33 24.9	1.790	2.614	15.2	21.6
4 21	15 38.78	-6 25.4	1.396	2.341	10.8	17.2	4 21	15 43.51	-34 0.0	1.705	2.606	12.1	21.4
5 1	15 31.16	-5 41.6	1.346	2.329	7.3	16.9	5 1	15 33.93	-34 17.7	1.642	2.597	8.9	21.2
5 11	15 22.02	-5 6.5	1.321	2.317	5.6	16.8	5 11	15 22.54	-34 14.8	1.603	2.588	6.4	21.0
5 21	15 12.52	-4 45.5	1.321	2.305	7.9	16.9	5 21	15 10.63	-33 51.1	1.591	2.578	6.4	21.0
5 31	15 3.92	-4 42.3	1.345	2.293	11.8	17.1	5 31	14 59.65	-33 10.2	1.605	2.568	9.0	21.1
6 10	14 57.26	-4 58.7	1.391	2.282	15.7	17.3	6 10	14 50.85	-32 19.0	1.644	2.557	12.4	21.3
6 20	14 53.22	-5 33.5	1.454	2.270	19.2	17.5	6 20	14 44.96	-31 25.4	1.703	2.546	15.7	21.4
353635	2011 <i>UB</i> ₇₇		5 13.0 75°10	0°2/13.2	17		199458	2006 <i>DJ</i> ₄₅		5 13.0 274°22	3°8/10.6	17	
4 11	15 40.95	-22 41.5	2.302	3.160	11.0	20.7	4 11	15 42.79	-10 21.3	1.851	2.729	12.3	20.4
4 21	15 35.77	-21 44.1	2.235	3.170	7.9	20.5	4 21	15 37.55	-9 33.8	1.772	2.715	9.0	20.1
5 1	15 29.09	-20 37.0	2.194	3.180	4.5	20.3	5 1	15 30.33	-8 45.3	1.716	2.701	5.6	19.9
5 11	15 21.63	-19 23.2	2.181	3.190	0.9	20.1	5 11	15 21.91	-8 0.1	1.687	2.687	3.8	19.7
5 21	15 14.17	-18 7.3	2.197	3.200	2.9	20.2	5 21	15 13.19	-7 23.0	1.684	2.672	5.9	19.8
5 31	15 7.46	-16 54.1	2.241	3.210	6.4	20.5	5 31	15 5.18	-6 58.0	1.708	2.658	9.6	20.0
6 10	15 2.14	-15 48.3	2.312	3.220	9.5	20.7	6 10	14 58.74	-6 47.7	1.755	2.643	13.1	20.2
6 20	14 58.59	-14 53.2	2.406	3.230	12.2	20.9	6 20	14 54.45	-6 53.0	1.822	2.629	16.2	20.4
164379	2005 <i>EE</i> ₁₃₄		5 13.0 234°58	1°8/11.8	17		131950	2002 <i>CO</i> ₃₃		5 13.0 97°99	1°2/13.5	17	
4 11	15 42.61	-14 56.9	2.156	3.026	11.2	20.7	4 11	15 49.21	-20 47.2	1.430	2.302	15.7	20.2
4 21	15 37.16	-14 21.1	2.076	3.018	8.0	20.4	4 21	15 42.66	-21 6.0	1.367	2.307	11.5	20.0
5 1	15 29.99	-13 41.2	2.022	3.010	4.6	20.2	5 1	15 33.37	-21 16.1	1.326	2.313	6.7	19.7
5 11	15 21.80	-13 0.4	1.995	3.002	1.8	20.0	5 11	15 22.43	-21 17.7	1.310	2.318	1.8	19.4
5 21	15 13.42	-12 22.1	1.996	2.994	4.1	20.2	5 21	15 11.21	-21 12.4	1.319	2.324	4.1	19.6
5 31	15 5.70	-11 50.0	2.025	2.985	7.6	20.4	5 31	15 1.18	-21 3.9	1.355	2.329	9.1	19.9
6 10	14 59.38	-11 27.1	2.079	2.976	11.0	20.5	6 10	14 53.48	-20 57.0	1.413	2.334	13.5	20.2
6 20	14 54.96	-11 15.4	2.155	2.967	13.9	20.7	6 20	14 48.76	-20 55.7	1.491	2.339	17.2	20.4
308425	2005 <i>SO</i> ₁₃₅		5 13.0 142°99	1°8/11.5	17		309829	2009 <i>BF</i> ₁₆₅		5 13.0 51°57	1°4/12.4	17	
4 11	15 40.65	-13 45.8	2.709	3.575	9.3	21.7	4 11	15 46.58	-16 17.9	1.249	2.137	16.4	20.6
4 21	15 35.37	-13 10.2	2.642	3.582	6.6	21.6	4 21	15 40.79	-16 4.8	1.198	2.147	11.8	20.4
5 1	15 28.83	-12 32.5	2.602	3.589	3.8	21.4	5 1	15 32.28	-15 46.2	1.167	2.158	6.6	20.1
5 11	15 21.60	-11 55.3	2.590	3.596	1.8	21.3	5 11	15 22.23	-15 25.3	1.160	2.169	1.6	19.8
5 21	15 14.31	-11 21.4	2.608	3.602	3.5	21.4	5 21	15 12.08	-15 6.2	1.178	2.181	5.0	20.1
5 31	15 7.61	-10 53.3	2.654	3.609	6.3	21.6	5 31	15 3.27	-14 53.2	1.221	2.193	10.1	20.4
6 10	15 2.02	-10 33.2	2.726	3.615	9.0	21.8	6 10	14 56.89	-14 50.2	1.285	2.205	14.6	20.7
6 20	14 57.92	-10 22.3	2.821	3.620	11.3	21.9	6 20	14 53.49	-14 58.9	1.367	2.217	18.4	21.0
371631	2007 <i>AB</i> ₁₅		5 13.0 75°90	2°3/14.4	17		92865	2000 <i>QH</i> ₂₁₁					

EPHEMERIDES

5 13.0

5 13.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
148346	2000 <i>RL</i> ₂₃		5 13.0 195°33	2.7/10.3	18		18029	1999 <i>KA</i> ₁₆		5 13.0 342°85	1.2/12.2	18	
4 11	15 40.25	-10 17.4	2.957	3.822	8.6	21.1	4 11	15 37.27	-22 40.8	1.040	1.941	17.8	16.4
4 21	15 35.04	-9 25.5	2.882	3.819	6.3	20.9	4 21	15 34.68	-20 56.6	0.971	1.928	12.9	16.0
5 1	15 28.65	-8 32.9	2.834	3.816	3.9	20.7	5 1	15 29.12	-18 46.9	0.923	1.916	7.2	15.7
5 11	15 21.61	-7 42.8	2.814	3.812	2.7	20.6	5 11	15 21.75	-16 20.3	0.897	1.906	1.5	15.3
5 21	15 14.47	-6 58.1	2.825	3.808	4.2	20.7	5 21	15 14.05	-13 50.4	0.894	1.897	5.9	15.5
5 31	15 7.82	-6 21.7	2.864	3.803	6.6	20.9	5 31	15 7.61	-11 33.0	0.913	1.890	12.0	15.8
6 10	15 2.18	-5 55.4	2.929	3.798	9.0	21.0	6 10	15 3.66	-9 40.7	0.953	1.884	17.4	16.1
6 20	14 57.88	-5 40.1	3.016	3.792	11.1	21.2	6 20	15 2.84	-8 19.9	1.010	1.879	22.0	16.4
147944	3448 <i>T</i> ₋₃		5 13.0 199°21	1.4/12.1	18		302248	2001 <i>XV</i> ₃₁		5 13.0 102°56	1.7/12.2	18	
4 11	15 44.96	-16 13.6	1.996	2.864	12.0	20.7	4 11	15 48.92	-15 53.1	1.543	2.417	14.6	21.3
4 21	15 38.95	-15 42.5	1.920	2.861	8.6	20.5	4 21	15 41.94	-15 23.1	1.494	2.438	10.4	21.1
5 1	15 31.05	-15 6.3	1.870	2.858	4.8	20.3	5 1	15 32.71	-14 48.2	1.469	2.458	5.8	20.8
5 11	15 22.03	-14 27.9	1.846	2.855	1.5	20.0	5 11	15 22.32	-14 12.0	1.470	2.478	1.8	20.6
5 21	15 12.83	-13 50.8	1.851	2.851	4.0	20.2	5 21	15 11.98	-13 38.8	1.497	2.497	4.7	20.9
5 31	15 4.39	-13 18.9	1.883	2.846	7.9	20.4	5 31	15 2.90	-13 12.9	1.551	2.516	9.1	21.2
6 10	14 57.54	-12 55.7	1.941	2.841	11.5	20.6	6 10	14 55.95	-12 57.8	1.629	2.534	13.0	21.4
6 20	14 52.79	-12 43.4	2.019	2.836	14.5	20.8	6 20	14 51.60	-12 54.8	1.727	2.552	16.2	21.7
17808	1998 <i>FV</i> ₇₄		5 13.0 223°83	2.2/11.2	18		437161	2012 <i>VB</i> ₄₀		5 13.0 309°28	0.7/13.4	17	
4 11	15 40.68	-13 34.5	2.460	3.330	10.0	18.6	4 11	15 43.04	-21 11.4	1.985	2.849	12.2	21.0
4 21	15 35.58	-12 46.2	2.383	3.324	7.2	18.4	4 21	15 37.68	-21 4.3	1.908	2.845	8.9	20.8
5 1	15 29.04	-11 54.8	2.331	3.318	4.2	18.2	5 1	15 30.40	-20 49.3	1.855	2.841	5.2	20.5
5 11	15 21.68	-11 3.8	2.308	3.312	2.2	18.1	5 11	15 21.95	-20 27.5	1.828	2.837	1.2	20.2
5 21	15 14.19	-10 16.5	2.313	3.306	4.1	18.2	5 21	15 13.27	-20 1.6	1.829	2.833	3.2	20.4
5 31	15 7.28	-9 36.6	2.347	3.300	7.1	18.4	5 31	15 5.34	-19 34.9	1.856	2.829	7.2	20.6
6 10	15 1.57	-9 6.8	2.406	3.293	10.1	18.5	6 10	14 58.99	-19 11.4	1.909	2.825	10.8	20.8
6 20	14 57.49	-8 48.5	2.487	3.286	12.6	18.7	6 20	14 54.76	-18 54.4	1.984	2.821	14.0	21.0
48917	1998 <i>OS</i> ₆		5 13.0 11°02	3.7/14.9	18		469863	2005 <i>UH</i> ₂₅		5 13.0 242°29	1.6/14.1	18	
4 11	15 43.58	-28 12.9	1.065	1.946	19.1	17.9	4 11	15 43.28	-23 42.2	2.474	3.323	10.7	21.4
4 21	15 39.30	-27 54.1	1.006	1.947	14.5	17.6	4 21	15 37.60	-23 50.4	2.390	3.317	7.9	21.3
5 1	15 31.71	-27 11.5	0.965	1.948	9.3	17.3	5 1	15 30.26	-23 50.8	2.330	3.311	4.8	21.0
5 11	15 22.17	-26 6.4	0.946	1.951	4.4	17.0	5 11	15 21.93	-23 43.9	2.299	3.304	1.9	20.8
5 21	15 12.37	-24 44.9	0.950	1.954	5.3	17.1	5 21	15 13.36	-23 30.8	2.295	3.298	2.9	20.9
5 31	15 4.10	-23 17.3	0.976	1.958	10.4	17.4	5 31	15 5.37	-23 13.9	2.321	3.291	6.1	21.1
6 10	14 58.68	-21 55.2	1.022	1.963	15.5	17.7	6 10	14 58.69	-22 56.6	2.372	3.285	9.1	21.3
6 20	14 56.72	-20 47.1	1.087	1.969	19.9	17.9	6 20	14 53.81	-22 41.6	2.447	3.278	11.9	21.4
336356	2008 <i>TW</i> ₁₇₈		5 13.0 300°19	5.5/ 9.7	17		150604	2000 <i>XY</i> ₈		5 13.0 209°51	2.6/11.0	18	
4 11	15 42.14	-7 27.7	1.630	2.514	13.4	20.7	4 11	15 42.49	-8 40.7	3.001	3.861	8.7	20.4
4 21	15 37.36	-6 27.6	1.547	2.492	10.0	20.5	4 21	15 36.67	-8 27.8	2.920	3.855	6.3	20.2
5 1	15 30.36	-5 28.1	1.489	2.470	6.8	20.2	5 1	15 29.60	-8 16.4	2.867	3.848	4.0	20.1
5 11	15 21.94	-4 35.3	1.455	2.448	5.5	20.1	5 11	15 21.81	-8 8.4	2.842	3.840	2.6	20.0
5 21	15 13.11	-3 55.2	1.446	2.427	7.7	20.2	5 21	15 13.87	-8 5.5	2.846	3.832	4.0	20.1
5 31	15 5.00	-3 32.7	1.463	2.405	11.4	20.3	5 31	15 6.39	-8 9.3	2.880	3.824	6.4	20.2
6 10	14 58.60	-3 30.2	1.501	2.384	15.2	20.5	6 10	14 59.90	-8 20.7	2.941	3.816	8.8	20.3
6 20	14 54.56	-3 47.8	1.557	2.363	18.6	20.7	6 20	14 54.80	-8 40.0	3.025	3.806	11.0	20.5
231269	2006 <i>AO</i> ₂₁		5 13.0 15°91	2.4/12.0	18		45024	1999 <i>WW</i> ₇		5 13.0 283°11	2.7/11.9	18	
4 11	15 45.42	-12 21.6	1.586	2.466	13.9	19.4	4 11	15 46.77	-12 42.1	1.562	2.441	14.2	18.7
4 21	15 39.62	-12 23.1	1.522	2.468	10.1	19.1	4 21	15 40.98	-12 28.0	1.472	2.417	10.4	18.4
5 1	15 31.55	-12 24.7	1.481	2.470	5.8	18.9	5 1	15 32.57	-12 12.2	1.405	2.393	6.1	18.1
5 11	15 22.13	-12 28.7	1.466	2.473	2.4	18.7	5 11	15 22.39	-11 57.9	1.363	2.369	2.7	17.8
5 21	15 12.49	-12 37.3	1.477	2.476	4.9	18.8	5 21	15 11.57	-11 48.4	1.347	2.345	5.5	17.9
5 31	15 3.80	-12 52.6	1.513	2.479	9.2	19.1	5 31	15 1.47	-11 47.4	1.357	2.320	10.2	18.1
6 10	14 57.03	-13 16.4	1.574	2.483	13.1	19.3	6 10	14 53.27	-11 57.9	1.389	2.296	14.7	18.3
6 20	14 52.77	-13 48.9	1.654	2.487	16.5	19.6	6 20	14 47.77	-12 21.0	1.441	2.271	18.7	18.5
257930	2000 <i>WE</i> ₁₃₄		5 13.0 95°48	3.0/15.8	18		469700	2005 <i>EE</i> ₁₉₅		5 13.0 291°40	0.5/13.3	17	
4 11	15 42.79	-31 27.6	2.368	3.196	11.8	20.2	4 11	15 42.98	-21 2.9	1.957	2.822	12.3	21.2
4 21	15 37.16	-30 46.8	2.294	3.204	9.1	20.0	4 21	15 37.66	-20 47.3	1.879	2.817	9.0	21.0
5 1	15 29.92	-29 50.4	2.245	3.212	6.1	19.9	5 1	15 30.40	-20 23.4	1.826	2.812	5.2	20.8
5 11	15 21.83	-28 40.1	2.222	3.219	3.4	19.7	5 11	15 21.98	-19 52.6	1.798	2.808	1.1	20.5
5 21	15 13.73	-27 19.3	2.228	3.227	3.5	19.7	5 21	15 13.33	-19 18.0	1.799	2.803	3.3	20.6
5 31	15 6.46	-25 53.4	2.264	3.235	6.2	19.9	5 31	15 5.44	-18 43.6	1.826	2.798	7.3	20.9
6 10	15 0.70	-24 28.4	2.326	3.243	9.1	20.1	6 10	14 59.15	-18 13.5	1.878	2.793	11.0	21.1
6 20	14 56.84	-23 9.4	2.412	3.250	11.8	20.3	6 20	14 55.00	-17 51.0	1.952	2.788	14.2	21.3
433123	2012 <i>TQ</i> ₁₇₁		5 13.0 331°20	1.4/12.2	17		247140	2000 <i>WL</i> ₁₁₄		5 13.0 219°08	2.1/14.6	18	
4 11	15 38.49	-18 59.2	1.324	2.218	15.2	19.8	4 11	15 45.58	-26 35.8	2.415	3.253	11.3	21.8
4 21	15 35.19	-18 1.3	1.242	2.195	11.1	19.5	4 21	15 39.32	-26 24.1	2.323	3.243	8.5	21.6
5 1	15 29.32	-16 49.8	1.182	2.174	6.2	19.1	5 1	15 31.28	-26 1.3	2.257	3.232	5.3	21.4
5 11	15 21.78	-15 29.6	1.144	2.154	1.5	18.8	5 11	15 22.15	-25 27.7	2.218	3.221	2.5	21.1
5 21	15 13.78	-14 8.1	1.132	2.134	5.1	18.9	5 21	15 12.77	-24 45.4	2.208	3.209	3.2	21.2
5 31	15 6.68	-12 54.0	1.143	2.116	10.5	19.2	5 31	15 4.04	-23 58.0	2.226	3.196	6.4	21.3
6 10	15 1.65	-11 54.8	1.175	2.099	15.4	19.4	6 10	14 56.74	-23 10.1	2.272	3.183	9.6	21.5
6 20	14 59.38	-11 15.3	1.225	2.084	19.6	19.6	6 20	14 51.38	-22 26.0	2.341	3.169	12.4	21.7
472458	2015 <i>BJ</i> ₄₀₇		5 13.0 318°19	11.2/ 5.8	18		34805	2001 <i>SC</i> ₆₉		5 13.			

EPHEMERIDES

5 13.0

5 13.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
65170	2002 CE ₁₇₀		5 13.0 138°47'	6°8/ 7.6 18			301007	2008 GM ₁₄₀		5 13.0 259°76'	1°0/11.6 17		
4 11	15 40.58	+ 2 52.6	2.437	3.292	10.6	19.4	4 11	15 34.35	-14 41.1	4.488	5.350	6.0	21.3
4 21	15 35.45	+ 3 47.3	2.382	3.295	8.6	19.3	4 21	15 30.60	-14 4.0	4.405	5.344	4.2	21.1
5 1	15 28.96	+ 4 32.9	2.352	3.298	7.1	19.2	5 1	15 26.13	-13 24.9	4.350	5.337	2.4	21.0
5 11	15 21.73	+ 5 5.1	2.348	3.301	6.9	19.2	5 11	15 21.26	-12 45.7	4.325	5.331	1.1	20.9
5 21	15 14.44	+ 5 20.9	2.370	3.303	8.0	19.2	5 21	15 16.33	-12 7.9	4.329	5.324	2.2	21.0
5 31	15 7.76	+ 5 18.9	2.417	3.306	9.9	19.4	5 31	15 11.69	-11 33.4	4.364	5.318	4.1	21.1
6 10	15 2.27	+ 4 59.2	2.488	3.308	12.0	19.5	6 10	15 7.65	-11 3.6	4.425	5.312	5.9	21.2
6 20	14 58.36	+ 4 23.8	2.578	3.310	13.9	19.6	6 20	15 4.46	-10 39.7	4.512	5.305	7.4	21.3
465343	2007 VM ₂₂₂		5 13.0 153°24'	1°6/12.0 16			378779	2008 SC ₂₈		5 13.0 141°07'	1°6/11.7 17		
4 11	15 46.89	-16 14.0	1.844	2.712	12.8	22.7	4 11	15 43.30	-15 25.0	2.487	3.349	10.1	21.8
4 21	15 40.36	-15 32.2	1.780	2.721	9.2	22.4	4 21	15 37.35	-14 36.5	2.424	3.362	7.2	21.6
5 1	15 31.85	-14 44.9	1.740	2.728	5.2	22.2	5 1	15 30.00	-13 44.1	2.387	3.374	4.1	21.4
5 11	15 22.23	-13 55.5	1.728	2.736	1.7	22.0	5 11	15 21.93	-12 51.1	2.379	3.386	1.6	21.2
5 21	15 12.54	-13 8.6	1.743	2.742	4.3	22.2	5 21	15 13.84	-12 1.0	2.401	3.397	3.6	21.4
5 31	15 3.80	-12 28.5	1.786	2.748	8.3	22.4	5 31	15 6.44	-11 17.3	2.451	3.407	6.7	21.6
6 10	14 56.83	-11 59.1	1.854	2.753	12.0	22.7	6 10	15 0.34	-10 42.8	2.528	3.417	9.6	21.8
6 20	14 52.12	-11 42.4	1.943	2.757	15.1	22.9	6 20	14 55.90	-10 19.0	2.627	3.426	12.0	22.0
191136	2002 GC ₄₅		5 13.0 149°86'	1°0/13.6 18			399905	2005 XA ₁		5 13.0 270°78'	4°6/10.4 17		
4 11	15 44.71	-21 53.9	1.850	2.713	13.0	20.1	4 11	15 49.06	-10 7.6	1.638	2.511	13.9	22.3
4 21	15 38.98	-21 47.5	1.778	2.714	9.5	19.8	4 21	15 42.67	-9 9.1	1.535	2.476	10.4	22.0
5 1	15 31.17	-21 32.0	1.729	2.714	5.6	19.6	5 1	15 33.60	-8 6.6	1.457	2.440	6.6	21.7
5 11	15 22.13	-21 8.6	1.707	2.715	1.5	19.3	5 11	15 22.63	-7 5.8	1.404	2.403	4.6	21.4
5 21	15 12.88	-20 39.9	1.711	2.715	3.4	19.5	5 21	15 10.89	-6 12.8	1.379	2.365	7.2	21.5
5 31	15 4.49	-20 10.0	1.743	2.716	7.5	19.7	5 31	14 59.71	-5 34.1	1.380	2.326	11.7	21.6
6 10	14 57.84	-19 43.2	1.799	2.716	11.3	19.9	6 10	14 50.33	-5 14.1	1.403	2.285	16.2	21.8
6 20	14 53.49	-19 23.1	1.877	2.717	14.6	20.2	6 20	14 43.61	-5 14.4	1.445	2.243	20.2	22.0
388827	2008 CJ ₁₈₀		5 13.0 114°27'	7°9/ 5.0 17			242697	2005 TC ₄₈		5 13.0 11°08'	4°9/15.9 16		
4 11	15 41.13	+ 9 27.4	2.795	3.623	10.2	21.4	4 11	15 45.48	-32 2.1	2.134	2.960	13.0	20.3
4 21	15 35.60	+10 48.1	2.764	3.644	8.8	21.3	4 21	15 39.57	-32 40.4	2.058	2.961	10.2	20.1
5 1	15 28.94	+11 56.2	2.759	3.664	8.0	21.3	5 1	15 31.56	-33 5.0	2.005	2.962	7.4	19.9
5 11	15 21.72	+12 47.5	2.780	3.684	8.1	21.3	5 11	15 22.24	-33 14.2	1.978	2.964	5.2	19.8
5 21	15 14.54	+13 19.4	2.826	3.703	9.0	21.4	5 21	15 12.61	-33 8.0	1.978	2.965	5.3	19.8
5 31	15 7.97	+13 30.8	2.897	3.722	10.3	21.5	5 31	15 3.76	-32 49.0	2.004	2.967	7.5	19.9
6 10	15 2.51	+13 22.8	2.990	3.741	11.7	21.7	6 10	14 56.60	-32 21.9	2.056	2.969	10.3	20.1
6 20	14 58.47	+12 57.6	3.100	3.758	13.0	21.8	6 20	14 51.72	-31 51.8	2.129	2.971	13.0	20.3
179454	2002 AA ₁₇₂		5 13.0 154°76'	1°5/14.2 18			295340	2008 HL ₁₂		5 13.1 359°12'	0°2/12.8 18		
4 11	15 42.77	-24 42.6	2.630	3.474	10.2	21.4	4 11	15 34.96	-19 41.6	4.267	5.121	6.4	20.1
4 21	15 37.08	-24 34.6	2.554	3.479	7.6	21.2	4 21	15 31.06	-19 2.8	4.187	5.121	4.6	20.0
5 1	15 29.91	-24 18.0	2.505	3.484	4.6	21.0	5 1	15 26.40	-18 20.0	4.134	5.121	2.5	19.8
5 11	15 21.91	-23 53.8	2.483	3.488	1.9	20.8	5 11	15 21.32	-17 34.8	4.111	5.121	0.4	19.6
5 21	15 13.80	-23 23.7	2.490	3.492	2.7	20.9	5 21	15 16.20	-16 49.1	4.119	5.121	1.8	19.7
5 31	15 6.32	-22 50.7	2.525	3.496	5.7	21.1	5 31	15 11.42	-16 4.8	4.156	5.121	3.9	19.9
6 10	15 0.09	-22 18.2	2.588	3.499	8.5	21.3	6 10	15 7.30	-15 24.0	4.221	5.121	5.8	20.0
6 20	14 55.56	-21 49.3	2.674	3.503	11.0	21.4	6 20	15 4.10	-14 48.3	4.312	5.121	7.5	20.2
134244	De Young		5 13.0 3°75'	5°6/16.2 18			392787	2012 TN ₁₅₃		5 13.1 125°02'	0°1/13.1 17		
4 11	15 41.95	-32 0.0	1.372	2.229	17.1	19.1	4 11	15 43.64	-19 54.2	2.582	3.436	10.1	22.6
4 21	15 37.75	-32 11.1	1.306	2.229	13.4	18.9	4 21	15 37.60	-19 36.2	2.519	3.452	7.2	22.4
5 1	15 30.76	-32 0.5	1.260	2.229	9.5	18.7	5 1	15 30.15	-19 12.4	2.482	3.468	4.1	22.2
5 11	15 22.09	-31 27.4	1.236	2.230	6.2	18.5	5 11	15 21.97	-18 44.4	2.473	3.483	0.7	22.0
5 21	15 13.13	-30 34.2	1.236	2.232	6.1	18.5	5 21	15 13.75	-18 14.7	2.494	3.497	2.6	22.2
5 31	15 5.37	-29 27.5	1.259	2.236	9.3	18.7	5 31	15 6.22	-17 46.0	2.544	3.511	5.8	22.4
6 10	14 59.99	-28 16.5	1.305	2.240	13.3	18.9	6 10	14 59.97	-17 21.2	2.621	3.524	8.7	22.6
6 20	14 57.61	-27 9.4	1.371	2.246	16.9	19.1	6 20	14 55.39	-17 2.6	2.720	3.537	11.2	22.8
393664	2004 RK ₄₅		5 13.0 269°50'	2°0/14.5 18			497589	2006 HV ₈₆		5 13.1 29°76'	3°1/14.3 17		
4 11	15 42.44	-25 40.8	2.502	3.347	10.7	21.5	4 11	15 48.48	-24 35.1	1.747	2.601	14.1	21.2
4 21	15 37.07	-25 38.2	2.408	3.331	8.0	21.3	4 21	15 41.97	-25 23.1	1.676	2.604	10.6	21.0
5 1	15 30.03	-25 26.0	2.338	3.315	5.0	21.1	5 1	15 33.00	-26 1.8	1.629	2.607	6.7	20.7
5 11	15 21.95	-25 4.7	2.295	3.299	2.3	20.9	5 11	15 22.50	-26 29.4	1.608	2.611	3.4	20.5
5 21	15 13.60	-24 35.9	2.281	3.283	3.0	20.9	5 21	15 11.64	-26 45.6	1.614	2.615	4.4	20.6
5 31	15 5.79	-24 2.4	2.295	3.266	6.1	21.1	5 31	15 1.69	-26 52.4	1.647	2.618	8.0	20.8
6 10	14 59.25	-23 28.0	2.336	3.250	9.2	21.2	6 10	14 53.73	-26 53.9	1.705	2.622	11.8	21.1
6 20	14 54.51	-22 56.5	2.399	3.233	12.0	21.4	6 20	14 48.41	-26 54.4	1.783	2.627	15.0	21.3
429687	2011 HU ₂₉		5 13.0 16°42'	0°1/13.0 15			317887	2003 UM ₁₅₀		5 13.1 164°24'	0°5/13.4 17		
4 11	15 44.73	-16 50.0	1.244	2.134	16.3	20.2	4 11	15 46.73	-22 4.7	1.852	2.712	13.2	21.1
4 21	15 39.62	-17 20.4	1.190	2.141	11.7	19.9	4 21	15 40.36	-21 32.5	1.782	2.717	9.6	20.9
5 1	15 31.75	-17 47.0	1.158	2.149	6.6	19.7	5 1	15 31.91	-20 49.4	1.735	2.721	5.5	20.6
5 11	15 22.26	-18 10.2	1.149	2.158	1.1	19.3	5 11	15 22.29	-19 58.1	1.716	2.725	1.2	20.3
5 21	15 12.53	-18 31.1	1.164	2.169	4.4	19.6	5 21	15 12.55	-19 2.4	1.724	2.728	3.4	20.5
5 31	15 4.05	-18 51.8	1.204	2.181	9.5	19.9	5 31	15 3.75	-18 7.6	1.760	2.731	7.7	20.8
6 10	14 57.95	-19 15.2	1.265	2.194	14.1	20.2	6 10	14 56.77	-17 19.2	1.821	2.732	11.5	21.0
6 20	14 54.84	-19 43.4	1.345	2.208	17.9	20.5	6 20	14 52.12	-16 40.9	1.904	2.734	14.8	21.2
164485	2006 FV ₃₂		5 13.0 265°42'	1°9/11.8 17			266400	2007 EW ₁₈₇		5 13.1 141°49'	1°8/11.9 18		
4 11	15 42.69	-14 57.4	1.98										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
513100	2017 <i>WV</i> ₂₃		5 13.1	95°58	4.8/10.3	17	333664	2008 <i>ST</i> ₂₄₄		5 13.1	284°88	3.3/11.0	18
4 11	15 43.81	- 3 24.5	2.274	3.137	10.9	20.8	4 11	15 43.78	-11 56.4	1.828	2.705	12.5	20.5
4 21	15 37.85	- 3 8.9	2.213	3.143	8.3	20.6	4 21	15 38.50	-11 11.4	1.734	2.678	9.2	20.2
5 1	15 30.36	- 2 59.3	2.178	3.150	5.8	20.4	5 1	15 31.08	-10 23.1	1.664	2.651	5.6	20.0
5 11	15 22.03	- 2 58.8	2.170	3.156	4.8	20.4	5 11	15 22.25	- 9 35.7	1.620	2.623	3.3	19.8
5 21	15 13.61	- 3 9.3	2.189	3.162	6.1	20.5	5 21	15 12.94	- 8 54.1	1.603	2.595	5.7	19.9
5 31	15 5.88	- 3 31.9	2.236	3.168	8.6	20.6	5 31	15 4.24	- 8 22.8	1.612	2.567	9.7	20.0
6 10	14 59.49	- 4 6.3	2.307	3.174	11.2	20.8	6 10	14 57.11	- 8 5.6	1.645	2.538	13.6	20.2
6 20	14 54.87	- 4 51.5	2.400	3.180	13.6	21.0	6 20	14 52.21	- 8 4.0	1.698	2.510	17.0	20.4
76510	2000 <i>GJ</i> ₃₃		5 13.1	88°77	0.9/13.6	18	38297	1999 <i>RE</i> ₈₇		5 13.1	262°38	0.7/12.5	18
4 11	15 44.84	-22 9.0	2.057	2.914	12.1	19.3	4 11	15 41.48	-17 31.8	2.449	3.313	10.2	19.9
4 21	15 38.76	-21 58.5	1.999	2.932	8.8	19.1	4 21	15 36.32	-17 7.3	2.361	3.300	7.4	19.7
5 1	15 30.91	-21 39.4	1.965	2.950	5.1	18.9	5 1	15 29.62	-16 37.7	2.299	3.287	4.1	19.5
5 11	15 22.12	-21 13.3	1.959	2.967	1.4	18.7	5 11	15 21.97	-16 5.1	2.264	3.273	0.9	19.2
5 21	15 13.30	-20 42.8	1.980	2.984	3.1	18.9	5 21	15 14.11	-15 32.2	2.258	3.259	3.1	19.3
5 31	15 5.37	-20 11.7	2.029	3.001	6.7	19.1	5 31	15 6.78	-15 2.1	2.280	3.246	6.5	19.5
6 10	14 59.06	-19 43.8	2.104	3.018	10.1	19.4	6 10	15 0.68	-14 37.8	2.329	3.232	9.7	19.7
6 20	14 54.81	-19 22.2	2.201	3.034	12.9	19.6	6 20	14 56.26	-14 21.5	2.399	3.217	12.5	19.9
438873	2009 <i>HM</i> ₇₁		5 13.1	228°51	2.2/11.2	18	413827	2006 <i>RH</i> ₂₅		5 13.1	117°15	0.6/13.5	17
4 11	15 40.57	-14 36.1	2.348	3.219	10.4	21.5	4 11	15 46.88	-22 11.5	1.690	2.554	14.0	21.6
4 21	15 35.59	-13 35.5	2.273	3.215	7.4	21.3	4 21	15 40.57	-21 43.3	1.629	2.566	10.2	21.4
5 1	15 29.12	-12 30.6	2.224	3.212	4.3	21.1	5 1	15 32.08	-21 4.0	1.591	2.577	5.9	21.1
5 11	15 21.82	-11 25.2	2.203	3.208	2.2	20.9	5 11	15 22.39	-20 16.2	1.580	2.589	1.3	20.8
5 21	15 14.40	-10 23.6	2.210	3.204	4.2	21.0	5 21	15 12.65	-19 24.1	1.596	2.600	3.6	21.0
5 31	15 7.61	- 9 29.9	2.245	3.199	7.4	21.2	5 31	15 3.99	-18 33.1	1.638	2.610	8.0	21.3
6 10	15 2.08	- 8 47.5	2.306	3.195	10.4	21.4	6 10	14 57.30	-17 48.6	1.705	2.621	11.9	21.6
6 20	14 58.23	- 8 18.0	2.389	3.191	13.0	21.6	6 20	14 53.09	-17 14.6	1.794	2.630	15.3	21.8
181940	1999 <i>TJ</i> ₁₆₉		5 13.1	233°32	0.5/13.6	18	101802	1999 <i>HV</i> ₈		5 13.1	106°86	4.3/15.1	17
4 11	15 38.44	-21 47.6	3.634	4.482	7.6	21.0	4 11	15 50.37	-28 48.4	1.833	2.670	14.3	19.5
4 21	15 33.72	-21 33.1	3.543	4.472	5.5	20.8	4 21	15 43.23	-29 28.6	1.768	2.683	11.0	19.3
5 1	15 27.97	-21 13.4	3.479	4.462	3.2	20.7	5 1	15 33.68	-29 55.4	1.727	2.695	7.5	19.1
5 11	15 21.63	-20 49.5	3.444	4.452	0.8	20.5	5 11	15 22.70	-30 6.8	1.712	2.707	4.6	18.9
5 21	15 15.17	-20 23.0	3.438	4.442	2.0	20.6	5 21	15 11.49	-30 3.1	1.724	2.719	5.0	19.0
5 31	15 9.07	-19 55.8	3.463	4.431	4.4	20.7	5 31	15 1.31	-29 47.6	1.763	2.730	8.0	19.2
6 10	15 3.80	-19 30.1	3.514	4.420	6.7	20.9	6 10	14 53.18	-29 25.5	1.827	2.741	11.3	19.4
6 20	14 59.67	-19 7.8	3.591	4.409	8.7	21.0	6 20	14 47.71	-29 2.3	1.913	2.752	14.3	19.6
281596	2008 <i>UP</i> ₁₆₁		5 13.1	127°88	0.5/12.8	18	244662	2003 <i>HK</i> ₂₈		5 13.1	350°71	2.7/11.6	17
4 11	15 43.67	-19 4.2	1.921	2.789	12.4	20.6	4 11	15 43.14	-16 8.9	1.197	2.092	16.4	19.9
4 21	15 38.10	-18 34.1	1.852	2.793	8.9	20.4	4 21	15 38.59	-15 8.3	1.135	2.089	11.8	19.6
5 1	15 30.64	-17 56.6	1.808	2.796	5.0	20.1	5 1	15 31.26	-13 58.6	1.095	2.087	6.7	19.3
5 11	15 22.10	-17 14.4	1.791	2.800	0.9	19.8	5 11	15 22.29	-12 46.4	1.077	2.085	2.7	19.0
5 21	15 13.44	-16 31.2	1.801	2.803	3.5	20.1	5 21	15 13.06	-11 39.5	1.084	2.083	6.1	19.2
5 31	15 5.62	-15 51.4	1.838	2.807	7.6	20.3	5 31	15 5.05	-10 45.7	1.114	2.082	11.3	19.5
6 10	14 59.43	-15 19.0	1.900	2.810	11.2	20.5	6 10	14 59.39	-10 10.6	1.164	2.082	16.0	19.8
6 20	14 55.37	-14 56.8	1.984	2.813	14.3	20.7	6 20	14 56.70	- 9 56.1	1.232	2.082	20.0	20.0
347309	2011 <i>QQ</i> ₁₀		5 13.1	137°26	3.8/15.8	18	300840	2007 <i>XT</i> ₄₂		5 13.1	81°12	2.7/15.1	18
4 11	15 44.50	-31 1.2	2.264	3.092	12.2	20.7	4 11	15 43.13	-28 21.1	2.125	2.968	12.4	20.6
4 21	15 38.66	-31 9.4	2.188	3.095	9.5	20.5	4 21	15 37.71	-28 4.9	2.050	2.970	9.4	20.4
5 1	15 30.96	-31 3.9	2.135	3.098	6.6	20.3	5 1	15 30.44	-27 35.2	1.999	2.973	6.1	20.2
5 11	15 22.16	-30 44.3	2.109	3.101	4.2	20.2	5 11	15 22.13	-26 52.8	1.974	2.975	3.1	20.1
5 21	15 13.19	-30 12.1	2.110	3.104	4.3	20.2	5 21	15 13.68	-26 0.5	1.976	2.977	3.6	20.1
5 31	15 4.98	-29 30.7	2.138	3.106	6.7	20.3	5 31	15 6.03	-25 2.7	2.006	2.979	6.7	20.3
6 10	14 58.35	-28 45.1	2.193	3.109	9.6	20.5	6 10	14 59.98	-24 5.1	2.062	2.982	10.0	20.5
6 20	14 53.80	-28 0.2	2.270	3.111	12.3	20.7	6 20	14 56.00	-23 12.3	2.141	2.984	12.9	20.7
25893	Sugihara		5 13.1	253°63	8.0/ 7.3	18	165295	2000 <i>TR</i> ₁₅		5 13.1	97°69	0.2/12.9	18
4 11	15 43.02	+ 8 22.5	2.495	3.329	11.1	18.2	4 11	15 47.83	-19 43.3	1.514	2.386	14.9	20.3
4 21	15 37.25	+ 8 58.9	2.430	3.321	9.4	18.1	4 21	15 41.37	-19 16.0	1.461	2.402	10.7	20.1
5 1	15 30.04	+ 9 22.6	2.389	3.312	8.3	18.0	5 1	15 32.56	-18 39.5	1.430	2.418	6.0	19.9
5 11	15 22.00	+ 9 29.4	2.374	3.303	8.1	17.9	5 11	15 22.49	-17 57.0	1.425	2.434	1.0	19.6
5 21	15 13.84	+ 9 17.0	2.385	3.295	9.1	18.0	5 21	15 12.42	-17 12.8	1.446	2.449	4.0	19.8
5 31	15 6.26	+ 8 44.6	2.421	3.286	10.8	18.1	5 31	15 3.57	-16 32.6	1.493	2.465	8.7	20.1
6 10	14 59.88	+ 7 53.7	2.479	3.277	12.6	18.2	6 10	14 56.88	-16 1.0	1.564	2.479	12.8	20.4
6 20	14 55.14	+ 6 46.9	2.557	3.268	14.4	18.3	6 20	14 52.84	-15 41.1	1.656	2.494	16.3	20.7
294246	2007 <i>UR</i> ₅₂		5 13.1	281°85	3.4/11.2	17	441980	2010 <i>NT</i> ₂₃		5 13.1	341°42	7.6/ 6.6	18
4 11	15 44.20	- 9 0.9	2.030	2.902	11.7	20.4	4 11	15 37.63	- 3 7.2	1.715	2.601	12.7	19.7
4 21	15 38.51	- 8 47.4	1.948	2.888	8.6	20.1	4 21	15 33.93	- 1 14.1	1.651	2.589	10.0	19.5
5 1	15 30.94	- 8 35.8	1.890	2.873	5.4	19.9	5 1	15 28.40	+ 0 35.4	1.611	2.579	7.9	19.4
5 11	15 22.19	- 8 29.1	1.858	2.859	3.4	19.8	5 11	15 21.79	+ 2 12.7	1.597	2.569	7.8	19.3
5 21	15 13.13	- 8 29.9	1.855	2.845	5.3	19.8	5 21	15 14.98	+ 3 30.2	1.608	2.559	9.7	19.4
5 31	15 4.69	- 8 40.2	1.878	2.830	8.7	20.0	5 31	15 8.92	+ 4 22.6	1.642	2.551	12.6	19.6
6 10	14 57.71	- 9 1.3	1.926	2.816	12.0	20.2	6 10	15 4.38	+ 4 48.3	1.697	2.543	15.5	19.7
6 20	14 52.74	- 9 33.2	1.995	2.802	15.0	20.4	6 20	15 1.87	+ 4 48.4	1.769	2.537	18.1	19.9
278813	2008 <i>SV</i> ₂₅₃		5 13.1	258°51	1.4/12.3	18	371156	2005 <i>XU</i> ₇₄		5 13			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
278346	2007 <i>JK</i> ₄		5 13.1 312 ^o 73	0 ^o 2/13.0 17			104735	2000 <i>HZ</i> ₂		5 13.1 2 ^o 93	2 ^o 4/11.2 17		
4 11	15 47.24	-16 21.7	1.565	2.441	14.3	20.1	4 11	15 40.92	-15 5.5	1.903	2.781	12.1	19.8
4 21	15 41.42	-16 53.0	1.479	2.423	10.5	19.8	4 21	15 36.13	-13 58.2	1.835	2.781	8.6	19.6
5 1	15 32.94	-17 22.7	1.416	2.405	6.0	19.5	5 1	15 29.56	-12 45.5	1.792	2.781	5.0	19.4
5 11	15 22.63	-17 50.9	1.378	2.388	1.0	19.1	5 11	15 21.99	-11 32.1	1.776	2.781	2.5	19.2
5 21	15 11.68	-18 17.9	1.367	2.371	4.1	19.3	5 21	15 14.32	-10 23.6	1.787	2.782	4.8	19.4
5 31	15 1.46	-18 45.1	1.381	2.354	9.1	19.6	5 31	15 7.43	-9 25.2	1.825	2.782	8.5	19.6
6 10	14 53.19	-19 14.7	1.420	2.338	13.6	19.8	6 10	15 2.08	-8 40.9	1.887	2.783	11.9	19.8
6 20	14 47.69	-19 48.6	1.478	2.323	17.5	20.0	6 20	14 58.72	-8 12.3	1.969	2.784	14.9	20.0
106024	2000 <i>SC</i> ₂₉₇		5 13.1 125 ^o 28	2 ^o 4/15.0 18			20659	1999 <i>UE</i>		5 13.1 276 ^o 70	0 ^o 4/13.3 18		
4 11	15 43.33	-27 55.3	2.517	3.353	10.9	20.1	4 11	15 42.19	-20 43.6	2.380	3.239	10.7	19.0
4 21	15 37.58	-27 47.7	2.445	3.362	8.2	19.9	4 21	15 36.96	-20 29.5	2.286	3.221	7.8	18.8
5 1	15 30.27	-27 29.1	2.398	3.371	5.3	19.8	5 1	15 30.06	-20 8.4	2.217	3.202	4.5	18.5
5 11	15 22.10	-27 0.1	2.379	3.379	2.8	19.6	5 11	15 22.10	-19 41.6	2.175	3.184	0.9	18.3
5 21	15 13.84	-26 22.8	2.388	3.388	3.2	19.7	5 21	15 13.86	-19 11.3	2.162	3.165	2.9	18.4
5 31	15 6.29	-25 40.4	2.426	3.396	5.9	19.8	5 31	15 6.15	-18 40.6	2.177	3.147	6.5	18.6
6 10	15 0.10	-24 57.3	2.490	3.404	8.7	20.0	6 10	14 59.72	-18 13.1	2.217	3.128	9.8	18.7
6 20	14 55.71	-24 17.0	2.577	3.412	11.2	20.2	6 20	14 55.08	-17 51.7	2.281	3.109	12.7	18.9
214961	2007 <i>XD</i> ₅₃		5 13.1 48 ^o 88	4 ^o 8/ 9.9 18			136730	1995 <i>UE</i> ₅₉		5 13.1 269 ^o 71	1 ^o 3/12.4 18		
4 11	15 41.71	-5 26.1	2.066	2.940	11.4	20.0	4 11	15 46.48	-16 23.1	1.680	2.553	13.6	20.8
4 21	15 36.50	-4 47.4	2.008	2.945	8.6	19.8	4 21	15 40.67	-16 4.4	1.590	2.533	9.9	20.6
5 1	15 29.69	-4 13.0	1.975	2.952	5.9	19.7	5 1	15 32.42	-15 39.9	1.523	2.512	5.6	20.3
5 11	15 22.00	-3 47.1	1.969	2.958	4.8	19.6	5 11	15 22.55	-15 12.1	1.482	2.491	1.5	19.9
5 21	15 14.23	-3 32.7	1.989	2.964	6.4	19.7	5 21	15 12.16	-14 44.5	1.468	2.469	4.4	20.1
5 31	15 7.19	-3 32.0	2.035	2.971	9.1	19.9	5 31	15 2.48	-14 21.3	1.480	2.447	9.2	20.3
6 10	15 1.57	-3 45.6	2.105	2.977	11.9	20.1	6 10	14 54.62	-14 6.8	1.516	2.425	13.5	20.5
6 20	14 57.78	-4 12.7	2.195	2.984	14.4	20.3	6 20	14 49.31	-14 3.6	1.572	2.402	17.3	20.7
492310	2014 <i>BR</i> ₇		5 13.1 13 ^o 32	0 ^o 6/13.5 17			11590	1994 <i>WH</i> ₃		5 13.1 235 ^o 15	0 ^o 7/12.5 18		
4 11	15 43.33	-21 1.7	1.966	2.831	12.3	21.6	4 11	15 41.67	-17 15.3	2.700	3.560	9.5	18.5
4 21	15 37.93	-20 53.7	1.894	2.831	9.0	21.4	4 21	15 36.34	-16 54.7	2.613	3.550	6.8	18.3
5 1	15 30.61	-20 37.7	1.846	2.832	5.2	21.1	5 1	15 29.60	-16 29.8	2.552	3.539	3.8	18.1
5 11	15 22.18	-20 15.3	1.824	2.833	1.2	20.8	5 11	15 22.02	-16 2.4	2.519	3.528	0.9	17.9
5 21	15 13.55	-19 49.0	1.830	2.834	3.2	21.0	5 21	15 14.25	-15 34.9	2.516	3.517	2.9	18.0
5 31	15 5.70	-19 22.4	1.862	2.835	7.2	21.2	5 31	15 6.98	-15 9.7	2.541	3.505	6.0	18.2
6 10	14 59.46	-18 59.3	1.920	2.836	10.8	21.5	6 10	15 0.82	-14 49.7	2.593	3.493	8.9	18.4
6 20	14 55.33	-18 42.8	1.999	2.837	13.9	21.7	6 20	14 56.22	-14 36.5	2.667	3.480	11.5	18.5
38584	1999 <i>XH</i> ₄₇		5 13.1 236 ^o 27	0 ^o 2/12.9 18			418282	2008 <i>EQ</i> ₁₂₀		5 13.1 286 ^o 05	3 ^o 1/14.4 17		
4 11	15 42.61	-18 1.4	2.501	3.361	10.2	18.8	4 11	15 47.18	-25 28.1	1.594	2.453	15.0	20.7
4 21	15 37.09	-17 59.6	2.421	3.358	7.3	18.6	4 21	15 41.42	-25 51.4	1.510	2.440	11.4	20.4
5 1	15 30.04	-17 53.6	2.366	3.354	4.1	18.4	5 1	15 32.93	-26 2.9	1.447	2.427	7.2	20.2
5 11	15 22.08	-17 44.7	2.340	3.349	0.7	18.1	5 11	15 22.64	-26 1.3	1.410	2.414	3.5	19.9
5 21	15 13.92	-17 34.5	2.342	3.345	2.8	18.3	5 21	15 11.80	-25 47.3	1.399	2.400	4.5	19.9
5 31	15 6.33	-17 25.3	2.373	3.341	6.2	18.5	5 31	15 1.80	-25 24.6	1.413	2.387	8.8	20.1
6 10	14 59.97	-17 19.5	2.430	3.336	9.2	18.7	6 10	14 53.90	-24 58.9	1.450	2.374	13.0	20.3
6 20	14 55.30	-17 18.8	2.510	3.332	11.9	18.8	6 20	14 48.85	-24 35.8	1.508	2.361	16.8	20.6
506035	2015 <i>KA</i> ₂₈		5 13.1 120 ^o 58	1 ^o 4/14.1 17			111512	2001 <i>YS</i> ₈₅		5 13.1 185 ^o 28	3 ^o 9/10.4 18		
4 11	15 43.19	-24 36.8	2.053	2.908	12.3	21.5	4 11	15 42.53	-6 1.6	2.495	3.360	10.0	20.0
4 21	15 37.76	-24 13.0	1.980	2.910	9.1	21.3	4 21	15 36.92	-5 37.5	2.426	3.360	7.5	19.8
5 1	15 30.48	-23 37.9	1.930	2.913	5.4	21.1	5 1	15 29.89	-5 16.8	2.383	3.360	5.0	19.6
5 11	15 22.15	-22 53.1	1.908	2.915	1.9	20.9	5 11	15 22.06	-5 2.4	2.367	3.359	3.9	19.6
5 21	15 13.69	-22 1.9	1.913	2.917	3.1	20.9	5 21	15 14.11	-4 56.7	2.380	3.358	5.3	19.6
5 31	15 6.03	-21 8.9	1.946	2.919	6.8	21.2	5 31	15 6.75	-5 1.2	2.421	3.357	7.8	19.8
6 10	14 59.96	-20 19.0	2.004	2.921	10.3	21.4	6 10	15 0.57	-5 16.8	2.486	3.356	10.4	20.0
6 20	14 55.96	-19 36.4	2.084	2.923	13.4	21.6	6 20	14 56.01	-5 43.0	2.574	3.355	12.7	20.1
50044	2000 <i>AW</i> ₆₀		5 13.1 287 ^o 59	5 ^o 5/10.3 18			251882	1999 <i>VU</i> ₇₃		5 13.1 298 ^o 24	1 ^o 6/12.3 17		
4 11	15 44.84	-6 52.6	1.545	2.426	14.1	18.1	4 11	15 44.44	-16 58.5	1.398	2.282	15.2	21.2
4 21	15 39.45	-6 11.2	1.468	2.411	10.6	17.8	4 21	15 39.64	-16 25.9	1.307	2.256	11.1	20.8
5 1	15 31.68	-5 32.7	1.415	2.396	7.1	17.6	5 1	15 32.04	-15 44.4	1.238	2.229	6.3	20.5
5 11	15 22.39	-5 2.9	1.386	2.381	5.5	17.4	5 11	15 22.51	-14 57.4	1.193	2.202	1.8	20.1
5 21	15 12.70	-4 46.5	1.382	2.366	7.6	17.5	5 21	15 12.29	-14 10.1	1.173	2.175	5.2	20.3
5 31	15 3.83	-4 47.2	1.404	2.350	11.5	17.7	5 31	15 2.84	-13 28.8	1.178	2.148	10.6	20.5
6 10	14 56.83	-5 6.4	1.447	2.335	15.3	17.9	6 10	14 55.46	-12 59.6	1.204	2.122	15.6	20.7
6 20	14 52.36	-5 43.3	1.508	2.320	18.8	18.1	6 20	14 51.00	-12 46.2	1.249	2.096	20.0	20.9
237099	2008 <i>TM</i> ₅₆		5 13.1 122 ^o 84	0 ^o 8/13.5 18			21484	Eppard		5 13.1 139 ^o 91	2 ^o 0/12.2 18		
4 11	15 45.05	-21 21.7	1.939	2.801	12.6	20.8	4 11	15 48.16	-13 52.2	1.602	2.477	14.1	18.7
4 21	15 39.17	-21 17.0	1.869	2.805	9.2	20.6	4 21	15 41.64	-13 41.1	1.539	2.482	10.2	18.5
5 1	15 31.31	-21 4.1	1.824	2.809	5.3	20.4	5 1	15 32.80	-13 27.8	1.499	2.487	5.8	18.2
5 11	15 22.30	-20 44.3	1.804	2.813	1.3	20.1	5 11	15 22.60	-13 14.9	1.485	2.492	2.1	18.0
5 21	15 13.12	-20 19.9	1.813	2.817	3.2	20.3	5 21	15 12.21	-13 5.4	1.498	2.497	4.8	18.2
5 31	15 4.78	-19 54.5	1.848	2.820	7.2	20.5	5 31	15 2.85	-13 2.5	1.537	2.501	9.1	18.4
6 10	14 58.11	-19 32.2	1.909	2.824	10.9	20.7	6 10	14 55.48	-13 8.6	1.600	2.505	13.1	18.7
6 20	14 53.64	-19 16.1	1.992	2.827	14.0	21.0	6 20	14 50.69	-13 25.0	1.682	2.509	16.5	1

EPHEMERIDES

5 13.1

5 13.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
64995	2002 AV ₅₇		5 13.1 172°49		2°0/11.9 18		393949	2005 UA ₂₀₃		5 13.1 277°36		1°9/11.3 17	
4 11	15 44.03	-14 47.2	1.811	2.687	12.7	19.7	4 11	15 41.01	-17 3.8	2.325	3.193	10.6	20.4
4 21	15 38.48	-14 13.3	1.743	2.687	9.1	19.5	4 21	15 36.01	-15 38.3	2.238	3.180	7.6	20.2
5 1	15 30.95	-13 35.4	1.699	2.688	5.2	19.2	5 1	15 29.46	-14 4.6	2.178	3.166	4.3	20.0
5 11	15 22.27	-12 57.0	1.681	2.688	2.1	19.0	5 11	15 22.03	-12 27.3	2.147	3.153	1.9	19.8
5 21	15 13.43	-12 22.1	1.690	2.688	4.5	19.2	5 21	15 14.44	-10 51.9	2.145	3.140	4.1	19.9
5 31	15 5.42	-11 54.6	1.726	2.688	8.5	19.4	5 31	15 7.47	-9 24.2	2.172	3.126	7.5	20.1
6 10	14 59.10	-11 37.8	1.786	2.688	12.2	19.6	6 10	15 1.78	-8 9.0	2.225	3.113	10.8	20.3
6 20	14 54.98	-11 33.2	1.866	2.688	15.3	19.8	6 20	14 57.82	-7 9.2	2.301	3.099	13.5	20.4
384463	2010 BM ₅₇		5 13.1 99°71		0°1/12.9 17		230975	Rogerfederer		5 13.1 67°43		4°9/10.4 18	
4 11	15 42.40	-20 59.1	2.011	2.876	12.1	20.7	4 11	15 44.19	-6 8.4	1.812	2.687	12.7	19.9
4 21	15 37.16	-20 12.3	1.940	2.879	8.7	20.5	4 21	15 38.50	-5 36.4	1.753	2.692	9.5	19.7
5 1	15 30.14	-19 16.0	1.894	2.882	4.9	20.3	5 1	15 30.93	-5 8.9	1.718	2.697	6.4	19.5
5 11	15 22.12	-18 13.3	1.875	2.884	0.8	20.0	5 11	15 22.29	-4 50.0	1.709	2.702	4.9	19.4
5 21	15 14.01	-17 8.7	1.884	2.887	3.3	20.2	5 21	15 13.54	-4 43.1	1.727	2.707	6.7	19.6
5 31	15 6.71	-16 7.4	1.920	2.890	7.2	20.5	5 31	15 5.64	-4 50.3	1.770	2.712	9.8	19.7
6 10	15 0.95	-15 14.0	1.982	2.892	10.8	20.7	6 10	14 59.38	-5 12.0	1.836	2.717	13.0	20.0
6 20	14 57.22	-14 31.9	2.066	2.895	13.8	20.9	6 20	14 55.26	-5 47.3	1.923	2.723	15.8	20.2
232353	2002 WR ₂		5 13.1 203°19		4°3/10.4 18		254973	2005 SZ ₂₄₆		5 13.1 211°42		1°4/11.9 17	
4 11	15 43.72	-5 42.1	2.249	3.116	10.9	20.4	4 11	15 40.66	-16 27.8	2.352	3.221	10.4	21.3
4 21	15 37.91	-5 18.2	2.179	3.114	8.2	20.2	4 21	15 35.71	-15 42.7	2.279	3.220	7.5	21.1
5 1	15 30.52	-4 58.3	2.135	3.112	5.5	20.1	5 1	15 29.27	-14 52.6	2.231	3.220	4.2	20.9
5 11	15 22.20	-4 45.6	2.118	3.109	4.3	20.0	5 11	15 22.00	-14 0.8	2.211	3.219	1.4	20.7
5 21	15 13.72	-4 42.7	2.129	3.107	5.8	20.1	5 21	15 14.61	-13 10.7	2.220	3.218	3.5	20.8
5 31	15 5.89	-4 51.3	2.166	3.104	8.5	20.2	5 31	15 7.86	-12 26.2	2.256	3.217	6.9	21.0
6 10	14 59.40	-5 12.1	2.229	3.101	11.3	20.4	6 10	15 2.38	-11 50.5	2.318	3.217	9.9	21.2
6 20	14 54.70	-5 44.4	2.313	3.098	13.8	20.6	6 20	14 58.59	-11 25.5	2.402	3.216	12.6	21.4
97326	1999 XN ₂₄₁		5 13.1 164°90		4°5/10.5 18		115697	2003 UK ₁₆₂		5 13.1 221°57		0°8/13.5 18	
4 11	15 45.08	-5 12.6	2.173	3.038	11.3	19.5	4 11	15 48.80	-20 24.9	1.757	2.619	13.7	19.8
4 21	15 38.89	-4 49.2	2.108	3.041	8.5	19.3	4 21	15 42.22	-20 32.6	1.677	2.613	10.0	19.6
5 1	15 31.06	-4 30.4	2.068	3.044	5.8	19.2	5 1	15 33.24	-20 32.9	1.620	2.605	5.8	19.3
5 11	15 22.29	-4 19.6	2.056	3.046	4.5	19.1	5 11	15 22.73	-20 26.1	1.589	2.598	1.4	19.0
5 21	15 13.40	-4 19.1	2.071	3.049	6.0	19.2	5 21	15 11.82	-20 14.1	1.586	2.590	3.7	19.1
5 31	15 5.22	-4 30.7	2.114	3.050	8.8	19.3	5 31	15 1.76	-20 0.1	1.610	2.581	8.2	19.4
6 10	14 58.46	-4 54.7	2.181	3.052	11.6	19.5	6 10	14 53.59	-19 48.3	1.658	2.572	12.3	19.6
6 20	14 53.58	-5 30.4	2.270	3.053	14.1	19.7	6 20	14 47.97	-19 42.2	1.728	2.563	15.8	19.8
177821	2005 NL ₃		5 13.1 115°05		7°1/ 7.2 18		37277	2000 YJ		5 13.1 259°81		12°5/16.5 18	
4 11	15 41.55	+ 5 6.3	2.574	3.419	10.4	20.2	4 11	15 59.51	-43 39.6	1.625	2.398	18.6	18.7
4 21	15 36.07	+ 6 3.2	2.531	3.434	8.6	20.1	4 21	15 51.66	-45 48.5	1.544	2.388	16.3	18.5
5 1	15 29.34	+ 6 49.6	2.513	3.448	7.3	20.0	5 1	15 39.49	-47 36.5	1.484	2.379	14.2	18.3
5 11	15 21.98	+ 7 21.5	2.522	3.462	7.2	20.0	5 11	15 23.95	-48 52.9	1.446	2.369	12.7	18.2
5 21	15 14.62	+ 7 36.3	2.556	3.475	8.2	20.1	5 21	15 6.89	-49 30.4	1.431	2.359	12.6	18.2
5 31	15 7.90	+ 7 33.0	2.617	3.488	9.8	20.2	5 31	14 50.73	-49 28.7	1.440	2.349	14.0	18.2
6 10	15 2.35	+ 7 12.2	2.699	3.501	11.6	20.4	6 10	14 37.69	-48 55.9	1.469	2.339	16.2	18.4
6 20	14 58.31	+ 6 36.1	2.802	3.513	13.3	20.5	6 20	14 29.07	-48 4.1	1.517	2.329	18.7	18.5
225887	2001 YP ₁₀₈		5 13.1 208°00		1°5/13.8 18		391103	2005 UA ₄₃₆		5 13.1 245°81		3°0/14.8 17	
4 11	15 47.71	-22 6.9	1.854	2.712	13.3	20.1	4 11	15 45.73	-27 8.5	2.412	3.248	11.3	20.9
4 21	15 41.31	-22 25.1	1.777	2.710	9.8	19.9	4 21	15 39.58	-27 39.3	2.328	3.244	8.6	20.7
5 1	15 32.65	-22 35.3	1.724	2.708	5.8	19.6	5 1	15 31.58	-28 0.8	2.268	3.239	5.7	20.5
5 11	15 22.60	-22 37.3	1.698	2.705	2.0	19.3	5 11	15 22.42	-28 12.2	2.236	3.234	3.3	20.3
5 21	15 12.22	-22 32.3	1.699	2.703	3.5	19.4	5 21	15 12.96	-28 13.6	2.232	3.229	3.7	20.3
5 31	15 2.66	-22 23.0	1.728	2.700	7.6	19.7	5 31	15 4.10	-28 7.0	2.257	3.225	6.4	20.5
6 10	14 54.92	-22 13.6	1.781	2.697	11.5	19.9	6 10	14 56.65	-27 55.7	2.308	3.220	9.4	20.7
6 20	14 49.60	-22 7.6	1.856	2.694	14.8	20.1	6 20	14 51.16	-27 43.4	2.382	3.215	12.1	20.8
437045	2012 UV		5 13.1 234°70		2°8/14.7 18		24022	1999 RA ₁₄₄		5 13.1 295°08		1°4/11.3 18	
4 11	15 47.22	-26 42.0	2.306	3.143	11.7	21.4	4 11	15 34.53	-12 44.3	4.303	5.167	6.2	19.3
4 21	15 40.75	-27 5.9	2.215	3.132	8.9	21.2	4 21	15 30.82	-12 14.6	4.221	5.160	4.4	19.2
5 1	15 32.29	-27 20.1	2.148	3.121	5.8	21.0	5 1	15 26.37	-11 43.9	4.168	5.153	2.6	19.0
5 11	15 22.54	-27 23.7	2.109	3.109	3.2	20.8	5 11	15 21.49	-11 13.9	4.143	5.147	1.4	18.9
5 21	15 12.42	-27 17.2	2.099	3.097	3.7	20.8	5 21	15 16.54	-10 46.2	4.148	5.140	2.5	19.0
5 31	15 2.90	-27 2.8	2.116	3.085	6.8	21.0	5 31	15 11.87	-10 22.3	4.182	5.134	4.3	19.1
6 10	14 54.87	-26 44.3	2.160	3.072	10.0	21.2	6 10	15 7.83	-10 3.7	4.243	5.127	6.1	19.3
6 20	14 48.93	-26 25.7	2.227	3.058	12.9	21.3	6 20	15 4.65	-9 51.1	4.329	5.121	7.8	19.4
303786	2005 RP ₃₄		5 13.1 175°25		1°5/11.8 17		125814	2001 XQ ₁₆₄		5 13.1 125°24		1°1/13.8 17	
4 11	15 40.98	-16 10.2	2.326	3.195	10.5	21.2	4 11	15 45.98	-23 4.2	1.950	2.807	12.8	20.4
4 21	15 35.93	-15 21.9	2.254	3.195	7.5	21.0	4 21	15 39.78	-22 45.5	1.885	2.818	9.3	20.2
5 1	15 29.39	-14 28.8	2.207	3.196	4.2	20.8	5 1	15 31.64	-22 16.5	1.844	2.828	5.5	20.0
5 11	15 22.01	-13 34.1	2.188	3.196	1.5	20.6	5 11	15 22.42	-21 39.1	1.830	2.838	1.6	19.8
5 21	15 14.52	-12 41.5	2.198	3.196	3.7	20.8	5 21	15 13.13	-20 56.4	1.844	2.848	3.2	19.9
5 31	15 7.69	-11 55.1	2.236	3.196	7.0	21.0	5 31	15 4.75	-20 12.7	1.886	2.858	7.1	20.2
6 10	15 2.14	-11 18.1	2.299	3.196	10.1	21.2	6 10	14 58.10	-19 32.9	1.952	2.867	10.7	20.4
6 20	14 58.30	-10 52.2	2.385	3.196	12.7	21.4	6 20	14 53.66	-19 0.7	2.041	2.875	13.8	20.6
243409	2009 BF ₈₂		5 13.1 301°99		6°0/ 9.9 18		218599	2005 NG ₁₀		5 13.1 332°14		1°1/12.6 17	
4 11	15 44.27	-2 25.4	1.878	2.748	12.6								

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
18290	Sumiyoshi		5 13.1 356°39	5°7/15.5	18		179439	2002 AU ₉₅		5 13.1 128°64	3°2/15.9	17	
4 11	15 47.06	-29 53.8	1.269	2.130	17.9	16.9	4 11	15 44.34	-31 10.5	2.761	3.579	10.6	21.4
4 21	15 41.82	-30 32.1	1.202	2.128	14.0	16.6	4 21	15 38.25	-31 9.6	2.690	3.592	8.2	21.3
5 1	15 33.34	-30 51.6	1.155	2.127	9.7	16.4	5 1	15 30.67	-30 56.7	2.644	3.605	5.6	21.1
5 11	15 22.78	-30 49.6	1.130	2.126	6.2	16.2	5 11	15 22.27	-30 32.2	2.626	3.618	3.6	21.0
5 21	15 11.74	-30 26.6	1.128	2.125	6.5	16.2	5 21	15 13.82	-29 57.4	2.636	3.630	3.6	21.0
5 31	15 1.97	-29 47.6	1.150	2.125	10.2	16.4	5 31	15 6.05	-29 15.4	2.675	3.641	5.7	21.2
6 10	14 54.88	-29 1.4	1.194	2.126	14.5	16.6	6 10	14 59.60	-28 30.4	2.742	3.653	8.1	21.4
6 20	14 51.24	-28 16.5	1.256	2.127	18.4	16.9	6 20	14 54.89	-27 46.1	2.832	3.663	10.4	21.5
422667	1999 TB ₂₈₉		5 13.1 275°84	1°6/12.3	18		247891	2003 UB ₂₂₂		5 13.1 206°44	2°7/11.4	17	
4 11	15 47.09	-16 22.7	1.718	2.589	13.5	21.6	4 11	15 46.65	-12 35.3	2.032	2.898	11.9	22.2
4 21	15 41.21	-15 53.0	1.617	2.559	9.9	21.3	4 21	15 40.26	-11 54.6	1.953	2.892	8.6	21.9
5 1	15 32.82	-15 16.1	1.539	2.528	5.7	21.0	5 1	15 31.96	-11 11.3	1.900	2.886	5.1	21.7
5 11	15 22.70	-14 35.0	1.488	2.496	1.7	20.7	5 11	15 22.53	-10 29.0	1.874	2.878	2.7	21.5
5 21	15 11.92	-13 53.5	1.463	2.464	4.7	20.8	5 21	15 12.86	-9 51.6	1.877	2.870	4.9	21.7
5 31	15 1.74	-13 16.9	1.466	2.431	9.5	21.0	5 31	15 3.93	-9 22.9	1.907	2.860	8.5	21.9
6 10	14 53.32	-12 49.9	1.492	2.397	14.0	21.2	6 10	14 56.55	-9 5.7	1.963	2.850	12.0	22.1
6 20	14 47.43	-12 36.1	1.538	2.363	17.9	21.3	6 20	14 51.26	-9 1.5	2.040	2.840	15.0	22.2
413806	2006 JH ₄₉		5 13.1 262°61	0°8/12.8	17		410188	2007 RY ₁₀₆		5 13.1 244°42	1°7/13.9	17	
4 11	15 48.52	-16 27.4	1.550	2.424	14.5	21.6	4 11	15 48.79	-23 38.1	1.737	2.593	14.1	21.8
4 21	15 42.32	-16 30.5	1.467	2.410	10.6	21.3	4 21	15 42.39	-23 34.9	1.646	2.578	10.5	21.5
5 1	15 33.44	-16 29.4	1.407	2.396	6.0	21.0	5 1	15 33.45	-23 20.1	1.578	2.561	6.4	21.2
5 11	15 22.80	-16 25.4	1.372	2.382	1.2	20.6	5 11	15 22.82	-22 54.0	1.537	2.544	2.2	20.9
5 21	15 11.62	-16 20.9	1.364	2.367	4.4	20.8	5 21	15 11.68	-22 18.7	1.522	2.526	3.8	21.0
5 31	15 1.26	-16 18.9	1.382	2.352	9.4	21.1	5 31	15 1.33	-21 38.7	1.535	2.508	8.4	21.2
6 10	14 52.94	-16 23.2	1.423	2.337	13.9	21.3	6 10	14 52.92	-21 0.0	1.572	2.488	12.7	21.4
6 20	14 47.41	-16 36.1	1.484	2.321	17.8	21.5	6 20	14 47.17	-20 27.7	1.630	2.469	16.5	21.6
110261	2001 SD ₂₄₆		5 13.1 163°10	0°1/13.2	17		72339	2001 BW ₆₃		5 13.1 164°37	4°1/15.4	18	
4 11	15 46.14	-20 4.5	2.172	3.029	11.6	21.2	4 11	15 48.64	-29 44.2	1.701	2.543	15.0	19.4
4 21	15 39.76	-19 45.7	2.101	3.035	8.4	21.0	4 21	15 42.20	-29 52.7	1.628	2.546	11.6	19.2
5 1	15 31.60	-19 19.8	2.054	3.040	4.8	20.8	5 1	15 33.24	-29 44.6	1.578	2.548	7.8	19.0
5 11	15 22.43	-18 48.5	2.035	3.045	0.9	20.5	5 11	15 22.76	-29 19.1	1.553	2.550	4.6	18.8
5 21	15 13.14	-18 14.5	2.045	3.049	3.1	20.7	5 21	15 12.02	-28 38.1	1.554	2.552	4.9	18.8
5 31	15 4.62	-17 41.6	2.084	3.052	6.8	20.9	5 31	15 2.35	-27 46.8	1.582	2.553	8.3	19.0
6 10	14 57.64	-17 13.3	2.148	3.055	10.2	21.1	6 10	14 54.81	-26 52.1	1.634	2.555	12.0	19.2
6 20	14 52.67	-16 52.5	2.235	3.057	13.1	21.3	6 20	14 50.02	-26 0.7	1.707	2.555	15.4	19.4
506936	2008 GL ₃₃		5 13.1 94°77	0°1/13.1	17		161378	2003 ST ₂₉₃		5 13.1 321°48	2°4/14.4	17	
4 11	15 42.48	-19 44.2	2.401	3.261	10.6	22.1	4 11	15 44.33	-25 18.2	1.742	2.602	13.9	20.0
4 21	15 36.96	-19 28.1	2.338	3.274	7.6	22.0	4 21	15 39.04	-25 21.4	1.665	2.596	10.4	19.7
5 1	15 29.95	-19 6.1	2.299	3.286	4.3	21.8	5 1	15 31.45	-25 12.3	1.609	2.590	6.5	19.5
5 11	15 22.13	-18 39.9	2.289	3.298	0.8	21.5	5 11	15 22.45	-24 51.3	1.580	2.584	2.9	19.3
5 21	15 14.26	-18 12.0	2.307	3.310	2.8	21.7	5 21	15 13.13	-24 20.5	1.576	2.579	3.9	19.3
5 31	15 7.08	-17 45.4	2.354	3.322	6.1	21.9	5 31	15 4.66	-23 44.2	1.599	2.574	7.8	19.5
6 10	15 1.22	-17 22.9	2.426	3.334	9.1	22.2	6 10	14 58.06	-23 7.8	1.646	2.569	11.8	19.7
6 20	14 57.09	-17 6.8	2.521	3.346	11.7	22.3	6 20	14 53.93	-22 36.4	1.713	2.565	15.2	20.0
200326	2000 GZ ₃₄		5 13.1 10°41	3°1/14.2	18		73370	2002 KJ ₁₂		5 13.1 271°10	6°4/9.1	18	
4 11	15 47.87	-23 59.2	1.177	2.055	17.8	19.9	4 11	15 44.30	-1 28.2	2.037	2.901	12.0	19.4
4 21	15 42.39	-24 29.1	1.115	2.056	13.4	19.7	4 21	15 38.63	-0 45.4	1.954	2.882	9.4	19.2
5 1	15 33.64	-24 45.8	1.073	2.057	8.3	19.4	5 1	15 31.09	-0 9.3	1.896	2.861	7.1	19.0
5 11	15 22.84	-24 48.3	1.053	2.059	3.6	19.1	5 11	15 22.38	+0 15.4	1.864	2.841	6.4	18.9
5 21	15 11.60	-24 37.7	1.057	2.061	5.0	19.2	5 21	15 13.35	+0 24.7	1.859	2.820	7.9	19.0
5 31	15 1.70	-24 18.8	1.084	2.063	10.1	19.5	5 31	15 4.91	+0 16.1	1.879	2.799	10.7	19.1
6 10	14 54.52	-23 58.6	1.133	2.066	15.0	19.8	6 10	14 57.89	-0 10.6	1.923	2.778	13.6	19.2
6 20	14 50.81	-23 43.1	1.200	2.070	19.2	20.0	6 20	14 52.85	-0 54.1	1.986	2.756	16.3	19.4
521056	2015 DJ ₂₃₇		5 13.1 216°06	1°6/13.9	17		501870	2014 WP ₂₉₆		5 13.1 190°05	3°9/10.6	17	
4 11	15 46.10	-23 0.5	1.889	2.747	13.1	21.8	4 11	15 45.65	-10 17.3	1.868	2.741	12.5	22.0
4 21	15 40.11	-23 7.0	1.813	2.745	9.6	21.6	4 21	15 39.59	-9 21.4	1.799	2.740	9.1	21.8
5 1	15 31.97	-23 4.2	1.760	2.743	5.8	21.4	5 1	15 31.58	-8 24.6	1.755	2.739	5.7	21.6
5 11	15 22.53	-22 52.4	1.734	2.741	2.0	21.1	5 11	15 22.46	-7 31.7	1.738	2.737	3.9	21.4
5 21	15 12.80	-22 33.6	1.735	2.739	3.5	21.2	5 21	15 13.17	-6 47.5	1.748	2.734	6.0	21.6
5 31	15 3.89	-22 11.2	1.763	2.736	7.4	21.5	5 31	15 4.71	-6 16.2	1.785	2.731	9.5	21.8
6 10	14 56.74	-21 49.4	1.817	2.734	11.2	21.7	6 10	14 57.89	-6 0.2	1.846	2.728	12.9	22.0
6 20	14 51.91	-21 32.2	1.891	2.731	14.5	21.9	6 20	14 53.24	-6 0.0	1.927	2.723	15.8	22.2
511345	2014 EZ ₄₂		5 13.1 61°20	5°8/8.9	18		16755	Cayley		5 13.1 188°05	0°9/12.5	18	
4 11	15 41.31	-2 36.7	2.126	2.996	11.3	21.2	4 11	15 45.79	-16 43.7	2.422	3.280	10.5	20.0
4 21	15 36.22	-1 43.3	2.068	2.999	8.7	21.1	4 21	15 39.39	-16 24.9	2.344	3.279	7.6	19.8
5 1	15 29.58	-0 56.0	2.035	3.002	6.5	20.9	5 1	15 31.38	-16 1.9	2.291	3.278	4.3	19.6
5 11	15 22.08	-0 19.4	2.028	3.006	5.9	20.9	5 11	15 22.43	-15 36.5	2.267	3.276	1.0	19.3
5 21	15 14.50	+0 3.0	2.048	3.010	7.3	21.0	5 21	15 13.31	-15 11.2	2.272	3.273	3.2	19.5
5 31	15 7.62	+0 9.0	2.093	3.013	9.7	21.1	5 31	15 4.83	-14 48.8	2.307	3.269	6.6	19.7
6 10	15 2.09	-0 1.9	2.162	3.017	12.3	21.3	6 10	14 57.68	-14 32.0	2.367	3.265	9.8	19.9
6 20	14 58.34	-0 28.4	2.251	3.020	14.6	21.5	6 20	14 52.34	-14 22.8	2.451	3.260	12.5	20.1
25344	1999 RN ₇₂		5 13.1 276°00	4°2/6.9	18		146764	2001 XX ₁₉₄		5 13.1 210°38	3°0/15.7	17	
4 11	15 34.14	+3 26.1	4.468	5.313									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
289940	2005 <i>NM</i> ₄₁	5 13.1 286°52		3°8/15.8 17			302864	2003 <i>GJ</i> ₅₄	5 13.1 125°04		4°0/15.8 18		
4 11	15 43.50	-31 0.2	2.146	2.978	12.7	20.4	4 11	15 45.28	-31 12.9	2.366	3.190	11.9	20.6
4 21	15 38.20	-30 56.6	2.055	2.966	9.9	20.2	4 21	15 39.25	-31 31.5	2.291	3.195	9.3	20.4
5 1	15 30.90	-30 38.0	1.988	2.953	6.8	20.0	5 1	15 31.40	-31 37.3	2.240	3.200	6.5	20.3
5 11	15 22.37	-30 4.0	1.946	2.940	4.2	19.8	5 11	15 22.46	-31 29.4	2.215	3.205	4.3	20.1
5 21	15 13.54	-29 16.5	1.932	2.928	4.3	19.7	5 21	15 13.34	-31 8.9	2.219	3.210	4.4	20.1
5 31	15 5.42	-28 19.4	1.944	2.915	7.0	19.9	5 31	15 4.95	-30 38.6	2.249	3.215	6.6	20.3
6 10	14 58.90	-27 18.7	1.983	2.903	10.3	20.1	6 10	14 58.07	-30 3.0	2.306	3.219	9.3	20.5
6 20	14 54.55	-26 19.8	2.044	2.890	13.3	20.2	6 20	14 53.23	-29 26.6	2.386	3.224	11.9	20.7
417764	2007 <i>DK</i> ₈₄	5 13.1 356°36		6°0/ 9.4 17			462849	2010 <i>UB</i> ₄₆	5 13.1 260°74		5°1/10.4 18		
4 11	15 40.66	- 8 0.5	1.398	2.291	14.6	20.4	4 11	15 45.85	- 7 30.1	1.634	2.512	13.7	21.2
4 21	15 36.45	- 6 41.4	1.339	2.288	10.8	20.2	4 21	15 40.12	- 6 45.6	1.557	2.498	10.2	20.9
5 1	15 29.98	- 5 23.3	1.303	2.286	7.4	20.0	5 1	15 32.10	- 6 3.2	1.503	2.484	6.8	20.7
5 11	15 22.20	- 4 14.2	1.291	2.284	6.1	19.9	5 11	15 22.62	- 5 28.0	1.474	2.470	5.1	20.5
5 21	15 14.24	- 3 21.1	1.303	2.283	8.4	20.0	5 21	15 12.77	- 5 4.9	1.472	2.455	7.3	20.6
5 31	15 7.26	- 2 49.4	1.339	2.283	12.1	20.3	5 31	15 3.72	- 4 57.8	1.495	2.440	11.0	20.8
6 10	15 2.21	- 2 40.9	1.395	2.284	15.8	20.5	6 10	14 56.47	- 5 8.4	1.540	2.425	14.8	21.0
6 20	14 59.62	- 2 54.8	1.469	2.286	19.0	20.7	6 20	14 51.67	- 5 36.2	1.604	2.410	18.1	21.2
504971	2011 <i>GP</i> ₃₂	5 13.1 30°16		4°9/ 9.6 17			333672	2008 <i>TE</i> ₂₉	5 13.1 243°35		0°1/13.1 18		
4 11	15 41.02	-10 57.1	1.516	2.406	13.9	20.6	4 11	15 44.51	-19 54.5	2.032	2.895	12.1	21.7
4 21	15 36.47	- 9 19.5	1.464	2.413	10.1	20.4	4 21	15 38.86	-19 32.5	1.948	2.885	8.8	21.4
5 1	15 29.87	- 7 39.7	1.435	2.420	6.4	20.2	5 1	15 31.26	-19 2.6	1.887	2.874	5.0	21.2
5 11	15 22.17	- 6 5.9	1.432	2.429	5.0	20.1	5 11	15 22.46	-18 26.9	1.854	2.863	0.9	20.9
5 21	15 14.43	- 4 45.8	1.454	2.437	7.3	20.3	5 21	15 13.39	-17 48.3	1.849	2.852	3.3	21.0
5 31	15 7.69	- 3 45.6	1.501	2.446	11.0	20.5	5 31	15 5.01	-17 10.8	1.871	2.841	7.4	21.3
6 10	15 2.78	- 3 8.1	1.570	2.456	14.5	20.7	6 10	14 58.18	-16 38.7	1.918	2.829	11.1	21.5
6 20	15 0.16	- 2 53.2	1.658	2.466	17.5	21.0	6 20	14 53.45	-16 15.2	1.988	2.816	14.3	21.6
45903	2000 <i>YL</i> ₁₈	5 13.1 69°65		4°0/15.6 18			354805	2005 <i>VM</i> ₉₅	5 13.1 113°57		1°7/12.3 18		
4 11	15 47.12	-30 21.3	1.430	2.283	16.8	18.5	4 11	15 48.83	-15 52.5	1.402	2.281	15.5	21.6
4 21	15 41.22	-30 0.7	1.373	2.297	12.8	18.2	4 21	15 42.34	-15 28.4	1.346	2.291	11.1	21.3
5 1	15 32.66	-29 18.9	1.337	2.310	8.5	18.0	5 1	15 33.30	-14 59.1	1.312	2.301	6.3	21.1
5 11	15 22.66	-28 17.3	1.324	2.324	4.6	17.8	5 11	15 22.82	-14 28.0	1.303	2.311	1.9	20.8
5 21	15 12.65	-27 0.7	1.337	2.338	4.9	17.9	5 21	15 12.22	-13 59.4	1.320	2.321	4.9	21.0
5 31	15 4.02	-25 37.1	1.376	2.353	8.7	18.1	5 31	15 2.86	-13 37.9	1.362	2.330	9.7	21.3
6 10	14 57.80	-24 15.9	1.438	2.367	12.8	18.4	6 10	14 55.77	-13 27.3	1.427	2.339	14.0	21.6
6 20	14 54.49	-23 4.4	1.521	2.381	16.4	18.7	6 20	14 51.50	-13 29.4	1.511	2.347	17.6	21.9
352607	2008 <i>EX</i> ₉₂	5 13.1 349°28		5°1/15.0 16			24336	2000 <i>AD</i> ₇₇	5 13.1 248°28		6°3/ 9.5 18		
4 11	15 48.03	-29 16.2	1.887	2.725	13.9	19.8	4 11	15 46.92	- 2 52.6	1.887	2.752	12.7	18.9
4 21	15 41.84	-30 26.2	1.808	2.720	10.9	19.5	4 21	15 40.67	- 2 7.0	1.804	2.734	9.9	18.7
5 1	15 33.15	-31 25.4	1.752	2.716	7.7	19.3	5 1	15 32.33	- 1 27.0	1.747	2.716	7.3	18.5
5 11	15 22.80	-32 10.2	1.722	2.712	5.4	19.2	5 11	15 22.67	- 0 57.9	1.715	2.697	6.3	18.4
5 21	15 11.91	-32 39.0	1.719	2.708	5.7	19.2	5 21	15 12.64	- 0 44.1	1.710	2.677	8.0	18.5
5 31	15 1.75	-32 52.9	1.743	2.706	8.4	19.3	5 31	15 3.28	- 0 48.3	1.731	2.656	11.1	18.6
6 10	14 53.46	-32 55.9	1.790	2.704	11.6	19.5	6 10	14 55.50	- 1 11.4	1.775	2.635	14.3	18.8
6 20	14 47.78	-32 53.1	1.860	2.702	14.6	19.7	6 20	14 49.91	- 1 51.8	1.839	2.614	17.2	18.9
328238	2008 <i>FC</i> ₆₃	5 13.1 142°48		3°8/10.9 17			497629	2006 <i>QJ</i> ₁₀₅	5 13.1 208°39		4°0/15.7 17		
4 11	15 45.78	- 9 54.9	1.788	2.662	12.9	21.0	4 11	15 49.09	-31 10.6	2.088	2.913	13.3	22.6
4 21	15 39.69	- 9 14.8	1.727	2.668	9.4	20.8	4 21	15 42.29	-31 14.4	2.000	2.906	10.3	22.4
5 1	15 31.64	- 8 35.2	1.690	2.674	5.8	20.6	5 1	15 33.25	-31 2.7	1.936	2.899	7.2	22.2
5 11	15 22.49	- 8 0.5	1.680	2.680	3.8	20.5	5 11	15 22.84	-30 34.6	1.898	2.891	4.5	22.0
5 21	15 13.23	- 7 34.6	1.697	2.686	5.8	20.7	5 21	15 12.11	-29 51.4	1.888	2.883	4.6	22.0
5 31	15 4.87	- 7 20.8	1.740	2.691	9.4	20.9	5 31	15 2.21	-28 57.3	1.906	2.874	7.4	22.1
6 10	14 58.24	- 7 20.9	1.807	2.695	12.8	21.1	6 10	14 54.11	-27 58.5	1.950	2.864	10.7	22.3
6 20	14 53.83	- 7 34.9	1.895	2.700	15.8	21.3	6 20	14 48.41	-27 1.1	2.016	2.853	13.8	22.5
43232	2000 <i>AH</i> ₁₇₈	5 13.1 255°64		0°6/12.6 18			60318	1999 <i>XB</i> ₂₃₅	5 13.1 233°86		1°9/11.1 18		
4 11	15 44.38	-18 37.6	2.411	3.269	10.6	19.6	4 11	15 37.84	-10 45.9	3.731	4.594	7.1	20.1
4 21	15 38.57	-18 0.8	2.309	3.244	7.7	19.3	4 21	15 33.31	-10 21.2	3.647	4.583	5.1	19.9
5 1	15 31.03	-17 16.7	2.233	3.220	4.3	19.1	5 1	15 27.86	- 9 56.4	3.589	4.573	3.1	19.8
5 11	15 22.41	-16 27.6	2.185	3.194	0.9	18.8	5 11	15 21.87	- 9 33.3	3.561	4.562	1.9	19.7
5 21	15 13.45	-15 36.6	2.166	3.167	3.2	18.9	5 21	15 15.76	- 9 13.6	3.562	4.551	3.1	19.8
5 31	15 5.01	-14 47.8	2.177	3.140	6.9	19.1	5 31	15 9.99	- 8 58.9	3.593	4.540	5.1	19.9
6 10	14 57.84	-14 5.2	2.213	3.112	10.3	19.3	6 10	15 4.96	- 8 50.5	3.650	4.529	7.2	20.0
6 20	14 52.48	-13 31.9	2.273	3.084	13.3	19.4	6 20	15 0.98	- 8 49.2	3.731	4.517	9.0	20.1
134719	2000 <i>AF</i> ₁₄	5 13.1 202°50		2°8/14.8 17			517654	2015 <i>BN</i> ₅₄₃	5 13.1 313°81		2°7/15.1 17		
4 11	15 47.38	-27 31.3	1.844	2.690	13.9	20.3	4 11	15 43.17	-28 51.4	1.608	2.464	15.0	20.5
4 21	15 41.13	-27 20.7	1.764	2.687	10.5	20.0	4 21	15 38.38	-28 8.8	1.525	2.453	11.5	20.3
5 1	15 32.59	-26 55.2	1.708	2.684	6.7	19.8	5 1	15 31.16	-27 5.8	1.464	2.443	7.3	20.0
5 11	15 22.68	-26 15.5	1.677	2.680	3.3	19.6	5 11	15 22.48	-25 44.3	1.429	2.432	3.4	19.7
5 21	15 12.50	-25 24.0	1.674	2.675	3.9	19.6	5 21	15 13.52	-24 9.2	1.419	2.423	4.0	19.7
5 31	15 3.25	-24 26.1	1.698	2.671	7.7	19.8	5 31	15 5.55	-22 28.7	1.436	2.413	8.3	20.0
6 10	14 55.89	-23 28.1	1.747	2.665	11.5	20.0	6 10	14 59.60	-20 52.0	1.476	2.404	12.6	20.2
6 20	14 51.02	-22 35.9	1.817	2.660	14.9	20.2	6 20	14 56.26	-19 26.6	1.539	2.395	16.4	20.4
154992	2005 <i>CV</i> ₆₈	5 13.1 292°61		2°3/10.2 18			<						

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
291429	2006 <i>DD</i> ₂₇		5 13.1 261°18	0°9/14.3	18		196703	2003 <i>SR</i> ₈₃		5 13.1 303°29	0°2/13.3	18	
4 11	15 35.96	-23 51.2	4.493	5.333	6.4	20.9	4 11	15 44.46	-19 50.1	1.835	2.703	12.9	20.3
4 21	15 31.89	-23 46.1	4.408	5.331	4.7	20.8	4 21	15 38.97	-19 42.4	1.760	2.700	9.4	20.1
5 1	15 27.03	-23 36.5	4.351	5.329	2.8	20.6	5 1	15 31.39	-19 27.4	1.709	2.696	5.4	19.9
5 11	15 21.72	-23 22.8	4.322	5.328	1.1	20.5	5 11	15 22.55	-19 6.6	1.684	2.693	1.0	19.5
5 21	15 16.33	-23 6.2	4.323	5.326	1.7	20.5	5 21	15 13.45	-18 42.6	1.686	2.690	3.4	19.7
5 31	15 11.23	-22 48.0	4.354	5.324	3.5	20.7	5 31	15 5.15	-18 19.2	1.714	2.687	7.7	20.0
6 10	15 6.78	-22 29.8	4.412	5.322	5.3	20.8	6 10	14 58.56	-18 0.3	1.768	2.684	11.5	20.2
6 20	15 3.24	-22 13.2	4.496	5.320	7.0	20.9	6 20	14 54.24	-17 48.9	1.842	2.681	14.8	20.4
358411	2007 <i>CA</i> ₇		5 13.1 208°06	2°2/14.9	18		410190	2007 <i>RE</i> ₁₁₄		5 13.1 281°98	2°1/11.9	17	
4 11	15 42.60	-27 30.9	2.593	3.430	10.6	21.4	4 11	15 44.76	-16 53.9	1.412	2.295	15.1	20.5
4 21	15 37.16	-27 18.8	2.509	3.427	8.0	21.2	4 21	15 39.75	-15 58.0	1.330	2.278	11.0	20.2
5 1	15 30.18	-26 55.8	2.451	3.424	5.1	21.0	5 1	15 32.08	-14 51.8	1.271	2.261	6.2	19.9
5 11	15 22.30	-26 22.9	2.419	3.421	2.6	20.9	5 11	15 22.70	-13 40.4	1.236	2.244	2.2	19.6
5 21	15 14.26	-25 41.9	2.416	3.417	3.0	20.9	5 21	15 12.84	-12 30.3	1.227	2.227	5.5	19.7
5 31	15 6.83	-24 56.1	2.442	3.413	5.8	21.1	5 31	15 3.90	-11 29.2	1.242	2.209	10.6	20.0
6 10	15 0.69	-24 9.7	2.495	3.410	8.7	21.2	6 10	14 57.05	-10 43.4	1.280	2.192	15.3	20.2
6 20	14 56.28	-23 26.4	2.571	3.405	11.3	21.4	6 20	14 53.01	-10 16.5	1.336	2.174	19.4	20.4
506849	2007 <i>UU</i> ₉₀		5 13.1 209°12	0°3/13.3	17		520927	2014 <i>WA</i> ₅₃₄		5 13.1 181°65	2°2/14.5	17	
4 11	15 43.92	-20 11.3	2.345	3.202	10.9	22.5	4 11	15 47.24	-25 50.9	1.803	2.655	13.9	22.4
4 21	15 38.19	-19 59.6	2.264	3.199	7.9	22.3	4 21	15 41.02	-25 36.4	1.728	2.656	10.4	22.2
5 1	15 30.80	-19 41.5	2.209	3.194	4.5	22.0	5 1	15 32.56	-25 8.2	1.677	2.656	6.4	21.9
5 11	15 22.41	-19 18.3	2.181	3.190	0.9	21.8	5 11	15 22.76	-24 27.5	1.651	2.656	2.7	21.7
5 21	15 13.83	-18 52.2	2.181	3.185	2.9	21.9	5 21	15 12.74	-23 37.1	1.652	2.656	3.7	21.8
5 31	15 5.87	-18 26.3	2.210	3.180	6.4	22.1	5 31	15 3.68	-22 42.5	1.681	2.655	7.7	22.0
6 10	14 59.27	-18 3.7	2.266	3.174	9.7	22.3	6 10	14 56.52	-21 49.6	1.735	2.653	11.6	22.2
6 20	14 54.50	-17 47.2	2.344	3.169	12.5	22.5	6 20	14 51.83	-21 3.8	1.810	2.652	14.9	22.4
9188	1991 <i>RM</i> ₁₅		5 13.1 303°06	1°7/13.9	18		256698	2008 <i>AX</i> ₂		5 13.1 32°95	2°8/11.8	18	
4 11	15 44.91	-23 17.5	1.397	2.272	15.8	17.8	4 11	15 44.08	-14 18.1	1.256	2.148	16.0	19.9
4 21	15 40.17	-23 13.5	1.306	2.246	11.8	17.5	4 21	15 39.10	-13 40.6	1.205	2.157	11.5	19.7
5 1	15 32.50	-22 56.1	1.235	2.221	7.2	17.1	5 1	15 31.56	-12 59.1	1.175	2.166	6.6	19.4
5 11	15 22.78	-22 25.8	1.188	2.196	2.4	16.7	5 11	15 22.57	-12 18.8	1.169	2.176	2.8	19.2
5 21	15 12.32	-21 45.0	1.166	2.171	4.3	16.8	5 21	15 13.49	-11 45.0	1.188	2.187	5.7	19.4
5 31	15 2.66	-20 59.6	1.168	2.146	9.7	17.0	5 31	15 5.65	-11 22.9	1.230	2.198	10.5	19.7
6 10	14 55.19	-20 16.7	1.193	2.122	14.8	17.2	6 10	15 0.09	-11 15.5	1.293	2.210	14.8	20.0
6 20	14 50.79	-19 42.6	1.236	2.098	19.2	17.4	6 20	14 57.32	-11 23.6	1.375	2.222	18.5	20.3
221777	2007 <i>HY</i> ₅₃		5 13.1 113°78	3°6/10.8	18		153179	2000 <i>UM</i> ₃₆		5 13.1 339°12	3°0/13.9	17	
4 11	15 44.81	-10 31.4	1.934	2.806	12.1	21.2	4 11	15 47.61	-21 46.5	1.332	2.208	16.3	18.5
4 21	15 38.81	-9 38.7	1.880	2.821	8.8	21.0	4 21	15 42.23	-22 54.0	1.255	2.195	12.3	18.2
5 1	15 31.09	-8 46.0	1.851	2.836	5.4	20.8	5 1	15 33.72	-23 56.1	1.199	2.184	7.6	17.9
5 11	15 22.45	-7 57.7	1.850	2.850	3.6	20.8	5 11	15 23.03	-24 49.8	1.167	2.173	3.4	17.7
5 21	15 13.80	-7 18.0	1.876	2.863	5.5	20.9	5 21	15 11.56	-25 32.9	1.160	2.163	5.0	17.7
5 31	15 6.04	-6 50.5	1.929	2.877	8.8	21.1	5 31	15 0.99	-26 5.8	1.177	2.154	9.8	18.0
6 10	14 59.88	-6 37.0	2.006	2.889	11.9	21.3	6 10	14 52.80	-26 32.0	1.217	2.146	14.5	18.2
6 20	14 55.75	-6 37.8	2.104	2.902	14.6	21.5	6 20	14 47.89	-26 56.0	1.276	2.140	18.6	18.4
222667	2001 <i>YN</i> ₇		5 13.1 190°61	1°3/12.4	17		413202	2003 <i>AB</i> ₈₂		5 13.1 36°62	0°6/13.3	18	
4 11	15 45.96	-15 46.9	2.009	2.875	12.0	20.7	4 11	15 54.26	-15 28.2	1.149	2.030	18.0	19.0
4 21	15 39.82	-15 30.2	1.935	2.875	8.7	20.5	4 21	15 46.62	-16 51.7	1.110	2.055	13.0	18.8
5 1	15 31.77	-15 9.5	1.885	2.873	4.9	20.3	5 1	15 35.84	-18 13.5	1.092	2.081	7.3	18.5
5 11	15 22.59	-14 47.2	1.863	2.872	1.4	20.0	5 11	15 23.33	-19 29.9	1.099	2.108	1.5	18.2
5 21	15 13.21	-14 26.0	1.869	2.870	3.8	20.2	5 21	15 10.81	-20 38.3	1.131	2.136	4.5	18.5
5 31	15 4.58	-14 9.1	1.903	2.867	7.7	20.4	5 31	14 59.96	-21 38.4	1.189	2.164	9.9	18.9
6 10	14 57.53	-13 59.4	1.962	2.864	11.2	20.6	6 10	14 52.01	-22 32.4	1.269	2.194	14.4	19.2
6 20	14 52.58	-13 58.7	2.042	2.861	14.3	20.8	6 20	14 47.50	-23 23.1	1.368	2.223	18.1	19.6
14699	Klarasmi		5 13.1 203°70	2°1/14.8	18		222548	2001 <i>VE</i> ₄		5 13.1 157°33	2°8/11.7	18	
4 11	15 44.96	-27 5.2	2.653	3.487	10.5	18.7	4 11	15 47.17	-10 33.3	2.069	2.935	11.8	20.4
4 21	15 38.84	-26 54.9	2.565	3.482	7.9	18.5	4 21	15 40.55	-10 22.7	2.003	2.941	8.5	20.2
5 1	15 31.13	-26 34.2	2.502	3.476	5.0	18.3	5 1	15 32.13	-10 13.0	1.961	2.946	5.1	20.0
5 11	15 22.48	-26 3.5	2.467	3.469	2.5	18.1	5 11	15 22.67	-10 6.5	1.947	2.950	2.8	19.9
5 21	15 13.64	-25 24.7	2.461	3.462	3.0	18.2	5 21	15 13.07	-10 5.6	1.962	2.955	4.7	20.0
5 31	15 5.41	-24 40.9	2.484	3.454	5.8	18.3	5 31	15 4.24	-10 12.1	2.004	2.959	8.1	20.2
6 10	14 58.46	-23 56.3	2.535	3.446	8.7	18.5	6 10	14 56.96	-10 27.5	2.072	2.962	11.3	20.4
6 20	14 53.28	-23 14.6	2.609	3.437	11.3	18.7	6 20	14 51.72	-10 51.9	2.161	2.965	14.1	20.6
320146	2007 <i>EJ</i> ₂₂₄		5 13.1 97°44	0°1/13.1	17		350453	1996 <i>XM</i> ₁₄		5 13.1 178°99	2°3/11.3	18	
4 11	15 44.64	-19 44.2	1.766	2.635	13.3	20.9	4 11	15 42.37	-10 48.4	2.966	3.827	8.7	21.9
4 21	15 39.07	-19 22.2	1.697	2.637	9.6	20.7	4 21	15 36.70	-10 24.3	2.893	3.828	6.3	21.7
5 1	15 31.41	-18 52.1	1.651	2.639	5.4	20.4	5 1	15 29.82	-10 0.2	2.846	3.829	3.8	21.5
5 11	15 22.54	-18 16.2	1.632	2.642	1.0	20.1	5 11	15 22.27	-9 38.2	2.828	3.830	2.3	21.4
5 21	15 13.48	-17 38.0	1.640	2.644	3.6	20.3	5 21	15 14.60	-9 20.4	2.840	3.830	3.7	21.5
5 31	15 5.32	-17 2.0	1.674	2.646	7.9	20.6	5 31	15 7.44	-9 8.8	2.881	3.829	6.2	21.7
6 10	14 58.93	-16 32.8	1.733	2.648	11.8	20.8	6 10	15 1.29	-9 4.8	2.949	3.828	8.7	21.9
6 20	14 54.86	-16 13.2	1.812	2.650	15.1	21.0	6 20	14 56.54	-9 9.0	3.040	3.827	10.8	22.0
195295	2002 <i>ER</i> ₈₇		5 13.1 317°99	3°4/11.1	18		129822	1999 <i>NV</i> ₅₃		5 13.1 253°			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
96223	1993 <i>TG</i> ₁₄		5 13.1 162°09	2°7/11.5	18		439415	2013 <i>CO</i> ₇₁		5 13.1	8°18	3°6/15.8	16
4 11	15 46.59	-14 6.8	1.660	2.535	13.7	19.7	4 11	15 42.64	-30 26.3	2.156	2.992	12.5	21.1
4 21	15 40.49	-13 16.1	1.595	2.539	9.8	19.5	4 21	15 37.51	-30 22.9	2.079	2.992	9.7	20.9
5 1	15 32.21	-12 21.0	1.555	2.543	5.7	19.2	5 1	15 30.51	-30 5.3	2.026	2.993	6.6	20.7
5 11	15 22.71	-11 26.3	1.540	2.546	2.7	19.1	5 11	15 22.43	-29 33.5	1.998	2.994	4.0	20.6
5 21	15 13.06	-10 36.9	1.553	2.548	5.3	19.2	5 21	15 14.18	-28 49.8	1.998	2.995	4.1	20.6
5 31	15 4.39	-9 58.1	1.592	2.551	9.4	19.5	5 31	15 6.70	-27 58.0	2.025	2.997	6.7	20.7
6 10	14 57.61	-9 33.2	1.654	2.552	13.2	19.7	6 10	15 0.79	-27 3.7	2.078	2.999	9.8	20.9
6 20	14 53.24	-9 23.8	1.737	2.554	16.5	19.9	6 20	14 56.95	-26 11.8	2.153	3.001	12.7	21.1
96003	2004 <i>NT</i> ₂₄		5 13.1 257°57	5°2/10.2	16		336249	2008 <i>SX</i> ₁₂₆		5 13.1 242°64	0°3/13.4	17	
4 11	15 46.23	-8 59.8	1.532	2.413	14.3	20.3	4 11	15 45.01	-20 53.9	2.188	3.045	11.5	21.6
4 21	15 40.58	-7 57.4	1.453	2.397	10.6	20.1	4 21	15 39.18	-20 35.4	2.097	3.031	8.4	21.4
5 1	15 32.47	-6 54.1	1.398	2.381	6.9	19.8	5 1	15 31.49	-20 8.7	2.031	3.017	4.9	21.1
5 11	15 22.79	-5 56.0	1.367	2.364	5.2	19.7	5 11	15 22.62	-19 35.4	1.993	3.002	1.0	20.8
5 21	15 12.68	-5 9.6	1.362	2.347	7.6	19.8	5 21	15 13.45	-18 58.1	1.982	2.986	3.1	21.0
5 31	15 3.40	-4 40.3	1.382	2.329	11.6	19.9	5 31	15 4.90	-18 20.6	2.000	2.970	7.0	21.2
6 10	14 56.04	-4 31.2	1.424	2.311	15.7	20.1	6 10	14 57.80	-17 46.9	2.044	2.954	10.5	21.4
6 20	14 51.28	-4 42.5	1.485	2.292	19.2	20.3	6 20	14 52.70	-17 20.5	2.110	2.937	13.6	21.5
304041	2006 <i>DL</i> ₁₃₄		5 13.1 197°20	3°4/11.2	16		21468	Saylor		5 13.1 324°60	0°1/13.1	18	
4 11	15 48.07	-11 19.7	1.785	2.655	13.1	22.3	4 11	15 44.20	-18 45.3	1.605	2.481	14.0	18.2
4 21	15 41.50	-10 37.9	1.712	2.653	9.5	22.1	4 21	15 39.08	-18 40.6	1.529	2.473	10.2	17.9
5 1	15 32.80	-9 54.5	1.664	2.649	5.8	21.9	5 1	15 31.61	-18 29.0	1.476	2.465	5.8	17.7
5 11	15 22.83	-9 13.9	1.643	2.645	3.4	21.7	5 11	15 22.66	-18 12.2	1.447	2.457	1.0	17.3
5 21	15 12.61	-8 40.4	1.649	2.640	5.7	21.8	5 21	15 13.34	-17 53.0	1.445	2.449	3.9	17.5
5 31	15 3.26	-8 17.9	1.682	2.634	9.5	22.1	5 31	15 4.88	-17 35.3	1.468	2.442	8.6	17.8
6 10	14 55.68	-8 9.1	1.739	2.627	13.2	22.3	6 10	14 58.30	-17 23.3	1.515	2.435	12.8	18.0
6 20	14 50.44	-8 14.8	1.816	2.620	16.4	22.5	6 20	14 54.25	-17 19.8	1.582	2.429	16.5	18.2
406334	2007 <i>RS</i> ₃₄		5 13.1 207°09	3°6/10.9	15		488676	2003 <i>UT</i> ₂₃₅		5 13.2 224°07	1°1/13.9	18	
4 11	15 46.79	-11 22.7	1.821	2.693	12.8	22.4	4 11	15 44.25	-24 2.2	2.300	3.149	11.3	21.8
4 21	15 40.56	-10 29.3	1.747	2.688	9.3	22.2	4 21	15 38.52	-23 33.7	2.213	3.141	8.4	21.6
5 1	15 32.26	-9 33.7	1.697	2.682	5.7	21.9	5 1	15 31.05	-22 54.7	2.150	3.132	5.0	21.4
5 11	15 22.73	-8 40.5	1.674	2.675	3.6	21.8	5 11	15 22.54	-22 6.7	2.115	3.123	1.6	21.1
5 21	15 12.96	-7 54.8	1.679	2.668	5.8	21.9	5 21	15 13.82	-21 12.6	2.109	3.113	2.9	21.2
5 31	15 4.01	-7 21.0	1.710	2.660	9.5	22.1	5 31	15 5.76	-20 16.8	2.131	3.102	6.5	21.4
6 10	14 56.76	-7 2.1	1.765	2.651	13.2	22.3	6 10	14 59.13	-19 23.9	2.180	3.092	9.9	21.6
6 20	14 51.78	-6 59.0	1.841	2.642	16.3	22.5	6 20	14 54.41	-18 38.0	2.252	3.080	12.8	21.8
840	Zenobia		5 13.1 318°59	3°3/15.6	18		358998	2008 <i>TH</i> ₈₉		5 13.2 141°70	1°0/13.6	16	
4 11	15 42.32	-29 55.9	2.093	2.932	12.7	14.8	4 11	15 49.91	-21 45.5	1.508	2.374	15.3	22.0
4 21	15 37.36	-29 42.2	2.008	2.924	9.8	14.6	4 21	15 43.20	-21 41.4	1.444	2.382	11.2	21.8
5 1	15 30.46	-29 13.4	1.946	2.916	6.6	14.4	5 1	15 33.89	-21 26.6	1.403	2.388	6.5	21.5
5 11	15 22.41	-28 30.1	1.911	2.909	3.8	14.2	5 11	15 23.06	-21 2.4	1.386	2.395	1.7	21.2
5 21	15 14.13	-27 34.7	1.902	2.901	3.9	14.2	5 21	15 12.02	-20 31.7	1.397	2.401	3.9	21.4
5 31	15 6.60	-26 31.8	1.921	2.894	6.9	14.3	5 31	15 2.14	-19 59.7	1.433	2.407	8.7	21.7
6 10	15 0.66	-25 27.3	1.965	2.887	10.2	14.5	6 10	14 54.51	-19 31.7	1.493	2.412	13.1	21.9
6 20	14 56.84	-24 26.7	2.032	2.881	13.3	14.7	6 20	14 49.73	-19 12.1	1.573	2.416	16.7	22.2
157902	1999 <i>TL</i> ₁₁₇		5 13.1 273°41	3°6/10.4	18		72496	2001 <i>DO</i> ₆₁		5 13.2 196°62	2°3/11.7	17	
4 11	15 43.35	-11 46.8	2.032	2.905	11.6	19.8	4 11	15 46.59	-14 17.3	1.878	2.748	12.6	20.5
4 21	15 38.07	-10 36.0	1.937	2.879	8.5	19.5	4 21	15 40.38	-13 34.8	1.804	2.746	9.1	20.3
5 1	15 30.89	-9 20.4	1.868	2.853	5.3	19.3	5 1	15 32.15	-12 48.1	1.755	2.743	5.2	20.0
5 11	15 22.50	-8 5.2	1.826	2.826	3.6	19.1	5 11	15 22.74	-12 1.0	1.733	2.739	2.3	19.8
5 21	15 13.74	-6 55.7	1.812	2.798	5.8	19.2	5 21	15 13.13	-11 17.7	1.739	2.735	4.7	20.0
5 31	15 5.56	-5 57.7	1.825	2.771	9.3	19.3	5 31	15 4.33	-10 42.7	1.771	2.730	8.6	20.2
6 10	14 58.79	-5 15.0	1.863	2.742	12.9	19.5	6 10	14 57.21	-10 19.2	1.829	2.724	12.3	20.4
6 20	14 54.02	-4 49.8	1.920	2.714	16.0	19.7	6 20	14 52.31	-10 9.1	1.907	2.718	15.5	20.6
462812	2010 <i>RM</i> ₇₈		5 13.1 297°75	0°4/13.4	17		346224	2007 <i>YA</i> ₆₂		5 13.2 143°51	1°6/12.0	18	
4 11	15 45.30	-20 49.9	1.367	2.246	15.8	21.4	4 11	15 42.67	-14 38.9	2.336	3.203	10.5	21.5
4 21	15 40.45	-20 35.2	1.278	2.223	11.7	21.1	4 21	15 37.21	-14 12.1	2.268	3.208	7.6	21.4
5 1	15 32.67	-20 8.8	1.211	2.199	6.8	20.7	5 1	15 30.23	-13 42.6	2.225	3.212	4.3	21.2
5 11	15 22.87	-19 32.3	1.167	2.176	1.4	20.3	5 11	15 22.39	-13 12.8	2.209	3.216	1.7	21.0
5 21	15 12.36	-18 49.2	1.148	2.153	4.4	20.5	5 21	15 14.45	-12 45.6	2.222	3.220	3.6	21.1
5 31	15 2.69	-18 5.8	1.153	2.130	10.0	20.7	5 31	15 7.16	-12 23.8	2.263	3.224	6.9	21.3
6 10	14 55.22	-17 28.8	1.181	2.107	15.1	20.9	6 10	15 1.17	-12 9.8	2.330	3.228	9.9	21.5
6 20	14 50.81	-17 3.6	1.227	2.085	19.6	21.1	6 20	14 56.92	-12 5.0	2.419	3.231	12.6	21.7
478348	2011 <i>WZ</i> ₁₃₆		5 13.1 243°00	0°0/13.2	18		21722	Rambhia		5 13.2 1°46	1°6/12.3	18	
4 11	15 43.13	-19 3.0	2.544	3.401	10.1	21.8	4 11	15 42.98	-18 26.9	1.243	2.134	16.2	17.6
4 21	15 37.58	-18 57.0	2.457	3.391	7.3	21.6	4 21	15 38.52	-17 31.8	1.182	2.133	11.7	17.3
5 1	15 30.48	-18 46.1	2.395	3.381	4.2	21.4	5 1	15 31.36	-16 25.4	1.141	2.133	6.6	17.0
5 11	15 22.43	-18 31.3	2.361	3.370	0.8	21.1	5 11	15 22.63	-15 13.4	1.124	2.133	1.7	16.7
5 21	15 14.14	-18 14.4	2.356	3.359	2.7	21.3	5 21	15 13.66	-14 3.1	1.131	2.133	5.2	16.9
5 31	15 6.38	-17 58.0	2.380	3.348	6.1	21.5	5 31	15 5.88	-13 2.3	1.162	2.134	10.4	17.2
6 10	14 59.83	-17 44.6	2.430	3.337	9.2	21.7	6 10	15 0.40	-12 17.4	1.214	2.136	15.2	17.5
6 20	14 54.95	-17 36.5	2.503	3.325	11.9	21.8	6 20	14 57.79	-11 51.4	1.284	2.139	19.1	17.8
489316	2006 <i>SP</i> ₄₀₁		5 13.1 173°38	0°3/12.9	16		295413	2008 <i>JH</i> ₃₀		5 13.2 11°43	0°5/12.5	18	
4 11</													

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
184491	2005 <i>OJ</i> ₂₁		5 13.2 342°70	8°8/ 8.6 17			428717	2008 <i>RO</i> ₄₀		5 13.2 213°04	2°7/14.7 17		
4 11	15 41.94	- 1 50.6	1.278	2.169	15.8	19.6	4 11	15 46.34	-26 16.5	1.934	2.783	13.2	21.0
4 21	15 37.65	- 0 39.5	1.219	2.160	12.5	19.3	4 21	15 40.38	-26 26.2	1.856	2.781	10.0	20.8
5 1	15 30.85	+ 0 22.5	1.182	2.153	9.6	19.2	5 1	15 32.25	-26 24.2	1.802	2.779	6.4	20.6
5 11	15 22.54	+ 1 6.7	1.167	2.147	8.9	19.1	5 11	15 22.81	-26 10.3	1.774	2.777	3.1	20.4
5 21	15 13.95	+ 1 26.5	1.174	2.141	10.9	19.2	5 21	15 13.08	-25 46.1	1.773	2.775	3.8	20.4
5 31	15 6.37	+ 1 18.5	1.204	2.136	14.3	19.4	5 31	15 4.17	-25 15.1	1.800	2.772	7.3	20.6
6 10	15 0.88	+ 0 43.2	1.252	2.132	17.8	19.6	6 10	14 57.02	-24 42.4	1.851	2.770	10.9	20.8
6 20	14 58.08	- 0 15.6	1.317	2.129	21.0	19.8	6 20	14 52.21	-24 12.7	1.924	2.767	14.1	21.0
219759	2001 <i>YP</i> ₆₀		5 13.2 238°32	1°4/14.1 18			89293	2001 <i>VL</i> ₂₇		5 13.2 71°80	0°2/13.0 18		
4 11	15 46.70	-24 3.6	2.217	3.064	11.8	20.7	4 11	15 43.00	-18 40.0	2.172	3.036	11.3	19.9
4 21	15 40.46	-23 51.4	2.121	3.047	8.8	20.4	4 21	15 37.62	-18 26.7	2.100	3.038	8.2	19.7
5 1	15 32.25	-23 28.9	2.050	3.030	5.3	20.2	5 1	15 30.55	-18 7.7	2.053	3.040	4.6	19.5
5 11	15 22.79	-22 56.9	2.006	3.013	1.9	19.9	5 11	15 22.49	-17 44.9	2.033	3.042	0.8	19.2
5 21	15 12.98	-22 17.4	1.991	2.994	3.1	20.0	5 21	15 14.27	-17 20.9	2.041	3.044	3.1	19.4
5 31	15 3.80	-21 34.3	2.005	2.975	6.9	20.2	5 31	15 6.75	-16 58.6	2.076	3.046	6.8	19.6
6 10	14 56.10	-20 52.2	2.044	2.956	10.4	20.4	6 10	15 0.65	-16 41.2	2.137	3.048	10.1	19.8
6 20	14 50.49	-20 15.4	2.107	2.935	13.6	20.5	6 20	14 56.45	-16 30.9	2.221	3.049	13.0	20.0
236763	2007 <i>OD</i> ₁		5 13.2 299°70	9°8/ 6.5 18			264304	1999 <i>FQ</i> ₇₈		5 13.2 345°41	6°6/14.7 18		
4 11	15 42.90	+ 5 24.3	1.773	2.633	13.7	19.8	4 11	15 49.44	-28 23.9	1.323	2.182	17.4	19.1
4 21	15 37.88	+ 6 35.4	1.702	2.613	11.6	19.6	4 21	15 43.84	-29 59.7	1.249	2.173	13.8	18.9
5 1	15 30.84	+ 7 33.8	1.654	2.594	10.1	19.5	5 1	15 34.82	-31 24.4	1.196	2.165	9.8	18.6
5 11	15 22.54	+ 8 12.3	1.629	2.575	10.0	19.5	5 11	15 23.35	-32 31.7	1.166	2.158	6.9	18.4
5 21	15 13.93	+ 8 25.6	1.629	2.556	11.5	19.5	5 21	15 10.98	-33 17.4	1.160	2.152	7.4	18.4
5 31	15 6.00	+ 8 11.1	1.651	2.537	13.8	19.6	5 31	14 59.59	-33 41.7	1.179	2.147	10.9	18.6
6 10	14 59.66	+ 7 29.9	1.693	2.518	16.5	19.7	6 10	14 50.81	-33 50.2	1.218	2.143	15.0	18.8
6 20	14 55.49	+ 6 25.3	1.753	2.499	19.0	19.9	6 20	14 45.65	-33 50.1	1.277	2.140	18.7	19.0
390988	2005 <i>ST</i> ₅₁		5 13.2 243°83	1°7/11.7 16			95308	2002 <i>CW</i> ₁₀₁		5 13.2 111°05	2°4/11.8 18		
4 11	15 41.02	-14 52.9	2.532	3.399	9.8	21.3	4 11	15 44.41	-13 38.1	1.804	2.680	12.7	19.4
4 21	15 36.01	-14 8.7	2.449	3.389	7.1	21.1	4 21	15 38.84	-13 7.2	1.739	2.682	9.2	19.2
5 1	15 29.57	-13 20.7	2.392	3.379	4.0	20.9	5 1	15 31.30	-12 33.6	1.697	2.685	5.3	18.9
5 11	15 22.30	-12 31.8	2.363	3.369	1.8	20.7	5 11	15 22.63	-12 0.9	1.681	2.687	2.4	18.7
5 21	15 14.85	-11 45.3	2.363	3.359	3.7	20.8	5 21	15 13.79	-11 32.7	1.692	2.689	4.7	18.9
5 31	15 7.95	-11 4.7	2.391	3.349	6.8	21.0	5 31	15 5.80	-11 12.6	1.730	2.692	8.6	19.1
6 10	15 2.20	-10 32.9	2.446	3.338	9.7	21.2	6 10	14 59.49	-11 3.5	1.792	2.694	12.2	19.4
6 20	14 58.04	-10 11.6	2.522	3.327	12.3	21.4	6 20	14 55.38	-11 6.4	1.875	2.696	15.3	19.6
139628	2001 <i>QQ</i> ₁₅₁		5 13.2 163°44	2°2/11.9 17			128900	2004 <i>TE</i> ₁₅		5 13.2 313°02	1°2/13.5 17		
4 11	15 46.24	-13 27.0	1.983	2.851	12.1	20.6	4 11	15 48.38	-19 9.0	1.563	2.434	14.6	18.5
4 21	15 39.99	-13 0.4	1.915	2.855	8.7	20.4	4 21	15 42.44	-19 52.8	1.477	2.417	10.8	18.2
5 1	15 31.89	-12 31.6	1.872	2.859	5.0	20.2	5 1	15 33.74	-20 33.1	1.414	2.401	6.4	17.9
5 11	15 22.72	-12 3.4	1.857	2.863	2.2	20.0	5 11	15 23.13	-21 8.6	1.376	2.384	1.8	17.6
5 21	15 13.40	-11 39.2	1.870	2.866	4.4	20.1	5 21	15 11.82	-21 38.9	1.364	2.369	4.0	17.7
5 31	15 4.90	-11 22.1	1.910	2.869	8.1	20.4	5 31	15 1.24	-22 5.1	1.379	2.353	8.9	18.0
6 10	14 57.98	-11 14.6	1.975	2.871	11.5	20.6	6 10	14 52.66	-22 29.8	1.417	2.338	13.4	18.2
6 20	14 53.16	-11 17.9	2.061	2.872	14.4	20.8	6 20	14 46.93	-22 56.2	1.475	2.324	17.4	18.4
233724	2008 <i>SN</i> ₁₅₄		5 13.2 234°30	1°5/12.2 18			425721	2011 <i>BQ</i> ₃₅		5 13.2 156°13	5°5/16.8 17		
4 11	15 44.37	-15 48.8	2.013	2.882	11.9	20.8	4 11	15 48.92	-34 55.7	1.974	2.788	14.3	22.1
4 21	15 38.75	-15 20.7	1.934	2.875	8.6	20.6	4 21	15 42.30	-35 8.8	1.900	2.793	11.5	21.9
5 1	15 31.25	-14 47.9	1.879	2.867	4.9	20.4	5 1	15 33.34	-35 3.4	1.848	2.798	8.4	21.7
5 11	15 22.61	-14 13.3	1.851	2.859	1.6	20.1	5 11	15 23.01	-34 37.9	1.820	2.802	6.0	21.6
5 21	15 13.73	-13 40.2	1.852	2.851	3.9	20.3	5 21	15 12.47	-33 53.8	1.820	2.806	5.8	21.6
5 31	15 5.56	-13 12.4	1.879	2.843	7.8	20.5	5 31	15 2.93	-32 55.3	1.846	2.809	8.0	21.7
6 10	14 58.90	-12 53.1	1.932	2.834	11.4	20.7	6 10	14 55.38	-31 49.7	1.898	2.812	10.9	21.9
6 20	14 54.29	-12 44.3	2.005	2.825	14.5	20.9	6 20	14 50.38	-30 43.7	1.972	2.815	13.8	22.1
35717	1999 <i>FK</i> ₃₃		5 13.2 234°41	3°5/11.4 17			213862	2003 <i>SL</i> ₁₄₇		5 13.2 221°23	1°2/13.9 17		
4 11	15 47.48	-11 23.3	1.625	2.501	13.9	18.9	4 11	15 48.24	-23 14.3	1.975	2.827	12.8	21.0
4 21	15 41.37	-10 50.3	1.549	2.492	10.1	18.7	4 21	15 41.73	-23 2.2	1.888	2.817	9.5	20.8
5 1	15 32.89	-10 16.2	1.496	2.482	6.1	18.4	5 1	15 33.03	-22 39.4	1.824	2.806	5.7	20.5
5 11	15 22.93	-9 44.9	1.469	2.472	3.5	18.2	5 11	15 22.97	-22 7.0	1.787	2.795	1.8	20.2
5 21	15 12.62	-9 20.7	1.469	2.462	5.9	18.4	5 21	15 12.56	-21 27.3	1.779	2.782	3.4	20.3
5 31	15 3.15	-9 7.7	1.494	2.451	10.0	18.6	5 31	15 2.91	-20 44.8	1.798	2.769	7.5	20.5
6 10	14 55.58	-9 8.4	1.543	2.440	14.1	18.8	6 10	14 54.96	-20 4.4	1.843	2.755	11.3	20.7
6 20	14 50.53	-9 23.6	1.611	2.428	17.6	19.0	6 20	14 49.34	-19 30.5	1.910	2.741	14.7	20.9
35044	1981 <i>ET</i> ₄₀		5 13.2 342°89	1°9/14.2 18			423662	2005 <i>YY</i> ₁₂₉		5 13.2 209°73	2°4/11.7 18		
4 11	15 45.06	-24 22.5	1.707	2.568	14.0	19.2	4 11	15 46.06	-12 2.8	2.172	3.037	11.3	21.7
4 21	15 39.60	-24 16.6	1.634	2.567	10.4	19.0	4 21	15 39.83	-11 43.2	2.093	3.031	8.2	21.5
5 1	15 31.86	-23 58.7	1.584	2.566	6.3	18.7	5 1	15 31.83	-11 22.6	2.039	3.025	4.8	21.3
5 11	15 22.74	-23 29.6	1.559	2.565	2.4	18.5	5 11	15 22.74	-11 3.6	2.014	3.018	2.4	21.1
5 21	15 13.36	-22 52.2	1.560	2.564	3.7	18.6	5 21	15 13.43	-10 49.0	2.016	3.011	4.4	21.2
5 31	15 4.90	-22 11.1	1.588	2.563	7.9	18.8	5 31	15 4.77	-10 41.4	2.047	3.003	7.8	21.4
6 10	14 58.34	-21 32.0	1.640	2.563	11.9	19.0	6 10	14 57.54	-10 42.7	2.103	2.995	11.1	21.6
6 20	14 54.27	-20 59.4	1.713	2.562	15.3	19.3	6 20	14 52.25	-10 53.9	2.181	2.986	14.0	21.8
275026	2009 <i>UZ</i> ₃₂		5 13.2 91°95	0°5/13.4 17			133304	20					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
41701	2000 <i>UY</i> ₄₆		5 13.2 108°12	0°1/13.1	18		519885	2013 <i>OT</i> ₁₂		5 13.2 326°02	1°4/14.2	17	
4 11	15 45.68	-19 55.2	2.017	2.878	12.2	19.9	4 11	15 42.79	-25 51.7	1.493	2.361	15.3	20.4
4 21	15 39.51	-19 26.6	1.959	2.895	8.8	19.7	4 21	15 38.23	-24 57.9	1.415	2.353	11.4	20.1
5 1	15 31.57	-18 50.5	1.925	2.912	4.9	19.5	5 1	15 31.20	-23 45.2	1.360	2.345	6.9	19.8
5 11	15 22.68	-18 9.5	1.919	2.928	0.9	19.2	5 11	15 22.69	-22 16.7	1.329	2.337	2.2	19.5
5 21	15 13.78	-17 27.0	1.941	2.944	3.2	19.4	5 21	15 13.91	-20 38.8	1.324	2.329	3.9	19.6
5 31	15 5.78	-16 47.2	1.990	2.959	7.1	19.7	5 31	15 6.15	-19 0.3	1.345	2.322	8.7	19.9
6 10	14 59.41	-16 13.9	2.065	2.974	10.5	19.9	6 10	15 0.46	-17 30.2	1.389	2.316	13.3	20.1
6 20	14 55.11	-15 49.7	2.163	2.989	13.4	20.1	6 20	14 57.43	-16 15.2	1.454	2.310	17.2	20.3
78983	2003 <i>UA</i> ₄₉		5 13.2 259°18	2°0/11.9	18		130438	2000 <i>QS</i> ₁₇		5 13.2 112°86	5°0/10.6	18	
4 11	15 43.52	-14 24.3	1.993	2.865	11.9	19.8	4 11	15 46.39	-9 6.7	1.431	2.315	14.9	19.4
4 21	15 38.16	-13 53.1	1.914	2.857	8.6	19.6	4 21	15 40.60	-8 13.0	1.374	2.320	11.0	19.2
5 1	15 30.94	-13 18.5	1.860	2.848	4.9	19.3	5 1	15 32.43	-7 20.5	1.340	2.324	7.0	19.0
5 11	15 22.60	-12 43.4	1.833	2.839	2.0	19.1	5 11	15 22.90	-6 35.3	1.330	2.329	5.0	18.9
5 21	15 14.00	-12 11.4	1.833	2.831	4.3	19.3	5 21	15 13.22	-6 2.7	1.346	2.333	7.3	19.0
5 31	15 6.10	-11 46.1	1.860	2.822	8.1	19.5	5 31	15 4.64	-5 47.0	1.386	2.337	11.2	19.2
6 10	14 59.69	-11 30.6	1.912	2.812	11.6	19.7	6 10	14 58.13	-5 50.0	1.448	2.341	15.1	19.5
6 20	14 55.31	-11 26.5	1.985	2.803	14.7	19.8	6 20	14 54.25	-6 10.8	1.529	2.345	18.4	19.7
502525	2015 <i>BK</i> ₄₃₆		5 13.2 152°84	5°2/16.7	17		428070	2006 <i>HP</i> ₂₂		5 13.2 13°78	1°8/12.3	17	
4 11	15 49.50	-34 36.2	2.177	2.986	13.3	22.5	4 11	15 41.87	-15 43.3	1.367	2.257	15.0	20.2
4 21	15 42.53	-34 53.2	2.103	2.994	10.7	22.4	4 21	15 37.49	-15 18.6	1.310	2.262	10.8	19.9
5 1	15 33.41	-34 53.5	2.052	3.001	7.8	22.2	5 1	15 30.73	-14 49.0	1.276	2.267	6.1	19.7
5 11	15 23.03	-34 35.7	2.027	3.008	5.6	22.1	5 11	15 22.60	-14 18.4	1.265	2.273	1.9	19.4
5 21	15 12.48	-34 0.8	2.030	3.015	5.4	22.1	5 21	15 14.30	-13 51.1	1.279	2.281	4.8	19.6
5 31	15 2.84	-33 12.5	2.060	3.020	7.5	22.2	5 31	15 7.07	-13 31.8	1.317	2.290	9.5	19.9
6 10	14 55.04	-32 17.0	2.116	3.026	10.2	22.4	6 10	15 1.89	-13 23.9	1.378	2.299	13.8	20.2
6 20	14 49.61	-31 20.3	2.194	3.030	12.9	22.6	6 20	14 59.32	-13 28.9	1.457	2.309	17.3	20.4
138771	2000 <i>SP</i> ₃₁₆		5 13.2 137°49	4°7/17.6	18		373019	2011 <i>DK</i> ₃₅		5 13.2 137°89	3°5/10.8	17	
4 11	15 45.38	-37 10.3	2.769	3.559	11.3	20.5	4 11	15 45.02	-10 35.2	2.012	2.882	11.8	21.6
4 21	15 39.16	-37 6.1	2.693	3.569	9.1	20.3	4 21	15 39.03	-9 45.3	1.952	2.892	8.6	21.4
5 1	15 31.34	-36 46.4	2.641	3.579	6.9	20.2	5 1	15 31.33	-8 55.0	1.918	2.902	5.3	21.3
5 11	15 22.65	-36 10.9	2.616	3.588	5.1	20.1	5 11	15 22.69	-8 8.6	1.911	2.911	3.5	21.2
5 21	15 13.90	-35 21.0	2.618	3.597	4.8	20.1	5 21	15 13.99	-7 30.2	1.932	2.920	5.4	21.3
5 31	15 5.92	-34 20.3	2.649	3.606	6.2	20.2	5 31	15 6.11	-7 3.1	1.980	2.928	8.6	21.5
6 10	14 59.36	-33 13.6	2.707	3.614	8.3	20.3	6 10	14 59.77	-6 49.5	2.053	2.935	11.7	21.7
6 20	14 54.67	-32 6.1	2.789	3.622	10.5	20.5	6 20	14 55.41	-6 49.7	2.146	2.943	14.4	21.9
484725	2008 <i>XP</i> ₂		5 13.2 162°88	2°0/12.6	17		153924	2001 <i>YF</i> ₅₃		5 13.2 163°54	0°4/13.4	18	
4 11	16 1.00	-12 9.0	1.647	2.499	15.0	22.2	4 11	15 45.92	-20 21.2	1.798	2.664	13.2	20.1
4 21	15 51.03	-12 30.2	1.579	2.510	10.9	22.0	4 21	15 40.08	-20 11.8	1.727	2.665	9.6	19.8
5 1	15 38.32	-12 51.9	1.535	2.520	6.3	21.7	5 1	15 32.10	-19 54.3	1.679	2.666	5.5	19.6
5 11	15 23.95	-13 14.8	1.520	2.528	2.2	21.5	5 11	15 22.85	-19 30.4	1.657	2.667	1.1	19.3
5 21	15 9.32	-13 39.4	1.535	2.534	4.8	21.7	5 21	15 13.38	-19 2.8	1.663	2.667	3.4	19.5
5 31	14 55.89	-14 7.1	1.580	2.539	9.4	21.9	5 31	15 4.77	-18 35.5	1.696	2.668	7.7	19.7
6 10	14 44.81	-14 39.4	1.650	2.542	13.6	22.2	6 10	14 57.96	-18 12.7	1.753	2.669	11.6	20.0
6 20	14 36.73	-15 17.4	1.742	2.544	17.1	22.4	6 20	14 53.48	-17 57.7	1.831	2.669	14.9	20.2
176031	2000 <i>SM</i> ₁₃₃		5 13.2 196°30	3°1/15.8	18		361151	2006 <i>HO</i> ₁₀₈		5 13.2 21°80	5°8/10.5	17	
4 11	15 43.53	-30 33.7	2.424	3.253	11.5	20.0	4 11	15 43.34	-9 19.6	1.118	2.018	16.9	20.3
4 21	15 38.00	-30 19.0	2.342	3.252	8.9	19.8	4 21	15 38.82	-8 16.9	1.069	2.023	12.4	20.0
5 1	15 30.77	-29 50.6	2.284	3.250	6.0	19.6	5 1	15 31.57	-7 15.6	1.041	2.028	8.0	19.8
5 11	15 22.57	-29 9.1	2.253	3.249	3.6	19.5	5 11	15 22.75	-6 23.7	1.036	2.035	5.8	19.7
5 21	15 14.23	-28 16.7	2.250	3.248	3.6	19.5	5 21	15 13.80	-5 48.3	1.053	2.042	8.4	19.8
5 31	15 6.59	-27 17.3	2.275	3.246	6.2	19.6	5 31	15 6.15	-5 34.1	1.092	2.050	12.7	20.1
6 10	15 0.39	-26 16.0	2.327	3.244	9.1	19.8	6 10	15 0.89	-5 42.6	1.151	2.059	17.0	20.4
6 20	14 56.08	-25 17.6	2.402	3.242	11.8	20.0	6 20	14 58.57	-6 12.1	1.227	2.068	20.6	20.6
63939	2001 <i>SD</i> ₅₅		5 13.2 155°23	3°9/11.0	18		308153	2005 <i>AD</i> ₃₉		5 13.2 56°48	0°8/13.5	18	
4 11	15 47.67	-10 58.8	1.583	2.460	14.1	19.9	4 11	15 48.03	-20 45.0	1.276	2.155	16.7	20.5
4 21	15 41.35	-10 8.7	1.522	2.465	10.3	19.6	4 21	15 42.05	-20 44.0	1.226	2.170	12.1	20.3
5 1	15 32.78	-9 17.6	1.485	2.471	6.3	19.4	5 1	15 33.33	-20 32.8	1.198	2.186	7.0	20.0
5 11	15 22.94	-8 30.7	1.474	2.475	3.9	19.3	5 11	15 23.06	-20 13.0	1.193	2.202	1.6	19.7
5 21	15 12.97	-7 53.1	1.489	2.479	6.3	19.4	5 21	15 12.73	-19 48.1	1.213	2.218	4.2	19.9
5 31	15 4.02	-7 29.0	1.530	2.483	10.2	19.7	5 31	15 3.79	-19 23.4	1.258	2.235	9.3	20.3
6 10	14 57.05	-7 20.9	1.594	2.486	14.0	19.9	6 10	14 57.32	-19 4.2	1.325	2.252	13.8	20.6
6 20	14 52.57	-7 29.1	1.678	2.489	17.2	20.1	6 20	14 53.85	-18 54.1	1.411	2.269	17.6	20.8
281004	2006 <i>DB</i> ₁₈₁		5 13.2 232°35	1°7/14.1	18		286008	2001 <i>SJ</i> ₁₀₀		5 13.2 141°94	2°8/10.9	17	
4 11	15 46.22	-23 30.6	2.031	2.884	12.5	20.8	4 11	15 41.89	-12 8.5	2.308	3.178	10.5	21.1
4 21	15 40.23	-23 37.6	1.949	2.878	9.3	20.6	4 21	15 36.66	-11 15.6	2.242	3.183	7.6	20.9
5 1	15 32.18	-23 35.5	1.890	2.872	5.6	20.3	5 1	15 29.96	-10 21.0	2.202	3.188	4.6	20.7
5 11	15 22.85	-23 24.4	1.859	2.865	2.1	20.1	5 11	15 22.45	-9 28.4	2.190	3.192	2.8	20.6
5 21	15 13.22	-23 6.1	1.855	2.859	3.3	20.1	5 21	15 14.86	-8 41.7	2.207	3.197	4.6	20.7
5 31	15 4.30	-22 43.6	1.879	2.852	7.1	20.4	5 31	15 7.93	-8 4.3	2.251	3.201	7.6	20.9
6 10	14 57.01	-22 21.1	1.929	2.845	10.7	20.6	6 10	15 2.29	-7 38.6	2.320	3.205	10.5	21.1
6 20	14 51.93	-22 2.3	2.000	2.838	13.9	20.8	6 20	14 58.34	-7 25.6	2.411	3.208	13.0	21.3
336404	2008 <i>UC</i> ₁₅₆		5 13.2 175°86	0°1/13.1	17		57760	2001 <i>VH</i> ₂₃		5 13.2			

EPHEMERIDES

5 13.2

5 13.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
518991	2010 <i>JP</i> ₂₆		5 13.2 328°40	9°3/ 7.3 17			308964	2006 <i>TH</i> ₆₅		5 13.2 247°18	7°6/16.8 17		
4 11	15 42.77	+ 4 23.9	1.767	2.630	13.6	21.0	4 11	15 51.18	-36 29.3	1.709	2.523	16.2	21.1
4 21	15 37.69	+ 5 31.5	1.711	2.625	11.3	20.9	4 21	15 44.65	-37 21.2	1.627	2.515	13.3	20.9
5 1	15 30.69	+ 6 26.1	1.676	2.621	9.6	20.7	5 1	15 35.09	-37 53.6	1.565	2.507	10.4	20.7
5 11	15 22.60	+ 7 1.2	1.666	2.617	9.4	20.7	5 11	15 23.49	-38 2.2	1.526	2.498	8.1	20.6
5 21	15 14.35	+ 7 12.3	1.680	2.613	10.8	20.8	5 21	15 11.27	-37 45.3	1.513	2.489	7.9	20.5
5 31	15 6.90	+ 6 57.6	1.717	2.609	13.1	20.9	5 31	15 0.01	-37 6.1	1.525	2.480	10.0	20.6
6 10	15 1.05	+ 6 18.5	1.775	2.606	15.6	21.1	6 10	14 51.11	-36 12.3	1.560	2.471	13.1	20.8
6 20	14 57.32	+ 5 18.4	1.851	2.602	17.9	21.2	6 20	14 45.37	-35 12.5	1.616	2.462	16.2	21.0
457617	2009 <i>BK</i> ₈₆		5 13.2 45°90	5°2/15.7 17			391380	2006 <i>WY</i> ₉₄		5 13.2 303°89	0°8/12.6 16		
4 11	15 47.93	-30 1.5	1.188	2.052	18.7	21.0	4 11	15 41.73	-18 2.8	2.056	2.926	11.6	21.2
4 21	15 42.38	-30 17.7	1.138	2.066	14.4	20.8	4 21	15 36.89	-17 29.2	1.975	2.917	8.4	21.0
5 1	15 33.66	-30 12.2	1.106	2.080	9.8	20.5	5 1	15 30.26	-16 49.0	1.919	2.908	4.7	20.7
5 11	15 23.15	-29 44.1	1.097	2.096	5.8	20.4	5 11	15 22.57	-16 5.0	1.890	2.899	1.1	20.5
5 21	15 12.53	-28 56.8	1.112	2.111	6.0	20.4	5 21	15 14.64	-15 20.7	1.888	2.890	3.5	20.6
5 31	15 3.49	-27 57.7	1.150	2.128	9.8	20.7	5 31	15 7.39	-14 40.4	1.914	2.881	7.4	20.8
6 10	14 57.25	-26 56.6	1.209	2.144	14.1	21.0	6 10	15 1.57	-14 7.8	1.964	2.873	10.9	21.0
6 20	14 54.37	-26 1.6	1.288	2.161	17.9	21.3	6 20	14 57.70	-13 45.5	2.036	2.865	14.0	21.2
101921	1999 <i>RT</i> ₁₅		5 13.2 199°98	3°4/15.7 18			255786	2006 <i>RW</i> ₉₈		5 13.2 222°94	2°6/14.5 18		
4 11	15 44.50	-30 32.1	2.636	3.458	10.9	19.6	4 11	15 49.41	-25 37.8	1.922	2.768	13.4	20.9
4 21	15 38.67	-30 44.1	2.552	3.456	8.5	19.4	4 21	15 42.76	-25 53.4	1.836	2.759	10.1	20.7
5 1	15 31.18	-30 44.7	2.492	3.454	5.9	19.2	5 1	15 33.75	-25 58.0	1.773	2.750	6.4	20.4
5 11	15 22.70	-30 33.4	2.459	3.451	3.7	19.1	5 11	15 23.23	-25 50.8	1.737	2.740	3.1	20.2
5 21	15 14.00	-30 11.1	2.455	3.448	3.8	19.1	5 21	15 12.28	-25 32.9	1.729	2.730	3.9	20.2
5 31	15 5.91	-29 40.4	2.479	3.445	6.0	19.2	5 31	15 2.09	-25 7.4	1.748	2.719	7.6	20.4
6 10	14 59.14	-29 5.2	2.530	3.442	8.7	19.4	6 10	14 53.72	-24 39.5	1.792	2.708	11.4	20.6
6 20	14 54.18	-28 29.6	2.604	3.439	11.1	19.6	6 20	14 47.82	-24 13.9	1.858	2.696	14.8	20.8
274105	2008 <i>DC</i> ₄		5 13.2 158°93	3°9/15.4 17			102977	1999 <i>XV</i> ₇₆		5 13.2 218°00	2°1/12.2 18		
4 11	15 48.99	-29 10.8	1.766	2.607	14.6	21.7	4 11	15 49.45	-14 51.4	1.576	2.449	14.4	20.0
4 21	15 42.49	-29 20.9	1.693	2.611	11.2	21.5	4 21	15 42.94	-14 26.7	1.499	2.442	10.5	19.8
5 1	15 33.55	-29 15.5	1.644	2.614	7.5	21.3	5 1	15 33.89	-13 57.5	1.446	2.434	6.0	19.5
5 11	15 23.15	-28 53.9	1.619	2.617	4.3	21.1	5 11	15 23.26	-13 27.0	1.418	2.425	2.1	19.2
5 21	15 12.49	-28 17.9	1.622	2.620	4.6	21.1	5 21	15 12.23	-12 59.0	1.417	2.416	5.0	19.4
5 31	15 2.85	-27 32.1	1.651	2.623	8.0	21.3	5 31	15 2.13	-12 38.2	1.442	2.407	9.6	19.6
6 10	14 55.27	-26 43.1	1.705	2.625	11.7	21.6	6 10	14 54.05	-12 28.0	1.491	2.396	14.0	19.9
6 20	14 50.33	-25 56.9	1.780	2.626	14.9	21.8	6 20	14 48.66	-12 30.7	1.560	2.385	17.7	20.1
42283	2001 <i>SQ</i> ₃₁₆		5 13.2 215°81	6°0/16.9 18			280993	2006 <i>DE</i> ₁₀₈		5 13.2 274°81	0°1/13.3 17		
4 11	15 49.86	-36 30.7	2.202	3.001	13.5	18.6	4 11	15 44.05	-20 22.8	1.880	2.747	12.7	20.7
4 21	15 43.03	-36 57.4	2.112	2.993	11.0	18.4	4 21	15 38.76	-20 0.0	1.798	2.737	9.3	20.5
5 1	15 33.87	-37 6.9	2.046	2.985	8.4	18.2	5 1	15 31.41	-19 28.6	1.740	2.727	5.3	20.2
5 11	15 23.22	-36 56.8	2.004	2.977	6.4	18.1	5 11	15 22.80	-18 50.4	1.707	2.717	1.0	19.9
5 21	15 12.18	-36 26.9	1.990	2.967	6.2	18.0	5 21	15 13.88	-18 8.9	1.703	2.707	3.4	20.1
5 31	15 1.93	-35 40.5	2.003	2.958	8.0	18.1	5 31	15 5.72	-17 28.6	1.725	2.697	7.7	20.3
6 10	14 53.51	-34 43.5	2.041	2.947	10.7	18.3	6 10	14 59.19	-16 54.0	1.772	2.687	11.6	20.5
6 20	14 47.57	-33 42.7	2.102	2.936	13.4	18.4	6 20	14 54.88	-16 28.6	1.840	2.677	14.9	20.7
501060	2013 <i>SO</i> ₂₇		5 13.2 191°83	5°1/16.6 17			436858	2012 <i>SC</i> ₅₁		5 13.2 230°60	2°5/11.1 18		
4 11	15 49.22	-34 34.2	2.253	3.060	13.0	22.8	4 11	15 42.90	-13 24.5	2.332	3.200	10.5	21.3
4 21	15 42.40	-34 53.1	2.169	3.058	10.4	22.6	4 21	15 37.50	-12 24.6	2.249	3.189	7.6	21.1
5 1	15 33.42	-34 55.9	2.108	3.056	7.7	22.4	5 1	15 30.53	-11 20.7	2.192	3.178	4.5	20.9
5 11	15 23.13	-34 41.1	2.073	3.054	5.5	22.3	5 11	15 22.63	-10 16.8	2.163	3.167	2.5	20.8
5 21	15 12.55	-34 9.2	2.066	3.050	5.4	22.2	5 21	15 14.54	-9 17.1	2.164	3.155	4.5	20.9
5 31	15 2.77	-33 23.5	2.087	3.046	7.4	22.4	5 31	15 7.04	-8 26.0	2.192	3.142	7.7	21.0
6 10	14 54.74	-32 29.9	2.133	3.042	10.2	22.5	6 10	15 0.81	-7 46.6	2.245	3.130	10.8	21.2
6 20	14 49.03	-31 34.3	2.202	3.037	12.9	22.7	6 20	14 56.33	-7 20.6	2.321	3.116	13.5	21.4
346251	2008 <i>DF</i> ₅₇		5 13.2 66°81	7°4/ 7.1 17			22742	1998 <i>TX</i> ₅		5 13.2 308°25	0°7/13.6 18		
4 11	15 41.00	+ 1 22.5	2.103	2.967	11.7	20.1	4 11	15 43.35	-21 43.9	1.766	2.635	13.3	17.5
4 21	15 36.03	+ 2 47.9	2.063	2.982	9.4	20.0	4 21	15 38.41	-21 27.6	1.683	2.622	9.8	17.3
5 1	15 29.59	+ 4 3.6	2.047	2.998	7.7	19.9	5 1	15 31.29	-21 1.3	1.623	2.610	5.7	17.0
5 11	15 22.40	+ 5 4.1	2.058	3.013	7.5	19.9	5 11	15 22.80	-20 26.7	1.589	2.598	1.4	16.7
5 21	15 15.22	+ 5 45.2	2.094	3.029	8.9	20.0	5 21	15 13.96	-19 46.8	1.582	2.586	3.5	16.8
5 31	15 8.79	+ 6 4.8	2.155	3.044	10.9	20.2	5 31	15 5.88	-19 6.3	1.600	2.575	7.9	17.0
6 10	15 3.72	+ 6 3.2	2.238	3.060	13.1	20.3	6 10	14 59.53	-18 30.3	1.643	2.564	12.0	17.2
6 20	15 0.39	+ 5 42.7	2.340	3.076	15.0	20.5	6 20	14 55.53	-18 2.8	1.706	2.553	15.5	17.4
16855	1997 <i>YN</i> ₇		5 13.2 208°51	7°2/ 8.7 18			50640	2000 <i>EX</i> ₇₉		5 13.2 187°68	1°6/12.5 18		
4 11	15 45.60	+ 1 25.5	2.056	2.913	12.2	18.4	4 11	15 49.50	-15 46.8	1.562	2.435	14.5	19.3
4 21	15 39.52	+ 2 11.8	1.991	2.909	9.8	18.3	4 21	15 42.92	-15 27.8	1.492	2.435	10.5	19.1
5 1	15 31.67	+ 2 48.7	1.950	2.904	7.8	18.1	5 1	15 33.84	-15 3.9	1.446	2.434	6.0	18.8
5 11	15 22.81	+ 3 11.2	1.935	2.899	7.2	18.1	5 11	15 23.26	-14 37.9	1.425	2.433	1.7	18.5
5 21	15 13.76	+ 3 16.0	1.946	2.894	8.6	18.1	5 21	15 12.40	-14 13.4	1.430	2.431	4.6	18.7
5 31	15 5.44	+ 3 1.4	1.983	2.888	10.9	18.3	5 31	15 2.54	-13 54.6	1.462	2.429	9.3	19.0
6 10	14 58.58	+ 2 27.9	2.043	2.882	13.5	18.4	6 10	14 54.74	-13 45.1	1.518	2.426	13.6	19.2
6 20	14 53.68	+ 1 37.8	2.122	2.875	15.9	18.6	6 20	14 49.64	-13 47.2	1.593	2.423	17.2	19.4
511347	2014 <i>EM</i>												

EPHEMERIDES

5 13.2

5 13.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
351595	2005 <i>UW</i> ₅₁₄		5 13.2 112°41'	2°8/11.4	17		351900	2006 <i>SS</i> ₂₅₂		5 13.2 121°08'	2°6/11.1	17	
4 11	15 43.21	-9 39.2	2.447	3.313	10.2	20.6	4 11	15 41.84	-12 39.4	2.379	3.248	10.3	21.0
4 21	15 37.58	-9 25.4	2.382	3.319	7.4	20.4	4 21	15 36.60	-11 45.3	2.317	3.258	7.4	20.8
5 1	15 30.51	-9 13.0	2.342	3.326	4.5	20.3	5 1	15 29.95	-10 49.2	2.281	3.267	4.4	20.6
5 11	15 22.63	-9 4.2	2.331	3.332	2.8	20.1	5 11	15 22.55	-9 54.9	2.273	3.275	2.6	20.5
5 21	15 14.65	-9 1.1	2.348	3.338	4.3	20.3	5 21	15 15.09	-9 6.1	2.293	3.284	4.3	20.7
5 31	15 7.28	-9 5.3	2.393	3.344	7.1	20.4	5 31	15 8.30	-8 26.1	2.341	3.292	7.3	20.9
6 10	15 1.15	-9 17.9	2.463	3.350	9.9	20.6	6 10	15 2.76	-7 57.5	2.415	3.300	10.1	21.1
6 20	14 56.66	-9 39.2	2.556	3.355	12.3	20.8	6 20	14 58.88	-7 41.2	2.511	3.308	12.5	21.2
250378	2003 <i>UF</i> ₄₁		5 13.2 240°64'	0°2/13.3	17		333637	2008 <i>QZ</i> ₁₀		5 13.2 303°77'	4°7/10.3	17	
4 11	15 49.11	-19 33.4	1.903	2.761	12.9	21.9	4 11	15 42.51	-10 7.7	1.585	2.470	13.6	20.2
4 21	15 42.54	-19 29.2	1.810	2.745	9.5	21.6	4 21	15 37.96	-9 5.5	1.501	2.448	10.1	20.0
5 1	15 33.65	-19 17.8	1.742	2.728	5.5	21.3	5 1	15 31.12	-8 0.8	1.441	2.426	6.5	19.7
5 11	15 23.25	-19 0.4	1.701	2.710	1.1	21.0	5 11	15 22.81	-6 59.7	1.405	2.404	4.7	19.5
5 21	15 12.37	-18 38.9	1.688	2.691	3.5	21.1	5 21	15 14.06	-6 8.3	1.396	2.383	7.0	19.6
5 31	15 2.17	-18 16.9	1.702	2.672	8.0	21.4	5 31	15 6.03	-5 32.5	1.411	2.362	11.1	19.8
6 10	14 53.67	-17 58.5	1.742	2.652	12.1	21.6	6 10	14 59.75	-5 15.8	1.447	2.341	15.1	20.0
6 20	14 47.55	-17 47.3	1.804	2.631	15.6	21.7	6 20	14 55.88	-5 19.1	1.502	2.320	18.6	20.2
510417	2011 <i>UA</i> ₂₆₄		5 13.2 216°17'	2°2/11.7	18		478327	2011 <i>WY</i> ₁₀₃		5 13.2 320°49'	3°3/15.3	16	
4 11	15 43.07	-11 36.7	2.585	3.449	9.8	21.2	4 11	15 44.96	-28 27.6	2.299	3.135	11.8	21.4
4 21	15 37.50	-11 20.7	2.507	3.444	7.1	21.0	4 21	15 39.22	-28 48.8	2.220	3.134	9.1	21.2
5 1	15 30.50	-11 4.4	2.454	3.439	4.2	20.8	5 1	15 31.62	-28 59.0	2.164	3.133	6.1	21.0
5 11	15 22.64	-10 49.9	2.429	3.433	2.2	20.7	5 11	15 22.89	-28 57.5	2.135	3.132	3.6	20.9
5 21	15 14.61	-10 39.4	2.434	3.427	3.8	20.8	5 21	15 13.89	-28 45.1	2.134	3.131	3.9	20.9
5 31	15 7.11	-10 34.9	2.467	3.421	6.7	20.9	5 31	15 5.56	-28 24.5	2.161	3.130	6.6	21.0
6 10	15 0.76	-10 38.0	2.525	3.415	9.6	21.1	6 10	14 58.71	-27 59.5	2.213	3.129	9.5	21.2
6 20	14 55.99	-10 49.3	2.607	3.408	12.0	21.3	6 20	14 53.88	-27 34.4	2.288	3.128	12.3	21.4
251780	1999 <i>RV</i> ₈₂		5 13.2 190°02'	2°4/14.7	17		168858	2000 <i>VN</i> ₈		5 13.2 140°92'	0°6/12.8	17	
4 11	15 49.04	-26 20.7	2.033	2.875	12.9	21.3	4 11	15 47.94	-18 55.1	1.701	2.569	13.8	21.0
4 21	15 42.27	-26 18.1	1.953	2.874	9.7	21.1	4 21	15 41.53	-18 22.3	1.638	2.578	10.0	20.8
5 1	15 33.37	-26 3.1	1.896	2.872	6.1	20.9	5 1	15 32.94	-17 41.4	1.598	2.586	5.6	20.5
5 11	15 23.18	-25 36.1	1.866	2.870	2.9	20.6	5 11	15 23.12	-16 55.4	1.585	2.594	1.1	20.2
5 21	15 12.73	-24 59.1	1.865	2.867	3.6	20.7	5 21	15 13.19	-16 8.6	1.599	2.602	3.9	20.5
5 31	15 3.11	-24 16.1	1.891	2.863	7.2	20.9	5 31	15 4.29	-15 26.0	1.640	2.609	8.3	20.7
6 10	14 55.24	-23 32.4	1.944	2.858	10.7	21.1	6 10	14 57.31	-14 52.2	1.706	2.616	12.2	21.0
6 20	14 49.70	-22 52.9	2.019	2.853	13.9	21.3	6 20	14 52.78	-14 30.2	1.792	2.622	15.6	21.2
308145	2005 <i>AU</i> ₁₂		5 13.2 99°59'	2°3/12.0	18		329951	2005 <i>QW</i> ₅₇		5 13.2 307°21'	5°6/14.8	17	
4 11	15 49.32	-14 13.1	1.580	2.454	14.3	21.3	4 11	15 49.12	-28 2.6	1.427	2.283	16.6	20.7
4 21	15 42.43	-13 43.1	1.533	2.475	10.3	21.1	4 21	15 43.73	-29 5.6	1.329	2.254	13.1	20.3
5 1	15 33.36	-13 10.1	1.508	2.496	5.8	20.8	5 1	15 34.96	-29 57.9	1.253	2.224	9.1	20.0
5 11	15 23.15	-12 37.8	1.510	2.517	2.4	20.7	5 11	15 23.62	-30 34.9	1.199	2.195	5.9	19.8
5 21	15 12.98	-12 10.2	1.538	2.537	4.9	20.9	5 21	15 11.06	-30 53.3	1.170	2.166	6.5	19.7
5 31	15 4.01	-11 51.2	1.593	2.556	9.0	21.2	5 31	14 59.08	-30 54.1	1.166	2.137	10.5	19.9
6 10	14 57.09	-11 43.3	1.672	2.575	12.8	21.4	6 10	14 49.39	-30 42.9	1.183	2.109	15.2	20.0
6 20	14 52.69	-11 47.7	1.771	2.593	16.0	21.7	6 20	14 43.15	-30 27.1	1.219	2.081	19.5	20.2
269753	1999 <i>RS</i> ₇₃		5 13.2 326°63'	8°0/16.8	17		190580	2000 <i>SB</i> ₂₀₅		5 13.2 254°45'	1°8/14.4	18	
4 11	15 46.50	-35 50.1	1.534	2.364	17.0	19.5	4 11	15 47.19	-25 7.3	2.320	3.162	11.5	20.9
4 21	15 41.52	-36 45.3	1.451	2.350	14.0	19.3	4 21	15 40.92	-24 58.9	2.215	3.137	8.7	20.7
5 1	15 33.44	-37 20.6	1.388	2.336	10.9	19.0	5 1	15 32.66	-24 39.8	2.134	3.112	5.4	20.5
5 11	15 23.25	-37 31.5	1.348	2.324	8.5	18.9	5 11	15 23.11	-24 10.4	2.081	3.086	2.2	20.2
5 21	15 12.36	-37 16.2	1.331	2.312	8.3	18.9	5 21	15 13.12	-23 32.5	2.057	3.059	3.2	20.2
5 31	15 2.41	-36 37.9	1.338	2.300	10.5	18.9	5 31	15 3.67	-22 49.3	2.061	3.032	6.7	20.4
6 10	14 54.86	-35 44.3	1.367	2.289	13.8	19.1	6 10	14 55.63	-22 5.7	2.092	3.003	10.3	20.5
6 20	14 50.57	-34 44.5	1.416	2.279	17.2	19.3	6 20	14 49.62	-21 26.0	2.146	2.974	13.4	20.7
490117	2008 <i>UB</i> ₇₂		5 13.2 197°21'	2°6/14.9	18		232866	2004 <i>TZ</i> ₂₉₅		5 13.2 157°36'	0°2/13.1	17	
4 11	15 45.86	-27 27.2	2.267	3.105	11.9	22.0	4 11	15 44.90	-19 52.0	2.213	3.072	11.4	21.6
4 21	15 39.83	-27 25.3	2.185	3.103	9.0	22.2	4 21	15 38.99	-19 21.8	2.142	3.077	8.2	21.4
5 1	15 31.93	-27 11.6	2.127	3.101	5.8	21.8	5 1	15 31.39	-18 44.3	2.096	3.083	4.6	21.2
5 11	15 22.92	-26 46.5	2.097	3.098	3.0	21.6	5 11	15 22.85	-18 1.9	2.078	3.088	0.8	20.9
5 21	15 13.68	-26 11.6	2.094	3.094	3.5	21.6	5 21	15 14.20	-17 17.7	2.089	3.092	3.1	21.1
5 31	15 5.16	-25 30.6	2.120	3.091	6.5	21.8	5 31	15 6.29	-16 35.8	2.128	3.096	6.7	21.3
6 10	14 58.16	-24 48.1	2.171	3.087	9.7	22.0	6 10	14 59.84	-15 59.7	2.193	3.099	10.0	21.5
6 20	14 53.20	-24 8.5	2.246	3.082	12.6	22.1	6 20	14 55.31	-15 32.4	2.280	3.102	12.9	21.7
7149	Bernie		5 13.2 323°22'	0°5/12.9	18		420731	2012 <i>SP</i> ₆		5 13.2 230°59'	0°9/14.2	18	
4 11	15 41.66	-18 32.5	1.960	2.831	12.1	18.1	4 11	15 37.12	-23 21.1	4.452	5.293	6.4	21.0
4 21	15 36.97	-18 11.9	1.878	2.820	8.7	17.9	4 21	15 32.84	-23 22.5	4.368	5.291	4.7	20.8
5 1	15 30.39	-17 44.6	1.820	2.809	4.9	17.7	5 1	15 27.75	-23 19.5	4.310	5.289	2.9	20.7
5 11	15 22.65	-17 13.1	1.789	2.798	0.9	17.3	5 11	15 22.18	-23 12.6	4.281	5.287	1.1	20.5
5 21	15 14.63	-16 40.3	1.785	2.788	3.4	17.5	5 21	15 16.51	-23 2.9	4.282	5.285	1.7	20.6
5 31	15 7.28	-16 10.2	1.807	2.778	7.5	17.7	5 31	15 11.14	-22 51.4	4.313	5.283	3.5	20.7
6 10	15 1.43	-15 46.5	1.854	2.769	11.2	17.9	6 10	15 6.41	-22 39.7	4.372	5.281	5.4	20.9
6 20	14 57.63	-15 31.8	1.923	2.760	14.4	18.1	6 20	15 2.62	-22 29.3	4.456	5.279	7.0	21.0
340394	2006 <i>EH</i> ₂₇		5 13.2 342°84'	8°9/ 7.1	17		12665	1978 <i>VE</i> ₇		5 13.2 267			

EPHEMERIDES

5 13.2

5 13.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
311116	2004 <i>NZ</i> ₂₃		5 13.2 305°49	0°2/13.3	17		338374	2002 <i>YB</i> ₅		5 13.2 148°39	2°6/15.1	18	
4 11	15 44.16	-21 18.0	1.193	2.081	17.0	20.5	4 11	15 47.81	-27 43.3	2.895	3.717	10.0	21.6
4 21	15 40.10	-20 46.2	1.102	2.051	12.6	20.1	4 21	15 40.88	-28 7.7	2.820	3.728	7.6	21.5
5 1	15 32.81	-19 58.3	1.032	2.022	7.4	19.7	5 1	15 32.43	-28 23.2	2.771	3.738	5.0	21.3
5 11	15 23.21	-18 56.5	0.984	1.993	1.4	19.3	5 11	15 23.08	-28 29.3	2.751	3.748	2.9	21.2
5 21	15 12.71	-17 46.1	0.959	1.965	4.9	19.4	5 21	15 13.56	-28 26.4	2.761	3.757	3.2	21.2
5 31	15 3.05	-16 36.0	0.958	1.936	11.2	19.6	5 31	15 4.63	-28 16.5	2.800	3.765	5.5	21.4
6 10	14 55.79	-15 35.6	0.976	1.909	17.0	19.9	6 10	14 56.96	-28 2.5	2.867	3.773	8.0	21.5
6 20	14 51.93	-14 52.1	1.012	1.881	22.0	20.1	6 20	14 51.00	-27 47.5	2.958	3.780	10.3	21.7
383748	2007 <i>VO</i> ₉₇		5 13.2 329°31	2°0/14.5	17		482177	2010 <i>UA</i> ₈		5 13.2 57°12	15°2/12.5	17	
4 11	15 43.19	-25 15.1	1.845	2.703	13.3	20.8	4 11	16 0.95	+13 38.3	1.030	1.872	22.6	19.6
4 21	15 38.23	-25 2.6	1.766	2.697	9.9	20.5	4 21	15 51.84	+13 32.9	0.984	1.878	19.4	19.4
5 1	15 31.17	-24 37.6	1.710	2.692	6.1	20.3	5 1	15 39.11	+12 49.5	0.954	1.885	16.6	19.3
5 11	15 22.83	-24 1.2	1.680	2.686	2.5	20.0	5 11	15 24.33	+11 20.3	0.945	1.891	15.2	19.2
5 21	15 14.23	-23 16.4	1.677	2.681	3.5	20.1	5 21	15 9.48	+9 5.9	0.958	1.898	16.0	19.3
5 31	15 6.43	-22 27.7	1.700	2.676	7.4	20.3	5 31	14 56.52	+6 14.8	0.993	1.905	18.5	19.4
6 10	15 0.35	-21 40.8	1.748	2.672	11.2	20.5	6 10	14 46.84	+3 0.5	1.049	1.912	21.7	19.7
6 20	14 56.55	-21 0.3	1.817	2.667	14.5	20.7	6 20	14 41.05	-0 23.4	1.122	1.920	24.8	19.9
42796	1999 <i>CP</i> ₅₃		5 13.2 138°97	1°0/12.7	18		505484	2013 <i>VL</i> ₂₃		5 13.2 222°67	3°2/15.3	17	
4 11	15 49.73	-17 15.6	1.678	2.545	14.0	19.4	4 11	15 47.32	-28 42.8	2.085	2.921	12.9	21.9
4 21	15 42.83	-16 55.4	1.617	2.557	10.1	19.1	4 21	15 41.13	-28 42.9	1.998	2.913	9.9	21.7
5 1	15 33.69	-16 29.1	1.580	2.568	5.7	18.9	5 1	15 32.81	-28 29.3	1.934	2.905	6.5	21.4
5 11	15 23.28	-15 59.4	1.569	2.578	1.3	18.6	5 11	15 23.18	-28 1.8	1.897	2.896	3.6	21.2
5 21	15 12.77	-15 29.9	1.585	2.587	4.0	18.8	5 21	15 13.24	-27 22.2	1.887	2.886	4.0	21.2
5 31	15 3.31	-15 4.6	1.629	2.596	8.5	19.1	5 31	15 4.04	-26 34.3	1.905	2.877	7.1	21.4
6 10	14 55.84	-14 47.5	1.697	2.605	12.4	19.4	6 10	14 56.53	-25 43.7	1.949	2.866	10.6	21.6
6 20	14 50.89	-14 40.7	1.786	2.612	15.7	19.6	6 20	14 51.29	-24 55.8	2.016	2.855	13.7	21.8
235308	2003 <i>UO</i> ₁₁₄		5 13.2 217°18	1°1/13.9	18		284921	2010 <i>CU</i> ₅₆		5 13.2 111°40	3°7/11.5	18	
4 11	15 44.98	-23 9.0	2.173	3.026	11.8	21.7	4 11	15 49.22	-12 0.6	1.356	2.238	15.7	20.7
4 21	15 39.23	-22 56.8	2.091	3.021	8.7	21.5	4 21	15 42.76	-11 18.3	1.304	2.250	11.4	20.4
5 1	15 31.64	-22 35.3	2.033	3.016	5.2	21.3	5 1	15 33.76	-10 34.7	1.274	2.262	6.8	20.2
5 11	15 22.93	-22 5.6	2.003	3.010	1.6	21.0	5 11	15 23.34	-9 54.9	1.269	2.273	3.7	20.1
5 21	15 13.99	-21 30.0	2.000	3.004	3.0	21.1	5 21	15 12.86	-9 24.0	1.289	2.284	6.3	20.2
5 31	15 5.74	-20 52.3	2.026	2.998	6.7	21.3	5 31	15 3.64	-9 6.5	1.335	2.295	10.7	20.5
6 10	14 58.98	-20 16.8	2.078	2.992	10.2	21.5	6 10	14 56.70	-9 4.7	1.402	2.305	14.8	20.8
6 20	14 54.24	-19 47.0	2.152	2.985	13.2	21.7	6 20	14 52.58	-9 18.9	1.488	2.315	18.3	21.0
11114	1995 <i>WV</i> ₅		5 13.2 287°32	0°5/13.6	18		408277	2013 <i>FE</i> ₂₃		5 13.2 38°41	3°2/11.4	16	
4 11	15 42.00	-22 33.1	2.209	3.067	11.4	18.6	4 11	15 44.70	-15 24.1	1.238	2.130	16.2	20.6
4 21	15 37.00	-21 55.5	2.129	3.063	8.3	18.3	4 21	15 39.76	-14 12.3	1.182	2.134	11.7	20.3
5 1	15 30.33	-21 8.0	2.074	3.059	4.8	18.1	5 1	15 32.16	-12 52.9	1.148	2.138	6.7	20.1
5 11	15 22.68	-20 13.0	2.047	3.055	1.1	17.8	5 11	15 23.06	-11 32.9	1.137	2.143	3.2	19.9
5 21	15 14.88	-19 14.1	2.047	3.052	2.9	18.0	5 21	15 13.82	-10 20.5	1.151	2.148	6.3	20.1
5 31	15 7.76	-18 15.9	2.076	3.048	6.6	18.2	5 31	15 5.82	-9 23.3	1.189	2.154	11.1	20.3
6 10	15 2.04	-17 22.8	2.130	3.044	10.0	18.4	6 10	15 0.13	-8 46.3	1.248	2.160	15.6	20.6
6 20	14 58.19	-16 38.6	2.207	3.040	12.9	18.6	6 20	14 57.28	-8 30.7	1.324	2.165	19.4	20.9
499558	2010 <i>RF</i> ₁₄₇		5 13.2 202°72	0°4/13.4	17		252918	2002 <i>NG</i> ₁₈		5 13.2 264°78	5°0/10.3	17	
4 11	15 48.02	-20 47.5	1.989	2.846	12.6	23.1	4 11	15 45.31	-8 38.1	1.616	2.496	13.7	20.4
4 21	15 41.54	-20 32.4	1.908	2.841	9.2	22.9	4 21	15 39.90	-7 41.8	1.540	2.483	10.2	20.2
5 1	15 33.00	-20 9.0	1.851	2.836	5.3	22.6	5 1	15 32.21	-6 45.6	1.487	2.469	6.7	19.9
5 11	15 23.19	-19 38.6	1.822	2.831	1.1	22.3	5 11	15 23.10	-5 55.2	1.459	2.455	5.0	19.8
5 21	15 13.11	-19 4.0	1.821	2.824	3.3	22.5	5 21	15 13.62	-5 16.4	1.457	2.441	7.2	19.9
5 31	15 3.80	-18 29.2	1.847	2.817	7.4	22.7	5 31	15 4.94	-4 53.7	1.481	2.427	11.0	20.1
6 10	14 56.16	-17 58.5	1.900	2.810	11.2	22.9	6 10	14 58.06	-4 49.6	1.526	2.413	14.8	20.3
6 20	14 50.76	-17 35.4	1.974	2.801	14.4	23.1	6 20	14 53.60	-5 4.1	1.591	2.398	18.2	20.4
430774	2004 <i>RT</i> ₃₄₆		5 13.2 163°43	3°8/16.2	17		109807	2001 <i>RG</i> ₁₀₂		5 13.2 183°94	4°3/9.9	18	
4 11	15 47.08	-32 15.9	2.265	3.085	12.5	20.9	4 11	15 42.61	-5 52.3	2.399	3.265	10.3	20.2
4 21	15 40.70	-32 4.5	2.188	3.090	9.8	20.7	4 21	15 37.22	-5 9.0	2.332	3.265	7.7	20.1
5 1	15 32.42	-31 37.3	2.134	3.094	6.8	20.5	5 1	15 30.39	-4 28.7	2.290	3.265	5.3	19.9
5 11	15 23.07	-30 54.6	2.106	3.098	4.3	20.4	5 11	15 22.73	-3 55.2	2.276	3.265	4.3	19.8
5 21	15 13.59	-29 58.4	2.107	3.102	4.2	20.4	5 21	15 14.96	-3 31.4	2.290	3.264	5.8	19.9
5 31	15 4.96	-28 53.4	2.136	3.104	6.7	20.5	5 31	15 7.78	-3 19.9	2.331	3.263	8.3	20.1
6 10	14 57.98	-27 45.4	2.192	3.107	9.7	20.7	6 10	15 1.82	-3 21.6	2.396	3.262	10.9	20.2
6 20	14 53.14	-26 40.0	2.271	3.109	12.4	20.9	6 20	14 57.51	-3 36.4	2.483	3.260	13.2	20.4
503798	2017 <i>DK</i> ₃₅		5 13.2 307°75	22°9/24.3	18		191689	2004 <i>RZ</i> ₁₃₆		5 13.2 290°11	0°6/13.6	17	
4 11	15 45.74	+24 9.3	1.052	1.874	23.6	20.6	4 11	15 44.77	-21 19.4	1.714	2.582	13.7	20.6
4 21	15 40.97	+26 56.5	1.025	1.866	23.0	20.5	4 21	15 39.53	-21 3.5	1.633	2.572	10.0	20.4
5 1	15 33.02	+29 0.3	1.014	1.858	23.1	20.5	5 1	15 32.01	-20 37.8	1.576	2.562	5.8	20.1
5 11	15 23.21	+30 6.6	1.016	1.851	23.9	20.5	5 11	15 23.06	-20 3.9	1.544	2.553	1.3	19.8
5 21	15 13.15	+30 9.2	1.032	1.844	25.3	20.6	5 21	15 13.77	-19 25.1	1.538	2.543	3.6	19.9
5 31	15 4.54	+29 9.5	1.059	1.837	27.0	20.7	5 31	15 5.28	-18 46.0	1.559	2.533	8.1	20.2
6 10	14 58.61	+27 16.2	1.097	1.831	28.7	20.8	6 10	14 58.61	-18 11.9	1.604	2.524	12.3	20.4
6 20	14 55.99	+24 40.9	1.143	1.825	30.3	20.9	6 20	14 54.37	-17 46.6	1.669	2.514	15.8	20.6
327808	2006 <i>VX</i> ₃₄		5 13.2 34°40	0°2/13.3	17		132771	2002 <i>PF</i> ₉₅					

EPHEMERIDES

5 13.2

5 13.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
374080	2004 RA ₁₆₅		5 13.2 271°83	0°4/13.5 18			470391	2007 TW ₃₈₀		5 13.2 216°01	1°7/11.9 18		
4 11	15 44.61	-21 53.8	1.816	2.681	13.2	21.1	4 11	15 43.03	-15 18.0	2.358	3.223	10.5	22.3
4 21	15 39.34	-21 18.7	1.728	2.665	9.7	20.9	4 21	15 37.64	-14 37.4	2.278	3.218	7.6	22.1
5 1	15 31.88	-20 32.1	1.664	2.650	5.6	20.6	5 1	15 30.69	-13 52.6	2.224	3.212	4.3	21.9
5 11	15 23.05	-19 36.2	1.625	2.634	1.2	20.2	5 11	15 22.82	-13 6.7	2.198	3.205	1.7	21.7
5 21	15 13.86	-18 35.1	1.614	2.618	3.5	20.4	5 21	15 14.78	-12 22.9	2.201	3.198	3.7	21.8
5 31	15 5.43	-17 34.5	1.630	2.602	8.0	20.6	5 31	15 7.35	-11 44.9	2.232	3.191	7.0	22.0
6 10	14 58.71	-16 40.2	1.670	2.586	12.1	20.8	6 10	15 1.19	-11 15.7	2.288	3.184	10.2	22.2
6 20	14 54.31	-15 56.7	1.732	2.570	15.7	21.0	6 20	14 56.76	-10 57.2	2.367	3.176	12.9	22.3
478319	2011 WR ₈₂		5 13.2 268°43	2°9/11.7 18			456251	2006 QZ ₁₀		5 13.2 229°04	0°0/13.2 16		
4 11	15 45.71	-8 46.7	2.340	3.203	10.7	20.8	4 11	15 38.43	-19 24.0	4.075	4.924	6.8	23.3
4 21	15 39.60	-8 50.9	2.259	3.194	7.8	20.6	4 21	15 33.86	-19 6.2	3.982	4.913	4.9	23.2
5 1	15 31.83	-8 57.7	2.203	3.186	4.8	20.4	5 1	15 28.38	-18 44.7	3.916	4.901	2.8	23.0
5 11	15 23.03	-9 9.1	2.176	3.177	2.9	20.3	5 11	15 22.39	-18 20.6	3.879	4.888	0.5	22.8
5 21	15 13.97	-9 26.4	2.177	3.169	4.5	20.4	5 21	15 16.28	-17 55.2	3.873	4.876	1.8	22.9
5 31	15 5.48	-9 50.9	2.207	3.160	7.5	20.6	5 31	15 10.48	-17 30.4	3.897	4.863	4.0	23.1
6 10	14 58.27	-10 23.1	2.263	3.151	10.5	20.7	6 10	15 5.38	-17 7.8	3.948	4.850	6.1	23.2
6 20	14 52.85	-11 3.0	2.341	3.143	13.2	20.9	6 20	15 1.27	-16 49.0	4.025	4.836	8.0	23.3
350650	2001 TS ₂₀₈		5 13.2 192°69	1°0/13.9 17			291301	2006 BC ₁₄₂		5 13.2 17°50	4°4/18.8 18		
4 11	15 44.43	-22 27.0	2.594	3.442	10.3	21.7	4 11	15 39.85	-41 35.0	4.261	5.014	8.2	20.2
4 21	15 38.59	-22 25.1	2.513	3.440	7.5	21.5	4 21	15 35.02	-41 49.6	4.175	5.015	6.9	20.1
5 1	15 31.21	-22 16.0	2.457	3.439	4.5	21.3	5 1	15 29.09	-41 53.1	4.113	5.015	5.7	20.0
5 11	15 22.91	-22 0.7	2.429	3.436	1.4	21.1	5 11	15 22.52	-41 44.8	4.076	5.016	4.7	20.0
5 21	15 14.42	-21 40.8	2.430	3.434	2.6	21.2	5 21	15 15.83	-41 25.3	4.067	5.016	4.4	19.9
5 31	15 6.50	-21 18.7	2.460	3.431	5.8	21.4	5 31	15 9.55	-40 55.8	4.085	5.017	5.0	20.0
6 10	14 59.83	-20 57.5	2.517	3.427	8.8	21.6	6 10	15 4.16	-40 18.9	4.130	5.018	6.2	20.1
6 20	14 54.87	-20 40.0	2.597	3.424	11.4	21.7	6 20	14 59.99	-39 37.5	4.199	5.019	7.5	20.2
367500	2009 HE ₈₀		5 13.2 359°89	5°2/10.6 17			2415	Ganesa		5 13.2 296°69	0°9/12.7 18		
4 11	15 40.99	-11 25.3	1.093	1.997	16.8	20.1	4 11	15 44.89	-17 14.4	1.755	2.628	13.2	16.3
4 21	15 37.37	-10 15.3	1.038	1.994	12.3	19.8	4 21	15 39.47	-16 56.6	1.682	2.624	9.5	16.1
5 1	15 30.96	-9 2.5	1.003	1.992	7.7	19.6	5 1	15 31.91	-16 33.1	1.632	2.620	5.4	15.8
5 11	15 22.89	-7 55.4	0.990	1.992	5.2	19.4	5 11	15 23.07	-16 6.3	1.608	2.617	1.2	15.5
5 21	15 14.56	-7 2.3	1.000	1.992	8.0	19.6	5 21	15 13.96	-15 39.6	1.610	2.613	3.9	15.7
5 31	15 7.43	-6 30.1	1.031	1.994	12.7	19.8	5 31	15 5.67	-15 16.7	1.640	2.609	8.2	15.9
6 10	15 2.66	-6 21.7	1.082	1.997	17.2	20.1	6 10	14 59.11	-15 1.4	1.693	2.606	12.1	16.2
6 20	15 0.84	-6 36.5	1.149	2.001	21.1	20.3	6 20	14 54.87	-14 56.1	1.767	2.602	15.5	16.4
140243	2001 SP ₂₅₀		5 13.2 314°65	1°1/13.8 17			187886	2000 RV ₅₃		5 13.2 199°15	3°1/15.8 18		
4 11	15 45.66	-20 59.6	1.996	2.856	12.4	19.5	4 11	15 47.09	-30 45.4	2.599	3.417	11.1	20.3
4 21	15 39.93	-21 18.5	1.916	2.850	9.1	19.3	4 21	15 40.59	-30 34.5	2.510	3.413	8.6	20.2
5 1	15 32.16	-21 31.1	1.860	2.844	5.4	19.1	5 1	15 32.38	-30 10.5	2.445	3.408	5.9	20.0
5 11	15 23.11	-21 37.3	1.831	2.839	1.6	18.8	5 11	15 23.15	-29 33.4	2.408	3.402	3.5	19.8
5 21	15 13.72	-21 38.4	1.829	2.833	3.2	18.9	5 21	15 13.74	-28 45.0	2.399	3.396	3.6	19.8
5 31	15 5.01	-21 36.5	1.855	2.828	7.1	19.1	5 31	15 4.99	-27 48.8	2.420	3.388	6.1	19.9
6 10	14 57.90	-21 34.9	1.906	2.823	10.8	19.3	6 10	14 57.66	-26 49.8	2.469	3.380	8.9	20.1
6 20	14 52.96	-21 36.4	1.978	2.818	13.9	19.5	6 20	14 52.21	-25 52.6	2.541	3.371	11.5	20.3
398750	2013 AP ₃₁		5 13.2 129°83	3°5/15.9 18			302408	2002 CM ₁₅₆		5 13.2 79°11	2°7/11.9 18		
4 11	15 45.17	-31 7.5	2.610	3.430	11.1	21.6	4 11	15 48.96	-14 7.4	1.357	2.239	15.7	21.2
4 21	15 39.15	-31 14.6	2.537	3.440	8.6	21.5	4 21	15 42.47	-13 30.6	1.314	2.260	11.3	21.0
5 1	15 31.51	-31 9.6	2.489	3.449	6.0	21.3	5 1	15 33.54	-12 50.8	1.292	2.281	6.4	20.7
5 11	15 22.96	-30 52.2	2.468	3.458	3.8	21.2	5 11	15 23.35	-12 12.3	1.296	2.302	2.7	20.6
5 21	15 14.29	-30 23.7	2.474	3.467	3.8	21.2	5 21	15 13.23	-11 40.2	1.325	2.323	5.4	20.8
5 31	15 6.30	-29 47.1	2.510	3.476	6.0	21.4	5 31	15 4.46	-11 18.9	1.379	2.344	9.9	21.1
6 10	14 59.70	-29 6.6	2.572	3.484	8.5	21.5	6 10	14 57.97	-11 11.1	1.456	2.365	14.0	21.4
6 20	14 54.92	-28 26.2	2.657	3.492	10.9	21.7	6 20	14 54.23	-11 17.4	1.552	2.385	17.4	21.7
264317	1999 TY ₁₃₄		5 13.2 216°58	1°2/12.5 17			522898	2016 PK ₁₀₄		5 13.2 175°90	2°5/11.4 17		
4 11	15 47.01	-17 27.8	2.016	2.879	12.2	22.0	4 11	15 43.12	-10 48.5	2.582	3.446	9.8	22.2
4 21	15 40.79	-16 48.8	1.932	2.870	8.8	21.8	4 21	15 37.54	-10 22.9	2.510	3.447	7.1	22.0
5 1	15 32.59	-16 2.8	1.873	2.860	5.0	21.6	5 1	15 30.58	-9 57.4	2.465	3.449	4.3	21.8
5 11	15 23.18	-15 12.8	1.841	2.850	1.3	21.3	5 11	15 22.82	-9 34.4	2.448	3.450	2.5	21.7
5 21	15 13.50	-14 22.8	1.838	2.839	3.8	21.4	5 21	15 14.94	-9 16.3	2.460	3.450	4.1	21.8
5 31	15 4.55	-13 37.2	1.863	2.827	7.9	21.7	5 31	15 7.62	-9 5.5	2.500	3.450	6.9	22.0
6 10	14 57.17	-13 0.4	1.914	2.814	11.6	21.9	6 10	15 1.47	-9 3.3	2.566	3.450	9.6	22.2
6 20	14 51.93	-12 35.1	1.986	2.801	14.8	22.1	6 20	14 56.88	-9 10.5	2.654	3.450	12.0	22.3
472814	2015 FS ₁₆₂		5 13.2 225°87	2°6/11.7 17			341021	2007 GS ₆		5 13.2 304°30	0°9/14.3 17		
4 11	15 44.38	-12 1.0	2.082	2.952	11.5	21.2	4 11	15 37.04	-23 40.3	4.138	4.979	6.9	21.0
4 21	15 38.77	-11 36.4	2.007	2.947	8.3	21.0	4 21	15 32.89	-23 36.3	4.051	4.974	5.1	20.8
5 1	15 31.39	-11 10.7	1.957	2.943	5.0	20.8	5 1	15 27.85	-23 27.3	3.990	4.969	3.1	20.7
5 11	15 22.96	-10 47.0	1.934	2.938	2.6	20.7	5 11	15 22.31	-23 14.1	3.959	4.964	1.2	20.5
5 21	15 14.31	-10 28.2	1.939	2.934	4.5	20.8	5 21	15 16.66	-22 57.6	3.956	4.959	1.8	20.6
5 31	15 6.33	-10 17.2	1.972	2.929	8.0	21.0	5 31	15 11.33	-22 39.5	3.984	4.955	3.8	20.7
6 10	14 59.80	-10 16.1	2.029	2.924	11.3	21.2	6 10	15 6.69	-22 21.4	4.039	4.950	5.7	20.9
6 20	14 55.21	-10 25.7	2.107	2.918	14.2	21.3	6 20	15 3.04	-22 5.0	4.119	4.945	7.5	21.0
97826	2000 OB ₅₉		5 13.2 301°26	5°4/15.7 18			113945	2002 TU ₂₉₆		5 13.2 197°03	2°6/12.0 18		
4 11	15 47.03	-30 30.5	1.323	2.180</									

EPHEMERIDES

5 13.2

5 13.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
35720	1999 <i>FP</i> ₃₆		5 13.2 138°47'		0°9/13.8 18		494253	2016 <i>QK</i> ₂₃		5 13.3 286°98'		0°1/13.3 17	
4 11	15 48.60	-23 12.9	1.607	2.469	14.8	18.3	4 11	15 42.80	-20 47.0	2.056	2.919	11.9	21.3
4 21	15 42.21	-22 40.1	1.543	2.478	10.8	18.1	4 21	15 37.77	-20 16.6	1.974	2.912	8.7	21.1
5 1	15 33.46	-21 54.3	1.501	2.486	6.3	17.8	5 1	15 30.91	-19 37.4	1.918	2.904	5.0	20.8
5 11	15 23.36	-20 58.0	1.485	2.494	1.6	17.6	5 11	15 22.95	-18 51.9	1.888	2.897	1.0	20.5
5 21	15 13.16	-19 56.0	1.497	2.501	3.7	17.7	5 21	15 14.76	-18 3.3	1.885	2.889	3.1	20.7
5 31	15 4.08	-18 54.5	1.535	2.508	8.3	18.0	5 31	15 7.27	-17 16.1	1.910	2.882	7.1	20.9
6 10	14 57.09	-17 59.9	1.597	2.515	12.4	18.3	6 10	15 1.26	-16 34.8	1.961	2.874	10.7	21.1
6 20	14 52.72	-17 16.9	1.680	2.520	16.0	18.5	6 20	14 57.25	-16 2.6	2.033	2.867	13.8	21.3
89333	2001 <i>VJ</i> ₅₁		5 13.2 49°65'		2°1/14.8 18		180775	2004 <i>QP</i> ₈		5 13.3 342°56'		9°3/ 8.8 18	
4 11	15 43.21	-26 48.8	1.974	2.825	12.9	18.7	4 11	15 45.57	+ 7 59.4	1.921	2.764	13.5	19.2
4 21	15 38.03	-26 20.8	1.907	2.834	9.6	18.5	4 21	15 39.71	+ 8 22.3	1.859	2.758	11.4	19.1
5 1	15 30.98	-25 39.3	1.864	2.843	6.0	18.3	5 1	15 31.97	+ 8 28.6	1.819	2.751	9.8	18.9
5 11	15 22.90	-24 46.3	1.847	2.852	2.6	18.1	5 11	15 23.15	+ 8 13.6	1.803	2.746	9.4	18.9
5 21	15 14.74	-23 45.2	1.858	2.861	3.3	18.2	5 21	15 14.14	+ 7 35.0	1.813	2.741	10.4	18.9
5 31	15 7.45	-22 41.4	1.896	2.871	6.8	18.4	5 31	15 5.91	+ 6 32.9	1.846	2.736	12.4	19.1
6 10	15 1.82	-21 40.5	1.959	2.881	10.3	18.6	6 10	14 59.23	+ 5 10.3	1.902	2.732	14.7	19.2
6 20	14 58.30	-20 47.1	2.045	2.891	13.3	18.8	6 20	14 54.62	+ 3 31.3	1.978	2.728	17.0	19.4
101694	1999 <i>CR</i> ₁₂₅		5 13.2 81°67'		3°6/11.9 18		375774	2009 <i>SX</i> ₁₅₆		5 13.3 135°72'		5°0/ 9.5 17	
4 11	15 49.28	- 8 45.1	1.637	2.509	14.0	17.8	4 11	15 44.41	- 7 10.3	1.982	2.854	11.9	21.5
4 21	15 42.56	- 8 47.4	1.579	2.519	10.2	17.6	4 21	15 38.70	- 5 54.3	1.926	2.863	8.9	21.3
5 1	15 33.61	- 8 53.4	1.545	2.529	6.3	17.3	5 1	15 31.31	- 4 40.3	1.895	2.872	6.1	21.2
5 11	15 23.40	- 9 5.5	1.537	2.539	3.6	17.2	5 11	15 23.01	- 3 33.9	1.892	2.881	5.1	21.1
5 21	15 13.04	- 9 25.5	1.556	2.549	5.6	17.3	5 21	15 14.67	- 2 40.2	1.916	2.889	6.8	21.2
5 31	15 3.70	- 9 54.7	1.601	2.559	9.4	17.6	5 31	15 7.13	- 2 2.8	1.966	2.897	9.7	21.4
6 10	14 56.30	-10 33.4	1.671	2.569	13.1	17.8	6 10	15 1.11	- 1 43.5	2.040	2.904	12.6	21.6
6 20	14 51.37	-11 20.8	1.760	2.579	16.2	18.1	6 20	14 57.03	- 1 41.8	2.134	2.911	15.1	21.8
314119	2005 <i>EU</i> ₁₃₁		5 13.3 103°35'		4°6/10.6 17		479909	2014 <i>HN</i> ₄₅		5 13.3 220°30'		2°3/11.7 18	
4 11	15 45.65	-10 14.6	1.484	2.368	14.5	20.7	4 11	15 43.08	-11 12.4	2.577	3.441	9.8	21.0
4 21	15 40.10	- 9 11.5	1.427	2.373	10.6	20.5	4 21	15 37.60	-10 57.5	2.499	3.437	7.1	20.8
5 1	15 32.27	- 8 7.8	1.392	2.377	6.7	20.3	5 1	15 30.68	-10 42.6	2.447	3.432	4.2	20.6
5 11	15 23.16	- 7 9.8	1.383	2.382	4.7	20.2	5 11	15 22.91	-10 29.8	2.423	3.427	2.3	20.5
5 21	15 13.91	- 6 23.6	1.399	2.387	6.9	20.3	5 21	15 14.97	-10 21.4	2.429	3.422	3.9	20.6
5 31	15 5.71	- 5 54.0	1.440	2.392	10.8	20.6	5 31	15 7.55	-10 19.2	2.462	3.416	6.8	20.7
6 10	14 59.49	- 5 43.2	1.504	2.396	14.6	20.8	6 10	15 1.28	-10 24.6	2.521	3.411	9.6	20.9
6 20	14 55.78	- 5 51.1	1.586	2.401	17.9	21.0	6 20	14 56.59	-10 38.4	2.603	3.405	12.0	21.1
224355	2005 <i>UH</i> ₁₁₂		5 13.3 160°15'		0°7/13.7 17		233789	2008 <i>UH</i> ₂₂		5 13.3 170°88'		0°4/13.5 18	
4 11	15 47.07	-21 51.5	2.226	3.077	11.6	22.0	4 11	15 45.56	-20 47.6	2.069	2.928	12.0	21.2
4 21	15 40.63	-21 39.9	2.153	3.083	8.5	21.8	4 21	15 39.71	-20 36.4	1.995	2.930	8.8	21.0
5 1	15 32.42	-21 20.3	2.106	3.089	4.9	21.6	5 1	15 31.99	-20 17.7	1.946	2.931	5.1	20.8
5 11	15 23.20	-20 53.9	2.086	3.095	1.3	21.3	5 11	15 23.17	-19 52.8	1.923	2.932	1.1	20.5
5 21	15 13.82	-20 23.0	2.096	3.100	2.9	21.5	5 21	15 14.15	-19 24.2	1.929	2.933	3.1	20.7
5 31	15 5.21	-19 51.1	2.133	3.104	6.5	21.7	5 31	15 5.88	-18 55.6	1.963	2.934	6.9	20.9
6 10	14 58.12	-19 22.0	2.197	3.107	9.9	21.9	6 10	14 59.17	-18 30.6	2.021	2.934	10.5	21.1
6 20	14 53.02	-18 58.8	2.284	3.110	12.7	22.1	6 20	14 54.53	-18 12.3	2.102	2.935	13.5	21.3
1595	Tanga		5 13.3 300°27'		2°4/11.9 18		120606	1995 <i>VH</i> ₁₁		5 13.3 261°17'		2°2/11.9 18	
4 11	15 44.31	-13 43.5	1.678	2.557	13.4	16.0	4 11	15 44.42	-14 7.0	1.891	2.764	12.4	19.9
4 21	15 39.18	-13 16.8	1.600	2.545	9.7	15.7	4 21	15 39.04	-13 34.9	1.813	2.755	8.9	19.7
5 1	15 31.84	-12 47.0	1.545	2.534	5.6	15.4	5 1	15 31.69	-12 59.4	1.758	2.746	5.2	19.4
5 11	15 23.12	-12 17.6	1.516	2.522	2.5	15.2	5 11	15 23.12	-12 23.6	1.731	2.737	2.2	19.2
5 21	15 14.03	-11 52.3	1.513	2.511	4.9	15.3	5 21	15 14.28	-11 51.4	1.731	2.728	4.5	19.4
5 31	15 5.73	-11 35.3	1.536	2.500	9.2	15.6	5 31	15 6.16	-11 26.6	1.757	2.719	8.4	19.6
6 10	14 59.16	-11 29.5	1.582	2.489	13.2	15.8	6 10	14 59.61	-11 12.3	1.808	2.710	12.1	19.8
6 20	14 54.95	-11 36.6	1.648	2.479	16.6	16.0	6 20	14 55.19	-11 10.2	1.879	2.700	15.3	20.0
180127	2003 <i>FF</i> ₆₈		5 13.3 123°91'		3°9/15.6 18		320682	2008 <i>CH</i> ₂₁₀		5 13.3 346°96'		4°3/15.1 17	
4 11	15 48.12	-30 6.4	2.452	3.274	11.6	20.7	4 11	15 43.54	-27 12.5	1.193	2.069	17.8	20.5
4 21	15 41.47	-30 44.6	2.378	3.282	9.0	20.6	4 21	15 39.59	-27 35.3	1.123	2.061	13.7	20.2
5 1	15 32.96	-31 11.6	2.329	3.289	6.3	20.4	5 1	15 32.49	-27 40.9	1.073	2.053	9.0	19.9
5 11	15 23.31	-31 26.2	2.307	3.297	4.2	20.3	5 11	15 23.32	-27 28.0	1.044	2.046	4.9	19.7
5 21	15 13.41	-31 28.2	2.313	3.304	4.3	20.3	5 21	15 13.60	-26 58.3	1.038	2.041	5.5	19.7
5 31	15 4.19	-31 19.8	2.348	3.311	6.5	20.4	5 31	15 5.04	-26 17.3	1.055	2.037	10.0	19.9
6 10	14 56.47	-31 4.6	2.409	3.317	9.2	20.6	6 10	14 59.04	-25 33.3	1.093	2.034	14.7	20.2
6 20	14 50.76	-30 46.8	2.493	3.324	11.7	20.8	6 20	14 56.38	-24 54.0	1.149	2.032	19.0	20.4
425838	2011 <i>EQ</i> ₃₇		5 13.3 127°27'		4°4/15.2 17		305502	2008 <i>EU</i> ₁₀₀		5 13.3 144°12'		1°1/13.9 18	
4 11	15 50.78	-28 44.2	1.865	2.701	14.1	21.2	4 11	15 45.66	-21 26.5	2.492	3.341	10.6	20.3
4 21	15 43.90	-29 31.7	1.793	2.706	10.9	21.0	4 21	15 39.57	-21 44.0	2.416	3.345	7.8	20.1
5 1	15 34.55	-30 6.8	1.744	2.710	7.5	20.8	5 1	15 31.84	-21 55.7	2.366	3.348	4.6	19.9
5 11	15 23.64	-30 27.0	1.721	2.715	4.7	20.7	5 11	15 23.15	-22 1.7	2.344	3.351	1.5	19.7
5 21	15 12.36	-30 32.1	1.725	2.719	5.0	20.7	5 21	15 14.25	-22 3.0	2.351	3.354	2.7	19.8
5 31	15 1.97	-30 24.4	1.756	2.723	8.0	20.9	5 31	15 5.96	-22 1.5	2.387	3.357	5.9	20.0
6 10	14 53.55	-30 8.9	1.812	2.727	11.4	21.1	6 10	14 58.97	-21 59.7	2.449	3.360	9.0	20.2
6 20	14 47.77	-29 51.0	1.890	2.731	14.4	21.3	6 20	14 53.76	-21 59.9	2.535	3.363	11.6	20.4
416321	2003 <i>SV</i> ₁₅₀		5 13.3 219°30'		0°2/13.1 17		284268	2006 <i>HK</i>					

EPHEMERIDES

5 13.3

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
20241	1998 DV ₂₃		5 13.3	33°52'	3.4/14.5	17	420737	2012 TO		5 13.3	227°23'	0.6/12.5	18
4 11	15 49.73	-24 34.6	1.340	2.207	16.8	18.2	4 11	15 35.65	-16 17.0	4.566	5.423	6.0	21.5
4 21	15 43.70	-25 15.7	1.277	2.212	12.6	18.0	4 21	15 31.83	-15 57.7	4.485	5.421	4.3	21.4
5 1	15 34.65	-25 44.9	1.236	2.216	8.0	17.8	5 1	15 27.27	-15 36.4	4.431	5.418	2.4	21.3
5 11	15 23.71	-26 0.3	1.218	2.222	3.9	17.5	5 11	15 22.31	-15 14.3	4.406	5.415	0.7	21.1
5 21	15 12.37	-26 2.2	1.225	2.227	4.9	17.6	5 21	15 17.28	-14 52.8	4.411	5.411	1.8	21.2
5 31	15 2.24	-25 54.3	1.256	2.233	9.3	17.9	5 31	15 12.52	-14 33.1	4.446	5.408	3.7	21.4
6 10	14 54.62	-25 42.3	1.311	2.239	13.8	18.1	6 10	15 8.35	-14 16.7	4.508	5.405	5.5	21.5
6 20	14 50.20	-25 31.9	1.384	2.246	17.6	18.4	6 20	15 5.02	-14 4.4	4.595	5.402	7.1	21.6
93720	2000 VY ₃₇		5 13.3	170°10'	4.1/10.5	18	381454	2008 RN ₃₅		5 13.3	132°74'	0.3/13.5	17
4 11	15 45.78	-5 28.8	2.506	3.364	10.2	19.8	4 11	15 45.19	-20 44.5	1.893	2.756	12.8	21.5
4 21	15 39.46	-4 59.8	2.439	3.368	7.7	19.6	4 21	15 39.58	-20 24.9	1.822	2.759	9.3	21.3
5 1	15 31.70	-4 34.5	2.398	3.372	5.2	19.5	5 1	15 31.98	-19 56.8	1.775	2.762	5.3	21.1
5 11	15 23.11	-4 15.7	2.386	3.375	4.1	19.4	5 11	15 23.22	-19 22.2	1.755	2.764	1.1	20.8
5 21	15 14.42	-4 6.1	2.403	3.378	5.4	19.5	5 21	15 14.28	-18 44.3	1.762	2.767	3.3	21.0
5 31	15 6.35	-4 7.4	2.447	3.380	7.9	19.6	5 31	15 6.17	-18 7.4	1.797	2.769	7.4	21.2
6 10	14 59.52	-4 20.2	2.518	3.381	10.5	19.8	6 10	14 59.74	-17 35.7	1.856	2.771	11.1	21.4
6 20	14 54.35	-4 44.1	2.610	3.382	12.8	20.0	6 20	14 55.50	-17 12.6	1.937	2.774	14.3	21.7
504700	2009 PK ₁₀		5 13.3	269°44'	1.8/12.2	17	388834	2008 DQ ₃₁		5 13.3	0°61'	3.7/15.1	16
4 11	15 46.11	-15 43.6	1.769	2.640	13.1	22.3	4 11	15 44.50	-27 23.2	1.799	2.651	13.9	20.3
4 21	15 40.54	-15 9.8	1.677	2.619	9.6	22.0	4 21	15 39.40	-27 55.2	1.726	2.650	10.6	20.1
5 1	15 32.70	-14 30.0	1.609	2.598	5.5	21.8	5 1	15 32.03	-28 15.3	1.675	2.649	7.1	19.9
5 11	15 23.35	-13 47.3	1.568	2.576	1.9	21.5	5 11	15 23.25	-28 22.4	1.650	2.649	4.1	19.7
5 21	15 13.53	-13 5.9	1.553	2.553	4.6	21.6	5 21	15 14.13	-28 17.0	1.650	2.649	4.5	19.7
5 31	15 4.37	-12 30.7	1.566	2.530	9.0	21.8	5 31	15 5.82	-28 2.0	1.677	2.651	7.7	19.9
6 10	14 56.90	-12 5.8	1.602	2.507	13.2	22.0	6 10	14 59.34	-27 42.2	1.728	2.653	11.2	20.1
6 20	14 51.80	-11 54.1	1.658	2.483	16.8	22.2	6 20	14 55.29	-27 22.4	1.800	2.655	14.4	20.3
245386	2005 GZ ₁₁₆		5 13.3	327°27'	0.6/13.6	16	292698	2006 UE ₁₂₁		5 13.3	191°68'	0.8/12.6	17
4 11	15 41.71	-21 34.1	1.597	2.473	14.1	20.6	4 11	15 43.01	-16 53.9	2.742	3.600	9.5	22.5
4 21	15 37.57	-21 15.6	1.511	2.454	10.4	20.3	4 21	15 37.50	-16 31.3	2.662	3.598	6.8	22.3
5 1	15 31.07	-20 46.0	1.448	2.436	6.1	20.0	5 1	15 30.62	-16 4.8	2.609	3.596	3.8	22.1
5 11	15 23.05	-20 7.4	1.409	2.418	1.4	19.7	5 11	15 22.96	-15 36.2	2.585	3.594	1.0	21.9
5 21	15 14.58	-19 23.2	1.396	2.401	3.7	19.8	5 21	15 15.15	-15 7.8	2.590	3.591	2.8	22.0
5 31	15 6.88	-18 38.8	1.408	2.385	8.5	20.0	5 31	15 7.87	-14 42.3	2.624	3.587	5.9	22.2
6 10	15 1.00	-17 59.8	1.443	2.370	12.9	20.2	6 10	15 1.70	-14 22.1	2.684	3.584	8.7	22.4
6 20	14 57.62	-17 30.9	1.499	2.356	16.7	20.4	6 20	14 57.06	-14 9.0	2.768	3.580	11.2	22.6
193306	2000 SD ₂₈₅		5 13.3	112°72'	1.2/14.7	18	300197	2006 WX ₉₉		5 13.3	219°71'	2.2/11.8	18
4 11	15 39.84	-25 51.6	3.615	4.449	7.9	20.0	4 11	15 43.75	-11 50.0	2.524	3.388	10.0	21.0
4 21	15 34.92	-25 23.1	3.546	4.464	5.9	19.9	4 21	15 38.14	-11 32.3	2.444	3.382	7.2	20.8
5 1	15 29.02	-24 47.3	3.503	4.479	3.6	19.7	5 1	15 31.03	-11 14.0	2.390	3.375	4.3	20.6
5 11	15 22.62	-24 5.5	3.489	4.494	1.5	19.6	5 11	15 23.05	-10 57.4	2.364	3.368	2.2	20.5
5 21	15 16.20	-23 19.8	3.505	4.508	2.0	19.6	5 21	15 14.86	-10 44.7	2.367	3.361	3.9	20.6
5 31	15 10.26	-22 32.5	3.552	4.522	4.2	19.8	5 31	15 7.21	-10 38.1	2.398	3.353	6.9	20.7
6 10	15 5.21	-21 46.5	3.626	4.536	6.3	20.0	6 10	15 0.74	-10 39.4	2.455	3.345	9.8	20.9
6 20	15 1.36	-21 4.1	3.725	4.550	8.3	20.1	6 20	14 55.89	-10 49.2	2.535	3.337	12.3	21.1
449935	2015 ON ₃₃		5 13.3	322°88'	0.5/12.9	15	306989	2001 WP ₇		5 13.3	239°86'	2.6/11.7	18
4 11	15 43.19	-17 16.4	1.987	2.857	12.0	20.8	4 11	15 46.47	-12 21.1	2.048	2.915	11.8	21.3
4 21	15 38.17	-17 15.1	1.904	2.845	8.7	20.6	4 21	15 40.46	-11 53.7	1.962	2.901	8.6	21.1
5 1	15 31.23	-17 9.6	1.846	2.834	4.9	20.3	5 1	15 32.51	-11 24.5	1.900	2.886	5.1	20.8
5 11	15 23.08	-17 1.4	1.813	2.822	1.0	20.0	5 11	15 23.34	-10 56.5	1.866	2.871	2.6	20.6
5 21	15 14.59	-16 52.4	1.808	2.812	3.4	20.2	5 21	15 13.84	-10 32.9	1.861	2.855	4.7	20.7
5 31	15 6.74	-16 45.5	1.830	2.801	7.4	20.4	5 31	15 4.95	-10 17.1	1.882	2.839	8.3	20.9
6 10	15 0.38	-16 43.4	1.877	2.791	11.1	20.6	6 10	14 57.55	-10 11.6	1.929	2.822	11.9	21.1
6 20	14 56.07	-16 48.2	1.945	2.781	14.3	20.8	6 20	14 52.20	-10 17.6	1.997	2.805	15.0	21.3
189555	2000 SY ₃₇		5 13.3	278°84'	2.9/11.5	18	364176	2006 KG ₆₂		5 13.3	127°57'	4.6/11.1	17
4 11	15 45.28	-12 40.2	1.844	2.717	12.6	20.5	4 11	15 47.92	-8 53.7	1.501	2.380	14.6	21.0
4 21	15 39.88	-12 1.5	1.750	2.692	9.2	20.3	4 21	15 41.79	-8 18.3	1.442	2.385	10.8	20.8
5 1	15 32.31	-11 19.3	1.680	2.667	5.5	20.0	5 1	15 33.32	-7 45.0	1.406	2.390	6.8	20.5
5 11	15 23.30	-10 37.5	1.636	2.641	2.9	19.8	5 11	15 23.48	-7 18.7	1.395	2.394	4.6	20.4
5 21	15 13.82	-10 0.5	1.620	2.615	5.3	19.9	5 21	15 13.47	-7 3.5	1.410	2.399	6.7	20.6
5 31	15 4.92	-9 32.5	1.630	2.588	9.3	20.0	5 31	15 4.50	-7 2.6	1.449	2.403	10.6	20.8
6 10	14 57.60	-9 17.2	1.664	2.561	13.2	20.2	6 10	14 57.56	-7 17.4	1.512	2.407	14.4	21.0
6 20	14 52.50	-9 16.3	1.718	2.534	16.7	20.4	6 20	14 53.20	-7 47.1	1.593	2.411	17.7	21.2
309095	2006 VL ₁₃₉		5 13.3	193°29'	0.2/13.4	18	67785	2000 UM ₉₁		5 13.3	47°56'	1.2/13.9	18
4 11	15 43.06	-20 22.1	2.581	3.436	10.1	22.2	4 11	15 46.44	-23 17.2	1.279	2.156	16.8	18.5
4 21	15 37.63	-20 4.0	2.502	3.435	7.3	22.0	4 21	15 41.15	-22 53.7	1.222	2.165	12.3	18.3
5 1	15 30.73	-19 39.5	2.448	3.433	4.2	21.8	5 1	15 33.09	-22 15.6	1.187	2.174	7.3	18.0
5 11	15 22.97	-19 10.4	2.422	3.431	0.8	21.5	5 11	15 23.44	-21 25.5	1.174	2.183	2.0	17.7
5 21	15 15.06	-18 38.8	2.425	3.429	2.6	21.7	5 21	15 13.65	-20 28.6	1.187	2.192	4.1	17.8
5 31	15 7.72	-18 7.7	2.457	3.426	5.9	21.9	5 31	15 5.17	-19 32.1	1.224	2.202	9.3	18.2
6 10	15 1.58	-17 40.2	2.515	3.424	8.9	22.1	6 10	14 59.10	-18 43.4	1.283	2.212	13.9	18.5
6 20	14 57.09	-17 18.6	2.597	3.421	11.5	22.2	6 20	14 56.01	-18 7.1	1.361	2.223	17.8	18.7
395684	2011 WO ₁₅₃		5 13.3	216°24'	2.9/10.8	16	470496	2008 CS ₃₄		5 13.3	188°40'	4.8/9.7	17
4 11	15 41.27	-10 39.2	2.546	3.414									

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V	
506387	2017 <i>RN</i> ₁₀	5 13.3 312°03 4°1/10.9 17						267700	2002 <i>XA</i> ₇₄	5 13.3 99°74 2°5/14.9 18				
4 11	15 43.67	-12 6.6	1.385	2.274	15.0	20.7	4 11	15 48.52	-27 7.9	1.779	2.626	14.2	20.4	
4 21	15 39.07	-11 7.2	1.313	2.263	10.9	20.4	4 21	15 42.00	-26 50.2	1.721	2.645	10.6	20.2	
5 1	15 31.95	-10 3.8	1.264	2.252	6.7	20.2	5 1	15 33.34	-26 17.9	1.686	2.663	6.7	20.0	
5 11	15 23.26	-9 2.8	1.239	2.242	4.1	20.0	5 11	15 23.52	-25 32.3	1.677	2.681	3.0	19.8	
5 21	15 14.20	-8 10.8	1.238	2.231	6.8	20.1	5 21	15 13.69	-24 37.2	1.696	2.699	3.7	19.9	
5 31	15 6.07	-7 34.0	1.262	2.221	11.2	20.3	5 31	15 4.97	-23 38.2	1.742	2.716	7.4	20.1	
6 10	14 59.96	-7 16.4	1.307	2.212	15.5	20.6	6 10	14 58.24	-22 41.4	1.812	2.733	11.1	20.4	
6 20	14 56.53	-7 18.6	1.370	2.203	19.3	20.8	6 20	14 53.95	-21 51.9	1.905	2.749	14.2	20.6	
487553	2014 <i>VP</i> ₂₄	5 13.3 199°33 0°1/13.5 18						410520	2008 <i>EG</i> ₁₅₆	5 13.3 349°35 5°3/ 9.5 18				
4 11	15 35.69	-20 45.3	4.674	5.522	6.0	21.0	4 11	15 40.50	-6 11.6	1.902	2.782	12.0	20.4	
4 21	15 31.85	-20 19.5	4.591	5.521	4.3	20.9	4 21	15 36.12	-5 10.2	1.837	2.778	9.0	20.2	
5 1	15 27.29	-19 49.9	4.535	5.519	2.5	20.8	5 1	15 30.02	-4 11.6	1.797	2.774	6.3	20.1	
5 11	15 22.34	-19 17.6	4.509	5.518	0.5	20.6	5 11	15 22.91	-3 21.2	1.782	2.771	5.3	20.0	
5 21	15 17.32	-18 44.2	4.513	5.516	1.5	20.7	5 21	15 15.63	-2 43.7	1.793	2.768	7.0	20.1	
5 31	15 12.59	-18 11.1	4.547	5.515	3.4	20.8	5 31	15 9.05	-2 22.5	1.830	2.766	10.0	20.3	
6 10	15 8.47	-17 40.2	4.608	5.513	5.2	21.0	6 10	15 3.92	-2 19.1	1.889	2.764	12.9	20.4	
6 20	15 5.18	-17 12.7	4.696	5.511	6.8	21.1	6 20	15 0.69	-2 32.8	1.968	2.763	15.6	20.6	
51760	2001 <i>LC</i> ₇	5 13.3 216°60 2°9/15.7 18						188986	2008 <i>FY</i> ₈₈	5 13.3 51°02 0°3/12.9 18				
4 11	15 44.70	-30 13.9	2.485	3.311	11.3	18.7	4 11	15 36.68	-17 29.5	4.184	5.040	6.5	20.8	
4 21	15 38.98	-29 51.6	2.396	3.305	8.7	18.5	4 21	15 32.63	-17 18.5	4.108	5.042	4.7	20.7	
5 1	15 31.57	-29 15.6	2.332	3.299	5.9	18.3	5 1	15 27.78	-17 5.0	4.059	5.045	2.6	20.5	
5 11	15 23.17	-28 26.5	2.295	3.292	3.3	18.1	5 11	15 22.47	-16 50.1	4.039	5.048	0.5	20.4	
5 21	15 14.60	-27 26.7	2.286	3.285	3.4	18.1	5 21	15 17.09	-16 35.1	4.048	5.050	1.8	20.5	
5 31	15 6.70	-26 20.3	2.306	3.278	6.1	18.3	5 31	15 12.01	-16 21.4	4.087	5.053	3.9	20.6	
6 10	15 0.20	-25 12.5	2.354	3.270	9.0	18.4	6 10	15 7.61	-16 10.3	4.154	5.056	5.8	20.8	
6 20	14 55.57	-24 8.3	2.425	3.262	11.8	18.6	6 20	15 4.13	-16 3.0	4.245	5.059	7.5	20.9	
497872	2006 <i>UH</i> ₁₉₇	5 13.3 203°67 0°3/13.1 17						279748	1998 <i>QH</i> ₁₀₀	5 13.3 305°36 6°1/15.8 18				
4 11	15 47.27	-19 21.5	1.960	2.821	12.5	23.2	4 11	15 47.77	-32 6.4	1.720	2.555	15.2	19.8	
4 21	15 41.09	-18 58.4	1.881	2.817	9.1	22.9	4 21	15 42.39	-32 53.8	1.620	2.527	12.2	19.5	
5 1	15 32.88	-18 27.8	1.826	2.812	5.2	22.7	5 1	15 34.12	-33 26.7	1.540	2.499	9.0	19.2	
5 11	15 23.44	-17 51.6	1.798	2.807	1.0	22.4	5 11	15 23.77	-33 41.2	1.485	2.472	6.5	19.0	
5 21	15 13.74	-17 13.1	1.798	2.802	3.4	22.5	5 21	15 12.54	-33 35.6	1.455	2.444	6.6	19.0	
5 31	15 4.81	-16 36.5	1.826	2.795	7.6	22.8	5 31	15 1.90	-33 11.9	1.450	2.417	9.4	19.0	
6 10	14 57.53	-16 5.9	1.880	2.789	11.3	23.0	6 10	14 53.26	-32 36.0	1.469	2.389	13.1	19.2	
6 20	14 52.45	-15 44.5	1.955	2.781	14.6	23.2	6 20	14 47.55	-31 55.2	1.508	2.363	16.7	19.4	
187020	2005 <i>AZ</i> ₆₃	5 13.3 276°21 2°3/10.5 18						393284	2013 <i>YN</i> ₅	5 13.3 150°31 1°5/12.3 18				
4 11	15 35.93	-7 49.5	4.239	5.101	6.3	20.4	4 11	15 44.25	-15 25.6	2.018	2.887	11.8	21.1	
4 21	15 32.07	-7 24.8	4.163	5.096	4.6	20.2	4 21	15 38.78	-14 59.8	1.948	2.889	8.5	20.9	
5 1	15 27.45	-7 1.3	4.113	5.092	3.0	20.1	5 1	15 31.51	-14 30.3	1.902	2.890	4.8	20.7	
5 11	15 22.39	-6 40.8	4.093	5.087	2.3	20.0	5 11	15 23.20	-13 59.7	1.884	2.891	1.6	20.5	
5 21	15 17.25	-6 24.7	4.102	5.082	3.2	20.1	5 21	15 14.71	-13 31.3	1.893	2.893	3.9	20.6	
5 31	15 12.40	-6 14.2	4.139	5.077	4.8	20.2	5 31	15 6.96	-13 8.4	1.929	2.894	7.6	20.9	
6 10	15 8.17	-6 10.3	4.203	5.072	6.5	20.3	6 10	15 0.72	-12 53.9	1.991	2.895	11.0	21.1	
6 20	15 4.81	-6 13.3	4.291	5.067	8.1	20.5	6 20	14 56.47	-12 49.4	2.073	2.896	14.0	21.3	
259384	2003 <i>JX</i> ₁₀	5 13.3 331°58 2°8/14.5 16						366814	2005 <i>EV</i> ₆₀	5 13.3 48°12 3°6/15.1 18				
4 11	15 47.40	-24 38.7	2.038	2.886	12.6	20.2	4 11	15 48.19	-27 8.0	1.232	2.101	17.9	20.3	
4 21	15 41.35	-25 24.3	1.955	2.879	9.5	20.0	4 21	15 42.53	-27 16.5	1.184	2.118	13.5	20.1	
5 1	15 33.14	-26 2.3	1.897	2.873	6.1	19.8	5 1	15 33.91	-27 7.1	1.155	2.135	8.6	19.9	
5 11	15 23.51	-26 31.0	1.865	2.867	3.2	19.6	5 11	15 23.65	-26 40.0	1.150	2.153	4.3	19.7	
5 21	15 13.44	-26 50.0	1.861	2.861	3.9	19.6	5 21	15 13.32	-25 58.8	1.168	2.171	4.9	19.7	
5 31	15 4.02	-27 0.8	1.885	2.856	7.2	19.8	5 31	15 4.48	-25 10.3	1.211	2.190	9.3	20.0	
6 10	14 56.21	-27 6.4	1.934	2.851	10.7	20.0	6 10	14 58.28	-24 22.6	1.276	2.209	13.7	20.3	
6 20	14 50.67	-27 10.6	2.005	2.846	13.7	20.2	6 20	14 55.24	-23 42.1	1.360	2.229	17.4	20.6	
177912	2005 <i>SO</i> ₁₂₂	5 13.3 275°96 5°3/ 9.2 17						303641	2005 <i>JN</i> ₁₄₇	5 13.3 322°98 11°5/ 6.4 17				
4 11	15 41.70	-3 59.0	2.282	3.150	10.7	20.2	4 11	15 43.63	+9 23.0	1.664	2.514	14.9	19.0	
4 21	15 36.81	-3 4.4	2.204	3.136	8.2	20.0	4 21	15 38.76	+10 21.5	1.592	2.491	13.0	18.9	
5 1	15 30.36	-2 13.4	2.151	3.121	6.0	19.8	5 1	15 31.71	+11 2.2	1.542	2.468	11.7	18.7	
5 11	15 22.97	-1 30.5	2.125	3.107	5.3	19.7	5 11	15 23.27	+11 17.4	1.514	2.445	11.7	18.7	
5 21	15 15.35	-0 59.8	2.126	3.092	6.8	19.8	5 21	15 14.43	+11 2.3	1.509	2.424	13.0	18.7	
5 31	15 8.28	-0 44.0	2.154	3.077	9.3	19.9	5 31	15 6.31	+10 15.3	1.525	2.403	15.2	18.8	
6 10	15 2.43	-0 44.4	2.205	3.062	12.0	20.1	6 10	14 59.86	+8 58.7	1.560	2.383	17.8	18.9	
6 20	14 58.26	-1 0.6	2.276	3.048	14.4	20.2	6 20	14 55.72	+7 17.6	1.613	2.363	20.2	19.0	
63957	2001 <i>SS</i> ₆₇	5 13.3 227°45 2°4/11.9 16						23049	1999 <i>XT</i> ₃₀	5 13.3 253°28 4°9/10.1 18 R				
4 11	15 48.47	-14 26.6	1.716	2.587	13.5	19.9	4 11	15 44.62	-5 33.7	2.109	2.976	11.5	19.0	
4 21	15 42.22	-13 47.3	1.635	2.576	9.9	19.7	4 21	15 39.05	-4 53.1	2.029	2.962	8.7	18.8	
5 1	15 33.65	-13 3.1	1.577	2.564	5.7	19.4	5 1	15 31.69	-4 15.8	1.973	2.948	6.0	18.6	
5 11	15 23.62	-12 17.7	1.546	2.552	2.5	19.2	5 11	15 23.25	-3 45.9	1.944	2.933	4.9	18.5	
5 21	15 13.21	-11 35.6	1.542	2.539	5.0	19.3	5 21	15 14.52	-3 27.2	1.943	2.918	6.5	18.6	
5 31	15 3.60	-11 1.8	1.565	2.525	9.3	19.5	5 31	15 6.39	-3 22.3	1.968	2.903	9.4	18.7	
6 10	14 55.82	-10 40.2	1.611	2.511	13.4	19.7	6 10	14 59.63	-3 32.6	2.017	2.888	12.4	18.9	
6 20	14 50.49	-10 32.7	1.678	2.496	17.0	19.9	6 20	14 54.77	-3 57.5	2.087	2.872	15.2	19.0	
395431	2011 <i>SH</i> ₂₁₁	5 13.3 124°88 0°3/13.0 18						122693	2000 <i>SE</i> ₁₂	5 13.3 237°95 2°9/11.1 18				
4 11	15 42.63	-19 3.1	2.657	3.513	9.8	21.7	4 11	15 45.50	-11 21.3	2.345	3.208	10.6	21.5	
4 21	15 37.21	-18 35.5	2.590	3.525	7.0	21.								

EPHEMERIDES

5 13.3

5 13.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
388775	2007 YF ₅₂		5 13.3 129°74	5°7/ 8.3 17			502813	2015 DU ₁₁₉		5 13.3 216°66	0°1/13.3 17		
4 11	15 42.65	+ 0 19.3	2.664	3.517	9.8	21.4	4 11	15 46.65	-18 40.1	1.881	2.746	12.8	21.5
4 21	15 37.12	+ 1 17.8	2.615	3.532	7.8	21.3	4 21	15 40.74	-18 41.7	1.807	2.744	9.3	21.3
5 1	15 30.36	+ 2 9.4	2.592	3.546	6.2	21.2	5 1	15 32.74	-18 37.6	1.756	2.743	5.3	21.1
5 11	15 22.97	+ 2 50.1	2.597	3.559	5.8	21.2	5 11	15 23.47	-18 29.1	1.732	2.742	1.0	20.7
5 21	15 15.55	+ 3 17.0	2.630	3.572	6.9	21.3	5 21	15 13.92	-18 18.1	1.736	2.740	3.4	20.9
5 31	15 8.75	+ 3 28.5	2.689	3.585	8.8	21.4	5 31	15 5.15	-18 7.6	1.767	2.739	7.6	21.2
6 10	15 3.06	+ 3 24.4	2.772	3.597	10.7	21.6	6 10	14 58.07	-18 1.0	1.823	2.737	11.3	21.4
6 20	14 58.85	+ 3 6.0	2.875	3.609	12.5	21.7	6 20	14 53.24	-18 0.7	1.900	2.735	14.6	21.6
523695	2014 GS ₅₃		5 13.3 112°41	0°4/ 9.0 18			222702	2002 AS ₅₈		5 13.3 129°56	1°7/14.5 18		
4 11	15 24.06	- 2 37.2	34.134	34.991	0.9	21.9	4 11	15 47.38	-25 14.9	2.125	2.970	12.3	20.6
4 21	15 23.26	- 2 32.2	34.070	34.993	0.7	21.9	4 21	15 40.96	-24 59.6	2.059	2.984	9.1	20.5
5 1	15 22.38	- 2 27.6	34.033	34.995	0.5	21.9	5 1	15 32.70	-24 33.2	2.018	2.997	5.6	20.3
5 11	15 21.46	- 2 23.6	34.024	34.998	0.4	21.9	5 11	15 23.44	-23 56.9	2.004	3.009	2.2	20.1
5 21	15 20.54	- 2 20.4	34.044	35.000	0.6	21.9	5 21	15 14.10	-23 13.4	2.018	3.021	3.1	20.1
5 31	15 19.64	- 2 18.1	34.091	35.002	0.7	21.9	5 31	15 5.63	-22 27.1	2.060	3.033	6.6	20.4
6 10	15 18.80	- 2 16.8	34.165	35.005	0.9	21.9	6 10	14 58.79	-21 42.6	2.129	3.044	9.9	20.6
6 20	15 18.05	- 2 16.5	34.263	35.007	1.1	22.0	6 20	14 54.06	-21 3.9	2.220	3.054	12.8	20.8
156379	2001 YJ ₆₄		5 13.3 297°05	4°9/11.3 17			11171	1998 FB ₄₂		5 13.3 297°50	7°1/ 7.7 18		
4 11	15 47.87	- 5 45.9	1.678	2.550	13.7	19.7	4 11	15 42.74	- 5 13.6	1.698	2.578	13.2	17.6
4 21	15 41.74	- 5 38.0	1.606	2.544	10.3	19.5	4 21	15 38.17	- 3 27.7	1.609	2.547	10.2	17.3
5 1	15 33.36	- 5 36.2	1.558	2.537	6.8	19.3	5 1	15 31.43	- 1 40.3	1.544	2.516	7.7	17.1
5 11	15 23.58	- 5 44.1	1.536	2.531	4.9	19.2	5 11	15 23.25	+ 0 0.2	1.504	2.484	7.2	17.0
5 21	15 13.48	- 6 4.1	1.540	2.525	6.7	19.3	5 21	15 14.57	+ 1 25.3	1.491	2.452	9.5	17.0
5 31	15 4.20	- 6 37.6	1.569	2.519	10.2	19.4	5 31	15 6.49	+ 2 27.8	1.501	2.421	12.9	17.2
6 10	14 56.71	- 7 24.3	1.623	2.514	13.9	19.6	6 10	14 59.99	+ 3 3.9	1.533	2.389	16.4	17.3
6 20	14 51.63	- 8 22.8	1.696	2.508	17.0	19.8	6 20	14 55.74	+ 3 13.4	1.583	2.357	19.6	17.4
478021	2011 SB ₂₀₂		5 13.3 217°14	3°6/15.7 16			177384	2004 BS ₇₀		5 13.3 99°43	4°6/10.9 17		
4 11	15 46.39	-30 12.6	2.452	3.276	11.5	22.2	4 11	15 46.59	- 8 37.8	1.574	2.452	14.1	20.1
4 21	15 40.34	-30 31.8	2.366	3.271	9.0	22.0	4 21	15 40.77	- 7 58.8	1.515	2.458	10.4	19.9
5 1	15 32.45	-30 39.3	2.304	3.266	6.2	21.9	5 1	15 32.75	- 7 21.9	1.480	2.463	6.6	19.7
5 11	15 23.41	-30 34.2	2.269	3.261	4.0	21.7	5 11	15 23.46	- 6 52.1	1.470	2.468	4.6	19.6
5 21	15 14.07	-30 17.3	2.262	3.255	4.1	21.7	5 21	15 14.02	- 6 33.5	1.485	2.473	6.6	19.7
5 31	15 5.36	-29 51.0	2.283	3.249	6.4	21.8	5 31	15 5.56	- 6 29.4	1.526	2.478	10.3	19.9
6 10	14 58.07	-29 19.4	2.330	3.243	9.3	22.0	6 10	14 58.99	- 6 41.0	1.590	2.483	14.0	20.2
6 20	14 52.75	-28 46.8	2.400	3.237	11.9	22.2	6 20	14 54.86	- 7 7.7	1.673	2.488	17.1	20.4
428807	2008 TH ₃₃		5 13.3 216°56	0°6/13.6 17			460715	2014 VK ₃		5 13.3 62°91	0°2/13.2 18		
4 11	15 46.66	-20 22.9	2.007	2.867	12.3	21.3	4 11	15 48.97	-17 49.6	1.434	2.310	15.4	20.5
4 21	15 40.68	-20 26.2	1.929	2.864	9.0	21.1	4 21	15 42.78	-17 58.8	1.376	2.319	11.2	20.3
5 1	15 32.68	-20 22.7	1.875	2.860	5.2	20.9	5 1	15 34.01	-18 2.4	1.340	2.328	6.3	20.1
5 11	15 23.45	-20 13.3	1.848	2.857	1.3	20.6	5 11	15 23.71	-18 1.4	1.329	2.338	1.2	19.7
5 21	15 13.94	-19 59.8	1.849	2.853	3.1	20.7	5 21	15 13.20	-17 58.2	1.343	2.348	4.0	20.0
5 31	15 5.15	-19 45.1	1.877	2.849	7.1	21.0	5 31	15 3.84	-17 56.1	1.383	2.358	8.9	20.3
6 10	14 57.96	-19 32.7	1.931	2.845	10.8	21.2	6 10	14 56.70	-17 58.5	1.447	2.367	13.3	20.5
6 20	14 52.93	-19 25.5	2.007	2.841	14.0	21.4	6 20	14 52.37	-18 8.2	1.530	2.377	16.9	20.8
387979	2005 NV		5 13.3 334°41	6°0/17.6 17			393972	2005 UC ₃₀₈		5 13.3 201°53	0°3/13.6 18		
4 11	15 45.19	-36 42.8	2.025	2.836	14.1	20.4	4 11	15 43.44	-20 14.2	2.876	3.726	9.3	21.8
4 21	15 39.86	-36 51.6	1.944	2.832	11.5	20.2	4 21	15 37.84	-20 9.8	2.792	3.723	6.8	21.6
5 1	15 32.29	-36 41.2	1.884	2.828	8.7	20.0	5 1	15 30.88	-20 0.3	2.735	3.719	3.9	21.4
5 11	15 23.38	-36 10.0	1.848	2.825	6.5	19.9	5 11	15 23.11	-19 46.6	2.706	3.715	0.9	21.2
5 21	15 14.20	-35 19.3	1.839	2.821	6.1	19.9	5 21	15 15.16	-19 30.3	2.706	3.710	2.4	21.3
5 31	15 5.90	-34 13.4	1.855	2.818	8.0	20.0	5 31	15 7.69	-19 13.5	2.736	3.705	5.4	21.5
6 10	14 59.43	-32 59.1	1.897	2.815	10.7	20.1	6 10	15 1.31	-18 58.6	2.793	3.700	8.1	21.6
6 20	14 55.37	-31 43.7	1.961	2.813	13.5	20.3	6 20	14 56.43	-18 47.8	2.874	3.694	10.6	21.8
335640	2006 KC ₂₈		5 13.3 139°13	0°1/13.3 17			310047	2010 HA ₄₃		5 13.3 343°92	3°2/17.6 18		
4 11	15 44.69	-21 18.0	2.294	3.149	11.2	21.5	4 11	15 38.31	-36 2.7	4.151	4.940	7.8	20.0
4 21	15 38.86	-20 31.5	2.225	3.159	8.1	21.3	4 21	15 33.92	-35 52.9	4.063	4.938	6.3	19.9
5 1	15 31.46	-19 36.4	2.183	3.168	4.6	21.1	5 1	15 28.56	-35 33.1	3.999	4.937	4.7	19.8
5 11	15 23.20	-18 35.5	2.168	3.177	0.9	20.8	5 11	15 22.65	-35 3.4	3.963	4.936	3.5	19.7
5 21	15 14.88	-17 32.7	2.182	3.186	2.9	21.0	5 21	15 16.68	-34 24.9	3.955	4.935	3.3	19.7
5 31	15 7.33	-16 32.5	2.225	3.194	6.5	21.3	5 31	15 11.10	-33 39.6	3.976	4.934	4.3	19.7
6 10	15 1.19	-15 39.1	2.295	3.202	9.7	21.5	6 10	15 6.34	-32 50.2	4.024	4.933	5.8	19.9
6 20	14 56.89	-14 55.5	2.388	3.209	12.4	21.7	6 20	15 2.72	-31 59.4	4.099	4.932	7.4	20.0
263490	2008 EK ₉₂		5 13.3 307°33	1°7/12.3 18			200759	2001 WM ₄₇		5 13.3 164°23	9°1/20.9 18		
4 11	15 43.98	-13 32.2	2.214	3.081	11.0	20.2	4 11	15 57.28	-47 21.3	2.050	2.786	16.4	20.1
4 21	15 38.53	-13 28.3	2.136	3.076	8.0	20.0	4 21	15 48.75	-47 29.7	1.971	2.793	14.1	19.9
5 1	15 31.38	-13 23.3	2.084	3.071	4.6	19.7	5 1	15 37.35	-47 10.5	1.912	2.800	11.8	19.8
5 11	15 23.20	-13 18.9	2.059	3.066	1.7	19.5	5 11	15 24.34	-46 19.6	1.876	2.805	9.9	19.6
5 21	15 14.79	-13 17.1	2.062	3.061	3.7	19.6	5 21	15 11.28	-44 57.7	1.865	2.810	9.1	19.6
5 31	15 6.98	-13 20.0	2.093	3.057	7.1	19.9	5 31	14 59.70	-43 10.3	1.881	2.813	10.0	19.7
6 10	15 0.52	-13 29.4	2.149	3.052	10.4	20.0	6 10	14 50.74	-41 7.6	1.923	2.816	11.9	19.8
6 20	14 55.90	-13 46.2	2.228	3.048	13.2	20.2	6 20	14 44.95	-39 0.4	1.987	2.818	14.2	19.9
472479	2015 BK ₄₉₁		5 13.3 293°80	5°8/10.0 17			366715	2003 XZ ₂₃		5 13.3 348°97	1°5/12.7 17		
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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
5383	Leavitt		5 13.3 235°47'	1°12/12.6	18		332102	2005 <i>UL</i> ₂₁₂		5 13.3 323°38'	1°0/13.1	17	
4 11	15 44.39	-16 24.5	2.177	3.042	11.3	17.9	4 11	15 48.72	-13 58.2	1.335	2.217	15.9	20.4
4 21	15 38.87	-16 5.2	2.097	3.036	8.1	17.7	4 21	15 43.25	-14 39.0	1.250	2.197	11.7	20.1
5 1	15 31.60	-15 41.6	2.042	3.029	4.6	17.5	5 1	15 34.70	-15 22.3	1.188	2.177	6.8	19.8
5 11	15 23.27	-15 15.9	2.014	3.022	1.2	17.2	5 11	15 23.97	-16 8.1	1.149	2.158	1.5	19.4
5 21	15 14.70	-14 50.8	2.014	3.015	3.4	17.4	5 21	15 12.38	-16 56.1	1.136	2.140	4.7	19.5
5 31	15 6.76	-14 29.4	2.042	3.008	7.1	17.6	5 31	15 1.53	-17 46.5	1.147	2.123	10.2	19.8
6 10	15 0.22	-14 14.7	2.095	3.000	10.5	17.8	6 10	14 52.89	-18 40.3	1.181	2.106	15.2	20.0
6 20	14 55.58	-14 8.5	2.171	2.993	13.5	17.9	6 20	14 47.41	-19 38.4	1.234	2.091	19.6	20.2
356313	2010 <i>HB</i> ₇₃		5 13.3 246°35'	10°5/1.0	18		134325	4492 <i>T</i> ₋₂		5 13.3 266°57'	2°0/14.2	17	
4 11	15 42.67	+19 54.2	2.791	3.568	11.5	21.4	4 11	15 49.69	-23 7.1	1.528	2.391	15.3	20.3
4 21	15 37.31	+21 9.6	2.735	3.552	10.8	21.3	4 21	15 43.69	-23 20.8	1.440	2.374	11.5	20.0
5 1	15 30.59	+22 8.1	2.703	3.537	10.5	21.3	5 1	15 34.82	-23 23.9	1.374	2.357	7.0	19.7
5 11	15 23.07	+22 44.8	2.692	3.520	10.8	21.3	5 11	15 23.97	-23 15.8	1.333	2.340	2.6	19.4
5 21	15 15.38	+22 56.8	2.705	3.504	11.6	21.3	5 21	15 12.45	-22 57.9	1.319	2.323	4.2	19.4
5 31	15 8.20	+22 43.3	2.738	3.487	12.7	21.3	5 31	15 1.74	-22 34.0	1.329	2.305	9.0	19.6
6 10	15 2.12	+22 5.8	2.789	3.469	13.9	21.4	6 10	14 53.16	-22 9.9	1.364	2.287	13.7	19.9
6 20	14 57.55	+21 7.3	2.857	3.452	15.1	21.5	6 20	14 47.55	-21 51.0	1.418	2.269	17.8	20.1
40963	1999 <i>TZ</i> ₂₄₇		5 13.3 336°69'	2°4/11.6	18		156205	2001 <i>UK</i> ₄₆		5 13.3 182°11'	1°5/12.4	17	
4 11	15 41.48	-12 55.3	2.216	3.088	10.8	18.8	4 11	15 46.29	-15 46.7	2.143	3.006	11.5	21.8
4 21	15 36.68	-12 18.4	2.143	3.085	7.8	18.6	4 21	15 40.19	-15 16.5	2.070	3.007	8.3	21.5
5 1	15 30.31	-11 39.4	2.096	3.083	4.6	18.4	5 1	15 32.33	-14 42.0	2.021	3.008	4.7	21.3
5 11	15 23.02	-11 1.6	2.076	3.081	2.4	18.2	5 11	15 23.44	-14 6.0	2.000	3.008	1.6	21.1
5 21	15 15.58	-10 28.4	2.084	3.079	4.3	18.3	5 21	15 14.37	-13 31.5	2.007	3.007	3.7	21.3
5 31	15 8.76	-10 2.9	2.119	3.077	7.5	18.5	5 31	15 6.02	-13 2.2	2.043	3.005	7.4	21.5
6 10	15 3.24	-9 47.7	2.179	3.075	10.6	18.7	6 10	14 59.14	-12 41.0	2.104	3.003	10.8	21.7
6 20	14 59.46	-9 43.7	2.260	3.073	13.3	18.9	6 20	14 54.22	-12 30.0	2.187	3.001	13.6	21.9
24763	1993 <i>DV</i> ₂		5 13.3 115°31'	4°3/10.9	18		253695	2003 <i>UF</i> ₂₆₄		5 13.3 236°31'	1°9/12.4	17	
4 11	15 46.94	-9 33.5	1.638	2.514	13.8	19.0	4 11	15 48.86	-14 11.1	1.737	2.606	13.5	20.9
4 21	15 40.91	-8 46.3	1.582	2.524	10.1	18.8	4 21	15 42.55	-13 59.4	1.656	2.596	9.8	20.6
5 1	15 32.78	-8 0.1	1.550	2.534	6.3	18.6	5 1	15 33.91	-13 44.9	1.598	2.585	5.7	20.3
5 11	15 23.49	-7 19.9	1.544	2.543	4.3	18.5	5 11	15 23.77	-13 30.2	1.567	2.574	2.0	20.1
5 21	15 14.11	-6 50.1	1.565	2.552	6.3	18.6	5 21	15 13.22	-13 18.1	1.562	2.562	4.5	20.2
5 31	15 5.73	-6 34.4	1.611	2.561	10.0	18.8	5 31	15 3.43	-13 11.8	1.585	2.550	8.9	20.4
6 10	14 59.20	-6 34.4	1.680	2.570	13.5	19.1	6 10	14 55.44	-13 14.1	1.632	2.537	13.0	20.6
6 20	14 55.02	-6 49.8	1.769	2.578	16.5	19.3	6 20	14 49.90	-13 26.8	1.700	2.524	16.5	20.8
254581	2005 <i>GV</i> ₄₁		5 13.3 20°85'	0°2/13.2	17		508384	2016 <i>FR</i> ₆₂		5 13.3 248°48'	1°3/13.9	17	
4 11	15 44.61	-19 54.2	1.181	2.071	17.0	20.5	4 11	15 49.07	-21 35.8	1.640	2.512	14.4	21.4
4 21	15 40.02	-19 29.5	1.125	2.075	12.3	20.3	4 21	15 42.92	-21 46.6	1.568	2.503	10.7	21.1
5 1	15 32.59	-18 53.7	1.090	2.080	7.0	20.0	5 1	15 34.22	-21 48.7	1.509	2.494	6.3	20.9
5 11	15 23.48	-18 10.3	1.077	2.087	1.3	19.6	5 11	15 23.84	-21 42.2	1.477	2.485	1.9	20.6
5 21	15 14.15	-17 24.7	1.088	2.093	4.5	19.9	5 21	15 12.99	-21 28.8	1.470	2.475	3.7	20.7
5 31	15 6.11	-16 43.7	1.123	2.101	9.9	20.2	5 31	15 2.98	-21 11.9	1.491	2.465	8.4	20.9
6 10	15 0.51	-16 13.1	1.178	2.109	14.8	20.5	6 10	14 54.94	-20 56.3	1.535	2.455	12.7	21.1
6 20	14 57.93	-15 56.5	1.252	2.118	18.8	20.8	6 20	14 49.59	-20 46.1	1.600	2.445	16.4	21.3
248446	2005 <i>TS</i> ₇₆		5 13.3 295°70'	1°4/13.9	16		396445	2014 <i>FM</i> ₁		5 13.3 121°33'	1°0/14.0	17	
4 11	15 47.76	-20 58.9	2.196	3.048	11.7	20.0	4 11	15 44.56	-22 32.1	2.337	3.189	11.1	21.3
4 21	15 41.44	-21 34.3	2.112	3.042	8.6	19.8	4 21	15 38.88	-22 27.7	2.266	3.195	8.1	21.1
5 1	15 33.15	-22 4.6	2.054	3.036	5.2	19.6	5 1	15 31.56	-22 15.6	2.220	3.202	4.8	20.9
5 11	15 23.59	-22 29.3	2.023	3.030	1.8	19.4	5 11	15 23.30	-21 56.7	2.201	3.208	1.5	20.6
5 21	15 13.66	-22 48.3	2.021	3.024	3.1	19.4	5 21	15 14.89	-21 33.1	2.211	3.215	2.7	20.7
5 31	15 4.33	-23 3.1	2.047	3.019	6.7	19.7	5 31	15 7.17	-21 7.7	2.248	3.221	6.1	21.0
6 10	14 56.46	-23 15.9	2.100	3.013	10.1	19.9	6 10	15 0.83	-20 43.9	2.312	3.227	9.3	21.2
6 20	14 50.67	-23 29.3	2.175	3.007	13.1	20.0	6 20	14 56.33	-20 24.6	2.399	3.232	12.0	21.4
10784	Noailles		5 13.3 33°25'	10°0/7.2	18		3134	Kostinsky		5 13.3 169°17'	0°8/14.3	18	
4 11	15 44.28	+5 24.6	1.668	2.528	14.4	17.3	4 11	15 39.16	-23 42.0	3.999	4.838	7.2	17.4
4 21	15 38.97	+6 39.1	1.619	2.531	12.0	17.2	4 21	15 34.47	-23 24.5	3.918	4.841	5.2	17.2
5 1	15 31.69	+7 38.8	1.593	2.533	10.4	17.1	5 1	15 28.88	-23 1.4	3.864	4.844	3.1	17.1
5 11	15 23.29	+8 16.4	1.590	2.535	10.2	17.1	5 11	15 22.78	-22 33.7	3.840	4.846	1.1	16.9
5 21	15 14.78	+8 27.6	1.611	2.538	11.5	17.2	5 21	15 16.61	-22 2.9	3.845	4.848	1.8	17.0
5 31	15 7.17	+8 10.9	1.654	2.541	13.8	17.3	5 31	15 10.81	-21 30.9	3.880	4.850	3.9	17.1
6 10	15 1.28	+7 28.3	1.717	2.544	16.2	17.5	6 10	15 5.77	-20 59.8	3.943	4.852	5.9	17.3
6 20	14 57.60	+6 24.0	1.798	2.547	18.5	17.7	6 20	15 1.79	-20 31.5	4.032	4.853	7.8	17.4
110517	2001 <i>TX</i> ₇₈		5 13.3 229°88'	2°2/11.6	18		72460	2001 <i>DU</i> ₁₈		5 13.3 293°19'	6°0/9.8	18	
4 11	15 44.69	-16 18.4	1.920	2.790	12.3	19.9	4 11	15 44.11	-4 6.1	1.820	2.693	12.7	18.7
4 21	15 39.23	-15 5.5	1.841	2.782	8.9	19.6	4 21	15 38.97	-3 20.6	1.740	2.675	9.8	18.5
5 1	15 31.85	-13 44.9	1.786	2.774	5.1	19.4	5 1	15 31.82	-2 39.9	1.684	2.657	7.1	18.3
5 11	15 23.34	-12 21.2	1.760	2.766	2.2	19.2	5 11	15 23.38	-2 9.4	1.654	2.640	6.0	18.2
5 21	15 14.61	-11 0.5	1.761	2.757	4.7	19.3	5 21	15 14.59	-1 53.3	1.650	2.622	7.7	18.2
5 31	15 6.65	-9 48.8	1.790	2.748	8.6	19.5	5 31	15 6.45	-1 54.9	1.670	2.605	10.8	18.4
6 10	15 0.27	-8 51.0	1.844	2.739	12.2	19.8	6 10	14 59.85	-2 14.9	1.714	2.587	14.1	18.5
6 20	14 55.98	-8 9.7	1.918	2.729	15.4	19.9	6 20	14 55.39	-2 52.4	1.776	2.570	17.1	18.7
484296	2007 <i>RW</i> ₂₅₅		5 13.3 173°41'	1°7/11.1	17		427193	2014 <i>VN</i> ₁₉		5 13.3 195°43'	3°2/11.7	17	
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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
329577	2002 <i>VU</i> ₁₄₂		5 13.3 252°21	4°0/10.4	18		338094	2002 <i>PP</i> ₁₈₆		5 13.3 198°57	6°2/17.8	18	
4 11	15 47.83	-19 9.6	1.130	2.019	17.7	20.2	4 11	15 49.30	-38 52.0	2.502	3.283	12.6	21.5
4 21	15 42.54	-16 33.8	1.059	2.009	12.8	19.9	4 21	15 42.63	-39 21.9	2.415	3.280	10.4	21.4
5 1	15 34.13	-13 33.8	1.009	2.000	7.4	19.6	5 1	15 33.86	-39 35.4	2.351	3.276	8.3	21.2
5 11	15 23.83	-10 22.1	0.985	1.990	4.1	19.3	5 11	15 23.79	-39 29.9	2.313	3.273	6.6	21.1
5 21	15 13.22	-7 16.2	0.987	1.980	8.1	19.5	5 21	15 13.40	-39 5.6	2.302	3.268	6.3	21.1
5 31	15 3.94	-4 34.0	1.014	1.970	13.8	19.8	5 31	15 3.73	-38 24.9	2.317	3.264	7.6	21.1
6 10	14 57.26	-2 27.4	1.062	1.959	19.0	20.1	6 10	14 55.70	-37 32.9	2.359	3.259	9.7	21.3
6 20	14 53.83	-1 0.1	1.127	1.949	23.3	20.3	6 20	14 49.90	-36 35.7	2.424	3.253	12.0	21.4
43608	2001 <i>XM</i> ₆₀		5 13.3 223°25	3°0/11.8	18		256663	2007 <i>XT</i> ₂₇		5 13.3 228°44	1°7/14.3	17	
4 11	15 49.33	-12 8.9	1.725	2.595	13.5	18.8	4 11	15 48.33	-24 24.9	1.792	2.646	13.8	21.4
4 21	15 42.87	-11 42.0	1.645	2.585	9.9	18.6	4 21	15 42.22	-24 12.3	1.708	2.637	10.3	21.1
5 1	15 34.08	-11 13.4	1.590	2.576	5.9	18.3	5 1	15 33.75	-23 47.3	1.647	2.628	6.3	20.9
5 11	15 23.82	-10 46.6	1.560	2.565	3.0	18.1	5 11	15 23.78	-23 10.6	1.611	2.618	2.3	20.6
5 21	15 13.18	-10 25.3	1.559	2.554	5.3	18.2	5 21	15 13.44	-22 25.1	1.603	2.607	3.6	20.6
5 31	15 3.34	-10 13.1	1.583	2.542	9.5	18.4	5 31	15 3.93	-21 35.6	1.623	2.597	7.9	20.9
6 10	14 55.31	-10 12.9	1.632	2.529	13.4	18.7	6 10	14 56.28	-20 48.2	1.667	2.585	12.0	21.1
6 20	14 49.73	-10 25.6	1.701	2.516	16.9	18.9	6 20	14 51.14	-20 7.9	1.732	2.573	15.5	21.3
476459	2008 <i>EZ</i> ₁₁₆		5 13.3 18°78	10°0/17.3	16		299763	2006 <i>SE</i> ₁₂		5 13.3 231°84	4°0/15.9	18	R
4 11	15 56.13	-42 44.6	2.023	2.787	15.7	20.3	4 11	15 47.99	-32 8.4	2.786	3.594	10.8	21.1
4 21	15 48.54	-44 40.3	1.952	2.792	13.6	20.2	4 21	15 41.47	-32 37.8	2.688	3.581	8.5	20.9
5 1	15 37.72	-46 17.0	1.904	2.797	11.6	20.0	5 1	15 33.15	-32 56.0	2.615	3.568	6.2	20.7
5 11	15 24.58	-47 27.7	1.880	2.802	10.3	20.0	5 11	15 23.67	-33 1.7	2.570	3.554	4.3	20.6
5 21	15 10.53	-48 8.4	1.881	2.808	10.1	20.0	5 21	15 13.80	-32 54.8	2.553	3.539	4.3	20.6
5 31	14 57.28	-48 19.7	1.906	2.814	11.2	20.0	5 31	15 4.42	-32 37.0	2.565	3.525	6.2	20.7
6 10	14 46.34	-48 7.4	1.954	2.821	12.9	20.2	6 10	14 56.32	-32 11.8	2.604	3.509	8.7	20.8
6 20	14 38.68	-47 39.6	2.023	2.828	14.9	20.3	6 20	14 50.06	-31 43.4	2.667	3.493	11.1	20.9
410176	2007 <i>QE</i> ₈		5 13.3 240°75	3°1/11.6	16		23082	1999 <i>XK</i> ₁₀₇		5 13.3 165°70	0°3/13.5	18	
4 11	15 48.64	-12 11.6	1.809	2.678	13.0	22.2	4 11	15 45.14	-20 54.5	1.987	2.848	12.4	19.1
4 21	15 42.35	-11 35.3	1.722	2.661	9.6	21.9	4 21	15 39.55	-20 33.6	1.914	2.850	9.0	18.9
5 1	15 33.79	-10 56.4	1.658	2.644	5.7	21.7	5 1	15 32.05	-20 4.3	1.865	2.851	5.2	18.7
5 11	15 23.78	-10 18.6	1.622	2.626	3.1	21.5	5 11	15 23.44	-19 28.6	1.843	2.852	1.1	18.4
5 21	15 13.32	-9 46.2	1.613	2.607	5.4	21.6	5 21	15 14.64	-18 49.6	1.848	2.853	3.1	18.5
5 31	15 3.55	-9 23.3	1.631	2.587	9.4	21.8	5 31	15 6.61	-18 11.3	1.881	2.853	7.1	18.8
6 10	14 55.48	-9 13.0	1.674	2.567	13.4	21.9	6 10	15 0.18	-17 38.0	1.940	2.854	10.8	19.0
6 20	14 49.76	-9 16.9	1.736	2.546	16.8	22.1	6 20	14 55.86	-17 12.9	2.020	2.855	13.9	19.2
17349	4353 <i>T</i> ₋₃		5 13.3 7°70	0°6/12.9	18		63015	2000 <i>WK</i> ₃₉		5 13.3 14°44	6°4/9.6	18	
4 11	15 43.85	-16 52.5	2.084	2.951	11.6	17.7	4 11	15 44.25	+ 1 15.2	2.218	3.074	11.5	18.5
4 21	15 38.54	-16 49.4	2.012	2.952	8.4	17.4	4 21	15 38.61	+ 1 40.3	2.156	3.075	9.1	18.3
5 1	15 31.45	-16 42.4	1.965	2.952	4.7	17.2	5 1	15 31.41	+ 1 55.9	2.119	3.075	7.1	18.2
5 11	15 23.31	-16 33.2	1.944	2.953	1.0	17.0	5 11	15 23.31	+ 1 58.4	2.108	3.076	6.5	18.2
5 21	15 14.95	-16 23.9	1.951	2.954	3.3	17.1	5 21	15 15.09	+ 1 45.4	2.124	3.077	7.6	18.2
5 31	15 7.29	-16 16.9	1.986	2.956	7.0	17.4	5 31	15 7.53	+ 1 16.2	2.165	3.079	9.8	18.4
6 10	15 1.07	-16 14.8	2.046	2.957	10.4	17.6	6 10	15 1.29	+ 0 31.5	2.231	3.080	12.2	18.5
6 20	14 56.81	-16 19.3	2.127	2.959	13.4	17.8	6 20	14 56.83	- 0 26.5	2.317	3.081	14.4	18.7
474772	2005 <i>QZ</i> ₁₁₈		5 13.3 191°75	1°5/12.1	18		521319	2015 <i>KE</i> ₁₇₁		5 13.3 349°16	2°4/12.0	18	
4 11	15 42.40	-14 22.2	2.838	3.698	9.1	22.4	4 11	15 44.26	-11 26.7	2.106	2.975	11.4	20.6
4 21	15 37.07	-13 53.5	2.760	3.697	6.5	22.2	4 21	15 38.80	-11 20.9	2.034	2.974	8.3	20.4
5 1	15 30.46	-13 22.3	2.708	3.695	3.8	22.1	5 1	15 31.60	-11 15.6	1.986	2.972	4.9	20.2
5 11	15 23.11	-12 50.9	2.686	3.692	1.5	21.9	5 11	15 23.36	-11 12.9	1.966	2.971	2.4	20.0
5 21	15 15.63	-12 21.6	2.692	3.689	3.2	22.0	5 21	15 14.91	-11 14.8	1.974	2.970	4.3	20.1
5 31	15 8.64	-11 57.1	2.728	3.686	6.0	22.2	5 31	15 7.12	-11 23.4	2.009	2.969	7.6	20.3
6 10	15 2.71	-11 39.3	2.790	3.682	8.7	22.4	6 10	15 0.74	-11 40.0	2.068	2.968	10.9	20.5
6 20	14 58.22	-11 29.6	2.875	3.678	11.0	22.5	6 20	14 56.26	-12 5.0	2.150	2.968	13.7	20.7
49670	1999 <i>RZ</i> ₃₃		5 13.3 233°23	13°7/2.6	18		304478	2006 <i>UV</i> ₈₈		5 13.3 281°21	1°7/14.2	16	
4 11	15 46.27	+ 2 8.2	1.130	2.015	17.9	19.2	4 11	15 47.50	-22 23.3	2.174	3.025	11.9	20.1
4 21	15 41.20	+ 5 36.8	1.084	2.011	15.1	19.0	4 21	15 41.34	-22 54.9	2.089	3.016	8.8	19.9
5 1	15 33.29	+ 8 54.7	1.060	2.006	13.7	18.9	5 1	15 33.16	-23 20.3	2.027	3.008	5.4	19.7
5 11	15 23.68	+ 11 43.3	1.060	2.000	14.5	18.9	5 11	15 23.69	-23 38.7	1.993	2.999	2.1	19.4
5 21	15 13.82	+ 13 47.9	1.081	1.995	17.0	19.1	5 21	15 13.81	-23 50.3	1.988	2.991	3.2	19.5
5 31	15 5.19	+ 15 1.6	1.121	1.989	20.2	19.2	5 31	15 4.53	-23 56.8	2.010	2.982	6.8	19.7
6 10	14 58.95	+ 15 26.0	1.177	1.983	23.3	19.4	6 10	14 56.74	-24 1.0	2.059	2.974	10.2	19.9
6 20	14 55.73	+ 15 7.9	1.245	1.977	26.0	19.6	6 20	14 51.03	-24 6.0	2.130	2.965	13.2	20.1
121978	2000 <i>ED</i> ₁₄₀		5 13.3 136°83	8°1/12.4	18		497718	2006 <i>SH</i> ₁₃₄		5 13.3 234°94	0°3/13.2	17	
4 11	16 1.77	+ 1 9.2	1.174	2.035	19.1	19.2	4 11	15 47.33	-20 5.7	1.966	2.825	12.6	22.5
4 21	15 52.51	+ 0 39.6	1.116	2.041	14.9	18.9	4 21	15 41.29	-19 30.2	1.876	2.811	9.2	22.2
5 1	15 39.78	- 0 10.4	1.078	2.047	10.7	18.7	5 1	15 33.14	-18 45.2	1.810	2.797	5.3	22.0
5 11	15 24.94	- 1 24.2	1.064	2.052	8.2	18.6	5 11	15 23.68	-17 53.1	1.772	2.781	1.0	21.6
5 21	15 9.76	- 3 0.6	1.077	2.057	9.7	18.7	5 21	15 13.87	-16 57.8	1.762	2.765	3.5	21.8
5 31	14 56.12	- 4 55.1	1.115	2.062	13.7	18.9	5 31	15 4.76	-16 4.2	1.780	2.749	7.8	22.0
6 10	14 45.44	- 7 1.4	1.176	2.066	18.0	19.2	6 10	14 57.28	-15 17.5	1.823	2.731	11.7	22.2
6 20	14 38.44	- 9 13.4	1.256	2.070	21.7	19.4	6 20	14 52.01	-14 41.4	1.888	2.713	15.1	22.4
497568	2006 <i>DO</i> ₁₇₁		5 13.3 345°57	3°5/11.3	17		89404	20					

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5 13.3

5 13.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
425529	2010 <i>OK</i> ₄₄		5 13.3 243°87	8°6/16.1	17		173598	2001 <i>DW</i> ₅₀		5 13.3 133°71	0°2/13.3	18	
4 11	15 58.72	-37 59.8	1.927	2.715	15.6	21.0	4 11	15 50.28	-18 35.1	1.806	2.667	13.4	21.0
4 21	15 50.58	-39 32.2	1.831	2.699	13.1	20.8	4 21	15 43.33	-18 31.3	1.743	2.679	9.7	20.8
5 1	15 39.03	-40 49.1	1.758	2.682	10.6	20.6	5 1	15 34.23	-18 21.3	1.705	2.691	5.5	20.6
5 11	15 24.91	-41 43.4	1.710	2.664	8.9	20.5	5 11	15 23.90	-18 6.6	1.693	2.702	1.0	20.3
5 21	15 9.62	-42 10.3	1.688	2.646	8.9	20.5	5 21	15 13.43	-17 49.6	1.709	2.713	3.5	20.5
5 31	14 54.92	-42 9.8	1.693	2.628	10.7	20.5	5 31	15 3.93	-17 33.7	1.753	2.723	7.7	20.7
6 10	14 42.46	-41 47.7	1.722	2.608	13.4	20.6	6 10	14 56.31	-17 22.4	1.822	2.733	11.5	21.0
6 20	14 33.33	-41 12.7	1.772	2.588	16.2	20.8	6 20	14 51.09	-17 18.4	1.912	2.741	14.7	21.2
136056	2002 <i>XQ</i> ₄₉		5 13.3 71°18	0°7/12.9	17		338590	2003 <i>SK</i> ₁₄₅		5 13.3 262°60	6°9/18.0	18	
4 11	15 44.57	-17 55.0	2.018	2.884	12.0	19.9	4 11	15 48.63	-39 18.8	2.115	2.905	14.3	20.5
4 21	15 38.94	-17 30.8	1.963	2.903	8.6	19.8	4 21	15 42.55	-39 37.5	2.019	2.889	11.9	20.3
5 1	15 31.60	-17 1.2	1.934	2.921	4.8	19.6	5 1	15 34.02	-39 36.1	1.944	2.873	9.4	20.1
5 11	15 23.35	-16 28.8	1.931	2.940	1.0	19.3	5 11	15 23.89	-39 11.9	1.893	2.857	7.4	19.9
5 21	15 15.08	-15 56.7	1.956	2.959	3.3	19.5	5 21	15 13.31	-38 24.7	1.868	2.840	7.0	19.8
5 31	15 7.66	-15 28.5	2.009	2.978	7.0	19.8	5 31	15 3.53	-37 18.1	1.869	2.823	8.6	19.9
6 10	15 1.79	-15 7.2	2.087	2.996	10.4	20.0	6 10	14 55.65	-35 58.9	1.895	2.805	11.2	20.0
6 20	14 57.90	-14 54.8	2.186	3.015	13.2	20.3	6 20	14 50.35	-34 35.2	1.944	2.788	14.0	20.2
215340	2001 <i>UX</i> ₂₁₀		5 13.3 296°49	1°1/11.9	18		457648	2009 <i>CE</i> ₅		5 13.3 39°77	7°2/10.1	17	
4 11	15 35.97	-15 7.4	4.150	5.010	6.5	20.1	4 11	15 45.78	-5 37.9	1.192	2.084	16.7	20.7
4 21	15 32.18	-14 29.2	4.068	5.005	4.6	19.9	4 21	15 40.64	-4 36.1	1.146	2.092	12.6	20.4
5 1	15 27.61	-13 48.9	4.014	5.001	2.6	19.8	5 1	15 32.88	-3 40.8	1.121	2.101	8.8	20.3
5 11	15 22.59	-13 8.1	3.990	4.996	1.1	19.7	5 11	15 23.64	-2 59.8	1.119	2.110	7.2	20.2
5 21	15 17.50	-12 28.7	3.995	4.992	2.3	19.8	5 21	15 14.31	-2 39.1	1.140	2.120	9.3	20.3
5 31	15 12.72	-11 52.8	4.030	4.987	4.3	19.9	5 31	15 6.25	-2 41.7	1.183	2.131	13.1	20.6
6 10	15 8.59	-11 21.9	4.092	4.983	6.2	20.0	6 10	15 0.49	-3 7.6	1.247	2.141	16.9	20.8
6 20	15 5.36	-10 57.2	4.179	4.979	7.9	20.1	6 20	14 57.58	-3 53.5	1.327	2.152	20.2	21.1
179814	2002 <i>TD</i> ₈₀		5 13.3 284°27	0°2/13.2	17		105261	2000 <i>QS</i> ₁₄		5 13.3 286°43	1°4/14.2	18	
4 11	15 45.80	-20 1.0	1.547	2.421	14.6	20.8	4 11	15 44.69	-23 20.4	2.170	3.023	11.8	20.2
4 21	15 40.60	-19 34.7	1.468	2.410	10.7	20.5	4 21	15 39.38	-23 16.5	2.070	2.999	8.8	20.0
5 1	15 32.91	-18 58.3	1.412	2.400	6.1	20.2	5 1	15 32.10	-23 3.5	1.994	2.975	5.3	19.7
5 11	15 23.66	-18 14.3	1.380	2.390	1.2	19.9	5 11	15 23.52	-22 42.0	1.945	2.951	1.9	19.4
5 21	15 14.00	-17 26.9	1.375	2.379	4.0	20.0	5 21	15 14.51	-22 13.6	1.923	2.927	3.1	19.5
5 31	15 5.23	-16 41.7	1.395	2.369	8.9	20.3	5 31	15 6.03	-21 41.7	1.930	2.903	6.9	19.7
6 10	14 58.43	-16 4.5	1.439	2.359	13.4	20.5	6 10	14 58.96	-21 10.4	1.962	2.879	10.5	19.8
6 20	14 54.27	-15 39.2	1.502	2.349	17.2	20.7	6 20	14 53.93	-20 43.7	2.016	2.855	13.7	20.0
156410	2002 <i>AG</i> ₄₉		5 13.3 148°94	2°4/11.7	17		310003	2009 <i>JD</i> ₁₆		5 13.3 268°02	3°5/11.3	17	
4 11	15 46.23	-12 42.7	2.237	3.101	11.1	21.3	4 11	15 44.72	-7 34.6	2.316	3.181	10.7	20.3
4 21	15 40.01	-12 8.2	2.173	3.110	8.0	21.1	4 21	15 39.03	-7 24.4	2.238	3.173	7.9	20.1
5 1	15 32.19	-11 32.1	2.135	3.120	4.7	20.9	5 1	15 31.72	-7 17.2	2.185	3.165	5.1	19.9
5 11	15 23.48	-10 57.4	2.124	3.128	2.4	20.8	5 11	15 23.43	-7 15.5	2.160	3.157	3.5	19.8
5 21	15 14.68	-10 27.3	2.143	3.137	4.2	20.9	5 21	15 14.91	-7 21.4	2.163	3.150	5.0	19.9
5 31	15 6.61	-10 4.7	2.189	3.144	7.4	21.1	5 31	15 6.95	-7 36.4	2.194	3.142	7.9	20.0
6 10	14 59.96	-9 51.9	2.261	3.151	10.5	21.3	6 10	15 0.25	-8 1.2	2.249	3.134	10.8	20.2
6 20	14 55.16	-9 49.8	2.355	3.157	13.1	21.5	6 20	14 55.31	-8 35.6	2.327	3.125	13.4	20.4
254617	2005 <i>HN</i> ₁		5 13.3 225°18	1°9/12.1	17		422893	2002 <i>RH</i> ₁₀		5 13.3 290°23	5°2/9.8	17	
4 11	15 46.26	-16 27.4	1.766	2.637	13.2	21.3	4 11	15 42.80	-6 54.0	1.887	2.764	12.2	20.5
4 21	15 40.58	-15 35.6	1.688	2.630	9.5	21.1	4 21	15 37.98	-5 52.9	1.808	2.748	9.2	20.3
5 1	15 32.74	-14 36.5	1.635	2.623	5.4	20.8	5 1	15 31.26	-4 53.1	1.754	2.732	6.4	20.1
5 11	15 23.61	-13 34.3	1.607	2.615	2.0	20.6	5 11	15 23.35	-4 0.1	1.725	2.716	5.2	20.0
5 21	15 14.21	-12 34.1	1.608	2.607	4.6	20.7	5 21	15 15.15	-3 18.9	1.723	2.700	7.0	20.1
5 31	15 5.62	-11 41.5	1.635	2.598	8.8	20.9	5 31	15 7.58	-2 53.6	1.746	2.684	10.2	20.2
6 10	14 58.78	-11 1.1	1.686	2.589	12.8	21.2	6 10	15 1.49	-2 46.3	1.792	2.668	13.5	20.4
6 20	14 54.24	-10 35.6	1.757	2.579	16.1	21.4	6 20	14 57.43	-2 57.0	1.858	2.652	16.4	20.5
342990	2009 <i>BP</i> ₅₄		5 13.3 183°29	0°5/13.7	17		114463	2003 <i>AD</i> ₃₆		5 13.3 271°98	4°6/10.8	18	
4 11	15 44.92	-20 57.2	2.219	3.076	11.4	21.6	4 11	15 46.03	-8 46.7	1.687	2.564	13.4	19.3
4 21	15 39.27	-20 46.8	2.143	3.076	8.3	21.4	4 21	15 40.56	-8 3.8	1.605	2.547	10.0	19.0
5 1	15 31.87	-20 29.2	2.091	3.076	4.8	21.2	5 1	15 32.84	-7 21.5	1.547	2.530	6.5	18.8
5 11	15 23.44	-20 5.7	2.067	3.076	1.1	20.9	5 11	15 23.68	-6 44.6	1.515	2.513	4.6	18.6
5 21	15 14.82	-19 38.7	2.071	3.075	2.9	21.0	5 21	15 14.08	-6 18.0	1.508	2.495	6.7	18.7
5 31	15 6.87	-19 11.2	2.103	3.075	6.5	21.2	5 31	15 5.21	-6 5.5	1.528	2.478	10.5	18.9
6 10	15 0.35	-18 47.0	2.161	3.074	9.9	21.5	6 10	14 58.04	-6 9.6	1.570	2.460	14.3	19.0
6 20	14 55.75	-18 28.7	2.241	3.073	12.8	21.6	6 20	14 53.24	-6 30.3	1.631	2.442	17.7	19.2
521330	2015 <i>LR</i> ₄₃		5 13.3 285°49	8°1/6.9	18		166639	2002 <i>SK</i> ₄₆		5 13.3 209°48	1°7/14.5	18	
4 11	15 41.84	+ 4 26.0	2.198	3.051	11.6	21.4	4 11	15 46.28	-24 20.2	2.484	3.325	10.9	20.2
4 21	15 36.97	+ 5 33.8	2.134	3.042	9.7	21.3	4 21	15 40.20	-24 26.3	2.398	3.320	8.1	20.0
5 1	15 30.53	+ 6 31.4	2.095	3.034	8.3	21.2	5 1	15 32.41	-24 24.2	2.337	3.315	5.0	19.8
5 11	15 23.18	+ 7 13.1	2.081	3.025	8.2	21.2	5 11	15 23.57	-24 14.0	2.304	3.309	2.1	19.6
5 21	15 15.66	+ 7 35.1	2.092	3.017	9.4	21.2	5 21	15 14.47	-23 57.0	2.299	3.302	2.9	19.6
5 31	15 8.74	+ 7 35.3	2.128	3.008	11.4	21.3	5 31	15 5.94	-23 35.7	2.324	3.295	6.0	19.8
6 10	15 3.09	+ 7 14.1	2.185	3.000	13.6	21.5	6 10	14 58.74	-23 13.5	2.375	3.288	9.1	20.0
6 20	14 59.16	+ 6 33.7	2.260	2.991	15.6	21.6	6 20	14 53.38	-22 53.8	2.450	3.280	11.9	20.1
52006	2002 <i>EK</i> ₃₁		5 13.3 128°72	1°6/12.1	18		207043	2004 <i>XP</i> ₂₄		5 13.3 169°66			

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
467181	2016 <i>EV</i> ₁₁₂		5 13.4 65°55	0°7/13.7	17		90853	1996 <i>GF</i> ₅		5 13.4 250°72	1°6/12.6	17	
4 11	15 48.45	-21 6.7	1.365	2.239	16.1	21.3	4 11	15 48.85	-16 4.1	1.614	2.485	14.2	20.2
4 21	15 42.52	-20 59.0	1.311	2.252	11.7	21.1	4 21	15 42.82	-15 42.1	1.529	2.470	10.4	19.9
5 1	15 33.95	-20 40.8	1.278	2.265	6.8	20.8	5 1	15 34.26	-15 14.4	1.466	2.455	6.0	19.7
5 11	15 23.88	-20 14.0	1.270	2.279	1.6	20.5	5 11	15 24.03	-14 43.6	1.430	2.438	1.8	19.3
5 21	15 13.69	-19 42.3	1.287	2.292	3.9	20.7	5 21	15 13.28	-14 13.7	1.420	2.422	4.6	19.5
5 31	15 4.76	-19 11.0	1.329	2.306	8.9	21.0	5 31	15 3.32	-13 49.0	1.437	2.405	9.3	19.7
6 10	14 58.15	-18 45.5	1.394	2.319	13.3	21.3	6 10	14 55.27	-13 33.8	1.477	2.387	13.8	19.9
6 20	14 54.42	-18 29.6	1.478	2.333	17.0	21.6	6 20	14 49.85	-13 30.8	1.537	2.369	17.6	20.1
309124	2006 <i>WM</i> ₂₀₃		5 13.4 281°02	1°2/12.7	18		204083	2003 <i>WE</i> ₃₄		5 13.4 295°41	1°9/14.6	18	
4 11	15 44.68	-14 54.7	2.212	3.077	11.1	20.6	4 11	15 44.19	-25 45.1	1.851	2.706	13.4	20.3
4 21	15 39.16	-14 52.4	2.129	3.067	8.1	20.3	4 21	15 39.21	-25 21.6	1.764	2.694	10.1	20.0
5 1	15 31.87	-14 48.0	2.070	3.058	4.6	20.1	5 1	15 32.07	-24 44.2	1.700	2.681	6.2	19.8
5 11	15 23.49	-14 43.0	2.040	3.048	1.4	19.9	5 11	15 23.58	-23 54.1	1.662	2.668	2.5	19.5
5 21	15 14.82	-14 39.3	2.037	3.038	3.4	20.0	5 21	15 14.76	-22 54.8	1.651	2.656	3.4	19.5
5 31	15 6.73	-14 39.1	2.063	3.029	7.1	20.2	5 31	15 6.70	-21 51.5	1.667	2.643	7.5	19.8
6 10	14 59.98	-14 44.5	2.114	3.019	10.4	20.4	6 10	15 0.34	-20 50.5	1.707	2.631	11.4	20.0
6 20	14 55.11	-14 56.9	2.187	3.009	13.4	20.6	6 20	14 56.30	-19 57.2	1.770	2.619	14.9	20.2
204046	2003 <i>UG</i> ₂₀₉		5 13.4 254°20	0°2/13.2	17		171343	2006 <i>KN</i> ₁₀		5 13.4 303°44	0°6/12.9	18	
4 11	15 45.89	-18 39.7	2.171	3.031	11.5	20.5	4 11	15 43.58	-18 40.9	1.768	2.641	13.1	20.1
4 21	15 40.14	-18 29.5	2.080	3.015	8.4	20.3	4 21	15 38.83	-18 13.3	1.680	2.622	9.6	19.8
5 1	15 32.48	-18 13.4	2.013	2.999	4.8	20.0	5 1	15 31.90	-17 37.5	1.615	2.603	5.5	19.6
5 11	15 23.62	-17 52.9	1.973	2.983	0.9	19.7	5 11	15 23.57	-16 56.2	1.575	2.584	1.1	19.2
5 21	15 14.39	-17 30.3	1.962	2.966	3.1	19.8	5 21	15 14.81	-16 13.1	1.562	2.566	3.8	19.4
5 31	15 5.74	-17 8.7	1.979	2.948	7.1	20.1	5 31	15 6.73	-15 33.0	1.576	2.547	8.3	19.6
6 10	14 58.49	-16 51.4	2.022	2.931	10.6	20.2	6 10	15 0.30	-15 0.7	1.613	2.529	12.4	19.8
6 20	14 53.24	-16 41.1	2.086	2.913	13.8	20.4	6 20	14 56.17	-14 39.5	1.671	2.512	16.0	20.0
395496	2011 <i>UL</i> ₈₉		5 13.4 229°84	0°2/13.5	18		301135	2008 <i>XR</i> ₉		5 13.4 163°12	3°7/11.5	16	
4 11	15 49.17	-17 37.0	2.647	3.493	10.1	20.9	4 11	15 49.71	-10 46.5	1.627	2.499	14.1	21.7
4 21	15 42.22	-18 7.4	2.556	3.485	7.4	20.7	4 21	15 43.10	-10 12.3	1.564	2.504	10.3	21.5
5 1	15 33.57	-18 35.5	2.492	3.476	4.2	20.5	5 1	15 34.21	-9 37.9	1.524	2.509	6.3	21.3
5 11	15 23.83	-19 1.0	2.457	3.466	0.9	20.2	5 11	15 23.99	-9 7.6	1.510	2.512	3.7	21.1
5 21	15 13.75	-19 24.1	2.454	3.457	2.6	20.3	5 21	15 13.58	-8 45.4	1.523	2.516	5.9	21.3
5 31	15 4.15	-19 45.6	2.480	3.447	6.0	20.5	5 31	15 4.16	-8 34.8	1.563	2.518	9.8	21.5
6 10	14 55.75	-20 7.2	2.534	3.437	9.0	20.7	6 10	14 56.68	-8 38.0	1.626	2.520	13.6	21.7
6 20	14 49.10	-20 30.3	2.613	3.427	11.7	20.9	6 20	14 51.69	-8 55.1	1.708	2.522	16.9	22.0
26642	Schlenoff		5 13.4 331°28	1°6/12.4	18		383870	2008 <i>RJ</i> ₃₆		5 13.4 253°08	2°5/11.7	17	
4 11	15 43.46	-15 36.0	1.951	2.823	12.1	18.6	4 11	15 44.23	-14 8.0	1.879	2.752	12.4	21.1
4 21	15 38.38	-15 8.7	1.878	2.820	8.7	18.4	4 21	15 39.01	-13 21.1	1.803	2.746	9.0	20.9
5 1	15 31.44	-14 37.3	1.829	2.818	5.0	18.2	5 1	15 31.86	-12 30.0	1.753	2.740	5.2	20.6
5 11	15 23.41	-14 4.5	1.808	2.815	1.7	17.9	5 11	15 23.54	-11 38.7	1.728	2.734	2.5	20.4
5 21	15 15.17	-13 33.9	1.813	2.813	3.9	18.1	5 21	15 14.99	-10 51.8	1.731	2.727	4.7	20.6
5 31	15 7.64	-13 9.0	1.845	2.811	7.8	18.3	5 31	15 7.18	-10 13.7	1.761	2.721	8.5	20.8
6 10	15 1.64	-12 52.9	1.902	2.809	11.3	18.5	6 10	15 0.94	-9 47.8	1.815	2.714	12.2	21.0
6 20	14 57.66	-12 47.3	1.980	2.807	14.4	18.7	6 20	14 56.80	-9 35.9	1.889	2.708	15.3	21.2
422411	2014 <i>ST</i> ₂₈₁		5 13.4 267°19	3°0/11.8	17		499279	2009 <i>VW</i> ₇₀		5 13.4 213°28	0°5/13.7	17	
4 11	15 46.94	-13 55.2	1.494	2.374	14.6	21.6	4 11	15 47.20	-20 58.0	2.299	3.150	11.3	22.4
4 21	15 41.51	-13 10.0	1.413	2.359	10.7	21.3	4 21	15 40.96	-20 46.1	2.212	3.142	8.3	22.2
5 1	15 33.52	-12 19.4	1.354	2.343	6.3	21.0	5 1	15 32.92	-20 26.8	2.150	3.134	4.8	22.0
5 11	15 23.85	-11 28.0	1.321	2.327	3.0	20.7	5 11	15 23.76	-20 1.2	2.116	3.125	1.1	21.7
5 21	15 13.70	-10 41.5	1.313	2.310	5.7	20.9	5 21	15 14.32	-19 31.7	2.111	3.115	2.9	21.8
5 31	15 4.38	-10 5.6	1.330	2.293	10.4	21.1	5 31	15 5.50	-19 1.3	2.134	3.104	6.6	22.0
6 10	14 57.04	-9 44.7	1.370	2.276	14.9	21.3	6 10	14 58.09	-18 33.9	2.184	3.093	10.0	22.2
6 20	14 52.38	-9 40.9	1.429	2.259	18.8	21.5	6 20	14 52.62	-18 12.4	2.257	3.082	12.9	22.4
385508	2004 <i>FT</i> ₅₃		5 13.4 281°54	2°2/14.7	17		215810	2004 <i>RZ</i> ₂₉₀		5 13.4 177°99	1°3/14.3	17	
4 11	15 45.76	-25 5.6	2.099	2.948	12.3	20.8	4 11	15 46.52	-23 51.3	2.265	3.111	11.6	21.5
4 21	15 40.11	-25 17.8	2.019	2.944	9.2	20.6	4 21	15 40.44	-23 36.4	2.187	3.113	8.6	21.4
5 1	15 32.48	-25 20.3	1.963	2.941	5.8	20.4	5 1	15 32.58	-23 11.9	2.134	3.114	5.2	21.1
5 11	15 23.63	-25 13.0	1.933	2.937	2.7	20.2	5 11	15 23.68	-22 38.9	2.108	3.115	1.8	20.9
5 21	15 14.49	-24 57.3	1.931	2.934	3.4	20.2	5 21	15 14.61	-21 59.9	2.111	3.115	2.9	21.0
5 31	15 6.04	-24 36.0	1.957	2.930	6.8	20.4	5 31	15 6.24	-21 18.6	2.143	3.115	6.4	21.2
6 10	14 59.14	-24 13.1	2.008	2.927	10.2	20.6	6 10	14 59.35	-20 39.2	2.201	3.114	9.7	21.4
6 20	14 54.36	-23 52.7	2.081	2.924	13.2	20.8	6 20	14 54.42	-20 5.4	2.281	3.113	12.6	21.6
381473	2008 <i>RV</i> ₁₄₁		5 13.4 210°96	0°8/13.9	17		117885	2692 <i>P-L</i>		5 13.4 126°57	2°2/11.6	17	
4 11	15 46.53	-21 43.8	2.052	2.908	12.2	21.6	4 11	15 42.48	-12 39.9	2.572	3.437	9.8	20.1
4 21	15 40.62	-21 37.5	1.973	2.905	9.0	21.4	4 21	15 37.21	-12 2.9	2.508	3.446	7.0	19.9
5 1	15 32.75	-21 22.9	1.917	2.901	5.3	21.2	5 1	15 30.62	-11 24.6	2.470	3.455	4.1	19.7
5 11	15 23.68	-21 1.1	1.888	2.897	1.4	20.9	5 11	15 23.29	-10 47.7	2.460	3.464	2.2	19.6
5 21	15 14.34	-20 34.4	1.888	2.892	3.1	21.0	5 21	15 15.90	-10 15.1	2.479	3.473	3.8	19.7
5 31	15 5.72	-20 6.1	1.915	2.887	7.0	21.2	5 31	15 9.10	-9 49.5	2.527	3.481	6.6	19.9
6 10	14 58.67	-19 40.3	1.967	2.882	10.6	21.4	6 10	15 3.46	-9 32.8	2.600	3.489	9.3	20.1
6 20	14 53.74	-19 20.4	2.042	2.877	13.7	21.6	6 20	14 59.36	-9 26.0	2.696	3.497	11.7	20.3
509191	2006 <i>OC</i> ₅		5 13.4 236°42	1°8/11.9	18 C		506713	2006 <i>UY</i> ₁₆₆		5 13.4 48°7			

EPHEMERIDES

5 13.4

5 13.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
435710	2008 <i>UL</i> ₈		5 13.4 151°65	2°2/11.7	17		46341	2001 <i>RE</i> ₈₉		5 13.4 153°58	4°8/16.1	18	
4 11	15 44.62	-13 59.9	2.233	3.098	11.0	22.0	4 11	15 51.75	-32 4.7	2.125	2.942	13.4	20.0
4 21	15 38.93	-13 12.1	2.166	3.105	7.9	21.8	4 21	15 44.53	-32 39.0	2.052	2.949	10.5	19.8
5 1	15 31.66	-12 21.2	2.125	3.112	4.6	21.6	5 1	15 35.06	-32 58.8	2.001	2.956	7.6	19.6
5 11	15 23.50	-11 30.7	2.113	3.118	2.2	21.4	5 11	15 24.21	-33 2.3	1.977	2.963	5.2	19.5
5 21	15 15.25	-10 44.3	2.128	3.123	4.1	21.6	5 21	15 13.07	-32 49.6	1.980	2.969	5.2	19.5
5 31	15 7.71	-10 5.9	2.172	3.128	7.4	21.8	5 31	15 2.79	-32 23.7	2.012	2.974	7.5	19.6
6 10	15 1.55	-9 38.0	2.241	3.133	10.5	22.0	6 10	14 54.34	-31 49.8	2.069	2.979	10.4	19.8
6 20	14 57.19	-9 22.1	2.332	3.137	13.2	22.2	6 20	14 48.31	-31 13.5	2.148	2.983	13.1	20.0
273744	2007 <i>EG</i> ₁₂₀		5 13.4 111°98	3°2/11.3	17		38895	2000 <i>SE</i> ₁₅₂		5 13.4 285°24	3°1/14.5	18	
4 11	15 45.98	-11 32.9	1.928	2.799	12.3	21.2	4 11	15 50.03	-24 18.8	1.432	2.296	16.1	18.9
4 21	15 40.02	-10 45.6	1.873	2.813	8.9	21.0	4 21	15 44.25	-24 51.7	1.347	2.280	12.2	18.6
5 1	15 32.30	-9 57.5	1.843	2.828	5.4	20.8	5 1	15 35.38	-25 14.0	1.283	2.263	7.8	18.3
5 11	15 23.62	-9 12.7	1.840	2.842	3.2	20.7	5 11	15 24.34	-25 23.8	1.242	2.247	3.6	18.0
5 21	15 14.91	-8 35.3	1.865	2.855	5.1	20.9	5 21	15 12.51	-25 21.0	1.227	2.230	4.7	18.0
5 31	15 7.06	-8 8.7	1.916	2.869	8.5	21.1	5 31	15 1.51	-25 8.7	1.238	2.214	9.5	18.2
6 10	15 0.82	-7 55.1	1.992	2.881	11.7	21.3	6 10	14 52.79	-24 52.7	1.270	2.198	14.2	18.4
6 20	14 56.61	-7 55.0	2.089	2.894	14.5	21.5	6 20	14 47.26	-24 38.9	1.323	2.181	18.4	18.6
434241	2003 <i>UN</i> ₆		5 13.4 199°15	2°4/11.5	18		64121	2001 <i>TG</i> ₁₈		5 13.4 257°33	1°0/13.9	18	
4 11	15 52.11	-24 52.3	1.093	1.968	19.2	20.5	4 11	15 48.86	-21 8.8	1.941	2.797	12.9	19.4
4 21	15 45.67	-21 46.7	1.022	1.967	13.9	20.2	4 21	15 42.64	-21 17.2	1.847	2.779	9.5	19.2
5 1	15 35.93	-18 5.2	0.975	1.965	7.7	19.9	5 1	15 34.12	-21 18.3	1.776	2.760	5.7	18.9
5 11	15 24.35	-14 2.1	0.955	1.963	2.5	19.5	5 11	15 24.06	-21 12.2	1.733	2.741	1.6	18.6
5 21	15 12.71	-9 59.8	0.963	1.961	7.1	19.8	5 21	15 13.47	-21 0.3	1.717	2.721	3.3	18.7
5 31	15 2.75	-6 22.0	0.998	1.958	13.4	20.1	5 31	15 3.50	-20 45.4	1.728	2.701	7.6	18.9
6 10	14 55.71	-3 25.1	1.056	1.954	18.9	20.4	6 10	14 55.16	-20 31.6	1.766	2.680	11.6	19.1
6 20	14 52.11	-1 14.7	1.131	1.950	23.4	20.7	6 20	14 49.17	-20 22.5	1.824	2.659	15.1	19.3
149802	2005 <i>JR</i> ₁₄₈		5 13.4 283°66	2°3/12.2	18		385240	2000 <i>SW</i> ₃₆₃		5 13.4 281°67	0°5/13.6	18	
4 11	15 46.90	-14 46.4	1.564	2.441	14.2	19.9	4 11	15 48.89	-20 16.9	1.941	2.798	12.8	21.4
4 21	15 41.56	-14 17.0	1.473	2.417	10.5	19.6	4 21	15 42.81	-20 16.9	1.831	2.764	9.5	21.1
5 1	15 33.64	-13 42.3	1.404	2.392	6.1	19.3	5 1	15 34.32	-20 9.7	1.745	2.730	5.6	20.8
5 11	15 23.96	-13 5.8	1.360	2.368	2.4	19.0	5 11	15 24.13	-19 55.6	1.685	2.694	1.3	20.5
5 21	15 13.65	-12 31.8	1.343	2.343	5.1	19.1	5 21	15 13.19	-19 36.2	1.654	2.658	3.5	20.5
5 31	15 4.02	-12 5.2	1.351	2.317	9.9	19.3	5 31	15 2.70	-19 14.9	1.650	2.621	8.0	20.7
6 10	14 56.25	-11 50.6	1.382	2.292	14.5	19.5	6 10	14 53.76	-18 55.7	1.671	2.584	12.3	20.9
6 20	14 51.13	-11 50.4	1.432	2.267	18.5	19.7	6 20	14 47.17	-18 42.8	1.714	2.546	16.1	21.1
34179	Bryanchun		5 13.4 259°63	1°0/12.7	17		338711	2003 <i>UD</i> ₆₀		5 13.4 294°79	9°4/17.3	17	
4 11	15 43.34	-17 3.0	2.323	3.187	10.7	19.9	4 11	15 51.56	-40 49.5	1.875	2.661	16.0	20.9
4 21	15 38.15	-16 36.6	2.236	3.175	7.8	19.7	4 21	15 45.49	-42 0.4	1.772	2.634	13.7	20.6
5 1	15 31.31	-16 5.2	2.175	3.162	4.4	19.5	5 1	15 36.21	-42 52.8	1.690	2.607	11.4	20.4
5 11	15 23.47	-15 31.0	2.141	3.149	1.1	19.2	5 11	15 24.54	-43 20.5	1.631	2.579	9.7	20.3
5 21	15 15.36	-14 56.9	2.135	3.136	3.3	19.4	5 21	15 11.80	-43 19.7	1.596	2.551	9.5	20.2
5 31	15 7.81	-14 26.2	2.157	3.123	6.8	19.6	5 31	14 59.68	-42 51.1	1.585	2.523	11.0	20.2
6 10	15 1.53	-14 2.1	2.205	3.110	10.1	19.7	6 10	14 49.72	-42 1.0	1.598	2.496	13.6	20.3
6 20	14 57.03	-13 46.8	2.275	3.096	13.0	19.9	6 20	14 42.99	-40 58.1	1.630	2.468	16.5	20.4
418192	2008 <i>CH</i> ₂₈		5 13.4 138°40	2°4/14.6	17		222853	2002 <i>EH</i> ₁₁₇		5 13.4 127°71	0°3/13.2	17	
4 11	15 49.52	-24 58.3	1.679	2.533	14.6	21.7	4 11	15 47.59	-18 48.6	2.211	3.067	11.5	21.8
4 21	15 43.16	-25 7.6	1.610	2.538	10.9	21.4	4 21	15 41.09	-18 32.7	2.149	3.083	8.3	21.6
5 1	15 34.35	-25 4.7	1.564	2.543	6.8	21.2	5 1	15 32.89	-18 11.2	2.112	3.098	4.7	21.4
5 11	15 24.06	-24 49.7	1.543	2.548	3.0	21.0	5 11	15 23.78	-17 45.6	2.104	3.113	0.9	21.1
5 21	15 13.51	-24 24.6	1.549	2.552	3.9	21.0	5 21	15 14.60	-17 18.7	2.124	3.127	3.0	21.3
5 31	15 3.95	-23 53.6	1.582	2.557	8.0	21.3	5 31	15 6.21	-16 53.6	2.172	3.140	6.6	21.6
6 10	14 56.44	-23 22.3	1.639	2.561	11.9	21.5	6 10	14 59.33	-16 33.4	2.247	3.153	9.9	21.8
6 20	14 51.57	-22 55.5	1.717	2.564	15.4	21.8	6 20	14 54.40	-16 20.4	2.345	3.166	12.6	22.0
184639	2005 <i>SX</i> ₁₈		5 13.4 221°95	1°5/14.5	18		497758	2006 <i>SQ</i> ₂₈₈		5 13.4 220°72	2°9/11.6	17	
4 11	15 44.37	-24 20.7	2.680	3.521	10.2	20.9	4 11	15 47.57	-11 58.6	2.040	2.905	11.9	22.3
4 21	15 38.76	-24 20.8	2.592	3.515	7.6	20.7	4 21	15 41.36	-11 22.1	1.958	2.895	8.7	22.1
5 1	15 31.61	-24 13.0	2.529	3.508	4.7	20.5	5 1	15 33.21	-10 43.6	1.900	2.885	5.2	21.8
5 11	15 23.52	-23 57.7	2.495	3.500	1.9	20.3	5 11	15 23.87	-10 6.6	1.870	2.873	2.9	21.7
5 21	15 15.20	-23 36.4	2.489	3.492	2.6	20.4	5 21	15 14.23	-9 34.8	1.868	2.861	4.9	21.8
5 31	15 7.41	-23 11.5	2.513	3.484	5.6	20.6	5 31	15 5.25	-9 11.8	1.894	2.848	8.5	21.9
6 10	15 0.80	-22 46.3	2.563	3.476	8.5	20.7	6 10	14 57.77	-9 0.2	1.945	2.834	12.0	22.1
6 20	14 55.86	-22 23.7	2.637	3.468	11.1	20.9	6 20	14 52.36	-9 1.3	2.017	2.820	15.0	22.3
437665	2014 <i>CL</i> ₉		5 13.4 322°39	0°6/13.7	17		110461	2001 <i>TD</i> ₄₇		5 13.4 235°10	0°8/12.9	18	
4 11	15 44.68	-21 4.0	1.964	2.826	12.4	21.6	4 11	15 46.50	-17 59.2	2.002	2.865	12.2	20.4
4 21	15 39.36	-20 56.6	1.888	2.824	9.1	21.3	4 21	15 40.68	-17 32.0	1.916	2.854	8.9	20.2
5 1	15 32.09	-20 41.3	1.836	2.821	5.3	21.1	5 1	15 32.86	-16 58.2	1.855	2.843	5.0	19.9
5 11	15 23.62	-20 19.4	1.810	2.819	1.3	20.8	5 11	15 23.80	-16 20.1	1.821	2.830	1.1	19.6
5 21	15 14.90	-19 53.3	1.811	2.816	3.1	21.0	5 21	15 14.42	-15 41.1	1.816	2.818	3.6	19.8
5 31	15 6.92	-19 26.7	1.840	2.814	7.1	21.2	5 31	15 5.72	-15 5.1	1.837	2.805	7.6	20.0
6 10	15 0.52	-19 3.5	1.894	2.812	10.8	21.4	6 10	14 58.56	-14 36.3	1.884	2.791	11.4	20.2
6 20	14 56.24	-18 46.8	1.969	2.810	13.9	21.6	6 20	14 53.53	-14 17.5	1.953	2.777	14.6	20.4
105743	2000 <i>SA</i> ₉₁		5 13.4 183°45	3°9/16.8	18		496874	2000 <i>SN</i> ₂₁		5 13.4 27			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
181060	2005 QX ₁		5 13.4 331°50		5°0/15.9 17		268420	2005 UO ₄₂₁		5 13.4 302°98		0°6/13.7 17	
4 11	15 44.96	-30 12.9	1.341	2.201	17.2	19.8	4 11	15 45.18	-21 21.3	1.537	2.410	14.7	21.0
4 21	15 40.62	-30 26.8	1.264	2.190	13.5	19.5	4 21	15 40.33	-21 4.5	1.454	2.395	10.9	20.7
5 1	15 33.27	-30 20.9	1.206	2.179	9.3	19.2	5 1	15 32.93	-20 36.7	1.392	2.379	6.4	20.4
5 11	15 23.92	-29 53.5	1.171	2.169	5.7	19.0	5 11	15 23.87	-19 59.7	1.355	2.364	1.5	20.0
5 21	15 14.02	-29 6.3	1.160	2.159	5.8	19.0	5 21	15 14.32	-19 16.9	1.344	2.349	3.8	20.2
5 31	15 5.17	-28 5.3	1.172	2.151	9.6	19.1	5 31	15 5.59	-18 33.8	1.358	2.334	8.8	20.4
6 10	14 58.74	-26 59.6	1.206	2.143	14.0	19.4	6 10	14 58.82	-17 56.3	1.395	2.320	13.4	20.6
6 20	14 55.48	-25 57.8	1.259	2.136	18.1	19.6	6 20	14 54.72	-17 29.0	1.452	2.306	17.3	20.8
478275	2011 VN ₁₃		5 13.4 306°62		0°6/12.9 16		8634	Neubauer		5 13.4 51°12		3°2/14.5 18 R	
4 11	15 42.33	-21 44.2	2.036	2.899	12.0	20.7	4 11	15 52.17	-23 48.9	1.497	2.356	15.8	16.9
4 21	15 37.60	-20 25.4	1.948	2.886	8.7	20.4	4 21	15 45.25	-24 46.3	1.444	2.373	11.8	16.7
5 1	15 31.05	-18 53.6	1.886	2.873	5.0	20.2	5 1	15 35.62	-25 33.7	1.412	2.391	7.4	16.5
5 11	15 23.44	-17 13.1	1.851	2.860	1.0	19.9	5 11	15 24.37	-26 8.7	1.406	2.409	3.7	16.3
5 21	15 15.63	-15 29.8	1.845	2.847	3.5	20.0	5 21	15 12.89	-26 30.6	1.426	2.427	4.5	16.4
5 31	15 8.52	-13 50.7	1.867	2.835	7.5	20.3	5 31	15 2.60	-26 42.0	1.472	2.446	8.5	16.7
6 10	15 2.89	-12 22.3	1.915	2.823	11.2	20.5	6 10	14 54.66	-26 47.4	1.542	2.465	12.5	16.9
6 20	14 59.23	-11 9.1	1.985	2.811	14.4	20.6	6 20	14 49.66	-26 51.5	1.633	2.484	15.8	17.2
152223	2005 RF ₃₃		5 13.4 277°36		5°4/ 9.1 18		390710	2003 FL ₁₈		5 13.4 117°79		3°4/10.7 17	
4 11	15 43.03	- 2 49.9	2.428	3.289	10.4	20.9	4 11	15 42.13	-10 5.0	2.282	3.152	10.6	20.8
4 21	15 37.89	- 1 58.6	2.337	3.263	8.1	20.7	4 21	15 37.15	- 9 12.9	2.216	3.156	7.7	20.6
5 1	15 31.18	- 1 11.1	2.271	3.237	6.1	20.5	5 1	15 30.69	- 8 20.5	2.177	3.159	4.9	20.4
5 11	15 23.48	- 0 31.8	2.232	3.210	5.4	20.4	5 11	15 23.39	- 7 31.9	2.164	3.162	3.4	20.3
5 21	15 15.46	- 0 4.4	2.221	3.182	6.8	20.5	5 21	15 15.98	- 6 50.8	2.180	3.165	5.0	20.4
5 31	15 7.88	+ 0 8.1	2.237	3.155	9.3	20.6	5 31	15 9.21	- 6 20.5	2.223	3.169	7.9	20.6
6 10	15 1.43	+ 0 4.5	2.276	3.127	11.9	20.7	6 10	15 3.70	- 6 2.8	2.290	3.172	10.7	20.8
6 20	14 56.60	- 0 14.8	2.336	3.098	14.4	20.8	6 20	14 59.87	- 5 58.3	2.379	3.175	13.2	21.0
74684	1999 RG ₁₂₃		5 13.4 184°72		0°8/13.9 17		178006	2006 QH ₁₃₅		5 13.4 320°96		2°0/12.5 17	
4 11	15 47.76	-23 9.1	1.743	2.602	13.9	19.5	4 11	15 45.31	-15 28.1	1.302	2.190	15.8	19.8
4 21	15 41.76	-22 36.1	1.669	2.602	10.3	19.2	4 21	15 40.66	-15 8.4	1.228	2.178	11.5	19.5
5 1	15 33.51	-21 50.6	1.618	2.602	6.0	19.0	5 1	15 33.21	-14 43.6	1.176	2.166	6.7	19.2
5 11	15 23.94	-20 55.0	1.593	2.602	1.6	18.7	5 11	15 23.94	-14 16.9	1.146	2.155	2.1	18.9
5 21	15 14.14	-19 53.4	1.596	2.601	3.4	18.8	5 21	15 14.15	-13 52.9	1.142	2.144	5.2	19.1
5 31	15 5.28	-18 51.8	1.626	2.600	7.9	19.1	5 31	15 5.31	-13 36.4	1.161	2.134	10.4	19.3
6 10	14 58.30	-17 56.2	1.680	2.598	11.9	19.3	6 10	14 58.67	-13 31.7	1.201	2.124	15.2	19.6
6 20	14 53.78	-17 11.2	1.756	2.596	15.4	19.5	6 20	14 54.97	-13 40.8	1.260	2.115	19.3	19.8
510090	2010 MY ₉₃		5 13.4 254°37		5°3/17.9 18		332438	2007 VA ₃₀₂		5 13.4 236°56		18°0/ 4.9 18	
4 11	15 45.61	-37 58.5	2.637	3.426	11.8	21.8	4 11	15 54.04	+19 48.4	1.310	2.120	20.4	20.0
4 21	15 39.90	-38 3.1	2.541	3.414	9.7	21.6	4 21	15 46.81	+21 13.8	1.261	2.112	18.9	19.9
5 1	15 32.37	-37 51.3	2.468	3.401	7.5	21.5	5 1	15 36.59	+22 6.0	1.231	2.103	18.0	19.8
5 11	15 23.71	-37 22.0	2.421	3.389	5.8	21.3	5 11	15 24.58	+22 14.0	1.218	2.094	18.1	19.8
5 21	15 14.79	-36 36.1	2.401	3.377	5.4	21.3	5 21	15 12.27	+21 32.4	1.225	2.084	19.3	19.8
5 31	15 6.52	-35 36.4	2.408	3.364	6.8	21.4	5 31	15 1.24	+20 2.3	1.249	2.074	21.1	19.9
6 10	14 59.69	-34 28.3	2.442	3.351	9.1	21.5	6 10	14 52.73	+17 51.3	1.290	2.063	23.3	20.0
6 20	14 54.83	-33 17.2	2.499	3.338	11.4	21.6	6 20	14 47.38	+15 10.0	1.345	2.052	25.4	20.2
302241	2001 WV ₇₂		5 13.4 145°07		1°6/12.7 16		503010	2015 FW ₁₀₈		5 13.4 98°86		0°3/13.6 17	
4 11	15 50.42	-15 9.5	1.491	2.364	15.0	21.2	4 11	15 45.79	-22 7.3	1.998	2.856	12.5	21.0
4 21	15 43.90	-15 2.5	1.427	2.369	10.9	20.9	4 21	15 39.93	-21 27.4	1.938	2.872	9.0	20.8
5 1	15 34.81	-14 51.9	1.385	2.373	6.2	20.7	5 1	15 32.29	-20 37.9	1.903	2.888	5.2	20.6
5 11	15 24.20	-14 40.2	1.369	2.378	1.8	20.4	5 11	15 23.70	-19 41.4	1.894	2.903	1.1	20.4
5 21	15 13.32	-14 30.3	1.380	2.381	4.6	20.6	5 21	15 15.09	-18 42.2	1.914	2.919	3.0	20.5
5 31	15 3.50	-14 25.6	1.416	2.385	9.3	20.9	5 31	15 7.37	-17 45.1	1.962	2.934	6.9	20.8
6 10	14 55.83	-14 29.2	1.475	2.388	13.6	21.1	6 10	15 1.28	-16 54.9	2.035	2.949	10.4	21.1
6 20	14 50.92	-14 42.8	1.555	2.391	17.2	21.4	6 20	14 57.26	-16 14.8	2.131	2.963	13.3	21.3
65895	1998 CP		5 13.4 221°74		1°6/14.3 17		38999	2000 UV ₂₆		5 13.4 117°59		3°3/10.8 18 R	
4 11	15 49.55	-23 53.7	1.817	2.669	13.7	19.9	4 11	15 44.76	-12 36.2	2.000	2.871	11.9	18.2
4 21	15 43.17	-23 46.2	1.732	2.661	10.3	19.7	4 21	15 39.12	-11 20.3	1.942	2.883	8.6	18.0
5 1	15 34.41	-23 27.1	1.670	2.652	6.2	19.4	5 1	15 31.81	-10 1.6	1.910	2.895	5.2	17.8
5 11	15 24.14	-22 57.1	1.635	2.642	2.2	19.1	5 11	15 23.61	- 8 45.6	1.906	2.907	3.3	17.7
5 21	15 13.46	-22 18.6	1.627	2.631	3.5	19.2	5 21	15 15.37	- 7 37.4	1.930	2.918	5.3	17.9
5 31	15 3.60	-21 36.1	1.646	2.620	7.8	19.4	5 31	15 7.97	- 6 41.7	1.981	2.929	8.5	18.1
6 10	14 55.58	-20 55.1	1.691	2.608	11.9	19.6	6 10	15 2.08	- 6 1.7	2.057	2.940	11.7	18.3
6 20	14 50.08	-20 20.7	1.757	2.596	15.4	19.8	6 20	14 58.13	- 5 38.1	2.154	2.950	14.4	18.5
184937	2005 VA ₈₇		5 13.4 11°72		2°6/10.3 18		155451	1998 HV ₁₃₄		5 13.4 309°80		8°0/ 7.8 18	
4 11	15 36.52	- 6 23.6	4.019	4.880	6.6	20.3	4 11	15 42.13	- 2 34.3	1.582	2.464	13.9	18.6
4 21	15 32.63	- 5 58.2	3.949	4.881	4.9	20.1	4 21	15 37.86	- 1 2.4	1.509	2.444	11.0	18.4
5 1	15 27.96	- 5 34.7	3.907	4.882	3.3	20.0	5 1	15 31.40	+ 0 25.3	1.458	2.426	8.6	18.2
5 11	15 22.83	- 5 15.0	3.893	4.883	2.6	20.0	5 11	15 23.58	+ 1 40.2	1.432	2.407	8.1	18.2
5 21	15 17.64	- 5 0.6	3.908	4.884	3.5	20.0	5 21	15 15.37	+ 2 35.0	1.431	2.389	10.1	18.2
5 31	15 12.76	- 4 52.8	3.951	4.885	5.2	20.2	5 31	15 7.90	+ 3 4.5	1.452	2.371	13.2	18.4
6 10	15 8.53	- 4 52.4	4.021	4.886	6.9	20.3	6 10	15 2.11	+ 3 7.1	1.494	2.354	16.5	18.5
6 20	15 5.22	- 4 59.5	4.114	4.887	8.4	20.4	6 20	14 58.63	+ 2 44.3	1.553	2.337	19.5	18.7
325056	2008 CV ₁₉₀		5 13.4 63°64		0°4/13.2 17		464714	2002 RF ₉		5 13.4 269°05		3°3/11.4 17	
4 11	15 47.98	-18											

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
558	Carmen		5 13.4 131°82	4.2/10.5	18		497152	2004 RW ₁₆₃		5 13.4 221°98	7.8/18.4	18	
4 11	15 43.55	- 7 43.3	2.112	2.982	11.4	13.8	4 11	15 52.84	-42 21.5	2.357	3.118	13.8	21.9
4 21	15 38.27	- 6 57.4	2.048	2.985	8.4	13.6	4 21	15 45.65	-43 7.3	2.265	3.109	11.8	21.8
5 1	15 31.37	- 6 13.5	2.009	2.989	5.6	13.4	5 1	15 35.92	-43 34.3	2.194	3.099	9.8	21.6
5 11	15 23.54	- 5 35.7	1.998	2.992	4.2	13.4	5 11	15 24.50	-43 38.7	2.148	3.088	8.2	21.5
5 21	15 15.58	- 5 7.6	2.013	2.995	5.8	13.5	5 21	15 12.56	-43 19.1	2.127	3.077	7.9	21.4
5 31	15 8.32	- 4 52.2	2.056	2.997	8.7	13.6	5 31	15 1.37	-42 37.7	2.133	3.065	9.0	21.5
6 10	15 2.43	- 4 50.6	2.122	3.000	11.6	13.8	6 10	14 52.08	-41 40.3	2.163	3.052	11.0	21.6
6 20	14 58.37	- 5 2.8	2.210	3.003	14.2	14.0	6 20	14 45.41	-40 34.1	2.216	3.039	13.2	21.7
474045	2016 GK ₂₃₈		5 13.4 257°80	5.8/ 9.4	17		170846	2004 FR ₇₆		5 13.4 89°58	4.7/ 9.9	18	
4 11	15 44.14	- 5 49.6	1.820	2.695	12.7	21.0	4 11	15 42.45	- 7 19.9	2.092	2.965	11.3	20.5
4 21	15 39.00	- 4 37.4	1.749	2.686	9.6	20.8	4 21	15 37.48	- 6 14.8	2.031	2.969	8.4	20.3
5 1	15 31.92	- 3 27.5	1.701	2.676	6.9	20.6	5 1	15 30.92	- 5 11.7	1.996	2.973	5.8	20.1
5 11	15 23.66	- 2 25.9	1.680	2.666	5.9	20.5	5 11	15 23.47	- 4 15.2	1.987	2.978	4.7	20.1
5 21	15 15.15	- 1 38.4	1.685	2.656	7.7	20.6	5 21	15 15.92	- 3 30.0	2.006	2.982	6.3	20.2
5 31	15 7.36	- 1 9.1	1.715	2.646	10.8	20.8	5 31	15 9.07	- 2 59.3	2.051	2.986	9.1	20.3
6 10	15 1.13	- 0 59.9	1.768	2.636	14.0	20.9	6 10	15 3.58	- 2 44.9	2.119	2.990	11.9	20.5
6 20	14 57.00	- 1 10.3	1.840	2.626	16.9	21.1	6 20	14 59.89	- 2 46.4	2.209	2.994	14.4	20.7
472587	2015 DE ₁₂₂		5 13.4 349°86	1.8/13.9	17		512705	2016 UG ₁₀		5 13.4 119°76	0.5/12.8	18	
4 11	15 48.22	-20 29.1	1.480	2.352	15.2	20.3	4 11	15 39.56	-17 18.7	3.817	4.670	7.1	22.7
4 21	15 42.64	-21 18.5	1.407	2.346	11.3	20.0	4 21	15 34.82	-16 55.5	3.753	4.686	5.1	22.6
5 1	15 34.32	-22 2.5	1.356	2.341	6.8	19.7	5 1	15 29.21	-16 29.5	3.715	4.701	2.9	22.4
5 11	15 24.17	-22 39.7	1.330	2.337	2.4	19.4	5 11	15 23.13	-16 2.1	3.708	4.716	0.7	22.2
5 21	15 13.48	-23 9.4	1.329	2.334	4.1	19.5	5 21	15 17.02	-15 35.0	3.730	4.731	2.0	22.4
5 31	15 3.67	-23 32.8	1.354	2.331	8.8	19.8	5 31	15 11.30	-15 9.9	3.782	4.746	4.3	22.6
6 10	14 55.98	-23 53.2	1.402	2.329	13.2	20.0	6 10	15 6.37	-14 48.7	3.862	4.760	6.3	22.7
6 20	14 51.18	-24 14.1	1.471	2.328	16.9	20.3	6 20	15 2.49	-14 32.5	3.966	4.774	8.1	22.9
418374	2008 GM ₁₄₁		5 13.4 59°12	3°0/ 9.1	18		374309	2005 SC ₁₈₈		5 13.4 46°71	3°7/11.1	17	
4 11	15 35.39	- 4 18.2	4.361	5.220	6.2	21.0	4 11	15 44.15	-12 58.5	1.497	2.382	14.3	20.9
4 21	15 31.78	- 3 33.5	4.295	5.223	4.7	20.9	4 21	15 39.19	-11 49.1	1.443	2.390	10.4	20.6
5 1	15 27.47	- 2 51.2	4.257	5.225	3.4	20.8	5 1	15 32.05	-10 36.3	1.411	2.399	6.2	20.4
5 11	15 22.77	- 2 13.4	4.248	5.227	3.0	20.7	5 11	15 23.70	- 9 26.3	1.404	2.407	3.7	20.3
5 21	15 18.01	- 1 41.8	4.268	5.229	3.8	20.8	5 21	15 15.26	- 8 25.6	1.424	2.416	6.1	20.5
5 31	15 13.53	- 1 17.9	4.316	5.232	5.2	20.9	5 31	15 7.85	- 7 39.8	1.468	2.426	10.1	20.7
6 10	15 9.65	- 1 2.6	4.389	5.234	6.7	21.0	6 10	15 2.35	- 7 12.2	1.535	2.435	13.9	21.0
6 20	15 6.61	- 0 56.0	4.486	5.236	8.1	21.1	6 20	14 59.24	- 7 3.4	1.620	2.445	17.2	21.2
287634	2003 HH ₄₃		5 13.4 29°71	1°4/14.1	17		509714	2008 SD ₁₀₈		5 13.4 309°12	0°7/13.8	17	
4 11	15 46.26	-21 26.1	1.907	2.767	12.8	20.3	4 11	15 44.50	-21 38.0	1.564	2.436	14.5	21.4
4 21	15 40.55	-21 51.3	1.842	2.775	9.4	20.1	4 21	15 39.84	-21 20.8	1.478	2.419	10.7	21.1
5 1	15 32.80	-22 9.5	1.800	2.783	5.6	19.9	5 1	15 32.67	-20 52.4	1.415	2.402	6.3	20.8
5 11	15 23.84	-22 20.9	1.784	2.792	1.9	19.6	5 11	15 23.87	-20 14.6	1.376	2.385	1.5	20.5
5 21	15 14.65	-22 26.2	1.796	2.800	3.2	19.7	5 21	15 14.58	-19 30.7	1.363	2.368	3.7	20.6
5 31	15 6.27	-22 27.8	1.835	2.810	7.1	20.0	5 31	15 6.07	-18 46.1	1.376	2.352	8.7	20.8
6 10	14 59.56	-22 28.8	1.899	2.819	10.6	20.2	6 10	14 59.47	-18 6.9	1.411	2.337	13.2	21.1
6 20	14 55.08	-22 32.2	1.985	2.829	13.7	20.4	6 20	14 55.49	-17 37.7	1.467	2.321	17.1	21.3
101406	1998 VL ₃		5 13.4 165°54	0°2/13.5	17		310222	2011 SR ₂₁₄		5 13.4 190°16	1°6/12.1	17	
4 11	15 45.50	-20 3.9	2.163	3.021	11.6	20.6	4 11	15 42.24	-15 38.3	2.390	3.256	10.4	21.2
4 21	15 39.78	-19 52.0	2.089	3.023	8.4	20.4	4 21	15 37.25	-14 52.8	2.316	3.255	7.5	21.0
5 1	15 32.28	-19 33.3	2.040	3.025	4.9	20.2	5 1	15 30.77	-14 3.0	2.268	3.255	4.3	20.8
5 11	15 23.74	-19 9.5	2.018	3.027	1.0	19.9	5 11	15 23.45	-13 12.1	2.247	3.254	1.7	20.6
5 21	15 15.01	-18 42.8	2.024	3.028	2.9	20.0	5 21	15 16.00	-12 23.6	2.256	3.254	3.6	20.8
5 31	15 6.98	-18 16.7	2.058	3.029	6.7	20.3	5 31	15 9.15	-11 41.1	2.292	3.253	6.8	21.0
6 10	15 0.41	-17 54.5	2.118	3.030	10.1	20.5	6 10	15 3.54	-11 7.6	2.354	3.252	9.8	21.2
6 20	14 55.80	-17 38.9	2.200	3.031	13.0	20.7	6 20	14 59.58	-10 45.0	2.439	3.251	12.4	21.3
208848	2002 RG ₁₉₆		5 13.4 189°66	4.7/16.8	18		419675	2010 TW ₁₇₂		5 13.4 169°49	0°2/13.3	16	
4 11	15 48.75	-34 47.5	2.652	3.449	11.5	21.6	4 11	15 48.06	-19 47.8	1.945	2.805	12.7	22.4
4 21	15 42.12	-35 12.5	2.566	3.448	9.3	21.5	4 21	15 41.75	-19 19.7	1.873	2.809	9.2	22.2
5 1	15 33.64	-35 23.9	2.504	3.447	6.9	21.3	5 1	15 33.45	-18 43.6	1.826	2.812	5.2	22.0
5 11	15 24.02	-35 20.3	2.468	3.445	5.1	21.2	5 11	15 23.99	-18 1.7	1.805	2.815	1.0	21.7
5 21	15 14.10	-35 1.8	2.461	3.442	4.9	21.2	5 21	15 14.35	-17 17.6	1.813	2.817	3.3	21.9
5 31	15 4.83	-34 30.9	2.482	3.439	6.6	21.3	5 31	15 5.55	-16 35.7	1.849	2.818	7.5	22.1
6 10	14 56.99	-33 51.8	2.530	3.435	8.9	21.4	6 10	14 58.44	-16 0.4	1.910	2.819	11.2	22.3
6 20	14 51.14	-33 9.3	2.601	3.431	11.3	21.5	6 20	14 53.53	-15 34.7	1.993	2.820	14.3	22.6
134207	2005 EO ₂₁₈		5 13.4 175°61	4°0/10.2	18		386582	2009 FV ₁₈		5 13.4 34°20	2°6/11.8	14	C
4 11	15 43.47	- 9 20.6	2.172	3.042	11.1	20.6	4 11	15 43.01	-14 47.3	1.489	2.374	14.3	20.3
4 21	15 38.19	- 8 13.3	2.105	3.043	8.2	20.4	4 21	15 38.22	-13 54.3	1.450	2.399	10.2	20.1
5 1	15 31.32	- 7 5.8	2.064	3.044	5.3	20.2	5 1	15 31.41	-12 57.8	1.434	2.424	5.8	19.9
5 11	15 23.55	- 6 2.7	2.050	3.045	4.0	20.1	5 11	15 23.57	-12 3.2	1.444	2.450	2.6	19.7
5 21	15 15.66	- 5 8.7	2.065	3.045	5.7	20.2	5 21	15 15.80	-11 15.8	1.478	2.476	5.0	19.9
5 31	15 8.44	- 4 27.7	2.106	3.046	8.6	20.4	5 31	15 9.14	-10 40.0	1.538	2.504	9.1	20.2
6 10	15 2.57	- 4 1.8	2.172	3.046	11.5	20.6	6 10	15 4.36	-10 18.8	1.621	2.532	12.7	20.5
6 20	14 58.49	- 3 51.6	2.259	3.045	14.1	20.8	6 20	15 1.88	-10 12.8	1.724	2.560	15.8	20.8
90349	2003 GV ₃₉		5 13.4 318°40	0°1/13.4	18		251885	1999 VT ₇₉		5 13.4 133°15	8°1/15.1	18	
4 11	15 46.05	-17 47.4											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
275593	1999 <i>VN</i> ₉₉		5 13.4 153°49	0°3/13.2	17		473885	2016 <i>EX</i> ₁₄₂		5 13.4 114°80	1°3/14.0	16	
4 11	15 49.32	-18 29.4	1.898	2.758	12.9	21.8	4 11	15 50.10	-21 43.9	1.581	2.444	14.9	21.4
4 21	15 42.69	-18 17.1	1.830	2.765	9.4	21.5	4 21	15 43.67	-21 52.6	1.517	2.452	11.0	21.1
5 1	15 34.00	-17 58.6	1.786	2.773	5.3	21.3	5 1	15 34.74	-21 52.0	1.475	2.459	6.5	20.9
5 11	15 24.11	-17 35.7	1.770	2.779	1.0	21.0	5 11	15 24.31	-21 42.5	1.458	2.466	2.0	20.6
5 21	15 14.04	-17 11.1	1.781	2.785	3.4	21.2	5 21	15 13.63	-21 26.2	1.468	2.473	3.7	20.7
5 31	15 4.86	-16 48.3	1.821	2.790	7.6	21.5	5 31	15 4.00	-21 7.1	1.505	2.480	8.2	21.0
6 10	14 57.42	-16 31.0	1.885	2.795	11.3	21.7	6 10	14 56.48	-20 49.9	1.565	2.487	12.4	21.3
6 20	14 52.25	-16 21.8	1.972	2.799	14.4	21.9	6 20	14 51.67	-20 38.6	1.646	2.493	16.0	21.5
259529	2003 <i>US</i> ₄₇		5 13.4 143°02	0°8/12.9	18		69300	1992 <i>EH</i> ₇		5 13.4 70°35	3°0/11.7	18	
4 11	15 48.42	-18 52.3	1.937	2.798	12.7	21.2	4 11	15 45.30	-11 36.5	1.811	2.686	12.7	19.5
4 21	15 41.90	-18 8.1	1.874	2.810	9.1	21.0	4 21	15 39.80	-11 6.9	1.750	2.692	9.2	19.3
5 1	15 33.47	-17 16.2	1.834	2.821	5.1	20.8	5 1	15 32.36	-10 36.9	1.712	2.698	5.5	19.1
5 11	15 23.99	-16 20.0	1.823	2.832	1.1	20.5	5 11	15 23.83	-10 9.9	1.701	2.705	3.1	18.9
5 21	15 14.45	-15 23.6	1.840	2.842	3.6	20.7	5 21	15 15.15	-9 49.5	1.717	2.711	5.0	19.1
5 31	15 5.82	-14 32.1	1.885	2.851	7.6	21.0	5 31	15 7.31	-9 38.8	1.759	2.717	8.7	19.3
6 10	14 58.91	-13 49.7	1.955	2.859	11.2	21.2	6 10	15 1.11	-9 39.6	1.824	2.724	12.1	19.5
6 20	14 54.17	-13 19.2	2.047	2.867	14.2	21.4	6 20	14 57.05	-9 52.5	1.911	2.730	15.1	19.7
4624	Stefani		5 13.4 107°20	0°8/12.9	18		110785	2001 <i>UU</i> ₃₃		5 13.4 227°55	4°0/10.9	18	
4 11	15 44.82	-17 8.4	2.439	3.297	10.5	18.1	4 11	15 45.92	-9 17.5	1.941	2.811	12.2	19.7
4 21	15 38.99	-16 48.4	2.379	3.315	7.5	17.9	4 21	15 40.24	-8 31.2	1.865	2.804	9.0	19.5
5 1	15 31.71	-16 24.3	2.345	3.332	4.2	17.7	5 1	15 32.66	-7 45.0	1.814	2.796	5.8	19.3
5 11	15 23.64	-15 58.1	2.340	3.349	1.0	17.5	5 11	15 23.91	-7 3.3	1.789	2.787	4.0	19.2
5 21	15 15.53	-15 32.4	2.363	3.365	2.9	17.7	5 21	15 14.89	-6 30.4	1.792	2.778	5.9	19.3
5 31	15 8.11	-15 9.8	2.415	3.381	6.2	17.9	5 31	15 6.58	-6 9.8	1.821	2.769	9.2	19.4
6 10	15 1.99	-14 52.9	2.493	3.397	9.1	18.2	6 10	14 59.78	-6 3.7	1.875	2.759	12.6	19.6
6 20	14 57.57	-14 43.2	2.595	3.412	11.6	18.3	6 20	14 55.05	-6 12.5	1.949	2.749	15.6	19.8
65802	1996 <i>BA</i> ₃		5 13.4 157°55	4°2/10.6	18		207062	2004 <i>XD</i> ₈₆		5 13.4 132°21	0°7/13.0	18	
4 11	15 45.48	-6 18.7	2.303	3.165	10.8	19.8	4 11	15 49.78	-18 35.1	1.759	2.622	13.6	21.3
4 21	15 39.54	-5 42.2	2.239	3.171	8.1	19.6	4 21	15 43.06	-18 6.2	1.699	2.636	9.8	21.1
5 1	15 32.06	-5 8.9	2.201	3.177	5.5	19.5	5 1	15 34.22	-17 30.0	1.663	2.649	5.6	20.9
5 11	15 23.72	-4 42.2	2.191	3.182	4.2	19.4	5 11	15 24.20	-16 49.3	1.653	2.662	1.2	20.6
5 21	15 15.28	-4 25.2	2.209	3.187	5.7	19.5	5 21	15 14.10	-16 8.0	1.671	2.674	3.7	20.8
5 31	15 7.49	-4 19.9	2.255	3.191	8.3	19.7	5 31	15 5.01	-15 30.7	1.717	2.685	8.0	21.1
6 10	15 1.03	-4 27.2	2.325	3.195	11.0	19.8	6 10	14 57.82	-15 1.5	1.787	2.696	11.8	21.3
6 20	14 56.31	-4 46.9	2.416	3.198	13.4	20.0	6 20	14 53.02	-14 43.1	1.878	2.706	15.0	21.6
501301	2013 <i>WZ</i> ₆₈		5 13.4 103°87	0°3/13.6	17		39111	2000 <i>WR</i> ₃₀		5 13.4 341°06	5°0/11.2	17	
4 11	15 45.34	-22 41.2	1.908	2.767	12.9	21.2	4 11	15 44.86	-9 49.4	1.204	2.099	16.3	18.1
4 21	15 39.76	-21 50.8	1.843	2.777	9.4	21.0	4 21	15 40.36	-9 7.7	1.141	2.092	12.1	17.8
5 1	15 32.28	-20 49.1	1.801	2.786	5.4	20.7	5 1	15 33.07	-8 26.7	1.099	2.086	7.6	17.5
5 11	15 23.76	-19 39.3	1.787	2.796	1.2	20.5	5 11	15 24.02	-7 52.6	1.079	2.081	5.0	17.4
5 21	15 15.19	-18 26.3	1.800	2.805	3.2	20.6	5 21	15 14.58	-7 31.3	1.083	2.076	7.5	17.5
5 31	15 7.51	-17 16.0	1.842	2.814	7.2	20.9	5 31	15 6.21	-7 27.4	1.109	2.072	12.1	17.7
6 10	15 1.51	-16 13.7	1.908	2.823	10.9	21.1	6 10	15 0.11	-7 42.8	1.156	2.068	16.5	18.0
6 20	14 57.65	-15 23.3	1.997	2.831	14.0	21.4	6 20	14 56.96	-8 16.7	1.220	2.066	20.4	18.2
43076	1999 <i>VW</i> ₁₈₉		5 13.4 276°97	1°7/12.4	18		312408	2008 <i>FN</i> ₇₁		5 13.4 256°63	3°9/10.2	17	
4 11	15 44.73	-15 33.7	1.904	2.775	12.4	19.8	4 11	15 42.04	-7 49.7	2.441	3.308	10.1	21.2
4 21	15 39.53	-15 3.8	1.820	2.761	9.0	19.5	4 21	15 37.14	-6 57.1	2.361	3.297	7.5	21.0
5 1	15 32.31	-14 29.1	1.759	2.747	5.2	19.2	5 1	15 30.78	-6 5.2	2.307	3.285	5.0	20.8
5 11	15 23.81	-13 52.6	1.725	2.732	1.8	19.0	5 11	15 23.54	-5 18.0	2.280	3.273	3.9	20.7
5 21	15 14.97	-13 17.8	1.718	2.718	4.1	19.1	5 21	15 16.10	-4 39.1	2.282	3.260	5.4	20.8
5 31	15 6.79	-12 48.8	1.738	2.703	8.2	19.3	5 31	15 9.18	-4 11.7	2.310	3.248	8.1	20.9
6 10	15 0.15	-12 29.2	1.782	2.689	12.0	19.5	6 10	15 3.39	-3 57.5	2.364	3.235	10.8	21.1
6 20	14 55.64	-12 21.1	1.847	2.674	15.3	19.7	6 20	14 59.20	-3 57.1	2.439	3.222	13.3	21.2
425227	2009 <i>VT</i> ₈₉		5 13.4 10°02	3°3/15.3	17		208933	2002 <i>VJ</i> ₁₂		5 13.4 287°09	2°2/14.8	18	
4 11	15 46.17	-27 54.4	1.619	2.473	15.1	20.5	4 11	15 45.20	-25 42.6	1.984	2.835	12.8	20.4
4 21	15 40.92	-27 52.2	1.547	2.473	11.5	20.3	4 21	15 40.00	-25 36.5	1.891	2.817	9.7	20.2
5 1	15 33.20	-27 34.2	1.498	2.474	7.5	20.1	5 1	15 32.67	-25 18.4	1.820	2.798	6.1	19.9
5 11	15 23.99	-27 0.6	1.473	2.475	3.9	19.9	5 11	15 23.95	-24 48.7	1.775	2.780	2.7	19.7
5 21	15 14.51	-26 14.2	1.474	2.476	4.3	19.9	5 21	15 14.80	-24 9.5	1.758	2.761	3.4	19.7
5 31	15 6.02	-25 20.3	1.501	2.478	8.1	20.1	5 31	15 6.30	-23 24.7	1.768	2.743	7.2	19.9
6 10	14 59.56	-24 25.9	1.551	2.479	12.0	20.4	6 10	14 59.39	-22 39.6	1.803	2.724	11.0	20.0
6 20	14 55.74	-23 37.0	1.623	2.481	15.6	20.6	6 20	14 54.71	-21 59.1	1.859	2.706	14.4	20.2
230105	2000 <i>YW</i> ₁₄₃		5 13.4 37°95	0°7/13.9	18		115764	2003 <i>UW</i> ₂₀₆		5 13.4 175°93	2°3/14.5	18	
4 11	15 44.81	-22 20.3	1.795	2.659	13.4	20.2	4 11	15 50.85	-24 22.0	1.751	2.602	14.2	20.1
4 21	15 39.59	-21 55.1	1.725	2.661	9.8	19.9	4 21	15 44.18	-24 38.8	1.677	2.603	10.7	19.9
5 1	15 32.30	-21 19.3	1.679	2.664	5.7	19.7	5 1	15 35.06	-24 44.9	1.626	2.605	6.6	19.6
5 11	15 23.81	-20 35.2	1.658	2.667	1.5	19.4	5 11	15 24.42	-24 39.7	1.601	2.606	2.8	19.4
5 21	15 15.12	-19 46.5	1.665	2.670	3.3	19.6	5 21	15 13.42	-24 24.7	1.603	2.606	3.8	19.5
5 31	15 7.31	-18 58.0	1.698	2.673	7.5	19.8	5 31	15 3.34	-24 3.3	1.632	2.606	7.9	19.7
6 10	15 1.23	-18 15.0	1.755	2.676	11.3	20.1	6 10	14 55.24	-23 40.5	1.686	2.606	11.8	19.9
6 20	14 57.42	-17 41.3	1.835	2.679	14.6	20.3	6 20	14 49.75	-23 21.1	1.762	2.605	15.2	20.2
17370	1980 <i>CJ</i>		5 13.4 44°56	6°3/18.1	18		439333	2012 <i>WH</i> ₂₅		5 13.4 150°12	0°5/13.8	18	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
233190	2005 WQ ₁₁₂		5 13.4 203°81	4°0/16.4	18		143922	2003 YU ₈₇		5 13.4 116°35	3°9/15.6	17	
4 11	15 48.16	-32 35.9	2.217	3.034	12.8	21.1	4 11	15 49.61	-29 21.1	1.662	2.505	15.3	20.2
4 21	15 41.90	-32 23.7	2.130	3.030	10.1	20.9	4 21	15 43.37	-29 28.3	1.594	2.512	11.7	20.0
5 1	15 33.61	-31 55.0	2.066	3.025	7.1	20.7	5 1	15 34.60	-29 19.1	1.549	2.520	7.9	19.8
5 11	15 24.12	-31 9.7	2.029	3.020	4.5	20.5	5 11	15 24.34	-28 52.8	1.529	2.527	4.5	19.6
5 21	15 14.39	-30 9.8	2.020	3.015	4.4	20.5	5 21	15 13.86	-28 11.8	1.534	2.534	4.7	19.7
5 31	15 5.47	-28 59.8	2.039	3.008	6.9	20.7	5 31	15 4.45	-27 21.1	1.567	2.541	8.1	19.9
6 10	14 58.20	-27 46.1	2.084	3.002	10.0	20.8	6 10	14 57.18	-26 27.8	1.623	2.547	11.9	20.1
6 20	14 53.14	-26 34.7	2.153	2.994	12.9	21.0	6 20	14 52.64	-25 38.3	1.701	2.553	15.2	20.3
215484	2002 TS ₃₄		5 13.4 192°42	0°8/13.9	17		94117	2000 YE ₁₀₂		5 13.4 127°21	5°0/9.9	17	
4 11	15 48.72	-21 50.7	2.047	2.899	12.4	22.1	4 11	15 45.29	-5 17.7	2.152	3.017	11.4	19.9
4 21	15 42.29	-21 40.3	1.968	2.898	9.1	21.9	4 21	15 39.46	-4 24.1	2.098	3.030	8.6	19.7
5 1	15 33.84	-21 21.2	1.913	2.896	5.4	21.7	5 1	15 32.06	-3 34.6	2.070	3.042	6.0	19.6
5 11	15 24.17	-20 54.5	1.885	2.893	1.4	21.4	5 11	15 23.82	-2 53.6	2.068	3.054	5.0	19.5
5 21	15 14.23	-20 22.6	1.885	2.890	3.1	21.5	5 21	15 15.52	-2 24.6	2.094	3.065	6.4	19.6
5 31	15 5.05	-19 49.3	1.914	2.886	7.1	21.7	5 31	15 7.97	-2 10.1	2.147	3.076	9.0	19.8
6 10	14 57.49	-19 18.8	1.968	2.881	10.7	21.9	6 10	15 1.83	-2 10.9	2.224	3.087	11.7	20.0
6 20	14 52.11	-18 54.8	2.045	2.875	13.9	22.1	6 20	14 57.50	-2 26.3	2.321	3.097	14.1	20.2
191788	2004 TQ ₁₃₁		5 13.4 272°61	1°5/12.6	18		37248	2000 WB ₁₈₂		5 13.4 170°66	8°2/8.2	18	
4 11	15 47.50	-15 13.3	2.030	2.894	12.0	20.9	4 11	15 45.62	+ 3 34.4	1.994	2.847	12.7	19.1
4 21	15 41.62	-14 55.4	1.928	2.866	8.8	20.6	4 21	15 39.87	+ 4 32.2	1.938	2.849	10.4	19.0
5 1	15 33.61	-14 33.4	1.851	2.838	5.1	20.3	5 1	15 32.37	+ 5 18.7	1.905	2.850	8.6	18.9
5 11	15 24.17	-14 9.6	1.801	2.808	1.7	20.0	5 11	15 23.89	+ 5 48.3	1.898	2.851	8.2	18.8
5 21	15 14.18	-13 46.8	1.778	2.779	4.0	20.1	5 21	15 15.28	+ 5 57.4	1.917	2.852	9.5	18.9
5 31	15 4.68	-13 28.3	1.784	2.748	8.1	20.3	5 31	15 7.43	+ 5 44.5	1.960	2.853	11.6	19.0
6 10	14 56.63	-13 17.5	1.815	2.717	12.0	20.5	6 10	15 1.05	+ 5 10.6	2.025	2.853	14.0	19.2
6 20	14 50.70	-13 16.7	1.867	2.686	15.4	20.6	6 20	14 56.63	+ 4 18.6	2.108	2.853	16.2	19.4
346221	2007 YA ₅₉		5 13.4 162°21	2°9/11.1	18		431108	2006 GW ₂₃		5 13.4 298°58	3°3/14.7	17	
4 11	15 44.39	- 8 3.4	2.973	3.829	8.9	21.7	4 11	15 49.50	-25 19.8	1.829	2.678	13.8	20.7
4 21	15 38.52	- 7 41.8	2.905	3.836	6.5	21.5	4 21	15 43.37	-26 5.4	1.744	2.667	10.5	20.5
5 1	15 31.44	- 7 21.9	2.864	3.842	4.2	21.4	5 1	15 34.74	-26 42.2	1.682	2.657	6.9	20.3
5 11	15 23.68	- 7 6.0	2.851	3.847	2.9	21.3	5 11	15 24.42	-27 8.1	1.645	2.647	3.7	20.0
5 21	15 15.83	- 6 56.0	2.869	3.852	4.1	21.4	5 21	15 13.53	-27 22.5	1.636	2.636	4.3	20.1
5 31	15 8.49	- 6 53.4	2.915	3.857	6.4	21.5	5 31	15 3.33	-27 27.0	1.654	2.626	7.9	20.2
6 10	15 2.16	- 6 59.2	2.988	3.861	8.8	21.7	6 10	14 54.94	-27 25.6	1.697	2.617	11.7	20.5
6 20	14 57.23	- 7 13.6	3.084	3.864	10.8	21.9	6 20	14 49.13	-27 22.8	1.761	2.607	15.1	20.6
108098	2001 FH ₁₈₆		5 13.4 308°87	7°1/8.5	18		161402	2003 UP ₁₆₈		5 13.4 182°93	1°3/14.3	17	
4 11	15 42.49	- 2 42.4	1.750	2.626	13.0	19.3	4 11	15 46.23	-23 28.5	2.217	3.066	11.7	20.4
4 21	15 37.95	- 1 27.9	1.678	2.612	10.2	19.1	4 21	15 40.39	-23 22.8	2.139	3.066	8.7	20.2
5 1	15 31.44	- 0 18.5	1.631	2.598	7.8	18.9	5 1	15 32.72	-23 8.0	2.085	3.066	5.2	20.0
5 11	15 23.71	+ 0 39.0	1.608	2.585	7.2	18.8	5 11	15 23.98	-22 45.1	2.059	3.066	1.8	19.7
5 21	15 15.69	+ 1 18.8	1.610	2.571	8.9	18.9	5 21	15 15.02	-22 16.1	2.061	3.065	2.9	19.8
5 31	15 8.36	+ 1 36.9	1.636	2.558	11.8	19.0	5 31	15 6.74	-21 44.4	2.091	3.064	6.4	20.0
6 10	15 2.58	+ 1 32.3	1.684	2.545	14.9	19.2	6 10	14 59.94	-21 14.0	2.148	3.063	9.8	20.2
6 20	14 58.92	+ 1 6.4	1.750	2.533	17.7	19.4	6 20	14 55.13	-20 48.2	2.227	3.062	12.7	20.4
382916	2004 RX ₂₀₇		5 13.4 229°11	4°1/16.5	18		415338	2013 HW ₁₁₀		5 13.4 277°74	1°6/12.5	17	
4 11	15 47.72	-32 51.4	2.114	2.934	13.3	21.1	4 11	15 46.66	-17 35.3	1.442	2.321	15.1	21.2
4 21	15 41.70	-32 34.9	2.023	2.925	10.5	20.9	4 21	15 41.56	-16 50.0	1.359	2.304	11.1	20.9
5 1	15 33.56	-32 0.7	1.956	2.916	7.4	20.7	5 1	15 33.78	-15 54.7	1.297	2.287	6.3	20.5
5 11	15 24.13	-31 8.5	1.915	2.906	4.7	20.5	5 11	15 24.24	-14 53.5	1.261	2.269	1.8	20.2
5 21	15 14.42	-30 0.7	1.901	2.896	4.5	20.5	5 21	15 14.16	-13 52.1	1.250	2.252	4.9	20.4
5 31	15 5.53	-28 42.2	1.915	2.886	7.1	20.6	5 31	15 4.95	-12 57.5	1.264	2.234	10.1	20.6
6 10	14 58.35	-27 20.1	1.955	2.875	10.4	20.8	6 10	14 57.78	-12 15.9	1.301	2.217	14.8	20.8
6 20	14 53.47	-26 0.9	2.019	2.864	13.5	21.0	6 20	14 53.41	-11 51.0	1.356	2.199	18.9	21.0
271747	2004 RN ₃₃₀		5 13.4 243°50	0°8/12.9	17		333142	2011 YU ₆₃		5 13.4 158°43	0°1/13.4	18	
4 11	15 45.79	-18 0.3	1.887	2.754	12.7	21.2	4 11	15 50.68	-19 14.9	1.861	2.719	13.2	21.8
4 21	15 40.29	-17 35.0	1.808	2.747	9.2	21.0	4 21	15 43.77	-19 5.9	1.792	2.726	9.6	21.6
5 1	15 32.76	-17 3.2	1.753	2.741	5.2	20.7	5 1	15 34.70	-18 50.0	1.748	2.733	5.5	21.3
5 11	15 23.97	-16 27.3	1.725	2.734	1.2	20.4	5 11	15 24.37	-18 28.6	1.730	2.739	1.1	21.0
5 21	15 14.90	-15 50.6	1.724	2.727	3.6	20.6	5 21	15 13.85	-18 4.3	1.741	2.745	3.4	21.2
5 31	15 6.57	-15 17.4	1.750	2.720	7.8	20.8	5 31	15 4.23	-17 41.0	1.779	2.749	7.6	21.5
6 10	14 59.86	-14 51.6	1.801	2.712	11.6	21.1	6 10	14 56.43	-17 22.4	1.843	2.753	11.5	21.7
6 20	14 55.33	-14 35.9	1.873	2.705	14.9	21.3	6 20	14 50.99	-17 11.4	1.928	2.756	14.7	21.9
13233	1998 FC ₆₆		5 13.4 297°58	4°8/10.3	18		282439	2003 XE ₂₂		5 13.4 202°66	6°3/8.1	18	
4 11	15 44.07	-12 16.0	1.408	2.296	14.8	17.0	4 11	15 44.70	+ 3 8.7	2.776	3.617	9.9	21.3
4 21	15 39.69	-10 48.5	1.322	2.270	11.0	16.7	4 21	15 38.85	+ 3 57.1	2.707	3.612	8.0	21.2
5 1	15 32.72	- 9 12.7	1.258	2.245	6.9	16.4	5 1	15 31.69	+ 4 37.5	2.664	3.605	6.6	21.1
5 11	15 24.01	- 7 36.2	1.219	2.220	4.8	16.2	5 11	15 23.77	+ 5 6.1	2.648	3.598	6.3	21.1
5 21	15 14.72	- 6 8.1	1.205	2.194	7.6	16.3	5 21	15 15.70	+ 5 20.2	2.660	3.591	7.4	21.1
5 31	15 6.20	- 4 57.1	1.216	2.169	12.2	16.4	5 31	15 8.13	+ 5 18.3	2.698	3.583	9.1	21.2
6 10	14 59.61	- 4 9.4	1.247	2.144	16.7	16.6	6 10	15 1.63	+ 5 0.3	2.760	3.574	11.1	21.4
6 20	14 55.74	- 3 47.0	1.296	2.119	20.7	16.8	6 20	14 56.60	+ 4 27.6	2.844	3.564	12.9	21.5
235816	2004 XB ₈₅		5 13.4 183°87	0°9/14.0	17		3700	Geowilliams		5 13.4 138°12	5°2/17.2	18	R
4 11	15 46.53												

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5 13.4

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
353712	2011 VA ₆		5 13.4 263°53	2°2/11.9	16		231766	1999 VL ₇₄		5 13.4 145°36	0°7/13.1	17	
4 11	15 43.08	-13 18.3	2.268	3.136	10.8	21.6	4 11	15 49.50	-19 14.2	1.368	2.244	16.0	21.1
4 21	15 38.02	-12 46.0	2.189	3.129	7.8	21.4	4 21	15 43.49	-18 40.5	1.305	2.248	11.6	20.8
5 1	15 31.35	-12 11.4	2.135	3.121	4.6	21.2	5 1	15 34.76	-17 56.7	1.264	2.252	6.6	20.6
5 11	15 23.71	-11 37.4	2.108	3.113	2.2	21.0	5 11	15 24.43	-17 6.2	1.247	2.256	1.3	20.2
5 21	15 15.86	-11 7.1	2.110	3.106	4.1	21.2	5 21	15 13.85	-16 14.3	1.255	2.259	4.4	20.5
5 31	15 8.59	-10 43.7	2.139	3.098	7.3	21.3	5 31	15 4.46	-15 27.5	1.289	2.263	9.6	20.8
6 10	15 2.59	-10 29.6	2.193	3.090	10.5	21.5	6 10	14 57.37	-14 51.4	1.346	2.265	14.2	21.0
6 20	14 58.35	-10 26.2	2.269	3.082	13.2	21.7	6 20	14 53.18	-14 29.6	1.422	2.268	18.0	21.3
306713	2000 WA ₃₅		5 13.4 154°78	7°1/8.6	18		388276	2006 RT ₇₀		5 13.4 136°29	1°2/14.4	18	
4 11	15 45.96	+ 7 46.7	2.784	3.609	10.3	20.9	4 11	15 45.20	-23 39.2	2.532	3.376	10.6	21.7
4 21	15 39.67	+ 8 10.9	2.728	3.614	8.6	20.8	4 21	15 39.40	-23 32.4	2.460	3.385	7.8	21.6
5 1	15 32.10	+ 8 23.5	2.696	3.620	7.4	20.7	5 1	15 32.07	-23 17.5	2.414	3.394	4.7	21.4
5 11	15 23.85	+ 8 21.4	2.692	3.624	7.1	20.7	5 11	15 23.87	-22 55.5	2.396	3.402	1.7	21.2
5 21	15 15.52	+ 8 2.8	2.714	3.629	7.9	20.7	5 21	15 15.54	-22 28.3	2.406	3.410	2.6	21.2
5 31	15 7.79	+ 7 27.5	2.763	3.633	9.4	20.8	5 31	15 7.85	-21 58.8	2.446	3.418	5.7	21.5
6 10	15 1.17	+ 6 37.0	2.836	3.637	11.2	21.0	6 10	15 1.46	-21 30.3	2.511	3.425	8.7	21.7
6 20	14 56.06	+ 5 33.4	2.930	3.640	12.8	21.1	6 20	14 56.81	-21 5.7	2.601	3.432	11.2	21.8
182848	2002 CD ₈₉		5 13.4 49°95	0°9/12.8	17		26414	Amychyo		5 13.4 54°04	2°8/12.3	18	
4 11	15 43.35	-17 6.2	2.091	2.959	11.6	20.1	4 11	15 48.32	-12 29.2	1.383	2.265	15.4	18.1
4 21	15 38.24	-16 44.1	2.028	2.968	8.3	19.9	4 21	15 42.46	-12 16.4	1.329	2.275	11.2	17.9
5 1	15 31.45	-16 17.3	1.990	2.977	4.7	19.7	5 1	15 34.09	-12 2.9	1.298	2.286	6.6	17.7
5 11	15 23.73	-15 48.4	1.978	2.987	1.2	19.4	5 11	15 24.29	-11 52.3	1.291	2.297	2.9	17.5
5 21	15 15.89	-15 20.2	1.995	2.997	3.3	19.6	5 21	15 14.33	-11 47.7	1.310	2.309	5.4	17.6
5 31	15 8.79	-14 56.0	2.038	3.007	6.9	19.9	5 31	15 5.53	-11 52.0	1.353	2.321	9.8	17.9
6 10	15 3.12	-14 38.6	2.107	3.017	10.2	20.1	6 10	14 58.90	-12 7.4	1.419	2.332	14.0	18.2
6 20	14 59.34	-14 30.0	2.198	3.028	13.1	20.3	6 20	14 55.00	-12 34.0	1.504	2.344	17.5	18.5
371098	2005 UR ₅₁₀		5 13.4 195°17	0°2/13.3	17		498628	2008 RC ₁₂₈		5 13.4 144°87	11°2/20.8	17	
4 11	15 46.72	-19 39.8	2.045	2.905	12.1	22.5	4 11	15 56.61	-49 40.8	2.074	2.796	16.6	21.4
4 21	15 40.81	-19 15.1	1.968	2.903	8.8	22.3	4 21	15 49.09	-50 55.7	2.002	2.800	14.8	21.3
5 1	15 33.00	-18 42.8	1.915	2.901	5.0	22.0	5 1	15 38.24	-51 46.1	1.948	2.804	13.0	21.2
5 11	15 24.05	-18 5.1	1.889	2.898	1.0	21.7	5 11	15 25.17	-52 5.9	1.915	2.808	11.7	21.1
5 21	15 14.87	-17 25.2	1.892	2.895	3.2	21.9	5 21	15 11.48	-51 52.4	1.906	2.811	11.2	21.0
5 31	15 6.43	-16 47.0	1.922	2.892	7.2	22.2	5 31	14 58.96	-51 8.0	1.919	2.815	11.7	21.1
6 10	14 59.54	-16 14.6	1.978	2.888	10.8	22.4	6 10	14 49.08	-50 0.2	1.955	2.818	13.1	21.2
6 20	14 54.73	-15 51.1	2.055	2.884	13.9	22.6	6 20	14 42.68	-48 38.5	2.012	2.820	14.8	21.3
487086	2014 OR ₁₂₀		5 13.4 199°75	0°1/13.3	17		344281	2001 TY ₁₇₅		5 13.4 140°15	2°0/14.9	18	
4 11	15 39.63	-18 45.5	4.083	4.931	6.8	23.2	4 11	15 45.79	-26 15.1	2.649	3.484	10.5	21.6
4 21	15 34.96	-18 33.0	3.997	4.927	4.9	23.1	4 21	15 39.80	-26 13.3	2.577	3.494	7.9	21.4
5 1	15 29.39	-18 17.4	3.939	4.923	2.8	22.9	5 1	15 32.29	-26 2.3	2.529	3.503	5.0	21.3
5 11	15 23.32	-17 59.5	3.909	4.918	0.5	22.7	5 11	15 23.92	-25 42.5	2.510	3.513	2.4	21.1
5 21	15 17.13	-17 40.7	3.910	4.914	1.8	22.8	5 21	15 15.43	-25 15.5	2.520	3.521	2.8	21.1
5 31	15 11.26	-17 22.6	3.941	4.908	4.0	23.0	5 31	15 7.58	-24 44.2	2.558	3.530	5.5	21.3
6 10	15 6.09	-17 6.6	4.000	4.903	6.0	23.1	6 10	15 1.01	-24 12.1	2.624	3.538	8.3	21.5
6 20	15 1.92	-16 54.3	4.084	4.897	7.8	23.3	6 20	14 56.15	-23 42.4	2.714	3.545	10.8	21.7
36113	1999 RY ₁₂₉		5 13.4 271°45	0°5/13.1	18		507324	2011 SD ₅₀		5 13.4 178°76	1°8/11.9	17	
4 11	15 43.76	-17 52.0	2.381	3.241	10.6	19.2	4 11	15 43.06	-14 0.7	2.646	3.507	9.6	23.2
4 21	15 38.56	-17 35.4	2.289	3.225	7.7	19.0	4 21	15 37.76	-13 23.0	2.572	3.509	6.9	23.0
5 1	15 31.71	-17 13.9	2.222	3.209	4.4	18.8	5 1	15 31.11	-12 42.6	2.524	3.509	4.0	22.8
5 11	15 23.81	-16 49.0	2.183	3.192	0.9	18.5	5 11	15 23.69	-12 2.4	2.504	3.510	1.9	22.6
5 21	15 15.61	-16 23.2	2.173	3.176	3.0	18.6	5 21	15 16.14	-11 25.2	2.514	3.510	3.5	22.8
5 31	15 7.92	-15 59.3	2.190	3.159	6.5	18.8	5 31	15 9.14	-10 53.8	2.553	3.510	6.4	23.0
6 10	15 1.46	-15 40.5	2.234	3.142	9.8	19.0	6 10	15 3.26	-10 30.7	2.617	3.509	9.2	23.1
6 20	14 56.75	-15 28.9	2.300	3.125	12.7	19.1	6 20	14 58.91	-10 17.2	2.704	3.508	11.6	23.3
349391	2007 XG ₁₈		5 13.4 205°54	0°8/12.9	18		434246	2003 UK ₃₈		5 13.4 267°80	2°8/15.5	17	
4 11	15 45.36	-16 16.5	2.438	3.297	10.5	20.9	4 11	15 45.89	-28 51.6	2.064	2.902	12.9	20.7
4 21	15 39.59	-16 8.4	2.358	3.294	7.6	20.7	4 21	15 40.45	-28 28.9	1.968	2.886	9.9	20.5
5 1	15 32.23	-15 56.9	2.304	3.290	4.3	20.5	5 1	15 32.92	-27 50.8	1.896	2.868	6.5	20.3
5 11	15 23.90	-15 43.8	2.277	3.286	1.1	20.2	5 11	15 24.08	-26 57.8	1.850	2.851	3.4	20.0
5 21	15 15.36	-15 30.8	2.280	3.281	3.0	20.4	5 21	15 14.89	-25 52.6	1.832	2.833	3.6	20.0
5 31	15 7.38	-15 20.3	2.311	3.277	6.4	20.6	5 31	15 6.39	-24 40.1	1.841	2.815	7.0	20.2
6 10	15 0.65	-15 14.8	2.368	3.272	9.5	20.8	6 10	14 59.50	-23 27.0	1.876	2.797	10.7	20.4
6 20	14 55.66	-15 15.7	2.448	3.266	12.2	20.9	6 20	14 54.83	-22 19.0	1.934	2.779	14.0	20.5
295089	2008 EB ₁₄₈		5 13.4 223°06	7°2/5.3	16		24182	1999 XP ₁₁		5 13.4 181°61	2°6/15.0	18	
4 11	15 41.35	+ 5 2.1	2.767	3.610	9.8	21.5	4 11	15 47.32	-26 38.8	2.104	2.946	12.5	18.9
4 21	15 36.48	+ 6 35.4	2.705	3.603	8.3	21.4	4 21	15 41.34	-26 44.1	2.026	2.946	9.5	18.7
5 1	15 30.36	+ 8 0.8	2.668	3.595	7.3	21.3	5 1	15 33.35	-26 38.1	1.972	2.947	6.1	18.5
5 11	15 23.52	+ 9 12.9	2.658	3.586	7.4	21.3	5 11	15 24.16	-26 20.6	1.945	2.947	3.0	18.3
5 21	15 16.54	+ 10 7.9	2.676	3.578	8.5	21.4	5 21	15 14.70	-25 53.5	1.945	2.946	3.5	18.3
5 31	15 10.02	+ 10 43.2	2.718	3.569	10.2	21.5	5 31	15 6.00	-25 20.0	1.973	2.946	6.8	18.5
6 10	15 4.51	+ 10 58.4	2.782	3.560	11.9	21.6	6 10	14 58.90	-24 44.9	2.026	2.945	10.1	18.7
6 20	15 0.39	+ 10 54.7	2.866	3.550	13.5	21.7	6 20	14 53.96	-24 12.5	2.102	2.944	13.2	18.9
7003	Zoyamironova		5 13.4 214°69	0°9/14.2	18		246576	2008 TY ₁₇₁		5 13.4 201°49	5°1/9.2	18	
4 11	15 43.80	-22 49.0											

EPHEMERIDES

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5 13.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
62820	2000 <i>UF</i> ₄₆		5 13.4 179°78	0°7/14.2	18		97111	1999 <i>VJ</i> ₈₃		5 13.5 314°80	1°1/12.9	17	
4 11	15 40.07	-22 36.6	3.955	4.795	7.2	20.8	4 11	15 45.44	-16 29.2	1.734	2.607	13.3	19.6
4 21	15 35.31	-22 25.5	3.872	4.795	5.3	20.7	4 21	15 40.24	-16 17.2	1.657	2.600	9.7	19.4
5 1	15 29.62	-22 9.4	3.816	4.796	3.1	20.5	5 1	15 32.85	-16 0.5	1.604	2.593	5.5	19.1
5 11	15 23.39	-21 49.2	3.789	4.796	1.0	20.4	5 11	15 24.10	-15 41.4	1.577	2.586	1.4	18.8
5 21	15 17.06	-21 26.2	3.792	4.796	1.7	20.4	5 21	15 15.02	-15 22.8	1.577	2.579	3.9	19.0
5 31	15 11.09	-21 2.1	3.825	4.796	3.9	20.6	5 31	15 6.70	-15 8.3	1.602	2.573	8.3	19.3
6 10	15 5.87	-20 38.8	3.886	4.795	6.0	20.7	6 10	15 0.09	-15 1.2	1.652	2.567	12.2	19.5
6 20	15 1.72	-20 18.1	3.973	4.794	7.9	20.9	6 20	14 55.81	-15 3.5	1.722	2.561	15.7	19.7
183155	2002 <i>SE</i> ₃		5 13.5 169°16	4°0/10.4	16		55206	2001 <i>RM</i> ₃₂		5 13.5 298°91	1°6/14.5	17	
4 11	15 46.67	- 8 43.1	2.272	3.134	11.0	21.5	4 11	15 44.53	-24 32.8	2.018	2.872	12.5	19.7
4 21	15 40.46	- 7 40.1	2.206	3.140	8.1	21.4	4 21	15 39.37	-24 17.1	1.939	2.868	9.3	19.4
5 1	15 32.68	- 6 37.4	2.167	3.145	5.3	21.2	5 1	15 32.25	-23 50.4	1.883	2.864	5.7	19.2
5 11	15 24.01	- 5 39.5	2.155	3.149	4.0	21.1	5 11	15 23.97	-23 13.8	1.853	2.860	2.1	19.0
5 21	15 15.24	- 4 50.6	2.173	3.152	5.6	21.2	5 21	15 15.44	-22 30.2	1.851	2.856	3.1	19.0
5 31	15 7.16	- 4 14.2	2.218	3.154	8.4	21.4	5 31	15 7.64	-21 43.6	1.876	2.852	6.9	19.3
6 10	15 0.45	- 3 52.3	2.288	3.156	11.3	21.6	6 10	15 1.41	-20 59.2	1.927	2.848	10.5	19.5
6 20	14 55.55	- 3 45.1	2.380	3.156	13.7	21.8	6 20	14 57.28	-20 21.0	1.999	2.844	13.6	19.7
104644	2000 <i>GG</i> ₁₂₃		5 13.5 282°45	0°4/13.3	18		166628	2002 <i>SS</i> ₂₂		5 13.5 227°87	1°6/12.2	16	
4 11	15 46.88	-18 28.4	1.665	2.536	13.9	19.7	4 11	15 44.17	-15 32.0	2.489	3.350	10.2	20.7
4 21	15 41.50	-18 16.9	1.578	2.519	10.2	19.5	4 21	15 38.73	-14 49.3	2.402	3.339	7.4	20.5
5 1	15 33.69	-17 58.3	1.514	2.502	5.9	19.2	5 1	15 31.76	-14 2.0	2.341	3.327	4.2	20.2
5 11	15 24.27	-17 34.4	1.476	2.485	1.2	18.8	5 11	15 23.87	-13 13.1	2.309	3.315	1.7	20.0
5 21	15 14.34	-17 8.2	1.464	2.468	3.8	18.9	5 21	15 15.76	-12 25.9	2.305	3.303	3.5	20.1
5 31	15 5.13	-16 43.9	1.478	2.451	8.6	19.2	5 31	15 8.19	-11 44.0	2.331	3.290	6.8	20.3
6 10	14 57.73	-16 25.8	1.516	2.434	13.0	19.4	6 10	15 1.81	-11 10.4	2.382	3.277	9.8	20.5
6 20	14 52.85	-16 17.3	1.574	2.416	16.7	19.6	6 20	14 57.09	-10 47.2	2.456	3.263	12.5	20.7
153485	2001 <i>RZ</i> ₈₁		5 13.5 107°13	2°4/11.9	18		128778	2004 <i>RP</i> ₂₀₀		5 13.5 230°34	3°1/15.9	18 R	
4 11	15 47.64	-13 39.1	1.944	2.810	12.4	20.2	4 11	15 47.26	-30 44.2	2.271	3.095	12.3	19.6
4 21	15 41.29	-13 1.1	1.892	2.831	8.9	20.0	4 21	15 41.24	-30 15.6	2.176	3.084	9.5	19.4
5 1	15 33.16	-12 20.8	1.864	2.850	5.2	19.9	5 1	15 33.30	-29 31.1	2.106	3.073	6.4	19.1
5 11	15 24.10	-11 41.7	1.864	2.869	2.4	19.7	5 11	15 24.18	-28 31.2	2.063	3.061	3.6	18.9
5 21	15 15.03	-11 7.6	1.892	2.888	4.4	19.9	5 21	15 14.82	-27 18.5	2.048	3.048	3.7	18.9
5 31	15 6.88	-10 41.7	1.947	2.906	7.9	20.1	5 31	15 6.18	-25 58.2	2.062	3.035	6.6	19.1
6 10	15 0.36	-10 26.7	2.027	2.924	11.2	20.4	6 10	14 59.10	-24 36.5	2.103	3.021	9.9	19.3
6 20	14 55.92	-10 23.3	2.129	2.941	14.0	20.6	6 20	14 54.11	-23 19.4	2.168	3.007	12.9	19.4
429287	2010 <i>CR</i> ₁₄₅		5 13.5 53°98	5°1/16.7	17		276905	2004 <i>SM</i> ₃₁		5 13.5 243°97	5°4/16.2	18	
4 11	15 47.60	-32 49.3	1.709	2.542	15.4	20.5	4 11	15 51.24	-32 52.9	2.099	2.914	13.5	21.0
4 21	15 41.88	-33 0.0	1.648	2.555	12.1	20.4	4 21	15 44.58	-33 36.3	2.007	2.902	10.9	20.8
5 1	15 33.75	-32 52.0	1.608	2.569	8.6	20.2	5 1	15 35.45	-34 5.9	1.937	2.888	8.0	20.6
5 11	15 24.24	-32 24.4	1.593	2.582	5.7	20.0	5 11	15 24.66	-34 18.7	1.893	2.875	5.8	20.4
5 21	15 14.59	-31 39.4	1.603	2.596	5.5	20.0	5 21	15 13.27	-34 13.8	1.876	2.861	5.7	20.4
5 31	15 6.04	-30 42.3	1.639	2.610	8.1	20.2	5 31	15 2.54	-33 53.2	1.886	2.847	8.0	20.5
6 10	14 59.59	-29 40.3	1.699	2.624	11.4	20.4	6 10	14 53.57	-33 22.1	1.922	2.832	11.1	20.7
6 20	14 55.76	-28 40.4	1.780	2.638	14.4	20.7	6 20	14 47.10	-32 46.4	1.980	2.817	14.0	20.8
491588	2012 <i>SG</i> ₂₁		5 13.5 272°40	5°4/15.8	17		62489	2000 <i>SS</i> ₂₂₃		5 13.5 119°46	0°8/12.6	18	
4 11	15 51.56	-32 16.5	2.112	2.928	13.4	21.4	4 11	15 39.99	-16 4.6	3.562	4.418	7.5	20.6
4 21	15 44.94	-33 8.5	2.009	2.905	10.8	21.2	4 21	15 35.27	-15 42.0	3.496	4.431	5.4	20.5
5 1	15 35.75	-33 48.1	1.929	2.881	8.0	21.0	5 1	15 29.60	-15 17.0	3.457	4.443	3.0	20.3
5 11	15 24.72	-34 12.0	1.875	2.857	5.8	20.8	5 11	15 23.42	-14 51.1	3.447	4.455	0.9	20.2
5 21	15 12.92	-34 18.5	1.848	2.833	5.8	20.8	5 21	15 17.18	-14 26.2	3.467	4.467	2.3	20.3
5 31	15 1.62	-34 8.8	1.849	2.808	8.2	20.8	5 31	15 11.36	-14 4.1	3.516	4.479	4.6	20.5
6 10	14 51.99	-33 47.4	1.875	2.783	11.4	21.0	6 10	15 6.36	-13 46.4	3.593	4.491	6.8	20.6
6 20	14 44.88	-33 20.2	1.923	2.758	14.4	21.1	6 20	15 2.49	-13 34.3	3.694	4.502	8.7	20.8
114848	2003 <i>PE</i> ₄		5 13.5 179°67	2°4/12.0	17		131038	2000 <i>YP</i>		5 13.5 40°55	2°4/13.3	18	
4 11	15 48.16	-14 15.0	1.787	2.656	13.1	20.2	4 11	16 3.16	- 7 4.2	1.352	2.210	17.2	18.6
4 21	15 42.00	-13 32.5	1.718	2.658	9.5	19.9	4 21	15 53.16	- 8 44.7	1.305	2.238	12.6	18.4
5 1	15 33.75	-12 45.9	1.672	2.659	5.5	19.7	5 1	15 40.18	-10 34.5	1.283	2.266	7.4	18.2
5 11	15 24.26	-11 59.1	1.653	2.659	2.5	19.5	5 11	15 25.54	-12 29.7	1.288	2.295	2.8	17.9
5 21	15 14.57	-11 16.7	1.662	2.659	4.8	19.6	5 21	15 10.87	-14 24.7	1.323	2.324	4.9	18.2
5 31	15 5.74	-10 42.9	1.698	2.658	8.8	19.9	5 31	14 57.77	-16 15.5	1.387	2.354	9.7	18.5
6 10	14 58.65	-10 21.2	1.758	2.657	12.5	20.1	6 10	14 47.44	-17 59.8	1.477	2.385	13.9	18.8
6 20	14 53.86	-10 13.2	1.838	2.655	15.7	20.3	6 20	14 40.46	-19 37.7	1.589	2.415	17.4	19.1
291696	2006 <i>HK</i> ₁₁₆		5 13.5 54°95	0°7/13.8	17		271051	2003 <i>FY</i> ₆₈		5 13.5 66°50	2°7/12.2	18	
4 11	15 46.37	-20 50.4	1.866	2.728	13.0	21.1	4 11	15 47.78	-12 36.2	1.570	2.447	14.2	20.8
4 21	15 40.75	-20 49.6	1.795	2.730	9.5	20.9	4 21	15 41.79	-12 17.7	1.519	2.462	10.3	20.6
5 1	15 33.06	-20 41.1	1.748	2.733	5.6	20.6	5 1	15 33.62	-11 58.4	1.490	2.478	6.0	20.4
5 11	15 24.13	-20 26.1	1.727	2.736	1.4	20.4	5 11	15 24.24	-11 41.5	1.488	2.493	2.8	20.2
5 21	15 14.96	-20 6.7	1.734	2.739	3.2	20.5	5 21	15 14.78	-11 30.2	1.511	2.509	5.0	20.4
5 31	15 6.60	-19 46.4	1.767	2.741	7.3	20.8	5 31	15 6.37	-11 27.6	1.560	2.525	9.0	20.7
6 10	14 59.94	-19 29.0	1.825	2.744	11.1	21.0	6 10	14 59.91	-11 35.5	1.633	2.540	12.8	20.9
6 20	14 55.52	-19 17.7	1.905	2.747	14.3	21.2	6 20	14 55.89	-11 54.4	1.725	2.556	16.0	21.2
380240	2001 <i>UA</i> ₂		5 13.5 261°30	1°9/12.0	18		111448	2001 <i>XA</i> ₂₄₀					

EPHEMERIDES

5 13.5

5 13.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
33455	Coakley		5 13.5 129°85	3°5/11.4	18		420786	2013 GK ₉₂		5 13.5 347°91	4°7/15.9	17	
4 11	15 47.55	-13 5.6	1.495	2.374	14.7	18.6	4 11	15 39.90	-29 40.2	0.985	1.871	19.9	19.6
4 21	15 41.79	-12 4.7	1.436	2.380	10.6	18.3	4 21	15 37.64	-29 29.8	0.918	1.860	15.4	19.3
5 1	15 33.69	-11 0.0	1.399	2.386	6.4	18.1	5 1	15 31.95	-28 52.3	0.868	1.850	10.4	19.0
5 11	15 24.27	-9 57.5	1.388	2.392	3.6	17.9	5 11	15 24.03	-27 47.7	0.839	1.841	5.6	18.7
5 21	15 14.70	-9 3.0	1.403	2.397	6.0	18.1	5 21	15 15.53	-26 21.0	0.830	1.835	5.7	18.7
5 31	15 6.18	-8 22.3	1.444	2.402	10.2	18.4	5 31	15 8.36	-24 43.0	0.842	1.830	10.6	18.9
6 10	14 59.67	-7 58.6	1.507	2.407	14.2	18.6	6 10	15 4.00	-23 7.1	0.874	1.827	16.0	19.2
6 20	14 55.70	-7 52.8	1.589	2.412	17.5	18.8	6 20	15 3.21	-21 44.0	0.923	1.825	20.8	19.5
84029	2002 PT ₄₄		5 13.5 236°16	2°3/12.1	18		303854	2005 SS ₂₀₂		5 13.5 182°71	2°7/11.1	17	
4 11	15 48.60	-13 1.9	2.035	2.898	12.0	20.1	4 11	15 42.29	-11 6.8	2.656	3.520	9.5	21.9
4 21	15 42.31	-12 39.2	1.946	2.883	8.8	19.8	4 21	15 37.23	-10 21.0	2.584	3.521	6.9	21.7
5 1	15 33.98	-12 14.4	1.882	2.868	5.2	19.6	5 1	15 30.85	-9 34.4	2.538	3.521	4.3	21.5
5 11	15 24.36	-11 50.0	1.846	2.851	2.4	19.4	5 11	15 23.73	-8 50.0	2.520	3.520	2.7	21.4
5 21	15 14.34	-11 29.2	1.838	2.834	4.4	19.5	5 21	15 16.49	-8 11.0	2.531	3.520	4.2	21.5
5 31	15 4.93	-11 15.2	1.857	2.816	8.2	19.7	5 31	15 9.77	-7 40.2	2.571	3.519	6.9	21.7
6 10	14 57.02	-11 10.5	1.902	2.798	11.9	19.9	6 10	15 4.15	-7 19.6	2.636	3.518	9.5	21.9
6 20	14 51.21	-11 16.6	1.968	2.779	15.1	20.0	6 20	15 0.00	-7 10.1	2.724	3.516	11.8	22.0
68021	Taiki		5 13.5 181°08	1°4/12.6	16		299704	2006 QS ₁₅₆		5 13.5 230°45	4°3/10.1	18	
4 11	15 49.24	-16 6.8	1.971	2.832	12.5	20.3	4 11	15 43.03	-7 23.5	2.291	3.159	10.7	21.8
4 21	15 42.67	-15 39.2	1.897	2.833	9.0	20.1	4 21	15 37.96	-6 28.1	2.218	3.153	8.0	21.6
5 1	15 34.11	-15 6.7	1.848	2.834	5.1	19.8	5 1	15 31.36	-5 33.9	2.170	3.147	5.4	21.4
5 11	15 24.37	-14 32.0	1.826	2.834	1.6	19.6	5 11	15 23.85	-4 45.4	2.149	3.141	4.3	21.3
5 21	15 14.41	-13 58.6	1.833	2.834	3.9	19.7	5 21	15 16.16	-4 6.3	2.157	3.134	5.8	21.4
5 31	15 5.25	-13 30.0	1.868	2.832	7.8	20.0	5 31	15 9.05	-3 39.8	2.191	3.127	8.5	21.6
6 10	14 57.73	-13 9.9	1.928	2.830	11.5	20.2	6 10	15 3.18	-3 27.7	2.250	3.121	11.3	21.7
6 20	14 52.39	-13 0.1	2.010	2.827	14.6	20.4	6 20	14 59.00	-3 30.2	2.330	3.113	13.8	21.9
370158	2001 YC ₈₅		5 13.5 177°11	4°7/17.2	17		172498	2003 SB ₁₆₉		5 13.5 235°67	0°3/13.3	17	
4 11	15 50.04	-35 26.0	2.466	3.263	12.3	22.2	4 11	15 50.09	-18 29.4	1.938	2.796	12.8	20.6
4 21	15 43.17	-35 28.7	2.383	3.266	9.9	22.0	4 21	15 43.58	-18 18.6	1.846	2.781	9.4	20.4
5 1	15 34.37	-35 15.4	2.323	3.268	7.3	21.8	5 1	15 34.82	-18 1.4	1.779	2.764	5.4	20.1
5 11	15 24.43	-34 44.9	2.290	3.269	5.2	21.7	5 11	15 24.58	-17 39.1	1.738	2.747	1.1	19.8
5 21	15 14.30	-33 58.6	2.285	3.270	4.9	21.7	5 21	15 13.87	-17 14.3	1.726	2.730	3.5	19.9
5 31	15 4.96	-33 0.1	2.308	3.269	6.7	21.8	5 31	15 3.82	-16 50.4	1.742	2.711	7.9	20.1
6 10	14 57.22	-31 55.0	2.359	3.268	9.3	22.0	6 10	14 55.40	-16 31.5	1.783	2.692	11.9	20.3
6 20	14 51.62	-30 49.1	2.433	3.267	11.8	22.1	6 20	14 49.30	-16 20.7	1.846	2.672	15.3	20.5
41738	2000 UR ₁₀₄		5 13.5 12°69	4°5/15.7	18		202847	2008 TK ₂₄		5 13.5 143°41	0°7/13.1	18	
4 11	15 46.12	-29 14.6	1.201	2.068	18.3	18.1	4 11	15 50.10	-19 14.5	1.564	2.431	14.8	21.1
4 21	15 41.61	-29 19.9	1.139	2.070	14.1	17.9	4 21	15 43.64	-18 37.3	1.501	2.440	10.7	20.9
5 1	15 33.96	-29 4.1	1.096	2.073	9.5	17.6	5 1	15 34.78	-17 50.9	1.461	2.448	6.1	20.6
5 11	15 24.38	-28 26.7	1.075	2.076	5.3	17.4	5 11	15 24.54	-16 58.6	1.447	2.456	1.3	20.3
5 21	15 14.46	-27 31.1	1.078	2.080	5.5	17.4	5 21	15 14.15	-16 5.3	1.460	2.463	4.0	20.5
5 31	15 5.86	-26 24.9	1.104	2.085	9.7	17.6	5 31	15 4.87	-15 16.8	1.499	2.470	8.7	20.8
6 10	14 59.89	-25 17.9	1.151	2.090	14.3	17.9	6 10	14 57.67	-14 38.3	1.563	2.476	12.9	21.1
6 20	14 57.20	-24 18.4	1.217	2.096	18.3	18.2	6 20	14 53.09	-14 12.9	1.647	2.481	16.5	21.3
189051	2000 RO ₁₀₁		5 13.5 203°07	0°8/14.1	18		75169	1999 VR ₁₃₅		5 13.5 163°33	0°6/13.9	18	
4 11	15 46.13	-24 17.6	2.029	2.881	12.5	20.1	4 11	15 48.42	-22 25.3	1.810	2.668	13.6	20.2
4 21	15 40.45	-23 29.2	1.949	2.878	9.3	19.9	4 21	15 42.26	-21 56.9	1.739	2.672	9.9	20.0
5 1	15 32.85	-22 27.9	1.893	2.875	5.5	19.6	5 1	15 33.95	-21 17.5	1.692	2.676	5.8	19.7
5 11	15 24.13	-21 16.3	1.864	2.872	1.5	19.3	5 11	15 24.38	-20 29.3	1.671	2.679	1.5	19.5
5 21	15 15.23	-19 58.8	1.863	2.868	3.0	19.4	5 21	15 14.62	-19 36.1	1.677	2.682	3.3	19.6
5 31	15 7.13	-18 41.2	1.891	2.864	7.0	19.7	5 31	15 5.77	-18 43.1	1.711	2.684	7.6	19.9
6 10	15 0.63	-17 29.7	1.945	2.859	10.7	19.9	6 10	14 58.76	-17 55.8	1.770	2.686	11.5	20.1
6 20	14 56.24	-16 28.7	2.021	2.855	13.9	20.1	6 20	14 54.10	-17 18.2	1.851	2.688	14.9	20.3
272429	2005 TK ₁₅₂		5 13.5 219°24	3°8/11.1	18		130687	2000 SZ ₁₃₁		5 13.5 248°33	3°3/18.1	18	
4 11	15 46.96	-8 16.3	2.205	3.067	11.2	21.0	4 11	15 38.99	-37 50.8	4.670	5.443	7.3	19.9
4 21	15 40.89	-7 46.1	2.125	3.059	8.3	20.8	4 21	15 34.58	-37 48.5	4.575	5.437	5.9	19.7
5 1	15 33.07	-7 17.4	2.070	3.050	5.4	20.6	5 1	15 29.26	-37 36.8	4.506	5.431	4.6	19.6
5 11	15 24.18	-6 53.6	2.043	3.040	3.8	20.5	5 11	15 23.42	-37 15.7	4.463	5.425	3.6	19.6
5 21	15 15.03	-6 37.7	2.045	3.030	5.4	20.6	5 21	15 17.47	-36 45.9	4.448	5.419	3.3	19.5
5 31	15 6.47	-6 32.4	2.073	3.019	8.4	20.8	5 31	15 11.87	-36 8.8	4.463	5.413	4.1	19.6
6 10	14 59.28	-6 39.0	2.127	3.007	11.5	20.9	6 10	15 7.00	-35 26.8	4.504	5.407	5.4	19.7
6 20	14 53.96	-6 57.7	2.203	2.995	14.2	21.1	6 20	15 3.16	-34 42.2	4.572	5.401	6.8	19.8
25501	1999 XK ₉₁		5 13.5 273°17	3°2/12.1	17		475005	2005 TX ₁₆₁		5 13.5 194°88	1°1/12.5	16	
4 11	15 49.80	-12 46.2	1.405	2.284	15.4	18.8	4 11	15 42.41	-16 44.0	2.794	3.653	9.3	22.8
4 21	15 44.07	-12 20.1	1.317	2.262	11.4	18.5	4 21	15 37.30	-16 2.7	2.715	3.651	6.7	22.6
5 1	15 35.42	-11 51.0	1.251	2.239	6.9	18.1	5 1	15 30.90	-15 17.1	2.662	3.648	3.8	22.4
5 11	15 24.73	-11 22.8	1.210	2.215	3.3	17.9	5 11	15 23.75	-14 29.5	2.638	3.646	1.2	22.2
5 21	15 13.27	-11 0.2	1.194	2.192	6.0	18.0	5 21	15 16.48	-13 42.9	2.643	3.643	2.9	22.3
5 31	15 2.56	-10 47.9	1.202	2.167	11.0	18.2	5 31	15 9.71	-13 0.4	2.678	3.639	5.9	22.5
6 10	14 53.94	-10 49.8	1.233	2.143	15.9	18.4	6 10	15 4.01	-12 24.9	2.738	3.636	8.6	22.7
6 20	14 48.28	-11 7.5	1.282	2.118	20.2	18.6	6 20	14 59.77	-11 58.1	2.823	3.632	11.0	22.8
160851	2001 CX ₄₃		5 13.5 204°50	11°1/14.8	18		269105	2007 HF ₉₀		5 13.5 46°23	1°9/12.7	17	
4 11	16 6.65	-33 57.4	1.205	2.031	20.9								

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
16011	1999 <i>CM</i> ₁₆		5 13.5 351°34	3°7/11.4	18		458907	2011 <i>UL</i> ₂₃₆		5 13.5 123°60	0°3/13.7	18	
4 11	15 44.60	-12 10.0	1.526	2.409	14.2	17.7	4 11	15 50.47	-21 40.4	1.700	2.559	14.2	22.2
4 21	15 39.73	-11 18.7	1.461	2.407	10.3	17.5	4 21	15 43.71	-21 8.9	1.641	2.575	10.4	22.0
5 1	15 32.60	-10 24.9	1.419	2.406	6.3	17.2	5 1	15 34.74	-20 26.8	1.606	2.591	6.0	21.8
5 11	15 24.12	-9 33.9	1.401	2.405	3.7	17.1	5 11	15 24.57	-19 36.8	1.597	2.606	1.3	21.5
5 21	15 15.40	-8 51.1	1.410	2.404	6.0	17.2	5 21	15 14.34	-18 43.2	1.615	2.620	3.4	21.7
5 31	15 7.59	-8 21.5	1.443	2.403	10.1	17.5	5 31	15 5.22	-17 51.5	1.661	2.634	7.9	22.0
6 10	15 1.65	-8 8.2	1.499	2.403	14.0	17.7	6 10	14 58.08	-17 7.0	1.732	2.647	11.8	22.2
6 20	14 58.14	-8 11.7	1.574	2.403	17.4	17.9	6 20	14 53.44	-16 33.3	1.824	2.659	15.1	22.5
130481	2000 <i>QQ</i> ₉₇		5 13.5 267°64	4°0/11.3	17		333901	1999 <i>RX</i> ₁₁₂		5 13.5 235°04	3°2/15.8	18	
4 11	15 47.45	-11 30.5	1.525	2.404	14.4	19.6	4 11	15 48.83	-30 20.5	2.711	3.525	10.8	22.3
4 21	15 42.02	-10 41.9	1.443	2.387	10.7	19.4	4 21	15 42.28	-30 24.4	2.606	3.507	8.5	22.1
5 1	15 34.06	-9 50.4	1.384	2.370	6.6	19.1	5 1	15 33.94	-30 16.6	2.526	3.488	5.8	21.9
5 11	15 24.45	-9 1.1	1.350	2.352	4.0	18.9	5 11	15 24.44	-29 56.4	2.474	3.468	3.6	21.7
5 21	15 14.33	-8 19.7	1.342	2.334	6.4	19.0	5 21	15 14.57	-29 24.6	2.452	3.447	3.6	21.7
5 31	15 4.99	-7 51.6	1.359	2.316	10.8	19.2	5 31	15 5.21	-28 43.9	2.458	3.425	6.0	21.8
6 10	14 57.56	-7 40.4	1.398	2.298	15.1	19.4	6 10	14 57.14	-27 58.5	2.492	3.402	8.9	21.9
6 20	14 52.75	-7 47.1	1.456	2.279	18.8	19.6	6 20	14 50.91	-27 12.9	2.551	3.379	11.5	22.1
83765	2001 <i>TP</i> ₁₅₉		5 13.5 147°16	7°0/ 8.6	18		477214	2009 <i>JF</i> ₁₈		5 13.5 290°59	7°4/ 8.9	16	
4 11	15 44.85	+ 4 16.6	2.453	3.297	10.9	19.4	4 11	15 45.14	+ 3 57.0	2.224	3.072	11.7	21.1
4 21	15 39.08	+ 4 55.9	2.398	3.302	8.9	19.3	4 21	15 39.53	+ 4 28.4	2.156	3.064	9.6	20.9
5 1	15 31.91	+ 5 24.8	2.367	3.307	7.4	19.2	5 1	15 32.29	+ 4 48.8	2.112	3.057	7.9	20.8
5 11	15 23.96	+ 5 39.5	2.363	3.312	7.0	19.2	5 11	15 24.09	+ 4 53.8	2.094	3.049	7.4	20.8
5 21	15 15.93	+ 5 37.6	2.385	3.317	8.0	19.3	5 21	15 15.69	+ 4 41.0	2.102	3.042	8.5	20.8
5 31	15 8.52	+ 5 18.1	2.433	3.321	9.8	19.4	5 31	15 7.91	+ 4 9.2	2.136	3.035	10.6	20.9
6 10	15 2.33	+ 4 42.0	2.504	3.326	11.9	19.5	6 10	15 1.43	+ 3 19.7	2.192	3.028	12.9	21.1
6 20	14 57.76	+ 3 51.3	2.596	3.329	13.7	19.7	6 20	14 56.73	+ 2 14.8	2.269	3.020	15.0	21.2
345434	2006 <i>DP</i> ₁₀₅		5 13.5 204°60	0°7/14.4	18		409083	2003 <i>SX</i> ₃₂₇		5 13.5 158°02	2°6/11.9	17	
4 11	15 37.26	-23 6.2	4.666	5.505	6.2	21.6	4 11	15 47.34	-14 44.2	1.667	2.540	13.7	21.1
4 21	15 33.25	-22 59.7	4.581	5.504	4.5	21.5	4 21	15 41.53	-13 49.4	1.602	2.544	9.9	20.9
5 1	15 28.48	-22 48.9	4.523	5.502	2.7	21.4	5 1	15 33.57	-12 49.6	1.560	2.548	5.8	20.7
5 11	15 23.27	-22 34.6	4.494	5.501	1.0	21.2	5 11	15 24.35	-11 49.3	1.545	2.551	2.7	20.5
5 21	15 17.98	-22 17.8	4.495	5.499	1.5	21.3	5 21	15 14.96	-10 54.1	1.557	2.554	5.0	20.6
5 31	15 12.95	-21 59.8	4.526	5.498	3.3	21.4	5 31	15 6.51	-10 9.1	1.595	2.556	9.2	20.9
6 10	15 8.54	-21 42.1	4.585	5.496	5.1	21.5	6 10	14 59.90	-9 38.3	1.657	2.558	13.0	21.1
6 20	15 4.99	-21 26.0	4.669	5.494	6.7	21.7	6 20	14 55.65	-9 23.3	1.739	2.560	16.3	21.3
472597	2015 <i>DX</i> ₁₃₇		5 13.5 121°71	9°0/ 6.9	17		96366	1997 <i>WS</i> ₃₇		5 13.5 61°30	2°7/12.3	18	
4 11	15 44.09	+ 7 10.8	2.124	2.968	12.4	20.5	4 11	15 48.90	-14 22.9	1.246	2.132	16.5	18.9
4 21	15 38.72	+ 8 17.8	2.075	2.972	10.5	20.4	4 21	15 43.00	-13 51.1	1.202	2.150	11.9	18.7
5 1	15 31.77	+ 9 11.3	2.050	2.976	9.2	20.3	5 1	15 34.47	-13 15.8	1.179	2.168	6.9	18.4
5 11	15 23.94	+ 9 45.8	2.050	2.981	9.1	20.3	5 11	15 24.52	-12 41.7	1.180	2.187	2.8	18.2
5 21	15 16.02	+ 9 57.9	2.074	2.985	10.2	20.4	5 21	15 14.56	-12 13.6	1.206	2.206	5.5	18.5
5 31	15 8.82	+ 9 46.5	2.122	2.989	12.0	20.5	5 31	15 5.96	-11 56.2	1.256	2.225	10.2	18.8
6 10	15 2.99	+ 9 13.0	2.191	2.993	14.0	20.7	6 10	14 59.74	-11 52.2	1.327	2.244	14.5	19.1
6 20	14 58.96	+ 8 20.4	2.279	2.997	15.8	20.8	6 20	14 56.39	-12 2.5	1.418	2.263	18.1	19.4
465295	2007 <i>TH</i> ₃₃₆		5 13.5 239°85	2°6/11.9	16		145872	1999 <i>RB</i> ₂₁₄		5 13.5 157°85	0°5/13.1	18	
4 11	15 47.50	-15 13.6	1.608	2.482	14.1	22.0	4 11	15 43.53	-17 59.7	2.791	3.646	9.4	20.8
4 21	15 41.88	-14 18.5	1.529	2.472	10.2	21.7	4 21	15 38.11	-17 38.3	2.718	3.651	6.8	20.6
5 1	15 33.89	-13 16.5	1.474	2.462	6.0	21.5	5 1	15 31.38	-17 12.6	2.670	3.656	3.8	20.4
5 11	15 24.41	-12 12.2	1.444	2.451	2.6	21.2	5 11	15 23.90	-16 44.2	2.652	3.661	0.8	20.2
5 21	15 14.56	-11 11.6	1.441	2.439	5.2	21.4	5 21	15 16.31	-16 15.5	2.663	3.665	2.6	20.3
5 31	15 5.55	-10 20.7	1.465	2.427	9.7	21.6	5 31	15 9.25	-15 48.9	2.702	3.669	5.6	20.5
6 10	14 58.42	-9 44.3	1.511	2.415	13.9	21.8	6 10	15 3.29	-15 26.9	2.769	3.673	8.3	20.7
6 20	14 53.81	-9 24.8	1.578	2.402	17.5	22.0	6 20	14 58.82	-15 11.4	2.859	3.676	10.7	20.9
173524	2000 <i>VX</i> ₅₁		5 13.5 203°29	3°1/15.6	18		15723	Girraween		5 13.5 237°08	0°8/13.9	18	
4 11	15 46.11	-28 38.6	2.418	3.249	11.5	20.2	4 11	15 49.58	-21 40.6	1.632	2.494	14.5	18.5
4 21	15 40.36	-28 54.7	2.337	3.248	8.8	20.0	4 21	15 43.54	-21 30.5	1.549	2.485	10.8	18.2
5 1	15 32.82	-28 59.9	2.279	3.247	6.0	19.8	5 1	15 34.93	-21 9.9	1.490	2.474	6.4	17.9
5 11	15 24.19	-28 53.7	2.249	3.245	3.5	19.7	5 11	15 24.67	-20 40.0	1.455	2.464	1.7	17.6
5 21	15 15.29	-28 37.2	2.246	3.244	3.7	19.7	5 21	15 13.94	-20 3.7	1.448	2.453	3.7	17.7
5 31	15 7.02	-28 12.8	2.272	3.242	6.2	19.8	5 31	15 4.06	-19 25.8	1.466	2.441	8.5	18.0
6 10	15 0.14	-27 44.4	2.324	3.240	9.1	20.0	6 10	14 56.16	-18 51.9	1.509	2.429	12.9	18.2
6 20	14 55.19	-27 16.1	2.399	3.239	11.8	20.2	6 20	14 50.93	-18 26.6	1.573	2.417	16.7	18.4
253869	2004 <i>BS</i> ₃		5 13.5 108°48	0°6/13.8	16		481053	2005 <i>JP</i> ₄₅		5 13.5 166°66	11°4/11.9	18	
4 11	15 49.40	-21 22.8	1.689	2.550	14.2	21.4	4 11	16 1.45	+ 5 29.8	1.079	1.937	20.6	20.7
4 21	15 43.01	-21 9.8	1.629	2.564	10.4	21.2	4 21	15 52.73	+ 5 32.8	1.023	1.940	16.8	20.5
5 1	15 34.38	-20 47.3	1.593	2.578	6.0	20.9	5 1	15 40.38	+ 5 10.2	0.987	1.943	13.2	20.3
5 11	15 24.49	-20 17.0	1.583	2.591	1.5	20.7	5 11	15 25.77	+ 4 15.0	0.972	1.945	11.4	20.2
5 21	15 14.49	-19 42.3	1.599	2.604	3.4	20.8	5 21	15 10.79	+ 2 45.8	0.981	1.946	12.7	20.3
5 31	15 5.53	-19 7.8	1.643	2.617	7.8	21.1	5 31	14 57.39	+ 0 46.8	1.014	1.947	16.2	20.5
6 10	14 58.53	-18 38.1	1.711	2.629	11.7	21.4	6 10	14 47.07	- 1 33.4	1.067	1.947	20.2	20.7
6 20	14 54.02	-18 16.7	1.800	2.641	15.0	21.6	6 20	14 40.56	- 4 5.6	1.138	1.947	23.8	20.9
472349	2015 <i>BM</i> ₂		5 13.5 153°75	12°5/ 5.1	17		151808	2003 <i>FX</i> ₇₇ </					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
383801	2007 YZ ₂₆		5 13.5 56°58'	5.7/17.9	14 C		244257	2002 CL ₂₂₂		5 13.5 59°34'	0.4/13.3	17	
4 11	15 48.98	-36 28.1	1.983	2.790	14.5	20.4	4 11	15 48.35	-19 2.2	1.332	2.211	16.1	20.9
4 21	15 42.54	-36 35.0	1.935	2.821	11.6	20.3	4 21	15 42.77	-18 44.3	1.273	2.217	11.7	20.7
5 1	15 34.01	-36 22.3	1.909	2.853	8.7	20.2	5 1	15 34.49	-18 17.6	1.235	2.224	6.7	20.4
5 11	15 24.42	-35 49.7	1.907	2.884	6.3	20.1	5 11	15 24.60	-17 44.7	1.221	2.230	1.3	20.1
5 21	15 14.90	-34 59.5	1.932	2.916	5.8	20.1	5 21	15 14.47	-17 10.1	1.232	2.237	4.2	20.3
5 31	15 6.52	-33 56.9	1.984	2.947	7.5	20.3	5 31	15 5.53	-16 39.0	1.268	2.244	9.4	20.6
6 10	15 0.12	-32 48.7	2.061	2.978	10.1	20.5	6 10	14 58.89	-16 16.6	1.327	2.251	14.0	20.9
6 20	14 56.11	-31 41.4	2.161	3.009	12.6	20.7	6 20	14 55.14	-16 6.1	1.404	2.258	17.8	21.1
109814	2001 RU ₁₀₅		5 13.5 124°75'	3.1/11.6	18		392153	2009 HQ ₆₅		5 13.5 45°15'	3.4/10.8	17	
4 11	15 47.72	-11 7.9	1.980	2.846	12.2	20.1	4 11	15 43.05	-14 7.3	1.753	2.632	12.9	20.1
4 21	15 41.42	-10 30.2	1.923	2.861	8.8	19.9	4 21	15 38.14	-12 29.6	1.709	2.654	9.2	19.9
5 1	15 33.34	-9 52.2	1.892	2.875	5.4	19.7	5 1	15 31.48	-10 48.2	1.689	2.676	5.5	19.7
5 11	15 24.30	-9 17.6	1.887	2.889	3.2	19.6	5 11	15 23.95	-9 10.1	1.697	2.699	3.4	19.6
5 21	15 15.20	-8 49.9	1.911	2.902	5.0	19.7	5 21	15 16.49	-7 42.0	1.732	2.722	5.6	19.8
5 31	15 6.95	-8 32.1	1.962	2.915	8.3	20.0	5 31	15 9.98	-6 29.6	1.793	2.745	9.0	20.1
6 10	15 0.29	-8 26.0	2.037	2.927	11.5	20.2	6 10	15 5.10	-5 36.3	1.879	2.769	12.3	20.3
6 20	14 55.66	-8 32.3	2.134	2.939	14.2	20.4	6 20	15 2.23	-5 2.7	1.984	2.793	15.0	20.6
184274	2004 YW ₂₄		5 13.5 315°99'	6.3/ 5.5	18		71045	1999 XY ₈₄		5 13.5 195°83'	0.1/13.4	18	
4 11	15 37.84	+12 14.9	3.965	4.774	7.8	19.6	4 11	15 45.87	-19 39.4	2.486	3.338	10.5	20.4
4 21	15 33.73	+12 51.0	3.906	4.767	6.9	19.6	4 21	15 40.02	-19 17.0	2.404	3.336	7.6	20.2
5 1	15 28.79	+13 17.4	3.871	4.759	6.3	19.5	5 1	15 32.58	-18 48.3	2.348	3.332	4.4	20.0
5 11	15 23.39	+13 31.6	3.862	4.752	6.4	19.5	5 11	15 24.21	-18 15.0	2.319	3.328	0.9	19.7
5 21	15 17.90	+13 32.2	3.878	4.745	7.0	19.5	5 21	15 15.64	-17 39.7	2.320	3.324	2.7	19.8
5 31	15 12.73	+13 18.5	3.919	4.738	7.9	19.6	5 31	15 7.66	-17 5.4	2.350	3.319	6.1	20.0
6 10	15 8.24	+12 51.0	3.982	4.731	9.1	19.7	6 10	15 0.95	-16 35.5	2.407	3.314	9.3	20.2
6 20	15 4.72	+12 11.0	4.065	4.724	10.1	19.8	6 20	14 55.97	-16 12.6	2.487	3.308	12.0	20.4
514875	2008 HB ₃₃		5 13.5 10°53'	1.0/12.5	18		386222	2007 XS ₃₉		5 13.5 61°31'	4.1/16.4	18	
4 11	15 37.90	-14 34.4	3.696	4.556	7.2	20.9	4 11	15 46.69	-31 43.5	2.033	2.861	13.4	20.2
4 21	15 33.85	-14 20.9	3.622	4.558	5.1	20.7	4 21	15 40.88	-31 43.7	1.975	2.881	10.4	20.0
5 1	15 28.89	-14 6.0	3.574	4.560	2.9	20.6	5 1	15 33.12	-31 28.2	1.940	2.902	7.2	19.9
5 11	15 23.41	-13 51.2	3.555	4.562	1.1	20.4	5 11	15 24.30	-30 57.3	1.930	2.922	4.6	19.8
5 21	15 17.84	-13 37.7	3.565	4.564	2.3	20.5	5 21	15 15.44	-30 13.1	1.948	2.943	4.4	19.8
5 31	15 12.61	-13 27.1	3.604	4.567	4.5	20.7	5 31	15 7.52	-29 20.2	1.992	2.964	6.9	20.0
6 10	15 8.11	-13 20.8	3.670	4.569	6.6	20.8	6 10	15 1.36	-28 24.5	2.062	2.984	9.8	20.2
6 20	15 4.65	-13 19.6	3.761	4.572	8.5	21.0	6 20	14 57.40	-27 31.2	2.155	3.005	12.6	20.4
262095	2006 RG ₈₈		5 13.5 345°33'	0.4/13.7	17		444808	2007 TR ₄₄₀		5 13.5 216°30'	0.8/12.7	17	
4 11	15 44.43	-19 55.1	1.165	2.055	17.1	20.0	4 11	15 39.99	-15 25.3	4.065	4.917	6.8	22.1
4 21	15 40.44	-19 54.3	1.097	2.047	12.6	19.7	4 21	15 35.31	-15 12.3	3.976	4.909	4.9	22.0
5 1	15 33.41	-19 43.6	1.049	2.039	7.4	19.4	5 1	15 29.73	-14 57.5	3.915	4.900	2.8	21.8
5 11	15 24.40	-19 24.9	1.023	2.032	1.6	19.0	5 11	15 23.62	-14 42.0	3.883	4.891	0.9	21.6
5 21	15 14.86	-19 1.5	1.021	2.027	4.4	19.2	5 21	15 17.39	-14 27.1	3.882	4.882	2.1	21.7
5 31	15 6.40	-18 38.8	1.041	2.022	10.1	19.5	5 31	15 11.45	-14 14.4	3.911	4.872	4.2	21.9
6 10	15 0.38	-18 22.7	1.082	2.019	15.2	19.7	6 10	15 6.20	-14 5.1	3.967	4.863	6.2	22.0
6 20	14 57.54	-18 17.1	1.141	2.017	19.6	20.0	6 20	15 1.94	-14 0.3	4.048	4.852	8.0	22.1
184652	2005 SD ₃₃		5 13.5 121°76'	0.1/13.6	18		374486	2005 YT ₇₉		5 13.5 206°92'	0.9/14.1	17	
4 11	15 44.69	-19 23.7	2.536	3.390	10.3	20.2	4 11	15 47.53	-22 24.0	2.193	3.043	11.8	22.2
4 21	15 39.08	-19 19.8	2.465	3.397	7.4	20.1	4 21	15 41.46	-22 10.8	2.109	3.038	8.7	22.0
5 1	15 32.00	-19 10.9	2.420	3.405	4.3	19.9	5 1	15 33.51	-21 48.8	2.050	3.032	5.2	21.8
5 11	15 24.06	-18 58.2	2.403	3.412	0.9	19.6	5 11	15 24.41	-21 19.1	2.018	3.026	1.5	21.5
5 21	15 15.98	-18 43.3	2.415	3.419	2.5	19.8	5 21	15 15.04	-20 44.1	2.015	3.020	2.9	21.6
5 31	15 8.50	-18 28.7	2.456	3.426	5.8	20.0	5 31	15 6.34	-20 7.5	2.040	3.013	6.7	21.8
6 10	15 2.25	-18 16.9	2.523	3.433	8.8	20.2	6 10	14 59.12	-19 33.3	2.091	3.005	10.1	22.0
6 20	14 57.66	-18 9.8	2.613	3.440	11.3	20.4	6 20	14 53.92	-19 5.2	2.165	2.997	13.2	22.2
168979	2001 CS ₁		5 13.5 124°06'	1.6/12.6	18		236132	2005 TB ₄₀		5 13.5 74°97'	0.5/13.3	18	
4 11	15 49.56	-15 49.4	1.731	2.598	13.6	20.4	4 11	15 51.64	-17 16.4	1.244	2.123	17.0	20.3
4 21	15 43.02	-15 22.5	1.672	2.611	9.8	20.2	4 21	15 45.31	-17 24.3	1.188	2.133	12.4	20.1
5 1	15 34.37	-14 51.1	1.637	2.625	5.6	20.0	5 1	15 36.00	-17 26.6	1.154	2.142	7.1	19.8
5 11	15 24.54	-14 18.3	1.629	2.637	1.8	19.8	5 11	15 24.93	-17 24.6	1.143	2.152	1.4	19.4
5 21	15 14.61	-13 47.7	1.649	2.649	4.2	20.0	5 21	15 13.60	-17 20.9	1.157	2.162	4.4	19.7
5 31	15 5.68	-13 23.2	1.695	2.661	8.3	20.2	5 31	15 3.58	-17 19.2	1.196	2.172	9.8	20.0
6 10	14 58.61	-13 8.1	1.766	2.672	12.1	20.5	6 10	14 56.11	-17 23.5	1.257	2.182	14.5	20.3
6 20	14 53.90	-13 4.2	1.857	2.683	15.3	20.7	6 20	14 51.79	-17 36.2	1.337	2.192	18.5	20.6
188264	2003 AF		5 13.5 87°59'	2.7/11.9	18		173918	2001 VT ₅₆		5 13.5 278°93'	0.9/12.9	18	
4 11	15 48.02	-13 50.2	1.674	2.547	13.7	19.9	4 11	15 44.62	-16 49.2	2.130	2.995	11.5	20.5
4 21	15 41.82	-13 5.1	1.627	2.569	9.8	19.7	4 21	15 39.38	-16 34.7	2.048	2.987	8.3	20.3
5 1	15 33.62	-12 17.3	1.603	2.590	5.7	19.5	5 1	15 32.33	-16 15.9	1.991	2.978	4.8	20.1
5 11	15 24.38	-11 31.2	1.605	2.611	2.7	19.4	5 11	15 24.18	-15 54.6	1.961	2.969	1.2	19.8
5 21	15 15.15	-10 51.1	1.635	2.631	4.9	19.6	5 21	15 15.74	-15 33.4	1.958	2.961	3.3	19.9
5 31	15 6.99	-10 21.3	1.691	2.652	8.8	19.9	5 31	15 7.91	-15 15.3	1.983	2.952	7.1	20.2
6 10	15 0.68	-10 4.3	1.770	2.671	12.3	20.1	6 10	15 1.48	-15 3.3	2.034	2.943	10.6	20.4
6 20	14 56.67	-10 1.1	1.871	2.691	15.4	20.4	6 20	14 56.96	-14 59.4	2.106	2.935	13.6	20.5
336182	2008 RZ ₉₅		5 13.5 235°78'	4.7/16.4	18		166789	2002 VR ₄₂		5 13.5 216°63'	0.2/13.4	18	
4 11	15 48.50	-32 9.5	1.975	2.8									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
316189	2010 <i>KY</i> ₇₄		5 13.5 232°03	2°0/15.1	16		499153	2009 <i>RF</i> ₇₁		5 13.5 216°31	5°0/16.6	17	
4 11	15 44.03	-26 48.6	2.561	3.398	10.7	21.5	4 11	15 51.05	-33 35.8	2.191	3.000	13.2	22.7
4 21	15 38.75	-26 32.6	2.474	3.392	8.1	21.3	4 21	15 44.34	-33 59.4	2.100	2.992	10.6	22.5
5 1	15 31.89	-26 6.0	2.411	3.385	5.1	21.1	5 1	15 35.35	-34 7.8	2.033	2.984	7.8	22.3
5 11	15 24.08	-25 29.7	2.376	3.379	2.4	20.9	5 11	15 24.88	-33 58.9	1.992	2.975	5.5	22.1
5 21	15 16.07	-24 45.7	2.369	3.372	2.8	20.9	5 21	15 13.99	-33 32.8	1.978	2.965	5.3	22.1
5 31	15 8.64	-23 57.5	2.391	3.365	5.7	21.1	5 31	15 3.81	-32 52.6	1.992	2.955	7.5	22.2
6 10	15 2.46	-23 9.1	2.440	3.357	8.7	21.3	6 10	14 55.36	-32 3.9	2.032	2.944	10.5	22.3
6 20	14 58.01	-22 24.5	2.513	3.350	11.4	21.4	6 20	14 49.29	-31 12.7	2.094	2.932	13.3	22.5
232113	2001 <i>YN</i> ₃₅		5 13.5 242°36	1°9/14.6	17		432372	2009 <i>WR</i> ₉₇		5 13.5 114°30	1°4/12.6	17	
4 11	15 48.00	-24 47.0	1.951	2.801	13.1	20.8	4 11	15 46.97	-16 8.1	2.042	2.906	12.0	22.1
4 21	15 42.12	-24 43.2	1.863	2.790	9.8	20.5	4 21	15 40.92	-15 36.7	1.983	2.921	8.6	21.9
5 1	15 34.04	-24 28.2	1.799	2.778	6.1	20.3	5 1	15 33.13	-15 1.2	1.949	2.936	4.9	21.7
5 11	15 24.56	-24 2.2	1.761	2.766	2.5	20.0	5 11	15 24.39	-14 24.2	1.942	2.950	1.6	21.5
5 21	15 14.67	-23 27.5	1.750	2.754	3.4	20.0	5 21	15 15.58	-13 49.2	1.964	2.964	3.6	21.7
5 31	15 5.50	-22 47.8	1.767	2.742	7.3	20.3	5 31	15 7.59	-13 19.8	2.013	2.978	7.3	21.9
6 10	14 58.00	-22 8.5	1.809	2.729	11.1	20.5	6 10	15 1.16	-12 58.8	2.088	2.991	10.6	22.1
6 20	14 52.80	-21 34.1	1.873	2.715	14.5	20.6	6 20	14 56.72	-12 48.0	2.184	3.004	13.5	22.4
377797	2006 <i>AQ</i> ₃₅		5 13.5 20°65	4°5/11.3	17		166235	2002 <i>FP</i> ₂₉		5 13.5 145°38	2°5/12.5	18	
4 11	15 44.70	- 9 15.5	1.486	2.371	14.4	20.2	4 11	15 51.72	-12 25.9	1.644	2.511	14.2	19.8
4 21	15 39.81	- 8 38.0	1.429	2.375	10.6	20.0	4 21	15 44.81	-12 20.2	1.580	2.519	10.3	19.6
5 1	15 32.69	- 8 2.3	1.395	2.380	6.7	19.8	5 1	15 35.55	-12 14.1	1.540	2.526	6.1	19.3
5 11	15 24.27	- 7 33.5	1.386	2.385	4.5	19.7	5 11	15 24.91	-12 9.9	1.526	2.532	2.6	19.1
5 21	15 15.66	- 7 15.9	1.401	2.392	6.5	19.8	5 21	15 14.04	-12 10.1	1.540	2.538	4.8	19.3
5 31	15 8.03	- 7 12.7	1.441	2.398	10.3	20.1	5 31	15 4.15	-12 17.2	1.580	2.544	9.0	19.5
6 10	15 2.28	- 7 25.3	1.503	2.406	14.1	20.3	6 10	14 56.23	-12 33.1	1.645	2.549	12.9	19.8
6 20	14 58.96	- 7 53.0	1.585	2.413	17.3	20.5	6 20	14 50.85	-12 58.5	1.730	2.554	16.3	20.0
50158	2000 <i>AR</i> ₁₄₃		5 13.5 225°21	11°6/ 4.5	18		334854	2003 <i>UR</i> ₇₆		5 13.5 223°16	1°4/14.7	18	
4 11	15 46.49	+11 28.0	1.892	2.723	14.2	19.1	4 11	15 46.56	-25 10.2	2.684	3.520	10.3	22.0
4 21	15 40.78	+13 2.9	1.837	2.715	12.6	18.9	4 21	15 40.56	-24 50.2	2.588	3.507	7.7	21.8
5 1	15 33.15	+14 20.6	1.805	2.707	11.7	18.9	5 1	15 32.96	-24 20.6	2.517	3.494	4.8	21.6
5 11	15 24.36	+15 13.5	1.796	2.699	11.8	18.8	5 11	15 24.37	-23 42.1	2.475	3.480	1.9	21.4
5 21	15 15.36	+15 36.6	1.810	2.689	13.1	18.9	5 21	15 15.54	-22 56.9	2.462	3.466	2.6	21.4
5 31	15 7.12	+15 28.3	1.846	2.680	14.9	19.0	5 31	15 7.24	-22 8.4	2.479	3.450	5.7	21.6
6 10	15 0.45	+14 50.4	1.901	2.670	16.9	19.1	6 10	15 0.16	-21 20.5	2.523	3.434	8.7	21.8
6 20	14 55.87	+13 47.3	1.972	2.660	18.8	19.3	6 20	14 54.78	-20 36.8	2.591	3.417	11.4	21.9
109006	2001 <i>QT</i> ₁		5 13.5 156°40	1°4/14.4	17		454257	2013 <i>RH</i> ₆₈		5 13.5 233°53	2°0/11.2	18	
4 11	15 48.58	-23 47.4	1.989	2.839	12.8	20.6	4 11	15 37.76	- 8 7.0	4.468	5.325	6.1	20.7
4 21	15 42.30	-23 34.3	1.918	2.845	9.5	20.4	4 21	15 33.65	- 7 54.3	4.390	5.322	4.5	20.5
5 1	15 34.01	-23 10.7	1.870	2.851	5.7	20.2	5 1	15 28.79	- 7 42.9	4.339	5.318	2.9	20.4
5 11	15 24.54	-22 37.7	1.849	2.856	2.0	19.9	5 11	15 23.51	- 7 34.1	4.318	5.314	2.0	20.3
5 21	15 14.88	-21 58.1	1.856	2.860	3.1	20.0	5 21	15 18.13	- 7 29.2	4.326	5.310	2.8	20.4
5 31	15 6.06	-21 16.0	1.891	2.864	7.0	20.3	5 31	15 13.01	- 7 29.0	4.363	5.306	4.4	20.5
6 10	14 58.94	-20 36.4	1.951	2.868	10.6	20.5	6 10	15 8.49	- 7 34.4	4.427	5.302	6.1	20.6
6 20	14 54.04	-20 3.2	2.034	2.871	13.7	20.7	6 20	15 4.80	- 7 45.5	4.516	5.297	7.6	20.7
64722	2001 <i>XJ</i> ₁₀₅		5 13.5 4°62	0°1/13.5	17		268164	2004 <i>VC</i> ₈		5 13.5 276°98	1°0/12.9	18	
4 11	15 43.12	-19 49.0	1.825	2.695	12.9	18.8	4 11	15 46.88	-17 2.3	1.883	2.750	12.7	20.9
4 21	15 38.50	-19 34.0	1.755	2.695	9.4	18.6	4 21	15 41.40	-16 44.8	1.789	2.728	9.3	20.7
5 1	15 31.90	-19 11.6	1.708	2.696	5.4	18.4	5 1	15 33.72	-16 21.6	1.718	2.705	5.4	20.4
5 11	15 24.12	-18 43.8	1.688	2.697	1.1	18.1	5 11	15 24.57	-15 54.9	1.674	2.682	1.3	20.0
5 21	15 16.12	-18 13.7	1.694	2.699	3.2	18.2	5 21	15 14.92	-15 27.5	1.657	2.659	3.8	20.2
5 31	15 8.89	-17 45.2	1.726	2.701	7.4	18.5	5 31	15 5.84	-15 3.2	1.667	2.636	8.1	20.4
6 10	15 3.28	-17 22.1	1.783	2.704	11.1	18.7	6 10	14 58.34	-14 46.1	1.701	2.612	12.2	20.6
6 20	14 59.80	-17 7.4	1.861	2.707	14.4	18.9	6 20	14 53.08	-14 38.7	1.757	2.588	15.7	20.7
96949	1999 <i>TG</i> ₁₇₀		5 13.5 36°07	2°6/14.8	18		218811	2006 <i>PD</i> ₅		5 13.5 223°25	12°2/19.1	15	
4 11	15 47.16	-25 12.7	1.654	2.513	14.6	19.1	4 11	15 57.50	-43 46.3	1.372	2.162	20.6	21.1
4 21	15 41.67	-25 24.7	1.589	2.518	11.0	18.9	4 21	15 50.82	-45 0.5	1.297	2.157	17.9	20.9
5 1	15 33.80	-25 24.8	1.546	2.525	6.9	18.7	5 1	15 39.87	-45 46.2	1.240	2.152	15.1	20.7
5 11	15 24.52	-25 12.8	1.527	2.531	3.1	18.5	5 11	15 25.91	-45 54.2	1.202	2.146	12.8	20.5
5 21	15 14.97	-24 50.8	1.535	2.538	3.9	18.5	5 21	15 11.00	-45 20.4	1.186	2.140	12.2	20.5
5 31	15 6.38	-24 22.7	1.569	2.546	7.8	18.8	5 31	14 57.58	-44 8.8	1.193	2.134	13.6	20.5
6 10	14 59.77	-23 54.0	1.627	2.553	11.7	19.0	6 10	14 47.58	-42 31.4	1.220	2.127	16.3	20.6
6 20	14 55.70	-23 29.3	1.705	2.561	15.1	19.2	6 20	14 41.98	-40 42.8	1.266	2.120	19.4	20.8
70158	1999 <i>NZ</i> ₃₇		5 13.5 266°83	6°4/16.8	18		152835	1999 <i>VD</i> ₇₄		5 13.5 123°24	0°1/13.6	18	
4 11	15 51.83	-34 58.8	1.767	2.583	15.6	19.4	4 11	15 43.70	-20 0.5	2.961	3.810	9.1	22.5
4 21	15 45.61	-35 24.2	1.666	2.560	12.8	19.1	4 21	15 38.18	-19 42.0	2.896	3.826	6.6	22.3
5 1	15 36.42	-35 30.4	1.585	2.535	9.6	18.9	5 1	15 31.45	-19 18.5	2.857	3.841	3.8	22.2
5 11	15 25.12	-35 13.8	1.529	2.510	7.0	18.6	5 11	15 24.05	-18 51.3	2.846	3.855	0.8	21.9
5 21	15 13.03	-34 33.4	1.498	2.484	6.7	18.6	5 21	15 16.60	-18 22.5	2.866	3.870	2.2	22.1
5 31	15 1.68	-33 32.7	1.493	2.458	9.3	18.6	5 31	15 9.69	-17 54.5	2.914	3.883	5.1	22.3
6 10	14 52.44	-32 19.7	1.513	2.431	12.9	18.8	6 10	15 3.85	-17 29.9	2.990	3.897	7.7	22.5
6 20	14 46.22	-31 3.5	1.553	2.404	16.5	18.9	6 20	14 59.44	-17 10.4	3.090	3.910	9.9	22.7
483229	2015 <i>RC</i> ₆₃		5 13.5 166°89	1°1/12.3	18		259629	2003 <i>WK</i>					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
275571	1999 <i>TW</i> ₆₁		5 13.5 271°02	0°3/13.7	18		235334	2003 <i>UK</i> ₂₀₃		5 13.5 86°35	2°9/14.9	18	
4 11	15 44.29	-20 29.5	2.504	3.358	10.4	21.5	4 11	15 49.64	-25 36.2	1.951	2.796	13.3	19.9
4 21	15 39.05	-20 16.8	2.406	3.337	7.6	21.3	4 21	15 43.26	-26 9.7	1.881	2.802	10.0	19.7
5 1	15 32.17	-19 57.6	2.332	3.317	4.5	21.0	5 1	15 34.69	-26 33.3	1.834	2.808	6.5	19.5
5 11	15 24.24	-19 33.1	2.287	3.296	1.0	20.7	5 11	15 24.77	-26 45.9	1.813	2.814	3.3	19.3
5 21	15 15.98	-19 5.2	2.270	3.275	2.6	20.8	5 21	15 14.54	-26 47.8	1.820	2.821	3.9	19.3
5 31	15 8.18	-18 37.0	2.282	3.253	6.1	21.0	5 31	15 5.12	-26 41.6	1.855	2.827	7.2	19.5
6 10	15 1.56	-18 11.5	2.320	3.232	9.4	21.2	6 10	14 57.46	-26 31.2	1.914	2.833	10.6	19.7
6 20	14 56.64	-17 51.7	2.381	3.210	12.2	21.3	6 20	14 52.16	-26 20.8	1.996	2.839	13.7	20.0
479109	2013 <i>AH</i> ₁₆₈		5 13.5 286°37	0°9/12.8	16		304463	2006 <i>UG</i> ₄₁		5 13.5 156°99	0°2/13.7	17	
4 11	15 42.81	-18 8.9	2.222	3.087	11.1	21.3	4 11	15 44.72	-20 16.4	2.630	3.481	10.0	22.3
4 21	15 37.99	-17 26.7	2.142	3.081	8.0	21.1	4 21	15 39.13	-20 3.8	2.556	3.486	7.3	22.1
5 1	15 31.53	-16 37.9	2.087	3.074	4.6	20.8	5 1	15 32.09	-19 45.5	2.507	3.491	4.2	21.9
5 11	15 24.09	-15 45.4	2.059	3.068	1.2	20.6	5 11	15 24.22	-19 22.7	2.486	3.495	0.9	21.6
5 21	15 16.46	-14 53.0	2.060	3.062	3.3	20.7	5 21	15 16.21	-18 57.5	2.495	3.499	2.4	21.8
5 31	15 9.43	-14 4.7	2.088	3.055	6.9	20.9	5 31	15 8.77	-18 32.5	2.532	3.503	5.6	22.0
6 10	15 3.73	-13 24.4	2.141	3.049	10.2	21.1	6 10	15 2.52	-18 10.4	2.597	3.506	8.6	22.2
6 20	14 59.82	-12 54.6	2.217	3.043	13.1	21.3	6 20	14 57.89	-17 53.7	2.684	3.509	11.1	22.4
224298	2005 <i>TV</i> ₁₆₀		5 13.5 188°12	1°2/14.2	17		357966	2006 <i>BQ</i> ₆₄		5 13.5 21°31	1°2/13.0	17	
4 11	15 47.32	-23 9.7	1.785	2.643	13.7	20.7	4 11	15 45.89	-17 41.4	1.065	1.960	17.9	20.8
4 21	15 41.65	-22 54.3	1.711	2.643	10.1	20.4	4 21	15 41.47	-17 18.8	1.012	1.965	13.0	20.6
5 1	15 33.78	-22 27.8	1.660	2.643	6.0	20.2	5 1	15 33.97	-16 47.7	0.980	1.971	7.4	20.3
5 11	15 24.57	-21 51.7	1.635	2.642	1.9	19.9	5 11	15 24.64	-16 12.1	0.969	1.978	1.7	19.9
5 21	15 15.09	-21 9.1	1.637	2.642	3.3	20.0	5 21	15 15.04	-15 37.6	0.981	1.986	5.0	20.2
5 31	15 6.48	-20 24.8	1.666	2.641	7.6	20.3	5 31	15 6.81	-15 10.3	1.015	1.994	10.7	20.5
6 10	14 59.67	-19 44.0	1.719	2.640	11.5	20.5	6 10	15 1.17	-14 55.3	1.070	2.003	15.7	20.8
6 20	14 55.24	-19 11.1	1.794	2.639	14.9	20.7	6 20	14 58.75	-14 55.0	1.142	2.014	19.9	21.1
376373	2011 <i>SV</i> ₂₁		5 13.5 340°42	1°4/15.1	18		43486	2001 <i>BW</i> ₅₆		5 13.5 287°83	1°0/14.1	18	
4 11	15 38.45	-25 47.2	3.831	4.666	7.5	20.2	4 11	15 46.07	-22 18.9	1.832	2.693	13.3	19.8
4 21	15 34.34	-25 42.0	3.745	4.663	5.6	20.1	4 21	15 40.79	-22 9.9	1.752	2.686	9.8	19.6
5 1	15 29.27	-25 30.6	3.685	4.659	3.6	19.9	5 1	15 33.33	-21 51.2	1.694	2.678	5.8	19.3
5 11	15 23.62	-25 13.6	3.653	4.655	1.7	19.8	5 11	15 24.51	-21 24.0	1.663	2.671	1.7	19.1
5 21	15 17.86	-24 52.1	3.650	4.652	2.0	19.8	5 21	15 15.35	-20 50.9	1.659	2.664	3.2	19.1
5 31	15 12.43	-24 27.9	3.676	4.649	4.0	19.9	5 31	15 6.94	-20 16.0	1.681	2.656	7.5	19.4
6 10	15 7.77	-24 3.1	3.730	4.646	6.0	20.1	6 10	15 0.23	-19 44.1	1.728	2.649	11.4	19.6
6 20	15 4.18	-23 39.7	3.809	4.643	7.9	20.2	6 20	14 55.82	-19 19.2	1.796	2.642	14.8	19.8
433216	2012 <i>UM</i> ₁₁₇		5 13.5 304°63	1°9/12.2	17		56397	2000 <i>EN</i> ₁₃₄		5 13.5 166°51	2°3/12.4	18	
4 11	15 43.25	-17 47.7	1.693	2.569	13.4	20.7	4 11	15 51.67	-13 35.1	1.663	2.530	14.1	19.5
4 21	15 38.85	-16 38.4	1.604	2.549	9.7	20.4	4 21	15 44.80	-13 16.0	1.596	2.535	10.2	19.3
5 1	15 32.26	-15 18.2	1.540	2.529	5.6	20.1	5 1	15 35.58	-12 54.6	1.553	2.539	6.0	19.0
5 11	15 24.28	-13 51.9	1.501	2.509	2.0	19.8	5 11	15 24.97	-12 33.8	1.536	2.543	2.4	18.8
5 21	15 15.90	-12 26.0	1.489	2.489	4.7	19.9	5 21	15 14.11	-12 16.8	1.547	2.546	4.7	19.0
5 31	15 8.24	-11 7.8	1.504	2.470	9.2	20.2	5 31	15 4.21	-12 7.1	1.584	2.548	9.0	19.2
6 10	15 2.25	-10 3.5	1.542	2.451	13.4	20.4	6 10	14 56.26	-12 7.3	1.646	2.549	13.0	19.5
6 20	14 58.57	-9 17.1	1.600	2.432	17.0	20.6	6 20	14 50.84	-12 18.8	1.728	2.550	16.4	19.7
295315	2008 <i>GR</i> ₁₃₁		5 13.5 249°05	0°7/12.8	18		422676	1999 <i>VC</i> ₁₃₆		5 13.5 218°31	0°5/13.8	17	
4 11	15 40.03	-14 9.7	4.453	5.304	6.2	20.7	4 11	15 49.78	-21 1.3	1.978	2.832	12.7	22.4
4 21	15 35.30	-14 16.6	4.369	5.301	4.5	20.6	4 21	15 43.36	-20 52.4	1.892	2.823	9.4	22.2
5 1	15 29.75	-14 22.8	4.313	5.297	2.6	20.5	5 1	15 34.77	-20 35.1	1.830	2.814	5.5	21.9
5 11	15 23.72	-14 29.0	4.286	5.294	0.8	20.3	5 11	15 24.82	-20 10.6	1.795	2.804	1.4	21.6
5 21	15 17.58	-14 36.1	4.291	5.291	1.9	20.4	5 21	15 14.48	-19 41.1	1.788	2.793	3.2	21.7
5 31	15 11.70	-14 44.7	4.325	5.287	3.8	20.6	5 31	15 4.85	-19 10.5	1.809	2.781	7.4	21.9
6 10	15 6.43	-14 55.8	4.388	5.283	5.7	20.7	6 10	14 56.86	-18 43.0	1.856	2.769	11.2	22.2
6 20	15 2.06	-15 10.0	4.476	5.280	7.3	20.8	6 20	14 51.15	-18 22.3	1.925	2.756	14.6	22.3
304546	2006 <i>UC</i> ₂₈₉		5 13.5 339°99	2°7/14.9	17		191816	2004 <i>TO</i> ₂₉₅		5 13.5 241°98	0°4/13.8	18	
4 11	15 47.13	-25 43.2	2.060	2.905	12.6	21.2	4 11	15 46.66	-21 18.5	2.086	2.942	12.1	20.9
4 21	15 41.41	-26 9.2	1.981	2.903	9.6	21.0	4 21	15 41.00	-20 59.1	1.998	2.930	8.9	20.6
5 1	15 33.63	-26 25.5	1.926	2.901	6.2	20.8	5 1	15 33.38	-20 31.0	1.934	2.918	5.2	20.4
5 11	15 24.55	-26 31.5	1.898	2.900	3.2	20.6	5 11	15 24.53	-19 55.7	1.897	2.906	1.2	20.1
5 21	15 15.12	-26 27.8	1.897	2.898	3.7	20.6	5 21	15 15.34	-19 16.0	1.888	2.893	3.0	20.2
5 31	15 6.39	-26 16.8	1.923	2.896	6.9	20.8	5 31	15 6.79	-18 35.9	1.907	2.880	7.0	20.4
6 10	14 59.24	-26 2.4	1.975	2.895	10.3	21.0	6 10	14 59.75	-17 59.8	1.952	2.866	10.7	20.6
6 20	14 54.28	-25 48.6	2.049	2.894	13.3	21.2	6 20	14 54.77	-17 31.1	2.019	2.852	13.9	20.8
515445	2013 <i>TW</i> ₁₅₉		5 13.5 225°65	1°1/14.8	18		389142	2009 <i>AG</i> ₅₀		5 13.5 277°62	9°7/5.9	18	
4 11	15 38.60	-24 38.6	4.533	5.366	6.5	21.5	4 11	15 44.16	+ 8 11.5	2.061	2.903	12.8	21.2
4 21	15 34.32	-24 42.2	4.447	5.364	4.8	21.4	4 21	15 39.05	+ 9 25.2	1.995	2.888	11.0	21.1
5 1	15 29.21	-24 41.1	4.387	5.362	3.0	21.3	5 1	15 32.20	+10 25.4	1.953	2.874	9.9	21.0
5 11	15 23.62	-24 35.8	4.357	5.360	1.4	21.1	5 11	15 24.28	+11 5.8	1.935	2.860	9.9	21.0
5 21	15 17.91	-24 27.0	4.356	5.358	1.7	21.2	5 21	15 16.11	+11 22.1	1.941	2.845	11.1	21.0
5 31	15 12.48	-24 15.9	4.384	5.356	3.4	21.3	5 31	15 8.55	+11 12.2	1.970	2.831	13.0	21.1
6 10	15 7.69	-24 3.9	4.441	5.353	5.2	21.4	6 10	15 2.36	+10 37.2	2.019	2.816	15.2	21.2
6 20	15 3.80	-23 52.7	4.524	5.351	6.9	21.5	6 20	14 58.06	+ 9 40.2	2.086	2.801	17.2	21.3
140643	2001 <i>UW</i> ₂₅		5 13.5 239°21	1°5/14.7	18		474276	2001 <i>TQ</i> <					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
36019	1999 <i>NE</i> ₄₈		5 13.5 292°86	9°1/ 7.5 18			495876	2004 <i>RP</i> ₁₁₂		5 13.5 177°54	3°1/11.1 18		
4 11	15 44.65	+ 2 34.1	1.724	2.589	13.8	17.8	4 11	15 49.27	-14 47.0	1.963	2.825	12.4	22.0
4 21	15 39.73	+ 3 49.7	1.652	2.571	11.3	17.6	4 21	15 42.69	-13 10.3	1.891	2.828	9.0	21.7
5 1	15 32.73	+ 4 55.4	1.603	2.553	9.5	17.5	5 1	15 34.22	-11 26.5	1.846	2.830	5.4	21.5
5 11	15 24.41	+ 5 43.6	1.578	2.535	9.2	17.4	5 11	15 24.70	- 9 41.9	1.829	2.832	3.1	21.4
5 21	15 15.72	+ 6 8.6	1.577	2.517	10.8	17.5	5 21	15 15.06	- 8 3.4	1.842	2.832	5.3	21.5
5 31	15 7.71	+ 6 7.1	1.599	2.500	13.4	17.6	5 31	15 6.28	- 6 37.7	1.884	2.831	9.0	21.7
6 10	15 1.30	+ 5 39.3	1.642	2.482	16.3	17.7	6 10	14 59.14	- 5 29.3	1.951	2.830	12.4	22.0
6 20	14 57.08	+ 4 48.1	1.703	2.464	18.9	17.9	6 20	14 54.13	- 4 40.5	2.039	2.827	15.3	22.1
280383	2003 <i>UZ</i> ₁₀₆		5 13.5 264°43	2°1/12.5 18			52805	1998 <i>QT</i> ₇₆		5 13.5 38°34	3°7/15.5 18		
4 11	15 47.94	-12 21.8	1.999	2.864	12.1	20.2	4 11	15 48.12	-28 23.2	1.167	2.036	18.6	17.7
4 21	15 41.95	-12 22.1	1.916	2.853	8.9	20.0	4 21	15 43.13	-28 10.4	1.109	2.042	14.2	17.5
5 1	15 33.95	-12 22.3	1.856	2.842	5.2	19.7	5 1	15 34.95	-27 35.8	1.069	2.049	9.2	17.2
5 11	15 24.66	-12 24.4	1.824	2.830	2.2	19.5	5 11	15 24.88	-26 40.4	1.052	2.055	4.5	17.0
5 21	15 14.99	-12 30.2	1.820	2.819	4.2	19.6	5 21	15 14.55	-25 29.0	1.059	2.063	4.9	17.0
5 31	15 5.93	-12 41.8	1.844	2.807	8.0	19.8	5 31	15 5.66	-24 10.5	1.088	2.070	9.7	17.3
6 10	14 58.37	-13 0.6	1.892	2.795	11.6	20.0	6 10	14 59.48	-22 55.5	1.140	2.078	14.5	17.6
6 20	14 52.91	-13 27.6	1.962	2.783	14.7	20.2	6 20	14 56.62	-21 51.8	1.210	2.087	18.6	17.9
204844	2007 <i>RT</i> ₂₃		5 13.5 327°65	0°1/13.6 17			501737	2014 <i>UN</i> ₉₅		5 13.5 183°80	0°8/13.1 17		
4 11	15 43.17	-20 28.2	1.506	2.384	14.6	19.7	4 11	15 49.30	-17 58.0	1.929	2.789	12.7	22.1
4 21	15 39.10	-20 6.3	1.423	2.367	10.8	19.4	4 21	15 42.90	-17 32.0	1.854	2.790	9.2	21.9
5 1	15 32.55	-19 33.8	1.362	2.351	6.3	19.1	5 1	15 34.45	-16 59.4	1.804	2.790	5.3	21.6
5 11	15 24.40	-18 53.1	1.326	2.335	1.3	18.7	5 11	15 24.76	-16 22.8	1.781	2.790	1.2	21.4
5 21	15 15.75	-18 8.3	1.315	2.320	3.8	18.9	5 21	15 14.84	-15 45.4	1.786	2.788	3.6	21.5
5 31	15 7.90	-17 24.9	1.328	2.306	8.8	19.1	5 31	15 5.72	-15 11.5	1.818	2.786	7.7	21.8
6 10	15 1.94	-16 48.6	1.365	2.293	13.4	19.4	6 10	14 58.28	-14 44.8	1.876	2.784	11.4	22.0
6 20	14 58.58	-16 23.8	1.421	2.280	17.3	19.6	6 20	14 53.06	-14 28.1	1.956	2.780	14.6	22.2
4324	Bickel		5 13.5 198°56	3°3/15.8 18 R			57793	2001 <i>VZ</i> ₉₄		5 13.5 46°65	5°5/ 9.2 18		
4 11	15 49.14	-29 51.6	2.220	3.046	12.5	16.9	4 11	15 42.31	- 7 9.7	1.875	2.752	12.2	18.8
4 21	15 42.75	-29 46.7	2.134	3.043	9.7	16.7	4 21	15 37.61	- 5 35.3	1.830	2.769	9.1	18.6
5 1	15 34.36	-29 27.9	2.073	3.039	6.5	16.5	5 1	15 31.27	- 4 3.6	1.810	2.786	6.4	18.5
5 11	15 24.73	-28 54.9	2.038	3.034	3.8	16.3	5 11	15 24.08	- 2 41.1	1.817	2.803	5.5	18.5
5 21	15 14.84	-28 9.5	2.031	3.029	3.9	16.3	5 21	15 16.89	- 1 33.7	1.850	2.821	7.2	18.6
5 31	15 5.69	-27 15.8	2.052	3.023	6.7	16.5	5 31	15 10.52	- 0 45.3	1.909	2.839	10.0	18.8
6 10	14 58.15	-26 19.2	2.100	3.017	9.9	16.7	6 10	15 5.63	- 0 17.5	1.991	2.857	12.8	19.0
6 20	14 52.77	-25 25.1	2.171	3.010	12.9	16.8	6 20	15 2.63	- 0 9.4	2.093	2.875	15.2	19.2
243101	2007 <i>RK</i> ₄₅		5 13.5 317°77	3°6/11.6 17			65715	1992 <i>WV</i> ₁		5 13.5 152°14	0°2/13.4 18		
4 11	15 42.10	-15 41.3	1.100	2.000	17.0	19.9	4 11	15 50.33	-19 0.7	1.919	2.776	12.9	19.6
4 21	15 39.20	-14 30.4	1.017	1.973	12.6	19.6	4 21	15 43.60	-18 48.0	1.851	2.785	9.4	19.4
5 1	15 32.90	-13 6.3	0.955	1.947	7.5	19.2	5 1	15 34.81	-18 28.7	1.808	2.793	5.4	19.2
5 11	15 24.52	-11 36.1	0.915	1.921	3.6	18.9	5 11	15 24.83	-18 4.4	1.791	2.800	1.1	18.9
5 21	15 15.35	-10 9.2	0.897	1.897	7.1	19.0	5 21	15 14.68	-17 37.9	1.803	2.807	3.3	19.0
5 31	15 7.04	- 8 56.6	0.901	1.873	12.8	19.2	5 31	15 5.40	-17 12.8	1.843	2.813	7.4	19.3
6 10	15 1.09	- 8 6.7	0.924	1.850	18.4	19.4	6 10	14 57.85	-16 52.8	1.909	2.819	11.1	19.5
6 20	14 58.39	- 7 43.4	0.963	1.828	23.2	19.6	6 20	14 52.57	-16 40.8	1.996	2.824	14.3	19.8
250838	2005 <i>UG</i> ₁₄₄		5 13.5 253°93	2°2/15.3 18			296619	2009 <i>SY</i> ₃₅		5 13.5 2°53	2°6/14.8 17		
4 11	15 44.43	-27 20.0	2.476	3.312	11.1	20.7	4 11	15 43.88	-24 46.1	1.221	2.102	17.2	19.8
4 21	15 39.18	-27 5.6	2.385	3.302	8.4	20.5	4 21	15 39.98	-24 48.8	1.158	2.100	12.9	19.5
5 1	15 32.25	-26 39.8	2.318	3.291	5.4	20.3	5 1	15 33.16	-24 36.1	1.115	2.099	8.0	19.2
5 11	15 24.30	-26 3.5	2.278	3.281	2.7	20.1	5 11	15 24.53	-24 8.9	1.094	2.100	3.3	18.9
5 21	15 16.10	-25 18.6	2.267	3.269	3.0	20.1	5 21	15 15.52	-23 30.5	1.096	2.102	4.3	19.0
5 31	15 8.48	-24 28.6	2.285	3.258	5.9	20.2	5 31	15 7.65	-22 47.2	1.122	2.105	9.3	19.3
6 10	15 2.15	-23 38.0	2.328	3.247	9.0	20.4	6 10	15 2.18	-22 6.3	1.169	2.109	14.0	19.6
6 20	14 57.62	-22 50.9	2.396	3.235	11.8	20.6	6 20	14 59.76	-21 33.7	1.235	2.114	18.1	19.8
264585	2001 <i>TR</i> ₁₆₇		5 13.5 119°73	2°5/15.3 18			473684	2015 <i>XU</i> ₃₇₉		5 13.5 258°69	1°3/11.9 18		
4 11	15 49.68	-27 28.8	2.117	2.952	12.7	21.1	4 11	15 37.26	-12 9.4	4.455	5.314	6.1	21.1
4 21	15 42.97	-27 18.8	2.055	2.971	9.6	21.0	4 21	15 33.33	-11 55.5	4.376	5.310	4.4	21.0
5 1	15 34.36	-26 56.1	2.016	2.989	6.1	20.8	5 1	15 28.66	-11 41.3	4.324	5.307	2.6	20.9
5 11	15 24.71	-26 21.5	2.004	3.006	3.0	20.6	5 11	15 23.55	-11 28.0	4.300	5.304	1.3	20.8
5 21	15 15.01	-25 37.6	2.021	3.023	3.4	20.7	5 21	15 18.36	-11 16.9	4.307	5.301	2.3	20.9
5 31	15 6.22	-24 48.7	2.066	3.039	6.5	20.9	5 31	15 13.43	-11 9.1	4.343	5.298	4.1	21.0
6 10	14 59.14	-23 59.9	2.137	3.054	9.8	21.1	6 10	15 9.09	-11 5.7	4.406	5.295	5.8	21.1
6 20	14 54.22	-23 15.8	2.231	3.069	12.6	21.3	6 20	15 5.60	-11 7.2	4.494	5.292	7.4	21.2
214930	2007 <i>VU</i> ₄₄		5 13.5 8°83	4°7/15.2 17			10506	Rydberg		5 13.5 133°36	0°9/14.3 18		
4 11	15 50.53	-26 40.9	1.270	2.135	17.7	19.8	4 11	15 44.63	-23 27.8	2.232	3.083	11.6	18.4
4 21	15 44.97	-27 32.9	1.205	2.135	13.6	19.5	4 21	15 39.31	-23 0.8	2.158	3.087	8.5	18.2
5 1	15 36.13	-28 11.2	1.160	2.136	9.1	19.3	5 1	15 32.30	-22 24.1	2.108	3.090	5.1	18.0
5 11	15 25.16	-28 32.6	1.138	2.138	5.2	19.1	5 11	15 24.32	-21 39.6	2.086	3.093	1.5	17.8
5 21	15 13.61	-28 36.3	1.140	2.140	5.7	19.1	5 21	15 16.18	-20 50.2	2.092	3.097	2.7	17.8
5 31	15 3.23	-28 26.0	1.165	2.142	9.8	19.3	5 31	15 8.75	-20 0.0	2.126	3.100	6.3	18.1
6 10	14 55.48	-28 8.4	1.213	2.146	14.3	19.6	6 10	15 2.74	-19 13.5	2.186	3.103	9.6	18.3
6 20	14 51.15	-27 50.3	1.279	2.149	18.2	19.8	6 20	14 58.61	-18 34.2	2.269	3.105	12.5	18.5
521081	2015 <i>DB</i> ₂₄₁		5 13.5 11°88	4°9/11.2									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
24897	1997 AA ₁₇		5 13.6 293°54	0°5/13.3	18		36828	2000 ST ₉₄		5 13.6 14°82	2°7/15.4	18	
4 11	15 47.68	-19 16.1	1.238	2.121	16.8	18.3	4 11	15 43.54	-27 41.7	1.731	2.585	14.2	18.1
4 21	15 42.92	-18 55.1	1.157	2.103	12.4	18.0	4 21	15 39.00	-27 24.2	1.663	2.589	10.8	17.8
5 1	15 35.03	-18 23.1	1.096	2.085	7.2	17.6	5 1	15 32.30	-26 51.6	1.617	2.594	6.9	17.6
5 11	15 24.98	-17 42.7	1.058	2.067	1.5	17.2	5 11	15 24.35	-26 5.0	1.596	2.599	3.4	17.4
5 21	15 14.19	-16 58.4	1.045	2.050	4.7	17.4	5 21	15 16.21	-25 7.9	1.602	2.605	3.7	17.5
5 31	15 4.33	-16 16.8	1.055	2.032	10.5	17.6	5 31	15 8.99	-24 5.9	1.633	2.612	7.4	17.7
6 10	14 56.83	-15 45.0	1.086	2.015	15.9	17.9	6 10	15 3.58	-23 5.5	1.689	2.619	11.1	17.9
6 20	14 52.58	-15 27.5	1.135	1.998	20.5	18.1	6 20	15 0.49	-22 12.1	1.766	2.627	14.4	18.1
462085	2007 GB ₉		5 13.6 290°55	3°9/17.6	18		200208	1999 TJ ₉₉		5 13.6 237°46	6°0/8.5	18	
4 11	15 43.63	-37 58.3	4.433	5.200	7.7	20.6	4 11	15 44.92	-1 47.2	2.386	3.243	10.7	20.7
4 21	15 38.14	-38 34.5	4.342	5.196	6.4	20.5	4 21	15 39.44	-0 38.3	2.305	3.227	8.4	20.5
5 1	15 31.52	-39 1.7	4.275	5.192	5.1	20.4	5 1	15 32.39	+0 26.3	2.251	3.211	6.5	20.4
5 11	15 24.18	-39 19.0	4.236	5.189	4.1	20.3	5 11	15 24.37	+1 21.6	2.224	3.194	6.0	20.3
5 21	15 16.60	-39 26.1	4.226	5.185	4.0	20.3	5 21	15 16.11	+2 3.2	2.225	3.177	7.4	20.4
5 31	15 9.32	-39 24.0	4.244	5.182	4.7	20.3	5 31	15 8.35	+2 28.1	2.252	3.158	9.8	20.5
6 10	15 2.81	-39 14.4	4.289	5.178	6.0	20.4	6 10	15 1.78	+2 34.9	2.302	3.140	12.3	20.6
6 20	14 57.47	-38 59.7	4.360	5.174	7.3	20.5	6 20	14 56.87	+2 24.3	2.373	3.120	14.5	20.8
356374	2010 NR ₅		5 13.6 258°12	6°6/18.4	18		87566	2000 RO ₁₀		5 13.6 264°83	1°1/12.9	18	
4 11	15 47.92	-39 45.8	2.377	3.159	13.1	20.8	4 11	15 48.38	-16 20.7	2.190	3.048	11.5	20.1
4 21	15 42.06	-40 12.0	2.291	3.154	11.0	20.7	4 21	15 42.31	-16 3.8	2.086	3.020	8.4	19.9
5 1	15 34.06	-40 20.5	2.226	3.149	8.8	20.5	5 1	15 34.23	-15 42.2	2.006	2.992	4.9	19.6
5 11	15 24.72	-40 8.9	2.186	3.143	7.0	20.4	5 11	15 24.79	-15 17.8	1.954	2.962	1.4	19.3
5 21	15 15.04	-39 37.4	2.172	3.138	6.6	20.4	5 21	15 14.83	-14 53.0	1.931	2.932	3.5	19.4
5 31	15 6.10	-38 48.8	2.185	3.133	7.9	20.4	5 31	15 5.32	-14 31.2	1.936	2.901	7.5	19.6
6 10	14 58.83	-37 48.5	2.222	3.128	10.0	20.6	6 10	14 57.16	-14 15.5	1.967	2.870	11.2	19.8
6 20	14 53.82	-36 42.9	2.283	3.122	12.3	20.7	6 20	14 51.00	-14 8.5	2.020	2.837	14.5	19.9
395649	2011 WL ₄₂		5 13.6 245°21	0°5/13.2	18		141958	2002 PV ₁₁₆		5 13.6 319°27	2°0/14.5	17	
4 11	15 45.34	-16 56.9	2.546	3.402	10.1	21.4	4 11	15 43.79	-24 37.1	1.240	2.120	17.0	19.6
4 21	15 39.74	-16 56.0	2.458	3.392	7.4	21.2	4 21	15 40.19	-24 21.0	1.153	2.096	12.9	19.3
5 1	15 32.56	-16 51.9	2.397	3.382	4.2	21.0	5 1	15 33.52	-23 47.3	1.086	2.072	8.0	18.9
5 11	15 24.40	-16 45.6	2.363	3.372	0.9	20.8	5 11	15 24.69	-22 56.8	1.042	2.049	2.9	18.5
5 21	15 15.97	-16 38.7	2.358	3.361	2.8	20.9	5 21	15 15.09	-21 53.4	1.021	2.027	4.3	18.6
5 31	15 8.03	-16 33.3	2.382	3.351	6.1	21.1	5 31	15 6.37	-20 44.7	1.023	2.006	10.0	18.8
6 10	15 1.26	-16 31.5	2.433	3.340	9.2	21.3	6 10	14 59.97	-19 40.1	1.046	1.986	15.4	19.0
6 20	14 56.14	-16 35.1	2.507	3.329	11.9	21.4	6 20	14 56.81	-18 47.2	1.087	1.966	20.1	19.3
302184	2001 TN ₁₇₂		5 13.6 293°55	1°2/13.9	17		338704	2003 UY ₄₃		5 13.6 239°93	2°3/14.8	17	
4 11	15 50.22	-20 15.3	1.295	2.171	16.7	20.3	4 11	15 47.81	-24 57.0	1.998	2.846	12.9	21.1
4 21	15 44.78	-20 37.1	1.213	2.155	12.5	20.0	4 21	15 41.97	-25 9.7	1.918	2.842	9.7	20.9
5 1	15 36.13	-20 51.3	1.153	2.139	7.4	19.7	5 1	15 34.02	-25 12.4	1.861	2.838	6.1	20.7
5 11	15 25.22	-20 57.7	1.115	2.124	2.1	19.3	5 11	15 24.73	-25 4.9	1.830	2.834	2.8	20.5
5 21	15 13.49	-20 57.1	1.103	2.109	4.3	19.4	5 21	15 15.09	-24 48.5	1.827	2.830	3.4	20.5
5 31	15 2.64	-20 53.0	1.115	2.093	9.9	19.7	5 31	15 6.17	-24 26.2	1.851	2.826	7.0	20.7
6 10	14 54.16	-20 50.4	1.148	2.078	15.1	19.9	6 10	14 58.90	-24 2.4	1.901	2.821	10.6	20.9
6 20	14 48.98	-20 53.9	1.201	2.064	19.6	20.2	6 20	14 53.86	-23 41.3	1.972	2.817	13.8	21.1
332114	2005 UK ₄₃₀		5 13.6 258°20	0°8/13.9	17		85184	1991 JG ₁		5 13.6 29°11	8°1/6.7	17	
4 11	15 47.49	-21 34.3	1.797	2.658	13.5	21.5	4 11	15 44.13	-76 16.2	0.282	1.127	57.1	17.9
4 21	15 41.90	-21 25.1	1.714	2.648	10.0	21.2	4 21	15 41.05	-63 5.8	0.206	1.137	46.1	16.9
5 1	15 34.04	-21 6.5	1.654	2.638	5.9	21.0	5 1	15 32.12	-35 52.8	0.155	1.150	21.4	15.6
5 11	15 24.73	-20 39.9	1.620	2.628	1.6	20.6	5 11	15 23.96	+0 28.2	0.164	1.167	16.0	15.6
5 21	15 15.02	-20 7.7	1.613	2.618	3.3	20.8	5 21	15 18.50	+23 16.5	0.228	1.187	36.5	16.9
5 31	15 6.06	-19 34.2	1.633	2.607	7.7	21.0	5 31	15 16.37	+33 33.4	0.314	1.209	45.5	17.9
6 10	14 58.84	-19 4.2	1.677	2.597	11.8	21.2	6 10	15 17.60	+37 59.6	0.406	1.233	49.2	18.6
6 20	14 54.01	-18 41.6	1.742	2.586	15.3	21.4	6 20	15 21.77	+39 37.5	0.498	1.259	50.3	19.2
438682	2008 HB ₂₂		5 13.6 307°89	4°0/8.8	18		245113	2004 PD ₁₁₄		5 13.6 285°69	7°4/8.1	17	
4 11	15 37.77	+1 39.4	4.231	5.075	6.7	20.6	4 11	15 43.39	+3 53.5	2.340	3.189	11.2	19.9
4 21	15 33.72	+2 1.1	4.160	5.070	5.3	20.5	4 21	15 38.33	+4 41.1	2.269	3.177	9.2	19.7
5 1	15 28.89	+2 17.6	4.116	5.064	4.3	20.4	5 1	15 31.75	+5 19.0	2.223	3.165	7.7	19.6
5 11	15 23.63	+2 27.0	4.100	5.059	4.0	20.4	5 11	15 24.25	+5 42.6	2.202	3.153	7.4	19.5
5 21	15 18.27	+2 28.1	4.112	5.053	4.7	20.4	5 21	15 16.53	+5 48.5	2.208	3.141	8.5	19.6
5 31	15 13.20	+2 20.0	4.152	5.048	5.9	20.5	5 31	15 9.36	+5 35.3	2.238	3.129	10.5	19.7
6 10	15 8.75	+2 2.5	4.216	5.043	7.3	20.6	6 10	15 3.38	+5 3.3	2.291	3.117	12.7	19.8
6 20	15 5.17	+1 36.1	4.304	5.037	8.7	20.7	6 20	14 59.05	+4 14.5	2.364	3.105	14.7	20.0
198930	2005 UW ₂₄₁		5 13.6 289°71	1°9/14.3	16		327201	2005 NW ₁₅		5 13.6 263°95	1°7/12.6	17	
4 11	15 49.08	-23 22.4	1.285	2.158	17.0	20.6	4 11	15 47.93	-15 24.7	1.784	2.652	13.2	21.3
4 21	15 44.12	-23 21.9	1.194	2.133	12.9	20.3	4 21	15 42.25	-15 2.3	1.695	2.635	9.7	21.1
5 1	15 35.86	-23 7.5	1.123	2.108	7.9	19.9	5 1	15 34.28	-14 35.3	1.629	2.616	5.6	20.8
5 11	15 25.19	-22 39.0	1.075	2.082	2.7	19.5	5 11	15 24.81	-14 6.3	1.590	2.598	1.9	20.5
5 21	15 13.55	-21 58.5	1.051	2.056	4.5	19.6	5 21	15 14.84	-13 38.7	1.578	2.578	4.3	20.6
5 31	15 2.69	-21 11.9	1.051	2.031	10.2	19.8	5 31	15 5.53	-13 16.6	1.592	2.559	8.7	20.8
6 10	14 54.20	-20 27.3	1.073	2.005	15.7	20.0	6 10	14 57.89	-13 3.6	1.631	2.539	12.8	21.0
6 20	14 49.11	-19 52.0	1.113	1.980	20.6	20.2	6 20	14 52.60	-13 2.1	1.690	2.519	16.4	21.2
464	Megaira		5 13.6 249°21	3°9/11.0	18		110352	2001 SY ₃₁₄		5 13.6 217°31	4°5/10.4	18	
4 11	15 45.90	-7 44.7	2.280	3.144									

EPHEMERIDES

5 13.6

5 13.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
246866	1356 T_{-2}		5 13.6 301°69	2°2/12.1	18		343634	2010 HV_{110}		5 13.6 303°10	0°1/13.7	18	
4 11	15 43.72	-14 33.0	2.015	2.886	11.8	20.7	4 11	15 39.95	-18 50.8	4.051	4.899	6.9	19.9
4 21	15 39.02	-13 54.7	1.915	2.857	8.6	20.5	4 21	15 35.41	-18 58.0	3.963	4.892	5.0	19.8
5 1	15 32.37	-13 11.4	1.840	2.827	5.1	20.2	5 1	15 29.93	-19 2.5	3.901	4.884	2.9	19.6
5 11	15 24.43	-12 26.6	1.791	2.798	2.2	20.0	5 11	15 23.90	-19 4.9	3.868	4.877	0.6	19.4
5 21	15 16.02	-11 44.1	1.770	2.768	4.4	20.0	5 21	15 17.72	-19 6.1	3.866	4.870	1.7	19.5
5 31	15 8.10	-11 8.3	1.776	2.739	8.3	20.2	5 31	15 11.83	-19 7.0	3.893	4.863	3.9	19.6
6 10	15 1.55	-10 42.9	1.806	2.709	12.0	20.4	6 10	15 6.62	-19 9.0	3.948	4.856	6.0	19.8
6 20	14 56.99	-10 30.2	1.857	2.680	15.4	20.5	6 20	15 2.40	-19 13.2	4.029	4.849	7.8	19.9
501807	2014 WV_{50}		5 13.6 214°95	0°2/13.6	17		129147	2005 CY_{70}		5 13.6 314°79	4°0/18.2	18	
4 11	15 50.25	-19 59.8	1.937	2.792	12.9	22.3	4 11	15 40.97	-38 47.9	4.238	5.006	8.0	19.6
4 21	15 43.76	-19 48.1	1.852	2.784	9.5	22.1	4 21	15 36.26	-39 5.1	4.147	5.002	6.6	19.5
5 1	15 35.06	-19 28.7	1.791	2.776	5.5	21.8	5 1	15 30.46	-39 12.3	4.081	4.999	5.3	19.4
5 11	15 24.98	-19 2.9	1.757	2.766	1.2	21.5	5 11	15 24.01	-39 8.9	4.042	4.996	4.2	19.3
5 21	15 14.51	-18 33.2	1.752	2.756	3.3	21.6	5 21	15 17.40	-38 55.2	4.030	4.992	4.0	19.3
5 31	15 4.77	-18 3.5	1.774	2.745	7.6	21.9	5 31	15 11.14	-38 32.6	4.046	4.989	4.8	19.3
6 10	14 56.71	-17 38.0	1.822	2.734	11.5	22.1	6 10	15 5.71	-38 3.2	4.089	4.986	6.0	19.4
6 20	14 50.95	-17 20.2	1.892	2.721	14.9	22.3	6 20	15 1.44	-37 29.8	4.157	4.983	7.5	19.5
100564	1997 GU_{27}		5 13.6 223°76	6°0/17.5	18		430221	2013 VH_{10}		5 13.6 209°34	3°7/15.9	18	
4 11	15 49.08	-37 27.0	2.456	3.245	12.6	20.0	4 11	15 50.16	-30 4.7	2.189	3.013	12.7	21.9
4 21	15 42.85	-38 8.1	2.371	3.242	10.4	19.8	4 21	15 43.65	-30 18.5	2.101	3.007	9.9	21.7
5 1	15 34.53	-38 34.2	2.309	3.239	8.1	19.6	5 1	15 35.00	-30 19.1	2.037	3.001	6.8	21.5
5 11	15 24.87	-38 42.6	2.273	3.236	6.4	19.5	5 11	15 24.99	-30 5.3	2.000	2.994	4.2	21.4
5 21	15 14.81	-38 32.9	2.263	3.233	6.2	19.5	5 21	15 14.61	-29 38.2	1.990	2.986	4.3	21.4
5 31	15 5.41	-38 7.3	2.281	3.230	7.5	19.6	5 31	15 4.93	-29 0.7	2.009	2.978	7.0	21.5
6 10	14 57.57	-37 30.2	2.323	3.226	9.7	19.7	6 10	14 56.89	-28 18.1	2.053	2.969	10.2	21.7
6 20	14 51.93	-36 47.1	2.389	3.223	12.0	19.9	6 20	14 51.09	-27 35.6	2.121	2.960	13.1	21.9
374808	2006 UW_{42}		5 13.6 309°63	2°5/11.9	17		355166	2006 VP_{169}		5 13.6 199°99	0°4/13.2	17	
4 11	15 44.15	-17 33.0	1.418	2.301	15.0	20.3	4 11	15 44.10	-18 24.2	2.789	3.642	9.5	22.5
4 21	15 39.80	-16 10.6	1.341	2.289	10.9	20.0	4 21	15 38.69	-18 2.8	2.706	3.638	6.9	22.3
5 1	15 32.95	-14 35.9	1.288	2.278	6.3	19.7	5 1	15 31.91	-17 36.6	2.649	3.634	3.9	22.1
5 11	15 24.55	-12 55.3	1.259	2.266	2.6	19.5	5 11	15 24.33	-17 7.3	2.621	3.630	0.8	21.8
5 21	15 15.79	-11 17.3	1.256	2.255	5.5	19.6	5 21	15 16.56	-16 37.1	2.622	3.625	2.5	22.0
5 31	15 7.94	-9 50.9	1.278	2.244	10.4	19.9	5 31	15 9.30	-16 8.6	2.653	3.620	5.6	22.2
6 10	15 2.09	-8 43.2	1.322	2.234	14.9	20.1	6 10	15 3.12	-15 44.5	2.710	3.615	8.4	22.3
6 20	14 58.87	-7 57.9	1.385	2.224	18.8	20.3	6 20	14 58.44	-15 26.7	2.791	3.609	10.9	22.5
107152	2001 BX_{12}		5 13.6 106°01	7°1/16.9	17		184356	2005 JP_{51}		5 13.6 313°58	0°7/13.2	17	
4 11	15 54.76	-34 42.7	1.621	2.439	16.7	19.7	4 11	15 45.69	-17 3.4	1.870	2.739	12.7	20.1
4 21	15 47.64	-35 38.5	1.557	2.451	13.5	19.5	4 21	15 40.50	-17 0.9	1.789	2.729	9.2	19.9
5 1	15 37.51	-36 14.8	1.514	2.462	10.2	19.3	5 1	15 33.22	-16 54.1	1.732	2.719	5.3	19.6
5 11	15 25.50	-36 27.6	1.495	2.473	7.6	19.2	5 11	15 24.63	-16 44.6	1.701	2.710	1.2	19.3
5 21	15 13.09	-36 16.2	1.502	2.484	7.3	19.2	5 21	15 15.67	-16 34.6	1.697	2.701	3.5	19.4
5 31	15 1.88	-35 44.4	1.534	2.494	9.5	19.3	5 31	15 7.38	-16 26.9	1.720	2.692	7.7	19.7
6 10	14 53.16	-35 0.1	1.589	2.504	12.7	19.5	6 10	15 0.67	-16 24.6	1.768	2.684	11.5	19.9
6 20	14 47.61	-34 11.5	1.666	2.514	15.7	19.8	6 20	14 56.14	-16 29.8	1.836	2.676	14.8	20.1
426289	2012 TE_{52}		5 13.6 273°34	1°1/14.9	18		130949	2000 WQ_{66}		5 13.6 273°89	1°1/13.1	17	
4 11	15 38.04	-25 19.2	4.325	5.158	6.8	21.5	4 11	15 50.32	-16 17.1	1.567	2.437	14.6	19.8
4 21	15 33.99	-25 10.4	4.236	5.153	5.0	21.4	4 21	15 44.42	-16 13.2	1.474	2.414	10.8	19.5
5 1	15 29.10	-24 56.1	4.173	5.148	3.2	21.3	5 1	15 35.78	-16 4.8	1.404	2.391	6.3	19.2
5 11	15 23.71	-24 37.0	4.139	5.143	1.4	21.1	5 11	15 25.21	-15 53.6	1.359	2.368	1.6	18.8
5 21	15 18.22	-24 14.1	4.135	5.138	1.7	21.2	5 21	15 13.91	-15 42.0	1.341	2.344	4.3	19.0
5 31	15 13.02	-23 49.1	4.160	5.133	3.6	21.3	5 31	15 3.25	-15 33.8	1.349	2.320	9.4	19.2
6 10	15 8.49	-23 23.8	4.214	5.128	5.5	21.4	6 10	14 54.51	-15 32.8	1.380	2.296	14.1	19.4
6 20	15 4.91	-22 59.9	4.292	5.123	7.2	21.5	6 20	14 48.53	-15 41.7	1.431	2.271	18.3	19.6
69057	2002 YA_{13}		5 13.6 85°67	4°4/11.3	18		268094	2004 RU_{256}		5 13.6 323°01	1°0/14.1	17	
4 11	15 48.36	-8 36.8	1.633	2.507	13.9	19.3	4 11	15 45.64	-22 25.3	1.572	2.441	14.6	20.6
4 21	15 42.24	-7 59.9	1.584	2.524	10.2	19.1	4 21	15 40.81	-22 11.6	1.494	2.433	10.8	20.4
5 1	15 34.05	-7 25.7	1.558	2.540	6.5	18.9	5 1	15 33.53	-21 46.4	1.439	2.425	6.5	20.1
5 11	15 24.74	-6 58.6	1.558	2.556	4.4	18.8	5 11	15 24.71	-21 11.4	1.409	2.417	1.9	19.8
5 21	15 15.38	-6 42.4	1.585	2.572	6.3	18.9	5 21	15 15.49	-20 30.0	1.405	2.410	3.6	19.9
5 31	15 7.04	-6 39.6	1.637	2.588	9.7	19.2	5 31	15 7.13	-19 47.2	1.426	2.404	8.3	20.2
6 10	15 0.56	-6 51.4	1.712	2.604	13.2	19.4	6 10	15 0.70	-19 8.9	1.470	2.397	12.7	20.4
6 20	14 56.41	-7 17.0	1.807	2.619	16.1	19.6	6 20	14 56.86	-18 39.6	1.535	2.392	16.4	20.6
111724	2002 CC_{48}		5 13.6 183°36	2°0/12.1	18		269528	2009 VN_{44}		5 13.6 295°94	3°8/12.2	18	
4 11	15 46.45	-14 32.7	2.341	3.201	10.8	20.1	4 11	15 49.97	-8 17.2	1.645	2.516	14.0	19.4
4 21	15 40.52	-13 49.2	2.266	3.202	7.8	19.9	4 21	15 43.87	-8 23.8	1.562	2.501	10.4	19.1
5 1	15 32.99	-13 2.1	2.217	3.202	4.5	19.7	5 1	15 35.30	-8 35.1	1.503	2.486	6.6	18.9
5 11	15 24.53	-12 14.4	2.196	3.201	2.0	19.5	5 11	15 25.09	-8 53.8	1.469	2.471	3.9	18.7
5 21	15 15.91	-11 29.8	2.204	3.200	3.8	19.6	5 21	15 14.33	-9 21.8	1.462	2.456	5.8	18.7
5 31	15 7.93	-10 51.7	2.240	3.198	7.1	19.8	5 31	15 4.27	-10 0.2	1.482	2.442	9.8	18.9
6 10	15 1.27	-10 23.1	2.303	3.196	10.2	20.0	6 10	14 56.01	-10 49.3	1.525	2.427	13.9	19.1
6 20	14 56.38	-10 5.6	2.388	3.192	12.9	20.2	6 20	14 50.28	-11 48.3	1.588	2.413	17.4	19.3
43054	1999 VU_{78}		5 13.6 309°05	1°0/13.9	18		76294	2000 EA_{129}		5 13.6 158°99	1°4/12.6	18	R
4 11	15 46.76	-20 5											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
268075	2004 <i>RU</i> ₈₅		5 13.6 304°80	8°5/ 7.7 17			54661	2000 <i>UY</i> ₁₈		5 13.6 26°59	3°0/15.1 18		
4 11	15 43.91	- 0 11.9	1.651	2.524	13.8	20.6	4 11	15 44.90	-26 49.3	1.040	1.923	19.2	18.0
4 21	15 39.20	+ 1 19.3	1.589	2.516	11.1	20.4	4 21	15 40.93	-26 30.6	0.992	1.934	14.5	17.7
5 1	15 32.45	+ 2 42.5	1.550	2.509	9.0	20.3	5 1	15 33.76	-25 50.8	0.962	1.946	9.1	17.5
5 11	15 24.46	+ 3 50.0	1.536	2.502	8.7	20.2	5 11	15 24.78	-24 52.2	0.954	1.960	3.9	17.2
5 21	15 16.23	+ 4 35.1	1.546	2.495	10.3	20.3	5 21	15 15.65	-23 41.1	0.968	1.974	4.6	17.3
5 31	15 8.78	+ 4 54.2	1.580	2.488	13.1	20.4	5 31	15 8.05	-22 27.1	1.005	1.990	9.8	17.6
6 10	15 2.98	+ 4 46.9	1.634	2.481	16.0	20.6	6 10	15 3.18	-21 20.0	1.062	2.006	14.7	18.0
6 20	14 59.38	+ 4 15.7	1.705	2.475	18.6	20.8	6 20	15 1.58	-20 26.6	1.138	2.024	18.9	18.3
510488	2011 <i>XX</i>		5 13.6 334°49	0°2/13.7 17			465872	2010 <i>TY</i> ₁₅		5 13.6 295°68	2°1/14.7 17		
4 11	15 43.36	-23 34.1	2.161	3.016	11.8	20.5	4 11	15 47.20	-25 15.7	1.441	2.306	15.9	21.1
4 21	15 38.46	-22 24.3	2.081	3.013	8.6	20.3	4 21	15 42.24	-24 59.8	1.361	2.295	12.0	20.8
5 1	15 31.87	-21 1.9	2.026	3.011	5.0	20.0	5 1	15 34.50	-24 28.0	1.302	2.285	7.5	20.5
5 11	15 24.33	-19 30.7	1.999	3.008	1.1	19.8	5 11	15 24.97	-23 41.2	1.268	2.274	2.9	20.2
5 21	15 16.66	-17 55.7	2.001	3.006	2.9	19.9	5 21	15 14.94	-22 43.2	1.258	2.264	4.0	20.2
5 31	15 9.71	-16 23.2	2.032	3.003	6.7	20.1	5 31	15 5.87	-21 40.5	1.274	2.254	8.9	20.5
6 10	15 4.18	-14 59.0	2.089	3.001	10.2	20.3	6 10	14 58.98	-20 41.0	1.313	2.244	13.6	20.7
6 20	15 0.54	-13 47.5	2.169	2.999	13.2	20.5	6 20	14 54.99	-19 51.2	1.371	2.234	17.7	21.0
465923	2010 <i>WX</i> ₃		5 13.6 172°32	0°3/13.7 16			502008	2015 <i>AH</i> ₅₃		5 13.6 122°40	2°0/14.8 17		
4 11	15 50.35	-19 24.6	1.818	2.677	13.4	21.7	4 11	15 48.15	-25 21.2	1.731	2.584	14.3	21.6
4 21	15 43.86	-19 27.6	1.745	2.680	9.8	21.5	4 21	15 42.36	-25 6.0	1.661	2.590	10.7	21.3
5 1	15 35.13	-19 24.0	1.696	2.681	5.7	21.2	5 1	15 34.30	-24 37.6	1.615	2.595	6.6	21.1
5 11	15 25.03	-19 14.8	1.674	2.683	1.3	20.9	5 11	15 24.89	-23 57.1	1.594	2.599	2.6	20.9
5 21	15 14.63	-19 2.0	1.679	2.684	3.3	21.1	5 21	15 15.27	-23 7.8	1.599	2.604	3.5	20.9
5 31	15 5.06	-18 48.8	1.712	2.685	7.7	21.4	5 31	15 6.60	-22 15.0	1.632	2.609	7.6	21.2
6 10	14 57.30	-18 38.9	1.770	2.685	11.6	21.6	6 10	14 59.85	-21 24.7	1.689	2.613	11.5	21.4
6 20	14 51.94	-18 35.1	1.849	2.684	14.9	21.8	6 20	14 55.56	-20 42.0	1.768	2.617	14.9	21.7
464034	2014 <i>WR</i> ₁₅₈		5 13.6 218°71	1°1/13.0 16			15245	1989 <i>TP</i> ₁₆		5 13.6 176°75	0°0/13.6 18		
4 11	15 50.68	-16 29.6	1.705	2.570	13.9	21.9	4 11	15 44.58	-19 37.1	2.701	3.552	9.8	19.1
4 21	15 44.29	-16 16.9	1.625	2.563	10.1	21.7	4 21	15 39.09	-19 22.7	2.623	3.554	7.1	19.0
5 1	15 35.48	-15 59.1	1.569	2.555	5.8	21.4	5 1	15 32.17	-19 3.1	2.571	3.555	4.1	18.8
5 11	15 25.13	-15 38.4	1.538	2.547	1.5	21.1	5 11	15 24.44	-18 39.5	2.547	3.556	0.9	18.5
5 21	15 14.36	-15 17.7	1.536	2.538	4.0	21.2	5 21	15 16.54	-18 14.0	2.552	3.556	2.4	18.7
5 31	15 4.39	-15 0.7	1.560	2.529	8.6	21.5	5 31	15 9.17	-17 49.1	2.586	3.556	5.6	18.9
6 10	14 56.29	-14 51.1	1.608	2.519	12.8	21.7	6 10	15 2.95	-17 27.6	2.647	3.556	8.5	19.1
6 20	14 50.70	-14 51.4	1.678	2.508	16.4	21.9	6 20	14 58.29	-17 11.6	2.732	3.555	11.0	19.2
175750	1998 <i>RY</i> ₂₁		5 13.6 324°52	0°4/13.4 17			305410	2008 <i>CX</i> ₉₇		5 13.6 211°55	3°6/10.8 17		
4 11	15 44.30	-19 19.6	1.261	2.148	16.3	20.0	4 11	15 43.52	- 8 2.1	2.541	3.404	9.9	21.4
4 21	15 40.37	-18 59.8	1.182	2.130	12.0	19.7	4 21	15 38.35	- 7 22.4	2.466	3.400	7.4	21.3
5 1	15 33.54	-18 29.4	1.124	2.114	7.0	19.4	5 1	15 31.76	- 6 44.1	2.417	3.395	4.8	21.1
5 11	15 24.76	-17 51.3	1.088	2.098	1.4	19.0	5 11	15 24.35	- 6 10.3	2.396	3.390	3.6	21.0
5 21	15 15.36	-17 9.9	1.077	2.083	4.4	19.1	5 21	15 16.77	- 5 44.1	2.404	3.385	4.9	21.1
5 31	15 6.85	-16 31.5	1.089	2.068	10.1	19.4	5 31	15 9.71	- 5 27.9	2.439	3.380	7.5	21.2
6 10	15 0.57	-16 2.5	1.122	2.055	15.2	19.7	6 10	15 3.77	- 5 23.2	2.499	3.374	10.2	21.4
6 20	14 57.32	-15 47.0	1.173	2.042	19.6	19.9	6 20	14 59.38	- 5 30.3	2.581	3.369	12.5	21.5
100692	1997 <i>YJ</i> ₇		5 13.6 183°66	4°2/11.0 17			67006	1999 <i>XD</i> ₁₂₁		5 13.6 196°39	0°1/13.7 18		
4 11	15 48.14	- 6 18.7	2.285	3.143	11.1	20.0	4 11	15 48.26	-19 4.4	2.304	3.156	11.2	19.8
4 21	15 41.76	- 5 50.5	2.214	3.143	8.3	19.8	4 21	15 42.01	-19 7.4	2.223	3.154	8.2	19.6
5 1	15 33.74	- 5 25.5	2.168	3.143	5.6	19.6	5 1	15 33.97	-19 5.2	2.167	3.151	4.7	19.4
5 11	15 24.74	- 5 7.1	2.150	3.142	4.2	19.5	5 11	15 24.83	-18 58.8	2.139	3.148	1.0	19.1
5 21	15 15.56	- 4 58.0	2.161	3.141	5.6	19.6	5 21	15 15.42	-18 49.7	2.140	3.145	2.8	19.2
5 31	15 7.02	- 5 0.0	2.200	3.139	8.3	19.8	5 31	15 6.61	-18 40.2	2.170	3.140	6.4	19.5
6 10	14 59.82	- 5 14.2	2.264	3.137	11.2	20.0	6 10	14 59.19	-18 33.2	2.226	3.136	9.8	19.7
6 20	14 54.44	- 5 40.1	2.350	3.133	13.7	20.1	6 20	14 53.68	-18 31.0	2.305	3.131	12.7	19.8
72383	2001 <i>CF</i> ₁₁		5 13.6 197°57	3°6/11.6 17			471838	2012 <i>XM</i> ₈₃		5 13.6 224°77	3°8/16.4 16		
4 11	15 49.03	-10 34.4	1.818	2.686	13.0	20.2	4 11	15 46.45	-31 55.7	2.427	3.245	11.8	21.5
4 21	15 42.81	- 9 59.6	1.746	2.684	9.6	20.0	4 21	15 40.79	-31 58.9	2.339	3.240	9.3	21.3
5 1	15 34.50	- 9 24.5	1.698	2.681	5.9	19.8	5 1	15 33.30	-31 48.5	2.276	3.234	6.6	21.1
5 11	15 24.92	- 8 52.9	1.676	2.677	3.6	19.6	5 11	15 24.70	-31 23.9	2.239	3.229	4.3	21.0
5 21	15 15.06	- 8 28.9	1.682	2.673	5.5	19.7	5 21	15 15.82	-30 46.6	2.229	3.223	4.2	21.0
5 31	15 5.99	- 8 15.7	1.715	2.669	9.2	19.9	5 31	15 7.59	-29 59.6	2.248	3.217	6.4	21.1
6 10	14 58.60	- 8 15.5	1.771	2.664	12.8	20.1	6 10	15 0.80	-29 7.8	2.293	3.210	9.2	21.2
6 20	14 53.47	- 8 28.9	1.849	2.658	15.9	20.3	6 20	14 55.97	-28 16.2	2.361	3.204	11.9	21.4
87549	2000 <i>QW</i> ₂₂₂		5 13.6 234°22	7°7/ 8.4 18			140838	2001 <i>UU</i> ₁₉₂		5 13.6 190°39	3°4/16.1 17		
4 11	15 46.94	+ 2 34.7	2.105	2.956	12.2	19.9	4 11	15 46.05	-30 33.0	2.275	3.103	12.2	19.8
4 21	15 41.08	+ 3 29.8	2.033	2.945	9.9	19.7	4 21	15 40.52	-30 27.1	2.195	3.102	9.5	19.6
5 1	15 33.44	+ 4 15.6	1.985	2.933	8.1	19.6	5 1	15 33.14	-30 7.4	2.137	3.102	6.5	19.4
5 11	15 24.71	+ 4 46.6	1.963	2.920	7.7	19.5	5 11	15 24.66	-29 33.9	2.106	3.101	3.9	19.2
5 21	15 15.71	+ 4 58.8	1.967	2.907	9.0	19.6	5 21	15 15.96	-28 48.6	2.103	3.101	3.8	19.2
5 31	15 7.33	+ 4 50.2	1.997	2.894	11.3	19.7	5 31	15 7.98	-27 55.3	2.128	3.100	6.4	19.4
6 10	15 0.34	+ 4 21.1	2.049	2.880	13.8	19.8	6 10	15 1.51	-26 59.1	2.178	3.099	9.5	19.6
6 20	14 55.25	+ 3 33.7	2.120	2.866	16.1	20.0	6 20	14 57.05	-26 5.2	2.252	3.098	12.2	19.8
468827	2012 <i>TP</i> ₉₃		5 13.6 219°95	3°7/10.8 17			38710	2000 <i>QG</i> ₉₇ </					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
214992	2008 <i>CJ</i> ₂₃		5 13.6 145°56'	5°3/9.5	18		360705	2004 <i>TX</i> ₅₀		5 13.6 215°72'	0°8/14.0	16	
4 11	15 42.83	-3 49.5	2.296	3.162	10.8	20.3	4 11	15 50.33	-22 17.0	1.752	2.608	14.0	21.8
4 21	15 37.92	-2 51.8	2.234	3.163	8.2	20.1	4 21	15 44.05	-21 58.0	1.669	2.601	10.4	21.6
5 1	15 31.54	-1 58.5	2.196	3.164	6.1	20.0	5 1	15 35.37	-21 27.9	1.610	2.594	6.1	21.3
5 11	15 24.32	-1 14.1	2.185	3.165	5.3	19.9	5 11	15 25.17	-20 48.1	1.577	2.585	1.7	21.0
5 21	15 16.97	-0 42.1	2.202	3.166	6.7	20.0	5 21	15 14.58	-20 2.0	1.571	2.576	3.4	21.1
5 31	15 10.22	-0 25.2	2.245	3.167	9.0	20.2	5 31	15 4.82	-19 14.5	1.593	2.567	8.0	21.3
6 10	15 4.69	-0 24.3	2.311	3.168	11.5	20.3	6 10	14 56.94	-18 31.4	1.639	2.557	12.2	21.5
6 20	15 0.80	-0 38.6	2.398	3.169	13.8	20.5	6 20	14 51.59	-17 57.1	1.707	2.546	15.8	21.8
173637	2001 <i>FS</i> ₁₂₂		5 13.6 354°75'	1°4/13.0	17		380434	2003 <i>QV</i> ₁₁₄		5 13.6 306°75'	3°8/12.2	17	
4 11	15 45.73	-16 6.0	1.205	2.096	16.6	19.5	4 11	15 48.85	-11 34.2	1.284	2.169	16.2	21.2
4 21	15 41.32	-15 58.8	1.141	2.092	12.1	19.2	4 21	15 44.08	-11 15.3	1.181	2.128	12.2	20.8
5 1	15 34.02	-15 46.5	1.098	2.089	7.0	18.9	5 1	15 36.03	-10 55.3	1.100	2.087	7.5	20.4
5 11	15 24.89	-15 32.1	1.078	2.086	1.9	18.6	5 11	15 25.43	-10 38.2	1.041	2.046	3.9	20.1
5 21	15 15.32	-15 19.3	1.081	2.085	4.8	18.8	5 21	15 13.53	-10 28.9	1.007	2.005	6.7	20.1
5 31	15 6.83	-15 12.4	1.107	2.085	10.2	19.1	5 31	15 2.00	-10 32.3	0.995	1.964	12.3	20.3
6 10	15 0.67	-15 15.3	1.155	2.085	15.1	19.3	6 10	14 52.51	-10 52.2	1.005	1.923	17.9	20.5
6 20	14 57.55	-15 29.8	1.220	2.086	19.2	19.6	6 20	14 46.23	-11 30.3	1.031	1.882	23.0	20.6
261989	2006 <i>QO</i> ₃₃		5 13.6 271°14'	2°7/12.3	17		504265	2006 <i>VG</i> ₁₀₄		5 13.6 130°26'	1°7/12.0	18	
4 11	15 48.34	-13 15.2	1.607	2.482	14.1	20.8	4 11	15 43.77	-15 17.6	2.796	3.653	9.3	21.6
4 21	15 42.78	-12 49.5	1.522	2.465	10.4	20.5	4 21	15 38.33	-14 22.1	2.733	3.668	6.7	21.4
5 1	15 34.74	-12 20.8	1.460	2.447	6.2	20.2	5 1	15 31.66	-13 23.3	2.697	3.682	3.8	21.2
5 11	15 25.04	-11 52.6	1.424	2.429	2.8	20.0	5 11	15 24.35	-12 24.2	2.689	3.695	1.7	21.1
5 21	15 14.82	-11 29.0	1.413	2.411	5.2	20.1	5 21	15 17.00	-11 28.1	2.712	3.708	3.3	21.2
5 31	15 5.30	-11 14.0	1.429	2.393	9.7	20.3	5 31	15 10.24	-10 38.3	2.764	3.721	6.0	21.4
6 10	14 57.61	-11 11.1	1.467	2.375	14.0	20.5	6 10	15 4.57	-9 57.4	2.843	3.733	8.6	21.6
6 20	14 52.48	-11 21.8	1.525	2.356	17.7	20.7	6 20	15 0.35	-9 26.9	2.946	3.744	10.9	21.8
199992	2007 <i>JW</i> ₂₅		5 13.6 128°02'	2°8/11.8	17		153887	2001 <i>XC</i> ₁₇₂		5 13.6 226°09'	1°5/12.6	18	
4 11	15 45.86	-13 7.9	1.907	2.777	12.4	20.5	4 11	15 47.91	-15 6.7	2.249	3.107	11.2	20.4
4 21	15 40.37	-12 20.8	1.843	2.783	9.0	20.3	4 21	15 41.82	-14 43.3	2.160	3.095	8.2	20.2
5 1	15 33.03	-11 31.0	1.803	2.789	5.3	20.0	5 1	15 33.91	-14 16.2	2.097	3.083	4.7	20.0
5 11	15 24.64	-10 42.7	1.790	2.794	2.8	19.9	5 11	15 24.86	-13 47.7	2.062	3.069	1.7	19.7
5 21	15 16.10	-10 0.1	1.805	2.800	4.8	20.0	5 21	15 15.49	-13 20.7	2.056	3.055	3.6	19.8
5 31	15 8.36	-9 27.2	1.847	2.805	8.4	20.2	5 31	15 6.68	-12 58.2	2.078	3.041	7.3	20.0
6 10	15 2.19	-9 6.8	1.912	2.810	11.8	20.5	6 10	14 59.23	-12 43.2	2.126	3.025	10.7	20.2
6 20	14 58.07	-9 0.0	1.999	2.814	14.7	20.7	6 20	14 53.68	-12 37.5	2.196	3.009	13.6	20.4
346197	2007 <i>XH</i> ₂₅		5 13.6 155°65'	0°8/13.0	18		39580	1993 <i>FF</i> ₂₀		5 13.6 86°89'	2°5/12.2	18	
4 11	15 45.09	-17 14.2	2.544	3.401	10.1	21.5	4 11	15 47.34	-12 47.4	1.816	2.686	12.9	19.5
4 21	15 39.48	-16 53.0	2.473	3.407	7.3	21.4	4 21	15 41.47	-12 22.8	1.759	2.699	9.3	19.3
5 1	15 32.41	-16 27.5	2.426	3.412	4.2	21.2	5 1	15 33.67	-11 56.9	1.726	2.712	5.5	19.1
5 11	15 24.50	-15 59.8	2.408	3.417	1.0	20.9	5 11	15 24.79	-11 33.0	1.720	2.725	2.6	18.9
5 21	15 16.47	-15 32.2	2.420	3.422	2.8	21.1	5 21	15 15.81	-11 14.2	1.741	2.738	4.6	19.1
5 31	15 9.02	-15 7.4	2.459	3.426	6.0	21.3	5 31	15 7.71	-11 3.5	1.788	2.751	8.3	19.3
6 10	15 2.78	-14 48.1	2.526	3.430	9.0	21.5	6 10	15 1.29	-11 3.0	1.860	2.763	11.8	19.6
6 20	14 58.18	-14 36.0	2.615	3.433	11.5	21.7	6 20	14 57.04	-11 13.4	1.953	2.776	14.7	19.8
300858	2007 <i>YD</i> ₄₃		5 13.6 126°10'	5°4/18.5	17		507537	2012 <i>XW</i> ₃₉		5 13.6 145°24'	0°3/13.4	17	
4 11	15 49.05	-39 18.8	2.819	3.591	11.5	21.1	4 11	15 44.93	-18 58.6	2.542	3.397	10.2	22.3
4 21	15 42.43	-39 30.0	2.748	3.607	9.5	21.0	4 21	15 39.37	-18 35.1	2.472	3.404	7.4	22.2
5 1	15 34.12	-39 25.4	2.700	3.622	7.4	20.9	5 1	15 32.36	-18 6.1	2.426	3.412	4.2	22.0
5 11	15 24.86	-39 3.8	2.678	3.637	5.8	20.8	5 11	15 24.52	-17 33.6	2.409	3.419	0.9	21.7
5 21	15 15.50	-38 26.3	2.683	3.651	5.4	20.8	5 21	15 16.57	-17 0.1	2.422	3.425	2.6	21.9
5 31	15 6.91	-37 35.7	2.717	3.665	6.5	20.9	5 31	15 9.22	-16 28.5	2.462	3.431	5.9	22.1
6 10	14 59.79	-36 36.9	2.777	3.679	8.4	21.0	6 10	15 3.10	-16 1.8	2.530	3.437	8.9	22.3
6 20	14 54.59	-35 35.1	2.861	3.692	10.3	21.2	6 20	14 58.62	-15 42.0	2.621	3.443	11.4	22.5
265678	2005 <i>UY</i> ₆₇		5 13.6 248°30'	2°1/12.5	17		134526	1999 <i>RX</i> ₂₂		5 13.6 242°18'	3°0/15.2	18	
4 11	15 47.35	-14 19.7	1.756	2.627	13.2	20.7	4 11	15 50.29	-27 5.0	1.786	2.630	14.3	20.4
4 21	15 41.75	-13 58.0	1.681	2.622	9.6	20.5	4 21	15 44.19	-27 8.4	1.696	2.617	11.0	20.1
5 1	15 33.98	-13 33.1	1.629	2.616	5.6	20.2	5 1	15 35.55	-26 58.1	1.630	2.604	7.1	19.9
5 11	15 24.86	-13 8.0	1.604	2.611	2.2	20.0	5 11	15 25.25	-26 33.3	1.589	2.591	3.6	19.6
5 21	15 15.43	-12 46.1	1.605	2.605	4.4	20.1	5 21	15 14.43	-25 55.8	1.574	2.577	4.0	19.6
5 31	15 6.76	-12 30.9	1.633	2.600	8.6	20.3	5 31	15 4.38	-25 9.9	1.587	2.562	7.9	19.8
6 10	14 59.80	-12 25.5	1.686	2.594	12.5	20.5	6 10	14 56.23	-24 21.7	1.625	2.547	12.0	20.0
6 20	14 55.15	-12 31.2	1.758	2.588	15.8	20.8	6 20	14 50.70	-23 37.5	1.684	2.532	15.6	20.2
82717	2001 <i>PX</i> ₄₇		5 13.6 178°94'	2°6/11.8	18		251839	1999 <i>TB</i> ₂₅₀		5 13.6 218°02'	0°2/13.8	17	
4 11	15 45.72	-9 51.0	2.765	3.622	9.4	19.7	4 11	15 48.62	-21 34.6	1.840	2.698	13.4	21.3
4 21	15 39.82	-9 35.2	2.691	3.623	6.9	19.6	4 21	15 42.67	-21 1.7	1.758	2.691	9.8	21.0
5 1	15 32.58	-9 20.3	2.643	3.624	4.3	19.4	5 1	15 34.52	-20 17.9	1.699	2.684	5.7	20.8
5 11	15 24.55	-9 8.3	2.624	3.625	2.6	19.3	5 11	15 25.01	-19 25.6	1.667	2.676	1.3	20.4
5 21	15 16.36	-9 1.2	2.634	3.625	3.9	19.4	5 21	15 15.17	-18 28.7	1.662	2.667	3.3	20.6
5 31	15 8.68	-9 0.6	2.674	3.624	6.5	19.5	5 31	15 6.13	-17 32.5	1.686	2.658	7.8	20.8
6 10	15 2.09	-9 7.8	2.739	3.623	9.1	19.7	6 10	14 58.83	-16 42.6	1.734	2.649	11.8	21.0
6 20	14 57.00	-9 23.2	2.828	3.622	11.4	19.9	6 20	14 53.88	-16 3.2	1.803	2.638	15.3	21.2
430576	2002 <i>QG</i> ₇₉		5 13.6 181°74'	0°3/13.5	17		497456	2005 <i>YO</i> ₆₂		5 13.			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
94475	2001 <i>TJ</i> ₁₉₀		5 13.6 237°37'	3°0/14.8 18			498099	2007 <i>RP</i> ₂₉₂		5 13.6 166°09'	1°2/12.8 17		
4 11	15 53.21	-25 8.4	1.636	2.486	15.2	20.3	4 11	15 45.36	-16 38.3	2.147	3.010	11.5	22.0
4 21	15 46.56	-25 35.6	1.550	2.474	11.5	20.0	4 21	15 39.94	-16 10.9	2.074	3.012	8.3	21.8
5 1	15 37.06	-25 51.7	1.485	2.462	7.4	19.8	5 1	15 32.80	-15 38.9	2.027	3.013	4.7	21.5
5 11	15 25.59	-25 55.2	1.446	2.450	3.5	19.5	5 11	15 24.66	-15 4.7	2.006	3.015	1.4	21.3
5 21	15 13.45	-25 46.0	1.434	2.436	4.3	19.5	5 21	15 16.32	-14 31.4	2.014	3.016	3.4	21.4
5 31	15 2.11	-25 27.5	1.448	2.423	8.6	19.7	5 31	15 8.67	-14 2.6	2.050	3.017	7.0	21.7
6 10	14 52.86	-25 5.2	1.487	2.408	12.9	19.9	6 10	15 2.42	-13 41.3	2.111	3.017	10.4	21.9
6 20	14 46.52	-24 44.7	1.546	2.394	16.8	20.1	6 20	14 58.06	-13 29.3	2.194	3.018	13.3	22.1
339504	2005 <i>GJ</i> ₆₅		5 13.6 335°55'	2°4/14.8 17			500938	2013 <i>PE</i> ₆₆		5 13.6 243°40'	0°7/13.2 17		
4 11	15 48.04	-24 42.2	1.961	2.810	13.0	20.7	4 11	15 47.90	-18 38.2	1.956	2.816	12.5	22.2
4 21	15 42.23	-25 5.3	1.883	2.808	9.8	20.5	4 21	15 42.11	-18 8.1	1.866	2.802	9.2	21.9
5 1	15 34.28	-25 18.9	1.830	2.807	6.2	20.2	5 1	15 34.22	-17 30.3	1.800	2.787	5.3	21.6
5 11	15 24.97	-25 22.7	1.802	2.806	2.9	20.0	5 11	15 24.98	-16 47.2	1.762	2.771	1.2	21.3
5 21	15 15.31	-25 17.4	1.802	2.805	3.5	20.1	5 21	15 15.35	-16 2.2	1.751	2.754	3.5	21.5
5 31	15 6.37	-25 5.6	1.829	2.804	7.1	20.3	5 31	15 6.37	-15 19.9	1.768	2.738	7.8	21.7
6 10	14 59.10	-24 51.3	1.881	2.803	10.7	20.5	6 10	14 58.97	-14 44.7	1.811	2.720	11.7	21.9
6 20	14 54.10	-24 38.6	1.955	2.802	13.8	20.7	6 20	14 53.75	-14 19.9	1.874	2.702	15.0	22.1
111473	2001 <i>YM</i> ₁₀		5 13.6 356°02'	2°1/12.9 18			6968	1991 <i>VX</i> ₃		5 13.6 109°25'	0°1/13.6 18		
4 11	15 46.85	-14 28.9	1.100	1.995	17.5	18.3	4 11	15 50.67	-19 37.8	1.423	2.294	15.8	17.4
4 21	15 42.36	-14 28.0	1.039	1.991	12.8	18.0	4 21	15 44.50	-19 26.2	1.362	2.302	11.5	17.2
5 1	15 34.73	-14 24.7	0.997	1.988	7.4	17.7	5 1	15 35.67	-19 5.7	1.323	2.310	6.6	16.9
5 11	15 25.10	-14 21.8	0.978	1.986	2.4	17.4	5 11	15 25.27	-18 38.5	1.309	2.318	1.4	16.6
5 21	15 14.97	-14 22.7	0.982	1.986	5.3	17.6	5 21	15 14.64	-18 8.1	1.321	2.326	3.9	16.8
5 31	15 6.02	-14 31.0	1.008	1.986	10.9	17.9	5 31	15 5.16	-17 39.5	1.358	2.334	8.9	17.1
6 10	14 59.60	-14 49.6	1.055	1.987	16.0	18.2	6 10	14 57.92	-17 17.6	1.419	2.341	13.4	17.4
6 20	14 56.45	-15 19.7	1.119	1.989	20.3	18.4	6 20	14 53.53	-17 5.9	1.499	2.348	17.1	17.6
52114	3118 <i>P-L</i>		5 13.6 53°53'	4°8/16.3 18			40869	1999 <i>TM</i> ₁₁₈		5 13.6 328°48'	2°2/12.1 18		
4 11	15 48.85	-31 20.0	1.518	2.361	16.4	18.9	4 11	15 43.76	-16 23.9	1.636	2.515	13.6	18.5
4 21	15 43.31	-31 22.1	1.450	2.365	12.8	18.6	4 21	15 39.26	-15 22.8	1.563	2.508	9.9	18.2
5 1	15 35.04	-31 4.4	1.403	2.370	8.9	18.4	5 1	15 32.60	-14 13.9	1.513	2.502	5.7	17.9
5 11	15 25.13	-30 26.0	1.379	2.375	5.5	18.2	5 11	15 24.63	-13 2.2	1.489	2.496	2.3	17.7
5 21	15 14.94	-29 29.8	1.381	2.379	5.3	18.2	5 21	15 16.40	-11 53.7	1.491	2.490	4.8	17.9
5 31	15 5.89	-28 21.9	1.408	2.384	8.6	18.4	5 31	15 8.99	-10 54.7	1.519	2.485	9.1	18.1
6 10	14 59.12	-27 10.9	1.459	2.389	12.5	18.7	6 10	15 3.31	-10 10.0	1.570	2.480	13.1	18.3
6 20	14 55.26	-26 4.7	1.530	2.394	16.1	18.9	6 20	14 59.94	-9 42.2	1.641	2.475	16.5	18.5
508731	2017 <i>UQ</i> ₂₈		5 13.6 57°70'	1°4/14.3 17			100019	Gregorianik		5 13.6 214°73'	0°8/13.1 18		
4 11	15 48.41	-22 16.9	1.683	2.545	14.2	20.8	4 11	15 47.70	-17 57.0	2.229	3.085	11.4	20.5
4 21	15 42.60	-22 27.1	1.621	2.554	10.5	20.6	4 21	15 41.67	-17 26.7	2.143	3.077	8.3	20.3
5 1	15 34.48	-22 28.0	1.581	2.564	6.3	20.3	5 1	15 33.84	-16 50.2	2.082	3.068	4.7	20.0
5 11	15 25.01	-22 20.3	1.566	2.574	2.1	20.1	5 11	15 24.89	-16 9.7	2.050	3.058	1.1	19.8
5 21	15 15.32	-22 5.8	1.579	2.584	3.4	20.2	5 21	15 15.67	-15 28.4	2.046	3.048	3.2	19.9
5 31	15 6.58	-21 48.2	1.617	2.594	7.6	20.5	5 31	15 7.06	-14 50.2	2.070	3.037	7.0	20.1
6 10	14 59.76	-21 31.8	1.680	2.604	11.6	20.7	6 10	14 59.86	-14 18.5	2.121	3.025	10.5	20.3
6 20	14 55.42	-21 20.4	1.764	2.614	14.9	20.9	6 20	14 54.58	-13 56.2	2.194	3.013	13.4	20.5
403211	2008 <i>TP</i> ₉₇		5 13.6 184°49'	4°6/15.8 16			104907	2000 <i>JX</i> ₁₀		5 13.6 110°21'	2°9/11.3 18		
4 11	15 53.23	-29 50.6	1.551	2.391	16.3	22.5	4 11	15 44.57	-12 56.9	2.172	3.040	11.2	20.3
4 21	15 46.60	-30 11.7	1.477	2.392	12.7	22.3	4 21	15 39.21	-11 50.9	2.113	3.052	8.1	20.1
5 1	15 37.03	-30 15.6	1.424	2.392	8.7	22.1	5 1	15 32.29	-10 42.2	2.079	3.064	4.9	19.9
5 11	15 25.58	-30 0.5	1.395	2.392	5.3	21.9	5 11	15 24.54	-9 35.5	2.074	3.076	2.9	19.8
5 21	15 13.68	-29 27.2	1.393	2.391	5.3	21.8	5 21	15 16.74	-8 35.3	2.096	3.087	4.7	20.0
5 31	15 2.86	-28 40.8	1.416	2.389	8.9	22.0	5 31	15 9.66	-7 45.6	2.147	3.098	7.8	20.2
6 10	14 54.40	-27 48.9	1.463	2.387	12.9	22.3	6 10	15 3.96	-7 9.2	2.222	3.109	10.8	20.4
6 20	14 49.01	-26 59.1	1.530	2.385	16.6	22.5	6 20	15 0.04	-6 47.2	2.319	3.120	13.4	20.6
29900	1999 <i>HP</i> ₅		5 13.6 301°44'	2°4/11.8 18			287964	2003 <i>UG</i> ₁₂₃		5 13.6 156°88'	0°5/13.9 16		
4 11	15 42.96	-14 57.4	2.012	2.884	11.8	18.3	4 11	15 50.59	-20 53.8	1.928	2.782	13.0	22.3
4 21	15 38.35	-13 58.3	1.932	2.874	8.5	18.1	4 21	15 43.91	-20 42.8	1.859	2.789	9.5	22.1
5 1	15 31.95	-12 53.8	1.877	2.864	5.0	17.9	5 1	15 35.15	-20 23.4	1.813	2.796	5.6	21.9
5 11	15 24.49	-11 48.0	1.849	2.855	2.4	17.7	5 11	15 25.17	-19 57.2	1.794	2.803	1.3	21.6
5 21	15 16.78	-10 45.9	1.849	2.845	4.5	17.8	5 21	15 14.98	-19 26.9	1.803	2.808	3.1	21.7
5 31	15 9.71	-9 52.4	1.876	2.836	8.1	18.0	5 31	15 5.66	-18 56.2	1.841	2.813	7.3	22.0
6 10	15 4.05	-9 11.3	1.927	2.827	11.6	18.2	6 10	14 58.08	-18 29.4	1.904	2.817	11.0	22.2
6 20	15 0.31	-8 44.8	1.999	2.818	14.6	18.4	6 20	14 52.78	-18 9.8	1.989	2.821	14.2	22.4
308477	2005 <i>TE</i> ₄₄		5 13.6 261°50'	0°3/13.4 18			378323	2007 <i>GS</i> ₃₆		5 13.6 72°24'	3°3/11.6 17		
4 11	15 44.36	-18 50.9	2.446	3.303	10.5	21.6	4 11	15 45.62	-12 52.0	1.686	2.563	13.4	21.2
4 21	15 39.18	-18 29.4	2.353	3.288	7.6	21.4	4 21	15 40.38	-11 55.9	1.628	2.571	9.7	20.9
5 1	15 32.39	-18 2.1	2.287	3.272	4.4	21.2	5 1	15 33.13	-10 57.0	1.593	2.579	5.8	20.7
5 11	15 24.58	-17 30.6	2.247	3.256	0.9	20.9	5 11	15 24.74	-10 0.5	1.584	2.588	3.3	20.6
5 21	15 16.49	-16 57.6	2.237	3.240	2.8	21.0	5 21	15 16.23	-9 11.4	1.602	2.596	5.4	20.7
5 31	15 8.89	-16 26.0	2.255	3.224	6.3	21.2	5 31	15 8.63	-8 34.4	1.646	2.605	9.2	21.0
6 10	15 2.49	-15 59.1	2.299	3.208	9.5	21.4	6 10	15 2.76	-8 12.5	1.713	2.613	12.8	21.2
6 20	14 57.80	-15 39.5	2.365	3.191	12.4	21.5	6 20	14 59.11	-8 6.3	1.801	2.621	15.8	21.4
298340	2003 <i>GN</i> ₁₂		5 13.6 64°11'	2°3/15.0 17			412416	2014 <i>DU</i> ₆₈		5 13.6 327°61'	5°		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
374213	2005 <i>ER</i> ₂₇₂		5 13.6 136°09'	0°1/13.8 18			278669	2008 <i>RG</i> ₉₁		5 13.6 128°25'	6°8/ 8.9 17		
4 11	15 37.31	-20 18.1	4.685	5.531	6.0	21.2	4 11	15 45.22	- 1 56.5	1.939	2.804	12.4	21.1
4 21	15 33.44	-20 3.0	4.606	5.534	4.4	21.1	4 21	15 39.86	- 0 43.2	1.884	2.811	9.7	21.0
5 1	15 28.84	-19 44.6	4.555	5.538	2.5	21.0	5 1	15 32.77	+ 0 23.5	1.854	2.817	7.5	20.8
5 11	15 23.84	-19 23.9	4.533	5.542	0.6	20.8	5 11	15 24.70	+ 1 17.6	1.850	2.822	6.8	20.8
5 21	15 18.76	-19 2.0	4.541	5.545	1.4	20.9	5 21	15 16.53	+ 1 54.5	1.872	2.828	8.3	20.9
5 31	15 13.95	-18 40.3	4.578	5.549	3.3	21.1	5 31	15 9.12	+ 2 11.4	1.919	2.833	10.8	21.1
6 10	15 9.74	-18 20.3	4.644	5.552	5.1	21.2	6 10	15 3.20	+ 2 7.9	1.989	2.839	13.4	21.2
6 20	15 6.37	-18 3.2	4.735	5.555	6.7	21.3	6 20	14 59.21	+ 1 45.8	2.078	2.843	15.8	21.4
1917	Cuyo		5 13.6 248°36'	8°1/ 6.4 17 R			265005	2003 <i>ED</i> ₅₉		5 13.6 138°79'	16°3/ 2.1 18		
4 11	15 50.98	+ 0 54.9	2.132	2.978	12.2	18.6	4 11	15 49.52	+12 39.7	1.255	2.103	18.9	20.3
4 21	15 44.22	+ 2 48.7	2.040	2.950	10.0	18.4	4 21	15 43.65	+15 29.9	1.227	2.111	17.1	20.2
5 1	15 35.43	+ 4 39.2	1.975	2.920	8.4	18.3	5 1	15 35.16	+17 52.3	1.220	2.118	16.3	20.1
5 11	15 25.28	+ 6 18.4	1.938	2.888	8.3	18.2	5 11	15 25.21	+19 33.8	1.233	2.125	16.8	20.2
5 21	15 14.64	+ 7 39.1	1.929	2.855	10.0	18.3	5 21	15 15.19	+20 27.1	1.265	2.131	18.4	20.3
5 31	15 4.49	+ 8 35.9	1.946	2.820	12.6	18.3	5 31	15 6.45	+20 31.7	1.315	2.137	20.4	20.5
6 10	14 55.71	+ 9 6.5	1.986	2.784	15.4	18.5	6 10	15 0.02	+19 53.0	1.380	2.142	22.5	20.6
6 20	14 48.94	+ 9 12.0	2.045	2.746	17.9	18.6	6 20	14 56.42	+18 39.6	1.457	2.147	24.4	20.8
14803	1981 <i>EL</i> ₇		5 13.6 151°68'	3°4/11.1 18			83257	2001 <i>RL</i> ₆₉		5 13.6 123°88'	3°7/16.2 18		
4 11	15 47.57	-12 8.0	1.996	2.862	12.1	19.4	4 11	15 47.78	-30 36.0	2.354	3.177	12.0	19.0
4 21	15 41.51	-10 58.5	1.933	2.871	8.8	19.2	4 21	15 41.77	-30 51.1	2.280	3.184	9.4	18.8
5 1	15 33.68	- 9 46.4	1.896	2.879	5.4	19.0	5 1	15 33.91	-30 53.5	2.231	3.192	6.5	18.7
5 11	15 24.86	- 8 36.8	1.887	2.887	3.4	18.9	5 11	15 24.96	-30 42.8	2.207	3.199	4.1	18.5
5 21	15 15.96	- 7 34.7	1.905	2.894	5.3	19.0	5 21	15 15.80	-30 20.0	2.212	3.206	4.1	18.5
5 31	15 7.86	- 6 44.8	1.952	2.900	8.6	19.3	5 31	15 7.35	-29 48.1	2.244	3.213	6.4	18.7
6 10	15 1.31	- 6 10.0	2.023	2.906	11.8	19.5	6 10	15 0.41	-29 11.4	2.303	3.220	9.2	18.9
6 20	14 56.77	- 5 51.2	2.115	2.911	14.6	19.7	6 20	14 55.48	-28 34.5	2.385	3.226	11.8	19.0
184664	2005 <i>SK</i> ₅₅		5 13.6 206°68'	0°9/14.4 18			314269	2005 <i>RC</i> ₂		5 13.6 177°99'	8°7/23.1 18		
4 11	15 45.00	-22 43.0	2.921	3.763	9.4	21.0	4 11	15 57.10	-56 27.0	3.472	4.103	11.8	22.0
4 21	15 39.42	-22 39.0	2.834	3.757	7.0	20.9	4 21	15 48.82	-57 16.5	3.389	4.104	10.9	21.9
5 1	15 32.44	-22 28.5	2.772	3.752	4.2	20.7	5 1	15 38.12	-57 47.0	3.325	4.106	9.9	21.8
5 11	15 24.62	-22 12.2	2.739	3.746	1.4	20.4	5 11	15 25.87	-57 55.2	3.282	4.107	9.1	21.8
5 21	15 16.59	-21 51.6	2.735	3.739	2.3	20.5	5 21	15 13.21	-57 39.7	3.263	4.107	8.8	21.7
5 31	15 9.02	-21 28.8	2.761	3.733	5.2	20.7	5 31	15 1.38	-57 1.7	3.268	4.107	8.9	21.7
6 10	15 2.52	-21 6.6	2.814	3.725	7.9	20.9	6 10	14 51.42	-56 5.4	3.296	4.106	9.5	21.8
6 20	14 57.52	-20 47.6	2.891	3.718	10.3	21.0	6 20	14 44.00	-54 56.4	3.346	4.105	10.5	21.9
159683	2002 <i>JJ</i> ₁₄₈		5 13.6 279°06'	0°9/14.2 18			494380	2016 <i>UW</i> ₄₂		5 13.6 252°76'	0°6/13.1 18		
4 11	15 47.18	-22 34.4	2.071	2.924	12.3	20.4	4 11	15 43.46	-19 9.8	2.730	3.584	9.6	22.0
4 21	15 41.69	-22 16.4	1.965	2.895	9.2	20.2	4 21	15 38.39	-18 26.1	2.634	3.567	7.0	21.8
5 1	15 34.07	-21 48.2	1.884	2.866	5.5	19.9	5 1	15 31.90	-17 35.7	2.564	3.550	4.0	21.6
5 11	15 25.02	-21 10.9	1.828	2.836	1.6	19.6	5 11	15 24.54	-16 40.8	2.523	3.532	0.9	21.3
5 21	15 15.42	-20 26.9	1.801	2.806	3.1	19.6	5 21	15 16.96	-15 44.6	2.511	3.514	2.7	21.4
5 31	15 6.33	-19 40.2	1.802	2.775	7.2	19.8	5 31	15 9.83	-14 50.6	2.529	3.496	5.9	21.6
6 10	14 58.70	-18 56.0	1.828	2.744	11.2	20.0	6 10	15 3.78	-14 2.5	2.574	3.477	8.9	21.8
6 20	14 53.21	-18 18.6	1.876	2.713	14.7	20.2	6 20	14 59.25	-13 22.8	2.642	3.458	11.5	21.9
93636	2000 <i>UF</i> ₈₁		5 13.6 353°97'	1°3/13.3 18			67720	2000 <i>UQ</i> ₁₁		5 13.6 122°01'	1°0/14.2 18		
4 11	15 51.21	-13 13.1	1.480	2.354	15.1	17.6	4 11	15 49.62	-23 14.9	1.569	2.430	15.1	18.6
4 21	15 45.02	-13 54.6	1.409	2.351	11.1	17.4	4 21	15 43.59	-22 49.7	1.504	2.438	11.1	18.4
5 1	15 36.12	-14 38.1	1.361	2.348	6.4	17.1	5 1	15 35.12	-22 11.7	1.463	2.446	6.6	18.2
5 11	15 25.46	-15 23.5	1.337	2.346	1.7	16.8	5 11	15 25.22	-21 23.1	1.446	2.454	1.9	17.9
5 21	15 14.28	-16 10.6	1.341	2.345	4.2	17.0	5 21	15 15.15	-20 28.2	1.456	2.462	3.5	18.0
5 31	15 4.00	-16 59.3	1.371	2.344	9.1	17.2	5 31	15 6.16	-19 33.0	1.493	2.469	8.2	18.3
6 10	14 55.80	-17 50.5	1.424	2.344	13.5	17.5	6 10	14 59.25	-18 43.7	1.553	2.476	12.4	18.6
6 20	14 50.42	-18 44.8	1.498	2.344	17.2	17.7	6 20	14 54.98	-18 5.0	1.634	2.482	16.0	18.8
506536	2004 <i>TW</i> ₂₄₂		5 13.6 217°19'	1°3/12.9 17			67567	2000 <i>SV</i> ₉₈		5 13.6 334°70'	6°2/16.2 18		
4 11	15 49.48	-14 30.1	2.244	3.100	11.3	21.4	4 11	15 49.33	-30 47.6	1.264	2.120	18.3	18.6
4 21	15 42.99	-14 31.0	2.158	3.092	8.3	21.2	4 21	15 44.41	-31 29.4	1.192	2.114	14.5	18.3
5 1	15 34.64	-14 30.2	2.099	3.084	4.8	21.0	5 1	15 36.10	-31 52.3	1.139	2.108	10.3	18.1
5 11	15 25.11	-14 28.9	2.067	3.075	1.5	20.7	5 11	15 25.51	-31 52.6	1.109	2.102	6.8	17.8
5 21	15 15.25	-14 28.8	2.065	3.066	3.4	20.8	5 21	15 14.23	-31 29.9	1.101	2.097	6.8	17.8
5 31	15 5.97	-14 31.9	2.091	3.056	7.1	21.0	5 31	15 4.09	-30 49.0	1.116	2.093	10.3	18.0
6 10	14 58.07	-14 40.3	2.143	3.045	10.5	21.2	6 10	14 56.62	-29 58.8	1.153	2.089	14.6	18.2
6 20	14 52.11	-14 55.2	2.218	3.034	13.4	21.4	6 20	14 52.66	-29 8.4	1.209	2.085	18.7	18.5
429136	2009 <i>TJ</i> ₈		5 13.6 216°90'	0°9/14.2 17			153860	2001 <i>XE</i> ₆₅		5 13.6 212°87'	1°6/12.7 18		
4 11	15 48.99	-22 6.0	2.060	2.910	12.4	22.7	4 11	15 47.72	-15 17.8	2.134	2.995	11.6	20.4
4 21	15 42.84	-21 59.8	1.974	2.903	9.2	22.5	4 21	15 41.76	-14 53.8	2.052	2.989	8.5	20.2
5 1	15 34.62	-21 44.9	1.913	2.896	5.5	22.3	5 1	15 33.94	-14 26.1	1.996	2.982	4.9	20.0
5 11	15 25.12	-21 22.3	1.879	2.887	1.6	22.0	5 11	15 24.99	-13 56.9	1.967	2.974	1.7	19.7
5 21	15 15.26	-20 53.9	1.874	2.879	3.0	22.1	5 21	15 15.75	-13 29.4	1.966	2.966	3.7	19.9
5 31	15 6.08	-20 23.4	1.896	2.869	7.0	22.3	5 31	15 7.15	-13 6.8	1.994	2.958	7.4	20.1
6 10	14 58.48	-19 55.0	1.944	2.859	10.7	22.5	6 10	14 59.98	-12 51.9	2.047	2.949	10.9	20.3
6 20	14 53.04	-19 32.3	2.015	2.849	13.9	22.7	6 20	14 54.79	-12 46.7	2.122	2.939	13.9	20.5
233735	2008 <i>SK</i> ₂₅₆		5 13.6 130°99'	0°8/14.1 17			262229	2006 <i>SE</i> ₂₈₀					

EPHEMERIDES

5 13.6

5 13.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
347099	2010 <i>HO</i> ₂₁		5 13.6 334°22	0°9/14.8	18		461222	2015 <i>VN</i> ₁₄₁		5 13.6 235°18	0°8/12.8	16	
4 11	15 38.17	-25 7.1	4.191	5.026	6.9	20.3	4 11	15 40.61	-15 54.4	3.796	4.648	7.2	22.9
4 21	15 34.16	-24 34.3	4.105	5.024	5.1	20.2	4 21	15 36.00	-15 36.2	3.703	4.636	5.2	22.7
5 1	15 29.31	-23 55.2	4.046	5.023	3.1	20.1	5 1	15 30.42	-15 15.6	3.638	4.623	3.0	22.5
5 11	15 23.99	-23 11.2	4.016	5.021	1.2	19.9	5 11	15 24.26	-14 54.0	3.603	4.610	0.9	22.3
5 21	15 18.60	-22 23.9	4.016	5.020	1.6	19.9	5 21	15 17.95	-14 32.9	3.597	4.597	2.2	22.4
5 31	15 13.55	-21 35.4	4.046	5.018	3.6	20.1	5 31	15 11.95	-14 14.0	3.621	4.584	4.5	22.6
6 10	15 9.20	-20 48.1	4.104	5.017	5.6	20.2	6 10	15 6.67	-13 59.0	3.672	4.570	6.6	22.7
6 20	15 5.82	-20 4.1	4.188	5.016	7.4	20.3	6 20	15 2.44	-13 49.1	3.748	4.556	8.6	22.8
21807	1999 <i>TH</i> ₁₄		5 13.6 275°72	0°7/13.2	18		406368	2007 <i>RT</i> ₂₂₀		5 13.6 152°34	1°3/14.4	16	
4 11	15 44.23	-17 36.4	2.392	3.252	10.6	18.7	4 11	15 51.49	-23 22.1	1.877	2.725	13.5	22.0
4 21	15 39.16	-17 17.6	2.300	3.236	7.7	18.5	4 21	15 44.68	-23 13.1	1.808	2.735	10.0	21.8
5 1	15 32.45	-16 54.0	2.233	3.219	4.4	18.3	5 1	15 35.67	-22 53.6	1.762	2.743	6.0	21.6
5 11	15 24.69	-16 27.2	2.193	3.202	1.0	18.0	5 11	15 25.39	-22 24.5	1.744	2.751	2.0	21.3
5 21	15 16.62	-15 59.8	2.182	3.185	3.0	18.1	5 21	15 14.91	-21 48.5	1.753	2.758	3.2	21.4
5 31	15 9.04	-15 34.7	2.199	3.167	6.5	18.3	5 31	15 5.36	-21 9.9	1.790	2.764	7.3	21.7
6 10	15 2.66	-15 14.8	2.241	3.150	9.8	18.5	6 10	14 57.65	-20 33.7	1.853	2.769	11.1	21.9
6 20	14 58.01	-15 2.5	2.307	3.133	12.6	18.6	6 20	14 52.33	-20 4.0	1.938	2.774	14.3	22.2
39132	2000 <i>WU</i> ₅₈		5 13.6 274°80	5°4/10.1	18	R	4042	Okhotsk		5 13.6 133°30	0°6/13.3	18	
4 11	15 45.83	-1 42.4	2.446	3.300	10.6	19.2	4 11	15 50.16	-17 56.9	1.778	2.640	13.5	18.3
4 21	15 40.24	-1 15.4	2.357	3.278	8.3	19.0	4 21	15 43.72	-17 42.8	1.714	2.651	9.8	18.1
5 1	15 33.04	-0 54.4	2.292	3.255	6.2	18.8	5 1	15 35.12	-17 22.6	1.674	2.660	5.6	17.9
5 11	15 24.81	-0 43.1	2.255	3.233	5.4	18.8	5 11	15 25.27	-16 58.5	1.661	2.670	1.2	17.6
5 21	15 16.26	-0 44.1	2.245	3.209	6.6	18.8	5 21	15 15.25	-16 33.5	1.675	2.678	3.5	17.8
5 31	15 8.15	-0 59.1	2.263	3.186	9.0	18.9	5 31	15 6.16	-16 11.3	1.716	2.687	7.8	18.1
6 10	15 1.17	-1 28.6	2.305	3.162	11.6	19.0	6 10	14 58.89	-15 55.6	1.782	2.695	11.7	18.3
6 20	14 55.84	-2 11.5	2.369	3.138	14.0	19.2	6 20	14 53.98	-15 48.7	1.870	2.702	14.9	18.5
79771	1998 <i>UK</i> ₁₁		5 13.6 211°90	1°6/12.6	18		142197	2002 <i>RT</i> ₅₅		5 13.6 278°18	1°4/12.9	18	
4 11	15 47.51	-16 43.3	1.920	2.785	12.6	19.3	4 11	15 47.08	-18 0.8	1.619	2.492	14.1	20.9
4 21	15 41.75	-15 58.9	1.842	2.780	9.1	19.1	4 21	15 41.97	-17 17.4	1.529	2.471	10.4	20.6
5 1	15 33.99	-15 8.0	1.787	2.774	5.2	18.8	5 1	15 34.39	-16 24.3	1.462	2.450	6.0	20.3
5 11	15 25.01	-14 14.1	1.760	2.768	1.7	18.6	5 11	15 25.17	-15 25.1	1.420	2.429	1.6	20.0
5 21	15 15.77	-13 21.4	1.761	2.761	4.0	18.7	5 21	15 15.41	-14 24.6	1.405	2.407	4.4	20.1
5 31	15 7.26	-12 34.7	1.789	2.754	8.0	18.9	5 31	15 6.36	-13 29.3	1.415	2.385	9.2	20.4
6 10	15 0.35	-11 58.4	1.842	2.746	11.8	19.1	6 10	14 59.13	-12 44.9	1.449	2.364	13.7	20.6
6 20	14 55.59	-11 34.7	1.916	2.738	15.0	19.3	6 20	14 54.44	-12 15.3	1.503	2.342	17.6	20.8
71947	2000 <i>WW</i> ₈₇		5 13.6 133°89	0°4/13.4	18		183180	2002 <i>SQ</i> ₄₉		5 13.6 183°19	1°4/12.8	17	
4 11	15 51.05	-17 46.2	1.630	2.495	14.4	19.1	4 11	15 48.93	-16 3.3	2.062	2.922	12.0	21.3
4 21	15 44.57	-17 45.3	1.564	2.502	10.5	18.8	4 21	15 42.65	-15 37.6	1.988	2.923	8.7	21.1
5 1	15 35.70	-17 38.7	1.522	2.509	6.0	18.6	5 1	15 34.46	-15 7.4	1.937	2.923	5.0	20.9
5 11	15 25.39	-17 28.0	1.506	2.515	1.3	18.3	5 11	15 25.14	-14 35.1	1.915	2.923	1.6	20.6
5 21	15 14.82	-17 15.7	1.517	2.521	3.7	18.5	5 21	15 15.60	-14 4.0	1.921	2.922	3.6	20.8
5 31	15 5.22	-17 5.1	1.554	2.527	8.3	18.7	5 31	15 6.78	-13 37.5	1.955	2.920	7.5	21.0
6 10	14 57.61	-16 59.8	1.616	2.532	12.4	19.0	6 10	14 59.49	-13 18.9	2.014	2.917	11.0	21.2
6 20	14 52.58	-17 2.3	1.699	2.538	15.9	19.2	6 20	14 54.26	-13 10.0	2.096	2.914	14.0	21.4
341909	2008 <i>JU</i> ₁₆		5 13.6 36°02	1°6/11.5	18		511420	2014 <i>HC</i> ₁₆₈		5 13.6 47°20	2°0/14.9	17	
4 11	15 36.91	-11 22.7	4.330	5.190	6.2	21.0	4 11	15 46.05	-24 55.0	2.077	2.926	12.4	21.4
4 21	15 33.21	-10 53.1	4.255	5.190	4.5	20.9	4 21	15 40.64	-25 0.1	2.007	2.932	9.3	21.2
5 1	15 28.76	-10 23.3	4.208	5.191	2.7	20.8	5 1	15 33.34	-24 55.2	1.960	2.938	5.8	21.0
5 11	15 23.89	-9 54.8	4.190	5.191	1.6	20.7	5 11	15 24.91	-24 40.9	1.939	2.944	2.5	20.8
5 21	15 18.94	-9 29.2	4.201	5.192	2.6	20.8	5 21	15 16.26	-24 18.9	1.946	2.950	3.1	20.8
5 31	15 14.28	-9 8.0	4.242	5.192	4.3	20.9	5 31	15 8.35	-23 52.4	1.980	2.956	6.5	21.0
6 10	15 10.22	-8 52.4	4.309	5.192	6.1	21.0	6 10	15 1.99	-23 25.5	2.040	2.962	9.9	21.2
6 20	15 7.01	-8 43.1	4.401	5.193	7.6	21.1	6 20	14 57.70	-23 2.0	2.122	2.969	12.9	21.5
33635	1999 <i>JC</i> ₈₀		5 13.6 325°17	3°5/12.1	18		382934	2004 <i>TM</i> ₁₄₄		5 13.6 230°81	0°9/12.9	18	
4 11	15 48.41	-9 50.9	1.647	2.521	13.8	18.1	4 11	15 47.14	-17 17.8	2.353	3.209	10.9	22.3
4 21	15 42.65	-9 41.8	1.577	2.518	10.2	17.8	4 21	15 41.27	-16 49.9	2.262	3.196	7.9	22.1
5 1	15 34.61	-9 34.9	1.531	2.515	6.3	17.6	5 1	15 33.67	-16 16.5	2.196	3.181	4.6	21.8
5 11	15 25.17	-9 33.1	1.510	2.512	3.6	17.4	5 11	15 24.99	-15 39.9	2.158	3.166	1.2	21.5
5 21	15 15.40	-9 39.2	1.515	2.510	5.5	17.5	5 21	15 15.99	-15 2.8	2.149	3.151	3.2	21.7
5 31	15 6.44	-9 55.2	1.547	2.508	9.4	17.8	5 31	15 7.54	-14 28.8	2.169	3.135	6.8	21.9
6 10	14 59.29	-10 22.3	1.601	2.506	13.2	18.0	6 10	15 0.37	-14 1.1	2.215	3.118	10.1	22.0
6 20	14 54.55	-11 0.4	1.676	2.504	16.6	18.2	6 20	14 55.03	-13 42.1	2.284	3.100	13.1	22.2
489521	2007 <i>RN</i> ₂₇		5 13.6 299°98	1°1/14.3	17		343084	2009 <i>DQ</i> ₉		5 13.6 79°84	3°6/15.9	17	
4 11	15 45.77	-22 59.3	1.845	2.705	13.2	21.4	4 11	15 49.73	-29 30.4	2.129	2.957	12.9	21.2
4 21	15 40.70	-22 45.4	1.763	2.696	9.8	21.1	4 21	15 43.22	-29 51.0	2.071	2.980	9.9	21.0
5 1	15 33.49	-22 20.9	1.705	2.688	5.9	20.9	5 1	15 34.75	-29 58.7	2.037	3.002	6.8	20.8
5 11	15 24.94	-21 47.3	1.673	2.681	1.9	20.6	5 11	15 25.20	-29 52.9	2.030	3.024	4.1	20.7
5 21	15 16.05	-21 7.3	1.667	2.673	3.2	20.7	5 21	15 15.53	-29 34.9	2.050	3.046	4.1	20.8
5 31	15 7.89	-20 25.3	1.689	2.665	7.4	20.9	5 31	15 6.76	-29 7.8	2.098	3.068	6.7	20.9
6 10	15 1.40	-19 46.5	1.735	2.658	11.3	21.1	6 10	14 59.70	-28 36.5	2.171	3.089	9.6	21.2
6 20	14 57.18	-19 14.9	1.802	2.650	14.7	21.3	6 20	14 54.82	-28 5.5	2.268	3.110	12.3	21.4
46712	1997 <i>GY</i> ₁₄		5 13.6 215°69	3°4/15.4	18		314656	2006 <i>OJ</i> ₁₃		5 13.6 307°92	9°2/ 8.1		

EPHEMERIDES

5 13.6

5 13.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
424117	2007 EG ₁₁₃		5 13.6 122°55'	3°2/11.8 17			154472	2003 DD ₂₄		5 13.7 357°41'	3°7/15.1 17		
4 11	15 47.77	-11 39.8	1.870	2.739	12.7	21.8	4 11	15 47.53	-25 37.7	1.349	2.217	16.7	19.3
4 21	15 41.80	-11 0.0	1.811	2.750	9.2	21.6	4 21	15 42.74	-26 13.8	1.281	2.214	12.7	19.0
5 1	15 33.95	-10 19.4	1.777	2.761	5.6	21.4	5 1	15 35.00	-26 37.2	1.233	2.212	8.3	18.8
5 11	15 25.03	-9 41.8	1.769	2.771	3.2	21.3	5 11	15 25.34	-26 46.2	1.208	2.210	4.3	18.5
5 21	15 16.01	-9 11.0	1.788	2.781	5.0	21.4	5 21	15 15.16	-26 41.2	1.207	2.210	4.8	18.5
5 31	15 7.84	-8 50.5	1.835	2.791	8.5	21.6	5 31	15 6.00	-26 26.0	1.231	2.210	9.1	18.8
6 10	15 1.30	-8 42.4	1.905	2.800	11.9	21.9	6 10	14 59.17	-26 6.5	1.276	2.211	13.5	19.0
6 20	14 56.87	-8 47.3	1.997	2.809	14.8	22.1	6 20	14 55.42	-25 48.8	1.341	2.213	17.4	19.3
391715	2008 CA ₅₀		5 13.6 139°30'	3°7/10.7 18			510434	2011 UG ₃₈₇		5 13.7 200°77'	4°0/10.5 18		
4 11	15 44.29	-6 44.9	2.710	3.569	9.5	21.4	4 11	15 43.52	-6 22.5	2.575	3.437	9.9	21.7
4 21	15 38.81	-6 8.3	2.649	3.579	7.1	21.2	4 21	15 38.40	-5 43.3	2.503	3.435	7.4	21.5
5 1	15 32.07	-5 34.3	2.614	3.589	4.8	21.1	5 1	15 31.91	-5 6.6	2.458	3.432	5.1	21.4
5 11	15 24.63	-5 5.7	2.608	3.599	3.7	21.0	5 11	15 24.63	-4 35.8	2.440	3.430	4.0	21.3
5 21	15 17.11	-4 45.1	2.630	3.608	4.9	21.1	5 21	15 17.18	-4 13.6	2.450	3.427	5.2	21.4
5 31	15 10.14	-4 34.5	2.681	3.617	7.2	21.3	5 31	15 10.26	-4 2.3	2.488	3.424	7.7	21.5
6 10	15 4.26	-4 34.7	2.756	3.625	9.5	21.4	6 10	15 4.43	-4 3.0	2.551	3.421	10.2	21.7
6 20	14 59.84	-4 45.9	2.854	3.633	11.6	21.6	6 20	15 0.11	-4 15.7	2.635	3.417	12.4	21.8
287840	2003 SD ₂₁₉		5 13.6 138°28'	16°0/ 2.3 18			263200	2008 AO		5 13.7 38°42'	3°7/11.5 17		
4 11	15 49.54	+6 42.9	1.065	1.940	19.6	20.5	4 11	15 45.09	-8 19.5	2.053	2.922	11.7	20.1
4 21	15 43.99	+10 11.3	1.034	1.946	17.1	20.3	4 21	15 39.81	-7 57.1	1.989	2.926	8.6	19.9
5 1	15 35.51	+13 17.1	1.024	1.952	16.0	20.3	5 1	15 32.81	-7 37.2	1.950	2.931	5.5	19.7
5 11	15 25.38	+15 42.4	1.036	1.958	16.6	20.3	5 11	15 24.83	-7 23.0	1.937	2.935	3.7	19.6
5 21	15 15.15	+17 15.8	1.067	1.963	18.7	20.5	5 21	15 16.68	-7 17.1	1.952	2.940	5.3	19.7
5 31	15 6.34	+17 54.4	1.116	1.968	21.4	20.7	5 31	15 9.22	-7 21.5	1.994	2.945	8.3	19.9
6 10	15 0.09	+17 43.6	1.179	1.972	24.0	20.9	6 10	15 3.16	-7 37.4	2.059	2.950	11.3	20.1
6 20	14 56.92	+16 52.4	1.253	1.976	26.2	21.1	6 20	14 58.99	-8 4.3	2.147	2.955	14.0	20.3
57120	2001 OX ₉₇		5 13.6 156°85'	6°0/ 9.3 18			652	Jubilatrix		5 13.7 237°18'	5°4/11.0 18		
4 11	15 45.07	+0 1.2	2.417	3.270	10.7	18.8	4 11	15 49.52	-4 3.6	1.924	2.785	12.7	15.4
4 21	15 39.51	+0 45.1	2.357	3.275	8.5	18.6	4 21	15 43.23	-3 43.0	1.847	2.776	9.7	15.2
5 1	15 32.53	+1 21.7	2.323	3.279	6.6	18.5	5 1	15 34.90	-3 28.5	1.795	2.767	6.8	15.0
5 11	15 24.73	+1 46.9	2.315	3.283	6.0	18.5	5 11	15 25.29	-3 24.1	1.769	2.757	5.4	14.9
5 21	15 16.82	+1 58.1	2.334	3.286	7.1	18.5	5 21	15 15.35	-3 32.5	1.770	2.747	6.8	14.9
5 31	15 9.52	+1 53.6	2.380	3.290	9.2	18.7	5 31	15 6.08	-3 55.4	1.797	2.737	9.9	15.1
6 10	15 3.42	+1 33.4	2.450	3.292	11.4	18.8	6 10	14 58.36	-4 33.0	1.849	2.726	13.1	15.3
6 20	14 58.94	+0 59.1	2.540	3.295	13.5	19.0	6 20	14 52.78	-5 23.8	1.922	2.715	16.0	15.5
312895	2011 UB ₂₈₁		5 13.7 254°89'	5°1/ 8.9 16			258581	2002 CH ₁₆₁		5 13.7 145°63'	4°3/16.7 18		
4 11	15 42.61	-5 6.3	2.394	3.259	10.4	21.0	4 11	15 47.35	-32 50.9	2.482	3.294	11.8	20.7
4 21	15 37.86	-3 48.6	2.318	3.249	7.9	20.8	4 21	15 41.49	-33 8.8	2.403	3.297	9.4	20.5
5 1	15 31.65	-2 32.7	2.269	3.238	5.8	20.7	5 1	15 33.82	-33 13.4	2.348	3.300	6.8	20.4
5 11	15 24.56	-1 23.7	2.247	3.227	5.2	20.6	5 11	15 25.05	-33 3.9	2.319	3.304	4.7	20.2
5 21	15 17.28	-0 26.2	2.253	3.216	6.6	20.7	5 21	15 16.04	-32 41.0	2.318	3.307	4.5	20.2
5 31	15 10.51	+0 16.1	2.285	3.205	9.1	20.8	5 31	15 7.69	-32 7.4	2.345	3.309	6.4	20.3
6 10	15 4.90	+0 41.3	2.342	3.193	11.6	21.0	6 10	15 0.78	-31 27.5	2.397	3.312	9.0	20.5
6 20	15 0.87	+0 49.4	2.419	3.182	13.9	21.1	6 20	14 55.83	-30 46.0	2.474	3.315	11.4	20.7
235851	2005 AF ₂₅		5 13.7 140°53'	0°8/13.0 17			36834	2000 SA ₁₀₆		5 13.7 357°58'	5°3/15.7 18		
4 11	15 46.65	-17 44.7	2.501	3.355	10.4	22.6	4 11	15 50.69	-28 42.6	1.289	2.148	17.9	18.4
4 21	15 40.64	-17 12.8	2.435	3.368	7.5	22.4	4 21	15 45.28	-29 27.2	1.221	2.147	13.9	18.2
5 1	15 33.15	-16 36.1	2.395	3.380	4.3	22.2	5 1	15 36.58	-29 55.4	1.173	2.146	9.6	17.9
5 11	15 24.87	-15 56.7	2.383	3.392	1.1	22.0	5 11	15 25.71	-30 4.2	1.148	2.145	5.9	17.7
5 21	15 16.50	-15 17.6	2.401	3.403	2.9	22.2	5 21	15 14.24	-29 53.2	1.146	2.145	6.0	17.7
5 31	15 8.79	-14 41.9	2.448	3.414	6.1	22.4	5 31	15 3.92	-29 26.6	1.168	2.145	9.9	17.9
6 10	15 2.37	-14 12.5	2.522	3.424	9.1	22.6	6 10	14 56.22	-28 52.3	1.212	2.146	14.2	18.2
6 20	14 57.63	-13 51.5	2.618	3.433	11.6	22.8	6 20	14 51.94	-28 18.0	1.276	2.147	18.2	18.4
25313	1998 YV ₈		5 13.7 237°53'	0°5/13.3 18			142166	2002 RK ₃₄		5 13.7 205°10'	1°2/12.9 17		
4 11	15 45.79	-18 54.8	2.286	3.143	11.1	19.6	4 11	15 49.19	-16 26.5	2.046	2.905	12.1	21.0
4 21	15 40.34	-18 27.4	2.198	3.132	8.1	19.4	4 21	15 42.93	-16 4.4	1.965	2.900	8.8	20.8
5 1	15 33.15	-17 53.3	2.135	3.121	4.7	19.1	5 1	15 34.70	-15 37.4	1.909	2.894	5.1	20.5
5 11	15 24.89	-17 14.8	2.100	3.109	1.0	18.8	5 11	15 25.26	-15 7.9	1.880	2.888	1.5	20.3
5 21	15 16.36	-16 34.6	2.094	3.097	3.0	19.0	5 21	15 15.52	-14 38.8	1.880	2.881	3.6	20.4
5 31	15 8.39	-15 56.5	2.115	3.085	6.7	19.2	5 31	15 6.46	-14 13.7	1.907	2.874	7.5	20.6
6 10	15 1.74	-15 24.1	2.163	3.072	10.1	19.4	6 10	14 58.93	-13 55.7	1.961	2.865	11.2	20.8
6 20	14 56.93	-15 0.0	2.234	3.059	13.0	19.5	6 20	14 53.50	-13 47.3	2.036	2.856	14.3	21.0
134548	1999 RY ₁₅₀		5 13.7 260°26'	3°7/15.4 17 R			287735	2003 SM ₁		5 13.7 105°16'	2°9/12.1 17		
4 11	15 51.46	-27 44.1	1.710	2.553	14.9	20.5	4 11	15 47.71	-14 31.7	1.472	2.351	14.9	20.8
4 21	15 45.35	-28 5.7	1.617	2.535	11.5	20.3	4 21	15 42.29	-13 41.0	1.409	2.354	10.8	20.6
5 1	15 36.47	-28 14.0	1.545	2.517	7.7	20.0	5 1	15 34.46	-12 45.3	1.369	2.357	6.3	20.3
5 11	15 25.66	-28 7.1	1.499	2.499	4.3	19.8	5 11	15 25.22	-11 49.6	1.354	2.360	2.9	20.1
5 21	15 14.15	-27 45.3	1.479	2.480	4.7	19.7	5 21	15 15.75	-10 59.6	1.365	2.363	5.4	20.3
5 31	15 3.35	-27 12.1	1.486	2.460	8.4	19.9	5 31	15 7.29	-10 20.9	1.401	2.366	9.8	20.5
6 10	14 54.52	-26 33.5	1.517	2.440	12.6	20.1	6 10	15 0.84	-9 57.3	1.460	2.369	14.0	20.8
6 20	14 48.50	-25 56.1	1.569	2.420	16.4	20.3	6 20	14 56.97	-9 50.3	1.538	2.372	17.5	21.0
510357	2011 SS ₂₃₃		5 13.7 174°76'	3°7/16.6 18			119574	2001 VT ₉₀		5 13.7 263°63'	6°1/10.9 18		
4 11	15 47.85	-32 44.8	3.085	3.886	10.0	22.4	4 11						

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
423663	2005 <i>YH</i> ₁₃₁		5 13.7 107°66	2°8/12.0	17		339452	2005 <i>ET</i> ₁₉₃		5 13.7 145°06	0°2/13.8	17	
4 11	15 47.61	-12 3.6	1.940	2.807	12.4	21.6	4 11	15 46.11	-20 26.0	2.055	2.914	12.1	21.3
4 21	15 41.64	-11 31.6	1.883	2.821	9.0	21.4	4 21	15 40.68	-20 6.9	1.982	2.917	8.8	21.1
5 1	15 33.86	-10 58.7	1.850	2.835	5.4	21.2	5 1	15 33.39	-19 40.1	1.934	2.919	5.1	20.9
5 11	15 25.07	-10 28.3	1.845	2.848	2.8	21.1	5 11	15 25.01	-19 7.7	1.912	2.920	1.1	20.6
5 21	15 16.20	-10 3.8	1.867	2.861	4.7	21.2	5 21	15 16.43	-18 32.4	1.917	2.922	2.9	20.7
5 31	15 8.15	-9 48.3	1.916	2.874	8.1	21.5	5 31	15 8.56	-17 58.0	1.951	2.924	6.8	21.0
6 10	15 1.70	-9 43.6	1.990	2.887	11.4	21.7	6 10	15 2.20	-17 28.5	2.010	2.926	10.4	21.2
6 20	14 57.28	-9 50.4	2.085	2.899	14.2	21.9	6 20	14 57.85	-17 6.7	2.091	2.927	13.4	21.4
399293	2014 <i>HF</i> ₁₅₁		5 13.7 139°99	2°9/11.2	17		172358	2002 <i>XS</i> ₁₂		5 13.7 129°34	1°8/15.1	18	
4 11	15 43.19	-12 18.1	2.378	3.245	10.4	20.9	4 11	15 45.84	-26 35.4	2.268	3.109	11.8	20.3
4 21	15 38.24	-11 13.4	2.310	3.249	7.5	20.7	4 21	15 40.35	-26 9.3	2.194	3.115	8.8	20.1
5 1	15 31.85	-10 6.5	2.269	3.252	4.6	20.5	5 1	15 33.14	-25 31.4	2.145	3.121	5.5	19.9
5 11	15 24.65	-9 1.4	2.255	3.256	2.9	20.4	5 11	15 24.96	-24 43.0	2.122	3.126	2.4	19.7
5 21	15 17.34	-8 2.2	2.270	3.259	4.5	20.5	5 21	15 16.64	-23 47.3	2.128	3.132	2.9	19.7
5 31	15 10.64	-7 13.0	2.313	3.263	7.4	20.7	5 31	15 9.06	-22 48.4	2.162	3.137	6.1	19.9
6 10	15 5.15	-6 36.2	2.381	3.266	10.3	20.9	6 10	15 2.92	-21 51.3	2.223	3.142	9.3	20.1
6 20	15 1.29	-6 13.2	2.471	3.269	12.7	21.1	6 20	14 58.70	-21 0.2	2.307	3.147	12.2	20.3
425160	2009 <i>SU</i> ₃₅₈		5 13.7 199°20	3°1/11.8	17		336246	2008 <i>SV</i> ₁₁₉		5 13.7 289°70	1°7/14.5	17	
4 11	15 47.00	-12 10.4	1.841	2.712	12.7	21.3	4 11	15 49.01	-23 5.6	1.813	2.668	13.7	21.3
4 21	15 41.43	-11 31.6	1.771	2.711	9.3	21.1	4 21	15 43.47	-23 14.4	1.708	2.638	10.3	21.0
5 1	15 33.86	-10 51.0	1.724	2.709	5.6	20.9	5 1	15 35.41	-23 13.9	1.626	2.607	6.4	20.7
5 11	15 25.10	-10 12.4	1.704	2.708	3.1	20.7	5 11	15 25.54	-23 3.7	1.570	2.577	2.4	20.4
5 21	15 16.10	-9 40.0	1.711	2.706	5.0	20.9	5 21	15 14.90	-22 45.0	1.541	2.546	3.6	20.4
5 31	15 7.85	-9 17.5	1.745	2.703	8.7	21.1	5 31	15 4.76	-22 20.8	1.538	2.514	8.0	20.6
6 10	15 1.22	-9 7.4	1.803	2.701	12.3	21.3	6 10	14 56.28	-21 56.0	1.561	2.483	12.4	20.8
6 20	14 56.74	-9 10.7	1.881	2.698	15.4	21.5	6 20	14 50.31	-21 35.5	1.604	2.451	16.3	20.9
255588	2006 <i>OJ</i> ₅		5 13.7 270°23	4°8/11.3	17		224496	2005 <i>WU</i> ₁₇		5 13.7 75°08	0°7/13.3	17	
4 11	15 48.46	-8 34.0	1.574	2.450	14.3	20.6	4 11	15 50.89	-16 43.5	1.692	2.557	14.0	20.9
4 21	15 42.94	-7 54.7	1.494	2.434	10.7	20.4	4 21	15 44.21	-16 44.4	1.644	2.581	10.1	20.7
5 1	15 34.96	-7 16.7	1.436	2.418	7.0	20.1	5 1	15 35.40	-16 40.9	1.619	2.605	5.7	20.5
5 11	15 25.38	-6 44.8	1.404	2.402	4.8	20.0	5 11	15 25.44	-16 34.9	1.620	2.629	1.3	20.2
5 21	15 15.28	-6 24.0	1.397	2.385	6.9	20.0	5 21	15 15.44	-16 28.4	1.649	2.653	3.6	20.4
5 31	15 5.93	-6 18.1	1.415	2.369	10.8	20.2	5 31	15 6.52	-16 24.5	1.705	2.676	7.8	20.7
6 10	14 58.39	-6 29.3	1.456	2.352	14.9	20.4	6 10	14 59.52	-16 25.7	1.785	2.699	11.5	21.0
6 20	14 53.39	-6 57.3	1.516	2.335	18.4	20.6	6 20	14 54.93	-16 34.0	1.887	2.722	14.7	21.3
422987	2003 <i>SJ</i> ₂₉		5 13.7 291°49	0°1/13.6	17		465888	2010 <i>TH</i> ₁₇₁		5 13.7 241°46	0°8/13.2	17	
4 11	15 48.66	-19 25.9	1.428	2.302	15.5	21.3	4 11	15 49.30	-18 9.7	1.844	2.706	13.1	22.1
4 21	15 43.60	-19 16.4	1.336	2.277	11.5	21.0	4 21	15 43.34	-17 44.0	1.756	2.692	9.6	21.8
5 1	15 35.62	-18 57.8	1.265	2.252	6.8	20.7	5 1	15 35.12	-17 11.0	1.691	2.677	5.6	21.5
5 11	15 25.56	-18 31.6	1.218	2.227	1.5	20.3	5 11	15 25.44	-16 32.9	1.652	2.661	1.3	21.2
5 21	15 14.68	-18 0.8	1.196	2.201	4.1	20.4	5 21	15 15.30	-15 53.2	1.642	2.645	3.7	21.3
5 31	15 4.48	-17 30.4	1.199	2.176	9.7	20.6	5 31	15 5.85	-15 16.4	1.658	2.628	8.1	21.6
6 10	14 56.34	-17 6.2	1.225	2.150	14.8	20.8	6 10	14 58.07	-14 46.9	1.700	2.611	12.2	21.8
6 20	14 51.16	-16 52.9	1.269	2.125	19.2	21.0	6 20	14 52.61	-14 28.0	1.762	2.593	15.8	22.0
295025	2008 <i>EH</i> ₇₄		5 13.7 306°13	5°1/10.9	18		280353	2003 <i>SP</i> ₂₈₁		5 13.7 223°23	0°5/13.3	18	
4 11	15 45.85	-8 56.8	1.489	2.371	14.5	20.2	4 11	15 45.74	-19 24.6	1.995	2.857	12.3	20.9
4 21	15 41.05	-8 5.1	1.417	2.361	10.8	19.9	4 21	15 40.48	-18 47.1	1.918	2.854	8.9	20.7
5 1	15 33.85	-7 13.8	1.367	2.350	7.1	19.7	5 1	15 33.32	-18 1.5	1.865	2.851	5.1	20.5
5 11	15 25.13	-6 28.8	1.342	2.340	5.1	19.5	5 11	15 25.04	-17 10.7	1.839	2.848	1.1	20.2
5 21	15 16.01	-5 55.8	1.342	2.329	7.2	19.6	5 21	15 16.52	-16 18.5	1.841	2.845	3.3	20.3
5 31	15 7.72	-5 39.3	1.366	2.319	11.1	19.8	5 31	15 8.72	-15 29.6	1.870	2.841	7.3	20.6
6 10	15 1.29	-5 41.7	1.412	2.310	15.1	20.0	6 10	15 2.44	-14 48.4	1.925	2.837	10.9	20.8
6 20	14 57.38	-6 2.7	1.476	2.301	18.6	20.2	6 20	14 58.20	-14 17.8	2.001	2.834	14.1	21.0
275192	2009 <i>WO</i> ₉₇		5 13.7 237°82	0°7/13.2	18		160399	2004 <i>PA</i> ₁₀₅		5 13.7 283°87	4°3/15.8	17	
4 11	15 47.09	-19 1.9	2.045	2.905	12.1	20.7	4 11	15 49.58	-29 8.9	1.391	2.245	17.1	19.7
4 21	15 41.48	-18 25.0	1.958	2.893	8.9	20.5	4 21	15 44.45	-29 16.0	1.305	2.229	13.3	19.4
5 1	15 33.91	-17 40.1	1.895	2.881	5.1	20.2	5 1	15 36.17	-29 4.4	1.239	2.213	9.0	19.1
5 11	15 25.13	-16 49.7	1.859	2.868	1.1	19.9	5 11	15 25.73	-28 32.2	1.197	2.197	5.1	18.8
5 21	15 16.02	-15 57.6	1.851	2.854	3.4	20.0	5 21	15 14.55	-27 41.1	1.179	2.180	5.2	18.8
5 31	15 7.55	-15 8.4	1.871	2.841	7.4	20.3	5 31	15 4.31	-26 36.8	1.185	2.164	9.5	19.0
6 10	15 0.58	-14 26.6	1.917	2.826	11.1	20.5	6 10	14 56.45	-25 28.6	1.214	2.148	14.2	19.2
6 20	14 55.67	-13 55.3	1.985	2.812	14.4	20.6	6 20	14 51.83	-24 25.3	1.263	2.132	18.5	19.4
268492	2005 <i>YE</i> ₂₅		5 13.7 298°25	1°5/12.8	17		498579	2008 <i>OM</i> ₁		5 13.7 333°82	17°9/28.3	17	
4 11	15 46.58	-16 12.2	1.760	2.631	13.2	21.2	4 11	15 45.98	+25 29.6	1.588	2.368	18.7	19.7
4 21	15 41.26	-15 47.0	1.688	2.629	9.6	21.0	4 21	15 41.01	+27 16.7	1.554	2.360	18.1	19.7
5 1	15 33.82	-15 16.8	1.640	2.627	5.5	20.7	5 1	15 33.74	+28 30.9	1.537	2.352	17.9	19.6
5 11	15 25.11	-14 44.6	1.618	2.626	1.7	20.5	5 11	15 25.13	+29 3.8	1.537	2.345	18.4	19.6
5 21	15 16.11	-14 13.8	1.622	2.624	4.0	20.6	5 21	15 16.33	+28 51.4	1.554	2.339	19.3	19.7
5 31	15 7.92	-13 48.6	1.653	2.623	8.2	20.9	5 31	15 8.51	+27 54.3	1.585	2.333	20.5	19.8
6 10	15 1.41	-13 32.4	1.709	2.621	12.1	21.1	6 10	15 2.63	+26 17.8	1.631	2.327	21.9	19.9
6 20	14 57.17	-13 27.2	1.785	2.620	15.4	21.3	6 20	14 59.20	+24 9.7	1.689	2.322	23.1	20.0
306337	2011 <i>ST</i> ₁₂₃												

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
341809	2007 XE ₄₄		5 13.7 108°81	0°2/13.6	17		297369	2000 EY ₃₅		5 13.7 178°05	3°0/15.1	16	
4 11	15 46.04	-19 34.9	2.524	3.376	10.4	22.1	4 11	15 51.79	-26 6.9	1.430	2.287	16.5	21.0
4 21	15 40.20	-19 11.3	2.464	3.395	7.5	22.0	4 21	15 45.70	-26 15.3	1.359	2.288	12.5	20.7
5 1	15 32.95	-18 41.9	2.430	3.415	4.3	21.8	5 1	15 36.69	-26 8.7	1.310	2.288	8.0	20.4
5 11	15 24.93	-18 8.9	2.424	3.433	0.9	21.5	5 11	15 25.82	-25 46.7	1.285	2.288	3.7	20.2
5 21	15 16.87	-17 34.6	2.448	3.452	2.5	21.7	5 21	15 14.52	-25 11.3	1.285	2.288	4.4	20.2
5 31	15 9.48	-17 2.1	2.500	3.469	5.8	22.0	5 31	15 4.33	-24 28.1	1.310	2.288	8.9	20.5
6 10	15 3.37	-16 34.4	2.578	3.487	8.7	22.2	6 10	14 56.50	-23 44.2	1.359	2.288	13.4	20.7
6 20	14 58.91	-16 13.4	2.681	3.504	11.2	22.4	6 20	14 51.74	-23 6.1	1.428	2.287	17.3	21.0
187214	2005 SD ₁₁₁		5 13.7 142°62	1°1/14.6	17		143440	2003 BV ₇₀		5 13.7 16°56	1°2/12.9	17	
4 11	15 45.35	-23 20.7	2.742	3.583	10.0	21.2	4 11	15 44.30	-16 37.5	1.871	2.742	12.5	20.3
4 21	15 39.76	-23 15.9	2.667	3.591	7.4	21.0	4 21	15 39.49	-16 15.6	1.804	2.745	9.1	20.1
5 1	15 32.74	-23 4.0	2.619	3.598	4.5	20.9	5 1	15 32.78	-15 48.9	1.761	2.748	5.2	19.9
5 11	15 24.90	-22 45.7	2.598	3.605	1.6	20.7	5 11	15 24.95	-15 20.2	1.744	2.752	1.5	19.6
5 21	15 16.92	-22 22.6	2.607	3.611	2.4	20.7	5 21	15 16.91	-14 52.6	1.754	2.756	3.6	19.8
5 31	15 9.50	-21 57.4	2.644	3.617	5.3	20.9	5 31	15 9.63	-14 29.9	1.790	2.761	7.5	20.0
6 10	15 3.24	-21 32.8	2.709	3.623	8.1	21.1	6 10	15 3.90	-14 15.0	1.851	2.766	11.2	20.2
6 20	14 58.57	-21 11.6	2.798	3.629	10.5	21.3	6 20	15 0.24	-14 9.9	1.933	2.771	14.3	20.5
407850	2012 BL ₅₄		5 13.7 134°05	3°3/11.8	16		129934	1999 TA ₁₅₁		5 13.7 154°31	0°1/13.7	18	
4 11	15 50.00	-11 21.6	1.853	2.719	12.9	21.9	4 11	15 47.93	-19 41.1	2.319	3.171	11.2	20.7
4 21	15 43.45	-10 41.8	1.795	2.732	9.4	21.7	4 21	15 41.80	-19 30.6	2.247	3.178	8.1	20.5
5 1	15 34.95	-10 1.3	1.762	2.746	5.7	21.5	5 1	15 33.99	-19 14.0	2.200	3.184	4.7	20.3
5 11	15 25.38	-9 24.2	1.756	2.758	3.3	21.4	5 11	15 25.20	-18 52.8	2.182	3.190	1.0	20.1
5 21	15 15.71	-8 54.2	1.778	2.770	5.2	21.5	5 21	15 16.24	-18 29.2	2.192	3.196	2.7	20.2
5 31	15 6.95	-8 34.7	1.826	2.781	8.7	21.7	5 31	15 7.95	-18 6.0	2.230	3.201	6.3	20.5
6 10	14 59.89	-8 27.7	1.900	2.792	12.1	22.0	6 10	15 1.04	-17 46.4	2.295	3.206	9.5	20.7
6 20	14 55.02	-8 33.9	1.994	2.801	15.0	22.2	6 20	14 56.00	-17 32.8	2.383	3.210	12.3	20.9
377903	2006 DR ₁₁₈		5 13.7 182°37	4°6/19.8	18		417681	2007 AZ ₂₈		5 13.7 124°84	4°1/16.3	17	
4 11	15 43.30	-44 54.3	4.932	5.651	7.6	21.6	4 11	15 50.81	-31 1.3	1.921	2.748	14.1	22.3
4 21	15 38.04	-45 22.1	4.843	5.651	6.6	21.5	4 21	15 44.32	-31 6.0	1.853	2.760	11.0	22.1
5 1	15 31.70	-45 39.6	4.778	5.650	5.6	21.4	5 1	15 35.59	-30 54.6	1.808	2.771	7.6	21.9
5 11	15 24.69	-45 45.8	4.739	5.650	4.8	21.3	5 11	15 25.55	-30 26.7	1.788	2.782	4.7	21.8
5 21	15 17.49	-45 40.7	4.726	5.650	4.6	21.3	5 21	15 15.33	-29 44.2	1.796	2.792	4.5	21.8
5 31	15 10.61	-45 25.0	4.740	5.650	5.0	21.4	5 31	15 6.08	-28 51.7	1.831	2.802	7.3	22.0
6 10	15 4.52	-45 0.9	4.781	5.649	5.8	21.4	6 10	14 58.74	-27 55.6	1.891	2.812	10.6	22.2
6 20	14 59.58	-44 30.8	4.846	5.649	6.8	21.5	6 20	14 53.85	-27 1.9	1.973	2.821	13.6	22.4
133769	2003 WW ₇₂		5 13.7 299°33	0°7/14.0	16		214799	2006 UU ₁₉₇		5 13.7 284°37	0°2/13.8	17	
4 11	15 48.03	-20 0.3	1.793	2.656	13.4	19.6	4 11	15 45.45	-20 2.4	2.201	3.058	11.5	20.8
4 21	15 42.63	-20 15.4	1.701	2.636	10.0	19.3	4 21	15 40.17	-19 54.2	2.124	3.057	8.4	20.6
5 1	15 34.84	-20 24.6	1.632	2.616	5.9	19.0	5 1	15 33.13	-19 39.8	2.071	3.056	4.9	20.4
5 11	15 25.43	-20 28.0	1.588	2.597	1.6	18.7	5 11	15 25.03	-19 20.3	2.045	3.054	1.1	20.1
5 21	15 15.42	-20 26.8	1.572	2.578	3.3	18.8	5 21	15 16.69	-18 58.0	2.048	3.053	2.8	20.3
5 31	15 5.99	-20 23.4	1.583	2.558	7.9	19.0	5 31	15 8.98	-18 36.0	2.078	3.051	6.5	20.5
6 10	14 58.23	-20 21.5	1.617	2.539	12.0	19.2	6 10	15 2.65	-18 17.3	2.134	3.050	9.8	20.7
6 20	14 52.89	-20 24.2	1.673	2.521	15.7	19.4	6 20	14 58.21	-18 4.6	2.212	3.049	12.8	20.9
30278	2000 HN ₅₆		5 13.7 187°49	0°8/13.1	18		229571	2006 AH ₄₉		5 13.7 145°05	1°0/14.3	17	
4 11	15 46.05	-17 1.1	2.239	3.099	11.2	18.6	4 11	15 48.34	-22 11.1	1.900	2.756	13.1	21.5
4 21	15 40.52	-16 44.1	2.163	3.099	8.1	18.4	4 21	15 42.48	-22 4.1	1.829	2.760	9.7	21.2
5 1	15 33.29	-16 22.6	2.113	3.099	4.6	18.2	5 1	15 34.53	-21 48.1	1.781	2.763	5.7	21.0
5 11	15 25.04	-15 58.8	2.089	3.098	1.2	17.9	5 11	15 25.34	-21 24.1	1.759	2.767	1.7	20.8
5 21	15 16.58	-15 35.0	2.094	3.097	3.1	18.1	5 21	15 15.90	-20 54.6	1.765	2.770	3.1	20.9
5 31	15 8.75	-15 14.2	2.127	3.096	6.7	18.3	5 31	15 7.28	-20 23.6	1.798	2.773	7.1	21.1
6 10	15 2.27	-14 59.3	2.186	3.095	10.0	18.5	6 10	15 0.35	-19 55.3	1.857	2.776	10.9	21.3
6 20	14 57.63	-14 52.2	2.267	3.093	12.8	18.7	6 20	14 55.66	-19 33.4	1.937	2.779	14.1	21.6
106860	2000 YO ₂₆		5 13.7 204°24	4°8/ 9.6	18		183634	2003 US ₄₀₃		5 13.7 157°36	1°1/13.1	16	
4 11	15 43.44	- 2 45.9	2.754	3.610	9.5	20.3	4 11	15 50.06	-17 17.3	1.839	2.701	13.2	22.1
4 21	15 38.31	- 2 0.7	2.683	3.606	7.3	20.2	4 21	15 43.67	-16 50.7	1.771	2.707	9.6	21.9
5 1	15 31.90	- 1 19.9	2.638	3.602	5.5	20.0	5 1	15 35.18	-16 18.3	1.727	2.713	5.5	21.7
5 11	15 24.74	- 0 47.0	2.620	3.597	4.8	20.0	5 11	15 25.47	-15 42.6	1.710	2.719	1.4	21.4
5 21	15 17.43	- 0 24.9	2.631	3.592	5.9	20.0	5 21	15 15.57	-15 7.2	1.721	2.724	3.7	21.6
5 31	15 10.59	- 0 15.3	2.669	3.587	8.0	20.2	5 31	15 6.54	-14 36.2	1.760	2.728	7.9	21.9
6 10	15 4.77	- 0 19.2	2.732	3.581	10.2	20.3	6 10	14 59.25	-14 13.3	1.823	2.732	11.6	22.1
6 20	15 0.37	- 0 36.0	2.816	3.575	12.2	20.4	6 20	14 54.25	-14 0.9	1.908	2.735	14.9	22.3
466695	2014 WQ ₃₅₃		5 13.7 180°03	4°2/11.1	17		214095	2004 LT ₄		5 13.7 326°23	7°1/ 8.4	18	
4 11	15 48.54	- 9 8.3	1.909	2.776	12.6	22.1	4 11	15 42.39	- 1 11.5	1.928	2.798	12.3	19.8
4 21	15 42.45	- 8 16.4	1.842	2.777	9.3	21.9	4 21	15 38.04	+ 0 2.4	1.862	2.789	9.7	19.6
5 1	15 34.44	- 7 25.0	1.798	2.778	6.0	21.7	5 1	15 31.94	+ 1 10.0	1.819	2.780	7.7	19.5
5 11	15 25.29	- 6 38.5	1.782	2.779	4.2	21.6	5 11	15 24.78	+ 2 4.9	1.802	2.772	7.2	19.4
5 21	15 15.95	- 6 1.6	1.793	2.778	6.0	21.7	5 21	15 17.39	+ 2 42.3	1.810	2.763	8.7	19.5
5 31	15 7.37	- 5 37.7	1.831	2.777	9.3	21.8	5 31	15 10.63	+ 2 58.8	1.842	2.755	11.2	19.6
6 10	15 0.38	- 5 29.0	1.894	2.776	12.6	22.0	6 10	15 5.26	+ 2 53.7	1.896	2.748	13.9	19.8
6 20	14 55.50	- 5 35.6	1.976	2.774	15.5	22.2	6 20	15 1.78	+ 2 28.5	1.969	2.741	16.4	19.9
285669	2000 SF ₁₀₆		5 13.7 262°27	0°7/13.3	17		423654	2005 YE ₆₇		5 13.7 71°11	2°5/12.5	17	
4 11	15 49.38	-18 57.3</											

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
22309	1990 <i>VO</i> ₄		5 13.7 129°27'	3°6'/11.5	17		63856	2001 <i>RD</i> ₉₁		5 13.7 202°05'	3°0'/15.6	18	
4 11	15 46.83	- 9 12.7	2.102	2.968	11.6	19.9	4 11	15 48.07	-28 9.6	2.414	3.243	11.5	19.7
4 21	15 41.03	- 8 38.8	2.041	2.977	8.5	19.7	4 21	15 42.10	-28 26.1	2.330	3.241	8.9	19.5
5 1	15 33.55	- 8 6.1	2.005	2.986	5.4	19.5	5 1	15 34.30	-28 32.1	2.271	3.238	6.0	19.3
5 11	15 25.11	- 7 38.3	1.996	2.994	3.6	19.4	5 11	15 25.35	-28 27.1	2.238	3.235	3.4	19.1
5 21	15 16.56	- 7 18.3	2.015	3.002	5.2	19.5	5 21	15 16.10	-28 11.7	2.234	3.232	3.6	19.1
5 31	15 8.73	- 7 8.8	2.061	3.010	8.2	19.7	5 31	15 7.44	-27 48.6	2.258	3.229	6.2	19.3
6 10	15 2.33	- 7 11.2	2.131	3.018	11.2	19.9	6 10	15 0.19	-27 21.5	2.308	3.225	9.2	19.5
6 20	14 57.81	- 7 25.4	2.223	3.025	13.8	20.1	6 20	14 54.87	-26 54.5	2.382	3.221	11.9	19.6
502934	2015 <i>EF</i> ₃₉		5 13.7 130°69'	5°3'/17.2	17		8537	Billochbull		5 13.7 309°44'	3°3'/11.3	18	
4 11	15 53.32	-35 5.3	2.250	3.049	13.3	22.7	4 11	15 43.01	-12 11.1	2.011	2.885	11.7	16.9
4 21	15 46.00	-35 33.9	2.182	3.064	10.7	22.5	4 21	15 38.50	-11 11.1	1.934	2.876	8.5	16.7
5 1	15 36.52	-35 46.5	2.137	3.079	8.0	22.4	5 1	15 32.23	-10 8.0	1.882	2.866	5.3	16.5
5 11	15 25.77	-35 41.0	2.118	3.094	5.8	22.2	5 11	15 24.90	- 9 6.6	1.856	2.857	3.3	16.3
5 21	15 14.82	-35 18.1	2.126	3.108	5.5	22.2	5 21	15 17.32	- 8 11.5	1.857	2.848	5.1	16.4
5 31	15 4.76	-34 41.0	2.162	3.121	7.3	22.4	5 31	15 10.37	- 7 27.3	1.886	2.840	8.5	16.6
6 10	14 56.51	-33 55.3	2.225	3.133	9.8	22.6	6 10	15 4.80	- 6 57.2	1.938	2.831	11.8	16.8
6 20	14 50.62	-33 6.8	2.310	3.145	12.3	22.7	6 20	15 1.11	- 6 42.4	2.011	2.823	14.7	17.0
64986	2002 <i>AX</i> ₅₀		5 13.7 321°62'	0°9'/13.2	18		200316	2000 <i>EQ</i> ₁₆₉		5 13.7 141°01'	5°9'/10.2	18	
4 11	15 43.77	-17 31.4	1.935	2.804	12.3	19.0	4 11	15 47.23	- 0 42.7	2.240	3.093	11.4	19.9
4 21	15 39.21	-17 10.3	1.851	2.791	8.9	18.8	4 21	15 41.23	- 0 11.4	2.180	3.100	8.9	19.8
5 1	15 32.71	-16 43.4	1.791	2.779	5.1	18.5	5 1	15 33.66	+ 0 12.2	2.146	3.106	6.8	19.6
5 11	15 24.97	-16 13.2	1.758	2.766	1.3	18.2	5 11	15 25.19	+ 0 24.2	2.138	3.112	5.9	19.6
5 21	15 16.90	-15 42.7	1.751	2.755	3.5	18.4	5 21	15 16.60	+ 0 22.2	2.158	3.118	7.1	19.7
5 31	15 9.44	-15 15.7	1.771	2.743	7.5	18.6	5 31	15 8.68	+ 0 5.0	2.204	3.124	9.3	19.8
6 10	15 3.46	-14 55.8	1.816	2.732	11.3	18.8	6 10	15 2.11	- 0 27.0	2.275	3.129	11.8	20.0
6 20	14 59.52	-14 45.4	1.881	2.721	14.5	19.0	6 20	14 57.31	- 1 12.2	2.366	3.134	14.0	20.2
500963	2013 <i>QF</i> ₅₁		5 13.7 195°07'	1°8'/12.5	17		129275	2005 <i>RJ</i> ₄		5 13.7 196°12'	0°3'/13.5	18	
4 11	15 47.74	-15 11.8	2.186	3.046	11.4	23.3	4 11	15 44.50	-18 57.1	2.672	3.525	9.8	21.1
4 21	15 41.77	-14 33.9	2.108	3.044	8.3	23.1	4 21	15 39.22	-18 38.3	2.592	3.524	7.1	20.9
5 1	15 34.03	-13 51.8	2.055	3.041	4.8	22.9	5 1	15 32.51	-18 14.4	2.537	3.521	4.1	20.7
5 11	15 25.24	-13 8.4	2.031	3.037	1.9	22.7	5 11	15 24.96	-17 47.0	2.510	3.519	0.9	20.5
5 21	15 16.23	-12 27.3	2.034	3.033	3.8	22.8	5 21	15 17.23	-17 18.3	2.513	3.516	2.5	20.6
5 31	15 7.87	-11 52.2	2.066	3.028	7.4	23.0	5 31	15 10.01	-16 50.9	2.544	3.514	5.7	20.8
6 10	15 0.92	-11 26.2	2.124	3.022	10.7	23.2	6 10	15 3.92	-16 27.6	2.602	3.510	8.6	21.0
6 20	14 55.88	-11 11.3	2.204	3.016	13.6	23.4	6 20	14 59.38	-16 10.6	2.683	3.507	11.1	21.2
462100	2007 <i>MN</i> ₂₄		5 13.7 245°58'	2°3'/15.0	16		467432	2005 <i>YL</i> ₁₂₉		5 13.7 259°90'	2°1'/12.5	18	
4 11	15 50.33	-26 25.7	1.632	2.483	15.1	21.9	4 11	15 48.75	-13 52.5	2.040	2.902	12.0	22.1
4 21	15 44.48	-26 3.8	1.544	2.470	11.5	21.6	4 21	15 42.85	-13 30.0	1.944	2.880	8.8	21.8
5 1	15 35.96	-25 25.5	1.477	2.456	7.2	21.3	5 1	15 34.87	-13 4.5	1.872	2.857	5.2	21.6
5 11	15 25.71	-24 31.4	1.436	2.441	3.0	21.0	5 11	15 25.52	-12 38.5	1.827	2.833	2.2	21.3
5 21	15 14.95	-23 24.9	1.422	2.426	3.8	21.0	5 21	15 15.67	-12 15.1	1.810	2.809	4.2	21.4
5 31	15 5.04	-22 12.4	1.434	2.411	8.4	21.3	5 31	15 6.33	-11 57.6	1.821	2.784	8.1	21.6
6 10	14 57.17	-21 1.8	1.470	2.395	12.8	21.5	6 10	14 58.43	-11 49.0	1.858	2.758	11.9	21.8
6 20	14 52.05	-20 0.0	1.527	2.378	16.8	21.7	6 20	14 52.61	-11 51.2	1.915	2.732	15.2	21.9
358539	2007 <i>TM</i> ₇₃		5 13.7 330°96'	2°3'/14.2	17		192952	2000 <i>BZ</i> ₁₈		5 13.7 12°76'	8°1'/16.2	18	
4 11	15 47.24	-19 52.2	1.003	1.898	18.8	19.9	4 11	15 38.25	-28 6.3	0.634	1.550	23.7	17.6
4 21	15 43.59	-20 51.3	0.925	1.876	14.2	19.5	4 21	15 37.56	-29 41.1	0.602	1.557	18.6	17.3
5 1	15 36.17	-21 47.2	0.866	1.855	8.8	19.1	5 1	15 32.65	-30 51.1	0.584	1.567	13.2	17.1
5 11	15 25.88	-22 37.4	0.827	1.835	3.2	18.7	5 11	15 25.08	-31 30.2	0.581	1.580	8.9	16.9
5 21	15 14.32	-23 19.7	0.811	1.817	5.1	18.8	5 21	15 17.06	-31 37.9	0.596	1.597	8.7	17.0
5 31	15 3.58	-23 54.6	0.815	1.800	11.4	19.0	5 31	15 10.94	-31 20.6	0.628	1.617	12.6	17.3
6 10	14 55.63	-24 25.6	0.839	1.785	17.3	19.3	6 10	15 8.38	-30 50.3	0.675	1.639	17.4	17.6
6 20	14 51.66	-24 57.2	0.879	1.772	22.4	19.5	6 20	15 9.94	-30 17.4	0.738	1.664	21.7	18.0
296439	2009 <i>HA</i> ₄₉		5 13.7 284°51'	2°8'/12.3	18		429082	2009 <i>RW</i> ₇		5 13.7 154°17'	1°9'/14.9	17	
4 11	15 47.32	- 9 43.1	2.238	3.100	11.1	19.8	4 11	15 49.84	-25 11.3	2.210	3.049	12.1	22.6
4 21	15 41.51	- 9 45.2	2.155	3.090	8.2	19.6	4 21	15 43.35	-25 8.0	2.137	3.057	9.1	22.4
5 1	15 33.94	- 9 49.3	2.097	3.080	5.1	19.4	5 1	15 34.98	-24 54.4	2.089	3.065	5.7	22.2
5 11	15 25.25	- 9 57.5	2.067	3.069	2.8	19.2	5 11	15 25.51	-24 31.1	2.067	3.072	2.4	22.0
5 21	15 16.24	-10 11.3	2.065	3.059	4.3	19.3	5 21	15 15.84	-24 0.0	2.075	3.078	3.0	22.0
5 31	15 7.77	-10 32.1	2.091	3.049	7.5	19.5	5 31	15 6.94	-23 24.7	2.111	3.084	6.4	22.3
6 10	15 0.60	-11 0.7	2.143	3.039	10.7	19.6	6 10	14 59.59	-22 49.4	2.173	3.089	9.7	22.5
6 20	14 55.27	-11 37.2	2.217	3.029	13.5	19.8	6 20	14 54.31	-22 18.0	2.258	3.094	12.6	22.7
18114	Rosenbush		5 13.7 53°22'	9°0'/19.5	18		512900	2016 <i>WX</i> ₄₇		5 13.7 231°00'	1°6'/15.2	18	
4 11	15 51.56	-41 30.4	1.602	2.397	17.9	17.0	4 11	15 43.24	-26 28.4	2.949	3.783	9.5	21.7
4 21	15 45.63	-42 5.3	1.539	2.408	15.1	16.8	4 21	15 38.27	-26 7.2	2.860	3.776	7.2	21.5
5 1	15 36.65	-42 13.8	1.495	2.419	12.2	16.6	5 1	15 31.96	-25 36.8	2.796	3.770	4.5	21.3
5 11	15 25.85	-41 52.4	1.473	2.430	9.8	16.5	5 11	15 24.85	-24 58.1	2.760	3.763	2.1	21.1
5 21	15 14.76	-41 1.3	1.474	2.441	9.0	16.5	5 21	15 17.58	-24 13.1	2.753	3.756	2.4	21.1
5 31	15 5.02	-39 46.1	1.500	2.453	10.3	16.6	5 31	15 10.78	-23 24.8	2.776	3.749	5.0	21.3
6 10	14 57.85	-38 16.7	1.548	2.464	12.8	16.8	6 10	15 5.05	-22 36.8	2.825	3.742	7.7	21.5
6 20	14 53.88	-36 43.4	1.618	2.476	15.6	17.0	6 20	15 0.78	-21 52.2	2.900	3.735	10.1	21.6
179503	2002 <i>CT</i> ₁₀₃		5 13.7 341°13'	8°2'/18.3	17		129694	1998 <i>SP</i> ₄₆		5 13.7 303°31'			

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
86202	1999 <i>TT</i> ₁		5 13.7 280°92	3°0/15.5	18		410398	2007 <i>XX</i> ₅		5 13.7 235°99	3°0/11.9	17	
4 11	15 47.66	-27 38.6	2.398	3.230	11.5	19.2	4 11	15 50.27	-12 7.8	1.933	2.796	12.6	22.0
4 21	15 41.99	-28 1.0	2.296	3.208	8.9	18.9	4 21	15 43.98	-11 30.9	1.844	2.780	9.3	21.8
5 1	15 34.37	-28 13.8	2.218	3.187	6.0	18.7	5 1	15 35.55	-10 51.6	1.779	2.763	5.7	21.5
5 11	15 25.43	-28 15.9	2.167	3.165	3.4	18.5	5 11	15 25.71	-10 13.3	1.742	2.745	3.1	21.3
5 21	15 15.99	-28 7.8	2.144	3.143	3.6	18.5	5 21	15 15.42	-9 40.0	1.732	2.726	5.0	21.4
5 31	15 7.00	-27 51.3	2.150	3.121	6.4	18.6	5 31	15 5.75	-9 15.7	1.750	2.706	8.9	21.6
6 10	14 59.33	-27 30.0	2.181	3.098	9.6	18.8	6 10	14 57.64	-9 3.4	1.793	2.686	12.6	21.8
6 20	14 53.62	-27 8.0	2.236	3.076	12.5	18.9	6 20	14 51.73	-9 4.6	1.857	2.664	15.9	21.9
89141	2001 <i>UC</i> ₂₅		5 13.7 152°39	1°8/15.2	18		383336	2006 <i>KW</i> ₁₀₅		5 13.7 111°92	4°9/10.7	17	
4 11	15 45.79	-26 36.0	2.494	3.331	11.0	19.6	4 11	15 46.90	-5 28.6	2.075	2.939	11.8	21.0
4 21	15 40.24	-26 11.7	2.418	3.336	8.3	19.4	4 21	15 41.08	-4 46.4	2.021	2.952	8.9	20.9
5 1	15 33.13	-25 36.6	2.366	3.341	5.2	19.2	5 1	15 33.61	-4 8.6	1.991	2.965	6.2	20.7
5 11	15 25.11	-24 51.9	2.341	3.345	2.3	19.0	5 11	15 25.24	-3 39.2	1.989	2.977	4.9	20.7
5 21	15 16.96	-24 0.1	2.346	3.349	2.7	19.1	5 21	15 16.79	-3 21.5	2.014	2.990	6.3	20.8
5 31	15 9.47	-23 5.2	2.379	3.353	5.7	19.3	5 31	15 9.10	-3 17.5	2.065	3.002	9.0	21.0
6 10	15 3.30	-22 11.4	2.439	3.357	8.7	19.5	6 10	15 2.84	-3 27.9	2.141	3.013	11.7	21.2
6 20	14 58.88	-21 22.7	2.523	3.360	11.4	19.6	6 20	14 58.46	-3 51.9	2.238	3.025	14.2	21.4
47522	2000 <i>AW</i> ₈₄		5 13.7 139°46	2°0/12.5	18		512543	2016 <i>SN</i> ₈		5 13.7 212°81	4°2/17.3	18	
4 11	15 49.43	-14 42.9	1.850	2.715	13.0	20.0	4 11	15 46.70	-34 37.9	2.683	3.485	11.3	21.9
4 21	15 43.17	-14 11.5	1.787	2.725	9.4	19.8	4 21	15 41.04	-34 39.4	2.594	3.480	9.1	21.7
5 1	15 34.91	-13 36.6	1.748	2.734	5.4	19.5	5 1	15 33.67	-34 26.7	2.529	3.475	6.7	21.5
5 11	15 25.50	-13 1.3	1.736	2.743	2.1	19.3	5 11	15 25.27	-33 59.3	2.490	3.471	4.7	21.4
5 21	15 15.95	-12 29.3	1.752	2.751	4.2	19.5	5 21	15 16.65	-33 18.3	2.479	3.465	4.4	21.4
5 31	15 7.27	-12 4.4	1.795	2.759	8.1	19.7	5 31	15 8.63	-32 26.7	2.496	3.460	6.1	21.5
6 10	15 0.28	-11 49.5	1.863	2.766	11.7	20.0	6 10	15 1.95	-31 29.1	2.540	3.454	8.5	21.6
6 20	14 55.51	-11 46.1	1.952	2.773	14.8	20.2	6 20	14 57.10	-30 30.4	2.608	3.448	10.9	21.8
491573	2012 <i>RJ</i> ₁₂		5 13.7 218°55	2°1/11.9	18		519719	2013 <i>BC</i> ₈₄		5 13.7 173°55	3°8/10.7	17	
4 11	15 45.32	-14 41.8	2.411	3.271	10.5	21.5	4 11	15 44.15	-6 11.8	2.695	3.554	9.6	22.2
4 21	15 39.93	-13 46.0	2.327	3.263	7.6	21.2	4 21	15 38.87	-5 36.0	2.627	3.556	7.2	22.1
5 1	15 32.97	-12 45.6	2.270	3.255	4.5	21.0	5 1	15 32.29	-5 2.9	2.584	3.558	4.9	21.9
5 11	15 25.09	-11 44.2	2.241	3.246	2.1	20.9	5 11	15 24.96	-4 35.5	2.570	3.559	3.8	21.9
5 21	15 17.00	-10 45.8	2.241	3.236	3.9	21.0	5 21	15 17.50	-4 16.4	2.584	3.560	5.0	21.9
5 31	15 9.47	-9 54.4	2.270	3.226	7.1	21.1	5 31	15 10.54	-4 7.6	2.625	3.561	7.3	22.1
6 10	15 3.16	-9 13.3	2.324	3.216	10.2	21.3	6 10	15 4.65	-4 10.1	2.692	3.561	9.7	22.2
6 20	14 58.54	-8 44.5	2.401	3.205	12.9	21.5	6 20	15 0.22	-4 23.9	2.782	3.561	11.9	22.4
250545	2004 <i>RY</i> ₅₉		5 13.7 266°71	1°2/12.8	17		277790	2006 <i>EG</i> ₁₀		5 13.7 80°03	3°1/11.8	17	
4 11	15 43.51	-16 19.1	2.414	3.277	10.4	20.7	4 11	15 46.11	-12 3.0	1.819	2.692	12.8	20.4
4 21	15 38.65	-15 48.0	2.333	3.270	7.5	20.5	4 21	15 40.81	-11 21.7	1.757	2.698	9.3	20.2
5 1	15 32.25	-15 12.5	2.278	3.264	4.3	20.2	5 1	15 33.59	-10 38.9	1.718	2.703	5.6	20.0
5 11	15 24.94	-14 35.2	2.249	3.257	1.4	20.0	5 11	15 25.26	-9 58.7	1.706	2.709	3.2	19.8
5 21	15 17.42	-13 59.1	2.250	3.251	3.2	20.1	5 21	15 16.76	-9 25.4	1.721	2.715	5.1	20.0
5 31	15 10.43	-13 27.2	2.278	3.244	6.5	20.3	5 31	15 9.07	-9 2.4	1.762	2.720	8.6	20.2
6 10	15 4.63	-13 2.5	2.332	3.237	9.6	20.5	6 10	15 2.98	-8 52.3	1.827	2.726	12.1	20.4
6 20	15 0.49	-12 46.8	2.409	3.231	12.3	20.7	6 20	14 59.00	-8 55.6	1.912	2.732	15.1	20.6
106107	2000 <i>TC</i> ₁₉		5 13.7 291°22	4°8/11.7	17		315479	2007 <i>YQ</i> ₃₈		5 13.7 68°01	1°5/14.4	17	
4 11	15 48.89	-9 3.0	1.368	2.250	15.6	19.2	4 11	15 50.14	-22 50.2	1.435	2.301	15.9	21.0
4 21	15 43.63	-8 33.1	1.291	2.235	11.7	18.9	4 21	15 44.27	-22 49.1	1.378	2.314	11.8	20.7
5 1	15 35.61	-8 4.9	1.236	2.220	7.5	18.6	5 1	15 35.77	-22 36.4	1.343	2.326	7.1	20.5
5 11	15 25.73	-7 43.5	1.204	2.205	4.9	18.4	5 11	15 25.75	-22 13.2	1.331	2.339	2.3	20.2
5 21	15 15.26	-7 33.7	1.198	2.190	7.1	18.5	5 21	15 15.52	-21 42.5	1.346	2.352	3.7	20.4
5 31	15 5.61	-7 39.3	1.215	2.175	11.5	18.7	5 31	15 6.47	-21 9.5	1.386	2.364	8.4	20.7
6 10	14 58.03	-8 2.1	1.254	2.161	15.9	18.9	6 10	14 59.65	-20 39.9	1.449	2.377	12.7	20.9
6 20	14 53.30	-8 41.6	1.311	2.146	19.9	19.1	6 20	14 55.64	-20 18.0	1.533	2.390	16.4	21.2
121805	2000 <i>AS</i> ₁₆₈		5 13.7 339°04	5°9/16.4	17		499200	2009 <i>TS</i> ₃		5 13.7 249°14	3°1/15.1	17	
4 11	15 48.86	-30 54.2	1.166	2.028	19.2	19.0	4 11	15 51.43	-25 38.3	1.792	2.637	14.2	20.9
4 21	15 44.32	-31 19.2	1.097	2.022	15.1	18.8	4 21	15 45.17	-26 12.8	1.710	2.632	10.8	20.6
5 1	15 36.27	-31 22.4	1.046	2.017	10.6	18.5	5 1	15 36.38	-26 37.3	1.651	2.626	7.0	20.4
5 11	15 25.89	-31 0.8	1.017	2.013	6.7	18.3	5 11	15 25.92	-26 49.9	1.618	2.619	3.7	20.2
5 21	15 14.87	-30 15.6	1.010	2.009	6.5	18.2	5 21	15 14.93	-26 50.7	1.612	2.613	4.1	20.2
5 31	15 5.10	-29 13.3	1.026	2.006	10.4	18.4	5 31	15 4.68	-26 42.2	1.633	2.607	7.8	20.4
6 10	14 58.14	-28 4.6	1.062	2.003	15.1	18.7	6 10	14 56.31	-26 28.9	1.678	2.600	11.7	20.6
6 20	14 54.80	-26 59.6	1.117	2.001	19.3	18.9	6 20	14 50.55	-26 15.7	1.745	2.594	15.1	20.8
86331	1999 <i>XY</i> ₁₉		5 13.7 91°51	3°2/15.3	18	R	211828	2004 <i>EY</i> ₅₅		5 13.7 40°15	1°3/12.8	17	
4 11	15 51.04	-27 1.6	2.420	3.247	11.6	19.0	4 11	15 44.12	-18 6.8	1.841	2.712	12.7	19.7
4 21	15 44.26	-27 49.8	2.346	3.255	8.9	18.8	4 21	15 39.36	-17 15.3	1.780	2.721	9.2	19.5
5 1	15 35.57	-28 29.4	2.297	3.263	6.0	18.6	5 1	15 32.74	-16 16.6	1.742	2.730	5.2	19.3
5 11	15 25.68	-28 58.6	2.276	3.272	3.5	18.5	5 11	15 25.08	-15 14.7	1.731	2.739	1.5	19.1
5 21	15 15.48	-29 17.0	2.284	3.280	3.8	18.5	5 21	15 17.31	-14 14.5	1.747	2.749	3.7	19.3
5 31	15 5.90	-29 26.0	2.320	3.288	6.3	18.7	5 31	15 10.36	-13 21.0	1.790	2.759	7.7	19.5
6 10	14 57.76	-29 28.6	2.384	3.296	9.1	18.9	6 10	15 5.00	-12 38.4	1.857	2.769	11.3	19.8
6 20	14 51.63	-29 28.1	2.471	3.304	11.7	19.1	6 20	15 1.68	-12 9.0	1.945	2.780	14.3	20.0
123311	2000 <i>VV</i> ₇		5 13.7 213°53	0°5/14.1	18		23032	Fossey		5 13.7 215°25	3°0/11.9	18	

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
11419	Donjohanson		5 13.7 153°52	1°0/13.2	18		418400	2008 <i>JL</i> ₂₇		5 13.7 298°86	2°1/10.8	18	
4 11	15 47.13	-15 34.2	2.380	3.237	10.7	17.9	4 11	15 37.22	-10 6.2	4.290	5.149	6.3	20.6
4 21	15 41.26	-15 32.9	2.307	3.241	7.8	17.7	4 21	15 33.56	-9 19.6	4.213	5.146	4.6	20.5
5 1	15 33.77	-15 29.1	2.259	3.244	4.5	17.5	5 1	15 29.14	-8 32.8	4.164	5.143	2.9	20.4
5 11	15 25.31	-15 24.2	2.239	3.248	1.2	17.3	5 11	15 24.31	-7 47.9	4.144	5.140	2.1	20.3
5 21	15 16.66	-15 19.9	2.248	3.251	3.0	17.4	5 21	15 19.39	-7 6.8	4.154	5.137	3.0	20.4
5 31	15 8.60	-15 18.2	2.286	3.253	6.4	17.6	5 31	15 14.75	-6 31.4	4.193	5.135	4.6	20.5
6 10	15 1.83	-15 21.1	2.350	3.256	9.5	17.8	6 10	15 10.72	-6 2.9	4.259	5.132	6.4	20.6
6 20	14 56.82	-15 29.9	2.437	3.258	12.2	18.0	6 20	15 7.54	-5 42.2	4.349	5.129	7.9	20.7
344799	2003 <i>YJ</i> ₁₆₅		5 13.7 276°97	0°4/13.9	16		247708	2003 <i>DT</i> ₁₄		5 13.7 58°98	7°4/ 8.9	17	
4 11	15 47.17	-21 52.0	2.120	2.973	12.0	21.6	4 11	15 45.04	+ 0 14.5	1.911	2.774	12.7	20.5
4 21	15 41.76	-21 23.0	2.013	2.944	8.9	21.4	4 21	15 39.73	+ 1 26.1	1.878	2.799	10.0	20.4
5 1	15 34.30	-20 43.7	1.932	2.915	5.3	21.1	5 1	15 32.82	+ 2 27.6	1.868	2.824	8.0	20.3
5 11	15 25.47	-19 55.6	1.877	2.885	1.3	20.8	5 11	15 25.09	+ 3 13.4	1.884	2.849	7.4	20.3
5 21	15 16.14	-19 1.9	1.850	2.855	3.0	20.8	5 21	15 17.41	+ 3 40.0	1.926	2.874	8.7	20.4
5 31	15 7.31	-18 6.9	1.852	2.825	7.2	21.0	5 31	15 10.59	+ 3 45.7	1.992	2.899	10.8	20.6
6 10	14 59.89	-17 15.8	1.879	2.794	11.0	21.2	6 10	15 5.26	+ 3 31.3	2.081	2.924	13.2	20.8
6 20	14 54.53	-16 33.1	1.929	2.762	14.5	21.3	6 20	15 1.82	+ 2 59.3	2.188	2.949	15.2	21.0
206149	2002 <i>TF</i> ₁₁₉		5 13.7 309°98	3°1/15.7	18		433043	2012 <i>SK</i> ₃₆		5 13.7 243°09	1°7/12.6	17	
4 11	15 45.65	-28 30.2	1.803	2.650	14.1	19.5	4 11	15 45.89	-15 41.4	2.034	2.900	11.9	21.8
4 21	15 40.93	-28 20.0	1.714	2.636	10.8	19.3	4 21	15 40.64	-15 5.2	1.955	2.893	8.7	21.6
5 1	15 33.90	-27 54.3	1.648	2.621	7.2	19.0	5 1	15 33.54	-14 24.2	1.900	2.886	5.0	21.3
5 11	15 25.38	-27 13.0	1.606	2.607	3.8	18.8	5 11	15 25.30	-13 41.5	1.872	2.879	1.8	21.1
5 21	15 16.43	-26 18.6	1.591	2.593	4.0	18.7	5 21	15 16.80	-13 0.8	1.872	2.872	3.9	21.2
5 31	15 8.22	-25 16.2	1.602	2.580	7.6	18.9	5 31	15 8.94	-12 26.0	1.899	2.864	7.6	21.4
6 10	15 1.77	-24 12.4	1.637	2.567	11.5	19.1	6 10	15 2.53	-12 0.6	1.951	2.857	11.2	21.6
6 20	14 57.74	-23 13.6	1.695	2.554	15.0	19.3	6 20	14 58.09	-11 46.6	2.025	2.849	14.2	21.8
368153	1995 <i>UX</i> ₁		5 13.7 239°28	4°1/16.4	18 R		478120	2011 <i>UY</i> ₁₀₁		5 13.7 214°71	1°4/14.7	18	
4 11	15 52.42	-32 43.6	2.798	3.596	11.0	23.0	4 11	15 46.69	-23 33.1	2.674	3.514	10.2	21.5
4 21	15 45.32	-33 8.8	2.688	3.574	8.8	22.8	4 21	15 40.95	-23 39.9	2.587	3.508	7.6	21.3
5 1	15 36.27	-33 22.4	2.604	3.552	6.4	22.6	5 1	15 33.62	-23 39.6	2.525	3.503	4.7	21.1
5 11	15 25.90	-33 22.6	2.546	3.529	4.5	22.5	5 11	15 25.32	-23 32.5	2.491	3.496	1.9	20.9
5 21	15 15.02	-33 9.0	2.519	3.505	4.4	22.4	5 21	15 16.75	-23 19.7	2.486	3.490	2.5	21.0
5 31	15 4.57	-32 43.5	2.520	3.480	6.3	22.5	5 31	15 8.67	-23 3.4	2.510	3.483	5.5	21.2
6 10	14 55.40	-32 9.8	2.549	3.454	8.9	22.6	6 10	15 1.77	-22 46.4	2.561	3.476	8.5	21.3
6 20	14 48.13	-31 32.4	2.603	3.427	11.4	22.8	6 20	14 56.53	-22 31.6	2.636	3.469	11.1	21.5
505059	2011 <i>SN</i> ₉₈		5 13.7 162°49	2°8/11.3	18		387870	2004 <i>RA</i> ₁₉₇		5 13.7 247°87	5°2/16.5	18	
4 11	15 43.68	-10 32.5	2.705	3.566	9.5	22.1	4 11	15 53.16	-33 35.6	2.346	3.149	12.7	21.7
4 21	15 38.54	-9 45.6	2.636	3.571	6.9	22.0	4 21	15 46.26	-34 14.8	2.242	3.128	10.3	21.5
5 1	15 32.11	-8 58.4	2.594	3.575	4.3	21.8	5 1	15 37.00	-34 40.9	2.161	3.108	7.7	21.3
5 11	15 24.95	-8 13.9	2.579	3.578	2.8	21.7	5 11	15 26.11	-34 51.1	2.107	3.086	5.6	21.1
5 21	15 17.68	-7 35.2	2.594	3.581	4.2	21.8	5 21	15 14.56	-34 44.3	2.080	3.064	5.5	21.1
5 31	15 10.93	-7 4.9	2.637	3.584	6.8	22.0	5 31	15 3.51	-34 22.2	2.082	3.041	7.5	21.1
6 10	15 5.25	-6 45.1	2.706	3.587	9.3	22.2	6 10	14 54.00	-33 49.3	2.110	3.017	10.4	21.3
6 20	15 1.02	-6 36.3	2.798	3.589	11.6	22.3	6 20	14 46.80	-33 11.2	2.161	2.993	13.2	21.4
273033	2006 <i>DC</i> ₁₂₀		5 13.7 138°60	0°7/13.4	18		303303	2004 <i>TW</i> ₁₅		5 13.7 120°77	5°4/16.0	18	
4 11	15 48.26	-17 18.0	1.947	2.809	12.5	20.4	4 11	16 0.80	-31 6.2	1.856	2.669	15.1	21.7
4 21	15 42.38	-17 9.1	1.877	2.813	9.1	20.2	4 21	15 51.86	-32 10.3	1.795	2.691	11.9	21.5
5 1	15 34.52	-16 55.5	1.831	2.818	5.2	20.0	5 1	15 40.16	-32 59.5	1.757	2.711	8.5	21.4
5 11	15 25.50	-16 39.0	1.813	2.822	1.2	19.7	5 11	15 26.76	-33 29.8	1.746	2.731	5.8	21.3
5 21	15 16.24	-16 21.9	1.822	2.825	3.3	19.9	5 21	15 13.03	-33 40.0	1.763	2.750	5.8	21.3
5 31	15 7.74	-16 7.5	1.858	2.829	7.3	20.1	5 31	15 0.42	-33 33.0	1.808	2.768	8.3	21.5
6 10	15 0.84	-15 58.6	1.920	2.832	10.9	20.4	6 10	14 50.11	-33 14.5	1.879	2.785	11.5	21.7
6 20	14 56.07	-15 57.3	2.003	2.836	14.0	20.6	6 20	14 42.74	-32 51.4	1.972	2.802	14.3	21.9
441345	2008 <i>CH</i> ₁₉₂		5 13.7 17°96	8°0/ 7.9	17		441817	2009 <i>LM</i> ₄		5 13.7 342°32	12°4/ 6.5	17	
4 11	15 41.60	+ 0 27.2	1.744	2.619	13.1	20.6	4 11	15 45.76	+14 35.3	1.820	2.643	15.0	19.7
4 21	15 37.54	+ 1 0.7	1.697	2.625	10.5	20.4	4 21	15 40.63	+15 27.9	1.765	2.634	13.5	19.6
5 1	15 31.69	+ 2 19.8	1.674	2.633	8.4	20.3	5 1	15 33.54	+15 59.0	1.731	2.625	12.5	19.5
5 11	15 24.87	+ 3 23.0	1.675	2.641	8.1	20.3	5 11	15 25.30	+16 1.9	1.718	2.617	12.5	19.5
5 21	15 17.93	+ 4 5.2	1.701	2.649	9.5	20.4	5 21	15 16.85	+15 33.6	1.728	2.610	13.4	19.5
5 31	15 11.78	+ 4 23.3	1.750	2.659	11.9	20.6	5 31	15 9.17	+14 33.8	1.758	2.603	15.0	19.6
6 10	15 7.13	+ 4 17.6	1.820	2.669	14.5	20.7	6 10	15 3.07	+13 6.3	1.808	2.598	16.9	19.8
6 20	15 4.44	+ 3 50.5	1.908	2.680	16.8	20.9	6 20	14 59.09	+11 16.4	1.876	2.593	18.8	19.9
352472	2008 <i>BN</i>		5 13.7 205°09	1°4/12.8	18		37279	Hukvaldy		5 13.7 333°07	1°9/13.0	18	
4 11	15 46.66	-14 14.4	2.428	3.287	10.5	21.2	4 11	15 47.15	-13 53.9	1.458	2.339	14.9	18.6
4 21	15 40.93	-14 7.6	2.349	3.284	7.6	21.0	4 21	15 42.28	-13 59.9	1.381	2.327	10.9	18.3
5 1	15 33.60	-13 59.0	2.296	3.281	4.4	20.8	5 1	15 34.82	-14 5.0	1.327	2.315	6.4	18.0
5 11	15 25.29	-13 50.4	2.270	3.277	1.6	20.6	5 11	15 25.63	-14 11.1	1.297	2.304	2.1	17.7
5 21	15 16.76	-13 43.5	2.273	3.274	3.3	20.7	5 21	15 15.90	-14 20.6	1.292	2.294	4.6	17.9
5 31	15 8.76	-13 40.5	2.305	3.270	6.5	20.9	5 31	15 6.96	-14 35.7	1.312	2.285	9.4	18.1
6 10	15 2.00	-13 43.3	2.363	3.266	9.6	21.1	6 10	14 59.97	-14 58.8	1.354	2.277	13.9	18.3
6 20	14 56.95	-13 53.0	2.444	3.261	12.3	21.2	6 20	14 55.68	-15 30.9	1.416	2.269	17.7	18.6
394340	2006 <i>XC</i> ₁₈		5 13.7 203°54	3°7/11.1	18		280609	2004 <i>XR</i> ₅		5 13.7 144°14	1°4/14.7		

EPHEMERIDES

5 13.7

5 13.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
62176	2000 <i>SJ</i> ₃₆		5 13.7 276°89	2°1/14.7 18			177383	2004 <i>BC</i> ₆₃		5 13.7 223°11	1°1/13.2 17		
4 11	15 50.00	-23 13.2	1.770	2.624	14.0	19.2	4 11	15 49.21	-17 11.9	1.722	2.588	13.7	21.0
4 21	15 44.15	-23 36.9	1.685	2.614	10.5	19.0	4 21	15 43.39	-16 51.9	1.645	2.583	10.0	20.8
5 1	15 35.82	-23 51.9	1.623	2.603	6.5	18.7	5 1	15 35.28	-16 25.8	1.591	2.578	5.8	20.5
5 11	15 25.85	-23 57.6	1.587	2.593	2.7	18.5	5 11	15 25.72	-15 56.3	1.563	2.572	1.5	20.2
5 21	15 15.34	-23 54.5	1.578	2.582	3.6	18.5	5 21	15 15.80	-15 26.5	1.563	2.566	3.8	20.4
5 31	15 5.52	-23 45.5	1.596	2.572	7.8	18.7	5 31	15 6.67	-15 0.7	1.589	2.560	8.3	20.6
6 10	14 57.52	-23 34.6	1.638	2.561	11.8	18.9	6 10	14 59.33	-14 42.8	1.639	2.553	12.4	20.8
6 20	14 52.04	-23 26.1	1.701	2.550	15.4	19.1	6 20	14 54.40	-14 35.3	1.710	2.546	15.9	21.1
299479	2006 <i>BX</i> ₁₆₀		5 13.7 338°94	1°2/12.3 18			450779	2007 <i>SE</i> ₁₁		5 13.7 204°87	3°1/14.2 18		
4 11	15 37.94	-14 3.1	3.881	4.740	6.9	20.8	4 11	16 14.99	-21 43.2	1.834	2.644	15.4	22.1
4 21	15 34.18	-13 37.4	3.801	4.736	5.0	20.7	4 21	16 2.95	-23 21.5	1.733	2.638	11.8	21.8
5 1	15 29.55	-13 10.3	3.748	4.733	2.9	20.5	5 1	15 47.12	-24 57.0	1.660	2.630	7.5	21.5
5 11	15 24.42	-12 43.4	3.724	4.729	1.3	20.4	5 11	15 28.43	-26 23.0	1.618	2.620	3.6	21.3
5 21	15 19.19	-12 18.3	3.729	4.726	2.4	20.5	5 21	15 8.44	-27 33.0	1.611	2.609	4.8	21.3
5 31	15 14.26	-11 56.7	3.763	4.723	4.4	20.6	5 31	14 49.09	-28 24.9	1.638	2.596	9.2	21.6
6 10	15 10.02	-11 40.2	3.824	4.720	6.4	20.8	6 10	14 32.14	-29 1.7	1.695	2.582	13.5	21.8
6 20	15 6.73	-11 29.6	3.909	4.717	8.2	20.9	6 20	14 18.72	-29 29.5	1.777	2.567	17.2	22.0
377224	2003 <i>YL</i> ₁₃₃		5 13.7 269°00	5°7/ 5.9 17			512672	2016 <i>TQ</i> ₇₉		5 13.7 132°58	2°4/16.5 18		
4 11	15 39.01	+12 55.7	4.509	5.309	7.1	20.3	4 11	15 42.98	-31 11.9	3.992	4.797	7.8	22.7
4 21	15 34.80	+13 23.2	4.450	5.303	6.3	20.2	4 21	15 37.81	-31 11.5	3.917	4.810	6.1	22.6
5 1	15 29.85	+13 41.8	4.416	5.298	5.8	20.2	5 1	15 31.63	-31 2.8	3.867	4.823	4.3	22.4
5 11	15 24.48	+13 49.5	4.407	5.292	5.8	20.2	5 11	15 24.89	-30 46.1	3.846	4.835	2.7	22.3
5 21	15 19.04	+13 45.1	4.424	5.287	6.3	20.2	5 21	15 18.06	-30 22.3	3.855	4.847	2.6	22.3
5 31	15 13.89	+13 28.0	4.467	5.281	7.1	20.3	5 31	15 11.64	-29 53.2	3.893	4.859	4.0	22.5
6 10	15 9.33	+12 58.7	4.532	5.275	8.1	20.4	6 10	15 6.06	-29 21.2	3.959	4.871	5.8	22.6
6 20	15 5.62	+12 18.3	4.617	5.270	9.1	20.4	6 20	15 1.65	-28 48.7	4.051	4.882	7.5	22.7
249158	2008 <i>BK</i> ₁₀		5 13.7 181°41	3°1/11.7 17			62882	2000 <i>UC</i> ₉₃		5 13.7 112°12	2°7/15.1 17		
4 11	15 44.96	- 9 56.8	2.265	3.130	10.9	20.8	4 11	15 51.43	-26 6.1	1.544	2.397	15.7	19.9
4 21	15 39.74	- 9 31.1	2.194	3.130	8.0	20.6	4 21	15 45.20	-26 6.1	1.480	2.407	11.8	19.7
5 1	15 32.92	- 9 6.1	2.148	3.130	5.0	20.5	5 1	15 36.36	-25 51.7	1.438	2.416	7.5	19.4
5 11	15 25.17	- 8 44.9	2.130	3.130	3.1	20.3	5 11	15 25.95	-25 23.1	1.421	2.425	3.4	19.2
5 21	15 17.23	- 8 30.0	2.140	3.130	4.6	20.4	5 21	15 15.30	-24 43.1	1.430	2.434	4.0	19.3
5 31	15 9.88	- 8 23.8	2.177	3.130	7.6	20.6	5 31	15 5.76	-23 57.0	1.465	2.442	8.2	19.5
6 10	15 3.81	- 8 27.9	2.239	3.130	10.5	20.8	6 10	14 58.43	-23 11.7	1.523	2.450	12.3	19.8
6 20	14 59.47	- 8 42.6	2.323	3.130	13.1	21.0	6 20	14 53.89	-22 32.6	1.603	2.458	15.9	20.0
173544	2000 <i>WC</i> ₁₇₉		5 13.7 241°87	11°9/ 6.2 17			106629	2000 <i>WY</i> ₁₂₈		5 13.7 91°96	1°0/14.4 18		
4 11	15 52.23	+13 20.8	1.922	2.734	14.7	20.4	4 11	15 46.37	-22 11.3	2.338	3.188	11.2	19.9
4 21	15 45.36	+14 26.5	1.852	2.717	13.1	20.3	4 21	15 40.78	-22 12.9	2.269	3.197	8.2	19.7
5 1	15 36.34	+15 13.5	1.804	2.699	12.1	20.2	5 1	15 33.53	-22 7.5	2.224	3.205	4.9	19.5
5 11	15 25.94	+15 34.4	1.780	2.680	12.0	20.1	5 11	15 25.32	-21 55.6	2.207	3.214	1.6	19.3
5 21	15 15.17	+15 24.6	1.779	2.660	13.1	20.1	5 21	15 16.93	-21 39.1	2.218	3.223	2.6	19.4
5 31	15 5.11	+14 43.0	1.801	2.639	15.0	20.2	5 31	15 9.20	-21 20.6	2.257	3.232	6.0	19.6
6 10	14 56.68	+13 32.2	1.843	2.618	17.2	20.3	6 10	15 2.82	-21 3.2	2.323	3.240	9.1	19.8
6 20	14 50.49	+11 57.2	1.903	2.596	19.2	20.4	6 20	14 58.26	-20 49.6	2.411	3.249	11.8	20.0
286521	2002 <i>CL</i> ₆₇		5 13.7 203°22	4°7/17.8 18			336384	2008 <i>UR</i> ₇₅		5 13.7 270°55	1°3/14.5 17		
4 11	15 48.30	-37 7.9	3.005	3.786	10.7	21.6	4 11	15 47.79	-22 40.1	1.936	2.791	12.9	20.8
4 21	15 42.12	-37 18.3	2.912	3.781	8.7	21.4	4 21	15 42.29	-22 42.0	1.851	2.781	9.6	20.6
5 1	15 34.30	-37 15.0	2.843	3.775	6.7	21.3	5 1	15 34.64	-22 35.0	1.789	2.771	5.9	20.3
5 11	15 25.48	-36 56.7	2.801	3.769	5.1	21.1	5 11	15 25.60	-22 19.7	1.753	2.760	2.0	20.1
5 21	15 16.41	-36 24.2	2.787	3.762	4.8	21.1	5 21	15 16.14	-21 57.7	1.745	2.750	3.1	20.1
5 31	15 7.90	-35 39.7	2.801	3.755	6.0	21.2	5 31	15 7.35	-21 32.5	1.764	2.740	7.2	20.3
6 10	15 0.65	-34 47.4	2.842	3.748	8.1	21.3	6 10	15 0.17	-21 8.4	1.808	2.729	11.0	20.6
6 20	14 55.16	-33 51.8	2.908	3.740	10.2	21.4	6 20	14 55.22	-20 49.2	1.873	2.719	14.4	20.7
113392	2002 <i>SG</i> ₂₁		5 13.7 224°39	3°2/11.4 17			198644	2005 <i>AA</i> ₇₆		5 13.7 50°15	0°1/13.7 17		
4 11	15 45.07	-10 49.7	2.211	3.078	11.1	20.0	4 11	15 45.57	-22 25.0	1.680	2.546	14.0	19.4
4 21	15 39.88	-10 4.2	2.136	3.073	8.1	19.8	4 21	15 40.54	-21 24.9	1.624	2.561	10.2	19.1
5 1	15 33.04	- 9 17.7	2.085	3.067	5.1	19.6	5 1	15 33.46	-20 12.8	1.590	2.576	5.9	18.9
5 11	15 25.21	- 8 34.0	2.061	3.062	3.2	19.4	5 11	15 25.29	-18 53.1	1.583	2.592	1.3	18.6
5 21	15 17.16	- 7 56.8	2.066	3.056	4.9	19.5	5 21	15 17.09	-17 31.6	1.603	2.608	3.3	18.8
5 31	15 9.70	- 7 29.4	2.098	3.049	7.9	19.7	5 31	15 9.88	-16 15.1	1.650	2.625	7.7	19.1
6 10	15 3.54	- 7 14.0	2.155	3.043	11.0	19.9	6 10	15 4.48	-15 9.4	1.721	2.641	11.6	19.4
6 20	14 59.16	- 7 11.7	2.233	3.036	13.7	20.0	6 20	15 1.33	-14 18.2	1.814	2.658	14.8	19.6
22355	1992 <i>WD</i> ₁		5 13.7 191°12	1°3/12.9 17			101912	1999 <i>RK</i> ₁₀		5 13.7 270°34	1°3/13.0 18		
4 11	15 50.15	-16 21.4	1.971	2.831	12.5	19.6	4 11	15 49.33	-17 12.9	1.670	2.538	14.0	20.4
4 21	15 43.77	-15 57.5	1.894	2.829	9.1	19.4	4 21	15 43.76	-16 43.5	1.576	2.515	10.3	20.1
5 1	15 35.37	-15 28.7	1.842	2.827	5.3	19.1	5 1	15 35.67	-16 6.4	1.504	2.491	6.0	19.8
5 11	15 25.72	-14 57.4	1.817	2.825	1.6	18.9	5 11	15 25.86	-15 24.4	1.458	2.466	1.7	19.5
5 21	15 15.80	-14 26.8	1.820	2.822	3.7	19.0	5 21	15 15.40	-14 41.4	1.438	2.441	4.2	19.6
5 31	15 6.62	-14 0.6	1.851	2.818	7.7	19.2	5 31	15 5.57	-14 2.8	1.445	2.415	9.1	19.8
6 10	14 59.04	-13 42.1	1.908	2.813	11.4	19.4	6 10	14 57.51	-13 33.3	1.476	2.389	13.6	20.0
6 20	14 53.63	-13 33.5	1.986	2.808	14.5	19.6	6 20	14 51.99	-13 16.7	1.527	2.363	17.5	20.2
320697	2008 <i>DQ</i> ₁₄		5 13.7 139°44	1°1/13.1 17			395648	2011 <i>WE</i>					

EPHEMERIDES

5 13.7

5 13.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
261213	2005 <i>UR</i> ₄		5 13.7 144°58'		7°9/10.9 18		58925	1998 <i>LZ</i> ₂		5 13.8 32°29'		1°7/12.4 18	
4 11	15 52.67	+ 3 11.4	1.782	2.629	14.2	19.8	4 11	15 43.22	-18 21.0	1.837	2.709	12.7	17.8
4 21	15 45.61	+ 3 23.1	1.720	2.631	11.4	19.6	4 21	15 38.70	-17 4.1	1.777	2.719	9.1	17.6
5 1	15 36.41	+ 3 20.8	1.682	2.634	9.0	19.4	5 1	15 32.39	-15 39.1	1.742	2.730	5.2	17.4
5 11	15 25.96	+ 3 0.2	1.668	2.636	7.9	19.4	5 11	15 25.09	-14 11.0	1.733	2.741	1.8	17.2
5 21	15 15.30	+ 2 19.5	1.682	2.638	9.1	19.4	5 21	15 17.72	-12 46.1	1.752	2.752	4.0	17.4
5 31	15 5.51	+ 1 18.9	1.721	2.640	11.6	19.6	5 31	15 11.19	-11 30.5	1.798	2.765	7.9	17.6
6 10	14 57.50	+ 0 1.1	1.784	2.641	14.4	19.8	6 10	15 6.23	-10 28.9	1.869	2.777	11.4	17.9
6 20	14 51.80	- 1 30.0	1.867	2.643	17.0	20.0	6 20	15 3.25	- 9 43.7	1.961	2.790	14.4	18.1
170837	2004 <i>FO</i> ₂₀		5 13.7 65°72'		3°3/11.3 17		88010	2000 <i>UJ</i> ₅₆		5 13.8 189°70'		0°9/13.3 18	
4 11	15 44.33	-11 44.5	1.990	2.863	11.9	20.0	4 11	15 50.52	-15 31.7	2.099	2.956	12.0	19.6
4 21	15 39.36	-10 46.2	1.933	2.873	8.6	19.8	4 21	15 44.00	-15 40.1	2.022	2.955	8.7	19.4
5 1	15 32.71	- 9 46.5	1.901	2.885	5.3	19.6	5 1	15 35.51	-15 46.1	1.969	2.954	5.0	19.1
5 11	15 25.14	- 8 50.1	1.895	2.896	3.3	19.5	5 11	15 25.81	-15 50.8	1.944	2.953	1.3	18.9
5 21	15 17.48	- 8 1.4	1.917	2.907	5.1	19.7	5 21	15 15.79	-15 55.6	1.948	2.951	3.3	19.0
5 31	15 10.57	- 7 24.1	1.965	2.918	8.3	19.9	5 31	15 6.43	-16 2.4	1.980	2.949	7.1	19.3
6 10	15 5.10	- 7 0.8	2.038	2.930	11.4	20.1	6 10	14 58.58	-16 13.3	2.038	2.946	10.6	19.5
6 20	15 1.52	- 6 52.1	2.131	2.941	14.1	20.3	6 20	14 52.79	-16 29.8	2.119	2.943	13.7	19.7
426221	2012 <i>LQ</i> ₁₂		5 13.7 328°62'		4°7/16.7 17		285785	2000 <i>WP</i> ₄₃		5 13.8 184°07'		0°9/12.7 18	
4 11	15 47.00	-32 5.1	1.598	2.439	15.9	20.4	4 11	15 40.14	-15 29.7	4.242	5.093	6.5	22.2
4 21	15 42.18	-31 56.9	1.519	2.432	12.5	20.2	4 21	15 35.68	-15 4.7	4.161	5.092	4.7	22.0
5 1	15 34.73	-31 28.3	1.461	2.426	8.8	19.9	5 1	15 30.40	-14 37.6	4.108	5.092	2.7	21.9
5 11	15 25.63	-30 38.6	1.426	2.421	5.4	19.7	5 11	15 24.66	-14 10.0	4.084	5.091	0.9	21.7
5 21	15 16.15	-29 30.5	1.417	2.415	5.1	19.7	5 21	15 18.82	-13 43.2	4.090	5.090	2.0	21.8
5 31	15 7.64	-28 10.3	1.433	2.410	8.3	19.9	5 31	15 13.28	-13 19.0	4.127	5.088	4.0	22.0
6 10	15 1.23	-26 46.8	1.473	2.405	12.2	20.1	6 10	15 8.40	-12 58.8	4.191	5.086	6.0	22.1
6 20	14 57.57	-25 28.2	1.534	2.401	15.9	20.3	6 20	15 4.45	-12 43.6	4.281	5.084	7.7	22.2
403522	2010 <i>CB</i> ₈₃		5 13.7 131°03'		0°9/12.8 18		432445	2010 <i>CD</i> ₄₃		5 13.8 59°52'		5°6/17.2 17	
4 11	15 40.97	-15 32.3	3.594	4.448	7.5	22.0	4 11	15 49.35	-34 3.6	1.829	2.650	15.0	21.2
4 21	15 36.37	-15 10.4	3.524	4.457	5.4	21.8	4 21	15 43.60	-34 23.8	1.759	2.657	12.0	21.0
5 1	15 30.81	-14 46.4	3.481	4.466	3.1	21.7	5 1	15 35.43	-34 25.8	1.711	2.664	8.8	20.8
5 11	15 24.72	-14 21.8	3.467	4.474	1.0	21.5	5 11	15 25.79	-34 7.9	1.687	2.671	6.2	20.6
5 21	15 18.55	-13 58.3	3.482	4.482	2.3	21.6	5 21	15 15.87	-33 31.3	1.689	2.678	5.8	20.6
5 31	15 12.76	-13 37.8	3.527	4.490	4.6	21.8	5 31	15 6.92	-32 40.4	1.717	2.685	8.0	20.8
6 10	15 7.77	-13 21.8	3.600	4.498	6.7	22.0	6 10	14 59.95	-31 41.9	1.770	2.693	11.1	21.0
6 20	15 3.87	-13 11.4	3.696	4.506	8.6	22.1	6 20	14 55.57	-30 42.9	1.844	2.700	14.1	21.2
123630	2000 <i>YU</i> ₄₆		5 13.8 139°82'		3°2/11.9 17		183086	2002 <i>RO</i> ₇₂		5 13.8 245°66'		4°5/16.0 17	
4 11	15 47.62	-10 36.7	1.953	2.821	12.3	19.6	4 11	15 51.55	-30 2.6	1.761	2.595	14.9	21.1
4 21	15 41.85	-10 11.9	1.887	2.825	9.0	19.4	4 21	15 45.45	-30 25.9	1.674	2.585	11.7	20.9
5 1	15 34.22	- 9 47.5	1.846	2.829	5.5	19.2	5 1	15 36.67	-30 34.2	1.609	2.574	8.1	20.7
5 11	15 25.49	- 9 26.8	1.830	2.832	3.2	19.1	5 11	15 26.11	-30 25.4	1.569	2.563	5.1	20.4
5 21	15 16.56	- 9 12.7	1.843	2.836	4.9	19.2	5 21	15 14.97	-29 59.9	1.555	2.552	5.1	20.4
5 31	15 8.38	- 9 7.9	1.882	2.839	8.3	19.4	5 31	15 4.61	-29 21.2	1.567	2.540	8.3	20.6
6 10	15 1.72	- 9 14.0	1.946	2.843	11.6	19.6	6 10	14 56.24	-28 35.9	1.605	2.528	12.0	20.8
6 20	14 57.10	- 9 31.4	2.032	2.846	14.5	19.8	6 20	14 50.62	-27 50.6	1.663	2.515	15.5	21.0
348704	2006 <i>BU</i> ₂₇₄		5 13.8 339°37'		2°2/16.3 18		132669	2002 <i>NJ</i> ₆		5 13.8 277°71'		1°2/14.5 18	
4 11	15 40.21	-30 3.6	4.140	4.953	7.4	20.4	4 11	15 46.56	-23 31.8	1.976	2.830	12.7	19.9
4 21	15 35.87	-30 9.9	4.053	4.952	5.7	20.3	4 21	15 41.39	-23 17.1	1.886	2.816	9.5	19.7
5 1	15 30.56	-30 9.1	3.991	4.950	4.0	20.1	5 1	15 34.13	-22 51.9	1.820	2.801	5.8	19.4
5 11	15 24.69	-30 1.2	3.958	4.949	2.5	20.0	5 11	15 25.53	-22 17.1	1.780	2.787	2.0	19.1
5 21	15 18.67	-29 46.9	3.954	4.948	2.5	20.0	5 21	15 16.54	-21 35.3	1.767	2.772	3.0	19.2
5 31	15 12.97	-29 27.8	3.978	4.946	3.9	20.1	5 31	15 8.18	-20 50.8	1.782	2.758	7.1	19.4
6 10	15 8.01	-29 5.7	4.031	4.945	5.7	20.3	6 10	15 1.38	-20 8.5	1.821	2.743	10.9	19.6
6 20	15 4.10	-28 42.8	4.108	4.944	7.4	20.4	6 20	14 56.75	-19 32.8	1.883	2.729	14.3	19.8
119895	2002 <i>CY</i> ₂₇₂		5 13.8 33°00'		1°0/14.3 17		89296	2001 <i>VM</i> ₂₈		5 13.8 149°10'		1°2/14.6 18	
4 11	15 47.34	-20 49.1	2.118	2.972	12.0	18.9	4 11	15 47.67	-24 24.4	1.806	2.660	13.7	18.9
4 21	15 41.69	-21 8.3	2.046	2.977	8.8	18.7	4 21	15 42.16	-23 51.2	1.733	2.662	10.2	18.7
5 1	15 34.16	-21 21.6	2.000	2.982	5.2	18.5	5 1	15 34.51	-23 5.0	1.683	2.665	6.2	18.4
5 11	15 25.49	-21 29.2	1.980	2.987	1.6	18.3	5 11	15 25.59	-22 8.0	1.659	2.667	2.0	18.2
5 21	15 16.56	-21 32.1	1.987	2.993	2.8	18.4	5 21	15 16.46	-21 4.3	1.663	2.669	3.1	18.3
5 31	15 8.31	-21 32.3	2.023	2.998	6.5	18.6	5 31	15 8.21	-19 59.5	1.694	2.670	7.4	18.5
6 10	15 1.53	-21 32.6	2.085	3.004	9.9	18.8	6 10	15 1.73	-18 59.8	1.750	2.672	11.3	18.7
6 20	14 56.76	-21 35.6	2.169	3.010	12.8	19.0	6 20	14 57.57	-18 9.8	1.828	2.674	14.6	19.0
271682	2004 <i>RO</i> ₈₃		5 13.8 274°16'		1°8/14.7 17		136922	Brianbauer		5 13.8 287°65'		0°3/13.9 18	
4 11	15 48.80	-23 53.6	1.869	2.721	13.4	21.1	4 11	15 48.20	-21 54.9	1.556	2.422	14.9	19.5
4 21	15 43.23	-23 58.2	1.775	2.703	10.1	20.9	4 21	15 43.21	-21 23.1	1.457	2.394	11.1	19.2
5 1	15 35.30	-23 52.6	1.704	2.684	6.3	20.6	5 1	15 35.50	-20 37.7	1.381	2.366	6.6	18.9
5 11	15 25.79	-23 36.9	1.659	2.665	2.5	20.3	5 11	15 25.89	-19 40.4	1.329	2.338	1.6	18.5
5 21	15 15.72	-23 12.5	1.641	2.646	3.4	20.3	5 21	15 15.55	-18 35.3	1.303	2.309	3.8	18.5
5 31	15 6.27	-22 42.9	1.650	2.627	7.6	20.5	5 31	15 5.85	-17 29.1	1.303	2.280	9.1	18.8
6 10	14 58.49	-22 13.0	1.684	2.607	11.6	20.7	6 10	14 58.07	-16 29.4	1.327	2.251	14.0	19.0
6 20	14 53.10	-21 47.4	1.740	2.587	15.2	20.9	6 20	14 53.03	-15 42.0	1.370	2.221	18.3	19.2
234168	2000 <i>LB</i>		5 13.8 269°47'		0°2/13.9 18		84858	2003 <i>AC</i> ₅₂		5 13.8 239°27'			

EPHEMERIDES

5 13.8

5 13.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
41645	2000 <i>SD</i> ₂₆₉		5 13.8 174°36	1.6/12.7	18		87067	2000 <i>KA</i> ₅₇		5 13.8 20°69	0°1/13.7	18	
4 11	15 47.89	-15 1.7	2.110	2.971	11.7	20.2	4 11	15 46.16	-20 15.3	1.337	2.217	16.0	18.8
4 21	15 42.00	-14 37.7	2.037	2.973	8.5	20.0	4 21	15 41.58	-19 51.4	1.277	2.222	11.7	18.6
5 1	15 34.32	-14 10.3	1.990	2.975	4.9	19.8	5 1	15 34.38	-19 17.1	1.239	2.227	6.8	18.3
5 11	15 25.56	-13 42.1	1.969	2.976	1.8	19.6	5 11	15 25.63	-18 35.4	1.224	2.233	1.5	18.0
5 21	15 16.59	-13 16.1	1.977	2.977	3.7	19.7	5 21	15 16.62	-17 51.0	1.234	2.240	3.9	18.2
5 31	15 8.31	-12 55.3	2.013	2.978	7.3	19.9	5 31	15 8.70	-17 10.0	1.268	2.247	9.0	18.5
6 10	15 1.48	-12 42.6	2.074	2.977	10.7	20.1	6 10	15 2.94	-16 37.8	1.325	2.255	13.5	18.8
6 20	14 56.60	-12 39.4	2.157	2.977	13.6	20.3	6 20	14 59.94	-16 17.9	1.401	2.264	17.3	19.0
49049	1998 <i>RF</i> ₂₅		5 13.8 212°04	1°5/14.7	18		106932	2000 <i>YN</i> ₆₄		5 13.8 232°09	2°9/11.8	18	
4 11	15 50.21	-24 4.2	2.035	2.880	12.8	20.7	4 11	15 47.49	-10 57.6	2.349	3.208	10.8	20.5
4 21	15 43.96	-23 55.1	1.949	2.874	9.6	20.5	4 21	15 41.67	-10 24.8	2.261	3.195	7.9	20.3
5 1	15 35.58	-23 35.5	1.887	2.866	5.9	20.2	5 1	15 34.16	-9 51.2	2.199	3.180	4.9	20.0
5 11	15 25.86	-23 5.9	1.852	2.859	2.2	20.0	5 11	15 25.58	-9 19.7	2.164	3.165	2.9	19.9
5 21	15 15.78	-22 28.6	1.845	2.850	3.1	20.0	5 21	15 16.69	-8 53.4	2.158	3.150	4.5	20.0
5 31	15 6.41	-21 47.6	1.867	2.841	7.0	20.2	5 31	15 8.31	-8 35.2	2.181	3.133	7.6	20.1
6 10	14 58.66	-21 7.7	1.914	2.831	10.7	20.4	6 10	15 1.18	-8 27.3	2.229	3.117	10.7	20.3
6 20	14 53.14	-20 33.4	1.983	2.821	14.0	20.6	6 20	14 55.80	-8 30.7	2.299	3.099	13.5	20.4
209979	2006 <i>HT</i> ₄₄		5 13.8 353°26	2°7/12.4	17 R		299846	2006 <i>SE</i> ₂₂₇		5 13.8 165°16	4°1/16.7	18	
4 11	15 44.15	-16 40.0	1.122	2.018	17.1	19.5	4 11	15 48.46	-32 21.8	2.447	3.260	11.9	21.3
4 21	15 40.49	-15 41.3	1.060	2.014	12.5	19.2	4 21	15 42.48	-32 38.9	2.367	3.262	9.4	21.2
5 1	15 33.91	-14 32.7	1.019	2.010	7.3	18.9	5 1	15 34.65	-32 43.0	2.310	3.264	6.8	21.0
5 11	15 25.52	-13 20.6	1.000	2.007	2.8	18.6	5 11	15 25.69	-32 33.0	2.280	3.266	4.6	20.9
5 21	15 16.74	-12 13.1	1.004	2.005	5.8	18.8	5 21	15 16.45	-32 9.6	2.278	3.268	4.4	20.8
5 31	15 9.09	-11 18.5	1.030	2.005	11.2	19.1	5 31	15 7.88	-31 35.7	2.303	3.269	6.4	21.0
6 10	15 3.81	-10 42.8	1.077	2.005	16.1	19.3	6 10	15 0.76	-30 55.6	2.355	3.271	9.1	21.1
6 20	15 1.55	-10 28.2	1.141	2.006	20.3	19.6	6 20	14 55.62	-30 14.2	2.430	3.272	11.6	21.3
429641	2011 <i>FX</i> ₁₃₈		5 13.8 141°35	5°6/17.1	17		106339	2000 <i>UT</i> ₁₀₈		5 13.8 132°67	2°2/12.0	18	
4 11	15 52.81	-34 35.6	2.070	2.876	14.0	22.2	4 11	15 44.56	-12 12.9	2.640	3.500	9.7	20.5
4 21	15 45.96	-35 8.0	1.997	2.885	11.3	22.0	4 21	15 39.25	-11 42.4	2.574	3.509	7.0	20.3
5 1	15 36.76	-35 23.9	1.947	2.893	8.4	21.8	5 1	15 32.61	-11 11.1	2.535	3.518	4.2	20.1
5 11	15 26.12	-35 21.1	1.922	2.901	6.1	21.7	5 11	15 25.22	-10 41.4	2.524	3.527	2.2	20.0
5 21	15 15.16	-34 59.9	1.924	2.908	5.8	21.7	5 21	15 17.73	-10 15.9	2.541	3.535	3.7	20.1
5 31	15 5.09	-34 23.4	1.954	2.915	7.8	21.8	5 31	15 10.79	-9 56.9	2.587	3.543	6.4	20.3
6 10	14 56.91	-33 37.6	2.008	2.921	10.5	22.0	6 10	15 4.97	-9 46.2	2.660	3.551	9.1	20.5
6 20	14 51.23	-32 48.9	2.086	2.927	13.2	22.2	6 20	15 0.65	-9 44.7	2.755	3.559	11.4	20.7
416794	2005 <i>GW</i> ₈₄		5 13.8 65°71	1°5/14.6	17		462570	2009 <i>DU</i> ₁₀₁		5 13.8 106°07	2°7/12.6	17	
4 11	15 49.28	-23 32.9	1.467	2.332	15.7	21.1	4 11	15 50.53	-13 20.6	1.479	2.354	15.1	21.4
4 21	15 43.75	-23 23.1	1.402	2.337	11.7	20.9	4 21	15 44.49	-12 59.1	1.419	2.361	11.0	21.2
5 1	15 35.60	-23 0.4	1.359	2.342	7.1	20.6	5 1	15 35.98	-12 35.6	1.381	2.368	6.5	21.0
5 11	15 25.87	-22 26.2	1.340	2.347	2.4	20.4	5 11	15 26.00	-12 13.4	1.369	2.375	2.8	20.8
5 21	15 15.85	-21 44.1	1.347	2.352	3.7	20.5	5 21	15 15.78	-11 56.5	1.382	2.382	5.0	20.9
5 31	15 6.90	-20 59.7	1.379	2.358	8.4	20.7	5 31	15 6.60	-11 48.2	1.421	2.388	9.5	21.2
6 10	15 0.11	-20 19.1	1.434	2.363	12.8	21.0	6 10	14 59.47	-11 51.4	1.483	2.395	13.6	21.4
6 20	14 56.10	-19 47.4	1.510	2.368	16.5	21.3	6 20	14 55.00	-12 6.8	1.565	2.401	17.1	21.7
302155	2001 <i>SK</i> ₂₄₇		5 13.8 198°70	3°2/11.8	16		276993	2004 <i>XR</i> ₄₀		5 13.8 208°64	0°1/13.8	17	
4 11	15 50.51	-12 23.9	1.891	2.754	12.8	22.3	4 11	15 48.69	-18 48.4	1.956	2.815	12.6	20.3
4 21	15 44.10	-11 32.7	1.814	2.750	9.4	22.1	4 21	15 42.84	-18 49.9	1.880	2.814	9.2	20.0
5 1	15 35.62	-10 38.5	1.762	2.746	5.7	21.9	5 1	15 34.95	-18 46.0	1.827	2.812	5.4	19.8
5 11	15 25.87	-9 45.5	1.738	2.741	3.2	21.7	5 11	15 25.78	-18 37.6	1.802	2.810	1.2	19.5
5 21	15 15.84	-8 58.5	1.742	2.734	5.2	21.8	5 21	15 16.29	-18 26.7	1.804	2.809	3.1	19.6
5 31	15 6.57	-8 21.8	1.773	2.727	8.9	22.0	5 31	15 7.51	-18 16.0	1.833	2.806	7.2	19.9
6 10	14 58.94	-7 58.7	1.828	2.719	12.6	22.2	6 10	15 0.32	-18 8.8	1.888	2.804	10.9	20.1
6 20	14 53.52	-7 50.6	1.905	2.710	15.7	22.4	6 20	14 55.29	-18 7.7	1.964	2.802	14.1	20.3
101709	1999 <i>CF</i> ₁₅₇		5 13.8 160°81	2°4/15.3	17		192832	1999 <i>VF</i> ₁₀₂		5 13.8 163°28	0°2/13.6	17	
4 11	15 50.75	-26 51.9	2.233	3.065	12.3	21.4	4 11	15 48.27	-18 33.8	2.256	3.110	11.4	21.3
4 21	15 44.12	-26 50.7	2.157	3.072	9.3	21.2	4 21	15 42.24	-18 25.3	2.182	3.114	8.3	21.1
5 1	15 35.56	-26 38.1	2.106	3.078	6.0	21.0	5 1	15 34.47	-18 11.6	2.133	3.118	4.8	20.9
5 11	15 25.87	-26 14.4	2.082	3.084	2.9	20.8	5 11	15 25.66	-17 54.1	2.112	3.121	1.0	20.7
5 21	15 15.96	-25 41.2	2.087	3.089	3.2	20.9	5 21	15 16.64	-17 34.9	2.120	3.124	2.8	20.8
5 31	15 6.82	-25 2.2	2.120	3.093	6.4	21.1	5 31	15 8.28	-17 16.9	2.156	3.127	6.5	21.0
6 10	14 59.25	-24 21.9	2.180	3.097	9.6	21.3	6 10	15 1.32	-17 2.9	2.219	3.129	9.8	21.2
6 20	14 53.78	-23 44.9	2.264	3.100	12.5	21.5	6 20	14 56.25	-16 55.1	2.304	3.131	12.6	21.4
477967	2011 <i>SW</i> ₄₇		5 13.8 204°63	1°4/12.6	16		57887	2002 <i>AR</i> ₂₀₁		5 13.8 309°48	4°4/16.2	18	
4 11	15 44.67	-15 15.2	2.829	3.684	9.3	22.9	4 11	15 47.48	-30 27.1	2.019	2.850	13.4	18.7
4 21	15 39.34	-14 43.6	2.746	3.679	6.7	22.7	4 21	15 42.29	-30 57.0	1.925	2.834	10.6	18.5
5 1	15 32.68	-14 8.9	2.689	3.674	3.9	22.5	5 1	15 34.81	-31 14.0	1.855	2.817	7.5	18.2
5 11	15 25.23	-13 33.2	2.661	3.668	1.5	22.3	5 11	15 25.78	-31 16.4	1.809	2.801	4.9	18.0
5 21	15 17.60	-12 59.0	2.662	3.661	3.0	22.5	5 21	15 16.21	-31 4.1	1.791	2.785	4.9	18.0
5 31	15 10.43	-12 29.1	2.693	3.654	5.9	22.6	5 31	15 7.23	-30 39.5	1.798	2.769	7.5	18.1
6 10	15 4.30	-12 5.7	2.750	3.647	8.6	22.8	6 10	14 59.87	-30 7.5	1.831	2.754	10.8	18.3
6 20	14 59.62	-11 50.5	2.831	3.639	11.0	23.0	6 20	14 54.85	-29 33.5	1.885	2.738	14.0	18.5
106624	2000 <i>WV</i> ₁₂₄		5 13.8 206°01	5°1/ 9.4	18		475158	2005 <i>US</i> ₃₉₅					

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
21350	Billgardner		5 13.8 154°04	1°6/14.7 18			111475	2001 YC ₁₄		5 13.8 344°13	2°9/12.2 18		
4 11	15 48.76	-23 53.7	2.090	2.936	12.4	19.5	4 11	15 46.53	-10 12.3	2.146	3.011	11.4	19.4
4 21	15 42.78	-23 52.8	2.016	2.941	9.3	19.3	4 21	15 41.05	-10 1.6	2.074	3.010	8.4	19.2
5 1	15 34.86	-23 42.5	1.966	2.945	5.7	19.1	5 1	15 33.83	-9 52.1	2.027	3.009	5.2	19.0
5 11	15 25.76	-23 23.2	1.942	2.948	2.2	18.8	5 11	15 25.57	-9 46.3	2.006	3.009	2.9	18.8
5 21	15 16.42	-22 57.1	1.947	2.952	3.0	18.9	5 21	15 17.08	-9 46.4	2.014	3.008	4.5	18.9
5 31	15 7.81	-22 27.4	1.980	2.955	6.6	19.1	5 31	15 9.21	-9 54.2	2.049	3.008	7.7	19.1
6 10	15 0.78	-21 58.4	2.038	2.958	10.1	19.4	6 10	15 2.70	-10 10.9	2.110	3.007	10.8	19.3
6 20	14 55.85	-21 33.8	2.119	2.960	13.1	19.6	6 20	14 58.05	-10 36.9	2.192	3.007	13.6	19.5
360728	2004 TZ ₂₃₇		5 13.8 273°16	0°9/13.3 17			90490	2004 DU ₂₀		5 13.8 46°47	2°2/14.9 17		
4 11	15 50.37	-18 20.1	1.534	2.403	14.9	21.3	4 11	15 48.46	-24 12.2	1.949	2.799	13.1	19.2
4 21	15 44.83	-17 53.5	1.438	2.378	11.1	21.0	4 21	15 42.73	-24 32.7	1.879	2.805	9.8	19.0
5 1	15 36.50	-17 17.7	1.365	2.352	6.5	20.6	5 1	15 34.92	-24 44.1	1.833	2.811	6.1	18.8
5 11	15 26.20	-16 35.1	1.317	2.325	1.6	20.2	5 11	15 25.82	-24 46.0	1.813	2.817	2.7	18.6
5 21	15 15.13	-15 49.5	1.295	2.298	4.3	20.3	5 21	15 16.44	-24 39.5	1.820	2.823	3.3	18.7
5 31	15 4.71	-15 6.8	1.298	2.271	9.6	20.6	5 31	15 7.83	-24 27.4	1.854	2.830	6.9	18.9
6 10	14 56.22	-14 33.0	1.325	2.243	14.5	20.8	6 10	15 0.89	-24 13.6	1.913	2.836	10.4	19.1
6 20	14 50.52	-14 12.2	1.372	2.215	18.7	21.0	6 20	14 56.17	-24 1.8	1.995	2.843	13.5	19.3
467624	2008 GX ₄₂		5 13.8 70°15	1°1/13.2 16			414125	2007 UP ₁₃₈		5 13.8 202°19	0°9/13.4 16		
4 11	15 48.49	-18 1.4	1.503	2.377	14.9	21.9	4 11	15 51.69	-16 59.2	1.826	2.686	13.4	22.2
4 21	15 42.94	-17 28.7	1.447	2.389	10.8	21.7	4 21	15 45.17	-16 49.6	1.747	2.682	9.8	22.0
5 1	15 35.04	-16 48.6	1.413	2.401	6.2	21.4	5 1	15 36.39	-16 35.0	1.692	2.678	5.7	21.7
5 11	15 25.80	-16 4.6	1.404	2.413	1.6	21.2	5 11	15 26.17	-16 17.2	1.664	2.673	1.4	21.4
5 21	15 16.43	-15 21.4	1.422	2.426	4.0	21.4	5 21	15 15.57	-15 58.7	1.664	2.667	3.6	21.6
5 31	15 8.12	-14 44.2	1.465	2.438	8.7	21.7	5 31	15 5.73	-15 42.9	1.691	2.661	8.0	21.8
6 10	15 1.83	-14 17.2	1.531	2.450	12.8	21.9	6 10	14 57.64	-15 33.2	1.743	2.654	12.0	22.0
6 20	14 58.08	-14 3.0	1.618	2.463	16.3	22.2	6 20	14 51.93	-15 32.2	1.817	2.646	15.4	22.3
474973	2005 TL ₇₂		5 13.8 228°64	1°1/12.8 18			155809	2000 VE ₅₈		5 13.8 262°93	1°5/14.6 18		
4 11	15 44.75	-15 31.1	2.919	3.773	9.1	22.3	4 11	15 50.17	-23 9.6	2.111	2.957	12.4	20.5
4 21	15 39.43	-15 9.3	2.829	3.761	6.6	22.1	4 21	15 44.11	-23 13.6	2.008	2.933	9.3	20.3
5 1	15 32.78	-14 44.5	2.764	3.749	3.8	21.9	5 1	15 35.84	-23 8.8	1.929	2.908	5.7	20.0
5 11	15 25.31	-14 18.5	2.729	3.736	1.3	21.7	5 11	15 26.08	-22 55.3	1.876	2.883	2.1	19.7
5 21	15 17.62	-13 53.5	2.723	3.723	2.8	21.8	5 21	15 15.73	-22 34.3	1.852	2.857	3.1	19.7
5 31	15 10.34	-13 31.7	2.746	3.710	5.7	22.0	5 31	15 5.86	-22 8.7	1.857	2.830	7.0	19.9
6 10	15 4.04	-13 15.3	2.797	3.696	8.4	22.2	6 10	14 57.47	-21 42.8	1.887	2.803	10.9	20.1
6 20	14 59.16	-13 5.9	2.871	3.681	10.8	22.3	6 20	14 51.26	-21 20.7	1.939	2.776	14.3	20.3
323319	2003 US ₁₁₇		5 13.8 193°47	5°9/14.5 18			231362	2006 GO ₄₂		5 13.8 39°81	4°9/10.8 17		
4 11	16 7.82	-24 25.9	1.194	2.042	19.7	20.5	4 11	15 44.79	-10 2.0	1.490	2.374	14.4	19.8
4 21	15 58.86	-26 29.7	1.120	2.041	15.3	20.2	4 21	15 40.12	-8 48.0	1.444	2.389	10.6	19.6
5 1	15 45.31	-28 28.6	1.068	2.040	10.4	20.0	5 1	15 33.36	-7 34.7	1.422	2.405	6.8	19.4
5 11	15 28.29	-30 12.3	1.041	2.038	6.3	19.7	5 11	15 25.47	-6 28.7	1.424	2.422	4.9	19.3
5 21	15 9.79	-31 31.9	1.040	2.035	7.3	19.8	5 21	15 17.52	-5 36.1	1.452	2.439	6.9	19.5
5 31	14 52.39	-32 24.9	1.065	2.032	11.9	20.0	5 31	15 10.59	-5 1.5	1.505	2.456	10.4	19.7
6 10	14 38.32	-32 56.8	1.113	2.027	16.9	20.3	6 10	15 5.50	-4 46.6	1.579	2.475	13.9	20.0
6 20	14 28.83	-33 17.0	1.180	2.023	21.2	20.5	6 20	15 2.70	-4 50.9	1.673	2.493	16.9	20.2
275123	2009 VX ₆₂		5 13.8 216°69	0°2/13.7 17			425732	2011 BW ₈₁		5 13.8 164°26	0°1/13.9 17		
4 11	15 48.25	-19 4.7	1.834	2.697	13.2	21.1	4 11	15 49.27	-20 55.2	2.209	3.059	11.7	22.0
4 21	15 42.63	-18 52.7	1.759	2.695	9.6	20.9	4 21	15 43.00	-20 28.5	2.136	3.065	8.6	21.8
5 1	15 34.88	-18 34.0	1.707	2.693	5.6	20.7	5 1	15 34.93	-19 53.7	2.087	3.070	5.0	21.6
5 11	15 25.81	-18 10.2	1.682	2.691	1.2	20.4	5 11	15 25.83	-19 12.9	2.066	3.075	1.1	21.3
5 21	15 16.43	-17 44.1	1.684	2.689	3.3	20.5	5 21	15 16.56	-18 29.0	2.074	3.079	2.8	21.4
5 31	15 7.81	-17 19.4	1.713	2.686	7.6	20.8	5 31	15 8.02	-17 46.0	2.111	3.082	6.5	21.7
6 10	15 0.87	-17 0.1	1.766	2.684	11.5	21.0	6 10	15 0.96	-17 7.9	2.174	3.085	9.9	21.9
6 20	14 56.19	-16 48.9	1.841	2.681	14.8	21.2	6 20	14 55.87	-16 37.7	2.260	3.087	12.8	22.1
123076	2000 SK ₃₁₂		5 13.8 258°83	7°5/18.4 18			485670	2011 WL ₁₀₅		5 13.8 259°29	0°4/14.1 18		
4 11	15 52.05	-39 56.5	2.030	2.815	15.0	19.7	4 11	15 46.35	-20 49.4	2.593	3.440	10.3	22.4
4 21	15 45.88	-40 26.6	1.933	2.799	12.6	19.5	4 21	15 40.88	-20 37.3	2.491	3.419	7.6	22.2
5 1	15 37.01	-40 36.5	1.858	2.782	10.1	19.3	5 1	15 33.77	-20 18.6	2.415	3.398	4.5	22.0
5 11	15 26.32	-40 22.4	1.806	2.765	8.1	19.2	5 11	15 25.60	-19 54.4	2.367	3.376	1.1	21.7
5 21	15 15.03	-39 43.5	1.780	2.748	7.6	19.1	5 21	15 17.07	-19 26.5	2.348	3.353	2.5	21.8
5 31	15 4.50	-38 42.7	1.779	2.731	9.1	19.1	5 31	15 8.97	-18 57.8	2.359	3.331	5.9	21.9
6 10	14 55.97	-37 27.0	1.803	2.713	11.7	19.3	6 10	15 2.01	-18 31.4	2.395	3.307	9.1	22.1
6 20	14 50.19	-36 4.9	1.849	2.695	14.5	19.4	6 20	14 56.71	-18 10.2	2.456	3.284	11.9	22.3
196757	2003 SZ ₁₅₄		5 13.8 251°41	3°0/15.6 18			109873	2001 RA ₁₅₂		5 13.8 252°29	4°6/10.9 18		
4 11	15 48.13	-27 46.6	1.974	2.815	13.3	20.3	4 11	15 45.82	-5 48.9	2.162	3.026	11.4	19.3
4 21	15 42.59	-27 50.5	1.893	2.810	10.2	20.1	4 21	15 40.51	-5 16.4	2.090	3.022	8.6	19.1
5 1	15 34.88	-27 41.4	1.834	2.806	6.7	19.9	5 1	15 33.53	-4 47.6	2.042	3.017	5.9	18.9
5 11	15 25.82	-27 19.3	1.801	2.801	3.6	19.7	5 11	15 25.53	-4 26.1	2.022	3.012	4.6	18.8
5 21	15 16.41	-26 45.8	1.795	2.797	3.8	19.7	5 21	15 17.31	-4 15.1	2.029	3.008	6.0	18.9
5 31	15 7.74	-26 4.6	1.817	2.792	7.0	19.8	5 31	15 9.68	-4 16.7	2.062	3.003	8.7	19.1
6 10	15 0.74	-25 21.2	1.863	2.788	10.6	20.0	6 10	15 3.36	-4 31.9	2.120	2.998	11.6	19.2
6 20	14 56.01	-24 40.6	1.932	2.783	13.8	20.2	6 20	14 58.85	-5 0.0	2.199	2.993	14.2	19.4
474600	2004 RG ₁₁₀		5 13.8 244°93	3°2/16.9 18			237148	2008 UX ₇₃		5 13.8 340°49	2°6/15.5 18		
4 11	15 46.16	-32 47.3	2.80										

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
98456	2000 <i>UD</i> ₆₉		5 13.8 230°00	2°9/15.2	17		306711	2000 <i>WY</i> ₂₇		5 13.8 288°03	0°2/13.9	18	
4 11	15 52.39	-26 5.8	1.737	2.582	14.6	19.8	4 11	15 46.39	-19 37.6	2.204	3.061	11.5	21.5
4 21	15 46.06	-26 18.9	1.651	2.572	11.2	19.5	4 21	15 41.19	-19 32.7	2.106	3.039	8.5	21.2
5 1	15 37.09	-26 19.6	1.587	2.563	7.2	19.3	5 1	15 34.09	-19 21.7	2.032	3.016	5.0	21.0
5 11	15 26.38	-26 6.9	1.549	2.552	3.5	19.0	5 11	15 25.73	-19 5.7	1.985	2.993	1.2	20.6
5 21	15 15.11	-25 42.0	1.538	2.541	4.0	19.0	5 21	15 16.91	-18 46.6	1.966	2.971	2.8	20.7
5 31	15 4.62	-25 8.7	1.554	2.530	8.0	19.2	5 31	15 8.56	-18 27.3	1.974	2.948	6.7	20.9
6 10	14 56.08	-24 32.7	1.595	2.518	12.1	19.4	6 10	15 1.52	-18 11.0	2.009	2.925	10.4	21.1
6 20	14 50.24	-23 59.8	1.657	2.505	15.8	19.7	6 20	14 56.41	-18 0.7	2.066	2.902	13.5	21.3
175203	2005 <i>FS</i> ₄		5 13.8 327°72	4°9/16.2	17		503437	2016 <i>EG</i> ₇₅		5 13.8 310°36	5°9/16.3	17	
4 11	15 47.87	-29 56.6	1.329	2.186	17.5	19.7	4 11	15 49.62	-30 48.9	1.304	2.158	18.0	20.9
4 21	15 43.39	-30 11.6	1.252	2.176	13.7	19.5	4 21	15 44.91	-31 22.1	1.224	2.144	14.3	20.6
5 1	15 35.79	-30 7.2	1.195	2.167	9.5	19.2	5 1	15 36.83	-31 36.4	1.163	2.131	10.2	20.3
5 11	15 26.11	-29 41.6	1.161	2.159	5.7	19.0	5 11	15 26.40	-31 28.4	1.124	2.118	6.6	20.1
5 21	15 15.82	-28 56.3	1.150	2.151	5.6	18.9	5 21	15 15.15	-30 57.6	1.108	2.105	6.5	20.0
5 31	15 6.55	-27 57.2	1.163	2.143	9.5	19.1	5 31	15 4.89	-30 8.9	1.116	2.093	10.1	20.2
6 10	14 59.72	-26 53.2	1.198	2.136	13.9	19.3	6 10	14 57.17	-29 11.3	1.145	2.082	14.6	20.4
6 20	14 56.10	-25 53.1	1.253	2.130	18.1	19.6	6 20	14 52.91	-28 14.0	1.194	2.071	18.8	20.6
52615	1997 <i>UY</i> ₁₂		5 13.8 251°36	0°4/14.0	17		247172	2001 <i>BX</i> ₁₉		5 13.8 110°54	1°8/15.1	17	
4 11	15 46.83	-20 39.1	2.175	3.030	11.7	20.5	4 11	15 49.18	-26 20.2	2.177	3.015	12.3	21.0
4 21	15 41.42	-20 29.9	2.090	3.021	8.6	20.3	4 21	15 42.89	-25 53.0	2.115	3.034	9.2	20.9
5 1	15 34.14	-20 13.6	2.029	3.012	5.1	20.1	5 1	15 34.84	-25 14.0	2.078	3.053	5.7	20.7
5 11	15 25.70	-19 51.5	1.995	3.003	1.3	19.8	5 11	15 25.83	-24 24.7	2.068	3.072	2.4	20.5
5 21	15 16.93	-19 25.7	1.989	2.994	2.8	19.9	5 21	15 16.80	-23 28.3	2.086	3.090	2.9	20.5
5 31	15 8.76	-18 59.5	2.011	2.985	6.6	20.1	5 31	15 8.62	-22 29.5	2.133	3.108	6.2	20.8
6 10	15 1.98	-18 36.3	2.059	2.975	10.1	20.3	6 10	15 2.04	-21 33.4	2.207	3.125	9.5	21.0
6 20	14 57.15	-18 19.1	2.129	2.966	13.2	20.5	6 20	14 57.47	-20 43.9	2.304	3.142	12.3	21.2
384043	2008 <i>UT</i> ₁₉₄		5 13.8 246°51	0°3/13.9	17		145712	1991 <i>BQ</i> ₁		5 13.8 104°06	3°5/11.9	18	
4 11	15 47.88	-20 6.3	1.993	2.851	12.5	21.4	4 11	15 50.06	-10 30.7	1.843	2.709	13.0	20.0
4 21	15 42.31	-20 0.6	1.911	2.845	9.2	21.2	4 21	15 43.61	-9 54.7	1.793	2.730	9.5	19.8
5 1	15 34.71	-19 48.1	1.854	2.838	5.4	20.9	5 1	15 35.28	-9 19.3	1.768	2.750	5.8	19.6
5 11	15 25.83	-19 29.7	1.823	2.831	1.3	20.6	5 11	15 25.94	-8 48.3	1.769	2.769	3.5	19.5
5 21	15 16.61	-19 7.9	1.819	2.825	3.0	20.8	5 21	15 16.56	-8 25.3	1.797	2.789	5.2	19.6
5 31	15 8.05	-18 45.8	1.844	2.818	7.1	21.0	5 31	15 8.12	-8 13.0	1.853	2.807	8.6	19.9
6 10	15 1.03	-18 27.2	1.893	2.811	10.8	21.2	6 10	15 1.37	-8 13.0	1.933	2.825	11.9	20.1
6 20	14 56.14	-18 15.0	1.964	2.804	14.0	21.4	6 20	14 56.77	-8 25.5	2.034	2.843	14.7	20.3
349048	2006 <i>VQ</i> ₁₄₉		5 13.8 130°52	0°8/14.3	17		410309	2007 <i>TT</i> ₄₀₀		5 13.8 203°33	0°2/13.7	15	
4 11	15 48.80	-21 2.5	2.654	3.496	10.2	21.4	4 11	15 50.98	-19 34.2	1.931	2.786	12.9	22.7
4 21	15 42.45	-21 17.5	2.584	3.508	7.5	21.2	4 21	15 44.59	-19 12.3	1.849	2.781	9.5	22.5
5 1	15 34.57	-21 27.1	2.539	3.519	4.5	21.0	5 1	15 36.05	-18 42.6	1.792	2.776	5.5	22.2
5 11	15 25.78	-21 31.6	2.522	3.530	1.4	20.8	5 11	15 26.16	-18 6.9	1.761	2.770	1.2	21.9
5 21	15 16.82	-21 31.9	2.535	3.540	2.4	20.9	5 21	15 15.93	-17 28.3	1.759	2.763	3.3	22.1
5 31	15 8.43	-21 29.8	2.578	3.550	5.5	21.2	5 31	15 6.43	-16 51.0	1.784	2.755	7.5	22.3
6 10	15 1.28	-21 27.6	2.648	3.560	8.3	21.3	6 10	14 58.61	-16 19.5	1.835	2.747	11.4	22.5
6 20	14 55.81	-21 27.5	2.742	3.569	10.8	21.5	6 20	14 53.05	-15 57.0	1.908	2.738	14.7	22.7
53135	1999 <i>BA</i> ₃		5 13.8 65°57	4°7/11.7	18		35500	1998 <i>FP</i> ₃₉		5 13.8 296°07	8°0/8.1	18	
4 11	15 50.15	-8 22.3	1.497	2.372	14.9	18.4	4 11	15 45.07	-0 45.1	1.752	2.621	13.4	18.6
4 21	15 43.92	-7 48.5	1.457	2.397	10.9	18.2	4 21	15 40.24	+0 45.8	1.693	2.619	10.7	18.4
5 1	15 35.51	-7 18.2	1.440	2.421	7.0	18.0	5 1	15 33.48	+2 9.4	1.658	2.616	8.6	18.3
5 11	15 25.97	-6 56.1	1.448	2.446	4.7	18.0	5 11	15 25.57	+3 18.3	1.647	2.614	8.1	18.2
5 21	15 16.46	-6 45.7	1.482	2.471	6.5	18.1	5 21	15 17.45	+4 6.5	1.662	2.611	9.7	18.3
5 31	15 8.10	-6 49.3	1.541	2.495	10.0	18.4	5 31	15 10.09	+4 30.3	1.700	2.609	12.3	18.5
6 10	15 1.74	-7 7.5	1.623	2.520	13.5	18.6	6 10	15 4.30	+4 29.3	1.760	2.606	15.1	18.6
6 20	14 57.84	-7 39.0	1.724	2.544	16.5	18.9	6 20	15 0.58	+4 5.7	1.838	2.604	17.6	18.8
249809	2001 <i>CL</i> ₃₁		5 13.8 198°17	5°4/18.3	18		62067	2000 <i>RG</i> ₇₄		5 13.8 0°33	3°3/14.9	18	
4 11	15 48.19	-38 37.4	2.774	3.552	11.6	20.8	4 11	15 52.97	-24 13.8	1.631	2.483	15.1	17.6
4 21	15 42.28	-38 55.5	2.687	3.550	9.6	20.6	4 21	15 46.59	-25 11.4	1.557	2.482	11.5	17.3
5 1	15 34.59	-38 58.5	2.623	3.547	7.5	20.5	5 1	15 37.47	-26 0.7	1.506	2.482	7.4	17.1
5 11	15 25.81	-38 44.9	2.584	3.545	5.9	20.4	5 11	15 26.51	-26 38.9	1.480	2.482	3.8	16.9
5 21	15 16.75	-38 15.1	2.573	3.543	5.5	20.3	5 21	15 14.98	-27 5.0	1.481	2.482	4.4	16.9
5 31	15 8.31	-37 31.4	2.589	3.540	6.7	20.4	5 31	15 4.27	-27 20.2	1.508	2.482	8.3	17.1
6 10	15 1.25	-36 38.5	2.631	3.537	8.6	20.5	6 10	14 55.63	-27 28.5	1.559	2.483	12.3	17.4
6 20	14 56.10	-35 41.2	2.698	3.533	10.7	20.7	6 20	14 49.81	-27 34.6	1.632	2.484	15.8	17.6
270549	2002 <i>GF</i> ₁₆₃		5 13.8 67°99	0°9/14.3	18		271902	2004 <i>VK</i> ₇₉		5 13.8 355°85	1°1/13.3	17	
4 11	15 51.01	-20 48.0	1.678	2.538	14.3	20.5	4 11	15 47.35	-16 38.3	1.676	2.547	13.7	20.5
4 21	15 44.64	-21 1.2	1.624	2.558	10.5	20.3	4 21	15 42.13	-16 25.8	1.605	2.546	10.0	20.3
5 1	15 36.01	-21 6.6	1.594	2.578	6.2	20.0	5 1	15 34.68	-16 8.5	1.558	2.545	5.8	20.1
5 11	15 26.11	-21 4.8	1.590	2.598	1.8	19.8	5 11	15 25.86	-15 48.7	1.536	2.545	1.5	19.8
5 21	15 16.08	-20 57.6	1.612	2.618	3.2	19.9	5 21	15 16.72	-15 29.5	1.541	2.545	3.8	19.9
5 31	15 7.08	-20 48.2	1.661	2.638	7.5	20.2	5 31	15 8.39	-15 14.4	1.572	2.544	8.2	20.2
6 10	15 0.04	-20 40.4	1.735	2.658	11.3	20.5	6 10	15 1.83	-15 6.7	1.626	2.545	12.2	20.4
6 20	14 55.47	-20 37.4	1.831	2.677	14.6	20.8	6 20	14 57.63	-15 8.7	1.701	2.545	15.7	20.6
214307	2005 <i>JF</i> ₂₂		5 13.8 292°91	0°5/13.9	17		281477	2008 <i>SX</i> ₂₂₃		5 13.8 221°8			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
107459	2001 <i>DP</i> ₂₆		5 13.8 168°35	0°7/13.3	18		322707	2000 <i>DT</i> ₁₁₄		5 13.8 71°37	1°0/14.3	16	
4 11	15 47.98	-17 35.4	2.405	3.258	10.8	20.7	4 11	15 50.77	-22 18.3	1.492	2.356	15.6	22.2
4 21	15 41.96	-17 16.4	2.331	3.263	7.8	20.6	4 21	15 44.64	-22 5.7	1.441	2.376	11.4	22.0
5 1	15 34.33	-16 52.6	2.282	3.266	4.5	20.4	5 1	15 36.07	-21 42.1	1.413	2.397	6.7	21.8
5 11	15 25.76	-16 26.0	2.261	3.270	1.1	20.1	5 11	15 26.16	-21 9.4	1.409	2.418	1.9	21.5
5 21	15 17.00	-15 58.9	2.269	3.272	2.9	20.3	5 21	15 16.18	-20 31.2	1.432	2.438	3.5	21.6
5 31	15 8.86	-15 34.3	2.307	3.275	6.3	20.5	5 31	15 7.40	-19 52.9	1.481	2.459	8.1	22.0
6 10	15 2.03	-15 15.0	2.370	3.276	9.4	20.7	6 10	15 0.78	-19 19.8	1.553	2.479	12.2	22.3
6 20	14 56.96	-15 3.1	2.457	3.277	12.1	20.9	6 20	14 56.83	-18 55.7	1.647	2.499	15.7	22.5
171899	2001 <i>RP</i> ₉₆		5 13.8 221°65	0°1/13.8	17		358974	2008 <i>SN</i> ₇		5 13.8 252°16	1°8/12.9	17	
4 11	15 45.95	-19 47.3	2.192	3.050	11.5	20.8	4 11	15 51.53	-16 9.0	1.560	2.429	14.7	21.8
4 21	15 40.70	-19 26.3	2.114	3.047	8.4	20.6	4 21	15 45.58	-15 38.5	1.471	2.411	10.9	21.5
5 1	15 33.69	-18 58.4	2.060	3.045	4.9	20.4	5 1	15 36.92	-15 1.3	1.405	2.392	6.4	21.2
5 11	15 25.63	-18 25.6	2.033	3.042	1.1	20.1	5 11	15 26.43	-14 20.3	1.364	2.372	2.1	20.9
5 21	15 17.32	-17 50.6	2.034	3.039	2.8	20.2	5 21	15 15.29	-13 39.9	1.350	2.352	4.7	21.0
5 31	15 9.64	-17 16.9	2.063	3.036	6.6	20.5	5 31	15 4.87	-13 5.5	1.362	2.331	9.6	21.2
6 10	15 3.35	-16 48.1	2.118	3.033	10.0	20.7	6 10	14 56.38	-12 41.9	1.397	2.309	14.3	21.5
6 20	14 58.93	-16 26.9	2.196	3.030	12.9	20.9	6 20	14 50.62	-12 32.3	1.452	2.287	18.3	21.7
326679	2002 <i>VH</i> ₁₂₇		5 13.8 271°01	1°7/13.1	18		462590	2009 <i>FD</i> ₇₇		5 13.8 299°62	3°8/11.7	17	
4 11	15 52.50	-13 57.7	1.798	2.659	13.4	20.7	4 11	15 46.41	-13 44.6	1.361	2.246	15.4	21.0
4 21	15 46.12	-14 2.6	1.698	2.633	10.0	20.4	4 21	15 42.10	-12 44.1	1.274	2.221	11.4	20.7
5 1	15 37.20	-14 6.3	1.622	2.607	5.9	20.1	5 1	15 35.01	-11 35.9	1.208	2.196	7.0	20.3
5 11	15 26.48	-14 10.3	1.572	2.580	2.0	19.8	5 11	15 26.02	-10 25.9	1.167	2.171	3.8	20.1
5 21	15 15.01	-14 16.5	1.551	2.553	4.2	19.9	5 21	15 16.32	-9 21.3	1.150	2.146	6.5	20.2
5 31	15 4.02	-14 27.0	1.557	2.524	8.7	20.1	5 31	15 7.33	-8 29.8	1.157	2.122	11.4	20.4
6 10	14 54.67	-14 44.3	1.587	2.496	13.1	20.3	6 10	15 0.34	-7 57.2	1.185	2.097	16.2	20.6
6 20	14 47.78	-15 9.9	1.639	2.467	16.9	20.4	6 20	14 56.18	-7 46.0	1.231	2.073	20.5	20.7
98418	2000 <i>US</i> ₂₂		5 13.8 182°04	1°5/13.1	18		182927	2002 <i>FN</i> ₂₅		5 13.8 79°50	7°3/18.2	17	
4 11	15 51.89	-15 15.7	1.734	2.598	13.8	19.8	4 11	15 57.10	-40 28.8	2.426	3.188	13.4	20.1
4 21	15 45.37	-15 6.7	1.662	2.599	10.1	19.5	4 21	15 49.10	-41 44.5	2.366	3.212	11.3	20.0
5 1	15 36.54	-14 54.2	1.613	2.599	5.8	19.3	5 1	15 38.70	-42 42.8	2.329	3.235	9.2	19.9
5 11	15 26.28	-14 40.4	1.591	2.599	1.8	19.0	5 11	15 26.79	-43 19.9	2.318	3.258	7.7	19.8
5 21	15 15.68	-14 28.0	1.596	2.598	4.0	19.2	5 21	15 14.49	-43 34.5	2.333	3.281	7.4	19.9
5 31	15 5.92	-14 20.2	1.628	2.597	8.4	19.4	5 31	15 3.02	-43 28.3	2.376	3.303	8.4	20.0
6 10	14 57.99	-14 19.7	1.685	2.595	12.4	19.6	6 10	14 53.43	-43 6.4	2.444	3.325	10.1	20.1
6 20	14 52.50	-14 28.4	1.763	2.593	15.8	19.9	6 20	14 46.37	-42 35.0	2.534	3.347	12.0	20.3
213372	2001 <i>TW</i> ₂₂₆		5 13.8 160°88	1°6/12.5	18		80793	2000 <i>CX</i> ₈₆		5 13.8 103°14	0°1/13.8	18	
4 11	15 44.71	-15 33.5	2.584	3.442	9.9	21.2	4 11	15 50.55	-19 30.3	1.690	2.553	14.1	19.6
4 21	15 39.47	-14 48.8	2.512	3.447	7.2	21.0	4 21	15 44.31	-19 15.1	1.631	2.567	10.3	19.4
5 1	15 32.84	-14 0.2	2.466	3.451	4.2	20.8	5 1	15 35.85	-18 52.3	1.596	2.581	5.9	19.1
5 11	15 25.42	-13 10.7	2.448	3.455	1.7	20.6	5 11	15 26.12	-18 23.9	1.586	2.595	1.3	18.9
5 21	15 17.88	-12 23.5	2.460	3.458	3.3	20.8	5 21	15 16.25	-17 53.3	1.604	2.609	3.4	19.0
5 31	15 10.90	-11 41.8	2.500	3.461	6.3	21.0	5 31	15 7.38	-17 24.6	1.648	2.622	7.8	19.3
6 10	15 5.07	-11 8.5	2.566	3.464	9.1	21.2	6 10	15 0.41	-17 1.9	1.717	2.635	11.7	19.6
6 20	15 0.79	-10 45.2	2.656	3.466	11.6	21.3	6 20	14 55.87	-16 48.3	1.807	2.647	15.0	19.8
323066	2002 <i>TT</i> ₅		5 13.8 292°31	0°3/13.7	17		518999	2010 <i>JU</i> ₆₁		5 13.8 284°32	6°2/9.1	16	
4 11	15 49.72	-19 0.2	1.563	2.431	14.7	21.0	4 11	15 44.13	-1 39.0	2.228	3.089	11.2	21.3
4 21	15 44.50	-18 47.7	1.459	2.398	11.0	20.7	4 21	15 39.34	-0 41.9	2.149	3.072	8.8	21.1
5 1	15 36.46	-18 26.7	1.377	2.364	6.5	20.4	5 1	15 32.93	+0 9.9	2.094	3.055	6.8	20.9
5 11	15 26.35	-17 58.5	1.320	2.329	1.5	19.9	5 11	15 25.49	+0 51.4	2.066	3.038	6.2	20.9
5 21	15 15.32	-17 26.0	1.290	2.295	4.0	20.0	5 21	15 17.76	+1 18.7	2.064	3.021	7.5	20.9
5 31	15 4.77	-16 54.0	1.284	2.260	9.3	20.2	5 31	15 10.54	+1 28.8	2.088	3.004	9.9	21.0
6 10	14 56.05	-16 28.0	1.303	2.224	14.4	20.4	6 10	15 4.53	+1 20.9	2.135	2.987	12.5	21.2
6 20	14 50.10	-16 12.7	1.340	2.189	18.8	20.6	6 20	15 0.22	+0 55.9	2.202	2.970	15.0	21.3
509684	2008 <i>PH</i> ₂₂		5 13.8 236°56	4°0/16.8	18		215871	2005 <i>EO</i> ₁₆₅		5 13.8 97°95	0°7/14.2	17	
4 11	15 50.01	-32 45.1	2.374	3.184	12.3	21.9	4 11	15 51.50	-21 22.0	1.550	2.412	15.2	21.1
4 21	15 43.82	-32 40.4	2.274	3.169	9.8	21.7	4 21	15 45.20	-21 13.8	1.491	2.426	11.1	20.9
5 1	15 35.60	-32 20.5	2.198	3.153	7.0	21.5	5 1	15 36.44	-20 55.8	1.455	2.440	6.6	20.6
5 11	15 26.08	-31 44.5	2.148	3.137	4.5	21.3	5 11	15 26.27	-20 29.6	1.445	2.453	1.7	20.4
5 21	15 16.19	-30 53.7	2.126	3.119	4.3	21.3	5 21	15 15.92	-19 58.3	1.461	2.467	3.4	20.5
5 31	15 6.92	-29 51.7	2.133	3.102	6.6	21.4	5 31	15 6.67	-19 26.7	1.503	2.480	8.1	20.8
6 10	14 59.15	-28 44.2	2.166	3.083	9.7	21.6	6 10	14 59.53	-18 59.7	1.569	2.492	12.3	21.1
6 20	14 53.49	-27 37.1	2.223	3.064	12.6	21.7	6 20	14 55.04	-18 41.2	1.656	2.505	15.8	21.4
358401	2007 <i>BL</i> ₂₆		5 13.8 280°33	4°8/17.4	17		281518	2008 <i>TS</i> ₅₅		5 13.8 150°60	0°5/13.5	17	
4 11	15 46.96	-34 38.2	2.375	3.182	12.4	20.9	4 11	15 47.29	-18 42.1	2.011	2.872	12.3	21.4
4 21	15 41.59	-34 48.5	2.288	3.176	10.0	20.8	4 21	15 41.75	-18 17.7	1.939	2.875	8.9	21.2
5 1	15 34.29	-34 43.7	2.223	3.171	7.4	20.6	5 1	15 34.33	-17 46.8	1.892	2.878	5.1	21.0
5 11	15 25.78	-34 22.7	2.184	3.165	5.3	20.4	5 11	15 25.80	-17 11.7	1.872	2.881	1.2	20.7
5 21	15 16.97	-33 46.4	2.172	3.159	5.0	20.4	5 21	15 17.06	-16 35.5	1.879	2.883	3.1	20.9
5 31	15 8.81	-32 57.8	2.188	3.153	6.8	20.5	5 31	15 9.05	-16 2.2	1.914	2.886	7.1	21.1
6 10	15 2.13	-32 2.1	2.229	3.147	9.4	20.7	6 10	15 2.56	-15 35.3	1.974	2.888	10.6	21.4
6 20	14 57.49	-31 4.7	2.293	3.141	12.0	20.8	6 20	14 58.11	-15 17.4	2.057	2.890	13.7	21.6
368100	2013 <i>CU</i> ₁		5 13.8 239°46	6°5/18.9	18		170577	2003 <i>XQ</i> ₁₁	</				

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
13738	1998 <i>SF</i> ₁		5 13.8 315°64	3°1/12.1	18		135544	2002 <i>CA</i> ₂₉₇		5 13.8 265°13	0°2/13.7	18	
4 11	15 45.93	-14 38.6	1.444	2.327	14.9	18.5	4 11	15 48.09	-19 11.3	1.913	2.774	12.8	20.4
4 21	15 41.40	-13 42.2	1.372	2.318	10.9	18.2	4 21	15 42.64	-18 56.7	1.824	2.759	9.4	20.1
5 1	15 34.41	-12 39.5	1.322	2.310	6.5	17.9	5 1	15 35.04	-18 34.9	1.758	2.744	5.5	19.9
5 11	15 25.86	-11 35.7	1.296	2.302	3.1	17.7	5 11	15 26.03	-18 7.7	1.719	2.728	1.2	19.5
5 21	15 16.92	-10 37.3	1.295	2.294	5.6	17.8	5 21	15 16.57	-17 37.7	1.708	2.712	3.2	19.6
5 31	15 8.85	-9 50.6	1.320	2.286	10.1	18.1	5 31	15 7.74	-17 8.9	1.723	2.696	7.6	19.9
6 10	15 2.72	-9 20.4	1.366	2.279	14.5	18.3	6 10	15 0.47	-16 45.1	1.764	2.680	11.5	20.1
6 20	14 59.16	-9 8.4	1.432	2.272	18.2	18.5	6 20	14 55.41	-16 29.8	1.826	2.664	15.0	20.3
393816	2005 <i>SS</i> ₆		5 13.8 263°47	1°3/12.8	17		184238	2004 <i>RF</i> ₂₀₈		5 13.8 306°71	2°6/15.9	17	
4 11	15 43.96	-17 2.5	2.357	3.219	10.7	21.5	4 11	15 44.80	-29 28.5	2.152	2.988	12.5	19.3
4 21	15 39.15	-16 18.4	2.275	3.211	7.7	21.3	4 21	15 40.09	-28 54.2	2.058	2.973	9.6	19.1
5 1	15 32.78	-15 28.6	2.217	3.204	4.5	21.0	5 1	15 33.46	-28 4.2	1.987	2.958	6.4	18.8
5 11	15 25.46	-14 36.2	2.188	3.196	1.4	20.8	5 11	15 25.66	-26 59.5	1.943	2.944	3.3	18.6
5 21	15 17.93	-13 44.6	2.187	3.188	3.3	20.9	5 21	15 17.56	-25 43.2	1.926	2.929	3.3	18.6
5 31	15 10.95	-12 57.8	2.214	3.180	6.7	21.1	5 31	15 10.11	-24 20.5	1.937	2.915	6.5	18.8
6 10	15 5.19	-12 19.2	2.267	3.172	9.8	21.3	6 10	15 4.15	-22 58.0	1.975	2.901	10.0	18.9
6 20	15 1.11	-11 51.2	2.343	3.164	12.6	21.5	6 20	15 0.20	-21 41.4	2.035	2.887	13.1	19.1
433534	2013 <i>WQ</i> ₈₇		5 13.8 245°77	1°7/14.7	18		111275	2001 <i>XF</i> ₃₆		5 13.8 127°57	3°7/16.7	18	
4 11	15 50.98	-23 2.2	2.049	2.894	12.7	21.0	4 11	15 47.56	-31 46.6	2.394	3.212	12.0	20.1
4 21	15 44.73	-23 17.7	1.956	2.880	9.5	20.8	4 21	15 41.88	-31 48.8	2.318	3.218	9.4	19.9
5 1	15 36.26	-23 25.3	1.887	2.865	5.9	20.5	5 1	15 34.39	-31 37.4	2.265	3.223	6.6	19.7
5 11	15 26.29	-23 24.4	1.844	2.850	2.3	20.3	5 11	15 25.86	-31 12.2	2.239	3.229	4.2	19.6
5 21	15 15.80	-23 16.1	1.830	2.835	3.2	20.3	5 21	15 17.12	-30 34.6	2.240	3.235	4.0	19.6
5 31	15 5.88	-23 2.6	1.844	2.819	7.1	20.5	5 31	15 9.09	-29 48.0	2.270	3.240	6.2	19.7
6 10	14 57.52	-22 48.0	1.884	2.802	10.8	20.7	6 10	15 2.51	-28 57.3	2.326	3.245	9.0	19.9
6 20	14 51.40	-22 35.9	1.946	2.785	14.2	20.9	6 20	14 57.89	-28 7.3	2.405	3.250	11.6	20.1
244672	2003 <i>MS</i> ₃		5 13.8 317°85	1°0/13.5	17		320616	2008 <i>CV</i> ₂₄		5 13.8 359°51	0°6/14.1	17	
4 11	15 46.67	-17 8.4	1.155	2.045	17.2	19.8	4 11	15 47.17	-20 4.1	1.249	2.131	16.7	20.3
4 21	15 42.82	-17 4.0	1.071	2.021	12.8	19.4	4 21	15 42.71	-20 10.0	1.184	2.129	12.4	20.0
5 1	15 35.71	-16 52.9	1.008	1.998	7.5	19.1	5 1	15 35.35	-20 7.1	1.139	2.127	7.3	19.8
5 11	15 26.25	-16 37.4	0.966	1.975	1.8	18.6	5 11	15 26.12	-19 56.5	1.118	2.127	1.8	19.4
5 21	15 15.82	-16 21.1	0.947	1.953	4.8	18.7	5 21	15 16.43	-19 41.0	1.120	2.127	4.0	19.5
5 31	15 6.16	-16 8.9	0.951	1.932	10.9	19.0	5 31	15 7.79	-19 25.0	1.147	2.128	9.3	19.9
6 10	14 58.85	-16 6.2	0.975	1.911	16.5	19.2	6 10	15 1.47	-19 13.7	1.195	2.130	14.2	20.1
6 20	14 54.91	-16 16.4	1.016	1.892	21.4	19.5	6 20	14 58.17	-19 10.9	1.261	2.133	18.3	20.4
407713	2011 <i>UB</i> ₂₅₈		5 13.8 205°58	0°3/13.9	16		180594	2004 <i>FH</i> ₆₁		5 13.8 116°53	1°8/12.8	18	
4 11	15 51.20	-20 46.7	1.586	2.449	14.9	22.5	4 11	15 50.10	-15 36.7	1.796	2.660	13.3	21.0
4 21	15 45.16	-20 29.6	1.510	2.446	11.0	22.2	4 21	15 43.83	-15 5.5	1.738	2.675	9.6	20.8
5 1	15 36.56	-20 2.5	1.457	2.442	6.5	21.9	5 1	15 35.54	-14 30.0	1.704	2.689	5.6	20.6
5 11	15 26.35	-19 27.1	1.430	2.439	1.5	21.6	5 11	15 26.11	-13 53.5	1.696	2.703	1.9	20.3
5 21	15 15.73	-18 47.1	1.429	2.434	3.6	21.7	5 21	15 16.57	-13 19.7	1.716	2.717	4.0	20.5
5 31	15 6.02	-18 7.3	1.454	2.430	8.4	22.0	5 31	15 7.96	-12 52.5	1.763	2.730	8.0	20.8
6 10	14 58.33	-17 33.5	1.504	2.425	12.9	22.3	6 10	15 1.10	-12 35.0	1.835	2.743	11.7	21.0
6 20	14 53.31	-17 9.6	1.574	2.419	16.6	22.5	6 20	14 56.50	-12 28.8	1.929	2.755	14.8	21.3
131606	2001 <i>XM</i> ₁₈		5 13.8 69°38	5°1/16.5	18		87262	2000 <i>OC</i> ₅₆		5 13.8 239°27	2°5/12.4	18	
4 11	15 52.03	-31 4.6	1.336	2.184	18.0	19.5	4 11	15 47.94	-13 27.7	1.883	2.751	12.7	19.5
4 21	15 46.17	-31 16.7	1.278	2.195	14.0	19.2	4 21	15 42.41	-12 57.0	1.805	2.743	9.3	19.3
5 1	15 37.24	-31 7.8	1.239	2.207	9.7	19.0	5 1	15 34.84	-12 23.4	1.750	2.735	5.5	19.0
5 11	15 26.49	-30 36.6	1.224	2.219	5.9	18.8	5 11	15 26.00	-11 50.4	1.722	2.727	2.5	18.8
5 21	15 15.49	-29 45.9	1.233	2.232	5.7	18.9	5 21	15 16.81	-11 21.4	1.721	2.719	4.5	18.9
5 31	15 5.85	-28 42.4	1.266	2.244	9.2	19.1	5 31	15 8.30	-11 0.3	1.747	2.710	8.4	19.2
6 10	14 58.81	-27 35.5	1.323	2.256	13.3	19.3	6 10	15 1.36	-10 49.8	1.797	2.701	12.1	19.4
6 20	14 54.98	-26 33.6	1.399	2.268	17.0	19.6	6 20	14 56.55	-10 51.4	1.869	2.692	15.3	19.6
431480	2007 <i>TZ</i> ₂₅		5 13.8 295°79	5°1/15.9	16		270210	2001 <i>TC</i> ₉₇		5 13.8 147°62	1°7/15.0	18	
4 11	15 51.33	-30 11.3	1.878	2.708	14.3	20.9	4 11	15 50.98	-24 59.7	2.347	3.181	11.7	22.1
4 21	15 45.46	-31 4.6	1.782	2.689	11.4	20.7	4 21	15 44.24	-24 57.9	2.275	3.193	8.7	21.9
5 1	15 36.92	-31 46.3	1.710	2.670	8.2	20.5	5 1	15 35.72	-24 46.5	2.229	3.204	5.4	21.7
5 11	15 26.49	-32 13.0	1.662	2.652	5.5	20.3	5 11	15 26.16	-24 26.1	2.210	3.215	2.3	21.5
5 21	15 15.27	-32 23.2	1.641	2.633	5.6	20.2	5 21	15 16.44	-23 58.3	2.221	3.224	2.8	21.6
5 31	15 4.60	-32 18.2	1.647	2.614	8.4	20.3	5 31	15 7.46	-23 26.4	2.260	3.233	6.0	21.8
6 10	14 55.71	-32 2.6	1.677	2.596	11.9	20.5	6 10	14 59.96	-22 54.3	2.327	3.242	9.2	22.0
6 20	14 49.48	-31 42.1	1.728	2.577	15.2	20.7	6 20	14 54.43	-22 25.7	2.417	3.249	11.9	22.2
114707	2003 <i>GC</i> ₁		5 13.8 79°67	9°4/ 7.9	18		119578	2001 <i>VX</i> ₉₆		5 13.8 232°53	7°6/ 8.7	18	
4 11	15 47.20	+10 53.5	2.257	3.079	12.5	19.4	4 11	15 47.62	+ 1 17.2	2.027	2.881	12.5	19.7
4 21	15 41.39	+11 34.1	2.205	3.082	10.8	19.2	4 21	15 41.99	+ 2 20.7	1.956	2.871	10.1	19.5
5 1	15 34.01	+11 58.8	2.177	3.085	9.7	19.2	5 1	15 34.52	+ 3 15.9	1.909	2.860	8.2	19.4
5 11	15 25.75	+12 3.1	2.173	3.088	9.4	19.2	5 11	15 25.92	+ 3 56.9	1.888	2.849	7.7	19.3
5 21	15 17.38	+11 44.7	2.193	3.091	10.3	19.2	5 21	15 17.03	+ 4 19.3	1.892	2.837	9.0	19.4
5 31	15 9.69	+11 3.4	2.238	3.095	11.8	19.3	5 31	15 8.77	+ 4 20.6	1.922	2.825	11.4	19.5
6 10	15 3.34	+10 1.5	2.304	3.098	13.6	19.5	6 10	15 1.91	+ 4 0.7	1.975	2.813	14.0	19.6
6 20	14 58.75	+ 8 42.7	2.390	3.101	15.3	19.6	6 20	14 57.00	+ 3 21.5	2.046	2.800	16.4	19.8
395568	2011 <i>UQ</i> ₂₄₄		5 13.8 161°22	1°4/12.7	18		459720	2013 <i>PC</i> _{48</}					

EPHEMERIDES

5 13.8

5 13.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
253714	2003 <i>VW</i> ₃		5 13.8 293°54	1.3°/14.6	17		389250	2009 <i>FO</i> ₃₉		5 13.8 276°72	3.2°/15.6	16	
4 11	15 47.76	-24 10.7	1.434	2.301	15.9	20.2	4 11	15 48.71	-27 36.0	2.123	2.959	12.7	20.8
4 21	15 43.06	-23 43.0	1.349	2.285	12.0	19.9	4 21	15 43.07	-27 58.7	2.034	2.948	9.8	20.6
5 1	15 35.56	-22 59.3	1.286	2.270	7.3	19.6	5 1	15 35.30	-28 10.6	1.968	2.938	6.5	20.4
5 11	15 26.21	-22 1.3	1.247	2.254	2.4	19.2	5 11	15 26.14	-28 10.8	1.928	2.927	3.7	20.2
5 21	15 16.27	-20 53.4	1.233	2.239	3.8	19.3	5 21	15 16.51	-27 59.7	1.916	2.916	3.9	20.2
5 31	15 7.20	-19 42.6	1.244	2.224	9.0	19.5	5 31	15 7.49	-27 39.7	1.931	2.905	6.9	20.4
6 10	15 0.25	-18 37.3	1.278	2.209	13.8	19.7	6 10	14 59.99	-27 15.2	1.972	2.894	10.2	20.5
6 20	14 56.18	-17 43.9	1.331	2.194	18.1	20.0	6 20	14 54.67	-26 50.5	2.036	2.883	13.3	20.7
387142	2012 <i>TJ</i> ₂₀₅		5 13.8 157°26	2.8°/15.7	18		383876	2008 <i>RF</i> ₇₅		5 13.8 175°55	2.9°/15.8	18	
4 11	15 47.92	-27 58.6	2.145	2.981	12.6	20.9	4 11	15 50.57	-28 34.3	2.556	3.377	11.2	21.8
4 21	15 42.30	-27 59.2	2.068	2.983	9.6	20.7	4 21	15 43.99	-28 47.5	2.474	3.380	8.6	21.6
5 1	15 34.72	-27 47.6	2.014	2.985	6.3	20.5	5 1	15 35.63	-28 50.0	2.417	3.382	5.8	21.4
5 11	15 25.96	-27 23.9	1.986	2.986	3.4	20.3	5 11	15 26.18	-28 41.4	2.387	3.384	3.3	21.3
5 21	15 16.95	-26 49.7	1.986	2.988	3.5	20.3	5 21	15 16.47	-28 22.6	2.387	3.384	3.4	21.3
5 31	15 8.65	-26 8.8	2.014	2.989	6.5	20.5	5 31	15 7.37	-27 56.0	2.415	3.385	5.9	21.4
6 10	15 1.90	-25 25.9	2.068	2.990	9.8	20.7	6 10	14 59.64	-27 25.6	2.470	3.385	8.8	21.6
6 20	14 57.24	-24 45.7	2.144	2.991	12.7	20.9	6 20	14 53.81	-26 55.3	2.550	3.384	11.3	21.8
162137	1998 <i>UJ</i> ₁₀		5 13.8 262°56	0.3°/13.7	18		479917	2014 <i>HN</i> ₅₂		5 13.8 270°77	3.2°/11.2	16	
4 11	15 46.64	-19 49.0	2.117	2.975	11.9	20.5	4 11	15 43.45	-10 52.4	2.345	3.212	10.5	21.6
4 21	15 41.40	-19 20.4	2.026	2.959	8.7	20.3	4 21	15 38.78	-9 57.1	2.267	3.205	7.7	21.4
5 1	15 34.24	-18 43.9	1.958	2.943	5.1	20.0	5 1	15 32.59	-9 0.3	2.215	3.197	4.9	21.2
5 11	15 25.87	-18 1.5	1.918	2.927	1.1	19.7	5 11	15 25.49	-8 6.1	2.190	3.189	3.2	21.0
5 21	15 17.14	-17 16.4	1.906	2.910	3.0	19.8	5 21	15 18.19	-7 18.3	2.194	3.182	4.8	21.1
5 31	15 8.97	-16 32.6	1.921	2.894	7.0	20.0	5 31	15 11.42	-6 40.4	2.225	3.174	7.7	21.3
6 10	15 2.21	-15 54.5	1.963	2.876	10.7	20.2	6 10	15 5.83	-6 15.1	2.280	3.166	10.6	21.5
6 20	14 57.42	-15 25.4	2.026	2.859	13.9	20.4	6 20	15 1.86	-6 3.2	2.358	3.158	13.2	21.6
142288	2002 <i>RW</i> ₁₃₅		5 13.8 281°26	0.2°/13.9	17		96803	1999 <i>RH</i> ₁₃₄		5 13.9 237°93	3.9°/16.3	18	
4 11	15 50.84	-19 0.4	1.609	2.474	14.6	20.0	4 11	15 49.05	-30 38.7	2.005	2.834	13.6	20.1
4 21	15 45.19	-19 6.6	1.515	2.452	10.8	19.7	4 21	15 43.38	-30 40.0	1.920	2.828	10.6	19.8
5 1	15 36.82	-19 6.5	1.443	2.428	6.4	19.4	5 1	15 35.47	-30 26.1	1.857	2.821	7.3	19.6
5 11	15 26.51	-19 0.8	1.396	2.405	1.5	19.0	5 11	15 26.17	-29 56.4	1.819	2.814	4.4	19.4
5 21	15 15.44	-18 51.1	1.376	2.381	3.7	19.1	5 21	15 16.50	-29 12.3	1.809	2.807	4.3	19.4
5 31	15 4.95	-18 40.7	1.382	2.358	8.8	19.4	5 31	15 7.58	-28 18.1	1.826	2.799	7.2	19.6
6 10	14 56.33	-18 33.8	1.411	2.333	13.4	19.6	6 10	15 0.36	-27 19.8	1.868	2.792	10.6	19.8
6 20	14 50.41	-18 34.1	1.461	2.309	17.5	19.8	6 20	14 55.48	-26 23.4	1.933	2.784	13.7	19.9
424102	2007 <i>EB</i> ₂₇		5 13.8 313°05	5.2°/7.4	18		393559	2003 <i>GO</i> ₃₃		5 13.9 268°52	2.1°/12.2	16	
4 11	15 38.71	+ 5 55.1	3.893	4.726	7.4	20.9	4 11	15 43.97	-14 25.2	2.350	3.214	10.6	21.3
4 21	15 34.85	+ 6 32.5	3.824	4.716	6.3	20.8	4 21	15 39.20	-13 38.9	2.266	3.204	7.7	21.1
5 1	15 30.13	+ 7 2.8	3.781	4.707	5.4	20.7	5 1	15 32.86	-12 48.8	2.208	3.193	4.6	20.8
5 11	15 24.91	+ 7 23.6	3.765	4.697	5.3	20.7	5 11	15 25.58	-11 58.0	2.177	3.183	2.1	20.7
5 21	15 19.59	+ 7 33.0	3.775	4.688	6.0	20.7	5 21	15 18.05	-11 10.4	2.175	3.172	3.8	20.8
5 31	15 14.55	+ 7 30.2	3.812	4.678	7.1	20.8	5 31	15 11.05	-10 29.4	2.201	3.161	7.1	20.9
6 10	15 10.17	+ 7 15.0	3.872	4.669	8.5	20.9	6 10	15 5.24	-9 58.3	2.252	3.151	10.2	21.1
6 20	15 6.74	+ 6 48.3	3.953	4.660	9.8	21.0	6 20	15 1.10	-9 38.7	2.326	3.140	12.9	21.3
274264	2008 <i>PZ</i> ₆		5 13.8 205°90	3.6°/16.2	17		475895	2007 <i>DU</i> ₃₉		5 13.9 83°27	5.6°/18.6	18	
4 11	15 49.41	-30 16.4	2.092	2.919	13.1	21.0	4 11	15 47.85	-38 17.7	2.407	3.195	12.8	20.9
4 21	15 43.50	-30 14.0	2.008	2.916	10.2	20.8	4 21	15 42.22	-38 24.0	2.330	3.201	10.5	20.7
5 1	15 35.48	-29 56.8	1.947	2.912	7.0	20.6	5 1	15 34.66	-38 12.8	2.274	3.206	8.1	20.6
5 11	15 26.15	-29 24.7	1.913	2.908	4.1	20.4	5 11	15 25.98	-37 42.9	2.244	3.211	6.2	20.5
5 21	15 16.51	-28 39.4	1.906	2.904	4.0	20.4	5 21	15 17.10	-36 55.6	2.240	3.217	5.7	20.4
5 31	15 7.62	-27 44.9	1.926	2.900	6.9	20.5	5 31	15 9.00	-35 54.5	2.264	3.222	7.0	20.5
6 10	15 0.38	-26 47.2	1.973	2.895	10.2	20.7	6 10	15 2.48	-34 45.1	2.313	3.227	9.3	20.7
6 20	14 55.39	-25 51.8	2.042	2.889	13.3	20.9	6 20	14 58.05	-33 33.6	2.386	3.233	11.6	20.8
182835	2002 <i>CD</i> ₃		5 13.8 43°06	1.9°/12.9	17		469083	2015 <i>BA</i> ₂₈₅		5 13.9 336°75	9.9°/7.3	17	
4 11	15 47.47	-12 31.0	2.094	2.959	11.7	19.8	4 11	15 43.26	+ 0 6.6	1.392	2.274	15.4	19.8
4 21	15 41.80	-12 34.9	2.029	2.966	8.5	19.6	4 21	15 39.44	+ 1 50.4	1.332	2.264	12.5	19.6
5 1	15 34.36	-12 38.9	1.988	2.973	5.0	19.4	5 1	15 33.29	+ 3 25.4	1.295	2.254	10.3	19.5
5 11	15 25.88	-12 44.5	1.974	2.980	2.1	19.2	5 11	15 25.70	+ 4 41.6	1.280	2.245	10.0	19.4
5 21	15 17.21	-12 53.4	1.988	2.988	3.7	19.3	5 21	15 17.77	+ 5 31.0	1.288	2.237	11.9	19.5
5 31	15 9.20	-13 7.1	2.030	2.996	7.2	19.5	5 31	15 10.69	+ 5 49.2	1.317	2.230	14.8	19.7
6 10	15 2.63	-13 26.9	2.097	3.004	10.4	19.8	6 10	15 5.44	+ 5 35.9	1.366	2.224	17.9	19.8
6 20	14 57.98	-13 53.5	2.187	3.013	13.3	20.0	6 20	15 2.64	+ 4 54.7	1.430	2.218	20.8	20.0
497798	2006 <i>TP</i> ₃		5 13.8 245°00	0.8°/13.4	17		72499	2001 <i>DR</i> ₆₆		5 13.9 147°72	0.1°/13.9	18	
4 11	15 50.25	-17 31.1	1.802	2.665	13.4	22.5	4 11	15 51.15	-20 27.7	1.853	2.709	13.4	20.1
4 21	15 44.32	-17 18.1	1.716	2.652	9.8	22.2	4 21	15 44.70	-20 6.2	1.786	2.718	9.8	19.9
5 1	15 36.08	-16 59.2	1.653	2.638	5.7	22.0	5 1	15 36.12	-19 36.3	1.742	2.726	5.7	19.6
5 11	15 26.31	-16 36.3	1.616	2.624	1.4	21.6	5 11	15 26.31	-18 59.9	1.726	2.734	1.3	19.4
5 21	15 16.06	-16 12.2	1.606	2.610	3.6	21.8	5 21	15 16.31	-18 20.3	1.737	2.742	3.2	19.5
5 31	15 6.47	-15 50.7	1.624	2.595	8.1	22.0	5 31	15 7.19	-17 41.9	1.775	2.748	7.4	19.8
6 10	14 58.58	-15 35.5	1.666	2.580	12.2	22.2	6 10	14 59.85	-17 9.2	1.839	2.755	11.2	20.0
6 20	14 53.06	-15 29.6	1.730	2.565	15.8	22.4	6 20	14 54.82	-16 45.5	1.925	2.760	14.4	20.2
52881	1998 <i>SN</i> ₅₃		5 13.8 275°34	4.5°/15.7	18		379422	201					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
103559	2000 BU ₃₁		5 13.9 338°96	7°6/17.7	18		87382	2000 QF ₆₂		5 13.9 299°33	1°6/13.1	18	
4 11	15 47.94	-35 14.4	1.343	2.182	18.4	19.0	4 11	15 48.44	-15 13.0	1.599	2.472	14.2	19.4
4 21	15 43.67	-35 47.1	1.267	2.173	15.0	18.7	4 21	15 43.36	-15 5.4	1.508	2.449	10.5	19.1
5 1	15 36.13	-35 56.2	1.210	2.165	11.4	18.5	5 1	15 35.73	-14 54.2	1.439	2.426	6.2	18.8
5 11	15 26.40	-35 38.1	1.175	2.158	8.3	18.3	5 11	15 26.32	-14 41.8	1.394	2.403	1.9	18.5
5 21	15 16.01	-34 52.7	1.162	2.152	7.8	18.2	5 21	15 16.22	-14 31.0	1.377	2.379	4.3	18.6
5 31	15 6.72	-33 45.5	1.173	2.146	10.3	18.4	5 31	15 6.72	-14 25.2	1.384	2.356	9.1	18.8
6 10	14 59.99	-32 26.3	1.205	2.141	14.1	18.6	6 10	14 58.99	-14 27.9	1.415	2.334	13.7	19.0
6 20	14 56.64	-31 5.8	1.257	2.137	17.8	18.8	6 20	14 53.83	-14 41.2	1.466	2.311	17.6	19.2
123367	2000 WK ₃₂		5 13.9 85°41	2°7/12.1	18		281034	2006 HP ₁₂		5 13.9 42°46	2°0/12.7	17	
4 11	15 48.13	-13 36.8	1.860	2.728	12.8	19.6	4 11	15 46.07	-15 58.9	1.677	2.551	13.6	20.4
4 21	15 42.26	-12 47.9	1.811	2.750	9.2	19.4	4 21	15 41.13	-15 15.9	1.615	2.558	9.9	20.2
5 1	15 34.58	-11 56.6	1.787	2.772	5.5	19.2	5 1	15 34.11	-14 27.4	1.577	2.564	5.7	20.0
5 11	15 25.94	-11 7.1	1.789	2.793	2.7	19.1	5 11	15 25.89	-13 37.7	1.564	2.571	2.1	19.8
5 21	15 17.30	-10 23.7	1.819	2.815	4.6	19.2	5 21	15 17.49	-12 51.3	1.578	2.579	4.3	19.9
5 31	15 9.56	-9 50.1	1.876	2.836	8.1	19.5	5 31	15 9.96	-12 13.1	1.618	2.586	8.4	20.2
6 10	15 3.47	-9 29.0	1.957	2.856	11.4	19.7	6 10	15 4.17	-11 46.6	1.682	2.594	12.2	20.4
6 20	14 59.44	-9 21.3	2.060	2.877	14.3	20.0	6 20	15 0.61	-11 33.7	1.766	2.602	15.5	20.7
153108	2000 SJ ₅₆		5 13.9 330°03	8°8/16.9	17		427955	2005 XO ₄₉		5 13.9 157°79	1°0/14.5	17	
4 11	15 51.46	-35 43.2	1.472	2.299	17.7	19.4	4 11	15 49.87	-22 15.9	2.043	2.892	12.6	21.9
4 21	15 46.33	-37 4.0	1.392	2.287	14.7	19.1	4 21	15 43.72	-22 13.6	1.970	2.897	9.3	21.7
5 1	15 37.80	-38 6.8	1.331	2.275	11.6	18.9	5 1	15 35.57	-22 3.0	1.921	2.902	5.6	21.5
5 11	15 26.82	-38 45.4	1.293	2.264	9.3	18.7	5 11	15 26.23	-21 44.7	1.898	2.906	1.8	21.2
5 21	15 14.85	-38 56.1	1.278	2.254	9.0	18.7	5 21	15 16.63	-21 20.9	1.904	2.909	2.9	21.3
5 31	15 3.74	-38 40.4	1.286	2.245	11.1	18.8	5 31	15 7.78	-20 54.8	1.938	2.912	6.7	21.6
6 10	14 55.11	-38 5.5	1.316	2.236	14.4	19.0	6 10	15 0.52	-20 30.6	1.997	2.915	10.3	21.8
6 20	14 49.97	-37 20.6	1.365	2.228	17.7	19.1	6 20	14 55.41	-20 11.4	2.079	2.918	13.4	22.0
448203	2008 UH ₁₆₇		5 13.9 137°84	0°7/13.2	18		115261	2003 SE ₁₆₉		5 13.9 240°77	4°2/16.1	18	
4 11	15 41.41	-16 47.5	3.721	4.572	7.4	22.4	4 11	15 52.14	-30 22.2	2.289	3.106	12.5	19.4
4 21	15 36.81	-16 26.0	3.649	4.581	5.3	22.3	4 21	15 45.59	-30 58.8	2.193	3.093	9.8	19.2
5 1	15 31.27	-16 1.9	3.605	4.589	3.0	22.1	5 1	15 36.83	-31 24.0	2.121	3.079	7.0	19.0
5 11	15 25.21	-15 36.6	3.590	4.598	0.8	21.9	5 11	15 26.56	-31 35.9	2.075	3.065	4.6	18.8
5 21	15 19.06	-15 11.6	3.604	4.606	2.0	22.0	5 21	15 15.73	-31 33.7	2.058	3.050	4.6	18.8
5 31	15 13.29	-14 49.0	3.648	4.614	4.3	22.2	5 31	15 5.42	-31 19.5	2.069	3.035	7.0	18.9
6 10	15 8.28	-14 30.1	3.720	4.622	6.5	22.4	6 10	14 56.64	-30 57.1	2.106	3.019	10.1	19.1
6 20	15 4.34	-14 16.4	3.816	4.629	8.3	22.5	6 20	14 50.05	-30 31.5	2.166	3.003	13.0	19.2
288192	2003 XA ₁₄		5 13.9 130°45	2°1/12.6	17		381871	2010 AJ ₂₀		5 13.9 193°45	0°7/13.4	17	
4 11	15 50.51	-14 41.5	1.827	2.691	13.2	21.3	4 11	15 48.48	-17 38.7	2.088	2.947	12.0	21.7
4 21	15 44.13	-14 6.5	1.767	2.704	9.5	21.1	4 21	15 42.66	-17 22.2	2.011	2.945	8.7	21.5
5 1	15 35.74	-13 27.8	1.732	2.717	5.6	20.9	5 1	15 34.95	-17 0.4	1.958	2.944	5.0	21.2
5 11	15 26.23	-12 49.1	1.723	2.729	2.2	20.7	5 11	15 26.09	-16 35.4	1.933	2.942	1.2	20.9
5 21	15 16.58	-12 14.0	1.742	2.741	4.3	20.9	5 21	15 16.97	-16 9.7	1.936	2.939	3.2	21.1
5 31	15 7.84	-11 46.4	1.788	2.752	8.1	21.1	5 31	15 8.51	-15 46.6	1.966	2.937	7.0	21.3
6 10	15 0.83	-11 29.4	1.859	2.762	11.7	21.4	6 10	15 1.52	-15 29.3	2.022	2.933	10.6	21.5
6 20	14 56.05	-11 24.3	1.951	2.772	14.8	21.6	6 20	14 56.54	-15 20.2	2.101	2.930	13.6	21.7
383958	2008 TL ₂₂		5 13.9 212°00	1°6/12.8	17		137106	1999 AQ ₅		5 13.9 66°67	1°6/13.2	18	
4 11	15 47.26	-15 22.3	2.164	3.025	11.5	22.1	4 11	15 50.25	-14 58.5	1.549	2.421	14.6	19.5
4 21	15 41.70	-14 54.3	2.085	3.021	8.4	21.9	4 21	15 44.29	-14 52.3	1.494	2.434	10.6	19.3
5 1	15 34.36	-14 22.5	2.031	3.016	4.9	21.6	5 1	15 35.99	-14 43.1	1.461	2.448	6.2	19.0
5 11	15 25.93	-13 49.5	2.004	3.011	1.7	21.4	5 11	15 26.34	-14 33.5	1.453	2.461	1.9	18.8
5 21	15 17.25	-13 18.2	2.005	3.005	3.6	21.5	5 21	15 16.50	-14 26.0	1.471	2.474	4.2	19.0
5 31	15 9.17	-12 52.1	2.034	3.000	7.2	21.8	5 31	15 7.69	-14 23.7	1.516	2.488	8.6	19.3
6 10	15 2.48	-12 34.1	2.089	2.993	10.6	22.0	6 10	15 0.85	-14 29.2	1.584	2.501	12.6	19.5
6 20	14 57.68	-12 26.0	2.166	2.987	13.5	22.1	6 20	14 56.54	-14 43.8	1.673	2.515	16.0	19.8
465338	2007 VL ₁₄₁		5 13.9 137°33	0°8/14.3	16		115076	2003 RD ₂₄		5 13.9 216°38	3°5/15.7	16	
4 11	15 52.99	-21 19.4	1.860	2.711	13.6	22.7	4 11	15 53.98	-28 26.8	2.052	2.878	13.4	21.0
4 21	15 46.05	-21 18.0	1.795	2.724	10.0	22.5	4 21	15 47.03	-28 44.7	1.960	2.869	10.4	20.8
5 1	15 36.92	-21 8.2	1.754	2.736	5.9	22.3	5 1	15 37.69	-28 50.0	1.892	2.859	7.0	20.6
5 11	15 26.51	-20 51.0	1.740	2.748	1.7	22.0	5 11	15 26.77	-28 41.5	1.850	2.848	4.0	20.4
5 21	15 15.91	-20 28.6	1.753	2.759	3.1	22.1	5 21	15 15.33	-28 19.5	1.837	2.836	4.1	20.4
5 31	15 6.23	-20 4.7	1.795	2.769	7.3	22.4	5 31	15 4.56	-27 47.1	1.852	2.823	7.3	20.5
6 10	14 58.38	-19 43.3	1.862	2.778	11.0	22.7	6 10	14 55.52	-27 9.6	1.892	2.809	10.9	20.7
6 20	14 52.92	-19 27.9	1.951	2.787	14.2	22.9	6 20	14 48.91	-26 32.5	1.956	2.794	14.1	20.9
259250	2003 BQ ₈₇		5 13.9 5°67	4°7/16.1	17		95662	2002 GE ₁₃₂		5 13.9 203°28	1°7/12.6	18	
4 11	15 47.80	-29 17.0	1.363	2.220	17.1	19.5	4 11	15 46.99	-15 42.8	2.257	3.117	11.1	20.2
4 21	15 43.20	-29 37.9	1.296	2.220	13.3	19.3	4 21	15 41.43	-14 57.6	2.178	3.113	8.1	20.0
5 1	15 35.67	-29 41.0	1.249	2.221	9.1	19.0	5 1	15 34.19	-14 7.6	2.123	3.109	4.7	19.8
5 11	15 26.28	-29 24.8	1.224	2.222	5.4	18.8	5 11	15 25.94	-13 15.8	2.097	3.104	1.8	19.6
5 21	15 16.43	-28 51.1	1.224	2.225	5.4	18.8	5 21	15 17.46	-12 26.0	2.099	3.098	3.7	19.7
5 31	15 7.67	-28 5.0	1.248	2.227	9.0	19.0	5 31	15 9.59	-11 42.3	2.130	3.092	7.1	19.9
6 10	15 1.26	-27 14.6	1.294	2.231	13.2	19.3	6 10	15 3.05	-11 7.9	2.186	3.086	10.4	20.1
6 20	14 57.89	-26 27.3	1.360	2.235	17.0	19.5	6 20	14 58.32	-10 45.0	2.265	3.079	13.2	20.3
241258	2007 TL ₃₁₀		5 13.9 119°04	1°4/12.9	18		216001	2005 SZ ₂₈₆		5 13.9 266°02	2°8/12.0	18	
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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
470296	2007 <i>GT</i> ₉		5 13.9 12°71	8°9/ 9.6 18			311176	2004 <i>TX</i> ₃₄₆		5 13.9 262°13	0°3/14.0 17		
4 11	15 47.45	+ 1 43.5	1.545	2.412	15.0	20.2	4 11	15 50.10	-22 3.6	1.562	2.425	15.0	21.4
4 21	15 42.23	+ 2 34.5	1.491	2.413	12.1	20.0	4 21	15 44.64	-21 27.7	1.471	2.407	11.2	21.1
5 1	15 34.80	+ 3 12.9	1.458	2.415	9.7	19.9	5 1	15 36.49	-20 38.0	1.403	2.388	6.7	20.8
5 11	15 26.09	+ 3 32.0	1.449	2.417	8.9	19.8	5 11	15 26.54	-19 36.8	1.360	2.369	1.6	20.4
5 21	15 17.15	+ 3 28.0	1.465	2.419	10.2	19.9	5 21	15 15.98	-18 28.6	1.343	2.349	3.7	20.5
5 31	15 9.11	+ 2 59.2	1.503	2.422	12.9	20.1	5 31	15 6.19	-17 20.1	1.353	2.329	8.9	20.8
6 10	15 2.89	+ 2 7.6	1.562	2.425	15.8	20.3	6 10	14 58.38	-16 18.9	1.386	2.308	13.6	21.0
6 20	14 59.02	+ 0 57.1	1.640	2.429	18.5	20.5	6 20	14 53.30	-15 30.6	1.439	2.287	17.8	21.2
67318	2000 <i>HT</i> ₅₀		5 13.9 36°43	1°3/13.1 17			299473	2006 <i>BO</i> ₁₃₂		5 13.9 337°05	0°2/14.1 18		
4 11	15 47.22	-17 56.0	1.496	2.372	14.8	19.0	4 11	15 38.96	-20 35.7	4.148	4.994	6.8	21.0
4 21	15 42.23	-17 16.5	1.433	2.376	10.8	18.7	4 21	15 35.06	-20 23.3	4.064	4.991	4.9	20.9
5 1	15 34.87	-16 29.0	1.392	2.380	6.2	18.5	5 1	15 30.31	-20 7.2	4.007	4.989	2.9	20.7
5 11	15 26.11	-15 37.4	1.377	2.385	1.7	18.2	5 11	15 25.06	-19 48.3	3.979	4.987	0.7	20.5
5 21	15 17.10	-14 46.9	1.387	2.390	4.2	18.4	5 21	15 19.70	-19 27.8	3.980	4.985	1.5	20.6
5 31	15 9.07	-14 3.0	1.422	2.395	8.8	18.7	5 31	15 14.64	-19 7.3	4.011	4.983	3.7	20.8
6 10	15 3.00	-13 30.6	1.481	2.401	13.1	18.9	6 10	15 10.23	-18 48.4	4.070	4.982	5.7	20.9
6 20	14 59.45	-13 12.2	1.559	2.407	16.7	19.2	6 20	15 6.75	-18 32.5	4.153	4.980	7.4	21.0
16560	Dairor		5 13.9 331°87	3°1/10.4 18			433253	2012 <i>WO</i> ₁₁		5 13.9 298°21	1°9/13.0 17		
4 11	15 39.29	- 3 56.7	4.025	4.878	6.8	17.7	4 11	15 48.73	-13 32.7	1.811	2.679	13.1	20.4
4 21	15 35.26	- 3 36.0	3.953	4.876	5.2	17.6	4 21	15 43.32	-13 33.7	1.718	2.657	9.6	20.1
5 1	15 30.40	- 3 18.4	3.908	4.875	3.7	17.4	5 1	15 35.62	-13 33.7	1.649	2.635	5.7	19.8
5 11	15 25.07	- 3 5.6	3.891	4.873	3.1	17.4	5 11	15 26.34	-13 34.8	1.605	2.612	2.1	19.6
5 21	15 19.64	- 2 59.2	3.903	4.871	3.9	17.5	5 21	15 16.46	-13 38.8	1.588	2.590	4.2	19.6
5 31	15 14.49	- 3 0.1	3.943	4.870	5.4	17.6	5 31	15 7.11	-13 48.3	1.599	2.568	8.4	19.8
6 10	15 10.00	- 3 8.9	4.009	4.868	7.0	17.7	6 10	14 59.32	-14 5.3	1.633	2.546	12.5	20.0
6 20	15 6.41	- 3 25.6	4.099	4.867	8.5	17.8	6 20	14 53.82	-14 31.1	1.688	2.524	16.1	20.2
377342	2004 <i>PM</i> ₁₁₀		5 13.9 179°87	6°1/ 9.3 17			35889	1999 <i>JA</i> ₈₁		5 13.9 348°46	9°5/ 9.9 18		
4 11	15 47.02	- 1 18.8	2.281	3.135	11.2	21.2	4 11	15 47.36	+ 2 20.8	1.417	2.288	15.8	17.9
4 21	15 41.33	- 0 17.4	2.217	3.137	8.8	21.0	4 21	15 42.42	+ 3 3.6	1.358	2.282	12.9	17.7
5 1	15 34.07	+ 0 37.9	2.179	3.138	6.8	20.9	5 1	15 35.04	+ 3 31.8	1.320	2.277	10.4	17.6
5 11	15 25.91	+ 1 22.3	2.168	3.138	6.2	20.8	5 11	15 26.18	+ 3 38.7	1.304	2.273	9.5	17.5
5 21	15 17.58	+ 1 52.1	2.184	3.138	7.4	20.9	5 21	15 16.98	+ 3 20.1	1.312	2.270	10.9	17.6
5 31	15 9.87	+ 2 4.8	2.226	3.137	9.7	21.1	5 31	15 8.69	+ 2 34.8	1.342	2.267	13.7	17.7
6 10	15 3.44	+ 2 0.0	2.292	3.135	12.1	21.2	6 10	15 2.33	+ 1 25.4	1.393	2.265	16.8	17.9
6 20	14 58.73	+ 1 38.7	2.378	3.134	14.3	21.4	6 20	14 58.52	- 0 3.4	1.462	2.264	19.7	18.1
87469	2000 <i>QT</i> ₁₃₁		5 13.9 290°60	4°0/11.6 18			501071	2013 <i>SW</i> ₄₅		5 13.9 198°97	0°4/14.2 17		
4 11	15 47.20	-10 58.9	1.717	2.591	13.4	19.5	4 11	15 49.17	-21 59.3	2.220	3.067	11.8	22.1
4 21	15 42.27	-10 11.8	1.623	2.564	10.0	19.2	4 21	15 43.12	-21 30.3	2.137	3.064	8.7	21.9
5 1	15 35.02	- 9 22.1	1.553	2.536	6.3	19.0	5 1	15 35.22	-20 52.1	2.078	3.060	5.1	21.6
5 11	15 26.19	- 8 34.5	1.507	2.508	4.0	18.8	5 11	15 26.20	-20 6.4	2.046	3.055	1.3	21.4
5 21	15 16.77	- 7 54.0	1.489	2.480	6.0	18.8	5 21	15 16.93	-19 16.4	2.044	3.049	2.7	21.5
5 31	15 7.89	- 7 25.7	1.496	2.452	10.1	19.0	5 31	15 8.31	-18 26.2	2.070	3.043	6.5	21.7
6 10	15 0.60	- 7 13.1	1.526	2.424	14.1	19.1	6 10	15 1.15	-17 40.3	2.123	3.036	10.0	21.9
6 20	14 55.63	- 7 17.6	1.575	2.396	17.7	19.3	6 20	14 55.95	-17 2.3	2.199	3.029	13.1	22.1
137584	1999 <i>VK</i> ₁₄₂		5 13.9 179°46	0°8/13.4 17			14839	1988 <i>RH</i> ₈		5 13.9 241°27	3°0/15.4 18		
4 11	15 50.29	-17 59.1	1.954	2.812	12.7	21.4	4 11	15 51.91	-26 57.5	1.828	2.669	14.2	19.0
4 21	15 44.06	-17 32.3	1.879	2.813	9.3	21.1	4 21	15 45.75	-27 5.1	1.737	2.655	10.9	18.8
5 1	15 35.80	-16 59.1	1.829	2.814	5.3	20.9	5 1	15 37.06	-26 59.7	1.668	2.641	7.1	18.5
5 11	15 26.32	-16 21.9	1.806	2.815	1.3	20.6	5 11	15 26.67	-26 40.5	1.625	2.627	3.6	18.3
5 21	15 16.59	-15 44.1	1.811	2.815	3.4	20.8	5 21	15 15.72	-26 8.6	1.610	2.612	3.9	18.3
5 31	15 7.62	-15 9.6	1.844	2.814	7.5	21.0	5 31	15 5.47	-25 27.9	1.621	2.596	7.7	18.5
6 10	15 0.28	-14 42.5	1.903	2.812	11.2	21.2	6 10	14 57.05	-24 44.5	1.657	2.580	11.7	18.7
6 20	14 55.10	-14 25.1	1.983	2.810	14.4	21.4	6 20	14 51.21	-24 4.0	1.715	2.564	15.3	18.9
118202	1995 <i>HQ</i> ₃		5 13.9 105°16	2°0/12.7 18			355625	2008 <i>DG</i> ₆₈		5 13.9 143°13	0°5/14.2 17		
4 11	15 48.37	-14 58.4	1.748	2.617	13.4	20.4	4 11	15 45.80	-21 26.0	2.441	3.291	10.7	21.9
4 21	15 42.75	-14 27.1	1.685	2.624	9.7	20.2	4 21	15 40.50	-21 10.7	2.366	3.294	7.9	21.7
5 1	15 35.05	-13 51.9	1.645	2.632	5.7	19.9	5 1	15 33.63	-20 48.4	2.316	3.298	4.7	21.5
5 11	15 26.15	-13 16.3	1.632	2.639	2.2	19.7	5 11	15 25.84	-20 20.6	2.293	3.301	1.2	21.3
5 21	15 17.05	-12 44.1	1.645	2.645	4.3	19.9	5 21	15 17.87	-19 49.4	2.299	3.305	2.4	21.4
5 31	15 8.80	-12 19.1	1.685	2.652	8.3	20.1	5 31	15 10.49	-19 17.9	2.334	3.308	5.8	21.6
6 10	15 2.28	-12 4.6	1.749	2.659	12.0	20.4	6 10	15 4.37	-18 49.4	2.395	3.311	8.9	21.8
6 20	14 58.01	-12 1.9	1.835	2.665	15.2	20.6	6 20	14 59.96	-18 26.6	2.479	3.314	11.6	22.0
203068	2000 <i>PN</i> ₃₂		5 13.9 295°52	8°0/18.3 18			386605	2009 <i>HW</i> ₅		5 13.9 250°87	3°9/10.8 17		
4 11	15 50.91	-40 32.5	2.109	2.890	14.6	19.9	4 11	15 44.30	- 9 4.5	2.286	3.152	10.8	20.9
4 21	15 45.21	-41 23.4	2.011	2.871	12.5	19.7	4 21	15 39.47	- 8 7.8	2.209	3.145	8.0	20.7
5 1	15 36.85	-41 56.2	1.935	2.851	10.2	19.6	5 1	15 33.06	- 7 11.0	2.158	3.137	5.3	20.5
5 11	15 26.63	-42 6.7	1.882	2.832	8.5	19.4	5 11	15 25.72	- 6 18.3	2.135	3.130	3.9	20.4
5 21	15 15.68	-41 53.0	1.854	2.813	8.1	19.4	5 21	15 18.16	- 5 33.7	2.139	3.122	5.4	20.5
5 31	15 5.36	-41 16.7	1.851	2.795	9.4	19.4	5 31	15 11.14	- 5 0.6	2.171	3.114	8.2	20.6
6 10	14 56.90	-40 23.6	1.872	2.776	11.7	19.5	6 10	15 5.33	- 4 41.3	2.227	3.106	11.1	20.8
6 20	14 51.11	-39 20.9	1.915	2.757	14.2	19.6	6 20	15 1.21	- 4 36.4	2.304	3.098	13.6	21.0
276476	2003 <i>MU</i> ₃		5 13.9 312°13	12°7/ 7.2 18			321949	2010 <i>TT</i> ₁₆₇		5 1			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
438295	2006 BH ₂₃₂		5 13.9 177°90	5°9/ 8.6 17			235897	2005 CW ₆₈		5 13.9 123°95	2°3/12.3 18		
4 11	15 43.65	+ 3 4.8	2.982	3.822	9.3	21.6	4 11	15 47.56	-12 53.5	2.218	3.079	11.3	21.2
4 21	15 38.61	+ 3 48.2	2.920	3.823	7.5	21.5	4 21	15 41.76	-12 20.9	2.157	3.092	8.2	21.0
5 1	15 32.42	+ 4 23.9	2.883	3.824	6.2	21.4	5 1	15 34.34	-11 46.8	2.121	3.104	4.9	20.8
5 11	15 25.56	+ 4 48.7	2.874	3.825	5.9	21.4	5 11	15 26.03	-11 14.1	2.112	3.116	2.4	20.7
5 21	15 18.60	+ 5 0.1	2.892	3.825	6.8	21.4	5 21	15 17.61	-10 45.9	2.132	3.128	4.0	20.8
5 31	15 12.07	+ 4 57.0	2.937	3.825	8.4	21.5	5 31	15 9.88	-10 25.1	2.180	3.139	7.2	21.0
6 10	15 6.49	+ 4 39.3	3.005	3.825	10.1	21.7	6 10	15 3.53	-10 13.8	2.254	3.150	10.3	21.2
6 20	15 2.20	+ 4 8.3	3.094	3.824	11.8	21.8	6 20	14 58.99	-10 12.9	2.349	3.161	12.9	21.4
179736	2002 RE ₁₁₀		5 13.9 251°26	0°1/13.9 17			334840	2003 TS ₂₅		5 13.9 318°51	0°6/14.3 17		
4 11	15 48.71	-21 3.3	1.672	2.536	14.2	20.7	4 11	15 46.71	-22 3.7	1.819	2.679	13.4	21.0
4 21	15 43.34	-20 32.8	1.591	2.527	10.5	20.5	4 21	15 41.69	-21 40.2	1.742	2.676	9.9	20.8
5 1	15 35.59	-19 51.6	1.534	2.519	6.2	20.2	5 1	15 34.55	-21 6.4	1.689	2.673	5.9	20.5
5 11	15 26.34	-19 1.9	1.501	2.510	1.4	19.9	5 11	15 26.11	-20 24.3	1.662	2.670	1.6	20.2
5 21	15 16.68	-18 7.9	1.496	2.501	3.4	20.0	5 21	15 17.37	-19 37.5	1.661	2.667	3.1	20.3
5 31	15 7.83	-17 15.1	1.517	2.492	8.2	20.3	5 31	15 9.40	-18 50.6	1.688	2.664	7.4	20.6
6 10	15 0.81	-16 29.4	1.562	2.483	12.4	20.5	6 10	15 3.09	-18 8.8	1.739	2.662	11.3	20.8
6 20	14 56.27	-15 54.9	1.628	2.474	16.1	20.7	6 20	14 59.03	-17 35.9	1.811	2.659	14.7	21.0
462183	2007 TD ₃₉₅		5 13.9 192°93	0°1/13.9 16			93586	2000 UH ₅₂		5 13.9 159°59	0°8/13.3 18		
4 11	15 52.82	-18 41.4	1.675	2.535	14.3	21.8	4 11	15 47.14	-20 10.0	1.959	2.819	12.6	19.7
4 21	15 46.32	-18 47.9	1.600	2.534	10.6	21.5	4 21	15 41.73	-19 8.3	1.886	2.822	9.1	19.4
5 1	15 37.33	-18 48.5	1.548	2.533	6.2	21.2	5 1	15 34.44	-17 56.8	1.838	2.824	5.3	19.2
5 11	15 26.74	-18 44.0	1.522	2.531	1.4	20.9	5 11	15 26.07	-16 39.3	1.817	2.826	1.3	18.9
5 21	15 15.73	-18 36.1	1.524	2.529	3.5	21.1	5 21	15 17.53	-15 21.1	1.825	2.828	3.4	19.1
5 31	15 5.56	-18 28.0	1.552	2.526	8.1	21.3	5 31	15 9.78	-14 8.0	1.860	2.830	7.4	19.3
6 10	14 57.31	-18 23.3	1.605	2.523	12.3	21.6	6 10	15 3.59	-13 5.2	1.921	2.832	11.1	19.6
6 20	14 51.67	-18 25.2	1.678	2.519	15.9	21.8	6 20	14 59.46	-12 16.0	2.004	2.833	14.2	19.8
170563	2003 WO ₁₆₀		5 13.9 84°02	0°4/13.7 17			186136	2001 TG ₁₉₆		5 13.9 250°27	3°1/12.4 18		
4 11	15 50.36	-19 22.5	1.509	2.378	15.2	20.7	4 11	15 50.85	-10 21.3	1.877	2.740	12.9	20.2
4 21	15 44.45	-18 58.9	1.453	2.392	11.0	20.5	4 21	15 44.69	-10 12.2	1.792	2.727	9.6	20.0
5 1	15 36.13	-18 26.8	1.420	2.406	6.4	20.3	5 1	15 36.34	-10 4.3	1.731	2.713	5.9	19.7
5 11	15 26.44	-17 49.0	1.411	2.420	1.4	20.0	5 11	15 26.55	-10 0.2	1.697	2.699	3.2	19.5
5 21	15 16.60	-17 9.7	1.429	2.434	3.7	20.2	5 21	15 16.28	-10 2.6	1.690	2.685	5.0	19.6
5 31	15 7.86	-16 34.0	1.473	2.448	8.4	20.5	5 31	15 6.63	-10 13.5	1.711	2.671	8.8	19.8
6 10	15 1.19	-16 6.5	1.540	2.461	12.6	20.7	6 10	14 58.55	-10 34.6	1.756	2.656	12.5	20.0
6 20	14 57.11	-15 50.1	1.628	2.475	16.1	21.0	6 20	14 52.71	-11 6.2	1.822	2.640	15.8	20.2
247341	2001 UV ₂₀₉		5 13.9 235°54	3°6/ 9.5 18			417518	2006 SQ ₃₂₉		5 13.9 195°43	0°1/13.9 17		
4 11	15 39.57	+ 1 4.0	4.597	5.437	6.3	20.1	4 11	15 50.69	-19 39.4	1.812	2.670	13.5	21.8
4 21	15 35.38	+ 1 19.9	4.526	5.433	5.0	20.0	4 21	15 44.60	-19 31.0	1.736	2.669	9.9	21.6
5 1	15 30.47	+ 1 31.2	4.481	5.430	3.9	19.9	5 1	15 36.26	-19 15.3	1.683	2.667	5.8	21.3
5 11	15 25.14	+ 1 36.2	4.464	5.426	3.6	19.9	5 11	15 26.52	-18 53.7	1.656	2.665	1.3	21.0
5 21	15 19.72	+ 1 33.8	4.476	5.422	4.2	19.9	5 21	15 16.42	-18 28.8	1.657	2.662	3.2	21.1
5 31	15 14.55	+ 1 23.3	4.517	5.418	5.4	20.0	5 31	15 7.11	-18 4.3	1.685	2.659	7.6	21.4
6 10	15 9.95	+ 1 4.5	4.583	5.414	6.7	20.1	6 10	14 59.55	-17 44.2	1.738	2.656	11.6	21.6
6 20	15 6.16	+ 0 37.9	4.672	5.410	8.0	20.2	6 20	14 54.34	-17 31.9	1.813	2.652	15.0	21.8
223258	2003 FO ₀₃		5 13.9 27°93	1°5/14.4 17			475137	2005 UB ₃₄₂		5 13.9 223°85	1°3/15.1 16		
4 11	15 52.82	-19 54.7	1.504	2.368	15.4	19.5	4 11	15 45.20	-25 48.8	2.577	3.415	10.6	21.0
4 21	15 46.56	-20 43.1	1.438	2.373	11.5	19.3	4 21	15 40.07	-25 12.9	2.490	3.410	8.0	20.8
5 1	15 37.57	-21 26.4	1.395	2.378	6.9	19.0	5 1	15 33.41	-24 26.3	2.428	3.405	4.9	20.6
5 11	15 26.81	-22 2.9	1.377	2.384	2.3	18.7	5 11	15 25.84	-23 30.5	2.394	3.400	1.9	20.4
5 21	15 15.59	-22 32.0	1.385	2.390	3.7	18.8	5 21	15 18.09	-22 28.5	2.390	3.395	2.4	20.4
5 31	15 5.33	-22 55.3	1.419	2.396	8.4	19.1	5 31	15 10.92	-21 24.1	2.414	3.389	5.6	20.6
6 10	14 57.20	-23 15.8	1.477	2.403	12.7	19.4	6 10	15 4.96	-20 22.1	2.465	3.383	8.6	20.8
6 20	14 51.94	-23 36.7	1.556	2.410	16.3	19.6	6 20	15 0.68	-19 26.1	2.541	3.377	11.3	21.0
250847	2005 UF ₁₉₇		5 13.9 284°94	1°4/13.1 18			336675	2010 AP ₂₆		5 13.9 88°15	2°6/15.4 17		
4 11	15 47.07	-14 9.2	2.291	3.151	11.0	20.4	4 11	15 49.16	-26 19.8	1.857	2.703	13.8	21.3
4 21	15 41.63	-14 9.6	2.201	3.136	8.0	20.2	4 21	15 43.47	-26 23.3	1.786	2.709	10.4	21.1
5 1	15 34.42	-14 8.7	2.137	3.122	4.7	19.9	5 1	15 35.57	-26 14.5	1.739	2.715	6.7	20.9
5 11	15 26.08	-14 8.0	2.100	3.107	1.6	19.7	5 11	15 26.36	-25 53.7	1.718	2.720	3.2	20.7
5 21	15 17.37	-14 9.1	2.092	3.093	3.3	19.8	5 21	15 16.88	-25 22.7	1.723	2.726	3.5	20.7
5 31	15 9.13	-14 13.9	2.111	3.079	6.8	20.0	5 31	15 8.25	-24 45.8	1.756	2.732	7.1	20.9
6 10	15 2.15	-14 24.3	2.157	3.064	10.2	20.2	6 10	15 1.39	-24 8.0	1.813	2.738	10.8	21.2
6 20	14 56.96	-14 41.4	2.225	3.050	13.1	20.3	6 20	14 56.88	-23 34.1	1.892	2.744	14.0	21.4
11946	Bayle		5 13.9 343°95	0°3/13.7 18 R			122959	2000 SQ ₂₁₀		5 13.9 192°86	3°8/11.3 18		
4 11	15 44.41	-19 10.9	1.856	2.724	12.8	17.4	4 11	15 47.91	- 8 20.3	2.256	3.116	11.1	21.1
4 21	15 39.98	-18 53.7	1.779	2.718	9.3	17.1	4 21	15 42.08	- 7 40.2	2.182	3.114	8.3	20.9
5 1	15 33.55	-18 29.5	1.725	2.712	5.4	16.9	5 1	15 34.60	- 7 1.3	2.134	3.112	5.4	20.8
5 11	15 25.88	-18 0.5	1.697	2.706	1.2	16.6	5 11	15 26.13	- 6 27.3	2.114	3.109	3.8	20.6
5 21	15 17.89	-17 29.6	1.696	2.701	3.2	16.7	5 21	15 17.44	- 6 1.5	2.122	3.106	5.3	20.7
5 31	15 10.58	-17 0.7	1.721	2.696	7.3	17.0	5 31	15 9.35	- 5 46.6	2.157	3.102	8.2	20.9
6 10	15 4.81	-16 37.8	1.770	2.692	11.2	17.2	6 10	15 2.57	- 5 44.2	2.218	3.097	11.1	21.1
6 20	15 1.14	-16 23.6	1.841	2.689	14.4	17.4	6 20	14 57.58	- 5 54.6	2.300	3.092	13.7	21.2
281262	2007 PP ₃₆		5 13.9 289°00	7°8/ 8.2 18			36324	2000 LT ₂₇		5 13.9 273°49	1°7/14.9 18		
4 11	15 45.47	- 0 20.2	1.85										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
165351	2000 WY ₂₁		5 13.9 231°32		3°1/12.3 17		395624	2011 UZ ₃₉₀		5 13.9 177°70		4°2/11.1 18	
4 11	15 52.36	-11 0.7	1.902	2.762	12.9	20.1	4 11	15 46.54	-4 21.4	2.593	3.447	10.1	21.1
4 21	15 45.79	-10 41.1	1.815	2.748	9.6	19.8	4 21	15 40.91	-4 1.7	2.523	3.448	7.6	20.9
5 1	15 36.99	-10 21.2	1.752	2.734	5.9	19.6	5 1	15 33.86	-3 46.5	2.479	3.449	5.4	20.8
5 11	15 26.72	-10 4.0	1.716	2.719	3.2	19.4	5 11	15 25.99	-3 38.5	2.462	3.449	4.2	20.7
5 21	15 15.97	-9 52.7	1.708	2.702	5.0	19.4	5 21	15 17.95	-3 39.9	2.474	3.449	5.3	20.8
5 31	15 5.83	-9 50.0	1.727	2.685	8.8	19.6	5 31	15 10.43	-3 51.9	2.514	3.449	7.6	20.9
6 10	14 57.29	-9 58.1	1.772	2.668	12.6	19.8	6 10	15 4.02	-4 15.0	2.579	3.449	10.1	21.1
6 20	14 51.00	-10 17.9	1.838	2.649	15.9	20.0	6 20	14 59.16	-4 48.5	2.667	3.449	12.3	21.3
275066	2009 UZ ₁₂₉		5 13.9 148°04		7°9/18.7 17		417462	2006 QH ₅₅		5 13.9 201°62		5°1/17.5 15	
4 11	15 56.21	-41 3.7	2.149	2.918	14.7	21.0	4 11	15 54.96	-36 18.4	2.594	3.376	12.2	22.5
4 21	15 48.87	-41 58.4	2.075	2.926	12.5	20.9	4 21	15 47.46	-36 37.4	2.499	3.370	9.9	22.4
5 1	15 38.86	-42 33.6	2.022	2.933	10.2	20.7	5 1	15 37.87	-36 41.1	2.428	3.363	7.5	22.2
5 11	15 27.15	-42 45.4	1.994	2.940	8.4	20.6	5 11	15 26.94	-36 27.5	2.383	3.355	5.6	22.1
5 21	15 14.97	-42 32.7	1.991	2.946	7.9	20.6	5 21	15 15.63	-35 56.6	2.367	3.346	5.3	22.0
5 31	15 3.70	-41 57.9	2.014	2.952	9.1	20.7	5 31	15 4.96	-35 11.2	2.380	3.336	6.9	22.1
6 10	14 54.50	-41 7.3	2.062	2.957	11.1	20.8	6 10	14 55.85	-34 16.2	2.420	3.324	9.3	22.2
6 20	14 48.06	-40 8.6	2.132	2.962	13.4	21.0	6 20	14 48.90	-33 17.6	2.484	3.312	11.8	22.4
161771	2006 TY ₈₆		5 13.9 69°97		0°2/14.0 17		58595	Joepollock		5 13.9 323°83		1°3/14.3 18	
4 11	15 45.23	-21 35.6	2.176	3.031	11.7	20.2	4 11	15 48.88	-19 41.3	1.116	2.003	18.0	18.3
4 21	15 40.24	-20 59.9	2.104	3.036	8.5	20.0	4 21	15 44.73	-20 14.7	1.037	1.984	13.5	17.9
5 1	15 33.56	-20 15.4	2.057	3.041	5.0	19.8	5 1	15 37.08	-20 42.2	0.978	1.966	8.2	17.6
5 11	15 25.90	-19 24.7	2.037	3.045	1.2	19.5	5 11	15 26.88	-21 3.0	0.940	1.949	2.4	17.2
5 21	15 18.09	-18 31.2	2.045	3.050	2.7	19.7	5 21	15 15.64	-21 17.3	0.925	1.932	4.5	17.3
5 31	15 10.96	-17 39.2	2.081	3.055	6.4	19.9	5 31	15 5.23	-21 27.6	0.933	1.917	10.5	17.5
6 10	15 5.22	-16 52.9	2.142	3.060	9.8	20.1	6 10	14 57.37	-21 38.6	0.961	1.902	16.2	17.8
6 20	15 1.33	-16 15.5	2.227	3.065	12.6	20.3	6 20	14 53.10	-21 54.7	1.006	1.889	21.0	18.0
235786	2004 XB ₂		5 13.9 158°48		1°8/15.0 17		244948	2003 YX ₈₂		5 13.9 92°72		0°9/14.5 17	
4 11	15 50.64	-24 34.3	2.381	3.217	11.5	21.2	4 11	15 47.81	-22 14.5	2.048	2.901	12.4	20.5
4 21	15 44.13	-24 44.7	2.305	3.223	8.6	21.0	4 21	15 42.25	-22 7.6	1.979	2.909	9.1	20.3
5 1	15 35.83	-24 46.4	2.255	3.230	5.4	20.9	5 1	15 34.79	-21 52.3	1.935	2.916	5.5	20.1
5 11	15 26.43	-24 39.6	2.231	3.235	2.4	20.7	5 11	15 26.22	-21 29.7	1.917	2.924	1.7	19.9
5 21	15 16.80	-24 25.4	2.237	3.240	2.8	20.7	5 21	15 17.45	-21 2.3	1.926	2.932	2.8	20.0
5 31	15 7.82	-24 6.4	2.272	3.245	6.0	20.9	5 31	15 9.42	-20 33.3	1.964	2.939	6.6	20.2
6 10	15 0.26	-23 46.0	2.333	3.249	9.1	21.1	6 10	15 2.93	-20 6.9	2.026	2.947	10.0	20.4
6 20	14 54.63	-23 27.7	2.418	3.252	11.9	21.3	6 20	14 58.49	-19 46.1	2.112	2.954	13.1	20.6
211146	2002 GN ₁₀₆		5 13.9 359°13		5°3/11.7 17		252757	2002 EL ₄₈		5 13.9 339°51		1°7/14.9 16	
4 11	15 48.84	-8 16.8	1.296	2.181	16.1	19.8	4 11	15 45.38	-24 17.6	2.019	2.872	12.5	20.9
4 21	15 43.74	-7 43.1	1.235	2.179	12.0	19.6	4 21	15 40.65	-24 16.3	1.939	2.866	9.4	20.6
5 1	15 35.95	-7 12.6	1.196	2.179	7.9	19.3	5 1	15 33.97	-24 5.2	1.881	2.861	5.9	20.4
5 11	15 26.50	-6 50.9	1.179	2.178	5.3	19.2	5 11	15 26.05	-23 44.8	1.850	2.855	2.4	20.2
5 21	15 16.67	-6 42.7	1.187	2.178	7.3	19.3	5 21	15 17.81	-23 17.2	1.845	2.850	3.0	20.2
5 31	15 7.86	-6 51.3	1.219	2.179	11.5	19.5	5 31	15 10.21	-22 45.8	1.868	2.846	6.7	20.4
6 10	15 1.21	-7 17.5	1.272	2.180	15.7	19.8	6 10	15 4.11	-22 14.9	1.916	2.842	10.2	20.6
6 20	14 57.37	-8 0.1	1.343	2.181	19.3	20.0	6 20	15 0.07	-21 48.4	1.985	2.838	13.4	20.8
64977	2002 AL ₂₀		5 13.9 59°78		5°2/10.2 18		3632	Grachevka		5 13.9 131°67		1°4/12.8 18	
4 11	15 44.53	-5 31.9	2.070	2.939	11.6	19.0	4 11	15 47.96	-15 59.1	2.546	3.399	10.3	17.6
4 21	15 39.60	-4 31.5	2.022	2.955	8.8	18.9	4 21	15 41.88	-15 20.6	2.484	3.416	7.4	17.5
5 1	15 33.12	-3 35.2	1.999	2.971	6.2	18.7	5 1	15 34.38	-14 38.4	2.449	3.433	4.3	17.3
5 11	15 25.79	-2 47.8	2.002	2.987	5.2	18.7	5 11	15 26.12	-13 55.1	2.442	3.449	1.5	17.1
5 21	15 18.42	-2 13.2	2.032	3.004	6.5	18.8	5 21	15 17.79	-13 13.8	2.465	3.465	3.1	17.3
5 31	15 11.76	-1 54.1	2.088	3.021	9.1	19.0	5 31	15 10.13	-12 37.5	2.517	3.479	6.2	17.5
6 10	15 6.46	-1 51.1	2.167	3.037	11.7	19.2	6 10	15 3.70	-12 8.9	2.596	3.493	9.0	17.7
6 20	15 2.93	-2 3.6	2.267	3.054	14.0	19.4	6 20	14 58.92	-11 49.5	2.698	3.507	11.5	17.9
505867	2015 DK ₈₅		5 13.9 326°17		2°3/12.6 17		391075	2005 UZ ₁₃₄		5 13.9 137°97		3°2/16.0 16	
4 11	15 47.15	-14 15.2	1.710	2.583	13.5	21.1	4 11	15 48.08	-28 54.5	2.420	3.246	11.6	21.7
4 21	15 42.04	-13 44.4	1.639	2.580	9.8	20.9	4 21	15 42.37	-29 11.3	2.341	3.249	9.0	21.5
5 1	15 34.79	-13 10.0	1.591	2.578	5.8	20.6	5 1	15 34.87	-29 17.3	2.287	3.252	6.1	21.3
5 11	15 26.21	-12 35.8	1.569	2.576	2.5	20.4	5 11	15 26.26	-29 11.8	2.259	3.254	3.6	21.2
5 21	15 17.34	-12 5.5	1.574	2.573	4.5	20.5	5 21	15 17.38	-28 55.8	2.259	3.257	3.6	21.2
5 31	15 9.24	-11 43.2	1.604	2.571	8.6	20.8	5 31	15 9.12	-28 31.7	2.287	3.259	6.1	21.3
6 10	15 2.83	-11 32.1	1.659	2.570	12.5	21.0	6 10	15 2.24	-28 3.5	2.342	3.261	8.9	21.5
6 20	14 58.70	-11 33.4	1.734	2.568	15.8	21.2	6 20	14 57.27	-27 35.1	2.420	3.264	11.6	21.7
386471	2008 YK ₇₉		5 13.9 180°62		4°7/10.6 18		35173	1993 TP ₉		5 13.9 291°66		3°8/15.4 18	
4 11	15 45.88	-6 2.2	2.213	3.077	11.2	21.4	4 11	15 51.15	-26 26.2	1.409	2.268	16.6	18.6
4 21	15 40.62	-5 15.5	2.146	3.077	8.4	21.2	4 21	15 46.00	-26 52.7	1.319	2.247	12.9	18.3
5 1	15 33.76	-4 31.8	2.104	3.077	5.9	21.0	5 1	15 37.66	-27 5.8	1.250	2.227	8.5	18.0
5 11	15 25.96	-3 55.3	2.089	3.077	4.7	20.9	5 11	15 27.02	-27 3.4	1.204	2.206	4.5	17.7
5 21	15 17.97	-3 29.4	2.101	3.077	6.0	21.0	5 21	15 15.44	-26 45.3	1.183	2.185	4.9	17.7
5 31	15 10.60	-3 16.8	2.140	3.077	8.7	21.2	5 31	15 4.59	-26 15.4	1.186	2.165	9.4	17.9
6 10	15 4.51	-3 18.5	2.203	3.076	11.4	21.4	6 10	14 55.99	-25 40.4	1.212	2.145	14.3	18.1
6 20	15 0.16	-3 34.4	2.288	3.076	13.9	21.5	6 20	14 50.62	-25 7.7	1.257	2.125	18.6	18.3
89492	2001 XP ₃₆		5 13.9 75°48		5°0/16.9 18		288139	2003 WH ₉₉		5 13.9 65°49		1°5/14.6 18	
4 11	15 51.48	-32 13.0	1.694	2.523	15.6	18.9</							

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
205015	1997 SX ₃₁		5 13.9 252°86	0°7/14.4	17		282950	2007 RZ ₁₂₅		5 13.9 249°50	5°3/ 9.7	17	
4 11	15 47.39	-21 41.7	2.113	2.966	12.1	21.2	4 11	15 45.88	- 4 24.8	2.324	3.184	10.9	21.2
4 21	15 42.03	-21 32.1	2.028	2.958	8.9	21.0	4 21	15 40.70	- 3 22.1	2.241	3.168	8.4	21.0
5 1	15 34.75	-21 14.5	1.968	2.951	5.3	20.8	5 1	15 33.90	- 2 22.1	2.184	3.151	6.1	20.9
5 11	15 26.26	-20 49.8	1.935	2.943	1.5	20.5	5 11	15 26.09	- 1 29.4	2.153	3.134	5.3	20.8
5 21	15 17.44	-20 20.5	1.929	2.935	2.8	20.6	5 21	15 17.98	- 0 48.3	2.150	3.116	6.7	20.8
5 31	15 9.22	-19 49.9	1.951	2.927	6.6	20.8	5 31	15 10.36	- 0 22.2	2.174	3.098	9.2	21.0
6 10	15 2.46	-19 22.0	1.999	2.918	10.2	21.0	6 10	15 3.93	- 0 12.7	2.222	3.079	11.9	21.1
6 20	14 57.70	-19 0.0	2.069	2.910	13.4	21.2	6 20	14 59.17	- 0 19.8	2.291	3.060	14.4	21.2
294503	2007 XB		5 13.9 186°46	1°6/12.9	17		459509	2013 EQ ₁₇		5 13.9 11°98	1°7/13.5	17	
4 11	15 50.26	-16 36.4	1.819	2.681	13.3	21.3	4 11	15 47.53	-14 43.6	0.951	1.853	19.0	20.2
4 21	15 44.21	-15 57.6	1.745	2.681	9.7	21.1	4 21	15 43.55	-14 58.6	0.901	1.855	13.9	19.9
5 1	15 36.02	-15 12.7	1.695	2.681	5.6	20.8	5 1	15 36.17	-15 11.9	0.868	1.860	8.1	19.6
5 11	15 26.55	-14 24.9	1.672	2.680	1.8	20.6	5 11	15 26.66	-15 25.3	0.857	1.865	2.3	19.3
5 21	15 16.79	-13 38.5	1.677	2.678	4.0	20.7	5 21	15 16.69	-15 41.3	0.867	1.873	5.1	19.5
5 31	15 7.84	-12 58.2	1.709	2.676	8.2	21.0	5 31	15 8.07	-16 2.7	0.898	1.881	11.0	19.8
6 10	15 0.59	-12 28.0	1.765	2.673	12.0	21.2	6 10	15 2.22	-16 31.8	0.950	1.891	16.3	20.1
6 20	14 55.62	-12 10.3	1.843	2.670	15.3	21.4	6 20	14 59.85	-17 9.7	1.018	1.903	20.7	20.5
21115	1992 RL ₇		5 13.9 162°98	1°4/13.1	18		377932	2006 GM ₃₂		5 13.9 97°95	3°2/11.9	17	
4 11	15 51.20	-16 25.1	1.901	2.760	12.9	19.6	4 11	15 47.44	-11 18.6	1.897	2.766	12.5	20.8
4 21	15 44.78	-15 59.3	1.831	2.766	9.4	19.3	4 21	15 41.98	-10 41.4	1.836	2.775	9.2	20.6
5 1	15 36.30	-15 28.4	1.786	2.771	5.4	19.1	5 1	15 34.65	-10 3.6	1.799	2.783	5.6	20.5
5 11	15 26.61	-14 55.3	1.768	2.776	1.7	18.9	5 11	15 26.25	- 9 29.2	1.789	2.791	3.3	20.3
5 21	15 16.69	-14 23.1	1.778	2.780	3.7	19.0	5 21	15 17.69	- 9 1.7	1.806	2.799	5.0	20.4
5 31	15 7.58	-13 55.8	1.815	2.783	7.7	19.3	5 31	15 9.90	- 8 44.4	1.849	2.807	8.4	20.7
6 10	15 0.15	-13 36.6	1.878	2.785	11.4	19.5	6 10	15 3.66	- 8 39.3	1.917	2.814	11.7	20.9
6 20	14 54.93	-13 27.8	1.962	2.787	14.6	19.7	6 20	14 59.46	- 8 46.9	2.005	2.822	14.6	21.1
379811	2011 KV ₃		5 13.9 119°40	0°9/13.5	17		148763	2001 TK ₂₂₅		5 13.9 161°80	5°9/10.6	18 R	
4 11	15 50.67	-15 42.6	1.933	2.793	12.7	20.4	4 11	15 48.49	- 4 17.6	1.800	2.666	13.2	19.9
4 21	15 44.42	-15 52.4	1.863	2.798	9.3	20.2	4 21	15 42.84	- 3 32.4	1.737	2.668	10.1	19.7
5 1	15 36.12	-15 59.6	1.818	2.803	5.4	20.0	5 1	15 35.20	- 2 52.7	1.698	2.669	7.2	19.5
5 11	15 26.57	-16 5.3	1.799	2.808	1.4	19.7	5 11	15 26.39	- 2 23.5	1.685	2.671	5.9	19.4
5 21	15 16.74	-16 11.1	1.809	2.812	3.3	19.9	5 21	15 17.35	- 2 8.9	1.698	2.672	7.4	19.5
5 31	15 7.66	-16 18.9	1.846	2.817	7.3	20.1	5 31	15 9.08	- 2 11.2	1.737	2.673	10.3	19.7
6 10	15 0.19	-16 30.8	1.909	2.822	11.0	20.3	6 10	15 2.43	- 2 31.0	1.798	2.674	13.4	19.9
6 20	14 54.91	-16 48.5	1.993	2.826	14.1	20.6	6 20	14 57.91	- 3 6.7	1.880	2.675	16.2	20.1
75226	1999 WF ₃		5 13.9 207°17	0°9/13.4	18		185655	4368 T ₋₃		5 13.9 220°84	1°8/12.9	17	
4 11	15 50.92	-17 15.3	1.974	2.831	12.6	21.0	4 11	15 50.45	-15 24.1	1.939	2.799	12.7	21.3
4 21	15 44.65	-16 57.1	1.892	2.826	9.2	20.8	4 21	15 44.36	-14 55.2	1.855	2.790	9.3	21.1
5 1	15 36.30	-16 33.5	1.835	2.820	5.4	20.5	5 1	15 36.17	-14 21.7	1.795	2.781	5.4	20.8
5 11	15 26.63	-16 6.4	1.805	2.813	1.4	20.2	5 11	15 26.63	-13 46.3	1.763	2.770	2.0	20.6
5 21	15 16.60	-15 38.7	1.802	2.806	3.4	20.4	5 21	15 16.71	-13 12.6	1.758	2.759	4.0	20.7
5 31	15 7.26	-15 14.1	1.828	2.798	7.5	20.6	5 31	15 7.45	-12 44.4	1.781	2.747	8.0	20.9
6 10	14 59.50	-14 56.0	1.880	2.789	11.3	20.8	6 10	14 59.77	-12 25.3	1.830	2.734	11.8	21.1
6 20	14 53.93	-14 46.8	1.953	2.780	14.6	21.0	6 20	14 54.27	-12 17.4	1.899	2.721	15.1	21.3
212700	2007 QJ ₆		5 13.9 189°53	1°1/13.3	16		479647	2014 DV ₅₇		5 13.9 301°77	3°1/15.5	16	
4 11	15 51.35	-17 36.0	1.914	2.772	12.9	21.5	4 11	15 48.72	-26 47.2	2.091	2.931	12.7	21.2
4 21	15 44.95	-17 3.0	1.837	2.771	9.4	21.3	4 21	15 43.20	-27 14.6	2.004	2.921	9.8	21.0
5 1	15 36.44	-16 23.3	1.785	2.770	5.5	21.0	5 1	15 35.56	-27 32.1	1.941	2.912	6.5	20.8
5 11	15 26.65	-15 39.6	1.759	2.767	1.5	20.7	5 11	15 26.51	-27 38.6	1.903	2.903	3.6	20.6
5 21	15 16.58	-15 16.8	1.762	2.764	3.6	20.9	5 21	15 17.00	-27 34.4	1.893	2.894	3.8	20.5
5 31	15 7.27	-14 16.1	1.792	2.760	7.8	21.1	5 31	15 8.07	-27 21.7	1.911	2.885	6.9	20.7
6 10	14 59.62	-13 44.9	1.848	2.756	11.6	21.3	6 10	15 0.68	-27 4.5	1.953	2.876	10.2	20.9
6 20	14 54.21	-13 24.7	1.926	2.750	14.8	21.5	6 20	14 55.46	-26 47.0	2.018	2.868	13.3	21.1
255586	2006 OU ₁		5 13.9 279°39	1°0/13.5	17		498484	2008 CS ₁₀₈		5 13.9 133°96	7°0/ 6.4	17	
4 11	15 50.92	-17 19.8	1.621	2.487	14.4	21.3	4 11	15 44.83	+ 9 12.9	3.228	4.044	9.2	22.4
4 21	15 45.35	-17 5.9	1.522	2.460	10.7	21.0	4 21	15 39.37	+10 21.4	3.190	4.062	8.0	22.3
5 1	15 37.08	-16 45.5	1.445	2.432	6.3	20.7	5 1	15 32.87	+11 19.4	3.177	4.079	7.1	22.3
5 11	15 26.88	-16 20.3	1.394	2.403	1.6	20.3	5 11	15 25.83	+12 3.2	3.190	4.095	7.1	22.3
5 21	15 15.87	-15 53.6	1.370	2.374	4.1	20.4	5 21	15 18.75	+12 30.6	3.230	4.111	7.8	22.4
5 31	15 5.40	-15 29.5	1.372	2.344	9.1	20.6	5 31	15 12.15	+12 40.5	3.296	4.126	9.0	22.5
6 10	14 56.72	-15 12.9	1.397	2.314	13.9	20.8	6 10	15 6.48	+12 33.4	3.384	4.141	10.4	22.6
6 20	14 50.69	-15 7.1	1.442	2.284	18.0	21.0	6 20	15 2.04	+12 11.1	3.491	4.154	11.6	22.7
341754	2007 VD ₃₀₁		5 13.9 142°56	3°6/10.9	18		336832	2011 EL ₇₈		5 13.9 51°88	1°0/14.5	17	
4 11	15 45.52	- 7 52.5	2.678	3.535	9.7	21.0	4 11	15 49.23	-21 48.6	1.687	2.548	14.2	20.7
4 21	15 40.09	- 7 5.0	2.616	3.546	7.2	20.9	4 21	15 43.69	-21 49.7	1.618	2.552	10.5	20.4
5 1	15 33.37	- 6 19.0	2.581	3.556	4.8	20.7	5 1	15 35.84	-21 41.7	1.573	2.556	6.3	20.2
5 11	15 25.93	- 5 37.9	2.574	3.566	3.6	20.7	5 11	15 26.56	-21 25.6	1.552	2.560	1.9	19.9
5 21	15 18.40	- 5 4.5	2.596	3.576	4.8	20.7	5 21	15 16.98	-21 3.6	1.559	2.564	3.2	20.0
5 31	15 11.42	- 4 41.4	2.646	3.585	7.1	20.9	5 31	15 8.26	-20 39.7	1.591	2.569	7.6	20.3
6 10	15 5.54	- 4 29.7	2.722	3.593	9.6	21.1	6 10	15 1.41	-20 18.2	1.648	2.574	11.6	20.5
6 20	15 1.12	- 4 29.9	2.820	3.601	11.7	21.2	6 20	14 57.00	-20 3.0	1.726	2.578	15.1	20.8
140286	2001 SV ₂₈₆		5 13.9 251°59	2°6/12.4	18		117856	2005 KD ₅		5 13.9 236°31	0°6/13.6	18	
4 11	15 47.23	-11 4.9											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
309667	2008 EA ₃₉		5 13.9 332°77	3°4/11.8 18			288002	2003 UH ₁₉₂		5 13.9 137°27	0°3/13.8 17		
4 11	15 44.43	-10 24.5	1.971	2.844	12.0	20.1	4 11	15 51.05	-20 10.6	1.834	2.691	13.5	21.3
4 21	15 39.89	-9 52.5	1.896	2.835	8.8	19.9	4 21	15 44.71	-19 37.9	1.770	2.702	9.8	21.1
5 1	15 33.52	-9 20.7	1.844	2.827	5.5	19.6	5 1	15 36.29	-18 56.5	1.729	2.713	5.7	20.9
5 11	15 26.03	-8 52.5	1.819	2.820	3.4	19.5	5 11	15 26.67	-18 9.1	1.715	2.724	1.3	20.6
5 21	15 18.25	-8 31.5	1.820	2.813	5.1	19.6	5 21	15 16.90	-17 19.6	1.729	2.734	3.2	20.8
5 31	15 11.07	-8 20.7	1.848	2.806	8.4	19.8	5 31	15 8.05	-16 32.9	1.771	2.743	7.5	21.1
6 10	15 5.28	-8 22.1	1.900	2.799	11.7	19.9	6 10	15 0.97	-15 53.5	1.837	2.752	11.3	21.3
6 20	15 1.40	-8 36.0	1.972	2.794	14.7	20.1	6 20	14 56.18	-15 24.7	1.926	2.760	14.5	21.5
433471	2013 VD ₁₅		5 13.9 165°54	0°3/13.8 17			12242	Koon		5 13.9 284°93	1°3/12.1 18		
4 11	15 49.37	-18 43.1	2.233	3.086	11.5	22.0	4 11	15 39.00	-14 42.5	4.199	5.054	6.5	17.8
4 21	15 43.26	-18 30.6	2.159	3.090	8.4	21.8	4 21	15 35.12	-13 50.9	4.116	5.049	4.7	17.7
5 1	15 35.38	-18 12.5	2.110	3.094	4.9	21.6	5 1	15 30.45	-12 56.9	4.060	5.043	2.8	17.5
5 11	15 26.44	-17 50.4	2.089	3.098	1.1	21.3	5 11	15 25.32	-12 2.5	4.034	5.038	1.3	17.4
5 21	15 17.29	-17 26.6	2.096	3.101	2.8	21.5	5 21	15 20.11	-11 10.0	4.038	5.033	2.4	17.5
5 31	15 8.79	-17 4.2	2.132	3.103	6.5	21.7	5 31	15 15.18	-10 21.5	4.073	5.028	4.3	17.6
6 10	15 1.72	-16 46.1	2.194	3.105	9.8	21.9	6 10	15 10.89	-9 38.9	4.135	5.023	6.2	17.8
6 20	14 56.56	-16 34.8	2.279	3.107	12.7	22.1	6 20	15 7.49	-9 3.4	4.222	5.018	7.9	17.9
389179	2009 BL ₁₄₇		5 13.9 158°18	4°9/ 9.9 17			507535	2012 WB ₃₀		5 13.9 258°70	1°3/13.2 17		
4 11	15 45.41	- 4 5.7	2.523	3.380	10.2	22.2	4 11	15 46.91	-16 9.2	2.089	2.952	11.8	21.8
4 21	15 40.11	- 3 7.2	2.461	3.386	7.8	22.1	4 21	15 41.67	-15 48.9	2.008	2.944	8.6	21.5
5 1	15 33.44	- 2 12.4	2.425	3.391	5.7	21.9	5 1	15 34.57	-15 24.3	1.951	2.937	5.0	21.3
5 11	15 25.99	- 1 25.6	2.417	3.396	4.9	21.9	5 11	15 26.31	-14 57.8	1.921	2.929	1.5	21.1
5 21	15 18.42	- 0 50.2	2.436	3.401	6.1	22.0	5 21	15 17.74	-14 32.3	1.919	2.921	3.4	21.2
5 31	15 11.40	- 0 28.5	2.483	3.405	8.3	22.1	5 31	15 9.77	-14 10.8	1.944	2.913	7.2	21.4
6 10	15 5.53	- 0 21.6	2.554	3.409	10.7	22.3	6 10	15 3.20	-13 56.5	1.995	2.905	10.7	21.6
6 20	15 1.18	- 0 29.0	2.647	3.412	12.8	22.4	6 20	14 58.57	-13 51.3	2.067	2.897	13.8	21.8
365058	2008 YF ₃₄		5 13.9 19°86	3°9/16.0 17			117357	2004 XG ₈₈		5 13.9 300°10	0°9/13.5 18		
4 11	15 49.48	-28 58.7	1.278	2.138	17.9	20.1	4 11	15 48.41	-16 55.8	1.663	2.533	13.9	19.2
4 21	15 44.60	-28 51.2	1.212	2.139	13.8	19.9	4 21	15 43.37	-16 51.4	1.571	2.511	10.3	18.9
5 1	15 36.65	-28 23.1	1.166	2.142	9.2	19.6	5 1	15 35.87	-16 42.3	1.503	2.490	6.0	18.6
5 11	15 26.78	-27 34.4	1.143	2.144	4.8	19.4	5 11	15 26.67	-16 30.0	1.460	2.468	1.5	18.3
5 21	15 16.53	-26 28.9	1.143	2.147	4.8	19.4	5 21	15 16.82	-16 17.0	1.443	2.447	3.8	18.4
5 31	15 7.51	-25 14.4	1.168	2.150	9.1	19.6	5 31	15 7.56	-16 6.9	1.452	2.426	8.5	18.6
6 10	15 0.99	-24 0.6	1.216	2.154	13.8	19.9	6 10	15 0.03	-16 3.2	1.484	2.405	13.0	18.8
6 20	14 57.63	-22 55.7	1.282	2.158	17.8	20.1	6 20	14 54.98	-16 8.6	1.537	2.385	16.8	19.0
350422	2012 VK ₇₂		5 13.9 121°14	0°7/13.4 17			379593	2011 CX ₁₂		5 13.9 333°33	0°9/14.4 17		
4 11	15 45.91	-18 40.8	2.333	3.189	10.9	21.1	4 11	15 45.30	-22 24.5	1.367	2.244	15.9	20.3
4 21	15 40.62	-18 0.8	2.265	3.198	7.9	21.0	4 21	15 41.42	-22 4.6	1.290	2.232	11.9	20.0
5 1	15 33.79	-17 14.7	2.222	3.207	4.5	20.8	5 1	15 34.81	-21 31.4	1.233	2.220	7.1	19.7
5 11	15 26.07	-16 25.3	2.207	3.216	1.1	20.5	5 11	15 26.42	-20 47.0	1.200	2.208	2.0	19.4
5 21	15 18.24	-15 35.8	2.221	3.224	2.9	20.7	5 21	15 17.49	-19 55.6	1.191	2.198	3.7	19.4
5 31	15 11.06	-14 50.1	2.263	3.232	6.3	20.9	5 31	15 9.43	-19 3.4	1.206	2.188	8.9	19.7
6 10	15 5.19	-14 11.6	2.331	3.240	9.4	21.1	6 10	15 3.46	-18 17.5	1.244	2.179	13.8	20.0
6 20	15 1.03	-13 42.5	2.422	3.248	12.1	21.3	6 20	15 0.30	-17 43.1	1.301	2.172	17.9	20.2
406882	2009 CJ ₅₈		5 13.9 126°60	3°4/12.1 16			199889	2007 FM ₁₉		5 13.9 333°91	8°9/ 7.6 17		
4 11	15 50.63	-12 45.5	1.595	2.466	14.3	22.0	4 11	15 42.85	- 3 16.0	1.387	2.274	15.1	20.1
4 21	15 44.56	-11 53.9	1.537	2.477	10.5	21.8	4 21	15 39.30	+ 1 19.1	1.323	2.262	11.9	19.9
5 1	15 36.24	-10 59.8	1.503	2.487	6.3	21.5	5 1	15 33.41	+ 0 34.3	1.282	2.250	9.5	19.7
5 11	15 26.65	-10 8.0	1.494	2.497	3.4	21.4	5 11	15 26.07	+ 2 13.4	1.265	2.239	9.0	19.7
5 21	15 16.91	- 9 23.7	1.512	2.507	5.5	21.5	5 21	15 18.36	+ 3 28.9	1.271	2.229	11.1	19.8
5 31	15 8.16	- 8 51.5	1.556	2.516	9.5	21.8	5 31	15 11.47	+ 4 14.5	1.299	2.220	14.3	19.9
6 10	15 1.31	- 8 34.4	1.623	2.524	13.3	22.0	6 10	15 6.39	+ 4 28.4	1.346	2.211	17.7	20.1
6 20	14 56.90	- 8 33.0	1.711	2.533	16.5	22.3	6 20	15 3.74	+ 4 12.8	1.409	2.204	20.7	20.3
388809	2008 BX ₃₉		5 13.9 89°11	6°7/ 9.9 18			250290	2003 OZ ₃₁		5 13.9 326°34	4°1/15.9 17		
4 11	15 46.95	+ 1 42.2	2.230	3.080	11.6	20.6	4 11	15 45.68	-28 14.1	1.144	2.018	18.6	19.9
4 21	15 41.37	+ 2 14.9	2.172	3.085	9.3	20.4	4 21	15 42.37	-28 14.7	1.065	2.000	14.5	19.6
5 1	15 34.22	+ 2 38.1	2.138	3.090	7.4	20.3	5 1	15 35.69	-27 54.2	1.004	1.984	9.7	19.2
5 11	15 26.18	+ 2 47.8	2.130	3.095	6.7	20.3	5 11	15 26.67	-27 11.3	0.965	1.968	5.1	18.9
5 21	15 18.00	+ 2 41.5	2.149	3.099	7.7	20.4	5 21	15 16.84	-26 8.8	0.948	1.953	5.2	18.9
5 31	15 10.46	+ 2 18.2	2.194	3.104	9.8	20.5	5 31	15 8.01	-24 54.3	0.953	1.939	10.1	19.1
6 10	15 4.21	+ 1 38.8	2.262	3.109	12.1	20.7	6 10	15 1.76	-23 38.6	0.979	1.926	15.4	19.3
6 20	14 59.71	+ 0 45.4	2.351	3.114	14.2	20.8	6 20	14 58.97	-22 31.4	1.023	1.914	20.1	19.6
383867	2008 RZ ₂₃		5 13.9 248°35	2°9/15.9 18			155329	2006 BJ ₄₃		5 13.9 219°72	1°6/12.8 18		
4 11	15 49.07	-28 39.7	2.066	2.900	13.0	21.0	4 11	15 49.29	-14 33.3	2.556	3.408	10.3	21.0
4 21	15 43.46	-28 30.3	1.974	2.888	10.1	20.7	4 21	15 43.12	-14 10.7	2.465	3.396	7.5	20.8
5 1	15 35.70	-28 6.9	1.905	2.875	6.7	20.5	5 1	15 35.31	-13 45.1	2.399	3.383	4.4	20.5
5 11	15 26.56	-27 29.3	1.862	2.862	3.6	20.3	5 11	15 26.49	-13 18.6	2.363	3.369	1.7	20.3
5 21	15 17.02	-26 39.6	1.847	2.849	3.6	20.3	5 21	15 17.36	-12 53.7	2.355	3.354	3.3	20.4
5 31	15 8.15	-25 42.0	1.859	2.835	6.9	20.4	5 31	15 8.70	-12 33.1	2.377	3.339	6.5	20.6
6 10	15 0.88	-24 42.5	1.897	2.821	10.5	20.6	6 10	15 1.21	-12 19.2	2.426	3.323	9.6	20.8
6 20	14 55.82	-23 46.5	1.958	2.807	13.7	20.8	6 20	14 55.40	-12 13.7	2.499	3.306	12.3	20.9
117544	2005 EZ ₁		5 13.9 59°04	8°7/ 7.6 18			349324	2007 UQ ₁₂₉		5 13.9 216°69	1°5/12.9 17		
4 11	15 48.83	- 6 51.5											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
107168	2001 <i>BW</i> ₂₁		5 13.9 248°63	3°3/12.2	17		506391	2017 <i>RS</i> ₁₂		5 13.9 170°98	3°3/11.9	17	
4 11	15 51.22	-11 36.4	1.789	2.654	13.3	20.1	4 11	15 48.23	-10 9.5	2.122	2.984	11.6	21.4
4 21	15 45.19	-11 4.3	1.700	2.636	9.9	19.8	4 21	15 42.47	-9 35.2	2.052	2.987	8.6	21.2
5 1	15 36.82	-10 30.3	1.634	2.617	6.1	19.5	5 1	15 34.96	-9 1.2	2.008	2.989	5.4	21.0
5 11	15 26.89	-9 58.3	1.595	2.598	3.4	19.3	5 11	15 26.43	-8 30.9	1.991	2.991	3.4	20.9
5 21	15 16.41	-9 32.1	1.583	2.578	5.3	19.4	5 21	15 17.69	-8 7.5	2.002	2.992	4.9	21.0
5 31	15 6.55	-9 15.7	1.598	2.557	9.3	19.6	5 31	15 9.61	-7 53.9	2.040	2.993	8.0	21.2
6 10	14 58.32	-9 12.1	1.637	2.535	13.3	19.8	6 10	15 2.94	-7 51.8	2.103	2.994	11.2	21.4
6 20	14 52.44	-9 22.4	1.696	2.513	16.8	19.9	6 20	14 58.14	-8 1.6	2.188	2.994	13.9	21.6
420735	2012 <i>TG</i>		5 13.9 217°04	0°5/13.3	18		133694	2003 <i>UK</i> ₂₂₁		5 13.9 151°02	1°3/13.1	18	
4 11	15 38.78	-16 43.1	4.574	5.424	6.1	21.3	4 11	15 47.94	-15 53.4	2.249	3.107	11.2	21.1
4 21	15 34.94	-16 30.2	4.492	5.423	4.4	21.2	4 21	15 42.20	-15 31.5	2.179	3.113	8.2	20.9
5 1	15 30.35	-16 15.2	4.437	5.422	2.5	21.1	5 1	15 34.78	-15 6.1	2.134	3.119	4.7	20.7
5 11	15 25.33	-15 59.3	4.412	5.420	0.7	20.9	5 11	15 26.39	-14 39.2	2.116	3.124	1.5	20.5
5 21	15 20.20	-15 43.6	4.416	5.419	1.6	21.0	5 21	15 17.81	-14 13.6	2.127	3.129	3.2	20.6
5 31	15 15.32	-15 29.4	4.450	5.418	3.5	21.2	5 31	15 9.88	-13 52.3	2.167	3.134	6.7	20.9
6 10	15 11.03	-15 17.8	4.512	5.416	5.4	21.3	6 10	15 3.30	-13 37.8	2.232	3.138	9.9	21.1
6 20	15 7.56	-15 10.0	4.599	5.415	7.0	21.4	6 20	14 58.55	-13 31.8	2.320	3.142	12.7	21.3
166974	2003 <i>OZ</i> ₅		5 13.9 315°59	4°1/16.0	17		504626	2008 <i>UN</i> ₃₅₈		5 13.9 156°20	3°1/12.1	17	
4 11	15 48.38	-29 1.1	1.300	2.161	17.6	19.5	4 11	15 48.37	-9 51.3	2.271	3.130	11.1	21.6
4 21	15 43.98	-28 58.2	1.222	2.150	13.7	19.2	4 21	15 42.46	-9 29.8	2.202	3.135	8.2	21.5
5 1	15 36.45	-28 34.9	1.163	2.139	9.2	18.9	5 1	15 34.92	-9 9.3	2.160	3.140	5.1	21.3
5 11	15 26.83	-27 50.5	1.127	2.128	5.0	18.6	5 11	15 26.42	-8 52.5	2.144	3.145	3.1	21.2
5 21	15 16.57	-26 47.6	1.115	2.118	5.0	18.6	5 21	15 17.74	-8 41.8	2.157	3.149	4.5	21.3
5 31	15 7.34	-25 33.4	1.126	2.108	9.4	18.8	5 31	15 9.68	-8 39.6	2.199	3.152	7.5	21.4
6 10	15 0.53	-24 17.9	1.160	2.099	14.2	19.0	6 10	15 2.94	-8 46.9	2.265	3.156	10.5	21.6
6 20	14 56.93	-23 9.8	1.212	2.091	18.5	19.3	6 20	14 57.99	-9 4.3	2.354	3.159	13.1	21.8
158596	2002 <i>PA</i> ₁₂₈		5 13.9 234°21	4°0/10.5	18		89925	2002 <i>EY</i> ₅₂		5 13.9 302°51	5°4/16.9	18	
4 11	15 43.30	-5 8.2	2.836	3.694	9.2	20.1	4 11	15 49.34	-33 41.0	2.198	3.010	13.1	19.1
4 21	15 38.56	-4 29.6	2.762	3.689	7.0	20.0	4 21	15 43.84	-34 22.6	2.103	2.994	10.6	18.9
5 1	15 32.58	-3 53.9	2.713	3.683	4.9	19.8	5 1	15 36.07	-34 50.7	2.030	2.978	8.0	18.7
5 11	15 25.86	-3 24.3	2.692	3.677	4.0	19.7	5 11	15 26.75	-35 2.9	1.983	2.962	5.9	18.5
5 21	15 18.97	-3 3.4	2.699	3.671	5.1	19.8	5 21	15 16.85	-34 58.3	1.963	2.947	5.7	18.5
5 31	15 12.50	-2 53.1	2.733	3.665	7.3	19.9	5 31	15 7.48	-34 38.7	1.969	2.932	7.6	18.6
6 10	15 7.00	-2 54.4	2.793	3.658	9.5	20.1	6 10	14 59.67	-34 8.6	2.000	2.916	10.4	18.7
6 20	15 2.83	-3 7.3	2.875	3.652	11.6	20.2	6 20	14 54.12	-33 33.3	2.054	2.901	13.2	18.8
17196	<i>Mastrodemos</i>		5 13.9 30°61	2°7/12.2	18		185389	2006 <i>WJ</i> ₄₂		5 13.9 104°14	2°4/12.5	17	
4 11	15 45.64	-14 41.0	1.701	2.576	13.4	18.0	4 11	15 46.77	-11 38.3	2.317	3.178	10.8	20.8
4 21	15 40.92	-13 44.8	1.637	2.580	9.7	17.8	4 21	15 41.28	-11 23.0	2.251	3.185	7.9	20.6
5 1	15 34.17	-12 43.9	1.598	2.585	5.8	17.5	5 1	15 34.23	-11 7.7	2.209	3.192	4.8	20.5
5 11	15 26.24	-11 43.0	1.584	2.589	2.7	17.4	5 11	15 26.27	-10 54.6	2.195	3.199	2.4	20.3
5 21	15 18.11	-10 47.5	1.596	2.594	4.8	17.5	5 21	15 18.14	-10 46.0	2.210	3.206	3.9	20.4
5 31	15 10.82	-10 2.5	1.635	2.599	8.7	17.7	5 31	15 10.61	-10 44.0	2.252	3.212	6.9	20.6
6 10	15 5.19	-9 31.5	1.697	2.605	12.4	18.0	6 10	15 4.36	-10 49.9	2.320	3.219	9.9	20.8
6 20	15 1.73	-9 16.1	1.780	2.611	15.6	18.2	6 20	14 59.82	-11 4.5	2.411	3.225	12.5	21.0
302283	2001 <i>XN</i> ₂₄₁		5 13.9 265°38	0°1/13.9	18		312399	2008 <i>FX</i> ₁₄		5 13.9 108°13	5°5/17.7	18	
4 11	15 45.62	-21 6.7	2.261	3.115	11.3	20.6	4 11	15 51.97	-36 31.6	2.565	3.352	12.2	20.6
4 21	15 40.66	-20 29.1	2.172	3.103	8.3	20.4	4 21	15 45.30	-37 13.7	2.495	3.365	9.9	20.5
5 1	15 33.97	-19 42.6	2.107	3.091	4.9	20.2	5 1	15 36.68	-37 41.4	2.447	3.379	7.7	20.3
5 11	15 26.20	-18 49.5	2.070	3.079	1.1	19.9	5 11	15 26.85	-37 52.6	2.426	3.392	5.9	20.2
5 21	15 18.15	-17 53.2	2.061	3.066	2.7	20.0	5 21	15 16.74	-37 47.2	2.432	3.404	5.6	20.2
5 31	15 10.66	-16 58.0	2.080	3.054	6.5	20.2	5 31	15 7.32	-37 27.2	2.466	3.417	6.9	20.3
6 10	15 4.48	-16 8.3	2.126	3.041	9.9	20.4	6 10	14 59.43	-36 57.0	2.526	3.429	9.0	20.5
6 20	15 0.12	-15 27.5	2.194	3.028	12.9	20.6	6 20	14 53.61	-36 21.4	2.609	3.441	11.2	20.7
131926	2002 <i>CQ</i> ₂		5 13.9 62°00	1°6/13.3	18		499487	2010 <i>KM</i> ₁₂₅		5 13.9 243°94	5°3/10.5	17	
4 11	15 51.68	-15 24.0	1.308	2.186	16.4	20.2	4 11	15 49.46	-7 20.5	1.841	2.707	13.0	21.9
4 21	15 45.84	-15 18.1	1.252	2.196	12.0	19.9	4 21	15 43.76	-6 15.0	1.757	2.690	9.8	21.7
5 1	15 37.23	-15 8.5	1.218	2.206	7.0	19.7	5 1	15 35.92	-5 9.7	1.698	2.673	6.8	21.5
5 11	15 26.96	-14 57.8	1.208	2.216	2.1	19.4	5 11	15 26.71	-4 10.3	1.665	2.655	5.3	21.4
5 21	15 16.43	-14 49.0	1.222	2.226	4.5	19.6	5 21	15 17.05	-3 22.5	1.659	2.637	7.1	21.4
5 31	15 7.06	-14 45.9	1.262	2.237	9.5	19.9	5 31	15 8.02	-2 51.0	1.679	2.618	10.5	21.6
6 10	14 59.99	-14 51.6	1.324	2.247	14.1	20.2	6 10	15 0.54	-2 38.1	1.722	2.598	13.9	21.8
6 20	14 55.84	-15 7.5	1.405	2.258	17.8	20.4	6 20	14 55.25	-2 44.3	1.785	2.577	17.1	21.9
224647	2005 <i>YC</i> ₂₁₀		5 13.9 229°00	0°3/13.8	18		506801	2007 <i>GT</i> ₁₆		5 13.9 348°52	0°5/14.2	17	
4 11	15 50.64	-18 1.3	2.064	2.918	12.2	20.5	4 11	15 46.15	-21 38.2	1.477	2.350	15.2	21.1
4 21	15 44.50	-18 1.5	1.977	2.909	9.0	20.3	4 21	15 41.79	-21 17.4	1.405	2.345	11.2	20.9
5 1	15 36.30	-17 57.0	1.915	2.899	5.3	20.1	5 1	15 34.92	-20 45.2	1.355	2.341	6.7	20.6
5 11	15 26.76	-17 48.7	1.880	2.889	1.2	19.7	5 11	15 26.48	-20 3.9	1.329	2.338	1.7	20.3
5 21	15 16.81	-17 38.4	1.874	2.878	3.0	19.9	5 21	15 17.65	-19 17.6	1.328	2.335	3.5	20.4
5 31	15 7.45	-17 28.8	1.895	2.867	7.1	20.1	5 31	15 9.71	-18 31.9	1.352	2.332	8.4	20.7
6 10	14 59.58	-17 22.9	1.942	2.855	10.8	20.3	6 10	15 3.73	-17 52.7	1.400	2.331	12.9	20.9
6 20	14 53.82	-17 23.2	2.012	2.843	14.0	20.5	6 20	15 0.37	-17 24.2	1.467	2.330	16.7	21.2
119511	2001 <i>UX</i> ₁₃₄		5 13.9 180°51	1°0/14.5	18 R		499305	2009 <i>WJ</i> ₃₆		5 13.9 203°50	0°8/14.5	17	

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
4172	Rocheport		5 13.9	41°84'	2°0'/14.8	18	368398	2002 SO₆₃		5 13.9	299°71'	0°9'/14.4	17
4 11	15 50.47	-23 42.8	1.230	2.103	17.6	17.4	4 11	15 49.32	-21 11.8	1.446	2.316	15.6	21.5
4 21	15 45.28	-23 42.8	1.172	2.110	13.2	17.1	4 21	15 44.55	-21 12.9	1.352	2.290	11.8	21.2
5 1	15 37.06	-23 28.7	1.134	2.118	8.1	16.9	5 1	15 36.85	-21 4.2	1.280	2.265	7.1	20.8
5 11	15 26.99	-23 1.5	1.119	2.126	2.9	16.6	5 11	15 27.04	-20 46.2	1.231	2.239	2.0	20.4
5 21	15 16.57	-22 24.6	1.128	2.134	4.0	16.7	5 21	15 16.36	-20 21.1	1.208	2.214	3.8	20.5
5 31	15 7.41	-21 44.2	1.161	2.143	9.2	17.0	5 31	15 6.30	-19 53.1	1.209	2.189	9.2	20.7
6 10	15 0.75	-21 7.4	1.215	2.152	14.0	17.3	6 10	14 58.26	-19 28.2	1.233	2.164	14.2	20.9
6 20	14 57.23	-20 39.5	1.289	2.161	18.0	17.6	6 20	14 53.15	-19 11.5	1.276	2.139	18.7	21.1
479642	2014 DC₄₈		5 13.9	316°42'	6°6'/8.4	18	504195	2006 TN₈₄		5 13.9	26°26'	0°6'/14.4	17
4 11	15 43.45	- 2 5.8	2.111	2.977	11.6	21.0	4 11	15 45.42	-23 18.4	2.040	2.895	12.4	20.7
4 21	15 39.03	- 0 41.3	2.046	2.971	9.1	20.8	4 21	15 40.60	-22 36.7	1.967	2.897	9.1	20.5
5 1	15 33.00	+ 0 38.3	2.005	2.966	7.2	20.7	5 1	15 33.97	-21 44.0	1.917	2.900	5.4	20.3
5 11	15 26.02	+ 1 47.0	1.991	2.961	6.7	20.7	5 11	15 26.28	-20 42.9	1.894	2.903	1.5	20.0
5 21	15 18.84	+ 2 39.6	2.004	2.956	8.1	20.7	5 21	15 18.41	-19 37.4	1.899	2.905	2.7	20.1
5 31	15 12.23	+ 3 12.8	2.041	2.951	10.4	20.9	5 31	15 11.26	-18 32.7	1.932	2.908	6.6	20.3
6 10	15 6.90	+ 3 25.2	2.101	2.947	13.0	21.0	6 10	15 5.60	-17 33.9	1.990	2.912	10.2	20.6
6 20	15 3.29	+ 3 18.0	2.180	2.942	15.3	21.2	6 20	15 1.91	-16 44.7	2.071	2.915	13.2	20.8
42063	2000 YS₁₂₂		5 13.9	214°82'	4°6'/10.9	18	423605	2005 WU₃₄		5 13.9	83°87'	0°3'/14.1	15
4 11	15 50.07	- 8 36.5	1.936	2.799	12.6	19.7	4 11	15 50.57	-20 39.0	1.781	2.639	13.7	22.2
4 21	15 44.05	- 7 37.3	1.858	2.791	9.4	19.5	4 21	15 44.39	-20 23.2	1.728	2.661	10.0	22.1
5 1	15 36.02	- 6 37.9	1.804	2.782	6.2	19.3	5 1	15 36.15	-19 59.3	1.698	2.682	5.8	21.9
5 11	15 26.74	- 5 43.4	1.778	2.772	4.6	19.2	5 11	15 26.77	-19 29.1	1.694	2.702	1.4	21.6
5 21	15 17.13	- 4 58.6	1.779	2.762	6.3	19.2	5 21	15 17.32	-18 56.0	1.717	2.723	3.0	21.8
5 31	15 8.19	- 4 27.9	1.807	2.750	9.6	19.4	5 31	15 8.85	-18 24.0	1.768	2.743	7.2	22.1
6 10	15 0.78	- 4 13.5	1.859	2.738	12.9	19.6	6 10	15 2.19	-17 57.2	1.844	2.764	10.9	22.3
6 20	14 55.47	- 4 15.9	1.932	2.725	15.9	19.8	6 20	14 57.83	-17 38.6	1.941	2.783	14.1	22.6
394302	2006 VX₁₃₁		5 13.9	85°64'	0°7'/13.5	17	235213	2003 ST₂₀₁		5 13.9	200°59'	2°1'/12.3	18
4 11	15 46.16	-17 51.1	2.293	3.151	11.1	21.6	4 11	15 46.69	-14 19.6	2.367	3.226	10.7	20.7
4 21	15 40.87	-17 29.4	2.229	3.163	8.0	21.4	4 21	15 41.29	-13 32.5	2.288	3.223	7.8	20.5
5 1	15 34.01	-17 2.9	2.190	3.175	4.6	21.2	5 1	15 34.29	-12 41.8	2.235	3.219	4.6	20.3
5 11	15 26.25	-16 33.8	2.179	3.187	1.1	21.0	5 11	15 26.36	-11 50.7	2.210	3.215	2.2	20.1
5 21	15 18.36	-16 4.6	2.196	3.200	2.8	21.1	5 21	15 18.21	-11 2.7	2.214	3.210	3.8	20.2
5 31	15 11.14	-15 38.5	2.241	3.212	6.3	21.4	5 31	15 10.63	-10 21.7	2.246	3.205	7.0	20.4
6 10	15 5.23	-15 18.1	2.312	3.224	9.4	21.6	6 10	15 4.30	- 9 50.5	2.304	3.200	10.1	20.6
6 20	15 1.07	-15 5.4	2.406	3.235	12.1	21.8	6 20	14 59.66	- 9 30.7	2.384	3.194	12.8	20.8
394052	2005 WU₁₈₆		5 13.9	272°95'	0°9'/14.5	18	399231	2014 HA		5 13.9	5°75'	2°5'/14.9	17
4 11	15 47.90	-21 9.4	2.369	3.217	11.1	21.0	4 11	15 51.21	-23 5.9	1.916	2.765	13.3	20.0
4 21	15 42.34	-21 23.2	2.281	3.208	8.2	20.8	4 21	15 45.16	-23 59.5	1.841	2.765	10.0	19.8
5 1	15 35.00	-21 31.3	2.218	3.199	5.0	20.6	5 1	15 36.83	-24 46.7	1.789	2.766	6.4	19.6
5 11	15 26.51	-21 34.0	2.183	3.191	1.6	20.3	5 11	15 26.99	-25 25.6	1.764	2.767	3.0	19.4
5 21	15 17.67	-21 32.2	2.177	3.182	2.6	20.4	5 21	15 16.68	-25 55.4	1.767	2.769	3.6	19.4
5 31	15 9.33	-21 27.8	2.198	3.173	6.1	20.6	5 31	15 7.05	-26 17.0	1.797	2.772	7.2	19.6
6 10	15 2.26	-21 23.6	2.246	3.164	9.3	20.8	6 10	14 59.09	-26 33.4	1.852	2.774	10.7	19.8
6 20	14 57.02	-21 22.1	2.318	3.156	12.2	21.0	6 20	14 53.48	-26 47.6	1.930	2.778	13.9	20.0
353328	2010 ME₂₇		5 13.9	349°39'	9°5'/19.4	16	140429	2001 TQ₉₆		5 13.9	208°02'	0°5'/13.6	18
4 11	15 49.95	-42 36.5	1.850	2.632	16.4	20.2	4 11	15 45.68	-19 45.2	2.302	3.158	11.1	20.1
4 21	15 44.90	-43 40.4	1.771	2.625	14.1	20.0	4 21	15 40.62	-19 3.6	2.223	3.156	8.1	19.9
5 1	15 36.95	-44 22.9	1.712	2.620	11.8	19.9	5 1	15 33.93	-18 14.6	2.169	3.154	4.7	19.7
5 11	15 27.03	-44 39.1	1.675	2.615	10.1	19.8	5 11	15 26.28	-17 20.8	2.143	3.152	1.1	19.4
5 21	15 16.44	-44 26.9	1.660	2.611	9.6	19.7	5 21	15 18.42	-16 25.6	2.145	3.149	2.8	19.5
5 31	15 6.72	-43 48.6	1.670	2.608	10.6	19.8	5 31	15 11.17	-15 33.2	2.176	3.147	6.4	19.8
6 10	14 59.18	-42 51.0	1.702	2.605	12.6	19.9	6 10	15 5.21	-14 47.6	2.232	3.144	9.7	20.0
6 20	14 54.62	-41 42.5	1.755	2.604	15.0	20.0	6 20	15 1.01	-14 11.5	2.312	3.141	12.5	20.1
468117	2014 ED		5 13.9	111°32'	7°4'/12.3	18	201899	2004 BD₄₇		5 13.9	213°57'	6°4'/9.4	18
4 11	16 20.99	- 2 25.5	1.297	2.122	19.8	22.3	4 11	15 47.13	+ 1 6.6	2.429	3.276	10.9	20.5
4 21	16 6.28	- 1 55.3	1.264	2.172	14.9	22.1	4 21	15 41.54	+ 1 52.0	2.358	3.270	8.7	20.3
5 1	15 48.53	- 1 36.3	1.256	2.219	10.2	22.0	5 1	15 34.42	+ 2 29.6	2.313	3.263	7.0	20.2
5 11	15 29.51	- 1 33.6	1.276	2.262	7.4	21.9	5 11	15 26.39	+ 2 55.4	2.294	3.256	6.4	20.2
5 21	15 11.18	- 1 49.5	1.328	2.302	9.0	22.1	5 21	15 18.15	+ 3 6.3	2.302	3.249	7.5	20.2
5 31	14 55.28	- 2 23.7	1.408	2.338	12.8	22.4	5 31	15 10.43	+ 3 0.5	2.336	3.241	9.5	20.3
6 10	14 42.85	- 3 13.4	1.513	2.372	16.5	22.8	6 10	15 3.89	+ 2 38.1	2.395	3.233	11.8	20.5
6 20	14 34.22	- 4 15.0	1.639	2.402	19.5	23.1	6 20	14 58.98	+ 2 0.4	2.474	3.225	13.9	20.6
98913	2001 BG₆₅		5 13.9	93°83'	1°8'/12.7	18	76584	2000 GC₁₃₈		5 13.9	110°93'	1°2'/13.3	18
4 11	15 48.94	-15 41.4	2.030	2.890	12.2	20.4	4 11	15 47.29	-16 21.3	2.052	2.915	12.0	19.5
4 21	15 42.88	-14 55.4	1.979	2.915	8.8	20.2	4 21	15 41.94	-16 3.1	1.981	2.917	8.7	19.3
5 1	15 35.14	-14 5.5	1.953	2.939	5.1	20.0	5 1	15 34.76	-15 40.8	1.934	2.920	5.0	19.1
5 11	15 26.50	-13 15.3	1.955	2.962	2.0	19.8	5 11	15 26.48	-15 16.7	1.914	2.922	1.5	18.8
5 21	15 17.86	-12 28.6	1.986	2.985	3.8	20.0	5 21	15 17.97	-14 53.5	1.922	2.925	3.3	19.0
5 31	15 10.08	-11 49.4	2.044	3.008	7.3	20.3	5 31	15 10.14	-14 34.2	1.957	2.927	7.1	19.2
6 10	15 3.84	-11 20.6	2.127	3.030	10.5	20.5	6 10	15 3.75	-14 21.9	2.018	2.930	10.5	19.4
6 20	14 59.56	-11 3.6	2.233	3.051	13.2	20.7	6 20	14 59.32	-14 18.2	2.100	2.932	13.5	19.6
301558	2009 HL₃		5 13.9	168°78'	4°3'/10.6	18	42954	1999 TK₁₁₈		5 13.9	288°55'		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
176019	2000 SE ₄₉		5 13.9 208°88	2°2/15.6	18		385800	2006 CA ₁		5 13.9 6°97	19°5/22.6	18	
4 11	15 47.37	-27 4.6	2.627	3.456	10.7	21.1	4 11	15 59.59	-51 7.8	1.032	1.812	26.6	20.2
4 21	15 41.82	-27 2.5	2.539	3.452	8.2	20.9	4 21	15 55.08	-53 34.3	0.978	1.811	24.3	20.0
5 1	15 34.64	-26 50.5	2.477	3.447	5.3	20.7	5 1	15 44.47	-55 23.6	0.937	1.812	22.1	19.8
5 11	15 26.46	-26 29.0	2.442	3.442	2.7	20.5	5 11	15 29.08	-56 20.1	0.910	1.813	20.3	19.7
5 21	15 18.02	-25 59.4	2.435	3.437	2.8	20.5	5 21	15 11.90	-56 14.1	0.899	1.814	19.5	19.6
5 31	15 10.11	-25 24.4	2.457	3.431	5.6	20.7	5 31	14 56.86	-55 7.6	0.905	1.816	20.0	19.7
6 10	15 3.43	-24 47.7	2.507	3.425	8.4	20.9	6 10	14 47.01	-53 16.0	0.926	1.819	21.5	19.8
6 20	14 58.46	-24 13.0	2.580	3.419	11.1	21.0	6 20	14 43.48	-50 59.1	0.963	1.822	23.6	19.9
175131	2005 CK ₁₁		5 13.9 354°40	2°2/13.1	17		285387	1999 TX ₁₈₃		5 13.9 248°10	5°6/18.5	18	
4 11	15 47.20	-15 16.0	1.186	2.076	16.9	19.5	4 11	15 49.75	-39 31.1	2.860	3.629	11.4	21.1
4 21	15 42.97	-14 56.4	1.123	2.072	12.4	19.2	4 21	15 43.75	-39 49.3	2.757	3.612	9.6	20.9
5 1	15 35.81	-14 32.1	1.080	2.069	7.3	18.9	5 1	15 35.88	-39 52.3	2.676	3.596	7.6	20.8
5 11	15 26.78	-14 6.8	1.059	2.067	2.5	18.6	5 11	15 26.81	-39 38.4	2.622	3.578	6.1	20.6
5 21	15 17.28	-13 45.2	1.062	2.066	5.1	18.7	5 21	15 17.34	-39 7.4	2.594	3.561	5.7	20.6
5 31	15 8.83	-13 32.1	1.088	2.065	10.4	19.0	5 31	15 8.39	-38 21.4	2.595	3.543	6.8	20.6
6 10	15 2.68	-13 31.4	1.136	2.066	15.3	19.3	6 10	15 0.77	-37 24.7	2.621	3.524	8.7	20.7
6 20	14 59.55	-13 44.7	1.201	2.067	19.4	19.6	6 20	14 55.06	-36 22.5	2.672	3.506	10.9	20.8
12419	1995 UP ₄		5 13.9 204°32	0°8/13.6	18		342133	2008 SY ₁₂₄		5 13.9 295°31	2°5/12.3	17	
4 11	15 51.97	-16 48.3	1.878	2.736	13.1	18.0	4 11	15 45.80	-15 59.9	1.728	2.602	13.3	21.1
4 21	15 45.61	-16 44.8	1.798	2.732	9.6	17.8	4 21	15 41.26	-14 53.6	1.645	2.587	9.7	20.9
5 1	15 37.04	-16 36.9	1.743	2.728	5.6	17.5	5 1	15 34.56	-13 39.1	1.585	2.572	5.8	20.6
5 11	15 27.05	-16 26.2	1.715	2.723	1.4	17.2	5 11	15 26.51	-12 21.3	1.552	2.558	2.6	20.4
5 21	15 16.67	-16 14.9	1.714	2.718	3.4	17.4	5 21	15 18.07	-11 6.3	1.545	2.543	4.8	20.5
5 31	15 7.01	-16 5.8	1.741	2.712	7.7	17.6	5 31	15 10.31	-10 0.6	1.565	2.529	9.0	20.7
6 10	14 59.01	-16 2.0	1.794	2.706	11.6	17.8	6 10	15 4.18	-9 9.4	1.608	2.515	13.0	20.9
6 20	14 53.31	-16 5.8	1.868	2.699	14.9	18.0	6 20	15 0.27	-8 35.6	1.671	2.501	16.5	21.1
176459	2001 XT ₇₈		5 13.9 220°94	2°4/12.0	18		299414	2005 YG ₈₄		5 13.9 42°08	3°7/15.9	16	
4 11	15 45.24	-13 0.8	2.529	3.390	10.1	20.2	4 11	15 49.95	-28 31.2	1.166	2.033	18.8	20.2
4 21	15 40.17	-12 14.5	2.448	3.383	7.4	20.0	4 21	15 45.08	-28 20.7	1.111	2.042	14.4	20.0
5 1	15 33.65	-11 25.7	2.393	3.376	4.4	19.8	5 1	15 37.03	-27 48.9	1.075	2.053	9.4	19.7
5 11	15 26.24	-10 37.5	2.365	3.368	2.4	19.7	5 11	15 27.08	-26 56.6	1.061	2.063	4.7	19.5
5 21	15 18.62	-9 53.2	2.367	3.361	3.9	19.8	5 21	15 16.88	-25 48.4	1.070	2.075	4.8	19.5
5 31	15 11.49	-9 16.2	2.397	3.353	6.8	19.9	5 31	15 8.08	-24 33.1	1.103	2.086	9.3	19.8
6 10	15 5.50	-8 49.0	2.452	3.344	9.7	20.1	6 10	15 1.96	-23 20.7	1.158	2.099	14.1	20.1
6 20	15 1.06	-8 32.9	2.531	3.336	12.3	20.3	6 20	14 59.10	-22 19.0	1.232	2.111	18.2	20.4
16729	1996 GA ₁₉		5 13.9 4°74	0°4/14.1	18		175456	2006 QD ₈₅		5 13.9 90°53	3°1/15.7	18	
4 11	15 51.00	-19 23.1	1.262	2.140	16.9	17.9	4 11	15 53.32	-27 12.3	1.596	2.441	15.7	20.6
4 21	15 45.73	-19 31.2	1.197	2.139	12.5	17.6	4 21	15 46.78	-27 16.9	1.539	2.460	11.9	20.4
5 1	15 37.43	-19 31.5	1.152	2.139	7.4	17.3	5 1	15 37.73	-27 6.7	1.505	2.479	7.7	20.2
5 11	15 27.18	-19 24.8	1.131	2.140	1.8	16.9	5 11	15 27.23	-26 41.6	1.496	2.497	3.8	20.0
5 21	15 16.43	-19 13.7	1.134	2.141	4.0	17.1	5 21	15 16.58	-26 4.4	1.513	2.515	4.0	20.1
5 31	15 6.76	-19 2.3	1.161	2.142	9.4	17.4	5 31	15 7.09	-25 20.2	1.556	2.533	7.8	20.3
6 10	14 59.48	-18 55.4	1.211	2.143	14.3	17.7	6 10	14 59.77	-24 35.5	1.624	2.551	11.7	20.6
6 20	14 55.31	-18 56.7	1.279	2.145	18.5	17.9	6 20	14 55.18	-23 55.9	1.713	2.568	15.0	20.9
99775	2002 JA ₁₁₃		5 13.9 176°83	8°2/8.6	18		297795	2001 YO ₇₆		5 13.9 144°72	1°7/14.9	18	
4 11	15 47.03	+ 2 30.2	1.949	2.804	12.9	19.7	4 11	15 53.84	-24 16.6	1.755	2.602	14.4	22.0
4 21	15 41.72	+ 3 37.2	1.892	2.804	10.5	19.6	4 21	15 47.03	-24 9.0	1.688	2.612	10.8	21.8
5 1	15 34.62	+ 4 34.0	1.858	2.804	8.7	19.5	5 1	15 37.85	-23 49.6	1.644	2.623	6.6	21.6
5 11	15 26.47	+ 5 14.5	1.849	2.805	8.2	19.4	5 11	15 27.27	-23 19.2	1.626	2.632	2.5	21.3
5 21	15 18.13	+ 5 34.6	1.865	2.805	9.4	19.5	5 21	15 16.45	-22 40.4	1.635	2.641	3.3	21.4
5 31	15 10.50	+ 5 32.2	1.906	2.805	11.7	19.7	5 31	15 6.62	-21 58.0	1.672	2.649	7.5	21.7
6 10	15 4.31	+ 5 7.8	1.969	2.805	14.1	19.8	6 10	14 58.75	-21 17.7	1.735	2.656	11.4	21.9
6 20	15 0.07	+ 4 24.1	2.051	2.804	16.3	20.0	6 20	14 53.42	-20 43.9	1.819	2.662	14.8	22.2
200902	2002 AT ₄₇		5 13.9 146°48	0°1/13.9	18		299391	2005 WE ₁₃₀		5 13.9 298°33	0°2/14.1	16	
4 11	15 42.12	-19 35.0	3.928	4.771	7.2	22.2	4 11	15 48.74	-21 14.4	1.212	2.092	17.3	20.8
4 21	15 37.46	-19 17.3	3.853	4.779	5.2	22.1	4 21	15 44.47	-20 50.1	1.128	2.072	13.0	20.5
5 1	15 31.90	-18 55.9	3.805	4.788	3.0	21.9	5 1	15 36.95	-20 11.8	1.064	2.051	7.8	20.1
5 11	15 25.82	-18 32.0	3.787	4.796	0.7	21.7	5 11	15 27.16	-19 21.3	1.023	2.031	1.9	19.7
5 21	15 19.65	-18 7.0	3.799	4.803	1.7	21.8	5 21	15 16.51	-18 23.3	1.005	2.011	4.3	19.8
5 31	15 13.83	-17 42.7	3.840	4.811	3.9	22.0	5 31	15 6.72	-17 25.6	1.011	1.992	10.3	20.1
6 10	15 8.75	-17 20.7	3.910	4.818	6.0	22.1	6 10	14 59.29	-16 36.4	1.038	1.973	15.9	20.3
6 20	15 4.70	-17 2.6	4.005	4.825	7.8	22.3	6 20	14 55.15	-16 2.0	1.082	1.954	20.7	20.5
155775	2000 SZ ₂₄₇		5 13.9 254°27	0°4/13.8	17		22749	1998 UF ₁₉		5 13.9 196°52	1°4/13.1	18	
4 11	15 49.28	-18 32.9	1.868	2.728	13.0	20.3	4 11	15 49.87	-16 20.7	2.046	2.904	12.2	20.3
4 21	15 43.72	-18 22.7	1.784	2.719	9.6	20.1	4 21	15 43.87	-15 49.2	1.967	2.902	8.9	20.1
5 1	15 35.98	-18 6.3	1.724	2.709	5.6	19.8	5 1	15 35.94	-15 12.6	1.914	2.898	5.2	19.8
5 11	15 26.83	-17 45.2	1.690	2.699	1.3	19.5	5 11	15 26.83	-14 33.5	1.887	2.895	1.7	19.6
5 21	15 17.25	-17 22.0	1.683	2.688	3.2	19.6	5 21	15 17.43	-13 55.5	1.889	2.890	3.6	19.7
5 31	15 8.32	-17 0.3	1.704	2.678	7.6	19.8	5 31	15 8.70	-13 22.4	1.919	2.885	7.4	20.0
6 10	15 1.01	-16 43.8	1.749	2.667	11.5	20.1	6 10	15 1.48	-12 57.6	1.974	2.880	11.0	20.2
6 20	14 55.95	-16 35.4	1.816	2.656	15.0	20.2	6 20	14 56.31	-12 43.3	2.051	2.874	14.1	20.4
175709	1996 RQ ₆		5 13.9 198°02	0°0/13.9	17		92931	2000 RM ₂₆		5 13.9 291°73	8°8/18.5	18	
4 11	15 46.81	-19											

EPHEMERIDES

5 13.9

5 14.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
494307	2016 SY ₁₁		5 13.9 224°51	0°8/13.4 18			318672	2005 PN		5 14.0 245°41	6°7/20.1 16		
4 11	15 45.52	-17 8.0	2.774	3.627	9.5	22.1	4 11	15 53.61	-46 48.5	3.422	4.130	10.8	22.7
4 21	15 40.34	-16 46.6	2.687	3.618	6.9	22.0	4 21	15 46.54	-47 16.5	3.309	4.107	9.5	22.6
5 1	15 33.75	-16 21.0	2.626	3.610	4.0	21.8	5 1	15 37.53	-47 28.7	3.218	4.084	8.1	22.5
5 11	15 26.31	-15 53.2	2.592	3.601	1.1	21.5	5 11	15 27.25	-47 22.6	3.151	4.060	7.1	22.4
5 21	15 18.63	-15 25.3	2.589	3.591	2.6	21.6	5 21	15 16.52	-46 57.2	3.111	4.035	6.7	22.3
5 31	15 11.40	-14 59.9	2.614	3.582	5.7	21.8	5 31	15 6.27	-46 13.7	3.098	4.009	7.3	22.3
6 10	15 5.21	-14 39.4	2.666	3.572	8.5	22.0	6 10	14 57.34	-45 15.8	3.112	3.982	8.5	22.4
6 20	15 0.49	-14 25.6	2.741	3.561	11.0	22.1	6 20	14 50.35	-44 8.6	3.149	3.955	10.1	22.4
416705	2005 AR ₆₄		5 14.0 95°59	2°9/10.4 18			460269	2014 QC ₃₁₇		5 14.0 145°76	4°5/11.6 16		
4 11	15 38.72	-4 13.4	4.431	5.283	6.2	21.1	4 11	15 51.41	-9 43.5	1.592	2.463	14.4	21.6
4 21	15 34.94	-3 47.6	4.365	5.288	4.7	21.0	4 21	15 45.25	-8 52.2	1.533	2.470	10.7	21.4
5 1	15 30.43	-3 24.4	4.326	5.292	3.4	20.9	5 1	15 36.82	-8 1.4	1.496	2.477	6.8	21.2
5 11	15 25.52	-3 5.6	4.316	5.297	2.9	20.9	5 11	15 27.06	-7 16.3	1.485	2.484	4.5	21.0
5 21	15 20.53	-2 52.5	4.335	5.302	3.5	20.9	5 21	15 17.09	-6 41.9	1.501	2.490	6.4	21.2
5 31	15 15.80	-2 46.3	4.382	5.307	4.9	21.0	5 31	15 8.07	-6 22.1	1.542	2.495	10.1	21.4
6 10	15 11.66	-2 47.4	4.455	5.312	6.4	21.2	6 10	15 0.95	-6 19.0	1.607	2.501	13.8	21.6
6 20	15 8.34	-2 55.9	4.551	5.317	7.8	21.3	6 20	14 56.28	-6 32.3	1.691	2.505	17.0	21.8
297442	2000 SF ₁₉₁		5 14.0 252°72	3°0/17.3 18			34102	Shawnzhang		5 14.0 230°35	1°3/13.1 18	R	
4 11	15 42.98	-34 15.7	4.577	5.363	7.2	20.4	4 11	15 46.21	-16 5.4	2.269	3.130	11.1	19.7
4 21	15 38.19	-34 37.2	4.483	5.357	5.8	20.3	4 21	15 41.08	-15 40.2	2.191	3.126	8.1	19.5
5 1	15 32.40	-34 51.2	4.414	5.351	4.4	20.2	5 1	15 34.28	-15 11.1	2.137	3.123	4.7	19.3
5 11	15 25.99	-34 57.0	4.373	5.345	3.2	20.1	5 11	15 26.46	-14 40.2	2.111	3.119	1.5	19.1
5 21	15 19.39	-34 55.0	4.361	5.339	3.1	20.0	5 21	15 18.41	-14 10.6	2.113	3.115	3.2	19.2
5 31	15 13.06	-34 46.0	4.377	5.333	4.0	20.1	5 31	15 10.92	-13 45.2	2.143	3.111	6.7	19.4
6 10	15 7.41	-34 31.9	4.422	5.327	5.4	20.2	6 10	15 4.71	-13 26.9	2.199	3.107	10.0	19.6
6 20	15 2.77	-34 14.7	4.492	5.321	6.9	20.3	6 20	15 0.27	-13 17.5	2.277	3.103	12.8	19.8
271097	2003 QA ₇₂		5 14.0 282°40	1°8/13.0 18			518911	2010 FW ₁₁₈		5 14.0 330°05	4°1/16.2 16		
4 11	15 48.18	-14 41.0	1.833	2.700	12.9	20.2	4 11	15 49.12	-29 39.9	1.999	2.831	13.5	20.7
4 21	15 42.92	-14 24.2	1.752	2.691	9.5	20.0	4 21	15 43.70	-30 9.4	1.917	2.827	10.5	20.5
5 1	15 35.52	-14 4.4	1.695	2.681	5.6	19.7	5 1	15 36.03	-30 26.2	1.858	2.822	7.4	20.3
5 11	15 26.77	-13 44.0	1.664	2.671	2.0	19.5	5 11	15 26.92	-30 29.0	1.825	2.818	4.6	20.2
5 21	15 17.61	-13 26.0	1.660	2.661	4.0	19.6	5 21	15 17.36	-30 18.0	1.818	2.814	4.6	20.1
5 31	15 9.10	-13 13.7	1.683	2.652	8.1	19.8	5 31	15 8.47	-29 55.8	1.838	2.811	7.2	20.3
6 10	15 2.17	-13 9.9	1.730	2.642	12.0	20.0	6 10	15 1.25	-29 27.2	1.883	2.807	10.5	20.5
6 20	14 57.44	-13 16.5	1.798	2.632	15.3	20.2	6 20	14 56.33	-28 57.3	1.950	2.804	13.5	20.7
49025	1998 QL ₉₆		5 14.0 268°61	4°1/16.3 18			158412	2002 AN ₅₁		5 14.0 98°61	0°7/14.4 17		
4 11	15 52.07	-30 29.6	1.854	2.683	14.5	20.6	4 11	15 48.72	-22 8.7	1.774	2.632	13.7	20.1
4 21	15 46.21	-30 32.8	1.750	2.658	11.4	20.3	4 21	15 43.32	-21 50.4	1.703	2.635	10.2	19.9
5 1	15 37.70	-30 19.6	1.667	2.632	8.0	20.1	5 1	15 35.73	-21 22.1	1.655	2.638	6.1	19.7
5 11	15 27.33	-29 48.4	1.610	2.606	4.8	19.8	5 11	15 26.82	-20 45.4	1.633	2.641	1.7	19.4
5 21	15 16.23	-28 59.8	1.580	2.578	4.7	19.8	5 21	15 17.64	-20 3.7	1.638	2.644	3.1	19.5
5 31	15 5.74	-27 58.2	1.576	2.551	8.0	19.9	5 31	15 9.29	-19 21.6	1.669	2.646	7.4	19.8
6 10	14 57.06	-26 50.5	1.598	2.522	12.0	20.1	6 10	15 2.69	-18 44.1	1.726	2.649	11.3	20.0
6 20	14 51.02	-25 44.2	1.641	2.493	15.7	20.2	6 20	14 58.40	-18 14.9	1.803	2.652	14.7	20.2
479149	2013 BG ₇₃		5 14.0 203°79	3°9/16.9 16			67470	2000 RQ ₃		5 14.0 186°78	1°5/12.9 18		
4 11	15 48.12	-32 27.0	2.632	3.441	11.3	21.6	4 11	15 48.55	-15 21.5	2.586	3.438	10.2	20.8
4 21	15 42.48	-32 37.6	2.546	3.439	8.9	21.4	4 21	15 42.55	-14 49.3	2.506	3.437	7.4	20.6
5 1	15 35.10	-32 35.8	2.483	3.436	6.4	21.2	5 1	15 35.05	-14 13.6	2.453	3.436	4.3	20.4
5 11	15 26.65	-32 20.7	2.447	3.433	4.3	21.1	5 11	15 26.65	-13 36.6	2.428	3.434	1.6	20.2
5 21	15 17.92	-31 53.3	2.439	3.430	4.1	21.1	5 21	15 18.05	-13 1.2	2.432	3.432	3.2	20.3
5 31	15 9.76	-31 16.1	2.459	3.426	6.0	21.2	5 31	15 9.99	-12 30.4	2.466	3.428	6.3	20.5
6 10	15 2.90	-30 33.2	2.506	3.423	8.5	21.4	6 10	15 3.11	-12 6.7	2.527	3.424	9.3	20.7
6 20	14 57.87	-29 49.2	2.576	3.419	11.0	21.5	6 20	14 57.86	-11 51.8	2.611	3.419	11.8	20.9
72071	Gábor		5 14.0 107°29	0°1/13.9 18			441075	2007 RQ ₁₀₇		5 14.0 158°89	2°6/16.8 18		
4 11	15 51.15	-21 2.9	1.599	2.461	14.8	19.7	4 11	15 44.30	-31 21.9	3.881	4.684	8.1	21.9
4 21	15 45.09	-20 26.0	1.540	2.475	10.8	19.5	4 21	15 39.19	-31 28.3	3.798	4.689	6.3	21.7
5 1	15 36.71	-19 38.5	1.504	2.488	6.3	19.3	5 1	15 33.00	-31 26.4	3.741	4.694	4.5	21.6
5 11	15 27.01	-18 43.7	1.493	2.502	1.5	19.0	5 11	15 26.16	-31 16.2	3.711	4.698	2.9	21.5
5 21	15 17.19	-17 46.3	1.509	2.515	3.4	19.1	5 21	15 19.17	-30 58.3	3.711	4.702	2.8	21.5
5 31	15 8.42	-16 52.1	1.552	2.527	8.0	19.4	5 31	15 12.56	-30 34.5	3.740	4.706	4.2	21.6
6 10	15 1.64	-16 6.7	1.619	2.540	12.1	19.7	6 10	15 6.79	-30 6.9	3.797	4.710	6.0	21.7
6 20	14 57.38	-15 33.4	1.708	2.551	15.6	19.9	6 20	15 2.21	-29 38.3	3.879	4.713	7.8	21.9
37377	2001 VP ₄₆		5 14.0 201°28	1°8/15.3 18			370474	2003 FE ₁₀₀		5 14.0 79°64	3°3/12.3 18		
4 11	15 49.70	-26 15.0	2.161	2.999	12.4	19.0	4 11	15 51.70	-11 15.8	1.697	2.563	13.9	20.5
4 21	15 43.78	-25 50.4	2.076	2.995	9.4	18.8	4 21	15 45.14	-10 44.5	1.655	2.591	10.1	20.3
5 1	15 35.91	-25 13.4	2.016	2.991	5.9	18.6	5 1	15 36.58	-10 13.5	1.636	2.619	6.1	20.1
5 11	15 26.85	-24 24.9	1.982	2.987	2.5	18.3	5 11	15 27.00	-9 46.7	1.644	2.647	3.4	20.0
5 21	15 17.51	-23 27.9	1.977	2.981	2.9	18.4	5 21	15 17.44	-9 27.5	1.679	2.674	5.1	20.2
5 31	15 8.87	-22 26.9	2.000	2.976	6.5	18.6	5 31	15 8.93	-9 18.5	1.741	2.701	8.7	20.5
6 10	15 1.76	-21 27.4	2.050	2.970	10.0	18.8	6 10	15 2.26	-9 21.4	1.827	2.727	12.1	20.7
6 20	14 56.73	-20 34.0	2.122	2.963	13.1	19.0	6 20	14 57.87	-9 36.2	1.934	2.753	15.0	21.0
67649	2000 SS ₂₂₇		5 14.0 295°57	6°8/ 8.9 18			371527	2006 UB ₂₁₆		5 14.0 328°78	4°3/14.9 17		
4 11	15 45.53	-4 47.7	1.742	2.616	13.2	19.3							