

EPHEMERIDES

5 9.9

5 10.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
461526	2003 SZ ₂₉₉	5	9.9 290°12	9°1/13.5	17		37519	Amphios	5	10.0 273°73	2°4/12.8	18	
4 1	15 39.84	-34 50.7	1.534	2.298	19.7	21.2	4 1	15 29.91	-29 35.1	4.474	5.209	8.0	18.4
4 11	15 36.67	-36 11.6	1.433	2.279	17.1	21.0	4 11	15 25.73	-30 1.2	4.371	5.208	6.6	18.3
4 21	15 29.73	-37 17.8	1.349	2.259	14.0	20.7	4 21	15 20.41	-30 20.8	4.292	5.208	5.0	18.2
5 1	15 19.44	-38 1.8	1.286	2.239	11.0	20.5	5 1	15 14.24	-30 33.4	4.240	5.207	3.4	18.1
5 11	15 6.96	-38 17.7	1.245	2.220	9.2	20.3	5 11	15 7.63	-30 39.0	4.217	5.207	2.5	18.0
5 21	14 54.01	-38 3.4	1.228	2.200	9.9	20.3	5 21	15 1.03	-30 38.1	4.224	5.206	3.0	18.0
5 31	14 42.52	-37 23.2	1.234	2.180	12.7	20.4	5 31	14 54.87	-30 32.1	4.260	5.206	4.4	18.1
6 10	14 34.09	-36 26.6	1.261	2.161	16.3	20.6	6 10	14 49.54	-30 23.0	4.323	5.205	6.1	18.2
386533	2009 CW ₃₂	5	9.9 331°77	7°4/ 4.4	18		338043	2002 LZ	5	10.0 325°81	5°0/ 7.4	17	
4 1	15 29.79	- 0 47.3	1.877	2.703	14.3	20.4	4 1	15 33.77	- 6 16.1	1.687	2.514	15.7	20.2
4 11	15 26.83	+ 0 26.6	1.799	2.695	11.7	20.2	4 11	15 30.31	- 5 49.9	1.603	2.505	12.5	20.0
4 21	15 21.72	+ 1 37.9	1.744	2.687	9.2	20.1	4 21	15 24.32	- 5 24.7	1.539	2.496	9.0	19.7
5 1	15 15.01	+ 2 39.8	1.713	2.680	7.6	20.0	5 1	15 16.37	- 5 4.9	1.500	2.488	5.8	19.5
5 11	15 7.51	+ 3 26.1	1.707	2.673	7.9	20.0	5 11	15 7.39	- 4 55.0	1.486	2.480	5.3	19.5
5 21	15 0.12	+ 3 52.0	1.725	2.666	10.0	20.1	5 21	14 58.47	- 4 58.5	1.497	2.473	8.0	19.6
5 31	14 53.72	+ 3 55.4	1.767	2.660	12.7	20.2	5 31	14 50.70	- 5 17.3	1.533	2.466	11.7	19.8
6 10	14 49.01	+ 3 36.4	1.830	2.654	15.5	20.4	6 10	14 44.93	- 5 51.9	1.591	2.459	15.3	20.0
347621	2001 SB ₁₁₄	5	9.9 187°03	4°1/13.1	17		411178	2010 FN ₈₇	5	10.0 4°98	0°9/ 9.7	17	
4 1	15 37.08	-31 34.1	2.789	3.526	12.4	21.4	4 1	15 36.88	-14 24.9	1.127	1.971	20.7	20.7
4 11	15 32.11	-32 3.3	2.689	3.525	10.3	21.2	4 11	15 34.09	-14 50.1	1.057	1.970	16.4	20.4
4 21	15 25.13	-32 21.4	2.611	3.524	7.9	21.1	4 21	15 27.62	-15 11.8	1.004	1.971	11.3	20.1
5 1	15 16.63	-32 26.6	2.559	3.523	5.6	20.9	5 1	15 18.19	-15 30.8	0.973	1.972	5.5	19.8
5 11	15 7.33	-32 18.5	2.534	3.521	4.1	20.8	5 11	15 7.18	-15 48.6	0.964	1.973	1.2	19.5
5 21	14 58.05	-31 58.3	2.538	3.519	4.8	20.9	5 21	14 56.32	-16 7.4	0.978	1.976	7.0	19.9
5 31	14 49.63	-31 28.8	2.570	3.516	6.9	21.0	5 31	14 47.29	-16 30.1	1.015	1.980	12.7	20.2
6 10	14 42.75	-30 54.3	2.628	3.513	9.4	21.1	6 10	14 41.31	-16 59.7	1.072	1.984	17.6	20.5
7604	Kridsaporn	5	9.9 151°55	5°1/ 3.4	18		140923	2001 VX ₆₆	5	10.0 229°05	1°3/10.8	17	R
4 1	15 31.17	+ 5 27.7	3.995	4.771	8.3	20.3	4 1	15 36.25	-22 24.9	2.031	2.821	14.7	20.5
4 11	15 26.50	+ 6 22.4	3.930	4.784	6.9	20.2	4 11	15 32.04	-22 21.7	1.933	2.813	11.8	20.3
4 21	15 20.78	+ 7 12.3	3.889	4.797	5.7	20.1	4 21	15 25.39	-22 7.9	1.855	2.805	8.3	20.1
5 1	15 14.34	+ 7 54.4	3.877	4.808	5.1	20.1	5 1	15 16.87	-21 43.8	1.803	2.796	4.4	19.8
5 11	15 7.61	+ 8 26.1	3.893	4.819	5.3	20.1	5 11	15 7.35	-21 10.9	1.778	2.787	1.3	19.6
5 21	15 0.99	+ 8 45.9	3.938	4.830	6.3	20.2	5 21	14 57.85	-20 32.5	1.781	2.777	4.6	19.8
5 31	14 54.89	+ 8 53.0	4.009	4.839	7.6	20.3	5 31	14 49.41	-19 53.1	1.810	2.767	8.6	20.0
6 10	14 49.66	+ 8 47.5	4.103	4.848	8.9	20.4	6 10	14 42.86	-19 17.8	1.865	2.757	12.3	20.2
207320	2005 GJ ₁₁₀	5	9.9 240°86	0°0/ 9.9	17		249677	1999 VU ₁₈₆	5	10.0 178°21	1°7/ 8.8	17	
4 1	15 33.05	-19 31.9	2.223	3.021	13.3	21.3	4 1	15 36.49	-15 50.6	1.966	2.770	14.6	21.1
4 11	15 29.18	-19 15.7	2.128	3.016	10.6	21.1	4 11	15 32.02	-15 11.1	1.880	2.772	11.4	20.9
4 21	15 23.24	-18 51.1	2.056	3.010	7.2	20.9	4 21	15 25.23	-14 23.7	1.816	2.774	7.8	20.7
5 1	15 15.73	-18 19.2	2.009	3.005	3.5	20.6	5 1	15 16.72	-13 31.2	1.778	2.774	3.8	20.4
5 11	15 7.44	-17 42.6	1.990	2.999	0.4	20.4	5 11	15 7.38	-12 37.7	1.767	2.774	2.0	20.3
5 21	14 59.22	-17 4.6	1.998	2.994	4.3	20.7	5 21	14 58.21	-11 48.1	1.785	2.774	5.5	20.5
5 31	14 51.93	-16 29.2	2.035	2.988	8.0	20.9	5 31	14 50.16	-11 7.0	1.829	2.773	9.5	20.8
6 10	14 46.26	-16 0.2	2.095	2.982	11.3	21.1	6 10	14 43.97	-10 37.8	1.898	2.771	13.0	21.0
336512	2008 WT ₁₃₈	5	9.9 160°32	0°2/ 9.8	17		384220	2009 DK ₄	5	10.0 196°43	14°1/14.2	18	
4 1	15 33.25	-19 32.3	2.124	2.924	13.8	21.1	4 1	15 53.71	-40 45.6	1.354	2.084	23.5	20.8
4 11	15 29.36	-19 5.2	2.037	2.925	10.9	20.9	4 11	15 49.10	-43 12.7	1.274	2.083	20.9	20.5
4 21	15 23.34	-18 28.8	1.971	2.927	7.4	20.6	4 21	15 39.26	-45 23.6	1.209	2.081	18.1	20.3
5 1	15 15.76	-17 44.8	1.932	2.929	3.6	20.4	5 1	15 24.51	-47 4.4	1.164	2.078	15.6	20.2
5 11	15 7.44	-16 56.3	1.920	2.930	0.5	20.2	5 11	15 6.44	-48 2.6	1.139	2.075	14.2	20.1
5 21	14 59.27	-16 7.5	1.936	2.931	4.5	20.5	5 21	14 47.69	-48 12.1	1.137	2.072	14.5	20.1
5 31	14 52.12	-15 22.8	1.980	2.932	8.3	20.7	5 31	14 31.30	-47 37.6	1.155	2.067	16.5	20.2
6 10	14 46.65	-14 46.3	2.047	2.933	11.6	20.9	6 10	14 19.49	-46 33.7	1.193	2.062	19.2	20.3
213211	2000 UU ₅₇	5	9.9 228°14	0°1/ 9.9	18		187990	2001 RT ₁₂₃	5	10.0 26°53	4°7/12.2	17	
4 1	15 31.95	-19 10.6	2.772	3.559	11.3	21.1	4 1	15 37.75	-27 21.3	1.554	2.347	18.3	19.5
4 11	15 27.88	-19 13.9	2.667	3.549	8.9	20.9	4 11	15 34.09	-28 8.0	1.475	2.350	15.1	19.2
4 21	15 22.14	-18 39.4	2.586	3.539	6.1	20.7	4 21	15 27.26	-28 41.4	1.414	2.353	11.2	19.0
5 1	15 15.14	-17 58.4	2.532	3.528	2.9	20.5	5 1	15 17.91	-28 58.2	1.376	2.357	7.3	18.8
5 11	15 7.52	-17 13.4	2.507	3.517	0.4	20.2	5 11	15 7.24	-28 57.2	1.363	2.362	4.7	18.6
5 21	14 59.94	-16 27.4	2.512	3.506	3.7	20.5	5 21	14 56.68	-28 40.3	1.374	2.366	6.4	18.8
5 31	14 53.09	-15 43.8	2.545	3.494	6.8	20.7	5 31	14 47.65	-28 12.5	1.411	2.371	10.2	19.0
6 10	14 47.52	-15 6.0	2.604	3.482	9.7	20.8	6 10	14 41.20	-27 41.0	1.470	2.376	14.0	19.2
464253	2015 DV ₁₅₆	5	9.9 291°88	7°0/14.2	18		512274	2016 FH ₃₆	5	10.0 2°27	3°2/ 8.1	17	
4 1	15 36.34	-35 51.1	1.795	2.547	17.7	19.8	4 1	15 31.66	-14 19.1	1.401	2.239	17.7	21.0
4 11	15 33.21	-36 16.9	1.677	2.517	15.3	19.6	4 11	15 29.11	-13 23.9	1.327	2.238	13.9	20.8
4 21	15 26.90	-36 23.3	1.576	2.486	12.4	19.3	4 21	15 23.69	-12 18.9	1.272	2.238	9.5	20.5
5 1	15 17.87	-36 5.3	1.497	2.456	9.3	19.0	5 1	15 16.10	-11 9.4	1.241	2.238	5.0	20.2
5 11	15 7.18	-35 19.9	1.442	2.425	7.2	18.8	5 11	15 7.46	-10 2.1	1.234	2.239	3.6	20.1
5 21	14 56.20	-34 8.6	1.412	2.393	7.8	18.8	5 21	14 59.04	- 9 4.5	1.252	2.240	7.5	20.4
5 31	14 46.47	-32 37.3	1.407	2.362	10.7	18.9	5 31	14 52.05	- 8 22.5	1.294	2.242	12.1	20.6
6 10	14 39.23	-30 56.3	1.426	2.331	14.5	19.0	6 10	14 47.37	- 7 59.8	1.356	2.244	16.2	20.9
508765	2108 P-L	5	9.9 281°41	1°7/10.8	17		140816	2001 UD ₁₆₁	5	10.0 182°29	1°2/ 8.9	18	
4 1	15 39.41	-22 45.3	1.817	2.607	16.1								

EPHEMERIDES

5 10.0

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
281560	2008 <i>UU</i> ₇₅		5 10.0 293°29	2.4/11.8	17		433618	2013 <i>YK</i> ₁₀₈		5 10.0 245°42	1.7/ 8.9	17	
4 1	15 32.49	-27 43.3	1.877	2.664	15.8	20.6	4 1	15 35.32	-13 48.2	1.967	2.777	14.4	21.8
4 11	15 29.40	-27 14.3	1.773	2.648	12.9	20.3	4 11	15 31.23	-13 35.4	1.876	2.771	11.3	21.6
4 21	15 23.76	-26 27.3	1.689	2.633	9.4	20.1	4 21	15 24.80	-13 18.2	1.807	2.766	7.7	21.3
5 1	15 16.13	-25 22.1	1.630	2.618	5.5	19.8	5 1	15 16.59	-12 58.6	1.763	2.760	3.9	21.1
5 11	15 7.46	-24 1.2	1.596	2.603	2.4	19.6	5 11	15 7.46	-12 39.4	1.746	2.754	2.0	20.9
5 21	14 58.84	-22 30.1	1.590	2.588	4.9	19.7	5 21	14 58.38	-12 23.8	1.757	2.747	5.5	21.2
5 31	14 51.37	-20 56.6	1.611	2.573	9.0	19.9	5 31	14 50.33	-12 15.1	1.794	2.741	9.4	21.4
6 10	14 45.92	-19 28.6	1.656	2.558	13.0	20.1	6 10	14 44.10	-12 15.6	1.855	2.735	12.9	21.6
61067	2000 <i>LQ</i> ₆		5 10.0 132°13	3.2/ 8.3	18		268355	2005 <i>TK</i> ₇		5 10.0 121°71	7.3/15.1	18	
4 1	15 38.25	-12 16.6	1.570	2.390	16.9	19.2	4 1	15 42.09	-38 10.6	2.097	2.814	16.5	20.9
4 11	15 33.86	-11 38.8	1.498	2.399	13.3	19.0	4 11	15 36.90	-38 58.6	2.016	2.828	14.1	20.8
4 21	15 26.69	-10 55.7	1.447	2.407	9.1	18.7	4 21	15 28.83	-39 29.0	1.955	2.841	11.5	20.6
5 1	15 17.47	-10 11.3	1.420	2.415	4.9	18.5	5 1	15 18.57	-39 37.3	1.916	2.853	9.1	20.5
5 11	15 7.32	-9 30.7	1.419	2.423	3.5	18.4	5 11	15 7.24	-39 21.9	1.902	2.865	7.4	20.4
5 21	14 57.45	-8 59.1	1.444	2.430	7.1	18.6	5 21	14 56.12	-38 44.1	1.914	2.877	7.6	20.5
5 31	14 49.02	-8 40.4	1.495	2.436	11.3	18.9	5 31	14 46.44	-37 49.3	1.952	2.888	9.4	20.6
6 10	14 42.86	-8 36.9	1.567	2.443	15.1	19.2	6 10	14 39.12	-36 44.9	2.015	2.899	11.8	20.8
71825	2000 <i>UW</i> ₄₁		5 10.0 103°11	0.3/10.2	18		474633	2004 <i>UT</i>		5 10.0 215°00	3.0/ 6.8	18	
4 1	15 39.62	-18 10.2	1.540	2.351	17.6	19.0	4 1	15 30.47	-6 32.5	3.492	4.288	9.0	22.5
4 11	15 35.24	-18 25.2	1.463	2.357	14.0	18.8	4 11	15 26.29	-5 57.6	3.393	4.278	7.1	22.3
4 21	15 27.84	-18 32.8	1.406	2.364	9.6	18.5	4 21	15 20.85	-5 22.4	3.320	4.268	5.1	22.2
5 1	15 18.12	-18 33.1	1.373	2.370	4.7	18.3	5 1	15 14.50	-4 49.3	3.275	4.258	3.4	22.1
5 11	15 7.25	-18 27.6	1.366	2.376	0.6	18.0	5 11	15 7.70	-4 20.8	3.259	4.247	3.2	22.0
5 21	14 56.56	-18 19.2	1.385	2.381	5.6	18.3	5 21	15 0.94	-3 59.0	3.273	4.236	4.8	22.1
5 31	14 47.37	-18 11.9	1.429	2.387	10.3	18.6	5 31	14 54.70	-3 45.7	3.314	4.224	6.9	22.2
6 10	14 40.63	-18 9.7	1.496	2.393	14.4	18.9	6 10	14 49.40	-3 41.8	3.382	4.212	8.9	22.4
314042	2005 <i>AF</i> ₃		5 10.0 226°65	1°1/ 9.5	17		237253	2008 <i>WA</i> ₇₂		5 10.0 149°24	1°4/11.7	18	
4 1	15 39.44	-15 33.7	1.790	2.595	15.8	21.2	4 1	15 29.26	-25 18.1	4.109	4.866	8.4	22.4
4 11	15 34.83	-15 29.3	1.694	2.586	12.5	21.0	4 11	15 25.21	-25 14.0	4.015	4.874	6.7	22.3
4 21	15 27.48	-15 19.0	1.619	2.577	8.6	20.7	4 21	15 20.04	-25 3.5	3.946	4.881	4.8	22.1
5 1	15 17.97	-15 4.2	1.569	2.566	4.2	20.4	5 1	15 14.08	-24 46.7	3.904	4.889	2.8	22.0
5 11	15 7.27	-14 47.4	1.546	2.555	1.3	20.2	5 11	15 7.75	-24 24.6	3.891	4.896	1.4	21.9
5 21	14 56.54	-14 31.7	1.551	2.544	5.7	20.4	5 21	15 1.50	-23 58.6	3.909	4.903	2.5	22.0
5 31	14 46.98	-14 20.8	1.582	2.532	10.1	20.7	5 31	14 55.76	-23 30.8	3.956	4.909	4.5	22.1
6 10	14 39.54	-14 18.3	1.636	2.519	14.2	20.9	6 10	14 50.91	-23 3.4	4.031	4.916	6.4	22.3
120453	1988 <i>RE</i> ₁₂		5 10.0 264°45	2°8/ 5.8	18		374422	2005 <i>WB</i> ₈₅		5 10.0 217°20	0°4/10.3	17	
4 1	15 24.03	-4 29.7	4.580	5.381	6.9	20.6	4 1	15 38.10	-19 4.9	2.091	2.883	14.3	22.4
4 11	15 21.03	-3 50.9	4.485	5.371	5.5	20.5	4 11	15 33.38	-19 11.0	1.993	2.877	11.3	22.2
4 21	15 17.15	-3 12.5	4.415	5.361	4.0	20.3	4 21	15 26.28	-19 10.2	1.917	2.870	7.9	22.0
5 1	15 12.66	-2 36.6	4.374	5.351	2.9	20.2	5 1	15 17.33	-19 2.7	1.867	2.862	3.9	21.7
5 11	15 7.88	-2 5.2	4.362	5.341	3.0	20.2	5 11	15 7.38	-18 49.7	1.844	2.854	0.5	21.4
5 21	15 3.12	-1 39.8	4.379	5.331	4.1	20.3	5 21	14 57.43	-18 33.8	1.850	2.845	4.6	21.7
5 31	14 58.73	-1 21.9	4.424	5.321	5.6	20.4	5 31	14 48.50	-18 18.2	1.883	2.836	8.6	21.9
6 10	14 54.99	-1 12.1	4.494	5.311	7.1	20.5	6 10	14 41.40	-18 6.7	1.941	2.827	12.1	22.1
111903	2002 <i>FV</i> ₂₉		5 10.0 200°92	6°2/ 4.6	18		281667	2008 <i>VB</i> ₃₁		5 10.0 260°26	1°8/ 8.7	17	
4 1	15 31.98	+ 2 50.6	2.742	3.538	11.1	19.9	4 1	15 32.86	-15 28.4	2.015	2.826	14.0	20.7
4 11	15 27.75	+ 3 39.0	2.662	3.535	9.2	19.8	4 11	15 29.25	-14 49.8	1.920	2.817	11.0	20.5
4 21	15 21.96	+ 4 22.4	2.607	3.533	7.4	19.7	4 21	15 23.43	-14 3.5	1.848	2.807	7.5	20.2
5 1	15 15.05	+ 4 56.6	2.577	3.529	6.3	19.6	5 1	15 15.92	-13 12.1	1.801	2.797	3.7	20.0
5 11	15 7.61	+ 5 18.0	2.575	3.526	6.5	19.6	5 11	15 7.54	-12 19.9	1.781	2.787	2.0	19.8
5 21	15 0.27	+ 5 24.2	2.600	3.522	7.9	19.7	5 21	14 59.22	-11 31.4	1.788	2.777	5.5	20.0
5 31	14 53.65	+ 5 14.2	2.650	3.518	9.8	19.8	5 31	14 51.88	-10 51.3	1.822	2.767	9.4	20.2
6 10	14 48.26	+ 4 48.6	2.723	3.514	11.8	19.9	6 10	14 46.27	-10 23.1	1.880	2.757	12.9	20.4
154516	2003 <i>FS</i> ₆₃		5 10.0 353°53	5°3/ 8.4	18		247751	2003 <i>OG</i> ₂₄		5 10.0 244°26	0°8/10.5	17	
4 1	15 37.62	-4 28.8	1.410	2.241	18.0	19.0	4 1	15 37.20	-21 50.6	1.788	2.587	16.1	21.3
4 11	15 33.85	-4 35.9	1.333	2.237	14.4	18.8	4 11	15 33.20	-21 34.2	1.686	2.573	12.9	21.0
4 21	15 27.01	-4 49.1	1.276	2.233	10.4	18.5	4 21	15 26.46	-21 5.3	1.605	2.558	9.0	20.8
5 1	15 17.78	-5 12.4	1.241	2.231	6.6	18.3	5 1	15 17.51	-20 24.1	1.548	2.543	4.6	20.5
5 11	15 7.30	-5 48.8	1.231	2.229	5.5	18.2	5 11	15 7.36	-19 33.2	1.517	2.527	0.8	20.2
5 21	14 56.92	-6 39.3	1.246	2.228	8.5	18.4	5 21	14 57.16	-18 37.2	1.514	2.511	5.2	20.4
5 31	14 47.98	-7 43.7	1.285	2.227	12.7	18.6	5 31	14 48.14	-17 42.2	1.537	2.494	9.8	20.7
6 10	14 41.50	-8 59.9	1.345	2.228	16.6	18.9	6 10	14 41.27	-16 54.4	1.584	2.477	14.0	20.9
44751	1999 <i>TS</i> ₉₇		5 10.0 65°53	2°2/ 8.9	18		384604	2010 <i>TJ</i> ₁₇₇		5 10.0 291°58	2°5/ 9.9	18	
4 1	15 37.00	-13 48.1	1.458	2.284	17.7	18.4	4 1	15 52.96	-6 31.4	1.091	1.913	22.7	20.4
4 11	15 33.08	-13 30.8	1.392	2.296	13.9	18.2	4 11	15 47.58	-7 49.6	1.007	1.906	18.4	20.1
4 21	15 26.26	-13 7.9	1.345	2.308	9.4	18.0	4 21	15 37.57	-9 23.0	0.940	1.898	13.0	19.7
5 1	15 17.30	-12 42.5	1.322	2.319	4.7	17.7	5 1	15 23.44	-11 12.0	0.895	1.890	6.8	19.3
5 11	15 7.37	-12 18.7	1.324	2.331	2.5	17.6	5 11	15 6.69	-13 13.1	0.875	1.883	2.6	19.1
5 21	14 57.78	-12 0.6	1.352	2.344	6.6	17.9	5 21	14 49.52	-15 19.4	0.881	1.876	8.3	19.4
5 31	14 49.71	-11 52.0	1.404	2.356	11.1	18.2	5 31	14 34.34	-17 24.9	0.912	1.869	14.8	19.7
6 10	14 44.03	-11 55.5	1.478	2.368	15.0	18.5	6 10	14 22.95	-19 26.2	0.965	1.862	20.4	20.0
152804	1999 <i>TZ</i> ₁₇₈		5 10.0 238°83	1°6/11.4	18		171949	2001 <i>SP</i> ₃₁₃		5 10.0 154°53	1°8/ 8.8		

EPHEMERIDES

5 10.0

5 10.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
133578	2003 <i>UY</i> ₅₀		5 10.0 54°62'	3°8'/12.3	17		147951	5156 <i>T</i> ₋₃		5 10.0 158°19'	2°9'/7.9	18	
4 1	15 35.85	-28 33.1	1.461	2.258	19.1	20.1	4 1	15 33.55	-8 14.2	2.672	3.473	11.3	20.2
4 11	15 32.63	-28 32.8	1.385	2.264	15.6	19.8	4 11	15 29.05	-7 56.4	2.588	3.477	8.8	20.1
4 21	15 26.22	-28 13.3	1.327	2.270	11.5	19.6	4 21	15 22.90	-7 38.3	2.527	3.480	6.2	19.9
5 1	15 17.39	-27 33.1	1.291	2.277	7.1	19.4	5 1	15 15.56	-7 22.5	2.494	3.483	3.7	19.7
5 11	15 7.41	-26 34.2	1.280	2.283	3.9	19.2	5 11	15 7.65	-7 11.2	2.489	3.486	3.1	19.7
5 21	14 57.71	-25 22.2	1.293	2.290	5.9	19.3	5 21	14 59.86	-7 6.7	2.513	3.489	5.2	19.8
5 31	14 49.68	-24 5.6	1.332	2.297	10.2	19.6	5 31	14 52.82	-7 10.5	2.565	3.491	7.9	20.0
6 10	14 44.25	-22 53.4	1.392	2.303	14.4	19.8	6 10	14 47.09	-7 23.5	2.641	3.494	10.4	20.2
404676	2014 <i>HC</i> ₁₆₃		5 10.0 348°80'	3°8'/7.3	17		188463	2004 <i>JD</i> ₃₅		5 10.0 295°96'	5°4'/7.5	17	
4 1	15 31.50	-7 20.9	2.260	3.074	12.6	20.7	4 1	15 36.58	-5 22.8	1.654	2.477	16.1	20.0
4 11	15 27.80	-6 49.2	2.177	3.073	10.0	20.5	4 11	15 32.88	-5 0.5	1.553	2.452	13.0	19.8
4 21	15 22.22	-6 17.3	2.117	3.071	7.1	20.3	4 21	15 26.38	-4 39.8	1.472	2.427	9.5	19.5
5 1	15 15.27	-5 48.4	2.082	3.070	4.5	20.1	5 1	15 17.58	-4 25.5	1.415	2.402	6.3	19.2
5 11	15 7.66	-5 26.2	2.075	3.069	4.1	20.1	5 11	15 7.42	-4 22.2	1.384	2.378	5.7	19.1
5 21	15 0.15	-5 13.7	2.096	3.068	6.3	20.2	5 21	14 57.05	-4 33.8	1.378	2.353	8.7	19.2
5 31	14 53.51	-5 12.8	2.142	3.068	9.3	20.4	5 31	14 47.73	-5 2.5	1.396	2.328	12.7	19.4
6 10	14 48.34	-5 24.5	2.212	3.067	12.1	20.6	6 10	14 40.52	-5 48.5	1.436	2.304	16.7	19.6
309815	2009 <i>BF</i> ₉₈		5 10.0 100°24'	0°8'/10.4	17		350874	2002 <i>PF</i> ₁₀₅		5 10.0 263°93'	1°6'/8.8	17	
4 1	15 38.79	-20 24.2	1.488	2.299	18.1	21.4	4 1	15 32.74	-16 14.7	2.236	3.041	13.1	21.5
4 11	15 34.68	-20 26.8	1.414	2.308	14.4	21.2	4 11	15 29.02	-15 31.5	2.129	3.022	10.3	21.3
4 21	15 27.50	-20 18.5	1.360	2.316	10.0	20.9	4 21	15 23.23	-14 39.7	2.045	3.003	7.0	21.1
5 1	15 17.99	-19 59.7	1.329	2.324	5.0	20.7	5 1	15 15.85	-13 42.0	1.987	2.984	3.5	20.8
5 11	15 7.36	-19 32.8	1.323	2.333	0.9	20.4	5 11	15 7.62	-12 42.1	1.957	2.964	1.8	20.6
5 21	14 57.00	-19 1.8	1.343	2.341	5.6	20.7	5 21	14 59.38	-11 44.7	1.956	2.945	5.2	20.8
5 31	14 48.20	-18 32.4	1.388	2.348	10.4	21.0	5 31	14 51.98	-10 54.5	1.981	2.924	8.9	21.0
6 10	14 41.93	-18 9.8	1.456	2.356	14.6	21.3	6 10	14 46.14	-10 15.3	2.031	2.904	12.3	21.2
475624	2006 <i>UO</i> ₁₉₂		5 10.0 229°71'	3°5'/12.5	18		214448	2005 <i>SX</i> ₂₃		5 10.0 293°49'	5°5'/5.7	18	
4 1	15 37.74	-29 5.6	2.861	3.605	11.9	21.9	4 1	15 30.69	-3 42.8	2.233	3.049	12.7	19.9
4 11	15 32.67	-29 37.1	2.749	3.593	9.9	21.7	4 11	15 27.22	-2 45.7	2.148	3.042	10.2	19.7
4 21	15 25.60	-29 59.4	2.659	3.580	7.5	21.5	4 21	15 21.87	-1 49.2	2.087	3.035	7.6	19.6
5 1	15 16.97	-30 10.7	2.595	3.566	5.0	21.4	5 1	15 15.13	-0 58.4	2.051	3.028	5.7	19.4
5 11	15 7.47	-30 10.6	2.559	3.553	3.5	21.2	5 11	15 7.71	-0 17.9	2.042	3.021	5.8	19.4
5 21	14 57.87	-29 59.7	2.553	3.538	4.4	21.3	5 21	15 0.37	+0 8.5	2.060	3.014	7.8	19.5
5 31	14 49.02	-29 40.5	2.575	3.524	6.8	21.4	5 31	14 53.88	+0 18.3	2.103	3.007	10.5	19.7
6 10	14 41.60	-29 16.8	2.624	3.508	9.4	21.5	6 10	14 48.84	+0 11.1	2.168	3.000	13.1	19.8
17549	1993 <i>TW</i> ₁₂		5 10.0 157°48'	0°1'/10.1	18		63298	2001 <i>EH</i> ₆		5 10.0 329°14'	2°4'/9.1	18	
4 1	15 40.29	-18 17.0	1.752	2.553	16.2	18.5	4 1	15 31.33	-13 4.0	1.202	2.052	19.2	18.6
4 11	15 35.42	-18 22.0	1.670	2.558	12.9	18.3	4 11	15 29.75	-13 4.6	1.113	2.030	15.4	18.3
4 21	15 27.81	-18 19.4	1.608	2.563	8.9	18.1	4 21	15 24.82	-13 1.1	1.042	2.010	10.7	18.0
5 1	15 18.10	-18 9.8	1.571	2.567	4.3	17.8	5 1	15 17.01	-12 56.1	0.992	1.991	5.4	17.6
5 11	15 7.35	-17 55.0	1.561	2.571	0.5	17.5	5 11	15 7.48	-12 53.3	0.964	1.972	2.6	17.4
5 21	14 56.76	-17 38.0	1.579	2.574	5.2	17.9	5 21	14 57.73	-12 56.9	0.960	1.955	7.6	17.6
5 31	14 47.50	-17 22.8	1.623	2.577	9.6	18.1	5 31	14 49.40	-13 10.7	0.977	1.940	13.2	17.9
6 10	14 40.44	-17 13.4	1.690	2.580	13.5	18.4	6 10	14 43.82	-13 37.6	1.013	1.925	18.3	18.1
140895	2001 <i>VR</i> ₃₃		5 10.0 196°44'	0°0'/9.9	18		2345	Fuřík		5 10.0 146°51'	3°9'/13.2	18	
4 1	15 33.23	-19 1.2	2.882	3.666	10.9	21.0	4 1	15 35.03	-31 21.9	2.452	3.202	13.5	16.1
4 11	15 28.81	-18 47.5	2.783	3.663	8.6	20.8	4 11	15 30.73	-31 32.9	2.360	3.206	11.2	15.9
4 21	15 22.75	-18 27.7	2.708	3.659	5.9	20.6	4 21	15 24.32	-31 30.5	2.290	3.210	8.5	15.7
5 1	15 15.50	-18 2.5	2.660	3.655	2.9	20.4	5 1	15 16.33	-31 13.4	2.244	3.214	5.8	15.6
5 11	15 7.65	-17 33.9	2.641	3.651	0.3	20.2	5 11	15 7.59	-30 42.0	2.225	3.217	4.0	15.4
5 21	14 59.86	-17 4.2	2.652	3.646	3.5	20.5	5 21	14 58.97	-29 58.7	2.234	3.221	4.8	15.5
5 31	14 52.78	-16 36.2	2.692	3.641	6.5	20.7	5 31	14 51.35	-29 7.8	2.270	3.224	7.3	15.7
6 10	14 46.96	-16 12.8	2.758	3.636	9.2	20.8	6 10	14 45.42	-28 14.4	2.332	3.227	10.0	15.8
258551	2002 <i>CM</i> ₄₇		5 10.0 69°09'	9°7'/18.9	18		192902	1999 <i>XC</i> ₁₅₆		5 10.0 154°31'	0°9'/10.8	17	
4 1	15 40.19	-48 31.9	2.407	3.057	16.1	20.4	4 1	15 35.25	-23 9.6	2.651	3.425	12.1	21.3
4 11	15 35.63	-49 30.6	2.324	3.065	14.5	20.3	4 11	15 30.47	-22 46.5	2.563	3.434	9.6	21.2
4 21	15 28.11	-50 9.2	2.258	3.073	12.8	20.2	4 21	15 23.89	-22 13.8	2.497	3.442	6.7	21.0
5 1	15 18.30	-50 22.6	2.212	3.082	11.2	20.1	5 1	15 16.05	-21 32.3	2.458	3.450	3.5	20.8
5 11	15 7.33	-50 8.0	2.189	3.090	10.1	20.0	5 11	15 7.63	-20 44.4	2.448	3.457	0.9	20.6
5 21	14 56.54	-49 26.1	2.188	3.098	9.8	20.0	5 21	14 59.38	-19 53.1	2.468	3.464	3.6	20.8
5 31	14 47.21	-48 21.0	2.212	3.107	10.4	20.1	5 31	14 52.02	-19 2.4	2.517	3.470	6.7	21.0
6 10	14 40.30	-47 0.2	2.259	3.115	11.8	20.2	6 10	14 46.11	-18 16.3	2.592	3.475	9.6	21.2
196624	2003 <i>RK</i> ₉		5 10.0 162°91'	1°4'/9.0	18		506739	2006 <i>VT</i> ₄₀		5 10.0 163°57'	0°2'/9.8	17	
4 1	15 34.10	-15 47.5	2.201	3.004	13.3	21.2	4 1	15 32.85	-18 23.2	2.827	3.614	11.1	23.1
4 11	15 29.92	-15 16.5	2.116	3.007	10.4	21.0	4 11	15 28.49	-18 5.8	2.737	3.619	8.7	23.0
4 21	15 23.70	-14 39.0	2.053	3.010	7.1	20.8	4 21	15 22.52	-17 42.4	2.670	3.623	5.9	22.8
5 1	15 16.00	-13 57.3	2.016	3.013	3.4	20.6	5 1	15 15.38	-17 14.1	2.631	3.627	2.8	22.6
5 11	15 7.59	-13 14.9	2.008	3.015	1.6	20.4	5 11	15 7.70	-16 43.0	2.620	3.630	0.4	22.4
5 21	14 59.34	-12 35.4	2.027	3.017	4.9	20.6	5 21	15 0.13	-16 11.7	2.639	3.633	3.6	22.6
5 31	14 52.05	-12 2.7	2.074	3.019	8.4	20.9	5 31	14 53.31	-15 43.1	2.687	3.635	6.6	22.8
6 10	14 46.39	-11 39.7	2.146	3.021	11.6	21.1	6 10	14 47.76	-15 19.6	2.760	3.638	9.2	23.0
180126	2003 <i>FC</i> ₆₅		5 10.0 52°10'	0°6'/10.4	17		344026	2012 <i>JP</i> ₁₀		5 10.0 179°99'	1°1'/9.4	17	
4 1</													

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
115741	2003 <i>UA</i> ₁₈₉		5 10.0 185°20	1°8/11.3	17		389765	2011 <i>SN</i> ₂₁₅		5 10.0 220°61	3°6/12.6	16	
4 1	15 35.24	-23 56.9	2.209	2.992	13.9	20.5	4 1	15 35.78	-28 57.3	2.466	3.223	13.3	21.8
4 11	15 31.01	-23 58.0	2.117	2.992	11.2	20.3	4 11	15 31.38	-29 23.7	2.367	3.220	10.9	21.6
4 21	15 24.58	-23 48.7	2.047	2.992	7.9	20.1	4 21	15 24.84	-29 39.3	2.290	3.216	8.2	21.4
5 1	15 16.49	-23 28.9	2.001	2.991	4.4	19.9	5 1	15 16.65	-29 42.4	2.238	3.212	5.5	21.2
5 11	15 7.58	-23 0.0	1.983	2.990	1.8	19.7	5 11	15 7.59	-29 32.8	2.213	3.208	3.7	21.1
5 21	14 58.76	-22 24.8	1.993	2.990	4.2	19.9	5 21	14 58.54	-29 12.0	2.216	3.204	4.7	21.2
5 31	14 50.94	-21 47.4	2.031	2.988	7.8	20.1	5 31	14 50.39	-28 43.2	2.247	3.200	7.4	21.3
6 10	14 44.86	-21 12.4	2.094	2.987	11.1	20.3	6 10	14 43.90	-28 11.0	2.303	3.195	10.2	21.5
342495	2008 <i>UD</i> ₁₇₀		5 10.0 202°29	1°6/11.2	17		138904	2000 <i>YO</i> ₁₀₈		5 10.0 186°01	1°4/ 8.9	18	
4 1	15 35.43	-24 4.5	2.272	3.052	13.6	21.4	4 1	15 32.44	-13 44.4	2.936	3.730	10.5	20.6
4 11	15 31.12	-23 58.1	2.176	3.049	11.0	21.2	4 11	15 28.11	-13 26.8	2.843	3.730	8.2	20.4
4 21	15 24.63	-23 41.0	2.101	3.045	7.8	21.0	4 21	15 22.25	-13 5.8	2.774	3.729	5.6	20.2
5 1	15 16.52	-23 13.2	2.051	3.042	4.3	20.8	5 1	15 15.27	-12 43.1	2.732	3.728	2.8	20.0
5 11	15 7.58	-22 36.3	2.030	3.037	1.6	20.6	5 11	15 7.75	-12 20.8	2.720	3.727	1.5	19.9
5 21	14 58.72	-21 53.4	2.037	3.033	4.1	20.7	5 21	15 0.30	-12 1.2	2.737	3.725	4.0	20.1
5 31	14 50.84	-21 8.8	2.071	3.028	7.7	20.9	5 31	14 53.53	-11 46.6	2.783	3.723	6.8	20.3
6 10	14 44.65	-20 27.2	2.131	3.022	11.0	21.1	6 10	14 47.95	-11 38.6	2.854	3.720	9.3	20.4
167820	2005 <i>CW</i> ₈		5 10.0 230°73	1°7/11.1	18		293502	2007 <i>GO</i> ₁₀		5 10.0 271°40	4°1/ 3.9	18	
4 1	15 35.39	-22 47.6	2.019	2.810	14.7	20.4	4 1	15 24.27	+ 1 50.2	4.356	5.152	7.3	20.8
4 11	15 31.36	-22 56.9	1.929	2.810	11.8	20.2	4 11	15 21.28	+ 2 38.9	4.275	5.149	6.0	20.7
4 21	15 24.95	-22 56.4	1.860	2.809	8.4	20.0	4 21	15 17.38	+ 3 24.8	4.220	5.146	4.8	20.6
5 1	15 16.72	-22 45.9	1.816	2.808	4.6	19.7	5 1	15 12.85	+ 4 5.3	4.191	5.142	4.1	20.5
5 11	15 7.56	-22 26.6	1.799	2.807	1.7	19.5	5 11	15 8.02	+ 4 38.3	4.191	5.139	4.3	20.5
5 21	14 58.48	-22 1.1	1.809	2.806	4.5	19.7	5 21	15 3.25	+ 5 2.0	4.219	5.135	5.3	20.6
5 31	14 50.49	-21 33.3	1.846	2.805	8.3	19.9	5 31	14 58.86	+ 5 15.3	4.272	5.132	6.6	20.7
6 10	14 44.36	-21 8.0	1.908	2.804	11.8	20.2	6 10	14 55.17	+ 5 18.1	4.350	5.128	7.9	20.8
205742	2002 <i>BW</i> ₁₃		5 10.0 93°44	0°8/10.5	18		30806	1989 <i>UP</i> ₅		5 10.1 34°95	0°4/ 9.5	18	
4 1	15 39.51	-21 49.4	1.538	2.343	18.0	20.8	4 1	15 25.51	-16 41.0	4.300	5.089	7.5	19.9
4 11	15 34.95	-21 33.2	1.473	2.362	14.2	20.6	4 11	15 22.29	-16 27.7	4.207	5.090	5.9	19.8
4 21	15 27.48	-21 4.1	1.427	2.382	9.8	20.4	4 21	15 18.08	-16 11.1	4.138	5.092	3.9	19.7
5 1	15 17.90	-20 23.0	1.406	2.401	4.9	20.2	5 1	15 13.20	-15 52.3	4.097	5.093	1.9	19.5
5 11	15 7.46	-19 33.7	1.410	2.420	0.8	19.9	5 11	15 7.99	-15 32.6	4.086	5.095	0.5	19.4
5 21	14 57.44	-18 41.6	1.441	2.438	5.3	20.3	5 21	15 2.84	-15 13.4	4.104	5.097	2.5	19.6
5 31	14 49.06	-17 52.9	1.497	2.456	9.9	20.6	5 31	14 58.10	-14 56.3	4.152	5.098	4.5	19.7
6 10	14 43.11	-17 13.3	1.577	2.473	13.8	20.8	6 10	14 54.11	-14 42.7	4.226	5.100	6.4	19.9
1384	<i>Kniertje</i>		5 10.0 146°73	5°3/ 5.8	18		32987	<i>Uyuni</i>		5 10.1 258°69	4°5/ 7.7	18	
4 1	15 34.40	- 3 53.9	2.272	3.079	12.8	16.6	4 1	15 38.10	- 5 39.0	1.979	2.787	14.4	18.6
4 11	15 29.92	- 2 51.5	2.200	3.088	10.2	16.4	4 11	15 33.45	- 5 24.1	1.882	2.773	11.5	18.4
4 21	15 23.58	- 1 50.2	2.151	3.097	7.6	16.3	4 21	15 26.41	- 5 10.9	1.807	2.759	8.3	18.2
5 1	15 15.91	- 0 54.8	2.130	3.105	5.6	16.2	5 1	15 17.49	- 5 3.2	1.758	2.744	5.4	18.0
5 11	15 7.67	- 0 10.0	2.135	3.113	5.7	16.2	5 11	15 7.53	- 5 4.2	1.735	2.729	4.7	17.9
5 21	14 59.62	+ 0 20.6	2.169	3.120	7.6	16.3	5 21	14 57.53	- 5 16.6	1.740	2.714	7.3	18.0
5 31	14 52.51	+ 0 34.8	2.228	3.126	10.2	16.5	5 31	14 48.51	- 5 42.0	1.771	2.698	10.8	18.2
6 10	14 46.92	+ 0 32.4	2.309	3.132	12.7	16.6	6 10	14 41.30	- 6 20.6	1.826	2.683	14.1	18.4
280402	2003 <i>UF</i> ₃₅₂		5 10.0 246°25	0°7/ 9.6	18		125508	2001 <i>WG</i> ₃₇		5 10.1 275°58	2°6/ 8.9	18	
4 1	15 35.52	-16 7.9	2.083	2.886	13.9	21.3	4 1	15 39.22	-10 26.6	1.812	2.622	15.4	20.7
4 11	15 31.32	-16 4.4	1.988	2.879	11.0	21.1	4 11	15 34.74	-10 31.3	1.709	2.603	12.3	20.5
4 21	15 24.87	-15 55.6	1.915	2.871	7.5	20.8	4 21	15 27.56	-10 35.7	1.627	2.584	8.6	20.2
5 1	15 16.68	-15 42.5	1.867	2.864	3.6	20.6	5 1	15 18.16	-10 41.7	1.570	2.565	4.6	19.9
5 11	15 7.57	-15 27.4	1.847	2.856	0.9	20.4	5 11	15 7.46	-10 51.8	1.540	2.545	2.8	19.8
5 21	14 58.49	-15 12.9	1.855	2.849	4.8	20.6	5 21	14 56.58	-11 8.0	1.537	2.525	6.4	19.9
5 31	14 50.37	-15 2.1	1.890	2.841	8.7	20.8	5 31	14 46.73	-11 32.3	1.560	2.505	10.7	20.1
6 10	14 44.00	-14 58.0	1.949	2.833	12.2	21.0	6 10	14 38.90	-12 6.0	1.607	2.485	14.7	20.3
370987	2005 <i>SD</i> ₂₈₉		5 10.0 236°84	0°6/ 9.7	17		176415	2001 <i>VR</i> ₇		5 10.1 159°30	0°2/ 9.9	18	
4 1	15 36.08	-17 27.7	1.930	2.734	14.8	22.1	4 1	15 32.49	-19 33.2	2.627	3.416	11.7	20.9
4 11	15 31.99	-17 13.8	1.834	2.725	11.8	21.9	4 11	15 28.36	-19 1.5	2.538	3.421	9.2	20.7
4 21	15 25.44	-16 52.2	1.760	2.716	8.1	21.7	4 21	15 22.50	-18 21.9	2.472	3.425	6.3	20.5
5 1	15 17.00	-16 24.3	1.710	2.707	3.9	21.4	5 1	15 15.42	-17 36.1	2.433	3.429	3.0	20.3
5 11	15 7.54	-15 52.7	1.688	2.698	0.9	21.1	5 11	15 7.77	-16 46.7	2.423	3.432	0.4	20.1
5 21	14 58.10	-15 21.2	1.693	2.688	5.1	21.4	5 21	15 0.26	-15 57.2	2.442	3.436	3.8	20.4
5 31	14 49.73	-14 53.9	1.725	2.677	9.3	21.6	5 31	14 53.57	-15 11.2	2.489	3.438	7.0	20.6
6 10	14 43.26	-14 34.8	1.781	2.667	13.1	21.8	6 10	14 48.25	-14 32.1	2.562	3.441	9.8	20.8
151003	2001 <i>UZ</i> ₅₈		5 10.0 48°87	1°7/ 8.9	18		48238	2001 <i>ML</i> ₁₁		5 10.1 151°19	4°3/ 6.2	18	
4 1	15 32.87	-17 41.3	1.561	2.385	16.8	19.7	4 1	15 35.77	-13 4.2	1.924	2.735	14.6	18.6
4 11	15 29.72	-16 47.3	1.491	2.394	13.2	19.4	4 11	15 31.37	-11 7.6	1.846	2.742	11.4	18.4
4 21	15 23.92	-15 41.8	1.440	2.403	8.9	19.2	4 21	15 24.75	- 9 1.0	1.791	2.749	7.9	18.2
5 1	15 16.20	-14 28.8	1.414	2.412	4.3	18.9	5 1	15 16.55	- 6 51.3	1.764	2.754	4.9	18.0
5 11	15 7.64	-13 14.3	1.414	2.422	2.0	18.8	5 11	15 7.67	- 4 47.1	1.767	2.760	4.8	18.0
5 21	14 59.38	-12 5.2	1.440	2.432	6.2	19.1	5 21	14 59.06	- 2 56.6	1.798	2.765	7.7	18.2
5 31	14 52.50	-11 7.9	1.490	2.441	10.6	19.4	5 31	14 51.62	- 1 26.4	1.856	2.769	11.2	18.4
6 10	14 47.76	-10 26.7	1.563	2.452	14.4	19.6	6 10	14 46.01	- 0 19.7	1.937	2.773	14.3	18.7
350295	2012 <i>TU</i> ₃₁₀		5 10.0 107°32	1°8/11.4	18		241376	2008 <i>RK</i> ₁₀₈		5 10.1 144°38	0°8/ 8.9		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
305703	2009 <i>BE</i> ₁₆₉		5 10.1 78°17'	1.4°/10.9	17		436895	2012 <i>TO</i> ₅₁		5 10.1 217°45'	1.5°/ 8.9	17	
4 1	15 36.73	-23 28.7	1.444	2.255	18.6	20.9	4 1	15 32.80	-16 0.2	2.158	2.965	13.4	21.8
4 11	15 33.16	-23 12.6	1.372	2.264	14.9	20.7	4 11	15 29.03	-15 22.1	2.068	2.962	10.5	21.6
4 21	15 26.52	-22 40.9	1.320	2.274	10.4	20.5	4 21	15 23.20	-14 36.6	2.001	2.959	7.1	21.4
5 1	15 17.56	-21 54.2	1.290	2.284	5.5	20.2	5 1	15 15.85	-13 46.3	1.959	2.956	3.5	21.2
5 11	15 7.56	-20 56.3	1.285	2.294	1.4	19.9	5 11	15 7.76	-12 55.0	1.945	2.953	1.7	21.0
5 21	14 57.89	-19 53.3	1.306	2.304	5.5	20.2	5 21	14 59.78	-12 6.9	1.960	2.949	5.0	21.2
5 31	14 49.85	-18 52.6	1.351	2.314	10.3	20.5	5 31	14 52.74	-11 26.4	2.001	2.946	8.7	21.4
6 10	14 44.33	-18 1.2	1.419	2.323	14.6	20.8	6 10	14 47.32	-10 56.6	2.066	2.942	11.9	21.6
344073	1997 <i>CD</i> ₁₆		5 10.1 122°55'	6.9°/ 3.6	18		292445	2006 <i>SY</i> ₃₅₃		5 10.1 206°24'	3.4°/ 6.9	18	
4 1	15 31.65	+ 3 51.9	2.609	3.408	11.6	21.2	4 1	15 31.53	- 8 53.9	2.603	3.410	11.4	21.2
4 11	15 27.53	+ 5 2.3	2.548	3.419	9.6	21.0	4 11	15 27.60	- 8 2.2	2.514	3.406	8.9	21.1
4 21	15 21.84	+ 6 6.9	2.510	3.430	7.9	20.9	4 21	15 22.01	- 7 8.0	2.448	3.402	6.3	20.9
5 1	15 15.06	+ 7 0.7	2.498	3.442	6.9	20.9	5 1	15 15.21	- 6 14.8	2.409	3.397	4.0	20.7
5 11	15 7.83	+ 7 39.5	2.513	3.452	7.2	20.9	5 11	15 7.84	- 5 26.5	2.399	3.393	3.7	20.7
5 21	15 0.78	+ 8 0.7	2.555	3.463	8.6	21.0	5 21	15 0.55	- 4 46.7	2.418	3.387	5.8	20.8
5 31	14 54.52	+ 8 3.3	2.620	3.473	10.4	21.2	5 31	14 54.00	- 4 18.1	2.463	3.382	8.5	21.0
6 10	14 49.55	+ 7 48.2	2.708	3.483	12.3	21.3	6 10	14 48.74	- 4 2.3	2.533	3.376	11.1	21.2
384763	2012 <i>JA</i> ₂₈		5 10.1 264°31'	3.4°/ 8.3	18		130034	1999 <i>VT</i> ₉₉		5 10.1 308°81'	0°0'/10.1	17	
4 1	15 40.01	- 8 13.3	2.070	2.871	14.1	20.9	4 1	15 34.53	-17 57.7	1.737	2.551	15.9	19.6
4 11	15 35.03	- 8 6.2	1.958	2.846	11.3	20.6	4 11	15 31.18	-18 4.7	1.640	2.536	12.6	19.3
4 21	15 27.59	- 7 59.4	1.868	2.821	8.0	20.4	4 21	15 25.17	-18 4.8	1.564	2.522	8.8	19.1
5 1	15 18.13	- 7 55.5	1.804	2.795	4.7	20.1	5 1	15 17.00	-17 58.5	1.512	2.509	4.3	18.8
5 11	15 7.49	- 7 57.4	1.769	2.769	3.6	20.0	5 11	15 7.63	-17 47.6	1.485	2.495	0.4	18.4
5 21	14 56.63	- 8 7.4	1.761	2.742	6.5	20.1	5 21	14 58.19	-17 34.8	1.485	2.482	5.2	18.8
5 31	14 46.64	- 8 27.6	1.781	2.714	10.4	20.3	5 31	14 49.85	-17 23.9	1.510	2.469	9.8	19.0
6 10	14 38.41	- 8 59.0	1.825	2.686	14.0	20.4	6 10	14 43.58	-17 18.9	1.558	2.457	13.9	19.2
278799	2008 <i>SY</i> ₂₃₂		5 10.1 184°28'	0°2'/ 9.9	17		204603	2005 <i>JW</i> ₃		5 10.1 159°12'	2°1'/11.4	18	
4 1	15 36.06	-17 44.1	2.036	2.836	14.3	21.4	4 1	15 38.10	-23 56.8	2.513	3.281	12.8	20.5
4 11	15 31.77	-17 42.7	1.947	2.836	11.3	21.2	4 11	15 32.98	-24 18.3	2.422	3.287	10.3	20.4
4 21	15 25.18	-17 34.8	1.881	2.836	7.7	21.0	4 21	15 25.82	-24 31.6	2.353	3.292	7.4	20.2
5 1	15 16.85	-17 21.3	1.840	2.836	3.8	20.7	5 1	15 17.12	-24 35.9	2.310	3.297	4.2	20.0
5 11	15 7.64	-17 4.1	1.826	2.836	0.5	20.5	5 11	15 7.65	-24 31.6	2.296	3.301	2.1	19.8
5 21	14 58.51	-16 46.1	1.840	2.835	4.6	20.8	5 21	14 58.25	-24 20.3	2.311	3.305	4.0	20.0
5 31	14 50.44	-16 30.6	1.881	2.834	8.6	21.0	5 31	14 49.77	-24 4.7	2.355	3.308	7.1	20.2
6 10	14 44.18	-16 20.9	1.946	2.833	12.1	21.2	6 10	14 42.88	-23 48.5	2.424	3.311	10.0	20.4
780	Armenia		5 10.1 232°83'	7°8'/ 2.5	18		119807	2002 <i>AD</i> ₁₅₁		5 10.1 41°83'	2°1'/11.5	17	
4 1	15 31.03	+ 6 6.7	2.535	3.332	11.9	14.4	4 1	15 33.38	-24 19.1	2.068	2.857	14.5	20.1
4 11	15 27.24	+ 7 21.7	2.460	3.326	10.1	14.2	4 11	15 29.65	-24 26.6	1.990	2.868	11.6	19.9
4 21	15 21.77	+ 8 30.3	2.408	3.320	8.6	14.1	4 21	15 23.69	-24 23.3	1.933	2.879	8.3	19.7
5 1	15 15.09	+ 9 27.0	2.381	3.313	7.8	14.0	5 1	15 16.10	-24 9.2	1.901	2.890	4.7	19.5
5 11	15 7.83	+10 6.9	2.380	3.306	8.2	14.1	5 11	15 7.76	-23 45.6	1.895	2.902	2.1	19.3
5 21	15 0.66	+10 27.1	2.405	3.299	9.6	14.1	5 21	14 59.60	-23 15.5	1.917	2.913	4.3	19.5
5 31	14 54.25	+10 26.3	2.453	3.292	11.5	14.2	5 31	14 52.53	-22 42.9	1.966	2.926	7.8	19.8
6 10	14 49.14	+10 5.3	2.522	3.285	13.4	14.4	6 10	14 47.25	-22 12.4	2.039	2.938	11.0	20.0
36191	1999 <i>TY</i> ₇₈		5 10.1 35°11'	1°0'/ 9.3	18		251594	2009 <i>HY</i> ₂₆		5 10.1 0°67'	0°4'/10.2	17	
4 1	15 31.58	-16 26.2	2.066	2.877	13.8	19.0	4 1	15 31.43	-19 53.5	1.186	2.028	20.0	20.3
4 11	15 28.09	-16 5.3	1.989	2.885	10.8	18.8	4 11	15 29.70	-19 48.0	1.114	2.025	15.9	20.0
4 21	15 22.54	-15 38.0	1.934	2.893	7.3	18.6	4 21	15 24.60	-19 29.3	1.059	2.024	11.0	19.7
5 1	15 15.51	-15 6.4	1.905	2.902	3.5	18.3	5 1	15 16.82	-18 58.7	1.026	2.024	5.5	19.4
5 11	15 7.79	-14 33.5	1.902	2.911	1.2	18.2	5 11	15 7.68	-18 19.9	1.015	2.025	0.6	19.1
5 21	15 0.25	-14 3.0	1.927	2.920	4.7	18.5	5 21	14 58.71	-17 38.8	1.027	2.026	6.4	19.5
5 31	14 53.72	-13 38.2	1.979	2.930	8.4	18.7	5 31	14 51.43	-17 2.5	1.062	2.029	11.8	19.8
6 10	14 48.84	-13 22.1	2.054	2.940	11.6	18.9	6 10	14 46.91	-16 37.1	1.116	2.033	16.6	20.1
505199	2012 <i>TP</i> ₁₅₉		5 10.1 210°81'	0°8'/10.6	17		210908	2001 <i>SS</i> ₂₂₉		5 10.1 300°16'	2°5'/11.4	17	
4 1	15 36.32	-20 38.5	2.445	3.227	12.7	22.3	4 1	15 36.45	-23 45.1	2.146	2.928	14.2	20.1
4 11	15 31.66	-20 44.7	2.345	3.222	10.1	22.1	4 11	15 32.18	-24 15.9	2.051	2.924	11.5	19.9
4 21	15 24.97	-20 43.7	2.267	3.216	7.1	21.9	4 21	15 25.56	-24 38.4	1.978	2.920	8.3	19.7
5 1	15 16.72	-20 35.8	2.216	3.210	3.6	21.7	5 1	15 17.11	-24 51.3	1.929	2.917	4.8	19.5
5 11	15 7.66	-20 22.0	2.194	3.203	0.9	21.5	5 11	15 7.66	-24 54.5	1.908	2.913	2.5	19.3
5 21	14 58.61	-20 4.4	2.200	3.196	3.9	21.7	5 21	14 58.20	-24 49.4	1.914	2.909	4.6	19.4
5 31	14 50.42	-19 46.1	2.235	3.189	7.4	21.9	5 31	14 49.74	-24 38.9	1.948	2.905	8.1	19.6
6 10	14 43.78	-19 30.2	2.295	3.181	10.5	22.1	6 10	14 43.08	-24 27.1	2.006	2.902	11.4	19.8
500973	2013 <i>QE</i> ₇₄		5 10.1 298°56'	3°8'/ 7.8	17		200673	2001 <i>TH</i> ₁₂₈		5 10.1 251°34'	2°2'/ 8.9	16	
4 1	15 32.88	-12 16.0	1.509	2.342	16.9	21.2	4 1	15 38.92	-13 45.5	1.642	2.457	16.6	21.3
4 11	15 30.29	-11 28.6	1.408	2.316	13.5	20.9	4 11	15 34.80	-13 27.0	1.543	2.441	13.2	21.0
4 21	15 24.81	-10 32.7	1.326	2.289	9.4	20.6	4 21	15 27.76	-13 2.4	1.464	2.424	9.1	20.8
5 1	15 16.93	- 9 32.6	1.267	2.263	5.3	20.3	5 1	15 18.33	-12 34.3	1.410	2.406	4.6	20.5
5 11	15 7.62	- 8 34.7	1.234	2.236	4.2	20.2	5 11	15 7.53	-12 6.2	1.381	2.388	2.5	20.3
5 21	14 58.11	- 7 45.6	1.225	2.210	8.1	20.3	5 21	14 56.60	-11 42.5	1.379	2.370	6.6	20.5
5 31	14 49.74	- 7 11.9	1.240	2.184	12.9	20.5	5 31	14 46.85	-11 27.8	1.403	2.350	11.4	20.7
6 10	14 43.60	- 6 57.7	1.275	2.158	17.4	20.7	6 10	14 39.35	-11 25.4	1.448	2.331	15.7	20.9
248392	2005 <i>SY</i> ₃₄		5 10.1 230°41'	1°0'/10.8	18		75329	1999 <i>XE</i> ₅₃		5 10.1 243			

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
200241	1999 VY ₉₇		5 10.1 114°41'	0°7/ 9.5 17			247102	2000 SA ₃₁₅		5 10.1 262°05'	2°4/13.6 17		
4 1	15 33.69	-18 16.0	1.994	2.799	14.4	20.5	4 1	15 26.60	-32 13.3	4.600	5.328	7.9	20.0
4 11	15 29.87	-17 43.6	1.911	2.804	11.3	20.3	4 11	15 23.21	-32 7.1	4.493	5.323	6.6	19.9
4 21	15 23.84	-17 2.2	1.851	2.808	7.7	20.1	4 21	15 18.78	-31 52.6	4.408	5.318	5.0	19.8
5 1	15 16.18	-16 14.0	1.816	2.813	3.7	19.9	5 1	15 13.61	-31 29.9	4.350	5.313	3.5	19.7
5 11	15 7.77	-15 22.8	1.808	2.817	1.0	19.7	5 11	15 8.08	-30 59.6	4.320	5.308	2.5	19.6
5 21	14 59.54	-14 32.9	1.828	2.821	4.9	20.0	5 21	15 2.61	-30 22.9	4.320	5.303	2.8	19.6
5 31	14 52.39	-13 49.1	1.874	2.826	8.7	20.2	5 31	14 57.59	-29 42.0	4.348	5.298	4.2	19.7
6 10	14 47.02	-13 15.3	1.945	2.830	12.2	20.4	6 10	14 53.37	-28 59.1	4.404	5.293	5.8	19.8
134732	2000 AW ₁₂₂		5 10.1 171°68'	1°5/ 8.9 16			194743	2001 YD ₂₁		5 10.1 76°85'	0°4/ 9.7 17		
4 1	15 37.51	-15 40.2	2.257	3.052	13.3	21.6	4 1	15 30.04	-16 57.3	3.084	3.875	10.1	20.6
4 11	15 32.54	-15 5.4	2.170	3.056	10.4	21.4	4 11	15 26.18	-16 45.8	3.003	3.887	7.9	20.5
4 21	15 25.50	-14 24.0	2.105	3.060	7.1	21.2	4 21	15 20.91	-16 29.8	2.945	3.900	5.3	20.3
5 1	15 16.96	-13 38.2	2.067	3.063	3.5	20.9	5 1	15 14.66	-16 10.6	2.915	3.912	2.6	20.2
5 11	15 7.70	-12 51.7	2.058	3.066	1.7	20.8	5 11	15 7.98	-15 50.0	2.914	3.924	0.6	20.0
5 21	14 58.60	-12 8.2	2.078	3.067	4.9	21.0	5 21	15 1.41	-15 29.9	2.943	3.936	3.3	20.2
5 31	14 50.49	-11 31.6	2.126	3.068	8.5	21.3	5 31	14 55.50	-15 12.6	2.999	3.948	6.0	20.4
6 10	14 44.04	-11 5.0	2.199	3.067	11.6	21.5	6 10	14 50.71	-15 0.1	3.082	3.960	8.4	20.6
205535	2001 SW ₁₆₆		5 10.1 17°93'	4°0/ 6.9 17			30280	2000 HS ₅₆		5 10.1 88°54'	2°3/ 8.7 17		
4 1	15 31.04	- 9 28.5	2.065	2.885	13.4	20.0	4 1	15 36.04	-13 51.9	1.678	2.496	16.1	19.2
4 11	15 27.65	- 8 28.5	1.986	2.885	10.6	19.8	4 11	15 32.02	-13 21.6	1.606	2.506	12.6	19.0
4 21	15 22.25	- 7 24.9	1.929	2.886	7.4	19.6	4 21	15 25.46	-12 45.3	1.556	2.517	8.6	18.8
5 1	15 15.40	- 6 22.5	1.898	2.887	4.7	19.4	5 1	15 17.02	-12 6.5	1.530	2.527	4.4	18.5
5 11	15 7.86	- 5 26.3	1.894	2.888	4.3	19.4	5 11	15 7.74	-11 29.3	1.531	2.537	2.6	18.4
5 21	15 0.48	- 4 40.9	1.917	2.890	6.8	19.5	5 21	14 58.72	-10 58.3	1.557	2.547	6.2	18.7
5 31	14 54.05	- 4 10.0	1.966	2.891	10.0	19.7	5 31	14 51.01	-10 37.6	1.610	2.556	10.3	18.9
6 10	14 49.21	- 3 55.2	2.038	2.892	13.0	19.9	6 10	14 45.39	-10 29.5	1.685	2.566	13.9	19.2
398651	2012 TL ₇₁		5 10.1 164°72'	4°7/13.0 17			504755	2009 WW ₇₁		5 10.1 155°86'	2°9/ 8.6 17		
4 1	15 38.30	-30 54.0	2.244	2.995	14.6	21.7	4 1	15 39.15	- 9 14.4	1.975	2.780	14.5	21.6
4 11	15 33.66	-31 34.0	2.151	2.997	12.2	21.5	4 11	15 34.14	- 9 13.3	1.892	2.783	11.5	21.4
4 21	15 26.58	-32 1.8	2.080	2.998	9.4	21.3	4 21	15 26.79	- 9 12.3	1.831	2.786	7.9	21.2
5 1	15 17.61	-32 14.6	2.033	3.000	6.6	21.1	5 1	15 17.67	- 9 13.5	1.796	2.789	4.4	21.0
5 11	15 7.63	-32 11.5	2.012	3.001	4.8	21.0	5 11	15 7.67	- 9 19.5	1.789	2.791	3.1	20.9
5 21	14 57.68	-31 53.8	2.019	3.002	5.6	21.1	5 21	14 57.80	- 9 32.1	1.809	2.794	6.0	21.1
5 31	14 48.81	-31 25.0	2.053	3.003	8.2	21.2	5 31	14 49.03	- 9 52.9	1.857	2.795	9.6	21.3
6 10	14 41.84	-30 50.5	2.112	3.004	11.0	21.4	6 10	14 42.12	-10 22.7	1.928	2.797	13.0	21.5
352133	2007 HH ₅₅		5 10.1 327°02'	5°5/ 7.7 17			377856	2006 BG ₂₁₆		5 10.1 90°25'	2°6/12.1 17		
4 1	15 31.41	- 9 31.2	1.104	1.962	20.0	20.3	4 1	15 35.41	-28 28.5	1.910	2.688	15.9	20.5
4 11	15 29.92	- 8 50.6	1.026	1.947	16.0	20.0	4 11	15 31.41	-28 0.1	1.831	2.700	12.9	20.3
4 21	15 24.96	- 8 5.4	0.965	1.933	11.4	19.7	4 21	15 24.96	-27 14.5	1.772	2.711	9.3	20.1
5 1	15 17.12	- 7 21.8	0.925	1.919	6.9	19.4	5 1	15 16.74	-26 12.3	1.738	2.723	5.5	19.9
5 11	15 7.66	- 6 47.7	0.906	1.907	5.9	19.3	5 11	15 7.77	-24 56.5	1.730	2.735	2.6	19.8
5 21	14 58.16	- 6 30.1	0.909	1.895	10.0	19.4	5 21	14 59.12	-23 32.6	1.750	2.747	4.6	19.9
5 31	14 50.25	- 6 34.0	0.933	1.885	15.1	19.7	5 31	14 51.77	-22 7.8	1.797	2.758	8.4	20.2
6 10	14 45.17	- 7 0.9	0.974	1.875	19.9	19.9	6 10	14 46.45	-20 49.0	1.869	2.769	11.9	20.4
370735	2004 RD ₁₁₃		5 10.1 210°40'	3°1/12.9 18			294752	2008 CS ₁₃		5 10.1 188°16'	2°4/ 8.5 17		
4 1	15 37.17	-30 54.7	2.721	3.462	12.6	22.0	4 1	15 37.77	-12 51.2	2.113	2.915	13.8	22.2
4 11	15 32.23	-30 41.3	2.611	3.453	10.4	21.8	4 11	15 32.94	-12 19.4	2.024	2.915	10.9	22.0
4 21	15 25.30	-30 14.1	2.523	3.444	7.8	21.6	4 21	15 25.91	-11 42.8	1.957	2.913	7.4	21.8
5 1	15 16.88	-29 32.4	2.460	3.435	5.1	21.5	5 1	15 17.23	-11 4.1	1.917	2.911	3.9	21.6
5 11	15 7.72	-28 37.2	2.427	3.424	3.2	21.3	5 11	15 7.73	-10 27.0	1.904	2.909	2.6	21.5
5 21	14 58.64	-27 31.4	2.422	3.413	4.2	21.4	5 21	14 58.34	- 9 55.4	1.921	2.905	5.7	21.7
5 31	14 50.46	-26 19.5	2.447	3.401	6.9	21.5	5 31	14 49.96	- 9 32.6	1.964	2.901	9.3	21.9
6 10	14 43.83	-25 7.0	2.499	3.388	9.7	21.7	6 10	14 43.32	- 9 21.2	2.031	2.896	12.6	22.1
96400	1998 DK ₁₅		5 10.1 102°26'	0°0/ 9.9 18			5637	Gyas		5 10.1 276°62'	4°3/15.4 18		
4 1	15 40.07	-18 48.2	1.629	2.435	17.1	19.7	4 1	15 31.09	-39 51.6	4.513	5.190	8.7	18.9
4 11	15 35.28	-18 41.5	1.561	2.452	13.5	19.5	4 11	15 26.94	-40 24.7	4.402	5.181	7.6	18.8
4 21	15 27.71	-18 25.8	1.513	2.469	9.2	19.3	4 21	15 21.46	-40 48.5	4.313	5.172	6.3	18.7
5 1	15 18.10	-18 2.1	1.489	2.486	4.5	19.0	5 1	15 14.98	-41 1.6	4.248	5.163	5.2	18.6
5 11	15 7.60	-17 33.2	1.492	2.502	0.5	18.8	5 11	15 7.96	-41 3.4	4.211	5.154	4.4	18.6
5 21	14 57.46	-17 3.3	1.522	2.518	5.3	19.2	5 21	15 0.91	-40 54.5	4.201	5.145	4.5	18.6
5 31	14 48.81	-16 37.1	1.578	2.533	9.7	19.4	5 31	14 54.34	-40 36.1	4.218	5.136	5.3	18.6
6 10	14 42.47	-16 18.7	1.656	2.548	13.6	19.7	6 10	14 48.71	-40 10.6	4.262	5.127	6.5	18.7
33446	Michaelyang		5 10.1 347°58'	3°2/ 8.6 18			374367	2005 US ₂₉₅		5 10.1 171°42'	0°1/10.2 17		
4 1	15 29.68	-14 8.8	1.100	1.958	20.1	18.1	4 1	15 36.42	-19 47.4	2.097	2.890	14.2	22.7
4 11	15 28.49	-13 34.2	1.027	1.950	15.9	17.8	4 11	15 31.99	-19 32.7	2.008	2.893	11.2	22.5
4 21	15 23.88	-12 50.0	0.973	1.943	10.9	17.5	4 21	15 25.30	-19 9.2	1.942	2.895	7.7	22.3
5 1	15 16.54	-12 0.7	0.938	1.937	5.6	17.1	5 1	15 16.94	-18 37.9	1.901	2.897	3.8	22.1
5 11	15 7.75	-11 13.5	0.925	1.932	3.5	17.0	5 11	15 7.77	-18 1.3	1.888	2.898	0.4	21.8
5 21	14 59.08	-10 35.6	0.935	1.929	8.3	17.3	5 21	14 58.73	-17 23.0	1.904	2.899	4.5	22.1
5 31	14 52.07	-10 13.5	0.966	1.926	13.7	17.5	5 31	14 50.74	-16 47.3	1.946	2.900	8.3	22.3
6 10	14 47.85	-10 11.1	1.015	1.925	18.5	17.8	6 10	14 44.54	-16 18.1	2.013	2.900	11.8	22.5
212104	2005 EH ₁₅₆		5 10.1 52°87'	3°0/11.3 17			508616	2017 SR ₃₇		5 10.1 242°73'	2°1/11.6 17		
4 1	15 39.46	-23 10.0	1.358	2.170									

EPHEMERIDES

5 10.1

5 10.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
410288	2007 <i>TP</i> ₂₂₁		5 10.1 219°61	2°1/11.3	16		380473	2003 <i>WB</i> ₉₀		5 10.1 109°04	0°2/ 9.9	17	
4 1	15 40.25	-23 50.7	1.881	2.665	15.9	22.1	4 1	15 35.95	-18 24.4	2.279	3.071	13.2	21.7
4 11	15 35.59	-24 0.5	1.781	2.656	12.9	21.8	4 11	15 31.28	-18 12.8	2.203	3.088	10.4	21.5
4 21	15 28.15	-23 59.2	1.702	2.647	9.3	21.6	4 21	15 24.62	-17 54.4	2.150	3.104	7.1	21.3
5 1	15 18.49	-23 45.6	1.647	2.637	5.2	21.3	5 1	15 16.55	-17 30.4	2.123	3.119	3.4	21.1
5 11	15 7.60	-23 20.4	1.619	2.626	2.1	21.1	5 11	15 7.86	-17 3.1	2.125	3.135	0.4	20.9
5 21	14 56.68	-22 46.3	1.619	2.615	5.0	21.3	5 21	14 59.39	-16 35.4	2.155	3.150	4.1	21.2
5 31	14 46.94	-22 8.2	1.646	2.603	9.3	21.5	5 31	14 51.93	-16 10.8	2.213	3.164	7.6	21.5
6 10	14 39.35	-21 32.1	1.696	2.590	13.2	21.7	6 10	14 46.09	-15 52.1	2.296	3.178	10.7	21.7
128242	2003 <i>SF</i> ₁₇₁		5 10.1 346°47	0°4/10.3	17		228568	2001 <i>XR</i> ₂₀₇		5 10.1 116°23	2°7/ 7.2	18	
4 1	15 33.75	-20 15.8	1.825	2.632	15.5	20.0	4 1	15 29.43	-6 28.5	3.710	4.505	8.5	21.0
4 11	15 30.29	-20 3.8	1.738	2.630	12.3	19.7	4 11	15 25.38	-6 3.2	3.636	4.521	6.6	20.9
4 21	15 24.36	-19 41.6	1.673	2.629	8.5	19.5	4 21	15 20.23	-5 38.5	3.587	4.536	4.7	20.8
5 1	15 16.56	-19 10.4	1.632	2.628	4.2	19.2	5 1	15 14.32	-5 16.2	3.567	4.551	3.1	20.7
5 11	15 7.81	-18 32.9	1.617	2.627	0.5	18.9	5 11	15 8.09	-4 58.5	3.576	4.565	2.8	20.7
5 21	14 59.18	-17 53.2	1.629	2.626	4.8	19.3	5 21	15 1.97	-4 46.8	3.614	4.580	4.3	20.8
5 31	14 51.70	-17 16.1	1.667	2.626	9.1	19.5	5 31	14 56.39	-4 42.3	3.680	4.594	6.1	20.9
6 10	14 46.18	-16 46.1	1.729	2.625	12.8	19.7	6 10	14 51.70	-4 45.8	3.772	4.608	7.9	21.1
479854	2014 <i>GV</i> ₂₇		5 10.1 208°03	0°2/10.2	17		425142	2009 <i>SR</i> ₂₆₆		5 10.1 178°14	1°8/ 8.6	17	
4 1	15 34.40	-18 11.5	2.627	3.414	11.8	21.3	4 1	15 34.20	-17 14.3	2.000	2.806	14.3	21.2
4 11	15 29.98	-18 19.8	2.531	3.413	9.3	21.1	4 11	15 30.27	-16 10.5	1.914	2.807	11.2	20.9
4 21	15 23.74	-18 23.1	2.459	3.411	6.4	20.9	4 21	15 24.13	-14 56.2	1.850	2.808	7.6	20.7
5 1	15 16.15	-18 21.8	2.413	3.408	3.2	20.7	5 1	15 16.38	-13 35.0	1.812	2.809	3.7	20.5
5 11	15 7.86	-18 17.2	2.396	3.406	0.3	20.4	5 11	15 7.88	-12 12.2	1.802	2.809	2.1	20.4
5 21	14 59.60	-18 10.9	2.408	3.404	3.7	20.7	5 21	14 59.56	-10 54.0	1.820	2.808	5.6	20.6
5 31	14 52.12	-18 5.1	2.449	3.401	6.9	20.9	5 31	14 52.31	-9 46.1	1.866	2.808	9.4	20.8
6 10	14 46.03	-18 2.4	2.515	3.398	9.8	21.1	6 10	14 46.83	-8 52.9	1.935	2.807	12.8	21.0
363262	2002 <i>EK</i> ₂		5 10.1 68°31	14°6/29.2	18		179499	2002 <i>CY</i> ₈₁		5 10.1 139°62	2°5/ 7.9	18	
4 1	15 35.54	+ 9 15.1	1.339	2.161	19.2	20.5	4 1	15 32.19	-10 48.6	2.653	3.455	11.3	20.8
4 11	15 31.79	+12 17.8	1.314	2.186	16.8	20.4	4 11	15 28.06	-10 16.3	2.571	3.462	8.8	20.6
4 21	15 25.26	+15 2.2	1.310	2.210	15.1	20.3	4 21	15 22.31	-9 41.7	2.513	3.469	6.1	20.5
5 1	15 16.85	+17 14.1	1.328	2.235	14.6	20.4	5 1	15 15.41	-9 7.4	2.483	3.475	3.4	20.3
5 11	15 7.81	+18 43.9	1.367	2.260	15.5	20.5	5 11	15 7.98	-8 36.2	2.481	3.481	2.7	20.3
5 21	14 59.55	+19 28.2	1.427	2.284	17.1	20.7	5 21	15 0.68	-8 11.1	2.507	3.487	4.9	20.4
5 31	14 52.54	+19 29.4	1.504	2.309	19.1	20.9	5 31	14 54.15	-7 54.2	2.561	3.492	7.7	20.6
6 10	14 48.04	+18 54.0	1.597	2.333	20.9	21.1	6 10	14 48.91	-7 47.2	2.640	3.498	10.3	20.8
419748	2010 <i>VD</i> ₈₅		5 10.1 43°58	1°0/ 9.6	16		468517	2005 <i>TV</i> ₂₈		5 10.1 259°27	1°9/11.7	17	
4 1	15 38.03	-15 34.3	1.290	2.121	19.3	20.4	4 1	15 32.54	-26 15.9	2.497	3.270	12.7	20.9
4 11	15 34.14	-15 38.6	1.239	2.145	15.1	20.2	4 11	15 28.78	-25 58.7	2.391	3.258	10.3	20.7
4 21	15 27.12	-15 36.4	1.207	2.170	10.2	19.9	4 21	15 23.06	-25 29.3	2.306	3.247	7.4	20.5
5 1	15 17.85	-15 29.5	1.197	2.195	4.9	19.7	5 1	15 15.88	-24 48.1	2.248	3.235	4.3	20.3
5 11	15 7.70	-15 21.0	1.212	2.221	1.2	19.5	5 11	15 7.94	-23 56.6	2.217	3.223	1.9	20.1
5 21	14 58.08	-15 14.4	1.252	2.248	6.1	19.9	5 21	15 0.04	-22 58.3	2.215	3.211	3.9	20.2
5 31	14 50.26	-15 13.4	1.315	2.275	10.9	20.3	5 31	14 52.98	-21 57.5	2.241	3.199	7.1	20.4
6 10	14 45.05	-15 20.9	1.401	2.302	14.9	20.6	6 10	14 47.43	-20 59.3	2.292	3.186	10.2	20.6
255668	2006 <i>QC</i> ₃₆		5 10.1 230°67	0°3/ 9.9	17		77230	2001 <i>FC</i> ₃₆		5 10.1 74°33	1°8/ 9.0	18	
4 1	15 37.11	-18 53.5	1.927	2.727	15.0	21.6	4 1	15 35.19	-15 58.7	1.567	2.389	16.9	19.9
4 11	15 32.89	-18 32.2	1.828	2.716	11.9	21.4	4 11	15 31.72	-15 24.9	1.488	2.390	13.3	19.6
4 21	15 26.16	-18 1.1	1.750	2.705	8.2	21.1	4 21	15 25.48	-14 42.0	1.430	2.392	9.1	19.4
5 1	15 17.47	-17 21.7	1.697	2.694	4.0	20.9	5 1	15 17.16	-13 53.3	1.395	2.393	4.5	19.1
5 11	15 7.73	-16 36.9	1.671	2.681	0.6	20.6	5 11	15 7.81	-13 3.6	1.386	2.394	2.1	18.9
5 21	14 57.99	-15 50.9	1.674	2.668	5.1	20.9	5 21	14 58.64	-12 18.4	1.403	2.396	6.3	19.2
5 31	14 49.33	-15 8.9	1.703	2.655	9.4	21.1	5 31	14 50.83	-11 43.0	1.445	2.397	10.8	19.5
6 10	14 42.61	-14 35.4	1.755	2.641	13.2	21.3	6 10	14 45.24	-11 21.4	1.509	2.398	14.8	19.7
474951	2005 <i>TD</i> ₁₈		5 10.1 272°64	0°6/ 9.6	18		387995	2005 <i>QT</i> ₉₀		5 10.1 317°05	7°0/ 4.6	16	
4 1	15 33.44	-16 44.7	2.463	3.260	12.2	21.3	4 1	15 29.68	-2 1.0	1.921	2.748	14.1	20.4
4 11	15 29.47	-16 34.3	2.352	3.240	9.7	21.0	4 11	15 26.89	-0 46.5	1.834	2.731	11.5	20.2
4 21	15 23.56	-16 18.1	2.264	3.220	6.6	20.8	4 21	15 21.97	+ 0 27.2	1.769	2.715	8.9	20.0
5 1	15 16.14	-15 57.5	2.203	3.199	3.2	20.6	5 1	15 15.40	+ 1 33.8	1.728	2.698	7.2	19.9
5 11	15 7.87	-15 34.4	2.169	3.178	0.8	20.3	5 11	15 7.98	+ 2 26.6	1.713	2.683	7.5	19.9
5 21	14 59.54	-15 11.5	2.164	3.157	4.3	20.6	5 21	15 0.58	+ 3 0.5	1.723	2.667	9.7	19.9
5 31	14 51.94	-14 51.8	2.187	3.136	7.8	20.7	5 31	14 54.10	+ 3 12.4	1.756	2.653	12.6	20.1
6 10	14 45.77	-14 38.2	2.235	3.115	11.0	20.9	6 10	14 49.27	+ 3 2.0	1.810	2.638	15.4	20.2
32754	1981 <i>EK</i> ₁₅		5 10.1 127°22	4°3/13.5	18		499569	2010 <i>SK</i> ₂₆		5 10.1 289°31	3°9/11.6	17	
4 1	15 36.31	-32 9.0	2.561	3.302	13.2	19.9	4 1	15 38.71	-24 44.1	1.512	2.313	18.4	21.8
4 11	15 31.73	-32 34.8	2.472	3.309	11.0	19.8	4 11	15 35.32	-25 28.8	1.414	2.297	15.1	21.5
4 21	15 25.05	-32 48.1	2.404	3.317	8.5	19.6	4 21	15 28.58	-26 3.2	1.335	2.281	11.2	21.2
5 1	15 16.82	-32 47.1	2.360	3.324	6.0	19.4	5 1	15 18.97	-26 24.3	1.278	2.265	6.8	20.9
5 11	15 7.81	-32 31.6	2.344	3.331	4.4	19.4	5 11	15 7.61	-26 30.2	1.245	2.248	3.9	20.7
5 21	14 58.91	-32 3.3	2.356	3.338	5.0	19.4	5 21	14 55.97	-26 21.9	1.237	2.233	6.4	20.8
5 31	14 50.98	-31 25.8	2.395	3.344	7.2	19.5	5 31	14 45.67	-26 3.5	1.255	2.217	11.0	21.0
6 10	14 44.70	-30 43.8	2.460	3.351	9.7	19.7	6 10	14 38.01	-25 42.0	1.293	2.201	15.5	21.2
245532	2005 <i>SZ</i> ₂₁₄		5 10.1 269°71	1°3/11.2	18		93905	2000 <i>WX</i> ₁₅₁		5 10.1 243			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
127191	2002 <i>GT</i> ₁₇₄		5 10.1 340°61	2°9/ 8.7 17			89692	2001 <i>YP</i> ₇₀		5 10.1 236°86	0°9/10.6 16		
4 1	15 30.34	-12 28.0	1.387	2.230	17.6	19.2	4 1	15 38.88	-21 17.3	1.722	2.521	16.6	20.6
4 11	15 28.40	-12 10.6	1.302	2.216	13.9	18.9	4 11	15 34.75	-21 13.0	1.623	2.509	13.3	20.3
4 21	15 23.55	-11 48.4	1.237	2.203	9.6	18.6	4 21	15 27.73	-20 57.6	1.545	2.497	9.4	20.1
5 1	15 16.36	-11 24.8	1.194	2.192	5.0	18.3	5 1	15 18.38	-20 30.9	1.490	2.485	4.8	19.8
5 11	15 7.89	-11 4.3	1.175	2.181	3.2	18.2	5 11	15 7.75	-19 54.9	1.462	2.471	0.9	19.4
5 21	14 59.42	-10 51.6	1.180	2.172	7.2	18.4	5 21	14 57.05	-19 13.5	1.461	2.458	5.3	19.7
5 31	14 52.24	-10 50.8	1.208	2.164	12.0	18.6	5 31	14 47.58	-18 32.3	1.486	2.443	10.0	19.9
6 10	14 47.39	-11 4.4	1.256	2.157	16.4	18.8	6 10	14 40.36	-17 57.0	1.533	2.429	14.3	20.2
152252	2005 <i>SQ</i> ₁₀₁		5 10.1 130°44	3°5/12.3 17			286114	2001 <i>TV</i> ₁₁₉		5 10.1 195°43	2°1/13.3 18		
4 1	15 39.04	-27 44.9	2.003	2.773	15.5	21.1	4 1	15 26.63	-31 8.7	4.648	5.380	7.8	20.2
4 11	15 34.33	-28 4.5	1.920	2.782	12.7	20.9	4 11	15 23.22	-30 55.2	4.544	5.380	6.4	20.1
4 21	15 27.07	-28 11.3	1.858	2.791	9.4	20.7	4 21	15 18.80	-30 33.7	4.463	5.379	4.8	20.0
5 1	15 17.88	-28 3.4	1.819	2.800	5.9	20.5	5 1	15 13.68	-30 4.3	4.410	5.379	3.2	19.9
5 11	15 7.76	-27 41.5	1.808	2.808	3.5	20.4	5 11	15 8.23	-29 27.9	4.385	5.378	2.2	19.8
5 21	14 57.81	-27 8.0	1.824	2.816	5.0	20.5	5 21	15 2.85	-28 46.0	4.390	5.377	2.6	19.8
5 31	14 49.11	-26 27.8	1.867	2.824	8.4	20.7	5 31	14 57.93	-28 0.7	4.424	5.376	4.1	20.0
6 10	14 42.46	-25 46.5	1.934	2.831	11.7	20.9	6 10	14 53.80	-27 14.2	4.486	5.376	5.7	20.1
21752	<i>Johnthurmon</i>		5 10.1 122°30	0°3/10.3 18			160966	2002 <i>BO</i> ₇		5 10.1 28°38	9°0/ 5.0 17		
4 1	15 39.82	-19 2.7	1.736	2.537	16.4	18.6	4 1	15 33.08	+ 1 18.9	1.525	2.356	16.8	19.2
4 11	15 35.08	-19 5.1	1.660	2.548	13.0	18.4	4 11	15 29.85	+ 2 30.0	1.467	2.362	13.9	19.0
4 21	15 27.63	-18 59.0	1.604	2.559	8.9	18.2	4 21	15 24.07	+ 3 34.1	1.429	2.370	11.0	18.8
5 1	15 18.16	-18 45.2	1.573	2.569	4.4	17.9	5 1	15 16.42	+ 4 23.2	1.414	2.378	9.2	18.7
5 11	15 7.74	-18 25.6	1.569	2.579	0.5	17.6	5 11	15 7.96	+ 4 50.6	1.422	2.386	9.4	18.8
5 21	14 57.55	-18 3.6	1.592	2.588	5.0	18.0	5 21	14 59.80	+ 4 52.6	1.454	2.395	11.5	18.9
5 31	14 48.72	-17 43.3	1.642	2.598	9.4	18.3	5 31	14 52.96	+ 4 28.5	1.508	2.404	14.3	19.1
6 10	14 42.09	-17 29.0	1.714	2.606	13.2	18.5	6 10	14 48.19	+ 3 40.9	1.581	2.414	17.1	19.3
423886	2006 <i>RR</i> ₁₀₂		5 10.1 281°62	1°4/ 9.3 17			255369	2005 <i>WO</i> ₁₁₀		5 10.1 242°61	0°7/ 9.5 18		
4 1	15 35.96	-16 13.6	1.646	2.463	16.4	21.4	4 1	15 32.67	-16 37.8	2.892	3.682	10.8	21.7
4 11	15 32.61	-15 53.0	1.540	2.439	13.1	21.1	4 11	15 28.51	-16 20.6	2.783	3.667	8.5	21.5
4 21	15 26.40	-15 23.6	1.454	2.414	9.1	20.8	4 21	15 22.72	-15 58.2	2.698	3.652	5.8	21.3
5 1	15 17.79	-14 47.3	1.391	2.389	4.5	20.5	5 1	15 15.70	-15 31.8	2.640	3.636	2.8	21.1
5 11	15 7.76	-14 7.5	1.354	2.363	1.7	20.2	5 11	15 8.03	-15 3.5	2.611	3.620	0.8	20.9
5 21	14 57.51	-13 29.2	1.344	2.337	6.3	20.5	5 21	15 0.35	-14 35.7	2.611	3.603	3.8	21.1
5 31	14 48.35	-12 57.7	1.359	2.312	11.2	20.7	5 31	14 53.30	-14 11.1	2.640	3.586	6.8	21.3
6 10	14 41.37	-12 38.0	1.395	2.285	15.7	20.9	6 10	14 47.47	-13 52.3	2.695	3.569	9.6	21.4
87922	2000 <i>SM</i> ₃₁₈		5 10.1 236°78	0°8/ 9.6 17			16649	1993 <i>TY</i> ₁		5 10.1 254°97	3°1/11.5 18		
4 1	15 35.40	-15 6.7	2.570	3.362	11.9	20.1	4 1	15 39.95	-24 32.4	1.688	2.479	17.2	18.5
4 11	15 30.85	-15 9.6	2.468	3.353	9.4	19.9	4 11	15 35.87	-25 0.8	1.587	2.465	14.1	18.3
4 21	15 24.41	-15 9.0	2.390	3.344	6.4	19.7	4 21	15 28.70	-25 18.3	1.506	2.450	10.3	18.0
5 1	15 16.54	-15 5.9	2.338	3.334	3.1	19.5	5 1	15 18.96	-25 22.7	1.448	2.435	6.1	17.7
5 11	15 7.91	-15 1.7	2.315	3.324	0.9	19.3	5 11	15 7.69	-25 13.3	1.415	2.420	3.1	17.5
5 21	14 59.28	-14 58.3	2.322	3.314	4.1	19.5	5 21	14 56.24	-24 52.0	1.409	2.404	5.7	17.6
5 31	14 51.39	-14 57.8	2.357	3.304	7.4	19.7	5 31	14 46.03	-24 23.4	1.429	2.388	10.1	17.8
6 10	14 44.90	-15 2.2	2.417	3.293	10.4	19.9	6 10	14 38.22	-23 54.0	1.471	2.372	14.4	18.0
170279	2003 <i>QE</i> ₉₉		5 10.1 326°70	1°0/10.4 18			460408	2014 <i>SU</i> ₁₁₇		5 10.1 92°69	3°4/ 8.0 16		
4 1	15 34.86	-18 25.3	1.226	2.062	19.8	19.8	4 1	15 36.83	-12 59.0	1.594	2.415	16.7	22.0
4 11	15 32.68	-18 54.4	1.140	2.048	15.9	19.5	4 11	15 32.67	-12 2.4	1.531	2.432	13.0	21.8
4 21	15 26.96	-19 16.4	1.071	2.034	11.2	19.2	4 21	15 25.90	-10 59.4	1.488	2.449	8.9	21.6
5 1	15 18.24	-19 30.7	1.024	2.021	5.7	18.8	5 1	15 17.27	- 9 54.8	1.470	2.465	4.8	21.4
5 11	15 7.72	-19 37.9	0.999	2.009	1.0	18.5	5 11	15 7.89	- 8 54.9	1.479	2.481	3.7	21.4
5 21	14 57.02	-19 40.2	0.998	1.998	6.5	18.8	5 21	14 58.88	- 8 5.3	1.514	2.497	7.0	21.6
5 31	14 47.86	-19 41.9	1.020	1.987	12.2	19.1	5 31	14 51.29	- 7 30.6	1.574	2.513	11.0	21.9
6 10	14 41.59	-19 48.1	1.061	1.978	17.3	19.3	6 10	14 45.85	- 7 13.0	1.656	2.528	14.6	22.1
90063	2002 <i>VW</i> ₆₄		5 10.1 74°38	1°6/11.4 18			344234	2001 <i>SJ</i> ₁₂₀		5 10.1 163°69	3°3/ 7.1 18		
4 1	15 35.45	-25 4.8	2.147	2.927	14.3	19.3	4 1	15 31.91	-10 8.9	2.449	3.257	11.9	21.0
4 11	15 31.02	-24 45.9	2.079	2.953	11.4	19.1	4 11	15 28.01	- 9 10.5	2.366	3.260	9.4	20.9
4 21	15 24.48	-24 14.9	2.034	2.978	8.0	19.0	4 21	15 22.38	- 8 8.7	2.307	3.263	6.5	20.7
5 1	15 16.49	-23 32.6	2.013	3.003	4.4	18.8	5 1	15 15.51	- 7 7.2	2.275	3.265	4.0	20.5
5 11	15 7.94	-22 41.7	2.020	3.028	1.6	18.6	5 11	15 8.06	- 6 10.4	2.272	3.267	3.6	20.5
5 21	14 59.73	-21 46.3	2.056	3.053	4.0	18.9	5 21	15 0.75	- 5 22.2	2.297	3.269	5.9	20.6
5 31	14 52.67	-20 51.3	2.119	3.077	7.5	19.1	5 31	14 54.26	- 4 45.9	2.348	3.271	8.7	20.8
6 10	14 47.38	-20 1.5	2.207	3.101	10.6	19.3	6 10	14 49.15	- 4 23.2	2.424	3.272	11.4	21.0
307107	2002 <i>CN</i> ₃₁		5 10.1 12°48	8°3/ 5.7 17			460310	2014 <i>QU</i> ₃₈₀		5 10.1 324°06	3°6/ 8.0 17		
4 1	15 31.82	+ 2 18.7	1.688	2.513	15.7	19.5	4 1	15 30.24	-15 21.1	1.187	2.038	19.4	20.8
4 11	15 28.64	+ 3 3.1	1.626	2.518	13.0	19.3	4 11	15 28.80	-14 16.5	1.107	2.025	15.4	20.5
4 21	15 23.13	+ 3 39.2	1.586	2.524	10.3	19.2	4 21	15 24.08	-12 57.2	1.044	2.013	10.6	20.2
5 1	15 15.93	+ 4 0.7	1.568	2.531	8.5	19.1	5 1	15 16.71	-11 28.9	1.003	2.002	5.6	19.9
5 11	15 7.99	+ 4 2.6	1.574	2.539	8.5	19.1	5 11	15 7.93	-10 0.4	0.986	1.991	4.0	19.7
5 21	15 0.29	+ 3 42.7	1.604	2.548	10.4	19.2	5 21	14 59.20	- 8 41.8	0.991	1.981	8.7	20.0
5 31	14 53.77	+ 3 0.8	1.658	2.557	13.0	19.4	5 31	14 52.01	- 7 42.2	1.018	1.971	14.0	20.2
6 10	14 49.12	+ 1 59.7	1.731	2.568	15.7	19.6	6 10	14 47.48	- 7 7.0	1.064	1.963	18.8	20.5
292766	2006 <i>UX</i> ₁₉₃		5 10.1 200°44	0°4/ 9.8 18			384443	2010 <i>AQ</i> ₂₅		5 10.1 85°			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
35197	Longmire		5 10.1 349°04	9°8/ 4.5 18			393888	2005 TJ ₁₀₀		5 10.1 205°68	3°1/12.5 17		
4 1	15 28.97	+ 0 21.3	1.326	2.175	17.9	17.9	4 1	15 35.15	-28 17.0	2.702	3.458	12.3	22.0
4 11	15 27.21	+ 1 40.8	1.258	2.165	14.8	17.7	4 11	15 30.74	-28 35.9	2.602	3.455	10.1	21.8
4 21	15 22.62	+ 2 55.2	1.209	2.157	11.8	17.5	4 21	15 24.40	-28 44.9	2.524	3.452	7.5	21.6
5 1	15 15.87	+ 3 55.2	1.182	2.151	10.0	17.4	5 1	15 16.59	-28 42.6	2.472	3.449	4.9	21.5
5 11	15 8.04	+ 4 31.7	1.177	2.145	10.3	17.4	5 11	15 8.02	-28 29.4	2.447	3.445	3.1	21.3
5 21	15 0.34	+ 4 39.3	1.193	2.141	12.8	17.5	5 21	14 59.48	-28 6.7	2.452	3.441	4.2	21.4
5 31	14 53.98	+ 4 16.2	1.230	2.138	16.0	17.7	5 31	14 51.75	-27 37.7	2.484	3.437	6.8	21.6
6 10	14 49.87	+ 3 24.6	1.285	2.136	19.2	17.9	6 10	14 45.48	-27 6.2	2.542	3.433	9.4	21.7
385543	2004 RU ₁₉₈		5 10.1 211°96	5°9/14.2 18			384238	2009 DY ₆₆		5 10.1 80°65	0°7/10.6 17		
4 1	15 42.03	-36 16.6	2.637	3.346	13.6	22.4	4 1	15 34.70	-21 17.0	2.143	2.936	13.9	21.2
4 11	15 36.54	-37 2.1	2.529	3.338	11.7	22.2	4 11	15 30.52	-21 4.4	2.069	2.952	11.0	21.0
4 21	15 28.61	-37 34.7	2.441	3.329	9.5	22.1	4 21	15 24.24	-20 42.6	2.016	2.968	7.6	20.8
5 1	15 18.74	-37 50.7	2.378	3.319	7.3	21.9	5 1	15 16.47	-20 12.4	1.990	2.984	3.8	20.6
5 11	15 7.76	-37 48.4	2.342	3.309	6.0	21.8	5 11	15 8.05	-19 36.5	1.990	3.000	0.7	20.4
5 21	14 56.69	-37 28.0	2.333	3.298	6.3	21.8	5 21	14 59.87	-18 58.2	2.019	3.016	4.1	20.7
5 31	14 46.56	-36 52.7	2.352	3.286	8.1	21.9	5 31	14 52.76	-18 21.6	2.075	3.031	7.7	20.9
6 10	14 38.25	-36 7.6	2.397	3.274	10.5	22.0	6 10	14 47.36	-17 50.6	2.156	3.047	10.9	21.2
338651	2003 SD ₃₃₀		5 10.1 249°14	0°2/10.2 17			187474	2006 BM ₁₁₆		5 10.1 227°98	0°7/ 9.2 18		
4 1	15 34.47	-19 58.0	2.084	2.882	14.1	22.0	4 1	15 25.40	-15 17.5	4.554	5.343	7.1	21.0
4 11	15 30.63	-19 42.8	1.987	2.873	11.2	21.8	4 11	15 22.22	-14 58.7	4.455	5.340	5.5	20.8
4 21	15 24.54	-19 18.4	1.911	2.865	7.8	21.5	4 21	15 18.13	-14 37.1	4.382	5.337	3.7	20.7
5 1	15 16.71	-18 45.7	1.860	2.856	3.8	21.3	5 1	15 13.40	-14 13.9	4.337	5.333	1.8	20.5
5 11	15 7.97	-18 7.4	1.837	2.847	0.4	21.0	5 11	15 8.35	-13 50.4	4.322	5.330	0.8	20.4
5 21	14 59.26	-17 26.9	1.841	2.837	4.5	21.3	5 21	15 3.34	-13 28.1	4.337	5.327	2.5	20.6
5 31	14 51.53	-16 48.6	1.873	2.828	8.5	21.5	5 31	14 58.72	-13 8.4	4.381	5.323	4.4	20.7
6 10	14 45.55	-16 16.9	1.928	2.818	12.0	21.7	6 10	14 54.78	-12 52.8	4.451	5.320	6.2	20.9
330383	2006 XF ₁₅		5 10.1 81°48	1°8/ 9.1 18			156443	2002 AR ₁₆₀		5 10.1 111°65	0°4/10.4 18		
4 1	15 37.54	-14 43.4	1.674	2.489	16.3	20.8	4 1	15 36.50	-20 59.1	1.999	2.793	14.8	20.6
4 11	15 33.18	-14 22.8	1.608	2.506	12.7	20.6	4 11	15 32.09	-20 39.9	1.922	2.806	11.7	20.4
4 21	15 26.26	-13 56.2	1.563	2.523	8.6	20.4	4 21	15 25.41	-20 10.6	1.867	2.819	8.0	20.2
5 1	15 17.48	-13 26.3	1.543	2.540	4.3	20.1	5 1	15 17.07	-19 32.4	1.837	2.832	4.0	19.9
5 11	15 7.91	-12 57.0	1.549	2.556	2.0	20.0	5 11	15 8.01	-18 48.2	1.835	2.845	0.5	19.7
5 21	14 58.67	-12 32.1	1.582	2.573	5.8	20.3	5 21	14 59.19	-18 2.2	1.860	2.857	4.4	20.0
5 31	14 50.80	-12 15.5	1.640	2.590	9.9	20.6	5 31	14 51.54	-17 18.9	1.913	2.868	8.3	20.3
6 10	14 45.06	-12 9.7	1.721	2.606	13.5	20.8	6 10	14 45.75	-16 42.8	1.990	2.880	11.7	20.5
520096	2013 YW ₁₅₃		5 10.1 195°53	2°1/ 8.5 17			414256	2008 GJ ₇₇		5 10.1 213°35	1°7/ 7.8 18		
4 1	15 34.23	-13 10.5	2.291	3.095	12.8	22.0	4 1	15 25.75	-9 8.6	4.562	5.358	7.0	21.3
4 11	15 30.05	-12 39.5	2.201	3.093	10.0	21.8	4 11	15 22.47	-8 51.6	4.469	5.356	5.5	21.1
4 21	15 23.92	-12 3.9	2.134	3.091	6.9	21.6	4 21	15 18.28	-8 34.1	4.402	5.355	3.8	21.0
5 1	15 16.33	-11 26.4	2.094	3.089	3.6	21.4	5 1	15 13.47	-8 17.4	4.363	5.353	2.2	20.9
5 11	15 8.03	-10 50.2	2.081	3.086	2.3	21.3	5 11	15 8.35	-8 3.2	4.354	5.352	1.9	20.9
5 21	14 59.82	-10 18.8	2.097	3.083	5.2	21.5	5 21	15 3.28	-7 52.5	4.374	5.350	3.2	21.0
5 31	14 52.50	-9 55.5	2.140	3.080	8.5	21.7	5 31	14 58.58	-7 46.6	4.423	5.349	4.9	21.1
6 10	14 46.70	-9 42.5	2.208	3.076	11.6	21.9	6 10	14 54.56	-7 46.3	4.498	5.347	6.5	21.2
428766	2008 SE ₁₅₅		5 10.1 270°81	4°3/12.1 17			371196	2005 YL ₁₅₄		5 10.1 135°78	3°1/12.4 17		
4 1	15 39.93	-26 59.1	1.964	2.736	15.7	20.8	4 1	15 38.58	-28 23.6	2.290	3.049	14.1	21.7
4 11	15 35.52	-27 50.0	1.860	2.723	13.0	20.6	4 11	15 33.62	-28 31.0	2.206	3.062	11.5	21.6
4 21	15 28.29	-28 31.7	1.777	2.709	9.8	20.4	4 21	15 26.41	-28 25.8	2.143	3.074	8.5	21.4
5 1	15 18.73	-29 0.8	1.717	2.696	6.4	20.1	5 1	15 17.56	-28 6.9	2.106	3.085	5.3	21.2
5 11	15 7.78	-29 15.5	1.684	2.682	4.3	20.0	5 11	15 7.96	-27 35.4	2.096	3.096	3.2	21.1
5 21	14 56.61	-29 16.1	1.679	2.668	5.8	20.0	5 21	14 58.55	-26 53.8	2.114	3.106	4.5	21.2
5 31	14 46.51	-29 5.4	1.699	2.654	9.2	20.2	5 31	14 50.26	-26 6.7	2.160	3.116	7.5	21.4
6 10	14 38.51	-28 48.9	1.744	2.640	12.8	20.4	6 10	14 43.77	-25 19.4	2.232	3.125	10.5	21.6
980	Anacostia		5 10.1 255°60	6°4/15.1 18			420715	2012 ML ₇		5 10.1 359°99	3°4/14.7 18		
4 1	15 37.86	-38 12.0	2.308	3.025	15.1	13.0	4 1	15 27.87	-35 43.9	4.174	4.885	8.9	20.4
4 11	15 33.63	-38 30.9	2.195	3.008	13.1	12.8	4 11	15 24.42	-35 46.3	4.072	4.885	7.5	20.3
4 21	15 26.80	-38 32.2	2.102	2.991	10.7	12.6	4 21	15 19.76	-35 38.9	3.992	4.885	6.0	20.2
5 1	15 17.90	-38 12.4	2.031	2.974	8.3	12.4	5 1	15 14.23	-35 21.2	3.937	4.885	4.5	20.1
5 11	15 7.88	-37 30.0	1.985	2.956	6.6	12.3	5 11	15 8.29	-34 53.5	3.910	4.885	3.5	20.0
5 21	14 57.83	-36 26.7	1.967	2.938	6.8	12.2	5 21	15 2.41	-34 17.1	3.912	4.885	3.6	20.1
5 31	14 48.89	-35 7.4	1.975	2.919	8.8	12.3	5 31	14 57.08	-33 34.3	3.942	4.885	4.8	20.1
6 10	14 41.96	-33 39.6	2.008	2.900	11.5	12.5	6 10	14 52.68	-32 47.9	3.998	4.886	6.4	20.2
306919	2001 UU ₁₇		5 10.1 71°70	10°3/ 1.9 18			225894	2001 YV ₁₄₅		5 10.1 327°93	5°7/ 9.2 18		
4 1	15 39.18	+ 4 31.0	1.769	2.573	16.0	20.2	4 1	15 41.53	-2 26.6	1.317	2.145	19.2	18.8
4 11	15 33.77	+ 7 2.1	1.745	2.616	13.3	20.1	4 11	15 37.78	-2 58.2	1.221	2.121	15.7	18.5
4 21	15 26.20	+ 9 21.7	1.745	2.658	11.2	20.0	4 21	15 30.48	-3 42.5	1.143	2.098	11.6	18.2
5 1	15 17.27	+11 19.7	1.771	2.700	10.3	20.1	5 1	15 20.08	-4 43.9	1.088	2.076	7.4	17.9
5 11	15 7.98	+12 48.6	1.823	2.741	10.8	20.2	5 11	15 7.72	-6 4.8	1.057	2.056	5.8	17.7
5 21	14 59.28	+13 45.2	1.900	2.781	12.4	20.4	5 21	14 54.93	-7 44.4	1.051	2.036	9.1	17.9
5 31	14 52.00	+14 9.7	1.998	2.820	14.4	20.6	5 31	14 43.46	-9 39.4	1.069	2.018	14.0	18.1
6 10	14 46.66	+14 5.9	2.116	2.859	16.2	20.8	6 10	14 34.72	-11 45.2	1.109	2.001	18.8	18.3
346413	2008 SK ₁₆₆		5 10.1 251°24	2°0/11.2 18			219415	2000 SH ₂₉₆		5 10.1 246°23	2°9/ 7.9 18		
4 1	15 38.07	-22 35.2	2.069	2.854									

EPHEMERIDES

5 10.1

5 10.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V	
407661	2011 <i>SV</i> ₁₆₆	5 10.1 161°09 5°7/13.2 16						497299	2005 <i>SF</i> ₂₃₃	5 10.1 224°38 0°8/ 9.6 17				
4 1	15 40.76	-31 2.2	1.556	2.331	19.0	22.1	4 1	15 35.94	-17 50.1	2.132	2.929	13.8	22.8	
4 11	15 36.74	-31 35.8	1.473	2.334	15.9	21.8	4 11	15 31.72	-17 21.7	2.032	2.920	10.9	22.6	
4 21	15 29.36	-31 51.9	1.408	2.336	12.2	21.6	4 21	15 25.26	-16 44.7	1.955	2.911	7.5	22.3	
5 1	15 19.29	-31 46.4	1.364	2.338	8.4	21.4	5 1	15 17.11	-16 0.9	1.904	2.900	3.6	22.1	
5 11	15 7.82	-31 18.3	1.345	2.339	5.8	21.2	5 11	15 8.06	-15 13.5	1.880	2.890	1.0	21.8	
5 21	14 56.47	-30 30.5	1.352	2.341	6.9	21.3	5 21	14 59.04	-14 26.6	1.885	2.878	4.8	22.1	
5 31	14 46.77	-29 29.8	1.383	2.342	10.5	21.5	5 31	14 50.98	-13 44.7	1.918	2.867	8.7	22.3	
6 10	14 39.82	-28 25.6	1.437	2.343	14.4	21.7	6 10	14 44.63	-13 11.7	1.974	2.854	12.2	22.5	
446572	2014 <i>OJ</i> ₁₃₀	5 10.1 156°86 2°7/ 7.0 18						346453	2008 <i>TJ</i> ₄₇	5 10.1 249°62 0°5/10.4 17				
4 1	15 28.30	- 7 12.9	3.709	4.507	8.4	21.7	4 1	15 39.47	-18 3.1	2.155	2.944	14.0	21.3	
4 11	15 24.62	- 6 38.5	3.625	4.512	6.6	21.6	4 11	15 34.63	-18 25.4	2.049	2.931	11.2	21.1	
4 21	15 19.82	- 6 3.9	3.566	4.516	4.7	21.4	4 21	15 27.39	-18 43.0	1.966	2.917	7.8	20.8	
5 1	15 14.25	- 5 31.3	3.535	4.520	3.1	21.3	5 1	15 18.22	-18 55.7	1.908	2.903	3.9	20.6	
5 11	15 8.32	- 5 2.9	3.534	4.524	2.8	21.3	5 11	15 7.94	-19 4.0	1.879	2.889	0.5	20.3	
5 21	15 2.47	- 4 40.6	3.561	4.528	4.3	21.4	5 21	14 57.55	-19 9.1	1.878	2.874	4.5	20.6	
5 31	14 57.12	- 4 25.9	3.617	4.531	6.2	21.6	5 31	14 48.06	-19 13.5	1.905	2.859	8.5	20.8	
6 10	14 52.64	- 4 19.7	3.698	4.534	8.1	21.7	6 10	14 40.34	-19 20.0	1.958	2.844	12.1	21.0	
156278	2001 <i>VN</i> ₁₀₅	5 10.1 181°23 1°2/10.9 17						311220	2005 <i>AE</i> ₂₆	5 10.1 169°16 0°3/ 9.9 16				
4 1	15 38.06	-22 21.1	2.296	3.075	13.5	21.5	4 1	15 39.72	-18 50.9	2.067	2.857	14.5	22.6	
4 11	15 33.20	-22 20.2	2.202	3.076	10.8	21.3	4 11	15 34.61	-18 29.5	1.980	2.863	11.4	22.4	
4 21	15 26.17	-22 10.1	2.131	3.076	7.6	21.1	4 21	15 27.17	-17 59.2	1.915	2.867	7.8	22.2	
5 1	15 17.50	-21 51.0	2.085	3.076	4.0	20.9	5 1	15 17.99	-17 21.6	1.876	2.871	3.8	21.9	
5 11	15 8.00	-21 24.2	2.067	3.076	1.2	20.7	5 11	15 7.98	-16 39.5	1.865	2.874	0.6	21.7	
5 21	14 58.59	-20 52.4	2.079	3.075	4.1	20.9	5 21	14 58.13	-15 56.8	1.882	2.876	4.7	22.0	
5 31	14 50.16	-20 19.6	2.118	3.073	7.7	21.1	5 31	14 49.40	-15 18.0	1.928	2.878	8.6	22.2	
6 10	14 43.44	-19 49.7	2.183	3.070	10.9	21.3	6 10	14 42.55	-14 47.2	1.998	2.878	12.1	22.4	
153083	2000 <i>RH</i> ₂₈	5 10.1 227°94 2°0/ 6.9 18						88259	2001 <i>HJ</i> ₇	5 10.1 61°92 0°9/ 9.4 18				
4 1	15 24.22	- 8 16.2	4.817	5.615	6.6	19.8	4 1	15 35.82	-27 20.7	1.032	1.862	23.2	17.7	
4 11	15 21.25	- 7 36.2	4.723	5.611	5.2	19.6	4 11	15 33.51	-25 8.5	0.964	1.868	18.5	17.4	
4 21	15 17.45	- 6 55.3	4.655	5.607	3.6	19.5	4 21	15 27.29	-22 18.1	0.913	1.876	12.7	17.1	
5 1	15 13.08	- 6 15.3	4.616	5.602	2.3	19.4	5 1	15 18.21	-18 56.1	0.885	1.883	6.0	16.8	
5 11	15 8.43	- 5 38.1	4.607	5.598	2.2	19.4	5 11	15 7.97	-15 19.0	0.881	1.890	1.5	16.5	
5 21	15 3.83	- 5 5.4	4.628	5.594	3.4	19.5	5 21	14 58.37	-11 48.9	0.903	1.898	8.1	16.9	
5 31	14 59.57	- 4 38.5	4.676	5.590	4.9	19.6	5 31	14 50.96	- 8 46.2	0.949	1.906	14.3	17.3	
6 10	14 55.94	- 4 18.6	4.751	5.585	6.4	19.7	6 10	14 46.69	- 6 23.4	1.015	1.914	19.5	17.6	
178734	2000 <i>TB</i> ₂	5 10.1 184°81 0°1/ 9.9 18						312542	2009 <i>FC</i> ₁	5 10.1 120°28 5°4/ 6.9 18				
4 1	15 32.30	-19 34.3	3.036	3.818	10.5	20.9	4 1	15 38.30	- 6 47.6	1.711	2.528	15.9	20.9	
4 11	15 28.07	-19 4.1	2.939	3.818	8.3	20.7	4 11	15 33.65	- 5 48.2	1.647	2.543	12.6	20.8	
4 21	15 22.34	-18 26.9	2.866	3.817	5.6	20.5	4 21	15 26.54	- 4 48.1	1.604	2.557	9.0	20.6	
5 1	15 15.53	-17 44.0	2.821	3.816	2.7	20.3	5 1	15 17.66	- 3 53.1	1.586	2.571	6.0	20.4	
5 11	15 8.20	-16 57.9	2.805	3.815	0.3	20.1	5 11	15 8.03	- 3 8.9	1.595	2.584	5.7	20.4	
5 21	15 0.96	-16 11.2	2.819	3.813	3.4	20.4	5 21	14 58.72	- 2 40.0	1.629	2.597	8.3	20.6	
5 31	14 54.40	-15 27.2	2.862	3.811	6.2	20.6	5 31	14 50.74	- 2 29.2	1.689	2.609	11.7	20.8	
6 10	14 49.02	-14 48.8	2.932	3.808	8.8	20.7	6 10	14 44.79	- 2 36.9	1.771	2.620	14.8	21.1	
313068	2000 <i>SE</i> ₁₆₄	5 10.1 148°41 8°2/13.7 16						184972	2005 <i>YE</i> ₁	5 10.1 260°60 0°3/ 9.9 18				
4 1	15 51.26	-35 44.5	1.944	2.663	17.6	21.6	4 1	15 32.02	-19 0.3	2.343	3.140	12.7	20.7	
4 11	15 44.84	-37 20.4	1.859	2.672	15.1	21.4	4 11	15 28.37	-18 35.5	2.252	3.139	10.0	20.5	
4 21	15 34.92	-38 42.7	1.794	2.681	12.3	21.2	4 21	15 22.81	-18 2.6	2.184	3.139	6.9	20.3	
5 1	15 22.08	-39 44.0	1.752	2.689	9.7	21.1	5 1	15 15.84	-17 23.3	2.141	3.138	3.3	20.1	
5 11	15 7.55	-40 19.3	1.736	2.697	8.2	21.0	5 11	15 8.19	-16 40.3	2.127	3.137	0.5	19.8	
5 21	14 52.91	-40 27.3	1.747	2.704	8.7	21.1	5 21	15 0.64	-15 57.2	2.141	3.136	4.1	20.1	
5 31	14 39.79	-40 11.5	1.784	2.710	10.8	21.2	5 31	14 53.96	-15 17.9	2.182	3.135	7.6	20.3	
6 10	14 29.44	-39 40.0	1.845	2.715	13.4	21.4	6 10	14 48.77	-14 45.7	2.248	3.134	10.7	20.5	
251983	2000 <i>CR</i> ₁₀₀	5 10.1 27°68 1°7/10.9 17						134163	2005 <i>BO</i> ₆	5 10.1 115°29 1°1/10.8 18				
4 1	15 34.68	-22 11.9	1.343	2.166	19.1	20.8	4 1	15 35.86	-21 36.3	2.036	2.829	14.6	20.5	
4 11	15 31.92	-22 18.4	1.274	2.173	15.3	20.6	4 11	15 31.73	-21 38.3	1.951	2.833	11.6	20.3	
4 21	15 25.96	-22 11.5	1.223	2.181	10.7	20.3	4 21	15 25.29	-21 31.0	1.888	2.838	8.1	20.1	
5 1	15 17.57	-21 51.3	1.194	2.189	5.7	20.0	5 1	15 17.10	-21 14.7	1.849	2.842	4.2	19.9	
5 11	15 8.00	-21 20.4	1.189	2.198	1.7	19.8	5 11	15 8.07	-20 51.1	1.837	2.846	1.1	19.7	
5 21	14 58.70	-20 43.3	1.209	2.208	5.7	20.1	5 21	14 59.17	-20 23.1	1.853	2.850	4.4	19.9	
5 31	14 51.04	-20 6.5	1.252	2.219	10.6	20.4	5 31	14 51.35	-19 54.7	1.896	2.854	8.2	20.1	
6 10	14 45.97	-19 36.2	1.317	2.230	14.9	20.7	6 10	14 45.36	-19 30.1	1.964	2.858	11.6	20.4	
331589	2001 <i>TN</i> ₁₀₃	5 10.1 243°88 1°5/ 9.0 18						308386	2005 <i>SH</i> ₂₁	5 10.1 201°92 2°5/12.4 18				
4 1	15 36.79	-23 53.6	1.283	2.102	20.1	20.5	4 1	15 33.76	-28 19.9	2.901	3.655	11.6	21.2	
4 11	15 33.82	-22 3.2	1.195	2.095	16.0	20.2	4 11	15 29.48	-28 17.2	2.799	3.651	9.4	21.1	
4 21	15 27.41	-19 42.8	1.126	2.087	11.0	19.8	4 21	15 23.45	-28 3.8	2.718	3.648	7.0	20.9	
5 1	15 18.33	-16 56.9	1.080	2.078	5.3	19.5	5 1	15 16.13	-27 39.4	2.664	3.643	4.4	20.7	
5 11	15 7.93	-13 56.9	1.061	2.070	2.0	19.2	5 11	15 8.17	-27 4.8	2.638	3.639	2.6	20.6	
5 21	14 57.78	-10 59.0	1.069	2.061	7.7	19.6	5 21	15 0.27	-26 22.4	2.641	3.634	3.7	20.7	
5 31	14 49.35	- 8 19.7	1.102	2.052	13.5	19.9	5 31	14 53.14	-25 35.6	2.673	3.629	6.3	20.8	
6 10	14 43.71	- 6 10.7	1.156	2.043	18.5	20.1	6 10	14 47.35	-24 48.3	2.732	3.623	8.9	21.0	
1172	<i>Aneas</i>	5 10.1 302°45 1°2/11.8 18 A						379476	2010 <i>DU</i> ₇₆	5 10.1 134°73 3°9/ 7.5 18				
4 1	15 26.13	-25 46.9	4.232	4.993	8.1	15.5	4 1	15 35.82	- 7 16.8	2.277	3.082	12.8	20.9	
4 11	15 22.95	-25 27.9	4.125	4.986										

EPHEMERIDES

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5 10.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
471817	2012 <i>WM</i> ₁₆		5 10.1 165°35	0°2/10.3	18		299942	2006 <i>TB</i> ₄₈		5 10.2 235°49	1°4/ 8.8	18	
4 1	15 36.38	-18 28.3	2.606	3.390	12.0	21.5	4 1	15 31.72	-17 3.0	2.414	3.215	12.3	20.3
4 11	15 31.56	-18 34.9	2.515	3.393	9.5	21.3	4 11	15 28.05	-16 7.7	2.318	3.209	9.7	20.1
4 21	15 24.89	-18 36.1	2.446	3.397	6.5	21.1	4 21	15 22.56	-15 3.7	2.246	3.203	6.6	19.9
5 1	15 16.85	-18 32.5	2.405	3.400	3.2	20.9	5 1	15 15.73	-13 54.0	2.201	3.197	3.2	19.7
5 11	15 8.12	-18 25.1	2.392	3.402	0.3	20.6	5 11	15 8.24	-12 42.6	2.184	3.191	1.7	19.5
5 21	14 59.46	-18 15.9	2.409	3.404	3.7	20.9	5 21	15 0.85	-11 34.1	2.196	3.184	4.7	19.7
5 31	14 51.63	-18 7.1	2.455	3.406	6.9	21.1	5 31	14 54.29	-10 33.3	2.236	3.178	8.1	19.9
6 10	14 45.22	-18 1.5	2.526	3.408	9.8	21.3	6 10	14 49.15	-9 43.6	2.300	3.171	11.1	20.1
160465	2006 <i>BL</i> ₂₂₆		5 10.1 16°46	0°7/ 9.3	18		388673	2007 <i>TV</i> ₄₂₆		5 10.2 103°37	1°0/10.9	17	
4 1	15 25.73	-15 24.0	4.229	5.020	7.6	20.6	4 1	15 33.25	-23 37.1	2.182	2.970	13.9	21.5
4 11	15 22.57	-15 7.8	4.136	5.021	5.9	20.5	4 11	15 29.49	-23 7.6	2.096	2.975	11.0	21.3
4 21	15 18.43	-14 48.6	4.068	5.023	4.0	20.3	4 21	15 23.64	-22 26.1	2.031	2.980	7.7	21.1
5 1	15 13.59	-14 27.7	4.028	5.024	1.9	20.2	5 1	15 16.27	-21 33.7	1.992	2.985	4.0	20.8
5 11	15 8.43	-14 6.4	4.017	5.025	0.8	20.1	5 11	15 8.20	-20 33.4	1.980	2.989	1.0	20.6
5 21	15 3.32	-13 46.5	4.036	5.026	2.6	20.2	5 21	15 0.30	-19 29.7	1.997	2.994	4.1	20.9
5 31	14 58.63	-13 29.2	4.083	5.028	4.7	20.4	5 31	14 53.43	-18 27.6	2.041	2.999	7.7	21.1
6 10	14 54.69	-13 16.1	4.158	5.029	6.5	20.5	6 10	14 48.23	-17 32.1	2.110	3.003	11.0	21.3
42234	2001 <i>EP</i> ₂		5 10.1 258°46	2°8/11.6	18		39834	1998 <i>BW</i> ₁₀		5 10.2 26°05	4°8/13.7	18	
4 1	15 40.08	-24 32.7	2.269	3.038	14.0	18.9	4 1	15 34.90	-32 35.8	2.127	2.882	15.2	17.9
4 11	15 35.22	-25 8.7	2.154	3.019	11.4	18.7	4 11	15 31.18	-32 53.0	2.037	2.884	12.7	17.7
4 21	15 27.89	-25 37.1	2.061	2.999	8.4	18.4	4 21	15 25.03	-32 54.8	1.967	2.885	9.8	17.5
5 1	15 18.53	-25 55.9	1.994	2.978	5.1	18.2	5 1	15 17.03	-32 39.0	1.920	2.887	6.9	17.3
5 11	15 7.95	-26 4.3	1.955	2.958	2.8	18.0	5 11	15 8.12	-32 5.7	1.899	2.889	4.9	17.2
5 21	14 57.14	-26 2.9	1.944	2.936	4.7	18.1	5 21	14 59.33	-31 17.6	1.905	2.891	5.6	17.3
5 31	14 47.17	-25 54.3	1.961	2.915	8.2	18.3	5 31	14 51.67	-30 19.7	1.938	2.893	8.2	17.4
6 10	14 38.97	-25 42.6	2.003	2.893	11.7	18.4	6 10	14 45.94	-29 18.3	1.995	2.896	11.2	17.6
87194	2000 <i>OK</i> ₁₈		5 10.1 303°68	5°6/ 6.9	18		225555	2000 <i>SJ</i> ₃₁₆		5 10.2 286°73	4°1/12.8	17	
4 1	15 33.10	- 7 33.4	1.585	2.417	16.3	19.2	4 1	15 36.58	-30 6.7	1.905	2.675	16.2	20.6
4 11	15 30.38	- 6 42.5	1.483	2.388	13.1	18.9	4 11	15 33.14	-30 9.2	1.782	2.643	13.6	20.3
4 21	15 24.92	- 5 47.9	1.401	2.360	9.5	18.6	4 21	15 26.85	-29 54.8	1.679	2.611	10.3	20.1
5 1	15 17.18	- 4 55.1	1.343	2.331	6.3	18.4	5 1	15 18.17	-29 21.0	1.599	2.578	6.8	19.8
5 11	15 8.07	- 4 10.7	1.310	2.303	6.0	18.3	5 11	15 8.01	-28 27.2	1.545	2.544	4.2	19.5
5 21	14 58.76	- 3 40.9	1.301	2.275	9.2	18.4	5 21	14 57.59	-27 16.2	1.517	2.511	5.7	19.6
5 31	14 50.48	- 3 30.6	1.316	2.247	13.4	18.5	5 31	14 48.19	-25 54.3	1.516	2.476	9.6	19.7
6 10	14 44.28	- 3 41.8	1.351	2.220	17.4	18.7	6 10	14 40.94	-24 30.2	1.539	2.442	13.7	19.9
506831	2007 <i>TT</i> ₁₄₁		5 10.2 225°74	0°4/ 9.9	17		176484	2001 <i>XA</i> ₂₀₉		5 10.2 138°33	2°2/ 8.3	18	
4 1	15 35.13	-17 22.6	2.346	3.140	12.8	22.4	4 1	15 32.81	-12 20.4	2.592	3.393	11.6	20.7
4 11	15 30.87	-17 16.1	2.248	3.134	10.1	22.2	4 11	15 28.66	-11 47.4	2.510	3.401	9.0	20.6
4 21	15 24.58	-17 3.8	2.173	3.128	6.9	22.0	4 21	15 22.83	-11 11.0	2.452	3.408	6.2	20.4
5 1	15 16.76	-16 46.5	2.125	3.121	3.4	21.7	5 1	15 15.82	-10 33.6	2.421	3.415	3.3	20.2
5 11	15 8.14	-16 26.4	2.104	3.113	0.6	21.5	5 11	15 8.26	- 9 58.5	2.419	3.422	2.3	20.2
5 21	14 59.54	-16 5.9	2.112	3.106	4.2	21.8	5 21	15 0.84	- 9 28.5	2.445	3.429	4.8	20.3
5 31	14 51.80	-15 48.1	2.147	3.098	7.8	22.0	5 31	14 54.22	- 9 6.3	2.499	3.435	7.7	20.5
6 10	14 45.59	-15 35.9	2.208	3.090	11.0	22.2	6 10	14 48.92	- 8 53.7	2.578	3.441	10.3	20.7
136406	2005 <i>AR</i> ₃₂		5 10.2 353°56	8°0/13.7	17	R	153084	2000 <i>RQ</i> ₂₉		5 10.2 305°33	10°3/15.3	18	
4 1	15 24.24	-30 37.4	0.958	1.801	23.6	18.2	4 1	15 37.96	-40 6.8	1.691	2.426	19.2	19.3
4 11	15 25.32	-31 40.7	0.888	1.790	20.0	17.9	4 11	15 35.21	-41 23.0	1.587	2.405	17.1	19.1
4 21	15 22.48	-32 21.6	0.832	1.781	15.7	17.6	4 21	15 28.87	-42 21.1	1.501	2.384	14.6	18.9
5 1	15 16.28	-32 33.9	0.793	1.774	11.2	17.3	5 1	15 19.38	-42 53.7	1.434	2.363	12.1	18.7
5 11	15 8.16	-32 14.9	0.773	1.769	8.2	17.2	5 11	15 7.89	-42 55.2	1.389	2.343	10.5	18.5
5 21	15 0.03	-31 27.4	0.773	1.767	9.2	17.2	5 21	14 56.02	-42 23.8	1.367	2.323	10.7	18.5
5 31	14 53.90	-30 20.8	0.791	1.768	13.3	17.4	5 31	14 45.60	-41 23.8	1.367	2.304	12.6	18.5
6 10	14 51.18	-29 8.0	0.828	1.770	17.9	17.7	6 10	14 38.07	-40 4.8	1.389	2.284	15.5	18.7
72509	2001 <i>DJ</i> ₇₃		5 10.2 275°33	0°8/10.6	18		347314	2011 <i>QE</i> ₄₆		5 10.2 272°85	0°3/ 9.8	18	
4 1	15 34.67	-21 3.4	1.973	2.771	14.8	19.6	4 1	15 25.29	-17 52.1	4.500	5.284	7.3	21.6
4 11	15 30.99	-20 59.1	1.879	2.765	11.8	19.4	4 11	15 22.21	-17 31.0	4.396	5.277	5.7	21.5
4 21	15 24.92	-20 45.1	1.805	2.758	8.2	19.2	4 21	15 18.18	-17 6.0	4.318	5.270	3.8	21.3
5 1	15 17.00	-20 22.0	1.757	2.751	4.2	18.9	5 1	15 13.49	-16 38.2	4.267	5.263	1.9	21.2
5 11	15 8.11	-19 51.8	1.735	2.744	0.8	18.6	5 11	15 8.48	-16 8.9	4.247	5.256	0.4	21.0
5 21	14 59.26	-19 17.7	1.740	2.737	4.6	18.9	5 21	15 3.50	-15 39.9	4.256	5.249	2.4	21.2
5 31	14 51.45	-18 44.2	1.772	2.730	8.6	19.1	5 31	14 58.91	-15 12.7	4.294	5.242	4.4	21.3
6 10	14 45.49	-18 15.6	1.828	2.724	12.3	19.3	6 10	14 55.02	-14 48.9	4.360	5.235	6.2	21.5
279237	2009 <i>UT</i> ₁₄₈		5 10.2 130°08	0°1/10.3	17		500115	2012 <i>BE</i> ₁₁₈		5 10.2 25°01	1°6/ 9.3	17	
4 1	15 35.13	-21 1.0	1.917	2.716	15.1	21.4	4 1	15 33.97	-16 16.3	1.294	2.131	18.9	21.3
4 11	15 31.23	-20 31.0	1.834	2.722	12.0	21.2	4 11	15 31.32	-15 53.6	1.227	2.137	14.9	21.0
4 21	15 24.96	-19 49.5	1.773	2.727	8.2	21.0	4 21	15 25.55	-15 21.5	1.178	2.143	10.2	20.8
5 1	15 16.95	-18 58.3	1.736	2.732	4.1	20.7	5 1	15 17.39	-14 43.1	1.151	2.149	4.9	20.5
5 11	15 8.13	-18 0.8	1.726	2.736	0.4	20.5	5 11	15 8.11	-14 3.4	1.148	2.157	1.8	20.3
5 21	14 59.50	-17 2.0	1.745	2.741	4.7	20.8	5 21	14 59.10	-13 28.0	1.169	2.165	6.6	20.6
5 31	14 52.03	-16 7.4	1.790	2.745	8.8	21.1	5 31	14 51.69	-13 2.6	1.214	2.173	11.6	20.9
6 10	14 46.46	-15 21.7	1.858	2.749	12.4	21.3	6 10	14 46.81	-12 50.9	1.279	2.182	16.0	21.2
409330	2004 <i>TF</i> ₃₇₀		5 10.2 198°16	2°7/11.4	16		172492	2003 <i>SL</i> ₁₄₆		5 1			

EPHEMERIDES

5 10.2

5 10.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
480095	2015 <i>EA</i> ₆₃		5 10.2 24 ^o 47	0 ^o 4/10.3	17		176457	2001 <i>XM</i> ₇₂		5 10.2 126 ^o 35	1 ^o 8/ 8.4	18	
4 1	15 33.39	-19 36.3	1.575	2.394	17.0	20.8	4 1	15 32.99	-13 34.7	2.890	3.684	10.7	21.6
4 11	15 30.38	-19 33.0	1.503	2.401	13.4	20.6	4 11	15 28.56	-12 54.5	2.814	3.700	8.3	21.5
4 21	15 24.65	-19 19.8	1.451	2.409	9.2	20.3	4 21	15 22.64	-12 10.3	2.762	3.716	5.6	21.3
5 1	15 16.89	-18 57.8	1.421	2.418	4.6	20.1	5 1	15 15.70	-11 24.6	2.737	3.732	2.9	21.1
5 11	15 8.18	-18 29.9	1.418	2.427	0.5	19.8	5 11	15 8.33	-10 40.3	2.743	3.747	2.0	21.1
5 21	14 59.68	-18 0.2	1.439	2.437	5.2	20.2	5 21	15 1.14	-10 0.5	2.777	3.761	4.2	21.3
5 31	14 52.54	-17 33.5	1.486	2.448	9.6	20.4	5 31	14 54.69	-9 27.6	2.841	3.775	6.9	21.5
6 10	14 47.58	-17 14.2	1.555	2.459	13.6	20.7	6 10	14 49.45	-9 3.8	2.929	3.788	9.3	21.6
268807	2006 <i>VP</i> ₂		5 10.2 141 ^o 23	1 ^o 8/11.4	17		160033	1998 <i>QU</i> ₈₁		5 10.2 239 ^o 29	0 ^o 1/10.0	18	
4 1	15 37.34	-24 42.1	1.833	2.621	16.1	20.7	4 1	15 34.59	-20 57.8	2.512	3.296	12.4	20.2
4 11	15 33.19	-24 30.0	1.749	2.627	12.9	20.5	4 11	15 30.37	-20 13.2	2.400	3.280	9.8	20.0
4 21	15 26.44	-24 4.2	1.686	2.633	9.2	20.3	4 21	15 24.22	-19 17.7	2.312	3.263	6.8	19.8
5 1	15 17.73	-23 24.8	1.648	2.638	5.1	20.0	5 1	15 16.61	-18 13.0	2.251	3.246	3.3	19.5
5 11	15 8.11	-22 34.3	1.636	2.643	1.8	19.8	5 11	15 8.24	-17 2.1	2.219	3.229	0.4	19.3
5 21	14 58.68	-21 37.0	1.651	2.648	4.7	20.0	5 21	14 59.90	-15 49.4	2.217	3.211	4.1	19.5
5 31	14 50.54	-20 39.1	1.693	2.652	8.8	20.3	5 31	14 52.35	-14 40.0	2.243	3.192	7.6	19.7
6 10	14 44.50	-19 46.5	1.758	2.656	12.6	20.5	6 10	14 46.27	-13 38.4	2.295	3.173	10.9	19.9
119388	2001 <i>TT</i> ₁₂		5 10.2 156 ^o 60	0 ^o 4/10.4	18		506764	2006 <i>WZ</i> ₁₀₅		5 10.2 62 ^o 04	0 ^o 7/ 9.7	17	
4 1	15 39.36	-19 8.6	2.229	3.014	13.7	20.5	4 1	15 33.22	-16 50.2	2.219	3.021	13.2	21.1
4 11	15 34.22	-19 15.1	2.142	3.021	10.9	20.3	4 11	15 29.35	-16 36.2	2.140	3.030	10.3	20.9
4 21	15 26.88	-19 14.9	2.078	3.028	7.5	20.1	4 21	15 23.51	-16 16.1	2.083	3.040	7.0	20.7
5 1	15 17.89	-19 8.4	2.039	3.034	3.7	19.9	5 1	15 16.23	-15 51.7	2.052	3.049	3.4	20.5
5 11	15 8.10	-18 56.8	2.029	3.039	0.5	19.6	5 11	15 8.29	-15 25.5	2.049	3.058	0.9	20.3
5 21	14 58.42	-18 42.5	2.048	3.044	4.2	20.0	5 21	15 0.51	-15 0.4	2.074	3.068	4.3	20.6
5 31	14 49.76	-18 28.5	2.095	3.048	7.9	20.2	5 31	14 53.68	-14 39.7	2.125	3.077	7.8	20.8
6 10	14 42.85	-18 18.0	2.167	3.052	11.1	20.4	6 10	14 48.43	-14 26.1	2.202	3.087	11.0	21.0
201559	2003 <i>SS</i> ₂		5 10.2 186 ^o 55	0 ^o 7/10.7	17		57369	2001 <i>RK</i> ₄₅		5 10.2 143 ^o 46	0 ^o 3/10.4	18	
4 1	15 35.59	-21 25.4	2.275	3.061	13.4	21.4	4 1	15 34.06	-20 33.4	2.763	3.543	11.4	20.4
4 11	15 31.30	-21 16.1	2.182	3.061	10.7	21.2	4 11	15 29.60	-20 15.0	2.677	3.553	9.0	20.2
4 21	15 24.91	-20 57.7	2.111	3.060	7.4	21.0	4 21	15 23.47	-19 49.2	2.613	3.563	6.2	20.0
5 1	15 16.94	-20 30.8	2.066	3.059	3.8	20.8	5 1	15 16.16	-19 17.1	2.577	3.572	3.1	19.8
5 11	15 8.19	-19 57.5	2.049	3.058	0.8	20.5	5 11	15 8.30	-18 40.6	2.570	3.580	0.3	19.6
5 21	14 59.53	-19 20.7	2.060	3.057	4.1	20.8	5 21	15 0.59	-18 2.6	2.593	3.588	3.4	19.9
5 31	14 51.81	-18 44.5	2.099	3.055	7.7	21.0	5 31	14 53.67	-17 26.3	2.644	3.596	6.5	20.1
6 10	14 45.74	-18 12.9	2.163	3.053	10.9	21.2	6 10	14 48.08	-16 54.7	2.721	3.603	9.2	20.3
2621	<i>Goto</i>		5 10.2 230 ^o 18	4 ^o 0/ 6.9	18		303256	2004 <i>RW</i> ₄₆		5 10.2 285 ^o 08	0 ^o 5/10.4	17	
4 1	15 33.67	-4 53.8	2.703	3.504	11.2	16.5	4 1	15 36.23	-20 14.0	1.405	2.226	18.6	20.9
4 11	15 29.34	-4 23.4	2.609	3.494	8.9	16.3	4 11	15 33.36	-20 8.5	1.313	2.212	14.9	20.6
4 21	15 23.35	-3 54.0	2.537	3.484	6.5	16.1	4 21	15 27.24	-19 50.9	1.239	2.198	10.5	20.3
5 1	15 16.13	-3 28.7	2.493	3.474	4.5	16.0	5 1	15 18.43	-19 21.5	1.187	2.183	5.3	20.0
5 11	15 8.27	-3 10.5	2.477	3.463	4.3	15.9	5 11	15 8.07	-18 42.8	1.159	2.169	0.6	19.6
5 21	15 0.44	-3 1.9	2.489	3.452	6.1	16.0	5 21	14 57.61	-17 59.8	1.157	2.155	6.1	20.0
5 31	14 53.30	-3 4.7	2.529	3.441	8.6	16.2	5 31	14 48.55	-17 19.1	1.178	2.141	11.5	20.2
6 10	14 47.42	-3 19.3	2.593	3.429	11.1	16.3	6 10	14 42.08	-16 47.2	1.221	2.127	16.3	20.5
396397	2014 <i>DH</i> ₁₃₉		5 10.2 158 ^o 98	1 ^o 8/ 8.5	18		384694	2011 <i>HR</i> ₁		5 10.2 323 ^o 01	5 ^o 8/ 7.6	18	
4 1	15 33.26	-13 26.8	2.741	3.537	11.1	21.9	4 1	15 36.09	-3 50.8	1.639	2.463	16.2	19.8
4 11	15 28.93	-12 51.7	2.655	3.543	8.7	21.8	4 11	15 32.44	-3 32.9	1.553	2.451	13.1	19.6
4 21	15 22.99	-12 12.6	2.593	3.548	5.9	21.6	4 21	15 26.12	-3 18.8	1.488	2.440	9.6	19.3
5 1	15 15.91	-11 31.7	2.559	3.554	3.1	21.4	5 1	15 17.70	-3 13.3	1.446	2.430	6.6	19.1
5 11	15 8.30	-10 52.0	2.554	3.559	2.0	21.3	5 11	15 8.15	-3 20.7	1.429	2.420	6.0	19.1
5 21	15 0.81	-10 16.4	2.578	3.563	4.4	21.5	5 21	14 58.59	-3 43.8	1.437	2.410	8.6	19.2
5 31	14 54.08	-9 47.8	2.631	3.567	7.3	21.7	5 31	14 50.20	-4 23.8	1.470	2.401	12.3	19.4
6 10	14 48.62	-9 28.2	2.708	3.570	9.9	21.9	6 10	14 43.88	-5 19.6	1.525	2.392	15.9	19.6
361147	2006 <i>HN</i> ₈₇		5 10.2 13 ^o 87	1 ^o 5/ 9.4	17		297677	2001 <i>UG</i> ₁₃₅		5 10.2 233 ^o 20	1 ^o 4/ 9.1	18	
4 1	15 31.58	-17 25.3	1.109	1.959	20.5	20.6	4 1	15 33.55	-14 45.5	2.445	3.245	12.2	21.0
4 11	15 29.96	-16 56.0	1.044	1.962	16.2	20.3	4 11	15 29.52	-14 25.5	2.348	3.238	9.6	20.8
4 21	15 24.90	-16 14.0	0.997	1.965	11.1	20.1	4 21	15 23.62	-14 0.6	2.274	3.230	6.5	20.6
5 1	15 17.17	-15 22.9	0.971	1.970	5.4	19.7	5 1	15 16.31	-13 32.8	2.227	3.223	3.3	20.4
5 11	15 8.17	-14 29.1	0.967	1.976	1.8	19.5	5 11	15 8.29	-13 4.7	2.208	3.215	1.5	20.3
5 21	14 59.46	-13 39.9	0.986	1.983	7.1	19.9	5 21	15 0.29	-12 39.0	2.217	3.207	4.5	20.5
5 31	14 52.51	-13 2.7	1.027	1.991	12.6	20.2	5 31	14 53.09	-12 18.9	2.254	3.199	7.9	20.6
6 10	14 48.37	-12 42.2	1.087	1.999	17.3	20.5	6 10	14 47.32	-12 6.8	2.315	3.190	10.9	20.8
178257	2007 <i>VZ</i> ₁₁₆		5 10.2 315 ^o 64	4 ^o 6/12.5	17		148920	2001 <i>XB</i> ₅₄		5 10.2 152 ^o 31	2 ^o 0/ 8.6	18	
4 1	15 34.84	-28 11.1	1.397	2.201	19.5	20.0	4 1	15 33.74	-12 12.0	2.690	3.487	11.3	21.5
4 11	15 32.48	-28 34.1	1.308	2.190	16.1	19.8	4 11	15 29.35	-11 49.8	2.605	3.493	8.8	21.3
4 21	15 26.74	-28 39.8	1.236	2.179	12.1	19.5	4 21	15 23.32	-11 24.8	2.544	3.499	6.0	21.1
5 1	15 18.19	-28 25.1	1.185	2.169	7.8	19.2	5 1	15 16.09	-10 59.2	2.510	3.504	3.2	20.9
5 11	15 8.07	-27 49.8	1.157	2.159	4.7	19.0	5 11	15 8.32	-10 35.3	2.506	3.510	2.1	20.9
5 21	14 57.88	-26 57.3	1.153	2.149	6.6	19.1	5 21	15 0.66	-10 15.8	2.530	3.514	4.5	21.0
5 31	14 49.23	-25 55.0	1.173	2.140	11.0	19.3	5 31	14 53.76	-10 2.9	2.582	3.519	7.4	21.2
6 10	14 43.33	-24 52.5	1.214	2.131	15.6	19.5	6 10	14 48.16	-9 58.1	2.659	3.523	10.0</	

EPHEMERIDES

5 10.2

5 10.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
467109	2016 <i>ET</i> ₆₀		5 10.2	34°05'	0°1'/10.2	17	237044	2008 <i>SW</i> ₁₂₀		5 10.2	237°81'	3°1'/11.6	16
4 1	15 35.97	-18 39.1	1.258	2.090	19.7	21.0	4 1	15 40.93	-24 26.8	1.541	2.337	18.3	20.7
4 11	15 33.06	-18 41.5	1.193	2.099	15.6	20.7	4 11	15 36.95	-24 54.2	1.448	2.328	15.0	20.5
4 21	15 26.83	-18 33.7	1.146	2.108	10.7	20.5	4 21	15 29.65	-25 9.7	1.374	2.320	10.9	20.2
5 1	15 18.08	-18 16.7	1.121	2.119	5.3	20.2	5 1	15 19.62	-25 10.8	1.322	2.311	6.4	19.9
5 11	15 8.14	-17 53.6	1.120	2.130	0.5	19.9	5 11	15 8.02	-24 57.3	1.296	2.301	3.1	19.7
5 21	14 58.51	-17 29.1	1.143	2.141	6.1	20.3	5 21	14 56.31	-24 31.4	1.295	2.292	5.9	19.8
5 31	14 50.59	-17 8.7	1.189	2.153	11.2	20.6	5 31	14 46.04	-23 58.4	1.320	2.281	10.6	20.1
6 10	14 45.39	-16 57.1	1.256	2.166	15.7	20.9	6 10	14 38.38	-23 25.6	1.367	2.271	15.1	20.3
415984	2001 <i>YH</i> ₁₃₃		5 10.2	26°89'	12°3'/22.6	17	380439	2003 <i>SG</i> ₂₂₈		5 10.2	163°37'	2°9'/7.6	18
4 1	15 37.87	-52 14.2	1.422	2.108	24.2	19.3	4 1	15 33.40	-12 38.9	2.359	3.164	12.5	21.3
4 11	15 35.54	-52 16.6	1.353	2.122	21.9	19.1	4 11	15 29.31	-11 33.9	2.275	3.168	9.7	21.1
4 21	15 28.83	-51 39.6	1.296	2.136	19.1	19.0	4 21	15 23.40	-10 23.2	2.215	3.172	6.7	20.9
5 1	15 19.00	-50 15.8	1.255	2.151	16.1	18.8	5 1	15 16.17	-9 10.7	2.182	3.175	3.8	20.8
5 11	15 8.07	-48 3.4	1.234	2.168	13.6	18.7	5 11	15 8.35	-8 1.1	2.178	3.178	3.1	20.7
5 21	14 58.11	-45 9.0	1.236	2.185	12.3	18.7	5 21	15 0.68	-6 59.0	2.203	3.180	5.7	20.9
5 31	14 50.75	-41 47.1	1.261	2.203	12.9	18.8	5 31	14 53.89	-6 8.4	2.255	3.182	8.8	21.1
6 10	14 46.82	-38 16.9	1.311	2.222	15.1	19.0	6 10	14 48.56	-5 32.0	2.331	3.184	11.6	21.3
55464	2001 <i>TG</i> ₁₆₅		5 10.2	358°67'	5°4'/7.8	18	31554	1999 <i>EJ</i> ₂		5 10.2	340°97'	6°1'/5.5	18
4 1	15 36.92	-5 20.4	1.579	2.404	16.6	18.6	4 1	15 30.80	-9 1.7	1.567	2.404	16.2	16.8
4 11	15 33.07	-4 59.9	1.503	2.403	13.3	18.4	4 11	15 28.26	-7 18.6	1.491	2.400	12.8	16.5
4 21	15 26.50	-4 41.9	1.447	2.402	9.6	18.1	4 21	15 23.19	-5 28.3	1.437	2.396	9.2	16.3
5 1	15 17.85	-4 31.0	1.415	2.402	6.3	17.9	5 1	15 16.22	-3 38.8	1.406	2.393	6.5	16.1
5 11	15 8.16	-4 31.6	1.408	2.402	5.6	17.9	5 11	15 8.34	-1 59.7	1.402	2.390	6.7	16.1
5 21	14 58.61	-4 46.5	1.426	2.402	8.3	18.1	5 21	15 0.63	-0 39.2	1.423	2.387	9.6	16.3
5 31	14 50.35	-5 17.1	1.469	2.403	12.1	18.3	5 31	14 54.12	+0 16.9	1.467	2.385	13.3	16.5
6 10	14 44.25	-6 2.8	1.533	2.404	15.7	18.5	6 10	14 49.62	+0 46.5	1.532	2.383	16.7	16.7
334773	2003 <i>SR</i> ₉₆		5 10.2	262°29'	2°5'/11.9	18	65566	3022 <i>T-2</i>		5 10.2	183°39'	3°7'/6.7	18
4 1	15 35.76	-26 52.6	2.222	2.994	14.1	20.5	4 1	15 31.91	-7 10.5	2.773	3.576	10.8	20.3
4 11	15 31.81	-26 45.5	2.108	2.974	11.6	20.3	4 11	15 27.88	-6 18.5	2.687	3.576	8.6	20.1
4 21	15 25.52	-26 25.2	2.015	2.953	8.5	20.1	4 21	15 22.31	-5 25.3	2.626	3.576	6.1	19.9
5 1	15 17.38	-25 50.9	1.947	2.933	5.1	19.8	5 1	15 15.63	-4 34.4	2.592	3.576	4.1	19.8
5 11	15 8.21	-25 3.7	1.906	2.911	2.5	19.6	5 11	15 8.43	-3 49.4	2.587	3.575	3.9	19.8
5 21	14 58.96	-24 6.6	1.894	2.889	4.5	19.7	5 21	15 1.32	-3 13.5	2.610	3.573	5.8	19.9
5 31	14 50.64	-23 4.9	1.909	2.867	8.1	19.9	5 31	14 54.91	-2 49.1	2.660	3.572	8.3	20.1
6 10	14 44.07	-22 4.3	1.949	2.845	11.6	20.0	6 10	14 49.71	-2 37.4	2.735	3.570	10.6	20.2
1188	Gothlandia		5 10.2	229°81'	2°4'/11.4	18 R	359655	2011 <i>SR</i> ₃₅		5 10.2	248°20'	3°3'/8.2	17
4 1	15 41.29	-23 53.0	1.728	2.515	17.0	15.7	4 1	15 37.43	-13 21.0	1.627	2.446	16.5	21.4
4 11	15 36.85	-24 7.6	1.628	2.505	13.8	15.4	4 11	15 33.70	-12 29.8	1.530	2.430	13.1	21.1
4 21	15 29.37	-24 10.7	1.548	2.493	9.9	15.2	4 21	15 27.13	-11 29.7	1.454	2.414	9.1	20.8
5 1	15 19.41	-24 0.7	1.491	2.481	5.6	14.9	5 1	15 18.29	-10 24.7	1.403	2.398	5.0	20.6
5 11	15 8.03	-23 37.9	1.461	2.468	2.4	14.7	5 11	15 8.19	-9 20.7	1.377	2.380	3.6	20.4
5 21	14 56.54	-23 4.9	1.458	2.454	5.4	14.8	5 21	14 58.02	-8 24.3	1.378	2.363	7.4	20.6
5 31	14 46.30	-22 27.1	1.481	2.440	9.9	15.0	5 31	14 49.04	-7 41.6	1.404	2.344	12.0	20.8
6 10	14 38.42	-21 50.9	1.527	2.425	14.2	15.2	6 10	14 42.25	-7 16.7	1.451	2.325	16.1	21.0
77845	2001 <i>QR</i> ₂₇₉		5 10.2	110°19'	5°7'/5.9	18	503172	2015 <i>GE</i> ₄₀		5 10.2	97°86'	2°5'/8.5	17
4 1	15 33.19	-2 33.0	2.219	3.030	12.9	19.1	4 1	15 34.42	-12 22.5	2.004	2.816	14.1	21.1
4 11	15 29.22	-1 41.1	2.146	3.035	10.4	18.9	4 11	15 30.51	-11 52.8	1.924	2.821	11.0	20.9
4 21	15 23.36	-0 51.8	2.097	3.041	7.8	18.8	4 21	15 24.43	-11 19.0	1.867	2.826	7.6	20.7
5 1	15 16.16	-0 9.5	2.073	3.046	5.9	18.7	5 1	15 16.76	-10 44.1	1.835	2.830	4.0	20.4
5 11	15 8.34	+0 21.1	2.076	3.052	5.9	18.7	5 11	15 8.34	-10 12.0	1.831	2.835	2.7	20.4
5 21	15 0.68	+0 37.1	2.106	3.057	7.8	18.8	5 21	15 0.07	-9 46.1	1.854	2.840	5.7	20.6
5 31	14 53.94	+0 36.7	2.161	3.062	10.4	19.0	5 31	14 52.84	-9 29.8	1.903	2.844	9.3	20.8
6 10	14 48.70	+0 20.1	2.238	3.067	12.9	19.1	6 10	14 47.33	-9 25.0	1.975	2.849	12.5	21.0
416795	2005 <i>GL</i> ₈₈		5 10.2	291°54'	3°4'/11.5	17	323387	2003 <i>YE</i> ₇₄		5 10.2	210°31'	2°0'/11.6	15
4 1	15 38.56	-23 58.5	1.575	2.375	17.8	21.1	4 1	15 39.57	-25 10.8	2.152	2.924	14.5	22.4
4 11	15 35.22	-24 38.3	1.470	2.353	14.6	20.8	4 11	15 34.76	-25 6.1	2.049	2.916	11.8	22.2
4 21	15 28.62	-25 8.8	1.383	2.330	10.8	20.5	4 21	15 27.50	-24 49.3	1.968	2.908	8.5	22.0
5 1	15 19.22	-25 27.1	1.320	2.308	6.4	20.2	5 1	15 18.35	-24 19.9	1.911	2.899	4.8	21.7
5 11	15 8.03	-25 31.9	1.281	2.285	3.4	20.0	5 11	15 8.19	-23 39.0	1.883	2.890	2.0	21.5
5 21	14 56.47	-25 24.0	1.267	2.263	6.1	20.1	5 21	14 58.05	-22 49.9	1.883	2.879	4.5	21.7
5 31	14 46.08	-25 7.3	1.278	2.241	10.8	20.3	5 31	14 48.96	-21 57.6	1.911	2.867	8.2	21.9
6 10	14 38.20	-24 48.2	1.312	2.219	15.4	20.5	6 10	14 41.75	-21 7.6	1.964	2.855	11.8	22.1
497889	2006 <i>UU</i> ₂₇₅		5 10.2	196°76'	0°6'/9.8	17	14281	2000 <i>CR</i> ₉₂		5 10.2	252°09'	1°5'/9.1	18
4 1	15 38.32	-17 32.6	2.114	2.907	14.1	23.2	4 1	15 33.89	-15 8.3	2.165	2.970	13.4	18.2
4 11	15 33.60	-17 16.7	2.020	2.905	11.1	23.0	4 11	15 30.08	-14 44.2	2.070	2.962	10.6	18.0
4 21	15 26.59	-16 53.5	1.947	2.901	7.6	22.8	4 21	15 24.18	-14 14.2	1.997	2.955	7.2	17.8
5 1	15 17.84	-16 24.3	1.901	2.897	3.7	22.6	5 1	15 16.67	-13 40.4	1.950	2.947	3.6	17.5
5 11	15 8.19	-15 51.7	1.883	2.893	0.8	22.3	5 11	15 8.35	-13 5.9	1.931	2.938	1.7	17.4
5 21	14 58.61	-15 19.1	1.893	2.887	4.7	22.6	5 21	15 0.06	-12 34.3	1.939	2.930	5.0	17.6
5 31	14 50.04	-14 50.4	1.931	2.881	8.6	22.8	5 31	14 52.67	-12 9.2	1.975	2.922	8.7	17.8
6 10	14 43.25	-14 29.2	1.994	2.874	12.1	23.0	6 10	14 46.89	-11 53.4	2.034	2.913	12.0	18.0
163174	2002 <i>CX</i> ₂₃₆		5 10.2	74°30'	14°3'/29.4	18	367914	2012 <i>BX</i> ₁₁₂		5 10.2	74°79'	2°0'/9.1	17
4 1	1												

EPHEMERIDES

5 10.2

5 10.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
199178	2005 <i>YY</i> ₂₂₀		5 10.2 107°14	3°8/12.4	18		401843	1999 <i>VH</i> ₈₈		5 10.2 239°09	0°2/ 9.9	16	
4 1	15 39.01	-28 18.2	1.473	2.265	19.2	20.3	4 1	15 29.16	-18 4.2	4.036	4.816	8.1	23.1
4 11	15 35.30	-28 21.9	1.397	2.272	15.7	20.1	4 11	15 25.38	-17 46.9	3.923	4.800	6.4	23.0
4 21	15 28.33	-28 7.1	1.338	2.280	11.6	19.8	4 21	15 20.47	-17 25.2	3.834	4.785	4.4	22.8
5 1	15 18.85	-27 32.0	1.302	2.287	7.1	19.6	5 1	15 14.73	-16 59.9	3.774	4.769	2.1	22.6
5 11	15 8.16	-26 38.3	1.290	2.293	3.9	19.4	5 11	15 8.56	-16 32.7	3.743	4.753	0.3	22.4
5 21	14 57.74	-25 31.1	1.304	2.300	5.9	19.6	5 21	15 2.40	-16 5.2	3.743	4.736	2.6	22.6
5 31	14 49.01	-24 18.5	1.343	2.307	10.2	19.8	5 31	14 56.67	-15 39.3	3.772	4.720	4.9	22.8
6 10	14 42.95	-23 9.7	1.404	2.313	14.4	20.1	6 10	14 51.76	-15 16.8	3.829	4.703	7.0	22.9
128577	2004 <i>PO</i> ₁₀₄		5 10.2 259°33	7°3/ 5.1	18		350976	2003 <i>FY</i> ₁₉		5 10.2 337°49	9°3/ 5.2	17	
4 1	15 36.53	+ 6 41.9	2.566	3.348	12.2	19.8	4 1	15 34.28	+ 6 13.8	1.832	2.642	15.3	19.8
4 11	15 31.66	+ 7 12.1	2.479	3.338	10.3	19.6	4 11	15 30.66	+ 6 54.4	1.754	2.630	13.0	19.6
4 21	15 25.00	+ 7 34.0	2.415	3.327	8.5	19.5	4 21	15 24.71	+ 7 24.5	1.696	2.619	10.8	19.4
5 1	15 17.00	+ 7 43.0	2.376	3.315	7.4	19.4	5 1	15 16.98	+ 7 37.6	1.661	2.609	9.4	19.3
5 11	15 8.33	+ 7 35.7	2.364	3.304	7.6	19.4	5 11	15 8.35	+ 7 28.5	1.650	2.599	9.6	19.3
5 21	14 59.72	+ 7 10.4	2.378	3.293	8.9	19.5	5 21	14 59.80	+ 6 54.8	1.663	2.590	11.3	19.4
5 31	14 51.89	+ 6 27.0	2.418	3.281	10.9	19.6	5 31	14 52.29	+ 5 56.7	1.700	2.582	13.7	19.5
6 10	14 45.43	+ 5 27.0	2.482	3.269	12.9	19.7	6 10	14 46.61	+ 4 37.2	1.757	2.574	16.3	19.7
285843	2001 <i>FM</i> ₈₇		5 10.2 56°92	5°5/ 7.2	18		134690	1999 <i>XP</i> ₆₁		5 10.2 230°48	0°5/ 9.6	18	
4 1	15 35.31	- 8 52.0	1.378	2.215	18.0	20.5	4 1	15 28.70	-16 53.5	4.015	4.798	8.1	21.2
4 11	15 31.91	- 7 46.6	1.322	2.230	14.2	20.3	4 11	15 25.01	-16 34.4	3.906	4.787	6.3	21.0
4 21	15 25.68	- 6 38.5	1.285	2.246	10.0	20.0	4 21	15 20.20	-16 11.3	3.823	4.775	4.3	20.9
5 1	15 17.41	- 5 34.4	1.272	2.262	6.3	19.9	5 1	15 14.59	-15 45.4	3.768	4.764	2.1	20.7
5 11	15 8.31	- 4 41.7	1.283	2.278	5.8	19.9	5 11	15 8.58	-15 18.1	3.742	4.751	0.6	20.6
5 21	14 59.61	- 4 6.0	1.319	2.295	8.9	20.1	5 21	15 2.58	-14 51.3	3.747	4.739	2.7	20.7
5 31	14 52.45	- 3 50.9	1.379	2.312	12.7	20.4	5 31	14 57.02	-14 26.7	3.781	4.727	5.0	20.9
6 10	14 47.61	- 3 56.6	1.458	2.329	16.3	20.6	6 10	14 52.28	-14 6.1	3.842	4.714	7.0	21.0
308378	2005 <i>RR</i> ₃₁		5 10.2 196°98	7°9/18.7	18		323721	2005 <i>JX</i> ₅₁		5 10.2 295°38	1°6/ 9.3	17	
4 1	15 43.00	-50 33.1	3.458	4.058	12.3	22.2	4 1	15 34.17	-16 25.7	1.532	2.356	17.1	20.8
4 11	15 37.23	-51 22.0	3.355	4.054	11.2	22.1	4 11	15 31.45	-15 58.4	1.432	2.335	13.6	20.5
4 21	15 29.10	-51 55.4	3.269	4.050	10.0	22.0	4 21	15 25.81	-15 21.0	1.351	2.313	9.4	20.2
5 1	15 19.12	-52 9.8	3.205	4.045	8.9	21.9	5 1	15 17.75	-14 35.8	1.294	2.292	4.7	19.9
5 11	15 8.15	-52 2.8	3.164	4.040	8.1	21.8	5 11	15 8.28	-13 47.0	1.262	2.270	1.9	19.6
5 21	14 57.17	-51 34.4	3.149	4.034	7.9	21.8	5 21	14 58.64	-13 0.5	1.255	2.249	6.5	19.8
5 31	14 47.20	-50 46.9	3.158	4.028	8.4	21.8	5 31	14 50.18	-12 22.4	1.272	2.228	11.6	20.1
6 10	14 39.04	-49 45.1	3.193	4.021	9.4	21.9	6 10	14 43.99	-11 57.8	1.311	2.207	16.1	20.3
428292	2007 <i>EX</i> ₁₃₇		5 10.2 329°98	4°1/11.5	17		300011	2006 <i>UC</i> ₆₈		5 10.2 131°27	1°8/ 8.8	18	
4 1	15 38.35	-23 34.4	1.521	2.325	18.2	20.3	4 1	15 34.86	-11 58.9	2.706	3.500	11.3	21.3
4 11	15 35.07	-24 40.1	1.428	2.312	14.9	20.0	4 11	15 30.21	-11 45.2	2.625	3.512	8.8	21.1
4 21	15 28.51	-25 38.8	1.354	2.301	11.0	19.8	4 21	15 23.91	-11 29.2	2.568	3.522	6.0	21.0
5 1	15 19.17	-26 26.9	1.303	2.290	6.8	19.5	5 1	15 16.44	-11 12.9	2.539	3.533	3.2	20.8
5 11	15 8.13	-27 1.7	1.277	2.279	4.1	19.3	5 11	15 8.43	-10 58.3	2.538	3.543	2.0	20.7
5 21	14 56.84	-27 22.5	1.275	2.270	6.4	19.4	5 21	15 0.55	-10 47.7	2.567	3.553	4.4	20.9
5 31	14 46.85	-27 32.0	1.299	2.261	10.7	19.6	5 31	14 53.46	-10 42.9	2.624	3.562	7.2	21.1
6 10	14 39.44	-27 35.6	1.344	2.252	15.0	19.8	6 10	14 47.68	-10 45.4	2.706	3.571	9.8	21.3
24192	1999 <i>XM</i> ₃₀		5 10.2 125°02	3°8/ 7.4	18		308409	2005 <i>SY</i> ₉₃		5 10.2 212°65	0°3/ 9.9	16	
4 1	15 35.96	- 7 14.7	2.339	3.142	12.6	18.5	4 1	15 32.59	-18 20.7	2.645	3.436	11.6	21.8
4 11	15 31.24	- 6 38.2	2.267	3.156	9.9	18.3	4 11	15 28.66	-18 1.8	2.548	3.432	9.2	21.6
4 21	15 24.67	- 6 1.6	2.219	3.170	7.0	18.2	4 21	15 22.99	-17 36.3	2.475	3.429	6.3	21.4
5 1	15 16.80	- 5 28.3	2.198	3.184	4.5	18.0	5 1	15 16.04	-17 5.6	2.429	3.425	3.0	21.2
5 11	15 8.37	- 5 1.8	2.204	3.197	4.0	18.0	5 11	15 8.46	-16 31.9	2.411	3.421	0.5	21.0
5 21	15 0.15	- 4 44.9	2.239	3.209	6.2	18.2	5 21	15 0.93	-15 57.9	2.422	3.416	3.8	21.2
5 31	14 52.86	- 4 39.6	2.301	3.221	8.9	18.4	5 31	14 54.16	-15 26.9	2.461	3.412	7.0	21.4
6 10	14 47.07	- 4 46.6	2.387	3.233	11.6	18.5	6 10	14 48.72	-15 1.8	2.526	3.407	9.8	21.6
241746	2000 <i>YY</i> ₈₄		5 10.2 142°57	3°8/ 7.8	18		305452	2008 <i>CD</i> ₂₁₄		5 10.2 47°83	5°8/13.4	17	
4 1	15 39.07	- 9 39.3	1.930	2.737	14.7	21.0	4 1	15 40.22	-31 52.8	2.108	2.856	15.5	20.0
4 11	15 34.11	- 8 55.9	1.857	2.749	11.6	20.9	4 11	15 35.50	-32 59.5	2.028	2.868	13.0	19.9
4 21	15 26.85	- 8 9.8	1.806	2.761	8.1	20.7	4 21	15 28.14	-33 53.8	1.969	2.880	10.2	19.7
5 1	15 17.93	- 7 25.2	1.781	2.771	4.8	20.5	5 1	15 18.72	-34 32.0	1.934	2.893	7.5	19.6
5 11	15 8.27	- 6 46.5	1.783	2.781	4.0	20.4	5 11	15 8.22	-34 52.0	1.925	2.905	5.8	19.5
5 21	14 58.86	- 6 17.9	1.813	2.790	6.8	20.6	5 21	14 57.78	-34 54.2	1.942	2.918	6.5	19.6
5 31	14 50.62	- 6 2.2	1.870	2.799	10.2	20.8	5 31	14 48.53	-34 41.8	1.987	2.931	8.7	19.7
6 10	14 44.26	- 6 1.0	1.950	2.806	13.4	21.1	6 10	14 41.36	-34 20.5	2.055	2.945	11.4	19.9
159269	2005 <i>YP</i> ₂₀₃		5 10.2 337°34	4°3/ 7.8	18		362618	2011 <i>SD</i> ₃₂		5 10.2 158°47	1°5/10.9	16	
4 1	15 34.20	- 8 47.5	1.689	2.515	15.7	19.9	4 1	15 41.70	-20 54.1	1.607	2.406	17.5	21.3
4 11	15 30.82	- 8 13.8	1.608	2.511	12.4	19.7	4 11	15 37.12	-21 15.1	1.524	2.410	14.1	21.0
4 21	15 24.92	- 7 38.3	1.549	2.507	8.8	19.4	4 21	15 29.48	-21 27.0	1.462	2.413	9.9	20.8
5 1	15 17.11	- 7 5.3	1.513	2.504	5.3	19.2	5 1	15 19.45	-21 28.9	1.423	2.416	5.2	20.5
5 11	15 8.34	- 6 39.5	1.503	2.501	4.5	19.2	5 11	15 8.16	-21 21.5	1.410	2.419	1.5	20.3
5 21	14 59.66	- 6 25.1	1.519	2.499	7.5	19.3	5 21	15 8.97	-21 7.3	1.423	2.421	5.3	20.5
5 31	14 52.14	- 6 25.0	1.559	2.496	11.3	19.5	5 31	14 47.22	-20 50.7	1.463	2.423	10.0	20.8
6 10	14 46.61	- 6 40.4	1.622	2.494	14.8	19.8	6 10	14 39.92	-20 37.0	1.526	2.424	14.1	21.0
299261	2005 <i>NM</i> ₄₈		5 10.2 244°07	4°4/ 6.6	18		500863	2013 <i>JZ</i> ₂₃					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
246793	2009 <i>DH</i> ₁₁₀		5 10.2	82°39'	3°0'	11.9	18						
4 1	15 40.37	-26 18.0	1.485	2.280	18.9	20.6							
4 11	15 36.10	-26 22.9	1.420	2.299	15.3	20.4							
4 21	15 28.68	-26 11.5	1.373	2.318	11.0	20.2							
5 1	15 18.95	-25 42.9	1.349	2.337	6.4	20.0							
5 11	15 8.21	-24 59.2	1.350	2.355	3.1	19.8							
5 21	14 57.90	-24 5.3	1.377	2.374	5.5	20.0							
5 31	14 49.32	-23 8.5	1.429	2.392	9.8	20.3							
6 10	14 43.33	-22 16.2	1.504	2.410	13.8	20.6							
189756	2002 <i>AN</i> ₅₃		5 10.2	143°93'	12°2'	30.8	17						
4 1	15 35.40	+14 13.5	1.936	2.718	15.6	20.0							
4 11	15 31.28	+15 48.2	1.882	2.721	13.9	19.8							
4 21	15 24.95	+17 8.0	1.849	2.724	12.6	19.8							
5 1	15 17.02	+18 4.7	1.838	2.726	12.2	19.7							
5 11	15 8.38	+18 32.3	1.849	2.728	12.7	19.8							
5 21	14 59.98	+18 28.1	1.882	2.730	14.0	19.9							
5 31	14 52.69	+17 52.8	1.935	2.732	15.7	20.0							
6 10	14 47.20	+16 50.3	2.006	2.734	17.4	20.1							
154580	2003 <i>HT</i> ₅₅		5 10.2	139°41'	0°7'	9.7	17						
4 1	15 36.25	-17 53.8	1.912	2.716	15.0	21.4							
4 11	15 32.14	-17 30.9	1.830	2.721	11.8	21.2							
4 21	15 25.66	-16 59.6	1.770	2.726	8.1	21.0							
5 1	15 17.42	-16 21.7	1.734	2.731	3.9	20.7							
5 11	15 8.34	-15 40.6	1.726	2.735	0.9	20.5							
5 21	14 59.44	-15 0.5	1.745	2.740	4.9	20.8							
5 31	14 51.67	-14 25.7	1.791	2.744	9.0	21.1							
6 10	14 45.80	-14 0.1	1.861	2.748	12.6	21.3							
116453	2004 <i>AV</i> ₁		5 10.2	70°63'	1°8'	8.7	18						
4 1	15 34.11	-16 57.6	1.967	2.775	14.5	19.5							
4 11	15 30.12	-15 53.9	1.903	2.798	11.2	19.3							
4 21	15 24.03	-14 41.5	1.862	2.820	7.6	19.1							
5 1	15 16.51	-13 24.4	1.846	2.843	3.7	18.9							
5 11	15 8.43	-12 8.1	1.859	2.865	2.0	18.9							
5 21	15 0.70	-10 58.0	1.899	2.887	5.3	19.1							
5 31	14 54.12	-9 59.0	1.966	2.910	8.9	19.4							
6 10	14 49.29	-9 14.5	2.057	2.932	12.1	19.6							
250760	2005 <i>SR</i> ₂₂₀		5 10.2	220°43'	3°4'	13.2	18						
4 1	15 34.41	-30 41.8	2.729	3.476	12.4	21.1							
4 11	15 30.26	-30 48.1	2.626	3.471	10.2	21.0							
4 21	15 24.18	-30 42.5	2.544	3.465	7.8	20.8							
5 1	15 16.67	-30 23.8	2.488	3.459	5.2	20.6							
5 11	15 8.42	-29 52.6	2.459	3.453	3.5	20.5							
5 21	15 0.20	-29 10.8	2.458	3.446	4.3	20.5							
5 31	14 52.82	-28 22.1	2.486	3.440	6.7	20.7							
6 10	14 46.90	-27 31.2	2.539	3.433	9.4	20.8							
162300	1999 <i>VY</i> ₁₈₀		5 10.2	97°76'	9°6'	3.0	18						
4 1	15 36.88	-8 34.1	1.129	1.977	20.4	19.1							
4 11	15 33.68	-5 22.5	1.075	1.988	16.2	18.8							
4 21	15 27.14	-2 0.3	1.042	2.000	12.1	18.6							
5 1	15 18.20	+1 15.3	1.034	2.011	9.7	18.5							
5 11	15 8.30	+4 5.8	1.050	2.022	10.8	18.6							
5 21	14 58.92	+6 17.4	1.090	2.033	14.2	18.8							
5 31	14 51.40	+7 43.4	1.151	2.044	18.0	19.1							
6 10	14 46.59	+8 25.3	1.229	2.054	21.5	19.4							
300042	2006 <i>UY</i> ₁₃₅		5 10.2	9°59'	2°3'	8.4	17						
4 1	15 29.95	-15 27.7	1.819	2.642	14.8	20.1							
4 11	15 27.28	-14 30.7	1.741	2.644	11.6	19.9							
4 21	15 22.37	-13 24.9	1.684	2.646	7.9	19.7							
5 1	15 15.83	-12 14.4	1.652	2.649	4.0	19.5							
5 11	15 8.52	-11 4.8	1.647	2.653	2.6	19.4							
5 21	15 1.38	-10 1.8	1.668	2.657	6.0	19.6							
5 31	14 55.32	-9 10.6	1.715	2.661	9.8	19.8							
6 10	14 51.03	-8 34.8	1.785	2.666	13.3	20.1							
145761	1997 <i>ES</i> ₂₄		5 10.2	202°33'	4°1'	6.6	18						
4 1	15 32.64	-5 1.2	2.713	3.515	11.1	21.2							
4 11	15 28.54	-4 20.2	2.625	3.512	8.8	21.0							
4 21	15 22.83	-3 39.8	2.562	3.509	6.4	20.9							
5 1	15 15.95	-3 3.3	2.525	3.505	4.5	20.7							
5 11	15 8.51	-2 34.1	2.516	3.501	4.4	20.7							
5 21	15 1.13	-2 14.9	2.536	3.496	6.2	20.8							
5 31	14 54.47	-2 7.7	2.583	3.491	8.6	21.0							
6 10	14 49.03	-2 13.1	2.653	3.486	10.9	21.1							
315455	2007 <i>XY</i> ₂₀		5 10.2	160°95'	0°6'	9.8	17						
4 1	15 39.43	-17 38.2	1.917	2.715	15.2	21.7							
4 11	15 34.65	-17 22.6	1.833	2.721	12.0	21.5							
4 21	15 27.40	-16 59.1	1.771	2.726	8.2	21.3							
5 1	15 18.30	-16 29.3	1.735	2.731	4.0	21.0							
5 11	15 8.31	-15 56.0	1.725	2.735	0.8	20.8							
5 21	14 58.48	-15 23.0	1.744	2.738	5.0	21.1							
5 31	14 49.83	-14 54.5	1.790	2.741	9.1	21.4							
6 10	14 43.16	-14 34.3	1.860	2.743	12.7	21.6							
157636	2005 <i>WT</i> ₂₀₂		5 10.2	98°25'	6°9'	6.5	17						
4 1	15 38.23	+0 21.4	1.901	2.708	14.9	20.0							
4 11	15 33.41	+1 0.9	1.838	2.721	12.1	19.8							
4 21	15 26.35	+1 34.2	1.796	2.734	9.3	19.7							
5 1	15 17.70	+1 56.2	1.779	2.747	7.3	19.6							
5 11	15 8.37	+2 2.5	1.789	2.760	7.2	19.6							
5 21	14 59.32	+1 50.9	1.824	2.772	9.0	19.7							
5 31	14 51.44	+1 21.0	1.885	2.785	11.7	19.9							
6 10	14 45.40	+0 34.4	1.968	2.797	14.3	20.1							
131000	2000 <i>WL</i> ₁₇₈		5 10.2	141°73'	4°5'	13.9	18						
4 1	15 36.98	-33 20.2	2.095	2.844	15.6	19.7							
4 11	15 32.82	-33 15.2	2.006	2.849	13.0	19.5							
4 21	15 26.18	-32 52.3	1.936	2.854	10.0	19.4							
5 1	15 17.71	-32 10.0	1.890	2.858	6.9	19.2							
5 11	15 8.37	-31 9.3	1.870	2.862	4.7	19.0							
5 21	14 59.24	-29 54.0	1.877	2.866	5.4	19.1							
5 31	14 51.35	-28 30.6	1.912	2.870	8.2	19.3							
6 10	14 45.47	-27 6.6	1.972	2.873	11.3								

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
259981	2004 <i>FM</i> ₄₂		5 10.2 55°56	1.2°/ 9.5	17		309094	2006 <i>VW</i> ₁₃₈		5 10.2 299°23	2.2°/ 8.9	18	
4 1	15 36.22	-16 49.3	1.454	2.278	17.9	21.1	4 1	15 35.10	-11 32.6	2.077	2.887	13.7	20.9
4 11	15 32.72	-16 26.5	1.388	2.291	14.0	20.9	4 11	15 31.27	-11 28.6	1.974	2.868	10.9	20.6
4 21	15 26.34	-15 54.8	1.343	2.304	9.5	20.7	4 21	15 25.19	-11 22.6	1.892	2.849	7.6	20.4
5 1	15 17.83	-15 16.8	1.320	2.317	4.6	20.4	5 1	15 17.32	-11 16.8	1.836	2.831	4.0	20.1
5 11	15 8.37	-14 37.1	1.322	2.331	1.5	20.2	5 11	15 8.44	-11 13.4	1.807	2.812	2.4	20.0
5 21	14 59.25	-14 0.7	1.350	2.345	6.0	20.6	5 21	14 59.46	-11 15.1	1.805	2.794	5.5	20.2
5 31	14 51.63	-13 32.6	1.403	2.359	10.6	20.9	5 31	14 51.33	-11 24.0	1.830	2.775	9.3	20.3
6 10	14 46.37	-13 16.7	1.477	2.374	14.6	21.1	6 10	14 44.86	-11 42.0	1.879	2.757	12.8	20.5
347094	2010 <i>GA</i> ₁₃₆		5 10.2 294°09	3.5°/ 7.4	17		352561	2008 <i>CW</i> ₂₁₄		5 10.2 312°26	5.4°/ 14.3	16	
4 1	15 31.61	-11 51.2	2.040	2.857	13.7	21.2	4 1	15 34.90	-34 28.4	2.278	3.019	14.7	20.7
4 11	15 28.35	-10 45.5	1.953	2.853	10.7	21.0	4 11	15 31.25	-34 55.0	2.179	3.013	12.4	20.5
4 21	15 23.01	-9 33.6	1.889	2.848	7.4	20.8	4 21	15 25.21	-35 6.7	2.100	3.007	9.9	20.3
5 1	15 16.14	-8 19.9	1.851	2.843	4.4	20.6	5 1	15 17.33	-35 0.9	2.044	3.001	7.3	20.2
5 11	15 8.52	-7 10.1	1.840	2.839	3.8	20.5	5 11	15 8.46	-34 36.9	2.014	2.995	5.6	20.1
5 21	15 1.00	-6 9.5	1.857	2.834	6.6	20.7	5 21	14 59.61	-33 56.3	2.011	2.990	6.0	20.1
5 31	14 54.42	-5 22.6	1.899	2.829	10.0	20.9	5 31	14 51.79	-33 3.4	2.034	2.984	8.2	20.2
6 10	14 49.47	-4 52.1	1.964	2.825	13.1	21.1	6 10	14 45.82	-32 4.4	2.081	2.979	10.9	20.3
59269	1999 <i>CL</i> ₃₆		5 10.2 299°04	4.3°/ 8.5	18		156517	2002 <i>CQ</i> ₂₁₆		5 10.2 289°66	3.4°/ 8.0	17	
4 1	15 36.79	-9 36.6	1.348	2.183	18.4	18.5	4 1	15 33.43	-11 37.7	1.804	2.625	15.0	19.9
4 11	15 33.91	-9 19.0	1.254	2.162	14.8	18.2	4 11	15 30.22	-10 54.7	1.710	2.611	11.9	19.7
4 21	15 27.76	-8 59.3	1.180	2.142	10.5	17.9	4 21	15 24.58	-10 6.2	1.637	2.597	8.3	19.4
5 1	15 18.84	-8 41.6	1.127	2.122	6.0	17.6	5 1	15 17.04	-9 15.9	1.589	2.583	4.7	19.2
5 11	15 8.26	-8 31.1	1.099	2.102	4.5	17.4	5 11	15 8.49	-8 29.1	1.567	2.569	3.7	19.1
5 21	14 57.44	-8 32.1	1.094	2.082	8.4	17.6	5 21	14 59.92	-7 50.6	1.572	2.555	6.9	19.2
5 31	14 47.92	-8 48.4	1.113	2.062	13.5	17.8	5 31	14 52.38	-7 25.0	1.602	2.542	10.8	19.4
6 10	14 40.95	-9 21.4	1.151	2.043	18.2	18.0	6 10	14 46.70	-7 15.0	1.654	2.528	14.5	19.6
167712	2004 <i>TB</i> ₂₀₅		5 10.2 213°79	0.7°/ 10.5	17		15283	1991 <i>RB</i> ₈		5 10.2 120°50	0.8°/ 10.6	18	
4 1	15 39.44	-19 34.1	1.558	2.367	17.6	20.6	4 1	15 42.00	-20 2.6	1.564	2.366	17.8	17.8
4 11	15 35.46	-19 42.2	1.473	2.365	14.1	20.3	4 11	15 37.28	-20 11.8	1.490	2.378	14.2	17.6
4 21	15 28.44	-19 41.2	1.407	2.363	9.8	20.0	4 21	15 29.52	-20 11.5	1.436	2.389	9.8	17.3
5 1	15 19.00	-19 31.0	1.365	2.360	5.0	19.8	5 1	15 19.46	-20 1.5	1.405	2.400	5.0	17.1
5 11	15 8.27	-19 13.5	1.348	2.357	0.7	19.4	5 11	15 8.30	-19 43.8	1.401	2.410	0.9	16.8
5 21	14 57.58	-18 51.9	1.357	2.355	5.5	19.8	5 21	14 57.38	-19 21.6	1.423	2.420	5.3	17.1
5 31	14 48.29	-18 31.0	1.392	2.352	10.3	20.0	5 31	14 48.00	-18 59.8	1.471	2.430	10.0	17.4
6 10	14 41.42	-18 15.9	1.449	2.348	14.6	20.3	6 10	14 41.10	-18 43.2	1.542	2.439	14.1	17.7
55265	2001 <i>RF</i> ₁₃₀		5 10.2 113°46	4.6°/ 6.3	18		4752	Myron		5 10.2 159°55	0.1°/ 10.2	18	
4 1	15 32.69	-5 46.2	2.353	3.163	12.3	19.8	4 1	15 34.10	-18 42.6	2.779	3.564	11.3	18.5
4 11	15 28.73	-4 46.1	2.282	3.173	9.8	19.6	4 11	15 29.71	-18 30.0	2.689	3.569	8.9	18.3
4 21	15 23.01	-3 45.9	2.234	3.184	7.1	19.5	4 21	15 23.66	-18 11.3	2.623	3.574	6.1	18.1
5 1	15 16.05	-2 50.1	2.213	3.194	5.0	19.4	5 1	15 16.40	-17 47.6	2.583	3.578	3.0	17.9
5 11	15 8.54	-2 3.1	2.220	3.204	4.9	19.4	5 11	15 8.56	-17 20.7	2.572	3.582	0.3	17.7
5 21	15 1.22	-1 28.4	2.254	3.213	6.9	19.5	5 21	15 0.83	-16 53.1	2.591	3.586	3.5	18.0
5 31	14 54.76	-1 8.4	2.315	3.223	9.5	19.7	5 31	14 53.84	-16 27.5	2.639	3.589	6.6	18.2
6 10	14 49.72	-1 3.7	2.398	3.232	11.9	19.9	6 10	14 48.16	-16 6.7	2.712	3.592	9.3	18.4
410383	2007 <i>VO</i> ₂₆₈		5 10.2 175°58	1.3°/ 9.4	16		169880	2002 <i>RG</i> ₁₄₃		5 10.2 233°19	0.1°/ 10.1	17	
4 1	15 38.99	-16 23.9	2.016	2.814	14.5	23.1	4 1	15 34.48	-19 12.9	2.294	3.087	13.1	20.9
4 11	15 34.18	-15 54.7	1.929	2.817	11.5	22.9	4 11	15 30.51	-18 55.0	2.195	3.080	10.4	20.7
4 21	15 27.02	-15 17.9	1.864	2.819	7.8	22.7	4 21	15 24.48	-18 29.0	2.119	3.072	7.2	20.5
5 1	15 18.12	-14 35.7	1.825	2.821	3.8	22.4	5 1	15 16.90	-17 56.0	2.068	3.064	3.5	20.2
5 11	15 8.36	-13 51.7	1.813	2.822	1.5	22.2	5 11	15 8.52	-17 18.5	2.045	3.055	0.3	20.0
5 21	14 58.75	-13 10.0	1.830	2.822	5.2	22.5	5 21	15 0.16	-16 39.9	2.051	3.047	4.2	20.3
5 31	14 50.24	-12 34.9	1.875	2.821	9.1	22.7	5 31	14 52.68	-16 3.9	2.085	3.038	7.9	20.5
6 10	14 43.58	-12 10.0	1.943	2.820	12.6	22.9	6 10	14 46.76	-15 34.4	2.143	3.029	11.2	20.7
208466	2001 <i>UW</i> ₇₁		5 10.2 305°32	0.2°/ 10.1	18		486686	2013 <i>TD</i> ₁₁₇		5 10.2 186°16	0.5°/ 10.9	17	
4 1	15 32.38	-19 28.9	2.018	2.823	14.3	20.5	4 1	15 25.91	-22 3.8	4.754	5.523	7.1	22.2
4 11	15 29.17	-19 6.2	1.921	2.812	11.3	20.3	4 11	15 22.71	-21 48.5	4.653	5.523	5.6	22.1
4 21	15 23.73	-18 33.9	1.846	2.802	7.8	20.0	4 21	15 18.59	-21 28.4	4.578	5.523	3.9	22.0
5 1	15 16.56	-17 53.4	1.796	2.793	3.8	19.8	5 1	15 13.84	-21 4.1	4.530	5.522	2.0	21.8
5 11	15 8.49	-17 7.7	1.773	2.783	0.4	19.5	5 11	15 8.78	-20 36.7	4.513	5.522	0.5	21.7
5 21	15 0.46	-16 21.1	1.777	2.773	4.6	19.8	5 21	15 3.77	-20 7.6	4.525	5.521	2.1	21.8
5 31	14 53.39	-15 38.1	1.808	2.764	8.7	20.0	5 31	14 59.15	-19 38.6	4.566	5.520	3.9	22.0
6 10	14 48.04	-15 3.2	1.862	2.755	12.3	20.2	6 10	14 55.21	-19 11.3	4.635	5.520	5.7	22.1
505395	2013 <i>QC</i> ₄		5 10.2 322°44	1.5°/ 10.9	17		396652	2002 <i>GU</i> ₁₈₉		5 10.2 52°98	3.5°/ 7.2	17	
4 1	15 32.44	-21 59.1	1.338	2.165	19.0	21.4	4 1	15 30.80	-9 49.7	2.370	3.182	12.2	21.5
4 11	15 30.61	-22 1.8	1.247	2.149	15.3	21.1	4 11	15 27.35	-8 54.2	2.289	3.185	9.5	21.3
4 21	15 25.52	-21 50.8	1.174	2.133	10.9	20.8	4 21	15 22.15	-7 55.6	2.231	3.187	6.7	21.2
5 1	15 17.74	-21 25.7	1.122	2.118	5.8	20.4	5 1	15 15.68	-6 57.7	2.200	3.190	4.1	21.0
5 11	15 8.38	-20 48.7	1.094	2.103	1.5	20.1	5 11	15 8.63	-6 4.9	2.197	3.192	3.7	21.0
5 21	14 58.91	-20 4.5	1.089	2.089	6.0	20.4	5 21	15 1.70	-5 21.1	2.221	3.195	6.0	21.1
5 31	14 50.84	-19 19.9	1.108	2.076	11.4	20.6	5 31	14 55.59	-4 49.4	2.273	3.197	8.8	21.3
6 10	14 45.39	-18 42.4	1.147	2.064	16.3	20.8	6 10	14 50.86	-4 31.5	2.347	3.200	11.5	21.5
83372	2001 <i>SP</i> ₅		5 10.2 289°31	1.6°/ 11.3	17		508531	2016 <i>RG</i> ₃₃		5 10.2 210°69	5.5°/		

EPHEMERIDES

5 10.2

5 10.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
214249	2005 <i>EQ</i> ₂₈₃		5 10.2 100°11	3°7/ 8.4 18			499182	2009 <i>SG</i> ₂₁₂		5 10.2 190°38	3°2/ 7.6 17		
4 1	15 38.97	- 9 51.2	1.569	2.390	16.9	20.2	4 1	15 35.17	-12 3.2	2.198	3.003	13.2	22.3
4 11	15 34.67	- 9 27.8	1.499	2.398	13.4	20.0	4 11	15 30.95	-11 0.9	2.110	3.002	10.4	22.1
4 21	15 27.61	- 9 2.6	1.448	2.407	9.3	19.7	4 21	15 24.71	- 9 52.8	2.045	3.001	7.2	21.9
5 1	15 18.49	- 8 39.2	1.422	2.415	5.3	19.5	5 1	15 16.99	- 8 42.9	2.007	2.999	4.1	21.7
5 11	15 8.40	- 8 22.1	1.422	2.423	4.0	19.4	5 11	15 8.54	- 7 36.2	1.997	2.996	3.5	21.6
5 21	14 58.55	- 8 14.8	1.447	2.432	7.2	19.7	5 21	15 0.21	- 6 37.5	2.015	2.993	6.1	21.8
5 31	14 50.09	- 8 20.0	1.498	2.439	11.3	19.9	5 31	14 52.82	- 5 51.2	2.061	2.989	9.4	22.0
6 10	14 43.88	- 8 38.8	1.570	2.447	15.0	20.2	6 10	14 47.02	- 5 19.8	2.130	2.985	12.5	22.2
205710	2002 <i>AY</i> ₅₃		5 10.2 133°77	2°9/ 8.6 16			355872	2008 <i>UW</i> ₃₆₁		5 10.2 131°83	5°0/12.6 16		
4 1	15 38.67	-12 58.3	1.599	2.417	16.8	21.0	4 1	15 40.73	-28 30.4	1.443	2.234	19.6	21.3
4 11	15 34.43	-12 22.4	1.526	2.425	13.2	20.8	4 11	15 37.01	-29 7.0	1.363	2.236	16.2	21.1
4 21	15 27.44	-11 40.6	1.473	2.432	9.1	20.6	4 21	15 29.80	-29 27.7	1.301	2.238	12.2	20.9
5 1	15 18.40	-10 56.8	1.444	2.439	4.8	20.3	5 1	15 19.80	-29 28.8	1.260	2.240	8.0	20.6
5 11	15 8.41	-10 15.9	1.441	2.446	3.2	20.3	5 11	15 8.29	-29 9.1	1.243	2.242	5.1	20.5
5 21	14 58.65	- 9 42.7	1.465	2.452	6.8	20.5	5 21	14 56.89	-28 31.6	1.251	2.244	6.7	20.5
5 31	14 50.27	- 9 21.5	1.514	2.458	11.0	20.7	5 31	14 47.18	-27 42.8	1.284	2.246	10.8	20.8
6 10	14 44.11	- 9 14.9	1.585	2.463	14.8	21.0	6 10	14 40.30	-26 51.7	1.338	2.248	14.9	21.0
213028	1996 <i>VN</i> ₉		5 10.2 129°64	3°2/ 7.8 18			399404	2001 <i>TL</i> ₅₄		5 10.2 212°48	0°5/10.5 17		
4 1	15 34.52	- 8 11.7	2.498	3.300	11.9	20.8	4 1	15 40.51	-21 27.4	2.027	2.811	14.9	22.7
4 11	15 30.10	- 7 44.4	2.420	3.309	9.4	20.6	4 11	15 35.62	-21 5.9	1.925	2.803	12.0	22.5
4 21	15 23.94	- 7 16.6	2.366	3.318	6.6	20.5	4 21	15 28.21	-20 33.0	1.844	2.793	8.4	22.2
5 1	15 16.54	- 6 51.1	2.338	3.327	4.0	20.3	5 1	15 18.83	-19 49.4	1.788	2.782	4.2	22.0
5 11	15 8.58	- 6 30.9	2.339	3.335	3.4	20.3	5 11	15 8.39	-18 57.5	1.761	2.771	0.5	21.6
5 21	15 0.76	- 6 18.5	2.368	3.343	5.5	20.4	5 21	14 57.96	-18 1.5	1.762	2.758	4.7	21.9
5 31	14 53.77	- 6 15.7	2.425	3.351	8.3	20.6	5 31	14 48.61	-17 7.0	1.791	2.744	8.9	22.2
6 10	14 48.16	- 6 23.6	2.506	3.359	10.9	20.8	6 10	14 41.21	-16 19.4	1.844	2.729	12.7	22.4
5571	Lesliegreen		5 10.2 96°21	3°6/13.1 18			108117	2001 <i>GH</i> ₃		5 10.2 316°06	16°3/29.1 17		
4 1	15 34.92	-30 24.9	2.275	3.035	14.2	17.0	4 1	15 36.62	+19 5.3	1.528	2.310	19.1	18.6
4 11	15 30.97	-30 25.4	2.188	3.041	11.7	16.8	4 11	15 33.05	+20 50.4	1.473	2.302	17.6	18.5
4 21	15 24.82	-30 11.7	2.121	3.047	8.8	16.6	4 21	15 26.63	+22 14.1	1.437	2.294	16.6	18.4
5 1	15 17.06	-29 42.7	2.078	3.053	5.8	16.5	5 1	15 18.06	+23 5.2	1.418	2.286	16.3	18.3
5 11	15 8.53	-28 59.7	2.062	3.059	3.7	16.3	5 11	15 8.46	+23 15.6	1.419	2.279	17.0	18.3
5 21	15 0.16	-28 5.7	2.074	3.065	4.6	16.4	5 21	14 59.09	+22 42.3	1.439	2.272	18.3	18.4
5 31	14 52.85	-27 5.6	2.113	3.071	7.5	16.6	5 31	14 51.13	+21 27.4	1.475	2.265	20.0	18.5
6 10	14 47.28	-26 5.1	2.178	3.077	10.4	16.8	6 10	14 45.45	+19 37.3	1.527	2.259	21.8	18.6
106528	2000 <i>WA</i> ₅₇		5 10.2 274°08	3°0/ 8.3 18			461599	2004 <i>TV</i> ₄₅		5 10.2 195°93	0°8/ 9.7 16		
4 1	15 35.44	- 8 28.0	2.433	3.235	12.2	19.6	4 1	15 38.89	-18 28.5	1.871	2.670	15.4	22.7
4 11	15 31.14	- 8 16.3	2.327	3.216	9.7	19.4	4 11	15 34.41	-17 55.6	1.780	2.668	12.2	22.5
4 21	15 24.89	- 8 4.4	2.244	3.197	6.8	19.2	4 21	15 27.38	-17 12.4	1.710	2.665	8.4	22.3
5 1	15 17.13	- 7 54.6	2.188	3.178	4.0	19.0	5 1	15 18.41	-16 20.9	1.665	2.661	4.1	22.0
5 11	15 8.52	- 7 49.5	2.159	3.158	3.2	18.9	5 11	15 8.44	-15 24.9	1.647	2.657	1.0	21.8
5 21	14 59.84	- 7 51.4	2.159	3.139	5.6	19.0	5 21	14 58.57	-14 29.4	1.658	2.651	5.3	22.0
5 31	14 51.89	- 8 2.2	2.186	3.119	8.7	19.2	5 31	14 49.88	-13 40.0	1.695	2.645	9.6	22.3
6 10	14 45.34	- 8 22.9	2.238	3.099	11.7	19.3	6 10	14 43.19	-13 1.2	1.756	2.639	13.4	22.5
292138	2006 <i>RN</i> ₈₁		5 10.2 228°72	2°8/11.7 17			105025	2000 <i>KS</i> ₃₀		5 10.2 177°60	2°3/12.1 18		
4 1	15 39.82	-24 58.9	1.871	2.653	16.1	21.4	4 1	15 34.34	-27 24.3	2.358	3.127	13.5	19.5
4 11	15 35.47	-25 19.1	1.773	2.645	13.1	21.2	4 11	15 30.39	-27 6.7	2.263	3.127	11.0	19.3
4 21	15 28.34	-25 28.2	1.695	2.637	9.5	21.0	4 21	15 24.37	-26 35.8	2.191	3.128	8.0	19.1
5 1	15 18.97	-25 24.5	1.641	2.628	5.6	20.7	5 1	15 16.84	-25 51.9	2.143	3.128	4.7	18.9
5 11	15 8.36	-25 8.1	1.614	2.619	2.8	20.5	5 11	15 8.58	-24 56.8	2.123	3.128	2.3	18.8
5 21	14 57.68	-24 41.1	1.614	2.609	5.1	20.6	5 21	15 0.45	-23 54.2	2.132	3.128	4.0	18.9
5 31	14 48.17	-24 8.1	1.640	2.599	9.1	20.9	5 31	14 53.28	-22 49.0	2.169	3.128	7.2	19.1
6 10	14 40.80	-23 35.0	1.690	2.588	13.0	21.1	6 10	14 47.74	-21 46.6	2.231	3.127	10.4	19.3
476383	2008 <i>CQ</i> ₆₈		5 10.2 261°11	6°3/15.0 18			304515	2006 <i>UO</i> ₂₁₀		5 10.2 275°32	2°0/11.7 17		
4 1	15 37.12	-37 40.1	2.445	3.162	14.4	21.4	4 1	15 33.97	-24 59.4	2.290	3.070	13.5	21.6
4 11	15 33.00	-38 13.2	2.338	3.150	12.4	21.2	4 11	15 30.19	-24 59.6	2.196	3.068	10.9	21.4
4 21	15 26.45	-38 31.0	2.250	3.138	10.2	21.0	4 21	15 24.31	-24 49.0	2.124	3.066	7.9	21.2
5 1	15 17.98	-38 30.3	2.186	3.126	7.9	20.8	5 1	15 16.84	-24 27.7	2.076	3.064	4.5	21.0
5 11	15 8.44	-38 9.5	2.147	3.114	6.5	20.7	5 11	15 8.57	-23 56.7	2.056	3.062	2.0	20.8
5 21	14 58.86	-37 29.6	2.134	3.101	6.7	20.7	5 21	15 0.37	-23 19.0	2.064	3.060	4.1	21.0
5 31	14 50.27	-36 34.6	2.148	3.089	8.4	20.8	5 31	14 53.10	-22 38.6	2.099	3.058	7.4	21.2
6 10	14 43.54	-35 30.4	2.187	3.076	10.8	20.9	6 10	14 47.46	-21 59.9	2.159	3.056	10.6	21.4
333597	2007 <i>FU</i> ₁₆		5 10.2 335°04	10°1/ 3.3 17			118387	1999 <i>JC</i> ₁₅		5 10.2 122°81	11°7/ 5.1 16		
4 1	15 25.92	- 2 16.3	1.233	2.093	18.2	19.6	4 1	15 43.88	+15 11.7	1.933	2.695	16.3	19.5
4 11	15 25.28	- 0 27.9	1.155	2.071	15.1	19.3	4 11	15 37.87	+15 51.8	1.872	2.700	14.4	19.3
4 21	15 21.74	+ 1 23.0	1.095	2.050	12.0	19.1	4 21	15 29.44	+16 14.4	1.830	2.706	12.7	19.2
5 1	15 15.83	+ 3 5.1	1.057	2.030	10.2	18.9	5 1	15 19.27	+16 12.6	1.812	2.711	11.8	19.2
5 11	15 8.62	+ 4 26.0	1.041	2.012	11.0	18.9	5 11	15 8.38	+15 41.9	1.817	2.716	11.9	19.2
5 21	15 1.37	+ 5 16.3	1.045	1.995	13.9	19.0	5 21	14 57.82	+14 41.8	1.846	2.721	13.0	19.3
5 31	14 55.41	+ 5 30.4	1.069	1.980	17.6	19.2	5 31	14 48.57	+13 14.6	1.899	2.726	14.8	19.4
6 10	14 51.77	+ 5 8.6	1.109	1.966	21.3	19.3	6 10	14 41.34	+11 25.7	1.973	2.731	16.7	19.5
369879	2012 <i>LR</i> ₁₀		5 10.2 128°69	7°4/ 4.3 17			173124	1993 <i>FX</i> ₄₇					

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
243836	2000 <i>UU</i> ₇₁		5 10.2 257°66	0°8/10.9	18		309922	2009 <i>FE</i> ₃₃		5 10.2 139°07	1°3/9.6	16	
4 1	15 32.89	-22 41.1	2.518	3.301	12.4	20.0	4 1	15 39.77	-15 51.7	1.663	2.472	16.6	21.7
4 11	15 29.14	-22 17.4	2.411	3.288	9.9	19.8	4 11	15 35.29	-15 36.7	1.585	2.479	13.1	21.4
4 21	15 23.51	-21 43.6	2.326	3.274	6.9	19.6	4 21	15 28.06	-15 14.6	1.529	2.487	9.0	21.2
5 1	15 16.43	-21 0.4	2.268	3.260	3.6	19.4	5 1	15 18.77	-14 47.6	1.497	2.493	4.4	20.9
5 11	15 8.61	-20 10.1	2.237	3.247	0.8	19.1	5 11	15 8.47	-14 19.0	1.491	2.500	1.5	20.8
5 21	15 0.81	-19 16.0	2.236	3.233	3.7	19.3	5 21	14 58.37	-13 52.8	1.512	2.505	5.7	21.0
5 31	14 53.79	-18 22.3	2.262	3.218	7.2	19.5	5 31	14 49.63	-13 33.4	1.559	2.511	10.1	21.3
6 10	14 48.20	-17 33.4	2.314	3.204	10.3	19.7	6 10	14 43.11	-13 23.9	1.629	2.516	14.0	21.6
96712	1999 <i>KH</i> ₄		5 10.2 4°37	2°2/9.6	18		467615	2008 <i>CZ</i> ₅₁		5 10.2 114°42	0°3/10.1	16	
4 1	15 34.87	-11 54.1	1.043	1.898	21.2	18.8	4 1	15 39.34	-18 54.2	1.781	2.581	16.0	22.2
4 11	15 32.94	-12 15.9	0.977	1.896	16.8	18.5	4 11	15 34.68	-18 34.6	1.709	2.597	12.6	22.0
4 21	15 27.30	-12 37.0	0.928	1.896	11.6	18.2	4 21	15 27.47	-18 5.7	1.657	2.612	8.6	21.8
5 1	15 18.65	-12 59.3	0.899	1.898	5.9	17.9	5 1	15 18.40	-17 29.0	1.631	2.627	4.2	21.5
5 11	15 8.42	-13 25.2	0.892	1.901	2.4	17.7	5 11	15 8.50	-16 48.0	1.631	2.641	0.5	21.3
5 21	14 58.33	-13 56.4	0.908	1.905	7.5	18.0	5 21	14 58.90	-16 7.0	1.659	2.655	5.0	21.6
5 31	14 50.08	-14 34.9	0.945	1.911	13.1	18.3	5 31	14 50.63	-15 30.9	1.714	2.668	9.2	21.9
6 10	14 44.88	-15 21.8	1.001	1.918	18.0	18.7	6 10	14 44.45	-15 3.7	1.792	2.681	12.9	22.2
472334	2015 <i>AS</i> ₂₂₄		5 10.2 137°42	4°0/13.4	18		374399	2005 <i>VA</i> ₉₇		5 10.2 193°46	0°6/10.6	17	
4 1	15 39.21	-31 59.2	2.170	2.918	15.1	20.9	4 1	15 36.58	-21 17.0	2.022	2.815	14.7	22.0
4 11	15 34.40	-31 53.2	2.085	2.929	12.5	20.8	4 11	15 32.45	-21 1.5	1.931	2.813	11.7	21.8
4 21	15 27.19	-31 30.7	2.020	2.941	9.5	20.6	4 21	15 25.97	-20 35.7	1.861	2.812	8.1	21.6
5 1	15 18.22	-30 50.5	1.979	2.951	6.3	20.4	5 1	15 17.71	-20 0.4	1.816	2.810	4.1	21.3
5 11	15 8.47	-29 53.9	1.966	2.961	4.1	20.3	5 11	15 8.55	-19 18.0	1.798	2.808	0.6	21.0
5 21	14 58.98	-28 44.6	1.980	2.970	5.0	20.4	5 21	14 59.49	-18 32.4	1.809	2.806	4.5	21.3
5 31	14 50.72	-27 28.6	2.023	2.979	7.9	20.6	5 31	14 51.49	-17 48.4	1.846	2.803	8.5	21.6
6 10	14 44.42	-26 12.8	2.091	2.988	10.9	20.8	6 10	14 45.34	-17 10.7	1.908	2.800	12.1	21.8
181484	2006 <i>TH</i> ₉₆		5 10.2 134°04	5°2/14.6	18		225949	2002 <i>BT</i> ₂₉		5 10.2 48°52	5°6/12.9	17	
4 1	15 38.85	-35 54.8	2.784	3.497	12.9	20.7	4 1	15 40.69	-29 16.4	1.639	2.416	18.2	19.7
4 11	15 33.81	-36 30.4	2.695	3.508	10.9	20.6	4 11	15 36.54	-30 18.3	1.564	2.427	15.1	19.5
4 21	15 26.68	-36 53.0	2.628	3.518	8.8	20.4	4 21	15 29.25	-31 6.6	1.509	2.438	11.5	19.3
5 1	15 17.98	-37 0.1	2.584	3.528	6.7	20.3	5 1	15 19.47	-31 37.3	1.476	2.449	7.9	19.2
5 11	15 8.50	-36 51.0	2.567	3.538	5.3	20.2	5 11	15 8.40	-31 48.2	1.469	2.461	5.7	19.0
5 21	14 59.12	-36 26.8	2.578	3.547	5.6	20.3	5 21	14 57.48	-31 40.6	1.486	2.473	6.8	19.1
5 31	14 50.68	-35 50.8	2.617	3.556	7.2	20.4	5 31	14 48.07	-31 18.9	1.529	2.485	9.9	19.3
6 10	14 43.87	-35 7.6	2.682	3.564	9.3	20.5	6 10	14 41.23	-30 50.4	1.595	2.498	13.4	19.6
162284	1999 <i>VU</i> ₇₇		5 10.2 220°97	0°5/10.8	18		391754	2008 <i>EU</i> ₄		5 10.2 124°57	0°5/10.6	18	
4 1	15 30.02	-20 59.8	4.239	5.007	8.0	21.4	4 1	15 35.50	-19 20.5	2.481	3.267	12.4	21.1
4 11	15 26.05	-20 56.2	4.128	4.997	6.3	21.3	4 11	15 31.09	-19 28.5	2.393	3.272	9.8	20.9
4 21	15 20.96	-20 48.0	4.042	4.987	4.4	21.1	4 21	15 24.78	-19 30.4	2.327	3.277	6.8	20.7
5 1	15 15.06	-20 35.4	3.984	4.976	2.3	20.9	5 1	15 17.05	-19 26.7	2.288	3.282	3.4	20.5
5 11	15 8.76	-20 19.6	3.956	4.965	0.5	20.8	5 11	15 8.61	-19 18.6	2.277	3.287	0.5	20.3
5 21	15 2.45	-20 1.6	3.958	4.954	2.4	20.9	5 21	15 0.26	-19 8.0	2.295	3.291	3.7	20.5
5 31	14 56.57	-19 43.3	3.990	4.943	4.5	21.1	5 31	14 52.76	-18 57.5	2.341	3.295	7.0	20.8
6 10	14 51.49	-19 26.4	4.050	4.931	6.5	21.2	6 10	14 46.74	-18 49.8	2.412	3.300	10.0	21.0
315401	2007 <i>VU</i> ₁₄₄		5 10.2 215°01	1°8/9.2	17		172797	2004 <i>FN</i> ₁₀₃		5 10.2 44°18	1°1/9.5	17	
4 1	15 39.57	-14 22.5	1.943	2.745	14.9	21.6	4 1	15 33.14	-16 33.0	2.090	2.897	13.8	20.6
4 11	15 34.89	-14 3.1	1.847	2.737	11.8	21.3	4 11	15 29.55	-16 7.7	2.006	2.900	10.8	20.4
4 21	15 27.72	-13 38.0	1.773	2.729	8.1	21.1	4 21	15 23.86	-15 35.4	1.945	2.903	7.4	20.2
5 1	15 18.61	-13 9.4	1.724	2.720	4.1	20.8	5 1	15 16.63	-14 58.4	1.909	2.906	3.6	20.0
5 11	15 8.45	-12 40.4	1.703	2.710	2.0	20.7	5 11	15 8.66	-14 19.9	1.900	2.909	1.3	19.8
5 21	14 58.29	-12 14.6	1.709	2.700	5.6	20.9	5 21	15 0.81	-13 43.6	1.919	2.912	4.8	20.0
5 31	14 49.19	-11 55.9	1.743	2.688	9.7	21.1	5 31	14 53.95	-13 13.5	1.965	2.916	8.4	20.3
6 10	14 42.00	-11 47.4	1.800	2.676	13.4	21.3	6 10	14 48.73	-12 52.4	2.035	2.919	11.7	20.5
355582	2008 <i>CC</i> ₁₁₁		5 10.2 206°88	2°3/8.3	18		317704	2003 <i>QJ</i> ₈		5 10.2 212°45	1°3/11.1	17	
4 1	15 33.71	-11 6.5	2.764	3.561	11.0	21.9	4 1	15 38.10	-23 38.2	1.809	2.601	16.2	21.3
4 11	15 29.43	-10 40.7	2.669	3.556	8.7	21.7	4 11	15 34.04	-23 20.5	1.715	2.596	13.0	21.1
4 21	15 23.51	-10 12.5	2.597	3.551	6.0	21.5	4 21	15 27.29	-22 49.0	1.642	2.590	9.2	20.9
5 1	15 16.39	-9 44.1	2.553	3.545	3.3	21.3	5 1	15 18.44	-22 3.9	1.592	2.585	4.9	20.6
5 11	15 8.65	-9 18.1	2.537	3.539	2.4	21.2	5 11	15 8.50	-21 8.0	1.569	2.578	1.3	20.3
5 21	15 0.96	-8 57.1	2.551	3.533	4.7	21.4	5 21	14 58.63	-20 5.7	1.574	2.571	4.9	20.5
5 31	14 53.97	-8 43.5	2.593	3.526	7.5	21.5	5 31	14 49.99	-19 3.7	1.605	2.564	9.3	20.8
6 10	14 48.22	-8 38.7	2.659	3.519	10.1	21.7	6 10	14 43.48	-18 8.1	1.660	2.556	13.3	21.0
143595	2003 <i>FL</i> ₆₂		5 10.2 159°45	4°7/6.3	18		335813	2007 <i>JZ</i> ₁₁		5 10.2 337°72	8°4/5.9	17	
4 1	15 32.30	-4 40.7	2.482	3.290	11.8	20.1	4 1	15 35.76	+ 1 56.4	1.685	2.503	16.1	20.3
4 11	15 28.42	-4 49.2	2.403	3.292	9.4	19.9	4 11	15 32.03	+ 2 44.0	1.611	2.499	13.3	20.1
4 21	15 22.85	-4 58.3	2.348	3.295	6.9	19.8	4 21	15 25.79	+ 3 24.3	1.558	2.495	10.6	19.9
5 1	15 16.06	-4 12.0	2.318	3.297	5.0	19.6	5 1	15 17.65	+ 3 50.6	1.528	2.491	8.7	19.8
5 11	15 8.69	-3 34.4	2.317	3.299	4.9	19.6	5 11	15 8.57	+ 3 57.4	1.522	2.488	8.7	19.8
5 21	15 1.44	-1 8.6	2.343	3.300	6.8	19.8	5 21	14 59.62	+ 3 41.5	1.541	2.485	10.7	19.9
5 31	14 54.97	-0 56.7	2.396	3.302	9.3	19.9	5 31	14 51.85	+ 3 2.3	1.583	2.483	13.5	20.1
6 10	14 49.84	-0 59.4	2.471	3.303	11.7	20.1	6 10	14 46.06	+ 2 2.2	1.646	2.481	16.4	20.2
129594	1997 <i>UP</i> ₂₅		5 10.2 192°89	0°4/10.0	16		314153	2005 <i>EH</i> ₂₇₃		5 10.2 147°47	0°6/9		

EPHEMERIDES

5 10.2

5 10.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
381525	2008 <i>SE</i> ₂₂₇		5 10.2 211°47'	2°5/11.9	17		251777	1999 <i>RC</i> ₆₇		5 10.3 300°97'	4°1/11.9	17	
4 1	15 36.24	-26 5.2	2.049	2.828	14.9	21.4	4 1	15 36.77	-25 40.7	1.444	2.249	18.9	20.6
4 11	15 32.29	-26 5.8	1.955	2.825	12.1	21.2	4 11	15 34.34	-26 16.0	1.334	2.219	15.7	20.3
4 21	15 25.93	-25 53.8	1.882	2.823	8.8	21.0	4 21	15 28.44	-26 39.2	1.243	2.189	11.7	20.0
5 1	15 17.72	-25 28.4	1.834	2.820	5.2	20.8	5 1	15 19.46	-26 46.9	1.172	2.159	7.3	19.6
5 11	15 8.57	-24 51.1	1.812	2.817	2.5	20.6	5 11	15 8.43	-26 37.2	1.126	2.129	4.2	19.4
5 21	14 59.48	-24 5.1	1.818	2.814	4.5	20.7	5 21	14 56.83	-26 11.1	1.103	2.100	6.7	19.4
5 31	14 51.48	-23 15.2	1.851	2.811	8.2	21.0	5 31	14 46.43	-25 33.9	1.104	2.070	11.7	19.6
6 10	14 45.37	-22 27.1	1.908	2.808	11.7	21.2	6 10	14 38.73	-24 53.8	1.126	2.041	16.7	19.8
300136	2006 <i>VY</i> ₅₅		5 10.3 156°81'	1°1/ 9.3	18		251687	1995 <i>UR</i> ₅₀		5 10.3 263°73'	2°0/ 9.0	17	
4 1	15 35.10	-14 0.4	2.946	3.734	10.6	21.6	4 1	15 35.98	-15 19.8	1.712	2.528	16.0	21.5
4 11	15 30.36	-13 52.4	2.858	3.741	8.3	21.4	4 11	15 32.49	-14 46.0	1.615	2.514	12.7	21.3
4 21	15 24.06	-13 41.3	2.794	3.747	5.7	21.3	4 21	15 26.33	-14 3.6	1.539	2.499	8.7	21.0
5 1	15 16.64	-13 28.6	2.758	3.753	2.8	21.1	5 1	15 18.04	-13 15.4	1.488	2.484	4.4	20.7
5 11	15 8.68	-13 15.9	2.751	3.758	1.3	21.0	5 11	15 8.57	-12 25.8	1.462	2.469	2.3	20.5
5 21	15 0.81	-13 5.2	2.774	3.763	3.8	21.1	5 21	14 59.06	-11 40.1	1.463	2.454	6.2	20.8
5 31	14 53.64	-12 58.4	2.825	3.768	6.6	21.3	5 31	14 50.66	-11 3.7	1.490	2.439	10.7	21.0
6 10	14 47.68	-12 57.1	2.903	3.772	9.1	21.5	6 10	14 44.33	-10 40.6	1.538	2.423	14.8	21.2
441939	2010 <i>JG</i> ₁₃₃		5 10.3 220°36'	9°4/28.4	18		359460	2010 <i>NJ</i> ₅₁		5 10.3 297°32'	2°6/12.2	16	
4 1	15 32.46	+17 36.5	3.021	3.769	11.3	21.9	4 1	15 33.08	-26 51.2	2.319	3.093	13.5	21.2
4 11	15 28.33	+18 57.9	2.955	3.760	10.3	21.8	4 11	15 29.62	-26 53.6	2.214	3.081	11.1	21.0
4 21	15 22.70	+20 8.1	2.912	3.751	9.6	21.7	4 21	15 24.03	-26 44.3	2.131	3.069	8.1	20.7
5 1	15 15.98	+21 1.7	2.892	3.742	9.4	21.7	5 1	15 16.80	-26 22.7	2.073	3.057	4.9	20.5
5 11	15 8.73	+21 34.7	2.897	3.732	9.9	21.7	5 11	15 8.69	-25 49.6	2.041	3.044	2.6	20.3
5 21	15 1.56	+21 45.1	2.924	3.722	10.8	21.8	5 21	15 0.56	-25 7.8	2.037	3.033	4.2	20.4
5 31	14 55.04	+21 32.6	2.972	3.711	12.0	21.8	5 31	14 53.31	-24 21.3	2.061	3.021	7.5	20.6
6 10	14 49.68	+20 58.9	3.038	3.700	13.2	21.9	6 10	14 47.68	-23 35.1	2.109	3.009	10.7	20.8
437171	2012 <i>VY</i> ₆₀		5 10.3 198°91'	1°2/ 9.4	17		427369	2014 <i>WB</i> ₄₇₂		5 10.3 248°66'	3°8/ 5.4	18	
4 1	15 35.29	-14 47.1	2.322	3.121	12.8	21.9	4 1	15 27.93	+ 2 30.6	4.490	5.275	7.3	20.7
4 11	15 31.05	-14 35.9	2.231	3.120	10.1	21.7	4 11	15 24.26	+ 2 50.2	4.405	5.272	6.0	20.6
4 21	15 24.82	-14 20.2	2.162	3.118	6.9	21.5	4 21	15 19.67	+ 3 6.2	4.344	5.268	4.7	20.5
5 1	15 17.11	-14 1.8	2.120	3.116	3.4	21.2	5 1	15 14.44	+ 3 16.5	4.312	5.265	3.9	20.4
5 11	15 8.64	-13 42.9	2.106	3.114	1.4	21.1	5 11	15 8.90	+ 3 19.6	4.307	5.261	4.0	20.4
5 21	15 0.23	-13 26.2	2.120	3.111	4.5	21.3	5 21	15 3.41	+ 3 14.3	4.331	5.258	4.9	20.5
5 31	14 52.69	-13 14.5	2.161	3.109	8.0	21.5	5 31	14 58.30	+ 3 0.1	4.382	5.254	6.2	20.6
6 10	14 46.68	-13 10.0	2.228	3.106	11.1	21.7	6 10	14 53.89	+ 2 37.0	4.458	5.251	7.5	20.7
412192	2013 <i>GV</i> ₁₀₀		5 10.3 76°20'	1°4/ 9.4	18		455362	2002 <i>TP</i> ₁₀₇		5 10.3 207°76'	1°6/10.9	16	
4 1	15 37.04	-18 17.0	1.389	2.212	18.6	20.9	4 1	15 42.63	-20 47.3	1.531	2.333	18.2	21.4
4 11	15 33.52	-17 30.3	1.324	2.226	14.6	20.7	4 11	15 38.23	-21 12.1	1.443	2.330	14.6	21.2
4 21	15 26.99	-16 31.1	1.278	2.240	9.9	20.4	4 21	15 30.56	-21 28.1	1.375	2.326	10.4	20.9
5 1	15 18.25	-15 23.3	1.256	2.253	4.8	20.2	5 1	15 20.23	-21 33.9	1.329	2.323	5.5	20.6
5 11	15 8.56	-14 12.9	1.258	2.267	1.7	20.0	5 11	15 8.42	-21 29.9	1.309	2.318	1.6	20.3
5 21	14 59.25	-13 7.3	1.287	2.281	6.3	20.3	5 21	14 56.57	-21 18.3	1.316	2.313	5.6	20.6
5 31	14 51.56	-12 13.3	1.339	2.295	11.1	20.6	5 31	14 46.18	-21 3.5	1.348	2.308	10.6	20.8
6 10	14 46.33	-11 35.6	1.414	2.308	15.3	20.9	6 10	14 38.37	-20 51.3	1.402	2.303	15.0	21.1
245629	2005 <i>XK</i> ₂₇		5 10.3 259°82'	2°4/11.5	16		244783	2003 <i>SZ</i> ₁₈₁		5 10.3 200°08'	6°8/ 2.4	18	
4 1	15 37.84	-24 35.3	1.447	2.253	18.8	21.2	4 1	15 34.39	- 0 26.3	2.545	3.344	11.8	20.6
4 11	15 34.63	-24 38.1	1.360	2.248	15.3	21.0	4 11	15 30.04	+ 1 36.6	2.464	3.340	9.7	20.4
4 21	15 28.14	-24 25.6	1.291	2.242	11.0	20.7	4 21	15 23.97	+ 3 39.7	2.409	3.336	7.8	20.3
5 1	15 19.03	-23 56.7	1.245	2.236	6.2	20.4	5 1	15 16.65	+ 5 36.0	2.382	3.331	6.9	20.2
5 11	15 8.48	-23 12.9	1.223	2.230	2.4	20.1	5 11	15 8.73	+ 7 18.7	2.384	3.326	7.4	20.2
5 21	14 57.97	-22 18.9	1.226	2.225	5.8	20.3	5 21	15 0.88	+ 8 42.5	2.415	3.320	9.2	20.3
5 31	14 48.97	-21 22.0	1.254	2.219	10.7	20.6	5 31	14 53.81	+ 9 44.1	2.471	3.314	11.3	20.5
6 10	14 42.59	-20 30.2	1.303	2.213	15.3	20.8	6 10	14 48.08	+10 22.9	2.549	3.307	13.4	20.6
156983	2003 <i>KF</i> ₇		5 10.3 266°42'	4°7/ 6.9	18		321732	2010 <i>LY</i> ₅₅		5 10.3 223°76'	7°9/ 5.1	17	
4 1	15 33.69	- 8 36.9	1.924	2.743	14.3	20.8	4 1	15 37.72	+ 0 35.7	1.890	2.699	14.9	21.0
4 11	15 30.24	- 7 36.0	1.831	2.730	11.4	20.6	4 11	15 33.37	+ 1 43.7	1.807	2.690	12.3	20.8
4 21	15 24.51	- 6 30.9	1.761	2.716	8.2	20.4	4 21	15 26.64	+ 2 48.0	1.746	2.681	9.8	20.6
5 1	15 17.04	- 5 26.8	1.715	2.703	5.3	20.2	5 1	15 18.09	+ 3 42.0	1.709	2.671	8.0	20.5
5 11	15 8.65	- 4 29.3	1.697	2.689	5.0	20.1	5 11	15 8.60	+ 4 19.2	1.698	2.660	8.2	20.4
5 21	15 0.27	- 3 43.8	1.705	2.676	7.7	20.2	5 21	14 59.17	+ 4 35.2	1.712	2.649	10.3	20.5
5 31	14 52.85	- 3 14.6	1.738	2.662	11.2	20.4	5 31	14 50.79	+ 4 28.0	1.751	2.638	13.1	20.7
6 10	14 47.17	- 3 3.5	1.793	2.648	14.5	20.6	6 10	14 44.24	+ 3 58.5	1.810	2.626	16.0	20.9
500706	2012 <i>WE</i> ₁₄		5 10.3 158°45'	1°9/ 8.8	17		178236	2006 <i>WZ</i> ₁₀₄		5 10.3 303°15'	1°1/ 9.7	17	
4 1	15 34.55	-12 56.9	2.501	3.300	12.0	22.3	4 1	15 33.98	-17 11.7	1.486	2.312	17.4	20.7
4 11	15 30.23	-12 35.3	2.415	3.304	9.4	22.1	4 11	15 31.48	-16 52.3	1.388	2.291	14.0	20.4
4 21	15 24.13	-12 10.3	2.353	3.308	6.4	21.9	4 21	15 25.98	-16 22.7	1.309	2.271	9.7	20.1
5 1	15 16.72	-11 44.0	2.317	3.311	3.3	21.8	5 1	15 18.02	-15 44.7	1.253	2.251	4.8	19.8
5 11	15 8.69	-11 19.0	2.309	3.315	2.0	21.7	5 11	15 8.60	-15 2.3	1.222	2.231	1.3	19.5
5 21	15 0.76	-10 58.1	2.331	3.318	4.6	21.8	5 21	14 59.01	-14 20.6	1.215	2.211	6.3	19.7
5 31	14 53.65	-10 43.8	2.380	3.320	7.7	22.0	5 31	14 50.62	-13 45.8	1.233	2.192	11.5	20.0
6 10	14 47.94	-10 37.9	2.454	3.323	10.6	22.2	6 10	14 44.57	-13 23.3	1.271	2.173	16.1	20.2
232577	2003 <i>SK</i> ₃₃₈		5 10.3 92°66'	1°3/11.1	17		500921	2013 <i>PY</i> <					

EPHEMERIDES

5 10.3

5 10.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
291898	2006 <i>QN</i> ₄		5 10.3 278°90	3°7/12.4	18		179564	2002 <i>ES</i> ₅₅		5 10.3 101°19	6°3/4.5	18	
4 1	15 37.37	-28 23.8	1.706	2.489	17.3	20.9	4 1	15 31.88	+ 0 21.8	2.486	3.291	11.9	20.4
4 11	15 34.14	-28 25.9	1.593	2.464	14.4	20.6	4 11	15 28.04	+ 1 34.2	2.422	3.303	9.7	20.3
4 21	15 27.84	-28 11.0	1.499	2.438	10.8	20.3	4 21	15 22.56	+ 2 43.0	2.382	3.315	7.6	20.1
5 1	15 18.97	-27 36.5	1.428	2.412	6.8	20.0	5 1	15 15.95	+ 3 42.9	2.369	3.327	6.4	20.1
5 11	15 8.53	-26 42.7	1.382	2.385	3.7	19.7	5 11	15 8.85	+ 4 29.4	2.382	3.338	6.6	20.1
5 21	14 57.85	-25 32.8	1.362	2.358	5.8	19.8	5 21	15 1.92	+ 4 59.6	2.422	3.350	8.2	20.2
5 31	14 48.35	-24 14.0	1.368	2.331	10.2	20.0	5 31	14 55.80	+ 5 11.8	2.487	3.361	10.2	20.4
6 10	14 41.18	-22 55.4	1.396	2.303	14.6	20.2	6 10	14 51.00	+ 5 6.4	2.574	3.372	12.2	20.5
477654	2010 <i>NG</i> ₄₉		5 10.3 298°11	0°7/9.8	16		464934	2005 <i>UR</i> ₂₃₃		5 10.3 34°63	2°5/8.3	17	
4 1	15 32.27	-17 25.5	2.232	3.035	13.1	21.6	4 1	15 33.26	-16 43.3	1.703	2.522	15.9	20.8
4 11	15 28.96	-17 6.2	2.126	3.016	10.4	21.4	4 11	15 30.11	-15 27.4	1.623	2.524	12.5	20.6
4 21	15 23.59	-16 39.6	2.041	2.998	7.2	21.2	4 21	15 24.50	-13 59.4	1.564	2.526	8.5	20.4
5 1	15 16.61	-16 7.2	1.982	2.979	3.5	20.9	5 1	15 17.05	-12 24.1	1.531	2.527	4.3	20.1
5 11	15 8.74	-15 31.6	1.951	2.960	0.8	20.6	5 11	15 8.76	-10 48.5	1.524	2.529	2.8	20.0
5 21	15 0.82	-14 56.4	1.947	2.941	4.5	20.9	5 21	15 0.66	- 9 20.4	1.544	2.531	6.5	20.3
5 31	14 53.70	-14 25.2	1.970	2.923	8.3	21.1	5 31	14 53.78	- 8 6.5	1.590	2.533	10.6	20.5
6 10	14 48.11	-14 1.7	2.017	2.904	11.7	21.3	6 10	14 48.87	- 7 11.4	1.658	2.535	14.3	20.7
360030	2013 <i>AT</i> ₂₉		5 10.3 70°16	2°7/9.1	16		60788	2000 <i>HW</i>		5 10.3 189°37	0°5/10.6	18	
4 1	15 39.13	-12 59.4	1.314	2.144	19.1	21.2	4 1	15 40.63	-20 46.1	1.814	2.607	16.1	20.5
4 11	15 35.44	-12 42.8	1.246	2.152	15.0	21.0	4 11	15 35.98	-20 33.6	1.724	2.607	12.8	20.3
4 21	15 28.53	-12 21.2	1.197	2.159	10.3	20.7	4 21	15 28.61	-20 10.2	1.654	2.606	8.9	20.1
5 1	15 19.13	-11 57.7	1.170	2.167	5.3	20.5	5 1	15 19.14	-19 36.6	1.609	2.604	4.5	19.8
5 11	15 8.55	-11 36.9	1.168	2.174	2.9	20.3	5 11	15 8.59	-18 55.4	1.591	2.601	0.5	19.5
5 21	14 58.23	-11 23.2	1.190	2.182	7.2	20.6	5 21	14 58.12	-18 10.5	1.601	2.597	5.0	19.8
5 31	14 49.56	-11 20.5	1.236	2.190	12.0	20.9	5 31	14 48.91	-17 27.5	1.637	2.593	9.4	20.1
6 10	14 43.52	-11 31.2	1.303	2.198	16.3	21.2	6 10	14 41.83	-16 51.6	1.697	2.588	13.4	20.3
19024	2000 <i>SS</i> ₁₁₂		5 10.3 247°55	0°6/10.7	18		213755	2003 <i>AM</i> ₂		5 10.3 332°31	12°6/19.1	18	
4 1	15 34.30	-20 43.4	2.529	3.313	12.3	19.2	4 1	15 37.30	-45 25.3	1.120	1.874	26.2	19.4
4 11	15 30.27	-20 39.2	2.425	3.303	9.8	19.0	4 11	15 36.29	-46 1.2	1.043	1.869	23.4	19.2
4 21	15 24.32	-20 27.5	2.343	3.292	6.8	18.7	4 21	15 30.42	-45 59.4	0.977	1.865	20.1	18.9
5 1	15 16.92	-20 8.7	2.288	3.281	3.5	18.5	5 1	15 20.50	-45 9.0	0.927	1.861	16.5	18.7
5 11	15 8.73	-19 44.4	2.260	3.270	0.6	18.3	5 11	15 8.47	-43 24.1	0.895	1.858	13.6	18.5
5 21	15 0.53	-19 17.0	2.262	3.258	3.7	18.5	5 21	14 56.82	-40 48.6	0.883	1.855	12.7	18.4
5 31	14 53.10	-18 49.7	2.291	3.247	7.1	18.7	5 31	14 47.84	-37 37.8	0.893	1.853	14.6	18.5
6 10	14 47.10	-18 25.9	2.346	3.235	10.2	18.9	6 10	14 42.95	-34 15.0	0.923	1.851	18.2	18.7
200076	5009 <i>T</i> ₋₂		5 10.3 256°49	7°2/14.7	18		240093	2002 <i>CA</i> ₅₂		5 10.3 149°19	8°4/18.4	18	
4 1	15 40.76	-37 33.7	2.215	2.934	15.7	20.8	4 1	15 44.78	-49 19.1	3.128	3.741	13.2	20.6
4 11	15 36.37	-38 23.6	2.105	2.917	13.6	20.6	4 11	15 38.93	-50 21.8	3.038	3.749	12.0	20.5
4 21	15 29.13	-38 58.5	2.013	2.900	11.2	20.4	4 21	15 30.50	-51 8.5	2.967	3.757	10.7	20.4
5 1	15 19.52	-39 13.7	1.944	2.882	8.9	20.2	5 1	15 20.05	-51 34.9	2.917	3.765	9.4	20.3
5 11	15 8.51	-39 6.3	1.900	2.864	7.3	20.1	5 11	15 8.52	-51 38.4	2.891	3.772	8.6	20.3
5 21	14 57.29	-38 36.3	1.882	2.846	7.6	20.1	5 21	14 56.98	-51 19.0	2.889	3.779	8.4	20.3
5 31	14 47.14	-37 47.5	1.890	2.827	9.6	20.2	5 31	14 46.56	-50 39.2	2.913	3.785	8.9	20.3
6 10	14 39.14	-36 46.6	1.922	2.808	12.2	20.3	6 10	14 38.12	-49 44.3	2.961	3.791	10.0	20.4
55251	2001 <i>RZ</i> ₁₀₅		5 10.3 5°68	0°5/10.6	17		478148	2011 <i>UE</i> ₁₅₄		5 10.3 133°47	10°4/17.5	18	
4 1	15 33.66	-20 29.6	1.957	2.759	14.7	19.7	4 1	15 46.85	-48 30.0	2.521	3.155	15.7	21.6
4 11	15 30.25	-20 19.7	1.871	2.759	11.7	19.5	4 11	15 41.52	-50 6.6	2.431	3.157	14.3	21.4
4 21	15 24.53	-20 0.3	1.805	2.759	8.1	19.3	4 21	15 32.90	-51 26.5	2.360	3.159	12.8	21.3
5 1	15 17.07	-19 32.5	1.765	2.760	4.1	19.0	5 1	15 21.50	-52 23.2	2.309	3.160	11.5	21.2
5 11	15 8.74	-18 58.5	1.751	2.761	0.5	18.7	5 11	15 8.39	-52 52.0	2.281	3.162	10.6	21.2
5 21	15 0.51	-18 22.2	1.764	2.762	4.5	19.0	5 21	14 55.02	-52 51.5	2.277	3.164	10.4	21.2
5 31	14 53.34	-17 47.7	1.804	2.763	8.5	19.3	5 31	14 42.93	-52 24.2	2.296	3.165	11.1	21.2
6 10	14 47.97	-17 19.4	1.868	2.765	12.0	19.5	6 10	14 33.36	-51 36.6	2.338	3.167	12.4	21.3
382941	2004 <i>TV</i> ₂₇₇		5 10.3 220°50	1°0/9.5	18		35234	1995 <i>NH</i>		5 10.3 330°88	9°2/5.9	18	
4 1	15 36.11	-16 41.4	2.506	3.296	12.2	22.6	4 1	15 35.81	+ 2 32.9	1.515	2.340	17.2	18.3
4 11	15 31.63	-16 12.9	2.401	3.285	9.7	22.4	4 11	15 32.48	+ 3 18.6	1.439	2.330	14.4	18.0
4 21	15 25.22	-15 37.6	2.320	3.274	6.6	22.2	4 21	15 26.36	+ 3 55.8	1.382	2.320	11.5	17.8
5 1	15 17.35	-14 57.2	2.266	3.262	3.3	22.0	5 1	15 18.09	+ 4 17.1	1.347	2.312	9.5	17.7
5 11	15 8.72	-14 14.7	2.240	3.249	1.2	21.8	5 11	15 8.68	+ 4 16.0	1.336	2.303	9.5	17.7
5 21	15 0.09	-13 33.2	2.244	3.235	4.3	22.0	5 21	14 59.35	+ 3 49.1	1.348	2.296	11.6	17.8
5 31	14 52.26	-12 56.5	2.276	3.221	7.8	22.2	5 31	14 51.27	+ 2 56.2	1.383	2.288	14.7	17.9
6 10	14 45.86	-12 27.7	2.334	3.207	10.9	22.4	6 10	14 45.37	+ 1 40.3	1.437	2.282	17.9	18.1
330692	2008 <i>JG</i> ₂₃		5 10.3 350°85	2°0/9.4	17		67411	2000 <i>QJ</i> ₂₆		5 10.3 289°40	2°1/9.0	18	
4 1	15 36.24	-12 59.1	1.439	2.268	17.7	20.8	4 1	15 34.29	-16 45.8	1.451	2.279	17.7	19.5
4 11	15 33.09	-13 2.3	1.359	2.264	14.1	20.5	4 11	15 31.76	-16 0.1	1.354	2.259	14.1	19.2
4 21	15 26.94	-13 2.3	1.299	2.261	9.7	20.3	4 21	15 26.21	-15 1.5	1.276	2.239	9.8	18.9
5 1	15 18.42	-13 1.1	1.261	2.259	4.9	20.0	5 1	15 18.16	-13 52.9	1.221	2.219	4.9	18.6
5 11	15 8.63	-13 1.7	1.249	2.257	2.2	19.8	5 11	15 8.67	-12 40.2	1.191	2.199	2.4	18.4
5 21	14 58.90	-13 6.9	1.261	2.255	6.5	20.1	5 21	14 59.05	-11 30.8	1.186	2.179	7.1	18.6
5 31	14 50.54	-13 19.7	1.297	2.254	11.2	20.3	5 31	14 50.70	-10 32.7	1.205	2.159	12.2	18.8
6 10	14 44.57	-13 42.1	1.355	2.254	15.5	20.6	6 10	14 44.70	- 9 52.0	1.245	2.139	16.9	19.0
19817	Larashelton		5 10.3 216°64	1°0/10.9	18		150246	1999 <i>GV</i> ₁		5 10.3 90°37	1		

EPHEMERIDES

5 10.3

5 10.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
346885	2009 <i>JN</i> ₁₇		5 10.3 290°91	5°4/ 2.1 18			33523	Warashina		5 10.3 340°62	4°6/ 8.2 18		
4 1	15 25.85	+ 8 50.4	4.285	5.063	7.7	20.1	4 1	15 31.04	-10 57.4	1.118	1.976	19.9	17.8
4 11	15 22.78	+ 9 38.0	4.204	5.052	6.7	20.0	4 11	15 29.77	-10 21.9	1.043	1.964	15.9	17.5
4 21	15 18.75	+10 20.3	4.147	5.041	5.8	20.0	4 21	15 25.12	- 9 40.6	0.986	1.954	11.1	17.2
5 1	15 14.05	+10 54.4	4.117	5.030	5.4	19.9	5 1	15 17.70	- 8 59.4	0.948	1.945	6.4	16.9
5 11	15 9.02	+11 18.0	4.113	5.019	5.6	19.9	5 11	15 8.76	- 8 25.3	0.933	1.936	4.9	16.8
5 21	15 4.02	+11 29.6	4.135	5.008	6.5	20.0	5 21	14 59.83	- 8 4.9	0.940	1.930	9.0	17.0
5 31	14 59.41	+11 28.4	4.182	4.997	7.6	20.0	5 31	14 52.48	- 8 3.3	0.968	1.924	14.2	17.3
6 10	14 55.50	+11 14.7	4.250	4.986	8.7	20.1	6 10	14 47.87	- 8 22.4	1.014	1.919	18.9	17.5
430187	2013 <i>TN</i> ₁₁₀		5 10.3 200°90	1°7/11.4 17			356606	2011 <i>TV</i> ₁₂		5 10.3 209°29	1°7/11.8 18		
4 1	15 38.03	-23 29.5	2.143	2.923	14.3	22.2	4 1	15 34.30	-25 26.6	2.840	3.604	11.5	21.8
4 11	15 33.60	-23 35.0	2.047	2.920	11.6	22.0	4 11	15 30.07	-25 19.1	2.736	3.598	9.3	21.6
4 21	15 26.81	-23 30.5	1.973	2.917	8.2	21.8	4 21	15 24.08	-25 2.0	2.655	3.593	6.7	21.4
5 1	15 18.22	-23 15.5	1.924	2.914	4.6	21.5	5 1	15 16.80	-24 35.4	2.600	3.587	3.9	21.2
5 11	15 8.69	-22 51.2	1.902	2.910	1.8	21.3	5 11	15 8.85	-24 0.5	2.574	3.580	1.7	21.0
5 21	14 59.18	-22 20.3	1.909	2.905	4.3	21.5	5 21	15 0.94	-23 19.7	2.578	3.573	3.4	21.2
5 31	14 50.70	-21 46.7	1.943	2.900	8.0	21.7	5 31	14 53.78	-22 36.3	2.609	3.566	6.3	21.3
6 10	14 44.02	-21 15.1	2.001	2.895	11.5	21.9	6 10	14 47.94	-21 54.3	2.668	3.558	9.1	21.5
355211	2006 <i>YS</i> ₃₄		5 10.3 25°89	6°4/15.4 16			127723	2003 <i>EL</i> ₄₅		5 10.3 131°51	3°1/12.1 18		
4 1	15 35.75	-37 43.9	2.305	3.029	15.0	21.2	4 1	15 41.27	-26 45.7	1.609	2.395	18.1	20.7
4 11	15 31.98	-38 14.8	2.215	3.032	12.9	21.0	4 11	15 36.85	-26 49.0	1.531	2.405	14.7	20.5
4 21	15 25.77	-38 29.3	2.144	3.035	10.5	20.8	4 21	15 29.37	-26 36.3	1.473	2.414	10.7	20.2
5 1	15 17.72	-38 24.1	2.096	3.038	8.1	20.7	5 1	15 19.56	-26 6.6	1.437	2.423	6.3	20.0
5 11	15 8.73	-37 58.6	2.073	3.041	6.6	20.6	5 11	15 8.64	-25 21.2	1.427	2.432	3.1	19.8
5 21	14 59.83	-37 14.5	2.076	3.044	6.7	20.6	5 21	14 57.98	-24 24.7	1.444	2.440	5.4	20.0
5 31	14 52.06	-36 16.1	2.104	3.048	8.4	20.7	5 31	14 48.88	-23 24.1	1.486	2.448	9.7	20.2
6 10	14 46.21	-35 9.9	2.158	3.052	10.8	20.9	6 10	14 42.27	-22 27.1	1.552	2.455	13.6	20.5
249217	2008 <i>EB</i> ₈₀		5 10.3 265°96	6°4/ 3.9 18			290555	2005 <i>UY</i> ₁₀₃		5 10.3 174°69	1°3/ 9.6 17		
4 1	15 31.20	+ 0 15.0	2.530	3.336	11.7	20.8	4 1	15 39.98	-16 42.8	1.581	2.392	17.3	21.8
4 11	15 27.68	+ 1 30.4	2.440	3.321	9.6	20.7	4 11	15 35.75	-16 20.3	1.499	2.394	13.7	21.6
4 21	15 22.48	+ 2 44.0	2.373	3.305	7.7	20.5	4 21	15 28.60	-15 48.9	1.438	2.396	9.4	21.3
5 1	15 16.00	+ 3 50.4	2.332	3.289	6.5	20.4	5 1	15 19.20	-15 10.9	1.400	2.397	4.6	21.0
5 11	15 8.86	+ 4 44.6	2.318	3.273	6.8	20.4	5 11	15 8.67	-14 30.1	1.389	2.398	1.5	20.8
5 21	15 1.74	+ 5 22.8	2.331	3.257	8.5	20.5	5 21	14 58.28	-13 51.5	1.404	2.398	6.0	21.1
5 31	14 55.31	+ 5 42.3	2.369	3.241	10.7	20.6	5 31	14 49.29	-13 20.4	1.444	2.397	10.7	21.4
6 10	14 50.15	+ 5 42.9	2.428	3.225	12.9	20.7	6 10	14 42.62	-13 0.8	1.507	2.397	14.8	21.6
387014	2012 <i>RH</i> ₂₃		5 10.3 172°25	0°8/ 9.7 18			479104	2013 <i>AN</i> ₁₅₆		5 10.3 236°28	1°3/11.5 18		
4 1	15 35.33	-16 20.1	2.370	3.165	12.7	21.7	4 1	15 33.04	-24 53.7	2.439	3.216	12.9	21.5
4 11	15 31.05	-16 5.5	2.281	3.167	10.0	21.5	4 11	15 29.35	-24 27.6	2.340	3.212	10.3	21.3
4 21	15 24.82	-15 45.2	2.214	3.169	6.8	21.3	4 21	15 23.71	-23 49.8	2.264	3.208	7.3	21.1
5 1	15 17.15	-15 20.9	2.174	3.170	3.3	21.1	5 1	15 16.64	-23 0.8	2.214	3.204	4.0	20.9
5 11	15 8.78	-14 55.0	2.162	3.171	1.0	20.9	5 11	15 8.87	-22 3.2	2.192	3.200	1.3	20.7
5 21	15 0.49	-14 30.2	2.179	3.172	4.3	21.2	5 21	15 1.19	-21 0.5	2.198	3.195	3.7	20.9
5 31	14 53.07	-14 9.7	2.223	3.172	7.7	21.4	5 31	14 54.38	-19 57.6	2.233	3.191	7.1	21.1
6 10	14 47.16	-13 56.0	2.292	3.172	10.8	21.6	6 10	14 49.07	-18 59.2	2.293	3.186	10.2	21.3
394245	2006 <i>TW</i> ₆₀		5 10.3 219°68	2°3/ 8.3 17			105789	2000 <i>SR</i> ₁₂₁		5 10.3 122°03	3°5/ 6.7 18		
4 1	15 31.89	-14 25.6	2.318	3.124	12.6	20.9	4 1	15 32.16	- 9 7.9	2.696	3.499	11.1	19.9
4 11	15 28.36	-13 29.0	2.229	3.123	9.9	20.8	4 11	15 28.15	- 7 58.4	2.622	3.512	8.7	19.7
4 21	15 22.98	-12 25.6	2.164	3.122	6.7	20.6	4 21	15 22.60	- 6 46.4	2.572	3.524	6.1	19.6
5 1	15 16.24	-11 18.7	2.125	3.120	3.5	20.3	5 1	15 15.99	- 5 35.8	2.550	3.536	4.0	19.4
5 11	15 8.85	-10 12.9	2.115	3.118	2.5	20.3	5 11	15 8.93	- 4 30.9	2.558	3.548	3.8	19.4
5 21	15 1.58	- 9 12.6	2.132	3.117	5.2	20.4	5 21	15 2.02	- 3 35.4	2.594	3.559	5.7	19.6
5 31	14 55.15	- 8 22.1	2.178	3.115	8.5	20.6	5 31	14 55.88	- 2 52.3	2.657	3.570	8.2	19.8
6 10	14 50.18	- 7 44.4	2.247	3.113	11.5	20.8	6 10	14 50.98	- 2 23.2	2.745	3.581	10.5	19.9
331476	1995 <i>US</i> ₁₇		5 10.3 285°63	0°6/ 9.9 18			51982	2001 <i>RK</i> ₁₅₀		5 10.3 72°20	1°4/11.2 18		
4 1	15 35.17	-18 48.3	1.930	2.734	14.9	21.0	4 1	15 36.81	-22 27.0	2.083	2.870	14.5	18.9
4 11	15 31.78	-18 20.4	1.814	2.704	11.9	20.8	4 11	15 32.46	-22 33.9	2.009	2.887	11.5	18.7
4 21	15 25.88	-17 41.8	1.718	2.675	8.3	20.5	4 21	15 25.89	-22 31.5	1.958	2.905	8.1	18.5
5 1	15 17.92	-16 53.7	1.648	2.644	4.1	20.2	5 1	15 17.70	-22 19.7	1.931	2.923	4.4	18.3
5 11	15 8.72	-15 59.2	1.604	2.614	0.8	19.8	5 11	15 8.79	-22 0.3	1.932	2.940	1.4	18.2
5 21	14 59.30	-15 3.1	1.588	2.583	5.3	20.1	5 21	15 0.10	-21 35.8	1.961	2.958	4.1	18.4
5 31	14 50.79	-14 11.0	1.598	2.552	9.8	20.3	5 31	14 52.53	-21 10.1	2.017	2.976	7.7	18.6
6 10	14 44.12	-13 28.3	1.631	2.520	13.9	20.5	6 10	14 46.76	-20 47.2	2.097	2.993	10.9	18.9
57801	2001 <i>VW</i> ₁₀₇		5 10.3 127°28	0°3/10.5 18			458851	2011 <i>UC</i> ₇₆		5 10.3 297°17	2°9/12.1 16		
4 1	15 34.43	-19 51.0	2.369	3.159	12.8	20.3	4 1	15 36.08	-25 54.1	2.260	3.033	13.9	21.5
4 11	15 30.37	-19 41.8	2.282	3.164	10.2	20.1	4 11	15 32.08	-26 21.1	2.161	3.027	11.3	21.3
4 21	15 24.37	-19 25.0	2.217	3.169	7.0	20.0	4 21	15 25.81	-26 38.6	2.084	3.021	8.3	21.1
5 1	15 16.94	-19 1.6	2.178	3.173	3.5	19.7	5 1	15 17.78	-26 45.2	2.032	3.015	5.1	20.9
5 11	15 8.82	-18 33.6	2.167	3.177	0.3	19.5	5 11	15 8.79	-26 40.8	2.007	3.009	3.0	20.7
5 21	15 0.80	-18 3.9	2.185	3.182	3.9	19.8	5 21	14 59.76	-26 26.9	2.010	3.004	4.5	20.8
5 31	14 53.67	-17 35.9	2.230	3.186	7.3	20.0	5 31	14 51.66	-26 6.7	2.040	2.998	7.7	21.0
6 10	14 48.07	-17 12.7	2.301	3.190	10.4	20.2	6 10	14 45.26	-25 44.5	2.095	2.993	10.9	21.2
141806	2002 <i>NF</i> ₃₈		5 10.3 231°58	5°0/13.6 18			297257	1995 <i>SC</i> ₅₉		5 10.3 207°04</			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
251221	2006 <i>UM</i> ₂₀₄		5 10.3 211°06	7°6/17.7	17		338239	2002 <i>TH</i> ₁₀₆		5 10.3 238°06	2°6/12.1	17	
4 1	15 38.73	-45 18.4	2.779	3.439	13.9	20.7	4 1	15 36.27	-26 16.3	2.288	3.059	13.8	21.4
4 11	15 34.19	-45 51.6	2.679	3.436	12.4	20.6	4 11	15 32.18	-26 26.4	2.187	3.052	11.3	21.2
4 21	15 27.25	-46 7.6	2.596	3.433	10.7	20.4	4 21	15 25.85	-26 25.6	2.107	3.044	8.2	21.0
5 1	15 18.47	-46 2.7	2.536	3.429	9.1	20.3	5 1	15 17.80	-26 12.9	2.052	3.036	5.0	20.8
5 11	15 8.74	-45 35.2	2.499	3.426	7.9	20.2	5 11	15 8.82	-25 49.1	2.024	3.028	2.7	20.6
5 21	14 59.10	-44 45.9	2.488	3.422	7.7	20.2	5 21	14 59.83	-25 16.3	2.025	3.020	4.3	20.7
5 31	14 50.55	-43 38.6	2.503	3.418	8.6	20.3	5 31	14 51.77	-24 38.4	2.053	3.011	7.6	20.9
6 10	14 43.89	-42 19.3	2.543	3.413	10.2	20.3	6 10	14 45.41	-24 0.2	2.106	3.002	10.9	21.1
424141	2007 <i>GN</i>		5 10.3 359°57	0°2/10.2	17		11615	Naoya		5 10.3 125°36	1°0/ 9.4	18	
4 1	15 32.42	-19 4.6	1.447	2.275	17.8	20.8	4 1	15 33.59	-15 53.7	2.692	3.485	11.4	18.7
4 11	15 30.10	-18 50.3	1.369	2.273	14.1	20.6	4 11	15 29.37	-15 30.8	2.610	3.496	8.9	18.5
4 21	15 24.89	-18 25.0	1.310	2.271	9.7	20.3	4 21	15 23.52	-15 2.9	2.552	3.506	6.0	18.3
5 1	15 17.43	-17 50.2	1.273	2.271	4.8	20.0	5 1	15 16.49	-14 31.9	2.521	3.517	3.0	18.1
5 11	15 8.82	-17 9.9	1.261	2.271	0.5	19.7	5 11	15 8.94	-14 0.1	2.518	3.527	1.1	18.0
5 21	15 0.34	-16 29.0	1.274	2.272	5.6	20.1	5 21	15 1.52	-13 30.3	2.545	3.536	3.9	18.2
5 31	14 53.23	-15 53.5	1.311	2.274	10.5	20.3	5 31	14 54.87	-13 5.3	2.600	3.546	6.9	18.4
6 10	14 48.43	-15 28.3	1.369	2.277	14.8	20.6	6 10	14 49.53	-12 47.2	2.680	3.555	9.6	18.6
30504	2000 <i>RS</i> ₈₀		5 10.3 5°95	1°2/11.9	18		59369	Chanco		5 10.3 11°90	1°1/ 9.6	17	
4 1	15 27.27	-24 52.1	4.130	4.893	8.2	18.5	4 1	15 33.47	-15 51.0	1.799	2.615	15.3	19.0
4 11	15 24.02	-24 47.3	4.031	4.893	6.6	18.4	4 11	15 30.25	-15 39.8	1.719	2.617	12.0	18.8
4 21	15 19.68	-24 36.3	3.956	4.894	4.7	18.2	4 21	15 24.62	-15 22.5	1.660	2.620	8.2	18.6
5 1	15 14.55	-24 19.4	3.909	4.894	2.7	18.1	5 1	15 17.20	-15 0.9	1.625	2.622	4.0	18.3
5 11	15 9.05	-23 57.6	3.890	4.895	1.3	18.0	5 11	15 8.88	-14 38.1	1.617	2.626	1.3	18.1
5 21	15 3.60	-23 32.4	3.900	4.896	2.4	18.1	5 21	15 0.68	-14 17.5	1.635	2.630	5.2	18.4
5 31	14 58.60	-23 5.5	3.940	4.896	4.4	18.2	5 31	14 53.60	-14 2.8	1.679	2.634	9.3	18.6
6 10	14 54.42	-22 39.1	4.006	4.897	6.3	18.3	6 10	14 48.40	-13 56.9	1.746	2.639	12.9	18.9
69378	1994 <i>WA</i> ₈		5 10.3 176°48	1°8/ 8.7	18		130558	2000 <i>RE</i> ₃₁		5 10.3 296°66	1°2/10.9	18	
4 1	15 34.88	-14 19.4	2.606	3.400	11.7	20.8	4 1	15 34.34	-23 7.6	1.401	2.219	18.7	19.3
4 11	15 30.46	-13 39.6	2.516	3.402	9.2	20.6	4 11	15 32.19	-22 50.6	1.299	2.195	15.2	19.0
4 21	15 24.30	-12 54.5	2.449	3.404	6.3	20.4	4 21	15 26.78	-22 16.4	1.215	2.172	10.9	18.7
5 1	15 16.89	-12 6.6	2.410	3.405	3.2	20.2	5 1	15 18.61	-21 24.7	1.153	2.148	5.8	18.3
5 11	15 8.88	-11 19.2	2.400	3.406	2.0	20.1	5 11	15 8.76	-20 18.3	1.116	2.125	1.2	17.9
5 21	15 0.97	-10 35.8	2.420	3.406	4.6	20.3	5 21	14 58.69	-19 3.2	1.102	2.102	6.0	18.2
5 31	14 53.85	-9 59.6	2.467	3.405	7.6	20.5	5 31	14 49.93	-17 48.2	1.113	2.079	11.6	18.4
6 10	14 48.10	-9 33.0	2.540	3.404	10.4	20.6	6 10	14 43.75	-16 42.7	1.145	2.057	16.7	18.7
68738	2002 <i>EJ</i> ₃₅		5 10.3 338°41	0°2/10.2	17		511360	2014 <i>FP</i> ₂₀		5 10.3 337°13	4°6/13.6	17	
4 1	15 28.75	-18 13.3	1.614	2.442	16.2	18.9	4 1	15 34.96	-31 52.6	2.075	2.834	15.4	20.9
4 11	15 27.12	-18 8.7	1.514	2.419	12.9	18.6	4 11	15 31.49	-32 8.0	1.981	2.832	12.8	20.7
4 21	15 22.88	-17 55.2	1.435	2.397	9.0	18.3	4 21	15 25.54	-32 7.9	1.908	2.829	9.9	20.5
5 1	15 16.50	-17 34.1	1.378	2.375	4.5	18.0	5 1	15 17.69	-31 50.4	1.857	2.827	6.9	20.3
5 11	15 8.89	-17 8.0	1.346	2.355	0.5	17.6	5 11	15 8.85	-31 15.6	1.832	2.825	4.8	20.2
5 21	15 1.14	-16 40.9	1.338	2.337	5.4	17.9	5 21	15 0.09	-30 26.2	1.834	2.823	5.5	20.2
5 31	14 54.44	-16 17.5	1.355	2.320	10.1	18.1	5 31	14 52.43	-29 27.1	1.863	2.821	8.3	20.4
6 10	14 49.77	-16 2.5	1.394	2.304	14.4	18.3	6 10	14 46.72	-28 25.0	1.915	2.819	11.4	20.6
116350	2003 <i>YU</i> ₈₉		5 10.3 181°05	2°9/ 8.6	17		35133	1992 <i>QX</i>		5 10.3 247°01	5°2/ 6.3	18	
4 1	15 38.82	-11 17.7	1.859	2.668	15.1	20.7	4 1	15 35.59	- 5 40.7	2.163	2.971	13.3	19.6
4 11	15 34.32	-10 54.2	1.775	2.668	12.0	20.5	4 11	15 31.54	- 4 38.9	2.064	2.954	10.7	19.4
4 21	15 27.36	-10 27.4	1.713	2.669	8.3	20.3	4 21	15 25.37	- 3 35.2	1.988	2.936	7.9	19.2
5 1	15 18.52	-10 0.5	1.675	2.669	4.5	20.0	5 1	15 17.56	- 2 34.5	1.938	2.918	5.6	19.0
5 11	15 8.75	- 9 37.1	1.665	2.669	3.1	20.0	5 11	15 8.87	- 1 42.2	1.915	2.898	5.6	19.0
5 21	14 59.09	- 9 20.7	1.682	2.668	6.3	20.1	5 21	15 0.14	- 1 3.1	1.919	2.879	7.9	19.1
5 31	14 50.55	- 9 14.5	1.726	2.667	10.1	20.4	5 31	14 52.24	- 0 40.5	1.950	2.859	10.9	19.2
6 10	14 43.96	- 9 20.2	1.792	2.665	13.6	20.6	6 10	14 45.92	- 0 35.9	2.003	2.838	13.9	19.4
425530	2010 <i>OQ</i> ₅₀		5 10.3 270°46	2°6/11.5	17		308578	2005 <i>UK</i> ₄₇₁		5 10.3 301°80	1°1/11.2	16	
4 1	15 40.29	-23 49.5	1.760	2.548	16.7	21.6	4 1	15 32.86	-22 54.8	2.371	3.157	13.0	21.6
4 11	15 36.36	-24 10.6	1.647	2.524	13.7	21.4	4 11	15 29.28	-22 43.9	2.276	3.154	10.4	21.4
4 21	15 29.39	-24 21.4	1.553	2.498	10.0	21.1	4 21	15 23.73	-22 23.2	2.203	3.150	7.3	21.2
5 1	15 19.83	-24 19.9	1.484	2.473	5.8	20.8	5 1	15 16.71	-21 53.3	2.155	3.147	3.9	21.0
5 11	15 8.64	-24 5.7	1.440	2.447	2.6	20.5	5 11	15 8.94	-21 16.2	2.135	3.144	1.1	20.8
5 21	14 57.09	-23 40.6	1.423	2.420	5.5	20.6	5 21	15 1.24	-20 34.9	2.143	3.141	3.8	21.0
5 31	14 46.59	-23 9.1	1.432	2.393	10.1	20.8	5 31	14 54.40	-19 53.3	2.179	3.138	7.2	21.2
6 10	14 38.34	-22 37.6	1.465	2.365	14.5	21.0	6 10	14 49.07	-19 15.5	2.240	3.135	10.4	21.4
64695	2001 <i>XQ</i> ₈₂		5 10.3 237°78	2°5/ 8.7	18		341784	2007 <i>WS</i> ₄₁		5 10.3 174°11	0°6/ 9.8	17	
4 1	15 36.38	-12 39.5	1.964	2.773	14.4	19.8	4 1	15 34.04	-17 44.3	2.282	3.080	13.0	21.4
4 11	15 32.38	-12 10.8	1.870	2.764	11.4	19.6	4 11	15 30.16	-17 20.8	2.193	3.081	10.3	21.2
4 21	15 26.05	-11 37.4	1.798	2.755	7.9	19.3	4 21	15 24.30	-16 50.1	2.126	3.081	7.0	21.0
5 1	15 17.91	-11 2.0	1.751	2.746	4.2	19.1	5 1	15 16.97	-16 13.9	2.086	3.082	3.4	20.8
5 11	15 8.81	-10 28.4	1.732	2.736	2.7	19.0	5 11	15 8.92	-15 35.0	2.073	3.082	0.8	20.6
5 21	14 59.72	-10 0.6	1.740	2.727	5.9	19.1	5 21	15 0.97	-14 56.9	2.088	3.082	4.3	20.8
5 31	14 51.63	- 9 42.2	1.774	2.716	9.8	19.4	5 31	14 53.92	-14 23.3	2.131	3.082	7.8	21.0
6 10	14 45.33	- 9 35.8	1.832	2.706	13.3	19.5	6 10	14 48.41	-13 57.3	2.199	3.082	11.0	21.2
269505	2009 <i>UA</i> ₈₉		5 10.3 207°20	2°0/ 8.9	17	R	284454	2007 <i>EX</i> ₂₂₁		5 10.3 267°66	3°6/ 4.7	18	
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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
384813	2012 <i>QD</i> ₅₁		5 10.3 249°80	8°2/15.9	18		105795	2000 <i>SA</i> ₁₂₃		5 10.3 143°93	1°7/ 8.7	18	
4 1	15 41.66	-41 42.3	2.331	3.023	15.6	20.8	4 1	15 33.09	-13 24.7	2.846	3.641	10.8	20.3
4 11	15 37.13	-42 32.3	2.221	3.007	13.8	20.6	4 11	15 28.89	-12 52.0	2.763	3.650	8.4	20.1
4 21	15 29.70	-43 5.5	2.128	2.990	11.7	20.4	4 21	15 23.16	-12 15.6	2.704	3.658	5.7	19.9
5 1	15 19.90	-43 17.0	2.058	2.974	9.7	20.3	5 1	15 16.34	-11 37.7	2.672	3.666	3.0	19.8
5 11	15 8.70	-43 3.5	2.011	2.957	8.4	20.2	5 11	15 9.03	-11 1.0	2.669	3.674	1.9	19.7
5 21	14 57.34	-42 24.9	1.991	2.939	8.4	20.1	5 21	15 1.83	-10 28.3	2.696	3.681	4.2	19.9
5 31	14 47.11	-41 24.9	1.995	2.921	9.8	20.2	5 31	14 55.36	-10 2.0	2.751	3.688	6.9	20.0
6 10	14 39.09	-40 10.7	2.025	2.903	12.1	20.3	6 10	14 50.09	-9 44.2	2.831	3.695	9.5	20.2
501721	2014 <i>UC</i> ₄₈		5 10.3 288°49	3°8/ 8.4	17		234310	2001 <i>AG</i> ₄₆		5 10.3 110°22	1°1/ 9.8	17	
4 1	15 36.33	-11 3.0	1.479	2.308	17.4	21.7	4 1	15 45.49	-12 20.2	2.178	2.962	14.0	20.4
4 11	15 33.19	-10 31.8	1.390	2.295	13.8	21.4	4 11	15 39.07	-12 49.5	2.101	2.980	11.1	20.3
4 21	15 27.09	-9 56.0	1.322	2.283	9.7	21.1	4 21	15 30.36	-13 18.0	2.047	2.997	7.6	20.1
5 1	15 18.61	-9 19.7	1.277	2.271	5.5	20.9	5 1	15 19.96	-13 45.9	2.020	3.014	3.8	19.9
5 11	15 8.80	-8 48.1	1.256	2.259	4.1	20.7	5 11	15 8.77	-14 13.8	2.022	3.031	1.2	19.7
5 21	14 58.95	-8 26.4	1.260	2.247	7.7	20.9	5 21	14 57.76	-14 42.1	2.055	3.047	4.6	20.0
5 31	14 50.37	-8 19.0	1.289	2.235	12.3	21.1	5 31	14 47.88	-15 12.1	2.117	3.063	8.2	20.2
6 10	14 44.09	-8 28.1	1.338	2.223	16.6	21.4	6 10	14 39.85	-15 45.0	2.205	3.078	11.4	20.5
431841	2008 <i>SS</i> ₄₅		5 10.3 236°78	4°8/ 6.3	18		111715	2002 <i>CO</i> ₃₄		5 10.3 218°32	3°8/13.1	18	
4 1	15 33.24	-8 55.0	2.058	2.873	13.6	21.1	4 1	15 36.83	-30 16.4	2.608	3.355	12.9	19.9
4 11	15 29.69	-7 32.0	1.970	2.866	10.8	20.9	4 11	15 32.43	-30 43.3	2.507	3.350	10.7	19.7
4 21	15 24.07	-6 4.0	1.905	2.860	7.7	20.7	4 21	15 25.95	-30 59.3	2.427	3.346	8.2	19.5
5 1	15 16.89	-4 36.3	1.867	2.852	5.2	20.6	5 1	15 17.86	-31 2.7	2.372	3.341	5.6	19.3
5 11	15 8.94	-3 15.5	1.856	2.845	5.1	20.5	5 11	15 8.91	-30 53.1	2.345	3.336	3.9	19.2
5 21	15 1.08	-2 7.5	1.873	2.838	7.6	20.7	5 21	14 59.95	-30 31.7	2.345	3.331	4.7	19.3
5 31	14 54.14	-1 16.8	1.916	2.830	10.8	20.8	5 31	14 51.82	-30 1.7	2.374	3.326	7.1	19.4
6 10	14 48.82	-0 45.7	1.981	2.822	13.8	21.0	6 10	14 45.26	-29 27.4	2.428	3.321	9.8	19.6
257849	2000 <i>NH</i>		5 10.3 29°33	3°7/ 8.3	17		89219	2001 <i>UJ</i> ₁₂₀		5 10.3 288°73	1°2/ 9.6	17	
4 1	15 33.75	-12 6.2	1.356	2.195	18.1	20.1	4 1	15 34.63	-17 19.0	1.691	2.507	16.1	20.1
4 11	15 31.05	-11 23.8	1.292	2.203	14.2	19.9	4 11	15 31.57	-16 51.8	1.594	2.492	12.8	19.9
4 21	15 25.44	-10 35.8	1.248	2.212	9.8	19.6	4 21	15 25.83	-16 14.7	1.518	2.477	8.8	19.6
5 1	15 17.66	-9 47.3	1.226	2.222	5.4	19.4	5 1	15 17.96	-15 29.9	1.465	2.462	4.4	19.3
5 11	15 8.90	-9 4.3	1.229	2.232	4.0	19.4	5 11	15 8.90	-14 41.3	1.438	2.447	1.4	19.0
5 21	15 0.43	-8 32.5	1.256	2.243	7.6	19.6	5 21	14 59.79	-13 54.0	1.438	2.433	5.7	19.3
5 31	14 53.44	-8 16.2	1.306	2.255	11.9	19.9	5 31	14 51.79	-13 13.5	1.463	2.418	10.4	19.5
6 10	14 48.79	-8 17.2	1.377	2.267	15.9	20.1	6 10	14 45.86	-12 44.7	1.510	2.403	14.5	19.7
208810	2002 <i>QB</i> ₁₁₉		5 10.3 210°28	1°3/11.3	18		293184	2007 <i>AE</i> ₁₇		5 10.3 80°83	7°4/16.7	18	
4 1	15 36.51	-23 13.0	2.737	3.506	11.8	22.1	4 1	15 38.22	-42 0.8	2.499	3.189	14.7	20.6
4 11	15 31.89	-23 10.2	2.631	3.498	9.5	21.9	4 11	15 33.93	-42 42.4	2.410	3.194	12.9	20.5
4 21	15 25.41	-22 59.1	2.549	3.491	6.7	21.8	4 21	15 27.16	-43 7.1	2.339	3.200	10.9	20.4
5 1	15 17.53	-22 39.5	2.493	3.482	3.7	21.5	5 1	15 18.50	-43 11.0	2.291	3.205	9.0	20.2
5 11	15 8.92	-22 12.8	2.466	3.473	1.3	21.3	5 11	15 8.87	-42 52.8	2.267	3.211	7.6	20.2
5 21	15 0.30	-21 41.1	2.468	3.464	3.5	21.5	5 21	14 59.34	-42 13.4	2.268	3.216	7.5	20.2
5 31	14 52.45	-21 7.6	2.499	3.454	6.6	21.7	5 31	14 50.96	-41 16.8	2.296	3.222	8.7	20.2
6 10	14 45.97	-20 35.9	2.556	3.443	9.5	21.9	6 10	14 44.53	-40 9.4	2.348	3.227	10.6	20.4
478127	2011 <i>UZ</i> ₁₁₂		5 10.3 201°30	0°4/ 9.9	17		426633	2013 <i>SO</i> ₆₆		5 10.3 265°11	1°2/10.9	18	
4 1	15 32.56	-18 56.6	2.685	3.475	11.5	21.9	4 1	15 40.48	-20 14.8	1.895	2.686	15.5	21.2
4 11	15 28.71	-18 25.4	2.590	3.472	9.1	21.7	4 11	15 36.16	-20 35.3	1.785	2.666	12.6	20.9
4 21	15 23.17	-17 46.8	2.517	3.470	6.2	21.5	4 21	15 29.05	-20 49.0	1.695	2.645	8.9	20.7
5 1	15 16.39	-17 2.3	2.471	3.467	3.0	21.3	5 1	15 19.62	-20 54.9	1.630	2.623	4.7	20.4
5 11	15 9.01	-16 14.6	2.454	3.464	0.5	21.1	5 11	15 8.78	-20 53.3	1.592	2.601	1.2	20.1
5 21	15 1.70	-15 26.9	2.466	3.461	3.7	21.3	5 21	14 57.66	-20 45.8	1.581	2.578	4.9	20.3
5 31	14 55.14	-14 42.9	2.507	3.457	6.9	21.5	5 31	14 47.52	-20 35.8	1.597	2.555	9.4	20.5
6 10	14 49.88	-14 5.6	2.573	3.454	9.7	21.7	6 10	14 39.40	-20 27.7	1.637	2.532	13.6	20.7
77418	2001 <i>FN</i> ₁₈₉		5 10.3 308°06	2°6/11.7	18		95330	2002 <i>CC</i> ₁₁₄		5 10.3 106°75	8°4/ 5.0	18	
4 1	15 34.96	-24 25.6	1.782	2.578	16.2	19.3	4 1	15 35.90	+ 2 55.3	1.865	2.675	15.1	19.4
4 11	15 31.94	-24 43.3	1.679	2.560	13.2	19.0	4 11	15 31.88	+ 3 58.3	1.798	2.678	12.5	19.3
4 21	15 26.17	-24 49.8	1.596	2.543	9.6	18.8	4 21	15 25.59	+ 4 54.3	1.752	2.681	10.1	19.1
5 1	15 18.17	-24 43.7	1.537	2.526	5.6	18.5	5 1	15 17.65	+ 5 36.7	1.729	2.684	8.6	19.0
5 11	15 8.86	-24 25.3	1.503	2.509	2.7	18.3	5 11	15 8.95	+ 5 59.9	1.732	2.687	8.8	19.0
5 21	14 59.40	-23 57.2	1.495	2.492	5.1	18.4	5 21	15 0.43	+ 6 0.6	1.760	2.690	10.5	19.1
5 31	14 51.01	-23 23.8	1.513	2.476	9.4	18.6	5 31	14 53.00	+ 5 38.0	1.811	2.693	13.0	19.3
6 10	14 44.72	-22 51.0	1.553	2.460	13.4	18.8	6 10	14 47.38	+ 4 54.1	1.883	2.695	15.5	19.5
419580	2010 <i>RA</i> ₇₉		5 10.3 187°54	1°3/ 9.4	16		62828	2000 <i>UN</i> ₅₃		5 10.3 109°69	1°3/ 9.3	18	
4 1	15 38.98	-16 1.8	2.143	2.937	13.9	22.8	4 1	15 33.76	-15 3.5	2.593	3.388	11.7	19.6
4 11	15 34.17	-15 34.0	2.052	2.937	11.0	22.6	4 11	15 29.57	-14 39.7	2.514	3.401	9.1	19.5
4 21	15 27.13	-14 59.3	1.982	2.936	7.5	22.4	4 21	15 23.70	-14 11.4	2.459	3.414	6.2	19.3
5 1	15 18.42	-14 19.8	1.939	2.934	3.7	22.1	5 1	15 16.63	-13 40.4	2.431	3.426	3.1	19.1
5 11	15 8.86	-13 38.7	1.924	2.932	1.5	22.0	5 11	15 9.03	-13 9.4	2.431	3.439	1.4	19.0
5 21	14 59.39	-12 59.7	1.937	2.928	5.0	22.2	5 21	15 1.58	-12 41.2	2.460	3.451	4.1	19.2
5 31	14 50.92	-12 27.0	1.978	2.924	8.7	22.4	5 31	14 54.94	-12 18.5	2.518	3.462	7.1	19.4
6 10	14 44.19	-12 3.7	2.044	2.919	12.1	22.6	6 10	14 49.64	-12 3.4	2.600	3.474	9.9	19.6
231400	2006 <i>SE</i> ₃₂		5 10.3 266°91	0°5/ 9.8	17		398067	2009 <i>HK</i> ₈₁		5 10.3 316°76	3°8/ 7.1		

EPHEMERIDES

5 10.3

5 10.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
250852	2005 <i>UU</i> ₂₄₄		5 10.3 220°65	1.7°/11.7	18		47642	2000 <i>CF</i> ₃₀		5 10.3 135°71	4.8°/7.0	18	
4 1	15 34.47	-24 40.6	2.884	3.649	11.4	21.7	4 1	15 38.06	-6 57.9	2.025	2.832	14.1	20.0
4 11	15 30.23	-24 43.4	2.779	3.642	9.2	21.5	4 11	15 33.31	-6 0.7	1.955	2.845	11.2	19.8
4 21	15 24.25	-24 37.7	2.697	3.635	6.6	21.4	4 21	15 26.43	-5 2.7	1.908	2.858	8.0	19.6
5 1	15 16.97	-24 23.4	2.641	3.627	3.8	21.2	5 1	15 18.03	-4 8.5	1.886	2.870	5.4	19.5
5 11	15 9.00	-24 1.5	2.613	3.619	1.7	21.0	5 11	15 8.96	-3 23.2	1.893	2.882	5.0	19.5
5 21	15 1.03	-23 33.8	2.615	3.611	3.4	21.1	5 21	15 0.13	-2 50.9	1.926	2.892	7.3	19.7
5 31	14 53.77	-23 3.2	2.646	3.602	6.3	21.3	5 31	14 52.39	-2 34.2	1.986	2.903	10.4	19.9
6 10	14 47.80	-22 33.1	2.702	3.593	9.0	21.4	6 10	14 46.39	-2 33.8	2.069	2.912	13.2	20.1
161973	2007 <i>KJ</i> ₅		5 10.3 55°66	0°5/10.0	17		255632	2006 <i>QO</i> ₂		5 10.3 300°92	3.4°/11.8	18	
4 1	15 37.06	-16 53.4	1.796	2.604	15.6	20.4	4 1	15 36.14	-25 9.4	1.453	2.260	18.7	20.5
4 11	15 33.12	-16 53.4	1.715	2.608	12.4	20.2	4 11	15 33.81	-25 32.2	1.344	2.231	15.5	20.2
4 21	15 26.66	-16 47.2	1.655	2.611	8.5	20.0	4 21	15 28.11	-25 41.8	1.254	2.202	11.5	19.9
5 1	15 18.26	-16 35.7	1.619	2.615	4.2	19.7	5 1	15 19.44	-25 35.3	1.184	2.173	6.9	19.6
5 11	15 8.91	-16 21.2	1.609	2.619	0.7	19.4	5 11	15 8.84	-25 12.0	1.139	2.144	3.5	19.3
5 21	14 59.66	-16 6.8	1.627	2.623	5.0	19.8	5 21	14 57.77	-24 34.0	1.118	2.116	6.3	19.4
5 31	14 51.59	-15 56.0	1.670	2.627	9.2	20.0	5 31	14 47.90	-23 47.4	1.120	2.087	11.4	19.5
6 10	14 45.53	-15 51.9	1.737	2.631	13.0	20.3	6 10	14 40.64	-23 0.7	1.144	2.059	16.5	19.7
345537	2006 <i>QK</i> ₇₉		5 10.3 154°40	4.6°/6.3	18		496990	2002 <i>RR</i> ₂₄₀		5 10.3 252°10	0.3°/10.5	17	
4 1	15 33.23	-4 30.1	2.617	3.420	11.4	21.5	4 1	15 38.09	-20 32.0	1.947	2.740	15.1	23.2
4 11	15 29.11	-3 35.3	2.540	3.426	9.1	21.3	4 11	15 34.06	-20 14.3	1.838	2.722	12.1	22.9
4 21	15 23.37	-2 41.2	2.487	3.432	6.7	21.2	4 21	15 27.45	-19 45.8	1.750	2.702	8.5	22.7
5 1	15 16.47	-1 51.7	2.460	3.437	4.9	21.1	5 1	15 18.77	-19 7.1	1.688	2.683	4.3	22.4
5 11	15 9.05	-1 10.6	2.462	3.442	4.8	21.1	5 11	15 8.91	-18 20.7	1.652	2.662	0.3	22.0
5 21	15 1.75	-0 41.1	2.492	3.446	6.6	21.2	5 21	14 58.93	-17 30.5	1.644	2.641	4.9	22.3
5 31	14 55.22	-0 25.3	2.548	3.450	8.9	21.3	5 31	14 49.94	-16 42.1	1.663	2.619	9.3	22.5
6 10	14 49.96	-0 23.7	2.628	3.454	11.2	21.5	6 10	14 42.87	-16 0.7	1.707	2.597	13.3	22.7
253079	2002 <i>TL</i> ₂₀₅		5 10.3 220°38	1.4°/11.2	17		75228	1999 <i>WB</i> ₄		5 10.3 166°79	0.9°/10.9	18	
4 1	15 38.94	-23 9.9	2.103	2.884	14.6	21.5	4 1	15 40.53	-21 12.1	2.086	2.868	14.6	20.1
4 11	15 34.45	-23 4.2	2.001	2.875	11.7	21.3	4 11	15 35.54	-21 11.1	1.997	2.873	11.7	19.9
4 21	15 27.54	-22 47.6	1.920	2.865	8.3	21.1	4 21	15 28.17	-21 1.0	1.930	2.878	8.1	19.7
5 1	15 18.73	-22 20.0	1.863	2.854	4.5	20.8	5 1	15 18.99	-20 42.2	1.889	2.882	4.2	19.5
5 11	15 8.88	-21 42.8	1.835	2.843	1.4	20.6	5 11	15 8.92	-20 16.1	1.875	2.885	0.9	19.2
5 21	14 59.02	-20 59.4	1.835	2.832	4.4	20.8	5 21	14 58.95	-19 45.7	1.891	2.887	4.3	19.5
5 31	14 50.17	-20 14.4	1.862	2.819	8.4	21.0	5 31	14 50.08	-19 15.2	1.933	2.889	8.2	19.7
6 10	14 43.16	-19 33.0	1.914	2.806	12.0	21.2	6 10	14 43.10	-18 48.8	2.001	2.890	11.7	19.9
183061	2002 <i>QK</i> ₁₀₇		5 10.3 76°67	4.0°/12.7	18		507637	2013 <i>KG</i> ₇		5 10.3 292°87	11.9°/5.6	18	
4 1	15 39.65	-28 46.5	1.566	2.350	18.6	20.3	4 1	15 43.86	+9 4.5	1.529	2.326	18.4	21.0
4 11	15 35.66	-28 58.1	1.496	2.366	15.2	20.1	4 11	15 39.25	+9 46.7	1.435	2.299	16.1	20.8
4 21	15 28.60	-28 52.4	1.445	2.382	11.2	19.9	4 21	15 31.43	+10 14.7	1.360	2.273	13.7	20.5
5 1	15 19.25	-28 27.6	1.417	2.398	7.1	19.7	5 1	15 20.91	+10 19.0	1.306	2.246	12.1	20.4
5 11	15 8.85	-27 45.0	1.413	2.415	4.1	19.5	5 11	15 8.76	+9 51.7	1.275	2.219	12.2	20.3
5 21	14 58.80	-26 49.1	1.436	2.431	5.7	19.7	5 21	14 56.36	+8 49.0	1.267	2.192	14.2	20.3
5 31	14 50.38	-25 47.2	1.483	2.446	9.5	19.9	5 31	14 45.17	+7 11.7	1.283	2.165	17.2	20.4
6 10	14 44.47	-24 47.1	1.554	2.462	13.3	20.2	6 10	14 36.38	+5 5.5	1.318	2.139	20.5	20.6
153667	2001 <i>TK</i> ₁₇₄		5 10.3 188°77	1.0°/9.7	17		206918	2004 <i>PT</i> ₈₉		5 10.3 279°36	2.3°/9.1	18	
4 1	15 37.58	-16 33.1	2.174	2.969	13.7	21.5	4 1	15 37.81	-15 5.0	1.526	2.346	17.4	20.9
4 11	15 33.08	-16 13.2	2.082	2.968	10.8	21.3	4 11	15 34.63	-14 35.6	1.419	2.319	13.9	20.6
4 21	15 26.40	-15 46.7	2.013	2.967	7.4	21.1	4 21	15 28.35	-13 56.8	1.331	2.292	9.7	20.3
5 1	15 18.08	-15 15.3	1.970	2.965	3.6	20.9	5 1	15 19.43	-13 11.1	1.267	2.263	5.0	19.9
5 11	15 8.94	-14 41.9	1.954	2.963	1.1	20.7	5 11	15 8.87	-12 22.9	1.228	2.235	2.5	19.7
5 21	14 59.87	-14 9.6	1.968	2.960	4.7	20.9	5 21	14 57.96	-11 38.0	1.214	2.206	7.0	19.9
5 31	14 51.77	-13 42.4	2.008	2.957	8.4	21.1	5 31	14 48.16	-11 2.9	1.225	2.177	12.3	20.1
6 10	14 45.36	-13 23.3	2.074	2.953	11.8	21.4	6 10	14 40.70	-10 42.7	1.257	2.147	17.1	20.3
483018	2014 <i>VV</i> ₃₇		5 10.3 126°02	2.5°/6.7	18		399385	2001 <i>SH</i> ₁₂₃		5 10.3 230°69	1.4°/11.2	16	
4 1	15 25.56	-5 52.9	4.524	5.321	7.0	21.7	4 1	15 40.66	-23 4.1	1.792	2.581	16.4	22.2
4 11	15 22.51	-5 17.6	4.440	5.325	5.5	21.6	4 11	15 36.35	-22 58.0	1.690	2.569	13.3	22.0
4 21	15 18.59	-4 42.6	4.381	5.328	4.0	21.5	4 21	15 29.16	-22 39.5	1.608	2.556	9.5	21.7
5 1	15 14.05	-4 9.7	4.351	5.331	2.8	21.4	5 1	15 19.67	-22 8.0	1.550	2.542	5.1	21.4
5 11	15 9.24	-3 40.8	4.350	5.334	2.7	21.4	5 11	15 8.86	-21 25.1	1.519	2.527	1.5	21.1
5 21	15 4.48	-3 17.5	4.377	5.338	3.8	21.5	5 21	14 57.97	-20 34.8	1.515	2.512	5.1	21.3
5 31	15 0.09	-3 1.1	4.433	5.341	5.3	21.6	5 31	14 48.26	-19 42.8	1.537	2.496	9.7	21.6
6 10	14 56.37	-2 52.2	4.515	5.344	6.8	21.7	6 10	14 40.75	-18 55.8	1.584	2.479	13.9	21.8
504866	2010 <i>UB</i> ₆₇		5 10.3 206°82	1.2°/9.5	17		423589	2005 <i>VR</i> ₁₁₀		5 10.3 130°74	0.3°/10.1	17	
4 1	15 38.87	-16 8.4	2.069	2.865	14.2	22.7	4 1	15 38.80	-17 51.3	2.071	2.864	14.3	21.8
4 11	15 34.27	-15 46.2	1.973	2.859	11.3	22.5	4 11	15 34.06	-17 44.3	1.991	2.876	11.3	21.6
4 21	15 27.32	-15 17.2	1.899	2.853	7.7	22.2	4 21	15 27.07	-17 30.3	1.933	2.886	7.7	21.4
5 1	15 18.59	-14 43.1	1.850	2.846	3.8	22.0	5 1	15 18.41	-17 10.7	1.901	2.897	3.8	21.2
5 11	15 8.90	-14 6.9	1.830	2.839	1.4	21.8	5 11	15 8.97	-16 47.6	1.897	2.906	0.5	20.9
5 21	14 59.25	-13 32.4	1.838	2.830	5.0	22.0	5 21	14 59.71	-16 24.1	1.921	2.916	4.5	21.2
5 31	14 50.60	-13 3.5	1.874	2.821	9.0	22.2	5 31	14 51.53	-16 3.6	1.972	2.925	8.3	21.5
6 10	14 43.73	-12 43.8	1.933	2.812	12.5	22.4	6 10	14 45.16	-15 49.4	2.048	2.933	11.6	21.7
515721	2014 <i>WM</i> ₂₂₀		5 10.3 157°68										

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5 10.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
32362	2000 <i>QS</i> ₁₃₆		5 10.3 104°29	4.8/ 6.6	18		396541	1994 <i>SU</i> ₇		5 10.3 342°09	6°3/12.8	16	
4 1	15 32.73	- 5 41.1	2.262	3.074	12.7	19.5	4 1	15 36.58	-29 27.3	1.693	2.475	17.5	20.5
4 11	15 29.03	- 4 46.1	2.186	3.078	10.1	19.3	4 11	15 33.70	-30 45.6	1.598	2.461	14.7	20.3
4 21	15 23.49	- 3 51.0	2.133	3.082	7.4	19.1	4 21	15 27.73	-31 53.8	1.522	2.449	11.5	20.1
5 1	15 16.61	- 3 0.2	2.105	3.086	5.2	19.0	5 1	15 19.14	-32 47.1	1.468	2.438	8.3	19.8
5 11	15 9.12	- 2 18.3	2.106	3.090	5.0	19.0	5 11	15 8.95	-33 21.7	1.439	2.427	6.4	19.7
5 21	15 1.76	- 1 48.8	2.133	3.094	7.1	19.1	5 21	14 58.47	-33 36.8	1.435	2.418	7.4	19.7
5 31	14 55.26	- 1 34.1	2.186	3.098	9.7	19.3	5 31	14 49.17	-33 34.9	1.455	2.410	10.4	19.9
6 10	14 50.22	- 1 35.0	2.262	3.102	12.3	19.5	6 10	14 42.26	-33 21.9	1.497	2.402	13.9	20.1
63499	2001 <i>ON</i> ₆₉		5 10.3 218°57	6°3/ 5.6	18		354693	2005 <i>QR</i> ₉₇		5 10.3 173°03	5°3/14.6	17	
4 1	15 36.56	- 1 57.9	2.144	2.949	13.5	20.2	4 1	15 38.79	-36 10.3	2.864	3.574	12.6	21.6
4 11	15 32.25	- 0 54.7	2.057	2.941	11.0	20.0	4 11	15 33.91	-36 47.3	2.766	3.576	10.8	21.5
4 21	15 25.83	+ 0 7.0	1.992	2.932	8.4	19.8	4 21	15 26.95	-37 11.8	2.690	3.578	8.7	21.3
5 1	15 17.84	+ 1 1.8	1.954	2.923	6.6	19.7	5 1	15 18.41	-37 21.2	2.637	3.579	6.7	21.2
5 11	15 9.03	+ 1 44.2	1.942	2.913	6.7	19.7	5 11	15 9.02	-37 14.5	2.612	3.580	5.4	21.1
5 21	15 0.27	+ 2 10.1	1.957	2.902	8.7	19.8	5 21	14 59.65	-36 52.7	2.614	3.581	5.6	21.1
5 31	14 52.41	+ 2 17.1	1.997	2.891	11.4	19.9	5 31	14 51.14	-36 18.6	2.644	3.582	7.2	21.2
6 10	14 46.14	+ 2 4.9	2.059	2.879	14.1	20.1	6 10	14 44.20	-35 36.8	2.700	3.582	9.3	21.3
208632	2002 <i>ET</i> ₈₈		5 10.3 7°44	2°8/ 9.1	17		70414	1999 <i>SF</i> ₆		5 10.3 215°77	1°0/10.9	18	
4 1	15 32.34	-13 46.1	1.102	1.956	20.4	19.8	4 1	15 40.73	-20 23.1	1.819	2.612	16.0	19.4
4 11	15 30.77	-13 25.8	1.037	1.956	16.1	19.5	4 11	15 36.26	-20 36.5	1.725	2.607	12.9	19.1
4 21	15 25.77	-12 58.3	0.989	1.958	11.1	19.2	4 21	15 29.02	-20 41.7	1.651	2.602	9.1	18.9
5 1	15 18.07	-12 27.7	0.962	1.960	5.7	18.9	5 1	15 19.58	-20 38.2	1.602	2.596	4.7	18.6
5 11	15 9.01	-11 59.6	0.957	1.964	3.0	18.8	5 11	15 8.93	-20 27.1	1.580	2.589	1.1	18.3
5 21	15 0.16	-11 39.8	0.974	1.969	7.7	19.1	5 21	14 58.25	-20 10.7	1.585	2.582	4.9	18.6
5 31	14 53.02	-11 33.2	1.013	1.976	12.9	19.4	5 31	14 48.73	-19 53.0	1.617	2.575	9.3	18.8
6 10	14 48.65	-11 42.5	1.071	1.983	17.6	19.7	6 10	14 41.34	-19 38.5	1.672	2.568	13.3	19.0
396452	2014 <i>FL</i> ₁₄		5 10.3 342°69	0°9/ 9.8	17		176377	2001 <i>TE</i> ₂₃₅		5 10.3 127°80	3°5/ 7.1	17	
4 1	15 34.63	-15 29.1	2.060	2.867	14.0	21.1	4 1	15 33.71	- 7 9.6	2.865	3.662	10.7	21.6
4 11	15 30.94	-15 26.2	1.972	2.864	11.0	20.8	4 11	15 29.29	- 6 22.1	2.793	3.678	8.4	21.4
4 21	15 25.05	-15 18.5	1.905	2.861	7.5	20.6	4 21	15 23.41	- 5 34.1	2.745	3.694	6.0	21.3
5 1	15 17.48	-15 7.4	1.863	2.859	3.7	20.4	5 1	15 16.51	- 4 48.9	2.726	3.709	4.0	21.2
5 11	15 9.06	-14 55.1	1.848	2.857	1.1	20.2	5 11	15 9.17	- 4 9.8	2.735	3.724	3.7	21.2
5 21	15 0.68	-14 44.3	1.861	2.855	4.7	20.4	5 21	15 1.99	- 3 39.3	2.773	3.738	5.4	21.3
5 31	14 53.25	-14 37.8	1.900	2.853	8.5	20.7	5 31	14 55.54	- 3 19.5	2.838	3.751	7.8	21.5
6 10	14 47.51	-14 38.1	1.963	2.852	11.9	20.9	6 10	14 50.28	- 3 11.4	2.929	3.764	10.0	21.7
292335	2006 <i>SG</i> ₁₈₆		5 10.3 156°80	0°7/ 9.6	18		338193	2002 <i>RQ</i> ₂₅₇		5 10.3 210°60	0°2/10.5	17	
4 1	15 33.59	-17 22.7	2.990	3.775	10.6	22.0	4 1	15 35.89	-19 22.0	2.272	3.062	13.3	21.9
4 11	15 29.26	-16 52.0	2.902	3.782	8.3	21.9	4 11	15 31.76	-19 14.7	2.177	3.059	10.6	21.7
4 21	15 23.43	-16 15.5	2.837	3.789	5.6	21.7	4 21	15 25.53	-19 0.0	2.104	3.056	7.3	21.5
5 1	15 16.53	-15 34.9	2.800	3.795	2.7	21.5	5 1	15 17.71	-18 38.5	2.057	3.052	3.7	21.2
5 11	15 9.14	-14 52.6	2.792	3.801	0.8	21.4	5 11	15 9.08	-18 12.4	2.038	3.048	0.3	20.9
5 21	15 1.86	-14 11.5	2.815	3.807	3.5	21.6	5 21	15 0.48	-17 44.4	2.047	3.044	4.1	21.2
5 31	14 55.28	-13 34.4	2.866	3.812	6.3	21.8	5 31	14 52.78	-17 18.1	2.084	3.039	7.8	21.5
6 10	14 49.88	-13 3.9	2.943	3.816	8.9	22.0	6 10	14 46.68	-16 56.8	2.146	3.034	11.0	21.7
413090	2001 <i>UH</i> ₁₁		5 10.3 58°55	10°1/13.9	18		110694	2001 <i>TD</i> ₂₁₁		5 10.3 111°46	3°0/ 7.9	18	
4 1	16 1.52	-35 20.7	1.592	2.312	20.8	19.7	4 1	15 35.75	-15 22.5	1.853	2.664	15.1	19.7
4 11	15 53.80	-37 54.6	1.538	2.349	17.8	19.5	4 11	15 31.79	-13 57.0	1.780	2.676	11.8	19.5
4 21	15 41.72	-40 12.1	1.504	2.386	14.6	19.4	4 21	15 25.54	-12 21.7	1.729	2.687	8.0	19.3
5 1	15 26.05	-42 1.7	1.493	2.423	11.7	19.3	5 1	15 17.67	-10 41.8	1.704	2.698	4.3	19.1
5 11	15 8.46	-43 15.1	1.509	2.460	10.1	19.3	5 11	15 9.10	- 9 4.3	1.707	2.709	3.3	19.0
5 21	14 51.08	-43 50.4	1.551	2.496	10.5	19.4	5 21	15 0.80	- 7 36.1	1.738	2.720	6.5	19.3
5 31	14 36.01	-43 53.2	1.619	2.533	12.4	19.6	5 31	14 53.70	- 6 23.5	1.795	2.730	10.2	19.5
6 10	14 24.65	-43 34.5	1.708	2.569	14.8	19.8	6 10	14 48.45	- 5 29.7	1.876	2.740	13.5	19.7
336347	2008 <i>TH</i> ₁₂₃		5 10.3 69°08	2°1/ 8.9	17		415109	2012 <i>CR</i> ₃₅		5 10.3 90°16	2°3/11.6	17	
4 1	15 34.91	-14 27.2	1.872	2.685	14.9	21.2	4 1	15 38.99	-24 19.6	1.588	2.385	17.8	21.4
4 11	15 31.13	-13 50.0	1.802	2.699	11.6	21.0	4 11	15 35.12	-24 25.0	1.512	2.394	14.4	21.2
4 21	15 25.10	-13 6.8	1.754	2.713	7.9	20.8	4 21	15 28.27	-24 16.9	1.455	2.403	10.3	21.0
5 1	15 17.45	-12 20.7	1.731	2.727	4.0	20.6	5 1	15 19.18	-23 54.5	1.422	2.412	5.8	20.7
5 11	15 9.08	-11 36.1	1.735	2.741	2.3	20.5	5 11	15 8.98	-23 19.7	1.414	2.421	2.3	20.5
5 21	15 0.96	-10 57.2	1.766	2.755	5.6	20.8	5 21	14 59.01	-22 36.5	1.432	2.430	5.2	20.7
5 31	14 53.99	-10 28.1	1.823	2.769	9.3	21.0	5 31	14 50.51	-21 51.2	1.475	2.438	9.6	21.0
6 10	14 48.83	-10 11.2	1.903	2.783	12.6	21.3	6 10	14 44.41	-21 10.0	1.541	2.447	13.6	21.3
303885	2005 <i>TG</i> ₇₁		5 10.3 282°51	0°1/10.5	16		385453	2003 <i>SS</i> ₉₁		5 10.3 268°81	5°4/ 6.4	17	
4 1	15 32.24	-21 58.2	2.320	3.111	13.1	20.7	4 1	15 35.04	- 4 53.1	2.123	2.933	13.5	20.7
4 11	15 28.86	-21 15.7	2.220	3.103	10.4	20.5	4 11	15 31.24	- 4 0.1	2.022	2.912	10.9	20.4
4 21	15 23.51	-20 21.6	2.143	3.095	7.2	20.2	4 21	15 25.29	- 3 6.2	1.943	2.891	8.1	20.2
5 1	15 16.69	-19 17.6	2.091	3.086	3.6	20.0	5 1	15 17.66	- 2 16.3	1.889	2.869	5.8	20.0
5 11	15 9.14	-18 7.0	2.068	3.078	0.3	19.7	5 11	15 9.09	- 1 35.6	1.863	2.847	5.7	20.0
5 21	15 1.65	-16 54.5	2.073	3.070	4.0	20.0	5 21	15 0.44	- 1 8.4	1.864	2.824	8.0	20.1
5 31	14 55.04	-15 45.3	2.106	3.061	7.7	20.2	5 31	14 52.61	- 0 57.9	1.890	2.801	11.1	20.2
6 10	14 49.94	-14 44.2	2.164	3.053	11.0	20.4	6 10	14 46.36	- 1 5.2	1.938	2.778	14.1	20.4
429488	2011 <i>AX</i> ₄₀		5 10.3 207°00	2°1/ 8.9	17		308442	2005 <i>SA</i> ₁₉₀					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
470177	2006 <i>UH</i> ₂₇₇		5 10.4 322°06	0°1/10.4 17			502812	2015 <i>DO</i> ₁₁₈		5 10.4 131°76	5°5/ 6.7 17		
4 1	15 32.77	-21 15.4	2.227	3.021	13.4	21.0	4 1	15 35.92	-4 14.5	2.046	2.857	13.9	20.9
4 11	15 29.31	-20 39.3	2.136	3.020	10.7	20.8	4 11	15 31.72	-3 24.5	1.974	2.864	11.1	20.8
4 21	15 23.82	-19 52.5	2.066	3.019	7.4	20.6	4 21	15 25.43	-2 35.9	1.923	2.870	8.2	20.6
5 1	15 16.85	-18 56.7	2.023	3.018	3.7	20.4	5 1	15 17.63	-1 53.5	1.898	2.877	5.9	20.5
5 11	15 9.16	-17 55.2	2.007	3.017	0.2	20.1	5 11	15 9.13	-1 22.1	1.900	2.883	5.7	20.4
5 21	15 1.58	-16 52.4	2.020	3.017	4.1	20.4	5 21	15 0.81	-1 4.9	1.929	2.889	7.8	20.6
5 31	14 54.92	-15 53.3	2.060	3.016	7.8	20.6	5 31	14 53.49	-1 4.2	1.983	2.894	10.6	20.8
6 10	14 49.84	-15 2.2	2.125	3.015	11.1	20.8	6 10	14 47.83	-1 19.8	2.059	2.899	13.4	21.0
52429	1994 <i>PK</i> ₆		5 10.4 296°71	0°4/10.6 17			181174	2005 <i>SV</i> ₇₀		5 10.4 111°31	0°4/10.6 18		
4 1	15 35.38	-20 7.9	1.548	2.363	17.4	19.9	4 1	15 35.87	-18 50.8	2.414	3.202	12.7	20.4
4 11	15 32.66	-20 1.4	1.447	2.343	14.0	19.6	4 11	15 31.58	-19 0.0	2.324	3.205	10.1	20.2
4 21	15 26.94	-19 43.6	1.364	2.322	9.8	19.3	4 21	15 25.33	-19 3.6	2.257	3.208	7.0	20.0
5 1	15 18.72	-19 14.9	1.305	2.301	5.0	19.0	5 1	15 17.60	-19 1.8	2.216	3.210	3.5	19.8
5 11	15 9.01	-18 37.6	1.271	2.281	0.5	18.6	5 11	15 9.13	-18 55.8	2.203	3.213	0.4	19.5
5 21	14 59.10	-17 56.0	1.262	2.260	5.6	18.9	5 21	15 0.72	-18 47.6	2.219	3.216	3.8	19.8
5 31	14 50.36	-17 16.3	1.277	2.240	10.8	19.2	5 31	14 53.16	-18 39.7	2.263	3.218	7.2	20.0
6 10	14 43.94	-16 44.5	1.314	2.220	15.4	19.4	6 10	14 47.10	-18 34.8	2.332	3.221	10.3	20.2
250810	2005 <i>UX</i> ₅₀		5 10.4 203°77	0°5/10.8 17			127777	2003 <i>FT</i> ₅₃		5 10.4 356°88	0°2/10.3 18		
4 1	15 32.88	-21 53.3	2.728	3.508	11.6	20.9	4 1	15 41.62	-15 6.8	1.674	2.480	16.7	19.6
4 11	15 29.01	-21 26.6	2.629	3.505	9.2	20.7	4 11	15 37.09	-15 42.8	1.588	2.480	13.3	19.3
4 21	15 23.43	-20 51.1	2.554	3.502	6.4	20.5	4 21	15 29.68	-16 16.6	1.523	2.479	9.2	19.1
5 1	15 16.61	-20 7.8	2.506	3.499	3.3	20.3	5 1	15 19.95	-16 47.9	1.483	2.479	4.6	18.8
5 11	15 9.18	-19 18.9	2.486	3.496	0.5	20.1	5 11	15 8.97	-17 17.0	1.469	2.478	0.4	18.5
5 21	15 1.82	-18 27.8	2.496	3.492	3.4	20.3	5 21	14 57.96	-17 44.4	1.482	2.478	5.3	18.9
5 31	14 55.21	-17 38.1	2.534	3.488	6.6	20.5	5 31	14 48.22	-18 11.9	1.521	2.479	9.8	19.1
6 10	14 49.90	-16 53.3	2.598	3.484	9.4	20.7	6 10	14 40.73	-18 41.7	1.584	2.479	13.9	19.4
168864	2000 <i>VV</i> ₂₅		5 10.4 173°70	1°3/11.0 18			427735	2004 <i>RO</i> ₃₃		5 10.4 226°48	4°6/13.1 18		
4 1	15 41.58	-21 11.6	1.768	2.560	16.5	20.7	4 1	15 41.25	-30 39.8	2.292	3.037	14.5	21.7
4 11	15 36.93	-21 25.6	1.681	2.562	13.2	20.4	4 11	15 36.41	-31 17.8	2.186	3.027	12.1	21.5
4 21	15 29.46	-21 30.4	1.615	2.564	9.3	20.2	4 21	15 29.03	-31 44.2	2.100	3.017	9.4	21.3
5 1	15 19.78	-21 25.6	1.573	2.565	4.9	19.9	5 1	15 19.60	-31 56.2	2.039	3.006	6.5	21.1
5 11	15 8.95	-21 11.9	1.557	2.566	1.3	19.7	5 11	15 9.00	-31 52.3	2.004	2.994	4.7	21.0
5 21	14 58.18	-20 52.2	1.569	2.566	4.9	19.9	5 21	14 58.27	-31 33.4	1.998	2.982	5.5	21.0
5 31	14 48.69	-20 30.6	1.607	2.566	9.3	20.2	5 31	14 48.51	-31 2.8	2.019	2.969	8.3	21.2
6 10	14 41.43	-20 12.2	1.670	2.566	13.2	20.4	6 10	14 40.62	-30 26.0	2.065	2.956	11.3	21.3
356650	2011 <i>UH</i> ₆₁		5 10.4 284°03	2°9/ 8.6 16			119535	2001 <i>VR</i> ₁₁		5 10.4 257°99	4°7/13.6 18		
4 1	15 36.07	-8 19.6	2.377	3.178	12.5	20.6	4 1	15 38.21	-32 7.2	2.002	2.757	16.0	19.7
4 11	15 31.70	-8 15.4	2.284	3.172	9.9	20.4	4 11	15 34.38	-32 13.7	1.892	2.741	13.5	19.5
4 21	15 25.40	-8 11.7	2.214	3.166	6.9	20.2	4 21	15 27.82	-32 3.4	1.802	2.724	10.4	19.2
5 1	15 17.64	-8 10.6	2.170	3.160	4.1	20.0	5 1	15 19.05	-31 33.5	1.735	2.706	7.1	19.0
5 11	15 9.11	-8 14.4	2.154	3.154	3.1	20.0	5 11	15 9.05	-30 43.7	1.694	2.688	4.8	18.8
5 21	15 0.59	-8 24.9	2.167	3.149	5.4	20.1	5 21	14 58.96	-29 36.9	1.680	2.670	5.7	18.8
5 31	14 52.88	-8 43.6	2.207	3.143	8.5	20.3	5 31	14 50.01	-28 19.0	1.693	2.651	8.9	19.0
6 10	14 46.62	-9 11.1	2.272	3.137	11.4	20.5	6 10	14 43.15	-26 58.0	1.730	2.633	12.5	19.1
479595	2014 <i>DG</i> ₅		5 10.4 359°69	3°7/12.9 17			334747	2003 <i>QY</i> ₄₆		5 10.4 251°83	6°9/ 4.7 18		
4 1	15 34.19	-29 25.7	2.010	2.783	15.4	20.9	4 1	15 33.37	-2 16.2	2.032	2.847	13.8	20.7
4 11	15 30.90	-29 31.0	1.920	2.782	12.7	20.7	4 11	15 29.88	-0 52.5	1.948	2.839	11.2	20.5
4 21	15 25.19	-29 21.4	1.850	2.782	9.5	20.5	4 21	15 24.30	+ 0 30.8	1.888	2.830	8.7	20.3
5 1	15 17.62	-28 55.8	1.803	2.782	6.1	20.3	5 1	15 17.15	+ 1 47.4	1.853	2.820	7.0	20.2
5 11	15 9.11	-28 15.1	1.782	2.782	3.8	20.1	5 11	15 9.19	+ 2 50.7	1.844	2.811	7.3	20.2
5 21	15 0.70	-27 22.5	1.789	2.782	5.0	20.2	5 21	15 1.30	+ 3 35.6	1.861	2.802	9.4	20.3
5 31	14 53.40	-26 23.4	1.821	2.783	8.2	20.4	5 31	14 54.31	+ 3 58.8	1.902	2.792	12.1	20.5
6 10	14 48.01	-25 24.2	1.878	2.784	11.5	20.6	6 10	14 48.94	+ 4 0.1	1.965	2.782	14.8	20.6
508046	2015 <i>BG</i> ₅₃₅		5 10.4 169°65	5°9/ 5.6 17			225026	2007 <i>FB</i> ₂₀		5 10.4 37°12	5°5/11.9 18		
4 1	15 35.75	-3 9.0	2.213	3.019	13.1	22.3	4 1	15 46.58	-24 34.0	1.433	2.224	19.7	19.6
4 11	15 31.43	-1 56.6	2.137	3.022	10.6	22.1	4 11	15 41.73	-26 18.2	1.365	2.239	16.1	19.4
4 21	15 25.16	-0 45.1	2.084	3.026	8.0	22.0	4 21	15 33.26	-27 54.5	1.317	2.255	12.0	19.2
5 1	15 17.47	+ 0 20.2	2.057	3.028	6.2	21.9	5 1	15 21.86	-29 16.6	1.292	2.271	7.9	19.0
5 11	15 9.13	+ 1 13.8	2.058	3.031	6.3	21.9	5 11	15 8.87	-30 19.6	1.292	2.289	5.5	18.9
5 21	15 0.92	+ 1 51.5	2.086	3.032	8.2	22.0	5 21	14 55.98	-31 1.7	1.318	2.307	7.2	19.0
5 31	14 53.64	+ 2 11.0	2.140	3.033	10.8	22.1	5 31	14 44.85	-31 25.8	1.370	2.325	10.9	19.3
6 10	14 47.90	+ 2 11.9	2.216	3.034	13.3	22.3	6 10	14 36.69	-31 38.2	1.443	2.344	14.6	19.6
371522	2006 <i>UG</i> ₁₈₅		5 10.4 141°45	4°5/ 3.7 18			246900	1997 <i>WB</i> ₁₈		5 10.4 151°35	2°2/11.7 18		
4 1	15 26.74	+ 5 43.8	4.509	5.290	7.3	21.3	4 1	15 39.89	-23 48.8	2.448	3.214	13.1	21.2
4 11	15 23.43	+ 6 24.5	4.438	5.295	6.1	21.2	4 11	15 34.82	-24 19.7	2.356	3.220	10.6	21.1
4 21	15 19.24	+ 7 0.8	4.393	5.301	5.1	21.2	4 21	15 27.61	-24 43.1	2.287	3.225	7.6	20.9
5 1	15 14.43	+ 7 30.2	4.374	5.306	4.6	21.1	5 1	15 18.78	-24 57.7	2.244	3.229	4.5	20.7
5 11	15 9.35	+ 7 50.9	4.383	5.311	4.7	21.1	5 11	15 9.09	-25 3.4	2.229	3.234	2.3	20.5
5 21	15 4.33	+ 8 1.4	4.419	5.316	5.5	21.2	5 21	14 59.44	-25 1.3	2.244	3.238	4.0	20.7
5 31	14 59.70	+ 8 1.2	4.481	5.321	6.7	21.3	5 31	14 50.69	-24 54.1	2.286	3.242	7.2	20.9
6 10	14 55.76	+ 7 50.3	4.566	5.325	7.8	21.4	6 10	14 43.57	-24 45.1	2.355	3.245	10.1	21.1
102857	1999 <i>VG</i> ₂₂₄		5 10.4 143°72	3°3/ 8.2 17			374966	2007 <i>DE</i> ₂₃		5 10.4 153°34	6		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
193193	2000 QD ₁₁₂		5 10.4 306°75	0°2/10.2	16		404616	2014 GY ₁₉		5 10.4 286°49	1°6/ 8.9	16	
4 1	15 34.49	-18 48.6	1.569	2.388	17.0	20.9	4 1	15 31.87	-16 7.7	2.311	3.115	12.7	21.6
4 11	15 32.09	-18 38.4	1.454	2.353	13.8	20.6	4 11	15 28.52	-15 21.2	2.217	3.110	10.0	21.4
4 21	15 26.70	-18 17.6	1.359	2.318	9.7	20.2	4 21	15 23.27	-14 27.1	2.147	3.104	6.8	21.2
5 1	15 18.73	-17 46.7	1.286	2.283	4.9	19.9	5 1	15 16.62	-13 28.2	2.103	3.099	3.4	21.0
5 11	15 9.08	-17 8.3	1.239	2.249	0.5	19.4	5 11	15 9.28	-12 28.4	2.086	3.093	1.8	20.9
5 21	14 59.00	-16 26.8	1.216	2.214	5.9	19.7	5 21	15 2.00	-11 31.9	2.098	3.088	4.8	21.1
5 31	14 49.90	-15 48.1	1.218	2.180	11.3	19.9	5 31	14 55.56	-10 43.1	2.138	3.083	8.2	21.3
6 10	14 43.04	-15 18.6	1.241	2.146	16.2	20.1	6 10	14 50.57	-10 5.3	2.201	3.077	11.3	21.5
496650	2016 AL ₁₂₂		5 10.4 0°82	6°1/ 7.1	17		376698	2013 QY ₈₀		5 10.4 235°10	0°1/10.3	17	
4 1	15 34.83	- 7 44.8	1.335	2.175	18.3	21.6	4 1	15 37.69	-19 33.1	1.988	2.783	14.8	21.6
4 11	15 32.09	- 6 42.4	1.264	2.174	14.6	21.3	4 11	15 33.61	-19 14.2	1.887	2.772	11.8	21.4
4 21	15 26.36	- 5 37.1	1.214	2.173	10.5	21.1	4 21	15 27.08	-18 45.7	1.807	2.760	8.2	21.2
5 1	15 18.32	- 4 36.0	1.185	2.173	7.0	20.9	5 1	15 18.63	-18 8.6	1.753	2.748	4.1	20.9
5 11	15 9.14	- 3 46.8	1.180	2.174	6.5	20.8	5 11	15 9.14	-17 25.5	1.725	2.735	0.3	20.5
5 21	15 0.13	- 3 15.9	1.199	2.174	9.6	21.0	5 21	14 59.61	-16 40.4	1.726	2.722	4.7	20.9
5 31	14 52.58	- 3 7.3	1.241	2.175	13.7	21.2	5 31	14 51.10	-15 58.3	1.754	2.709	9.0	21.1
6 10	14 47.41	- 3 21.5	1.302	2.177	17.6	21.5	6 10	14 44.44	-15 23.7	1.805	2.694	12.8	21.3
385807	2006 DH ₅₇		5 10.4 30°45	5°6/ 7.9	17		126826	2002 EL ₅₈		5 10.4 270°44	0°8/ 9.8	18	
4 1	15 37.76	- 3 50.4	1.635	2.456	16.4	20.0	4 1	15 35.15	-17 45.2	1.895	2.702	15.0	20.0
4 11	15 33.74	- 3 34.1	1.567	2.463	13.1	19.8	4 11	15 31.67	-17 21.7	1.800	2.692	11.9	19.7
4 21	15 27.12	- 3 22.0	1.518	2.470	9.6	19.6	4 21	15 25.77	-16 49.4	1.725	2.682	8.2	19.5
5 1	15 18.58	- 3 18.6	1.494	2.477	6.5	19.4	5 1	15 17.98	-16 10.0	1.676	2.672	4.0	19.2
5 11	15 9.13	- 3 27.8	1.494	2.485	5.8	19.4	5 11	15 9.19	-15 27.0	1.653	2.662	1.0	19.0
5 21	14 59.89	- 3 51.5	1.521	2.494	8.2	19.6	5 21	15 0.39	-14 44.5	1.657	2.652	5.1	19.2
5 31	14 51.92	- 4 30.4	1.572	2.503	11.7	19.8	5 31	14 52.62	-14 7.3	1.688	2.642	9.3	19.5
6 10	14 46.02	- 5 23.3	1.645	2.512	14.9	20.0	6 10	14 46.71	-13 39.7	1.741	2.632	13.1	19.7
110611	2001 TH ₁₃₉		5 10.4 98°66	5°0/12.9	17		248953	2006 XX ₁₁		5 10.4 244°52	1°8/ 9.1	17	
4 1	15 44.67	-29 2.2	1.863	2.624	16.9	19.8	4 1	15 35.16	-12 34.1	2.567	3.363	11.8	20.8
4 11	15 39.38	-29 58.9	1.788	2.640	13.9	19.7	4 11	15 30.94	-12 21.8	2.465	3.352	9.3	20.6
4 21	15 31.15	-30 43.2	1.732	2.656	10.6	19.5	4 21	15 24.88	-12 6.6	2.386	3.340	6.4	20.4
5 1	15 20.64	-31 11.4	1.700	2.672	7.2	19.3	5 1	15 17.43	-11 50.4	2.334	3.329	3.4	20.2
5 11	15 8.99	-31 21.8	1.695	2.687	5.0	19.2	5 11	15 9.24	-11 35.5	2.311	3.316	1.9	20.1
5 21	14 57.49	-31 15.4	1.716	2.702	6.1	19.3	5 21	15 1.02	-11 24.0	2.316	3.304	4.6	20.2
5 31	14 47.41	-30 56.3	1.765	2.717	9.1	19.5	5 31	14 53.52	-11 18.4	2.350	3.292	7.7	20.4
6 10	14 39.68	-30 30.9	1.837	2.732	12.3	19.7	6 10	14 47.37	-11 20.5	2.408	3.279	10.7	20.6
387016	2012 RB ₂₈		5 10.4 248°70	3°7/ 7.5	18		55545	2001 XY ₃₄		5 10.4 309°84	7°2/14.8	18	
4 1	15 34.43	- 9 51.8	2.199	3.008	13.1	21.4	4 1	15 38.02	-35 52.0	1.729	2.481	18.3	18.9
4 11	15 30.65	- 8 58.8	2.101	2.994	10.4	21.2	4 11	15 34.80	-36 30.5	1.637	2.476	15.7	18.7
4 21	15 24.83	- 8 1.6	2.026	2.980	7.3	20.9	4 21	15 28.41	-36 50.0	1.563	2.470	12.6	18.5
5 1	15 17.43	- 7 4.2	1.977	2.966	4.5	20.7	5 1	15 19.45	-36 45.8	1.511	2.466	9.6	18.3
5 11	15 9.21	- 6 11.1	1.955	2.951	4.0	20.7	5 11	15 9.10	-36 15.9	1.482	2.461	7.4	18.1
5 21	15 0.98	- 5 27.0	1.962	2.936	6.5	20.8	5 21	14 58.74	-35 22.2	1.477	2.456	7.8	18.2
5 31	14 53.59	- 4 55.7	1.995	2.921	9.8	21.0	5 31	14 49.83	-34 10.8	1.498	2.452	10.3	18.3
6 10	14 47.74	- 4 39.3	2.051	2.905	12.9	21.1	6 10	14 43.44	-32 51.1	1.541	2.447	13.5	18.5
250821	2005 UF ₆₉		5 10.4 253°17	2°1/11.8	18		179746	2002 RG ₁₆₂		5 10.4 198°67	0°5/10.0	17	
4 1	15 35.56	-24 18.7	2.446	3.220	12.9	20.4	4 1	15 39.09	-17 56.8	2.151	2.941	14.0	21.2
4 11	15 31.47	-24 34.8	2.350	3.218	10.4	20.3	4 11	15 34.41	-17 39.7	2.055	2.938	11.1	21.0
4 21	15 25.34	-24 42.3	2.276	3.216	7.5	20.1	4 21	15 27.45	-17 14.9	1.981	2.934	7.6	20.8
5 1	15 17.68	-24 40.6	2.227	3.214	4.4	19.9	5 1	15 18.75	-16 43.9	1.934	2.929	3.8	20.5
5 11	15 9.20	-24 30.2	2.207	3.212	2.1	19.7	5 11	15 9.16	-16 9.0	1.914	2.923	0.6	20.3
5 21	15 0.73	-24 12.9	2.214	3.210	3.9	19.8	5 21	14 59.60	-15 33.9	1.923	2.917	4.6	20.5
5 31	14 53.11	-23 51.8	2.250	3.208	7.1	20.0	5 31	14 51.02	-15 2.3	1.959	2.910	8.4	20.8
6 10	14 47.03	-23 30.4	2.311	3.206	10.1	20.2	6 10	14 44.19	-14 38.1	2.021	2.903	11.9	21.0
219550	2001 RQ ₇₈		5 10.4 159°67	0°6/10.7	17		35346	Ivanoferr		5 10.4 89°81	2°0/ 9.0	18	
4 1	15 41.75	-19 13.0	2.374	3.150	13.2	21.1	4 1	15 34.99	-11 51.2	2.371	3.173	12.5	19.2
4 11	15 36.21	-19 27.1	2.285	3.158	10.5	21.0	4 11	15 30.83	-11 41.2	2.287	3.177	9.8	19.0
4 21	15 28.52	-19 35.2	2.218	3.165	7.3	20.8	4 21	15 24.79	-11 29.1	2.225	3.180	6.7	18.9
5 1	15 19.21	-19 37.4	2.178	3.171	3.7	20.5	5 1	15 17.36	-11 16.8	2.189	3.183	3.6	18.7
5 11	15 9.10	-19 34.3	2.167	3.176	0.6	20.3	5 11	15 9.25	-11 6.5	2.182	3.187	2.1	18.6
5 21	14 59.06	-19 27.9	2.185	3.181	3.9	20.6	5 21	15 1.23	-11 0.7	2.203	3.190	4.8	18.7
5 31	14 49.98	-19 20.7	2.233	3.185	7.5	20.8	5 31	14 54.05	-11 1.3	2.251	3.194	8.0	18.9
6 10	14 42.56	-19 15.6	2.306	3.189	10.6	21.0	6 10	14 48.33	-11 9.8	2.324	3.197	10.9	19.1
158333	2001 WW ₂₅		5 10.4 226°50	0°5/ 9.6	18		303818	2005 SS ₈₉		5 10.4 74°38	1°2/11.2	17	
4 1	15 26.33	-15 38.7	4.892	5.676	6.7	21.2	4 1	15 34.28	-22 19.9	2.388	3.172	12.9	21.2
4 11	15 23.14	-15 25.6	4.790	5.671	5.3	21.1	4 11	15 30.42	-22 19.4	2.298	3.174	10.3	21.0
4 21	15 19.08	-15 9.9	4.713	5.666	3.6	21.0	4 21	15 24.59	-22 10.3	2.229	3.176	7.3	20.8
5 1	15 14.41	-14 52.5	4.665	5.660	1.7	20.8	5 1	15 17.29	-21 52.9	2.187	3.178	3.9	20.6
5 11	15 9.43	-14 34.8	4.646	5.655	0.6	20.7	5 11	15 9.26	-21 28.8	2.171	3.180	1.2	20.4
5 21	15 4.47	-14 17.8	4.658	5.650	2.3	20.9	5 21	15 1.30	-21 0.4	2.185	3.182	3.7	20.6
5 31	14 59.86	-14 2.9	4.699	5.644	4.1	21.0	5 31	14 54.21	-20 31.2	2.225	3.184	7.1	20.8
6 10	14 55.87	-13 51.2	4.767	5.639	5.7	21.1	6 10	14 48.64	-20 4.8	2.291	3.186	10.2	21.0
212600	2006 SN ₂₄₁		5 10.4 166°13	0°9/ 9.7	17		277793	2006 ET ₂₃		5 10.4 155°87	1°2/ 9.6	17	
4 1	15 34.43	-16 34.8	2.466										

EPHEMERIDES

5 10.4

5 10.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
251425	2008 AZ ₁₁₃		5 10.4 316°66	4.2/13.1	17		467503	2007 BO ₃₈		5 10.4 75°86	9.4/ 5.1	16	
4 1	15 34.72	-29 43.5	2.099	2.866	15.0	20.2	4 1	15 38.30	+ 4 1.4	1.677	2.488	16.4	21.7
4 11	15 31.42	-30 8.3	1.997	2.855	12.5	20.0	4 11	15 33.79	+ 5 16.9	1.632	2.511	13.7	21.5
4 21	15 25.67	-30 20.1	1.916	2.844	9.5	19.8	4 21	15 26.90	+ 6 22.7	1.607	2.533	11.1	21.4
5 1	15 17.98	-30 17.0	1.859	2.833	6.4	19.6	5 1	15 18.37	+ 7 11.2	1.606	2.556	9.5	21.4
5 11	15 9.21	-29 58.6	1.827	2.822	4.3	19.4	5 11	15 9.22	+ 7 36.7	1.630	2.578	9.7	21.5
5 21	15 0.37	-29 26.6	1.822	2.812	5.3	19.5	5 21	15 0.49	+ 7 36.6	1.677	2.601	11.4	21.6
5 31	14 52.53	-28 45.3	1.843	2.802	8.3	19.6	5 31	14 53.10	+ 7 11.2	1.748	2.623	13.7	21.8
6 10	14 46.55	-28 0.3	1.888	2.792	11.5	19.8	6 10	14 47.70	+ 6 23.6	1.838	2.644	16.1	22.0
117326	2004 WV ₈		5 10.4 172°20	0°3/10.2	18		15071	Hallerstein		5 10.4 129°87	0°9/10.9	18	
4 1	15 41.88	-17 29.7	1.833	2.628	15.8	20.2	4 1	15 40.74	-20 45.5	2.037	2.822	14.8	17.7
4 11	15 36.97	-17 28.9	1.746	2.632	12.6	20.0	4 11	15 35.73	-20 50.7	1.957	2.835	11.8	17.5
4 21	15 29.40	-17 21.1	1.681	2.635	8.7	19.7	4 21	15 28.34	-20 47.4	1.899	2.847	8.2	17.3
5 1	15 19.77	-17 7.2	1.641	2.637	4.3	19.5	5 1	15 19.18	-20 35.8	1.866	2.859	4.3	17.1
5 11	15 9.09	-16 49.2	1.628	2.638	0.5	19.2	5 11	15 9.18	-20 17.5	1.861	2.870	0.9	16.9
5 21	14 58.51	-16 30.2	1.643	2.639	5.0	19.5	5 21	14 59.36	-19 55.0	1.884	2.881	4.3	17.2
5 31	14 49.14	-16 14.1	1.685	2.639	9.3	19.8	5 31	14 50.69	-19 32.3	1.935	2.892	8.2	17.4
6 10	14 41.87	-16 4.4	1.751	2.639	13.2	20.0	6 10	14 43.94	-19 13.2	2.011	2.902	11.6	17.6
449778	2014 OX ₁₂₂		5 10.4 213°84	3°1/ 6.7	18		363548	2003 WA ₁₃		5 10.4 281°37	0°2/10.5	17	
4 1	15 29.42	- 4 23.2	3.906	4.700	8.1	22.1	4 1	15 40.37	-18 23.2	1.673	2.476	16.8	21.4
4 11	15 25.71	- 3 51.4	3.812	4.693	6.5	22.0	4 11	15 36.64	-18 32.2	1.557	2.447	13.6	21.1
4 21	15 20.92	- 3 20.5	3.743	4.686	4.8	21.8	4 21	15 29.82	-18 34.1	1.461	2.416	9.6	20.8
5 1	15 15.35	- 2 52.7	3.702	4.679	3.4	21.7	5 1	15 20.33	-18 28.6	1.389	2.385	4.9	20.4
5 11	15 9.40	- 2 30.0	3.690	4.672	3.3	21.7	5 11	15 9.09	-18 16.8	1.343	2.353	0.4	20.0
5 21	15 3.47	- 2 14.3	3.707	4.664	4.6	21.8	5 21	14 57.36	-18 1.3	1.324	2.321	5.6	20.3
5 31	14 57.99	- 2 6.8	3.752	4.656	6.3	21.9	5 31	14 46.61	-17 46.2	1.330	2.288	10.9	20.5
6 10	14 53.31	- 2 8.2	3.823	4.648	8.0	22.0	6 10	14 38.09	-17 36.7	1.358	2.255	15.6	20.7
423558	2005 UN ₃₅₄		5 10.4 173°83	3°0/12.0	18		393103	2013 AG ₁₅₉		5 10.4 192°93	2°9/ 7.9	18	
4 1	15 42.36	-25 20.7	2.178	2.943	14.6	21.5	4 1	15 32.37	-11 25.6	2.478	3.283	11.9	21.5
4 11	15 37.15	-25 56.5	2.085	2.945	11.9	21.3	4 11	15 28.71	-10 35.4	2.390	3.282	9.3	21.3
4 21	15 29.45	-26 23.3	2.013	2.947	8.7	21.1	4 21	15 23.30	- 9 41.3	2.326	3.281	6.5	21.1
5 1	15 19.80	-26 39.0	1.967	2.949	5.3	20.9	5 1	15 16.63	- 8 46.4	2.289	3.280	3.7	20.9
5 11	15 9.09	-26 43.1	1.948	2.950	3.0	20.7	5 11	15 9.36	- 7 54.8	2.280	3.279	3.1	20.9
5 21	14 58.38	-26 36.6	1.958	2.951	4.7	20.8	5 21	15 2.17	- 7 10.1	2.299	3.278	5.4	21.0
5 31	14 48.73	-26 22.8	1.995	2.951	8.0	21.0	5 31	14 55.75	- 6 35.7	2.346	3.277	8.3	21.2
6 10	14 40.98	-26 6.0	2.058	2.950	11.3	21.2	6 10	14 50.68	- 6 13.5	2.417	3.275	11.1	21.4
416303	2003 SF ₅		5 10.4 212°32	0°9/10.9	17		32005	Roberthalfon		5 10.4 240°32	0°0/10.4	18	
4 1	15 40.75	-21 9.8	2.066	2.848	14.7	22.4	4 1	15 39.70	-19 8.7	1.616	2.422	17.2	19.4
4 11	15 35.96	-21 8.1	1.965	2.841	11.8	22.2	4 11	15 35.85	-19 2.7	1.522	2.413	13.8	19.1
4 21	15 28.68	-20 57.1	1.885	2.833	8.3	21.9	4 21	15 29.01	-18 47.0	1.447	2.403	9.6	18.8
5 1	15 19.44	-20 36.9	1.831	2.824	4.3	21.7	5 1	15 19.76	-18 22.1	1.396	2.392	4.8	18.5
5 11	15 9.12	-20 9.0	1.804	2.814	0.9	21.4	5 11	15 9.15	-17 50.5	1.371	2.381	0.3	18.1
5 21	14 58.77	-19 36.3	1.806	2.803	4.5	21.6	5 21	14 58.46	-17 16.1	1.372	2.370	5.5	18.5
5 31	14 49.45	-19 3.1	1.836	2.792	8.6	21.8	5 31	14 49.04	-16 44.3	1.399	2.358	10.4	18.8
6 10	14 42.02	-18 34.0	1.890	2.780	12.3	22.0	6 10	14 41.93	-16 20.3	1.448	2.346	14.8	19.0
109532	2001 QM ₂₄₉		5 10.4 143°41	2°3/12.1	18		344002	2011 QN ₄₇		5 10.4 252°82	1°0/11.8	18	
4 1	15 40.25	-26 13.2	2.380	3.141	13.6	20.3	4 1	15 26.94	-24 39.7	4.707	5.466	7.3	20.7
4 11	15 35.06	-26 16.7	2.295	3.154	11.0	20.1	4 11	15 23.73	-24 27.4	4.597	5.457	5.9	20.6
4 21	15 27.73	-26 9.2	2.231	3.166	8.0	19.9	4 21	15 19.55	-24 9.3	4.512	5.449	4.2	20.4
5 1	15 18.82	-25 50.2	2.193	3.177	4.7	19.7	5 1	15 14.69	-23 45.9	4.454	5.440	2.4	20.3
5 11	15 9.17	-25 20.5	2.184	3.188	2.4	19.6	5 11	15 9.50	-23 18.2	4.425	5.431	1.0	20.2
5 21	14 59.69	-24 43.1	2.203	3.198	4.0	19.7	5 21	15 4.32	-22 47.5	4.427	5.423	2.1	20.2
5 31	14 51.24	-24 1.7	2.251	3.207	7.2	19.9	5 31	14 59.52	-22 15.7	4.458	5.414	3.9	20.4
6 10	14 44.51	-23 21.2	2.325	3.216	10.2	20.1	6 10	14 55.43	-21 44.5	4.516	5.405	5.7	20.5
342432	2008 UC ₉₁		5 10.4 236°58	2°8/ 8.6	18		169603	2002 GP ₈₄		5 10.4 12°38	2°9/ 9.2	18	
4 1	15 38.82	- 9 17.1	2.442	3.236	12.4	21.3	4 1	15 37.33	-12 7.7	1.298	2.134	19.0	19.3
4 11	15 33.93	- 9 4.3	2.336	3.221	9.9	21.1	4 11	15 34.30	-11 59.9	1.226	2.135	15.0	19.0
4 21	15 27.02	- 8 50.6	2.254	3.205	6.9	20.9	4 21	15 28.05	-11 48.6	1.173	2.136	10.4	18.8
5 1	15 18.54	- 8 38.2	2.198	3.189	4.0	20.7	5 1	15 19.27	-11 37.0	1.142	2.139	5.5	18.5
5 11	15 9.19	- 8 29.7	2.171	3.172	3.0	20.6	5 11	15 9.19	-11 29.0	1.135	2.142	3.0	18.3
5 21	14 59.77	- 8 27.4	2.173	3.155	5.4	20.7	5 21	14 59.26	-11 28.2	1.152	2.145	7.2	18.6
5 31	14 51.10	- 8 33.4	2.204	3.137	8.7	20.9	5 31	14 50.88	-11 38.1	1.192	2.149	12.1	18.9
6 10	14 43.89	- 8 48.9	2.259	3.118	11.7	21.1	6 10	14 45.09	-12 0.5	1.253	2.153	16.5	19.1
346697	2008 YG ₁₂₄		5 10.4 197°83	0°8/ 9.8	17		185394	2006 WU ₆₀		5 10.4 125°51	4°9/ 5.6	18	
4 1	15 35.06	-17 9.7	2.278	3.075	13.1	22.3	4 1	15 32.93	- 2 33.0	2.795	3.594	10.9	21.4
4 11	15 31.07	-16 47.1	2.186	3.073	10.3	22.1	4 11	15 28.78	- 1 29.2	2.727	3.609	8.7	21.3
4 21	15 25.05	-16 17.6	2.117	3.071	7.1	21.9	4 21	15 23.15	- 0 27.2	2.684	3.623	6.6	21.1
5 1	15 17.53	-15 43.0	2.073	3.069	3.5	21.7	5 1	15 16.49	+ 0 28.8	2.668	3.636	5.1	21.1
5 11	15 9.26	-15 6.1	2.058	3.067	0.9	21.4	5 11	15 9.40	+ 1 15.2	2.680	3.650	5.2	21.1
5 21	15 1.05	-14 30.2	2.071	3.064	4.4	21.7	5 21	15 2.45	+ 1 48.9	2.720	3.662	6.7	21.2
5 31	14 53.73	-13 59.0	2.111	3.062	8.0	21.9	5 31	14 56.24	+ 2 8.1	2.787	3.675	8.8	21.3
6 10	14 47.96	-13 35.6	2.176	3.059	11.2	22.1	6 10	14 51.21	+ 2 12.7	2.877	3.687	10.8	21.5
21496	Lijianyang		5 10.4 288°63	4°9/ 7.0	18		5133	Phillipadams		5 10.4 236°62	3°7/ 7.9	18	R
4 1	15 33.82	- 8 12.9	1.858	2.679	14.7	18.3							

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
419213	2009 <i>UB</i> ₁₃₀		5 10.4 175°61	1°6/ 9.4	17		202413	2005 <i>TZ</i> ₁₈₃		5 10.4 136°55	5°0/ 7.9	18	
4 1	15 40.20	-12 43.8	2.465	3.252	12.5	22.0	4 1	15 39.50	- 8 16.2	1.510	2.333	17.4	20.3
4 11	15 34.87	-12 39.5	2.374	3.255	9.8	21.8	4 11	15 35.43	- 7 33.9	1.438	2.338	13.8	20.1
4 21	15 27.56	-12 32.7	2.306	3.258	6.8	21.6	4 21	15 28.49	- 6 49.9	1.386	2.342	9.8	19.9
5 1	15 18.77	-12 24.8	2.265	3.259	3.5	21.4	5 1	15 19.40	- 6 9.3	1.358	2.347	6.1	19.7
5 11	15 9.25	-12 17.8	2.254	3.260	1.7	21.2	5 11	15 9.26	- 5 37.9	1.355	2.351	5.2	19.6
5 21	14 59.78	-12 13.6	2.272	3.261	4.5	21.4	5 21	14 59.32	- 5 20.3	1.377	2.356	8.3	19.8
5 31	14 51.18	-12 14.4	2.318	3.260	7.8	21.6	5 31	14 50.78	- 5 19.6	1.424	2.359	12.3	20.1
6 10	14 44.10	-12 21.9	2.391	3.259	10.8	21.8	6 10	14 44.54	- 5 36.6	1.492	2.363	16.0	20.3
64535	2001 <i>VF</i> ₁₁₇		5 10.4 109°94	0°0/10.3	18		35094	1991 <i>GW</i> ₂		5 10.4 351°90	0°2/10.2	18	
4 1	15 35.85	-18 31.0	2.485	3.272	12.4	19.7	4 1	15 32.88	-18 7.7	2.003	2.810	14.3	18.6
4 11	15 31.43	-18 26.6	2.403	3.284	9.8	19.5	4 11	15 29.73	-18 0.0	1.914	2.806	11.3	18.3
4 21	15 25.17	-18 16.2	2.345	3.296	6.7	19.3	4 21	15 24.36	-17 44.9	1.847	2.804	7.8	18.1
5 1	15 17.56	-18 0.7	2.313	3.308	3.3	19.1	5 1	15 17.31	-17 23.9	1.805	2.801	3.8	17.9
5 11	15 9.33	-17 41.8	2.309	3.319	0.2	18.9	5 11	15 9.40	-16 59.3	1.789	2.799	0.4	17.6
5 21	15 1.24	-17 21.9	2.335	3.330	3.7	19.2	5 21	15 1.53	-16 34.2	1.801	2.798	4.5	17.9
5 31	14 54.01	-17 3.8	2.388	3.342	7.0	19.4	5 31	14 54.64	-16 12.5	1.839	2.797	8.4	18.1
6 10	14 48.24	-16 50.3	2.467	3.352	9.9	19.6	6 10	14 49.45	-15 57.3	1.900	2.796	11.9	18.3
117342	2004 <i>XJ</i> ₃₈		5 10.4 144°07	5°2/ 6.2	17		277601	2006 <i>AA</i> ₄₆		5 10.4 85°71	5°2/ 7.3	18	
4 1	15 34.61	- 5 52.7	2.167	2.977	13.2	20.5	4 1	15 38.28	- 5 25.3	1.904	2.714	14.8	21.3
4 11	15 30.62	- 4 41.2	2.093	2.984	10.5	20.3	4 11	15 33.58	- 4 38.5	1.847	2.738	11.7	21.1
4 21	15 24.68	- 3 28.8	2.042	2.990	7.7	20.2	4 21	15 26.71	- 3 53.1	1.812	2.762	8.5	21.0
5 1	15 17.34	- 2 20.7	2.017	2.996	5.5	20.1	5 1	15 18.33	- 3 13.9	1.803	2.785	5.8	20.9
5 11	15 9.36	- 1 22.2	2.020	3.002	5.5	20.1	5 11	15 9.35	- 2 45.6	1.820	2.808	5.4	20.9
5 21	15 1.54	- 0 37.8	2.050	3.007	7.6	20.2	5 21	15 0.71	- 2 31.0	1.865	2.831	7.6	21.1
5 31	14 54.66	- 0 10.3	2.105	3.012	10.3	20.4	5 31	14 53.25	- 2 32.1	1.935	2.853	10.5	21.3
6 10	14 49.32	- 0 0.6	2.184	3.017	13.0	20.6	6 10	14 47.61	- 2 48.6	2.027	2.875	13.3	21.5
165563	2001 <i>DK</i> ₅₇		5 10.4 352°67	2°3/ 9.2	17		434131	2002 <i>QK</i> ₉₀		5 10.4 288°60	3°9/12.4	16	
4 1	15 30.80	-14 23.1	1.411	2.250	17.5	19.8	4 1	15 38.43	-27 4.0	2.027	2.800	15.3	21.4
4 11	15 28.97	-14 0.7	1.332	2.243	13.9	19.6	4 11	15 34.63	-27 40.5	1.913	2.776	12.7	21.2
4 21	15 24.30	-13 31.1	1.272	2.237	9.5	19.3	4 21	15 28.14	-28 7.1	1.819	2.753	9.6	20.9
5 1	15 17.41	-12 57.8	1.235	2.232	4.9	19.0	5 1	15 19.40	-28 21.1	1.750	2.729	6.2	20.7
5 11	15 9.35	-12 25.3	1.221	2.229	2.5	18.8	5 11	15 9.26	-28 21.2	1.706	2.705	3.9	20.5
5 21	15 1.35	-11 58.8	1.232	2.227	6.6	19.1	5 21	14 58.82	-28 8.3	1.690	2.682	5.4	20.5
5 31	14 54.65	-11 42.9	1.267	2.225	11.3	19.3	5 31	14 49.30	-27 45.6	1.700	2.658	8.9	20.7
6 10	14 50.18	-11 40.9	1.322	2.226	15.5	19.6	6 10	14 41.72	-27 18.3	1.734	2.634	12.6	20.8
421316	2013 <i>TP</i> ₅₂		5 10.4 225°02	3°1/14.2	18		212362	2006 <i>FS</i> ₄₁		5 10.4 1°54	3°0/ 8.9	18	
4 1	15 30.80	-33 51.2	4.521	5.232	8.3	20.9	4 1	15 29.44	-15 18.6	1.036	1.897	20.9	19.7
4 11	15 26.90	-34 14.8	4.416	5.231	7.0	20.8	4 11	15 28.77	-14 37.7	0.970	1.894	16.5	19.4
4 21	15 21.82	-34 30.6	4.335	5.230	5.5	20.7	4 21	15 24.61	-13 44.9	0.922	1.893	11.3	19.1
5 1	15 15.87	-34 37.8	4.280	5.229	4.1	20.6	5 1	15 17.70	-12 45.5	0.894	1.893	5.8	18.8
5 11	15 9.47	-34 36.4	4.253	5.228	3.2	20.6	5 11	15 9.38	-11 47.3	0.887	1.894	3.3	18.6
5 21	15 3.06	-34 27.1	4.255	5.227	3.4	20.6	5 21	15 1.25	-10 58.5	0.902	1.897	8.1	18.9
5 31	14 57.09	-34 11.2	4.285	5.226	4.6	20.6	5 31	14 54.84	-10 26.4	0.938	1.901	13.5	19.2
6 10	14 51.98	-33 51.0	4.343	5.225	6.0	20.8	6 10	14 51.23	-10 15.1	0.992	1.907	18.3	19.5
105172	2000 <i>OS</i> ₂₀		5 10.4 210°61	5°3/14.7	18		388811	2008 <i>BE</i> ₄₈		5 10.4 321°47	0°2/10.5	17	
4 1	15 39.79	-36 46.5	3.047	3.748	12.1	20.2	4 1	15 35.24	-18 31.6	2.178	2.974	13.6	21.0
4 11	15 34.73	-37 26.3	2.939	3.741	10.4	20.1	4 11	15 31.44	-18 38.2	2.084	2.970	10.8	20.8
4 21	15 27.61	-37 54.3	2.852	3.734	8.5	19.9	4 21	15 25.48	-18 38.6	2.012	2.965	7.5	20.6
5 1	15 18.89	-38 7.9	2.789	3.726	6.6	19.8	5 1	15 17.87	-18 33.3	1.966	2.961	3.8	20.4
5 11	15 9.27	-38 5.7	2.754	3.718	5.4	19.7	5 11	15 9.38	-18 24.0	1.947	2.957	0.3	20.1
5 21	14 59.58	-37 48.2	2.746	3.709	5.6	19.7	5 21	15 0.89	-18 12.6	1.956	2.953	4.1	20.4
5 31	14 50.65	-37 17.9	2.767	3.700	7.1	19.8	5 31	14 53.30	-18 2.3	1.992	2.949	7.9	20.6
6 10	14 43.22	-36 39.1	2.813	3.691	9.1	19.9	6 10	14 47.35	-17 55.9	2.052	2.945	11.3	20.8
174837	2003 <i>YP</i> ₁₁₂		5 10.4 232°02	3°9/12.7	18	R	430077	2013 <i>ST</i> ₄₈		5 10.4 125°44	1°2/11.1	15	
4 1	15 39.98	-28 28.8	1.862	2.634	16.5	20.4	4 1	15 41.84	-20 26.5	2.107	2.888	14.5	21.7
4 11	15 35.90	-28 45.6	1.763	2.625	13.7	20.2	4 11	15 36.61	-20 51.5	2.025	2.900	11.6	21.6
4 21	15 28.97	-28 48.1	1.683	2.616	10.2	20.0	4 21	15 28.99	-21 9.8	1.965	2.911	8.1	21.4
5 1	15 19.73	-28 34.1	1.626	2.606	6.6	19.7	5 1	15 19.58	-21 20.6	1.930	2.921	4.3	21.1
5 11	15 9.22	-28 3.4	1.596	2.596	4.0	19.5	5 11	15 9.27	-21 24.5	1.923	2.932	1.2	20.9
5 21	14 58.64	-27 18.6	1.592	2.585	5.5	19.6	5 21	14 59.08	-21 22.9	1.945	2.942	4.2	21.2
5 31	14 49.26	-26 25.1	1.614	2.574	9.2	19.8	5 31	14 49.98	-21 18.8	1.995	2.951	8.0	21.4
6 10	14 42.09	-25 30.0	1.661	2.563	13.0	20.0	6 10	14 42.77	-21 15.5	2.070	2.961	11.3	21.6
16085	Laffan		5 10.4 251°83	0°9/10.9	18		176820	2002 <i>TO</i> ₁₀₀		5 10.4 288°55	6°2/13.5	17	
4 1	15 36.29	-21 15.6	2.027	2.819	14.6	19.3	4 1	15 38.77	-31 29.4	1.619	2.393	18.5	20.4
4 11	15 32.49	-21 12.0	1.931	2.813	11.7	19.1	4 11	15 35.66	-32 13.4	1.520	2.379	15.6	20.1
4 21	15 26.32	-20 59.0	1.856	2.806	8.2	18.9	4 21	15 29.26	-32 41.8	1.440	2.365	12.2	19.9
5 1	15 18.31	-20 36.9	1.806	2.799	4.3	18.6	5 1	15 20.07	-32 50.0	1.381	2.351	8.7	19.7
5 11	15 9.32	-20 7.5	1.783	2.792	0.9	18.3	5 11	15 9.22	-32 35.7	1.346	2.337	6.3	19.5
5 21	15 0.33	-19 34.0	1.787	2.785	4.4	18.6	5 21	14 58.16	-31 59.8	1.336	2.323	7.3	19.5
5 31	14 52.34	-19 0.6	1.818	2.777	8.4	18.8	5 31	14 48.45	-31 7.9	1.350	2.310	10.7	19.6
6 10	14 46.17	-18 31.8	1.874	2.770	12.0	19.0	6 10	14 41.32	-30 8.6	1.387	2.296	14.5	19.8
125523	2001 <i>WH</i> ₄₈		5 10.4 137°79	4°1/ 7.7	18		270295	2001 <i>VK</i> ₁₁₅		5 10.4 81°80			

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
374605	2006 <i>DK</i> ₁₃₃		5 10.4 285°90	3:7/15.0	18		502538	2015 <i>BY</i> ₄₄₅		5 10.4 266°91	6:1/ 6.4	17	
4 1	15 31.12	-36 47.5	4.460	5.155	8.6	21.1	4 1	15 35.53	-3 57.7	1.878	2.695	14.7	21.6
4 11	15 27.23	-37 13.4	4.354	5.153	7.3	21.0	4 11	15 31.89	-3 2.9	1.790	2.683	11.9	21.4
4 21	15 22.10	-37 30.5	4.271	5.150	6.0	20.9	4 21	15 25.92	-2 8.7	1.724	2.671	8.9	21.2
5 1	15 16.05	-37 37.9	4.213	5.147	4.6	20.8	5 1	15 18.15	-1 20.4	1.682	2.660	6.6	21.1
5 11	15 9.51	-37 35.4	4.183	5.145	3.8	20.7	5 11	15 9.42	-0 44.0	1.666	2.648	6.5	21.0
5 21	15 2.96	-37 23.5	4.180	5.142	3.9	20.7	5 21	15 0.69	-0 23.8	1.676	2.636	8.8	21.1
5 31	14 56.88	-37 3.8	4.206	5.139	4.9	20.8	5 31	14 52.95	-0 22.6	1.711	2.624	11.9	21.3
6 10	14 51.69	-36 38.6	4.259	5.137	6.2	20.9	6 10	14 46.99	-0 40.8	1.767	2.611	15.1	21.5
98033	2000 <i>RG</i> ₁₁		5 10.4 249°42	1:6/ 9.3	18		161428	2003 <i>WD</i> ₅₇		5 10.4 230°62	0:6/ 9.9	18	
4 1	15 37.36	-18 7.5	1.783	2.589	15.8	19.9	4 1	15 35.00	-18 25.3	2.157	2.955	13.7	20.7
4 11	15 33.68	-17 14.5	1.680	2.573	12.6	19.6	4 11	15 31.24	-17 57.9	2.062	2.950	10.8	20.5
4 21	15 27.36	-16 8.7	1.599	2.556	8.7	19.4	4 21	15 25.33	-17 22.1	1.990	2.944	7.5	20.3
5 1	15 18.93	-14 52.6	1.542	2.539	4.3	19.0	5 1	15 17.81	-16 39.4	1.942	2.938	3.7	20.0
5 11	15 9.33	-13 31.4	1.512	2.521	1.8	18.8	5 11	15 9.45	-15 53.0	1.923	2.932	0.7	19.8
5 21	14 59.67	-12 11.6	1.510	2.502	5.9	19.1	5 21	15 1.14	-15 6.9	1.931	2.926	4.5	20.1
5 31	14 51.12	-11 0.6	1.534	2.483	10.5	19.3	5 31	14 53.76	-14 25.3	1.967	2.920	8.3	20.3
6 10	14 44.58	-10 4.2	1.582	2.464	14.6	19.5	6 10	14 48.01	-13 52.1	2.027	2.913	11.7	20.5
57982	2002 <i>PB</i> ₁₁₀		5 10.4 187°98	1:2/11.1	18		9273	Schloerb		5 10.4 1°12	0:8/10.0	18	
4 1	15 40.13	-21 41.2	1.943	2.730	15.4	20.1	4 1	15 32.16	-17 49.2	1.203	2.046	19.7	17.5
4 11	15 35.59	-21 43.7	1.852	2.730	12.3	19.9	4 11	15 30.58	-17 35.1	1.131	2.044	15.7	17.3
4 21	15 28.50	-21 36.6	1.782	2.729	8.7	19.6	4 21	15 25.71	-17 9.7	1.077	2.043	10.8	17.0
5 1	15 19.42	-21 19.6	1.736	2.728	4.6	19.4	5 1	15 18.24	-16 35.3	1.044	2.043	5.3	16.7
5 11	15 9.30	-20 54.4	1.717	2.726	1.2	19.1	5 11	15 9.42	-15 56.6	1.034	2.044	1.0	16.4
5 21	14 59.23	-20 23.8	1.727	2.724	4.6	19.4	5 21	15 0.73	-15 19.3	1.047	2.046	6.4	16.7
5 31	14 50.29	-19 52.4	1.763	2.721	8.7	19.6	5 31	14 53.62	-14 50.1	1.083	2.049	11.8	17.0
6 10	14 43.34	-19 24.8	1.824	2.718	12.4	19.8	6 10	14 49.15	-14 33.7	1.138	2.053	16.5	17.3
101429	1998 <i>VF</i> ₃₁		5 10.4 43°77	7:2/ 4.1	18		74069	1998 <i>MO</i> ₇		5 10.4 194°90	8:3/15.9	17	
4 1	15 39.63	-40 40.7	0.545	1.393	35.3	18.1	4 1	15 42.55	-39 35.2	1.879	2.599	18.0	19.6
4 11	15 38.90	-33 46.2	0.482	1.402	28.0	17.6	4 11	15 38.35	-40 21.1	1.787	2.598	15.7	19.4
4 21	15 32.05	-24 19.3	0.437	1.411	18.2	17.1	4 21	15 30.87	-40 47.3	1.713	2.597	13.0	19.2
5 1	15 21.14	-12 58.1	0.421	1.422	8.3	16.7	5 1	15 20.78	-40 48.2	1.660	2.595	10.4	19.0
5 11	15 9.24	-1 38.8	0.436	1.434	11.4	16.9	5 11	15 9.26	-40 21.1	1.631	2.593	8.6	18.9
5 21	14 59.08	+7 38.0	0.480	1.446	20.9	17.4	5 21	14 57.78	-39 27.0	1.626	2.590	8.6	18.9
5 31	14 52.46	+14 5.4	0.546	1.459	28.6	18.0	5 31	14 47.80	-38 12.0	1.647	2.588	10.5	19.0
6 10	14 50.08	+18 2.9	0.625	1.472	33.9	18.4	6 10	14 40.44	-36 45.4	1.691	2.585	13.2	19.2
272653	2005 <i>WR</i> ₁₆₂		5 10.4 47°01	4:8/13.9	17		32720	Simoesios		5 10.4 320°26	0:6/11.2	18	
4 1	15 36.32	-32 26.0	1.688	2.459	17.9	19.6	4 1	15 27.03	-22 3.6	4.365	5.135	7.7	19.3
4 11	15 33.08	-32 26.4	1.610	2.468	14.9	19.4	4 11	15 23.87	-21 49.1	4.265	5.134	6.1	19.2
4 21	15 26.96	-32 6.7	1.551	2.478	11.4	19.2	4 21	15 19.71	-21 29.3	4.189	5.134	4.3	19.0
5 1	15 18.66	-31 25.1	1.514	2.487	7.7	19.0	5 1	15 14.85	-21 5.1	4.142	5.133	2.2	18.9
5 11	15 9.37	-30 23.0	1.502	2.498	5.0	18.9	5 11	15 9.64	-20 37.5	4.123	5.132	0.6	18.7
5 21	15 0.34	-29 5.3	1.516	2.508	5.9	19.0	5 21	15 4.47	-20 8.1	4.134	5.131	2.2	18.9
5 31	14 52.78	-27 39.7	1.555	2.518	9.2	19.2	5 31	14 59.72	-19 38.8	4.175	5.131	4.2	19.0
6 10	14 47.55	-26 15.2	1.618	2.529	12.7	19.4	6 10	14 55.71	-19 11.3	4.243	5.130	6.1	19.2
27762	1991 <i>RD</i> ₁₆		5 10.4 230°08	3:0/ 8.6	16		348084	2003 <i>WO</i> ₉₄		5 10.4 190°96	1:2/11.3	18	R
4 1	15 39.47	-13 3.4	1.774	2.583	15.8	19.9	4 1	15 36.15	-23 2.3	2.228	3.011	13.8	21.2
4 11	15 35.28	-12 21.4	1.678	2.572	12.5	19.6	4 11	15 32.11	-22 53.4	2.135	3.010	11.1	21.0
4 21	15 28.42	-11 32.3	1.602	2.559	8.7	19.4	4 21	15 25.91	-22 34.3	2.063	3.009	7.8	20.8
5 1	15 19.45	-10 39.7	1.552	2.546	4.7	19.1	5 1	15 18.09	-22 5.3	2.017	3.008	4.2	20.6
5 11	15 9.31	-9 48.4	1.528	2.532	3.2	19.0	5 11	15 9.44	-21 28.2	1.998	3.007	1.2	20.4
5 21	14 59.13	-9 3.8	1.532	2.517	6.7	19.1	5 21	15 0.85	-20 46.3	2.007	3.005	4.0	20.6
5 31	14 50.05	-8 30.8	1.561	2.502	11.0	19.3	5 31	14 53.23	-20 3.8	2.044	3.003	7.6	20.8
6 10	14 43.01	-8 13.0	1.613	2.486	14.9	19.5	6 10	14 47.27	-19 25.2	2.106	3.001	11.0	21.0
492332	2014 <i>DD</i> ₃₁		5 10.4 152°79	2:4/12.3	18		199520	2006 <i>DT</i> ₁₄₃		5 10.4 331°89	2:2/ 9.0	17	
4 1	15 35.98	-26 55.8	2.388	3.154	13.4	21.6	4 1	15 34.61	-14 5.7	1.809	2.625	15.2	20.1
4 11	15 31.84	-26 51.8	2.296	3.158	10.9	21.4	4 11	15 31.27	-13 34.5	1.724	2.622	12.0	19.9
4 21	15 25.64	-26 36.0	2.226	3.162	7.9	21.2	4 21	15 25.53	-12 57.2	1.661	2.620	8.2	19.7
5 1	15 17.90	-26 8.2	2.182	3.165	4.8	21.0	5 1	15 17.95	-12 16.6	1.622	2.618	4.3	19.4
5 11	15 9.42	-25 29.7	2.165	3.169	2.4	20.8	5 11	15 9.45	-11 36.9	1.609	2.616	2.4	19.3
5 21	15 1.04	-24 43.4	2.176	3.172	4.0	21.0	5 21	15 1.02	-11 2.6	1.623	2.614	5.8	19.5
5 31	14 53.61	-23 53.5	2.215	3.174	7.1	21.2	5 31	14 53.68	-10 37.8	1.663	2.612	9.9	19.7
6 10	14 47.79	-23 5.0	2.280	3.177	10.1	21.4	6 10	14 48.22	-10 25.4	1.726	2.610	13.5	19.9
120922	1998 <i>SO</i> ₉₃		5 10.4 254°84	1:2/11.0	16		30458	2000 <i>OC</i> ₆		5 10.4 118°27	2:3/12.3	18	
4 1	15 40.74	-21 26.4	1.616	2.416	17.4	21.0	4 1	15 35.22	-26 54.8	2.399	3.166	13.3	18.6
4 11	15 36.92	-21 30.6	1.513	2.399	14.1	20.7	4 11	15 31.20	-26 46.0	2.310	3.173	10.8	18.4
4 21	15 29.98	-21 24.0	1.429	2.381	10.1	20.4	4 21	15 25.17	-26 25.3	2.244	3.180	7.8	18.2
5 1	15 20.41	-21 5.7	1.369	2.362	5.4	20.1	5 1	15 17.67	-25 52.6	2.203	3.187	4.7	18.0
5 11	15 9.26	-20 36.9	1.334	2.343	1.2	19.7	5 11	15 9.47	-25 9.5	2.189	3.194	2.3	17.9
5 21	14 57.88	-20 1.1	1.326	2.324	5.5	20.0	5 21	15 1.41	-24 19.3	2.204	3.200	3.9	18.0
5 31	14 47.70	-19 23.9	1.343	2.304	10.5	20.2	5 31	14 54.29	-23 26.2	2.247	3.206	7.0	18.2
6 10	14 39.91	-18 51.5	1.383	2.283	15.1	20.4	6 10	14 48.76	-22 35.1	2.315	3.213	10.0	18.4
347783	2002 <i>CV</i> ₂₉₃		5 10.4 23°90	12:2/22.5	18		26129	1993 <i>DK</i>		5 10.4 54°60	0:6/10.9	18	
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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
499242	2009 <i>UW</i> ₁₄₁		5 10.4 211°79	0°2/10.3	17		268246	2005 <i>MQ</i> ₂		5 10.4 282°99	7°1/6.1	18	
4 1	15 38.64	-18 29.6	2.396	3.180	12.9	22.8	4 1	15 36.91	-3 2.3	1.737	2.555	15.7	20.7
4 11	15 33.91	-18 19.2	2.294	3.172	10.3	22.6	4 11	15 33.41	-2 4.5	1.636	2.529	12.8	20.4
4 21	15 27.10	-18 2.0	2.214	3.164	7.1	22.3	4 21	15 27.28	-1 6.9	1.556	2.503	9.8	20.2
5 1	15 18.69	-17 38.7	2.160	3.155	3.5	22.1	5 1	15 18.99	-0 15.7	1.500	2.476	7.5	20.0
5 11	15 9.42	-17 11.3	2.135	3.145	0.3	21.8	5 11	15 9.42	+0 22.3	1.469	2.449	7.4	19.9
5 21	15 0.13	-16 42.5	2.139	3.134	4.1	22.1	5 21	14 59.65	+0 41.5	1.463	2.421	10.0	20.0
5 31	14 51.69	-16 15.8	2.172	3.123	7.7	22.3	5 31	14 50.84	+0 38.3	1.481	2.393	13.5	20.1
6 10	14 44.80	-15 54.4	2.230	3.111	11.0	22.5	6 10	14 43.96	+0 12.3	1.520	2.366	17.1	20.3
97214	1999 <i>XW</i> ₄₁		5 10.4 200°46	0°5/10.8	18		31757	1999 <i>JO</i> ₉₈		5 10.4 311°19	6°0/5.1	18	
4 1	15 37.08	-21 10.9	2.733	3.506	11.7	21.9	4 1	15 31.54	-4 8.2	2.129	2.946	13.2	18.7
4 11	15 32.39	-20 56.2	2.630	3.501	9.4	21.7	4 11	15 28.39	-2 44.2	2.048	2.942	10.6	18.5
4 21	15 25.89	-20 33.5	2.550	3.496	6.5	21.5	4 21	15 23.30	-1 19.4	1.991	2.938	8.0	18.3
5 1	15 18.03	-20 3.4	2.497	3.490	3.4	21.3	5 1	15 16.79	+0 0.2	1.960	2.933	6.2	18.2
5 11	15 9.46	-19 27.9	2.473	3.483	0.5	21.1	5 11	15 9.57	+1 8.5	1.956	2.929	6.5	18.2
5 21	15 0.93	-18 49.5	2.479	3.475	3.5	21.3	5 21	15 2.44	+2 0.4	1.978	2.925	8.5	18.3
5 31	14 53.15	-18 11.6	2.514	3.467	6.7	21.5	5 31	14 56.18	+2 32.7	2.025	2.922	11.2	18.5
6 10	14 46.74	-17 37.6	2.575	3.458	9.6	21.7	6 10	14 51.40	+2 44.6	2.093	2.918	13.8	18.6
54582	2000 <i>QU</i> ₁₇₉		5 10.4 253°48	0°5/9.7	18		434862	2006 <i>SL</i> ₂₆₃		5 10.4 313°27	1°3/11.4	18	
4 1	15 26.91	-15 55.5	4.556	5.341	7.2	20.0	4 1	15 32.87	-24 20.8	2.027	2.819	14.7	20.8
4 11	15 23.72	-15 41.6	4.454	5.335	5.6	19.8	4 11	15 29.85	-23 56.0	1.929	2.810	11.8	20.6
4 21	15 19.59	-15 24.9	4.377	5.329	3.8	19.7	4 21	15 24.55	-23 17.8	1.852	2.800	8.4	20.4
5 1	15 14.80	-15 6.2	4.328	5.323	1.9	19.5	5 1	15 17.49	-22 26.8	1.800	2.791	4.6	20.1
5 11	15 9.67	-14 47.0	4.308	5.317	0.6	19.4	5 11	15 9.52	-21 25.6	1.774	2.783	1.3	19.8
5 21	15 4.56	-14 28.5	4.319	5.311	2.4	19.6	5 21	15 1.60	-20 18.9	1.776	2.774	4.3	20.0
5 31	14 59.82	-14 12.2	4.359	5.305	4.3	19.7	5 31	14 54.67	-19 12.4	1.804	2.766	8.2	20.3
6 10	14 55.76	-13 59.4	4.425	5.299	6.1	19.8	6 10	14 49.49	-18 11.9	1.857	2.758	11.9	20.5
90568	2004 <i>GV</i> ₉		5 10.4 38°36	0°2/12.6	18		29121	1981 <i>QP</i> ₂		5 10.4 238°71	4°2/7.9	17	
4 1	15 13.17	-25 45.5	38.909	39.658	1.0	19.9	4 1	15 39.06	-10 29.3	1.699	2.513	16.1	19.4
4 11	15 12.47	-25 43.2	38.808	39.660	0.8	19.9	4 11	15 35.08	-9 40.7	1.604	2.500	12.8	19.2
4 21	15 11.67	-25 40.2	38.732	39.661	0.6	19.8	4 21	15 28.37	-8 46.7	1.530	2.487	9.1	18.9
5 1	15 10.82	-25 36.7	38.683	39.663	0.3	19.8	5 1	15 19.49	-7 51.7	1.481	2.472	5.4	18.7
5 11	15 9.93	-25 32.7	38.663	39.664	0.2	19.8	5 11	15 9.40	-7 1.4	1.458	2.458	4.4	18.6
5 21	15 9.04	-25 28.2	38.672	39.666	0.3	19.8	5 21	14 59.25	-6 21.5	1.462	2.442	7.7	18.7
5 31	15 8.19	-25 23.6	38.710	39.667	0.5	19.8	5 31	14 50.23	-5 56.7	1.491	2.426	11.8	18.9
6 10	15 7.40	-25 18.9	38.776	39.669	0.7	19.9	6 10	14 43.28	-5 49.7	1.542	2.409	15.7	19.1
286411	2001 <i>YM</i> ₁₀₅		5 10.4 179°05	2°5/8.8	18		30499	2000 <i>QE</i> ₁₆₉		5 10.4 218°80	0°5/11.2	18	
4 1	15 40.71	-13 14.5	1.984	2.783	14.7	21.8	4 1	15 27.06	-21 48.0	4.644	5.413	7.3	19.6
4 11	15 35.78	-12 39.0	1.897	2.785	11.6	21.6	4 11	15 23.85	-21 37.5	4.542	5.410	5.8	19.5
4 21	15 28.48	-11 58.0	1.833	2.787	8.0	21.4	4 21	15 19.69	-21 22.2	4.464	5.408	4.0	19.4
5 1	15 19.38	-11 14.5	1.794	2.788	4.2	21.2	5 1	15 14.86	-21 2.9	4.414	5.406	2.1	19.2
5 11	15 9.39	-10 32.4	1.783	2.788	2.7	21.1	5 11	15 9.70	-20 40.5	4.394	5.403	0.5	19.1
5 21	14 59.52	-9 56.0	1.800	2.787	5.8	21.3	5 21	15 4.56	-20 16.3	4.404	5.401	2.1	19.2
5 31	14 50.74	-9 29.1	1.845	2.785	9.6	21.5	5 31	14 59.81	-19 52.0	4.443	5.398	4.0	19.4
6 10	14 43.82	-9 14.6	1.913	2.782	13.1	21.7	6 10	14 55.76	-19 29.2	4.509	5.395	5.8	19.5
479151	2013 <i>BJ</i> ₇₄		5 10.4 151°77	4°2/13.9	17		500757	2013 <i>AF</i> ₁₀₀		5 10.4 189°95	3°6/7.6	17	
4 1	15 36.94	-32 46.4	2.651	3.385	13.0	21.5	4 1	15 34.61	-6 34.6	2.734	3.532	11.1	22.1
4 11	15 32.55	-33 3.7	2.557	3.390	10.9	21.4	4 11	15 30.31	-6 4.1	2.646	3.531	8.8	22.0
4 21	15 26.12	-33 8.1	2.485	3.394	8.4	21.2	4 21	15 24.38	-5 33.8	2.581	3.529	6.3	21.8
5 1	15 18.18	-32 58.2	2.437	3.398	6.0	21.1	5 1	15 17.26	-5 6.4	2.544	3.528	4.1	21.6
5 11	15 9.47	-32 33.9	2.416	3.402	4.3	21.0	5 11	15 9.55	-4 44.9	2.535	3.526	3.7	21.6
5 21	15 0.84	-31 57.2	2.423	3.406	4.8	21.0	5 21	15 1.91	-4 31.8	2.554	3.523	5.6	21.7
5 31	14 53.12	-31 11.5	2.458	3.409	6.9	21.1	5 31	14 54.96	-4 28.9	2.601	3.520	8.1	21.9
6 10	14 46.97	-30 21.8	2.519	3.412	9.4	21.3	6 10	14 49.26	-4 37.0	2.673	3.517	10.5	22.0
7603	Salopia		5 10.4 333°71	1°2/9.5	18		340342	2006 <i>DD</i> ₅₆		5 10.4 288°12	2°4/13.3	18	
4 1	15 32.48	-17 58.1	2.033	2.840	14.1	17.6	4 1	15 29.65	-29 49.6	4.397	5.132	8.2	20.8
4 11	15 29.35	-17 12.3	1.944	2.837	11.1	17.4	4 11	15 26.03	-30 4.6	4.289	5.126	6.7	20.7
4 21	15 24.07	-16 16.7	1.876	2.834	7.6	17.2	4 21	15 21.27	-30 12.8	4.204	5.120	5.1	20.6
5 1	15 17.20	-15 14.1	1.834	2.831	3.7	16.9	5 1	15 15.68	-30 13.7	4.146	5.114	3.5	20.5
5 11	15 9.54	-14 8.9	1.820	2.828	1.3	16.7	5 11	15 9.65	-30 7.6	4.117	5.108	2.4	20.4
5 21	15 1.97	-13 6.0	1.833	2.826	4.9	17.0	5 21	15 3.61	-29 55.3	4.117	5.103	2.9	20.4
5 31	14 55.37	-12 10.6	1.872	2.823	8.8	17.2	5 31	14 57.99	-29 38.3	4.146	5.097	4.4	20.5
6 10	14 50.43	-11 26.8	1.936	2.821	12.2	17.4	6 10	14 53.19	-29 18.7	4.202	5.091	6.1	20.6
454082	2013 <i>AC</i> ₅₈		5 10.4 107°40	2°8/11.9	18		514906	2008 <i>SJ</i> ₂₁₁		5 10.4 149°81	1°1/11.8	18	
4 1	15 41.26	-25 14.0	1.415	2.215	19.5	21.3	4 1	15 31.43	-24 13.2	4.179	4.934	8.3	23.2
4 11	15 37.40	-25 21.7	1.342	2.225	15.8	21.0	4 11	15 27.31	-24 11.7	4.085	4.943	6.6	23.1
4 21	15 30.20	-25 13.8	1.287	2.234	11.4	20.8	4 21	15 22.08	-24 4.4	4.016	4.951	4.7	23.0
5 1	15 20.41	-24 49.0	1.253	2.243	6.5	20.5	5 1	15 16.04	-23 51.4	3.974	4.960	2.7	22.9
5 11	15 9.34	-24 8.9	1.245	2.251	2.8	20.3	5 11	15 9.64	-23 33.6	3.961	4.967	1.2	22.7
5 21	14 58.53	-23 18.3	1.261	2.260	5.7	20.5	5 21	15 3.28	-23 12.4	3.979	4.975	2.4	22.8
5 31	14 49.41	-22 24.5	1.303	2.268	10.4	20.8	5 31	14 57.41	-22 49.6	4.027	4.982	4.4	23.0
6 10	14 43.01	-21 35.3	1.367	2.276	14.7	21.1	6 10	14 52.40	-22 27.1	4.102	4.988	6.3	23.1
314752	2006 <i>SA</i> ₂₃₉		5 10.4 340°68	1°8/11.2	17		352397	2007 <i>WS</i> ₆₂		5 10.4 161°21	1°9/9.1	18	
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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
299831	2006 <i>SF</i> ₁₈₃		5 10.4 156°31	0°0/10.4 17			404411	2013 <i>GG</i> ₆₅		5 10.4 132°94	4°7/ 7.8 16		
4 1	15 35.04	-19 17.7	2.618	3.403	11.9	22.4	4 1	15 38.54	-9 46.7	1.535	2.358	17.1	21.6
4 11	15 30.81	-19 4.0	2.529	3.408	9.4	22.2	4 11	15 34.64	-8 50.7	1.464	2.365	13.6	21.4
4 21	15 24.80	-18 43.5	2.462	3.412	6.5	22.0	4 21	15 27.97	-7 50.7	1.413	2.371	9.6	21.2
5 1	15 17.49	-18 17.3	2.422	3.416	3.2	21.8	5 1	15 19.22	-6 52.1	1.386	2.376	5.8	21.0
5 11	15 9.55	-17 47.3	2.410	3.420	0.2	21.5	5 11	15 9.48	-6 1.3	1.384	2.382	5.0	20.9
5 21	15 1.70	-17 16.3	2.428	3.424	3.6	21.8	5 21	14 59.96	-5 24.0	1.408	2.387	8.1	21.1
5 31	14 54.65	-16 47.3	2.474	3.427	6.8	22.1	5 31	14 51.82	-5 4.3	1.457	2.392	12.1	21.3
6 10	14 48.97	-16 23.2	2.545	3.430	9.7	22.2	6 10	14 45.90	-5 3.7	1.527	2.396	15.8	21.6
87271	Kokubunji		5 10.4 253°11	3°3/12.4 18			506879	2008 <i>AM</i> ₄₄		5 10.4 100°67	4°9/14.4 18		
4 1	15 38.59	-26 53.4	1.969	2.744	15.6	20.0	4 1	15 36.97	-34 12.1	2.403	3.138	14.2	21.2
4 11	15 34.66	-27 10.9	1.867	2.733	12.8	19.8	4 11	15 32.85	-34 32.6	2.314	3.145	11.9	21.0
4 21	15 28.08	-27 16.1	1.785	2.721	9.5	19.6	4 21	15 26.47	-34 38.5	2.245	3.151	9.4	20.9
5 1	15 19.36	-27 7.3	1.726	2.709	5.9	19.3	5 1	15 18.42	-34 27.8	2.200	3.157	6.8	20.7
5 11	15 9.43	-26 44.5	1.694	2.696	3.3	19.1	5 11	15 9.53	-34 0.4	2.181	3.164	5.1	20.6
5 21	14 59.40	-26 10.0	1.689	2.684	5.0	19.2	5 21	15 0.75	-33 18.2	2.189	3.170	5.5	20.7
5 31	14 50.44	-25 28.3	1.711	2.671	8.7	19.4	5 31	14 53.00	-32 25.5	2.225	3.176	7.6	20.8
6 10	14 43.49	-24 45.4	1.756	2.658	12.4	19.6	6 10	14 47.01	-31 28.0	2.285	3.182	10.1	21.0
335765	2007 <i>EX</i> ₁₁₉		5 10.4 324°33	3°4/ 8.5 17			375857	2009 <i>VG</i> ₁₇		5 10.4 212°71	1°6/11.6 18		
4 1	15 32.00	-12 47.5	1.507	2.342	16.8	21.0	4 1	15 38.35	-24 1.0	2.209	2.985	14.1	21.6
4 11	15 29.87	-12 6.9	1.417	2.326	13.4	20.8	4 11	15 33.98	-23 56.6	2.109	2.979	11.4	21.4
4 21	15 24.98	-11 18.8	1.347	2.310	9.3	20.5	4 21	15 27.32	-23 41.4	2.030	2.972	8.1	21.2
5 1	15 17.87	-10 27.6	1.299	2.295	5.1	20.2	5 1	15 18.88	-23 15.1	1.976	2.965	4.5	20.9
5 11	15 9.53	-9 38.9	1.276	2.281	3.6	20.1	5 11	15 9.50	-22 39.2	1.950	2.957	1.6	20.7
5 21	15 1.13	-8 58.7	1.278	2.267	7.3	20.2	5 21	15 0.13	-21 56.7	1.952	2.949	4.2	20.9
5 31	14 53.90	-8 32.4	1.304	2.254	11.9	20.5	5 31	14 51.72	-21 12.1	1.982	2.940	7.9	21.1
6 10	14 48.80	-8 23.5	1.350	2.242	16.0	20.7	6 10	14 45.05	-20 30.1	2.037	2.931	11.3	21.3
305379	2008 <i>CA</i> ₁₈		5 10.4 155°09	4°1/13.8 18			357745	2005 <i>SJ</i> ₅₀		5 10.4 263°15	2°7/12.2 18		
4 1	15 37.44	-32 14.7	2.740	3.474	12.6	21.4	4 1	15 37.67	-25 59.1	2.582	3.343	12.7	21.1
4 11	15 32.88	-32 35.7	2.646	3.479	10.5	21.3	4 11	15 33.29	-26 25.3	2.469	3.327	10.4	20.9
4 21	15 26.33	-32 44.8	2.573	3.483	8.2	21.1	4 21	15 26.81	-26 43.3	2.377	3.309	7.7	20.7
5 1	15 18.30	-32 40.4	2.525	3.488	5.8	21.0	5 1	15 18.65	-26 51.5	2.311	3.292	4.8	20.5
5 11	15 9.52	-32 22.3	2.505	3.492	4.2	20.9	5 11	15 9.51	-26 49.7	2.273	3.274	2.8	20.3
5 21	15 0.79	-31 52.2	2.513	3.496	4.7	20.9	5 21	15 0.23	-26 39.1	2.263	3.256	4.2	20.4
5 31	14 52.94	-31 13.3	2.549	3.499	6.8	21.1	5 31	14 51.68	-26 22.0	2.282	3.238	7.1	20.6
6 10	14 46.61	-30 30.2	2.610	3.502	9.2	21.2	6 10	14 44.62	-26 2.2	2.326	3.219	10.1	20.7
78072	2002 <i>LY</i> ₁₁		5 10.4 321°04	1°7/11.7 18			88637	2001 <i>RJ</i> ₄₆		5 10.4 232°28	0°9/ 9.8 18		
4 1	15 30.59	-26 50.2	1.576	2.382	17.5	18.2	4 1	15 37.56	-17 29.2	2.177	2.970	13.7	20.2
4 11	15 28.94	-26 6.0	1.470	2.358	14.3	17.9	4 11	15 33.33	-17 1.3	2.073	2.958	10.9	20.0
4 21	15 24.45	-24 59.4	1.383	2.334	10.4	17.6	4 21	15 26.86	-16 25.1	1.991	2.944	7.5	19.8
5 1	15 17.65	-23 30.3	1.319	2.311	5.8	17.3	5 1	15 18.66	-15 42.5	1.935	2.930	3.7	19.5
5 11	15 9.55	-21 42.8	1.280	2.289	1.7	17.0	5 11	15 9.52	-14 56.4	1.907	2.916	1.0	19.3
5 21	15 1.37	-19 44.5	1.267	2.267	5.3	17.1	5 21	15 0.34	-14 10.7	1.907	2.901	4.7	19.5
5 31	14 54.40	-17 46.0	1.279	2.246	10.3	17.4	5 31	14 52.06	-13 30.0	1.935	2.885	8.6	19.7
6 10	14 49.66	-15 57.8	1.314	2.226	15.0	17.6	6 10	14 45.44	-12 58.1	1.988	2.869	12.1	19.9
442882	2013 <i>BU</i> ₃₈		5 10.4 183°01	4°2/ 7.0 18			352507	2008 <i>CO</i> ₇₄		5 10.4 65°03	3°0/12.3 18		
4 1	15 33.68	-5 25.3	2.593	3.395	11.5	21.6	4 1	15 37.18	-26 19.1	2.309	3.077	13.8	20.8
4 11	15 29.66	-4 45.3	2.509	3.396	9.2	21.5	4 11	15 33.00	-26 45.7	2.216	3.078	11.2	20.7
4 21	15 23.98	-4 5.8	2.448	3.395	6.7	21.3	4 21	15 26.61	-27 2.7	2.145	3.079	8.3	20.5
5 1	15 17.08	-3 30.2	2.414	3.395	4.6	21.2	5 1	15 18.52	-27 8.5	2.099	3.080	5.2	20.3
5 11	15 9.60	-3 2.0	2.409	3.395	4.4	21.1	5 11	15 9.53	-27 3.3	2.080	3.081	3.0	20.1
5 21	15 2.19	-2 44.0	2.431	3.394	6.2	21.3	5 21	15 0.56	-26 48.6	2.089	3.082	4.4	20.2
5 31	14 55.52	-2 38.0	2.480	3.393	8.7	21.4	5 31	14 52.52	-26 27.6	2.125	3.083	7.4	20.4
6 10	14 50.13	-2 44.8	2.552	3.392	11.1	21.6	6 10	14 46.16	-26 4.4	2.187	3.084	10.5	20.6
306905	2001 <i>TR</i> ₁₇₆		5 10.4 285°78	1°1/11.0 17			38396	1999 <i>RU</i> ₁₉₃		5 10.4 266°97	5°8/14.7 18		
4 1	15 36.90	-21 16.1	1.714	2.517	16.5	21.0	4 1	15 37.83	-36 6.1	2.553	3.273	13.8	19.4
4 11	15 33.53	-21 17.8	1.620	2.508	13.2	20.7	4 11	15 33.69	-36 43.7	2.443	3.259	11.8	19.2
4 21	15 27.39	-21 9.0	1.546	2.499	9.3	20.5	4 21	15 27.22	-37 7.8	2.353	3.245	9.6	19.0
5 1	15 19.04	-20 49.9	1.496	2.490	4.9	20.2	5 1	15 18.90	-37 15.6	2.286	3.231	7.4	18.9
5 11	15 9.47	-20 22.1	1.472	2.481	1.1	19.9	5 11	15 9.50	-37 5.4	2.246	3.217	5.9	18.8
5 21	14 59.86	-19 49.2	1.474	2.473	5.0	20.1	5 21	14 59.99	-36 37.9	2.232	3.202	6.2	18.8
5 31	14 51.43	-19 16.0	1.502	2.464	9.5	20.4	5 31	14 51.36	-35 56.2	2.246	3.188	8.0	18.8
6 10	14 45.12	-18 48.0	1.552	2.455	13.7	20.6	6 10	14 44.45	-35 5.8	2.284	3.173	10.4	19.0
257799	2000 <i>EG</i> ₂₄		5 10.4 117°99	0°4/10.2 17			471421	2011 <i>UH</i> ₈		5 10.4 251°21	0°1/10.5 18		
4 1	15 39.49	-18 42.3	1.906	2.701	15.3	21.5	4 1	15 35.72	-18 54.6	2.647	3.430	11.8	21.8
4 11	15 34.86	-18 20.7	1.831	2.717	12.1	21.3	4 11	15 31.52	-18 49.9	2.536	3.414	9.4	21.6
4 21	15 27.83	-17 50.2	1.778	2.732	8.3	21.1	4 21	15 25.44	-18 38.9	2.447	3.397	6.5	21.4
5 1	15 19.05	-17 12.6	1.751	2.746	4.1	20.9	5 1	15 17.91	-18 22.4	2.385	3.380	3.3	21.2
5 11	15 9.49	-16 31.2	1.750	2.760	0.5	20.6	5 11	15 9.57	-18 1.9	2.352	3.362	0.2	20.8
5 21	15 0.17	-15 50.1	1.778	2.774	4.7	21.0	5 21	15 1.16	-17 39.6	2.348	3.344	3.7	21.1
5 31	14 52.07	-15 13.8	1.833	2.787	8.7	21.2	5 31	14 53.43	-17 18.2	2.372	3.325	7.0	21.3
6 10	14 45.92	-14 46.1	1.912	2.799	12.2	21.5	6 10	14 47.05	-17 0.8	2.422	3.307	10.1	21.5
266346	2007 <i>DE</i> ₉₅		5 10.4 48°85	0°7/10.1 17			322475	2011 <i>UZ</i> ₁₉₄		5 10.4 228°33	0°8/11.2 18		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
176651	2002 <i>NP</i> ₅₂		5 10.4 268°36	4.9/ 7.7	17		56293	1999 <i>NH</i> ₄₄		5 10.5 350°05	5.9/ 6.9	18	
4 1	15 37.35	- 7 55.4	1.663	2.484	16.1	20.5	4 1	15 29.89	- 9 8.6	1.343	2.191	17.7	18.0
4 11	15 33.78	- 7 14.1	1.572	2.470	12.9	20.2	4 11	15 28.33	- 7 57.6	1.269	2.184	14.1	17.7
4 21	15 27.52	- 6 30.7	1.501	2.456	9.3	20.0	4 21	15 23.94	- 6 41.0	1.214	2.178	10.1	17.5
5 1	15 19.10	- 5 49.8	1.454	2.442	5.9	19.7	5 1	15 17.35	- 5 26.0	1.182	2.173	6.6	17.3
5 11	15 9.50	- 5 17.1	1.433	2.428	5.2	19.6	5 11	15 9.63	- 4 21.2	1.174	2.168	6.3	17.2
5 21	14 59.83	- 4 57.3	1.437	2.414	8.2	19.8	5 21	15 2.01	- 3 33.8	1.188	2.165	9.5	17.4
5 31	14 51.27	- 4 54.1	1.466	2.399	12.1	20.0	5 31	14 55.70	- 3 9.2	1.225	2.163	13.6	17.6
6 10	14 44.76	- 5 8.8	1.516	2.385	15.9	20.2	6 10	14 51.62	- 3 8.9	1.281	2.163	17.4	17.8
62009	2000 <i>RX</i> ₃₉		5 10.4 192°72	3°3/ 6.7	18		304394	2006 <i>TA</i> ₁		5 10.5 223°97	0°5/ 10.1	18	
4 1	15 32.99	- 9 59.5	2.940	3.736	10.4	19.6	4 1	15 35.23	-17 15.0	2.552	3.342	12.0	21.7
4 11	15 28.91	- 8 40.4	2.848	3.735	8.2	19.4	4 11	15 31.10	-17 4.8	2.453	3.335	9.5	21.5
4 21	15 23.37	- 7 17.0	2.782	3.732	5.8	19.2	4 21	15 25.12	-16 48.9	2.376	3.329	6.5	21.3
5 1	15 16.76	- 5 53.4	2.744	3.729	3.8	19.1	5 1	15 17.74	-16 28.6	2.326	3.322	3.2	21.1
5 11	15 9.65	- 4 33.9	2.736	3.726	3.6	19.1	5 11	15 9.62	-16 5.8	2.305	3.314	0.6	20.8
5 21	15 2.62	- 3 22.6	2.759	3.723	5.5	19.2	5 21	15 1.51	-15 42.9	2.312	3.307	3.9	21.1
5 31	14 56.25	- 2 23.1	2.809	3.719	7.9	19.4	5 31	14 54.16	-15 22.9	2.348	3.299	7.2	21.3
6 10	14 51.02	- 1 37.4	2.885	3.715	10.2	19.5	6 10	14 48.18	-15 8.4	2.408	3.291	10.2	21.5
93489	2000 <i>TT</i> ₃₃		5 10.4 266°28	1°8/ 9.1	17		294445	2007 <i>VH</i> ₂₈₅		5 10.5 151°25	0°8/ 11.1	18	
4 1	15 35.34	-16 14.4	2.002	2.807	14.3	20.0	4 1	15 34.82	-23 0.2	2.415	3.196	12.9	20.9
4 11	15 31.81	-15 30.6	1.896	2.788	11.4	19.7	4 11	15 30.84	-22 32.6	2.325	3.200	10.3	20.7
4 21	15 25.96	-14 37.4	1.812	2.769	7.9	19.5	4 21	15 24.93	-21 54.5	2.257	3.204	7.2	20.5
5 1	15 18.27	-13 37.4	1.754	2.750	4.0	19.2	5 1	15 17.62	-21 6.9	2.216	3.208	3.8	20.3
5 11	15 9.55	-12 35.1	1.723	2.730	2.0	19.0	5 11	15 9.64	-20 12.5	2.202	3.211	0.8	20.1
5 21	15 0.77	-11 35.3	1.719	2.710	5.5	19.2	5 21	15 1.79	-19 15.1	2.217	3.215	3.7	20.3
5 31	14 52.89	-10 43.7	1.743	2.690	9.6	19.4	5 31	14 54.83	-18 19.0	2.261	3.218	7.1	20.5
6 10	14 46.76	-10 4.6	1.790	2.669	13.3	19.6	6 10	14 49.39	-17 28.5	2.330	3.221	10.2	20.7
276955	2004 <i>TB</i> ₃₀₀		5 10.4 259°03	1°8/ 11.5	17		57849	2001 <i>XR</i> ₈₆		5 10.5 9°62	9°6/ 4.5	18	
4 1	15 37.83	-22 48.9	1.915	2.705	15.5	21.0	4 1	15 32.51	+ 5 40.3	1.779	2.595	15.4	17.8
4 11	15 33.95	-23 2.1	1.822	2.700	12.5	20.8	4 11	15 29.48	+ 6 44.7	1.718	2.597	13.1	17.6
4 21	15 27.51	-23 5.6	1.749	2.696	8.9	20.6	4 21	15 24.21	+ 7 39.2	1.678	2.601	10.9	17.5
5 1	15 19.06	-22 58.7	1.701	2.691	5.0	20.3	5 1	15 17.31	+ 8 16.8	1.660	2.605	9.7	17.4
5 11	15 9.51	-22 42.2	1.679	2.686	1.8	20.1	5 11	15 9.66	+ 8 31.9	1.666	2.610	9.9	17.4
5 21	14 59.94	-22 18.7	1.684	2.682	4.6	20.3	5 21	15 2.19	+ 8 21.6	1.695	2.615	11.5	17.5
5 31	14 51.47	-22 52.3	1.716	2.677	8.6	20.5	5 31	14 55.81	+ 7 46.0	1.747	2.622	13.8	17.7
6 10	14 44.96	-21 27.7	1.771	2.672	12.4	20.7	6 10	14 51.20	+ 6 47.7	1.818	2.629	16.1	17.9
427908	2005 <i>US</i> ₂₃₇		5 10.4 210°26	2°1/ 9.1	17		238965	2006 <i>BK</i> ₁₂₅		5 10.5 224°67	5°4/ 6.3	18	
4 1	15 37.56	-13 41.6	2.142	2.942	13.7	22.6	4 1	15 35.47	- 4 22.9	2.203	3.011	13.1	21.0
4 11	15 33.24	-13 14.3	2.048	2.937	10.8	22.4	4 11	15 31.47	- 3 23.2	2.115	3.003	10.6	20.8
4 21	15 26.74	-12 41.8	1.976	2.931	7.5	22.2	4 21	15 25.45	- 2 23.4	2.049	2.994	7.9	20.6
5 1	15 18.58	-12 6.7	1.930	2.925	3.9	21.9	5 1	15 17.93	- 1 28.4	2.009	2.985	5.8	20.5
5 11	15 9.54	-11 32.2	1.912	2.918	2.2	21.8	5 11	15 9.62	- 0 43.2	1.996	2.976	5.7	20.4
5 21	15 0.54	-11 1.9	1.922	2.910	5.3	22.0	5 21	15 1.35	- 0 11.9	2.011	2.967	7.8	20.5
5 31	14 52.46	-10 39.4	1.959	2.903	8.9	22.2	5 31	14 53.94	+ 0 2.6	2.051	2.956	10.6	20.7
6 10	14 46.04	-10 27.3	2.021	2.894	12.3	22.4	6 10	14 48.05	- 0 0.3	2.114	2.946	13.4	20.8
377832	2006 <i>BR</i> ₁₁₃		5 10.4 126°01	1°4/ 9.5	17		523697	2014 <i>GY</i> ₅₃		5 10.5 37°60	0°5/ 5.6	18	
4 1	15 38.00	-15 15.6	2.171	2.967	13.7	22.1	4 1	15 13.58	- 0 44.2	31.333	32.127	1.1	22.0
4 11	15 33.38	-14 53.1	2.094	2.980	10.7	22.0	4 11	15 12.82	- 0 38.0	31.258	32.134	0.9	22.0
4 21	15 26.67	-14 25.1	2.039	2.993	7.3	21.8	4 21	15 11.95	- 0 32.2	31.208	32.142	0.7	21.9
5 1	15 18.46	-13 53.7	2.010	3.006	3.6	21.6	5 1	15 11.01	- 0 27.1	31.186	32.149	0.5	21.9
5 11	15 9.56	-13 22.1	2.010	3.018	1.5	21.4	5 11	15 10.04	- 0 22.8	31.192	32.157	0.5	21.9
5 21	15 0.84	-12 53.3	2.038	3.029	4.7	21.7	5 21	15 9.07	- 0 19.4	31.227	32.165	0.7	21.9
5 31	14 53.14	-12 30.8	2.093	3.040	8.2	21.9	5 31	15 8.14	- 0 17.1	31.289	32.172	0.9	22.0
6 10	14 47.11	-12 17.0	2.173	3.051	11.4	22.1	6 10	15 7.28	- 0 16.0	31.376	32.180	1.1	22.0
419609	2010 <i>RX</i> ₁₄₀		5 10.5 155°98	2°0/ 11.7	14 C		350150	2011 <i>SG</i> ₈₈		5 10.5 250°22	3°6/ 12.8	16	
4 1	15 41.58	-24 37.5	2.118	2.888	14.8	22.7	4 1	15 37.22	-28 22.4	2.365	3.125	13.7	20.8
4 11	15 36.50	-24 40.4	2.031	2.897	11.9	22.5	4 11	15 33.08	-28 49.8	2.267	3.121	11.3	20.6
4 21	15 29.00	-24 32.1	1.965	2.905	8.6	22.3	4 21	15 26.71	-29 6.5	2.190	3.117	8.5	20.5
5 1	15 19.69	-24 12.1	1.925	2.912	4.9	22.1	5 1	15 18.62	-29 10.9	2.138	3.113	5.6	20.3
5 11	15 9.49	-23 41.7	1.912	2.919	2.0	21.9	5 11	15 9.58	-29 2.6	2.112	3.109	3.6	20.1
5 21	14 59.42	-23 3.9	1.928	2.924	4.3	22.0	5 21	15 0.52	-28 43.2	2.115	3.105	4.7	20.2
5 31	14 50.50	-22 23.1	1.972	2.929	7.9	22.3	5 31	14 52.36	-28 15.9	2.145	3.101	7.5	20.4
6 10	14 43.48	-21 44.4	2.041	2.934	11.3	22.5	6 10	14 45.88	-27 45.2	2.200	3.097	10.4	20.5
343141	2009 <i>FB</i> ₃₇		5 10.5 85°40	0°8/ 10.9	18		300868	2008 <i>AN</i> ₁₁		5 10.5 166°00	2°6/ 8.3	18	
4 1	15 38.77	-19 35.7	2.234	3.019	13.7	20.8	4 1	15 34.16	-10 47.9	2.602	3.401	11.6	21.3
4 11	15 34.04	-19 53.9	2.155	3.033	10.8	20.7	4 11	15 30.06	-10 12.9	2.516	3.404	9.1	21.2
4 21	15 27.18	-20 6.0	2.098	3.047	7.5	20.5	4 21	15 24.28	- 9 35.2	2.454	3.407	6.3	21.0
5 1	15 18.74	-20 11.7	2.068	3.061	3.9	20.3	5 1	15 17.27	- 8 57.6	2.419	3.410	3.6	20.8
5 11	15 9.54	-20 12.0	2.065	3.074	0.8	20.0	5 11	15 9.67	- 8 23.2	2.412	3.412	2.8	20.8
5 21	15 0.48	-20 8.7	2.091	3.088	3.9	20.3	5 21	15 2.16	- 7 55.1	2.434	3.414	5.0	20.9
5 31	14 52.42	-20 4.4	2.145	3.102	7.4	20.6	5 31	14 55.41	- 7 35.6	2.483	3.416	7.8	21.1
6 10	14 46.04	-20 1.9	2.224	3.115	10.6	20.8	6 10	14 49.96	- 7 26.6	2.557	3.417	10.5	21.3
433452	2013 <i>UX</i> ₅		5 10.5 179°93	2°9/ 12.4	17		73265	2002 <i>JW</i> ₄₈					

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
68061	2000 YF ₆₃		5 10.5 164°64	0°6/10.9	18		74824	Tarter		5 10.5 217°42	1°0/ 9.8	17	
4 1	15 40.98	-21 14.9	2.051	2.833	14.8	20.9	4 1	15 39.79	-16 24.5	1.973	2.770	14.8	20.2
4 11	15 36.05	-21 2.7	1.963	2.840	11.8	20.7	4 11	15 35.32	-16 9.0	1.875	2.762	11.8	20.0
4 21	15 28.71	-20 40.7	1.897	2.845	8.2	20.5	4 21	15 28.38	-15 46.7	1.800	2.754	8.1	19.7
5 1	15 19.57	-20 9.3	1.857	2.850	4.2	20.3	5 1	15 19.50	-15 19.1	1.749	2.745	4.0	19.5
5 11	15 9.54	-19 30.8	1.844	2.854	0.6	20.0	5 11	15 9.57	-14 48.9	1.726	2.735	1.2	19.2
5 21	14 59.64	-18 48.9	1.860	2.857	4.4	20.3	5 21	14 59.61	-14 19.6	1.731	2.725	5.1	19.5
5 31	14 50.87	-18 8.1	1.904	2.860	8.3	20.6	5 31	14 50.68	-13 55.3	1.763	2.714	9.2	19.7
6 10	14 43.99	-17 33.0	1.973	2.861	11.9	20.8	6 10	14 43.62	-13 39.5	1.819	2.703	13.0	19.9
303683	2005 NA ₃₀		5 10.5 216°47	0°8/ 9.8	18		504735	2009 VW ₆₉		5 10.5 239°34	1°8/ 9.6	17	
4 1	15 34.45	-16 32.8	2.839	3.626	11.0	21.9	4 1	15 41.12	-12 7.3	2.021	2.819	14.5	21.6
4 11	15 30.27	-16 12.0	2.737	3.619	8.7	21.7	4 11	15 36.32	-12 14.7	1.922	2.809	11.5	21.4
4 21	15 24.44	-15 45.8	2.658	3.610	6.0	21.5	4 21	15 29.06	-12 20.5	1.845	2.799	8.0	21.1
5 1	15 17.38	-15 15.7	2.607	3.602	2.9	21.3	5 1	15 19.85	-12 26.2	1.794	2.789	4.1	20.9
5 11	15 9.67	-14 44.0	2.584	3.593	0.9	21.1	5 11	15 9.55	-12 33.6	1.771	2.778	1.9	20.7
5 21	15 1.98	-14 13.1	2.591	3.583	3.7	21.3	5 21	14 59.16	-12 44.4	1.776	2.767	5.3	20.9
5 31	14 54.95	-13 45.9	2.626	3.574	6.8	21.5	5 31	14 49.72	-13 0.6	1.808	2.755	9.3	21.1
6 10	14 49.15	-13 24.8	2.688	3.563	9.5	21.6	6 10	14 42.11	-13 23.9	1.865	2.744	12.9	21.3
202933	1998 VY ₄₀		5 10.5 194°62	0°1/10.4	18		253816	2003 YO ₄₅		5 10.5 219°61	2°6/ 9.0	17	
4 1	15 35.84	-19 18.1	2.310	3.100	13.1	21.4	4 1	15 39.94	-12 7.8	1.849	2.655	15.3	21.2
4 11	15 31.77	-19 0.8	2.216	3.098	10.4	21.2	4 11	15 35.55	-11 49.1	1.757	2.648	12.2	21.0
4 21	15 25.66	-18 35.5	2.145	3.097	7.2	21.0	4 21	15 28.58	-11 26.6	1.686	2.641	8.5	20.7
5 1	15 18.04	-18 3.5	2.100	3.095	3.6	20.8	5 1	15 19.62	-11 2.9	1.640	2.634	4.5	20.5
5 11	15 9.64	-17 27.1	2.082	3.092	0.2	20.5	5 11	15 9.57	-10 41.5	1.621	2.626	2.8	20.3
5 21	15 1.30	-16 49.7	2.094	3.090	4.0	20.8	5 21	14 59.50	-10 25.9	1.629	2.617	6.1	20.5
5 31	14 53.85	-16 14.9	2.133	3.087	7.7	21.0	5 31	14 50.52	-10 19.4	1.664	2.608	10.2	20.7
6 10	14 47.95	-15 46.3	2.197	3.084	10.9	21.2	6 10	14 43.49	-10 24.3	1.722	2.598	13.9	20.9
61160	2000 NH ₁₈		5 10.5 173°47	6°3/14.4	18		268109	2004 SP ₂₇		5 10.5 53°63	6°9/ 5.6	17	
4 1	15 40.06	-34 13.9	1.875	2.624	17.2	19.0	4 1	15 33.77	- 4 48.2	1.667	2.494	15.8	20.5
4 11	15 36.14	-34 53.7	1.786	2.624	14.6	18.8	4 11	15 30.59	- 3 18.6	1.603	2.503	12.7	20.3
4 21	15 29.26	-35 16.9	1.715	2.625	11.6	18.6	4 21	15 25.03	- 1 48.7	1.561	2.511	9.5	20.1
5 1	15 20.02	-35 19.6	1.667	2.625	8.5	18.4	5 1	15 17.75	- 0 26.0	1.543	2.520	7.2	20.0
5 11	15 9.52	-35 0.2	1.643	2.625	6.5	18.3	5 11	15 9.69	+ 0 42.0	1.551	2.529	7.3	20.0
5 21	14 59.05	-34 20.3	1.645	2.625	7.0	18.3	5 21	15 1.86	+ 1 29.6	1.584	2.538	9.7	20.2
5 31	14 49.91	-33 25.2	1.673	2.625	9.5	18.4	5 31	14 55.22	+ 1 53.6	1.640	2.547	12.7	20.4
6 10	14 43.11	-32 22.8	1.724	2.625	12.6	18.6	6 10	14 50.48	+ 1 54.0	1.717	2.557	15.7	20.6
108491	2001 KF ₆₃		5 10.5 321°23	5°0/ 8.1	18		199947	Qaidam		5 10.5 316°99	1°8/ 9.9	17	
4 1	15 34.28	- 8 55.8	1.362	2.201	18.0	18.9	4 1	15 40.39	-11 3.5	1.490	2.311	17.7	18.9
4 11	15 31.98	- 8 20.0	1.276	2.186	14.4	18.6	4 11	15 37.09	-11 38.1	1.379	2.279	14.3	18.6
4 21	15 26.63	- 7 41.3	1.210	2.172	10.3	18.4	4 21	15 30.50	-12 16.2	1.288	2.247	10.1	18.3
5 1	15 18.81	- 7 4.9	1.166	2.158	6.3	18.1	5 1	15 20.99	-12 59.0	1.220	2.216	5.3	17.9
5 11	15 9.59	- 6 37.1	1.145	2.145	5.3	18.0	5 11	15 9.48	-13 47.4	1.177	2.186	1.9	17.6
5 21	15 0.29	- 6 23.2	1.149	2.132	8.7	18.1	5 21	14 57.32	-14 41.6	1.160	2.156	6.6	17.8
5 31	14 52.27	- 6 27.2	1.174	2.121	13.3	18.4	5 31	14 46.13	-15 41.8	1.168	2.127	12.0	18.0
6 10	14 46.63	- 6 50.7	1.220	2.109	17.6	18.6	6 10	14 37.31	-16 48.4	1.197	2.098	17.0	18.2
500755	2013 AM ₉₂		5 10.5 150°96	4°5/ 6.7	17		46824	Tambora		5 10.5 350°44	2°6/11.9	18	
4 1	15 33.57	- 4 17.2	2.608	3.410	11.5	21.2	4 1	15 34.75	-25 39.8	1.401	2.212	19.1	18.9
4 11	15 29.55	- 3 34.0	2.529	3.414	9.2	21.1	4 11	15 32.45	-25 34.0	1.319	2.209	15.5	18.7
4 21	15 23.91	- 2 52.0	2.474	3.418	6.8	20.9	4 21	15 26.96	-25 10.7	1.255	2.206	11.2	18.4
5 1	15 17.08	- 2 14.8	2.445	3.422	4.9	20.8	5 1	15 18.95	-24 29.1	1.213	2.204	6.5	18.1
5 11	15 9.71	- 1 45.9	2.444	3.426	4.7	20.8	5 11	15 9.61	-23 31.8	1.195	2.202	2.6	17.9
5 21	15 2.43	- 1 28.1	2.471	3.429	6.4	20.9	5 21	15 0.37	-22 24.4	1.201	2.201	5.6	18.1
5 31	14 55.90	- 1 23.1	2.524	3.432	8.8	21.1	5 31	14 52.64	-21 15.2	1.232	2.200	10.4	18.3
6 10	14 50.63	- 1 31.3	2.601	3.435	11.1	21.2	6 10	14 47.45	-20 12.6	1.284	2.200	14.9	18.6
102868	1999 WO ₆		5 10.5 113°73	3°6/ 8.4	18		2314	Field		5 10.5 12°02	1°4/11.0	18	
4 1	15 39.45	- 7 9.6	2.193	2.992	13.5	20.2	4 1	15 40.28	-20 17.6	1.392	2.206	19.0	17.1
4 11	15 34.42	- 6 55.0	2.120	3.006	10.6	20.0	4 11	15 36.80	-20 40.0	1.312	2.206	15.3	16.9
4 21	15 27.35	- 6 41.4	2.070	3.020	7.5	19.8	4 21	15 29.98	-20 53.2	1.251	2.206	10.8	16.6
5 1	15 18.81	- 6 31.4	2.046	3.033	4.6	19.7	5 1	15 20.48	-20 56.2	1.213	2.207	5.7	16.3
5 11	15 9.61	- 6 27.8	2.050	3.047	3.8	19.6	5 11	15 9.53	-20 49.9	1.198	2.208	1.4	16.0
5 21	15 0.59	- 6 32.8	2.082	3.059	6.0	19.8	5 21	14 58.61	-20 37.0	1.209	2.208	5.7	16.3
5 31	14 52.58	- 6 47.7	2.142	3.072	9.0	20.0	5 31	14 49.23	-20 22.6	1.245	2.209	10.8	16.6
6 10	14 46.20	- 7 12.8	2.226	3.084	11.9	20.2	6 10	14 42.52	-20 11.9	1.301	2.210	15.3	16.8
102300	1999 TS ₈₇		5 10.5 200°64	1°5/ 9.5	17		196678	2003 SD ₆₁		5 10.5 249°60	0°3/10.3	18	
4 1	15 38.86	-15 44.0	1.913	2.715	15.0	20.9	4 1	15 37.23	-18 0.9	2.241	3.032	13.4	20.7
4 11	15 34.57	-15 18.7	1.822	2.712	11.9	20.7	4 11	15 33.09	-17 52.1	2.134	3.017	10.7	20.5
4 21	15 27.83	-14 46.3	1.753	2.709	8.2	20.5	4 21	15 26.74	-17 36.4	2.050	3.002	7.4	20.3
5 1	15 19.20	-14 9.0	1.709	2.705	4.1	20.2	5 1	15 18.67	-17 14.8	1.991	2.986	3.7	20.0
5 11	15 9.58	-13 30.3	1.692	2.700	1.6	20.0	5 11	15 9.63	-16 49.3	1.960	2.969	0.4	19.7
5 21	15 0.02	-12 54.2	1.703	2.695	5.3	20.2	5 21	15 0.51	-16 22.6	1.957	2.953	4.3	20.0
5 31	14 51.53	-12 25.1	1.741	2.690	9.5	20.5	5 31	14 52.22	-15 58.4	1.982	2.936	8.2	20.2
6 10	14 44.95	-12 6.4	1.802	2.684	13.1	20.7	6 10	14 45.54	-15 40.1	2.032	2.918	11.7	20.4
100577	1997 HM ₁₀		5 10.5 317°85	0°8/10.1	18		237703	2001 UJ ₈₂		5 10.5 248°77	0°6/10.2	17	
4 1	15 32.17	-18 25.3	1.351	2.184	18.4	19.8							

EPHEMERIDES

5 10.5

5 10.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
434974	2006 <i>UH</i> ₁₂₂		5 10.5 284°72	0°7/ 9.9 16			94054	2000 <i>YE</i> ₉		5 10.5 248°43	5°0/14.1 18		
4 1	15 34.47	-17 6.0	2.170	2.971	13.5	21.6	4 1	15 39.00	-33 43.6	2.256	2.994	14.9	20.0
4 11	15 30.94	-16 51.5	2.069	2.958	10.7	21.4	4 11	15 34.85	-33 56.2	2.144	2.978	12.6	19.8
4 21	15 25.26	-16 30.3	1.990	2.945	7.4	21.2	4 21	15 28.16	-33 53.0	2.052	2.962	9.9	19.6
5 1	15 17.93	-16 3.7	1.936	2.932	3.7	20.9	5 1	15 19.47	-33 31.5	1.984	2.946	7.1	19.4
5 11	15 9.68	-15 34.4	1.910	2.919	0.8	20.7	5 11	15 9.65	-32 51.1	1.942	2.929	5.1	19.2
5 21	15 1.40	-15 5.6	1.911	2.906	4.5	20.9	5 21	14 59.75	-31 53.8	1.927	2.912	5.7	19.2
5 31	14 53.96	-14 40.7	1.939	2.893	8.3	21.1	5 31	14 50.87	-30 44.4	1.940	2.894	8.3	19.3
6 10	14 48.12	-14 23.2	1.992	2.880	11.8	21.3	6 10	14 43.89	-29 29.9	1.977	2.876	11.4	19.5
73705	1991 <i>UR</i> ₂		5 10.5 157°36	0°9/11.1 18			467930	2012 <i>BP</i> ₅₂		5 10.5 67°11	2°2/11.7 17		
4 1	15 42.31	-21 11.7	2.385	3.155	13.3	20.0	4 1	15 38.72	-24 48.8	1.482	2.284	18.7	21.4
4 11	15 36.73	-21 14.7	2.297	3.165	10.6	19.8	4 11	15 35.15	-24 43.6	1.414	2.298	15.0	21.2
4 21	15 29.01	-21 9.9	2.231	3.174	7.4	19.6	4 21	15 28.51	-24 22.8	1.364	2.313	10.7	21.0
5 1	15 19.69	-20 57.3	2.191	3.183	3.9	19.4	5 1	15 19.61	-23 46.4	1.337	2.328	6.0	20.7
5 11	15 9.59	-20 38.1	2.181	3.190	0.9	19.2	5 11	15 9.66	-22 57.3	1.335	2.343	2.2	20.5
5 21	14 59.61	-20 14.6	2.200	3.197	3.9	19.4	5 21	15 0.03	-22 0.8	1.359	2.358	5.2	20.8
5 31	14 50.62	-19 50.3	2.249	3.203	7.3	19.6	5 31	14 52.00	-21 3.9	1.408	2.373	9.7	21.1
6 10	14 43.31	-19 28.7	2.323	3.207	10.5	19.8	6 10	14 46.44	-20 13.5	1.479	2.388	13.8	21.3
173940	2001 <i>WD</i> ₃₉		5 10.5 118°43	1°2/ 9.4 18			102764	1999 <i>VF</i> ₁₃₆		5 10.5 327°45	0°5/10.3 17		
4 1	15 34.45	-16 14.6	2.732	3.522	11.3	20.6	4 1	15 37.76	-16 0.0	1.374	2.200	18.6	19.6
4 11	15 30.15	-15 37.2	2.655	3.538	8.9	20.5	4 11	15 34.90	-16 17.6	1.288	2.190	14.9	19.3
4 21	15 24.25	-14 54.2	2.601	3.554	6.0	20.3	4 21	15 28.78	-16 30.0	1.221	2.181	10.4	19.0
5 1	15 17.23	-14 7.9	2.575	3.570	3.0	20.1	5 1	15 19.98	-16 38.0	1.176	2.173	5.2	18.7
5 11	15 9.74	-13 21.1	2.577	3.585	1.3	20.0	5 11	15 9.63	-16 43.2	1.155	2.165	0.6	18.3
5 21	15 2.41	-12 37.1	2.610	3.600	3.9	20.2	5 21	14 59.16	-16 48.0	1.159	2.157	6.0	18.7
5 31	14 55.86	-11 58.8	2.670	3.614	6.8	20.4	5 31	14 50.07	-16 55.8	1.186	2.150	11.3	18.9
6 10	14 50.61	-11 28.9	2.756	3.628	9.4	20.6	6 10	14 43.55	-17 10.2	1.235	2.144	16.0	19.2
115540	2003 <i>UP</i> ₆₁		5 10.5 160°79	3°0/ 8.5 18			334920	2003 <i>YU</i> ₁₁₄		5 10.5 101°14	2°5/12.4 17		
4 1	15 35.98	-10 58.1	2.084	2.891	13.8	20.0	4 1	15 37.85	-26 58.4	2.285	3.050	14.0	21.4
4 11	15 31.98	-10 28.3	2.000	2.893	10.9	19.8	4 11	15 33.37	-26 59.7	2.206	3.067	11.3	21.3
4 21	15 25.86	-9 55.4	1.939	2.895	7.5	19.6	4 21	15 26.75	-26 49.2	2.149	3.083	8.2	21.1
5 1	15 18.16	-9 22.7	1.904	2.896	4.2	19.4	5 1	15 18.59	-26 26.4	2.116	3.099	5.0	20.9
5 11	15 9.68	-8 53.7	1.896	2.898	3.1	19.3	5 11	15 9.72	-25 52.7	2.112	3.115	2.6	20.8
5 21	15 1.30	-8 31.9	1.915	2.899	5.8	19.5	5 21	15 1.05	-25 11.1	2.135	3.130	4.1	20.9
5 31	14 53.87	-8 20.1	1.961	2.900	9.2	19.7	5 31	14 53.43	-24 25.8	2.186	3.145	7.2	21.1
6 10	14 48.10	-8 20.2	2.031	2.901	12.4	19.9	6 10	14 47.53	-23 41.7	2.263	3.160	10.2	21.3
114741	2003 <i>HH</i> ₁₄		5 10.5 290°71	6°6/ 6.4 18			333246	2012 <i>HY</i> ₇₁		5 10.5 241°58	6°8/ 4.9 18		
4 1	15 35.31	-3 39.5	1.761	2.582	15.4	19.7	4 1	15 35.98	-1 23.2	2.166	2.971	13.4	20.3
4 11	15 32.03	-2 45.2	1.668	2.564	12.5	19.5	4 11	15 31.99	-0 7.4	2.073	2.956	11.0	20.1
4 21	15 26.26	-1 51.4	1.597	2.545	9.4	19.3	4 21	15 25.93	+1 7.7	2.004	2.941	8.6	19.9
5 1	15 18.51	-1 4.1	1.549	2.527	7.0	19.1	5 1	15 18.26	+2 16.1	1.960	2.925	7.0	19.8
5 11	15 9.66	-0 29.5	1.527	2.509	6.9	19.0	5 11	15 9.73	+3 11.7	1.943	2.908	7.2	19.8
5 21	15 0.72	-0 12.4	1.530	2.491	9.3	19.1	5 21	15 1.19	+3 49.9	1.952	2.891	9.2	19.9
5 31	14 52.78	-0 15.9	1.557	2.472	12.7	19.3	5 31	14 53.48	+4 7.5	1.987	2.873	11.8	20.0
6 10	14 46.71	-0 40.5	1.604	2.454	16.1	19.4	6 10	14 47.31	+4 4.1	2.043	2.854	14.5	20.1
465359	2008 <i>AP</i> ₆₇		5 10.5 176°89	6°2/ 6.4 17			305626	2009 <i>AH</i> ₄₁		5 10.5 101°92	1°9/11.4 16		
4 1	15 38.76	-3 9.8	1.948	2.755	14.6	21.7	4 1	15 40.78	-22 44.4	1.499	2.302	18.5	21.5
4 11	15 34.24	-2 11.7	1.871	2.758	11.8	21.5	4 11	15 36.87	-22 54.5	1.423	2.309	14.8	21.3
4 21	15 27.45	-1 15.2	1.816	2.759	8.9	21.3	4 21	15 29.82	-22 52.4	1.367	2.317	10.5	21.1
5 1	15 18.96	-0 25.8	1.786	2.760	6.6	21.2	5 1	15 20.33	-22 37.3	1.332	2.324	5.8	20.8
5 11	15 9.66	+0 11.0	1.783	2.761	6.5	21.2	5 11	15 9.62	-22 10.8	1.323	2.332	1.9	20.6
5 21	15 0.48	+0 31.3	1.806	2.760	8.7	21.3	5 21	14 59.09	-21 36.7	1.340	2.339	5.3	20.8
5 31	14 52.36	+0 32.7	1.854	2.760	11.6	21.5	5 31	14 50.09	-21 0.8	1.382	2.346	10.0	21.1
6 10	14 46.03	+0 15.4	1.925	2.758	14.5	21.6	6 10	14 43.62	-20 29.4	1.446	2.353	14.3	21.4
8971	<i>Leucocephala</i>		5 10.5 110°64	0°3/10.2 18			431033	2006 <i>AW</i> ₆₁		5 10.5 141°32	2°1/ 8.9 17		
4 1	15 35.18	-18 15.2	2.489	3.278	12.3	18.7	4 1	15 37.48	-13 35.1	2.209	3.007	13.4	22.7
4 11	15 30.98	-17 58.2	2.408	3.290	9.7	18.5	4 11	15 32.98	-13 2.4	2.129	3.017	10.5	22.5
4 21	15 24.96	-17 34.6	2.350	3.302	6.6	18.4	4 21	15 26.44	-12 24.9	2.072	3.027	7.2	22.3
5 1	15 17.65	-17 6.0	2.319	3.314	3.3	18.2	5 1	15 18.44	-11 45.3	2.042	3.036	3.8	22.1
5 11	15 9.74	-16 34.7	2.316	3.325	0.4	17.9	5 11	15 9.74	-11 7.1	2.039	3.044	2.2	22.0
5 21	15 1.97	-16 3.5	2.342	3.337	3.8	18.2	5 21	15 1.20	-10 33.9	2.065	3.052	5.1	22.2
5 31	14 55.05	-15 35.5	2.395	3.348	7.0	18.4	5 31	14 53.64	-10 8.8	2.118	3.060	8.5	22.4
6 10	14 49.57	-15 13.6	2.475	3.359	9.9	18.6	6 10	14 47.69	-9 54.3	2.196	3.067	11.5	22.6
240086	2002 <i>AK</i> ₂₀₀		5 10.5 25°93	12°7/ 4.6 18			269950	2000 <i>SX</i> ₉₈		5 10.5 188°96	4°3/13.4 18		
4 1	15 38.30	+16 29.7	1.795	2.570	16.9	19.1	4 1	15 40.66	-30 52.8	2.301	3.046	14.4	21.2
4 11	15 33.88	+17 20.2	1.749	2.581	15.1	19.0	4 11	15 35.92	-31 17.5	2.204	3.046	12.0	21.1
4 21	15 27.12	+17 51.2	1.722	2.594	13.6	18.9	4 21	15 28.76	-31 29.3	2.127	3.044	9.2	20.9
5 1	15 18.72	+17 55.6	1.716	2.607	12.7	18.9	5 1	15 19.72	-31 26.1	2.074	3.043	6.3	20.7
5 11	15 9.68	+17 29.1	1.731	2.621	12.9	18.9	5 11	15 9.67	-31 7.3	2.049	3.041	4.4	20.6
5 21	15 1.01	+16 31.4	1.769	2.635	13.9	19.0	5 21	14 59.64	-30 34.7	2.051	3.038	5.2	20.6
5 31	14 53.62	+15 5.4	1.828	2.651	15.5	19.2	5 31	14 50.63	-29 52.2	2.081	3.035	7.9	20.8
6 10	14 48.17	+13 16.5	1.906	2.666	17.2	19.3	6 10	14 43.47	-29 5.5	2.136	3.031	10.8	20.9
195354	2002 <i>FG</i> ₅		5 10.5 120°05	9°8/11.8 18			399080	2014 <i>DO</i> ₁₃		5 10.5 27°85	3°9/ 8.2 17		</

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
74219	1998 <i>RM</i> ₇₈		5 10.5 56°36	0°9/10.9	18	R	20295	1998 <i>FF</i> ₇₅		5 10.5 189°56	2°0/11.5	18	
4 1	15 40.21	-19 23.4	1.532	2.341	17.8	17.4	4 1	15 42.06	-22 44.3	1.822	2.607	16.3	17.7
4 11	15 36.30	-19 44.4	1.457	2.348	14.2	17.2	4 11	15 37.48	-23 4.1	1.731	2.607	13.2	17.4
4 21	15 29.38	-19 57.5	1.402	2.356	9.9	16.9	4 21	15 30.10	-23 14.2	1.661	2.606	9.4	17.2
5 1	15 20.11	-20 2.1	1.370	2.364	5.1	16.7	5 1	15 20.49	-23 13.4	1.615	2.605	5.3	17.0
5 11	15 9.66	-19 59.5	1.363	2.373	0.9	16.4	5 11	15 9.68	-23 2.3	1.595	2.603	2.0	16.7
5 21	14 59.35	-19 52.2	1.382	2.381	5.2	16.7	5 21	14 58.86	-22 43.1	1.603	2.600	4.9	16.9
5 31	14 50.49	-19 44.2	1.427	2.390	9.9	17.0	5 31	14 49.25	-22 19.9	1.638	2.598	9.1	17.2
6 10	14 44.04	-19 39.8	1.494	2.398	14.0	17.3	6 10	14 41.82	-21 57.9	1.696	2.594	13.0	17.4
55411	2001 <i>TM</i> ₄		5 10.5 92°53	1°9/11.8	18		148125	1999 <i>TV</i> ₁₆₆		5 10.5 153°59	2°5/12.8	18	
4 1	15 36.83	-24 20.1	2.304	3.080	13.6	19.7	4 1	15 35.94	-28 11.0	3.039	3.786	11.2	21.2
4 11	15 32.58	-24 26.6	2.223	3.092	10.9	19.6	4 11	15 31.44	-28 18.1	2.945	3.793	9.2	21.1
4 21	15 26.24	-24 23.4	2.163	3.104	7.8	19.4	4 21	15 25.26	-28 15.8	2.874	3.799	6.8	20.9
5 1	15 18.37	-24 10.2	2.128	3.116	4.5	19.2	5 1	15 17.84	-28 3.3	2.829	3.805	4.3	20.7
5 11	15 9.78	-23 48.2	2.121	3.127	1.9	19.0	5 11	15 9.83	-27 41.4	2.812	3.811	2.6	20.6
5 21	15 1.31	-23 19.9	2.142	3.139	3.9	19.2	5 21	15 1.89	-27 11.9	2.825	3.816	3.5	20.7
5 31	14 53.83	-22 49.1	2.191	3.151	7.2	19.4	5 31	14 54.68	-26 37.5	2.866	3.821	5.9	20.9
6 10	14 47.99	-22 19.6	2.265	3.162	10.2	19.6	6 10	14 48.76	-26 1.9	2.934	3.826	8.3	21.0
283037	2008 <i>BG</i> ₈		5 10.5 167°28	7°3/ 2.9	18		334766	2003 <i>SC</i> ₆₄		5 10.5 198°34	3°8/ 7.9	18	
4 1	15 34.61	+ 9 53.7	3.114	3.882	10.5	22.0	4 1	15 35.36	- 9 14.7	2.029	2.840	13.9	20.8
4 11	15 30.08	+10 54.5	3.047	3.887	9.1	21.9	4 11	15 31.58	- 8 33.6	1.945	2.840	11.0	20.6
4 21	15 24.14	+11 47.4	3.005	3.892	7.9	21.8	4 21	15 25.66	- 7 50.1	1.884	2.839	7.8	20.4
5 1	15 17.22	+12 28.0	2.988	3.896	7.3	21.8	5 1	15 18.14	- 7 8.1	1.849	2.838	4.8	20.2
5 11	15 9.84	+12 52.9	2.997	3.899	7.6	21.8	5 11	15 9.81	- 6 31.8	1.840	2.837	4.0	20.2
5 21	15 2.58	+13 0.3	3.032	3.902	8.6	21.9	5 21	15 1.58	- 6 5.3	1.859	2.836	6.5	20.3
5 31	14 55.97	+12 49.7	3.092	3.905	10.0	22.0	5 31	14 54.30	- 5 51.4	1.903	2.835	9.9	20.5
6 10	14 50.47	+12 22.2	3.173	3.906	11.4	22.1	6 10	14 48.69	- 5 51.7	1.971	2.834	13.0	20.7
180858	2005 <i>HX</i> ₇		5 10.5 317°04	5°3/ 7.9	18		499277	2009 <i>VN</i> ₆₈		5 10.5 160°22	1°0/11.2	17	
4 1	15 33.54	- 9 4.7	1.339	2.180	18.1	19.9	4 1	15 37.68	-22 55.3	2.146	2.928	14.3	22.5
4 11	15 31.55	- 8 23.1	1.249	2.160	14.6	19.6	4 11	15 33.42	-22 38.2	2.057	2.932	11.4	22.3
4 21	15 26.48	- 7 37.3	1.178	2.140	10.5	19.3	4 21	15 26.92	-22 10.1	1.990	2.936	8.0	22.1
5 1	15 18.86	- 6 52.9	1.129	2.121	6.5	19.0	5 1	15 18.76	-21 31.6	1.948	2.940	4.3	21.9
5 11	15 9.74	- 6 16.8	1.103	2.103	5.5	18.9	5 11	15 9.78	-20 45.2	1.934	2.943	1.0	21.6
5 21	15 0.44	- 5 55.1	1.101	2.085	9.1	19.0	5 21	15 0.93	-19 54.6	1.949	2.946	4.1	21.9
5 31	14 52.39	- 5 52.8	1.121	2.068	13.7	19.2	5 31	14 53.12	-19 4.5	1.990	2.949	7.8	22.1
6 10	14 46.74	- 6 11.7	1.161	2.051	18.2	19.4	6 10	14 47.05	-18 19.8	2.057	2.951	11.2	22.3
6706	1988 <i>VD</i> ₃		5 10.5 219°18	1°0/11.1	18		277394	2005 <i>UK</i> ₁₅₁		5 10.5 302°65	0°7/10.9	16	
4 1	15 40.30	-21 50.1	2.070	2.851	14.7	18.5	4 1	15 34.86	-20 5.0	2.230	3.023	13.5	20.8
4 11	15 35.75	-21 43.9	1.967	2.842	11.8	18.3	4 11	15 31.28	-20 10.7	2.128	3.011	10.8	20.6
4 21	15 28.73	-21 27.7	1.886	2.832	8.4	18.0	4 21	15 25.55	-20 9.3	2.048	2.998	7.6	20.4
5 1	15 19.75	-21 1.5	1.829	2.822	4.4	17.8	5 1	15 18.15	-20 1.0	1.993	2.986	3.9	20.1
5 11	15 9.70	-20 27.0	1.801	2.810	1.0	17.5	5 11	15 9.81	-19 47.1	1.965	2.974	0.7	19.9
5 21	14 59.60	-19 47.3	1.801	2.798	4.4	17.7	5 21	15 1.41	-19 30.0	1.965	2.963	4.0	20.1
5 31	14 50.51	-19 7.1	1.828	2.785	8.5	17.9	5 31	14 53.84	-19 12.6	1.992	2.951	7.8	20.3
6 10	14 43.27	-18 31.2	1.880	2.772	12.2	18.1	6 10	14 47.86	-18 58.5	2.044	2.940	11.2	20.5
301056	2008 <i>UR</i> ₄₆		5 10.5 204°91	1°2/11.2	16		88332	2001 <i>OO</i> ₆₀		5 10.5 329°67	0°8/10.1	17	
4 1	15 40.65	-22 28.6	1.627	2.424	17.5	22.0	4 1	15 31.36	-19 42.7	1.107	1.954	20.8	19.4
4 11	15 36.66	-22 21.4	1.537	2.421	14.1	21.8	4 11	15 30.51	-19 10.8	1.026	1.941	16.7	19.1
4 21	15 29.68	-22 1.5	1.467	2.417	10.0	21.5	4 21	15 26.12	-18 21.6	0.962	1.929	11.6	18.8
5 1	15 20.31	-21 28.6	1.420	2.413	5.3	21.2	5 1	15 18.78	-17 17.4	0.919	1.917	5.8	18.4
5 11	15 9.67	-20 45.0	1.400	2.409	1.2	20.9	5 11	15 9.77	-16 4.2	0.897	1.907	1.0	18.0
5 21	14 59.07	-19 55.1	1.405	2.404	5.2	21.2	5 21	15 0.71	-14 50.7	0.898	1.897	7.0	18.4
5 31	14 49.81	-19 5.3	1.437	2.398	10.0	21.4	5 31	14 53.27	-13 46.9	0.920	1.888	13.1	18.7
6 10	14 42.90	-18 22.0	1.492	2.392	14.2	21.7	6 10	14 48.70	-13 1.0	0.961	1.881	18.4	18.9
275095	2009 <i>VE</i> ₂₃		5 10.5 213°95	0°4/10.2	18		461665	2005 <i>GM</i> ₁₇₉		5 10.5 15°26	2°6/11.3	17	
4 1	15 37.43	-19 11.3	2.264	3.052	13.4	21.6	4 1	15 39.77	-19 48.9	1.200	2.027	20.7	20.3
4 11	15 33.14	-18 43.8	2.163	3.045	10.7	21.4	4 11	15 36.92	-20 50.7	1.131	2.031	16.7	20.0
4 21	15 26.72	-18 7.3	2.085	3.037	7.4	21.1	4 21	15 30.39	-21 46.1	1.079	2.036	11.9	19.7
5 1	15 18.67	-17 23.3	2.033	3.028	3.7	20.9	5 1	15 20.85	-22 32.3	1.048	2.042	6.6	19.5
5 11	15 9.77	-16 34.7	2.010	3.019	0.5	20.6	5 11	15 9.67	-23 7.5	1.041	2.048	2.6	19.2
5 21	15 0.89	-15 45.2	2.015	3.010	4.3	20.9	5 21	14 58.54	-23 31.8	1.057	2.056	6.3	19.5
5 31	14 52.90	-14 59.3	2.048	3.000	8.1	21.1	5 31	14 49.18	-23 48.5	1.096	2.065	11.4	19.8
6 10	14 46.53	-14 21.1	2.106	2.989	11.4	21.3	6 10	14 42.83	-24 2.7	1.156	2.075	16.1	20.1
282743	2006 <i>EZ</i> ₅₁		5 10.5 285°69	4°4/ 7.3	18		497157	2004 <i>RE</i> ₁₉₇		5 10.5 188°92	4°9/14.3	17	
4 1	15 33.67	- 9 58.2	1.904	2.722	14.5	20.8	4 1	15 41.70	-34 37.5	2.670	3.386	13.3	22.9
4 11	15 30.58	- 8 55.8	1.805	2.704	11.5	20.5	4 11	15 36.49	-35 5.2	2.567	3.385	11.3	22.7
4 21	15 25.19	- 7 47.5	1.729	2.686	8.2	20.3	4 21	15 29.03	-35 19.8	2.486	3.383	8.9	22.5
5 1	15 17.99	- 6 38.3	1.678	2.667	5.2	20.1	5 1	15 19.84	-35 18.8	2.429	3.381	6.6	22.4
5 11	15 9.80	- 5 34.0	1.653	2.649	4.7	20.0	5 11	15 9.73	-35 1.2	2.400	3.378	5.1	22.3
5 21	15 1.55	- 4 40.4	1.655	2.630	7.5	20.1	5 21	14 59.62	-34 28.4	2.399	3.374	5.4	22.3
5 31	14 54.22	- 4 2.4	1.683	2.612	11.1	20.3	5 31	14 50.44	-33 43.7	2.425	3.370	7.4	22.4
6 10	14 48.62	- 3 42.7	1.732	2.593	14.6	20.5	6 10	14 42.96	-32 52.5	2.478	3.365	9.8	22.5
8369	Miyata		5 10.5 219°84	4°9/12.9	18		506992	2008 <i>SZ</i> ₂₃₉		5 10.5 204°95	0°5/10		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
44181	1998 <i>KA</i> ₄₃		5 10.5 356°96	5°6/ 6.6 18			63520	2001 <i>PF</i>		5 10.5 254°28	7°5/15.3 18		
4 1	15 33.32	- 3 29.4	2.112	2.926	13.4	19.1	4 1	15 41.33	-38 59.6	2.360	3.065	15.1	19.1
4 11	15 29.86	- 2 42.1	2.034	2.925	10.8	19.0	4 11	15 36.92	-39 59.9	2.257	3.057	13.2	19.0
4 21	15 24.41	- 1 56.5	1.978	2.925	8.1	18.8	4 21	15 29.78	-40 45.8	2.174	3.048	11.0	18.8
5 1	15 17.50	- 1 17.5	1.948	2.924	6.0	18.6	5 1	15 20.42	-41 12.6	2.113	3.039	9.0	18.6
5 11	15 9.87	- 0 49.5	1.943	2.924	5.8	18.6	5 11	15 9.75	-41 17.6	2.077	3.030	7.6	18.5
5 21	15 2.34	- 0 35.9	1.966	2.924	7.8	18.8	5 21	14 58.90	-41 0.5	2.066	3.021	7.7	18.5
5 31	14 55.69	- 0 38.6	2.013	2.924	10.5	18.9	5 31	14 49.08	-40 24.4	2.082	3.011	9.3	18.6
6 10	14 50.58	- 0 57.6	2.082	2.925	13.2	19.1	6 10	14 41.30	-39 35.2	2.122	3.002	11.5	18.7
302177	2001 <i>TP</i> ₁₀₈		5 10.5 251°48	2°9/11.9 16			219608	2001 <i>TO</i> ₉₄		5 10.5 168°41	1°3/11.4 18		
4 1	15 40.45	-25 29.6	1.612	2.402	17.9	21.8	4 1	15 39.50	-23 18.7	2.341	3.113	13.5	21.6
4 11	15 36.84	-25 39.3	1.512	2.389	14.7	21.5	4 11	15 34.68	-23 11.3	2.249	3.118	10.8	21.4
4 21	15 30.06	-25 35.0	1.431	2.375	10.7	21.2	4 21	15 27.72	-22 54.0	2.180	3.122	7.7	21.2
5 1	15 20.65	-25 14.6	1.372	2.360	6.3	20.9	5 1	15 19.17	-22 26.9	2.136	3.126	4.2	21.0
5 11	15 9.70	-24 38.7	1.339	2.345	2.9	20.7	5 11	15 9.83	-21 51.7	2.120	3.128	1.3	20.8
5 21	14 58.57	-23 50.5	1.332	2.330	5.6	20.8	5 21	15 0.58	-21 11.3	2.134	3.131	3.9	21.0
5 31	14 48.74	-22 56.4	1.350	2.314	10.2	21.0	5 31	14 52.30	-20 29.9	2.175	3.132	7.4	21.2
6 10	14 41.35	-22 4.1	1.391	2.298	14.7	21.2	6 10	14 45.69	-19 51.7	2.243	3.133	10.6	21.4
97452	2000 <i>CB</i> ₈		5 10.5 319°51	17°8/15.5 17			24455	Kaňuchová		5 10.5 105°13	1°3/ 9.7 18		
4 1	15 46.31	-43 41.2	1.134	1.882	26.2	19.3	4 1	15 37.23	-13 54.3	2.287	3.084	13.0	18.0
4 11	15 44.96	-46 33.4	1.060	1.874	23.9	19.1	4 11	15 32.84	-13 55.6	2.202	3.089	10.3	17.8
4 21	15 38.11	-49 7.5	0.999	1.865	21.5	18.9	4 21	15 26.44	-13 53.8	2.139	3.093	7.0	17.6
5 1	15 25.76	-51 7.7	0.954	1.858	19.3	18.7	5 1	15 18.53	-13 50.4	2.103	3.098	3.5	17.4
5 11	15 9.38	-52 18.8	0.927	1.850	18.0	18.6	5 11	15 9.86	-13 47.0	2.094	3.102	1.3	17.2
5 21	14 51.89	-52 32.2	0.917	1.843	18.1	18.6	5 21	15 1.27	-13 45.8	2.114	3.107	4.4	17.5
5 31	14 36.87	-51 51.4	0.925	1.837	19.5	18.6	5 31	14 53.57	-13 48.7	2.161	3.111	7.9	17.7
6 10	14 27.08	-50 31.7	0.948	1.831	21.9	18.8	6 10	14 47.42	-13 57.7	2.234	3.115	11.0	17.9
470381	2007 <i>TA</i> ₂₉₀		5 10.5 285°78	0°2/10.4 17			285651	2000 <i>SR</i> ₃₅		5 10.5 295°36	5°9/13.4 18		
4 1	15 37.57	-17 44.6	2.051	2.848	14.3	21.5	4 1	15 39.81	-32 14.3	2.184	2.929	15.1	20.7
4 11	15 33.78	-17 46.0	1.935	2.821	11.5	21.3	4 11	15 35.87	-33 11.4	2.066	2.904	12.9	20.4
4 21	15 27.54	-17 41.1	1.841	2.794	8.1	21.0	4 21	15 29.21	-33 57.8	1.969	2.879	10.3	20.2
5 1	15 19.28	-17 30.4	1.771	2.767	4.1	20.7	5 1	15 20.23	-34 29.6	1.895	2.854	7.6	20.0
5 11	15 9.79	-17 15.5	1.729	2.739	0.3	20.4	5 11	15 9.76	-34 43.8	1.846	2.828	5.9	19.9
5 21	15 0.03	-16 58.9	1.714	2.711	4.7	20.6	5 21	14 58.90	-34 40.0	1.825	2.803	6.6	19.8
5 31	14 51.08	-16 44.1	1.727	2.683	9.0	20.8	5 31	14 48.88	-34 20.6	1.829	2.777	9.2	19.9
6 10	14 43.87	-16 34.7	1.763	2.655	12.9	21.0	6 10	14 40.79	-33 50.8	1.858	2.752	12.2	20.1
253594	2003 <i>TE</i> ₁₅		5 10.5 166°96	0°8/11.1 18			191344	2003 <i>QK</i> ₃₃		5 10.5 223°60	4°8/ 6.3 18		
4 1	15 40.59	-22 29.0	2.074	2.853	14.8	21.6	4 1	15 34.71	- 6 41.4	2.305	3.112	12.6	19.8
4 11	15 35.78	-22 10.2	1.985	2.859	11.8	21.4	4 11	15 30.84	- 5 30.0	2.214	3.103	10.1	19.6
4 21	15 28.59	-21 40.2	1.918	2.864	8.3	21.2	4 21	15 25.06	- 4 16.0	2.146	3.095	7.4	19.4
5 1	15 19.62	-20 59.6	1.876	2.868	4.3	20.9	5 1	15 17.85	- 3 4.3	2.105	3.085	5.2	19.3
5 11	15 9.78	-20 11.0	1.862	2.871	0.8	20.7	5 11	15 9.91	- 2 0.2	2.092	3.076	5.2	19.3
5 21	15 0.08	-19 18.3	1.877	2.874	4.3	20.9	5 21	15 2.00	- 1 8.5	2.106	3.066	7.3	19.4
5 31	14 51.50	-18 26.5	1.919	2.876	8.2	21.2	5 31	14 54.90	- 0 32.5	2.147	3.055	10.1	19.5
6 10	14 44.79	-17 40.8	1.987	2.877	11.7	21.4	6 10	14 49.24	- 0 13.9	2.211	3.044	12.8	19.7
283169	2009 <i>DC</i> ₁₄₀		5 10.5 148°07	17°0/27.2 18			415093	2012 <i>BW</i> ₁₄₀		5 10.5 159°10	6°8/ 5.8 16		
4 1	15 38.53	+10 25.7	1.197	2.020	21.0	20.6	4 1	15 38.50	- 2 35.0	1.906	2.715	14.8	22.1
4 11	15 35.34	+13 48.6	1.156	2.025	18.7	20.5	4 11	15 34.07	- 1 19.8	1.835	2.721	12.0	21.9
4 21	15 28.84	+16 56.3	1.134	2.030	17.3	20.4	4 21	15 27.36	- 0 6.2	1.786	2.727	9.2	21.8
5 1	15 19.87	+19 30.6	1.134	2.034	17.1	20.4	5 1	15 19.00	+ 0 59.4	1.762	2.732	7.1	21.6
5 11	15 9.77	+21 17.8	1.153	2.038	18.2	20.5	5 11	15 9.85	+ 1 50.8	1.765	2.737	7.2	21.6
5 21	15 0.02	+22 11.6	1.190	2.042	20.2	20.6	5 21	15 0.89	+ 2 23.4	1.794	2.741	9.2	21.8
5 31	14 51.98	+22 13.0	1.244	2.045	22.5	20.8	5 31	14 53.03	+ 2 34.8	1.848	2.744	12.1	22.0
6 10	14 46.58	+21 29.5	1.310	2.047	24.6	21.0	6 10	14 46.97	+ 2 25.3	1.923	2.747	14.8	22.1
101067	1998 <i>RJ</i> ₁₄		5 10.5 206°92	2°3/12.0 18			262382	2006 <i>TG</i> ₁₂₄		5 10.5 49°24	2°1/ 8.8 17		
4 1	15 37.65	-25 8.7	2.200	2.974	14.2	20.4	4 1	15 32.93	-14 29.2	2.261	3.067	12.9	20.4
4 11	15 33.52	-25 16.4	2.104	2.972	11.5	20.2	4 11	15 29.48	-13 42.8	2.175	3.067	10.1	20.2
4 21	15 27.10	-25 13.5	2.029	2.969	8.3	20.0	4 21	15 24.13	-12 50.1	2.111	3.068	6.9	20.0
5 1	15 18.93	-24 59.2	1.980	2.966	4.9	19.8	5 1	15 17.37	-11 54.2	2.074	3.069	3.6	19.8
5 11	15 9.82	-24 34.4	1.957	2.963	2.3	19.6	5 11	15 9.94	-10 59.2	2.064	3.069	2.3	19.7
5 21	15 0.73	-24 1.7	1.963	2.959	4.2	19.7	5 21	15 2.60	-10 9.2	2.083	3.070	5.1	19.9
5 31	14 52.61	-23 25.0	1.996	2.955	7.7	19.9	5 31	14 56.12	- 9 28.2	2.128	3.071	8.4	20.1
6 10	14 46.24	-22 49.2	2.053	2.951	11.0	20.1	6 10	14 51.12	- 8 58.9	2.198	3.072	11.4	20.3
131194	2001 <i>DD</i> ₁₀		5 10.5 12°01	0°4/10.3 18			222649	2001 <i>XL</i> ₁₇₄		5 10.5 135°10	1°2/ 9.6 17		
4 1	15 36.11	-15 56.2	1.458	2.283	17.8	18.9	4 1	15 38.38	-16 13.8	2.191	2.984	13.6	21.7
4 11	15 33.18	-16 15.4	1.384	2.287	14.1	18.7	4 11	15 33.74	-15 46.3	2.112	2.997	10.7	21.5
4 21	15 27.31	-16 29.8	1.330	2.291	9.7	18.5	4 21	15 27.02	-15 12.5	2.055	3.009	7.3	21.3
5 1	15 19.15	-16 39.9	1.299	2.296	4.8	18.2	5 1	15 18.79	-14 34.4	2.025	3.020	3.6	21.1
5 11	15 9.81	-16 47.4	1.292	2.302	0.5	17.9	5 11	15 9.87	-13 55.1	2.023	3.031	1.3	20.9
5 21	15 0.59	-16 54.5	1.311	2.309	5.5	18.3	5 21	15 1.12	-13 18.3	2.049	3.041	4.6	21.2
5 31	14 52.73	-17 4.3	1.354	2.317	10.2	18.5	5 31	14 53.39	-12 47.7	2.103	3.051	8.2	21.4
6 10	14 47.22	-17 19.6	1.419	2.326	14.4	18.8	6 10	14 47.32	-12 26.0	2.182	3.060	11.3	21.6
417729	2007 <i>CY</i> ₄₁		5 10.5 45°92	9°1/15.9 17			436883	2012 <i>TT</i> ₂₈					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
96215	1993 QR ₉		5 10.5 206°61	0°0/10.4 18			183559	2003 KQ ₁₂		5 10.5 199°29	3°6/ 7.3 17		
4 1	15 40.56	-18 56.2	1.727	2.527	16.5	20.2	4 1	15 32.91	-7 59.9	2.669	3.472	11.2	20.9
4 11	15 36.37	-18 50.7	1.636	2.524	13.2	19.9	4 11	15 29.13	-7 12.6	2.581	3.470	8.9	20.8
4 21	15 29.38	-18 36.2	1.566	2.520	9.2	19.7	4 21	15 23.72	-6 23.8	2.517	3.468	6.3	20.6
5 1	15 20.18	-18 13.5	1.520	2.516	4.6	19.4	5 1	15 17.14	-5 36.7	2.480	3.465	4.1	20.4
5 11	15 9.79	-17 44.9	1.501	2.511	0.2	19.0	5 11	15 9.97	-4 55.1	2.471	3.462	3.8	20.4
5 21	14 59.41	-17 14.2	1.509	2.506	5.1	19.4	5 21	15 2.87	-4 22.0	2.490	3.459	5.7	20.5
5 31	14 50.25	-16 46.0	1.542	2.500	9.7	19.7	5 31	14 56.46	-4 0.0	2.536	3.456	8.3	20.7
6 10	14 43.26	-16 25.0	1.599	2.494	13.8	19.9	6 10	14 51.29	-3 50.4	2.607	3.453	10.7	20.8
6702	1988 BP ₃		5 10.5 308°26	4°8/ 7.4 18			148375	2000 SO ₁₈₄		5 10.5 178°15	2°9/ 7.7 18		
4 1	15 33.23	-9 11.5	1.720	2.547	15.4	17.5	4 1	15 33.51	-9 10.5	3.004	3.798	10.3	21.5
4 11	15 30.46	-8 14.0	1.631	2.533	12.3	17.2	4 11	15 29.37	-8 28.5	2.915	3.800	8.1	21.4
4 21	15 25.24	-7 12.1	1.562	2.520	8.8	17.0	4 21	15 23.78	-7 44.8	2.851	3.801	5.7	21.2
5 1	15 18.09	-6 10.7	1.517	2.507	5.6	16.8	5 1	15 17.13	-7 1.9	2.814	3.802	3.5	21.1
5 11	15 9.90	-5 16.1	1.499	2.494	5.1	16.7	5 11	15 9.98	-6 23.0	2.807	3.802	3.0	21.0
5 21	15 1.70	-4 34.1	1.505	2.481	7.9	16.8	5 21	15 2.90	-5 50.8	2.829	3.802	4.9	21.2
5 31	14 54.52	-4 9.1	1.536	2.469	11.7	17.0	5 31	14 56.46	-5 27.5	2.879	3.801	7.3	21.3
6 10	14 49.23	-4 3.3	1.589	2.457	15.3	17.2	6 10	14 51.12	-5 14.5	2.954	3.800	9.6	21.5
114840	2003 OK ₃₁		5 10.5 282°04	5°0/12.9 18			251642	2010 LC ₉₇		5 10.5 280°34	7°6/ 3.1 18		
4 1	15 39.32	-28 47.9	1.559	2.344	18.6	19.7	4 1	15 32.49	+3 17.0	2.428	3.229	12.2	20.4
4 11	15 36.27	-29 22.4	1.459	2.329	15.5	19.4	4 11	15 29.10	+4 38.7	2.335	3.207	10.3	20.2
4 21	15 29.89	-29 42.3	1.378	2.313	11.9	19.1	4 21	15 23.89	+5 57.0	2.265	3.186	8.6	20.1
5 1	15 20.68	-29 43.7	1.318	2.297	7.9	18.9	5 1	15 17.31	+7 6.0	2.220	3.164	7.6	20.0
5 11	15 9.76	-29 25.0	1.282	2.280	5.1	18.7	5 11	15 9.98	+8 0.1	2.202	3.142	8.1	20.0
5 21	14 58.57	-28 47.8	1.271	2.264	6.6	18.7	5 21	15 2.60	+8 35.0	2.209	3.120	9.7	20.0
5 31	14 48.71	-27 57.8	1.285	2.248	10.7	18.9	5 31	14 55.91	+8 48.4	2.241	3.097	11.8	20.1
6 10	14 41.44	-27 3.7	1.320	2.232	14.9	19.1	6 10	14 50.54	+8 40.3	2.293	3.075	14.0	20.2
175	Andromache		5 10.5 273°75	0°7/11.0 18			124990	2001 TT ₁₄₂		5 10.5 91°74	2°4/ 9.4 18		
4 1	15 35.04	-20 57.7	2.587	3.368	12.1	13.7	4 1	15 41.37	-13 35.8	1.420	2.241	18.4	20.1
4 11	15 31.17	-20 55.0	2.472	3.347	9.7	13.5	4 11	15 37.21	-13 19.9	1.353	2.253	14.5	19.8
4 21	15 25.38	-20 44.9	2.379	3.326	6.8	13.3	4 21	15 29.99	-12 58.7	1.306	2.265	10.0	19.6
5 1	15 18.07	-20 27.7	2.313	3.305	3.6	13.1	5 1	15 20.45	-12 35.0	1.281	2.277	5.1	19.4
5 11	15 9.91	-20 4.6	2.274	3.284	0.7	12.8	5 11	15 9.82	-12 13.0	1.282	2.289	2.5	19.2
5 21	15 1.63	-19 38.0	2.265	3.262	3.6	13.0	5 21	14 59.48	-11 56.8	1.308	2.301	6.5	19.5
5 31	14 54.04	-19 10.9	2.283	3.240	7.1	13.2	5 31	14 50.70	-11 50.2	1.359	2.312	11.2	19.8
6 10	14 47.82	-18 46.6	2.327	3.218	10.2	13.3	6 10	14 44.40	-11 55.7	1.432	2.324	15.3	20.1
94589	2001 VZ ₅₇		5 10.5 353°41	2°5/11.4 17			508691	2017 UC ₁₈		5 10.5 194°01	3°3/12.4 18		
4 1	15 38.38	-21 36.9	1.220	2.045	20.6	19.1	4 1	15 41.86	-26 46.6	2.284	3.042	14.2	21.9
4 11	15 35.90	-22 13.2	1.143	2.042	16.7	18.8	4 11	15 36.87	-27 18.5	2.185	3.040	11.6	21.7
4 21	15 29.77	-22 39.1	1.084	2.040	12.0	18.5	4 21	15 29.47	-27 40.6	2.108	3.037	8.7	21.5
5 1	15 20.62	-22 52.7	1.045	2.038	6.7	18.2	5 1	15 20.18	-27 50.9	2.056	3.035	5.5	21.3
5 11	15 9.77	-22 53.8	1.029	2.037	2.5	18.0	5 11	15 9.83	-27 49.0	2.032	3.031	3.3	21.2
5 21	14 58.89	-22 44.7	1.037	2.036	6.2	18.2	5 21	14 59.44	-27 36.1	2.036	3.028	4.7	21.3
5 31	14 49.69	-22 30.7	1.067	2.037	11.6	18.5	5 31	14 50.01	-27 15.2	2.068	3.023	7.8	21.4
6 10	14 43.44	-22 18.3	1.118	2.037	16.4	18.8	6 10	14 42.39	-26 51.1	2.125	3.018	10.9	21.6
12886	1998 QG ₃₅		5 10.5 229°94	3°9/13.1 18			266473	2008 AT ₉₀		5 10.5 284°77	4°7/ 7.9 17		
4 1	15 39.30	-29 49.3	2.406	3.155	13.8	18.5	4 1	15 36.35	-9 23.9	1.552	2.378	16.8	20.9
4 11	15 34.83	-30 12.1	2.299	3.145	11.5	18.3	4 11	15 33.22	-8 37.1	1.466	2.369	13.4	20.7
4 21	15 28.06	-30 23.2	2.213	3.134	8.7	18.1	4 21	15 27.31	-7 46.3	1.400	2.359	9.5	20.4
5 1	15 19.46	-30 20.7	2.152	3.123	5.9	17.9	5 1	15 19.19	-6 56.5	1.358	2.349	5.9	20.2
5 11	15 9.84	-30 4.1	2.118	3.112	3.9	17.8	5 11	15 9.88	-6 13.8	1.341	2.339	5.0	20.1
5 21	15 0.13	-29 34.9	2.112	3.100	4.9	17.8	5 21	15 0.56	-5 43.8	1.349	2.329	8.2	20.3
5 31	14 51.32	-28 56.7	2.133	3.088	7.6	17.9	5 31	14 52.44	-5 30.7	1.381	2.319	12.3	20.5
6 10	14 44.22	-28 14.5	2.180	3.076	10.6	18.1	6 10	14 46.46	-5 36.6	1.434	2.309	16.2	20.7
364598	2007 RB ₁₉₀		5 10.5 151°75	4°0/12.9 17			156500	2002 CU ₁₄₂		5 10.5 338°83	0°4/10.8 18		
4 1	15 41.06	-28 57.1	1.689	2.464	17.8	21.5	4 1	15 35.07	-20 30.0	1.638	2.450	16.7	19.8
4 11	15 36.99	-29 9.6	1.605	2.469	14.7	21.3	4 11	15 32.19	-20 19.6	1.552	2.445	13.4	19.6
4 21	15 29.89	-29 5.8	1.539	2.473	11.0	21.1	4 21	15 26.56	-19 58.0	1.485	2.441	9.4	19.3
5 1	15 20.44	-28 43.6	1.497	2.477	7.0	20.9	5 1	15 18.80	-19 26.2	1.442	2.437	4.8	19.0
5 11	15 9.79	-28 3.5	1.480	2.480	4.1	20.7	5 11	15 9.91	-18 47.2	1.424	2.434	0.4	18.7
5 21	14 59.26	-27 9.0	1.489	2.483	5.6	20.8	5 21	15 1.06	-18 5.2	1.432	2.431	5.0	19.0
5 31	14 50.18	-26 6.8	1.524	2.486	9.4	21.0	5 31	14 53.43	-17 25.8	1.465	2.428	9.7	19.3
6 10	14 43.51	-25 4.9	1.582	2.488	13.3	21.2	6 10	14 47.93	-16 54.2	1.521	2.426	13.8	19.5
497489	2006 AJ ₁₉		5 10.5 111°40	7°1/ 5.8 18			393058	2013 AL ₆₁		5 10.5 180°50	2°8/ 8.5 17		
4 1	15 38.77	+1 30.9	2.131	2.928	13.8	21.7	4 1	15 36.11	-9 4.3	2.657	3.452	11.5	21.6
4 11	15 33.87	+2 29.5	2.073	2.948	11.4	21.5	4 11	15 31.64	-8 47.0	2.568	3.453	9.1	21.4
4 21	15 26.99	+3 22.1	2.038	2.967	8.9	21.4	4 21	15 25.46	-8 29.0	2.503	3.454	6.3	21.3
5 1	15 18.72	+4 3.4	2.028	2.986	7.3	21.3	5 1	15 18.03	-8 12.5	2.464	3.454	3.7	21.1
5 11	15 9.89	+4 28.9	2.045	3.004	7.3	21.4	5 11	15 9.96	-8 0.0	2.454	3.453	2.9	21.0
5 21	15 1.33	+4 35.9	2.088	3.021	9.0	21.5	5 21	15 1.95	-7 53.6	2.473	3.453	5.0	21.2
5 31	14 53.82	+4 23.7	2.157	3.038	11.2	21.7	5 31	14 54.67	-7 55.2	2.520	3.452	7.8	21.3
6 10	14 47.95	+3 53.6	2.247	3.055	13.5	21.9	6 10	14 48.68	-8 5.7	2.592	3.451	10.4	21.5
432394	2009 XL ₅		5 10.5 66°14	4°7/ 8.5 15			92028	1999 VM ₁₇₇		5 10.5 281°56	2°5/ 8.2 18 R		
4 1	15 41.33	-5 14.0	1.749	2.559	15.9	20.9	4 1	15 33.03	-13				

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
477204	2009 <i>HG</i> ₈₅		5 10.5 301°95	3°7/ 8.8 17			97889	2000 <i>QO</i> ₅₆		5 10.5 353°02	2°2/ 9.2 17		
4 1	15 39.23	- 6 26.7	2.119	2.921	13.8	20.5	4 1	15 28.53	-18 42.8	1.054	1.910	20.9	18.4
4 11	15 34.82	- 6 31.8	2.013	2.900	11.1	20.3	4 11	15 28.23	-17 43.2	0.982	1.904	16.6	18.1
4 21	15 28.10	- 6 39.6	1.929	2.880	8.0	20.1	4 21	15 24.47	-16 24.5	0.929	1.898	11.4	17.8
5 1	15 19.53	- 6 52.7	1.871	2.859	4.9	19.9	5 1	15 17.95	-14 51.8	0.895	1.894	5.7	17.5
5 11	15 9.88	- 7 13.3	1.840	2.839	3.8	19.7	5 11	15 9.99	-13 14.4	0.883	1.892	2.5	17.3
5 21	15 0.06	- 7 42.9	1.838	2.819	6.3	19.9	5 21	15 2.16	-11 43.5	0.894	1.890	7.8	17.6
5 31	14 51.04	- 8 22.6	1.862	2.799	9.7	20.0	5 31	14 56.00	-10 29.8	0.925	1.890	13.5	17.9
6 10	14 43.67	- 9 12.3	1.911	2.779	13.1	20.2	6 10	14 52.60	- 9 40.2	0.975	1.892	18.5	18.2
129255	2005 <i>QC</i> ₆₉		5 10.5 269°71	5°0/ 6.9 18			272853	2006 <i>BH</i> ₃₉		5 10.5 133°41	0°0/ 10.5 17 R		
4 1	15 34.41	- 4 2.4	2.331	3.137	12.5	20.1	4 1	15 37.75	-19 8.5	1.945	2.742	15.0	21.3
4 11	15 30.63	- 3 22.8	2.239	3.127	10.1	19.9	4 11	15 33.72	-19 0.0	1.861	2.747	11.9	21.1
4 21	15 24.95	- 2 44.5	2.170	3.116	7.5	19.7	4 21	15 27.30	-18 43.3	1.798	2.751	8.2	20.8
5 1	15 17.85	- 2 11.3	2.127	3.105	5.4	19.5	5 1	15 19.07	-18 19.2	1.759	2.754	4.1	20.6
5 11	15 9.99	- 1 47.4	2.111	3.095	5.2	19.5	5 11	15 9.94	-17 50.3	1.748	2.758	0.2	20.3
5 21	15 2.14	- 1 35.8	2.123	3.084	7.1	19.6	5 21	15 0.91	-17 19.9	1.764	2.762	4.5	20.6
5 31	14 55.05	- 1 38.4	2.160	3.073	9.8	19.8	5 31	14 52.98	-16 52.0	1.808	2.765	8.6	20.9
6 10	14 49.39	- 1 55.9	2.220	3.062	12.5	19.9	6 10	14 46.91	-16 30.7	1.875	2.768	12.1	21.1
520914	2014 <i>WM</i> ₅₃₀		5 10.5 52°12	5°1/ 7.0 17			500976	2013 <i>QD</i> ₈₀		5 10.5 204°38	2°1/ 11.9 17		
4 1	15 34.15	- 8 55.5	1.693	2.518	15.7	21.0	4 1	15 39.74	-25 2.4	2.198	2.968	14.3	23.0
4 11	15 30.95	- 7 43.2	1.626	2.528	12.4	20.8	4 11	15 35.21	-25 3.3	2.098	2.964	11.6	22.8
4 21	15 25.37	- 6 27.5	1.581	2.538	8.8	20.6	4 21	15 28.32	-24 53.0	2.020	2.959	8.4	22.6
5 1	15 18.07	- 5 14.4	1.560	2.548	5.8	20.5	5 1	15 19.61	-24 30.9	1.966	2.953	4.9	22.3
5 11	15 9.98	- 4 10.6	1.565	2.558	5.4	20.5	5 11	15 9.92	-23 58.1	1.941	2.947	2.1	22.1
5 21	15 2.12	- 3 21.7	1.596	2.568	8.0	20.6	5 21	15 0.23	-23 17.4	1.943	2.940	4.2	22.3
5 31	14 55.44	- 2 51.6	1.652	2.579	11.4	20.8	5 31	14 51.53	-22 33.2	1.974	2.932	7.9	22.5
6 10	14 50.65	- 2 41.4	1.729	2.589	14.6	21.1	6 10	14 44.63	-21 50.5	2.029	2.924	11.3	22.7
287995	2003 <i>UP</i> ₁₈₇		5 10.5 191°39	2°7/ 12.3 18			359455	2010 <i>NW</i> ₃₇		5 10.5 275°47	4°4/ 13.3 18		
4 1	15 38.31	-26 5.7	2.203	2.973	14.3	20.6	4 1	15 38.53	-30 29.1	2.499	3.244	13.4	20.7
4 11	15 34.09	-26 22.0	2.109	2.972	11.7	20.4	4 11	15 34.21	-31 12.7	2.395	3.236	11.2	20.5
4 21	15 27.54	-26 27.5	2.036	2.972	8.5	20.2	4 21	15 27.64	-31 46.1	2.313	3.229	8.7	20.4
5 1	15 19.20	-26 21.3	1.987	2.971	5.2	20.0	5 1	15 19.30	-32 6.9	2.256	3.221	6.1	20.2
5 11	15 9.92	-26 3.7	1.966	2.969	2.8	19.8	5 11	15 9.93	-32 13.8	2.226	3.214	4.5	20.1
5 21	15 0.65	-25 36.8	1.973	2.968	4.4	19.9	5 21	15 0.45	-32 7.5	2.223	3.206	5.2	20.1
5 31	14 52.37	-25 4.4	2.007	2.966	7.7	20.1	5 31	14 51.80	-31 50.4	2.248	3.199	7.5	20.2
6 10	14 45.86	-24 31.4	2.066	2.964	11.0	20.3	6 10	14 44.78	-31 26.9	2.298	3.191	10.2	20.4
192953	2000 <i>BJ</i> ₂₁		5 10.5 60°17	3°2/ 12.1 18			375971	2009 <i>WR</i> ₂₁₇		5 10.5 213°63	0°7/ 11.0 17		
4 1	15 39.63	-25 45.1	1.277	2.087	20.7	20.2	4 1	15 39.05	-21 15.4	2.330	3.108	13.4	22.3
4 11	15 36.58	-25 56.4	1.208	2.096	16.8	20.0	4 11	15 34.47	-21 9.1	2.227	3.101	10.7	22.1
4 21	15 29.98	-25 50.5	1.156	2.105	12.2	19.8	4 21	15 27.72	-20 54.1	2.146	3.092	7.5	21.9
5 1	15 20.60	-25 26.0	1.125	2.114	7.1	19.5	5 1	15 19.28	-20 30.8	2.091	3.083	3.9	21.6
5 11	15 9.85	-24 44.5	1.117	2.123	3.3	19.3	5 11	15 9.93	-20 0.8	2.064	3.074	0.7	21.3
5 21	14 59.36	-23 51.0	1.134	2.133	6.0	19.5	5 21	15 0.57	-19 26.8	2.066	3.063	4.0	21.6
5 31	14 50.68	-22 53.9	1.174	2.142	10.9	19.8	5 31	14 52.07	-18 52.6	2.097	3.053	7.7	21.8
6 10	14 44.89	-22 1.6	1.236	2.152	15.4	20.1	6 10	14 45.20	-18 22.3	2.152	3.041	11.0	22.0
330455	Anbrysse		5 10.5 269°50	3°8/ 8.2 18			243863	2000 <i>WJ</i> ₁₅₄		5 10.5 215°48	3°6/ 13.9 18		
4 1	15 36.15	-10 21.7	1.769	2.587	15.4	20.6	4 1	15 35.81	-32 24.4	2.678	3.416	12.8	20.2
4 11	15 32.66	- 9 41.5	1.683	2.581	12.2	20.3	4 11	15 31.76	-32 19.4	2.574	3.411	10.7	20.0
4 21	15 26.69	- 8 57.4	1.618	2.575	8.6	20.1	4 21	15 25.73	-32 0.6	2.492	3.407	8.2	19.8
5 1	15 18.82	- 8 13.6	1.578	2.569	5.1	19.9	5 1	15 18.23	-31 26.9	2.434	3.402	5.6	19.6
5 11	15 9.94	- 7 35.0	1.564	2.564	4.0	19.8	5 11	15 9.99	-30 39.2	2.404	3.396	3.8	19.5
5 21	15 1.10	- 7 6.2	1.576	2.558	7.0	19.9	5 21	15 1.81	-29 40.0	2.402	3.391	4.4	19.5
5 31	14 53.35	- 6 51.0	1.613	2.552	10.8	20.2	5 31	14 54.50	-28 33.6	2.429	3.385	6.7	19.7
6 10	14 47.50	- 6 51.2	1.673	2.546	14.4	20.4	6 10	14 48.69	-27 25.2	2.482	3.379	9.4	19.8
176666	2002 <i>PJ</i> ₂₅		5 10.5 177°32	0°5/ 10.2 17			121461	1999 <i>TX</i> ₂₀₈		5 10.5 92°34	17°5/ 18.3 18		
4 1	15 39.45	-18 41.5	2.081	2.872	14.4	21.5	4 1	15 54.49	-47 22.3	1.233	1.943	26.3	19.5
4 11	15 34.87	-18 16.8	1.992	2.874	11.4	21.3	4 11	15 51.35	-50 4.1	1.171	1.951	24.0	19.3
4 21	15 28.00	-17 43.5	1.924	2.876	7.9	21.1	4 21	15 42.33	-52 21.5	1.122	1.959	21.6	19.2
5 1	15 19.39	-17 2.9	1.881	2.877	3.9	20.8	5 1	15 27.72	-53 59.1	1.088	1.968	19.4	19.0
5 11	15 9.92	-16 18.1	1.867	2.877	0.6	20.6	5 11	15 9.49	-54 43.6	1.072	1.976	17.9	19.0
5 21	15 0.54	-15 33.2	1.881	2.877	4.6	20.9	5 21	14 50.87	-54 30.0	1.075	1.984	17.5	19.0
5 31	14 52.21	-14 52.5	1.923	2.876	8.5	21.1	5 31	14 35.39	-53 25.4	1.096	1.992	18.5	19.0
6 10	14 45.67	-14 20.0	1.990	2.874	12.0	21.3	6 10	14 25.32	-51 46.9	1.134	1.999	20.3	19.2
171280	2006 <i>FY</i> ₃₄		5 10.5 139°19	11°4/ 13.3 18			506821	2007 <i>SH</i> ₂₄		5 10.5 175°83	5°1/ 6.7 18		
4 1	15 57.83	-34 31.2	1.332	2.080	22.9	20.2	4 1	15 36.86	- 0 39.5	2.688	3.478	11.5	21.8
4 11	15 52.48	-37 0.0	1.256	2.088	19.9	20.0	4 11	15 32.15	- 0 10.0	2.605	3.480	9.3	21.6
4 21	15 42.17	-39 17.0	1.198	2.095	16.4	19.8	4 21	15 25.77	+ 0 15.7	2.547	3.481	7.1	21.5
5 1	15 27.32	-41 9.4	1.160	2.101	13.3	19.6	5 1	15 18.18	+ 0 34.1	2.515	3.482	5.4	21.4
5 11	15 9.50	-42 25.3	1.146	2.107	11.5	19.5	5 11	15 10.00	+ 0 42.3	2.511	3.483	5.3	21.3
5 21	14 51.15	-42 58.9	1.156	2.113	12.2	19.6	5 21	15 1.91	+ 0 38.2	2.535	3.483	6.8	21.4
5 31	14 34.99	-42 54.4	1.189	2.118	14.8	19.7	5 31	14 54.56	+ 0 20.9	2.586	3.483	9.0	21.6
6 10	14 23.02	-42 24.5	1.243	2.122	18.0	19.9	6 10	14 48.49	- 0 9.3	2.661	3.483	11.2	21.7
387506	1998 <i>KQ</i> ₅		5 10.5 1°12	5°9/ 7.4 17			461833	2006 <i>BH</i> ₂₇₆					

EPHEMERIDES

5 10.5

5 10.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
308023	2004 <i>RK</i> ₂₅₄		5 10.5 270°79	0°0/10.6 17			212735	2007 <i>RT</i> ₂₄₂		5 10.5 201°85	2°5/ 9.1 16		
4 1	15 40.79	-18 18.7	1.558	2.366	17.6	21.7	4 1	15 40.45	-13 13.3	1.840	2.645	15.4	21.0
4 11	15 37.23	-18 24.1	1.453	2.345	14.2	21.4	4 11	15 36.00	-12 45.6	1.750	2.641	12.3	20.8
4 21	15 30.48	-18 21.4	1.368	2.324	10.0	21.1	4 21	15 28.99	-12 12.5	1.682	2.637	8.5	20.5
5 1	15 21.01	-18 10.9	1.306	2.302	5.1	20.7	5 1	15 19.99	-11 36.8	1.638	2.632	4.5	20.3
5 11	15 9.85	-17 54.0	1.269	2.279	0.2	20.3	5 11	15 9.94	-11 2.4	1.621	2.627	2.6	20.1
5 21	14 58.33	-17 33.9	1.258	2.256	5.8	20.6	5 21	14 59.91	-10 33.4	1.632	2.621	6.0	20.3
5 31	14 47.97	-17 15.3	1.273	2.233	11.1	20.9	5 31	14 51.01	-10 13.8	1.670	2.614	10.1	20.6
6 10	14 39.99	-17 3.4	1.309	2.210	15.8	21.1	6 10	14 44.07	-10 6.4	1.730	2.607	13.8	20.8
99413	2002 <i>AY</i> ₁₀₉		5 10.5 340°64	0°5/10.3 18			2311	El Leoncito		5 10.5 246°20	2°3/ 8.3 18		
4 1	15 34.98	-17 54.4	1.234	2.071	19.7	19.3	4 1	15 31.33	-11 5.5	2.911	3.711	10.5	16.4
4 11	15 33.01	-17 48.7	1.155	2.064	15.8	19.0	4 11	15 27.81	-10 32.0	2.819	3.708	8.2	16.2
4 21	15 27.66	-17 32.6	1.094	2.057	11.0	18.7	4 21	15 22.81	-9 55.9	2.751	3.704	5.7	16.0
5 1	15 19.55	-17 7.6	1.054	2.052	5.5	18.4	5 1	15 16.72	-9 19.7	2.710	3.701	3.2	15.8
5 11	15 9.93	-16 37.3	1.037	2.047	0.7	18.1	5 11	15 10.10	-8 46.1	2.697	3.698	2.5	15.8
5 21	15 0.29	-16 6.7	1.043	2.042	6.3	18.4	5 21	15 3.52	-8 17.7	2.713	3.694	4.5	15.9
5 31	14 52.19	-15 42.0	1.072	2.039	11.9	18.7	5 31	14 57.57	-7 57.0	2.757	3.691	7.1	16.1
6 10	14 46.79	-15 28.5	1.122	2.036	16.8	19.0	6 10	14 52.72	-7 45.4	2.826	3.687	9.5	16.2
289771	2005 <i>JR</i> ₉₁		5 10.5 334°05	0°8/11.0 17			394693	2008 <i>CV</i> ₁₈₃		5 10.5 76°32	4°6/ 7.2 18		
4 1	15 34.63	-22 39.9	1.442	2.258	18.4	20.4	4 1	15 33.98	-5 2.0	2.353	3.160	12.4	20.7
4 11	15 32.27	-22 16.9	1.357	2.252	14.8	20.2	4 11	15 30.18	-4 23.6	2.273	3.161	9.9	20.5
4 21	15 26.86	-21 38.1	1.291	2.247	10.4	19.9	4 21	15 24.57	-3 46.2	2.216	3.163	7.3	20.4
5 1	15 19.04	-20 44.3	1.248	2.243	5.5	19.6	5 1	15 17.64	-3 13.6	2.184	3.165	5.1	20.2
5 11	15 9.96	-19 39.5	1.229	2.238	0.8	19.2	5 11	15 10.06	-2 49.5	2.180	3.166	4.8	20.2
5 21	15 0.93	-18 30.0	1.235	2.234	5.5	19.5	5 21	15 2.57	-2 36.6	2.204	3.168	6.7	20.3
5 31	14 53.31	-17 23.6	1.265	2.231	10.5	19.8	5 31	14 55.89	-2 37.0	2.253	3.170	9.3	20.5
6 10	14 48.09	-16 27.9	1.317	2.228	15.1	20.1	6 10	14 50.61	-2 50.9	2.326	3.172	11.9	20.7
484559	2008 <i>HN</i> ₄₂		5 10.5 332°77	3°2/ 6.5 18			332107	2005 <i>UC</i> ₂₇₂		5 10.5 179°38	1°3/ 9.6 17		
4 1	15 27.33	-3 5.3	4.080	4.876	7.8	21.2	4 1	15 37.33	-16 40.4	2.089	2.887	14.1	21.4
4 11	15 24.22	-2 35.7	3.992	4.873	6.2	21.1	4 11	15 33.18	-16 8.0	2.000	2.888	11.1	21.2
4 21	15 20.11	-2 7.6	3.929	4.870	4.6	21.0	4 21	15 26.83	-15 28.1	1.934	2.889	7.6	21.0
5 1	15 15.30	-1 43.1	3.894	4.867	3.4	20.9	5 1	15 18.82	-14 42.7	1.893	2.889	3.8	20.7
5 11	15 10.15	-1 24.2	3.887	4.864	3.4	20.9	5 11	15 10.00	-13 55.6	1.881	2.889	1.4	20.6
5 21	15 5.03	-1 12.4	3.909	4.861	4.5	21.0	5 21	15 1.27	-13 10.7	1.896	2.888	4.9	20.8
5 31	15 0.31	-1 8.9	3.958	4.859	6.1	21.1	5 31	14 53.53	-12 32.4	1.938	2.888	8.6	21.0
6 10	14 56.33	-1 14.2	4.032	4.856	7.7	21.2	6 10	14 47.50	-12 4.1	2.005	2.886	12.0	21.2
245496	2005 <i>QS</i> ₈₅		5 10.5 262°40	0°2/10.3 18			504444	2008 <i>CK</i> ₉		5 10.5 77°25	5°6/ 6.2 17		
4 1	15 34.24	-19 53.9	2.742	3.524	11.5	20.6	4 1	15 33.51	-2 40.1	2.270	3.079	12.7	21.5
4 11	15 30.38	-19 21.0	2.624	3.502	9.1	20.4	4 11	15 29.83	-1 44.6	2.198	3.085	10.3	21.3
4 21	15 24.75	-18 39.4	2.530	3.479	6.3	20.2	4 21	15 24.33	-0 51.4	2.149	3.091	7.8	21.2
5 1	15 17.76	-17 50.5	2.462	3.456	3.2	20.0	5 1	15 17.50	-0 5.0	2.126	3.098	5.9	21.1
5 11	15 10.03	-16 56.6	2.423	3.433	0.3	19.7	5 11	15 10.07	+0 30.1	2.129	3.104	5.9	21.1
5 21	15 2.23	-16 1.2	2.414	3.409	3.7	19.9	5 21	15 2.77	+0 50.6	2.159	3.110	7.7	21.2
5 31	14 55.08	-15 8.2	2.433	3.384	7.0	20.1	5 31	14 56.32	+0 54.7	2.214	3.116	10.1	21.3
6 10	14 49.21	-14 21.2	2.478	3.360	10.0	20.2	6 10	14 51.31	+0 42.5	2.292	3.122	12.5	21.5
396567	1999 <i>YH</i> ₁₅		5 10.5 264°88	0°3/10.2 18			291938	2006 <i>QN</i> ₃₂		5 10.5 233°59	2°7/13.8 17		
4 1	15 30.66	-18 18.0	3.494	4.276	9.2	21.7	4 1	15 32.51	-32 3.0	4.241	4.961	8.7	22.2
4 11	15 27.12	-17 56.8	3.381	4.259	7.3	21.5	4 11	15 28.45	-32 9.5	4.123	4.948	7.2	22.1
4 21	15 22.28	-17 30.2	3.291	4.242	5.0	21.3	4 21	15 23.12	-32 7.7	4.027	4.934	5.6	21.9
5 1	15 16.45	-16 59.5	3.229	4.224	2.5	21.1	5 1	15 16.86	-31 57.0	3.958	4.919	3.9	21.8
5 11	15 10.10	-16 26.3	3.197	4.207	0.4	20.9	5 11	15 10.11	-31 37.6	3.918	4.905	2.8	21.7
5 21	15 3.74	-15 52.8	3.194	4.189	2.9	21.1	5 21	15 3.33	-31 10.6	3.907	4.890	3.2	21.7
5 31	14 57.87	-15 21.3	3.221	4.171	5.5	21.3	5 31	14 57.02	-30 37.9	3.925	4.874	4.7	21.8
6 10	14 52.93	-14 54.1	3.273	4.153	7.9	21.4	6 10	14 51.60	-30 2.0	3.971	4.859	6.4	21.9
174490	2003 <i>BV</i> ₁₁		5 10.5 343°34	11°8/19.3 16			219637	2001 <i>UP</i> ₆₃		5 10.5 250°95	0°5/10.2 18		
4 1	15 40.11	-48 50.0	2.008	2.674	18.5	18.9	4 1	15 36.32	-19 19.7	1.864	2.666	15.3	20.5
4 11	15 37.11	-48 8.8	1.918	2.668	16.9	18.7	4 11	15 32.83	-18 47.0	1.768	2.658	12.2	20.3
4 21	15 30.57	-51 6.2	1.843	2.662	15.1	18.6	4 21	15 26.85	-18 3.3	1.694	2.649	8.5	20.0
5 1	15 21.08	-51 35.3	1.787	2.656	13.4	18.5	5 1	15 18.94	-17 10.4	1.644	2.640	4.2	19.8
5 11	15 9.86	-51 31.1	1.751	2.652	12.2	18.4	5 11	15 10.00	-16 11.9	1.620	2.630	0.7	19.5
5 21	14 58.54	-50 52.8	1.737	2.647	11.8	18.3	5 21	15 1.07	-15 13.1	1.625	2.621	5.0	19.8
5 31	14 48.79	-49 44.4	1.745	2.644	12.5	18.4	5 31	14 53.20	-14 19.5	1.655	2.611	9.3	20.0
6 10	14 41.89	-48 14.4	1.774	2.641	14.1	18.5	6 10	14 47.24	-13 36.2	1.709	2.601	13.2	20.2
416451	2003 <i>VM</i> ₁₂		5 10.5 230°27	2°8/ 8.8 17			232224	2002 <i>JX</i> ₁₂₀		5 10.5 33°07	8°7/ 6.6 17		
4 1	15 41.04	-11 19.3	2.171	2.966	13.7	22.6	4 1	15 35.69	-0 6.2	1.339	2.175	18.5	19.7
4 11	15 36.16	-10 52.4	2.065	2.950	10.9	22.4	4 11	15 32.57	+0 52.1	1.294	2.194	15.0	19.5
4 21	15 28.98	-10 21.9	1.982	2.934	7.7	22.2	4 21	15 26.64	+1 42.5	1.267	2.213	11.6	19.3
5 1	15 19.97	-9 50.3	1.925	2.916	4.3	21.9	5 1	15 18.73	+2 17.3	1.262	2.234	9.2	19.3
5 11	15 9.93	-9 21.1	1.896	2.898	3.0	21.8	5 11	15 10.02	+2 30.4	1.281	2.255	9.0	19.3
5 21	14 59.79	-8 57.8	1.895	2.879	5.8	21.9	5 21	15 1.73	+2 19.0	1.322	2.277	11.1	19.5
5 31	14 50.50	-8 43.6	1.923	2.859	9.5	22.1	5 31	14 54.96	+1 43.3	1.385	2.300	14.1	19.7
6 10	14 42.89	-8 40.9	1.974	2.838	13.0	22.3	6 10	14 50.44	+0 46.6	1.468	2.323	17.0	20.0
44973	1999 <i>VV</i> ₁₁₂		5 10.5 265°33	0°4/10.8 18			304668	2006 <i>WA</i> ₇₈		5 10.5 30°47	0°0/10.5 17		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
203947	2003 RA ₉		5 10.5 222°52		3°9/13.6 18		11376	Taizomuta		5 10.6 5°40		0°7/10.2 18	
4 1	15 38.56	-31 46.2	2.482	3.222	13.6	20.4	4 1	15 33.78	-18 11.9	1.265	2.101	19.3	17.8
4 11	15 34.17	-31 49.7	2.374	3.213	11.4	20.2	4 11	15 31.84	-17 55.6	1.193	2.101	15.4	17.5
4 21	15 27.56	-31 39.3	2.287	3.203	8.7	20.0	4 21	15 26.69	-17 28.0	1.138	2.102	10.6	17.3
5 1	15 19.23	-31 13.3	2.224	3.193	6.0	19.8	5 1	15 19.01	-16 51.2	1.105	2.103	5.3	17.0
5 11	15 10.00	-30 32.1	2.189	3.182	4.0	19.7	5 11	15 10.04	-16 9.6	1.096	2.105	0.9	16.7
5 21	15 0.76	-29 37.9	2.182	3.171	4.7	19.7	5 21	15 1.20	-15 29.2	1.110	2.108	6.2	17.0
5 31	14 52.43	-28 35.2	2.203	3.159	7.4	19.8	5 31	14 53.90	-14 56.3	1.147	2.113	11.4	17.3
6 10	14 45.78	-27 29.7	2.250	3.147	10.3	20.0	6 10	14 49.15	-14 35.8	1.205	2.118	16.0	17.6
21378	1998 CJ ₄		5 10.5 132°09		5°6/14.6 18		441178	2007 TK ₄₁₁		5 10.6 350°23		9°8/ 2.7 18	
4 1	15 42.76	-34 56.6	2.247	2.973	15.3	18.4	4 1	15 32.35	-12 8.0	0.987	1.850	21.5	20.2
4 11	15 37.67	-35 26.7	2.163	2.986	12.9	18.2	4 11	15 31.20	-8 35.1	0.923	1.847	17.1	19.9
4 21	15 30.03	-35 41.2	2.098	2.998	10.2	18.0	4 21	15 26.45	-4 37.9	0.879	1.845	12.6	19.6
5 1	15 20.46	-35 37.2	2.058	3.011	7.5	17.9	5 1	15 18.92	-0 35.7	0.859	1.843	9.9	19.4
5 11	15 9.94	-35 14.0	2.043	3.022	5.7	17.8	5 11	15 10.05	+ 3 6.6	0.863	1.842	11.3	19.5
5 21	14 59.59	-34 33.5	2.056	3.033	6.1	17.8	5 21	15 1.48	+ 6 7.8	0.890	1.841	15.5	19.7
5 31	14 50.45	-33 40.5	2.096	3.044	8.2	18.0	5 31	14 54.72	+ 8 15.3	0.936	1.841	20.0	20.0
6 10	14 43.34	-32 41.4	2.162	3.054	10.8	18.2	6 10	14 50.80	+ 9 28.3	0.998	1.842	24.1	20.2
499612	2010 UF ₆		5 10.5 233°81		1°9/ 9.3 17		56465	2000 GS ₉₈		5 10.6 157°94		0°1/10.6 18	
4 1	15 39.14	-14 52.6	1.981	2.781	14.7	22.5	4 1	15 40.17	-21 12.4	1.590	2.393	17.6	19.5
4 11	15 34.91	-14 22.4	1.879	2.768	11.7	22.3	4 11	15 36.21	-20 43.7	1.509	2.397	14.0	19.3
4 21	15 28.24	-13 45.2	1.799	2.754	8.1	22.0	4 21	15 29.33	-20 1.5	1.448	2.401	9.8	19.0
5 1	15 19.65	-13 3.4	1.745	2.740	4.2	21.8	5 1	15 20.22	-19 7.2	1.410	2.405	4.9	18.8
5 11	15 9.98	-12 20.7	1.718	2.725	2.1	21.6	5 11	15 10.00	-18 5.0	1.398	2.408	0.2	18.4
5 21	15 0.24	-11 41.2	1.719	2.709	5.6	21.8	5 21	14 59.95	-17 0.6	1.413	2.411	5.3	18.8
5 31	14 51.47	-11 9.5	1.747	2.693	9.6	22.0	5 31	14 51.32	-16 1.0	1.454	2.413	10.1	19.1
6 10	14 44.52	-10 49.0	1.798	2.676	13.4	22.2	6 10	14 45.01	-15 12.3	1.517	2.415	14.2	19.3
239264	2007 GH ₁₂		5 10.5 245°40		9°1/29.9 18		463176	2012 BM ₉₃		5 10.6 133°43		0°6/10.9 16	
4 1	15 34.43	+14 43.4	2.933	3.690	11.4	20.6	4 1	15 41.69	-20 33.4	1.808	2.599	16.2	22.8
4 11	15 30.28	+16 0.7	2.853	3.672	10.2	20.5	4 11	15 37.00	-20 30.0	1.729	2.610	12.9	22.6
4 21	15 24.54	+17 8.3	2.796	3.654	9.4	20.4	4 21	15 29.65	-20 16.9	1.671	2.621	9.0	22.4
5 1	15 17.62	+18 0.9	2.763	3.636	9.1	20.3	5 1	15 20.30	-19 54.7	1.638	2.631	4.6	22.2
5 11	15 10.08	+18 34.0	2.754	3.617	9.5	20.3	5 11	15 9.99	-19 25.4	1.631	2.641	0.6	21.9
5 21	15 2.55	+18 45.1	2.769	3.597	10.6	20.4	5 21	14 59.87	-18 52.7	1.652	2.650	4.7	22.2
5 31	14 55.65	+18 33.5	2.807	3.577	11.9	20.4	5 31	14 51.03	-18 21.2	1.700	2.659	8.9	22.5
6 10	14 49.90	+18 0.5	2.864	3.557	13.3	20.5	6 10	14 44.31	-17 55.5	1.772	2.667	12.7	22.7
55858	1996 XT ₂₀		5 10.5 123°00		0°9/ 9.9 18		508666	2017 UJ ₁₀		5 10.6 213°33		3°1/12.4 17	
4 1	15 36.92	-15 22.3	2.385	3.178	12.7	20.2	4 1	15 41.78	-26 25.3	2.317	3.075	14.0	22.0
4 11	15 32.54	-15 18.5	2.301	3.185	10.0	20.1	4 11	15 36.85	-26 55.0	2.213	3.068	11.5	21.8
4 21	15 26.22	-15 10.6	2.239	3.192	6.8	19.9	4 21	15 29.53	-27 15.2	2.131	3.061	8.5	21.6
5 1	15 18.49	-14 59.7	2.204	3.199	3.4	19.7	5 1	15 20.30	-27 24.2	2.074	3.053	5.4	21.3
5 11	15 10.05	-14 47.8	2.196	3.205	1.0	19.5	5 11	15 9.99	-27 21.3	2.044	3.045	3.1	21.2
5 21	15 1.70	-14 37.2	2.218	3.212	4.1	19.7	5 21	14 59.58	-27 7.8	2.043	3.036	4.6	21.3
5 31	14 54.21	-14 30.3	2.267	3.218	7.5	20.0	5 31	14 50.08	-26 46.7	2.071	3.026	7.8	21.4
6 10	14 48.22	-14 29.1	2.342	3.224	10.5	20.2	6 10	14 42.35	-26 22.5	2.123	3.016	11.0	21.6
382808	2003 UF ₂₀₆		5 10.5 209°39		0°4/10.9 18		402219	2005 AM ₄₆		5 10.6 164°27		0°1/10.5 16	
4 1	15 36.21	-22 24.8	2.530	3.306	12.5	21.6	4 1	15 41.71	-19 34.5	2.102	2.885	14.5	22.6
4 11	15 32.00	-21 50.8	2.427	3.300	10.0	21.4	4 11	15 36.61	-19 13.5	2.015	2.893	11.5	22.4
4 21	15 25.88	-21 6.2	2.347	3.294	7.0	21.2	4 21	15 29.19	-18 43.5	1.950	2.899	8.0	22.2
5 1	15 18.33	-20 12.2	2.294	3.287	3.6	20.9	5 1	15 20.02	-18 5.6	1.911	2.905	4.0	22.0
5 11	15 10.06	-19 11.6	2.269	3.279	0.4	20.6	5 11	15 10.01	-17 22.6	1.900	2.909	0.2	21.7
5 21	15 1.84	-18 8.0	2.274	3.271	3.7	20.9	5 21	15 0.14	-16 38.3	1.917	2.913	4.4	22.0
5 31	14 54.44	-17 6.0	2.308	3.263	7.1	21.1	5 31	14 51.36	-15 57.2	1.963	2.916	8.3	22.3
6 10	14 48.50	-16 10.1	2.367	3.254	10.2	21.3	6 10	14 44.42	-15 23.4	2.034	2.918	11.8	22.5
175423	2006 PO ₂₆		5 10.5 287°38		1°4/ 9.8 17		408486	2013 JN ₆		5 10.6 84°36		2°0/ 9.7 17	
4 1	15 37.91	-15 49.9	1.568	2.385	17.1	20.7	4 1	15 41.87	-13 37.2	1.422	2.241	18.4	21.4
4 11	15 34.84	-15 37.3	1.463	2.361	13.7	20.4	4 11	15 37.67	-13 31.9	1.355	2.253	14.6	21.1
4 21	15 28.77	-15 16.9	1.378	2.337	9.6	20.1	4 21	15 30.38	-13 22.0	1.306	2.265	10.0	20.9
5 1	15 20.15	-14 50.5	1.315	2.312	4.9	19.7	5 1	15 20.74	-13 9.9	1.281	2.277	5.1	20.6
5 11	15 9.96	-14 21.4	1.278	2.287	1.6	19.4	5 11	15 9.98	-12 58.8	1.281	2.289	2.2	20.5
5 21	14 59.45	-13 53.7	1.267	2.262	6.2	19.7	5 21	14 59.47	-12 52.1	1.306	2.300	6.3	20.8
5 31	14 50.01	-13 32.6	1.280	2.237	11.3	19.9	5 31	14 50.52	-12 53.4	1.357	2.312	11.0	21.1
6 10	14 42.83	-13 22.7	1.315	2.212	16.0	20.1	6 10	14 44.08	-13 5.0	1.429	2.323	15.2	21.3
501297	2013 WF ₆₃		5 10.6 208°26		2°3/ 8.6 18		374285	2005 QW ₆₀		5 10.6 269°35		1°0/ 9.9 17	
4 1	15 36.85	-13 9.3	2.528	3.320	12.1	22.6	4 1	15 36.25	-18 17.7	1.774	2.582	15.8	21.8
4 11	15 32.41	-12 22.4	2.428	3.313	9.5	22.5	4 11	15 32.98	-17 44.2	1.675	2.568	12.6	21.5
4 21	15 26.12	-11 30.1	2.353	3.305	6.6	22.3	4 21	15 27.11	-16 59.8	1.597	2.553	8.7	21.2
5 1	15 18.45	-10 35.3	2.304	3.297	3.6	22.0	5 1	15 19.15	-16 6.4	1.543	2.539	4.4	21.0
5 11	15 10.06	-9 41.5	2.285	3.288	2.5	22.0	5 11	15 10.05	-15 8.2	1.515	2.524	1.1	20.7
5 21	15 1.70	-8 52.7	2.295	3.278	5.0	22.1	5 21	15 0.88	-14 10.3	1.514	2.509	5.4	20.9
5 31	14 54.11	-8 12.5	2.333	3.267	8.2	22.3	5 31	14 52.79	-13 18.9	1.539	2.494	10.0	21.2
6 10	14 47.91	-7 43.5	2.396	3.255	11.1	22.5	6 10	14 46.67	-12 38.9	1.587	2.479	14.0	21.4
44895	1999 VL ₉		5 10.6 355°31		1°4/11.7 18		448570	2010 SL ₇		5 10.6 355°30		5°8/13.7 16	
4 1	15 32.86	-27 19.3	1.646										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
87653	2000 RQ ₈₆		5 10.6 155°40	0°6/10.9	18 R		481853	2008 XK ₁₅		5 10.6 116°75	7°5/15.8	18	
4 1	15 37.86	-21 39.9	2.128	2.914	14.3	19.7	4 1	15 43.11	-39 17.1	1.153	1.922	24.7	20.7
4 11	15 33.61	-21 21.7	2.041	2.919	11.4	19.5	4 11	15 40.26	-38 52.4	1.078	1.929	21.2	20.4
4 21	15 27.14	-20 53.3	1.975	2.924	7.9	19.3	4 21	15 32.96	-37 49.9	1.018	1.935	16.8	20.2
5 1	15 19.01	-20 15.6	1.935	2.928	4.1	19.0	5 1	15 22.24	-36 3.8	0.976	1.941	12.0	19.9
5 11	15 10.07	-19 31.2	1.922	2.932	0.6	18.8	5 11	15 9.97	-33 35.6	0.956	1.947	8.1	19.7
5 21	15 1.25	-18 43.8	1.938	2.936	4.1	19.0	5 21	14 58.30	-30 36.4	0.960	1.953	8.2	19.7
5 31	14 53.46	-17 58.0	1.981	2.939	7.9	19.3	5 31	14 49.11	-27 25.3	0.988	1.958	12.2	20.0
6 10	14 47.41	-17 18.2	2.050	2.942	11.3	19.5	6 10	14 43.53	-24 23.2	1.039	1.964	16.9	20.2
213877	2003 SH ₂₄₈		5 10.6 250°35	1°6/11.4	17		351903	2006 SY ₂₉₁		5 10.6 183°89	7°1/5.7	18	
4 1	15 39.68	-22 23.8	1.658	2.456	17.2	20.8	4 1	15 39.50	+ 7 12.6	2.694	3.466	11.9	21.2
4 11	15 36.02	-22 31.4	1.564	2.447	13.9	20.5	4 11	15 34.21	+ 7 41.4	2.616	3.466	10.1	21.0
4 21	15 29.40	-22 27.8	1.489	2.438	9.9	20.2	4 21	15 27.21	+ 8 1.6	2.560	3.466	8.4	20.9
5 1	15 20.38	-22 12.4	1.437	2.429	5.4	20.0	5 1	15 18.96	+ 8 9.3	2.530	3.465	7.3	20.8
5 11	15 10.00	-21 46.4	1.411	2.420	1.6	19.7	5 11	15 10.13	+ 8 1.2	2.528	3.465	7.3	20.8
5 21	14 59.53	-21 12.9	1.412	2.410	5.1	19.9	5 21	15 1.39	+ 7 36.0	2.552	3.463	8.5	20.9
5 31	14 50.30	-20 37.2	1.438	2.401	9.8	20.1	5 31	14 53.44	+ 6 53.7	2.603	3.462	10.3	21.0
6 10	14 43.35	-20 5.4	1.487	2.391	14.1	20.4	6 10	14 46.83	+ 5 55.9	2.677	3.460	12.2	21.2
15835	1995 DY		5 10.6 320°65	1°1/9.9	18		60049	1999 TW ₁₀₅		5 10.6 275°14	3°1/12.2	18	
4 1	15 33.87	-17 41.4	1.519	2.343	17.2	18.0	4 1	15 40.82	-25 21.5	2.485	3.244	13.1	18.9
4 11	15 31.53	-17 17.5	1.428	2.330	13.8	17.7	4 11	15 36.01	-26 10.8	2.377	3.233	10.8	18.7
4 21	15 26.33	-16 43.0	1.357	2.318	9.5	17.4	4 21	15 28.94	-26 53.4	2.291	3.221	8.0	18.5
5 1	15 18.84	-16 0.1	1.309	2.306	4.8	17.1	5 1	15 20.05	-27 27.2	2.231	3.210	5.1	18.3
5 11	15 10.07	-15 12.9	1.285	2.294	1.2	16.8	5 11	15 10.07	-27 51.0	2.199	3.199	3.1	18.2
5 21	15 1.25	-14 26.8	1.287	2.284	5.9	17.1	5 21	14 59.89	-28 4.8	2.197	3.188	4.5	18.2
5 31	14 53.64	-13 47.9	1.313	2.273	10.8	17.4	5 31	14 50.48	-28 10.4	2.222	3.176	7.4	18.4
6 10	14 48.24	-13 21.2	1.360	2.264	15.2	17.6	6 10	14 42.65	-28 11.1	2.274	3.165	10.4	18.5
5044	Shestaka		5 10.6 206°15	3°8/12.5	18		61562	2000 QR ₇₅		5 10.6 279°96	5°8/7.1	18	
4 1	15 42.54	-27 5.2	1.691	2.469	17.6	17.1	4 1	15 36.30	- 8 39.3	1.496	2.325	17.2	19.0
4 11	15 38.34	-27 29.3	1.599	2.466	14.5	16.9	4 11	15 33.46	- 7 33.0	1.403	2.307	13.8	18.7
4 21	15 31.03	-27 39.9	1.526	2.462	10.8	16.7	4 21	15 27.70	- 6 20.6	1.330	2.288	10.0	18.5
5 1	15 21.20	-27 34.4	1.476	2.458	6.8	16.4	5 1	15 19.58	- 5 8.4	1.280	2.269	6.6	18.2
5 11	15 9.97	-27 12.4	1.451	2.453	3.8	16.2	5 11	15 10.09	- 4 4.2	1.256	2.249	6.2	18.1
5 21	14 58.69	-26 36.3	1.453	2.448	5.6	16.3	5 21	15 0.46	- 3 15.4	1.256	2.230	9.4	18.3
5 31	14 48.76	-25 51.6	1.481	2.443	9.7	16.5	5 31	14 52.00	- 2 47.7	1.279	2.211	13.6	18.4
6 10	14 41.26	-25 5.7	1.532	2.437	13.7	16.7	6 10	14 45.75	- 2 43.7	1.322	2.191	17.7	18.6
292912	2006 VJ ₅₆		5 10.6 128°56	0°9/9.9	17		508685	2017 UZ ₁₆		5 10.6 122°19	1°4/11.4	17	
4 1	15 34.82	-16 12.6	2.395	3.191	12.5	21.5	4 1	15 38.75	-22 17.0	2.031	2.817	14.8	21.5
4 11	15 30.93	-15 55.2	2.308	3.195	9.9	21.3	4 11	15 34.50	-22 23.2	1.947	2.823	11.9	21.3
4 21	15 25.15	-15 32.4	2.244	3.198	6.8	21.1	4 21	15 27.87	-22 20.1	1.884	2.830	8.4	21.1
5 1	15 17.99	-15 5.7	2.205	3.201	3.4	20.9	5 1	15 19.44	-22 7.4	1.845	2.836	4.6	20.9
5 11	15 10.14	-14 37.8	2.195	3.204	1.0	20.7	5 11	15 10.11	-21 46.7	1.834	2.842	1.4	20.7
5 21	15 2.37	-14 11.4	2.213	3.207	4.1	20.9	5 21	15 0.88	-21 20.5	1.851	2.848	4.2	20.9
5 31	14 55.43	-13 49.6	2.259	3.210	7.5	21.1	5 31	14 52.74	-20 52.9	1.894	2.854	8.0	21.1
6 10	14 49.94	-13 34.9	2.329	3.212	10.5	21.3	6 10	14 46.45	-20 28.1	1.962	2.860	11.5	21.4
389281	2009 HQ ₄₈		5 10.6 338°20	4°4/8.2	17		272608	2005 WO ₁₅		5 10.6 180°39	0°0/10.5	17	
4 1	15 37.61	- 4 44.0	2.146	2.950	13.5	21.0	4 1	15 38.73	-19 25.8	2.278	3.063	13.5	22.1
4 11	15 33.31	- 4 34.6	2.061	2.948	10.9	20.8	4 11	15 34.18	-19 10.5	2.186	3.064	10.7	21.9
4 21	15 26.90	- 4 28.2	1.997	2.945	7.9	20.6	4 21	15 27.49	-18 47.1	2.115	3.065	7.4	21.7
5 1	15 18.91	- 4 27.7	1.960	2.943	5.2	20.4	5 1	15 19.22	-18 16.8	2.071	3.065	3.7	21.5
5 11	15 10.10	- 4 36.0	1.949	2.941	4.5	20.4	5 11	15 10.13	-17 41.8	2.055	3.065	0.2	21.1
5 21	15 1.33	- 4 55.0	1.966	2.939	6.6	20.5	5 21	15 1.11	-17 5.2	2.067	3.064	4.1	21.5
5 31	14 53.47	- 5 25.6	2.009	2.937	9.6	20.7	5 31	14 53.02	-16 31.0	2.108	3.062	7.7	21.7
6 10	14 47.20	- 6 7.5	2.077	2.936	12.6	20.9	6 10	14 46.56	-16 2.8	2.174	3.060	11.0	21.9
98764	2000 YQ ₆₉		5 10.6 231°74	2°5/9.1	18		71428	2000 AZ ₁₉₉		5 10.6 161°81	5°1/6.2	18	
4 1	15 40.33	-13 4.4	1.888	2.691	15.2	20.0	4 1	15 35.77	- 4 7.9	2.472	3.272	12.1	20.1
4 11	15 35.99	-12 37.8	1.789	2.679	12.1	19.7	4 11	15 31.46	- 3 4.3	2.394	3.278	9.7	19.9
4 21	15 29.08	-12 5.9	1.711	2.666	8.4	19.5	4 21	15 25.40	- 2 1.2	2.341	3.283	7.2	19.8
5 1	15 20.13	-11 31.2	1.658	2.652	4.5	19.2	5 1	15 18.09	- 1 3.1	2.314	3.288	5.4	19.6
5 11	15 10.04	-10 57.5	1.633	2.638	2.6	19.1	5 11	15 10.18	- 0 14.5	2.315	3.292	5.3	19.6
5 21	14 59.87	-10 28.9	1.635	2.623	6.0	19.2	5 21	15 2.40	+ 0 21.1	2.345	3.296	7.1	19.8
5 31	14 50.71	-10 9.5	1.663	2.607	10.2	19.4	5 31	14 55.43	+ 0 41.3	2.400	3.299	9.6	19.9
6 10	14 43.47	-10 2.2	1.715	2.591	14.0	19.6	6 10	14 49.82	+ 0 45.5	2.479	3.302	11.9	20.1
145390	2005 NW ₃₁		5 10.6 170°81	2°9/7.9	18		160984	2002 CQ ₁₀₄		5 10.6 181°32	2°5/11.9	18	
4 1	15 32.70	-10 39.2	2.602	3.402	11.5	20.3	4 1	15 43.70	-24 56.6	1.986	2.756	15.7	20.5
4 11	15 29.82	- 9 50.9	2.516	3.405	9.1	20.2	4 11	15 38.64	-25 12.4	1.893	2.757	12.7	20.3
4 21	15 24.27	- 8 59.4	2.453	3.406	6.3	20.0	4 21	15 30.88	-25 17.1	1.820	2.758	9.2	20.1
5 1	15 17.51	- 8 7.9	2.418	3.408	3.8	19.8	5 1	15 21.03	-25 9.5	1.772	2.758	5.4	19.9
5 11	15 10.17	- 7 20.1	2.411	3.409	3.1	19.8	5 11	15 10.05	-24 49.8	1.752	2.757	2.6	19.7
5 21	15 2.92	- 6 39.3	2.433	3.410	5.3	19.9	5 21	14 59.09	-24 20.4	1.760	2.756	4.7	19.8
5 31	14 56.41	- 6 8.6	2.483	3.411	8.0	20.1	5 31	14 49.30	-23 45.7	1.795	2.753	8.5	20.1
6 10	14 51.18	- 5 49.7	2.556	3.411	10.6	20.3	6 10	14 41.58	-23 11.4	1.855	2.750	12.2	20.3
62595	2000 SW ₃₀₆		5 10.6 22°26	2°0/9.1	18 R		384867	2012 SE ₃₄		5 10.6 196°21	1°2/9.6	18	
4 1	15 32.79	-18 54.6	1.528	2.									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
179306	2001 VA ₁₀₀		5 10.6 155°77	3°3/ 7.0 18			3969	Rossi		5 10.6 208°61	1°2/ 9.9 18		
4 1	15 33.73	- 7 12.6	3.202	3.994	9.8	21.8	4 1	15 40.31	-17 10.0	1.682	2.487	16.6	18.1
4 11	15 29.44	- 6 19.1	3.122	4.003	7.7	21.6	4 11	15 36.27	-16 42.8	1.592	2.483	13.2	17.9
4 21	15 23.81	- 5 24.7	3.066	4.012	5.5	21.5	4 21	15 29.42	-16 6.1	1.522	2.478	9.2	17.6
5 1	15 17.24	- 4 32.3	3.038	4.020	3.7	21.4	5 1	15 20.36	-15 22.0	1.477	2.473	4.6	17.3
5 11	15 10.24	- 3 45.3	3.040	4.027	3.5	21.4	5 11	15 10.13	-14 34.5	1.458	2.467	1.4	17.1
5 21	15 3.33	- 3 6.4	3.071	4.034	5.1	21.5	5 21	14 59.92	-13 48.6	1.466	2.460	5.7	17.3
5 31	14 57.05	- 2 37.6	3.131	4.040	7.2	21.6	5 31	14 50.94	-13 9.7	1.500	2.453	10.3	17.6
6 10	14 51.81	- 2 20.1	3.215	4.046	9.3	21.8	6 10	14 44.14	-12 42.4	1.557	2.446	14.4	17.8
404605	2014 DR ₇₁		5 10.6 331°94	6°0/13.1 16			131447	2001 QZ ₁₁₃		5 10.6 252°50	3°1/13.9 18		
4 1	15 39.62	-30 25.7	1.940	2.702	16.2	20.4	4 1	15 34.54	-33 3.6	4.597	5.304	8.2	19.4
4 11	15 35.99	-31 40.1	1.840	2.689	13.7	20.2	4 11	15 30.00	-33 40.3	4.489	5.301	6.9	19.3
4 21	15 29.47	-32 44.6	1.759	2.678	10.8	19.9	4 21	15 24.22	-34 10.1	4.405	5.298	5.5	19.2
5 1	15 20.52	-33 34.9	1.703	2.666	7.9	19.7	5 1	15 17.50	-34 31.8	4.347	5.296	4.1	19.1
5 11	15 10.07	-34 7.7	1.671	2.656	6.1	19.6	5 11	15 10.26	-34 45.0	4.318	5.293	3.2	19.0
5 21	14 59.32	-34 22.0	1.666	2.646	6.9	19.6	5 21	15 2.96	-34 50.0	4.319	5.290	3.4	19.0
5 31	14 49.58	-34 20.0	1.686	2.636	9.6	19.8	5 31	14 56.07	-34 48.0	4.349	5.287	4.6	19.1
6 10	14 41.99	-34 7.1	1.729	2.627	12.8	19.9	6 10	14 50.01	-34 40.8	4.406	5.284	6.1	19.2
470221	2006 WD ₈₅		5 10.6 198°63	1°1/ 9.6 18			184727	2005 SQ ₁₇₃		5 10.6 169°05	2°8/ 8.0 18		
4 1	15 34.74	-15 19.3	3.005	3.790	10.5	23.0	4 1	15 33.20	-11 6.2	2.616	3.417	11.5	20.9
4 11	15 30.48	-14 56.2	2.905	3.786	8.3	22.9	4 11	15 29.45	-10 16.7	2.530	3.419	9.0	20.7
4 21	15 24.67	-14 28.6	2.830	3.782	5.7	22.7	4 21	15 24.04	- 9 23.6	2.468	3.421	6.3	20.5
5 1	15 17.73	-13 58.1	2.783	3.777	2.9	22.5	5 1	15 17.44	- 8 30.1	2.432	3.423	3.7	20.3
5 11	15 10.22	-13 26.9	2.764	3.772	1.2	22.4	5 11	15 10.27	- 7 40.0	2.425	3.424	3.0	20.3
5 21	15 2.73	-12 57.5	2.776	3.766	3.7	22.5	5 21	15 3.18	- 6 56.8	2.447	3.425	5.2	20.4
5 31	14 55.87	-12 32.4	2.816	3.760	6.5	22.7	5 31	14 56.82	- 6 23.3	2.496	3.426	7.9	20.6
6 10	14 50.16	-12 13.7	2.882	3.754	9.1	22.9	6 10	14 51.73	- 6 1.6	2.570	3.426	10.5	20.8
394759	2008 FH ₁₃₄		5 10.6 176°82	3°4/12.9 16			390832	2004 PX ₆₄		5 10.6 335°46	2°0/11.7 15		
4 1	15 39.07	-28 10.9	2.655	3.404	12.6	21.2	4 1	15 30.88	-23 17.3	1.635	2.448	16.7	20.4
4 11	15 34.39	-28 47.6	2.558	3.405	10.4	21.1	4 11	15 29.21	-23 26.3	1.534	2.426	13.6	20.1
4 21	15 27.65	-29 15.2	2.482	3.405	7.8	20.9	4 21	15 24.82	-23 23.2	1.452	2.404	9.8	19.9
5 1	15 19.33	-29 32.0	2.433	3.406	5.2	20.7	5 1	15 18.19	-23 7.6	1.392	2.384	5.6	19.6
5 11	15 10.15	-29 37.4	2.411	3.406	3.5	20.6	5 11	15 10.22	-22 40.6	1.357	2.365	2.1	19.3
5 21	15 0.93	-29 32.4	2.418	3.406	4.4	20.7	5 21	15 2.08	-22 5.4	1.346	2.346	5.0	19.4
5 31	14 52.51	-29 19.2	2.452	3.406	6.9	20.8	5 31	14 54.99	-21 27.2	1.361	2.329	9.6	19.6
6 10	14 45.60	-29 1.7	2.513	3.405	9.5	21.0	6 10	14 50.00	-20 52.1	1.397	2.314	13.9	19.8
366376	2000 SN ₁₉₄		5 10.6 210°13	1°6/11.7 17			74727	1999 RJ ₁₇₀		5 10.6 233°94	1°3/11.3 17		
4 1	15 39.85	-23 43.4	2.470	3.236	13.0	22.3	4 1	15 40.46	-22 28.1	1.906	2.692	15.7	20.8
4 11	15 35.07	-23 47.3	2.364	3.229	10.5	22.1	4 11	15 36.27	-22 27.0	1.803	2.680	12.7	20.6
4 21	15 28.16	-23 42.1	2.281	3.221	7.6	21.9	4 21	15 29.41	-22 15.2	1.721	2.668	9.0	20.3
5 1	15 19.61	-23 27.5	2.224	3.212	4.3	21.7	5 1	15 20.38	-21 52.2	1.664	2.655	4.9	20.0
5 11	15 10.15	-23 4.3	2.196	3.203	1.6	21.4	5 11	15 10.14	-21 19.5	1.633	2.642	1.3	19.8
5 21	15 0.66	-22 34.6	2.196	3.193	3.8	21.6	5 21	14 59.78	-20 40.2	1.630	2.628	4.7	20.0
5 31	14 52.01	-22 2.0	2.225	3.182	7.2	21.8	5 31	14 50.50	-19 59.3	1.654	2.614	9.0	20.2
6 10	14 44.93	-21 30.5	2.280	3.171	10.4	22.0	6 10	14 43.23	-19 22.2	1.702	2.599	13.0	20.4
334775	2003 SY ₁₁₃		5 10.6 207°29	3°2/ 7.9 18			59697	1999 JS ₁₁₇		5 10.6 44°64	4°0/ 8.4 18		
4 1	15 35.63	-10 27.4	2.418	3.218	12.3	21.6	4 1	15 35.96	-11 12.4	1.455	2.285	17.5	18.5
4 11	15 31.55	- 9 36.5	2.325	3.213	9.7	21.4	4 11	15 32.79	-10 26.6	1.395	2.301	13.8	18.3
4 21	15 25.60	- 8 41.9	2.255	3.208	6.8	21.2	4 21	15 26.88	- 9 36.6	1.356	2.316	9.6	18.1
5 1	15 18.26	- 7 46.8	2.212	3.202	4.1	21.0	5 1	15 18.98	- 8 47.5	1.339	2.332	5.5	17.9
5 11	15 10.22	- 6 55.6	2.198	3.195	3.4	21.0	5 11	15 10.21	- 8 5.1	1.348	2.349	4.2	17.9
5 21	15 2.21	- 6 12.1	2.212	3.188	5.8	21.1	5 21	15 1.75	- 7 34.6	1.381	2.366	7.4	18.1
5 31	14 55.00	- 5 39.6	2.253	3.180	8.8	21.3	5 31	14 54.72	- 7 19.5	1.439	2.384	11.4	18.4
6 10	14 49.19	- 5 20.2	2.318	3.172	11.6	21.4	6 10	14 49.87	- 7 21.3	1.518	2.401	15.0	18.6
64557	2001 WU ₂₅		5 10.6 243°18	0°2/10.5 16			53738	2000 EZ ₄₈		5 10.6 137°65	2°2/11.7 18		
4 1	15 38.63	-20 27.6	1.581	2.388	17.4	20.6	4 1	15 42.22	-24 2.9	1.544	2.339	18.4	19.7
4 11	15 35.24	-19 57.6	1.488	2.379	14.0	20.3	4 11	15 38.09	-24 10.0	1.465	2.345	14.9	19.5
4 21	15 28.89	-19 14.0	1.414	2.369	9.8	20.1	4 21	15 30.81	-24 3.8	1.405	2.352	10.7	19.3
5 1	15 20.16	-18 18.3	1.364	2.359	4.9	19.8	5 1	15 21.09	-23 43.1	1.368	2.358	6.0	19.0
5 11	15 10.12	-17 14.2	1.339	2.349	0.3	19.4	5 11	15 10.11	-23 9.5	1.356	2.364	2.3	18.8
5 21	15 0.06	-16 7.8	1.340	2.338	5.6	19.7	5 21	14 59.29	-22 26.9	1.371	2.369	5.3	19.0
5 31	14 51.29	-15 6.5	1.367	2.327	10.6	20.0	5 31	14 49.99	-21 41.7	1.411	2.374	9.9	19.3
6 10	14 44.81	-14 16.6	1.417	2.315	15.0	20.2	6 10	14 43.20	-21 0.6	1.474	2.379	14.1	19.5
498615	2008 RE ₁₀₂		5 10.6 195°59	1°7/ 9.3 17			474942	2005 SG ₂₈₅		5 10.6 250°78	4°4/ 6.6 18		
4 1	15 36.40	-15 16.6	2.245	3.043	13.2	22.6	4 1	15 33.88	- 4 29.7	2.741	3.540	11.1	22.3
4 11	15 32.33	-14 40.7	2.153	3.041	10.4	22.4	4 11	15 30.00	- 3 42.8	2.640	3.523	8.9	22.1
4 21	15 26.23	-13 58.2	2.084	3.039	7.2	22.2	4 21	15 24.47	- 2 56.0	2.563	3.507	6.6	22.0
5 1	15 18.60	-13 11.8	2.041	3.036	3.7	22.0	5 1	15 17.70	- 2 13.0	2.513	3.490	4.8	21.8
5 11	15 10.20	-12 24.9	2.026	3.033	1.8	21.9	5 11	15 10.27	- 1 37.3	2.491	3.472	4.7	21.8
5 21	15 1.86	-11 41.4	2.040	3.030	4.9	22.1	5 21	15 2.81	- 1 12.1	2.497	3.454	6.4	21.9
5 31	14 54.41	-11 5.2	2.081	3.026	8.4	22.3	5 31	14 55.97	- 0 59.7	2.530	3.436	8.8	22.0
6 10	14 48.52	-10 39.3	2.146	3.022	11.6	22.5	6 10	14 50.31	- 1 1.0	2.587	3.418	11.3	22.1
234114	1999 VH ₁₈₆		5 10.6 118°87	1°0/ 9.9 18			176528	2001 YY ₁₃₇		5 10.6 49°38	3°1/ 8.9 18		
4 1	15 40.41	-14 51.1	2.3										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
430969	2005 <i>WT</i> ₅₁		5 10.6 117°44	0°4/10.3	17		461369	2000 <i>SK</i> ₉		5 10.6 129°59	5°6/ 5.9	18	
4 1	15 39.40	-17 53.8	2.041	2.834	14.5	22.2	4 1	15 40.44	-7 41.5	2.010	2.812	14.4	21.9
4 11	15 34.83	-17 42.9	1.963	2.847	11.5	22.0	4 11	15 35.39	-5 54.5	1.945	2.832	11.4	21.7
4 21	15 27.99	-17 24.8	1.908	2.860	7.9	21.8	4 21	15 28.20	-4 4.3	1.903	2.850	8.3	21.5
5 1	15 19.48	-17 1.0	1.878	2.873	3.9	21.6	5 1	15 19.52	-2 17.6	1.889	2.868	5.9	21.4
5 11	15 10.20	-16 33.9	1.875	2.885	0.5	21.4	5 11	15 10.24	-0 42.0	1.904	2.885	5.9	21.5
5 21	15 1.09	-16 6.8	1.901	2.897	4.4	21.7	5 21	15 1.26	+0 36.4	1.948	2.901	8.2	21.6
5 31	14 53.08	-15 43.2	1.954	2.909	8.2	21.9	5 31	14 53.42	+1 33.7	2.017	2.916	11.1	21.8
6 10	14 46.88	-15 26.4	2.032	2.920	11.6	22.2	6 10	14 47.35	+2 8.8	2.109	2.930	13.8	22.0
342845	2008 <i>YF</i> ₄		5 10.6 180°31	6°5/ 5.4	18		132465	2002 <i>JO</i>		5 10.6 323°07	5°0/ 7.6	18	
4 1	15 36.26	+1 55.1	2.492	3.285	12.2	20.9	4 1	15 34.99	-7 19.2	1.779	2.600	15.2	19.5
4 11	15 31.87	+2 48.8	2.415	3.286	10.1	20.7	4 11	15 31.76	-6 34.3	1.696	2.595	12.1	19.2
4 21	15 25.73	+3 37.7	2.361	3.287	8.0	20.6	4 21	15 26.13	-5 48.1	1.635	2.590	8.8	19.0
5 1	15 18.30	+4 17.2	2.333	3.287	6.7	20.5	5 1	15 18.67	-5 5.4	1.598	2.585	5.8	18.8
5 11	15 10.26	+4 43.2	2.331	3.287	6.8	20.5	5 11	15 10.27	-4 31.5	1.587	2.580	5.2	18.8
5 21	15 2.30	+4 52.8	2.357	3.286	8.3	20.6	5 21	15 1.92	-4 10.7	1.602	2.576	7.8	18.9
5 31	14 55.14	+4 45.0	2.408	3.285	10.4	20.8	5 31	14 54.61	-4 6.0	1.641	2.572	11.2	19.1
6 10	14 49.34	+4 20.2	2.482	3.284	12.5	20.9	6 10	14 49.14	-4 18.5	1.702	2.568	14.6	19.3
466088	2012 <i>BW</i> ₁₀₀		5 10.6 341°17	6°3/ 7.7	17		475762	2006 <i>WW</i> ₁₆₃		5 10.6 186°14	1°6/ 9.3	17	
4 1	15 30.98	-7 45.9	1.141	1.998	19.6	20.5	4 1	15 35.43	-13 31.0	2.686	3.478	11.4	22.3
4 11	15 29.97	-7 0.5	1.065	1.985	15.8	20.2	4 11	15 31.21	-13 13.1	2.593	3.477	9.0	22.1
4 21	15 25.68	-6 12.6	1.007	1.972	11.4	19.9	4 21	15 25.29	-12 51.8	2.524	3.477	6.2	21.9
5 1	15 18.71	-5 29.1	0.969	1.960	7.5	19.6	5 1	15 18.12	-12 28.7	2.482	3.476	3.2	21.7
5 11	15 10.23	-4 58.2	0.953	1.950	6.6	19.5	5 11	15 10.30	-12 6.4	2.468	3.475	1.7	21.6
5 21	15 1.70	-4 46.4	0.958	1.942	10.1	19.7	5 21	15 2.53	-11 47.2	2.484	3.473	4.2	21.8
5 31	14 54.62	-4 57.7	0.985	1.935	14.8	19.9	5 31	14 55.48	-11 33.4	2.528	3.471	7.2	21.9
6 10	14 50.14	-5 32.7	1.029	1.929	19.2	20.2	6 10	14 49.71	-11 27.0	2.597	3.469	9.9	22.1
465378	2008 <i>EU</i> ₃₇		5 10.6 31°22	0°5/10.8	17		38257	1999 <i>RC</i> ₁₃		5 10.6 313°79	3°5/ 5.9	18	
4 1	15 36.92	-20 28.5	1.430	2.248	18.4	21.7	4 1	15 26.83	-2 28.7	4.049	4.847	7.8	19.1
4 11	15 34.01	-20 21.7	1.356	2.252	14.7	21.4	4 11	15 23.92	-1 46.9	3.958	4.839	6.3	19.0
4 21	15 28.03	-20 3.1	1.301	2.258	10.3	21.2	4 21	15 20.01	-1 6.4	3.893	4.831	4.8	18.9
5 1	15 19.71	-19 33.6	1.268	2.263	5.3	20.9	5 1	15 15.39	-0 29.6	3.854	4.823	3.7	18.8
5 11	15 10.20	-18 56.4	1.260	2.269	0.5	20.6	5 11	15 10.42	+0 1.1	3.844	4.816	3.7	18.8
5 21	15 0.85	-18 16.2	1.276	2.276	5.4	21.0	5 21	15 5.47	+0 24.0	3.863	4.808	4.8	18.9
5 31	14 52.98	-17 39.2	1.318	2.283	10.3	21.3	5 31	15 0.91	+0 37.6	3.908	4.801	6.4	19.0
6 10	14 47.53	-17 10.8	1.381	2.290	14.6	21.5	6 10	14 57.08	+0 41.5	3.978	4.793	7.9	19.1
88061	2000 <i>VG</i> ₄₅		5 10.6 282°97	1°3/ 9.7	18		320694	2008 <i>DF</i> ₃		5 10.6 238°40	0°8/10.9	17	
4 1	15 35.29	-14 54.0	2.298	3.097	12.9	19.7	4 1	15 38.57	-20 54.8	1.620	2.424	17.2	21.7
4 11	15 31.61	-14 42.0	2.192	3.080	10.2	19.5	4 11	15 35.07	-20 50.9	1.534	2.423	13.8	21.4
4 21	15 25.86	-14 25.4	2.108	3.062	7.1	19.3	4 21	15 28.69	-20 35.9	1.469	2.422	9.7	21.2
5 1	15 18.51	-14 5.6	2.049	3.045	3.6	19.0	5 1	15 20.05	-20 10.3	1.427	2.421	5.0	20.9
5 11	15 10.25	-13 45.0	2.019	3.027	1.4	18.8	5 11	15 10.22	-19 36.5	1.410	2.420	0.8	20.6
5 21	15 1.90	-13 26.4	2.016	3.009	4.6	19.0	5 21	15 0.44	-18 58.5	1.420	2.419	5.1	20.9
5 31	14 54.30	-13 12.8	2.041	2.991	8.2	19.2	5 31	14 51.95	-18 21.8	1.455	2.418	9.7	21.2
6 10	14 48.18	-13 6.8	2.090	2.973	11.5	19.4	6 10	14 45.72	-17 51.8	1.513	2.416	13.9	21.4
418162	2008 <i>AY</i> ₁₁₁		5 10.6 169°96	0°2/10.7	17		151128	2001 <i>XK</i> ₅		5 10.6 130°50	4°1/ 8.8	18	
4 1	15 40.83	-19 54.0	2.043	2.829	14.7	22.5	4 1	15 41.44	-6 44.1	1.793	2.600	15.7	19.3
4 11	15 36.10	-19 41.2	1.955	2.834	11.7	22.3	4 11	15 36.80	-6 40.5	1.711	2.601	12.5	19.1
4 21	15 28.97	-19 19.5	1.888	2.837	8.2	22.1	4 21	15 29.59	-6 39.1	1.651	2.602	8.9	18.9
5 1	15 20.04	-18 49.6	1.846	2.840	4.1	21.9	5 1	15 20.41	-6 43.0	1.615	2.603	5.4	18.7
5 11	15 10.19	-18 14.1	1.832	2.842	0.2	21.5	5 11	15 10.21	-6 54.9	1.606	2.604	4.2	18.6
5 21	15 0.44	-17 36.3	1.847	2.844	4.4	21.9	5 21	15 0.07	-7 16.8	1.624	2.605	6.9	18.7
5 31	14 51.77	-17 0.7	1.889	2.845	8.4	22.1	5 31	14 51.08	-7 49.9	1.668	2.606	10.6	19.0
6 10	14 44.97	-16 31.3	1.956	2.845	11.9	22.4	6 10	14 44.09	-8 34.0	1.736	2.607	14.1	19.2
34298	2000 <i>QH</i> ₁₅₉		5 10.6 203°07	0°6/ 9.7	18		167739	2004 <i>XL</i> ₂₅		5 10.6 163°28	1°1/ 9.9	16	
4 1	15 26.66	-15 55.4	5.002	5.783	6.6	20.1	4 1	15 41.94	-16 0.0	1.826	2.624	15.8	21.6
4 11	15 23.59	-15 32.7	4.901	5.781	5.2	20.0	4 11	15 37.22	-15 48.9	1.742	2.629	12.5	21.3
4 21	15 19.69	-15 7.1	4.827	5.778	3.5	19.9	4 21	15 29.88	-15 31.5	1.680	2.634	8.6	21.1
5 1	15 15.19	-14 39.7	4.780	5.775	1.7	19.7	5 1	15 20.55	-15 9.3	1.642	2.638	4.3	20.9
5 11	15 10.41	-14 11.8	4.764	5.772	0.6	19.6	5 11	15 10.21	-14 45.1	1.632	2.641	1.2	20.6
5 21	15 5.65	-13 44.9	4.777	5.769	2.2	19.8	5 21	14 59.97	-14 22.3	1.650	2.644	5.2	20.9
5 31	15 1.22	-13 20.4	4.820	5.766	4.0	19.9	5 31	14 50.94	-14 4.9	1.694	2.646	9.4	21.2
6 10	14 57.41	-12 59.5	4.891	5.762	5.6	20.0	6 10	14 43.95	-13 56.0	1.762	2.648	13.2	21.4
340500	2006 <i>HB</i> ₁₁₇		5 10.6 215°91	1°3/ 9.5	18		510556	2012 <i>MS</i>		5 10.6 284°05	7°2/ 6.2	17	
4 1	15 35.10	-17 30.2	2.268	3.064	13.2	20.9	4 1	15 38.61	-1 28.7	1.867	2.676	15.1	21.5
4 11	15 31.33	-16 42.1	2.172	3.059	10.4	20.7	4 11	15 34.80	-0 37.2	1.760	2.646	12.5	21.3
4 21	15 25.56	-15 45.0	2.100	3.054	7.1	20.5	4 21	15 28.44	+0 12.5	1.674	2.615	9.7	21.0
5 1	15 18.29	-14 41.6	2.054	3.049	3.6	20.2	5 1	15 19.98	+0 54.6	1.613	2.584	7.5	20.8
5 11	15 10.27	-13 35.9	2.036	3.044	1.4	20.1	5 11	15 10.23	+1 22.7	1.577	2.552	7.5	20.8
5 21	15 2.31	-12 32.3	2.046	3.038	4.7	20.3	5 21	15 0.21	+1 32.0	1.566	2.520	9.8	20.8
5 31	14 55.22	-11 35.8	2.085	3.032	8.2	20.5	5 31	14 51.04	+1 19.4	1.581	2.487	13.1	20.9
6 10	14 49.66	-10 50.2	2.148	3.026	11.5	20.7	6 10	14 43.66	+0 44.7	1.616	2.454	16.5	21.1
346129	2007 <i>VW</i> ₁₇₃		5 10.6 189°35	3°7/ 7.4	17		54414	2000 <i>LA</i> ₁₃		5 10.6 226°66	5°0/ 6.7	18	
4 1													

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
11022	Serio		5 10.6 351°88	8°7/13.4 18			255659	2006 QW ₂₈		5 10.6 304°95	0°6/10.8 17		
4 1	15 42.02	-31 55.2	1.460	2.236	20.1	16.4	4 1	15 36.27	-19 43.9	1.408	2.229	18.5	21.3
4 11	15 39.02	-33 44.2	1.376	2.230	17.2	16.1	4 11	15 34.02	-19 47.6	1.308	2.207	15.0	21.0
4 21	15 32.27	-35 21.8	1.310	2.226	13.9	15.9	4 21	15 28.53	-19 40.8	1.227	2.186	10.6	20.7
5 1	15 22.24	-36 40.3	1.265	2.222	10.7	15.7	5 1	15 20.26	-19 23.5	1.168	2.164	5.5	20.4
5 11	15 10.13	-37 33.3	1.243	2.220	8.8	15.6	5 11	15 10.27	-18 57.6	1.133	2.143	0.6	19.9
5 21	14 57.65	-37 57.9	1.244	2.218	9.5	15.6	5 21	14 59.96	-18 27.0	1.122	2.122	5.9	20.2
5 31	14 46.68	-37 57.1	1.269	2.217	12.3	15.8	5 31	14 50.87	-17 57.5	1.135	2.102	11.4	20.5
6 10	14 38.71	-37 38.9	1.315	2.217	15.7	16.0	6 10	14 44.29	-17 35.3	1.169	2.082	16.4	20.7
213498	2002 GB ₄₉		5 10.6 94°18	2°5/11.8 18			161555	2004 XX ₁₂₁		5 10.6 3°09	5°6/13.8 17		
4 1	15 44.19	-23 44.7	1.582	2.371	18.2	20.8	4 1	15 38.05	-31 34.5	1.407	2.194	20.2	20.1
4 11	15 39.42	-24 6.8	1.513	2.390	14.7	20.6	4 11	15 35.47	-31 54.2	1.326	2.193	16.9	19.8
4 21	15 31.58	-24 16.9	1.464	2.409	10.5	20.4	4 21	15 29.42	-31 53.2	1.262	2.193	13.0	19.6
5 1	15 21.42	-24 13.7	1.438	2.427	6.0	20.2	5 1	15 20.59	-31 27.9	1.218	2.194	8.9	19.3
5 11	15 10.18	-23 57.9	1.438	2.445	2.5	20.0	5 11	15 10.27	-30 38.1	1.198	2.194	5.8	19.2
5 21	14 59.24	-23 32.8	1.465	2.463	5.2	20.2	5 21	15 0.05	-29 28.0	1.201	2.195	6.8	19.2
5 31	14 49.87	-23 3.5	1.518	2.480	9.4	20.5	5 31	14 51.49	-28 6.3	1.229	2.196	10.7	19.4
6 10	14 43.00	-22 36.0	1.593	2.497	13.3	20.8	6 10	14 45.72	-26 43.6	1.279	2.197	14.8	19.7
517634	2014 YG ₅₆		5 10.6 277°57	6°3/13.4 17			37052	2000 UO ₃₉		5 10.6 295°98	1°0/ 9.9 18		
4 1	15 42.93	-31 32.2	1.929	2.681	16.6	21.2	4 1	15 34.34	-16 17.9	2.180	2.982	13.4	19.3
4 11	15 38.74	-32 41.1	1.825	2.668	14.1	20.9	4 11	15 30.98	-16 1.2	2.078	2.968	10.7	19.1
4 21	15 31.50	-33 39.0	1.741	2.655	11.2	20.7	4 21	15 25.51	-15 38.2	1.998	2.953	7.4	18.9
5 1	15 21.65	-34 21.1	1.681	2.641	8.3	20.5	5 1	15 18.39	-15 10.6	1.943	2.939	3.7	18.6
5 11	15 10.16	-34 43.9	1.645	2.628	6.4	20.4	5 11	15 10.37	-14 41.1	1.916	2.925	1.1	18.4
5 21	14 58.33	-34 46.4	1.636	2.615	7.2	20.4	5 21	15 2.28	-14 12.8	1.916	2.911	4.6	18.6
5 31	14 47.58	-34 31.5	1.652	2.601	9.9	20.5	5 31	14 55.02	-13 49.3	1.944	2.897	8.3	18.8
6 10	14 39.08	-34 5.4	1.693	2.588	13.1	20.7	6 10	14 49.31	-13 33.8	1.995	2.883	11.8	19.0
312518	2009 DU ₃₁		5 10.6 91°70	1°3/11.3 17			329372	2001 VR ₇₀		5 10.6 223°39	1°0/10.0 18		
4 1	15 40.98	-22 27.9	1.533	2.334	18.2	21.4	4 1	15 39.39	-15 47.1	2.067	2.862	14.3	21.0
4 11	15 36.93	-22 22.1	1.463	2.349	14.5	21.2	4 11	15 35.05	-15 39.1	1.969	2.855	11.3	20.7
4 21	15 29.88	-22 3.4	1.412	2.363	10.2	21.0	4 21	15 28.36	-15 25.5	1.894	2.847	7.9	20.5
5 1	15 20.58	-21 32.2	1.384	2.377	5.4	20.7	5 1	15 19.84	-15 7.9	1.844	2.839	3.9	20.3
5 11	15 10.23	-20 51.1	1.382	2.391	1.3	20.5	5 11	15 10.32	-14 48.4	1.821	2.830	1.1	20.0
5 21	15 0.17	-20 5.0	1.406	2.405	5.1	20.8	5 21	15 0.75	-14 30.0	1.827	2.821	4.8	20.3
5 31	14 51.65	-19 20.0	1.456	2.419	9.7	21.1	5 31	14 52.13	-14 16.0	1.860	2.812	8.8	20.5
6 10	14 45.54	-18 42.1	1.528	2.432	13.8	21.3	6 10	14 45.27	-14 9.4	1.917	2.802	12.3	20.7
62592	2000 SA ₃₀₄		5 10.6 232°12	0°0/10.6 18			64642	2001 XK ₅₂		5 10.6 97°75	0°6/10.2 18		
4 1	15 37.00	-21 41.8	2.174	2.960	14.0	20.0	4 1	15 36.12	-17 11.1	2.396	3.187	12.7	19.9
4 11	15 33.07	-21 0.5	2.070	2.949	11.2	19.8	4 11	15 31.92	-16 57.2	2.317	3.200	10.0	19.7
4 21	15 26.91	-20 7.0	1.989	2.938	7.8	19.6	4 21	15 25.86	-16 37.5	2.261	3.214	6.8	19.5
5 1	15 19.05	-19 2.7	1.933	2.927	4.0	19.3	5 1	15 18.44	-16 13.4	2.232	3.227	3.4	19.3
5 11	15 10.30	-17 51.0	1.905	2.915	0.2	19.0	5 11	15 10.39	-15 47.4	2.230	3.240	0.7	19.1
5 21	15 1.57	-16 36.8	1.906	2.902	4.3	19.3	5 21	15 2.49	-15 22.1	2.257	3.252	3.9	19.4
5 31	14 53.76	-15 25.9	1.935	2.889	8.3	19.5	5 31	14 55.46	-15 0.5	2.312	3.265	7.2	19.6
6 10	14 47.64	-14 23.6	1.988	2.876	11.8	19.7	6 10	14 49.91	-14 45.1	2.392	3.277	10.2	19.8
394984	2009 BC ₁₈		5 10.6 283°39	1°2/11.4 17			23814	Bethanylyne		5 10.6 201°74	0°1/10.7 18		
4 1	15 36.15	-22 13.1	2.078	2.867	14.4	21.5	4 1	15 37.18	-19 27.8	2.186	2.976	13.8	18.8
4 11	15 32.53	-22 11.3	1.984	2.863	11.6	21.3	4 11	15 33.15	-19 18.7	2.092	2.974	11.0	18.6
4 21	15 26.61	-21 59.8	1.912	2.859	8.2	21.1	4 21	15 26.95	-19 1.7	2.021	2.972	7.6	18.3
5 1	15 18.93	-21 38.7	1.864	2.856	4.4	20.8	5 1	15 19.09	-18 37.7	1.975	2.969	3.9	18.1
5 11	15 10.31	-21 9.8	1.843	2.852	1.2	20.6	5 11	15 10.36	-18 8.9	1.957	2.967	0.2	17.8
5 21	15 1.70	-20 36.1	1.849	2.848	4.2	20.8	5 21	15 1.67	-17 38.1	1.967	2.964	4.1	18.1
5 31	14 54.07	-20 1.7	1.883	2.844	8.0	21.0	5 31	14 53.91	-17 9.3	2.004	2.961	7.9	18.3
6 10	14 48.18	-19 31.0	1.941	2.840	11.5	21.2	6 10	14 47.80	-16 45.9	2.066	2.958	11.3	18.5
156397	2001 YK ₁₄₇		5 10.6 174°12	0°7/10.2 18			25529	1999 XL ₁₂₇		5 10.6 199°43	1°8/11.9 18		
4 1	15 41.74	-15 24.6	2.217	3.004	13.7	20.3	4 1	15 39.23	-24 39.8	2.701	3.461	12.2	19.4
4 11	15 36.63	-15 32.7	2.126	3.006	10.9	20.1	4 11	15 34.42	-24 46.4	2.598	3.457	9.9	19.2
4 21	15 29.28	-15 36.9	2.058	3.008	7.5	19.9	4 21	15 27.66	-24 44.3	2.516	3.452	7.1	19.0
5 1	15 20.22	-15 38.0	2.015	3.010	3.7	19.7	5 1	15 19.41	-24 33.1	2.461	3.446	4.2	18.8
5 11	15 10.26	-15 37.4	2.001	3.011	0.8	19.4	5 11	15 10.37	-24 13.3	2.435	3.440	1.9	18.6
5 21	15 0.34	-15 37.0	2.017	3.011	4.4	19.7	5 21	15 1.31	-23 46.9	2.438	3.434	3.6	18.8
5 31	14 51.36	-15 39.0	2.060	3.011	8.1	19.9	5 31	14 53.03	-23 16.9	2.470	3.426	6.6	18.9
6 10	14 44.09	-15 45.8	2.129	3.011	11.4	20.1	6 10	14 46.18	-22 47.1	2.528	3.419	9.5	19.1
261	Prymno		5 10.6 55°06	2°2/ 9.6 18			423569	2005 UX ₅₁₀		5 10.6 352°00	0°4/10.9 17		
4 1	15 38.92	-14 20.4	1.374	2.200	18.6	12.7	4 1	15 34.16	-22 43.5	1.573	2.384	17.3	20.6
4 11	15 35.53	-14 2.1	1.306	2.209	14.7	12.5	4 11	15 31.65	-22 6.6	1.489	2.382	13.9	20.3
4 21	15 29.06	-13 37.4	1.257	2.217	10.1	12.3	4 21	15 26.35	-21 13.8	1.425	2.380	9.7	20.1
5 1	15 20.24	-13 9.2	1.230	2.226	5.2	12.0	5 1	15 18.91	-20 6.8	1.383	2.378	5.0	19.8
5 11	15 10.27	-12 42.0	1.228	2.235	2.3	11.9	5 11	15 10.38	-18 50.2	1.367	2.377	0.4	19.5
5 21	15 0.53	-12 20.4	1.251	2.245	6.5	12.2	5 21	15 1.98	-17 30.6	1.377	2.376	5.1	19.8
5 31	14 52.32	-12 8.6	1.298	2.254	11.3	12.4	5 31	14 54.86	-16 15.8	1.412	2.376	9.9	20.1
6 10	14 46.57	-12 9.6	1.366	2.264	15.5	12.7	6 10	14 49.92	-15 12.8	1.470	2.376	14.1	20.3
192515	1998 RS ₁₅		5 10.6 297°05	0°3/10.7 17			376638	2013 PH ₇₀		5 10.6 233°18	4°1/ 7.8 17		
4 1	15 35.56	-21 8.6	1.298	2.124									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
419646	2010 <i>TT</i> ₃₅		5 10.6 247°23	0°7/10.2 17			179678	Rietmeijer		5 10.6 171°67	3°7/ 8.2 17		
4 1	15 39.67	-17 11.9	1.736	2.540	16.2	21.5	4 1	15 39.23	-9 54.6	2.028	2.832	14.2	21.7
4 11	15 35.83	-17 3.0	1.640	2.530	13.0	21.3	4 11	15 34.74	-9 10.5	1.946	2.835	11.3	21.5
4 21	15 29.23	-16 46.3	1.564	2.519	9.0	21.0	4 21	15 28.01	-8 23.3	1.885	2.838	7.9	21.3
5 1	15 20.41	-16 23.2	1.512	2.508	4.5	20.7	5 1	15 19.63	-7 36.8	1.851	2.840	4.8	21.1
5 11	15 10.32	-15 56.2	1.486	2.496	0.8	20.4	5 11	15 10.42	-6 55.5	1.844	2.842	3.9	21.1
5 21	15 0.15	-15 29.0	1.488	2.484	5.3	20.7	5 21	15 1.32	-6 23.5	1.865	2.843	6.5	21.2
5 31	14 51.08	-15 6.2	1.515	2.472	9.9	20.9	5 31	14 53.24	-6 4.0	1.912	2.843	9.9	21.4
6 10	14 44.11	-14 51.8	1.566	2.460	14.1	21.1	6 10	14 46.89	-5 58.8	1.983	2.843	13.0	21.6
413234	2003 <i>SF</i> ₁₃₆		5 10.6 180°53	0°7/11.1 15			297516	2001 <i>BN</i> ₁		5 10.6 140°51	0°6/ 9.9 18		
4 1	15 41.28	-21 42.5	2.098	2.877	14.6	22.9	4 1	15 34.52	-16 56.3	3.518	4.293	9.3	23.3
4 11	15 36.47	-21 27.5	2.005	2.879	11.7	22.7	4 11	15 30.02	-16 32.0	3.433	4.308	7.3	23.2
4 21	15 29.28	-21 2.2	1.934	2.880	8.2	22.5	4 21	15 24.24	-16 3.2	3.373	4.322	5.0	23.0
5 1	15 20.27	-20 27.1	1.888	2.881	4.3	22.3	5 1	15 17.57	-15 31.4	3.342	4.336	2.5	22.9
5 11	15 10.34	-19 44.5	1.870	2.880	0.7	22.0	5 11	15 10.51	-14 58.4	3.340	4.349	0.7	22.7
5 21	15 0.48	-18 58.0	1.881	2.879	4.2	22.2	5 21	15 3.54	-14 26.3	3.369	4.361	3.0	22.9
5 31	14 51.69	-18 12.4	1.920	2.876	8.2	22.5	5 31	14 57.17	-13 57.4	3.427	4.373	5.4	23.1
6 10	14 44.74	-17 32.4	1.984	2.873	11.8	22.7	6 10	14 51.80	-13 33.5	3.513	4.385	7.6	23.3
395579	2011 <i>UU</i> ₂₅₉		5 10.6 328°74	1°2/11.3 16			30826	Coulomb		5 10.6 199°57	2°0/12.3 18		
4 1	15 36.87	-20 56.8	2.227	3.013	13.7	20.9	4 1	15 37.05	-25 47.1	2.855	3.612	11.7	19.4
4 11	15 32.97	-21 15.5	2.132	3.009	11.0	20.7	4 11	15 32.61	-25 51.5	2.751	3.608	9.5	19.2
4 21	15 26.87	-21 27.5	2.059	3.006	7.8	20.5	4 21	15 26.37	-25 47.0	2.671	3.604	6.9	19.0
5 1	15 19.09	-21 32.3	2.011	3.002	4.2	20.3	5 1	15 18.77	-25 33.2	2.617	3.600	4.1	18.8
5 11	15 10.38	-21 30.6	1.990	2.999	1.2	20.1	5 11	15 10.46	-25 10.7	2.591	3.595	2.1	18.7
5 21	15 1.65	-21 24.2	1.998	2.996	4.0	20.2	5 21	15 2.14	-24 41.5	2.594	3.590	3.5	18.8
5 31	14 53.79	-21 15.7	2.033	2.993	7.6	20.5	5 31	14 54.55	-24 8.6	2.627	3.584	6.2	19.0
6 10	14 47.57	-21 8.5	2.093	2.990	10.9	20.7	6 10	14 48.29	-23 35.5	2.685	3.578	9.0	19.1
501239	2013 <i>VK</i> ₁₀		5 10.6 179°28	0°1/10.5 18			178725	2000 <i>SG</i> ₂₉₈		5 10.6 212°67	0°4/10.3 18		
4 1	15 41.67	-17 11.8	2.476	3.253	12.7	22.1	4 1	15 34.31	-19 15.6	2.570	3.357	12.0	20.7
4 11	15 36.37	-17 19.8	2.380	3.255	10.1	21.9	4 11	15 30.53	-18 44.6	2.473	3.354	9.5	20.5
4 21	15 29.01	-17 23.2	2.308	3.256	7.0	21.7	4 21	15 24.96	-18 5.6	2.398	3.349	6.6	20.3
5 1	15 20.10	-17 22.3	2.263	3.257	3.5	21.5	5 1	15 18.06	-17 20.2	2.350	3.345	3.3	20.1
5 11	15 10.37	-17 18.3	2.246	3.256	0.2	21.2	5 11	15 10.48	-16 31.1	2.331	3.341	0.4	19.8
5 21	15 0.65	-17 12.9	2.260	3.256	3.8	21.5	5 21	15 2.96	-15 41.7	2.341	3.336	3.8	20.1
5 31	14 51.78	-17 8.5	2.302	3.254	7.3	21.7	5 31	14 56.19	-14 55.8	2.378	3.331	7.1	20.3
6 10	14 44.45	-17 7.6	2.371	3.252	10.4	21.9	6 10	14 50.77	-14 16.8	2.441	3.326	10.0	20.5
310201	2011 <i>SR</i> ₁₂₈		5 10.6 286°88	1°6/ 9.4 18			170341	2003 <i>SH</i> ₁₃₇		5 10.6 118°59	0°5/10.3 18		
4 1	15 33.61	-15 34.6	2.230	3.033	13.1	21.0	4 1	15 38.62	-19 44.2	1.644	2.449	16.9	20.0
4 11	15 30.28	-15 0.0	2.133	3.024	10.4	20.8	4 11	15 34.89	-19 10.2	1.566	2.457	13.4	19.8
4 21	15 24.95	-14 18.6	2.060	3.016	7.1	20.6	4 21	15 28.43	-18 24.2	1.508	2.464	9.3	19.6
5 1	15 18.09	-13 32.8	2.011	3.007	3.6	20.4	5 1	15 19.91	-17 28.5	1.475	2.470	4.6	19.3
5 11	15 10.45	-12 46.2	1.991	2.998	1.7	20.2	5 11	15 10.41	-16 27.5	1.467	2.477	0.6	19.0
5 21	15 2.81	-12 2.7	1.998	2.989	4.8	20.4	5 21	15 1.10	-15 26.9	1.487	2.483	5.2	19.4
5 31	14 56.00	-11 26.2	2.032	2.981	8.4	20.6	5 31	14 53.13	-14 33.0	1.532	2.490	9.8	19.6
6 10	14 50.69	-10 59.9	2.091	2.972	11.6	20.8	6 10	14 47.32	-13 50.8	1.600	2.495	13.8	19.9
128675	2004 <i>RU</i> ₆₂		5 10.6 224°83	0°6/11.0 17			434381	2004 <i>VN</i> ₁₉		5 10.6 141°70	0°1/10.7 17		
4 1	15 37.86	-21 6.1	2.076	2.865	14.5	20.9	4 1	15 40.63	-18 31.0	2.451	3.228	12.8	21.5
4 11	15 33.90	-20 55.8	1.979	2.858	11.6	20.7	4 11	15 35.49	-18 34.9	2.366	3.240	10.1	21.4
4 21	15 27.60	-20 35.9	1.903	2.852	8.1	20.4	4 21	15 28.35	-18 33.0	2.304	3.251	7.0	21.2
5 1	15 19.48	-20 6.8	1.852	2.845	4.2	20.2	5 1	15 19.75	-18 25.8	2.269	3.262	3.5	21.0
5 11	15 10.39	-19 30.9	1.828	2.838	0.6	19.9	5 11	15 10.42	-18 14.7	2.262	3.272	0.2	20.7
5 21	15 1.30	-18 51.3	1.833	2.831	4.3	20.2	5 21	15 1.20	-18 1.6	2.285	3.282	3.7	21.0
5 31	14 53.18	-18 12.5	1.864	2.823	8.2	20.4	5 31	14 52.89	-17 49.4	2.337	3.291	7.1	21.3
6 10	14 46.83	-17 39.0	1.920	2.815	11.8	20.6	6 10	14 46.14	-17 40.6	2.415	3.299	10.1	21.5
468299	2015 <i>ET</i> ₁₈		5 10.6 170°41	4°7/ 7.9 16			303965	2006 <i>AL</i> ₁₈		5 10.6 77°92	3°5/12.5 18		
4 1	15 40.09	-5 26.2	2.053	2.854	14.2	21.4	4 1	15 41.08	-27 8.3	1.391	2.187	19.9	20.7
4 11	15 35.37	-5 0.2	1.971	2.857	11.3	21.3	4 11	15 37.55	-27 17.3	1.321	2.200	16.3	20.5
4 21	15 28.43	-4 35.7	1.912	2.859	8.2	21.1	4 21	15 30.63	-27 8.7	1.269	2.212	11.9	20.3
5 1	15 19.83	-4 16.4	1.878	2.861	5.5	20.9	5 1	15 21.13	-26 41.0	1.239	2.225	7.2	20.0
5 11	15 10.39	-4 6.0	1.871	2.862	4.8	20.9	5 11	15 10.37	-25 55.6	1.233	2.237	3.6	19.8
5 21	15 1.04	-4 7.1	1.892	2.863	7.0	21.0	5 21	14 59.91	-24 57.7	1.252	2.250	5.8	20.0
5 31	14 52.70	-4 21.5	1.940	2.864	10.1	21.2	5 31	14 51.19	-23 55.2	1.296	2.262	10.2	20.3
6 10	14 46.07	-4 49.2	2.011	2.864	13.2	21.4	6 10	14 45.19	-22 56.6	1.361	2.275	14.5	20.6
143377	2003 <i>BD</i> ₁₅		5 10.6 96°71	7°4/16.4 18			343093	2009 <i>DR</i> ₃₅		5 10.6 138°83	2°5/ 8.5 18		
4 1	15 41.41	-40 41.2	2.395	3.090	15.2	20.0	4 1	15 35.15	-11 39.0	2.632	3.428	11.5	21.3
4 11	15 36.87	-41 30.9	2.310	3.100	13.2	19.8	4 11	15 30.96	-10 57.2	2.551	3.438	9.1	21.1
4 21	15 29.72	-42 4.0	2.244	3.110	11.1	19.7	4 21	15 25.11	-10 12.2	2.495	3.447	6.3	21.0
5 1	15 20.56	-42 16.6	2.200	3.119	9.0	19.6	5 1	15 18.08	-9 26.8	2.466	3.457	3.5	20.8
5 11	15 10.36	-42 6.9	2.180	3.129	7.6	19.5	5 11	15 10.51	-8 44.3	2.465	3.466	2.7	20.7
5 21	15 0.22	-41 35.7	2.187	3.138	7.6	19.5	5 21	15 3.06	-8 7.8	2.493	3.474	4.8	20.9
5 31	14 51.26	-40 47.0	2.219	3.148	8.8	19.6	5 31	14 56.38	-7 40.2	2.549	3.482	7.6	21.1
6 10	14 44.34	-39 47.1	2.276	3.157	10.8	19.8	6 10	14 50.99	-7 23.1	2.630	3.490	10.2	21.3
152866	1999 <i>XP</i> ₂₁₆		5 10.6 177°24	1°2/10.0 17			81338	2000 <i>GR</i> ₃₇		5 10.6 256°15	0°6/11.0 18		

EPHEMERIDES

5 10.6

5 10.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
162555	2000 RZ ₁₄		5 10.6 160°10	0°1/10.7 18			144691	2004 FR ₁₅₄		5 10.6 61°35	5°0/14.4 18		
4 1	15 41.28	-21 5.4	2.005	2.789	15.1	21.0	4 1	15 37.53	-33 31.8	2.206	2.949	15.0	20.1
4 11	15 36.48	-20 33.2	1.919	2.796	12.0	20.8	4 11	15 33.75	-33 51.9	2.114	2.951	12.7	19.9
4 21	15 29.27	-19 49.6	1.855	2.804	8.3	20.6	4 21	15 27.54	-33 56.8	2.042	2.953	9.9	19.7
5 1	15 20.28	-18 56.3	1.816	2.810	4.2	20.3	5 1	15 19.48	-33 44.1	1.994	2.955	7.1	19.6
5 11	15 10.43	-17 56.5	1.805	2.815	0.2	20.0	5 11	15 10.47	-33 13.8	1.972	2.958	5.2	19.5
5 21	15 0.74	-16 55.1	1.823	2.820	4.5	20.3	5 21	15 1.52	-32 27.9	1.976	2.960	5.6	19.5
5 31	14 52.21	-15 57.4	1.869	2.824	8.5	20.6	5 31	14 53.65	-31 31.2	2.007	2.962	8.0	19.6
6 10	14 45.59	-15 8.5	1.940	2.827	12.1	20.8	6 10	14 47.66	-30 29.9	2.063	2.965	10.8	19.8
233841	2008 UR ₂₉₆		5 10.6 355°81	0°5/10.9 17			272604	2005 WM ₇		5 10.6 193°82	1°3/11.6 17		
4 1	15 35.66	-21 28.8	1.908	2.706	15.2	20.4	4 1	15 40.07	-23 8.6	2.467	3.234	13.0	22.5
4 11	15 32.30	-21 8.0	1.820	2.705	12.2	20.2	4 11	15 35.24	-23 4.3	2.366	3.232	10.5	22.3
4 21	15 26.55	-20 36.1	1.753	2.705	8.5	20.0	4 21	15 28.32	-22 50.9	2.288	3.229	7.5	22.1
5 1	15 18.97	-19 54.0	1.711	2.705	4.4	19.7	5 1	15 19.81	-22 28.2	2.236	3.225	4.1	21.9
5 11	15 10.47	-19 4.8	1.695	2.705	0.5	19.4	5 11	15 10.46	-21 57.5	2.212	3.220	1.3	21.6
5 21	15 2.05	-18 12.8	1.706	2.705	4.4	19.7	5 21	15 1.13	-21 21.5	2.218	3.215	3.7	21.8
5 31	14 54.71	-17 23.3	1.744	2.705	8.6	20.0	5 31	14 52.66	-20 43.9	2.252	3.209	7.2	22.0
6 10	14 49.22	-16 41.2	1.806	2.705	12.2	20.2	6 10	14 45.76	-20 8.7	2.312	3.202	10.3	22.2
416298	2003 RZ ₁₃		5 10.6 240°82	3°8/13.1 17			80891	2000 DP ₄₈		5 10.6 192°80	3°5/ 8.2 17		
4 1	15 41.41	-30 3.6	1.964	2.723	16.2	21.6	4 1	15 38.38	-10 49.9	2.000	2.805	14.3	20.8
4 11	15 37.23	-30 2.6	1.853	2.707	13.5	21.4	4 11	15 34.17	-10 2.3	1.913	2.804	11.4	20.5
4 21	15 30.24	-29 45.3	1.763	2.690	10.2	21.1	4 21	15 27.71	-9 10.5	1.848	2.802	8.0	20.3
5 1	15 20.97	-29 9.2	1.695	2.673	6.6	20.9	5 1	15 19.52	-8 18.2	1.809	2.800	4.7	20.1
5 11	15 10.39	-28 14.7	1.655	2.654	3.9	20.7	5 11	15 10.47	-7 30.1	1.797	2.797	3.7	20.1
5 21	14 59.70	-27 5.0	1.641	2.635	5.2	20.7	5 21	15 1.49	-6 50.9	1.813	2.793	6.5	20.2
5 31	14 50.12	-25 46.3	1.655	2.616	8.9	20.9	5 31	14 53.50	-6 24.1	1.855	2.789	10.0	20.4
6 10	14 42.67	-24 26.7	1.694	2.595	12.8	21.1	6 10	14 47.26	-6 12.1	1.921	2.785	13.3	20.6
193729	2001 FZ ₁₅₃		5 10.6 35°45	3°1/12.7 18			170809	2004 DB ₄₉		5 10.6 43°40	4°4/ 7.4 17		
4 1	15 35.53	-27 32.5	1.578	2.373	18.0	19.1	4 1	15 33.49	-9 14.0	1.915	2.734	14.4	19.8
4 11	15 32.69	-27 28.1	1.509	2.387	14.6	18.9	4 11	15 30.29	-8 12.5	1.844	2.743	11.3	19.6
4 21	15 27.02	-27 6.5	1.459	2.401	10.7	18.7	4 21	15 24.97	-7 8.0	1.796	2.752	8.0	19.4
5 1	15 19.23	-26 27.6	1.431	2.416	6.4	18.5	5 1	15 18.11	-6 5.4	1.773	2.761	5.1	19.3
5 11	15 10.47	-25 33.7	1.427	2.432	3.2	18.3	5 11	15 10.53	-5 10.4	1.776	2.771	4.6	19.3
5 21	15 1.99	-24 30.2	1.450	2.448	5.1	18.5	5 21	15 3.14	-4 27.5	1.806	2.780	7.0	19.4
5 31	14 54.94	-23 24.0	1.497	2.465	9.1	18.7	5 31	14 56.76	-4 0.2	1.862	2.791	10.2	19.6
6 10	14 50.16	-22 22.5	1.568	2.482	12.9	19.0	6 10	14 52.05	-3 49.7	1.939	2.801	13.2	19.8
190444	1999 YM ₉		5 10.6 154°27	2°0/12.3 18			505417	2013 RZ ₁₇		5 10.6 293°93	1°4/11.3 17		
4 1	15 39.28	-25 49.1	2.712	3.467	12.3	20.5	4 1	15 38.22	-21 23.9	1.589	2.395	17.4	21.4
4 11	15 34.35	-25 51.1	2.621	3.476	9.9	20.3	4 11	15 35.36	-21 34.5	1.480	2.368	14.2	21.1
4 21	15 27.54	-25 43.5	2.552	3.485	7.2	20.2	4 21	15 29.40	-21 34.9	1.389	2.341	10.2	20.8
5 1	15 19.34	-25 25.9	2.510	3.493	4.3	20.0	5 1	15 20.77	-21 24.2	1.321	2.314	5.6	20.5
5 11	15 10.47	-24 59.5	2.496	3.500	2.1	19.8	5 11	15 10.42	-21 3.2	1.278	2.287	1.4	20.1
5 21	15 1.69	-24 26.3	2.511	3.507	3.5	20.0	5 21	14 59.67	-20 34.6	1.261	2.260	5.4	20.3
5 31	14 53.75	-23 49.6	2.556	3.513	6.4	20.2	5 31	14 49.97	-20 3.6	1.268	2.233	10.6	20.5
6 10	14 47.27	-23 13.5	2.627	3.518	9.2	20.3	6 10	14 42.58	-19 36.5	1.298	2.206	15.4	20.7
499101	2009 FA ₇₆		5 10.6 326°29	2°9/ 9.5 17			36741	2000 RL ₆₂		5 10.6 195°53	2°6/ 8.9 18		
4 1	15 36.84	-11 45.6	1.286	2.123	19.0	20.1	4 1	15 38.93	-7 59.6	2.855	3.640	11.0	18.6
4 11	15 34.50	-11 43.7	1.201	2.110	15.2	19.9	4 11	15 33.87	-7 59.2	2.759	3.638	8.7	18.4
4 21	15 28.85	-11 39.3	1.134	2.097	10.7	19.6	4 21	15 27.14	-7 59.6	2.688	3.635	6.2	18.2
5 1	15 20.45	-11 35.2	1.088	2.085	5.7	19.2	5 1	15 19.15	-8 2.3	2.644	3.633	3.6	18.1
5 11	15 10.42	-11 35.3	1.066	2.073	3.1	19.0	5 11	15 10.51	-8 9.2	2.630	3.629	2.7	18.0
5 21	15 0.22	-11 42.9	1.068	2.062	7.3	19.2	5 21	15 1.88	-8 21.6	2.645	3.626	4.7	18.1
5 31	14 51.39	-12 1.3	1.093	2.053	12.5	19.5	5 31	14 53.92	-8 40.5	2.690	3.622	7.3	18.3
6 10	14 45.15	-12 32.5	1.137	2.043	17.3	19.7	6 10	14 47.20	-9 6.6	2.761	3.618	9.9	18.4
188720	2005 TB ₁₈₅		5 10.6 49°05	2°0/ 9.1 17			520155	2014 CG ₂₅		5 10.6 157°66	2°5/ 9.1 17		
4 1	15 33.31	-14 32.0	2.231	3.037	13.0	20.3	4 1	15 37.57	-11 16.2	2.183	2.984	13.4	21.1
4 11	15 29.91	-13 52.7	2.151	3.043	10.2	20.1	4 11	15 33.34	-11 0.8	2.097	2.986	10.6	21.0
4 21	15 24.60	-13 7.6	2.092	3.049	7.0	19.9	4 21	15 27.03	-10 43.2	2.034	2.988	7.4	20.8
5 1	15 17.89	-12 19.7	2.060	3.055	3.6	19.7	5 1	15 19.16	-10 25.6	1.997	2.990	4.0	20.5
5 11	15 10.53	-11 32.7	2.055	3.061	2.1	19.6	5 11	15 10.51	-10 11.0	1.988	2.992	2.6	20.5
5 21	15 3.28	-10 50.5	2.079	3.068	4.9	19.8	5 21	15 1.92	-10 2.0	2.006	2.993	5.3	20.6
5 31	14 56.91	-10 16.7	2.129	3.074	8.2	20.1	5 31	14 54.24	-10 0.8	2.052	2.995	8.6	20.8
6 10	14 52.02	-9 53.8	2.203	3.081	11.2	20.3	6 10	14 48.15	-10 9.1	2.122	2.996	11.8	21.0
410102	2007 EG ₁₂₇		5 10.6 76°37	0°4/10.8 18			415485	2014 OC ₂₃₁		5 10.6 136°46	3°9/12.6 17		
4 1	15 44.52	-19 14.6	1.774	2.564	16.5	21.7	4 1	15 43.09	-26 56.7	1.639	2.419	18.1	21.0
4 11	15 39.00	-19 18.4	1.718	2.599	13.0	21.5	4 11	15 38.84	-27 27.3	1.557	2.424	14.8	20.8
4 21	15 30.90	-19 13.9	1.683	2.633	8.9	21.3	4 21	15 31.46	-27 44.6	1.494	2.430	11.0	20.6
5 1	15 21.01	-19 1.9	1.673	2.666	4.5	21.1	5 1	15 21.59	-27 45.8	1.454	2.435	6.9	20.4
5 11	15 10.41	-18 44.3	1.690	2.699	0.4	20.9	5 11	15 10.41	-27 30.5	1.439	2.440	4.0	20.2
5 21	15 0.25	-18 24.5	1.734	2.732	4.5	21.3	5 21	14 59.31	-27 1.1	1.450	2.445	5.7	20.3
5 31	14 51.55	-18 6.2	1.806	2.764	8.6	21.6	5 31	14 49.65	-26 23.2	1.488	2.450	9.6	20.5
6 10	14 45.01	-17 53.1	1.903	2.795	12.0	21.9	6 10	14 42.48	-25 43.7	1.548	2.454	13.5	20.8
302117	2001 PR ₃₇		5 10.6 287°99	4°4/ 7.8 18			171772	2001 BN ₉		5 10.6 36°33	2°5/11.7 18		
4 1	15 37.06	-6 56.0	2.186	2.990									

EPHEMERIDES

5 10.6

5 10.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
502615	2015 <i>CB</i> ₂₁		5 10.6 317°03	5°4/13.3	17		321081	2008 <i>SN</i> ₁₀₅		5 10.7 199°85	1°2/ 9.7	18	
4 1	15 38.33	-29 40.6	1.652	2.432	17.9	20.8	4 1	15 36.85	-16 37.6	2.383	3.174	12.7	21.3
4 11	15 35.38	-30 25.4	1.557	2.421	15.0	20.5	4 11	15 32.68	-16 5.9	2.287	3.171	10.1	21.2
4 21	15 29.31	-30 56.4	1.481	2.411	11.6	20.3	4 21	15 26.54	-15 27.3	2.214	3.167	6.9	20.9
5 1	15 20.65	-31 9.8	1.427	2.401	8.0	20.0	5 1	15 18.94	-14 43.9	2.168	3.163	3.5	20.7
5 11	15 10.45	-31 3.8	1.397	2.392	5.5	19.9	5 11	15 10.58	-13 58.6	2.150	3.158	1.3	20.5
5 21	15 0.07	-30 39.4	1.392	2.383	6.6	19.9	5 21	15 2.26	-13 15.0	2.161	3.153	4.4	20.8
5 31	14 50.96	-30 1.4	1.412	2.374	10.0	20.1	5 31	14 54.77	-12 37.1	2.199	3.147	7.8	21.0
6 10	14 44.27	-29 17.4	1.455	2.366	13.9	20.3	6 10	14 48.76	-12 7.8	2.263	3.141	11.0	21.1
425244	2009 <i>WA</i> ₄₄		5 10.6 257°23	2°2/12.3	18		48751	1997 <i>GM</i> ₈		5 10.7 230°75	0°5/10.3	18	
4 1	15 37.50	-27 30.0	1.978	2.753	15.6	21.6	4 1	15 38.27	-19 32.6	1.934	2.729	15.1	19.3
4 11	15 33.93	-27 3.1	1.871	2.738	12.7	21.4	4 11	15 34.42	-19 0.6	1.835	2.720	12.1	19.1
4 21	15 27.82	-26 19.5	1.785	2.724	9.3	21.2	4 21	15 28.10	-18 17.8	1.758	2.711	8.4	18.9
5 1	15 19.70	-25 18.8	1.723	2.709	5.5	20.9	5 1	15 19.85	-17 25.6	1.705	2.700	4.2	18.6
5 11	15 10.49	-24 3.1	1.688	2.694	2.3	20.6	5 11	15 10.55	-16 27.6	1.680	2.690	0.5	18.3
5 21	15 1.27	-22 37.3	1.680	2.679	4.5	20.8	5 21	15 1.24	-15 28.6	1.682	2.679	4.8	18.6
5 31	14 53.11	-21 8.5	1.700	2.663	8.6	21.0	5 31	14 52.96	-14 34.3	1.712	2.667	9.1	18.8
6 10	14 46.89	-19 44.3	1.745	2.647	12.4	21.2	6 10	14 46.55	-13 49.6	1.765	2.655	13.0	19.0
430432	1999 <i>VL</i> ₁₁₆		5 10.6 198°88	1°2/ 9.9	17		366564	2002 <i>RE</i> ₂₄₉		5 10.7 277°01	2°3/ 9.3	17	
4 1	15 37.31	-15 46.9	2.161	2.958	13.7	21.8	4 1	15 38.17	-14 35.7	1.739	2.550	15.9	22.0
4 11	15 33.25	-15 29.3	2.070	2.957	10.8	21.6	4 11	15 34.80	-14 4.9	1.630	2.525	12.8	21.7
4 21	15 27.04	-15 5.8	2.001	2.955	7.5	21.4	4 21	15 28.69	-13 26.1	1.542	2.500	8.9	21.4
5 1	15 19.20	-14 38.3	1.957	2.953	3.7	21.2	5 1	15 20.30	-12 41.9	1.479	2.474	4.7	21.1
5 11	15 10.52	-14 9.5	1.942	2.950	1.3	21.0	5 11	15 10.53	-11 56.4	1.441	2.448	2.4	20.9
5 21	15 1.87	-13 42.6	1.954	2.948	4.6	21.2	5 21	15 0.50	-11 14.6	1.430	2.421	6.3	21.1
5 31	14 54.14	-13 21.1	1.994	2.945	8.3	21.4	5 31	14 51.44	-10 41.9	1.444	2.394	10.9	21.3
6 10	14 48.04	-13 7.7	2.058	2.941	11.7	21.6	6 10	14 44.37	-10 22.7	1.481	2.367	15.2	21.5
430810	2005 <i>ES</i> ₁₀₆		5 10.7 277°26	10°9/ 1.1	17		221296	2005 <i>UT</i> ₄₇₉		5 10.7 103°58	3°0/ 8.6	18	
4 1	15 34.39	+10 3.5	2.023	2.817	14.6	20.8	4 1	15 39.04	-11 47.6	2.032	2.834	14.3	21.2
4 11	15 31.01	+11 43.8	1.954	2.809	12.8	20.7	4 11	15 34.42	-11 2.5	1.966	2.855	11.2	21.0
4 21	15 25.52	+13 14.2	1.907	2.801	11.4	20.5	4 21	15 27.68	-10 13.6	1.923	2.876	7.7	20.9
5 1	15 18.44	+14 26.8	1.884	2.793	10.9	20.5	5 1	15 19.44	-9 24.5	1.905	2.897	4.3	20.7
5 11	15 10.56	+15 14.6	1.883	2.785	11.4	20.5	5 11	15 10.58	-8 39.7	1.915	2.917	3.2	20.7
5 21	15 2.74	+15 33.8	1.906	2.777	12.9	20.6	5 21	15 1.98	-8 3.0	1.954	2.936	5.8	20.9
5 31	14 55.85	+15 23.4	1.950	2.769	14.8	20.7	5 31	14 54.48	-7 37.6	2.019	2.955	9.1	21.1
6 10	14 50.58	+14 45.7	2.011	2.761	16.7	20.8	6 10	14 48.72	-7 25.4	2.108	2.974	12.2	21.3
392795	2012 <i>TK</i> ₁₈₆		5 10.7 159°41	0°5/10.9	18		145246	2005 <i>JN</i> ₁₀₃		5 10.7 296°60	0°6/10.9	18	
4 1	15 38.68	-19 24.0	2.645	3.421	12.0	21.8	4 1	15 37.24	-20 5.7	1.507	2.321	17.8	20.3
4 11	15 33.91	-19 31.6	2.553	3.426	9.6	21.6	4 11	15 34.63	-20 6.4	1.405	2.299	14.4	20.1
4 21	15 27.28	-19 33.5	2.485	3.431	6.7	21.5	4 21	15 28.91	-19 56.4	1.321	2.277	10.3	19.7
5 1	15 19.26	-19 30.0	2.443	3.435	3.4	21.3	5 1	15 20.54	-19 35.9	1.260	2.255	5.4	19.4
5 11	15 10.54	-19 22.1	2.430	3.439	0.5	21.0	5 11	15 10.53	-19 6.6	1.223	2.233	0.6	19.0
5 21	15 1.85	-19 11.6	2.446	3.443	3.4	21.3	5 21	15 0.21	-18 32.3	1.212	2.211	5.6	19.3
5 31	14 53.96	-19 0.9	2.491	3.446	6.7	21.5	5 31	14 51.04	-17 58.8	1.225	2.190	10.9	19.5
6 10	14 47.47	-18 52.7	2.562	3.449	9.5	21.7	6 10	14 44.24	-17 32.2	1.259	2.168	15.7	19.7
120816	1998 <i>HN</i> ₄₂		5 10.7 83°24	2°0/11.5	17		67671	2000 <i>SS</i> ₂₇₅		5 10.7 207°08	2°6/ 8.9	17	
4 1	15 43.30	-21 23.2	1.831	2.617	16.2	19.5	4 1	15 38.84	-14 42.9	1.770	2.578	15.8	19.9
4 11	15 38.44	-22 1.4	1.755	2.630	13.0	19.3	4 11	15 34.96	-13 54.3	1.681	2.575	12.5	19.6
4 21	15 30.86	-22 32.1	1.699	2.644	9.3	19.1	4 21	15 28.50	-12 57.3	1.614	2.571	8.7	19.4
5 1	15 21.19	-22 53.8	1.667	2.657	5.2	18.9	5 1	15 20.05	-11 55.3	1.571	2.566	4.6	19.1
5 11	15 10.46	-23 6.3	1.663	2.670	2.0	18.7	5 11	15 10.56	-10 53.5	1.555	2.561	2.8	19.0
5 21	14 59.85	-23 10.9	1.686	2.683	4.7	18.9	5 21	15 1.12	-9 57.6	1.566	2.555	6.2	19.2
5 31	14 50.51	-23 10.5	1.736	2.696	8.6	19.1	5 31	14 52.82	-9 13.0	1.604	2.549	10.4	19.4
6 10	14 43.32	-23 9.4	1.811	2.709	12.2	19.4	6 10	14 46.51	-8 43.6	1.664	2.542	14.2	19.6
146154	2000 <i>SQ</i> ₁₅₀		5 10.7 268°42	1°4/ 9.5	18		514926	2008 <i>UT</i> ₁₄₃		5 10.7 157°22	0°3/10.3	18	
4 1	15 33.50	-16 46.8	2.334	3.134	12.7	19.8	4 1	15 31.47	-17 15.4	3.984	4.761	8.3	23.0
4 11	15 30.11	-16 4.3	2.238	3.126	10.1	19.6	4 11	15 27.60	-17 2.8	3.891	4.766	6.5	22.8
4 21	15 24.80	-15 14.0	2.164	3.119	6.9	19.4	4 21	15 22.62	-16 46.4	3.823	4.772	4.4	22.7
5 1	15 18.06	-14 18.2	2.116	3.112	3.5	19.1	5 1	15 16.84	-16 27.2	3.783	4.777	2.2	22.5
5 11	15 10.58	-13 20.8	2.097	3.105	1.5	19.0	5 11	15 10.68	-16 6.7	3.773	4.782	0.4	22.4
5 21	15 3.13	-12 25.8	2.105	3.097	4.5	19.2	5 21	15 4.56	-15 46.3	3.792	4.787	2.5	22.6
5 31	14 56.49	-11 37.4	2.141	3.090	8.0	19.4	5 31	14 58.91	-15 27.8	3.842	4.791	4.7	22.7
6 10	14 51.29	-10 59.2	2.202	3.082	11.1	19.6	6 10	14 54.10	-15 12.8	3.918	4.795	6.8	22.9
46860	1998 <i>QP</i> ₆₀		5 10.7 220°67	1°0/11.3	18		66566	1999 <i>RL</i> ₁₃₉		5 10.7 214°59	4°6/13.1	18	
4 1	15 38.83	-23 4.2	1.909	2.697	15.6	19.3	4 1	15 41.84	-29 8.9	1.742	2.513	17.5	18.8
4 11	15 34.94	-22 45.0	1.812	2.690	12.6	19.1	4 11	15 37.88	-29 38.6	1.650	2.510	14.5	18.6
4 21	15 28.49	-22 13.1	1.736	2.684	8.9	18.8	4 21	15 30.87	-29 53.9	1.576	2.506	11.0	18.4
5 1	15 20.03	-21 28.9	1.685	2.677	4.8	18.6	5 1	15 21.38	-29 51.9	1.526	2.502	7.3	18.1
5 11	15 10.51	-20 34.9	1.660	2.669	1.0	18.3	5 11	15 10.51	-29 31.5	1.500	2.498	4.7	18.0
5 21	15 1.00	-19 35.5	1.663	2.661	4.5	18.5	5 21	14 59.59	-28 54.9	1.501	2.493	5.9	18.0
5 31	14 52.59	-18 36.6	1.692	2.653	8.8	18.8	5 31	14 49.97	-28 7.5	1.527	2.488	9.5	18.2
6 10	14 46.15	-17 44.0	1.746	2.644	12.7	19.0	6 10	14 42.73	-27 16.8	1.577	2.483	13.3	18.4
156344	2001 <i>XT</i> ₁₆₅		5 10.7 39°02	3°7/13.3	18		470211	2006 <i>VE</i> ₁₇₃					

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
156273	2001 <i>VU</i> ₇₀		5 10.7 185°44	0°7/10.1	18		307075	2002 <i>AF</i> ₅₀		5 10.7 221°25	1°4/11.7	17	
4 1	15 38.66	-17 57.8	2.465	3.248	12.6	21.2	4 1	15 39.39	-23 44.8	2.343	3.114	13.5	21.4
4 11	15 34.02	-17 28.0	2.370	3.248	10.0	21.0	4 11	15 34.94	-23 37.2	2.237	3.104	10.9	21.2
4 21	15 27.42	-16 50.7	2.298	3.248	6.9	20.8	4 21	15 28.29	-23 19.2	2.152	3.093	7.8	21.0
5 1	15 19.38	-16 7.5	2.252	3.246	3.4	20.6	5 1	15 19.91	-22 50.9	2.093	3.082	4.4	20.7
5 11	15 10.60	-15 21.4	2.235	3.244	0.8	20.3	5 11	15 10.60	-22 13.4	2.062	3.070	1.4	20.5
5 21	15 1.89	-14 35.8	2.248	3.242	4.1	20.6	5 21	15 1.24	-21 29.8	2.059	3.057	3.9	20.7
5 31	14 54.02	-13 54.5	2.289	3.238	7.5	20.8	5 31	14 52.76	-20 44.2	2.085	3.044	7.5	20.9
6 10	14 47.64	-13 20.9	2.356	3.234	10.6	21.0	6 10	14 45.90	-20 1.3	2.137	3.030	10.9	21.0
232526	2003 <i>SV</i> ₁₃		5 10.7 213°11	2°8/ 8.7	18		514696	2006 <i>DA</i> ₁₃₄		5 10.7 280°18	2°4/ 7.4	18	
4 1	15 36.17	-12 5.7	2.118	2.924	13.6	20.7	4 1	15 27.34	- 6 40.6	4.409	5.203	7.3	21.2
4 11	15 32.37	-11 27.6	2.029	2.921	10.8	20.5	4 11	15 24.31	- 6 12.7	4.313	5.196	5.7	21.1
4 21	15 26.45	-10 45.1	1.962	2.918	7.5	20.3	4 21	15 20.35	- 5 44.9	4.243	5.190	4.1	21.0
5 1	15 18.94	-10 1.3	1.921	2.914	4.2	20.1	5 1	15 15.72	- 5 18.8	4.200	5.183	2.7	20.9
5 11	15 10.62	- 9 20.2	1.908	2.910	3.0	20.0	5 11	15 10.75	- 4 56.3	4.187	5.176	2.5	20.9
5 21	15 2.34	- 8 45.6	1.922	2.906	5.7	20.2	5 21	15 5.81	- 4 39.0	4.202	5.169	3.7	20.9
5 31	14 54.97	- 8 21.2	1.962	2.902	9.1	20.4	5 31	15 1.22	- 4 28.0	4.246	5.162	5.3	21.0
6 10	14 49.20	- 8 9.1	2.027	2.898	12.4	20.6	6 10	14 57.30	- 4 24.1	4.315	5.156	6.9	21.2
308706	2006 <i>FP</i> ₄₉		5 10.7 15°12	1°6/10.7	16		282568	2004 <i>YJ</i> ₁₄		5 10.7 137°53	1°9/ 9.4	18	
4 1	15 54.52	- 5 43.5	1.073	1.894	23.0	19.0	4 1	15 37.24	-13 59.2	2.094	2.896	13.9	21.1
4 11	15 49.30	- 7 35.5	1.001	1.898	18.7	18.8	4 11	15 33.20	-13 37.0	2.011	2.901	11.0	20.9
4 21	15 39.61	- 9 45.5	0.947	1.904	13.2	18.4	4 21	15 27.01	-13 10.0	1.950	2.905	7.5	20.7
5 1	15 29.10	-12 11.0	0.915	1.910	6.9	18.1	5 1	15 19.22	-12 40.5	1.914	2.909	3.9	20.5
5 11	15 10.36	-14 45.0	0.909	1.919	1.7	17.8	5 11	15 10.63	-12 11.9	1.906	2.913	2.0	20.4
5 21	14 54.54	-17 17.4	0.930	1.928	7.2	18.2	5 21	15 2.14	-11 47.2	1.926	2.916	5.0	20.6
5 31	14 40.83	-19 40.5	0.976	1.939	13.3	18.6	5 31	14 54.61	-11 29.8	1.972	2.920	8.6	20.8
6 10	14 30.81	-21 51.4	1.044	1.950	18.5	18.9	6 10	14 48.75	-11 22.0	2.043	2.923	11.9	21.0
470089	2006 <i>SU</i> ₃₉₇		5 10.7 174°65	0°5/10.2	17		426533	2013 <i>RS</i> ₆₆		5 10.7 183°21	0°2/10.5	17	
4 1	15 35.56	-17 29.2	2.770	3.554	11.3	22.8	4 1	15 38.85	-19 26.3	2.183	2.969	13.9	22.8
4 11	15 31.36	-17 10.3	2.677	3.556	8.9	22.6	4 11	15 34.48	-19 5.0	2.090	2.970	11.1	22.6
4 21	15 25.48	-16 45.7	2.607	3.557	6.1	22.4	4 21	15 27.91	-18 35.0	2.020	2.970	7.7	22.3
5 1	15 18.37	-16 16.7	2.564	3.559	3.1	22.2	5 1	15 19.69	-17 57.5	1.975	2.970	3.9	22.1
5 11	15 10.64	-15 45.5	2.550	3.560	0.6	22.0	5 11	15 10.62	-17 15.3	1.959	2.969	0.2	21.8
5 21	15 2.98	-15 14.7	2.566	3.560	3.6	22.2	5 21	15 1.61	-16 32.0	1.971	2.967	4.2	22.1
5 31	14 56.03	-14 47.0	2.610	3.560	6.6	22.4	5 31	14 53.56	-15 51.8	2.010	2.965	8.0	22.3
6 10	14 50.34	-14 25.2	2.679	3.560	9.4	22.6	6 10	14 47.20	-15 18.6	2.075	2.962	11.4	22.5
350681	2001 <i>UO</i> ₁₇₂		5 10.7 143°32	0°7/10.1	17		352488	2008 <i>BS</i> ₅₃		5 10.7 189°58	4°2/14.3	18	
4 1	15 36.06	-16 54.3	2.892	3.674	11.0	22.7	4 1	15 38.82	-33 37.7	2.968	3.687	12.0	22.1
4 11	15 31.59	-16 34.3	2.807	3.685	8.6	22.6	4 11	15 34.13	-33 58.6	2.865	3.686	10.1	22.0
4 21	15 25.54	-16 9.2	2.745	3.695	5.9	22.4	4 21	15 27.52	-34 7.8	2.783	3.684	8.0	21.8
5 1	15 18.36	-15 40.4	2.711	3.705	2.9	22.2	5 1	15 19.46	-34 3.6	2.727	3.682	5.8	21.7
5 11	15 10.65	-15 10.1	2.706	3.715	0.7	22.0	5 11	15 10.63	-33 45.6	2.698	3.680	4.3	21.6
5 21	15 3.04	-14 40.7	2.730	3.724	3.5	22.3	5 21	15 1.79	-33 15.2	2.697	3.677	4.7	21.6
5 31	14 56.15	-14 14.8	2.784	3.732	6.4	22.5	5 31	14 53.73	-32 35.3	2.725	3.673	6.5	21.7
6 10	14 50.48	-13 54.7	2.863	3.741	9.0	22.7	6 10	14 47.10	-31 50.2	2.780	3.669	8.8	21.8
402131	2004 <i>LB</i> ₃₀		5 10.7 313°03	7°6/ 6.9	17		372595	2009 <i>UW</i> ₁₃₉		5 10.7 167°83	5°6/ 6.6	17	
4 1	15 35.33	- 5 34.5	1.215	2.060	19.4	21.2	4 1	15 38.28	- 2 29.5	2.298	3.096	13.0	21.4
4 11	15 33.38	- 4 33.5	1.134	2.045	15.8	20.9	4 11	15 33.69	- 1 38.8	2.220	3.100	10.5	21.3
4 21	15 28.12	- 3 30.6	1.072	2.030	11.8	20.6	4 21	15 27.18	- 0 50.3	2.165	3.104	7.9	21.1
5 1	15 20.13	- 2 34.1	1.030	2.016	8.4	20.4	5 1	15 19.25	+ 0 8.6	2.136	3.108	6.0	21.0
5 11	15 10.58	- 1 52.8	1.011	2.002	8.0	20.3	5 11	15 10.64	+ 0 22.1	2.135	3.110	5.8	21.0
5 21	15 0.90	- 1 34.1	1.014	1.988	11.2	20.4	5 21	15 2.14	+ 0 38.5	2.161	3.112	7.6	21.1
5 31	14 52.62	- 1 42.3	1.039	1.975	15.6	20.6	5 31	14 54.52	+ 0 38.9	2.213	3.114	10.2	21.2
6 10	14 46.92	- 2 17.4	1.081	1.963	19.9	20.8	6 10	14 48.40	+ 0 23.3	2.288	3.115	12.7	21.4
106123	2000 <i>TK</i> ₃₅		5 10.7 65°52	0°9/11.3	18		292495	2006 <i>SP</i> ₄₁₃		5 10.7 203°49	1°4/11.8	18	
4 1	15 36.59	-21 2.3	2.249	3.036	13.6	20.0	4 1	15 35.56	-24 28.4	2.424	3.198	13.0	20.7
4 11	15 32.64	-21 8.0	2.165	3.043	10.8	19.8	4 11	15 31.76	-24 13.2	2.327	3.196	10.5	20.5
4 21	15 26.60	-21 5.9	2.102	3.050	7.6	19.6	4 21	15 25.97	-23 47.1	2.252	3.194	7.5	20.3
5 1	15 19.00	-20 56.4	2.065	3.057	4.0	19.4	5 1	15 18.69	-23 10.6	2.203	3.192	4.2	20.1
5 11	15 10.63	-20 40.9	2.055	3.064	0.9	19.1	5 11	15 10.66	-22 25.7	2.182	3.190	1.4	19.9
5 21	15 2.33	-20 21.6	2.073	3.071	3.8	19.4	5 21	15 2.68	-21 35.5	2.189	3.187	3.6	20.1
5 31	14 54.95	-20 1.7	2.119	3.078	7.3	19.6	5 31	14 55.55	-20 44.2	2.225	3.185	7.0	20.3
6 10	14 49.19	-19 44.7	2.189	3.086	10.5	19.8	6 10	14 49.94	-19 56.3	2.285	3.182	10.1	20.5
39319	2001 <i>VT</i> ₃₅		5 10.7 131°04	0°1/10.6	18	R	338931	2004 <i>EU</i> ₄₁		5 10.7 56°48	4°2/13.2	18	
4 1	15 35.95	-18 45.0	2.499	3.285	12.4	19.6	4 1	15 39.74	-28 58.4	2.139	2.898	15.0	20.1
4 11	15 31.84	-18 32.2	2.412	3.292	9.8	19.4	4 11	15 35.55	-29 39.1	2.049	2.901	12.4	19.9
4 21	15 25.90	-18 12.8	2.349	3.299	6.7	19.3	4 21	15 28.88	-30 8.6	1.980	2.904	9.4	19.7
5 1	15 18.60	-17 47.9	2.311	3.305	3.4	19.0	5 1	15 20.27	-30 24.3	1.935	2.908	6.4	19.5
5 11	15 10.65	-17 19.7	2.302	3.312	0.2	18.8	5 11	15 10.60	-30 25.5	1.917	2.911	4.3	19.4
5 21	15 2.78	-16 50.8	2.321	3.318	3.7	19.1	5 21	15 0.92	-30 13.3	1.926	2.914	5.2	19.5
5 31	14 55.73	-16 24.3	2.369	3.324	7.0	19.3	5 31	14 52.28	-29 51.0	1.961	2.918	8.1	19.7
6 10	14 50.10	-16 3.2	2.442	3.329	9.9	19.5	6 10	14 45.53	-29 23.7	2.022	2.921	11.1	19.8
478171	2011 <i>UR</i> ₁₈₂		5 10.7 255°14	1°9/11.9	16		284090	2005 <i>LR</i> ₃					

EPHEMERIDES

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5 10.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
185511	2007 <i>TR</i> ₄₁₄		5 10.7 252°60		2°0/ 9.5 17		364780	2007 <i>YL</i> ₇₁		5 10.7 107°88		5°0/ 6.1 17	
4 1	15 39.32	-15 25.0	1.721	2.529	16.2	20.7	4 1	15 34.97	-2 2.0	2.764	3.559	11.1	22.0
4 11	15 35.65	-14 54.3	1.620	2.514	12.9	20.4	4 11	15 30.64	-1 3.8	2.703	3.580	8.9	21.8
4 21	15 29.22	-14 15.2	1.541	2.498	9.0	20.1	4 21	15 24.83	-0 8.2	2.665	3.601	6.8	21.7
5 1	15 20.55	-13 30.2	1.486	2.481	4.6	19.8	5 1	15 17.99	+0 40.9	2.654	3.621	5.3	21.6
5 11	15 10.59	-12 43.4	1.457	2.464	2.1	19.6	5 11	15 10.71	+1 19.8	2.672	3.641	5.2	21.7
5 21	15 0.49	-11 59.8	1.454	2.447	6.1	19.8	5 21	15 3.62	+1 46.1	2.717	3.660	6.7	21.8
5 31	14 51.47	-11 24.8	1.478	2.429	10.7	20.0	5 31	14 57.27	+1 58.1	2.789	3.679	8.7	21.9
6 10	14 44.52	-11 2.6	1.524	2.410	14.8	20.3	6 10	14 52.13	+1 56.0	2.885	3.697	10.7	22.1
522733	2016 <i>LO</i> ₆₃		5 10.7 171°87		1°0/11.6 17		203913	2003 <i>MC</i> ₁		5 10.7 284°67		4°1/13.5 18	
4 1	15 34.80	-24 45.2	2.514	3.286	12.7	21.3	4 1	15 37.20	-30 57.2	1.958	2.721	16.1	19.9
4 11	15 31.02	-24 10.2	2.418	3.287	10.2	21.2	4 11	15 34.01	-30 55.8	1.844	2.699	13.5	19.7
4 21	15 25.36	-23 23.4	2.346	3.288	7.2	21.0	4 21	15 28.12	-30 37.3	1.750	2.677	10.3	19.4
5 1	15 18.35	-22 25.9	2.299	3.289	3.9	20.8	5 1	15 20.02	-29 59.3	1.679	2.654	6.9	19.2
5 11	15 10.67	-21 20.4	2.281	3.290	1.1	20.5	5 11	15 10.64	-29 2.2	1.634	2.632	4.3	18.9
5 21	15 3.10	-20 10.8	2.292	3.290	3.5	20.7	5 21	15 1.10	-27 49.0	1.615	2.609	5.3	19.0
5 31	14 56.38	-19 1.9	2.331	3.290	6.8	20.9	5 31	14 52.60	-26 26.0	1.623	2.586	8.9	19.1
6 10	14 51.10	-17 58.4	2.397	3.291	9.8	21.1	6 10	14 46.14	-25 1.4	1.655	2.563	12.7	19.3
501829	2014 <i>WV</i> ₁₀₇		5 10.7 274°12		2°3/11.7 17		145820	Valeromeo		5 10.7 263°80		0°4/10.9 18	
4 1	15 40.90	-23 29.0	1.568	2.365	18.0	22.1	4 1	15 39.78	-19 48.6	1.843	2.638	15.8	20.5
4 11	15 37.62	-23 44.0	1.461	2.342	14.8	21.8	4 11	15 35.99	-19 47.8	1.736	2.619	12.7	20.2
4 21	15 31.08	-23 47.2	1.372	2.319	10.8	21.5	4 21	15 29.48	-19 38.2	1.649	2.600	9.0	20.0
5 1	15 21.71	-23 36.9	1.305	2.295	6.2	21.2	5 1	15 20.72	-19 19.9	1.587	2.581	4.7	19.7
5 11	15 10.55	-23 13.0	1.264	2.271	2.4	20.9	5 11	15 10.62	-18 54.5	1.551	2.561	0.4	19.3
5 21	14 58.97	-22 38.0	1.248	2.247	5.6	21.0	5 21	15 0.30	-18 25.1	1.542	2.541	4.9	19.6
5 31	14 48.55	-21 57.5	1.257	2.222	10.7	21.2	5 31	14 50.98	-17 56.2	1.560	2.520	9.5	19.8
6 10	14 40.58	-21 18.9	1.288	2.197	15.5	21.4	6 10	14 43.65	-17 32.8	1.601	2.499	13.6	20.0
392277	2010 <i>AM</i> ₈₁		5 10.7 222°07		3°2/ 8.7 18		229530	2005 <i>X7</i> ₆₅		5 10.7 220°84		7°0/16.9 17	
4 1	15 37.06	-10 19.2	2.011	2.819	14.2	20.8	4 1	15 42.45	-41 43.9	2.180	2.876	16.5	20.5
4 11	15 33.19	-9 51.4	1.925	2.817	11.2	20.6	4 11	15 37.97	-41 40.7	2.075	2.869	14.4	20.3
4 21	15 27.09	-9 21.0	1.860	2.815	7.9	20.4	4 21	15 30.64	-41 14.9	1.988	2.863	11.9	20.1
5 1	15 19.30	-8 51.4	1.821	2.813	4.5	20.1	5 1	15 21.16	-40 22.7	1.923	2.856	9.3	19.9
5 11	15 10.64	-8 26.1	1.809	2.810	3.4	20.1	5 11	15 10.61	-39 3.4	1.883	2.848	7.4	19.8
5 21	15 2.03	-8 8.6	1.824	2.808	6.1	20.2	5 21	15 0.24	-37 19.8	1.870	2.840	7.2	19.8
5 31	14 54.38	-8 1.8	1.866	2.805	9.6	20.4	5 31	14 51.23	-35 19.2	1.885	2.832	9.0	19.8
6 10	14 48.41	-8 7.2	1.930	2.802	12.8	20.6	6 10	14 44.48	-33 11.4	1.925	2.823	11.7	20.0
427464	2001 <i>UK</i> ₅₇		5 10.7 164°66		2°3/12.2 15		11038	1989 <i>EE</i> ₁		5 10.7 16°80		4°6/12.4 18	
4 1	15 42.43	-25 6.7	2.358	3.117	13.8	23.0	4 1	15 38.93	-24 46.0	1.137	1.960	21.9	16.7
4 11	15 37.25	-25 23.8	2.265	3.123	11.2	22.8	4 11	15 36.80	-25 44.1	1.069	1.963	18.0	16.4
4 21	15 29.81	-25 31.4	2.195	3.129	8.1	22.7	4 21	15 30.78	-26 29.2	1.018	1.968	13.3	16.2
5 1	15 20.65	-25 28.4	2.150	3.133	4.8	22.5	5 1	15 21.57	-26 57.3	0.986	1.973	8.2	15.9
5 11	15 10.60	-25 15.3	2.133	3.137	2.4	22.3	5 11	15 10.61	-27 6.5	0.976	1.980	4.7	15.7
5 21	15 0.60	-24 53.7	2.146	3.141	4.1	22.4	5 21	14 59.70	-26 58.5	0.989	1.987	6.9	15.9
5 31	14 51.56	-24 27.3	2.186	3.143	7.3	22.6	5 31	14 50.68	-26 39.2	1.025	1.996	11.7	16.2
6 10	14 44.25	-24 0.2	2.253	3.145	10.4	22.8	6 10	14 44.83	-26 16.9	1.080	2.005	16.4	16.5
273937	2007 <i>JY</i> ₁₇		5 10.7 266°60		6°8/ 5.5 17		147480	2004 <i>CA</i> ₃₅		5 10.7 252°29		4°8/ 7.6 18	
4 1	15 34.82	-3 1.6	1.926	2.742	14.4	21.0	4 1	15 40.35	-7 0.7	2.023	2.825	14.3	20.5
4 11	15 31.51	-1 43.7	1.842	2.733	11.7	20.8	4 11	15 35.99	-6 16.8	1.916	2.803	11.6	20.3
4 21	15 25.98	-0 25.8	1.780	2.724	9.0	20.6	4 21	15 29.23	-5 30.8	1.832	2.780	8.4	20.0
5 1	15 18.76	+0 45.7	1.743	2.714	7.1	20.5	5 1	15 20.51	-4 47.0	1.772	2.756	5.6	19.8
5 11	15 10.66	+1 44.1	1.732	2.705	7.2	20.5	5 11	15 10.65	-4 10.3	1.740	2.732	5.0	19.7
5 21	15 2.59	+2 24.2	1.747	2.696	9.3	20.6	5 21	15 0.61	-3 45.2	1.735	2.706	7.6	19.8
5 31	14 55.46	+2 42.8	1.786	2.686	12.2	20.7	5 31	14 51.41	-3 35.2	1.757	2.680	11.1	20.0
6 10	14 50.00	+2 39.3	1.847	2.677	15.1	20.9	6 10	14 43.93	-3 41.9	1.802	2.653	14.5	20.1
507575	2013 <i>AM</i> ₁₂₆		5 10.7 160°07		2°7/13.0 17		29885	1999 <i>GN</i> ₃₁		5 10.7 357°84		0°3/10.5 18	
4 1	15 36.75	-28 37.4	2.695	3.446	12.4	22.0	4 1	15 35.88	-18 5.8	2.150	2.947	13.8	18.8
4 11	15 32.51	-28 36.4	2.601	3.451	10.2	21.8	4 11	15 32.20	-17 56.2	2.061	2.946	10.9	18.6
4 21	15 26.39	-28 24.3	2.528	3.454	7.6	21.6	4 21	15 26.39	-17 39.6	1.993	2.946	7.5	18.4
5 1	15 18.88	-28 0.5	2.481	3.458	4.8	21.5	5 1	15 18.96	-17 17.2	1.951	2.946	3.8	18.2
5 11	15 10.67	-27 25.8	2.461	3.461	2.8	21.3	5 11	15 10.70	-16 51.5	1.936	2.946	0.4	17.9
5 21	15 2.54	-26 42.7	2.470	3.464	3.8	21.4	5 21	15 2.49	-16 25.4	1.949	2.946	4.2	18.2
5 31	14 55.24	-25 54.8	2.508	3.467	6.4	21.6	5 31	14 55.19	-16 2.3	1.989	2.946	7.9	18.4
6 10	14 49.38	-25 6.5	2.572	3.469	9.1	21.8	6 10	14 49.51	-15 45.4	2.054	2.946	11.3	18.6
426600	2013 <i>SK</i> ₃₈		5 10.7 112°74		3°1/12.4 15		222656	2001 <i>XZ</i> ₁₈₇		5 10.7 179°33		1°8/ 9.3 18	
4 1	15 43.36	-25 56.8	2.102	2.865	15.1	21.6	4 1	15 38.63	-14 14.4	2.414	3.204	12.6	21.4
4 11	15 38.22	-26 29.9	2.022	2.881	12.3	21.5	4 11	15 34.01	-13 43.4	2.323	3.206	10.0	21.2
4 21	15 30.58	-26 52.7	1.963	2.896	9.0	21.3	4 21	15 27.44	-13 7.3	2.255	3.207	6.9	21.0
5 1	15 21.06	-27 3.5	1.930	2.911	5.6	21.1	5 1	15 19.43	-12 28.4	2.214	3.208	3.6	20.8
5 11	15 10.60	-27 2.0	1.923	2.925	3.2	21.0	5 11	15 10.70	-11 49.8	2.201	3.208	1.9	20.7
5 21	15 0.26	-26 49.8	1.945	2.939	4.6	21.1	5 21	15 2.03	-11 14.8	2.218	3.207	4.7	20.9
5 31	14 51.07	-26 30.5	1.995	2.952	7.9	21.3	5 31	14 54.21	-10 46.7	2.263	3.205	8.0	21.1
6 10	14 43.85	-26 8.9	2.069	2.965	11.1	21.5	6 10	14 47.88	-10 28.0	2.333	3.203	11.0	21.3
287638	2003 <i>HP</i> ₅₈		5 10.7 259°86		2°8/12.4 18		331327	2011 <i>YZ</i> ₄₄		5 10.7 194°11		2°9/ 8.9	

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
479165	2013 <i>CY</i> ₂₄		5 10.7 235°92	4°0/ 7.2 16			499416	2010 <i>CE</i> ₅₆		5 10.7 58°37	3°1/12.9 17		
4 1	15 33.54	- 7 6.2	2.562	3.366	11.6	21.4	4 1	15 37.91	-28 18.2	1.770	2.549	16.9	20.6
4 11	15 29.90	- 6 17.0	2.471	3.359	9.2	21.2	4 11	15 34.27	-28 10.0	1.700	2.568	13.8	20.4
4 21	15 24.57	- 5 26.6	2.404	3.353	6.7	21.0	4 21	15 27.98	-27 45.5	1.650	2.587	10.1	20.2
5 1	15 17.98	- 4 38.5	2.363	3.346	4.5	20.9	5 1	15 19.78	-27 4.4	1.623	2.606	6.2	20.0
5 11	15 10.75	- 3 56.6	2.350	3.339	4.2	20.8	5 11	15 10.73	-26 9.1	1.622	2.626	3.2	19.9
5 21	15 3.54	- 3 24.4	2.365	3.332	6.1	21.0	5 21	15 1.99	-25 4.5	1.648	2.645	4.7	20.0
5 31	14 57.03	- 3 4.3	2.407	3.325	8.7	21.1	5 31	14 54.61	-23 56.9	1.700	2.665	8.4	20.3
6 10	14 51.79	- 2 57.7	2.472	3.317	11.3	21.3	6 10	14 49.34	-22 53.3	1.776	2.685	11.9	20.5
11284	Belenus		5 10.7 64°67	2°8/11.8 16 R			410387	2007 <i>VC</i> ₂₈₇		5 10.7 167°27	3°3/ 8.9 17		
4 1	16 0.08	-24 58.3	0.704	1.539	30.6	19.7	4 1	15 41.37	-10 45.0	1.745	2.553	16.0	21.2
4 11	15 53.59	-24 59.2	0.683	1.585	24.2	19.5	4 11	15 36.94	-10 22.2	1.664	2.556	12.7	21.0
4 21	15 41.77	-24 36.0	0.675	1.632	16.9	19.3	4 21	15 29.88	- 9 56.8	1.604	2.559	8.9	20.8
5 1	15 26.47	-23 48.1	0.684	1.678	9.1	19.1	5 1	15 20.80	- 9 31.8	1.568	2.561	5.0	20.5
5 11	15 10.49	-22 41.7	0.714	1.723	2.8	18.9	5 11	15 10.70	- 9 11.2	1.560	2.563	3.4	20.4
5 21	14 56.48	-21 28.6	0.765	1.766	7.4	19.4	5 21	15 0.69	- 8 58.6	1.578	2.564	6.5	20.6
5 31	14 46.27	-20 22.0	0.838	1.809	13.6	19.9	5 31	14 51.87	- 8 56.9	1.622	2.565	10.5	20.9
6 10	14 40.54	-19 31.3	0.929	1.850	18.7	20.3	6 10	14 45.10	- 9 7.8	1.689	2.565	14.1	21.1
280376	2003 <i>UF</i> ₄₆		5 10.7 166°66	2°7/ 8.3 18			462831	2010 <i>TQ</i> ₃₁		5 10.7 69°07	3°5/12.4 17		
4 1	15 35.81	-12 45.0	2.444	3.241	12.3	21.5	4 1	15 41.71	-25 26.7	1.530	2.323	18.6	21.3
4 11	15 31.71	-11 46.5	2.358	3.245	9.7	21.4	4 11	15 37.89	-25 58.3	1.456	2.332	15.2	21.1
4 21	15 25.80	-10 42.8	2.296	3.249	6.7	21.2	4 21	15 30.90	-26 17.1	1.400	2.342	11.1	20.9
5 1	15 18.58	- 9 37.2	2.260	3.252	3.8	21.0	5 1	15 21.43	-26 20.7	1.366	2.352	6.7	20.6
5 11	15 10.73	- 8 34.0	2.254	3.255	2.9	20.9	5 11	15 10.68	-26 9.2	1.358	2.362	3.5	20.5
5 21	15 2.99	- 7 37.5	2.276	3.257	5.3	21.1	5 21	15 0.07	-25 45.2	1.375	2.372	5.6	20.6
5 31	14 56.08	- 6 51.4	2.327	3.259	8.3	21.3	5 31	14 50.98	-25 14.0	1.417	2.382	9.7	20.9
6 10	14 50.55	- 6 18.1	2.401	3.260	11.1	21.5	6 10	14 44.43	-24 42.5	1.482	2.392	13.7	21.1
25124	Zahramaarouf		5 10.7 204°14	2°2/ 9.1 18			498330	2007 <i>VB</i> ₂₁₃		5 10.7 247°73	2°0/ 9.5 17		
4 1	15 36.59	-13 9.5	2.287	3.086	13.0	19.6	4 1	15 39.28	-15 27.3	1.719	2.528	16.2	22.5
4 11	15 32.56	-12 39.8	2.195	3.083	10.2	19.4	4 11	15 35.60	-14 56.1	1.621	2.515	12.9	22.2
4 21	15 26.54	-12 5.6	2.126	3.080	7.1	19.2	4 21	15 29.19	-14 16.6	1.544	2.501	9.0	21.9
5 1	15 19.02	-11 29.4	2.083	3.076	3.8	19.0	5 1	15 20.57	-13 31.2	1.492	2.487	4.6	21.6
5 11	15 10.72	-10 54.5	2.067	3.072	2.3	18.9	5 11	15 10.71	-12 44.1	1.465	2.473	2.1	21.4
5 21	15 2.46	-10 24.3	2.081	3.068	5.0	19.0	5 21	15 0.74	-12 0.4	1.465	2.458	6.0	21.7
5 31	14 55.04	- 9 20.0	2.121	3.064	8.4	19.2	5 31	14 51.86	-11 25.4	1.491	2.442	10.6	21.9
6 10	14 49.12	- 9 49.9	2.186	3.059	11.5	19.4	6 10	14 45.05	-11 3.2	1.540	2.427	14.7	22.1
308860	2006 <i>SJ</i> ₁		5 10.7 121°76	0°1/10.6 18			427728	2004 <i>PJ</i> ₁₂		5 10.7 279°72	4°1/12.9 18		
4 1	15 36.27	-19 16.2	2.595	3.377	12.1	21.5	4 1	15 38.96	-28 23.8	1.847	2.621	16.5	21.1
4 11	15 31.98	-18 57.5	2.513	3.390	9.5	21.4	4 11	15 35.56	-28 48.2	1.743	2.605	13.7	20.9
4 21	15 25.94	-18 31.9	2.454	3.403	6.6	21.2	4 21	15 29.31	-28 59.3	1.657	2.589	10.4	20.6
5 1	15 18.63	-18 0.6	2.421	3.415	3.3	21.0	5 1	15 20.70	-28 54.5	1.595	2.573	6.8	20.4
5 11	15 10.74	-17 26.0	2.417	3.427	0.2	20.7	5 11	15 10.70	-28 33.2	1.558	2.557	4.2	20.2
5 21	15 2.97	-16 50.8	2.442	3.438	3.5	21.1	5 21	15 0.50	-27 57.2	1.547	2.541	5.5	20.2
5 31	14 56.03	-16 18.2	2.496	3.450	6.7	21.3	5 31	14 51.38	-27 11.3	1.562	2.525	9.2	20.4
6 10	14 50.46	-15 51.1	2.575	3.461	9.5	21.5	6 10	14 44.40	-26 22.4	1.601	2.508	13.1	20.6
139253	2001 <i>HR</i> ₃₉		5 10.7 248°88	0°3/10.8 18			97301	1999 <i>XN</i> ₁₈₆		5 10.7 153°40	1°5/11.7 18		
4 1	15 40.86	-18 43.3	1.801	2.598	16.0	20.2	4 1	15 39.31	-23 5.7	2.360	3.132	13.4	20.6
4 11	15 36.82	-18 51.3	1.702	2.587	12.9	20.0	4 11	15 34.74	-23 10.0	2.270	3.138	10.8	20.4
4 21	15 30.03	-18 52.2	1.624	2.576	9.0	19.7	4 21	15 28.06	-23 5.4	2.203	3.144	7.7	20.3
5 1	15 20.99	-18 46.0	1.570	2.564	4.7	19.4	5 1	15 19.80	-22 51.8	2.161	3.150	4.3	20.0
5 11	15 10.66	-18 34.1	1.542	2.552	0.3	19.1	5 11	15 10.74	-22 30.3	2.147	3.155	1.5	19.9
5 21	15 0.19	-18 19.1	1.542	2.540	4.9	19.4	5 21	15 1.75	-22 3.3	2.162	3.159	3.8	20.0
5 31	14 50.79	-18 4.7	1.568	2.528	9.4	19.6	5 31	14 53.69	-21 34.3	2.205	3.164	7.2	20.2
6 10	14 43.45	-17 55.1	1.618	2.515	13.5	19.8	6 10	14 47.24	-21 7.2	2.273	3.167	10.3	20.4
447829	2007 <i>TV</i> ₃₇₃		5 10.7 229°18	0°1/10.8 18			409233	2004 <i>BG</i> ₆₁		5 10.7 157°23	0°1/10.6 16		
4 1	15 31.67	-19 13.8	4.043	4.813	8.3	22.3	4 1	15 41.04	-19 31.7	2.088	2.873	14.5	22.7
4 11	15 27.86	-19 4.3	3.931	4.802	6.5	22.2	4 11	15 36.26	-19 12.2	2.003	2.881	11.5	22.5
4 21	15 22.89	-18 50.4	3.844	4.790	4.5	22.0	4 21	15 29.17	-18 43.9	1.939	2.888	8.0	22.3
5 1	15 17.07	-18 32.7	3.785	4.778	2.3	21.8	5 1	15 20.37	-18 8.0	1.901	2.895	4.0	22.1
5 11	15 10.80	-18 12.4	3.755	4.765	0.1	21.6	5 11	15 10.72	-17 27.2	1.891	2.901	0.2	21.8
5 21	15 4.52	-17 51.0	3.756	4.752	2.4	21.8	5 21	15 1.21	-16 45.1	1.910	2.906	4.3	22.1
5 31	14 58.66	-17 30.3	3.786	4.739	4.7	22.0	5 31	14 52.76	-16 6.2	1.956	2.911	8.2	22.3
6 10	14 53.61	-17 12.1	3.844	4.726	6.8	22.1	6 10	14 46.13	-15 34.5	2.027	2.914	11.7	22.6
386960	2011 <i>SL</i> ₂₂₂		5 10.7 321°12	3°6/12.9 16			138131	2000 <i>ES</i> ₂₀		5 10.7 142°12	7°5/ 3.9 18		
4 1	15 35.26	-28 11.1	1.976	2.753	15.5	20.6	4 1	15 39.30	+ 2 6.6	2.348	3.138	13.0	21.2
4 11	15 32.30	-28 26.7	1.876	2.741	12.8	20.4	4 11	15 34.34	+ 3 46.8	2.287	3.154	10.7	21.1
4 21	15 26.82	-28 29.1	1.796	2.730	9.6	20.2	4 21	15 27.53	+ 5 22.6	2.250	3.169	8.7	21.0
5 1	15 19.34	-28 16.8	1.739	2.719	6.2	20.0	5 1	15 19.43	+ 6 47.6	2.240	3.183	7.6	20.9
5 11	15 10.73	-27 49.8	1.708	2.708	3.7	19.8	5 11	15 10.76	+ 7 55.8	2.257	3.197	7.9	21.0
5 21	15 2.03	-27 10.6	1.703	2.698	5.0	19.8	5 21	15 2.29	+ 8 43.5	2.301	3.209	9.4	21.1
5 31	14 54.35	-26 23.9	1.725	2.688	8.4	20.0	5 31	14 54.76	+ 9 8.7	2.370	3.220	11.5	21.2
6 10	14 48.57	-25 35.7	1.770	2.679	11.9	20.2	6 10	14 48.71	+ 9 12.4	2.461	3.231	13.5	21.4
267366	2001 <i>XX</i> ₇₆		5 10.7 183°45	1°8/ 9.5 18			438043	2004 <i>LW</i> ₅		5 10.7 63°69	22°1		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
388	Charybdis		5 10.7 270°87	2°8/12.5	18		350469	1998 TO ₃₆		5 10.7 283°23	1°6/ 9.5	17	
4 1	15 37.32	-26 13.7	2.263	3.033	14.0	13.6	4 1	15 36.39	-17 0.8	2.140	2.937	13.8	21.5
4 11	15 33.49	-26 30.6	2.164	3.027	11.4	13.4	4 11	15 32.90	-16 16.5	2.018	2.906	11.0	21.2
4 21	15 27.41	-26 37.2	2.085	3.020	8.4	13.2	4 21	15 27.13	-15 22.1	1.919	2.873	7.7	21.0
5 1	15 19.56	-26 32.3	2.031	3.014	5.2	13.0	5 1	15 19.51	-14 19.5	1.845	2.841	3.9	20.7
5 11	15 10.75	-26 16.3	2.004	3.007	2.8	12.8	5 11	15 10.77	-13 12.7	1.800	2.807	1.7	20.4
5 21	15 1.89	-25 51.1	2.005	3.001	4.3	12.9	5 21	15 1.81	-12 6.7	1.782	2.774	5.2	20.6
5 31	14 53.92	-25 20.2	2.033	2.994	7.5	13.1	5 31	14 53.61	-11 7.0	1.792	2.739	9.3	20.8
6 10	14 47.63	-24 48.2	2.086	2.988	10.7	13.3	6 10	14 47.01	-10 18.5	1.825	2.705	13.1	20.9
187451	2005 WO ₁₆₅		5 10.7 333°30	1°1/ 9.9	18		389208	2009 DO ₂₄		5 10.7 322°10	6°1/ 6.0	18	
4 1	15 33.58	-15 50.7	2.003	2.813	14.2	20.1	4 1	15 33.09	- 3 56.5	2.014	2.831	13.8	20.7
4 11	15 30.64	-15 37.9	1.909	2.803	11.2	19.8	4 11	15 30.05	- 2 49.1	1.932	2.824	11.2	20.5
4 21	15 25.48	-15 19.2	1.836	2.793	7.8	19.6	4 21	15 24.94	- 1 41.8	1.872	2.818	8.4	20.3
5 1	15 18.60	-14 56.3	1.788	2.784	3.9	19.3	5 1	15 18.28	- 0 40.3	1.837	2.812	6.4	20.2
5 11	15 10.78	-14 32.1	1.766	2.775	1.2	19.1	5 11	15 10.81	+ 0 9.7	1.829	2.806	6.4	20.1
5 21	15 2.93	-14 9.8	1.771	2.767	4.8	19.4	5 21	15 3.40	+ 0 43.6	1.846	2.801	8.5	20.3
5 31	14 55.98	-13 52.8	1.803	2.759	8.7	19.6	5 31	14 56.87	+ 0 58.5	1.888	2.796	11.3	20.4
6 10	14 50.69	-13 44.1	1.858	2.752	12.2	19.8	6 10	14 51.91	+ 0 53.9	1.951	2.791	14.1	20.6
169402	2001 WE ₆₇		5 10.7 115°34	0°0/10.7	17		506998	2008 SQ ₃₀₈		5 10.7 251°30	5°4/ 7.2	18	
4 1	15 36.10	-18 54.8	2.295	3.086	13.2	20.9	4 1	15 39.25	- 2 56.4	2.256	3.053	13.2	22.1
4 11	15 32.21	-18 44.7	2.208	3.090	10.5	20.7	4 11	15 34.78	- 2 21.7	2.155	3.035	10.7	21.9
4 21	15 26.32	-18 27.6	2.142	3.093	7.2	20.5	4 21	15 28.19	- 1 48.9	2.076	3.016	8.1	21.7
5 1	15 18.92	-18 4.4	2.103	3.097	3.6	20.3	5 1	15 19.95	- 1 22.4	2.022	2.997	5.9	21.5
5 11	15 10.78	-17 37.4	2.091	3.101	0.1	20.0	5 11	15 10.77	- 1 6.1	1.997	2.978	5.6	21.4
5 21	15 2.70	-17 9.4	2.107	3.104	3.9	20.3	5 21	15 1.48	- 1 3.3	1.998	2.958	7.6	21.5
5 31	14 55.50	-16 43.7	2.151	3.108	7.4	20.6	5 31	14 52.98	- 1 15.8	2.027	2.937	10.5	21.6
6 10	14 49.84	-16 23.5	2.220	3.111	10.6	20.8	6 10	14 45.99	- 1 44.0	2.078	2.916	13.4	21.8
266306	2007 CD ₁₂		5 10.7 0°03	3°8/12.6	17		416439	2003 UQ ₃₅₁		5 10.7 253°42	1°7/ 9.7	17	
4 1	15 34.06	-26 9.2	1.326	2.141	19.8	20.2	4 1	15 39.37	-15 25.6	1.687	2.497	16.4	21.8
4 11	15 32.41	-26 34.3	1.249	2.139	16.2	19.9	4 11	15 35.75	-15 3.8	1.591	2.484	13.1	21.5
4 21	15 27.45	-26 43.7	1.189	2.137	12.0	19.6	4 21	15 29.34	-14 34.5	1.515	2.472	9.1	21.3
5 1	15 19.82	-26 35.2	1.149	2.136	7.4	19.4	5 1	15 20.69	-13 59.8	1.463	2.459	4.7	21.0
5 11	15 10.74	-26 9.5	1.133	2.137	3.9	19.2	5 11	15 10.75	-13 23.6	1.437	2.446	1.9	20.8
5 21	15 1.69	-25 30.2	1.140	2.139	6.0	19.3	5 21	15 0.70	-12 50.2	1.438	2.432	5.9	21.0
5 31	14 54.16	-24 44.0	1.170	2.141	10.5	19.6	5 31	14 51.77	-12 24.5	1.465	2.418	10.5	21.2
6 10	14 49.26	-23 59.0	1.221	2.145	14.9	19.8	6 10	14 44.94	-12 10.3	1.514	2.404	14.7	21.4
59347	1999 CX ₁₃₇		5 10.7 130°64	1°5/ 9.9	18		310077	2010 KC ₁₀₇		5 10.7 260°48	0°2/10.5	17	
4 1	15 41.01	-16 27.6	1.592	2.401	17.3	19.7	4 1	15 34.82	-18 31.7	2.442	3.232	12.5	21.5
4 11	15 36.90	-16 0.1	1.516	2.409	13.7	19.5	4 11	15 31.16	-18 17.3	2.344	3.226	9.9	21.3
4 21	15 29.95	-15 24.0	1.461	2.418	9.4	19.3	4 21	15 25.59	-17 56.0	2.268	3.220	6.9	21.1
5 1	15 20.86	-14 42.0	1.430	2.426	4.7	19.0	5 1	15 18.59	-17 29.0	2.219	3.213	3.5	20.9
5 11	15 10.72	-13 58.2	1.424	2.433	1.6	18.8	5 11	15 10.82	-16 58.6	2.197	3.207	0.3	20.6
5 21	15 0.77	-13 17.6	1.446	2.440	5.8	19.1	5 21	15 3.05	-16 27.5	2.204	3.201	3.8	20.9
5 31	14 52.19	-12 45.3	1.493	2.447	10.3	19.4	5 31	14 56.06	-15 59.1	2.238	3.194	7.3	21.1
6 10	14 45.87	-12 25.2	1.562	2.453	14.3	19.6	6 10	14 50.47	-15 36.4	2.298	3.187	10.4	21.3
64886	2001 YO ₇₃		5 10.7 85°83	0°2/10.8	18		319459	2006 MA ₆		5 10.7 297°87	0°3/10.9	17	
4 1	15 35.91	-19 46.0	2.338	3.126	13.1	20.0	4 1	15 36.54	-20 23.3	1.453	2.270	18.2	20.8
4 11	15 31.97	-19 35.1	2.256	3.136	10.3	19.8	4 11	15 34.25	-20 13.8	1.350	2.247	14.8	20.5
4 21	15 26.08	-19 16.6	2.197	3.147	7.2	19.6	4 21	15 28.78	-19 51.8	1.267	2.224	10.5	20.2
5 1	15 18.77	-18 51.7	2.164	3.157	3.6	19.4	5 1	15 20.61	-19 17.5	1.205	2.200	5.5	19.9
5 11	15 10.79	-18 22.5	2.158	3.168	0.2	19.1	5 11	15 10.76	-18 33.5	1.167	2.177	0.4	19.4
5 21	15 2.92	-17 51.9	2.181	3.178	3.7	19.5	5 21	15 0.59	-17 44.5	1.155	2.154	5.8	19.7
5 31	14 55.95	-17 23.3	2.231	3.189	7.2	19.7	5 31	14 51.61	-16 57.5	1.166	2.132	11.3	20.0
6 10	14 50.49	-16 59.8	2.307	3.199	10.2	19.9	6 10	14 45.05	-16 19.4	1.199	2.109	16.2	20.2
3490	Solc		5 10.7 138°64	3°4/12.6	18		182213	2000 WU ₁₂₂		5 10.7 195°66	0°1/10.6	16	
4 1	15 42.66	-27 3.6	1.829	2.601	16.7	17.7	4 1	15 42.09	-18 44.7	2.012	2.799	14.9	21.0
4 11	15 38.15	-27 22.7	1.746	2.609	13.7	17.5	4 11	15 37.35	-18 35.3	1.917	2.796	11.9	21.0
4 21	15 30.83	-27 28.5	1.682	2.617	10.1	17.3	4 21	15 30.13	-18 17.9	1.843	2.793	8.3	20.7
5 1	15 21.32	-27 19.4	1.643	2.624	6.3	17.1	5 1	15 20.97	-17 53.2	1.795	2.789	4.2	20.5
5 11	15 10.70	-26 55.5	1.629	2.631	3.5	16.9	5 11	15 10.77	-17 23.6	1.775	2.785	0.2	20.1
5 21	15 0.20	-26 19.7	1.643	2.638	5.1	17.0	5 21	15 0.57	-16 52.1	1.783	2.779	4.6	20.5
5 31	14 51.00	-25 37.1	1.683	2.644	8.8	17.2	5 31	14 51.41	-16 23.1	1.818	2.773	8.7	20.7
6 10	14 44.02	-24 54.1	1.747	2.650	12.4	17.5	6 10	14 44.14	-16 0.5	1.878	2.766	12.4	20.9
89373	2001 VO ₈₇		5 10.7 328°78	1°2/ 9.9	17		206016	2002 PR ₁₅₃		5 10.7 249°56	4°4/ 7.5	18	
4 1	15 34.07	-16 38.7	2.037	2.844	14.1	19.8	4 1	15 36.34	- 6 35.5	2.278	3.081	12.9	20.8
4 11	15 30.92	-16 12.7	1.946	2.838	11.1	19.6	4 11	15 32.44	- 5 52.0	2.180	3.068	10.3	20.6
4 21	15 25.61	-15 39.3	1.877	2.833	7.7	19.4	4 21	15 26.54	- 5 7.4	2.106	3.054	7.5	20.4
5 1	15 18.63	-15 0.8	1.833	2.829	3.9	19.1	5 1	15 19.10	- 4 25.7	2.057	3.040	5.1	20.2
5 11	15 10.79	-14 20.4	1.815	2.824	1.3	18.9	5 11	15 10.83	- 3 51.1	2.035	3.025	4.6	20.1
5 21	15 2.97	-13 42.0	1.825	2.820	4.8	19.2	5 21	15 2.51	- 3 27.3	2.042	3.010	6.8	20.3
5 31	14 56.08	-13 9.7	1.861	2.816	8.6	19.4	5 31	14 54.97	- 3 16.9	2.074	2.995	9.8	20.4
6 10	14 50.83	-12 46.9	1.921	2.812	12.1	19.6	6 10	14 48.89	- 3 21.3	2.130	2.979	12.7	20.6
141775	2002 NR ₈		5 10.7 264°99	0°6/10.3	18		409832	2006 QQ ₃₂		5 10.7 270°88	1°3/12.1	17	
4 1	15 38.44	-18 50.7	1.773										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
428038	2006 <i>DL</i> ₃₄		5 10.7	63°55'	5°2'/13.6	17	174491	2003 <i>BB</i> ₁₂		5 10.7	101°36'	5°0'/14.6	18
4 1	15 41.80	-30 17.6	1.812	2.576	17.2	20.9	4 1	15 38.89	-34 0.4	2.364	3.098	14.4	20.0
4 11	15 37.62	-31 4.6	1.737	2.590	14.3	20.7	4 11	15 34.71	-34 26.2	2.276	3.106	12.1	19.9
4 21	15 30.54	-31 37.6	1.681	2.603	10.9	20.5	4 21	15 28.21	-34 37.7	2.209	3.114	9.6	19.7
5 1	15 21.23	-31 53.3	1.648	2.617	7.6	20.3	5 1	15 19.97	-34 32.6	2.165	3.121	7.0	19.6
5 11	15 10.77	-31 50.5	1.640	2.631	5.3	20.2	5 11	15 10.84	-34 10.6	2.147	3.129	5.2	19.5
5 21	15 0.44	-31 30.9	1.658	2.646	6.1	20.3	5 21	15 1.79	-33 33.5	2.156	3.136	5.5	19.5
5 31	14 51.47	-30 59.2	1.703	2.660	9.0	20.5	5 31	14 53.77	-32 45.3	2.192	3.144	7.6	19.6
6 10	14 44.79	-30 21.9	1.771	2.674	12.2	20.7	6 10	14 47.54	-31 51.7	2.253	3.151	10.2	19.8
388681	2007 <i>UX</i> ₅₆		5 10.7	98°40'	0°3'/10.5	17	227310	2005 <i>TN</i> ₂₉		5 10.7	223°84'	2°1'/9.0	18
4 1	15 36.81	-18 3.2	2.140	2.935	13.9	21.9	4 1	15 36.96	-16 43.5	2.039	2.840	14.3	21.4
4 11	15 32.95	-17 55.0	2.053	2.938	11.0	21.7	4 11	15 33.19	-15 39.1	1.943	2.832	11.3	21.2
4 21	15 26.94	-17 40.0	1.988	2.941	7.6	21.5	4 21	15 27.18	-14 24.1	1.869	2.825	7.8	21.0
5 1	15 19.30	-17 19.4	1.949	2.944	3.8	21.2	5 1	15 19.46	-13 1.9	1.821	2.816	4.0	20.7
5 11	15 10.84	-16 55.4	1.937	2.947	0.3	21.0	5 11	15 10.86	-11 37.8	1.802	2.808	2.2	20.6
5 21	15 2.45	-16 31.0	1.953	2.950	4.2	21.3	5 21	15 2.30	-10 17.8	1.810	2.799	5.5	20.8
5 31	14 55.00	-16 9.5	1.996	2.953	7.9	21.5	5 31	14 54.70	-9 8.1	1.846	2.789	9.4	21.0
6 10	14 49.20	-15 54.0	2.063	2.955	11.3	21.7	6 10	14 48.82	-8 12.9	1.906	2.779	12.9	21.2
192328	1994 <i>WW</i> ₅		5 10.7	215°03'	0°4'/10.4	18	431426	2007 <i>LE</i> ₁₇		5 10.7	352°18'	3°9'/9.6	17
4 1	15 36.92	-18 31.7	2.202	2.994	13.6	21.4	4 1	15 38.85	-7 22.9	1.345	2.177	18.6	19.8
4 11	15 33.03	-18 10.8	2.107	2.990	10.8	21.2	4 11	15 35.90	-7 43.4	1.266	2.170	14.9	19.5
4 21	15 27.00	-17 42.0	2.034	2.986	7.5	21.0	4 21	15 29.75	-8 8.5	1.205	2.164	10.6	19.3
5 1	15 19.35	-17 6.6	1.986	2.981	3.8	20.7	5 1	15 21.01	-8 41.0	1.166	2.160	6.1	19.0
5 11	15 10.84	-16 27.4	1.966	2.976	0.5	20.4	5 11	15 10.81	-9 23.2	1.152	2.156	4.0	18.8
5 21	15 2.36	-15 47.8	1.975	2.971	4.2	20.7	5 21	15 0.54	-10 15.7	1.162	2.154	7.4	19.0
5 31	14 54.77	-15 11.9	2.011	2.966	8.0	20.9	5 31	14 51.64	-11 18.3	1.196	2.152	12.0	19.3
6 10	14 48.79	-14 43.3	2.071	2.960	11.4	21.1	6 10	14 45.22	-12 29.9	1.251	2.152	16.4	19.5
176038	2000 <i>SG</i> ₂₁₃		5 10.7	163°65'	4°3'/6.8	18	268930	2007 <i>DT</i> ₉		5 10.7	10°68'	18°8'/26.5	18
4 1	15 34.38	-4 32.0	2.782	3.579	11.0	20.8	4 1	15 51.16	-60 16.9	1.663	2.260	23.9	19.9
4 11	15 30.35	-3 44.1	2.701	3.583	8.8	20.6	4 11	15 49.48	-62 39.5	1.596	2.261	22.8	19.8
4 21	15 24.78	-2 56.8	2.644	3.587	6.5	20.5	4 21	15 41.76	-64 35.1	1.541	2.264	21.6	19.7
5 1	15 18.10	-2 13.8	2.614	3.590	4.7	20.4	5 1	15 28.14	-65 52.0	1.499	2.267	20.4	19.6
5 11	15 10.89	-1 38.5	2.613	3.593	4.5	20.4	5 11	15 10.57	-66 19.9	1.471	2.270	19.5	19.5
5 21	15 3.75	-1 13.7	2.639	3.596	6.1	20.5	5 21	14 52.52	-65 54.2	1.458	2.275	18.9	19.5
5 31	14 57.29	-1 1.3	2.692	3.598	8.4	20.6	5 31	14 37.80	-64 39.0	1.462	2.280	18.9	19.5
6 10	14 52.01	-1 2.0	2.770	3.600	10.6	20.8	6 10	14 28.84	-62 46.5	1.481	2.286	19.4	19.5
470659	2008 <i>SM</i> ₁₆₅		5 10.7	309°93'	6°9'/5.5	17	207797	2007 <i>TO</i> ₁₈₇		5 10.7	230°48'	3°4'/8.4	18
4 1	15 32.16	-7 40.7	1.546	2.382	16.4	21.1	4 1	15 37.71	-8 2.4	2.445	3.241	12.3	20.4
4 11	15 30.30	-6 4.4	1.445	2.351	13.3	20.8	4 11	15 33.36	-7 38.7	2.347	3.231	9.8	20.2
4 21	15 25.76	-4 19.0	1.364	2.321	9.9	20.5	4 21	15 27.10	-7 14.3	2.272	3.221	7.0	20.0
5 1	15 18.98	-2 31.9	1.307	2.291	7.3	20.3	5 1	15 19.38	-6 52.1	2.223	3.211	4.3	19.9
5 11	15 10.85	-0 52.9	1.275	2.261	7.5	20.2	5 11	15 10.87	-6 35.2	2.203	3.200	3.5	19.8
5 21	15 2.49	+0 28.6	1.268	2.231	10.6	20.3	5 21	15 2.33	-6 26.0	2.211	3.188	5.7	19.9
5 31	14 55.11	+1 24.7	1.283	2.202	14.6	20.5	5 31	14 54.53	-6 26.8	2.247	3.177	8.7	20.1
6 10	14 49.74	+1 52.1	1.317	2.173	18.6	20.6	6 10	14 48.13	-6 38.7	2.307	3.164	11.5	20.2
174564	2003 <i>GE</i> ₁₆		5 10.7	31°94'	0°8'/11.2	17	176577	2002 <i>CB</i> ₁₇		5 10.7	195°24'	3°4'/13.4	18
4 1	15 38.45	-19 29.2	2.169	2.957	13.9	19.7	4 1	15 37.62	-29 44.6	2.646	3.392	12.7	20.9
4 11	15 34.30	-19 50.6	2.081	2.960	11.1	19.5	4 11	15 33.40	-29 59.7	2.546	3.391	10.5	20.7
4 21	15 27.91	-20 6.1	2.014	2.962	7.8	19.3	4 21	15 27.18	-30 3.8	2.468	3.389	8.0	20.6
5 1	15 19.82	-20 15.6	1.973	2.965	4.1	19.1	5 1	15 19.42	-29 55.4	2.415	3.387	5.3	20.4
5 11	15 10.83	-20 19.7	1.959	2.969	0.8	18.9	5 11	15 10.87	-29 34.9	2.390	3.385	3.5	20.3
5 21	15 1.85	-20 19.9	1.974	2.972	4.0	19.1	5 21	15 2.31	-29 3.9	2.392	3.382	4.2	20.3
5 31	14 53.80	-20 18.9	2.016	2.975	7.7	19.3	5 31	14 54.57	-28 25.7	2.423	3.380	6.7	20.5
6 10	14 47.43	-20 19.5	2.082	2.979	11.0	19.5	6 10	14 48.33	-27 44.7	2.480	3.377	9.4	20.6
71127	1999 <i>XX</i> ₁₇₅		5 10.7	258°82'	0°0'/10.7	18	153110	2000 <i>SB</i> ₆₆		5 10.7	174°38'	1°5'/9.7	18 R
4 1	15 39.44	-17 43.2	2.206	2.994	13.7	18.5	4 1	15 37.65	-15 58.0	2.008	2.808	14.5	20.4
4 11	15 35.19	-17 50.3	2.098	2.978	11.0	18.3	4 11	15 33.73	-15 29.1	1.921	2.810	11.4	20.2
4 21	15 28.65	-17 52.1	2.012	2.962	7.7	18.0	4 21	15 27.54	-14 53.2	1.856	2.811	7.9	19.9
5 1	15 20.27	-17 48.9	1.951	2.945	3.9	17.8	5 1	15 19.64	-14 12.6	1.816	2.812	4.0	19.7
5 11	15 10.82	-17 42.0	1.919	2.929	0.1	17.4	5 11	15 10.87	-13 30.8	1.804	2.812	1.6	19.5
5 21	15 1.21	-17 33.2	1.914	2.912	4.2	17.7	5 21	15 2.17	-12 51.9	1.819	2.812	5.0	19.8
5 31	14 52.42	-17 25.6	1.938	2.894	8.2	17.9	5 31	14 54.48	-12 19.9	1.862	2.812	8.8	20.0
6 10	14 45.26	-17 22.0	1.986	2.877	11.7	18.1	6 10	14 48.54	-11 58.2	1.928	2.812	12.3	20.2
344466	2002 <i>OF</i> ₇		5 10.7	286°53'	0°4'/10.4	16	407724	2011 <i>UQ</i> ₃₀₆		5 10.7	123°39'	2°8'/12.4	18
4 1	15 35.66	-19 47.0	2.044	2.841	14.4	21.6	4 1	15 44.33	-26 18.5	1.801	2.573	16.9	22.1
4 11	15 32.45	-19 15.4	1.929	2.815	11.5	21.4	4 11	15 39.36	-26 25.2	1.725	2.590	13.8	21.9
4 21	15 26.89	-18 32.7	1.836	2.789	8.1	21.1	4 21	15 31.57	-26 18.2	1.669	2.606	10.0	21.7
5 1	15 19.42	-17 40.1	1.767	2.763	4.1	20.8	5 1	15 21.69	-25 56.3	1.637	2.621	5.9	21.5
5 11	15 10.84	-16 40.8	1.726	2.736	0.5	20.5	5 11	15 10.81	-25 20.7	1.631	2.636	2.9	21.4
5 21	15 2.09	-15 39.3	1.713	2.709	4.7	20.7	5 21	15 0.17	-24 35.2	1.653	2.650	4.8	21.5
5 31	14 54.18	-14 41.2	1.726	2.682	9.0	20.9	5 31	14 50.94	-23 45.5	1.702	2.663	8.7	21.8
6 10	14 47.97	-13 51.8	1.763	2.655	12.9	21.1	6 10	14 43.98	-22 57.9	1.775	2.676	12.3	22.0
140682	2001 <i>UA</i> ₅₄		5 10.7	186°84'	3°0'/8.2	18	523715	2014 <i>KU</i> ₁₀₁		5 10.7	50°		

EPHEMERIDES

5 10.7

5 10.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
366587	2002 <i>TX</i> ₂₁₇		5 10.7 236°35	1.6/11.8	18		479781	2014 <i>ER</i> ₃₈		5 10.7 306°43	1.7/11.6	16	
4 1	15 40.34	-24 29.0	2.080	2.854	14.9	21.7	4 1	15 38.12	-21 41.4	2.126	2.911	14.3	20.9
4 11	15 36.13	-24 15.0	1.970	2.839	12.1	21.5	4 11	15 34.30	-22 7.1	2.026	2.901	11.5	20.7
4 21	15 29.41	-23 48.4	1.882	2.824	8.7	21.2	4 21	15 28.12	-22 25.8	1.947	2.892	8.3	20.4
5 1	15 20.70	-23 8.8	1.819	2.808	4.9	21.0	5 1	15 20.06	-22 36.7	1.892	2.882	4.6	20.2
5 11	15 10.85	-22 17.8	1.783	2.791	1.6	20.7	5 11	15 10.92	-22 40.1	1.865	2.873	1.7	20.0
5 21	15 0.91	-21 19.2	1.776	2.774	4.3	20.8	5 21	15 1.66	-22 37.3	1.866	2.864	4.2	20.1
5 31	14 51.94	-20 18.3	1.796	2.756	8.4	21.1	5 31	14 53.29	-22 30.9	1.894	2.855	7.9	20.3
6 10	14 44.82	-19 21.3	1.841	2.737	12.2	21.2	6 10	14 46.64	-22 24.7	1.946	2.846	11.4	20.5
422759	2001 <i>TR</i> ₁₅₄		5 10.7 156°77	1.3/9.8	15		263117	2007 <i>UQ</i> ₄₇		5 10.7 233°91	1.7/9.8	17	
4 1	15 40.74	-14 40.3	2.564	3.345	12.2	22.7	4 1	15 41.49	-14 50.9	1.859	2.659	15.5	21.6
4 11	15 35.53	-14 23.1	2.478	3.355	9.6	22.5	4 11	15 37.20	-14 34.3	1.759	2.646	12.4	21.4
4 21	15 28.44	-14 1.6	2.415	3.365	6.6	22.3	4 21	15 30.26	-14 11.6	1.679	2.633	8.6	21.1
5 1	15 20.00	-13 37.4	2.379	3.373	3.4	22.2	5 1	15 21.19	-13 44.8	1.625	2.620	4.4	20.8
5 11	15 10.90	-13 13.0	2.373	3.381	1.4	22.0	5 11	15 10.89	-13 16.8	1.597	2.605	1.8	20.6
5 21	15 1.90	-12 50.8	2.397	3.388	4.2	22.2	5 21	15 0.48	-12 51.4	1.598	2.590	5.5	20.8
5 31	14 53.75	-12 33.4	2.449	3.394	7.3	22.4	5 31	14 51.08	-12 32.7	1.624	2.575	9.9	21.1
6 10	14 47.05	-12 23.1	2.527	3.399	10.2	22.6	6 10	14 43.64	-12 24.0	1.675	2.559	13.8	21.3
16893	1998 <i>DS</i> ₃		5 10.7 123°51	4.8/6.9	18		465908	2010 <i>VV</i> ₉₀		5 10.7 270°39	0.3/10.9	17	
4 1	15 34.92	-5 7.7	2.334	3.139	12.5	17.7	4 1	15 40.61	-18 53.9	1.730	2.530	16.5	22.1
4 11	15 31.10	-4 14.0	2.258	3.146	10.0	17.5	4 11	15 36.94	-18 58.5	1.623	2.510	13.3	21.8
4 21	15 25.47	-3 20.7	2.206	3.152	7.4	17.3	4 21	15 30.38	-18 55.3	1.537	2.490	9.4	21.5
5 1	15 18.52	-2 32.1	2.179	3.158	5.3	17.2	5 1	15 21.38	-18 44.2	1.474	2.469	4.9	21.2
5 11	15 10.96	-1 52.4	2.180	3.163	5.0	17.2	5 11	15 10.90	-18 26.7	1.438	2.448	0.3	20.8
5 21	15 3.50	-1 25.1	2.209	3.169	6.9	17.3	5 21	15 0.12	-18 5.8	1.428	2.426	5.1	21.1
5 31	14 56.88	-1 12.4	2.263	3.175	9.5	17.5	5 31	14 50.37	-17 45.6	1.444	2.404	10.0	21.3
6 10	14 51.66	-1 14.9	2.341	3.180	12.0	17.7	6 10	14 42.74	-17 31.0	1.483	2.382	14.4	21.6
519543	2012 <i>PB</i> ₄₅		5 10.7 314°50	8.9/15.8	18		506012	2015 <i>HG</i> ₅₉		5 10.7 82°66	2.2/11.9	17	
4 1	15 38.30	-38 24.5	1.711	2.452	18.8	20.6	4 1	15 39.99	-23 14.0	2.175	2.950	14.3	20.9
4 11	15 35.82	-39 22.7	1.611	2.437	16.5	20.4	4 11	15 35.66	-23 45.5	2.082	2.951	11.6	20.8
4 21	15 29.99	-40 2.4	1.528	2.421	13.8	20.1	4 21	15 28.98	-24 9.2	2.011	2.951	8.4	20.5
5 1	15 21.30	-40 17.3	1.466	2.406	11.1	19.9	5 1	15 20.46	-24 24.0	1.965	2.951	4.9	20.3
5 11	15 10.87	-40 3.4	1.425	2.391	9.2	19.8	5 11	15 10.93	-24 29.7	1.946	2.951	2.3	20.2
5 21	15 0.18	-39 20.7	1.409	2.377	9.2	19.7	5 21	15 1.36	-24 27.5	1.955	2.951	4.2	20.3
5 31	14 50.83	-38 14.1	1.415	2.363	11.3	19.8	5 31	14 52.74	-24 20.2	1.992	2.952	7.7	20.5
6 10	14 44.13	-36 52.9	1.444	2.350	14.3	20.0	6 10	14 45.88	-24 11.6	2.053	2.952	11.0	20.7
140905	2001 <i>VC</i> ₅₀		5 10.7 262°04	3.0/13.1	18		318403	2004 <i>XZ</i> ₁₆₆		5 10.7 5°01	18.9/11.2	18	
4 1	15 36.11	-29 7.4	2.286	3.047	14.1	19.8	4 1	15 44.31	+20 17.0	0.949	1.758	26.3	18.1
4 11	15 32.54	-29 1.3	2.186	3.042	11.6	19.6	4 11	15 41.08	+20 32.6	0.901	1.756	23.9	17.9
4 21	15 26.75	-28 41.4	2.107	3.036	8.7	19.4	4 21	15 33.64	+20 9.6	0.865	1.757	21.6	17.8
5 1	15 19.28	-28 6.9	2.052	3.031	5.5	19.2	5 1	15 22.98	+18 54.7	0.844	1.761	19.7	17.6
5 11	15 10.93	-27 19.0	2.024	3.025	3.1	19.1	5 11	15 10.86	+16 41.5	0.840	1.767	18.9	17.6
5 21	15 2.62	-26 20.9	2.024	3.020	4.3	19.1	5 21	14 59.24	+13 33.9	0.855	1.775	19.6	17.7
5 31	14 55.24	-25 17.3	2.052	3.014	7.4	19.3	5 31	14 49.87	+9 45.0	0.889	1.786	21.6	17.9
6 10	14 49.53	-24 14.0	2.105	3.008	10.6	19.5	6 10	14 43.90	+5 32.9	0.942	1.799	24.1	18.1
359781	2011 <i>UM</i> ₁₄₈		5 10.7 206°88	0.2/10.6	17		352058	2006 <i>WG</i> ₃₆		5 10.7 139°46	2.4/8.8	17	
4 1	15 34.37	-20 13.6	2.517	3.303	12.3	21.2	4 1	15 35.50	-11 17.3	2.652	3.447	11.5	22.0
4 11	15 30.72	-19 39.8	2.422	3.301	9.7	21.1	4 11	15 31.36	-10 49.3	2.569	3.454	9.0	21.8
4 21	15 25.26	-18 57.2	2.349	3.299	6.7	20.9	4 21	15 25.57	-10 18.9	2.510	3.462	6.3	21.7
5 1	15 18.44	-18 7.3	2.303	3.297	3.4	20.6	5 1	15 18.57	-9 48.4	2.477	3.469	3.5	21.5
5 11	15 10.96	-17 13.0	2.285	3.295	0.2	20.3	5 11	15 10.99	-9 20.7	2.473	3.475	2.5	21.4
5 21	15 3.54	-16 17.9	2.296	3.292	3.7	20.6	5 21	15 3.51	-8 58.3	2.498	3.482	4.6	21.6
5 31	14 56.89	-15 26.2	2.335	3.289	7.1	20.8	5 31	14 56.76	-8 43.6	2.551	3.488	7.4	21.8
6 10	14 51.63	-14 41.5	2.399	3.287	10.1	21.0	6 10	14 51.29	-8 38.1	2.629	3.494	10.1	22.0
34437	2000 <i>SF</i> ₄₃		5 10.7 328°21	5.2/13.3	18		266596	2008 <i>JB</i> ₁₃		5 10.7 283°36	5.9/7.0	17	
4 1	15 39.25	-29 10.2	1.671	2.449	17.8	18.7	4 1	15 36.42	-6 13.9	1.740	2.560	15.6	20.8
4 11	15 36.11	-29 56.4	1.579	2.443	14.9	18.5	4 11	15 33.27	-5 16.6	1.645	2.542	12.6	20.6
4 21	15 29.89	-30 29.3	1.507	2.437	11.4	18.2	4 21	15 27.57	-4 17.0	1.572	2.523	9.3	20.3
5 1	15 21.12	-30 45.3	1.457	2.431	7.8	18.0	5 1	15 19.84	-3 20.9	1.522	2.505	6.5	20.1
5 11	15 10.88	-30 42.8	1.431	2.426	5.3	17.8	5 11	15 10.95	-2 34.5	1.498	2.487	6.2	20.0
5 21	15 0.50	-30 22.7	1.430	2.421	6.4	17.9	5 21	15 1.95	-2 3.5	1.500	2.468	8.8	20.1
5 31	14 51.39	-29 49.7	1.454	2.416	9.8	18.1	5 31	14 53.93	-1 51.7	1.525	2.450	12.4	20.3
6 10	14 44.68	-29 11.0	1.501	2.412	13.6	18.3	6 10	14 47.80	-2 0.6	1.572	2.431	15.9	20.5
151278	2002 <i>AK</i> ₁₈₃		5 10.7 210°76	6.3/15.3	17	R	118109	2445 <i>T</i> ₋₃		5 10.7 189°03	4.6/14.1	18	
4 1	15 40.76	-36 26.9	1.973	2.707	16.9	19.5	4 1	15 40.60	-33 8.7	2.849	3.570	12.5	20.0
4 11	15 36.88	-36 45.3	1.878	2.704	14.4	19.3	4 11	15 35.77	-33 49.4	2.748	3.569	10.5	19.8
4 21	15 30.12	-36 44.6	1.800	2.701	11.6	19.1	4 21	15 28.86	-34 19.4	2.668	3.568	8.3	19.7
5 1	15 21.10	-36 21.5	1.745	2.698	8.7	19.0	5 1	15 20.35	-34 36.4	2.613	3.566	6.1	19.5
5 11	15 10.88	-35 34.9	1.715	2.695	6.5	18.8	5 11	15 10.95	-34 39.2	2.586	3.565	4.7	19.4
5 21	15 0.72	-34 27.4	1.711	2.691	6.7	18.8	5 21	15 1.47	-34 28.4	2.587	3.563	5.1	19.4
5 31	14 51.85	-33 5.0	1.733	2.687	9.1	19.0	5 31	14 52.77	-34 6.6	2.616	3.560	6.9	19.6
6 10	14 45.22	-31 36.6	1.780	2.683	12.2	19.1	6 10	14 45.57	-33 37.7	2.671	3.558	9.2	19.7
462247	2008 <i>CP</i> ₁₃₆		5 10.7 332°25	3.7/12.6	17		63843	2001 <i>RO</i> ₇₇		5 10.7 16			

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
72101	2000 YB ₅₁		5 10.7 173°98	1.6°/ 9.7 16			380923	2006 GL ₂₀		5 10.8 99°80	3.5°/ 8.1 17		
4 1	15 41.18	-15 25.2	1.996	2.791	14.7	21.0	4 1	15 36.20	-11 24.8	2.010	2.820	14.1	21.5
4 11	15 36.53	-14 56.9	1.909	2.794	11.7	20.7	4 11	15 32.42	-10 24.9	1.938	2.831	11.1	21.3
4 21	15 29.50	-14 21.9	1.844	2.797	8.1	20.5	4 21	15 26.53	-9 20.4	1.887	2.842	7.8	21.1
5 1	15 20.68	-13 42.6	1.804	2.799	4.1	20.3	5 1	15 19.13	-8 15.6	1.863	2.853	4.6	20.9
5 11	15 10.95	-13 2.5	1.793	2.800	1.7	20.1	5 11	15 11.03	-7 15.9	1.866	2.864	3.7	20.9
5 21	15 1.30	-12 25.4	1.809	2.801	5.1	20.4	5 21	15 3.11	-6 25.8	1.896	2.875	6.3	21.1
5 31	14 52.72	-11 55.5	1.853	2.800	9.1	20.6	5 31	14 56.21	-5 49.2	1.952	2.886	9.6	21.3
6 10	14 45.97	-11 36.1	1.920	2.800	12.6	20.8	6 10	14 50.97	-5 28.1	2.032	2.896	12.6	21.5
361568	2007 RL ₉₃		5 10.7 306°29	0°5/10.9 17			131706	2001 YS ₁₈		5 10.8 165°77	0°5/11.1 18		
4 1	15 38.76	-18 19.2	1.320	2.145	19.3	20.5	4 1	15 39.25	-20 51.7	2.131	2.916	14.3	20.8
4 11	15 36.37	-18 39.5	1.226	2.126	15.7	20.2	4 11	15 34.95	-20 39.1	2.042	2.920	11.4	20.6
4 21	15 30.51	-18 52.7	1.150	2.109	11.1	19.9	4 21	15 28.39	-20 17.2	1.975	2.923	8.0	20.4
5 1	15 21.66	-18 58.3	1.095	2.091	5.8	19.6	5 1	15 20.12	-19 46.8	1.933	2.926	4.1	20.1
5 11	15 10.92	-18 57.3	1.064	2.074	0.5	19.1	5 11	15 11.00	-19 10.2	1.918	2.928	0.5	19.8
5 21	14 59.81	-18 52.3	1.057	2.057	6.0	19.5	5 21	15 1.95	-18 30.8	1.932	2.930	4.1	20.1
5 31	14 50.02	-18 47.5	1.073	2.041	11.7	19.7	5 31	14 53.91	-17 52.8	1.974	2.932	7.9	20.4
6 10	14 42.92	-18 48.2	1.110	2.025	16.8	20.0	6 10	14 47.60	-17 20.3	2.040	2.933	11.3	20.6
137349	1999 TQ ₉₇		5 10.7 202°98	2°4/ 7.9 18			12098	1998 HV ₁₂₂		5 10.8 249°28	3°2/ 8.2 18		
4 1	15 30.45	-8 29.5	3.873	4.664	8.2	20.4	4 1	15 35.89	-8 10.2	2.699	3.494	11.3	18.5
4 11	15 26.92	-7 55.6	3.778	4.660	6.5	20.2	4 11	15 31.81	-7 43.5	2.595	3.479	9.0	18.3
4 21	15 22.29	-7 20.8	3.708	4.656	4.6	20.1	4 21	15 26.00	-7 15.8	2.515	3.464	6.4	18.1
5 1	15 16.87	-6 47.0	3.666	4.652	2.9	20.0	5 1	15 18.88	-6 49.7	2.461	3.448	4.0	17.9
5 11	15 11.06	-6 16.5	3.654	4.647	2.5	19.9	5 11	15 11.04	-6 28.2	2.436	3.432	3.3	17.8
5 21	15 5.27	-5 51.2	3.670	4.643	3.9	20.0	5 21	15 3.14	-6 13.9	2.439	3.415	5.3	17.9
5 31	14 59.92	-5 32.6	3.716	4.638	5.8	20.1	5 31	14 55.87	-6 8.9	2.470	3.398	8.1	18.1
6 10	14 55.37	-5 22.0	3.787	4.632	7.7	20.3	6 10	14 49.83	-6 14.5	2.526	3.381	10.8	18.2
470117	2006 TW ₁₂₂		5 10.7 173°76	0°1/10.6 17			507821	2014 DJ ₁₂₁		5 10.8 40°51	4°8/13.9 17		
4 1	15 36.56	-18 18.5	2.633	3.416	11.9	22.4	4 1	15 38.56	-31 27.4	2.163	2.915	15.1	21.1
4 11	15 32.35	-18 10.6	2.540	3.417	9.4	22.2	4 11	15 34.72	-31 59.7	2.073	2.917	12.6	21.0
4 21	15 26.36	-17 56.8	2.469	3.419	6.5	22.0	4 21	15 28.42	-32 18.7	2.004	2.920	9.8	20.8
5 1	15 19.02	-17 38.1	2.426	3.420	3.3	21.8	5 1	15 20.22	-32 22.0	1.957	2.923	6.9	20.6
5 11	15 11.01	-17 16.3	2.411	3.421	0.2	21.5	5 11	15 11.00	-32 8.9	1.937	2.927	4.9	20.5
5 21	15 3.03	-16 53.7	2.425	3.421	3.5	21.8	5 21	15 1.79	-31 41.2	1.944	2.930	5.5	20.5
5 31	14 55.81	-16 33.1	2.467	3.421	6.8	22.0	5 31	14 53.64	-31 2.7	1.977	2.933	8.0	20.7
6 10	14 49.92	-16 17.0	2.535	3.421	9.6	22.2	6 10	14 47.36	-30 19.2	2.035	2.937	10.9	20.9
67788	2000 UR ₀₅		5 10.7 340°22	3°9/12.3 17			28665	Theresafultz		5 10.8 249°45	1°4/ 9.8 18		
4 1	15 40.44	-24 35.0	1.369	2.175	19.7	18.5	4 1	15 35.98	-15 34.4	2.212	3.011	13.4	19.7
4 11	15 37.58	-25 20.5	1.286	2.171	16.2	18.2	4 11	15 32.31	-15 10.1	2.116	3.004	10.6	19.5
4 21	15 31.21	-25 54.8	1.221	2.167	12.0	17.9	4 21	15 26.55	-14 39.8	2.042	2.997	7.3	19.3
5 1	15 21.91	-26 14.5	1.177	2.164	7.3	17.7	5 1	15 19.21	-14 5.4	1.994	2.990	3.7	19.0
5 11	15 10.92	-26 18.4	1.157	2.161	3.9	17.5	5 11	15 11.03	-13 30.0	1.974	2.982	1.5	18.8
5 21	14 59.81	-26 7.9	1.161	2.158	6.2	17.6	5 21	15 2.84	-12 57.0	1.982	2.975	4.6	19.1
5 31	14 50.21	-25 47.8	1.189	2.156	10.9	17.8	5 31	14 55.50	-12 30.0	2.017	2.967	8.3	19.3
6 10	14 43.38	-25 25.4	1.238	2.155	15.4	18.1	6 10	14 49.71	-12 11.9	2.076	2.960	11.6	19.5
164182	2004 BM ₅₂		5 10.7 122°62	1°4/ 9.8 17			23719	1998 HG ₂₃		5 10.8 224°41	1°0/10.3 18		
4 1	15 36.74	-15 31.6	2.230	3.027	13.3	20.8	4 1	15 41.36	-16 57.5	1.394	2.212	18.8	19.3
4 11	15 32.74	-15 8.0	2.148	3.035	10.5	20.6	4 11	15 37.91	-16 47.0	1.311	2.209	15.1	19.0
4 21	15 26.73	-14 38.8	2.088	3.041	7.2	20.4	4 21	15 31.18	-16 27.7	1.247	2.206	10.5	18.8
5 1	15 19.23	-14 6.1	2.053	3.048	3.6	20.2	5 1	15 21.80	-16 1.0	1.206	2.202	5.3	18.5
5 11	15 11.01	-13 32.8	2.047	3.055	1.4	20.1	5 11	15 10.96	-15 30.5	1.189	2.198	1.1	18.1
5 21	15 2.89	-13 2.2	2.068	3.061	4.5	20.3	5 21	15 0.11	-15 0.9	1.197	2.195	6.1	18.5
5 31	14 55.69	-12 37.7	2.117	3.067	8.0	20.5	5 31	14 50.72	-14 37.5	1.230	2.190	11.3	18.8
6 10	14 50.04	-12 21.7	2.191	3.073	11.1	20.7	6 10	14 43.89	-14 25.1	1.284	2.186	16.0	19.0
468425	2000 UD ₃₄		5 10.7 140°61	0°9/ 9.9 17			521257	2015 HC ₁₉₂		5 10.8 90°40	4°0/ 7.6 17		
4 1	15 38.52	-18 18.3	2.471	3.253	12.6	22.1	4 1	15 34.37	-9 6.0	2.170	2.980	13.2	21.9
4 11	15 33.85	-17 35.0	2.388	3.267	9.9	21.9	4 11	15 30.89	-8 9.1	2.091	2.984	10.5	21.7
4 21	15 27.31	-16 43.8	2.329	3.280	6.8	21.7	4 21	15 25.46	-7 9.3	2.034	2.987	7.4	21.6
5 1	15 19.46	-15 46.8	2.297	3.292	3.4	21.5	5 1	15 18.60	-6 11.0	2.004	2.991	4.7	21.4
5 11	15 11.01	-14 47.6	2.295	3.304	0.9	21.3	5 11	15 11.05	-5 19.0	2.000	2.994	4.2	21.4
5 21	15 2.72	-13 50.1	2.321	3.315	4.0	21.6	5 21	15 3.61	-4 37.3	2.025	2.998	6.5	21.5
5 31	14 55.34	-12 58.3	2.377	3.325	7.3	21.8	5 31	14 57.05	-4 9.2	2.075	3.001	9.5	21.7
6 10	14 49.44	-12 15.6	2.458	3.335	10.3	22.0	6 10	14 51.98	-3 56.4	2.148	3.005	12.3	21.9
93485	2000 TS ₂₄		5 10.7 148°00	1°9/ 9.5 18			318626	2005 JU ₁₆₄		5 10.8 358°17	0°3/10.9 17		
4 1	15 38.24	-14 29.4	2.074	2.873	14.1	20.7	4 1	15 35.82	-20 10.5	1.990	2.787	14.7	21.3
4 11	15 34.08	-14 1.0	1.991	2.879	11.1	20.5	4 11	15 32.46	-19 59.8	1.901	2.787	11.7	21.1
4 21	15 27.74	-13 27.0	1.930	2.884	7.7	20.3	4 21	15 26.79	-19 40.1	1.834	2.786	8.2	20.9
5 1	15 19.77	-12 50.0	1.895	2.889	4.0	20.1	5 1	15 19.37	-19 12.3	1.792	2.786	4.2	20.7
5 11	15 11.00	-12 13.5	1.887	2.894	2.0	19.9	5 11	15 11.03	-18 38.8	1.776	2.786	0.3	20.3
5 21	15 2.33	-11 41.0	1.908	2.898	5.1	20.1	5 21	15 2.75	-18 3.1	1.787	2.786	4.3	20.7
5 31	14 54.66	-11 16.1	1.955	2.903	8.7	20.4	5 31	14 55.46	-17 29.4	1.825	2.786	8.2	20.9
6 10	14 48.68	-11 1.6	2.027	2.906	12.0	20.6	6 10	14 49.92	-17 1.9	1.888	2.787	11.8	21.1
37127	2000 VU ₁₇		5 10.7 270°53	1°1/ 9.9 18			60958	2000 JD ₇₂		5 10.8 359°72	6°1/ 8.8 17		
4 1	15 35.60	-15 42.2	2.469	3.262	12.3								

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
9988	Eric templebell		5 10.8 125°14	0°6/11.1	18		91337	1999 JG ₁₄		5 10.8 298°15	8°0/ 8.6	18	
4 1	15 37.09	-20 35.4	2.136	2.926	14.1	18.0	4 1	15 49.15	+ 3 53.7	1.743	2.528	16.9	19.1
4 11	15 33.28	-20 30.6	2.047	2.927	11.2	17.8	4 11	15 43.59	+ 3 48.8	1.638	2.504	14.3	18.9
4 21	15 27.27	-20 17.3	1.980	2.929	7.9	17.6	4 21	15 34.97	+ 3 31.1	1.553	2.480	11.4	18.6
5 1	15 19.59	-19 56.2	1.937	2.930	4.1	17.3	5 1	15 23.77	+ 2 55.0	1.491	2.455	8.8	18.4
5 11	15 11.05	-19 29.3	1.922	2.932	0.6	17.1	5 11	15 10.98	+ 1 56.2	1.457	2.431	8.1	18.3
5 21	15 2.55	-18 59.4	1.935	2.933	4.0	17.3	5 21	14 57.84	+ 0 33.9	1.450	2.407	10.1	18.4
5 31	14 55.01	-18 30.3	1.975	2.935	7.8	17.6	5 31	14 45.74	- 1 9.9	1.469	2.383	13.5	18.5
6 10	14 49.15	-18 5.9	2.039	2.936	11.2	17.8	6 10	14 35.80	- 3 10.7	1.513	2.360	17.1	18.7
410205	2007 RM ₂₁₀		5 10.8 194°39	0°9/11.3	16		16461	1990 BO		5 10.8 207°95	5°9/16.1	18	
4 1	15 42.49	-22 10.9	2.031	2.809	15.1	22.7	4 1	15 38.99	-39 14.1	2.795	3.490	13.2	17.6
4 11	15 37.75	-22 0.7	1.934	2.806	12.2	22.5	4 11	15 34.68	-39 39.4	2.692	3.487	11.4	17.5
4 21	15 30.49	-21 39.8	1.859	2.803	8.6	22.3	4 21	15 28.21	-39 50.0	2.609	3.483	9.4	17.3
5 1	15 21.27	-21 8.3	1.808	2.800	4.6	22.0	5 1	15 20.08	-39 43.2	2.550	3.479	7.5	17.2
5 11	15 11.00	-20 28.3	1.786	2.795	0.9	21.7	5 11	15 11.07	-39 18.1	2.516	3.475	6.1	17.1
5 21	15 0.75	-19 43.1	1.791	2.789	4.3	22.0	5 21	15 2.07	-38 35.8	2.509	3.471	6.1	17.1
5 31	14 51.56	-18 57.8	1.825	2.783	8.4	22.2	5 31	14 53.97	-37 39.8	2.529	3.467	7.5	17.2
6 10	14 44.29	-18 17.4	1.883	2.776	12.1	22.4	6 10	14 47.49	-36 35.4	2.575	3.462	9.5	17.3
506981	2008 SR ₁₇₁		5 10.8 225°13	0°8/11.3	18		351996	2006 UK ₁₉₂		5 10.8 222°91	2°8/13.2	18	
4 1	15 38.15	-22 5.9	2.221	3.002	13.9	22.3	4 1	15 37.83	-28 57.1	2.865	3.609	11.9	21.7
4 11	15 34.13	-21 51.8	2.120	2.994	11.1	22.1	4 11	15 33.47	-29 1.9	2.755	3.599	9.8	21.5
4 21	15 27.89	-21 27.6	2.040	2.986	7.9	21.9	4 21	15 27.23	-28 56.1	2.666	3.589	7.4	21.3
5 1	15 19.93	-20 53.9	1.985	2.977	4.2	21.6	5 1	15 19.55	-28 38.9	2.603	3.578	4.8	21.2
5 11	15 11.05	-20 12.5	1.958	2.968	0.8	21.4	5 11	15 11.09	-28 10.6	2.568	3.566	2.9	21.0
5 21	15 2.14	-19 27.0	1.960	2.958	4.0	21.6	5 21	15 2.59	-27 33.1	2.562	3.554	3.8	21.1
5 31	14 54.13	-18 41.6	1.989	2.948	7.8	21.8	5 31	14 54.81	-26 49.7	2.585	3.542	6.3	21.2
6 10	14 47.77	-18 0.9	2.044	2.938	11.3	22.0	6 10	14 48.38	-26 4.3	2.634	3.529	9.0	21.3
246022	2006 UN ₂		5 10.8 231°89	2°2/12.5	18		465398	2008 GF ₇₂		5 10.8 37°21	0°0/10.7	16	
4 1	15 36.91	-26 39.0	2.565	3.326	12.7	21.1	4 1	15 37.27	-19 38.6	1.395	2.215	18.7	21.9
4 11	15 32.91	-26 33.6	2.459	3.317	10.4	20.9	4 11	15 34.45	-19 26.5	1.326	2.225	14.9	21.7
4 21	15 26.92	-26 17.2	2.374	3.308	7.6	20.7	4 21	15 28.59	-19 2.9	1.277	2.235	10.3	21.4
5 1	15 19.40	-25 49.3	2.315	3.298	4.6	20.5	5 1	15 20.39	-18 29.5	1.249	2.245	5.2	21.2
5 11	15 11.06	-25 11.2	2.283	3.287	2.2	20.3	5 11	15 11.07	-17 49.9	1.246	2.256	0.1	20.8
5 21	15 2.71	-24 25.4	2.280	3.277	3.7	20.4	5 21	15 1.97	-17 9.3	1.268	2.267	5.4	21.2
5 31	14 55.14	-23 35.6	2.306	3.266	6.8	20.6	5 31	14 54.36	-16 33.6	1.314	2.279	10.3	21.5
6 10	14 49.04	-22 46.6	2.357	3.255	9.8	20.8	6 10	14 49.17	-16 7.8	1.382	2.291	14.6	21.8
503859	1998 QO ₅₂		5 10.8 221°65	2°4/ 8.8	17		196227	2003 BR ₆₃		5 10.8 151°12	2°6/ 9.5	18	
4 1	15 40.16	-12 22.4	2.585	3.369	12.0	23.9	4 1	15 42.62	-12 58.6	1.537	2.349	17.6	20.6
4 11	15 35.27	-11 42.5	2.476	3.355	9.6	23.7	4 11	15 38.39	-12 40.2	1.459	2.354	14.0	20.4
4 21	15 28.46	-10 57.8	2.391	3.340	6.7	23.5	4 21	15 31.20	-12 17.1	1.402	2.359	9.7	20.1
5 1	15 20.16	-10 10.9	2.333	3.324	3.7	23.3	5 1	15 21.71	-11 52.0	1.368	2.363	5.1	19.9
5 11	15 11.05	- 9 25.1	2.304	3.307	2.6	23.2	5 11	15 11.05	-11 29.0	1.360	2.366	2.7	19.7
5 21	15 1.88	- 8 44.0	2.306	3.289	5.1	23.3	5 21	15 0.49	-11 12.0	1.378	2.370	6.5	20.0
5 31	14 53.42	- 8 11.1	2.336	3.269	8.2	23.5	5 31	14 51.32	-11 4.9	1.421	2.373	11.0	20.2
6 10	14 46.34	- 7 48.8	2.392	3.249	11.2	23.6	6 10	14 44.47	-11 10.2	1.487	2.375	15.0	20.5
497571	2006 DA ₁₇₇		5 10.8 75°37	2°3/ 9.4	17		419611	2010 RH ₁₄₂		5 10.8 176°35	1°1/11.4	17	
4 1	15 37.73	-13 50.4	1.833	2.643	15.3	21.4	4 1	15 40.40	-22 47.2	1.861	2.648	16.0	22.1
4 11	15 33.89	-13 20.4	1.762	2.656	12.0	21.2	4 11	15 36.29	-22 32.8	1.772	2.650	12.8	21.9
4 21	15 27.69	-12 45.2	1.713	2.669	8.3	21.0	4 21	15 29.57	-22 6.2	1.704	2.651	9.1	21.7
5 1	15 19.78	-12 7.7	1.688	2.683	4.3	20.8	5 1	15 20.84	-21 28.0	1.660	2.652	4.9	21.4
5 11	15 11.06	-11 31.9	1.690	2.696	2.4	20.7	5 11	15 11.07	-20 40.5	1.643	2.652	1.1	21.2
5 21	15 2.55	-11 1.8	1.719	2.709	5.5	20.9	5 21	15 1.38	-19 47.9	1.653	2.652	4.5	21.4
5 31	14 55.18	-10 41.0	1.774	2.722	9.3	21.1	5 31	14 52.86	-18 55.8	1.691	2.652	8.8	21.7
6 10	14 49.66	-10 31.9	1.852	2.735	12.7	21.4	6 10	14 46.37	-18 9.9	1.752	2.651	12.6	21.9
183418	2003 AY ₆		5 10.8 175°36	3°4/ 8.4	18		299723	2006 RB ₂₇		5 10.8 256°02	4°7/ 6.6	18	
4 1	15 37.36	- 7 43.7	2.456	3.253	12.2	20.7	4 1	15 33.89	- 7 15.6	2.327	3.135	12.5	21.1
4 11	15 33.03	- 7 20.2	2.369	3.254	9.7	20.6	4 11	15 30.49	- 6 5.3	2.235	3.125	10.0	20.9
4 21	15 26.85	- 6 56.5	2.306	3.255	6.9	20.4	4 21	15 25.22	- 4 52.1	2.165	3.114	7.3	20.7
5 1	15 19.31	- 6 35.5	2.269	3.256	4.3	20.2	5 1	15 18.54	- 3 40.7	2.122	3.104	5.1	20.5
5 11	15 11.09	- 6 20.0	2.260	3.256	3.6	20.2	5 11	15 11.14	- 2 36.3	2.107	3.093	4.9	20.5
5 21	15 2.92	- 6 12.5	2.280	3.257	5.6	20.3	5 21	15 3.74	- 1 43.5	2.120	3.082	7.0	20.6
5 31	14 55.53	- 6 14.9	2.327	3.257	8.4	20.5	5 31	14 57.10	- 1 5.9	2.158	3.071	9.8	20.7
6 10	14 49.53	- 6 28.1	2.399	3.256	11.2	20.7	6 10	14 51.84	- 0 45.3	2.220	3.060	12.6	20.9
53726	2000 EL ₃₄		5 10.8 326°78	1°2/10.2	18		504064	2005 YJ ₁₆₀		5 10.8 291°45	9°0/ 5.3	17	
4 1	15 40.62	-14 30.6	1.596	2.409	17.1	19.2	4 1	15 37.49	+ 3 21.4	1.777	2.587	15.7	21.0
4 11	15 36.88	-14 40.4	1.511	2.406	13.6	19.0	4 11	15 33.92	+ 4 24.2	1.699	2.577	13.2	20.8
4 21	15 30.24	-14 46.4	1.446	2.403	9.5	18.7	4 21	15 27.90	+ 5 20.1	1.641	2.568	10.8	20.6
5 1	15 21.28	-14 49.8	1.405	2.400	4.8	18.4	5 1	15 20.00	+ 6 2.0	1.606	2.559	9.2	20.5
5 11	15 11.04	-14 52.5	1.389	2.398	1.3	18.2	5 11	15 11.10	+ 6 23.4	1.595	2.550	9.4	20.5
5 21	15 0.76	-14 56.9	1.399	2.396	5.6	18.5	5 21	15 2.23	+ 6 20.5	1.609	2.541	11.2	20.6
5 31	14 51.72	-15 5.8	1.435	2.394	10.2	18.7	5 31	14 54.39	+ 5 52.2	1.646	2.533	13.8	20.7
6 10	14 44.92	-15 21.9	1.493	2.392	14.4	19.0	6 10	14 48.42	+ 5 0.2	1.703	2.524	16.6	20.9
267311	2001 TM ₆₁		5 10.8 189°82	0°2/10.6	17		191839	2004 VJ ₁₆		5 10.8 181°05	3°5/ 8.4	18	
4 1	15 39.45	-19 10.8	2.29										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
506477	2003 <i>FK</i> ₁₃₂		5 10.8	96°56'	6°2'/15.4	18	125961	2001 <i>XP</i> ₂₆₆		5 10.8	267°19'	4°7'/13.9	18
4 1	15 41.09	-37 3.6	2.404	3.118	14.7	21.2	4 1	15 39.13	-31 40.1	1.932	2.691	16.4	20.2
4 11	15 36.61	-37 47.3	2.318	3.128	12.6	21.0	4 11	15 35.68	-31 51.4	1.826	2.676	13.8	19.9
4 21	15 29.68	-38 16.3	2.252	3.138	10.2	20.9	4 21	15 29.44	-31 46.3	1.739	2.661	10.7	19.7
5 1	15 20.87	-38 27.2	2.209	3.148	8.0	20.8	5 1	15 20.93	-31 22.0	1.675	2.646	7.3	19.5
5 11	15 11.08	-38 18.7	2.192	3.158	6.4	20.7	5 11	15 11.11	-30 38.1	1.636	2.630	4.9	19.3
5 21	15 1.35	-37 51.8	2.201	3.168	6.5	20.7	5 21	15 1.18	-29 37.2	1.623	2.615	5.7	19.3
5 31	14 52.69	-37 10.4	2.237	3.178	8.1	20.8	5 31	14 52.36	-28 25.1	1.637	2.599	8.9	19.4
6 10	14 45.92	-36 20.1	2.298	3.187	10.4	21.0	6 10	14 45.65	-27 9.7	1.675	2.583	12.6	19.6
54259	2000 <i>JC</i> ₃₂		5 10.8	304°07'	2°6'/12.1	18	409219	2003 <i>WB</i> ₁₄₇		5 10.8	190°61'	0°8'/10.2	16
4 1	15 37.61	-24 18.0	1.610	2.409	17.5	19.0	4 1	15 40.69	-18 10.4	2.085	2.873	14.4	22.4
4 11	15 34.84	-24 33.5	1.513	2.395	14.3	18.7	4 11	15 36.16	-17 41.3	1.991	2.872	11.5	22.2
4 21	15 29.06	-24 36.8	1.435	2.382	10.5	18.4	4 21	15 29.31	-17 3.5	1.919	2.871	7.9	22.0
5 1	15 20.81	-24 26.4	1.379	2.368	6.1	18.1	5 1	15 20.68	-16 18.7	1.873	2.868	4.0	21.7
5 11	15 11.09	-24 2.8	1.348	2.355	2.6	17.9	5 11	15 11.13	-15 30.1	1.855	2.865	0.8	21.5
5 21	15 1.19	-23 28.8	1.342	2.342	5.2	18.0	5 21	15 1.63	-14 41.8	1.866	2.861	4.6	21.7
5 31	14 52.47	-22 49.7	1.362	2.329	9.8	18.2	5 31	14 53.12	-13 58.5	1.904	2.856	8.6	22.0
6 10	14 46.04	-22 12.3	1.404	2.316	14.2	18.5	6 10	14 46.39	-13 24.2	1.967	2.850	12.1	22.2
61750	2000 <i>QD</i> ₁₅₇		5 10.8	58°02'	1°6'/9.6	18 R	304736	2006 <i>XQ</i> ₄₀		5 10.8	111°22'	0°5'/10.4	18
4 1	15 36.12	-17 34.4	1.750	2.560	15.9	19.4	4 1	15 35.43	-18 8.8	2.586	3.373	12.0	21.4
4 11	15 32.92	-16 45.2	1.668	2.563	12.6	19.2	4 11	15 31.44	-17 45.1	2.504	3.384	9.4	21.3
4 21	15 27.22	-15 45.3	1.607	2.565	8.6	19.0	4 21	15 25.71	-17 15.0	2.444	3.395	6.5	21.1
5 1	15 19.64	-14 38.0	1.571	2.567	4.4	18.7	5 1	15 18.74	-16 39.9	2.412	3.406	3.2	20.9
5 11	15 11.13	-13 28.5	1.561	2.569	1.7	18.5	5 11	15 11.18	-16 2.5	2.407	3.417	0.5	20.7
5 21	15 2.76	-12 22.7	1.578	2.572	5.5	18.8	5 21	15 3.74	-15 25.7	2.432	3.428	3.6	20.9
5 31	14 55.53	-11 26.6	1.621	2.574	9.7	19.0	5 31	14 57.09	-14 52.6	2.485	3.438	6.8	21.2
6 10	14 50.23	-10 44.5	1.687	2.576	13.5	19.3	6 10	14 51.78	-14 26.0	2.563	3.448	9.6	21.4
203336	2001 <i>UG</i> ₆		5 10.8	256°31'	3°0'/9.3	16	349448	2008 <i>CJ</i> ₅₄		5 10.8	138°43'	5°8'/4.8	17
4 1	15 41.90	-12 33.0	1.668	2.477	16.6	21.5	4 1	15 35.40	+ 3 7.4	3.154	3.935	10.2	22.4
4 11	15 37.98	-12 7.6	1.564	2.457	13.3	21.2	4 11	15 30.93	+ 4 8.3	3.089	3.950	8.4	22.3
4 21	15 31.14	-11 36.7	1.480	2.436	9.4	20.9	4 21	15 25.11	+ 5 4.6	3.049	3.965	6.8	22.2
5 1	15 21.85	-11 3.1	1.421	2.415	5.2	20.6	5 1	15 18.36	+ 5 52.4	3.036	3.979	5.8	22.2
5 11	15 11.08	-10 31.0	1.387	2.392	3.1	20.4	5 11	15 11.19	+ 6 28.3	3.050	3.992	6.0	22.2
5 21	15 0.04	-10 5.0	1.380	2.370	6.8	20.6	5 21	15 4.15	+ 6 50.2	3.093	4.005	7.1	22.3
5 31	14 50.04	- 9 49.6	1.399	2.346	11.4	20.8	5 31	14 57.75	+ 6 57.0	3.161	4.017	8.7	22.4
6 10	14 42.18	- 9 48.3	1.440	2.322	15.8	21.0	6 10	14 52.42	+ 6 49.1	3.253	4.029	10.4	22.5
240781	2005 <i>SZ</i> ₂₆₄		5 10.8	311°32'	1°6'/11.9	18	153933	2001 <i>YR</i> ₇₁		5 10.8	230°93'	1°6'/11.8	17
4 1	15 34.94	-24 27.5	2.161	2.944	14.1	20.1	4 1	15 39.79	-23 21.8	2.090	2.869	14.7	20.5
4 11	15 31.71	-24 17.0	2.064	2.938	11.4	19.9	4 11	15 35.69	-23 24.5	1.989	2.860	11.9	20.3
4 21	15 26.28	-23 54.9	1.987	2.931	8.2	19.7	4 21	15 29.15	-23 16.9	1.908	2.851	8.6	20.1
5 1	15 19.16	-23 21.3	1.936	2.925	4.6	19.5	5 1	15 20.68	-22 58.7	1.852	2.841	4.8	19.8
5 11	15 11.15	-22 38.2	1.911	2.918	1.7	19.2	5 11	15 11.14	-22 30.9	1.823	2.831	1.7	19.6
5 21	15 3.13	-21 49.0	1.913	2.912	4.0	19.4	5 21	15 1.51	-21 56.3	1.822	2.820	4.2	19.7
5 31	14 56.03	-20 58.2	1.943	2.906	7.6	19.6	5 31	14 52.85	-21 19.1	1.848	2.809	8.1	19.9
6 10	14 50.59	-20 10.9	1.998	2.901	11.1	19.8	6 10	14 45.99	-20 44.2	1.899	2.798	11.8	20.1
499566	2010 <i>SE</i> ₁₉		5 10.8	257°56'	1°6'/9.9	17	276156	2002 <i>LL</i> ₁		5 10.8	315°52'	3°8'/8.5	17
4 1	15 39.55	-16 21.0	1.787	2.591	15.8	22.5	4 1	15 35.91	-10 2.2	1.788	2.606	15.3	20.4
4 11	15 35.89	-15 53.0	1.682	2.573	12.7	22.2	4 11	15 32.74	- 9 27.3	1.701	2.599	12.2	20.2
4 21	15 29.53	-15 16.2	1.599	2.554	8.9	22.0	4 21	15 27.14	- 8 49.2	1.635	2.592	8.6	19.9
5 1	15 20.96	-14 32.6	1.539	2.535	4.5	21.7	5 1	15 19.66	- 8 12.0	1.594	2.585	5.1	19.7
5 11	15 11.10	-13 45.9	1.506	2.515	1.7	21.4	5 11	15 11.16	- 7 40.2	1.578	2.578	4.0	19.6
5 21	15 1.07	-13 0.9	1.501	2.495	5.7	21.6	5 21	15 2.67	- 7 18.0	1.589	2.572	6.8	19.8
5 31	14 52.03	-12 22.9	1.521	2.474	10.2	21.8	5 31	14 55.19	- 7 8.9	1.624	2.566	10.6	20.0
6 10	14 44.99	-11 56.4	1.564	2.453	14.4	22.0	6 10	14 49.56	- 7 14.5	1.682	2.560	14.1	20.2
129864	1999 <i>RJ</i> ₁₆₁		5 10.8	320°67'	1°2'/10.1	18	472819	2015 <i>FB</i> ₁₆₉		5 10.8	310°21'	2°3'/9.3	17
4 1	15 30.57	-19 39.6	1.207	2.049	19.7	19.5	4 1	15 35.58	-14 6.1	1.888	2.699	14.8	21.7
4 11	15 30.06	-18 58.3	1.111	2.023	15.9	19.1	4 11	15 32.37	-13 34.0	1.799	2.694	11.8	21.4
4 21	15 26.24	-17 58.4	1.033	1.998	11.2	18.8	4 21	15 26.82	-12 55.6	1.731	2.688	8.1	21.2
5 1	15 19.57	-16 42.0	0.975	1.973	5.7	18.4	5 1	15 19.47	-12 14.0	1.688	2.683	4.3	21.0
5 11	15 11.13	-15 14.9	0.940	1.949	1.4	18.0	5 11	15 11.17	-11 33.1	1.672	2.678	2.4	20.8
5 21	15 2.39	-13 46.2	0.927	1.926	7.0	18.3	5 21	15 2.89	-10 57.3	1.683	2.673	5.6	21.0
5 31	14 54.98	-12 26.9	0.937	1.905	13.0	18.5	5 31	14 55.60	-10 30.7	1.719	2.668	9.5	21.2
6 10	14 50.19	-11 26.0	0.966	1.884	18.5	18.8	6 10	14 50.08	-10 16.3	1.778	2.664	13.1	21.4
473718	2015 <i>YU</i> ₂₀		5 10.8	262°62'	5°3'/17.4	18	318515	2005 <i>EZ</i> ₁₈₂		5 10.8	286°20'	2°8'/12.1	17
4 1	15 36.50	-45 8.6	4.585	5.216	9.1	21.2	4 1	15 39.61	-24 14.9	1.591	2.388	17.8	20.7
4 11	15 32.03	-45 52.7	4.480	5.213	8.1	21.1	4 11	15 36.64	-24 34.7	1.486	2.367	14.7	20.5
4 21	15 26.06	-46 26.7	4.395	5.209	7.1	21.0	4 21	15 30.50	-24 42.8	1.400	2.346	10.8	20.2
5 1	15 18.94	-46 48.4	4.333	5.206	6.1	20.9	5 1	15 21.66	-24 37.2	1.336	2.325	6.4	19.8
5 11	15 11.16	-46 57.0	4.297	5.203	5.4	20.9	5 11	15 11.12	-24 17.6	1.297	2.304	2.8	19.6
5 21	15 3.29	-46 52.6	4.287	5.200	5.3	20.9	5 21	15 0.23	-23 46.4	1.284	2.283	5.5	19.7
5 31	14 55.93	-46 36.2	4.304	5.196	5.8	20.9	5 31	14 50.49	-23 8.9	1.295	2.262	10.3	19.9
6 10	14 49.58	-46 10.5	4.347	5.193	6.8	21.0	6 10	14 43.12	-22 31.8	1.329	2.240	14.9	20.1
346044	2007 <i>TE</i> ₄₅₁		5 10.8	238°99'	2°8'/8.9	18	64390	2001 <i>UY</i> ₁₄					

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
319518	2006 <i>QR</i> ₁₈₆		5 10.8 119°67	3°6/ 8.6	17		384474	2010 <i>CX</i> ₂₈		5 10.8 212°96	3°7/ 8.2	17	
4 1	15 38.96	-11 39.4	1.684	2.498	16.2	21.4	4 1	15 36.24	-9 40.5	2.079	2.887	13.8	21.6
4 11	15 35.14	-10 52.7	1.610	2.506	12.8	21.2	4 11	15 32.56	-8 58.2	1.993	2.885	10.9	21.4
4 21	15 28.74	-10 1.1	1.556	2.513	8.9	21.0	4 21	15 26.78	-8 13.2	1.930	2.884	7.7	21.2
5 1	15 20.42	-9 8.8	1.527	2.520	5.1	20.8	5 1	15 19.40	-7 29.0	1.893	2.882	4.7	21.0
5 11	15 11.16	-8 21.2	1.525	2.526	3.8	20.7	5 11	15 11.21	-6 50.1	1.882	2.880	3.8	20.9
5 21	15 2.08	-7 43.3	1.548	2.533	6.8	20.9	5 21	15 3.08	-6 20.4	1.899	2.878	6.3	21.1
5 31	14 54.21	-7 19.3	1.598	2.539	10.7	21.1	5 31	14 55.86	-6 2.9	1.942	2.876	9.6	21.3
6 10	14 48.37	-7 11.2	1.669	2.545	14.3	21.3	6 10	14 50.23	-5 59.4	2.008	2.873	12.7	21.5
373514	2001 <i>RE</i> ₅₈		5 10.8 188°61	2°1/12.2	17		380568	2004 <i>RW</i> ₂₂		5 10.8 224°34	0°1/10.9	18	
4 1	15 42.41	-24 42.0	2.387	3.147	13.6	22.7	4 1	15 39.26	-19 37.8	2.275	3.058	13.5	22.3
4 11	15 37.38	-24 55.1	2.288	3.147	11.0	22.5	4 11	15 34.98	-19 27.1	2.172	3.049	10.8	22.1
4 21	15 30.11	-24 58.8	2.210	3.145	8.0	22.3	4 21	15 28.50	-19 8.5	2.090	3.039	7.6	21.9
5 1	15 21.10	-24 52.3	2.158	3.143	4.7	22.1	5 1	15 20.32	-18 42.6	2.035	3.028	3.9	21.6
5 11	15 11.15	-24 36.0	2.135	3.140	2.2	21.9	5 11	15 11.19	-18 11.4	2.007	3.017	0.1	21.3
5 21	15 1.18	-24 11.8	2.140	3.136	4.0	22.0	5 21	15 2.01	-17 37.9	2.008	3.005	4.0	21.6
5 31	14 52.11	-23 43.2	2.174	3.132	7.3	22.2	5 31	14 53.68	-17 5.8	2.037	2.993	7.8	21.8
6 10	14 44.72	-23 14.3	2.234	3.127	10.5	22.4	6 10	14 46.95	-16 38.9	2.091	2.980	11.3	22.0
105917	2000 <i>SW</i> ₂₀₇		5 10.8 108°70	1°9/ 9.1	18		54971	2001 <i>PU</i> ₄₂		5 10.8 209°73	3°1/13.2	18	
4 1	15 34.66	-14 29.3	2.462	3.260	12.2	20.3	4 1	15 37.58	-29 4.5	2.457	3.210	13.4	19.1
4 11	15 30.90	-13 46.3	2.382	3.269	9.6	20.1	4 11	15 33.58	-29 6.8	2.357	3.207	11.1	18.9
4 21	15 25.38	-12 58.0	2.324	3.278	6.6	19.9	4 21	15 27.48	-28 56.8	2.278	3.204	8.3	18.7
5 1	15 18.59	-12 7.2	2.293	3.287	3.5	19.7	5 1	15 19.77	-28 33.6	2.223	3.200	5.3	18.5
5 11	15 11.22	-11 17.3	2.291	3.296	2.0	19.6	5 11	15 11.21	-27 57.7	2.197	3.196	3.2	18.3
5 21	15 3.96	-10 32.0	2.317	3.305	4.6	19.8	5 21	15 2.67	-27 11.8	2.198	3.192	4.2	18.4
5 31	14 57.52	-9 54.6	2.371	3.313	7.6	20.0	5 31	14 55.01	-26 19.9	2.227	3.187	7.0	18.6
6 10	14 52.43	-9 27.6	2.449	3.322	10.4	20.2	6 10	14 48.93	-25 27.1	2.282	3.182	10.0	18.8
412394	2013 <i>TZ</i> ₄₆		5 10.8 196°14	2°2/ 7.3	18		501528	2014 <i>FV</i> ₅		5 10.8 181°45	4°2/ 7.2	18	
4 1	15 27.46	-8 25.6	4.673	5.464	6.9	21.4	4 1	15 35.31	-5 50.2	2.616	3.414	11.5	21.7
4 11	15 24.44	-7 37.0	4.581	5.463	5.4	21.2	4 11	15 31.31	-5 1.7	2.531	3.415	9.2	21.5
4 21	15 20.56	-6 47.3	4.514	5.462	3.9	21.1	4 21	15 25.63	-4 12.9	2.470	3.415	6.7	21.3
5 1	15 16.06	-5 58.5	4.477	5.461	2.5	21.0	5 1	15 18.74	-3 27.5	2.435	3.415	4.7	21.2
5 11	15 11.28	-5 12.6	4.470	5.460	2.3	21.0	5 11	15 11.24	-2 49.4	2.429	3.414	4.4	21.2
5 21	15 6.52	-4 31.6	4.492	5.458	3.5	21.1	5 21	15 3.80	-2 21.5	2.451	3.414	6.2	21.3
5 31	15 2.11	-3 56.9	4.543	5.457	5.1	21.2	5 31	14 57.07	-2 6.1	2.500	3.412	8.7	21.4
6 10	14 58.34	-3 29.8	4.620	5.456	6.6	21.3	6 10	14 51.61	-2 4.2	2.572	3.411	11.1	21.6
434059	2001 <i>UA</i> ₂₂₁		5 10.8 203°20	0°5/11.3	17		463190	2012 <i>BL</i> ₁₂₂		5 10.8 81°43	6°6/14.2	17	
4 1	15 35.74	-22 25.0	2.618	3.393	12.1	21.7	4 1	15 43.18	-32 31.6	1.618	2.380	18.9	21.7
4 11	15 31.82	-21 57.2	2.518	3.390	9.7	21.5	4 11	15 39.42	-33 25.4	1.536	2.385	16.0	21.5
4 21	15 26.08	-21 19.7	2.441	3.386	6.8	21.3	4 21	15 32.31	-34 3.0	1.473	2.390	12.6	21.3
5 1	15 18.99	-20 33.6	2.391	3.383	3.6	21.1	5 1	15 22.48	-34 19.6	1.432	2.395	9.1	21.1
5 11	15 11.21	-19 41.3	2.369	3.378	0.5	20.8	5 11	15 11.15	-34 12.6	1.414	2.400	6.8	21.0
5 21	15 3.48	-18 46.1	2.376	3.374	3.4	21.1	5 21	14 59.83	-33 43.4	1.421	2.405	7.4	21.0
5 31	14 56.52	-17 52.0	2.412	3.369	6.7	21.3	5 31	14 50.04	-32 57.6	1.453	2.410	10.3	21.2
6 10	14 50.92	-17 3.1	2.474	3.364	9.7	21.4	6 10	14 42.90	-32 3.9	1.508	2.415	13.7	21.4
176724	2002 <i>RH</i> ₂		5 10.8 295°12	1°3/11.4	18		263957	2009 <i>HK</i> ₁₀₃		5 10.8 166°17	1°1/ 9.8	17	
4 1	15 38.09	-21 42.4	1.548	2.355	17.8	20.5	4 1	15 34.68	-16 51.2	2.585	3.376	11.9	21.1
4 11	15 35.49	-21 47.3	1.440	2.329	14.5	20.2	4 11	15 30.91	-16 13.2	2.494	3.378	9.4	20.9
4 21	15 29.75	-21 40.9	1.350	2.303	10.4	19.9	4 21	15 25.41	-15 28.6	2.427	3.380	6.4	20.8
5 1	15 21.31	-21 22.3	1.283	2.277	5.7	19.6	5 1	15 18.64	-14 39.5	2.387	3.382	3.2	20.6
5 11	15 11.15	-20 52.6	1.241	2.250	1.4	19.2	5 11	15 11.25	-13 49.1	2.375	3.383	1.2	20.4
5 21	15 0.59	-20 15.1	1.224	2.224	5.4	19.4	5 21	15 3.93	-13 0.7	2.392	3.385	4.0	20.6
5 31	14 51.10	-19 35.7	1.232	2.198	10.7	19.6	5 31	14 57.37	-12 18.0	2.437	3.386	7.2	20.8
6 10	14 43.95	-19 1.0	1.261	2.172	15.6	19.8	6 10	14 52.12	-11 43.9	2.508	3.387	10.0	21.0
433537	2013 <i>WH</i> ₉₅		5 10.8 204°98	0°0/10.8	18		242278	2003 <i>UN</i> ₈₂		5 10.8 123°75	6°9/ 6.3	18	
4 1	15 39.83	-18 56.3	2.358	3.139	13.2	22.0	4 1	15 41.23	-1 9.6	1.968	2.767	14.8	20.7
4 11	15 35.29	-18 49.8	2.258	3.134	10.5	22.2	4 11	15 36.30	-0 1.4	1.907	2.786	12.0	20.6
4 21	15 28.63	-18 36.3	2.181	3.129	7.3	21.8	4 21	15 29.19	+1 3.1	1.868	2.804	9.2	20.4
5 1	15 20.35	-18 16.6	2.129	3.123	3.7	21.6	5 1	15 20.54	+1 57.9	1.855	2.821	7.2	20.3
5 11	15 11.19	-17 52.5	2.106	3.116	0.1	21.2	5 11	15 11.21	+2 37.4	1.869	2.837	7.2	20.3
5 21	15 2.00	-17 26.5	2.112	3.109	3.9	21.5	5 21	15 2.15	+2 58.3	1.909	2.852	9.0	20.5
5 31	14 53.65	-17 2.0	2.146	3.101	7.6	21.8	5 31	14 54.22	+2 59.0	1.974	2.867	11.6	20.7
6 10	14 46.86	-16 42.3	2.205	3.093	10.8	21.9	6 10	14 48.06	+2 40.4	2.061	2.881	14.1	20.9
411672	2011 <i>WR</i> ₁₀₂		5 10.8 226°66	4°0/ 8.3	16		303684	2005 <i>NO</i> ₃₇		5 10.8 270°75	5°3/ 6.5	16	
4 1	15 39.81	-11 44.4	1.699	2.511	16.2	22.3	4 1	15 34.56	-3 56.9	2.338	3.144	12.5	21.4
4 11	15 36.02	-10 46.7	1.607	2.502	12.9	22.1	4 11	15 31.07	-3 1.4	2.243	3.129	10.1	21.2
4 21	15 29.54	-9 41.9	1.537	2.493	9.1	21.8	4 21	15 25.68	-2 6.1	2.171	3.115	7.6	21.0
5 1	15 20.93	-8 34.5	1.491	2.483	5.3	21.6	5 1	15 18.86	-1 15.5	2.125	3.100	5.7	20.8
5 11	15 11.17	-7 30.8	1.472	2.472	4.2	21.5	5 11	15 11.26	-0 34.2	2.106	3.085	5.6	20.8
5 21	15 1.38	-6 36.9	1.479	2.461	7.4	21.6	5 21	15 3.62	-0 6.1	2.114	3.070	7.5	20.9
5 31	14 52.71	-5 58.3	1.512	2.449	11.5	21.8	5 31	14 56.71	+0 6.2	2.147	3.054	10.1	21.0
6 10	14 46.08	-5 38.1	1.566	2.437	15.4	22.1	6 10	14 51.18	+0 1.7	2.204	3.039	12.8	21.2
507855	2014 <i>HE</i> ₁₁		5 10.8 306°68	4°4/ 7.1	18		248901	2006 <i>UQ</i> ₃₃₇		5 10.8 341°56	0°9/10.2	17	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
386547	2009 <i>DP</i> ₁₄		5 10.8 36°21'	3°9'/13.4	17	R	503168	2015 <i>GO</i> ₃₈		5 10.8 138°65'	1°4'/9.9	18	
4 1	15 37.55	-29 11.0	2.006	2.773	15.6	20.6	4 1	15 40.40	-13 54.5	2.328	3.117	13.1	21.4
4 11	15 34.04	-29 31.7	1.921	2.779	12.9	20.4	4 11	15 35.55	-13 47.1	2.246	3.127	10.3	21.2
4 21	15 28.04	-29 38.8	1.857	2.785	9.7	20.2	4 21	15 28.69	-13 36.2	2.186	3.137	7.1	21.0
5 1	15 20.13	-29 30.8	1.816	2.791	6.4	20.0	5 1	15 20.34	-13 23.4	2.153	3.147	3.6	20.8
5 11	15 11.24	-29 8.0	1.800	2.798	4.0	19.9	5 11	15 11.27	-13 10.8	2.148	3.156	1.5	20.7
5 21	15 2.42	-28 32.6	1.812	2.805	5.0	20.0	5 21	15 2.30	-13 0.7	2.173	3.165	4.4	20.9
5 31	14 54.71	-27 49.4	1.850	2.812	8.1	20.1	5 31	14 54.23	-12 55.6	2.225	3.173	7.8	21.1
6 10	14 48.92	-27 4.1	1.912	2.819	11.3	20.4	6 10	14 47.73	-12 57.2	2.303	3.181	10.8	21.3
323064	2002 <i>SK</i> ₅₁		5 10.8 273°12'	1°2'/11.4	17		233961	2010 <i>AA</i> ₃		5 10.8 139°13'	7°8'/5.2	18	
4 1	15 40.76	-20 45.0	1.716	2.513	16.7	21.7	4 1	15 37.08	+ 2 15.1	2.061	2.863	14.1	20.4
4 11	15 37.19	-20 58.3	1.611	2.495	13.6	21.4	4 11	15 33.12	+ 3 23.6	1.992	2.868	11.7	20.2
4 21	15 30.68	-21 3.0	1.526	2.476	9.7	21.1	4 21	15 27.09	+ 4 26.5	1.945	2.872	9.4	20.1
5 1	15 21.70	-20 58.4	1.464	2.457	5.2	20.8	5 1	15 19.55	+ 5 17.7	1.923	2.876	8.0	20.0
5 11	15 11.21	-20 45.1	1.428	2.438	1.2	20.5	5 11	15 11.28	+ 5 51.8	1.927	2.880	8.1	20.0
5 21	15 0.43	-20 25.6	1.419	2.418	5.0	20.7	5 21	15 3.15	+ 6 5.4	1.956	2.884	9.8	20.1
5 31	14 50.69	-20 4.2	1.436	2.399	9.8	20.9	5 31	14 55.98	+ 5 57.2	2.009	2.888	12.1	20.2
6 10	14 43.13	-19 46.0	1.475	2.379	14.2	21.1	6 10	14 50.41	+ 5 28.4	2.083	2.891	14.4	20.4
512767	2016 <i>UP</i> ₅₇		5 10.8 229°80'	6°0'/14.4	18		110110	2001 <i>SP</i> ₁₃₅		5 10.8 161°00'	1°1'/11.5	17	
4 1	15 45.66	-36 22.6	2.866	3.561	12.9	21.9	4 1	15 41.23	-22 21.6	2.286	3.058	13.8	21.0
4 11	15 40.13	-37 32.0	2.756	3.553	11.2	21.7	4 11	15 36.42	-22 18.3	2.197	3.065	11.1	20.8
4 21	15 32.22	-38 31.1	2.667	3.543	9.2	21.6	4 21	15 29.41	-22 5.8	2.129	3.071	7.8	20.6
5 1	15 22.33	-39 16.0	2.603	3.534	7.3	21.5	5 1	15 20.75	-21 44.3	2.087	3.077	4.2	20.4
5 11	15 11.21	-39 44.1	2.567	3.524	6.1	21.4	5 11	15 11.27	-21 15.4	2.073	3.082	1.1	20.2
5 21	14 59.80	-39 54.4	2.559	3.514	6.4	21.4	5 21	15 1.86	-20 41.7	2.088	3.086	3.8	20.4
5 31	14 49.11	-39 48.6	2.578	3.504	7.9	21.4	5 31	14 53.42	-20 7.2	2.131	3.089	7.4	20.6
6 10	14 40.03	-39 30.8	2.623	3.493	9.9	21.6	6 10	14 46.67	-19 36.0	2.200	3.092	10.7	20.8
438998	2010 <i>UM</i> ₁₆		5 10.8 283°03'	4°2'/7.7	18		422222	2014 <i>RV</i> ₆₁		5 10.8 232°32'	1°5'/10.1	17	
4 1	15 37.09	-21 8.1	1.097	1.933	21.7	20.2	4 1	15 43.19	-14 57.7	1.802	2.601	16.0	21.5
4 11	15 35.20	-18 40.4	1.019	1.929	17.2	19.9	4 11	15 38.75	-14 50.2	1.702	2.589	12.8	21.3
4 21	15 29.62	-15 39.8	0.959	1.925	11.8	19.5	4 21	15 31.53	-14 37.3	1.623	2.576	8.9	21.0
5 1	15 21.15	-12 15.2	0.923	1.920	6.2	19.2	5 1	15 22.04	-14 20.4	1.568	2.562	4.6	20.7
5 11	15 11.23	-8 44.0	0.912	1.916	4.8	19.1	5 11	15 11.24	-14 2.1	1.540	2.548	1.5	20.5
5 21	15 1.54	-5 27.0	0.926	1.911	10.0	19.4	5 21	15 0.27	-13 45.7	1.539	2.534	5.5	20.7
5 31	14 53.66	-2 42.6	0.964	1.907	15.7	19.7	5 31	14 50.35	-13 34.8	1.565	2.518	10.0	20.9
6 10	14 48.67	-0 40.8	1.021	1.903	20.8	20.0	6 10	14 42.48	-13 32.8	1.615	2.502	14.1	21.1
166160	2002 <i>EB</i> ₃₃		5 10.8 167°49'	2°9'/12.2	17		237992	2002 <i>SB</i> ₅₂		5 10.8 184°20'	1°2'/11.5	17	
4 1	15 44.21	-24 32.6	1.704	2.485	17.4	20.5	4 1	15 40.82	-20 42.7	2.353	3.129	13.3	20.6
4 11	15 39.78	-25 0.8	1.617	2.488	14.2	20.3	4 11	15 36.13	-21 4.0	2.258	3.129	10.7	20.4
4 21	15 32.32	-25 18.0	1.550	2.491	10.4	20.1	4 21	15 29.27	-21 19.1	2.185	3.128	7.6	20.2
5 1	15 22.43	-25 22.2	1.507	2.493	6.2	19.9	5 1	15 20.73	-21 27.5	2.138	3.128	4.1	20.0
5 11	15 11.21	-25 13.1	1.489	2.494	3.0	19.7	5 11	15 11.27	-21 29.6	2.119	3.127	1.2	19.8
5 21	14 59.98	-24 52.9	1.499	2.496	5.2	19.8	5 21	15 1.78	-21 26.8	2.129	3.126	3.8	20.0
5 31	14 50.08	-24 26.0	1.534	2.496	9.4	20.0	5 31	14 53.15	-21 21.7	2.167	3.125	7.3	20.2
6 10	14 42.53	-23 58.7	1.593	2.497	13.3	20.3	6 10	14 46.13	-21 17.2	2.231	3.124	10.5	20.4
418343	2008 <i>GG</i> ₄₆		5 10.8 223°72'	1°3'/9.3	18		260860	2005 <i>QU</i> ₈₉		5 10.8 274°96'	3°1'/8.9	17	
4 1	15 30.93	-10 48.0	4.602	5.384	7.2	21.3	4 1	15 36.93	-13 14.4	1.707	2.523	16.0	21.2
4 11	15 27.18	-10 47.6	4.504	5.382	5.6	21.2	4 11	15 33.81	-12 30.6	1.614	2.511	12.7	21.0
4 21	15 22.47	-10 46.5	4.431	5.380	3.9	21.0	4 21	15 28.06	-11 39.6	1.542	2.499	8.9	20.7
5 1	15 17.07	-10 45.8	4.386	5.378	2.1	20.9	5 1	15 20.25	-10 44.9	1.493	2.487	4.9	20.5
5 11	15 11.33	-10 46.5	4.372	5.375	1.3	20.8	5 11	15 11.28	-9 51.9	1.471	2.475	3.3	20.3
5 21	15 5.59	-10 49.6	4.387	5.373	2.7	20.9	5 21	15 2.26	-9 6.0	1.475	2.463	6.6	20.5
5 31	15 0.20	-10 56.0	4.433	5.371	4.5	21.1	5 31	14 54.30	-8 32.3	1.504	2.451	10.9	20.7
6 10	14 55.50	-11 6.3	4.505	5.369	6.2	21.2	6 10	14 48.30	-8 14.4	1.556	2.439	14.8	20.9
310486	2000 <i>SB</i> ₃₆₁		5 10.8 167°55'	10°0'/16.9	18		270334	2001 <i>XU</i> ₁₇₂		5 10.8 92°29'	0°8'/11.4	18	
4 1	15 54.59	-44 45.7	2.223	2.879	17.1	21.5	4 1	15 41.49	-22 42.1	1.996	2.776	15.3	21.6
4 11	15 48.39	-46 12.7	2.133	2.885	15.3	21.4	4 11	15 36.66	-22 21.2	1.930	2.803	12.1	21.4
4 21	15 38.60	-47 22.4	2.061	2.891	13.3	21.2	4 21	15 29.51	-21 49.2	1.884	2.830	8.5	21.2
5 1	15 25.78	-48 7.6	2.010	2.895	11.4	21.1	5 1	15 20.73	-21 7.2	1.864	2.855	4.5	21.0
5 11	15 11.14	-48 22.9	1.983	2.899	10.2	21.1	5 11	15 11.28	-20 18.1	1.871	2.881	0.9	20.8
5 21	14 56.31	-48 6.9	1.981	2.901	10.1	21.0	5 21	15 2.15	-19 26.1	1.907	2.905	4.1	21.1
5 31	14 42.96	-47 23.3	2.004	2.903	11.2	21.1	5 31	14 54.24	-18 36.3	1.971	2.930	7.8	21.4
6 10	14 32.40	-46 20.3	2.051	2.904	12.9	21.2	6 10	14 48.24	-17 53.1	2.059	2.953	11.2	21.6
123647	Tomáško		5 10.8 30°72'	3°0'/9.1	17		428718	2008 <i>RR</i> ₄₁		5 10.8 311°40'	7°1'/13.5	17	
4 1	15 37.50	-11 29.5	1.784	2.598	15.5	20.6	4 1	15 40.32	-31 11.2	1.631	2.403	18.5	20.9
4 11	15 33.94	-11 6.7	1.705	2.601	12.3	20.4	4 11	15 37.56	-32 23.8	1.526	2.382	15.7	20.7
4 21	15 27.94	-10 40.7	1.647	2.603	8.5	20.1	4 21	15 31.44	-33 25.0	1.440	2.361	12.6	20.4
5 1	15 20.07	-10 14.6	1.613	2.606	4.7	19.9	5 1	15 22.32	-34 9.4	1.375	2.340	9.3	20.2
5 11	15 11.26	-9 52.2	1.605	2.609	3.1	19.8	5 11	15 11.24	-34 32.4	1.334	2.320	7.2	20.0
5 21	15 2.54	-9 37.1	1.624	2.612	6.1	20.0	5 21	14 59.61	-34 32.5	1.317	2.300	8.0	20.0
5 31	14 54.90	-9 32.3	1.668	2.615	9.9	20.2	5 31	14 49.12	-34 12.7	1.324	2.280	11.1	20.1
6 10	14 49.16	-9 39.7	1.735	2.619	13.5	20.5	6 10	14 41.18	-33 40.2	1.353	2.262	14.9	20.3
511773	2015 <i>DO</i> ₂₂₈		5 10.8 307°07'	5°5'/7.2	17		462189	2007 <i>UU</i> ₂₁		5 10.8 94			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
303228	2004 <i>OQ</i> ₆		5 10.8 318°50	5°6/ 8.4 17			320598	2008 <i>BO</i> ₃₉		5 10.8 179°32	2°5/ 9.4 17		
4 1	15 35.18	- 9 9.9	1.155	2.004	20.0	20.7	4 1	15 41.72	-12 15.7	1.922	2.721	15.1	21.5
4 11	15 33.71	- 8 31.0	1.071	1.986	16.1	20.4	4 11	15 37.14	-11 55.5	1.835	2.723	12.0	21.3
4 21	15 28.78	- 7 47.9	1.005	1.969	11.6	20.1	4 21	15 30.10	-11 31.7	1.771	2.724	8.3	21.1
5 1	15 20.91	- 7 6.7	0.959	1.952	7.2	19.8	5 1	15 21.19	-11 6.8	1.731	2.724	4.5	20.9
5 11	15 11.28	- 6 35.0	0.935	1.936	5.9	19.7	5 11	15 11.30	-10 44.1	1.719	2.724	2.6	20.7
5 21	15 1.40	- 6 19.4	0.934	1.921	9.6	19.8	5 21	15 1.46	-10 27.0	1.735	2.723	5.7	20.9
5 31	14 52.93	- 6 25.0	0.953	1.906	14.7	20.0	5 31	14 52.68	-10 18.6	1.777	2.722	9.6	21.2
6 10	14 47.17	- 6 53.4	0.991	1.893	19.6	20.3	6 10	14 45.78	-10 21.1	1.843	2.720	13.1	21.4
169936	2002 <i>TA</i> ₂₈		5 10.8 249°50	0°0/10.7 18			356576	2011 <i>SJ</i> ₂₄₆		5 10.8 161°71	0°1/10.7 18		
4 1	15 36.68	-19 33.4	2.229	3.019	13.6	20.4	4 1	15 35.46	-19 22.6	3.019	3.794	10.7	21.9
4 11	15 32.99	-19 18.0	2.130	3.011	10.8	20.2	4 11	15 31.28	-19 1.2	2.926	3.800	8.5	21.7
4 21	15 27.16	-18 54.4	2.052	3.002	7.5	20.0	4 21	15 25.56	-18 33.5	2.857	3.805	5.8	21.5
5 1	15 19.68	-18 23.6	1.999	2.993	3.9	19.7	5 1	15 18.73	-18 0.6	2.816	3.809	2.9	21.4
5 11	15 11.31	-17 47.8	1.975	2.985	0.1	19.4	5 11	15 11.35	-17 24.6	2.803	3.813	0.1	21.1
5 21	15 2.91	-17 10.3	1.978	2.975	4.0	19.7	5 21	15 4.05	-16 47.8	2.821	3.817	3.1	21.4
5 31	14 55.36	-16 35.1	2.009	2.966	7.8	19.9	5 31	14 57.40	-16 13.2	2.867	3.820	6.0	21.6
6 10	14 49.39	-16 5.9	2.064	2.957	11.2	20.1	6 10	14 51.92	-15 43.4	2.940	3.823	8.6	21.7
35592	1998 <i>HR</i> ₉₄		5 10.8 321°81	2°0/ 9.3 18			471373	2011 <i>SF</i> ₇₅		5 10.8 120°85	6°3/16.1 18		
4 1	15 32.76	-18 22.6	1.606	2.427	16.6	17.1	4 1	15 42.29	-39 19.7	2.742	3.432	13.5	21.9
4 11	15 30.70	-17 16.1	1.513	2.413	13.2	16.9	4 11	15 37.35	-40 4.8	2.655	3.444	11.7	21.8
4 21	15 26.00	-15 54.6	1.440	2.400	9.1	16.6	4 21	15 30.13	-40 35.6	2.588	3.456	9.7	21.7
5 1	15 19.22	-14 22.0	1.391	2.388	4.6	16.3	5 1	15 21.17	-40 49.1	2.544	3.467	7.8	21.6
5 11	15 11.31	-12 44.8	1.368	2.375	2.2	16.1	5 11	15 11.31	-40 43.8	2.525	3.478	6.5	21.5
5 21	15 3.40	-11 11.2	1.371	2.364	6.2	16.3	5 21	15 1.48	-40 20.5	2.534	3.489	6.5	21.5
5 31	14 56.60	- 9 49.5	1.399	2.353	10.9	16.6	5 31	14 52.64	-39 42.2	2.570	3.500	7.7	21.6
6 10	14 51.82	- 8 45.8	1.449	2.342	15.0	16.8	6 10	14 45.53	-38 54.3	2.631	3.510	9.6	21.8
175576	2006 <i>TJ</i> ₆₂		5 10.8 200°50	3°8/ 7.9 18			159493	2000 <i>UA</i>		5 10.8 171°44	9°8/18.7 18		
4 1	15 36.67	- 6 39.1	2.530	3.327	11.9	20.7	4 1	15 53.87	-48 42.0	2.474	3.097	16.2	19.5
4 11	15 32.50	- 6 9.2	2.441	3.325	9.5	20.6	4 11	15 47.48	-49 44.6	2.380	3.103	14.7	19.4
4 21	15 26.55	- 5 39.4	2.375	3.322	6.9	20.4	4 21	15 37.72	-50 28.1	2.304	3.107	13.0	19.2
5 1	15 19.28	- 5 12.8	2.335	3.319	4.5	20.2	5 1	15 25.22	-50 46.2	2.248	3.111	11.3	19.1
5 11	15 11.33	- 4 52.5	2.324	3.316	3.9	20.2	5 11	15 11.23	-50 34.6	2.216	3.114	10.1	19.0
5 21	15 3.41	- 4 41.2	2.341	3.312	5.8	20.3	5 21	14 57.24	-49 53.0	2.208	3.115	9.8	19.0
5 31	14 56.22	- 4 40.7	2.385	3.308	8.5	20.5	5 31	14 44.80	-48 45.4	2.226	3.116	10.6	19.1
6 10	14 50.35	- 4 51.9	2.453	3.304	11.1	20.6	6 10	14 35.02	-47 19.8	2.267	3.116	12.0	19.2
205363	2000 <i>YW</i> ₁₆		5 10.8 192°16	11°8/18.6 18			195390	2002 <i>GJ</i> ₁₀		5 10.8 282°11	2°9/12.4 17		
4 1	15 49.62	-45 27.0	1.399	2.109	23.6	20.6	4 1	15 39.46	-25 28.9	1.872	2.653	16.1	20.5
4 11	15 46.02	-46 9.8	1.313	2.109	21.1	20.3	4 11	15 35.83	-25 50.9	1.778	2.648	13.2	20.2
4 21	15 37.73	-46 22.5	1.241	2.107	18.1	20.1	4 21	15 29.49	-26 1.6	1.704	2.643	9.7	20.0
5 1	15 25.52	-45 55.1	1.186	2.105	15.0	19.9	5 1	15 21.00	-25 59.6	1.654	2.639	5.9	19.8
5 11	15 11.20	-44 41.3	1.151	2.103	12.5	19.8	5 11	15 11.31	-25 44.8	1.630	2.634	3.0	19.6
5 21	14 57.09	-42 42.7	1.139	2.099	11.9	19.7	5 21	15 1.55	-25 19.6	1.632	2.629	4.8	19.7
5 31	14 45.43	-40 10.5	1.150	2.095	13.6	19.8	5 31	14 52.89	-24 48.1	1.661	2.625	8.7	19.9
6 10	14 37.66	-37 22.6	1.184	2.090	16.7	20.0	6 10	14 46.27	-24 16.0	1.714	2.620	12.4	20.1
343975	2011 <i>LC</i> ₂₀		5 10.8 289°36	0°5/11.4 18			300093	2006 <i>UE</i> ₂₄₄		5 10.8 199°34	0°1/10.7 17		
4 1	15 28.80	-21 31.5	4.363	5.131	7.7	20.6	4 1	15 36.19	-19 13.7	2.507	3.292	12.4	21.9
4 11	15 25.70	-21 21.1	4.253	5.120	6.2	20.5	4 11	15 32.27	-18 57.5	2.412	3.290	9.8	21.7
4 21	15 21.56	-21 5.9	4.167	5.110	4.3	20.3	4 21	15 26.47	-18 34.2	2.338	3.288	6.8	21.5
5 1	15 16.66	-20 46.3	4.109	5.099	2.3	20.2	5 1	15 19.27	-18 4.7	2.292	3.285	3.5	21.3
5 11	15 11.38	-20 23.4	4.080	5.089	0.5	20.0	5 11	15 11.35	-17 31.4	2.273	3.283	0.1	21.0
5 21	15 6.09	-19 58.8	4.081	5.079	2.1	20.1	5 21	15 3.44	-16 57.0	2.283	3.280	3.7	21.3
5 31	15 1.19	-19 34.0	4.111	5.068	4.2	20.3	5 31	14 56.32	-16 24.8	2.321	3.277	7.0	21.5
6 10	14 57.01	-19 10.8	4.168	5.058	6.1	20.4	6 10	14 50.59	-15 58.1	2.385	3.274	10.1	21.7
123284	2000 <i>UZ</i> ₉₈		5 10.8 125°49	3°1/13.0 18			173939	2001 <i>WH</i> ₁₂		5 10.8 112°93	2°5/ 9.2 18		
4 1	15 40.20	-28 25.3	2.121	2.883	15.0	20.5	4 1	15 37.78	-10 35.5	2.375	3.171	12.6	20.4
4 11	15 35.87	-28 26.7	2.037	2.893	12.3	20.3	4 11	15 33.47	-10 23.3	2.293	3.179	10.0	20.3
4 21	15 29.16	-28 14.5	1.973	2.903	9.1	20.1	4 21	15 27.26	-10 9.8	2.234	3.186	6.9	20.1
5 1	15 20.67	-27 47.7	1.934	2.913	5.7	19.9	5 1	15 19.65	- 9 56.9	2.201	3.193	3.9	19.9
5 11	15 11.31	-27 7.6	1.921	2.922	3.2	19.8	5 11	15 11.35	- 9 47.3	2.197	3.200	2.5	19.8
5 21	15 2.09	-26 17.3	1.936	2.932	4.4	19.9	5 21	15 3.14	- 9 43.1	2.220	3.206	4.9	20.0
5 31	14 53.99	-25 21.8	1.979	2.940	7.7	20.1	5 31	14 55.76	- 9 46.2	2.272	3.213	8.0	20.2
6 10	14 47.76	-24 27.1	2.047	2.949	10.9	20.3	6 10	14 49.83	- 9 57.8	2.348	3.220	10.9	20.4
2603	Taylor		5 10.8 274°02	0°4/11.0 18			140629	2001 <i>UU</i> ₁₄		5 10.8 237°47	1°3/ 9.8 18		
4 1	15 37.81	-19 45.5	1.996	2.790	14.8	17.0	4 1	15 36.16	-15 19.7	2.586	3.376	11.9	20.6
4 11	15 34.15	-19 44.2	1.903	2.786	11.8	16.7	4 11	15 32.21	-14 56.4	2.482	3.365	9.4	20.4
4 21	15 28.11	-19 34.7	1.830	2.781	8.3	16.5	4 21	15 26.44	-14 28.0	2.402	3.354	6.5	20.2
5 1	15 20.22	-19 17.7	1.783	2.776	4.3	16.3	5 1	15 19.28	-13 56.0	2.347	3.342	3.3	20.0
5 11	15 11.32	-18 55.0	1.762	2.772	0.4	15.9	5 11	15 11.36	-13 23.2	2.322	3.329	1.4	19.8
5 21	15 2.40	-18 29.5	1.769	2.767	4.3	16.2	5 21	15 3.41	-12 52.3	2.325	3.317	4.1	20.0
5 31	14 54.45	-18 5.1	1.802	2.763	8.3	16.5	5 31	14 56.15	-12 26.4	2.356	3.304	7.4	20.2
6 10	14 48.29	-17 45.6	1.860	2.758	12.0	16.7	6 10	14 50.20	-12 8.1	2.412	3.290	10.4	20.4
20176	1996 <i>XK</i> ₂₉		5 10.8 156°44	1°5/10.0 18			259868	2004 <i>CM</i> ₁₁₄		5 10.8 6			

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
270529	2002 <i>GO</i> ₇₅		5 10.8 324°81	8°2/ 4.8 17			431437	2007 <i>QP</i> ₇		5 10.8 300°68	7°7/15.0 16		
4 1	15 32.41	- 2 57.8	1.606	2.438	16.1	20.0	4 1	15 40.49	-36 23.3	1.912	2.649	17.2	20.7
4 11	15 30.26	- 1 20.9	1.526	2.425	13.2	19.8	4 11	15 37.22	-37 23.5	1.809	2.635	15.0	20.5
4 21	15 25.61	+ 0 17.4	1.466	2.413	10.3	19.6	4 21	15 30.87	-38 8.5	1.725	2.620	12.3	20.3
5 1	15 19.01	+ 1 48.5	1.430	2.401	8.4	19.5	5 1	15 21.91	-38 33.0	1.661	2.606	9.7	20.1
5 11	15 11.36	+ 3 3.6	1.419	2.390	8.7	19.4	5 11	15 11.34	-38 33.7	1.622	2.592	7.9	20.0
5 21	15 3.72	+ 3 55.6	1.431	2.379	11.1	19.6	5 21	15 0.48	-38 10.1	1.607	2.577	8.1	20.0
5 31	14 57.12	+ 4 20.2	1.466	2.369	14.2	19.7	5 31	14 50.76	-37 26.0	1.618	2.564	10.3	20.0
6 10	14 52.41	+ 4 17.1	1.520	2.359	17.4	19.9	6 10	14 43.38	-36 28.9	1.651	2.550	13.2	20.2
56458	2000 <i>GA</i> ₉₆		5 10.8 68°45	3°2/12.0 18			216014	2005 <i>UZ</i> ₁₄₁		5 10.8 263°82	3°9/ 7.9 18		
4 1	15 43.64	-23 20.7	1.407	2.208	19.5	19.0	4 1	15 35.94	- 6 14.9	2.542	3.340	11.8	20.3
4 11	15 40.00	-24 1.9	1.327	2.210	15.9	18.8	4 11	15 32.04	- 5 45.3	2.441	3.325	9.5	20.1
4 21	15 32.87	-24 32.8	1.265	2.211	11.6	18.5	4 21	15 26.34	- 5 15.9	2.363	3.310	6.9	19.9
5 1	15 22.89	-24 50.6	1.225	2.213	6.8	18.3	5 1	15 19.25	- 4 49.6	2.312	3.295	4.6	19.7
5 11	15 11.30	-24 54.3	1.209	2.215	3.2	18.1	5 11	15 11.40	- 4 29.9	2.288	3.279	4.1	19.6
5 21	14 59.66	-24 45.6	1.218	2.216	5.8	18.2	5 21	15 3.50	- 4 19.3	2.293	3.264	6.0	19.7
5 31	14 49.57	-24 29.2	1.252	2.218	10.6	18.5	5 31	14 56.27	- 4 20.1	2.324	3.248	8.7	19.9
6 10	14 42.23	-24 11.7	1.308	2.220	15.0	18.7	6 10	14 50.32	- 4 33.0	2.380	3.232	11.4	20.0
28848	Nicolemarie		5 10.8 177°49	0°0/10.8 18			508739	2017 <i>UV</i> ₃₀		5 10.8 239°69	1°1/11.5 17		
4 1	15 37.57	-18 58.9	2.411	3.195	12.8	19.4	4 1	15 40.35	-21 59.2	1.998	2.782	15.1	22.3
4 11	15 33.43	-18 50.9	2.318	3.196	10.2	19.2	4 11	15 36.32	-21 56.1	1.894	2.770	12.2	22.0
4 21	15 27.32	-18 36.2	2.248	3.197	7.1	19.0	4 21	15 29.75	-21 42.9	1.811	2.757	8.7	21.8
5 1	15 19.72	-18 15.6	2.204	3.198	3.6	18.8	5 1	15 21.15	-21 19.5	1.752	2.744	4.7	21.5
5 11	15 11.36	-17 51.0	2.188	3.198	0.1	18.5	5 11	15 11.37	-20 47.5	1.721	2.730	1.1	21.2
5 21	15 3.03	-17 25.0	2.201	3.198	3.7	18.8	5 21	15 1.48	-20 9.8	1.717	2.716	4.4	21.4
5 31	14 55.52	-17 0.8	2.241	3.198	7.2	19.0	5 31	14 52.56	-19 31.1	1.741	2.701	8.6	21.6
6 10	14 49.50	-16 41.5	2.307	3.197	10.3	19.2	6 10	14 45.51	-18 56.4	1.788	2.686	12.4	21.8
360383	2002 <i>CO</i> ₂₆₆		5 10.8 326°96	4°5/12.9 17			180813	2005 <i>EE</i> ₂₃₉		5 10.8 221°52	5°8/13.5 17		
4 1	15 37.99	-27 14.6	1.337	2.141	20.2	20.5	4 1	15 45.41	-30 40.5	1.813	2.568	17.4	20.8
4 11	15 35.87	-27 45.2	1.251	2.133	16.7	20.2	4 11	15 41.02	-31 36.9	1.716	2.563	14.7	20.5
4 21	15 30.23	-28 0.1	1.182	2.125	12.6	19.9	4 21	15 33.44	-32 20.9	1.639	2.557	11.5	20.3
5 1	15 21.64	-27 55.9	1.134	2.118	8.0	19.7	5 1	15 23.19	-32 48.0	1.584	2.550	8.1	20.1
5 11	15 11.32	-27 31.9	1.109	2.111	4.6	19.4	5 11	15 11.35	-32 55.2	1.555	2.544	5.9	20.0
5 21	15 0.86	-26 50.9	1.107	2.105	6.4	19.5	5 21	14 59.27	-32 42.6	1.552	2.537	6.8	20.0
5 31	14 51.93	-25 59.9	1.129	2.099	11.0	19.8	5 31	14 48.43	-32 14.2	1.575	2.529	9.8	20.1
6 10	14 45.79	-25 7.9	1.172	2.094	15.6	20.0	6 10	14 40.00	-31 37.0	1.621	2.521	13.3	20.3
347157	2011 <i>EG</i> ₆₃		5 10.8 319°56	10°0/ 3.5 17			496222	2011 <i>WQ</i> ₈₉		5 10.8 185°63	1°3/11.6 16		
4 1	15 31.77	+ 0 3.0	1.493	2.329	16.9	20.2	4 1	15 43.11	-22 59.4	1.959	2.736	15.6	23.0
4 11	15 30.16	+ 1 42.3	1.401	2.300	14.2	19.9	4 11	15 38.42	-22 51.2	1.866	2.737	12.6	22.8
4 21	15 25.83	+ 3 22.2	1.329	2.271	11.6	19.7	4 21	15 31.11	-22 31.7	1.793	2.736	9.0	22.6
5 1	15 19.27	+ 4 52.8	1.280	2.242	10.1	19.5	5 1	15 21.78	-22 0.7	1.745	2.735	4.9	22.3
5 11	15 11.37	+ 6 4.0	1.253	2.214	10.7	19.5	5 11	15 11.38	-21 20.0	1.724	2.733	1.3	22.0
5 21	15 3.25	+ 6 47.4	1.249	2.187	13.2	19.5	5 21	15 1.00	-20 33.3	1.732	2.730	4.4	22.3
5 31	14 56.12	+ 6 58.0	1.265	2.161	16.5	19.7	5 31	14 51.76	-19 45.8	1.767	2.727	8.5	22.5
6 10	14 51.02	+ 6 35.7	1.299	2.136	19.9	19.8	6 10	14 44.52	-19 2.8	1.827	2.722	12.3	22.7
372989	2011 <i>CE</i> ₇₃		5 10.8 128°58	12°0/19.0 17			125103	2001 <i>UU</i> ₃₅		5 10.8 242°91	3°1/ 9.2 18		
4 1	15 49.99	-48 47.8	2.021	2.671	18.8	20.9	4 1	15 42.49	- 9 22.0	2.106	2.900	14.1	20.5
4 11	15 45.38	-50 21.2	1.939	2.677	17.1	20.8	4 11	15 37.73	- 9 14.1	2.001	2.885	11.3	20.3
4 21	15 36.87	-51 34.1	1.873	2.682	15.3	20.6	4 21	15 30.59	- 9 5.7	1.919	2.869	8.0	20.1
5 1	15 25.04	-52 18.4	1.826	2.688	13.5	20.5	5 1	15 21.54	- 8 59.0	1.863	2.853	4.6	19.8
5 11	15 11.26	-52 28.5	1.800	2.693	12.3	20.5	5 11	15 11.38	- 8 56.8	1.834	2.836	3.2	19.7
5 21	14 57.35	-52 2.7	1.796	2.698	12.0	20.5	5 21	15 1.07	- 9 1.6	1.834	2.819	5.9	19.8
5 31	14 45.17	-51 5.5	1.815	2.703	12.7	20.5	5 31	14 51.60	- 9 15.2	1.861	2.801	9.6	20.0
6 10	14 36.15	-49 45.9	1.856	2.708	14.2	20.6	6 10	14 43.83	- 9 39.0	1.913	2.783	13.0	20.2
426496	2013 <i>RS</i> ₃₂		5 10.8 249°92	2°2/12.1 18			146133	2000 <i>RD</i> ₁₀₅		5 10.8 250°47	4°5/14.6 18		
4 1	15 42.66	-24 24.5	2.155	2.922	14.7	21.8	4 1	15 38.93	-34 33.4	2.803	3.522	12.7	21.0
4 11	15 38.15	-24 38.5	2.038	2.901	12.0	21.6	4 11	15 34.67	-34 48.0	2.684	3.504	10.8	20.8
4 21	15 31.07	-24 42.7	1.942	2.880	8.8	21.3	4 21	15 28.32	-34 49.5	2.587	3.486	8.6	20.7
5 1	15 21.85	-24 35.9	1.872	2.857	5.2	21.1	5 1	15 20.33	-34 36.0	2.513	3.467	6.3	20.5
5 11	15 11.34	-24 18.0	1.828	2.834	2.3	20.8	5 11	15 11.41	-34 6.8	2.467	3.448	4.7	20.4
5 21	15 0.55	-23 50.9	1.813	2.810	4.4	20.9	5 21	15 2.39	-33 23.3	2.449	3.429	5.0	20.3
5 31	14 50.62	-23 18.2	1.826	2.786	8.3	21.1	5 31	14 54.13	-32 28.8	2.458	3.409	7.0	20.4
6 10	14 42.49	-22 45.1	1.864	2.760	12.1	21.3	6 10	14 47.36	-31 28.4	2.494	3.388	9.5	20.6
278369	2007 <i>LF</i> ₅		5 10.8 259°80	8°3/ 4.6 18			193332	2000 <i>TP</i> ₃₅		5 10.8 174°55	0°3/11.2 18		
4 1	15 37.62	+ 3 26.8	2.093	2.891	14.0	20.9	4 1	15 32.14	-20 31.6	4.154	4.919	8.2	22.1
4 11	15 33.76	+ 4 35.7	2.003	2.875	11.8	20.7	4 11	15 28.30	-20 20.1	4.054	4.921	6.5	22.0
4 21	15 27.73	+ 5 39.7	1.936	2.858	9.8	20.6	4 21	15 23.35	-20 3.8	3.980	4.923	4.5	21.9
5 1	15 20.02	+ 6 32.2	1.892	2.840	8.5	20.4	5 1	15 17.60	-19 43.3	3.933	4.924	2.3	21.7
5 11	15 11.38	+ 7 7.2	1.875	2.823	8.7	20.4	5 11	15 11.47	-19 19.9	3.916	4.926	0.3	21.5
5 21	15 2.68	+ 7 20.5	1.882	2.805	10.4	20.5	5 21	15 5.36	-18 55.0	3.929	4.927	2.2	21.7
5 31	14 54.81	+ 7 10.3	1.914	2.786	12.8	20.6	5 31	14 59.70	-18 30.5	3.972	4.927	4.4	21.8
6 10	14 48.54	+ 6 37.4	1.966	2.768	15.3	20.7	6 10	14 54.84	-18 8.2	4.043	4.927	6.4	22.0
6002	1988 <i>RO</i>		5 10.8 227°49	1°1/ 9.1 18			459600	2013 <i>HO</i> ₂₃					

EPHEMERIDES

5 10.8

5 10.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
426989	2014 <i>BL</i> ₅₅		5 10.8 220°60	3°5/ 8.4 17			204951	2008 <i>VR</i> ₅₃		5 10.9 221°89	1°8/ 9.8 17		
4 1	15 36.77	- 9 43.9	2.138	2.943	13.5	21.4	4 1	15 42.08	-15 36.3	1.697	2.501	16.6	21.0
4 11	15 32.99	- 9 7.4	2.050	2.940	10.8	21.2	4 11	15 38.01	-15 9.4	1.603	2.493	13.2	20.8
4 21	15 27.13	- 8 28.2	1.984	2.937	7.6	21.0	4 21	15 31.10	-14 34.3	1.529	2.484	9.2	20.5
5 1	15 19.69	- 7 50.0	1.944	2.934	4.6	20.8	5 1	15 21.92	-13 53.6	1.479	2.474	4.8	20.2
5 11	15 11.44	- 7 16.6	1.931	2.930	3.6	20.7	5 11	15 11.47	-13 11.0	1.456	2.464	1.9	20.0
5 21	15 3.22	- 6 51.7	1.946	2.926	6.1	20.9	5 21	15 0.93	-12 31.3	1.460	2.453	5.9	20.2
5 31	14 55.87	- 6 38.1	1.987	2.923	9.3	21.0	5 31	14 51.55	-11 59.7	1.489	2.441	10.5	20.5
6 10	14 50.08	- 6 37.5	2.052	2.919	12.4	21.2	6 10	14 44.31	-11 40.3	1.542	2.429	14.6	20.7
134018	2004 <i>VO</i> ₅₇		5 10.8 269°49	1°7/11.9 18			475652	2006 <i>UH</i> ₂₈₉		5 10.9 292°00	4°2/13.0 16		
4 1	15 39.62	-23 38.1	2.111	2.889	14.6	20.2	4 1	15 40.26	-28 2.8	2.152	2.913	14.9	21.7
4 11	15 35.78	-23 38.6	1.994	2.864	11.9	20.0	4 11	15 36.38	-28 47.8	2.043	2.897	12.4	21.5
4 21	15 29.45	-23 28.6	1.897	2.839	8.6	19.7	4 21	15 29.93	-29 23.4	1.955	2.881	9.4	21.3
5 1	15 21.06	-23 7.3	1.825	2.814	4.9	19.5	5 1	15 21.36	-29 46.7	1.891	2.865	6.4	21.1
5 11	15 11.43	-22 35.5	1.780	2.788	1.7	19.2	5 11	15 11.48	-29 56.4	1.854	2.849	4.3	20.9
5 21	15 1.54	-21 56.0	1.763	2.762	4.3	19.3	5 21	15 1.35	-29 52.7	1.844	2.833	5.3	20.9
5 31	14 52.49	-21 13.0	1.773	2.735	8.4	19.5	5 31	14 52.07	-29 38.2	1.860	2.818	8.3	21.1
6 10	14 45.20	-20 32.0	1.808	2.707	12.2	19.7	6 10	14 44.63	-29 17.8	1.901	2.802	11.6	21.2
268349	2005 <i>SU</i> ₂₄₇		5 10.8 226°88	0°1/10.8 17			45962	2001 <i>BM</i> ₁₁		5 10.9 229°40	9°8/17.2 18		
4 1	15 38.87	-19 25.9	1.921	2.717	15.2	21.7	4 1	15 45.88	-41 40.0	1.342	2.081	23.2	19.2
4 11	15 35.10	-19 9.8	1.827	2.711	12.2	21.5	4 11	15 42.96	-42 0.1	1.250	2.073	20.4	19.0
4 21	15 28.85	-18 44.4	1.754	2.706	8.5	21.3	4 21	15 35.62	-41 49.5	1.172	2.065	17.1	18.7
5 1	15 20.67	-18 10.8	1.705	2.700	4.3	21.0	5 1	15 24.57	-40 59.5	1.113	2.057	13.4	18.5
5 11	15 11.44	-17 31.7	1.684	2.694	0.1	20.6	5 11	15 11.44	-39 25.3	1.074	2.047	10.4	18.3
5 21	15 2.20	-16 50.8	1.689	2.687	4.6	21.0	5 21	14 58.38	-37 10.3	1.059	2.038	10.1	18.2
5 31	14 53.98	-16 13.0	1.722	2.680	8.8	21.2	5 31	14 47.49	-34 27.2	1.067	2.027	12.7	18.3
6 10	14 47.63	-15 42.7	1.778	2.673	12.6	21.4	6 10	14 40.21	-31 34.7	1.099	2.017	16.8	18.5
381493	2008 <i>SS</i> ₉₉		5 10.8 147°46	1°8/ 9.6 17			393939	2005 <i>UV</i> ₁₆₁		5 10.9 218°22	1°4/ 9.3 17		
4 1	15 38.33	-13 55.4	2.171	2.968	13.6	21.6	4 1	15 34.82	-16 36.7	3.033	3.815	10.5	21.8
4 11	15 34.17	-13 33.5	2.087	2.974	10.8	21.4	4 11	15 30.84	-15 39.9	2.927	3.807	8.3	21.6
4 21	15 27.90	-13 7.0	2.025	2.978	7.4	21.2	4 21	15 25.34	-14 36.0	2.847	3.798	5.7	21.4
5 1	15 20.07	-12 38.2	1.989	2.983	3.9	21.0	5 1	15 18.72	-13 27.4	2.794	3.788	2.9	21.2
5 11	15 11.46	-12 10.2	1.981	2.987	1.9	20.9	5 11	15 11.54	-12 17.4	2.772	3.778	1.5	21.1
5 21	15 2.93	-11 46.0	2.000	2.991	4.8	21.1	5 21	15 4.39	-11 9.7	2.780	3.768	3.9	21.3
5 31	14 55.33	-11 28.7	2.047	2.995	8.4	21.3	5 31	14 57.86	-10 8.1	2.817	3.757	6.7	21.4
6 10	14 49.33	-11 20.8	2.119	2.998	11.5	21.5	6 10	14 52.44	- 9 15.6	2.881	3.746	9.3	21.6
348250	2004 <i>TO</i> ₅₁		5 10.8 260°50	0°3/11.0 18			245682	2006 <i>BS</i> ₉₁		5 10.9 316°09	2°5/ 7.6 18		
4 1	15 39.23	-20 35.0	2.215	2.998	13.8	21.7	4 1	15 28.10	- 7 14.5	4.112	4.907	7.7	20.6
4 11	15 35.23	-20 19.5	2.098	2.975	11.2	21.5	4 11	15 25.17	- 6 41.8	4.018	4.902	6.1	20.4
4 21	15 28.92	-19 54.6	2.003	2.951	7.9	21.2	4 21	15 21.23	- 6 8.7	3.949	4.896	4.4	20.3
5 1	15 20.75	-19 20.7	1.934	2.927	4.1	20.9	5 1	15 16.58	- 5 37.3	3.907	4.891	2.9	20.2
5 11	15 11.46	-18 39.8	1.892	2.902	0.3	20.6	5 11	15 11.58	- 5 9.5	3.895	4.885	2.6	20.2
5 21	15 1.97	-17 55.2	1.878	2.876	4.2	20.8	5 21	15 6.58	- 4 47.2	3.911	4.880	3.9	20.3
5 31	14 53.28	-17 11.3	1.892	2.850	8.2	21.0	5 31	15 1.97	- 4 31.7	3.956	4.875	5.6	20.4
6 10	14 46.22	-16 32.8	1.932	2.823	11.9	21.2	6 10	14 58.08	- 4 24.0	4.026	4.869	7.3	20.5
41139	1999 <i>VU</i> ₁₁₉		5 10.8 278°95	1°3/11.5 18			116269	2003 <i>YB</i> ₃₅		5 10.9 274°15	5°6/ 6.8 18		
4 1	15 39.99	-22 1.9	1.671	2.468	17.1	19.8	4 1	15 36.89	- 4 36.1	2.131	2.937	13.6	19.3
4 11	15 36.80	-22 3.2	1.561	2.444	13.9	19.5	4 11	15 33.27	- 3 42.9	2.028	2.915	11.0	19.0
4 21	15 30.60	-21 53.1	1.470	2.419	10.0	19.2	4 21	15 27.49	- 2 49.0	1.947	2.892	8.3	18.8
5 1	15 21.83	-21 30.8	1.402	2.394	5.5	18.9	5 1	15 20.00	- 1 59.2	1.891	2.869	6.0	18.6
5 11	15 11.45	-20 57.6	1.360	2.369	1.3	18.5	5 11	15 11.52	- 1 18.8	1.862	2.845	5.8	18.6
5 21	15 0.71	-20 16.8	1.344	2.343	5.1	18.7	5 21	15 2.91	- 0 52.0	1.860	2.821	8.0	18.7
5 31	14 51.00	-19 33.9	1.353	2.317	10.2	18.9	5 31	14 55.06	- 0 42.2	1.883	2.797	11.0	18.8
6 10	14 43.50	-18 55.5	1.385	2.291	14.8	19.1	6 10	14 48.74	- 0 50.3	1.929	2.772	14.1	18.9
390846	2004 <i>RV</i> ₁₃₈		5 10.8 312°99	0°4/10.6 15			380630	2004 <i>UM</i> ₁		5 10.9 121°14	1°2/11.9 17		
4 1	15 33.25	-20 26.0	1.981	2.783	14.6	21.2	4 1	15 39.09	-25 5.8	2.183	2.955	14.4	21.1
4 11	15 30.82	-19 48.2	1.862	2.751	11.7	21.0	4 11	15 34.80	-24 32.7	2.101	2.969	11.5	20.9
4 21	15 26.04	-18 57.5	1.765	2.719	8.3	20.7	4 21	15 28.32	-23 46.6	2.040	2.982	8.2	20.7
5 1	15 19.34	-17 55.3	1.692	2.687	4.2	20.4	5 1	15 20.28	-22 48.5	2.005	2.994	4.5	20.5
5 11	15 11.49	-16 45.1	1.645	2.655	0.4	20.0	5 11	15 11.52	-21 41.4	1.998	3.006	1.3	20.3
5 21	15 3.43	-15 32.0	1.626	2.624	4.8	20.3	5 21	15 2.97	-20 30.0	2.019	3.018	3.8	20.5
5 31	14 56.17	-14 22.3	1.633	2.592	9.2	20.4	5 31	14 55.48	-19 19.7	2.069	3.029	7.4	20.7
6 10	14 50.61	-13 22.0	1.664	2.561	13.2	20.6	6 10	14 49.72	-18 15.9	2.144	3.040	10.7	20.9
210760	2000 <i>WW</i> ₈₈		5 10.8 231°60	0°3/10.9 17			295207	2008 <i>FV</i> ₁₂₃		5 10.9 168°50	1°5/ 8.4 18		
4 1	15 42.36	-19 28.3	1.835	2.626	16.0	21.0	4 1	15 27.62	-11 32.2	4.859	5.646	6.7	21.0
4 11	15 38.14	-19 27.5	1.734	2.615	12.9	20.7	4 11	15 24.60	-10 52.6	4.766	5.648	5.3	20.9
4 21	15 31.17	-19 18.2	1.654	2.604	9.1	20.5	4 21	15 20.75	-10 11.0	4.699	5.649	3.6	20.8
5 1	15 21.96	-19 0.6	1.598	2.592	4.7	20.2	5 1	15 16.31	- 9 29.2	4.660	5.650	2.1	20.6
5 11	15 11.46	-18 36.4	1.569	2.579	0.3	19.8	5 11	15 11.59	- 8 48.9	4.652	5.651	1.6	20.6
5 21	15 0.80	-18 8.7	1.568	2.566	4.8	20.1	5 21	15 6.90	- 8 11.8	4.673	5.652	2.9	20.7
5 31	14 51.21	-17 41.9	1.593	2.553	9.3	20.4	5 31	15 2.54	- 7 39.5	4.724	5.653	4.5	20.8
6 10	14 43.66	-17 20.6	1.642	2.538	13.4	20.6	6 10	14 58.81	- 7 13.1	4.801	5.654	6.1	20.9
79719	1998 <i>SN</i> ₁₁₀		5 10.9 166°85	2°7/ 8.7 17			229317	2005 <i>MJ</i>					

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
81809	2000 <i>KB</i> ₁₅		5 10.9 330°95	0°3/10.7	18		76834	2000 <i>SA</i> ₂₄₄		5 10.9 243°58	2°0/13.3	18	
4 1	15 34.32	-18 12.2	1.711	2.525	16.0	19.3	4 1	15 31.08	-28 17.0	4.525	5.262	7.9	19.6
4 11	15 31.92	-18 5.5	1.615	2.511	12.8	19.1	4 11	15 27.53	-28 28.7	4.419	5.260	6.5	19.5
4 21	15 26.91	-17 50.4	1.540	2.497	9.0	18.8	4 21	15 22.89	-28 34.2	4.338	5.258	4.9	19.4
5 1	15 19.82	-17 28.1	1.489	2.485	4.6	18.5	5 1	15 17.45	-28 33.2	4.283	5.255	3.2	19.3
5 11	15 11.53	-17 1.2	1.462	2.472	0.4	18.2	5 11	15 11.60	-28 26.0	4.257	5.253	2.0	19.2
5 21	15 3.13	-16 33.4	1.462	2.461	4.9	18.5	5 21	15 5.73	-28 13.6	4.260	5.251	2.5	19.2
5 31	14 55.76	-16 9.3	1.487	2.450	9.5	18.7	5 31	15 0.27	-27 57.5	4.293	5.249	4.1	19.3
6 10	14 50.34	-15 53.0	1.534	2.440	13.6	18.9	6 10	14 55.56	-27 39.4	4.353	5.246	5.8	19.5
509604	2008 <i>EP</i> ₆₇		5 10.9 156°20	3°7/14.3	18		3912	Troja		5 10.9 140°65	0°7/11.2	18	
4 1	15 39.59	-32 43.4	3.157	3.875	11.4	22.4	4 1	15 40.94	-20 30.5	1.626	2.427	17.3	17.0
4 11	15 34.72	-33 1.1	3.061	3.883	9.5	22.3	4 11	15 37.21	-20 31.2	1.544	2.430	13.9	16.8
4 21	15 28.09	-33 7.9	2.988	3.891	7.4	22.2	4 21	15 30.57	-20 21.9	1.480	2.432	9.8	16.5
5 1	15 20.14	-33 2.6	2.940	3.898	5.3	22.0	5 1	15 21.66	-20 2.7	1.441	2.434	5.1	16.3
5 11	15 11.53	-32 45.1	2.919	3.904	3.8	21.9	5 11	15 11.54	-19 35.7	1.426	2.436	0.7	15.9
5 21	15 2.97	-32 16.8	2.928	3.910	4.2	22.0	5 21	15 1.48	-19 4.6	1.439	2.438	4.9	16.2
5 31	14 55.14	-31 40.3	2.966	3.916	6.0	22.1	5 31	14 52.71	-18 34.4	1.477	2.440	9.6	16.5
6 10	14 48.64	-30 59.6	3.031	3.921	8.1	22.2	6 10	14 46.19	-18 10.2	1.538	2.442	13.7	16.8
343481	2010 <i>EH</i> ₈₄		5 10.9 211°57	1°7/ 9.6	17		250866	2005 <i>UM</i> ₃₅₁		5 10.9 261°31	1°0/11.7	16	
4 1	15 36.98	-14 44.3	2.297	3.093	13.0	21.5	4 1	15 35.11	-23 47.6	2.469	3.245	12.8	20.5
4 11	15 33.08	-14 13.5	2.202	3.088	10.3	21.3	4 11	15 31.61	-23 24.7	2.366	3.237	10.3	20.3
4 21	15 27.18	-13 37.0	2.131	3.084	7.1	21.1	4 21	15 26.17	-22 51.0	2.285	3.228	7.3	20.1
5 1	15 19.75	-12 57.2	2.085	3.079	3.7	20.9	5 1	15 19.26	-22 7.2	2.230	3.220	4.0	19.8
5 11	15 11.54	-12 17.2	2.067	3.074	1.8	20.7	5 11	15 11.58	-21 15.5	2.203	3.212	1.1	19.6
5 21	15 3.34	-11 40.6	2.078	3.069	4.7	20.9	5 21	15 3.91	-20 19.3	2.204	3.203	3.5	19.8
5 31	14 55.97	-11 10.9	2.116	3.063	8.2	21.1	5 31	14 57.02	-19 23.0	2.234	3.194	7.0	20.0
6 10	14 50.08	-10 51.0	2.179	3.057	11.3	21.3	6 10	14 51.57	-18 30.9	2.289	3.186	10.1	20.2
334037	2001 <i>BM</i> ₇₆		5 10.9 119°37	4°9/14.7	17		387721	2003 <i>EP</i> ₁		5 10.9 72°74	7°1/16.1	17	
4 1	15 40.98	-34 5.0	2.176	2.912	15.4	21.1	4 1	15 44.79	-38 40.8	2.270	2.974	15.7	21.1
4 11	15 36.64	-34 15.4	2.091	2.923	13.0	20.9	4 11	15 39.77	-39 39.8	2.199	2.997	13.5	21.0
4 21	15 29.81	-34 9.3	2.026	2.934	10.1	20.7	4 21	15 32.07	-40 22.6	2.146	3.021	11.1	20.9
5 1	15 21.12	-33 44.7	1.984	2.944	7.2	20.6	5 1	15 22.31	-40 45.1	2.117	3.045	8.9	20.7
5 11	15 11.52	-33 1.8	1.968	2.954	5.1	20.4	5 11	15 11.54	-40 45.4	2.112	3.068	7.4	20.7
5 21	15 2.09	-32 3.4	1.979	2.964	5.5	20.5	5 21	15 0.91	-40 24.6	2.134	3.092	7.3	20.7
5 31	14 53.84	-30 55.0	2.018	2.974	7.9	20.6	5 31	14 51.55	-39 46.7	2.182	3.115	8.8	20.9
6 10	14 47.55	-29 43.4	2.081	2.983	10.7	20.8	6 10	14 44.32	-38 58.1	2.254	3.138	10.8	21.0
304412	2006 <i>TM</i> ₄₈		5 10.9 224°66	0°3/10.6	16		175808	1999 <i>RT</i> ₁₇₅		5 10.9 220°80	1°0/10.2	17	
4 1	15 36.78	-18 12.3	2.607	3.390	12.0	22.0	4 1	15 40.77	-17 44.3	2.039	2.829	14.6	21.7
4 11	15 32.74	-18 0.5	2.505	3.382	9.5	21.8	4 11	15 36.49	-17 15.5	1.937	2.820	11.7	21.5
4 21	15 26.86	-17 42.5	2.426	3.375	6.6	21.6	4 21	15 29.80	-16 38.0	1.858	2.809	8.1	21.3
5 1	15 19.58	-17 19.3	2.373	3.367	3.4	21.3	5 1	15 21.21	-15 53.4	1.803	2.798	4.1	21.0
5 11	15 11.55	-16 53.0	2.349	3.358	0.3	21.1	5 11	15 11.57	-15 4.8	1.777	2.786	1.0	20.7
5 21	15 3.49	-16 25.9	2.353	3.350	3.6	21.3	5 21	15 1.87	-14 16.6	1.779	2.773	4.8	21.0
5 31	14 56.14	-16 1.1	2.386	3.341	6.9	21.5	5 31	14 53.12	-13 33.5	1.808	2.760	8.9	21.2
6 10	14 50.13	-15 41.4	2.445	3.332	9.9	21.7	6 10	14 46.16	-12 59.8	1.861	2.746	12.6	21.4
508610	2017 <i>SG</i> ₂₃		5 10.9 202°67	1°4/11.8	17		114858	2003 <i>PO</i> ₉		5 10.9 244°08	4°4/13.2	18	
4 1	15 40.43	-23 26.5	2.197	2.970	14.2	22.6	4 1	15 43.01	-28 54.7	1.827	2.593	17.0	20.2
4 11	15 36.08	-23 20.8	2.098	2.967	11.5	22.4	4 11	15 39.05	-29 21.5	1.723	2.580	14.2	19.9
4 21	15 29.41	-23 4.8	2.020	2.962	8.2	22.2	4 21	15 32.06	-29 34.7	1.638	2.566	10.8	19.7
5 1	15 20.95	-22 38.1	1.968	2.957	4.6	21.9	5 1	15 22.56	-29 31.4	1.575	2.552	7.1	19.4
5 11	15 11.53	-22 2.5	1.943	2.952	1.4	21.7	5 11	15 11.55	-29 10.4	1.539	2.537	4.5	19.2
5 21	15 2.10	-21 20.9	1.947	2.945	4.0	21.9	5 21	15 0.31	-28 33.2	1.529	2.522	5.7	19.3
5 31	14 53.61	-20 37.6	1.979	2.939	7.8	22.1	5 31	14 50.21	-27 44.9	1.545	2.506	9.4	19.5
6 10	14 46.85	-19 57.5	2.035	2.932	11.2	22.3	6 10	14 42.36	-26 52.7	1.585	2.490	13.3	19.7
496499	2014 <i>UW</i> ₄₉		5 10.9 267°58	1°7/11.7	17		131679	2001 <i>XY</i> ₁₈₆		5 10.9 3°70	5°4/ 8.9	18	
4 1	15 41.50	-22 11.1	1.638	2.433	17.4	21.5	4 1	15 36.46	- 8 8.8	1.102	1.953	20.6	18.9
4 11	15 38.04	-22 24.2	1.534	2.415	14.2	21.2	4 11	15 34.64	- 7 47.2	1.036	1.951	16.5	18.6
4 21	15 31.49	-22 26.9	1.449	2.397	10.3	21.0	4 21	15 29.31	- 7 25.7	0.988	1.951	11.8	18.3
5 1	15 22.31	-22 18.1	1.387	2.379	5.7	20.6	5 1	15 21.18	- 7 9.9	0.959	1.952	7.2	18.1
5 11	15 11.51	-21 58.3	1.351	2.360	1.8	20.3	5 11	15 11.57	- 7 5.7	0.953	1.954	5.5	18.0
5 21	15 0.40	-21 30.2	1.341	2.340	5.2	20.5	5 21	15 2.05	- 7 17.3	0.968	1.957	9.0	18.2
5 31	14 50.42	-20 58.7	1.357	2.321	10.1	20.7	5 31	14 54.17	- 7 46.8	1.005	1.961	13.8	18.5
6 10	14 42.73	-20 29.9	1.395	2.301	14.7	21.0	6 10	14 49.06	- 8 33.9	1.062	1.967	18.3	18.7
277361	2005 <i>TA</i> ₁₆₄		5 10.9 94°45	0°1/10.8	17		185346	2006 <i>VH</i> ₅₄		5 10.9 107°86	0°4/10.6	17	
4 1	15 39.15	-20 20.4	1.837	2.632	15.8	21.4	4 1	15 36.13	-18 10.5	2.396	3.186	12.7	21.3
4 11	15 35.20	-19 51.5	1.763	2.647	12.5	21.2	4 11	15 32.30	-17 53.7	2.310	3.192	10.1	21.1
4 21	15 28.79	-19 11.8	1.709	2.661	8.7	21.0	4 21	15 26.56	-17 30.3	2.247	3.198	7.0	20.9
5 1	15 20.58	-18 23.3	1.681	2.675	4.4	20.8	5 1	15 19.43	-17 1.6	2.210	3.204	3.5	20.7
5 11	15 11.54	-17 29.5	1.679	2.689	0.2	20.4	5 11	15 11.60	-16 30.0	2.200	3.210	0.4	20.4
5 21	15 2.72	-16 35.4	1.705	2.703	4.5	20.8	5 21	15 3.85	-15 58.5	2.219	3.216	3.8	20.7
5 31	14 55.10	-15 46.2	1.757	2.716	8.7	21.1	5 31	14 56.93	-15 30.4	2.266	3.222	7.2	20.9
6 10	14 49.43	-15 6.3	1.834	2.729	12.3	21.3	6 10	14 51.46	-15 8.5	2.338	3.227	10.2	21.1
275382	2011 <i>AH</i> ₆₈		5 10.9 121°54	1°8/12.0	17		264551	2001 <i>SV</i> ₂₂₄		5 10.9 181°59			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
237172	2008 <i>UN</i> ₁₅₀		5 10.9 112°51	1.6°/ 9.8 17			15466	Barlow		5 10.9 131°08	7.4°/ 5.9 18		
4 1	15 37.22	-15 48.6	2.001	2.803	14.5	21.7	4 1	15 39.49	+ 0 28.6	1.983	2.784	14.6	18.0
4 11	15 33.53	-15 18.1	1.918	2.807	11.4	21.5	4 11	15 35.12	+ 1 35.0	1.917	2.795	12.0	17.9
4 21	15 27.61	-14 40.7	1.857	2.812	7.9	21.2	4 21	15 28.58	+ 2 36.6	1.874	2.805	9.4	17.7
5 1	15 20.03	-13 59.0	1.821	2.816	4.0	21.0	5 1	15 20.48	+ 3 27.4	1.855	2.815	7.7	17.6
5 11	15 11.61	-13 16.6	1.813	2.821	1.6	20.9	5 11	15 11.65	+ 4 2.0	1.862	2.824	7.7	17.7
5 21	15 3.29	-12 37.5	1.832	2.825	4.9	21.1	5 21	15 2.99	+ 4 16.9	1.895	2.833	9.4	17.8
5 31	14 55.97	-12 5.7	1.877	2.829	8.7	21.3	5 31	14 55.38	+ 4 10.8	1.953	2.842	11.9	17.9
6 10	14 50.36	-11 44.4	1.947	2.833	12.1	21.5	6 10	14 49.48	+ 3 44.7	2.032	2.850	14.4	18.1
434074	2001 <i>XK</i> ₂₀₆		5 10.9 141°45	5°1/ 7.1 18			420352	2012 <i>BU</i> ₇₃		5 10.9 154°65	3°4/12.9 17		
4 1	15 38.22	- 0 28.1	2.758	3.544	11.3	21.4	4 1	15 41.35	-28 7.9	1.694	2.471	17.7	21.7
4 11	15 33.49	+ 0 1.3	2.683	3.554	9.2	21.3	4 11	15 37.61	-28 10.5	1.608	2.474	14.5	21.5
4 21	15 27.15	+ 0 26.8	2.631	3.563	7.1	21.2	4 21	15 30.89	-27 56.8	1.541	2.477	10.8	21.3
5 1	15 19.65	+ 0 44.9	2.606	3.571	5.4	21.1	5 1	15 21.86	-27 25.3	1.497	2.480	6.7	21.1
5 11	15 11.62	+ 0 53.0	2.608	3.580	5.2	21.1	5 11	15 11.63	-26 37.2	1.479	2.482	3.5	20.9
5 21	15 3.69	+ 0 49.1	2.639	3.587	6.6	21.2	5 21	15 1.48	-25 36.5	1.487	2.484	5.2	21.0
5 31	14 56.50	+ 0 32.4	2.698	3.595	8.7	21.3	5 31	14 52.70	-24 29.9	1.521	2.486	9.2	21.2
6 10	14 50.54	+ 0 3.3	2.780	3.602	10.8	21.5	6 10	14 46.24	-23 25.4	1.579	2.488	13.1	21.4
170868	2004 <i>GF</i> ₄₁		5 10.9 97°18	6°4/16.3 18			96879	1999 <i>TG</i> ₁₆		5 10.9 176°42	0°4/10.6 18		
4 1	15 42.33	-39 5.3	2.425	3.126	14.9	20.5	4 1	15 38.49	-18 36.7	2.428	3.211	12.8	20.9
4 11	15 37.60	-39 36.4	2.345	3.144	12.8	20.4	4 11	15 34.16	-18 13.9	2.336	3.213	10.1	20.7
4 21	15 30.44	-39 51.0	2.285	3.161	10.5	20.3	4 21	15 27.88	-17 43.7	2.266	3.215	7.0	20.5
5 1	15 21.45	-39 45.8	2.247	3.179	8.2	20.1	5 1	15 20.14	-17 7.4	2.222	3.216	3.5	20.3
5 11	15 11.60	-39 20.2	2.235	3.196	6.6	20.1	5 11	15 11.65	-16 27.7	2.207	3.216	0.4	20.0
5 21	15 1.92	-38 35.9	2.249	3.213	6.6	20.1	5 21	15 3.22	-15 47.7	2.220	3.216	3.9	20.3
5 31	14 53.41	-37 37.4	2.290	3.230	8.0	20.2	5 31	14 55.63	-15 11.1	2.262	3.216	7.3	20.5
6 10	14 46.83	-36 30.9	2.357	3.246	10.2	20.4	6 10	14 49.52	-14 41.2	2.330	3.215	10.4	20.7
116986	2004 <i>HC</i> ₃₄		5 10.9 219°30	4°7/ 8.3 17			105496	2000 <i>QC</i> ₂₂₉		5 10.9 226°01	0°4/11.2 18		
4 1	15 40.06	- 6 40.9	1.864	2.671	15.1	20.2	4 1	15 37.15	-20 32.8	2.944	3.715	11.0	21.2
4 11	15 35.97	- 6 10.5	1.778	2.668	12.2	20.0	4 11	15 32.87	-20 25.0	2.834	3.703	8.8	21.0
4 21	15 29.44	- 5 40.4	1.714	2.664	8.8	19.8	4 21	15 26.90	-20 10.5	2.747	3.691	6.2	20.8
5 1	15 21.02	- 5 14.5	1.675	2.660	5.7	19.6	5 1	15 19.64	-19 49.9	2.687	3.679	3.3	20.6
5 11	15 11.61	- 4 57.3	1.662	2.656	4.9	19.5	5 11	15 11.66	-19 24.5	2.656	3.666	0.4	20.3
5 21	15 2.21	- 4 52.0	1.676	2.652	7.3	19.7	5 21	15 3.63	-18 56.6	2.655	3.652	3.1	20.5
5 31	14 53.84	- 5 0.9	1.716	2.647	10.8	19.9	5 31	14 56.23	-18 28.7	2.683	3.639	6.2	20.7
6 10	14 47.31	- 5 24.7	1.778	2.643	14.1	20.1	6 10	14 50.02	-18 3.8	2.737	3.624	9.0	20.9
219696	2001 <i>XW</i> ₁₈		5 10.9 132°15	3°1/ 9.0 17			240187	2002 <i>QV</i> ₁₀₁		5 10.9 240°27	0°1/10.8 17		
4 1	15 42.80	- 8 40.5	2.251	3.041	13.4	20.9	4 1	15 37.98	-18 35.9	2.248	3.037	13.5	21.3
4 11	15 37.48	- 8 26.7	2.175	3.056	10.7	20.7	4 11	15 34.07	-18 28.0	2.148	3.029	10.8	21.0
4 21	15 30.09	- 8 12.6	2.122	3.070	7.5	20.5	4 21	15 28.02	-18 13.1	2.070	3.020	7.5	20.8
5 1	15 21.21	- 8 0.8	2.095	3.084	4.4	20.3	5 1	15 20.29	-17 52.1	2.018	3.012	3.8	20.6
5 11	15 11.62	- 7 53.9	2.097	3.097	3.2	20.3	5 11	15 11.65	-17 27.0	1.993	3.003	0.1	20.2
5 21	15 2.17	- 7 54.1	2.128	3.109	5.5	20.4	5 21	15 2.96	-17 0.5	1.997	2.994	4.0	20.6
5 31	14 53.70	- 8 3.0	2.186	3.121	8.6	20.7	5 31	14 55.11	-16 36.1	2.028	2.985	7.8	20.8
6 10	14 46.86	- 8 21.4	2.269	3.132	11.5	20.9	6 10	14 48.83	-16 17.2	2.083	2.975	11.2	21.0
504061	2005 <i>YE</i> ₇₄		5 10.9 6°44	4°1/13.5 17			38589	1999 <i>XV</i> ₁₁₃		5 10.9 325°13	7°2/15.9 18		
4 1	15 38.60	-29 52.0	1.807	2.578	16.9	21.2	4 1	15 37.33	-38 3.3	2.125	2.851	16.0	18.4
4 11	15 35.31	-30 0.1	1.718	2.578	14.0	21.0	4 11	15 34.35	-38 44.9	2.023	2.839	13.9	18.2
4 21	15 29.24	-29 52.0	1.648	2.578	10.6	20.8	4 21	15 28.67	-39 10.0	1.939	2.828	11.5	18.0
5 1	15 21.00	-29 25.8	1.601	2.578	7.0	20.6	5 1	15 20.79	-39 14.4	1.877	2.816	9.1	17.8
5 11	15 11.62	-28 42.1	1.580	2.579	4.2	20.4	5 11	15 11.64	-38 56.2	1.839	2.806	7.4	17.7
5 21	15 2.28	-27 44.4	1.584	2.579	5.3	20.5	5 21	15 2.37	-38 16.1	1.827	2.795	7.5	17.7
5 31	14 54.18	-26 38.9	1.615	2.580	8.8	20.7	5 31	14 54.17	-37 18.2	1.839	2.785	9.2	17.8
6 10	14 48.23	-25 33.0	1.669	2.580	12.4	20.9	6 10	14 48.00	-36 9.5	1.875	2.776	11.8	17.9
71441	2000 <i>AR</i> ₂₂₆		5 10.9 206°31	2°3/ 9.3 18			419517	2010 <i>HU</i> ₂₂		5 10.9 255°68	4°4/17.3 17		
4 1	15 37.78	-12 39.9	2.197	2.997	13.4	20.0	4 1	15 32.67	-42 29.5	4.692	5.346	8.6	20.8
4 11	15 33.81	-12 14.8	2.106	2.994	10.6	19.8	4 11	15 28.96	-42 46.4	4.584	5.342	7.6	20.7
4 21	15 27.75	-11 45.8	2.038	2.991	7.4	19.6	4 21	15 23.98	-42 53.1	4.496	5.338	6.4	20.6
5 1	15 20.11	-11 15.3	1.995	2.988	4.0	19.3	5 1	15 18.07	-42 48.5	4.433	5.334	5.3	20.5
5 11	15 11.64	-10 46.5	1.980	2.985	2.4	19.2	5 11	15 11.68	-42 32.3	4.395	5.330	4.5	20.4
5 21	15 3.18	-10 22.8	1.993	2.981	5.1	19.4	5 21	15 5.30	-42 5.2	4.385	5.326	4.4	20.4
5 31	14 55.59	-10 7.0	2.033	2.977	8.6	19.6	5 31	14 59.41	-41 28.9	4.403	5.322	5.1	20.5
6 10	14 49.56	-10 1.5	2.097	2.973	11.8	19.8	6 10	14 54.44	-40 45.8	4.446	5.317	6.1	20.5
427762	2004 <i>TT</i> ₁₀₆		5 10.9 220°55	0°6/11.3 18			380893	2006 <i>DB</i> ₈₉		5 10.9 194°17	1°4/ 8.9 18		
4 1	15 39.96	-21 4.7	2.387	3.162	13.2	22.1	4 1	15 27.89	-11 52.1	4.665	5.452	7.0	21.1
4 11	15 35.54	-20 58.3	2.281	3.152	10.6	21.9	4 11	15 24.90	-11 27.9	4.570	5.452	5.5	21.0
4 21	15 28.99	-20 43.7	2.198	3.142	7.5	21.6	4 21	15 21.02	-11 2.2	4.501	5.452	3.8	20.9
5 1	15 20.77	-20 21.2	2.140	3.131	4.0	21.4	5 1	15 16.52	-10 36.2	4.460	5.451	2.1	20.8
5 11	15 11.64	-19 52.2	2.111	3.120	0.6	21.1	5 11	15 11.71	-10 11.4	4.448	5.451	1.4	20.7
5 21	15 2.43	-19 19.4	2.110	3.108	3.8	21.3	5 21	15 6.91	- 9 49.4	4.466	5.450	2.8	20.8
5 31	14 54.04	-18 46.5	2.138	3.096	7.4	21.5	5 31	15 2.46	- 9 31.4	4.513	5.450	4.5	20.9
6 10	14 47.19	-18 17.2	2.192	3.083	10.7	21.7	6 10	14 58.66	- 9 18.6	4.587	5.449	6.1	21.1
365082	2009 <i>BD</i> ₇₉		5 10.9 63°22	0°4/11.1 18			247134	2000 <i>WQ</i> ₃₉		5 10.9 1			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
39566	Carllewis			5 10.9 272°83	2.4/ 9.4 18		56976	2000 SS161			5 10.9 188°45	1.4/ 9.1 18	
4 1	15 38.64	-15 32.1	1.687	2.498	16.3	19.0	4 1	15 29.32	-10 42.5	4.633	5.419	7.1	19.0
4 11	15 35.49	-14 49.0	1.581	2.475	13.1	18.7	4 11	15 26.02	-10 31.0	4.538	5.418	5.5	18.9
4 21	15 29.55	-13 55.7	1.495	2.452	9.2	18.4	4 21	15 21.80	-10 18.5	4.469	5.418	3.8	18.8
5 1	15 21.30	-12 54.9	1.434	2.429	4.9	18.1	5 1	15 16.93	-10 6.4	4.427	5.418	2.2	18.6
5 11	15 11.65	-11 51.5	1.398	2.405	2.5	17.9	5 11	15 11.74	-9 56.0	4.415	5.417	1.5	18.6
5 21	15 1.77	-10 51.7	1.389	2.380	6.4	18.1	5 21	15 6.56	-9 48.2	4.433	5.417	2.8	18.7
5 31	14 52.90	-10 1.9	1.405	2.356	11.1	18.3	5 31	15 1.73	-9 44.4	4.480	5.416	4.5	18.8
6 10	14 46.07	-9 27.3	1.444	2.331	15.5	18.5	6 10	14 57.55	-9 45.2	4.554	5.416	6.2	18.9
377631	2005 TJ16			5 10.9 215°37	1.3/11.7 17		366278	2013 AR74			5 10.9 197°36	7.1/ 4.8 18	
4 1	15 40.63	-22 46.2	2.111	2.889	14.6	22.4	4 1	15 36.11	+ 5 40.5	2.700	3.483	11.6	20.8
4 11	15 36.39	-22 43.8	2.011	2.883	11.8	22.2	4 11	15 31.98	+ 6 33.5	2.623	3.481	9.8	20.6
4 21	15 29.76	-22 31.3	1.932	2.876	8.4	22.0	4 21	15 26.21	+ 7 19.9	2.569	3.478	8.2	20.5
5 1	15 21.23	-22 8.6	1.878	2.868	4.6	21.8	5 1	15 19.26	+ 7 55.1	2.540	3.476	7.2	20.5
5 11	15 11.66	-21 37.1	1.852	2.860	1.3	21.5	5 11	15 11.71	+ 8 15.4	2.538	3.473	7.4	20.5
5 21	15 2.03	-20 59.7	1.853	2.852	4.1	21.7	5 21	15 4.23	+ 8 18.3	2.562	3.470	8.6	20.5
5 31	14 53.37	-20 20.8	1.883	2.843	8.0	21.9	5 31	14 57.43	+ 8 3.1	2.611	3.467	10.4	20.6
6 10	14 46.49	-19 45.0	1.937	2.834	11.6	22.1	6 10	14 51.86	+ 7 30.8	2.682	3.463	12.2	20.8
304000	2006 BV229			5 10.9 220°30	0.9/10.4 16		429572	2011 EF1			5 10.9 309°90	14.2/28.3 18	
4 1	15 43.06	-17 4.6	1.730	2.528	16.5	21.9	4 1	15 34.81	+13 23.0	1.651	2.449	17.2	20.6
4 11	15 38.82	-16 53.2	1.634	2.520	13.2	21.6	4 11	15 32.18	+15 36.6	1.591	2.439	15.6	20.5
4 21	15 31.74	-16 34.0	1.559	2.512	9.3	21.4	4 21	15 27.00	+17 36.8	1.550	2.429	14.4	20.4
5 1	15 22.35	-16 8.2	1.508	2.503	4.7	21.1	5 1	15 19.86	+19 12.3	1.530	2.419	14.2	20.3
5 11	15 11.66	-15 38.6	1.483	2.493	0.9	20.8	5 11	15 11.71	+20 13.9	1.532	2.409	15.0	20.4
5 21	15 0.85	-15 9.0	1.486	2.482	5.3	21.1	5 21	15 3.60	+20 36.8	1.553	2.399	16.5	20.4
5 31	14 51.19	-14 44.0	1.515	2.471	10.0	21.3	5 31	14 56.59	+20 20.4	1.592	2.390	18.5	20.6
6 10	14 43.67	-14 27.8	1.567	2.459	14.2	21.5	6 10	14 51.52	+19 28.4	1.647	2.381	20.4	20.7
129140	2005 AO50			5 10.9 311°46	1.9/ 8.3 18		38265	1999 RT22			5 10.9 251°67	2.0/ 9.2 17	
4 1	15 28.18	- 9 43.4	4.338	5.129	7.4	19.9	4 1	15 34.34	-14 18.1	2.510	3.308	12.0	19.3
4 11	15 25.20	- 9 13.8	4.245	5.128	5.8	19.8	4 11	15 30.86	-13 35.6	2.413	3.300	9.5	19.1
4 21	15 21.27	- 8 43.1	4.178	5.127	4.1	19.6	4 21	15 25.61	-12 47.3	2.338	3.292	6.6	18.9
5 1	15 16.66	- 8 13.0	4.138	5.126	2.5	19.5	5 1	15 19.01	-11 55.8	2.290	3.283	3.5	18.7
5 11	15 11.73	- 7 45.3	4.128	5.125	2.0	19.5	5 11	15 11.72	-11 4.7	2.270	3.275	2.1	18.6
5 21	15 6.81	- 7 21.5	4.147	5.124	3.3	19.6	5 21	15 4.43	-10 17.7	2.279	3.266	4.6	18.8
5 31	15 2.27	- 7 3.2	4.195	5.124	5.0	19.7	5 31	14 57.86	- 9 38.3	2.315	3.258	7.8	18.9
6 10	14 58.42	- 6 51.4	4.269	5.123	6.7	19.8	6 10	14 52.59	- 9 9.3	2.376	3.249	10.7	19.1
84098	2002 RV2			5 10.9 283°14	1.3/10.2 17		379676	2011 FC19			5 10.9 43°24	2.2/ 9.7 17	
4 1	15 35.57	-16 56.8	1.652	2.463	16.7	20.0	4 1	15 37.53	-14 25.8	1.586	2.405	16.9	21.0
4 11	15 38.57	-16 34.4	1.546	2.439	13.4	19.8	4 11	15 34.31	-14 1.0	1.517	2.416	13.3	20.8
4 21	15 29.70	-16 2.5	1.459	2.416	9.4	19.5	4 21	15 28.42	-13 30.1	1.468	2.427	9.2	20.6
5 1	15 21.42	-15 22.8	1.396	2.391	4.8	19.1	5 1	15 20.54	-12 56.0	1.443	2.438	4.8	20.3
5 11	15 11.67	-14 38.9	1.358	2.367	1.4	18.8	5 11	15 11.71	-12 23.2	1.443	2.450	2.3	20.2
5 21	15 1.62	-13 55.5	1.347	2.343	5.8	19.1	5 21	15 3.06	-11 55.8	1.469	2.462	5.8	20.5
5 31	14 52.59	-13 18.4	1.360	2.318	10.7	19.3	5 31	14 55.70	-11 38.0	1.520	2.475	10.1	20.7
6 10	14 45.65	-12 52.8	1.396	2.294	15.3	19.5	6 10	14 50.42	-11 32.4	1.593	2.488	13.8	21.0
137999	2000 CM80			5 10.9 212°02	6.6/15.1 18		279797	1999 YC26			5 10.9 228°03	1.6/ 9.8 18	
4 1	15 46.70	-37 10.5	2.344	3.049	15.2	20.5	4 1	15 37.92	-14 39.4	2.189	2.986	13.5	21.5
4 11	15 41.51	-37 54.8	2.236	3.040	13.2	20.3	4 11	15 34.01	-14 20.2	2.094	2.980	10.7	21.3
4 21	15 33.53	-38 24.5	2.148	3.031	10.8	20.1	4 21	15 27.97	-13 55.8	2.021	2.974	7.4	21.0
5 1	15 23.26	-38 35.3	2.083	3.021	8.4	20.0	5 1	15 20.28	-13 28.3	1.974	2.968	3.9	20.8
5 11	15 11.65	-38 24.6	2.044	3.011	6.8	19.9	5 11	15 11.72	-13 0.6	1.954	2.962	1.7	20.6
5 21	14 59.86	-37 52.6	2.032	2.999	6.9	19.8	5 21	15 3.14	-12 35.7	1.963	2.955	4.7	20.8
5 31	14 49.13	-37 3.2	2.047	2.987	8.8	19.9	5 31	14 55.42	-12 16.9	1.998	2.949	8.4	21.0
6 10	14 40.45	-36 2.9	2.088	2.973	11.4	20.1	6 10	14 49.27	-12 6.9	2.059	2.942	11.7	21.2
109424	2001 QO194			5 10.9 216°91	3.5/ 7.2 18		431820	2008 RD105			5 10.9 276°75	3.9/ 8.3 16	
4 1	15 35.29	-10 12.8	2.676	3.472	11.4	20.3	4 1	15 38.09	- 9 54.5	1.996	2.803	14.3	21.2
4 11	15 31.42	- 8 56.7	2.580	3.465	9.0	20.2	4 11	15 34.54	- 9 11.1	1.886	2.776	11.5	21.0
4 21	15 25.88	- 7 35.8	2.508	3.457	6.4	20.0	4 21	15 28.62	- 8 23.2	1.797	2.750	8.2	20.7
5 1	15 19.10	- 6 14.0	2.463	3.449	4.1	19.8	5 1	15 20.76	- 7 34.6	1.733	2.723	5.1	20.5
5 11	15 11.70	- 4 56.2	2.448	3.440	3.8	19.8	5 11	15 11.74	- 6 50.0	1.697	2.695	4.1	20.4
5 21	15 4.33	- 3 46.8	2.463	3.431	5.8	19.9	5 21	15 2.49	- 6 14.1	1.687	2.667	6.9	20.5
5 31	14 57.63	- 2 49.7	2.505	3.422	8.5	20.0	5 31	14 54.04	- 5 51.3	1.704	2.639	10.6	20.6
6 10	14 52.16	- 2 7.3	2.572	3.412	11.1	20.2	6 10	14 47.26	- 5 44.0	1.743	2.610	14.2	20.8
409204	2003 WX25			5 10.9 103°34	1.8/12.3 18		119051	2001 JK5			5 10.9 277°88	0.9/10.5 16	
4 1	15 45.75	-24 39.1	3.139	3.875	11.1	24.8	4 1	15 40.29	-17 21.2	1.377	2.197	18.9	20.2
4 11	15 39.19	-24 56.4	3.067	3.911	8.9	24.7	4 11	15 37.50	-17 12.6	1.284	2.182	15.2	19.9
4 21	15 30.97	-25 6.1	3.018	3.945	6.4	24.6	4 21	15 31.36	-16 54.7	1.209	2.167	10.7	19.6
5 1	15 21.57	-25 7.6	2.998	3.979	3.8	24.4	5 1	15 22.40	-16 28.5	1.155	2.151	5.5	19.2
5 11	15 11.68	-25 1.4	3.008	4.012	1.8	24.3	5 11	15 11.72	-15 57.3	1.126	2.136	0.9	18.9
5 21	15 1.98	-24 48.9	3.049	4.044	3.1	24.5	5 21	15 0.77	-15 25.7	1.122	2.120	6.2	19.2
5 31	14 53.13	-24 32.5	3.122	4.075	5.6	24.7	5 31	14 51.13	-14 59.6	1.142	2.105	11.7	19.4
6 10	14 45.66	-24 15.1	3.222	4.105	7.9	24.9	6 10	14 44.05	-14 44.4	1.182	2.089	16.7	19.7
106262	2000 UZ60			5 10.9 282°72	3.1/12.8 18		320555	2008 AM42			5 10.9 99°51	7.4/ 6.6 18	
4 1	15 38.69	-26 36.9	2.309	3.073	13.9	19.8	4 1	15 39.78	- 2 32.1	1.650	2.465	16.5	20.8
4 11	15 34.81	-27 4.5	2.205	3.064	11.4	19.7	4 11	15 35.79	- 1 21.4	1.588	2.478	13.4	20.6
4 21	15 28.66	-27 22.5	2.123	3.054	8.5	19.4	4 21	15 29.28	- 0 13.4	1.548	2.490	10.2	20.5
5 1	15 20.69	-27 29.5	2.066	3.045	5.4	19.2	5 1	15 20.93	+ 0 44.7	1.531	2.503	7.8	20.4
5 11	15 11.69	-27 25.1	2.035	3.036	3.2	19.1	5 11	15 11.74	+ 1 26.5	1.539	2.515	7.6	20.4
5 21	15 2.57	-27 10.6	2.032	3.026	4.4	19.1	5 21	15 2.79	+ 1 47.5	1.573	2.527	9.8	20.5
5 31	14 54.28	-26 49.0	2.057	3.017	7.5	19.3	5 31	14 55.09	+ 1 46.0	1.631	2.538	12.7	20.7
6 10	14 47.64	-26 24.6	2.106	3.008	10.6	19.5	6 10	14 49.40	+ 1 22.9	1.709	2.550	15.7	21.0

EPHEMERIDES

5 10.9

5 10.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
323362	2003 <i>WF</i> ₆		5 10.9 115 ^o 22	1.2/11.7	18		215089	Hermanfrid		5 10.9 199 ^o 37	0.8/9.9	18	
4 1	15 42.32	-23 54.5	1.843	2.624	16.3	21.5	4 1	15 31.74	-15 32.4	4.081	4.859	8.1	21.8
4 11	15 37.76	-23 30.2	1.769	2.642	13.1	21.3	4 11	15 28.07	-15 12.4	3.979	4.856	6.3	21.6
4 21	15 30.63	-22 52.6	1.714	2.659	9.2	21.1	4 21	15 23.31	-14 49.1	3.902	4.851	4.4	21.5
5 1	15 21.61	-22 2.5	1.685	2.675	5.0	20.9	5 1	15 17.75	-14 23.6	3.853	4.847	2.2	21.3
5 11	15 11.73	-21 3.0	1.682	2.691	1.2	20.7	5 11	15 11.79	-13 57.7	3.834	4.842	0.8	21.2
5 21	15 2.12	-19 59.1	1.707	2.706	4.3	20.9	5 21	15 5.85	-13 32.8	3.845	4.837	2.7	21.3
5 31	14 53.82	-18 57.0	1.760	2.721	8.5	21.2	5 31	15 0.32	-13 10.9	3.886	4.832	4.8	21.5
6 10	14 47.58	-18 2.3	1.837	2.735	12.1	21.4	6 10	14 55.58	-12 53.3	3.953	4.826	6.8	21.6
133321	2003 <i>SE</i> ₈₈		5 10.9 261 ^o 41	3.3/8.6	18		373371	2012 <i>LO</i> ₁₅		5 10.9 341 ^o 18	1.4/10.1	17	
4 1	15 36.25	-11 37.0	1.965	2.776	14.4	19.9	4 1	15 31.48	-18 3.6	1.289	2.128	18.9	19.7
4 11	15 32.85	-10 51.1	1.880	2.773	11.4	19.7	4 11	15 30.48	-17 30.0	1.205	2.115	15.1	19.4
4 21	15 27.23	-10 0.5	1.816	2.771	8.0	19.5	4 21	15 26.39	-16 43.0	1.140	2.104	10.5	19.1
5 1	15 19.92	-9 8.8	1.777	2.769	4.6	19.3	5 1	15 19.79	-15 45.5	1.096	2.093	5.3	18.7
5 11	15 11.75	-8 20.8	1.766	2.767	3.5	19.2	5 11	15 11.77	-14 43.1	1.075	2.084	1.5	18.5
5 21	15 3.62	-7 41.1	1.781	2.764	6.2	19.3	5 21	15 3.68	-13 43.0	1.077	2.076	6.4	18.7
5 31	14 56.45	-7 13.4	1.822	2.762	9.7	19.5	5 31	14 56.93	-12 52.9	1.103	2.069	11.7	19.0
6 10	14 50.96	-7 0.1	1.887	2.760	13.0	19.7	6 10	14 52.58	-12 18.9	1.148	2.063	16.4	19.3
415170	2012 <i>FD</i> ₆₁		5 10.9 106 ^o 63	1.2/10.2	16		307397	2002 <i>TY</i> ₈₂		5 10.9 181 ^o 53	0.9/10.3	17	
4 1	15 41.41	-16 35.5	1.743	2.545	16.3	22.5	4 1	15 39.95	-18 12.9	1.969	2.762	15.0	21.3
4 11	15 37.14	-16 16.4	1.670	2.559	12.9	22.3	4 11	15 35.84	-17 40.9	1.879	2.763	11.9	21.1
4 21	15 30.27	-15 49.9	1.618	2.572	8.9	22.1	4 21	15 29.34	-16 59.7	1.812	2.764	8.2	20.9
5 1	15 21.47	-15 18.2	1.590	2.585	4.5	21.9	5 1	15 21.02	-16 11.3	1.769	2.764	4.2	20.6
5 11	15 11.74	-14 44.7	1.589	2.598	1.2	21.7	5 11	15 11.76	-15 19.3	1.754	2.763	0.9	20.4
5 21	15 2.21	-14 13.2	1.615	2.610	5.1	21.9	5 21	15 2.57	-14 28.0	1.767	2.762	4.7	20.6
5 31	14 53.94	-13 48.2	1.667	2.622	9.3	22.2	5 31	14 54.42	-13 42.6	1.807	2.761	8.8	20.9
6 10	14 47.72	-13 32.8	1.743	2.634	13.0	22.5	6 10	14 48.10	-13 7.1	1.871	2.759	12.4	21.1
395075	2009 <i>HL</i> ₁₄		5 10.9 36 ^o 24	6.4/5.5	17		361593	2007 <i>RE</i> ₂₇₇		5 10.9 265 ^o 39	1.6/10.2	17	
4 1	15 33.06	-5 3.2	1.918	2.739	14.3	20.7	4 1	15 42.97	-14 10.8	1.597	2.405	17.3	21.0
4 11	15 30.19	-3 26.3	1.854	2.749	11.5	20.5	4 11	15 39.17	-14 12.5	1.496	2.388	13.9	20.8
4 21	15 25.26	-1 48.6	1.812	2.759	8.6	20.4	4 21	15 32.30	-14 10.1	1.415	2.370	9.8	20.5
5 1	15 18.85	-0 17.1	1.796	2.770	6.6	20.3	5 1	15 22.82	-14 4.9	1.357	2.352	5.1	20.1
5 11	15 11.77	+ 1 1.3	1.806	2.781	6.8	20.3	5 11	15 11.75	-13 59.4	1.325	2.333	1.7	19.9
5 21	15 4.86	+ 2 1.0	1.843	2.793	8.8	20.5	5 21	15 0.35	-13 56.3	1.319	2.314	6.0	20.1
5 31	14 58.92	+ 2 38.8	1.903	2.805	11.5	20.6	5 31	14 50.05	-13 59.3	1.338	2.295	11.0	20.3
6 10	14 54.58	+ 2 54.4	1.985	2.817	14.1	20.8	6 10	14 42.01	-14 11.3	1.380	2.276	15.5	20.5
475783	2006 <i>XR</i> ₂		5 10.9 202 ^o 06	1.2/10.1	18		384416	2009 <i>WZ</i> ₁₉₄		5 10.9 263 ^o 29	5.4/7.7	18	
4 1	15 38.50	-14 10.1	2.528	3.316	12.2	22.0	4 1	15 39.00	-5 15.0	1.909	2.717	14.8	20.3
4 11	15 34.14	-14 10.3	2.433	3.314	9.7	21.9	4 11	15 35.21	-4 34.5	1.814	2.703	12.0	20.1
4 21	15 27.89	-14 7.4	2.361	3.312	6.7	21.7	4 21	15 29.03	-3 54.3	1.741	2.688	8.9	19.9
5 1	15 20.21	-14 2.7	2.316	3.310	3.4	21.5	5 1	15 20.94	-3 19.0	1.692	2.674	6.2	19.7
5 11	15 11.76	-13 57.8	2.299	3.307	1.2	21.3	5 11	15 11.77	-2 53.5	1.670	2.659	5.6	19.6
5 21	15 3.31	-13 54.7	2.311	3.304	4.0	21.5	5 21	15 2.52	-2 42.0	1.674	2.643	8.0	19.7
5 31	14 55.59	-13 55.3	2.351	3.302	7.3	21.7	5 31	14 54.17	-2 47.0	1.704	2.628	11.3	19.9
6 10	14 49.25	-14 1.4	2.417	3.298	10.2	21.9	6 10	14 47.59	-3 9.2	1.756	2.612	14.6	20.0
286094	2001 <i>TZ</i> ₃₆		5 10.9 107 ^o 77	3.5/14.6	17		196840	2003 <i>SM</i> ₂₅₃		5 10.9 285 ^o 89	2.0/12.0	17	
4 1	15 39.83	-34 0.6	2.750	3.471	12.9	20.4	4 1	15 38.99	-23 14.2	1.914	2.701	15.6	20.6
4 11	15 35.01	-33 38.2	2.667	3.492	10.7	20.2	4 11	15 35.51	-23 29.9	1.813	2.689	12.7	20.4
4 21	15 28.31	-33 0.9	2.604	3.511	8.2	20.1	4 21	15 29.42	-23 36.0	1.733	2.677	9.2	20.1
5 1	15 20.31	-32 8.3	2.567	3.531	5.6	19.9	5 1	15 21.21	-23 31.5	1.676	2.665	5.3	19.9
5 11	15 11.76	-31 1.9	2.559	3.549	3.7	19.8	5 11	15 11.77	-23 16.9	1.646	2.653	2.1	19.6
5 21	15 3.46	-29 45.2	2.579	3.568	4.1	19.9	5 21	15 2.18	-22 54.4	1.642	2.641	4.5	19.8
5 31	14 56.14	-28 23.1	2.629	3.586	6.3	20.1	5 31	14 53.57	-22 28.0	1.665	2.629	8.6	20.0
6 10	14 50.36	-27 1.1	2.706	3.604	8.7	20.2	6 10	14 46.89	-22 2.7	1.712	2.618	12.5	20.2
379326	2009 <i>WF</i> ₅₂		5 10.9 171 ^o 42	5.2/7.4	17		376536	2012 <i>TP</i>		5 10.9 323 ^o 10	0.8/9.8	18	
4 1	15 41.75	-1 24.4	2.565	3.347	12.2	21.6	4 1	15 28.68	-15 12.3	4.281	5.065	7.6	21.1
4 11	15 36.46	-0 53.8	2.482	3.352	9.9	21.4	4 11	15 25.65	-14 50.6	4.184	5.064	6.0	21.0
4 21	15 29.34	-0 26.7	2.423	3.356	7.5	21.3	4 21	15 21.62	-14 25.9	4.112	5.062	4.1	20.9
5 1	15 20.88	-0 6.6	2.390	3.359	5.6	21.2	5 1	15 16.90	-13 59.5	4.067	5.061	2.1	20.7
5 11	15 11.76	+ 0 3.2	2.386	3.361	5.3	21.2	5 11	15 11.82	-13 32.9	4.052	5.060	0.9	20.6
5 21	15 2.72	+ 0 0.6	2.410	3.363	6.9	21.3	5 21	15 6.75	-13 7.7	4.067	5.059	2.6	20.7
5 31	14 54.47	-0 15.4	2.462	3.364	9.2	21.4	5 31	15 2.08	-12 45.6	4.111	5.058	4.6	20.9
6 10	14 47.62	-0 44.6	2.538	3.364	11.6	21.6	6 10	14 58.12	-12 28.0	4.181	5.056	6.4	21.0
366579	2002 <i>TP</i> ₁₀₅		5 10.9 269 ^o 15	0.7/10.4	17		504664	2009 <i>BR</i> ₈₅		5 10.9 78 ^o 79	3.0/13.1	17	
4 1	15 37.97	-19 30.0	1.721	2.525	16.4	21.4	4 1	15 38.80	-27 56.9	2.114	2.880	15.0	21.9
4 11	15 34.88	-18 54.7	1.620	2.510	13.1	21.1	4 11	15 34.86	-28 1.1	2.035	2.894	12.2	21.7
4 21	15 29.06	-18 6.7	1.539	2.494	9.2	20.8	4 21	15 28.59	-27 52.3	1.976	2.907	9.0	21.5
5 1	15 21.03	-17 8.0	1.482	2.478	4.7	20.5	5 1	15 20.60	-27 29.7	1.941	2.921	5.6	21.3
5 11	15 11.75	-16 2.4	1.452	2.462	0.8	20.2	5 11	15 11.78	-26 54.5	1.933	2.935	3.1	21.2
5 21	15 2.35	-14 55.7	1.448	2.445	5.3	20.5	5 21	15 3.12	-26 9.8	1.952	2.948	4.3	21.3
5 31	14 54.02	-13 54.7	1.470	2.429	10.0	20.7	5 31	14 55.54	-25 20.3	1.999	2.962	7.5	21.5
6 10	14 47.73	-13 5.2	1.515	2.412	14.3	20.9	6 10	14 49.79	-24 31.5	2.070	2.975	10.7	21.7
497365	2005 <i>UY</i> ₂₆₀		5 10.9 148 ^o 01	0.6/10.4	17		371642	2007 <i>BM</i> ₂₇		5 10.9 132 ^o 75	6.7/6.6	18	
4 1	15 39.91	-18 35.8	2.365	3.146	13.1	23.2	4 1	15 40.41	-0 46.5	2.061	2.859	14.2	21.5
4 11	15 35.26	-18 5.6	2.280	3.157	10.4	23.0	4 11	15 35.78	+ 0 10.9	1.994	2.871	11.6	21.3
4 21	15 28.63	-17 27.6	2.219	3.167	7.2	22.9	4 21	15 29.03	+ 1 4.3	1.949	2.883	9.0	21.2
5 1	15 20.54	-16 43.5	2.183	3.177	3.6	22.6	5 1	15 20.76	+ 1 48.3	1.929	2.895	7.0	21.1
5 11	15 11.76	-15 56.3	2.176	3.186	0.6	22.4	5 11	15 11.78	+ 2 18.1	1.937	2.906	6.9	21.1
5 21	15 3.12	-15 9.5	2.199	3.194	4.0	22.7	5 21	15 2.99	+ 2 30.4	1.970			

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
297791	2001 <i>YE</i> ₂₂		5 10.9 155°63	1°6/11.9	18		131170	2001 <i>CD</i> ₃₄		5 10.9 116°16	3°1/9.1	18	
4 1	15 44.01	-24 15.9	1.915	2.688	16.0	22.3	4 1	15 41.94	-8 41.3	2.202	2.994	13.6	20.2
4 11	15 39.18	-24 3.8	1.829	2.697	12.9	22.1	4 11	15 36.90	-8 29.4	2.128	3.010	10.8	20.0
4 21	15 31.70	-23 38.9	1.765	2.706	9.3	21.9	4 21	15 29.78	-8 17.4	2.076	3.025	7.6	19.8
5 1	15 22.23	-23 1.3	1.724	2.713	5.1	21.7	5 1	15 21.15	-8 7.9	2.051	3.040	4.5	19.7
5 11	15 11.77	-22 12.9	1.711	2.720	1.6	21.4	5 11	15 11.82	-8 3.3	2.054	3.054	3.2	19.6
5 21	15 1.45	-21 18.0	1.727	2.725	4.4	21.6	5 21	15 2.64	-8 5.8	2.085	3.068	5.5	19.8
5 31	14 52.36	-20 22.2	1.770	2.730	8.5	21.9	5 31	14 54.44	-8 17.1	2.144	3.081	8.7	20.0
6 10	14 45.35	-19 31.4	1.837	2.734	12.2	22.1	6 10	14 47.86	-8 37.7	2.228	3.094	11.6	20.2
394727	2008 <i>EZ</i> ₁₃₁		5 10.9 266°07	4°3/13.5	18		331492	1999 <i>RG</i> ₁₆₈		5 10.9 174°57	3°7/7.9	18	
4 1	15 40.82	-29 54.2	2.480	3.223	13.6	21.0	4 1	15 37.74	-8 34.9	2.441	3.237	12.3	21.4
4 11	15 36.46	-30 40.1	2.376	3.216	11.3	20.8	4 11	15 33.48	-7 44.6	2.355	3.240	9.8	21.3
4 21	15 29.81	-31 16.3	2.294	3.210	8.8	20.6	4 21	15 27.38	-6 52.2	2.293	3.242	7.0	21.1
5 1	15 21.33	-31 40.3	2.237	3.203	6.1	20.5	5 1	15 19.94	-6 1.2	2.258	3.243	4.5	20.9
5 11	15 11.78	-31 50.9	2.206	3.196	4.4	20.3	5 11	15 11.83	-5 15.8	2.251	3.244	3.9	20.9
5 21	15 2.07	-31 48.3	2.204	3.189	5.1	20.4	5 21	15 3.79	-4 39.5	2.273	3.245	6.0	21.0
5 31	14 53.17	-31 35.0	2.229	3.182	7.5	20.5	5 31	14 56.54	-4 15.1	2.322	3.245	8.8	21.2
6 10	14 45.89	-31 15.1	2.280	3.175	10.2	20.7	6 10	14 50.68	-4 4.2	2.395	3.244	11.4	21.4
181086	2005 <i>QL</i> ₄₆		5 10.9 72°13	6°8/5.3	18		338649	2003 <i>SO</i> ₃₂₆		5 10.9 200°84	1°0/11.6	17	
4 1	15 34.58	+ 0 22.3	2.260	3.064	12.9	20.1	4 1	15 39.09	-21 50.1	2.183	2.964	14.1	22.0
4 11	15 31.02	+ 1 36.2	2.197	3.077	10.6	19.9	4 11	15 35.07	-21 49.2	2.088	2.962	11.3	21.8
4 21	15 25.66	+ 2 46.1	2.158	3.089	8.4	19.8	4 21	15 28.79	-21 39.4	2.015	2.960	8.0	21.5
5 1	15 19.02	+ 3 46.3	2.144	3.101	7.0	19.7	5 1	15 20.77	-21 20.8	1.967	2.957	4.3	21.3
5 11	15 11.81	+ 4 32.0	2.156	3.114	7.1	19.8	5 11	15 11.83	-20 54.9	1.946	2.955	1.0	21.1
5 21	15 4.74	+ 4 59.7	2.195	3.126	8.7	19.9	5 21	15 2.88	-20 24.5	1.953	2.952	3.9	21.3
5 31	14 58.53	+ 5 7.9	2.258	3.139	10.8	20.0	5 31	14 54.85	-19 53.3	1.988	2.949	7.7	21.5
6 10	14 53.72	+ 4 57.2	2.342	3.151	13.0	20.2	6 10	14 48.50	-19 25.5	2.048	2.945	11.1	21.7
505997	2015 <i>GO</i> ₄₃		5 10.9 151°89	0°5/10.6	17		216436	2009 <i>DR</i> ₆₉		5 10.9 25°27	0°7/11.4	17	
4 1	15 41.66	-15 32.9	2.125	2.915	14.1	21.4	4 1	15 36.83	-21 11.2	2.049	2.840	14.5	21.0
4 11	15 37.04	-15 48.0	2.036	2.917	11.2	21.2	4 11	15 33.37	-21 6.6	1.961	2.842	11.6	20.8
4 21	15 30.12	-15 59.6	1.969	2.919	7.8	21.0	4 21	15 27.64	-20 52.9	1.895	2.844	8.2	20.6
5 1	15 21.43	-16 8.3	1.927	2.921	4.0	20.7	5 1	15 20.19	-20 30.6	1.854	2.846	4.3	20.4
5 11	15 11.79	-16 15.1	1.914	2.923	0.6	20.4	5 11	15 11.84	-20 1.8	1.839	2.849	0.8	20.1
5 21	15 2.14	-16 21.7	1.929	2.925	4.3	20.7	5 21	15 3.53	-19 29.6	1.852	2.851	4.0	20.4
5 31	14 53.44	-16 30.1	1.971	2.927	8.1	21.0	5 31	14 56.20	-18 57.9	1.892	2.854	7.9	20.6
6 10	14 46.46	-16 42.5	2.039	2.928	11.5	21.2	6 10	14 50.58	-18 30.9	1.956	2.857	11.3	20.8
383651	2007 <i>TD</i> ₁₅		5 10.9 68°68	3°2/12.9	18		158426	2002 <i>BH</i> ₁₀		5 10.9 141°71	3°2/8.6	17	
4 1	15 49.06	-31 51.5	1.056	1.851	25.0	20.2	4 1	15 39.90	-9 46.2	2.400	3.192	12.6	20.7
4 11	15 44.42	-30 45.9	1.011	1.888	20.3	20.0	4 11	15 35.12	-9 7.9	2.323	3.205	10.0	20.5
4 21	15 35.64	-29 9.3	0.983	1.925	14.7	19.8	4 21	15 28.47	-8 27.6	2.268	3.217	7.0	20.3
5 1	15 24.10	-27 3.6	0.975	1.961	8.5	19.6	5 1	15 20.47	-7 48.3	2.241	3.229	4.2	20.2
5 11	15 11.77	-24 38.0	0.990	1.997	3.4	19.4	5 11	15 11.84	-7 13.5	2.242	3.240	3.3	20.1
5 21	15 0.56	-22 7.2	1.032	2.032	6.0	19.7	5 21	15 3.34	-6 46.5	2.272	3.251	5.5	20.3
5 31	14 51.96	-19 46.9	1.097	2.067	11.3	20.1	5 31	14 55.72	-6 29.6	2.330	3.261	8.4	20.5
6 10	14 46.72	-17 48.9	1.185	2.101	16.0	20.4	6 10	14 49.57	-6 24.3	2.413	3.270	11.1	20.7
240713	2005 <i>GK</i> ₁₁₀		5 10.9 270°43	0°6/11.3	17		363097	2000 <i>SV</i> ₃₀₇		5 10.9 234°61	2°7/12.6	17	
4 1	15 37.35	-20 44.7	2.150	2.938	14.0	20.9	4 1	15 42.36	-26 43.4	1.890	2.661	16.3	21.5
4 11	15 33.75	-20 40.7	2.051	2.930	11.3	20.7	4 11	15 38.31	-26 40.3	1.784	2.648	13.4	21.2
4 21	15 27.91	-20 28.2	1.975	2.923	7.9	20.5	4 21	15 31.45	-26 22.6	1.698	2.634	9.9	21.0
5 1	15 20.33	-20 7.7	1.923	2.916	4.2	20.2	5 1	15 22.30	-25 49.2	1.636	2.620	6.0	20.7
5 11	15 11.80	-19 40.9	1.899	2.908	0.6	19.9	5 11	15 11.84	-25 0.8	1.600	2.605	2.8	20.5
5 21	15 3.23	-19 10.6	1.902	2.901	4.0	20.2	5 21	15 1.23	-24 0.8	1.591	2.589	4.8	20.6
5 31	14 55.53	-18 40.7	1.932	2.893	7.8	20.4	5 31	14 51.71	-22 55.4	1.610	2.573	8.9	20.8
6 10	14 49.49	-18 15.2	1.987	2.886	11.3	20.6	6 10	14 44.30	-21 51.8	1.653	2.556	13.0	21.0
287972	2003 <i>UX</i> ₁₄₇		5 10.9 187°67	2°7/9.1	16		145506	2006 <i>DH</i> ₁₀		5 10.9 50°90	1°2/11.6	18	
4 1	15 41.02	-12 46.2	2.040	2.837	14.4	22.0	4 1	15 39.26	-21 25.8	1.719	2.517	16.6	19.6
4 11	15 36.54	-12 6.6	1.951	2.837	11.4	22.0	4 11	15 35.68	-21 33.6	1.645	2.528	13.3	19.4
4 21	15 29.77	-11 21.8	1.884	2.836	8.0	21.8	4 21	15 29.42	-21 31.5	1.591	2.540	9.4	19.2
5 1	15 21.24	-10 34.7	1.842	2.834	4.4	21.6	5 1	15 21.13	-21 19.6	1.560	2.552	5.1	18.9
5 11	15 11.80	-9 49.7	1.828	2.832	2.9	21.5	5 11	15 11.84	-20 59.7	1.555	2.564	1.2	18.7
5 21	15 2.40	-9 10.8	1.843	2.829	5.7	21.6	5 21	15 2.70	-20 34.9	1.577	2.576	4.5	18.9
5 31	14 53.99	-8 42.0	1.884	2.825	9.4	21.9	5 31	14 54.80	-20 9.5	1.624	2.589	8.7	19.2
6 10	14 47.33	-8 25.9	1.949	2.820	12.8	22.1	6 10	14 48.99	-19 48.3	1.695	2.602	12.5	19.5
256676	2007 <i>YU</i> ₂₄		5 10.9 323°24	1°1/10.4	17		514078	2014 <i>SP</i> ₃₄₉		5 10.9 246°96	6°2/1.5	18	
4 1	15 35.60	-16 18.3	1.245	2.082	19.5	20.3	4 1	15 30.24	+16 19.7	4.578	5.316	7.8	21.4
4 11	15 34.08	-16 17.2	1.155	2.064	15.7	19.9	4 11	15 26.76	+16 58.1	4.511	5.313	7.0	21.3
4 21	15 29.18	-16 8.1	1.083	2.046	11.1	19.6	4 21	15 22.34	+17 28.6	4.467	5.310	6.4	21.3
5 1	15 21.38	-15 52.5	1.032	2.030	5.7	19.3	5 1	15 17.27	+17 48.5	4.447	5.308	6.2	21.2
5 11	15 11.80	-15 33.8	1.004	2.014	1.2	18.9	5 11	15 11.88	+17 56.1	4.453	5.305	6.4	21.3
5 21	15 1.92	-15 16.2	0.999	1.999	6.5	19.2	5 21	15 6.54	+17 50.1	4.483	5.302	7.0	21.3
5 31	14 53.37	-15 5.2	1.016	1.984	12.2	19.5	5 31	15 1.58	+17 30.5	4.536	5.299	7.8	21.4
6 10	14 47.47	-15 5.4	1.054	1.971	17.3	19.7	6 10	14 57.32	+16 58.0	4.611	5.296	8.7	21.4
169663	2002 <i>JJ</i> ₇₀		5 10.9 349°70	6°7/6.7	18		297650	2001 <i>TA</i> ₂₁₃		5 10.9 162°11	1°1/11.8	18	
4 1	15 33.19	-5 52.0	1.520	2.355	16.7	19.5	4 1	15 36.48	-23 54.6	2.360	3.136	13.3	20.6
4 11	15 31.07	-5 40.0	1.445	2.349	13.5	19.2	4 11	15 32.78	-23 34.0	2.268	3.138	10.7	20.4
4 21	15 26.35	-5 26.3	1.390	2.345	10.0	19.0	4 21	15 27.06	-23 2.4	2.196	3.139	7.6	20.2
5 1	15 19.60	-5 18.1	1.359	2.341	7.3	18.8	5 1	15 19.83	-22 20.7	2.151	3.140	4.2	20.0
5 11	15 11.82	-5 12.9	1.351	2.337	7.0	18.8	5 11	15 11.86	-21 31.0	2.133	3.142	1.2	19.8
5 21	15 4.09	-5 06.9	1.368	2.335	9.6	19.0	5 21	15 3.95	-20 36.9	2.144	3.143	3.6	20.0
5 31	14 57.50	-4 53.7	1.408	2.333	13.1	19.1	5 31	14 56.91	-19 42.7	2.182	3.144	7.1	20.2
6 10	14 52.91	-4 44.1	1.467	2.332	16.5	19.4	6 10	14 51.40	-18 53.0	2.246	3.144	10.2	20.4

EPHEMERIDES

5 10.9

5 10.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
14888	Kanazawashi		5 10.9 238°03	1.8/ 9.8 18			490349	2009 <i>EM</i>		5 10.9 208°73	15.4/15.3 18		
4 1	15 40.58	-16 59.7	1.689	2.494	16.6	18.9	4 1	15 57.89	-42 55.0	1.358	2.071	24.1	21.7
4 11	15 36.95	-16 17.1	1.591	2.482	13.3	18.7	4 11	15 54.10	-45 34.1	1.277	2.068	21.8	21.5
4 21	15 30.51	-15 23.4	1.514	2.469	9.3	18.4	4 21	15 44.87	-47 57.9	1.210	2.065	19.3	21.3
5 1	15 21.82	-14 21.2	1.461	2.456	4.8	18.1	5 1	15 30.30	-49 51.8	1.163	2.061	17.0	21.1
5 11	15 11.84	-13 15.5	1.434	2.442	1.9	17.9	5 11	15 11.81	-51 1.5	1.135	2.056	15.6	21.0
5 21	15 1.77	-12 12.1	1.434	2.428	6.0	18.1	5 21	14 52.16	-51 19.0	1.128	2.051	15.7	21.0
5 31	14 52.82	-11 17.7	1.460	2.413	10.6	18.3	5 31	14 34.66	-50 47.6	1.142	2.045	17.3	21.1
6 10	14 45.97	-10 37.5	1.509	2.397	14.9	18.5	6 10	14 21.91	-49 41.3	1.174	2.039	19.8	21.2
219758	2001 <i>YW</i> ₃₃		5 10.9 106°69	1.0/11.5 17			388197	2006 <i>DX</i> ₁₃₃		5 10.9 221°68	5.1/ 7.3 17		
4 1	15 40.50	-21 50.0	1.888	2.676	15.7	20.9	4 1	15 37.29	- 6 0.6	2.064	2.871	13.9	21.3
4 11	15 36.41	-21 47.1	1.808	2.686	12.6	20.7	4 11	15 33.56	- 5 6.5	1.978	2.867	11.2	21.1
4 21	15 29.80	-21 34.1	1.749	2.696	8.9	20.5	4 21	15 27.70	- 4 11.7	1.915	2.863	8.2	20.9
5 1	15 21.30	-21 11.3	1.715	2.706	4.8	20.2	5 1	15 20.22	- 3 20.7	1.877	2.858	5.7	20.7
5 11	15 11.86	-20 40.6	1.707	2.716	1.0	20.0	5 11	15 11.90	- 2 38.7	1.866	2.853	5.3	20.7
5 21	15 2.55	-20 5.6	1.726	2.726	4.3	20.2	5 21	15 3.60	- 2 9.8	1.882	2.848	7.5	20.8
5 31	14 54.40	-19 30.7	1.773	2.735	8.3	20.5	5 31	14 56.20	- 1 56.9	1.923	2.842	10.5	21.0
6 10	14 48.21	-19 0.6	1.843	2.744	12.0	20.7	6 10	14 50.39	- 2 0.9	1.987	2.836	13.4	21.1
519675	2012 <i>YK</i> ₁₁		5 10.9 199°70	2.0/12.6 18			161831	2006 <i>XZ</i> ₃₂		5 10.9 183°30	4.6/15.5 18		
4 1	15 37.88	-26 4.8	2.722	3.479	12.2	22.4	4 1	15 39.55	-37 2.3	3.205	3.901	11.6	21.7
4 11	15 33.68	-26 4.5	2.620	3.476	9.9	22.2	4 11	15 34.87	-37 14.8	3.101	3.902	9.9	21.6
4 21	15 27.61	-25 54.4	2.540	3.472	7.2	22.1	4 21	15 28.36	-37 14.5	3.018	3.901	8.0	21.4
5 1	15 20.12	-25 34.3	2.486	3.469	4.3	21.9	5 1	15 20.48	-36 59.8	2.960	3.901	6.1	21.3
5 11	15 11.88	-25 5.1	2.460	3.465	2.1	21.7	5 11	15 11.90	-36 30.4	2.929	3.900	4.7	21.2
5 21	15 3.63	-24 28.9	2.464	3.460	3.5	21.8	5 21	15 3.35	-35 47.6	2.927	3.898	4.8	21.2
5 31	14 56.13	-23 49.2	2.495	3.455	6.4	22.0	5 31	14 55.57	-34 54.6	2.952	3.896	6.3	21.3
6 10	14 50.01	-23 9.7	2.553	3.450	9.2	22.1	6 10	14 49.15	-33 55.7	3.005	3.893	8.2	21.4
390879	2004 <i>TV</i> ₂₈₇		5 10.9 167°72	2.8/11.3 18			325846	2010 <i>TW</i> ₃₂		5 10.9 69°00	3.5/ 8.8 17		
4 1	15 55.66	-17 23.5	1.256	2.055	21.6	20.3	4 1	15 37.77	-13 40.6	1.527	2.349	17.3	21.1
4 11	15 50.41	-18 58.3	1.173	2.056	17.6	20.0	4 11	15 34.63	-12 39.9	1.457	2.357	13.6	20.9
4 21	15 40.87	-20 35.0	1.109	2.057	12.7	19.7	4 21	15 28.74	-11 31.1	1.406	2.365	9.5	20.6
5 1	15 27.54	-22 8.5	1.067	2.058	7.1	19.4	5 1	15 20.81	-10 19.2	1.379	2.373	5.3	20.4
5 11	15 11.83	-23 32.9	1.052	2.059	2.8	19.2	5 11	15 11.90	- 9 10.9	1.378	2.382	3.7	20.3
5 21	14 55.72	-24 43.3	1.062	2.059	6.7	19.4	5 21	15 3.18	- 8 12.8	1.403	2.390	7.0	20.5
5 31	14 41.37	-25 39.6	1.098	2.060	12.3	19.7	5 31	14 55.78	- 7 30.3	1.452	2.398	11.2	20.8
6 10	14 30.43	-26 26.1	1.156	2.060	17.3	20.0	6 10	14 50.52	- 7 6.4	1.523	2.407	15.0	21.1
170317	2003 <i>SW</i> ₅₃		5 10.9 200°98	0.3/10.7 17			266331	2007 <i>DP</i> ₂₅		5 10.9 133°09	1.7/ 9.7 18		
4 1	15 40.35	-19 31.5	1.706	2.507	16.6	20.7	4 1	15 40.98	-14 45.4	2.191	2.981	13.7	21.7
4 11	15 36.66	-19 8.4	1.618	2.505	13.3	20.5	4 11	15 36.22	-14 16.5	2.114	2.996	10.8	21.5
4 21	15 30.22	-18 34.4	1.550	2.503	9.3	20.3	4 21	15 29.37	-13 42.3	2.059	3.010	7.5	21.3
5 1	15 21.62	-17 50.9	1.506	2.500	4.7	20.0	5 1	15 20.99	-13 5.1	2.030	3.023	3.9	21.1
5 11	15 11.87	-17 1.4	1.488	2.498	0.3	19.6	5 11	15 11.90	-12 28.2	2.029	3.036	1.8	21.0
5 21	15 2.14	-16 10.7	1.497	2.495	5.0	20.0	5 21	15 2.97	-11 55.0	2.057	3.048	4.7	21.2
5 31	14 53.62	-15 24.6	1.532	2.491	9.6	20.2	5 31	14 55.04	-11 28.9	2.113	3.060	8.2	21.4
6 10	14 47.20	-14 48.2	1.590	2.487	13.7	20.5	6 10	14 48.75	-11 12.4	2.194	3.071	11.3	21.6
413152	2002 <i>ET</i> ₆₇		5 10.9 0°77	9.9/14.8 17			49388	1998 <i>XR</i> ₂₀		5 10.9 147°74	0.0/10.9 18		
4 1	15 42.69	-34 44.7	1.315	2.090	22.0	20.1	4 1	15 37.59	-19 38.9	2.264	3.051	13.5	19.3
4 11	15 40.36	-36 23.3	1.238	2.088	19.0	19.8	4 11	15 33.68	-19 23.4	2.175	3.055	10.7	19.1
4 21	15 33.95	-37 45.4	1.177	2.087	15.6	19.6	4 21	15 27.71	-19 0.0	2.109	3.058	7.5	18.9
5 1	15 23.99	-38 42.3	1.135	2.087	12.3	19.4	5 1	15 20.20	-18 29.6	2.068	3.061	3.8	18.7
5 11	15 11.85	-39 7.8	1.114	2.088	10.1	19.3	5 11	15 11.91	-17 54.7	2.054	3.064	0.0	18.3
5 21	14 59.43	-39 0.1	1.115	2.089	10.4	19.3	5 21	15 3.67	-17 18.5	2.069	3.067	3.9	18.7
5 31	14 48.81	-38 24.6	1.139	2.091	13.0	19.4	5 31	14 56.32	-16 44.7	2.112	3.070	7.5	18.9
6 10	14 41.52	-37 32.0	1.182	2.093	16.4	19.6	6 10	14 50.53	-16 16.8	2.179	3.072	10.7	19.1
229563	2006 <i>AA</i> ₉		5 10.9 146°08	2.0/ 9.6 17			346774	2009 <i>BS</i> ₉₅		5 10.9 155°27	1.2/10.1 18		
4 1	15 38.66	-14 14.9	1.963	2.766	14.7	21.1	4 1	15 37.84	-15 45.1	2.260	3.053	13.3	21.8
4 11	15 34.78	-13 47.6	1.880	2.770	11.6	20.9	4 11	15 33.84	-15 27.2	2.172	3.056	10.5	21.6
4 21	15 28.59	-13 14.8	1.818	2.773	8.0	20.7	4 21	15 27.81	-15 3.8	2.107	3.059	7.3	21.4
5 1	15 20.68	-12 39.0	1.782	2.776	4.2	20.4	5 1	15 20.25	-14 36.8	2.068	3.062	3.7	21.2
5 11	15 11.88	-12 3.9	1.772	2.779	2.1	20.3	5 11	15 11.91	-14 8.6	2.056	3.065	1.2	21.0
5 21	15 3.16	-11 33.2	1.790	2.782	5.2	20.5	5 21	15 3.62	-13 42.5	2.073	3.067	4.3	21.2
5 31	14 55.45	-11 10.6	1.835	2.784	9.0	20.7	5 31	14 56.20	-13 21.5	2.117	3.069	7.8	21.4
6 10	14 49.50	-10 58.8	1.903	2.787	12.5	21.0	6 10	14 50.32	-13 8.3	2.186	3.071	11.0	21.6
478068	2011 <i>UY</i> ₆		5 10.9 228°71	0.7/11.4 16			504869	2010 <i>VQ</i> ₂₅		5 10.9 256°91	0.3/10.8 17		
4 1	15 40.29	-19 10.6	2.494	3.270	12.7	21.5	4 1	15 44.36	-17 10.1	1.983	2.769	15.1	22.4
4 11	15 35.73	-19 33.9	2.395	3.266	10.1	21.3	4 11	15 39.80	-17 14.6	1.866	2.745	12.2	22.2
4 21	15 29.14	-19 52.4	2.318	3.263	7.1	21.1	4 21	15 32.51	-17 13.4	1.771	2.720	8.6	21.9
5 1	15 20.95	-20 5.9	2.268	3.259	3.8	20.9	5 1	15 22.93	-17 6.9	1.700	2.694	4.5	21.6
5 11	15 11.89	-20 14.8	2.246	3.255	0.7	20.6	5 11	15 11.90	-16 56.2	1.657	2.667	0.4	21.2
5 21	15 2.75	-20 20.2	2.253	3.251	3.6	20.9	5 21	15 0.50	-16 43.8	1.642	2.639	4.8	21.5
5 31	14 54.37	-20 24.0	2.289	3.247	7.0	21.1	5 31	14 49.93	-16 32.9	1.655	2.610	9.3	21.7
6 10	14 47.45	-20 28.8	2.350	3.243	10.1	21.3	6 10	14 41.22	-16 27.3	1.692	2.581	13.5	21.9
497389	2005 <i>VT</i> ₃₃		5 10.9 208°88	1.1/10.1 17			481338	2006 <i>BH</i> ₂₁₈		5 10.9 263°35	5.1/15.6 18		
4 1	15 40.12	-16 22.7	2.396	3.180	12.9	23.1	4 1	15 38.65	-37 9.7	2.736	3.444	13.2	21.5
4 11	15 35.59	-15 59.2	2.295	3.173	10.2	22.9	4 11	15 34.66	-37 16.6	2.617	3.426	11.3	21.4
4 21	15 29.03	-15 29.4	2.216	3.166	7.1	22.7	4 21	15 28.51	-37 8.3	2.519	3.408	9.2	21.2
5 1	15 20.88	-14 54.9	2.163	3.157	3.6	22.4	5 1	15 20.68	-36 42.6	2.444	3.389	7.0	21.0
5 11	15 11.89	-14 18.4	2.139	3.148	1.1	22.2	5 11	15 11.92	-35 58.8	2.395	3.370	5.3	20.9
5 21	15 2.87	-13 43.0	2.145	3.138	4.3	22.4	5 21	15 3.09	-34 58.7	2.374	3.350		

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
145797	1998 <i>RB</i> ₂₃		5 10.9 251°36	0°8/11.4	18		92220	2000 <i>AH</i> ₄₃		5 10.9 263°37	13°1/19.2	18	
4 1	15 42.03	-20 47.1	1.988	2.771	15.2	20.7	4 1	15 44.80	-45 42.9	1.291	2.016	24.6	19.5
4 11	15 37.91	-20 47.8	1.877	2.753	12.3	20.5	4 11	15 42.92	-46 41.7	1.205	2.009	22.2	19.3
4 21	15 31.17	-20 39.6	1.787	2.733	8.8	20.2	4 21	15 36.25	-47 10.4	1.132	2.001	19.3	19.1
5 1	15 22.27	-20 22.3	1.722	2.714	4.7	20.0	5 1	15 25.39	-46 58.0	1.074	1.993	16.3	18.8
5 11	15 12.06	-19 57.2	1.684	2.693	0.8	19.6	5 11	15 12.07	-45 56.5	1.036	1.985	13.9	18.7
5 21	15 1.61	-19 27.1	1.673	2.672	4.5	19.8	5 21	14 58.70	-44 5.7	1.018	1.976	13.1	18.6
5 31	14 52.06	-18 56.1	1.690	2.650	8.8	20.1	5 31	14 47.70	-41 35.6	1.021	1.968	14.7	18.6
6 10	14 44.38	-18 29.1	1.732	2.628	12.8	20.2	6 10	14 40.71	-38 44.7	1.045	1.960	17.7	18.8
478093	2011 <i>US</i> ₄₈		5 10.9 302°62	1°1/11.6	16		86058	1999 <i>RO</i> ₁₅		5 10.9 285°91	10°1/17.6	18	
4 1	15 38.66	-20 48.5	2.256	3.038	13.6	21.1	4 1	15 45.96	-46 55.9	2.447	3.096	15.9	18.8
4 11	15 34.75	-21 6.3	2.159	3.034	11.0	20.9	4 11	15 41.64	-48 21.6	2.346	3.086	14.4	18.6
4 21	15 28.65	-21 17.5	2.084	3.029	7.8	20.7	4 21	15 34.17	-49 31.4	2.263	3.077	12.8	18.5
5 1	15 20.83	-21 21.8	2.034	3.024	4.3	20.4	5 1	15 23.98	-50 19.1	2.200	3.068	11.3	18.3
5 11	15 12.06	-21 19.8	2.011	3.020	1.2	20.2	5 11	15 12.08	-50 40.1	2.161	3.059	10.3	18.3
5 21	15 3.22	-21 13.2	2.017	3.015	3.8	20.4	5 21	14 59.80	-50 32.7	2.144	3.050	10.1	18.2
5 31	14 55.22	-21 4.7	2.050	3.011	7.4	20.6	5 31	14 48.62	-49 59.1	2.152	3.041	10.9	18.3
6 10	14 48.81	-20 57.4	2.108	3.007	10.7	20.8	6 10	14 39.76	-49 5.5	2.182	3.032	12.4	18.3
455217	2001 <i>QD</i> ₁₅₄		5 10.9 152°99	3°3/8.6	18		381925	2010 <i>CT</i> ₁₂₀		5 10.9 142°92	3°1/8.8	17	
4 1	15 43.91	-10 58.4	2.237	3.023	13.6	22.5	4 1	15 39.11	-10 10.4	2.315	3.110	12.9	21.1
4 11	15 38.46	-10 7.7	2.157	3.037	10.8	22.4	4 11	15 34.69	-9 36.9	2.235	3.119	10.2	21.0
4 21	15 30.91	-9 13.3	2.101	3.049	7.6	22.2	4 21	15 28.34	-9 1.1	2.178	3.128	7.2	20.8
5 1	15 21.84	-8 18.6	2.072	3.061	4.4	22.0	5 1	15 20.57	-8 26.2	2.147	3.136	4.2	20.6
5 11	15 12.07	-7 28.0	2.072	3.071	3.4	21.9	5 11	15 12.11	-7 55.5	2.145	3.144	3.2	20.6
5 21	15 2.45	-6 45.5	2.102	3.080	5.8	22.1	5 21	15 3.76	-7 32.1	2.171	3.152	5.4	20.7
5 31	14 53.85	-6 14.5	2.159	3.088	9.0	22.3	5 31	14 56.28	-7 18.5	2.224	3.159	8.5	20.9
6 10	14 46.89	-5 56.9	2.241	3.095	12.0	22.5	6 10	14 50.29	-7 16.3	2.301	3.165	11.3	21.1
277754	2006 <i>DG</i> ₁₃₁		5 10.9 213°73	0°8/11.4	17		191727	2004 <i>RK</i> ₂₉₃		5 10.9 189°19	1°1/10.2	17	
4 1	15 40.53	-20 19.5	2.048	2.834	14.7	21.3	4 1	15 39.11	-16 42.4	2.205	2.996	13.6	21.6
4 11	15 36.43	-20 29.4	1.954	2.831	11.8	21.1	4 11	15 34.98	-16 17.6	2.113	2.996	10.8	21.4
4 21	15 29.92	-20 31.8	1.882	2.829	8.4	20.9	4 21	15 28.72	-15 45.9	2.043	2.994	7.5	21.2
5 1	15 21.51	-20 26.7	1.834	2.826	4.5	20.7	5 1	15 20.84	-15 9.2	1.999	2.993	3.8	20.9
5 11	15 12.06	-20 15.2	1.813	2.823	0.9	20.4	5 11	15 12.11	-14 30.5	1.982	2.991	1.1	20.7
5 21	15 2.57	-19 59.4	1.820	2.819	4.1	20.6	5 21	15 3.41	-13 53.3	1.994	2.989	4.4	21.0
5 31	14 54.04	-19 42.9	1.855	2.816	8.1	20.9	5 31	14 55.60	-13 21.3	2.034	2.986	8.1	21.2
6 10	14 47.30	-19 29.2	1.914	2.812	11.7	21.1	6 10	14 49.39	-12 57.8	2.098	2.983	11.4	21.4
57610	2001 <i>TK</i> ₁₁₆		5 10.9 87°15	0°8/11.5	18		28205	1998 <i>XL</i> ₅₁		5 10.9 199°65	2°7/12.5	18	
4 1	15 42.63	-19 39.6	2.443	3.214	13.0	18.5	4 1	15 45.51	-25 45.6	1.941	2.706	16.1	20.4
4 11	15 37.40	-20 2.8	2.368	3.237	10.4	18.4	4 11	15 40.71	-25 58.5	1.842	2.703	13.2	20.2
4 21	15 30.17	-20 20.2	2.316	3.259	7.3	18.2	4 21	15 33.11	-25 59.6	1.763	2.698	9.7	19.9
5 1	15 21.47	-20 31.8	2.291	3.282	3.9	18.0	5 1	15 23.24	-25 47.1	1.709	2.693	5.8	19.7
5 11	15 12.07	-20 38.0	2.294	3.304	0.8	17.8	5 11	15 12.11	-25 21.2	1.682	2.686	2.8	19.5
5 21	15 2.81	-20 40.2	2.327	3.325	3.5	18.1	5 21	15 0.88	-24 44.4	1.682	2.679	4.7	19.6
5 31	14 54.49	-20 40.7	2.389	3.347	6.7	18.3	5 31	14 50.79	-24 1.5	1.710	2.671	8.7	19.8
6 10	14 47.73	-20 41.9	2.477	3.368	9.7	18.5	6 10	14 42.80	-23 18.7	1.763	2.662	12.5	20.0
85595	1998 <i>FB</i> ₇₁		5 10.9 133°03	3°5/8.2	18		500101	2012 <i>BZ</i> ₅₉		5 10.9 193°97	4°0/13.3	17	
4 1	15 38.16	-11 27.1	2.136	2.937	13.7	19.0	4 1	15 43.85	-29 1.7	1.849	2.612	16.9	22.2
4 11	15 34.08	-10 23.1	2.060	2.948	10.8	18.8	4 11	15 39.60	-29 19.3	1.755	2.610	14.0	22.0
4 21	15 27.96	-9 14.3	2.006	2.958	7.6	18.6	4 21	15 32.42	-29 22.3	1.681	2.608	10.6	21.8
5 1	15 20.36	-8 5.0	1.979	2.968	4.5	18.4	5 1	15 22.91	-29 8.4	1.629	2.606	6.9	21.6
5 11	15 12.08	-7 0.2	1.980	2.978	3.7	18.4	5 11	15 12.11	-28 37.3	1.604	2.603	4.2	21.4
5 21	15 3.95	-6 4.9	2.009	2.987	6.1	18.6	5 21	15 1.27	-27 51.5	1.605	2.599	5.3	21.4
5 31	14 56.78	-5 22.7	2.064	2.995	9.3	18.8	5 31	14 51.67	-26 56.8	1.633	2.595	8.9	21.6
6 10	14 51.19	-4 55.9	2.144	3.003	12.2	19.0	6 10	14 44.29	-26 0.1	1.685	2.590	12.6	21.8
378284	2007 <i>ES</i> ₁₁₈		5 10.9 88°02	7°2/5.1	17		339443	2005 <i>ET</i> ₁₅₈		5 10.9 176°85	1°0/10.2	17	
4 1	15 36.26	-4 38.1	1.797	2.615	15.2	21.6	4 1	15 37.56	-16 42.3	2.201	2.995	13.6	21.5
4 11	15 32.94	-4 24.6	1.731	2.624	12.3	21.4	4 11	15 33.75	-16 19.0	2.111	2.996	10.8	21.3
4 21	15 27.34	-4 05.6	1.688	2.632	9.4	21.3	4 21	15 27.86	-15 49.0	2.044	2.996	7.4	21.1
5 1	15 20.10	+0 52.7	1.670	2.640	7.4	21.2	5 1	15 20.40	-15 14.2	2.002	2.996	3.8	20.8
5 11	15 12.08	+2 24.0	1.678	2.649	7.6	21.2	5 11	15 12.12	-14 37.5	1.988	2.997	1.1	20.6
5 21	15 4.25	+3 34.0	1.712	2.657	9.8	21.3	5 21	15 3.89	-14 2.5	2.002	2.997	4.4	20.9
5 31	14 57.49	+4 18.9	1.771	2.665	12.6	21.5	5 31	14 56.53	-13 32.6	2.043	2.996	8.0	21.1
6 10	14 52.49	+4 38.2	1.850	2.673	15.3	21.7	6 10	14 50.74	-13 11.1	2.109	2.996	11.3	21.3
47959	2000 <i>QP</i> ₁₆₈		5 10.9 291°88	1°3/12.6	18		285019	2011 <i>CW</i> ₇₇		5 10.9 119°92	1°2/11.8	18	
4 1	15 30.21	-25 30.5	4.259	5.012	8.2	19.5	4 1	15 44.18	-22 18.3	2.322	3.087	13.8	22.2
4 11	15 27.01	-25 25.9	4.153	5.007	6.6	19.4	4 11	15 38.73	-22 20.6	2.246	3.109	11.0	22.0
4 21	15 22.70	-25 15.1	4.070	5.002	4.8	19.3	4 21	15 31.14	-22 14.2	2.191	3.131	7.8	21.8
5 1	15 17.60	-24 58.4	4.015	4.997	2.9	19.1	5 1	15 21.99	-21 59.2	2.163	3.152	4.2	21.6
5 11	15 12.09	-24 36.5	3.988	4.992	1.4	19.0	5 11	15 12.13	-21 37.0	2.164	3.172	1.2	21.5
5 21	15 6.58	-24 10.8	3.991	4.988	2.3	19.1	5 21	15 2.45	-21 10.1	2.193	3.191	3.7	21.7
5 31	15 1.48	-23 43.1	4.023	4.983	4.2	19.2	5 31	14 53.81	-20 42.0	2.252	3.210	7.1	21.9
6 10	14 57.16	-23 15.4	4.082	4.978	6.1	19.3	6 10	14 46.89	-20 16.4	2.336	3.228	10.2	22.1
250905	2005 <i>VZ</i> ₁₃₀		5 10.9 50°82	5°2/6.3	18		496757	2016 <i>UD</i> ₈₈		5 10.9 299°51	0°0/10		

EPHEMERIDES

5 10.9

5 11.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
179772	2002 SO ₃₁		5 10.9 205°18	1°8/ 9.9 17			146256	2000 YE ₈₁		5 10.9 164°86	1°0/10.1 18		
4 1	15 42.07	-13 51.4	1.934	2.731	15.1	20.6	4 1	15 36.21	-15 52.3	2.991	3.772	10.6	21.3
4 11	15 37.70	-13 40.1	1.842	2.728	12.0	20.3	4 11	15 32.05	-15 31.0	2.899	3.776	8.4	21.2
4 21	15 30.84	-13 24.4	1.771	2.724	8.4	20.1	4 21	15 26.35	-15 5.1	2.831	3.780	5.8	21.0
5 1	15 22.02	-13 6.2	1.725	2.719	4.4	19.8	5 1	15 19.54	-14 36.3	2.790	3.784	2.9	20.8
5 11	15 12.14	-12 48.2	1.707	2.714	1.9	19.7	5 11	15 12.17	-14 6.6	2.779	3.787	1.0	20.7
5 21	15 2.22	-12 33.6	1.716	2.709	5.2	19.9	5 21	15 4.84	-13 38.4	2.797	3.790	3.4	20.9
5 31	14 53.31	-12 25.5	1.752	2.703	9.3	20.1	5 31	14 58.15	-13 14.2	2.844	3.793	6.2	21.0
6 10	14 46.25	-12 26.5	1.812	2.697	12.9	20.3	6 10	14 52.61	-12 56.0	2.917	3.795	8.8	21.2
404214	2013 CX ₁₇₀		5 10.9 310°78	1°0/10.5 16			300952	2008 CS ₁₉₄		5 10.9 145°83	1°1/10.0 17		
4 1	15 38.40	-18 23.2	1.321	2.145	19.3	21.4	4 1	15 36.13	-16 14.3	2.805	3.589	11.2	21.8
4 11	15 36.01	-17 58.7	1.238	2.139	15.5	21.2	4 11	15 32.07	-15 45.3	2.718	3.597	8.8	21.6
4 21	15 30.33	-17 22.0	1.174	2.134	10.8	20.9	4 21	15 26.41	-15 11.0	2.654	3.605	6.1	21.5
5 1	15 21.98	-16 35.0	1.132	2.128	5.5	20.6	5 1	15 19.58	-14 33.3	2.618	3.612	3.1	21.3
5 11	15 12.14	-15 42.4	1.113	2.123	1.0	20.2	5 11	15 12.18	-13 54.7	2.610	3.618	1.1	21.1
5 21	15 2.26	-14 50.5	1.119	2.118	6.2	20.6	5 21	15 4.86	-13 18.0	2.632	3.625	3.6	21.3
5 31	14 53.82	-14 6.4	1.149	2.113	11.5	20.8	5 31	14 58.24	-12 46.1	2.682	3.631	6.6	21.5
6 10	14 47.94	-13 36.0	1.199	2.108	16.3	21.1	6 10	14 52.84	-12 21.3	2.759	3.637	9.2	21.7
474908	2005 SU ₂₁₀		5 10.9 222°18	5°4/14.9 18			15727	lanmorison		5 10.9 186°64	1°5/11.9 18		
4 1	15 42.69	-36 21.2	2.982	3.680	12.4	22.0	4 1	15 42.85	-23 34.8	1.815	2.597	16.5	19.3
4 11	15 37.77	-37 7.3	2.871	3.671	10.7	21.9	4 11	15 38.63	-23 26.8	1.724	2.597	13.4	19.0
4 21	15 30.71	-37 42.2	2.781	3.662	8.7	21.7	4 21	15 31.65	-23 6.2	1.653	2.596	9.6	18.8
5 1	15 21.93	-38 3.1	2.716	3.652	6.8	21.6	5 1	15 22.49	-22 32.9	1.605	2.595	5.3	18.5
5 11	15 12.15	-38 8.1	2.678	3.642	5.5	21.5	5 11	15 12.18	-21 48.7	1.585	2.593	1.5	18.3
5 21	15 2.19	-37 57.5	2.667	3.631	5.7	21.5	5 21	15 1.88	-20 57.7	1.592	2.591	4.5	18.5
5 31	14 52.94	-37 33.4	2.685	3.620	7.2	21.6	5 31	14 52.78	-20 5.5	1.626	2.588	8.9	18.7
6 10	14 45.18	-37 0.0	2.728	3.609	9.2	21.7	6 10	14 45.80	-19 18.3	1.684	2.585	12.9	19.0
502955	2015 EY ₆₂		5 10.9 69°00	2°8/ 9.0 17			335119	2004 TR ₂₅₈		5 10.9 248°38	0°6/11.4 17		
4 1	15 37.64	-13 47.1	1.823	2.633	15.3	21.4	4 1	15 39.98	-21 7.2	2.228	3.008	13.9	22.1
4 11	15 34.00	-12 54.1	1.757	2.651	12.1	21.2	4 11	15 35.94	-20 59.1	2.117	2.991	11.2	21.9
4 21	15 28.06	-11 54.9	1.713	2.669	8.3	21.0	4 21	15 29.60	-20 42.0	2.028	2.973	8.0	21.7
5 1	15 20.47	-10 53.6	1.694	2.687	4.5	20.8	5 1	15 21.42	-20 16.1	1.964	2.956	4.2	21.4
5 11	15 12.15	-9 55.5	1.702	2.706	3.0	20.7	5 11	15 12.18	-19 43.1	1.928	2.937	0.6	21.1
5 21	15 4.08	-9 5.6	1.737	2.724	5.9	20.9	5 21	15 2.79	-19 6.0	1.920	2.918	4.0	21.3
5 31	14 57.14	-8 28.0	1.798	2.742	9.5	21.2	5 31	14 54.21	-18 28.6	1.940	2.899	7.9	21.5
6 10	14 52.03	-8 5.1	1.882	2.760	12.8	21.4	6 10	14 47.26	-17 55.5	1.985	2.879	11.5	21.7
198535	2004 XB ₁₀₉		5 10.9 219°83	4°2/14.3 18			355735	2008 GQ ₁₂₀		5 10.9 340°76	3°0/ 9.0 18		
4 1	15 39.95	-32 27.6	2.167	2.911	15.2	20.1	4 1	15 34.76	-10 55.0	2.060	2.871	13.8	20.4
4 11	15 36.08	-32 24.8	2.066	2.907	12.8	19.9	4 11	15 31.72	-10 27.9	1.972	2.866	10.9	20.1
4 21	15 29.72	-32 5.5	1.985	2.901	9.9	19.7	4 21	15 26.57	-9 57.9	1.905	2.860	7.7	19.9
5 1	15 21.44	-31 28.0	1.927	2.896	6.7	19.5	5 1	15 19.81	-9 28.1	1.863	2.855	4.4	19.7
5 11	15 12.15	-30 32.8	1.896	2.890	4.4	19.4	5 11	15 12.19	-9 2.1	1.848	2.850	3.1	19.6
5 21	15 2.88	-29 23.0	1.893	2.884	5.0	19.4	5 21	15 4.57	-8 43.2	1.860	2.846	5.7	19.8
5 31	14 54.67	-28 4.4	1.917	2.878	7.9	19.6	5 31	14 57.80	-8 34.4	1.898	2.842	9.1	20.0
6 10	14 48.34	-26 44.1	1.966	2.871	11.1	19.7	6 10	14 52.59	-8 37.5	1.959	2.839	12.3	20.2
250746	2005 SO ₁₆₃		5 10.9 283°97	0°6/11.3 18			387350	2012 WD ₃₂		5 10.9 243°03	0°8/10.4 17		
4 1	15 39.07	-19 9.3	2.328	3.111	13.3	20.1	4 1	15 37.18	-17 2.2	2.247	3.040	13.4	21.3
4 11	15 35.11	-19 25.4	2.219	3.094	10.7	19.9	4 11	15 33.49	-16 45.8	2.152	3.036	10.6	21.1
4 21	15 28.97	-19 36.1	2.131	3.078	7.5	19.6	4 21	15 27.73	-16 23.0	2.079	3.031	7.4	20.9
5 1	15 21.08	-19 41.4	2.069	3.061	4.0	19.4	5 1	15 20.39	-15 55.4	2.032	3.026	3.7	20.7
5 11	15 12.16	-19 42.0	2.035	3.044	0.6	19.1	5 11	15 12.19	-15 25.3	2.012	3.021	0.8	20.5
5 21	15 3.05	-19 39.4	2.029	3.027	3.8	19.3	5 21	15 3.98	-14 56.0	2.020	3.016	4.2	20.7
5 31	14 54.67	-19 36.0	2.051	3.010	7.5	19.5	5 31	14 56.60	-14 30.7	2.056	3.011	7.8	20.9
6 10	14 47.81	-19 34.6	2.098	2.994	10.9	19.7	6 10	14 50.75	-14 12.6	2.116	3.006	11.1	21.1
178708	2000 SD ₁₉₅		5 10.9 195°71	3°2/13.3 17			99648	2002 HR		5 10.9 341°37	7°2/ 8.1 17		
4 1	15 39.52	-28 37.8	2.621	3.369	12.8	21.0	4 1	15 32.72	-5 59.2	1.081	1.940	20.4	18.7
4 11	15 35.22	-28 59.3	2.521	3.367	10.6	20.8	4 11	15 32.01	-5 18.5	1.006	1.925	16.6	18.4
4 21	15 28.87	-29 10.6	2.443	3.365	8.0	20.6	4 21	15 27.87	-4 38.2	0.948	1.911	12.3	18.1
5 1	15 20.95	-29 10.4	2.390	3.363	5.3	20.5	5 1	15 20.87	-4 5.7	0.910	1.899	8.4	17.9
5 11	15 12.16	-28 58.6	2.364	3.361	3.3	20.3	5 11	15 12.19	-3 49.3	0.892	1.888	7.5	17.8
5 21	15 3.33	-28 36.7	2.367	3.358	4.1	20.4	5 21	15 3.37	-3 55.1	0.896	1.879	10.7	17.9
5 31	14 55.29	-28 7.6	2.398	3.356	6.7	20.5	5 31	14 55.99	-4 25.9	0.919	1.871	15.3	18.1
6 10	14 48.74	-27 35.5	2.455	3.353	9.5	20.7	6 10	14 51.31	-5 21.1	0.961	1.865	19.8	18.4
131018	2000 XA ₂₇		5 10.9 165°03	1°6/11.9 18			31037	Mydon		5 11.0 9°41	1°3/ 9.4 18		
4 1	15 43.14	-22 30.4	2.371	3.136	13.5	20.9	4 11	15 26.21	-13 6.2	3.686	4.569	6.6	18.6
4 11	15 38.13	-22 50.3	2.278	3.141	10.9	20.8	4 21	15 22.20	-12 36.2	3.619	4.571	4.5	18.5
4 21	15 30.91	-23 2.7	2.207	3.145	7.8	20.6	5 1	15 17.40	-12 5.0	3.580	4.573	2.4	18.3
5 1	15 21.99	-23 6.9	2.162	3.149	4.4	20.4	5 11	15 12.21	-11 34.7	3.569	4.575	1.4	18.3
5 11	15 12.16	-23 3.2	2.145	3.152	1.7	20.2	5 21	15 7.05	-11 7.0	3.588	4.577	3.1	18.4
5 21	15 2.32	-22 53.1	2.158	3.155	3.8	20.3	5 31	15 2.33	-10 43.9	3.636	4.579	5.2	18.5
5 31	14 53.38	-22 39.6	2.198	3.157	7.2	20.5	6 10	14 58.41	-10 26.8	3.709	4.582	7.2	18.7
6 10	14 46.08	-22 26.0	2.265	3.159	10.3	20.7	6 20	14 55.56	-10 16.5	3.806	4.584	9.0	18.8
437487	2013 YB ₅₇		5 10.9 223°25	0°4/11.2 17			437205	2012 WB ₁₀		5 11.0 306°60	1°1/11.7 17		
4 1	15 40.08	-19 13.5	2.127	2.913	14.2	21.8							