

EPHEMERIDES

9 1.9

9 2.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
412556	2014 <i>NC</i> ₄₄		9 1.9 45°21	8°3/11.1	18		374246	2005 <i>GU</i> ₁₅₁		9 2.0 87°18	1°2/ 3.0	13 C	
7 30	23 7.40	+17 50.9	2.187	2.926	15.8	20.2	7 30	23 11.14	- 1 48.6	1.487	2.348	16.5	21.5
8 9	23 2.57	+18 42.4	2.115	2.936	13.7	20.1	8 9	23 5.63	- 2 24.4	1.438	2.370	12.4	21.3
8 19	22 56.01	+19 11.9	2.062	2.945	11.5	19.9	8 19	22 57.90	- 3 17.3	1.411	2.392	7.7	21.1
8 29	22 48.28	+19 17.3	2.031	2.955	9.5	19.8	8 29	22 48.82	- 4 22.0	1.408	2.414	2.8	20.9
9 8	22 40.17	+18 58.9	2.024	2.965	8.4	19.8	9 8	22 39.52	- 5 30.8	1.432	2.436	2.8	20.9
9 18	22 32.52	+18 19.8	2.043	2.976	8.7	19.8	9 18	22 31.14	- 6 36.0	1.483	2.456	7.4	21.2
9 28	22 26.15	+17 25.6	2.086	2.986	10.1	19.9	9 28	22 24.65	- 7 30.9	1.558	2.477	11.7	21.5
10 8	22 21.65	+16 23.2	2.153	2.997	12.1	20.1	10 8	22 20.64	- 8 11.3	1.655	2.497	15.2	21.8
232122	2002 <i>AC</i> ₄₃		9 1.9 319°85	1°1/ 1.1	18		119837	2002 <i>CY</i> ₁₂		9 2.0 161°85	7°5/24.7	18	
7 30	23 4.15	- 6 35.0	1.337	2.230	16.1	20.1	7 30	23 11.31	-27 45.0	2.043	2.924	11.9	19.5
8 9	23 1.13	- 7 26.4	1.259	2.210	12.0	19.8	8 9	23 5.59	-29 18.7	1.998	2.929	9.5	19.4
8 19	22 55.61	- 8 35.3	1.200	2.191	7.2	19.5	8 19	22 57.86	-30 45.7	1.976	2.933	7.8	19.3
8 29	22 48.25	- 9 55.5	1.165	2.173	2.0	19.2	8 29	22 48.83	-31 57.5	1.981	2.937	7.7	19.3
9 8	22 40.15	-11 17.3	1.154	2.156	4.0	19.2	9 8	22 39.48	-32 47.4	2.012	2.941	9.2	19.4
9 18	22 32.58	-12 30.9	1.168	2.139	9.4	19.5	9 18	22 30.82	-33 11.9	2.068	2.944	11.4	19.5
9 28	22 26.82	-13 27.8	1.204	2.123	14.4	19.7	9 28	22 23.78	-33 10.8	2.146	2.947	13.8	19.7
10 8	22 23.75	-14 2.9	1.259	2.107	18.7	20.0	10 8	22 18.96	-32 46.8	2.243	2.949	15.8	19.9
304513	2006 <i>UB</i> ₂₀₈		9 1.9 296°05	0°6/ 2.6	18		208776	2002 <i>PL</i> ₁₅₆		9 2.0 336°73	1°9/31.3	18	
7 30	23 6.16	- 3 55.5	1.956	2.817	13.1	21.6	7 30	23 4.03	- 8 27.5	1.543	2.433	14.5	20.1
8 9	23 1.78	- 4 20.8	1.878	2.811	9.9	21.4	8 9	23 0.64	- 9 33.1	1.474	2.425	10.6	19.8
8 19	22 55.59	- 4 58.5	1.822	2.805	6.1	21.1	8 19	22 55.11	-10 52.0	1.426	2.418	6.3	19.6
8 29	22 48.17	- 5 45.1	1.792	2.799	2.0	20.8	8 29	22 48.08	-12 17.0	1.404	2.411	2.2	19.3
9 8	22 40.33	- 6 35.5	1.790	2.793	2.4	20.9	9 8	22 40.56	-13 39.1	1.407	2.405	4.3	19.4
9 18	22 32.96	- 7 24.1	1.815	2.788	6.5	21.1	9 18	22 33.61	-14 49.8	1.435	2.399	8.8	19.7
9 28	22 26.91	- 8 5.6	1.866	2.782	10.2	21.3	9 28	22 28.28	-15 42.7	1.488	2.394	13.0	19.9
10 8	22 22.80	- 8 36.4	1.940	2.776	13.5	21.5	10 8	22 25.27	-16 14.6	1.561	2.390	16.6	20.1
184406	2005 <i>MT</i> ₂₀		9 2.0 93°88	0°9/ 1.2	17		225670	2001 <i>OP</i> ₁₁		9 2.0 15°27	4°6/30.2	17	
7 30	23 10.62	- 7 11.3	1.537	2.413	15.3	20.9	7 30	23 8.41	-15 30.6	1.060	1.973	17.7	19.6
8 9	23 5.25	- 7 57.6	1.486	2.429	11.2	20.7	8 9	23 4.45	-16 7.9	1.016	1.977	13.0	19.4
8 19	22 57.69	- 8 55.7	1.456	2.445	6.6	20.5	8 19	22 57.55	-16 49.3	0.991	1.984	8.1	19.1
8 29	22 48.76	- 9 59.1	1.452	2.460	1.9	20.2	8 29	22 48.78	-17 25.7	0.988	1.991	4.7	19.0
9 8	22 39.55	-11 0.1	1.475	2.476	3.5	20.3	9 8	22 39.64	-17 47.8	1.007	2.000	6.9	19.1
9 18	22 31.20	-11 51.8	1.524	2.490	8.1	20.7	9 18	22 31.68	-17 50.3	1.049	2.010	11.5	19.4
9 28	22 24.69	-12 29.2	1.597	2.505	12.2	20.9	9 28	22 26.17	-17 30.9	1.111	2.021	16.0	19.7
10 8	22 20.63	-12 50.0	1.692	2.520	15.6	21.2	10 8	22 23.79	-16 51.3	1.191	2.034	19.8	20.0
202972	1999 <i>TP</i> ₉₇		9 2.0 350°19	4°1/29.9	18		120776	1998 <i>DQ</i> ₂₃		9 2.0 231°29	12°7/27.8	18	
7 30	23 4.15	-13 47.5	1.219	2.129	16.0	18.8	7 30	23 33.36	-34 3.5	1.169	2.040	19.4	19.0
8 9	23 1.19	-14 43.0	1.159	2.120	11.8	18.6	8 9	23 23.43	-34 48.0	1.114	2.034	16.3	18.8
8 19	22 55.61	-15 46.7	1.119	2.113	7.3	18.3	8 19	23 9.20	-35 12.1	1.079	2.028	13.6	18.6
8 29	22 48.22	-16 49.5	1.102	2.106	4.1	18.1	8 29	22 52.16	-35 0.9	1.065	2.022	12.7	18.5
9 8	22 40.28	-17 41.5	1.109	2.101	6.5	18.2	9 8	22 34.72	-34 5.5	1.075	2.015	14.2	18.6
9 18	22 33.14	-18 14.8	1.138	2.098	11.1	18.5	9 18	22 19.27	-32 27.2	1.107	2.007	17.2	18.7
9 28	22 28.04	-18 24.9	1.188	2.095	15.5	18.7	9 28	22 7.65	-30 14.9	1.160	2.000	20.7	18.9
10 8	22 25.76	-18 11.4	1.257	2.094	19.3	19.0	10 8	22 0.61	-27 40.8	1.231	1.992	23.9	19.2
285460	1999 <i>XQ</i> ₂₅₄		9 2.0 155°10	5°3/ 7.0	18		506940	2008 <i>GH</i> ₁₀₀		9 2.0 119°11	1°4/31.8	17	
7 30	23 9.31	+ 8 20.5	2.084	2.883	14.7	20.9	7 30	23 10.80	- 8 50.8	1.649	2.525	14.4	21.8
8 9	23 4.00	+ 8 44.1	2.006	2.886	12.0	20.7	8 9	23 5.34	- 9 36.0	1.592	2.536	10.6	21.6
8 19	22 56.88	+ 8 49.6	1.949	2.889	9.1	20.6	8 19	22 57.76	-10 30.9	1.557	2.546	6.2	21.4
8 29	22 48.55	+ 8 36.7	1.917	2.892	6.4	20.4	8 29	22 48.81	-11 29.3	1.548	2.556	2.0	21.1
9 8	22 39.81	+ 8 7.6	1.911	2.895	5.3	20.3	9 8	22 39.55	-12 24.1	1.567	2.566	3.7	21.3
9 18	22 31.55	+ 7 26.2	1.932	2.897	6.8	20.5	9 18	22 31.05	-13 9.1	1.611	2.575	8.0	21.6
9 28	22 24.61	+ 6 38.2	1.980	2.899	9.6	20.6	9 28	22 24.28	-13 39.8	1.681	2.584	12.0	21.8
10 8	22 19.61	+ 5 49.6	2.052	2.901	12.4	20.8	10 8	22 19.88	-13 54.2	1.773	2.592	15.3	22.1
418953	2009 <i>FN</i> ₂₄		9 2.0 95°82	3°2/30.5	17		115916	2003 <i>WB</i> ₈		9 2.0 277°73	3°6/27.5	17	
7 30	23 12.55	-12 11.4	1.421	2.309	15.6	21.0	7 30	23 6.98	-19 4.1	3.152	4.024	8.4	20.2
8 9	23 6.80	-13 16.9	1.377	2.327	11.4	20.8	8 9	23 2.01	-20 19.0	3.046	3.985	6.3	20.0
8 19	22 58.65	-14 29.6	1.355	2.345	6.8	20.6	8 19	22 55.63	-21 36.6	2.967	3.946	4.3	19.8
8 29	22 49.03	-15 40.7	1.359	2.363	3.3	20.5	8 29	22 48.22	-22 51.8	2.918	3.905	3.6	19.7
9 8	22 39.19	-16 41.1	1.388	2.381	5.4	20.6	9 8	22 40.32	-23 59.5	2.899	3.864	5.0	19.8
9 18	22 30.36	-17 24.6	1.443	2.398	9.6	20.9	9 18	22 32.54	-24 55.5	2.909	3.821	7.2	19.9
9 28	22 23.59	-17 47.6	1.522	2.415	13.6	21.2	9 28	22 25.54	-25 36.7	2.945	3.778	9.6	20.0
10 8	22 19.49	-17 50.1	1.620	2.431	16.9	21.5	10 8	22 19.86	-26 2.0	3.005	3.735	11.7	20.1
164020	2003 <i>UC</i> ₂₁₉		9 2.0 306°88	8°4/24.9	18		390959	2005 <i>OM</i> ₅		9 2.0 341°41	1°9/ 3.2	17	
7 30	23 8.93	-26 42.3	1.649	2.543	13.5	18.9	7 30	23 3.35	- 3 6.8	1.065	1.962	18.9	20.5
8 9	23 4.38	-28 10.9	1.588	2.529	10.8	18.7	8 9	23 0.96	- 3 2.9	0.995	1.946	14.5	20.2
8 19	22 57.39	-29 34.7	1.550	2.515	8.8	18.6	8 19	22 55.70	- 3 18.9	0.943	1.931	9.3	19.8
8 29	22 48.74	-30 43.1	1.536	2.502	8.6	18.5	8 29	22 48.33	- 3 51.8	0.912	1.918	3.7	19.5
9 8	22 39.53	-31 27.6	1.546	2.488	10.4	18.6	9 8	22 40.15	- 4 34.8	0.902	1.906	3.5	19.4
9 18	22 31.02	-31 43.3	1.579	2.475	13.2	18.7	9 18	22 32.68	- 5 19.4	0.915	1.896	9.3	19.7
9 28	22 24.34	-31 29.2	1.634	2.462	16.1	18.9	9 28	22 27.38	- 5 56.5	0.948	1.888	14.8	20.0
10 8	22 20.28	-30 48.4	1.705	2.450	18.8	19.1	10 8	22 25.21	- 6 19.5	0.999	1.882	19.6	20.3
479799	2014 <i>FK</i> ₁₅		9 2.0 90°53	2°0/31.4	18		449083	2012 <i>PY</i> ₁₇					

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
183824	2004 BC ₈₃		9 2.0 47°80	2°3/31.4	17		447426	2006 CD ₅₉		9 2.0 307°25	0°3/2.4	17	
7 30	23 10.52	-10 33.6	1.208	2.104	17.2	19.8	7 30	23 5.48	-4 53.1	1.962	2.827	12.9	21.7
8 9	23 5.59	-11 14.7	1.167	2.121	12.5	19.6	8 9	23 1.45	-5 15.9	1.866	2.803	9.7	21.4
8 19	22 58.04	-12 5.4	1.146	2.138	7.4	19.4	8 19	22 55.53	-5 50.8	1.794	2.778	6.0	21.2
8 29	22 48.89	-12 57.4	1.149	2.156	2.7	19.2	8 29	22 48.25	-6 34.6	1.746	2.754	1.9	20.8
9 8	22 39.52	-13 42.2	1.176	2.174	4.8	19.3	9 8	22 40.39	-7 22.3	1.726	2.729	2.5	20.8
9 18	22 31.27	-14 13.0	1.227	2.193	9.7	19.7	9 18	22 32.85	-8 8.3	1.733	2.705	6.8	21.1
9 28	22 25.28	-14 25.9	1.301	2.212	14.1	20.0	9 28	22 26.55	-8 47.4	1.766	2.681	10.7	21.3
10 8	22 22.15	-14 20.3	1.393	2.231	17.7	20.3	10 8	22 22.20	-9 15.3	1.821	2.658	14.3	21.4
491080	2011 RR ₁₇		9 2.0 299°78	1°2/3.0	16		153294	2001 FJ ₉₅		9 2.0 86°76	7°9/25.2	18	
7 30	23 7.63	-3 17.3	1.787	2.649	14.2	21.3	7 30	23 14.70	-33 41.5	2.334	3.195	11.3	19.5
8 9	23 3.13	-3 24.7	1.700	2.633	10.8	21.0	8 9	23 7.80	-34 25.6	2.289	3.200	9.4	19.3
8 19	22 56.57	-3 45.3	1.635	2.617	6.8	20.8	8 19	22 59.03	-34 58.5	2.268	3.205	8.1	19.3
8 29	22 48.53	-4 16.4	1.595	2.601	2.6	20.5	8 29	22 49.17	-35 13.8	2.273	3.210	8.0	19.3
9 8	22 39.91	-4 53.4	1.582	2.585	2.6	20.4	9 8	22 39.18	-35 7.7	2.304	3.215	9.0	19.4
9 18	22 31.72	-5 30.9	1.595	2.570	7.0	20.7	9 18	22 30.01	-34 39.1	2.360	3.220	10.8	19.5
9 28	22 24.96	-6 3.5	1.634	2.555	11.1	20.9	9 28	22 22.48	-33 49.4	2.438	3.225	12.7	19.6
10 8	22 20.38	-6 26.7	1.695	2.540	14.8	21.1	10 8	22 17.13	-32 42.1	2.537	3.230	14.4	19.8
203917	2003 OK ₆		9 2.0 317°81	7°7/7.6	18		289790	2005 JS ₁₁₂		9 2.0 239°46	3°9/11.2	17	
7 30	23 7.06	+9 54.9	1.536	2.352	18.3	19.4	7 30	22 58.51	+17 9.1	4.747	5.459	8.2	20.6
8 9	23 3.12	+10 44.0	1.448	2.335	15.3	19.2	8 9	22 55.29	+16 58.8	4.647	5.453	7.0	20.5
8 19	22 56.78	+11 10.1	1.379	2.319	12.1	19.0	8 19	22 51.35	+16 36.9	4.569	5.448	5.8	20.4
8 29	22 48.63	+11 10.6	1.331	2.302	9.1	18.7	8 29	22 46.95	+16 3.4	4.515	5.443	4.6	20.4
9 8	22 39.70	+10 45.8	1.306	2.287	7.7	18.6	9 8	22 42.39	+15 19.6	4.489	5.437	4.0	20.3
9 18	22 31.16	+9 59.9	1.306	2.271	9.3	18.7	9 18	22 38.00	+14 27.3	4.492	5.432	4.1	20.3
9 28	22 24.26	+9 0.3	1.329	2.257	12.5	18.8	9 28	22 34.11	+13 29.1	4.523	5.426	5.0	20.4
10 8	22 19.89	+7 56.6	1.373	2.243	16.1	19.0	10 8	22 30.98	+12 28.0	4.581	5.421	6.2	20.5
346740	2009 BX ₅		9 2.0 286°44	0°4/1.7	18		226860	2004 TS ₁₇		9 2.0 274°46	1°3/31.7	18	
7 30	23 8.38	-7 0.4	1.778	2.649	13.8	21.4	7 30	23 7.04	-10 16.7	2.430	3.298	10.7	21.0
8 9	23 3.76	-7 26.4	1.688	2.629	10.3	21.1	8 9	23 2.23	-10 46.6	2.337	3.277	7.9	20.8
8 19	22 56.99	-8 3.9	1.621	2.608	6.2	20.8	8 19	22 55.83	-11 22.9	2.268	3.255	4.7	20.5
8 29	22 48.67	-8 48.7	1.579	2.587	1.8	20.5	8 29	22 48.31	-12 1.7	2.227	3.234	1.6	20.3
9 8	22 39.70	-9 34.9	1.564	2.566	3.0	20.5	9 8	22 40.35	-12 38.6	2.214	3.212	3.0	20.4
9 18	22 31.14	-10 16.4	1.575	2.544	7.6	20.8	9 18	22 32.70	-13 9.5	2.230	3.190	6.4	20.5
9 28	22 24.03	-10 48.0	1.612	2.523	11.9	21.0	9 28	22 26.10	-13 30.9	2.273	3.168	9.6	20.7
10 8	22 19.15	-11 6.0	1.671	2.502	15.6	21.2	10 8	22 21.16	-13 40.7	2.339	3.145	12.5	20.9
107067	2001 AE ₁₅		9 2.0 260°64	0°8/2.8	18		85197	Ginkgo		9 2.0 322°82	0°8/2.5	18	
7 30	23 6.86	-2 41.9	1.879	2.738	13.7	20.3	7 30	23 8.25	-5 11.1	1.097	1.991	18.7	19.5
8 9	23 2.45	-3 16.8	1.795	2.726	10.4	20.1	8 9	23 4.65	-5 11.7	1.025	1.976	14.3	19.1
8 19	22 56.10	-4 6.7	1.732	2.714	6.5	19.9	8 19	22 57.99	-5 29.4	0.972	1.961	8.9	18.8
8 29	22 48.39	-5 7.9	1.695	2.702	2.3	19.6	8 29	22 49.05	-6 0.2	0.939	1.947	3.0	18.4
9 8	22 40.16	-6 14.3	1.686	2.689	2.5	19.6	9 8	22 39.21	-6 37.1	0.929	1.933	3.6	18.4
9 18	22 32.35	-7 19.6	1.704	2.676	6.8	19.8	9 18	22 30.09	-7 11.9	0.942	1.921	9.7	18.7
9 28	22 25.90	-8 17.3	1.748	2.664	10.8	20.0	9 28	22 23.24	-7 36.9	0.976	1.909	15.4	19.0
10 8	22 21.51	-9 2.7	1.814	2.651	14.3	20.2	10 8	22 19.69	-7 46.9	1.028	1.899	20.2	19.3
2582	Harimaya-Bashi		9 2.0 35°97	8°6/23.5	18		254942	2005 SY ₁₆₃		9 2.0 341°37	4°7/28.5	18	
7 30	23 10.38	-33 36.7	2.156	3.028	11.7	15.3	7 30	23 6.96	-18 37.5	1.889	2.780	12.2	19.9
8 9	23 4.85	-34 47.1	2.116	3.032	9.9	15.2	8 9	23 2.47	-19 37.1	1.827	2.777	9.1	19.7
8 19	22 57.37	-35 46.3	2.099	3.035	8.7	15.1	8 19	22 56.05	-20 37.8	1.789	2.773	6.1	19.6
8 29	22 48.70	-36 26.9	2.107	3.039	8.8	15.1	8 29	22 48.36	-21 32.6	1.777	2.770	4.7	19.5
9 8	22 39.80	-36 44.0	2.139	3.043	10.0	15.2	9 8	22 40.32	-22 14.8	1.791	2.768	6.4	19.6
9 18	22 31.66	-36 35.8	2.195	3.048	11.8	15.3	9 18	22 32.87	-22 39.7	1.831	2.765	9.4	19.7
9 28	22 25.14	-36 3.3	2.273	3.052	13.7	15.5	9 28	22 26.90	-22 45.3	1.895	2.763	12.5	19.9
10 8	22 20.81	-35 9.8	2.369	3.057	15.5	15.6	10 8	22 23.03	-22 31.6	1.979	2.761	15.3	20.1
392838	2012 UO ₁₆		9 2.0 242°01	7°3/26.1	18		383186	2005 WS ₁₉₃		9 2.0 204°75	17°9/13.6	17	
7 30	23 13.94	-27 45.5	2.031	2.907	12.1	22.1	7 30	23 14.14	-39 24.9	1.051	1.944	19.5	20.1
8 9	23 7.65	-28 46.8	1.965	2.896	9.7	21.9	8 9	23 10.01	-43 15.0	1.032	1.943	18.1	20.1
8 19	22 59.18	-29 41.7	1.924	2.884	7.8	21.8	8 19	23 1.62	-46 36.5	1.034	1.942	18.2	20.1
8 29	22 49.26	-30 22.4	1.908	2.871	7.4	21.7	8 29	22 50.13	-49 8.0	1.054	1.940	19.5	20.1
9 8	22 38.91	-30 42.4	1.918	2.859	8.8	21.8	9 8	22 37.70	-50 36.9	1.093	1.938	21.7	20.3
9 18	22 29.22	-30 38.7	1.954	2.846	11.3	21.9	9 18	22 26.76	-51 2.2	1.145	1.936	24.0	20.5
9 28	22 21.20	-30 11.2	2.013	2.832	13.9	22.1	9 28	22 19.35	-50 31.1	1.210	1.934	26.2	20.6
10 8	22 15.54	-29 22.5	2.091	2.818	16.2	22.2	10 8	22 16.43	-49 15.7	1.283	1.931	28.0	20.8
114566	2003 BW ₆₂		9 2.0 282°10	4°8/29.2	18		320305	2007 RB ₃₂₀		9 2.0 294°68	0°3/1.7	18	
7 30	23 10.64	-17 8.6	1.551	2.444	14.3	19.8	7 30	23 9.42	-7 30.3	1.783	2.654	13.8	20.9
8 9	23 5.67	-18 5.1	1.481	2.432	10.6	19.6	8 9	23 4.35	-7 46.0	1.710	2.650	10.2	20.6
8 19	22 58.21	-19 5.3	1.432	2.419	6.9	19.3	8 19	22 57.23	-8 11.3	1.659	2.645	6.2	20.4
8 29	22 49.03	-20 0.7	1.409	2.407	4.8	19.2	8 29	22 48.73	-8 42.1	1.633	2.641	1.7	20.1
9 8	22 39.25	-20 43.0	1.410	2.394	6.8	19.3	9 8	22 39.78	-9 13.3	1.635	2.637	2.9	20.2
9 18	22 30.13	-21 6.1	1.437	2.381	10.7	19.4	9 18	22 31.41	-9 39.7	1.664	2.633	7.3	20.4
9 28	22 22.86	-21 7.0	1.487	2.369	14.6	19.7	9 28	22 24.58	-9 57.2	1.717	2.629	11.2	20.7
10 8	22 18.23	-20 46.3	1.556	2.356	18.0	19.9	10 8	22 19.95	-10 3.1	1.793	2.625	14.7	20.9
241626	1999 VC ₁₂₈		9 2.0 198°63	3°7/29.2	18		15113	2000 CO ₉₆		9 2.0 91°11	1°1/3.1	18	
7 30	23 10.44	-17 27.0	2.242	3.119	11.1	21.5	7 30	23 8.21	-1 8.1	1.566			

EPHEMERIDES

9 2.0

9 2.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
481630	2007 UK ₁₃₆	9 2.0 322°59	6°4/27.3 17				173459	2000 QX ₈₈	9 2.0 325°12	2°3/ 3.7 18			
7 30	23 4.74	-18 41.9	1.399	2.307	14.5	21.1	7 30	23 1.54	-0 6.6	1.046	1.938	19.6	19.4
8 9	23 1.67	-20 7.2	1.322	2.280	11.0	20.8	8 9	22 59.80	-0 29.9	0.967	1.914	15.3	19.1
8 19	22 56.02	-21 38.2	1.267	2.253	7.7	20.5	8 19	22 55.16	-1 21.5	0.905	1.891	10.0	18.7
8 29	22 48.45	-23 4.2	1.235	2.228	6.5	20.4	8 29	22 48.28	-2 38.6	0.864	1.869	4.3	18.3
9 8	22 40.10	-24 14.1	1.228	2.203	8.8	20.5	9 8	22 40.41	-4 12.7	0.844	1.848	3.7	18.2
9 18	22 32.28	-24 59.2	1.243	2.179	12.8	20.6	9 18	22 33.06	-5 51.2	0.846	1.829	9.7	18.5
9 28	22 26.29	-25 14.7	1.279	2.156	16.8	20.8	9 28	22 27.83	-7 20.3	0.868	1.810	15.6	18.7
10 8	22 23.07	-25 0.9	1.333	2.134	20.4	21.0	10 8	22 25.83	-8 29.5	0.908	1.794	20.9	19.0
255584	2006 MH ₉	9 2.0 11°13	8°2/ 7.8 18				313307	2002 CQ ₃₁₀	9 2.0 168°25	3°2/ 4.8 17			
7 30	23 7.32	+ 9 8.8	1.347	2.177	19.6	19.5	7 30	23 11.33	+ 2 55.6	1.730	2.564	15.8	21.8
8 9	23 3.31	+10 16.8	1.286	2.181	16.3	19.3	8 9	23 5.80	+ 2 43.8	1.657	2.568	12.4	21.6
8 19	22 56.83	+11 0.0	1.242	2.186	12.8	19.1	8 19	22 58.13	+ 2 12.9	1.605	2.572	8.4	21.4
8 29	22 48.64	+11 15.8	1.220	2.192	9.6	19.0	8 29	22 49.02	+ 1 25.0	1.577	2.575	4.6	21.1
9 8	22 39.93	+11 5.2	1.219	2.200	8.2	18.9	9 8	22 39.45	+ 0 25.1	1.577	2.577	3.6	21.1
9 18	22 31.96	+10 33.0	1.243	2.208	9.6	19.0	9 18	22 30.49	- 0 40.1	1.604	2.578	6.9	21.3
9 28	22 25.90	+ 9 47.2	1.288	2.218	12.7	19.2	9 28	22 23.15	- 1 43.4	1.657	2.579	10.9	21.5
10 8	22 22.52	+ 8 57.3	1.354	2.229	16.0	19.5	10 8	22 18.12	- 2 38.4	1.734	2.580	14.4	21.8
449388	2013 GT ₁₀₆	9 2.0 70°42	3°5/29.7 18				42504	1993 FC ₈	9 2.0 284°50	1°8/31.4 18			
7 30	23 9.77	-17 44.6	2.168	3.047	11.3	21.0	7 30	23 8.27	-10 14.8	1.735	2.616	13.6	19.7
8 9	23 4.20	-18 15.4	2.110	3.054	8.3	20.8	8 9	23 3.57	-10 57.0	1.665	2.612	10.0	19.4
8 19	22 56.92	-18 46.3	2.077	3.061	5.3	20.7	8 19	22 56.80	-11 48.0	1.618	2.608	5.9	19.2
8 29	22 48.60	-19 12.3	2.070	3.068	3.5	20.6	8 29	22 48.63	-12 41.9	1.597	2.604	2.2	18.9
9 8	22 40.05	-19 28.8	2.091	3.075	4.9	20.7	9 8	22 40.03	-13 31.9	1.603	2.600	3.9	19.1
9 18	22 32.13	-19 32.9	2.140	3.082	7.8	20.9	9 18	22 32.01	-14 12.0	1.635	2.596	8.1	19.3
9 28	22 25.60	-19 23.0	2.214	3.089	10.7	21.1	9 28	22 25.56	-14 37.9	1.691	2.593	12.0	19.5
10 8	22 20.98	-18 59.5	2.311	3.096	13.3	21.2	10 8	22 21.33	-14 47.6	1.769	2.589	15.3	19.7
371833	2007 VU ₂₃₅	9 2.0 183°46	1°1/ 1.1 17				123019	2000 SX ₂₆₈	9 2.0 310°22	1°9/31.4 18			
7 30	23 12.94	- 8 32.4	1.766	2.634	14.0	22.1	7 30	23 6.61	- 9 22.1	1.520	2.408	14.8	18.7
8 9	23 6.95	- 9 7.6	1.696	2.635	10.3	21.9	8 9	23 2.69	-10 12.1	1.445	2.396	10.9	18.5
8 19	22 58.80	- 9 52.4	1.649	2.636	6.2	21.7	8 19	22 56.44	-11 13.9	1.392	2.383	6.5	18.2
8 29	22 49.19	-10 41.6	1.627	2.635	1.8	21.4	8 29	22 48.56	-12 21.2	1.364	2.371	2.3	17.9
9 8	22 39.15	-11 28.7	1.634	2.634	3.4	21.5	9 8	22 40.09	-13 25.6	1.361	2.359	4.3	18.0
9 18	22 29.75	-12 7.9	1.668	2.632	7.8	21.8	9 18	22 32.19	-14 19.2	1.384	2.348	9.0	18.3
9 28	22 22.00	-12 34.7	1.728	2.629	11.8	22.0	9 28	22 25.97	-14 56.3	1.430	2.337	13.4	18.5
10 8	22 16.60	-12 47.1	1.810	2.626	15.2	22.2	10 8	22 22.23	-15 13.9	1.496	2.326	17.1	18.7
403743	2011 AJ ₁₄	9 2.0 344°91	5°3/ 5.9 17				432749	2011 EC ₃₀	9 2.0 122°15	3°5/30.3 17			
7 30	23 9.38	+ 5 8.1	1.902	2.723	15.1	20.2	7 30	23 12.46	-14 58.8	1.664	2.548	13.9	21.0
8 9	23 4.30	+ 6 0.7	1.820	2.716	12.2	20.0	8 9	23 6.63	-15 40.0	1.607	2.555	10.2	20.8
8 19	22 57.23	+ 6 38.1	1.759	2.710	9.1	19.8	8 19	22 58.59	-16 24.7	1.573	2.561	6.3	20.6
8 29	22 48.76	+ 6 59.2	1.722	2.704	6.3	19.6	8 29	22 49.13	-17 6.2	1.565	2.567	3.5	20.5
9 8	22 39.77	+ 7 4.9	1.711	2.699	5.3	19.6	9 8	22 39.35	-17 37.7	1.583	2.573	5.3	20.6
9 18	22 31.22	+ 6 57.8	1.727	2.694	7.3	19.7	9 18	22 30.37	-17 54.7	1.627	2.578	9.1	20.8
9 28	22 24.07	+ 6 42.4	1.769	2.690	10.4	19.8	9 28	22 23.20	-17 54.7	1.696	2.584	12.7	21.1
10 8	22 19.03	+ 6 24.2	1.833	2.687	13.5	20.0	10 8	22 18.48	-17 38.0	1.786	2.589	15.9	21.3
274194	2008 HC ₁₄	9 2.0 60°38	1°8/31.8 16				339959	2005 UP ₁₇₀	9 2.0 334°18	2°6/ 4.1 17			
7 30	23 12.36	-10 25.5	1.354	2.241	16.3	21.0	7 30	23 7.31	+ 0 13.6	1.460	2.321	16.8	21.1
8 9	23 6.78	-10 52.1	1.307	2.256	11.9	20.8	8 9	23 3.20	+ 0 5.0	1.387	2.317	13.0	20.9
8 19	22 58.73	-11 27.2	1.281	2.271	7.0	20.5	8 19	22 56.74	- 0 23.0	1.335	2.313	8.6	20.6
8 29	22 49.15	-12 4.3	1.279	2.287	2.3	20.3	8 29	22 48.65	- 1 7.7	1.306	2.309	4.1	20.4
9 8	22 39.32	-12 36.1	1.303	2.302	4.2	20.5	9 8	22 40.00	- 2 3.4	1.302	2.305	3.3	20.3
9 18	22 30.53	-12 57.1	1.352	2.318	8.9	20.8	9 18	22 31.97	- 3 2.7	1.324	2.302	7.6	20.6
9 28	22 23.85	-13 3.7	1.424	2.334	13.2	21.1	9 28	22 25.70	- 3 57.6	1.369	2.299	12.1	20.8
10 8	22 19.92	-12 55.0	1.517	2.350	16.8	21.4	10 8	22 21.95	- 4 42.0	1.436	2.296	16.1	21.1
289401	2005 CG ₄₇	9 2.0 86°23	0°7/ 1.5 17				477123	2009 CU ₃₆	9 2.0 148°54	1°9/ 3.9 18			
7 30	23 11.15	- 6 15.2	1.414	2.292	16.3	20.6	7 30	23 10.07	- 0 38.7	2.370	3.203	12.1	21.9
8 9	23 5.80	- 7 4.6	1.367	2.311	12.0	20.4	8 9	23 4.30	- 0 39.2	2.297	3.211	9.3	21.8
8 19	22 58.11	- 8 7.6	1.341	2.329	7.1	20.2	8 19	22 56.98	- 0 50.9	2.247	3.218	6.1	21.6
8 29	22 48.97	- 9 17.2	1.340	2.348	2.0	19.9	8 29	22 48.66	- 1 11.9	2.225	3.226	2.9	21.4
9 8	22 39.58	-10 24.7	1.364	2.366	3.5	20.1	9 8	22 40.05	- 1 39.0	2.231	3.233	2.4	21.4
9 18	22 31.15	-11 22.5	1.415	2.384	8.3	20.4	9 18	22 31.92	- 2 8.6	2.267	3.239	5.4	21.6
9 28	22 24.69	-12 5.1	1.490	2.401	12.6	20.7	9 28	22 24.99	- 2 36.6	2.330	3.245	8.5	21.8
10 8	22 20.83	-12 29.8	1.585	2.419	16.2	21.0	10 8	22 19.77	- 2 59.7	2.418	3.250	11.3	22.0
339396	2005 BO ₄₈	9 2.0 270°59	0°3/ 2.4 18				442791	2012 XE ₁₅₂	9 2.0 282°37	2°4/ 3.9 18			
7 30	23 7.61	- 3 58.3	1.959	2.818	13.2	22.2	7 30	23 9.38	- 0 51.4	1.870	2.717	14.2	21.1
8 9	23 3.06	- 4 34.5	1.863	2.796	10.0	21.9	8 9	23 4.37	- 0 42.9	1.783	2.705	11.0	20.9
8 19	22 56.54	- 5 24.8	1.789	2.773	6.2	21.7	8 19	22 57.31	- 0 47.8	1.718	2.693	7.3	20.7
8 29	22 48.58	- 6 25.3	1.742	2.749	2.0	21.3	8 29	22 48.82	- 1 4.7	1.679	2.680	3.6	20.4
9 8	22 40.00	- 7 30.5	1.722	2.725	2.5	21.3	9 8	22 39.77	- 1 30.1	1.666	2.668	3.0	20.3
9 18	22 31.74	- 8 33.9	1.731	2.701	6.9	21.6	9 18	22 31.16	- 1 59.5	1.681	2.655	6.7	20.6
9 28	22 24.76	- 9 29.3	1.765	2.676	11.0	21.8	9 28	22 23.95	- 2 27.8	1.721	2.643	10.6	20.8
10 8	22 19.79	-10 12.1	1.822	2.652	14.5	21.9	10 8	22 18.88	- 2 50.4	1.785	2.631	14.1	21.0
430594	2002 SC ₄₀	9 2.0 330°76	3°6/30.5 18				316493	2010 VM ₉₇	9 2.0 250°33	0°9/ 1.0 18			
7 30	23 4.08	-11 57.8	1.080	1.9									

EPHEMERIDES

9 2.0

9 2.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
361942	2008 <i>HC</i> ₅₂		9 2.0 144°30	0°0/ 1.8 18			365735	2010 <i>WJ</i> ₈		9 2.0 298°19	4°9/28.3 18		
7 30	23 5.59	- 5 16.7	2.320	3.179	11.4	21.9	7 30	23 8.90	-20 48.8	2.060	2.945	11.6	21.0
8 9	23 1.09	- 5 55.0	2.249	3.182	8.5	21.8	8 9	23 3.84	-21 36.9	1.991	2.936	8.7	20.8
8 19	22 55.09	- 6 43.1	2.202	3.186	5.1	21.6	8 19	22 56.89	-22 23.9	1.946	2.926	6.1	20.7
8 29	22 48.12	- 7 37.2	2.182	3.189	1.5	21.3	8 29	22 48.68	-23 3.6	1.927	2.916	4.9	20.6
9 8	22 40.86	- 8 32.4	2.190	3.192	2.2	21.4	9 8	22 40.10	-23 30.3	1.935	2.907	6.4	20.6
9 18	22 34.04	- 9 24.0	2.227	3.195	5.8	21.6	9 18	22 32.06	-23 40.0	1.970	2.898	9.3	20.8
9 28	22 28.34	-10 7.6	2.291	3.198	9.0	21.8	9 28	22 25.44	-23 31.2	2.028	2.888	12.2	21.0
10 8	22 24.28	-10 40.4	2.378	3.201	11.8	22.0	10 8	22 20.86	-23 4.7	2.108	2.879	14.8	21.1
482216	2010 <i>WX</i> ₄₄		9 2.0 231°49	3°5/ 5.9 17			153558	2001 <i>SN</i> ₁₃₉		9 2.0 318°05	1°1/ 2.9 18		
7 30	23 6.14	+ 5 6.6	2.526	3.336	12.1	21.8	7 30	23 6.71	- 2 51.7	1.424	2.299	16.4	19.7
8 9	23 1.47	+ 5 10.1	2.437	3.330	9.7	21.6	8 9	23 2.87	- 3 15.4	1.349	2.289	12.4	19.4
8 19	22 55.33	+ 4 59.4	2.371	3.324	7.0	21.4	8 19	22 56.62	- 3 57.0	1.294	2.279	7.8	19.1
8 29	22 48.20	+ 4 35.5	2.331	3.318	4.4	21.2	8 29	22 48.67	- 4 52.5	1.263	2.269	2.8	18.8
9 8	22 40.71	+ 4 0.8	2.318	3.311	3.5	21.2	9 8	22 40.09	- 5 54.8	1.257	2.260	2.9	18.8
9 18	22 33.55	+ 3 18.8	2.334	3.304	5.4	21.3	9 18	22 32.09	- 6 55.9	1.275	2.252	8.0	19.1
9 28	22 27.40	+ 2 34.1	2.377	3.297	8.1	21.4	9 28	22 25.87	- 7 48.0	1.318	2.244	12.8	19.3
10 8	22 22.79	+ 1 51.2	2.446	3.290	10.8	21.6	10 8	22 22.22	- 8 25.6	1.381	2.236	16.9	19.5
21745	<i>Shadfan</i>		9 2.0 237°13	0°2/ 2.3 18			79263	1995 <i>HK</i> ₅		9 2.0 209°74	0°1/ 2.2 18		
7 30	23 9.65	- 5 39.4	1.866	2.729	13.6	19.0	7 30	23 5.76	- 3 51.8	2.307	3.161	11.7	20.2
8 9	23 4.48	- 5 56.1	1.789	2.724	10.2	18.8	8 9	23 1.30	- 4 42.5	2.226	3.157	8.7	20.0
8 19	22 57.32	- 6 23.7	1.734	2.719	6.2	18.5	8 19	22 55.28	- 5 45.1	2.169	3.152	5.3	19.8
8 29	22 48.81	- 6 58.5	1.706	2.713	1.9	18.3	8 29	22 48.21	- 6 55.7	2.139	3.147	1.6	19.5
9 8	22 39.85	- 7 35.6	1.705	2.708	2.6	18.3	9 8	22 40.78	- 8 8.8	2.139	3.141	2.2	19.6
9 18	22 31.41	- 8 9.8	1.731	2.702	6.9	18.6	9 18	22 33.73	- 9 18.6	2.167	3.135	5.9	19.8
9 28	22 24.43	- 8 36.5	1.783	2.696	10.8	18.8	9 28	22 27.79	-10 20.1	2.222	3.129	9.3	20.0
10 8	22 19.58	- 8 52.4	1.858	2.690	14.2	19.0	10 8	22 23.50	-11 9.4	2.301	3.122	12.2	20.2
242556	2005 <i>EC</i> ₁₂₀		9 2.0 185°54	2°0/ 4.2 18			101697	1999 <i>CV</i> ₁₃₇		9 2.0 278°54	0°6/ 1.6 18		
7 30	23 7.55	+ 0 38.2	2.181	3.017	12.9	21.3	7 30	23 7.64	- 5 58.8	1.629	2.504	14.7	20.2
8 9	23 2.66	+ 0 17.8	2.102	3.017	9.9	21.2	8 9	23 3.40	- 6 44.5	1.544	2.486	11.0	19.9
8 19	22 56.11	- 0 16.8	2.045	3.017	6.6	20.9	8 19	22 56.90	- 7 45.1	1.481	2.469	6.6	19.6
8 29	22 48.44	- 1 3.2	2.015	3.016	3.1	20.7	8 29	22 48.75	- 8 55.5	1.443	2.451	1.9	19.3
9 8	22 40.41	- 1 57.0	2.013	3.015	2.5	20.7	9 8	22 39.94	-10 7.9	1.432	2.433	3.3	19.3
9 18	22 32.82	- 2 53.3	2.040	3.013	5.7	20.9	9 18	22 31.58	-11 14.6	1.446	2.415	8.2	19.6
9 28	22 26.44	- 3 46.5	2.093	3.011	9.2	21.1	9 28	22 24.78	-12 8.5	1.486	2.397	12.6	19.8
10 8	22 21.85	- 4 32.1	2.171	3.009	12.2	21.3	10 8	22 20.35	-12 45.2	1.546	2.379	16.5	20.0
508126	2015 <i>EC</i> ₂₂		9 2.0 133°30	0°7/ 2.6 17			203295	2001 <i>SM</i> ₆₇		9 2.0 270°02	0°5/ 2.4 17		
7 30	23 10.82	- 3 51.3	1.744	2.603	14.6	21.9	7 30	23 12.18	- 5 23.6	1.323	2.201	17.2	20.6
8 9	23 5.33	- 4 16.5	1.680	2.612	10.9	21.7	8 9	23 7.11	- 5 33.4	1.250	2.192	13.0	20.4
8 19	22 57.79	- 4 55.0	1.638	2.621	6.7	21.5	8 19	22 59.28	- 5 58.0	1.198	2.184	8.0	20.1
8 29	22 48.93	- 5 42.5	1.622	2.629	2.2	21.2	8 29	22 49.46	- 6 33.3	1.168	2.176	2.5	19.7
9 8	22 39.73	- 6 33.3	1.634	2.637	2.6	21.2	9 8	22 38.93	- 7 12.5	1.164	2.168	3.3	19.7
9 18	22 31.20	- 7 21.3	1.672	2.644	7.0	21.5	9 18	22 29.11	- 7 48.4	1.185	2.159	8.8	20.0
9 28	22 24.29	- 8 1.0	1.737	2.651	11.0	21.8	9 28	22 21.36	- 8 14.7	1.229	2.151	13.9	20.3
10 8	22 19.62	- 8 28.9	1.824	2.658	14.4	22.0	10 8	22 16.57	- 8 27.2	1.292	2.142	18.2	20.6
144555	2004 <i>FQ</i> ₈		9 2.0 88°97	2°1/31.3 17			69517	1997 <i>FM</i> ₃		9 2.0 258°39	5°0/28.9 18		
7 30	23 11.31	- 9 59.5	1.532	2.414	15.0	20.6	7 30	23 13.17	-20 23.5	1.919	2.800	12.5	19.2
8 9	23 5.79	-10 53.0	1.486	2.432	10.9	20.4	8 9	23 7.17	-21 4.4	1.844	2.787	9.4	19.0
8 19	22 58.07	-11 55.3	1.461	2.451	6.4	20.2	8 19	22 58.99	-21 44.5	1.793	2.773	6.5	18.8
8 29	22 48.99	-12 59.2	1.462	2.469	2.4	20.0	8 29	22 49.32	-22 16.9	1.768	2.759	5.0	18.7
9 8	22 39.69	-13 56.7	1.489	2.486	4.3	20.1	9 8	22 39.18	-22 35.5	1.770	2.745	6.6	18.7
9 18	22 31.29	-14 41.5	1.543	2.504	8.6	20.4	9 18	22 29.62	-22 36.4	1.798	2.731	9.7	18.9
9 28	22 24.75	-15 9.6	1.621	2.521	12.5	20.7	9 28	22 21.68	-22 18.3	1.852	2.716	13.0	19.1
10 8	22 20.69	-15 19.8	1.720	2.538	15.8	21.0	10 8	22 16.06	-21 42.1	1.926	2.701	15.9	19.2
326544	2002 <i>PT</i> ₂₂		9 2.0 9°08	3°6/ 4.1 16			401256	2012 <i>BH</i> ₈₈		9 2.1 240°94	1°4/31.5 18		
7 30	23 2.57	- 1 46.0	0.820	1.730	21.8	19.3	7 30	23 6.85	-10 28.8	2.279	3.151	11.2	21.5
8 9	23 0.65	- 1 9.6	0.776	1.732	16.8	19.0	8 9	23 2.11	-11 3.7	2.204	3.146	8.2	21.3
8 19	22 55.56	- 0 56.7	0.749	1.736	11.1	18.8	8 19	22 55.76	-11 44.7	2.154	3.142	4.8	21.1
8 29	22 48.35	- 1 5.4	0.739	1.743	5.4	18.5	8 29	22 48.36	-12 27.7	2.131	3.137	1.7	20.8
9 8	22 40.63	- 1 29.2	0.749	1.753	4.4	18.5	9 8	22 40.63	-13 7.8	2.135	3.133	3.1	20.9
9 18	22 34.06	- 1 59.4	0.780	1.765	9.6	18.8	9 18	22 33.33	-13 40.8	2.168	3.128	6.5	21.2
9 28	22 30.07	- 2 26.6	0.829	1.779	15.1	19.2	9 28	22 27.21	-14 3.3	2.228	3.124	9.8	21.4
10 8	22 29.43	- 2 43.4	0.895	1.795	19.7	19.5	10 8	22 22.80	-14 13.4	2.310	3.119	12.6	21.5
121256	1999 <i>RL</i> ₈₅		9 2.0 18°82	0°6/ 1.6 18			123865	2001 <i>DK</i> ₇		9 2.1 168°00	2°5/30.1 18		
7 30	23 3.98	- 5 29.6	1.252	2.145	16.9	19.0	7 30	23 6.80	-14 39.7	2.600	3.474	9.9	19.8
8 9	23 0.86	- 6 21.1	1.200	2.152	12.5	18.8	8 9	23 1.86	-15 23.1	2.533	3.476	7.2	19.7
8 19	22 55.34	- 7 29.6	1.169	2.159	7.4	18.5	8 19	22 55.52	-16 9.2	2.492	3.478	4.4	19.5
8 29	22 48.25	- 8 47.5	1.160	2.168	2.1	18.2	8 29	22 48.28	-16 53.5	2.478	3.480	2.5	19.4
9 8	22 40.77	-10 5.2	1.175	2.178	3.6	18.4	9 8	22 40.80	-17 31.8	2.494	3.481	3.8	19.5
9 18	22 34.13	-11 13.3	1.215	2.188	8.8	18.7	9 18	22 33.74	-18 0.4	2.537	3.483	6.6	19.6
9 28	22 29.42	-12 4.7	1.277	2.200	13.4	19.0	9 28	22 27.74	-18 17.0	2.608	3.484	9.2	19.8
10 8	22 27.29	-12 35.5	1.359	2.213	17.2	19.3	10 8	22 23.30	-18 20.7	2.701	3.485	11.6	20.0
511152	2013 <i>YP</i> ₃₂		9 2.0 205°91	5°9/ 6.9 18			255188	2005 <i>UK</i> ₂₈₂		9 2.1 243°74	3°0/ 5.6 18		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
337989	2002 CT ₂₄₁		9 2.1 185°69	1°1/ 3.1 18			155286	2005 WU ₁₉₂		9 2.1 233°59	5°2/ 6.1 18		
7 30	23 9.49	- 2 34.1	2.077	2.925	13.0	21.6	7 30	23 11.88	+ 5 56.7	1.865	2.679	15.6	19.8
8 9	23 4.17	- 2 54.6	2.000	2.925	9.8	21.4	8 9	23 6.27	+ 6 29.1	1.779	2.671	12.6	19.6
8 19	22 57.07	- 3 27.5	1.946	2.925	6.2	21.2	8 19	22 58.53	+ 6 44.1	1.714	2.664	9.3	19.4
8 29	22 48.78	- 4 9.8	1.919	2.924	2.4	20.9	8 29	22 49.27	+ 6 40.9	1.673	2.656	6.3	19.2
9 8	22 40.10	- 4 56.7	1.919	2.922	2.3	20.9	9 8	22 39.41	+ 6 21.3	1.659	2.648	5.2	19.1
9 18	22 31.90	- 5 43.3	1.948	2.921	6.1	21.2	9 18	22 30.00	+ 5 49.3	1.671	2.639	7.4	19.3
9 28	22 25.01	- 6 24.5	2.004	2.918	9.8	21.4	9 28	22 22.05	+ 5 10.5	1.710	2.630	10.7	19.4
10 8	22 20.05	- 6 56.6	2.084	2.915	12.9	21.6	10 8	22 16.33	+ 4 31.3	1.772	2.621	14.0	19.6
499231	2009 UC ₁₁₂		9 2.1 319°03	2°0/ 5.3 14 C			356514	2011 SC ₇₁		9 2.1 290°14	1°0/ 2.9 18		
7 30	23 0.05	+ 2 30.3	3.696	4.513	8.5	20.6	7 30	23 7.42	- 3 18.2	1.868	2.728	13.7	21.2
8 9	22 56.65	+ 2 22.3	3.595	4.496	6.6	20.4	8 9	23 2.89	- 3 34.8	1.788	2.719	10.4	21.0
8 19	22 52.31	+ 2 5.4	3.518	4.479	4.6	20.3	8 19	22 56.43	- 4 4.5	1.730	2.711	6.5	20.8
8 29	22 47.35	+ 1 40.5	3.468	4.462	2.7	20.1	8 29	22 48.63	- 4 44.1	1.697	2.703	2.4	20.5
9 8	22 42.16	+ 1 9.6	3.447	4.445	2.1	20.1	9 8	22 40.36	- 5 28.6	1.691	2.694	2.4	20.5
9 18	22 37.16	+ 0 35.1	3.456	4.428	3.7	20.2	9 18	22 32.56	- 6 12.7	1.713	2.686	6.6	20.7
9 28	22 32.75	- 0 0.2	3.492	4.412	5.8	20.3	9 28	22 26.14	- 6 50.8	1.760	2.678	10.6	20.9
10 8	22 29.30	- 0 33.4	3.555	4.395	7.8	20.4	10 8	22 21.78	- 7 19.0	1.829	2.670	14.0	21.1
22199	Klonios		9 2.1 284°79	1°4/30.5 16			512757	2016 UM ₄₆		9 2.1 182°11	0°1/ 2.2 18		
7 30	23 0.61	-14 16.5	4.381	5.249	6.3	19.0	7 30	23 10.06	- 6 24.2	1.928	2.791	13.2	21.0
8 9	22 56.88	-14 39.7	4.302	5.243	4.6	18.9	8 9	23 4.70	- 6 34.4	1.856	2.792	9.9	20.8
8 19	22 52.36	-15 4.3	4.250	5.237	2.8	18.7	8 19	22 57.43	- 6 54.0	1.807	2.792	6.0	20.6
8 29	22 47.35	-15 28.3	4.227	5.231	1.4	18.6	8 29	22 48.91	- 7 19.5	1.784	2.792	1.8	20.3
9 8	22 42.19	-15 49.5	4.234	5.225	2.3	18.7	9 8	22 40.00	- 7 46.5	1.789	2.791	2.5	20.4
9 18	22 37.23	-16 6.0	4.270	5.218	4.0	18.8	9 18	22 31.66	- 8 10.6	1.821	2.791	6.6	20.6
9 28	22 32.83	-16 16.3	4.334	5.212	5.8	18.9	9 28	22 24.75	- 8 27.7	1.879	2.791	10.4	20.9
10 8	22 29.28	-16 19.5	4.423	5.206	7.4	19.0	10 8	22 19.92	- 8 35.1	1.960	2.791	13.6	21.1
431476	2007 TY ₁		9 2.1 46°99	3°8/30.8 16			68022	2000 YP ₁₈		9 2.1 213°26	1°4/ 3.6 18		
7 30	23 16.33	-16 38.7	1.368	2.257	16.0	20.2	7 30	23 9.41	- 1 23.5	2.456	3.291	11.7	19.8
8 9	23 9.51	-16 50.9	1.333	2.283	11.7	20.0	8 9	23 3.95	- 1 38.8	2.366	3.282	8.9	19.7
8 19	23 0.25	-17 3.4	1.320	2.308	7.2	19.8	8 19	22 56.89	- 2 5.4	2.299	3.273	5.8	19.4
8 29	22 49.64	-17 10.0	1.332	2.334	3.9	19.7	8 29	22 48.75	- 2 41.2	2.260	3.263	2.5	19.2
9 8	22 39.03	-17 5.1	1.369	2.361	5.6	19.9	9 8	22 40.20	- 3 22.4	2.251	3.253	2.2	19.2
9 18	22 29.70	-16 46.4	1.431	2.388	9.6	20.2	9 18	22 32.00	- 4 4.9	2.270	3.242	5.4	19.4
9 28	22 22.67	-16 13.4	1.518	2.415	13.4	20.5	9 28	22 24.87	- 4 44.5	2.318	3.230	8.7	19.6
10 8	22 18.45	-15 27.7	1.624	2.442	16.6	20.8	10 8	22 19.41	- 5 17.5	2.390	3.217	11.6	19.7
412606	2014 OG ₉₀		9 2.1 255°65	1°6/31.1 18			422812	2002 AB ₃₃		9 2.1 207°57	2°4/31.1 17		
7 30	23 4.38	- 9 39.5	2.318	3.191	10.9	20.9	7 30	23 10.35	- 9 48.8	1.511	2.394	15.1	21.9
8 9	23 0.30	-10 40.9	2.243	3.186	8.0	20.7	8 9	23 5.44	-10 54.4	1.443	2.391	11.1	21.7
8 19	22 54.70	-11 50.2	2.192	3.181	4.7	20.5	8 19	22 58.13	-12 11.8	1.398	2.388	6.6	21.4
8 29	22 48.08	-13 2.3	2.169	3.176	1.8	20.3	8 29	22 49.15	-13 33.2	1.378	2.385	2.6	21.2
9 8	22 41.12	-14 11.6	2.175	3.170	3.3	20.4	9 8	22 39.63	-14 49.2	1.384	2.381	4.7	21.3
9 18	22 34.55	-15 12.5	2.208	3.165	6.7	20.6	9 18	22 30.79	-15 51.7	1.417	2.376	9.3	21.6
9 28	22 29.07	-16 1.0	2.269	3.160	9.8	20.8	9 28	22 23.77	-16 34.9	1.473	2.371	13.6	21.8
10 8	22 25.22	-16 34.4	2.352	3.155	12.5	21.0	10 8	22 19.33	-16 56.7	1.549	2.366	17.3	22.0
521118	2015 DZ ₂₄₆		9 2.1 105°92	6°5/ 8.9 16			94665	2001 XA ₇		9 2.1 11°95	2°7/31.4 18		
7 30	23 6.19	+12 57.1	1.796	2.585	17.0	20.8	7 30	23 2.86	- 9 36.6	0.810	1.736	20.2	18.1
8 9	23 2.02	+12 51.5	1.721	2.589	14.2	20.7	8 9	23 0.95	-10 22.2	0.770	1.739	14.8	17.9
8 19	22 55.90	+12 19.5	1.665	2.594	11.1	20.5	8 19	22 55.80	-11 23.6	0.747	1.744	8.8	17.6
8 29	22 48.45	+11 21.3	1.631	2.599	8.1	20.3	8 29	22 48.50	-12 30.1	0.743	1.751	3.1	17.3
9 8	22 40.59	+10 0.5	1.623	2.603	6.5	20.2	9 8	22 40.72	-13 29.0	0.759	1.760	5.7	17.5
9 18	22 33.27	+ 8 24.0	1.641	2.607	7.6	20.3	9 18	22 34.17	-14 9.7	0.795	1.770	11.7	17.9
9 28	22 27.41	+ 6 41.0	1.685	2.612	10.4	20.5	9 28	22 30.26	-14 26.0	0.849	1.783	17.1	18.2
10 8	22 23.66	+ 5 0.7	1.753	2.616	13.5	20.7	10 8	22 29.71	-14 16.9	0.920	1.797	21.5	18.5
350320	2012 UD ₆₃		9 2.1 244°60	4°9/ 7.6 18			437495	2013 YQ ₆₄		9 2.1 295°26	5°5/28.6 17		
7 30	23 6.87	+10 9.2	2.303	3.089	13.8	21.4	7 30	23 9.80	-17 56.4	1.471	2.368	14.6	21.0
8 9	23 2.28	+10 1.5	2.201	3.073	11.4	21.2	8 9	23 5.24	-19 4.0	1.402	2.355	10.9	20.8
8 19	22 55.99	+ 9 34.0	2.120	3.056	8.7	21.0	8 19	22 58.11	-20 15.3	1.356	2.342	7.3	20.5
8 29	22 48.50	+ 8 46.7	2.064	3.038	6.1	20.8	8 29	22 49.18	-21 20.7	1.333	2.329	5.5	20.4
9 8	22 40.49	+ 7 42.4	2.036	3.020	4.9	20.7	9 8	22 39.63	-22 11.1	1.336	2.316	7.6	20.5
9 18	22 32.76	+ 6 25.5	2.035	3.002	6.4	20.7	9 18	22 30.75	-22 39.6	1.363	2.304	11.5	20.7
9 28	22 26.12	+ 5 2.7	2.062	2.983	9.1	20.9	9 28	22 23.78	-22 43.1	1.413	2.291	15.4	20.9
10 8	22 21.20	+ 3 40.9	2.114	2.963	12.1	21.0	10 8	22 19.54	-22 22.5	1.480	2.279	18.8	21.1
421486	2014 OH ₅₆		9 2.1 16°96	2°5/30.2 18			59418	1999 GJ ₁		9 2.1 123°96	4°1/29.4 18		
7 30	23 4.36	-12 14.1	2.124	3.006	11.4	20.5	7 30	23 10.20	-15 58.2	1.722	2.609	13.4	18.8
8 9	23 0.37	-13 16.4	2.060	3.008	8.3	20.3	8 9	23 4.98	-17 2.8	1.667	2.615	9.8	18.6
8 19	22 54.76	-14 24.7	2.020	3.010	5.0	20.1	8 19	22 57.67	-18 10.7	1.635	2.621	6.2	18.4
8 29	22 48.10	-15 33.3	2.007	3.012	2.5	20.0	8 29	22 48.99	-19 14.3	1.628	2.627	4.1	18.3
9 8	22 41.13	-16 35.9	2.022	3.014	4.2	20.1	9 8	22 39.98	-20 5.9	1.649	2.633	6.0	18.5
9 18	22 34.65	-17 27.3	2.065	3.016	7.4	20.3	9 18	22 31.69	-20 40.4	1.696	2.638	9.4	18.7
9 28	22 29.38	-18 3.7	2.132	3.019	10.6	20.5	9 28	22 25.09	-20 54.9	1.766	2.643	12.9	18.9
10 8	22 25.88	-18 23.7	2.222	3.022	13.3	20.7	10 8	22 20.81	-20 49.7	1.857	2.648	15.8	19.1
367470	2009 DZ ₄₈		9 2.1 55°82	1°2/ 1.2 17			173586	2001 CS ₂₂		9 2.1 238°02	0°7/ 2.6 18		
7 30	23 11.90	- 7 50.3	1.134	2.027	18.3	2							

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
80948	2000 <i>DE</i> ₉₆		9 2.1 258°52	1.3°/ 3.0	17		237244	2008 <i>WX</i> ₄₄		9 2.1 183°26	2°5°/30.8	18	
7 30	23 10.87	- 3 16.0	1.603	2.465	15.5	20.0	7 30	23 9.28	-12 17.6	1.835	2.716	13.0	20.8
8 9	23 5.78	- 3 23.3	1.524	2.457	11.8	19.8	8 9	23 4.24	-13 3.1	1.770	2.716	9.5	20.5
8 19	22 58.34	- 3 45.1	1.466	2.447	7.5	19.5	8 19	22 57.23	-13 54.9	1.727	2.716	5.7	20.3
8 29	22 49.26	- 4 18.2	1.432	2.438	2.8	19.2	8 29	22 48.90	-14 47.0	1.711	2.716	2.6	20.1
9 8	22 39.56	- 4 57.6	1.425	2.429	2.8	19.2	9 8	22 40.19	-15 32.9	1.722	2.716	4.3	20.2
9 18	22 30.42	- 5 37.0	1.444	2.419	7.5	19.5	9 18	22 32.09	-16 7.3	1.759	2.715	8.1	20.5
9 28	22 22.96	- 6 10.5	1.489	2.409	12.0	19.7	9 28	22 25.51	-16 26.6	1.822	2.715	11.7	20.7
10 8	22 17.98	- 6 33.6	1.554	2.399	15.9	19.9	10 8	22 21.08	-16 29.7	1.906	2.714	14.8	20.9
62293	2000 <i>SR</i> ₁₁₃		9 2.1 0°29	0°9°/ 1.2	18		134147	2005 <i>AZ</i> ₅₃		9 2.1 287°53	2°2°/30.9	18	
7 30	23 5.32	- 7 38.9	1.745	2.625	13.6	19.3	7 30	23 5.67	- 8 40.9	1.750	2.631	13.5	19.7
8 9	23 1.39	- 8 18.0	1.678	2.624	10.0	19.1	8 9	23 1.91	-10 1.0	1.661	2.608	9.9	19.4
8 19	22 55.53	- 9 7.9	1.634	2.623	6.0	18.8	8 19	22 56.04	-11 35.7	1.595	2.585	5.9	19.1
8 29	22 48.39	-10 3.3	1.615	2.623	1.7	18.6	8 29	22 48.61	-13 17.9	1.555	2.562	2.3	18.9
9 8	22 40.87	-10 57.8	1.622	2.623	3.2	18.7	9 8	22 40.52	-14 58.4	1.543	2.539	4.5	19.0
9 18	22 33.91	-11 45.2	1.656	2.624	7.4	18.9	9 18	22 32.78	-16 28.3	1.557	2.515	8.8	19.2
9 28	22 28.41	-12 20.5	1.714	2.625	11.3	19.2	9 28	22 26.43	-17 40.2	1.596	2.492	13.0	19.4
10 8	22 25.01	-12 40.9	1.795	2.627	14.6	19.4	10 8	22 22.29	-18 30.0	1.657	2.468	16.6	19.5
144019	2004 <i>BK</i> ₁₂		9 2.1 146°85	1°4°/ 3.3	18		458272	2010 <i>UR</i> ₂₈		9 2.1 233°69	3°6°/ 6.3	18	
7 30	23 11.20	- 1 56.9	1.732	2.585	15.0	20.9	7 30	23 4.71	+ 6 16.4	2.404	3.214	12.7	21.2
8 9	23 5.70	- 2 16.0	1.665	2.592	11.3	20.7	8 9	23 0.53	+ 6 3.7	2.318	3.210	10.1	21.0
8 19	22 58.11	- 2 49.9	1.619	2.598	7.2	20.4	8 19	22 54.86	+ 5 34.5	2.254	3.206	7.3	20.8
8 29	22 49.15	- 3 35.3	1.599	2.604	2.9	20.2	8 29	22 48.20	+ 4 50.2	2.215	3.201	4.6	20.7
9 8	22 39.79	- 4 26.5	1.607	2.610	2.6	20.2	9 8	22 41.19	+ 3 54.0	2.204	3.197	3.6	20.6
9 18	22 31.10	- 5 17.3	1.641	2.615	6.9	20.5	9 18	22 34.52	+ 2 50.5	2.221	3.193	5.5	20.7
9 28	22 24.02	- 6 1.9	1.702	2.619	10.9	20.7	9 28	22 28.89	+ 1 45.0	2.265	3.188	8.3	20.9
10 8	22 19.21	- 6 35.8	1.785	2.624	14.4	21.0	10 8	22 24.84	+ 0 43.1	2.334	3.184	11.1	21.0
18432	1994 <i>CJ</i> ₂		9 2.1 108°42	2°1°/31.0	18		422662	1999 <i>JZ</i> ₁₀₇		9 2.1 33°31	7°9°/28.2	17	
7 30	23 8.61	- 9 50.8	1.798	2.675	13.4	18.4	7 30	23 9.21	-19 36.9	0.901	1.824	19.0	19.2
8 9	23 3.67	-10 58.2	1.743	2.688	9.7	18.2	8 9	23 5.28	-21 1.9	0.878	1.843	14.1	19.0
8 19	22 56.82	-12 14.4	1.712	2.701	5.7	18.0	8 19	22 58.15	-22 24.0	0.874	1.862	9.7	18.9
8 29	22 48.75	-13 32.3	1.707	2.714	2.3	17.8	8 29	22 49.14	-23 29.3	0.889	1.884	7.9	18.9
9 8	22 40.39	-14 44.4	1.730	2.726	4.1	17.9	9 8	22 40.03	-24 6.8	0.926	1.906	10.2	19.1
9 18	22 32.71	-15 44.3	1.780	2.737	7.9	18.2	9 18	22 32.45	-24 12.2	0.984	1.929	14.2	19.4
9 28	22 26.57	-16 27.7	1.855	2.749	11.5	18.4	9 28	22 27.65	-23 46.4	1.060	1.954	18.1	19.7
10 8	22 22.55	-16 52.8	1.952	2.760	14.6	18.7	10 8	22 26.14	-22 54.7	1.152	1.979	21.4	20.0
356587	2011 <i>ST</i> ₂₅₈		9 2.1 336°01	2°9°/30.8	18		380736	2005 <i>SJ</i> ₂₇		9 2.1 33°35	2°3°/ 3.5	16	
7 30	23 10.05	-14 2.0	1.710	2.596	13.5	20.7	7 30	23 10.39	- 2 35.1	1.085	1.970	19.6	20.3
8 9	23 4.95	-14 29.4	1.643	2.592	10.0	20.5	8 9	23 5.75	- 2 20.9	1.044	1.987	14.9	20.1
8 19	22 57.71	-15 1.1	1.599	2.588	6.1	20.3	8 19	22 58.35	- 2 25.6	1.021	2.005	9.5	19.9
8 29	22 49.04	-15 31.3	1.579	2.584	3.0	20.1	8 29	22 49.23	- 2 45.7	1.020	2.025	4.0	19.6
9 8	22 39.95	-15 54.1	1.587	2.580	4.7	20.2	9 8	22 39.85	- 3 14.6	1.042	2.045	3.5	19.7
9 18	22 31.52	-16 4.8	1.620	2.577	8.6	20.4	9 18	22 31.66	- 3 45.1	1.087	2.067	8.5	20.0
9 28	22 24.74	-16 0.9	1.678	2.574	12.4	20.6	9 28	22 25.84	- 4 10.0	1.155	2.089	13.4	20.4
10 8	22 20.30	-15 41.8	1.757	2.572	15.6	20.8	10 8	22 23.03	- 4 24.6	1.242	2.112	17.4	20.7
140310	2001 <i>SN</i> ₃₁₈		9 2.1 278°46	1°5°/31.7	18		275929	2001 <i>TM</i> ₂₅₈		9 2.1 73°47	1°6°/31.7	17	
7 30	23 7.57	- 9 56.9	1.973	2.848	12.5	20.6	7 30	23 9.44	- 8 27.6	1.483	2.366	15.4	20.4
8 9	23 2.90	-10 33.7	1.899	2.843	9.2	20.4	8 9	23 4.56	- 9 24.1	1.435	2.382	11.2	20.2
8 19	22 56.39	-11 18.3	1.849	2.838	5.4	20.1	8 19	22 57.46	-10 31.6	1.408	2.398	6.6	19.9
8 29	22 48.64	-12 5.7	1.825	2.832	1.9	19.9	8 29	22 48.96	-11 42.9	1.406	2.413	2.1	19.7
9 8	22 40.50	-12 50.3	1.829	2.827	3.4	20.0	9 8	22 40.19	-12 49.4	1.430	2.429	4.0	19.9
9 18	22 32.86	-13 27.0	1.860	2.822	7.3	20.2	9 18	22 32.28	-13 44.0	1.480	2.444	8.5	20.2
9 28	22 26.57	-13 51.8	1.916	2.816	10.9	20.4	9 28	22 26.21	-14 21.8	1.554	2.460	12.6	20.5
10 8	22 22.25	-14 2.5	1.995	2.811	14.0	20.6	10 8	22 22.59	-14 40.9	1.649	2.475	16.0	20.7
71067	1999 <i>XX</i> ₁₀₈		9 2.1 315°82	5°5°/ 7.5	18		448992	2012 <i>BL</i> ₂₆		9 2.1 221°26	2°3°/30.8	18	
7 30	23 5.80	+ 9 24.0	1.781	2.591	16.4	19.5	7 30	23 8.78	-13 40.4	2.266	3.140	11.1	21.5
8 9	23 1.81	+ 9 22.8	1.701	2.588	13.4	19.3	8 9	23 3.55	-14 9.8	2.195	3.138	8.1	21.3
8 19	22 55.84	+ 8 58.0	1.641	2.585	10.1	19.1	8 19	22 56.68	-14 42.7	2.148	3.136	4.9	21.1
8 29	22 48.51	+ 8 10.0	1.604	2.583	7.0	18.9	8 29	22 48.73	-15 14.7	2.129	3.133	2.4	20.9
9 8	22 40.69	+ 7 2.4	1.592	2.580	5.5	18.8	9 8	22 40.47	-15 41.1	2.138	3.131	3.8	21.0
9 18	22 33.35	+ 5 41.6	1.606	2.577	7.2	18.9	9 18	22 32.70	-15 58.3	2.175	3.128	7.0	21.2
9 28	22 27.44	+ 4 15.7	1.646	2.575	10.5	19.1	9 28	22 26.17	-16 3.8	2.238	3.125	10.1	21.4
10 8	22 23.64	+ 2 53.3	1.709	2.573	13.8	19.3	10 8	22 21.44	-15 56.7	2.324	3.123	12.8	21.6
399457	2002 <i>PD</i> ₄₃		9 2.1 209°06	3°6°/ 8.0	18		475863	2007 <i>CG</i> ₁		9 2.1 142°46	2°2°/30.1	18	
7 30	23 12.01	+12 22.1	4.134	4.861	9.1	26.2	7 30	23 5.15	-11 49.8	2.594	3.466	9.9	21.1
8 9	23 5.29	+12 13.0	4.020	4.850	7.5	26.1	8 9	23 0.69	-13 5.0	2.531	3.474	7.2	20.9
8 19	22 57.49	+11 51.5	3.930	4.838	5.9	26.0	8 19	22 54.88	-14 25.6	2.494	3.482	4.3	20.8
8 29	22 48.94	+11 17.9	3.869	4.825	4.3	25.8	8 29	22 48.19	-15 46.2	2.486	3.489	2.2	20.6
9 8	22 40.10	+10 33.6	3.840	4.810	3.6	25.8	9 8	22 41.26	-17 1.4	2.507	3.497	3.7	20.8
9 18	22 31.44	+ 9 40.8	3.844	4.795	4.3	25.8	9 18	22 34.72	-18 6.2	2.557	3.503	6.5	21.0
9 28	22 23.45	+ 8 42.8	3.879	4.778	5.9	25.9	9 28	22 29.20	-18 57.2	2.635	3.510	9.2	21.1
10 8	22 16.52	+ 7 43.4	3.944	4.759	7.6	26.0	10 8	22 25.17	-19 32.9	2.735	3.516	11.5	21.3
141255	2001 <i>YD</i> ₁₂		9 2.1 111°79	0°2°/ 1.9	18		193540	2000 <i>YN</i> ₁₁₃		9 2			

EPHEMERIDES

9 2.1

9 2.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
401262	2012 <i>BV</i> ₁₁₀		9 2.1 189°55	0°9/ 3.0 18			266059	2006 <i>QC</i> ₁₁₂		9 2.1 343°92	0°2/ 2.3 18		
7 30	23 8.11	- 3 59.5	2.496	3.342	11.1	20.9	7 30	22 57.90	- 4 40.5	0.879	1.797	19.8	19.9
8 9	23 2.92	- 4 5.0	2.417	3.341	8.4	20.7	8 9	22 57.37	- 5 3.3	0.814	1.777	15.1	19.5
8 19	22 56.26	- 4 19.2	2.362	3.341	5.3	20.5	8 19	22 53.86	- 5 50.0	0.765	1.759	9.3	19.2
8 29	22 48.63	- 4 39.9	2.334	3.340	2.0	20.3	8 29	22 48.10	- 6 55.2	0.735	1.744	2.9	18.7
9 8	22 40.69	- 5 3.8	2.336	3.339	2.0	20.3	9 8	22 41.46	- 8 8.2	0.726	1.730	3.9	18.8
9 18	22 33.15	- 5 27.6	2.366	3.337	5.2	20.5	9 18	22 35.56	- 9 16.5	0.736	1.719	10.5	19.1
9 28	22 26.69	- 5 47.9	2.424	3.336	8.4	20.7	9 28	22 31.99	-10 8.2	0.765	1.711	16.6	19.4
10 8	22 21.83	- 6 2.0	2.506	3.334	11.1	20.9	10 8	22 31.78	-10 35.9	0.809	1.705	21.8	19.7
115435	2003 <i>TM</i> ₄		9 2.1 185°40	12°3/23.7 17			17128	1999 <i>JS</i> ₇₅		9 2.1 20°16	4°4/30.7 18		
7 30	23 29.98	-42 2.5	1.859	2.689	15.0	19.9	7 30	23 15.27	-17 47.7	1.291	2.187	16.4	16.8
8 9	23 19.85	-43 6.7	1.816	2.689	13.4	19.8	8 9	23 9.25	-17 54.8	1.240	2.192	12.2	16.6
8 19	23 6.66	-43 49.7	1.795	2.689	12.4	19.8	8 19	23 0.45	-18 1.3	1.209	2.198	7.7	16.4
8 29	22 51.65	-44 1.3	1.797	2.688	12.4	19.8	8 29	22 49.90	-18 0.3	1.202	2.204	4.5	16.2
9 8	22 36.52	-43 36.1	1.823	2.686	13.5	19.8	9 8	22 39.05	-17 46.1	1.220	2.212	6.2	16.3
9 18	22 22.92	-42 34.6	1.872	2.684	15.2	19.9	9 18	22 29.34	-17 15.9	1.262	2.220	10.5	16.6
9 28	22 12.15	-41 2.1	1.942	2.681	17.1	20.1	9 28	22 21.99	-16 29.6	1.327	2.229	14.6	16.9
10 8	22 4.85	-39 6.6	2.030	2.677	18.8	20.2	10 8	22 17.67	-15 29.2	1.412	2.238	18.2	17.1
219897	2002 <i>ET</i> ₁₁₄		9 2.1 270°85	0°5/ 1.1 17			480628	2015 <i>NR</i> ₄		9 2.1 345°46	4°0/29.6 18		
7 30	22 59.45	- 9 11.8	4.487	5.345	6.3	20.6	7 30	23 8.87	-16 23.0	1.781	2.670	12.9	20.6
8 9	22 56.07	- 9 38.8	4.401	5.337	4.6	20.5	8 9	23 4.04	-17 13.3	1.719	2.668	9.5	20.4
8 19	22 51.94	-10 9.4	4.343	5.329	2.7	20.3	8 19	22 57.17	-18 6.4	1.680	2.667	6.1	20.2
8 29	22 47.33	-10 41.5	4.313	5.320	0.8	20.1	8 29	22 48.94	-18 55.4	1.666	2.665	4.0	20.1
9 8	22 42.57	-11 13.0	4.313	5.312	1.5	20.2	9 8	22 40.34	-19 33.8	1.679	2.664	5.7	20.2
9 18	22 37.97	-11 41.9	4.342	5.303	3.5	20.3	9 18	22 32.38	-19 56.6	1.718	2.663	9.1	20.4
9 28	22 33.89	-12 6.3	4.400	5.295	5.4	20.5	9 28	22 26.01	-20 1.4	1.781	2.663	12.6	20.6
10 8	22 30.61	-12 24.7	4.484	5.287	7.0	20.6	10 8	22 21.86	-19 47.9	1.865	2.662	15.5	20.8
351117	2003 <i>WR</i> ₂		9 2.1 304°66	8°3/10.2 18			435849	2008 <i>WF</i> ₁₂₈		9 2.1 75°32	7°1/ 9.3 16		
7 30	23 5.80	+15 32.6	1.797	2.571	17.6	20.5	7 30	23 7.46	+13 21.7	1.761	2.547	17.4	21.3
8 9	23 1.95	+16 0.6	1.710	2.561	15.1	20.3	8 9	23 3.00	+13 35.8	1.693	2.558	14.6	21.1
8 19	22 56.03	+16 2.5	1.640	2.551	12.4	20.1	8 19	22 56.55	+13 24.2	1.644	2.568	11.5	20.9
8 29	22 48.63	+15 36.1	1.592	2.542	9.8	20.0	8 29	22 48.77	+12 46.3	1.617	2.579	8.7	20.8
9 8	22 40.63	+14 42.6	1.567	2.532	8.4	19.9	9 8	22 40.61	+11 45.1	1.615	2.590	7.1	20.7
9 18	22 33.03	+13 26.4	1.567	2.523	9.0	19.9	9 18	22 33.05	+10 26.7	1.638	2.600	8.0	20.8
9 28	22 26.85	+11 55.6	1.592	2.514	11.3	20.0	9 28	22 27.01	+ 8 59.5	1.687	2.611	10.6	21.0
10 8	22 22.85	+10 20.0	1.640	2.505	14.2	20.2	10 8	22 23.14	+ 7 32.5	1.759	2.622	13.5	21.2
483281	2015 <i>TY</i> ₂₇₃		9 2.1 323°35	4°1/ 6.3 17			168099	2006 <i>DQ</i> ₂₀₈		9 2.1 46°97	0°0/ 1.9 18		
7 30	23 3.68	+ 6 12.7	1.924	2.749	14.8	21.4	7 30	23 11.66	- 7 15.5	1.484	2.361	15.7	19.2
8 9	23 0.16	+ 6 1.8	1.837	2.738	11.9	21.2	8 9	23 6.18	- 7 19.5	1.433	2.376	11.6	19.0
8 19	22 54.84	+ 5 30.6	1.771	2.728	8.6	21.0	8 19	22 58.45	- 7 33.9	1.404	2.391	7.0	18.7
8 29	22 48.26	+ 4 40.2	1.729	2.718	5.4	20.8	8 29	22 49.31	- 7 54.4	1.399	2.407	2.0	18.5
9 8	22 41.21	+ 3 34.6	1.713	2.708	4.2	20.7	9 8	22 39.92	- 8 15.5	1.420	2.423	3.0	18.6
9 18	22 34.55	+ 2 19.8	1.724	2.699	6.4	20.8	9 18	22 31.43	- 8 32.2	1.467	2.439	7.7	18.9
9 28	22 29.14	+ 1 2.9	1.760	2.690	9.9	21.0	9 28	22 24.85	- 8 40.5	1.538	2.456	11.9	19.2
10 8	22 25.64	- 0 8.8	1.821	2.682	13.2	21.2	10 8	22 20.78	- 8 37.9	1.631	2.473	15.4	19.5
288802	2004 <i>RF</i> ₁₅₇		9 2.1 89°16	0°4/ 2.4 17			394613	2007 <i>VK</i> ₃₂₈		9 2.1 302°43	2°2/30.9 18		
7 30	23 13.60	- 5 1.4	1.283	2.159	17.7	20.3	7 30	23 6.99	-11 4.8	1.802	2.685	13.1	20.8
8 9	23 7.95	- 5 20.9	1.231	2.172	13.2	20.1	8 9	23 2.69	-11 55.2	1.730	2.677	9.6	20.6
8 19	22 59.65	- 5 55.9	1.199	2.186	8.1	19.9	8 19	22 56.39	-12 54.0	1.680	2.670	5.7	20.3
8 29	22 49.66	- 6 40.7	1.191	2.199	2.5	19.6	8 29	22 48.74	-13 54.9	1.657	2.663	2.4	20.1
9 8	22 39.32	- 7 27.8	1.208	2.212	3.2	19.7	9 8	22 40.64	-14 51.1	1.660	2.655	4.2	20.2
9 18	22 29.99	- 8 9.8	1.251	2.225	8.5	20.0	9 18	22 33.05	-15 36.5	1.690	2.648	8.2	20.4
9 28	22 22.87	- 8 40.6	1.316	2.237	13.2	20.3	9 28	22 26.93	-16 6.7	1.744	2.641	11.9	20.6
10 8	22 18.66	- 8 56.9	1.403	2.249	17.2	20.6	10 8	22 22.93	-16 19.6	1.820	2.635	15.2	20.8
240207	2002 <i>RT</i> ₂₂₆		9 2.1 344°03	1°3/ 3.4 18			59857	1999 <i>RF</i> ₉₃		9 2.1 303°35	1°9/31.3 18 R		
7 30	23 5.67	- 1 7.3	1.774	2.632	14.4	20.3	7 30	23 6.82	-11 16.8	2.051	2.929	12.0	19.0
8 9	23 1.67	- 1 42.3	1.701	2.630	11.0	20.0	8 9	23 2.35	-11 52.9	1.974	2.919	8.8	18.8
8 19	22 55.75	- 2 33.9	1.649	2.629	7.0	19.8	8 19	22 56.10	-12 35.6	1.921	2.910	5.2	18.6
8 29	22 48.52	- 3 38.2	1.623	2.627	2.8	19.5	8 29	22 48.65	-13 20.0	1.894	2.900	2.1	18.3
9 8	22 40.87	- 4 49.0	1.623	2.626	2.5	19.5	9 8	22 40.79	-14 0.7	1.894	2.891	3.6	18.4
9 18	22 33.74	- 5 59.4	1.650	2.625	6.7	19.8	9 18	22 33.38	-14 32.8	1.922	2.882	7.3	18.6
9 28	22 28.03	- 7 2.4	1.703	2.625	10.7	20.0	9 28	22 27.25	-14 52.7	1.975	2.873	10.7	18.8
10 8	22 24.39	- 7 52.9	1.778	2.624	14.2	20.2	10 8	22 23.02	-14 58.7	2.051	2.864	13.8	19.0
315452	2007 <i>XJ</i> ₁₂		9 2.1 180°09	3°3/30.4 17			193406	2000 <i>WL</i> ₃₆		9 2.1 340°24	11°0/22.2 18		
7 30	23 11.81	-12 44.9	1.551	2.437	14.7	21.3	7 30	23 3.81	-27 16.9	1.227	2.142	15.6	18.7
8 9	23 6.46	-13 45.4	1.489	2.438	10.8	21.1	8 9	23 1.36	-29 33.9	1.178	2.128	12.8	18.5
8 19	22 58.74	-14 53.4	1.449	2.438	6.5	20.8	8 19	22 56.05	-31 45.4	1.150	2.116	11.1	18.3
8 29	22 49.41	-16 1.1	1.434	2.438	3.3	20.6	8 29	22 48.72	-33 35.9	1.144	2.105	11.5	18.3
9 8	22 39.63	-16 59.9	1.446	2.438	5.4	20.8	9 8	22 40.71	-34 52.4	1.159	2.094	13.8	18.4
9 18	22 30.58	-17 43.2	1.484	2.438	9.5	21.0	9 18	22 33.54	-35 28.2	1.195	2.085	16.9	18.6
9 28	22 23.38	-18 6.7	1.545	2.437	13.6	21.3	9 28	22 28.58	-35 22.4	1.247	2.078	20.1	18.8
10 8	22 18.75	-18 9.9	1.627	2.435	17.0	21.5	10 8	22 26.68	-34 39.9	1.315	2.071	22.8	19.0
151500	2002 <i>JE</i> ₁₀₈		9 2.1 107°08	2°3/ 5.4 18			324874	2007 <i>TD</i> ₂₇₅		9 2.1 298			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
516444	2004 <i>TM</i> ₁₉₉		9 2.1 308°70	2°8/ 5.3 18			318427	2005 <i>BA</i> ₂₉		9 2.1 182°64	2°4/31.2 17		
7 30	23 4.06	+ 3 47.0	2.231	3.058	12.9	21.1	7 30	23 13.79	-11 51.6	1.765	2.639	13.8	21.5
8 9	23 0.17	+ 3 22.1	2.148	3.055	10.2	20.9	8 9	23 7.71	-12 34.4	1.697	2.640	10.1	21.3
8 19	22 54.73	+ 2 40.7	2.088	3.052	7.0	20.7	8 19	22 59.43	-13 24.0	1.652	2.640	6.1	21.1
8 29	22 48.25	+ 1 44.9	2.054	3.049	3.9	20.5	8 29	22 49.68	-14 14.2	1.634	2.640	2.6	20.9
9 8	22 41.41	+ 0 38.9	2.047	3.046	3.0	20.5	9 8	22 39.50	-14 58.2	1.644	2.639	4.3	21.0
9 18	22 34.96	- 0 31.8	2.068	3.043	5.5	20.6	9 18	22 29.99	-15 30.6	1.681	2.637	8.4	21.2
9 28	22 29.61	- 1 41.4	2.116	3.040	8.7	20.8	9 28	22 22.16	-15 47.7	1.743	2.635	12.2	21.4
10 8	22 25.91	- 2 44.3	2.188	3.037	11.7	21.0	10 8	22 16.71	-15 48.5	1.826	2.632	15.5	21.7
424507	2008 <i>DZ</i> ₈₀		9 2.1 130°67	0°3/ 2.4 17			139240	2001 <i>HQ</i> ₂₇		9 2.1 57°81	2°8/31.1 17		
7 30	23 11.00	- 4 21.0	1.694	2.556	14.8	22.1	7 30	23 11.78	-11 51.5	1.292	2.185	16.5	19.4
8 9	23 5.59	- 4 56.3	1.632	2.567	11.0	21.9	8 9	23 6.55	-12 36.7	1.250	2.202	12.0	19.2
8 19	22 58.10	- 5 45.1	1.593	2.576	6.7	21.7	8 19	22 58.79	-13 29.5	1.228	2.219	7.2	19.0
8 29	22 49.25	- 6 42.7	1.579	2.586	2.1	21.4	8 29	22 49.46	-14 21.8	1.230	2.236	3.1	18.8
9 8	22 40.05	- 7 42.3	1.592	2.595	2.7	21.5	9 8	22 39.90	-15 5.2	1.257	2.253	5.1	19.0
9 18	22 31.55	- 8 37.4	1.632	2.603	7.2	21.8	9 18	22 31.40	-15 33.6	1.308	2.270	9.6	19.3
9 28	22 24.71	- 9 22.4	1.698	2.611	11.2	22.0	9 28	22 25.07	-15 43.7	1.383	2.288	13.9	19.6
10 8	22 20.15	- 9 53.6	1.786	2.619	14.7	22.3	10 8	22 21.53	-15 35.1	1.477	2.306	17.4	19.9
390899	2005 <i>CD</i> ₃₆		9 2.1 305°72	6°7/26.2 18			292638	2006 <i>UC</i> ₃₀		9 2.1 300°95	0°3/ 2.4 18		
7 30	23 6.15	-20 13.3	1.603	2.504	13.4	20.2	7 30	23 7.12	- 4 55.8	1.915	2.779	13.3	20.8
8 9	23 2.46	-22 2.1	1.538	2.490	10.2	20.0	8 9	23 2.68	- 5 18.5	1.837	2.772	9.9	20.6
8 19	22 56.46	-23 54.0	1.496	2.477	7.5	19.8	8 19	22 56.37	- 5 52.9	1.781	2.765	6.1	20.3
8 29	22 48.82	-25 38.0	1.479	2.463	6.8	19.7	8 29	22 48.78	- 6 35.4	1.751	2.758	1.9	20.1
9 8	22 40.59	-27 3.6	1.488	2.450	9.0	19.8	9 8	22 40.75	- 7 20.8	1.748	2.751	2.4	20.1
9 18	22 32.91	-28 3.2	1.521	2.437	12.3	20.0	9 18	22 33.19	- 8 3.7	1.773	2.745	6.6	20.3
9 28	22 26.92	-28 33.2	1.575	2.425	15.6	20.2	9 28	22 26.98	- 8 39.1	1.823	2.738	10.5	20.6
10 8	22 23.39	-28 34.6	1.647	2.413	18.5	20.3	10 8	22 22.75	- 9 3.4	1.896	2.732	13.8	20.8
232093	2001 <i>XV</i> ₄₆		9 2.1 202°33	2°0/31.5 18			123972	2001 <i>FN</i> ₂₈		9 2.1 96°84	1°1/31.9 18		
7 30	23 12.73	-12 5.8	1.881	2.754	13.1	19.8	7 30	23 5.09	- 8 24.8	2.297	3.167	11.2	19.8
8 9	23 6.81	-12 30.5	1.809	2.752	9.6	19.6	8 9	23 0.86	- 9 12.9	2.228	3.168	8.2	19.6
8 19	22 58.83	-13 0.6	1.761	2.749	5.8	19.4	8 19	22 55.11	-10 9.0	2.183	3.170	4.8	19.4
8 29	22 49.48	-13 31.1	1.740	2.746	2.3	19.2	8 29	22 48.38	-11 8.7	2.164	3.172	1.5	19.2
9 8	22 39.71	-13 56.5	1.746	2.743	3.9	19.3	9 8	22 41.36	-12 6.6	2.175	3.174	2.8	19.3
9 18	22 30.56	-14 12.5	1.780	2.739	7.8	19.5	9 18	22 34.77	-12 57.8	2.213	3.175	6.2	19.5
9 28	22 22.96	-14 16.1	1.839	2.735	11.5	19.7	9 28	22 29.29	-13 38.4	2.278	3.177	9.4	19.7
10 8	22 17.60	-14 6.3	1.921	2.731	14.7	19.9	10 8	22 25.46	-14 6.0	2.366	3.179	12.2	19.9
366616	2003 <i>NP</i> ₄		9 2.1 3°50	26°2/ 8.0 16			435852	2008 <i>WF</i> ₁₃₅		9 2.1 357°82	11°3/22.9 18		
7 30	22 53.08	+36 58.7	0.842	1.578	35.3	18.6	7 30	23 10.16	-32 4.2	1.423	2.317	15.2	19.8
8 9	22 54.26	+40 41.6	0.807	1.573	34.3	18.4	8 9	23 5.70	-33 48.5	1.383	2.315	12.8	19.7
8 19	22 52.25	+43 30.4	0.779	1.572	33.0	18.3	8 19	22 58.47	-35 19.8	1.365	2.314	11.4	19.6
8 29	22 47.70	+45 11.8	0.758	1.575	31.6	18.2	8 29	22 49.42	-36 25.9	1.369	2.313	11.6	19.6
9 8	22 42.11	+45 37.3	0.744	1.581	30.0	18.2	9 8	22 39.95	-36 58.4	1.395	2.312	13.3	19.7
9 18	22 37.37	+44 44.8	0.738	1.591	28.4	18.1	9 18	22 31.50	-36 54.0	1.441	2.313	15.7	19.9
9 28	22 35.45	+42 40.5	0.741	1.604	27.1	18.1	9 28	22 25.30	-36 14.9	1.506	2.314	18.3	20.1
10 8	22 37.54	+39 40.4	0.756	1.620	26.2	18.1	10 8	22 22.07	-35 6.6	1.587	2.315	20.6	20.2
137611	1999 <i>VU</i> ₁₈₃		9 2.1 302°73	5°0/29.4 18			58881	1998 <i>HZ</i> ₁₃₂		9 2.1 61°26	0°7/ 2.8 18		
7 30	23 9.30	-15 39.9	1.329	2.229	15.6	19.9	7 30	23 7.76	- 3 53.4	1.923	2.782	13.4	19.6
8 9	23 5.26	-16 43.0	1.251	2.207	11.7	19.6	8 9	23 2.94	- 4 14.4	1.866	2.798	10.0	19.4
8 19	22 58.41	-17 53.8	1.195	2.185	7.5	19.3	8 19	22 56.39	- 4 47.1	1.831	2.814	6.2	19.2
8 29	22 49.46	-19 2.8	1.162	2.163	5.0	19.1	8 29	22 48.76	- 5 27.7	1.823	2.829	2.1	19.0
9 8	22 39.64	-19 59.4	1.153	2.141	7.3	19.2	9 8	22 40.89	- 6 11.1	1.842	2.845	2.3	19.1
9 18	22 30.39	-20 35.3	1.168	2.119	11.9	19.4	9 18	22 33.64	- 6 52.3	1.888	2.861	6.2	19.3
9 28	22 23.16	-20 45.5	1.205	2.098	16.4	19.6	9 28	22 27.80	- 7 26.7	1.961	2.877	9.8	19.6
10 8	22 18.90	-20 29.7	1.259	2.077	20.4	19.8	10 8	22 23.90	- 7 51.0	2.056	2.893	12.8	19.8
392818	2012 <i>TY</i> ₂₈₆		9 2.1 265°28	7°5/26.1 18			449720	2014 <i>ML</i> ₆₆		9 2.1 287°51	5°2/ 7.5 18		
7 30	23 12.63	-26 33.3	1.870	2.753	12.7	21.1	7 30	23 6.87	+ 9 11.3	2.366	3.156	13.4	20.9
8 9	23 6.99	-27 42.7	1.803	2.739	10.1	20.9	8 9	23 2.26	+ 9 36.3	2.275	3.148	11.1	20.8
8 19	22 59.07	-28 47.0	1.760	2.725	8.0	20.8	8 19	22 56.03	+ 9 44.8	2.205	3.139	8.5	20.6
8 29	22 49.57	-29 37.6	1.742	2.711	7.6	20.7	8 29	22 48.69	+ 9 36.5	2.160	3.130	6.2	20.4
9 8	22 39.57	-30 7.1	1.750	2.696	9.2	20.8	9 8	22 40.91	+ 9 12.9	2.141	3.121	5.2	20.4
9 18	22 30.21	-30 11.6	1.783	2.681	11.8	20.9	9 18	22 33.45	+ 8 37.0	2.150	3.113	6.4	20.4
9 28	22 22.56	-29 50.5	1.838	2.667	14.6	21.1	9 28	22 27.06	+ 7 53.5	2.186	3.104	8.8	20.6
10 8	22 17.36	-29 6.5	1.912	2.652	17.2	21.2	10 8	22 22.34	+ 7 7.9	2.246	3.096	11.4	20.7
130931	2000 <i>WF</i> ₂₉		9 2.1 182°61	11°2/17.4 18			401607	2013 <i>GV</i> ₂₇		9 2.1 353°16	5°6/27.3 18		
7 30	23 16.40	-43 55.8	2.332	3.163	12.3	20.8	7 30	23 5.27	-19 32.3	1.770	2.667	12.6	19.8
8 9	23 9.74	-45 45.3	2.304	3.164	11.4	20.7	8 9	23 1.49	-20 56.0	1.713	2.664	9.4	19.6
8 19	23 0.68	-47 17.2	2.298	3.164	11.2	20.7	8 19	22 55.71	-22 20.8	1.679	2.662	6.6	19.5
8 29	22 50.04	-48 23.1	2.316	3.163	11.6	20.7	8 29	22 48.60	-23 38.2	1.671	2.660	5.6	19.4
9 8	22 38.98	-48 58.0	2.356	3.163	12.7	20.8	9 8	22 41.10	-24 40.2	1.689	2.658	7.4	19.5
9 18	22 28.73	-49 0.7	2.417	3.161	14.0	20.9	9 18	22 34.20	-25 21.2	1.731	2.657	10.5	19.7
9 28	22 20.38	-48 33.4	2.495	3.159	15.4	21.0	9 28	22 28.81	-25 38.7	1.797	2.656	13.5	19.9
10 8	22 14.63	-47 40.8	2.588	3.156	16.5	21.1	10 8	22 25.58	-25 33.2	1.881	2.656	16.2	20.1
129670	1998 <i>RU</i> ₆		9 2.1 34°03	0°9/ 1.6 18			275342	2010 <i>XV</i> ₃₄					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
251542	2009 <i>AB</i> ₄₇		9 2.1 78°81	1.8/ 3.3	17		291718	2006 <i>JN</i> ₂₆		9 2.1 93°67	5.2/ 7.5	18	
7 30	23 13.55	- 2 46.3	1.332	2.200	17.7	20.4	7 30	23 9.42	+ 9 15.8	1.956	2.754	15.5	20.8
8 9	23 7.91	- 2 44.7	1.277	2.211	13.4	20.1	8 9	23 4.19	+ 9 20.5	1.894	2.774	12.6	20.7
8 19	22 59.68	- 2 59.4	1.241	2.223	8.5	19.9	8 19	22 57.17	+ 9 4.4	1.853	2.793	9.4	20.5
8 29	22 49.78	- 3 27.1	1.229	2.234	3.4	19.6	8 29	22 49.02	+ 8 28.2	1.836	2.813	6.5	20.4
9 8	22 39.49	- 4 1.8	1.243	2.246	3.1	19.6	9 8	22 40.60	+ 7 35.5	1.846	2.832	5.2	20.3
9 18	22 30.14	- 4 36.8	1.281	2.257	8.0	20.0	9 18	22 32.80	+ 6 32.0	1.883	2.850	6.7	20.5
9 28	22 22.92	- 5 5.8	1.344	2.269	12.7	20.3	9 28	22 26.43	+ 5 24.4	1.946	2.868	9.5	20.7
10 8	22 18.52	- 5 24.4	1.427	2.280	16.6	20.5	10 8	22 22.06	+ 4 19.3	2.033	2.886	12.3	20.9
11597	1995 <i>KL</i> ₁		9 2.1 92°77	10°0/ 9.3	18		505832	2015 <i>CT</i> ₂		9 2.1 179°74	0°2/ 1.9	17	
7 30	23 20.55	+14 57.0	1.601	2.363	19.9	17.3	7 30	23 14.10	- 7 13.3	1.905	2.763	13.6	22.0
8 9	23 12.87	+16 29.4	1.545	2.386	16.9	17.1	8 9	23 7.79	- 7 29.7	1.832	2.765	10.1	21.8
8 19	23 2.62	+17 35.9	1.507	2.408	13.9	17.0	8 19	22 59.44	- 7 55.1	1.782	2.766	6.1	21.5
8 29	22 50.65	+18 11.9	1.492	2.430	11.3	16.9	8 29	22 49.72	- 8 25.8	1.759	2.766	1.8	21.3
9 8	22 38.24	+18 16.9	1.502	2.452	10.0	16.9	9 8	22 39.59	- 8 56.6	1.764	2.766	2.7	21.3
9 18	22 26.71	+17 54.4	1.536	2.473	10.7	17.0	9 18	22 30.06	- 9 22.9	1.798	2.765	7.0	21.6
9 28	22 17.27	+17 12.3	1.595	2.494	12.8	17.2	9 28	22 22.09	- 9 40.8	1.858	2.764	10.8	21.8
10 8	22 10.67	+16 20.1	1.677	2.514	15.3	17.4	10 8	22 16.33	- 9 47.9	1.941	2.761	14.1	22.0
358855	2008 <i>FS</i> ₈₁		9 2.1 173°18	3°4/29.6	18		25998	2001 <i>FW</i> ₉₁		9 2.1 344°11	6°9/29.2	18	
7 30	23 10.20	-17 43.2	2.358	3.234	10.7	21.9	7 30	23 14.24	-23 5.6	1.347	2.244	15.7	17.3
8 9	23 4.57	-18 19.9	2.294	3.235	7.9	21.7	8 9	23 8.72	-23 29.1	1.286	2.234	12.1	17.0
8 19	22 57.33	-18 57.0	2.253	3.237	5.1	21.5	8 19	23 0.32	-23 47.0	1.245	2.226	8.6	16.8
8 29	22 49.05	-19 29.7	2.241	3.238	3.4	21.4	8 29	22 50.01	-23 50.9	1.228	2.218	6.9	16.7
9 8	22 40.50	-19 53.3	2.257	3.238	4.8	21.5	9 8	22 39.21	-23 33.9	1.235	2.212	8.5	16.8
9 18	22 32.47	-20 4.8	2.300	3.239	7.5	21.7	9 18	22 29.40	-22 53.2	1.265	2.206	12.1	17.0
9 28	22 25.70	-20 2.3	2.370	3.239	10.3	21.9	9 28	22 21.89	-21 49.9	1.318	2.201	16.0	17.2
10 8	22 20.73	-19 46.0	2.462	3.239	12.8	22.1	10 8	22 17.45	-20 28.0	1.389	2.198	19.3	17.4
231615	2009 <i>SK</i> ₇₈		9 2.1 270°48	3°6/10.0	17		388217	2006 <i>HX</i> ₄₂		9 2.1 237°97	10°6/21.5	18	
7 30	22 58.92	+14 23.9	4.497	5.233	8.3	20.1	7 30	23 23.22	-41 35.3	2.309	3.137	12.5	21.6
8 9	22 55.75	+14 9.8	4.397	5.225	7.0	20.0	8 9	23 14.74	-42 45.4	2.250	3.120	11.3	21.5
8 19	22 51.82	+13 44.0	4.318	5.218	5.6	19.9	8 19	23 3.71	-43 39.5	2.214	3.103	10.6	21.5
8 29	22 47.40	+13 7.0	4.266	5.211	4.3	19.8	8 29	22 50.99	-44 9.1	2.202	3.084	10.8	21.4
9 8	22 42.81	+12 20.2	4.241	5.204	3.6	19.8	9 8	22 37.83	-44 8.6	2.215	3.065	11.9	21.5
9 18	22 38.39	+11 25.7	4.245	5.196	3.9	19.8	9 18	22 25.55	-43 36.5	2.251	3.045	13.5	21.6
9 28	22 34.48	+10 26.2	4.277	5.189	5.1	19.9	9 28	22 15.33	-42 35.2	2.308	3.024	15.2	21.7
10 8	22 31.36	+ 9 24.9	4.337	5.182	6.5	20.0	10 8	22 7.90	-41 10.1	2.383	3.003	16.8	21.8
287572	2003 <i>FX</i> ₂₇		9 2.1 138°27	0°0/ 1.9	16		69919	1998 <i>TK</i> ₉		9 2.1 111°93	2°0/30.9	18	
7 30	23 14.85	- 6 40.6	1.419	2.291	16.6	21.1	7 30	23 7.52	-12 42.6	2.450	3.322	10.5	18.9
8 9	23 8.84	- 6 54.2	1.357	2.297	12.4	20.9	8 9	23 2.51	-13 18.3	2.389	3.330	7.6	18.7
8 19	23 0.26	- 7 20.0	1.316	2.303	7.5	20.6	8 19	22 56.05	-13 57.8	2.352	3.339	4.6	18.6
8 29	22 49.96	- 7 53.2	1.300	2.308	2.2	20.3	8 29	22 48.68	-14 36.8	2.343	3.348	2.1	18.4
9 8	22 39.21	- 8 27.4	1.310	2.313	3.2	20.4	9 8	22 41.09	-15 11.0	2.363	3.356	3.4	18.5
9 18	22 29.33	- 8 56.3	1.346	2.318	8.3	20.7	9 18	22 33.99	-15 36.9	2.411	3.365	6.4	18.7
9 28	22 21.52	- 9 14.8	1.406	2.322	12.9	21.0	9 28	22 28.02	-15 51.9	2.485	3.373	9.2	18.9
10 8	22 16.50	- 9 20.2	1.487	2.326	16.8	21.3	10 8	22 23.67	-15 54.9	2.583	3.381	11.7	19.1
294625	2008 <i>AS</i> ₃₈		9 2.1 90°71	0°1/ 2.2	18		5962	Shikokutenkyo		9 2.1 180°54	3°9/ 6.5	18	
7 30	23 6.94	- 4 56.9	2.042	2.904	12.7	21.3	7 30	23 7.03	+ 7 22.1	2.044	2.853	14.6	17.3
8 9	23 2.34	- 5 31.4	1.977	2.912	9.4	21.1	8 9	23 2.52	+ 6 55.0	1.962	2.854	11.7	17.2
8 19	22 56.05	- 6 16.8	1.935	2.919	5.7	20.9	8 19	22 56.24	+ 6 7.1	1.903	2.855	8.4	17.0
8 29	22 48.68	- 7 9.1	1.920	2.927	1.7	20.7	8 29	22 48.78	+ 5 0.0	1.868	2.855	5.3	16.8
9 8	22 41.02	- 8 2.9	1.932	2.935	2.3	20.7	9 8	22 40.92	+ 3 38.5	1.860	2.855	4.0	16.7
9 18	22 33.88	- 8 52.9	1.972	2.942	6.2	21.0	9 18	22 33.50	+ 2 9.1	1.880	2.854	6.2	16.8
9 28	22 28.04	- 9 34.4	2.038	2.950	9.7	21.2	9 28	22 27.35	+ 0 39.2	1.928	2.853	9.4	17.0
10 8	22 24.05	-10 4.3	2.128	2.957	12.7	21.4	10 8	22 23.08	- 0 44.0	2.000	2.851	12.6	17.2
77190	2001 <i>FP</i> ₁₀		9 2.1 50°44	1°2/ 3.2	18		99410	2002 <i>AJ</i> ₈₀		9 2.1 316°67	0°6/ 2.5	18	
7 30	23 7.06	- 1 58.3	1.706	2.567	14.8	19.2	7 30	23 10.08	- 6 4.1	1.121	2.013	18.6	19.9
8 9	23 2.73	- 2 27.3	1.641	2.573	11.2	19.0	8 9	23 6.18	- 5 58.3	1.045	1.995	14.1	19.6
8 19	22 56.42	- 3 11.9	1.597	2.578	7.1	18.8	8 19	22 59.16	- 6 7.5	0.988	1.977	8.8	19.3
8 29	22 48.81	- 4 8.0	1.579	2.584	2.7	18.5	8 29	22 49.79	- 6 27.9	0.952	1.960	2.9	18.9
9 8	22 40.83	- 5 9.5	1.587	2.590	2.5	18.5	9 8	22 39.42	- 6 53.3	0.939	1.943	3.6	18.8
9 18	22 33.46	- 6 9.7	1.621	2.596	6.8	18.8	9 18	22 29.69	- 7 16.2	0.949	1.927	9.7	19.1
9 28	22 27.60	- 7 2.3	1.681	2.603	10.8	19.1	9 28	22 22.23	- 7 29.8	0.980	1.912	15.4	19.4
10 8	22 23.90	- 7 42.7	1.763	2.609	14.3	19.3	10 8	22 18.09	- 7 29.6	1.029	1.898	20.3	19.7
397216	2006 <i>HT</i> ₄₇		9 2.1 217°28	6°1/26.9	18		123750	2001 <i>AT</i> ₂₆		9 2.1 164°52	0°7/ 1.5	18	
7 30	23 12.33	-24 9.8	2.087	2.967	11.7	21.7	7 30	23 11.38	- 8 22.1	2.062	2.924	12.5	19.9
8 9	23 6.50	-25 15.7	2.023	2.960	9.1	21.5	8 9	23 5.63	- 8 43.5	1.992	2.928	9.2	19.7
8 19	22 58.65	-26 18.4	1.983	2.953	6.9	21.3	8 19	22 58.07	- 9 12.6	1.946	2.931	5.5	19.5
8 29	22 49.47	-27 10.3	1.970	2.946	6.2	21.3	8 29	22 49.32	- 9 45.3	1.926	2.934	1.6	19.3
9 8	22 39.89	-27 45.2	1.983	2.937	7.7	21.4	9 8	22 40.23	-10 17.0	1.936	2.937	2.7	19.4
9 18	22 30.90	-27 59.3	2.023	2.929	10.2	21.5	9 18	22 31.71	-10 43.3	1.973	2.939	6.6	19.6
9 28	22 23.42	-27 51.6	2.086	2.920	12.9	21.7	9 28	22 24.57	-11 0.6	2.037	2.941	10.2	19.8
10 8	22 18.10	-27 23.6	2.170	2.911	15.3	21.8	10 8	22 19.42	-11 7.0	2.124	2.942	13.2	20.0
293392	2007 <i>ES</i> ₅₁		9 2.1 285°78	2°5/30.4	18		373144	2012 <i>BG</i> ₁₅		9 2.1 91°56	2°0/ 3.7	17</	

EPHEMERIDES

9 2.1

9 2.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
341107	2007 <i>KA</i> ₇		9 2.1 34°82'	7.7/27.3	17		232336	2002 <i>TV</i> ₂₈₉		9 2.2 353°84'	14.4/21.6	18	R
7 30	23 10.97	-23 28.9	1.385	2.285	15.1	19.6	7 30	23 17.63	-42 16.0	1.467	2.328	16.7	18.9
8 9	23 6.04	-24 42.3	1.345	2.294	11.6	19.5	8 9	23 11.41	-43 29.9	1.431	2.323	15.2	18.7
8 19	22 58.55	-25 50.7	1.327	2.304	8.7	19.3	8 19	23 1.96	-44 20.1	1.414	2.319	14.4	18.7
8 29	22 49.47	-26 43.7	1.332	2.314	7.7	19.3	8 29	22 50.52	-44 35.5	1.418	2.316	14.7	18.7
9 8	22 40.11	-27 13.2	1.361	2.324	9.5	19.4	9 8	22 38.84	-44 9.9	1.441	2.313	15.9	18.8
9 18	22 31.80	-27 15.5	1.413	2.335	12.6	19.6	9 18	22 28.63	-43 3.5	1.484	2.312	17.7	18.9
9 28	22 25.64	-26 50.8	1.487	2.347	15.8	19.9	9 28	22 21.22	-41 21.8	1.545	2.311	19.7	19.1
10 8	22 22.26	-26 2.8	1.578	2.359	18.6	20.1	10 8	22 17.23	-39 13.2	1.621	2.312	21.5	19.2
319290	2006 <i>BM</i> ₈₈		9 2.1 195°79'	1.7/31.0	18		421817	2014 <i>QA</i> ₅₅		9 2.2 254°06'	3.3/5.9	18	
7 30	23 5.56	-11 12.5	2.675	3.544	9.8	21.3	7 30	23 6.09	+ 4 46.1	2.472	3.285	12.2	21.0
8 9	23 1.05	-12 1.4	2.601	3.542	7.1	21.1	8 9	23 1.63	+ 4 45.7	2.381	3.276	9.8	20.8
8 19	22 55.20	-12 55.6	2.553	3.540	4.2	21.0	8 19	22 55.66	+ 4 30.9	2.312	3.267	7.0	20.6
8 29	22 48.47	-13 50.9	2.532	3.538	1.8	20.8	8 29	22 48.67	+ 4 2.7	2.269	3.257	4.3	20.4
9 8	22 41.45	-14 42.7	2.541	3.535	3.1	20.9	9 8	22 41.28	+ 3 23.6	2.253	3.248	3.4	20.4
9 18	22 34.79	-15 27.0	2.578	3.532	6.0	21.1	9 18	22 34.21	+ 2 37.4	2.266	3.238	5.4	20.5
9 28	22 29.10	-16 0.7	2.643	3.529	8.8	21.2	9 28	22 28.14	+ 1 49.0	2.306	3.228	8.3	20.6
10 8	22 24.86	-16 22.0	2.731	3.526	11.2	21.4	10 8	22 23.63	+ 1 3.0	2.371	3.218	11.0	20.8
74639	1999 <i>RF</i> ₅₉		9 2.1 321°70'	0.3/2.4	18	R	384334	2009 <i>SC</i> ₃₄₇		9 2.2 310°45'	4.7/29.4	18	
7 30	23 5.48	- 3 12.8	1.256	2.141	17.5	19.1	7 30	23 7.56	-14 47.0	1.336	2.238	15.5	20.0
8 9	23 2.35	- 4 0.6	1.184	2.130	13.2	18.8	8 9	23 3.95	-15 56.5	1.262	2.218	11.5	19.7
8 19	22 56.60	- 5 10.2	1.132	2.120	8.2	18.5	8 19	22 57.64	-17 15.0	1.208	2.199	7.3	19.5
8 29	22 48.99	- 6 35.5	1.103	2.110	2.6	18.1	8 29	22 49.35	-18 32.9	1.178	2.179	4.7	19.3
9 8	22 40.67	- 8 6.9	1.097	2.101	3.3	18.1	9 8	22 40.27	-19 39.5	1.172	2.160	7.1	19.3
9 18	22 32.98	- 9 33.5	1.116	2.092	9.0	18.4	9 18	22 31.77	-20 26.0	1.190	2.142	11.6	19.5
9 28	22 27.21	-10 45.3	1.157	2.084	14.1	18.7	9 28	22 25.21	-20 46.8	1.230	2.124	16.1	19.8
10 8	22 24.23	-11 36.1	1.218	2.076	18.5	19.0	10 8	22 21.51	-20 41.3	1.287	2.107	20.0	20.0
507273	2011 <i>ET</i> ₄₄		9 2.1 184°00'	2.1/31.0	17		41948	2000 <i>XX</i> ₇		9 2.2 230°91'	7.8/24.7	18	
7 30	23 10.23	-10 43.4	2.011	2.882	12.4	22.9	7 30	23 12.36	-28 40.9	2.049	2.926	12.0	18.7
8 9	23 4.90	-11 43.1	1.941	2.883	9.1	22.6	8 9	23 6.69	-30 4.9	1.989	2.917	9.7	18.6
8 19	22 57.69	-12 50.6	1.895	2.883	5.4	22.4	8 19	22 58.89	-31 22.5	1.953	2.907	8.1	18.4
8 29	22 49.23	-13 59.8	1.876	2.882	2.3	22.2	8 29	22 49.65	-32 25.1	1.942	2.897	8.0	18.4
9 8	22 40.38	-15 4.2	1.886	2.881	4.0	22.3	9 8	22 39.95	-33 6.0	1.958	2.886	9.5	18.5
9 18	22 32.05	-15 57.8	1.924	2.879	7.6	22.6	9 18	22 30.84	-33 21.2	1.998	2.875	11.8	18.6
9 28	22 25.11	-16 36.5	1.987	2.876	11.1	22.8	9 28	22 23.34	-33 10.5	2.061	2.863	14.2	18.8
10 8	22 20.19	-16 58.5	2.073	2.873	14.1	23.0	10 8	22 18.13	-32 36.4	2.142	2.851	16.4	18.9
91952	1999 <i>VV</i> ₇₀		9 2.1 236°59'	0.1/2.3	18		39358	2002 <i>AL</i> ₁₆₂		9 2.2 351°56'	2.8/4.5	18	
7 30	23 6.01	- 5 18.5	2.506	3.360	10.8	20.2	7 30	23 8.44	+ 0 12.7	1.864	2.710	14.4	18.7
8 9	23 1.50	- 5 48.8	2.421	3.352	8.1	20.0	8 9	23 3.72	+ 0 28.7	1.788	2.707	11.2	18.5
8 19	22 55.53	- 6 28.3	2.361	3.344	4.9	19.8	8 19	22 57.07	+ 0 30.7	1.734	2.705	7.6	18.3
8 29	22 48.58	- 7 13.8	2.328	3.335	1.5	19.5	8 29	22 49.10	+ 0 20.1	1.704	2.703	4.0	18.1
9 8	22 41.29	- 8 1.1	2.324	3.327	2.0	19.6	9 8	22 40.71	- 0 0.0	1.701	2.701	3.2	18.0
9 18	22 34.33	- 8 45.9	2.349	3.318	5.5	19.8	9 18	22 32.81	- 0 25.4	1.725	2.700	6.4	18.2
9 28	22 28.38	- 9 24.3	2.401	3.309	8.6	20.0	9 28	22 26.32	- 0 51.1	1.774	2.699	10.1	18.5
10 8	22 23.97	- 9 53.3	2.477	3.299	11.4	20.2	10 8	22 21.89	- 1 12.6	1.847	2.699	13.4	18.7
319230	2006 <i>AH</i> ₁₅		9 2.1 334°92'	0.8/1.5	18		173128	1994 <i>HL</i> ₁		9 2.2 66°22'	0.6/2.7	17	
7 30	23 5.99	- 6 42.7	1.359	2.248	16.1	20.6	7 30	23 11.20	- 3 16.0	1.316	2.190	17.5	20.6
8 9	23 2.54	- 7 21.6	1.289	2.238	12.0	20.3	8 9	23 6.07	- 3 51.6	1.273	2.212	13.1	20.4
8 19	22 56.63	- 8 15.7	1.239	2.229	7.2	20.0	8 19	22 58.52	- 4 44.3	1.250	2.235	8.0	20.2
8 29	22 48.99	- 9 19.0	1.213	2.221	2.1	19.7	8 29	22 49.50	- 5 47.9	1.251	2.257	2.6	19.9
9 8	22 40.75	-10 23.1	1.211	2.213	3.6	19.8	9 8	22 40.26	- 6 54.0	1.276	2.280	2.9	20.0
9 18	22 33.14	-11 19.5	1.234	2.206	8.8	20.1	9 18	22 32.04	- 7 54.3	1.328	2.303	8.0	20.4
9 28	22 27.35	-12 1.3	1.280	2.200	13.6	20.3	9 28	22 25.87	- 8 42.3	1.403	2.325	12.5	20.7
10 8	22 24.19	-12 24.5	1.345	2.195	17.6	20.6	10 8	22 22.38	- 9 14.1	1.499	2.348	16.2	21.0
299708	2006 <i>QB</i> ₁₆₅		9 2.2 3°29'	1.8/3.8	18		514933	2008 <i>US</i> ₂₇₇		9 2.2 281°74'	3.1/30.5	18	
7 30	23 5.56	- 0 24.8	1.696	2.554	15.0	20.4	7 30	23 10.31	-13 46.7	1.735	2.619	13.5	21.8
8 9	23 1.72	- 0 49.8	1.625	2.554	11.5	20.2	8 9	23 5.42	-14 29.9	1.653	2.601	10.0	21.5
8 19	22 55.89	- 1 32.1	1.575	2.554	7.4	20.0	8 19	22 58.26	-15 19.2	1.594	2.582	6.1	21.3
8 29	22 48.73	- 2 28.1	1.550	2.554	3.3	19.7	8 29	22 49.50	-16 8.3	1.560	2.564	3.2	21.0
9 8	22 41.15	- 3 31.9	1.552	2.555	2.6	19.7	9 8	22 40.12	-16 50.2	1.554	2.546	5.1	21.1
9 18	22 34.11	- 4 36.8	1.579	2.556	6.7	19.9	9 18	22 31.21	-17 18.8	1.573	2.527	9.1	21.3
9 28	22 28.55	- 5 35.7	1.632	2.558	10.8	20.2	9 28	22 23.88	-17 30.5	1.617	2.508	13.0	21.5
10 8	22 25.12	- 6 23.2	1.707	2.560	14.3	20.4	10 8	22 18.91	-17 23.9	1.681	2.490	16.5	21.7
350104	2011 <i>OA</i> ₄₄		9 2.2 343°00'	1.9/31.6	18		467746	2009 <i>SB</i> ₁₄₃		9 2.2 340°67'	3.1/8.5	17	
7 30	23 7.75	-10 11.3	1.580	2.466	14.4	21.1	7 30	22 58.99	+10 44.6	4.229	4.993	8.3	20.9
8 9	23 3.49	-10 50.9	1.513	2.462	10.6	20.8	8 9	22 55.86	+10 28.1	4.136	4.992	6.9	20.8
8 19	22 57.03	-11 39.8	1.468	2.458	6.3	20.6	8 19	22 51.95	+10 0.4	4.067	4.990	5.3	20.7
8 29	22 49.08	-12 32.0	1.448	2.455	2.3	20.3	8 29	22 47.53	+ 9 22.4	4.024	4.989	3.8	20.6
9 8	22 40.66	-13 20.3	1.454	2.452	4.1	20.4	9 8	22 42.96	+ 8 35.8	4.009	4.987	3.1	20.5
9 18	22 32.88	-13 58.2	1.485	2.450	8.5	20.7	9 18	22 38.57	+ 7 42.9	4.023	4.986	3.7	20.6
9 28	22 26.76	-14 21.2	1.540	2.447	12.6	20.9	9 28	22 34.71	+ 6 46.6	4.066	4.984	5.1	20.7
10 8	22 23.01	-14 27.2	1.616	2.446	16.1	21.2	10 8	22 31.69	+ 5 50.1	4.137	4.983	6.7	20.8
263792	2008 <i>QX</i> ₅		9 2.2 281°63'	4.3/10.9	16		177750	2005 <i>JH</i> ₇₃		9 2.2 127°08'			

EPHEMERIDES

9 2.2

9 2.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
513737	2012 <i>UT</i> ₁		9 2.2 289°95	1°0/ 1.3 18			182908	2002 <i>EH</i> ₉₀		9 2.2 77°56	0°8/ 3.1 18		
7 30	23 7.35	- 7 19.9	1.676	2.554	14.2	22.0	7 30	23 5.12	- 1 49.6	2.169	3.020	12.4	19.8
8 9	23 3.25	- 8 5.5	1.594	2.538	10.5	21.7	8 9	23 0.96	- 2 34.5	2.104	3.031	9.3	19.6
8 19	22 56.97	- 9 4.1	1.534	2.523	6.3	21.4	8 19	22 55.26	- 3 32.4	2.062	3.042	5.8	19.5
8 29	22 49.14	-10 10.4	1.499	2.507	1.9	21.1	8 29	22 48.58	- 4 39.5	2.047	3.053	2.1	19.2
9 8	22 40.69	-11 16.8	1.491	2.492	3.4	21.2	9 8	22 41.65	- 5 50.1	2.060	3.064	2.0	19.2
9 18	22 32.71	-12 16.1	1.509	2.476	8.0	21.4	9 18	22 35.18	- 6 58.6	2.102	3.075	5.7	19.5
9 28	22 26.23	-13 2.1	1.552	2.461	12.3	21.6	9 28	22 29.90	- 7 59.6	2.170	3.086	9.0	19.7
10 8	22 22.04	-13 31.0	1.615	2.446	16.0	21.9	10 8	22 26.30	- 8 49.2	2.263	3.097	11.9	19.9
244928	2003 <i>XY</i> ₁		9 2.2 338°77	7°8/ 9.4 18			258821	2002 <i>NA</i> ₆₈		9 2.2 63°31	4°5/ 29.9 17		
7 30	23 4.46	+13 9.9	1.578	2.380	18.5	19.5	7 30	23 12.66	-14 39.1	1.244	2.142	16.7	20.4
8 9	23 1.22	+13 31.7	1.498	2.372	15.7	19.3	8 9	23 7.28	-15 49.8	1.210	2.165	12.1	20.2
8 19	22 55.78	+13 25.9	1.435	2.365	12.5	19.1	8 19	22 59.30	-17 4.8	1.198	2.187	7.5	20.0
8 29	22 48.79	+12 50.4	1.394	2.358	9.5	18.9	8 29	22 49.78	-18 13.9	1.209	2.210	4.6	19.9
9 8	22 41.19	+11 47.6	1.375	2.352	7.9	18.8	9 8	22 40.10	-19 7.4	1.244	2.233	6.7	20.1
9 18	22 34.07	+10 23.5	1.380	2.346	8.8	18.9	9 18	22 31.61	-19 39.5	1.304	2.256	10.8	20.4
9 28	22 28.50	+ 8 47.5	1.410	2.341	11.7	19.0	9 28	22 25.39	-19 48.1	1.386	2.279	14.7	20.7
10 8	22 25.28	+ 7 10.3	1.462	2.337	15.0	19.2	10 8	22 22.02	-19 34.5	1.487	2.302	18.0	21.0
513751	2012 <i>UL</i> ₁₆₈		9 2.2 271°32	3°2/ 5.6 18			323688	2005 <i>GB</i> ₇₇		9 2.2 184°14	1°5/ 3.5 17		
7 30	23 5.60	+ 5 32.1	1.905	2.731	14.9	21.6	7 30	23 11.57	- 1 31.4	1.741	2.592	15.0	22.1
8 9	23 1.76	+ 4 50.0	1.808	2.713	11.8	21.4	8 9	23 6.17	- 1 53.2	1.667	2.592	11.4	21.9
8 19	22 56.01	+ 3 45.0	1.732	2.695	8.3	21.1	8 19	22 58.64	- 2 30.8	1.615	2.592	7.3	21.6
8 29	22 48.85	+ 2 19.0	1.681	2.676	4.7	20.9	8 29	22 49.64	- 3 20.6	1.587	2.592	3.0	21.4
9 8	22 41.10	+ 0 37.6	1.658	2.657	3.4	20.8	9 8	22 40.16	- 4 17.1	1.587	2.591	2.6	21.4
9 18	22 33.68	- 1 11.3	1.662	2.638	6.5	20.9	9 18	22 31.26	- 5 13.7	1.615	2.589	6.9	21.6
9 28	22 27.51	- 2 58.7	1.693	2.619	10.4	21.1	9 28	22 23.94	- 6 4.1	1.668	2.587	11.1	21.9
10 8	22 23.33	- 4 36.2	1.748	2.600	14.1	21.3	10 8	22 18.90	- 6 43.6	1.744	2.584	14.7	22.1
364012	2005 <i>UR</i> ₅₁₇		9 2.2 259°83	0°5/ 1.5 18			11908	Nicaragua		9 2.2 118°82	1°1/ 31.9 18		
7 30	23 4.94	- 5 51.4	2.212	3.076	11.7	21.1	7 30	23 7.25	- 9 12.7	2.271	3.139	11.3	18.6
8 9	23 0.92	- 6 47.2	2.132	3.069	8.7	20.9	8 9	23 2.48	- 9 49.6	2.205	3.145	8.3	18.4
8 19	22 55.30	- 7 54.2	2.076	3.062	5.2	20.6	8 19	22 56.17	-10 33.4	2.163	3.150	4.9	18.2
8 29	22 48.60	- 9 7.9	2.047	3.055	1.5	20.4	8 29	22 48.86	-11 19.9	2.149	3.156	1.6	18.0
9 8	22 41.51	-10 22.3	2.046	3.048	2.6	20.5	9 8	22 41.28	-12 4.2	2.162	3.162	2.8	18.1
9 18	22 34.80	-11 31.5	2.074	3.040	6.3	20.7	9 18	22 34.17	-12 41.8	2.204	3.167	6.3	18.3
9 28	22 29.21	-12 30.4	2.128	3.033	9.7	20.9	9 28	22 28.24	-13 9.4	2.273	3.172	9.4	18.5
10 8	22 25.31	-13 15.3	2.206	3.026	12.7	21.1	10 8	22 24.02	-13 25.0	2.365	3.177	12.2	18.7
508269	2015 <i>HF</i> ₁₆₉		9 2.2 148°73	6°7/ 27.2 17			35345	1997 <i>HY</i> ₆		9 2.2 65°94	4°9/ 28.2 18		
7 30	23 15.07	-25 18.3	1.931	2.809	12.6	21.2	7 30	23 8.95	-21 1.8	2.150	3.033	11.2	18.2
8 9	23 8.54	-26 18.5	1.881	2.816	9.8	21.1	8 9	23 3.87	-21 55.1	2.093	3.036	8.5	18.0
8 19	22 59.90	-27 13.2	1.855	2.822	7.4	20.9	8 19	22 57.05	-22 46.8	2.061	3.039	5.9	17.9
8 29	22 49.94	-27 54.5	1.855	2.828	6.7	20.9	8 29	22 49.13	-23 30.8	2.055	3.042	4.9	17.8
9 8	22 39.72	-28 16.4	1.881	2.834	8.1	21.0	9 8	22 40.93	-24 1.7	2.076	3.045	6.3	17.9
9 18	22 30.31	-28 16.1	1.934	2.839	10.7	21.2	9 18	22 33.31	-24 16.0	2.124	3.048	8.9	18.1
9 28	22 22.65	-27 53.8	2.009	2.844	13.3	21.4	9 28	22 27.06	-24 12.3	2.196	3.052	11.6	18.2
10 8	22 17.36	-27 12.0	2.105	2.848	15.7	21.5	10 8	22 22.73	-23 51.4	2.290	3.055	14.0	18.4
49506	1999 <i>CE</i> ₂₀		9 2.2 196°37	4°7/ 28.1 18			292732	2006 <i>UY</i> ₁₅₅		9 2.2 186°25	6°7/ 26.2 18		
7 30	23 9.66	-20 14.4	2.189	3.070	11.2	19.6	7 30	23 12.49	-27 47.3	2.271	3.144	11.1	20.9
8 9	23 4.41	-21 15.5	2.126	3.068	8.4	19.5	8 9	23 6.48	-28 45.7	2.216	3.144	8.8	20.7
8 19	22 57.39	-22 16.1	2.088	3.067	5.8	19.3	8 19	22 58.62	-29 37.6	2.185	3.144	7.1	20.6
8 29	22 49.21	-23 9.9	2.076	3.064	4.7	19.2	8 29	22 49.60	-30 16.4	2.181	3.143	6.7	20.6
9 8	22 40.69	-23 51.0	2.093	3.062	6.2	19.3	9 8	22 40.28	-30 37.0	2.204	3.142	8.0	20.7
9 18	22 32.71	-24 15.5	2.136	3.059	8.9	19.5	9 18	22 31.61	-30 36.7	2.252	3.141	10.1	20.8
9 28	22 26.07	-24 21.5	2.203	3.056	11.6	19.7	9 28	22 24.40	-30 15.6	2.324	3.139	12.4	21.0
10 8	22 21.35	-24 9.4	2.292	3.053	14.1	19.8	10 8	22 19.23	-29 35.7	2.416	3.137	14.4	21.1
99223	2001 <i>HJ</i> ₅₇		9 2.2 255°17	5°9/ 26.5 18			504097	2006 <i>DT</i> ₁₀₆		9 2.2 158°80	0°0/ 1.9 17		
7 30	23 9.27	-21 37.3	2.063	2.948	11.6	19.7	7 30	23 14.36	- 6 27.9	1.405	2.278	16.6	21.5
8 9	23 4.43	-23 7.1	1.988	2.931	8.9	19.5	8 9	23 8.62	- 6 39.6	1.340	2.281	12.5	21.3
8 19	22 57.59	-24 37.9	1.938	2.913	6.6	19.4	8 19	23 0.27	- 7 3.9	1.297	2.283	7.6	21.0
8 29	22 49.32	-26 1.2	1.914	2.894	5.9	19.3	8 29	22 50.15	- 7 36.3	1.277	2.284	2.3	20.7
9 8	22 40.50	-27 9.4	1.918	2.876	7.7	19.4	9 8	22 39.51	- 8 10.1	1.283	2.286	3.2	20.8
9 18	22 32.09	-27 56.6	1.948	2.856	10.4	19.5	9 18	22 29.68	- 8 39.2	1.315	2.287	8.4	21.1
9 28	22 25.04	-28 20.2	2.001	2.837	13.3	19.6	9 28	22 21.90	- 8 58.2	1.371	2.288	13.1	21.3
10 8	22 20.09	-28 20.5	2.074	2.816	15.9	19.8	10 8	22 16.93	- 9 4.2	1.448	2.289	17.0	21.6
251812	1999 <i>TF</i> ₇₆		9 2.2 23°56	0°0/ 1.9 18			402792	2007 <i>DV</i> ₃₄		9 2.2 59°64	0°1/ 2.3 18		
7 30	23 6.25	- 6 3.7	1.720	2.595	14.0	20.3	7 30	23 4.40	- 3 41.0	2.170	3.029	12.1	20.9
8 9	23 2.13	- 6 28.3	1.661	2.602	10.4	20.1	8 9	23 0.47	- 4 34.1	2.101	3.034	9.0	20.7
8 19	22 56.10	- 7 4.1	1.624	2.611	6.3	19.9	8 19	22 55.00	- 5 39.4	2.056	3.039	5.5	20.5
8 29	22 48.84	- 7 46.8	1.612	2.619	1.8	19.7	8 29	22 48.52	- 6 52.5	2.037	3.045	1.7	20.3
9 8	22 41.28	- 8 30.4	1.626	2.629	2.6	19.7	9 8	22 41.75	- 8 7.6	2.047	3.050	2.2	20.3
9 18	22 34.34	- 9 9.5	1.667	2.639	6.9	20.0	9 18	22 35.42	- 9 18.8	2.085	3.056	5.9	20.6
9 28	22 28.91	- 9 39.2	1.732	2.650	10.8	20.3	9 28	22 30.24	-10 20.6	2.150	3.061	9.3	20.8
10 8	22 25.56	- 9 56.6	1.820	2.661	14.1	20.5	10 8	22 26.74	-11 9.5	2.239	3.067	12.2	21.0
478841	2012 <i>VH</i> ₄₅		9 2.2 189°83	3°9/ 28.8 18			391840	2008 <i>SK</i> ₁₉₇		9 2.2 221°45	2°0/ 31.2 18		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
404004	2012 BX ₁₄₈		9 2.2 229°61	0°9/ 1.1 18			391540	2007 RT ₃₂₄		9 2.2 166°32	2°2/31.3 18		
7 30	23 4.59	- 7 2.2	2.338	3.204	11.1	21.4	7 30	23 12.39	-13 0.9	2.034	2.905	12.3	21.1
8 9	23 0.58	- 8 3.0	2.263	3.201	8.2	21.2	8 9	23 6.47	-13 25.5	1.966	2.908	9.0	20.9
8 19	22 55.07	- 9 13.5	2.212	3.199	4.8	21.0	8 19	22 58.68	-13 54.1	1.923	2.910	5.4	20.7
8 29	22 48.57	-10 29.0	2.188	3.196	1.4	20.7	8 29	22 49.68	-14 22.1	1.907	2.912	2.4	20.5
9 8	22 41.73	-11 43.8	2.193	3.193	2.7	20.8	9 8	22 40.35	-14 44.4	1.918	2.913	3.8	20.6
9 18	22 35.27	-12 52.2	2.227	3.190	6.2	21.0	9 18	22 31.61	-14 57.3	1.958	2.915	7.4	20.8
9 28	22 29.87	-13 49.5	2.288	3.187	9.4	21.2	9 28	22 24.33	-14 58.3	2.024	2.916	10.8	21.0
10 8	22 26.07	-14 32.9	2.372	3.184	12.2	21.4	10 8	22 19.10	-14 46.7	2.112	2.916	13.7	21.2
341125	2007 MC		9 2.2 35°76	6°0/28.7 16			167007	2003 PZ ₁₁		9 2.2 32°06	0°0/ 2.3 17		
7 30	23 9.85	-18 56.1	1.286	2.191	15.8	20.0	7 30	23 8.97	- 4 18.6	1.251	2.134	17.6	20.1
8 9	23 5.26	-20 2.6	1.251	2.206	11.7	19.8	8 9	23 4.84	- 4 57.1	1.192	2.137	13.2	19.8
8 19	22 58.13	-21 8.4	1.236	2.223	7.9	19.7	8 19	22 58.09	- 5 54.0	1.153	2.140	8.1	19.5
8 29	22 49.47	-22 3.7	1.245	2.240	6.0	19.6	8 29	22 49.56	- 7 2.9	1.136	2.144	2.5	19.2
9 8	22 40.60	-22 39.9	1.278	2.258	8.0	19.8	9 8	22 40.50	- 8 14.8	1.144	2.148	3.3	19.3
9 18	22 32.82	-22 52.4	1.335	2.277	11.5	20.0	9 18	22 32.28	- 9 20.3	1.177	2.152	8.7	19.6
9 28	22 27.20	-22 40.6	1.413	2.296	15.1	20.3	9 28	22 26.11	-10 11.7	1.232	2.156	13.7	19.9
10 8	22 24.32	-22 6.8	1.509	2.316	18.2	20.6	10 8	22 22.75	-10 44.4	1.307	2.161	17.8	20.2
71440	2000 AL ₂₂₅		9 2.2 119°81	0°6/ 2.9 18			102389	1999 TM ₁₅₅		9 2.2 23°83	7°4/28.5 18		
7 30	23 7.07	- 4 4.8	2.540	3.388	10.9	19.5	7 30	23 10.21	-20 5.2	1.051	1.965	17.7	18.3
8 9	23 2.19	- 4 21.8	2.470	3.396	8.2	19.3	8 9	23 6.08	-21 14.0	1.013	1.973	13.3	18.1
8 19	22 55.94	- 4 47.7	2.424	3.404	5.1	19.1	8 19	22 58.89	-22 21.4	0.995	1.982	9.2	17.9
8 29	22 48.80	- 5 19.7	2.406	3.412	1.8	18.9	8 29	22 49.76	-23 15.2	0.998	1.991	7.4	17.8
9 8	22 41.43	- 5 54.4	2.417	3.420	1.8	18.9	9 8	22 40.31	-23 45.3	1.023	2.002	9.5	18.0
9 18	22 34.47	- 6 27.9	2.456	3.427	5.1	19.2	9 18	22 32.12	-23 46.6	1.069	2.014	13.4	18.2
9 28	22 28.57	- 6 56.8	2.523	3.435	8.1	19.4	9 28	22 26.47	-23 19.1	1.136	2.026	17.4	18.5
10 8	22 24.18	- 7 18.3	2.615	3.442	10.7	19.5	10 8	22 24.05	-22 26.8	1.219	2.040	20.8	18.8
138300	2000 GX ₄₈		9 2.2 52°33	2°8/31.0 16			79985	1999 ED ₄		9 2.2 325°08	0°0/ 1.9 18		
7 30	23 12.35	-13 41.7	1.586	2.471	14.4	20.3	7 30	23 10.22	- 7 48.1	1.629	2.504	14.6	18.2
8 9	23 6.56	-14 12.8	1.549	2.496	10.5	20.1	8 9	23 5.43	- 7 43.8	1.549	2.491	11.0	17.9
8 19	22 58.68	-14 47.6	1.533	2.522	6.3	19.9	8 19	22 58.34	- 7 48.5	1.490	2.477	6.7	17.6
8 29	22 49.60	-15 19.9	1.543	2.547	3.0	19.8	8 29	22 49.64	- 7 58.7	1.457	2.464	2.0	17.3
9 8	22 40.42	-15 43.7	1.579	2.573	4.6	19.9	9 8	22 40.34	- 8 10.0	1.449	2.452	2.9	17.3
9 18	22 32.21	-15 55.0	1.642	2.600	8.4	20.2	9 18	22 31.58	- 8 17.8	1.467	2.440	7.6	17.6
9 28	22 25.86	-15 51.9	1.729	2.626	12.0	20.5	9 28	22 24.45	- 8 18.3	1.510	2.429	12.0	17.8
10 8	22 21.90	-15 34.3	1.837	2.652	15.0	20.8	10 8	22 19.73	- 8 8.7	1.575	2.418	15.8	18.1
364128	2006 BT ₁₈₂		9 2.2 241°92	2°0/31.5 17			339111	2004 RC ₂₂₁		9 2.2 16°24	1°3/ 2.8 18		
7 30	23 9.26	- 7 49.3	1.358	2.245	16.3	21.3	7 30	23 16.17	- 8 8.4	1.107	1.996	19.0	18.6
8 9	23 5.03	- 9 2.8	1.291	2.240	12.0	21.0	8 9	23 10.31	- 7 5.7	1.056	2.003	14.3	18.3
8 19	22 58.22	-10 32.5	1.244	2.235	7.1	20.7	8 19	23 1.39	- 6 11.6	1.024	2.011	8.9	18.1
8 29	22 49.60	-12 10.0	1.222	2.230	2.5	20.4	8 29	22 50.52	- 5 24.8	1.014	2.021	3.2	17.8
9 8	22 40.33	-13 44.2	1.226	2.224	4.7	20.6	9 8	22 39.27	- 4 43.2	1.029	2.033	3.4	17.8
9 18	22 31.75	-15 4.9	1.254	2.218	9.7	20.9	9 18	22 29.22	- 4 4.6	1.068	2.046	8.9	18.2
9 28	22 25.09	-16 4.6	1.306	2.213	14.4	21.1	9 28	22 21.74	- 3 26.4	1.129	2.060	13.9	18.5
10 8	22 21.18	-16 40.0	1.377	2.207	18.4	21.4	10 8	22 17.56	- 2 45.9	1.209	2.075	18.1	18.8
169820	2002 QO ₅₇		9 2.2 355°13	1°4/ 3.3 18			27263	Elainezhou		9 2.2 136°26	0°6/ 1.7 18		
7 30	23 8.97	- 2 53.5	1.718	2.578	14.7	20.5	7 30	23 13.88	- 8 10.1	1.596	2.467	15.1	18.7
8 9	23 4.26	- 2 58.5	1.646	2.577	11.2	20.2	8 9	23 7.98	- 8 24.5	1.532	2.472	11.2	18.5
8 19	22 57.49	- 3 17.1	1.596	2.576	7.1	20.0	8 19	22 59.77	- 8 48.6	1.490	2.477	6.7	18.2
8 29	22 49.33	- 3 46.2	1.571	2.576	2.9	19.7	8 29	22 50.03	- 9 17.6	1.474	2.481	2.0	17.9
9 8	22 40.72	- 4 21.3	1.572	2.575	2.6	19.7	9 8	22 39.88	- 9 45.7	1.484	2.486	3.1	18.0
9 18	22 32.69	- 4 56.8	1.600	2.575	6.8	20.0	9 18	22 30.49	-10 7.7	1.520	2.490	7.8	18.3
9 28	22 26.19	- 5 27.5	1.653	2.575	10.9	20.2	9 28	22 22.92	-10 19.6	1.582	2.493	12.1	18.6
10 8	22 21.91	- 5 49.1	1.728	2.576	14.4	20.5	10 8	22 17.87	-10 19.0	1.665	2.497	15.6	18.8
40708	1999 RR ₂₄₂		9 2.2 16°03	5°7/29.6 18			293505	2007 GR ₁₃		9 2.2 165°72	0°2/ 2.5 18		
7 30	23 9.86	-17 4.4	1.061	1.974	17.7	17.0	7 30	23 5.60	- 4 22.8	2.518	3.370	10.9	21.2
8 9	23 5.83	-17 58.6	1.017	1.978	13.1	16.8	8 9	23 1.19	- 5 0.6	2.443	3.372	8.1	21.0
8 19	22 58.77	-18 55.8	0.992	1.982	8.5	16.6	8 19	22 55.40	- 5 48.1	2.392	3.374	5.0	20.9
8 29	22 49.74	-19 45.1	0.988	1.988	5.7	16.4	8 29	22 48.69	- 6 42.0	2.369	3.376	1.6	20.6
9 8	22 40.29	-20 16.4	1.007	1.995	8.0	16.6	9 8	22 41.70	- 7 37.8	2.375	3.378	1.9	20.7
9 18	22 31.99	-20 23.8	1.047	2.003	12.4	16.8	9 18	22 35.09	- 8 31.0	2.409	3.379	5.3	20.9
9 28	22 26.18	-20 5.4	1.108	2.011	16.7	17.1	9 28	22 29.49	- 9 17.5	2.472	3.380	8.4	21.1
10 8	22 23.57	-19 23.8	1.187	2.021	20.5	17.4	10 8	22 25.39	- 9 54.1	2.558	3.381	11.0	21.3
297096	2010 MC ₄₁		9 2.2 8°36	0°4/ 2.5 17			388738	2007 VK ₂₈₁		9 2.2 87°05	1°2/ 3.3 18		
7 30	23 4.54	- 4 58.0	0.907	1.816	20.3	20.1	7 30	23 8.02	- 2 17.7	1.908	2.762	13.7	21.1
8 9	23 2.17	- 5 13.2	0.859	1.817	15.2	19.8	8 9	23 3.35	- 2 38.3	1.839	2.767	10.4	20.9
8 19	22 56.71	- 5 48.9	0.827	1.819	9.4	19.5	8 19	22 56.85	- 3 12.3	1.792	2.771	6.6	20.7
8 29	22 49.16	- 6 38.9	0.815	1.823	3.0	19.2	8 29	22 49.14	- 3 56.5	1.771	2.776	2.6	20.4
9 8	22 41.05	- 7 33.2	0.825	1.829	3.6	19.2	9 8	22 41.08	- 4 45.8	1.777	2.780	2.3	20.4
9 18	22 33.98	- 8 21.6	0.855	1.836	9.9	19.6	9 18	22 33.56	- 5 34.6	1.810	2.785	6.3	20.7
9 28	22 29.38	- 8 55.4	0.905	1.845	15.4	20.0	9 28	22 27.42	- 6 17.6	1.870	2.789	10.0	20.9
10 8	22 28.04	- 9 9.9	0.973	1.856	20.0	20.3	10 8	22 23.26	- 6 50.7	1.952	2.793	13.3	21.2
148066	1998 VL ₁₇		9 2.2 335°73	3°1/31.1 18			350978	2003 FZ ₃₆		9 2.2 259°93	1°3/30.7 16		
7 30	23 6.84	-12 5.2	1.132	2.040	17.2	1							

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
18248	3152 T_{-2}		9 2.2 163°13	3°3/30.8	18		179582	2002 JJ_2		9 2.2 122°19	9°8/18.9	18	
7 30	23 14.63	-13 47.8	1.498	2.382	15.2	19.4	7 30	23 13.25	-42 33.9	2.592	3.427	11.1	20.4
8 9	23 8.72	-14 29.0	1.437	2.385	11.2	19.2	8 9	23 7.13	-44 7.2	2.573	3.440	10.2	20.4
8 19	23 0.29	-15 15.8	1.399	2.387	6.8	18.9	8 19	22 59.07	-45 24.6	2.578	3.452	9.8	20.4
8 29	22 50.20	-16 0.6	1.385	2.389	3.5	18.7	8 29	22 49.81	-46 19.5	2.606	3.465	10.1	20.4
9 8	22 39.66	-16 36.1	1.398	2.391	5.3	18.9	9 8	22 40.32	-46 48.1	2.657	3.477	11.1	20.5
9 18	22 29.96	-16 56.5	1.437	2.392	9.6	19.1	9 18	22 31.56	-46 49.5	2.730	3.488	12.3	20.6
9 28	22 22.25	-16 58.9	1.499	2.394	13.7	19.4	9 28	22 24.40	-46 25.4	2.822	3.500	13.5	20.8
10 8	22 17.26	-16 43.3	1.581	2.394	17.2	19.6	10 8	22 19.41	-45 39.5	2.930	3.511	14.6	20.9
307117	2002 CS_{89}		9 2.2 200°03	0°6/1.6	18		509553	2008 BG_{24}		9 2.2 158°16	9°6/11.4	17	
7 30	23 10.86	- 7 41.8	1.967	2.831	13.0	21.6	7 30	23 16.37	+20 19.8	2.130	2.838	17.0	21.8
8 9	23 5.47	- 8 9.6	1.892	2.829	9.6	21.4	8 9	23 9.61	+21 25.9	2.052	2.846	15.0	21.7
8 19	22 58.15	- 8 46.6	1.840	2.826	5.8	21.1	8 19	23 0.74	+22 8.5	1.993	2.854	12.8	21.5
8 29	22 49.55	- 9 28.5	1.815	2.823	1.7	20.9	8 29	22 50.38	+22 23.9	1.955	2.861	10.8	21.4
9 8	22 40.52	-10 9.9	1.818	2.819	2.8	20.9	9 8	22 39.46	+22 11.5	1.943	2.868	9.7	21.4
9 18	22 32.01	-10 45.8	1.849	2.815	6.9	21.2	9 18	22 29.01	+21 33.7	1.956	2.873	9.9	21.4
9 28	22 24.91	-11 12.0	1.905	2.811	10.6	21.4	9 28	22 20.03	+20 36.4	1.994	2.878	11.3	21.5
10 8	22 19.86	-11 26.0	1.985	2.806	13.9	21.6	10 8	22 13.25	+19 27.9	2.056	2.881	13.3	21.6
121372	1999 TD_{79}		9 2.2 45°87	0°0/1.9	18		392313	2010 DT_{64}		9 2.2 103°92	5°8/27.5	17	
7 30	23 6.09	- 5 15.3	2.017	2.881	12.7	20.1	7 30	23 11.41	-22 45.8	1.996	2.879	12.0	21.1
8 9	23 1.83	- 5 50.4	1.951	2.887	9.4	19.9	8 9	23 5.77	-23 53.6	1.952	2.893	9.1	21.0
8 19	22 55.89	- 6 36.5	1.908	2.893	5.7	19.7	8 19	22 58.25	-24 58.0	1.932	2.906	6.7	20.8
8 29	22 48.85	- 7 29.3	1.891	2.899	1.7	19.4	8 29	22 49.57	-25 51.6	1.939	2.919	5.8	20.8
9 8	22 41.51	- 8 23.4	1.902	2.905	2.4	19.5	9 8	22 40.68	-26 28.4	1.972	2.932	7.3	20.9
9 18	22 34.68	- 9 13.5	1.941	2.911	6.3	19.7	9 18	22 32.51	-26 45.2	2.032	2.945	9.8	21.1
9 28	22 29.12	- 9 54.8	2.005	2.918	9.8	20.0	9 28	22 25.91	-26 41.1	2.115	2.958	12.4	21.3
10 8	22 25.40	-10 24.1	2.093	2.925	12.8	20.2	10 8	22 21.43	-26 17.9	2.218	2.970	14.7	21.5
366339	2013 FN_{12}		9 2.2 37°60	0°0/2.0	18		257967	2001 CZ_{10}		9 2.2 246°78	0°2/2.7	18	
7 30	23 3.76	- 2 51.3	2.015	2.875	12.8	20.3	7 30	23 0.76	- 5 38.1	4.874	5.716	6.2	20.6
8 9	23 0.15	- 4 3.6	1.946	2.880	9.6	20.1	8 9	22 57.09	- 5 49.6	4.782	5.706	4.6	20.5
8 19	22 54.90	- 5 30.8	1.901	2.884	5.8	19.9	8 19	22 52.72	- 6 5.3	4.717	5.696	2.8	20.3
8 29	22 48.57	- 7 7.3	1.882	2.889	1.7	19.6	8 29	22 47.90	- 6 23.7	4.680	5.686	0.9	20.2
9 8	22 41.91	- 8 45.8	1.892	2.895	2.4	19.7	9 8	22 42.93	- 6 43.2	4.673	5.676	1.1	20.2
9 18	22 35.71	-10 18.9	1.930	2.900	6.4	19.9	9 18	22 38.11	- 7 2.1	4.697	5.666	3.0	20.3
9 28	22 30.73	-11 40.1	1.995	2.905	10.0	20.2	9 28	22 33.75	- 7 18.8	4.750	5.656	4.7	20.5
10 8	22 27.52	-12 45.1	2.083	2.911	13.0	20.4	10 8	22 30.13	- 7 31.7	4.829	5.646	6.3	20.6
81784	2000 JK_{75}		9 2.2 300°40	1°3/3.4	18		431814	2008 RL_{46}		9 2.2 82°32	2°7/31.1	16	
7 30	23 6.49	- 1 51.2	1.855	2.712	13.9	19.2	7 30	23 13.88	-13 22.2	1.641	2.521	14.3	20.9
8 9	23 2.39	- 2 15.9	1.774	2.703	10.6	19.0	8 9	23 7.77	-13 54.9	1.593	2.539	10.4	20.7
8 19	22 56.39	- 2 55.5	1.714	2.694	6.8	18.7	8 19	22 59.51	-14 31.9	1.569	2.557	6.3	20.5
8 29	22 49.05	- 3 47.0	1.680	2.685	2.7	18.5	8 29	22 49.95	-15 6.9	1.570	2.575	2.9	20.3
9 8	22 41.22	- 4 44.8	1.673	2.676	2.4	18.4	9 8	22 40.20	-15 33.9	1.599	2.593	4.6	20.5
9 18	22 33.84	- 5 43.0	1.692	2.668	6.5	18.7	9 18	22 31.35	-15 48.6	1.654	2.611	8.4	20.8
9 28	22 27.79	- 6 35.2	1.738	2.659	10.5	18.9	9 28	22 24.34	-15 48.5	1.733	2.628	12.1	21.0
10 8	22 23.77	- 7 16.8	1.806	2.651	14.0	19.1	10 8	22 19.75	-15 33.7	1.834	2.646	15.2	21.3
433793	2015 BW_{88}		9 2.2 94°60	2°0/3.7	17		400920	2010 TA_{166}		9 2.2 286°74	2°8/30.2	18	
7 30	23 12.04	- 1 38.0	1.527	2.385	16.4	21.2	7 30	23 7.00	-13 57.9	2.161	3.041	11.3	21.0
8 9	23 6.68	- 1 41.7	1.465	2.393	12.5	21.0	8 9	23 2.58	-14 46.4	2.082	3.028	8.3	20.8
8 19	22 59.02	- 2 1.4	1.423	2.402	8.1	20.7	8 19	22 56.42	-15 39.9	2.027	3.014	5.1	20.6
8 29	22 49.83	- 2 34.1	1.406	2.410	3.5	20.5	8 29	22 49.07	-16 32.8	1.998	3.001	2.8	20.4
9 8	22 40.23	- 3 14.4	1.415	2.418	2.9	20.5	9 8	22 41.30	-17 19.5	1.998	2.987	4.4	20.5
9 18	22 31.38	- 3 56.0	1.450	2.426	7.3	20.8	9 18	22 33.92	-17 55.2	2.024	2.974	7.7	20.6
9 28	22 24.35	- 4 32.7	1.510	2.433	11.6	21.0	9 28	22 27.75	-18 16.3	2.076	2.961	10.9	20.8
10 8	22 19.83	- 4 59.7	1.591	2.441	15.3	21.3	10 8	22 23.41	-18 21.7	2.150	2.947	13.7	21.0
272590	2005 VZ_{71}		9 2.2 114°67	7°3/24.3	18		318557	2005 GP_{87}		9 2.2 33°88	0°7/1.7	17	
7 30	23 10.86	-31 34.0	2.485	3.353	10.5	20.5	7 30	23 6.65	- 5 25.7	1.057	1.956	18.9	20.2
8 9	23 5.15	-32 46.4	2.449	3.366	8.6	20.4	8 9	23 3.26	- 6 19.8	1.017	1.971	13.9	20.0
8 19	22 57.78	-33 49.7	2.437	3.379	7.4	20.3	8 19	22 57.14	- 7 32.3	0.996	1.987	8.3	19.8
8 29	22 49.41	-34 37.8	2.452	3.391	7.4	20.3	8 29	22 49.30	- 8 54.2	0.996	2.005	2.3	19.5
9 8	22 40.84	-35 6.1	2.493	3.403	8.5	20.4	9 8	22 41.14	-10 14.1	1.020	2.023	3.9	19.6
9 18	22 32.91	-35 12.7	2.559	3.415	10.2	20.6	9 18	22 34.06	-11 21.9	1.067	2.042	9.4	20.0
9 28	22 26.37	-34 57.9	2.647	3.426	12.0	20.7	9 28	22 29.24	-12 10.1	1.135	2.062	14.3	20.4
10 8	22 21.71	-34 24.1	2.755	3.438	13.6	20.9	10 8	22 27.31	-12 35.8	1.223	2.082	18.4	20.7
175455	2006 QG_{84}		9 2.2 77°97	0°8/1.5	18		485457	2011 RX_3		9 2.2 303°72	2°8/30.1	18	
7 30	23 7.42	- 7 10.2	1.893	2.764	13.1	20.4	7 30	23 4.71	-10 26.4	1.803	2.688	13.0	20.8
8 9	23 2.94	- 7 53.1	1.827	2.767	9.7	20.2	8 9	23 1.19	-11 56.9	1.727	2.677	9.5	20.6
8 19	22 56.62	- 8 46.4	1.783	2.771	5.8	19.9	8 19	22 55.73	-13 39.0	1.676	2.666	5.7	20.3
8 29	22 49.10	- 9 45.1	1.766	2.774	1.7	19.7	8 29	22 48.90	-15 24.8	1.651	2.655	2.9	20.1
9 8	22 41.22	-10 43.1	1.776	2.777	2.9	19.8	9 8	22 41.56	-17 5.3	1.653	2.644	4.9	20.2
9 18	22 33.89	-11 34.3	1.813	2.780	7.0	20.0	9 18	22 34.66	-18 32.0	1.682	2.634	8.8	20.4
9 28	22 27.94	-12 14.2	1.876	2.784	10.7	20.3	9 28	22 29.12	-19 38.9	1.736	2.624	12.5	20.6
10 8	22 23.98	-12 39.7	1.961	2.787	13.8	20.5	10 8	22 25.64	-20 23.1	1.810	2.614	15.7	20.8
137668	1999 XK_{28}		9 2.2 301°41	2°9/31.0	18		273800	2007 FH_{22}		9 2.2 54°70	2°6/4.8	17	
7 30	23 8.70	-11 1.1	1.349										

EPHEMERIDES

9 2.2

9 2.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
488067	2015 <i>US</i> ₇₅		9 2.2 275°60	7°5/10.8	17		315142	2007 <i>EJ</i> ₁₅₄		9 2.2 87°36	0°8/ 3.1	18	
7 30	23 6.61	+17 32.2	2.470	3.204	14.3	21.4	7 30	23 7.37	- 3 28.1	2.344	3.193	11.7	21.2
8 9	23 2.25	+18 4.6	2.368	3.187	12.5	21.2	8 9	23 2.54	- 3 45.9	2.279	3.205	8.8	21.0
8 19	22 56.25	+18 17.1	2.286	3.171	10.5	21.1	8 19	22 56.25	- 4 13.6	2.238	3.217	5.5	20.8
8 29	22 49.06	+18 7.6	2.226	3.154	8.6	20.9	8 29	22 49.04	- 4 48.3	2.224	3.230	2.0	20.6
9 8	22 41.36	+17 36.5	2.191	3.138	7.5	20.8	9 8	22 41.59	- 5 26.1	2.239	3.242	1.9	20.6
9 18	22 33.89	+16 46.2	2.182	3.121	7.9	20.8	9 18	22 34.61	- 6 3.0	2.282	3.254	5.3	20.9
9 28	22 27.43	+15 41.6	2.199	3.104	9.5	20.9	9 28	22 28.78	- 6 34.9	2.352	3.266	8.5	21.1
10 8	22 22.62	+14 29.3	2.241	3.087	11.6	21.0	10 8	22 24.57	- 6 59.0	2.446	3.278	11.2	21.3
452268	2015 <i>TU</i> ₁₄₅		9 2.2 8°15	2°6/31.0	18		175917	2000 <i>CX</i> ₆₇		9 2.2 117°83	0°0/ 2.0	17	
7 30	23 10.74	-14 39.8	2.041	2.918	12.0	20.6	7 30	23 11.08	- 4 58.3	1.681	2.545	14.8	20.7
8 9	23 5.28	-14 57.5	1.975	2.918	8.9	20.4	8 9	23 5.80	- 5 36.7	1.621	2.557	11.0	20.5
8 19	22 58.00	-15 17.6	1.932	2.919	5.4	20.2	8 19	22 58.43	- 6 28.3	1.584	2.568	6.7	20.2
8 29	22 49.55	-15 35.6	1.916	2.920	2.7	20.0	8 29	22 49.72	- 7 27.8	1.572	2.579	2.0	20.0
9 8	22 40.79	-15 47.0	1.928	2.921	4.1	20.1	9 8	22 40.67	- 8 28.5	1.587	2.590	2.7	20.1
9 18	22 32.61	-15 48.6	1.967	2.922	7.5	20.3	9 18	22 32.33	- 9 23.6	1.630	2.600	7.2	20.4
9 28	22 25.85	-15 38.2	2.032	2.924	10.7	20.5	9 28	22 25.64	-10 7.6	1.698	2.610	11.3	20.6
10 8	22 21.09	-15 15.6	2.119	2.925	13.6	20.7	10 8	22 21.23	-10 37.3	1.788	2.620	14.7	20.9
139077	2001 <i>FM</i> ₁₄		9 2.2 163°22	1°5/ 3.7	18		90874	1996 <i>TX</i> ₆₄		9 2.2 171°11	2°0/31.6	18	
7 30	23 10.40	- 0 0.1	1.897	2.738	14.3	20.6	7 30	23 15.93	-13 2.8	2.058	2.923	12.5	18.4
8 9	23 5.17	- 0 39.9	1.824	2.744	10.9	20.4	8 9	23 9.10	-13 17.4	1.989	2.926	9.2	18.2
8 19	22 58.01	- 1 36.3	1.775	2.750	7.0	20.2	8 19	23 0.32	-13 35.3	1.943	2.929	5.5	18.0
8 29	22 49.57	- 2 45.4	1.751	2.754	3.0	19.9	8 29	22 50.29	-13 52.3	1.926	2.931	2.3	17.8
9 8	22 40.74	- 4 1.3	1.755	2.758	2.4	19.9	9 8	22 39.92	-14 3.9	1.937	2.933	3.6	17.9
9 18	22 32.45	- 5 16.8	1.788	2.762	6.4	20.2	9 18	22 30.19	-14 6.7	1.977	2.934	7.3	18.1
9 28	22 25.60	- 6 25.5	1.847	2.764	10.3	20.4	9 28	22 21.98	-13 58.7	2.043	2.935	10.7	18.4
10 8	22 20.82	- 7 22.1	1.930	2.766	13.6	20.6	10 8	22 15.91	-13 39.4	2.133	2.935	13.7	18.6
91855	1999 <i>UD</i> ₁₁		9 2.2 358°39	4°1/ 4.9	18		252096	2000 <i>UK</i> ₆₇		9 2.2 293°92	1°3/ 1.4	18	
7 30	23 13.96	+ 1 8.2	1.863	2.694	14.9	18.6	7 30	23 11.76	- 9 1.6	1.328	2.214	16.6	20.8
8 9	23 7.90	+ 2 6.3	1.785	2.693	11.8	18.4	8 9	23 7.12	- 9 23.7	1.252	2.200	12.4	20.5
8 19	22 59.74	+ 2 52.2	1.729	2.691	8.3	18.2	8 19	22 59.68	- 9 57.5	1.196	2.186	7.5	20.2
8 29	22 50.13	+ 3 25.4	1.699	2.691	5.1	18.0	8 29	22 50.21	-10 37.4	1.164	2.171	2.3	19.9
9 8	22 40.02	+ 3 46.7	1.696	2.690	4.3	18.0	9 8	22 39.94	-11 15.7	1.156	2.157	4.0	20.0
9 18	22 30.44	+ 3 58.2	1.721	2.691	7.0	18.1	9 18	22 30.30	-11 45.3	1.173	2.144	9.4	20.2
9 28	22 22.39	+ 4 3.5	1.771	2.692	10.4	18.4	9 28	22 22.67	-12 0.5	1.213	2.130	14.4	20.5
10 8	22 16.58	+ 4 6.9	1.846	2.693	13.6	18.6	10 8	22 17.98	-11 58.6	1.272	2.117	18.7	20.7
159250	2005 <i>YT</i> ₁₀₈		9 2.2 184°39	0°1/ 2.1	18		172847	2005 <i>EC</i> ₁₅		9 2.2 173°23	0°4/ 1.9	17	
7 30	23 6.25	- 6 2.8	2.668	3.521	10.3	21.4	7 30	23 10.67	- 5 27.7	1.591	2.460	15.2	20.5
8 9	23 1.64	- 6 35.2	2.590	3.521	7.6	21.2	8 9	23 5.73	- 6 15.4	1.523	2.462	11.3	20.3
8 19	22 55.69	- 7 15.7	2.538	3.521	4.6	21.1	8 19	22 58.52	- 7 17.7	1.478	2.464	6.8	20.0
8 29	22 48.86	- 8 0.9	2.513	3.520	1.4	20.8	8 29	22 49.79	- 8 28.6	1.457	2.465	2.0	19.7
9 8	22 41.75	- 8 47.0	2.517	3.520	2.0	20.9	9 8	22 40.57	- 9 40.4	1.463	2.466	3.1	19.8
9 18	22 35.00	- 9 30.0	2.551	3.518	5.2	21.1	9 18	22 32.00	-10 45.3	1.496	2.466	7.9	20.1
9 28	22 29.20	-10 6.2	2.612	3.517	8.1	21.3	9 28	22 25.13	-11 36.9	1.554	2.466	12.2	20.3
10 8	22 24.84	-10 33.2	2.698	3.515	10.7	21.5	10 8	22 20.68	-12 11.5	1.633	2.465	15.8	20.6
24528	2001 <i>CP</i> ₁₁		9 2.2 270°05	2°4/28.3	17		402051	2003 <i>SW</i> ₃₁₄		9 2.2 318°44	1°6/ 3.7	17	
7 30	23 0.05	-18 53.2	4.467	5.341	6.0	19.1	7 30	23 5.87	- 1 47.8	2.025	2.878	13.1	21.5
8 9	22 56.69	-19 40.0	4.393	5.334	4.5	18.9	8 9	23 1.86	- 1 56.6	1.937	2.864	10.0	21.3
8 19	22 52.55	-20 27.0	4.346	5.326	3.0	18.8	8 19	22 56.08	- 2 18.3	1.872	2.849	6.5	21.0
8 29	22 47.90	-21 11.6	4.328	5.318	2.4	18.8	8 29	22 49.05	- 2 50.8	1.831	2.835	2.8	20.8
9 8	22 43.08	-21 51.0	4.339	5.310	3.2	18.8	9 8	22 41.54	- 3 29.9	1.818	2.821	2.4	20.7
9 18	22 38.43	-22 23.2	4.379	5.302	4.7	18.9	9 18	22 34.38	- 4 10.8	1.832	2.807	6.1	20.9
9 28	22 34.32	-22 46.7	4.446	5.294	6.3	19.0	9 28	22 28.44	- 4 48.5	1.872	2.794	9.8	21.1
10 8	22 31.05	-23 0.7	4.537	5.286	7.7	19.2	10 8	22 24.34	- 5 18.5	1.935	2.782	13.1	21.3
55592	2002 <i>PY</i> ₁₂₈		9 2.2 322°23	6°9/26.7	18 R		329748	2004 <i>BM</i> ₁₁₆		9 2.2 149°32	4°8/28.9	18	
7 30	23 5.20	-19 54.9	1.448	2.354	14.2	17.7	7 30	23 11.08	-16 19.6	1.621	2.510	13.9	20.5
8 9	23 2.19	-21 30.1	1.373	2.328	10.9	17.4	8 9	23 6.00	-17 41.6	1.566	2.515	10.3	20.3
8 19	22 56.67	-23 10.0	1.319	2.303	7.9	17.2	8 19	22 58.66	-19 7.7	1.533	2.519	6.7	20.1
8 29	22 49.28	-24 43.6	1.290	2.278	7.0	17.1	8 29	22 49.82	-20 28.8	1.527	2.523	4.8	20.0
9 8	22 41.11	-25 59.5	1.285	2.254	9.3	17.1	9 8	22 40.57	-21 35.8	1.546	2.527	6.7	20.2
9 18	22 33.44	-26 49.1	1.302	2.230	13.0	17.3	9 18	22 32.05	-22 22.4	1.592	2.530	10.3	20.4
9 28	22 27.54	-27 8.0	1.341	2.208	16.8	17.5	9 28	22 25.30	-22 45.6	1.660	2.533	13.8	20.6
10 8	22 24.33	-26 56.6	1.397	2.186	20.2	17.6	10 8	22 21.00	-22 45.8	1.749	2.536	16.8	20.8
221465	Rapa Nui		9 2.2 323°31	1°9/ 3.6	17		337310	2000 <i>YN</i> ₁₂₇		9 2.2 231°95	4°1/ 5.9	18	
7 30	23 11.73	- 3 35.5	1.950	2.801	13.6	19.6	7 30	23 11.71	+ 5 13.7	2.248	3.054	13.5	21.0
8 9	23 6.26	- 3 4.8	1.862	2.787	10.5	19.3	8 9	23 6.07	+ 5 32.5	2.152	3.041	10.9	20.8
8 19	22 58.77	- 2 43.2	1.797	2.774	6.8	19.1	8 19	22 58.60	+ 5 36.4	2.078	3.029	8.0	20.6
8 29	22 49.85	- 2 29.6	1.758	2.761	3.1	18.8	8 29	22 49.82	+ 5 25.4	2.030	3.015	5.2	20.4
9 8	22 40.39	- 2 21.7	1.746	2.748	2.7	18.8	9 8	22 40.50	+ 5 1.4	2.010	3.001	4.2	20.3
9 18	22 31.36	- 2 16.9	1.762	2.736	6.4	19.0	9 18	22 31.49	+ 4 28.0	2.018	2.987	6.2	20.4
9 28	22 23.70	- 2 11.8	1.805	2.725	10.3	19.2	9 28	22 23.65	+ 3 49.8	2.054	2.972	9.3	20.5
10 8	22 18.14	- 2 3.3	1.871	2.714	13.7	19.4	10 8	22 17.65	+ 3 12.1	2.114	2.956	12.3	20.7
36570	2000 <i>QC</i> ₁₂₁		9 2.2 245°18	2°8/ 4.5	18 R		195314	2002 <i>EU</i> ₁₁₂		9 2.2 244°67	1°6/31.9		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
476851	2008 <i>UN</i> ₃₂₆	9 2.2 348°95	4°3/31.1	18			169502	2002 <i>CS</i> ₂₂₂	9 2.2 80°96	1°4/ 3.3	17		
7 30	23 13.25	-17 26.1	1.172	2.075	17.1	19.6	7 30	23 10.96	-1 33.1	1.339	2.206	17.6	20.2
8 9	23 8.39	-17 23.2	1.109	2.065	12.8	19.4	8 9	23 6.13	-2 3.6	1.284	2.219	13.4	19.9
8 19	23 0.46	-17 19.8	1.066	2.056	8.1	19.1	8 19	22 58.83	-2 53.5	1.250	2.232	8.4	19.7
8 29	22 50.42	-17 9.0	1.045	2.049	4.5	18.8	8 29	22 49.92	-3 57.7	1.239	2.245	3.3	19.4
9 8	22 39.77	-16 44.7	1.048	2.043	6.3	18.9	9 8	22 40.62	-5 8.0	1.253	2.257	2.9	19.5
9 18	22 30.10	-16 3.9	1.074	2.038	11.0	19.2	9 18	22 32.19	-6 15.8	1.293	2.270	7.9	19.8
9 28	22 22.84	-15 6.2	1.122	2.035	15.7	19.5	9 28	22 25.76	-7 13.1	1.357	2.283	12.5	20.1
10 8	22 18.84	-13 53.9	1.189	2.034	19.7	19.7	10 8	22 22.02	-7 55.0	1.442	2.295	16.4	20.4
508389	2016 <i>GM</i> ₃	9 2.2 61°12	4°8/29.8	17			288205	2003 <i>YS</i> ₁₃	9 2.3 267°79	4°5/ 5.9	18		
7 30	23 11.96	-14 14.1	1.153	2.056	17.4	20.5	7 30	23 11.23	+ 4 48.4	2.001	2.817	14.6	20.5
8 9	23 7.09	-15 31.7	1.116	2.072	12.7	20.3	8 9	23 5.93	+ 5 19.2	1.910	2.805	11.8	20.3
8 19	22 59.44	-16 55.3	1.099	2.089	7.9	20.1	8 19	22 58.63	+ 5 34.4	1.840	2.793	8.6	20.0
8 29	22 50.05	-18 13.5	1.105	2.107	4.8	19.9	8 29	22 49.90	+ 5 33.8	1.795	2.780	5.6	19.8
9 8	22 40.41	-19 15.5	1.135	2.125	7.0	20.1	9 8	22 40.57	+ 5 19.0	1.776	2.768	4.6	19.8
9 18	22 31.93	-19 54.2	1.189	2.142	11.4	20.4	9 18	22 31.59	+ 4 53.5	1.785	2.755	6.8	19.9
9 28	22 25.83	-20 6.8	1.264	2.160	15.6	20.7	9 28	22 23.93	+ 4 22.1	1.820	2.742	10.1	20.0
10 8	22 22.73	-19 55.0	1.357	2.178	19.1	21.0	10 8	22 18.29	+ 3 50.6	1.879	2.729	13.3	20.2
96046	2004 <i>PW</i> ₉₉	9 2.2 354°09	0°7/ 1.6	18			236561	2006 <i>HZ</i> ₇₄	9 2.3 25°37	10°1/24.7	18		
7 30	22 59.47	- 2 21.2	1.168	2.063	17.8	19.1	7 30	23 10.34	-29 12.4	1.403	2.301	15.2	18.8
8 9	22 58.03	- 3 59.3	1.104	2.056	13.3	18.9	8 9	23 5.82	-30 47.6	1.369	2.308	12.3	18.6
8 19	22 54.14	- 6 4.9	1.060	2.051	8.0	18.5	8 19	22 58.66	-32 11.6	1.357	2.316	10.4	18.6
8 29	22 48.54	- 8 28.3	1.038	2.047	2.2	18.2	8 29	22 49.86	-33 13.0	1.367	2.325	10.3	18.6
9 8	22 42.34	-10 55.2	1.041	2.044	3.9	18.3	9 8	22 40.76	-33 43.9	1.400	2.335	11.9	18.7
9 18	22 36.79	-13 10.1	1.069	2.043	9.6	18.6	9 18	22 32.72	-33 41.4	1.455	2.345	14.5	18.9
9 28	22 33.10	-15 0.6	1.118	2.043	14.7	18.9	9 28	22 26.87	-33 7.2	1.529	2.356	17.2	19.1
10 8	22 32.05	-16 20.1	1.187	2.044	19.0	19.2	10 8	22 23.83	-32 6.5	1.620	2.368	19.5	19.3
129227	2005 <i>OY</i> ₂₀	9 2.2 24°20	0°2/ 2.1	18			71449	2000 <i>AJ</i> ₂₄₂	9 2.3 206°12	1°7/ 4.7	18		
7 30	23 10.19	- 6 22.8	1.346	2.228	16.7	20.1	7 30	23 4.54	+ 1 50.5	2.949	3.770	10.3	19.8
8 9	23 5.65	- 6 43.4	1.286	2.231	12.4	19.8	8 9	23 0.34	+ 1 13.6	2.859	3.765	7.9	19.6
8 19	22 58.59	- 7 17.7	1.246	2.234	7.6	19.6	8 19	22 54.94	+ 0 24.6	2.793	3.760	5.3	19.4
8 29	22 49.84	- 8 0.5	1.230	2.238	2.2	19.3	8 29	22 48.72	- 0 34.5	2.755	3.754	2.6	19.3
9 8	22 40.63	- 8 44.4	1.239	2.242	3.2	19.3	9 8	22 42.22	- 1 39.8	2.747	3.748	2.0	19.2
9 18	22 32.22	- 9 22.5	1.273	2.247	8.4	19.7	9 18	22 35.99	- 2 47.4	2.768	3.742	4.4	19.4
9 28	22 25.77	- 9 48.9	1.330	2.252	13.0	19.9	9 28	22 30.57	- 3 52.6	2.818	3.735	7.1	19.5
10 8	22 22.04	-10 0.3	1.408	2.258	17.0	20.2	10 8	22 26.42	- 4 51.6	2.894	3.728	9.6	19.7
320174	2007 <i>GV</i> ₂₂	9 2.2 278°07	3°7/ 6.7	18			443306	2014 <i>FX</i> ₂₇	9 2.3 97°81	1°6/ 3.8	18		
7 30	23 4.69	+ 6 49.3	2.371	3.178	12.9	20.7	7 30	23 9.52	- 1 27.2	1.971	2.817	13.7	21.5
8 9	23 0.71	+ 6 35.4	2.286	3.176	10.4	20.6	8 9	23 4.42	- 1 39.5	1.906	2.829	10.4	21.3
8 19	22 55.26	+ 6 4.4	2.224	3.174	7.5	20.4	8 19	22 57.54	- 2 5.1	1.864	2.839	6.7	21.1
8 29	22 48.80	+ 5 17.8	2.186	3.171	4.8	20.2	8 29	22 49.51	- 2 41.0	1.847	2.850	2.9	20.9
9 8	22 42.00	+ 4 18.6	2.176	3.169	3.7	20.1	9 8	22 41.19	- 3 22.7	1.858	2.861	2.4	20.9
9 18	22 35.55	+ 3 11.8	2.194	3.167	5.5	20.3	9 18	22 33.43	- 4 5.1	1.897	2.872	6.0	21.2
9 28	22 30.13	+ 2 3.0	2.239	3.164	8.3	20.4	9 28	22 27.06	- 4 43.3	1.962	2.882	9.6	21.4
10 8	22 26.28	+ 0 57.8	2.309	3.162	11.1	20.6	10 8	22 22.63	- 5 13.4	2.051	2.892	12.7	21.6
515175	2011 <i>SD</i> ₁₂₀	9 2.2 16°88	1°6/ 3.5	18			158128	2001 <i>ES</i> ₂₆	9 2.3 108°60	1°2/ 3.7	18		
7 30	23 10.74	- 3 20.9	1.676	2.536	15.0	20.9	7 30	23 5.86	- 1 6.6	2.483	3.323	11.4	20.3
8 9	23 5.65	- 3 9.7	1.608	2.538	11.4	20.7	8 9	23 1.42	- 1 36.2	2.414	3.334	8.6	20.1
8 19	22 58.42	- 3 10.9	1.561	2.541	7.3	20.4	8 19	22 55.61	- 2 17.3	2.369	3.344	5.5	19.9
8 29	22 49.78	- 3 22.1	1.539	2.544	3.0	20.2	8 29	22 48.92	- 3 6.9	2.351	3.354	2.3	19.7
9 8	22 40.71	- 3 39.5	1.544	2.547	2.7	20.2	9 8	22 41.98	- 4 0.9	2.361	3.364	1.9	19.7
9 18	22 32.28	- 3 58.3	1.575	2.551	6.9	20.4	9 18	22 35.46	- 4 54.9	2.401	3.374	5.0	20.0
9 28	22 25.47	- 4 13.9	1.631	2.555	10.9	20.7	9 28	22 29.98	- 5 44.4	2.468	3.384	8.0	20.2
10 8	22 20.96	- 4 22.6	1.710	2.559	14.5	20.9	10 8	22 26.00	- 6 25.8	2.559	3.394	10.7	20.4
226319	2003 <i>DQ</i> ₂₀	9 2.2 229°62	0°0/ 2.1	18			512974	2017 <i>TY</i> ₁₁	9 2.3 338°53	2°2/ 1.2	18		
7 30	23 11.05	- 5 36.0	1.883	2.743	13.6	21.4	7 30	23 7.69	-11 22.4	0.877	1.796	19.8	20.2
8 9	23 5.82	- 6 2.6	1.801	2.734	10.2	21.1	8 9	23 5.06	-11 23.6	0.814	1.779	14.9	19.8
8 19	22 58.55	- 6 41.0	1.741	2.725	6.3	20.9	8 19	22 58.91	-11 35.2	0.768	1.763	9.1	19.5
8 29	22 49.85	- 7 27.0	1.707	2.715	1.9	20.6	8 29	22 50.11	-11 50.3	0.741	1.749	3.1	19.1
9 8	22 40.61	- 8 15.2	1.701	2.704	2.6	20.6	9 8	22 40.30	-12 0.2	0.735	1.737	5.2	19.2
9 18	22 31.83	- 9 0.0	1.723	2.693	7.0	20.8	9 18	22 31.39	-11 57.3	0.749	1.727	11.7	19.5
9 28	22 24.47	- 9 36.0	1.771	2.682	11.0	21.1	9 28	22 25.18	-11 36.7	0.781	1.718	17.6	19.8
10 8	22 19.25	- 9 59.8	1.841	2.670	14.5	21.3	10 8	22 22.75	-10 57.1	0.829	1.711	22.7	20.0
263337	2008 <i>CG</i> ₈₅	9 2.2 251°36	1°3/ 3.2	18			475298	2005 <i>XM</i> ₅₀	9 2.3 307°61	1°6/ 1.1	18		
7 30	23 11.82	- 2 47.4	1.637	2.495	15.4	21.7	7 30	23 9.72	- 9 37.3	1.418	2.305	15.7	21.1
8 9	23 6.73	- 3 0.9	1.551	2.481	11.8	21.4	8 9	23 5.57	-10 1.9	1.332	2.281	11.7	20.8
8 19	22 59.27	- 3 29.7	1.488	2.468	7.5	21.2	8 19	22 58.79	-10 37.7	1.268	2.258	7.1	20.5
8 29	22 50.10	- 4 10.7	1.448	2.454	2.9	20.9	8 29	22 50.02	-11 19.1	1.227	2.235	2.3	20.2
9 8	22 40.23	- 4 58.5	1.436	2.439	2.7	20.8	9 8	22 40.39	-11 58.8	1.211	2.212	4.1	20.2
9 18	22 30.83	- 5 46.7	1.450	2.424	7.5	21.1	9 18	22 31.22	-12 29.7	1.220	2.189	9.3	20.5
9 28	22 23.04	- 6 28.8	1.489	2.409	12.0	21.3	9 28	22 23.86	-12 45.9	1.252	2.167	14.2	20.7
10 8	22 17.70	- 6 59.6	1.550	2.393	16.0	21.5	10 8	22 19.25	-12 44.7	1.303	2.146	18.5	20.9
82511	2001 <i>OU</i> ₄₉	9 2.2 5°63	0°4/ 2.6	18			133521	2003 <i>SF</i> ₃₁₀	9 2.3 349°95	0°7/ 1.			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
503348	2016 <i>BX</i> ₅₈		9 2.3 48 ^o 11	1.4/ 3.1	17		233715	2008 <i>SD</i> ₁₂₉		9 2.3 28 ^o 70	0.5/ 1.9	18	
7 30	23 12.60	- 3 24.0	0.994	1.884	20.6	20.4	7 30	23 9.95	- 7 37.5	1.282	2.170	17.0	19.3
8 9	23 7.85	- 3 31.0	0.953	1.900	15.5	20.1	8 9	23 5.47	- 7 51.4	1.232	2.180	12.6	19.1
8 19	23 0.04	- 3 58.2	0.930	1.917	9.7	19.9	8 19	22 58.48	- 8 17.4	1.202	2.191	7.5	18.8
8 29	22 50.31	- 4 40.1	0.928	1.934	3.5	19.6	8 29	22 49.88	- 8 50.0	1.195	2.203	2.2	18.6
9 8	22 40.25	- 5 27.9	0.948	1.953	3.4	19.7	9 8	22 40.93	- 9 22.1	1.213	2.216	3.3	18.7
9 18	22 31.46	- 6 12.6	0.992	1.971	9.2	20.1	9 18	22 32.92	- 9 47.5	1.255	2.229	8.5	19.0
9 28	22 25.26	- 6 46.6	1.057	1.990	14.4	20.4	9 28	22 26.95	- 10 1.3	1.321	2.244	13.0	19.3
10 8	22 22.32	- 7 5.1	1.140	2.010	18.7	20.8	10 8	22 23.70	- 10 1.0	1.406	2.258	16.8	19.6
109730	2001 <i>RC</i> ₅₉		9 2.3 274 ^o 37	2 ^o 5/31.0	18		478673	2012 <i>TU</i> ₂₈₅		9 2.3 292 ^o 56	1 ^o 3/ 1.1	18	
7 30	23 9.14	-10 38.9	1.646	2.529	14.1	20.0	7 30	23 8.16	- 8 22.8	1.693	2.571	14.0	21.5
8 9	23 4.77	-11 38.0	1.565	2.513	10.4	19.7	8 9	23 3.92	- 9 5.1	1.614	2.559	10.4	21.2
8 19	22 58.10	-12 48.1	1.506	2.496	6.3	19.5	8 19	22 57.54	- 9 58.8	1.558	2.547	6.2	21.0
8 29	22 49.78	-14 2.3	1.473	2.479	2.7	19.2	8 29	22 49.63	-10 58.4	1.527	2.535	2.0	20.7
9 8	22 40.79	-15 12.1	1.466	2.461	4.7	19.3	9 8	22 41.16	-11 56.8	1.523	2.523	3.5	20.8
9 18	22 32.26	-16 10.0	1.485	2.444	9.0	19.5	9 18	22 33.18	-12 47.2	1.545	2.511	8.0	21.0
9 28	22 25.30	-16 50.1	1.528	2.427	13.2	19.7	9 28	22 26.71	-13 24.1	1.591	2.500	12.2	21.2
10 8	22 20.74	-17 9.9	1.592	2.409	16.9	19.9	10 8	22 22.50	-13 44.4	1.659	2.488	15.8	21.4
519257	2011 <i>AQ</i> ₁₅		9 2.3 281 ^o 04	4 ^o 8/27.5	17		440475	2005 <i>SB</i> ₂₆₉		9 2.3 320 ^o 47	1 ^o 7/31.7	18	
7 30	23 6.99	-19 43.7	2.281	3.165	10.7	21.7	7 30	23 7.27	-10 18.8	1.944	2.822	12.5	21.3
8 9	23 2.67	-20 59.9	2.200	3.144	8.0	21.5	8 9	23 2.95	-10 56.7	1.871	2.815	9.2	21.1
8 19	22 56.60	-22 18.0	2.144	3.123	5.7	21.3	8 19	22 56.79	-11 42.3	1.821	2.809	5.5	20.9
8 29	22 49.30	-23 31.4	2.114	3.101	4.8	21.2	8 29	22 49.38	-12 30.6	1.796	2.803	2.0	20.6
9 8	22 41.51	-24 33.4	2.113	3.079	6.4	21.3	9 8	22 41.55	-13 15.8	1.799	2.797	3.5	20.7
9 18	22 34.04	-25 18.9	2.138	3.058	9.1	21.4	9 18	22 34.20	-13 52.5	1.829	2.792	7.3	21.0
9 28	22 27.73	-25 44.8	2.187	3.036	11.9	21.5	9 28	22 28.19	-14 16.9	1.884	2.786	10.9	21.2
10 8	22 23.21	-25 50.6	2.257	3.013	14.4	21.7	10 8	22 24.14	-14 26.9	1.962	2.781	14.1	21.4
391917	2008 <i>UD</i> ₂₀₉		9 2.3 302 ^o 99	4 ^o 1/ 5.7	18		450256	2003 <i>UO</i> ₃₇₃		9 2.3 26 ^o 01	4 ^o 0/ 6.7	18	
7 30	23 6.92	+ 4 6.6	1.600	2.441	16.5	21.2	7 30	23 4.20	+ 6 35.1	1.950	2.771	14.7	21.3
8 9	23 3.21	+ 4 7.4	1.508	2.421	13.2	21.0	8 9	23 0.61	+ 6 19.4	1.880	2.778	11.8	21.1
8 19	22 57.23	+ 3 46.8	1.436	2.401	9.4	20.7	8 19	22 55.32	+ 5 43.7	1.830	2.785	8.5	20.9
8 29	22 49.56	+ 3 5.6	1.388	2.382	5.6	20.4	8 29	22 48.92	+ 4 49.7	1.805	2.793	5.3	20.8
9 8	22 41.13	+ 2 7.4	1.364	2.362	4.3	20.3	9 8	22 42.18	+ 3 42.1	1.806	2.801	4.0	20.7
9 18	22 33.07	+ 0 58.9	1.365	2.343	7.5	20.5	9 18	22 35.93	+ 2 26.8	1.833	2.809	6.1	20.8
9 28	22 26.50	- 0 11.5	1.392	2.324	11.7	20.7	9 28	22 30.93	+ 1 10.9	1.888	2.818	9.3	21.0
10 8	22 22.30	- 1 15.8	1.440	2.305	15.7	20.9	10 8	22 27.77	+ 0 1.0	1.966	2.827	12.3	21.3
55756	1991 <i>VJ</i> ₀		9 2.3 218 ^o 58	4 ^o 4/28.1	18		249745	2000 <i>SU</i> ₂₃₃		9 2.3 338 ^o 87	7 ^o 2/28.4	18	
7 30	23 9.76	-20 49.2	2.483	3.360	10.2	19.8	7 30	23 6.62	-18 11.8	1.001	1.921	17.8	19.3
8 9	23 4.47	-21 45.1	2.413	3.352	7.7	19.6	8 9	23 3.96	-19 27.9	0.944	1.908	13.4	19.1
8 19	22 57.55	-22 40.3	2.368	3.345	5.4	19.4	8 19	22 58.08	-20 49.0	0.906	1.896	9.2	18.8
8 29	22 49.56	-23 29.3	2.350	3.336	4.4	19.4	8 29	22 49.88	-22 2.1	0.888	1.885	7.2	18.6
9 8	22 41.22	-24 6.8	2.361	3.328	5.8	19.4	9 8	22 40.88	-22 54.0	0.892	1.875	9.7	18.8
9 18	22 33.31	-24 29.3	2.399	3.319	8.2	19.6	9 18	22 32.80	-23 15.7	0.916	1.867	14.3	19.0
9 28	22 26.56	-24 35.0	2.462	3.310	10.7	19.7	9 28	22 27.22	-23 4.1	0.959	1.860	18.9	19.2
10 8	22 21.54	-24 24.2	2.547	3.300	13.0	19.9	10 8	22 25.05	-22 21.5	1.017	1.855	22.9	19.5
101803	1999 <i>JH</i>		9 2.3 147 ^o 00	19 ^o 1/25.9	18		293777	2007 <i>RR</i> ₁₁₇		9 2.3 275 ^o 64	0 ^o 4/ 1.9	18	
7 30	23 46.18	-47 26.6	1.125	1.957	22.6	18.7	7 30	23 11.13	- 7 50.4	1.898	2.763	13.3	21.2
8 9	23 33.68	-48 38.6	1.095	1.961	20.7	18.6	8 9	23 5.96	- 8 3.1	1.810	2.747	10.0	20.9
8 19	23 15.82	-49 13.2	1.081	1.966	19.4	18.5	8 19	22 58.72	- 8 24.8	1.746	2.731	6.1	20.7
8 29	22 54.97	-48 52.5	1.085	1.970	19.2	18.5	8 29	22 50.00	- 8 51.7	1.707	2.715	1.8	20.4
9 8	22 34.53	-47 29.5	1.108	1.973	20.1	18.6	9 8	22 40.71	- 9 19.0	1.696	2.699	2.7	20.4
9 18	22 17.53	-45 10.6	1.151	1.977	21.9	18.7	9 18	22 31.83	- 9 42.0	1.713	2.682	7.1	20.6
9 28	22 5.71	-42 10.7	1.211	1.979	24.0	18.9	9 28	22 24.36	- 9 56.5	1.755	2.666	11.1	20.8
10 8	21 59.36	-38 47.1	1.287	1.982	26.0	19.1	10 8	22 19.03	- 9 59.9	1.820	2.649	14.6	21.0
255382	2005 <i>WL</i> ₁₃₈		9 2.3 61 ^o 57	7 ^o 3/10.8	18		263366	2008 <i>CY</i> ₁₅₈		9 2.3 236 ^o 38	2 ^o 3/31.4	17	
7 30	23 6.88	+16 9.2	2.112	2.867	15.9	20.0	7 30	23 12.23	-10 50.0	1.713	2.589	14.0	22.3
8 9	23 2.49	+16 31.8	2.043	2.881	13.5	19.8	8 9	23 6.96	-11 38.2	1.634	2.577	10.4	22.1
8 19	22 56.41	+16 31.2	1.994	2.895	11.0	19.7	8 19	22 59.40	-12 35.7	1.578	2.566	6.2	21.8
8 29	22 49.22	+16 6.7	1.966	2.909	8.7	19.6	8 29	22 50.22	-13 36.0	1.547	2.554	2.5	21.6
9 8	22 41.70	+15 20.0	1.964	2.923	7.4	19.5	9 8	22 40.43	-14 31.8	1.544	2.541	4.3	21.7
9 18	22 34.68	+14 15.7	1.987	2.937	7.8	19.6	9 18	22 31.14	-15 16.5	1.568	2.528	8.6	21.9
9 28	22 28.92	+13 0.3	2.036	2.951	9.6	19.7	9 28	22 23.47	-15 45.2	1.617	2.514	12.7	22.1
10 8	22 25.00	+11 41.5	2.109	2.965	11.8	19.9	10 8	22 18.19	-15 55.9	1.686	2.499	16.3	22.3
318334	2004 <i>TN</i> ₂₀₅		9 2.3 349 ^o 96	1 ^o 5/31.9	18		189813	2002 <i>NB</i> ₁₂		9 2.3 297 ^o 96	3 ^o 0/ 5.4	18	
7 30	23 6.53	-10 1.9	1.880	2.760	12.8	20.2	7 30	23 6.74	+ 2 45.5	2.311	3.137	12.6	19.6
8 9	23 2.42	-10 33.9	1.810	2.756	9.4	20.0	8 9	23 2.33	+ 2 50.0	2.223	3.128	10.0	19.5
8 19	22 56.46	-11 13.6	1.763	2.752	5.6	19.8	8 19	22 56.33	+ 2 40.8	2.158	3.120	7.0	19.3
8 29	22 49.25	-11 56.3	1.742	2.749	1.9	19.5	8 29	22 49.24	+ 2 19.0	2.118	3.111	4.1	19.1
9 8	22 41.66	-12 36.1	1.747	2.747	3.4	19.6	9 8	22 41.75	+ 1 47.3	2.105	3.103	3.2	19.0
9 18	22 34.58	-13 8.1	1.779	2.744	7.3	19.9	9 18	22 34.58	+ 1 9.5	2.120	3.094	5.5	19.1
9 28	22 28.87	-13 28.2	1.837	2.743	10.9	20.1	9 28	22 28.49	+ 0 30.4	2.163	3.086	8.6	19.3
10 8	22 25.15	-13 34.5	1.916	2.742	14.1	20.3	10 8	22 24.05	- 0 5.6	2.229	3		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
447220	2005 <i>TO</i> ₁₈₇		9 2.3 232°80	3°0/ 5.7 18			185473	2007 <i>BE</i> ₆₇		9 2.3 330°22	0°4/ 1.8 18		
7 30	23 6.31	+ 3 59.7	2.351	3.170	12.6	22.0	7 30	23 5.68	- 6 22.3	1.901	2.772	13.0	20.1
8 9	23 1.98	+ 3 47.1	2.264	3.165	10.0	21.8	8 9	23 1.83	- 6 59.8	1.825	2.765	9.7	19.8
8 19	22 56.10	+ 3 19.3	2.200	3.160	7.0	21.6	8 19	22 56.16	- 7 48.7	1.771	2.758	5.9	19.6
8 29	22 49.18	+ 2 37.7	2.161	3.154	4.1	21.4	8 29	22 49.23	- 8 44.5	1.743	2.751	1.7	19.3
9 8	22 41.88	+ 1 45.8	2.151	3.148	3.1	21.4	9 8	22 41.87	- 9 41.3	1.742	2.744	2.7	19.4
9 18	22 34.92	+ 0 48.1	2.168	3.143	5.4	21.5	9 18	22 34.96	-10 33.1	1.768	2.738	6.8	19.6
9 28	22 29.01	- 0 10.0	2.213	3.137	8.5	21.7	9 28	22 29.35	-11 14.7	1.819	2.732	10.6	19.9
10 8	22 24.72	- 1 3.5	2.283	3.131	11.4	21.9	10 8	22 25.68	-11 42.8	1.893	2.727	13.9	20.1
476068	2007 <i>SL</i> ₂₁		9 2.3 309°21	4°8/ 5.6 18			267125	2000 <i>DF</i> ₁₁₁		9 2.3 258°82	0°7/ 1.7 18		
7 30	23 10.31	+ 3 31.8	1.657	2.493	16.3	21.0	7 30	23 9.88	- 6 20.8	1.662	2.533	14.6	21.0
8 9	23 5.71	+ 4 9.7	1.565	2.473	13.1	20.7	8 9	23 5.30	- 7 4.4	1.580	2.520	10.9	20.8
8 19	22 58.77	+ 4 31.0	1.494	2.454	9.5	20.4	8 19	22 58.45	- 8 2.0	1.519	2.505	6.6	20.5
8 29	22 50.08	+ 4 34.9	1.446	2.436	6.1	20.2	8 29	22 49.98	- 9 8.3	1.483	2.491	1.9	20.2
9 8	22 40.61	+ 4 23.0	1.423	2.417	5.0	20.1	9 8	22 40.85	-10 16.0	1.474	2.476	3.2	20.2
9 18	22 31.50	+ 3 59.1	1.426	2.399	7.7	20.2	9 18	22 32.18	-11 17.6	1.492	2.461	8.0	20.5
9 28	22 23.90	+ 3 29.0	1.453	2.382	11.6	20.4	9 28	22 25.06	-12 6.6	1.535	2.446	12.4	20.7
10 8	22 18.69	+ 2 59.3	1.503	2.365	15.4	20.6	10 8	22 20.29	-12 38.8	1.599	2.430	16.2	20.9
7641	1986 <i>TT</i> ₆		9 2.3 246°69	6°8/20.7 18			108669	2001 <i>OM</i> ₂		9 2.3 97°65	7°1/10.4 17		
7 30	23 1.54	+34 48.4	4.814	5.347	9.8	17.2	7 30	23 9.64	+15 35.5	2.154	2.906	15.7	19.5
8 9	22 57.92	+35 11.2	4.717	5.344	9.1	17.1	8 9	23 4.48	+15 57.8	2.088	2.925	13.3	19.4
8 19	22 53.41	+35 19.1	4.635	5.341	8.4	17.0	8 19	22 57.62	+15 57.6	2.041	2.943	10.7	19.3
8 29	22 48.33	+35 10.8	4.572	5.337	7.7	17.0	8 29	22 49.65	+15 34.1	2.017	2.961	8.4	19.2
9 8	22 43.03	+34 46.3	4.531	5.333	7.1	16.9	9 8	22 41.37	+14 49.4	2.018	2.979	7.1	19.1
9 18	22 37.90	+34 6.4	4.512	5.330	6.8	16.9	9 18	22 33.63	+13 47.9	2.046	2.996	7.6	19.2
9 28	22 33.35	+33 13.1	4.517	5.326	6.9	16.9	9 28	22 27.20	+12 36.1	2.101	3.013	9.4	19.3
10 8	22 29.70	+32 9.6	4.546	5.323	7.3	17.0	10 8	22 22.63	+11 21.3	2.179	3.030	11.7	19.5
517980	2015 <i>UW</i> ₅		9 2.3 300°28	4°2/29.2 18			476024	2007 <i>RS</i> ₁₉₄		9 2.3 293°43	1°7/ 3.9 18		
7 30	23 8.90	-18 5.1	2.039	2.923	11.7	21.0	7 30	23 5.28	+ 0 48.5	1.780	2.631	14.7	21.0
8 9	23 4.21	-18 51.2	1.960	2.905	8.8	20.8	8 9	23 1.77	+ 0 2.0	1.689	2.613	11.4	20.7
8 19	22 57.61	-19 39.1	1.904	2.888	5.8	20.6	8 19	22 56.26	- 1 4.7	1.619	2.596	7.4	20.5
8 29	22 49.67	-20 22.6	1.875	2.871	4.2	20.4	8 29	22 49.31	- 2 28.4	1.575	2.578	3.3	20.2
9 8	22 41.24	-20 55.7	1.873	2.853	5.7	20.5	9 8	22 41.74	- 4 2.5	1.557	2.560	2.5	20.1
9 18	22 33.25	-21 13.9	1.897	2.836	8.8	20.7	9 18	22 34.53	- 5 38.6	1.566	2.543	6.8	20.3
9 28	22 26.61	-21 14.7	1.946	2.819	12.0	20.8	9 28	22 28.65	- 7 8.2	1.601	2.525	11.1	20.5
10 8	22 21.97	-20 57.8	2.016	2.803	14.9	21.0	10 8	22 24.84	- 8 24.2	1.659	2.508	14.8	20.7
266586	2008 <i>HF</i> ₄₇		9 2.3 75°30	3°6/ 5.3 17			401636	2013 <i>GW</i> ₈₃		9 2.3 120°57	1°1/31.9 18		
7 30	23 9.92	+ 3 21.7	1.510	2.354	17.2	20.3	7 30	23 5.60	- 7 50.9	2.367	3.232	11.0	20.9
8 9	23 5.22	+ 3 13.5	1.450	2.365	13.5	20.1	8 9	23 1.37	- 8 50.0	2.300	3.238	8.1	20.7
8 19	22 58.28	+ 2 43.9	1.409	2.377	9.3	19.8	8 19	22 55.69	- 9 57.6	2.258	3.245	4.8	20.5
8 29	22 49.86	+ 1 55.3	1.392	2.388	5.2	19.6	8 29	22 49.06	-11 8.8	2.243	3.251	1.5	20.3
9 8	22 41.05	+ 0 53.4	1.400	2.400	3.8	19.6	9 8	22 42.15	-12 18.1	2.258	3.257	2.8	20.4
9 18	22 32.97	- 0 14.1	1.434	2.412	7.2	19.8	9 18	22 35.66	-13 20.4	2.301	3.262	6.1	20.7
9 28	22 26.65	- 1 19.2	1.494	2.424	11.3	20.1	9 28	22 30.25	-14 11.4	2.370	3.268	9.2	20.9
10 8	22 22.76	- 2 15.1	1.575	2.435	14.9	20.3	10 8	22 26.41	-14 48.6	2.464	3.274	11.8	21.1
517	<i>Edith</i>		9 2.3 302°47	1°6/ 3.8 18			453500	2009 <i>TY</i> ₃₃		9 2.3 348°20	10°0/12.1 16		
7 30	23 6.39	- 1 28.6	2.137	2.985	12.7	14.1	7 30	23 3.35	+18 6.8	1.697	2.464	18.7	20.3
8 9	23 2.25	- 1 39.6	2.045	2.968	9.8	13.9	8 9	23 0.49	+18 59.9	1.615	2.453	16.5	20.1
8 19	22 56.39	- 2 3.5	1.975	2.951	6.4	13.7	8 19	22 55.55	+19 25.8	1.549	2.444	14.0	19.9
8 29	22 49.31	- 2 37.9	1.930	2.933	2.8	13.4	8 29	22 49.10	+19 20.8	1.503	2.435	11.6	19.7
9 8	22 41.73	- 3 19.1	1.913	2.916	2.3	13.3	9 8	22 42.03	+18 44.9	1.478	2.428	10.2	19.6
9 18	22 34.47	- 4 2.3	1.924	2.899	5.9	13.5	9 18	22 35.37	+17 41.4	1.477	2.422	10.3	19.6
9 28	22 28.34	- 4 42.6	1.961	2.883	9.5	13.7	9 28	22 30.14	+16 17.9	1.498	2.417	12.1	19.7
10 8	22 23.99	- 5 15.6	2.022	2.866	12.7	13.9	10 8	22 27.11	+14 44.6	1.541	2.413	14.5	19.9
167392	2003 <i>WV</i> ₉₃		9 2.3 321°02	1°3/ 1.3 18			478569	2012 <i>TR</i> ₆₈		9 2.3 311°90	0°1/ 2.2 18		
7 30	23 8.77	- 9 16.6	1.559	2.442	14.7	20.5	7 30	23 7.26	- 5 37.1	1.536	2.414	15.2	21.0
8 9	23 4.54	- 9 41.5	1.483	2.430	11.0	20.3	8 9	23 3.50	- 6 8.4	1.455	2.398	11.5	20.7
8 19	22 58.00	-10 16.5	1.428	2.417	6.6	20.0	8 19	22 57.43	- 6 54.5	1.395	2.382	7.0	20.4
8 29	22 49.83	-10 56.3	1.398	2.406	2.1	19.7	8 29	22 49.69	- 7 50.7	1.359	2.367	2.1	20.1
9 8	22 41.05	-11 34.3	1.394	2.394	3.6	19.8	9 8	22 41.28	- 8 49.9	1.349	2.352	3.0	20.1
9 18	22 32.83	-12 4.5	1.415	2.384	8.3	20.0	9 18	22 33.35	- 9 44.8	1.364	2.338	8.0	20.4
9 28	22 26.27	-12 21.8	1.460	2.373	12.7	20.2	9 28	22 27.03	-10 28.4	1.403	2.324	12.6	20.6
10 8	22 22.15	-12 23.8	1.525	2.364	16.5	20.5	10 8	22 23.14	-10 56.3	1.464	2.310	16.6	20.8
384299	2009 <i>RO</i> ₅₈		9 2.3 312°88	1°2/ 3.2 18			115096	2003 <i>SW</i> ₁₇		9 2.3 188°97	0°9/ 1.7 18		
7 30	23 5.91	- 2 1.1	1.327	2.205	17.2	20.7	7 30	23 15.89	- 8 53.9	1.625	2.494	15.0	20.2
8 9	23 2.87	- 2 28.9	1.242	2.182	13.2	20.4	8 9	23 9.65	- 9 6.8	1.555	2.493	11.2	19.9
8 19	22 57.25	- 3 18.1	1.176	2.160	8.5	20.1	8 19	23 1.01	- 9 28.6	1.507	2.493	6.7	19.7
8 29	22 49.67	- 4 25.1	1.133	2.139	3.2	19.7	8 29	22 50.74	- 9 54.4	1.484	2.491	2.0	19.4
9 8	22 41.21	- 5 42.3	1.113	2.118	3.0	19.7	9 8	22 39.96	-10 18.7	1.488	2.490	3.3	19.5
9 18	22 33.18	- 7 0.1	1.119	2.097	8.5	19.9	9 18	22 29.89	-10 36.4	1.520	2.488	8.0	19.7
9 28	22 26.91	- 8 8.7	1.147	2.078	13.8	20.2	9 28	22 21.63	-10 43.6	1.576	2.485	12.2	20.0
10 8	22 23.40	- 9 0.8	1.194	2.059	18.4	20.4	10 8	22 15.94	-10 38.4	1.655	2.482	15.9	20.2
336891	2011 <i>GX</i> ₆₀		9 2.3 93°00	5°4/29.3 18			395907	2013 <i>AC</i> ₇₈		9 2.3 166°12	3°9/ 6.5 18 R	</	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
470348	2007 <i>RG</i> ₁₈₀		9 2.3 268°59	7°3/27.6	18		508397	2016 <i>GL</i> ₁₈₇		9 2.3 1°37	3°8/30.6	17	
7 30	23 18.91	-27 54.8	1.955	2.825	12.8	20.7	7 30	23 4.49	-10 58.6	0.965	1.882	18.6	20.2
8 9	23 11.75	-28 31.2	1.884	2.811	10.2	20.5	8 9	23 2.24	-12 10.4	0.915	1.879	13.7	20.0
8 19	23 2.22	-28 59.9	1.835	2.796	8.0	20.3	8 19	22 56.96	-13 36.7	0.883	1.878	8.2	19.7
8 29	22 51.10	-29 13.1	1.813	2.782	7.3	20.2	8 29	22 49.59	-15 6.1	0.872	1.878	4.0	19.4
9 8	22 39.53	-29 5.2	1.817	2.767	8.6	20.3	9 8	22 41.60	-16 25.0	0.883	1.879	6.6	19.6
9 18	22 28.69	-28 33.8	1.848	2.752	11.1	20.4	9 18	22 34.58	-17 22.4	0.915	1.882	11.9	19.9
9 28	22 19.68	-27 39.8	1.902	2.737	13.9	20.6	9 28	22 29.93	-17 51.7	0.966	1.886	17.0	20.2
10 8	22 13.22	-26 26.6	1.978	2.722	16.5	20.7	10 8	22 28.47	-17 51.9	1.035	1.891	21.2	20.5
159294	2006 <i>BQ</i> ₃₀		9 2.3 18°30	4°1/29.6	18		90370	Jókaimór		9 2.3 344°17	4°3/6.4	18	
7 30	23 6.82	-13 13.0	1.444	2.341	14.8	19.0	7 30	23 6.72	+ 5 28.0	2.017	2.838	14.4	19.6
8 9	23 3.13	-14 37.9	1.389	2.344	10.9	18.7	8 9	23 2.54	+ 5 42.3	1.936	2.834	11.6	19.4
8 19	22 57.12	-16 11.1	1.356	2.347	6.7	18.5	8 19	22 56.59	+ 5 39.7	1.876	2.830	8.4	19.2
8 29	22 49.56	-17 43.0	1.348	2.350	4.1	18.4	8 29	22 49.41	+ 5 20.5	1.840	2.826	5.5	19.0
9 8	22 41.57	-19 3.4	1.365	2.354	6.2	18.5	9 8	22 41.80	+ 4 47.3	1.830	2.823	4.3	19.0
9 18	22 34.29	-20 4.3	1.407	2.358	10.2	18.8	9 18	22 34.59	+ 4 4.6	1.847	2.820	6.3	19.1
9 28	22 28.80	-20 41.2	1.472	2.363	14.1	19.0	9 28	22 28.63	+ 3 18.0	1.891	2.818	9.4	19.3
10 8	22 25.78	-20 53.5	1.556	2.368	17.5	19.2	10 8	22 24.53	+ 2 33.1	1.957	2.816	12.5	19.5
245884	2006 <i>QC</i> ₄₅		9 2.3 178°49	0°4/1.9	18		135629	2002 <i>JZ</i> ₇₇		9 2.3 3°89	4°4/30.9	18	
7 30	23 5.94	- 4 27.1	1.936	2.800	13.1	20.5	7 30	23 12.41	-15 39.6	1.044	1.953	18.2	18.4
8 9	23 1.97	- 5 32.3	1.864	2.800	9.8	20.3	8 9	23 7.99	-15 59.6	0.992	1.951	13.6	18.1
8 19	22 56.22	- 6 51.4	1.815	2.800	5.9	20.1	8 19	23 0.37	-16 23.4	0.960	1.951	8.5	17.8
8 29	22 49.27	- 8 19.1	1.792	2.800	1.7	19.8	8 29	22 50.62	-16 42.3	0.948	1.952	4.5	17.6
9 8	22 41.93	- 9 48.0	1.798	2.800	2.6	19.9	9 8	22 40.32	-16 47.9	0.959	1.954	6.6	17.8
9 18	22 35.05	-11 10.9	1.831	2.800	6.8	20.2	9 18	22 31.17	-16 35.2	0.992	1.958	11.5	18.0
9 28	22 29.46	-12 21.5	1.891	2.800	10.5	20.4	9 28	22 24.58	-16 2.5	1.046	1.962	16.3	18.3
10 8	22 25.77	-13 15.6	1.973	2.800	13.7	20.6	10 8	22 21.37	-15 11.3	1.118	1.967	20.4	18.6
340280	2006 <i>BA</i> ₂₂₉		9 2.3 53°92	0°6/1.9	17		131177	2001 <i>CL</i> ₃₉		9 2.3 118°36	5°4/27.5	18	
7 30	23 11.87	- 7 46.4	1.484	2.361	15.7	20.6	7 30	23 11.60	-21 36.9	2.113	2.993	11.6	20.0
8 9	23 6.61	- 8 3.8	1.433	2.376	11.6	20.4	8 9	23 5.94	-22 55.5	2.071	3.010	8.7	19.9
8 19	22 59.09	- 8 31.8	1.403	2.391	6.9	20.1	8 19	22 58.50	-24 11.8	2.052	3.027	6.3	19.8
8 29	22 50.13	- 9 5.0	1.398	2.406	2.0	19.9	8 29	22 49.96	-25 18.4	2.061	3.043	5.4	19.7
9 8	22 40.89	- 9 37.3	1.418	2.421	3.1	20.0	9 8	22 41.19	-26 9.1	2.098	3.058	6.9	19.8
9 18	22 32.51	-10 3.2	1.465	2.436	7.8	20.3	9 18	22 33.09	-26 40.3	2.161	3.073	9.4	20.0
9 28	22 26.01	-10 18.3	1.536	2.452	12.0	20.6	9 28	22 26.45	-26 50.8	2.248	3.088	11.9	20.2
10 8	22 22.01	-10 20.4	1.628	2.468	15.5	20.9	10 8	22 21.82	-26 41.8	2.356	3.102	14.1	20.4
398432	2011 <i>UK</i> ₂₅		9 2.3 289°49	2°7/4.9	18		220727	2004 <i>SN</i> ₅₁		9 2.3 351°41	2°3/31.4	18	
7 30	23 6.54	+ 2 16.1	1.957	2.795	14.1	21.3	7 30	23 10.25	-13 25.9	1.892	2.771	12.7	19.8
8 9	23 2.47	+ 2 0.1	1.873	2.786	11.0	21.1	8 9	23 5.19	-13 42.2	1.824	2.768	9.4	19.5
8 19	22 56.57	+ 1 26.9	1.809	2.777	7.5	20.8	8 19	22 58.19	-14 2.4	1.778	2.766	5.7	19.3
8 29	22 49.40	+ 0 38.7	1.771	2.769	4.0	20.6	8 29	22 49.91	-14 21.7	1.758	2.764	2.5	19.1
9 8	22 41.75	- 0 20.2	1.759	2.760	3.0	20.5	9 8	22 41.25	-14 35.3	1.766	2.762	3.9	19.2
9 18	22 34.49	- 1 24.1	1.775	2.752	6.1	20.7	9 18	22 33.17	-14 39.5	1.800	2.760	7.6	19.4
9 28	22 28.49	- 2 26.3	1.817	2.743	9.8	20.9	9 28	22 26.57	-14 31.8	1.860	2.760	11.2	19.6
10 8	22 24.40	- 3 21.1	1.882	2.735	13.2	21.1	10 8	22 22.06	-14 11.5	1.942	2.759	14.3	19.9
505693	2014 <i>WA</i> ₄₈₅		9 2.3 210°24	5°9/7.1	17		335108	2004 <i>TR</i> ₁₆₅		9 2.3 151°58	2°4/4.8	18	
7 30	23 12.46	+ 8 34.2	1.689	2.496	17.2	22.1	7 30	23 9.04	+ 2 10.8	1.950	2.783	14.3	21.1
8 9	23 7.20	+ 8 52.7	1.606	2.491	14.2	21.9	8 9	23 4.23	+ 1 45.2	1.877	2.789	11.1	20.9
8 19	22 59.62	+ 8 48.6	1.542	2.486	10.7	21.7	8 19	22 57.59	+ 1 2.4	1.826	2.794	7.5	20.7
8 29	22 50.37	+ 8 21.1	1.501	2.480	7.4	21.5	8 29	22 49.73	+ 0 5.2	1.800	2.799	3.8	20.5
9 8	22 40.46	+ 7 32.8	1.486	2.474	6.0	21.4	9 8	22 41.49	- 1 1.4	1.802	2.803	2.8	20.4
9 18	22 31.03	+ 6 29.4	1.498	2.467	7.9	21.5	9 18	22 33.75	- 2 11.0	1.832	2.807	6.1	20.6
9 28	22 23.19	+ 5 18.8	1.534	2.459	11.4	21.7	9 28	22 27.37	- 3 17.2	1.888	2.811	9.7	20.9
10 8	22 17.77	+ 4 9.6	1.594	2.451	14.9	21.9	10 8	22 22.95	- 4 14.4	1.968	2.814	13.0	21.1
393014	2012 <i>XT</i> ₁₄₈		9 2.3 234°20	5°4/7.9	18		350405	2012 <i>VO</i> ₃₂		9 2.3 310°92	2°2/31.4	18	
7 30	23 7.26	+10 6.2	1.992	2.788	15.4	21.4	7 30	23 7.93	-10 16.8	1.663	2.547	14.0	20.6
8 9	23 2.99	+10 7.1	1.907	2.784	12.7	21.2	8 9	23 3.78	-11 9.0	1.592	2.540	10.3	20.4
8 19	22 56.89	+ 9 46.3	1.843	2.780	9.7	21.0	8 19	22 57.50	-12 11.1	1.543	2.533	6.2	20.1
8 29	22 49.50	+ 9 4.0	1.802	2.776	6.8	20.8	8 29	22 49.74	-13 16.5	1.520	2.526	2.4	19.9
9 8	22 41.64	+ 8 3.1	1.787	2.772	5.4	20.7	9 8	22 41.47	-14 17.8	1.523	2.520	4.2	20.0
9 18	22 34.19	+ 6 49.0	1.799	2.768	6.8	20.8	9 18	22 33.74	-15 7.9	1.552	2.514	8.4	20.2
9 28	22 28.01	+ 5 29.0	1.837	2.764	9.7	21.0	9 28	22 27.57	-15 41.9	1.605	2.508	12.4	20.5
10 8	22 23.76	+ 4 10.6	1.900	2.759	12.8	21.2	10 8	22 23.67	-15 57.4	1.679	2.502	15.9	20.7
391271	2006 <i>SS</i> ₉₆		9 2.3 36°50	7°9/27.5	18		297155	2010 <i>UV</i> ₆₆		9 2.3 269°33	1°8/5.9	16	
7 30	23 15.31	-27 40.9	1.645	2.529	14.1	20.0	7 30	23 0.46	+ 3 36.8	4.488	5.291	7.3	20.6
8 9	23 9.10	-28 26.2	1.603	2.539	11.1	19.8	8 9	22 57.06	+ 3 28.6	4.391	5.282	5.8	20.5
8 19	23 0.53	-29 2.3	1.584	2.549	8.7	19.7	8 19	22 52.91	+ 3 12.6	4.319	5.273	4.1	20.4
8 29	22 50.56	-29 21.0	1.589	2.560	8.0	19.7	8 29	22 48.26	+ 2 49.8	4.274	5.263	2.5	20.2
9 8	22 40.41	-29 17.0	1.619	2.571	9.3	19.8	9 8	22 43.43	+ 2 21.7	4.258	5.254	1.9	20.2
9 18	22 31.29	-28 48.3	1.673	2.582	11.8	20.0	9 18	22 38.76	+ 1 50.3	4.272	5.244	3.1	20.3
9 28	22 24.22	-27 56.8	1.750	2.594	14.6	20.2	9 28	22 34.57	+ 1 17.8	4.315	5.234	4.8	20.4
10 8	22 19.78	-26 46.5	1.846	2.606	17.0	20.4	10 8	22 31.17	+ 0 46.4	4.385	5.225	6.5	20.5
175141	2005 <i>ES</i> ₁₃		9 2.3 226°59	2°6/31.4	18		15033	1998 <i>VY</i> ₂₉		9 2.3 303°46	3°2/7.9	18	

EPHEMERIDES

9 2.3

9 2.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
199404	2006 CG ₁₄		9 2.3 279°95	0°5/ 2.8 18			167361	2003 WK ₄₂		9 2.3 347°33	2°8/ 4.6 18		
7 30	23 9.53	- 4 19.6	1.683	2.548	14.7	21.1	7 30	23 6.36	+ 0 50.5	1.501	2.361	16.5	19.7
8 9	23 5.02	- 4 41.0	1.600	2.535	11.2	20.8	8 9	23 2.79	+ 0 43.6	1.428	2.355	12.9	19.5
8 19	22 58.31	- 5 16.4	1.538	2.522	7.0	20.6	8 19	22 56.98	+ 0 17.2	1.375	2.351	8.6	19.2
8 29	22 50.01	- 6 2.1	1.502	2.508	2.4	20.2	8 29	22 49.61	- 0 26.2	1.345	2.346	4.3	19.0
9 8	22 41.09	- 6 52.3	1.491	2.495	2.6	20.2	9 8	22 41.69	- 1 21.2	1.340	2.343	3.3	18.9
9 18	22 32.62	- 7 40.6	1.508	2.482	7.3	20.5	9 18	22 34.32	- 2 20.7	1.361	2.340	7.2	19.1
9 28	22 25.67	- 8 20.8	1.549	2.468	11.7	20.7	9 28	22 28.58	- 3 16.9	1.405	2.338	11.6	19.4
10 8	22 21.03	- 8 48.5	1.612	2.455	15.5	20.9	10 8	22 25.21	- 4 3.3	1.471	2.336	15.5	19.6
25200	1998 SK ₁₃₉		9 2.3 223°77	5°2/ 9.0 18			186750	2004 CY ₆₇		9 2.3 135°44	2°7/30.9 17		
7 30	23 5.06	+12 22.4	2.496	3.267	13.3	19.1	7 30	23 12.29	-11 49.1	1.747	2.624	13.7	20.7
8 9	23 1.04	+12 18.6	2.408	3.264	11.1	19.0	8 9	23 6.78	-12 47.8	1.690	2.634	10.0	20.5
8 19	22 55.57	+11 55.9	2.340	3.262	8.7	18.8	8 19	22 59.17	-13 53.6	1.656	2.644	6.0	20.3
8 29	22 49.11	+11 14.3	2.297	3.260	6.4	18.7	8 29	22 50.23	-14 59.4	1.649	2.653	2.8	20.1
9 8	22 42.31	+10 16.2	2.281	3.257	5.2	18.6	9 8	22 40.95	-15 57.8	1.668	2.662	4.5	20.2
9 18	22 35.83	+ 9 5.9	2.292	3.254	6.0	18.6	9 18	22 32.36	-16 43.0	1.715	2.670	8.4	20.5
9 28	22 30.34	+ 7 49.0	2.330	3.252	8.2	18.8	9 28	22 25.43	-17 11.1	1.787	2.678	12.0	20.7
10 8	22 26.37	+ 6 31.7	2.394	3.249	10.6	18.9	10 8	22 20.77	-17 21.2	1.880	2.685	15.1	21.0
21648	Gravanschaik		9 2.3 290°86	7°6/ 8.5 18			164147	2003 YR ₁₀₈		9 2.3 295°36	3°9/29.4 18		
7 30	23 9.01	+12 9.9	1.804	2.593	17.0	18.4	7 30	23 7.01	-13 53.4	1.714	2.604	13.3	19.5
8 9	23 4.75	+12 48.0	1.701	2.568	14.5	18.1	8 9	23 3.14	-15 14.6	1.641	2.592	9.8	19.3
8 19	22 58.26	+13 4.1	1.618	2.543	11.6	17.9	8 19	22 57.16	-16 43.8	1.591	2.580	6.1	19.0
8 29	22 50.05	+12 55.1	1.556	2.517	8.9	17.7	8 29	22 49.68	-18 12.9	1.567	2.568	3.9	18.9
9 8	22 40.98	+12 21.5	1.518	2.492	7.6	17.5	9 8	22 41.64	-19 32.8	1.570	2.556	5.9	19.0
9 18	22 32.13	+11 26.4	1.506	2.467	8.8	17.5	9 18	22 34.08	-20 36.2	1.599	2.545	9.6	19.2
9 28	22 24.61	+10 16.7	1.519	2.441	11.6	17.7	9 28	22 28.02	-21 17.9	1.651	2.533	13.3	19.4
10 8	22 19.34	+ 9 1.5	1.554	2.416	15.0	17.8	10 8	22 24.20	-21 36.5	1.723	2.522	16.6	19.6
89841	2002 CM ₄₁		9 2.3 262°34	2°2/ 6.8 18			126811	2002 ET ₄₂		9 2.3 352°77	1°6/ 1.5 18		
7 30	22 59.72	+ 6 8.9	4.425	5.215	7.6	19.8	7 30	23 11.63	-11 37.1	1.203	2.100	17.2	17.8
8 9	22 56.53	+ 5 52.5	4.332	5.212	6.1	19.6	8 9	23 7.17	-11 25.5	1.140	2.093	12.8	17.5
8 19	22 52.59	+ 5 27.1	4.264	5.209	4.4	19.5	8 19	22 59.84	-11 20.3	1.096	2.087	7.8	17.3
8 29	22 48.17	+ 4 53.7	4.223	5.205	2.9	19.4	8 29	22 50.52	-11 16.5	1.075	2.083	2.6	16.9
9 8	22 43.58	+ 4 13.9	4.210	5.202	2.2	19.4	9 8	22 40.58	-11 8.8	1.078	2.079	4.1	17.0
9 18	22 39.16	+ 3 30.1	4.228	5.198	3.2	19.4	9 18	22 31.52	-10 52.7	1.104	2.077	9.4	17.3
9 28	22 35.24	+ 2 44.7	4.274	5.195	4.8	19.5	9 28	22 24.68	-10 25.5	1.152	2.077	14.4	17.6
10 8	22 32.11	+ 2 0.4	4.348	5.191	6.5	19.7	10 8	22 20.88	- 9 46.3	1.220	2.077	18.5	17.9
93057	2000 SE ₁₄		9 2.3 299°49	7°7/ 9.1 18			173719	2001 QX ₁₇₇		9 2.3 334°22	2°3/31.2 18		
7 30	23 6.26	+12 51.1	1.624	2.422	18.2	18.9	7 30	23 3.20	- 8 49.9	1.469	2.363	14.8	19.1
8 9	23 2.84	+13 9.0	1.528	2.401	15.5	18.7	8 9	23 0.58	-10 1.2	1.394	2.347	10.9	18.9
8 19	22 57.14	+12 59.8	1.450	2.380	12.3	18.4	8 19	22 55.72	-11 27.2	1.340	2.332	6.5	18.6
8 29	22 49.70	+12 20.9	1.393	2.359	9.3	18.2	8 29	22 49.26	-13 0.3	1.311	2.318	2.6	18.3
9 8	22 41.47	+11 13.7	1.360	2.339	7.7	18.1	9 8	22 42.18	-14 30.7	1.307	2.305	4.6	18.4
9 18	22 33.54	+ 9 43.9	1.351	2.319	8.8	18.1	9 18	22 35.59	-15 48.9	1.328	2.292	9.3	18.6
9 28	22 27.08	+ 8 0.8	1.367	2.298	12.0	18.2	9 28	22 30.60	-16 47.3	1.372	2.281	13.7	18.9
10 8	22 22.99	+ 6 15.6	1.405	2.279	15.6	18.4	10 8	22 28.00	-17 22.3	1.436	2.271	17.5	19.1
398726	2012 XF ₁₁₇		9 2.3 265°53	1°8/31.6 18			250596	2005 EO ₆₀		9 2.3 239°81	1°2/ 3.2 18		
7 30	23 9.73	-10 20.7	1.968	2.840	12.6	21.6	7 30	23 12.53	- 3 2.1	1.579	2.438	15.8	21.0
8 9	23 4.93	-11 2.3	1.881	2.823	9.3	21.3	8 9	23 7.38	- 3 14.7	1.499	2.430	12.1	20.7
8 19	22 58.15	-11 52.2	1.818	2.805	5.6	21.1	8 19	22 59.81	- 3 42.6	1.440	2.421	7.7	20.5
8 29	22 49.96	-12 45.5	1.781	2.787	2.1	20.8	8 29	22 50.52	- 4 22.7	1.406	2.411	2.9	20.2
9 8	22 41.20	-13 35.9	1.771	2.769	3.7	20.9	9 8	22 40.57	- 5 9.1	1.398	2.402	2.7	20.1
9 18	22 32.82	-14 17.9	1.790	2.750	7.6	21.1	9 18	22 31.15	- 5 55.4	1.417	2.392	7.6	20.4
9 28	22 25.77	-14 46.8	1.833	2.732	11.4	21.3	9 28	22 23.43	- 6 35.0	1.460	2.381	12.1	20.6
10 8	22 20.75	-15 0.4	1.899	2.713	14.7	21.5	10 8	22 18.22	- 7 3.2	1.525	2.371	16.1	20.9
339434	2005 EB ₉₃		9 2.3 202°32	4°6/28.2 18			131271	2001 FT ₆₁		9 2.3 7°79	3°9/30.6 18		
7 30	23 12.73	-21 30.9	2.444	3.316	10.5	21.5	7 30	23 13.24	-16 39.3	1.529	2.418	14.7	19.1
8 9	23 6.73	-22 24.0	2.375	3.311	8.0	21.3	8 9	23 7.80	-17 1.6	1.469	2.418	10.9	18.8
8 19	22 59.01	-23 15.6	2.331	3.306	5.6	21.2	8 19	22 59.94	-17 25.4	1.432	2.419	6.9	18.6
8 29	22 50.17	-24 0.0	2.315	3.300	4.7	21.1	8 29	22 50.51	-17 44.2	1.419	2.420	4.0	18.4
9 8	22 40.98	-24 32.0	2.327	3.293	6.0	21.2	9 8	22 40.68	-17 51.9	1.432	2.422	5.7	18.6
9 18	22 32.26	-24 48.3	2.367	3.286	8.4	21.3	9 18	22 31.68	-17 44.5	1.470	2.425	9.5	18.8
9 28	22 24.79	-24 47.4	2.433	3.277	11.0	21.5	9 28	22 24.59	-17 20.6	1.532	2.428	13.4	19.0
10 8	22 19.16	-24 29.9	2.520	3.269	13.2	21.7	10 8	22 20.12	-16 41.0	1.615	2.431	16.7	19.3
500122	2012 CX ₆		9 2.3 305°52	0°6/ 1.9 17			241556	2010 GT ₂₉		9 2.3 48°38	4°5/29.4 18		
7 30	23 7.39	- 5 6.3	1.208	2.097	17.7	21.5	7 30	23 9.29	-16 12.4	1.564	2.458	14.1	19.6
8 9	23 4.15	- 5 56.5	1.133	2.082	13.3	21.2	8 9	23 4.71	-17 20.7	1.521	2.472	10.4	19.4
8 19	22 58.13	- 7 7.4	1.078	2.068	8.1	20.9	8 19	22 57.97	-18 31.6	1.499	2.487	6.6	19.3
8 29	22 50.03	- 8 32.7	1.045	2.053	2.4	20.5	8 29	22 49.89	-19 36.9	1.503	2.502	4.5	19.2
9 8	22 41.08	-10 1.7	1.037	2.039	3.8	20.6	9 8	22 41.54	-20 28.5	1.533	2.517	6.3	19.3
9 18	22 32.71	-11 23.3	1.051	2.026	9.7	20.9	9 18	22 34.01	-21 1.3	1.588	2.532	9.8	19.6
9 28	22 26.35	-12 27.7	1.088	2.013	15.0	21.1	9 28	22 28.25	-21 12.8	1.666	2.548	13.2	19.8
10 8	22 22.96	-13 9.1	1.144	2.000	19.6	21.4	10 8	22 24.84	-21 3.7	1.764	2.564	16.2	20.1
265059	2003 SD ₃₃		9 2.3 332°12	0°6/ 1.8 18			177640	2004 NX ₁₀		9 2.3 18°80	1°0/ 3.3 18		
7 30	23 9.27	- 8 42.7	2.094	2.961	12.2								

EPHEMERIDES

9 2.3

9 2.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
19447	Jessicapearl		9 2.3 296°30	4.6/ 5.5	18		128157	2003 QG ₉₄		9 2.3 35°18	1.4/ 1.5	18	
7 30	23 10.48	+ 3 22.2	1.395	2.243	18.2	17.8	7 30	23 15.16	-11 12.2	1.496	2.375	15.5	19.6
8 9	23 6.18	+ 3 42.2	1.314	2.231	14.5	17.6	8 9	23 9.18	-11 7.8	1.438	2.382	11.5	19.4
8 19	22 59.26	+ 3 41.0	1.253	2.219	10.3	17.3	8 19	23 0.78	-11 9.3	1.402	2.389	6.9	19.1
8 29	22 50.40	+ 3 18.5	1.213	2.207	6.2	17.0	8 29	22 50.82	-11 12.2	1.390	2.397	2.2	18.9
9 8	22 40.74	+ 2 38.3	1.198	2.196	4.8	16.9	9 8	22 40.50	-11 11.7	1.404	2.405	3.5	19.0
9 18	22 31.58	+ 1 46.8	1.207	2.185	8.2	17.1	9 18	22 31.06	-11 4.1	1.445	2.414	8.2	19.3
9 28	22 24.24	+ 0 52.2	1.240	2.173	12.7	17.3	9 28	22 23.58	-10 46.7	1.510	2.422	12.4	19.6
10 8	22 19.64	+ 0 3.0	1.294	2.163	17.0	17.5	10 8	22 18.76	-10 18.9	1.596	2.432	16.0	19.8
58907	1998 KM ₂₂		9 2.3 32°62	1°1/ 3.3	17		160468	2006 DZ ₆₇		9 2.3 39°06	6°0/27.8	18	R
7 30	23 6.89	- 2 10.2	1.330	2.206	17.2	18.7	7 30	23 7.96	-18 7.2	1.446	2.347	14.6	18.7
8 9	23 3.20	- 2 42.2	1.279	2.219	13.0	18.5	8 9	23 3.99	-19 44.8	1.402	2.356	10.8	18.5
8 19	22 57.19	- 3 32.9	1.249	2.233	8.1	18.3	8 19	22 57.69	-21 24.3	1.381	2.366	7.4	18.3
8 29	22 49.68	- 4 36.8	1.241	2.247	3.0	18.0	8 29	22 49.87	-22 54.9	1.385	2.377	6.0	18.3
9 8	22 41.83	- 5 45.8	1.259	2.263	2.7	18.1	9 8	22 41.71	-24 6.8	1.413	2.387	8.0	18.4
9 18	22 34.80	- 6 51.3	1.301	2.279	7.7	18.4	9 18	22 34.36	-24 53.6	1.466	2.399	11.5	18.6
9 28	22 29.62	- 7 45.8	1.366	2.296	12.2	18.7	9 28	22 28.87	-25 12.9	1.540	2.410	14.8	18.9
10 8	22 26.94	- 8 24.6	1.453	2.313	16.0	19.0	10 8	22 25.89	-25 6.3	1.634	2.422	17.7	19.1
183905	2004 CC ₉₁		9 2.3 150°63	0°8/ 3.1	17		254429	2004 XH ₉₂		9 2.3 234°77	3°7/ 7.0	17	
7 30	23 9.03	- 1 42.5	1.622	2.481	15.5	20.9	7 30	23 7.03	+ 7 30.7	2.964	3.750	11.1	21.0
8 9	23 4.58	- 2 32.0	1.553	2.484	11.7	20.6	8 9	23 2.35	+ 7 35.0	2.863	3.737	9.0	20.9
8 19	22 57.99	- 3 39.7	1.506	2.487	7.3	20.4	8 19	22 56.35	+ 7 26.0	2.785	3.724	6.7	20.7
8 29	22 49.95	- 5 0.3	1.484	2.490	2.6	20.1	8 29	22 49.45	+ 7 4.1	2.733	3.710	4.6	20.5
9 8	22 41.44	- 6 26.1	1.489	2.493	2.5	20.1	9 8	22 42.19	+ 6 31.1	2.710	3.696	3.7	20.5
9 18	22 33.53	- 7 48.7	1.521	2.495	7.2	20.4	9 18	22 35.14	+ 5 49.8	2.715	3.682	5.0	20.5
9 28	22 27.22	- 9 0.4	1.578	2.497	11.5	20.7	9 28	22 28.91	+ 5 4.1	2.749	3.667	7.3	20.6
10 8	22 23.20	- 9 56.1	1.657	2.499	15.2	20.9	10 8	22 23.99	+ 4 18.3	2.809	3.652	9.6	20.8
328628	2009 SU ₁₇₆		9 2.3 274°71	1°1/ 4.3	16		414273	2008 JC ₄		9 2.3 47°50	10°2/16.3	17	
7 30	23 1.10	- 0 59.5	4.377	5.202	7.1	21.0	7 30	23 6.03	+25 47.2	2.097	2.782	17.8	19.9
8 9	22 57.56	- 1 9.1	4.286	5.196	5.4	20.9	8 9	23 2.09	+26 19.7	2.029	2.797	16.0	19.7
8 19	22 53.25	- 1 24.9	4.221	5.191	3.6	20.7	8 19	22 56.36	+26 23.7	1.978	2.812	13.9	19.6
8 29	22 48.43	- 1 45.7	4.185	5.185	1.7	20.6	8 29	22 49.46	+25 56.8	1.945	2.828	12.0	19.5
9 8	22 43.45	- 2 9.8	4.177	5.179	1.3	20.6	9 8	22 42.21	+24 59.8	1.934	2.844	10.6	19.5
9 18	22 38.64	- 2 35.2	4.200	5.173	3.1	20.7	9 18	22 35.46	+23 36.7	1.947	2.860	10.2	19.5
9 28	22 34.34	- 2 59.9	4.252	5.168	5.0	20.8	9 28	22 30.05	+21 54.6	1.984	2.877	10.9	19.6
10 8	22 30.85	- 3 21.9	4.330	5.162	6.7	21.0	10 8	22 26.56	+20 3.0	2.045	2.893	12.5	19.7
135601	2002 HG ₅		9 2.3 73°80	1°3/ 1.2	17		324280	2006 CE ₄₅		9 2.4 308°35	2°0/31.4	17	
7 30	23 9.72	- 6 0.5	1.318	2.201	16.9	19.6	7 30	23 7.49	-11 25.7	1.989	2.867	12.2	21.2
8 9	23 5.33	- 7 15.7	1.270	2.216	12.4	19.4	8 9	23 3.27	-12 1.3	1.904	2.849	9.1	21.0
8 19	22 58.50	- 8 46.9	1.243	2.232	7.4	19.1	8 19	22 57.17	-12 43.9	1.843	2.831	5.5	20.7
8 29	22 50.10	-10 25.3	1.240	2.247	2.2	18.9	8 29	22 49.74	-13 28.6	1.808	2.814	2.2	20.5
9 8	22 41.35	-11 59.9	1.262	2.263	3.9	19.0	9 8	22 41.81	-14 9.7	1.799	2.796	3.7	20.6
9 18	22 33.49	-13 21.1	1.310	2.279	8.9	19.4	9 18	22 34.25	-14 42.0	1.818	2.779	7.5	20.8
9 28	22 27.61	-14 22.1	1.382	2.294	13.4	19.7	9 28	22 27.97	-15 1.7	1.862	2.762	11.2	20.9
10 8	22 24.37	-15 0.0	1.474	2.309	17.1	20.0	10 8	22 23.64	-15 6.6	1.928	2.745	14.4	21.1
504666	2009 BX ₁₃₅		9 2.3 12°90	3°3/ 4.4	17		254475	2005 ED ₁₁		9 2.4 75°88	1°4/ 3.3	17	
7 30	23 13.28	- 0 0.6	1.278	2.140	18.7	20.9	7 30	23 15.35	- 3 10.9	1.372	2.236	17.5	20.4
8 9	23 8.28	+ 0 16.4	1.212	2.141	14.5	20.7	8 9	23 9.32	- 3 16.0	1.325	2.258	13.2	20.1
8 19	23 0.51	+ 0 14.0	1.165	2.141	9.8	20.4	8 19	23 0.82	- 3 36.8	1.299	2.280	8.3	19.9
8 29	22 50.79	- 0 6.1	1.141	2.141	5.0	20.2	8 29	22 50.82	- 4 9.1	1.297	2.302	3.2	19.7
9 8	22 40.42	- 0 39.1	1.140	2.142	3.9	20.1	9 8	22 40.56	- 4 46.5	1.320	2.324	2.8	19.7
9 18	22 30.82	- 1 18.2	1.164	2.143	8.3	20.4	9 18	22 31.33	- 5 22.7	1.369	2.345	7.7	20.1
9 28	22 23.33	- 1 55.7	1.212	2.144	13.1	20.6	9 28	22 24.20	- 5 51.8	1.443	2.366	12.1	20.4
10 8	22 18.79	- 2 25.1	1.280	2.145	17.4	20.9	10 8	22 19.79	- 6 9.8	1.538	2.387	15.8	20.7
489957	2008 RK ₁₃₇		9 2.3 59°50	9°8/12.5	17		67014	1999 XJ ₁₂₅		9 2.4 263°17	3°8/ 6.4	18	
7 30	23 4.01	+22 53.3	0.940	1.737	28.5	21.0	7 30	23 7.35	+ 5 36.2	2.339	3.148	13.0	19.3
8 9	23 2.11	+21 40.9	0.876	1.742	24.6	20.8	8 9	23 2.85	+ 5 43.3	2.252	3.143	10.4	19.1
8 19	22 57.06	+19 23.0	0.824	1.748	19.8	20.5	8 19	22 56.76	+ 5 35.1	2.186	3.137	7.6	18.9
8 29	22 49.77	+15 56.0	0.789	1.754	14.5	20.2	8 29	22 49.60	+ 5 12.3	2.146	3.132	4.9	18.8
9 8	22 41.75	+11 30.8	0.775	1.760	10.4	20.0	9 8	22 42.03	+ 4 37.3	2.134	3.126	3.8	18.7
9 18	22 34.68	+ 6 33.2	0.786	1.767	10.6	20.1	9 18	22 34.79	+ 3 54.0	2.149	3.120	5.7	18.8
9 28	22 30.10	+ 1 37.9	0.821	1.773	14.9	20.3	9 28	22 28.63	+ 3 7.3	2.191	3.115	8.5	19.0
10 8	22 28.90	- 2 44.8	0.879	1.780	20.0	20.7	10 8	22 24.10	+ 2 22.2	2.258	3.109	11.3	19.1
14347	1985 RL ₄		9 2.3 1°74	3°5/31.4	18		503953	2004 CG ₆₈		9 2.4 212°97	0°2/ 2.5	17	
7 30	23 8.75	-12 28.0	0.914	1.831	19.4	17.0	7 30	23 13.35	- 5 28.0	1.874	2.730	13.9	22.2
8 9	23 5.60	-12 58.2	0.865	1.828	14.4	16.7	8 9	23 7.65	- 5 48.2	1.793	2.724	10.4	22.0
8 19	22 59.14	-13 38.4	0.833	1.827	8.7	16.4	8 19	22 59.85	- 6 19.7	1.734	2.717	6.4	21.8
8 29	22 50.39	-14 19.3	0.821	1.827	3.8	16.1	8 29	22 50.58	- 6 58.9	1.702	2.709	2.1	21.5
9 8	22 41.00	-14 50.4	0.830	1.829	6.1	16.3	9 8	22 40.77	- 7 40.5	1.697	2.701	2.5	21.5
9 18	22 32.73	-15 3.8	0.860	1.832	11.7	16.6	9 18	22 31.44	- 8 19.0	1.721	2.692	6.9	21.7
9 28	22 27.10	-14 55.3	0.909	1.836	17.0	16.9	9 28	22 23.59	- 8 49.6	1.771	2.682	11.0	22.0
10 8	22 24.95	-14 24.7	0.975	1.841	21.4	17.2	10 8	22 17.94	- 9 8.9	1.843	2.672	14.5	22.2
87546	2000 QE ₂₁₈		9 2.3 321°14	6°0/27.6	18		104218	2000 EU ₁₁₉		9 2.4 137°20	3°8/29.4	18	R
7 30	23 9.97	-23 7.0	1.925	2.812	12.2								

EPHEMERIDES

9 2.4

9 2.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
359335	2009 QA ₁₄	9 2.4	48°36	0°0/ 2.2	18		54185	2000 HC ₆₈	9 2.4	204°95	1°1/ 3.4	17	
7 30	23 13.51	- 8 14.2	1.923	2.785	13.3	20.1	7 30	23 10.59	- 1 52.8	1.963	2.810	13.7	20.6
8 9	23 7.42	- 8 3.0	1.867	2.801	9.9	19.9	8 9	23 5.52	- 2 24.8	1.882	2.805	10.4	20.4
8 19	22 59.48	- 7 58.7	1.834	2.818	6.0	19.7	8 19	22 58.52	- 3 11.4	1.823	2.801	6.6	20.1
8 29	22 50.41	- 7 58.3	1.827	2.834	1.8	19.5	8 29	22 50.19	- 4 9.1	1.790	2.795	2.6	19.9
9 8	22 41.12	- 7 58.3	1.848	2.851	2.4	19.6	9 8	22 41.37	- 5 12.5	1.785	2.789	2.3	19.8
9 18	22 32.54	- 7 55.7	1.897	2.868	6.4	19.9	9 18	22 33.00	- 6 15.3	1.809	2.782	6.4	20.1
9 28	22 25.51	- 7 48.0	1.973	2.886	9.9	20.1	9 28	22 25.96	- 7 11.5	1.859	2.775	10.3	20.3
10 8	22 20.56	- 7 33.3	2.072	2.903	13.0	20.4	10 8	22 20.93	- 7 56.6	1.932	2.767	13.6	20.5
451340	2010 VK ₁₈₀	9 2.4	11°72	15°3/23.8	15		449381	2013 GD ₁₀₁	9 2.4	137°58	3°3/ 6.6	18	
7 30	23 2.85	+33 37.1	1.646	2.298	23.1	20.8	7 30	23 5.10	+ 6 50.8	2.444	3.249	12.6	21.0
8 9	23 0.42	+34 51.2	1.582	2.303	21.5	20.7	8 9	23 1.08	+ 6 19.1	2.364	3.253	10.1	20.9
8 19	22 55.69	+35 28.1	1.529	2.310	19.7	20.5	8 19	22 55.64	+ 5 30.2	2.306	3.257	7.2	20.7
8 29	22 49.34	+35 22.0	1.490	2.317	17.9	20.4	8 29	22 49.27	+ 4 25.9	2.274	3.261	4.5	20.5
9 8	22 42.41	+34 30.7	1.467	2.327	16.4	20.3	9 8	22 42.59	+ 3 10.3	2.270	3.265	3.3	20.5
9 18	22 36.05	+32 56.8	1.463	2.337	15.4	20.3	9 18	22 36.28	+ 1 48.7	2.295	3.269	5.2	20.6
9 28	22 31.40	+30 48.2	1.479	2.348	15.4	20.3	9 28	22 30.98	+ 0 27.1	2.348	3.273	8.0	20.8
10 8	22 29.23	+28 17.5	1.515	2.361	16.2	20.4	10 8	22 27.19	- 0 49.0	2.426	3.276	10.7	21.0
349164	2007 PL ₄₀	9 2.4	331°28	3°2/ 4.2	18		487981	2015 TQ ₃₁₉	9 2.4	269°06	0°0/ 2.1	17	
7 30	23 11.82	- 1 56.0	1.420	2.284	17.0	20.2	7 30	23 6.96	- 5 44.1	2.363	3.220	11.3	22.6
8 9	23 7.18	- 1 11.6	1.338	2.268	13.3	19.9	8 9	23 2.58	- 6 13.5	2.274	3.206	8.5	22.4
8 19	22 59.90	- 0 40.2	1.276	2.253	9.0	19.6	8 19	22 56.64	- 6 52.5	2.209	3.192	5.2	22.2
8 29	22 50.68	- 0 21.7	1.237	2.238	4.6	19.3	8 29	22 49.60	- 7 37.8	2.170	3.178	1.6	21.9
9 8	22 40.65	- 0 13.7	1.224	2.225	3.8	19.2	9 8	22 42.14	- 8 25.0	2.161	3.163	2.1	21.9
9 18	22 31.14	- 0 12.7	1.235	2.212	8.0	19.4	9 18	22 34.99	- 9 9.4	2.179	3.149	5.8	22.1
9 28	22 23.44	- 0 13.9	1.269	2.201	12.7	19.7	9 28	22 28.89	- 9 46.9	2.225	3.135	9.1	22.3
10 8	22 18.50	- 0 12.3	1.325	2.190	16.9	19.9	10 8	22 24.40	- 10 14.3	2.294	3.120	12.1	22.5
518670	2008 SG ₃₁₃	9 2.4	108°06	1°5/ 3.8	17		131008	2000 XM ₈	9 2.4	297°98	0°6/ 1.9	18	
7 30	23 9.89	- 0 55.2	1.833	2.681	14.5	21.5	7 30	23 11.75	- 8 17.5	1.614	2.489	14.8	18.8
8 9	23 4.93	- 1 24.3	1.770	2.693	11.0	21.3	8 9	23 6.92	- 8 26.7	1.525	2.467	11.1	18.6
8 19	22 58.08	- 2 8.8	1.729	2.706	7.0	21.1	8 19	22 59.67	- 8 45.8	1.458	2.445	6.8	18.3
8 29	22 50.01	- 3 4.8	1.714	2.718	2.9	20.8	8 29	22 50.61	- 9 10.6	1.416	2.423	2.1	17.9
9 8	22 41.62	- 4 6.5	1.726	2.730	2.4	20.8	9 8	22 40.78	- 9 35.7	1.399	2.402	3.1	17.9
9 18	22 33.83	- 5 7.8	1.766	2.741	6.3	21.1	9 18	22 31.37	- 9 55.6	1.409	2.380	8.1	18.2
9 28	22 27.51	- 6 2.4	1.832	2.752	10.1	21.4	9 28	22 23.57	- 10 5.6	1.443	2.359	12.7	18.4
10 8	22 23.25	- 6 46.0	1.921	2.763	13.4	21.6	10 8	22 18.27	- 10 2.7	1.498	2.338	16.7	18.6
22841	1999 RK ₁₀₅	9 2.4	90°64	2°9/ 5.6	18		449548	2014 HU ₁₆₀	9 2.4	353°34	0°8/ 3.2	18	
7 30	23 7.25	+ 5 0.5	1.816	2.645	15.4	17.9	7 30	23 3.96	- 1 8.7	1.663	2.527	14.9	20.6
8 9	23 3.01	+ 4 11.9	1.752	2.659	12.0	17.7	8 9	23 0.85	- 2 4.8	1.590	2.524	11.3	20.4
8 19	22 56.93	+ 3 1.8	1.709	2.673	8.3	17.5	8 19	22 55.77	- 3 20.0	1.539	2.521	7.1	20.2
8 29	22 49.66	+ 1 33.9	1.691	2.687	4.5	17.3	8 29	22 49.35	- 4 49.1	1.513	2.519	2.6	19.9
9 8	22 42.07	- 0 5.0	1.700	2.701	3.1	17.2	9 8	22 42.47	- 6 24.3	1.514	2.518	2.4	19.9
9 18	22 35.06	- 1 46.6	1.737	2.714	6.2	17.4	9 18	22 36.09	- 7 56.8	1.541	2.517	6.9	20.2
9 28	22 29.47	- 3 22.6	1.801	2.728	9.9	17.7	9 28	22 31.13	- 9 18.5	1.593	2.516	11.1	20.4
10 8	22 25.87	- 4 46.3	1.889	2.741	13.2	17.9	10 8	22 28.26	- 10 23.7	1.667	2.517	14.8	20.6
390516	1995 SP ₆	9 2.4	322°69	2°9/31.8	16		223202	2003 BQ ₃₁	9 2.4	137°26	0°5/ 2.8	17	
7 30	23 16.79	-15 10.7	1.479	2.362	15.4	20.5	7 30	23 11.84	- 4 9.2	1.847	2.703	14.1	20.9
8 9	23 10.74	-15 3.5	1.403	2.349	11.5	20.2	8 9	23 6.40	- 4 35.3	1.782	2.712	10.5	20.7
8 19	23 1.96	-14 57.7	1.349	2.337	7.1	19.9	8 19	22 59.00	- 5 13.8	1.739	2.720	6.5	20.5
8 29	22 51.28	-14 48.1	1.320	2.325	3.2	19.7	8 29	22 50.32	- 6 0.7	1.722	2.729	2.2	20.2
9 8	22 39.95	-14 29.7	1.317	2.314	4.8	19.7	9 8	22 41.28	- 6 50.3	1.733	2.736	2.4	20.2
9 18	22 29.35	-13 59.4	1.340	2.303	9.3	20.0	9 18	22 32.86	- 7 37.1	1.771	2.744	6.6	20.5
9 28	22 20.78	-13 16.1	1.387	2.293	13.8	20.2	9 28	22 25.93	- 8 15.8	1.836	2.751	10.5	20.8
10 8	22 15.08	-12 20.5	1.454	2.284	17.6	20.4	10 8	22 21.14	- 8 43.0	1.924	2.757	13.8	21.0
191043	2002 CP ₃₁	9 2.4	208°28	1°6/31.9	18		472842	2015 FR ₂₇₁	9 2.4	134°25	3°4/30.4	17	
7 30	23 12.94	-10 53.4	2.034	2.900	12.5	20.4	7 30	23 10.99	-13 3.5	1.625	2.510	14.2	21.1
8 9	23 7.18	-11 21.5	1.957	2.895	9.2	20.2	8 9	23 6.07	-14 8.6	1.566	2.514	10.4	20.8
8 19	22 59.48	-11 55.9	1.904	2.890	5.6	20.0	8 19	22 58.92	-15 20.6	1.530	2.519	6.4	20.6
8 29	22 50.47	-12 32.0	1.878	2.885	2.0	19.7	8 29	22 50.31	-16 31.7	1.520	2.523	3.4	20.5
9 8	22 41.02	-13 4.6	1.880	2.878	3.4	19.8	9 8	22 41.29	-17 33.6	1.535	2.526	5.3	20.6
9 18	22 32.06	-13 29.1	1.911	2.872	7.2	20.0	9 18	22 32.95	-18 19.8	1.577	2.530	9.2	20.8
9 28	22 24.50	-13 42.2	1.967	2.865	10.8	20.2	9 28	22 26.33	-18 46.4	1.644	2.533	13.0	21.1
10 8	22 18.99	-13 42.3	2.047	2.857	13.9	20.4	10 8	22 22.08	-18 52.8	1.730	2.537	16.2	21.3
408460	2013 HB ₅₄	9 2.4	48°42	0°9/ 1.6	18		164021	2003 UQ ₂₂₀	9 2.4	313°03	0°4/ 2.1	18	
7 30	23 9.36	- 9 6.8	2.023	2.892	12.5	21.0	7 30	23 9.96	- 7 34.9	1.526	2.405	15.3	19.0
8 9	23 4.37	- 9 24.3	1.964	2.903	9.2	20.8	8 9	23 5.87	- 7 44.7	1.426	2.369	11.6	18.7
8 19	22 57.66	- 9 48.7	1.928	2.915	5.5	20.6	8 19	22 59.21	- 8 6.1	1.347	2.334	7.2	18.3
8 29	22 49.87	-10 16.0	1.919	2.926	1.7	20.4	8 29	22 50.53	- 8 35.4	1.292	2.300	2.2	17.9
9 8	22 41.83	-10 41.6	1.937	2.938	2.7	20.5	9 8	22 40.84	- 9 6.7	1.262	2.265	3.2	17.9
9 18	22 34.38	-11 1.6	1.983	2.951	6.4	20.7	9 18	22 31.39	- 9 33.8	1.258	2.231	8.6	18.1
9 28	22 28.28	-11 12.8	2.055	2.963	9.9	21.0	9 28	22 23.52	- 9 50.7	1.277	2.197	13.6	18.3
10 8	22 24.08	-11 13.5	2.150	2.975	12.8	21.2	10 8	22 18.26	- 9 53.6	1.316	2.164	18.0	18.5
508332	2015 MA ₄₄	9 2.4	221°94	5°0/27.4	18		251905	1999 VV ₁₃₃	9 2.4	222°91	3°2/ 6.3	18	
7 30	23 7.54	-15 55.2	1.855										

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
358226	2006 <i>SM</i> ₂₅₇		9 2.4 269°88	4.6/29.1	16		224254	2005 <i>SP</i> ₁₉₈		9 2.4 288°62	0.1/ 2.3	18	
7 30	23 13.88	-20 41.9	2.194	3.068	11.4	21.8	7 30	23 11.01	-6 9.9	1.566	2.438	15.3	21.1
8 9	23 7.93	-21 18.3	2.109	3.047	8.7	21.6	8 9	23 6.49	-6 30.4	1.474	2.414	11.6	20.8
8 19	23 0.00	-21 53.8	2.048	3.026	6.0	21.4	8 19	22 59.49	-7 4.5	1.404	2.389	7.2	20.5
8 29	22 50.67	-22 22.3	2.014	3.004	4.6	21.3	8 29	22 50.61	-7 48.0	1.357	2.365	2.2	20.1
9 8	22 40.82	-22 38.6	2.008	2.982	6.0	21.4	9 8	22 40.87	-8 34.8	1.337	2.340	3.0	20.1
9 18	22 31.40	-22 39.0	2.030	2.960	8.9	21.5	9 18	22 31.48	-9 17.9	1.343	2.316	8.2	20.3
9 28	22 23.33	-22 22.0	2.076	2.938	11.9	21.6	9 28	22 23.71	-9 50.9	1.373	2.291	13.0	20.6
10 8	22 17.32	-21 48.1	2.145	2.915	14.6	21.8	10 8	22 18.47	-10 9.5	1.424	2.266	17.2	20.8
8911	Kawaguchijun		9 2.4 90°16	3.7/29.5	18 R		23038	Jeffbaughman		9 2.4 7°30	7.5/29.2	18	
7 30	23 8.78	-16 44.1	2.119	3.001	11.5	17.7	7 30	23 9.63	-20 18.1	0.936	1.857	18.6	16.9
8 9	23 3.97	-17 39.2	2.061	3.007	8.5	17.5	8 9	23 6.23	-21 6.1	0.894	1.857	14.1	16.6
8 19	22 57.45	-18 36.2	2.028	3.012	5.4	17.4	8 19	22 59.49	-21 52.3	0.871	1.859	9.7	16.4
8 29	22 49.84	-19 29.2	2.021	3.018	3.7	17.3	8 29	22 50.55	-22 24.8	0.867	1.863	7.5	16.3
9 8	22 41.94	-20 12.2	2.042	3.024	5.2	17.4	9 8	22 41.14	-22 33.5	0.884	1.868	9.6	16.4
9 18	22 34.58	-20 41.3	2.090	3.030	8.1	17.6	9 18	22 33.00	-22 13.8	0.921	1.875	13.8	16.7
9 28	22 28.54	-20 54.0	2.163	3.036	11.0	17.8	9 28	22 27.58	-21 26.2	0.977	1.883	18.2	17.0
10 8	22 24.36	-20 50.2	2.257	3.042	13.6	18.0	10 8	22 25.59	-20 15.0	1.050	1.893	21.9	17.3
124077	2001 <i>GJ</i> ₃		9 2.4 357°87	9.9/23.1	17		449425	2013 <i>HG</i> ₆₈		9 2.4 31°35	4.3/ 7.3	18	
7 30	23 5.96	-15 35.7	0.938	1.861	18.5	18.4	7 30	23 5.78	+ 7 59.8	2.183	2.987	13.9	21.0
8 9	23 3.77	-19 54.7	0.894	1.860	13.8	18.1	8 9	23 1.78	+ 7 53.4	2.103	2.988	11.3	20.8
8 19	22 58.25	-24 29.3	0.874	1.859	10.3	17.9	8 19	22 56.17	+ 7 28.4	2.045	2.990	8.4	20.6
8 29	22 50.26	-28 50.1	0.878	1.859	10.7	17.9	8 29	22 49.48	+ 6 45.7	2.011	2.992	5.6	20.4
9 8	22 41.35	-32 29.0	0.906	1.859	14.5	18.1	9 8	22 42.43	+ 5 48.6	2.004	2.994	4.3	20.4
9 18	22 33.34	-35 8.7	0.955	1.859	19.0	18.4	9 18	22 35.77	+ 4 42.0	2.024	2.996	5.9	20.5
9 28	22 27.93	-36 45.5	1.022	1.860	23.0	18.7	9 28	22 30.25	+ 3 32.2	2.071	2.998	8.8	20.7
10 8	22 26.12	-37 25.8	1.102	1.860	26.2	18.9	10 8	22 26.43	+ 2 25.3	2.143	3.000	11.6	20.9
46141	2001 <i>FY</i> ₅₇		9 2.4 104°99	4.4/27.6	18		79328	1996 <i>RE</i> ₁₉		9 2.4 81°52	0.6/ 1.8	18	
7 30	23 6.63	-19 38.8	2.415	3.297	10.2	19.4	7 30	23 9.05	- 7 20.0	1.966	2.832	12.9	19.8
8 9	23 2.25	-20 58.3	2.361	3.305	7.6	19.2	8 9	23 4.28	- 7 49.2	1.899	2.837	9.5	19.6
8 19	22 56.37	-22 17.8	2.333	3.312	5.3	19.1	8 19	22 57.71	- 8 27.7	1.856	2.842	5.7	19.4
8 29	22 49.51	-23 31.1	2.333	3.320	4.5	19.0	8 29	22 49.96	- 9 11.1	1.839	2.847	1.7	19.1
9 8	22 42.38	-24 32.4	2.361	3.327	5.9	19.1	9 8	22 41.87	- 9 54.2	1.849	2.851	2.6	19.2
9 18	22 35.69	-25 17.6	2.416	3.334	8.2	19.3	9 18	22 34.32	-10 31.9	1.887	2.856	6.6	19.5
9 28	22 30.15	-25 44.5	2.496	3.341	10.7	19.5	9 28	22 28.13	-11 0.0	1.951	2.861	10.2	19.7
10 8	22 26.25	-25 53.2	2.597	3.348	12.8	19.7	10 8	22 23.87	-11 16.1	2.038	2.866	13.3	19.9
118439	1999 <i>UT</i> ₂₀		9 2.4 43°08	1.3/ 1.2	18		509607	2008 <i>EG</i> ₈₈		9 2.4 132°44	1.0/ 3.6	18	
7 30	23 7.68	- 8 56.7	1.846	2.722	13.1	20.2	7 30	23 6.93	- 1 8.2	2.494	3.331	11.4	21.9
8 9	23 3.29	- 9 35.5	1.790	2.734	9.6	20.0	8 9	23 2.36	- 1 47.9	2.424	3.342	8.6	21.7
8 19	22 57.08	-10 22.8	1.758	2.746	5.7	19.8	8 19	22 56.40	- 2 39.3	2.378	3.353	5.5	21.6
8 29	22 49.73	-11 13.1	1.751	2.758	1.9	19.5	8 29	22 49.54	- 3 39.3	2.359	3.363	2.2	21.4
9 8	22 42.11	-12 0.7	1.771	2.771	3.2	19.7	9 8	22 42.42	- 4 43.4	2.369	3.373	1.8	21.3
9 18	22 35.09	-12 40.1	1.818	2.784	7.1	19.9	9 18	22 35.71	- 5 46.6	2.409	3.382	5.0	21.6
9 28	22 29.50	-13 7.5	1.890	2.797	10.6	20.2	9 28	22 30.03	- 6 44.3	2.476	3.391	8.1	21.8
10 8	22 25.90	-13 20.8	1.985	2.811	13.7	20.4	10 8	22 25.87	- 7 32.9	2.569	3.400	10.8	22.0
56616	2000 <i>JM</i> ₇₀		9 2.4 34°82	7.1/ 6.9	18		363635	2004 <i>RX</i> ₁₇₈		9 2.4 347°52	4.4/ 6.6	18	
7 30	23 13.69	+ 6 12.6	1.258	2.097	20.3	17.7	7 30	23 7.30	+ 5 57.2	2.018	2.835	14.5	20.3
8 9	23 8.50	+ 7 19.5	1.204	2.109	16.5	17.5	8 9	23 3.05	+ 6 11.4	1.938	2.833	11.7	20.1
8 19	23 0.60	+ 8 2.7	1.168	2.122	12.3	17.3	8 19	22 57.03	+ 6 8.2	1.879	2.830	8.6	19.9
8 29	22 50.87	+ 8 20.2	1.153	2.135	8.6	17.1	8 29	22 49.78	+ 5 48.0	1.843	2.828	5.6	19.7
9 8	22 40.65	+ 8 13.7	1.162	2.150	7.1	17.1	9 8	22 42.09	+ 5 13.5	1.834	2.826	4.4	19.7
9 18	22 31.35	+ 7 48.5	1.194	2.165	9.2	17.3	9 18	22 34.81	+ 4 29.1	1.852	2.825	6.3	19.8
9 28	22 24.22	+ 7 12.8	1.249	2.181	12.8	17.5	9 28	22 28.78	+ 3 40.4	1.896	2.823	9.4	20.0
10 8	22 20.03	+ 6 35.2	1.325	2.197	16.4	17.8	10 8	22 24.61	+ 2 53.4	1.964	2.822	12.5	20.2
173689	2001 <i>PK</i> ₉		9 2.4 70°43	11.2/10.2	15		227289	2005 <i>SZ</i> ₁₈₃		9 2.4 72°44	0.3/ 2.1	16	
7 30	23 31.78	+15 50.7	0.855	1.661	30.0	20.4	7 30	23 13.04	- 6 41.5	1.471	2.344	16.0	21.2
8 9	23 21.80	+16 39.7	0.840	1.714	24.7	20.2	8 9	23 7.59	- 7 4.4	1.420	2.361	11.9	20.9
8 19	23 8.30	+16 40.8	0.838	1.766	19.1	20.1	8 19	22 59.84	- 7 39.1	1.391	2.377	7.2	20.7
8 29	22 53.04	+15 53.0	0.854	1.817	14.0	20.1	8 29	22 50.63	- 8 20.4	1.386	2.393	2.1	20.5
9 8	22 38.25	+14 25.1	0.891	1.866	11.3	20.1	9 8	22 41.12	- 9 1.4	1.407	2.410	3.0	20.6
9 18	22 25.89	+12 33.1	0.950	1.913	12.3	20.3	9 18	22 32.50	- 9 36.2	1.454	2.426	7.8	20.9
9 28	22 17.25	+10 35.2	1.032	1.959	15.4	20.7	9 28	22 25.78	- 9 59.9	1.526	2.442	12.0	21.2
10 8	22 12.73	+ 8 46.3	1.133	2.002	18.8	21.0	10 8	22 21.59	-10 9.9	1.618	2.458	15.6	21.5
48638	Třebíč		9 2.4 277°20	1.4/ 1.4	18		370642	2004 <i>BV</i> ₁₇		9 2.4 160°74	4.8/29.5	18	
7 30	23 12.88	- 9 19.0	1.557	2.434	15.1	19.5	7 30	23 16.62	-18 58.1	1.801	2.678	13.4	21.0
8 9	23 7.86	- 9 43.8	1.471	2.414	11.3	19.3	8 9	23 10.07	-19 45.4	1.743	2.684	10.0	20.8
8 19	23 0.30	-10 19.1	1.406	2.394	6.9	18.9	8 19	23 1.29	-20 32.6	1.708	2.689	6.7	20.6
8 29	22 50.85	-10 59.5	1.366	2.373	2.2	18.6	8 29	22 51.09	-21 12.4	1.699	2.693	4.8	20.5
9 8	22 40.58	-11 38.5	1.352	2.353	3.7	18.7	9 8	22 40.53	-21 38.3	1.718	2.697	6.3	20.6
9 18	22 30.77	-12 9.3	1.364	2.332	8.7	18.9	9 18	22 30.74	-21 46.4	1.763	2.700	9.5	20.8
9 28	22 22.67	-12 26.9	1.401	2.311	13.4	19.1	9 28	22 22.73	-21 35.5	1.833	2.703	12.8	21.0
10 8	22 17.19	-12 28.5	1.458	2.290	17.4	19.3	10 8	22 17.16	-21 6.9	1.924	2.705	15.7	21.2
270011	2001 <i>DB</i> ₇₆		9 2.4 172°23	0.1/ 2.6	18		172307	2002 <i>TT</i> ₂₆₂		9 2.4 24°48	3.3/30.7	18	
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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
339272	2004 WY ₁₀		9 2.4 299°89	3°0/ 4.9 18			158079	2000 UW ₁₀₆		9 2.4 340°75	9°2/25.7 18		
7 30	23 8.41	+ 1 58.6	1.687	2.532	15.7	20.4	7 30	23 9.49	-25 37.8	1.328	2.232	15.4	19.0
8 9	23 4.22	+ 1 51.2	1.607	2.525	12.3	20.2	8 9	23 5.66	-27 8.7	1.276	2.223	12.3	18.8
8 19	22 57.91	+ 1 25.2	1.548	2.518	8.4	19.9	8 19	22 59.03	-28 34.4	1.244	2.215	9.8	18.6
8 29	22 50.11	+ 0 42.5	1.513	2.511	4.5	19.7	8 29	22 50.49	-29 43.0	1.235	2.208	9.4	18.6
9 8	22 41.75	- 0 12.3	1.504	2.505	3.3	19.6	9 8	22 41.36	-30 24.0	1.249	2.201	11.3	18.7
9 18	22 33.86	- 1 12.7	1.521	2.499	6.8	19.8	9 18	22 33.09	-30 32.4	1.284	2.196	14.5	18.9
9 28	22 27.45	- 2 11.5	1.563	2.492	10.9	20.0	9 28	22 26.97	-30 7.6	1.339	2.191	17.7	19.1
10 8	22 23.27	- 3 2.3	1.628	2.486	14.6	20.3	10 8	22 23.80	-29 13.8	1.411	2.187	20.6	19.3
213250	2001 CX ₃₅		9 2.4 336°01	13°1/26.3 18			31974	2000 HG ₁₂		9 2.4 118°70	2°2/ 4.1 18		
7 30	23 17.05	-33 31.8	1.111	2.007	18.4	18.3	7 30	23 12.76	- 0 9.4	1.392	2.250	17.7	19.4
8 9	23 12.22	-34 17.3	1.045	1.979	15.7	18.0	8 9	23 7.68	- 0 26.9	1.330	2.258	13.6	19.2
8 19	23 3.50	-34 45.3	0.997	1.953	13.6	17.8	8 19	23 0.08	- 1 4.5	1.288	2.265	8.9	18.9
8 29	22 51.95	-34 41.5	0.968	1.928	13.2	17.7	8 29	22 50.79	- 1 58.3	1.270	2.273	4.0	18.7
9 8	22 39.44	-33 55.2	0.960	1.905	14.8	17.7	9 8	22 41.01	- 3 1.5	1.277	2.280	3.1	18.6
9 18	22 28.09	-32 23.7	0.972	1.884	17.9	17.8	9 18	22 32.01	- 4 5.7	1.309	2.287	7.7	18.9
9 28	22 19.76	-30 12.3	1.002	1.865	21.4	18.0	9 28	22 24.96	- 5 3.1	1.366	2.294	12.3	19.2
10 8	22 15.45	-27 31.2	1.048	1.848	24.8	18.2	10 8	22 20.59	- 5 47.7	1.445	2.300	16.3	19.5
302807	2003 BE ₆		9 2.4 313°35	3°2/ 4.5 17			106929	2000 YV ₆₂		9 2.4 203°27	1°5/ 1.1 18		
7 30	23 10.17	- 0 7.9	1.644	2.495	15.7	20.2	7 30	23 11.06	- 8 0.4	1.619	2.494	14.7	19.9
8 9	23 5.90	+ 0 16.9	1.539	2.461	12.4	19.9	8 9	23 6.24	- 8 57.4	1.549	2.492	10.9	19.6
8 19	22 59.21	+ 0 27.4	1.455	2.427	8.6	19.6	8 19	22 59.16	-10 7.1	1.501	2.489	6.5	19.4
8 29	22 50.60	+ 0 23.8	1.394	2.394	4.6	19.3	8 29	22 50.52	-11 22.7	1.479	2.486	2.2	19.1
9 8	22 41.02	+ 0 8.5	1.360	2.360	3.7	19.2	9 8	22 41.34	-12 36.0	1.483	2.482	3.8	19.2
9 18	22 31.62	- 0 14.3	1.350	2.328	7.6	19.3	9 18	22 32.74	-13 39.3	1.514	2.479	8.3	19.4
9 28	22 23.64	- 0 38.9	1.366	2.295	12.2	19.5	9 28	22 25.80	-14 26.6	1.569	2.474	12.5	19.7
10 8	22 18.08	- 0 59.6	1.403	2.263	16.4	19.7	10 8	22 21.25	-14 55.0	1.646	2.470	16.1	19.9
206418	2003 SD ₁₃₇		9 2.4 343°68	7°9/29.9 18			27593	Oliviamae		9 2.4 204°43	2°8/31.2 18		
7 30	23 14.09	-24 8.9	1.080	1.989	17.8	18.3	7 30	23 12.91	-11 57.5	1.609	2.489	14.5	19.6
8 9	23 9.68	-24 13.2	1.013	1.968	13.9	18.0	8 9	23 7.64	-12 47.1	1.541	2.487	10.7	19.4
8 19	23 1.78	-24 8.4	0.965	1.948	10.1	17.7	8 19	23 0.01	-13 44.7	1.496	2.484	6.5	19.1
8 29	22 51.39	-23 44.8	0.938	1.931	7.9	17.5	8 29	22 50.78	-14 43.3	1.476	2.481	3.0	18.9
9 8	22 40.16	-22 54.9	0.933	1.915	9.5	17.6	9 8	22 41.02	-15 35.1	1.483	2.478	4.7	19.0
9 18	22 29.95	-21 36.6	0.949	1.902	13.6	17.8	9 18	22 31.91	-16 13.7	1.516	2.474	9.0	19.3
9 28	22 22.42	-19 52.9	0.986	1.891	18.1	18.0	9 28	22 24.55	-16 34.9	1.573	2.470	13.0	19.5
10 8	22 18.53	-17 50.3	1.040	1.882	22.2	18.2	10 8	22 19.68	-16 37.4	1.651	2.465	16.5	19.7
494172	2016 GZ ₁₄₅		9 2.4 51°17	3°7/ 5.3 18			145989	2000 BL ₁₅		9 2.4 176°80	3°9/29.5 18		
7 30	23 9.80	+ 3 8.8	1.180	2.042	19.9	19.9	7 30	23 11.49	-14 45.4	1.828	2.709	13.0	20.8
8 9	23 5.66	+ 2 55.7	1.131	2.057	15.5	19.7	8 9	23 6.33	-16 3.8	1.765	2.711	9.6	20.6
8 19	22 58.88	+ 2 16.5	1.100	2.073	10.6	19.5	8 19	22 59.10	-17 27.5	1.726	2.712	6.1	20.4
8 29	22 50.39	+ 1 14.8	1.091	2.089	5.6	19.2	8 29	22 50.48	-18 48.8	1.714	2.713	3.9	20.3
9 8	22 41.50	- 0 1.3	1.105	2.106	4.0	19.2	9 8	22 41.43	-19 59.4	1.729	2.713	5.7	20.4
9 18	22 33.57	- 1 21.7	1.143	2.123	8.1	19.5	9 18	22 32.95	-20 53.1	1.771	2.713	9.2	20.6
9 28	22 27.77	- 2 36.2	1.204	2.141	12.7	19.8	9 28	22 26.03	-21 26.2	1.838	2.713	12.6	20.8
10 8	22 24.81	- 3 36.9	1.286	2.159	16.8	20.1	10 8	22 21.31	-21 38.3	1.926	2.711	15.5	21.0
244658	2003 HX ₂₀		9 2.4 83°36	3°9/29.2 18			519701	2013 AS ₁₈₇		9 2.4 281°14	2°7/ 4.7 16		
7 30	23 10.13	-17 52.4	2.179	3.058	11.3	20.5	7 30	23 9.68	+ 0 45.9	1.938	2.777	14.2	22.0
8 9	23 4.83	-18 51.1	2.137	3.080	8.3	20.4	8 9	23 4.98	+ 0 51.2	1.850	2.765	11.1	21.7
8 19	22 57.92	-19 49.9	2.119	3.102	5.4	20.2	8 19	22 58.32	+ 0 42.0	1.784	2.753	7.5	21.5
8 29	22 50.02	-20 42.9	2.129	3.123	3.9	20.2	8 29	22 50.27	+ 0 19.5	1.742	2.741	4.0	21.3
9 8	22 41.97	-21 24.6	2.166	3.144	5.3	20.3	9 8	22 41.65	- 0 12.9	1.728	2.729	3.1	21.2
9 18	22 34.54	-21 51.5	2.231	3.165	8.0	20.5	9 18	22 33.42	- 0 50.5	1.741	2.717	6.3	21.4
9 28	22 28.47	-22 2.0	2.321	3.186	10.7	20.7	9 28	22 26.49	- 1 28.0	1.780	2.705	10.1	21.6
10 8	22 24.24	-21 56.3	2.433	3.207	13.0	20.9	10 8	22 21.57	- 2 0.4	1.842	2.693	13.5	21.8
141519	2002 ED ₁₃₇		9 2.4 73°06	0°2/ 2.1 18			515108	2010 WS ₃₃		9 2.4 175°76	4°5/27.8 18		
7 30	23 7.66	- 5 57.4	2.131	2.992	12.2	20.3	7 30	23 8.42	-21 18.5	2.564	3.442	9.9	21.4
8 9	23 3.06	- 6 34.9	2.074	3.008	9.0	20.1	8 9	23 3.55	-22 18.0	2.503	3.443	7.5	21.2
8 19	22 56.89	- 7 22.0	2.040	3.024	5.4	19.9	8 19	22 57.18	-23 16.4	2.468	3.444	5.3	21.1
8 29	22 49.72	- 8 14.3	2.033	3.041	1.6	19.7	8 29	22 49.85	-24 8.0	2.460	3.444	4.5	21.0
9 8	22 42.33	- 9 6.6	2.055	3.057	2.3	19.7	9 8	22 42.24	-24 48.1	2.480	3.445	5.7	21.1
9 18	22 35.47	- 9 54.0	2.104	3.074	6.0	20.0	9 18	22 35.05	-25 13.3	2.528	3.445	8.0	21.3
9 28	22 29.85	-10 32.4	2.180	3.090	9.3	20.3	9 28	22 28.98	-25 22.0	2.600	3.445	10.3	21.4
10 8	22 25.98	-10 59.1	2.280	3.106	12.1	20.5	10 8	22 24.53	-25 14.4	2.695	3.444	12.4	21.6
170173	2003 HF ₃₈		9 2.4 44°81	3°3/ 4.7 17			94023	2000 XL ₃₆		9 2.4 287°24	5°4/ 6.1 18		
7 30	23 10.80	+ 1 6.0	1.061	1.936	20.7	19.0	7 30	23 13.44	+ 4 54.3	1.724	2.546	16.4	18.4
8 9	23 6.58	+ 1 3.0	1.017	1.952	16.0	18.8	8 9	23 8.04	+ 5 41.2	1.638	2.536	13.3	18.2
8 19	22 59.51	+ 0 35.0	0.990	1.968	10.7	18.5	8 19	23 0.32	+ 6 11.3	1.573	2.526	9.8	17.9
8 29	22 50.59	- 0 14.2	0.984	1.986	5.3	18.3	8 29	22 50.92	+ 6 23.4	1.531	2.516	6.6	17.7
9 8	22 41.28	- 1 16.5	1.001	2.004	3.9	18.3	9 8	22 40.81	+ 6 18.8	1.516	2.506	5.4	17.6
9 18	22 33.08	- 2 21.7	1.041	2.022	8.5	18.6	9 18	22 31.12	+ 6 0.7	1.527	2.496	7.7	17.8
9 28	22 27.22	- 3 20.3	1.103	2.041	13.5	18.9	9 28	22 22.98	+ 5 34.6	1.563	2.487	11.3	17.9
10 8	22 24.43	- 4 5.1	1.185	2.060	17.7	19.3	10 8	22 17.22	+ 5 7.0	1.621	2.477	14.8	18.1
115342	2003 SO ₂₂₇		9 2.4 16°55	0°5/ 2.9 18			521538	2015 OQ ₁₀₀		9 2.4 102°38	2°2/ 4.6 18		
7 30	23 10.17	- 4 37.2	1.774	2									

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
9109	Yukomotizuki	9 2.4 291.40	0.8/ 1.7 18				439632	2014 FS ₅₃	9 2.4 5.22	3.5/30.1 18			
7 30	23 7.83	- 5 16.1	1.420	2.300	16.1	17.9	7 30	23 7.58	-13 58.8	1.750	2.638	13.1	20.4
8 9	23 4.18	- 6 17.3	1.345	2.289	12.1	17.7	8 9	23 3.50	-15 1.7	1.688	2.638	9.6	20.2
8 19	22 58.09	- 7 36.8	1.291	2.279	7.3	17.4	8 19	22 57.41	-16 10.3	1.650	2.638	6.0	20.0
8 29	22 50.24	- 9 8.1	1.261	2.269	2.2	17.0	8 29	22 49.99	-17 17.5	1.637	2.639	3.5	19.8
9 8	22 41.70	-10 41.5	1.256	2.258	3.5	17.1	9 8	22 42.17	-18 15.7	1.651	2.640	5.3	19.9
9 18	22 33.70	-12 6.8	1.277	2.248	8.8	17.4	9 18	22 34.93	-18 59.0	1.690	2.641	8.8	20.1
9 28	22 27.44	-13 15.5	1.322	2.238	13.5	17.6	9 28	22 29.19	-19 23.7	1.754	2.643	12.3	20.4
10 8	22 23.75	-14 2.6	1.386	2.228	17.6	17.9	10 8	22 25.59	-19 29.0	1.839	2.645	15.4	20.6
435065	2006 YO ₈	9 2.4 239.36	3.0/30.7 18				455126	2015 VO ₇₂	9 2.4 298.14	3.4/ 6.4 18			
7 30	23 10.32	-11 52.1	1.633	2.517	14.2	21.1	7 30	23 4.28	+ 6 10.5	2.255	3.070	13.2	21.3
8 9	23 5.72	-12 56.2	1.564	2.512	10.4	20.8	8 9	23 0.75	+ 5 43.1	2.160	3.056	10.6	21.1
8 19	22 58.86	-14 9.3	1.518	2.507	6.3	20.6	8 19	22 55.66	+ 4 57.1	2.087	3.042	7.6	20.9
8 29	22 50.44	-15 24.0	1.497	2.501	3.1	20.4	8 29	22 49.45	+ 3 54.0	2.039	3.028	4.7	20.7
9 8	22 41.48	-16 31.6	1.502	2.495	5.0	20.5	9 8	22 42.81	+ 2 37.7	2.018	3.015	3.4	20.6
9 18	22 33.10	-17 25.0	1.534	2.489	9.1	20.7	9 18	22 36.45	+ 1 13.9	2.025	3.001	5.6	20.7
9 28	22 26.36	-17 59.4	1.589	2.483	13.1	20.9	9 28	22 31.13	- 0 10.8	2.060	2.988	8.7	20.8
10 8	22 21.99	-18 13.1	1.665	2.477	16.5	21.2	10 8	22 27.42	- 1 29.9	2.119	2.975	11.8	21.0
385357	2002 PJ ₁₂₉	9 2.4 55.61	2.7/30.6 18				105439	2000 QM ₁₇₉	9 2.4 348.48	1.6/ 1.0 18			
7 30	23 6.80	- 9 58.6	1.676	2.561	13.8	20.1	7 30	23 8.08	- 9 53.8	1.811	2.689	13.2	19.5
8 9	23 2.91	-11 26.0	1.620	2.569	10.1	19.8	8 9	23 3.81	-10 28.0	1.742	2.686	9.8	19.3
8 19	22 57.03	-13 3.8	1.588	2.577	6.0	19.6	8 19	22 57.58	-11 10.4	1.695	2.684	5.9	19.1
8 29	22 49.84	-14 43.5	1.581	2.586	2.8	19.4	8 29	22 50.05	-11 55.9	1.674	2.681	2.0	18.8
9 8	22 42.29	-16 16.1	1.601	2.595	4.7	19.6	9 8	22 42.10	-12 38.5	1.680	2.679	3.5	18.9
9 18	22 35.34	-17 33.6	1.648	2.604	8.6	19.9	9 18	22 34.67	-13 12.8	1.712	2.678	7.5	19.1
9 28	22 29.92	-18 30.9	1.720	2.613	12.3	20.1	9 28	22 28.69	-13 34.7	1.770	2.677	11.2	19.4
10 8	22 26.65	-19 6.1	1.812	2.622	15.4	20.3	10 8	22 24.77	-13 42.0	1.849	2.676	14.5	19.6
521374	2015 ME ₁₄₁	9 2.4 37.14	0.5/ 1.9 18				299217	2005 JV ₇₁	9 2.4 76.41	8.3/11.3 18			
7 30	23 7.25	- 5 48.5	1.723	2.595	14.1	21.2	7 30	23 10.30	+17 10.9	1.943	2.692	17.2	20.2
8 9	23 3.19	- 6 34.0	1.660	2.600	10.5	20.9	8 9	23 5.34	+17 49.7	1.878	2.709	14.8	20.1
8 19	22 57.19	- 7 32.2	1.620	2.606	6.3	20.7	8 19	22 58.46	+18 3.4	1.832	2.725	12.2	19.9
8 29	22 49.89	- 8 37.7	1.605	2.612	1.9	20.4	8 29	22 50.31	+17 50.5	1.807	2.742	9.8	19.8
9 8	22 42.23	- 9 43.4	1.616	2.619	2.8	20.5	9 8	22 41.79	+17 12.2	1.806	2.758	8.4	19.8
9 18	22 35.14	-10 42.8	1.654	2.625	7.1	20.8	9 18	22 33.83	+16 13.1	1.831	2.775	8.7	19.8
9 28	22 29.53	-11 30.1	1.718	2.632	11.1	21.1	9 28	22 27.32	+15 0.1	1.880	2.791	10.5	20.0
10 8	22 26.02	-12 2.0	1.803	2.639	14.4	21.3	10 8	22 22.86	+13 41.8	1.954	2.808	12.7	20.1
13792	Kuščynskij	9 2.4 301.48	1.9/31.5 18				84534	2002 UR ₁₆	9 2.4 322.28	0.4/ 1.9 18			
7 30	23 7.41	-11 22.2	2.131	3.006	11.7	18.1	7 30	23 5.91	- 4 39.8	1.829	2.697	13.6	19.3
8 9	23 3.16	-11 59.4	2.046	2.989	8.6	17.9	8 9	23 2.21	- 5 41.2	1.755	2.693	10.1	19.0
8 19	22 57.14	-12 43.2	1.984	2.971	5.2	17.7	8 19	22 56.63	- 6 57.2	1.704	2.690	6.1	18.8
8 29	22 49.90	-13 29.1	1.948	2.954	2.1	17.4	8 29	22 49.77	- 8 22.3	1.679	2.686	1.8	18.5
9 8	22 42.17	-14 11.6	1.941	2.937	3.6	17.5	9 8	22 42.45	- 9 49.1	1.680	2.683	2.7	18.6
9 18	22 34.80	-14 45.8	1.960	2.920	7.1	17.7	9 18	22 35.59	-11 9.9	1.710	2.680	7.0	18.8
9 28	22 28.61	-15 8.0	2.005	2.903	10.6	17.9	9 28	22 30.08	-12 18.0	1.765	2.677	10.9	19.1
10 8	22 24.24	-15 16.1	2.073	2.887	13.6	18.1	10 8	22 26.54	-13 9.4	1.842	2.674	14.3	19.3
196434	2003 HW ₂₉	9 2.4 37.80	2.8/31.3 18				476692	2008 TO ₁₀₃	9 2.4 251.90	4.3/29.8 18			
7 30	23 10.34	-11 42.1	1.279	2.174	16.5	19.0	7 30	23 13.11	-17 30.4	1.824	2.705	13.0	21.0
8 9	23 5.89	-12 27.0	1.236	2.189	12.0	18.8	8 9	23 7.63	-18 15.0	1.752	2.697	9.7	20.8
8 19	22 58.94	-13 19.8	1.215	2.205	7.2	18.6	8 19	22 59.97	-19 1.5	1.704	2.688	6.4	20.6
8 29	22 50.44	-14 12.6	1.216	2.222	3.1	18.4	8 29	22 50.81	-19 43.2	1.681	2.679	4.3	20.5
9 8	22 41.65	-14 56.9	1.242	2.240	5.0	18.5	9 8	22 41.15	-20 13.5	1.686	2.669	5.9	20.5
9 18	22 33.85	-15 26.5	1.293	2.257	9.5	18.9	9 18	22 32.06	-20 27.6	1.717	2.660	9.3	20.7
9 28	22 28.12	-15 37.6	1.366	2.276	13.7	19.2	9 28	22 24.57	-20 23.4	1.772	2.650	12.8	20.9
10 8	22 25.07	-15 29.8	1.459	2.295	17.2	19.4	10 8	22 19.39	-20 1.1	1.848	2.640	15.8	21.1
253421	2003 QO ₄₄	9 2.4 332.41	2.2/ 1.3 17				175372	2005 SM ₂₀₁	9 2.4 215.71	0.4/ 1.7 17			
7 30	23 13.36	-12 17.3	1.080	1.981	18.4	20.1	7 30	23 3.77	- 8 0.5	3.715	4.567	7.7	21.8
8 9	23 9.02	-12 11.0	1.011	1.966	13.8	19.8	8 9	22 59.73	- 8 29.1	3.630	4.561	5.7	21.6
8 19	23 1.39	-12 11.3	0.961	1.953	8.5	19.5	8 19	22 54.74	- 9 2.5	3.571	4.554	3.4	21.5
8 29	22 51.34	-12 12.3	0.933	1.940	3.0	19.1	8 29	22 49.12	- 9 38.5	3.540	4.548	1.0	21.3
9 8	22 40.38	-12 7.2	0.927	1.929	4.8	19.2	9 8	22 43.29	-10 14.2	3.540	4.541	1.6	21.3
9 18	22 30.26	-11 50.8	0.944	1.918	10.6	19.5	9 18	22 37.67	-10 47.2	3.569	4.534	4.0	21.5
9 28	22 22.59	-11 20.0	0.983	1.909	16.0	19.7	9 28	22 32.69	-11 15.0	3.627	4.527	6.2	21.7
10 8	22 18.39	-10 34.3	1.039	1.901	20.7	20.0	10 8	22 28.71	-11 35.8	3.711	4.519	8.2	21.8
468009	2013 AS ₄₀	9 2.4 272.13	0.7/ 3.8 16				315841	2008 HW ₈	9 2.4 23.23	4.5/28.6 18			
7 30	23 0.76	- 2 23.8	4.463	5.295	6.9	21.6	7 30	23 6.59	-17 12.1	1.931	2.821	12.0	20.4
8 9	22 57.38	- 2 39.5	4.374	5.289	5.2	21.5	8 9	23 2.60	-18 30.0	1.875	2.824	8.9	20.2
8 19	22 53.25	- 3 1.0	4.310	5.283	3.3	21.3	8 19	22 56.80	-19 50.5	1.843	2.828	5.9	20.1
8 29	22 48.64	- 3 26.9	4.274	5.277	1.4	21.2	8 29	22 49.80	-21 6.0	1.838	2.832	4.5	20.0
9 8	22 43.85	- 3 55.3	4.268	5.272	1.1	21.1	9 8	22 42.45	-22 9.4	1.859	2.836	6.1	20.1
9 18	22 39.24	- 4 24.3	4.292	5.266	3.0	21.3	9 18	22 35.65	-22 55.4	1.906	2.840	9.1	20.3
9 28	22 35.11	- 4 51.7	4.345	5.260	4.9	21.4	9 28	22 30.22	-23 21.1	1.977	2.845	12.1	20.5
10 8	22 31.78	- 5 15.7	4.425	5.254	6.6	21.5	10 8	22 26.75	-23 26.4	2.069	2.850	14.7	20.7
442596	2012 DT ₄	9 2.4 267.93	4.0/28.5 18				40988	1999 TN ₃₁₁	9 2.4 262.96	0.5/ 1.9 18			
7 30	23 7.86	-17 25.1	2.369	3.248	10.5	21.4							

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
288011	2003 <i>UH</i> ₂₀₇		9 2.4 312°60	1.7/ 4.2	18		383260	2006 <i>CA</i> ₆₆		9 2.4 134°55	1.4/ 3.9	17	
7 30	23 6.33	- 0 43.1	2.207	3.051	12.5	20.6	7 30	23 11.42	- 0 51.3	2.417	3.247	12.0	22.0
8 9	23 2.26	- 0 54.5	2.121	3.041	9.6	20.4	8 9	23 5.71	- 1 13.1	2.351	3.264	9.1	21.8
8 19	22 56.56	- 1 18.8	2.058	3.031	6.3	20.2	8 19	22 58.50	- 1 46.6	2.308	3.280	5.9	21.7
8 29	22 49.74	- 1 53.7	2.020	3.022	3.0	19.9	8 29	22 50.34	- 2 28.8	2.293	3.295	2.6	21.5
9 8	22 42.50	- 2 35.4	2.010	3.013	2.3	19.9	9 8	22 41.93	- 3 15.9	2.307	3.310	2.0	21.5
9 18	22 35.60	- 3 19.5	2.028	3.004	5.5	20.1	9 18	22 34.01	- 4 3.4	2.351	3.324	5.1	21.7
9 28	22 29.81	- 4 1.1	2.072	2.995	9.0	20.3	9 28	22 27.25	- 4 46.9	2.423	3.337	8.3	21.9
10 8	22 25.70	- 4 35.8	2.140	2.986	12.1	20.5	10 8	22 22.15	- 5 23.1	2.520	3.349	11.0	22.1
444285	2005 <i>UB</i> ₄₄₆		9 2.4 299°51	3.4/ 5.5	17		176836	2002 <i>TT</i> ₁₉₇		9 2.4 134°81	2.4/ 31.6	18	
7 30	23 7.67	+ 2 58.9	2.008	2.839	14.0	21.0	7 30	23 17.11	- 12 56.4	1.735	2.606	14.1	19.9
8 9	23 3.51	+ 3 3.3	1.912	2.819	11.2	20.8	8 9	23 10.46	- 13 20.7	1.676	2.616	10.4	19.7
8 19	22 57.48	+ 2 51.7	1.836	2.799	7.9	20.5	8 19	23 1.60	- 13 49.6	1.640	2.626	6.3	19.5
8 29	22 50.07	+ 2 24.9	1.786	2.779	4.6	20.3	8 29	22 51.32	- 14 17.4	1.630	2.635	2.7	19.3
9 8	22 42.07	+ 1 45.9	1.761	2.760	3.5	20.2	9 8	22 40.73	- 14 38.4	1.648	2.644	4.2	19.4
9 18	22 34.34	+ 0 59.2	1.764	2.740	6.3	20.3	9 18	22 30.92	- 14 48.5	1.694	2.653	8.1	19.6
9 28	22 27.81	+ 0 10.7	1.794	2.721	9.9	20.5	9 28	22 22.91	- 14 45.3	1.765	2.661	11.9	19.9
10 8	22 23.18	- 0 33.9	1.846	2.702	13.3	20.7	10 8	22 17.34	- 14 28.5	1.858	2.668	15.1	20.1
443903	2002 <i>CJ</i> ₃₀₉		9 2.4 81°65	1.1/ 3.4	18		145743	1995 <i>SN</i> ₇₇		9 2.4 311°11	4.8/ 7.3	18	
7 30	23 12.88	- 3 56.3	2.217	3.060	12.5	20.5	7 30	23 6.89	+ 7 56.4	2.016	2.823	14.8	20.3
8 9	23 6.81	- 3 51.9	2.161	3.082	9.4	20.3	8 9	23 2.84	+ 8 0.3	1.931	2.818	12.1	20.1
8 19	22 59.14	- 3 56.8	2.127	3.104	5.9	20.2	8 19	22 57.01	+ 7 44.7	1.868	2.813	9.0	19.9
8 29	22 50.49	- 4 8.6	2.121	3.126	2.3	20.0	8 29	22 49.94	+ 7 9.8	1.828	2.808	6.1	19.7
9 8	22 41.67	- 4 23.9	2.144	3.147	2.0	20.0	9 8	22 42.39	+ 6 18.8	1.814	2.804	4.8	19.6
9 18	22 33.44	- 4 39.5	2.196	3.169	5.5	20.3	9 18	22 35.23	+ 5 16.4	1.827	2.799	6.5	19.7
9 28	22 26.54	- 4 51.9	2.275	3.190	8.7	20.5	9 28	22 29.29	+ 4 9.3	1.866	2.795	9.5	19.9
10 8	22 21.46	- 4 58.6	2.378	3.211	11.5	20.7	10 8	22 25.22	+ 3 4.3	1.930	2.790	12.6	20.1
513413	2008 <i>SU</i> ₂₄₆		9 2.4 300°35	2.5/ 31.8	18		446124	2013 <i>EN</i> ₂₁		9 2.4 60°88	2.0/ 4.5	18	
7 30	23 15.07	- 13 32.1	1.573	2.453	14.8	21.6	7 30	23 8.16	+ 0 8.3	2.019	2.861	13.6	21.0
8 9	23 9.51	- 13 39.3	1.489	2.434	11.1	21.3	8 9	23 3.60	- 0 2.7	1.954	2.872	10.4	20.8
8 19	23 1.36	- 13 50.8	1.428	2.415	6.8	21.0	8 19	22 57.35	- 0 27.9	1.911	2.883	6.9	20.6
8 29	22 51.32	- 14 1.3	1.391	2.396	2.9	20.7	8 29	22 50.00	- 1 4.6	1.894	2.895	3.3	20.4
9 8	22 40.53	- 14 5.0	1.380	2.378	4.5	20.8	9 8	22 42.36	- 1 48.6	1.904	2.906	2.5	20.4
9 18	22 30.28	- 13 57.5	1.396	2.359	9.0	21.0	9 18	22 35.23	- 2 34.7	1.942	2.918	5.7	20.6
9 28	22 21.83	- 13 36.3	1.435	2.341	13.4	21.2	9 28	22 29.39	- 3 17.9	2.006	2.930	9.2	20.9
10 8	22 16.06	- 13 0.7	1.496	2.323	17.3	21.4	10 8	22 25.39	- 3 53.8	2.094	2.942	12.2	21.1
475989	2007 <i>PZ</i> ₄₂		9 2.4 358°91	2.5/ 30.9	18		212828	2007 <i>UP</i> ₄₇		9 2.4 318°91	3.1/ 5.2	18	
7 30	23 1.94	- 7 6.5	1.287	2.186	16.2	19.9	7 30	23 5.44	+ 2 32.1	1.582	2.433	16.2	20.0
8 9	22 59.89	- 8 50.5	1.226	2.182	11.9	19.7	8 9	23 2.29	+ 2 18.5	1.493	2.414	12.8	19.7
8 19	22 55.50	- 10 53.5	1.187	2.180	7.0	19.4	8 19	22 56.94	+ 1 43.5	1.425	2.396	8.9	19.5
8 29	22 49.48	- 13 4.8	1.172	2.179	2.8	19.1	8 29	22 49.97	+ 0 48.9	1.379	2.378	4.8	19.2
9 8	22 42.92	- 15 11.3	1.182	2.179	5.1	19.3	9 8	22 42.31	- 0 20.2	1.359	2.360	3.5	19.1
9 18	22 37.00	- 17 0.5	1.216	2.180	10.0	19.6	9 18	22 35.01	- 1 36.5	1.364	2.344	7.2	19.2
9 28	22 32.82	- 18 23.6	1.273	2.182	14.5	19.8	9 28	22 29.19	- 2 51.3	1.393	2.327	11.6	19.5
10 8	22 31.14	- 19 17.0	1.349	2.186	18.3	20.1	10 8	22 25.66	- 3 56.5	1.445	2.312	15.6	19.7
69206	2167 <i>T</i> ₋₂		9 2.4 31°66	3.1/ 4.8	18		318253	2004 <i>RV</i> ₃₂₇		9 2.4 324°51	2.0/ 31.3	18	
7 30	23 5.96	+ 2 21.2	0.972	1.855	21.5	18.7	7 30	23 11.08	- 14 19.4	1.978	2.855	12.3	20.2
8 9	23 3.21	+ 1 50.9	0.929	1.869	16.6	18.5	8 9	23 5.94	- 14 37.0	1.903	2.846	9.1	20.0
8 19	22 57.60	+ 0 50.6	0.903	1.884	11.0	18.2	8 19	22 58.88	- 14 57.6	1.851	2.838	5.6	19.8
8 29	22 50.12	- 0 33.9	0.897	1.900	5.3	18.0	8 29	22 50.52	- 15 16.7	1.826	2.830	2.7	19.6
9 8	22 42.21	- 2 11.5	0.913	1.917	3.7	18.0	9 8	22 41.73	- 15 29.4	1.828	2.823	4.1	19.6
9 18	22 35.36	- 3 48.9	0.952	1.936	8.7	18.3	9 18	22 33.45	- 15 32.2	1.858	2.815	7.6	19.8
9 28	22 30.82	- 5 14.1	1.012	1.955	13.9	18.7	9 28	22 26.58	- 15 22.5	1.912	2.808	11.1	20.0
10 8	22 29.29	- 6 19.0	1.091	1.975	18.3	19.0	10 8	22 21.75	- 15 0.0	1.989	2.802	14.2	20.2
54214	2000 <i>HP</i> ₉₂		9 2.4 260°35	1.5/ 3.9	18		3019	<i>Kulin</i>		9 2.4 279°22	1.4/ 1.0	18	
7 30	23 8.13	- 1 4.6	1.993	2.840	13.5	20.1	7 30	23 8.16	- 9 17.2	1.991	2.863	12.5	16.4
8 9	23 3.74	- 1 25.6	1.911	2.834	10.4	19.9	8 9	23 3.77	- 10 0.1	1.916	2.858	9.2	16.2
8 19	22 57.54	- 2 0.9	1.852	2.828	6.7	19.7	8 19	22 57.56	- 10 51.7	1.865	2.853	5.5	16.0
8 29	22 50.08	- 2 47.8	1.818	2.822	2.9	19.5	8 29	22 50.11	- 11 46.9	1.841	2.848	1.9	15.7
9 8	22 42.17	- 3 41.4	1.812	2.815	2.3	19.4	9 8	22 42.24	- 12 39.8	1.843	2.842	3.3	15.8
9 18	22 34.66	- 4 36.3	1.833	2.809	6.1	19.6	9 18	22 34.81	- 13 24.9	1.874	2.837	7.1	16.0
9 28	22 28.41	- 5 26.6	1.881	2.803	9.8	19.8	9 28	22 28.68	- 13 57.9	1.929	2.832	10.7	16.3
10 8	22 24.07	- 6 7.8	1.952	2.797	13.1	20.1	10 8	22 24.47	- 14 16.3	2.008	2.827	13.8	16.5
157816	1996 <i>GM</i> ₇		9 2.4 291°85	4.4/ 28.9	18		420753	2013 <i>AW</i> ₁₃₁		9 2.4 350°33	3.5/ 8.6	17	
7 30	23 10.21	- 19 57.6	2.215	3.095	11.1	20.3	7 30	23 3.04	+ 10 32.5	4.186	4.944	8.5	20.4
8 9	23 5.12	- 20 40.4	2.147	3.089	8.4	20.1	8 9	22 59.14	+ 10 48.5	4.095	4.943	7.1	20.3
8 19	22 58.28	- 21 22.6	2.104	3.084	5.7	19.9	8 19	22 54.38	+ 10 54.6	4.027	4.943	5.5	20.1
8 29	22 50.29	- 21 58.5	2.087	3.079	4.4	19.8	8 29	22 49.07	+ 10 50.7	3.984	4.942	4.1	20.0
9 8	22 41.94	- 22 23.0	2.098	3.073	5.7	19.9	9 8	22 43.55	+ 10 37.8	3.970	4.941	3.5	20.0
9 18	22 34.10	- 22 32.7	2.136	3.068	8.4	20.1	9 18	22 38.21	+ 10 17.6	3.985	4.940	4.0	20.0
9 28	22 27.55	- 22 25.9	2.198	3.063	11.2	20.2	9 28	22 33.43	+ 9 52.4	4.028	4.940	5.3	20.1
10 8	22 22.87	- 22 3.1	2.283	3.058	13.7	20.4	10 8	22 29.52	+ 9 24.8	4.097	4.939	6.9	20.2
350377	2012 <i>UQ</i> ₁₅₅		9 2.4 200°30	0.7/ 3.1	18		90496	2004 <i>DH</i>					

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9 2.4

9 2.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
359347	2009 SX ₂₀₇		9 2.4 300°04	0°3/ 3.1	16		511294	2014 DR ₆₅		9 2.5 218°02	7°0/27.7	18	
7 30	23 1.38	- 4 39.3	4.175	5.017	7.1	21.1	7 30	23 22.88	-29 17.6	2.220	3.075	12.0	21.9
8 9	22 57.93	- 4 56.2	4.085	5.008	5.3	21.0	8 9	23 14.58	-29 50.5	2.151	3.068	9.7	21.7
8 19	22 53.65	- 5 18.4	4.020	4.999	3.3	20.8	8 19	23 4.09	-30 14.5	2.106	3.060	7.7	21.6
8 29	22 48.85	- 5 44.3	3.984	4.990	1.2	20.7	8 29	22 52.18	-30 22.9	2.089	3.051	7.0	21.5
9 8	22 43.86	- 6 11.9	3.978	4.981	1.2	20.7	9 8	22 39.93	-30 10.8	2.100	3.042	8.1	21.6
9 18	22 39.05	- 6 39.1	4.001	4.973	3.3	20.8	9 18	22 28.44	-29 36.6	2.138	3.032	10.4	21.7
9 28	22 34.77	- 7 3.7	4.053	4.964	5.3	21.0	9 28	22 18.71	-28 41.5	2.202	3.022	12.8	21.9
10 8	22 31.33	- 7 23.8	4.131	4.956	7.2	21.1	10 8	22 11.41	-27 29.0	2.288	3.011	15.1	22.0
304341	2006 SN ₂₅₈		9 2.4 314°60	0°1/ 2.3	18		295530	2008 RC ₁₂₄		9 2.5 290°42	0°2/ 2.9	15	
7 30	23 8.62	- 6 7.5	1.857	2.724	13.5	21.1	7 30	23 1.37	- 5 18.5	4.351	5.194	6.8	21.4
8 9	23 4.23	- 6 30.7	1.781	2.718	10.1	20.9	8 9	22 57.90	- 5 34.9	4.265	5.189	5.1	21.2
8 19	22 57.91	- 7 5.0	1.727	2.711	6.2	20.6	8 19	22 53.65	- 5 56.2	4.204	5.184	3.1	21.1
8 29	22 50.24	- 7 46.3	1.698	2.705	1.9	20.3	8 29	22 48.89	- 6 20.7	4.172	5.178	1.1	20.9
9 8	22 42.11	- 8 29.3	1.696	2.699	2.5	20.4	9 8	22 43.98	- 6 46.5	4.169	5.173	1.1	20.9
9 18	22 34.45	- 9 8.5	1.722	2.694	6.8	20.6	9 18	22 39.23	- 7 11.5	4.197	5.168	3.2	21.1
9 28	22 28.17	- 9 39.2	1.772	2.688	10.7	20.9	9 28	22 35.00	- 7 33.9	4.253	5.162	5.1	21.2
10 8	22 23.92	- 9 57.9	1.846	2.683	14.1	21.1	10 8	22 31.58	- 7 51.8	4.335	5.157	6.9	21.4
311120	2004 PW ₃₆		9 2.4 9°71	2°9/ 5.2	18		335713	2007 CK ₄		9 2.5 97°84	1°3/ 3.4	16	
7 30	23 7.87	+ 1 48.3	1.965	2.802	14.1	20.1	7 30	23 13.93	- 3 41.9	1.609	2.467	15.6	20.9
8 9	23 3.53	+ 1 50.1	1.890	2.803	11.0	19.9	8 9	23 8.33	- 3 40.8	1.545	2.474	11.9	20.6
8 19	22 57.41	+ 1 36.6	1.837	2.804	7.6	19.7	8 19	23 0.46	- 3 52.9	1.502	2.481	7.5	20.4
8 29	22 50.08	+ 1 9.3	1.808	2.805	4.2	19.5	8 29	22 51.09	- 4 15.0	1.483	2.488	2.9	20.1
9 8	22 42.34	+ 0 32.0	1.807	2.807	3.1	19.4	9 8	22 41.29	- 4 42.2	1.492	2.495	2.6	20.1
9 18	22 35.06	- 0 10.5	1.832	2.809	6.0	19.6	9 18	22 32.19	- 5 9.4	1.527	2.502	7.1	20.4
9 28	22 29.07	- 0 52.8	1.884	2.811	9.5	19.8	9 28	22 24.84	- 5 31.4	1.587	2.509	11.3	20.7
10 8	22 24.98	- 1 29.9	1.959	2.813	12.7	20.1	10 8	22 19.92	- 5 44.5	1.669	2.515	14.9	20.9
470570	2008 GB ₁₁₉		9 2.4 111°95	2°9/ 5.0	17		213502	2002 GC ₇₇		9 2.5 120°75	1°7/ 1.1	17	
7 30	23 9.48	+ 2 44.7	1.597	2.440	16.5	21.4	7 30	23 11.15	- 7 54.6	1.428	2.309	16.0	20.4
8 9	23 5.07	+ 2 19.2	1.529	2.446	12.9	21.2	8 9	23 6.54	- 8 54.4	1.368	2.314	11.8	20.1
8 19	22 58.49	+ 1 32.6	1.481	2.451	8.7	21.0	8 19	22 59.50	-10 7.7	1.329	2.318	7.0	19.9
8 29	22 50.44	+ 0 28.0	1.457	2.456	4.5	20.8	8 29	22 50.81	-11 27.1	1.315	2.322	2.3	19.6
9 8	22 41.93	- 0 48.3	1.459	2.461	3.2	20.7	9 8	22 41.63	-12 43.0	1.326	2.326	4.0	19.7
9 18	22 34.02	- 2 8.5	1.488	2.466	6.9	20.9	9 18	22 33.19	-13 47.1	1.363	2.330	8.8	20.0
9 28	22 27.72	- 3 24.0	1.542	2.471	11.1	21.2	9 28	22 26.60	-14 33.2	1.424	2.334	13.3	20.3
10 8	22 23.74	- 4 28.2	1.619	2.476	14.7	21.4	10 8	22 22.61	-14 58.7	1.506	2.337	17.0	20.5
332314	2006 WT ₆		9 2.4 246°10	3°8/30.2	18		332497	2008 FQ ₁₀₃		9 2.5 251°29	0°4/ 2.8	17	
7 30	23 11.06	-13 35.5	1.551	2.438	14.5	20.6	7 30	23 9.01	- 2 51.1	1.591	2.455	15.5	20.9
8 9	23 6.43	-14 42.9	1.484	2.434	10.7	20.4	8 9	23 4.87	- 3 39.7	1.514	2.449	11.7	20.7
8 19	22 59.41	-15 57.9	1.441	2.429	6.7	20.1	8 19	22 58.49	- 4 46.3	1.459	2.442	7.3	20.4
8 29	22 50.75	-17 12.2	1.422	2.424	3.8	19.9	8 29	22 50.52	- 6 5.9	1.428	2.435	2.5	20.1
9 8	22 41.53	-18 16.9	1.429	2.419	5.8	20.1	9 8	22 41.95	- 7 30.5	1.424	2.428	2.7	20.1
9 18	22 32.94	-19 4.6	1.462	2.414	9.8	20.3	9 18	22 33.89	- 8 51.6	1.447	2.421	7.5	20.4
9 28	22 26.11	-19 31.1	1.518	2.408	13.8	20.5	9 28	22 27.42	-10 1.2	1.494	2.414	12.0	20.6
10 8	22 21.78	-19 35.5	1.594	2.403	17.2	20.7	10 8	22 23.28	-10 53.9	1.563	2.406	15.9	20.8
27255	1999 XD ₃₄		9 2.5 64°17	1°2/ 3.3	18		314191	2005 JS ₁₁₉		9 2.5 205°39	5°3/15.3	17	
7 30	23 13.89	- 3 58.6	1.416	2.282	16.9	17.6	7 30	23 1.05	+24 53.7	4.677	5.316	9.1	21.2
8 9	23 8.45	- 3 58.2	1.360	2.294	12.8	17.4	8 9	22 57.69	+25 0.0	4.580	5.315	8.1	21.1
8 19	23 0.56	- 4 12.2	1.324	2.306	8.0	17.2	8 19	22 53.54	+24 52.9	4.502	5.313	7.1	21.0
8 29	22 51.09	- 4 36.8	1.313	2.318	3.0	16.9	8 29	22 48.88	+24 31.8	4.446	5.312	6.1	20.9
9 8	22 41.23	- 5 6.6	1.327	2.331	2.7	16.9	9 8	22 44.03	+23 57.3	4.416	5.311	5.5	20.9
9 18	22 32.22	- 5 35.5	1.367	2.343	7.6	17.3	9 18	22 39.35	+23 10.9	4.411	5.310	5.3	20.9
9 28	22 25.18	- 5 57.9	1.431	2.356	12.1	17.6	9 28	22 35.19	+22 15.0	4.434	5.308	5.8	20.9
10 8	22 20.79	- 6 10.2	1.516	2.368	15.8	17.8	10 8	22 31.86	+21 12.8	4.482	5.307	6.6	21.0
272632	2005 WF ₇₁		9 2.5 289°16	4°4/ 6.9	18		246208	2007 RW ₁₄₄		9 2.5 333°96	2°6/ 4.9	18	
7 30	23 7.40	+ 7 0.4	2.185	2.991	13.9	20.5	7 30	23 7.33	+ 1 51.3	1.712	2.558	15.4	20.1
8 9	23 3.16	+ 7 10.1	2.093	2.980	11.3	20.3	8 9	23 3.44	+ 1 30.8	1.636	2.555	12.0	19.8
8 19	22 57.21	+ 7 2.6	2.022	2.969	8.4	20.1	8 19	22 57.53	+ 0 51.4	1.581	2.552	8.1	19.6
8 29	22 50.06	+ 6 38.1	1.976	2.958	5.6	19.9	8 29	22 50.21	- 0 4.6	1.550	2.549	4.1	19.4
9 8	22 42.42	+ 5 59.0	1.957	2.947	4.5	19.8	9 8	22 42.39	- 1 11.4	1.544	2.547	3.0	19.3
9 18	22 35.08	+ 5 9.5	1.965	2.936	6.2	19.9	9 18	22 35.06	- 2 22.3	1.566	2.544	6.6	19.5
9 28	22 28.87	+ 4 14.9	1.999	2.925	9.1	20.0	9 28	22 29.17	- 3 29.7	1.613	2.542	10.6	19.7
10 8	22 24.40	+ 3 21.3	2.058	2.914	12.1	20.2	10 8	22 25.41	- 4 27.2	1.682	2.540	14.2	20.0
43236	2000 AB ₁₉₉		9 2.5 126°89	4°7/ 8.1	18		279183	2009 SZ ₃₃₆		9 2.5 357°47	8°6/26.9	18	
7 30	23 7.26	+ 9 44.5	2.557	3.338	12.7	19.1	7 30	22 57.07	-18 27.9	0.796	1.738	18.6	18.5
8 9	23 2.74	+ 9 54.5	2.476	3.343	10.5	19.0	8 9	22 57.36	-20 10.1	0.753	1.728	14.0	18.2
8 19	22 56.79	+ 9 48.2	2.417	3.347	8.0	18.8	8 19	22 54.47	-21 57.2	0.728	1.721	10.0	17.9
8 29	22 49.89	+ 9 25.9	2.382	3.352	5.7	18.7	8 29	22 49.34	-23 32.5	0.721	1.717	8.7	17.9
9 8	22 42.68	+ 8 49.6	2.375	3.356	4.7	18.6	9 8	22 43.53	-24 40.0	0.734	1.716	11.4	18.0
9 18	22 35.80	+ 8 2.8	2.396	3.360	5.7	18.7	9 18	22 38.72	-25 9.5	0.764	1.718	15.9	18.3
9 28	22 29.92	+ 7 10.3	2.444	3.364	7.9	18.8	9 28	22 36.38	-24 58.2	0.811	1.722	20.3	18.5
10 8	22 25.55	+ 6 17.2	2.517	3.368	10.3	19.0	10 8	22 37.28	-24 9.9	0.871	1.729	24.1	18.8
359344	2009 SK ₁₇₅		9 2.5 30°72	0°4/ 2.9	18		4431	Holeungholee		9 2.5 269°20	4°4/ 7.6	18 R	
7 30	23 3.78	- 1 12.6	1.829	2.689	1								

EPHEMERIDES

9 2.5

9 2.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
513218	2005 <i>UU</i> ₂₅₅	9 2.5 279°48	0°1/ 2.3 18				289454	2005 <i>EG</i> ₅₆	9 2.5 339°17	0°3/ 2.7 18			
7 30	23 9.60	- 5 12.3	1.648	2.517	14.8	21.9	7 30	23 9.56	- 5 51.4	1.492	2.368	15.7	20.0
8 9	23 5.37	- 5 48.8	1.561	2.499	11.2	21.7	8 9	23 5.40	- 5 55.9	1.418	2.359	11.9	19.7
8 19	22 58.86	- 6 40.2	1.496	2.481	6.9	21.4	8 19	22 58.88	- 6 13.0	1.366	2.351	7.4	19.5
8 29	22 50.68	- 7 42.0	1.456	2.463	2.2	21.0	8 29	22 50.70	- 6 38.8	1.337	2.344	2.4	19.2
9 8	22 41.80	- 8 47.3	1.442	2.445	2.8	21.0	9 8	22 41.93	- 7 7.8	1.334	2.338	2.7	19.2
9 18	22 33.30	- 9 48.6	1.455	2.427	7.7	21.3	9 18	22 33.72	- 7 34.3	1.356	2.332	7.7	19.4
9 28	22 26.32	-10 39.0	1.492	2.409	12.2	21.5	9 28	22 27.23	- 7 53.0	1.401	2.327	12.2	19.7
10 8	22 21.68	-11 13.9	1.551	2.391	16.2	21.7	10 8	22 23.22	- 8 0.0	1.468	2.322	16.1	19.9
21583	Caropietsch	9 2.5 32°94	0°5/ 2.9 18				385447	2003 <i>QF</i> ₁₁₃	9 2.5 19°31	0°1/ 1.2 13 C			
7 30	23 8.86	- 5 5.3	1.873	2.735	13.6	17.1	7 30	22 49.18	-10 58.1	41.798	42.657	0.7	23.0
8 9	23 4.27	- 5 15.0	1.812	2.745	10.2	16.9	8 9	22 48.56	-11 2.4	41.722	42.657	0.5	23.0
8 19	22 57.87	- 5 35.4	1.773	2.755	6.3	16.7	8 19	22 47.86	-11 7.0	41.672	42.657	0.3	22.9
8 29	22 50.30	- 6 3.0	1.759	2.766	2.2	16.5	8 29	22 47.13	-11 11.6	41.651	42.658	0.1	22.9
9 8	22 42.42	- 6 33.2	1.773	2.777	2.2	16.5	9 8	22 46.39	-11 16.2	41.659	42.658	0.2	22.9
9 18	22 35.12	- 7 1.4	1.814	2.788	6.2	16.8	9 18	22 45.66	-11 20.5	41.696	42.658	0.4	22.9
9 28	22 29.23	- 7 23.3	1.880	2.800	9.9	17.1	9 28	22 44.98	-11 24.4	41.762	42.659	0.6	23.0
10 8	22 25.31	- 7 36.0	1.970	2.812	13.1	17.3	10 8	22 44.36	-11 27.8	41.854	42.659	0.8	23.0
211358	2002 <i>TO</i> ₁₈₇	9 2.5 346°30	0°1/ 2.4 18				221436	2006 <i>AH</i> ₇	9 2.5 333°84	1°5/ 1.1 18			
7 30	23 9.54	- 8 44.1	1.246	2.138	17.0	18.8	7 30	23 10.39	-11 20.3	2.093	2.964	12.0	19.6
8 9	23 5.81	- 8 25.1	1.174	2.124	12.9	18.5	8 9	23 5.36	-11 35.2	2.020	2.960	8.9	19.4
8 19	22 59.32	- 8 15.3	1.122	2.112	7.9	18.2	8 19	22 58.55	-11 55.3	1.970	2.956	5.4	19.2
8 29	22 50.86	- 8 11.1	1.093	2.101	2.5	17.9	8 29	22 50.55	-12 16.5	1.946	2.953	2.0	18.9
9 8	22 41.66	- 8 7.6	1.087	2.091	3.2	17.9	9 8	22 42.18	-12 34.5	1.950	2.949	3.1	19.0
9 18	22 33.14	- 8 0.2	1.105	2.083	8.7	18.2	9 18	22 34.29	-12 45.6	1.982	2.946	6.7	19.2
9 28	22 26.63	- 7 44.9	1.145	2.077	13.8	18.5	9 28	22 27.69	-12 47.0	2.040	2.944	10.2	19.4
10 8	22 23.02	- 7 19.1	1.205	2.072	18.1	18.7	10 8	22 22.99	-12 37.3	2.121	2.941	13.1	19.6
443470	2014 <i>JB</i> ₂	9 2.5 42°27	1°8/31.8 16				315081	2007 <i>DK</i> ₆₉	9 2.5 185°07	0°5/ 1.9 18			
7 30	23 8.81	-10 13.1	1.899	2.775	12.9	21.7	7 30	23 8.27	- 7 15.8	2.421	3.279	11.1	22.1
8 9	23 4.30	-10 55.7	1.834	2.777	9.5	21.5	8 9	23 3.57	- 7 44.9	2.346	3.279	8.2	21.9
8 19	22 57.93	-11 46.0	1.792	2.780	5.7	21.2	8 19	22 57.36	- 8 21.7	2.295	3.279	5.0	21.7
8 29	22 50.33	-12 38.7	1.776	2.783	2.1	21.0	8 29	22 50.17	- 9 2.9	2.271	3.278	1.5	21.5
9 8	22 42.37	-13 27.6	1.788	2.786	3.5	21.1	9 8	22 42.65	- 9 44.1	2.276	3.278	2.2	21.5
9 18	22 34.94	-14 7.4	1.826	2.789	7.3	21.4	9 18	22 35.52	-10 21.1	2.309	3.277	5.6	21.7
9 28	22 28.90	-14 34.2	1.890	2.792	10.9	21.6	9 28	22 29.46	-10 50.4	2.370	3.276	8.8	21.9
10 8	22 24.85	-14 45.9	1.976	2.795	14.0	21.8	10 8	22 24.99	-11 9.6	2.454	3.275	11.5	22.1
280066	2002 <i>CB</i> ₁₄₈	9 2.5 81°47	1°0/ 3.3 18				219036	1995 <i>GM</i> ₆	9 2.5 243°21	2°0/31.1 18			
7 30	23 11.96	- 3 23.9	1.669	2.527	15.2	20.6	7 30	23 7.99	-12 39.5	2.610	3.478	10.0	21.4
8 9	23 6.74	- 3 38.3	1.609	2.540	11.4	20.4	8 9	23 3.34	-13 20.5	2.527	3.467	7.4	21.2
8 19	22 59.45	- 4 6.2	1.572	2.552	7.2	20.1	8 19	22 57.24	-14 6.1	2.470	3.456	4.5	21.0
8 29	22 50.80	- 4 43.9	1.560	2.565	2.7	19.9	8 29	22 50.14	-14 52.0	2.440	3.444	2.1	20.9
9 8	22 41.82	- 5 25.8	1.574	2.578	2.4	19.9	9 8	22 42.68	-15 33.9	2.439	3.432	3.3	20.9
9 18	22 33.53	- 6 6.3	1.615	2.590	6.8	20.2	9 18	22 35.53	-16 7.7	2.467	3.421	6.3	21.1
9 28	22 26.88	- 6 39.9	1.682	2.603	10.8	20.5	9 28	22 29.37	-16 30.5	2.522	3.408	9.1	21.3
10 8	22 22.51	- 7 2.8	1.771	2.615	14.3	20.7	10 8	22 24.72	-16 40.8	2.600	3.396	11.7	21.4
75017	1999 <i>UE</i> ₅	9 2.5 284°68	2°7/ 1.2 18				428518	2008 <i>AR</i> ₇	9 2.5 220°77	0°7/ 1.9 18			
7 30	23 24.61	-15 4.7	1.587	2.453	15.4	19.2	7 30	23 11.99	- 6 19.7	1.721	2.586	14.5	21.8
8 9	23 17.03	-14 52.8	1.486	2.422	11.8	18.9	8 9	23 6.99	- 7 5.6	1.642	2.579	10.8	21.5
8 19	23 6.30	-14 41.3	1.406	2.390	7.4	18.6	8 19	22 59.77	- 8 4.9	1.586	2.571	6.6	21.2
8 29	22 53.14	-14 24.8	1.353	2.358	3.2	18.2	8 29	22 50.99	- 9 12.1	1.555	2.563	2.0	20.9
9 8	22 38.79	-13 58.2	1.328	2.326	4.6	18.2	9 8	22 41.61	-10 20.1	1.552	2.554	3.0	21.0
9 18	22 24.83	-13 18.4	1.331	2.293	9.6	18.5	9 18	22 32.72	-11 21.6	1.576	2.544	7.7	21.3
9 28	22 12.84	-12 24.5	1.360	2.259	14.5	18.7	9 28	22 25.37	-12 10.4	1.625	2.534	11.9	21.5
10 8	22 3.93	-11 17.9	1.411	2.225	18.8	18.8	10 8	22 20.33	-12 42.9	1.696	2.524	15.6	21.7
353455	2011 <i>RE</i> ₁₀	9 2.5 307°42	1°8/ 4.1 16				164059	2003 <i>WH</i> ₁₃	9 2.5 359°69	10°2/24.2 18			
7 30	23 7.53	- 0 54.3	1.717	2.573	14.9	21.1	7 30	23 6.02	-26 11.2	1.242	2.154	15.7	18.6
8 9	23 3.72	- 1 9.8	1.629	2.556	11.5	20.8	8 9	23 3.27	-28 10.3	1.201	2.151	12.6	18.4
8 19	22 57.80	- 1 41.9	1.563	2.540	7.6	20.5	8 19	22 57.75	-30 2.9	1.180	2.149	10.5	18.3
8 29	22 50.36	- 2 28.1	1.521	2.524	3.4	20.3	8 29	22 50.36	-31 35.3	1.181	2.148	10.4	18.3
9 8	22 42.28	- 3 23.2	1.504	2.508	2.6	20.2	9 8	22 42.44	-32 36.2	1.204	2.149	12.5	18.4
9 18	22 34.58	- 4 20.9	1.515	2.492	6.8	20.4	9 18	22 35.41	-33 0.0	1.248	2.150	15.5	18.6
9 28	22 28.28	- 5 14.2	1.550	2.477	11.1	20.6	9 28	22 30.52	-32 46.7	1.310	2.153	18.6	18.8
10 8	22 24.15	- 5 57.5	1.607	2.463	14.9	20.8	10 8	22 28.52	-32 1.0	1.388	2.157	21.2	19.0
257165	2008 <i>HR</i> ₆₀	9 2.5 354°70	0°9/ 3.5 18				441073	2007 <i>RX</i> ₇₃	9 2.5 349°40	0°0/ 2.2 18			
7 30	23 4.93	- 1 6.9	1.878	2.734	13.8	20.3	7 30	23 4.49	- 3 42.3	1.397	2.279	16.2	20.8
8 9	23 1.49	- 1 56.1	1.804	2.732	10.5	20.1	8 9	23 1.73	- 4 35.4	1.328	2.273	12.2	20.5
8 19	22 56.27	- 3 1.9	1.751	2.731	6.7	19.9	8 19	22 56.68	- 5 47.5	1.280	2.267	7.5	20.3
8 29	22 49.84	- 4 20.0	1.724	2.730	2.6	19.6	8 29	22 50.03	- 7 12.7	1.255	2.263	2.4	19.9
9 8	22 42.98	- 5 43.8	1.725	2.729	2.2	19.6	9 8	22 42.81	- 8 41.8	1.255	2.259	3.0	20.0
9 18	22 36.57	- 7 6.1	1.752	2.728	6.3	19.9	9 18	22 36.16	-10 5.1	1.280	2.256	8.1	20.3
9 28	22 31.43	- 8 19.8	1.806	2.728	10.1	20.1	9 28	22 31.18	-11 14.0	1.329	2.254	12.8	20.5
10 8	22 28.18	- 9 19.8	1.883	2.729	13.5	20.3	10 8	22 28.62	-12 3.2	1.398	2.253	16.7	20.8
511149	2013 <i>YZ</i> ₂₇	9 2.5 146°19	7°0/26.1 18				111638	2002 <i>AQ</i> ₁₅₄	9 2.5 245°85	2°5/30.5			

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
438705	2008 <i>RM</i> ₁₁₁		9 2.5 127°50	5°2/29.1	16		195337	2002 <i>EG</i> ₁₄₂		9 2.5 291°63	0°9/31.7	17	
7 30	23 15.94	-20 55.5	1.867	2.745	12.9	21.1	7 30	23 1.79	-11 22.5	4.282	5.143	6.6	19.9
8 9	23 9.59	-21 41.3	1.814	2.754	9.8	20.9	8 9	22 58.26	-11 47.3	4.201	5.137	4.8	19.8
8 19	23 1.13	-22 25.0	1.785	2.763	6.7	20.8	8 19	22 53.93	-12 14.9	4.146	5.131	2.9	19.6
8 29	22 51.35	-22 59.5	1.782	2.771	5.2	20.7	8 29	22 49.09	-12 43.1	4.119	5.125	1.1	19.5
9 8	22 41.30	-23 19.0	1.806	2.779	6.7	20.8	9 8	22 44.08	-13 9.7	4.122	5.119	1.8	19.5
9 18	22 32.02	-23 20.3	1.856	2.787	9.6	21.0	9 18	22 39.25	-13 32.7	4.155	5.113	3.8	19.7
9 28	22 24.45	-23 2.5	1.931	2.794	12.6	21.2	9 28	22 34.96	-13 50.3	4.216	5.107	5.7	19.8
10 8	22 19.22	-22 27.4	2.027	2.801	15.2	21.4	10 8	22 31.51	-14 1.3	4.302	5.101	7.3	19.9
514444	2016 <i>UM</i> ₄₇		9 2.5 301°23	3°1/5.3	18		444329	2005 <i>WY</i> ₄₂		9 2.5 306°19	1°7/31.9	17	
7 30	23 9.09	+ 2 26.0	1.820	2.656	15.0	21.3	7 30	23 8.24	-10 28.3	2.018	2.892	12.3	21.5
8 9	23 4.68	+ 2 24.3	1.741	2.653	11.8	21.0	8 9	23 3.91	-11 3.4	1.940	2.882	9.1	21.2
8 19	22 58.29	+ 2 5.2	1.683	2.649	8.2	20.8	8 19	22 57.76	-11 45.9	1.884	2.872	5.5	21.0
8 29	22 50.52	+ 1 30.5	1.649	2.646	4.5	20.6	8 29	22 50.36	-12 31.0	1.856	2.862	2.0	20.8
9 8	22 42.25	+ 0 44.0	1.642	2.642	3.4	20.5	9 8	22 42.51	-13 13.1	1.854	2.852	3.4	20.8
9 18	22 34.43	- 0 8.6	1.662	2.639	6.4	20.7	9 18	22 35.07	-13 47.4	1.880	2.843	7.1	21.1
9 28	22 28.00	- 1 0.8	1.707	2.636	10.2	20.9	9 28	22 28.90	-14 9.8	1.931	2.833	10.7	21.3
10 8	22 23.65	- 1 46.9	1.776	2.632	13.7	21.1	10 8	22 24.63	-14 18.3	2.005	2.824	13.8	21.5
432406	2010 <i>AA</i> ₁		9 2.5 45°05	8°4/25.3	18		443728	2015 <i>LK</i> ₁₉		9 2.5 30°45	0°5/2.1	18	
7 30	23 10.61	-24 54.7	1.559	2.454	14.1	20.5	7 30	23 7.20	- 5 32.7	1.417	2.299	16.0	20.8
8 9	23 6.19	-26 46.2	1.514	2.457	11.1	20.3	8 9	23 3.54	- 6 17.7	1.365	2.310	11.9	20.6
8 19	22 59.33	-28 33.3	1.491	2.459	8.8	20.2	8 19	22 57.65	- 7 17.4	1.334	2.322	7.2	20.4
8 29	22 50.85	-30 4.6	1.493	2.462	8.5	20.2	8 29	22 50.32	- 8 25.3	1.327	2.335	2.2	20.1
9 8	22 41.90	-31 10.6	1.520	2.465	10.4	20.3	9 8	22 42.63	- 9 33.2	1.345	2.348	3.0	20.2
9 18	22 33.71	-31 46.1	1.569	2.467	13.2	20.5	9 18	22 35.70	-10 33.2	1.389	2.362	7.9	20.5
9 28	22 27.41	-31 50.2	1.640	2.470	16.0	20.7	9 28	22 30.50	-11 19.1	1.456	2.377	12.2	20.8
10 8	22 23.70	-31 26.2	1.728	2.473	18.5	20.9	10 8	22 27.69	-11 47.5	1.544	2.393	15.8	21.1
168629	2000 <i>CB</i> ₆₉		9 2.5 54°38	1°0/3.4	18		7544	Tipografiyanauka		9 2.5 50°88	0°5/2.9	18	
7 30	23 10.47	- 3 23.8	1.709	2.568	14.8	19.9	7 30	23 8.66	- 4 15.5	1.962	2.820	13.2	17.3
8 9	23 5.65	- 3 35.1	1.647	2.578	11.2	19.7	8 9	23 4.16	- 4 39.0	1.892	2.823	10.0	17.1
8 19	22 58.81	- 3 59.6	1.608	2.588	7.1	19.5	8 19	22 57.87	- 5 14.2	1.845	2.826	6.2	16.9
8 29	22 50.65	- 4 33.9	1.593	2.598	2.7	19.3	8 29	22 50.40	- 5 57.5	1.823	2.830	2.1	16.6
9 8	22 42.15	- 5 12.7	1.605	2.609	2.4	19.3	9 8	22 42.55	- 6 43.7	1.829	2.833	2.2	16.6
9 18	22 34.28	- 5 50.4	1.643	2.619	6.6	19.6	9 18	22 35.19	- 7 27.7	1.863	2.837	6.2	16.9
9 28	22 27.97	- 6 22.0	1.707	2.630	10.6	19.8	9 28	22 29.15	- 8 4.6	1.922	2.840	9.9	17.1
10 8	22 23.84	- 6 43.6	1.794	2.641	14.0	20.1	10 8	22 25.02	- 8 31.0	2.005	2.844	13.1	17.3
119707	2001 <i>XA</i> ₁₈₅		9 2.5 182°47	0°1/2.3	18		170047	2002 <i>VB</i> ₅₂		9 2.5 266°85	6°4/26.5	18	
7 30	23 8.25	- 5 59.4	2.579	3.430	10.7	21.0	7 30	23 12.40	-24 59.0	2.168	3.046	11.4	20.5
8 9	23 3.48	- 6 31.8	2.502	3.431	7.9	20.8	8 9	23 7.12	-26 10.2	2.090	3.024	9.0	20.3
8 19	22 57.29	- 7 12.6	2.449	3.431	4.8	20.6	8 19	22 59.81	-27 18.9	2.036	3.002	7.0	20.1
8 29	22 50.17	- 7 58.4	2.424	3.431	1.5	20.4	8 29	22 51.05	-28 17.6	2.008	2.979	6.5	20.1
9 8	22 42.74	- 8 45.1	2.427	3.430	2.0	20.4	9 8	22 41.73	-28 59.5	2.007	2.956	8.0	20.1
9 18	22 35.65	- 9 28.6	2.460	3.429	5.3	20.7	9 18	22 32.80	-29 20.1	2.032	2.933	10.5	20.2
9 28	22 29.57	-10 5.1	2.521	3.428	8.3	20.9	9 28	22 25.23	-29 17.7	2.081	2.909	13.2	20.4
10 8	22 24.98	-10 32.0	2.606	3.426	11.0	21.0	10 8	22 19.73	-28 53.5	2.150	2.885	15.6	20.5
99194	2001 <i>GC</i> ₅		9 2.5 124°07	8°4/24.9	18		348002	2003 <i>SE</i> ₂₃₉		9 2.5 318°81	1°7/4.1	18	
7 30	23 12.93	-29 9.1	1.883	2.763	12.7	18.9	7 30	23 8.28	- 0 46.8	1.680	2.536	15.2	21.4
8 9	23 7.56	-30 34.4	1.838	2.766	10.4	18.8	8 9	23 4.24	- 1 6.6	1.603	2.530	11.7	21.2
8 19	23 0.01	-31 51.5	1.816	2.769	8.7	18.7	8 19	22 58.11	- 1 43.4	1.548	2.525	7.7	20.9
8 29	22 51.04	-32 51.5	1.819	2.772	8.5	18.7	8 29	22 50.52	- 2 34.1	1.517	2.520	3.4	20.6
9 8	22 41.71	-33 27.7	1.847	2.775	9.9	18.8	9 8	22 42.39	- 3 33.1	1.511	2.515	2.6	20.6
9 18	22 33.13	-33 36.8	1.899	2.778	12.2	18.9	9 18	22 34.75	- 4 33.5	1.533	2.510	6.8	20.8
9 28	22 26.26	-33 19.2	1.973	2.781	14.5	19.1	9 28	22 28.59	- 5 28.6	1.579	2.506	11.0	21.1
10 8	22 21.76	-32 38.2	2.065	2.784	16.6	19.3	10 8	22 24.62	- 6 12.7	1.648	2.502	14.7	21.3
218299	2003 <i>RK</i> ₁₂		9 2.5 342°57	4°9/29.4	18		101629	1999 <i>CV</i> ₂₄		9 2.5 193°95	4°6/30.2	18	
7 30	23 13.69	-21 37.4	2.039	2.917	12.0	19.4	7 30	23 16.38	-16 24.3	1.452	2.338	15.4	19.1
8 9	23 7.87	-22 1.1	1.974	2.913	9.1	19.2	8 9	23 10.56	-17 13.5	1.390	2.337	11.5	18.9
8 19	23 0.10	-22 22.0	1.932	2.909	6.3	19.0	8 19	23 2.07	-18 6.2	1.350	2.336	7.4	18.6
8 29	22 51.06	-22 34.3	1.916	2.906	4.9	18.9	8 29	22 51.77	-18 53.9	1.335	2.335	4.7	18.5
9 8	22 41.69	-22 33.4	1.928	2.903	6.1	19.0	9 8	22 40.92	-19 28.3	1.346	2.333	6.5	18.6
9 18	22 32.94	-22 16.7	1.966	2.900	8.9	19.2	9 18	22 30.90	-19 43.7	1.382	2.331	10.5	18.8
9 28	22 25.71	-21 43.6	2.029	2.897	11.8	19.4	9 28	22 22.93	-19 37.8	1.441	2.329	14.5	19.0
10 8	22 20.59	-20 55.6	2.114	2.895	14.5	19.5	10 8	22 17.80	-19 11.6	1.519	2.327	18.0	19.3
449593	2014 <i>JX</i> ₄₃		9 2.5 27°82	5°8/27.4	18		390565	2001 <i>DK</i> ₄₇		9 2.5 313°71	2°5/30.9	18	
7 30	23 8.23	-20 57.5	1.870	2.761	12.3	20.3	7 30	23 5.37	- 8 16.3	1.570	2.456	14.5	20.1
8 9	23 3.99	-22 18.6	1.818	2.764	9.3	20.1	8 9	23 2.29	- 9 52.1	1.495	2.445	10.7	19.9
8 19	22 57.81	-23 39.0	1.791	2.768	6.7	20.0	8 19	22 57.03	-11 44.1	1.443	2.433	6.4	19.6
8 29	22 50.35	-24 50.3	1.788	2.773	5.8	19.9	8 29	22 50.21	-13 43.5	1.416	2.422	2.7	19.4
9 8	22 42.54	-25 45.5	1.813	2.777	7.4	20.0	9 8	22 42.77	-15 39.5	1.415	2.411	4.8	19.5
9 18	22 35.34	-26 19.8	1.862	2.782	10.2	20.2	9 18	22 35.78	-17 21.7	1.441	2.400	9.2	19.7
9 28	22 29.61	-26 31.2	1.934	2.787	13.0	20.4	9 28	22 30.31	-18 41.9	1.491	2.390	13.5	19.9
10 8	22 25.98	-26 20.8	2.027	2.792	15.5	20.6	10 8	22 27.12	-19 36.6	1.561	2.380	17.1	20.2
189601	2000 <i>WR</i> ₁₅₅		9 2.5 357°69	3°6/4.2	18		205421	2001 <i>FX</i> ₁₇₆		9 2.5 213°00	5°2/27.7		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
70959	1999 <i>XC</i> ₇	9 2.5 283°17	1.2°/ 1.5 18				98359	2000 <i>SN</i> ₃₄₉	9 2.5 304°97	0°0/ 2.3 18			
7 30	23 10.34	- 8 37.3	1.819	2.690	13.5	20.1	7 30	23 5.28	- 1 46.2	1.568	2.436	15.5	18.9
8 9	23 5.78	- 9 10.0	1.730	2.670	10.1	19.9	8 9	23 2.23	- 3 8.5	1.486	2.423	11.7	18.6
8 19	22 59.10	- 9 52.9	1.663	2.650	6.1	19.6	8 19	22 57.02	- 4 53.5	1.426	2.411	7.3	18.3
8 29	22 50.86	-10 41.4	1.622	2.630	2.0	19.3	8 29	22 50.24	- 6 54.8	1.391	2.398	2.3	18.0
9 8	22 41.96	-11 29.3	1.608	2.609	3.2	19.3	9 8	22 42.82	- 9 2.3	1.383	2.386	2.9	18.0
9 18	22 33.42	-12 10.5	1.621	2.588	7.6	19.6	9 18	22 35.81	-11 4.5	1.401	2.374	7.9	18.3
9 28	22 26.27	-12 39.9	1.659	2.568	11.8	19.8	9 28	22 30.29	-12 51.3	1.445	2.363	12.5	18.5
10 8	22 21.30	-12 54.6	1.719	2.547	15.4	20.0	10 8	22 27.05	-14 15.7	1.510	2.351	16.5	18.7
224264	2005 <i>SH</i> ₂₅₄	9 2.5 349°74	2°9/31.2 17				76957	2001 <i>BV</i> ₃₂	9 2.5 125°66	0°4/ 2.9 17			
7 30	23 5.51	- 9 20.8	1.192	2.094	16.9	19.7	7 30	23 12.89	- 3 37.1	1.695	2.552	15.1	19.7
8 9	23 2.86	-10 33.1	1.131	2.088	12.5	19.4	8 9	23 7.48	- 4 15.6	1.635	2.565	11.3	19.5
8 19	22 57.56	-12 1.0	1.090	2.083	7.5	19.1	8 19	22 59.98	- 5 8.5	1.596	2.578	7.0	19.3
8 29	22 50.39	-13 34.9	1.072	2.078	3.1	18.9	8 29	22 51.11	- 6 10.8	1.583	2.590	2.3	19.0
9 8	22 42.59	-15 3.1	1.077	2.075	5.3	19.0	9 8	22 41.87	- 7 15.6	1.598	2.601	2.5	19.1
9 18	22 35.49	-16 14.8	1.106	2.073	10.4	19.3	9 18	22 33.32	- 8 16.1	1.640	2.613	7.0	19.4
9 28	22 30.37	-17 2.8	1.157	2.071	15.2	19.5	9 28	22 26.40	- 9 6.3	1.707	2.623	11.0	19.6
10 8	22 28.05	-17 24.2	1.225	2.071	19.2	19.8	10 8	22 21.76	- 9 42.5	1.798	2.633	14.5	19.9
272673	2005 <i>XP</i> ₃	9 2.5 346°57	3°9/ 5.2 18				429746	2011 <i>SA</i> ₁₆	9 2.5 52°10	11°3/15.7 16			
7 30	23 10.09	+ 1 22.5	1.351	2.210	18.1	19.9	7 30	23 22.41	+24 50.9	1.668	2.357	21.7	21.3
8 9	23 6.04	+ 1 44.6	1.280	2.204	14.2	19.7	8 9	23 14.23	+25 49.8	1.645	2.419	18.9	21.3
8 19	22 59.43	+ 1 47.1	1.228	2.200	9.9	19.4	8 19	23 3.83	+26 13.6	1.638	2.479	16.0	21.2
8 29	22 50.98	+ 1 30.9	1.198	2.196	5.5	19.1	8 29	22 52.23	+25 59.9	1.650	2.539	13.4	21.2
9 8	22 41.86	+ 0 59.9	1.192	2.193	4.2	19.1	9 8	22 40.68	+25 11.4	1.685	2.598	11.7	21.2
9 18	22 33.35	+ 0 20.5	1.211	2.190	7.9	19.3	9 18	22 30.37	+23 55.0	1.744	2.655	11.3	21.3
9 28	22 26.70	- 0 19.9	1.252	2.188	12.4	19.5	9 28	22 22.24	+22 20.9	1.828	2.711	12.2	21.5
10 8	22 22.76	- 0 54.2	1.315	2.187	16.5	19.8	10 8	22 16.80	+20 40.2	1.934	2.767	13.7	21.7
115405	2003 <i>SX</i> ₂₉₃	9 2.5 305°31	4°4/29.6 18				351385	2005 <i>EL</i> ₁₂₉	9 2.5 76°30	1°1/ 3.5 18			
7 30	23 10.13	-16 28.9	1.710	2.599	13.4	19.2	7 30	23 10.15	- 2 46.9	1.830	2.684	14.2	21.1
8 9	23 5.64	-17 28.9	1.644	2.592	10.0	19.0	8 9	23 5.38	- 3 2.4	1.762	2.690	10.8	20.9
8 19	22 58.96	-18 32.8	1.600	2.586	6.5	18.8	8 19	22 58.69	- 3 31.2	1.716	2.695	6.9	20.6
8 29	22 50.79	-19 32.9	1.581	2.579	4.4	18.6	8 29	22 50.71	- 4 10.0	1.696	2.701	2.7	20.4
9 8	22 42.12	-20 21.6	1.589	2.573	6.1	18.7	9 8	22 42.35	- 4 53.8	1.703	2.707	2.3	20.4
9 18	22 34.03	-20 53.1	1.622	2.567	9.6	18.9	9 18	22 34.53	- 5 37.0	1.737	2.712	6.4	20.7
9 28	22 27.52	-21 4.3	1.679	2.561	13.2	19.1	9 28	22 28.16	- 6 14.4	1.797	2.718	10.2	20.9
10 8	22 23.31	-20 55.0	1.756	2.555	16.3	19.3	10 8	22 23.85	- 6 42.1	1.879	2.724	13.6	21.1
193412	2000 <i>WV</i> ₅₉	9 2.5 227°78	5°4/ 8.2 18				240665	2005 <i>EH</i> ₅₁	9 2.5 147°06	1°4/31.9 18			
7 30	23 10.62	+10 47.0	2.345	3.120	13.9	20.6	7 30	23 8.99	- 8 25.1	2.247	3.110	11.6	20.3
8 9	23 5.57	+10 58.7	2.246	3.108	11.6	20.4	8 9	23 4.22	- 9 27.8	2.181	3.118	8.5	20.1
8 19	22 58.78	+10 52.0	2.169	3.095	9.0	20.2	8 19	22 57.84	-10 39.1	2.140	3.126	5.1	20.0
8 29	22 50.74	+10 26.4	2.115	3.082	6.6	20.1	8 29	22 50.43	-11 53.6	2.127	3.133	1.8	19.7
9 8	22 42.16	+ 9 43.4	2.089	3.068	5.4	20.0	9 8	22 42.70	-13 5.3	2.142	3.140	3.0	19.8
9 18	22 33.84	+ 8 46.9	2.090	3.053	6.5	20.0	9 18	22 35.42	-14 8.6	2.186	3.147	6.5	20.1
9 28	22 26.60	+ 7 42.5	2.119	3.038	9.0	20.2	9 28	22 29.31	-14 59.3	2.258	3.153	9.7	20.3
10 8	22 21.09	+ 6 36.4	2.173	3.022	11.8	20.3	10 8	22 24.93	-15 35.1	2.352	3.158	12.4	20.5
121721	1999 <i>XY</i> ₁₃₁	9 2.5 264°96	3°0/ 5.6 18				183523	2003 <i>FU</i> ₉₃	9 2.5 71°97	3°7/29.4 18			
7 30	23 9.01	+ 2 43.6	2.412	3.231	12.3	19.9	7 30	23 7.67	-15 24.2	2.055	2.938	11.7	20.1
8 9	23 4.26	+ 2 52.5	2.319	3.220	9.8	19.7	8 9	23 3.40	-16 37.9	1.998	2.945	8.6	19.9
8 19	22 57.91	+ 2 48.5	2.249	3.209	6.9	19.5	8 19	22 57.41	-17 55.3	1.966	2.952	5.5	19.8
8 29	22 50.44	+ 2 32.5	2.205	3.197	4.0	19.3	8 29	22 50.29	-19 9.5	1.961	2.959	3.7	19.7
9 8	22 42.54	+ 2 6.8	2.189	3.186	3.1	19.2	9 8	22 42.87	-20 13.8	1.983	2.966	5.3	19.8
9 18	22 34.92	+ 1 34.9	2.201	3.174	5.4	19.4	9 18	22 35.95	-21 3.1	2.033	2.973	8.2	20.0
9 28	22 28.32	+ 1 1.1	2.240	3.163	8.4	19.5	9 28	22 30.33	-21 34.2	2.107	2.981	11.2	20.2
10 8	22 23.34	+ 0 29.6	2.304	3.151	11.3	19.7	10 8	22 26.56	-21 46.6	2.202	2.988	13.8	20.4
435225	2007 <i>RJ</i> ₂₉₁	9 2.5 19°47	6°2/29.8 18				478827	2012 <i>VP</i> ₃₀	9 2.5 238°95	10°3/14.8 17			
7 30	23 15.81	-21 39.1	1.376	2.270	15.7	19.7	7 30	23 8.03	+24 14.4	1.998	2.696	18.3	21.7
8 9	23 10.09	-22 4.2	1.328	2.275	11.9	19.5	8 9	23 4.01	+24 43.3	1.910	2.692	16.3	21.5
8 19	23 1.69	-22 25.2	1.300	2.282	8.2	19.3	8 19	22 57.99	+24 43.3	1.838	2.688	14.2	21.4
8 29	22 51.62	-22 34.1	1.296	2.289	6.2	19.2	8 29	22 50.54	+24 10.8	1.785	2.683	12.1	21.2
9 8	22 41.24	-22 24.8	1.317	2.297	7.7	19.4	9 8	22 42.51	+23 5.9	1.755	2.679	10.6	21.1
9 18	22 31.93	-21 54.7	1.362	2.306	11.2	19.6	9 18	22 34.86	+21 32.0	1.748	2.674	10.4	21.1
9 28	22 24.84	-21 4.4	1.430	2.316	14.8	19.8	9 28	22 28.56	+19 37.1	1.766	2.669	11.5	21.2
10 8	22 20.62	-19 57.2	1.517	2.326	18.0	20.1	10 8	22 24.33	+17 31.6	1.808	2.664	13.5	21.3
510009	2009 <i>WU</i> ₃₆	9 2.5 298°97	1°8/ 1.2 18				516009	2015 <i>RB</i> ₂₅₄	9 2.5 343°12	0°4/ 2.1 18			
7 30	23 10.97	- 9 43.0	1.471	2.355	15.4	21.8	7 30	23 6.26	- 5 49.1	2.246	3.107	11.7	21.6
8 9	23 6.75	-10 15.0	1.386	2.333	11.6	21.6	8 9	23 2.24	- 6 36.0	2.172	3.107	8.7	21.4
8 19	22 59.94	-10 58.4	1.321	2.310	7.1	21.2	8 19	22 56.68	- 7 33.2	2.122	3.107	5.3	21.2
8 29	22 51.19	-11 47.3	1.281	2.288	2.5	20.9	8 29	22 50.07	- 8 36.5	2.099	3.106	1.6	21.0
9 8	22 41.59	-12 34.1	1.266	2.267	4.1	21.0	9 8	22 43.12	- 9 40.5	2.104	3.106	2.3	21.0
9 18	22 32.42	-13 11.5	1.277	2.245	9.1	21.2	9 18	22 36.56	-10 39.9	2.137	3.106	5.9	21.3
9 28	22 24.97	-13 33.7	1.310	2.223	13.9	21.4	9 28	22 31.10	-11 29.8	2.197	3.106	9.3	21.5
10 8	22 20.19	-13 37.7	1.364	2.202	18.0	21.6	10 8	22 27.27	-12 7.3	2.280	3.106	12.1	21.7
193358	2000 <i>UN</i> ₄₆	9 2.5 328°12	1°4/ 1.5 18				99565	2002 <i>FF</i> ₁₀	9 2				

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
220510	2004 EQ ₇	9 2.5 172°88	0°8/ 1.8 17				501652	2014 SA ₂₉₃	9 2.5 334°83	4°2/31.2 17			
7 30	23 12.99	- 7 32.6	1.825	2.688	13.8	21.2	7 30	23 8.63	-13 31.0	0.922	1.840	19.2	19.7
8 9	23 7.55	- 8 9.1	1.755	2.691	10.3	21.0	8 9	23 6.02	-14 2.7	0.859	1.823	14.4	19.4
8 19	23 0.05	- 8 56.0	1.708	2.693	6.2	20.8	8 19	22 59.96	-14 44.1	0.814	1.808	9.0	19.0
8 29	22 51.16	- 9 48.2	1.687	2.695	1.9	20.5	8 29	22 51.31	-15 25.9	0.788	1.794	4.4	18.7
9 8	22 41.83	-10 39.4	1.694	2.696	2.9	20.6	9 8	22 41.65	-15 56.8	0.783	1.781	6.7	18.8
9 18	22 33.07	-11 23.8	1.729	2.696	7.2	20.9	9 18	22 32.83	-16 8.0	0.799	1.770	12.4	19.1
9 28	22 25.83	-11 56.7	1.790	2.697	11.1	21.1	9 28	22 26.60	-15 54.4	0.833	1.760	18.0	19.4
10 8	22 20.77	-12 15.4	1.872	2.696	14.5	21.3	10 8	22 24.02	-15 16.1	0.883	1.752	22.8	19.6
121838	2000 BX ₃₇	9 2.5 163°11	2°1/30.9 18				251466	2008 CV ₂₀₆	9 2.5 30°71	0°3/ 2.8 18			
7 30	23 7.38	-12 29.4	2.573	3.443	10.1	20.1	7 30	23 8.31	- 4 56.6	1.898	2.761	13.4	20.4
8 9	23 2.88	-13 19.4	2.505	3.445	7.4	19.9	8 9	23 3.97	- 5 19.5	1.832	2.766	10.1	20.2
8 19	22 56.97	-14 14.0	2.462	3.448	4.5	19.7	8 19	22 57.81	- 5 53.8	1.788	2.770	6.2	20.0
8 29	22 50.15	-15 8.6	2.446	3.450	2.2	19.6	8 29	22 50.46	- 6 35.6	1.769	2.776	2.1	19.7
9 8	22 43.05	-15 58.5	2.459	3.452	3.4	19.7	9 8	22 42.75	- 7 19.8	1.777	2.781	2.2	19.7
9 18	22 36.31	-16 39.6	2.501	3.453	6.3	19.9	9 18	22 35.55	- 8 1.1	1.813	2.787	6.3	20.0
9 28	22 30.60	-17 9.0	2.570	3.455	9.0	20.0	9 28	22 29.71	- 8 34.6	1.874	2.793	10.1	20.2
10 8	22 26.38	-17 25.2	2.662	3.456	11.5	20.2	10 8	22 25.81	- 8 57.2	1.959	2.799	13.3	20.5
304214	2006 QU ₁₃₃	9 2.5 39°14	2°9/ 4.7 17				510687	2012 UG ₁₀₇	9 2.5 298°13	1°9/ 1.2 18			
7 30	23 11.48	- 0 4.5	1.520	2.374	16.6	20.3	7 30	23 13.98	-11 54.5	1.667	2.543	14.3	21.0
8 9	23 6.58	+ 0 10.8	1.466	2.389	12.9	20.1	8 9	23 8.58	-12 6.4	1.590	2.533	10.7	20.8
8 19	22 59.48	+ 0 9.5	1.432	2.405	8.6	19.9	8 19	23 0.84	-12 24.1	1.536	2.523	6.5	20.5
8 29	22 50.96	+ 0 6.3	1.422	2.422	4.4	19.7	8 29	22 51.47	-12 42.8	1.507	2.513	2.5	20.3
9 8	22 42.12	- 0 32.3	1.437	2.439	3.3	19.6	9 8	22 41.51	-12 56.8	1.505	2.504	3.8	20.3
9 18	22 34.05	- 1 3.1	1.479	2.457	6.9	19.9	9 18	22 32.13	-13 1.8	1.529	2.494	8.2	20.6
9 28	22 27.73	- 1 32.5	1.545	2.475	10.9	20.2	9 28	22 24.42	-12 54.6	1.578	2.485	12.3	20.8
10 8	22 23.80	- 1 55.7	1.633	2.493	14.4	20.5	10 8	22 19.16	-12 34.2	1.648	2.476	15.9	21.0
500811	2013 GM ₆₃	9 2.5 112°61	0°0/ 2.4 17				19080	Martinfierro	9 2.5 112°32	10°1/12.3 18			
7 30	23 17.11	- 5 44.7	1.400	2.267	17.0	21.6	7 30	23 18.97	+20 38.4	1.914	2.625	18.6	18.4
8 9	23 10.95	- 6 4.0	1.346	2.282	12.7	21.4	8 9	23 11.98	+21 45.1	1.853	2.649	16.3	18.2
8 19	23 2.22	- 6 36.8	1.312	2.297	7.8	21.2	8 19	23 2.75	+22 24.9	1.810	2.673	13.8	18.1
8 29	22 51.85	- 7 17.8	1.303	2.310	2.5	20.9	8 29	22 52.03	+22 34.5	1.788	2.696	11.6	18.0
9 8	22 41.09	- 8 0.1	1.320	2.324	2.9	20.9	9 8	22 40.87	+22 13.6	1.790	2.718	10.2	18.0
9 18	22 31.26	- 8 37.0	1.364	2.337	8.0	21.3	9 18	22 30.39	+21 26.1	1.818	2.739	10.3	18.0
9 28	22 23.52	- 9 3.2	1.431	2.349	12.6	21.6	9 28	22 21.62	+20 19.2	1.870	2.759	11.7	18.2
10 8	22 18.55	- 9 15.7	1.520	2.361	16.4	21.9	10 8	22 15.25	+19 2.3	1.946	2.778	13.6	18.3
286535	2002 CU ₉₈	9 2.5 116°53	1°3/ 1.3 17				76517	2000 GT ₄₄	9 2.5 140°34	3°2/30.3 18			
7 30	23 13.02	- 9 21.0	1.945	2.810	13.1	20.9	7 30	23 12.31	-15 58.5	2.248	3.120	11.3	19.7
8 9	23 7.32	- 9 55.5	1.887	2.824	9.6	20.7	8 9	23 6.65	-16 41.0	2.189	3.129	8.3	19.6
8 19	22 59.77	-10 37.5	1.853	2.839	5.7	20.5	8 19	22 59.32	-17 25.4	2.154	3.137	5.3	19.4
8 29	22 51.04	-11 21.9	1.846	2.853	1.9	20.2	8 29	22 50.91	-18 6.5	2.146	3.145	3.2	19.3
9 8	22 42.04	-12 3.3	1.866	2.866	3.1	20.4	9 8	22 42.24	-18 39.1	2.167	3.153	4.5	19.4
9 18	22 33.68	-12 36.7	1.915	2.879	6.9	20.6	9 18	22 34.11	-18 59.7	2.216	3.160	7.4	19.6
9 28	22 26.79	-12 58.8	1.990	2.892	10.4	20.9	9 28	22 27.28	-19 6.2	2.291	3.167	10.3	19.8
10 8	22 21.95	-13 7.7	2.088	2.904	13.4	21.1	10 8	22 22.31	-18 58.3	2.388	3.174	12.9	20.0
185452	2006 YZ ₃₉	9 2.5 266°54	0°4/ 2.9 18				165394	2000 XC ₁₅	9 2.5 152°86	10°5/21.9 18			
7 30	23 8.26	- 4 20.0	2.150	3.005	12.4	21.3	7 30	23 21.05	-38 20.7	2.100	2.946	13.0	19.7
8 9	23 3.86	- 4 45.7	2.067	2.996	9.3	21.1	8 9	23 13.60	-40 3.0	2.070	2.957	11.4	19.6
8 19	22 57.74	- 5 22.6	2.006	2.987	5.8	20.8	8 19	23 3.73	-41 29.4	2.064	2.968	10.6	19.6
8 29	22 50.45	- 6 7.5	1.971	2.978	2.0	20.6	8 29	22 52.32	-42 31.0	2.083	2.978	10.8	19.6
9 8	22 42.71	- 6 55.7	1.965	2.969	2.1	20.6	9 8	22 40.60	-43 2.0	2.126	2.987	11.9	19.7
9 18	22 35.33	- 7 42.0	1.986	2.959	5.9	20.8	9 18	22 29.81	-43 1.1	2.192	2.995	13.5	19.9
9 28	22 29.11	- 8 21.9	2.034	2.950	9.5	21.0	9 28	22 21.02	-42 30.6	2.277	3.002	15.2	20.0
10 8	22 24.66	- 8 51.6	2.106	2.941	12.7	21.2	10 8	22 14.91	-41 35.7	2.379	3.008	16.7	20.2
392029	2009 BQ ₃₂	9 2.5 192°50	2°1/31.3 18				231255	2005 YL ₁₆₈	9 2.5 331°52	1°7/ 3.9 18			
7 30	23 8.67	-10 17.8	1.943	2.818	12.6	21.7	7 30	23 2.53	+ 0 30.8	1.232	2.110	18.1	18.7
8 9	23 4.28	-11 19.4	1.874	2.817	9.3	21.5	8 9	23 0.70	- 0 15.0	1.152	2.092	14.1	18.4
8 19	22 58.03	-12 29.5	1.829	2.817	5.6	21.3	8 19	22 56.36	- 1 28.3	1.091	2.074	9.2	18.1
8 29	22 50.54	-13 42.2	1.811	2.816	2.3	21.1	8 29	22 50.13	- 3 4.9	1.052	2.057	3.9	17.7
9 8	22 42.62	-14 50.4	1.820	2.815	3.9	21.2	9 8	22 43.10	- 4 55.7	1.037	2.042	2.9	17.6
9 18	22 35.19	-15 48.0	1.856	2.814	7.6	21.4	9 18	22 36.53	- 6 48.1	1.045	2.027	8.4	17.9
9 28	22 29.10	-16 30.4	1.918	2.813	11.1	21.7	9 28	22 31.75	- 8 29.6	1.076	2.014	13.8	18.2
10 8	22 24.96	-16 55.4	2.002	2.812	14.2	21.9	10 8	22 29.66	- 9 50.4	1.127	2.002	18.5	18.4
509122	2005 XS ₉₀	9 2.5 159°48	4°3/ 7.9 18				403151	2008 FF ₄₅	9 2.5 96°88	0°5/ 3.1 18			
7 30	23 8.44	+ 9 16.6	2.824	3.600	11.8	21.9	7 30	23 6.95	- 2 37.6	2.148	2.999	12.5	21.1
8 9	23 3.58	+ 9 26.7	2.741	3.605	9.7	21.7	8 9	23 2.78	- 3 23.6	2.079	3.006	9.4	20.9
8 19	22 57.38	+ 9 22.3	2.679	3.609	7.4	21.6	8 19	22 57.02	- 4 22.5	2.034	3.013	5.9	20.7
8 29	22 50.30	+ 9 3.6	2.644	3.613	5.2	21.4	8 29	22 50.21	- 5 30.2	2.015	3.021	2.1	20.5
9 8	22 42.92	+ 8 32.5	2.636	3.617	4.3	21.4	9 8	22 43.09	- 6 41.0	2.024	3.028	2.0	20.5
9 18	22 35.84	+ 7 52.0	2.657	3.621	5.3	21.4	9 18	22 36.40	- 7 49.1	2.062	3.035	5.7	20.7
9 28	22 29.68	+ 7 6.2	2.706	3.624	7.4	21.6	9 28	22 30.89	- 8 49.2	2.126	3.042	9.2	21.0
10 8	22 24.90	+ 6 19.5	2.781	3.627	9.6	21.7	10 8	22 27.08	- 9 37.3	2.215	3.049	12.1	21.2
328700	2009 SC ₃₆₃	9 2.5 304°23	0°1/ 2.7 18				435166	2007 PO ₁₅	9 2.5 7°13	0°0/ 2.3 18			
7 30	23 7.27	- 5 16.9	2.253	3.110									

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
5647	1990 TZ		9 2.5 267°87	12.2/14.7	18	R	3372	Bratijchuk		9 2.5 312°23	1.4/	1.4	18
7 30	23 10.96	+26 48.6	2.019	2.691	18.8	16.8	7 30	23 9.90	- 9 28.5	1.636	2.516	14.4	16.1
8 9	23 6.52	+27 44.4	1.910	2.666	17.2	16.6	8 9	23 5.63	- 9 55.8	1.557	2.502	10.7	15.8
8 19	22 59.78	+28 12.7	1.817	2.640	15.4	16.5	8 19	22 59.10	-10 32.9	1.500	2.489	6.5	15.6
8 29	22 51.23	+28 7.8	1.742	2.614	13.7	16.3	8 29	22 50.97	-11 14.4	1.468	2.476	2.2	15.3
9 8	22 41.74	+27 26.6	1.688	2.588	12.5	16.1	9 8	22 42.22	-11 54.1	1.462	2.463	3.5	15.3
9 18	22 32.37	+26 10.0	1.657	2.560	12.3	16.1	9 18	22 33.95	-12 25.8	1.482	2.451	8.1	15.6
9 28	22 24.30	+24 23.6	1.649	2.532	13.3	16.1	9 28	22 27.25	-12 44.7	1.526	2.439	12.3	15.8
10 8	22 18.47	+22 17.8	1.664	2.504	15.2	16.1	10 8	22 22.89	-12 48.4	1.591	2.427	16.0	16.0
252170	2001 DN ₃		9 2.5 215°06	0°6/	1.8	18	395291	2011 CK ₂		9 2.5 186°26	17°3/	15.7	16
7 30	23 9.57	- 8 34.4	2.904	3.755	9.6	21.7	7 30	23 21.18	-41 51.6	1.215	2.085	18.9	20.4
8 9	23 4.40	- 8 56.8	2.817	3.747	7.1	21.5	8 9	23 15.64	-44 59.0	1.194	2.086	17.6	20.3
8 19	22 57.90	- 9 24.8	2.755	3.738	4.3	21.3	8 19	23 5.92	-47 38.9	1.193	2.086	17.4	20.3
8 29	22 50.49	- 9 55.7	2.722	3.729	1.3	21.1	8 29	22 53.21	-49 33.5	1.211	2.085	18.3	20.4
9 8	22 42.76	-10 25.9	2.718	3.719	2.0	21.2	9 8	22 39.62	-50 32.2	1.247	2.084	20.1	20.5
9 18	22 35.31	-10 52.3	2.744	3.709	5.1	21.4	9 18	22 27.51	-50 34.2	1.299	2.082	22.1	20.6
9 28	22 28.76	-11 12.2	2.799	3.699	7.9	21.5	9 28	22 18.80	-49 45.9	1.365	2.079	24.1	20.8
10 8	22 23.58	-11 23.6	2.878	3.687	10.3	21.7	10 8	22 14.42	-48 18.6	1.441	2.076	25.8	21.0
195260	2002 ED ₅₄		9 2.5 120°21	0°5/	3.0	16	447270	2005 UJ ₄₂₄		9 2.5 38°53	4°6/	7.5	18
7 30	23 11.59	- 3 56.6	1.906	2.760	13.8	21.2	7 30	23 6.61	+ 8 1.3	1.939	2.749	15.2	21.3
8 9	23 6.36	- 4 22.3	1.842	2.771	10.3	21.0	8 9	23 2.73	+ 7 55.8	1.867	2.756	12.3	21.1
8 19	22 59.25	- 5 0.1	1.801	2.781	6.4	20.8	8 19	22 57.10	+ 7 29.5	1.816	2.763	9.1	20.9
8 29	22 50.93	- 5 46.2	1.786	2.792	2.2	20.5	8 29	22 50.28	+ 6 43.7	1.788	2.770	6.1	20.7
9 8	22 42.27	- 6 35.1	1.798	2.802	2.2	20.6	9 8	22 43.09	+ 5 42.2	1.786	2.778	4.6	20.7
9 18	22 34.19	- 7 21.4	1.838	2.811	6.3	20.9	9 18	22 36.37	+ 4 30.7	1.812	2.786	6.3	20.8
9 28	22 27.54	- 8 0.1	1.905	2.821	10.1	21.1	9 28	22 30.93	+ 3 16.5	1.863	2.794	9.3	21.0
10 8	22 22.92	- 8 27.8	1.994	2.830	13.3	21.3	10 8	22 27.37	+ 2 6.3	1.939	2.802	12.4	21.2
269982	2000 TU ₆₇		9 2.5 1°25	6°0/	29.7	18	255279	2005 VN ₆₃		9 2.5 198°92	0°6/	1.8	18
7 30	23 12.40	-19 26.1	1.261	2.163	16.2	19.8	7 30	23 8.02	- 7 35.6	2.860	3.712	9.7	21.9
8 9	23 7.89	-20 6.7	1.208	2.161	12.2	19.5	8 9	23 3.27	- 8 12.3	2.778	3.709	7.2	21.7
8 19	23 0.58	-20 46.8	1.174	2.160	8.3	19.3	8 19	22 57.23	- 8 55.8	2.721	3.705	4.3	21.5
8 29	22 51.40	-21 17.4	1.164	2.160	6.0	19.2	8 29	22 50.31	- 9 43.0	2.693	3.700	1.3	21.3
9 8	22 41.72	-21 30.4	1.177	2.161	7.8	19.3	9 8	22 43.08	-10 29.8	2.694	3.695	2.1	21.3
9 18	22 33.00	-21 21.1	1.214	2.163	11.7	19.5	9 18	22 36.15	-11 12.6	2.724	3.689	5.1	21.5
9 28	22 26.48	-20 48.6	1.272	2.166	15.7	19.8	9 28	22 30.10	-11 48.0	2.783	3.683	7.9	21.7
10 8	22 22.92	-19 55.4	1.348	2.170	19.1	20.0	10 8	22 25.41	-12 13.8	2.866	3.677	10.3	21.9
222791	2002 CG ₂₀₅		9 2.5 262°16	0°1/	2.3	16	220242	2002 XY ₂₈		9 2.6 311°16	1°8/	1.2	18
7 30	23 1.81	- 7 1.9	4.410	5.257	6.7	20.9	7 30	23 8.92	- 8 44.4	1.326	2.216	16.4	20.5
8 9	22 58.30	- 7 21.4	4.324	5.251	4.9	20.8	8 9	23 5.44	- 9 25.4	1.246	2.197	12.3	20.2
8 19	22 54.02	- 7 45.0	4.263	5.245	3.0	20.7	8 19	22 59.28	-10 20.8	1.187	2.177	7.5	19.9
8 29	22 49.24	- 8 11.2	4.232	5.239	0.9	20.5	8 29	22 51.11	-11 24.0	1.151	2.158	2.6	19.6
9 8	22 44.29	- 8 37.8	4.230	5.233	1.2	20.5	9 8	22 42.07	-12 26.1	1.139	2.140	4.3	19.6
9 18	22 39.51	- 9 2.9	4.258	5.227	3.3	20.7	9 18	22 33.52	-13 18.2	1.151	2.122	9.6	19.9
9 28	22 35.24	- 9 24.5	4.315	5.220	5.2	20.8	9 28	22 26.81	-13 53.1	1.186	2.104	14.6	20.1
10 8	22 31.77	- 9 41.2	4.398	5.214	6.9	20.9	10 8	22 22.91	-14 7.2	1.240	2.087	18.9	20.3
97755	2000 HN ₉₉		9 2.5 253°07	7°6/	11.2	18	441668	2008 XE ₁₁		9 2.6 265°92	11°4/	19.9	18
7 30	23 7.58	+17 12.0	2.144	2.890	15.9	19.3	7 30	23 12.82	-36 25.9	1.794	2.665	13.7	20.4
8 9	23 3.51	+17 26.3	2.051	2.881	13.8	19.1	8 9	23 7.99	-38 32.2	1.755	2.661	12.1	20.3
8 19	22 57.63	+17 16.7	1.977	2.872	11.3	19.0	8 19	23 0.60	-40 24.3	1.739	2.657	11.4	20.2
8 29	22 50.47	+16 41.3	1.924	2.864	9.1	18.8	8 29	22 51.46	-41 51.2	1.747	2.653	11.9	20.3
9 8	22 42.77	+15 41.5	1.896	2.855	7.7	18.7	9 8	22 41.76	-42 45.2	1.777	2.649	13.4	20.3
9 18	22 35.40	+14 21.5	1.894	2.846	8.0	18.7	9 18	22 32.80	-43 3.1	1.828	2.645	15.3	20.5
9 28	22 29.19	+12 48.1	1.919	2.836	9.9	18.8	9 28	22 25.79	-42 46.3	1.897	2.641	17.3	20.6
10 8	22 24.83	+11 10.0	1.967	2.827	12.4	19.0	10 8	22 21.47	-41 59.8	1.982	2.636	19.0	20.8
418937	2009 DT ₇₂		9 2.5 245°42	0°0/	2.4	17	392725	2012 QY ₃₇		9 2.6 4°49	1°6/	1.4	18
7 30	23 11.82	- 4 10.7	1.467	2.335	16.3	21.9	7 30	23 6.36	- 8 23.8	1.149	2.050	17.5	20.1
8 9	23 7.29	- 4 51.2	1.389	2.326	12.4	21.6	8 9	23 3.52	- 9 0.1	1.093	2.049	13.0	19.8
8 19	23 0.24	- 5 49.3	1.331	2.316	7.7	21.3	8 19	22 58.00	- 9 50.6	1.057	2.049	7.8	19.5
8 29	22 51.35	- 6 59.8	1.298	2.305	2.5	21.0	8 29	22 50.65	-10 47.8	1.043	2.051	2.5	19.2
9 8	22 41.72	- 8 14.6	1.291	2.295	2.9	21.0	9 8	22 42.74	-11 42.5	1.052	2.054	4.1	19.3
9 18	22 32.61	- 9 25.0	1.310	2.284	8.2	21.3	9 18	22 35.65	-12 26.0	1.084	2.059	9.4	19.7
9 28	22 25.26	-10 23.1	1.353	2.272	13.0	21.5	9 28	22 30.61	-12 52.2	1.138	2.064	14.3	20.0
10 8	22 20.54	-11 3.8	1.417	2.261	17.2	21.7	10 8	22 28.38	-12 58.2	1.211	2.072	18.4	20.2
243522	2010 CA ₁₂₄		9 2.5 53°52	9°4/	26.0	18	137675	1999 XF ₄₂		9 2.6 238°15	0°2/	2.7	18
7 30	23 15.73	-30 3.5	1.574	2.458	14.6	19.2	7 30	23 12.88	- 4 57.6	1.737	2.596	14.6	20.5
8 9	23 9.82	-31 17.0	1.544	2.474	11.9	19.0	8 9	23 7.76	- 5 22.3	1.653	2.586	11.1	20.2
8 19	23 1.45	-32 18.7	1.535	2.490	9.9	19.0	8 19	23 0.39	- 6 0.4	1.592	2.574	6.9	20.0
8 29	22 51.60	-32 59.0	1.550	2.506	9.5	19.0	8 29	22 51.41	- 6 47.7	1.556	2.563	2.3	19.7
9 8	22 41.59	-33 11.7	1.589	2.523	10.8	19.1	9 8	22 41.78	- 7 38.3	1.547	2.550	2.6	19.7
9 18	22 32.68	-32 55.1	1.651	2.540	13.1	19.3	9 18	22 32.60	- 8 26.1	1.565	2.537	7.3	19.9
9 28	22 25.89	-32 11.4	1.734	2.557	15.6	19.5	9 28	22 24.93	- 9 5.0	1.609	2.524	11.6	20.2
10 8	22 21.81	-31 5.4	1.836	2.575	17.8	19.7	10 8	22 19.57	- 9 31.0	1.674	2.511	15.3	20.4
515073	2010 OL ₁₁₁		9 2.5 334°77	9°6/	25.1	18	370877	2005 EQ ₉₉		9 2.6 101°28	2°2/	4.2	17
7 30	23 16.65	-34 9.0	1.885										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
164949	1999 <i>XF</i> ₂₃₁		9 2.6 300°66	9°2/25.3	18		165639	2001 <i>GO</i> ₃		9 2.6 174°95	17°3/23.6	18	
7 30	23 15.76	-29 2.6	1.693	2.574	13.9	19.1	7 30	23 36.04	-43 45.9	1.198	2.047	20.5	19.7
8 9	23 10.42	-30 16.8	1.612	2.542	11.4	18.9	8 9	23 26.46	-45 20.4	1.167	2.049	18.6	19.5
8 19	23 2.29	-31 25.2	1.552	2.509	9.6	18.7	8 19	23 12.24	-46 25.0	1.152	2.050	17.5	19.5
8 29	22 52.08	-32 17.1	1.516	2.476	9.3	18.6	8 29	22 55.11	-46 43.3	1.157	2.051	17.5	19.5
9 8	22 40.96	-32 43.4	1.505	2.442	11.0	18.6	9 8	22 37.77	-46 6.8	1.181	2.052	18.8	19.6
9 18	22 30.33	-32 38.6	1.517	2.409	13.9	18.7	9 18	22 22.80	-44 37.8	1.224	2.052	20.7	19.7
9 28	22 21.56	-32 1.9	1.550	2.376	17.0	18.8	9 28	22 12.01	-42 26.4	1.284	2.051	22.9	19.9
10 8	22 15.62	-30 56.8	1.601	2.343	19.9	19.0	10 8	22 6.00	-39 46.4	1.358	2.050	25.0	20.1
507173	2010 <i>EK</i> ₁₃₂		9 2.6 216°28	0°6/ 1.9	18		28029	1998 <i>DW</i> ₉		9 2.6 294°08	3°3/ 6.4	18	
7 30	23 12.79	- 7 54.2	2.427	3.278	11.3	23.1	7 30	23 6.00	+ 5 5.8	2.522	3.332	12.1	17.7
8 9	23 7.08	- 8 21.2	2.339	3.268	8.4	22.9	8 9	23 2.02	+ 5 2.8	2.429	3.322	9.7	17.5
8 19	22 59.69	- 8 55.9	2.275	3.257	5.1	22.7	8 19	22 56.59	+ 4 45.3	2.359	3.312	7.0	17.3
8 29	22 51.15	- 9 34.6	2.238	3.246	1.6	22.4	8 29	22 50.17	+ 4 14.3	2.314	3.302	4.4	17.1
9 8	22 42.15	-10 13.0	2.232	3.233	2.4	22.5	9 8	22 43.35	+ 3 32.4	2.297	3.292	3.3	17.0
9 18	22 33.49	-10 47.0	2.255	3.220	5.9	22.7	9 18	22 36.80	+ 2 43.5	2.308	3.282	5.2	17.1
9 28	22 25.93	-11 12.9	2.305	3.206	9.3	22.9	9 28	22 31.19	+ 1 52.2	2.346	3.272	7.9	17.3
10 8	22 20.08	-11 28.5	2.380	3.192	12.1	23.0	10 8	22 27.05	+ 1 3.3	2.410	3.262	10.7	17.5
54375	2000 <i>KO</i> ₅₅		9 2.6 355°81	6°2/27.7	18		302123	2001 <i>QM</i> ₁₂₈		9 2.6 327°48	6°6/ 7.1	18	
7 30	23 8.34	-20 31.0	1.622	2.519	13.5	18.0	7 30	23 10.21	+ 7 5.6	1.621	2.443	17.2	19.9
8 9	23 4.44	-21 50.8	1.567	2.516	10.3	17.8	8 9	23 6.02	+ 8 1.2	1.533	2.426	14.3	19.7
8 19	22 58.33	-23 10.6	1.534	2.514	7.3	17.7	8 19	22 59.48	+ 8 38.1	1.464	2.411	11.0	19.4
8 29	22 50.73	-24 21.4	1.526	2.513	6.3	17.6	8 29	22 51.18	+ 8 54.1	1.418	2.395	7.9	19.2
9 8	22 42.68	-25 14.8	1.543	2.512	8.0	17.7	9 8	22 42.09	+ 8 49.5	1.396	2.381	6.6	19.1
9 18	22 35.27	-25 45.1	1.584	2.512	11.1	17.9	9 18	22 33.34	+ 8 27.6	1.398	2.367	8.4	19.2
9 28	22 29.53	-25 50.4	1.648	2.512	14.3	18.1	9 28	22 26.11	+ 7 54.2	1.425	2.354	11.8	19.3
10 8	22 26.15	-25 31.7	1.730	2.513	17.1	18.3	10 8	22 21.27	+ 7 16.8	1.473	2.342	15.3	19.5
323618	2004 <i>VX</i> ₂₉		9 2.6 252°79	4°5/28.4	18		188399	2004 <i>ER</i> ₈		9 2.6 104°28	0°3/ 2.3	18	
7 30	23 9.32	-20 32.1	2.351	3.231	10.6	21.0	7 30	23 12.85	- 6 9.0	1.579	2.447	15.4	20.3
8 9	23 4.55	-21 27.3	2.286	3.227	8.0	20.8	8 9	23 7.68	- 6 37.0	1.518	2.455	11.5	20.1
8 19	22 58.13	-22 21.9	2.245	3.222	5.6	20.6	8 19	23 0.25	- 7 17.4	1.479	2.464	7.0	19.8
8 29	22 50.63	-23 10.2	2.231	3.218	4.5	20.6	8 29	22 51.34	- 8 5.1	1.464	2.472	2.2	19.5
9 8	22 42.79	-23 46.9	2.244	3.214	5.8	20.7	9 8	22 42.02	- 8 53.5	1.476	2.479	2.8	19.6
9 18	22 35.38	-24 8.3	2.285	3.209	8.3	20.8	9 18	22 33.40	- 9 36.2	1.515	2.487	7.5	19.9
9 28	22 29.17	-24 12.6	2.350	3.205	10.9	21.0	9 28	22 26.51	-10 7.9	1.578	2.495	11.7	20.2
10 8	22 24.70	-24 0.1	2.437	3.201	13.2	21.1	10 8	22 22.04	-10 25.6	1.664	2.502	15.3	20.4
289157	2004 <i>VO</i> ₂₅		9 2.6 303°45	4°3/ 7.0	18		250961	2006 <i>DW</i> ₉₆		9 2.6 74°97	1°6/ 3.8	17	
7 30	23 7.25	+ 6 45.6	2.234	3.041	13.6	20.2	7 30	23 11.93	- 0 32.1	1.274	2.140	18.5	20.5
8 9	23 3.12	+ 6 53.7	2.145	3.033	11.0	20.1	8 9	23 7.30	- 1 9.3	1.224	2.157	14.0	20.3
8 19	22 57.34	+ 6 45.1	2.078	3.025	8.2	19.9	8 19	23 0.13	- 2 8.1	1.193	2.173	9.0	20.1
8 29	22 50.41	+ 6 20.1	2.034	3.017	5.4	19.7	8 29	22 51.31	- 3 22.8	1.185	2.189	3.6	19.8
9 8	22 43.03	+ 5 41.4	2.018	3.009	4.3	19.6	9 8	22 42.10	- 4 44.2	1.201	2.206	2.8	19.8
9 18	22 35.96	+ 4 52.8	2.029	3.001	5.9	19.7	9 18	22 33.79	- 6 2.8	1.243	2.222	7.9	20.2
9 28	22 29.98	+ 3 59.7	2.067	2.993	8.8	19.9	9 28	22 27.53	- 7 9.8	1.309	2.238	12.6	20.5
10 8	22 25.68	+ 3 7.8	2.129	2.986	11.7	20.0	10 8	22 24.00	- 7 59.7	1.396	2.254	16.6	20.8
329917	2005 <i>MG</i> ₃₇		9 2.6 67°78	2°9/31.1	17		20246	Frappa		9 2.6 157°13	0°1/ 2.7	18 R	
7 30	23 10.68	-10 7.8	1.376	2.264	16.0	20.7	7 30	23 14.64	- 5 26.1	1.600	2.462	15.5	18.8
8 9	23 6.25	-11 25.6	1.330	2.280	11.7	20.5	8 9	23 9.05	- 5 44.7	1.532	2.466	11.7	18.6
8 19	22 59.42	-12 54.0	1.305	2.295	7.0	20.3	8 19	23 1.13	- 6 15.9	1.487	2.470	7.2	18.4
8 29	22 51.06	-14 23.7	1.305	2.311	3.1	20.1	8 29	22 51.64	- 6 55.4	1.466	2.473	2.4	18.1
9 8	22 42.35	-15 44.6	1.331	2.327	5.0	20.3	9 8	22 41.66	- 7 37.3	1.472	2.476	2.6	18.1
9 18	22 34.51	-16 48.4	1.382	2.343	9.4	20.6	9 18	22 32.34	- 8 15.2	1.505	2.479	7.4	18.4
9 28	22 28.58	-17 30.3	1.456	2.358	13.5	20.9	9 28	22 24.78	- 8 44.1	1.564	2.481	11.8	18.7
10 8	22 25.21	-17 49.2	1.551	2.374	17.0	21.1	10 8	22 19.68	- 9 0.4	1.644	2.483	15.4	18.9
510035	2010 <i>CS</i> ₁₆₁		9 2.6 221°45	0°2/ 2.3	18		275977	2001 <i>XW</i> ₁₅		9 2.6 277°51	0°4/ 2.2	18	
7 30	23 13.68	- 7 17.9	2.060	2.915	12.8	22.0	7 30	23 9.75	- 5 40.8	1.641	2.511	14.8	20.6
8 9	23 7.98	- 7 30.7	1.977	2.908	9.6	21.8	8 9	23 5.51	- 6 19.6	1.562	2.501	11.1	20.4
8 19	23 0.35	- 7 52.0	1.917	2.900	5.9	21.6	8 19	22 59.05	- 7 12.6	1.506	2.491	6.8	20.1
8 29	22 51.37	- 8 18.3	1.885	2.892	1.8	21.3	8 29	22 51.02	- 8 14.8	1.474	2.481	2.1	19.8
9 8	22 41.91	- 8 45.3	1.881	2.883	2.4	21.3	9 8	22 42.36	- 9 19.1	1.468	2.471	2.9	19.8
9 18	22 32.87	- 9 8.5	1.905	2.874	6.5	21.6	9 18	22 34.19	-10 18.2	1.489	2.461	7.6	20.1
9 28	22 25.17	- 9 24.3	1.956	2.865	10.2	21.8	9 28	22 27.55	-11 5.6	1.535	2.451	12.0	20.3
10 8	22 19.47	- 9 30.1	2.030	2.855	13.4	22.0	10 8	22 23.22	-11 37.2	1.602	2.441	15.8	20.5
281695	2008 <i>WS</i> ₅₉		9 2.6 335°27	2°9/31.3	18		387148	2012 <i>TK</i> ₂₂₃		9 2.6 296°03	1°9/ 4.5	18	
7 30	23 3.96	-10 10.5	1.176	2.082	16.8	19.7	7 30	23 7.26	+ 1 13.0	1.734	2.581	15.2	20.9
8 9	23 1.95	-11 4.4	1.101	2.061	12.5	19.4	8 9	23 3.50	+ 0 32.6	1.655	2.577	11.7	20.7
8 19	22 57.23	-12 13.4	1.047	2.040	7.6	19.1	8 19	22 57.75	- 0 27.6	1.598	2.572	7.8	20.4
8 29	22 50.49	-13 29.4	1.014	2.021	3.2	18.8	8 29	22 50.59	- 1 44.0	1.566	2.568	3.6	20.2
9 8	22 42.90	-14 41.5	1.004	2.003	5.4	18.9	9 8	22 42.91	- 3 10.0	1.560	2.564	2.5	20.1
9 18	22 35.85	-15 39.4	1.017	1.987	10.7	19.1	9 18	22 35.68	- 4 37.7	1.581	2.559	6.6	20.3
9 28	22 30.73	-16 15.2	1.051	1.972	15.7	19.3	9 28	22 29.86	- 5 58.9	1.628	2.555	10.7	20.6
10 8	22 28.50	-16 25.4	1.102	1.959	20.2	19.6	10 8	22 26.13	- 7 7.1	1.698	2.551	14.4	20.8
159105	2004 <i>UA</i> ₁₁		9 2.6 339°28	1°8/ 4.4	18		370326	2002 <i>RU</i> ₁₅₂		9 2.6 343°28	4°4/		

EPHEMERIDES

9 2.6

9 2.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
431873	2008 <i>SU</i> ₁₆₄	9 2.6 11°35'	6°1/ 8.7 16				67949	2000 <i>WY</i> ₁₅₉	9 2.6 338°01'	2°1/ 1.1 18	R		
7 30	22 54.56	+11 4.0	0.899	1.770	23.9	19.4	7 30	23 5.50	- 8 15.8	1.029	1.937	18.5	19.0
8 9	22 55.10	+10 19.0	0.852	1.776	19.5	19.2	8 9	23 3.35	- 9 4.6	0.964	1.923	13.8	18.7
8 19	22 53.00	+ 8 48.1	0.820	1.785	14.5	18.9	8 19	22 58.21	-10 11.7	0.917	1.911	8.4	18.4
8 29	22 49.12	+ 6 35.1	0.806	1.797	9.2	18.7	8 29	22 50.86	-11 28.7	0.892	1.899	2.9	18.0
9 8	22 44.72	+ 3 53.2	0.812	1.811	6.1	18.6	9 8	22 42.66	-12 43.9	0.888	1.889	4.9	18.1
9 18	22 41.13	+ 1 1.3	0.840	1.828	8.5	18.8	9 18	22 35.16	-13 45.8	0.906	1.880	10.8	18.4
9 28	22 39.54	- 1 40.4	0.889	1.847	13.3	19.1	9 28	22 29.87	-14 25.7	0.944	1.873	16.2	18.7
10 8	22 40.63	- 3 56.4	0.959	1.868	17.8	19.5	10 8	22 27.75	-14 39.8	1.000	1.867	20.9	19.0
393021	2012 <i>XD</i> ₁₅₅	9 2.6 227°23'	4°9/ 7.7 18				223378	2003 <i>SR</i> ₅₈	9 2.6 15°77'	4°5/ 6.8 18			
7 30	23 9.32	+ 9 10.3	2.209	2.999	14.2	21.5	7 30	23 9.41	+ 5 53.0	2.113	2.923	14.1	19.6
8 9	23 4.71	+ 9 13.4	2.116	2.991	11.7	21.3	8 9	23 4.75	+ 6 18.7	2.035	2.925	11.4	19.4
8 19	22 58.36	+ 8 57.5	2.045	2.982	8.9	21.1	8 19	22 58.35	+ 6 28.4	1.979	2.927	8.4	19.2
8 29	22 50.78	+ 8 22.8	1.998	2.974	6.2	20.9	8 29	22 50.78	+ 6 22.2	1.948	2.930	5.6	19.0
9 8	22 42.70	+ 7 31.6	1.978	2.965	4.9	20.9	9 8	22 42.80	+ 6 2.2	1.943	2.933	4.5	19.0
9 18	22 34.93	+ 6 28.6	1.986	2.955	6.3	20.9	9 18	22 35.23	+ 5 32.0	1.965	2.936	6.2	19.1
9 28	22 28.29	+ 5 19.7	2.021	2.945	9.1	21.1	9 28	22 28.87	+ 4 56.6	2.014	2.939	9.1	19.3
10 8	22 23.42	+ 4 11.6	2.080	2.935	12.0	21.3	10 8	22 24.33	+ 4 21.3	2.086	2.942	11.9	19.5
62864	2000 <i>UG</i> ₈₂	9 2.6 4°32'	0°4/ 2.4 18				365717	2010 <i>VW</i> ₁₇₄	9 2.6 96°27'	1°8/31.6 18			
7 30	23 9.73	-10 22.8	0.932	1.843	19.6	17.4	7 30	23 8.34	-11 13.8	2.287	3.157	11.2	21.1
8 9	23 6.49	- 9 43.3	0.882	1.842	14.8	17.1	8 9	23 3.77	-11 56.8	2.223	3.163	8.2	20.9
8 19	23 0.01	- 9 11.8	0.850	1.842	9.1	16.8	8 19	22 57.65	-12 45.4	2.183	3.170	4.9	20.7
8 29	22 51.36	- 8 44.9	0.837	1.846	2.8	16.4	8 29	22 50.53	-13 34.9	2.170	3.176	2.1	20.5
9 8	22 42.12	- 8 18.1	0.847	1.851	3.6	16.5	9 8	22 43.12	-14 20.4	2.186	3.182	3.3	20.6
9 18	22 33.98	- 7 47.7	0.877	1.859	9.7	16.9	9 18	22 36.16	-14 57.5	2.229	3.188	6.5	20.9
9 28	22 28.40	- 7 10.7	0.928	1.869	15.0	17.2	9 28	22 30.35	-15 22.9	2.299	3.194	9.5	21.1
10 8	22 26.17	- 6 25.4	0.997	1.881	19.6	17.6	10 8	22 26.21	-15 35.1	2.392	3.200	12.2	21.3
134933	2001 <i>BZ</i> ₅	9 2.6 217°10'	5°2/29.4 18				167507	2003 <i>YY</i> ₁₀₅	9 2.6 284°93'	3°3/ 5.6 18			
7 30	23 14.15	-17 29.1	1.534	2.422	14.7	19.9	7 30	23 9.01	+ 3 28.3	1.940	2.769	14.6	20.6
8 9	23 8.91	-18 34.5	1.472	2.419	11.0	19.6	8 9	23 4.85	+ 3 18.7	1.835	2.742	11.6	20.3
8 19	23 1.16	-19 43.1	1.432	2.416	7.3	19.4	8 19	22 58.67	+ 2 50.8	1.751	2.714	8.2	20.1
8 29	22 51.69	-20 45.8	1.417	2.413	5.2	19.3	8 29	22 50.96	+ 2 5.3	1.692	2.687	4.7	19.8
9 8	22 41.67	-21 34.0	1.428	2.409	7.0	19.4	9 8	22 42.51	+ 1 6.0	1.659	2.659	3.4	19.7
9 18	22 32.36	-22 1.4	1.463	2.405	10.7	19.6	9 18	22 34.26	- 0 1.6	1.654	2.630	6.5	19.8
9 28	22 24.94	-22 5.5	1.522	2.401	14.5	19.8	9 28	22 27.20	- 1 10.4	1.674	2.602	10.4	20.0
10 8	22 20.17	-21 47.2	1.601	2.397	17.7	20.0	10 8	22 22.13	- 2 13.6	1.719	2.573	14.1	20.1
485073	2010 <i>EN</i> ₈₄	9 2.6 60°16'	2°3/30.7 18				481380	2006 <i>MP</i> ₈	9 2.6 5°78'	6°8/ 7.6 16			
7 30	23 7.66	-15 21.8	2.819	3.689	9.3	21.1	7 30	23 5.93	+ 6 48.0	1.239	2.088	19.9	20.0
8 9	23 2.94	-15 50.7	2.764	3.704	6.8	21.0	8 9	23 3.11	+ 7 34.0	1.177	2.088	16.3	19.7
8 19	22 56.99	-16 21.0	2.734	3.719	4.2	20.8	8 19	22 57.77	+ 7 54.6	1.134	2.090	12.3	19.5
8 29	22 50.27	-16 49.2	2.732	3.733	2.4	20.7	8 29	22 50.66	+ 7 48.5	1.110	2.094	8.5	19.3
9 8	22 43.39	-17 11.6	2.759	3.748	3.4	20.8	9 8	22 42.95	+ 7 18.3	1.108	2.099	6.8	19.2
9 18	22 36.92	-17 25.8	2.815	3.763	5.8	21.0	9 18	22 35.93	+ 6 30.5	1.129	2.106	8.8	19.4
9 28	22 31.42	-17 29.9	2.897	3.778	8.3	21.2	9 28	22 30.79	+ 5 34.2	1.173	2.115	12.5	19.6
10 8	22 27.32	-17 23.3	3.003	3.793	10.4	21.3	10 8	22 28.33	+ 4 39.1	1.237	2.125	16.2	19.9
298608	2003 <i>YH</i> ₁₄₃	9 2.6 238°81'	3°2/ 5.3 18				313152	2001 <i>DU</i> ₅₄	9 2.6 95°30'	1°0/ 3.6 18			
7 30	23 12.96	+ 2 0.9	2.124	2.946	13.7	21.0	7 30	23 10.64	- 3 40.0	2.307	3.151	12.0	20.6
8 9	23 7.45	+ 2 20.5	2.035	2.937	10.8	20.8	8 9	23 5.45	- 3 40.5	2.235	3.157	9.1	20.5
8 19	23 0.06	+ 2 26.7	1.967	2.928	7.6	20.5	8 19	22 58.67	- 3 50.3	2.186	3.162	5.8	20.3
8 29	22 51.33	+ 2 20.2	1.926	2.919	4.4	20.3	8 29	22 50.87	- 4 7.3	2.164	3.168	2.3	20.0
9 8	22 42.06	+ 2 3.2	1.912	2.909	3.4	20.3	9 8	22 42.74	- 4 28.1	2.170	3.174	1.9	20.0
9 18	22 33.15	+ 1 39.3	1.926	2.899	6.1	20.4	9 18	22 35.06	- 4 49.2	2.205	3.179	5.3	20.3
9 28	22 25.47	+ 1 12.9	1.968	2.889	9.5	20.6	9 28	22 28.54	- 5 7.1	2.267	3.185	8.6	20.5
10 8	22 19.70	+ 0 48.8	2.033	2.879	12.6	20.8	10 8	22 23.72	- 5 18.9	2.354	3.190	11.5	20.7
106025	2000 <i>SG</i> ₂₉₇	9 2.6 198°34'	1°7/ 4.0 18				139412	2001 <i>OX</i> ₁₅	9 2.6 336°02'	4°3/29.8 18			
7 30	23 12.71	- 1 39.4	1.937	2.780	14.0	19.3	7 30	23 10.65	-16 56.2	1.738	2.625	13.3	19.7
8 9	23 7.34	- 1 43.5	1.858	2.778	10.8	19.0	8 9	23 6.04	-17 45.5	1.674	2.621	9.9	19.5
8 19	23 0.01	- 2 0.7	1.802	2.776	7.0	18.8	8 19	22 59.29	-18 37.5	1.632	2.617	6.4	19.2
8 29	22 51.31	- 2 28.6	1.771	2.773	3.1	18.6	8 29	22 51.11	-19 25.0	1.615	2.613	4.3	19.1
9 8	22 42.13	- 3 3.3	1.767	2.770	2.4	18.5	9 8	22 42.47	-20 1.3	1.625	2.610	5.9	19.2
9 18	22 33.41	- 3 39.7	1.792	2.767	6.2	18.8	9 18	22 34.43	-20 21.3	1.660	2.607	9.3	19.4
9 28	22 26.08	- 4 13.0	1.843	2.764	10.0	19.0	9 28	22 27.97	-20 22.4	1.720	2.604	12.8	19.6
10 8	22 20.81	- 4 38.8	1.917	2.760	13.4	19.2	10 8	22 23.76	-20 4.7	1.799	2.601	15.8	19.8
104460	2000 <i>GF</i> ₁₀	9 2.6 68°20'	0°7/ 1.9 18				393134	2013 <i>BR</i> ₄₈	9 2.6 357°16'	2°4/31.4 18			
7 30	23 9.39	- 7 3.3	1.872	2.740	13.4	19.9	7 30	23 8.01	-10 41.7	1.706	2.589	13.7	20.5
8 9	23 4.88	- 7 39.8	1.804	2.742	9.9	19.7	8 9	23 4.07	-11 37.3	1.641	2.588	10.1	20.3
8 19	22 58.48	- 8 26.8	1.759	2.744	6.0	19.5	8 19	22 58.09	-12 41.9	1.598	2.587	6.1	20.1
8 29	22 50.82	- 9 19.5	1.739	2.747	1.8	19.2	8 29	22 50.73	-13 48.9	1.581	2.587	2.6	19.8
9 8	22 42.76	-10 11.9	1.747	2.749	2.7	19.3	9 8	22 42.92	-14 50.8	1.590	2.586	4.2	19.9
9 18	22 35.21	-10 58.2	1.782	2.752	6.8	19.6	9 18	22 35.66	-15 41.1	1.625	2.586	8.2	20.2
9 28	22 29.06	-11 33.8	1.843	2.754	10.6	19.8	9 28	22 29.89	-16 15.0	1.685	2.587	12.0	20.4
10 8	22 24.91	-11 55.8	1.926	2.757	13.8	20.0	10 8	22 26.27	-16 30.6	1.765	2.587	15.3	20.6
431439	2007 <i>RP</i> ₂₃	9 2.6 22°33'	1°7/ 3.4 18				222063	1998 <i>XK</i> ₆	9 2.6 300°46'	2°9/ 8.			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
167533	2003 YB ₁₅₉	9 2.6 265°05	3°0/30.9 18				126774	2002 DA ₁₇	9 2.6 110°11	7°2/25.4 18			
7 30	23 12.18	-14 15.9	1.966	2.841	12.5	20.5	7 30	23 11.69	-28 52.2	2.214	3.089	11.3	19.6
8 9	23 7.06	-14 54.2	1.885	2.827	9.3	20.3	8 9	23 6.47	-30 4.2	2.166	3.093	9.1	19.4
8 19	22 59.91	-15 37.1	1.827	2.813	5.8	20.0	8 19	22 59.40	-31 9.1	2.143	3.096	7.6	19.4
8 29	22 51.33	-16 19.1	1.795	2.798	3.1	19.8	8 29	22 51.14	-31 59.8	2.145	3.099	7.4	19.3
9 8	22 42.21	-16 54.1	1.792	2.783	4.6	19.9	9 8	22 42.58	-32 30.7	2.173	3.103	8.6	19.4
9 18	22 33.51	-17 17.3	1.815	2.768	8.1	20.1	9 18	22 34.62	-32 39.2	2.226	3.106	10.6	19.6
9 28	22 26.20	-17 25.4	1.863	2.753	11.7	20.3	9 28	22 28.09	-32 25.0	2.302	3.109	12.7	19.7
10 8	22 20.98	-17 17.5	1.934	2.737	14.8	20.4	10 8	22 23.57	-31 50.4	2.398	3.112	14.7	19.9
24055	1999 TX ₇₁	9 2.6 259°01	0°8/ 1.9 18				510750	2012 XQ ₅₀	9 2.6 0°24	3°9/30.5 18			
7 30	23 10.79	- 7 33.7	1.948	2.813	13.1	19.5	7 30	23 8.45	-13 42.2	1.375	2.273	15.4	20.5
8 9	23 6.03	- 8 5.8	1.863	2.799	9.8	19.2	8 9	23 4.82	-14 40.3	1.317	2.271	11.4	20.3
8 19	22 59.29	- 8 48.2	1.800	2.785	6.0	19.0	8 19	22 58.74	-15 45.7	1.280	2.270	7.1	20.0
8 29	22 51.14	- 9 36.4	1.763	2.771	1.9	18.7	8 29	22 50.99	-16 49.8	1.266	2.269	4.0	19.9
9 8	22 42.42	-10 24.9	1.754	2.756	2.8	18.7	9 8	22 42.73	-17 43.7	1.278	2.270	5.9	20.0
9 18	22 34.08	-11 8.0	1.773	2.741	7.0	19.0	9 18	22 35.19	-18 20.2	1.313	2.271	10.1	20.2
9 28	22 27.06	-11 40.8	1.817	2.726	10.9	19.2	9 28	22 29.50	-18 35.3	1.371	2.273	14.2	20.5
10 8	22 22.06	-12 0.3	1.884	2.711	14.3	19.3	10 8	22 26.39	-18 28.4	1.448	2.276	17.7	20.7
448512	2010 NT ₁₆	9 2.6 0°83	1°8/ 4.4 15				215838	2005 CT ₂₂	9 2.6 198°87	3°6/30.4 18			
7 30	23 6.88	- 0 17.5	1.825	2.676	14.4	21.4	7 30	23 13.30	-13 14.2	1.651	2.532	14.2	20.5
8 9	23 3.10	- 0 37.2	1.752	2.676	11.1	21.1	8 9	23 8.15	-14 24.2	1.584	2.529	10.5	20.3
8 19	22 57.45	- 1 12.9	1.700	2.675	7.3	20.9	8 19	23 0.69	-15 42.0	1.540	2.527	6.5	20.0
8 29	22 50.53	- 2 1.6	1.673	2.675	3.3	20.7	8 29	22 51.61	-16 59.3	1.521	2.523	3.7	19.9
9 8	22 43.18	- 2 58.0	1.672	2.676	2.4	20.6	9 8	22 41.99	-18 7.4	1.530	2.520	5.5	20.0
9 18	22 36.29	- 3 56.2	1.698	2.676	6.2	20.9	9 18	22 32.96	-18 59.4	1.565	2.515	9.4	20.2
9 28	22 30.73	- 4 49.8	1.750	2.678	10.0	21.1	9 28	22 25.62	-19 30.7	1.624	2.510	13.3	20.4
10 8	22 27.15	- 5 33.8	1.825	2.679	13.4	21.3	10 8	22 20.71	-19 40.6	1.703	2.505	16.6	20.6
511154	2013 YS ₃₈	9 2.6 167°58	10°2/14.7 17				442748	2012 WJ ₁₉	9 2.6 13°42	7°4/ 8.9 18			
7 30	23 16.78	+27 12.4	2.627	3.258	15.6	22.5	7 30	23 8.09	+10 56.7	1.486	2.298	19.0	20.6
8 9	23 10.23	+28 25.6	2.542	3.264	14.2	22.4	8 9	23 4.45	+11 29.7	1.417	2.301	15.8	20.4
8 19	23 1.77	+29 16.8	2.475	3.269	12.7	22.3	8 19	22 58.49	+11 36.3	1.367	2.304	12.4	20.2
8 29	22 51.93	+29 42.2	2.429	3.273	11.3	22.2	8 29	22 50.93	+11 15.1	1.337	2.307	9.1	20.1
9 8	22 41.50	+29 40.3	2.406	3.276	10.4	22.1	9 8	22 42.80	+10 28.6	1.330	2.312	7.4	20.0
9 18	22 31.35	+29 12.1	2.408	3.279	10.2	22.1	9 18	22 35.25	+ 9 22.8	1.348	2.317	8.6	20.1
9 28	22 22.39	+28 21.9	2.435	3.281	10.9	22.2	9 28	22 29.37	+ 8 6.7	1.389	2.323	11.6	20.3
10 8	22 15.30	+27 16.4	2.484	3.282	12.1	22.3	10 8	22 25.92	+ 6 50.3	1.453	2.330	15.0	20.5
429424	2010 UZ ₆₀	9 2.6 296°53	0°0/ 2.5 18				393108	2013 BW	9 2.6 281°39	1°4/30.9 17			
7 30	23 11.57	- 5 31.3	1.342	2.220	17.0	21.6	7 30	23 2.11	-13 47.7	4.307	5.171	6.5	21.1
8 9	23 7.43	- 5 49.0	1.262	2.204	12.9	21.3	8 9	22 58.62	-14 17.9	4.228	5.166	4.7	21.0
8 19	23 0.55	- 6 22.4	1.202	2.188	8.1	21.0	8 19	22 54.32	-14 50.1	4.176	5.160	2.9	20.9
8 29	22 51.63	- 7 7.0	1.165	2.172	2.6	20.6	8 29	22 49.50	-15 21.8	4.152	5.155	1.5	20.7
9 8	22 41.85	- 7 55.7	1.153	2.157	3.1	20.6	9 8	22 44.51	-15 50.7	4.158	5.149	2.2	20.8
9 18	22 32.57	- 8 40.8	1.165	2.142	8.7	20.9	9 18	22 39.70	-16 14.9	4.194	5.144	4.0	20.9
9 28	22 25.17	- 9 15.0	1.201	2.127	13.8	21.1	9 28	22 35.43	-16 32.6	4.257	5.138	5.8	21.1
10 8	22 20.60	- 9 33.7	1.256	2.112	18.2	21.4	10 8	22 32.00	-16 42.7	4.345	5.133	7.5	21.2
73380	2002 LR ₇	9 2.6 150°65	4°2/29.8 18				256496	2007 ES ₅₆	9 2.6 311°73	6°7/26.7 18			
7 30	23 13.11	-14 24.0	1.626	2.509	14.2	19.9	7 30	23 12.96	-27 36.8	2.202	3.077	11.4	20.2
8 9	23 7.94	-15 46.3	1.569	2.516	10.5	19.6	8 9	23 7.41	-28 29.0	2.145	3.074	9.1	20.0
8 19	23 0.49	-17 14.7	1.536	2.522	6.6	19.4	8 19	22 59.98	-29 14.9	2.112	3.071	7.3	19.9
8 29	22 51.51	-18 40.3	1.528	2.527	4.2	19.3	8 29	22 51.34	-29 47.8	2.104	3.068	6.8	19.9
9 8	22 42.10	-19 53.9	1.547	2.532	6.1	19.4	9 8	22 42.38	-30 2.7	2.123	3.066	8.0	19.9
9 18	22 33.37	-20 48.5	1.592	2.537	9.8	19.7	9 18	22 34.01	-29 56.9	2.168	3.063	10.1	20.1
9 28	22 26.39	-21 20.6	1.661	2.541	13.4	19.9	9 28	22 27.10	-29 30.2	2.236	3.061	12.5	20.2
10 8	22 21.83	-21 29.8	1.751	2.545	16.5	20.1	10 8	22 22.21	-28 44.9	2.324	3.059	14.6	20.4
219011	2734 P-L	9 2.6 341°97	1°2/ 1.6 18				396484	2014 FH ₄₇	9 2.6 230°40	0°5/ 2.1 18			
7 30	23 6.00	- 8 16.6	1.668	2.550	14.0	20.0	7 30	23 9.49	- 5 43.8	2.122	2.980	12.4	22.0
8 9	23 2.69	- 8 50.6	1.593	2.539	10.4	19.8	8 9	23 4.91	- 6 33.1	2.037	2.970	9.3	21.8
8 19	22 57.33	- 9 35.6	1.539	2.528	6.3	19.5	8 19	22 58.54	- 7 34.2	1.976	2.959	5.7	21.6
8 29	22 50.54	-10 26.5	1.511	2.518	2.0	19.2	8 29	22 50.92	- 8 42.6	1.941	2.949	1.7	21.3
9 8	22 43.22	-11 16.6	1.507	2.509	3.2	19.3	9 8	22 42.81	- 9 52.3	1.935	2.937	2.5	21.3
9 18	22 36.36	-11 59.7	1.530	2.501	7.6	19.6	9 18	22 35.05	-10 57.3	1.957	2.926	6.4	21.6
9 28	22 30.94	-12 30.4	1.577	2.493	11.7	19.8	9 28	22 28.47	-11 52.2	2.006	2.913	10.1	21.8
10 8	22 27.67	-12 45.6	1.645	2.487	15.3	20.0	10 8	22 23.71	-12 33.3	2.079	2.901	13.3	22.0
3873	Roddy	9 2.6 193°43	17°8/19.8 18				91598	1999 TK ₁₃	9 2.6 335°12	4°6/29.4 18			
7 30	23 16.84	+33 21.9	1.500	2.145	25.2	16.5	7 30	23 6.43	-16 19.3	1.624	2.521	13.5	18.1
8 9	23 11.76	+35 6.4	1.426	2.145	23.6	16.3	8 9	23 3.16	-17 20.6	1.551	2.504	10.1	17.9
8 19	23 3.46	+36 14.1	1.363	2.143	21.8	16.2	8 19	22 57.70	-18 26.9	1.501	2.488	6.6	17.7
8 29	22 52.65	+36 35.3	1.314	2.140	19.9	16.0	8 29	22 50.69	-19 30.4	1.474	2.473	4.6	17.5
9 8	22 40.63	+36 4.0	1.281	2.137	18.5	15.9	9 8	22 43.09	-20 22.9	1.474	2.459	6.4	17.6
9 18	22 29.08	+34 40.2	1.265	2.132	17.8	15.9	9 18	22 35.98	-20 57.9	1.497	2.445	10.0	17.8
9 28	22 19.69	+32 31.9	1.269	2.127	18.1	15.9	9 28	22 30.41	-21 11.4	1.544	2.433	13.7	18.0
10 8	22 13.64	+29 54.1	1.293	2.121	19.4	16.0	10 8	22 27.12	-21 2.9	1.610	2.421	17.0	18.2
254492	2005 ED ₃₅	9 2.6 168°70	3°0/ 5.2 17				209343	2004 CC ₅₁	9 2.6 81°95	5°2/ 4.1 17			
7 30	23 12.31	+ 2 43.9	1.685	2.519									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
343916	2011 <i>JE</i> ₂₉	9 2.6 63°46'	7°6/ 9.7 18				61486	2000 <i>QQ</i> ₄₂	9 2.6 343°75'	0°5/ 3.1 18			
7 30	23 10.10	+13 12.7	1.682	2.468	18.1	20.0	7 30	23 7.57	- 3 56.2	1.771	2.635	14.2	18.9
8 9	23 5.72	+13 41.4	1.611	2.474	15.3	19.8	8 9	23 3.72	- 4 20.9	1.696	2.630	10.7	18.7
8 19	22 59.18	+13 44.3	1.558	2.480	12.2	19.7	8 19	22 57.91	- 4 59.1	1.643	2.626	6.7	18.5
8 29	22 51.14	+13 20.1	1.527	2.487	9.2	19.5	8 29	22 50.75	- 5 47.1	1.616	2.622	2.4	18.2
9 8	22 42.59	+12 30.8	1.520	2.493	7.6	19.4	9 8	22 43.11	- 6 39.1	1.614	2.618	2.3	18.2
9 18	22 34.58	+11 21.9	1.537	2.500	8.5	19.5	9 18	22 35.94	- 7 29.2	1.639	2.615	6.6	18.5
9 28	22 28.12	+10 1.8	1.580	2.506	11.0	19.7	9 28	22 30.15	- 8 11.4	1.690	2.613	10.7	18.7
10 8	22 23.94	+ 8 39.9	1.645	2.513	14.0	19.9	10 8	22 26.42	- 8 41.7	1.763	2.610	14.2	18.9
100532	1997 <i>CB</i> ₁₇	9 2.6 258°16'	0°9/ 1.9 18				313158	2001 <i>DD</i> ₈₃	9 2.6 112°23'	0°0/ 2.4 18			
7 30	23 12.79	- 8 37.4	1.854	2.720	13.5	20.0	7 30	23 6.31	- 4 15.1	2.383	3.236	11.4	21.1
8 9	23 7.59	- 8 56.0	1.773	2.710	10.1	19.8	8 9	23 2.27	- 5 5.5	2.312	3.241	8.5	21.0
8 19	23 0.28	- 9 23.2	1.714	2.700	6.2	19.5	8 19	22 56.78	- 6 6.6	2.265	3.246	5.2	20.8
8 29	22 51.50	- 9 55.0	1.682	2.689	2.0	19.2	8 29	22 50.34	- 7 14.5	2.245	3.251	1.7	20.5
9 8	22 42.16	-10 25.9	1.677	2.678	2.9	19.3	9 8	22 43.60	- 8 23.9	2.253	3.256	2.0	20.6
9 18	22 33.28	-10 51.1	1.699	2.668	7.2	19.5	9 18	22 37.24	- 9 29.7	2.291	3.261	5.4	20.8
9 28	22 25.84	-11 6.4	1.747	2.656	11.2	19.7	9 28	22 31.90	-10 27.0	2.355	3.266	8.6	21.0
10 8	22 20.57	-11 9.5	1.817	2.645	14.6	19.9	10 8	22 28.11	-11 12.5	2.444	3.271	11.4	21.2
518192	2016 <i>PA</i> ₇₇	9 2.6 319°89'	1°0/ 2.1 18				60322	1999 <i>XB</i> ₂₅₇	9 2.6 281°95'	1°2/31.2 18			
7 30	23 15.41	-10 52.6	1.376	2.258	16.4	19.7	7 30	23 1.49	-12 15.6	4.280	5.143	6.5	19.2
8 9	23 10.45	-10 32.2	1.285	2.230	12.4	19.4	8 9	22 58.17	-12 53.1	4.204	5.142	4.8	19.1
8 19	23 2.54	-10 17.0	1.215	2.203	7.7	19.1	8 19	22 54.07	-13 33.3	4.155	5.140	2.9	18.9
8 29	22 52.35	-10 3.2	1.169	2.176	2.5	18.7	8 29	22 49.45	-14 13.8	4.134	5.138	1.3	18.8
9 8	22 41.10	- 9 46.4	1.147	2.150	3.5	18.7	9 8	22 44.67	-14 51.9	4.143	5.136	2.1	18.9
9 18	22 30.25	- 9 22.5	1.151	2.125	9.1	19.0	9 18	22 40.06	-15 25.6	4.181	5.135	3.9	19.0
9 28	22 21.33	- 8 48.9	1.178	2.100	14.3	19.2	9 28	22 35.99	-15 52.9	4.248	5.133	5.8	19.2
10 8	22 15.40	- 8 4.4	1.224	2.077	18.8	19.4	10 8	22 32.75	-16 12.4	4.340	5.131	7.4	19.3
4197	<i>Morpheus</i>	9 2.6 288°78'	3°3/30.7 18 R				448602	2010 <i>TQ</i> ₁₆₈	9 2.6 312°78'	17°5/27.9 17			
7 30	23 23.71	-14 13.0	2.297	3.143	12.0	19.6	7 30	23 37.56	-39 42.8	0.918	1.792	23.2	20.6
8 9	23 16.07	-15 11.9	2.159	3.086	9.1	19.3	8 9	23 28.66	-40 33.9	0.869	1.782	20.4	20.4
8 19	23 5.84	-16 18.6	2.047	3.027	5.9	19.0	8 19	23 14.22	-40 55.0	0.836	1.771	18.2	20.2
8 29	22 53.45	-17 27.3	1.965	2.965	3.3	18.8	8 29	22 56.04	-40 25.7	0.820	1.762	17.5	20.1
9 8	22 39.70	-18 30.4	1.914	2.901	5.0	18.7	9 8	22 37.24	-38 54.6	0.824	1.752	18.7	20.2
9 18	22 25.69	-19 21.0	1.895	2.834	8.8	18.8	9 18	22 20.98	-36 24.7	0.846	1.744	21.4	20.3
9 28	22 12.68	-19 53.8	1.905	2.765	12.8	19.0	9 28	22 9.51	-33 10.9	0.886	1.736	24.8	20.5
10 8	22 1.74	-20 6.8	1.939	2.694	16.5	19.1	10 8	22 3.53	-29 32.0	0.942	1.728	28.0	20.7
207525	2006 <i>JW</i> ₇₉	9 2.6 7°95'	2°2/31.7 18				239192	2006 <i>KT</i> ₁₁₄	9 2.6 106°72'	1°1/ 3.8 18			
7 30	23 8.34	-10 3.3	1.535	2.421	14.8	20.2	7 30	23 9.52	- 0 26.6	2.021	2.863	13.6	20.8
8 9	23 4.50	-10 55.8	1.473	2.422	10.9	19.9	8 9	23 4.79	- 1 18.1	1.960	2.880	10.3	20.6
8 19	22 58.46	-11 58.6	1.433	2.423	6.5	19.7	8 19	22 58.36	- 2 24.6	1.922	2.898	6.5	20.4
8 29	22 50.92	-13 4.7	1.418	2.424	2.6	19.5	8 29	22 50.85	- 3 41.8	1.911	2.915	2.6	20.2
9 8	22 42.91	-14 5.9	1.428	2.426	4.2	19.6	9 8	22 43.06	- 5 3.4	1.927	2.931	2.0	20.2
9 18	22 35.53	-14 55.1	1.464	2.429	8.6	19.8	9 18	22 35.81	- 6 22.7	1.973	2.947	5.8	20.5
9 28	22 29.80	-15 27.4	1.524	2.432	12.6	20.1	9 28	22 29.86	- 7 33.7	2.045	2.963	9.4	20.7
10 8	22 26.40	-15 40.7	1.604	2.435	16.1	20.3	10 8	22 25.75	- 8 31.9	2.142	2.978	12.4	21.0
125250	2001 <i>UB</i> ₂₀₄	9 2.6 138°40'	3°8/31.1 17				281515	2008 <i>TB</i> ₃₉	9 2.6 78°47'	2°2/ 4.5 16			
7 30	23 17.87	-14 44.5	1.376	2.261	16.2	19.7	7 30	23 10.41	+ 0 15.8	1.698	2.546	15.5	21.2
8 9	23 11.82	-15 19.9	1.318	2.265	12.1	19.5	8 9	23 5.82	+ 0 0.9	1.632	2.553	11.9	21.0
8 19	23 3.02	-15 59.9	1.282	2.269	7.5	19.3	8 19	22 59.17	- 0 31.1	1.586	2.560	7.9	20.8
8 29	22 52.38	-16 36.6	1.270	2.273	4.0	19.1	8 29	22 51.15	- 1 17.1	1.566	2.567	3.8	20.6
9 8	22 41.24	-17 2.3	1.283	2.276	5.7	19.2	9 8	22 42.71	- 2 11.8	1.601	2.574	2.7	20.5
9 18	22 31.02	-17 11.5	1.321	2.279	10.0	19.4	9 18	22 34.85	- 3 8.6	1.603	2.581	6.5	20.8
9 28	22 22.98	-17 2.0	1.383	2.282	14.3	19.7	9 28	22 28.52	- 4 1.1	1.661	2.588	10.5	21.0
10 8	22 17.88	-16 34.3	1.465	2.285	18.0	20.0	10 8	22 24.37	- 4 43.9	1.742	2.596	14.0	21.3
471060	2009 <i>VF</i> ₁₁	9 2.6 303°67'	6°4/28.7 18				204018	2003 <i>UE</i> ₅₁	9 2.6 255°51'	6°2/ 7.9 18			
7 30	23 13.12	-20 17.2	1.449	2.343	15.0	20.9	7 30	23 12.05	+ 9 30.5	1.971	2.762	15.7	19.9
8 9	23 8.43	-21 20.2	1.382	2.331	11.4	20.6	8 9	23 7.03	+10 7.5	1.882	2.754	13.0	19.7
8 19	23 1.06	-22 23.9	1.338	2.319	8.0	20.4	8 19	22 59.98	+10 25.7	1.813	2.745	10.1	19.5
8 29	22 51.80	-23 18.7	1.317	2.308	6.4	20.3	8 29	22 51.45	+10 23.6	1.767	2.736	7.4	19.4
9 8	22 41.86	-23 55.4	1.321	2.296	8.3	20.4	9 8	22 42.30	+10 2.4	1.747	2.727	6.2	19.3
9 18	22 32.61	-24 8.1	1.348	2.285	11.9	20.6	9 18	22 33.49	+ 9 25.5	1.754	2.718	7.5	19.3
9 28	22 25.32	-23 54.7	1.398	2.274	15.7	20.8	9 28	22 25.98	+ 8 38.5	1.787	2.708	10.3	19.5
10 8	22 20.84	-23 17.1	1.466	2.264	19.0	21.0	10 8	22 20.52	+ 7 48.4	1.843	2.699	13.3	19.7
223320	2003 <i>QR</i> ₂₅	9 2.6 14°99'	1°6/ 4.5 18				225719	2001 <i>RS</i> ₅₈	9 2.6 316°75'	2°9/31.5 18			
7 30	23 5.37	+ 0 41.4	2.058	2.902	13.3	20.2	7 30	23 9.61	-11 34.2	1.313	2.209	16.2	19.7
8 9	23 1.80	+ 0 3.8	1.984	2.903	10.2	20.0	8 9	23 6.08	-12 14.6	1.235	2.188	12.1	19.4
8 19	22 56.60	- 0 49.8	1.932	2.906	6.7	19.8	8 19	22 59.80	-13 5.8	1.177	2.167	7.4	19.1
8 29	22 50.30	- 1 55.8	1.906	2.908	3.1	19.5	8 29	22 51.47	-14 0.8	1.141	2.147	3.2	18.8
9 8	22 43.63	- 3 9.1	1.907	2.911	2.2	19.5	9 8	22 42.26	-14 50.3	1.130	2.128	5.1	18.8
9 18	22 37.38	- 4 23.3	1.936	2.914	5.6	19.7	9 18	22 33.55	-15 26.4	1.143	2.109	10.2	19.1
9 28	22 32.29	- 5 32.3	1.992	2.917	9.1	19.9	9 28	22 26.74	-15 43.0	1.178	2.092	15.0	19.3
10 8	22 28.92	- 6 30.9	2.072	2.921	12.3	20.1	10 8	22 22.78	-15 37.9	1.231	2.074	19.3	19.5
120226	2004 <i>FR</i> ₄₉	9 2.6 57°63'	1°1/ 3.5 17				326384	2001 <i>HQ</i> ₆₇	9 2.6 117°33'	3°7/30.2 17			

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
234286	2000 XE ₈	9 2.6 303°67	5°3/ 6.1 18				13392	1999 KK ₁₅	9 2.6 18°36	1°3/ 3.9 18			
7 30	23 12.89	+ 4 14.9	1.616	2.446	16.9	19.3	7 30	23 3.32	+ 1 50.4	1.287	2.157	18.1	17.5
8 9	23 8.11	+ 5 0.4	1.525	2.429	13.7	19.0	8 9	23 1.06	+ 0 30.8	1.228	2.163	13.8	17.2
8 19	23 0.88	+ 5 28.9	1.455	2.412	10.1	18.8	8 19	22 56.49	- 1 16.4	1.189	2.170	8.9	17.0
8 29	22 51.80	+ 5 39.1	1.408	2.395	6.6	18.5	8 29	22 50.35	- 3 23.9	1.173	2.177	3.6	16.7
9 8	22 41.87	+ 5 32.1	1.385	2.378	5.4	18.4	9 8	22 43.74	- 5 39.7	1.181	2.186	2.6	16.6
9 18	22 32.29	+ 5 11.5	1.389	2.362	7.9	18.5	9 18	22 37.79	- 7 50.7	1.216	2.196	7.8	17.0
9 28	22 24.25	+ 4 43.0	1.417	2.346	11.8	18.7	9 28	22 33.57	- 9 44.9	1.274	2.206	12.6	17.3
10 8	22 18.69	+ 4 13.6	1.467	2.330	15.6	18.9	10 8	22 31.78	- 11 14.7	1.354	2.218	16.6	17.6
175623	2006 YR ₁₄	9 2.6 335°56	7°7/ 8.3 18				454219	2013 JK ₅	9 2.6 359°24	2°3/ 31.4 18			
7 30	23 10.64	+ 10 9.9	1.677	2.479	17.5	19.4	7 30	23 6.55	- 11 1.3	1.808	2.692	13.0	20.6
8 9	23 6.31	+ 11 14.1	1.592	2.468	14.8	19.2	8 9	23 2.92	- 11 52.3	1.743	2.690	9.6	20.4
8 19	22 59.70	+ 11 58.0	1.527	2.458	11.8	19.0	8 19	22 57.40	- 12 51.4	1.700	2.689	5.8	20.2
8 29	22 51.40	+ 12 18.8	1.484	2.448	9.0	18.8	8 29	22 50.62	- 13 52.4	1.683	2.688	2.5	20.0
9 8	22 42.37	+ 12 16.2	1.465	2.439	7.7	18.7	9 8	22 43.43	- 14 48.6	1.692	2.688	4.0	20.1
9 18	22 33.70	+ 11 53.1	1.470	2.431	8.9	18.8	9 18	22 36.73	- 15 34.0	1.728	2.689	7.8	20.3
9 28	22 26.53	+ 11 15.4	1.500	2.424	11.7	18.9	9 28	22 31.42	- 16 4.4	1.788	2.690	11.4	20.5
10 8	22 21.69	+ 10 30.9	1.551	2.417	14.8	19.1	10 8	22 28.09	- 16 17.7	1.870	2.692	14.5	20.7
262671	2006 WZ ₁₃₆	9 2.6 344°39	7°2/ 28.1 17				511072	2013 TZ ₃₂	9 2.6 326°02	1°6/ 1.6 18			
7 30	23 8.68	- 18 49.2	1.141	2.053	16.8	20.2	7 30	23 9.64	- 9 16.1	1.190	2.086	17.4	20.7
8 9	23 5.57	- 20 16.3	1.086	2.045	12.7	20.0	8 9	23 6.27	- 9 38.9	1.117	2.070	13.1	20.4
8 19	22 59.50	- 21 47.2	1.052	2.038	8.9	19.8	8 19	23 0.01	- 10 14.6	1.062	2.053	8.0	20.1
8 29	22 51.35	- 23 9.1	1.039	2.032	7.2	19.7	8 29	22 51.58	- 10 57.0	1.030	2.038	2.7	19.7
9 8	22 42.50	- 24 9.8	1.049	2.027	9.5	19.8	9 8	22 42.26	- 11 37.8	1.021	2.023	4.2	19.8
9 18	22 34.50	- 24 41.0	1.080	2.023	13.5	20.0	9 18	22 33.55	- 12 8.8	1.036	2.010	9.8	20.0
9 28	22 28.74	- 24 39.9	1.132	2.020	17.7	20.2	9 28	22 26.89	- 12 23.6	1.071	1.997	15.1	20.3
10 8	22 26.07	- 24 8.8	1.200	2.018	21.3	20.5	10 8	22 23.27	- 12 19.3	1.126	1.985	19.6	20.5
335527	2006 AV ₂₇	9 2.6 276°72	1°9/ 4.2 18				516836	2010 WH ₂₂	9 2.6 116°31	4°2/ 7.6 18			
7 30	23 11.55	- 1 25.6	1.712	2.563	15.2	21.0	7 30	23 7.72	+ 8 2.9	2.440	3.233	13.0	21.5
8 9	23 6.85	- 1 27.7	1.628	2.552	11.8	20.7	8 9	23 3.33	+ 8 3.8	2.361	3.239	10.5	21.4
8 19	22 59.95	- 1 44.8	1.566	2.541	7.7	20.5	8 19	22 57.46	+ 7 48.4	2.304	3.244	7.9	21.2
8 29	22 51.46	- 2 14.7	1.528	2.531	3.5	20.2	8 29	22 50.62	+ 7 17.3	2.272	3.250	5.3	21.1
9 8	22 42.33	- 2 52.8	1.516	2.520	2.7	20.1	9 8	22 43.44	+ 6 33.1	2.267	3.255	4.2	21.0
9 18	22 33.64	- 3 33.8	1.532	2.509	6.8	20.3	9 18	22 36.63	+ 5 39.9	2.290	3.260	5.5	21.1
9 28	22 26.43	- 4 11.4	1.572	2.498	11.1	20.6	9 28	22 30.84	+ 4 42.9	2.341	3.265	8.0	21.3
10 8	22 21.49	- 4 40.6	1.635	2.487	14.9	20.8	10 8	22 26.60	+ 3 47.1	2.416	3.270	10.6	21.5
256588	2007 TL ₃₉₈	9 2.6 63°02	1°0/ 1.9 17				515022	2009 SU ₂₄₆	9 2.6 355°02	5°8/ 30.5 18			
7 30	23 16.08	- 8 26.0	1.208	2.092	18.1	20.4	7 30	23 23.72	- 24 53.7	1.825	2.692	13.7	20.0
8 9	23 10.54	- 8 43.9	1.162	2.108	13.4	20.1	8 9	23 15.62	- 24 45.0	1.758	2.688	10.6	19.8
8 19	23 2.22	- 9 13.5	1.135	2.123	8.1	19.9	8 19	23 5.10	- 24 27.9	1.714	2.685	7.6	19.7
8 29	22 52.13	- 9 48.4	1.132	2.139	2.5	19.6	8 29	22 53.06	- 23 57.0	1.697	2.683	5.8	19.6
9 8	22 41.70	- 10 21.0	1.153	2.155	3.6	19.7	9 8	22 40.72	- 23 8.4	1.707	2.682	6.9	19.6
9 18	22 32.35	- 10 44.8	1.199	2.172	8.9	20.1	9 18	22 29.32	- 22 1.9	1.746	2.681	9.8	19.8
9 28	22 25.30	- 10 55.3	1.267	2.188	13.6	20.4	9 28	22 19.95	- 20 39.6	1.811	2.681	12.9	20.0
10 8	22 21.24	- 10 50.5	1.356	2.204	17.6	20.7	10 8	22 13.25	- 19 5.5	1.898	2.681	15.8	20.2
354133	2002 CY ₄₈	9 2.6 121°75	2°1/ 5.3 18				118932	2000 WC ₂₄	9 2.6 304°25	4°7/ 7.2 18			
7 30	23 10.07	+ 1 54.0	2.794	3.607	11.0	21.7	7 30	23 8.61	+ 6 55.5	2.077	2.885	14.4	19.7
8 9	23 4.77	+ 1 46.3	2.726	3.625	8.5	21.6	8 9	23 4.35	+ 7 12.2	1.988	2.876	11.8	19.5
8 19	22 58.19	+ 1 27.3	2.681	3.642	5.8	21.4	8 19	22 58.28	+ 7 11.4	1.920	2.866	8.8	19.3
8 29	22 50.81	+ 0 58.9	2.665	3.660	3.2	21.3	8 29	22 50.94	+ 6 53.2	1.876	2.857	5.9	19.1
9 8	22 43.21	+ 0 23.9	2.677	3.676	2.3	21.2	9 8	22 43.08	+ 6 19.7	1.859	2.849	4.7	19.0
9 18	22 36.00	- 0 14.2	2.719	3.693	4.5	21.4	9 18	22 35.55	+ 5 34.9	1.868	2.840	6.4	19.1
9 28	22 29.75	- 0 51.9	2.790	3.708	7.1	21.6	9 28	22 29.19	+ 4 44.5	1.904	2.831	9.4	19.3
10 8	22 24.92	- 1 25.6	2.886	3.723	9.5	21.8	10 8	22 24.67	+ 3 54.6	1.963	2.823	12.4	19.5
239142	2006 JS ₄₁	9 2.6 185°70	0°6/ 3.3 18				27659	Dolsky	9 2.6 341°25	0°3/ 2.8 18			
7 30	23 9.16	- 2 2.5	2.229	3.071	12.4	20.9	7 30	23 8.33	- 6 6.5	1.149	2.042	18.1	17.2
8 9	23 4.54	- 2 52.1	2.149	3.071	9.4	20.7	8 9	23 5.28	- 6 6.6	1.079	2.029	13.8	16.9
8 19	22 58.27	- 3 55.2	2.093	3.071	5.9	20.5	8 19	22 59.38	- 6 21.7	1.028	2.016	8.6	16.6
8 29	22 50.88	- 5 7.9	2.065	3.070	2.2	20.3	8 29	22 51.38	- 6 47.9	0.998	2.005	2.9	16.2
9 8	22 43.09	- 6 24.8	2.065	3.068	1.9	20.2	9 8	22 42.57	- 7 18.3	0.991	1.996	3.1	16.2
9 18	22 35.68	- 7 39.6	2.094	3.066	5.7	20.5	9 18	22 34.40	- 7 45.6	1.007	1.987	9.0	16.5
9 28	22 29.41	- 8 46.8	2.150	3.064	9.2	20.7	9 28	22 28.29	- 8 2.9	1.044	1.980	14.3	16.8
10 8	22 24.85	- 9 42.1	2.231	3.061	12.2	20.9	10 8	22 25.20	- 8 5.8	1.101	1.974	18.9	17.1
184051	2004 FQ ₁₀₂	9 2.6 237°19	2°0/ 31.9 18				520311	2014 FY ₇₅	9 2.6 105°49	1°2/ 1.3 18			
7 30	23 13.01	- 10 13.1	1.673	2.548	14.3	20.6	7 30	23 10.05	- 8 51.4	2.157	3.021	12.0	21.9
8 9	23 7.98	- 10 56.6	1.597	2.540	10.7	20.3	8 9	23 5.13	- 9 35.2	2.098	3.035	8.8	21.7
8 19	23 0.65	- 11 49.7	1.544	2.531	6.5	20.1	8 19	22 58.58	- 10 26.5	2.063	3.049	5.3	21.5
8 29	22 51.69	- 12 46.4	1.516	2.522	2.5	19.8	8 29	22 50.98	- 11 20.5	2.055	3.062	1.8	21.3
9 8	22 42.13	- 13 39.2	1.514	2.513	4.0	19.9	9 8	22 43.13	- 12 11.8	2.076	3.075	2.8	21.4
9 18	22 33.08	- 14 21.7	1.540	2.503	8.4	20.1	9 18	22 35.79	- 12 55.6	2.124	3.088	6.4	21.7
9 28	22 25.65	- 14 48.9	1.590	2.493	12.5	20.3	9 28	22 29.70	- 13 28.3	2.199	3.101	9.6	21.9
10 8	22 20.60	- 14 58.8	1.661	2.483	16.1	20.5	10 8	22 25.39	- 13 47.9	2.298	3.113	12.4	22.1
115851	2003 UT ₂₆₉	9 2.6 221°85	0°0/ 2.4 18				156165	2001 TG ₁₃₂	9 2.6 300°16	6°1/ 28.6 18			

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
274599	2008 <i>TR</i> ₃₄		9 2.6 295°07	1.8°/31.8	17		411481	2011 <i>AP</i> ₃₈		9 2.6 279°67	0°3'/2.9	18	
7 30	23 9.72	-12 32.5	2.417	3.285	10.7	21.3	7 30	23 7.55	-4 31.7	2.349	3.201	11.6	21.6
8 9	23 4.87	-12 53.5	2.337	3.276	7.9	21.1	8 9	23 3.37	-4 58.3	2.259	3.187	8.7	21.4
8 19	22 58.45	-13 18.6	2.281	3.267	4.8	20.9	8 19	22 57.61	-5 35.2	2.194	3.174	5.4	21.2
8 29	22 50.97	-13 43.8	2.253	3.258	2.1	20.7	8 29	22 50.75	-6 19.5	2.154	3.161	1.9	20.9
9 8	22 43.12	-14 5.2	2.253	3.249	3.1	20.7	9 8	22 43.46	-7 6.7	2.144	3.147	1.9	20.9
9 18	22 35.63	-14 19.3	2.281	3.241	6.3	20.9	9 18	22 36.46	-7 52.4	2.161	3.134	5.5	21.1
9 28	22 29.24	-14 23.7	2.336	3.232	9.4	21.1	9 28	22 30.48	-8 32.0	2.206	3.121	8.9	21.3
10 8	22 24.48	-14 16.9	2.414	3.223	12.1	21.3	10 8	22 26.11	-9 2.2	2.274	3.107	11.9	21.5
175396	2006 <i>OH</i> ₂		9 2.6 352°01	5°6'/5.1	18		514021	2014 <i>JD</i> ₈₆		9 2.6 161°96	2°3'/30.8	18	
7 30	23 16.18	+0 14.5	1.327	2.181	18.6	18.4	7 30	23 7.75	-11 6.4	2.251	3.122	11.3	21.5
8 9	23 10.89	+1 48.3	1.253	2.172	14.9	18.1	8 9	23 3.50	-12 21.2	2.183	3.125	8.2	21.3
8 19	23 2.72	+3 9.9	1.198	2.165	10.7	17.8	8 19	22 57.66	-13 43.3	2.140	3.127	5.0	21.1
8 29	22 52.46	+4 16.3	1.167	2.159	6.8	17.6	8 29	22 50.75	-15 6.7	2.125	3.129	2.4	21.0
9 8	22 41.35	+5 6.4	1.159	2.154	5.8	17.5	9 8	22 43.48	-16 24.8	2.139	3.131	3.9	21.1
9 18	22 30.86	+5 41.0	1.177	2.151	8.9	17.7	9 18	22 36.62	-17 31.9	2.181	3.133	7.1	21.3
9 28	22 22.40	+6 4.0	1.218	2.149	13.2	18.0	9 28	22 30.88	-18 23.8	2.249	3.134	10.1	21.5
10 8	22 16.93	+6 20.8	1.280	2.149	17.1	18.2	10 8	22 26.83	-18 58.6	2.340	3.136	12.8	21.7
325413	2009 <i>KP</i> ₅		9 2.6 108°14	1°7'/4.2	17		21594	1998 <i>VP</i> ₃₁		9 2.6 84°00	4°4'/7.2	18	
7 30	23 13.14	+0 12.6	1.564	2.412	16.5	21.6	7 30	23 11.01	+7 26.5	1.931	2.737	15.4	17.7
8 9	23 7.92	-0 23.2	1.507	2.429	12.6	21.4	8 9	23 5.99	+7 22.9	1.872	2.759	12.4	17.5
8 19	23 0.50	-1 18.0	1.470	2.446	8.2	21.2	8 19	22 59.18	+6 59.3	1.834	2.781	9.0	17.3
8 29	22 51.63	-2 27.1	1.459	2.462	3.6	20.9	8 29	22 51.23	+6 17.2	1.820	2.803	5.9	17.2
9 8	22 42.41	-3 43.4	1.474	2.478	2.6	20.9	9 8	22 43.00	+5 20.8	1.832	2.824	4.4	17.2
9 18	22 33.92	-4 58.6	1.516	2.493	6.9	21.2	9 18	22 35.37	+4 15.8	1.872	2.845	6.2	17.3
9 28	22 27.18	-6 5.4	1.583	2.508	11.2	21.5	9 28	22 29.14	+3 8.9	1.939	2.866	9.2	17.5
10 8	22 22.83	-6 58.3	1.673	2.522	14.8	21.8	10 8	22 24.87	+2 6.6	2.030	2.887	12.2	17.8
86374	1999 <i>YD</i> ₃		9 2.6 284°70	3°3'/3.6	17		453700	2010 <i>WN</i> ₆₄		9 2.6 295°98	3°4'/6.1	17	
7 30	23 27.81	-5 59.6	1.068	1.937	21.1	18.3	7 30	23 7.92	+3 56.5	2.167	2.988	13.5	21.3
8 9	23 20.49	-4 32.9	0.991	1.925	16.5	18.0	8 9	23 3.79	+3 58.2	2.075	2.976	10.7	21.1
8 19	23 9.14	-3 12.0	0.933	1.913	10.9	17.6	8 19	22 57.94	+3 44.3	2.005	2.963	7.7	20.9
8 29	22 54.65	-1 58.1	0.898	1.901	5.0	17.3	8 29	22 50.88	+3 15.6	1.960	2.951	4.6	20.7
9 8	22 38.79	-0 51.9	0.887	1.890	4.5	17.2	9 8	22 43.32	+2 35.0	1.942	2.939	3.5	20.6
9 18	22 23.74	+0 6.2	0.901	1.878	10.4	17.5	9 18	22 36.06	+1 47.1	1.951	2.927	5.8	20.7
9 28	22 11.57	+0 58.0	0.938	1.867	16.4	17.8	9 28	22 29.90	+0 57.0	1.987	2.915	9.0	20.9
10 8	22 3.54	+1 46.7	0.994	1.855	21.5	18.1	10 8	22 25.48	+0 10.3	2.047	2.903	12.2	21.1
243324	2008 <i>SN</i> ₆₅		9 2.6 158°49	5°0'/28.5	18		374767	2006 <i>SP</i> ₂₈₅		9 2.6 358°01	1°9'/1.5	15	
7 30	23 15.95	-22 43.0	2.363	3.231	10.9	21.1	7 30	23 7.54	-9 49.3	0.969	1.880	19.1	20.1
8 9	23 9.44	-23 32.3	2.307	3.239	8.4	20.9	8 9	23 4.96	-10 6.5	0.914	1.875	14.3	19.8
8 19	23 1.19	-24 18.4	2.275	3.246	6.0	20.8	8 19	22 59.27	-10 36.5	0.878	1.871	8.7	19.5
8 29	22 51.84	-24 55.7	2.271	3.252	5.0	20.8	8 29	22 51.39	-11 12.2	0.861	1.869	2.9	19.1
9 8	22 42.21	-25 19.1	2.295	3.258	6.2	20.9	9 8	22 42.80	-11 44.4	0.866	1.869	4.5	19.2
9 18	22 33.18	-25 25.9	2.347	3.263	8.6	21.0	9 18	22 35.13	-12 5.0	0.893	1.870	10.4	19.6
9 28	22 25.52	-25 15.2	2.425	3.268	11.0	21.2	9 28	22 29.85	-12 8.1	0.939	1.873	15.7	19.9
10 8	22 19.79	-24 48.4	2.524	3.272	13.2	21.4	10 8	22 27.82	-11 51.8	1.003	1.877	20.3	20.2
490850	2010 <i>XL</i> ₅₅		9 2.6 287°58	0°8'/1.1	15		187359	2005 <i>UZ</i> ₂₅₁		9 2.7 214°42	3°8'/7.1	18	
7 30	23 2.44	-10 45.0	4.289	5.146	6.6	21.7	7 30	23 7.65	+6 53.6	2.338	3.140	13.2	20.4
8 9	22 58.91	-11 8.7	4.201	5.136	4.9	21.6	8 9	23 3.41	+6 47.2	2.252	3.138	10.7	20.2
8 19	22 54.58	-11 35.4	4.140	5.125	2.9	21.4	8 19	22 57.62	+6 24.0	2.188	3.136	7.8	20.0
8 29	22 49.71	-12 3.1	4.107	5.114	1.1	21.3	8 29	22 50.76	+5 44.8	2.150	3.133	5.1	19.9
9 8	22 44.65	-12 29.6	4.105	5.103	1.7	21.3	9 8	22 43.50	+4 52.8	2.138	3.131	3.9	19.8
9 18	22 39.75	-12 52.8	4.131	5.092	3.7	21.5	9 18	22 36.57	+3 52.3	2.155	3.128	5.5	19.9
9 28	22 35.39	-13 10.9	4.187	5.081	5.6	21.6	9 28	22 30.70	+2 49.0	2.199	3.125	8.4	20.1
10 8	22 31.85	-13 22.6	4.267	5.070	7.3	21.7	10 8	22 26.43	+1 48.5	2.267	3.122	11.2	20.2
470548	2008 <i>EC</i> ₈₇		9 2.6 240°39	5°7'/27.0	17		40794	1999 <i>TD</i> ₃₆		9 2.7 343°23	5°1'/29.9	18	
7 30	23 11.10	-16 8.1	1.741	2.627	13.3	20.8	7 30	23 14.24	-18 55.5	1.565	2.453	14.4	17.9
8 9	23 6.72	-18 29.7	1.666	2.613	10.0	20.5	8 9	23 8.99	-19 33.8	1.503	2.449	10.9	17.7
8 19	23 0.02	-21 1.0	1.616	2.598	6.9	20.3	8 19	23 1.30	-20 12.3	1.463	2.446	7.3	17.5
8 29	22 51.59	-23 30.2	1.594	2.583	5.8	20.2	8 29	22 51.97	-20 43.4	1.448	2.444	5.1	17.4
9 8	22 42.40	-25 44.9	1.601	2.567	8.0	20.3	9 8	22 42.15	-21 0.1	1.458	2.441	6.7	17.5
9 18	22 33.56	-27 34.7	1.634	2.551	11.5	20.5	9 18	22 33.08	-20 58.2	1.494	2.439	10.2	17.7
9 28	22 26.21	-28 53.8	1.691	2.534	15.0	20.7	9 28	22 25.87	-20 36.2	1.552	2.438	13.9	17.9
10 8	22 21.23	-29 41.5	1.767	2.516	18.0	20.9	10 8	22 21.25	-19 55.6	1.631	2.436	17.1	18.1
323055	2002 <i>RU</i> ₂₀₁		9 2.6 30°71	3°1'/31.7	17		37059	2000 <i>UO</i> ₄₃		9 2.7 288°59	0°3'/2.9	18	
7 30	23 10.80	-11 18.7	1.008	1.915	18.9	20.0	7 30	23 8.04	-4 26.2	2.103	2.959	12.6	19.0
8 9	23 7.00	-12 1.3	0.971	1.930	13.9	19.8	8 9	23 3.87	-4 55.1	2.021	2.951	9.5	18.8
8 19	23 0.23	-12 54.1	0.953	1.946	8.3	19.5	8 19	22 57.97	-5 35.5	1.962	2.943	5.9	18.6
8 29	22 51.59	-13 47.5	0.956	1.962	3.5	19.3	8 29	22 50.89	-6 23.9	1.929	2.936	2.0	18.3
9 8	22 42.62	-14 31.4	0.982	1.981	5.4	19.5	9 8	22 43.36	-7 15.4	1.924	2.928	2.1	18.3
9 18	22 34.83	-14 58.4	1.030	2.000	10.5	19.8	9 18	22 36.19	-8 4.7	1.947	2.921	6.0	18.5
9 28	22 29.48	-15 4.6	1.098	2.020	15.2	20.2	9 28	22 30.20	-8 46.9	1.996	2.913	9.6	18.8
10 8	22 27.20	-14 49.9	1.185	2.040	19.1	20.5	10 8	22 25.98	-9 18.4	2.069	2.906	12.8	18.9
339400	2005 <i>CS</i> ₁₀		9 2.6 203°96	3°0'/30.1	18		357826	2005 <i>UR</i> ₅₆		9 2.7 348°77	2°2'/31.9	18	
7 30	23 9.15	-12 24.5	2.181										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
35128	1992 <i>EG</i> ₂₇		9 2.7 37°96	0°8/ 3.3 18			421015	2013 <i>PT</i> ₅₆		9 2.7 264°95	3°6/ 5.8 18		
7 30	23 7.68	- 1 11.3	1.025	1.913	20.2	18.2	7 30	23 9.54	+ 4 24.5	1.458	2.301	17.8	21.1
8 9	23 4.67	- 2 8.6	0.983	1.928	15.3	17.9	8 9	23 5.69	+ 4 1.6	1.382	2.296	14.1	20.8
8 19	22 58.84	- 3 31.1	0.958	1.944	9.5	17.7	8 19	22 59.43	+ 3 13.5	1.324	2.291	9.9	20.6
8 29	22 51.20	- 5 10.4	0.955	1.962	3.4	17.4	8 29	22 51.45	+ 2 2.6	1.290	2.286	5.5	20.3
9 8	22 43.14	- 6 54.0	0.975	1.980	3.0	17.4	9 8	22 42.79	+ 0 35.2	1.280	2.281	3.8	20.2
9 18	22 36.09	- 8 29.2	1.018	1.999	8.8	17.8	9 18	22 34.65	- 0 59.7	1.296	2.276	7.4	20.4
9 28	22 31.28	- 9 45.6	1.083	2.018	14.0	18.2	9 28	22 28.20	- 2 31.6	1.337	2.271	11.9	20.6
10 8	22 29.39	- 10 38.0	1.167	2.038	18.3	18.5	10 8	22 24.26	- 3 51.6	1.400	2.266	16.0	20.9
86939	2000 <i>HV</i> ₇₀		9 2.7 80°22	2°3/31.7 18			307090	2002 <i>AX</i> ₁₇₇		9 2.7 206°09	1°4/ 3.9 18		
7 30	23 12.56	- 10 9.3	1.528	2.408	15.2	19.4	7 30	23 12.77	- 2 17.3	1.904	2.750	14.1	21.2
8 9	23 7.54	- 11 7.5	1.480	2.425	11.1	19.2	8 9	23 7.54	- 2 24.5	1.825	2.747	10.8	21.0
8 19	23 0.29	- 12 14.7	1.454	2.442	6.7	19.0	8 19	23 0.30	- 2 44.7	1.768	2.744	7.0	20.7
8 29	22 51.62	- 13 23.4	1.453	2.459	2.7	18.8	8 29	22 51.68	- 3 15.4	1.737	2.741	3.0	20.5
9 8	22 42.65	- 14 25.4	1.479	2.476	4.3	18.9	9 8	22 42.56	- 3 52.1	1.733	2.737	2.3	20.4
9 18	22 34.48	- 15 14.1	1.530	2.493	8.5	19.2	9 18	22 33.89	- 4 29.9	1.757	2.733	6.3	20.7
9 28	22 28.10	- 15 45.3	1.606	2.509	12.4	19.5	9 28	22 26.62	- 5 3.5	1.808	2.729	10.2	20.9
10 8	22 24.15	- 15 57.5	1.703	2.526	15.7	19.7	10 8	22 21.43	- 5 28.9	1.881	2.724	13.6	21.1
406811	2008 <i>UA</i> ₃₀₄		9 2.7 309°33	2°2/31.6 17			429417	2010 <i>UU</i> ₅		9 2.7 269°58	0°1/ 2.5 18		
7 30	23 11.23	- 13 56.2	2.248	3.119	11.3	20.7	7 30	23 15.26	- 6 59.1	1.490	2.360	16.1	21.6
8 9	23 6.20	- 14 10.4	2.161	3.101	8.4	20.5	8 9	23 10.04	- 7 6.8	1.408	2.346	12.2	21.3
8 19	22 59.40	- 14 27.7	2.098	3.083	5.2	20.3	8 19	23 2.18	- 7 26.1	1.347	2.332	7.6	21.0
8 29	22 51.36	- 14 44.0	2.061	3.065	2.4	20.1	8 29	22 52.36	- 7 53.1	1.310	2.318	2.4	20.7
9 8	22 42.86	- 14 55.2	2.053	3.048	3.6	20.1	9 8	22 41.74	- 8 22.0	1.299	2.303	2.9	20.7
9 18	22 34.71	- 14 57.9	2.072	3.031	6.9	20.3	9 18	22 31.61	- 8 46.6	1.315	2.288	8.2	21.0
9 28	22 27.75	- 14 49.8	2.118	3.014	10.2	20.5	9 28	22 23.28	- 9 1.7	1.354	2.273	13.0	21.2
10 8	22 22.59	- 14 29.8	2.186	2.997	13.1	20.6	10 8	22 17.67	- 9 4.0	1.414	2.259	17.2	21.4
385326	2002 <i>CK</i> ₄₁		9 2.7 184°94	0°7/ 1.8 18			68913	2002 <i>JB</i> ₁₂₉		9 2.7 4°09	0°8/ 2.0 18		
7 30	23 9.73	- 3 49.2	2.284	3.131	12.0	21.0	7 30	23 8.98	- 6 43.3	1.537	2.415	15.2	19.4
8 9	23 4.99	- 5 22.7	2.204	3.131	8.9	20.8	8 9	23 5.05	- 7 22.1	1.472	2.415	11.3	19.2
8 19	22 58.61	- 7 10.5	2.149	3.131	5.4	20.6	8 19	22 58.91	- 8 14.1	1.428	2.415	6.9	18.9
8 29	22 51.10	- 9 6.6	2.123	3.130	1.6	20.3	8 29	22 51.25	- 9 13.5	1.408	2.415	2.1	18.6
9 8	22 43.17	- 11 3.4	2.127	3.128	2.5	20.4	9 8	22 43.08	- 10 13.0	1.414	2.416	3.1	18.7
9 18	22 35.59	- 12 53.3	2.162	3.126	6.3	20.6	9 18	22 35.52	- 11 5.4	1.445	2.418	7.8	19.0
9 28	22 29.11	- 12 29.7	2.226	3.123	9.7	20.8	9 28	22 29.58	- 11 44.7	1.501	2.419	12.1	19.2
10 8	22 24.33	- 15 48.5	2.314	3.119	12.6	21.0	10 8	22 25.99	- 12 7.5	1.578	2.422	15.7	19.5
324871	2007 <i>TT</i> ₂₃₁		9 2.7 248°18	4°5/30.2 17			477481	2010 <i>AN</i> ₇₁		9 2.7 191°58	3°4/ 5.5 18		
7 30	23 15.65	- 15 56.7	1.573	2.456	14.7	21.4	7 30	23 14.62	+ 2 15.2	2.023	2.844	14.3	21.3
8 9	23 10.23	- 16 51.7	1.498	2.443	11.0	21.1	8 9	23 8.82	+ 2 35.7	1.941	2.843	11.3	21.1
8 19	23 2.23	- 17 51.9	1.444	2.430	7.1	20.8	8 19	23 1.06	+ 2 42.0	1.881	2.841	7.9	20.9
8 29	22 52.35	- 18 49.1	1.416	2.416	4.5	20.7	8 29	22 51.93	+ 2 34.8	1.847	2.840	4.6	20.7
9 8	22 41.74	- 19 34.7	1.414	2.401	6.3	20.7	9 8	22 42.30	+ 2 16.5	1.840	2.838	3.5	20.6
9 18	22 31.68	- 20 2.2	1.438	2.386	10.3	20.9	9 18	22 33.09	+ 1 51.0	1.862	2.835	6.2	20.8
9 28	22 23.44	- 20 8.1	1.485	2.371	14.3	21.1	9 28	22 25.24	+ 1 23.0	1.910	2.833	9.7	21.0
10 8	22 17.87	- 19 52.5	1.552	2.355	17.9	21.3	10 8	22 19.42	+ 0 57.5	1.983	2.829	12.9	21.2
253646	2003 <i>US</i> ₁₂₇		9 2.7 210°48	1°4/ 1.5 18			255812	2006 <i>SE</i> ₄₆		9 2.7 332°11	5°8/ 6.5 17		
7 30	23 11.10	- 6 48.9	1.556	2.430	15.3	20.7	7 30	23 9.09	+ 4 42.5	1.221	2.075	19.8	19.8
8 9	23 6.68	- 7 51.9	1.486	2.427	11.4	20.5	8 9	23 5.82	+ 5 15.5	1.146	2.064	16.1	19.5
8 19	22 59.95	- 9 9.7	1.437	2.424	6.9	20.2	8 19	22 59.77	+ 5 24.4	1.088	2.053	11.8	19.3
8 29	22 51.58	- 10 35.4	1.414	2.421	2.2	19.9	8 29	22 51.63	+ 5 8.1	1.051	2.042	7.6	19.0
9 8	22 42.64	- 12 0.1	1.417	2.418	3.6	20.0	9 8	22 42.60	+ 4 29.6	1.036	2.033	5.8	18.9
9 18	22 34.25	- 13 14.9	1.447	2.414	8.3	20.3	9 18	22 34.09	+ 3 35.5	1.045	2.024	8.8	19.0
9 28	22 27.52	- 14 13.0	1.501	2.410	12.7	20.5	9 28	22 27.54	+ 2 35.5	1.075	2.017	13.4	19.3
10 8	22 23.22	- 14 51.0	1.576	2.406	16.4	20.8	10 8	22 23.91	+ 1 39.5	1.125	2.010	17.8	19.5
61580	2000 <i>QP</i> ₈₂		9 2.7 280°74	0°7/ 3.4 18			488055	2015 <i>UZ</i> ₅₄		9 2.7 129°56	4°3/ 8.4 18		
7 30	23 6.54	- 1 45.5	2.091	2.941	12.9	19.6	7 30	23 6.18	+ 10 19.4	2.444	3.227	13.2	21.6
8 9	23 2.81	- 2 34.6	2.004	2.930	9.8	19.4	8 9	23 2.26	+ 9 58.1	2.362	3.231	10.8	21.4
8 19	22 57.37	- 3 38.9	1.940	2.919	6.2	19.1	8 19	22 56.89	+ 9 17.8	2.301	3.235	8.2	21.2
8 29	22 50.72	- 4 54.5	1.902	2.908	2.3	18.9	8 29	22 50.56	+ 8 19.6	2.264	3.238	5.6	21.1
9 8	22 43.61	- 6 15.7	1.892	2.896	2.0	18.8	9 8	22 43.90	+ 7 7.0	2.255	3.242	4.3	21.0
9 18	22 36.81	- 7 35.7	1.911	2.885	6.0	19.1	9 18	22 37.58	+ 5 44.9	2.275	3.245	5.5	21.1
9 28	22 31.14	- 8 48.2	1.956	2.874	9.7	19.3	9 28	22 32.26	+ 4 19.5	2.322	3.249	7.9	21.2
10 8	22 27.22	- 9 48.2	2.024	2.863	13.0	19.5	10 8	22 28.45	+ 2 57.0	2.395	3.252	10.6	21.4
167118	2003 <i>SG</i> ₉₀		9 2.7 344°04	0°6/ 3.1 18			517852	2015 <i>RD</i> ₂₁₈		9 2.7 159°57	1°9/ 5.1 18		
7 30	23 6.62	- 3 25.8	1.400	2.277	16.4	20.0	7 30	23 6.80	+ 2 3.8	2.518	3.341	11.7	21.8
8 9	23 3.55	- 3 56.3	1.328	2.269	12.5	19.7	8 9	23 2.65	+ 1 31.0	2.438	3.344	9.1	21.7
8 19	22 58.12	- 4 44.8	1.277	2.262	7.9	19.5	8 19	22 57.10	+ 0 44.3	2.381	3.347	6.1	21.5
8 29	22 51.01	- 5 46.5	1.249	2.255	2.8	19.1	8 29	22 50.62	- 0 13.8	2.351	3.350	3.1	21.3
9 8	22 43.28	- 6 53.9	1.245	2.250	2.7	19.1	9 8	22 43.83	- 1 19.1	2.350	3.352	2.2	21.2
9 18	22 36.10	- 7 58.6	1.267	2.245	7.8	19.4	9 18	22 37.37	- 2 26.7	2.378	3.354	4.8	21.4
9 28	22 30.61	- 8 52.6	1.311	2.241	12.5	19.7	9 28	22 31.87	- 3 31.7	2.434	3.356	7.8	21.6
10 8	22 27.58	- 9 30.5	1.377	2.238	16.6	19.9	10 8	22 27.84	- 4 29.4	2.515	3.358	10.6	21.8
155501	1999 <i>JX</i> ₉₆		9 2.7 129°57	2°4/ 5.2 18			333980	2000					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
118842	2000 <i>SN</i> ₂₂₉		9 2.7 351°60	0°4/ 3.1	18		58465	1996 <i>NY</i> ₃		9 2.7 341°63	1°6/ 1.2	18	
7 30	23 8.36	- 4 27.9	1.826	2.689	13.9	19.8	7 30	23 7.34	- 6 33.6	1.483	2.365	15.4	18.7
8 9	23 4.30	- 4 48.2	1.753	2.687	10.5	19.6	8 9	23 3.97	- 7 48.4	1.416	2.362	11.5	18.4
8 19	22 58.33	- 5 20.8	1.702	2.684	6.5	19.4	8 19	22 58.33	- 9 19.4	1.370	2.358	6.9	18.2
8 29	22 51.06	- 6 2.1	1.676	2.682	2.3	19.1	8 29	22 51.11	-10 59.1	1.348	2.356	2.3	17.9
9 8	22 43.33	- 6 46.9	1.677	2.681	2.2	19.1	9 8	22 43.33	-12 37.4	1.353	2.353	3.8	18.0
9 18	22 36.08	- 7 29.6	1.704	2.680	6.5	19.4	9 18	22 36.09	-14 4.6	1.383	2.351	8.6	18.2
9 28	22 30.18	- 8 5.0	1.757	2.679	10.4	19.6	9 28	22 30.49	-15 12.9	1.438	2.350	13.0	18.5
10 8	22 26.30	- 8 29.2	1.833	2.679	13.8	19.8	10 8	22 27.27	-15 58.6	1.513	2.348	16.7	18.7
37081	2000 <i>UW</i> ₅₉		9 2.7 183°98	6°4/ 9.4	18		313293	2002 <i>CU</i> ₁₂₆		9 2.7 181°87	1°2/ 3.8	18	
7 30	23 10.28	+12 56.9	2.035	2.807	15.8	18.2	7 30	23 12.11	- 3 16.6	2.336	3.175	12.0	20.8
8 9	23 5.65	+13 7.2	1.952	2.808	13.3	18.1	8 9	23 6.69	- 3 11.9	2.256	3.175	9.2	20.6
8 19	22 59.14	+12 54.9	1.888	2.808	10.5	17.9	8 19	22 59.63	- 3 16.6	2.200	3.175	5.9	20.4
8 29	22 51.33	+12 19.4	1.847	2.807	7.8	17.7	8 29	22 51.47	- 3 28.6	2.172	3.175	2.5	20.2
9 8	22 43.02	+11 22.8	1.831	2.807	6.4	17.6	9 8	22 42.95	- 3 45.0	2.171	3.175	2.0	20.1
9 18	22 35.10	+10 10.1	1.843	2.805	7.3	17.7	9 18	22 34.82	- 4 2.5	2.200	3.174	5.3	20.4
9 28	22 28.45	+ 7 48.4	1.881	2.804	9.7	17.8	9 28	22 27.84	- 4 17.6	2.256	3.174	8.6	20.6
10 8	22 23.74	+ 7 25.7	1.943	2.802	12.5	18.0	10 8	22 22.57	- 4 27.3	2.337	3.173	11.5	20.8
259790	2004 <i>BH</i> ₅₈		9 2.7 265°23	4°6/ 6.3	18		396419	2014 <i>ES</i> ₂₅		9 2.7 213°29	0°1/ 2.8	18	
7 30	23 11.64	+ 4 48.7	1.553	2.385	17.4	20.7	7 30	23 12.70	- 5 27.9	2.362	3.207	11.7	21.4
8 9	23 7.18	+ 4 58.9	1.473	2.379	14.0	20.4	8 9	23 7.19	- 5 49.5	2.274	3.199	8.8	21.2
8 19	23 0.34	+ 4 47.7	1.412	2.372	10.0	20.2	8 19	22 59.99	- 6 20.4	2.210	3.190	5.5	21.0
8 29	22 51.77	+ 4 15.3	1.374	2.365	6.2	19.9	8 29	22 51.61	- 6 57.5	2.174	3.181	1.8	20.7
9 8	22 42.50	+ 3 25.6	1.361	2.358	4.7	19.8	9 8	22 42.78	- 7 36.5	2.167	3.170	2.0	20.7
9 18	22 33.71	+ 2 24.9	1.374	2.351	7.5	20.0	9 18	22 34.28	- 8 13.2	2.189	3.160	5.7	21.0
9 28	22 26.54	+ 1 21.4	1.412	2.344	11.6	20.2	9 28	22 26.90	- 8 43.7	2.239	3.148	9.1	21.2
10 8	22 21.84	+ 0 23.1	1.472	2.337	15.5	20.4	10 8	22 21.23	- 9 4.9	2.313	3.136	12.1	21.3
403509	2009 <i>WQ</i> ₅		9 2.7 322°36	7°4/25.8	18		263905	2009 <i>FC</i> ₃₈		9 2.7 72°79	2°7/ 4.9	17	
7 30	23 7.87	-24 16.9	1.787	2.680	12.7	19.7	7 30	23 12.15	+ 1 55.2	1.299	2.155	18.8	21.1
8 9	23 4.34	-25 41.9	1.710	2.653	10.0	19.4	8 9	23 7.59	+ 1 29.6	1.247	2.171	14.5	20.9
8 19	22 58.58	-27 6.1	1.656	2.627	7.9	19.3	8 19	23 0.51	+ 0 40.6	1.214	2.188	9.7	20.7
8 29	22 51.20	-28 20.1	1.627	2.601	7.5	19.2	8 29	22 51.79	- 0 27.6	1.203	2.204	4.7	20.4
9 8	22 43.14	-29 15.2	1.623	2.576	9.2	19.2	9 8	22 42.66	- 1 46.8	1.218	2.221	3.2	20.4
9 18	22 35.48	-29 45.5	1.643	2.551	12.1	19.3	9 18	22 34.39	- 3 7.5	1.257	2.237	7.6	20.7
9 28	22 29.31	-29 48.3	1.685	2.527	15.1	19.5	9 28	22 28.12	- 4 20.4	1.321	2.254	12.2	21.0
10 8	22 25.43	-29 24.6	1.744	2.504	17.9	19.6	10 8	22 24.54	- 5 18.6	1.406	2.270	16.1	21.3
479798	2014 <i>FW</i> ₈		9 2.7 348°89	0°8/ 3.5	18		402480	2006 <i>BK</i> ₂₇₄		9 2.7 340°58	0°6/ 3.1	18	
7 30	23 7.83	- 2 3.9	1.733	2.592	14.7	20.6	7 30	23 14.92	- 7 11.8	1.968	2.824	13.3	19.9
8 9	23 4.02	- 2 44.2	1.660	2.590	11.1	20.4	8 9	23 9.09	- 6 45.1	1.888	2.817	10.1	19.7
8 19	22 58.21	- 3 40.9	1.609	2.589	7.1	20.1	8 19	23 1.25	- 6 24.8	1.830	2.811	6.3	19.4
8 29	22 51.04	- 4 49.7	1.582	2.588	2.7	19.8	8 29	22 52.03	- 6 9.1	1.799	2.805	2.2	19.2
9 8	22 43.38	- 6 3.9	1.583	2.587	2.3	19.8	9 8	22 42.33	- 5 55.4	1.796	2.800	2.2	19.2
9 18	22 36.21	- 7 16.2	1.610	2.586	6.7	20.1	9 18	22 33.11	- 5 41.2	1.821	2.795	6.3	19.4
9 28	22 30.45	- 8 19.6	1.663	2.586	10.8	20.3	9 28	22 25.31	- 5 23.9	1.873	2.791	10.1	19.6
10 8	22 26.77	- 9 9.2	1.738	2.585	14.3	20.6	10 8	22 19.60	- 5 1.5	1.948	2.787	13.4	19.9
41383	2000 <i>AH</i> ₁₃₈		9 2.7 220°64	8°4/22.0	18		494412	2016 <i>UA</i> ₇₀		9 2.7 6°90	3°5/31.2	18	
7 30	23 15.29	-38 11.8	2.752	3.595	10.3	18.8	7 30	23 10.80	-14 4.4	1.319	2.216	16.0	20.5
8 9	23 9.11	-39 20.7	2.702	3.587	9.1	18.7	8 9	23 6.71	-14 35.5	1.263	2.216	11.9	20.3
8 19	23 1.12	-40 18.3	2.675	3.579	8.4	18.7	8 19	23 0.05	-15 12.1	1.228	2.218	7.3	20.0
8 29	22 51.94	-40 58.3	2.673	3.570	8.6	18.7	8 29	22 51.66	-15 46.8	1.216	2.220	3.7	19.8
9 8	22 42.41	-41 16.3	2.696	3.561	9.6	18.7	9 8	22 42.79	-16 12.0	1.229	2.224	5.4	19.9
9 18	22 33.42	-41 10.6	2.743	3.551	11.0	18.8	9 18	22 34.73	-16 22.2	1.265	2.228	9.8	20.2
9 28	22 25.79	-40 41.8	2.811	3.542	12.5	18.9	9 28	22 28.67	-16 14.3	1.324	2.234	14.0	20.5
10 8	22 20.11	-39 52.7	2.898	3.531	13.9	19.0	10 8	22 25.31	-15 48.4	1.403	2.240	17.7	20.7
20460	Robwhiteley		9 2.7 124°68	18°1/27.8	18		245620	2005 <i>WL</i> ₁₄₉		9 2.7 13°52	2°1/ 3.8	17	
7 30	23 32.93	+43 24.7	1.892	2.384	24.1	19.6	7 30	23 11.49	- 3 12.2	0.943	1.837	21.1	19.6
8 9	23 23.75	+45 37.5	1.842	2.414	22.9	19.5	8 9	23 7.95	- 2 57.1	0.892	1.839	16.2	19.3
8 19	23 10.90	+47 13.6	1.803	2.442	21.6	19.5	8 19	23 1.15	- 3 2.5	0.857	1.842	10.5	19.1
8 29	22 55.28	+48 3.4	1.776	2.468	20.2	19.4	8 29	22 52.08	- 3 24.8	0.841	1.847	4.4	18.7
9 8	22 38.53	+48 1.8	1.764	2.492	19.1	19.4	9 8	22 42.32	- 3 57.1	0.848	1.852	3.4	18.7
9 18	22 22.62	+47 9.1	1.769	2.515	18.4	19.4	9 18	22 33.58	- 4 30.8	0.876	1.859	9.3	19.1
9 28	22 9.39	+45 32.9	1.792	2.536	18.1	19.4	9 28	22 27.39	- 4 57.5	0.924	1.866	14.9	19.4
10 8	21 59.98	+43 26.1	1.833	2.555	18.4	19.5	10 8	22 24.60	- 5 11.3	0.991	1.875	19.6	19.7
226457	2003 <i>SL</i> ₁₁₁		9 2.7 7°71	11°5/18.2	15		280950	2006 <i>BB</i> ₁₅₆		9 2.7 312°76	1°2/ 1.6	18	
7 30	23 4.16	+27 47.9	1.925	2.606	19.4	20.1	7 30	23 9.23	- 7 30.6	1.571	2.449	14.9	20.5
8 9	23 1.35	+28 22.7	1.848	2.607	17.6	19.9	8 9	23 5.32	- 8 17.2	1.499	2.442	11.1	20.2
8 19	22 56.62	+28 26.1	1.785	2.610	15.6	19.8	8 19	22 59.15	- 9 16.9	1.447	2.435	6.7	19.9
8 29	22 50.54	+27 54.3	1.739	2.613	13.6	19.7	8 29	22 51.39	-10 23.8	1.420	2.428	2.2	19.6
9 8	22 43.96	+26 47.2	1.714	2.617	12.1	19.6	9 8	22 43.05	-11 30.0	1.420	2.421	3.4	19.7
9 18	22 37.82	+25 8.3	1.711	2.622	11.5	19.6	9 18	22 35.22	-12 27.9	1.445	2.415	8.1	20.0
9 28	22 33.04	+23 5.6	1.731	2.628	12.0	19.6	9 28	22 28.98	-13 11.3	1.494	2.408	12.4	20.2
10 8	22 30.28	+20 50.0	1.774	2.634	13.5	19.7	10 8	22 25.09	-13 36.8	1.565	2.402	16.1	20.4
252127	2000 <i>WN</i> ₁₇₃		9 2.7 238°78	13°8/16.3	18		508832	2001 <i>UO</i> ₉₀		9 2.7 355°94</			

EPHEMERIDES

9 2.7

9 2.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
169947	2002 <i>TD</i> ₅₄		9 2.7 320°60	2°3/ 4.5	18		208279	2001 <i>BG</i> ₁		9 2.7 150°59	14°7/18.5	17	
7 30	23 8.58	- 0 41.4	1.614	2.471	15.7	19.3	7 30	23 19.67	-34 36.1	1.238	2.124	17.6	19.7
8 9	23 4.89	- 0 39.4	1.527	2.453	12.2	19.0	8 9	23 14.26	-38 9.5	1.217	2.133	15.5	19.6
8 19	22 58.96	- 0 53.9	1.459	2.435	8.2	18.7	8 19	23 5.16	-41 22.9	1.218	2.141	14.7	19.6
8 29	22 51.37	- 1 22.9	1.416	2.418	4.0	18.4	8 29	22 53.44	-43 57.0	1.241	2.148	15.6	19.7
9 8	22 43.06	- 2 2.2	1.398	2.401	2.9	18.3	9 8	22 40.89	-45 38.9	1.286	2.155	17.6	19.8
9 18	22 35.12	- 2 45.8	1.405	2.385	7.0	18.5	9 18	22 29.54	-46 25.9	1.349	2.161	20.0	20.0
9 28	22 28.65	- 3 27.3	1.437	2.369	11.5	18.8	9 28	22 21.10	-46 22.9	1.428	2.165	22.2	20.2
10 8	22 24.48	- 4 0.7	1.491	2.354	15.4	19.0	10 8	22 16.52	-45 39.6	1.518	2.169	24.1	20.4
239573	2008 <i>TH</i> ₇₄		9 2.7 306°84	1°0/ 1.9	18		423899	2006 <i>SQ</i> ₁₉₂		9 2.7 218°25	1°8/ 1.1	17	
7 30	23 11.05	- 8 8.1	1.592	2.468	14.9	20.7	7 30	23 13.39	- 9 31.5	1.776	2.645	13.9	22.1
8 9	23 6.69	- 8 33.2	1.515	2.457	11.1	20.4	8 9	23 8.23	-10 19.7	1.699	2.639	10.3	21.8
8 19	23 0.01	- 9 9.4	1.459	2.446	6.8	20.2	8 19	23 0.88	-11 17.9	1.645	2.631	6.3	21.6
8 29	22 51.69	- 9 51.6	1.429	2.436	2.2	19.9	8 29	22 51.98	-12 20.2	1.617	2.623	2.3	21.3
9 8	22 42.73	-10 33.5	1.424	2.426	3.2	19.9	9 8	22 42.50	-13 19.4	1.616	2.615	3.7	21.4
9 18	22 34.28	-11 8.8	1.445	2.416	7.9	20.2	9 18	22 33.50	-14 8.9	1.643	2.606	7.9	21.6
9 28	22 27.44	-11 32.2	1.490	2.406	12.3	20.4	9 28	22 26.02	-14 43.9	1.695	2.596	12.0	21.8
10 8	22 22.99	-11 40.7	1.557	2.397	16.1	20.6	10 8	22 20.79	-15 1.8	1.769	2.586	15.4	22.0
116983	2004 <i>HT</i> ₃₃		9 2.7 293°58	4°4/29.8	18		9682	Gravesande		9 2.7 58°58	2°4/ 4.4	18	
7 30	23 10.27	-14 5.5	1.491	2.383	14.8	19.4	7 30	23 13.06	- 0 17.3	1.262	2.126	18.7	18.6
8 9	23 6.25	-15 24.1	1.425	2.376	11.0	19.1	8 9	23 8.56	- 0 24.6	1.197	2.128	14.5	18.3
8 19	22 59.79	-16 51.1	1.381	2.369	7.0	18.9	8 19	23 1.32	- 0 52.9	1.152	2.130	9.6	18.1
8 29	22 51.62	-18 17.1	1.361	2.362	4.4	18.7	8 29	22 52.15	- 1 39.1	1.129	2.132	4.4	17.8
9 8	22 42.83	-19 32.2	1.367	2.355	6.4	18.8	9 8	22 42.33	- 2 36.5	1.131	2.134	3.2	17.7
9 18	22 34.62	-20 28.3	1.398	2.348	10.4	19.0	9 18	22 33.25	- 3 36.6	1.156	2.137	8.1	18.0
9 28	22 28.16	-21 0.5	1.452	2.341	14.4	19.3	9 28	22 26.22	- 4 30.6	1.206	2.139	13.0	18.3
10 8	22 24.23	-21 8.1	1.525	2.335	17.8	19.5	10 8	22 22.08	- 5 12.0	1.275	2.141	17.3	18.6
225072	2007 <i>HT</i> ₈₄		9 2.7 190°48	1°0/ 3.9	18		210326	2007 <i>TJ</i> ₂₅₅		9 2.7 8°15	0°1/ 2.8	18	
7 30	23 7.32	- 1 33.2	2.840	3.673	10.3	21.5	7 30	23 11.58	- 6 6.3	1.663	2.530	14.8	20.1
8 9	23 2.92	- 2 1.8	2.756	3.671	7.9	21.3	8 9	23 6.87	- 6 16.4	1.594	2.530	11.1	19.9
8 19	22 57.25	- 2 40.6	2.697	3.670	5.1	21.1	8 19	23 0.01	- 6 37.8	1.547	2.531	6.9	19.7
8 29	22 50.72	- 3 27.1	2.665	3.668	2.1	20.9	8 29	22 51.69	- 7 6.6	1.525	2.532	2.3	19.4
9 8	22 43.89	- 4 17.8	2.662	3.665	1.6	20.9	9 8	22 42.89	- 7 37.4	1.530	2.533	2.5	19.4
9 18	22 37.34	- 5 8.7	2.689	3.663	4.5	21.1	9 18	22 34.67	- 8 5.0	1.560	2.535	7.0	19.7
9 28	22 31.65	- 5 56.0	2.744	3.660	7.3	21.2	9 28	22 28.03	- 8 24.7	1.616	2.537	11.2	20.0
10 8	22 27.27	- 6 36.4	2.824	3.657	9.9	21.4	10 8	22 23.67	- 8 33.3	1.694	2.539	14.8	20.2
96887	1999 <i>TB</i> ₃₂		9 2.7 315°39	5°5/29.9	18		136580	1984 <i>WL</i>		9 2.7 293°93	18°1/17.3	18	
7 30	23 16.19	-20 21.8	1.572	2.457	14.5	19.0	7 30	23 12.32	+33 58.2	1.739	2.366	22.7	19.1
8 9	23 10.60	-20 50.9	1.502	2.446	11.1	18.7	8 9	23 8.50	+35 56.2	1.635	2.334	21.7	18.9
8 19	23 2.43	-21 18.6	1.454	2.435	7.6	18.5	8 19	23 1.76	+37 26.1	1.544	2.302	20.5	18.7
8 29	22 52.48	-21 37.3	1.430	2.424	5.5	18.3	8 29	22 52.51	+38 18.0	1.466	2.270	19.3	18.5
9 8	22 41.92	-21 40.2	1.432	2.413	7.0	18.4	9 8	22 41.70	+38 24.3	1.404	2.238	18.4	18.3
9 18	22 32.07	-21 23.5	1.459	2.403	10.6	18.6	9 18	22 30.74	+37 40.9	1.360	2.205	18.1	18.2
9 28	22 24.12	-20 46.4	1.510	2.393	14.3	18.8	9 28	22 21.29	+36 10.2	1.334	2.172	18.6	18.2
10 8	22 18.88	-19 50.7	1.580	2.384	17.6	19.0	10 8	22 14.73	+34 1.7	1.325	2.139	19.8	18.2
429864	2012 <i>SQ</i> ₁₀		9 2.7 279°75	0°0/ 2.5	16		168182	2006 <i>HS</i> ₉₀		9 2.7 12°21	2°6/30.9	18	
7 30	23 4.36	- 7 7.3	4.303	5.147	6.9	21.0	7 30	23 5.46	- 7 53.8	1.487	2.375	15.1	19.2
8 9	23 0.34	- 7 13.7	4.218	5.142	5.1	20.9	8 9	23 2.55	- 9 39.3	1.426	2.376	11.0	18.9
8 19	22 55.50	- 7 24.1	4.158	5.138	3.1	20.8	8 19	22 57.46	-11 40.5	1.388	2.379	6.6	18.7
8 29	22 50.13	- 7 36.8	4.127	5.134	1.0	20.6	8 29	22 50.89	-13 47.4	1.376	2.382	2.8	18.5
9 8	22 44.59	- 7 50.0	4.126	5.129	1.2	20.6	9 8	22 43.82	-15 48.4	1.389	2.385	4.9	18.6
9 18	22 39.22	- 8 2.1	4.155	5.125	3.3	20.8	9 18	22 37.31	-17 32.9	1.429	2.389	9.2	18.9
9 28	22 34.40	- 8 11.2	4.213	5.120	5.3	20.9	9 28	22 32.40	-18 53.5	1.493	2.394	13.3	19.1
10 8	22 30.43	- 8 16.1	4.298	5.116	7.0	21.0	10 8	22 29.77	-19 47.0	1.577	2.399	16.8	19.4
354952	2006 <i>FJ</i> ₉		9 2.7 36°10	1°0/ 3.4	15		137880	2000 <i>AA</i> ₁₁₅		9 2.7 187°13	3°2/ 5.7	18	
7 30	23 6.84	+ 3 45.8	0.300	1.251	33.6	18.6	7 30	23 12.81	+ 3 38.8	1.990	2.809	14.6	20.7
8 9	23 5.11	+ 1 16.5	0.312	1.289	24.6	18.5	8 9	23 7.55	+ 3 28.9	1.908	2.809	11.5	20.5
8 19	22 59.06	- 1 42.4	0.332	1.330	14.8	18.4	8 19	23 0.36	+ 3 1.5	1.848	2.808	8.1	20.2
8 29	22 51.13	- 4 44.1	0.366	1.374	5.1	18.2	8 29	22 51.82	+ 2 18.3	1.813	2.807	4.6	20.0
9 8	22 43.90	- 7 21.2	0.414	1.419	4.2	18.5	9 8	22 42.78	+ 1 23.3	1.805	2.804	3.3	19.9
9 18	22 39.17	- 9 17.9	0.476	1.466	11.8	19.2	9 18	22 34.16	+ 0 22.1	1.826	2.802	6.1	20.1
9 28	22 37.91	-10 29.7	0.554	1.514	18.1	19.9	9 28	22 26.86	- 0 38.8	1.874	2.798	9.7	20.3
10 8	22 40.20	-11 0.4	0.646	1.562	22.9	20.4	10 8	22 21.57	- 1 33.7	1.946	2.794	13.0	20.5
111017	2001 <i>VT</i> ₈		9 2.7 255°57	0°2/ 2.5	18		184178	2004 <i>NV</i> ₃₁		9 2.7 81°64	3°1/ 5.7	18	
7 30	23 9.75	- 6 11.4	2.229	3.085	12.0	20.0	7 30	23 10.91	+ 2 34.7	2.120	2.943	13.7	20.4
8 9	23 5.12	- 6 37.5	2.142	3.073	9.0	19.8	8 9	23 5.94	+ 2 44.5	2.048	2.951	10.8	20.2
8 19	22 58.79	- 7 13.1	2.079	3.062	5.5	19.6	8 19	22 59.25	+ 2 39.9	1.998	2.958	7.5	20.0
8 29	22 51.27	- 7 54.9	2.043	3.050	1.8	19.3	8 29	22 51.43	+ 2 22.1	1.973	2.966	4.3	19.8
9 8	22 43.29	- 8 38.3	2.035	3.038	2.2	19.3	9 8	22 43.25	+ 1 54.2	1.976	2.974	3.2	19.8
9 18	22 35.63	- 9 18.4	2.055	3.026	6.0	19.5	9 18	22 35.52	+ 1 20.2	2.006	2.981	5.7	19.9
9 28	22 29.10	- 9 51.2	2.102	3.013	9.5	19.7	9 28	22 29.03	+ 0 45.1	2.064	2.989	8.9	20.2
10 8	22 24.30	-10 13.4	2.172	3.001	12.6	19.9	10 8	22 24.36	+ 0 13.3	2.145	2.997	11.8	20.4
264103	2009 <i>SF</i> ₃₀₆		9 2.7 296°18	0°2/ 3.2	16		379177	2009 <i>RC</i> ₈		9 2.7 30°24	1°5/ 3.8	15	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
444161	2005 <i>GP</i> ₁₂₅		9 2.7 169°35	4°5/ 8.4 18			511229	2014 <i>BC</i> ₈		9 2.7 211°65	1°8/ 4.2 18		
7 30	23 9.06	+10 28.1	2.437	3.213	13.4	21.8	7 30	23 13.47	- 1 35.7	1.994	2.833	13.8	22.1
8 9	23 4.45	+10 14.4	2.352	3.217	11.0	21.7	8 9	23 8.06	- 1 35.4	1.912	2.829	10.6	21.8
8 19	22 58.31	+ 9 41.8	2.289	3.220	8.4	21.5	8 19	23 0.70	- 1 47.8	1.852	2.825	7.0	21.6
8 29	22 51.13	+ 8 51.1	2.251	3.223	5.8	21.4	8 29	22 51.98	- 2 10.7	1.818	2.820	3.2	21.4
9 8	22 43.59	+ 7 45.4	2.241	3.225	4.5	21.3	9 8	22 42.75	- 2 40.3	1.812	2.815	2.4	21.3
9 18	22 36.40	+ 6 29.5	2.258	3.227	5.7	21.4	9 18	22 33.93	- 3 12.3	1.834	2.809	6.1	21.5
9 28	22 30.25	+ 5 9.4	2.304	3.228	8.2	21.5	9 28	22 26.46	- 3 41.8	1.882	2.804	9.8	21.8
10 8	22 25.69	+ 3 51.3	2.376	3.229	10.8	21.7	10 8	22 20.99	- 4 4.8	1.955	2.797	13.2	22.0
74138	1998 <i>QD</i> ₇₅		9 2.7 29°12	5°1/ 7.6 18			41855	2000 <i>WV</i> ₈₉		9 2.7 217°01	2°5/31.4 18		
7 30	23 5.15	+ 8 16.1	1.243	2.087	20.2	18.2	7 30	23 12.36	-12 14.6	1.889	2.763	13.0	19.5
8 9	23 2.47	+ 7 51.9	1.195	2.105	16.2	18.0	8 9	23 7.33	-12 59.2	1.818	2.759	9.6	19.2
8 19	22 57.44	+ 6 56.7	1.165	2.124	11.7	17.8	8 19	23 0.28	-13 50.4	1.769	2.755	5.9	19.0
8 29	22 50.88	+ 5 33.6	1.155	2.144	7.4	17.6	8 29	22 51.85	-14 42.3	1.747	2.751	2.7	18.8
9 8	22 43.94	+ 3 51.1	1.169	2.166	5.1	17.5	9 8	22 42.94	-15 28.4	1.752	2.747	4.1	18.9
9 18	22 37.80	+ 2 0.4	1.206	2.188	7.6	17.8	9 18	22 34.53	-16 3.4	1.784	2.742	7.9	19.1
9 28	22 33.50	+ 0 13.5	1.268	2.211	11.6	18.0	9 28	22 27.55	-16 23.6	1.842	2.737	11.5	19.3
10 8	22 31.66	- 1 19.6	1.352	2.236	15.4	18.3	10 8	22 22.68	-16 27.6	1.921	2.732	14.6	19.5
257713	1999 <i>XL</i> ₁₃₈		9 2.7 218°73	5°3/10.5 18 R			438592	2007 <i>VS</i> ₄₇		9 2.7 326°32	2°1/ 4.6 18		
7 30	23 7.60	+15 36.7	3.119	3.848	11.7	21.4	7 30	23 10.97	- 0 33.7	1.858	2.702	14.5	21.5
8 9	23 3.16	+15 39.4	3.016	3.838	10.0	21.3	8 9	23 6.30	- 0 35.1	1.782	2.701	11.2	21.3
8 19	22 57.45	+15 25.6	2.934	3.828	8.1	21.1	8 19	22 59.65	- 0 50.9	1.727	2.699	7.4	21.1
8 29	22 50.86	+14 54.7	2.877	3.817	6.4	21.0	8 29	22 51.65	- 1 18.9	1.697	2.698	3.6	20.8
9 8	22 43.90	+14 8.1	2.847	3.806	5.4	20.9	9 8	22 43.17	- 1 55.1	1.694	2.697	2.6	20.8
9 18	22 37.15	+13 8.5	2.845	3.795	5.7	20.9	9 18	22 35.14	- 2 34.4	1.718	2.696	6.2	21.0
9 28	22 31.18	+12 0.3	2.871	3.782	7.2	21.0	9 28	22 28.50	- 3 11.4	1.769	2.695	10.0	21.2
10 8	22 26.45	+10 48.4	2.923	3.770	9.2	21.1	10 8	22 23.91	- 3 41.3	1.842	2.694	13.5	21.5
488496	2000 <i>OM</i> ₁		9 2.7 29°38	4°5/ 6.8 15			249366	2008 <i>YY</i> ₁₆₈		9 2.7 45°39	4°1/ 6.0 18		
7 30	23 8.48	+ 5 34.0	1.686	2.514	16.4	21.5	7 30	23 12.55	+ 3 12.1	1.631	2.465	16.6	20.1
8 9	23 4.52	+ 5 41.6	1.620	2.523	13.1	21.3	8 9	23 7.58	+ 3 37.2	1.569	2.477	13.1	19.9
8 19	22 58.55	+ 5 28.6	1.575	2.531	9.5	21.1	8 19	23 0.46	+ 3 44.1	1.528	2.489	9.3	19.7
8 29	22 51.24	+ 4 56.2	1.552	2.541	6.0	21.0	8 29	22 51.91	+ 3 33.8	1.510	2.501	5.6	19.5
9 8	22 43.51	+ 4 8.5	1.555	2.551	4.5	20.9	9 8	22 42.94	+ 3 9.5	1.517	2.514	4.3	19.5
9 18	22 36.33	+ 3 11.2	1.584	2.561	6.7	21.0	9 18	22 34.62	+ 2 36.3	1.551	2.527	6.9	19.7
9 28	22 30.64	+ 2 11.8	1.638	2.572	10.2	21.3	9 28	22 27.94	+ 2 0.3	1.610	2.541	10.5	19.9
10 8	22 27.06	+ 1 16.9	1.715	2.583	13.5	21.5	10 8	22 23.56	+ 1 27.6	1.692	2.554	13.9	20.2
351435	2005 <i>GK</i> ₁₇₃		9 2.7 159°47	2°0/31.6 18			472552	2015 <i>DT</i> ₃₈		9 2.7 107°57	2°9/31.0 17		
7 30	23 10.96	-11 8.3	2.204	3.071	11.7	21.6	7 30	23 12.59	-11 46.2	1.701	2.579	14.0	21.6
8 9	23 5.94	-11 56.0	2.137	3.075	8.6	21.4	8 9	23 7.52	-12 53.8	1.648	2.592	10.3	21.4
8 19	22 59.25	-12 50.0	2.094	3.080	5.2	21.2	8 19	23 0.36	-14 8.7	1.619	2.606	6.2	21.2
8 29	22 51.44	-13 45.1	2.078	3.084	2.2	21.0	8 29	22 51.86	-15 23.4	1.615	2.619	3.1	21.0
9 8	22 43.29	-14 35.8	2.091	3.087	3.4	21.1	9 8	22 43.01	-16 29.9	1.639	2.632	4.7	21.2
9 18	22 35.60	-15 17.4	2.132	3.090	6.8	21.3	9 18	22 34.86	-17 21.9	1.689	2.645	8.4	21.4
9 28	22 29.13	-15 46.3	2.200	3.093	10.0	21.5	9 28	22 28.32	-17 55.6	1.764	2.657	12.1	21.7
10 8	22 24.45	-16 1.0	2.290	3.095	12.8	21.7	10 8	22 24.04	-18 9.8	1.861	2.669	15.1	21.9
354313	2002 <i>UP</i> ₃₇		9 2.7 254°01	4°7/29.1 18			221063	2005 <i>QY</i> ₁₆₁		9 2.7 299°82	3°6/31.3 18		
7 30	23 13.19	-19 58.3	2.117	2.993	11.7	20.6	7 30	23 14.74	-14 34.9	1.454	2.340	15.4	19.8
8 9	23 7.85	-20 47.8	2.041	2.981	8.9	20.4	8 9	23 9.75	-15 4.9	1.380	2.328	11.5	19.5
8 19	23 0.55	-21 37.3	1.990	2.968	6.1	20.2	8 19	23 2.09	-15 40.0	1.328	2.316	7.3	19.3
8 29	22 51.91	-22 20.6	1.965	2.955	4.7	20.1	8 29	22 52.52	-16 13.4	1.300	2.303	3.8	19.0
9 8	22 42.78	-22 51.7	1.968	2.942	6.1	20.2	9 8	22 42.22	-16 37.4	1.297	2.292	5.4	19.1
9 18	22 34.09	-23 6.4	1.997	2.928	8.9	20.3	9 18	22 32.55	-16 46.3	1.320	2.280	9.8	19.3
9 28	22 26.76	-23 2.8	2.051	2.915	11.9	20.5	9 28	22 24.78	-16 37.0	1.366	2.268	14.2	19.6
10 8	22 21.45	-22 41.3	2.127	2.901	14.6	20.7	10 8	22 19.77	-16 9.3	1.431	2.257	18.0	19.8
186359	2002 <i>GU</i> ₄₈		9 2.7 34°53	3°1/ 5.9 18			104048	2000 <i>EL</i> ₁₃		9 2.7 90°49	1°8/ 4.2 18		
7 30	23 6.61	+ 3 56.1	1.879	2.711	14.8	19.7	7 30	23 13.54	- 0 57.0	1.560	2.411	16.4	19.4
8 9	23 2.92	+ 3 37.3	1.814	2.722	11.6	19.5	8 9	23 8.37	- 1 10.4	1.501	2.425	12.5	19.2
8 19	22 57.48	+ 2 59.9	1.770	2.733	8.1	19.3	8 19	23 0.96	- 1 40.6	1.463	2.439	8.2	18.9
8 29	22 50.89	+ 2 6.5	1.751	2.745	4.6	19.1	8 29	22 52.08	- 2 24.2	1.449	2.452	3.6	18.7
9 8	22 43.96	+ 1 2.0	1.758	2.758	3.2	19.0	9 8	22 42.81	- 3 15.2	1.462	2.466	2.6	18.7
9 18	22 37.52	- 0 7.4	1.792	2.771	5.9	19.2	9 18	22 34.26	- 4 6.8	1.501	2.479	6.9	19.0
9 28	22 32.39	- 1 14.8	1.852	2.784	9.3	19.5	9 28	22 27.44	- 4 52.7	1.565	2.492	11.1	19.2
10 8	22 29.12	- 2 14.4	1.936	2.797	12.5	19.7	10 8	22 23.02	- 5 27.8	1.652	2.504	14.7	19.5
174762	2003 <i>WV</i> ₆		9 2.7 206°93	2°2/ 4.4 18			393808	2005 <i>QT</i> ₁₀₄		9 2.7 321°44	2°2/ 5.3 18		
7 30	23 13.53	- 0 28.2	1.607	2.455	16.2	20.5	7 30	23 4.81	+ 3 44.8	1.861	2.698	14.7	20.9
8 9	23 8.51	- 0 36.0	1.531	2.453	12.5	20.2	8 9	23 1.80	+ 2 46.0	1.774	2.687	11.6	20.7
8 19	23 1.15	- 1 0.9	1.476	2.450	8.3	20.0	8 19	22 56.96	+ 1 24.7	1.708	2.677	7.8	20.5
8 29	22 52.14	- 1 40.3	1.445	2.447	3.9	19.7	8 29	22 50.82	- 0 15.6	1.668	2.668	3.9	20.2
9 8	22 42.52	- 2 29.1	1.440	2.444	2.8	19.6	9 8	22 44.16	- 2 8.1	1.655	2.658	2.5	20.1
9 18	22 33.44	- 3 20.7	1.462	2.440	7.0	19.9	9 18	22 37.84	- 4 3.9	1.670	2.649	6.1	20.3
9 28	22 25.99	- 4 8.2	1.510	2.436	11.4	20.1	9 28	22 32.75	- 5 53.7	1.712	2.641	10.1	20.5
10 8	22 20.97	- 4 46.1	1.579	2.432	15.3	20.4	10 8	22 29.56	- 7 30.0	1.777	2.633	13.7	20.7
203134	2000 <i>TK</i> ₂		9 2.7 272°75	2°6/31.4 18			293044	2006 <i>WA</i> ₁₀₀		9 2.7 336°27	0°9		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
372820	2010 <i>UT</i> ₁₆		9 2.7 290°57	3°6/31.1	17		123059	2000 <i>SV</i> ₃₀₁		9 2.7 29°80	0°2/ 2.9	18	
7 30	23 13.23	-13 7.6	1.387	2.277	15.8	21.2	7 30	23 12.64	-5 24.5	1.664	2.528	15.0	19.5
8 9	23 8.74	-13 54.5	1.315	2.265	11.8	20.9	8 9	23 7.73	-5 39.2	1.594	2.528	11.3	19.2
8 19	23 1.54	-14 50.0	1.264	2.253	7.4	20.6	8 19	23 0.64	-6 6.1	1.546	2.529	7.0	19.0
8 29	22 52.37	-15 46.0	1.237	2.241	3.7	20.4	8 29	22 52.04	-6 41.2	1.523	2.529	2.4	18.7
9 8	22 42.44	-16 33.6	1.234	2.229	5.6	20.4	9 8	22 42.94	-7 19.0	1.526	2.530	2.4	18.7
9 18	22 33.11	-17 5.4	1.256	2.217	10.1	20.7	9 18	22 34.42	-7 53.8	1.555	2.530	7.1	19.0
9 28	22 25.70	-17 16.9	1.301	2.205	14.7	20.9	9 28	22 27.48	-8 20.4	1.610	2.531	11.3	19.2
10 8	22 21.10	-17 6.9	1.366	2.194	18.6	21.1	10 8	22 22.85	-8 35.5	1.687	2.531	14.9	19.5
185465	2007 <i>BC</i> ₁₈		9 2.7 341°61	4°6/30.2	18		229202	2004 <i>VR</i> ₆		9 2.7 262°23	3°8/ 7.3	18	
7 30	23 3.16	-11 58.4	1.026	1.944	17.7	18.8	7 30	23 6.79	+7 19.2	2.401	3.201	12.9	20.7
8 9	23 1.80	-13 16.7	0.963	1.927	13.2	18.5	8 9	23 2.87	+7 7.7	2.312	3.196	10.5	20.5
8 19	22 57.53	-14 50.3	0.918	1.912	8.2	18.2	8 19	22 57.44	+6 39.2	2.245	3.191	7.7	20.3
8 29	22 51.11	-16 28.2	0.895	1.899	4.6	18.0	8 29	22 50.98	+5 54.6	2.204	3.186	5.0	20.2
9 8	22 43.83	-17 56.3	0.893	1.887	7.1	18.1	9 8	22 44.12	+4 57.1	2.189	3.182	3.8	20.1
9 18	22 37.22	-19 2.3	0.912	1.877	12.3	18.3	9 18	22 37.56	+3 51.2	2.203	3.177	5.4	20.2
9 28	22 32.75	-19 38.4	0.951	1.869	17.3	18.6	9 28	22 31.99	+2 42.4	2.244	3.172	8.1	20.3
10 8	22 31.36	-19 42.5	1.007	1.863	21.7	18.8	10 8	22 27.95	+1 36.6	2.311	3.167	10.9	20.5
401587	2013 <i>GT</i> ₆		9 2.7 107°65	2°2/31.5	18		425673	2010 <i>XN</i> ₈₈		9 2.7 54°00	18°3/23.8	18	
7 30	23 12.04	-13 40.5	2.289	3.157	11.2	20.7	7 30	23 15.75	+33 34.9	1.390	2.046	26.6	20.0
8 9	23 6.68	-14 5.0	2.224	3.163	8.3	20.5	8 9	23 11.02	+35 48.7	1.343	2.064	24.7	19.9
8 19	22 59.69	-14 32.6	2.183	3.168	5.1	20.3	8 19	23 3.15	+37 22.2	1.306	2.081	22.8	19.8
8 29	22 51.65	-14 59.1	2.170	3.174	2.4	20.2	8 29	22 52.97	+38 6.6	1.283	2.099	20.9	19.7
9 8	22 43.32	-15 20.1	2.185	3.179	3.5	20.2	9 8	22 41.90	+37 57.6	1.274	2.118	19.3	19.6
9 18	22 35.48	-15 32.4	2.228	3.184	6.6	20.5	9 18	22 31.60	+36 57.2	1.282	2.136	18.4	19.6
9 28	22 28.86	-15 33.6	2.297	3.190	9.7	20.7	9 28	22 23.64	+35 14.5	1.308	2.155	18.3	19.7
10 8	22 24.01	-15 23.1	2.390	3.195	12.3	20.9	10 8	22 19.02	+33 3.8	1.352	2.174	19.0	19.8
297551	2001 <i>QO</i> ₂₂₁		9 2.7 321°77	7°9/ 8.2	17		150272	1999 <i>RY</i> ₂₀₄		9 2.7 328°94	5°6/ 6.9	18	
7 30	23 9.47	+9 55.0	1.594	2.404	18.0	19.5	7 30	23 12.24	+6 18.0	1.905	2.715	15.5	18.4
8 9	23 5.86	+10 55.4	1.496	2.377	15.3	19.2	8 9	23 7.38	+7 9.5	1.817	2.704	12.7	18.2
8 19	22 59.81	+11 35.4	1.416	2.351	12.2	18.9	8 19	23 0.45	+7 45.2	1.750	2.694	9.6	18.0
8 29	22 51.86	+11 51.4	1.358	2.325	9.3	18.7	8 29	22 52.02	+8 3.5	1.707	2.685	6.8	17.8
9 8	22 42.93	+11 42.9	1.322	2.300	7.9	18.6	9 8	22 42.94	+8 5.2	1.689	2.675	5.6	17.7
9 18	22 34.18	+11 12.1	1.311	2.276	9.3	18.6	9 18	22 34.20	+7 53.0	1.699	2.667	7.3	17.8
9 28	22 26.86	+10 25.4	1.324	2.253	12.4	18.7	9 28	22 26.79	+7 31.4	1.734	2.658	10.3	18.0
10 8	22 21.99	+9 31.4	1.357	2.231	16.0	18.9	10 8	22 21.45	+7 6.4	1.791	2.650	13.5	18.2
515074	2010 <i>PX</i> ₆₄		9 2.7 305°51	0°5/ 3.2	18		218803	2006 <i>BS</i> ₂₁₄		9 2.7 21°88	3°2/30.8	18	
7 30	23 8.94	-4 17.6	1.954	2.812	13.3	21.4	7 30	23 11.98	-16 18.9	2.144	3.019	11.6	19.7
8 9	23 4.77	-4 39.1	1.872	2.803	10.1	21.2	8 9	23 6.79	-16 47.0	2.079	3.020	8.6	19.5
8 19	22 58.73	-5 12.8	1.813	2.794	6.3	20.9	8 19	22 59.84	-17 16.5	2.038	3.022	5.5	19.3
8 29	22 51.40	-5 55.1	1.779	2.785	2.3	20.6	8 29	22 51.75	-17 42.7	2.024	3.024	3.3	19.2
9 8	22 43.56	-6 41.2	1.772	2.777	2.1	20.6	9 8	22 43.32	-18 0.8	2.037	3.026	4.5	19.2
9 18	22 36.11	-7 25.7	1.793	2.768	6.3	20.9	9 18	22 35.42	-18 7.4	2.078	3.028	7.5	19.4
9 28	22 29.91	-8 3.4	1.840	2.760	10.1	21.1	9 28	22 28.83	-18 0.6	2.144	3.030	10.5	19.6
10 8	22 25.64	-8 30.5	1.909	2.752	13.5	21.3	10 8	22 24.13	-17 40.3	2.233	3.032	13.2	19.8
448651	2010 <i>VW</i> ₁₀₆		9 2.7 17°32	5°5/27.9	18		463434	2013 <i>LC</i> ₃₅		9 2.7 50°73	1°2/ 1.9	16	
7 30	23 11.02	-22 28.7	2.121	3.002	11.5	20.8	7 30	23 11.69	-5 46.7	1.064	1.956	19.3	21.1
8 9	23 6.16	-23 28.3	2.063	3.002	8.8	20.7	8 9	23 7.63	-6 47.7	1.026	1.976	14.3	20.8
8 19	22 59.48	-24 25.8	2.029	3.003	6.4	20.5	8 19	23 0.73	-8 6.4	1.007	1.997	8.6	20.6
8 29	22 51.60	-25 14.3	2.022	3.004	5.5	20.5	8 29	22 52.06	-9 33.2	1.010	2.018	2.7	20.3
9 8	22 43.38	-25 48.1	2.041	3.004	6.9	20.5	9 8	22 43.06	-10 56.3	1.037	2.040	3.9	20.5
9 18	22 35.69	-26 3.6	2.087	3.005	9.3	20.7	9 18	22 35.17	-12 5.5	1.088	2.062	9.4	20.9
9 28	22 29.37	-25 59.4	2.156	3.006	12.0	20.9	9 28	22 29.60	-12 53.8	1.160	2.085	14.3	21.2
10 8	22 24.98	-25 36.6	2.246	3.007	14.3	21.1	10 8	22 26.99	-13 18.8	1.252	2.107	18.3	21.6
501689	2014 <i>TL</i> ₆₉		9 2.7 309°92	4°0/30.9	17		190294	1995 <i>QC</i> ₆		9 2.7 275°28	2°4/ 7.3	16	
7 30	23 12.74	-12 55.6	1.188	2.086	17.3	21.1	7 30	23 2.87	+6 13.3	4.530	5.313	7.6	20.2
8 9	23 8.68	-13 51.2	1.124	2.077	12.9	20.8	8 9	22 59.31	+6 16.3	4.433	5.306	6.1	20.0
8 19	23 1.63	-14 56.9	1.079	2.069	8.0	20.5	8 19	22 54.98	+6 11.0	4.359	5.298	4.5	19.9
8 29	22 52.43	-16 3.4	1.058	2.062	4.2	20.3	8 29	22 50.13	+5 58.1	4.313	5.291	3.0	19.8
9 8	22 42.43	-16 59.8	1.059	2.054	6.2	20.4	9 8	22 45.09	+5 38.7	4.295	5.283	2.4	19.7
9 18	22 33.18	-17 37.5	1.085	2.047	11.1	20.6	9 18	22 40.20	+5 14.7	4.307	5.276	3.2	19.8
9 28	22 26.12	-17 51.3	1.131	2.040	16.0	20.9	9 28	22 35.78	+4 48.0	4.348	5.268	4.7	19.9
10 8	22 22.18	-17 40.7	1.196	2.034	20.1	21.1	10 8	22 32.14	+4 21.0	4.416	5.261	6.3	20.0
280080	2002 <i>CY</i> ₂₆₇		9 2.7 217°15	4°9/29.5	18		207602	2006 <i>QU</i> ₁₀₅		9 2.7 175°89	0°8/ 3.8	18	
7 30	23 14.94	-18 55.2	1.821	2.700	13.1	20.2	7 30	23 8.53	-0 25.3	2.519	3.350	11.5	20.7
8 9	23 9.37	-19 46.7	1.755	2.697	9.9	20.0	8 9	23 4.04	-1 23.6	2.437	3.352	8.8	20.6
8 19	23 1.60	-20 39.0	1.712	2.693	6.7	19.8	8 19	22 58.10	-2 35.4	2.381	3.354	5.6	20.4
8 29	22 52.33	-21 24.7	1.695	2.688	4.9	19.7	8 29	22 51.18	-3 57.1	2.352	3.355	2.2	20.1
9 8	22 42.59	-21 57.1	1.705	2.684	6.4	19.8	9 8	22 43.93	-5 23.4	2.352	3.356	1.7	20.1
9 18	22 33.45	-22 11.7	1.741	2.679	9.6	20.0	9 18	22 37.00	-6 48.5	2.383	3.357	5.0	20.3
9 28	22 25.93	-22 6.4	1.802	2.674	12.9	20.2	9 28	22 31.05	-8 6.9	2.442	3.356	8.2	20.5
10 8	22 20.72	-21 42.0	1.883	2.669	15.8	20.4	10 8	22 26.60	-9 14.3	2.527	3.355	11.0	20.7
163862	2003 <i>SX</i> ₉₈		9 2.7 95°45	5°9/ 7.9	18		361895	2008 <					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
6241	Galante		9 2.7 326°68	1°0/ 3.5 18			506660	2006 SF ₂₀₄		9 2.8 281°16	4°5/30.6 17		
7 30	23 11.50	- 4 34.6	1.911	2.766	13.7	16.8	7 30	23 15.52	-16 10.6	1.452	2.340	15.4	21.4
8 9	23 6.71	- 4 28.5	1.830	2.758	10.4	16.6	8 9	23 10.37	-16 53.2	1.382	2.330	11.5	21.1
8 19	22 59.96	- 4 32.8	1.771	2.751	6.6	16.3	8 19	23 2.53	-17 40.0	1.334	2.320	7.4	20.9
8 29	22 51.84	- 4 45.0	1.738	2.744	2.6	16.1	8 29	22 52.77	-18 22.9	1.310	2.310	4.6	20.7
9 8	22 43.20	- 5 1.4	1.733	2.737	2.2	16.0	9 8	22 42.31	-18 53.6	1.311	2.300	6.3	20.8
9 18	22 35.00	- 5 18.0	1.754	2.730	6.2	16.3	9 18	22 32.52	-19 6.3	1.337	2.291	10.4	21.0
9 28	22 28.13	- 5 30.6	1.801	2.724	10.1	16.5	9 28	22 24.67	-18 58.0	1.386	2.281	14.6	21.2
10 8	22 23.30	- 5 36.1	1.872	2.718	13.5	16.7	10 8	22 19.62	-18 29.3	1.455	2.271	18.2	21.4
513749	2012 UV ₁₆₃		9 2.7 340°39	1°7/ 3.9 18			405458	2004 TC ₂₆₆		9 2.8 241°40	1°8/31.6 18		
7 30	23 10.06	- 2 36.6	1.440	2.308	16.6	20.8	7 30	23 9.57	-12 3.0	2.606	3.470	10.2	21.4
8 9	23 6.19	- 2 34.4	1.366	2.300	12.8	20.5	8 9	23 4.84	-12 39.0	2.522	3.459	7.5	21.2
8 19	22 59.89	- 2 48.1	1.313	2.293	8.3	20.3	8 19	22 58.63	-13 19.9	2.463	3.448	4.6	21.0
8 29	22 51.86	- 3 14.9	1.282	2.286	3.6	20.0	8 29	22 51.41	-14 1.6	2.432	3.437	2.0	20.8
9 8	22 43.17	- 3 49.8	1.276	2.280	2.7	19.9	9 8	22 43.80	-14 39.7	2.430	3.425	3.1	20.9
9 18	22 35.02	- 4 26.4	1.295	2.275	7.4	20.2	9 18	22 36.50	-15 10.5	2.456	3.413	6.1	21.1
9 28	22 28.58	- 4 58.2	1.338	2.270	12.1	20.4	9 28	22 30.17	-15 31.0	2.509	3.401	9.0	21.3
10 8	22 24.66	- 5 20.0	1.402	2.267	16.1	20.7	10 8	22 25.35	-15 39.6	2.587	3.388	11.6	21.4
355597	2008 CN ₁₈₅		9 2.7 288°42	1°0/ 3.5 18			321551	2009 SN ₂₉₀		9 2.8 8°24	1°1/ 1.7 18		
7 30	23 15.18	- 5 13.2	1.989	2.838	13.5	20.4	7 30	23 5.94	- 7 16.2	1.768	2.645	13.6	19.9
8 9	23 9.37	- 4 55.4	1.907	2.832	10.3	20.2	8 9	23 2.64	- 8 5.1	1.704	2.647	10.1	19.7
8 19	23 1.56	- 4 46.1	1.848	2.826	6.5	20.0	8 19	22 57.47	- 9 5.3	1.662	2.649	6.1	19.5
8 29	22 52.36	- 4 43.5	1.815	2.820	2.6	19.7	8 29	22 51.05	-10 11.4	1.645	2.652	1.9	19.2
9 8	22 42.64	- 4 44.5	1.810	2.814	2.2	19.7	9 8	22 44.22	-11 16.4	1.655	2.656	3.0	19.3
9 18	22 33.38	- 4 45.9	1.834	2.808	6.2	19.9	9 18	22 37.90	-12 13.8	1.691	2.661	7.1	19.6
9 28	22 25.50	- 4 44.6	1.884	2.802	10.0	20.2	9 28	22 32.92	-12 58.3	1.752	2.666	10.9	19.8
10 8	22 19.68	- 4 37.7	1.958	2.797	13.3	20.4	10 8	22 29.91	-13 26.7	1.835	2.672	14.2	20.1
66594	1999 RO ₁₇₆		9 2.8 26°19	3°2/ 5.9 17			342656	2008 VV ₃		9 2.8 332°15	0°7/ 3.3 18		
7 30	23 4.29	+ 5 38.9	1.287	2.141	19.0	18.5	7 30	23 12.54	- 5 21.6	1.476	2.346	16.1	20.3
8 9	23 1.89	+ 4 39.5	1.231	2.152	15.0	18.2	8 9	23 8.02	- 5 16.5	1.401	2.338	12.3	20.0
8 19	22 57.19	+ 3 10.1	1.193	2.163	10.3	18.0	8 19	23 1.03	- 5 23.7	1.347	2.330	7.8	19.7
8 29	22 50.94	+ 1 15.8	1.178	2.176	5.4	17.8	8 29	22 52.27	- 5 40.3	1.317	2.323	2.8	19.4
9 8	22 44.25	- 0 52.9	1.187	2.190	3.4	17.7	9 8	22 42.85	- 6 1.1	1.312	2.316	2.6	19.4
9 18	22 38.25	- 3 3.2	1.222	2.205	7.3	18.0	9 18	22 33.99	- 6 20.9	1.333	2.310	7.6	19.7
9 28	22 33.99	- 5 2.7	1.280	2.220	11.8	18.3	9 28	22 26.87	- 6 34.4	1.377	2.305	12.2	19.9
10 8	22 32.15	- 6 42.1	1.361	2.236	15.9	18.6	10 8	22 22.32	- 6 37.8	1.443	2.299	16.2	20.2
477888	2011 JX ₁₇		9 2.8 68°19	4°4/29.9 17			485858	2012 FO		9 2.8 232°63	0°5/ 3.2 18		
7 30	23 12.58	-15 20.3	1.559	2.446	14.5	20.9	7 30	23 11.45	- 5 21.9	2.443	3.289	11.4	21.4
8 9	23 7.62	-16 35.7	1.519	2.467	10.7	20.7	8 9	23 6.26	- 5 24.9	2.360	3.284	8.6	21.2
8 19	23 0.46	-17 54.5	1.502	2.488	6.8	20.6	8 19	22 59.51	- 5 35.8	2.301	3.279	5.4	21.0
8 29	22 51.96	-19 7.8	1.511	2.509	4.4	20.5	8 29	22 51.70	- 5 52.3	2.269	3.275	1.9	20.8
9 8	22 43.19	-20 7.5	1.545	2.530	6.1	20.6	9 8	22 43.51	- 6 11.2	2.266	3.270	1.8	20.8
9 18	22 35.27	-20 47.8	1.605	2.551	9.6	20.9	9 18	22 35.66	- 6 29.1	2.292	3.265	5.3	21.0
9 28	22 29.14	-21 6.4	1.689	2.572	13.0	21.2	9 28	22 28.88	- 6 43.0	2.345	3.259	8.5	21.2
10 8	22 25.38	-21 3.8	1.793	2.593	15.9	21.4	10 8	22 23.72	- 6 50.1	2.423	3.254	11.3	21.4
348354	2005 EU ₁₅₅		9 2.8 208°08	1°7/ 1.2 18			357927	2005 WO ₁₄₃		9 2.8 106°22	4°9/28.3 18		
7 30	23 12.26	-10 39.4	2.095	2.961	12.2	21.4	7 30	23 10.83	-21 23.3	2.315	3.192	10.8	20.5
8 9	23 7.10	-11 12.4	2.020	2.957	9.1	21.2	8 9	23 5.85	-22 23.9	2.262	3.201	8.2	20.4
8 19	23 0.11	-11 52.1	1.968	2.954	5.5	21.0	8 19	22 59.24	-23 22.8	2.235	3.210	5.8	20.2
8 29	22 51.88	-12 33.7	1.944	2.950	2.1	20.7	8 29	22 51.59	-24 14.0	2.234	3.218	4.9	20.2
9 8	22 43.22	-13 12.1	1.947	2.946	3.2	20.8	9 8	22 43.67	-24 52.2	2.261	3.226	6.1	20.3
9 18	22 35.01	-13 42.5	1.979	2.941	6.9	21.0	9 18	22 36.25	-25 14.0	2.315	3.235	8.5	20.5
9 28	22 28.07	-14 1.5	2.037	2.937	10.3	21.2	9 28	22 30.09	-25 18.0	2.393	3.243	10.9	20.6
10 8	22 23.05	-14 7.3	2.117	2.932	13.3	21.4	10 8	22 25.69	-25 4.8	2.493	3.251	13.1	20.8
97434	2000 AU ₂₃₄		9 2.8 180°11	1°3/ 4.4 18			168438	1998 VT ₃₉		9 2.8 346°64	8°0/27.3 18		
7 30	23 8.43	- 0 59.4	2.701	3.531	10.9	20.0	7 30	23 10.88	-23 55.0	1.404	2.304	15.0	18.8
8 9	23 3.87	- 1 16.2	2.619	3.532	8.3	19.8	8 9	23 6.97	-25 5.7	1.348	2.296	11.8	18.6
8 19	22 57.96	- 1 43.4	2.562	3.533	5.5	19.6	8 19	23 0.42	-26 12.8	1.314	2.289	9.0	18.4
8 29	22 51.15	- 2 18.9	2.531	3.533	2.5	19.4	8 29	22 52.06	-27 5.9	1.302	2.282	8.0	18.3
9 8	22 44.03	- 2 59.4	2.529	3.532	1.8	19.4	9 8	22 43.14	-27 36.0	1.314	2.277	9.8	18.4
9 18	22 37.22	- 3 41.3	2.557	3.532	4.6	19.6	9 18	22 34.98	-27 38.2	1.348	2.273	12.9	18.6
9 28	22 31.32	- 4 20.5	2.612	3.531	7.5	19.8	9 28	22 28.81	-27 11.6	1.404	2.269	16.3	18.8
10 8	22 26.82	- 4 53.8	2.693	3.530	10.1	19.9	10 8	22 25.38	-26 19.5	1.477	2.267	19.3	19.0
246743	2009 BT ₇₉		9 2.8 156°55	1°3/ 1.4 18			264252	4205 T ₋₂		9 2.8 6°47	4°8/31.5 17		
7 30	23 12.01	- 9 34.0	2.193	3.054	11.9	21.4	7 30	23 8.97	-15 38.0	0.794	1.721	20.4	19.1
8 9	23 6.78	-10 9.1	2.124	3.059	8.8	21.2	8 9	23 6.56	-15 49.4	0.753	1.721	15.3	18.8
8 19	22 59.84	-10 51.2	2.079	3.064	5.3	21.0	8 19	23 0.56	-16 4.9	0.728	1.722	9.6	18.5
8 29	22 51.79	-11 35.7	2.062	3.068	1.9	20.7	8 29	22 52.15	-16 15.2	0.721	1.726	5.1	18.3
9 8	22 43.39	-12 17.7	2.073	3.072	2.9	20.8	9 8	22 43.13	-16 11.0	0.734	1.733	6.9	18.4
9 18	22 35.45	-12 52.7	2.112	3.076	6.4	21.1	9 18	22 35.39	-15 47.1	0.767	1.741	12.3	18.8
9 28	22 28.76	-13 17.1	2.178	3.079	9.7	21.3	9 28	22 30.48	-15 2.2	0.818	1.752	17.5	19.1
10 8	22 23.87	-13 29.1	2.268	3.082	12.6	21.5	10 8	22 29.16	-13 58.5	0.885	1.764	21.9	19.4
449078	2012 HT ₄₀		9 2.8 247°60	5°3/ 9.7 18			505798	2015 BH ₃₃₂		9 2.8 91°07	1°7/ 4.0 17		
7 30	23 7.44	+13 25.2	2.736	3.490	12.6	2							

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
399035	2013 <i>HZ</i> ₂₃	9 2.8 337°50	4.7/28.9	18			76062	2000 <i>DB</i> ₇₀	9 2.8 95°10	0.7/ 2.1	18		
7 30	23 11.49	-20 45.2	2.213	3.091	11.2	20.5	7 30	23 9.81	-6 26.9	1.913	2.777	13.3	19.2
8 9	23 6.47	-21 31.8	2.150	3.090	8.5	20.3	8 9	23 5.37	-7 11.5	1.848	2.784	9.9	19.0
8 19	22 59.69	-22 17.2	2.112	3.089	5.9	20.1	8 19	22 59.10	-8 7.2	1.806	2.790	6.0	18.8
8 29	22 51.76	-22 55.7	2.100	3.089	4.7	20.1	8 29	22 51.62	-9 8.8	1.789	2.797	1.9	18.5
9 8	22 43.50	-23 21.9	2.116	3.088	5.9	20.1	9 8	22 43.75	-10 10.2	1.801	2.803	2.6	18.6
9 18	22 35.74	-23 32.4	2.158	3.087	8.5	20.3	9 18	22 36.40	-11 5.3	1.839	2.809	6.6	18.9
9 28	22 29.27	-23 25.9	2.225	3.087	11.2	20.5	9 28	22 30.38	-11 49.2	1.904	2.816	10.3	19.1
10 8	22 24.66	-23 2.8	2.314	3.086	13.6	20.7	10 8	22 26.31	-12 18.9	1.992	2.822	13.5	19.3
509466	2007 <i>RC</i> ₁₆₅	9 2.8 343°45	2.0/ 4.5	16			330579	2008 <i>CK</i> ₉₀	9 2.8 222°61	0.4/ 2.4	17		
7 30	23 8.83	+ 0 4.8	1.669	2.520	15.5	21.6	7 30	23 11.94	- 4 58.9	1.635	2.500	15.1	21.7
8 9	23 4.96	- 0 16.3	1.594	2.518	12.0	21.3	8 9	23 7.40	- 5 50.4	1.559	2.494	11.4	21.4
8 19	22 59.01	- 0 55.2	1.541	2.515	7.9	21.1	8 19	23 0.60	- 6 57.6	1.504	2.488	7.0	21.2
8 29	22 51.61	- 1 49.0	1.511	2.513	3.7	20.8	8 29	22 52.17	- 8 14.9	1.474	2.481	2.2	20.9
9 8	22 43.67	- 2 51.8	1.508	2.511	2.6	20.8	9 8	22 43.12	- 9 34.4	1.471	2.474	2.8	20.9
9 18	22 36.21	- 3 56.7	1.531	2.510	6.6	21.0	9 18	22 34.55	-10 47.8	1.495	2.467	7.7	21.2
9 28	22 30.22	- 4 56.6	1.579	2.508	10.8	21.3	9 28	22 27.54	-11 48.1	1.544	2.459	12.1	21.4
10 8	22 26.39	- 5 45.5	1.649	2.507	14.5	21.5	10 8	22 22.87	-12 30.9	1.615	2.451	15.8	21.6
436595	2011 <i>KK</i> ₃	9 2.8 99°60	0.6/ 2.2	18			74284	1998 <i>SV</i> ₁₃₀	9 2.8 245°67	2.6/31.4	18		
7 30	23 11.01	- 5 41.6	1.754	2.619	14.3	20.7	7 30	23 13.66	-13 46.3	2.183	3.050	11.7	19.5
8 9	23 6.36	- 6 32.1	1.695	2.630	10.6	20.5	8 9	23 8.21	-14 19.1	2.098	3.036	8.7	19.3
8 19	22 59.72	- 7 35.1	1.657	2.642	6.4	20.3	8 19	23 0.88	-14 56.1	2.038	3.022	5.4	19.1
8 29	22 51.80	- 8 45.1	1.646	2.653	2.0	20.0	8 29	22 52.23	-15 32.5	2.004	3.007	2.7	18.9
9 8	22 43.50	- 9 54.8	1.662	2.664	2.7	20.1	9 8	22 43.07	-16 3.2	1.999	2.992	4.0	18.9
9 18	22 35.80	-10 57.4	1.705	2.675	7.0	20.4	9 18	22 34.28	-16 23.7	2.022	2.977	7.3	19.1
9 28	22 29.60	-11 47.5	1.773	2.686	10.9	20.7	9 28	22 26.73	-16 31.3	2.071	2.961	10.7	19.3
10 8	22 25.51	-12 21.8	1.864	2.696	14.2	20.9	10 8	22 21.08	-16 24.7	2.143	2.944	13.6	19.5
379891	2012 <i>HF</i> ₇₁	9 2.8 69°30	1.5/ 1.6	17			407582	2011 <i>AQ</i> ₄₄	9 2.8 252°23	0.7/ 3.6	18		
7 30	23 14.07	- 8 39.7	1.390	2.270	16.4	21.3	7 30	23 8.84	- 3 40.6	2.615	3.457	10.8	21.7
8 9	23 9.00	- 9 17.3	1.340	2.284	12.1	21.1	8 9	23 4.32	- 3 56.4	2.524	3.446	8.2	21.5
8 19	23 1.48	-10 5.8	1.311	2.299	7.3	20.8	8 19	22 58.34	- 4 21.6	2.458	3.434	5.2	21.3
8 29	22 52.38	-10 58.5	1.306	2.314	2.4	20.6	8 29	22 51.37	- 4 53.6	2.418	3.423	2.0	21.0
9 8	22 42.92	-11 47.7	1.327	2.329	3.6	20.7	9 8	22 44.01	- 5 29.1	2.407	3.411	1.7	21.0
9 18	22 34.32	-12 26.4	1.374	2.343	8.4	21.0	9 18	22 36.92	- 6 4.4	2.425	3.399	4.9	21.2
9 28	22 27.68	-12 50.1	1.444	2.358	12.7	21.3	9 28	22 30.75	- 6 35.8	2.471	3.387	8.0	21.4
10 8	22 23.67	-12 56.8	1.534	2.373	16.4	21.6	10 8	22 26.03	- 7 0.1	2.542	3.375	10.8	21.5
512259	2016 <i>ED</i> ₁₂₂	9 2.8 50°82	15°0/29.3	17			258714	2002 <i>GX</i> ₇₇	9 2.8 75°38	2°0/ 1.5	17		
7 30	23 38.82	-40 57.7	1.140	1.995	20.9	19.9	7 30	23 17.78	-10 40.6	1.322	2.203	17.0	20.2
8 9	23 27.61	-41 31.2	1.124	2.020	18.1	19.8	8 9	23 11.84	-11 3.5	1.274	2.219	12.6	20.0
8 19	23 12.57	-41 34.1	1.125	2.047	15.8	19.8	8 19	23 3.25	-11 34.8	1.247	2.235	7.6	19.8
8 29	22 55.75	-40 55.0	1.147	2.073	15.0	19.8	8 29	22 52.99	-12 7.8	1.244	2.251	2.8	19.5
9 8	22 39.67	-39 31.0	1.191	2.101	15.7	19.9	9 8	22 42.38	-12 35.5	1.267	2.267	4.0	19.7
9 18	22 26.36	-37 28.6	1.256	2.128	17.5	20.2	9 18	22 32.80	-12 52.1	1.315	2.283	8.9	20.0
9 28	22 17.04	-34 59.3	1.341	2.156	19.8	20.4	9 28	22 25.40	-12 54.3	1.386	2.299	13.3	20.3
10 8	22 11.94	-32 15.0	1.445	2.184	21.8	20.7	10 8	22 20.86	-12 41.3	1.478	2.315	17.0	20.6
148065	1998 <i>UH</i> ₂₉	9 2.8 343°01	2°8/31.6	18			204393	2004 <i>TY</i> ₂₆₃	9 2.8 16°86	0°0/ 2.5	18		
7 30	23 2.70	- 8 37.7	1.025	1.938	18.2	18.5	7 30	23 9.95	- 6 41.3	1.125	2.018	18.4	19.5
8 9	23 1.46	- 9 43.8	0.960	1.922	13.5	18.2	8 9	23 6.42	- 6 46.0	1.076	2.025	13.8	19.3
8 19	22 57.38	-11 9.3	0.914	1.908	8.2	17.9	8 19	23 0.13	- 7 5.0	1.045	2.034	8.5	19.0
8 29	22 51.18	-12 44.8	0.888	1.896	3.2	17.6	8 29	22 52.02	- 7 33.1	1.036	2.044	2.8	18.7
9 8	22 44.13	-14 17.1	0.885	1.885	5.4	17.7	9 8	22 43.42	- 8 3.1	1.050	2.055	3.0	18.8
9 18	22 37.72	-15 33.5	0.903	1.876	11.1	17.9	9 18	22 35.76	- 8 27.9	1.088	2.067	8.6	19.1
9 28	22 33.40	-16 24.5	0.941	1.868	16.4	18.2	9 28	22 30.24	- 8 41.7	1.147	2.081	13.5	19.5
10 8	22 32.11	-16 45.8	0.995	1.863	21.0	18.5	10 8	22 27.59	- 8 41.4	1.226	2.096	17.6	19.8
86740	2000 <i>GM</i> ₅₁	9 2.8 55°54	0°0/ 2.6	18 R			478831	2012 <i>VF</i> ₃₈	9 2.8 284°48	8°2/25.9	18		
7 30	23 11.14	- 4 20.5	1.384	2.258	16.8	19.5	7 30	23 13.59	-26 39.4	1.755	2.639	13.3	20.5
8 9	23 6.85	- 5 1.0	1.332	2.271	12.6	19.3	8 9	23 8.74	-28 2.4	1.689	2.624	10.7	20.3
8 19	23 0.18	- 5 57.7	1.300	2.285	7.8	19.0	8 19	23 1.47	-29 21.1	1.647	2.609	8.7	20.2
8 29	22 51.97	- 7 4.4	1.292	2.299	2.5	18.7	8 29	22 52.48	-30 25.6	1.629	2.594	8.3	20.1
9 8	22 43.36	- 8 12.7	1.310	2.314	2.7	18.8	9 8	22 42.87	-31 7.5	1.636	2.579	9.9	20.2
9 18	22 35.54	- 9 14.6	1.352	2.328	7.8	19.1	9 18	22 33.82	-31 22.1	1.666	2.564	12.5	20.3
9 28	22 29.57	-10 3.3	1.419	2.343	12.2	19.4	9 28	22 26.47	-31 8.1	1.719	2.549	15.4	20.5
10 8	22 26.11	-10 35.0	1.507	2.358	16.0	19.7	10 8	22 21.63	-30 28.3	1.790	2.534	18.0	20.6
289821	2005 <i>KR</i> ₃	9 2.8 174°16	0°0/ 2.6	18			513780	2013 <i>AN</i> ₃₆	9 2.8 160°43	4°9/28.2	18		
7 30	23 10.41	- 5 9.5	2.258	3.108	12.0	21.8	7 30	23 10.35	-19 18.1	2.138	3.018	11.4	22.0
8 9	23 5.60	- 5 46.0	2.182	3.110	9.0	21.6	8 9	23 5.72	-20 37.1	2.079	3.021	8.6	21.8
8 19	22 59.16	- 6 32.9	2.131	3.112	5.5	21.4	8 19	22 59.31	-21 57.0	2.045	3.023	6.0	21.6
8 29	22 51.62	- 7 26.2	2.107	3.113	1.8	21.1	8 29	22 51.72	-23 10.6	2.038	3.025	4.9	21.6
9 8	22 43.71	- 8 21.1	2.111	3.114	2.0	21.1	9 8	22 43.75	-24 11.3	2.058	3.027	6.3	21.7
9 18	22 36.20	- 9 12.4	2.144	3.115	5.7	21.4	9 18	22 36.25	-24 54.2	2.105	3.029	9.0	21.8
9 28	22 29.83	- 9 55.8	2.204	3.115	9.1	21.6	9 28	22 30.04	-25 16.9	2.177	3.031	11.7	22.0
10 8	22 25.16	-10 28.0	2.288	3.114	12.1	21.8	10 8	22 25.71	-25 19.7	2.269	3.032	14.1	22.2
432782	2011 <i>FY</i> ₅₉	9 2.8 67°93	0°2/ 2.9	16			995951	Ernestopalomba	9 2.8 271°22	1°7/ 4.3	18		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
283236	2010 <i>TT</i> ₁₆₂		9 2.8 263°28	1°8/30.3	18		506867	2007 <i>WF</i> ₆₃		9 2.8 208°70	0°7/3.4	17	
7 30	23 2.99	-15 56.2	4.513	5.378	6.2	20.7	7 30	23 14.35	-3 13.5	1.853	2.700	14.4	22.5
8 9	22 59.46	-16 27.7	4.431	5.369	4.5	20.6	8 9	23 8.98	-3 37.9	1.771	2.695	10.9	22.3
8 19	22 55.14	-17 0.2	4.377	5.359	2.9	20.4	8 19	23 1.49	-4 16.2	1.711	2.689	7.0	22.0
8 29	22 50.30	-17 31.5	4.351	5.349	1.8	20.4	8 29	22 52.50	-5 4.8	1.677	2.682	2.6	21.7
9 8	22 45.29	-17 59.4	4.354	5.339	2.5	20.4	9 8	22 42.92	-5 58.2	1.670	2.674	2.2	21.7
9 18	22 40.43	-18 21.7	4.387	5.330	4.1	20.5	9 18	22 33.78	-6 50.3	1.692	2.666	6.6	22.0
9 28	22 36.09	-18 37.1	4.448	5.320	5.8	20.6	9 28	22 26.06	-7 35.5	1.740	2.657	10.7	22.2
10 8	22 32.55	-18 44.5	4.533	5.310	7.3	20.7	10 8	22 20.51	-8 9.2	1.811	2.648	14.3	22.4
228645	2002 <i>EW</i> ₄₃		9 2.8 121°09	0°5/2.3	17		320110	2007 <i>EE</i> ₁₅₂		9 2.8 254°06	0°9/1.8	18	
7 30	23 13.89	-7 1.7	2.011	2.867	13.1	21.4	7 30	23 8.01	-7 17.4	2.367	3.226	11.2	21.3
8 9	23 8.25	-7 30.0	1.950	2.881	9.7	21.2	8 9	23 3.87	-8 5.7	2.281	3.215	8.4	21.1
8 19	23 0.80	-8 7.3	1.913	2.896	5.9	21.0	8 19	22 58.17	-9 3.5	2.220	3.204	5.1	20.9
8 29	22 52.19	-8 49.3	1.902	2.909	1.9	20.7	8 29	22 51.38	-10 6.5	2.186	3.193	1.6	20.6
9 8	22 43.27	-9 30.8	1.920	2.923	2.4	20.8	9 8	22 44.16	-11 9.5	2.180	3.181	2.5	20.7
9 18	22 34.94	-10 7.0	1.966	2.935	6.3	21.1	9 18	22 37.23	-12 7.3	2.203	3.170	6.0	20.9
9 28	22 28.00	-10 34.1	2.039	2.948	9.9	21.3	9 28	22 31.31	-12 55.4	2.253	3.158	9.3	21.1
10 8	22 23.03	-10 49.6	2.135	2.960	12.9	21.6	10 8	22 26.99	-13 30.7	2.327	3.146	12.1	21.3
329260	1998 <i>SY</i> ₄₀		9 2.8 3°96	1°6/3.9	13	3	162848	2001 <i>DV</i> ₃₁		9 2.8 188°82	1°2/1.7	18	
7 30	23 5.47	-1 45.3	1.028	1.921	19.8	20.3	7 30	23 13.94	-9 45.8	2.027	2.890	12.7	20.4
8 9	23 3.38	-2 1.5	0.972	1.919	15.2	20.0	8 9	23 8.42	-10 8.0	1.954	2.889	9.5	20.2
8 19	22 58.46	-2 41.3	0.934	1.919	9.8	19.7	8 19	23 1.01	-10 37.2	1.904	2.888	5.7	20.0
8 29	22 51.54	-3 39.8	0.915	1.921	4.1	19.4	8 29	22 52.31	-11 9.1	1.881	2.887	2.0	19.7
9 8	22 43.95	-4 48.1	0.919	1.924	3.0	19.3	9 8	22 43.18	-11 38.7	1.885	2.886	2.9	19.8
9 18	22 37.15	-5 55.6	0.945	1.929	8.7	19.7	9 18	22 34.54	-12 1.6	1.918	2.884	6.7	20.0
9 28	22 32.48	-6 52.2	0.991	1.935	14.0	20.0	9 28	22 27.26	-12 14.5	1.977	2.882	10.3	20.2
10 8	22 30.78	-7 30.9	1.057	1.942	18.6	20.3	10 8	22 21.97	-12 15.5	2.060	2.880	13.4	20.4
204578	2005 <i>GX</i> ₁₂		9 2.8 114°21	3°0/30.7	18		217820	2001 <i>DS</i> ₆₈		9 2.8 122°90	0°8/3.5	18	
7 30	23 11.43	-13 36.4	2.026	2.901	12.2	20.3	7 30	23 12.67	-4 46.5	2.395	3.238	11.7	20.1
8 9	23 6.48	-14 33.7	1.969	2.911	9.0	20.1	8 9	23 7.17	-4 42.1	2.320	3.242	8.8	19.9
8 19	22 59.75	-15 35.6	1.936	2.921	5.6	19.9	8 19	23 0.10	-4 45.9	2.269	3.246	5.6	19.7
8 29	22 51.85	-16 36.0	1.929	2.931	3.1	19.8	8 29	22 51.98	-4 55.6	2.245	3.250	2.2	19.5
9 8	22 43.64	-17 28.6	1.951	2.941	4.4	19.9	9 8	22 43.54	-5 8.3	2.250	3.254	1.8	19.4
9 18	22 35.97	-18 8.5	2.000	2.951	7.7	20.1	9 18	22 35.51	-5 20.8	2.284	3.258	5.2	19.7
9 28	22 29.66	-18 32.7	2.074	2.960	10.8	20.3	9 28	22 28.61	-5 30.2	2.346	3.262	8.4	19.9
10 8	22 25.27	-18 40.3	2.170	2.969	13.6	20.5	10 8	22 23.38	-5 33.8	2.432	3.265	11.2	20.1
284944	2010 <i>EQ</i> ₃₄		9 2.8 194°71	3°2/5.6	18		418961	2009 <i>GH</i>		9 2.8 155°71	1°6/1.6	17	
7 30	23 14.10	+2 24.3	2.079	2.898	14.0	20.7	7 30	23 18.74	-10 21.6	1.614	2.481	15.2	21.2
8 9	23 8.55	+2 38.1	1.996	2.897	11.1	20.5	8 9	23 12.36	-10 42.9	1.549	2.487	11.3	20.9
8 19	23 1.11	+2 37.5	1.935	2.895	7.8	20.3	8 19	23 3.57	-11 11.9	1.507	2.492	6.9	20.7
8 29	22 52.34	+2 23.5	1.899	2.892	4.5	20.1	8 29	22 53.17	-11 43.2	1.490	2.497	2.4	20.4
9 8	22 43.08	+1 58.8	1.892	2.890	3.4	20.0	9 8	22 42.28	-12 10.6	1.501	2.501	3.5	20.5
9 18	22 34.21	+1 27.3	1.912	2.887	6.0	20.2	9 18	22 32.14	-12 28.9	1.539	2.505	8.0	20.8
9 28	22 26.62	+0 54.0	1.960	2.883	9.4	20.4	9 28	22 23.84	-12 34.7	1.602	2.508	12.2	21.1
10 8	22 20.97	+0 23.7	2.031	2.879	12.6	20.6	10 8	22 18.11	-12 26.7	1.687	2.511	15.8	21.3
240937	2006 <i>GD</i> ₁		9 2.8 156°23	7°3/27.2	16		186300	2002 <i>CV</i> ₁₀₀		9 2.8 153°93	0°7/2.0	18	
7 30	23 18.79	-28 8.7	2.056	2.923	12.4	21.3	7 30	23 9.21	-7 26.8	2.509	3.363	10.8	21.0
8 9	23 12.04	-29 4.3	2.005	2.929	9.9	21.2	8 9	23 4.57	-8 4.4	2.437	3.368	8.0	20.8
8 19	23 3.17	-29 52.4	1.978	2.934	7.9	21.1	8 19	22 58.48	-8 49.7	2.390	3.373	4.9	20.6
8 29	22 52.97	-30 25.5	1.976	2.939	7.3	21.1	8 29	22 51.45	-9 38.9	2.370	3.377	1.5	20.4
9 8	22 42.47	-30 38.0	2.002	2.943	8.5	21.1	9 8	22 44.12	-10 27.5	2.380	3.381	2.2	20.5
9 18	22 32.72	-30 27.7	2.053	2.947	10.7	21.3	9 18	22 37.15	-11 11.3	2.418	3.385	5.5	20.7
9 28	22 24.67	-29 55.1	2.127	2.950	13.1	21.5	9 28	22 31.21	-11 46.7	2.484	3.388	8.5	20.9
10 8	22 18.93	-29 3.2	2.222	2.953	15.3	21.6	10 8	22 26.78	-12 11.3	2.574	3.392	11.1	21.1
436262	2010 <i>CB</i> ₁₁		9 2.8 53°15	5°6/29.2	16		2344	Xizang		9 2.8 359°52	2°7/31.6	18	
7 30	23 13.57	-19 55.9	1.609	2.497	14.1	20.6	7 30	23 7.23	-10 57.2	1.345	2.242	15.8	14.9
8 9	23 8.38	-20 55.5	1.569	2.515	10.6	20.5	8 9	23 4.19	-11 46.2	1.285	2.239	11.7	14.6
8 19	23 0.99	-21 53.7	1.552	2.533	7.3	20.3	8 19	22 58.73	-12 45.6	1.246	2.237	7.1	14.3
8 29	22 52.26	-22 42.2	1.560	2.551	5.6	20.3	8 29	22 51.61	-13 47.8	1.230	2.236	3.1	14.1
9 8	22 43.28	-23 14.1	1.594	2.569	7.1	20.4	9 8	22 43.94	-14 43.9	1.238	2.236	4.8	14.2
9 18	22 35.16	-23 25.7	1.652	2.588	10.2	20.6	9 18	22 36.94	-15 26.3	1.271	2.238	9.3	14.5
9 28	22 28.86	-23 16.0	1.734	2.607	13.3	20.8	9 28	22 31.72	-15 49.9	1.326	2.240	13.7	14.7
10 8	22 24.94	-22 46.8	1.836	2.626	16.0	21.1	10 8	22 29.03	-15 52.7	1.400	2.244	17.4	15.0
439257	2012 <i>TL</i> ₂₉₇		9 2.8 104°00	8°3/14.1	18		218408	2004 <i>RO</i> ₄₈		9 2.8 313°87	0°2/2.5	18	
7 30	23 8.71	+22 52.2	2.002	2.710	18.0	20.7	7 30	23 5.89	-3 36.3	2.071	2.929	12.6	20.3
8 9	23 4.63	+22 28.0	1.923	2.721	15.7	20.6	8 9	23 2.48	-4 45.2	1.990	2.923	9.5	20.0
8 19	22 58.71	+21 32.3	1.861	2.731	13.1	20.4	8 19	22 57.39	-6 8.8	1.933	2.916	5.8	19.8
8 29	22 51.54	+20 3.9	1.820	2.742	10.6	20.3	8 29	22 51.14	-7 42.0	1.903	2.910	1.9	19.5
9 8	22 43.99	+18 6.0	1.804	2.753	8.7	20.2	9 8	22 44.45	-9 17.9	1.901	2.904	2.3	19.6
9 18	22 36.94	+15 45.5	1.814	2.763	8.5	20.2	9 18	22 38.09	-10 49.1	1.927	2.898	6.3	19.8
9 28	22 31.25	+13 12.9	1.852	2.773	10.0	20.3	9 28	22 32.86	-12 9.1	1.980	2.892	9.9	20.0
10 8	22 27.51	+10 39.8	1.917	2.783	12.4	20.5	10 8	22 29.35	-13 13.2	2.056	2.887	13.1	20.2
337280	2000 <i>VL</i> ₆₀		9 2.8 266°25	2°7/5.3	18		295854	2008 <i>VX</i> ₆₇		9 2.8 106°59	6°0/9.4	17	
7 30	23 10.00	+2 5.3	1.807	2.643	1								

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
306259	2011 <i>RT</i> ₃		9 2.8 17 ^o 34	2 ^o 0/ 4.7	18		39086	2000 <i>VG</i> ₄₁		9 2.8 174 ^o 09	1 ^o 2/ 3.9	18	
7 30	23 8.53	+ 0 47.9	1.801	2.646	14.8	20.9	7 30	23 12.22	- 2 15.3	1.892	2.739	14.1	19.9
8 9	23 4.61	+ 0 19.3	1.728	2.647	11.5	20.7	8 9	23 7.29	- 2 33.6	1.817	2.740	10.8	19.7
8 19	22 58.77	- 0 26.9	1.675	2.648	7.6	20.5	8 19	23 0.41	- 3 5.5	1.765	2.741	6.9	19.4
8 29	22 51.60	- 1 27.5	1.648	2.649	3.6	20.2	8 29	22 52.19	- 3 48.0	1.738	2.742	2.8	19.2
9 8	22 43.97	- 2 36.9	1.647	2.650	2.4	20.2	9 8	22 43.49	- 4 36.1	1.738	2.743	2.2	19.1
9 18	22 36.80	- 3 48.1	1.673	2.652	6.2	20.4	9 18	22 35.28	- 5 24.1	1.767	2.743	6.2	19.4
9 28	22 30.99	- 4 54.3	1.725	2.653	10.1	20.7	9 28	22 28.44	- 6 6.5	1.821	2.743	10.1	19.6
10 8	22 27.19	- 5 49.7	1.800	2.655	13.6	20.9	10 8	22 23.63	- 6 39.2	1.899	2.743	13.5	19.9
511088	2013 <i>TT</i> ₁₁₃		9 2.8 333 ^o 19	4 ^o 1/31.0	18		267667	2002 <i>TK</i> ₂₅₇		9 2.8 298 ^o 78	3 ^o 3/31.4	18	
7 30	23 8.74	-13 10.0	1.116	2.023	17.4	20.7	7 30	23 11.98	-12 2.7	1.410	2.299	15.7	20.2
8 9	23 5.96	-13 57.7	1.049	2.007	13.1	20.4	8 9	23 8.04	-12 51.5	1.325	2.274	11.8	19.9
8 19	23 0.18	-14 55.8	1.000	1.992	8.2	20.1	8 19	23 1.38	-13 51.3	1.260	2.249	7.3	19.6
8 29	22 52.19	-15 55.3	0.973	1.978	4.3	19.8	8 29	22 52.64	-14 54.6	1.220	2.225	3.5	19.3
9 8	22 43.30	-16 45.2	0.968	1.964	6.3	19.9	9 8	22 42.92	-15 52.2	1.204	2.200	5.3	19.4
9 18	22 35.07	-17 16.6	0.986	1.952	11.4	20.1	9 18	22 33.58	-16 35.7	1.213	2.176	10.2	19.6
9 28	22 28.99	-17 23.9	1.024	1.942	16.4	20.4	9 28	22 26.00	-16 58.8	1.244	2.151	14.9	19.8
10 8	22 26.03	-17 6.0	1.080	1.932	20.8	20.6	10 8	22 21.21	-16 59.4	1.295	2.128	19.1	20.0
62222	2000 <i>SB</i> ₆₇		9 2.8 19 ^o 96	9 ^o 4/28.3	18		521750	2015 <i>RF</i> ₂₇₄		9 2.8 304 ^o 41	1 ^o 8/ 4.6	17	
7 30	23 19.87	-28 24.3	1.328	2.216	16.5	18.7	7 30	23 8.26	- 0 20.9	2.102	2.943	13.1	21.7
8 9	23 13.68	-29 7.3	1.284	2.220	13.2	18.5	8 9	23 4.25	- 0 36.0	2.016	2.934	10.2	21.5
8 19	23 4.51	-29 39.0	1.260	2.225	10.5	18.4	8 19	22 58.52	- 1 5.1	1.953	2.925	6.7	21.3
8 29	22 53.46	-29 49.3	1.260	2.231	9.4	18.4	8 29	22 51.58	- 1 45.7	1.915	2.916	3.2	21.1
9 8	22 42.10	-29 31.4	1.282	2.238	10.8	18.5	9 8	22 44.16	- 2 33.9	1.904	2.908	2.2	21.0
9 18	22 31.97	-28 43.9	1.328	2.246	13.6	18.7	9 18	22 37.08	- 3 24.6	1.921	2.899	5.6	21.2
9 28	22 24.34	-27 29.9	1.394	2.254	16.7	18.9	9 28	22 31.13	- 4 12.3	1.965	2.891	9.2	21.4
10 8	22 19.88	-25 55.3	1.479	2.262	19.5	19.1	10 8	22 26.94	- 4 52.4	2.033	2.883	12.4	21.6
301638	Kressin		9 2.8 25 ^o 27	3 ^o 5/ 6.2	17		511569	2014 <i>WY</i> ₄₅₃		9 2.8 206 ^o 60	0 ^o 6/ 3.3	17	
7 30	23 3.32	+ 5 54.6	1.145	2.007	20.3	18.9	7 30	23 11.83	- 2 23.4	1.610	2.468	15.7	21.5
8 9	23 1.33	+ 4 58.7	1.102	2.028	15.9	18.7	8 9	23 7.36	- 3 7.7	1.535	2.465	11.9	21.2
8 19	22 56.93	+ 3 31.5	1.078	2.050	11.0	18.5	8 19	23 0.63	- 4 9.7	1.482	2.462	7.5	21.0
8 29	22 51.00	+ 1 39.2	1.075	2.073	5.9	18.3	8 29	22 52.31	- 5 24.8	1.453	2.459	2.7	20.7
9 8	22 44.71	- 0 26.6	1.095	2.098	3.6	18.3	9 8	22 43.38	- 6 45.3	1.451	2.455	2.4	20.6
9 18	22 39.26	- 2 32.4	1.140	2.124	7.4	18.6	9 18	22 34.96	- 8 3.0	1.476	2.452	7.2	20.9
9 28	22 35.67	- 4 25.7	1.208	2.152	12.0	18.9	9 28	22 28.12	- 9 10.1	1.526	2.447	11.7	21.2
10 8	22 34.54	- 5 57.7	1.298	2.180	16.0	19.2	10 8	22 23.62	-10 1.3	1.598	2.443	15.5	21.4
516942	2012 <i>BE</i> ₇₁		9 2.8 209 ^o 59	2 ^o 5/30.7	18		282041	1998 <i>RT</i> ₅₄		9 2.8 6 ^o 84	0 ^o 0/ 2.6	18	
7 30	23 8.32	-12 53.8	2.498	3.368	10.4	21.8	7 30	23 17.35	-10 58.1	1.114	2.006	18.7	18.7
8 9	23 4.01	-13 55.4	2.424	3.364	7.6	21.6	8 9	23 12.11	-10 0.0	1.058	2.007	14.1	18.4
8 19	22 58.20	-15 2.1	2.375	3.361	4.7	21.4	8 19	23 3.76	- 9 6.5	1.022	2.010	8.7	18.2
8 29	22 51.40	-16 9.0	2.354	3.356	2.5	21.3	8 29	22 53.34	- 8 15.6	1.007	2.015	2.9	17.8
9 8	22 44.23	-17 10.6	2.362	3.352	3.8	21.3	9 8	22 42.37	- 7 24.9	1.017	2.021	3.1	17.9
9 18	22 37.38	-18 2.1	2.398	3.348	6.7	21.5	9 18	22 32.45	- 6 33.0	1.050	2.030	8.8	18.2
9 28	22 31.55	-18 40.3	2.461	3.343	9.5	21.7	9 28	22 25.00	- 5 38.8	1.106	2.040	13.9	18.6
10 8	22 27.26	-19 3.3	2.547	3.338	12.0	21.9	10 8	22 20.80	- 4 41.1	1.182	2.052	18.2	18.9
374862	2006 <i>VV</i> ₃₅		9 2.8 162 ^o 52	0 ^o 0/ 2.6	17		262966	2007 <i>DO</i> ₁₀₁		9 2.8 129 ^o 22	3 ^o 4/ 6.9	18	
7 30	23 13.74	- 5 9.9	1.824	2.680	14.2	22.1	7 30	23 10.56	+ 5 37.4	2.701	3.495	11.8	20.3
8 9	23 8.44	- 5 44.6	1.755	2.685	10.7	21.8	8 9	23 5.49	+ 5 44.9	2.625	3.506	9.5	20.1
8 19	23 1.10	- 6 31.6	1.707	2.689	6.6	21.6	8 19	22 59.05	+ 5 39.1	2.571	3.517	6.9	20.0
8 29	22 52.37	- 7 26.4	1.686	2.693	2.1	21.3	8 29	22 51.71	+ 5 20.8	2.545	3.528	4.4	19.9
9 8	22 43.19	- 8 22.8	1.693	2.696	2.4	21.4	9 8	22 44.09	+ 4 52.5	2.546	3.538	3.4	19.8
9 18	22 34.55	- 9 14.7	1.727	2.699	6.8	21.6	9 18	22 36.81	+ 4 17.2	2.577	3.548	4.9	19.9
9 28	22 27.39	- 9 56.8	1.787	2.701	10.7	21.9	9 28	22 30.50	+ 3 39.0	2.635	3.557	7.4	20.1
10 8	22 22.38	-10 25.6	1.871	2.703	14.1	22.1	10 8	22 25.63	+ 3 1.9	2.719	3.566	9.8	20.3
439644	2014 <i>GT</i> ₃₉		9 2.8 24 ^o 14	0 ^o 5/ 3.3	18		522990	2016 <i>PY</i> ₁₁₉		9 2.8 279 ^o 77	6 ^o 1/28.9	18	
7 30	23 8.68	- 3 20.4	1.717	2.579	14.6	21.1	7 30	23 15.99	-21 30.6	1.672	2.555	13.9	20.8
8 9	23 4.78	- 3 54.4	1.650	2.583	11.1	20.8	8 9	23 10.54	-22 21.4	1.602	2.543	10.7	20.6
8 19	22 58.88	- 4 43.0	1.605	2.586	6.9	20.6	8 19	23 2.63	-23 11.0	1.555	2.532	7.6	20.4
8 29	22 51.65	- 5 41.8	1.584	2.590	2.5	20.3	8 29	22 52.98	-23 51.0	1.533	2.520	6.1	20.3
9 8	22 43.98	- 6 44.6	1.590	2.594	2.2	20.3	9 8	22 42.72	-24 14.0	1.536	2.509	7.7	20.4
9 18	22 36.83	- 7 44.5	1.623	2.599	6.6	20.6	9 18	22 33.08	-24 15.4	1.565	2.497	10.9	20.5
9 28	22 31.12	- 8 35.4	1.681	2.604	10.7	20.9	9 28	22 25.22	-23 53.7	1.617	2.486	14.3	20.7
10 8	22 27.49	- 9 13.0	1.761	2.609	14.2	21.1	10 8	22 19.93	-23 10.9	1.689	2.474	17.4	20.9
472191	2014 <i>DW</i> ₁₂₈		9 2.8 262 ^o 70	0 ^o 8/ 2.0	18		256843	2008 <i>CH</i> ₁₆₂		9 2.8 252 ^o 60	0 ^o 2/ 2.6	18	
7 30	23 10.53	- 6 49.7	1.830	2.696	13.7	21.6	7 30	23 10.64	- 3 48.6	1.482	2.350	16.2	20.4
8 9	23 6.20	- 7 32.5	1.748	2.685	10.3	21.3	8 9	23 6.67	- 4 44.4	1.408	2.345	12.2	20.1
8 19	22 59.82	- 8 27.5	1.689	2.674	6.3	21.1	8 19	23 0.31	- 5 58.8	1.355	2.340	7.6	19.9
8 29	22 52.00	- 9 29.7	1.656	2.663	2.0	20.8	8 29	22 52.24	- 7 25.8	1.327	2.334	2.5	19.5
9 8	22 43.59	-10 32.5	1.650	2.652	2.8	20.8	9 8	22 43.50	- 8 56.6	1.325	2.328	2.8	19.5
9 18	22 35.57	-11 29.3	1.671	2.641	7.2	21.1	9 18	22 35.28	-10 21.5	1.348	2.322	8.0	19.8
9 28	22 28.92	-12 14.4	1.718	2.630	11.2	21.3	9 28	22 28.73	-11 32.1	1.396	2.316	12.7	20.1
10 8	22 24.36	-12 44.2	1.787	2.618	14.7	21.5	10 8	22 24.66	-12 23.3	1.466			

EPHEMERIDES

9 2.8

9 2.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
476662	2008 <i>TH</i> ₈		9 2.8 358°25	5°5/30.5	18		388753	2007 <i>WN</i> ₂₂		9 2.8 28°36	4°6/30.6	18	
7 30	23 3.59	-15 53.8	0.896	1.824	18.6	19.6	7 30	23 14.70	-17 45.7	1.535	2.422	14.7	20.2
8 9	23 2.40	-16 32.4	0.847	1.815	13.9	19.3	8 9	23 9.46	-18 17.2	1.482	2.429	11.0	20.0
8 19	22 58.07	-17 16.5	0.815	1.809	9.0	19.0	8 19	23 1.85	-18 49.4	1.452	2.436	7.2	19.8
8 29	22 51.53	-17 55.6	0.803	1.806	5.6	18.9	8 29	22 52.71	-19 15.1	1.445	2.444	4.6	19.6
9 8	22 44.31	-18 18.9	0.811	1.806	7.6	19.0	9 8	22 43.21	-19 28.0	1.465	2.452	6.1	19.8
9 18	22 38.02	-18 19.2	0.839	1.808	12.4	19.2	9 18	22 34.53	-19 24.3	1.510	2.461	9.6	20.0
9 28	22 34.12	-17 53.4	0.886	1.812	17.3	19.5	9 28	22 27.73	-19 2.5	1.578	2.470	13.2	20.2
10 8	22 33.42	-17 3.1	0.948	1.820	21.5	19.8	10 8	22 23.46	-18 24.0	1.667	2.480	16.4	20.5
263183	2007 <i>XK</i> ₅₄		9 2.8 140°97	1°0/ 3.5	17		435172	2007 <i>PL</i> ₄₆		9 2.8 2°91	0°3/ 3.1	18	
7 30	23 16.36	- 3 56.3	1.569	2.425	16.1	20.9	7 30	23 7.20	- 3 42.1	1.360	2.239	16.7	20.7
8 9	23 10.70	- 4 1.7	1.502	2.431	12.2	20.6	8 9	23 4.17	- 4 15.9	1.296	2.238	12.7	20.5
8 19	23 2.65	- 4 20.7	1.457	2.436	7.8	20.4	8 19	22 58.78	- 5 7.5	1.253	2.238	7.9	20.2
8 29	22 52.97	- 4 49.8	1.436	2.441	3.0	20.1	8 29	22 51.75	- 6 11.7	1.232	2.238	2.8	19.9
9 8	22 42.77	- 5 23.7	1.441	2.446	2.5	20.1	9 8	22 44.16	- 7 20.3	1.235	2.240	2.6	19.9
9 18	22 33.25	- 5 56.6	1.474	2.450	7.2	20.4	9 18	22 37.19	- 8 24.8	1.264	2.243	7.8	20.2
9 28	22 25.49	- 6 23.0	1.531	2.454	11.6	20.7	9 28	22 31.94	- 9 17.5	1.316	2.246	12.4	20.5
10 8	22 20.25	- 6 39.0	1.611	2.458	15.3	20.9	10 8	22 29.15	- 9 53.4	1.388	2.251	16.4	20.8
431430	2007 <i>MV</i> ₁₀		9 2.8 11°17	5°9/28.9	18		33541	1999 <i>JF</i> ₆		9 2.8 37°25	5°4/29.5	18	
7 30	23 3.12	-14 51.3	1.024	1.945	17.4	19.2	7 30	23 10.80	-16 17.2	1.313	2.213	15.8	17.8
8 9	23 1.63	-16 28.3	0.984	1.949	12.8	19.0	8 9	23 6.83	-17 36.9	1.272	2.225	11.7	17.6
8 19	22 57.36	-18 12.7	0.964	1.956	8.3	18.8	8 19	23 0.34	-19 0.2	1.251	2.238	7.7	17.4
8 29	22 51.25	-19 51.3	0.965	1.965	5.9	18.7	8 29	22 52.23	-20 16.7	1.254	2.252	5.4	17.3
9 8	22 44.64	-21 10.8	0.989	1.976	8.3	18.8	9 8	22 43.73	-21 16.6	1.282	2.266	7.3	17.4
9 18	22 38.94	-22 2.1	1.034	1.989	12.5	19.1	9 18	22 36.13	-21 53.4	1.333	2.280	11.0	17.7
9 28	22 35.35	-22 21.4	1.098	2.003	16.7	19.4	9 28	22 30.51	-22 4.6	1.406	2.296	14.8	18.0
10 8	22 34.55	-22 10.1	1.179	2.019	20.2	19.7	10 8	22 27.54	-21 51.5	1.498	2.311	18.0	18.2
433503	2013 <i>WP</i> ₄₆		9 2.8 339°54	13°0/22.8	18		101255	1998 <i>SY</i> ₉₃		9 2.8 324°35	0°7/ 2.3	18	
7 30	23 13.76	-33 1.7	1.242	2.137	16.9	20.0	7 30	23 8.09	- 6 19.3	1.217	2.108	17.5	19.6
8 9	23 9.77	-34 54.6	1.199	2.129	14.5	19.9	8 9	23 5.33	- 6 52.0	1.140	2.089	13.2	19.3
8 19	23 2.51	-36 33.6	1.176	2.122	13.1	19.8	8 19	22 59.80	- 7 42.3	1.082	2.071	8.2	18.9
8 29	22 52.99	-37 43.9	1.174	2.115	13.3	19.7	8 29	22 52.18	- 8 44.7	1.047	2.054	2.6	18.5
9 8	22 42.78	-38 15.1	1.192	2.109	15.1	19.8	9 8	22 43.65	- 9 50.1	1.034	2.038	3.5	18.6
9 18	22 33.62	-38 3.3	1.229	2.104	17.7	20.0	9 18	22 35.59	-10 49.0	1.045	2.022	9.2	18.8
9 28	22 26.97	-37 11.0	1.284	2.100	20.4	20.2	9 28	22 29.44	-11 32.9	1.078	2.008	14.6	19.1
10 8	22 23.68	-35 45.5	1.354	2.096	22.9	20.4	10 8	22 26.18	-11 56.4	1.130	1.994	19.2	19.3
71949	2000 <i>WT</i> ₉₁		9 2.8 97°19	0°7/ 2.3	18		438292	2006 <i>BS</i> ₂₂		9 2.8 155°18	1°5/ 1.4	18	
7 30	23 14.59	- 6 55.9	1.415	2.288	16.5	19.5	7 30	23 11.68	- 8 38.5	1.906	2.773	13.2	21.9
8 9	23 9.56	- 7 26.2	1.355	2.295	12.4	19.3	8 9	23 6.89	- 9 31.0	1.839	2.777	9.8	21.7
8 19	23 2.02	- 8 9.4	1.316	2.302	7.6	19.0	8 19	23 0.17	-10 33.2	1.795	2.781	5.9	21.5
8 29	22 52.78	- 9 0.0	1.301	2.308	2.4	18.8	8 29	22 52.17	-11 39.3	1.778	2.784	2.1	21.2
9 8	22 43.04	- 9 50.1	1.312	2.315	3.1	18.8	9 8	22 43.75	-12 42.7	1.788	2.788	3.2	21.3
9 18	22 34.05	-10 32.8	1.348	2.321	8.1	19.1	9 18	22 35.83	-13 37.2	1.826	2.791	7.2	21.6
9 28	22 26.97	-11 2.5	1.408	2.327	12.7	19.4	9 28	22 29.30	-14 18.2	1.890	2.793	10.8	21.8
10 8	22 22.53	-11 16.2	1.490	2.333	16.5	19.7	10 8	22 24.78	-14 43.2	1.976	2.796	14.0	22.0
204557	2005 <i>EQ</i> ₂₆₂		9 2.8 244°11	1°4/ 4.2	18		73708	1992 <i>DV</i>		9 2.8 187°84	0°6/ 2.1	18	
7 30	23 11.00	- 1 2.8	2.165	3.002	12.9	21.7	7 30	23 10.75	- 6 29.9	2.605	3.453	10.7	20.6
8 9	23 6.32	- 1 24.8	2.072	2.988	10.0	21.5	8 9	23 5.77	- 7 19.3	2.525	3.452	8.0	20.5
8 19	22 59.85	- 2 0.4	2.001	2.974	6.6	21.3	8 19	22 59.32	- 8 17.5	2.469	3.451	4.8	20.3
8 29	22 52.08	- 2 47.3	1.957	2.959	2.9	21.0	8 29	22 51.87	- 9 20.5	2.442	3.449	1.5	20.0
9 8	22 43.76	- 3 40.9	1.940	2.944	2.1	20.9	9 8	22 44.07	-10 23.6	2.444	3.446	2.1	20.1
9 18	22 35.73	- 4 36.3	1.952	2.928	5.7	21.1	9 18	22 36.58	-11 22.0	2.476	3.442	5.4	20.3
9 28	22 28.81	- 5 27.8	1.991	2.912	9.4	21.3	9 28	22 30.07	-12 11.6	2.536	3.438	8.5	20.5
10 8	22 23.69	- 6 10.8	2.054	2.895	12.7	21.5	10 8	22 25.06	-12 49.6	2.621	3.433	11.1	20.7
97841	2000 <i>PZ</i> ₂₀		9 2.8 320°50	1°2/ 1.9	18		182196	2000 <i>UT</i> ₄₅		9 2.8 358°19	3°2/ 5.9	18	
7 30	23 7.36	- 5 57.7	1.120	2.016	18.3	19.1	7 30	23 6.67	+ 3 27.4	1.724	2.564	15.6	19.2
8 9	23 4.96	- 6 49.5	1.046	1.998	13.8	18.8	8 9	23 3.38	+ 3 15.0	1.649	2.561	12.3	19.0
8 19	22 59.66	- 8 2.6	0.991	1.981	8.5	18.5	8 19	22 58.13	+ 2 42.8	1.594	2.560	8.6	18.7
8 29	22 52.14	- 9 30.1	0.957	1.965	2.7	18.1	8 29	22 51.53	+ 1 52.8	1.563	2.559	4.9	18.5
9 8	22 43.66	-11 0.7	0.947	1.950	4.0	18.1	9 8	22 44.43	+ 0 50.1	1.558	2.559	3.4	18.4
9 18	22 35.69	-12 22.3	0.959	1.935	10.0	18.4	9 18	22 37.77	- 0 19.0	1.579	2.559	6.3	18.6
9 28	22 29.76	-13 24.3	0.992	1.921	15.6	18.7	9 28	22 32.48	- 1 26.7	1.625	2.560	10.1	18.8
10 8	22 26.88	-14 1.0	1.044	1.909	20.4	18.9	10 8	22 29.22	- 2 26.6	1.694	2.562	13.7	19.1
340481	2006 <i>HO</i> ₆₇		9 2.8 143°19	1°6/ 1.4	18		447410	2006 <i>BB</i> ₁₇₇		9 2.8 350°88	3°4/29.9	18	
7 30	23 12.49	- 9 55.7	1.876	2.745	13.3	21.4	7 30	23 7.28	-14 13.9	2.040	2.922	11.8	20.8
8 9	23 7.50	-10 32.4	1.809	2.748	9.8	21.2	8 9	23 3.57	-15 25.3	1.974	2.920	8.7	20.6
8 19	23 0.55	-11 17.0	1.766	2.751	6.0	21.0	8 19	22 58.13	-16 42.2	1.932	2.918	5.5	20.4
8 29	22 52.29	-12 4.4	1.748	2.754	2.2	20.8	8 29	22 51.50	-17 57.8	1.916	2.916	3.4	20.3
9 8	22 43.60	-12 48.4	1.757	2.757	3.3	20.9	9 8	22 44.47	-19 5.3	1.928	2.915	4.9	20.4
9 18	22 35.45	-13 23.8	1.794	2.759	7.2	21.1	9 18	22 37.86	-19 58.9	1.967	2.914	8.1	20.6
9 28	22 28.73	-13 46.8	1.857	2.762	10.9	21.3	9 28	22 32.47	-20 35.0	2.031	2.913	11.2	20.8
10 8	22 24.09	-13 55.4	1.942	2.764	14.1	21.6	10 8	22 28.90	-20 52.2	2.116	2.912	14.0	20.9
371410	2006 <i>SU</i> ₂₁		9 2.8 8°43	5°7/ 7.2	17		132966	2002 <i>TF</i> ₁₃₁		9 2.8 299°26	2°5/		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
295253	2008 <i>GR</i> ₄₃	9 2.8 280°74	1°5/ 1.3 18				95440	2002 <i>CS</i> ₂₄₄	9 2.9 112°84	0°1/ 2.7 18			
7 30	23 9.45	-9 25.6	2.089	2.957	12.2	20.8	7 30	23 10.07	-6 3.9	2.383	3.234	11.4	19.5
8 9	23 5.13	-10 7.4	2.015	2.953	9.0	20.6	8 9	23 5.29	-6 31.1	2.316	3.244	8.5	19.4
8 19	22 59.07	-10 57.2	1.964	2.949	5.5	20.4	8 19	22 59.02	-7 6.8	2.273	3.254	5.2	19.2
8 29	22 51.82	-11 50.4	1.939	2.946	2.0	20.1	8 29	22 51.78	-7 47.5	2.257	3.264	1.7	19.0
9 8	22 44.14	-12 41.2	1.942	2.942	3.0	20.2	9 8	22 44.25	-8 28.9	2.270	3.273	1.9	19.0
9 18	22 36.87	-13 24.6	1.973	2.938	6.7	20.4	9 18	22 37.15	-9 6.9	2.311	3.283	5.4	19.2
9 28	22 30.80	-13 56.4	2.030	2.934	10.2	20.6	9 28	22 31.13	-9 37.7	2.380	3.292	8.5	19.5
10 8	22 26.54	-14 14.3	2.110	2.930	13.2	20.8	10 8	22 26.72	-9 58.9	2.473	3.301	11.3	19.7
294042	2007 <i>TF</i> ₁₃₅	9 2.8 207°90	2°7/31.4 18				263809	2008 <i>RU</i> ₅₅	9 2.9 315°07	1°4/ 5.3 17			
7 30	23 14.23	-14 0.0	2.067	2.936	12.2	21.1	7 30	23 2.90	+0 34.7	3.986	4.804	7.9	20.4
8 9	23 8.71	-14 33.6	1.994	2.932	9.1	20.9	8 9	22 59.55	+0 23.9	3.891	4.794	6.1	20.2
8 19	23 1.28	-15 11.3	1.944	2.929	5.6	20.7	8 19	22 55.33	+0 5.5	3.821	4.785	4.1	20.1
8 29	22 52.55	-15 47.6	1.922	2.925	2.9	20.5	8 29	22 50.55	-0 19.3	3.779	4.776	2.2	19.9
9 8	22 43.38	-16 17.4	1.927	2.920	4.1	20.6	9 8	22 45.54	-0 48.5	3.765	4.766	1.5	19.9
9 18	22 34.69	-16 36.4	1.961	2.916	7.5	20.8	9 18	22 40.69	-1 20.0	3.781	4.757	3.2	20.0
9 28	22 27.36	-16 41.8	2.020	2.911	10.9	21.0	9 28	22 36.39	-1 51.2	3.826	4.748	5.3	20.1
10 8	22 22.02	-16 32.8	2.102	2.905	13.8	21.2	10 8	22 32.95	-2 19.8	3.897	4.739	7.2	20.3
449979	2015 <i>PX</i> ₄₇	9 2.8 307°40	2°4/31.9 18				234333	2001 <i>EZ</i> ₁₇	9 2.9 71°58	4°4/29.7 18			
7 30	23 12.70	-13 1.6	1.858	2.733	13.1	20.7	7 30	23 12.09	-16 6.5	1.722	2.607	13.5	19.5
8 9	23 7.85	-13 22.9	1.777	2.719	9.8	20.5	8 9	23 7.24	-17 21.3	1.680	2.626	10.0	19.4
8 19	23 0.89	-13 49.3	1.719	2.706	6.0	20.2	8 19	23 0.37	-18 38.7	1.661	2.645	6.4	19.2
8 29	22 52.46	-14 15.6	1.687	2.692	2.7	20.0	8 29	22 52.23	-19 50.6	1.667	2.664	4.4	19.1
9 8	22 43.45	-14 36.6	1.682	2.679	4.0	20.0	9 8	22 43.82	-20 49.3	1.701	2.683	6.0	19.3
9 18	22 34.89	-14 47.7	1.704	2.666	7.8	20.2	9 18	22 36.14	-21 29.7	1.760	2.702	9.2	19.5
9 28	22 27.76	-14 45.8	1.751	2.654	11.6	20.4	9 28	22 30.07	-21 49.3	1.844	2.721	12.4	19.7
10 8	22 22.77	-14 29.8	1.820	2.641	14.9	20.6	10 8	22 26.19	-21 48.6	1.948	2.740	15.1	20.0
99476	2002 <i>CU</i> ₁₃₃	9 2.8 31°28	0°0/ 2.7 18				246020	2006 <i>TU</i> ₁₀₉	9 2.9 339°97	2°1/31.5 18			
7 30	23 12.54	-5 48.7	1.634	2.499	15.1	19.5	7 30	23 7.26	-8 40.5	1.854	2.730	13.1	19.9
8 9	23 7.81	-6 6.0	1.566	2.501	11.3	19.3	8 9	23 3.72	-10 0.3	1.784	2.727	9.7	19.7
8 19	23 0.87	-6 35.4	1.520	2.503	7.0	19.0	8 19	22 58.31	-11 31.7	1.737	2.725	5.8	19.4
8 29	22 52.44	-7 12.6	1.498	2.505	2.4	18.7	8 29	22 51.60	-13 7.9	1.717	2.723	2.4	19.2
9 8	22 43.51	-7 51.9	1.503	2.507	2.5	18.8	9 8	22 44.43	-14 40.5	1.724	2.721	3.9	19.3
9 18	22 35.16	-8 27.4	1.535	2.510	7.1	19.1	9 18	22 37.68	-16 1.8	1.759	2.719	7.7	19.5
9 28	22 28.42	-8 54.1	1.591	2.512	11.3	19.3	9 28	22 32.24	-17 6.0	1.818	2.718	11.4	19.8
10 8	22 23.99	-9 8.5	1.670	2.515	14.9	19.5	10 8	22 28.74	-17 50.1	1.900	2.716	14.6	20.0
228530	2001 <i>UO</i> ₁₁₈	9 2.8 8°72	2°6/ 1.0 17				46252	2001 <i>HH</i> ₃₂	9 2.9 207°77	4°6/ 9.6 18			
7 30	23 8.11	-9 56.7	1.125	2.028	17.7	19.6	7 30	23 7.17	+12 44.0	2.930	3.684	11.9	19.9
8 9	23 5.22	-10 42.9	1.073	2.029	13.1	19.4	8 9	23 3.04	+12 36.0	2.834	3.679	10.0	19.7
8 19	22 59.58	-11 41.9	1.040	2.032	7.9	19.1	8 19	22 57.63	+12 11.3	2.760	3.674	7.8	19.6
8 29	22 52.05	-12 45.2	1.029	2.035	3.1	18.8	8 29	22 51.34	+11 30.0	2.711	3.669	5.8	19.4
9 8	22 43.95	-13 42.5	1.040	2.040	4.8	18.9	9 8	22 44.71	+10 34.4	2.689	3.663	4.7	19.4
9 18	22 36.68	-14 25.4	1.075	2.047	9.9	19.3	9 18	22 38.31	+9 27.7	2.695	3.658	5.3	19.4
9 28	22 31.51	-14 47.9	1.131	2.054	14.7	19.6	9 28	22 32.72	+8 14.8	2.730	3.651	7.2	19.5
10 8	22 29.19	-14 48.3	1.206	2.063	18.8	19.8	10 8	22 28.43	+7 1.0	2.792	3.645	9.4	19.7
245158	Thomasandrews	9 2.9 7°80	4°3/ 5.1 18				516132	2015 <i>VK</i> ₃₉	9 2.9 335°33	5°7/28.9 18			
7 30	23 6.38	-0 58.9	0.777	1.684	23.0	19.1	7 30	23 13.26	-22 44.9	1.905	2.787	12.5	20.8
8 9	23 4.70	-0 11.2	0.732	1.684	18.1	18.8	8 9	23 8.21	-23 22.7	1.838	2.778	9.7	20.6
8 19	22 59.61	+0 11.8	0.702	1.687	12.3	18.5	8 19	23 1.07	-23 57.4	1.794	2.769	7.0	20.4
8 29	22 52.12	+0 10.9	0.689	1.692	6.5	18.2	8 29	22 52.52	-24 22.4	1.776	2.761	5.7	20.3
9 8	22 43.89	-0 8.5	0.695	1.699	4.7	18.2	9 8	22 43.52	-24 32.0	1.783	2.753	7.1	20.4
9 18	22 36.71	-0 37.8	0.721	1.708	9.6	18.5	9 18	22 35.09	-24 22.8	1.817	2.746	9.8	20.5
9 28	22 32.19	-1 6.8	0.765	1.720	15.2	18.8	9 28	22 28.20	-23 54.0	1.874	2.739	12.8	20.7
10 8	22 31.17	-1 26.8	0.826	1.734	20.1	19.2	10 8	22 23.51	-23 7.1	1.952	2.733	15.5	20.9
514268	2015 <i>RF</i> ₆₁	9 2.9 97°86	1°5/ 1.5 18				482751	2013 <i>FZ</i> ₆	9 2.9 259°23	1°4/ 1.4 18			
7 30	23 12.54	-11 4.3	2.195	3.059	11.8	21.1	7 30	23 9.89	-9 26.9	2.169	3.034	11.9	21.2
8 9	23 7.25	-11 23.5	2.128	3.064	8.7	20.9	8 9	23 5.45	-10 6.3	2.089	3.026	8.8	21.0
8 19	23 0.28	-11 47.7	2.085	3.070	5.3	20.7	8 19	22 59.29	-10 53.6	2.032	3.018	5.4	20.8
8 29	22 52.20	-12 13.1	2.069	3.075	2.0	20.5	8 29	22 51.93	-11 44.3	2.003	3.009	1.9	20.5
9 8	22 43.80	-12 35.3	2.081	3.080	2.9	20.5	9 8	22 44.12	-12 33.0	2.001	3.001	3.0	20.6
9 18	22 35.88	-12 50.7	2.121	3.086	6.3	20.8	9 18	22 36.67	-13 14.8	2.028	2.992	6.6	20.8
9 28	22 29.22	-12 56.6	2.188	3.091	9.6	21.0	9 28	22 30.37	-13 45.6	2.080	2.983	10.0	21.0
10 8	22 24.37	-12 51.6	2.279	3.096	12.4	21.2	10 8	22 25.85	-14 3.0	2.156	2.975	13.0	21.2
487773	2015 <i>RP</i> ₂₀₈	9 2.9 276°40	4°3/29.5 18				16430	1988 <i>VB</i> ₁	9 2.9 339°62	4°9/31.4 18			
7 30	23 12.91	-19 51.8	2.299	3.173	11.0	21.5	7 30	23 18.08	-18 47.9	1.270	2.163	16.8	17.0
8 9	23 7.66	-20 29.4	2.221	3.158	8.3	21.3	8 9	23 12.71	-18 49.5	1.203	2.151	12.8	16.7
8 19	23 0.62	-21 6.6	2.166	3.144	5.7	21.1	8 19	23 4.27	-18 49.2	1.155	2.141	8.4	16.4
8 29	22 52.34	-21 38.1	2.139	3.130	4.3	21.0	8 29	22 53.66	-18 40.0	1.130	2.131	5.1	16.2
9 8	22 43.62	-21 58.8	2.139	3.116	5.5	21.1	9 8	22 42.32	-18 15.5	1.130	2.122	6.5	16.3
9 18	22 35.29	-22 5.3	2.167	3.101	8.2	21.2	9 18	22 31.83	-17 32.6	1.153	2.114	10.9	16.5
9 28	22 28.19	-21 55.8	2.220	3.087	11.0	21.4	9 28	22 23.63	-16 31.5	1.200	2.107	15.4	16.8
10 8	22 22.92	-21 30.5	2.295	3.072	13.6	21.5	10 8	22 18.62	-15 14.7	1.265	2.101	19.3	17.0
115013	2003 <i>QG</i> ₇₉	9 2.9 295°73	4°3/30.8 18				220715	2004 <i>ST</i> ₁₉	9 2.9 99°62	6°6/28.2 18			
7 30	23 16.53	-17 50.5											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
444112	2004 <i>TR</i> ₁₁₉	9 2.9 343°15	8°5/11.6 17				385604	2005 <i>EV</i> ₂₀₅	9 2.9 93°32	1°9/31.6 16			
7 30	23 3.71	+15 58.7	1.657	2.438	18.5	20.1	7 30	23 8.91	- 6 1.3	1.869	2.735	13.5	20.6
8 9	23 1.44	+16 21.2	1.569	2.425	16.0	19.9	8 9	23 4.86	- 7 58.0	1.809	2.748	9.9	20.4
8 19	22 57.12	+16 15.1	1.499	2.412	13.2	19.7	8 19	22 58.97	-10 8.8	1.774	2.760	5.9	20.2
8 29	22 51.28	+15 37.8	1.449	2.400	10.4	19.5	8 29	22 51.86	-12 25.1	1.767	2.773	2.2	20.0
9 8	22 44.79	+14 30.5	1.422	2.390	8.7	19.3	9 8	22 44.36	-14 36.7	1.789	2.785	3.8	20.1
9 18	22 38.64	+12 58.7	1.418	2.380	9.0	19.3	9 18	22 37.35	-16 34.4	1.840	2.798	7.7	20.4
9 28	22 33.86	+11 11.3	1.438	2.372	11.3	19.5	9 28	22 31.69	-18 11.4	1.917	2.810	11.2	20.7
10 8	22 31.22	+ 9 19.7	1.481	2.365	14.3	19.6	10 8	22 27.96	-19 24.5	2.017	2.822	14.3	20.9
321912	2010 <i>TU</i> ₃₅	9 2.9 184°54	8°8/22.9 18				511048	2013 <i>RX</i> ₈₇	9 2.9 302°24	2°6/4.7 18			
7 30	23 20.21	-40 24.9	2.734	3.562	10.8	21.5	7 30	23 11.65	- 0 20.3	1.385	2.246	17.6	21.4
8 9	23 12.91	-41 20.6	2.690	3.562	9.6	21.4	8 9	23 7.78	- 0 17.4	1.302	2.229	13.8	21.1
8 19	23 3.71	-42 2.9	2.670	3.562	8.9	21.4	8 19	23 1.26	- 0 33.6	1.237	2.213	9.3	20.8
8 29	22 53.34	-42 25.6	2.675	3.561	9.0	21.4	8 29	22 52.75	- 1 7.1	1.195	2.197	4.5	20.5
9 8	22 42.74	-42 25.0	2.704	3.560	9.8	21.5	9 8	22 43.34	- 1 53.1	1.178	2.181	3.2	20.4
9 18	22 32.84	-42 0.0	2.758	3.559	11.1	21.6	9 18	22 34.32	- 2 44.5	1.185	2.166	7.8	20.6
9 28	22 24.50	-41 12.1	2.833	3.557	12.5	21.7	9 28	22 27.05	- 3 33.1	1.216	2.151	12.8	20.8
10 8	22 18.27	-40 5.0	2.928	3.555	13.8	21.8	10 8	22 22.48	- 4 11.9	1.267	2.136	17.2	21.1
303128	2004 <i>CH</i> ₈₃	9 2.9 242°00	0°2/3.0 18				397607	2007 <i>VZ</i> ₁₅₉	9 2.9 110°45	3°8/30.1 18			
7 30	23 11.69	- 5 2.5	2.323	3.169	11.9	21.7	7 30	23 11.14	-15 25.5	1.892	2.773	12.7	20.9
8 9	23 6.74	- 5 26.3	2.230	3.155	9.0	21.4	8 9	23 6.58	-16 27.0	1.829	2.774	9.4	20.7
8 19	23 0.09	- 6 0.1	2.160	3.140	5.6	21.2	8 19	23 0.07	-17 32.5	1.790	2.775	6.0	20.6
8 29	22 52.22	- 6 41.0	2.118	3.124	1.9	20.9	8 29	22 52.24	-18 35.2	1.777	2.776	3.8	20.4
9 8	22 43.84	- 7 24.5	2.104	3.108	1.9	20.9	9 8	22 43.99	-19 28.1	1.791	2.777	5.3	20.5
9 18	22 35.73	- 8 6.1	2.119	3.091	5.7	21.1	9 18	22 36.26	-20 6.0	1.831	2.777	8.6	20.7
9 28	22 28.69	- 8 41.5	2.162	3.074	9.2	21.3	9 28	22 29.95	-20 25.6	1.896	2.778	11.9	20.9
10 8	22 23.34	- 9 7.4	2.228	3.057	12.3	21.5	10 8	22 25.68	-20 26.5	1.982	2.779	14.8	21.1
293249	2007 <i>CU</i> ₁	9 2.9 48°36	3°3/30.2 18				344936	2004 <i>TK</i> ₂₆₆	9 2.9 344°97	6°2/8.9 18			
7 30	23 8.62	-13 49.6	1.989	2.869	12.1	20.2	7 30	23 7.98	+10 53.9	1.601	2.408	18.1	21.1
8 9	23 4.57	-14 59.8	1.929	2.874	8.9	20.0	8 9	23 4.61	+10 52.8	1.523	2.405	15.0	20.9
8 19	22 58.75	-16 15.2	1.894	2.880	5.6	19.8	8 19	22 59.06	+10 24.4	1.463	2.403	11.5	20.6
8 29	22 51.75	-17 29.2	1.884	2.885	3.4	19.7	8 29	22 51.96	+ 9 28.6	1.425	2.400	8.1	20.4
9 8	22 44.39	-18 34.9	1.903	2.891	4.8	19.8	9 8	22 44.26	+ 8 9.3	1.411	2.399	6.2	20.3
9 18	22 37.51	-19 26.6	1.948	2.896	8.0	20.0	9 18	22 37.01	+ 6 33.7	1.422	2.397	7.6	20.4
9 28	22 31.92	-20 0.7	2.018	2.902	11.2	20.2	9 28	22 31.25	+ 4 51.9	1.459	2.396	10.9	20.6
10 8	22 28.19	-20 16.2	2.110	2.908	13.9	20.4	10 8	22 27.75	+ 3 13.9	1.518	2.395	14.5	20.8
152486	2005 <i>WJ</i> ₇₄	9 2.9 300°14	0°8/1.9 18				306153	2010 <i>KV</i> ₁₁₇	9 2.9 66°86	8°0/25.9 17			
7 30	23 6.76	- 5 49.4	2.033	2.897	12.6	20.2	7 30	23 13.09	-26 40.6	1.756	2.641	13.3	20.3
8 9	23 3.28	- 6 51.4	1.947	2.883	9.4	20.0	8 9	23 8.14	-28 15.1	1.722	2.657	10.5	20.2
8 19	22 58.04	- 8 6.6	1.885	2.870	5.7	19.7	8 19	23 1.02	-29 42.3	1.712	2.673	8.5	20.1
8 29	22 51.56	- 9 30.0	1.849	2.856	1.8	19.4	8 29	22 52.54	-30 52.8	1.726	2.688	8.1	20.1
9 8	22 44.55	-10 54.7	1.841	2.843	2.7	19.5	9 8	22 43.75	-31 39.7	1.765	2.704	9.6	20.2
9 18	22 37.85	-12 13.7	1.861	2.830	6.7	19.7	9 18	22 35.76	-31 59.4	1.828	2.720	11.9	20.4
9 28	22 32.30	-13 20.9	1.907	2.817	10.4	19.9	9 28	22 29.50	-31 52.1	1.913	2.736	14.4	20.6
10 8	22 28.52	-14 12.0	1.976	2.804	13.6	20.1	10 8	22 25.58	-31 21.1	2.017	2.752	16.5	20.8
266183	2006 <i>VE</i> ₇₅	9 2.9 237°65	1°2/1.9 18				513856	2013 <i>GS</i> ₁₀₇	9 2.9 118°46	1°8/5.2 18			
7 30	23 14.17	- 8 15.1	1.802	2.667	14.0	21.2	7 30	23 7.79	+ 1 53.9	2.554	3.376	11.6	21.7
8 9	23 9.05	- 8 50.7	1.719	2.655	10.5	21.0	8 9	23 3.57	+ 1 18.4	2.482	3.387	9.0	21.5
8 19	23 1.72	- 9 36.9	1.659	2.643	6.4	20.7	8 19	22 57.99	+ 0 29.5	2.433	3.398	6.1	21.4
8 29	22 52.81	-10 28.7	1.624	2.631	2.1	20.4	8 29	22 51.53	- 0 30.1	2.410	3.409	3.0	21.2
9 8	22 43.25	-11 19.7	1.616	2.618	3.1	20.4	9 8	22 44.78	- 1 36.2	2.417	3.419	2.0	21.1
9 18	22 34.09	-12 3.6	1.636	2.604	7.5	20.7	9 18	22 38.39	- 2 44.0	2.452	3.429	4.6	21.3
9 28	22 26.39	-12 35.5	1.682	2.590	11.6	20.9	9 28	22 32.97	- 3 48.5	2.516	3.439	7.6	21.5
10 8	22 20.92	-12 52.4	1.750	2.576	15.2	21.1	10 8	22 28.98	- 4 45.4	2.605	3.448	10.3	21.7
216406	2008 <i>ES</i> ₁₄₂	9 2.9 89°24	0°6/2.3 17				454533	2014 <i>OG</i> ₃₀₈	9 2.9 7°27	3°9/29.4 17			
7 30	23 12.87	- 5 16.2	1.530	2.397	15.8	20.6	7 30	23 7.33	-15 14.8	2.013	2.897	11.9	21.0
8 9	23 8.04	- 6 12.9	1.478	2.415	11.8	20.4	8 9	23 3.67	-16 34.2	1.951	2.898	8.8	20.9
8 19	23 0.99	- 7 23.9	1.447	2.432	7.1	20.2	8 19	22 58.25	-17 58.2	1.913	2.898	5.7	20.7
8 29	22 52.51	- 8 42.5	1.442	2.449	2.3	19.9	8 29	22 51.65	-19 19.7	1.902	2.899	3.9	20.6
9 8	22 43.67	-10 0.3	1.463	2.466	2.9	20.0	9 8	22 44.65	-20 31.6	1.918	2.901	5.4	20.7
9 18	22 35.58	-11 9.2	1.511	2.483	7.6	20.3	9 18	22 38.09	-21 27.9	1.961	2.902	8.4	20.9
9 28	22 29.22	-12 3.1	1.584	2.499	11.8	20.6	9 28	22 32.78	-22 5.1	2.028	2.904	11.5	21.1
10 8	22 25.23	-12 39.0	1.678	2.515	15.3	20.9	10 8	22 29.29	-22 22.2	2.117	2.907	14.2	21.3
350863	2002 <i>NY</i> ₆₅	9 2.9 28°03	3°5/5.9 18				72507	2001 <i>DX</i> ₆₉	9 2.9 109°23	0°4/3.4 18			
7 30	23 9.52	+ 3 1.2	1.531	2.376	17.0	20.6	7 30	23 9.36	- 3 59.7	2.573	3.415	11.0	20.2
8 9	23 5.66	+ 2 59.3	1.467	2.383	13.4	20.4	8 9	23 4.69	- 4 27.7	2.507	3.430	8.2	20.0
8 19	22 59.62	+ 2 37.0	1.423	2.390	9.3	20.2	8 19	22 58.65	- 5 4.9	2.466	3.444	5.1	19.9
8 29	22 52.09	+ 1 56.1	1.402	2.398	5.2	20.0	8 29	22 51.74	- 5 48.1	2.452	3.458	1.9	19.7
9 8	22 44.08	+ 1 1.9	1.406	2.406	3.7	19.9	9 8	22 44.59	- 6 33.3	2.467	3.471	1.6	19.7
9 18	22 36.67	+ 0 1.3	1.435	2.415	6.8	20.1	9 18	22 37.82	- 7 16.6	2.511	3.484	4.8	19.9
9 28	22 30.87	- 0 58.1	1.489	2.425	10.8	20.4	9 28	22 32.06	- 7 54.3	2.583	3.498	7.8	20.1
10 8	22 27.36	- 1 49.4	1.565	2.434	14.5	20.6	10 8	22 27.76	- 8 23.5	2.680	3.510	10.4	20.3
408572	2013 <i>LU</i> ₅	9 2.9 310°02	3°2/30.5 18				10561	Shimizumasahiro	9 2.9 1°44	5°2/30.5 18			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
395066	2009 <i>FV</i> ₄₄		9 2.9 157°24	0°8/ 3.7 18			173540	2000 <i>WG</i> ₁₃₂		9 2.9 226°05	9°6/22.3 18		
7 30	23 11.61	- 3 13.9	2.191	3.035	12.6	21.7	7 30	23 15.22	-28 39.7	1.791	2.670	13.3	19.6
8 9	23 6.65	- 3 31.7	2.117	3.038	9.6	21.5	8 9	23 10.25	-31 9.6	1.734	2.660	11.0	19.4
8 19	23 0.01	- 4 0.7	2.065	3.042	6.1	21.3	8 19	23 2.71	-33 35.2	1.701	2.648	9.7	19.3
8 29	22 52.23	- 4 37.8	2.041	3.045	2.4	21.0	8 29	22 53.27	-35 43.6	1.695	2.636	10.0	19.3
9 8	22 44.08	- 5 18.8	2.044	3.048	1.9	21.0	9 8	22 43.02	-37 23.8	1.715	2.623	11.8	19.4
9 18	22 36.34	- 5 59.1	2.076	3.051	5.5	21.3	9 18	22 33.21	-38 29.3	1.758	2.610	14.3	19.5
9 28	22 29.79	- 6 34.3	2.135	3.053	9.0	21.5	9 28	22 25.12	-38 58.8	1.821	2.595	16.8	19.7
10 8	22 25.00	- 7 1.0	2.218	3.055	12.0	21.7	10 8	22 19.63	-38 55.6	1.901	2.580	19.0	19.8
41281	1999 <i>XZ</i> ₉₅		9 2.9 316°04	7°9/24.9 18			321294	2009 <i>FX</i> ₄₁		9 2.9 216°71	2°7/31.7 17		
7 30	23 10.77	-28 34.5	2.010	2.891	12.0	18.1	7 30	23 14.71	-10 50.2	1.537	2.415	15.2	22.0
8 9	23 6.46	-29 57.3	1.950	2.879	9.8	18.0	8 9	23 9.75	-11 46.8	1.467	2.410	11.3	21.7
8 19	23 0.09	-31 14.3	1.913	2.867	8.2	17.9	8 19	23 2.31	-12 53.9	1.418	2.405	6.9	21.5
8 29	22 52.30	-32 17.0	1.901	2.856	8.1	17.8	8 29	22 53.10	-14 4.0	1.394	2.399	3.0	21.2
9 8	22 44.00	-32 58.4	1.914	2.844	9.5	17.9	9 8	22 43.24	-15 8.3	1.397	2.394	4.6	21.3
9 18	22 36.20	-33 14.7	1.951	2.833	11.7	18.0	9 18	22 33.95	-15 59.2	1.426	2.387	9.1	21.6
9 28	22 29.86	-33 4.8	2.010	2.823	14.1	18.2	9 28	22 26.42	-16 31.5	1.478	2.380	13.4	21.8
10 8	22 25.65	-32 31.0	2.087	2.812	16.3	18.3	10 8	22 21.44	-16 43.3	1.552	2.373	17.0	22.0
107043	2000 <i>YE</i> ₁₂₉		9 2.9 286°97	0°0/ 2.7 18			266736	2009 <i>SU</i> ₃		9 2.9 243°99	0°3/ 3.6 18		
7 30	23 14.47	- 6 14.3	1.413	2.285	16.6	19.5	7 30	23 2.96	- 4 25.4	5.022	5.854	6.2	21.4
8 9	23 9.89	- 6 24.4	1.330	2.268	12.7	19.2	8 9	22 59.46	- 4 38.6	4.927	5.843	4.6	21.3
8 19	23 2.59	- 6 48.1	1.267	2.252	8.0	18.9	8 19	22 55.28	- 4 56.2	4.857	5.832	2.9	21.2
8 29	22 53.23	- 7 21.2	1.228	2.235	2.7	18.6	8 29	22 50.65	- 5 17.0	4.817	5.821	1.1	21.0
9 8	22 42.97	- 7 57.4	1.214	2.218	2.9	18.5	9 8	22 45.84	- 5 39.4	4.806	5.810	0.9	21.0
9 18	22 33.15	- 8 30.1	1.226	2.202	8.3	18.8	9 18	22 41.16	- 6 1.6	4.826	5.799	2.7	21.1
9 28	22 25.14	- 8 53.0	1.261	2.185	13.4	19.1	9 28	22 36.90	- 6 21.9	4.874	5.787	4.5	21.2
10 8	22 19.89	- 9 2.0	1.316	2.169	17.7	19.3	10 8	22 33.33	- 6 38.9	4.950	5.775	6.0	21.4
509908	2009 <i>DN</i> ₁₁₂		9 2.9 176°36	0°4/ 2.4 18			514357	2016 <i>QF</i> ₉		9 2.9 320°77	4°1/30.8 18		
7 30	23 9.94	- 5 36.6	2.350	3.201	11.6	22.3	7 30	23 12.88	-15 11.2	1.442	2.333	15.3	21.0
8 9	23 5.34	- 6 27.7	2.274	3.203	8.6	22.1	8 9	23 8.56	-15 53.4	1.372	2.321	11.4	20.7
8 19	22 59.18	- 7 29.1	2.223	3.204	5.3	21.9	8 19	23 1.66	-16 40.9	1.323	2.311	7.3	20.5
8 29	22 51.97	- 8 36.5	2.199	3.205	1.7	21.7	8 29	22 52.90	-17 26.1	1.299	2.300	4.3	20.3
9 8	22 44.38	- 9 44.5	2.203	3.206	2.1	21.7	9 8	22 43.47	-18 0.7	1.299	2.290	5.9	20.3
9 18	22 37.15	-10 47.8	2.237	3.206	5.7	21.9	9 18	22 34.63	-18 18.6	1.324	2.281	10.1	20.5
9 28	22 31.00	-11 41.7	2.299	3.206	9.0	22.1	9 28	22 27.64	-18 16.2	1.371	2.272	14.3	20.8
10 8	22 26.46	-12 23.0	2.384	3.205	11.8	22.3	10 8	22 23.31	-17 53.5	1.438	2.264	18.0	21.0
137936	2000 <i>BB</i> ₃₄		9 2.9 326°83	0°5/ 3.2 18			47319	1999 <i>XF</i> ₁₄		9 2.9 215°98	5°2/ 8.6 18		
7 30	23 9.07	- 5 28.3	1.127	2.019	18.5	18.9	7 30	23 10.96	+10 31.7	2.277	3.054	14.2	19.8
8 9	23 6.38	- 5 28.4	1.047	1.995	14.2	18.6	8 9	23 6.29	+10 40.2	2.184	3.048	11.8	19.6
8 19	23 0.70	- 5 45.1	0.985	1.973	9.1	18.3	8 19	22 59.89	+10 29.8	2.113	3.041	9.1	19.5
8 29	22 52.67	- 6 14.8	0.944	1.951	3.3	17.8	8 29	22 52.26	+10 0.3	2.066	3.034	6.6	19.3
9 8	22 43.54	- 6 50.8	0.926	1.931	3.1	17.8	9 8	22 44.13	+ 9 13.6	2.045	3.027	5.3	19.2
9 18	22 34.85	- 7 25.0	0.930	1.912	9.2	18.1	9 18	22 36.28	+ 8 13.9	2.052	3.019	6.3	19.2
9 28	22 28.17	- 7 49.6	0.955	1.894	15.0	18.3	9 28	22 29.53	+ 7 7.0	2.087	3.011	8.9	19.4
10 8	22 24.64	- 7 58.7	0.998	1.877	20.0	18.6	10 8	22 24.49	+ 5 59.4	2.146	3.002	11.7	19.6
167799	2005 <i>AQ</i> ₈₁		9 2.9 290°47	0°0/ 2.8 18			176692	2002 <i>PR</i> ₁₆₉		9 2.9 105°18	1°0/ 2.0 18		
7 30	23 10.55	- 4 45.5	1.739	2.602	14.5	20.3	7 30	23 12.66	- 6 29.8	1.501	2.374	15.8	20.7
8 9	23 6.35	- 5 16.9	1.662	2.595	10.9	20.1	8 9	23 8.08	- 7 22.8	1.441	2.381	11.8	20.5
8 19	23 0.07	- 6 1.8	1.607	2.589	6.8	19.8	8 19	23 1.18	- 8 29.7	1.403	2.389	7.2	20.3
8 29	22 52.32	- 6 56.1	1.576	2.583	2.3	19.5	8 29	22 52.70	- 9 44.0	1.389	2.396	2.3	20.0
9 8	22 44.01	- 7 53.6	1.573	2.577	2.4	19.5	9 8	22 43.73	-10 57.0	1.401	2.403	3.2	20.1
9 18	22 36.14	- 8 47.5	1.596	2.571	6.9	19.8	9 18	22 35.44	-12 0.9	1.439	2.410	8.0	20.4
9 28	22 29.70	- 9 32.1	1.645	2.565	11.1	20.0	9 28	22 28.88	-12 49.4	1.502	2.417	12.3	20.6
10 8	22 25.40	-10 3.2	1.715	2.559	14.7	20.2	10 8	22 24.78	-13 19.2	1.586	2.423	16.0	20.9
339195	2004 <i>TK</i> ₂₀₅		9 2.9 339°81	3°7/ 5.6 18			401255	2012 <i>BD</i> ₈₈		9 2.9 189°34	0°9/ 1.9 18		
7 30	23 5.22	+ 1 46.8	1.194	2.066	19.0	20.3	7 30	23 11.28	- 9 28.6	2.414	3.272	11.1	21.1
8 9	23 3.21	+ 1 54.1	1.117	2.049	15.1	20.0	8 9	23 6.29	- 9 47.4	2.339	3.272	8.2	20.9
8 19	22 58.56	+ 1 37.5	1.058	2.033	10.6	19.7	8 19	22 59.75	-10 12.1	2.288	3.272	5.0	20.7
8 29	22 51.91	+ 0 58.1	1.019	2.018	5.8	19.4	8 29	22 52.18	-10 39.3	2.264	3.271	1.7	20.5
9 8	22 44.39	+ 0 1.0	1.003	2.005	4.0	19.3	9 8	22 44.27	-11 5.0	2.269	3.271	2.4	20.5
9 18	22 37.33	- 1 5.3	1.009	1.993	8.1	19.5	9 18	22 36.73	-11 25.7	2.303	3.270	5.7	20.7
9 28	22 32.09	- 2 10.6	1.037	1.983	13.2	19.7	9 28	22 30.29	-11 38.4	2.364	3.269	8.9	20.9
10 8	22 29.65	- 3 5.6	1.085	1.975	17.9	20.0	10 8	22 25.46	-11 41.4	2.449	3.268	11.6	21.1
448040	2008 <i>ER</i> ₁₅₃		9 2.9 176°28	0°5/ 3.5 18			247371	2001 <i>XD</i> ₆₈		9 2.9 293°71	15°2/14.1 18		
7 30	23 9.47	- 3 25.0	2.368	3.212	11.7	22.1	7 30	23 12.52	-36 31.7	1.303	2.192	16.7	19.3
8 9	23 4.98	- 3 55.2	2.290	3.213	8.9	21.9	8 9	23 9.58	-40 4.8	1.252	2.165	15.4	19.1
8 19	22 58.96	- 4 36.3	2.236	3.214	5.6	21.7	8 19	23 3.07	-43 26.8	1.223	2.138	15.4	19.0
8 29	22 51.90	- 5 25.0	2.209	3.214	2.1	21.5	8 29	22 53.60	-46 17.5	1.217	2.111	16.8	19.0
9 8	22 44.48	- 6 16.9	2.210	3.214	1.7	21.5	9 8	22 42.61	-48 20.8	1.230	2.084	19.2	19.1
9 18	22 37.41	- 7 7.4	2.240	3.215	5.3	21.7	9 18	22 32.07	-49 28.8	1.261	2.057	22.0	19.2
9 28	22 31.39	- 7 51.9	2.298	3.214	8.5	21.9	9 28	22 23.99	-49 42.2	1.305	2.030	24.5	19.4
10 8	22 26.96	- 8 27.1	2.380	3.214	11.4	22.1	10 8	22 19.75	-49 8.1	1.359	2.003	26.8	19.5
123314	2000 <i>VC</i> ₈		9 2.9 271°58	0°7/ 3.6 18			255428	2005 <i>XM</i> ₇₄		9 2.9 302°			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
226325	2003 <i>ER</i> ₂₆	9 2.9 171°67	1°5/ 1.7 18				356848	2011 <i>WE</i> ₈	9 2.9 262°55	0°1/ 3.1 18			
7 30	23 15.53	- 9 56.0	1.819	2.685	13.8	20.6	7 30	23 10.55	- 5 2.2	2.049	2.903	12.9	21.6
8 9	23 9.92	-10 22.0	1.750	2.687	10.3	20.4	8 9	23 6.07	- 5 25.8	1.970	2.900	9.7	21.4
8 19	23 2.19	-10 55.7	1.704	2.688	6.3	20.2	8 19	22 59.78	- 6 0.3	1.915	2.896	6.1	21.2
8 29	22 53.03	-11 32.1	1.683	2.690	2.2	19.9	8 29	22 52.27	- 6 42.2	1.886	2.892	2.1	20.9
9 8	22 43.41	-12 5.6	1.690	2.691	3.2	20.0	9 8	22 44.30	- 7 26.6	1.885	2.889	2.0	20.9
9 18	22 34.36	-12 31.1	1.725	2.691	7.3	20.3	9 18	22 36.72	- 8 8.6	1.911	2.885	6.0	21.2
9 28	22 26.84	-12 44.9	1.785	2.692	11.2	20.5	9 28	22 30.37	- 8 43.3	1.964	2.881	9.7	21.4
10 8	22 21.53	-12 45.3	1.868	2.692	14.5	20.7	10 8	22 25.87	- 9 7.5	2.040	2.877	12.9	21.6
383970	2008 <i>TU</i> ₆₃	9 2.9 30°80	3°5/31.4 17				400693	2009 <i>QC</i> ₅₈	9 2.9 41°49	1°0/ 3.9 18			
7 30	23 14.15	-14 17.9	1.418	2.306	15.6	20.4	7 30	23 11.25	- 3 40.2	2.174	3.020	12.6	20.9
8 9	23 9.29	-14 51.2	1.364	2.313	11.6	20.2	8 9	23 6.42	- 3 42.2	2.101	3.023	9.6	20.7
8 19	23 1.94	-15 29.3	1.332	2.320	7.2	20.0	8 19	22 59.92	- 3 54.2	2.050	3.027	6.1	20.5
8 29	22 52.96	-16 5.0	1.324	2.327	3.7	19.8	8 29	22 52.29	- 4 13.9	2.027	3.031	2.5	20.3
9 8	22 43.54	-16 30.9	1.341	2.335	5.2	19.9	9 8	22 44.30	- 4 37.6	2.031	3.035	1.9	20.3
9 18	22 34.95	-16 42.1	1.383	2.344	9.4	20.2	9 18	22 36.73	- 5 1.6	2.063	3.039	5.5	20.5
9 28	22 28.29	-16 35.9	1.448	2.353	13.4	20.4	9 28	22 30.35	- 5 21.9	2.122	3.043	8.9	20.8
10 8	22 24.26	-16 12.2	1.533	2.362	16.9	20.7	10 8	22 25.73	- 5 35.4	2.205	3.048	11.9	21.0
368123	2013 <i>HB</i> ₄	9 2.9 169°80	7°6/25.4 18				503660	2016 <i>GZ</i> ₂₃₂	9 2.9 231°24	0°7/ 3.5 17			
7 30	23 15.18	-31 37.3	2.347	3.211	11.2	20.8	7 30	23 11.27	- 1 38.0	1.392	2.257	17.2	21.4
8 9	23 9.38	-32 38.8	2.297	3.212	9.3	20.7	8 9	23 7.36	- 2 28.9	1.322	2.255	13.2	21.1
8 19	23 1.71	-33 31.5	2.271	3.212	7.9	20.6	8 19	23 0.93	- 3 41.2	1.271	2.253	8.4	20.9
8 29	22 52.85	-34 8.6	2.271	3.213	7.7	20.6	8 29	22 52.72	- 5 9.4	1.244	2.250	3.1	20.5
9 8	22 43.67	-34 25.4	2.297	3.214	8.8	20.6	9 8	22 43.83	- 6 44.5	1.243	2.248	2.6	20.5
9 18	22 35.10	-34 19.6	2.347	3.214	10.6	20.8	9 18	22 35.51	- 8 16.2	1.268	2.245	7.9	20.8
9 28	22 27.96	-33 51.6	2.421	3.215	12.6	20.9	9 28	22 28.96	- 9 34.9	1.316	2.242	12.8	21.1
10 8	22 22.84	-33 4.0	2.514	3.215	14.4	21.0	10 8	22 25.01	-10 34.4	1.386	2.240	16.9	21.4
264959	2002 <i>XD</i> ₅₁	9 2.9 221°00	0°8/ 3.6 18				57955	2002 <i>JV</i> ₁₀₃	9 2.9 89°53	0°3/ 2.7 18			
7 30	23 13.47	- 3 6.6	1.893	2.740	14.1	21.0	7 30	23 10.88	- 5 25.5	1.766	2.629	14.2	19.8
8 9	23 8.44	- 3 31.0	1.809	2.733	10.8	20.7	8 9	23 6.53	- 6 3.8	1.696	2.630	10.7	19.6
8 19	23 1.36	- 4 9.2	1.747	2.725	6.9	20.5	8 19	23 0.16	- 6 54.8	1.648	2.632	6.6	19.4
8 29	22 52.81	- 4 57.7	1.711	2.716	2.6	20.2	8 29	22 52.41	- 7 53.9	1.626	2.633	2.1	19.1
9 8	22 43.67	- 5 51.3	1.703	2.707	2.1	20.2	9 8	22 44.18	- 8 54.4	1.631	2.635	2.5	19.1
9 18	22 34.92	- 6 43.9	1.723	2.698	6.4	20.4	9 18	22 36.46	- 9 49.9	1.663	2.636	6.9	19.4
9 28	22 27.53	- 7 29.7	1.768	2.688	10.5	20.7	9 28	22 30.17	-10 34.7	1.720	2.638	10.9	19.7
10 8	22 22.22	- 8 4.5	1.838	2.677	14.0	20.9	10 8	22 25.98	-11 5.3	1.800	2.639	14.3	19.9
376662	2013 <i>QQ</i> ₉	9 2.9 33°59	0°9/ 3.6 17				349776	2009 <i>BV</i> ₁₅	9 2.9 311°24	1°8/ 1.2 18			
7 30	23 11.43	- 2 28.7	1.308	2.180	17.8	21.2	7 30	23 9.46	- 8 44.2	1.710	2.586	14.0	20.5
8 9	23 7.48	- 2 57.5	1.247	2.183	13.5	21.0	8 9	23 5.61	- 9 41.4	1.637	2.580	10.4	20.3
8 19	23 0.98	- 3 45.6	1.205	2.187	8.6	20.7	8 19	22 59.67	-10 50.0	1.587	2.574	6.3	20.0
8 29	22 52.70	- 4 48.0	1.186	2.192	3.3	20.4	8 29	22 52.27	-12 3.9	1.562	2.569	2.3	19.8
9 8	22 43.83	- 5 56.7	1.192	2.197	2.6	20.4	9 8	22 44.32	-13 15.3	1.564	2.563	3.7	19.9
9 18	22 35.67	- 7 2.6	1.222	2.202	7.9	20.7	9 18	22 36.83	-14 16.8	1.592	2.558	7.9	20.1
9 28	22 29.41	- 7 57.7	1.276	2.207	12.7	21.0	9 28	22 30.79	-15 2.8	1.646	2.553	11.9	20.3
10 8	22 25.82	- 8 36.5	1.351	2.213	16.8	21.3	10 8	22 26.89	-15 30.3	1.720	2.548	15.3	20.6
470858	2008 <i>YE</i> ₀₆	9 2.9 318°99	2°4/ 4.4 16				513844	2013 <i>GM</i> ₅₃	9 2.9 172°73	5°7/27.2 18			
7 30	23 10.29	- 1 57.4	1.366	2.235	17.3	20.9	7 30	23 12.75	-25 30.9	2.494	3.365	10.3	21.5
8 9	23 7.07	- 1 43.5	1.265	2.199	13.6	20.6	8 9	23 7.45	-26 30.1	2.437	3.366	8.1	21.3
8 19	23 1.10	- 1 46.0	1.184	2.163	9.2	20.3	8 19	23 0.50	-27 25.2	2.405	3.368	6.3	21.2
8 29	22 52.90	- 2 3.9	1.125	2.128	4.3	19.9	8 29	22 52.48	-28 10.1	2.400	3.369	5.7	21.2
9 8	22 43.46	- 2 33.5	1.089	2.093	3.2	19.7	9 8	22 44.15	-28 40.2	2.422	3.369	6.9	21.3
9 18	22 34.14	- 3 8.8	1.078	2.060	8.3	19.9	9 18	22 36.29	-28 52.3	2.471	3.370	8.9	21.4
9 28	22 26.43	- 3 42.2	1.089	2.027	13.7	20.1	9 28	22 29.63	-28 45.7	2.544	3.370	11.1	21.6
10 8	22 21.49	- 4 6.8	1.120	1.995	18.6	20.3	10 8	22 24.73	-28 21.6	2.638	3.371	13.1	21.7
226569	2003 <i>WW</i> ₁₈₉	9 2.9 292°93	4°5/ 6.9 17				474613	2004 <i>TL</i> ₁₉	9 2.9 340°52	19°4/17.2 16			
7 30	23 13.03	+ 5 48.9	2.358	3.155	13.2	20.4	7 30	22 43.73	+17 59.5	0.808	1.668	26.8	22.8
8 9	23 7.85	+ 6 28.5	2.257	3.138	10.8	20.2	8 9	22 47.31	+20 4.0	0.700	1.602	25.2	22.3
8 19	23 0.90	+ 6 54.9	2.179	3.122	8.1	20.0	8 19	22 48.91	+21 42.1	0.604	1.538	23.4	21.8
8 29	22 52.66	+ 7 7.5	2.126	3.105	5.6	19.8	8 29	22 48.80	+22 38.0	0.520	1.475	21.5	21.4
9 8	22 43.83	+ 7 7.1	2.101	3.088	4.5	19.8	9 8	22 47.82	+22 34.1	0.447	1.416	19.9	20.9
9 18	22 35.20	+ 6 55.8	2.104	3.072	6.1	19.8	9 18	22 47.41	+21 10.5	0.386	1.361	19.4	20.5
9 28	22 27.60	+ 6 37.5	2.134	3.055	8.9	20.0	9 28	22 49.87	+18 11.4	0.338	1.312	20.4	20.1
10 8	22 21.70	+ 6 16.6	2.189	3.039	11.7	20.1	10 8	22 57.73	+13 32.8	0.300	1.268	23.1	19.9
130200	2000 <i>AG</i> ₁₆₇	9 2.9 258°62	1°5/ 4.9 18				47443	1999 <i>XE</i> ₁₉₆	9 2.9 358°58	2°1/ 1.9 18			
7 30	23 8.35	+ 0 43.3	2.799	3.621	10.8	20.3	7 30	23 7.20	-12 2.3	0.812	1.736	20.4	17.2
8 9	23 4.10	+ 0 14.2	2.692	3.599	8.4	20.1	8 9	23 5.45	-11 45.2	0.762	1.728	15.4	16.8
8 19	22 58.45	- 0 27.2	2.609	3.576	5.6	19.9	8 19	23 0.24	-11 36.1	0.728	1.723	9.5	16.5
8 29	22 51.81	- 1 19.0	2.553	3.553	2.7	19.7	8 29	22 52.56	-11 29.1	0.712	1.720	3.4	16.2
9 8	22 44.72	- 2 17.8	2.526	3.529	1.8	19.6	9 8	22 44.08	-11 17.0	0.716	1.720	4.6	16.3
9 18	22 37.79	- 3 19.4	2.529	3.505	4.6	19.7	9 18	22 36.63	-10 54.3	0.740	1.723	10.8	16.6
9 28	22 31.66	- 4 19.1	2.561	3.481	7.6	19.9	9 28	22 31.83	-10 17.7	0.783	1.728	16.5	16.9
10 8	22 26.86	- 5 12.7	2.618	3.456	10.4	20.0	10 8	22 30.57	- 9 26.5	0.842	1.736	21.3	17.3
248460	2005 <i>UP</i> ₃₉	9 2.9 322°40	4°8/ 7.9 18				185284	2006 <i>UJ</i> ₂₀₁	9 2.9 268°01	0°8/			

EPHEMERIDES

9 2.9

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
398976	2013 <i>EY</i> ₅₇		9 2.9 318°80	0°0/ 2.8 18			101405	1998 <i>VJ</i> ₃		9 2.9 316°83	1°6/ 5.9 17		
7 30	23 7.30	- 3 53.6	1.890	2.752	13.5	20.7	7 30	23 2.89	+ 2 5.5	4.113	4.922	7.8	20.1
8 9	23 3.82	- 4 47.3	1.811	2.744	10.2	20.4	8 9	22 59.60	+ 1 53.1	4.022	4.918	6.1	20.0
8 19	22 58.50	- 5 55.7	1.755	2.737	6.3	20.2	8 19	22 55.47	+ 1 32.7	3.955	4.913	4.2	19.8
8 29	22 51.88	- 7 14.1	1.724	2.731	2.1	19.9	8 29	22 50.81	+ 1 5.6	3.916	4.909	2.4	19.7
9 8	22 44.76	- 8 35.7	1.720	2.724	2.3	19.9	9 8	22 45.94	+ 0 33.5	3.906	4.905	1.7	19.6
9 18	22 38.01	- 9 53.2	1.744	2.718	6.5	20.2	9 18	22 41.23	- 0 1.3	3.925	4.901	3.1	19.7
9 28	22 32.50	-11 0.1	1.794	2.712	10.5	20.4	9 28	22 37.05	- 0 36.3	3.974	4.897	5.1	19.9
10 8	22 28.88	-11 51.8	1.866	2.706	13.8	20.6	10 8	22 33.71	- 1 9.1	4.049	4.893	6.9	20.0
167761	2004 <i>XD</i> ₁₃₂		9 2.9 212°92	4°1/30.7 18			17618	1995 <i>VO</i>		9 2.9 185°61	4°7/28.9 18		
7 30	23 17.22	-15 14.0	1.631	2.508	14.5	20.4	7 30	23 12.69	-20 55.6	2.292	3.167	11.0	17.9
8 9	23 11.56	-16 6.3	1.561	2.503	10.9	20.1	8 9	23 7.51	-21 46.6	2.229	3.166	8.3	17.7
8 19	23 3.43	-17 3.7	1.513	2.498	6.9	19.9	8 19	23 0.60	-22 36.5	2.191	3.166	5.9	17.6
8 29	22 53.55	-17 58.4	1.491	2.492	4.1	19.7	8 29	22 52.56	-23 19.3	2.179	3.166	4.7	17.5
9 8	22 43.05	-18 42.4	1.496	2.485	5.7	19.8	9 8	22 44.17	-23 50.0	2.195	3.165	5.9	17.6
9 18	22 33.15	-19 9.8	1.527	2.478	9.6	20.0	9 18	22 36.25	-24 5.0	2.238	3.165	8.4	17.7
9 28	22 25.02	-19 17.4	1.582	2.470	13.5	20.2	9 28	22 29.58	-24 2.6	2.307	3.164	11.0	17.9
10 8	22 19.44	-19 5.0	1.657	2.461	16.9	20.5	10 8	22 24.73	-23 43.6	2.396	3.163	13.4	18.1
349802	2009 <i>BJ</i> ₉₅		9 2.9 283°10	0°8/ 3.6 18			164096	2003 <i>WZ</i> ₁₅₅		9 2.9 284°63	5°5/ 7.1 18		
7 30	23 12.49	- 3 55.3	1.822	2.676	14.3	20.8	7 30	23 14.51	+ 6 24.7	1.861	2.669	15.9	19.7
8 9	23 7.74	- 4 3.9	1.744	2.672	10.9	20.6	8 9	23 9.40	+ 7 9.5	1.769	2.656	13.1	19.5
8 19	23 0.94	- 4 24.8	1.688	2.667	6.9	20.4	8 19	23 2.10	+ 7 37.7	1.698	2.642	9.9	19.3
8 29	22 52.71	- 4 54.9	1.657	2.662	2.7	20.1	8 29	22 53.16	+ 7 47.7	1.651	2.629	6.8	19.1
9 8	22 43.93	- 5 29.6	1.653	2.657	2.1	20.1	9 8	22 43.47	+ 7 40.6	1.629	2.616	5.6	19.0
9 18	22 35.61	- 6 3.8	1.676	2.653	6.4	20.3	9 18	22 34.08	+ 7 19.2	1.634	2.603	7.4	19.1
9 28	22 28.68	- 6 32.3	1.725	2.648	10.5	20.6	9 28	22 26.04	+ 6 48.9	1.665	2.590	10.6	19.2
10 8	22 23.86	- 6 51.5	1.797	2.644	14.0	20.8	10 8	22 20.17	+ 6 15.9	1.719	2.578	13.9	19.4
274272	2008 <i>PC</i> ₁₂		9 2.9 302°21	0°1/ 3.1 16			123498	2000 <i>WN</i> ₁₇₈		9 2.9 212°96	0°8/ 2.2 18		
7 30	23 2.63	- 5 13.7	4.193	5.035	7.1	21.1	7 30	23 13.25	- 7 49.4	2.006	2.865	13.0	20.7
8 9	22 59.39	- 5 38.5	4.105	5.027	5.3	21.0	8 9	23 8.16	- 8 20.4	1.927	2.860	9.7	20.4
8 19	22 55.34	- 6 8.7	4.042	5.020	3.3	20.9	8 19	23 1.14	- 9 0.7	1.872	2.855	5.9	20.2
8 29	22 50.75	- 6 42.4	4.007	5.013	1.1	20.7	8 29	22 52.78	- 9 45.9	1.843	2.849	1.9	19.9
9 8	22 45.97	- 7 17.4	4.002	5.006	1.1	20.7	9 8	22 43.92	-10 30.8	1.841	2.843	2.6	20.0
9 18	22 41.34	- 7 51.4	4.027	4.999	3.2	20.8	9 18	22 35.48	-11 9.9	1.868	2.837	6.6	20.2
9 28	22 37.23	- 8 22.2	4.081	4.992	5.3	21.0	9 28	22 28.34	-11 39.0	1.922	2.830	10.4	20.4
10 8	22 33.94	- 8 47.8	4.161	4.986	7.1	21.1	10 8	22 23.18	-11 55.4	1.998	2.823	13.6	20.6
158516	2002 <i>EL</i> ₁₄₂		9 2.9 359°25	3°1/31.8 18			182103	2000 <i>NN</i> ₁₃		9 2.9 353°68	1°8/ 1.2 18		
7 30	23 9.28	-12 7.3	1.187	2.089	17.0	18.4	7 30	22 55.64	- 4 56.1	1.055	1.967	17.8	18.1
8 9	23 6.16	-12 42.1	1.130	2.086	12.7	18.1	8 9	22 56.13	- 6 25.3	0.990	1.952	13.3	17.8
8 19	23 0.30	-13 25.9	1.092	2.083	7.8	17.8	8 19	22 54.22	- 8 20.5	0.945	1.939	8.0	17.5
8 29	22 52.53	-14 11.0	1.076	2.082	3.5	17.6	8 29	22 50.55	-10 31.9	0.921	1.929	2.7	17.1
9 8	22 44.15	-14 48.7	1.084	2.082	5.1	17.7	9 8	22 46.19	-12 44.8	0.919	1.921	4.5	17.2
9 18	22 36.54	-15 11.6	1.115	2.084	10.0	18.0	9 18	22 42.39	-14 43.8	0.940	1.917	10.1	17.5
9 28	22 30.97	-15 15.4	1.167	2.087	14.6	18.3	9 28	22 40.36	-16 16.3	0.982	1.915	15.3	17.8
10 8	22 28.23	-14 59.0	1.238	2.091	18.6	18.5	10 8	22 40.93	-17 15.7	1.042	1.916	19.7	18.1
205094	1999 <i>TD</i> ₁₆₂		9 2.9 322°52	3°3/31.3 18			247734	2003 <i>HD</i> ₂₇		9 2.9 39°90	4°9/29.2 18		
7 30	23 9.52	-12 14.5	1.445	2.337	15.2	20.1	7 30	23 11.20	-19 5.5	1.856	2.741	12.7	19.6
8 9	23 6.12	-13 5.3	1.369	2.320	11.3	19.8	8 9	23 6.65	-20 4.7	1.806	2.750	9.5	19.4
8 19	23 0.24	-14 5.9	1.314	2.303	7.0	19.5	8 19	23 0.16	-21 3.9	1.779	2.759	6.5	19.2
8 29	22 52.54	-15 8.9	1.283	2.287	3.5	19.3	8 29	22 52.41	-21 56.1	1.777	2.769	4.9	19.2
9 8	22 44.09	-16 5.5	1.276	2.272	5.2	19.3	9 8	22 44.35	-22 34.8	1.802	2.779	6.3	19.3
9 18	22 36.11	-16 48.0	1.294	2.257	9.7	19.6	9 18	22 36.90	-22 55.8	1.853	2.789	9.2	19.5
9 28	22 29.82	-17 10.7	1.335	2.243	14.1	19.8	9 28	22 30.95	-22 57.3	1.928	2.800	12.2	19.7
10 8	22 26.07	-17 11.8	1.396	2.230	17.9	20.0	10 8	22 27.06	-22 40.0	2.024	2.811	14.8	19.9
364540	2007 <i>FD</i> ₅₀		9 2.9 69°30	4°1/29.2 18			359458	2010 <i>NE</i> ₄₉		9 2.9 27°51	0°7/ 3.6 18		
7 30	23 9.33	-17 54.4	2.249	3.128	11.0	20.4	7 30	23 9.54	- 3 32.2	1.736	2.597	14.6	20.5
8 9	23 4.99	-18 59.8	2.194	3.136	8.2	20.3	8 9	23 5.50	- 3 51.4	1.673	2.604	11.0	20.3
8 19	22 59.03	-20 6.3	2.163	3.144	5.5	20.1	8 19	22 59.51	- 4 23.9	1.631	2.612	7.0	20.1
8 29	22 52.02	-21 8.0	2.159	3.152	4.1	20.0	8 29	22 52.23	- 5 6.0	1.615	2.620	2.6	19.8
9 8	22 44.70	-21 59.0	2.183	3.160	5.4	20.1	9 8	22 44.54	- 5 52.2	1.624	2.629	2.1	19.8
9 18	22 37.84	-22 35.2	2.234	3.168	8.0	20.3	9 18	22 37.41	- 6 36.7	1.661	2.638	6.4	20.1
9 28	22 32.17	-22 54.2	2.310	3.176	10.7	20.5	9 28	22 31.70	- 7 14.1	1.722	2.648	10.3	20.4
10 8	22 28.22	-22 55.8	2.407	3.184	13.0	20.7	10 8	22 28.05	- 7 40.4	1.807	2.658	13.7	20.6
448639	2010 <i>VZ</i> ₇₄		9 2.9 292°25	3°5/30.6 18			250981	2006 <i>JC</i> ₄₇		9 2.9 32°27	4°7/ 6.0 17		
7 30	23 12.62	-16 48.3	2.153	3.027	11.6	21.0	7 30	23 12.76	+ 2 50.4	1.106	1.969	20.9	19.3
8 9	23 7.59	-17 20.8	2.078	3.018	8.7	20.8	8 9	23 8.81	+ 3 14.4	1.053	1.978	16.6	19.1
8 19	23 0.72	-17 55.0	2.027	3.010	5.6	20.6	8 19	23 1.96	+ 3 13.4	1.017	1.988	11.6	18.8
8 29	22 52.62	-18 25.7	2.003	3.001	3.5	20.4	8 29	22 53.11	+ 2 48.6	1.002	1.998	6.7	18.6
9 8	22 44.07	-18 47.9	2.006	2.993	4.7	20.5	9 8	22 43.67	+ 2 5.3	1.009	2.009	4.8	18.5
9 18	22 35.96	-18 57.8	2.037	2.985	7.8	20.7	9 18	22 35.12	+ 1 12.0	1.039	2.021	8.4	18.8
9 28	22 29.12	-18 53.2	2.093	2.976	10.9	20.9	9 28	22 28.79	+ 0 18.3	1.092	2.034	13.1	19.1
10 8	22 24.17	-18 33.8	2.171	2.968	13.6	21.0	10 8	22 25.50	- 0 27.1	1.164	2.047	17.4	19.4
101663	1999 <i>CW</i> ₈₄		9 2.9 286°21	5°4/30.1 18 R			45019	1999 <i>WU</i> ₄		9 2.9 9°05	4°4/ 5.7 18		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
25103	Kimdongyoung	9	2.9	82°73	1.4/ 3.9	18	315871	2008 JE ₉	9	2.9	55°19	0.6/ 2.2	18
7 30	23 16.12	- 2 29.3	1.493	2.349	16.8	18.4	7 30	23 7.68	- 5 40.9	2.091	2.952	12.4	21.1
8 9	23 10.57	- 2 38.9	1.440	2.367	12.8	18.2	8 9	23 3.87	- 6 38.4	2.024	2.958	9.2	20.9
8 19	23 2.68	- 3 4.2	1.408	2.385	8.2	18.0	8 19	22 58.41	- 7 47.1	1.981	2.965	5.6	20.7
8 29	22 53.29	- 3 41.1	1.399	2.404	3.4	17.8	8 29	22 51.87	- 9 2.0	1.965	2.972	1.8	20.5
9 8	22 43.53	- 4 23.8	1.417	2.422	2.5	17.7	9 8	22 44.98	-10 17.0	1.976	2.978	2.4	20.5
9 18	22 34.59	- 5 5.7	1.462	2.439	7.0	18.1	9 18	22 38.50	-11 25.8	2.015	2.985	6.1	20.8
9 28	22 27.50	- 5 41.0	1.531	2.457	11.3	18.4	9 28	22 33.19	-12 23.4	2.081	2.992	9.6	21.0
10 8	22 22.91	- 6 5.4	1.622	2.474	15.0	18.7	10 8	22 29.59	-13 6.4	2.170	2.999	12.6	21.2
390790	2004 BE ₁₁₀	9	2.9	127°66	5°3/27.3	18	435822	2008 WE ₄₁	9	2.9	11°21	1°6/ 1.7	18
7 30	23 12.72	-23 11.5	2.476	3.347	10.4	21.4	7 30	23 9.30	- 8 18.1	1.313	2.203	16.5	20.6
8 9	23 7.38	-24 30.7	2.431	3.363	8.0	21.2	8 9	23 5.91	- 8 58.0	1.256	2.205	12.3	20.3
8 19	23 0.45	-25 47.0	2.411	3.379	6.0	21.1	8 19	23 0.04	- 9 50.8	1.219	2.208	7.5	20.1
8 29	22 52.51	-26 53.9	2.420	3.393	5.4	21.1	8 29	22 52.48	-10 49.7	1.205	2.212	2.6	19.8
9 8	22 44.30	-27 46.1	2.456	3.408	6.5	21.2	9 8	22 44.38	-11 46.2	1.215	2.217	3.7	19.9
9 18	22 36.60	-28 20.1	2.519	3.421	8.6	21.4	9 18	22 36.99	-12 32.3	1.249	2.222	8.6	20.2
9 28	22 30.10	-28 34.8	2.607	3.435	10.8	21.5	9 28	22 31.44	-13 2.3	1.307	2.229	13.2	20.5
10 8	22 25.31	-28 31.0	2.717	3.447	12.8	21.7	10 8	22 28.48	-13 13.4	1.384	2.236	17.1	20.8
131702	2001 YZ ₃	9	2.9	238°78	12°1/16.7	18	469944	2006 BX ₈₈	9	2.9	34°82	5°0/29.1	16
7 30	23 18.82	+33 42.0	2.732	3.295	16.2	20.3	7 30	23 7.44	-12 49.6	1.314	2.214	15.8	19.7
8 9	23 12.54	+35 3.1	2.621	3.274	15.2	20.2	8 9	23 4.47	-14 53.7	1.271	2.227	11.6	19.5
8 19	23 4.08	+36 2.3	2.525	3.253	14.1	20.1	8 19	22 59.10	-17 6.9	1.251	2.240	7.3	19.3
8 29	22 53.89	+36 34.3	2.448	3.230	13.1	20.0	8 29	22 52.14	-19 16.6	1.255	2.254	5.0	19.2
9 8	22 42.73	+36 35.6	2.392	3.206	12.3	19.9	9 8	22 44.74	-21 9.7	1.284	2.269	7.2	19.3
9 18	22 31.55	+36 5.5	2.358	3.182	12.1	19.8	9 18	22 38.10	-22 36.8	1.338	2.284	11.1	19.6
9 28	22 21.41	+35 6.7	2.347	3.156	12.5	19.8	9 28	22 33.28	-23 33.0	1.414	2.300	14.9	19.9
10 8	22 13.18	+33 45.9	2.358	3.130	13.4	19.8	10 8	22 30.95	-23 58.7	1.508	2.316	18.1	20.2
172244	2002 RG ₂₀₆	9	2.9	317°99	0°9/ 3.6	18	75786	2000 AQ ₂₀₇	9	2.9	272°19	1°0/ 1.9	18
7 30	23 11.37	- 4 7.2	1.685	2.547	14.9	20.1	7 30	23 10.69	- 6 57.5	2.025	2.886	12.8	20.6
8 9	23 7.13	- 4 13.1	1.605	2.536	11.4	19.8	8 9	23 6.42	- 7 46.6	1.929	2.863	9.6	20.3
8 19	23 0.70	- 4 32.0	1.545	2.526	7.3	19.6	8 19	23 0.21	- 8 47.8	1.855	2.839	5.9	20.1
8 29	22 52.70	- 5 0.9	1.510	2.515	2.8	19.3	8 29	22 52.55	- 9 56.6	1.809	2.816	2.0	19.8
9 8	22 44.06	- 5 34.9	1.501	2.506	2.3	19.2	9 8	22 44.23	-11 6.6	1.790	2.792	2.8	19.8
9 18	22 35.86	- 6 8.4	1.518	2.496	6.8	19.5	9 18	22 36.15	-12 11.2	1.799	2.767	6.9	20.0
9 28	22 29.12	- 6 36.1	1.561	2.487	11.1	19.7	9 28	22 29.22	-13 4.6	1.835	2.742	10.9	20.2
10 8	22 24.61	- 6 53.7	1.625	2.479	14.9	20.0	10 8	22 24.21	-13 43.0	1.893	2.717	14.3	20.4
215905	2005 GF ₂₂₃	9	2.9	177°06	0°0/ 2.9	18	256461	2007 DV ₇	9	2.9	268°55	4°4/28.8	18
7 30	23 13.56	- 4 5.2	1.667	2.525	15.2	21.1	7 30	23 9.57	-18 13.1	2.188	3.068	11.2	20.7
8 9	23 8.69	- 4 45.8	1.595	2.526	11.5	20.8	8 9	23 5.34	-19 24.8	2.120	3.063	8.4	20.5
8 19	23 1.60	- 5 41.5	1.546	2.527	7.2	20.6	8 19	22 59.37	-20 38.5	2.077	3.058	5.7	20.4
8 29	22 52.98	- 6 47.3	1.521	2.528	2.4	20.3	8 29	22 52.22	-21 47.7	2.061	3.052	4.4	20.3
9 8	22 43.81	- 7 56.1	1.524	2.528	2.4	20.3	9 8	22 44.64	-22 45.9	2.073	3.047	5.8	20.4
9 18	22 35.17	- 9 0.5	1.554	2.528	7.1	20.6	9 18	22 37.46	-23 28.2	2.111	3.042	8.5	20.5
9 28	22 28.10	- 9 54.1	1.609	2.527	11.4	20.8	9 28	22 31.47	-23 51.8	2.174	3.037	11.4	20.7
10 8	22 23.32	-10 32.5	1.687	2.526	15.1	21.1	10 8	22 27.27	-23 56.3	2.258	3.031	13.9	20.9
482783	2013 JZ ₃₄	9	2.9	142°89	8°7/17.1	18	522980	2016 PE ₁₁₈	9	2.9	301°85	7°4/26.9	18
7 30	23 8.99	+27 49.7	2.840	3.473	14.5	21.5	7 30	23 12.05	-22 46.4	1.603	2.495	13.9	21.4
8 9	23 4.63	+28 13.8	2.754	3.479	13.1	21.4	8 9	23 8.00	-24 12.7	1.530	2.474	10.9	21.2
8 19	22 58.81	+28 15.4	2.686	3.486	11.6	21.3	8 19	23 1.43	-25 39.3	1.480	2.453	8.3	21.0
8 29	22 52.00	+27 52.5	2.637	3.492	10.2	21.2	8 29	22 53.01	-26 55.9	1.454	2.433	7.5	20.9
9 8	22 44.81	+27 5.2	2.611	3.498	9.1	21.1	9 8	22 43.81	-27 52.9	1.452	2.413	9.3	20.9
9 18	22 37.93	+25 56.0	2.610	3.504	8.7	21.1	9 18	22 35.07	-28 23.3	1.475	2.393	12.5	21.1
9 28	22 32.02	+24 29.5	2.634	3.509	9.2	21.1	9 28	22 28.04	-28 24.6	1.519	2.373	15.9	21.2
10 8	22 27.61	+22 52.3	2.684	3.514	10.4	21.2	10 8	22 23.58	-27 58.1	1.581	2.354	18.9	21.4
403925	2012 AV ₁₃	9	2.9	210°72	1°0/ 3.9	18	362454	2010 RA ₁₁₆	9	2.9	249°91	0°9/ 3.9	18
7 30	23 11.70	- 3 34.0	2.318	3.160	12.0	21.0	7 30	23 7.77	- 1 14.7	2.193	3.036	12.6	21.1
8 9	23 6.74	- 3 37.4	2.238	3.158	9.2	20.8	8 9	23 3.93	- 1 59.1	2.113	3.034	9.6	20.9
8 19	23 0.14	- 3 50.5	2.182	3.157	5.9	20.6	8 19	22 58.48	- 2 57.7	2.057	3.032	6.2	20.7
8 29	22 52.45	- 4 11.0	2.152	3.156	2.4	20.3	8 29	22 51.92	- 4 6.9	2.027	3.031	2.5	20.4
9 8	22 44.36	- 4 35.4	2.150	3.154	1.8	20.3	9 8	22 44.96	- 5 21.1	2.025	3.029	1.8	20.4
9 18	22 36.64	- 5 0.2	2.177	3.153	5.3	20.5	9 18	22 38.35	- 6 34.6	2.051	3.027	5.5	20.6
9 28	22 30.02	- 5 21.5	2.231	3.151	8.6	20.7	9 28	22 32.81	- 7 41.5	2.104	3.025	9.0	20.8
10 8	22 25.08	- 5 36.4	2.310	3.149	11.5	20.9	10 8	22 28.93	- 8 37.2	2.182	3.024	12.0	21.0
476673	2008 TN ₄₄	9	2.9	263°49	8°7/26.1	18	521896	2015 TE ₃₈₄	9	2.9	17°53	4°2/ 7.8	16
7 30	23 19.63	-30 26.0	1.882	2.750	13.3	22.0	7 30	23 4.26	+ 8 42.0	1.658	2.480	16.9	20.4
8 9	23 13.33	-31 29.2	1.816	2.736	11.0	21.9	8 9	23 1.72	+ 7 59.0	1.590	2.487	13.6	20.2
8 19	23 4.52	-32 23.9	1.772	2.721	9.2	21.7	8 19	22 57.27	+ 6 49.3	1.541	2.495	9.9	20.0
8 29	22 53.97	-33 0.9	1.753	2.705	8.8	21.7	8 29	22 51.53	+ 5 15.7	1.516	2.504	6.2	19.8
9 8	22 42.83	-33 13.3	1.759	2.690	10.1	21.7	9 8	22 45.38	+ 3 24.9	1.516	2.513	4.2	19.7
9 18	22 32.34	-32 57.7	1.789	2.674	12.5	21.8	9 18	22 39.72	+ 1 26.3	1.543	2.524	6.3	19.8
9 28	22 23.68	-32 14.7	1.842	2.658	15.1	22.0	9 28	22 35.42	- 0 29.8	1.596	2.535	9.9	20.1
10 8	22 17.61	-31 8.1	1.914	2.642	17.5	22.1	10 8	22 33.10	- 2 14.3	1.672	2.547	13.4	20.3
100387	1995 WJ ₄	9	2.9	263°47	3°9/29.5	18	1	Ceres	9	2.9	181°99	5°2/28.4	18
7 30	23 10.93	-17 34.2	2.299	3.174	10.9	19.6							

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
221701	2007 <i>DZ</i> ₇₅	9 2.9 11°01'	3°0'/31.4 18				174172	2002 <i>PA</i> ₉₁	9 2.9 357°42'	9°1'/8.6 18			
7 30	23 13.04	-15 11.8	1.931	2.807	12.6	19.5	7 30	23 12.07	+9 38.4	1.348	2.168	20.2	18.9
8 9	23 8.00	-15 32.9	1.867	2.809	9.4	19.3	8 9	23 8.21	+11 8.9	1.277	2.163	17.0	18.7
8 19	23 1.02	-15 56.5	1.826	2.811	5.9	19.1	8 19	23 1.67	+12 16.9	1.224	2.159	13.6	18.5
8 29	22 52.78	-16 17.6	1.811	2.813	3.1	19.0	8 29	22 53.15	+12 57.8	1.191	2.157	10.6	18.3
9 8	22 44.17	-16 31.1	1.823	2.816	4.3	19.0	9 8	22 43.81	+13 10.6	1.181	2.156	9.1	18.2
9 18	22 36.11	-16 33.6	1.862	2.819	7.7	19.2	9 18	22 34.98	+12 57.9	1.193	2.157	10.2	18.3
9 28	22 29.49	-16 23.0	1.926	2.823	11.0	19.5	9 28	22 27.98	+12 26.6	1.228	2.158	13.1	18.5
10 8	22 24.91	-15 58.9	2.013	2.826	14.0	19.7	10 8	22 23.75	+11 46.1	1.283	2.162	16.4	18.7
209676	2005 <i>EC</i>	9 2.9 339°20'	1°7'/1.6 18				477526	2010 <i>EP</i> ₇₃	9 2.9 183°60'	1°2'/1.8 18			
7 30	23 12.80	-10 22.3	1.686	2.561	14.2	19.7	7 30	23 16.70	-10 28.9	2.245	3.098	12.0	21.5
8 9	23 8.13	-10 46.7	1.616	2.557	10.6	19.5	8 9	23 10.51	-10 44.4	2.169	3.099	8.9	21.3
8 19	23 1.27	-11 19.1	1.568	2.554	6.5	19.2	8 19	23 2.52	-11 5.2	2.117	3.099	5.4	21.1
8 29	22 52.90	-11 54.3	1.545	2.552	2.4	18.9	8 29	22 53.32	-11 27.6	2.092	3.098	1.9	20.9
9 8	22 44.02	-12 26.2	1.549	2.549	3.4	19.0	9 8	22 43.71	-11 47.5	2.097	3.097	2.7	20.9
9 18	22 35.68	-12 49.6	1.579	2.547	7.7	19.3	9 18	22 34.56	-12 1.1	2.131	3.096	6.3	21.2
9 28	22 28.90	-13 0.5	1.634	2.545	11.7	19.5	9 28	22 26.68	-12 5.7	2.192	3.093	9.6	21.4
10 8	22 24.38	-12 57.2	1.710	2.543	15.2	19.7	10 8	22 20.68	-12 0.0	2.277	3.090	12.6	21.6
304693	2006 <i>WF</i> ₁₆₆	9 2.9 116°68'	2°3'/31.6 18				375190	2008 <i>DR</i> ₈₈	9 2.9 122°95'	1°5'/4.2 17			
7 30	23 11.12	-12 6.3	2.119	2.989	11.9	21.2	7 30	23 15.80	-1 47.3	1.688	2.534	15.6	21.3
8 9	23 6.43	-12 50.3	2.053	2.993	8.8	21.0	8 9	23 10.24	-1 59.6	1.625	2.546	11.9	21.1
8 19	23 0.01	-13 39.8	2.012	2.997	5.4	20.8	8 19	23 2.51	-2 26.9	1.582	2.557	7.7	20.9
8 29	22 52.44	-14 29.7	1.997	3.001	2.5	20.7	8 29	22 53.33	-3 5.9	1.565	2.568	3.3	20.6
9 8	22 44.52	-15 14.4	2.010	3.005	3.7	20.8	9 8	22 43.72	-3 51.1	1.575	2.579	2.3	20.6
9 18	22 37.05	-15 49.3	2.051	3.009	7.0	21.0	9 18	22 34.75	-4 36.6	1.612	2.589	6.6	20.9
9 28	22 30.83	-16 11.2	2.117	3.013	10.2	21.2	9 28	22 27.40	-5 16.6	1.675	2.599	10.7	21.2
10 8	22 26.43	-16 18.5	2.206	3.016	13.0	21.4	10 8	22 22.36	-5 46.6	1.760	2.608	14.2	21.4
477100	2009 <i>BZ</i> ₁₄₈	9 2.9 292°07'	1°5'/4.1 16				43504	2001 <i>CF</i> ₃₃	9 2.9 250°95'	8°6'/25.1 18			
7 30	23 13.16	-2 40.8	1.764	2.615	14.8	22.3	7 30	23 14.56	-28 39.6	1.839	2.718	13.0	19.2
8 9	23 8.60	-2 40.0	1.665	2.589	11.5	22.1	8 9	23 9.54	-30 11.1	1.784	2.712	10.7	19.0
8 19	23 1.75	-2 52.7	1.587	2.563	7.6	21.8	8 19	23 2.20	-31 35.9	1.752	2.705	8.9	18.9
8 29	22 53.15	-3 16.8	1.534	2.537	3.3	21.5	8 29	22 53.26	-32 44.5	1.745	2.699	8.7	18.9
9 8	22 43.70	-3 48.5	1.507	2.511	2.4	21.4	9 8	22 43.78	-33 29.1	1.763	2.693	10.2	18.9
9 18	22 34.47	-4 22.4	1.507	2.485	6.9	21.6	9 18	22 34.92	-33 45.4	1.804	2.686	12.6	19.1
9 28	22 26.59	-4 53.0	1.532	2.458	11.3	21.8	9 28	22 27.73	-33 33.1	1.867	2.679	15.1	19.2
10 8	22 20.94	-5 15.3	1.580	2.432	15.3	22.0	10 8	22 22.97	-32 55.2	1.948	2.672	17.4	19.4
392357	2010 <i>GR</i> ₆₆	9 2.9 208°99'	10°0'/20.2 18				291830	2006 <i>LP</i> ₂	9 2.9 54°99'	9°8'/25.1 17			
7 30	23 24.82	-44 16.6	2.730	3.538	11.3	22.6	7 30	23 15.25	-30 17.9	1.587	2.471	14.5	19.3
8 9	23 16.76	-45 33.6	2.683	3.530	10.4	22.5	8 9	23 10.08	-31 53.4	1.559	2.487	11.9	19.2
8 19	23 6.44	-46 35.4	2.660	3.520	10.0	22.5	8 19	23 2.45	-33 17.1	1.553	2.503	10.1	19.1
8 29	22 54.62	-47 14.6	2.660	3.510	10.3	22.5	8 29	22 53.30	-34 18.8	1.570	2.520	9.9	19.1
9 8	22 42.36	-47 26.7	2.685	3.499	11.1	22.6	9 8	22 43.86	-34 51.4	1.612	2.537	11.3	19.3
9 18	22 30.80	-47 10.3	2.732	3.487	12.3	22.6	9 18	22 35.39	-34 52.6	1.675	2.554	13.5	19.4
9 28	22 20.96	-46 27.1	2.800	3.474	13.7	22.7	9 28	22 28.94	-34 24.0	1.759	2.571	15.9	19.6
10 8	22 13.55	-45 21.5	2.885	3.460	14.9	22.8	10 8	22 25.11	-33 30.5	1.861	2.589	17.9	19.8
147343	2003 <i>BY</i> ₆₅	9 2.9 254°54'	0°2'/2.8 18				112125	2002 <i>JT</i> ₄₇	9 2.9 103°46'	5°0'/28.7 18			
7 30	23 12.52	-5 15.4	1.764	2.624	14.4	20.4	7 30	23 14.06	-22 54.1	2.376	3.247	10.8	19.8
8 9	23 7.99	-5 52.2	1.678	2.610	10.9	20.2	8 9	23 8.42	-23 38.5	2.324	3.257	8.3	19.7
8 19	23 1.27	-6 42.9	1.614	2.596	6.8	19.9	8 19	23 1.14	-24 19.7	2.297	3.268	6.0	19.5
8 29	22 52.96	-7 43.1	1.575	2.582	2.3	19.6	8 29	22 52.84	-24 52.2	2.297	3.279	5.0	19.5
9 8	22 43.96	-8 46.2	1.563	2.567	2.5	19.6	9 8	22 44.29	-25 11.5	2.325	3.289	6.1	19.6
9 18	22 35.31	-9 45.3	1.579	2.552	7.2	19.9	9 18	22 36.29	-25 14.9	2.380	3.299	8.3	19.8
9 28	22 28.08	-10 34.1	1.620	2.536	11.5	20.1	9 28	22 29.58	-25 1.7	2.460	3.309	10.7	19.9
10 8	22 23.03	-11 8.3	1.683	2.521	15.2	20.3	10 8	22 24.67	-24 33.1	2.562	3.319	12.8	20.1
198142	2004 <i>TF</i> ₄₂	9 2.9 323°38'	1°5'/4.1 18				291833	2006 <i>LP</i> ₄	9 2.9 79°40'	7°9'/11.2 18			
7 30	23 10.91	-2 25.0	1.496	2.360	16.3	20.1	7 30	23 15.17	+16 0.5	1.960	2.707	17.2	20.2
8 9	23 7.05	-2 32.3	1.418	2.350	12.6	19.9	8 9	23 9.54	+16 43.1	1.902	2.733	14.6	20.1
8 19	23 0.79	-2 56.0	1.361	2.340	8.2	19.6	8 19	23 1.97	+17 1.7	1.862	2.758	11.9	20.0
8 29	22 52.81	-3 33.1	1.326	2.331	3.5	19.3	8 29	22 53.14	+16 54.7	1.845	2.783	9.4	19.9
9 8	22 44.12	-4 18.1	1.317	2.322	2.5	19.2	9 8	22 43.97	+16 23.8	1.852	2.808	8.0	19.8
9 18	22 35.90	-5 4.2	1.334	2.314	7.3	19.5	9 18	22 35.38	+15 33.2	1.886	2.833	8.3	19.9
9 28	22 29.30	-5 44.7	1.374	2.306	11.9	19.7	9 28	22 28.27	+14 29.7	1.945	2.857	10.1	20.1
10 8	22 25.15	-6 14.0	1.436	2.299	16.0	20.0	10 8	22 23.24	+13 21.2	2.028	2.881	12.3	20.3
159052	2004 <i>TR</i> ₁₃₀	9 2.9 12°09'	1°9'/1.4 18				149030	2002 <i>AB</i> ₁₅₅	9 2.9 160°06'	2°6'/30.4 18			
7 30	23 11.15	-9 6.7	1.516	2.397	15.2	19.9	7 30	23 8.60	-12 13.9	2.509	3.376	10.4	20.2
8 9	23 7.07	-9 53.6	1.453	2.397	11.3	19.7	8 9	23 4.39	-13 39.2	2.441	3.381	7.6	20.0
8 19	23 0.69	-10 51.8	1.411	2.398	6.9	19.5	8 19	22 58.71	-15 10.7	2.400	3.384	4.7	19.9
8 29	22 52.74	-11 54.5	1.393	2.400	2.5	19.2	8 29	22 52.05	-16 42.3	2.387	3.388	2.7	19.7
9 8	22 44.25	-12 53.8	1.401	2.402	3.8	19.3	9 8	22 45.04	-18 7.8	2.403	3.391	4.0	19.8
9 18	22 36.37	-13 42.5	1.435	2.404	8.3	19.6	9 18	22 38.36	-19 21.8	2.448	3.394	6.8	20.0
9 28	22 30.16	-14 15.3	1.493	2.406	12.5	19.8	9 28	22 32.67	-20 20.3	2.521	3.396	9.6	20.2
10 8	22 26.35	-14 29.7	1.572	2.408	16.1	20.1	10 8	22 28.49	-21 1.7	2.616	3.398	12.0	20.4
280314	2003 <i>QP</i> ₉₉	9 2.9 42°08'	7°7'/10.9 16				183087	2002 <i>RG</i> ₇₅	9 2.9 332°06'	0°1'/3.1 18			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
154972	2004 <i>TS</i> ₃₄₃	9 2.9 345°24	0°6/ 2.4 18				481019	2004 <i>TO</i> ₈₅	9 2.9 273°77	2°4/31.6 18			
7 30	23 7.36	- 6 42.4	1.690	2.565	14.2	19.4	7 30	23 12.31	-13 57.3	2.251	3.120	11.4	21.3
8 9	23 4.12	- 7 13.4	1.615	2.556	10.7	19.2	8 9	23 7.30	-14 24.6	2.177	3.115	8.4	21.1
8 19	22 58.85	- 7 56.6	1.562	2.548	6.6	18.9	8 19	23 0.59	-14 55.4	2.127	3.111	5.3	20.9
8 29	22 52.16	- 8 47.2	1.533	2.540	2.1	18.6	8 29	22 52.72	-15 25.2	2.103	3.106	2.6	20.8
9 8	22 44.92	- 9 38.9	1.530	2.533	2.7	18.6	9 8	22 44.46	-15 49.4	2.108	3.102	3.7	20.8
9 18	22 38.12	-10 25.4	1.553	2.527	7.1	18.9	9 18	22 36.60	-16 4.2	2.141	3.097	6.8	21.0
9 28	22 32.71	-11 1.1	1.600	2.522	11.2	19.1	9 28	22 29.94	-16 7.2	2.200	3.093	10.0	21.2
10 8	22 29.38	-11 22.3	1.669	2.518	14.8	19.3	10 8	22 25.05	-15 57.3	2.281	3.088	12.7	21.4
394953	2008 <i>YB</i> ₆₃	9 2.9 188°04	0°3/ 3.3 18				356222	2009 <i>SF</i> ₁₉₄	9 2.9 233°61	1°2/ 5.4 16			
7 30	23 11.25	- 3 50.3	2.553	3.391	11.2	22.6	7 30	23 2.48	+ 0 45.9	4.654	5.466	6.9	21.6
8 9	23 6.32	- 4 26.1	2.470	3.391	8.4	22.4	8 9	22 59.26	+ 0 30.0	4.563	5.463	5.4	21.5
8 19	22 59.89	- 5 12.2	2.412	3.389	5.3	22.2	8 19	22 55.31	+ 0 7.5	4.497	5.460	3.6	21.4
8 29	22 52.45	- 6 5.1	2.382	3.387	1.9	22.0	8 29	22 50.89	- 0 20.6	4.460	5.456	1.9	21.3
9 8	22 44.64	- 7 0.7	2.380	3.385	1.7	21.9	9 8	22 46.30	- 0 52.3	4.451	5.452	1.3	21.2
9 18	22 37.14	- 7 54.3	2.409	3.381	5.1	22.2	9 18	22 41.85	- 1 25.9	4.473	5.449	2.8	21.3
9 28	22 30.63	- 8 41.7	2.465	3.377	8.3	22.4	9 28	22 37.85	- 1 59.1	4.524	5.445	4.5	21.5
10 8	22 25.63	- 9 19.6	2.547	3.373	11.0	22.6	10 8	22 34.59	- 2 29.8	4.601	5.442	6.2	21.6
65744	1993 <i>TR</i> ₂₃	9 2.9 125°53	3°9/31.2 18				28874	Michaelchen	9 2.9 269°08	1°1/ 3.9 18			
7 30	23 17.87	-14 37.8	1.468	2.349	15.6	18.1	7 30	23 12.39	- 2 17.1	1.686	2.540	15.3	19.0
8 9	23 12.14	-15 21.7	1.411	2.355	11.6	17.9	8 9	23 8.04	- 2 39.0	1.598	2.524	11.8	18.7
8 19	23 3.84	-16 10.5	1.376	2.362	7.3	17.7	8 19	23 1.41	- 3 17.2	1.530	2.508	7.6	18.5
8 29	22 53.82	-16 56.3	1.366	2.368	4.0	17.5	8 29	22 53.09	- 4 8.5	1.487	2.491	3.1	18.2
9 8	22 43.32	-17 31.2	1.381	2.373	5.5	17.6	9 8	22 44.02	- 5 7.1	1.470	2.475	2.3	18.1
9 18	22 33.64	-17 49.8	1.422	2.379	9.6	17.9	9 18	22 35.29	- 6 6.3	1.480	2.458	7.0	18.3
9 28	22 25.94	-17 49.3	1.487	2.384	13.6	18.1	9 28	22 27.99	- 6 59.0	1.516	2.441	11.5	18.5
10 8	22 20.95	-17 30.1	1.573	2.389	17.1	18.4	10 8	22 22.98	- 7 39.8	1.574	2.424	15.4	18.8
184191	2004 <i>PD</i> ₂₅	9 2.9 3°65	1°2/ 1.9 18				117606	2005 <i>ES</i> ₈₉	9 2.9 131°06	1°1/ 3.9 18			
7 30	23 9.71	- 8 38.5	1.892	2.762	13.1	20.1	7 30	23 13.76	- 1 45.3	1.526	2.381	16.5	20.3
8 9	23 5.61	- 9 11.7	1.823	2.762	9.8	19.8	8 9	23 9.01	- 2 15.3	1.460	2.388	12.6	20.1
8 19	22 59.64	- 9 53.8	1.777	2.762	5.9	19.6	8 19	23 1.91	- 3 3.0	1.415	2.393	8.1	19.8
8 29	22 52.40	-10 40.2	1.756	2.763	2.0	19.4	8 29	22 53.21	- 4 4.0	1.394	2.399	3.2	19.5
9 8	22 44.74	-11 25.0	1.762	2.764	2.9	19.4	9 8	22 43.98	- 5 11.4	1.400	2.404	2.4	19.5
9 18	22 37.54	-12 3.0	1.796	2.765	6.8	19.7	9 18	22 35.36	- 6 17.2	1.431	2.409	7.1	19.8
9 28	22 31.66	-12 29.9	1.854	2.766	10.5	19.9	9 28	22 28.45	- 7 14.2	1.488	2.414	11.6	20.1
10 8	22 27.73	-12 43.1	1.935	2.768	13.7	20.1	10 8	22 23.98	- 7 57.1	1.567	2.419	15.4	20.3
211133	2002 <i>GE</i> ₇₁	9 2.9 59°26	1°8/ 1.8 17				98773	2000 <i>YW</i> ₇₉	9 2.9 306°38	2°9/ 5.3 18			
7 30	23 16.91	- 8 56.4	1.182	2.067	18.3	20.1	7 30	23 10.58	+ 1 20.2	1.607	2.454	16.2	19.1
8 9	23 11.54	- 9 32.4	1.144	2.091	13.5	19.9	8 9	23 6.73	+ 1 18.0	1.523	2.441	12.8	18.8
8 19	23 3.44	-10 19.8	1.126	2.114	8.2	19.7	8 19	23 0.61	+ 0 57.2	1.459	2.429	8.8	18.5
8 29	22 53.65	-11 10.9	1.132	2.139	2.8	19.4	8 29	22 52.82	+ 0 19.4	1.418	2.416	4.6	18.3
9 8	22 43.60	-11 56.7	1.161	2.163	3.9	19.6	9 8	22 44.31	- 0 31.0	1.402	2.404	3.2	18.2
9 18	22 34.69	-12 30.3	1.216	2.188	9.0	19.9	9 18	22 36.18	- 1 27.5	1.412	2.393	6.9	18.4
9 28	22 28.08	-12 47.4	1.293	2.212	13.5	20.3	9 28	22 29.52	- 2 22.7	1.447	2.381	11.2	18.6
10 8	22 24.38	-12 46.8	1.390	2.237	17.3	20.6	10 8	22 25.18	- 3 9.9	1.505	2.370	15.2	18.8
16839	1997 <i>WT</i> ₄₁	9 2.9 244°02	0°1/ 3.1 18				26133	1993 <i>FS</i> ₂₆	9 2.9 119°60	1°4/ 4.2 18			
7 30	23 10.19	- 4 37.5	2.018	2.873	13.1	17.9	7 30	23 14.42	- 1 44.1	1.639	2.489	15.8	17.8
8 9	23 5.89	- 5 9.9	1.942	2.872	9.8	17.7	8 9	23 9.33	- 2 0.2	1.573	2.497	12.1	17.6
8 19	22 59.79	- 5 54.2	1.889	2.870	6.1	17.4	8 19	23 2.03	- 2 32.1	1.529	2.505	7.9	17.4
8 29	22 52.46	- 6 46.3	1.861	2.868	2.1	17.2	8 29	22 53.24	- 3 16.2	1.509	2.513	3.3	17.1
9 8	22 44.68	- 7 41.1	1.861	2.865	2.0	17.2	9 8	22 43.97	- 4 6.8	1.516	2.520	2.3	17.1
9 18	22 37.30	- 8 32.9	1.889	2.863	6.1	17.4	9 18	22 35.31	- 4 57.5	1.550	2.527	6.7	17.4
9 28	22 31.14	- 9 16.7	1.943	2.861	9.8	17.7	9 28	22 28.27	- 5 42.1	1.609	2.534	10.9	17.6
10 8	22 26.83	- 9 48.7	2.021	2.859	13.0	17.9	10 8	22 23.55	- 6 15.7	1.690	2.541	14.5	17.9
446172	2013 <i>ED</i> ₁₂₆	9 2.9 11°06	1°9/31.9 18				121906	2000 <i>DB</i> ₆₂	9 2.9 182°02	0°3/ 3.4 18			
7 30	23 9.34	-10 35.3	2.033	2.905	12.3	20.9	7 30	23 7.62	- 3 21.6	2.807	3.647	10.2	21.0
8 9	23 5.23	-11 22.5	1.965	2.906	9.1	20.7	8 9	23 3.51	- 4 4.2	2.726	3.647	7.7	20.8
8 19	22 59.36	-12 16.9	1.920	2.906	5.5	20.5	8 19	22 58.12	- 4 56.5	2.670	3.647	4.8	20.7
8 29	22 52.31	-13 13.5	1.902	2.907	2.3	20.3	8 29	22 51.88	- 5 55.4	2.641	3.647	1.7	20.4
9 8	22 44.86	-14 6.3	1.911	2.908	3.4	20.4	9 8	22 45.32	- 6 56.9	2.642	3.646	1.5	20.4
9 18	22 37.84	-14 49.9	1.947	2.910	7.0	20.6	9 18	22 39.04	- 7 56.6	2.673	3.646	4.6	20.6
9 28	22 32.06	-15 20.4	2.010	2.911	10.4	20.8	9 28	22 33.61	- 8 50.4	2.731	3.645	7.5	20.8
10 8	22 28.11	-15 35.9	2.094	2.913	13.3	21.0	10 8	22 29.48	- 9 35.2	2.815	3.643	10.0	21.0
218903	2007 <i>EJ</i> ₁₆	9 2.9 104°29	3°0/30.9 18				382560	2001 <i>XG</i> ₂₁₅	9 2.9 174°99	2°1/31.8 18			
7 30	23 14.61	-16 49.6	2.479	3.343	10.6	20.0	7 30	23 14.44	-11 50.1	2.204	3.065	11.9	21.1
8 9	23 8.70	-17 15.2	2.423	3.358	7.9	19.8	8 9	23 8.89	-12 34.2	2.133	3.068	8.8	20.9
8 19	23 1.27	-17 41.4	2.392	3.373	5.0	19.7	8 19	23 1.57	-13 24.0	2.087	3.071	5.4	20.7
8 29	22 52.90	-18 3.8	2.389	3.387	3.0	19.5	8 29	22 53.06	-14 14.3	2.068	3.072	2.4	20.5
9 8	22 44.31	-18 18.5	2.415	3.402	4.0	19.6	9 8	22 44.16	-14 59.8	2.078	3.073	3.5	20.6
9 18	22 36.25	-18 23.0	2.469	3.416	6.6	19.8	9 18	22 35.70	-15 35.7	2.116	3.074	6.9	20.8
9 28	22 29.39	-18 15.7	2.550	3.429	9.3	20.0	9 28	22 28.49	-15 58.9	2.181	3.073	10.1	21.0
10 8	22 24.22	-17 56.6	2.655	3.443	11.7	20.2	10 8	22 23.14	-16 7.9	2.270	3.072	12.9	21.2
138980	2001 <i>CY</i> ₃₆	9 2.9 193°64	0°5/ 2.6 17				39411	2266 <i>T</i> ₋₁	9 2.9 236°35	0°7/ 2.2 18			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
291653	2006 <i>HK</i> ₅₂		9 2.9 245°23	2°0/ 4.9 18			513492	2009 <i>FA</i> ₁₄		9 2.9 199°83	3°2/29.4 18		
7 30	23 12.71	+ 0 19.1	2.109	2.939	13.5	21.2	7 30	23 11.56	-16 26.8	2.943	3.806	9.2	23.9
8 9	23 7.86	+ 0 4.8	2.013	2.923	10.5	21.0	8 9	23 6.47	-17 39.7	2.866	3.801	6.8	23.7
8 19	23 1.11	- 0 24.2	1.938	2.907	7.1	20.8	8 19	22 59.99	-18 55.4	2.816	3.795	4.5	23.5
8 29	22 52.97	- 1 5.8	1.890	2.890	3.5	20.5	8 29	22 52.55	-20 8.8	2.794	3.788	3.2	23.4
9 8	22 44.21	- 1 56.2	1.869	2.872	2.4	20.4	9 8	22 44.74	-21 14.7	2.803	3.780	4.3	23.5
9 18	22 35.69	- 2 50.2	1.877	2.854	5.8	20.6	9 18	22 37.18	-22 9.1	2.841	3.772	6.6	23.7
9 28	22 28.33	- 3 42.0	1.911	2.835	9.6	20.8	9 28	22 30.50	-22 49.2	2.907	3.762	9.0	23.8
10 8	22 22.82	- 4 26.6	1.970	2.815	13.0	21.0	10 8	22 25.22	-23 13.9	2.996	3.752	11.2	23.9
339099	2004 <i>RU</i> ₁₆₇		9 2.9 10°68	1°3/ 2.4 18			451158	2009 <i>SD</i> ₁₁₁		9 2.9 248°71	0°0/ 2.8 17		
7 30	23 19.53	-12 3.4	1.249	2.133	17.6	19.8	7 30	23 11.30	- 6 26.3	2.820	3.662	10.1	21.9
8 9	23 13.74	-11 34.0	1.190	2.134	13.2	19.6	8 9	23 6.32	- 6 40.1	2.723	3.646	7.6	21.7
8 19	23 5.00	-11 9.0	1.150	2.137	8.2	19.3	8 19	22 59.93	- 7 0.9	2.651	3.629	4.8	21.5
8 29	22 54.28	-10 44.5	1.134	2.141	2.8	19.0	8 29	22 52.54	- 7 26.2	2.606	3.612	1.6	21.3
9 8	22 43.00	-10 16.6	1.143	2.146	3.5	19.1	9 8	22 44.74	- 7 52.8	2.591	3.595	1.6	21.3
9 18	22 32.68	- 9 42.4	1.177	2.152	8.8	19.4	9 18	22 37.15	- 8 17.6	2.606	3.577	4.8	21.5
9 28	22 24.65	- 9 0.5	1.234	2.159	13.6	19.7	9 28	22 30.42	- 8 37.3	2.649	3.559	7.8	21.6
10 8	22 19.71	- 8 10.5	1.312	2.167	17.7	20.0	10 8	22 25.08	- 8 49.8	2.717	3.540	10.5	21.8
39156	2000 <i>WF</i> ₁₀₉		9 2.9 62°90	0°9/ 3.6 18			504833	2010 <i>NZ</i> ₁₅		9 2.9 4°41	23°8/21.3 17		
7 30	23 17.32	- 4 28.1	1.253	2.123	18.4	18.6	7 30	23 31.22	-53 40.6	0.942	1.786	25.2	19.8
8 9	23 11.89	- 4 29.3	1.203	2.139	14.0	18.4	8 9	23 24.61	-54 58.3	0.925	1.784	24.2	19.7
8 19	23 3.74	- 4 46.0	1.174	2.156	8.8	18.1	8 19	23 12.26	-55 30.4	0.921	1.784	23.8	19.7
8 29	22 53.83	- 5 13.6	1.167	2.173	3.3	17.8	8 29	22 56.60	-55 1.0	0.929	1.786	24.0	19.7
9 8	22 43.50	- 5 45.8	1.185	2.189	2.7	17.9	9 8	22 41.17	-53 24.3	0.951	1.790	24.7	19.8
9 18	22 34.15	- 6 15.7	1.228	2.207	7.9	18.2	9 18	22 28.94	-50 46.3	0.987	1.795	25.9	19.9
9 28	22 26.97	- 6 37.7	1.294	2.224	12.7	18.5	9 28	22 21.56	-47 20.9	1.036	1.803	27.3	20.1
10 8	22 22.68	- 6 47.8	1.381	2.241	16.7	18.8	10 8	22 19.22	-43 25.0	1.099	1.813	28.7	20.3
322091	2010 <i>VF</i> ₁₃₀		9 2.9 245°08	5°3/ 9.4 18			412755	2014 <i>OA</i> ₃₇₆		9 2.9 336°59	1°6/ 4.4 18		
7 30	23 8.94	+12 2.7	2.527	3.291	13.3	20.7	7 30	23 12.67	- 2 33.8	2.181	3.020	12.8	21.0
8 9	23 4.75	+12 10.8	2.430	3.282	11.2	20.5	8 9	23 7.63	- 2 21.6	2.100	3.017	9.8	20.8
8 19	22 59.03	+12 1.1	2.355	3.273	8.8	20.3	8 19	23 0.84	- 2 19.5	2.042	3.014	6.5	20.6
8 29	22 52.24	+11 33.0	2.304	3.264	6.5	20.2	8 29	22 52.86	- 2 25.9	2.010	3.012	3.0	20.4
9 8	22 44.99	+10 48.3	2.279	3.254	5.3	20.1	9 8	22 44.44	- 2 38.0	2.006	3.010	2.1	20.4
9 18	22 37.97	+ 9 50.5	2.282	3.245	6.1	20.1	9 18	22 36.39	- 2 52.3	2.031	3.008	5.5	20.6
9 28	22 31.89	+ 8 44.7	2.312	3.235	8.2	20.2	9 28	22 29.53	- 3 5.2	2.082	3.006	8.9	20.8
10 8	22 27.32	+ 7 37.0	2.368	3.225	10.7	20.4	10 8	22 24.45	- 3 13.4	2.158	3.004	12.0	21.0
368863	2006 <i>PC</i> ₂₃		9 2.9 334°70	0°5/ 3.2 17			342586	2008 <i>UQ</i> ₂₇₉		9 3.0 7°65	5°1/ 7.4 18		
7 30	23 13.67	- 7 9.7	1.090	1.981	19.1	19.9	7 30	23 6.18	+ 6 31.8	1.257	2.106	19.7	20.2
8 9	23 9.98	- 6 46.6	1.018	1.966	14.6	19.6	8 9	23 3.77	+ 6 29.8	1.193	2.107	15.9	20.0
8 19	23 3.08	- 6 35.5	0.965	1.952	9.3	19.3	8 19	22 58.89	+ 5 59.2	1.147	2.109	11.6	19.7
8 29	22 53.77	- 6 33.2	0.933	1.940	3.3	18.9	8 29	22 52.27	+ 5 1.4	1.121	2.112	7.3	19.5
9 8	22 43.43	- 6 34.6	0.923	1.928	3.1	18.9	9 8	22 45.03	+ 3 42.3	1.118	2.116	5.1	19.4
9 18	22 33.73	- 6 34.0	0.936	1.918	9.2	19.2	9 18	22 38.39	+ 2 11.4	1.139	2.122	7.8	19.6
9 28	22 26.27	- 6 26.0	0.970	1.909	14.9	19.5	9 28	22 33.55	+ 0 40.1	1.183	2.128	12.0	19.8
10 8	22 22.13	- 6 7.2	1.023	1.901	19.7	19.7	10 8	22 31.27	- 0 41.3	1.248	2.136	16.1	20.1
191575	2003 <i>XP</i> ₂₅		9 2.9 265°60	2°1/ 5.1 18			86365	1999 <i>XH</i> ₂₀₇		9 3.0 210°08	1°6/ 4.4 18		
7 30	23 9.63	+ 1 18.9	1.946	2.782	14.2	20.6	7 30	23 16.19	- 1 40.1	1.960	2.795	14.2	20.9
8 9	23 5.65	+ 0 51.5	1.858	2.772	11.1	20.3	8 9	23 10.52	- 1 45.0	1.874	2.789	10.9	20.7
8 19	22 59.76	+ 0 6.8	1.792	2.761	7.5	20.1	8 19	23 2.77	- 2 3.0	1.810	2.782	7.2	20.4
8 29	22 52.52	+ 0 52.7	1.750	2.750	3.7	19.9	8 29	22 53.55	- 2 31.9	1.773	2.775	3.2	20.2
9 8	22 44.71	- 2 2.1	1.736	2.739	2.4	19.8	9 8	22 43.73	- 3 7.6	1.763	2.767	2.3	20.1
9 18	22 37.22	- 3 14.9	1.749	2.728	6.0	20.0	9 18	22 34.30	- 3 45.3	1.782	2.758	6.2	20.3
9 28	22 30.94	- 4 24.2	1.789	2.717	9.8	20.2	9 28	22 26.21	- 4 19.7	1.828	2.749	10.1	20.6
10 8	22 26.57	- 5 24.1	1.853	2.706	13.3	20.4	10 8	22 20.21	- 4 46.7	1.897	2.739	13.6	20.8
257386	2009 <i>SN</i> ₁₂₂		9 2.9 266°13	1°4/ 5.9 16			291913	2006 <i>QL</i> ₁₅		9 3.0 319°80	4°2/ 6.1 18		
7 30	23 2.40	+ 2 14.3	4.691	5.496	7.0	20.8	7 30	23 12.00	+ 2 54.5	1.684	2.518	16.1	20.1
8 9	22 59.23	+ 1 58.4	4.591	5.484	5.5	20.7	8 9	23 7.75	+ 3 24.4	1.597	2.504	13.0	19.9
8 19	22 55.32	+ 1 35.3	4.516	5.473	3.8	20.5	8 19	23 1.25	+ 3 37.6	1.530	2.491	9.3	19.6
8 29	22 50.93	+ 1 6.0	4.468	5.461	2.1	20.4	8 29	22 53.08	+ 3 34.2	1.486	2.478	5.7	19.4
9 8	22 46.35	+ 0 32.2	4.450	5.450	1.5	20.3	9 8	22 44.18	+ 3 16.2	1.468	2.465	4.3	19.3
9 18	22 41.89	- 0 4.0	4.462	5.438	2.8	20.4	9 18	22 35.61	+ 2 48.0	1.475	2.453	7.0	19.4
9 28	22 37.88	- 0 40.6	4.503	5.426	4.5	20.5	9 28	22 28.48	+ 2 15.3	1.508	2.441	10.9	19.6
10 8	22 34.58	- 1 15.2	4.571	5.414	6.2	20.6	10 8	22 23.61	+ 1 44.5	1.563	2.430	14.6	19.8
5258	1989 <i>AU</i> ₁		9 2.9 231°53	1°3/ 5.7 18			163941	2003 <i>TU</i> ₅₈		9 3.0 30°51	1°6/ 4.1 18		
7 30	23 2.87	+ 1 25.6	4.640	5.448	7.0	17.8	7 30	23 15.94	- 3 36.7	1.644	2.497	15.6	19.5
8 9	22 59.56	+ 1 13.3	4.548	5.444	5.5	17.7	8 9	23 10.51	- 3 16.8	1.575	2.500	12.0	19.3
8 19	22 55.52	+ 0 54.1	4.481	5.440	3.7	17.6	8 19	23 2.80	- 3 8.7	1.528	2.504	7.8	19.1
8 29	22 51.00	+ 0 29.3	4.441	5.436	2.0	17.5	8 29	22 53.55	- 3 10.5	1.505	2.509	3.4	18.8
9 8	22 46.30	+ 0 0.3	4.431	5.432	1.4	17.4	9 8	22 43.78	- 3 18.6	1.509	2.513	2.5	18.8
9 18	22 41.74	- 0 30.8	4.452	5.427	2.8	17.5	9 18	22 34.63	- 3 28.7	1.540	2.518	6.7	19.0
9 28	22 37.64	- 1 2.0	4.501	5.423	4.5	17.6	9 28	22 27.13	- 3 36.6	1.596	2.523	10.9	19.3
10 8	22 34.27	- 1 31.2	4.577	5.419	6.2	17.8	10 8	22 22.00	- 3 38.4	1.675	2.528	14.5	19.6
13499	Steinberg		9 2.9 344°52	0°3/ 2.7 18			318293	2004 <i>TR</i> ₆₃		9 3.0 294°78	3°0/31.7 18	</	