

EPHEMERIDES

10 9.9

10 10.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
71456	2000 <i>AQ</i> ₂₄₇	10	9.9 154°65	2°1/ 7.7 18			99023	2001 <i>DV</i> ₈₈	10	10.0 316°93	5°0/ 3.5 18		
9 8	1 23.98	+ 0 32.9	2.419	3.297	10.1	19.3	9 8	1 20.04	- 5 3.8	2.184	3.077	10.3	19.3
9 18	1 18.41	+ 0 5.4	2.356	3.299	7.1	19.1	9 18	1 15.76	- 6 51.6	2.129	3.076	7.6	19.1
9 28	1 11.45	- 0 24.7	2.318	3.301	4.0	18.9	9 28	1 10.04	- 8 39.8	2.102	3.075	5.4	19.0
10 8	1 3.71	- 0 53.5	2.309	3.303	2.1	18.8	10 8	1 3.51	-10 20.6	2.102	3.074	5.3	19.0
10 18	0 55.88	- 1 17.2	2.329	3.304	4.2	18.9	10 18	0 56.87	-11 46.8	2.131	3.073	7.3	19.1
10 28	0 48.72	- 1 32.3	2.378	3.306	7.3	19.1	10 28	0 50.91	-12 52.6	2.187	3.072	10.0	19.3
11 7	0 42.84	- 1 36.2	2.453	3.307	10.1	19.3	11 7	0 46.25	-13 35.5	2.267	3.071	12.6	19.5
11 17	0 38.67	- 1 27.9	2.552	3.309	12.6	19.5	11 17	0 43.34	-13 55.3	2.367	3.070	14.8	19.6
13557	Lievietruwant	10	9.9 64°18	7°0/ 3.5 18			294190	2007 <i>TS</i> ₄₁₁	10	10.0 69°17	7°9/ 18.5 17		
9 8	1 24.96	- 9 49.1	1.670	2.565	12.8	17.2	9 8	1 28.26	+30 50.2	1.680	2.454	18.3	20.0
9 18	1 19.38	-11 11.7	1.642	2.584	9.7	17.1	9 18	1 22.06	+30 56.9	1.631	2.482	15.2	19.9
9 28	1 12.03	-12 27.0	1.638	2.603	7.4	17.0	9 28	1 13.66	+30 33.3	1.600	2.511	12.0	19.7
10 8	1 3.79	-13 26.6	1.659	2.623	7.3	17.0	10 8	1 4.11	+29 39.3	1.593	2.539	9.2	19.6
10 18	0 55.67	-14 4.4	1.707	2.642	9.3	17.2	10 18	0 54.63	+28 19.2	1.610	2.567	7.9	19.6
10 28	0 48.65	-14 17.0	1.779	2.661	12.0	17.4	10 28	0 46.45	+26 41.7	1.654	2.595	8.9	19.8
11 7	0 43.47	-14 4.7	1.873	2.680	14.7	17.6	11 7	0 40.47	+24 57.8	1.724	2.622	11.3	20.0
11 17	0 40.53	-13 30.3	1.985	2.700	17.0	17.8	11 17	0 37.16	+23 17.7	1.817	2.649	14.0	20.2
188058	2001 <i>VC</i> ₁₀₆	10	9.9 61°51	3°2/ 12.8 18			242254	2003 <i>SC</i> ₂₆₉	10	10.0 163°07	0°1/ 9.9 18		
9 8	1 25.26	+17 32.9	1.448	2.303	16.8	19.5	9 8	1 24.97	+ 6 55.7	2.541	3.402	10.2	20.3
9 18	1 20.08	+17 7.7	1.393	2.315	12.8	19.3	9 18	1 19.11	+ 6 47.4	2.470	3.404	7.3	20.2
9 28	1 12.63	+16 19.5	1.359	2.327	8.3	19.1	9 28	1 11.86	+ 6 32.7	2.426	3.407	4.1	20.0
10 8	1 3.92	+15 12.2	1.349	2.340	4.1	18.9	10 8	1 3.82	+ 6 14.1	2.410	3.408	0.7	19.7
10 18	0 55.15	+13 52.8	1.365	2.353	4.2	18.9	10 18	0 55.66	+ 5 54.7	2.424	3.410	2.8	19.9
10 28	0 47.57	+12 30.8	1.408	2.366	8.3	19.2	10 28	0 48.13	+ 5 38.1	2.468	3.412	6.1	20.1
11 7	0 42.33	+11 16.1	1.475	2.379	12.5	19.5	11 7	0 41.85	+ 5 27.3	2.539	3.413	9.1	20.3
11 17	0 39.37	+10 15.5	1.564	2.392	16.1	19.7	11 17	0 37.26	+ 5 24.6	2.634	3.414	11.6	20.5
100060	1992 <i>ET</i> ₄	10	9.9 186°90	3°1/ 13.0 18			225059	2007 <i>HJ</i> ₃	10	10.0 176°27	2°3/ 6.9 18		
9 8	1 28.27	+17 21.8	2.335	3.158	12.3	20.8	9 8	1 20.14	+ 3 30.1	2.348	3.228	10.2	20.3
9 18	1 21.69	+17 31.6	2.255	3.157	9.5	20.6	9 18	1 15.75	+ 1 56.8	2.283	3.229	7.2	20.1
9 28	1 13.40	+17 27.3	2.198	3.156	6.4	20.4	9 28	1 10.01	+ 0 16.3	2.245	3.229	4.0	19.9
10 8	1 4.06	+17 9.8	2.170	3.155	3.6	20.2	10 8	1 3.52	- 1 24.9	2.236	3.229	2.3	19.8
10 18	0 54.51	+16 41.5	2.171	3.153	3.6	20.2	10 18	0 56.93	- 2 59.9	2.258	3.230	4.7	19.9
10 28	0 45.65	+16 6.7	2.201	3.151	6.4	20.4	10 28	0 50.97	- 4 22.4	2.309	3.230	7.8	20.1
11 7	0 38.25	+15 30.7	2.259	3.148	9.5	20.6	11 7	0 46.23	- 5 28.0	2.386	3.230	10.7	20.3
11 17	0 32.87	+14 58.4	2.342	3.144	12.2	20.8	11 17	0 43.14	- 6 14.5	2.485	3.230	13.2	20.5
382424	1998 <i>VS</i> ₃	10	9.9 340°80	1°4/ 9.1 18			47566	2000 <i>AU</i> ₁₅₀	10	10.0 270°36	4°7/ 5.5 18		
9 8	1 23.35	+ 5 29.2	1.121	2.025	17.0	20.4	9 8	1 24.46	- 0 58.5	1.585	2.480	13.4	18.5
9 18	1 19.35	+ 5 6.6	1.057	2.013	12.3	20.1	9 18	1 19.56	- 2 32.3	1.510	2.461	9.6	18.3
9 28	1 12.55	+ 4 31.5	1.014	2.002	6.8	19.7	9 28	1 12.47	- 4 13.6	1.460	2.442	6.0	18.0
10 8	1 3.95	+ 3 50.3	0.993	1.991	1.5	19.4	10 8	1 3.96	- 5 52.7	1.436	2.422	4.9	17.9
10 18	0 54.95	+ 3 10.9	0.996	1.982	5.6	19.6	10 18	0 55.10	- 7 19.5	1.439	2.402	7.9	18.1
10 28	0 47.15	+ 2 42.3	1.021	1.975	11.3	19.9	10 28	0 47.08	- 8 25.0	1.468	2.382	11.9	18.2
11 7	0 41.81	+ 2 31.0	1.068	1.968	16.4	20.2	11 7	0 40.91	- 9 4.1	1.519	2.362	15.8	18.4
11 17	0 39.67	+ 2 40.0	1.133	1.963	20.7	20.5	11 17	0 37.25	- 9 15.7	1.589	2.341	19.2	18.6
75924	2000 <i>CF</i> ₆₆	10	9.9 21°21	9°5/ 17.9 18			399332	1999 <i>UC</i> ₂₈	10	10.0 30°79	0°2/ 9.8 18		
9 8	1 26.21	+28 50.2	1.400	2.204	19.9	18.3	9 8	1 19.97	+10 48.5	1.548	2.429	14.5	20.2
9 18	1 21.21	+29 50.0	1.342	2.212	16.8	18.2	9 18	1 16.06	+ 9 34.3	1.501	2.444	10.4	20.0
9 28	1 13.49	+30 19.4	1.302	2.221	13.5	18.0	9 28	1 10.30	+ 8 4.5	1.477	2.460	5.8	19.8
10 8	1 4.09	+30 15.2	1.283	2.231	10.7	17.9	10 8	1 3.56	+ 6 26.5	1.479	2.477	0.9	19.5
10 18	0 54.41	+29 38.6	1.286	2.242	9.5	17.8	10 18	0 56.83	+ 4 49.5	1.508	2.495	3.9	19.7
10 28	0 45.97	+28 36.7	1.314	2.254	10.7	17.9	10 28	0 51.11	+ 3 22.8	1.563	2.513	8.4	20.1
11 7	0 39.99	+27 20.7	1.364	2.266	13.3	18.1	11 7	0 47.17	+ 2 13.3	1.644	2.532	12.3	20.3
11 17	0 37.14	+26 2.3	1.435	2.280	16.3	18.4	11 17	0 45.44	+ 1 24.8	1.746	2.552	15.6	20.6
490824	2010 <i>VW</i> ₁₆₄	10	9.9 29°29	18°7/ 10.4 17			225319	1997 <i>TV</i> ₁₉	10	10.0 346°77	0°4/ 10.7 18		
9 8	1 59.80	-30 31.7	0.705	1.572	28.2	20.2	9 8	1 16.61	+ 9 58.8	3.881	4.733	7.2	20.8
9 18	1 45.89	-29 42.9	0.676	1.581	24.3	20.0	9 18	1 12.84	+ 9 38.5	3.803	4.731	5.2	20.7
9 28	1 27.04	-27 57.8	0.661	1.593	20.7	19.8	9 28	1 8.26	+ 9 12.3	3.752	4.729	3.0	20.6
10 8	1 6.23	-25 5.5	0.665	1.606	18.7	19.8	10 8	1 3.22	+ 8 42.2	3.730	4.727	0.7	20.4
10 18	0 46.92	-21 13.3	0.690	1.620	19.4	19.9	10 18	0 58.10	+ 8 10.3	3.738	4.725	1.8	20.5
10 28	0 31.89	-16 43.3	0.737	1.636	22.2	20.2	10 28	0 53.32	+ 7 39.3	3.776	4.724	4.0	20.6
11 7	0 22.33	-12 2.0	0.804	1.653	25.6	20.5	11 7	0 49.25	+ 7 11.8	3.843	4.722	6.1	20.8
11 17	0 18.17	- 7 28.2	0.887	1.671	28.6	20.8	11 17	0 46.19	+ 6 49.7	3.935	4.721	8.0	20.9
430379	2014 <i>GG</i> ₄₈	10	9.9 345°48	3°6/ 2.8 18			85209	1992 <i>GM</i> ₃	10	10.0 172°05	1°1/ 11.1 18		
9 8	1 15.36	- 9 15.8	3.856	4.740	6.5	20.3	9 8	1 25.93	+12 46.8	1.904	2.759	13.3	19.8
9 18	1 11.94	-10 21.0	3.800	4.737	4.9	20.2	9 18	1 20.20	+12 8.0	1.834	2.762	9.8	19.6
9 28	1 7.74	-11 23.8	3.772	4.734	3.8	20.1	9 28	1 12.62	+11 14.0	1.788	2.764	5.8	19.3
10 8	1 3.10	-12 20.8	3.773	4.732	3.8	20.1	10 8	1 3.97	+10 8.9	1.769	2.766	1.7	19.1
10 18	0 58.39	-13 8.8	3.803	4.729	5.0	20.2	10 18	0 55.18	+ 8 58.4	1.779	2.768	3.3	19.2
10 28	0 54.03	-13 45.2	3.861	4.727	6.5	20.3	10 28	0 47.25	+ 7 49.9	1.818	2.768	7.4	19.4
11 7	0 50.37	-14 8.8	3.944	4.725	8.1	20.4	11 7	0 41.00	+ 6 49.9	1.883	2.769	11.2	19.7
11 17	0 47.69	-14 19.2	4.049	4.723	9.5	20.5	11 17	0 36.96	+ 6 3.4	1.970	2.768	14.4	19.9
93011	2000 <i>RL</i> ₈₇	10	9.9 0°04	1°6/ 8.8 18			454834	2015 <i>RM</i> ₂₀₉	10	10.0 321°88	1°3/ 8.7 18		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
482658	2013 <i>BK</i> ₅₈		10 10.0	3°24	9°3/	1.8 17	40637	1999 <i>RP</i> ₁₈₀		10 10.0	235°73	5°7/	3.9 18
9 8	1 19.80	-10 33.8	1.223	2.138	15.0	20.1	9 8	1 22.91	-4 59.0	1.759	2.655	12.2	18.8
9 18	1 16.40	-12 24.9	1.185	2.136	11.7	19.9	9 18	1 18.12	-6 41.4	1.704	2.652	9.0	18.6
9 28	1 10.67	-14 8.0	1.169	2.136	9.5	19.8	9 28	1 11.49	-8 24.5	1.674	2.649	6.3	18.4
10 8	1 3.64	-15 30.2	1.176	2.138	9.9	19.8	10 8	1 3.80	-9 59.0	1.671	2.646	6.0	18.4
10 18	0 56.54	-16 21.7	1.206	2.140	12.4	20.0	10 18	0 55.98	-11 16.2	1.695	2.643	8.4	18.5
10 28	0 50.63	-16 37.3	1.257	2.144	15.6	20.2	10 28	0 49.03	-12 9.8	1.745	2.639	11.6	18.7
11 7	0 46.86	-16 17.6	1.326	2.149	18.8	20.4	11 7	0 43.74	-12 37.1	1.817	2.636	14.7	18.9
11 17	0 45.75	-15 27.0	1.411	2.156	21.5	20.7	11 17	0 40.64	-12 38.7	1.909	2.632	17.3	19.1
514252	2015 <i>PX</i> ₁₁₉		10 10.0	171°67	5°4/	14.7 18	306799	2001 <i>PK</i> ₃₁		10 10.0	25°15	6°3/	16.4 18
9 8	1 28.83	+22 15.6	1.960	2.769	14.8	21.3	9 8	1 22.05	+25 48.1	1.557	2.375	17.6	20.0
9 18	1 22.46	+22 46.4	1.884	2.770	11.9	21.1	9 18	1 17.85	+25 40.4	1.495	2.382	14.3	19.8
9 28	1 13.99	+22 58.0	1.830	2.771	8.8	20.9	9 28	1 11.46	+25 4.0	1.451	2.391	10.7	19.6
10 8	1 4.22	+22 49.8	1.802	2.772	6.1	20.8	10 8	1 3.80	+24 0.0	1.431	2.400	7.5	19.4
10 18	0 54.16	+22 23.3	1.800	2.773	5.6	20.7	10 18	0 56.01	+22 33.3	1.436	2.410	6.4	19.4
10 28	0 44.94	+21 43.6	1.827	2.773	7.7	20.9	10 28	0 49.29	+20 53.3	1.466	2.421	8.4	19.5
11 7	0 37.52	+20 57.5	1.879	2.773	10.8	21.1	11 7	0 44.59	+19 11.1	1.522	2.432	11.7	19.8
11 17	0 32.51	+20 12.2	1.956	2.773	13.7	21.3	11 17	0 42.44	+17 36.8	1.600	2.444	15.0	20.0
411570	2011 <i>DM</i> ₄₈		10 10.0	276°07	0°3/	9.7 17	213185	2000 <i>SS</i> ₂₃₀		10 10.0	3°91	0°8/	9.7 18
9 8	1 22.94	+7 17.4	2.396	3.262	10.6	21.5	9 8	1 25.33	+4 29.7	0.841	1.758	19.7	18.5
9 18	1 17.84	+6 56.0	2.312	3.249	7.6	21.3	9 18	1 21.24	+4 52.2	0.795	1.756	14.3	18.2
9 28	1 11.25	+6 26.7	2.254	3.235	4.3	21.1	9 28	1 13.77	+5 4.9	0.766	1.755	8.0	17.9
10 8	1 3.76	+5 52.7	2.223	3.222	0.7	20.8	10 8	1 4.22	+5 12.5	0.758	1.757	1.4	17.5
10 18	0 56.04	+5 17.8	2.222	3.208	3.0	21.0	10 18	0 54.42	+5 20.5	0.771	1.761	5.8	17.8
10 28	0 48.90	+4 46.3	2.250	3.195	6.6	21.2	10 28	0 46.31	+5 35.5	0.805	1.766	12.1	18.2
11 7	0 42.99	+4 22.3	2.305	3.181	9.8	21.4	11 7	0 41.32	+6 2.2	0.859	1.774	17.7	18.5
11 17	0 38.83	+4 8.5	2.383	3.167	12.6	21.5	11 17	0 40.10	+6 43.0	0.928	1.784	22.2	18.9
423134	2004 <i>CO</i> ₅₈		10 10.0	213°92	5°4/	5.0 18	107204	2001 <i>BV</i> ₃₃		10 10.0	180°24	5°6/	3.8 18
9 8	1 26.89	-4 56.7	1.763	2.653	12.5	21.2	9 8	1 23.83	-6 53.3	1.982	2.872	11.3	19.5
9 18	1 21.00	-6 14.0	1.702	2.647	9.2	21.0	9 18	1 18.57	-8 23.3	1.930	2.873	8.4	19.3
9 28	1 13.12	-7 31.8	1.665	2.641	6.2	20.8	9 28	1 11.67	-9 51.6	1.903	2.874	6.1	19.2
10 8	1 4.07	-8 41.8	1.655	2.634	5.5	20.7	10 8	1 3.83	-11 10.2	1.904	2.874	5.9	19.2
10 18	0 54.85	-9 36.3	1.673	2.626	7.9	20.9	10 18	0 55.91	-12 12.1	1.933	2.874	8.0	19.3
10 28	0 46.54	-10 9.5	1.717	2.618	11.3	21.1	10 28	0 48.79	-12 52.4	1.987	2.873	10.8	19.5
11 7	0 40.00	-10 19.2	1.784	2.610	14.6	21.3	11 7	0 43.21	-13 9.4	2.065	2.872	13.6	19.6
11 17	0 35.81	-10 5.8	1.870	2.600	17.4	21.4	11 17	0 39.65	-13 3.7	2.163	2.871	15.9	19.8
266171	2006 <i>UL</i> ₂₅₃		10 10.0	269°62	2°4/	8.4 18	1512	Oulu		10 10.0	115°48	0°3/	10.4 18
9 8	1 29.24	+2 13.5	1.464	2.352	14.7	20.7	9 8	1 20.22	+9 1.7	3.380	4.233	8.1	16.0
9 18	1 23.05	+1 50.1	1.398	2.346	10.6	20.4	9 18	1 15.45	+8 44.0	3.314	4.243	5.8	15.8
9 28	1 14.43	+1 20.4	1.355	2.340	5.9	20.2	9 28	1 9.73	+8 20.2	3.275	4.253	3.3	15.7
10 8	1 4.31	+0 50.2	1.337	2.333	2.4	19.9	10 8	1 3.50	+7 52.4	3.265	4.263	0.7	15.5
10 18	0 53.92	+0 25.7	1.346	2.327	5.6	20.1	10 18	0 57.21	+7 23.4	3.285	4.272	2.1	15.6
10 28	0 44.61	+0 12.9	1.381	2.321	10.3	20.4	10 28	0 51.38	+6 55.8	3.366	4.282	4.6	15.8
11 7	0 37.46	+0 15.6	1.439	2.314	14.6	20.6	11 7	0 46.43	+6 32.5	3.415	4.291	6.9	16.0
11 17	0 33.13	+0 35.3	1.518	2.308	18.3	20.9	11 17	0 42.70	+6 15.6	3.520	4.300	8.9	16.1
487648	2015 <i>OH</i> ₆₇		10 10.0	45°06	7°7/	17.7 18	407239	2009 <i>WZ</i> ₉₅		10 10.0	323°04	0°9/	9.1 17
9 8	1 25.20	+28 40.8	1.585	2.381	18.3	20.5	9 8	1 21.43	+6 9.5	1.921	2.802	12.1	21.0
9 18	1 20.09	+28 56.4	1.529	2.397	15.2	20.4	9 18	1 17.07	+5 34.4	1.842	2.787	8.7	20.7
9 28	1 12.69	+28 42.5	1.492	2.414	11.9	20.2	9 28	1 10.95	+4 50.0	1.788	2.772	4.8	20.5
10 8	1 4.00	+27 58.7	1.477	2.431	8.9	20.1	10 8	1 3.74	+4 0.6	1.759	2.758	1.0	20.2
10 18	0 55.22	+26 48.7	1.486	2.449	7.7	20.1	10 18	0 56.27	+3 12.0	1.759	2.744	3.9	20.4
10 28	0 47.62	+25 20.8	1.521	2.467	9.0	20.2	10 28	0 49.48	+2 30.0	1.786	2.730	8.0	20.6
11 7	0 42.18	+23 45.9	1.581	2.485	11.7	20.4	11 7	0 44.19	+1 59.7	1.838	2.717	11.7	20.8
11 17	0 39.43	+22 14.4	1.664	2.504	14.7	20.6	11 17	0 40.95	+1 44.2	1.912	2.705	14.9	21.0
158862	2004 <i>PK</i> ₈		10 10.0	103°99	0°4/	10.3 18	262442	2006 <i>UD</i> ₉₂		10 10.0	194°18	0°3/	9.8 18
9 8	1 27.17	+10 0.2	1.701	2.568	14.1	20.7	9 8	1 23.23	+8 33.9	2.039	2.908	12.0	21.5
9 18	1 21.11	+9 27.5	1.647	2.582	10.2	20.5	9 18	1 18.17	+7 52.5	1.970	2.908	8.6	21.3
9 28	1 13.12	+8 41.9	1.616	2.597	5.8	20.3	9 28	1 11.47	+7 0.3	1.925	2.907	4.8	21.1
10 8	1 4.06	+7 48.1	1.612	2.611	1.1	20.0	10 8	1 3.81	+6 1.8	1.908	2.907	0.8	20.8
10 18	0 54.98	+6 52.1	1.636	2.624	3.6	20.2	10 18	0 56.02	+5 2.5	1.920	2.906	3.4	21.0
10 28	0 46.96	+6 1.0	1.688	2.637	8.0	20.5	10 28	0 48.96	+4 8.5	1.959	2.905	7.3	21.2
11 7	0 40.83	+5 20.5	1.766	2.650	11.8	20.8	11 7	0 43.39	+3 25.0	2.025	2.904	10.8	21.4
11 17	0 37.06	+4 54.2	1.865	2.663	15.0	21.0	11 17	0 39.80	+2 55.4	2.114	2.903	13.8	21.6
438206	2005 <i>UA</i> ₁₆₄		10 10.0	227°89	1°8/	11.7 18	316966	2001 <i>FY</i> ₇₃		10 10.0	211°64	0°8/	10.9 17
9 8	1 25.89	+14 18.7	1.880	2.730	13.7	21.8	9 8	1 25.57	+10 12.6	2.786	3.633	9.8	21.3
9 18	1 20.33	+13 49.1	1.798	2.721	10.3	21.6	9 18	1 19.53	+10 10.6	2.702	3.626	7.2	21.1
9 28	1 12.79	+13 2.6	1.739	2.712	6.3	21.4	9 28	1 12.14	+10 0.6	2.645	3.620	4.3	20.9
10 8	1 4.03	+12 2.4	1.707	2.703	2.4	21.1	10 8	1 3.93	+9 44.7	2.616	3.613	1.2	20.7
10 18	0 54.99	+10 53.8	1.704	2.692	3.4	21.1	10 18	0 55.54	+9 25.2	2.618	3.606	2.5	20.7
10 28	0 46.74	+9 43.9	1.729	2.682	7.5	21.4	10 28	0 47.68	+9 5.5	2.651	3.598	5.6	20.9
11 7	0 40.18	+8 40.4	1.780	2.671	11.4	21.6	11 7	0 40.97	+8 48.9	2.712	3.590	8.4	21.1
11 17	0 35.90	+7 48.9	1.854	2.659	14.9	21.8	11 17	0 35.85	+8 38.3	2.798	3.582	10.9	21.3
405120	2002 <i>FS</i> ₄₁		10 10.0	130°20	0°8/	8.9 18	287217	2002 <i>SO</i> ₇₁		10 10.0	14°42	1°4/	10.9 18
9 8	1 22.35	+6 13.3	2.649	3.515	9.7								

EPHEMERIDES

10 10.0

10 10.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
412295	2013 <i>JV</i> ₃₉		10 10.0 324°33	0°3/ 9.7	18		78294	2002 <i>PP</i> ₅₃		10 10.0 15°20	4°9/ 5.9	18	
9 8	1 20.37	+ 9 30.7	2.083	2.954	11.7	20.9	9 8	1 22.57	- 2 7.2	1.384	2.289	14.3	18.7
9 18	1 16.12	+ 8 29.4	2.011	2.950	8.4	20.6	9 18	1 18.17	- 3 16.5	1.337	2.293	10.2	18.5
9 28	1 10.33	+ 7 15.8	1.963	2.946	4.7	20.4	9 28	1 11.62	- 4 28.0	1.314	2.297	6.4	18.3
10 8	1 3.63	+ 5 54.9	1.943	2.942	0.7	20.1	10 8	1 3.88	- 5 32.7	1.315	2.303	5.0	18.2
10 18	0 56.79	+ 4 33.2	1.952	2.938	3.4	20.3	10 18	0 56.07	- 6 21.9	1.341	2.309	7.8	18.4
10 28	0 50.64	+ 3 17.6	1.990	2.935	7.3	20.6	10 28	0 49.37	- 6 49.5	1.392	2.316	11.7	18.7
11 7	0 45.86	+ 2 13.9	2.053	2.932	10.7	20.8	11 7	0 44.70	- 6 53.0	1.465	2.323	15.4	18.9
11 17	0 42.94	+ 1 26.2	2.140	2.928	13.7	21.0	11 17	0 42.54	- 6 33.0	1.556	2.332	18.5	19.1
94244	2001 <i>CP</i> ₁₀		10 10.0 354°66	6°8/ 3.2	18		482316	2011 <i>UP</i> ₂₂₈		10 10.0 276°68	1°5/ 8.7	18	
9 8	1 22.49	-10 30.5	1.828	2.723	11.9	18.7	9 8	1 24.99	+ 4 15.5	1.925	2.803	12.2	21.4
9 18	1 17.74	-11 42.9	1.779	2.720	9.2	18.5	9 18	1 19.65	+ 3 42.9	1.844	2.788	8.7	21.2
9 28	1 11.26	-12 49.5	1.754	2.718	7.2	18.4	9 28	1 12.43	+ 3 2.7	1.789	2.773	4.8	20.9
10 8	1 3.79	-13 42.6	1.755	2.717	7.1	18.4	10 8	1 4.03	+ 2 19.5	1.760	2.757	1.5	20.6
10 18	0 56.23	-14 15.9	1.782	2.716	9.1	18.5	10 18	0 55.35	+ 1 38.8	1.759	2.742	4.4	20.8
10 28	0 49.55	-14 25.7	1.834	2.715	11.8	18.7	10 28	0 47.37	+ 1 6.1	1.787	2.726	8.4	21.0
11 7	0 44.48	-14 11.4	1.908	2.715	14.5	18.9	11 7	0 40.97	+ 0 45.9	1.839	2.710	12.2	21.2
11 17	0 41.52	-13 34.9	2.000	2.715	16.8	19.1	11 17	0 36.73	+ 0 40.8	1.913	2.694	15.4	21.4
9752	1990 <i>QZ</i> ₁		10 10.0 281°13	2°9/12.1	18		315195	2007 <i>PM</i> ₄₀		10 10.0 356°93	4°0/17.2	18	
9 8	1 28.45	+14 14.3	1.548	2.405	15.8	17.6	9 8	1 19.17	+27 36.3	4.022	4.775	8.8	19.9
9 18	1 22.59	+14 26.1	1.471	2.396	12.0	17.4	9 18	1 14.77	+27 51.4	3.934	4.775	7.3	19.8
9 28	1 14.27	+14 21.2	1.415	2.387	7.7	17.1	9 28	1 9.42	+27 54.6	3.870	4.774	5.8	19.7
10 8	1 4.34	+14 0.8	1.385	2.378	3.6	16.8	10 8	1 3.50	+27 46.0	3.832	4.773	4.5	19.6
10 18	0 53.99	+13 28.6	1.381	2.368	4.2	16.9	10 18	0 57.45	+27 26.4	3.823	4.773	4.0	19.6
10 28	0 44.59	+12 51.0	1.404	2.359	8.6	17.1	10 28	0 51.76	+26 58.0	3.842	4.773	4.7	19.6
11 7	0 37.28	+12 15.6	1.451	2.350	13.0	17.3	11 7	0 46.86	+26 23.8	3.890	4.773	6.0	19.7
11 17	0 32.78	+11 48.8	1.520	2.341	16.8	17.6	11 17	0 43.08	+25 47.1	3.963	4.773	7.5	19.8
97333	1999 <i>XW</i> ₂₅₆		10 10.0 94°62	10°1/30.2	18		301693	2010 <i>FK</i> ₉₂		10 10.0 143°82	2°0/11.9	18	
9 8	1 31.22	-27 56.8	2.318	3.150	12.1	18.8	9 8	1 28.12	+14 7.2	2.198	3.037	12.4	21.4
9 18	1 23.52	-28 40.3	2.292	3.161	10.8	18.8	9 18	1 21.58	+14 4.4	2.131	3.047	9.3	21.2
9 28	1 14.26	-29 5.0	2.289	3.171	10.1	18.8	9 28	1 13.36	+13 48.8	2.088	3.057	5.8	21.0
10 8	1 4.27	-29 5.7	2.311	3.182	10.4	18.8	10 8	1 4.19	+13 22.4	2.073	3.065	2.6	20.8
10 18	0 54.47	-28 39.9	2.358	3.192	11.4	18.9	10 18	0 54.90	+12 48.5	2.087	3.074	3.1	20.8
10 28	0 45.75	-27 47.9	2.428	3.202	12.8	19.0	10 28	0 46.43	+12 12.0	2.131	3.082	6.4	21.1
11 7	0 38.79	-26 32.9	2.520	3.212	14.3	19.1	11 7	0 39.49	+11 37.9	2.202	3.089	9.7	21.3
11 17	0 33.95	-24 59.5	2.629	3.222	15.6	19.3	11 17	0 34.60	+11 10.7	2.297	3.096	12.6	21.5
319061	2005 <i>WV</i> ₂₀		10 10.0 49°95	3°7/ 6.8	18		421741	2014 <i>PX</i> ₄₅		10 10.0 346°29	3°5/ 6.1	18	
9 8	1 25.93	- 3 21.8	1.969	2.855	11.6	20.8	9 8	1 20.84	- 0 44.0	2.069	2.960	10.9	20.8
9 18	1 20.04	- 3 51.5	1.915	2.861	8.3	20.6	9 18	1 16.43	- 1 57.3	2.009	2.958	7.8	20.6
9 28	1 12.48	- 4 20.9	1.887	2.867	5.2	20.4	9 28	1 10.51	- 3 14.2	1.974	2.956	4.7	20.4
10 8	1 4.00	- 4 44.9	1.885	2.873	3.8	20.3	10 8	1 3.71	- 4 28.0	1.967	2.955	3.6	20.4
10 18	0 55.48	- 4 58.8	1.912	2.879	5.9	20.5	10 18	0 56.81	- 5 32.3	1.988	2.954	5.8	20.5
10 28	0 47.83	- 4 59.2	1.966	2.885	9.1	20.7	10 28	0 50.61	- 6 21.6	2.037	2.953	9.0	20.7
11 7	0 41.78	- 4 44.6	2.044	2.892	12.1	20.9	11 7	0 45.79	- 6 52.5	2.110	2.952	12.0	20.9
11 17	0 37.80	- 4 15.2	2.144	2.898	14.8	21.1	11 17	0 42.82	- 7 4.0	2.204	2.951	14.6	21.1
469081	2015 <i>BT</i> ₂₄₂		10 10.0 97°33	1°0/10.9	16		520157	2014 <i>CM</i> ₂₅		10 10.0 154°72	0°3/10.3	18	
9 8	1 27.08	+12 27.9	1.470	2.338	15.9	21.3	9 8	1 25.61	+ 9 51.4	2.025	2.887	12.4	22.3
9 18	1 21.32	+11 45.8	1.416	2.351	11.6	21.1	9 18	1 19.88	+ 9 17.9	1.959	2.892	9.0	22.1
9 28	1 13.35	+10 45.8	1.385	2.364	6.8	20.9	9 28	1 12.45	+ 8 32.9	1.917	2.897	5.1	21.8
10 8	1 4.16	+ 9 33.6	1.379	2.377	1.8	20.6	10 8	1 4.04	+ 7 40.5	1.904	2.902	1.0	21.6
10 18	0 54.94	+ 8 16.8	1.400	2.389	3.8	20.8	10 18	0 55.54	+ 6 45.9	1.919	2.906	3.2	21.8
10 28	0 46.91	+ 7 4.7	1.448	2.401	8.6	21.1	10 28	0 47.84	+ 5 55.0	1.962	2.910	7.2	22.0
11 7	0 41.02	+ 6 5.0	1.521	2.414	12.9	21.4	11 7	0 41.71	+ 5 13.0	2.033	2.913	10.7	22.2
11 17	0 37.77	+ 5 22.7	1.615	2.425	16.5	21.6	11 17	0 37.64	+ 4 43.6	2.126	2.916	13.7	22.4
514557	2017 <i>WY</i> ₉		10 10.0 154°99	6°2/ 4.9	17		235698	2004 <i>TY</i> ₄		10 10.0 177°40	2°8/12.9	18	
9 8	1 27.89	- 5 33.8	1.485	2.381	14.1	20.6	9 8	1 24.76	+17 45.1	1.884	2.723	14.2	20.5
9 18	1 21.89	- 6 55.1	1.437	2.385	10.4	20.4	9 18	1 19.48	+17 13.5	1.811	2.724	10.8	20.2
9 28	1 13.68	- 8 15.2	1.412	2.388	7.1	20.3	9 28	1 12.32	+16 22.6	1.760	2.725	7.1	20.0
10 8	1 4.22	- 9 24.3	1.413	2.391	6.4	20.2	10 8	1 4.04	+15 15.2	1.735	2.725	3.5	19.8
10 18	0 54.71	-10 14.0	1.441	2.394	8.9	20.4	10 18	0 55.59	+13 56.7	1.738	2.725	3.6	19.8
10 28	0 46.36	-10 38.6	1.493	2.397	12.5	20.6	10 28	0 47.99	+12 34.7	1.770	2.725	7.1	20.0
11 7	0 40.11	-10 36.8	1.567	2.399	16.0	20.8	11 7	0 42.09	+11 17.4	1.828	2.725	10.9	20.3
11 17	0 36.50	-10 10.5	1.659	2.401	18.9	21.1	11 17	0 38.42	+10 11.4	1.910	2.724	14.1	20.5
514354	2016 <i>PN</i> ₉₈		10 10.0 318°66	2°0/11.2	18		507095	2009 <i>FV</i> ₃₅		10 10.0 97°32	1°5/ 9.1	17	
9 8	1 29.31	+10 35.8	1.475	2.345	15.7	20.6	9 8	1 31.39	+ 4 26.8	1.356	2.240	15.9	21.1
9 18	1 23.35	+11 4.9	1.397	2.332	11.8	20.3	9 18	1 24.54	+ 4 6.2	1.306	2.252	11.3	20.8
9 28	1 14.77	+11 22.0	1.341	2.319	7.2	20.0	9 28	1 15.22	+ 3 37.0	1.278	2.263	6.3	20.6
10 8	1 4.46	+11 28.0	1.310	2.306	2.6	19.7	10 8	1 4.53	+ 3 4.9	1.276	2.274	1.6	20.3
10 18	0 53.63	+11 25.7	1.305	2.294	4.1	19.8	10 18	0 53.82	+ 2 36.3	1.301	2.285	5.1	20.6
10 28	0 43.75	+11 20.0	1.327	2.282	9.0	20.0	10 28	0 44.47	+ 2 17.6	1.351	2.296	10.0	20.9
11 7	0 36.04	+11 16.7	1.373	2.271	13.6	20.3	11 7	0 37.51	+ 2 13.0	1.425	2.306	14.4	21.2
11 17	0 31.27	+11 20.9	1.439	2.260	17.6	20.5	11 17	0 33.49	+ 2 24.3	1.520	2.317	17.9	21.5
156109	2001 <i>SP</i> ₂₄₈		10 10.0 250°82	0									

EPHEMERIDES

10 10.0

10 10.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
265295	2004 <i>GO</i> ₅₆		10 10.0 237°58	0°8/10.6	18		44122	1998 <i>HT</i> ₃₄		10 10.0 56°31	3°0/ 7.8	18	
9 8	1 27.63	+10 32.2	1.689	2.554	14.3	21.3	9 8	1 25.83	+ 4 5.3	1.195	2.095	16.5	18.4
9 18	1 21.78	+10 11.4	1.611	2.546	10.5	21.0	9 18	1 20.62	+ 2 48.6	1.158	2.112	11.6	18.2
9 28	1 13.73	+ 9 36.5	1.557	2.537	6.1	20.8	9 28	1 13.02	+ 1 22.4	1.144	2.131	6.4	17.9
10 8	1 4.30	+ 8 51.1	1.530	2.527	1.5	20.4	10 8	1 4.19	- 0 3.3	1.153	2.149	3.0	17.8
10 18	0 54.56	+ 8 0.6	1.529	2.518	3.7	20.6	10 18	0 55.45	- 1 18.0	1.188	2.168	6.5	18.0
10 28	0 45.69	+ 7 12.1	1.557	2.508	8.4	20.8	10 28	0 48.16	- 2 12.8	1.248	2.187	11.2	18.4
11 7	0 38.70	+ 6 32.2	1.609	2.497	12.6	21.1	11 7	0 43.23	- 2 43.4	1.329	2.207	15.5	18.7
11 17	0 34.24	+ 6 5.6	1.684	2.487	16.2	21.3	11 17	0 41.11	- 2 49.2	1.430	2.226	18.9	19.0
329575	2002 <i>VS</i> ₁₃₈		10 10.0 42°12	1°8/12.3	18		51770	2001 <i>LH</i> ₁₉		10 10.0 351°09	6°8/16.4	18	
9 8	1 20.88	+15 25.9	2.350	3.194	11.5	20.6	9 8	1 23.22	+25 50.6	1.646	2.457	17.1	17.9
9 18	1 16.36	+14 56.7	2.280	3.198	8.7	20.4	9 18	1 18.81	+26 4.8	1.571	2.453	14.1	17.7
9 28	1 10.44	+14 13.8	2.233	3.202	5.5	20.2	9 28	1 12.15	+25 52.5	1.515	2.450	10.8	17.5
10 8	1 3.72	+13 20.0	2.214	3.207	2.4	20.0	10 8	1 4.07	+25 13.3	1.482	2.447	7.8	17.4
10 18	0 56.89	+12 19.5	2.224	3.212	2.8	20.1	10 18	0 55.69	+24 9.9	1.474	2.445	6.8	17.3
10 28	0 50.72	+11 17.7	2.263	3.217	5.9	20.3	10 28	0 48.23	+22 49.7	1.492	2.443	8.6	17.4
11 7	0 45.83	+10 20.2	2.329	3.222	9.0	20.5	11 7	0 42.74	+21 22.7	1.535	2.442	11.8	17.6
11 17	0 42.64	+ 9 31.5	2.419	3.227	11.7	20.7	11 17	0 39.86	+19 58.8	1.600	2.442	15.1	17.8
111788	2002 <i>CR</i> ₂₃₅		10 10.0 327°99	5°3/ 6.8	18		482731	2013 <i>EB</i> ₈₄		10 10.1 319°29	4°6/ 6.2	17	
9 8	1 25.43	- 1 44.6	1.053	1.966	17.0	18.1	9 8	1 22.20	- 1 3.2	1.431	2.334	14.0	20.5
9 18	1 21.06	- 2 34.1	0.992	1.951	12.4	17.8	9 18	1 18.27	- 2 9.9	1.350	2.305	10.2	20.2
9 28	1 13.67	- 3 27.9	0.951	1.936	7.6	17.5	9 28	1 11.97	- 3 23.8	1.291	2.276	6.3	19.9
10 8	1 4.32	- 4 16.1	0.932	1.923	5.4	17.3	10 8	1 4.07	- 4 35.9	1.257	2.247	4.7	19.8
10 18	0 54.53	- 4 48.4	0.935	1.910	8.8	17.5	10 18	0 55.67	- 5 36.8	1.249	2.219	7.8	19.9
10 28	0 46.02	- 4 56.5	0.961	1.899	14.0	17.7	10 28	0 48.06	- 6 17.7	1.264	2.191	12.3	20.1
11 7	0 40.16	- 4 37.1	1.007	1.888	18.9	18.0	11 7	0 42.38	- 6 33.3	1.301	2.165	16.7	20.2
11 17	0 37.71	- 3 51.2	1.068	1.879	23.1	18.2	11 17	0 39.41	- 6 22.2	1.356	2.139	20.4	20.4
47785	2000 <i>EL</i> ₂₀		10 10.0 258°90	1°1/11.2	18		98935	2001 <i>CV</i> ₁₀		10 10.1 100°42	7°6/20.9	18	
9 8	1 22.76	+13 41.9	1.985	2.840	12.9	19.1	9 8	1 29.78	+36 34.7	2.790	3.480	13.5	18.7
9 18	1 18.03	+12 50.0	1.901	2.828	9.6	18.9	9 18	1 22.76	+37 14.4	2.726	3.504	11.8	18.6
9 28	1 11.53	+11 41.1	1.840	2.816	5.7	18.6	9 28	1 14.06	+37 32.7	2.682	3.528	10.0	18.5
10 8	1 3.92	+10 19.4	1.806	2.803	1.8	18.3	10 8	1 4.39	+37 27.8	2.662	3.552	8.5	18.5
10 18	0 56.08	+ 8 50.9	1.801	2.790	3.2	18.4	10 18	0 54.60	+37 0.4	2.668	3.575	7.7	18.4
10 28	0 48.93	+ 7 23.7	1.825	2.777	7.3	18.7	10 28	0 45.60	+36 13.8	2.701	3.597	7.9	18.5
11 7	0 43.29	+ 6 5.2	1.875	2.763	11.1	18.9	11 7	0 38.14	+35 13.8	2.761	3.619	9.0	18.6
11 17	0 39.72	+ 5 1.2	1.949	2.750	14.4	19.1	11 17	0 32.72	+34 7.2	2.845	3.640	10.5	18.7
79585	1998 <i>RD</i> ₁₆		10 10.0 356°09	3°9/ 6.7	18		27320	Vellenga		10 10.1 147°83	0°2/10.2	18	
9 8	1 22.73	+ 2 6.6	1.294	2.198	15.2	19.2	9 8	1 27.51	+ 9 47.3	1.782	2.647	13.7	19.7
9 18	1 18.51	+ 0 38.3	1.240	2.196	10.8	19.0	9 18	1 21.42	+ 9 10.9	1.720	2.655	9.9	19.4
9 28	1 11.94	- 0 59.6	1.208	2.195	6.2	18.7	9 28	1 13.40	+ 8 21.7	1.681	2.662	5.6	19.2
10 8	1 4.00	- 2 36.6	1.201	2.194	4.0	18.6	10 8	1 4.28	+ 7 24.3	1.670	2.668	1.1	18.9
10 18	0 55.90	- 4 1.5	1.219	2.193	7.3	18.8	10 18	0 55.06	+ 6 24.8	1.687	2.674	3.6	19.1
10 28	0 48.93	- 5 4.7	1.262	2.193	11.9	19.0	10 28	0 46.80	+ 5 30.1	1.732	2.680	7.9	19.4
11 7	0 44.09	- 5 41.1	1.326	2.194	16.1	19.3	11 7	0 40.35	+ 4 46.1	1.803	2.685	11.8	19.6
11 17	0 41.97	- 5 49.7	1.408	2.195	19.6	19.5	11 17	0 36.23	+ 4 16.6	1.896	2.690	15.0	19.9
90422	2003 <i>YJ</i> ₁₄₂		10 10.0 353°75	9°2/ 4.4	18		175481	2006 <i>RK</i> ₂₆		10 10.1 0°47	3°6/ 6.7	18	
9 8	1 27.98	-13 43.9	1.302	2.201	15.5	17.5	9 8	1 23.89	- 0 54.9	1.782	2.674	12.3	19.7
9 18	1 22.28	-14 23.2	1.254	2.195	12.3	17.3	9 18	1 18.83	- 1 51.3	1.724	2.674	8.8	19.5
9 28	1 14.05	-14 49.8	1.227	2.190	9.8	17.2	9 28	1 11.95	- 2 50.8	1.691	2.673	5.3	19.3
10 8	1 4.37	-14 54.6	1.223	2.186	9.4	17.2	10 8	1 4.03	- 3 46.7	1.684	2.673	3.7	19.2
10 18	0 54.59	-14 31.7	1.243	2.183	11.5	17.3	10 18	0 55.99	- 4 32.6	1.704	2.673	6.2	19.4
10 28	0 46.14	-13 39.3	1.285	2.182	14.7	17.5	10 28	0 48.83	- 5 2.9	1.751	2.674	9.7	19.6
11 7	0 40.06	-12 20.3	1.348	2.181	18.0	17.7	11 7	0 43.33	- 5 14.6	1.821	2.674	13.1	19.8
11 17	0 36.92	-10 39.6	1.429	2.182	20.9	17.9	11 17	0 40.01	- 5 7.2	1.912	2.675	16.0	20.0
332305	2006 <i>VN</i> ₂₁		10 10.0 162°19	1°6/11.6	17		250010	2002 <i>AF</i> ₄₄		10 10.1 340°28	2°4/12.3	18	
9 8	1 26.76	+14 29.5	1.759	2.611	14.4	21.5	9 8	1 21.80	+15 17.5	1.658	2.518	14.7	20.3
9 18	1 20.96	+13 46.7	1.691	2.616	10.7	21.3	9 18	1 17.64	+14 59.4	1.583	2.509	11.2	20.1
9 28	1 13.16	+12 46.0	1.647	2.621	6.5	21.1	9 28	1 11.44	+14 22.7	1.529	2.502	7.1	19.8
10 8	1 4.21	+11 31.4	1.629	2.624	2.3	20.8	10 8	1 3.96	+13 30.3	1.501	2.494	3.2	19.6
10 18	0 55.13	+10 9.7	1.639	2.628	3.4	20.9	10 18	0 56.22	+12 27.5	1.499	2.488	3.7	19.6
10 28	0 47.01	+ 8 49.0	1.678	2.631	7.7	21.2	10 28	0 49.31	+11 21.9	1.524	2.482	7.8	19.8
11 7	0 40.72	+ 7 37.5	1.743	2.633	11.7	21.4	11 7	0 44.17	+10 21.6	1.573	2.476	11.9	20.1
11 17	0 36.81	+ 6 40.6	1.830	2.635	15.1	21.7	11 17	0 41.41	+ 9 33.0	1.645	2.472	15.5	20.3
294186	2007 <i>TD</i> ₄₀₁		10 10.0 6°16	3°0/12.5	18		484853	2009 <i>HT</i> ₉₆		10 10.1 167°90	2°3/ 7.6	18	
9 8	1 18.47	+17 26.8	0.944	1.835	20.6	19.6	9 8	1 23.59	+ 2 12.6	2.161	3.041	11.0	21.8
9 18	1 16.12	+16 36.3	0.892	1.834	15.7	19.3	9 18	1 18.35	+ 1 16.7	2.098	3.043	7.8	21.6
9 28	1 10.86	+15 11.4	0.857	1.835	10.0	19.0	9 28	1 11.60	+ 0 15.6	2.061	3.045	4.4	21.4
10 8	1 3.85	+13 18.8	0.842	1.837	4.2	18.7	10 8	1 3.97	- 0 45.3	2.053	3.047	2.3	21.2
10 18	0 56.61	+11 11.5	0.850	1.841	4.8	18.8	10 18	0 56.25	- 1 40.5	2.073	3.048	4.6	21.4
10 28	0 50.79	+ 9 6.7	0.881	1.846	10.5	19.1	10 28	0 49.25	- 2 24.7	2.122	3.050	8.0	21.6
11 7	0 47.62	+ 7 20.2	0.932	1.853	16.0	19.5	11 7	0 43.66	- 2 54.3	2.196	3.050	11.1	21.8
11 17	0 47.67	+ 6 1.3	1.002	1.861	20.6	19.8	11 17	0 39.92	- 3 7.7	2.292	3.051	13.8	22.0
324374	2006 <i>RE</i> ₉		10 10.0 358°04	5°4/ 6.0	17		38617	2000 <i>AY</i> ₁₆₁		10 10.1 4°42	3°1/ 4.4	18	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
514296	2015 <i>TZ</i> ₁₀₄		10 10.1	97°40	7.1/ 2.2	18	317656	2003 <i>FO</i> ₁₀₅		10 10.1	190°09	1.6/ 8.1	18
9 8	1 24.72	-16 8.4	2.326	3.201	10.5	21.0	9 8	1 22.55	+ 4 3.2	2.436	3.310	10.1	21.7
9 18	1 19.02	-17 5.1	2.285	3.206	8.5	20.9	9 18	1 17.50	+ 3 6.8	2.367	3.309	7.2	21.5
9 28	1 11.90	-17 52.3	2.269	3.211	7.2	20.8	9 28	1 11.10	+ 2 4.0	2.324	3.307	3.9	21.3
10 8	1 4.02	-18 24.2	2.280	3.217	7.4	20.9	10 8	1 3.91	+ 0 59.6	2.309	3.306	1.6	21.1
10 18	0 56.14	-18 36.8	2.318	3.222	8.8	21.0	10 18	0 56.60	- 0 1.3	2.325	3.304	3.9	21.3
10 28	0 49.05	-18 28.2	2.380	3.227	10.8	21.1	10 28	0 49.91	- 0 53.6	2.370	3.301	7.1	21.5
11 7	0 43.36	-17 59.0	2.466	3.232	12.8	21.3	11 7	0 44.46	- 1 33.4	2.441	3.298	10.1	21.7
11 17	0 39.49	-17 11.2	2.571	3.237	14.5	21.4	11 17	0 40.66	- 1 58.7	2.536	3.295	12.6	21.9
358553	2007 <i>TD</i> ₁₆₃		10 10.1	326°17	1.4/ 9.0	17	368854	2006 <i>HP</i> ₉₄		10 10.1	160°12	1.4/ 8.9	17
9 8	1 23.28	+ 5 6.2	1.364	2.260	15.1	20.7	9 8	1 29.24	+ 5 56.1	1.507	2.387	14.9	22.1
9 18	1 19.14	+ 4 41.5	1.285	2.236	10.9	20.4	9 18	1 22.95	+ 5 12.1	1.448	2.392	10.6	21.9
9 28	1 12.50	+ 4 5.8	1.227	2.213	6.1	20.0	9 28	1 14.38	+ 4 17.3	1.412	2.396	5.9	21.6
10 8	1 4.18	+ 3 24.6	1.193	2.191	1.5	19.7	10 8	1 4.49	+ 3 17.7	1.401	2.399	1.5	21.3
10 18	0 55.35	+ 2 44.9	1.184	2.170	5.2	19.9	10 18	0 54.46	+ 2 21.0	1.419	2.402	4.9	21.6
10 28	0 47.39	+ 2 14.4	1.200	2.150	10.5	20.1	10 28	0 45.57	+ 1 34.7	1.463	2.405	9.6	21.9
11 7	0 41.51	+ 1 59.5	1.239	2.131	15.3	20.4	11 7	0 38.79	+ 1 4.3	1.531	2.407	13.8	22.1
11 17	0 38.47	+ 2 3.5	1.296	2.113	19.4	20.6	11 17	0 34.71	+ 0 52.5	1.619	2.409	17.3	22.4
223188	2003 <i>AP</i> ₅₁		10 10.1	296°82	0.3/ 9.9	18	194168	2001 <i>TA</i> ₃₂		10 10.1	326°65	2.4/ 11.6	18
9 8	1 26.63	+ 7 43.4	1.454	2.336	15.2	20.5	9 8	1 28.23	+ 12 5.5	1.394	2.265	16.4	19.4
9 18	1 21.38	+ 7 23.0	1.378	2.322	11.1	20.2	9 18	1 22.66	+ 12 25.4	1.322	2.256	12.3	19.1
9 28	1 13.67	+ 6 49.7	1.325	2.309	6.3	19.9	9 28	1 14.45	+ 12 30.1	1.271	2.247	7.7	18.8
10 8	1 4.37	+ 6 8.1	1.297	2.295	1.0	19.5	10 8	1 4.53	+ 12 21.0	1.244	2.239	3.1	18.5
10 18	0 54.67	+ 5 24.5	1.295	2.282	4.4	19.7	10 18	0 54.17	+ 12 1.8	1.242	2.231	4.3	18.6
10 28	0 45.91	+ 4 46.4	1.319	2.269	9.6	20.0	10 28	0 44.85	+ 11 38.8	1.267	2.224	9.1	18.9
11 7	0 39.23	+ 4 20.4	1.366	2.257	14.2	20.3	11 7	0 37.78	+ 11 19.0	1.315	2.217	13.8	19.1
11 17	0 35.36	+ 4 10.6	1.434	2.244	18.2	20.5	11 17	0 33.71	+ 11 8.4	1.384	2.211	17.8	19.4
164208	2004 <i>HB</i> ₂₇		10 10.1	25°47	1.9/ 6.7	18	469383	2001 <i>ST</i> ₁₉₅		10 10.1	19°77	0.9/ 9.5	18
9 8	1 16.67	- 1 29.0	3.964	4.843	6.5	19.4	9 8	1 22.07	+ 7 20.1	0.949	1.860	18.7	19.8
9 18	1 12.90	- 2 2.6	3.902	4.845	4.6	19.3	9 18	1 18.45	+ 6 46.7	0.913	1.871	13.3	19.5
9 28	1 8.37	- 2 37.1	3.867	4.847	2.7	19.2	9 28	1 12.03	+ 5 57.7	0.895	1.883	7.4	19.3
10 8	1 3.41	- 3 9.7	3.861	4.850	1.9	19.1	10 8	1 4.07	+ 5 1.4	0.898	1.897	1.3	18.9
10 18	0 58.41	- 3 38.0	3.885	4.852	3.2	19.2	10 18	0 56.12	+ 4 7.8	0.924	1.913	5.4	19.3
10 28	0 53.75	- 3 59.8	3.939	4.855	5.1	19.3	10 28	0 49.73	+ 3 26.8	0.973	1.930	11.1	19.7
11 7	0 49.79	- 4 13.4	4.020	4.857	6.9	19.5	11 7	0 45.97	+ 3 5.0	1.042	1.949	16.1	20.0
11 17	0 46.79	- 4 17.9	4.125	4.860	8.5	19.6	11 17	0 45.32	+ 3 4.8	1.128	1.969	20.1	20.3
449050	2012 <i>DH</i> ₅₈		10 10.1	275°01	4.0/ 5.2	18	289711	2005 <i>HV</i> ₇		10 10.1	83°85	3.9/ 7.1	18
9 8	1 21.30	- 3 23.6	2.230	3.119	10.3	21.3	9 8	1 27.88	+ 0 5.8	1.389	2.284	14.9	20.2
9 18	1 16.74	- 4 35.8	2.166	3.112	7.4	21.1	9 18	1 21.96	+ 0 53.5	1.344	2.295	10.6	20.0
9 28	1 10.71	- 5 49.4	2.127	3.105	4.9	20.9	9 28	1 13.78	- 1 57.0	1.322	2.306	6.2	19.8
10 8	1 3.83	- 6 58.3	2.117	3.098	4.2	20.9	10 8	1 4.37	- 2 56.5	1.325	2.317	3.9	19.7
10 18	0 56.82	- 7 56.3	2.135	3.091	6.2	21.0	10 18	0 54.97	- 3 43.8	1.354	2.328	6.9	19.9
10 28	0 50.44	- 8 38.7	2.180	3.084	9.1	21.1	10 28	0 46.83	- 4 12.5	1.409	2.338	11.1	20.2
11 7	0 45.36	- 9 2.6	2.249	3.077	11.9	21.3	11 7	0 40.88	- 4 19.7	1.486	2.349	15.0	20.4
11 17	0 42.04	- 9 7.4	2.340	3.070	14.3	21.5	11 17	0 37.64	- 4 5.5	1.583	2.359	18.2	20.7
519408	2011 <i>SF</i> ₂₈₀		10 10.1	296°02	4.1/ 6.7	18	165985	2001 <i>YR</i> ₁₁₄		10 10.1	252°90	3.5/ 7.7	18
9 8	1 26.61	- 3 12.6	1.795	2.684	12.4	21.0	9 8	1 29.94	+ 0 24.5	1.388	2.279	15.2	20.0
9 18	1 20.85	- 3 47.8	1.729	2.676	9.0	20.7	9 18	1 23.74	- 0 12.6	1.323	2.272	10.9	19.8
9 28	1 13.14	- 4 23.6	1.687	2.668	5.6	20.5	9 28	1 14.97	- 0 54.9	1.280	2.265	6.3	19.5
10 8	1 4.27	- 4 54.0	1.672	2.660	4.1	20.4	10 8	1 4.61	- 1 35.4	1.263	2.257	3.5	19.3
10 18	0 55.19	- 5 13.3	1.684	2.652	6.5	20.5	10 18	0 53.96	- 2 6.5	1.272	2.249	6.6	19.5
10 28	0 46.98	- 5 17.3	1.723	2.644	10.0	20.7	10 28	0 44.43	- 2 21.9	1.306	2.241	11.3	19.7
11 7	0 40.50	- 5 3.9	1.786	2.636	13.5	20.9	11 7	0 37.19	- 2 17.8	1.364	2.233	15.7	20.0
11 17	0 36.31	- 4 33.0	1.869	2.629	16.4	21.1	11 17	0 32.88	- 1 53.7	1.440	2.225	19.3	20.2
295917	2008 <i>WZ</i> ₁₂₆		10 10.1	167°67	1.3/ 11.4	18	433422	2013 <i>TG</i> ₇₀		10 10.1	37°70	0.9/ 9.5	15
9 8	1 25.57	+ 12 59.9	1.991	2.844	12.9	21.9	9 8	1 29.76	+ 5 18.7	1.133	2.028	17.6	20.6
9 18	1 19.95	+ 12 32.7	1.921	2.846	9.6	21.7	9 18	1 23.73	+ 5 14.6	1.088	2.038	12.6	20.4
9 28	1 12.58	+ 11 51.3	1.874	2.849	5.8	21.5	9 28	1 14.93	+ 5 0.3	1.064	2.050	7.0	20.1
10 8	1 4.16	+ 10 59.1	1.855	2.851	2.0	21.3	10 8	1 4.58	+ 4 41.0	1.063	2.062	1.3	19.8
10 18	0 55.60	+ 10 1.0	1.864	2.853	3.1	21.3	10 18	0 54.22	+ 4 23.2	1.087	2.075	5.1	20.1
10 28	0 47.85	+ 9 3.4	1.902	2.854	7.0	21.6	10 28	0 45.39	+ 4 13.5	1.136	2.088	10.6	20.4
11 7	0 41.69	+ 8 12.3	1.966	2.855	10.6	21.8	11 7	0 39.23	+ 4 16.6	1.206	2.102	15.3	20.8
11 17	0 37.65	+ 7 32.5	2.054	2.855	13.7	22.0	11 17	0 36.27	+ 4 34.8	1.296	2.116	19.2	21.1
319060	2005 <i>WZ</i> ₁₇		10 10.1	12°98	6.0/ 4.8	18	184301	2005 <i>EY</i> ₁₅₃		10 10.1	76°64	3.6/ 11.4	17
9 8	1 25.23	- 8 52.8	1.827	2.718	12.1	20.2	9 8	1 42.02	+ 10 31.6	1.079	1.949	20.2	20.2
9 18	1 19.71	- 9 39.4	1.778	2.720	9.1	20.0	9 18	1 33.12	+ 11 52.6	1.024	1.956	15.2	19.9
9 28	1 12.41	- 10 21.0	1.752	2.722	6.6	19.9	9 28	1 20.52	+ 13 0.6	0.989	1.964	9.5	19.7
10 8	1 4.13	- 10 51.0	1.753	2.724	6.1	19.9	10 8	1 5.59	+ 13 52.7	0.977	1.971	4.3	19.4
10 18	0 55.79	- 11 4.2	1.780	2.727	8.0	20.0	10 18	0 50.32	+ 14 28.8	0.992	1.979	5.6	19.5
10 28	0 48.38	- 10 57.3	1.833	2.730	10.9	20.2	10 28	0 36.86	+ 14 52.7	1.032	1.987	11.1	19.8
11 7	0 42.67	- 10 30.2	1.909	2.734	13.8	20.4	11 7	0 26.83	+ 15 11.4	1.095	1.994	16.2	20.2
11 17	0 39.12	- 9 44.3	2.005	2.738	16.3	20.6	11 17	0 20.96	+ 15 31.8	1.177	2.002	20.5	20.5
468507	2005 <i>NB</i> ₆		10 10.1	15°06	21.5/ 8.5	18	515466	2013 <i>YX</i> ₁₀₉		1			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
207333	2005 <i>GX</i> ₁₇₂	10 10.1 193°46' 1 ^s / 8.6 18					316169	2009 <i>WQ</i> ₉₆	10 10.1 261°76' 0 ^s / 9.1 18				
9 8	1 25.35	+ 4 18.5	2.027	2.903	11.8	20.9	9 8	1 16.15	+ 5 16.0	4.532	5.396	6.0	21.5
9 18	1 19.75	+ 3 41.2	1.960	2.902	8.4	20.7	9 18	1 12.50	+ 4 52.8	4.456	5.393	4.3	21.4
9 28	1 12.45	+ 2 56.9	1.917	2.901	4.6	20.4	9 28	1 8.17	+ 4 26.3	4.408	5.390	2.3	21.2
10 8	1 4.16	+ 2 10.4	1.902	2.899	1.5	20.2	10 8	1 3.46	+ 3 58.3	4.389	5.387	0.5	21.1
10 18	0 55.73	+ 1 26.9	1.916	2.898	4.1	20.4	10 18	0 58.69	+ 3 31.0	4.401	5.384	1.9	21.2
10 28	0 48.07	+ 0 51.6	1.958	2.896	7.9	20.6	10 28	0 54.19	+ 3 6.3	4.443	5.381	3.8	21.3
11 7	0 41.93	+ 0 28.7	2.026	2.893	11.4	20.8	11 7	0 50.30	+ 2 46.2	4.513	5.378	5.6	21.5
11 17	0 37.83	+ 0 20.1	2.116	2.891	14.3	21.0	11 17	0 47.24	+ 2 32.1	4.610	5.375	7.2	21.6
378051	2006 <i>TY</i> ₄₆	10 10.1 355°37' 1 ^s / 9.1 17					265937	2006 <i>BG</i> ₁₈₁	10 10.1 321°14' 2 ^s / 12.4 17				
9 8	1 23.73	+ 4 18.1	0.973	1.885	18.1	20.8	9 8	1 24.23	+ 15 4.5	2.187	3.030	12.3	20.5
9 18	1 19.90	+ 4 5.4	0.919	1.878	13.1	20.5	9 18	1 18.98	+ 15 3.6	2.110	3.027	9.3	20.3
9 28	1 13.05	+ 3 41.8	0.885	1.873	7.3	20.1	9 28	1 12.07	+ 14 49.4	2.057	3.025	6.0	20.1
10 8	1 4.30	+ 3 14.1	0.871	1.870	1.9	19.8	10 8	1 4.16	+ 14 23.4	2.031	3.022	2.9	19.9
10 18	0 55.23	+ 2 50.3	0.881	1.868	6.0	20.1	10 18	0 56.05	+ 13 48.9	2.033	3.020	3.2	20.0
10 28	0 47.58	+ 2 38.7	0.912	1.867	11.9	20.4	10 28	0 48.62	+ 13 10.7	2.064	3.017	6.4	20.2
11 7	0 42.66	+ 2 44.8	0.963	1.869	17.2	20.7	11 7	0 42.61	+ 12 34.1	2.121	3.015	9.7	20.4
11 17	0 41.15	+ 3 10.4	1.031	1.872	21.6	21.0	11 17	0 38.55	+ 12 3.7	2.203	3.013	12.6	20.6
392744	2012 <i>SQ</i> ₅₄	10 10.1 296°55' 2 ^s / 8.6 18					394914	2008 <i>VO</i> ₇₈	10 10.1 275°58' 15 ^s / 21.8 18				
9 8	1 29.91	+ 1 21.1	1.606	2.489	13.9	20.6	9 8	1 39.18	- 40 48.6	1.965	2.735	16.1	21.4
9 18	1 23.69	+ 1 13.9	1.520	2.465	10.1	20.3	9 18	1 30.13	- 42 1.0	1.924	2.712	15.7	21.3
9 28	1 15.01	+ 1 2.6	1.457	2.441	5.8	20.0	9 28	1 18.43	- 42 43.3	1.902	2.689	15.7	21.3
10 8	1 4.66	+ 0 51.6	1.420	2.417	2.3	19.7	10 8	1 5.26	- 42 46.8	1.899	2.666	16.4	21.3
10 18	0 53.76	+ 0 45.8	1.411	2.392	5.4	19.9	10 18	0 52.08	- 42 7.0	1.915	2.642	17.4	21.3
10 28	0 43.66	+ 0 50.3	1.429	2.368	10.1	20.1	10 28	0 40.40	- 40 44.6	1.949	2.618	18.7	21.4
11 7	0 35.52	+ 1 8.3	1.470	2.344	14.5	20.3	11 7	0 31.30	- 38 45.3	1.999	2.594	20.0	21.5
11 17	0 30.11	+ 1 41.4	1.533	2.321	18.2	20.5	11 17	0 25.33	- 36 17.0	2.062	2.569	21.3	21.6
12440	Koshigayaboshi	10 10.1 106°30' 5 ^s / 4.1 18					209768	2005 <i>EG</i> ₂₈₅	10 10.1 295°34' 1 ^s / 10.9 18				
9 8	1 22.44	- 7 31.5	2.200	3.089	10.4	17.0	9 8	1 25.22	+ 10 55.9	1.708	2.576	14.0	21.2
9 18	1 17.50	- 8 43.4	2.151	3.093	7.8	16.9	9 18	1 20.12	+ 10 39.6	1.628	2.563	10.4	21.0
9 28	1 11.12	- 9 52.6	2.127	3.097	5.6	16.7	9 28	1 12.90	+ 10 9.2	1.571	2.550	6.1	20.7
10 8	1 3.93	- 10 52.7	2.131	3.101	5.4	16.7	10 8	1 4.33	+ 9 28.0	1.540	2.538	1.7	20.4
10 18	0 56.69	- 11 38.1	2.163	3.105	7.2	16.9	10 18	0 55.42	+ 8 41.1	1.536	2.525	3.6	20.5
10 28	0 50.18	- 12 5.0	2.221	3.108	9.8	17.0	10 28	0 47.31	+ 7 55.1	1.559	2.513	8.1	20.7
11 7	0 45.04	- 12 12.0	2.303	3.112	12.3	17.2	11 7	0 40.97	+ 7 16.8	1.608	2.500	12.3	21.0
11 17	0 41.68	- 11 59.7	2.405	3.116	14.4	17.4	11 17	0 37.06	+ 6 50.9	1.678	2.488	15.9	21.2
85535	1997 <i>WZ</i> ₂₇	10 10.1 80°48' 0 ^s / 9.7 17					2147	Kharadze	10 10.1 284°67' 3 ^s / 5.9 18 R				
9 8	1 28.70	+ 7 39.8	1.537	2.413	14.8	19.2	9 8	1 21.25	- 2 1.2	2.263	3.150	10.2	16.9
9 18	1 22.35	+ 7 9.5	1.492	2.433	10.6	19.0	9 18	1 16.71	- 3 7.5	2.198	3.145	7.3	16.7
9 28	1 13.93	+ 6 28.1	1.470	2.453	5.9	18.7	9 28	1 10.74	- 4 16.1	2.159	3.139	4.6	16.6
10 8	1 4.43	+ 5 41.0	1.474	2.473	1.0	18.5	10 8	1 3.94	- 5 21.1	2.148	3.134	3.6	16.5
10 18	0 54.99	+ 4 54.5	1.506	2.492	4.1	18.7	10 18	0 57.00	- 6 16.9	2.166	3.129	5.7	16.6
10 28	0 46.76	+ 4 15.4	1.564	2.512	8.6	19.1	10 28	0 50.70	- 6 58.5	2.211	3.123	8.6	16.8
11 7	0 40.61	+ 3 48.7	1.648	2.531	12.6	19.3	11 7	0 45.68	- 7 23.2	2.282	3.118	11.4	17.0
11 17	0 37.01	+ 3 37.2	1.752	2.550	15.9	19.6	11 17	0 42.37	- 7 29.8	2.373	3.112	13.9	17.1
253546	2003 <i>SZ</i> ₂₃₇	10 10.1 15°91' 0 ^s / 9.9 18					72331	2001 <i>BX</i> ₅₉	10 10.1 121°35' 2 ^s / 6.3 18				
9 8	1 27.93	+ 5 13.9	0.865	1.777	19.9	19.2	9 8	1 21.83	- 0 49.4	2.678	3.558	9.1	19.1
9 18	1 23.00	+ 5 42.4	0.825	1.783	14.4	19.0	9 18	1 16.83	- 1 56.1	2.629	3.573	6.5	19.0
9 28	1 14.76	+ 6 0.2	0.803	1.791	8.1	18.7	9 28	1 10.68	- 3 4.7	2.607	3.587	3.9	18.8
10 8	1 4.61	+ 6 11.1	0.802	1.801	1.4	18.3	10 8	1 3.91	- 4 10.1	2.614	3.601	2.8	18.8
10 18	0 54.38	+ 6 20.4	0.823	1.813	5.4	18.6	10 18	0 57.14	- 5 7.8	2.651	3.615	4.6	18.9
10 28	0 45.97	+ 6 34.1	0.865	1.826	11.6	19.0	10 28	0 50.98	- 5 53.6	2.717	3.628	7.2	19.1
11 7	0 40.68	+ 6 57.4	0.928	1.841	16.9	19.4	11 7	0 45.94	- 6 25.2	2.809	3.641	9.6	19.3
11 17	0 39.09	+ 7 32.6	1.007	1.858	21.3	19.7	11 17	0 42.39	- 6 41.7	2.924	3.654	11.7	19.5
279012	2008 <i>UU</i> ₂₈₇	10 10.1 50°99' 1 ^s / 8.9 17					46460	4798 <i>P-L</i>	10 10.1 62°59' 0 ^s / 10.2 18				
9 8	1 25.13	+ 6 19.6	1.379	2.269	15.3	20.6	9 8	1 29.83	+ 8 51.5	1.250	2.133	17.1	19.3
9 18	1 19.97	+ 5 24.9	1.337	2.286	10.9	20.4	9 18	1 23.53	+ 8 32.3	1.209	2.152	12.3	19.1
9 28	1 12.67	+ 4 19.2	1.318	2.303	5.9	20.2	9 28	1 14.73	+ 7 58.8	1.189	2.172	7.0	18.9
10 8	1 4.22	+ 3 9.8	1.323	2.321	1.5	19.9	10 8	1 4.62	+ 7 16.6	1.193	2.192	1.3	18.6
10 18	0 55.83	+ 2 5.3	1.355	2.339	4.9	20.2	10 18	0 54.60	+ 6 32.8	1.223	2.212	4.4	18.8
10 28	0 48.67	+ 1 13.5	1.412	2.357	9.6	20.5	10 28	0 46.06	+ 5 55.3	1.279	2.232	9.5	19.2
11 7	0 43.62	+ 0 39.6	1.493	2.376	13.7	20.8	11 7	0 39.99	+ 5 30.4	1.358	2.252	14.0	19.5
11 17	0 41.14	+ 0 25.8	1.594	2.395	17.1	21.1	11 17	0 36.89	+ 5 21.3	1.456	2.272	17.7	19.8
158100	2000 <i>XE</i> ₁₁	10 10.1 44°82' 9 ^s / 17.8 18					93648	2000 <i>UH</i> ₉₂	10 10.1 74°97' 5 ^s / 16.1 18				
9 8	1 29.00	+ 28 55.8	1.443	2.240	19.7	18.1	9 8	1 24.66	+ 25 49.1	1.662	2.470	17.1	19.2
9 18	1 23.22	+ 29 48.3	1.388	2.254	16.6	18.0	9 18	1 19.70	+ 25 28.1	1.595	2.479	13.8	19.0
9 28	1 14.74	+ 30 10.3	1.351	2.268	13.2	17.8	9 28	1 12.60	+ 24 38.8	1.548	2.487	10.2	18.8
10 8	1 4.63	+ 29 59.2	1.335	2.283	10.3	17.7	10 8	1 4.27	+ 23 22.8	1.526	2.496	7.0	18.6
10 18	0 54.30	+ 29 16.8	1.342	2.298	9.2	17.7	10 18	0 55.81	+ 21 45.4	1.529	2.505	5.9	18.6
10 28	0 45.30	+ 28 10.3	1.374	2.314	10.4	17.8	10 28	0 48.41	+ 19 56.0	1.559	2.513	8.0	18.7
11 7	0 38.77	+ 26 51.3	1.430	2.330	13.0	18.0	11 7	0 43.00	+ 18 5.9	1.616	2.522	11.4	19.0
11 17	0 35.36	+ 25 31.1	1.507	2.347	16.0	18.2	11 17	0 40.10	+ 16 24.9	1.696	2.531	14.7	19.2
123496	2000 <i>WL</i> ₁₇₅	10 10.1 127°96' 13 ^s / 24.5 18					187407	2005 <i>VG</i> ₅₃	10 10.1 20°76' 6 ^s / 4.1 18				
9 8	1 31.35	- 35 35.6	2.067	2.873	14.3	19.2	9 8	1 23.76	- 9 15.5	1.814	2.707	12.1	19.3
9 18	1 24.01	- 37 8.1											

EPHEMERIDES

10 10.1

10 10.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
195153	2002 CG ₂₁₃		10 10.1	45°08	1.4/12.5	18	39026	2000 UD ₆₅		10 10.1	150°14	4.9/14.2	18
9 8	1 18.11	+14 33.9	4.051	4.881	7.4	19.8	9 8	1 28.81	+20 54.8	1.526	2.358	17.2	19.7
9 18	1 13.98	+14 28.4	3.975	4.885	5.5	19.7	9 18	1 22.89	+20 53.4	1.458	2.362	13.6	19.5
9 28	1 9.04	+14 15.7	3.925	4.890	3.5	19.6	9 28	1 14.51	+20 27.4	1.411	2.366	9.5	19.2
10 8	1 3.64	+13 57.1	3.903	4.894	1.7	19.4	10 8	1 4.65	+19 37.8	1.388	2.370	5.8	19.0
10 18	0 58.17	+13 34.4	3.912	4.898	1.9	19.4	10 18	0 54.55	+18 29.2	1.391	2.373	5.3	19.0
10 28	0 53.04	+13 9.8	3.951	4.903	3.7	19.6	10 28	0 45.57	+17 10.4	1.421	2.376	8.5	19.2
11 7	0 48.62	+12 45.8	4.020	4.907	5.7	19.7	11 7	0 38.81	+15 51.8	1.476	2.379	12.5	19.5
11 17	0 45.20	+12 24.8	4.114	4.912	7.4	19.9	11 17	0 34.87	+14 42.2	1.553	2.381	16.1	19.7
255740	2006 QZ ₁₅₈		10 10.1	118°23	0.1/10.1	17	493884	2015 XY ₁₆₀		10 10.1	358°44	6.1/4.9	17
9 8	1 28.09	+ 9 50.7	1.532	2.404	15.1	21.2	9 8	1 24.58	- 8 50.1	1.749	2.643	12.4	20.8
9 18	1 22.07	+ 9 6.1	1.477	2.415	10.9	20.9	9 18	1 19.39	- 9 35.7	1.697	2.641	9.3	20.6
9 28	1 13.88	+ 8 6.9	1.445	2.427	6.2	20.7	9 28	1 12.35	-10 16.3	1.669	2.640	6.8	20.4
10 8	1 4.49	+ 6 58.9	1.439	2.438	1.1	20.4	10 8	1 4.26	-10 45.0	1.666	2.639	6.3	20.4
10 18	0 55.06	+ 5 49.5	1.461	2.449	4.0	20.6	10 18	0 56.08	-10 56.4	1.690	2.639	8.3	20.5
10 28	0 46.77	+ 4 47.2	1.510	2.459	8.8	20.9	10 28	0 48.83	-10 47.2	1.739	2.639	11.3	20.7
11 7	0 40.55	+ 3 58.5	1.583	2.469	12.9	21.2	11 7	0 43.30	-10 16.9	1.810	2.640	14.2	20.9
11 17	0 36.91	+ 3 27.4	1.678	2.478	16.4	21.5	11 17	0 40.01	- 9 27.4	1.901	2.642	16.8	21.1
77183	2001 FS ₈		10 10.1	145°31	2.2/12.8	18	511482	2014 MU ₅₈		10 10.1	169°80	5.6/3.3	18
9 8	1 24.71	+17 27.8	2.381	3.209	11.9	19.7	9 8	1 24.16	- 9 55.5	2.363	3.246	10.1	22.2
9 18	1 19.10	+16 48.5	2.312	3.220	9.1	19.6	9 18	1 18.69	-11 12.2	2.314	3.249	7.7	22.0
9 28	1 12.04	+15 53.7	2.267	3.230	5.8	19.4	9 28	1 11.82	-12 24.6	2.290	3.252	5.9	21.9
10 8	1 4.17	+14 46.3	2.250	3.240	2.8	19.2	10 8	1 4.16	-13 26.4	2.295	3.254	5.9	21.9
10 18	0 56.24	+13 31.1	2.263	3.249	2.9	19.2	10 18	0 56.45	-14 12.4	2.328	3.256	7.5	22.0
10 28	0 49.04	+12 14.0	2.306	3.258	5.9	19.4	10 28	0 49.43	-14 39.0	2.388	3.258	9.9	22.2
11 7	0 43.21	+11 1.2	2.377	3.266	9.0	19.7	11 7	0 43.74	-14 45.3	2.471	3.259	12.2	22.4
11 17	0 39.19	+ 9 57.8	2.473	3.274	11.7	19.9	11 17	0 39.80	-14 32.1	2.574	3.260	14.1	22.5
446102	2013 DN ₂		10 10.1	209°46	1.8/11.9	18	263801	2008 RU ₁₆		10 10.1	351°31	0.7/11.4	18
9 8	1 24.23	+14 22.7	2.068	2.916	12.7	21.7	9 8	1 16.43	+11 55.8	4.100	4.945	7.0	20.5
9 18	1 19.04	+13 57.9	1.992	2.914	9.5	21.4	9 18	1 12.79	+11 31.5	4.022	4.944	5.1	20.3
9 28	1 12.13	+13 18.4	1.940	2.911	5.9	21.2	9 28	1 8.40	+11 0.7	3.970	4.943	3.1	20.2
10 8	1 4.20	+12 26.9	1.914	2.909	2.4	21.0	10 8	1 3.57	+10 25.2	3.947	4.943	1.0	20.0
10 18	0 56.09	+11 28.0	1.918	2.906	3.1	21.0	10 18	0 58.67	+ 9 47.2	3.954	4.942	1.6	20.1
10 28	0 48.71	+10 28.0	1.950	2.903	6.7	21.3	10 28	0 54.09	+ 9 9.5	3.992	4.942	3.8	20.2
11 7	0 42.83	+ 9 33.0	2.008	2.900	10.3	21.5	11 7	0 50.18	+ 8 34.4	4.058	4.942	5.8	20.4
11 17	0 38.97	+ 8 48.0	2.091	2.897	13.3	21.7	11 17	0 47.22	+ 8 4.4	4.151	4.941	7.5	20.5
488093	2015 VC ₅₂		10 10.1	212°01	1.6/11.9	17	81049	2000 EY ₆₂		10 10.1	73°95	1.0/9.3	18
9 8	1 22.02	+14 52.0	2.295	3.139	11.7	21.7	9 8	1 27.64	+ 7 3.0	1.442	2.324	15.3	19.4
9 18	1 17.31	+14 16.1	2.218	3.138	8.8	21.5	9 18	1 21.72	+ 6 16.9	1.399	2.344	10.9	19.2
9 28	1 11.10	+13 26.1	2.166	3.136	5.5	21.3	9 28	1 13.67	+ 5 19.5	1.379	2.363	6.0	18.9
10 8	1 4.02	+12 24.8	2.141	3.135	2.2	21.1	10 8	1 4.49	+ 4 17.3	1.384	2.382	1.2	18.7
10 18	0 56.79	+11 17.0	2.145	3.133	2.8	21.1	10 18	0 55.38	+ 3 18.1	1.416	2.402	4.6	19.0
10 28	0 50.22	+10 8.5	2.178	3.131	6.1	21.3	10 28	0 47.53	+ 2 29.5	1.475	2.421	9.2	19.3
11 7	0 44.96	+ 9 5.3	2.238	3.129	9.4	21.6	11 7	0 41.80	+ 1 56.6	1.558	2.440	13.3	19.6
11 17	0 41.48	+ 8 12.1	2.323	3.127	12.3	21.7	11 17	0 38.67	+ 1 42.0	1.661	2.459	16.6	19.8
440782	2006 KU ₁₈		10 10.1	166°36	5.1/4.2	18	312802	2010 XM ₅		10 10.1	275°77	5.2/29.1	18
9 8	1 25.08	- 6 51.7	2.219	3.103	10.6	22.1	9 8	1 17.48	-21 27.7	4.329	5.183	6.5	19.9
9 18	1 19.40	- 8 11.8	2.167	3.108	7.8	21.9	9 18	1 13.50	-22 14.6	4.286	5.180	5.6	19.9
9 28	1 12.22	- 9 29.9	2.142	3.112	5.6	21.8	9 28	1 8.77	-22 54.3	4.269	5.177	5.2	19.9
10 8	1 4.21	-10 39.3	2.145	3.116	5.3	21.8	10 8	1 3.63	-23 23.7	4.279	5.173	5.4	19.9
10 18	0 56.14	-11 34.1	2.177	3.119	7.2	21.9	10 18	0 58.45	-23 40.9	4.316	5.170	6.2	19.9
10 28	0 48.82	-12 10.0	2.236	3.122	9.8	22.1	10 28	0 53.61	-23 44.3	4.378	5.166	7.3	20.0
11 7	0 42.92	-12 25.3	2.319	3.124	12.3	22.2	11 7	0 49.47	-23 34.0	4.463	5.163	8.4	20.1
11 17	0 38.88	-12 20.6	2.423	3.125	14.5	22.4	11 17	0 46.29	-23 10.6	4.568	5.160	9.4	20.2
482129	2010 RC ₅		10 10.1	359°95	3.9/6.3	18	164770	1999 BN ₁₈		10 10.1	318°35	4.2/7.3	18
9 8	1 20.57	+ 0 34.3	1.581	2.482	13.1	20.6	9 8	1 27.21	- 2 26.4	1.494	2.389	14.1	19.5
9 18	1 16.68	- 0 47.5	1.526	2.480	9.3	20.4	9 18	1 21.88	- 2 48.9	1.413	2.363	10.3	19.2
9 28	1 10.89	- 2 15.3	1.494	2.479	5.5	20.2	9 28	1 14.08	- 3 12.8	1.355	2.338	6.3	18.9
10 8	1 3.99	- 3 40.5	1.488	2.478	3.9	20.1	10 8	1 4.63	- 3 31.7	1.322	2.313	4.2	18.7
10 18	0 56.96	- 4 54.4	1.508	2.479	6.7	20.3	10 18	0 54.66	- 3 39.2	1.315	2.289	7.0	18.8
10 28	0 50.83	- 5 49.5	1.554	2.480	10.6	20.5	10 28	0 45.54	- 3 30.2	1.334	2.266	11.4	19.0
11 7	0 46.44	- 6 21.6	1.623	2.481	14.2	20.7	11 7	0 38.43	- 3 2.0	1.375	2.243	15.6	19.2
11 17	0 44.29	- 6 29.8	1.712	2.484	17.2	21.0	11 17	0 34.09	- 2 14.6	1.436	2.221	19.3	19.4
210619	2000 DQ ₅₅		10 10.1	183°74	1.9/12.2	18	53085	1998 XV ₉₃		10 10.1	179°92	3.8/14.1	18
9 8	1 26.51	+14 35.9	2.452	3.287	11.4	21.4	9 8	1 25.57	+21 20.8	1.888	2.709	14.8	17.8
9 18	1 20.44	+14 26.9	2.373	3.287	8.6	21.2	9 18	1 20.18	+20 43.4	1.811	2.710	11.6	17.6
9 28	1 12.85	+14 5.6	2.320	3.287	5.4	21.1	9 28	1 12.85	+19 43.0	1.757	2.711	8.0	17.4
10 8	1 4.34	+13 34.0	2.294	3.286	2.4	20.9	10 8	1 4.38	+18 22.1	1.728	2.711	4.7	17.2
10 18	0 55.66	+12 55.2	2.298	3.285	2.9	20.9	10 18	0 55.74	+16 46.3	1.727	2.711	4.1	17.1
10 28	0 47.63	+12 13.7	2.333	3.283	6.0	21.1	10 28	0 47.97	+15 4.0	1.755	2.711	7.2	17.3
11 7	0 40.93	+11 34.4	2.395	3.281	9.1	21.3	11 7	0 41.95	+13 24.8	1.810	2.709	10.8	17.5
11 17	0 36.06	+11 1.4	2.481	3.278	11.8	21.5	11 17	0 38.21	+11 56.5	1.890	2.708	14.1	17.7
142186	2002 RW ₄₇		10 10.1	263°52	3.2/7.4	18	435560	2008 RS ₉		10 10.1	332°46	1.1/12.2	18
9 8	1 25.69	+ 2 23.3	1.510	2.401	14.1	19.8	9 8						

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
290940	2005 <i>WS</i> ₁₄₉	10 10.1 99°22' 5°5'/17.4 18					93835	2000 <i>WG</i> ₈₀	10 10.1 308°27' 7°8'/ 4.8 18				
9 8	1 25.05	+28 21.2	2.446	3.212	13.4	20.7	9 8	1 31.10	-12 27.4	1.572	2.458	14.0	19.0
9 18	1 19.42	+28 18.4	2.380	3.231	11.1	20.5	9 18	1 24.35	-13 5.2	1.514	2.450	10.9	18.8
9 28	1 12.27	+27 55.0	2.336	3.250	8.6	20.4	9 28	1 15.27	-13 33.5	1.480	2.442	8.4	18.7
10 8	1 4.26	+27 11.6	2.317	3.268	6.4	20.3	10 8	1 4.83	-13 44.4	1.470	2.434	8.0	18.6
10 18	0 56.21	+26 10.7	2.326	3.286	5.6	20.3	10 18	0 54.24	-13 32.4	1.486	2.426	10.0	18.7
10 28	0 48.94	+24 57.7	2.363	3.303	6.6	20.4	10 28	0 44.78	-12 54.9	1.528	2.419	13.1	18.9
11 7	0 43.13	+23 39.4	2.428	3.320	8.7	20.5	11 7	0 37.45	-11 53.5	1.591	2.412	16.3	19.1
11 17	0 39.22	+22 22.4	2.518	3.337	11.0	20.7	11 17	0 32.84	-10 31.8	1.673	2.405	19.1	19.3
184212	2004 <i>PB</i> ₁₁₂	10 10.1 2°88' 0°2'/12.7 17					175524	2006 <i>SM</i> ₇₂	10 10.1 37°03' 1°5'/ 8.9 18				
9 8	1 5.16	+13 37.6	35.359	36.188	0.9	23.0	9 8	1 25.46	+ 4 17.1	1.691	2.574	13.3	20.2
9 18	1 4.42	+13 34.9	35.283	36.193	0.7	23.0	9 18	1 20.07	+ 3 49.0	1.635	2.581	9.5	20.0
9 28	1 3.60	+13 31.5	35.234	36.198	0.4	22.9	9 28	1 12.77	+ 3 13.6	1.603	2.588	5.2	19.7
10 8	1 2.74	+13 27.5	35.213	36.203	0.2	22.9	10 8	1 4.38	+ 2 36.0	1.597	2.595	1.6	19.5
10 18	1 1.87	+13 23.1	35.222	36.208	0.2	22.9	10 18	0 55.91	+ 2 1.9	1.619	2.602	4.5	19.7
10 28	1 1.03	+13 18.6	35.261	36.213	0.5	22.9	10 28	0 48.40	+ 1 36.8	1.667	2.610	8.6	20.0
11 7	1 0.25	+13 14.0	35.329	36.218	0.7	23.0	11 7	0 42.68	+ 1 24.6	1.740	2.618	12.4	20.2
11 17	0 59.57	+13 9.7	35.424	36.224	0.9	23.0	11 17	0 39.27	+ 1 27.2	1.834	2.626	15.5	20.5
453755	2011 <i>CO</i> ₈₃	10 10.1 298°25' 4°1'/14.3 17					523617	2007 <i>PS</i> ₄₅	10 10.1 34°42' 0°4'/ 2.8 17				
9 8	1 23.85	+20 30.2	2.200	3.019	13.1	21.6	9 8	1 4.91	-11 46.9	39.824	40.701	0.7	21.8
9 18	1 18.90	+20 38.5	2.107	3.003	10.4	21.4	9 18	1 4.24	-11 53.2	39.775	40.705	0.5	21.8
9 28	1 12.17	+20 29.9	2.037	2.986	7.4	21.2	9 28	1 3.51	-11 59.1	39.754	40.709	0.4	21.7
10 8	1 4.28	+20 4.7	1.992	2.970	4.8	21.0	10 8	1 2.75	-12 4.4	39.762	40.713	0.4	21.7
10 18	0 56.05	+19 25.1	1.975	2.954	4.4	20.9	10 18	1 1.97	-12 8.9	39.798	40.717	0.5	21.8
10 28	0 48.40	+18 35.8	1.986	2.938	6.7	21.0	10 28	1 1.23	-12 12.4	39.862	40.721	0.7	21.8
11 7	0 42.18	+17 43.2	2.024	2.922	9.9	21.2	11 7	1 0.53	-12 14.8	39.952	40.725	0.9	21.8
11 17	0 37.98	+16 53.3	2.085	2.906	12.9	21.4	11 17	0 59.92	-12 16.0	40.065	40.729	1.0	21.8
11241	Eckhout	10 10.1 59°23' 1°8'/ 8.4 18					262906	2007 <i>CT</i> ₄₆	10 10.1 104°75' 3°0'/13.6 18				
9 8	1 23.90	+ 3 38.6	1.944	2.825	12.0	18.0	9 8	1 25.52	+18 32.9	2.437	3.257	11.9	20.3
9 18	1 18.76	+ 2 56.7	1.885	2.830	8.5	17.8	9 18	1 19.69	+18 30.4	2.373	3.273	9.2	20.2
9 28	1 11.96	+ 2 8.4	1.851	2.835	4.7	17.6	9 28	1 12.41	+18 13.5	2.334	3.289	6.2	20.0
10 8	1 4.22	+ 1 18.9	1.844	2.840	1.8	17.4	10 8	1 4.32	+17 43.6	2.321	3.305	3.6	19.9
10 18	0 56.39	+ 0 33.7	1.865	2.846	4.4	17.6	10 18	0 56.17	+17 3.8	2.338	3.321	3.4	19.9
10 28	0 49.38	- 0 1.8	1.914	2.851	8.1	17.9	10 28	0 48.74	+16 18.7	2.384	3.336	5.8	20.1
11 7	0 43.90	- 0 23.8	1.988	2.856	11.5	18.1	11 7	0 42.68	+15 33.5	2.458	3.351	8.6	20.3
11 17	0 40.45	- 0 30.5	2.084	2.862	14.4	18.3	11 17	0 38.43	+14 52.8	2.557	3.365	11.1	20.5
28966	2001 <i>HS</i> ₂₄	10 10.1 210°92' 9°1'/28.7 18					487830	2015 <i>TD</i> ₇₄	10 10.1 20°32' 2°0'/12.1 17				
9 8	1 25.47	-24 42.1	2.467	3.317	10.8	18.3	9 8	1 21.01	+15 19.9	1.650	2.512	14.7	20.6
9 18	1 19.64	-25 47.4	2.430	3.316	9.6	18.3	9 18	1 16.99	+14 40.3	1.590	2.518	11.0	20.4
9 28	1 12.35	-26 38.1	2.418	3.314	9.1	18.2	9 28	1 11.09	+13 41.7	1.552	2.526	6.8	20.2
10 8	1 4.28	-27 8.4	2.430	3.312	9.5	18.3	10 8	1 4.10	+12 28.6	1.539	2.534	2.8	19.9
10 18	0 56.20	-27 14.5	2.467	3.311	10.6	18.3	10 18	0 57.01	+11 7.7	1.553	2.542	3.4	20.0
10 28	0 48.90	-26 55.5	2.527	3.309	12.2	18.4	10 28	0 50.84	+ 9 47.6	1.594	2.552	7.5	20.3
11 7	0 43.02	-26 12.7	2.608	3.307	13.7	18.6	11 7	0 46.41	+ 8 36.4	1.660	2.562	11.5	20.5
11 17	0 38.97	-25 9.4	2.706	3.305	15.1	18.7	11 17	0 44.22	+ 7 39.8	1.749	2.572	14.8	20.8
178698	2000 <i>SP</i> ₆₆	10 10.1 45°45' 0°5'/10.6 18					389431	2010 <i>CO</i> ₃₆	10 10.1 274°22' 2°2'/ 8.3 18				
9 8	1 23.99	+10 6.6	1.890	2.757	12.9	19.6	9 8	1 26.37	+ 3 29.8	1.638	2.523	13.6	21.3
9 18	1 18.91	+ 9 40.5	1.827	2.763	9.4	19.4	9 18	1 21.04	+ 2 44.2	1.560	2.506	9.8	21.0
9 28	1 12.09	+ 9 2.7	1.788	2.768	5.4	19.2	9 28	1 13.51	+ 1 49.7	1.505	2.490	5.5	20.7
10 8	1 4.25	+ 8 16.8	1.776	2.774	1.2	18.9	10 8	1 4.56	+ 0 52.3	1.476	2.472	2.2	20.5
10 18	0 56.31	+ 7 28.1	1.791	2.780	3.2	19.1	10 18	0 55.24	- 0 0.9	1.475	2.455	5.3	20.6
10 28	0 49.19	+ 6 42.6	1.835	2.786	7.3	19.4	10 28	0 46.74	- 0 42.5	1.500	2.438	9.8	20.9
11 7	0 43.68	+ 6 5.7	1.904	2.792	10.9	19.6	11 7	0 40.09	- 1 7.4	1.549	2.420	14.0	21.1
11 17	0 40.27	+ 5 40.9	1.996	2.799	14.0	19.8	11 17	0 35.93	- 1 12.9	1.619	2.403	17.6	21.3
398522	2011 <i>UZ</i> ₂₈₆	10 10.1 356°99' 2°7'/12.3 18					398889	2013 <i>CW</i> ₉₅	10 10.1 314°21' 1°2'/11.1 18				
9 8	1 24.26	+14 54.1	1.570	2.431	15.4	20.8	9 8	1 24.24	+11 40.8	1.643	2.512	14.4	21.2
9 18	1 19.53	+14 51.0	1.502	2.429	11.7	20.5	9 18	1 19.52	+11 24.3	1.564	2.499	10.7	20.9
9 28	1 12.61	+14 30.0	1.455	2.427	7.4	20.3	9 28	1 12.66	+10 52.6	1.508	2.486	6.4	20.7
10 8	1 4.36	+13 53.5	1.433	2.426	3.4	20.0	10 8	1 4.41	+10 8.9	1.476	2.473	2.0	20.3
10 18	0 55.86	+13 6.2	1.437	2.426	3.9	20.1	10 18	0 55.81	+ 9 18.4	1.472	2.461	3.6	20.4
10 28	0 48.30	+12 15.3	1.468	2.426	8.0	20.3	10 28	0 48.03	+ 8 28.3	1.494	2.449	8.2	20.7
11 7	0 42.67	+11 28.5	1.523	2.426	12.2	20.6	11 7	0 42.05	+ 7 45.7	1.541	2.437	12.5	20.9
11 17	0 39.57	+10 52.0	1.599	2.428	15.8	20.8	11 17	0 38.54	+ 7 15.8	1.609	2.426	16.2	21.1
120698	1997 <i>HG</i> ₁₃	10 10.1 130°46' 0°2'/10.3 18					132399	2002 <i>GW</i> ₉₉	10 10.1 37°71' 2°6'/11.9 18				
9 8	1 27.65	+10 3.7	1.728	2.593	14.0	20.4	9 8	1 26.25	+14 35.0	0.932	1.822	20.9	18.4
9 18	1 21.61	+ 9 22.1	1.669	2.604	10.1	20.1	9 18	1 21.46	+14 12.6	0.903	1.846	15.5	18.2
9 28	1 13.62	+ 8 27.2	1.635	2.615	5.7	19.9	9 28	1 13.77	+13 24.4	0.891	1.870	9.4	17.9
10 8	1 4.53	+ 7 23.8	1.627	2.626	1.1	19.6	10 8	1 4.58	+12 17.1	0.900	1.896	3.6	17.7
10 18	0 55.38	+ 6 18.6	1.648	2.635	3.6	19.8	10 18	0 55.60	+11 1.1	0.932	1.923	4.7	17.9
10 28	0 47.25	+ 5 19.0	1.696	2.645	8.0	20.1	10 28	0 48.43	+ 9 49.1	0.987	1.950	10.1	18.3
11 7	0 40.97	+ 4 31.0	1.771	2.654	11.9	20.4	11 7	0 44.12	+ 8 51.4	1.064	1.978	15.1	18.7
11 17	0 37.05	+ 3 58.4	1.867	2.662	15.2	20.6	11 17	0 43.06	+ 8 13.8	1.159	2.007	19.2	19.0
360354	2001 <i>XW</i> ₂₂₃	10 10.1 328°87' 5°8'/ 5.4 18					298264	2002 <i>WH</i> ₁₆	10 10.1 352°70' 3°3'/13.5 18				
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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
430706	2004 CG ₅₅	10 10.1 236°95		1°1/11.0 17			266168	2006 UY ₂₂₃	10 10.1 294°80		1°0/10.9 18		
9 8	1 27.82	+11 38.6	1.696	2.558	14.4	22.1	9 8	1 24.79	+12 16.6	1.381	2.257	16.2	21.0
9 18	1 22.04	+11 15.5	1.617	2.548	10.7	21.8	9 18	1 20.29	+11 39.1	1.303	2.241	12.1	20.8
9 28	1 14.07	+10 37.0	1.561	2.538	6.3	21.6	9 28	1 13.27	+10 41.0	1.246	2.226	7.2	20.4
10 8	1 4.69	+9 46.6	1.531	2.528	1.8	21.3	10 8	1 4.59	+9 26.9	1.212	2.210	2.0	20.1
10 18	0 54.97	+8 49.9	1.529	2.517	3.6	21.4	10 18	0 55.45	+8 4.7	1.205	2.195	4.1	20.2
10 28	0 46.11	+7 54.1	1.554	2.506	8.3	21.6	10 28	0 47.25	+6 44.6	1.224	2.179	9.5	20.5
11 7	0 39.11	+7 6.4	1.605	2.495	12.5	21.9	11 7	0 41.18	+5 36.8	1.265	2.164	14.5	20.7
11 17	0 34.64	+6 32.1	1.677	2.483	16.2	22.1	11 17	0 37.99	+4 48.0	1.327	2.150	18.7	20.9
441185	2007 TO ₄₃₀	10 10.1 70°53		3°7/ 6.8 18			361812	2008 CY ₅₈	10 10.1 284°06		1°1/ 8.9 18		
9 8	1 25.23	-0 53.5	1.730	2.620	12.7	21.2	9 8	1 23.16	+6 17.7	1.920	2.798	12.3	21.8
9 18	1 19.83	-1 50.2	1.681	2.629	9.0	21.0	9 18	1 18.40	+5 28.7	1.848	2.791	8.8	21.6
9 28	1 12.62	-2 49.4	1.656	2.639	5.4	20.8	9 28	1 11.89	+4 29.7	1.799	2.783	4.8	21.3
10 8	1 4.40	-3 44.5	1.658	2.648	3.7	20.8	10 8	1 4.31	+3 25.9	1.778	2.776	1.2	21.0
10 18	0 56.14	-4 28.8	1.687	2.657	6.2	20.9	10 18	0 56.53	+2 23.7	1.785	2.769	4.1	21.2
10 28	0 48.86	-4 57.2	1.743	2.666	9.7	21.2	10 28	0 49.49	+1 29.5	1.819	2.761	8.1	21.5
11 7	0 43.32	-5 6.9	1.823	2.676	13.1	21.4	11 7	0 43.98	+0 48.6	1.880	2.754	11.8	21.7
11 17	0 40.00	-4 57.7	1.923	2.685	15.9	21.6	11 17	0 40.52	+0 24.0	1.961	2.747	14.9	21.9
181514	2006 UY ₇₆	10 10.1 344°00		2°3/12.4 18			291575	2006 FK ₃₉	10 10.1 95°83		0°2/ 9.9 18		
9 8	1 24.20	+15 21.4	1.873	2.723	13.8	20.3	9 8	1 24.34	+7 13.4	2.360	3.224	10.8	20.8
9 18	1 19.21	+15 5.7	1.801	2.722	10.4	20.1	9 18	1 18.91	+6 58.5	2.291	3.227	7.7	20.6
9 28	1 12.36	+14 33.5	1.751	2.720	6.6	19.9	9 28	1 12.04	+6 36.4	2.249	3.230	4.3	20.4
10 8	1 4.37	+13 47.5	1.727	2.719	3.0	19.7	10 8	1 4.33	+6 9.9	2.234	3.232	0.7	20.1
10 18	0 56.18	+12 52.1	1.730	2.718	3.4	19.7	10 18	0 56.50	+5 42.8	2.249	3.235	2.9	20.3
10 28	0 48.79	+11 54.0	1.762	2.718	7.1	19.9	10 28	0 49.33	+5 19.0	2.292	3.238	6.4	20.5
11 7	0 43.05	+11 0.1	1.819	2.717	10.8	20.2	11 7	0 43.46	+5 2.0	2.363	3.241	9.5	20.7
11 17	0 39.51	+10 15.9	1.900	2.716	14.1	20.4	11 17	0 39.35	+4 54.5	2.457	3.243	12.2	20.9
36288	2000 EQ ₁₇₀	10 10.1 110°30		3°2/ 7.7 18			265490	Szabados	10 10.1 51°03		1°3/ 9.4 15		
9 8	1 29.82	-0 2.7	1.598	2.483	13.9	19.2	9 8	1 30.95	+4 43.5	1.188	2.079	17.2	19.9
9 18	1 23.24	-0 39.0	1.547	2.493	9.9	19.0	9 18	1 24.54	+4 34.2	1.145	2.093	12.3	19.6
9 28	1 14.57	-1 18.5	1.520	2.503	5.7	18.8	9 28	1 15.46	+4 15.7	1.123	2.108	6.8	19.4
10 8	1 4.75	-1 55.0	1.520	2.513	3.2	18.6	10 8	1 4.93	+3 53.5	1.125	2.123	1.5	19.1
10 18	0 54.91	-2 22.3	1.548	2.523	5.9	18.8	10 18	0 54.43	+3 34.0	1.152	2.139	5.1	19.4
10 28	0 46.21	-2 35.6	1.602	2.532	9.9	19.1	10 28	0 45.46	+3 23.6	1.205	2.154	10.4	19.7
11 7	0 39.53	-2 32.3	1.680	2.541	13.6	19.3	11 7	0 39.09	+3 26.5	1.279	2.170	15.0	20.0
11 17	0 35.38	-2 12.0	1.778	2.550	16.7	19.6	11 17	0 35.83	+3 44.6	1.374	2.187	18.7	20.3
409358	2004 YY ₃₃	10 10.1 296°70		7°8/ 1.0 17			513979	2014 GC ₄₃	10 10.1 145°48		0°1/10.0 18		
9 8	1 24.47	-15 40.1	2.155	3.034	11.0	20.4	9 8	1 24.71	+8 58.8	2.256	3.117	11.3	22.7
9 18	1 19.32	-16 55.7	2.081	3.004	9.1	20.2	9 18	1 19.19	+8 17.2	2.191	3.125	8.1	22.5
9 28	1 12.42	-18 3.9	2.032	2.975	7.9	20.1	9 28	1 12.19	+7 25.9	2.153	3.133	4.6	22.3
10 8	1 4.40	-18 57.3	2.008	2.945	8.2	20.0	10 8	1 4.36	+6 28.8	2.142	3.141	0.8	22.1
10 18	0 56.08	-19 29.5	2.011	2.915	10.0	20.1	10 18	0 56.45	+5 31.0	2.161	3.148	3.0	22.3
10 28	0 48.38	-19 36.7	2.039	2.884	12.3	20.2	10 28	0 49.27	+4 37.8	2.209	3.154	6.7	22.5
11 7	0 42.10	-19 18.1	2.088	2.854	14.8	20.3	11 7	0 43.47	+3 53.9	2.285	3.160	9.9	22.7
11 17	0 37.83	-18 35.5	2.155	2.824	17.0	20.4	11 17	0 39.50	+3 22.5	2.383	3.166	12.6	22.9
30419	2000 LU	10 10.1 2°65		2°3/ 8.4 18			501580	2014 OZ ₃₉₀	10 10.1 233°83		12°7/17.1 17		
9 8	1 26.19	+1 51.7	1.661	2.548	13.3	17.5	9 8	1 38.77	+30 36.4	1.287	2.071	22.3	21.8
9 18	1 20.71	+1 29.8	1.600	2.547	9.5	17.3	9 18	1 31.43	+32 31.6	1.214	2.066	19.4	21.6
9 28	1 13.21	+1 2.9	1.563	2.547	5.3	17.0	9 28	1 20.14	+33 57.7	1.158	2.061	16.2	21.4
10 8	1 4.53	+0 36.3	1.552	2.548	2.3	16.8	10 8	1 5.91	+34 45.4	1.123	2.055	13.6	21.2
10 18	0 55.69	+0 15.3	1.568	2.548	5.0	17.0	10 18	0 50.57	+34 49.1	1.110	2.049	12.7	21.1
10 28	0 47.81	+0 4.7	1.610	2.550	9.2	17.3	10 28	0 36.45	+34 12.3	1.120	2.042	14.0	21.2
11 7	0 41.75	+0 7.8	1.677	2.551	13.0	17.5	11 7	0 25.55	+33 7.4	1.151	2.035	16.8	21.3
11 17	0 38.08	+0 25.9	1.765	2.553	16.2	17.7	11 17	0 19.00	+31 50.0	1.202	2.028	20.0	21.5
82705	2001 PC ₄₁	10 10.1 236°72		5°9/16.1 18			260112	2004 PY ₁₀	10 10.1 24°32		2°9/ 7.6 18		
9 8	1 26.74	+25 31.4	2.153	2.942	14.3	19.6	9 8	1 21.75	+2 27.1	1.502	2.400	13.8	19.9
9 18	1 21.05	+25 52.5	2.068	2.936	11.8	19.4	9 18	1 17.54	+1 25.9	1.459	2.412	9.7	19.7
9 28	1 13.44	+25 53.5	2.004	2.930	9.0	19.3	9 28	1 11.41	+0 18.4	1.438	2.424	5.5	19.5
10 8	1 4.59	+25 33.3	1.964	2.924	6.7	19.1	10 8	1 4.23	+0 47.9	1.443	2.437	2.9	19.3
10 18	0 55.41	+24 53.7	1.952	2.918	5.9	19.0	10 18	0 57.04	-1 45.2	1.473	2.451	5.8	19.5
10 28	0 46.95	+23 59.3	1.968	2.911	7.5	19.1	10 28	0 50.87	-2 26.8	1.530	2.466	9.8	19.8
11 7	0 40.07	+22 57.1	2.010	2.904	10.1	19.3	11 7	0 46.55	-2 49.0	1.610	2.482	13.5	20.1
11 17	0 35.41	+21 54.4	2.076	2.897	12.9	19.5	11 17	0 44.51	-2 50.8	1.709	2.499	16.6	20.3
366956	2005 WT ₄₀	10 10.1 42°48		10°2/30.9 18			609	Fulvia	10 10.1 97°44		1°0/ 9.0 18		
9 8	1 27.86	-22 35.0	1.889	2.754	13.0	19.8	9 8	1 22.52	+6 0.6	2.220	3.093	11.0	15.2
9 18	1 21.58	-23 35.3	1.861	2.763	11.2	19.8	9 18	1 17.67	+5 15.4	2.156	3.097	7.8	15.0
9 28	1 13.51	-24 18.2	1.856	2.772	10.3	19.7	9 28	1 11.37	+4 22.5	2.118	3.101	4.3	14.8
10 8	1 4.56	-24 36.9	1.875	2.782	10.5	19.8	10 8	1 4.23	+3 26.4	2.107	3.105	1.1	14.5
10 18	0 55.72	-24 27.4	1.918	2.792	11.9	19.9	10 18	0 57.00	+2 32.2	2.125	3.109	3.6	14.7
10 28	0 47.99	-23 49.4	1.984	2.803	13.7	20.0	10 28	0 50.46	+1 45.2	2.172	3.113	7.1	15.0
11 7	0 42.08	-22 45.9	2.071	2.813	15.6	20.2	11 7	0 45.25	+1 9.4	2.245	3.116	10.3	15.2
11 17	0 38.42	-21 21.4	2.175	2.824	17.3	20.4	11 17	0 41.82	+0 47.3	2.341	3.120	12.9	15.4
155655	2000 GG ₁₄₄	10 10.1 233°36		0°3/10.4 18			31835	2000 BK ₁₆	10 10.1 309°44		3°4/ 3.9 18		
9 8	1 27.34	+9 41.1	1.738	2.605	13.9	21.5	9 8	1 17.89	-10 9.3	4.101	4.978	6.3	18.5
9 18	1 21.62	+9 12.2	1.662	2.597	10.1	21.2	9						

EPHEMERIDES

10 10.1

10 10.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
486592	2013 <i>JX</i> ₃₉		10 10.1	29°00	5°8/ 3.7	18	355591	2008 <i>CV</i> ₁₄₂		10 10.2	79°03	1°2/ 8.9	18
9 8	1 23.07	- 9 46.3	2.162	3.049	10.7	20.6	9 8	1 24.47	+ 5 24.7	2.143	3.016	11.4	20.9
9 18	1 18.09	-10 53.1	2.112	3.050	8.1	20.4	9 18	1 18.98	+ 4 38.5	2.099	3.039	8.0	20.7
9 28	1 11.61	-11 55.3	2.087	3.052	6.2	20.3	9 28	1 12.05	+ 3 45.7	2.080	3.063	4.4	20.5
10 8	1 4.29	-12 46.5	2.090	3.053	6.1	20.3	10 8	1 4.39	+ 2 51.1	2.089	3.086	1.2	20.3
10 18	0 56.91	-13 21.4	2.120	3.054	7.8	20.4	10 18	0 56.78	+ 2 0.0	2.127	3.110	3.7	20.6
10 28	0 50.26	-13 36.6	2.175	3.056	10.3	20.6	10 28	0 50.00	+ 1 17.1	2.194	3.133	7.1	20.8
11 7	0 45.01	-13 31.2	2.254	3.057	12.7	20.7	11 7	0 44.67	+ 0 46.3	2.287	3.155	10.2	21.0
11 17	0 41.60	-13 6.3	2.353	3.059	14.8	20.9	11 17	0 41.17	+ 0 29.2	2.403	3.178	12.8	21.3
23875	Strube		10 10.1	56°59	2°5/ 8.1	18	110066	2001 <i>SW</i> ₁₀₉		10 10.2	333°88	1°9/ 11.5	18
9 8	1 26.20	+ 2 47.5	1.528	2.418	14.1	17.9	9 8	1 28.24	+11 15.4	1.717	2.578	14.3	18.2
9 18	1 20.64	+ 1 58.3	1.488	2.437	10.0	17.7	9 18	1 22.38	+11 38.1	1.641	2.571	10.7	18.0
9 28	1 13.11	+ 1 3.0	1.471	2.456	5.5	17.5	9 28	1 14.31	+11 49.2	1.588	2.563	6.5	17.7
10 8	1 4.55	+ 0 8.5	1.480	2.476	2.5	17.4	10 8	1 4.85	+11 50.0	1.561	2.557	2.5	17.5
10 18	0 56.06	- 0 38.2	1.516	2.496	5.4	17.6	10 18	0 55.03	+11 43.1	1.562	2.551	3.6	17.5
10 28	0 48.73	- 1 11.2	1.579	2.516	9.5	17.9	10 28	0 46.06	+11 33.1	1.590	2.545	7.9	17.8
11 7	0 43.36	- 1 26.9	1.665	2.536	13.2	18.2	11 7	0 38.94	+11 25.2	1.644	2.539	11.9	18.0
11 17	0 40.39	- 1 24.4	1.772	2.556	16.2	18.5	11 17	0 34.34	+11 23.9	1.719	2.535	15.4	18.2
322227	2011 <i>BQ</i> ₄₇		10 10.1	24°09	1°4/ 11.6	18	471253	2011 <i>BB</i> ₁₄₉		10 10.2	86°03	2°0/ 8.7	16
9 8	1 21.77	+13 12.7	1.930	2.790	13.0	20.3	9 8	1 29.68	+ 3 22.2	1.467	2.352	14.9	22.1
9 18	1 17.36	+12 44.3	1.868	2.797	9.6	20.1	9 18	1 23.35	+ 2 53.9	1.416	2.362	10.6	21.9
9 28	1 11.27	+12 1.7	1.828	2.804	5.8	19.9	9 28	1 14.76	+ 2 18.4	1.387	2.372	5.9	21.7
10 8	1 4.24	+11 8.4	1.815	2.811	2.0	19.7	10 8	1 4.90	+ 1 41.8	1.385	2.382	2.0	21.4
10 18	0 57.10	+10 9.6	1.830	2.819	3.0	19.8	10 18	0 55.00	+ 1 10.3	1.409	2.392	5.2	21.7
10 28	0 50.76	+ 9 11.6	1.872	2.827	6.8	20.0	10 28	0 46.30	+ 0 49.9	1.460	2.402	9.7	22.0
11 7	0 45.93	+ 8 20.7	1.941	2.836	10.4	20.3	11 7	0 39.77	+ 0 44.5	1.535	2.412	13.8	22.2
11 17	0 43.11	+ 7 41.2	2.033	2.845	13.4	20.5	11 17	0 35.92	+ 0 55.3	1.630	2.421	17.2	22.5
259878	2004 <i>DV</i> ₁₅		10 10.1	176°01	3°9/ 5.8	18	521520	2015 <i>OV</i> ₉₇		10 10.2	210°15	1°9/ 11.9	18
9 8	1 24.26	- 3 13.5	2.215	3.099	10.6	20.6	9 8	1 27.28	+13 19.0	2.060	2.907	12.8	21.4
9 18	1 18.92	- 4 17.4	2.156	3.100	7.6	20.4	9 18	1 21.34	+13 20.3	1.984	2.905	9.6	21.2
9 28	1 12.09	- 5 22.2	2.124	3.101	4.9	20.2	9 28	1 13.58	+13 8.8	1.931	2.902	6.0	21.0
10 8	1 4.40	- 6 21.9	2.119	3.102	4.0	20.2	10 8	1 4.71	+12 46.4	1.906	2.900	2.5	20.8
10 18	0 56.62	- 7 11.1	2.143	3.103	6.0	20.3	10 18	0 55.60	+12 16.4	1.909	2.897	3.2	20.8
10 28	0 49.55	- 7 45.1	2.195	3.103	8.9	20.5	10 28	0 47.23	+11 43.8	1.941	2.894	6.8	21.1
11 7	0 43.86	- 8 1.6	2.272	3.103	11.7	20.7	11 7	0 40.43	+11 13.7	2.000	2.891	10.4	21.3
11 17	0 40.00	- 8 0.2	2.370	3.102	14.1	20.8	11 17	0 35.76	+10 50.7	2.082	2.887	13.4	21.5
408514	2013 <i>JT</i> ₃₆		10 10.1	213°22	1°2/ 8.6	18	186789	2004 <i>EF</i> ₈		10 10.2	170°98	0°4/ 10.5	18
9 8	1 21.62	+ 6 9.0	2.295	3.168	10.7	21.0	9 8	1 27.43	+10 30.7	1.703	2.568	14.2	20.5
9 18	1 17.05	+ 5 6.0	2.225	3.166	7.6	20.8	9 18	1 21.64	+ 9 55.7	1.636	2.571	10.3	20.3
9 28	1 11.05	+ 3 54.4	2.180	3.164	4.2	20.6	9 28	1 13.80	+ 9 6.5	1.593	2.572	6.0	20.0
10 8	1 4.22	+ 2 39.2	2.164	3.161	1.3	20.4	10 8	1 4.75	+ 8 7.5	1.576	2.574	1.3	19.7
10 18	0 57.27	+ 1 26.3	2.177	3.159	3.7	20.5	10 18	0 55.51	+ 7 5.2	1.587	2.575	3.6	19.9
10 28	0 50.94	+ 0 21.5	2.219	3.156	7.2	20.8	10 28	0 47.23	+ 6 6.8	1.625	2.576	8.1	20.2
11 7	0 45.88	- 0 30.5	2.288	3.154	10.3	21.0	11 7	0 40.80	+ 5 19.0	1.690	2.576	12.2	20.4
11 17	0 42.54	- 1 6.9	2.380	3.151	13.0	21.1	11 17	0 36.79	+ 4 46.2	1.776	2.576	15.6	20.7
326225	2012 <i>DW</i> ₅		10 10.1	314°86	0°2/ 10.3	17	128780	2004 <i>RE</i> ₂₀₁		10 10.2	357°00	3°4/ 8.1	18
9 8	1 27.28	+ 9 26.3	1.254	2.139	16.9	21.1	9 8	1 27.43	- 2 6.3	1.451	2.347	14.4	17.9
9 18	1 22.16	+ 8 57.8	1.190	2.134	12.4	20.9	9 18	1 21.90	- 2 0.0	1.391	2.341	10.4	17.6
9 28	1 14.34	+ 8 12.6	1.147	2.130	7.1	20.6	9 28	1 14.04	- 1 53.2	1.353	2.337	6.1	17.4
10 8	1 4.85	+ 7 15.9	1.127	2.126	1.3	20.2	10 8	1 4.80	- 1 41.2	1.340	2.334	3.4	17.2
10 18	0 55.02	+ 6 15.7	1.133	2.122	4.5	20.4	10 18	0 55.34	- 1 20.0	1.354	2.332	6.0	17.4
10 28	0 46.38	+ 5 21.5	1.164	2.118	10.1	20.7	10 28	0 46.96	- 0 46.7	1.393	2.332	10.3	17.6
11 7	0 40.13	+ 4 41.4	1.217	2.114	15.1	21.0	11 7	0 40.67	- 0 0.0	1.455	2.333	14.3	17.9
11 17	0 36.94	+ 4 20.3	1.290	2.111	19.2	21.2	11 17	0 37.08	+ 0 59.5	1.538	2.336	17.7	18.1
371846	2007 <i>YT</i> ₁₁		10 10.1	324°68	4°2/ 12.8	18	101115	1998 <i>RX</i> ₅₁		10 10.2	69°68	1°3/ 8.8	18
9 8	1 27.32	+15 55.2	1.197	2.066	18.6	20.7	9 8	1 22.54	+ 8 11.3	1.719	2.598	13.4	19.3
9 18	1 22.53	+16 17.3	1.126	2.055	14.4	20.4	9 18	1 18.02	+ 6 44.3	1.661	2.605	9.5	19.1
9 28	1 14.75	+16 17.4	1.073	2.044	9.6	20.1	9 28	1 11.70	+ 5 4.1	1.627	2.612	5.2	18.9
10 8	1 4.95	+15 55.9	1.043	2.034	5.1	19.9	10 8	1 4.37	+ 3 18.2	1.621	2.619	1.3	18.6
10 18	0 54.57	+15 16.7	1.037	2.025	5.3	19.8	10 18	0 56.96	+ 1 35.7	1.643	2.626	4.5	18.9
10 28	0 45.34	+14 28.2	1.055	2.016	10.0	20.1	10 28	0 50.45	+ 0 5.4	1.693	2.634	8.7	19.1
11 7	0 38.65	+13 40.8	1.096	2.008	15.0	20.3	11 7	0 45.62	- 1 6.1	1.768	2.641	12.5	19.4
11 17	0 35.35	+13 3.3	1.155	2.001	19.4	20.6	11 17	0 42.94	- 1 55.5	1.864	2.648	15.6	19.6
71841	2000 <i>UY</i> ₇₇		10 10.1	34°68	2°7/ 8.7	18	485330	2011 <i>BQ</i> ₉₃		10 10.2	208°44	2°9/ 13.7	17
9 8	1 29.69	+ 2 15.4	0.971	1.879	18.6	18.6	9 8	1 23.02	+18 38.1	2.562	3.383	11.4	21.6
9 18	1 23.95	+ 2 0.2	0.937	1.893	13.3	18.3	9 18	1 18.03	+18 29.0	2.481	3.381	8.8	21.4
9 28	1 15.24	+ 1 38.0	0.921	1.909	7.4	18.1	9 28	1 11.62	+18 5.6	2.423	3.379	6.0	21.2
10 8	1 4.97	+ 1 16.3	0.928	1.925	2.7	17.8	10 8	1 4.36	+17 29.5	2.393	3.377	3.5	21.1
10 18	0 54.80	+ 1 2.4	0.958	1.943	6.4	18.1	10 18	0 56.93	+16 43.6	2.392	3.375	3.3	21.1
10 28	0 46.41	+ 1 2.7	1.011	1.961	11.9	18.5	10 28	0 50.08	+15 52.2	2.420	3.373	5.6	21.2
11 7	0 40.91	+ 1 20.2	1.085	1.981	16.6	18.9	11 7	0 44.45	+15 0.7	2.476	3.371	8.5	21.4
11 17	0 38.78	+ 1 55.2	1.177	2.001	20.5	19.2	11 17	0 40.50	+14 13.8	2.557	3.368	11.0	21.6
460049	2014 <i>OL</i> ₁₉₇		10 10.2	325°58	10°2/ 16.3	16	440851	2006 <i>SX</i> ₁₇₅		10 10.2	16°27	1°5/ 11.3	18

EPHEMERIDES

10 10.2

10 10.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
183988	2004 <i>EL</i> ₅₂		10 10.2 220°42	3°1/ 7.4 18			406991	2009 <i>RZ</i> ₃₇		10 10.2 15°55	1°1/ 9.1 18		
9 8	1 25.99	+ 2 18.4	1.570	2.460	13.8	20.4	9 8	1 21.42	+ 6 42.5	1.804	2.686	12.7	20.7
9 18	1 20.73	+ 1 8.3	1.508	2.457	9.8	20.2	9 18	1 17.20	+ 5 50.3	1.744	2.690	9.0	20.5
9 28	1 13.34	- 0 10.1	1.469	2.453	5.6	19.9	9 28	1 11.25	+ 4 48.0	1.709	2.693	5.0	20.2
10 8	1 4.68	- 1 28.6	1.456	2.450	3.1	19.8	10 8	1 4.32	+ 3 41.3	1.700	2.698	1.2	20.0
10 18	0 55.83	- 2 38.7	1.471	2.446	6.1	20.0	10 18	0 57.29	+ 2 36.8	1.718	2.703	4.1	20.2
10 28	0 47.95	- 3 32.7	1.512	2.443	10.4	20.2	10 28	0 51.06	+ 1 41.3	1.764	2.708	8.1	20.5
11 7	0 41.97	- 4 5.7	1.576	2.439	14.3	20.4	11 7	0 46.41	+ 0 59.9	1.835	2.714	11.7	20.7
11 17	0 38.48	- 4 16.0	1.661	2.434	17.6	20.7	11 17	0 43.82	+ 0 35.5	1.927	2.721	14.8	20.9
431781	2008 <i>LY</i> ₃		10 10.2 141°21	3°3/ 6.9 17			471931	2013 <i>PH</i> ₄₄		10 10.2 22°53	1°1/ 2.4 17		
9 8	1 26.75	+ 1 15.3	1.816	2.699	12.6	22.0	9 8	1 8.02	- 12 41.8	15.147	16.021	1.8	21.3
9 18	1 20.90	- 0 5.6	1.764	2.710	8.9	21.8	9 18	1 6.55	- 13 1.1	15.100	16.026	1.4	21.2
9 28	1 13.27	- 1 31.8	1.738	2.720	5.2	21.6	9 28	1 4.91	- 13 19.3	15.081	16.031	1.2	21.2
10 8	1 4.65	- 2 55.8	1.739	2.730	3.3	21.5	10 8	1 3.17	- 13 35.7	15.090	16.035	1.2	21.2
10 18	0 56.00	- 4 9.7	1.769	2.739	5.9	21.7	10 18	1 1.42	- 13 49.8	15.129	16.040	1.5	21.2
10 28	0 48.29	- 5 7.1	1.826	2.748	9.5	21.9	10 28	0 59.73	- 14 1.0	15.196	16.045	1.9	21.3
11 7	0 42.31	- 5 44.2	1.909	2.756	12.9	22.2	11 7	0 58.20	- 14 9.1	15.288	16.050	2.3	21.3
11 17	0 38.51	- 6 0.2	2.012	2.763	15.7	22.4	11 17	0 56.89	- 14 13.9	15.404	16.055	2.7	21.4
284925	2010 <i>CY</i> ₁₀₃		10 10.2 159°24	1°8/ 8.4 18 R			509893	2009 <i>BZ</i> ₁₂₆		10 10.2 162°98	1°9/ 7.9 18		
9 8	1 25.78	+ 4 12.1	1.884	2.763	12.4	20.9	9 8	1 24.72	+ 3 0.2	2.337	3.210	10.5	22.7
9 18	1 20.25	+ 3 23.0	1.822	2.766	8.8	20.7	9 18	1 19.20	+ 2 5.8	2.274	3.216	7.4	22.6
9 28	1 12.94	+ 2 26.3	1.785	2.769	4.9	20.5	9 28	1 12.26	+ 1 5.9	2.238	3.221	4.2	22.4
10 8	1 4.60	+ 1 27.6	1.774	2.771	1.8	20.3	10 8	1 4.51	+ 0 5.5	2.230	3.225	1.9	22.2
10 18	0 56.15	+ 0 33.2	1.793	2.773	4.5	20.5	10 18	0 56.68	- 0 50.1	2.252	3.229	4.2	22.4
10 28	0 48.55	- 0 11.0	1.839	2.776	8.4	20.7	10 28	0 49.53	- 1 36.1	2.303	3.232	7.4	22.6
11 7	0 42.57	- 0 40.6	1.910	2.777	12.0	20.9	11 7	0 43.71	- 2 8.9	2.381	3.235	10.4	22.8
11 17	0 38.73	- 0 53.6	2.004	2.779	14.9	21.2	11 17	0 39.64	- 2 26.9	2.481	3.237	12.9	23.0
231630	2009 <i>TW</i> ₂₄		10 10.2 316°47	1°1/ 11.3 18			198608	2005 <i>AH</i> ₂₃		10 10.2 329°76	3°3/ 7.8 18		
9 8	1 20.71	+ 13 14.9	1.939	2.800	12.9	19.9	9 8	1 23.59	+ 1 24.6	1.282	2.186	15.3	19.0
9 18	1 16.79	+ 12 31.5	1.851	2.782	9.6	19.7	9 18	1 19.57	+ 0 45.4	1.210	2.166	11.0	18.7
9 28	1 11.10	+ 11 31.7	1.788	2.764	5.8	19.4	9 28	1 12.98	+ 0 1.5	1.160	2.146	6.4	18.4
10 8	1 4.29	+ 10 19.2	1.750	2.747	1.8	19.1	10 8	1 4.69	- 0 48.7	1.132	2.127	3.3	18.1
10 18	0 57.19	+ 8 59.8	1.740	2.730	3.1	19.2	10 18	0 55.94	- 1 27.8	1.130	2.110	6.7	18.3
10 28	0 50.74	+ 7 41.1	1.759	2.713	7.3	19.4	10 28	0 48.15	- 1 50.9	1.151	2.093	11.7	18.5
11 7	0 45.75	+ 6 30.3	1.803	2.697	11.1	19.6	11 7	0 42.53	- 1 52.9	1.194	2.078	16.3	18.8
11 17	0 42.79	+ 5 33.3	1.870	2.681	14.5	19.8	11 17	0 39.82	- 1 32.3	1.255	2.064	20.3	19.0
326817	2003 <i>TH</i> ₂₇		10 10.2 16°60	2°1/ 12.5 18			474933	2005 <i>SS</i> ₂₆₃		10 10.2 355°94	1°6/ 9.0 18		
9 8	1 21.44	+ 15 56.9	2.019	2.867	13.0	21.0	9 8	1 22.24	+ 5 55.8	1.086	1.992	17.2	20.7
9 18	1 17.13	+ 15 24.0	1.950	2.870	9.8	20.8	9 18	1 18.72	+ 5 17.0	1.030	1.987	12.4	20.4
9 28	1 11.18	+ 14 34.7	1.903	2.873	6.2	20.6	9 28	1 12.49	+ 4 24.3	0.995	1.983	6.9	20.1
10 8	1 4.29	+ 13 32.2	1.883	2.876	2.8	20.4	10 8	1 4.59	+ 3 25.2	0.981	1.980	1.7	19.8
10 18	0 57.26	+ 12 21.6	1.891	2.879	3.1	20.4	10 18	0 56.41	+ 2 29.4	0.992	1.978	5.7	20.0
10 28	0 50.97	+ 11 9.8	1.927	2.883	6.6	20.6	10 28	0 49.47	+ 1 46.6	1.025	1.978	11.3	20.3
11 7	0 46.15	+ 10 3.4	1.990	2.887	10.0	20.8	11 7	0 44.97	+ 1 23.8	1.079	1.980	16.3	20.6
11 17	0 43.28	+ 9 7.8	2.076	2.892	13.1	21.1	11 17	0 43.54	+ 1 23.8	1.151	1.982	20.4	20.9
440850	2006 <i>SB</i> ₁₆₀		10 10.2 16°77	1°7/ 8.8 18			377313	2004 <i>HS</i> ₂₀		10 10.2 205°97	4°6/ 6.6 18		
9 8	1 26.29	+ 3 26.8	1.784	2.665	12.8	21.0	9 8	1 31.25	- 4 37.1	1.787	2.668	12.8	20.9
9 18	1 20.72	+ 3 3.9	1.722	2.666	9.2	20.8	9 18	1 24.31	- 5 13.6	1.723	2.665	9.4	20.7
9 28	1 13.25	+ 2 34.8	1.684	2.668	5.1	20.6	9 28	1 15.31	- 5 49.0	1.684	2.661	6.0	20.5
10 8	1 4.68	+ 2 4.3	1.672	2.669	1.7	20.4	10 8	1 5.08	- 6 17.3	1.671	2.656	4.6	20.4
10 18	0 55.96	+ 1 37.4	1.688	2.671	4.4	20.6	10 18	0 54.68	- 6 32.9	1.687	2.651	6.9	20.6
10 28	0 48.13	+ 1 19.1	1.732	2.673	8.5	20.8	10 28	0 45.24	- 6 31.6	1.731	2.645	10.4	20.8
11 7	0 42.02	+ 1 13.0	1.801	2.675	12.2	21.0	11 7	0 37.67	- 6 12.2	1.798	2.639	13.8	21.0
11 17	0 38.16	+ 1 21.0	1.891	2.678	15.3	21.3	11 17	0 32.53	- 5 35.1	1.886	2.632	16.7	21.2
214048	2004 <i>EH</i> ₈₄		10 10.2 177°96	1°8/ 11.8 18			408721	2014 <i>OC</i> ₂₂		10 10.2 93°65	0°6/ 9.5 18		
9 8	1 25.18	+ 13 38.4	1.950	2.802	13.2	20.7	9 8	1 23.71	+ 7 18.7	2.178	3.047	11.4	21.8
9 18	1 19.89	+ 13 22.5	1.878	2.802	9.9	20.4	9 18	1 18.55	+ 6 38.7	2.120	3.058	8.1	21.6
9 28	1 12.79	+ 12 52.2	1.830	2.802	6.1	20.2	9 28	1 11.91	+ 5 50.2	2.087	3.070	4.5	21.4
10 8	1 4.60	+ 12 10.2	1.808	2.803	2.4	20.0	10 8	1 4.45	+ 4 57.5	2.082	3.081	0.8	21.2
10 18	0 56.23	+ 11 21.0	1.814	2.803	3.2	20.0	10 18	0 56.95	+ 4 5.7	2.107	3.092	3.3	21.4
10 28	0 48.64	+ 10 30.6	1.848	2.803	7.0	20.3	10 28	0 50.19	+ 3 20.0	2.159	3.103	6.9	21.6
11 7	0 42.65	+ 9 45.2	1.909	2.802	10.6	20.5	11 7	0 44.82	+ 2 44.5	2.239	3.114	10.1	21.9
11 17	0 38.79	+ 9 9.5	1.993	2.802	13.8	20.7	11 17	0 41.28	+ 2 22.0	2.341	3.125	12.8	22.1
248909	2006 <i>VR</i> ₅₂		10 10.2 91°66	1°8/ 11.8 18			305103	2007 <i>VT</i> ₅₅		10 10.2 314°27	2°7/ 7.8 18		
9 8	1 26.02	+ 13 14.4	1.992	2.843	13.0	20.2	9 8	1 24.05	+ 2 21.0	1.688	2.578	13.0	21.2
9 18	1 20.43	+ 13 8.0	1.923	2.847	9.7	20.0	9 18	1 19.27	+ 1 28.1	1.621	2.570	9.3	20.9
9 28	1 13.07	+ 12 48.4	1.878	2.851	6.0	19.8	9 28	1 12.53	+ 0 28.1	1.578	2.563	5.3	20.7
10 8	1 4.65	+ 12 17.9	1.860	2.854	2.4	19.6	10 8	1 4.59	- 0 32.5	1.561	2.556	2.7	20.5
10 18	0 56.07	+ 11 40.4	1.870	2.858	3.1	19.7	10 18	0 56.43	- 1 26.6	1.571	2.549	5.5	20.7
10 28	0 48.29	+ 11 1.2	1.908	2.862	6.8	19.9	10 28	0 49.12	- 2 7.6	1.608	2.543	9.6	20.9
11 7	0 42.10	+ 10 26.0	1.973	2.865	10.4	20.1	11 7	0 43.54	- 2 31.0	1.669	2.536	13.4	21.1
11 17	0 38.02	+ 9 59.1	2.061	2.869	13.4	20.3	11 17	0 40.24	- 2 35.0	1.750	2.530	16.6	21.3
192938	2000 <i>AJ</i> ₁₈₅		10 10.2 289°38	2°4/ 5.3 18			515686	2014 <i>PG</i> ₁₀					

EPHEMERIDES

10 10.2

10 10.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
451975	2014 <i>NP</i> ₃₄		10 10.2 44° 93	1° 0 / 9.3	18		284964	2010 <i>FO</i> ₅		10 10.2 114° 88	4° 7 / 5.2	16	
9 8	1 26.19	+ 4 24.0	2.027	2.901	11.9	20.2	9 8	1 25.29	- 3 30.8	1.900	2.789	11.8	21.2
9 18	1 20.45	+ 4 11.7	1.966	2.907	8.5	20.0	9 18	1 19.79	- 4 59.0	1.857	2.803	8.5	21.1
9 28	1 13.04	+ 3 53.6	1.929	2.912	4.7	19.8	9 28	1 12.64	- 6 27.4	1.840	2.817	5.6	20.9
10 8	1 4.67	+ 3 33.3	1.920	2.918	1.2	19.5	10 8	1 4.62	- 7 48.1	1.850	2.830	4.9	20.9
10 18	0 56.21	+ 3 14.8	1.940	2.925	3.7	19.7	10 18	0 56.60	- 8 54.1	1.888	2.843	7.0	21.1
10 28	0 48.55	+ 3 2.3	1.988	2.931	7.4	20.0	10 28	0 49.49	- 9 40.2	1.954	2.856	10.1	21.3
11 7	0 42.43	+ 2 58.8	2.062	2.937	10.8	20.2	11 7	0 43.99	- 10 4.2	2.043	2.868	13.0	21.5
11 17	0 38.34	+ 3 6.4	2.159	2.944	13.7	20.4	11 17	0 40.53	- 10 6.6	2.152	2.880	15.4	21.7
405769	2005 <i>YY</i> ₂₂₃		10 10.2 323° 32	0° 5 / 10.7	17		166466	2002 <i>PJ</i> ₉₉		10 10.2 320° 83	8° 4 / 1.8	18	
9 8	1 23.61	+ 9 45.9	1.843	2.713	13.1	21.5	9 8	1 21.12	- 9 7.1	1.434	2.341	13.7	19.0
9 18	1 18.92	+ 9 29.2	1.764	2.700	9.6	21.2	9 18	1 17.59	- 11 2.5	1.367	2.316	10.7	18.8
9 28	1 12.35	+ 9 0.6	1.708	2.688	5.6	21.0	9 28	1 11.79	- 12 57.2	1.324	2.291	8.6	18.6
10 8	1 4.57	+ 8 23.4	1.679	2.677	1.3	20.6	10 8	1 4.52	- 14 38.7	1.305	2.267	8.9	18.6
10 18	0 56.51	+ 7 42.3	1.677	2.666	3.3	20.8	10 18	0 56.85	- 15 55.7	1.310	2.244	11.6	18.7
10 28	0 49.16	+ 7 3.3	1.702	2.655	7.6	21.0	10 28	0 50.03	- 16 40.0	1.338	2.222	15.1	18.8
11 7	0 43.41	+ 6 31.9	1.753	2.644	11.5	21.2	11 7	0 45.12	- 16 48.9	1.385	2.200	18.6	19.0
11 17	0 39.85	+ 6 12.3	1.826	2.635	14.9	21.4	11 17	0 42.80	- 16 24.1	1.448	2.179	21.6	19.1
451842	2013 <i>KV</i> ₉		10 10.2 169° 26	1° 6 / 12.2	18		6317	Dreyfus		10 10.2 186° 09	4° 2 / 6.9	18	R
9 8	1 22.58	+ 15 8.6	2.470	3.309	11.2	21.7	9 8	1 28.97	- 0 45.5	1.483	2.374	14.4	17.4
9 18	1 17.71	+ 14 32.0	2.395	3.311	8.4	21.5	9 18	1 22.97	- 1 44.8	1.425	2.374	10.3	17.2
9 28	1 11.45	+ 13 41.9	2.344	3.313	5.2	21.3	9 28	1 14.67	- 2 48.2	1.391	2.374	6.2	17.0
10 8	1 4.39	+ 12 41.2	2.321	3.315	2.2	21.1	10 8	1 5.03	- 3 47.7	1.383	2.373	4.2	16.9
10 18	0 57.21	+ 11 34.4	2.328	3.316	2.6	21.1	10 18	0 55.22	- 4 35.2	1.401	2.372	7.0	17.0
10 28	0 50.65	+ 10 26.8	2.364	3.317	5.8	21.3	10 28	0 46.52	- 5 4.1	1.445	2.371	11.2	17.3
11 7	0 45.33	+ 9 24.0	2.428	3.318	8.8	21.5	11 7	0 39.92	- 5 11.3	1.513	2.370	15.1	17.5
11 17	0 41.68	+ 8 30.5	2.517	3.318	11.5	21.7	11 17	0 35.99	- 4 56.6	1.599	2.368	18.4	17.7
365725	2010 <i>VA</i> ₁₉₃		10 10.2 328° 47	1° 1 / 11.3	18		171368	2006 <i>LV</i> ₄		10 10.2 51° 99	8° 0 / 2.9	18	
9 8	1 22.15	+ 12 28.2	1.869	2.733	13.2	20.4	9 8	1 25.58	- 12 15.3	1.649	2.541	13.1	19.2
9 18	1 17.82	+ 11 55.8	1.793	2.724	9.8	20.2	9 18	1 20.23	- 13 37.4	1.612	2.550	10.3	19.0
9 28	1 11.69	+ 11 8.3	1.740	2.717	5.9	19.9	9 28	1 12.98	- 14 50.5	1.600	2.558	8.3	18.9
10 8	1 4.45	+ 10 9.5	1.712	2.709	1.8	19.7	10 8	1 4.70	- 15 46.0	1.612	2.567	8.3	19.0
10 18	0 56.97	+ 9 4.9	1.713	2.702	3.2	19.7	10 18	0 56.43	- 16 17.4	1.650	2.576	10.2	19.1
10 28	0 50.23	+ 8 1.5	1.741	2.695	7.3	20.0	10 28	0 49.23	- 16 21.4	1.712	2.585	12.9	19.3
11 7	0 45.05	+ 7 6.0	1.795	2.689	11.2	20.2	11 7	0 43.87	- 15 58.8	1.794	2.595	15.6	19.5
11 17	0 41.97	+ 6 23.4	1.871	2.683	14.5	20.4	11 17	0 40.83	- 15 12.7	1.895	2.604	17.8	19.7
310685	2002 <i>GX</i> ₈₆		10 10.2 144° 14	5° 7 / 3.8	18		69565	1998 <i>AZ</i> ₄		10 10.2 258° 53	5° 1 / 14.3	18	
9 8	1 26.63	- 13 5.4	2.606	3.478	9.6	21.0	9 8	1 27.73	+ 21 0.3	1.474	2.310	17.5	19.4
9 18	1 20.40	- 13 48.4	2.560	3.486	7.5	20.9	9 18	1 22.46	+ 21 1.0	1.397	2.302	13.9	19.1
9 28	1 12.86	- 14 24.7	2.541	3.494	6.0	20.8	9 28	1 14.60	+ 20 36.3	1.339	2.295	9.9	18.9
10 8	1 4.63	- 14 49.4	2.549	3.501	5.8	20.8	10 8	1 5.05	+ 19 46.3	1.304	2.286	6.1	18.6
10 18	0 56.41	- 14 59.0	2.586	3.508	7.2	20.9	10 18	0 55.06	+ 18 35.3	1.296	2.278	5.5	18.6
10 28	0 48.90	- 14 51.7	2.649	3.514	9.2	21.1	10 28	0 46.08	+ 17 12.1	1.313	2.270	8.9	18.8
11 7	0 42.68	- 14 27.5	2.738	3.521	11.2	21.2	11 7	0 39.31	+ 15 47.9	1.355	2.262	13.1	19.0
11 17	0 38.13	- 13 47.6	2.847	3.526	13.0	21.4	11 17	0 35.47	+ 14 32.6	1.418	2.253	17.0	19.2
344982	2004 <i>XC</i> ₁₄₆		10 10.2 234° 94	8° 9 / 1.9	18		501539	2014 <i>JZ</i> ₂		10 10.2 120° 34	7° 0 / 3.7	18	
9 8	1 29.84	- 17 57.8	1.936	2.807	12.5	21.0	9 8	1 28.05	- 13 11.9	1.988	2.868	11.8	20.6
9 18	1 23.22	- 19 2.2	1.883	2.798	10.3	20.9	9 18	1 21.76	- 14 4.9	1.943	2.873	9.3	20.5
9 28	1 14.66	- 19 54.6	1.854	2.790	9.0	20.8	9 28	1 13.76	- 14 49.3	1.923	2.878	7.4	20.4
10 8	1 4.99	- 20 27.2	1.850	2.781	9.2	20.8	10 8	1 4.84	- 15 18.8	1.929	2.883	7.2	20.4
10 18	0 55.19	- 20 34.7	1.872	2.771	10.8	20.9	10 18	0 55.92	- 15 28.5	1.962	2.888	8.9	20.5
10 28	0 46.34	- 20 14.6	1.919	2.761	13.1	21.0	10 28	0 47.93	- 15 16.1	2.021	2.893	11.3	20.6
11 7	0 39.27	- 19 28.4	1.987	2.751	15.5	21.1	11 7	0 41.60	- 14 42.2	2.103	2.897	13.8	20.8
11 17	0 34.51	- 18 19.5	2.073	2.741	17.6	21.3	11 17	0 37.40	- 13 49.2	2.204	2.902	15.9	21.0
401603	2013 <i>GX</i> ₂₅		10 10.2 106° 77	5° 6 / 4.2	18		117564	2005 <i>EW</i> ₂₆		10 10.2 130° 66	0° 5 / 10.6	18	
9 8	1 24.34	- 8 57.2	2.152	3.038	10.8	20.7	9 8	1 26.27	+ 9 52.5	1.876	2.741	13.1	20.3
9 18	1 19.01	- 10 1.5	2.106	3.045	8.1	20.5	9 18	1 20.69	+ 9 29.8	1.810	2.744	9.6	20.1
9 28	1 12.18	- 11 1.6	2.085	3.051	6.0	20.4	9 28	1 13.27	+ 8 55.3	1.768	2.747	5.5	19.9
10 8	1 4.53	- 11 51.2	2.092	3.058	5.8	20.4	10 8	1 4.77	+ 8 12.7	1.752	2.750	1.2	19.6
10 18	0 56.84	- 12 25.1	2.125	3.064	7.5	20.5	10 18	0 56.12	+ 7 27.1	1.765	2.753	3.3	19.8
10 28	0 49.94	- 12 39.9	2.186	3.070	10.0	20.7	10 28	0 48.31	+ 6 44.4	1.806	2.756	7.4	20.0
11 7	0 44.46	- 12 34.8	2.270	3.076	12.5	20.9	11 7	0 42.17	+ 6 10.0	1.872	2.759	11.2	20.3
11 17	0 40.85	- 12 10.9	2.374	3.082	14.6	21.0	11 17	0 38.21	+ 5 47.7	1.962	2.761	14.3	20.5
355611	2008 <i>DT</i> ₃₂		10 10.2 141° 10	2° 6 / 7.3	18		363691	2004 <i>TM</i> ₁₆₁		10 10.2 37° 65	1° 7 / 12.2	18	
9 8	1 23.54	+ 1 12.9	2.192	3.074	10.8	20.7	9 8	1 21.85	+ 15 20.6	2.101	2.949	12.6	20.3
9 18	1 18.45	+ 0 14.7	2.133	3.078	7.6	20.5	9 18	1 17.39	+ 14 39.4	2.031	2.952	9.4	20.1
9 28	1 11.88	- 0 47.7	2.100	3.083	4.4	20.3	9 28	1 11.36	+ 13 42.4	1.984	2.955	5.9	19.9
10 8	1 4.48	- 1 48.9	2.095	3.088	2.6	20.2	10 8	1 4.42	+ 12 33.1	1.964	2.958	2.4	19.7
10 18	0 57.00	- 2 43.4	2.119	3.092	4.8	20.4	10 18	0 57.36	+ 11 17.1	1.973	2.962	2.9	19.7
10 28	0 50.23	- 3 26.0	2.171	3.096	8.0	20.6	10 28	0 51.02	+ 10 0.8	2.011	2.965	6.4	20.0
11 7	0 44.83	- 3 53.7	2.248	3.100	11.0	20.8	11 7	0 46.09	+ 8 51.1	2.075	2.969	9.9	20.2
11 17	0 41.24	- 4 4.9	2.348	3.103	13.6	21.0	11 17	0 43.05	+ 7 53.0	2.163	2.973	12.8	20.4
393613	2003 <i>YN</i> ₆₀		10 10.2 323° 59	6° 2 / 5.1</									

EPHEMERIDES

10 10.2

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
174357	2002 TA ₂₈₂		10 10.2	15°08'	3°5'/13.5	18	33268	2012 KO ₉		10 10.2	242°69'	3°2'/6.6	17
9 8	1 21.68	+18 36.5	1.419	2.276	17.0	18.6	9 8	1 24.38	- 2 57.4	2.548	3.427	9.6	21.2
9 18	1 17.89	+18 9.1	1.358	2.280	13.1	18.4	9 18	1 18.98	- 3 35.2	2.475	3.417	6.9	21.0
9 28	1 11.87	+17 16.9	1.318	2.285	8.7	18.2	9 28	1 12.21	- 4 13.6	2.428	3.406	4.3	20.9
10 8	1 4.54	+16 3.6	1.302	2.291	4.5	18.0	10 8	1 4.62	- 4 48.4	2.410	3.396	3.2	20.8
10 18	0 57.04	+14 36.3	1.310	2.298	4.3	18.0	10 18	0 56.87	- 5 15.5	2.420	3.385	5.0	20.9
10 28	0 50.60	+13 5.2	1.345	2.306	8.2	18.2	10 28	0 49.68	- 5 31.3	2.460	3.374	7.8	21.0
11 7	0 46.19	+11 40.7	1.404	2.315	12.4	18.5	11 7	0 43.67	- 5 33.8	2.525	3.363	10.4	21.2
11 17	0 44.35	+10 30.7	1.485	2.325	16.1	18.8	11 17	0 39.30	- 5 22.2	2.613	3.351	12.8	21.4
424573	2008 GS		10 10.2	184°16'	3°1'/7.6	17	112973	2002 RK ₂₀		10 10.2	37°49'	2°6'/8.5	17
9 8	1 30.15	- 0 1.8	1.835	2.714	12.7	21.8	9 8	1 27.35	+ 3 20.7	1.163	2.063	16.8	19.2
9 18	1 23.48	- 0 43.2	1.772	2.715	9.1	21.6	9 18	1 22.10	+ 2 40.2	1.120	2.074	11.9	19.0
9 28	1 14.86	- 1 28.1	1.733	2.715	5.3	21.4	9 28	1 14.26	+ 1 51.1	1.098	2.085	6.6	18.7
10 8	1 5.08	- 2 10.7	1.722	2.714	3.1	21.3	10 8	1 4.99	+ 1 1.4	1.100	2.097	2.6	18.5
10 18	0 55.15	- 2 45.3	1.739	2.713	5.6	21.4	10 18	0 55.71	+ 0 19.5	1.126	2.109	6.1	18.8
10 28	0 46.14	- 3 6.7	1.784	2.711	9.4	21.6	10 28	0 47.84	- 0 7.1	1.177	2.122	11.1	19.1
11 7	0 38.92	- 3 12.1	1.855	2.708	12.9	21.9	11 7	0 42.44	- 0 14.2	1.249	2.136	15.6	19.4
11 17	0 34.03	- 3 0.5	1.946	2.705	15.9	22.1	11 17	0 40.01	- 0 0.9	1.340	2.150	19.2	19.7
275156	2009 VU ₁₀₄		10 10.2	281°17'	5°4'/4.8	17	77450	2001 HU ₆		10 10.2	178°36'	1°7'/8.7	18
9 8	1 27.21	-10 17.1	2.328	3.205	10.4	20.1	9 8	1 27.50	+ 5 23.8	1.701	2.579	13.6	19.7
9 18	1 21.16	-10 52.0	2.253	3.186	8.0	19.9	9 18	1 21.72	+ 4 29.6	1.638	2.581	9.7	19.5
9 28	1 13.49	-11 22.1	2.204	3.167	5.9	19.8	9 28	1 13.93	+ 3 25.5	1.598	2.582	5.4	19.2
10 8	1 4.83	-11 42.2	2.182	3.148	5.5	19.7	10 8	1 4.95	+ 2 17.7	1.585	2.582	1.7	19.0
10 18	0 55.96	-11 47.9	2.189	3.129	7.2	19.8	10 18	0 55.80	+ 1 13.4	1.600	2.582	4.7	19.2
10 28	0 47.73	-11 36.4	2.223	3.110	9.8	19.9	10 28	0 47.60	+ 0 19.8	1.643	2.582	9.0	19.4
11 7	0 40.86	-11 7.0	2.281	3.091	12.4	20.1	11 7	0 41.22	- 0 17.7	1.710	2.581	12.9	19.7
11 17	0 35.89	-10 20.6	2.361	3.071	14.7	20.2	11 17	0 37.23	- 0 36.7	1.799	2.580	16.2	19.9
282384	2003 SB ₁₁		10 10.2	48°43'	0°6'/10.7	18	293004	2006 WO ₂₄		10 10.2	138°43'	3°7'/6.9	18
9 8	1 25.71	+ 9 14.5	2.130	2.991	11.9	19.7	9 8	1 28.25	- 0 33.2	1.736	2.621	13.0	21.2
9 18	1 20.11	+ 9 10.4	2.065	2.997	8.7	19.5	9 18	1 22.11	- 1 37.2	1.685	2.630	9.2	21.0
9 28	1 12.88	+ 8 57.2	2.025	3.003	5.0	19.3	9 28	1 14.06	- 2 44.4	1.658	2.640	5.5	20.9
10 8	1 4.71	+ 8 37.4	2.012	3.009	1.2	19.1	10 8	1 4.96	- 3 47.6	1.659	2.649	3.7	20.8
10 18	0 56.42	+ 8 14.6	2.027	3.016	2.9	19.2	10 18	0 55.82	- 4 40.0	1.688	2.657	6.2	20.9
10 28	0 48.88	+ 7 53.2	2.072	3.022	6.6	19.5	10 28	0 47.69	- 5 15.7	1.744	2.665	9.9	21.2
11 7	0 42.81	+ 7 37.1	2.143	3.029	10.0	19.7	11 7	0 41.38	- 5 31.9	1.824	2.672	13.3	21.4
11 17	0 38.69	+ 7 29.5	2.237	3.035	12.9	19.9	11 17	0 37.39	- 5 28.3	1.924	2.679	16.2	21.6
447705	2007 EX ₄₅		10 10.2	253°00'	1°5'/8.4	18	235342	2003 UF ₂₄₂		10 10.2	28°18'	0°5'/9.8	18
9 8	1 21.57	+ 5 38.2	2.239	3.114	10.8	21.5	9 8	1 24.16	+ 8 26.5	1.450	2.334	15.1	20.0
9 18	1 17.12	+ 4 29.7	2.166	3.108	7.7	21.3	9 18	1 19.52	+ 7 44.9	1.396	2.340	10.9	19.8
9 28	1 11.20	+ 3 12.3	2.118	3.102	4.2	21.1	9 28	1 12.74	+ 6 49.8	1.364	2.348	6.1	19.5
10 8	1 4.41	+ 3 51.5	2.099	3.096	1.5	20.9	10 8	1 4.73	+ 5 47.3	1.357	2.355	1.0	19.2
10 18	0 57.46	+ 0 33.5	2.110	3.090	4.0	21.0	10 18	0 56.61	+ 4 44.9	1.376	2.364	4.2	19.4
10 28	0 51.14	- 0 35.5	2.149	3.084	7.5	21.2	10 28	0 49.56	+ 3 50.8	1.422	2.373	9.0	19.7
11 7	0 46.10	- 1 30.6	2.214	3.078	10.7	21.4	11 7	0 44.50	+ 3 11.2	1.491	2.382	13.2	20.0
11 17	0 42.80	- 2 9.0	2.302	3.071	13.4	21.6	11 17	0 41.95	+ 2 49.7	1.581	2.392	16.7	20.3
70444	Genovali		10 10.2	255°95'	0°2'/10.3	18	428666	2008 GZ ₁₁₃		10 10.2	170°17'	0°6'/10.8	17
9 8	1 29.53	+ 7 44.6	1.910	2.773	12.9	19.7	9 8	1 28.35	+11 5.1	1.850	2.708	13.6	22.4
9 18	1 23.18	+ 7 44.5	1.828	2.762	9.5	19.4	9 18	1 22.24	+10 30.4	1.781	2.712	9.9	22.2
9 28	1 14.79	+ 7 35.6	1.770	2.750	5.4	19.2	9 28	1 14.19	+ 9 42.0	1.737	2.715	5.8	21.9
10 8	1 5.09	+ 7 20.4	1.739	2.737	1.1	18.8	10 8	1 5.00	+ 8 43.9	1.720	2.717	1.4	21.6
10 18	0 55.05	+ 7 2.6	1.737	2.725	3.4	19.0	10 18	0 55.65	+ 7 42.0	1.731	2.719	3.3	21.8
10 28	0 45.74	+ 6 46.9	1.764	2.712	7.8	19.3	10 28	0 47.20	+ 6 43.0	1.771	2.721	7.6	22.1
11 7	0 38.12	+ 6 37.7	1.817	2.699	11.7	19.5	11 7	0 40.49	+ 5 53.4	1.837	2.721	11.5	22.3
11 17	0 32.82	+ 6 38.3	1.892	2.686	15.0	19.7	11 17	0 36.08	+ 5 17.5	1.926	2.721	14.7	22.5
165968	2001 XB ₂₁₀		10 10.2	219°52'	2°7'/7.9	18	21926	Jacobperry		10 10.2	137°62'	0°2'/9.9	18
9 8	1 27.65	+ 3 44.1	1.434	2.323	14.9	19.9	9 8	1 23.78	+ 8 8.7	2.258	3.123	11.2	19.3
9 18	1 22.16	+ 2 38.4	1.371	2.319	10.7	19.7	9 18	1 18.67	+ 7 37.6	2.190	3.126	8.0	19.1
9 28	1 14.30	+ 1 22.3	1.330	2.315	6.0	19.4	9 28	1 12.07	+ 6 57.6	2.148	3.129	4.5	18.9
10 8	1 5.00	+ 0 3.7	1.315	2.311	2.7	19.2	10 8	1 4.61	+ 6 12.4	2.132	3.131	0.8	18.7
10 18	0 55.46	- 1 8.1	1.327	2.306	6.0	19.4	10 18	0 57.02	+ 5 26.4	2.147	3.133	3.0	18.8
10 28	0 46.98	- 2 4.3	1.364	2.301	10.7	19.7	10 28	0 50.12	+ 4 44.7	2.190	3.136	6.6	19.1
11 7	0 40.61	- 2 39.2	1.425	2.296	15.0	19.9	11 7	0 44.55	+ 4 11.5	2.259	3.138	9.9	19.3
11 17	0 36.97	- 2 50.9	1.505	2.290	18.6	20.1	11 17	0 40.77	+ 3 49.8	2.352	3.140	12.6	19.5
190251	2007 GL		10 10.2	63°75'	0°2'/10.4	18	482637	2013 AB ₈₉		10 10.2	317°59'	5°9'/5.4	18
9 8	1 22.74	+10 0.2	2.119	2.983	11.8	20.3	9 8	1 24.65	- 4 57.5	1.462	2.363	13.9	20.8
9 18	1 17.91	+ 9 18.8	2.063	2.997	8.5	20.1	9 18	1 20.12	- 5 59.9	1.391	2.342	10.3	20.5
9 28	1 11.60	+ 8 26.7	2.032	3.012	4.8	19.9	9 28	1 13.25	- 7 3.4	1.343	2.322	7.0	20.3
10 8	1 4.48	+ 7 28.1	2.028	3.026	1.0	19.7	10 8	1 4.86	- 7 58.9	1.319	2.301	6.1	20.2
10 18	0 57.33	+ 6 28.3	2.052	3.040	3.0	19.9	10 18	0 56.08	- 8 37.9	1.321	2.282	8.7	20.3
10 28	0 50.93	+ 5 33.1	2.106	3.055	6.7	20.1	10 28	0 48.19	- 8 53.7	1.346	2.263	12.7	20.5
11 7	0 45.94	+ 4 47.2	2.186	3.069	9.9	20.4	11 7	0 42.26	- 8 43.5	1.394	2.244	16.5	20.7
11 17	0 42.79	+ 4 14.1	2.289	3.084	12.7	20.6	11 17	0 38.98	- 8 8.1	1.459	2.226	19.9	20.9
325396	2009 DO ₁₂₉		10 10.2	143°76'	0°2'/10.3	17	454272	2014 HJ ₂		10 10.2	103°08'	20°9'/23.9	17
9 8	1 28.55	+10 17.0	1.498	2.369	15.4	21.8	9 8	1 37.23	-36 58.1	1.			

EPHEMERIDES

10 10.2

10 10.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
407634	2011 <i>DJ</i> ₆		10 10.2 305°56	1.6°/ 8.5 18			475251	2005 <i>WZ</i> ₄₅		10 10.2 54°16	2.4°/ 8.5 16		
9 8	1 22.52	+ 3 55.5	2.266	3.143	10.7	21.4	9 8	1 28.68	+ 3 23.1	1.280	2.173	16.0	20.3
9 18	1 17.78	+ 3 13.0	2.197	3.140	7.6	21.2	9 18	1 22.74	+ 2 39.8	1.245	2.196	11.3	20.1
9 28	1 11.58	+ 2 24.4	2.154	3.138	4.2	21.0	9 28	1 14.49	+ 1 49.0	1.233	2.218	6.3	19.9
10 8	1 4.53	+ 1 34.1	2.139	3.135	1.6	20.8	10 8	1 5.08	+ 0 58.5	1.245	2.241	2.5	19.7
10 18	0 57.34	+ 0 47.0	2.152	3.133	3.9	21.0	10 18	0 55.81	+ 0 15.9	1.282	2.264	5.7	20.0
10 28	0 50.78	+ 0 8.0	2.194	3.131	7.3	21.2	10 28	0 47.96	+ 0 12.2	1.346	2.288	10.3	20.3
11 7	0 45.52	+ 0 19.1	2.262	3.128	10.4	21.4	11 7	0 42.43	+ 0 22.2	1.431	2.312	14.4	20.6
11 17	0 42.00	+ 0 32.4	2.353	3.126	13.1	21.6	11 17	0 39.66	+ 0 13.3	1.537	2.335	17.7	20.9
408541	2013 <i>JE</i> ₅₅		10 10.2 68°34	1.7°/12.3 17			202170	2004 <i>VE</i> ₆₉		10 10.2 33°81	1.0°/11.0 18 R		
9 8	1 22.65	+15 32.6	2.184	3.028	12.3	21.2	9 8	1 24.84	+11 55.0	1.461	2.334	15.6	20.3
9 18	1 17.83	+14 51.9	2.127	3.046	9.2	21.1	9 18	1 20.07	+11 21.5	1.403	2.340	11.5	20.1
9 28	1 11.57	+13 56.7	2.094	3.064	5.7	20.9	9 28	1 13.11	+10 30.8	1.367	2.347	6.8	19.8
10 8	1 4.51	+12 50.4	2.088	3.082	2.4	20.7	10 8	1 4.86	+9 28.0	1.356	2.354	1.9	19.5
10 18	0 57.44	+11 38.3	2.111	3.100	2.8	20.8	10 18	0 56.48	+ 8 20.4	1.372	2.361	3.7	19.7
10 28	0 51.14	+10 26.6	2.164	3.118	6.1	21.0	10 28	0 49.17	+ 7 16.4	1.413	2.369	8.5	20.0
11 7	0 46.23	+ 9 21.3	2.243	3.136	9.3	21.3	11 7	0 43.88	+ 6 23.9	1.479	2.377	12.8	20.3
11 17	0 43.13	+ 8 27.0	2.347	3.154	12.0	21.5	11 17	0 41.15	+ 5 47.8	1.566	2.386	16.4	20.5
437461	2013 <i>YN</i> ₂₂		10 10.2 278°30	1.8°/ 8.9 18			292543	2006 <i>TF</i> ₅₀		10 10.2 40°23	5.1°/ 6.9 18		
9 8	1 27.78	+ 4 27.0	1.518	2.403	14.5	21.8	9 8	1 28.40	+ 2 6.7	1.170	2.074	16.4	19.7
9 18	1 22.33	+ 3 52.7	1.442	2.388	10.5	21.6	9 18	1 22.84	+ 2 58.3	1.130	2.084	11.8	19.5
9 28	1 14.48	+ 3 8.6	1.389	2.374	5.9	21.3	9 28	1 14.69	+ 3 51.2	1.111	2.095	7.2	19.3
10 8	1 5.10	+ 2 20.5	1.362	2.359	1.8	21.0	10 8	1 5.15	+ 4 36.3	1.116	2.106	5.1	19.2
10 18	0 55.31	+ 1 35.3	1.361	2.345	5.1	21.1	10 18	0 55.61	+ 5 5.3	1.146	2.118	8.0	19.4
10 28	0 46.42	+ 1 0.3	1.387	2.330	10.0	21.4	10 28	0 47.54	+ 5 12.5	1.199	2.130	12.4	19.7
11 7	0 39.54	+ 0 41.1	1.436	2.316	14.4	21.6	11 7	0 41.94	+ 4 56.3	1.273	2.143	16.5	20.0
11 17	0 35.35	+ 0 40.3	1.506	2.301	18.2	21.8	11 17	0 39.32	+ 4 18.3	1.365	2.156	19.9	20.2
521406	2015 <i>MO</i> ₁₄₄		10 10.2 356°84	6°1/15.9 17			352925	2008 <i>YL</i> ₁₆₉		10 10.2 163°48	7°8/ 2.3 18		
9 8	1 22.69	+24 12.2	1.601	2.424	17.0	20.6	9 8	1 26.82	+14 34.2	1.981	2.862	11.8	21.0
9 18	1 18.64	+24 20.8	1.529	2.421	13.8	20.4	9 18	1 20.98	+15 50.3	1.938	2.864	9.5	20.8
9 28	1 12.37	+24 3.7	1.476	2.418	10.3	20.2	9 28	1 13.42	+16 57.2	1.919	2.866	7.9	20.8
10 8	1 4.70	+23 20.8	1.445	2.417	7.2	20.0	10 8	1 4.91	+17 47.3	1.926	2.869	8.1	20.8
10 18	0 56.74	+22 15.7	1.440	2.416	6.2	20.0	10 18	0 56.35	+18 15.3	1.959	2.870	9.7	20.9
10 28	0 49.70	+20 56.0	1.461	2.416	8.4	20.1	10 28	0 48.68	+18 18.1	2.017	2.872	12.1	21.0
11 7	0 44.60	+19 31.7	1.506	2.416	11.7	20.3	11 7	0 42.65	+17 56.3	2.097	2.873	14.4	21.2
11 17	0 42.05	+18 12.3	1.573	2.418	15.1	20.5	11 17	0 38.72	+17 12.4	2.196	2.874	16.5	21.4
130320	Maherrassas		10 10.2 233°26	0°8/ 9.3 18			439384	2013 <i>AP</i> ₉₆		10 10.2 333°84	5°7/15.0 18		
9 8	1 22.68	+ 6 2.7	2.627	3.493	9.7	20.5	9 8	1 26.59	+22 10.0	1.672	2.496	16.3	20.5
9 18	1 17.77	+ 5 26.6	2.548	3.485	7.0	20.4	9 18	1 21.45	+22 34.1	1.596	2.491	13.2	20.3
9 28	1 11.54	+ 4 43.8	2.495	3.477	3.9	20.1	9 28	1 13.99	+22 36.1	1.540	2.486	9.7	20.0
10 8	1 4.53	+ 3 57.6	2.470	3.468	0.9	19.9	10 8	1 5.06	+22 15.4	1.508	2.482	6.6	19.9
10 18	0 57.36	+ 3 12.1	2.476	3.460	3.1	20.1	10 18	0 55.74	+21 34.4	1.501	2.478	5.9	19.8
10 28	0 50.72	+ 2 31.6	2.511	3.451	6.3	20.3	10 28	0 47.31	+20 39.2	1.521	2.474	8.3	20.0
11 7	0 45.19	+ 1 59.8	2.573	3.441	9.2	20.4	11 7	0 40.82	+19 38.4	1.566	2.470	11.8	20.2
11 17	0 41.21	+ 1 39.3	2.659	3.432	11.7	20.6	11 17	0 36.96	+18 40.6	1.633	2.467	15.2	20.4
163867	2003 <i>SM</i> ₁₃₂		10 10.2 43°05	0°3/ 9.9 18			226858	2004 <i>TY</i> ₁₃		10 10.2 357°18	4°0/ 7.5 18		
9 8	1 25.39	+ 8 31.3	1.474	2.356	15.1	19.9	9 8	1 26.00	+ 2 58.7	1.520	2.417	13.8	18.7
9 18	1 20.35	+ 7 55.3	1.424	2.367	10.8	19.7	9 18	1 20.85	+ 3 12.7	1.462	2.412	10.0	18.5
9 28	1 13.18	+ 7 6.3	1.395	2.378	6.1	19.5	9 28	1 13.54	+ 3 26.3	1.426	2.409	6.1	18.3
10 8	1 4.83	+ 6 10.1	1.392	2.390	1.0	19.2	10 8	1 4.95	+ 3 33.8	1.416	2.406	4.0	18.1
10 18	0 56.42	+ 5 13.8	1.415	2.403	4.0	19.4	10 18	0 56.18	+ 3 30.3	1.431	2.405	6.5	18.3
10 28	0 49.12	+ 4 25.0	1.464	2.416	8.8	19.7	10 28	0 48.42	+ 3 12.1	1.472	2.405	10.4	18.5
11 7	0 43.81	+ 3 49.6	1.538	2.429	12.9	20.0	11 7	0 42.61	+ 2 37.6	1.536	2.406	14.2	18.7
11 17	0 41.02	+ 3 30.9	1.632	2.442	16.3	20.3	11 17	0 39.32	+ 1 47.6	1.620	2.408	17.4	19.0
146182	2000 <i>SC</i> ₃₂₅		10 10.2 129°25	0°7/ 9.5 18			281255	2007 <i>PW</i> ₃		10 10.2 59°57	6°1/ 6.3 18		
9 8	1 24.93	+ 6 19.0	2.176	3.045	11.4	20.5	9 8	1 32.33	+ 7 35.6	1.446	2.337	14.8	19.7
9 18	1 19.52	+ 5 48.2	2.112	3.050	8.1	20.3	9 18	1 25.04	+ 8 12.4	1.420	2.363	10.8	19.5
9 28	1 12.56	+ 5 9.8	2.073	3.055	4.5	20.1	9 28	1 15.65	+ 8 43.0	1.416	2.390	7.4	19.4
10 8	1 4.72	+ 4 27.7	2.062	3.060	0.9	19.8	10 8	1 5.30	+ 9 0.4	1.438	2.417	6.2	19.4
10 18	0 56.78	+ 3 46.5	2.080	3.065	3.4	20.1	10 18	0 55.21	+ 8 59.8	1.486	2.443	8.3	19.6
10 28	0 49.56	+ 3 11.1	2.126	3.069	7.0	20.3	10 28	0 46.58	+ 8 38.9	1.560	2.470	11.6	19.8
11 7	0 43.76	+ 2 45.4	2.199	3.074	10.3	20.5	11 7	0 40.21	+ 7 58.6	1.656	2.497	14.8	20.1
11 17	0 39.82	+ 2 31.9	2.295	3.078	13.1	20.7	11 17	0 36.50	+ 7 1.8	1.772	2.524	17.5	20.4
285021	2011 <i>DW</i> ₁₀		10 10.2 278°64	5°0/15.1 17			429434	2010 <i>VT</i> ₂₂		10 10.2 282°08	1°9/ 8.9 17		
9 8	1 27.16	+23 4.6	2.449	3.242	12.6	20.9	9 8	1 28.36	+ 4 37.9	1.362	2.250	15.6	21.7
9 18	1 21.36	+23 35.6	2.350	3.225	10.3	20.8	9 18	1 22.89	+ 4 2.0	1.295	2.243	11.2	21.4
9 28	1 13.77	+23 51.0	2.275	3.208	7.8	20.6	9 28	1 14.86	+ 3 15.6	1.250	2.235	6.3	21.1
10 8	1 4.98	+23 49.7	2.226	3.191	5.6	20.4	10 8	1 5.22	+ 2 25.0	1.229	2.227	1.9	20.8
10 18	0 55.79	+23 32.6	2.205	3.173	5.1	20.3	10 18	0 55.24	+ 1 37.9	1.235	2.219	5.4	21.0
10 28	0 47.10	+23 2.9	2.213	3.156	6.8	20.4	10 28	0 46.34	+ 1 2.4	1.267	2.212	10.5	21.3
11 7	0 39.75	+22 25.8	2.248	3.138	9.4	20.6	11 7	0 39.66	+ 0 43.9	1.321	2.204	15.1	21.6
11 17	0 34.35	+21 46.9	2.307	3.121	12.0	20.7	11 17	0 35.89	+ 0 45.2	1.394	2.197	19.0	21.8
217165	2002 <i>PG</i> ₁₂₇		10 10.2 358°69	2°1/11.6 18			146552	2001 <i>ST</i> ₃₀₃		10 10.2 188°63	0°7/1		

EPHEMERIDES

10 10.2

10 10.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
178572	1999 <i>WM</i> ₁₀		10 10.2 43°16'	1.3°/11.7	18		214056	2004 <i>FR</i> ₅₁		10 10.2 168°77'	0.3°/10.5	18	
9 8	1 21.88	+15 32.5	1.669	2.528	14.7	19.7	9 8	1 28.47	+ 8 2.1	1.941	2.805	12.8	20.0
9 18	1 17.60	+14 19.4	1.621	2.549	10.9	19.6	9 18	1 22.32	+ 8 1.1	1.872	2.806	9.3	19.8
9 28	1 11.55	+12 47.2	1.597	2.572	6.5	19.4	9 28	1 14.29	+ 7 51.3	1.826	2.806	5.3	19.6
10 8	1 4.58	+11 2.4	1.598	2.594	2.2	19.1	10 8	1 5.13	+ 7 35.3	1.808	2.806	1.1	19.3
10 18	0 57.64	+ 9 13.7	1.628	2.618	3.2	19.3	10 18	0 55.77	+ 7 16.8	1.818	2.806	3.3	19.5
10 28	0 51.70	+ 7 30.7	1.686	2.641	7.4	19.6	10 28	0 47.22	+ 7 0.4	1.857	2.806	7.4	19.7
11 7	0 47.48	+ 6 1.5	1.769	2.665	11.2	19.9	11 7	0 40.33	+ 6 50.2	1.922	2.807	11.0	19.9
11 17	0 45.40	+ 4 51.2	1.876	2.689	14.4	20.1	11 17	0 35.64	+ 6 49.5	2.010	2.807	14.2	20.2
339077	2004 <i>RJ</i> ₁₈		10 10.2 344°98'	6.7°/ 5.6	18		135999	2002 <i>VV</i> ₃₇		10 10.2 25°02'	2.9°/ 7.3	18	
9 8	1 25.81	- 6 8.6	1.264	2.170	15.3	19.5	9 8	1 23.06	+ 2 37.2	1.731	2.621	12.8	19.4
9 18	1 21.08	- 7 4.0	1.209	2.162	11.4	19.3	9 18	1 18.51	+ 1 22.6	1.673	2.623	9.0	19.2
9 28	1 13.82	- 7 57.0	1.176	2.155	7.8	19.1	9 28	1 12.14	+ 0 0.6	1.640	2.625	5.1	19.0
10 8	1 5.03	- 8 38.2	1.167	2.148	6.8	19.0	10 8	1 4.73	- 1 21.4	1.633	2.627	2.9	18.9
10 18	0 56.01	- 8 59.1	1.181	2.143	9.4	19.1	10 18	0 57.19	- 2 35.3	1.654	2.629	5.6	19.0
10 28	0 48.16	- 8 54.5	1.219	2.139	13.4	19.4	10 28	0 50.51	- 3 34.1	1.701	2.631	9.5	19.3
11 7	0 42.58	- 8 23.3	1.278	2.135	17.3	19.6	11 7	0 45.48	- 4 13.3	1.773	2.634	13.0	19.5
11 17	0 39.88	- 7 28.0	1.354	2.133	20.6	19.8	11 17	0 42.61	- 4 31.2	1.865	2.637	16.0	19.7
315778	2008 <i>FU</i> ₁₀₄		10 10.2 341°87'	4.5°/ 6.3	18		15147	Siegfried		10 10.2 9°82'	2.8°/ 7.3	18	
9 8	1 26.62	- 5 16.9	1.921	2.807	11.8	20.5	9 8	1 24.29	- 1 11.2	2.343	3.223	10.2	17.8
9 18	1 20.93	- 5 50.0	1.861	2.805	8.7	20.3	9 18	1 19.00	- 1 44.1	2.279	3.223	7.3	17.7
9 28	1 13.45	- 6 21.4	1.825	2.802	5.7	20.1	9 28	1 12.29	- 2 18.6	2.242	3.223	4.3	17.5
10 8	1 4.95	- 6 45.5	1.816	2.799	4.6	20.0	10 8	1 4.75	- 2 50.4	2.233	3.223	2.8	17.4
10 18	0 56.32	- 6 57.5	1.835	2.797	6.6	20.2	10 18	0 57.11	- 3 15.3	2.252	3.223	4.7	17.5
10 28	0 48.52	- 6 53.7	1.881	2.795	9.7	20.3	10 28	0 50.12	- 3 29.7	2.300	3.223	7.7	17.7
11 7	0 42.33	- 6 32.9	1.951	2.793	12.8	20.5	11 7	0 44.42	- 3 31.3	2.373	3.223	10.6	17.9
11 17	0 38.27	- 5 55.7	2.042	2.792	15.5	20.7	11 17	0 40.46	- 3 19.3	2.470	3.224	13.0	18.1
388213	2006 <i>GY</i> ₅₃		10 10.2 130°33'	0°1'/10.2	18		284126	2005 <i>UX</i> ₂₅₈		10 10.2 243°15'	0°6'/11.3	18	
9 8	1 26.35	+ 9 24.4	2.021	2.883	12.4	22.3	9 8	1 19.27	+11 57.3	3.445	4.290	8.2	21.1
9 18	1 20.62	+ 8 45.5	1.960	2.894	9.0	22.1	9 18	1 15.13	+11 23.3	3.358	4.280	6.0	21.0
9 28	1 13.22	+ 7 55.6	1.924	2.904	5.1	21.9	9 28	1 10.02	+10 41.1	3.296	4.270	3.6	20.8
10 8	1 4.90	+ 6 59.0	1.916	2.914	0.9	21.6	10 8	1 4.33	+ 9 52.8	3.264	4.260	1.1	20.6
10 18	0 56.51	+ 6 1.3	1.937	2.924	3.2	21.8	10 18	0 58.52	+ 9 1.5	3.262	4.250	1.9	20.6
10 28	0 48.94	+ 5 8.3	1.986	2.933	7.1	22.1	10 28	0 53.09	+ 8 10.7	3.291	4.240	4.5	20.8
11 7	0 42.94	+ 4 25.2	2.062	2.942	10.6	22.3	11 7	0 48.47	+ 7 23.8	3.348	4.230	6.9	21.0
11 17	0 38.97	+ 3 55.3	2.161	2.951	13.5	22.5	11 17	0 45.01	+ 6 43.7	3.431	4.219	9.0	21.1
42455	4293 <i>T</i> ₋₃		10 10.2 155°48'	1°8'/ 7.9	18		430958	2005 <i>UC</i> ₅₂₆		10 10.2 65°63'	0°1'/10.2	16	
9 8	1 23.04	+ 2 25.9	2.732	3.604	9.2	19.7	9 8	1 30.82	+ 7 33.4	1.394	2.272	16.0	21.0
9 18	1 17.91	+ 1 36.3	2.670	3.611	6.5	19.5	9 18	1 24.30	+ 7 23.0	1.349	2.290	11.5	20.8
9 28	1 11.59	+ 0 42.6	2.634	3.617	3.7	19.3	9 28	1 15.44	+ 7 1.2	1.326	2.308	6.5	20.5
10 8	1 4.60	+ 0 11.1	2.628	3.623	1.8	19.2	10 8	1 5.33	+ 6 32.5	1.328	2.327	1.2	20.2
10 18	0 57.55	- 1 0.4	2.652	3.628	3.7	19.4	10 18	0 55.24	+ 6 2.9	1.357	2.346	4.1	20.5
10 28	0 51.06	- 1 41.5	2.706	3.633	6.5	19.6	10 28	0 46.49	+ 5 38.8	1.413	2.364	9.0	20.8
11 7	0 45.67	- 2 11.4	2.786	3.638	9.1	19.7	11 7	0 40.02	+ 5 25.2	1.493	2.383	13.2	21.1
11 17	0 41.78	- 2 28.4	2.891	3.642	11.4	19.9	11 17	0 36.35	+ 5 25.0	1.593	2.402	16.7	21.4
149412	2003 <i>AA</i> ₇₄		10 10.2 245°08'	2°1'/ 8.6	18		82498	2001 <i>OW</i> ₄₃		10 10.2 286°30'	3°6'/13.4	18	
9 8	1 30.64	+ 2 9.6	1.866	2.740	12.7	19.8	9 8	1 26.77	+17 37.6	1.953	2.787	13.9	19.4
9 18	1 24.06	+ 1 45.9	1.784	2.725	9.2	19.5	9 18	1 21.28	+17 49.3	1.871	2.779	10.8	19.2
9 28	1 15.38	+ 1 16.8	1.726	2.709	5.2	19.3	9 28	1 13.80	+17 44.6	1.811	2.771	7.4	18.9
10 8	1 5.34	+ 0 46.9	1.696	2.692	2.1	19.0	10 8	1 5.06	+17 24.3	1.777	2.763	4.2	18.7
10 18	0 54.93	+ 0 21.3	1.695	2.675	4.8	19.2	10 18	0 55.98	+16 51.0	1.771	2.755	4.1	18.7
10 28	0 45.28	+ 0 5.1	1.722	2.657	9.0	19.4	10 28	0 47.63	+16 10.0	1.793	2.747	7.1	18.9
11 7	0 37.35	+ 0 2.1	1.774	2.639	12.8	19.6	11 7	0 40.92	+15 27.7	1.841	2.740	10.7	19.1
11 17	0 31.79	+ 0 13.9	1.849	2.620	16.1	19.8	11 17	0 36.46	+14 50.2	1.912	2.732	13.9	19.3
419791	2010 <i>VQ</i> ₂₁₀		10 10.2 175°96'	3°1'/13.2	17		516144	2015 <i>XA</i> ₂₉		10 10.2 344°82'	5°9'/ 4.4	18	
9 8	1 28.34	+18 25.6	1.754	2.588	15.2	21.3	9 8	1 24.69	- 9 37.2	2.057	2.944	11.1	20.6
9 18	1 22.44	+17 56.0	1.681	2.591	11.7	21.1	9 18	1 19.45	-10 30.9	2.003	2.942	8.5	20.4
9 28	1 14.43	+17 5.0	1.630	2.593	7.7	20.9	9 28	1 12.59	-11 19.8	1.974	2.940	6.3	20.3
10 8	1 5.15	+15 55.4	1.605	2.594	4.0	20.7	10 8	1 4.81	-11 57.7	1.972	2.938	6.0	20.3
10 18	0 55.66	+14 32.8	1.608	2.595	3.9	20.7	10 18	0 56.93	-12 19.4	1.996	2.937	7.8	20.4
10 28	0 47.12	+13 5.8	1.639	2.594	7.6	20.9	10 28	0 49.83	-12 21.8	2.047	2.935	10.4	20.6
11 7	0 40.46	+11 43.4	1.697	2.594	11.5	21.1	11 7	0 44.22	-12 4.0	2.121	2.934	13.0	20.7
11 17	0 36.28	+10 33.0	1.777	2.592	15.0	21.4	11 17	0 40.56	-11 27.4	2.215	2.933	15.3	20.9
119193	2001 <i>QH</i> ₁₀₈		10 10.2 188°98'	0°6'/ 9.8	18		856	Backlunda		10 10.2 171°51'	7°3'/ 2.8	18	
9 8	1 29.27	+ 6 30.2	1.623	2.498	14.3	19.5	9 8	1 26.94	-10 54.7	1.829	2.716	12.3	14.9
9 18	1 23.17	+ 6 13.3	1.557	2.498	10.3	19.3	9 18	1 21.21	-12 30.6	1.783	2.719	9.5	14.7
9 28	1 14.86	+ 5 46.7	1.515	2.498	5.8	19.0	9 28	1 13.63	-14 0.4	1.762	2.721	7.6	14.6
10 8	1 5.23	+ 5 14.6	1.499	2.497	1.1	18.7	10 8	1 5.01	-15 15.4	1.768	2.723	7.7	14.6
10 18	0 55.38	+ 4 42.5	1.510	2.497	4.1	19.0	10 18	0 56.31	-16 8.3	1.800	2.724	9.6	14.8
10 28	0 46.52	+ 4 16.3	1.549	2.496	8.7	19.2	10 28	0 48.53	-16 34.9	1.857	2.725	12.3	14.9
11 7	0 39.62	+ 4 0.9	1.612	2.495	12.9	19.5	11 7	0 42.48	-16 34.7	1.936	2.725	15.0	15.1
11 17	0 35.26	+ 3 59.4	1.697	2.494	16.3	19.7	11 17	0 38.65	-16 9.8	2.033	2.725	17.3	15.3
455623	2004 <i>VB</i> ₇		10 10.2 359°71'	2°1'/ 8.7	16		192205	2007 <i>JJ</i> ₂₇		10 10.2 108°20'	2°4'/ 7.4	18	
9 8	1 14.6												

EPHEMERIDES

10 10.2

10 10.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
123419	2000 <i>WX</i> ₁₀₃	10 10.2 305°30 7.6/ 4.2 18					71236	2000 <i>AC</i> ₅	10 10.2 190°56 2°0/ 7.9 18				
9 8	1 28.33	-11 2.4	1.591	2.481	13.6	19.4	9 8	1 23.41	+ 1 35.5	2.526	3.402	9.8	19.7
9 18	1 22.51	-12 2.2	1.536	2.475	10.5	19.2	9 18	1 18.32	+ 0 55.0	2.459	3.401	6.9	19.5
9 28	1 14.49	-12 54.9	1.504	2.468	8.1	19.0	9 28	1 11.91	+ 0 10.6	2.417	3.400	3.9	19.3
10 8	1 5.20	-13 32.1	1.497	2.461	7.8	19.0	10 8	1 4.73	- 0 33.4	2.405	3.399	2.0	19.2
10 18	0 55.73	-13 47.0	1.516	2.455	9.9	19.1	10 18	0 57.44	- 1 12.8	2.422	3.398	4.0	19.3
10 28	0 47.30	-13 36.0	1.559	2.449	13.0	19.3	10 28	0 50.73	- 1 43.5	2.467	3.396	7.0	19.5
11 7	0 40.85	-12 59.2	1.624	2.443	16.1	19.5	11 7	0 45.20	- 2 2.6	2.540	3.394	9.8	19.7
11 17	0 36.95	-11 59.5	1.707	2.437	18.8	19.7	11 17	0 41.28	- 2 8.7	2.635	3.392	12.2	19.9
347634	2001 <i>SW</i> ₂₆₉	10 10.2 112°99 3°5/ 8.3 14 C					38807	2000 <i>RM</i> ₆₈	10 10.2 6°46 1°2/ 9.6 18				
9 8	2 25.11	+22 15.5	0.560	1.400	36.6	20.5	9 8	1 27.85	+ 4 29.9	1.217	2.112	16.6	17.8
9 18	2 2.74	+16 1.5	0.536	1.461	25.6	20.1	9 18	1 22.64	+ 4 30.3	1.162	2.112	11.9	17.6
9 28	1 35.91	+ 8 46.7	0.536	1.516	13.3	19.8	9 28	1 14.77	+ 4 22.2	1.128	2.114	6.7	17.3
10 8	1 8.75	+ 1 34.8	0.567	1.564	3.5	19.6	10 8	1 5.29	+ 4 10.4	1.117	2.116	1.5	17.0
10 18	0 45.35	- 4 24.7	0.630	1.607	11.2	20.2	10 18	0 55.59	+ 4 0.4	1.132	2.119	5.0	17.2
10 28	0 28.19	- 8 39.6	0.720	1.643	19.4	20.8	10 28	0 47.16	+ 3 58.3	1.171	2.123	10.3	17.5
11 7	0 17.71	-11 17.1	0.829	1.674	25.4	21.4	11 7	0 41.14	+ 4 8.3	1.232	2.129	15.0	17.8
11 17	0 13.13	-12 39.1	0.952	1.699	29.5	21.8	11 17	0 38.16	+ 4 32.7	1.313	2.135	18.9	18.1
219920	2002 <i>GV</i> ₆₁	10 10.2 19°98 1°0/ 11.3 18					315792	2008 <i>FV</i> ₁₃₃	10 10.2 182°92 1°2/ 8.9 18				
9 8	1 21.46	+13 12.7	1.894	2.755	13.1	19.6	9 8	1 24.02	+ 5 28.1	2.167	3.040	11.2	21.1
9 18	1 17.30	+12 22.9	1.828	2.758	9.7	19.3	9 18	1 18.95	+ 4 45.8	2.100	3.040	8.0	20.9
9 28	1 11.45	+11 17.6	1.785	2.762	5.8	19.1	9 28	1 12.34	+ 3 55.9	2.057	3.040	4.4	20.7
10 8	1 4.63	+10 1.1	1.770	2.767	1.7	18.9	10 8	1 4.82	+ 3 2.9	2.043	3.040	1.2	20.4
10 18	0 57.68	+ 8 40.0	1.782	2.771	3.0	19.0	10 18	0 57.17	+ 2 12.0	2.057	3.040	3.7	20.6
10 28	0 51.51	+ 7 21.8	1.822	2.776	7.1	19.2	10 28	0 50.20	+ 1 28.5	2.100	3.040	7.3	20.9
11 7	0 46.86	+ 6 13.3	1.888	2.782	10.7	19.5	11 7	0 44.61	+ 0 56.4	2.169	3.039	10.6	21.1
11 17	0 44.22	+ 5 19.5	1.978	2.787	13.9	19.7	11 17	0 40.88	+ 0 38.3	2.260	3.039	13.4	21.3
217153	2002 <i>OD</i> ₁₃	10 10.2 109°56 1°6/ 11.7 17					31434	1999 <i>BQ</i> ₁₃	10 10.3 302°48 3°6/ 12.5 18				
9 8	1 28.32	+14 40.6	1.592	2.446	15.5	20.8	9 8	1 29.38	+15 10.6	1.271	2.136	18.0	17.7
9 18	1 22.37	+13 51.4	1.538	2.464	11.5	20.6	9 18	1 24.02	+15 26.3	1.199	2.127	13.9	17.4
9 28	1 14.33	+12 43.2	1.506	2.481	7.0	20.4	9 28	1 15.74	+15 21.5	1.146	2.117	9.1	17.1
10 8	1 5.15	+11 21.1	1.501	2.497	2.4	20.1	10 8	1 5.52	+14 57.0	1.116	2.108	4.5	16.8
10 18	0 55.97	+ 9 52.8	1.524	2.513	3.5	20.3	10 18	0 54.74	+14 16.8	1.111	2.099	4.8	16.9
10 28	0 47.93	+ 8 27.7	1.574	2.528	8.0	20.6	10 28	0 45.07	+13 29.3	1.131	2.091	9.6	17.1
11 7	0 41.90	+ 7 13.9	1.650	2.543	12.0	20.8	11 7	0 37.87	+12 44.0	1.174	2.082	14.6	17.4
11 17	0 38.38	+ 6 17.0	1.748	2.557	15.5	21.1	11 17	0 33.94	+12 9.2	1.237	2.074	18.9	17.6
389509	2010 <i>GM</i> ₁₀₇	10 10.2 122°58 0°7/ 10.8 18					4528	Berg	10 10.3 272°70 3°0/ 7.3 18				
9 8	1 29.71	+ 9 7.6	1.852	2.714	13.4	21.1	9 8	1 24.30	+ 2 31.2	1.736	2.623	12.8	16.1
9 18	1 23.25	+ 9 8.1	1.787	2.719	9.8	20.9	9 18	1 19.58	+ 1 16.4	1.661	2.609	9.2	15.9
9 28	1 14.84	+ 8 58.3	1.746	2.724	5.7	20.6	9 28	1 12.90	- 0 7.4	1.611	2.595	5.3	15.6
10 8	1 5.27	+ 8 40.9	1.732	2.729	1.4	20.4	10 8	1 4.97	- 1 32.9	1.587	2.581	3.0	15.5
10 18	0 55.53	+ 8 19.9	1.746	2.734	3.3	20.5	10 18	0 56.75	- 2 51.5	1.592	2.566	5.8	15.6
10 28	0 46.70	+ 8 0.1	1.789	2.739	7.5	20.8	10 28	0 49.29	- 3 55.5	1.623	2.552	9.9	15.8
11 7	0 39.65	+ 7 46.1	1.858	2.744	11.3	21.0	11 7	0 43.50	- 4 39.3	1.678	2.537	13.7	16.0
11 17	0 34.91	+ 7 41.4	1.949	2.749	14.4	21.3	11 17	0 39.98	- 5 0.6	1.753	2.522	17.0	16.2
78959	2003 <i>SL</i> ₂₃₂	10 10.2 301°64 2°0/ 8.2 18					19531	Charton	10 10.3 71°44 0°1/ 10.3 18				
9 8	1 24.05	+ 1 53.1	2.169	3.048	11.0	19.0	9 8	1 27.80	+11 13.6	1.250	2.130	17.3	18.3
9 18	1 19.04	+ 1 22.5	2.093	3.037	7.8	18.8	9 18	1 22.30	+10 11.0	1.208	2.150	12.5	18.1
9 28	1 12.42	+ 0 47.4	2.042	3.025	4.4	18.5	9 28	1 14.39	+ 8 49.9	1.188	2.170	7.1	17.9
10 8	1 4.83	+ 0 12.0	2.018	3.014	2.0	18.4	10 8	1 5.21	+ 7 18.2	1.192	2.190	1.3	17.6
10 18	0 57.02	- 0 19.0	2.024	3.002	4.3	18.5	10 18	0 56.11	+ 5 46.5	1.221	2.210	4.3	17.8
10 28	0 49.83	- 0 41.2	2.057	2.991	7.8	18.7	10 28	0 48.41	+ 4 25.4	1.277	2.230	9.6	18.2
11 7	0 44.01	- 0 51.1	2.116	2.980	11.1	18.9	11 7	0 43.07	+ 3 23.0	1.356	2.250	14.1	18.5
11 17	0 40.05	- 0 47.3	2.197	2.969	13.9	19.1	11 17	0 40.55	+ 2 43.1	1.455	2.270	17.8	18.8
451785	2013 <i>GJ</i> ₁₁₃	10 10.2 126°87 4°7/ 5.7 18					458558	2011 <i>EW</i> ₄₅	10 10.3 233°74 5°5/ 11.8 17				
9 8	1 27.88	- 8 20.3	2.312	3.190	10.5	20.7	9 8	1 47.82	+12 3.9	1.091	1.947	21.0	20.3
9 18	1 21.53	- 8 50.1	2.259	3.195	7.8	20.5	9 18	1 38.13	+14 2.0	1.023	1.946	16.2	20.0
9 28	1 13.70	- 9 15.8	2.231	3.200	5.5	20.4	9 28	1 24.15	+15 49.7	0.977	1.945	10.8	19.7
10 8	1 5.05	- 9 32.7	2.231	3.205	4.8	20.4	10 8	1 7.16	+17 20.3	0.955	1.944	6.1	19.4
10 18	0 56.36	- 9 37.1	2.260	3.210	6.4	20.5	10 18	0 49.25	+18 28.4	0.960	1.943	6.9	19.5
10 28	0 48.45	- 9 26.6	2.317	3.214	9.0	20.7	10 28	0 32.98	+19 15.1	0.992	1.942	12.0	19.7
11 7	0 41.96	- 9 0.6	2.399	3.219	11.5	20.8	11 7	0 20.35	+19 47.2	1.047	1.941	17.2	20.0
11 17	0 37.33	- 8 20.0	2.503	3.223	13.7	21.0	11 17	0 12.38	+20 13.8	1.120	1.940	21.6	20.3
319197	2005 <i>YF</i> ₁₆₅	10 10.2 306°81 4°1/ 6.4 18					106930	2000 <i>YY</i> ₆₃	10 10.3 207°63 0°3/ 10.6 18				
9 8	1 25.56	- 4 6.7	2.004	2.891	11.4	20.4	9 8	1 23.76	+ 9 54.4	2.513	3.369	10.5	20.4
9 18	1 20.17	- 4 45.8	1.939	2.883	8.3	20.2	9 18	1 18.65	+ 9 25.6	2.436	3.365	7.6	20.2
9 28	1 13.07	- 5 24.7	1.898	2.876	5.3	20.0	9 28	1 12.15	+ 8 47.3	2.383	3.361	4.4	20.0
10 8	1 4.95	- 5 57.8	1.884	2.869	4.2	19.9	10 8	1 4.81	+ 8 2.6	2.359	3.357	1.0	19.7
10 18	0 56.65	- 6 20.0	1.898	2.862	6.2	20.1	10 18	0 57.32	+ 7 15.4	2.365	3.353	2.6	19.9
10 28	0 49.10	- 6 27.3	1.939	2.855	9.4	20.2	10 28	0 50.40	+ 6 30.3	2.400	3.348	6.0	20.1
11 7	0 43.07	- 6 17.7	2.005	2.848	12.5	20.4	11 7	0 44.67	+ 5 51.7	2.462	3.343	9.1	20.3
11 17	0 39.06	- 5 51.3	2.091	2.841	15.2	20.6	11 17	0 40.60	+ 5 22.9	2.549	3.338	11.7	20.5
353544	2011 <i>SA</i> ₁₇₉	10 10.2 34°53 1°7/ 11.6 18					353908	2012 <i>XR</i> ₁₀₅	10 10.3 272°94 1°3/ 9.2 18				
9 8	1 26.62	+12 10.5	1.592	2.458	15.0	20.5	9 8	1 27.18	+ 4 45.8	1.885	2.760	12.6	21.5
9 18	1 21.26	+12 6.1	1.533	2.465	11.1	20.3	9 18	1 21.59	+ 4 21.0	1.803	2.744	9.1	

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
309191	2007 <i>EZ</i> ₃₀		10 10.3 209°61	2°6/ 7.2 18			449042	2012 <i>DO</i> ₅		10 10.3 347°99	0°8/11.0 18		
9 8	1 22.42	+ 1 38.7	2.203	3.085	10.7	21.0	9 8	1 26.40	+ 9 55.0	2.103	2.962	12.1	21.1
9 18	1 17.79	+ 0 30.2	2.138	3.084	7.6	20.8	9 18	1 20.78	+ 9 52.8	2.031	2.961	8.9	20.9
9 28	1 11.68	- 0 43.6	2.100	3.083	4.4	20.6	9 28	1 13.46	+ 9 40.8	1.983	2.960	5.2	20.7
10 8	1 4.73	- 1 56.8	2.089	3.081	2.6	20.5	10 8	1 5.10	+ 9 21.4	1.962	2.960	1.5	20.4
10 18	0 57.65	- 3 3.3	2.107	3.080	4.9	20.7	10 18	0 56.55	+ 8 58.0	1.970	2.959	2.9	20.5
10 28	0 51.22	- 3 57.7	2.154	3.078	8.1	20.9	10 28	0 48.72	+ 8 35.1	2.007	2.959	6.7	20.8
11 7	0 46.11	- 4 36.0	2.226	3.076	11.1	21.1	11 7	0 42.36	+ 8 17.1	2.071	2.958	10.2	21.0
11 17	0 42.76	- 4 56.8	2.320	3.075	13.7	21.3	11 17	0 38.02	+ 8 7.4	2.157	2.958	13.2	21.2
515704	2014 <i>QD</i> ₃₆₆		10 10.3 57°60	3°5/13.3 18			316027	2009 <i>FE</i> ₄₅		10 10.3 146°90	0°7/10.9 17		
9 8	1 29.94	+16 56.3	2.136	2.962	13.2	20.2	9 8	1 29.74	+11 40.9	1.771	2.627	14.1	21.5
9 18	1 23.29	+17 31.4	2.072	2.975	10.2	20.0	9 18	1 23.31	+10 58.0	1.710	2.639	10.4	21.3
9 28	1 14.84	+17 52.7	2.031	2.988	6.9	19.8	9 28	1 14.90	+10 0.3	1.672	2.649	6.0	21.1
10 8	1 5.32	+18 0.4	2.018	3.002	4.1	19.7	10 8	1 5.36	+ 8 52.3	1.662	2.659	1.5	20.8
10 18	0 55.66	+17 56.1	2.034	3.015	4.0	19.7	10 18	0 55.75	+ 7 40.7	1.680	2.668	3.4	21.0
10 28	0 46.81	+17 43.6	2.078	3.029	6.6	19.9	10 28	0 47.14	+ 6 33.1	1.727	2.676	7.8	21.3
11 7	0 39.57	+17 27.8	2.150	3.043	9.7	20.1	11 7	0 40.39	+ 5 36.1	1.800	2.684	11.7	21.5
11 17	0 34.48	+17 13.5	2.246	3.057	12.4	20.3	11 17	0 36.01	+ 4 54.3	1.895	2.690	15.0	21.8
33821	2000 <i>AF</i> ₂₀₀		10 10.3 171°43	2°2/ 7.2 18			129442	1981 <i>EC</i> ₁₅		10 10.3 220°88	1°8/12.0 18		
9 8	1 22.42	+ 1 38.8	2.658	3.533	9.3	18.4	9 8	1 27.85	+13 58.2	2.150	2.992	12.5	20.6
9 18	1 17.55	+ 0 33.1	2.594	3.536	6.6	18.2	9 18	1 21.90	+13 47.1	2.065	2.983	9.5	20.4
9 28	1 11.47	- 0 36.8	2.556	3.538	3.8	18.0	9 28	1 14.14	+13 22.3	2.005	2.974	5.9	20.1
10 8	1 4.69	- 1 46.1	2.548	3.540	2.3	17.9	10 8	1 5.25	+12 46.1	1.971	2.965	2.5	19.9
10 18	0 57.82	- 2 49.9	2.570	3.542	4.2	18.1	10 18	0 56.06	+12 1.9	1.967	2.955	3.1	19.9
10 28	0 51.51	- 3 43.5	2.622	3.543	7.0	18.3	10 28	0 47.55	+11 15.2	1.991	2.944	6.7	20.1
11 7	0 46.30	- 4 23.8	2.700	3.544	9.6	18.4	11 7	0 40.52	+10 31.7	2.043	2.933	10.2	20.3
11 17	0 42.60	- 4 49.1	2.801	3.544	11.9	18.6	11 17	0 35.55	+ 9 56.3	2.119	2.921	13.4	20.5
440392	2005 <i>GO</i> ₂₀₀		10 10.3 89°42	4°1/14.2 15			3487	Edgeworth		10 10.3 49°09	0°4/ 9.9 18		
9 8	1 32.11	+19 59.3	2.064	2.875	14.1	22.6	9 8	1 23.09	+11 18.4	1.433	2.312	15.5	16.0
9 18	1 24.75	+20 17.8	2.012	2.904	11.0	22.4	9 18	1 18.76	+ 9 51.2	1.386	2.328	11.2	15.7
9 28	1 15.59	+20 18.7	1.983	2.932	7.7	22.3	9 28	1 12.38	+ 8 6.3	1.362	2.345	6.2	15.5
10 8	1 5.45	+20 3.0	1.982	2.960	4.8	22.2	10 8	1 4.90	+ 6 12.4	1.363	2.362	1.1	15.2
10 18	0 55.32	+19 33.3	2.009	2.987	4.4	22.2	10 18	0 57.42	+ 4 20.0	1.392	2.380	4.2	15.5
10 28	0 46.21	+18 54.9	2.065	3.014	6.8	22.4	10 28	0 51.07	+ 2 40.0	1.447	2.397	9.0	15.8
11 7	0 38.88	+18 14.0	2.149	3.040	9.7	22.6	11 7	0 46.66	+ 1 20.3	1.527	2.415	13.1	16.1
11 17	0 33.81	+17 36.3	2.256	3.066	12.4	22.8	11 17	0 44.66	+ 0 24.7	1.628	2.434	16.6	16.4
39281	2001 <i>BZ</i> ₃₅		10 10.3 180°57	4°1/ 5.6 18			516971	2012 <i>FQ</i> ₇₅		10 10.3 203°88	3°7/ 5.9 18		
9 8	1 22.89	- 3 29.9	2.175	3.062	10.6	18.9	9 8	1 25.28	- 5 34.7	2.645	3.522	9.3	21.3
9 18	1 18.12	- 4 39.1	2.117	3.063	7.7	18.7	9 18	1 19.63	- 6 12.7	2.580	3.519	6.8	21.1
9 28	1 11.87	- 5 49.1	2.085	3.063	5.0	18.5	9 28	1 12.68	- 6 49.3	2.541	3.515	4.5	21.0
10 8	1 4.77	- 6 53.8	2.081	3.063	4.2	18.5	10 8	1 4.97	- 7 20.4	2.531	3.511	3.8	20.9
10 18	0 57.56	- 7 47.3	2.105	3.063	6.2	18.6	10 18	0 57.15	- 7 42.0	2.551	3.507	5.4	21.0
10 28	0 51.04	- 8 24.8	2.156	3.063	9.1	18.8	10 28	0 49.91	- 7 51.1	2.599	3.502	7.9	21.2
11 7	0 45.86	- 8 43.9	2.232	3.062	11.9	19.0	11 7	0 43.85	- 7 46.3	2.673	3.497	10.3	21.3
11 17	0 42.48	- 8 44.3	2.328	3.062	14.3	19.2	11 17	0 39.38	- 7 27.4	2.769	3.492	12.5	21.5
321078	2008 <i>SY</i> ₉₁		10 10.3 340°93	0°4/10.9 15			477520	2010 <i>DV</i> ₆₄		10 10.3 158°76	5°6/16.9 18		
9 8	1 20.73	+ 8 48.3	4.127	4.974	6.9	20.5	9 8	1 25.56	+27 23.2	2.118	2.899	14.8	21.3
9 18	1 16.03	+ 8 50.6	4.047	4.972	5.0	20.3	9 18	1 20.29	+27 4.1	2.039	2.903	12.1	21.1
9 28	1 10.51	+ 8 48.4	3.994	4.970	2.9	20.2	9 28	1 13.22	+26 21.1	1.982	2.907	9.2	20.9
10 8	1 4.51	+ 8 43.0	3.971	4.968	0.7	20.0	10 8	1 5.08	+25 14.7	1.949	2.910	6.6	20.8
10 18	0 58.42	+ 8 35.9	3.978	4.966	1.7	20.1	10 18	0 56.77	+23 48.6	1.944	2.913	5.6	20.7
10 28	0 52.64	+ 8 29.1	4.017	4.965	3.8	20.3	10 28	0 49.28	+22 9.8	1.967	2.915	7.1	20.8
11 7	0 47.56	+ 8 24.4	4.085	4.963	5.8	20.4	11 7	0 43.40	+20 27.0	2.017	2.917	9.8	21.0
11 17	0 43.48	+ 8 23.4	4.179	4.962	7.6	20.5	11 17	0 39.67	+18 48.7	2.093	2.919	12.6	21.2
355497	2007 <i>XQ</i> ₃₁		10 10.3 294°86	6°4/ 4.5 18			133958	2004 <i>TB</i> ₁₃₃		10 10.3 305°16	6°8/ 4.6 17		
9 8	1 26.29	- 8 14.7	1.750	2.641	12.6	21.0	9 8	1 30.08	-12 58.2	2.006	2.882	11.9	19.9
9 18	1 21.04	- 9 17.2	1.680	2.622	9.5	20.7	9 18	1 23.60	-13 28.2	1.929	2.858	9.4	19.7
9 28	1 13.74	-10 17.1	1.634	2.604	7.0	20.6	9 28	1 15.15	-13 50.2	1.877	2.835	7.3	19.6
10 8	1 5.16	-11 6.4	1.614	2.585	6.5	20.5	10 8	1 5.46	-13 57.9	1.851	2.811	7.0	19.5
10 18	0 56.27	-11 38.0	1.620	2.567	8.7	20.6	10 18	0 55.46	-13 46.6	1.853	2.788	8.7	19.6
10 28	0 48.17	-11 46.9	1.651	2.548	12.0	20.7	10 28	0 46.22	-13 13.5	1.881	2.765	11.4	19.7
11 7	0 41.80	-11 31.6	1.705	2.530	15.2	20.9	11 7	0 38.62	-12 19.1	1.933	2.742	14.3	19.8
11 17	0 37.77	-10 53.2	1.778	2.512	18.0	21.1	11 17	0 33.26	-11 5.6	2.005	2.719	16.9	20.0
309959	2009 <i>HJ</i> ₂₂		10 10.3 5°16	3°1/ 7.3 18			357707	2005 <i>QO</i> ₁₈		10 10.3 33°88	2°7/ 7.4 18		
9 8	1 23.52	+ 1 29.6	1.724	2.614	12.7	20.1	9 8	1 22.35	+ 2 55.4	1.847	2.734	12.2	20.6
9 18	1 18.91	+ 0 23.6	1.665	2.614	9.1	19.9	9 18	1 17.95	+ 1 39.6	1.790	2.738	8.6	20.4
9 28	1 12.44	- 0 48.5	1.630	2.615	5.2	19.7	9 28	1 11.87	+ 0 16.7	1.757	2.742	4.9	20.2
10 8	1 4.90	- 1 59.5	1.622	2.615	3.1	19.6	10 8	1 4.82	- 1 6.3	1.752	2.746	2.7	20.1
10 18	0 57.22	- 3 2.0	1.641	2.616	5.8	19.7	10 18	0 57.67	- 2 21.8	1.775	2.750	5.3	20.3
10 28	0 50.39	- 3 49.4	1.687	2.617	9.6	20.0	10 28	0 51.32	- 3 23.1	1.825	2.755	8.9	20.5
11 7	0 45.24	- 4 17.6	1.757	2.618	13.1	20.2	11 7	0 46.51	- 4 5.8	1.900	2.760	12.3	20.7
11 17	0 42.26	- 4 25.3	1.847	2.619	16.1	20.4	11 17	0 43.71	- 4 28.2	1.995	2.765	15.2	20.9
14765	9519 <i>P-L</i>		10 10.3 49°69	0°7/ 9.7 18			488796	2005 <i>AN</i> ₅₅		10 10.3 323°11	9°9/29.2 17		
9 8													

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V	
368024	2012 <i>FR</i> ₈₂	10 10.3 310°24 3°4/ 7.1 18						518708	2009 <i>BY</i> ₆₄	10 10.3 189°99 3°8/ 6.5 18				
9 8	1 24.62	- 1 23.9	1.962	2.849	11.6	20.3	9 8	1 25.45	- 1 49.2	2.003	2.888	11.5	21.1	
9 18	1 19.62	- 2 3.8	1.890	2.837	8.4	20.1	9 18	1 20.10	- 2 50.9	1.942	2.887	8.3	20.9	
9 28	1 12.87	- 2 46.3	1.843	2.825	5.1	19.9	9 28	1 13.08	- 3 55.0	1.907	2.887	5.1	20.7	
10 8	1 5.04	- 3 25.7	1.823	2.813	3.4	19.8	10 8	1 5.09	- 4 55.0	1.899	2.886	3.8	20.6	
10 18	0 56.98	- 3 56.7	1.831	2.802	5.7	19.9	10 18	0 56.96	- 5 44.9	1.919	2.884	6.0	20.8	
10 28	0 49.62	- 4 14.5	1.866	2.791	9.1	20.1	10 28	0 49.60	- 6 19.4	1.967	2.883	9.3	21.0	
11 7	0 43.76	- 4 16.2	1.925	2.780	12.4	20.3	11 7	0 43.75	- 6 35.9	2.039	2.881	12.4	21.2	
11 17	0 39.95	- 4 1.0	2.005	2.769	15.3	20.5	11 17	0 39.91	- 6 33.6	2.132	2.879	15.0	21.4	
175123	2004 <i>YY</i> ₂₁	10 10.3 354°59 6°7/ 5.9 18						467783	2009 <i>WU</i> ₁₄₉	10 10.3 8°09 2°0/ 6.9 18				
9 8	1 23.10	- 2 54.6	0.943	1.865	17.6	19.0	9 8	1 17.61	- 1 16.5	3.609	4.488	7.0	20.6	
9 18	1 19.71	- 4 10.0	0.897	1.859	12.9	18.8	9 18	1 13.92	- 1 53.1	3.546	4.490	5.0	20.4	
9 28	1 13.34	- 5 28.4	0.869	1.854	8.4	18.5	9 28	1 9.39	- 2 30.9	3.511	4.491	3.0	20.3	
10 8	1 5.15	- 6 36.9	0.863	1.851	6.8	18.4	10 8	1 4.38	- 3 6.8	3.504	4.493	2.1	20.2	
10 18	0 56.69	- 7 23.2	0.879	1.849	10.2	18.6	10 18	0 59.31	- 3 38.0	3.528	4.495	3.4	20.3	
10 28	0 49.67	- 7 38.9	0.915	1.849	15.0	18.9	10 28	0 54.61	- 4 2.0	3.580	4.498	5.4	20.5	
11 7	0 45.32	- 7 21.8	0.969	1.850	19.6	19.2	11 7	0 50.65	- 4 16.9	3.659	4.500	7.4	20.6	
11 17	0 44.27	- 6 34.6	1.039	1.852	23.4	19.4	11 17	0 47.75	- 4 21.8	3.762	4.503	9.1	20.8	
473515	2015 <i>XE</i> ₁₄₄	10 10.3 3°64 6°3/ 4.9 18						507024	2008 <i>UD</i> ₇₇	10 10.3 347°25 11°3/ 2.5 18				
9 8	1 26.31	-10 13.7	1.874	2.762	12.0	20.2	9 8	1 35.28	-23 5.9	1.649	2.508	14.9	20.6	
9 18	1 20.77	-10 54.8	1.823	2.761	9.2	20.0	9 18	1 27.42	-23 50.2	1.606	2.506	12.8	20.5	
9 28	1 13.45	-11 29.8	1.796	2.762	6.9	19.9	9 28	1 17.26	-24 14.4	1.586	2.505	11.5	20.4	
10 8	1 5.13	-11 52.2	1.794	2.762	6.4	19.9	10 8	1 5.87	-24 10.5	1.589	2.504	11.6	20.4	
10 18	0 56.74	-11 57.3	1.820	2.763	8.2	20.0	10 18	0 54.54	-23 34.2	1.617	2.503	13.0	20.5	
10 28	0 49.24	-11 42.4	1.871	2.765	10.9	20.2	10 28	0 44.56	-22 25.7	1.668	2.503	15.2	20.6	
11 7	0 43.40	-11 7.3	1.945	2.767	13.7	20.3	11 7	0 36.87	-20 49.6	1.740	2.502	17.5	20.8	
11 17	0 39.69	-10 13.9	2.040	2.770	16.1	20.5	11 17	0 31.97	-18 52.3	1.831	2.502	19.5	21.0	
450319	2004 <i>SG</i> ₁₈	10 10.3 353°61 9°1/ 1.8 17						473462	2015 <i>XA</i> ₅₈	10 10.3 116°40 5°8/ 3.8 18				
9 8	1 20.83	-12 36.4	1.429	2.334	13.9	20.2	9 8	1 24.72	-11 29.7	2.367	3.248	10.1	21.2	
9 18	1 17.32	-14 8.5	1.383	2.326	11.1	20.0	9 18	1 19.34	-12 23.7	2.318	3.251	7.8	21.0	
9 28	1 11.70	-15 31.8	1.360	2.320	9.3	19.9	9 28	1 12.55	-13 11.9	2.295	3.254	6.1	20.9	
10 8	1 4.83	-16 35.8	1.360	2.314	9.5	19.9	10 8	1 5.00	-13 48.8	2.299	3.257	6.0	20.9	
10 18	0 57.80	-17 12.0	1.383	2.310	11.7	20.0	10 18	0 57.39	-14 10.0	2.330	3.259	7.5	21.0	
10 28	0 51.77	-17 16.2	1.429	2.308	14.6	20.2	10 28	0 50.48	-14 13.0	2.388	3.262	9.7	21.2	
11 7	0 47.63	-16 48.7	1.493	2.306	17.6	20.4	11 7	0 44.89	-13 57.2	2.470	3.265	12.0	21.4	
11 17	0 45.93	-15 53.0	1.575	2.306	20.1	20.6	11 17	0 41.04	-13 23.9	2.572	3.268	13.9	21.5	
450717	2007 <i>DC</i> ₃₅	10 10.3 97°46 3°5/ 5.9 18						178795	2001 <i>DQ</i> ₆₆	10 10.3 230°33 1°6/ 11.6 18				
9 8	1 21.87	- 0 32.2	2.179	3.065	10.6	21.0	9 8	1 29.58	+12 48.2	1.737	2.591	14.5	21.2	
9 18	1 17.40	- 1 58.0	2.122	3.069	7.6	20.8	9 18	1 23.54	+12 32.2	1.655	2.581	10.9	20.9	
9 28	1 11.50	- 3 27.4	2.093	3.073	4.6	20.6	9 28	1 15.27	+12 0.5	1.596	2.570	6.6	20.7	
10 8	1 4.78	- 4 53.5	2.091	3.077	3.6	20.6	10 8	1 5.55	+11 15.7	1.563	2.559	2.3	20.4	
10 18	0 57.97	- 6 9.7	2.118	3.082	5.7	20.7	10 18	0 55.45	+10 22.8	1.558	2.547	3.5	20.4	
10 28	0 51.84	- 7 10.4	2.173	3.086	8.7	20.9	10 28	0 46.17	+ 9 28.7	1.582	2.535	8.0	20.7	
11 7	0 47.03	- 7 52.3	2.253	3.090	11.6	21.1	11 7	0 38.75	+ 8 40.8	1.631	2.522	12.2	20.9	
11 17	0 43.96	- 8 14.3	2.354	3.093	14.0	21.3	11 17	0 33.84	+ 8 4.6	1.702	2.509	15.9	21.1	
67192	2000 <i>CH</i> ₄₉	10 10.3 94°15 3°6/ 6.5 18						318301	2004 <i>TG</i> ₈₄	10 10.3 224°72 0°6/ 10.8 18				
9 8	1 24.28	+ 0 5.6	1.883	2.770	12.0	18.9	9 8	1 26.34	+ 9 25.0	2.312	3.168	11.3	21.3	
9 18	1 19.23	+ 1 17.4	1.836	2.783	8.5	18.7	9 18	1 20.65	+ 9 18.9	2.236	3.165	8.2	21.1	
9 28	1 12.55	+ 2 44.2	1.814	2.796	5.1	18.6	9 28	1 13.39	+ 9 4.0	2.185	3.162	4.8	20.9	
10 8	1 4.97	+ 4 7.2	1.820	2.809	3.6	18.5	10 8	1 5.17	+ 8 42.6	2.161	3.159	1.2	20.6	
10 18	0 57.37	+ 5 19.2	1.854	2.821	6.0	18.7	10 18	0 56.76	+ 8 18.1	2.167	3.155	2.8	20.8	
10 28	0 50.63	+ 6 14.1	1.915	2.833	9.3	18.9	10 28	0 48.98	+ 7 54.5	2.202	3.152	6.3	21.0	
11 7	0 45.47	+ 6 48.8	2.001	2.845	12.5	19.1	11 7	0 42.55	+ 7 36.0	2.264	3.148	9.6	21.2	
11 17	0 42.31	+ 7 2.6	2.107	2.857	15.1	19.3	11 17	0 37.97	+ 7 25.4	2.351	3.144	12.4	21.4	
513890	2013 <i>TW</i> ₃₉	10 10.3 318°30 0°6/ 9.9 18						267318	2001 <i>TA</i> ₂₂₄	10 10.3 109°31 1°0/ 11.0 18				
9 8	1 24.74	+ 7 56.1	1.202	2.096	16.8	21.7	9 8	1 30.09	+10 32.4	1.655	2.518	14.7	20.4	
9 18	1 20.76	+ 7 25.2	1.127	2.076	12.3	21.4	9 18	1 23.73	+10 23.5	1.596	2.527	10.8	20.2	
9 28	1 13.99	+ 6 37.8	1.072	2.057	7.0	21.0	9 28	1 15.24	+10 1.6	1.559	2.537	6.3	20.0	
10 8	1 5.32	+ 5 39.5	1.040	2.038	1.3	20.6	10 8	1 5.53	+ 9 29.9	1.549	2.546	1.8	19.7	
10 18	0 56.06	+ 4 38.5	1.032	2.020	5.0	20.8	10 18	0 55.68	+ 8 53.5	1.566	2.555	3.5	19.8	
10 28	0 47.78	+ 3 45.2	1.048	2.003	10.9	21.1	10 28	0 46.88	+ 8 18.5	1.612	2.564	8.0	20.1	
11 7	0 41.84	+ 3 8.3	1.086	1.987	16.2	21.3	11 7	0 40.05	+ 7 50.7	1.682	2.573	12.0	20.4	
11 17	0 39.05	+ 2 52.7	1.142	1.971	20.7	21.6	11 17	0 35.74	+ 7 34.3	1.775	2.581	15.4	20.7	
329124	2011 <i>CU</i> ₆₀	10 10.3 357°62 0°8/ 9.4 18						24334	Conard	10 10.3 36°74 2°8/ 7.9 18				
9 8	1 22.54	+ 6 36.1	2.290	3.161	10.8	21.4	9 8	1 25.47	+ 2 17.2	1.551	2.442	13.9	18.1	
9 18	1 17.88	+ 5 57.5	2.221	3.160	7.7	21.2	9 18	1 20.45	+ 1 26.1	1.499	2.448	9.9	17.9	
9 28	1 11.78	+ 5 11.0	2.177	3.160	4.3	21.0	9 28	1 13.39	+ 0 28.6	1.470	2.455	5.6	17.6	
10 8	1 4.84	+ 4 20.7	2.162	3.160	0.9	20.7	10 8	1 5.18	- 0 28.4	1.467	2.461	2.8	17.5	
10 18	0 57.76	+ 3 31.1	2.175	3.160	3.3	20.9	10 18	0 56.87	- 1 17.7	1.490	2.469	5.6	17.7	
10 28	0 51.32	+ 2 47.4	2.217	3.160	6.8	21.1	10 28	0 49.58	- 1 52.8	1.539	2.476	9.7	17.9	
11 7	0 46.15	+ 2 13.7	2.285	3.160	9.9	21.3	11 7	0 44.17	- 2 9.8	1.612	2.484	13.5	18.2	
11 17	0 42.70	+ 1 52.6	2.376	3.160	12.6	21.5	11 17	0 41.17	- 2 7.6	1.705	2.492	16.7	18.4	
319268	2006 <i>BH</i> ₂₇	10 10.3 246°59 1°1/ 8.9 18						424311	2007 <i>TG</i> ₃₃₅	10 10.3 322°38 0°3/ 10.1 17				
9 8	1 23.54	+ 5 3.9	2.436	3.306	10.3	21.0	9 8	1 27.11	+ 8 5.5	1.166	2.058	17.4	21.3	
9 18	1 18.57	+ 4 26.4	2.357	3.296	7.3	20.8	9 18							

EPHEMERIDES

10 10.3

10 10.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
364103	2005 Y _Y ₂₄₈	10 10.3 174°88		5.4/ 3.8 18			340380	2006 DW ₁₉₂	10 10.3 199°67		1.5/ 8.9 18		
9 8	1 24.66	-10 38.7	2.490	3.369	9.7	21.1	9 8	1 25.95	+ 5 31.2	1.884	2.760	12.6	21.4
9 18	1 19.26	-11 36.5	2.438	3.371	7.5	20.9	9 18	1 20.62	+ 4 40.5	1.816	2.758	9.0	21.2
9 28	1 12.51	-12 29.4	2.411	3.372	5.8	20.8	9 28	1 13.47	+ 3 40.5	1.773	2.756	5.0	21.0
10 8	1 5.01	-13 12.2	2.413	3.372	5.6	20.8	10 8	1 5.23	+ 2 36.8	1.756	2.754	1.5	20.7
10 18	0 57.44	-13 40.5	2.442	3.373	7.1	20.9	10 18	0 56.82	+ 1 35.8	1.768	2.751	4.3	20.9
10 28	0 50.52	-13 51.3	2.499	3.373	9.3	21.0	10 28	0 49.20	+ 0 44.0	1.809	2.748	8.3	21.2
11 7	0 44.85	-13 43.9	2.579	3.373	11.5	21.2	11 7	0 43.19	+ 0 6.4	1.874	2.745	11.9	21.4
11 17	0 40.84	-13 19.1	2.681	3.373	13.5	21.4	11 17	0 39.31	- 0 14.5	1.961	2.742	15.0	21.6
310551	2001 FC ₁₇₉	10 10.3 189°02		5.4/ 2.5 18			10102	Digerhuvud	10 10.3 194°89		0.9/ 9.5 18		
9 8	1 22.81	-12 0.2	2.815	3.692	8.8	20.8	9 8	1 27.67	+ 6 59.8	1.873	2.743	12.9	19.0
9 18	1 17.85	-13 15.4	2.763	3.691	6.9	20.7	9 18	1 21.89	+ 6 16.3	1.803	2.741	9.3	18.8
9 28	1 11.69	-14 25.8	2.737	3.690	5.6	20.6	9 28	1 14.20	+ 5 22.4	1.757	2.739	5.2	18.5
10 8	1 4.86	-15 26.1	2.740	3.688	5.7	20.6	10 8	1 5.38	+ 4 23.0	1.738	2.736	1.1	18.2
10 18	0 57.94	-16 11.9	2.771	3.686	7.1	20.7	10 18	0 56.35	+ 3 24.3	1.748	2.733	3.9	18.5
10 28	0 51.56	-16 40.1	2.829	3.684	9.0	20.8	10 28	0 48.14	+ 2 32.8	1.786	2.729	8.1	18.7
11 7	0 46.25	-16 49.7	2.911	3.681	10.9	20.9	11 7	0 41.60	+ 1 53.9	1.850	2.725	11.9	18.9
11 17	0 42.41	-16 41.4	3.013	3.677	12.6	21.1	11 17	0 37.28	+ 1 30.7	1.936	2.720	15.1	19.1
19232	1993 TJ ₁₅	10 10.3 75°35		0.5/ 9.9 17			440808	2006 QC ₆₂	10 10.3 35°31		4.7/ 6.1 18		
9 8	1 33.93	+ 6 40.7	1.275	2.155	17.0	18.9	9 8	1 22.73	- 0 18.6	1.381	2.284	14.4	20.3
9 18	1 26.70	+ 6 29.6	1.235	2.178	12.2	18.7	9 18	1 18.53	- 1 53.1	1.346	2.301	10.2	20.1
9 28	1 16.93	+ 6 7.4	1.217	2.200	6.8	18.4	9 28	1 12.29	- 3 31.0	1.335	2.318	6.2	19.9
10 8	1 5.85	+ 5 39.2	1.224	2.222	1.2	18.1	10 8	1 4.99	- 5 1.9	1.349	2.337	4.8	19.9
10 18	0 54.88	+ 5 11.3	1.257	2.245	4.5	18.4	10 18	0 57.73	- 6 16.4	1.388	2.356	7.5	20.1
10 28	0 45.45	+ 4 50.4	1.316	2.267	9.6	18.8	10 28	0 51.61	- 7 7.5	1.452	2.376	11.3	20.4
11 7	0 38.58	+ 4 41.3	1.399	2.288	14.0	19.1	11 7	0 47.43	- 7 32.3	1.539	2.396	14.9	20.7
11 17	0 34.73	+ 4 46.6	1.502	2.310	17.6	19.4	11 17	0 45.64	- 7 31.7	1.644	2.417	17.8	20.9
353748	2011 Y _T ₆₅	10 10.3 344°20		3.4/ 3.9 18			208158	2000 HC ₇	10 10.3 61°27		5.2/ 7.0 18		
9 8	1 17.06	- 8 40.1	3.935	4.816	6.4	20.5	9 8	1 34.17	- 7 52.7	1.741	2.619	13.3	19.7
9 18	1 13.50	- 9 30.9	3.877	4.814	4.8	20.4	9 18	1 26.39	- 7 59.8	1.695	2.632	9.8	19.5
9 28	1 9.16	-10 19.5	3.847	4.812	3.6	20.3	9 28	1 16.62	- 8 1.1	1.673	2.646	6.6	19.3
10 8	1 4.39	-11 2.8	3.846	4.810	3.5	20.3	10 8	1 5.81	- 7 51.8	1.679	2.659	5.2	19.3
10 18	0 59.55	-11 38.0	3.874	4.808	4.6	20.3	10 18	0 55.07	- 7 28.5	1.712	2.673	7.1	19.4
10 28	0 55.04	-12 2.8	3.929	4.807	6.2	20.5	10 28	0 45.52	- 6 49.5	1.773	2.686	10.3	19.6
11 7	0 51.22	-12 16.1	4.011	4.805	7.7	20.6	11 7	0 37.98	- 5 55.6	1.860	2.700	13.4	19.9
11 17	0 48.36	-12 17.3	4.115	4.803	9.2	20.7	11 17	0 32.94	- 4 48.7	1.967	2.714	16.1	20.1
353197	2009 SW ₁₈₅	10 10.3 346°59		1.3/ 7.9 18			143654	2003 SH ₁₁	10 10.3 354°36		15.4/ 21.2 18		
9 8	1 18.08	+ 1 13.1	4.018	4.889	6.5	21.1	9 8	1 12.85	-15 27.3	0.873	1.806	17.4	17.8
9 18	1 14.20	+ 0 46.6	3.948	4.888	4.6	20.9	9 18	1 12.48	-20 15.8	0.849	1.797	15.5	17.7
9 28	1 9.55	+ 0 18.2	3.906	4.888	2.6	20.8	9 28	1 9.34	-24 44.1	0.849	1.790	16.0	17.7
10 8	1 4.47	- 0 9.8	3.893	4.887	1.3	20.7	10 8	1 4.49	-28 23.5	0.869	1.785	18.4	17.8
10 18	0 59.31	- 0 35.2	3.910	4.886	2.6	20.8	10 18	0 59.36	-30 56.1	0.908	1.783	21.6	18.0
10 28	0 54.48	- 0 55.5	3.958	4.886	4.6	20.9	10 28	0 55.52	-32 16.6	0.962	1.782	24.8	18.2
11 7	0 50.33	- 1 9.1	4.033	4.885	6.5	21.1	11 7	0 54.11	-32 31.0	1.028	1.783	27.4	18.4
11 17	0 47.13	- 1 14.8	4.133	4.884	8.2	21.2	11 17	0 55.68	-31 50.2	1.102	1.786	29.5	18.7
386788	2010 EA ₃₈	10 10.3 130°09		0.8/ 9.4 17			49136	1998 SY ₃₃	10 10.3 15°91		1.3/ 9.1 18		
9 8	1 25.56	+ 7 48.4	2.251	3.114	11.3	21.5	9 8	1 16.75	+11 11.5	1.085	1.987	17.6	17.6
9 18	1 19.97	+ 6 46.8	2.194	3.129	8.0	21.3	9 18	1 14.73	+ 9 12.8	1.042	1.997	12.5	17.3
9 28	1 12.93	+ 5 36.2	2.163	3.144	4.4	21.2	9 28	1 10.36	+ 6 50.8	1.020	2.007	6.8	17.1
10 8	1 5.11	+ 4 21.4	2.161	3.159	0.9	20.9	10 8	1 4.66	+ 4 18.8	1.022	2.020	1.4	16.8
10 18	0 57.26	+ 3 8.3	2.188	3.173	3.4	21.1	10 18	0 58.89	+ 1 52.9	1.048	2.034	5.5	17.1
10 28	0 50.16	+ 2 2.8	2.245	3.186	6.9	21.4	10 28	0 54.32	- 0 11.6	1.099	2.050	10.9	17.4
11 7	0 44.46	+ 1 9.5	2.330	3.198	10.0	21.6	11 7	0 51.88	- 1 45.2	1.171	2.068	15.6	17.8
11 17	0 40.57	+ 0 31.1	2.438	3.210	12.7	21.8	11 17	0 52.02	- 2 44.4	1.263	2.087	19.4	18.1
488797	2005 CF ₂₀	10 10.3 322°98		8.3/ 15.0 16			323561	2004 TR ₇₃	10 10.3 297°58		1.5/ 8.9 18		
9 8	1 27.55	+22 52.1	1.351	2.185	18.9	20.8	9 8	1 27.32	+ 2 35.3	2.127	3.000	11.4	20.8
9 18	1 23.13	+24 3.2	1.258	2.156	15.8	20.5	9 18	1 21.48	+ 2 25.6	2.053	2.993	8.2	20.6
9 28	1 15.62	+24 52.9	1.184	2.127	12.2	20.2	9 28	1 13.94	+ 2 11.7	2.003	2.986	4.6	20.4
10 8	1 5.75	+25 16.2	1.131	2.099	9.2	20.0	10 8	1 5.35	+ 1 57.1	1.982	2.979	1.6	20.2
10 18	0 54.80	+25 11.0	1.101	2.072	8.5	19.9	10 18	0 56.55	+ 1 45.6	1.989	2.972	3.9	20.3
10 28	0 44.53	+24 40.9	1.095	2.046	11.0	19.9	10 28	0 48.43	+ 1 40.8	2.025	2.965	7.6	20.5
11 7	0 36.57	+23 54.9	1.111	2.021	15.0	20.1	11 7	0 41.77	+ 1 45.6	2.087	2.958	11.0	20.7
11 17	0 32.08	+23 4.4	1.146	1.997	19.2	20.3	11 17	0 37.10	+ 2 1.7	2.173	2.951	13.8	20.9
289377	2005 CM ₁₆	10 10.3 257°23		5.3/ 14.2 18			394538	2007 TT ₄₅₁	10 10.3 184°34		4.5/ 15.0 18		
9 8	1 29.75	+20 9.4	1.433	2.271	17.8	20.6	9 8	1 25.28	+22 27.2	1.962	2.776	14.6	20.9
9 18	1 24.12	+20 26.2	1.359	2.267	14.1	20.3	9 18	1 20.24	+22 13.2	1.885	2.776	11.6	20.7
9 28	1 15.79	+20 19.1	1.306	2.262	10.0	20.1	9 28	1 13.32	+21 37.7	1.829	2.776	8.4	20.5
10 8	1 5.71	+19 47.8	1.276	2.258	6.2	19.9	10 8	1 5.24	+20 41.8	1.799	2.776	5.4	20.3
10 18	0 55.18	+18 55.9	1.271	2.254	5.7	19.8	10 18	0 56.95	+19 29.6	1.796	2.776	4.6	20.3
10 28	0 45.71	+17 51.1	1.292	2.249	9.0	20.0	10 28	0 49.45	+18 7.9	1.821	2.775	7.0	20.4
11 7	0 38.53	+16 43.9	1.338	2.244	13.3	20.3	11 7	0 43.59	+16 45.2	1.872	2.775	10.3	20.6
11 17	0 34.40	+15 43.8	1.404	2.240	17.1	20.5	11 17	0 39.94	+15 29.0	1.948	2.774	13.4	20.8
321610	2009 VG ₅₀	10 10.3 322°74		2.1/ 6.6 18			302765	2002 VA ₁₀₃	10 10.3 346°12		1.7/ 9.3 18		
9 8	1 17.83	- 2 32.5	3.894										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
218469	2004 <i>RP</i> ₃₃₃		10 10.3 351°67	5°9/ 4.2 18			199419	2006 <i>DG</i>		10 10.3 157°51	2°3/ 8.6 18		
9 8	1 21.61	- 6 0.2	1.711	2.611	12.3	19.9	9 8	1 29.79	+ 1 48.8	1.746	2.625	13.2	20.2
9 18	1 17.62	- 7 26.2	1.658	2.607	9.1	19.7	9 18	1 23.47	+ 1 25.9	1.684	2.627	9.5	20.0
9 28	1 11.82	- 8 51.4	1.629	2.603	6.5	19.5	9 28	1 15.13	+ 0 58.4	1.646	2.628	5.4	19.7
10 8	1 4.95	-10 7.0	1.625	2.600	6.1	19.5	10 8	1 5.60	+ 0 31.1	1.634	2.630	2.3	19.5
10 18	0 57.93	-11 5.2	1.648	2.597	8.4	19.6	10 18	0 55.91	+ 0 9.2	1.651	2.631	4.9	19.7
10 28	0 51.74	-11 40.5	1.695	2.595	11.5	19.8	10 28	0 47.16	- 0 2.6	1.695	2.633	9.0	20.0
11 7	0 47.17	-11 50.6	1.765	2.594	14.6	20.0	11 7	0 40.24	- 0 1.0	1.765	2.634	12.7	20.2
11 17	0 44.72	-11 36.4	1.854	2.593	17.2	20.2	11 17	0 35.72	+ 0 15.1	1.856	2.635	15.8	20.4
107512	2001 <i>DB</i> ₅₃		10 10.3 102°26	4°5/ 5.8 18			23496	1991 <i>VN</i> ₃		10 10.3 337°96	5°3/ 7.3 18		
9 8	1 24.76	- 2 10.0	1.770	2.662	12.4	19.8	9 8	1 23.30	- 2 36.2	1.044	1.961	16.8	17.4
9 18	1 19.76	- 3 32.8	1.719	2.667	8.9	19.6	9 18	1 20.09	- 2 59.9	0.971	1.931	12.4	17.1
9 28	1 12.96	- 4 57.9	1.693	2.672	5.7	19.4	9 28	1 13.83	- 3 25.5	0.918	1.904	7.8	16.8
10 8	1 5.16	- 6 17.2	1.693	2.678	4.6	19.4	10 8	1 5.44	- 3 44.0	0.885	1.878	5.3	16.5
10 18	0 57.27	- 7 23.1	1.722	2.683	7.0	19.5	10 18	0 56.30	- 3 46.9	0.875	1.853	8.5	16.6
10 28	0 50.27	- 8 9.4	1.776	2.688	10.3	19.8	10 28	0 48.19	- 3 26.9	0.887	1.832	13.8	16.8
11 7	0 44.94	- 8 33.5	1.854	2.694	13.5	20.0	11 7	0 42.60	- 2 41.1	0.917	1.812	19.0	17.1
11 17	0 41.74	- 8 35.2	1.952	2.699	16.2	20.2	11 17	0 40.45	- 1 30.6	0.964	1.795	23.5	17.3
172867	2005 <i>EX</i> ₁₁₈		10 10.3 220°94	4°0/13.6 18			70782	Vincelliott		10 10.3 11°29	0°7/ 9.8 18		
9 8	1 29.90	+18 55.0	1.674	2.507	15.9	21.0	9 8	1 26.24	+ 6 34.5	1.390	2.277	15.4	18.6
9 18	1 23.93	+18 54.4	1.593	2.500	12.5	20.7	9 18	1 21.31	+ 6 13.8	1.333	2.279	11.1	18.3
9 28	1 15.59	+18 32.7	1.534	2.493	8.5	20.5	9 28	1 14.06	+ 5 42.1	1.297	2.281	6.2	18.0
10 8	1 5.70	+17 50.7	1.500	2.486	4.9	20.3	10 8	1 5.42	+ 5 4.4	1.286	2.284	1.2	17.7
10 18	0 55.41	+16 52.4	1.493	2.477	4.6	20.2	10 18	0 56.58	+ 4 27.4	1.301	2.288	4.4	18.0
10 28	0 46.02	+15 45.0	1.513	2.469	8.1	20.4	10 28	0 48.84	+ 3 57.9	1.341	2.293	9.3	18.3
11 7	0 38.61	+14 37.7	1.559	2.460	12.1	20.6	11 7	0 43.19	+ 3 41.3	1.405	2.298	13.7	18.5
11 17	0 33.88	+13 38.3	1.628	2.450	15.8	20.9	11 17	0 40.24	+ 3 40.7	1.489	2.304	17.4	18.8
75749	2000 <i>AL</i> ₁₅₅		10 10.3 271°49	5°0/14.2 18			269011	2007 <i>EU</i> ₁₃₈		10 10.3 106°02	0°4/10.7 16		
9 8	1 28.48	+20 17.9	1.524	2.359	17.1	19.4	9 8	1 29.41	+ 9 55.3	1.693	2.557	14.3	21.1
9 18	1 23.10	+20 28.6	1.447	2.352	13.5	19.1	9 18	1 23.16	+ 9 29.5	1.638	2.572	10.4	20.9
9 28	1 15.19	+20 16.0	1.390	2.346	9.6	18.9	9 28	1 14.92	+ 8 50.9	1.607	2.587	6.0	20.7
10 8	1 5.63	+19 40.3	1.357	2.339	6.0	18.7	10 8	1 5.56	+ 8 4.0	1.603	2.601	1.3	20.4
10 18	0 55.63	+18 44.8	1.350	2.332	5.4	18.6	10 18	0 56.15	+ 7 14.5	1.626	2.615	3.5	20.6
10 28	0 46.60	+17 37.3	1.369	2.325	8.6	18.8	10 28	0 47.80	+ 6 29.1	1.678	2.629	7.9	20.9
11 7	0 39.69	+16 27.8	1.412	2.319	12.7	19.0	11 7	0 41.35	+ 5 53.5	1.755	2.642	11.8	21.1
11 17	0 35.64	+15 25.2	1.478	2.312	16.5	19.3	11 17	0 37.30	+ 5 31.2	1.854	2.655	15.0	21.4
111363	2001 <i>XC</i> ₁₂₆		10 10.3 341°72	1°7/ 8.7 18			161461	2004 <i>BS</i> ₅₆		10 10.3 321°72	6°9/15.4 18		
9 8	1 24.35	+ 4 15.9	1.866	2.747	12.4	19.9	9 8	1 27.68	+23 11.7	1.604	2.424	17.1	19.9
9 18	1 19.49	+ 3 32.9	1.800	2.745	8.8	19.7	9 18	1 22.65	+24 0.0	1.519	2.408	14.0	19.6
9 28	1 12.85	+ 2 42.2	1.759	2.743	4.9	19.4	9 28	1 15.05	+24 26.7	1.453	2.393	10.7	19.4
10 8	1 5.15	+ 1 49.2	1.745	2.742	1.7	19.2	10 8	1 5.66	+24 29.2	1.410	2.378	7.8	19.2
10 18	0 57.28	+ 0 59.8	1.758	2.740	4.4	19.4	10 18	0 55.64	+24 7.8	1.393	2.364	7.0	19.1
10 28	0 50.19	+ 0 20.1	1.799	2.739	8.3	19.6	10 28	0 46.41	+23 27.4	1.401	2.350	9.2	19.2
11 7	0 44.68	- 0 5.8	1.864	2.737	11.9	19.9	11 7	0 39.20	+22 36.4	1.433	2.337	12.7	19.4
11 17	0 41.25	- 0 15.6	1.952	2.736	15.0	20.1	11 17	0 34.85	+21 44.0	1.486	2.325	16.2	19.6
432775	2011 <i>FC</i> ₃₂		10 10.3 50°98	0°8/ 9.9 18			76976	2001 <i>BK</i> ₅₈		10 10.3 164°61	3°3/12.9 18		
9 8	1 36.55	+ 3 25.0	1.363	2.241	16.3	20.1	9 8	1 29.45	+16 55.1	1.575	2.420	16.1	19.9
9 18	1 28.55	+ 3 55.0	1.319	2.260	11.7	19.9	9 18	1 23.57	+16 48.5	1.506	2.422	12.4	19.6
9 28	1 18.01	+ 4 19.5	1.297	2.279	6.5	19.7	9 28	1 15.34	+16 21.7	1.459	2.424	8.1	19.4
10 8	1 6.11	+ 4 41.2	1.301	2.299	1.3	19.4	10 8	1 5.68	+15 36.5	1.436	2.426	4.1	19.2
10 18	0 54.28	+ 5 2.8	1.333	2.320	4.4	19.6	10 18	0 55.74	+14 38.0	1.440	2.428	4.2	19.2
10 28	0 43.94	+ 5 27.9	1.391	2.340	9.4	20.0	10 28	0 46.83	+13 34.0	1.472	2.429	8.1	19.4
11 7	0 36.12	+ 5 59.1	1.474	2.361	13.6	20.3	11 7	0 39.99	+12 33.3	1.529	2.430	12.3	19.7
11 17	0 31.35	+ 6 38.0	1.578	2.382	17.1	20.6	11 17	0 35.85	+11 43.0	1.607	2.430	15.9	19.9
339224	2004 <i>TD</i> ₃₂₆		10 10.3 46°44	1°7/ 8.9 18			293320	2007 <i>DQ</i> ₅₂		10 10.3 225°51	0°4/ 9.9 18		
9 8	1 27.48	+ 4 23.1	1.607	2.490	14.0	20.1	9 8	1 23.29	+ 8 18.6	2.428	3.291	10.6	21.2
9 18	1 21.95	+ 3 49.3	1.546	2.491	10.0	19.9	9 18	1 18.44	+ 7 34.6	2.350	3.284	7.6	21.0
9 28	1 14.31	+ 3 7.1	1.509	2.493	5.6	19.6	9 28	1 12.17	+ 6 41.4	2.297	3.277	4.3	20.8
10 8	1 5.43	+ 2 22.4	1.497	2.495	1.8	19.4	10 8	1 5.05	+ 5 42.6	2.272	3.271	0.8	20.5
10 18	0 56.38	+ 1 41.2	1.513	2.497	4.7	19.6	10 18	0 57.76	+ 4 43.1	2.277	3.263	3.0	20.7
10 28	0 48.31	+ 1 10.1	1.556	2.499	9.1	19.9	10 28	0 51.04	+ 3 48.1	2.311	3.256	6.4	20.9
11 7	0 42.13	+ 0 53.3	1.622	2.501	13.1	20.1	11 7	0 45.52	+ 3 2.1	2.373	3.248	9.6	21.1
11 17	0 38.41	+ 0 53.1	1.710	2.503	16.4	20.3	11 17	0 41.68	+ 2 28.3	2.458	3.240	12.3	21.2
394112	2006 <i>DD</i> ₄		10 10.3 275°14	12°2/27.7 16			58820	1998 <i>HN</i> ₅		10 10.3 255°82	4°3/ 7.1 18		
9 8	1 23.96	- 9 2.4	1.008	1.926	17.1	19.9	9 8	1 31.00	- 4 2.6	1.788	2.670	12.8	19.7
9 18	1 20.45	-13 6.9	0.962	1.914	13.6	19.7	9 18	1 24.42	- 4 29.5	1.718	2.660	9.4	19.5
9 28	1 13.90	-17 12.5	0.940	1.901	12.2	19.6	9 28	1 15.73	- 4 55.8	1.672	2.650	5.9	19.3
10 8	1 5.40	-20 52.7	0.943	1.889	13.8	19.6	10 8	1 5.75	- 5 15.7	1.653	2.639	4.3	19.2
10 18	0 56.46	-23 44.8	0.968	1.876	17.5	19.8	10 18	0 55.50	- 5 24.1	1.661	2.629	6.6	19.3
10 28	0 48.80	-25 36.6	1.012	1.863	21.5	20.0	10 28	0 46.12	- 5 16.9	1.697	2.618	10.2	19.5
11 7	0 43.78	-26 27.8	1.071	1.850	25.1	20.2	11 7	0 38.56	- 4 52.6	1.758	2.607	13.7	19.7
11 17	0 42.13	-26 25.7	1.142	1.837	28.1	20.5	11 17	0 33.42	- 4 11.5	1.839	2.596	16.8	19.9
321599	2009 <i>UJ</i> ₁₄₀		10 10.3 321°35	0°4/ 9.6 18		</							

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
404747	2014 <i>JO</i> ₃₂		10 10.3 113°28'	0°3'/10.1	18		181820	1998 <i>SM</i> ₂		10 10.3 294°23'	5°0'/8.9	18	
9 8	1 27.14	+ 7 33.5	1.897	2.766	12.8	21.5	9 8	1 44.95	- 5 40.1	1.057	1.944	19.2	19.2
9 18	1 21.48	+ 7 13.7	1.832	2.769	9.3	21.2	9 18	1 36.08	- 5 4.4	0.985	1.929	14.4	18.9
9 28	1 13.98	+ 6 44.6	1.791	2.772	5.2	21.0	9 28	1 23.12	- 4 19.0	0.934	1.913	9.0	18.6
10 8	1 5.41	+ 6 9.8	1.776	2.774	1.0	20.7	10 8	1 7.30	- 3 18.3	0.906	1.898	5.1	18.3
10 18	0 56.67	+ 5 34.2	1.790	2.777	3.4	20.9	10 18	0 50.63	- 1 59.4	0.904	1.883	8.1	18.4
10 28	0 48.77	+ 5 3.0	1.832	2.780	7.5	21.2	10 28	0 35.52	- 0 23.0	0.928	1.869	14.0	18.7
11 7	0 42.49	+ 4 40.9	1.900	2.783	11.2	21.4	11 7	0 23.83	+ 1 27.4	0.975	1.855	19.5	19.0
11 17	0 38.39	+ 4 30.9	1.990	2.785	14.3	21.6	11 17	0 16.56	+ 3 27.6	1.039	1.841	24.2	19.2
348014	2003 <i>SG</i> ₃₀₄		10 10.3 343°31'	3°1'/8.3	18		509172	2006 <i>HF</i> ₂₈		10 10.3 203°32'	6°0'/3.5	18	
9 8	1 24.48	+ 1 14.8	1.201	2.106	16.0	19.6	9 8	1 26.10	- 9 24.2	2.180	3.063	10.8	22.4
9 18	1 20.48	+ 0 52.5	1.136	2.092	11.5	19.3	9 18	1 20.56	- 10 47.9	2.123	3.059	8.3	22.2
9 28	1 13.82	+ 0 24.1	1.092	2.078	6.7	19.0	9 28	1 13.42	- 12 8.2	2.091	3.054	6.3	22.1
10 8	1 5.44	- 0 3.6	1.071	2.066	3.1	18.7	10 8	1 5.34	- 13 17.9	2.088	3.048	6.2	22.1
10 18	0 56.63	- 0 23.2	1.073	2.056	6.4	18.9	10 18	0 57.12	- 14 10.8	2.112	3.042	8.0	22.2
10 28	0 48.90	- 0 28.0	1.100	2.047	11.5	19.2	10 28	0 49.60	- 14 42.6	2.162	3.036	10.6	22.4
11 7	0 43.45	- 0 13.8	1.147	2.039	16.2	19.4	11 7	0 43.51	- 14 51.9	2.236	3.029	13.1	22.5
11 17	0 41.01	+ 0 20.4	1.213	2.033	20.3	19.7	11 17	0 39.32	- 14 39.6	2.330	3.021	15.3	22.7
257331	2009 <i>HN</i> ₁₀₃		10 10.3 158°77'	2°1'/8.7	17		516365	2017 <i>CG</i> ₃₄		10 10.3 17°85'	1°6'/9.1	18	
9 8	1 29.55	+ 4 22.7	1.524	2.405	14.6	21.4	9 8	1 31.07	+ 1 26.5	2.123	2.991	11.6	20.1
9 18	1 23.53	+ 3 33.6	1.465	2.409	10.5	21.2	9 18	1 24.15	+ 1 35.1	2.054	2.992	8.4	19.9
9 28	1 15.26	+ 2 35.1	1.429	2.413	5.8	21.0	9 28	1 15.46	+ 1 41.3	2.011	2.993	4.7	19.7
10 8	1 5.68	+ 1 34.1	1.419	2.416	2.1	20.7	10 8	1 5.73	+ 1 47.9	1.997	2.994	1.6	19.5
10 18	0 55.93	+ 0 38.0	1.437	2.419	5.2	20.9	10 18	0 55.85	+ 1 57.6	2.013	2.995	3.9	19.7
10 28	0 47.26	- 0 5.7	1.481	2.421	9.7	21.2	10 28	0 46.75	+ 2 13.3	2.057	2.996	7.5	19.9
11 7	0 40.65	- 0 32.0	1.549	2.423	13.9	21.5	11 7	0 39.22	+ 2 36.9	2.129	2.997	10.9	20.1
11 17	0 36.65	- 0 39.1	1.638	2.425	17.3	21.7	11 17	0 33.79	+ 3 9.4	2.224	2.999	13.7	20.3
40812	1999 <i>TV</i> ₆₃		10 10.3 59°05'	0°4'/9.9	18		1498	Lahti		10 10.3 11°51'	7°7'/18.2	18 R	
9 8	1 23.65	+ 8 10.6	2.025	2.895	12.1	19.4	9 8	1 21.81	+ 28 34.0	1.577	2.379	18.1	15.6
9 18	1 18.82	+ 7 29.4	1.966	2.904	8.7	19.2	9 18	1 18.19	+ 28 47.8	1.513	2.384	15.1	15.4
9 28	1 12.41	+ 6 38.3	1.932	2.913	4.8	19.0	9 28	1 12.35	+ 28 32.0	1.466	2.390	11.9	15.2
10 8	1 5.12	+ 5 42.0	1.925	2.923	0.9	18.7	10 8	1 5.16	+ 27 46.2	1.442	2.397	9.0	15.1
10 18	0 57.74	+ 4 45.8	1.946	2.933	3.3	18.9	10 18	0 57.74	+ 26 33.8	1.441	2.405	7.7	15.0
10 28	0 51.13	+ 3 55.5	1.996	2.943	7.1	19.2	10 28	0 51.31	+ 25 2.6	1.465	2.415	8.9	15.1
11 7	0 45.98	+ 3 16.0	2.071	2.953	10.5	19.4	11 7	0 46.85	+ 23 23.6	1.514	2.425	11.6	15.3
11 17	0 42.74	+ 2 50.2	2.170	2.963	13.4	19.6	11 17	0 44.95	+ 21 47.4	1.585	2.437	14.7	15.6
458015	2009 <i>WC</i> ₁₂₈		10 10.3 289°97'	1°2'/11.7	18		204666	2006 <i>DB</i> ₆		10 10.3 154°32'	4°1'/7.2	18	
9 8	1 22.70	+ 12 53.2	2.321	3.172	11.4	21.4	9 8	1 29.85	+ 0 5.2	1.381	2.273	15.2	20.2
9 18	1 18.16	+ 12 26.7	2.236	3.160	8.5	21.2	9 18	1 23.90	- 1 0.2	1.328	2.277	10.9	20.0
9 28	1 12.09	+ 11 47.7	2.174	3.148	5.2	21.0	9 28	1 15.54	- 2 10.9	1.297	2.280	6.5	19.7
10 8	1 5.08	+ 10 58.9	2.140	3.136	1.8	20.8	10 8	1 5.77	- 3 18.2	1.292	2.283	4.2	19.6
10 18	0 57.83	+ 10 4.5	2.135	3.124	2.7	20.8	10 18	0 55.85	- 4 13.1	1.312	2.285	7.1	19.8
10 28	0 51.14	+ 9 9.7	2.159	3.113	6.2	21.0	10 28	0 47.13	- 4 48.5	1.359	2.288	11.5	20.1
11 7	0 45.70	+ 8 19.9	2.210	3.101	9.5	21.2	11 7	0 40.63	- 5 0.7	1.428	2.290	15.5	20.3
11 17	0 42.03	+ 7 39.5	2.285	3.089	12.4	21.4	11 17	0 36.93	- 4 49.6	1.515	2.291	18.9	20.6
441708	2009 <i>AB</i> ₃₂		10 10.3 139°74'	4°3'/15.0	18		312480	2008 <i>TN</i> ₄₉		10 10.3 359°59'	0°2'/10.7	18	
9 8	1 28.17	+ 22 13.6	2.248	3.050	13.4	22.1	9 8	1 16.94	+ 10 3.5	4.033	4.883	7.0	20.2
9 18	1 22.09	+ 22 17.4	2.176	3.059	10.7	21.9	9 18	1 13.46	+ 9 28.9	3.956	4.883	5.0	20.1
9 28	1 14.30	+ 22 3.0	2.127	3.069	7.7	21.7	9 28	1 9.22	+ 8 48.3	3.906	4.883	2.9	19.9
10 8	1 5.49	+ 21 31.3	2.105	3.078	5.1	21.6	10 8	1 4.54	+ 8 3.9	3.885	4.883	0.7	19.7
10 18	0 56.53	+ 20 45.0	2.110	3.086	4.5	21.6	10 18	0 59.79	+ 7 18.1	3.895	4.883	1.7	19.8
10 28	0 48.33	+ 19 49.2	2.145	3.094	6.5	21.7	10 28	0 55.35	+ 6 33.8	3.935	4.883	3.9	20.0
11 7	0 41.67	+ 18 50.5	2.207	3.102	9.3	21.9	11 7	0 51.58	+ 5 53.7	4.004	4.883	5.9	20.1
11 17	0 37.05	+ 17 54.9	2.293	3.109	12.0	22.1	11 17	0 48.75	+ 5 19.8	4.099	4.883	7.7	20.3
29053	Muskau		10 10.3 255°31'	0°6'/9.4	18		493539	2015 <i>GB</i> ₄		10 10.3 165°99'	1°0'/11.2	15	
9 8	1 20.74	+ 5 46.5	3.166	4.030	8.3	19.8	9 8	1 29.32	+ 11 39.3	1.883	2.736	13.5	22.0
9 18	1 16.34	+ 5 18.1	3.088	4.024	5.9	19.6	9 18	1 23.11	+ 11 16.5	1.814	2.741	10.0	21.8
9 28	1 10.90	+ 4 44.6	3.037	4.018	3.3	19.5	9 28	1 14.96	+ 10 40.2	1.769	2.745	5.9	21.6
10 8	1 4.83	+ 4 8.6	3.014	4.012	0.8	19.2	10 8	1 5.67	+ 9 53.8	1.751	2.748	1.8	21.3
10 18	0 58.65	+ 3 33.2	3.022	4.007	2.5	19.4	10 18	0 56.19	+ 9 2.3	1.762	2.751	3.2	21.4
10 28	0 52.88	+ 3 1.6	3.060	4.001	5.2	19.6	10 28	0 47.59	+ 8 12.1	1.801	2.753	7.4	21.7
11 7	0 48.00	+ 2 36.8	3.125	3.995	7.7	19.7	11 7	0 40.72	+ 7 29.1	1.867	2.755	11.2	21.9
11 17	0 44.38	+ 2 20.8	3.215	3.989	9.9	19.9	11 17	0 36.12	+ 6 57.9	1.956	2.756	14.4	22.2
436556	2011 <i>HB</i> ₇		10 10.3 107°03'	5°5'/4.7	16		354652	2005 <i>JY</i> ₁₀₃		10 10.3 285°33'	2°3'/8.4	18	
9 8	1 25.08	- 3 38.6	1.696	2.590	12.7	20.8	9 8	1 27.31	+ 1 47.1	1.821	2.702	12.6	20.8
9 18	1 20.03	- 5 27.2	1.652	2.600	9.2	20.6	9 18	1 21.72	+ 1 17.3	1.753	2.697	9.1	20.6
9 28	1 13.16	- 7 16.7	1.633	2.609	6.3	20.4	9 28	1 14.20	+ 0 42.5	1.709	2.693	5.2	20.3
10 8	1 5.27	- 8 57.1	1.641	2.619	5.7	20.4	10 8	1 5.53	+ 0 7.8	1.692	2.688	2.3	20.2
10 18	0 57.33	- 10 19.8	1.677	2.628	8.1	20.6	10 18	0 56.63	- 0 21.5	1.703	2.683	4.9	20.3
10 28	0 50.35	- 11 18.3	1.738	2.638	11.3	20.8	10 28	0 48.56	- 0 40.2	1.742	2.678	8.8	20.5
11 7	0 45.10	- 11 50.2	1.822	2.647	14.4	21.0	11 7	0 42.16	- 0 45.0	1.805	2.673	12.5	20.8
11 17	0 42.06	- 11 56.3	1.926	2.655	17.0	21.2	11 17	0 38.01	- 0 34.4	1.890	2.669	15.6	21.0
102687	1999 <i>VR</i> ₇₁		10 10.3 4°80'	2°1'/8.9	18								

EPHEMERIDES

10 10.3

10 10.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V	
187057	2005 <i>MV</i> ₁₁		10 10.3	48°73	2°3/12.0	18	23637	1997 <i>AM</i> ₆		10 10.4	322°82	6°6/ 5.4	18	
9 8	1 28.48	+13 52.5	1.245	2.117	17.9	19.9	9 8	1 27.24	- 5 15.0	1.278	2.181	15.4	18.5	
9 18	1 23.07	+13 41.4	1.198	2.132	13.4	19.7	9 18	1 22.28	- 6 28.0	1.222	2.174	11.4	18.2	
9 28	1 15.10	+13 9.8	1.172	2.147	8.2	19.5	9 28	1 14.76	- 7 40.8	1.189	2.167	7.8	18.0	
10 8	1 5.70	+12 22.0	1.168	2.163	3.2	19.2	10 8	1 5.68	- 8 42.9	1.179	2.160	6.8	17.9	
10 18	0 56.23	+11 24.9	1.190	2.180	4.1	19.3	10 18	0 56.33	- 9 24.7	1.194	2.154	9.5	18.1	
10 28	0 48.14	+10 27.8	1.237	2.197	9.0	19.7	10 28	0 48.14	- 9 39.7	1.232	2.148	13.6	18.3	
11 7	0 42.46	+ 9 39.6	1.308	2.214	13.5	20.0	11 7	0 42.22	- 9 26.0	1.291	2.143	17.5	18.5	
11 17	0 39.73	+ 9 5.9	1.399	2.231	17.3	20.3	11 17	0 39.20	- 8 45.5	1.367	2.138	20.9	18.8	
132337	2002 <i>GD</i> ₄₀		10 10.3	141°79	0°7/11.0	18	431421	2007 <i>JE</i> ₄₁		10 10.4	53°28	8°9/ 5.1	16	
9 8	1 24.33	+13 16.2	1.771	2.631	14.0	19.7	9 8	1 33.76	-13 46.4	1.341	2.229	15.8	20.5	
9 18	1 19.59	+12 8.3	1.703	2.634	10.3	19.5	9 18	1 26.32	-14 33.2	1.321	2.256	12.3	20.4	
9 28	1 12.99	+10 42.4	1.659	2.636	6.0	19.3	9 28	1 16.65	-15 5.8	1.324	2.283	9.6	20.3	
10 8	1 5.30	+ 9 4.2	1.641	2.638	1.6	19.0	10 8	1 5.97	-15 16.5	1.350	2.310	9.0	20.4	
10 18	0 57.45	+ 7 21.6	1.652	2.641	3.3	19.1	10 18	0 55.66	-15 0.9	1.402	2.337	10.8	20.6	
10 28	0 50.46	+ 5 44.0	1.691	2.643	7.7	19.4	10 28	0 46.96	-14 18.6	1.477	2.365	13.7	20.8	
11 7	0 45.16	+ 4 19.4	1.756	2.645	11.7	19.6	11 7	0 40.71	-13 13.3	1.573	2.393	16.5	21.1	
11 17	0 42.05	+ 3 13.3	1.844	2.647	15.0	19.9	11 17	0 37.26	-11 49.8	1.688	2.420	18.9	21.3	
60293	1999 <i>XZ</i> ₁₄₈		10 10.3	201°16	1°5/11.6	18	308925	2006 <i>SB</i> ₃₃₃		10 10.4	52°75	1°2/ 9.2	15	
9 8	1 28.21	+13 17.1	1.665	2.522	14.9	20.0	9 8	1 24.43	+ 6 23.4	1.789	2.667	13.0	21.4	
9 18	1 22.60	+12 48.3	1.592	2.520	11.1	19.8	9 18	1 19.60	+ 5 32.2	1.730	2.673	9.3	21.1	
9 28	1 14.80	+12 2.2	1.542	2.517	6.8	19.6	9 28	1 12.98	+ 4 31.2	1.695	2.679	5.1	20.9	
10 8	1 5.66	+11 2.5	1.518	2.515	2.3	19.3	10 8	1 5.32	+ 3 26.1	1.687	2.685	1.3	20.7	
10 18	0 56.26	+ 9 55.2	1.522	2.511	3.5	19.3	10 18	0 57.55	+ 2 23.5	1.706	2.691	4.1	20.9	
10 28	0 47.77	+ 8 48.4	1.553	2.508	8.0	19.6	10 28	0 50.63	+ 1 30.1	1.753	2.697	8.2	21.1	
11 7	0 41.17	+ 7 49.8	1.610	2.504	12.2	19.9	11 7	0 45.35	+ 0 51.0	1.825	2.703	11.9	21.4	
11 17	0 37.08	+ 7 5.1	1.689	2.500	15.8	20.1	11 17	0 42.21	+ 0 28.9	1.919	2.710	15.0	21.6	
399032	2013 <i>HK</i> ₁₈		10 10.3	61°97	0°4/ 9.9	18	510841	2013 <i>CL</i> ₄₃		10 10.4	80°73	4°9/ 4.9	18	
9 8	1 24.88	+ 7 37.4	2.024	2.893	12.1	21.1	9 8	1 26.15	- 7 1.3	2.261	3.142	10.5	21.4	
9 18	1 19.68	+ 7 6.0	1.971	2.909	8.7	20.9	9 18	1 20.29	- 8 12.1	2.236	3.174	7.7	21.3	
9 28	1 12.91	+ 6 25.8	1.943	2.924	4.8	20.7	9 28	1 13.12	- 9 19.0	2.236	3.206	5.5	21.2	
10 8	1 5.27	+ 5 40.9	1.941	2.940	0.9	20.4	10 8	1 5.32	-10 16.1	2.265	3.236	5.0	21.2	
10 18	0 57.60	+ 4 56.4	1.969	2.956	3.3	20.6	10 18	0 57.63	-10 58.6	2.323	3.267	6.6	21.4	
10 28	0 50.74	+ 4 17.4	2.024	2.971	7.0	20.9	10 28	0 50.79	-11 23.6	2.408	3.297	9.0	21.6	
11 7	0 45.38	+ 3 48.2	2.106	2.987	10.4	21.2	11 7	0 45.35	-11 30.1	2.517	3.327	11.3	21.8	
11 17	0 41.94	+ 3 31.5	2.211	3.003	13.2	21.4	11 17	0 41.68	-11 19.2	2.648	3.356	13.3	22.0	
509025	2005 <i>PR</i> ₄		10 10.3	357°24	14°4/ 4.6	18	272309	2005 <i>SO</i> ₅₃		10 10.4	334°19	2°2/12.1	18	
9 8	1 20.23	-17 43.0	0.687	1.620	20.8	18.6	9 8	1 25.56	+14 25.1	1.381	2.249	16.7	20.3	
9 18	1 18.41	-18 12.7	0.651	1.607	17.4	18.3	9 18	1 21.07	+14 5.4	1.312	2.243	12.6	20.0	
9 28	1 12.97	-18 14.0	0.629	1.597	14.9	18.1	9 28	1 14.11	+13 25.0	1.263	2.238	7.9	19.7	
10 8	1 5.34	-17 33.3	0.624	1.591	14.5	18.1	10 8	1 5.58	+12 27.2	1.238	2.233	3.2	19.4	
10 18	0 57.46	-16 4.3	0.635	1.589	16.6	18.2	10 18	0 56.70	+11 18.5	1.239	2.228	3.9	19.5	
10 28	0 51.37	-13 49.5	0.663	1.591	20.0	18.4	10 28	0 48.83	+10 8.4	1.265	2.224	8.8	19.7	
11 7	0 48.47	-10 59.8	0.707	1.596	23.7	18.7	11 7	0 43.10	+ 9 6.3	1.315	2.221	13.5	20.0	
11 17	0 49.32	- 7 48.1	0.765	1.606	27.1	19.0	11 17	0 40.18	+ 8 19.3	1.385	2.217	17.5	20.3	
355527	2008 <i>AE</i> ₈₀		10 10.3	134°88	6°1/17.2	18	376994	2002 <i>PF</i> ₁₃₀		10 10.4	58°46	3°3/ 8.0	17	
9 8	1 28.34	+27 37.6	2.312	3.081	14.0	20.7	9 8	1 30.47	+ 3 1.7	1.154	2.050	17.2	20.5	
9 18	1 22.32	+28 0.4	2.236	3.088	11.6	20.5	9 18	1 24.22	+ 1 52.0	1.130	2.081	12.1	20.3	
9 28	1 14.51	+28 2.8	2.183	3.096	9.1	20.4	9 28	1 15.57	+ 0 35.7	1.127	2.113	6.7	20.1	
10 8	1 5.61	+27 44.2	2.154	3.103	6.9	20.2	10 8	1 5.79	- 0 37.4	1.149	2.144	3.3	20.0	
10 18	0 56.48	+27 6.1	2.152	3.110	6.1	20.2	10 18	0 56.32	- 1 37.6	1.197	2.176	6.5	20.3	
10 28	0 48.10	+26 13.0	2.179	3.116	7.2	20.3	10 28	0 48.48	- 2 17.9	1.268	2.208	11.1	20.6	
11 7	0 41.27	+25 11.5	2.232	3.122	9.4	20.4	11 7	0 43.15	- 2 35.0	1.363	2.239	15.2	21.0	
11 17	0 36.53	+24 8.6	2.310	3.128	11.8	20.6	11 17	0 40.69	- 2 29.6	1.476	2.270	18.5	21.3	
103934	2000 <i>DK</i> ₆₇		10 10.3	334°51	1°5/11.3	18	285357	1999 <i>RX</i> ₂₃₉		10 10.4	16°91	9°7/17.6	18	
9 8	1 23.47	+11 38.0	1.119	2.010	18.1	19.0	9 8	1 27.11	+27 10.8	1.225	2.047	21.2	19.3	
9 18	1 20.06	+11 27.4	1.048	1.993	13.5	18.7	9 18	1 22.62	+28 18.5	1.170	2.054	17.8	19.1	
9 28	1 13.76	+10 56.3	0.996	1.978	8.2	18.3	9 28	1 15.15	+28 54.6	1.133	2.062	14.1	18.9	
10 8	1 5.52	+10 8.4	0.967	1.964	2.6	18.0	10 8	1 5.80	+28 55.6	1.116	2.072	11.0	18.8	
10 18	0 56.70	+ 9 10.9	0.960	1.951	4.4	18.1	10 18	0 56.08	+28 22.4	1.120	2.083	9.7	18.8	
10 28	0 48.95	+ 8 14.2	0.977	1.939	10.3	18.3	10 28	0 47.69	+27 22.8	1.148	2.095	11.1	18.9	
11 7	0 43.65	+ 7 28.4	1.015	1.928	15.8	18.6	11 7	0 41.95	+26 9.2	1.197	2.108	14.1	19.1	
11 17	0 41.60	+ 7 0.6	1.071	1.919	20.4	18.9	11 17	0 39.56	+24 54.0	1.267	2.123	17.3	19.4	
188960	2007 <i>EO</i> ₂₁₁		10 10.3	86°72	4°3/ 5.4	18	396764	2003 <i>UG</i> ₃₇₅		10 10.4	169°32	0°6/ 9.7	14	C
9 8	1 23.25	- 4 0.0	2.156	3.043	10.7	19.8	9 8	1 24.36	+ 9 46.5	1.923	2.789	12.7	21.4	
9 18	1 18.46	- 5 11.8	2.105	3.050	7.7	19.6	9 18	1 19.50	+ 8 27.9	1.854	2.791	9.2	21.2	
9 28	1 12.21	- 6 23.7	2.081	3.057	5.1	19.4	9 28	1 12.91	+ 6 55.4	1.811	2.793	5.1	20.9	
10 8	1 5.15	- 7 29.4	2.084	3.064	4.4	19.4	10 8	1 5.33	+ 5 15.1	1.796	2.794	1.0	20.7	
10 18	0 58.02	- 8 22.8	2.115	3.070	6.3	19.5	10 18	0 57.61	+ 3 34.9	1.810	2.796	3.7	20.9	
10 28	0 51.60	- 8 59.7	2.173	3.077	9.1	19.7	10 28	0 50.67	+ 2 3.1	1.853	2.796	7.8	21.1	
11 7	0 46.55	- 9 17.8	2.255	3.084	11.8	19.9	11 7	0 45.27	+ 0 46.5	1.921	2.797	11.5	21.4	
11 17	0 43.28	- 9 16.9	2.359	3.090	14.1	20.1	11 17	0 41.92	- 0 10.9	2.013	2.797	14.6	21.6	
131388	2001 <i>KQ</i> ₅₂		10 10.4	141°66	6°3/ 6.3	18	53996	2000 <i>GC</i> ₈₈		10 10.4	131°20</			

EPHEMERIDES

10 10.4

10 10.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
286589	2002 <i>CF</i> ₂₆₃		10 10.4 131°09	3°4/ 6.3	18		97539	2000 <i>DF</i> ₃₉		10 10.4 164°10	0°1/10.2	18	
9 8	1 26.58	- 5 11.2	2.789	3.661	9.0	20.7	9 8	1 22.89	+ 8 46.6	2.724	3.581	9.7	20.2
9 18	1 20.51	- 5 48.5	2.740	3.676	6.6	20.5	9 18	1 18.04	+ 8 8.3	2.653	3.584	7.0	20.0
9 28	1 13.26	- 6 24.4	2.718	3.691	4.3	20.4	9 28	1 11.96	+ 7 22.0	2.608	3.587	4.0	19.8
10 8	1 5.39	- 6 54.8	2.725	3.705	3.5	20.4	10 8	1 5.18	+ 6 30.8	2.591	3.590	0.7	19.6
10 18	0 57.51	- 7 16.4	2.763	3.719	5.0	20.5	10 18	0 58.29	+ 5 38.8	2.605	3.592	2.5	19.7
10 28	0 50.26	- 7 26.4	2.829	3.732	7.3	20.7	10 28	0 51.94	+ 4 50.3	2.649	3.594	5.7	19.9
11 7	0 44.19	- 7 23.6	2.922	3.745	9.6	20.8	11 7	0 46.68	+ 4 9.2	2.720	3.596	8.5	20.1
11 17	0 39.64	- 7 8.0	3.038	3.757	11.5	21.0	11 17	0 42.90	+ 3 38.2	2.816	3.598	10.9	20.3
378169	2006 <i>WF</i> ₇₅		10 10.4 214°96	0°8/11.0	17		182810	2002 <i>AB</i> ₁₂₉		10 10.4 159°56	16°3/23.4	17	
9 8	1 28.87	+11 8.9	1.786	2.645	13.9	21.9	9 8	1 29.81	-26 10.2	1.224	2.099	17.9	19.8
9 18	1 23.00	+10 41.4	1.709	2.639	10.3	21.6	9 18	1 24.30	-29 19.6	1.209	2.103	16.5	19.7
9 28	1 15.05	+9 59.5	1.655	2.633	6.1	21.4	9 28	1 15.94	-31 58.4	1.215	2.105	16.5	19.7
10 8	1 5.78	+9 7.0	1.628	2.626	1.6	21.1	10 8	1 5.97	-33 51.2	1.241	2.108	17.7	19.8
10 18	0 56.22	+ 8 9.4	1.629	2.618	3.4	21.2	10 18	0 55.94	-34 49.8	1.286	2.110	19.6	20.0
10 28	0 47.48	+ 7 13.6	1.659	2.610	7.9	21.4	10 28	0 47.45	-34 54.0	1.348	2.112	21.7	20.1
11 7	0 40.51	+ 7 26.4	1.714	2.602	12.0	21.7	11 7	0 41.63	-34 10.6	1.423	2.113	23.7	20.3
11 17	0 35.93	+ 5 52.5	1.792	2.593	15.4	21.9	11 17	0 39.01	-32 48.9	1.508	2.114	25.3	20.5
321272	2009 <i>DQ</i> ₁₃₅		10 10.4 348°28	6°2/14.5	18		82546	2001 <i>OB</i> ₆₈		10 10.4 99°55	0°4/10.0	18	
9 8	1 30.24	+20 28.5	1.251	2.097	19.5	20.4	9 8	1 29.11	+ 8 45.4	1.611	2.481	14.6	19.8
9 18	1 24.85	+21 4.3	1.184	2.095	15.5	20.1	9 18	1 23.03	+ 7 58.5	1.562	2.500	10.5	19.6
9 28	1 16.46	+21 14.4	1.137	2.093	11.2	19.9	9 28	1 14.94	+ 6 59.1	1.536	2.518	5.9	19.4
10 8	1 6.09	+20 57.6	1.111	2.091	7.3	19.7	10 8	1 5.77	+ 5 53.2	1.537	2.536	1.1	19.1
10 18	0 55.22	+20 16.6	1.109	2.090	6.6	19.6	10 18	0 56.59	+ 4 47.9	1.566	2.553	3.9	19.4
10 28	0 45.57	+19 19.6	1.132	2.089	9.9	19.8	10 28	0 48.53	+ 3 50.7	1.623	2.570	8.4	19.7
11 7	0 38.52	+18 17.8	1.177	2.089	14.2	20.1	11 7	0 42.43	+ 3 7.3	1.704	2.587	12.3	20.0
11 17	0 34.83	+17 21.7	1.243	2.089	18.3	20.3	11 17	0 38.77	+ 2 40.9	1.807	2.603	15.5	20.2
257765	2000 <i>CX</i> ₃₃		10 10.4 272°53	4°3/ 4.8	17		244455	2002 <i>RL</i> ₁₃₈		10 10.4 345°49	5°0/ 7.2	18	
9 8	1 22.83	- 5 1.2	2.445	3.329	9.7	20.6	9 8	1 28.70	- 4 32.7	1.397	2.294	14.7	19.2
9 18	1 18.22	- 6 15.3	2.366	3.308	7.2	20.4	9 18	1 23.22	- 4 52.6	1.337	2.286	10.8	18.9
9 28	1 12.16	- 7 30.5	2.313	3.287	4.9	20.2	9 28	1 15.30	- 5 10.7	1.298	2.278	6.9	18.7
10 8	1 5.21	- 8 41.0	2.289	3.265	4.5	20.2	10 8	1 5.87	- 5 20.2	1.284	2.271	5.0	18.5
10 18	0 58.02	- 9 40.8	2.294	3.243	6.3	20.2	10 18	0 56.18	- 5 15.3	1.295	2.266	7.5	18.7
10 28	0 51.33	-10 25.0	2.326	3.221	9.0	20.4	10 28	0 47.56	- 4 52.1	1.331	2.261	11.6	18.9
11 7	0 45.80	-10 50.9	2.383	3.199	11.7	20.5	11 7	0 41.10	- 4 9.6	1.389	2.257	15.6	19.1
11 17	0 41.92	-10 57.7	2.461	3.177	14.0	20.7	11 17	0 37.43	- 3 9.2	1.467	2.254	19.0	19.4
382017	2011 <i>BK</i> ₅₃		10 10.4 185°67	2°1/ 8.5	16		313317	2002 <i>EC</i> ₆₃		10 10.4 115°23	2°4/12.1	17	
9 8	1 28.36	+ 3 52.6	1.779	2.656	13.1	21.8	9 8	1 33.02	+13 41.6	1.502	2.356	16.3	20.8
9 18	1 22.51	+ 3 1.1	1.714	2.656	9.4	21.6	9 18	1 26.16	+13 45.5	1.444	2.368	12.3	20.6
9 28	1 14.69	+ 2 1.5	1.673	2.656	5.2	21.4	9 28	1 16.87	+13 32.4	1.408	2.380	7.7	20.4
10 8	1 5.70	+ 1 0.0	1.659	2.655	2.1	21.2	10 8	1 6.16	+13 4.6	1.397	2.391	3.2	20.1
10 18	0 56.53	+ 0 3.2	1.674	2.654	4.8	21.3	10 18	0 55.30	+12 26.8	1.414	2.402	3.9	20.2
10 28	0 48.24	- 0 42.3	1.716	2.652	8.9	21.6	10 28	0 45.65	+11 46.1	1.457	2.413	8.3	20.5
11 7	0 41.70	- 1 12.0	1.783	2.650	12.7	21.8	11 7	0 38.24	+11 9.9	1.526	2.423	12.6	20.8
11 17	0 37.46	- 1 23.7	1.872	2.647	15.8	22.0	11 17	0 33.67	+10 43.7	1.617	2.433	16.2	21.0
275185	2009 <i>WB</i> ₇₆		10 10.4 199°48	2°7/ 7.9	18		76323	2000 <i>ET</i> ₁₄₅		10 10.4 241°80	0°1/10.2	18	
9 8	1 27.73	+ 1 56.3	1.795	2.676	12.8	21.2	9 8	1 25.89	+ 8 45.9	2.099	2.962	12.0	21.0
9 18	1 22.05	+ 1 2.9	1.730	2.674	9.1	20.9	9 18	1 20.62	+ 8 11.5	2.018	2.951	8.7	20.8
9 28	1 14.43	+ 0 3.3	1.689	2.672	5.2	20.7	9 28	1 13.62	+ 7 26.4	1.961	2.941	5.0	20.5
10 8	1 5.65	+ 0 56.2	1.675	2.669	2.7	20.5	10 8	1 5.54	+ 6 34.2	1.931	2.929	0.9	20.2
10 18	0 56.69	- 1 48.9	1.690	2.666	5.3	20.7	10 18	0 57.19	+ 5 40.0	1.930	2.918	3.2	20.4
10 28	0 48.58	- 2 28.7	1.731	2.663	9.2	20.9	10 28	0 49.50	+ 4 49.7	1.959	2.906	7.2	20.6
11 7	0 42.17	- 2 51.6	1.798	2.659	12.9	21.2	11 7	0 43.23	+ 4 8.6	2.013	2.894	10.8	20.8
11 17	0 38.03	- 2 55.8	1.885	2.655	16.0	21.4	11 17	0 38.95	+ 3 40.3	2.091	2.881	13.9	21.0
153405	2001 <i>QL</i> ₁₂₃		10 10.4 342°79	2°4/ 8.8	18		75115	1999 <i>VR</i> ₅₈		10 10.4 18°06	3°4/ 8.5	18	
9 8	1 26.95	+ 3 3.8	1.248	2.146	16.1	19.4	9 8	1 28.00	+ 1 0.0	0.978	1.889	18.2	18.2
9 18	1 22.19	+ 2 35.6	1.187	2.139	11.6	19.1	9 18	1 23.18	+ 0 42.1	0.937	1.895	13.1	17.9
9 28	1 14.80	+ 1 59.0	1.146	2.132	6.6	18.8	9 28	1 15.38	+ 0 18.7	0.916	1.903	7.5	17.6
10 8	1 5.76	+ 1 20.6	1.130	2.126	2.5	18.6	10 8	1 5.88	- 0 2.2	0.916	1.912	3.4	17.4
10 18	0 56.39	+ 0 47.9	1.138	2.122	5.8	18.8	10 18	0 56.30	- 0 13.3	0.939	1.922	6.8	17.7
10 28	0 48.15	+ 0 28.4	1.170	2.117	10.9	19.1	10 28	0 48.30	- 0 8.2	0.984	1.934	12.1	18.0
11 7	0 42.20	+ 0 26.8	1.225	2.114	15.6	19.3	11 7	0 43.08	+ 0 15.7	1.050	1.947	17.0	18.4
11 17	0 39.23	+ 0 44.7	1.298	2.111	19.5	19.6	11 17	0 41.17	+ 0 58.3	1.133	1.961	20.9	18.7
454055	2012 <i>HX</i> ₅₃		10 10.4 250°98	1°0/ 9.1	18		453565	2010 <i>BT</i> ₆₇		10 10.4 335°74	7°7/ 2.4	18	
9 8	1 21.89	+ 6 40.9	2.370	3.240	10.5	21.1	9 8	1 26.07	-16 19.6	2.129	3.005	11.3	20.4
9 18	1 17.50	+ 5 43.4	2.299	3.238	7.5	20.9	9 18	1 20.59	-17 17.3	2.081	3.002	9.2	20.3
9 28	1 11.72	+ 4 37.4	2.253	3.236	4.2	20.7	9 28	1 13.50	-18 5.1	2.057	2.999	7.9	20.2
10 8	1 5.13	+ 3 27.4	2.235	3.233	1.1	20.5	10 8	1 5.50	-18 36.4	2.059	2.996	8.0	20.2
10 18	0 58.40	+ 2 18.9	2.248	3.231	3.4	20.6	10 18	0 57.42	-18 46.6	2.086	2.993	9.5	20.3
10 28	0 52.26	+ 1 17.4	2.289	3.229	6.8	20.9	10 28	0 50.13	-18 33.6	2.139	2.991	11.6	20.4
11 7	0 47.33	+ 0 27.5	2.356	3.226	9.9	21.0	11 7	0 44.33	-17 57.8	2.214	2.988	13.8	20.6
11 17	0 44.04	- 0 8.1	2.447	3.224	12.5	21.2	11 17	0 40.49	-17 1.8	2.307	2.986	15.7	20.8
509631	2008 <i>FN</i> ₁₀₁		10 10.4 3°56	6°0/ 5.9	18		171887	2001 <i>RG</i> ₁₅		10 10.4 169°06	5°4/16.4	1	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
235157	2003 <i>RH</i> ₂₃		10 10.4	31°98	2.7/12.6	18	47431	1999 <i>XZ</i> ₁₇₃		10 10.4	19°18	1.1/11.0	18
9 8	1 26.55	+15 16.6	1.522	2.380	16.0	19.7	9 8	1 30.00	+ 9 3.0	1.118	2.006	18.3	17.1
9 18	1 21.53	+15 7.8	1.460	2.385	12.1	19.4	9 18	1 24.58	+ 9 20.8	1.066	2.011	13.5	16.8
9 28	1 14.28	+14 40.1	1.420	2.391	7.7	19.2	9 28	1 16.24	+ 9 24.2	1.035	2.017	7.9	16.6
10 8	1 5.69	+13 56.2	1.404	2.397	3.5	19.0	10 8	1 6.14	+ 9 16.4	1.026	2.024	2.2	16.2
10 18	0 56.90	+13 1.6	1.415	2.404	3.8	19.0	10 18	0 55.80	+ 9 2.3	1.041	2.031	4.4	16.4
10 28	0 49.14	+12 4.1	1.452	2.411	8.0	19.3	10 28	0 46.89	+ 8 49.0	1.081	2.040	10.0	16.8
11 7	0 43.38	+11 11.8	1.513	2.418	12.2	19.5	11 7	0 40.63	+ 8 43.1	1.142	2.050	14.9	17.1
11 17	0 40.21	+10 30.8	1.597	2.425	15.8	19.8	11 17	0 37.67	+ 8 49.1	1.223	2.061	19.1	17.4
309541	2007 <i>YA</i> ₂₈		10 10.4	251°99	4.5/ 6.0	18	326285	1996 <i>XZ</i> ₇		10 10.4	333°51	6°5/ 6.0	18
9 8	1 26.83	- 4 59.1	2.038	2.922	11.4	21.2	9 8	1 27.90	- 4 46.2	1.205	2.110	16.0	20.0
9 18	1 21.27	- 5 48.5	1.971	2.913	8.4	21.0	9 18	1 22.94	- 5 47.5	1.150	2.103	11.8	19.7
9 28	1 13.97	- 6 37.5	1.929	2.904	5.6	20.8	9 28	1 15.28	- 6 48.6	1.116	2.096	7.9	19.5
10 8	1 5.63	- 7 19.9	1.914	2.895	4.6	20.7	10 8	1 5.95	- 7 39.4	1.105	2.089	6.6	19.4
10 18	0 57.09	- 7 50.4	1.927	2.886	6.6	20.8	10 18	0 56.34	- 8 10.5	1.119	2.084	9.3	19.6
10 28	0 49.28	- 8 4.5	1.967	2.876	9.7	21.0	10 28	0 47.94	- 8 15.5	1.155	2.078	13.6	19.8
11 7	0 42.96	- 8 0.3	2.032	2.867	12.7	21.2	11 7	0 41.94	- 7 52.9	1.212	2.074	17.8	20.0
11 17	0 38.67	- 7 37.9	2.118	2.857	15.3	21.4	11 17	0 38.98	- 7 4.6	1.286	2.070	21.3	20.3
436756	2011 <i>YA</i> ₅₉		10 10.4	319°53	4°3/ 1.9	18	220051	2002 <i>RH</i> ₉₄		10 10.4	50°30	0°5/10.7	15
9 8	1 17.85	-14 11.2	4.004	4.877	6.5	21.0	9 8	1 32.52	+ 8 50.1	1.129	2.013	18.4	19.4
9 18	1 14.17	-15 1.7	3.950	4.872	5.2	21.0	9 18	1 26.01	+ 8 47.1	1.095	2.038	13.3	19.2
9 28	1 9.70	-15 47.6	3.922	4.867	4.4	20.9	9 28	1 16.80	+ 8 29.3	1.081	2.063	7.6	19.0
10 8	1 4.78	-16 25.9	3.923	4.862	4.5	20.9	10 8	1 6.21	+ 8 1.7	1.091	2.089	1.7	18.7
10 18	0 59.79	-16 53.7	3.952	4.856	5.5	21.0	10 18	0 55.77	+ 7 31.2	1.126	2.115	4.3	19.0
10 28	0 55.13	-17 9.4	4.008	4.851	6.8	21.1	10 28	0 47.01	+ 7 5.3	1.186	2.142	9.7	19.4
11 7	0 51.16	-17 12.0	4.088	4.846	8.2	21.2	11 7	0 40.93	+ 6 50.2	1.268	2.169	14.3	19.7
11 17	0 48.17	-17 1.7	4.189	4.842	9.5	21.3	11 17	0 38.00	+ 6 49.2	1.370	2.196	18.0	20.0
472346	2015 <i>AS</i> ₂₇₄		10 10.4	142°78	1°6/ 8.9	17	464742	2003 <i>PB</i>		10 10.4	52°59	0°9/11.1	17
9 8	1 30.21	+ 4 51.3	1.732	2.606	13.6	22.5	9 8	1 28.94	+13 36.2	1.023	1.906	20.0	20.0
9 18	1 23.81	+ 4 7.5	1.675	2.616	9.7	22.2	9 18	1 23.46	+12 28.1	0.996	1.938	14.5	19.8
9 28	1 15.42	+ 3 15.4	1.642	2.625	5.4	22.0	9 28	1 15.32	+10 57.0	0.989	1.970	8.4	19.6
10 8	1 5.91	+ 2 20.7	1.637	2.634	1.7	21.8	10 8	1 5.90	+ 9 12.8	1.004	2.002	2.2	19.4
10 18	0 56.31	+ 1 29.8	1.659	2.642	4.5	22.0	10 18	0 56.78	+ 7 28.2	1.044	2.034	4.4	19.6
10 28	0 47.71	+ 0 49.0	1.710	2.650	8.7	22.3	10 28	0 49.41	+ 5 56.1	1.109	2.067	10.0	20.0
11 7	0 40.97	+ 0 22.6	1.786	2.657	12.5	22.5	11 7	0 44.74	+ 4 45.6	1.196	2.100	14.7	20.4
11 17	0 36.61	+ 0 13.0	1.883	2.663	15.6	22.8	11 17	0 43.10	+ 4 0.3	1.302	2.132	18.6	20.8
232889	2004 <i>XQ</i> ₁₈		10 10.4	228°91	3°0/ 6.8	18	510997	2013 <i>KW</i> ₁₇		10 10.4	127°51	5°2/ 3.2	18
9 8	1 24.32	- 2 24.1	2.662	3.538	9.3	20.4	9 8	1 23.11	- 9 47.4	2.671	3.551	9.1	21.7
9 18	1 19.13	- 3 6.7	2.589	3.530	6.7	20.2	9 18	1 18.18	-11 10.4	2.630	3.564	7.0	21.6
9 28	1 12.64	- 3 50.5	2.543	3.521	4.1	20.0	9 28	1 12.06	-12 29.2	2.616	3.576	5.4	21.5
10 8	1 5.37	- 4 31.3	2.526	3.512	3.0	19.9	10 8	1 5.29	-13 38.3	2.631	3.587	5.4	21.5
10 18	0 57.95	- 5 4.9	2.538	3.503	4.8	20.1	10 18	0 58.49	-14 32.8	2.674	3.599	6.9	21.6
10 28	0 51.05	- 5 27.6	2.579	3.493	7.4	20.2	10 28	0 52.28	-15 9.5	2.744	3.610	8.9	21.8
11 7	0 45.26	- 5 37.4	2.646	3.483	10.0	20.4	11 7	0 47.22	-15 27.3	2.839	3.620	10.9	21.9
11 17	0 41.02	- 5 33.2	2.736	3.473	12.3	20.5	11 17	0 43.65	-15 26.8	2.954	3.631	12.6	22.1
49346	1998 <i>WK</i> ₄		10 10.4	356°24	2°3/ 8.8	18	486308	2013 <i>CL</i> ₉₄		10 10.4	283°28	1°1/ 9.3	18
9 8	1 22.76	+ 3 34.0	1.177	2.083	16.2	17.9	9 8	1 24.54	+ 6 42.8	1.863	2.739	12.7	21.4
9 18	1 19.24	+ 3 6.6	1.120	2.076	11.7	17.6	9 18	1 19.80	+ 5 54.0	1.790	2.732	9.1	21.2
9 28	1 13.16	+ 2 29.9	1.084	2.071	6.6	17.4	9 28	1 13.24	+ 4 54.5	1.742	2.725	5.1	20.9
10 8	1 5.51	+ 1 50.9	1.070	2.067	2.3	17.1	10 8	1 5.55	+ 3 49.6	1.719	2.718	1.2	20.6
10 18	0 57.56	+ 1 17.4	1.080	2.065	5.7	17.3	10 18	0 57.63	+ 2 45.8	1.726	2.710	4.0	20.8
10 28	0 50.74	+ 0 56.9	1.114	2.065	10.9	17.6	10 28	0 50.44	+ 1 50.0	1.759	2.703	8.1	21.1
11 7	0 46.16	+ 0 54.6	1.169	2.066	15.5	17.9	11 7	0 44.82	+ 1 7.5	1.818	2.696	11.9	21.3
11 17	0 44.46	+ 1 12.1	1.242	2.069	19.5	18.1	11 17	0 41.31	+ 0 41.7	1.899	2.689	15.1	21.5
283366	2000 <i>CW</i> ₁₁₄		10 10.4	352°50	10°7/29.9	18	18861	Eugenishmidt		10 10.4	133°65	3°6/ 6.9	18
9 8	1 19.89	-12 45.9	1.222	2.135	15.1	18.3	9 8	1 27.47	- 1 5.4	1.904	2.787	12.1	18.6
9 18	1 17.06	-15 1.2	1.181	2.127	12.3	18.1	9 18	1 21.70	- 2 5.0	1.851	2.795	8.7	18.4
9 28	1 11.86	-17 7.2	1.162	2.120	10.7	18.0	9 28	1 14.19	- 3 7.0	1.824	2.804	5.2	18.2
10 8	1 5.25	-18 49.3	1.166	2.115	11.4	18.1	10 8	1 5.72	- 4 5.0	1.823	2.812	3.6	18.1
10 18	0 58.44	-19 56.3	1.192	2.111	13.9	18.2	10 18	0 57.18	- 4 52.9	1.852	2.820	5.9	18.3
10 28	0 52.72	-20 22.2	1.238	2.109	17.0	18.4	10 28	0 49.51	- 5 25.4	1.907	2.827	9.3	18.5
11 7	0 49.10	-20 8.0	1.302	2.107	20.1	18.6	11 7	0 43.48	- 5 40.1	1.987	2.834	12.4	18.7
11 17	0 48.13	-19 18.3	1.380	2.108	22.6	18.8	11 17	0 39.54	- 5 36.3	2.089	2.841	15.1	18.9
374843	2006 <i>UW</i> ₂₇₃		10 10.4	277°07	0°9/11.1	18	63375	2001 <i>HY</i> ₃₇		10 10.4	48°28	4°7/ 6.5	18
9 8	1 28.31	+10 59.1	1.514	2.383	15.4	21.4	9 8	1 26.30	- 2 3.3	1.477	2.374	14.1	18.1
9 18	1 23.05	+10 39.6	1.433	2.368	11.5	21.2	9 18	1 21.08	- 3 11.3	1.443	2.394	10.1	17.9
9 28	1 15.33	+10 4.1	1.374	2.353	6.8	20.9	9 28	1 13.87	- 4 20.2	1.433	2.414	6.3	17.8
10 8	1 5.97	+ 9 15.9	1.339	2.337	1.9	20.5	10 8	1 5.65	- 5 21.4	1.448	2.435	4.7	17.7
10 18	0 56.11	+ 8 21.1	1.332	2.321	3.8	20.6	10 18	0 57.50	- 6 7.7	1.489	2.456	7.2	17.9
10 28	0 47.10	+ 7 27.4	1.351	2.305	8.9	20.9	10 28	0 50.51	- 6 33.8	1.556	2.478	10.8	18.2
11 7	0 40.11	+ 6 43.0	1.394	2.289	13.6	21.1	11 7	0 45.48	- 6 37.8	1.645	2.500	14.2	18.5
11 17	0 35.86	+ 6 13.4	1.458	2.274	17.6	21.3	11 17	0 42.84	- 6 20.7	1.754	2.522	17.0	18.7
358776	2008 <i>DW</i> ₄₃		10 10.4	183°82	1°4/ 8.8	18	117902	3058 <i>P-L</i>		10 10.4	58°97	4°3/14.1	18
9 8	1 25.2												

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
85683	1998 <i>RE</i> ₃₂	10 10.4 344°35		1.2°/11.3 18			517946	2015 <i>TO</i> ₃₀₃	10 10.4 174°41		4.0°/ 6.4 18		
9 8	1 22.24	+11 55.1	1.087	1.981	18.3	18.7	9 8	1 28.00	- 6 1.7	2.435	3.310	10.1	21.6
9 18	1 19.19	+11 30.8	1.022	1.969	13.6	18.4	9 18	1 21.82	- 6 31.1	2.374	3.311	7.4	21.4
9 28	1 13.32	+10 44.2	0.976	1.959	8.2	18.1	9 28	1 14.20	- 6 58.4	2.340	3.312	4.9	21.3
10 8	1 5.62	+ 9 40.3	0.952	1.950	2.4	17.7	10 8	1 5.75	- 7 19.2	2.333	3.313	4.0	21.2
10 18	0 57.45	+ 8 27.8	0.951	1.942	4.4	17.8	10 18	0 57.22	- 7 29.7	2.357	3.314	5.7	21.3
10 28	0 50.42	+ 7 18.4	0.973	1.936	10.3	18.1	10 28	0 49.37	- 7 27.2	2.408	3.314	8.3	21.5
11 7	0 45.82	+ 6 22.6	1.017	1.931	15.7	18.4	11 7	0 42.84	- 7 10.7	2.486	3.314	10.9	21.7
11 17	0 44.39	+ 5 47.6	1.078	1.928	20.2	18.7	11 17	0 38.07	- 6 40.2	2.585	3.314	13.1	21.8
29142	1988 <i>CR</i> ₇	10 10.4 144°16		1.5°/ 9.1 18 R			45657	2000 <i>EK</i> ₇₆	10 10.4 352°26		7.2°/ 4.5 18		
9 8	1 28.96	+ 5 12.9	1.833	2.705	13.0	18.9	9 8	1 22.65	- 6 32.4	1.283	2.193	14.8	17.0
9 18	1 22.87	+ 4 29.1	1.774	2.714	9.3	18.7	9 18	1 18.99	- 7 53.9	1.233	2.186	11.1	16.7
9 28	1 14.90	+ 3 37.0	1.739	2.722	5.2	18.5	9 28	1 12.97	- 9 13.6	1.204	2.180	8.0	16.6
10 8	1 5.87	+ 2 42.0	1.732	2.730	1.5	18.3	10 8	1 5.54	-10 20.5	1.199	2.175	7.5	16.5
10 18	0 56.74	+ 1 50.1	1.754	2.737	4.2	18.5	10 18	0 57.90	-11 5.1	1.217	2.172	10.0	16.7
10 28	0 48.53	+ 1 7.5	1.803	2.744	8.3	18.7	10 28	0 51.32	-11 21.1	1.258	2.169	13.8	16.9
11 7	0 42.05	+ 0 38.5	1.878	2.750	11.9	19.0	11 7	0 46.83	-11 7.2	1.319	2.168	17.4	17.1
11 17	0 37.80	+ 0 25.5	1.976	2.755	15.0	19.2	11 17	0 45.00	-10 25.5	1.397	2.168	20.5	17.3
513713	2012 <i>SL</i> ₂	10 10.4 22°82		7.7°/15.1 18			475255	2005 <i>WM</i> ₆₄	10 10.4 220°72		1.7°/12.0 18		
9 8	1 33.48	+22 8.9	1.363	2.190	19.1	20.6	9 8	1 27.30	+14 19.9	1.927	2.774	13.6	21.7
9 18	1 27.11	+23 27.3	1.301	2.195	15.6	20.4	9 18	1 21.84	+13 48.8	1.845	2.767	10.2	21.5
9 28	1 17.77	+24 22.5	1.259	2.201	11.7	20.2	9 28	1 14.44	+13 1.3	1.787	2.759	6.3	21.3
10 8	1 6.49	+24 50.8	1.239	2.207	8.6	20.1	10 8	1 5.84	+12 0.5	1.756	2.751	2.4	21.0
10 18	0 54.74	+24 52.0	1.244	2.214	7.8	20.1	10 18	0 56.94	+10 51.4	1.753	2.742	3.1	21.0
10 28	0 44.20	+24 31.2	1.274	2.222	10.2	20.2	10 28	0 48.79	+ 9 41.3	1.779	2.733	7.2	21.3
11 7	0 36.23	+23 57.8	1.327	2.230	13.6	20.4	11 7	0 42.26	+ 8 37.4	1.831	2.724	11.1	21.5
11 17	0 31.60	+23 21.7	1.401	2.239	17.1	20.7	11 17	0 37.94	+ 7 45.4	1.907	2.714	14.4	21.7
66224	1999 <i>CG</i> ₇₇	10 10.4 180°29		0°3/10.1 18			23504	Haneda	10 10.4 217°19		4.5°/ 5.6 18		
9 8	1 28.91	+ 9 46.5	1.624	2.491	14.6	20.2	9 8	1 25.43	- 3 30.4	1.981	2.867	11.5	18.3
9 18	1 23.13	+ 8 50.6	1.557	2.493	10.6	19.9	9 18	1 20.31	- 4 46.5	1.918	2.863	8.4	18.1
9 28	1 15.19	+ 7 39.5	1.513	2.494	6.0	19.7	9 28	1 13.48	- 6 4.1	1.882	2.859	5.5	17.9
10 8	1 5.95	+ 6 18.9	1.496	2.494	1.1	19.3	10 8	1 5.63	- 7 16.1	1.872	2.854	4.7	17.8
10 18	0 56.50	+ 4 56.8	1.506	2.494	3.9	19.5	10 18	0 57.62	- 8 15.7	1.891	2.849	6.8	18.0
10 28	0 48.02	+ 3 42.0	1.545	2.493	8.7	19.8	10 28	0 50.35	- 8 57.2	1.937	2.843	9.9	18.1
11 7	0 41.47	+ 2 41.7	1.608	2.491	12.9	20.1	11 7	0 44.57	- 9 18.0	2.006	2.838	13.0	18.3
11 17	0 37.42	+ 2 0.4	1.693	2.489	16.4	20.3	11 17	0 40.81	- 9 17.7	2.097	2.832	15.6	18.5
260619	2005 <i>GU</i> ₄₈	10 10.4 153°87		1.5°/ 9.3 17			479387	2013 <i>YD</i> ₁₁	10 10.4 255°93		3°5/ 7.1 18		
9 8	1 31.81	+ 4 24.4	1.598	2.474	14.4	21.0	9 8	1 26.16	+ 0 58.3	1.728	2.615	12.9	21.2
9 18	1 25.19	+ 3 59.4	1.538	2.479	10.3	20.8	9 18	1 21.13	+ 0 12.5	1.657	2.604	9.3	21.0
9 28	1 16.34	+ 3 26.5	1.501	2.484	5.8	20.5	9 28	1 14.08	+ 1 30.2	1.610	2.593	5.5	20.7
10 8	1 6.17	+ 2 50.7	1.490	2.488	1.7	20.3	10 8	1 5.77	+ 2 47.5	1.589	2.581	3.5	20.6
10 18	0 55.84	+ 2 18.1	1.507	2.491	4.6	20.5	10 18	0 57.18	+ 3 56.2	1.597	2.569	6.2	20.7
10 28	0 46.57	+ 1 54.3	1.552	2.495	9.1	20.8	10 28	0 49.37	+ 4 49.1	1.630	2.557	10.1	21.0
11 7	0 39.32	+ 1 43.8	1.621	2.498	13.2	21.0	11 7	0 43.27	+ 5 21.5	1.688	2.544	13.8	21.2
11 17	0 34.69	+ 1 48.6	1.711	2.500	16.6	21.2	11 17	0 39.47	+ 5 31.7	1.766	2.532	17.0	21.4
315076	2007 <i>DS</i> ₅₈	10 10.4 123°27		1°1/ 8.9 18			24312	1999 <i>YO</i> ₂₂	10 10.4 15°46		3°4/ 4.8 18		
9 8	1 23.93	+ 5 17.5	2.660	3.525	9.7	21.5	9 8	1 19.86	- 9 17.9	3.832	4.707	6.7	18.4
9 18	1 18.77	+ 4 30.4	2.603	3.540	6.9	21.3	9 18	1 15.62	- 9 46.3	3.776	4.710	5.1	18.3
9 28	1 12.40	+ 3 37.6	2.572	3.554	3.8	21.2	9 28	1 10.56	-10 11.8	3.748	4.712	3.7	18.2
10 8	1 5.38	+ 2 42.9	2.571	3.568	1.1	21.0	10 8	1 5.04	-10 31.7	3.748	4.715	3.5	18.2
10 18	0 58.31	+ 1 50.7	2.599	3.582	3.1	21.2	10 18	0 59.48	-10 43.5	3.778	4.717	4.5	18.2
10 28	0 51.85	+ 1 5.2	2.658	3.595	6.1	21.4	10 28	0 54.29	-10 45.6	3.836	4.720	6.1	18.4
11 7	0 46.53	+ 0 29.8	2.744	3.607	8.9	21.6	11 7	0 49.85	-10 37.1	3.920	4.723	7.7	18.5
11 17	0 42.73	+ 0 6.4	2.853	3.620	11.2	21.8	11 17	0 46.44	-10 17.9	4.027	4.726	9.2	18.6
181003	2005 <i>NJ</i> ₄₇	10 10.4 51°31		0°8/ 9.9 16			434591	2005 <i>UH</i> ₂₂₁	10 10.4 93°96		3°8/14.1 17		
9 8	1 29.74	+ 7 21.0	1.181	2.070	17.4	19.9	9 8	1 26.92	+20 21.0	1.604	2.438	16.4	21.1
9 18	1 23.94	+ 6 47.9	1.146	2.093	12.5	19.6	9 18	1 21.75	+19 51.1	1.540	2.447	12.8	20.9
9 28	1 15.62	+ 6 1.8	1.131	2.116	6.9	19.4	9 28	1 14.42	+18 56.9	1.498	2.457	8.7	20.7
10 8	1 6.01	+ 5 9.9	1.141	2.139	1.3	19.1	10 8	1 5.82	+17 41.5	1.481	2.466	4.9	20.5
10 18	0 56.52	+ 4 20.2	1.176	2.163	4.7	19.4	10 18	0 57.09	+16 11.1	1.490	2.476	4.3	20.5
10 28	0 48.53	+ 3 41.0	1.235	2.188	9.9	19.8	10 28	0 49.40	+14 35.3	1.526	2.485	7.7	20.7
11 7	0 43.02	+ 3 17.6	1.318	2.212	14.3	20.1	11 7	0 43.68	+13 4.1	1.589	2.494	11.6	21.0
11 17	0 40.44	+ 3 12.6	1.420	2.237	18.0	20.4	11 17	0 40.49	+11 45.7	1.674	2.503	15.1	21.2
241865	2001 <i>TX</i> ₂₀₂	10 10.4 39°17		6°0/ 4.8 18			314347	2005 <i>TD</i> ₁₁₅	10 10.4 255°37		0°9/11.3 18		
9 8	1 24.56	- 6 10.5	1.648	2.545	12.9	19.8	9 8	1 26.44	+10 56.7	2.106	2.962	12.2	21.2
9 18	1 19.80	- 7 30.1	1.607	2.554	9.5	19.6	9 18	1 21.04	+10 45.9	2.030	2.958	9.0	21.0
9 28	1 13.18	- 8 47.1	1.589	2.563	6.7	19.5	9 28	1 13.92	+10 24.1	1.978	2.954	5.4	20.8
10 8	1 5.54	- 9 53.2	1.598	2.573	6.1	19.4	10 8	1 5.74	+ 9 53.7	1.953	2.950	1.6	20.5
10 18	0 57.87	-10 41.0	1.632	2.583	8.3	19.6	10 18	0 57.33	+ 9 18.8	1.957	2.946	2.9	20.6
10 28	0 51.17	-11 5.9	1.692	2.594	11.4	19.8	10 28	0 49.61	+ 8 44.1	1.990	2.942	6.7	20.8
11 7	0 46.21	-11 6.6	1.774	2.605	14.4	20.0	11 7	0 43.34	+ 8 14.7	2.049	2.938	10.2	21.1
11 17	0 43.47	-10 44.5	1.875	2.616	17.0	20.3	11 17	0 39.06	+ 7 54.3	2.132	2.935	13.2	21.3
170662	2003 <i>YD</i> ₁₄₁	10 10.4 247°54		4°9/ 6.1 18			446298	2014 <i>DU</i> ₁₃₉	10 10.4 164°94		3°3/ 6.6 18		
9 8	1 29.42	- 6 35.0	2.016	2.896</									

EPHEMERIDES

10 10.4

10 10.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
217141	2002 <i>GT</i> ₁₈₀		10 10.4	14°27'	3°6'/6.4	18	46872	1998 <i>QP</i> ₁₀₁		10 10.4	281°71'	1°0'/9.6	18
9 8	1 22.68	- 0 34.8	1.963	2.853	11.5	19.9	9 8	1 27.13	+ 5 48.7	1.785	2.661	13.1	18.6
9 18	1 18.31	- 1 49.7	1.906	2.854	8.2	19.7	9 18	1 21.77	+ 5 21.4	1.714	2.655	9.5	18.3
9 28	1 12.33	- 3 8.2	1.874	2.855	5.0	19.6	9 28	1 14.42	+ 4 45.2	1.666	2.649	5.3	18.1
10 8	1 5.42	- 4 23.5	1.868	2.857	3.7	19.5	10 8	1 5.87	+ 4 4.6	1.645	2.643	1.2	17.8
10 18	0 58.39	- 5 28.8	1.891	2.858	5.9	19.6	10 18	0 57.05	+ 3 24.9	1.652	2.638	4.0	18.0
10 28	0 52.09	- 6 18.2	1.941	2.860	9.2	19.8	10 28	0 49.03	+ 2 52.3	1.686	2.632	8.3	18.2
11 7	0 47.23	- 6 48.5	2.015	2.862	12.3	20.0	11 7	0 42.71	+ 2 31.3	1.745	2.626	12.2	18.4
11 17	0 44.28	- 6 58.6	2.111	2.865	14.9	20.2	11 17	0 38.66	+ 2 24.8	1.826	2.621	15.5	18.6
65605	3245 <i>T</i> ₋₃		10 10.4	328°37'	2°1'/9.1	18	88687	2001 <i>RO</i> ₁₂₁		10 10.4	112°46'	1°4'/9.2	18
9 8	1 25.83	+ 3 58.2	1.119	2.023	17.1	18.5	9 8	1 29.89	+ 5 28.5	1.714	2.588	13.7	20.0
9 18	1 21.87	+ 3 36.2	1.048	2.003	12.4	18.2	9 18	1 23.57	+ 4 45.9	1.664	2.604	9.8	19.8
9 28	1 14.95	+ 3 3.3	0.997	1.984	7.1	17.8	9 28	1 15.32	+ 3 54.6	1.637	2.620	5.4	19.6
10 8	1 6.01	+ 2 26.1	0.968	1.966	2.2	17.5	10 8	1 6.01	+ 3 0.5	1.637	2.635	1.5	19.4
10 18	0 56.44	+ 1 52.8	0.963	1.949	6.0	17.6	10 18	0 56.69	+ 2 9.8	1.666	2.650	4.3	19.6
10 28	0 47.92	+ 1 31.9	0.980	1.933	11.8	17.9	10 28	0 48.40	+ 1 28.8	1.723	2.665	8.5	19.9
11 7	0 41.87	+ 1 29.7	1.018	1.918	17.1	18.2	11 7	0 41.98	+ 1 1.8	1.805	2.679	12.2	20.2
11 17	0 39.12	+ 1 49.0	1.074	1.905	21.6	18.4	11 17	0 37.91	+ 0 51.0	1.908	2.692	15.3	20.4
242464	2004 <i>RB</i> ₂₃₆		10 10.4	61°83'	1°8'/11.6	17	754	Malabar		10 10.4	257°63'	3°1'/6.4	18
9 8	1 33.32	+ 12 54.8	1.070	1.947	19.8	20.2	9 8	1 22.06	+ 2 21.0	2.157	3.039	10.9	14.0
9 18	1 26.66	+ 12 34.9	1.038	1.976	14.6	20.0	9 18	1 17.79	+ 0 32.0	2.089	3.035	7.7	13.8
9 28	1 17.21	+ 11 53.9	1.027	2.005	8.7	19.8	9 28	1 12.03	- 1 24.7	2.047	3.030	4.5	13.5
10 8	1 6.35	+ 10 57.5	1.038	2.034	2.9	19.5	10 8	1 5.38	- 3 21.6	2.036	3.025	3.2	13.5
10 18	0 55.74	+ 9 54.7	1.073	2.063	4.3	19.7	10 18	0 58.57	- 5 10.3	2.053	3.021	5.5	13.6
10 28	0 46.94	+ 8 56.1	1.134	2.093	9.7	20.1	10 28	0 52.38	- 6 43.5	2.100	3.016	8.8	13.8
11 7	0 40.97	+ 8 10.1	1.217	2.122	14.5	20.5	11 7	0 47.50	- 7 56.2	2.172	3.011	11.9	14.0
11 17	0 38.26	+ 7 41.7	1.320	2.151	18.3	20.8	11 17	0 44.39	- 8 46.2	2.266	3.006	14.4	14.2
421445	2014 <i>MT</i> ₂₂		10 10.4	162°98'	3°8'/14.5	18	432325	2009 <i>UL</i> ₈₀		10 10.4	321°00'	2°6'/6.4	16
9 8	1 26.49	+ 20 10.2	2.359	3.171	12.5	20.4	9 8	1 23.68	- 6 48.4	4.051	4.918	6.6	20.8
9 18	1 21.00	+ 20 20.0	2.281	3.172	9.9	20.2	9 18	1 18.30	- 6 56.3	3.982	4.915	4.8	20.7
9 28	1 13.87	+ 20 14.3	2.225	3.173	7.0	20.1	9 28	1 12.07	- 7 2.2	3.941	4.912	3.2	20.6
10 8	1 5.74	+ 19 53.7	2.196	3.174	4.5	19.9	10 8	1 5.37	- 7 3.9	3.931	4.909	2.7	20.5
10 18	0 57.39	+ 19 20.4	2.196	3.175	4.0	19.9	10 18	0 58.61	- 6 59.6	3.951	4.906	3.7	20.6
10 28	0 49.68	+ 18 39.0	2.224	3.176	6.2	20.0	10 28	0 52.21	- 6 47.8	4.002	4.903	5.4	20.7
11 7	0 43.33	+ 17 54.7	2.280	3.176	9.0	20.2	11 7	0 46.57	- 6 27.7	4.080	4.900	7.1	20.8
11 17	0 38.88	+ 17 13.0	2.360	3.177	11.7	20.4	11 17	0 41.98	- 5 59.3	4.184	4.897	8.7	20.9
447677	2006 <i>YU</i> ₉		10 10.4	297°83'	7°3'/18.1	18	435761	2008 <i>UA</i> ₂₀₉		10 10.4	101°65'	4°8'/7.2	17
9 8	1 25.86	+ 29 36.7	2.014	2.784	15.7	21.0	9 8	1 35.10	- 6 24.6	1.776	2.651	13.2	20.7
9 18	1 21.03	+ 29 57.5	1.924	2.773	13.3	20.8	9 18	1 27.20	- 6 41.2	1.729	2.666	9.7	20.6
9 28	1 14.11	+ 29 54.1	1.853	2.762	10.7	20.6	9 28	1 17.33	- 6 53.7	1.707	2.681	6.3	20.4
10 8	1 5.82	+ 29 24.7	1.806	2.751	8.4	20.5	10 8	1 6.41	- 6 57.0	1.712	2.695	4.8	20.3
10 18	0 57.11	+ 28 30.5	1.785	2.740	7.3	20.4	10 18	0 55.55	- 6 47.2	1.746	2.709	6.8	20.5
10 28	0 49.11	+ 27 16.4	1.789	2.729	8.4	20.4	10 28	0 45.84	- 6 21.9	1.808	2.723	10.0	20.7
11 7	0 42.79	+ 25 50.8	1.820	2.718	10.8	20.6	11 7	0 38.13	- 5 41.3	1.895	2.736	13.2	20.9
11 17	0 38.83	+ 24 22.9	1.874	2.708	13.6	20.7	11 17	0 32.88	- 4 46.8	2.003	2.749	15.9	21.2
429920	2012 <i>TQ</i> ₂₀₀		10 10.4	291°87'	1°0'/9.0	15	41725	2000 <i>UK</i> ₈₆		10 10.4	202°76'	1°1'/9.5	18
9 8	1 20.73	+ 4 50.3	3.024	3.892	8.6	21.7	9 8	1 28.57	+ 7 33.6	1.692	2.563	13.9	19.4
9 18	1 16.55	+ 4 13.8	2.934	3.873	6.1	21.6	9 18	1 22.89	+ 6 35.2	1.621	2.560	10.1	19.1
9 28	1 11.23	+ 3 31.8	2.871	3.853	3.4	21.4	9 28	1 15.10	+ 5 23.8	1.573	2.556	5.6	18.9
10 8	1 5.22	+ 2 47.4	2.836	3.834	1.0	21.1	10 8	1 6.01	+ 4 5.5	1.553	2.551	1.3	18.6
10 18	0 59.01	+ 2 4.0	2.832	3.814	2.9	21.3	10 18	0 56.67	+ 2 48.0	1.561	2.546	4.3	18.8
10 28	0 53.19	+ 1 25.6	2.856	3.795	5.7	21.4	10 28	0 48.22	+ 1 39.5	1.597	2.540	8.9	19.0
11 7	0 48.27	+ 0 55.2	2.909	3.775	8.3	21.6	11 7	0 41.60	+ 0 46.7	1.657	2.534	13.0	19.3
11 17	0 44.65	+ 0 35.1	2.985	3.755	10.6	21.7	11 17	0 37.40	+ 0 13.1	1.740	2.526	16.4	19.5
177358	2004 <i>AA</i> ₁₀		10 10.4	180°29'	0°9'/9.6	17	345026	2005 <i>EQ</i> ₉₇		10 10.4	323°99'	2°2'/12.1	18
9 8	1 29.56	+ 6 47.4	1.870	2.737	13.0	21.5	9 8	1 22.15	+ 14 6.1	1.278	2.156	17.1	19.5
9 18	1 23.39	+ 6 7.4	1.802	2.739	9.4	21.3	9 18	1 19.13	+ 13 47.5	1.186	2.124	13.1	19.2
9 28	1 15.28	+ 5 17.4	1.758	2.740	5.3	21.0	9 28	1 13.42	+ 13 5.6	1.114	2.091	8.3	18.8
10 8	1 6.02	+ 4 22.3	1.742	2.740	1.2	20.8	10 8	1 5.76	+ 12 2.7	1.065	2.060	3.3	18.4
10 18	0 56.58	+ 3 27.9	1.754	2.739	3.9	21.0	10 18	0 57.31	+ 10 45.0	1.039	2.030	4.2	18.4
10 28	0 47.98	+ 2 40.8	1.795	2.738	8.1	21.2	10 28	0 49.60	+ 9 22.9	1.038	2.000	9.8	18.6
11 7	0 41.10	+ 2 5.9	1.862	2.737	11.8	21.5	11 7	0 44.02	+ 8 8.3	1.059	1.972	15.3	18.8
11 17	0 36.47	+ 1 46.2	1.951	2.734	15.0	21.7	11 17	0 41.50	+ 7 10.7	1.098	1.946	20.1	19.1
320186	2007 <i>GO</i> ₄₅		10 10.4	215°55'	0°2'/10.6	18	103094	1999 <i>XA</i> ₁₆₇		10 10.4	294°16'	4°5'/7.0	18
9 8	1 22.74	+ 10 29.6	2.354	3.212	11.0	20.7	9 8	1 29.88	- 3 50.4	1.690	2.576	13.2	18.5
9 18	1 18.19	+ 9 42.3	2.279	3.210	8.0	20.5	9 18	1 24.00	- 4 21.6	1.610	2.555	9.7	18.2
9 28	1 12.22	+ 8 43.9	2.230	3.209	4.6	20.3	9 28	1 15.84	- 4 53.1	1.554	2.533	6.2	18.0
10 8	1 5.41	+ 7 38.3	2.209	3.207	1.0	20.0	10 8	1 6.19	- 5 18.5	1.524	2.511	4.6	17.8
10 18	0 58.45	+ 6 30.5	2.217	3.205	2.7	20.1	10 18	0 56.10	- 5 31.8	1.521	2.489	6.9	17.9
10 28	0 52.09	+ 5 26.1	2.254	3.203	6.3	20.4	10 28	0 46.79	- 5 28.2	1.545	2.468	10.8	18.1
11 7	0 46.96	+ 4 30.4	2.318	3.201	9.5	20.6	11 7	0 39.29	- 5 5.5	1.592	2.446	14.6	18.3
11 17	0 43.52	+ 3 47.0	2.407	3.199	12.2	20.8	11 17	0 34.32	- 4 23.8	1.659	2.424	18.0	18.5
156247	2001 <i>UM</i> ₁₇₉		10 10.4	308°57'	2°2'/12.4	18	178845	2001 <i>HX</i> ₆₆		10 10.4	135°50'	1°5'/11.8	

EPHEMERIDES

10 10.4

10 10.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
97811	2000 <i>OH</i> ₃₃	10 10.4 106°80		4°5/14.2 18			480500	2015 <i>LZ</i> ₃₅	10 10.4 147°74		5°4/ 4.5 18		
9 8	1 30.75	+20 20.2	1.432	2.268	18.0	19.6	9 8	1 26.18	- 6 22.7	2.039	2.925	11.3	21.4
9 18	1 24.73	+20 8.8	1.374	2.281	14.0	19.4	9 18	1 20.75	- 7 50.3	1.991	2.932	8.4	21.2
9 28	1 16.21	+19 31.9	1.336	2.294	9.6	19.2	9 28	1 13.70	- 9 16.1	1.969	2.939	6.0	21.1
10 8	1 6.24	+18 31.5	1.322	2.307	5.6	19.0	10 8	1 5.76	-10 32.6	1.975	2.946	5.6	21.1
10 18	0 56.14	+17 13.6	1.335	2.319	4.9	19.0	10 18	0 57.75	-11 33.2	2.008	2.952	7.5	21.2
10 28	0 47.28	+15 48.2	1.374	2.332	8.4	19.2	10 28	0 50.54	-12 13.3	2.069	2.958	10.3	21.4
11 7	0 40.74	+14 25.9	1.437	2.343	12.6	19.5	11 7	0 44.83	-12 31.0	2.153	2.963	13.0	21.6
11 17	0 37.09	+13 15.6	1.523	2.355	16.2	19.7	11 17	0 41.07	-12 27.1	2.257	2.968	15.2	21.8
233346	2006 <i>DL</i> ₂₈	10 10.4 318°94		1°6/ 9.1 18			300601	2007 <i>TO</i> ₄₃₂	10 10.4 197°00		0°8/ 9.7 18		
9 8	1 25.91	+ 5 37.6	1.571	2.455	14.1	20.3	9 8	1 25.98	+ 7 10.6	1.950	2.820	12.4	21.2
9 18	1 21.08	+ 4 51.0	1.505	2.450	10.2	20.1	9 18	1 20.78	+ 6 28.2	1.881	2.819	9.0	21.0
9 28	1 14.12	+ 3 53.5	1.461	2.446	5.7	19.8	9 28	1 13.82	+ 5 35.8	1.836	2.818	5.0	20.8
10 8	1 5.84	+ 2 51.5	1.444	2.441	1.7	19.5	10 8	1 5.80	+ 4 38.1	1.818	2.817	1.1	20.5
10 18	0 57.31	+ 1 52.1	1.453	2.437	4.7	19.7	10 18	0 57.60	+ 3 40.9	1.829	2.815	3.6	20.7
10 28	0 49.68	+ 1 3.1	1.488	2.433	9.3	20.0	10 28	0 50.15	+ 2 50.5	1.868	2.813	7.7	21.0
11 7	0 43.91	+ 0 30.1	1.548	2.429	13.4	20.3	11 7	0 44.25	+ 2 11.8	1.933	2.811	11.3	21.2
11 17	0 40.59	+ 0 16.0	1.628	2.426	16.9	20.5	11 17	0 40.40	+ 1 48.1	2.021	2.809	14.4	21.4
143898	2003 <i>YG</i> ₅₆	10 10.4 206°30		3°2/13.2 17			137160	1999 <i>FF</i> ₃₂	10 10.4 249°57		0°2/10.6 18		
9 8	1 28.20	+17 40.7	1.577	2.421	16.2	19.9	9 8	1 29.14	+ 8 1.7	2.326	3.180	11.3	20.1
9 18	1 22.85	+17 19.8	1.504	2.419	12.5	19.6	9 18	1 22.97	+ 7 55.3	2.235	3.164	8.3	19.9
9 28	1 15.19	+16 36.8	1.452	2.417	8.2	19.4	9 28	1 15.08	+ 7 41.0	2.168	3.146	4.8	19.7
10 8	1 6.07	+15 34.3	1.425	2.415	4.2	19.2	10 8	1 6.07	+ 7 21.1	2.131	3.129	1.0	19.4
10 18	0 56.64	+14 17.8	1.424	2.412	4.0	19.1	10 18	0 56.73	+ 6 58.7	2.123	3.111	2.9	19.5
10 28	0 48.17	+12 56.3	1.451	2.409	8.1	19.4	10 28	0 47.92	+ 6 38.1	2.145	3.092	6.7	19.7
11 7	0 41.71	+11 39.4	1.503	2.406	12.3	19.6	11 7	0 40.46	+ 6 23.1	2.194	3.073	10.1	19.9
11 17	0 37.91	+10 35.0	1.578	2.403	16.1	19.9	11 17	0 34.90	+ 6 16.8	2.267	3.053	13.1	20.1
422103	2014 <i>QZ</i> ₄₀₆	10 10.4		3°85 1°8/ 8.6 18			263681	2008 <i>GG</i> ₁₃₀	10 10.4 108°94		1°9/ 8.6 18		
9 8	1 24.04	+ 3 19.1	1.998	2.879	11.7	20.8	9 8	1 28.32	+ 1 27.2	2.198	3.070	11.1	20.5
9 18	1 19.31	+ 2 41.6	1.934	2.879	8.4	20.6	9 18	1 22.20	+ 1 9.4	2.138	3.078	8.0	20.4
9 28	1 12.94	+ 1 58.0	1.895	2.879	4.7	20.4	9 28	1 14.51	+ 0 48.3	2.104	3.086	4.5	20.2
10 8	1 5.60	+ 1 13.4	1.883	2.879	1.9	20.2	10 8	1 5.93	+ 0 27.9	2.099	3.094	2.0	20.0
10 18	0 58.12	+ 0 32.8	1.899	2.880	4.2	20.4	10 18	0 57.27	+ 0 11.9	2.122	3.102	4.1	20.2
10 28	0 51.36	+ 0 1.4	1.943	2.881	7.9	20.6	10 28	0 49.37	+ 0 3.9	2.174	3.109	7.4	20.4
11 7	0 46.05	- 0 17.2	2.011	2.883	11.2	20.8	11 7	0 42.92	+ 0 6.3	2.253	3.117	10.5	20.6
11 17	0 42.68	- 0 21.0	2.102	2.885	14.1	21.0	11 17	0 38.37	+ 0 20.3	2.355	3.124	13.2	20.8
421825	2014 <i>QC</i> ₉₄	10 10.4 47°98		0°8/ 9.5 18			421644	2014 <i>OW</i> ₃₃₂	10 10.4 61°81		4°1/14.4 18		
9 8	1 22.50	+ 7 54.7	2.036	2.908	11.9	20.7	9 8	1 27.64	+19 48.5	2.050	2.870	13.9	21.2
9 18	1 18.14	+ 6 53.5	1.976	2.916	8.5	20.5	9 18	1 21.99	+20 4.4	1.981	2.878	10.9	21.1
9 28	1 12.24	+ 5 42.1	1.941	2.924	4.7	20.3	9 28	1 14.52	+20 3.3	1.935	2.886	7.7	20.9
10 8	1 5.46	+ 4 25.7	1.934	2.932	1.0	20.0	10 8	1 5.96	+19 45.6	1.915	2.894	4.8	20.7
10 18	0 58.60	+ 3 10.9	1.955	2.940	3.5	20.2	10 18	0 57.19	+19 14.1	1.923	2.903	4.4	20.7
10 28	0 52.46	+ 2 4.1	2.005	2.949	7.3	20.5	10 28	0 49.22	+18 33.7	1.958	2.911	6.7	20.9
11 7	0 47.72	+ 1 10.4	2.080	2.958	10.7	20.7	11 7	0 42.84	+17 50.6	2.021	2.920	9.8	21.1
11 17	0 44.83	+ 0 33.0	2.178	2.966	13.5	20.9	11 17	0 38.60	+17 10.7	2.107	2.929	12.7	21.3
114299	2002 <i>XL</i> ₃₇	10 10.4 24°73		6°8/ 6.4 18			445933	2013 <i>AJ</i> ₁₅	10 10.4 240°38		2°4/13.1 18		
9 8	1 29.84	- 6 24.5	1.138	2.043	16.7	18.8	9 8	1 25.02	+17 44.9	2.040	2.874	13.4	21.4
9 18	1 24.25	- 7 7.3	1.099	2.051	12.3	18.6	9 18	1 20.17	+17 0.2	1.953	2.864	10.3	21.0
9 28	1 15.97	- 7 45.5	1.080	2.059	8.3	18.4	9 28	1 13.53	+15 56.2	1.889	2.854	6.7	21.2
10 8	1 6.21	- 8 9.7	1.085	2.068	6.9	18.4	10 8	1 5.77	+14 35.6	1.853	2.843	3.2	20.7
10 18	0 56.43	- 8 12.9	1.113	2.078	9.4	18.5	10 18	0 57.74	+13 4.1	1.844	2.833	3.2	20.7
10 28	0 48.13	- 7 51.3	1.164	2.088	13.4	18.8	10 28	0 50.39	+11 29.3	1.865	2.821	6.7	20.9
11 7	0 42.38	- 7 5.4	1.236	2.100	17.3	19.1	11 7	0 44.54	+ 9 59.5	1.913	2.810	10.4	21.1
11 17	0 39.69	- 5 58.7	1.325	2.112	20.6	19.4	11 17	0 40.75	+ 8 41.4	1.986	2.798	13.7	21.3
124225	2001 <i>PO</i> ₂₀	10 10.4 19°21		0°3/10.3 18			516359	2017 <i>BY</i> ₁₂₇	10 10.4 18°52		1°6/ 8.8 18		
9 8	1 32.53	+ 4 16.5	0.989	1.889	19.1	18.9	9 8	1 23.66	+ 4 57.2	1.827	2.709	12.6	20.5
9 18	1 26.58	+ 4 58.8	0.947	1.898	13.8	18.7	9 18	1 19.15	+ 4 7.5	1.767	2.712	9.0	20.3
9 28	1 17.46	+ 5 33.5	0.924	1.909	7.9	18.4	9 28	1 12.90	+ 3 9.5	1.731	2.715	5.0	20.1
10 8	1 6.52	+ 6 3.1	0.923	1.921	1.5	18.0	10 8	1 5.63	+ 2 8.8	1.722	2.719	1.7	19.9
10 18	0 55.48	+ 6 30.8	0.945	1.935	4.9	18.3	10 18	0 58.22	+ 1 11.8	1.740	2.723	4.3	20.1
10 28	0 46.13	+ 7 0.8	0.992	1.950	10.8	18.7	10 28	0 51.61	+ 0 24.8	1.785	2.727	8.2	20.3
11 7	0 39.74	+ 7 36.8	1.059	1.967	15.8	19.1	11 7	0 46.57	- 0 7.7	1.856	2.731	11.8	20.5
11 17	0 36.90	+ 8 21.0	1.145	1.985	19.9	19.4	11 17	0 43.58	- 0 23.3	1.948	2.736	14.8	20.8
347527	1999 <i>UQ</i> ₁₈	10 10.4 298°29		2°1/ 8.8 18			351779	2006 <i>GH</i> ₄₆	10 10.4 16°20		8°0/ 5.9 18		
9 8	1 27.20	+ 3 20.0	1.634	2.518	13.7	21.1	9 8	1 30.53	-10 46.0	1.244	2.143	16.0	19.3
9 18	1 22.07	+ 2 47.5	1.558	2.503	9.9	20.8	9 18	1 24.60	-11 15.2	1.205	2.149	12.2	19.1
9 28	1 14.75	+ 2 7.2	1.504	2.488	5.6	20.5	9 28	1 16.13	-11 34.1	1.186	2.156	9.0	18.9
10 8	1 6.00	+ 1 24.7	1.477	2.474	2.1	20.3	10 8	1 6.28	-11 34.7	1.191	2.164	8.1	18.9
10 18	0 56.88	+ 0 46.1	1.477	2.459	5.0	20.4	10 18	0 56.45	-11 11.7	1.220	2.174	10.1	19.1
10 28	0 48.56	+ 0 17.9	1.503	2.445	9.5	20.7	10 28	0 48.03	-10 23.3	1.272	2.184	13.6	19.3
11 7	0 42.05	+ 0 4.8	1.553	2.430	13.6	20.9	11 7	0 42.05	- 9 12.2	1.345	2.196	17.0	19.6
11 17	0 38.01	+ 0 9.1	1.624	2.416	17.2	21.1	11 17	0 39.00	- 7 42.4	1.437	2.208	20.0	19.8
115200	2003 <i>SV</i> ₁₁₀	10 10.4 298°10		1°3/11.9 18			254682	2005 <i>MW</i> ₃	10 10.4 34°45		2°8/ 5.3 18		
9 8	1 23.03	+16 45.5	1.740	2.59									

EPHEMERIDES

10 10.5

10 10.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
193531	2000 YZ ₉₁		10 10.5 293°23	4°5/14.4	18		497244	2005 EW ₃₂₇		10 10.5 163°06	12°4/17.9	17	
9 8	1 25.88	+20 35.1	1.677	2.509	15.9	19.5	9 8	1 41.30	+31 20.8	1.327	2.100	22.3	21.7
9 18	1 21.26	+20 28.3	1.590	2.494	12.6	19.2	9 18	1 33.55	+33 9.4	1.260	2.104	19.3	21.5
9 28	1 14.38	+19 58.5	1.525	2.480	8.9	19.0	9 28	1 21.95	+34 27.6	1.210	2.107	16.1	21.3
10 8	1 6.00	+19 6.4	1.484	2.466	5.4	18.8	10 8	1 7.62	+35 6.4	1.181	2.109	13.4	21.2
10 18	0 57.16	+17 56.0	1.469	2.453	4.8	18.7	10 18	0 52.37	+35 1.9	1.174	2.111	12.4	21.1
10 28	0 49.11	+16 34.9	1.481	2.439	7.9	18.8	10 28	0 38.47	+34 18.4	1.191	2.113	13.4	21.2
11 7	0 42.90	+15 12.9	1.518	2.425	11.9	19.1	11 7	0 27.75	+33 8.6	1.231	2.114	16.0	21.3
11 17	0 39.24	+13 58.7	1.577	2.412	15.6	19.3	11 17	0 21.25	+31 48.0	1.290	2.115	19.0	21.5
209874	2005 JY ₈₈		10 10.5 196°43	4°6/14.9	18		489403	2006 VB ₁₁		10 10.5 302°18	2°9/ 8.6	18	
9 8	1 29.43	+21 41.7	2.190	2.993	13.6	20.6	9 8	1 29.17	+ 2 11.0	1.330	2.222	15.6	21.6
9 18	1 23.33	+21 58.8	2.107	2.992	10.9	20.4	9 18	1 24.12	+ 1 40.7	1.247	2.196	11.4	21.3
9 28	1 15.35	+21 58.5	2.047	2.989	7.9	20.2	9 28	1 16.27	+ 1 2.1	1.186	2.170	6.6	21.0
10 8	1 6.17	+21 40.5	2.014	2.987	5.3	20.0	10 8	1 6.45	+ 0 21.5	1.149	2.145	2.9	20.7
10 18	0 56.69	+21 7.0	2.008	2.984	4.7	20.0	10 18	0 55.92	- 0 13.2	1.137	2.119	6.2	20.8
10 28	0 47.89	+20 22.4	2.031	2.981	6.8	20.1	10 28	0 46.24	- 0 34.2	1.150	2.094	11.5	21.0
11 7	0 40.65	+19 33.1	2.081	2.977	9.8	20.3	11 7	0 38.75	- 0 36.0	1.185	2.069	16.5	21.2
11 17	0 35.54	+18 45.5	2.156	2.973	12.6	20.5	11 17	0 34.34	- 0 16.3	1.239	2.044	20.8	21.4
365743	2010 WK ₂₁		10 10.5 59°75	3°3/14.2	18		410120	2007 FF ₃₁		10 10.5 209°09	0°5/ 9.9	18	
9 8	1 24.25	+19 45.4	2.068	2.893	13.6	20.5	9 8	1 22.97	+ 8 37.3	2.428	3.290	10.6	21.6
9 18	1 19.50	+19 24.5	1.999	2.901	10.6	20.3	9 18	1 18.38	+ 7 41.7	2.353	3.288	7.6	21.4
9 28	1 13.09	+18 45.2	1.953	2.909	7.2	20.1	9 28	1 12.40	+ 6 36.3	2.304	3.284	4.3	21.2
10 8	1 5.70	+17 49.7	1.933	2.917	4.2	19.9	10 8	1 5.60	+ 5 25.2	2.283	3.281	0.8	20.9
10 18	0 58.18	+16 42.3	1.941	2.926	3.7	19.9	10 18	0 58.65	+ 4 13.8	2.292	3.278	3.0	21.1
10 28	0 51.42	+15 29.5	1.978	2.934	6.4	20.1	10 28	0 52.27	+ 3 7.7	2.330	3.274	6.4	21.3
11 7	0 46.15	+14 18.5	2.041	2.943	9.6	20.3	11 7	0 47.09	+ 2 11.7	2.395	3.270	9.5	21.5
11 17	0 42.87	+13 15.2	2.128	2.952	12.5	20.5	11 17	0 43.54	+ 1 29.1	2.485	3.266	12.2	21.7
193262	2000 ST ₁₅₁		10 10.5 154°15	1°2/ 9.5	18		473472	2015 XH ₆₆		10 10.5 317°85	4°3/15.2	18	
9 8	1 28.89	+ 5 23.4	1.759	2.633	13.4	19.4	9 8	1 23.31	+22 7.7	2.078	2.893	13.9	20.9
9 18	1 23.02	+ 4 54.7	1.696	2.636	9.6	19.2	9 18	1 19.01	+21 56.5	1.992	2.883	11.1	20.7
9 28	1 15.16	+ 4 17.7	1.656	2.638	5.4	18.9	9 28	1 12.93	+21 25.0	1.927	2.874	8.0	20.5
10 8	1 6.13	+ 3 36.9	1.643	2.640	1.4	18.7	10 8	1 5.73	+20 34.4	1.888	2.865	5.2	20.3
10 18	0 56.91	+ 2 58.1	1.657	2.642	4.1	18.9	10 18	0 58.24	+19 28.0	1.876	2.856	4.4	20.2
10 28	0 48.59	+ 2 27.0	1.700	2.644	8.4	19.1	10 28	0 51.40	+18 12.0	1.891	2.847	6.7	20.4
11 7	0 42.05	+ 2 8.0	1.768	2.646	12.2	19.4	11 7	0 46.03	+16 54.0	1.934	2.839	9.9	20.5
11 17	0 37.83	+ 2 3.7	1.857	2.647	15.4	19.6	11 17	0 42.69	+15 41.3	2.000	2.830	13.0	20.7
311833	2006 VM ₂₀		10 10.5 342°96	0°6/10.9	18		257612	1999 SH ₃		10 10.5 11°42	24°5/10.7	18	
9 8	1 25.07	+10 26.4	1.757	2.625	13.7	21.1	9 8	1 29.33	+49 39.0	0.956	1.671	32.6	18.3
9 18	1 20.36	+10 2.1	1.687	2.621	10.1	20.9	9 18	1 26.82	+53 17.0	0.923	1.676	31.0	18.2
9 28	1 13.70	+ 9 24.6	1.639	2.618	5.9	20.6	9 28	1 19.10	+56 2.8	0.898	1.683	29.3	18.1
10 8	1 5.84	+ 8 37.6	1.617	2.615	1.5	20.3	10 8	1 7.18	+57 42.8	0.883	1.693	27.7	18.0
10 18	0 57.74	+ 7 46.6	1.623	2.612	3.3	20.5	10 18	0 53.61	+58 7.9	0.878	1.706	26.2	18.0
10 28	0 50.44	+ 6 58.3	1.656	2.610	7.7	20.7	10 28	0 42.11	+57 19.8	0.884	1.721	25.1	18.0
11 7	0 44.82	+ 6 18.7	1.714	2.608	11.6	21.0	11 7	0 35.63	+55 32.2	0.903	1.738	24.6	18.0
11 17	0 41.43	+ 5 52.2	1.794	2.606	15.0	21.2	11 17	0 35.37	+53 4.4	0.935	1.758	24.6	18.1
351889	2006 SA ₂₁₁		10 10.5 5°89	1°2/11.4	18		455638	2004 XO ₂₆		10 10.5 333°51	5°6/15.1	16	
9 8	1 27.33	+11 4.2	1.717	2.581	14.2	20.6	9 8	1 21.85	+21 35.2	1.547	2.386	16.7	20.9
9 18	1 22.02	+10 59.6	1.650	2.581	10.5	20.4	9 18	1 18.63	+21 50.2	1.453	2.358	13.6	20.7
9 28	1 14.66	+10 42.1	1.605	2.581	6.3	20.2	9 28	1 13.05	+21 41.5	1.379	2.332	10.0	20.4
10 8	1 6.04	+10 14.5	1.585	2.582	2.0	19.9	10 8	1 5.80	+21 8.3	1.328	2.306	6.7	20.1
10 18	0 57.19	+ 9 41.1	1.594	2.583	3.3	20.0	10 18	0 57.94	+20 12.9	1.301	2.282	5.8	20.0
10 28	0 49.20	+ 9 7.9	1.629	2.584	7.6	20.3	10 28	0 50.76	+19 1.9	1.299	2.259	8.6	20.1
11 7	0 42.99	+ 8 40.7	1.690	2.586	11.6	20.5	11 7	0 45.44	+17 45.4	1.321	2.237	12.6	20.3
11 17	0 39.15	+ 8 23.8	1.773	2.588	15.0	20.7	11 17	0 42.80	+16 33.1	1.365	2.217	16.6	20.5
313275	2001 YJ ₁₆₂		10 10.5 267°75	4°9/ 5.7	18		469854	2005 TK ₁₉₁		10 10.5 39°12	0°2/10.6	18	
9 8	1 27.14	- 6 45.4	2.096	2.979	11.2	20.6	9 8	1 26.75	+ 9 57.4	1.330	2.211	16.4	21.4
9 18	1 21.55	- 7 30.2	2.030	2.970	8.3	20.4	9 18	1 21.91	+ 9 20.1	1.277	2.219	11.9	21.2
9 28	1 14.26	- 8 12.9	1.989	2.961	5.8	20.2	9 28	1 14.69	+ 8 26.6	1.245	2.227	6.9	20.9
10 8	1 5.96	- 8 47.5	1.975	2.952	5.0	20.1	10 8	1 6.08	+ 7 22.9	1.238	2.236	1.4	20.6
10 18	0 57.47	- 9 9.2	1.989	2.942	6.8	20.2	10 18	0 57.32	+ 6 17.1	1.256	2.245	4.1	20.8
10 28	0 49.68	- 9 14.0	2.030	2.933	9.7	20.4	10 28	0 49.74	+ 5 18.2	1.300	2.255	9.2	21.1
11 7	0 43.36	- 9 0.7	2.095	2.924	12.6	20.6	11 7	0 44.34	+ 4 33.6	1.367	2.265	13.7	21.4
11 17	0 39.02	- 8 29.6	2.181	2.914	15.1	20.8	11 17	0 41.67	+ 4 7.6	1.455	2.275	17.4	21.7
62980	2000 VT ₅₃		10 10.5 86°17	2°3/12.4	18		476644	2008 SN ₂₆₄		10 10.5 339°51	0°3/10.2	16	
9 8	1 28.88	+14 40.9	1.672	2.523	15.1	19.1	9 8	1 14.36	+13 7.9	1.039	1.942	18.1	20.9
9 18	1 23.10	+14 30.5	1.613	2.534	11.4	18.9	9 18	1 13.63	+11 33.1	0.963	1.917	13.4	20.5
9 28	1 15.23	+14 3.1	1.576	2.546	7.2	18.6	9 28	1 10.32	+ 9 23.8	0.907	1.893	7.8	20.1
10 8	1 6.15	+13 21.6	1.564	2.557	3.1	18.4	10 8	1 5.26	+ 6 48.7	0.873	1.871	1.5	19.7
10 18	0 56.95	+12 31.1	1.580	2.569	3.5	18.5	10 18	0 59.66	+ 4 3.6	0.862	1.852	5.2	19.8
10 28	0 48.75	+11 38.5	1.624	2.580	7.5	18.8	10 28	0 55.04	+ 1 28.3	0.874	1.834	11.6	20.1
11 7	0 42.46	+10 51.0	1.693	2.592	11.4	19.0	11 7	0 52.64	- 0 39.9	0.908	1.819	17.4	20.4
11 17	0 38.62	+10 14.0	1.784	2.603	14.8	19.3	11 17	0 53.26	- 2 10.7	0.958	1.806	22.3	20.7
485745	2012 BM ₉₈		10 10.5 294°01	3°2/ 7.4	17		476013	2007 RA ₁₃₁		10 10.5 304°75	1°0/11.2	18	
9 8	1 24.94	+ 0 31.5	1.933	2.817									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
77220	2001 <i>FA</i> ₂₈		10 10.5 171°12	0°3/10.8 18			299695	2006 <i>QB</i> ₁₃₇		10 10.5 77°32	1°9/12.4 18		
9 8	1 29.51	+ 8 53.3	2.088	2.944	12.3	19.9	9 8	1 26.77	+14 45.5	1.827	2.676	14.1	20.4
9 18	1 23.27	+ 8 42.3	2.017	2.947	9.0	19.7	9 18	1 21.42	+14 20.9	1.769	2.690	10.6	20.3
9 28	1 15.26	+ 8 21.8	1.971	2.949	5.2	19.5	9 28	1 14.23	+13 40.1	1.734	2.705	6.6	20.1
10 8	1 6.20	+ 7 54.7	1.953	2.950	1.2	19.2	10 8	1 6.01	+12 46.7	1.725	2.719	2.7	19.8
10 18	0 56.94	+ 7 24.9	1.963	2.952	3.0	19.3	10 18	0 57.71	+11 45.8	1.745	2.734	3.1	19.9
10 28	0 48.44	+ 6 57.1	2.003	2.953	6.9	19.6	10 28	0 50.31	+10 44.6	1.792	2.748	7.0	20.2
11 7	0 41.49	+ 6 35.9	2.070	2.953	10.4	19.8	11 7	0 44.63	+ 9 49.6	1.865	2.762	10.6	20.4
11 17	0 36.60	+ 6 24.3	2.161	2.953	13.4	20.0	11 17	0 41.13	+ 9 5.8	1.962	2.777	13.8	20.7
146111	2000 <i>QV</i> ₁₆₀		10 10.5 353°57	0°6/ 9.9 18			302784	2002 <i>XV</i> ₃₆		10 10.5 350°70	5°3/15.3 18		
9 8	1 18.99	+ 9 57.8	1.340	2.232	15.6	18.6	9 8	1 26.12	+22 19.3	1.717	2.539	16.0	20.0
9 18	1 16.41	+ 8 49.9	1.276	2.224	11.3	18.4	9 18	1 21.35	+22 30.9	1.642	2.536	12.9	19.8
9 28	1 11.63	+ 7 23.0	1.233	2.218	6.4	18.1	9 28	1 14.41	+22 20.2	1.588	2.534	9.4	19.5
10 8	1 5.49	+ 5 44.7	1.214	2.212	1.2	17.7	10 8	1 6.08	+21 47.1	1.557	2.532	6.3	19.4
10 18	0 59.08	+ 4 5.2	1.220	2.208	4.4	17.9	10 18	0 57.42	+20 54.8	1.552	2.531	5.5	19.3
10 28	0 53.59	+ 2 35.7	1.252	2.206	9.5	18.2	10 28	0 49.61	+19 49.8	1.574	2.530	7.9	19.5
11 7	0 50.00	+ 1 25.4	1.306	2.205	14.1	18.5	11 7	0 43.64	+18 40.9	1.622	2.529	11.3	19.7
11 17	0 48.90	+ 0 39.1	1.380	2.205	18.0	18.8	11 17	0 40.16	+17 36.4	1.691	2.529	14.6	19.9
1024	Hale		10 10.5 2°32	9°5/ 4.9 18			33778	1999 <i>RO</i> ₁₆₀		10 10.5 119°03	0°4/10.8 18		
9 8	1 30.47	-15 24.0	1.344	2.235	15.6	13.9	9 8	1 27.88	+ 8 53.3	2.201	3.058	11.7	18.0
9 18	1 24.55	-15 53.8	1.300	2.234	12.5	13.8	9 18	1 22.01	+ 8 47.0	2.134	3.063	8.6	17.8
9 28	1 16.16	-16 8.7	1.276	2.233	10.1	13.6	9 28	1 14.52	+ 8 32.0	2.091	3.068	5.0	17.6
10 8	1 6.38	-16 0.6	1.276	2.234	9.7	13.6	10 8	1 6.08	+ 8 10.8	2.075	3.073	1.2	17.3
10 18	0 56.55	-15 24.6	1.300	2.236	11.5	13.7	10 18	0 57.48	+ 7 47.1	2.090	3.078	2.8	17.4
10 28	0 48.03	-14 19.9	1.346	2.240	14.4	13.9	10 28	0 49.60	+ 7 24.9	2.133	3.083	6.5	17.7
11 7	0 41.85	-12 50.2	1.414	2.244	17.5	14.1	11 7	0 43.15	+ 7 8.3	2.203	3.088	9.8	17.9
11 17	0 38.52	-11 0.8	1.500	2.250	20.2	14.3	11 17	0 38.62	+ 7 0.2	2.297	3.092	12.7	18.1
316878	2000 <i>RF</i> ₉₁		10 10.5 187°66	11°0/17.1 17			233918	2009 <i>SU</i> ₁₄₆		10 10.5 326°37	1°2/ 8.4 18		
9 8	1 39.60	+29 1.6	1.349	2.136	21.4	20.1	9 8	1 19.06	+ 1 49.4	3.949	4.819	6.7	20.4
9 18	1 32.18	+30 36.9	1.278	2.136	18.2	19.9	9 18	1 15.15	+ 1 26.0	3.876	4.815	4.7	20.3
9 28	1 21.12	+31 43.8	1.225	2.135	14.9	19.7	9 28	1 10.43	+ 1 0.4	3.830	4.811	2.7	20.1
10 8	1 7.48	+32 14.8	1.194	2.135	12.1	19.6	10 8	1 5.25	+ 0 34.8	3.813	4.808	1.2	20.0
10 18	0 52.97	+32 6.6	1.186	2.134	11.1	19.5	10 18	0 59.97	+ 0 11.5	3.826	4.804	2.5	20.1
10 28	0 39.70	+31 24.1	1.201	2.132	12.5	19.6	10 28	0 55.02	- 0 7.1	3.869	4.801	4.6	20.2
11 7	0 29.40	+30 19.2	1.240	2.130	15.4	19.8	11 7	0 50.75	- 0 19.2	3.941	4.798	6.6	20.4
11 17	0 23.09	+29 5.8	1.299	2.128	18.7	20.0	11 17	0 47.46	- 0 23.7	4.037	4.794	8.3	20.5
450721	2007 <i>EV</i> ₈		10 10.5 303°13	2°2/ 7.9 18			169720	2002 <i>NQ</i> ₈		10 10.5 49°44	4°3/ 6.7 18		
9 8	1 22.61	+ 3 50.9	2.004	2.886	11.6	20.8	9 8	1 25.65	- 0 44.8	1.519	2.415	13.9	20.0
9 18	1 18.40	+ 2 41.4	1.931	2.877	8.3	20.6	9 18	1 20.77	- 1 59.2	1.477	2.428	9.9	19.8
9 28	1 12.54	+ 1 23.5	1.884	2.867	4.7	20.4	9 28	1 13.90	- 3 16.6	1.459	2.441	6.0	19.6
10 8	1 5.67	+ 0 3.3	1.863	2.858	2.2	20.2	10 8	1 5.95	- 4 28.5	1.466	2.455	4.3	19.6
10 18	0 58.59	- 1 12.3	1.871	2.849	4.7	20.3	10 18	0 57.98	- 5 26.9	1.500	2.469	6.9	19.8
10 28	0 52.16	- 2 16.4	1.907	2.841	8.4	20.5	10 28	0 51.07	- 6 5.6	1.559	2.484	10.6	20.0
11 7	0 47.12	- 3 4.0	1.968	2.832	11.8	20.7	11 7	0 46.04	- 6 21.8	1.641	2.498	14.1	20.3
11 17	0 43.99	- 3 32.8	2.051	2.823	14.7	20.9	11 17	0 43.35	- 6 15.7	1.743	2.513	17.0	20.5
268911	2007 <i>CO</i> ₁₃		10 10.5 227°50	1°3/11.6 18			469494	2002 <i>XS</i> ₄₀		10 10.5 199°49	11°3/ 3.5 16		
9 8	1 28.71	+12 37.3	1.752	2.607	14.3	21.2	9 8	1 45.19	-11 44.0	1.121	2.003	18.7	22.8
9 18	1 23.10	+12 14.1	1.674	2.600	10.7	21.0	9 18	1 36.01	-13 53.4	1.068	2.000	14.8	22.6
9 28	1 15.35	+11 35.3	1.618	2.593	6.5	20.7	9 28	1 23.12	-15 56.0	1.037	1.995	11.8	22.4
10 8	1 6.26	+10 44.0	1.589	2.585	2.2	20.4	10 8	1 7.87	-17 34.0	1.031	1.987	11.6	22.4
10 18	0 56.83	+ 9 45.4	1.588	2.577	3.3	20.5	10 18	0 52.23	-18 33.0	1.049	1.977	14.5	22.5
10 28	0 48.21	+ 8 46.9	1.615	2.569	7.8	20.7	10 28	0 38.31	-18 46.2	1.090	1.964	18.6	22.7
11 7	0 41.38	+ 7 55.6	1.667	2.560	11.9	21.0	11 7	0 27.72	-18 16.3	1.149	1.949	22.6	22.9
11 17	0 36.96	+ 7 16.8	1.742	2.551	15.5	21.2	11 17	0 21.19	-17 10.9	1.223	1.931	26.0	23.1
473572	2015 <i>XC</i> ₂₂₃		10 10.5 332°53	2°6/13.4 18			120980	1998 <i>XY</i> ₅		10 10.5 26°87	0°3/10.3 18		
9 8	1 23.13	+17 40.2	2.128	2.963	12.9	20.7	9 8	1 25.89	+ 9 14.2	0.913	1.817	19.8	19.0
9 18	1 18.75	+17 14.7	2.049	2.959	9.9	20.5	9 18	1 21.94	+ 8 35.7	0.873	1.827	14.4	18.7
9 28	1 12.73	+16 32.3	1.993	2.956	6.6	20.2	9 28	1 14.95	+ 7 37.5	0.851	1.837	8.2	18.4
10 8	1 5.72	+15 35.3	1.963	2.952	3.4	20.0	10 8	1 6.19	+ 6 28.0	0.850	1.849	1.6	18.1
10 18	0 58.49	+14 28.0	1.962	2.949	3.2	20.0	10 18	0 57.33	+ 5 18.4	0.871	1.861	5.1	18.4
10 28	0 51.91	+13 16.9	1.989	2.946	6.3	20.2	10 28	0 50.09	+ 4 20.6	0.915	1.875	11.2	18.8
11 7	0 46.73	+12 8.5	2.043	2.943	9.7	20.4	11 7	0 45.65	+ 3 43.1	0.979	1.890	16.5	19.1
11 17	0 43.46	+11 8.8	2.121	2.941	12.7	20.6	11 17	0 44.54	+ 3 29.4	1.061	1.906	20.8	19.5
465004	2006 <i>EE</i> ₄₉		10 10.5 115°29	1°3/11.3 17			27586	2000 <i>XH</i> ₃₄		10 10.5 1°83	9°0/16.1 18		
9 8	1 34.25	+10 44.4	1.390	2.255	16.8	21.8	9 8	1 29.58	+24 0.8	1.253	2.085	20.3	17.5
9 18	1 27.34	+10 47.0	1.333	2.265	12.4	21.5	9 18	1 24.67	+25 24.5	1.189	2.083	16.8	17.3
9 28	1 17.82	+10 34.7	1.298	2.275	7.4	21.3	9 28	1 16.68	+26 22.4	1.143	2.082	13.1	17.0
10 8	1 6.74	+10 10.6	1.287	2.284	2.3	21.0	10 8	1 6.60	+26 50.0	1.119	2.082	10.0	16.9
10 18	0 55.49	+ 9 39.7	1.304	2.293	3.9	21.1	10 18	0 55.91	+26 46.3	1.117	2.084	9.0	16.8
10 28	0 45.51	+ 9 9.1	1.347	2.302	8.9	21.5	10 28	0 46.38	+26 16.8	1.138	2.086	11.0	17.0
11 7	0 37.92	+ 8 45.4	1.414	2.310	13.5	21.7	11 7	0 39.46	+25 31.9	1.181	2.091	14.4	17.2
11 17	0 33.33	+ 8 33.5	1.503	2.318	17.2	22.0	11 17	0 36.00	+24 42.7	1.244	2.096	17.9	17.4
407640	2011 <i>EM</i>		10 10.5 280°78	1°0/11.3 17			435501	2008 <i>GB</i> ₁₁₁		10 10.5 183°84	11°0/28.9 15		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
75103	1999 VL ₄₉		10 10.5 110°83	1°0/11.3 18			73132	2002 GK ₇₄		10 10.5 38°30	4°6/14.1 18		
9 8	1 30.36	+11 9.1	1.490	2.356	15.8	18.5	9 8	1 26.79	+19 37.9	1.133	1.993	20.1	18.7
9 18	1 24.42	+10 53.0	1.429	2.362	11.7	18.3	9 18	1 22.36	+19 25.2	1.083	2.005	15.6	18.4
9 28	1 16.13	+10 21.6	1.390	2.368	6.9	18.0	9 28	1 15.13	+18 42.9	1.051	2.016	10.6	18.2
10 8	1 6.43	+9 38.6	1.377	2.374	2.0	17.7	10 8	1 6.25	+17 34.1	1.041	2.029	5.9	18.0
10 18	0 56.53	+8 50.1	1.390	2.380	3.7	17.8	10 18	0 57.22	+16 6.8	1.055	2.042	5.2	18.0
10 28	0 47.72	+8 3.5	1.430	2.385	8.5	18.1	10 28	0 49.60	+14 33.3	1.093	2.056	9.3	18.3
11 7	0 41.03	+7 25.9	1.495	2.390	12.9	18.4	11 7	0 44.54	+13 6.4	1.153	2.070	14.0	18.6
11 17	0 37.06	+7 2.0	1.581	2.396	16.5	18.7	11 17	0 42.62	+11 55.6	1.234	2.085	18.0	18.9
144138	2004 BB ₉₁		10 10.5 244°17	5°6/15.7 18			2641	Lipschutz		10 10.5 184°66	1°0/ 9.7 18		
9 8	1 29.03	+23 53.5	2.065	2.862	14.6	20.2	9 8	1 31.86	+ 5 13.7	1.829	2.696	13.3	16.9
9 18	1 23.26	+24 19.6	1.980	2.856	11.9	20.0	9 18	1 25.19	+ 4 54.6	1.760	2.697	9.6	16.7
9 28	1 15.45	+24 26.1	1.917	2.850	9.0	19.8	9 28	1 16.47	+ 4 27.8	1.715	2.697	5.4	16.5
10 8	1 6.32	+24 12.4	1.878	2.843	6.4	19.6	10 8	1 6.52	+ 3 57.3	1.698	2.696	1.3	16.2
10 18	0 56.79	+23 39.6	1.867	2.837	5.7	19.6	10 18	0 56.34	+ 3 28.1	1.710	2.695	3.9	16.4
10 28	0 47.96	+22 52.6	1.883	2.830	7.5	19.7	10 28	0 47.05	+ 3 5.4	1.749	2.693	8.2	16.6
11 7	0 40.76	+21 58.1	1.926	2.823	10.4	19.8	11 7	0 39.54	+ 2 53.3	1.815	2.691	12.1	16.9
11 17	0 35.84	+21 3.5	1.993	2.816	13.3	20.0	11 17	0 34.40	+ 2 54.3	1.903	2.688	15.3	17.1
403477	2009 UK ₅		10 10.5 85°44	3°1/13.4 18			469842	2005 TC ₄₃		10 10.5 15°23	0°3/10.3 18		
9 8	1 28.89	+16 41.9	2.277	3.103	12.5	20.3	9 8	1 25.41	+ 7 44.6	1.006	1.909	18.6	19.8
9 18	1 22.82	+17 3.8	2.202	3.106	9.6	20.1	9 18	1 21.48	+ 7 30.5	0.961	1.914	13.5	19.5
9 28	1 15.04	+17 12.6	2.151	3.109	6.5	19.9	9 28	1 14.67	+ 7 1.2	0.935	1.921	7.7	19.2
10 8	1 6.21	+17 8.9	2.127	3.112	3.7	19.8	10 8	1 6.17	+ 6 22.8	0.931	1.930	1.5	18.9
10 18	0 57.15	+16 54.6	2.132	3.116	3.5	19.8	10 18	0 57.49	+ 5 43.6	0.950	1.940	4.8	19.1
10 28	0 48.76	+16 33.5	2.166	3.119	6.2	19.9	10 28	0 50.25	+ 5 12.5	0.992	1.952	10.6	19.5
11 7	0 41.80	+16 10.4	2.227	3.122	9.3	20.1	11 7	0 45.63	+ 4 56.4	1.055	1.965	15.6	19.8
11 17	0 36.82	+15 50.0	2.313	3.125	12.1	20.3	11 17	0 44.18	+ 4 58.7	1.135	1.979	19.8	20.2
155177	2005 UR ₂₇₂		10 10.5 289°43	0°9/ 9.5 18			387934	2005 CV ₃₇		10 10.5 162°62	4°7/ 4.9 18		
9 8	1 24.41	+ 6 28.1	2.057	2.929	11.8	20.5	9 8	1 25.97	- 5 38.1	2.314	3.195	10.3	21.8
9 18	1 19.73	+ 5 48.9	1.976	2.916	8.5	20.3	9 18	1 20.52	- 6 58.5	2.261	3.201	7.6	21.6
9 28	1 13.34	+ 5 0.4	1.921	2.903	4.8	20.0	9 28	1 13.63	- 8 18.1	2.235	3.206	5.3	21.5
10 8	1 5.88	+ 4 7.0	1.892	2.890	1.1	19.8	10 8	1 5.93	- 9 30.3	2.237	3.211	4.8	21.5
10 18	0 58.15	+ 3 14.0	1.892	2.877	3.6	19.9	10 18	0 58.14	-10 29.3	2.268	3.215	6.6	21.6
10 28	0 51.04	+ 2 27.2	1.919	2.864	7.5	20.1	10 28	0 51.03	-11 10.8	2.327	3.218	9.2	21.8
11 7	0 45.33	+ 1 51.7	1.973	2.851	11.1	20.3	11 7	0 45.25	-11 32.8	2.410	3.221	11.7	22.0
11 17	0 41.56	+ 1 30.5	2.049	2.838	14.2	20.5	11 17	0 41.23	-11 35.4	2.515	3.224	13.9	22.1
494411	2016 UV ₆₉		10 10.5 40°39	5°0/ 7.8 18 R			523652	2011 LZ ₂₈		10 10.5 352°28	0°4/15.9 17		
9 8	1 34.78	- 5 36.4	1.400	2.287	15.3	20.4	9 8	1 7.22	+21 0.4	28.773	29.553	1.3	21.9
9 18	1 27.49	- 5 40.5	1.355	2.299	11.2	20.2	9 18	1 6.31	+20 58.0	28.677	29.545	1.0	21.9
9 28	1 17.77	- 5 40.4	1.333	2.311	7.1	20.0	9 28	1 5.30	+20 54.3	28.607	29.538	0.7	21.9
10 8	1 6.75	- 5 30.4	1.336	2.323	5.0	19.9	10 8	1 4.24	+20 49.5	28.564	29.530	0.5	21.8
10 18	0 55.74	- 5 6.6	1.366	2.336	7.3	20.0	10 18	1 3.17	+20 43.7	28.551	29.522	0.4	21.8
10 28	0 46.11	- 4 26.7	1.421	2.349	11.1	20.3	10 28	1 2.13	+20 37.2	28.567	29.515	0.6	21.8
11 7	0 38.85	- 3 31.3	1.500	2.363	14.9	20.6	11 7	1 1.17	+20 30.3	28.613	29.507	0.8	21.9
11 17	0 34.46	- 2 22.4	1.600	2.377	18.0	20.8	11 17	1 0.32	+20 23.2	28.685	29.499	1.1	21.9
475414	2006 KZ ₁₅		10 10.5 80°20	4°5/ 6.5 18			487158	2014 OP ₂₃₉		10 10.5 22°96	1°6/ 9.0 18		
9 8	1 29.50	- 3 36.3	1.776	2.661	12.7	21.1	9 8	1 24.54	+ 4 33.7	1.866	2.746	12.4	21.2
9 18	1 23.16	- 4 36.2	1.744	2.688	9.2	21.0	9 18	1 19.81	+ 3 55.4	1.806	2.750	8.9	21.0
9 28	1 15.10	- 5 35.0	1.737	2.714	5.9	20.8	9 28	1 13.34	+ 3 9.7	1.771	2.755	5.0	20.8
10 8	1 6.19	- 6 25.8	1.757	2.741	4.6	20.8	10 8	1 5.88	+ 2 21.7	1.763	2.760	1.6	20.5
10 18	0 57.40	- 7 2.8	1.804	2.767	6.6	21.0	10 18	0 58.29	+ 1 37.1	1.782	2.765	4.1	20.7
10 28	0 49.69	- 7 22.0	1.879	2.792	9.8	21.2	10 28	0 51.49	+ 1 1.5	1.828	2.771	8.0	21.0
11 7	0 43.76	- 7 22.2	1.977	2.817	12.8	21.5	11 7	0 46.24	+ 0 38.9	1.900	2.777	11.5	21.2
11 17	0 40.03	- 7 4.2	2.097	2.842	15.3	21.7	11 17	0 43.04	+ 0 31.6	1.993	2.783	14.5	21.4
95600	2002 FK ₂₇		10 10.5 19°93	3°2/ 7.6 18 R			437991	2003 TZ ₄₇		10 10.5 233°23	1°0/11.5 18		
9 8	1 27.29	- 1 32.4	2.037	2.918	11.5	19.4	9 8	1 24.82	+13 49.4	1.877	2.731	13.6	21.4
9 18	1 21.66	- 2 1.6	1.976	2.919	8.3	19.2	9 18	1 20.14	+12 50.7	1.799	2.726	10.1	21.2
9 28	1 14.36	- 2 32.2	1.940	2.920	5.0	19.0	9 28	1 13.61	+11 34.1	1.746	2.721	6.1	21.0
10 8	1 6.08	- 2 59.5	1.930	2.921	3.2	18.9	10 8	1 5.95	+10 4.5	1.719	2.716	1.8	20.7
10 18	0 57.66	- 3 18.7	1.949	2.922	5.2	19.0	10 18	0 58.07	+ 8 28.7	1.721	2.710	3.1	20.8
10 28	0 50.00	- 3 26.0	1.996	2.923	8.5	19.2	10 28	0 50.93	+ 6 55.4	1.751	2.705	7.3	21.0
11 7	0 43.85	- 3 19.3	2.069	2.924	11.7	19.4	11 7	0 45.38	+ 5 32.4	1.808	2.699	11.3	21.2
11 17	0 39.70	- 2 58.0	2.163	2.925	14.4	19.6	11 17	0 41.97	+ 4 25.7	1.888	2.693	14.6	21.5
183317	2002 VY ₂₇		10 10.5 11°89	5°2/ 7.4 18			509609	2008 ES ₁₀₂		10 10.5 271°17	2°3/ 8.8 17		
9 8	1 29.21	- 2 50.4	1.134	2.039	16.7	18.9	9 8	1 30.16	+ 3 13.0	1.460	2.345	15.0	21.7
9 18	1 23.99	- 3 23.7	1.087	2.041	12.2	18.7	9 18	1 24.50	+ 2 39.6	1.387	2.333	10.8	21.4
9 28	1 16.02	- 3 57.4	1.061	2.044	7.6	18.4	9 28	1 16.33	+ 1 57.7	1.337	2.321	6.2	21.1
10 8	1 6.43	- 4 23.1	1.058	2.048	5.2	18.3	10 8	1 6.54	+ 1 13.5	1.312	2.308	2.4	20.9
10 18	0 56.68	- 4 33.2	1.078	2.053	8.0	18.5	10 18	0 56.33	+ 0 34.0	1.313	2.296	5.4	21.0
10 28	0 48.33	- 4 22.5	1.122	2.058	12.5	18.8	10 28	0 47.05	+ 0 6.3	1.341	2.283	10.3	21.3
11 7	0 42.49	- 3 49.8	1.187	2.065	16.9	19.0	11 7	0 39.87	- 0 4.5	1.392	2.270	14.8	21.5
11 17	0 39.76	- 2 56.8	1.270	2.073	20.5	19.3	11 17	0 35.48	+ 0 3.7	1.462	2.258	18.6	21.7
41037	1999 US ₅₁		10 10.5 66°91	0°6/11.0 18			92380	2000 HS ₆₈		10 10.5 302°61	0°4/10.7 18		

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V	
507082	2009 <i>BS</i> ₁₄₂	10 10.5 164°88' 3.6"/7.7 17						104382	2000 <i>FA</i> ₃₅	10 10.5 114°80' 1.3"/9.2 18				
9 8	1 30.35	+ 1 18.8	1.450	2.338	14.9	22.2	9 8	1 27.52	+ 4 54.5	2.066	2.936	11.8	20.0	
9 18	1 24.41	+ 0 15.0	1.394	2.341	10.7	21.9	9 18	1 21.77	+ 4 19.0	2.010	2.948	8.5	19.8	
9 28	1 16.14	- 0 55.6	1.361	2.344	6.2	21.7	9 28	1 14.40	+ 3 36.7	1.978	2.960	4.7	19.6	
10 8	1 6.47	- 2 4.6	1.353	2.346	3.6	21.6	10 8	1 6.13	+ 2 52.1	1.974	2.972	1.4	19.4	
10 18	0 56.64	- 3 3.5	1.372	2.348	6.5	21.7	10 18	0 57.78	+ 2 10.3	1.999	2.983	3.7	19.6	
10 28	0 47.92	- 3 44.8	1.418	2.349	10.8	22.0	10 28	0 50.24	+ 1 36.2	2.053	2.994	7.4	19.9	
11 7	0 41.31	- 4 4.4	1.486	2.350	14.9	22.2	11 7	0 44.20	+ 1 13.5	2.133	3.004	10.7	20.1	
11 17	0 37.42	- 4 1.6	1.574	2.351	18.3	22.5	11 17	0 40.13	+ 1 4.3	2.235	3.015	13.5	20.3	
207431	2006 <i>DS</i> ₁₄₅	10 10.5 82°14' 2.6"/12.2 17						297174	2010 <i>VB</i> ₁₃₆	10 10.5 166°11' 2.5"/5.5 18				
9 8	1 33.42	+13 19.2	1.270	2.134	18.1	20.6	9 8	1 19.05	- 7 6.3	4.678	5.551	5.7	20.7	
9 18	1 26.98	+13 30.3	1.214	2.144	13.6	20.4	9 18	1 15.03	- 7 32.9	4.618	5.553	4.2	20.6	
9 28	1 17.74	+13 22.8	1.180	2.154	8.5	20.1	9 28	1 10.35	- 7 58.0	4.586	5.554	2.9	20.5	
10 8	1 6.81	+12 58.9	1.169	2.163	3.6	19.9	10 8	1 5.30	- 8 19.4	4.583	5.556	2.6	20.5	
10 18	0 55.68	+12 23.7	1.184	2.173	4.3	19.9	10 18	1 0.19	- 8 35.0	4.609	5.557	3.5	20.6	
10 28	0 45.90	+11 45.1	1.224	2.183	9.2	20.2	10 28	0 55.38	- 8 43.3	4.666	5.558	4.9	20.7	
11 7	0 38.68	+11 11.4	1.288	2.192	13.9	20.5	11 7	0 51.15	- 8 43.4	4.749	5.559	6.4	20.8	
11 17	0 34.64	+10 49.0	1.373	2.202	17.8	20.8	11 17	0 47.76	- 8 34.8	4.856	5.560	7.7	20.9	
29141	1988 <i>CZ</i> ₄	10 10.5 271°41' 0.9"/11.3 18						478782	2012 <i>US</i> ₁₃₃	10 10.5 92°02' 8.2"/18.7 18				
9 8	1 25.93	+12 48.4	1.579	2.444	15.1	19.0	9 8	1 28.93	+30 38.8	1.763	2.533	17.7	20.6	
9 18	1 21.25	+12 0.2	1.506	2.438	11.2	18.7	9 18	1 23.47	+31 2.4	1.691	2.539	15.0	20.4	
9 28	1 14.38	+10 53.2	1.454	2.432	6.7	18.4	9 28	1 15.68	+30 58.0	1.638	2.544	12.0	20.2	
10 8	1 6.14	+ 9 32.2	1.429	2.426	1.9	18.1	10 8	1 6.42	+30 23.6	1.608	2.550	9.4	20.1	
10 18	0 57.60	+ 8 4.8	1.430	2.420	3.5	18.2	10 18	0 56.87	+29 21.2	1.602	2.556	8.2	20.0	
10 28	0 49.94	+ 6 40.4	1.459	2.414	8.4	18.5	10 28	0 48.30	+27 57.2	1.622	2.561	9.1	20.1	
11 7	0 44.15	+ 5 27.8	1.512	2.408	12.8	18.8	11 7	0 41.76	+26 22.0	1.668	2.567	11.5	20.3	
11 17	0 40.86	+ 4 33.0	1.587	2.402	16.5	19.0	11 17	0 37.90	+24 45.9	1.737	2.573	14.3	20.5	
158266	2001 <i>TW</i> ₁₉₀	10 10.5 300°22' 4.3"/14.2 18						21514	Gamalski	10 10.5 40°76' 5.2"/6.5 18				
9 8	1 25.21	+20 9.8	1.511	2.353	16.9	20.1	9 8	1 26.91	- 2 34.1	1.299	2.201	15.3	17.1	
9 18	1 21.11	+19 53.6	1.419	2.330	13.4	19.8	9 18	1 21.85	- 3 43.4	1.269	2.221	11.0	16.9	
9 28	1 14.52	+19 11.4	1.347	2.307	9.4	19.5	9 28	1 14.58	- 4 52.8	1.260	2.241	6.9	16.8	
10 8	1 6.21	+18 3.8	1.299	2.285	5.4	19.2	10 8	1 6.17	- 5 53.0	1.276	2.262	5.3	16.7	
10 18	0 57.29	+16 35.5	1.276	2.262	4.8	19.1	10 18	0 57.85	- 6 35.9	1.316	2.284	7.9	16.9	
10 28	0 49.13	+14 55.8	1.279	2.240	8.6	19.3	10 28	0 50.83	- 6 56.1	1.381	2.306	11.7	17.2	
11 7	0 42.95	+13 16.5	1.307	2.218	13.2	19.5	11 7	0 45.96	- 6 52.4	1.468	2.329	15.3	17.5	
11 17	0 39.56	+11 48.4	1.356	2.196	17.4	19.7	11 17	0 43.67	- 6 26.3	1.574	2.352	18.3	17.8	
515950	2015 <i>RN</i> ₆₀	10 10.5 25°73' 0.4"/10.1 18						521437	2015 <i>NN</i> ₂₇	10 10.5 143°35' 5.5"/16.7 18				
9 8	1 24.78	+ 8 11.3	1.729	2.604	13.5	21.1	9 8	1 27.53	+26 16.0	2.097	2.882	14.8	21.4	
9 18	1 20.12	+ 7 33.4	1.668	2.609	9.8	20.9	9 18	1 22.04	+26 10.7	2.022	2.889	12.1	21.3	
9 28	1 13.59	+ 6 44.0	1.631	2.613	5.5	20.7	9 28	1 14.69	+25 42.9	1.968	2.895	9.1	21.1	
10 8	1 5.96	+ 5 48.2	1.620	2.619	1.1	20.4	10 8	1 6.22	+24 52.8	1.938	2.901	6.5	20.9	
10 18	0 58.18	+ 4 52.2	1.637	2.624	3.6	20.6	10 18	0 57.57	+23 43.7	1.937	2.906	5.5	20.9	
10 28	0 51.26	+ 4 2.7	1.680	2.630	7.9	20.9	10 28	0 49.72	+22 21.8	1.963	2.911	7.1	21.0	
11 7	0 46.02	+ 3 25.2	1.749	2.636	11.8	21.1	11 7	0 43.50	+20 55.4	2.016	2.916	9.8	21.2	
11 17	0 42.97	+ 3 3.1	1.839	2.643	15.0	21.4	11 17	0 39.45	+19 32.2	2.094	2.921	12.6	21.4	
171525	1999 <i>CW</i> ₁₁₁	10 10.5 248°23' 6.3"/17.1 18						286547	2002 <i>CN</i> ₁₅₇	10 10.5 123°18' 2.2"/8.4 18				
9 8	1 28.39	+27 42.0	2.266	3.036	14.2	20.5	9 8	1 27.67	+ 3 37.6	1.838	2.716	12.7	20.6	
9 18	1 22.77	+28 4.1	2.170	3.023	11.9	20.3	9 18	1 22.04	+ 2 41.5	1.783	2.726	9.1	20.4	
9 28	1 15.20	+28 5.5	2.096	3.010	9.4	20.1	9 28	1 14.62	+ 1 38.4	1.753	2.736	5.1	20.2	
10 8	1 6.32	+27 45.0	2.047	2.996	7.2	20.0	10 8	1 6.20	+ 0 34.5	1.750	2.746	2.2	20.1	
10 18	0 57.03	+27 3.5	2.024	2.983	6.3	19.9	10 18	0 57.69	- 0 23.7	1.776	2.755	4.7	20.3	
10 28	0 48.34	+26 5.1	2.029	2.969	7.6	19.9	10 28	0 50.08	- 1 10.1	1.829	2.764	8.5	20.5	
11 7	0 41.15	+24 56.8	2.061	2.954	10.0	20.1	11 7	0 44.13	- 1 40.6	1.907	2.773	12.0	20.7	
11 17	0 36.13	+23 46.0	2.117	2.940	12.6	20.2	11 17	0 40.33	- 1 53.5	2.007	2.781	15.0	21.0	
48462	1991 <i>RT</i> ₆	10 10.5 141°35' 7.4"/19.7 18						420636	2012 <i>JC</i> ₁	10 10.5 233°35' 1.9"/8.8 17				
9 8	1 29.37	+33 42.7	2.660	3.376	13.6	18.3	9 8	1 29.17	+ 5 24.1	1.729	2.604	13.5	21.7	
9 18	1 23.24	+34 24.4	2.579	3.381	11.8	18.2	9 18	1 23.50	+ 4 21.2	1.650	2.591	9.8	21.5	
9 28	1 15.35	+34 45.9	2.519	3.386	9.9	18.1	9 28	1 15.67	+ 3 6.7	1.594	2.577	5.5	21.2	
10 8	1 6.34	+34 45.3	2.482	3.391	8.2	18.0	10 8	1 6.45	+ 1 46.9	1.566	2.562	2.0	21.0	
10 18	0 57.03	+34 22.7	2.472	3.395	7.4	18.0	10 18	0 56.86	+ 0 29.7	1.565	2.547	4.9	21.1	
10 28	0 48.34	+33 41.1	2.488	3.399	7.8	18.0	10 28	0 48.05	- 0 36.6	1.593	2.531	9.4	21.3	
11 7	0 41.09	+32 46.2	2.531	3.403	9.2	18.1	11 7	0 41.00	- 1 25.7	1.646	2.514	13.5	21.6	
11 17	0 35.83	+31 44.3	2.599	3.407	11.0	18.2	11 17	0 36.37	- 1 54.3	1.719	2.497	17.0	21.8	
375186	2008 <i>DA</i> ₇₆	10 10.5 271°59' 1.6"/11.6 17						458465	2011 <i>BC</i> ₅₁	10 10.5 291°21' 4.4"/15.4 17				
9 8	1 31.20	+11 30.3	1.504	2.367	15.8	21.8	9 8	1 24.89	+22 37.8	2.299	3.103	13.1	21.1	
9 18	1 25.39	+11 31.1	1.420	2.351	11.9	21.5	9 18	1 20.09	+22 41.1	2.210	3.093	10.5	20.9	
9 28	1 16.95	+11 16.7	1.359	2.335	7.3	21.2	9 28	1 13.60	+22 26.5	2.143	3.083	7.7	20.8	
10 8	1 6.71	+10 49.3	1.321	2.318	2.5	20.9	10 8	1 6.03	+21 54.3	2.102	3.074	5.2	20.6	
10 18	0 55.88	+10 13.3	1.311	2.301	3.8	21.0	10 18	0 58.16	+21 7.0	2.088	3.064	4.5	20.5	
10 28	0 45.88	+ 9 35.7	1.328	2.283	8.9	21.2	10 28	0 50.87	+20 9.1	2.103	3.054	6.4	20.6	
11 7	0 37.96	+ 9 3.8	1.368	2.266	13.7	21.4	11 7	0 44.94	+19 7.2	2.144	3.045	9.3	20.8	
11 17	0 32.93	+ 8 43.6	1.430	2.249	17.8	21.7	11 17	0 40.93	+18 7.5	2.210	3.036	12.1	21.0	
84261	2002 <i>SD</i> ₅₁	10 10.5 326°24' 12.8"/3.9 18						247115	2000 <i>UY</i> ₄₃	10 10.5 354°07' 5.3"/15.7 18 R				
9 8	1 44.61	-27 18.9	1.612	2.445	16.4	18.2	9 8	1 19.60	+23 10.9	1.426	2.266	17.8	18.9	
9 18	1 34.70	-27 35.0	1.553	2.431	14.4	18.0	9 18							

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
162338	1999 <i>XT</i> ₁₂₉		10 10.5 343°68	6°2/ 6.9	18		382746	2003 <i>CH</i> ₇		10 10.5 276°36	13°2/18.9	18	
9 8	1 32.51	- 7 57.3	1.413	2.304	15.0	18.8	9 8	1 39.15	+37 25.5	1.810	2.517	19.3	20.7
9 18	1 26.15	- 8 11.3	1.353	2.296	11.3	18.6	9 18	1 31.99	+39 21.8	1.711	2.495	17.5	20.5
9 28	1 17.23	- 8 19.1	1.315	2.289	7.7	18.3	9 28	1 21.31	+40 54.0	1.631	2.473	15.5	20.3
10 8	1 6.78	- 8 13.8	1.302	2.283	6.2	18.2	10 8	1 7.79	+41 53.4	1.572	2.450	13.9	20.1
10 18	0 56.07	- 7 50.4	1.315	2.278	8.4	18.4	10 18	0 52.79	+42 13.4	1.535	2.428	13.2	20.0
10 28	0 46.51	- 7 6.2	1.353	2.274	12.2	18.6	10 28	0 38.25	+41 53.6	1.522	2.404	13.7	20.0
11 7	0 39.21	- 6 2.1	1.413	2.270	16.0	18.8	11 7	0 26.05	+41 1.1	1.531	2.381	15.4	20.1
11 17	0 34.80	- 4 40.7	1.493	2.267	19.3	19.0	11 17	0 17.50	+39 48.0	1.561	2.357	17.6	20.2
206519	2003 <i>UF</i> ₁₃₈		10 10.5 326°56	3°4/ 7.8	18		202145	2004 <i>TR</i> ₂₈₃		10 10.5 45°31	0°2/10.4	16	
9 8	1 25.91	+ 0 43.5	1.478	2.373	14.2	19.4	9 8	1 27.81	+ 9 0.0	1.279	2.163	16.7	20.8
9 18	1 21.35	- 0 0.8	1.410	2.360	10.3	19.2	9 18	1 22.65	+ 8 23.8	1.238	2.182	12.1	20.6
9 28	1 14.52	- 0 51.0	1.364	2.348	6.0	18.9	9 28	1 15.13	+ 7 33.2	1.219	2.202	6.8	20.4
10 8	1 6.24	- 1 40.1	1.343	2.336	3.4	18.7	10 8	1 6.35	+ 6 34.5	1.223	2.222	1.3	20.1
10 18	0 57.61	- 2 20.6	1.347	2.325	6.2	18.9	10 18	0 57.57	+ 5 35.8	1.253	2.242	4.2	20.3
10 28	0 49.87	- 2 45.8	1.378	2.315	10.6	19.1	10 28	0 50.11	+ 4 45.7	1.309	2.263	9.2	20.7
11 7	0 44.05	- 2 51.5	1.430	2.305	14.8	19.3	11 7	0 44.90	+ 4 10.5	1.388	2.285	13.6	21.0
11 17	0 40.81	- 2 36.4	1.503	2.296	18.3	19.5	11 17	0 42.41	+ 3 53.3	1.487	2.307	17.2	21.3
313638	2003 <i>SC</i> ₄₀		10 10.5 35°41	7°9/17.7	18		4670	Yoshinogawa		10 10.5 251°92	3°4/13.1	18	
9 8	1 30.76	+27 45.4	1.750	2.535	17.2	19.0	9 8	1 30.60	+16 28.0	1.501	2.349	16.7	17.4
9 18	1 24.68	+28 46.0	1.697	2.556	14.4	18.9	9 18	1 24.95	+16 30.7	1.422	2.340	12.9	17.2
9 28	1 16.32	+29 21.8	1.664	2.577	11.4	18.8	9 28	1 16.70	+16 13.2	1.365	2.331	8.5	16.9
10 8	1 6.59	+29 30.8	1.654	2.599	8.9	18.7	10 8	1 6.74	+15 36.6	1.331	2.322	4.4	16.6
10 18	0 56.66	+29 14.0	1.669	2.622	7.9	18.7	10 18	0 56.27	+14 45.1	1.325	2.312	4.3	16.6
10 28	0 47.80	+28 36.6	1.709	2.645	9.0	18.8	10 28	0 46.74	+13 46.4	1.344	2.302	8.6	16.8
11 7	0 40.99	+27 46.9	1.775	2.669	11.3	19.0	11 7	0 39.33	+12 49.7	1.388	2.292	13.1	17.1
11 17	0 36.84	+26 53.4	1.863	2.693	13.8	19.2	11 17	0 34.81	+12 2.7	1.454	2.282	17.1	17.3
336854	2011 <i>FB</i> ₅₃		10 10.5 168°38	0°4/10.1	15		449143	2013 <i>AH</i> ₆₈		10 10.5 135°13	3°8/14.6	18	
9 8	1 28.52	+ 8 34.6	1.954	2.816	12.8	22.6	9 8	1 27.25	+20 31.3	2.139	2.954	13.5	21.6
9 18	1 22.68	+ 7 50.1	1.887	2.820	9.2	22.3	9 18	1 21.77	+20 27.9	2.066	2.960	10.7	21.4
9 28	1 15.03	+ 6 54.5	1.844	2.824	5.2	22.1	9 28	1 14.54	+20 6.7	2.015	2.965	7.5	21.2
10 8	1 6.32	+ 5 52.3	1.829	2.827	1.0	21.8	10 8	1 6.25	+19 28.8	1.991	2.970	4.6	21.1
10 18	0 57.45	+ 4 49.5	1.842	2.829	3.4	22.0	10 18	0 57.78	+18 37.5	1.994	2.975	4.1	21.0
10 28	0 49.39	+ 3 52.5	1.885	2.831	7.5	22.3	10 28	0 50.05	+17 38.3	2.026	2.980	6.5	21.2
11 7	0 42.93	+ 3 6.9	1.954	2.832	11.2	22.5	11 7	0 43.83	+16 38.0	2.085	2.985	9.6	21.4
11 17	0 38.61	+ 2 36.1	2.046	2.833	14.3	22.7	11 17	0 39.67	+15 42.6	2.169	2.989	12.4	21.6
266129	2006 <i>TJ</i> ₃₆		10 10.5 263°58	2°1/ 9.1	18		98829	2001 <i>AG</i> ₄		10 10.5 5°76	0°3/10.7	18	
9 8	1 32.79	+ 2 26.0	1.567	2.445	14.5	20.5	9 8	1 18.84	+10 29.6	0.964	1.872	18.8	17.2
9 18	1 26.36	+ 2 12.0	1.490	2.432	10.5	20.3	9 18	1 16.88	+ 9 51.9	0.917	1.872	13.7	17.0
9 28	1 17.43	+ 1 52.1	1.435	2.418	6.0	20.0	9 28	1 12.17	+ 8 52.5	0.888	1.874	8.0	16.7
10 8	1 6.86	+ 1 31.1	1.407	2.403	2.2	19.7	10 8	1 5.80	+ 7 39.2	0.880	1.878	1.7	16.3
10 18	0 55.82	+ 1 14.5	1.406	2.389	5.1	19.9	10 18	0 59.18	+ 6 22.9	0.894	1.885	4.6	16.5
10 28	0 45.67	+ 1 7.8	1.432	2.374	9.8	20.1	10 28	0 53.83	+ 5 15.9	0.930	1.893	10.5	16.9
11 7	0 37.55	+ 1 14.7	1.482	2.359	14.2	20.3	11 7	0 50.91	+ 4 27.8	0.987	1.904	15.7	17.2
11 17	0 32.19	+ 1 37.1	1.553	2.344	17.9	20.5	11 17	0 50.98	+ 4 3.4	1.061	1.917	20.0	17.5
398723	2012 <i>XT</i> ₁₁₄		10 10.5 312°70	3°4/ 7.9	18		221396	2005 <i>YJ</i> ₅₆		10 10.5 226°79	1°1/ 9.2	18	
9 8	1 26.62	+ 0 56.5	1.478	2.371	14.3	20.4	9 8	1 24.30	+ 5 11.7	2.516	3.383	10.1	20.7
9 18	1 22.05	+ 0 15.9	1.395	2.345	10.4	20.1	9 18	1 19.38	+ 4 30.7	2.438	3.376	7.2	20.5
9 28	1 15.05	- 0 31.6	1.336	2.320	6.1	19.8	9 28	1 13.09	+ 3 43.0	2.387	3.369	4.0	20.3
10 8	1 6.39	- 1 19.2	1.301	2.295	3.4	19.6	10 8	1 5.96	+ 2 52.5	2.364	3.361	1.2	20.1
10 18	0 57.17	- 1 59.5	1.291	2.270	6.3	19.7	10 18	0 58.65	+ 2 3.6	2.371	3.354	3.3	20.2
10 28	0 48.71	- 2 24.9	1.308	2.246	10.9	19.9	10 28	0 51.87	+ 1 20.9	2.407	3.346	6.6	20.4
11 7	0 42.17	- 2 30.7	1.346	2.222	15.4	20.1	11 7	0 46.26	+ 0 48.2	2.470	3.338	9.6	20.6
11 17	0 38.33	- 2 14.9	1.404	2.199	19.3	20.3	11 17	0 42.25	+ 0 28.0	2.556	3.329	12.1	20.8
460950	2014 <i>WV</i> ₂₆₇		10 10.5 267°01	0°4/11.0	17		454981	2015 <i>TS</i> ₂₁₉		10 10.5 359°85	1°1/ 9.6	18	
9 8	1 21.51	+11 0.5	2.735	3.587	9.8	21.1	9 8	1 27.98	+ 4 30.5	1.888	2.762	12.6	20.9
9 18	1 17.29	+10 18.7	2.656	3.583	7.2	20.9	9 18	1 22.38	+ 4 16.6	1.822	2.762	9.1	20.7
9 28	1 11.85	+ 9 27.0	2.602	3.579	4.2	20.7	9 28	1 14.92	+ 3 56.3	1.779	2.762	5.1	20.5
10 8	1 5.68	+ 8 28.7	2.577	3.575	1.0	20.5	10 8	1 6.34	+ 3 33.3	1.764	2.761	1.3	20.2
10 18	0 59.36	+ 7 27.7	2.582	3.571	2.3	20.6	10 18	0 57.56	+ 3 12.1	1.776	2.762	3.8	20.4
10 28	0 53.53	+ 6 28.8	2.616	3.566	5.4	20.8	10 28	0 49.58	+ 2 57.4	1.817	2.762	7.8	20.7
11 7	0 48.74	+ 5 36.4	2.678	3.562	8.3	21.0	11 7	0 43.22	+ 2 52.6	1.883	2.762	11.5	20.9
11 17	0 45.38	+ 4 54.0	2.765	3.558	10.8	21.1	11 17	0 39.02	+ 3 0.0	1.971	2.763	14.6	21.1
159022	2004 <i>TP</i> ₄₂		10 10.5 89°29	1°5/11.8	18		291505	2006 <i>DE</i> ₁₇₄		10 10.5 228°84	0°7/ 9.7	18	
9 8	1 29.67	+13 17.3	1.720	2.573	14.7	20.4	9 8	1 24.50	+ 6 8.5	2.552	3.416	10.1	21.7
9 18	1 23.56	+12 50.4	1.670	2.595	10.8	20.2	9 18	1 19.52	+ 5 36.6	2.474	3.410	7.2	21.5
9 28	1 15.51	+12 8.1	1.643	2.616	6.6	20.0	9 28	1 13.16	+ 4 57.8	2.422	3.403	4.1	21.3
10 8	1 6.42	+11 14.2	1.642	2.638	2.3	19.7	10 8	1 5.98	+ 4 15.5	2.399	3.397	0.9	21.0
10 18	0 57.31	+10 14.8	1.669	2.659	3.2	19.9	10 18	0 58.62	+ 3 33.8	2.405	3.390	3.0	21.2
10 28	0 49.27	+ 9 16.8	1.724	2.679	7.3	20.2	10 28	0 51.79	+ 2 57.0	2.440	3.383	6.3	21.4
11 7	0 43.09	+ 8 26.9	1.805	2.699	11.1	20.4	11 7	0 46.10	+ 2 28.7	2.503	3.376	9.3	21.6
11 17	0 39.27	+ 7 49.6	1.909	2.719	14.3	20.7	11 17	0 42.01	+ 2 11.3	2.589	3.368	11.8	21.7
65935	1998 <i>FF</i> ₆₅		10 10.5 139°69	0°1/10.5	18		509964	2009 <i>SF</i> ₂₅₅		10 10.5 43°85	10°5/30.5</		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
466921	2015 <i>XW</i> ₆₈		10 10.5 258°14	5°3/ 4.4 18			65315	2002 <i>JE</i> ₁₀₂		10 10.5 73°79	2°3/ 8.2 18		
9 8	1 24.97	- 9 18.6	2.397	3.277	10.0	21.2	9 8	1 25.70	+ 1 12.6	2.177	3.054	11.0	19.1
9 18	1 19.90	-10 15.4	2.334	3.269	7.6	21.1	9 18	1 20.43	+ 0 35.5	2.122	3.065	7.8	18.9
9 28	1 13.39	-11 8.6	2.298	3.262	5.7	20.9	9 28	1 13.68	- 0 5.0	2.094	3.076	4.5	18.7
10 8	1 6.02	-11 52.8	2.289	3.254	5.4	20.9	10 8	1 6.10	- 0 44.4	2.092	3.086	2.3	18.6
10 18	0 58.51	-12 23.1	2.307	3.246	7.0	21.0	10 18	0 58.45	- 1 18.0	2.120	3.097	4.4	18.8
10 28	0 51.60	-12 36.2	2.353	3.237	9.4	21.1	10 28	0 51.53	- 1 41.5	2.176	3.108	7.6	19.0
11 7	0 45.93	-12 30.7	2.423	3.229	11.8	21.3	11 7	0 46.00	- 1 52.4	2.258	3.119	10.6	19.2
11 17	0 41.97	-12 7.2	2.514	3.221	13.9	21.4	11 17	0 42.27	- 1 49.5	2.362	3.129	13.2	19.4
36807	2000 <i>SM</i> ₆₇		10 10.5 66°49	0°7/ 9.9 18			77337	2001 <i>FX</i> ₉₇		10 10.5 100°09	4°5/ 6.8 18		
9 8	1 27.09	+ 7 57.1	1.552	2.430	14.6	19.1	9 8	1 29.32	- 1 17.2	1.496	2.387	14.3	19.5
9 18	1 21.97	+ 7 11.3	1.496	2.437	10.6	18.9	9 18	1 23.52	- 2 30.1	1.452	2.399	10.3	19.3
9 28	1 14.75	+ 6 13.0	1.462	2.445	5.9	18.6	9 28	1 15.59	- 3 45.6	1.431	2.412	6.3	19.1
10 8	1 6.31	+ 5 8.2	1.454	2.453	1.2	18.3	10 8	1 6.49	- 4 55.2	1.436	2.424	4.6	19.0
10 18	0 57.73	+ 4 4.2	1.473	2.460	4.1	18.6	10 18	0 57.36	- 5 50.7	1.467	2.436	7.1	19.2
10 28	0 50.17	+ 3 8.7	1.519	2.468	8.7	18.9	10 28	0 49.37	- 6 25.8	1.525	2.447	11.0	19.4
11 7	0 44.51	+ 2 27.9	1.589	2.476	12.8	19.1	11 7	0 43.40	- 6 38.0	1.605	2.459	14.6	19.7
11 17	0 41.30	+ 2 4.9	1.681	2.484	16.2	19.4	11 17	0 39.95	- 6 27.6	1.705	2.470	17.6	19.9
239075	2006 <i>GK</i> ₁₉		10 10.5 276°28	0°9/ 9.7 18			68639	2002 <i>CV</i> ₃₁		10 10.5 77°27	4°6/ 7.5 17		
9 8	1 25.55	+ 8 11.2	1.744	2.618	13.5	20.4	9 8	1 33.02	- 1 28.8	1.268	2.161	16.2	18.9
9 18	1 20.92	+ 7 12.3	1.661	2.600	9.8	20.1	9 18	1 26.33	- 2 21.9	1.233	2.182	11.6	18.7
9 28	1 14.24	+ 5 59.2	1.600	2.583	5.6	19.8	9 28	1 17.20	- 3 16.5	1.221	2.203	7.0	18.5
10 8	1 6.23	+ 4 37.4	1.567	2.565	1.2	19.5	10 8	1 6.81	- 4 3.9	1.233	2.223	4.6	18.4
10 18	0 57.84	+ 3 14.4	1.561	2.547	4.1	19.7	10 18	0 56.55	- 4 36.6	1.271	2.243	7.3	18.6
10 28	0 50.15	+ 1 58.8	1.582	2.528	8.7	19.9	10 28	0 47.77	- 4 49.2	1.334	2.264	11.6	18.9
11 7	0 44.11	+ 0 57.8	1.629	2.510	12.9	20.1	11 7	0 41.42	- 4 40.1	1.419	2.284	15.5	19.2
11 17	0 40.37	+ 0 16.1	1.697	2.492	16.5	20.3	11 17	0 37.98	- 4 10.6	1.523	2.303	18.7	19.5
229449	2005 <i>UY</i> ₁₁₀		10 10.5 235°09	0°7/11.2 18			218448	2004 <i>RN</i> ₂₁₇		10 10.5 17°95	7°1/17.0 18		
9 8	1 28.80	+10 59.5	1.876	2.733	13.4	21.1	9 8	1 26.72	+25 59.1	1.705	2.508	16.9	19.2
9 18	1 23.14	+10 34.8	1.794	2.723	10.0	20.9	9 18	1 21.90	+26 36.8	1.639	2.514	14.0	19.0
9 28	1 15.46	+ 9 56.6	1.735	2.712	5.9	20.6	9 28	1 14.84	+26 50.3	1.593	2.521	10.9	18.8
10 8	1 6.48	+ 9 8.2	1.703	2.701	1.6	20.3	10 8	1 6.39	+26 38.5	1.570	2.529	8.1	18.7
10 18	0 57.16	+ 8 14.6	1.700	2.689	3.2	20.4	10 18	0 57.64	+26 2.9	1.572	2.537	7.1	18.6
10 28	0 48.56	+ 7 22.4	1.725	2.677	7.6	20.7	10 28	0 49.82	+25 9.6	1.600	2.547	8.5	18.7
11 7	0 41.61	+ 6 37.9	1.776	2.665	11.6	20.9	11 7	0 43.93	+24 6.9	1.652	2.557	11.3	18.9
11 17	0 36.94	+ 6 5.8	1.850	2.652	15.0	21.1	11 17	0 40.58	+23 3.8	1.727	2.567	14.2	19.1
220770	2004 <i>TU</i> ₁₂₉		10 10.5 43°42	2°2/ 8.2 18			293902	2007 <i>RG</i> ₃₀₉		10 10.5 83°74	0°6/10.2 17		
9 8	1 22.99	+ 5 9.1	1.720	2.605	13.0	20.1	9 8	1 34.44	+ 6 22.6	1.269	2.149	17.1	21.1
9 18	1 18.74	+ 3 45.4	1.676	2.623	9.2	19.9	9 18	1 27.62	+ 6 15.4	1.220	2.161	12.4	20.8
9 28	1 12.77	+ 2 13.1	1.657	2.641	5.1	19.7	9 28	1 18.11	+ 5 57.3	1.191	2.174	7.0	20.6
10 8	1 5.89	+ 0 40.0	1.664	2.660	2.2	19.6	10 8	1 7.06	+ 5 33.1	1.188	2.186	1.4	20.3
10 18	0 59.00	- 0 45.8	1.700	2.679	4.9	19.8	10 18	0 55.90	+ 5 8.9	1.211	2.199	4.5	20.5
10 28	0 53.01	- 1 56.8	1.762	2.699	8.7	20.1	10 28	0 46.16	+ 4 51.2	1.259	2.211	9.8	20.9
11 7	0 48.64	- 2 48.4	1.849	2.719	12.2	20.3	11 7	0 38.95	+ 4 45.2	1.331	2.223	14.4	21.2
11 17	0 46.30	- 3 18.8	1.958	2.739	15.0	20.6	11 17	0 34.84	+ 4 53.7	1.423	2.235	18.2	21.5
134122	2004 <i>YY</i> ₃₁		10 10.5 282°66	0°8/ 9.7 17			104203	2000 <i>EY</i> ₁₀₉		10 10.5 94°58	1°2/11.4 18		
9 8	1 24.63	+ 6 17.6	2.313	3.180	10.9	20.6	9 8	1 32.17	+10 36.2	1.552	2.414	15.5	19.0
9 18	1 19.81	+ 5 47.0	2.226	3.163	7.8	20.4	9 18	1 25.70	+10 35.7	1.494	2.425	11.4	18.8
9 28	1 13.43	+ 5 8.5	2.165	3.147	4.4	20.2	9 28	1 16.93	+10 21.8	1.459	2.435	6.8	18.6
10 8	1 6.06	+ 4 25.6	2.132	3.130	1.0	19.9	10 8	1 6.82	+ 9 57.4	1.449	2.446	2.1	18.3
10 18	0 58.41	+ 3 42.8	2.127	3.113	3.2	20.0	10 18	0 56.54	+ 9 27.3	1.466	2.456	3.5	18.4
10 28	0 51.30	+ 3 4.9	2.152	3.096	6.9	20.2	10 28	0 47.37	+ 8 57.8	1.511	2.466	8.2	18.7
11 7	0 45.42	+ 2 36.3	2.203	3.079	10.2	20.4	11 7	0 40.30	+ 8 34.8	1.581	2.476	12.4	19.0
11 17	0 41.31	+ 2 19.6	2.277	3.062	13.1	20.6	11 17	0 35.90	+ 8 22.6	1.672	2.485	15.9	19.3
42371	2002 <i>CT</i> ₁₄₁		10 10.5 195°34	3°5/14.2 18			108262	2001 <i>HD</i> ₅₂		10 10.5 207°69	2°1/12.9 18		
9 8	1 26.47	+19 18.0	2.264	3.083	12.8	19.1	9 8	1 25.59	+16 56.1	2.074	2.910	13.2	20.3
9 18	1 21.18	+19 19.2	2.185	3.082	10.0	18.9	9 18	1 20.64	+16 11.5	1.994	2.906	10.0	20.1
9 28	1 14.21	+19 4.6	2.129	3.081	7.0	18.7	9 28	1 13.95	+15 8.8	1.937	2.903	6.4	19.8
10 8	1 6.21	+18 35.1	2.099	3.081	4.2	18.5	10 8	1 6.21	+13 51.2	1.906	2.898	2.9	19.6
10 18	0 57.98	+17 53.5	2.098	3.080	3.8	18.5	10 18	0 58.25	+12 24.3	1.905	2.894	3.0	19.6
10 28	0 50.40	+17 4.7	2.125	3.079	6.2	18.7	10 28	0 50.99	+10 55.5	1.933	2.889	6.6	19.8
11 7	0 44.21	+16 14.6	2.179	3.078	9.3	18.8	11 7	0 45.21	+ 9 32.3	1.989	2.884	10.2	20.0
11 17	0 39.96	+15 28.6	2.258	3.077	12.1	19.0	11 17	0 41.43	+ 8 21.0	2.068	2.879	13.3	20.2
521981	2015 <i>WE</i> ₁₆		10 10.5 335°00	14°8/20.5 18			231651	2009 <i>WE</i> ₉		10 10.5 287°11	1°3/ 9.5 18		
9 8	1 27.18	-36 6.5	1.847	2.663	15.3	20.2	9 8	1 27.24	+ 6 31.3	1.524	2.406	14.6	20.6
9 18	1 22.10	-37 48.2	1.822	2.651	14.9	20.1	9 18	1 22.37	+ 5 48.3	1.449	2.393	10.6	20.4
9 28	1 14.84	-39 2.5	1.817	2.639	15.0	20.1	9 28	1 15.18	+ 4 52.8	1.396	2.380	6.0	20.1
10 8	1 6.34	-39 41.1	1.831	2.629	15.8	20.2	10 8	1 6.49	+ 3 50.5	1.369	2.367	1.5	19.8
10 18	0 57.73	-39 39.8	1.863	2.618	16.9	20.2	10 18	0 57.40	+ 2 48.9	1.368	2.354	4.6	19.9
10 28	0 50.22	-38 58.4	1.912	2.609	18.2	20.3	10 28	0 49.16	+ 1 56.3	1.394	2.341	9.5	20.2
11 7	0 44.70	-37 41.2	1.975	2.600	19.5	20.4	11 7	0 42.84	+ 1 19.2	1.443	2.329	13.9	20.4
11 17	0 41.70	-35 54.1	2.050	2.591	20.7	20.5	11 17	0 39.12	+ 1 1.3	1.513	2.316	17.7	20.6
512036	2015 <i>MY</i> ₆₆		10 10.5 110°20	9°3/ 2.1 18			118886	2000 <i>UL</i> ₂₇		10 10.5 353°48	6°8/ 4.5		

EPHEMERIDES

10 10.5

10 10.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
20296	Shayestorm		10 10.5 111°64	3°3/ 8.0	18	R	177694	2005 <i>GH</i> ₁₁		10 10.6 177°19	3°5/ 7.5	18	
9 8	1 31.93	+ 0 41.1	1.532	2.415	14.5	18.4	9 8	1 28.33	+ 1 55.6	1.513	2.401	14.3	20.4
9 18	1 25.39	- 0 5.2	1.485	2.429	10.4	18.1	9 18	1 22.98	+ 0 40.7	1.455	2.402	10.3	20.2
9 28	1 16.67	- 0 55.9	1.460	2.442	6.0	17.9	9 28	1 15.43	- 0 42.0	1.420	2.403	6.0	19.9
10 8	1 6.75	- 1 43.8	1.462	2.455	3.3	17.8	10 8	1 6.56	- 2 4.1	1.411	2.403	3.5	19.8
10 18	0 56.81	- 2 22.3	1.492	2.468	5.9	18.0	10 18	0 57.49	- 3 16.4	1.429	2.404	6.3	20.0
10 28	0 48.03	- 2 45.5	1.548	2.480	10.0	18.3	10 28	0 49.44	- 4 11.1	1.473	2.403	10.6	20.2
11 7	0 41.33	- 2 50.7	1.627	2.492	13.8	18.5	11 7	0 43.34	- 4 43.3	1.540	2.403	14.5	20.5
11 17	0 37.21	- 2 37.3	1.728	2.503	17.0	18.8	11 17	0 39.79	- 4 52.0	1.627	2.402	17.9	20.7
163240	2002 <i>EM</i> ₁₅₇		10 10.5 67°74	1°8/14.1	18		482900	2014 <i>HG</i> ₃		10 10.6 213°28	0°8/11.5	18	
9 8	1 19.33	+17 54.4	4.296	5.106	7.3	19.6	9 8	1 25.57	+13 21.1	2.093	2.942	12.6	21.4
9 18	1 15.38	+17 48.1	4.222	5.116	5.7	19.5	9 18	1 20.61	+12 25.9	2.013	2.937	9.3	21.2
9 28	1 10.67	+17 33.8	4.173	5.126	3.9	19.4	9 28	1 13.95	+11 15.0	1.957	2.931	5.6	20.9
10 8	1 5.52	+17 12.6	4.153	5.135	2.3	19.3	10 8	1 6.25	+9 52.8	1.929	2.925	1.7	20.7
10 18	1 0.29	+16 46.0	4.163	5.145	2.0	19.3	10 18	0 58.34	+ 8 25.1	1.930	2.919	2.8	20.7
10 28	0 55.39	+16 16.3	4.203	5.155	3.5	19.4	10 28	0 51.10	+ 6 59.3	1.960	2.912	6.8	21.0
11 7	0 51.15	+15 46.1	4.272	5.165	5.2	19.6	11 7	0 45.29	+ 5 42.6	2.018	2.905	10.4	21.2
11 17	0 47.85	+15 17.7	4.367	5.175	6.9	19.7	11 17	0 41.45	+ 4 40.1	2.099	2.898	13.6	21.4
97687	2000 <i>GN</i> ₂₀		10 10.6 290°91	0°2/10.4	18		163718	2003 <i>HJ</i> ₂₁		10 10.6 37°35	1°9/ 9.3	18	
9 8	1 24.44	+ 8 13.0	2.258	3.122	11.2	19.9	9 8	1 27.54	+ 6 20.9	1.018	1.920	18.5	19.0
9 18	1 19.73	+ 7 45.9	2.173	3.107	8.2	19.7	9 18	1 22.98	+ 5 27.0	0.978	1.931	13.2	18.8
9 28	1 13.43	+ 7 9.5	2.113	3.093	4.7	19.5	9 28	1 15.59	+ 4 18.7	0.957	1.943	7.4	18.5
10 8	1 6.13	+ 6 27.1	2.081	3.079	0.9	19.2	10 8	1 6.59	+ 3 5.4	0.958	1.956	2.1	18.2
10 18	0 58.56	+ 5 43.0	2.077	3.065	3.0	19.3	10 18	0 57.54	+ 1 57.9	0.984	1.970	5.8	18.5
10 28	0 51.54	+ 5 2.3	2.102	3.051	6.7	19.5	10 28	0 49.99	+ 1 6.7	1.032	1.984	11.3	18.9
11 7	0 45.80	+ 4 29.6	2.154	3.037	10.1	19.7	11 7	0 45.08	+ 0 38.1	1.101	1.999	16.2	19.2
11 17	0 41.85	+ 4 8.1	2.229	3.023	13.0	19.9	11 17	0 43.32	+ 0 33.7	1.189	2.015	20.2	19.5
284939	2010 <i>DL</i> ₇₅		10 10.6 114°76	0°2/10.4	18		389574	2010 <i>WF</i> ₅₃		10 10.6 241°81	1°4/ 7.8	18	
9 8	1 28.09	+ 8 47.6	1.841	2.706	13.3	21.6	9 8	1 18.92	- 0 1.2	4.418	5.287	6.0	20.6
9 18	1 22.46	+ 8 14.3	1.781	2.716	9.6	21.4	9 18	1 15.06	- 0 25.2	4.346	5.284	4.3	20.5
9 28	1 14.98	+ 7 29.8	1.745	2.725	5.5	21.1	9 28	1 10.50	- 0 50.4	4.301	5.282	2.5	20.4
10 8	1 6.43	+ 6 38.7	1.735	2.734	1.1	20.8	10 8	1 5.52	- 1 14.8	4.287	5.279	1.4	20.3
10 18	0 57.77	+ 5 46.4	1.754	2.742	3.4	21.0	10 18	1 0.47	- 1 36.3	4.303	5.276	2.6	20.4
10 28	0 49.98	+ 4 59.3	1.801	2.751	7.5	21.3	10 28	0 55.70	- 1 52.9	4.348	5.273	4.3	20.5
11 7	0 43.88	+ 4 22.6	1.874	2.759	11.3	21.6	11 7	0 51.54	- 2 3.0	4.422	5.270	6.1	20.6
11 17	0 39.96	+ 3 59.7	1.969	2.767	14.4	21.8	11 17	0 48.25	- 2 5.7	4.521	5.267	7.6	20.7
258024	2001 <i>FP</i> ₁₆₀		10 10.6 242°37	6°1/ 1.4	17		312629	2009 <i>UB</i> ₁₀₁		10 10.6 276°42	1°0/ 8.6	18	
9 8	1 25.04	-15 33.6	2.963	3.829	8.8	20.3	9 8	1 18.26	+ 2 39.2	4.413	5.279	6.1	21.1
9 18	1 19.83	-16 45.9	2.895	3.811	7.1	20.1	9 18	1 14.60	+ 2 13.3	4.339	5.277	4.3	21.0
9 28	1 13.36	-17 52.4	2.855	3.792	6.2	20.1	9 28	1 10.24	+ 1 45.1	4.293	5.275	2.4	20.8
10 8	1 6.11	-18 47.6	2.842	3.772	6.4	20.0	10 8	1 5.47	+ 1 16.5	4.277	5.273	1.0	20.7
10 18	0 58.68	-19 27.1	2.857	3.752	7.7	20.1	10 18	1 0.62	+ 0 49.8	4.291	5.270	2.2	20.8
10 28	0 51.69	-19 48.1	2.899	3.731	9.5	20.2	10 28	0 56.05	+ 0 27.0	4.335	5.268	4.1	21.0
11 7	0 45.74	-19 49.7	2.964	3.710	11.3	20.3	11 7	0 52.08	+ 0 9.9	4.407	5.266	5.9	21.1
11 17	0 41.24	-19 32.6	3.049	3.688	12.9	20.4	11 17	0 48.97	- 0 0.3	4.505	5.264	7.5	21.2
376705	2013 <i>RA</i> ₁₂		10 10.6 244°62	1°3/ 8.8	18		163274	2002 <i>GP</i> ₁₀₆		10 10.6 93°03	4°7/ 6.3	18	
9 8	1 22.03	+ 4 58.9	2.603	3.473	9.7	21.2	9 8	1 28.01	- 3 13.2	1.739	2.627	12.8	19.9
9 18	1 17.72	+ 4 5.9	2.532	3.471	6.9	21.0	9 18	1 22.36	- 4 22.1	1.696	2.641	9.3	19.7
9 28	1 12.16	+ 3 6.4	2.487	3.470	3.8	20.8	9 28	1 14.89	- 5 31.2	1.678	2.655	6.0	19.5
10 8	1 5.86	+ 2 4.6	2.471	3.468	1.3	20.7	10 8	1 6.43	- 6 33.0	1.686	2.669	4.7	19.5
10 18	0 59.43	+ 1 5.3	2.484	3.466	3.3	20.8	10 18	0 57.96	- 7 20.8	1.721	2.683	6.9	19.6
10 28	0 53.51	+ 0 13.1	2.527	3.464	6.4	21.0	10 28	0 50.46	- 7 49.6	1.783	2.697	10.2	19.9
11 7	0 48.68	- 0 28.1	2.597	3.462	9.2	21.2	11 7	0 44.72	- 7 57.5	1.869	2.710	13.4	20.1
11 17	0 45.33	- 0 56.2	2.690	3.460	11.7	21.4	11 17	0 41.18	- 7 45.0	1.975	2.724	16.0	20.3
292301	2006 <i>SQ</i> ₁₄₆		10 10.6 69°34	0°4/10.9	18		65534	6711 <i>P-L</i>		10 10.6 2°47	0°3/10.8	18	
9 8	1 26.64	+ 9 56.2	1.863	2.727	13.2	21.1	9 8	1 25.43	+ 9 20.6	1.687	2.559	13.9	19.3
9 18	1 21.45	+ 9 29.7	1.799	2.732	9.7	20.9	9 18	1 20.78	+ 9 0.9	1.621	2.559	10.2	19.0
9 28	1 14.43	+ 8 51.2	1.759	2.737	5.6	20.7	9 28	1 14.15	+ 8 28.9	1.578	2.559	5.9	18.8
10 8	1 6.34	+ 8 4.7	1.745	2.743	1.3	20.4	10 8	1 6.31	+ 7 48.8	1.561	2.559	1.3	18.5
10 18	0 58.08	+ 7 15.4	1.759	2.748	3.1	20.5	10 18	0 58.24	+ 7 5.7	1.571	2.560	3.4	18.7
10 28	0 50.65	+ 6 29.5	1.801	2.753	7.3	20.8	10 28	0 51.01	+ 6 26.1	1.607	2.561	7.8	18.9
11 7	0 44.83	+ 5 52.4	1.869	2.759	11.0	21.0	11 7	0 45.51	+ 5 55.7	1.669	2.564	11.8	19.2
11 17	0 41.15	+ 5 27.8	1.959	2.764	14.2	21.3	11 17	0 42.30	+ 5 38.4	1.752	2.566	15.2	19.4
479114	2013 <i>AR</i> ₁₈₂		10 10.6 239°60	2°7/13.5	18		178697	2000 <i>SF</i> ₆₀		10 10.6 61°45	0°2/10.8	18	
9 8	1 25.51	+18 27.1	2.150	2.977	13.1	21.6	9 8	1 25.71	+ 9 51.0	1.929	2.793	12.8	19.8
9 18	1 20.61	+17 51.9	2.061	2.967	10.1	21.4	9 18	1 20.71	+ 9 19.7	1.867	2.800	9.3	19.6
9 28	1 13.98	+16 58.2	1.996	2.957	6.7	21.2	9 28	1 13.98	+ 8 36.8	1.828	2.807	5.4	19.4
10 8	1 6.26	+15 48.4	1.957	2.946	3.5	20.9	10 8	1 6.26	+ 7 46.5	1.817	2.815	1.2	19.1
10 18	0 58.27	+14 27.1	1.947	2.934	3.2	20.9	10 18	0 58.40	+ 6 54.0	1.834	2.823	3.1	19.3
10 28	0 50.90	+13 1.2	1.966	2.923	6.4	21.1	10 28	0 51.34	+ 6 5.3	1.879	2.830	7.1	19.6
11 7	0 44.96	+11 38.2	2.013	2.911	9.9	21.3	11 7	0 45.82	+ 5 25.7	1.949	2.838	10.7	19.8
11 17	0 41.00	+10 24.6	2.084	2.899	13.1	21.5	11 17	0 42.34	+ 4 58.8	2.043	2.846	13.7	20.0
516579	2007 <i>EZ</i> ₁₂₅		10 10.6 161°21	1°3/ 8.8	18		196440	2003 <i>HQ</i> ₃₅		10 10.6 102°49	0°7/ 9.3	16	
9 8	1 23.6												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
366101	2012 <i>DR</i> ₇	10 10.6 238°30		4.8/ 4.9 18			521684	2015 <i>RY</i> ₂₆₁	10 10.6 27°76		0°3/10.8 18		
9 8	1 24.19	− 6 3.2	2.226	3.112	10.5	20.8	9 8	1 27.86	+ 8 43.3	1.795	2.662	13.5	21.0
9 18	1 19.44	− 7 13.8	2.168	3.109	7.8	20.6	9 18	1 22.43	+ 8 34.1	1.731	2.666	9.9	20.8
9 28	1 13.21	− 8 23.4	2.135	3.107	5.5	20.5	9 28	1 15.06	+ 8 14.4	1.690	2.669	5.7	20.5
10 8	1 6.10	− 9 25.6	2.130	3.104	4.9	20.4	10 8	1 6.53	+ 7 47.6	1.675	2.673	1.3	20.2
10 18	0 58.86	− 10 14.9	2.153	3.102	6.8	20.5	10 18	0 57.81	+ 7 18.1	1.688	2.677	3.2	20.4
10 28	0 52.27	− 10 46.7	2.203	3.099	9.4	20.7	10 28	0 49.93	+ 6 51.3	1.728	2.681	7.5	20.7
11 7	0 46.98	− 10 59.2	2.277	3.097	12.0	20.9	11 7	0 43.75	+ 6 32.1	1.795	2.686	11.3	20.9
11 17	0 43.45	− 10 52.4	2.372	3.094	14.3	21.0	11 17	0 39.82	+ 6 23.9	1.883	2.690	14.6	21.1
46202	2001 <i>FR</i> ₁₅₁	10 10.6 111°97		8°8/ 1.8 18			27256	1999 <i>XF</i> ₃₄	10 10.6 200°16		9°3/27.1 18		
9 8	1 27.52	− 15 30.7	1.802	2.684	12.7	19.1	9 8	1 27.71	− 24 57.5	2.516	3.361	10.8	19.2
9 18	1 22.09	− 16 58.8	1.762	2.687	10.4	18.9	9 18	1 21.94	− 26 36.2	2.478	3.356	9.7	19.1
9 28	1 14.79	− 18 16.2	1.745	2.689	8.9	18.9	9 28	1 14.63	− 28 0.7	2.466	3.352	9.3	19.1
10 8	1 6.43	− 19 14.3	1.754	2.691	9.1	18.9	10 8	1 6.43	− 29 4.3	2.479	3.346	9.9	19.1
10 18	0 57.99	− 19 46.9	1.787	2.694	10.8	19.0	10 18	0 58.10	− 29 42.3	2.516	3.340	11.1	19.2
10 28	0 50.49	− 19 50.8	1.845	2.696	13.2	19.2	10 28	0 50.46	− 29 52.7	2.576	3.333	12.6	19.3
11 7	0 44.72	− 19 27.0	1.923	2.698	15.6	19.3	11 7	0 44.18	− 29 36.7	2.656	3.326	14.1	19.4
11 17	0 41.18	− 18 38.7	2.019	2.700	17.7	19.5	11 17	0 39.74	− 28 57.2	2.752	3.318	15.4	19.6
332029	2005 <i>PQ</i> ₁₀	10 10.6 21°48		4°5/ 7.7 18			380225	2001 <i>RB</i> ₁₄₁	10 10.6 22°75		2°9/ 8.9 18		
9 8	1 26.04	+ 0 10.0	1.019	1.931	17.5	20.0	9 8	1 30.08	+ 1 17.5	1.143	2.043	17.0	19.5
9 18	1 21.87	− 0 42.6	0.982	1.940	12.6	19.7	9 18	1 24.68	+ 1 3.6	1.098	2.050	12.3	19.3
9 28	1 14.95	− 1 40.0	0.964	1.950	7.4	19.5	9 28	1 16.54	+ 0 44.6	1.073	2.059	7.0	19.0
10 8	1 6.48	− 2 32.3	0.969	1.962	4.5	19.4	10 8	1 6.84	+ 0 27.0	1.072	2.068	3.0	18.8
10 18	0 57.96	− 3 9.9	0.996	1.975	7.7	19.6	10 18	0 57.03	+ 0 17.4	1.095	2.078	6.1	19.1
10 28	0 50.90	− 3 25.7	1.046	1.989	12.5	19.9	10 28	0 48.62	+ 0 21.3	1.142	2.090	11.1	19.4
11 7	0 46.38	− 3 16.9	1.117	2.004	16.9	20.2	11 7	0 42.73	+ 0 41.7	1.211	2.102	15.6	19.7
11 17	0 44.91	− 2 44.7	1.204	2.021	20.6	20.6	11 17	0 39.92	+ 1 18.6	1.298	2.115	19.4	20.0
227714	2006 <i>DQ</i> ₁₄₂	10 10.6 248°98		0°5/10.0 17			1267	Geertruïda	10 10.6 64°03		0°5/10.3 18 R		
9 8	1 25.32	+ 6 46.6	2.470	3.332	10.4	21.1	9 8	1 31.51	+ 7 12.6	1.409	2.286	15.9	15.5
9 18	1 20.22	+ 6 21.2	2.388	3.322	7.5	20.9	9 18	1 25.23	+ 6 55.2	1.365	2.306	11.4	15.3
9 28	1 13.67	+ 5 48.4	2.332	3.313	4.3	20.7	9 28	1 16.66	+ 6 26.7	1.344	2.326	6.5	15.1
10 8	1 6.23	+ 5 11.4	2.304	3.303	0.9	20.4	10 8	1 6.84	+ 5 52.2	1.347	2.345	1.3	14.8
10 18	0 58.56	+ 4 34.2	2.306	3.293	2.9	20.6	10 18	0 57.04	+ 5 17.8	1.377	2.365	4.0	15.0
10 28	0 51.43	+ 4 1.0	2.337	3.282	6.3	20.8	10 28	0 48.50	+ 4 50.1	1.434	2.385	8.9	15.4
11 7	0 45.48	+ 3 35.6	2.396	3.272	9.5	21.0	11 7	0 42.19	+ 4 34.0	1.514	2.405	13.1	15.7
11 17	0 41.21	+ 3 20.7	2.478	3.262	12.2	21.2	11 17	0 38.58	+ 4 32.3	1.616	2.425	16.5	16.0
76852	2000 <i>WD</i> ₂₀	10 10.6 61°74		5°0/14.6 18			156945	2003 <i>GO</i> ₄	10 10.6 82°69		0°7/ 9.9 16		
9 8	1 29.42	+ 20 48.5	1.296	2.139	19.1	19.5	9 8	1 28.63	+ 8 55.8	1.653	2.522	14.3	20.4
9 18	1 24.15	+ 20 44.7	1.242	2.152	15.0	19.3	9 18	1 22.83	+ 7 48.9	1.611	2.549	10.2	20.2
9 28	1 16.24	+ 20 13.3	1.207	2.165	10.4	19.0	9 28	1 15.16	+ 6 29.9	1.593	2.575	5.7	20.0
10 8	1 6.76	+ 19 16.1	1.195	2.178	6.2	18.9	10 8	1 6.53	+ 5 5.6	1.602	2.601	1.2	19.8
10 18	0 57.13	+ 17 59.4	1.207	2.192	5.4	18.9	10 18	0 57.97	+ 3 43.9	1.640	2.626	3.9	20.0
10 28	0 48.80	+ 16 33.7	1.245	2.205	8.8	19.1	10 28	0 50.51	+ 2 32.9	1.705	2.651	8.2	20.3
11 7	0 42.89	+ 15 10.7	1.307	2.219	13.0	19.4	11 7	0 44.90	+ 1 37.9	1.796	2.676	11.9	20.6
11 17	0 39.99	+ 13 59.7	1.390	2.233	16.9	19.7	11 17	0 41.59	+ 1 1.9	1.909	2.700	15.0	20.9
82390	2001 <i>ML</i> ₂₆	10 10.6 17°74		1°6/ 9.4 18			150366	2000 <i>CE</i> ₁₇	10 10.6 178°98		0°2/10.8 16		
9 8	1 23.77	+ 6 54.0	1.034	1.939	18.0	17.7	9 8	1 29.06	+ 10 8.5	1.691	2.555	14.3	20.6
9 18	1 20.29	+ 6 2.0	0.990	1.945	12.9	17.5	9 18	1 23.43	+ 9 32.8	1.623	2.556	10.5	20.4
9 28	1 14.10	+ 4 54.6	0.966	1.953	7.2	17.2	9 28	1 15.69	+ 8 43.0	1.578	2.557	6.1	20.1
10 8	1 6.33	+ 3 41.0	0.964	1.962	1.8	16.9	10 8	1 6.68	+ 7 43.7	1.559	2.557	1.4	19.8
10 18	0 58.42	+ 2 31.8	0.986	1.973	5.5	17.2	10 18	0 57.43	+ 6 41.3	1.568	2.557	3.5	20.0
10 28	0 51.86	+ 1 37.7	1.030	1.985	11.0	17.5	10 28	0 49.09	+ 5 43.2	1.605	2.557	8.1	20.2
11 7	0 47.76	+ 1 5.4	1.096	1.998	15.9	17.9	11 7	0 42.58	+ 4 56.1	1.668	2.556	12.2	20.5
11 17	0 46.64	+ 0 57.4	1.179	2.013	19.9	18.2	11 17	0 38.48	+ 4 24.3	1.752	2.555	15.7	20.7
217356	2004 <i>RA</i> ₂₉₄	10 10.6 30°24		7°1/18.0 18			104799	2000 <i>HH</i> ₄₂	10 10.6 51°57		9°2/ 1.5 18		
9 8	1 24.98	+ 27 57.0	1.640	2.437	17.7	18.9	9 8	1 26.03	− 15 25.6	1.670	2.558	13.2	19.0
9 18	1 20.60	+ 28 7.1	1.584	2.454	14.6	18.8	9 18	1 21.04	− 17 6.7	1.643	2.571	10.8	18.9
9 28	1 14.08	+ 27 49.1	1.548	2.472	11.3	18.6	9 28	1 14.18	− 18 35.3	1.640	2.584	9.3	18.9
10 8	1 6.32	+ 27 3.3	1.534	2.491	8.4	18.5	10 8	1 6.34	− 19 42.3	1.661	2.598	9.6	18.9
10 18	0 58.43	+ 25 53.6	1.545	2.511	7.1	18.5	10 18	0 58.50	− 20 21.2	1.707	2.611	11.4	19.0
10 28	0 51.59	+ 24 27.7	1.581	2.531	8.3	18.6	10 28	0 51.69	− 20 29.5	1.775	2.625	13.7	19.2
11 7	0 46.70	+ 22 56.1	1.643	2.552	11.0	18.8	11 7	0 46.68	− 20 8.5	1.864	2.639	16.0	19.4
11 17	0 44.28	+ 21 28.2	1.727	2.574	13.9	19.0	11 17	0 43.91	− 19 22.2	1.970	2.654	18.0	19.6
11709	Eudoxos	10 10.6 73°21		0°1/10.5 18			282686	2005 <i>XB</i> ₃₁	10 10.6 315°48		0°9/ 9.8 18		
9 8	1 27.16	+ 9 26.8	1.645	2.515	14.3	18.6	9 8	1 24.19	+ 6 53.7	1.765	2.644	13.1	20.7
9 18	1 21.95	+ 8 44.5	1.590	2.527	10.4	18.4	9 18	1 20.02	+ 6 17.1	1.677	2.620	9.6	20.4
9 28	1 14.77	+ 7 49.0	1.558	2.539	5.9	18.2	9 28	1 13.84	+ 5 29.1	1.613	2.596	5.4	20.2
10 8	1 6.46	+ 6 45.9	1.552	2.550	1.2	17.9	10 8	1 6.32	+ 4 34.1	1.574	2.572	1.2	19.8
10 18	0 58.05	+ 5 41.8	1.574	2.562	3.6	18.1	10 18	0 58.37	+ 3 38.4	1.563	2.549	4.0	20.0
10 28	0 50.62	+ 4 44.2	1.623	2.574	8.0	18.4	10 28	0 51.04	+ 2 49.0	1.578	2.527	8.5	20.2
11 7	0 45.01	+ 3 59.2	1.697	2.586	12.0	18.6	11 7	0 45.28	+ 2 12.0	1.618	2.505	12.6	20.4
11 17	0 41.73	+ 3 30.4	1.792	2.597	15.3	18.9	11 17	0 41.76	+ 1 51.4	1.679	2.483	16.2	20.6
123912	2001 <i>DM</i> ₉₁	10 10.6 235°70		0°3/10.9 18			165597	2001 <i>FL</i> ₄₃	10 10.6 214°14		0°9/11.3 18		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
481587	2007 <i>TE</i> ₁₆₀		10 10.6 336°52	1.7/ 9.8	18		153306	2001 <i>JL</i> ₁		10 10.6 302°00	7.5/17.9	16	
9 8	1 32.03	+ 1 33.6	1.267	2.158	16.3	19.8	9 8	1 30.56	+31 27.0	1.916	2.672	16.9	21.1
9 18	1 26.43	+ 2 5.0	1.190	2.138	12.0	19.5	9 18	1 25.22	+31 2.5	1.775	2.618	14.6	20.9
9 28	1 17.84	+ 2 34.7	1.135	2.119	7.0	19.1	9 28	1 17.21	+30 4.3	1.653	2.562	11.7	20.5
10 8	1 7.20	+ 3 5.8	1.104	2.101	2.0	18.8	10 8	1 7.13	+28 27.7	1.554	2.505	8.9	20.3
10 18	0 55.86	+ 3 41.5	1.098	2.085	5.1	18.9	10 18	0 56.03	+26 12.1	1.482	2.447	7.5	20.0
10 28	0 45.50	+ 4 24.7	1.117	2.070	10.6	19.2	10 28	0 45.30	+23 23.8	1.440	2.388	9.2	20.0
11 7	0 37.52	+ 5 17.6	1.159	2.056	15.7	19.4	11 7	0 36.30	+20 16.4	1.426	2.328	12.9	20.1
11 17	0 32.81	+ 6 21.1	1.220	2.044	19.9	19.7	11 17	0 30.06	+17 6.4	1.438	2.266	17.2	20.2
190280	2142 <i>T</i> ₋₃		10 10.6 65°03	3.1/13.3	18		118488	2000 <i>CP</i> ₃₇		10 10.6 223°79	4.8/14.6	18	
9 8	1 29.26	+17 26.6	1.445	2.294	17.1	19.6	9 8	1 30.59	+20 38.7	1.697	2.520	16.1	19.7
9 18	1 23.65	+17 3.2	1.399	2.317	13.0	19.4	9 18	1 24.80	+20 49.9	1.617	2.515	12.8	19.5
9 28	1 15.78	+16 17.7	1.373	2.340	8.5	19.2	9 28	1 16.65	+20 39.6	1.559	2.510	9.1	19.3
10 8	1 6.69	+15 14.0	1.372	2.362	4.1	19.0	10 8	1 6.94	+20 7.8	1.525	2.505	5.8	19.1
10 18	0 57.59	+13 59.0	1.397	2.385	3.9	19.1	10 18	0 56.82	+19 17.6	1.518	2.499	5.1	19.0
10 28	0 49.75	+12 42.1	1.449	2.408	7.9	19.4	10 28	0 47.55	+18 15.7	1.538	2.493	8.0	19.2
11 7	0 44.06	+11 32.4	1.526	2.431	12.0	19.7	11 7	0 40.24	+17 10.8	1.583	2.487	11.8	19.4
11 17	0 41.01	+10 36.5	1.624	2.454	15.5	20.0	11 17	0 35.58	+16 11.2	1.651	2.480	15.3	19.6
34580	2000 <i>SA</i> ₃₄₃		10 10.6 198°56	0.1/10.6	18		255222	2005 <i>UW</i> ₃₉₇		10 10.6 22°37	3.3/ 7.8	18	
9 8	1 26.11	+ 8 47.6	2.246	3.105	11.4	19.6	9 8	1 25.97	+ 0 1.0	1.697	2.586	13.0	20.1
9 18	1 20.88	+ 8 21.7	2.172	3.104	8.3	19.4	9 18	1 21.07	- 0 41.4	1.644	2.591	9.3	19.9
9 28	1 14.09	+ 7 46.5	2.124	3.103	4.8	19.2	9 28	1 14.28	- 1 27.1	1.614	2.597	5.5	19.7
10 8	1 6.35	+ 7 5.2	2.103	3.101	1.0	18.9	10 8	1 6.42	- 2 10.2	1.611	2.603	3.3	19.5
10 18	0 58.43	+ 6 22.0	2.111	3.099	2.8	19.1	10 18	0 58.43	- 2 44.4	1.634	2.610	5.6	19.7
10 28	0 51.14	+ 5 42.1	2.148	3.097	6.5	19.3	10 28	0 51.34	- 3 4.8	1.684	2.617	9.3	19.9
11 7	0 45.19	+ 5 9.8	2.212	3.095	9.9	19.5	11 7	0 45.96	- 3 8.3	1.758	2.624	12.9	20.2
11 17	0 41.06	+ 4 48.3	2.300	3.093	12.7	19.7	11 17	0 42.79	- 2 54.3	1.852	2.632	15.8	20.4
301299	2009 <i>BP</i> ₁₂₇		10 10.6 20°15	2.9/13.1	18		74483	1999 <i>CD</i> ₉₄		10 10.6 157°45	1.6/ 8.9	18	
9 8	1 28.03	+16 6.2	1.752	2.596	14.8	20.6	9 8	1 27.67	+ 3 21.3	2.279	3.148	10.9	19.5
9 18	1 22.72	+16 6.5	1.681	2.597	11.4	20.4	9 18	1 21.92	+ 2 47.8	2.215	3.153	7.8	19.3
9 28	1 15.31	+15 49.7	1.632	2.598	7.5	20.2	9 28	1 14.65	+ 2 9.1	2.176	3.158	4.4	19.1
10 8	1 6.62	+15 17.4	1.609	2.599	3.8	20.0	10 8	1 6.51	+ 1 29.4	2.166	3.162	1.7	18.9
10 18	0 57.66	+14 33.7	1.613	2.601	3.7	20.0	10 18	0 58.23	+ 0 53.1	2.185	3.166	3.8	19.1
10 28	0 49.54	+13 44.8	1.644	2.602	7.3	20.2	10 28	0 50.65	+ 0 24.7	2.233	3.170	7.1	19.3
11 7	0 43.21	+12 57.9	1.701	2.604	11.2	20.4	11 7	0 44.42	+ 0 7.2	2.308	3.173	10.2	19.5
11 17	0 39.27	+12 19.1	1.781	2.605	14.6	20.7	11 17	0 40.01	+ 0 2.5	2.406	3.176	12.9	19.7
328579	2009 <i>SO</i> ₃₈		10 10.6 171°44	0.2/10.7	18		366007	2012 <i>BB</i> ₁₀₉		10 10.6 122°25	5.7/ 2.9	18	
9 8	1 28.86	+ 7 39.8	2.367	3.222	11.1	20.6	9 8	1 24.73	-12 12.3	2.647	3.522	9.4	21.3
9 18	1 22.79	+ 7 42.0	2.293	3.222	8.1	20.4	9 18	1 19.59	-13 26.1	2.609	3.536	7.3	21.2
9 28	1 15.16	+ 7 37.2	2.245	3.223	4.7	20.2	9 28	1 13.22	-14 34.0	2.597	3.549	5.9	21.1
10 8	1 6.58	+ 7 27.7	2.225	3.223	1.0	19.9	10 8	1 6.20	-15 30.6	2.614	3.562	5.9	21.1
10 18	0 57.82	+ 7 16.1	2.235	3.224	2.7	20.1	10 18	0 59.15	-16 11.4	2.658	3.574	7.3	21.2
10 28	0 49.68	+ 7 6.1	2.275	3.224	6.2	20.3	10 28	0 52.72	-16 33.9	2.729	3.586	9.2	21.4
11 7	0 42.88	+ 7 0.9	2.342	3.224	9.4	20.5	11 7	0 47.45	-16 37.3	2.824	3.598	11.1	21.5
11 17	0 37.91	+ 7 3.1	2.433	3.224	12.2	20.7	11 17	0 43.73	-16 22.9	2.939	3.610	12.8	21.7
442394	2011 <i>UR</i> ₄₁		10 10.6 95°24	0.9/ 9.8	18		394596	2007 <i>VG</i> ₂₁₈		10 10.6 10°37	2.8/ 8.3	18	
9 8	1 30.57	+ 5 1.9	1.900	2.768	12.8	21.2	9 8	1 27.35	+ 1 23.1	1.605	2.493	13.7	20.8
9 18	1 24.21	+ 4 51.8	1.841	2.778	9.2	21.0	9 18	1 22.22	+ 0 46.0	1.547	2.494	9.8	20.6
9 28	1 16.01	+ 4 35.0	1.807	2.788	5.2	20.7	9 28	1 15.02	+ 0 3.8	1.512	2.495	5.7	20.3
10 8	1 6.75	+ 4 15.2	1.800	2.798	1.2	20.5	10 8	1 6.60	+ 0 37.5	1.502	2.497	2.8	20.2
10 18	0 57.39	+ 3 56.6	1.822	2.808	3.6	20.7	10 18	0 58.00	- 1 11.5	1.520	2.499	5.4	20.3
10 28	0 48.91	+ 3 43.6	1.873	2.818	7.6	21.0	10 28	0 50.33	- 1 32.5	1.563	2.501	9.5	20.6
11 7	0 42.13	+ 3 39.6	1.949	2.828	11.2	21.2	11 7	0 44.49	- 1 37.2	1.631	2.504	13.3	20.8
11 17	0 37.55	+ 3 46.8	2.048	2.838	14.2	21.4	11 17	0 41.04	- 1 24.4	1.719	2.507	16.5	21.1
462379	2008 <i>SN</i> ₁₃₁		10 10.6 70°06	1.2/11.3	17		409101	2003 <i>SQ</i> ₃₉₂		10 10.6 56°87	2.9/ 7.7	18	
9 8	1 33.16	+11 32.0	1.089	1.968	19.3	21.4	9 8	1 26.67	- 1 15.3	2.199	3.078	10.9	21.4
9 18	1 26.94	+11 11.6	1.048	1.987	14.2	21.2	9 18	1 21.23	- 1 45.3	2.140	3.082	7.8	21.3
9 28	1 17.83	+10 31.5	1.027	2.007	8.4	21.0	9 28	1 14.27	- 2 16.9	2.107	3.087	4.7	21.1
10 8	1 7.13	+ 9 37.5	1.029	2.026	2.4	20.7	10 8	1 6.43	- 2 45.4	2.101	3.092	2.9	21.0
10 18	0 56.45	+ 8 38.1	1.055	2.046	4.3	20.9	10 18	0 58.49	- 3 6.6	2.124	3.097	4.8	21.1
10 28	0 47.42	+ 7 43.4	1.107	2.065	9.9	21.2	10 28	0 51.25	- 3 16.8	2.175	3.102	7.9	21.3
11 7	0 41.16	+ 7 2.1	1.180	2.085	14.8	21.6	11 7	0 45.39	- 3 14.1	2.252	3.107	10.9	21.5
11 17	0 38.20	+ 6 38.8	1.273	2.104	18.9	21.9	11 17	0 41.37	- 2 57.6	2.351	3.112	13.4	21.7
181392	2006 <i>SY</i> ₇₇		10 10.6 303°41	3.4/ 6.9	18		511585	2014 <i>YF</i> ₄		10 10.6 261°15	1.0/ 9.8	17	
9 8	1 23.27	+ 1 47.2	1.818	2.706	12.3	20.0	9 8	1 29.18	+ 7 23.1	1.460	2.339	15.3	21.6
9 18	1 19.14	+ 0 16.9	1.750	2.698	8.8	19.8	9 18	1 23.94	+ 6 39.5	1.385	2.327	11.2	21.3
9 28	1 13.21	- 1 21.4	1.707	2.690	5.2	19.5	9 28	1 16.23	+ 5 41.8	1.332	2.314	6.4	21.0
10 8	1 6.19	- 2 59.7	1.691	2.682	3.5	19.4	10 8	1 6.89	+ 4 35.8	1.304	2.302	1.4	20.7
10 18	0 58.94	- 4 29.5	1.703	2.674	6.0	19.6	10 18	0 57.11	+ 3 29.3	1.302	2.289	4.6	20.9
10 28	0 52.40	- 5 42.7	1.742	2.667	9.7	19.8	10 28	0 48.24	+ 2 31.3	1.327	2.276	9.7	21.1
11 7	0 47.39	- 6 34.5	1.806	2.659	13.2	20.0	11 7	0 41.41	+ 1 49.0	1.376	2.263	14.4	21.4
11 17	0 44.45	- 7 2.8	1.890	2.652	16.2	20.2	11 17	0 37.35	+ 1 26.7	1.445	2.249	18.3	21.6
111696	Helenormán		10 10.6 97°85	1.2/ 9.3	18		360050	2013 <i>AM</i> ₇₃		10 10.6 237°75	1.1/11.7	18	

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
109782	2001 <i>RN</i> ₈₆		10 10.6 252°39	1°3/11.8 18			154983	2004 <i>VL</i> ₃₂		10 10.6 289°95	1°1/11.9 18		
9 8	1 28.48	+11 40.2	2.020	2.872	12.8	19.8	9 8	1 23.26	+13 49.2	2.208	3.057	12.0	19.8
9 18	1 22.84	+11 37.7	1.943	2.867	9.6	19.6	9 18	1 18.95	+13 6.3	2.127	3.050	9.0	19.6
9 28	1 15.34	+11 23.6	1.889	2.863	5.9	19.3	9 28	1 13.07	+12 9.0	2.070	3.042	5.5	19.3
10 8	1 6.69	+10 59.9	1.863	2.858	2.1	19.1	10 8	1 6.23	+11 0.5	2.040	3.035	1.9	19.1
10 18	0 57.75	+10 30.2	1.864	2.854	2.9	19.1	10 18	0 59.17	+9 46.1	2.038	3.028	2.6	19.1
10 28	0 49.51	+9 59.4	1.895	2.849	6.8	19.4	10 28	0 52.71	+8 32.0	2.066	3.021	6.3	19.4
11 7	0 42.81	+9 32.7	1.952	2.844	10.5	19.6	11 7	0 47.55	+7 24.7	2.121	3.014	9.7	19.6
11 17	0 38.22	+9 14.3	2.032	2.839	13.6	19.8	11 17	0 44.20	+6 29.0	2.200	3.007	12.7	19.8
92020	1999 <i>VE</i> ₁₆₄		10 10.6 291°81	0°9/11.5 18			10147	Mizugatsuka		10 10.6 252°34	0°7/ 9.8 18		
9 8	1 25.17	+11 24.6	2.136	2.991	12.1	19.5	9 8	1 24.83	+6 22.4	2.518	3.382	10.2	18.6
9 18	1 20.38	+11 3.5	2.054	2.982	9.0	19.2	9 18	1 19.89	+5 52.3	2.436	3.371	7.4	18.4
9 28	1 13.91	+10 30.6	1.997	2.972	5.4	19.0	9 28	1 13.54	+5 15.1	2.380	3.361	4.2	18.2
10 8	1 6.39	+9 48.6	1.966	2.963	1.6	18.7	10 8	1 6.33	+4 34.0	2.352	3.350	0.9	17.9
10 18	0 58.59	+9 1.7	1.964	2.954	2.8	18.8	10 18	0 58.89	+3 53.1	2.353	3.339	3.0	18.1
10 28	0 51.41	+8 15.5	1.990	2.944	6.6	19.0	10 28	0 51.97	+3 16.7	2.384	3.328	6.3	18.3
11 7	0 45.60	+7 35.2	2.043	2.935	10.1	19.2	11 7	0 46.19	+2 48.7	2.442	3.316	9.4	18.5
11 17	0 41.70	+7 5.0	2.120	2.926	13.2	19.4	11 17	0 42.04	+2 31.6	2.523	3.305	12.0	18.6
42204	2001 <i>DW</i> ₃₅		10 10.6 305°17	3°2/ 6.9 18			402780	2007 <i>CR</i> ₃₁		10 10.6 53°74	4°1/14.6 18		
9 8	1 23.59	+0 0.7	2.172	3.055	10.8	19.2	9 8	1 27.48	+20 10.1	2.002	2.822	14.1	20.8
9 18	1 19.08	-1 20.5	2.109	3.054	7.7	19.0	9 18	1 22.14	+20 20.4	1.933	2.830	11.2	20.6
9 28	1 13.08	-1 7.9	2.073	3.054	4.7	18.8	9 28	1 14.94	+20 12.8	1.887	2.837	7.9	20.4
10 8	1 6.20	-3 30.9	2.064	3.053	3.2	18.7	10 8	1 6.62	+19 48.0	1.865	2.844	5.0	20.2
10 18	0 59.17	-4 33.2	2.084	3.053	5.3	18.9	10 18	0 58.09	+19 9.0	1.871	2.852	4.4	20.2
10 28	0 52.79	-5 22.0	2.131	3.052	8.4	19.0	10 28	0 50.34	+18 21.1	1.905	2.860	6.8	20.4
11 7	0 47.72	-5 53.9	2.204	3.052	11.4	19.2	11 7	0 44.20	+17 31.0	1.966	2.868	9.9	20.6
11 17	0 44.41	-6 7.6	2.298	3.051	13.9	19.4	11 17	0 40.21	+16 44.9	2.050	2.876	12.9	20.8
192450	Xinjiangdaxue		10 10.6 351°63	8°0/ 3.2 18			341838	2008 <i>CW</i> ₂₀₅		10 10.6 188°26	0°1/10.5 17		
9 8	1 30.64	-18 42.4	2.223	3.085	11.4	19.3	9 8	1 21.71	+8 6.6	3.326	4.180	8.2	21.9
9 18	1 24.07	-19 18.5	2.174	3.084	9.5	19.2	9 18	1 17.33	+7 40.6	3.250	4.180	5.9	21.7
9 28	1 15.87	-19 42.5	2.150	3.083	8.2	19.1	9 28	1 11.95	+7 8.6	3.201	4.179	3.4	21.6
10 8	1 6.77	-19 48.9	2.152	3.082	8.1	19.1	10 8	1 5.98	+6 33.0	3.180	4.179	0.7	21.3
10 18	0 57.62	-19 34.1	2.180	3.081	9.4	19.2	10 18	0 59.91	+5 56.6	3.190	4.178	2.1	21.5
10 28	0 49.33	-18 56.7	2.234	3.081	11.4	19.3	10 28	0 54.22	+5 22.6	3.230	4.177	4.7	21.7
11 7	0 42.59	-17 58.5	2.311	3.080	13.4	19.4	11 7	0 49.39	+4 53.8	3.299	4.176	7.1	21.8
11 17	0 37.86	-16 42.4	2.408	3.080	15.3	19.6	11 17	0 45.75	+4 32.5	3.392	4.175	9.2	22.0
349773	2009 <i>BP</i> ₉		10 10.6 247°83	3°5/13.9 18			410839	2009 <i>QM</i> ₅₃		10 10.6 346°82	2°0/ 8.2 18		
9 8	1 28.46	+18 43.9	2.065	2.888	13.7	20.9	9 8	1 23.27	+4 3.5	2.112	2.990	11.3	21.5
9 18	1 22.94	+18 45.0	1.976	2.876	10.7	20.6	9 18	1 18.91	+2 56.6	2.046	2.989	8.0	21.3
9 28	1 15.48	+18 29.0	1.909	2.864	7.4	20.4	9 28	1 13.02	+1 42.1	2.005	2.989	4.5	21.1
10 8	1 6.74	+17 56.7	1.868	2.852	4.3	20.2	10 8	1 6.22	+0 26.0	1.993	2.988	2.0	20.9
10 18	0 57.60	+17 10.8	1.855	2.839	3.9	20.2	10 18	0 59.26	-0 45.5	2.009	2.988	4.4	21.1
10 28	0 49.11	+16 16.9	1.871	2.826	6.8	20.3	10 28	0 52.96	-1 46.2	2.053	2.987	7.8	21.3
11 7	0 42.15	+15 21.7	1.913	2.812	10.3	20.5	11 7	0 47.99	-2 31.7	2.123	2.987	11.1	21.5
11 17	0 37.35	+14 31.5	1.979	2.798	13.5	20.7	11 17	0 44.83	-2 59.7	2.215	2.987	13.8	21.7
277358	2005 <i>TB</i> ₁₂₉		10 10.6 61°71	0°1/10.6 16			97558	2000 <i>DB</i> ₇₃		10 10.6 300°28	0°3/10.3 18		
9 8	1 29.14	+9 50.3	1.352	2.229	16.4	21.1	9 8	1 24.63	+7 58.0	2.132	2.998	11.7	19.6
9 18	1 23.64	+9 10.3	1.308	2.248	11.9	20.9	9 18	1 20.03	+7 29.2	2.045	2.981	8.5	19.4
9 28	1 15.83	+8 15.2	1.286	2.267	6.8	20.6	9 28	1 13.75	+6 50.5	1.983	2.964	4.9	19.2
10 8	1 6.77	+7 11.2	1.288	2.286	1.4	20.3	10 8	1 6.39	+6 5.6	1.949	2.947	1.0	18.8
10 18	0 57.70	+6 6.3	1.317	2.306	3.9	20.6	10 18	0 58.72	+5 19.1	1.942	2.930	3.1	19.0
10 28	0 49.90	+5 9.2	1.371	2.325	8.9	20.9	10 28	0 51.61	+4 36.4	1.965	2.914	7.1	19.2
11 7	0 44.30	+4 26.5	1.450	2.345	13.2	21.2	11 7	0 45.83	+4 2.6	2.013	2.897	10.6	19.4
11 17	0 41.38	+4 1.9	1.549	2.365	16.8	21.5	11 17	0 41.95	+3 41.0	2.084	2.881	13.7	19.6
28459	2000 <i>AW</i> ₁₄₄		10 10.6 184°73	0°3/10.2 18			13383	1998 <i>XS</i> ₃₁		10 10.6 330°19	1°3/13.0 18		
9 8	1 23.68	+7 35.7	3.349	4.200	8.2	20.6	9 8	1 18.79	+15 11.4	4.055	4.881	7.4	18.2
9 18	1 18.71	+7 2.6	3.271	4.200	5.9	20.5	9 18	1 15.13	+14 53.6	3.971	4.878	5.6	18.1
9 28	1 12.72	+6 23.4	3.221	4.199	3.4	20.3	9 28	1 10.67	+14 28.1	3.912	4.876	3.6	17.9
10 8	1 6.12	+5 40.9	3.200	4.198	0.7	20.1	10 8	1 5.72	+13 56.2	3.882	4.873	1.7	17.8
10 18	0 59.41	+4 58.0	3.210	4.196	2.2	20.2	10 18	1 0.68	+13 20.1	3.882	4.870	1.7	17.8
10 28	0 53.11	+4 18.1	3.251	4.194	4.8	20.4	10 28	0 55.94	+12 42.2	3.913	4.867	3.6	17.9
11 7	0 47.69	+3 44.2	3.321	4.192	7.3	20.5	11 7	0 51.87	+12 5.4	3.972	4.865	5.6	18.1
11 17	0 43.50	+3 18.5	3.416	4.188	9.4	20.7	11 17	0 48.77	+11 32.3	4.058	4.862	7.4	18.2
358899	2008 <i>GM</i> ₅₂		10 10.6 71°07	0°5/10.0 18			514840	2008 <i>CY</i> ₁₉₃		10 10.6 90°52	2°0/12.5 18		
9 8	1 24.32	+8 36.9	2.024	2.892	12.2	21.2	9 8	1 28.60	+13 59.2	2.127	2.968	12.7	21.2
9 18	1 19.70	+7 44.6	1.960	2.896	8.8	21.0	9 18	1 22.75	+14 0.0	2.063	2.979	9.6	21.0
9 28	1 13.47	+6 41.2	1.920	2.901	5.0	20.7	9 28	1 15.21	+13 48.1	2.023	2.991	6.0	20.8
10 8	1 6.29	+5 31.9	1.907	2.905	1.0	20.5	10 8	1 6.68	+13 25.4	2.009	3.002	2.7	20.6
10 18	0 58.97	+4 22.6	1.923	2.910	3.3	20.7	10 18	0 58.02	+12 55.3	2.025	3.013	2.9	20.6
10 28	0 52.37	+3 19.8	1.967	2.914	7.2	20.9	10 28	0 50.12	+12 22.5	2.070	3.024	6.3	20.9
11 7	0 47.20	+2 28.8	2.037	2.919	10.7	21.1	11 7	0 43.73	+11 51.9	2.141	3.036	9.6	21.1
11 17	0 43.94	+1 53.0	2.131	2.923	13.6	21.4	11 17	0 39.34	+11 27.9	2.236	3.047	12.5	21.3
19752	2000 <i>CH</i> ₆₇		10 10.6 279°74	4°7/ 2.7 18			221944	2339 <i>T</i> ₋₃		10 10.6 318°56	2°3/12.8 18		
9 8	1 20.33	-9 59.6	3.140	4.020	7.9	17.7	9 8	1 24.72	+15 8.1</				

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
315940	2008 <i>TJ</i> ₈₅		10 10.6 348°09	0°3/11.1	18		303143	2004 <i>DE</i> ₄₁		10 10.6 191°41	0°6/11.2	18	
9 8	1 19.31	+ 9 26.9	4.206	5.052	6.8	20.7	9 8	1 29.74	+ 9 30.7	2.180	3.032	12.0	20.8
9 18	1 15.45	+ 9 12.3	4.127	5.052	4.9	20.6	9 18	1 23.62	+ 9 27.2	2.105	3.031	8.8	20.6
9 28	1 10.83	+ 8 52.7	4.076	5.051	2.9	20.5	9 28	1 15.76	+ 9 14.5	2.054	3.030	5.2	20.4
10 8	1 5.76	+ 8 29.6	4.053	5.051	0.7	20.3	10 8	1 6.85	+ 8 54.7	2.031	3.029	1.4	20.1
10 18	1 0.60	+ 8 5.0	4.061	5.050	1.5	20.4	10 18	0 57.71	+ 8 31.4	2.038	3.027	2.8	20.2
10 28	0 55.73	+ 7 41.2	4.100	5.050	3.7	20.5	10 28	0 49.25	+ 8 8.9	2.074	3.025	6.6	20.5
11 7	0 51.51	+ 7 20.3	4.167	5.049	5.6	20.7	11 7	0 42.24	+ 7 51.3	2.137	3.023	10.0	20.7
11 17	0 48.21	+ 7 4.1	4.261	5.049	7.4	20.8	11 17	0 37.23	+ 7 41.9	2.224	3.020	13.0	20.9
57023	2000 <i>UH</i> ₁₀		10 10.6 14°63	3°1/8.3	18		279240	2009 <i>VV</i>		10 10.6 311°94	8°4/18.4	17	
9 8	1 27.32	- 0 3.7	1.538	2.430	14.0	17.1	9 8	1 28.73	+31 1.0	2.111	2.865	15.6	20.5
9 18	1 22.23	- 0 26.4	1.486	2.434	10.0	16.8	9 18	1 23.48	+31 56.2	2.015	2.847	13.5	20.3
9 28	1 15.05	- 0 52.0	1.457	2.440	5.9	16.6	9 28	1 16.00	+32 29.9	1.939	2.830	11.2	20.1
10 8	1 6.66	- 1 14.8	1.452	2.446	3.1	16.5	10 8	1 6.95	+32 38.7	1.886	2.813	9.3	19.9
10 18	0 58.14	- 1 29.4	1.475	2.453	5.6	16.6	10 18	0 57.29	+32 21.8	1.858	2.797	8.4	19.9
10 28	0 50.62	- 1 31.2	1.523	2.462	9.6	16.9	10 28	0 48.19	+31 41.8	1.855	2.781	9.1	19.9
11 7	0 45.00	- 1 17.6	1.594	2.470	13.4	17.2	11 7	0 40.73	+30 45.3	1.878	2.765	11.1	20.0
11 17	0 41.81	- 0 48.2	1.687	2.480	16.6	17.4	11 17	0 35.67	+29 40.7	1.924	2.749	13.6	20.1
38408	1999 <i>RN</i> ₂₀₄		10 10.6 106°91	6°9/17.6	18		421830	2014 <i>QA</i> ₁₁₄		10 10.6 336°03	4°4/5.5	18	
9 8	1 34.10	+28 18.2	2.056	2.820	15.7	18.6	9 8	1 21.09	- 0 41.2	1.809	2.705	12.0	20.3
9 18	1 26.95	+28 53.3	1.994	2.841	13.0	18.4	9 18	1 17.62	- 2 26.9	1.744	2.695	8.6	20.1
9 28	1 17.71	+29 5.6	1.953	2.862	10.2	18.3	9 28	1 12.42	- 4 18.6	1.705	2.685	5.5	19.8
10 8	1 7.23	+28 53.6	1.937	2.882	7.9	18.2	10 8	1 6.15	- 6 7.5	1.692	2.677	4.6	19.8
10 18	0 56.59	+28 18.9	1.947	2.902	6.9	18.2	10 18	0 59.66	- 7 44.2	1.707	2.668	7.0	19.9
10 28	0 46.92	+27 26.7	1.986	2.921	8.0	18.3	10 28	0 53.86	- 9 1.1	1.748	2.661	10.5	20.1
11 7	0 39.14	+26 24.7	2.050	2.939	10.2	18.5	11 7	0 49.53	- 9 53.4	1.813	2.654	13.7	20.3
11 17	0 33.80	+25 20.8	2.140	2.957	12.7	18.7	11 17	0 47.18	-10 19.9	1.897	2.647	16.5	20.5
31839	Depinto		10 10.6 185°13	0°6/11.1	18		517964	2015 <i>TS</i> ₃₆₄		10 10.6 213°68	2°9/7.1	18	
9 8	1 29.35	+11 8.2	1.825	2.681	13.8	20.1	9 8	1 23.80	+ 0 10.2	2.346	3.226	10.2	22.0
9 18	1 23.59	+10 34.4	1.753	2.682	10.1	19.9	9 18	1 19.19	- 0 54.0	2.280	3.224	7.3	21.8
9 28	1 15.83	+ 9 46.6	1.705	2.682	6.0	19.7	9 28	1 13.16	- 2 2.0	2.240	3.221	4.4	21.6
10 8	1 6.85	+ 8 48.7	1.683	2.681	1.6	19.4	10 8	1 6.30	- 3 8.3	2.229	3.219	2.9	21.5
10 18	0 57.64	+ 7 46.5	1.690	2.680	3.2	19.5	10 18	0 59.29	- 4 7.5	2.246	3.216	4.9	21.6
10 28	0 49.25	+ 6 47.1	1.726	2.678	7.6	19.8	10 28	0 52.87	- 4 54.6	2.292	3.213	7.9	21.8
11 7	0 42.58	+ 5 56.9	1.787	2.676	11.5	20.0	11 7	0 47.66	- 5 26.3	2.364	3.210	10.7	22.0
11 17	0 38.21	+ 5 20.4	1.871	2.673	14.9	20.2	11 17	0 44.12	- 5 41.2	2.457	3.207	13.2	22.2
225296	1995 <i>SQ</i> ₆₇		10 10.6 320°24	0°8/9.1	18		475959	2007 <i>GX</i> ₆₈		10 10.6 16°91	0°2/10.7	18	
9 8	1 17.77	+ 4 37.7	4.254	5.118	6.4	20.7	9 8	1 30.51	+ 8 1.6	1.388	2.266	16.0	20.6
9 18	1 14.35	+ 4 2.2	4.179	5.115	4.5	20.5	9 18	1 24.88	+ 8 0.4	1.328	2.268	11.7	20.3
9 28	1 10.21	+ 3 23.2	4.131	5.112	2.5	20.4	9 28	1 16.75	+ 7 47.2	1.289	2.270	6.8	20.0
10 8	1 5.65	+ 2 43.0	4.112	5.109	0.8	20.2	10 8	1 7.08	+ 7 25.9	1.275	2.273	1.5	19.7
10 18	1 1.00	+ 2 3.9	4.124	5.107	2.1	20.4	10 18	0 57.14	+ 7 1.8	1.286	2.276	3.9	19.9
10 28	0 56.64	+ 1 28.6	4.167	5.104	4.1	20.5	10 28	0 48.29	+ 6 41.1	1.324	2.279	9.0	20.2
11 7	0 52.89	+ 0 59.0	4.237	5.101	6.0	20.6	11 7	0 41.65	+ 6 29.6	1.386	2.283	13.6	20.5
11 17	0 50.01	+ 0 36.9	4.333	5.099	7.6	20.8	11 17	0 37.85	+ 6 31.0	1.468	2.288	17.3	20.7
217818	2001 <i>DC</i> ₄₆		10 10.6 301°48	3°7/6.4	18		124854	2001 <i>TD</i> ₂₀		10 10.6 346°17	5°5/15.1	18	
9 8	1 23.44	- 1 21.0	2.088	2.974	11.0	20.1	9 8	1 27.46	+21 35.1	1.440	2.275	17.9	18.9
9 18	1 19.10	- 2 32.7	2.021	2.966	8.0	19.8	9 18	1 22.85	+21 45.3	1.368	2.272	14.3	18.7
9 28	1 13.18	- 3 47.9	1.979	2.959	5.0	19.7	9 28	1 15.69	+21 30.0	1.316	2.269	10.3	18.4
10 8	1 6.30	- 5 0.1	1.964	2.951	3.8	19.6	10 8	1 6.88	+20 49.3	1.287	2.266	6.7	18.2
10 18	0 59.22	- 6 2.8	1.978	2.943	5.9	19.7	10 18	0 57.65	+19 46.9	1.282	2.264	5.7	18.2
10 28	0 52.78	- 6 50.4	2.019	2.936	9.0	19.9	10 28	0 49.42	+18 31.3	1.303	2.262	8.7	18.3
11 7	0 47.67	- 7 19.4	2.085	2.929	12.1	20.1	11 7	0 43.35	+17 13.3	1.348	2.261	12.7	18.6
11 17	0 44.41	- 7 28.8	2.172	2.921	14.7	20.2	11 17	0 40.14	+16 2.6	1.415	2.260	16.5	18.8
35728	1999 <i>GA</i> ₂		10 10.6 50°25	6°4/6.5	18 R		435494	2008 <i>GT</i> ₇₉		10 10.6 129°75	1°3/9.5	16	
9 8	1 30.82	- 3 30.0	1.039	1.947	17.7	17.6	9 8	1 30.68	+ 5 49.2	1.704	2.575	13.9	22.2
9 18	1 25.13	- 4 44.6	1.014	1.968	12.8	17.4	9 18	1 24.50	+ 5 9.8	1.647	2.586	10.0	22.0
9 28	1 16.74	- 5 57.4	1.010	1.991	8.3	17.2	9 28	1 16.31	+ 4 21.3	1.614	2.596	5.6	21.8
10 8	1 7.01	- 6 57.0	1.028	2.014	6.5	17.2	10 8	1 6.97	+ 3 29.0	1.608	2.606	1.5	21.5
10 18	0 57.48	- 7 34.2	1.070	2.037	9.2	17.4	10 18	0 57.51	+ 2 39.2	1.630	2.615	4.2	21.7
10 28	0 49.63	- 7 43.8	1.134	2.061	13.4	17.7	10 28	0 49.05	+ 1 58.4	1.680	2.624	8.5	22.0
11 7	0 44.42	- 7 25.8	1.219	2.085	17.4	18.0	11 7	0 42.44	+ 1 31.2	1.756	2.633	12.3	22.3
11 17	0 42.28	- 6 43.6	1.321	2.110	20.6	18.3	11 17	0 38.21	+ 1 20.0	1.852	2.641	15.5	22.5
330203	2006 <i>FB</i> ₁₅		10 10.6 199°27	0°5/9.9	18		516081	2015 <i>TQ</i> ₃₂₂		10 10.6 36°43	1°7/9.1	18	
9 8	1 24.34	+ 7 1.3	2.770	3.629	9.5	22.0	9 8	1 26.23	+ 4 14.8	1.812	2.691	12.8	21.3
9 18	1 19.41	+ 6 28.5	2.694	3.627	6.9	21.9	9 18	1 21.22	+ 3 39.1	1.754	2.697	9.1	21.1
9 28	1 13.23	+ 5 48.7	2.644	3.624	3.9	21.7	9 28	1 14.42	+ 2 56.2	1.721	2.704	5.1	20.9
10 8	1 6.31	+ 5 5.3	2.622	3.620	0.8	21.4	10 8	1 6.57	+ 2 11.4	1.714	2.711	1.7	20.7
10 18	0 59.23	+ 4 21.8	2.631	3.617	2.6	21.6	10 18	0 58.59	+ 1 30.4	1.734	2.718	4.2	20.8
10 28	0 52.65	+ 3 42.4	2.669	3.613	5.7	21.8	10 28	0 51.44	+ 0 58.5	1.782	2.725	8.2	21.1
11 7	0 47.12	+ 3 10.4	2.735	3.609	8.5	22.0	11 7	0 45.92	+ 0 39.8	1.855	2.732	11.7	21.3
11 17	0 43.06	+ 2 48.5	2.826	3.605	11.0	22.1	11 17	0 42.52	+ 0 36.3	1.950	2.740	14.8	21.6
477577	2010 <i>JN</i> ₂		10 10.6 252°22	2°8/8.6	18		242422	2004 <i>HW</i> ₆₀		10 10.6 154°34			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
267592	2002 <i>RS</i> ₂₃		10 10.6 328°48	1°1/ 9.5 18			278333	2007 <i>HK</i> ₇₇		10 10.6 42°82	3°2/ 8.3 18		
9 8	1 23.71	+ 5 54.6	2.063	2.938	11.7	19.8	9 8	1 28.37	+ 2 17.9	1.235	2.132	16.2	20.0
9 18	1 19.36	+ 5 17.7	1.988	2.929	8.4	19.6	9 18	1 23.16	+ 1 23.9	1.202	2.154	11.5	19.8
9 28	1 13.37	+ 4 32.4	1.938	2.921	4.7	19.4	9 28	1 15.61	+ 0 23.6	1.191	2.176	6.6	19.6
10 8	1 6.37	+ 3 43.1	1.915	2.912	1.2	19.1	10 8	1 6.85	- 0 34.4	1.203	2.198	3.2	19.4
10 18	0 59.14	+ 2 54.9	1.919	2.905	3.6	19.3	10 18	0 58.16	- 1 21.7	1.241	2.222	6.1	19.7
10 28	0 52.53	+ 2 13.5	1.952	2.897	7.4	19.5	10 28	0 50.84	- 1 51.7	1.304	2.246	10.6	20.0
11 7	0 47.28	+ 1 43.2	2.010	2.890	10.9	19.7	11 7	0 45.79	- 2 1.1	1.389	2.270	14.7	20.3
11 17	0 43.92	+ 1 26.9	2.091	2.883	13.8	19.9	11 17	0 43.45	- 1 49.7	1.493	2.294	18.0	20.6
209284	2003 <i>YZ</i> ₃₄		10 10.6 310°83	1°8/ 9.0 18			273391	2006 <i>VZ</i> ₅₅		10 10.6 340°57	0°3/ 10.8 18		
9 8	1 27.00	+ 4 3.7	1.734	2.614	13.2	19.8	9 8	1 25.83	+ 10 25.0	1.219	2.105	17.2	20.4
9 18	1 21.98	+ 3 26.8	1.665	2.609	9.5	19.5	9 18	1 21.84	+ 9 49.4	1.154	2.098	12.7	20.1
9 28	1 14.96	+ 2 41.9	1.620	2.603	5.4	19.3	9 28	1 15.19	+ 8 54.9	1.109	2.092	7.4	19.8
10 8	1 6.72	+ 1 54.6	1.601	2.597	1.9	19.0	10 8	1 6.83	+ 7 47.1	1.088	2.086	1.7	19.4
10 18	0 58.20	+ 1 10.7	1.609	2.592	4.5	19.2	10 18	0 58.07	+ 6 34.5	1.091	2.081	4.2	19.6
10 28	0 50.49	+ 0 36.6	1.644	2.587	8.7	19.4	10 28	0 50.39	+ 5 28.0	1.119	2.077	9.9	19.9
11 7	0 44.48	+ 0 16.8	1.704	2.582	12.6	19.7	11 7	0 44.99	+ 4 36.5	1.169	2.073	14.9	20.2
11 17	0 40.73	+ 0 13.5	1.785	2.577	15.9	19.9	11 17	0 42.56	+ 4 5.6	1.238	2.071	19.2	20.4
373195	2012 <i>DN</i> ₇₆		10 10.6 215°57	0°2/ 10.5 17			388081	2005 <i>UB</i> ₇₁		10 10.6 304°55	4°2/ 13.3 18		
9 8	1 31.25	+ 8 25.5	1.457	2.330	15.7	21.4	9 8	1 29.52	+ 16 37.8	1.434	2.286	17.1	20.7
9 18	1 25.41	+ 8 1.3	1.389	2.327	11.5	21.2	9 18	1 24.73	+ 17 0.5	1.337	2.256	13.5	20.4
9 28	1 17.07	+ 7 23.5	1.343	2.324	6.6	20.9	9 28	1 17.08	+ 17 4.1	1.261	2.226	9.2	20.1
10 8	1 7.17	+ 6 37.0	1.323	2.321	1.4	20.5	10 8	1 7.30	+ 16 47.7	1.208	2.196	5.1	19.7
10 18	0 56.94	+ 5 48.2	1.329	2.318	4.0	20.7	10 18	0 56.59	+ 16 13.3	1.180	2.167	5.0	19.7
10 28	0 47.72	+ 5 4.9	1.362	2.314	9.2	21.0	10 28	0 46.50	+ 15 27.3	1.178	2.137	9.3	19.8
11 7	0 40.63	+ 4 33.7	1.419	2.310	13.7	21.3	11 7	0 38.49	+ 14 39.0	1.199	2.108	14.2	20.0
11 17	0 36.35	+ 4 18.7	1.497	2.306	17.6	21.5	11 17	0 33.58	+ 13 57.2	1.240	2.080	18.7	20.2
353536	2011 <i>ST</i> ₁₇₀		10 10.6 97°44	0°4/ 11.0 18			98710	2000 <i>XZ</i> ₃₈		10 10.6 177°71	10°0/ 3.7 18		
9 8	1 28.01	+ 9 47.2	1.921	2.781	13.0	20.9	9 8	1 39.14	- 21 52.4	1.863	2.712	13.9	19.5
9 18	1 22.49	+ 9 28.2	1.856	2.787	9.5	20.7	9 18	1 30.49	- 22 26.8	1.816	2.712	11.7	19.4
9 28	1 15.15	+ 8 58.1	1.815	2.793	5.6	20.5	9 28	1 19.68	- 22 43.8	1.792	2.713	10.3	19.3
10 8	1 6.74	+ 8 20.3	1.801	2.799	1.4	20.2	10 8	1 7.72	- 22 36.2	1.794	2.713	10.2	19.3
10 18	0 58.17	+ 7 39.5	1.816	2.805	3.0	20.3	10 18	0 55.79	- 22 0.3	1.822	2.713	11.5	19.4
10 28	0 50.41	+ 7 1.2	1.859	2.811	7.1	20.6	10 28	0 45.09	- 20 56.1	1.875	2.713	13.6	19.5
11 7	0 44.25	+ 6 30.6	1.928	2.817	10.8	20.9	11 7	0 36.52	- 19 27.4	1.951	2.713	15.8	19.7
11 17	0 40.21	+ 6 11.2	2.019	2.823	13.9	21.1	11 17	0 30.59	- 17 39.6	2.047	2.712	17.9	19.9
386802	2010 <i>EA</i> ₁₃₉		10 10.6 213°04	6°0/ 4.2 18			374193	2005 <i>CZ</i> ₂₉		10 10.6 122°08	1°3/ 11.6 17		
9 8	1 29.04	- 9 48.5	2.178	3.055	11.0	22.1	9 8	1 33.29	+ 11 53.6	1.633	2.487	15.2	21.7
9 18	1 23.09	- 10 57.6	2.116	3.048	8.5	21.9	9 18	1 26.51	+ 11 39.1	1.576	2.502	11.3	21.5
9 28	1 15.46	- 12 2.9	2.079	3.040	6.5	21.8	9 28	1 17.54	+ 11 9.9	1.542	2.516	6.8	21.3
10 8	1 6.81	- 12 57.5	2.069	3.031	6.2	21.8	10 8	1 7.30	+ 10 29.3	1.534	2.530	2.2	21.0
10 18	0 57.98	- 13 35.8	2.088	3.022	7.9	21.9	10 18	0 56.95	+ 9 42.8	1.554	2.544	3.4	21.1
10 28	0 49.84	- 13 53.7	2.133	3.012	10.5	22.0	10 28	0 47.70	+ 8 57.3	1.602	2.556	7.9	21.4
11 7	0 43.15	- 13 50.1	2.203	3.002	13.1	22.2	11 7	0 40.49	+ 8 19.2	1.676	2.568	11.9	21.7
11 17	0 38.42	- 13 25.9	2.292	2.991	15.4	22.3	11 17	0 35.87	+ 7 53.2	1.772	2.580	15.3	21.9
489754	2007 <i>YP</i> ₆₇		10 10.6 353°13	7°7/ 17.5 16			463438	2013 <i>ML</i> ₅		10 10.6 107°10	0°8/ 11.4 16		
9 8	1 27.40	+ 27 21.9	1.665	2.461	17.5	21.6	9 8	1 32.45	+ 12 41.0	1.565	2.420	15.7	22.5
9 18	1 22.68	+ 27 56.5	1.590	2.458	14.7	21.4	9 18	1 25.83	+ 11 52.0	1.517	2.444	11.5	22.3
9 28	1 15.57	+ 28 5.3	1.533	2.456	11.6	21.2	9 28	1 17.07	+ 10 46.0	1.492	2.468	6.8	22.0
10 8	1 6.88	+ 27 46.2	1.499	2.454	8.8	21.0	10 8	1 7.18	+ 9 28.9	1.493	2.490	1.9	21.8
10 18	0 57.77	+ 27 0.6	1.490	2.453	7.7	21.0	10 18	0 57.33	+ 8 8.2	1.523	2.512	3.4	21.9
10 28	0 49.53	+ 25 54.6	1.506	2.452	9.0	21.0	10 28	0 48.69	+ 6 52.9	1.580	2.533	8.1	22.3
11 7	0 43.28	+ 24 37.6	1.546	2.451	11.9	21.2	11 7	0 42.13	+ 5 50.4	1.663	2.553	12.1	22.6
11 17	0 39.72	+ 23 19.6	1.609	2.452	14.9	21.4	11 17	0 38.15	+ 5 4.9	1.769	2.573	15.5	22.8
178387	1997 <i>TN</i> ₃₀		10 10.6 261°47	0°1/ 10.7 18			480015	2014 <i>OV</i> ₂₃₈		10 10.6 246°43	3°9/ 6.2 18		
9 8	1 18.54	+ 8 31.2	4.496	5.346	6.3	20.4	9 8	1 24.71	- 2 36.2	2.164	3.048	10.8	21.3
9 18	1 14.90	+ 8 10.2	4.412	5.339	4.6	20.3	9 18	1 19.98	- 3 43.0	2.100	3.043	7.8	21.1
9 28	1 10.55	+ 7 44.7	4.356	5.333	2.6	20.1	9 28	1 13.70	- 4 51.7	2.061	3.039	5.0	20.9
10 8	1 5.77	+ 7 16.3	4.328	5.326	0.6	19.9	10 8	1 6.50	- 5 56.1	2.051	3.035	4.0	20.8
10 18	1 0.90	+ 6 47.0	4.332	5.320	1.5	20.0	10 18	0 59.12	- 6 50.4	2.068	3.030	5.9	21.0
10 28	0 56.30	+ 6 18.9	4.366	5.313	3.6	20.2	10 28	0 52.39	- 7 29.4	2.113	3.026	8.9	21.1
11 7	0 52.27	+ 5 54.2	4.428	5.307	5.4	20.3	11 7	0 46.99	- 7 50.5	2.183	3.021	11.8	21.3
11 17	0 49.10	+ 5 34.5	4.517	5.300	7.1	20.4	11 17	0 43.40	- 7 52.8	2.274	3.016	14.3	21.5
516829	2010 <i>UV</i> ₅₇		10 10.6 260°33	2°9/ 7.9 18			483854	2005 <i>YF</i> ₃₂		10 10.6 201°56	5°9/ 2.8 18		
9 8	1 27.67	- 1 4.6	2.193	3.070	11.0	21.3	9 8	1 25.08	- 12 56.9	2.677	3.551	9.3	21.9
9 18	1 22.07	- 1 32.2	2.126	3.067	7.9	21.1	9 18	1 19.99	- 14 5.4	2.623	3.548	7.4	21.8
9 28	1 14.86	- 2 1.5	2.084	3.064	4.7	20.9	9 28	1 13.61	- 15 8.3	2.595	3.544	6.1	21.7
10 8	1 6.70	- 2 28.2	2.069	3.060	2.9	20.8	10 8	1 6.48	- 16 0.1	2.595	3.541	6.1	21.7
10 18	0 58.36	- 2 47.9	2.084	3.057	4.8	20.9	10 18	0 59.23	- 16 36.5	2.622	3.536	7.5	21.8
10 28	0 50.69	- 2 56.9	2.126	3.054	8.0	21.1	10 28	0 52.54	- 16 54.5	2.676	3.532	9.4	21.9
11 7	0 44.41	- 2 52.9	2.195	3.050	11.1	21.3	11 7	0 46.98	- 16 53.3	2.754	3.527	11.4	22.0
11 17	0 40.01	- 2 35.2	2.285	3.047	13.7	21.5	11 17	0 42.97	- 16 33.8	2.852	3.522	13.2	22.2
47698													

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
67951	2000 <i>WB</i> ₁₆₁		10 10.6	28°57'	4.5/7.3	18	96951	1999 <i>TC</i> ₁₇₃		10 10.7	280°61'	1.5/11.9	18
9 8	1 25.69	+ 1 54.2	1.060	1.969	17.3	18.4	9 8	1 28.64	+12 13.7	1.754	2.610	14.2	19.7
9 18	1 21.70	+ 0 25.6	1.019	1.976	12.4	18.2	9 18	1 23.31	+12 5.8	1.675	2.602	10.7	19.5
9 28	1 15.02	- 1 12.0	0.998	1.984	7.3	17.9	9 28	1 15.85	+11 43.6	1.619	2.594	6.6	19.2
10 8	1 6.81	- 2 46.3	1.001	1.993	4.6	17.8	10 8	1 7.03	+11 9.8	1.589	2.585	2.4	18.9
10 18	0 58.48	- 4 4.9	1.027	2.003	7.9	18.0	10 18	0 57.83	+10 28.5	1.587	2.577	3.2	19.0
10 28	0 51.52	- 4 58.0	1.076	2.014	12.7	18.3	10 28	0 49.40	+ 9 46.2	1.612	2.568	7.6	19.2
11 7	0 47.01	- 5 21.3	1.145	2.026	17.2	18.6	11 7	0 42.71	+ 9 9.2	1.663	2.560	11.7	19.5
11 17	0 45.47	- 5 15.3	1.232	2.038	20.8	18.9	11 17	0 38.40	+ 8 42.7	1.736	2.552	15.2	19.7
517166	2013 <i>NY</i> ₂₆		10 10.7	111°40'	0°3/10.4	17	391278	2006 <i>SU</i> ₁₅₀		10 10.7	68°41'	0°6/11.1	18
9 8	1 28.53	+10 37.3	1.395	2.269	16.2	21.5	9 8	1 30.68	+ 9 28.8	1.770	2.631	13.9	21.3
9 18	1 23.38	+ 9 33.0	1.338	2.277	11.8	21.2	9 18	1 24.42	+ 9 21.1	1.721	2.652	10.2	21.2
9 28	1 15.88	+ 8 10.7	1.303	2.284	6.8	21.0	9 28	1 16.26	+ 9 2.4	1.697	2.674	5.9	21.0
10 8	1 6.99	+ 6 37.7	1.293	2.291	1.4	20.6	10 8	1 7.07	+ 8 36.1	1.698	2.696	1.5	20.7
10 18	0 57.94	+ 5 3.4	1.309	2.298	4.1	20.9	10 18	0 57.86	+ 8 6.8	1.728	2.717	3.1	20.9
10 28	0 50.01	+ 3 38.6	1.352	2.304	9.2	21.2	10 28	0 49.66	+ 7 39.8	1.786	2.739	7.3	21.2
11 7	0 44.21	+ 2 31.4	1.420	2.311	13.7	21.5	11 7	0 43.28	+ 7 19.8	1.870	2.760	11.0	21.4
11 17	0 41.09	+ 1 46.4	1.507	2.317	17.5	21.7	11 17	0 39.18	+ 7 10.0	1.976	2.782	14.0	21.7
172823	2004 <i>TL</i> ₁₈₃		10 10.7	156°15'	1°7/11.9	17	515302	2012 <i>UC</i> ₁₁₉		10 10.7	32°41'	2°9/8.4	18
9 8	1 32.48	+12 44.6	1.446	2.306	16.5	20.5	9 8	1 29.08	+ 1 9.2	1.551	2.438	14.1	20.8
9 18	1 26.32	+12 31.7	1.382	2.310	12.4	20.3	9 18	1 23.59	+ 0 34.7	1.495	2.441	10.2	20.6
9 28	1 17.63	+12 1.2	1.339	2.314	7.6	20.0	9 28	1 15.94	- 0 4.6	1.462	2.445	5.9	20.3
10 8	1 7.38	+11 16.6	1.321	2.317	2.7	19.7	10 8	1 7.03	- 0 42.5	1.455	2.449	2.9	20.2
10 18	0 56.84	+10 23.5	1.330	2.320	3.7	19.8	10 18	0 57.94	- 1 12.8	1.474	2.454	5.5	20.3
10 28	0 47.41	+ 9 30.3	1.365	2.322	8.6	20.1	10 28	0 49.87	- 1 29.9	1.520	2.458	9.7	20.6
11 7	0 40.20	+ 8 44.8	1.425	2.324	13.2	20.4	11 7	0 43.72	- 1 30.5	1.590	2.463	13.6	20.8
11 17	0 35.86	+ 8 12.9	1.507	2.326	17.0	20.6	11 17	0 40.07	- 1 13.8	1.680	2.469	16.8	21.1
452096	2014 <i>QN</i> ₃₅		10 10.7	38°15'	6°3/3.1	18	398491	2011 <i>UF</i> ₁₆₂		10 10.7	357°29'	2°9/8.6	18
9 8	1 23.90	- 9 32.9	2.083	2.971	11.0	21.0	9 8	1 25.96	+ 1 39.1	1.386	2.282	14.9	20.0
9 18	1 19.42	-11 5.6	2.035	2.972	8.4	20.9	9 18	1 21.60	+ 1 9.1	1.327	2.278	10.7	19.8
9 28	1 13.38	-12 34.2	2.013	2.974	6.6	20.8	9 28	1 14.92	+ 0 33.1	1.290	2.275	6.2	19.5
10 8	1 6.45	-13 51.2	2.017	2.976	6.6	20.8	10 8	1 6.83	- 0 2.3	1.278	2.273	2.9	19.3
10 18	0 59.40	-14 50.0	2.049	2.978	8.3	20.9	10 18	0 58.47	- 0 30.5	1.290	2.272	5.7	19.5
10 28	0 53.06	-15 26.4	2.106	2.980	10.8	21.1	10 28	0 51.11	- 0 45.0	1.328	2.272	10.2	19.8
11 7	0 48.10	-15 39.0	2.186	2.982	13.3	21.2	11 7	0 45.77	- 0 42.3	1.389	2.274	14.4	20.0
11 17	0 44.97	-15 28.9	2.285	2.984	15.4	21.4	11 17	0 43.04	- 0 21.3	1.469	2.276	18.0	20.3
228556	2001 <i>XF</i> ₁₀₂		10 10.7	8°02'	6°7/16.3	18	512059	2015 <i>MY</i> ₁₀₅		10 10.7	39°29'	4°1/7.2	18
9 8	1 20.54	+23 42.3	1.033	1.893	21.7	18.4	9 8	1 26.62	- 0 48.4	1.550	2.443	13.8	20.5
9 18	1 18.37	+23 39.7	0.979	1.894	17.5	18.2	9 18	1 21.73	- 1 49.3	1.503	2.452	9.9	20.3
9 28	1 13.33	+23 0.4	0.940	1.897	12.8	17.9	9 28	1 14.82	- 2 53.3	1.479	2.461	6.0	20.1
10 8	1 6.49	+21 45.4	0.921	1.902	8.4	17.7	10 8	1 6.79	- 3 52.7	1.481	2.471	4.1	20.0
10 18	0 59.31	+20 2.3	0.924	1.908	6.8	17.6	10 18	0 58.66	- 4 40.0	1.510	2.481	6.5	20.2
10 28	0 53.42	+18 4.8	0.950	1.917	9.7	17.8	10 28	0 51.54	- 5 9.4	1.564	2.492	10.3	20.4
11 7	0 50.05	+16 9.5	0.997	1.927	14.2	18.1	11 7	0 46.27	- 5 18.2	1.641	2.503	13.9	20.7
11 17	0 49.83	+14 29.4	1.064	1.938	18.5	18.4	11 17	0 43.35	- 5 6.3	1.738	2.514	16.9	20.9
404561	2013 <i>JL</i> ₄₆		10 10.7	224°23'	0°9/11.8	18	125450	2001 <i>VK</i> ₁₂₄		10 10.7	67°76'	3°0/8.7	18
9 8	1 23.34	+13 48.8	2.278	3.125	11.7	21.2	9 8	1 31.87	+ 3 4.8	1.161	2.055	17.3	19.9
9 18	1 18.98	+12 52.1	2.201	3.123	8.7	21.0	9 18	1 25.96	+ 2 15.3	1.120	2.070	12.4	19.7
9 28	1 13.13	+11 40.9	2.148	3.122	5.3	20.8	9 28	1 17.37	+ 1 17.5	1.101	2.086	7.0	19.4
10 8	1 6.41	+10 19.3	2.124	3.120	1.7	20.5	10 8	1 7.33	+ 0 19.9	1.106	2.102	3.0	19.2
10 18	0 59.51	+ 8 52.8	2.129	3.119	2.6	20.6	10 18	0 57.28	- 0 28.3	1.135	2.118	6.2	19.5
10 28	0 53.23	+ 7 28.0	2.164	3.117	6.2	20.8	10 28	0 48.71	- 0 59.6	1.190	2.133	11.2	19.8
11 7	0 48.22	+ 6 11.5	2.226	3.116	9.5	21.0	11 7	0 42.67	- 1 9.9	1.266	2.149	15.6	20.1
11 17	0 44.94	+ 5 7.8	2.312	3.114	12.4	21.2	11 17	0 39.68	- 0 58.6	1.361	2.165	19.3	20.4
317299	2002 <i>GV</i> ₈₄		10 10.7	123°66'	3°8/7.6	17	301489	2009 <i>DW</i> ₁₄₁		10 10.7	195°46'	0°8/9.8	18
9 8	1 32.65	- 0 39.2	1.609	2.490	14.0	21.2	9 8	1 27.85	+ 6 17.5	2.168	3.032	11.6	21.4
9 18	1 25.96	- 1 34.4	1.562	2.505	10.1	21.0	9 18	1 22.29	+ 5 45.7	2.095	3.030	8.4	21.2
9 28	1 17.18	- 2 32.6	1.539	2.519	6.0	20.8	9 28	1 15.07	+ 5 6.0	2.047	3.028	4.7	21.0
10 8	1 7.26	- 3 26.3	1.543	2.533	3.9	20.7	10 8	1 6.86	+ 4 22.2	2.028	3.026	1.1	20.7
10 18	0 57.31	- 4 8.8	1.574	2.546	6.3	20.9	10 18	0 58.45	+ 3 39.0	2.037	3.023	3.3	20.9
10 28	0 48.49	- 4 34.5	1.633	2.559	10.1	21.2	10 28	0 50.70	+ 3 1.5	2.076	3.020	7.1	21.1
11 7	0 41.67	- 4 41.0	1.715	2.571	13.7	21.4	11 7	0 44.35	+ 2 34.0	2.141	3.016	10.5	21.3
11 17	0 37.35	- 4 28.1	1.818	2.582	16.7	21.6	11 17	0 39.93	+ 2 19.0	2.229	3.013	13.4	21.5
452106	2014 <i>QV</i> ₂₈₃		10 10.7	136°66'	4°0/6.2	18	258681	2002 <i>EY</i> ₁₅₀		10 10.7	353°73'	1°3/11.8	18
9 8	1 26.83	- 5 32.9	2.479	3.355	9.9	21.0	9 8	1 28.75	+11 18.5	2.102	2.952	12.5	20.4
9 18	1 21.26	- 6 15.0	2.424	3.362	7.3	20.9	9 18	1 23.03	+11 23.4	2.028	2.952	9.3	20.2
9 28	1 14.34	- 6 55.5	2.396	3.368	4.9	20.7	9 28	1 15.54	+11 17.8	1.978	2.951	5.7	20.0
10 8	1 6.66	- 7 29.8	2.395	3.374	4.0	20.7	10 8	1 6.97	+11 3.5	1.955	2.951	2.0	19.7
10 18	0 58.90	- 7 53.8	2.424	3.380	5.6	20.8	10 18	0 58.15	+10 43.5	1.961	2.951	2.8	19.8
10 28	0 51.79	- 8 4.4	2.481	3.386	8.1	21.0	10 28	0 50.02	+10 22.3	1.996	2.951	6.5	20.0
11 7	0 45.92	- 8 0.3	2.564	3.392	10.6	21.2	11 7	0 43.37	+10 4.3	2.058	2.951	10.0	20.3
11 17	0 41.72	- 7 41.5	2.668	3.397	12.7	21.3	11 17	0 38.75	+ 9 53.2	2.143	2.951	13.0	20.5
99899	2002 <i>QJ</i> ₃₂		10 10.7	330°81'	3°3/13.4	18	521556	2015 <i>OC</i> ₁₀₃		10 10.7	72°42'	3°4/6.9	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
315266	2007 TX ₅₇		10 10.7 188°34	0°5/10.3	17		264156	2009 WV ₅		10 10.7	7°28	2°1/6.8	18
9 8	1 32.19	+ 7 20.1	1.410	2.286	15.9	21.0	9 8	1 19.08	- 2 42.0	4.055	4.930	6.4	20.2
9 18	1 26.17	+ 6 59.5	1.346	2.286	11.6	20.8	9 18	1 15.37	- 3 14.7	3.991	4.930	4.6	20.1
9 28	1 17.59	+ 6 26.8	1.304	2.286	6.7	20.5	9 28	1 10.90	- 3 47.6	3.954	4.931	2.9	19.9
10 8	1 7.43	+ 5 46.6	1.287	2.285	1.4	20.1	10 8	1 5.99	- 4 18.2	3.946	4.932	2.1	19.9
10 18	0 56.96	+ 5 5.6	1.297	2.285	4.2	20.3	10 18	1 1.01	- 4 44.2	3.968	4.933	3.2	20.0
10 28	0 47.57	+ 4 31.0	1.333	2.284	9.4	20.6	10 28	0 56.34	- 5 3.3	4.020	4.933	5.0	20.1
11 7	0 40.40	+ 4 9.0	1.392	2.283	14.0	20.9	11 7	0 52.33	- 5 14.1	4.098	4.934	6.8	20.2
11 17	0 36.10	+ 4 3.0	1.472	2.282	17.8	21.2	11 17	0 49.25	- 5 15.6	4.201	4.935	8.3	20.4
385814	2006 DX ₁₉₈		10 10.7 231°61	6°7/3.9	18		157910	1999 TU ₂₀₄		10 10.7 341°51	2°5/9.1	18	
9 8	1 29.66	-10 58.9	2.045	2.923	11.6	21.5	9 8	1 27.56	+ 0 59.3	1.470	2.362	14.4	19.0
9 18	1 23.72	-12 9.3	1.980	2.911	9.0	21.3	9 18	1 22.86	+ 0 58.0	1.396	2.345	10.5	18.7
9 28	1 15.95	-13 14.8	1.941	2.899	7.1	21.2	9 28	1 15.77	+ 0 53.2	1.345	2.329	6.1	18.5
10 8	1 7.06	-14 8.3	1.929	2.887	6.9	21.1	10 8	1 7.10	+ 0 49.6	1.317	2.313	2.5	18.2
10 18	0 57.94	-14 43.3	1.944	2.874	8.7	21.2	10 18	0 57.98	+ 0 52.0	1.316	2.300	5.2	18.3
10 28	0 49.54	-14 55.9	1.985	2.860	11.3	21.4	10 28	0 49.70	+ 1 4.9	1.340	2.287	9.9	18.6
11 7	0 42.68	-14 45.0	2.049	2.846	14.0	21.5	11 7	0 43.37	+ 1 31.4	1.388	2.276	14.2	18.8
11 17	0 37.92	-14 12.2	2.132	2.831	16.4	21.7	11 17	0 39.70	+ 2 12.5	1.455	2.266	17.9	19.0
380419	2003 BZ ₅₅		10 10.7 265°09	12°1/19.9	18		5094	Seryozha		10 10.7 25°53	0°4/10.9	18	
9 8	1 36.76	+37 21.8	1.888	2.596	18.6	21.3	9 8	1 26.84	+ 9 40.3	1.749	2.616	13.8	17.2
9 18	1 30.11	+38 52.2	1.790	2.576	16.8	21.1	9 18	1 21.87	+ 9 19.1	1.685	2.620	10.1	17.0
9 28	1 20.33	+39 57.1	1.710	2.556	14.7	20.9	9 28	1 14.96	+ 8 45.7	1.645	2.624	5.9	16.7
10 8	1 8.12	+40 29.6	1.650	2.536	13.0	20.8	10 8	1 6.90	+ 8 4.2	1.630	2.628	1.4	16.5
10 18	0 54.79	+40 25.0	1.613	2.515	12.1	20.7	10 18	0 58.63	+ 7 19.6	1.643	2.632	3.2	16.6
10 28	0 42.03	+39 44.4	1.600	2.494	12.5	20.6	10 28	0 51.21	+ 6 38.4	1.683	2.637	7.5	16.9
11 7	0 31.45	+38 35.4	1.611	2.472	14.1	20.7	11 7	0 45.49	+ 6 6.0	1.749	2.642	11.4	17.1
11 17	0 24.16	+37 9.2	1.643	2.450	16.4	20.8	11 17	0 42.00	+ 5 46.3	1.836	2.648	14.7	17.4
96914	1999 TP ₁₀₃		10 10.7 350°35	3°1/12.8	18		332326	Aresi		10 10.7 235°02	7°0/4.6	18	
9 8	1 24.53	+14 23.1	1.204	2.082	18.0	19.2	9 8	1 29.16	- 8 2.3	1.597	2.488	13.6	20.6
9 18	1 21.06	+14 33.8	1.137	2.072	13.8	19.0	9 18	1 23.70	- 9 24.2	1.542	2.483	10.3	20.4
9 28	1 14.87	+14 23.9	1.089	2.064	8.9	18.7	9 28	1 16.07	-10 43.2	1.510	2.478	7.6	20.2
10 8	1 6.89	+13 55.2	1.064	2.057	4.2	18.4	10 8	1 7.14	-11 49.8	1.504	2.473	7.2	20.2
10 18	0 58.41	+13 12.8	1.062	2.052	4.3	18.4	10 18	0 57.99	-12 36.0	1.523	2.468	9.4	20.3
10 28	0 50.97	+12 25.1	1.083	2.048	9.2	18.6	10 28	0 49.78	-12 56.2	1.568	2.463	12.6	20.5
11 7	0 45.82	+11 41.8	1.127	2.045	14.1	18.9	11 7	0 43.48	-12 49.4	1.634	2.457	15.8	20.7
11 17	0 43.71	+11 10.3	1.191	2.044	18.4	19.2	11 17	0 39.64	-12 17.3	1.719	2.452	18.6	20.9
377600	2005 QU ₁₅₂		10 10.7 332°92	4°0/13.9	18		6686	Hernius		10 10.7 326°51	0°8/9.9	18	R
9 8	1 27.18	+18 31.1	1.400	2.250	17.5	20.3	9 8	1 24.90	+ 7 6.3	1.862	2.736	12.7	17.0
9 18	1 22.71	+18 22.2	1.328	2.245	13.7	20.1	9 18	1 20.44	+ 6 27.5	1.789	2.729	9.2	16.8
9 28	1 15.70	+17 49.1	1.277	2.241	9.3	19.8	9 28	1 14.15	+ 5 38.3	1.740	2.722	5.2	16.5
10 8	1 7.06	+16 53.3	1.248	2.236	5.1	19.6	10 8	1 6.73	+ 4 43.4	1.717	2.715	1.2	16.2
10 18	0 58.00	+15 40.5	1.245	2.232	4.6	19.5	10 18	0 59.05	+ 3 48.7	1.722	2.709	3.7	16.4
10 28	0 49.93	+14 19.9	1.267	2.229	8.5	19.7	10 28	0 52.08	+ 3 0.7	1.755	2.703	7.8	16.6
11 7	0 44.01	+13 2.4	1.314	2.226	13.0	20.0	11 7	0 46.64	+ 2 24.5	1.813	2.698	11.6	16.9
11 17	0 40.93	+11 56.9	1.382	2.223	17.0	20.2	11 17	0 43.28	+ 2 3.5	1.893	2.692	14.8	17.1
250963	2006 DX ₁₈₀		10 10.7 77°74	0°7/10.2	17		34543	Davidbriggs		10 10.7 93°24	0°6/11.2	18	
9 8	1 33.99	+ 6 59.1	1.248	2.129	17.3	20.5	9 8	1 26.43	+10 39.1	2.082	2.938	12.3	19.4
9 18	1 27.42	+ 6 39.5	1.204	2.146	12.5	20.3	9 18	1 21.31	+10 13.3	2.015	2.944	9.0	19.2
9 28	1 18.21	+ 6 7.8	1.181	2.163	7.1	20.1	9 28	1 14.54	+ 9 36.2	1.973	2.949	5.3	19.0
10 8	1 7.55	+ 5 29.6	1.182	2.180	1.5	19.8	10 8	1 6.80	+ 8 51.2	1.957	2.955	1.4	18.7
10 18	0 56.86	+ 4 52.1	1.209	2.197	4.5	20.0	10 18	0 58.91	+ 8 2.9	1.970	2.960	2.8	18.8
10 28	0 47.62	+ 4 22.5	1.262	2.214	9.7	20.4	10 28	0 51.73	+ 7 16.9	2.012	2.965	6.6	19.1
11 7	0 40.88	+ 4 6.5	1.338	2.231	14.3	20.7	11 7	0 45.99	+ 6 38.1	2.081	2.970	10.1	19.3
11 17	0 37.18	+ 4 6.7	1.435	2.248	18.0	21.0	11 17	0 42.19	+ 6 10.4	2.173	2.976	13.0	19.5
300555	2007 TA ₂₉₃		10 10.7 239°91	0°8/9.9	18		347080	2010 GM ₃₂		10 10.7 124°25	6°2/5.6	18	
9 8	1 28.07	+ 6 28.6	2.058	2.923	12.1	21.6	9 8	1 31.37	- 9 23.0	1.825	2.705	12.7	20.0
9 18	1 22.61	+ 5 56.7	1.977	2.913	8.8	21.4	9 18	1 24.77	-10 7.2	1.773	2.709	9.6	19.8
9 28	1 15.36	+ 5 15.8	1.922	2.903	5.0	21.2	9 28	1 16.66	-10 45.9	1.747	2.713	7.0	19.7
10 8	1 6.97	+ 4 30.1	1.894	2.892	1.1	20.9	10 8	1 7.25	-11 12.3	1.746	2.716	6.3	19.7
10 18	0 58.29	+ 3 44.5	1.894	2.880	3.5	21.0	10 18	0 57.76	-11 21.4	1.773	2.720	8.1	19.8
10 28	0 50.25	+ 3 4.6	1.924	2.869	7.5	21.2	10 28	0 49.21	-11 10.1	1.826	2.723	11.0	20.0
11 7	0 43.67	+ 2 35.1	1.979	2.857	11.1	21.5	11 7	0 42.45	-10 38.3	1.902	2.727	13.9	20.2
11 17	0 39.12	+ 2 19.0	2.058	2.844	14.2	21.6	11 17	0 37.97	- 9 48.0	1.999	2.730	16.4	20.4
139146	2001 FW ₉₂		10 10.7 209°96	3°8/7.5	18	R	121894	2000 DC ₂₈		10 10.7 165°83	1°3/12.3	18	
9 8	1 29.69	+ 0 16.2	1.607	2.492	13.8	19.7	9 8	1 25.58	+13 20.4	2.765	3.601	10.2	20.6
9 18	1 24.08	- 0 46.9	1.543	2.489	10.0	19.5	9 18	1 20.40	+13 4.8	2.689	3.604	7.6	20.5
9 28	1 16.29	- 1 55.6	1.504	2.485	6.0	19.2	9 28	1 13.92	+12 39.1	2.638	3.607	4.8	20.3
10 8	1 7.17	- 3 2.2	1.490	2.481	3.8	19.1	10 8	1 6.67	+12 5.3	2.616	3.610	1.9	20.1
10 18	0 57.80	- 3 58.8	1.504	2.477	6.4	19.2	10 18	0 59.28	+11 26.4	2.623	3.612	2.3	20.1
10 28	0 49.36	- 4 38.5	1.544	2.473	10.4	19.5	10 28	0 52.41	+10 46.4	2.660	3.614	5.2	20.3
11 7	0 42.79	- 4 57.4	1.608	2.468	14.2	19.7	11 7	0 46.63	+10 9.3	2.726	3.616	8.0	20.5
11 17	0 38.71	- 4 54.7	1.692	2.462	17.5	19.9	11 17	0 42.38	+ 9 38.7	2.817	3.617	10.4	20.7
310353	2011 UQ ₂₅₇		10 10.7 151°71	0°6/11.2	18		468780	2011 YR ₅₈		10 10.7 281°64	2°6/5.4	18	
9 8	1 26.10	+11 19.1	2.001	2.858	12.7	20.9	9 8	1 18.51	- 6 5.2	4.			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
149724	2004 JK ₃₂		10 10.7 94°06'	4.7/ 6.9	17		382602	2002 GW ₁₁		10 10.7 144°25'	2.1/ 8.5	17	
9 8	1 31.41	- 2 58.0	1.614	2.499	13.8	20.6	9 8	1 29.39	+ 2 20.0	2.222	3.091	11.2	21.8
9 18	1 25.02	- 3 59.6	1.575	2.519	9.9	20.4	9 18	1 23.27	+ 1 35.0	2.165	3.103	8.0	21.6
9 28	1 16.65	- 5 1.2	1.561	2.539	6.3	20.3	9 28	1 15.61	+ 0 45.4	2.133	3.114	4.6	21.4
10 8	1 7.24	- 5 55.2	1.573	2.559	4.7	20.2	10 8	1 7.08	- 0 4.1	2.130	3.124	2.1	21.3
10 18	0 57.89	- 6 34.9	1.613	2.578	7.0	20.4	10 18	0 58.47	- 0 48.3	2.156	3.134	4.2	21.4
10 28	0 49.67	- 6 55.5	1.679	2.597	10.4	20.7	10 28	0 50.61	- 1 22.7	2.211	3.143	7.5	21.7
11 7	0 43.41	- 6 55.5	1.768	2.615	13.7	20.9	11 7	0 44.18	- 1 44.2	2.293	3.152	10.6	21.9
11 17	0 39.55	- 6 35.8	1.878	2.633	16.5	21.2	11 17	0 39.62	- 1 51.2	2.398	3.159	13.2	22.1
443455	2014 HH ₁₇₆		10 10.7 70°86'	2.6/13.2	18		360313	2001 SZ ₁₀₂		10 10.7 47°94'	2.1/11.9	17	
9 8	1 26.75	+16 32.9	1.880	2.721	14.1	20.4	9 8	1 31.86	+12 49.3	0.995	1.878	20.4	20.5
9 18	1 21.77	+16 14.3	1.810	2.725	10.8	20.2	9 18	1 26.37	+12 42.9	0.956	1.896	15.2	20.2
9 28	1 14.91	+15 38.3	1.763	2.729	7.0	20.0	9 28	1 17.82	+12 14.3	0.937	1.915	9.3	20.0
10 8	1 6.91	+14 47.4	1.742	2.733	3.4	19.8	10 8	1 7.57	+11 28.4	0.939	1.935	3.3	19.7
10 18	0 58.70	+13 46.5	1.748	2.737	3.3	19.8	10 18	0 57.31	+10 33.5	0.964	1.955	4.3	19.9
10 28	0 51.29	+12 42.1	1.783	2.741	6.8	20.1	10 28	0 48.75	+ 9 40.3	1.013	1.976	10.0	20.3
11 7	0 45.50	+11 41.6	1.843	2.745	10.5	20.3	11 7	0 43.06	+ 8 58.4	1.084	1.997	15.1	20.6
11 17	0 41.89	+10 50.7	1.927	2.749	13.7	20.5	11 17	0 40.77	+ 8 33.5	1.174	2.018	19.2	20.9
264325	1999 TW ₂₈₃		10 10.7 337°75'	5.8/ 7.2	18		128268	2003 TB ₇		10 10.7 54°20'	7.6/ 3.7	18	
9 8	1 25.40	- 2 12.0	1.002	1.918	17.4	19.3	9 8	1 29.27	-15 55.1	2.064	2.937	11.7	18.4
9 18	1 22.05	- 2 59.4	0.941	1.900	12.9	19.0	9 18	1 23.22	-16 42.9	2.029	2.949	9.5	18.3
9 28	1 15.63	- 3 50.7	0.899	1.884	8.1	18.7	9 28	1 15.56	-17 19.9	2.017	2.961	7.9	18.2
10 8	1 7.14	- 4 35.5	0.878	1.868	5.8	18.5	10 8	1 7.06	-17 40.2	2.032	2.974	7.8	18.3
10 18	0 58.07	- 5 3.4	0.879	1.855	9.0	18.7	10 18	0 58.59	-17 39.9	2.073	2.987	9.2	18.4
10 28	0 50.17	- 5 5.8	0.901	1.843	14.1	18.9	10 28	0 51.02	-17 17.4	2.139	2.999	11.3	18.5
11 7	0 44.86	- 4 39.6	0.942	1.833	19.1	19.2	11 7	0 45.04	-16 33.9	2.228	3.012	13.4	18.7
11 17	0 42.95	- 3 45.9	1.000	1.824	23.3	19.4	11 17	0 41.07	-15 32.3	2.336	3.025	15.3	18.9
511271	2014 DL ₄		10 10.7 168°50'	6.1/16.9	18		491646	2012 TA ₂₁₄		10 10.7 44°73'	1.3/11.7	18	
9 8	1 30.59	+26 33.9	2.093	2.872	15.0	22.2	9 8	1 27.90	+12 27.4	1.452	2.319	16.0	21.5
9 18	1 24.59	+26 51.3	2.014	2.875	12.4	22.1	9 18	1 22.93	+12 2.8	1.396	2.329	11.9	21.3
9 28	1 16.57	+26 47.0	1.957	2.878	9.5	21.9	9 28	1 15.70	+11 21.0	1.362	2.338	7.2	21.0
10 8	1 7.29	+26 20.3	1.924	2.880	7.0	21.7	10 8	1 7.13	+10 26.4	1.352	2.348	2.3	20.8
10 18	0 57.70	+25 32.8	1.917	2.882	6.1	21.7	10 18	0 58.40	+ 9 25.6	1.368	2.359	3.5	20.9
10 28	0 48.88	+24 29.9	1.939	2.883	7.5	21.8	10 28	0 50.74	+ 8 27.1	1.411	2.369	8.2	21.2
11 7	0 41.73	+23 19.2	1.988	2.884	10.1	21.9	11 7	0 45.12	+ 7 38.3	1.478	2.380	12.6	21.5
11 17	0 36.88	+22 8.6	2.060	2.885	12.9	22.1	11 17	0 42.09	+ 7 4.4	1.567	2.392	16.2	21.7
385768	2005 YC ₁₄₄		10 10.7 289°40'	1.5/ 9.5	18		290952	2005 WZ ₁₇₂		10 10.7 43°94'	2.2/13.0	18	
9 8	1 28.37	+ 5 36.8	1.589	2.468	14.3	21.9	9 8	1 25.12	+16 6.5	1.986	2.828	13.4	20.5
9 18	1 23.40	+ 5 0.9	1.505	2.447	10.4	21.6	9 18	1 20.50	+15 40.1	1.917	2.833	10.2	20.3
9 28	1 16.10	+ 4 14.0	1.443	2.426	6.0	21.3	9 28	1 14.16	+14 57.2	1.872	2.838	6.6	20.1
10 8	1 7.22	+ 3 21.2	1.408	2.406	1.7	21.0	10 8	1 6.80	+14 0.9	1.852	2.844	3.0	19.9
10 18	0 57.82	+ 2 29.2	1.399	2.385	4.6	21.1	10 18	0 59.26	+12 55.9	1.861	2.850	3.0	19.9
10 28	0 49.15	+ 1 45.7	1.417	2.364	9.4	21.3	10 28	0 52.46	+11 48.8	1.897	2.855	6.5	20.2
11 7	0 42.31	+ 1 16.9	1.459	2.343	13.9	21.6	11 7	0 47.17	+10 46.5	1.961	2.861	10.0	20.4
11 17	0 38.04	+ 1 6.3	1.521	2.322	17.7	21.8	11 17	0 43.88	+ 9 54.2	2.048	2.868	13.1	20.6
260451	2005 AZ ₇		10 10.7 192°38'	3.8/13.5	18		452104	2014 QB ₃₆₉		10 10.7 252°71'	3.9/14.8	18	
9 8	1 32.89	+17 16.7	1.557	2.396	16.6	20.5	9 8	1 27.28	+20 33.3	2.274	3.085	13.0	20.9
9 18	1 26.70	+17 27.7	1.484	2.396	12.9	20.3	9 18	1 22.02	+20 42.1	2.192	3.083	10.3	20.7
9 28	1 17.97	+17 18.9	1.433	2.395	8.7	20.1	9 28	1 15.05	+20 34.5	2.133	3.080	7.3	20.5
10 8	1 7.61	+16 51.1	1.406	2.393	4.7	19.8	10 8	1 7.00	+20 11.1	2.101	3.078	4.7	20.4
10 18	0 56.85	+16 7.9	1.406	2.392	4.5	19.8	10 18	0 58.68	+19 34.2	2.096	3.075	4.1	20.3
10 28	0 47.06	+15 16.4	1.433	2.390	8.2	20.0	10 28	0 50.97	+18 48.5	2.119	3.073	6.3	20.5
11 7	0 39.40	+14 25.0	1.484	2.387	12.5	20.3	11 7	0 44.65	+17 59.7	2.170	3.070	9.2	20.6
11 17	0 34.57	+13 41.4	1.558	2.385	16.2	20.5	11 17	0 40.28	+17 13.5	2.245	3.067	12.0	20.8
162352	1999 XS ₂₂₆		10 10.7 285°12'	0.4/ 9.9	18		489296	2006 SU ₂₄₆		10 10.7 43°83'	0.6/10.2	15	
9 8	1 18.98	+ 6 3.8	4.305	5.162	6.4	19.8	9 8	1 26.81	+ 7 44.3	1.741	2.614	13.6	21.5
9 18	1 15.31	+ 5 40.8	4.225	5.157	4.6	19.7	9 18	1 21.84	+ 7 9.5	1.681	2.620	9.8	21.3
9 28	1 10.90	+ 5 14.1	4.171	5.151	2.6	19.5	9 28	1 14.97	+ 6 23.9	1.644	2.625	5.6	21.0
10 8	1 6.05	+ 4 45.5	4.147	5.145	0.6	19.4	10 8	1 6.98	+ 5 32.4	1.633	2.631	1.2	20.7
10 18	1 1.11	+ 4 17.1	4.154	5.140	1.8	19.5	10 18	0 58.82	+ 4 40.9	1.650	2.637	3.6	20.9
10 28	0 56.43	+ 3 51.1	4.191	5.134	3.9	19.6	10 28	0 51.51	+ 3 55.9	1.694	2.644	7.9	21.2
11 7	0 52.37	+ 3 29.6	4.257	5.129	5.8	19.8	11 7	0 45.90	+ 3 22.6	1.763	2.650	11.7	21.5
11 17	0 49.19	+ 3 14.3	4.348	5.123	7.5	19.9	11 17	0 42.50	+ 3 4.3	1.854	2.657	14.9	21.7
396020	2013 BU ₈₀		10 10.7 306°79'	9.9/ 1.7	18		118324	1998 XB ₅₇		10 10.7 261°41'	2.7/ 8.3	18	
9 8	1 28.97	-16 55.9	1.639	2.521	13.8	20.3	9 8	1 28.02	+ 3 20.3	1.658	2.540	13.6	19.8
9 18	1 23.69	-18 13.6	1.580	2.503	11.5	20.1	9 18	1 22.97	+ 2 19.4	1.582	2.527	9.8	19.5
9 28	1 16.16	-19 20.0	1.543	2.484	10.0	20.0	9 28	1 15.77	+ 1 8.9	1.530	2.513	5.7	19.3
10 8	1 7.23	-20 5.3	1.530	2.466	10.3	19.9	10 8	1 7.18	- 0 4.3	1.504	2.500	2.7	19.1
10 18	0 57.98	-20 22.1	1.541	2.449	12.1	20.0	10 18	0 58.22	- 1 12.1	1.506	2.485	5.4	19.2
10 28	0 49.62	-20 6.6	1.575	2.431	14.8	20.1	10 28	0 50.03	- 2 6.8	1.535	2.471	9.8	19.4
11 7	0 43.15	-19 19.8	1.629	2.414	17.5	20.3	11 7	0 43.60	- 2 42.8	1.587	2.457	13.8	19.6
11 17	0 39.22	-18 5.8	1.700	2.398	20.0	20.4	11 17	0 39.59	- 2 57.5	1.660	2.442	17.3	19.9
216372	2008 BW ₁₀		10 10.7 339°02'	5.8/ 6.7	18		313301	2002 CS ₂₄₈		10 10.7 191°78'	5.5/17.0	18	
9 8	1 25.13	- 1 7.0	1.041	1.954	17.								

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
311995	2007 <i>LT</i> ₁		10 10.7 165°68	0°3/10.3	18		330728	2008 <i>RA</i> ₉₁		10 10.7 277°73	4°8/4.3	18	
9 8	1 24.16	+ 8 36.9	2.748	3.603	9.7	21.2	9 8	1 22.88	- 5 19.7	2.357	3.243	10.0	20.9
9 18	1 19.37	+ 7 52.1	2.676	3.606	7.0	21.0	9 18	1 18.71	- 6 53.5	2.288	3.230	7.4	20.7
9 28	1 13.36	+ 6 59.2	2.631	3.610	4.0	20.9	9 28	1 13.11	- 8 28.3	2.246	3.217	5.3	20.5
10 8	1 6.63	+ 6 1.6	2.614	3.612	0.8	20.6	10 8	1 6.63	- 9 57.4	2.232	3.204	5.0	20.5
10 18	0 59.79	+ 5 3.4	2.628	3.615	2.5	20.8	10 18	0 59.94	-11 14.1	2.246	3.190	6.8	20.6
10 28	0 53.46	+ 4 9.3	2.672	3.617	5.6	21.0	10 28	0 53.77	-12 13.0	2.288	3.177	9.4	20.7
11 7	0 48.20	+ 3 23.2	2.743	3.619	8.4	21.2	11 7	0 48.78	-12 51.2	2.354	3.164	12.0	20.9
11 17	0 44.39	+ 2 47.9	2.839	3.621	10.8	21.3	11 17	0 45.42	-13 8.0	2.441	3.151	14.3	21.0
256547	Davidesmith		10 10.7 264°20	3°3/6.8	18		319188	2005 <i>YS</i> ₁₄₄		10 10.7 184°95	5°0/4.8	18	
9 8	1 24.07	- 0 17.1	2.219	3.101	10.7	20.2	9 8	1 25.29	- 7 54.2	2.386	3.267	10.1	20.4
9 18	1 19.60	- 1 28.2	2.148	3.092	7.7	20.0	9 18	1 20.34	- 8 57.7	2.330	3.267	7.6	20.3
9 28	1 13.61	- 2 43.6	2.103	3.084	4.7	19.8	9 28	1 13.98	- 9 58.6	2.300	3.267	5.5	20.1
10 8	1 6.71	- 3 57.2	2.087	3.075	3.3	19.7	10 8	1 6.81	-10 51.1	2.298	3.267	5.1	20.1
10 18	0 59.59	- 5 2.9	2.098	3.066	5.4	19.8	10 18	0 59.52	-11 30.4	2.324	3.266	6.7	20.2
10 28	0 53.06	- 5 55.1	2.138	3.057	8.5	20.0	10 28	0 52.84	-11 52.7	2.376	3.265	9.1	20.4
11 7	0 47.80	- 6 30.1	2.203	3.048	11.5	20.1	11 7	0 47.40	-11 56.6	2.454	3.265	11.5	20.5
11 17	0 44.29	- 6 46.4	2.290	3.040	14.0	20.3	11 17	0 43.64	-11 42.4	2.552	3.264	13.6	20.7
70846	1999 <i>VK</i> ₁₀₈		10 10.7 137°05	0°5/11.2	18		473395	2015 <i>VX</i> ₄₀		10 10.7 343°87	1°3/9.3	18	
9 8	1 27.45	+11 6.9	1.875	2.734	13.4	20.0	9 8	1 22.20	+ 8 13.8	1.853	2.730	12.7	20.6
9 18	1 22.25	+10 31.3	1.808	2.738	9.8	19.8	9 18	1 18.50	+ 6 51.3	1.783	2.725	9.1	20.3
9 28	1 15.20	+ 9 42.1	1.764	2.741	5.8	19.6	9 28	1 13.09	+ 5 15.2	1.737	2.720	5.1	20.1
10 8	1 7.05	+ 8 43.7	1.748	2.745	1.5	19.3	10 8	1 6.64	+ 3 32.4	1.719	2.716	1.4	19.8
10 18	0 58.71	+ 7 41.5	1.759	2.748	3.0	19.4	10 18	0 59.97	+ 1 51.1	1.728	2.713	4.0	20.0
10 28	0 51.17	+ 6 42.5	1.799	2.752	7.2	19.7	10 28	0 54.00	+ 0 19.8	1.766	2.710	8.1	20.3
11 7	0 45.25	+ 5 52.8	1.864	2.755	11.0	19.9	11 7	0 49.50	- 0 54.5	1.829	2.707	11.9	20.5
11 17	0 41.46	+ 5 16.5	1.953	2.758	14.2	20.2	11 17	0 46.97	- 1 48.1	1.914	2.705	15.0	20.7
481577	2007 <i>TN</i> ₁₀₃		10 10.7 296°06	3°3/14.5	18		251510	2008 <i>FZ</i> ₃₂		10 10.7 357°47	0°5/11.2	18	
9 8	1 24.14	+21 53.5	1.803	2.627	15.3	20.4	9 8	1 25.93	+10 23.6	1.764	2.630	13.7	20.7
9 18	1 20.10	+20 49.0	1.716	2.617	12.1	20.2	9 18	1 21.30	+ 9 57.3	1.695	2.629	10.1	20.5
9 28	1 14.08	+19 17.4	1.651	2.607	8.3	19.9	9 28	1 14.74	+ 9 17.9	1.649	2.628	5.9	20.3
10 8	1 6.83	+17 22.1	1.612	2.598	4.5	19.7	10 8	1 7.00	+ 8 29.3	1.629	2.627	1.5	20.0
10 18	0 59.28	+15 10.1	1.600	2.588	3.7	19.6	10 18	0 59.02	+ 7 37.0	1.637	2.627	3.2	20.1
10 28	0 52.50	+12 52.1	1.618	2.578	7.2	19.8	10 28	0 51.82	+ 6 47.6	1.672	2.627	7.5	20.4
11 7	0 47.37	+10 39.9	1.663	2.569	11.2	20.0	11 7	0 46.27	+ 6 7.2	1.732	2.627	11.4	20.6
11 17	0 44.47	+ 8 43.0	1.733	2.560	14.8	20.3	11 17	0 42.93	+ 5 40.1	1.815	2.628	14.8	20.8
335686	2006 <i>VU</i> ₁₆₉		10 10.7 154°89	2°1/12.7	17		318558	2005 <i>GC</i> ₉₄		10 10.7 81°62	1°2/9.7	15	
9 8	1 29.66	+15 37.5	1.727	2.571	15.0	21.2	9 8	1 30.63	+ 8 9.6	1.408	2.285	15.9	21.5
9 18	1 24.03	+15 8.3	1.658	2.576	11.4	21.0	9 18	1 24.73	+ 7 2.1	1.368	2.309	11.4	21.3
9 28	1 16.29	+14 20.5	1.612	2.581	7.2	20.7	9 28	1 16.62	+ 5 41.6	1.351	2.333	6.4	21.1
10 8	1 7.29	+13 17.4	1.592	2.585	3.1	20.5	10 8	1 7.38	+ 4 16.0	1.359	2.357	1.5	20.8
10 18	0 58.08	+12 4.7	1.600	2.589	3.3	20.5	10 18	0 58.19	+ 2 54.5	1.395	2.381	4.5	21.1
10 28	0 49.77	+10 50.6	1.635	2.592	7.4	20.8	10 28	0 50.28	+ 1 45.8	1.457	2.404	9.2	21.4
11 7	0 43.30	+ 9 43.0	1.697	2.595	11.4	21.0	11 7	0 44.52	+ 0 56.0	1.544	2.427	13.3	21.7
11 17	0 39.24	+ 8 48.2	1.782	2.598	14.9	21.3	11 17	0 41.35	+ 0 27.5	1.651	2.450	16.7	22.0
396062	2013 <i>CM</i> ₆₃		10 10.7 317°38	4°7/5.7	18		94190	2001 <i>BY</i>		10 10.7 259°57	1°7/12.4	17	
9 8	1 23.31	- 0 32.1	1.642	2.537	13.0	20.4	9 8	1 28.46	+13 1.1	2.291	3.132	11.9	19.9
9 18	1 19.51	- 2 18.2	1.576	2.527	9.4	20.1	9 18	1 22.85	+13 5.8	2.207	3.124	9.0	19.7
9 28	1 13.74	- 4 11.3	1.536	2.517	6.0	19.9	9 28	1 15.56	+12 59.4	2.148	3.117	5.7	19.5
10 8	1 6.75	- 6 1.6	1.522	2.507	4.9	19.8	10 8	1 7.19	+12 43.4	2.116	3.109	2.4	19.3
10 18	0 59.49	- 7 39.0	1.534	2.498	7.5	20.0	10 18	0 58.52	+12 20.5	2.112	3.101	2.8	19.3
10 28	0 53.00	- 8 54.7	1.573	2.488	11.2	20.2	10 28	0 50.42	+11 54.8	2.139	3.093	6.1	19.5
11 7	0 48.15	- 9 43.9	1.635	2.480	14.8	20.4	11 7	0 43.67	+11 30.9	2.192	3.085	9.5	19.7
11 17	0 45.52	-10 5.4	1.716	2.472	17.8	20.6	11 17	0 38.82	+11 12.8	2.270	3.077	12.4	19.9
168740	2000 <i>QG</i> ₈₁		10 10.7 260°63	2°4/8.7	18		437233	2012 <i>XL</i> ₁₂		10 10.7 19°80	5°1/6.9	18	
9 8	1 27.80	+ 5 43.6	1.390	2.276	15.5	19.8	9 8	1 24.31	- 0 37.5	1.104	2.016	16.5	19.3
9 18	1 23.10	+ 4 27.1	1.322	2.268	11.2	19.5	9 18	1 20.67	- 1 49.7	1.068	2.026	11.9	19.1
9 28	1 15.96	+ 2 56.1	1.276	2.260	6.3	19.2	9 28	1 14.51	- 3 5.9	1.052	2.037	7.3	18.9
10 8	1 7.26	+ 1 19.1	1.256	2.252	2.4	18.9	10 8	1 6.95	- 4 15.0	1.059	2.049	5.1	18.8
10 18	0 58.19	- 0 13.4	1.261	2.244	5.7	19.1	10 18	0 59.32	- 5 7.1	1.089	2.063	8.0	19.0
10 28	0 50.09	- 1 30.8	1.293	2.235	10.7	19.4	10 28	0 52.99	- 5 35.0	1.143	2.079	12.4	19.3
11 7	0 44.06	- 2 25.7	1.348	2.227	15.2	19.6	11 7	0 48.94	- 5 36.1	1.217	2.095	16.5	19.6
11 17	0 40.75	- 2 54.8	1.422	2.218	19.0	19.9	11 17	0 47.66	- 5 11.6	1.308	2.113	19.9	19.9
417313	2006 <i>BV</i> ₁₅₃		10 10.7 190°53	3°7/7.9	17		92207	1999 <i>YU</i> ₆		10 10.7 55°84	18°8/27.0	17	
9 8	1 30.41	+ 1 49.6	1.329	2.220	15.7	21.6	9 8	1 37.34	+43 42.3	1.118	1.842	28.3	18.8
9 18	1 24.97	+ 0 42.6	1.271	2.220	11.3	21.4	9 18	1 32.02	+45 52.1	1.065	1.848	25.9	18.7
9 28	1 16.99	- 0 32.7	1.236	2.220	6.6	21.1	9 28	1 22.08	+47 17.3	1.022	1.854	23.4	18.5
10 8	1 7.47	- 1 47.3	1.226	2.219	3.7	20.9	10 8	1 8.75	+47 45.6	0.994	1.860	21.1	18.4
10 18	0 57.69	- 2 51.6	1.241	2.218	6.7	21.1	10 18	0 54.33	+47 10.4	0.981	1.867	19.4	18.3
10 28	0 49.04	- 3 37.2	1.282	2.217	11.4	21.4	10 28	0 41.72	+45 35.8	0.985	1.874	18.8	18.3
11 7	0 42.62	- 3 59.3	1.345	2.216	15.7	21.6	11 7	0 33.18	+43 18.1	1.007	1.880	19.6	18.4
11 17	0 39.06	- 3 56.9	1.427	2.215	19.3	21.9	11 17	0 29.72	+40 38.2	1.047	1.888	21.4	18.5
4381	Uenohara		10 10.7 31°43	6°0/4.7	18		404123	2013 <i>AL</i> ₁₁₄		10 10.7 358°32	4°3/6.7	18	
9 8	1 25.8												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
477062	2009 <i>BJ</i> ₄₀	10 10.7 231°76 5°9/ 4.2 18					157733	2006 <i>BJ</i> ₁₄₈	10 10.7 342°91 4°2/ 7.1 18				
9 8	1 27.10	- 8 18.6	2.077	2.959	11.2	21.5	9 8	1 28.06	- 4 17.8	1.959	2.842	11.8	19.7
9 18	1 21.90	- 9 39.2	2.014	2.951	8.5	21.4	9 18	1 22.63	- 4 49.6	1.897	2.839	8.6	19.5
9 28	1 15.00	-10 57.6	1.977	2.942	6.4	21.2	9 28	1 15.44	- 5 20.7	1.859	2.835	5.6	19.4
10 8	1 7.07	-12 6.4	1.967	2.932	6.1	21.2	10 8	1 7.19	- 5 45.7	1.848	2.832	4.2	19.3
10 18	0 58.92	-12 58.9	1.984	2.922	8.0	21.3	10 18	0 58.76	- 5 59.7	1.864	2.830	6.1	19.4
10 28	0 51.44	-13 30.5	2.028	2.912	10.7	21.4	10 28	0 51.08	- 5 59.0	1.908	2.827	9.3	19.6
11 7	0 45.41	-13 39.2	2.095	2.902	13.4	21.6	11 7	0 44.94	- 5 42.1	1.976	2.825	12.4	19.8
11 17	0 41.33	-13 25.8	2.182	2.891	15.8	21.8	11 17	0 40.86	- 5 9.2	2.065	2.824	15.1	20.0
391203	2006 <i>GN</i> ₃₆	10 10.7 150°71 1°4/ 9.4 18					396781	2004 <i>DQ</i> ₅₇	10 10.7 292°78 5°3/ 5.2 18				
9 8	1 27.64	+ 5 51.9	1.770	2.644	13.3	21.6	9 8	1 25.01	- 3 40.5	1.773	2.665	12.4	20.8
9 18	1 22.47	+ 5 4.0	1.705	2.646	9.5	21.4	9 18	1 20.70	- 5 10.7	1.704	2.650	9.1	20.6
9 28	1 15.39	+ 4 6.4	1.665	2.648	5.4	21.2	9 28	1 14.46	- 6 44.2	1.658	2.635	6.2	20.4
10 8	1 7.15	+ 3 4.7	1.652	2.649	1.6	20.9	10 8	1 7.01	- 8 12.2	1.640	2.619	5.4	20.3
10 18	0 58.72	+ 2 5.5	1.666	2.650	4.2	21.1	10 18	0 59.24	- 9 26.2	1.648	2.604	7.8	20.4
10 28	0 51.12	+ 1 15.6	1.708	2.652	8.4	21.4	10 28	0 52.17	-10 19.1	1.682	2.589	11.2	20.6
11 7	0 45.19	+ 0 40.0	1.775	2.653	12.1	21.6	11 7	0 46.67	-10 47.1	1.739	2.574	14.5	20.8
11 17	0 41.49	+ 0 21.5	1.863	2.654	15.3	21.8	11 17	0 43.34	-10 49.8	1.816	2.559	17.4	21.0
120905	1998 <i>SY</i> ₃₂	10 10.7 341°73 0°2/10.5 18					375184	2008 <i>DM</i> ₇₃	10 10.7 218°39 0°9/11.5 17				
9 8	1 25.63	+ 8 12.4	2.124	2.988	11.8	20.7	9 8	1 30.11	+11 58.0	1.667	2.525	14.8	21.7
9 18	1 20.80	+ 7 45.0	2.052	2.987	8.6	20.5	9 18	1 24.54	+11 27.2	1.591	2.519	11.0	21.5
9 28	1 14.36	+ 7 8.1	2.006	2.985	4.9	20.3	9 28	1 16.74	+10 40.3	1.538	2.514	6.6	21.2
10 8	1 6.93	+ 6 25.4	1.986	2.984	1.0	20.0	10 8	1 7.51	+ 9 41.0	1.510	2.507	2.0	20.9
10 18	0 59.30	+ 5 41.6	1.995	2.983	3.0	20.2	10 18	0 57.94	+ 8 35.4	1.511	2.501	3.3	21.0
10 28	0 52.32	+ 5 1.7	2.032	2.982	6.8	20.4	10 28	0 49.21	+ 7 31.4	1.539	2.493	8.1	21.3
11 7	0 46.72	+ 4 30.5	2.095	2.981	10.2	20.6	11 7	0 42.33	+ 6 36.6	1.592	2.486	12.4	21.5
11 17	0 42.99	+ 4 11.0	2.182	2.980	13.2	20.8	11 17	0 37.96	+ 5 56.4	1.668	2.478	16.0	21.7
443710	2015 <i>KM</i> ₁₃₃	10 10.7 9°29 10°5/ 1.1 18					98692	2000 <i>XS</i> ₁₄	10 10.7 249°58 12°5/25.8 18				
9 8	1 25.40	-14 29.7	1.364	2.263	14.9	19.4	9 8	1 29.95	-22 58.2	1.673	2.540	14.3	19.2
9 18	1 21.23	-16 26.0	1.328	2.264	12.1	19.2	9 18	1 24.55	-25 26.5	1.627	2.523	12.9	19.0
9 28	1 14.78	-18 10.4	1.315	2.265	10.6	19.1	9 28	1 16.79	-27 38.9	1.605	2.506	12.5	19.0
10 8	1 7.02	-19 30.5	1.325	2.268	11.0	19.2	10 8	1 7.53	-29 22.7	1.606	2.489	13.4	19.0
10 18	0 59.13	-20 17.7	1.358	2.271	13.0	19.3	10 18	0 57.90	-30 29.0	1.630	2.471	15.3	19.1
10 28	0 52.36	-20 27.9	1.412	2.275	15.8	19.5	10 28	0 49.16	-30 53.6	1.674	2.452	17.5	19.2
11 7	0 47.64	-20 2.8	1.485	2.279	18.5	19.7	11 7	0 42.39	-30 38.4	1.735	2.433	19.7	19.3
11 17	0 45.49	-19 7.1	1.574	2.284	20.9	19.9	11 17	0 38.25	-29 48.4	1.809	2.413	21.6	19.4
166306	2002 <i>JT</i> ₂₅	10 10.7 121°24 1°3/ 9.4 17					337282	2000 <i>WB</i> ₃₃	10 10.7 353°57 6°7/ 6.2 18				
9 8	1 29.12	+ 5 41.8	2.167	3.030	11.6	21.2	9 8	1 20.99	- 3 12.7	0.975	1.898	17.1	19.1
9 18	1 23.10	+ 4 51.9	2.114	3.049	8.3	21.0	9 18	1 18.76	- 4 19.8	0.924	1.887	12.6	18.9
9 28	1 15.55	+ 3 54.8	2.087	3.068	4.6	20.8	9 28	1 13.71	- 5 29.6	0.893	1.878	8.3	18.6
10 8	1 7.17	+ 2 55.3	2.089	3.086	1.4	20.6	10 8	1 6.88	- 6 29.8	0.883	1.871	6.8	18.5
10 18	0 58.75	+ 1 58.8	2.120	3.104	3.6	20.8	10 18	0 59.67	- 7 9.2	0.894	1.866	9.8	18.6
10 28	0 51.14	+ 1 10.6	2.181	3.120	7.1	21.1	10 28	0 53.67	- 7 19.4	0.926	1.863	14.4	18.9
11 7	0 44.99	+ 0 34.6	2.268	3.136	10.3	21.3	11 7	0 50.08	- 6 58.1	0.976	1.863	18.9	19.2
11 17	0 40.73	+ 0 13.0	2.379	3.152	12.9	21.5	11 17	0 49.58	- 6 7.3	1.043	1.865	22.7	19.4
383160	2005 <i>UB</i> ₄₃₆	10 10.7 335°30 1°5/ 9.7 18					349648	2008 <i>US</i> ₃₀₃	10 10.7 352°34 2°0/12.3 18				
9 8	1 30.50	+ 4 25.9	1.360	2.246	15.8	21.1	9 8	1 26.09	+14 2.3	1.421	2.288	16.4	20.6
9 18	1 25.13	+ 4 12.8	1.295	2.240	11.5	20.8	9 18	1 21.88	+13 42.1	1.353	2.284	12.4	20.4
9 28	1 17.18	+ 3 51.0	1.251	2.235	6.6	20.5	9 28	1 15.29	+13 2.3	1.307	2.281	7.7	20.1
10 8	1 7.59	+ 3 25.6	1.232	2.230	1.8	20.2	10 8	1 7.21	+12 6.3	1.284	2.279	3.0	19.8
10 18	0 57.61	+ 3 2.6	1.238	2.225	4.8	20.4	10 18	0 58.78	+11 0.6	1.287	2.277	3.6	19.9
10 28	0 48.67	+ 2 48.5	1.270	2.221	9.9	20.7	10 28	0 51.31	+ 9 54.1	1.315	2.276	8.4	20.2
11 7	0 41.92	+ 2 48.0	1.326	2.217	14.5	21.0	11 7	0 45.86	+ 8 55.7	1.368	2.276	12.9	20.4
11 17	0 38.06	+ 3 3.5	1.401	2.214	18.4	21.2	11 17	0 43.07	+ 8 11.9	1.441	2.276	16.8	20.7
132361	2002 <i>GK</i> ₆₆	10 10.7 36°77 1°7/ 9.4 18					140543	2001 <i>TS</i> ₁₈₆	10 10.7 162°40 1°0/11.6 18				
9 8	1 26.40	+ 7 44.9	1.093	1.990	17.9	18.3	9 8	1 30.91	+11 37.2	1.889	2.739	13.6	20.5
9 18	1 22.28	+ 6 33.7	1.050	2.001	12.8	18.1	9 18	1 24.80	+11 18.2	1.820	2.744	10.1	20.4
9 28	1 15.49	+ 5 5.9	1.027	2.012	7.2	17.8	9 28	1 16.75	+10 46.0	1.774	2.748	6.1	20.0
10 8	1 7.19	+ 3 31.6	1.026	2.025	1.9	17.5	10 8	1 7.51	+10 3.8	1.756	2.752	1.9	19.8
10 18	0 58.79	+ 2 2.5	1.051	2.037	5.4	17.8	10 18	0 58.05	+ 9 16.3	1.766	2.755	3.0	19.8
10 28	0 51.74	+ 0 50.0	1.099	2.051	10.9	18.1	10 28	0 49.43	+ 8 29.7	1.805	2.758	7.2	20.1
11 7	0 47.11	+ 0 1.6	1.169	2.065	15.6	18.5	11 7	0 42.50	+ 7 49.9	1.870	2.760	11.0	20.3
11 17	0 45.42	- 0 20.5	1.258	2.080	19.5	18.8	11 17	0 37.83	+ 7 21.1	1.958	2.762	14.2	20.6
142618	2002 <i>TF</i> ₁₄₆	10 10.7 71°50 1°9/12.3 18					487845	2015 <i>TA</i> ₉₆	10 10.7 240°00 1°5/12.5 17				
9 8	1 30.33	+15 6.0	1.358	2.218	17.4	19.5	9 8	1 24.59	+14 54.3	2.332	3.171	11.8	22.0
9 18	1 24.69	+14 25.9	1.314	2.241	13.0	19.3	9 18	1 20.01	+14 18.4	2.250	3.166	8.9	21.8
9 28	1 16.70	+13 24.6	1.290	2.263	8.0	19.1	9 28	1 13.92	+13 28.2	2.193	3.161	5.6	21.6
10 8	1 7.43	+12 7.6	1.291	2.286	3.1	18.9	10 8	1 6.89	+12 26.8	2.162	3.156	2.3	21.3
10 18	0 58.18	+10 43.4	1.318	2.309	3.6	19.0	10 18	0 59.66	+11 18.5	2.161	3.151	2.6	21.3
10 28	0 50.23	+ 9 22.1	1.372	2.331	8.3	19.3	10 28	0 53.00	+10 9.2	2.190	3.146	5.9	21.6
11 7	0 44.52	+ 8 12.7	1.451	2.354	12.7	19.6	11 7	0 47.60	+ 9 4.8	2.246	3.140	9.2	21.8
11 17	0 41.55	+ 7 20.8	1.550	2.376	16.3	19.9	11 17	0 43.94	+ 8 10.3	2.326	3.135	12.1	21.9
97317	1999 <i>XS</i> ₂₁₃	10 10.7 217°55 3°3/15.4 18					521885	2015 <i>TW</i> ₃₈₁	10 10.7 105°42 5°3/ 4.9 18				
9 8	1 24.96	+22 28.6	2.854	3.647	11.1	20.2	9 8	1 28.10	-10 33.4	2.450	3.323	10.1	21.4
9 18	1 20.09	+22 5.7	2.761	3.639	8.8	20.0	9 18	1 22.25	-11 18.7				

EPHEMERIDES

10 10.7

10 10.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
314587	2006 <i>AJ</i> ₁₁		10 10.7 137°70	1°9/ 8.3 18			135557	2002 <i>EZ</i> ₇₄		10 10.8 78°74	1°0/11.4 17		
9 8	1 25.21	+ 1 58.2	2.667	3.537	9.5	21.3	9 8	1 36.11	+10 24.9	1.356	2.221	17.2	19.6
9 18	1 20.15	+ 1 13.1	2.607	3.545	6.8	21.1	9 18	1 28.85	+10 21.1	1.315	2.246	12.6	19.4
9 28	1 13.86	+ 0 24.3	2.573	3.554	3.9	21.0	9 28	1 19.10	+10 2.7	1.295	2.272	7.4	19.2
10 8	1 6.87	- 0 24.2	2.568	3.562	1.9	20.8	10 8	1 8.04	+ 9 33.4	1.300	2.297	2.1	18.9
10 18	0 59.79	- 1 8.1	2.593	3.570	3.7	21.0	10 18	0 57.03	+ 8 59.0	1.332	2.322	3.7	19.1
10 28	0 53.28	- 1 43.5	2.648	3.578	6.5	21.2	10 28	0 47.46	+ 8 26.8	1.391	2.346	8.6	19.5
11 7	0 47.87	- 2 7.8	2.729	3.585	9.2	21.4	11 7	0 40.33	+ 8 2.9	1.474	2.371	13.0	19.8
11 17	0 43.96	- 2 19.3	2.834	3.592	11.4	21.5	11 17	0 36.14	+ 7 51.4	1.579	2.394	16.5	20.1
411522	2011 <i>BJ</i> ₅₆		10 10.7 345°22	6°5/17.3 17			396591	2001 <i>FD</i> ₁₃₀		10 10.8 200°70	0°2/10.9 18		
9 8	1 25.74	+26 39.7	1.940	2.731	15.6	20.7	9 8	1 29.73	+ 9 12.8	2.445	3.292	11.0	22.4
9 18	1 21.33	+26 58.8	1.858	2.726	12.9	20.5	9 18	1 23.65	+ 8 53.4	2.363	3.288	8.1	22.2
9 28	1 14.89	+26 55.1	1.797	2.721	10.1	20.3	9 28	1 16.01	+ 8 25.2	2.307	3.283	4.7	22.0
10 8	1 7.15	+26 27.6	1.759	2.716	7.5	20.1	10 8	1 7.39	+ 7 50.6	2.279	3.277	1.1	21.7
10 18	0 59.04	+25 38.2	1.747	2.712	6.5	20.1	10 18	0 58.54	+ 7 13.5	2.282	3.271	2.6	21.8
10 28	0 51.64	+24 32.2	1.761	2.709	7.8	20.1	10 28	0 50.26	+ 6 38.3	2.315	3.264	6.2	22.1
11 7	0 45.88	+23 17.8	1.801	2.706	10.5	20.3	11 7	0 43.27	+ 6 9.0	2.376	3.256	9.4	22.3
11 17	0 42.40	+22 3.3	1.864	2.703	13.4	20.5	11 17	0 38.06	+ 5 48.9	2.461	3.247	12.2	22.4
432319	2009 <i>UG</i> ₂₇		10 10.7 7°67	0°1/10.8 18			310660	2002 <i>ET</i> ₆₃		10 10.8 190°35	2°3/13.6 18		
9 8	1 23.97	+11 16.5	1.178	2.067	17.5	20.0	9 8	1 27.42	+16 57.8	2.747	3.564	10.8	21.8
9 18	1 20.57	+10 18.0	1.122	2.067	12.9	19.7	9 18	1 21.88	+16 52.0	2.663	3.563	8.3	21.7
9 28	1 14.61	+ 8 58.2	1.086	2.068	7.5	19.4	9 28	1 14.95	+16 34.0	2.604	3.561	5.6	21.5
10 8	1 7.09	+ 7 24.7	1.072	2.071	1.6	19.0	10 8	1 7.15	+16 5.1	2.572	3.559	3.0	21.3
10 18	0 59.29	+ 5 48.2	1.084	2.074	4.3	19.2	10 18	0 59.16	+15 27.8	2.571	3.557	2.8	21.3
10 28	0 52.63	+ 4 20.9	1.120	2.078	9.9	19.6	10 28	0 51.67	+14 46.1	2.600	3.554	5.2	21.5
11 7	0 48.21	+ 3 12.7	1.178	2.083	14.8	19.9	11 7	0 45.32	+14 4.4	2.657	3.550	8.0	21.6
11 17	0 46.62	+ 2 28.8	1.255	2.089	18.9	20.2	11 17	0 40.57	+13 27.0	2.739	3.546	10.5	21.8
193746	2001 <i>JB</i> ₃		10 10.7 139°98	0°5/10.1 18			5180	Ohno		10 10.8 242°02	3°7/ 7.8 18		
9 8	1 23.70	+ 8 41.7	2.625	3.482	10.0	20.4	9 8	1 30.30	- 0 12.8	1.601	2.486	13.9	17.3
9 18	1 19.12	+ 7 43.9	2.557	3.489	7.2	20.2	9 18	1 24.66	- 1 1.8	1.536	2.481	10.1	17.1
9 28	1 13.30	+ 6 37.2	2.516	3.495	4.1	20.0	9 28	1 16.81	- 1 55.2	1.494	2.475	6.0	16.8
10 8	1 6.77	+ 5 25.8	2.503	3.501	0.9	19.8	10 8	1 7.59	- 2 46.3	1.478	2.469	3.7	16.7
10 18	1 0.12	+ 4 14.5	2.521	3.507	2.7	19.9	10 18	0 58.07	- 3 27.7	1.489	2.463	6.2	16.8
10 28	0 54.03	+ 3 8.5	2.568	3.513	5.9	20.1	10 28	0 49.45	- 3 53.4	1.526	2.457	10.3	17.0
11 7	0 49.03	+ 2 12.2	2.644	3.518	8.8	20.3	11 7	0 42.73	- 3 59.7	1.587	2.451	14.2	17.3
11 17	0 45.53	+ 1 28.5	2.743	3.523	11.2	20.5	11 17	0 38.51	- 3 46.1	1.669	2.444	17.5	17.5
437919	2002 <i>JX</i> ₁₄		10 10.8 86°92	5°2/ 6.7 16			96548	1998 <i>SX</i> ₅₉		10 10.8 25°38	2°5/ 8.9 18		
9 8	1 33.95	- 6 37.2	1.815	2.691	12.9	21.2	9 8	1 27.08	+ 2 2.6	1.485	2.376	14.4	17.9
9 18	1 26.69	- 7 16.5	1.781	2.717	9.5	21.1	9 18	1 22.19	+ 1 37.1	1.444	2.392	10.3	17.6
9 28	1 17.63	- 7 51.8	1.772	2.743	6.4	20.9	9 28	1 15.25	+ 1 6.7	1.425	2.409	5.9	17.4
10 8	1 7.68	- 8 17.1	1.790	2.768	5.2	20.9	10 8	1 7.21	+ 0 37.0	1.431	2.427	2.5	17.3
10 18	0 57.87	- 8 27.9	1.836	2.793	7.0	21.1	10 18	0 59.14	+ 0 13.9	1.464	2.446	5.0	17.5
10 28	0 49.17	- 8 21.3	1.909	2.818	10.0	21.3	10 28	0 52.14	+ 0 2.5	1.522	2.466	9.2	17.8
11 7	0 42.34	- 7 57.3	2.007	2.842	12.9	21.5	11 7	0 47.05	+ 0 5.5	1.604	2.487	12.9	18.1
11 17	0 37.79	- 7 17.4	2.126	2.865	15.3	21.8	11 17	0 44.35	+ 0 24.0	1.707	2.509	16.1	18.3
89258	2001 <i>UM</i> ₂₀₃		10 10.8 104°22	1°8/ 9.4 18			214678	2006 <i>SR</i> ₁₉₇		10 10.8 338°19	1°4/ 9.6 18		
9 8	1 34.57	+ 2 58.0	1.744	2.613	13.7	19.7	9 8	1 28.86	+ 4 18.6	1.795	2.670	13.1	20.3
9 18	1 27.34	+ 2 40.3	1.695	2.633	9.8	19.5	9 18	1 23.42	+ 3 57.9	1.727	2.668	9.5	20.0
9 28	1 18.12	+ 2 17.3	1.671	2.652	5.6	19.3	9 28	1 16.01	+ 3 30.1	1.684	2.666	5.4	19.8
10 8	1 7.81	+ 1 53.7	1.674	2.670	1.9	19.1	10 8	1 7.40	+ 2 59.8	1.666	2.664	1.6	19.5
10 18	0 57.49	+ 1 34.2	1.705	2.688	4.3	19.3	10 18	0 58.55	+ 2 31.9	1.677	2.662	4.1	19.7
10 28	0 48.26	+ 1 23.2	1.765	2.706	8.4	19.6	10 28	0 50.50	+ 2 11.5	1.715	2.661	8.2	20.0
11 7	0 40.96	+ 1 23.8	1.851	2.723	12.0	19.8	11 7	0 44.12	+ 2 2.8	1.779	2.659	12.0	20.2
11 17	0 36.07	+ 1 37.3	1.958	2.740	15.0	20.1	11 17	0 39.99	+ 2 7.8	1.864	2.658	15.2	20.4
13405	Dorisbillings		10 10.8 227°64	2°6/12.8 18			320172	2007 <i>GD</i> ₁₆		10 10.8 242°92	0°7/11.6 17		
9 8	1 31.70	+15 0.3	1.633	2.479	15.6	17.7	9 8	1 26.49	+11 14.7	2.570	3.415	10.6	21.8
9 18	1 25.84	+14 57.2	1.554	2.473	11.9	17.4	9 18	1 21.32	+10 54.5	2.480	3.402	7.9	21.6
9 28	1 17.58	+14 36.3	1.498	2.466	7.7	17.2	9 28	1 14.68	+10 24.2	2.415	3.389	4.8	21.4
10 8	1 7.76	+13 59.4	1.467	2.459	3.5	16.9	10 8	1 7.11	+ 9 46.3	2.378	3.375	1.5	21.1
10 18	0 57.50	+13 10.9	1.463	2.451	3.7	16.9	10 18	0 59.28	+ 9 4.2	2.371	3.360	2.4	21.2
10 28	0 48.09	+12 17.7	1.486	2.444	8.0	17.2	10 28	0 51.92	+ 8 22.2	2.394	3.346	5.7	21.4
11 7	0 40.64	+11 27.9	1.535	2.435	12.3	17.4	11 7	0 45.70	+ 7 44.8	2.444	3.331	8.9	21.6
11 17	0 35.85	+10 48.0	1.606	2.427	16.0	17.6	11 17	0 41.13	+ 7 15.6	2.520	3.316	11.6	21.7
57320	2001 <i>QN</i> ₂₃₉		10 10.8 328°09	2°1/ 9.2 18			318552	2005 <i>GC</i> ₃₉		10 10.8 154°87	0°2/10.5 17		
9 8	1 25.50	+ 5 25.5	1.255	2.151	16.1	18.5	9 8	1 31.94	+ 8 52.7	1.900	2.757	13.3	22.3
9 18	1 21.74	+ 4 35.6	1.186	2.137	11.7	18.2	9 18	1 25.48	+ 8 14.3	1.836	2.766	9.7	22.1
9 28	1 15.37	+ 3 32.0	1.138	2.124	6.7	17.9	9 28	1 17.11	+ 7 24.6	1.797	2.775	5.6	21.8
10 8	1 7.29	+ 2 22.2	1.113	2.111	2.2	17.6	10 8	1 7.63	+ 6 28.0	1.785	2.783	1.2	21.5
10 18	0 58.74	+ 1 15.5	1.114	2.099	5.5	17.8	10 18	0 58.01	+ 5 30.3	1.802	2.790	3.3	21.7
10 28	0 51.15	+ 0 21.9	1.138	2.088	10.8	18.1	10 28	0 49.26	+ 4 37.9	1.848	2.796	7.5	22.0
11 7	0 45.71	- 0 11.4	1.184	2.078	15.7	18.3	11 7	0 42.23	+ 3 56.2	1.921	2.802	11.3	22.3
11 17	0 43.16	- 0 21.0	1.249	2.068	19.8	18.6	11 17	0 37.43	+ 3 28.7	2.017	2.806	14.4	22.5
425008	2009 <i>DE</i> ₇₆		10 10.8 159°40	2°1/ 8.9 15			432709	2011 <i>CY</i> ₂₄		10 10.8 149°29	2°1/ 8.9 17		
9 8	1 31.												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
285600	2000 QZ ₁₆₀		10 10.8	69°78	3°8/13.7	17	215485	2002 TB ₃₇		10 10.8	1°15	0°7/10.3	18
9 8	1 30.93	+18 23.9	1.249	2.101	19.1	20.2	9 8	1 30.96	+ 6 15.0	1.280	2.165	16.6	19.9
9 18	1 25.48	+18 7.1	1.199	2.117	14.7	19.9	9 18	1 25.59	+ 6 6.6	1.220	2.164	12.1	19.6
9 28	1 17.36	+17 24.2	1.168	2.133	9.7	19.7	9 28	1 17.53	+ 5 47.4	1.181	2.164	7.0	19.4
10 8	1 7.70	+16 18.6	1.160	2.150	5.0	19.5	10 8	1 7.79	+ 5 21.9	1.165	2.163	1.5	19.0
10 18	0 57.91	+14 57.7	1.178	2.166	4.5	19.5	10 18	0 57.71	+ 4 56.2	1.175	2.164	4.4	19.2
10 28	0 49.49	+13 32.6	1.221	2.182	8.8	19.8	10 28	0 48.77	+ 4 37.4	1.211	2.165	9.8	19.5
11 7	0 43.54	+12 14.6	1.287	2.199	13.3	20.1	11 7	0 42.16	+ 4 30.8	1.269	2.166	14.5	19.8
11 17	0 40.61	+11 11.7	1.375	2.215	17.2	20.4	11 17	0 38.54	+ 4 39.6	1.347	2.168	18.5	20.1
305683	2009 BK ₁₁₇		10 10.8	143°11	0°1/10.7	18	188858	2006 TL ₁₆		10 10.8	305°10	1°4/ 9.9	18
9 8	1 29.30	+ 8 24.5	1.950	2.812	12.8	21.5	9 8	1 32.36	+ 4 23.8	1.327	2.211	16.2	20.4
9 18	1 23.59	+ 8 6.0	1.883	2.815	9.4	21.2	9 18	1 26.75	+ 4 19.6	1.252	2.197	11.9	20.1
9 28	1 16.05	+ 7 37.6	1.840	2.818	5.4	21.0	9 28	1 18.33	+ 4 7.0	1.200	2.183	6.9	19.8
10 8	1 7.41	+ 7 2.9	1.823	2.822	1.2	20.7	10 8	1 8.00	+ 3 50.6	1.171	2.169	1.8	19.4
10 18	0 58.57	+ 6 26.3	1.836	2.825	3.1	20.9	10 18	0 57.08	+ 3 35.8	1.168	2.155	4.8	19.6
10 28	0 50.51	+ 5 53.2	1.877	2.827	7.2	21.2	10 28	0 47.12	+ 3 29.1	1.191	2.142	10.3	19.9
11 7	0 44.03	+ 5 28.3	1.944	2.830	10.8	21.4	11 7	0 39.44	+ 3 35.3	1.236	2.130	15.2	20.1
11 17	0 39.67	+ 5 14.8	2.034	2.832	13.9	21.6	11 17	0 34.86	+ 3 57.0	1.301	2.117	19.4	20.4
174485	2003 AU ₆₈		10 10.8	348°97	9°2/ 2.6	18	441122	2007 TK ₆₄		10 10.8	320°02	0°6/10.2	16
9 8	1 26.87	-14 22.3	1.562	2.453	13.8	19.2	9 8	1 25.52	+ 8 10.9	1.576	2.454	14.4	21.4
9 18	1 22.17	-15 42.0	1.516	2.448	11.2	19.0	9 18	1 21.34	+ 7 30.1	1.500	2.442	10.5	21.2
9 28	1 15.34	-16 51.3	1.492	2.444	9.4	18.9	9 28	1 14.99	+ 6 35.6	1.447	2.429	6.1	20.9
10 8	1 7.26	-17 40.9	1.492	2.440	9.5	18.9	10 8	1 7.23	+ 5 32.7	1.419	2.417	1.3	20.6
10 18	0 59.01	-18 3.6	1.516	2.437	11.4	19.0	10 18	0 59.09	+ 4 28.3	1.417	2.405	4.0	20.7
10 28	0 51.73	-17 55.9	1.563	2.434	14.1	19.2	10 28	0 51.73	+ 3 30.6	1.442	2.394	8.8	21.0
11 7	0 46.33	-17 18.8	1.630	2.432	16.8	19.4	11 7	0 46.14	+ 2 46.5	1.491	2.383	13.1	21.2
11 17	0 43.35	-16 15.8	1.715	2.431	19.2	19.6	11 17	0 42.98	+ 2 20.4	1.561	2.373	16.8	21.4
515305	2012 VK ₁		10 10.8	319°24	5°8/ 5.2	18	76121	2000 DG ₁₁₇		10 10.8	41°13	3°2/13.2	18
9 8	1 24.52	- 2 39.4	1.470	2.370	13.9	21.2	9 8	1 29.76	+15 39.3	1.504	2.357	16.4	18.0
9 18	1 20.64	- 4 22.6	1.408	2.359	10.2	21.0	9 18	1 24.32	+15 49.3	1.452	2.372	12.5	17.8
9 28	1 14.56	- 6 10.6	1.370	2.349	6.8	20.7	9 28	1 16.60	+15 40.8	1.420	2.387	8.2	17.6
10 8	1 7.11	- 7 52.8	1.357	2.339	6.0	20.7	10 8	1 7.56	+15 15.9	1.413	2.403	4.1	17.4
10 18	0 59.35	- 9 18.3	1.370	2.330	8.6	20.8	10 18	0 58.37	+14 39.0	1.431	2.419	3.9	17.5
10 28	0 52.46	-10 18.5	1.408	2.320	12.5	21.0	10 28	0 50.27	+13 57.0	1.477	2.436	7.8	17.7
11 7	0 47.40	-10 49.3	1.467	2.312	16.2	21.2	11 7	0 44.24	+13 17.5	1.547	2.454	11.8	18.0
11 17	0 44.81	-10 50.8	1.544	2.304	19.3	21.4	11 17	0 40.82	+12 46.4	1.639	2.472	15.2	18.3
481604	2007 TP ₃₆₄		10 10.8	7°22	3°6/ 8.9	18	139337	2001 KF ₅₃		10 10.8	214°91	1°2/11.8	18
9 8	1 32.58	- 1 50.9	1.278	2.172	16.1	19.8	9 8	1 28.45	+13 31.0	1.591	2.450	15.4	20.4
9 18	1 26.64	- 1 43.0	1.224	2.172	11.7	19.5	9 18	1 23.42	+12 48.6	1.519	2.447	11.5	20.2
9 28	1 18.05	- 1 35.0	1.192	2.174	7.0	19.3	9 28	1 16.15	+11 47.3	1.469	2.444	7.0	19.9
10 8	1 7.87	- 1 21.6	1.184	2.178	3.6	19.1	10 8	1 7.49	+10 31.4	1.445	2.441	2.3	19.6
10 18	0 57.46	- 0 58.7	1.201	2.182	6.2	19.3	10 18	0 58.52	+ 9 8.0	1.448	2.438	3.4	19.7
10 28	0 48.30	- 0 23.0	1.243	2.187	10.8	19.6	10 28	0 50.45	+ 7 46.5	1.478	2.435	8.1	19.9
11 7	0 41.51	+ 0 26.3	1.308	2.194	15.1	19.8	11 7	0 44.26	+ 6 35.4	1.534	2.431	12.5	20.2
11 17	0 37.71	+ 1 28.7	1.393	2.201	18.7	20.1	11 17	0 40.59	+ 5 41.0	1.611	2.427	16.2	20.4
396070	2013 CB ₇₃		10 10.8	126°61	5°6/ 4.2	18	154768	2004 PO ₂₃		10 10.8	348°94	4°1/14.5	18
9 8	1 26.06	- 7 50.1	2.177	3.060	10.8	21.4	9 8	1 27.86	+19 11.0	1.919	2.745	14.4	19.9
9 18	1 21.00	- 9 16.7	2.132	3.069	8.1	21.2	9 18	1 22.79	+19 26.4	1.842	2.743	11.4	19.7
9 28	1 14.44	-10 40.3	2.113	3.078	6.0	21.1	9 28	1 15.73	+19 24.3	1.787	2.741	8.0	19.5
10 8	1 7.05	-11 53.8	2.121	3.087	5.7	21.1	10 8	1 7.40	+19 5.2	1.757	2.739	4.9	19.3
10 18	0 59.58	-12 51.2	2.158	3.095	7.5	21.3	10 18	0 58.75	+18 31.6	1.754	2.737	4.3	19.3
10 28	0 52.83	-13 28.4	2.221	3.103	10.0	21.4	10 28	0 50.81	+17 48.7	1.779	2.735	7.0	19.5
11 7	0 47.44	-13 44.0	2.308	3.111	12.4	21.6	11 7	0 44.50	+17 3.4	1.830	2.734	10.4	19.7
11 17	0 43.86	-13 38.6	2.414	3.119	14.5	21.8	11 17	0 40.42	+16 21.7	1.904	2.734	13.5	19.9
260028	2004 GG ₂₅		10 10.8	175°95	17°2/ 3.9	16	34287	2000 QG ₁₄₇		10 10.8	35°27	4°8/ 6.8	18
9 8	1 50.47	-28 30.8	1.094	1.943	21.5	20.5	9 8	1 29.08	- 5 38.5	1.848	2.732	12.3	17.2
9 18	1 40.05	-29 27.8	1.059	1.944	19.1	20.3	9 18	1 23.40	- 6 13.2	1.797	2.739	9.1	17.0
9 28	1 25.80	-29 49.8	1.041	1.945	17.5	20.2	9 28	1 15.91	- 6 45.6	1.771	2.745	6.1	16.8
10 8	1 9.51	-29 23.1	1.043	1.945	17.3	20.2	10 8	1 7.41	- 7 9.8	1.771	2.753	4.8	16.8
10 18	0 53.47	-28 2.5	1.066	1.945	18.7	20.3	10 18	0 58.82	- 7 21.0	1.798	2.760	6.7	16.9
10 28	0 39.85	-25 52.5	1.109	1.945	21.1	20.5	10 28	0 51.11	- 7 15.9	1.852	2.768	9.8	17.1
11 7	0 30.02	-23 5.4	1.171	1.945	23.7	20.7	11 7	0 45.06	- 6 53.4	1.930	2.776	12.8	17.3
11 17	0 24.43	-19 55.0	1.249	1.944	26.1	20.9	11 17	0 41.16	- 6 14.5	2.030	2.784	15.4	17.5
141393	2002 AU ₁₀₈		10 10.8	340°06	1°6/ 9.3	18	120371	2005 OB ₁₆		10 10.8	336°23	0°9/10.1	18
9 8	1 26.28	+ 4 32.1	1.814	2.693	12.8	19.9	9 8	1 24.57	+ 8 3.6	1.153	2.049	17.2	19.3
9 18	1 21.55	+ 3 57.8	1.746	2.688	9.2	19.7	9 18	1 21.26	+ 7 24.2	1.085	2.035	12.6	19.0
9 28	1 14.94	+ 3 15.8	1.701	2.684	5.2	19.4	9 28	1 15.22	+ 6 27.5	1.037	2.022	7.3	18.6
10 8	1 7.19	+ 2 30.9	1.683	2.680	1.7	19.2	10 8	1 7.34	+ 5 19.9	1.012	2.010	1.6	18.2
10 18	0 59.19	+ 1 48.8	1.693	2.677	4.2	19.4	10 18	0 58.95	+ 4 10.8	1.011	2.000	4.9	18.4
10 28	0 51.95	+ 1 15.4	1.729	2.674	8.2	19.6	10 28	0 51.58	+ 3 11.2	1.033	1.990	10.7	18.7
11 7	0 46.28	+ 0 55.0	1.791	2.671	12.0	19.8	11 7	0 46.50	+ 2 29.7	1.076	1.981	15.9	19.0
11 17	0 42.75	+ 0 50.1	1.874	2.668	15.1	20.0	11 17	0 44.47	+ 2 11.3	1.138	1.974	20.3	19.3
196762	2003 SP ₁₆₂		10 10.8	326°19	2°0/ 8.3	18	253362	2003 GL ₂₄		10 10.8	32°04	1°8/ 7.7	18
9 8	1 22.17	+ 5 25.5	2.039										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
404558	2013 <i>JT</i> ₄₂		10 10.8	73°47'	0°7/11.6	18	90907	1997 <i>GX</i>		10 10.8	214°06'	0°3/10.4	18
9 8	1 25.92	+11 25.3	2.176	3.029	12.0	21.0	9 8	1 25.89	+8 14.2	2.319	3.179	11.1	20.2
9 18	1 20.97	+10 57.7	2.113	3.040	8.8	20.8	9 18	1 20.96	+7 39.3	2.244	3.176	8.1	20.0
9 28	1 14.49	+10 18.7	2.075	3.050	5.3	20.6	9 28	1 14.52	+6 55.2	2.194	3.173	4.6	19.8
10 8	1 7.12	+9 31.7	2.064	3.061	1.6	20.4	10 8	1 7.17	+6 5.7	2.171	3.169	1.0	19.5
10 18	0 59.63	+8 41.3	2.082	3.072	2.6	20.5	10 18	0 59.61	+5 15.2	2.178	3.166	2.9	19.7
10 28	0 52.84	+7 52.6	2.128	3.082	6.2	20.8	10 28	0 52.64	+4 28.8	2.214	3.162	6.4	19.9
11 7	0 47.42	+7 10.8	2.202	3.093	9.5	21.0	11 7	0 46.93	+3 51.0	2.277	3.159	9.7	20.1
11 17	0 43.82	+6 39.5	2.299	3.104	12.3	21.2	11 17	0 42.97	+3 24.9	2.364	3.155	12.5	20.3
70584	1999 <i>TJ</i> ₁₆₈		10 10.8	139°25'	1°5/12.3	18	385269	2001 <i>RU</i> ₃₈		10 10.8	9°31'	0°3/10.6	18
9 8	1 28.07	+14 22.5	1.971	2.815	13.4	19.5	9 8	1 22.92	+9 10.4	0.977	1.882	18.8	19.9
9 18	1 22.71	+13 46.8	1.903	2.823	10.0	19.3	9 18	1 20.16	+8 35.6	0.931	1.884	13.8	19.6
9 28	1 15.56	+12 55.5	1.859	2.830	6.2	19.1	9 28	1 14.55	+7 41.6	0.902	1.888	7.9	19.3
10 8	1 7.37	+11 52.1	1.842	2.837	2.4	18.9	10 8	1 7.20	+6 36.1	0.895	1.894	1.7	19.0
10 18	0 59.01	+10 42.2	1.853	2.843	2.8	18.9	10 18	0 59.60	+5 29.5	0.910	1.901	4.7	19.2
10 28	0 51.43	+9 32.5	1.894	2.849	6.7	19.2	10 28	0 53.30	+4 33.1	0.948	1.910	10.6	19.6
11 7	0 45.43	+8 29.7	1.961	2.855	10.3	19.4	11 7	0 49.51	+3 55.4	1.007	1.921	15.8	19.9
11 17	0 41.51	+7 39.0	2.051	2.860	13.5	19.6	11 17	0 48.80	+3 40.6	1.083	1.933	20.1	20.2
340845	2006 <i>WY</i> ₁₅₀		10 10.8	286°35'	2°2/7.6	16	260611	2005 <i>GY</i> ₂₄		10 10.8	297°18'	0°7/11.2	18
9 8	1 21.67	+0 15.3	3.108	3.982	8.2	20.9	9 8	1 30.94	+9 40.4	1.315	2.191	16.9	21.5
9 18	1 17.62	-0 31.8	3.025	3.966	5.9	20.8	9 18	1 25.81	+9 34.2	1.238	2.177	12.6	21.2
9 28	1 12.49	-1 21.9	2.969	3.949	3.5	20.6	9 28	1 17.86	+9 12.9	1.183	2.163	7.5	20.9
10 8	1 6.69	-2 11.3	2.942	3.933	2.2	20.5	10 8	1 7.98	+8 39.8	1.151	2.149	2.0	20.5
10 18	1 0.71	-2 56.3	2.945	3.916	3.7	20.6	10 18	0 57.49	+8 0.6	1.145	2.135	4.0	20.6
10 28	0 55.10	-3 33.4	2.977	3.900	6.2	20.7	10 28	0 47.93	+7 23.2	1.164	2.122	9.6	20.9
11 7	0 50.35	-3 59.8	3.035	3.884	8.6	20.8	11 7	0 40.64	+6 55.4	1.206	2.109	14.7	21.2
11 17	0 46.84	-4 14.0	3.118	3.867	10.7	21.0	11 17	0 36.44	+6 42.7	1.268	2.096	19.1	21.4
74110	1998 <i>QU</i> ₃₇		10 10.8	11°58'	1°6/11.9	18	54048	2000 <i>GE</i> ₁₂₅		10 10.8	162°60'	2°7/7.9	18
9 8	1 24.93	+12 12.9	1.209	2.092	17.5	17.7	9 8	1 29.07	+2 19.0	2.110	2.981	11.6	20.2
9 18	1 21.26	+12 1.0	1.156	2.096	13.1	17.5	9 18	1 23.27	+1 5.9	2.049	2.989	8.3	20.0
9 28	1 15.04	+11 30.1	1.123	2.102	8.0	17.2	9 28	1 15.84	-0 13.1	2.014	2.995	4.8	19.8
10 8	1 7.28	+10 44.5	1.112	2.108	2.7	16.9	10 8	1 7.46	-1 31.8	2.008	3.001	2.7	19.7
10 18	0 59.27	+9 51.4	1.125	2.116	3.8	17.0	10 18	0 58.96	-2 43.5	2.032	3.006	4.9	19.8
10 28	0 52.40	+8 59.9	1.163	2.126	8.9	17.4	10 28	0 51.20	-3 42.4	2.084	3.010	8.3	20.1
11 7	0 47.76	+8 18.3	1.223	2.136	13.7	17.7	11 7	0 44.91	-4 24.3	2.162	3.013	11.4	20.3
11 17	0 45.95	+7 52.1	1.304	2.148	17.7	18.0	11 17	0 40.56	-4 47.8	2.263	3.016	14.1	20.5
264538	2001 <i>SS</i> ₈		10 10.8	143°45'	0°2/10.9	18	439787	2015 <i>GQ</i> ₄₃		10 10.8	292°60'	4°5/7.1	18
9 8	1 31.72	+9 17.5	1.887	2.743	13.4	20.9	9 8	1 28.30	-0 26.4	1.440	2.334	14.6	21.2
9 18	1 25.37	+8 54.7	1.824	2.753	9.8	20.7	9 18	1 23.46	-1 35.9	1.377	2.326	10.6	20.9
9 28	1 17.10	+8 20.8	1.785	2.762	5.7	20.5	9 28	1 16.26	-2 51.4	1.337	2.319	6.5	20.7
10 8	1 7.72	+7 39.5	1.773	2.771	1.3	20.2	10 8	1 7.60	-4 3.8	1.322	2.312	4.5	20.5
10 18	0 58.17	+6 55.7	1.790	2.779	3.1	20.4	10 18	0 58.60	-5 4.1	1.333	2.305	7.2	20.7
10 28	0 49.50	+6 15.4	1.835	2.786	7.3	20.7	10 28	0 50.56	-5 44.6	1.369	2.298	11.4	20.9
11 7	0 42.54	+5 43.7	1.908	2.793	11.1	20.9	11 7	0 44.51	-6 1.0	1.427	2.291	15.5	21.1
11 17	0 37.82	+5 24.1	2.003	2.799	14.2	21.1	11 17	0 41.10	-5 52.9	1.505	2.284	18.9	21.3
392922	2012 <i>VF</i> ₉₂		10 10.8	2°23'	2°8/8.6	18	136813	1997 <i>GM</i> ₃₅		10 10.8	195°20'	1°3/9.6	18
9 8	1 26.85	+2 46.0	1.369	2.262	15.2	20.3	9 8	1 30.06	+6 13.2	1.837	2.705	13.2	20.7
9 18	1 22.41	+2 1.1	1.312	2.261	10.9	20.0	9 18	1 24.31	+5 24.4	1.766	2.703	9.5	20.5
9 28	1 15.63	+1 8.3	1.276	2.261	6.3	19.8	9 28	1 16.58	+4 25.5	1.719	2.701	5.4	20.3
10 8	1 7.42	+0 14.6	1.266	2.261	2.8	19.6	10 8	1 7.65	+3 21.8	1.700	2.698	1.5	20.0
10 18	0 58.97	-0 31.8	1.280	2.262	5.7	19.8	10 18	0 58.47	+2 19.7	1.709	2.694	4.1	20.2
10 28	0 51.53	-1 3.8	1.320	2.264	10.3	20.0	10 28	0 50.08	+1 26.3	1.747	2.690	8.3	20.4
11 7	0 46.14	-1 16.8	1.383	2.267	14.5	20.3	11 7	0 43.36	+0 46.7	1.810	2.685	12.1	20.7
11 17	0 43.38	-1 9.2	1.465	2.270	18.1	20.5	11 17	0 38.89	+0 24.0	1.895	2.680	15.3	20.9
183771	2004 <i>BJ</i> ₁₂		10 10.8	337°07'	3°8/8.4	18	49494	1999 <i>CJ</i> ₁		10 10.8	304°90'	6°3/4.9	18
9 8	1 23.95	+2 8.9	0.975	1.890	17.9	19.4	9 8	1 26.83	-7 24.7	1.746	2.637	12.6	18.5
9 18	1 21.22	+1 27.3	0.910	1.870	13.1	19.0	9 18	1 22.09	-8 35.5	1.682	2.624	9.5	18.3
9 28	1 15.40	+0 34.8	0.864	1.852	7.7	18.7	9 28	1 15.36	-9 44.7	1.641	2.611	7.0	18.1
10 8	1 7.45	-0 19.5	0.839	1.835	3.8	18.4	10 8	1 7.39	-10 43.8	1.626	2.598	6.4	18.0
10 18	0 58.83	-1 4.8	0.836	1.820	7.3	18.5	10 18	0 59.13	-11 25.7	1.637	2.586	8.5	18.1
10 28	0 51.31	-1 30.6	0.854	1.806	13.1	18.8	10 28	0 51.63	-11 45.0	1.674	2.573	11.6	18.3
11 7	0 46.37	-1 30.6	0.891	1.794	18.5	19.1	11 7	0 45.79	-11 39.9	1.732	2.561	14.8	18.5
11 17	0 44.85	-1 3.3	0.944	1.784	23.1	19.3	11 17	0 42.19	-11 11.2	1.810	2.550	17.6	18.6
269264	2008 <i>RY</i> ₅₀		10 10.8	264°94'	1°9/13.0	18	447025	2004 <i>OH</i> ₉		10 10.8	353°38'	6°4/5.1	17
9 8	1 25.01	+15 33.4	2.482	3.315	11.3	21.1	9 8	1 20.31	-4 4.1	1.284	2.197	14.6	19.4
9 18	1 20.34	+15 13.5	2.393	3.304	8.6	20.9	9 18	1 17.81	-5 29.6	1.229	2.186	10.8	19.1
9 28	1 14.19	+14 40.4	2.328	3.293	5.6	20.7	9 28	1 13.05	-6 57.1	1.197	2.177	7.4	18.9
10 8	1 7.10	+13 56.1	2.290	3.281	2.6	20.5	10 8	1 6.89	-8 15.6	1.188	2.170	6.6	18.9
10 18	0 59.75	+13 3.9	2.281	3.270	2.6	20.4	10 18	1 0.43	-9 14.9	1.202	2.164	9.2	19.0
10 28	0 52.90	+12 8.8	2.302	3.258	5.6	20.6	10 28	0 54.91	-9 47.3	1.240	2.160	13.1	19.2
11 7	0 47.23	+11 16.0	2.350	3.247	8.8	20.8	11 7	0 51.31	-9 50.0	1.297	2.159	16.8	19.4
11 17	0 43.23	+10 30.2	2.423	3.235	11.6	21.0	11 17	0 50.21	-9 23.9	1.372	2.158	20.1	19.7
189401	2008 <i>KH</i> ₄		10 10.8	281°41'	4°8/5.5	18	429541	2011 <i>CB</i> ₄		10 10.8	154°13'	1°8/9.2	17
9 8	1 25.14	-4 57.3	2.099	2.984	11.0	20.3	9 8	1 31.02	+4 24.1</				

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
484798	2009 <i>DZ</i> ₇₉		10 10.8 160°01	3°8/ 6.3 18			206039	2002 <i>QF</i> ₃₃		10 10.8 150°64	2°4/13.1 18		
9 8	1 25.97	- 1 20.8	2.136	3.017	11.0	21.5	9 8	1 31.54	+15 13.7	2.181	3.010	12.8	20.6
9 18	1 21.05	- 2 44.7	2.078	3.021	8.0	21.4	9 18	1 25.17	+15 19.5	2.108	3.017	9.8	20.5
9 28	1 14.57	- 4 11.7	2.047	3.025	5.0	21.2	9 28	1 17.01	+15 12.1	2.060	3.023	6.4	20.3
10 8	1 7.20	- 5 34.8	2.043	3.028	3.9	21.1	10 8	1 7.78	+14 52.7	2.039	3.029	3.1	20.1
10 18	0 59.70	- 6 47.3	2.068	3.031	5.9	21.3	10 18	0 58.33	+14 24.3	2.047	3.035	3.1	20.1
10 28	0 52.88	- 7 43.7	2.122	3.033	8.9	21.4	10 28	0 49.60	+13 51.3	2.085	3.040	6.3	20.3
11 7	0 47.42	- 8 20.7	2.200	3.036	11.8	21.6	11 7	0 42.39	+13 19.1	2.150	3.045	9.6	20.5
11 17	0 43.79	- 8 37.4	2.299	3.038	14.3	21.8	11 17	0 37.23	+12 52.3	2.240	3.049	12.5	20.7
398551	2011 <i>US</i> ₃₇₅		10 10.8 305°53	4°8/15.9 18			423891	2006 <i>SM</i> ₄₃		10 10.8 8°55	0°9/10.1 15		
9 8	1 26.36	+23 44.6	1.931	2.738	15.1	20.6	9 8	1 24.62	+ 9 39.9	1.121	2.015	17.8	20.5
9 18	1 21.72	+23 28.5	1.852	2.737	12.2	20.4	9 18	1 21.19	+ 8 31.0	1.066	2.015	12.9	20.2
9 28	1 15.14	+22 49.5	1.794	2.735	8.9	20.2	9 28	1 15.10	+ 7 1.6	1.032	2.017	7.4	19.9
10 8	1 7.35	+21 48.4	1.760	2.734	5.9	20.0	10 8	1 7.38	+ 5 20.6	1.021	2.019	1.6	19.6
10 18	0 59.29	+20 29.4	1.754	2.733	4.9	19.9	10 18	0 59.38	+ 3 40.1	1.033	2.022	4.9	19.8
10 28	0 51.99	+18 59.7	1.775	2.732	7.0	20.0	10 28	0 52.57	+ 2 12.8	1.070	2.026	10.6	20.2
11 7	0 46.32	+17 28.0	1.823	2.731	10.3	20.2	11 7	0 48.09	+ 1 8.2	1.129	2.031	15.6	20.5
11 17	0 42.84	+16 2.7	1.896	2.729	13.4	20.4	11 17	0 46.53	+ 0 30.8	1.206	2.036	19.7	20.7
340066	2005 <i>VD</i> ₅₆		10 10.8 232°59	0°1/11.0 18			171329	2006 <i>JM</i> ₂₇		10 10.8 108°57	1°3/ 9.6 18		
9 8	1 21.32	+ 9 50.3	3.632	4.478	7.8	21.6	9 8	1 30.08	+ 5 1.9	1.853	2.723	13.0	20.7
9 18	1 17.25	+ 9 15.3	3.545	4.469	5.7	21.5	9 18	1 24.18	+ 4 30.3	1.796	2.734	9.3	20.5
9 28	1 12.25	+ 8 33.4	3.484	4.460	3.3	21.3	9 28	1 16.44	+ 3 51.3	1.764	2.745	5.3	20.3
10 8	1 6.69	+ 7 47.0	3.453	4.451	0.8	21.1	10 8	1 7.64	+ 3 9.6	1.758	2.756	1.5	20.0
10 18	1 1.00	+ 6 58.9	3.452	4.441	1.8	21.2	10 18	0 58.74	+ 2 30.6	1.781	2.766	3.9	20.2
10 28	0 55.63	+ 6 12.3	3.482	4.431	4.3	21.3	10 28	0 50.71	+ 1 59.5	1.833	2.777	7.9	20.5
11 7	0 51.01	+ 5 30.3	3.541	4.421	6.6	21.5	11 7	0 44.35	+ 1 40.4	1.909	2.787	11.5	20.7
11 17	0 47.47	+ 4 55.5	3.626	4.411	8.6	21.6	11 17	0 40.18	+ 1 35.5	2.008	2.796	14.5	21.0
262953	2007 <i>DL</i> ₇₅		10 10.8 144°23	0°6/10.1 18			398592	2011 <i>WG</i> ₈₂		10 10.8 342°53	3°0/ 8.2 18		
9 8	1 25.83	+ 7 4.0	2.661	3.518	9.9	21.7	9 8	1 27.18	+ 0 55.1	1.728	2.613	13.0	21.0
9 18	1 20.69	+ 6 27.4	2.595	3.526	7.1	21.5	9 18	1 22.30	+ 0 12.2	1.664	2.610	9.4	20.8
9 28	1 14.28	+ 5 43.9	2.555	3.534	4.0	21.3	9 28	1 15.47	- 0 35.6	1.624	2.606	5.5	20.6
10 8	1 7.14	+ 4 56.8	2.544	3.542	0.9	21.1	10 8	1 7.45	- 1 22.3	1.610	2.603	3.0	20.4
10 18	0 59.89	+ 4 10.1	2.563	3.549	2.7	21.3	10 18	0 59.19	- 2 1.4	1.623	2.601	5.4	20.6
10 28	0 53.20	+ 3 28.1	2.612	3.556	5.8	21.5	10 28	0 51.75	- 2 27.5	1.663	2.599	9.2	20.8
11 7	0 47.64	+ 2 54.4	2.688	3.563	8.6	21.7	11 7	0 45.97	- 2 37.0	1.727	2.597	12.9	21.0
11 17	0 43.60	+ 2 31.2	2.789	3.569	11.1	21.9	11 17	0 42.42	- 2 28.5	1.812	2.595	16.0	21.2
488158	2015 <i>WL</i> ₁₅		10 10.8 27°65	8°4/ 2.4 18			349679	2008 <i>WE</i> ₈₈		10 10.8 218°14	6°9/19.5 18		
9 8	1 27.45	-16 31.1	1.933	2.811	12.2	20.4	9 8	1 28.26	+32 57.7	2.085	2.827	16.1	21.4
9 18	1 22.22	-17 39.5	1.895	2.815	10.0	20.3	9 18	1 23.11	+32 23.8	1.991	2.822	13.7	21.2
9 28	1 15.27	-18 36.7	1.880	2.821	8.6	20.2	9 28	1 15.96	+31 19.9	1.918	2.816	11.0	21.0
10 8	1 7.36	-19 15.3	1.890	2.826	8.7	20.2	10 8	1 7.57	+29 45.7	1.868	2.810	8.3	20.9
10 18	0 59.40	-19 30.4	1.926	2.832	10.2	20.3	10 18	0 58.92	+27 44.3	1.845	2.803	6.9	20.8
10 28	0 52.31	-19 19.8	1.986	2.838	12.3	20.5	10 28	0 51.09	+25 23.8	1.851	2.796	7.7	20.8
11 7	0 46.82	-18 44.6	2.067	2.845	14.6	20.7	11 7	0 44.98	+22 55.4	1.886	2.789	10.2	21.0
11 17	0 43.38	-17 47.6	2.167	2.851	16.5	20.8	11 17	0 41.14	+20 30.5	1.947	2.781	13.1	21.1
485290	2011 <i>AV</i> ₁₁		10 10.8 240°94	7°0/30.9 18			518052	2015 <i>XJ</i> ₁₃₆		10 10.8 123°12	2°3/13.6 18		
9 8	1 25.59	-17 18.2	2.675	3.541	9.6	21.6	9 8	1 25.02	+17 29.1	2.418	3.244	11.8	21.5
9 18	1 20.63	-18 35.7	2.618	3.529	8.0	21.5	9 18	1 20.32	+17 2.9	2.343	3.248	9.1	21.3
9 28	1 14.30	-19 45.2	2.588	3.517	7.1	21.4	9 28	1 14.17	+16 21.9	2.292	3.252	6.0	21.1
10 8	1 7.16	-20 41.0	2.584	3.505	7.4	21.4	10 8	1 7.15	+15 28.5	2.268	3.256	3.1	21.0
10 18	0 59.85	-21 18.2	2.607	3.493	8.7	21.5	10 18	0 59.98	+14 26.5	2.273	3.260	2.8	20.9
10 28	0 53.06	-21 34.1	2.655	3.480	10.5	21.6	10 28	0 53.40	+13 21.3	2.307	3.264	5.6	21.1
11 7	0 47.41	-21 28.3	2.726	3.467	12.3	21.7	11 7	0 48.06	+12 18.6	2.369	3.268	8.6	21.3
11 17	0 43.34	-21 2.1	2.815	3.453	13.9	21.8	11 17	0 44.43	+11 23.3	2.456	3.271	11.3	21.5
518366	2017 <i>EJ</i> ₈		10 10.8 258°14	3°4/ 6.2 18			366003	2012 <i>BJ</i> ₁₀₂		10 10.8 186°11	2°4/ 7.9 18		
9 8	1 23.71	- 1 13.0	2.532	3.411	9.6	21.0	9 8	1 26.11	+ 0 45.8	2.545	3.416	9.8	21.7
9 18	1 19.34	- 2 34.3	2.454	3.395	7.0	20.8	9 18	1 20.98	- 0 2.0	2.477	3.416	7.1	21.6
9 28	1 13.60	- 3 59.5	2.402	3.380	4.4	20.6	9 28	1 14.50	- 0 53.2	2.435	3.415	4.2	21.4
10 8	1 7.02	- 5 22.9	2.380	3.364	3.4	20.5	10 8	1 7.23	- 1 43.5	2.422	3.414	2.4	21.3
10 18	1 0.20	- 6 38.6	2.387	3.348	5.3	20.6	10 18	0 59.80	- 2 28.3	2.439	3.413	4.2	21.4
10 28	0 53.86	- 7 41.1	2.422	3.332	8.1	20.8	10 28	0 52.93	- 3 3.3	2.485	3.411	7.1	21.6
11 7	0 48.60	- 8 26.9	2.484	3.315	10.8	21.0	11 7	0 47.22	- 3 25.9	2.557	3.409	9.8	21.7
11 17	0 44.89	- 8 54.3	2.567	3.299	13.1	21.1	11 17	0 43.09	- 3 34.4	2.653	3.407	12.2	21.9
309537	2007 <i>YT</i> ₂₀		10 10.8 184°08	1°6/ 9.2 18			159682	2002 <i>JD</i> ₁₂₂		10 10.8 46°08	7°0/17.5 18		
9 8	1 27.36	+ 4 31.0	1.943	2.817	12.3	20.8	9 8	1 28.50	+26 50.4	1.462	2.269	19.0	18.7
9 18	1 22.24	+ 3 50.0	1.877	2.817	8.9	20.6	9 18	1 23.65	+26 58.0	1.408	2.287	15.6	18.5
9 28	1 15.36	+ 3 1.5	1.835	2.817	5.0	20.4	9 28	1 16.36	+26 35.5	1.374	2.306	11.9	18.3
10 8	1 7.41	+ 2 10.6	1.820	2.817	1.7	20.2	10 8	1 7.65	+25 43.2	1.361	2.325	8.5	18.2
10 18	0 59.26	+ 1 22.7	1.833	2.817	4.1	20.3	10 18	0 58.80	+24 25.8	1.373	2.344	7.1	18.2
10 28	0 51.85	+ 0 43.7	1.875	2.816	7.9	20.6	10 28	0 51.14	+22 52.5	1.410	2.364	8.7	18.3
11 7	0 45.95	+ 0 17.8	1.942	2.816	11.4	20.8	11 7	0 45.69	+21 15.0	1.472	2.384	11.8	18.5
11 17	0 42.10	+ 0 7.1	2.031	2.816	14.4	21.0	11 17	0 42.99	+19 44.0	1.556	2.405	15.1	18.8
396518	2014 <i>GN</i> ₁₆		10 10.8 256°52	2°2/ 8.7 18			295810	2008 <i>UB</i> ₃₁₇		10 10.8 230°81	6°3/17.2 18		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
324075	2005 <i>WH</i> ₄₃	10 10.8 353°91		5°3/ 6.3 18			266612	2008 <i>OQ</i> ₉	10 10.8 16°70		0°5/10.4 18		
9 8	1 28.18	- 6 29.1	1.797	2.684	12.5	19.6	9 8	1 24.45	+ 7 58.4	1.728	2.604	13.5	19.8
9 18	1 22.93	- 7 10.2	1.739	2.681	9.3	19.4	9 18	1 20.29	+ 7 25.1	1.670	2.610	9.7	19.6
9 28	1 15.79	- 7 48.6	1.706	2.679	6.4	19.2	9 28	1 14.29	+ 6 41.0	1.636	2.617	5.6	19.4
10 8	1 7.53	- 8 17.9	1.699	2.678	5.4	19.1	10 8	1 7.22	+ 5 50.9	1.627	2.625	1.2	19.1
10 18	0 59.09	- 8 32.8	1.718	2.676	7.3	19.2	10 18	0 59.99	+ 5 0.7	1.645	2.634	3.4	19.3
10 28	0 51.48	- 8 29.4	1.763	2.676	10.4	19.4	10 28	0 53.57	+ 4 16.8	1.691	2.643	7.7	19.6
11 7	0 45.54	- 8 6.7	1.832	2.675	13.5	19.6	11 7	0 48.77	+ 3 44.4	1.761	2.653	11.4	19.9
11 17	0 41.78	- 7 25.6	1.922	2.675	16.2	19.8	11 17	0 46.09	+ 3 26.5	1.853	2.664	14.6	20.1
511233	2014 <i>BH</i> ₁₂	10 10.8 158°69		6°4/ 3.9 18			132590	2002 <i>JJ</i> ₁₃₀	10 10.8 284°76		5°1/ 5.4 18		
9 8	1 28.21	- 8 55.5	1.957	2.840	11.8	21.7	9 8	1 26.54	- 7 12.4	2.158	3.041	10.9	19.5
9 18	1 22.78	-10 25.3	1.908	2.844	9.0	21.6	9 18	1 21.53	- 8 8.7	2.096	3.035	8.2	19.3
9 28	1 15.63	-11 51.3	1.886	2.849	6.9	21.5	9 28	1 14.92	- 9 2.8	2.059	3.028	5.8	19.1
10 8	1 7.48	-13 5.3	1.890	2.853	6.6	21.5	10 8	1 7.36	- 9 48.8	2.049	3.022	5.2	19.1
10 18	0 59.22	-14 0.7	1.922	2.856	8.5	21.6	10 18	0 59.61	-10 21.1	2.067	3.016	7.0	19.2
10 28	0 51.76	-14 32.9	1.979	2.859	11.1	21.8	10 28	0 52.51	-10 36.0	2.111	3.010	9.6	19.3
11 7	0 45.86	-14 40.7	2.060	2.862	13.8	21.9	11 7	0 46.78	-10 31.9	2.179	3.003	12.4	19.5
11 17	0 42.00	-14 25.6	2.159	2.864	16.0	22.1	11 17	0 42.89	-10 9.0	2.269	2.997	14.7	19.7
290156	2005 <i>QL</i> ₁₈₃	10 10.8 54°77		4°7/ 7.4 16			448671	2010 <i>VL</i> ₁₉₂	10 10.8 290°10		0°6/11.3 17		
9 8	1 30.20	- 0 30.7	1.238	2.136	16.2	21.2	9 8	1 30.14	+ 8 49.2	2.097	2.952	12.3	20.9
9 18	1 24.73	- 1 39.0	1.205	2.155	11.6	21.0	9 18	1 24.41	+ 8 54.2	2.004	2.932	9.1	20.7
9 28	1 16.87	- 2 50.2	1.193	2.175	7.0	20.8	9 28	1 16.76	+ 8 50.5	1.935	2.912	5.4	20.4
10 8	1 7.75	- 3 54.8	1.205	2.196	4.7	20.7	10 8	1 7.81	+ 8 40.1	1.894	2.891	1.5	20.1
10 18	0 58.68	- 4 44.0	1.243	2.216	7.4	20.9	10 18	0 58.40	+ 8 26.0	1.881	2.871	2.9	20.2
10 28	0 50.97	- 5 11.4	1.305	2.237	11.6	21.2	10 28	0 49.53	+ 8 12.3	1.898	2.851	7.0	20.4
11 7	0 45.57	- 5 14.9	1.389	2.258	15.4	21.5	11 7	0 42.09	+ 8 3.2	1.941	2.830	10.7	20.6
11 17	0 42.92	- 4 55.4	1.492	2.280	18.7	21.8	11 17	0 36.73	+ 8 2.2	2.008	2.810	14.0	20.8
214889	2007 <i>RM</i> ₂₈₄	10 10.8 299°65		0°9/ 9.9 18			322914	2002 <i>CP</i> ₁₃₅	10 10.8 209°79		2°1/ 9.1 17		
9 8	1 24.55	+ 9 20.2	1.684	2.558	13.9	20.8	9 8	1 29.79	+ 5 46.6	1.502	2.382	14.9	21.0
9 18	1 20.68	+ 8 5.9	1.593	2.533	10.2	20.5	9 18	1 24.50	+ 4 40.6	1.436	2.379	10.8	20.7
9 28	1 14.72	+ 6 33.6	1.525	2.507	5.8	20.2	9 28	1 16.89	+ 3 22.0	1.392	2.375	6.1	20.5
10 8	1 7.34	+ 4 49.5	1.484	2.482	1.3	19.8	10 8	1 7.83	+ 1 58.3	1.374	2.371	2.1	20.2
10 18	0 59.48	+ 3 2.2	1.470	2.457	4.2	20.0	10 18	0 58.47	+ 0 38.4	1.384	2.367	5.1	20.4
10 28	0 52.24	+ 1 22.2	1.484	2.432	9.0	20.2	10 28	0 50.06	- 0 28.5	1.420	2.362	9.8	20.7
11 7	0 46.63	- 0 1.6	1.522	2.407	13.4	20.4	11 7	0 43.62	- 1 16.0	1.480	2.358	14.2	20.9
11 17	0 43.33	- 1 3.2	1.582	2.382	17.2	20.6	11 17	0 39.79	- 1 41.0	1.560	2.352	17.8	21.2
166935	2003 <i>HF</i> ₂₈	10 10.8 131°25		1°2/11.7 18			410038	2006 <i>YX</i> ₁₅	10 10.8 139°34		3°8/ 4.9 18		
9 8	1 33.48	+12 9.1	1.504	2.362	16.1	20.4	9 8	1 25.04	- 7 9.1	3.252	4.123	7.9	22.4
9 18	1 27.08	+11 46.7	1.445	2.373	12.0	20.2	9 18	1 19.90	- 8 14.9	3.206	4.138	5.9	22.3
9 28	1 18.30	+11 7.7	1.408	2.383	7.2	20.0	9 28	1 13.77	- 9 18.7	3.188	4.153	4.2	22.2
10 8	1 8.10	+10 16.2	1.397	2.393	2.3	19.7	10 8	1 7.09	-10 16.1	3.199	4.167	3.9	22.2
10 18	0 57.71	+ 9 18.4	1.413	2.403	3.5	19.8	10 18	1 0.37	-11 3.6	3.241	4.181	5.1	22.3
10 28	0 48.46	+ 8 22.5	1.456	2.412	8.3	20.1	10 28	0 54.13	-11 38.2	3.311	4.194	7.0	22.4
11 7	0 41.35	+ 7 35.8	1.524	2.420	12.7	20.4	11 7	0 48.82	-11 58.6	3.408	4.206	8.9	22.6
11 17	0 36.98	+ 7 3.5	1.614	2.428	16.3	20.6	11 17	0 44.76	-12 4.6	3.527	4.218	10.5	22.7
199695	2006 <i>HB</i> ₃₀	10 10.8 239°22		2°7/ 8.2 18			175940	2000 <i>EY</i> ₂₀₀	10 10.8 345°48		20°1/20.4 17		
9 8	1 28.83	+ 1 34.7	2.016	2.891	11.9	20.8	9 8	1 39.95	+36 31.8	0.973	1.754	28.2	19.1
9 18	1 23.37	+ 0 43.1	1.938	2.878	8.6	20.6	9 18	1 34.76	+39 52.0	0.915	1.747	25.7	18.9
9 28	1 16.07	- 0 14.3	1.884	2.865	5.0	20.4	9 28	1 24.43	+42 38.2	0.870	1.742	23.2	18.7
10 8	1 7.61	- 1 12.1	1.859	2.852	2.7	20.2	10 8	1 9.79	+44 32.9	0.842	1.737	21.1	18.6
10 18	0 58.84	- 2 4.1	1.862	2.838	5.0	20.3	10 18	0 53.05	+45 23.2	0.829	1.733	20.1	18.5
10 28	0 50.72	- 2 44.6	1.893	2.823	8.6	20.5	10 28	0 37.56	+45 8.1	0.834	1.731	20.5	18.5
11 7	0 44.06	- 3 9.4	1.949	2.808	12.1	20.7	11 7	0 26.34	+44 1.5	0.854	1.729	22.1	18.6
11 17	0 39.46	- 3 16.7	2.028	2.793	15.1	20.9	11 17	0 21.04	+42 24.4	0.889	1.729	24.3	18.8
323201	2003 <i>QF</i> ₁₂₀	10 10.8 26°63		0°2/10.6 18			131656	2001 <i>XL</i> ₁₁₄	10 10.8 123°23		3°1/13.0 18 R		
9 8	1 23.52	+10 9.9	1.925	2.792	12.7	20.2	9 8	1 33.50	+15 36.2	1.408	2.258	17.4	19.5
9 18	1 19.47	+ 9 12.2	1.863	2.798	9.2	20.0	9 18	1 27.38	+15 39.2	1.345	2.265	13.3	19.3
9 28	1 13.76	+ 8 1.7	1.824	2.804	5.3	19.8	9 28	1 18.62	+15 22.1	1.303	2.271	8.7	19.0
10 8	1 7.09	+ 6 43.5	1.812	2.810	1.1	19.5	10 8	1 8.23	+14 46.8	1.285	2.276	4.2	18.8
10 18	1 0.26	+ 5 24.4	1.828	2.817	3.1	19.7	10 18	0 57.52	+13 58.2	1.293	2.282	4.1	18.8
10 28	0 54.17	+ 4 11.4	1.873	2.824	7.1	19.9	10 28	0 47.95	+13 4.5	1.328	2.287	8.5	19.1
11 7	0 49.52	+ 3 10.7	1.943	2.831	10.7	20.2	11 7	0 40.69	+12 14.5	1.388	2.293	13.0	19.4
11 17	0 46.80	+ 2 26.1	2.036	2.839	13.8	20.4	11 17	0 36.39	+11 35.2	1.468	2.297	16.9	19.6
400982	2010 <i>XX</i> ₇₆	10 10.8 115°40		6°0/ 4.2 18			390162	2012 <i>VJ</i> ₁₀₁	10 10.8 249°25		2°2/ 8.9 18		
9 8	1 27.44	-11 43.7	2.331	3.206	10.5	20.8	9 8	1 29.34	+ 2 58.1	1.743	2.621	13.3	21.3
9 18	1 21.98	-12 40.5	2.285	3.213	8.1	20.7	9 18	1 23.90	+ 2 21.1	1.676	2.618	9.6	21.0
9 28	1 15.07	-13 31.2	2.264	3.220	6.4	20.6	9 28	1 16.44	+ 1 37.4	1.633	2.615	5.5	20.8
10 8	1 7.36	-14 10.2	2.271	3.227	6.2	20.6	10 8	1 7.73	+ 0 52.5	1.616	2.612	2.3	20.6
10 18	0 59.59	-14 33.0	2.305	3.233	7.6	20.7	10 18	0 58.77	+ 0 12.4	1.627	2.609	4.7	20.7
10 28	0 52.52	-14 36.9	2.366	3.239	9.8	20.9	10 28	0 50.62	- 0 17.1	1.665	2.605	8.8	21.0
11 7	0 46.78	-14 21.5	2.450	3.246	12.0	21.0	11 7	0 44.20	- 0 31.8	1.728	2.602	12.6	21.2
11 17	0 42.80	-13 48.3	2.555	3.252	14.0	21.2	11 17	0 40.07	- 0 29.8	1.812	2.599	15.9	21.4
404310	2013 <i>EY</i> ₁₂₄	10 10.8 106°72		1°1/ 9.7 18			450843	2007 <i>VY</i> ₂₇₂	10 10.8 274°63		17°3/ 3.0 15		
9 8	1 27.86	+ 5 11.9	2.242										

EPHEMERIDES

10 10.8

10 10.8

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
257768	2000 <i>CB</i> ₇₄		10 10.8 211°10	1.2°/ 9.8 18			485816	2012 <i>DJ</i> ₅₂		10 10.8 132°35	3°5/14.5 18		
9 8	1 30.12	+ 6 34.5	1.775	2.644	13.5	21.1	9 8	1 27.99	+19 16.4	2.268	3.084	12.8	21.0
9 18	1 24.48	+ 5 50.7	1.702	2.639	9.8	20.9	9 18	1 22.66	+19 23.2	2.190	3.085	10.1	20.8
9 28	1 16.79	+ 4 56.2	1.653	2.634	5.6	20.6	9 28	1 15.64	+19 14.5	2.135	3.086	7.0	20.6
10 8	1 7.82	+ 3 56.2	1.631	2.629	1.4	20.4	10 8	1 7.58	+18 51.1	2.107	3.088	4.3	20.4
10 18	0 58.54	+ 2 57.1	1.637	2.623	4.0	20.5	10 18	0 59.26	+18 15.5	2.107	3.089	3.8	20.4
10 28	0 50.06	+ 2 5.9	1.671	2.616	8.4	20.8	10 28	0 51.57	+17 32.3	2.135	3.090	6.1	20.6
11 7	0 43.30	+ 1 28.2	1.730	2.609	12.4	21.0	11 7	0 45.27	+16 47.2	2.191	3.091	9.1	20.8
11 17	0 38.85	+ 1 7.2	1.811	2.602	15.7	21.2	11 17	0 40.90	+16 5.6	2.271	3.092	11.9	21.0
347089	2010 <i>GD</i> ₁₁₄		10 10.8 192°39	0°3/11.2 18			257689	1999 <i>VQ</i> ₁₉₇		10 10.8 14°23	1°2/ 9.6 18 R		
9 8	1 28.48	+10 31.4	2.119	2.972	12.3	21.8	9 8	1 22.87	+ 7 53.5	1.661	2.542	13.7	19.1
9 18	1 23.01	+ 9 57.5	2.043	2.970	9.0	21.6	9 18	1 19.23	+ 6 43.4	1.602	2.546	9.8	18.9
9 28	1 15.83	+ 9 11.7	1.992	2.968	5.3	21.4	9 28	1 13.73	+ 5 20.6	1.567	2.550	5.5	18.7
10 8	1 7.59	+ 8 17.8	1.969	2.966	1.3	21.1	10 8	1 7.15	+ 3 51.9	1.558	2.556	1.4	18.4
10 18	0 59.13	+ 7 20.5	1.974	2.964	2.8	21.2	10 18	1 0.39	+ 2 25.5	1.576	2.562	4.1	18.6
10 28	0 51.34	+ 6 25.9	2.009	2.960	6.7	21.5	10 28	0 54.45	+ 1 9.8	1.621	2.568	8.4	18.9
11 7	0 44.99	+ 5 39.4	2.071	2.957	10.3	21.7	11 7	0 50.13	+ 0 11.2	1.690	2.576	12.2	19.1
11 17	0 40.60	+ 5 4.8	2.156	2.953	13.3	21.9	11 17	0 47.93	- 0 27.1	1.781	2.584	15.5	19.4
215783	2004 <i>JS</i> ₃₄		10 10.8 49°55	5°3/ 6.4 18			207198	2005 <i>EN</i> ₄₉		10 10.8 262°66	2°0/12.7 18		
9 8	1 29.12	- 5 35.4	1.666	2.554	13.2	19.7	9 8	1 28.77	+14 21.3	1.869	2.715	14.0	20.9
9 18	1 23.50	- 6 27.4	1.632	2.575	9.7	19.6	9 18	1 23.55	+14 10.9	1.787	2.706	10.6	20.7
9 28	1 16.03	- 7 16.5	1.622	2.597	6.5	19.4	9 28	1 16.31	+13 45.0	1.728	2.697	6.8	20.4
10 8	1 7.60	- 7 55.6	1.638	2.619	5.4	19.4	10 8	1 7.75	+13 5.7	1.695	2.688	2.9	20.2
10 18	0 59.23	- 8 19.3	1.681	2.641	7.3	19.6	10 18	0 58.82	+12 17.2	1.690	2.679	3.2	20.2
10 28	0 51.91	- 8 23.9	1.750	2.663	10.4	19.8	10 28	0 50.60	+11 25.7	1.712	2.670	7.1	20.4
11 7	0 46.39	- 8 8.7	1.841	2.685	13.4	20.0	11 7	0 43.99	+10 37.9	1.761	2.661	11.0	20.6
11 17	0 43.10	- 7 35.3	1.954	2.708	16.0	20.3	11 17	0 39.65	+ 9 59.5	1.833	2.651	14.5	20.8
49848	1999 <i>XG</i> ₉₄		10 10.8 36°49	5°2/14.7 18			1126	Otero		10 10.8 256°05	1°4/11.8 18 R		
9 8	1 29.98	+19 51.6	1.249	2.098	19.3	17.7	9 8	1 33.08	+11 27.9	1.581	2.439	15.5	15.7
9 18	1 25.05	+20 6.9	1.194	2.107	15.2	17.4	9 18	1 27.10	+11 27.3	1.498	2.425	11.7	15.4
9 28	1 17.36	+19 56.0	1.158	2.117	10.6	17.2	9 28	1 18.56	+11 12.1	1.436	2.411	7.2	15.1
10 8	1 7.96	+19 19.9	1.144	2.127	6.5	17.0	10 8	1 8.29	+10 44.6	1.400	2.396	2.5	14.8
10 18	0 58.29	+18 23.3	1.154	2.138	5.5	17.0	10 18	0 57.44	+10 9.1	1.391	2.381	3.5	14.8
10 28	0 49.88	+17 15.7	1.189	2.150	9.0	17.2	10 28	0 47.38	+ 9 32.0	1.409	2.366	8.5	15.1
11 7	0 43.91	+16 8.2	1.247	2.162	13.3	17.5	11 7	0 39.30	+ 9 0.5	1.453	2.350	13.1	15.3
11 17	0 41.03	+15 10.1	1.325	2.175	17.1	17.8	11 17	0 34.00	+ 8 40.1	1.518	2.334	17.0	15.5
391844	2008 <i>SU</i> ₂₅₄		10 10.8 84°89	1°4/13.5 18			99203	2001 <i>HA</i> ₂₀		10 10.8 213°36	7°0/30.6 18		
9 8	1 19.29	+16 2.2	4.438	5.256	7.0	21.0	9 8	1 25.32	-17 22.9	2.727	3.593	9.4	20.1
9 18	1 15.69	+15 45.4	4.357	5.258	5.3	20.8	9 18	1 20.43	-18 47.1	2.677	3.587	7.9	20.0
9 28	1 11.35	+15 21.4	4.301	5.260	3.5	20.7	9 28	1 14.23	-20 3.3	2.653	3.581	7.0	19.9
10 8	1 6.58	+14 51.3	4.274	5.262	1.8	20.6	10 8	1 7.26	-21 5.6	2.656	3.575	7.3	19.9
10 18	1 1.72	+14 16.9	4.277	5.264	1.6	20.6	10 18	1 0.14	-21 49.2	2.686	3.568	8.6	20.0
10 28	0 57.14	+13 40.6	4.311	5.266	3.3	20.7	10 28	0 53.55	-22 11.6	2.741	3.561	10.3	20.1
11 7	0 53.17	+13 4.9	4.374	5.268	5.1	20.8	11 7	0 48.08	-22 12.2	2.819	3.553	12.1	20.2
11 17	0 50.08	+12 32.2	4.464	5.270	6.8	21.0	11 17	0 44.14	-21 52.4	2.915	3.546	13.6	20.4
471444	1997 <i>UA</i>		10 10.8 3°58	0°1/10.8 18			450539	2006 <i>BT</i> ₂₀₂		10 10.8 309°27	2°7/13.5 18		
9 8	1 37.33	+ 3 56.1	1.127	2.014	18.3	19.9	9 8	1 27.61	+16 22.1	2.213	3.044	12.6	21.5
9 18	1 30.68	+ 4 56.4	1.068	2.012	13.5	19.6	9 18	1 22.43	+16 26.0	2.133	3.041	9.7	21.3
9 28	1 20.77	+ 5 52.6	1.030	2.012	7.9	19.3	9 28	1 15.54	+16 16.1	2.077	3.038	6.5	21.1
10 8	1 8.76	+ 6 45.4	1.015	2.013	1.8	19.0	10 8	1 7.57	+15 53.5	2.047	3.035	3.4	20.9
10 18	0 56.28	+ 7 35.9	1.026	2.016	4.4	19.2	10 18	0 59.33	+15 21.0	2.045	3.032	3.2	20.9
10 28	0 45.18	+ 8 26.2	1.061	2.019	10.3	19.5	10 28	0 51.69	+14 43.2	2.072	3.029	6.1	21.1
11 7	0 36.90	+ 9 18.8	1.120	2.024	15.4	19.8	11 7	0 45.44	+14 5.6	2.127	3.026	9.4	21.3
11 17	0 32.21	+10 15.9	1.198	2.031	19.7	20.1	11 17	0 41.12	+13 32.9	2.205	3.024	12.3	21.5
80224	1999 <i>VH</i> ₁₆₀		10 10.8 323°34	0°1/10.8 18			296669	2009 <i>SG</i> ₁₆₃		10 10.8 112°89	0°8/ 9.9 18		
9 8	1 27.23	+ 8 29.4	1.144	2.036	17.7	19.4	9 8	1 26.70	+ 6 17.7	2.412	3.274	10.7	21.2
9 18	1 23.49	+ 8 16.5	1.068	2.015	13.1	19.0	9 18	1 21.45	+ 5 44.6	2.352	3.285	7.7	21.0
9 28	1 16.75	+ 7 47.4	1.011	1.995	7.8	18.7	9 28	1 14.81	+ 5 4.7	2.317	3.297	4.3	20.8
10 8	1 7.91	+ 7 6.5	0.977	1.975	1.8	18.2	10 8	1 7.38	+ 4 21.6	2.310	3.308	1.0	20.6
10 18	0 58.31	+ 6 20.8	0.966	1.956	4.5	18.4	10 18	0 59.86	+ 3 39.6	2.333	3.319	3.0	20.7
10 28	0 49.64	+ 5 40.0	0.979	1.939	10.6	18.7	10 28	0 52.97	+ 3 3.1	2.385	3.329	6.3	21.0
11 7	0 43.36	+ 5 12.6	1.013	1.922	16.2	18.9	11 7	0 47.33	+ 2 35.6	2.464	3.340	9.3	21.2
11 17	0 40.38	+ 5 4.3	1.065	1.907	20.9	19.2	11 17	0 43.36	+ 2 19.5	2.567	3.350	11.8	21.4
156722	2002 <i>TR</i> ₂₀₃		10 10.8 304°86	4°1/ 7.6 18			157421	Carolpercy		10 10.8 58°11	0°3/11.1 18		
9 8	1 27.27	+ 1 16.9	1.332	2.229	15.3	20.2	9 8	1 29.70	+10 8.7	1.439	2.311	15.9	20.5
9 18	1 23.07	+ 0 9.8	1.258	2.209	11.2	19.9	9 18	1 24.32	+ 9 38.9	1.390	2.327	11.6	20.3
9 28	1 16.30	- 1 7.1	1.205	2.189	6.7	19.6	9 28	1 16.70	+ 8 54.6	1.364	2.343	6.8	20.0
10 8	1 7.78	- 2 24.9	1.177	2.169	4.1	19.4	10 8	1 7.81	+ 8 0.9	1.362	2.360	1.6	19.7
10 18	0 58.70	- 3 33.5	1.174	2.150	7.1	19.5	10 18	0 58.84	+ 7 4.7	1.387	2.377	3.6	19.9
10 28	0 50.48	- 4 23.1	1.195	2.131	11.9	19.8	10 28	0 51.01	+ 6 14.0	1.438	2.394	8.4	20.3
11 7	0 44.34	- 4 47.9	1.238	2.113	16.5	20.0	11 7	0 45.26	+ 5 35.2	1.514	2.411	12.6	20.6
11 17	0 41.04	- 4 45.8	1.299	2.095	20.5	20.2	11 17	0 42.09	+ 5 12.2	1.610	2.428	16.2	20.8
473522	2015 <i>XW</i> ₁₄₇		10 10.8 305°81	1°0/11.8 17			80705	2000 <i>CU</i> ₈		10 10.8 194°75	1°6/ 9.4 18		
9 8	1 25.32	+1											

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10 10.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
344693	2003 SS ₃₃₇		10 10.8 233°55	2°3/12.8 18			453995	2012 CS ₃₇		10 10.8 215°54	4°2/15.6 17		
9 8	1 29.29	+14 52.8	1.834	2.678	14.3	20.8	9 8	1 28.18	+22 27.3	2.552	3.345	12.2	21.6
9 18	1 23.92	+14 44.3	1.757	2.675	10.9	20.5	9 18	1 22.74	+22 36.8	2.464	3.340	9.8	21.4
9 28	1 16.51	+14 19.8	1.704	2.671	7.0	20.3	9 28	1 15.70	+22 30.4	2.398	3.335	7.2	21.2
10 8	1 7.80	+13 41.3	1.676	2.668	3.2	20.1	10 8	1 7.65	+22 8.4	2.360	3.330	4.9	21.1
10 18	0 58.77	+12 53.2	1.675	2.664	3.3	20.1	10 18	0 59.30	+21 32.6	2.349	3.324	4.2	21.0
10 28	0 50.50	+12 1.7	1.703	2.661	7.1	20.3	10 28	0 51.49	+20 46.9	2.368	3.318	5.9	21.1
11 7	0 43.92	+11 13.6	1.757	2.657	11.0	20.5	11 7	0 44.93	+19 56.7	2.415	3.312	8.5	21.3
11 17	0 39.63	+10 34.6	1.834	2.653	14.4	20.7	11 17	0 40.15	+19 7.4	2.486	3.305	11.1	21.5
320177	2007 GY ₂₆		10 10.8 261°47	0°5/10.2 18			473425	2015 VE ₁₄₁		10 10.8 340°19	4°3/ 7.2 18		
9 8	1 24.15	+ 8 44.2	2.302	3.164	11.1	20.5	9 8	1 27.95	- 3 54.2	1.830	2.716	12.4	20.4
9 18	1 19.79	+ 7 50.3	2.225	3.159	8.1	20.3	9 18	1 22.83	- 4 27.6	1.766	2.710	9.1	20.2
9 28	1 13.96	+ 6 45.8	2.174	3.153	4.6	20.1	9 28	1 15.83	- 5 0.8	1.726	2.703	5.8	20.0
10 8	1 7.22	+ 5 35.2	2.150	3.148	1.0	19.8	10 8	1 7.68	- 5 27.9	1.711	2.697	4.3	19.9
10 18	1 0.29	+ 4 23.9	2.156	3.143	3.0	20.0	10 18	0 59.29	- 5 43.8	1.724	2.692	6.3	20.0
10 28	0 53.92	+ 3 17.9	2.190	3.137	6.6	20.2	10 28	0 51.66	- 5 44.2	1.764	2.687	9.7	20.2
11 7	0 48.77	+ 2 22.3	2.252	3.132	9.8	20.4	11 7	0 45.65	- 5 27.3	1.827	2.683	13.0	20.4
11 17	0 45.32	+ 1 40.5	2.337	3.127	12.6	20.6	11 17	0 41.78	- 4 53.4	1.912	2.679	15.9	20.6
407833	2012 BJ ₂₄		10 10.8 114°56	8°4/28.5 18			133356	2003 SJ ₁₂₆		10 10.8 89°59	0°3/10.5 18		
9 8	1 26.72	-23 41.5	2.704	3.551	10.1	21.0	9 8	1 28.07	+ 6 41.2	2.323	3.182	11.1	19.6
9 18	1 21.35	-25 13.2	2.686	3.569	8.9	20.9	9 18	1 22.58	+ 6 30.9	2.252	3.184	8.0	19.4
9 28	1 14.71	-26 31.3	2.693	3.586	8.4	20.9	9 28	1 15.56	+ 6 13.7	2.206	3.185	4.6	19.2
10 8	1 7.37	-27 30.0	2.727	3.602	8.8	21.0	10 8	1 7.61	+ 5 52.6	2.188	3.186	1.0	19.0
10 18	1 0.02	-28 5.9	2.785	3.618	9.9	21.1	10 18	0 59.47	+ 5 30.8	2.199	3.187	2.8	19.1
10 28	0 53.35	-28 17.4	2.867	3.634	11.2	21.2	10 28	0 51.94	+ 5 12.5	2.240	3.188	6.3	19.4
11 7	0 47.91	-28 5.8	2.968	3.650	12.6	21.3	11 7	0 45.71	+ 5 0.9	2.307	3.189	9.6	19.6
11 17	0 44.08	-27 33.5	3.087	3.665	13.7	21.5	11 17	0 41.27	+ 4 58.5	2.399	3.190	12.3	19.8
176243	2001 QL ₂₃₅		10 10.8 331°14	6°5/ 3.9 18			195304	2002 EJ ₉₆		10 10.8 216°15	0°3/10.6 18		
9 8	1 20.81	- 2 52.2	1.396	2.304	14.0	18.8	9 8	1 29.61	+ 8 24.1	1.956	2.816	12.8	22.1
9 18	1 18.21	- 4 58.6	1.327	2.282	10.3	18.6	9 18	1 24.02	+ 7 54.0	1.879	2.811	9.4	21.8
9 28	1 13.41	- 7 12.9	1.282	2.261	7.2	18.3	9 28	1 16.53	+ 7 13.1	1.826	2.805	5.4	21.6
10 8	1 7.15	- 9 22.4	1.261	2.240	6.9	18.3	10 8	1 7.85	+ 6 25.3	1.801	2.799	1.2	21.3
10 18	1 0.46	-11 14.0	1.266	2.221	9.8	18.4	10 18	0 58.87	+ 5 35.8	1.804	2.792	3.2	21.4
10 28	0 54.54	-12 36.7	1.295	2.202	13.7	18.6	10 28	0 50.60	+ 4 50.5	1.836	2.785	7.4	21.7
11 7	0 50.42	-13 25.0	1.343	2.185	17.6	18.8	11 7	0 43.89	+ 4 14.9	1.894	2.778	11.2	21.9
11 17	0 48.77	-13 38.3	1.409	2.169	20.9	19.0	11 17	0 39.32	+ 3 52.4	1.975	2.770	14.4	22.1
261856	2006 ES ₁₉		10 10.8 244°50	0°1/10.8 18			516941	2012 BO ₇₀		10 10.8 161°14	4°1/ 5.9 18		
9 8	1 25.53	+ 8 54.4	2.571	3.425	10.3	21.5	9 8	1 25.97	- 5 6.3	2.454	3.332	9.9	21.9
9 18	1 20.69	+ 8 24.7	2.486	3.415	7.6	21.3	9 18	1 20.94	- 6 6.9	2.397	3.335	7.3	21.7
9 28	1 14.46	+ 7 46.1	2.427	3.405	4.4	21.1	9 28	1 14.55	- 7 6.8	2.366	3.338	4.9	21.6
10 8	1 7.35	+ 7 1.9	2.396	3.394	1.0	20.8	10 8	1 7.38	- 8 0.7	2.363	3.341	4.2	21.6
10 18	1 0.01	+ 6 15.7	2.395	3.383	2.5	20.9	10 18	1 0.09	- 8 43.8	2.389	3.343	5.8	21.7
10 28	0 53.15	+ 5 32.2	2.423	3.372	5.9	21.1	10 28	0 53.39	- 9 12.2	2.444	3.346	8.4	21.8
11 7	0 47.42	+ 4 55.4	2.479	3.361	9.0	21.3	11 7	0 47.90	- 9 23.9	2.523	3.347	10.8	22.0
11 17	0 43.26	+ 4 28.6	2.559	3.350	11.6	21.5	11 17	0 44.03	- 9 18.9	2.624	3.349	13.0	22.2
191516	2003 US ₁₁₂		10 10.8 23°17	3°4/ 7.6 18			129246	2005 QE ₂₅		10 10.8 34°02	1°6/ 9.3 18		
9 8	1 25.68	- 0 46.4	1.892	2.778	12.0	19.8	9 8	1 26.84	+ 4 38.8	1.971	2.844	12.2	20.2
9 18	1 21.04	- 1 32.7	1.839	2.784	8.6	19.6	9 18	1 21.90	+ 3 59.1	1.906	2.846	8.7	20.0
9 28	1 14.70	- 2 21.6	1.809	2.790	5.2	19.4	9 28	1 15.24	+ 3 12.1	1.865	2.847	5.0	19.7
10 8	1 7.39	- 3 7.1	1.807	2.797	3.4	19.3	10 8	1 7.55	+ 2 22.6	1.851	2.848	1.7	19.5
10 18	0 59.96	- 3 43.7	1.832	2.804	5.5	19.5	10 18	0 59.68	+ 1 36.0	1.866	2.850	3.9	19.7
10 28	0 53.31	- 4 6.6	1.883	2.812	8.8	19.7	10 28	0 52.52	+ 0 57.9	1.909	2.851	7.7	19.9
11 7	0 48.15	- 4 13.2	1.960	2.820	12.0	19.9	11 7	0 46.84	+ 0 32.5	1.977	2.853	11.2	20.2
11 17	0 44.98	- 4 2.9	2.057	2.829	14.7	20.1	11 17	0 43.15	+ 0 22.0	2.067	2.854	14.1	20.4
431734	2008 FP ₆₉		10 10.8 68°26	2°1/ 9.3 16			424293	2007 TW ₂₁₃		10 10.9 27°09	1°8/11.9 17		
9 8	1 32.03	+ 4 9.9	1.377	2.260	15.8	21.1	9 8	1 29.65	+11 45.1	0.952	1.844	20.4	20.1
9 18	1 25.96	+ 3 28.3	1.337	2.281	11.3	20.9	9 18	1 25.20	+11 47.0	0.909	1.854	15.2	19.9
9 28	1 17.61	+ 2 38.7	1.319	2.302	6.4	20.7	9 28	1 17.59	+11 27.9	0.884	1.865	9.3	19.6
10 8	1 8.03	+ 1 47.9	1.327	2.324	2.2	20.5	10 8	1 8.11	+10 52.0	0.880	1.877	3.2	19.3
10 18	0 58.48	+ 1 3.2	1.361	2.345	5.0	20.7	10 18	0 58.43	+10 7.1	0.899	1.890	4.3	19.4
10 28	0 50.21	+ 0 31.4	1.421	2.366	9.6	21.1	10 28	0 50.31	+ 9 23.6	0.940	1.905	10.2	19.8
11 7	0 44.13	+ 0 16.4	1.505	2.387	13.7	21.4	11 7	0 45.04	+ 8 50.8	1.003	1.920	15.5	20.2
11 17	0 40.74	+ 0 19.5	1.609	2.408	17.0	21.6	11 17	0 43.20	+ 8 34.4	1.083	1.937	19.8	20.5
172331	2002 VS ₁₉		10 10.8 341°67	3°4/ 8.2 18			399541	2003 PO ₇		10 10.9 59°76	6°0/17.5 18		
9 8	1 27.74	+ 0 12.3	1.563	2.453	13.9	19.1	9 8	1 28.79	+26 48.4	2.042	2.824	15.2	20.4
9 18	1 22.96	- 0 24.8	1.499	2.446	10.0	18.9	9 18	1 23.36	+27 1.8	1.983	2.845	12.5	20.3
9 28	1 16.01	- 1 6.2	1.458	2.440	6.0	18.6	9 28	1 16.09	+26 52.8	1.945	2.866	9.6	20.2
10 8	1 7.72	- 1 45.6	1.441	2.435	3.4	18.5	10 8	1 7.74	+26 21.7	1.931	2.887	7.0	20.1
10 18	0 59.13	- 2 16.5	1.452	2.430	5.9	18.6	10 18	0 59.27	+25 31.2	1.943	2.908	6.0	20.0
10 28	0 51.42	- 2 33.1	1.488	2.425	10.0	18.8	10 28	0 51.66	+24 27.0	1.983	2.930	7.2	20.1
11 7	0 45.54	- 2 31.9	1.548	2.421	13.9	19.1	11 7	0 45.72	+23 16.8	2.050	2.951	9.6	20.3
11 17	0 42.09	- 2 12.2	1.627	2.418	17.2	19.3	11 17	0 41.95	+22 7.9	2.141	2.972	12.2	20.5
294387	2007 VH ₁₅₁		10 10.8 232°26	3°1/13.4 17			428684	2008 KP ₃₃		10 10.9 160°22	0°1/10.9 16		
9 8	1 29.61	+17 38.5	1.455	2.302	17.1	21.0							

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
66526	1999 <i>RX</i> ₁₀₃		10 10.9 355°19	1°9/ 8.9 18			515314	2012 <i>XL</i> ₅		10 10.9 7°67	4°1/ 7.7 18		
9 8	1 22.97	+ 8 39.5	1.424	2.311	15.2	18.5	9 8	1 23.25	+ 1 52.7	1.118	2.027	16.5	19.9
9 18	1 19.63	+ 6 51.9	1.361	2.308	10.9	18.3	9 18	1 20.19	+ 0 42.1	1.071	2.029	11.9	19.6
9 28	1 14.14	+ 4 45.7	1.321	2.306	6.1	18.0	9 28	1 14.59	- 0 37.2	1.045	2.031	7.0	19.4
10 8	1 7.34	+ 2 30.9	1.307	2.304	2.0	17.7	10 8	1 7.47	- 1 54.6	1.042	2.035	4.1	19.2
10 18	1 0.28	+ 0 19.9	1.320	2.303	5.2	17.9	10 18	1 0.13	- 2 59.5	1.062	2.041	7.2	19.4
10 28	0 54.13	- 1 34.9	1.359	2.303	10.0	18.2	10 28	0 53.95	- 3 42.6	1.105	2.048	11.9	19.7
11 7	0 49.83	- 3 4.6	1.422	2.303	14.4	18.5	11 7	0 49.99	- 3 59.4	1.169	2.057	16.3	20.0
11 17	0 47.93	- 4 5.1	1.505	2.304	18.0	18.7	11 17	0 48.81	- 3 49.5	1.251	2.066	20.0	20.3
373451	1999 <i>XZ</i> ₂₁₆		10 10.9 349°42	1°9/12.1 18			364553	2007 <i>GR</i> ₅₆		10 10.9 45°18	1°0/ 9.7 18		
9 8	1 24.97	+12 22.3	1.036	1.927	19.1	20.3	9 8	1 23.65	+ 8 3.0	2.016	2.886	12.1	20.6
9 18	1 21.91	+12 19.0	0.973	1.918	14.5	20.0	9 18	1 19.52	+ 6 51.4	1.958	2.896	8.7	20.4
9 28	1 15.84	+11 53.9	0.930	1.910	9.0	19.7	9 28	1 13.84	+ 5 29.0	1.925	2.907	4.9	20.2
10 8	1 7.78	+11 10.7	0.907	1.903	3.3	19.3	10 8	1 7.28	+ 4 1.9	1.919	2.917	1.2	19.9
10 18	0 59.16	+10 16.5	0.906	1.898	4.2	19.4	10 18	1 0.60	+ 2 37.0	1.942	2.928	3.5	20.1
10 28	0 51.70	+ 9 22.0	0.928	1.894	10.1	19.7	10 28	0 54.64	+ 1 21.1	1.994	2.939	7.3	20.4
11 7	0 46.77	+ 8 37.5	0.971	1.892	15.6	20.0	11 7	0 50.06	+ 0 19.7	2.072	2.950	10.7	20.6
11 17	0 45.16	+ 8 10.4	1.033	1.891	20.2	20.3	11 17	0 47.30	- 0 24.1	2.172	2.961	13.5	20.8
173522	2000 <i>VK</i> ₄₃		10 10.9 347°05	0°2/10.8 18			355080	2006 <i>SR</i> ₃₁₉		10 10.9 356°11	2°9/ 8.5 18		
9 8	1 26.39	+ 7 12.1	0.927	1.834	19.4	18.9	9 8	1 24.29	+ 3 10.3	1.396	2.292	14.8	20.3
9 18	1 23.20	+ 7 17.1	0.867	1.822	14.4	18.6	9 18	1 20.64	+ 2 15.9	1.336	2.287	10.6	20.0
9 28	1 16.72	+ 7 7.5	0.825	1.811	8.4	18.3	9 28	1 14.77	+ 1 12.6	1.299	2.284	6.1	19.7
10 8	1 7.99	+ 6 48.0	0.803	1.802	1.9	17.8	10 8	1 7.52	+ 0 7.9	1.286	2.282	2.9	19.5
10 18	0 58.62	+ 6 25.4	0.804	1.795	4.9	18.0	10 18	0 59.99	- 0 49.8	1.298	2.280	5.7	19.7
10 28	0 50.50	+ 6 8.8	0.825	1.789	11.3	18.3	10 28	0 53.39	- 1 32.5	1.336	2.280	10.2	20.0
11 7	0 45.16	+ 6 5.6	0.866	1.786	17.1	18.7	11 7	0 48.69	- 1 55.2	1.396	2.280	14.4	20.2
11 17	0 43.44	+ 6 20.3	0.924	1.784	21.9	18.9	11 17	0 46.48	- 1 56.1	1.475	2.282	17.9	20.5
153290	2001 <i>FH</i> ₁₁		10 10.9 75°05	2°0/ 8.3 18			279835	2000 <i>SX</i> ₂₂₈		10 10.9 8°66	0°5/11.2 18		
9 8	1 23.94	+ 4 33.4	2.208	3.082	11.0	19.5	9 8	1 29.95	+ 9 15.8	1.447	2.321	15.8	19.4
9 18	1 19.59	+ 3 14.6	2.152	3.093	7.8	19.3	9 18	1 24.75	+ 9 7.8	1.384	2.321	11.6	19.1
9 28	1 13.81	+ 1 48.7	2.121	3.104	4.4	19.1	9 28	1 17.16	+ 8 46.7	1.342	2.322	6.9	18.9
10 8	1 7.24	+ 0 21.6	2.119	3.114	2.0	18.9	10 8	1 8.07	+ 8 16.0	1.326	2.323	1.8	18.6
10 18	1 0.57	- 1 0.1	2.147	3.125	4.2	19.1	10 18	0 58.66	+ 7 41.4	1.335	2.325	3.6	18.7
10 28	0 54.56	- 2 10.3	2.203	3.136	7.4	19.3	10 28	0 50.25	+ 7 9.7	1.370	2.327	8.6	19.0
11 7	0 49.82	- 3 4.9	2.285	3.147	10.5	19.6	11 7	0 43.90	+ 6 47.1	1.430	2.330	13.0	19.3
11 17	0 46.77	- 3 41.6	2.390	3.158	13.0	19.8	11 17	0 40.25	+ 6 37.7	1.510	2.333	16.8	19.5
181560	2006 <i>UY</i> ₂₈₄		10 10.9 300°68	1°2/ 9.7 18			470478	2008 <i>AE</i> ₁₂₉		10 10.9 70°30	16°2/25.5 18		
9 8	1 27.45	+ 5 21.7	1.930	2.802	12.4	21.1	9 8	1 32.14	-29 40.8	1.343	2.199	17.8	20.3
9 18	1 22.44	+ 4 49.7	1.859	2.798	9.0	20.9	9 18	1 26.21	-32 14.6	1.348	2.222	16.5	20.3
9 28	1 15.62	+ 4 9.6	1.811	2.793	5.1	20.6	9 28	1 17.78	-34 13.1	1.374	2.245	16.2	20.3
10 8	1 7.67	+ 3 26.0	1.791	2.789	1.4	20.4	10 8	1 8.13	-35 26.1	1.420	2.268	16.9	20.4
10 18	0 59.47	+ 2 43.9	1.799	2.784	3.8	20.6	10 18	0 58.71	-35 49.9	1.484	2.291	18.3	20.6
10 28	0 51.97	+ 2 9.1	1.835	2.780	7.7	20.8	10 28	0 50.87	-35 26.7	1.566	2.313	19.8	20.8
11 7	0 45.99	+ 1 46.0	1.896	2.776	11.4	21.0	11 7	0 45.50	-34 24.0	1.661	2.336	21.2	21.0
11 17	0 42.07	+ 1 37.1	1.979	2.772	14.5	21.2	11 17	0 43.00	-32 50.4	1.768	2.359	22.4	21.2
474673	2005 <i>CF</i>		10 10.9 288°46	0°6/11.4 18			452147	2015 <i>RL</i> ₃₀		10 10.9 129°86	7°2/13.4 15		
9 8	1 27.44	+11 53.6	1.776	2.635	14.0	21.1	9 8	1 50.72	+16 27.3	1.078	1.918	22.3	20.4
9 18	1 22.86	+11 13.5	1.677	2.607	10.5	20.9	9 18	1 41.16	+18 22.6	1.018	1.926	17.6	20.2
9 28	1 16.10	+10 16.2	1.601	2.578	6.3	20.6	9 28	1 27.30	+19 59.9	0.977	1.934	12.5	19.9
10 8	1 7.83	+ 9 5.2	1.551	2.549	1.8	20.2	10 8	1 10.45	+21 11.4	0.960	1.941	8.1	19.7
10 18	0 58.98	+ 7 46.5	1.529	2.519	3.3	20.3	10 18	0 52.77	+21 53.0	0.969	1.948	7.8	19.7
10 28	0 50.68	+ 6 28.4	1.535	2.489	8.1	20.5	10 28	0 36.83	+22 8.2	1.004	1.954	11.9	20.0
11 7	0 43.99	+ 5 19.3	1.566	2.460	12.5	20.7	11 7	0 24.59	+22 7.1	1.061	1.960	16.7	20.3
11 17	0 39.63	+ 4 25.6	1.619	2.429	16.4	20.9	11 17	0 17.00	+22 1.3	1.138	1.965	20.9	20.6
75283	1999 <i>XH</i> ₂₃		10 10.9 316°38	2°2/ 9.6 18 R			411905	2012 <i>FQ</i> ₅₉		10 10.9 238°32	0°3/11.1 18		
9 8	1 31.86	+ 2 43.5	1.213	2.105	16.8	19.0	9 8	1 29.35	+ 8 23.3	2.350	3.202	11.2	21.1
9 18	1 26.79	+ 2 38.5	1.137	2.085	12.4	18.7	9 18	1 23.59	+ 8 21.1	2.271	3.198	8.3	20.9
9 28	1 18.68	+ 2 26.7	1.082	2.066	7.2	18.4	9 28	1 16.22	+ 8 11.1	2.216	3.193	4.9	20.7
10 8	1 8.45	+ 2 13.2	1.050	2.047	2.4	18.0	10 8	1 7.84	+ 7 55.7	2.190	3.188	1.2	20.4
10 18	0 57.48	+ 2 4.3	1.043	2.029	5.6	18.2	10 18	0 59.22	+ 7 37.7	2.193	3.183	2.6	20.5
10 28	0 47.46	+ 2 6.4	1.060	2.012	11.2	18.4	10 28	0 51.16	+ 7 21.1	2.226	3.177	6.2	20.7
11 7	0 39.84	+ 2 24.1	1.099	1.995	16.4	18.7	11 7	0 44.41	+ 7 9.4	2.286	3.172	9.5	20.9
11 17	0 35.52	+ 2 59.5	1.156	1.979	20.9	18.9	11 17	0 39.48	+ 7 5.5	2.371	3.166	12.3	21.1
91998	1999 <i>VE</i> ₁₃₇		10 10.9 74°56	0°2/11.0 18			508925	2004 <i>FY</i> ₄₃		10 10.9 248°84	2°7/12.5 18		
9 8	1 27.17	+ 9 36.8	2.107	2.965	12.1	20.0	9 8	1 38.80	+12 43.5	1.769	2.606	15.0	21.7
9 18	1 21.97	+ 9 7.5	2.051	2.981	8.8	19.8	9 18	1 31.25	+13 22.1	1.677	2.590	11.5	21.4
9 28	1 15.21	+ 8 28.1	2.020	2.997	5.1	19.6	9 28	1 21.06	+13 49.4	1.608	2.574	7.4	21.1
10 8	1 7.56	+ 7 42.3	2.015	3.013	1.2	19.4	10 8	1 9.01	+14 4.8	1.566	2.558	3.5	20.8
10 18	0 59.83	+ 6 54.9	2.040	3.029	2.7	19.5	10 18	0 56.25	+14 9.5	1.553	2.541	3.8	20.8
10 28	0 52.86	+ 6 11.2	2.093	3.045	6.5	19.8	10 28	0 44.16	+14 7.1	1.570	2.523	8.1	21.1
11 7	0 47.31	+ 5 35.6	2.173	3.061	9.8	20.1	11 7	0 33.99	+14 2.9	1.613	2.505	12.3	21.3
11 17	0 43.64	+ 5 11.4	2.277	3.077	12.6	20.3	11 17	0 26.60	+14 2.2	1.679	2.487	16.1	21.5
109343	2001 <i>QE</i> ₁₄₉		10 10.9 81°18	0°6/10.3 18									

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
253883	2004 <i>BP</i> ₄₃		10 10.9 216°39	3°2/ 7.9	18		148061	1998 <i>TB</i> ₂₈		10 10.9 306°93	0°1/10.9	18	
9 8	1 30.56	+ 1 13.8	1.802	2.679	13.0	21.0	9 8	1 29.53	+ 8 38.5	1.365	2.244	16.2	20.7
9 18	1 24.84	+ 0 14.3	1.731	2.672	9.4	20.7	9 18	1 24.82	+ 8 23.1	1.287	2.227	12.0	20.4
9 28	1 17.09	- 0 51.6	1.684	2.665	5.6	20.5	9 28	1 17.44	+ 7 53.4	1.230	2.211	7.1	20.1
10 8	1 8.07	- 1 57.1	1.664	2.657	3.2	20.3	10 8	1 8.24	+ 7 13.5	1.197	2.195	1.6	19.7
10 18	0 58.75	- 2 55.0	1.673	2.648	5.6	20.5	10 18	0 58.43	+ 6 29.5	1.189	2.179	4.0	19.8
10 28	0 50.20	- 3 38.9	1.710	2.639	9.5	20.7	10 28	0 49.48	+ 5 49.5	1.207	2.164	9.5	20.1
11 7	0 43.34	- 4 4.5	1.771	2.629	13.2	20.9	11 7	0 42.64	+ 5 21.0	1.248	2.149	14.5	20.4
11 17	0 38.76	- 4 10.2	1.853	2.619	16.3	21.1	11 17	0 38.73	+ 5 8.8	1.309	2.135	18.7	20.6
297357	2000 <i>BQ</i> ₄₈		10 10.9 80°48	2°8/ 8.2	18		361395	2006 <i>VM</i> ₁₄₀		10 10.9 310°88	6°8/ 4.9	18	
9 8	1 27.96	+ 2 5.9	1.784	2.665	12.9	20.7	9 8	1 29.49	- 10 48.8	1.874	2.756	12.3	20.5
9 18	1 22.76	+ 1 6.9	1.734	2.677	9.2	20.5	9 18	1 23.96	- 11 41.1	1.816	2.749	9.5	20.3
9 28	1 15.75	+ 0 2.5	1.708	2.690	5.3	20.3	9 28	1 16.53	- 12 27.3	1.782	2.743	7.3	20.2
10 8	1 7.74	- 1 0.8	1.710	2.703	2.8	20.2	10 8	1 7.97	- 13 0.6	1.773	2.737	6.9	20.1
10 18	0 59.64	- 1 56.4	1.739	2.716	5.1	20.4	10 18	0 59.20	- 13 15.2	1.791	2.731	8.6	20.2
10 28	0 52.42	- 2 38.3	1.795	2.729	8.8	20.6	10 28	0 51.25	- 13 7.8	1.835	2.725	11.4	20.4
11 7	0 46.86	- 3 3.1	1.876	2.741	12.2	20.9	11 7	0 44.93	- 12 38.1	1.902	2.719	14.2	20.6
11 17	0 43.43	- 3 9.4	1.979	2.754	15.1	21.1	11 17	0 40.78	- 11 47.9	1.988	2.714	16.6	20.7
305991	2009 <i>JY</i> ₈		10 10.9 263°90	3°0/ 7.7	18		467779	2009 <i>WT</i> ₄₈		10 10.9 49°49	2°4/15.9	18	
9 8	1 25.81	+ 1 47.3	1.983	2.864	11.8	21.1	9 8	1 19.74	+ 22 19.6	4.291	5.075	7.8	20.5
9 18	1 21.25	+ 0 36.0	1.911	2.854	8.5	20.9	9 18	1 16.14	+ 22 0.9	4.204	5.076	6.2	20.4
9 28	1 14.95	- 0 42.1	1.863	2.845	5.0	20.6	9 28	1 11.74	+ 21 32.2	4.141	5.076	4.5	20.3
10 8	1 7.58	- 2 0.5	1.843	2.835	3.0	20.5	10 8	1 6.88	+ 20 54.4	4.107	5.077	3.0	20.2
10 18	0 59.95	- 3 12.2	1.851	2.825	5.3	20.6	10 18	1 1.91	+ 20 9.4	4.102	5.078	2.5	20.2
10 28	0 52.96	- 4 10.5	1.887	2.815	8.8	20.8	10 28	0 57.25	+ 19 19.6	4.127	5.079	3.6	20.2
11 7	0 47.39	- 4 51.0	1.947	2.805	12.2	21.0	11 7	0 53.25	+ 18 28.2	4.182	5.080	5.2	20.4
11 17	0 43.78	- 5 11.6	2.030	2.794	15.1	21.2	11 17	0 50.19	+ 17 38.1	4.264	5.081	6.9	20.5
207294	2005 <i>GZ</i> ₃₂		10 10.9 114°06	1°5/ 9.5	18		294308	2007 <i>VJ</i> ₂₇		10 10.9 48°67	5°0/ 7.5	18	
9 8	1 32.15	+ 3 9.8	2.058	2.923	12.1	20.3	9 8	1 32.94	- 5 1.8	1.522	2.408	14.4	20.1
9 18	1 25.60	+ 2 54.1	2.001	2.936	8.7	20.1	9 18	1 26.54	- 5 28.8	1.480	2.423	10.5	19.9
9 28	1 17.33	+ 2 33.7	1.969	2.949	4.9	19.9	9 28	1 18.00	- 5 53.2	1.462	2.439	6.8	19.8
10 8	1 8.10	+ 2 12.4	1.965	2.962	1.7	19.7	10 8	1 8.29	- 6 8.5	1.470	2.455	5.0	19.7
10 18	0 58.77	+ 1 54.1	1.990	2.974	3.8	19.9	10 18	0 58.59	- 6 9.8	1.504	2.471	7.1	19.9
10 28	0 50.26	+ 1 42.9	2.045	2.986	7.4	20.2	10 28	0 50.06	- 5 53.8	1.563	2.488	10.6	20.1
11 7	0 43.34	+ 1 41.6	2.126	2.997	10.7	20.4	11 7	0 43.60	- 5 20.2	1.647	2.505	14.0	20.4
11 17	0 38.47	+ 1 51.7	2.230	3.009	13.5	20.6	11 17	0 39.68	- 4 30.4	1.751	2.522	16.9	20.6
517533	2014 <i>SF</i> ₅₉		10 10.9 96°72	1°7/ 9.2	18		174422	2002 <i>WW</i> ₁		10 10.9 303°26	2°0/ 9.1	18	
9 8	1 28.23	+ 2 24.3	2.352	3.220	10.7	21.7	9 8	1 28.03	+ 3 21.1	1.831	2.709	12.8	20.1
9 18	1 22.65	+ 2 3.9	2.290	3.227	7.7	21.5	9 18	1 22.97	+ 2 43.9	1.762	2.704	9.2	19.9
9 28	1 15.60	+ 1 39.8	2.254	3.234	4.4	21.3	9 28	1 16.02	+ 2 0.0	1.717	2.699	5.3	19.7
10 8	1 7.71	+ 1 15.3	2.245	3.241	1.7	21.1	10 8	1 7.88	+ 1 14.4	1.699	2.695	2.1	19.4
10 18	0 59.70	+ 0 54.4	2.266	3.248	3.6	21.3	10 18	0 59.48	+ 0 32.9	1.708	2.690	4.5	19.6
10 28	0 52.33	+ 0 40.6	2.317	3.255	6.8	21.5	10 28	0 51.83	+ 0 1.3	1.745	2.686	8.4	19.8
11 7	0 46.26	+ 0 36.4	2.393	3.262	9.8	21.7	11 7	0 45.77	+ 0 16.3	1.806	2.682	12.1	20.1
11 17	0 41.93	+ 0 43.5	2.494	3.269	12.3	21.9	11 17	0 41.86	- 0 18.0	1.890	2.677	15.3	20.3
154171	2002 <i>GM</i> ₆₈		10 10.9 79°37	5°1/ 5.5	18		99087	2001 <i>FV</i> ₂₉		10 10.9 297°77	8°3/18.6	18	
9 8	1 27.12	- 7 32.2	2.172	3.053	10.9	19.7	9 8	1 31.27	+ 30 10.1	1.847	2.613	17.1	19.4
9 18	1 21.91	- 8 27.9	2.123	3.061	8.1	19.5	9 18	1 25.75	+ 30 51.8	1.768	2.612	14.6	19.2
9 28	1 15.20	- 9 20.6	2.100	3.068	5.8	19.4	9 28	1 17.83	+ 31 8.2	1.708	2.611	11.8	19.1
10 8	1 7.62	- 10 4.2	2.103	3.075	5.2	19.4	10 8	1 8.33	+ 30 56.6	1.671	2.610	9.4	18.9
10 18	0 59.97	- 10 33.9	2.135	3.083	6.9	19.5	10 18	0 58.35	+ 30 17.3	1.659	2.609	8.3	18.9
10 28	0 53.03	- 10 46.3	2.193	3.090	9.4	19.7	10 28	0 49.19	+ 29 15.3	1.672	2.608	9.2	18.9
11 7	0 47.47	- 10 40.3	2.276	3.098	12.0	19.9	11 7	0 41.95	+ 27 59.4	1.711	2.607	11.5	19.1
11 17	0 43.73	- 10 16.5	2.379	3.105	14.2	20.0	11 17	0 37.35	+ 26 39.2	1.772	2.606	14.2	19.2
522042	2015 <i>XA</i> ₄₁₁		10 10.9 314°87	1°3/ 9.6	17		37185	2000 <i>WJ</i> ₅₈		10 10.9 112°72	6°7/ 3.7	18	
9 8	1 25.38	+ 5 24.6	2.019	2.893	11.9	21.4	9 8	1 28.46	- 13 21.6	2.243	3.117	10.9	18.2
9 18	1 20.96	+ 4 48.0	1.940	2.880	8.6	21.1	9 18	1 22.86	- 14 21.5	2.200	3.124	8.6	18.1
9 28	1 14.81	+ 4 3.1	1.886	2.868	4.9	20.9	9 28	1 15.75	- 15 13.8	2.181	3.132	7.0	18.0
10 8	1 7.58	+ 3 14.4	1.859	2.856	1.4	20.6	10 8	1 7.80	- 15 52.5	2.190	3.139	6.8	18.0
10 18	1 0.04	+ 2 27.1	1.859	2.844	3.7	20.8	10 18	0 59.78	- 16 13.1	2.225	3.146	8.3	18.1
10 28	0 53.11	+ 1 46.9	1.888	2.833	7.6	21.0	10 28	0 52.52	- 16 13.0	2.287	3.153	10.4	18.3
11 7	0 47.57	+ 1 18.4	1.942	2.822	11.2	21.2	11 7	0 46.65	- 15 52.3	2.372	3.159	12.6	18.4
11 17	0 43.96	+ 1 4.4	2.018	2.811	14.2	21.4	11 17	0 42.62	- 15 12.8	2.476	3.166	14.5	18.6
477802	2011 <i>CB</i> ₉₁		10 10.9 122°53	3°7/14.1	17		496811	2017 <i>KV</i> ₂		10 10.9 10°80	31°4/23.0	17	
9 8	1 31.58	+ 18 38.5	1.687	2.518	15.9	21.6	9 8	1 46.92	- 52 11.2	0.823	1.611	31.6	19.5
9 18	1 25.73	+ 18 35.5	1.621	2.526	12.4	21.4	9 18	1 38.61	- 53 22.9	0.825	1.612	31.4	19.5
9 28	1 17.65	+ 18 12.2	1.577	2.535	8.4	21.2	9 28	1 25.21	- 53 27.1	0.834	1.614	31.4	19.5
10 8	1 8.22	+ 17 30.2	1.557	2.543	4.7	21.0	10 8	1 9.79	- 52 13.4	0.851	1.619	31.6	19.5
10 18	0 58.54	+ 16 33.8	1.565	2.550	4.2	21.0	10 18	0 55.67	- 49 41.5	0.877	1.625	32.0	19.6
10 28	0 49.82	+ 15 30.3	1.600	2.558	7.5	21.2	10 28	0 45.33	- 46 1.2	0.912	1.633	32.5	19.7
11 7	0 43.04	+ 14 28.1	1.661	2.565	11.3	21.4	11 7	0 39.77	- 41 29.7	0.956	1.642	33.2	19.9
11 17	0 38.78	+ 13 34.2	1.745	2.572	14.7	21.7	11 17	0 38.80	- 36 24.9	1.012	1.653	33.8	20.0
485097	2010 <i>GJ</i> ₃₂		10 10.9 145°46	5°6/ 6.2	18		63452	2001 <i>OO</i> ₂					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
406790	2008 <i>SG</i> ₈₉	10 10.9 300°55		2°9/ 7.3 18			334988	2004 <i>FX</i> ₆₇	10 10.9 113°92		2°5/ 8.6 17		
9 8	1 23.12	+ 2 2.5	2.205	3.086	10.8	20.3	9 8	1 32.17	+ 2 35.9	1.847	2.718	13.0	21.5
9 18	1 19.18	+ 0 38.3	2.131	3.075	7.7	20.1	9 18	1 25.71	+ 1 40.7	1.801	2.739	9.3	21.3
9 28	1 13.74	- 0 52.9	2.083	3.064	4.6	19.9	9 28	1 17.44	+ 0 40.1	1.780	2.760	5.3	21.1
10 8	1 7.38	- 2 24.6	2.062	3.053	2.9	19.8	10 8	1 8.21	- 0 19.8	1.786	2.780	2.5	21.0
10 18	1 0.78	- 3 50.0	2.071	3.043	5.0	19.9	10 18	0 58.98	- 1 12.5	1.822	2.800	4.8	21.1
10 28	0 54.73	- 5 2.5	2.108	3.032	8.3	20.1	10 28	0 50.72	- 1 52.6	1.885	2.819	8.5	21.4
11 7	0 49.90	- 5 57.5	2.171	3.022	11.4	20.3	11 7	0 44.20	- 2 16.7	1.974	2.837	11.8	21.7
11 17	0 46.78	- 6 32.6	2.255	3.012	14.0	20.5	11 17	0 39.86	- 2 23.7	2.085	2.854	14.7	21.9
283625	2002 <i>CU</i> ₂₀₈	10 10.9 107°11		0°3/10.7 17			454969	2015 <i>TV</i> ₂₀₄	10 10.9 243°23		0°5/11.6 18		
9 8	1 31.38	+ 8 19.0	1.918	2.776	13.1	21.2	9 8	1 24.64	+ 12 28.8	2.308	3.157	11.5	20.8
9 18	1 25.14	+ 7 48.9	1.865	2.796	9.5	21.0	9 18	1 20.25	+ 11 35.2	2.228	3.152	8.5	20.6
9 28	1 17.12	+ 7 8.8	1.836	2.815	5.5	20.8	9 28	1 14.35	+ 10 28.2	2.172	3.146	5.1	20.4
10 8	1 8.12	+ 6 23.0	1.835	2.833	1.2	20.6	10 8	1 7.54	+ 9 11.7	2.144	3.141	1.5	20.1
10 18	0 59.06	+ 5 36.8	1.863	2.851	3.2	20.7	10 18	1 0.51	+ 7 51.0	2.145	3.135	2.5	20.2
10 28	0 50.91	+ 4 55.8	1.919	2.868	7.2	21.0	10 28	0 54.05	+ 6 32.6	2.176	3.129	6.2	20.4
11 7	0 44.42	+ 4 24.6	2.002	2.885	10.7	21.3	11 7	0 48.83	+ 5 22.5	2.234	3.123	9.5	20.6
11 17	0 40.08	+ 4 6.2	2.108	2.902	13.7	21.5	11 17	0 45.32	+ 4 25.1	2.317	3.117	12.4	20.8
349904	2009 <i>FZ</i> ₄₃	10 10.9 158°10		1°1/ 9.9 18			118573	2000 <i>GY</i> ₁₂	10 10.9 103°30		0°4/10.6 17		
9 8	1 31.92	+ 4 19.7	2.154	3.016	11.8	21.1	9 8	1 32.56	+ 7 54.7	1.652	2.518	14.5	20.3
9 18	1 25.50	+ 4 9.5	2.086	3.020	8.5	20.9	9 18	1 26.26	+ 7 27.7	1.599	2.534	10.6	20.1
9 28	1 17.36	+ 3 53.8	2.044	3.023	4.9	20.7	9 28	1 17.89	+ 6 49.8	1.570	2.549	6.1	19.9
10 8	1 8.20	+ 3 35.9	2.029	3.027	1.3	20.4	10 8	1 8.34	+ 6 5.7	1.567	2.565	1.3	19.6
10 18	0 58.85	+ 3 19.6	2.045	3.030	3.4	20.6	10 18	0 58.69	+ 5 21.2	1.591	2.580	3.6	19.8
10 28	0 50.22	+ 3 8.5	2.089	3.033	7.1	20.8	10 28	0 50.09	+ 4 42.8	1.644	2.594	8.0	20.1
11 7	0 43.08	+ 3 6.0	2.160	3.035	10.4	21.0	11 7	0 43.41	+ 4 15.5	1.722	2.609	12.0	20.4
11 17	0 37.94	+ 3 13.9	2.255	3.038	13.3	21.3	11 17	0 39.16	+ 4 2.4	1.822	2.622	15.2	20.6
382752	2003 <i>DY</i> ₂₄	10 10.9 306°34		2°7/12.7 18			141824	2002 <i>NU</i> ₅₃	10 10.9 122°73		0°9/11.7 17		
9 8	1 29.87	+ 13 46.7	1.397	2.260	16.8	20.7	9 8	1 32.49	+ 11 53.7	1.634	2.489	15.2	21.0
9 18	1 25.21	+ 13 55.5	1.310	2.238	13.0	20.4	9 18	1 26.31	+ 11 25.0	1.576	2.503	11.2	20.8
9 28	1 17.79	+ 13 46.4	1.244	2.216	8.4	20.1	9 28	1 17.97	+ 10 40.9	1.540	2.515	6.7	20.5
10 8	1 8.39	+ 13 20.5	1.201	2.194	3.7	19.8	10 8	1 8.37	+ 9 45.7	1.531	2.528	2.0	20.3
10 18	0 58.23	+ 12 41.7	1.183	2.173	4.0	19.7	10 18	0 58.62	+ 8 45.6	1.549	2.540	3.2	20.4
10 28	0 48.81	+ 11 57.2	1.191	2.152	9.0	19.9	10 28	0 49.91	+ 7 48.0	1.596	2.551	7.8	20.7
11 7	0 41.49	+ 11 15.8	1.222	2.132	14.0	20.2	11 7	0 43.15	+ 7 0.0	1.668	2.562	11.9	21.0
11 17	0 37.17	+ 10 44.9	1.274	2.112	18.4	20.4	11 17	0 38.89	+ 6 26.0	1.762	2.572	15.3	21.2
263796	2008 <i>QP</i> ₄₂	10 10.9 159°63		0°3/11.4 18			196498	2003 <i>LY</i> ₅	10 10.9 77°12		4°0/15.1 18		
9 8	1 19.16	+ 10 16.2	4.530	5.372	6.4	20.9	9 8	1 28.09	+ 22 7.6	1.674	2.496	16.4	19.8
9 18	1 15.66	+ 9 49.2	4.452	5.373	4.7	20.8	9 18	1 23.13	+ 21 27.7	1.615	2.512	12.9	19.6
9 28	1 11.45	+ 9 16.9	4.401	5.375	2.8	20.7	9 28	1 16.12	+ 20 22.9	1.576	2.529	9.0	19.4
10 8	1 6.84	+ 8 41.2	4.379	5.376	0.8	20.5	10 8	1 7.95	+ 18 56.2	1.563	2.545	5.2	19.2
10 18	1 2.15	+ 8 3.9	4.388	5.377	1.4	20.6	10 18	0 59.67	+ 17 14.5	1.576	2.561	4.2	19.2
10 28	0 57.73	+ 7 27.5	4.427	5.378	3.4	20.7	10 28	0 52.40	+ 15 27.3	1.617	2.577	7.2	19.4
11 7	0 53.88	+ 6 54.2	4.496	5.379	5.2	20.9	11 7	0 46.99	+ 13 45.0	1.685	2.594	10.9	19.7
11 17	0 50.87	+ 6 26.0	4.591	5.380	6.9	21.0	11 17	0 43.95	+ 12 15.7	1.777	2.610	14.2	19.9
349287	2007 <i>TX</i> ₃₇₂	10 10.9 20°70		4°7/ 6.6 18			296075	2009 <i>BL</i> ₇	10 10.9 293°23		7°0/ 3.7 18		
9 8	1 25.46	- 0 16.5	1.469	2.366	14.2	19.8	9 8	1 26.24	- 7 39.0	1.678	2.571	12.9	20.0
9 18	1 21.36	- 1 47.3	1.419	2.369	10.2	19.6	9 18	1 21.89	- 9 20.9	1.615	2.557	9.8	19.8
9 28	1 15.15	- 3 23.5	1.391	2.373	6.3	19.4	9 28	1 15.51	- 11 2.1	1.577	2.544	7.5	19.7
10 8	1 7.71	- 4 55.2	1.390	2.377	4.7	19.3	10 8	1 7.84	- 12 32.6	1.564	2.531	7.3	19.6
10 18	1 0.10	- 6 12.8	1.414	2.382	7.3	19.5	10 18	0 59.85	- 13 43.2	1.578	2.518	9.5	19.7
10 28	0 53.43	- 7 8.5	1.463	2.388	11.2	19.7	10 28	0 52.63	- 14 27.2	1.616	2.505	12.7	19.9
11 7	0 48.61	- 7 38.4	1.535	2.393	14.8	20.0	11 7	0 47.07	- 14 42.2	1.676	2.492	15.8	20.1
11 17	0 46.18	- 7 42.4	1.626	2.400	17.9	20.2	11 17	0 43.80	- 14 29.3	1.753	2.480	18.5	20.2
313340	2002 <i>GZ</i> ₄₅	10 10.9 113°01		0°7/11.8 18			30841	1991 <i>GA</i> ₃	10 10.9 221°54		0°4/10.6 18		
9 8	1 25.73	+ 12 34.2	2.508	3.351	10.9	21.0	9 8	1 28.32	+ 9 30.0	1.844	2.707	13.4	18.9
9 18	1 20.80	+ 11 49.2	2.445	3.365	8.1	20.8	9 18	1 23.25	+ 8 38.3	1.768	2.701	9.8	18.6
9 28	1 14.55	+ 10 52.9	2.407	3.380	4.8	20.7	9 28	1 16.24	+ 7 32.9	1.716	2.696	5.7	18.4
10 8	1 7.55	+ 9 49.0	2.397	3.394	1.5	20.4	10 8	1 8.01	+ 6 19.0	1.691	2.689	1.2	18.1
10 18	1 0.47	+ 8 41.9	2.418	3.408	2.3	20.5	10 18	0 59.48	+ 5 3.0	1.694	2.683	3.4	18.2
10 28	0 54.00	+ 7 37.0	2.468	3.421	5.5	20.8	10 28	0 51.68	+ 3 52.7	1.726	2.675	7.8	18.5
11 7	0 48.73	+ 6 39.2	2.546	3.434	8.5	21.0	11 7	0 45.49	+ 2 54.8	1.783	2.668	11.7	18.7
11 17	0 45.06	+ 5 52.1	2.650	3.447	11.1	21.2	11 17	0 41.48	+ 2 13.4	1.863	2.660	15.1	18.9
34565	2000 <i>SY</i> ₂₉₂	10 10.9 139°08		4°5/16.3 18			91816	1999 <i>TA</i> ₂₆₇	10 10.9 240°51		4°3/15.6 18		
9 8	1 26.97	+ 24 12.2	2.257	3.049	13.6	18.8	9 8	1 28.02	+ 22 13.0	2.310	3.110	13.1	19.4
9 18	1 22.04	+ 24 1.7	2.178	3.053	11.0	18.6	9 18	1 22.85	+ 22 20.2	2.224	3.105	10.5	19.3
9 28	1 15.42	+ 23 31.4	2.121	3.056	8.1	18.4	9 28	1 15.95	+ 22 10.2	2.161	3.100	7.7	19.1
10 8	1 7.77	+ 22 42.1	2.090	3.059	5.5	18.3	10 8	1 7.94	+ 21 43.1	2.123	3.096	5.2	18.9
10 18	0 59.91	+ 21 36.9	2.087	3.062	4.6	18.2	10 18	0 59.63	+ 21 1.2	2.114	3.091	4.4	18.9
10 28	0 52.71	+ 20 21.6	2.112	3.065	6.3	18.3	10 28	0 51.90	+ 20 9.1	2.133	3.085	6.3	19.0
11 7	0 46.93	+ 19 3.3	2.165	3.068	9.1	18.5	11 7	0 45.53	+ 19 12.8	2.179	3.080	9.1	19.1
11 17	0 43.09	+ 17 48.7	2.243	3.071	11.8	18.7	11 17	0 41.10	+ 18 18.5	2.250	3.075	11.9	19.3
198305	2004 <i>TK</i> ₃₂₈	10 10.9 358°92		7°1/ 5.9 18			22721	1					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
21255	1996 <i>CD</i> ₂		10 10.9	99°02'	6°5'/17.6	18	7399	Somme		10 10.9	349°09'	4°4'/13.8	18
9 8	1 31.75	+27 18.8	1.977	2.753	15.8	17.8	9 8	1 24.18	+16 44.9	0.987	1.870	20.6	16.3
9 18	1 25.75	+27 42.8	1.910	2.767	13.1	17.7	9 18	1 21.59	+16 57.5	0.924	1.860	16.1	15.9
9 28	1 17.67	+27 43.7	1.863	2.781	10.2	17.5	9 28	1 15.88	+16 42.7	0.878	1.851	10.9	15.6
10 8	1 8.33	+27 20.7	1.841	2.794	7.6	17.4	10 8	1 8.02	+16 1.5	0.852	1.844	5.8	15.3
10 18	0 58.75	+26 35.9	1.845	2.807	6.5	17.4	10 18	0 59.53	+14 59.8	0.848	1.838	5.2	15.3
10 28	0 50.05	+25 34.7	1.877	2.820	7.8	17.5	10 28	0 52.21	+13 48.9	0.866	1.834	10.1	15.6
11 7	0 43.14	+24 25.2	1.934	2.833	10.2	17.7	11 7	0 47.53	+12 42.0	0.904	1.832	15.5	15.8
11 17	0 38.60	+23 15.6	2.016	2.845	12.9	17.9	11 17	0 46.32	+11 49.7	0.960	1.831	20.3	16.1
165213	2000 <i>SJ</i> ₁₂		10 10.9	34°95'	0°8'/10.5	17	379218	2009 <i>SB</i> ₁₈₂		10 10.9	187°33'	0°1'/11.0	15
9 8	1 32.34	+ 6 26.5	0.844	1.750	20.9	18.5	9 8	1 31.48	+ 9 39.8	1.805	2.663	13.8	22.2
9 18	1 27.11	+ 6 18.9	0.818	1.772	15.1	18.2	9 18	1 25.57	+ 9 9.8	1.733	2.663	10.2	22.0
9 28	1 18.66	+ 5 57.2	0.810	1.795	8.6	18.0	9 28	1 17.59	+ 8 27.2	1.685	2.663	6.0	21.7
10 8	1 8.52	+ 5 28.5	0.822	1.820	1.9	17.7	10 8	1 8.34	+ 7 36.0	1.664	2.661	1.4	21.4
10 18	0 58.54	+ 5 1.4	0.856	1.847	5.1	18.0	10 18	0 58.81	+ 6 41.7	1.670	2.660	3.2	21.6
10 28	0 50.47	+ 4 44.2	0.913	1.874	11.1	18.5	10 28	0 50.10	+ 5 51.2	1.706	2.657	7.7	21.8
11 7	0 45.46	+ 4 42.5	0.990	1.902	16.2	18.8	11 7	0 43.11	+ 5 10.3	1.767	2.655	11.7	22.1
11 17	0 43.93	+ 4 58.1	1.084	1.931	20.3	19.2	11 17	0 38.45	+ 4 43.2	1.851	2.651	15.0	22.3
131176	2001 <i>CE</i> ₃₉		10 10.9	143°86'	0°1'/10.8	18	385117	2012 <i>XX</i> ₁₁		10 10.9	183°10'	2°0'/12.9	18
9 8	1 32.10	+ 7 54.9	2.199	3.051	11.9	19.8	9 8	1 29.70	+15 22.0	2.139	2.972	12.9	21.4
9 18	1 25.59	+ 7 41.5	2.134	3.061	8.7	19.6	9 18	1 24.05	+15 5.2	2.062	2.973	9.8	21.2
9 28	1 17.41	+ 7 19.8	2.094	3.071	5.0	19.4	9 28	1 16.63	+14 33.7	2.008	2.973	6.3	21.0
10 8	1 8.26	+ 6 52.9	2.083	3.080	1.1	19.1	10 8	1 8.12	+13 49.6	1.981	2.973	2.9	20.7
10 18	0 58.96	+ 6 24.5	2.101	3.089	2.8	19.3	10 18	0 59.35	+12 57.0	1.983	2.972	2.9	20.8
10 28	0 50.40	+ 5 59.0	2.149	3.097	6.6	19.5	10 28	0 51.27	+12 1.5	2.014	2.970	6.3	21.0
11 7	0 43.32	+ 5 40.4	2.224	3.105	9.9	19.7	11 7	0 44.65	+11 9.2	2.073	2.969	9.8	21.2
11 17	0 38.21	+ 5 31.4	2.323	3.112	12.7	19.9	11 17	0 40.04	+10 25.2	2.155	2.966	12.8	21.4
245047	2004 <i>FN</i> ₄₆		10 10.9	138°60'	0°6'/11.6	18	182024	2000 <i>AB</i> ₉₀		10 10.9	6°25'	5°9'/ 6.7	18
9 8	1 27.24	+12 6.6	2.571	3.412	10.8	21.4	9 8	1 26.53	- 1 48.3	1.116	2.025	16.6	18.8
9 18	1 21.88	+11 22.9	2.505	3.425	7.9	21.2	9 18	1 22.69	- 3 6.5	1.069	2.025	12.1	18.5
9 28	1 15.19	+10 28.4	2.465	3.438	4.7	21.0	9 28	1 16.17	- 4 28.7	1.043	2.026	7.7	18.3
10 8	1 7.75	+ 9 26.5	2.453	3.450	1.4	20.8	10 8	1 8.03	- 5 43.5	1.039	2.027	5.9	18.2
10 18	1 0.20	+ 8 21.7	2.472	3.462	2.3	20.9	10 18	0 59.65	- 6 39.8	1.059	2.030	8.8	18.4
10 28	0 53.27	+ 7 19.0	2.521	3.473	5.5	21.2	10 28	0 52.49	- 7 9.6	1.102	2.034	13.2	18.6
11 7	0 47.54	+ 6 23.3	2.598	3.483	8.5	21.4	11 7	0 47.66	- 7 10.0	1.165	2.039	17.5	18.9
11 17	0 43.41	+ 5 38.0	2.701	3.493	11.1	21.6	11 17	0 45.78	- 6 42.3	1.245	2.044	21.0	19.2
237790	2002 <i>BO</i> ₁₁		10 10.9	147°60'	1°3'/ 9.7	18	228854	2003 <i>FP</i> ₉₈		10 10.9	221°33'	1°9'/ 9.2	18
9 8	1 29.20	+ 6 14.4	1.783	2.654	13.4	20.3	9 8	1 30.28	+ 4 13.3	1.918	2.788	12.6	21.5
9 18	1 23.83	+ 5 28.2	1.719	2.658	9.7	20.0	9 18	1 24.62	+ 3 28.0	1.842	2.780	9.1	21.3
9 28	1 16.53	+ 4 32.2	1.680	2.661	5.5	19.8	9 28	1 17.04	+ 2 34.6	1.790	2.771	5.2	21.0
10 8	1 8.07	+ 3 31.8	1.667	2.665	1.5	19.5	10 8	1 8.23	+ 1 38.3	1.766	2.763	1.9	20.8
10 18	0 59.41	+ 2 33.5	1.682	2.668	4.0	19.7	10 18	0 59.11	+ 0 45.2	1.771	2.753	4.3	20.9
10 28	0 51.59	+ 1 43.9	1.725	2.671	8.2	20.0	10 28	0 50.70	+ 0 1.5	1.804	2.743	8.3	21.1
11 7	0 45.45	+ 1 8.2	1.794	2.673	12.0	20.2	11 7	0 43.86	- 0 28.1	1.862	2.733	12.0	21.4
11 17	0 41.52	+ 0 49.0	1.884	2.676	15.2	20.5	11 17	0 39.18	- 0 41.2	1.943	2.722	15.2	21.6
245398	2005 <i>GW</i> ₁₇₂		10 10.9	52°22'	1°0'/ 9.9	18	175009	2004 <i>EL</i> ₈₁		10 10.9	173°61'	4°6'/ 5.8	18
9 8	1 26.92	+ 8 23.8	1.568	2.445	14.6	20.2	9 8	1 28.48	- 6 22.8	2.328	3.204	10.5	20.2
9 18	1 22.20	+ 7 19.3	1.525	2.465	10.5	20.0	9 18	1 22.91	- 7 20.2	2.270	3.206	7.8	20.1
9 28	1 15.53	+ 6 2.4	1.505	2.487	5.9	19.8	9 28	1 15.86	- 8 15.8	2.239	3.208	5.4	19.9
10 8	1 7.82	+ 4 40.3	1.510	2.508	1.4	19.6	10 8	1 7.93	- 9 4.2	2.235	3.209	4.7	19.9
10 18	1 0.09	+ 3 21.2	1.543	2.530	3.9	19.8	10 18	0 59.87	- 9 40.2	2.260	3.211	6.3	20.0
10 28	0 53.38	+ 2 13.1	1.603	2.552	8.3	20.1	10 28	0 52.47	-10 0.3	2.312	3.211	8.9	20.2
11 7	0 48.47	+ 1 21.7	1.688	2.575	12.2	20.4	11 7	0 46.37	-10 2.8	2.390	3.211	11.5	20.3
11 17	0 45.82	+ 0 49.8	1.794	2.597	15.4	20.7	11 17	0 42.04	- 9 48.0	2.489	3.211	13.7	20.5
209869	2005 <i>JU</i> ₆₈		10 10.9	101°15'	5°5'/ 5.1	18	304470	2006 <i>UU</i> ₆₆		10 10.9	299°81'	3°2'/ 8.1	18
9 8	1 28.05	- 6 43.8	2.009	2.892	11.6	21.0	9 8	1 28.67	- 0 10.2	1.845	2.726	12.5	20.2
9 18	1 22.67	- 8 5.4	1.970	2.909	8.6	20.9	9 18	1 23.48	- 0 47.9	1.775	2.718	9.1	19.9
9 28	1 15.70	- 9 24.3	1.956	2.925	6.2	20.8	9 28	1 16.38	- 1 29.1	1.730	2.710	5.4	19.7
10 8	1 7.86	-10 32.9	1.970	2.941	5.6	20.8	10 8	1 8.08	- 2 8.4	1.710	2.702	3.2	19.5
10 18	0 59.99	-11 25.4	2.011	2.957	7.4	20.9	10 18	0 59.49	- 2 40.0	1.719	2.695	5.4	19.7
10 28	0 52.94	-11 57.5	2.079	2.972	10.1	21.1	10 28	0 51.63	- 2 58.9	1.754	2.687	9.1	19.9
11 7	0 47.40	-12 7.9	2.171	2.987	12.7	21.3	11 7	0 45.36	- 3 1.8	1.815	2.679	12.6	20.1
11 17	0 43.78	-11 57.7	2.283	3.002	14.9	21.5	11 17	0 41.26	- 2 47.7	1.896	2.672	15.6	20.3
178431	1998 <i>TE</i> ₃		10 10.9	38°29'	14°7'/17.8	17	513257	2006 <i>HZ</i> ₉₁		10 10.9	86°52'	5°3'/ 6.4	18
9 8	1 44.75	+30 0.3	1.061	1.859	25.3	19.1	9 8	1 30.18	- 5 21.1	1.737	2.622	13.0	21.4
9 18	1 37.52	+32 41.6	1.004	1.863	22.0	18.9	9 18	1 24.48	- 6 17.4	1.690	2.631	9.6	21.2
9 28	1 25.68	+34 52.1	0.964	1.868	18.6	18.7	9 28	1 16.86	- 7 12.0	1.666	2.640	6.5	21.0
10 8	1 10.36	+36 18.4	0.942	1.873	15.8	18.6	10 8	1 8.16	- 7 57.8	1.669	2.649	5.3	21.0
10 18	0 53.73	+36 52.5	0.942	1.878	14.7	18.6	10 18	0 59.37	- 8 28.6	1.699	2.658	7.3	21.1
10 28	0 38.61	+36 37.1	0.962	1.883	15.8	18.7	10 28	0 51.52	- 8 40.1	1.755	2.667	10.5	21.3
11 7	0 27.33	+35 46.6	1.002	1.889	18.4	18.8	11 7	0 45.42	- 8 31.1	1.834	2.675	13.6	21.5
11 17	0 21.08	+34 38.9	1.059	1.896	21.4	19.1	11 17	0 41.58	- 8 2.5	1.934	2.684	16.3	21.8
218441	2004 <i>RW</i> ₁₉₆		10 10.9	7°15'	3°9'/14.9	18	221024	2005 <i>QP</i> ₁₉		10 10.9	93°93'	2°6'/ 8.6	17

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
430463	2001 <i>PQ</i> ₁₈		10 10.9	32°41'	10°6'/16.5	18	364564	2007 <i>JJ</i> ₄₂		10 10.9	125°10'	8°0'/29.1	18
9 8	1 41.00	+24 7.4	1.086	1.913	23.0	20.0	9 8	1 27.15	-23 22.0	2.840	3.686	9.7	21.4
9 18	1 33.81	+26 20.1	1.044	1.932	19.1	19.8	9 18	1 21.73	-24 44.3	2.818	3.701	8.5	21.4
9 28	1 22.90	+28 3.2	1.020	1.952	15.0	19.6	9 28	1 15.07	-25 54.0	2.821	3.716	8.0	21.4
10 8	1 9.62	+29 9.1	1.016	1.973	11.7	19.5	10 8	1 7.76	-26 45.8	2.851	3.730	8.3	21.4
10 18	0 55.90	+29 35.2	1.036	1.996	10.6	19.5	10 18	1 0.42	-27 16.2	2.905	3.744	9.4	21.5
10 28	0 43.92	+29 27.4	1.078	2.019	12.3	19.7	10 28	0 53.71	-27 24.0	2.984	3.758	10.7	21.6
11 7	0 35.28	+28 57.9	1.142	2.044	15.4	20.0	11 7	0 48.17	-27 9.9	3.084	3.771	12.0	21.8
11 17	0 30.74	+28 19.9	1.225	2.069	18.6	20.3	11 17	0 44.19	-26 36.3	3.201	3.783	13.2	21.9
347806	2002 <i>JL</i> ₁₃₂		10 10.9	115°08'	2°0'/9.3	18	174115	2002 <i>JJ</i> ₉₃		10 10.9	172°93'	0°4'/10.6	17
9 8	1 33.70	+ 2 1.3	1.892	2.761	12.8	21.0	9 8	1 32.29	+ 8 32.7	1.700	2.562	14.3	20.9
9 18	1 26.90	+ 1 45.1	1.836	2.773	9.2	20.9	9 18	1 26.22	+ 7 55.5	1.633	2.565	10.5	20.7
9 28	1 18.23	+ 1 24.9	1.805	2.785	5.3	20.6	9 28	1 18.00	+ 7 5.8	1.589	2.568	6.0	20.4
10 8	1 8.48	+ 1 4.8	1.802	2.797	2.1	20.5	10 8	1 8.47	+ 6 8.5	1.572	2.570	1.3	20.1
10 18	0 58.62	+ 0 49.1	1.827	2.809	4.2	20.6	10 18	0 58.68	+ 5 9.9	1.583	2.571	3.6	20.3
10 28	0 49.69	+ 0 42.1	1.881	2.820	8.0	20.9	10 28	0 49.80	+ 4 17.4	1.622	2.571	8.2	20.6
11 7	0 42.48	+ 0 46.2	1.961	2.831	11.5	21.1	11 7	0 42.77	+ 3 36.9	1.686	2.571	12.3	20.8
11 17	0 37.51	+ 1 2.8	2.063	2.842	14.5	21.4	11 17	0 38.17	+ 3 12.1	1.773	2.571	15.7	21.1
247133	2000 <i>WQ</i> ₃₈		10 10.9	298°18'	8°3'/2.4	18	319259	2006 <i>AY</i> ₁₀₀		10 10.9	29°78'	4°4'/15.4	18
9 8	1 28.50	-15 59.3	1.991	2.866	12.0	19.7	9 8	1 28.55	+21 16.9	2.119	2.929	13.8	20.4
9 18	1 23.28	-17 8.4	1.931	2.851	9.9	19.5	9 18	1 23.33	+21 33.9	2.044	2.932	11.1	20.2
9 28	1 16.23	-18 8.2	1.895	2.837	8.5	19.4	9 28	1 16.27	+21 33.5	1.991	2.935	8.0	20.0
10 8	1 8.04	-18 51.1	1.885	2.822	8.6	19.4	10 8	1 8.08	+21 15.8	1.964	2.938	5.3	19.8
10 18	0 59.60	-19 11.4	1.900	2.808	10.2	19.5	10 18	0 59.60	+20 43.1	1.963	2.941	4.6	19.8
10 28	0 51.89	-19 5.5	1.939	2.794	12.5	19.6	10 28	0 51.79	+20 0.0	1.991	2.945	6.6	19.9
11 7	0 45.72	-18 33.8	2.000	2.780	14.9	19.8	11 7	0 45.49	+19 12.9	2.046	2.949	9.5	20.1
11 17	0 41.64	-17 38.7	2.080	2.766	17.1	19.9	11 17	0 41.25	+18 27.8	2.124	2.952	12.4	20.3
70018	1998 <i>YP</i> ₉		10 10.9	330°66'	1°1'/9.7	18	176445	2001 <i>WG</i> ₈₅		10 10.9	11°77'	1°9'/9.3	18
9 8	1 24.50	+ 6 27.0	1.988	2.861	12.1	18.8	9 8	1 27.22	+ 3 57.3	1.728	2.608	13.2	19.8
9 18	1 20.37	+ 5 41.0	1.913	2.853	8.7	18.6	9 18	1 22.47	+ 3 20.0	1.667	2.610	9.5	19.6
9 28	1 14.54	+ 4 45.5	1.864	2.846	5.0	18.3	9 28	1 15.79	+ 2 35.4	1.629	2.612	5.4	19.4
10 8	1 7.66	+ 3 45.2	1.841	2.838	1.3	18.1	10 8	1 7.96	+ 1 48.8	1.617	2.614	2.0	19.2
10 18	1 0.52	+ 2 45.9	1.846	2.831	3.6	18.2	10 18	0 59.92	+ 1 6.2	1.633	2.616	4.4	19.3
10 28	0 54.01	+ 1 54.0	1.878	2.825	7.5	18.5	10 28	0 52.69	+ 0 33.6	1.675	2.619	8.5	19.6
11 7	0 48.88	+ 1 14.4	1.937	2.819	11.1	18.7	11 7	0 47.12	+ 0 15.2	1.742	2.623	12.2	19.8
11 17	0 45.68	+ 0 50.3	2.017	2.813	14.2	18.9	11 17	0 43.75	+ 0 13.1	1.831	2.626	15.4	20.1
256402	2007 <i>AR</i> ₁₅		10 10.9	314°48'	0°7'/10.3	18	219916	2002 <i>GZ</i> ₁₃		10 10.9	36°18'	1°6'/9.7	18
9 8	1 26.17	+ 7 31.5	1.864	2.735	12.9	20.9	9 8	1 32.07	+ 2 4.3	1.947	2.817	12.5	19.4
9 18	1 21.70	+ 6 53.8	1.788	2.726	9.4	20.7	9 18	1 25.76	+ 2 6.6	1.886	2.823	9.0	19.2
9 28	1 15.37	+ 6 5.3	1.736	2.717	5.4	20.4	9 28	1 17.61	+ 2 5.4	1.849	2.830	5.2	19.0
10 8	1 7.86	+ 5 10.4	1.710	2.708	1.2	20.1	10 8	1 8.38	+ 2 4.0	1.840	2.836	1.8	18.8
10 18	1 0.05	+ 4 15.1	1.712	2.700	3.5	20.3	10 18	0 58.98	+ 2 5.9	1.859	2.843	3.9	19.0
10 28	0 52.91	+ 3 25.7	1.742	2.691	7.7	20.5	10 28	0 50.40	+ 2 14.2	1.907	2.851	7.7	19.2
11 7	0 47.28	+ 2 47.9	1.797	2.683	11.6	20.7	11 7	0 43.45	+ 2 31.4	1.981	2.858	11.1	19.5
11 17	0 43.75	+ 2 25.1	1.874	2.676	14.8	20.9	11 17	0 38.65	+ 2 58.6	2.078	2.866	14.1	19.7
184930	Gobbihilda		10 10.9	277°15'	1°2'/12.5	18	334347	2001 <i>YD</i> ₁₃		10 10.9	328°70'	1°7'/9.7	16
9 8	1 23.97	+13 1.7	3.162	3.997	9.1	20.7	9 8	1 27.40	+ 5 19.8	1.270	2.162	16.2	20.9
9 18	1 19.48	+12 51.2	3.071	3.985	6.8	20.5	9 18	1 23.38	+ 4 49.1	1.199	2.147	11.9	20.6
9 28	1 13.85	+12 32.0	3.005	3.973	4.3	20.4	9 28	1 16.70	+ 4 6.4	1.148	2.133	6.8	20.3
10 8	1 7.49	+12 5.8	2.967	3.961	1.8	20.2	10 8	1 8.23	+ 3 17.8	1.121	2.119	2.0	19.9
10 18	1 0.93	+11 34.9	2.959	3.949	2.0	20.2	10 18	0 59.23	+ 2 31.2	1.119	2.106	5.1	20.1
10 28	0 54.73	+11 2.6	2.982	3.937	4.6	20.3	10 28	0 51.15	+ 1 55.1	1.141	2.094	10.4	20.4
11 7	0 49.42	+10 32.2	3.033	3.925	7.2	20.5	11 7	0 45.23	+ 1 36.2	1.185	2.083	15.4	20.6
11 17	0 45.40	+10 6.7	3.109	3.912	9.5	20.7	11 17	0 42.24	+ 1 37.8	1.249	2.073	19.5	20.8
21836	1999 <i>TX</i> ₉₆		10 10.9	79°60'	4°5'/5.9	18	517315	2014 <i>HA</i> ₂₀₄		10 10.9	223°05'	2°4'/8.5	18
9 8	1 25.81	- 3 50.2	2.087	2.971	11.1	18.0	9 8	1 27.79	+ 2 43.3	1.955	2.831	12.1	21.6
9 18	1 21.09	- 5 4.0	2.037	2.979	8.1	17.8	9 18	1 22.74	+ 1 50.5	1.887	2.828	8.7	21.4
9 28	1 14.84	- 6 18.0	2.012	2.987	5.4	17.6	9 28	1 15.92	+ 0 51.1	1.843	2.824	5.1	21.2
10 8	1 7.71	- 7 25.6	2.015	2.996	4.5	17.6	10 8	1 8.00	- 0 9.1	1.826	2.821	2.4	21.0
10 18	1 0.48	- 8 20.7	2.047	3.004	6.4	17.7	10 18	0 59.86	- 1 4.0	1.838	2.817	4.7	21.2
10 28	0 53.96	- 8 58.7	2.105	3.012	9.2	17.9	10 28	0 52.41	- 1 47.7	1.877	2.813	8.4	21.4
11 7	0 48.82	- 9 17.2	2.187	3.020	12.0	18.1	11 7	0 46.46	- 2 15.9	1.942	2.808	11.8	21.6
11 17	0 45.49	- 9 16.2	2.290	3.029	14.3	18.3	11 17	0 42.53	- 2 26.9	2.029	2.804	14.8	21.8
176852	2002 <i>TQ</i> ₂₃₉		10 10.9	58°80'	3°0'/13.0	18	277834	2006 <i>HA</i> ₅₆		10 10.9	312°58'	23°5'/25.0	16
9 8	1 34.42	+14 52.1	1.261	2.120	18.5	19.4	9 8	1 44.82	-38 38.1	0.988	1.819	24.5	20.0
9 18	1 28.12	+15 1.5	1.218	2.142	14.0	19.2	9 18	1 36.99	-40 18.9	0.961	1.807	23.7	19.9
9 28	1 19.16	+14 50.4	1.195	2.165	9.0	19.0	9 28	1 24.77	-41 12.8	0.947	1.795	23.6	19.9
10 8	1 8.70	+14 21.5	1.196	2.188	4.2	18.8	10 8	1 10.03	-41 3.5	0.947	1.784	24.2	19.9
10 18	0 58.21	+13 40.4	1.222	2.211	4.1	18.8	10 18	0 55.31	-39 44.0	0.961	1.774	25.5	19.9
10 28	0 49.14	+12 55.3	1.274	2.235	8.6	19.2	10 28	0 43.09	-37 18.0	0.989	1.764	27.2	20.0
11 7	0 42.58	+12 15.0	1.350	2.258	13.0	19.5	11 7	0 34.90	-33 59.0	1.030	1.754	29.1	20.2
11 17	0 39.06	+11 45.5	1.446	2.282	16.7	19.8	11 17	0 31.19	-30 2.9	1.083	1.746	30.9	20.3
352990	2009 <i>BV</i> ₁₀₃		10 10.9	324°91'	1°7'/12.4	18	385841	2006 <i>HA</i> ₁₀₉		10 10.9	133°23'	4°4'/6.6	18
9 8													

EPHEMERIDES

10 10.9

10 10.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V	
170627	2003 YV ₆₂	10 10.9 246°25 5°7/ 5.3 18						208128	2000 DF ₆₀	10 10.9 257°60 1°9/ 9.1 18				
9 8	1 28.59	- 7 16.0	1.955	2.838	11.8	19.8	9 8	1 27.29	+ 4 37.3	1.948	2.821	12.3	21.0	
9 18	1 23.32	- 8 21.9	1.893	2.831	8.9	19.6	9 18	1 22.46	+ 3 43.5	1.871	2.812	8.9	20.8	
9 28	1 16.25	- 9 25.9	1.856	2.824	6.4	19.5	9 28	1 15.82	+ 2 41.0	1.820	2.801	5.1	20.6	
10 8	1 8.09	-10 20.7	1.845	2.817	5.8	19.4	10 8	1 8.03	+ 1 35.1	1.795	2.791	1.9	20.3	
10 18	0 59.69	-11 0.0	1.862	2.810	7.7	19.5	10 18	0 59.94	+ 0 32.2	1.798	2.781	4.3	20.5	
10 28	0 52.02	-11 19.4	1.905	2.802	10.6	19.7	10 28	0 52.50	- 0 21.0	1.830	2.770	8.2	20.7	
11 7	0 45.87	-11 17.0	1.971	2.795	13.5	19.9	11 7	0 46.54	- 0 59.6	1.887	2.759	11.8	20.9	
11 17	0 41.78	-10 53.7	2.057	2.787	16.0	20.1	11 17	0 42.61	- 1 20.8	1.966	2.748	14.9	21.1	
438751	2008 UP ₅₃	10 10.9 55°16 2°3/13.1 18						6346	Syukumeguri	10 10.9 17°69 4°1/ 6.9 18				
9 8	1 27.58	+16 26.5	1.568	2.418	16.0	20.3	9 8	1 25.61	- 1 57.7	1.834	2.722	12.2	16.7	
9 18	1 22.93	+15 51.0	1.507	2.427	12.1	20.0	9 18	1 21.18	- 2 56.7	1.780	2.726	8.8	16.5	
9 28	1 16.13	+14 54.7	1.467	2.436	7.8	19.8	9 28	1 15.01	- 3 57.7	1.751	2.730	5.6	16.3	
10 8	1 8.06	+13 41.6	1.452	2.445	3.5	19.6	10 8	1 7.83	- 4 53.9	1.748	2.735	4.1	16.3	
10 18	0 59.80	+12 18.4	1.464	2.454	3.4	19.6	10 18	1 0.49	- 5 39.0	1.772	2.740	6.1	16.4	
10 28	0 52.50	+10 54.4	1.504	2.464	7.6	19.9	10 28	0 53.94	- 6 7.9	1.822	2.745	9.4	16.6	
11 7	0 47.08	+ 9 38.5	1.568	2.474	11.7	20.2	11 7	0 48.90	- 6 18.0	1.897	2.751	12.6	16.8	
11 17	0 44.11	+ 8 37.4	1.655	2.484	15.3	20.4	11 17	0 45.89	- 6 8.9	1.992	2.758	15.3	17.0	
316980	2001 GV ₃	10 10.9 163°01 2°6/ 7.0 18						375991	2009 XF ₉	10 10.9 208°06 5°7/16.6 18				
9 8	1 24.36	+ 1 30.3	2.813	3.683	9.1	21.0	9 8	1 31.52	+25 18.5	2.044	2.830	15.1	20.7	
9 18	1 19.76	- 0 0.2	2.749	3.688	6.5	20.8	9 18	1 25.70	+25 29.7	1.958	2.825	12.4	20.6	
9 28	1 13.99	- 1 35.3	2.713	3.692	3.9	20.7	9 28	1 17.79	+25 19.3	1.892	2.820	9.4	20.4	
10 8	1 7.55	- 3 9.6	2.707	3.696	2.6	20.6	10 8	1 8.51	+24 46.5	1.852	2.815	6.7	20.2	
10 18	1 0.99	- 4 37.3	2.732	3.699	4.3	20.7	10 18	0 58.82	+23 53.5	1.838	2.808	5.7	20.1	
10 28	0 54.92	- 5 53.5	2.787	3.702	6.9	20.9	10 28	0 49.83	+22 45.4	1.853	2.802	7.4	20.2	
11 7	0 49.85	- 6 54.5	2.869	3.705	9.4	21.1	11 7	0 42.50	+21 30.5	1.894	2.795	10.3	20.4	
11 17	0 46.18	- 7 38.7	2.975	3.707	11.5	21.2	11 17	0 37.49	+20 16.7	1.960	2.787	13.3	20.6	
166233	2002 FL ₂₆	10 10.9 127°94 2°8/ 8.8 17						461165	2015 TY ₁₇₉	10 10.9 310°78 3°3/ 7.6 17				
9 8	1 36.53	+ 0 57.1	1.758	2.626	13.7	20.5	9 8	1 26.10	- 0 28.6	2.033	2.915	11.5	21.6	
9 18	1 29.00	+ 0 22.1	1.709	2.645	9.8	20.3	9 18	1 21.51	- 1 18.7	1.963	2.906	8.3	21.4	
9 28	1 19.45	- 0 16.6	1.684	2.663	5.7	20.1	9 28	1 15.22	- 2 12.4	1.918	2.898	5.1	21.1	
10 8	1 8.80	- 0 53.4	1.686	2.680	2.8	20.0	10 8	1 7.89	- 3 4.0	1.899	2.889	3.3	21.0	
10 18	0 58.12	- 1 22.9	1.718	2.696	5.1	20.2	10 18	1 0.32	- 3 47.8	1.909	2.881	5.3	21.1	
10 28	0 48.52	- 1 40.3	1.778	2.711	8.9	20.4	10 28	0 53.38	- 4 18.6	1.946	2.873	8.6	21.3	
11 7	0 40.86	- 1 42.9	1.864	2.726	12.5	20.7	11 7	0 47.82	- 4 33.2	2.008	2.865	11.9	21.5	
11 17	0 35.64	- 1 30.0	1.972	2.739	15.4	20.9	11 17	0 44.18	- 4 30.5	2.091	2.858	14.7	21.7	
163068	2002 AP ₅	10 10.9 299°58 2°9/12.7 18						403410	2009 SA ₂₄	10 10.9 65°36 1°7/12.8 18				
9 8	1 32.38	+13 45.3	1.274	2.138	18.0	18.9	9 8	1 26.74	+14 32.8	2.089	2.931	12.8	21.0	
9 18	1 27.21	+14 0.5	1.198	2.126	13.8	18.6	9 18	1 21.87	+14 9.4	2.026	2.943	9.6	20.8	
9 28	1 19.05	+13 56.9	1.142	2.115	8.9	18.3	9 28	1 15.36	+13 31.9	1.986	2.955	6.1	20.6	
10 8	1 8.82	+13 35.7	1.109	2.103	4.0	18.0	10 8	1 7.91	+12 43.3	1.974	2.967	2.5	20.4	
10 18	0 57.89	+13 0.8	1.101	2.091	4.3	18.0	10 18	1 0.32	+11 48.0	1.989	2.979	2.7	20.4	
10 28	0 47.92	+12 20.0	1.119	2.080	9.4	18.3	10 28	0 53.46	+10 52.0	2.034	2.991	6.2	20.7	
11 7	0 40.33	+11 42.4	1.159	2.069	14.5	18.5	11 7	0 48.02	+10 0.9	2.105	3.003	9.5	20.9	
11 17	0 36.01	+11 15.6	1.219	2.059	18.9	18.8	11 17	0 44.50	+ 9 19.4	2.200	3.016	12.4	21.2	
196661	2003 SL ₄₁	10 10.9 304°34 7°7/16.7 17						72567	2001 EX ₁₀	10 10.9 201°03 3°0/ 6.8 18				
9 8	1 35.91	+27 43.7	2.217	2.976	14.8	19.6	9 8	1 24.86	- 1 25.6	2.812	3.685	9.0	19.9	
9 18	1 29.16	+29 4.0	2.116	2.957	12.6	19.4	9 18	1 20.17	- 2 32.4	2.743	3.682	6.5	19.7	
9 28	1 20.00	+30 7.5	2.037	2.938	10.3	19.2	9 28	1 14.28	- 3 41.7	2.701	3.677	4.1	19.6	
10 8	1 9.05	+30 50.2	1.983	2.919	8.4	19.1	10 8	1 7.66	- 4 48.6	2.687	3.673	3.0	19.5	
10 18	0 57.27	+31 9.8	1.957	2.900	7.7	19.0	10 18	1 0.89	- 5 48.4	2.704	3.668	4.6	19.6	
10 28	0 45.89	+31 7.6	1.957	2.881	8.8	19.1	10 28	0 54.58	- 6 36.9	2.750	3.662	7.1	19.7	
11 7	0 36.06	+30 48.6	1.985	2.863	11.0	19.2	11 7	0 49.28	- 7 11.3	2.823	3.657	9.6	19.9	
11 17	0 28.65	+30 19.7	2.036	2.845	13.6	19.3	11 17	0 45.38	- 7 30.3	2.918	3.651	11.7	20.1	
366670	2003 US ₄	10 10.9 335°24 11°0/25.9 18						214983	2008 AG ₈₀	10 10.9 352°55 0°1/10.9 18				
9 8	1 26.65	+43 26.1	2.131	2.794	17.9	19.5	9 8	1 27.07	+ 9 2.9	1.709	2.579	13.9	20.6	
9 18	1 22.48	+43 52.3	2.040	2.785	16.3	19.3	9 18	1 22.48	+ 8 33.8	1.641	2.577	10.2	20.4	
9 28	1 16.03	+43 47.9	1.965	2.777	14.4	19.2	9 28	1 15.89	+ 7 52.4	1.595	2.575	5.9	20.1	
10 8	1 8.08	+43 9.0	1.908	2.769	12.7	19.1	10 8	1 8.06	+ 7 2.9	1.576	2.574	1.4	19.8	
10 18	0 59.72	+41 54.6	1.873	2.762	11.4	19.0	10 18	0 59.96	+ 6 11.2	1.583	2.573	3.3	20.0	
10 28	0 52.17	+40 8.6	1.862	2.755	11.0	18.9	10 28	0 52.64	+ 5 24.1	1.618	2.572	7.8	20.2	
11 7	0 46.49	+37 59.4	1.875	2.749	11.8	19.0	11 7	0 47.00	+ 4 47.5	1.677	2.571	11.8	20.5	
11 17	0 43.34	+35 38.2	1.913	2.743	13.4	19.1	11 17	0 43.62	+ 4 25.2	1.759	2.571	15.2	20.7	
176884	Jallynsmith	10 10.9 1°06 4°8/ 6.6 18						19953	Takeo	10 10.9 91°13 5°6/ 6.7 18				
9 8	1 28.35	- 3 53.0	1.767	2.654	12.7	20.2	9 8	1 34.04	- 7 38.1	1.770	2.648	13.1	17.0	
9 18	1 23.25	- 4 50.4	1.710	2.653	9.3	20.0	9 18	1 27.19	- 8 14.8	1.727	2.663	9.8	16.9	
9 28	1 16.24	- 5 48.2	1.677	2.653	6.1	19.8	9 28	1 18.42	- 8 46.9	1.708	2.678	6.8	16.7	
10 8	1 8.10	- 6 39.4	1.670	2.653	4.8	19.7	10 8	1 8.60	- 9 8.1	1.716	2.693	5.7	16.7	
10 18	0 59.77	- 7 17.4	1.690	2.653	6.9	19.9	10 18	0 58.79	- 9 13.7	1.751	2.707	7.4	16.8	
10 28	0 52.26	- 7 37.3	1.737	2.654	10.2	20.1	10 28	0 50.02	- 9 0.8	1.814	2.722	10.4	17.0	
11 7	0 46.41	- 7 36.8	1.807	2.654	13.5	20.3	11 7	0 43.11	- 8 29.5	1.900	2.736	13.4	17.3	
11 17	0 42.74	- 7 16.2	1.897	2.654	16.3	20.5	11 17	0 38.54	- 7 41.4	2.007	2.750	16.0	17.5	
62097	2000 RJ ₉₄	10 10.9 44°76 0°7/10.4 18						380796	2005 WF ₁₀₁	10 10.9 319°80 1°4/ 9.3 17				
9 8	1 28.19	+ 8 41.5	1.323	2.205	16.4	18.6	9 8	1 23.75	+ 4 2.7	2.484	3.355	10.1	20.5	
9 18	1 23.49	+ 7 51.6	1.278	2.221	11.8	18.4	9 18	1 19.64	+ 3 31.3	2.394	3.333	7.3	20.2	
9 28	1 16.47	+ 6 47.2	1.254											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
166335	2002 <i>JR</i> ₁₀₈		10 10.9	99°91	0°2/11.2	16	220221	2002 <i>VA</i> ₁₀₀		10 10.9	268°07	1°8/	9.7 18
9 8	1 28.66	+14 56.6	1.951	2.793	13.6	20.5	9 8	1 32.98	+3 41.2	1.528	2.405	14.8	20.1
9 18	1 23.19	+12 59.0	1.893	2.814	10.0	20.3	9 18	1 27.07	+3 22.5	1.457	2.398	10.8	19.8
9 28	1 16.07	+10 43.0	1.861	2.836	5.8	20.1	9 28	1 18.72	+2 56.4	1.409	2.391	6.3	19.5
10 8	1 8.07	+8 16.3	1.859	2.856	1.4	19.8	10 8	1 8.80	+2 27.8	1.386	2.383	2.0	19.2
10 18	1 0.08	+5 48.8	1.888	2.876	3.0	20.0	10 18	0 58.47	+2 2.4	1.391	2.376	4.7	19.4
10 28	0 52.97	+3 31.1	1.948	2.896	7.2	20.3	10 28	0 49.04	+1 46.3	1.422	2.368	9.4	19.7
11 7	0 47.46	+1 31.6	2.037	2.916	10.8	20.5	11 7	0 41.62	+1 43.8	1.477	2.361	13.8	19.9
11 17	0 43.96	-0 4.9	2.150	2.934	13.8	20.8	11 17	0 36.90	+1 57.1	1.553	2.353	17.5	20.1
381154	2007 <i>GK</i> ₂₃		10 10.9	236°20	1°0/10.1	18	150673	2001 <i>NW</i> ₄		10 10.9	66°98	2°0/12.5	18
9 8	1 30.75	+6 29.2	1.804	2.672	13.4	21.4	9 8	1 31.30	+13 54.7	1.411	2.270	16.9	20.6
9 18	1 25.15	+5 57.7	1.727	2.663	9.8	21.2	9 18	1 25.80	+13 38.8	1.357	2.284	12.7	20.4
9 28	1 17.46	+5 16.3	1.674	2.654	5.6	20.9	9 28	1 17.90	+13 4.1	1.325	2.298	7.9	20.2
10 8	1 8.45	+4 29.4	1.647	2.645	1.4	20.6	10 8	1 8.58	+12 14.4	1.317	2.312	3.1	19.9
10 18	0 59.08	+3 42.6	1.648	2.635	3.8	20.7	10 18	0 59.10	+11 16.0	1.336	2.326	3.5	20.0
10 28	0 50.44	+3 2.4	1.677	2.625	8.2	21.0	10 28	0 50.77	+10 17.5	1.380	2.340	8.2	20.3
11 7	0 43.47	+2 33.9	1.732	2.614	12.2	21.2	11 7	0 44.61	+9 27.0	1.449	2.354	12.5	20.6
11 17	0 38.81	+2 20.4	1.809	2.604	15.6	21.4	11 17	0 41.18	+8 50.2	1.540	2.369	16.2	20.9
446655	2015 <i>NJ</i> ₈		10 10.9	25°43	5°0/6.6	18	470991	2009 <i>SH</i> ₁₂₆		10 10.9	63°17	2°2/12.7	16
9 8	1 24.68	-0 47.3	1.322	2.225	15.0	20.4	9 8	1 32.24	+14 15.4	1.337	2.198	17.6	21.4
9 18	1 20.93	-2 15.4	1.284	2.238	10.8	20.2	9 18	1 26.52	+14 3.6	1.290	2.216	13.2	21.2
9 28	1 15.00	-3 46.9	1.269	2.251	6.7	20.0	9 28	1 18.31	+13 32.2	1.263	2.235	8.3	20.9
10 8	1 7.85	-5 11.5	1.278	2.265	5.1	19.9	10 8	1 8.67	+12 45.0	1.260	2.254	3.4	20.7
10 18	1 0.63	-6 19.6	1.311	2.281	7.6	20.1	10 18	0 58.94	+11 48.4	1.283	2.273	3.7	20.8
10 28	0 54.50	-7 4.0	1.369	2.297	11.5	20.4	10 28	0 50.48	+10 51.3	1.332	2.292	8.3	21.1
11 7	0 50.32	-7 21.9	1.449	2.314	15.2	20.7	11 7	0 44.31	+10 2.0	1.405	2.311	12.8	21.4
11 17	0 48.57	-7 14.1	1.548	2.332	18.2	20.9	11 17	0 40.98	+9 26.3	1.499	2.331	16.5	21.7
25989	2001 <i>FB</i> ₆₇		10 10.9	38°29	1°7/9.4	18	323237	2003 <i>SB</i> ₁₇₄		10 10.9	5°12	1°6/9.6	18
9 8	1 28.89	+2 46.3	2.073	2.945	11.7	18.4	9 8	1 28.22	+3 16.9	1.793	2.671	13.0	20.5
9 18	1 23.41	+2 29.4	2.011	2.950	8.5	18.2	9 18	1 23.20	+3 3.7	1.729	2.671	9.4	20.2
9 28	1 16.28	+2 8.0	1.974	2.955	4.8	18.0	9 28	1 16.28	+2 44.9	1.690	2.672	5.4	20.0
10 8	1 8.16	+1 46.0	1.964	2.960	1.8	17.8	10 8	1 8.22	+2 24.8	1.677	2.674	1.8	19.8
10 18	0 59.88	+1 27.4	1.982	2.966	3.8	18.0	10 18	0 59.92	+2 7.9	1.691	2.676	4.0	19.9
10 28	0 52.32	+1 16.2	2.029	2.972	7.4	18.2	10 28	0 52.42	+1 58.7	1.732	2.679	8.0	20.2
11 7	0 46.21	+1 15.3	2.102	2.978	10.7	18.5	11 7	0 46.53	+2 0.6	1.799	2.682	11.7	20.4
11 17	0 42.04	+1 26.3	2.198	2.984	13.5	18.7	11 17	0 42.82	+2 15.2	1.887	2.686	14.8	20.7
104620	2000 <i>GR</i> ₁₁₀		10 10.9	288°79	1°5/11.9	18	307951	2004 <i>FG</i> ₁₄₂		10 10.9	230°12	0°2/10.8	18
9 8	1 30.91	+11 48.9	1.499	2.362	15.9	19.7	9 8	1 28.86	+8 26.2	2.359	3.212	11.2	21.5
9 18	1 25.79	+11 43.7	1.416	2.346	12.0	19.4	9 18	1 23.39	+8 0.0	2.273	3.201	8.2	21.3
9 28	1 18.11	+11 22.6	1.354	2.330	7.4	19.1	9 28	1 16.33	+7 24.8	2.212	3.190	4.8	21.1
10 8	1 8.66	+10 48.0	1.318	2.314	2.6	18.8	10 8	1 8.23	+6 43.6	2.180	3.178	1.1	20.8
10 18	0 58.61	+10 4.9	1.307	2.298	3.5	18.8	10 18	0 59.85	+6 0.5	2.177	3.166	2.7	20.9
10 28	0 49.33	+9 20.4	1.323	2.282	8.6	19.1	10 28	0 51.99	+5 20.3	2.204	3.153	6.4	21.1
11 7	0 42.04	+8 42.2	1.363	2.266	13.4	19.3	11 7	0 45.40	+4 47.5	2.258	3.140	9.7	21.3
11 17	0 37.54	+8 16.6	1.424	2.250	17.5	19.5	11 17	0 40.59	+4 25.3	2.336	3.126	12.6	21.5
112706	2002 <i>PM</i> ₁₀₈		10 10.9	137°15	2°7/8.8	18	271444	2004 <i>EC</i> ₁₀		10 10.9	195°98	2°6/12.9	17
9 8	1 32.39	+2 34.1	1.575	2.453	14.4	20.1	9 8	1 32.94	+14 46.9	1.645	2.490	15.6	20.8
9 18	1 26.36	+1 47.3	1.518	2.460	10.4	19.9	9 18	1 26.97	+14 50.0	1.572	2.489	11.9	20.6
9 28	1 18.13	+0 53.7	1.485	2.467	6.0	19.7	9 28	1 18.64	+14 36.3	1.520	2.488	7.7	20.3
10 8	1 8.60	-0 0.1	1.478	2.473	2.7	19.5	10 8	1 8.79	+14 7.4	1.494	2.486	3.6	20.1
10 18	0 58.89	-0 47.0	1.499	2.479	5.3	19.7	10 18	0 58.56	+13 27.2	1.496	2.485	3.6	20.1
10 28	0 50.20	-1 20.6	1.546	2.485	9.5	20.0	10 28	0 49.20	+12 42.4	1.524	2.483	7.7	20.3
11 7	0 43.47	-1 36.8	1.618	2.490	13.5	20.2	11 7	0 41.79	+12 0.3	1.579	2.480	11.9	20.6
11 17	0 39.26	-1 34.4	1.711	2.495	16.7	20.4	11 17	0 37.00	+11 27.0	1.655	2.478	15.6	20.8
361834	2008 <i>DW</i> ₄		10 10.9	317°60	3°4/7.9	17	405439	2004 <i>TG</i> ₆₄		10 10.9	351°61	1°8/9.8	17
9 8	1 26.27	+1 3.9	1.620	2.509	13.5	20.6	9 8	1 30.56	+2 3.9	1.549	2.432	14.4	19.9
9 18	1 22.10	+0 9.0	1.544	2.491	9.8	20.4	9 18	1 25.26	+2 13.7	1.481	2.425	10.5	19.6
9 28	1 15.80	-0 52.8	1.492	2.474	5.9	20.1	9 28	1 17.64	+2 19.7	1.436	2.418	6.1	19.4
10 8	1 8.11	-1 54.6	1.465	2.457	3.4	19.9	10 8	1 8.56	+2 25.6	1.416	2.413	2.0	19.1
10 18	1 0.00	-2 48.8	1.464	2.441	6.0	20.0	10 18	0 59.12	+2 35.3	1.422	2.408	4.4	19.3
10 28	0 52.61	-3 28.1	1.489	2.425	10.1	20.2	10 28	0 50.54	+2 52.4	1.455	2.405	8.9	19.5
11 7	0 46.91	-3 47.8	1.538	2.410	14.1	20.4	11 7	0 43.87	+3 19.8	1.512	2.403	13.1	19.8
11 17	0 43.57	-3 46.1	1.607	2.395	17.5	20.6	11 17	0 39.77	+3 58.7	1.591	2.401	16.7	20.0
487759	2015 <i>RH</i> ₁₉₄		10 10.9	317°43	1°5/9.6	18	280574	2004 <i>TN</i> ₉₂		10 10.9	104°45	0°6/11.5	18
9 8	1 27.44	+4 46.2	1.909	2.782	12.5	21.2	9 8	1 31.58	+10 23.1	1.730	2.588	14.3	20.7
9 18	1 22.60	+4 13.1	1.837	2.777	9.0	20.9	9 18	1 25.66	+10 5.8	1.670	2.599	10.6	20.5
9 28	1 15.92	+3 32.3	1.789	2.771	5.2	20.7	9 28	1 17.71	+9 35.9	1.634	2.610	6.3	20.2
10 8	1 8.11	+2 48.4	1.769	2.766	1.6	20.5	10 8	1 8.55	+8 56.9	1.623	2.620	1.8	20.0
10 18	1 0.03	+2 6.8	1.776	2.761	3.9	20.6	10 18	0 59.21	+8 14.1	1.640	2.630	3.1	20.1
10 28	0 52.64	+1 33.2	1.811	2.756	7.9	20.8	10 28	0 50.80	+7 33.5	1.685	2.640	7.5	20.4
11 7	0 46.76	+1 11.7	1.871	2.751	11.5	21.1	11 7	0 44.20	+7 1.0	1.756	2.650	11.4	20.6
11 17	0 42.94	+1 5.0	1.953	2.746	14.6	21.3	11 17	0 39.95	+6 40.5	1.850	2.659	14.7	20.9
252828	2002 <i>GZ</i> ₉₇		10 10.9	164°54	1°2/9.9	18	88331	2001 <i>OO</i> ₅₈		10 10.9	112°43	0°5/11.4	18

EPHEMERIDES

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