

EPHEMERIDES

10 16.9

10 17.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
404718	2014 <i>JO</i> ₁₃		10 16.9	82°77	3°3/14.0	18	443439	2014 <i>HY</i> ₁₄₆		10 17.0	72°46	1°9/15.2	18
9 8	1 53.27	+ 2 18.0	1.939	2.768	14.2	20.8	9 8	1 51.48	+ 7 35.9	1.878	2.702	14.8	21.6
9 18	1 49.24	+ 1 33.5	1.871	2.776	11.0	20.6	9 18	1 48.04	+ 6 44.4	1.802	2.704	11.5	21.3
9 28	1 43.13	+ 0 43.2	1.826	2.784	7.5	20.4	9 28	1 42.45	+ 5 41.5	1.748	2.706	7.7	21.1
10 8	1 35.53	- 0 7.6	1.807	2.792	4.2	20.2	10 8	1 35.29	+ 4 32.2	1.719	2.708	3.7	20.9
10 18	1 27.25	- 0 53.1	1.815	2.800	3.7	20.2	10 18	1 27.36	+ 3 22.7	1.718	2.710	2.3	20.8
10 28	1 19.24	- 1 27.9	1.851	2.809	6.7	20.4	10 28	1 19.64	+ 2 20.0	1.745	2.712	6.0	21.0
11 7	1 12.38	- 1 47.9	1.914	2.817	10.1	20.6	11 7	1 13.05	+ 1 30.3	1.799	2.714	9.8	21.3
11 17	1 7.32	- 1 51.2	2.001	2.825	13.2	20.8	11 17	1 8.29	+ 0 57.4	1.876	2.716	13.3	21.5
221464	2006 <i>BP</i> ₈₇		10 16.9	357°84	4°1/13.4	18	347061	2010 <i>FR</i> ₄		10 17.0	103°37	0°5/16.6	18
9 8	1 49.05	+ 1 21.9	1.696	2.543	15.1	19.6	9 8	1 55.25	+ 9 38.1	1.781	2.595	15.8	21.3
9 18	1 46.35	+ 0 31.6	1.625	2.540	11.8	19.4	9 18	1 51.16	+ 9 23.1	1.703	2.598	12.5	21.1
9 28	1 41.40	- 0 25.1	1.576	2.537	8.1	19.2	9 28	1 44.67	+ 8 56.7	1.646	2.600	8.5	20.8
10 8	1 34.78	- 1 21.8	1.551	2.536	4.8	19.0	10 8	1 36.40	+ 8 21.8	1.614	2.603	4.1	20.6
10 18	1 27.33	- 2 11.6	1.552	2.536	4.6	19.0	10 18	1 27.24	+ 7 43.0	1.610	2.605	0.8	20.4
10 28	1 20.10	- 2 47.9	1.580	2.536	7.8	19.2	10 28	1 18.30	+ 7 5.8	1.633	2.608	5.3	20.7
11 7	1 14.05	- 3 6.2	1.632	2.537	11.4	19.4	11 7	1 10.61	+ 6 35.9	1.683	2.610	9.6	20.9
11 17	1 9.91	- 3 4.4	1.707	2.539	14.8	19.6	11 17	1 4.96	+ 6 17.7	1.757	2.613	13.3	21.2
364082	2005 <i>YL</i> ₆₄		10 16.9	124°46	4°9/11.9	18	318007	2004 <i>CG</i> ₇₅		10 17.0	181°39	0°6/16.5	18
9 8	1 51.95	- 4 19.3	2.315	3.144	12.2	20.6	9 8	1 56.38	+ 10 35.1	1.930	2.734	15.2	22.0
9 18	1 47.89	- 5 12.0	2.245	3.147	9.6	20.5	9 18	1 51.87	+ 10 0.5	1.846	2.735	11.9	21.7
9 28	1 42.07	- 6 5.4	2.200	3.150	7.0	20.3	9 28	1 45.08	+ 9 12.9	1.784	2.736	8.1	21.5
10 8	1 34.99	- 6 54.0	2.181	3.153	5.1	20.2	10 8	1 36.59	+ 8 15.9	1.748	2.736	3.9	21.3
10 18	1 27.32	- 7 32.6	2.190	3.156	5.4	20.2	10 18	1 27.24	+ 7 14.4	1.740	2.735	1.0	21.0
10 28	1 19.86	- 7 56.8	2.227	3.159	7.5	20.4	10 28	1 18.08	+ 6 15.0	1.761	2.734	5.2	21.3
11 7	1 13.34	- 8 4.0	2.291	3.161	10.1	20.5	11 7	1 10.10	+ 5 24.0	1.810	2.732	9.3	21.6
11 17	1 8.32	- 7 53.7	2.378	3.164	12.5	20.7	11 17	1 4.05	+ 4 46.3	1.883	2.729	13.0	21.8
268934	2007 <i>DX</i> ₁₃		10 17.0	9°15	0°4/17.3	18	408045	2012 <i>FQ</i> ₆₇		10 17.0	160°36	5°6/10.9	18
9 8	1 55.67	+ 11 13.7	1.388	2.216	18.9	21.0	9 8	1 54.27	- 10 8.7	2.731	3.547	10.9	20.8
9 18	1 52.21	+ 11 15.9	1.316	2.216	15.0	20.8	9 18	1 49.39	- 10 50.8	2.664	3.551	8.8	20.7
9 28	1 45.76	+ 11 3.6	1.262	2.217	10.4	20.5	9 28	1 42.95	- 11 29.5	2.621	3.555	6.8	20.6
10 8	1 37.02	+ 10 39.2	1.230	2.218	5.1	20.2	10 8	1 35.41	- 12 0.1	2.605	3.558	5.6	20.5
10 18	1 27.09	+ 10 6.8	1.224	2.220	0.6	19.9	10 18	1 27.38	- 12 18.4	2.617	3.561	6.0	20.5
10 28	1 17.41	+ 9 33.0	1.243	2.222	5.9	20.3	10 28	1 19.54	- 12 21.4	2.658	3.564	7.6	20.6
11 7	1 9.34	+ 9 4.9	1.288	2.224	11.0	20.6	11 7	1 12.57	- 12 7.9	2.725	3.566	9.6	20.8
11 17	1 3.83	+ 8 48.3	1.355	2.227	15.4	20.8	11 17	1 6.95	- 11 38.3	2.816	3.568	11.6	20.9
170170	2003 <i>FY</i> ₁₃₀		10 17.0	67°21	2°2/18.4	17	73355	2002 <i>JE</i> ₁₄₄		10 17.0	100°65	7°1/9.9	18
9 8	2 0.87	+ 15 42.5	1.221	2.037	21.6	20.0	9 8	1 52.96	- 6 1.4	1.815	2.656	14.5	19.5
9 18	1 56.28	+ 15 47.7	1.172	2.062	17.2	19.8	9 18	1 49.10	- 7 42.9	1.763	2.669	11.5	19.4
9 28	1 48.39	+ 15 32.3	1.140	2.087	12.1	19.6	9 28	1 43.08	- 9 24.5	1.734	2.681	8.7	19.2
10 8	1 38.16	+ 14 58.0	1.129	2.113	6.6	19.4	10 8	1 35.55	- 10 57.1	1.731	2.693	7.2	19.2
10 18	1 26.99	+ 14 9.6	1.143	2.138	2.2	19.2	10 18	1 27.36	- 12 12.2	1.754	2.705	7.9	19.2
10 28	1 16.53	+ 13 15.5	1.184	2.163	5.9	19.5	10 28	1 19.52	- 13 3.3	1.804	2.716	10.2	19.4
11 7	1 8.17	+ 12 25.1	1.249	2.188	10.9	19.9	11 7	1 12.93	- 13 27.6	1.878	2.728	12.9	19.6
11 17	1 2.75	+ 11 45.8	1.336	2.213	15.3	20.2	11 17	1 8.22	- 13 25.8	1.973	2.739	15.5	19.8
358678	2007 <i>YF</i> ₁₈		10 17.0	337°57	3°4/19.1	17	411540	2011 <i>BK</i> ₁₂₂		10 17.0	279°32	3°3/20.4	17
9 8	1 53.04	+ 15 51.0	1.434	2.250	18.9	20.4	9 8	1 52.12	+ 21 3.2	2.391	3.149	13.9	21.5
9 18	1 50.40	+ 16 34.1	1.345	2.234	15.5	20.1	9 18	1 48.30	+ 21 12.7	2.295	3.145	11.5	21.3
9 28	1 44.78	+ 17 2.5	1.275	2.220	11.4	19.9	9 28	1 42.55	+ 21 7.5	2.221	3.141	8.6	21.1
10 8	1 36.69	+ 17 15.0	1.227	2.207	6.9	19.6	10 8	1 35.35	+ 20 47.5	2.171	3.137	5.6	20.9
10 18	1 27.12	+ 17 12.0	1.203	2.194	3.5	19.3	10 18	1 27.38	+ 20 13.9	2.148	3.133	3.4	20.8
10 28	1 17.50	+ 16 57.0	1.204	2.183	6.0	19.5	10 28	1 19.47	+ 19 30.3	2.155	3.129	4.3	20.8
11 7	1 9.29	+ 16 36.4	1.230	2.173	10.7	19.7	11 7	1 12.47	+ 18 41.7	2.190	3.125	7.2	21.0
11 17	1 3.63	+ 16 17.5	1.278	2.164	15.1	19.9	11 17	1 7.05	+ 17 53.6	2.251	3.121	10.2	21.2
135298	2001 <i>SE</i> ₂₁₅		10 17.0	335°95	1°2/16.2	18	300619	2007 <i>UL</i> ₂₀		10 17.0	359°84	1°0/16.2	18
9 8	1 56.18	+ 7 48.7	1.541	2.368	17.3	19.6	9 8	1 51.75	+ 9 27.2	1.615	2.443	16.6	20.9
9 18	1 52.29	+ 7 36.7	1.464	2.366	13.6	19.4	9 18	1 48.68	+ 8 56.7	1.539	2.442	13.0	20.6
9 28	1 45.66	+ 7 13.7	1.407	2.365	9.3	19.1	9 28	1 43.13	+ 8 12.9	1.483	2.442	8.8	20.4
10 8	1 36.94	+ 6 43.3	1.374	2.363	4.4	18.8	10 8	1 35.71	+ 7 19.8	1.452	2.441	4.2	20.1
10 18	1 27.12	+ 6 10.3	1.367	2.362	1.5	18.6	10 18	1 27.34	+ 6 23.2	1.446	2.441	1.4	19.9
10 28	1 17.52	+ 5 41.0	1.387	2.361	6.2	19.0	10 28	1 19.18	+ 5 30.3	1.468	2.442	5.9	20.2
11 7	1 9.36	+ 5 21.5	1.433	2.360	10.9	19.2	11 7	1 12.33	+ 4 48.1	1.515	2.443	10.4	20.5
11 17	1 3.54	+ 5 15.6	1.501	2.359	15.0	19.5	11 17	1 7.59	+ 4 21.3	1.586	2.444	14.3	20.8
274651	2008 <i>TF</i> ₁₄₉		10 17.0	319°53	0°6/15.9	18	12424	1995 <i>VM</i>		10 17.0	132°73	5°3/12.8	18
9 8	1 45.38	+ 7 7.2	4.228	5.026	7.7	20.4	9 8	1 58.68	- 4 52.2	2.009	2.832	14.0	17.8
9 18	1 42.06	+ 6 52.8	4.136	5.023	5.9	20.3	9 18	1 53.35	- 5 29.5	1.944	2.841	11.0	17.6
9 28	1 37.79	+ 6 34.3	4.069	5.021	4.0	20.1	9 28	1 45.88	- 6 6.3	1.902	2.850	8.0	17.4
10 8	1 32.86	+ 6 13.5	4.030	5.019	1.9	20.0	10 8	1 36.89	- 6 36.8	1.885	2.858	5.6	17.3
10 18	1 27.59	+ 5 52.0	4.022	5.016	0.8	19.9	10 18	1 27.22	- 6 55.8	1.897	2.866	5.7	17.3
10 28	1 22.39	+ 5 32.1	4.044	5.014	2.7	20.0	10 28	1 17.88	- 6 59.2	1.937	2.874	8.0	17.5
11 7	1 17.61	+ 5 15.7	4.096	5.012	4.8	20.2	11 7	1 9.77	- 6 45.0	2.003	2.881	11.0	17.7
11 17	1 13.60	+ 5 4.5	4.176	5.009	6.7	20.3	11 17	1 3.54	- 6 13.6	2.093	2.888	13.8	17.9
1397	Umtata		10 17.0	67°31	1°8/15.6	18	300772	2007 <i>VO</i> ₂₅₇		10 17.0	342		

EPHEMERIDES

10 17.0

10 17.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
513333	2007 <i>HL</i> ₁₆		10 17.0 112°10		4.5°/21.9 18		224929	2007 <i>DH</i> ₅₀		10 17.0 173°00		0°1/16.9 18	
9 8	2 0.11	+25 29.7	2.867	3.573	12.9	21.8	9 8	1 56.62	+11 14.4	1.942	2.744	15.2	21.6
9 18	1 54.09	+26 10.4	2.786	3.593	10.9	21.7	9 18	1 52.05	+10 52.9	1.860	2.746	12.0	21.4
9 28	1 46.23	+26 37.4	2.727	3.613	8.5	21.6	9 28	1 45.21	+10 19.1	1.798	2.749	8.2	21.1
10 8	1 37.05	+26 49.4	2.693	3.633	6.2	21.4	10 8	1 36.67	+9 35.6	1.763	2.750	4.0	20.9
10 18	1 27.21	+26 46.1	2.688	3.652	4.6	21.4	10 18	1 27.28	+8 46.6	1.755	2.751	0.5	20.6
10 28	1 17.52	+26 29.5	2.713	3.671	4.8	21.4	10 28	1 18.08	+7 58.0	1.777	2.752	4.9	21.0
11 7	1 8.78	+26 3.2	2.768	3.689	6.6	21.5	11 7	1 10.06	+7 15.7	1.826	2.752	9.0	21.2
11 17	1 1.59	+25 31.9	2.851	3.706	8.8	21.7	11 17	1 3.97	+6 44.3	1.901	2.752	12.6	21.4
41961	2000 <i>XS</i> ₃₂		10 17.0 78°52		1°7/18.1 18		263836	2008 <i>TU</i> ₁₀₀		10 17.0 313°42		0°1/17.3 18	
9 8	2 0.05	+13 42.0	1.401	2.213	19.5	18.6	9 8	1 44.49	+11 32.8	4.292	5.077	7.8	20.7
9 18	1 55.53	+13 56.6	1.336	2.225	15.6	18.4	9 18	1 41.40	+11 16.4	4.196	5.074	6.1	20.6
9 28	1 47.94	+13 55.2	1.290	2.238	10.9	18.2	9 28	1 37.39	+10 54.3	4.125	5.071	4.2	20.5
10 8	1 38.06	+13 39.0	1.267	2.251	5.8	17.9	10 8	1 32.72	+10 27.9	4.082	5.068	2.0	20.3
10 18	1 27.10	+13 11.1	1.269	2.264	1.7	17.7	10 18	1 27.71	+9 58.9	4.068	5.064	0.2	20.1
10 28	1 16.56	+12 37.8	1.297	2.277	5.6	18.0	10 28	1 22.76	+9 29.4	4.085	5.061	2.4	20.3
11 7	1 7.78	+12 6.4	1.352	2.289	10.5	18.3	11 7	1 18.23	+9 1.9	4.133	5.058	4.4	20.5
11 17	1 1.69	+11 43.1	1.430	2.302	14.8	18.6	11 17	1 14.45	+8 38.3	4.208	5.055	6.3	20.6
6239	Minos		10 17.0 131°43		4°5/18.7 15		471026	2009 <i>SH</i> ₃₀₆		10 17.0 343°06		3°4/14.6 18	
9 8	2 49.24	+19 59.7	0.638	1.434	37.7	19.8	9 8	1 44.35	+7 8.4	1.050	1.925	20.2	20.3
9 18	2 37.01	+20 10.0	0.599	1.474	30.5	19.5	9 18	1 44.15	+6 12.9	0.978	1.909	15.9	20.0
9 28	2 17.49	+19 41.9	0.571	1.510	21.8	19.2	9 28	1 40.77	+4 58.0	0.925	1.895	10.8	19.7
10 8	1 52.43	+18 28.3	0.561	1.540	12.1	18.9	10 8	1 34.84	+3 31.4	0.891	1.883	5.4	19.4
10 18	1 25.62	+16 34.6	0.573	1.566	4.5	18.7	10 18	1 27.47	+2 4.1	0.880	1.872	4.0	19.3
10 28	1 1.75	+14 24.1	0.610	1.588	10.3	19.1	10 28	1 20.24	+0 49.6	0.891	1.863	9.2	19.5
11 7	0 44.00	+12 24.9	0.670	1.604	18.3	19.6	11 7	1 14.69	-0 1.2	0.924	1.856	14.7	19.8
11 17	0 33.27	+10 55.2	0.747	1.616	24.8	20.1	11 17	1 11.90	-0 22.7	0.975	1.851	19.6	20.1
435696	2008 <i>TT</i> ₁₃₅		10 17.0 34°20		1°6/18.1 16		342139	2008 <i>SO</i> ₁₂₈		10 17.0 19°91		1°8/18.2 18	
9 8	1 54.15	+14 17.5	1.320	2.146	19.8	21.2	9 8	1 54.72	+13 25.7	1.303	2.130	19.8	20.3
9 18	1 51.00	+14 20.4	1.261	2.158	15.8	20.9	9 18	1 51.62	+13 46.5	1.238	2.136	15.9	20.1
9 28	1 44.88	+14 5.3	1.220	2.172	11.0	20.7	9 28	1 45.44	+13 51.2	1.191	2.143	11.2	19.8
10 8	1 36.58	+13 34.0	1.201	2.186	5.8	20.5	10 8	1 36.93	+13 40.8	1.166	2.151	6.0	19.6
10 18	1 27.27	+12 51.3	1.206	2.201	1.6	20.2	10 18	1 27.26	+13 18.5	1.165	2.160	1.8	19.3
10 28	1 18.39	+12 4.3	1.237	2.217	5.6	20.5	10 28	1 17.92	+12 50.3	1.189	2.169	5.8	19.6
11 7	1 11.23	+11 21.5	1.292	2.233	10.5	20.9	11 7	1 10.29	+12 23.6	1.238	2.180	10.8	19.9
11 17	1 6.65	+10 49.3	1.371	2.250	14.8	21.2	11 17	1 5.33	+12 4.9	1.309	2.191	15.2	20.2
395969	2013 <i>BO</i> ₆		10 17.0 188°48		0°3/16.8 18		407998	2012 <i>DK</i> ₈₀		10 17.0 198°48		1°9/18.8 18	
9 8	1 52.35	+11 50.0	2.191	2.992	13.7	21.4	9 8	1 54.56	+15 54.5	2.404	3.180	13.4	21.4
9 18	1 48.47	+11 12.7	2.105	2.991	10.8	21.2	9 18	1 50.11	+16 5.9	2.312	3.179	10.8	21.2
9 28	1 42.64	+10 22.9	2.040	2.991	7.4	21.0	9 28	1 43.74	+16 5.8	2.243	3.178	7.7	21.0
10 8	1 35.38	+9 23.6	2.002	2.990	3.5	20.7	10 8	1 35.93	+15 55.0	2.199	3.177	4.4	20.8
10 18	1 27.40	+8 19.3	1.992	2.988	0.6	20.5	10 18	1 27.37	+15 34.9	2.183	3.175	1.9	20.6
10 28	1 19.57	+7 15.8	2.012	2.987	4.5	20.8	10 28	1 18.90	+15 8.9	2.197	3.174	3.9	20.8
11 7	1 12.72	+6 19.1	2.060	2.985	8.3	21.0	11 7	1 11.34	+14 41.3	2.239	3.172	7.2	21.0
11 17	1 7.50	+5 33.8	2.134	2.982	11.5	21.2	11 17	1 5.35	+14 16.4	2.309	3.171	10.3	21.2
22173	Myersdavis		10 17.0 337°11		5°5/20.5 18		376968	2002 <i>JJ</i> ₁₀₁		10 17.0 46°31		9°3/10.2 18	
9 8	1 55.87	+20 26.5	1.478	2.269	19.6	17.5	9 8	1 54.49	-2 15.9	0.993	1.868	21.1	19.6
9 18	1 52.65	+21 23.6	1.392	2.261	16.4	17.3	9 18	1 51.26	-4 53.5	0.977	1.904	16.4	19.4
9 28	1 46.34	+22 3.2	1.325	2.253	12.6	17.0	9 28	1 44.83	-7 29.7	0.980	1.940	11.9	19.3
10 8	1 37.50	+22 22.3	1.278	2.245	8.5	16.8	10 8	1 36.37	-9 47.4	1.005	1.977	9.4	19.3
10 18	1 27.15	+22 19.8	1.256	2.238	5.7	16.6	10 18	1 27.36	-11 32.3	1.053	2.015	10.3	19.5
10 28	1 16.79	+21 58.4	1.259	2.232	6.8	16.7	10 28	1 19.35	-12 36.3	1.124	2.052	13.4	19.8
11 7	1 7.92	+21 25.0	1.287	2.227	10.6	16.9	11 7	1 13.47	-12 59.0	1.216	2.090	16.8	20.1
11 17	1 1.68	+20 48.3	1.338	2.222	14.7	17.1	11 17	1 10.32	-12 45.3	1.325	2.128	19.8	20.4
447451	2006 <i>GV</i> ₁		10 17.0 264°06		4°1/11.5 18		44120	1998 <i>HU</i> ₃₂		10 17.0 68°88		0°6/16.7 18	
9 8	1 48.55	+1 34.5	2.420	3.247	11.8	21.2	9 8	1 58.37	+10 0.8	1.350	2.178	19.3	18.4
9 18	1 45.34	-0 9.7	2.331	3.236	9.1	21.0	9 18	1 54.09	+9 44.3	1.294	2.196	15.1	18.2
9 28	1 40.44	-2 2.2	2.268	3.224	6.4	20.8	9 28	1 46.85	+9 13.5	1.258	2.214	10.2	18.0
10 8	1 34.30	-3 56.4	2.233	3.212	4.3	20.7	10 8	1 37.49	+8 32.4	1.244	2.233	4.9	17.7
10 18	1 27.52	-5 45.0	2.229	3.200	4.7	20.7	10 18	1 27.22	+7 46.9	1.255	2.251	0.9	17.5
10 28	1 20.81	-7 20.6	2.254	3.188	7.2	20.8	10 28	1 17.49	+7 4.7	1.293	2.270	6.2	17.9
11 7	1 14.90	-8 37.8	2.307	3.176	10.1	21.0	11 7	1 9.54	+6 32.6	1.357	2.288	11.0	18.2
11 17	1 10.35	-9 33.3	2.383	3.164	12.7	21.1	11 17	1 4.20	+6 15.1	1.443	2.306	15.2	18.6
103474	2000 <i>AN</i> ₂₁₃		10 17.0 222°98		2°1/18.8 18		224792	2006 <i>SF</i> ₃₇₁		10 17.0 90°21		1°3/19.6 18	
9 8	1 54.42	+16 40.7	1.957	2.744	15.6	20.2	9 8	1 43.88	+18 48.3	4.453	5.205	8.0	20.6
9 18	1 50.46	+16 41.3	1.869	2.742	12.6	20.0	9 18	1 40.92	+18 24.1	4.356	5.207	6.4	20.5
9 28	1 44.21	+16 26.7	1.802	2.740	9.1	19.8	9 28	1 37.06	+17 51.6	4.283	5.209	4.7	20.3
10 8	1 36.22	+15 57.9	1.759	2.738	5.2	19.5	10 8	1 32.56	+17 11.8	4.238	5.211	2.8	20.2
10 18	1 27.31	+15 17.3	1.743	2.736	2.1	19.3	10 18	1 27.76	+16 26.4	4.223	5.213	1.3	20.1
10 28	1 18.52	+14 29.7	1.755	2.733	4.5	19.5	10 28	1 23.03	+15 37.7	4.238	5.215	2.2	20.2
11 7	1 10.86	+13 41.6	1.795	2.731	8.4	19.7	11 7	1 18.73	+14 48.5	4.284	5.217	4.0	20.3
11 17	1 5.12	+12 58.9	1.860	2.728	12.1	20.0	11 17	1 15.17	+14 1.5	4.359	5.220	5.9	20.4
489729	2007 <i>WS</i> ₃₂		10 17.0 0°12		6°7/22.1 16		355459	2007 <i>VU</i> ₂₃₀		10 17.0 347°65		1°5/16.1 16	
9 8	1 41.87	+23 44.5	1.063										

EPHEMERIDES

10 17.0

10 17.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
223565	2004 <i>FD</i> ₁₅	10 17.0 194°84		0°8/17.7 18			425538	2010 <i>PV</i> ₆₂	10 17.0 357°96		4°8/14.2 18		
9 8	1 58.48	+12 57.5	1.916	2.709	15.7	20.5	9 8	1 51.90	+2 36.9	1.046	1.916	20.6	20.4
9 18	1 53.66	+12 54.0	1.828	2.708	12.5	20.3	9 18	1 49.99	+1 54.2	0.985	1.913	16.2	20.2
9 28	1 46.42	+12 37.8	1.760	2.705	8.7	20.1	9 28	1 44.66	+1 1.2	0.943	1.911	11.1	19.9
10 8	1 37.33	+12 10.2	1.718	2.703	4.5	19.8	10 8	1 36.69	+0 6.3	0.920	1.909	6.2	19.6
10 18	1 27.24	+11 34.4	1.703	2.699	0.8	19.6	10 18	1 27.35	-0 40.7	0.920	1.909	5.4	19.6
10 28	1 17.29	+10 55.3	1.718	2.695	4.8	19.8	10 28	1 18.38	-1 9.7	0.943	1.910	9.8	19.8
11 7	1 8.53	+10 18.9	1.760	2.690	9.0	20.1	11 7	1 11.31	-1 14.7	0.988	1.912	14.9	20.1
11 17	1 1.81	+9 50.4	1.828	2.685	12.8	20.3	11 17	1 7.20	-0 53.9	1.051	1.915	19.5	20.4
26705	2001 <i>FL</i> ₁₄₅	10 17.0 309°22		1°6/14.4 18			24429	2000 <i>CV</i> ₂₇	10 17.0 33°58		0°2/16.9 18		
9 8	1 45.78	+2 11.8	4.167	4.976	7.6	19.0	9 8	1 50.74	+11 2.2	1.947	2.761	14.7	18.0
9 18	1 42.41	+1 53.1	4.076	4.970	5.8	18.9	9 18	1 47.38	+10 39.1	1.877	2.771	11.5	17.8
9 28	1 38.08	+1 32.1	4.010	4.964	3.9	18.8	9 28	1 41.97	+10 4.2	1.828	2.781	7.8	17.6
10 8	1 33.06	+1 10.9	3.973	4.958	2.1	18.6	10 8	1 35.10	+9 20.7	1.804	2.792	3.8	17.4
10 18	1 27.72	+0 51.4	3.966	4.953	1.8	18.6	10 18	1 27.53	+8 32.9	1.807	2.804	0.5	17.1
10 28	1 22.42	+0 35.8	3.989	4.947	3.4	18.7	10 28	1 20.21	+7 46.5	1.839	2.815	4.7	17.5
11 7	1 17.56	+0 26.0	4.042	4.941	5.3	18.8	11 7	1 14.00	+7 7.0	1.898	2.827	8.5	17.7
11 17	1 13.48	+0 23.3	4.121	4.936	7.1	19.0	11 17	1 9.54	+6 38.4	1.982	2.840	11.9	18.0
306668	2000 <i>SW</i> ₃₂₄	10 17.0 261°82		0°2/16.9 18			507369	2011 <i>YM</i> ₆₆	10 17.0 289°23		2°2/18.3 17		
9 8	1 55.08	+10 35.0	1.766	2.579	16.0	20.5	9 8	1 57.49	+14 28.4	1.314	2.133	20.2	22.0
9 18	1 51.22	+10 21.1	1.678	2.571	12.7	20.2	9 18	1 54.19	+14 47.5	1.230	2.123	16.4	21.8
9 28	1 44.89	+9 54.6	1.611	2.564	8.7	20.0	9 28	1 47.56	+14 49.6	1.163	2.112	11.8	21.5
10 8	1 36.63	+9 18.2	1.568	2.556	4.2	19.7	10 8	1 38.18	+14 34.5	1.117	2.101	6.5	21.1
10 18	1 27.34	+8 35.9	1.552	2.548	0.6	19.4	10 18	1 27.19	+14 4.5	1.096	2.091	2.2	20.9
10 28	1 18.14	+7 53.8	1.564	2.540	5.3	19.7	10 28	1 16.20	+13 25.7	1.100	2.080	6.2	21.1
11 7	1 10.15	+7 18.2	1.603	2.532	9.8	20.0	11 7	1 6.86	+12 46.7	1.129	2.070	11.7	21.4
11 17	1 4.24	+6 53.9	1.666	2.524	13.8	20.2	11 17	1 0.37	+12 15.7	1.180	2.060	16.6	21.6
121883	2000 <i>DA</i> ₂	10 17.0 220°51		0°3/16.7 18			133496	2003 <i>SC</i> ₂₇₇	10 17.0 244°90		1°8/19.3 18		
9 8	1 51.08	+10 26.9	2.574	3.372	12.0	20.3	9 8	1 49.90	+19 5.7	2.624	3.390	12.6	20.1
9 18	1 47.21	+10 3.5	2.482	3.368	9.4	20.1	9 18	1 46.37	+18 37.7	2.521	3.380	10.2	19.9
9 28	1 41.67	+9 30.9	2.414	3.364	6.4	19.9	9 28	1 41.16	+17 54.9	2.440	3.371	7.4	19.7
10 8	1 34.92	+8 51.4	2.372	3.360	3.1	19.7	10 8	1 34.70	+16 58.5	2.385	3.361	4.4	19.5
10 18	1 27.53	+8 8.4	2.359	3.355	0.5	19.5	10 18	1 27.58	+15 51.4	2.358	3.350	1.9	19.3
10 28	1 20.24	+7 26.0	2.376	3.351	4.0	19.8	10 28	1 20.53	+14 38.2	2.362	3.340	3.6	19.4
11 7	1 13.75	+6 48.6	2.422	3.346	7.2	20.0	11 7	1 14.26	+13 24.5	2.395	3.329	6.7	19.6
11 17	1 8.62	+6 19.6	2.495	3.341	10.2	20.2	11 17	1 9.37	+12 16.0	2.456	3.319	9.7	19.8
231196	2005 <i>UC</i> ₄₅₁	10 17.0 256°44		0°6/16.7 18			500152	2012 <i>DR</i> ₆₆	10 17.0 217°07		1°9/14.9 18		
9 8	1 57.28	+9 7.1	1.765	2.578	16.0	21.6	9 8	1 50.83	+5 50.6	2.467	3.281	12.0	22.2
9 18	1 53.02	+8 59.7	1.672	2.566	12.7	21.3	9 18	1 47.06	+5 7.4	2.380	3.277	9.3	22.0
9 28	1 46.18	+8 41.5	1.600	2.553	8.8	21.1	9 28	1 41.59	+4 16.7	2.317	3.273	6.3	21.8
10 8	1 37.30	+8 14.8	1.552	2.541	4.2	20.8	10 8	1 34.89	+3 22.2	2.280	3.268	3.1	21.6
10 18	1 27.27	+7 43.6	1.532	2.528	0.9	20.5	10 18	1 27.56	+2 28.2	2.273	3.264	2.2	21.5
10 28	1 17.26	+7 13.4	1.539	2.514	5.6	20.8	10 28	1 20.35	+1 39.9	2.295	3.259	5.0	21.7
11 7	1 8.46	+6 49.7	1.574	2.501	10.1	21.0	11 7	1 13.96	+1 1.5	2.345	3.254	8.2	21.9
11 17	1 1.80	+6 37.3	1.633	2.487	14.2	21.2	11 17	1 8.96	+0 35.9	2.421	3.248	11.1	22.1
476623	2008 <i>SQ</i> ₁₆₇	10 17.0 342°17		2°5/14.9 17			25895	2000 <i>XN</i> ₉	10 17.0 128°92		3°9/ 9.6 18		
9 8	1 39.15	+11 4.4	1.066	1.940	20.1	20.2	9 8	1 46.09	-12 21.0	4.655	5.466	6.8	18.6
9 18	1 40.04	+9 46.8	0.988	1.918	15.9	19.9	9 18	1 42.50	-12 53.1	4.589	5.470	5.5	18.5
9 28	1 37.97	+8 0.8	0.928	1.898	10.7	19.5	9 28	1 38.06	-13 22.1	4.550	5.474	4.4	18.5
10 8	1 33.51	+5 53.6	0.888	1.880	5.1	19.1	10 8	1 33.05	-13 45.5	4.538	5.478	3.9	18.4
10 18	1 27.67	+3 37.8	0.871	1.865	3.2	19.0	10 18	1 27.77	-14 1.2	4.555	5.482	4.2	18.5
10 28	1 21.90	+1 30.4	0.877	1.851	8.8	19.2	10 28	1 22.58	-14 7.3	4.601	5.486	5.1	18.5
11 7	1 17.67	-0 12.8	0.904	1.839	14.6	19.5	11 7	1 17.83	-14 3.0	4.673	5.490	6.3	18.6
11 17	1 16.03	-1 22.2	0.950	1.830	19.7	19.8	11 17	1 13.80	-13 48.1	4.770	5.494	7.5	18.7
267860	2003 <i>WV</i> ₂₇	10 17.0 308°86		1°4/18.4 17			482778	2013 <i>HO</i> ₂₆	10 17.0 74°09		2°5/14.9 18		
9 8	1 51.69	+14 42.2	2.199	2.990	14.0	21.3	9 8	1 57.61	+1 41.1	2.240	3.053	13.1	20.8
9 18	1 48.16	+14 44.6	2.099	2.976	11.2	21.1	9 18	1 52.24	+1 31.9	2.179	3.074	10.1	20.7
9 28	1 42.60	+14 34.8	2.020	2.963	8.0	20.8	9 28	1 45.00	+1 19.7	2.141	3.095	6.9	20.5
10 8	1 35.47	+14 13.9	1.967	2.949	4.4	20.6	10 8	1 36.47	+1 7.7	2.130	3.115	3.6	20.4
10 18	1 27.47	+13 44.1	1.941	2.936	1.4	20.4	10 18	1 27.41	+0 59.4	2.148	3.136	2.7	20.3
10 28	1 19.47	+13 9.2	1.944	2.923	4.1	20.5	10 28	1 18.69	+0 58.1	2.195	3.157	5.4	20.5
11 7	1 12.39	+12 34.5	1.975	2.910	7.9	20.8	11 7	1 11.08	+1 6.0	2.271	3.177	8.6	20.8
11 17	1 6.93	+12 4.6	2.031	2.897	11.3	20.9	11 17	1 5.15	+1 24.3	2.372	3.197	11.4	21.0
436433	2011 <i>BK</i> ₅₂	10 17.0 248°57		0°8/17.6 18			13071	1991 <i>RT</i> ₅	10 17.0 25°46		1°2/16.4 18		
9 8	1 58.29	+12 26.5	1.770	2.571	16.5	22.1	9 8	1 57.98	+6 44.1	1.204	2.048	20.2	16.7
9 18	1 53.91	+12 26.8	1.672	2.557	13.2	21.8	9 18	1 54.31	+6 54.9	1.143	2.054	15.9	16.4
9 28	1 46.86	+12 13.9	1.595	2.542	9.3	21.6	9 28	1 47.35	+6 55.7	1.101	2.062	10.8	16.2
10 8	1 37.67	+11 49.1	1.542	2.527	4.8	21.3	10 8	1 37.90	+6 49.7	1.080	2.070	5.2	15.9
10 18	1 27.23	+11 15.3	1.516	2.512	0.8	20.9	10 18	1 27.25	+6 41.5	1.084	2.079	1.5	15.7
10 28	1 16.76	+10 37.9	1.518	2.495	5.2	21.2	10 28	1 17.04	+6 36.9	1.112	2.089	6.9	16.0
11 7	1 7.49	+10 3.1	1.547	2.479	9.9	21.5	11 7	1 8.72	+6 41.2	1.165	2.100	12.1	16.4
11 17	1 0.41	+9 36.8	1.601	2.462	14.1	21.7	11 17	1 3.27	+6 57.9	1.239	2.111	16.6	16.7
109119	2001 <i>QB</i> ₄₃	10 17.0 80°01		3°6/20.3 18			245979	2006 <i>SX</i> ₁₃₄	10 17.0 101°44		5°9/23.9 18		
9 8	1 56.68	+20 42.0	1.947	2.713	16.4	20.2	9 8	1 56.05	+30 24.7	2.172	2.879	16.5	

EPHEMERIDES

10 17.0

10 17.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
74752	1999 <i>RN</i> ₁₉₇		10 17.0	11°78'	9°1/22.9	18	465490	2008 <i>TE</i> ₉₇		10 17.1	84°71'	0°5/18.1	16
9 8	1 57.13	+26 54.3	1.384	2.151	21.8	18.7	9 8	1 43.87	+14 59.2	4.357	5.128	7.9	21.5
9 18	1 53.99	+28 27.8	1.312	2.153	18.8	18.5	9 18	1 40.93	+14 27.7	4.265	5.133	6.2	21.4
9 28	1 47.44	+29 39.0	1.257	2.157	15.4	18.3	9 28	1 37.08	+13 48.9	4.198	5.137	4.3	21.3
10 8	1 38.12	+30 21.9	1.221	2.162	11.9	18.1	10 8	1 32.62	+13 4.2	4.160	5.142	2.3	21.1
10 18	1 27.22	+30 32.8	1.208	2.168	9.5	18.0	10 18	1 27.85	+12 15.8	4.151	5.146	0.5	21.0
10 28	1 16.43	+30 13.2	1.218	2.175	9.5	18.0	10 28	1 23.16	+11 26.0	4.173	5.151	2.2	21.1
11 7	1 7.42	+29 30.9	1.252	2.183	11.8	18.2	11 7	1 18.91	+10 37.8	4.226	5.155	4.2	21.3
11 17	1 1.38	+28 36.5	1.308	2.191	15.1	18.4	11 17	1 15.40	+9 53.5	4.308	5.160	6.1	21.4
409796	2006 <i>GV</i> ₃₄		10 17.1	236°72'	2°4/14.6	17	29287	1993 <i>FD</i> ₄₉		10 17.1	143°90'	0°5/17.4	18 R
9 8	1 56.24	+0 49.0	2.860	3.664	10.8	21.7	9 8	1 57.83	+12 49.4	1.881	2.677	15.8	20.0
9 18	1 51.04	+0 37.3	2.761	3.651	8.4	21.5	9 18	1 53.05	+12 32.1	1.804	2.687	12.5	19.8
9 28	1 44.21	+0 23.3	2.687	3.638	5.8	21.3	9 28	1 45.92	+12 1.2	1.748	2.696	8.6	19.6
10 8	1 36.16	+0 9.8	2.640	3.624	3.2	21.1	10 8	1 37.07	+11 19.0	1.718	2.704	4.3	19.3
10 18	1 27.45	-0 0.4	2.624	3.610	2.7	21.1	10 18	1 27.39	+10 29.8	1.716	2.712	0.5	19.0
10 28	1 18.80	-0 4.2	2.639	3.596	5.0	21.2	10 28	1 17.97	+9 39.3	1.742	2.719	4.8	19.4
11 7	1 10.88	+0 0.7	2.683	3.581	7.8	21.4	11 7	1 9.83	+8 53.8	1.797	2.726	8.9	19.7
11 17	1 4.26	+0 15.5	2.754	3.566	10.3	21.5	11 17	1 3.71	+8 18.5	1.876	2.732	12.6	19.9
11997	Fassel		10 17.1	31°58'	4°8/21.9	18	430700	2004 <i>BW</i> ₁₃₅		10 17.1	164°97'	0°9/16.3	16
9 8	1 52.59	+25 3.4	2.093	2.841	15.9	18.7	9 8	1 57.61	+9 20.6	1.810	2.619	15.8	22.4
9 18	1 49.02	+25 20.6	2.008	2.844	13.4	18.6	9 18	1 52.99	+8 54.3	1.731	2.624	12.4	22.2
9 28	1 43.23	+25 18.9	1.941	2.847	10.4	18.4	9 28	1 45.95	+8 16.3	1.674	2.627	8.4	22.0
10 8	1 35.79	+24 57.4	1.897	2.851	7.4	18.2	10 8	1 37.11	+7 29.9	1.642	2.631	4.0	21.7
10 18	1 27.49	+24 17.0	1.879	2.854	5.1	18.1	10 18	1 27.38	+6 40.2	1.638	2.633	1.2	21.5
10 28	1 19.34	+23 21.6	1.889	2.858	5.4	18.1	10 28	1 17.89	+5 53.3	1.662	2.635	5.5	21.9
11 7	1 12.29	+22 17.6	1.927	2.862	8.0	18.3	11 7	1 9.67	+5 15.4	1.714	2.637	9.7	22.1
11 17	1 7.09	+21 12.3	1.990	2.867	11.0	18.5	11 17	1 3.52	+4 50.6	1.790	2.638	13.4	22.3
314294	2005 <i>SE</i> ₈₂		10 17.1	6°95'	0°5/17.5	17	444353	2005 <i>WH</i> ₁₆₉		10 17.1	357°52'	7°3/11.8	18
9 8	1 51.86	+12 40.6	1.852	2.662	15.5	21.8	9 8	1 52.57	-7 11.5	1.574	2.425	15.9	20.1
9 18	1 48.51	+12 27.6	1.772	2.663	12.3	21.6	9 18	1 49.33	-7 58.8	1.510	2.421	12.8	19.9
9 28	1 42.91	+12 1.3	1.713	2.663	8.5	21.4	9 28	1 43.58	-8 43.8	1.467	2.419	9.6	19.7
10 8	1 35.65	+11 23.8	1.678	2.664	4.3	21.1	10 8	1 35.99	-9 18.9	1.448	2.417	7.5	19.6
10 18	1 27.52	+10 39.1	1.670	2.666	0.6	20.8	10 18	1 27.50	-9 36.9	1.453	2.416	7.8	19.6
10 28	1 19.57	+9 53.0	1.689	2.668	4.7	21.2	10 28	1 19.30	-9 32.5	1.483	2.416	10.3	19.7
11 7	1 12.77	+9 11.5	1.736	2.670	8.9	21.4	11 7	1 12.47	-9 4.1	1.537	2.417	13.5	19.9
11 17	1 7.86	+8 39.6	1.807	2.672	12.5	21.7	11 17	1 7.77	-8 12.9	1.611	2.419	16.6	20.1
254800	2005 <i>QS</i> ₉₃		10 17.1	44°16'	0°8/16.4	18	345441	2006 <i>DN</i> ₁₇₆		10 17.1	20°41'	1°6/15.9	18
9 8	1 53.67	+8 45.0	1.896	2.712	15.0	20.6	9 8	1 53.27	+7 52.3	1.475	2.311	17.5	20.4
9 18	1 49.77	+8 29.8	1.822	2.718	11.7	20.4	9 18	1 50.08	+7 24.9	1.406	2.314	13.7	20.2
9 28	1 43.67	+8 4.6	1.769	2.724	7.9	20.2	9 28	1 44.20	+6 45.3	1.357	2.317	9.3	19.9
10 8	1 35.97	+7 32.6	1.741	2.730	3.8	19.9	10 8	1 36.33	+5 58.1	1.332	2.322	4.4	19.6
10 18	1 27.50	+6 58.0	1.741	2.737	1.0	19.7	10 18	1 27.47	+5 9.3	1.332	2.326	2.0	19.5
10 28	1 19.25	+6 25.9	1.769	2.743	5.1	20.1	10 28	1 18.89	+4 26.4	1.358	2.331	6.4	19.8
11 7	1 12.16	+6 1.3	1.824	2.750	9.0	20.3	11 7	1 11.78	+3 56.0	1.410	2.337	11.1	20.1
11 17	1 6.95	+5 47.7	1.904	2.757	12.5	20.5	11 17	1 6.97	+3 41.9	1.484	2.343	15.1	20.3
365714	2010 <i>VG</i> ₁₇₁		10 17.1	71°53'	3°7/21.3	18	406319	2007 <i>LP</i> ₅		10 17.1	167°04'	4°0/12.3	18
9 8	1 51.05	+24 5.8	2.204	2.956	15.1	20.7	9 8	1 51.51	-3 3.7	2.727	3.548	10.8	21.5
9 18	1 47.60	+23 53.7	2.118	2.961	12.6	20.5	9 18	1 47.33	-3 53.9	2.653	3.551	8.4	21.4
9 28	1 42.14	+23 22.3	2.053	2.966	9.6	20.4	9 28	1 41.65	-4 45.3	2.604	3.554	6.0	21.2
10 8	1 35.22	+22 32.1	2.010	2.972	6.4	20.2	10 8	1 34.89	-5 33.6	2.582	3.556	4.2	21.1
10 18	1 27.57	+21 25.4	1.995	2.977	3.9	20.0	10 18	1 27.63	-6 14.4	2.589	3.558	4.4	21.1
10 28	1 20.11	+20 7.3	2.009	2.983	4.6	20.1	10 28	1 20.52	-6 43.7	2.626	3.560	6.3	21.2
11 7	1 13.70	+18 44.8	2.051	2.989	7.4	20.3	11 7	1 14.19	-6 58.9	2.689	3.561	8.7	21.4
11 17	1 8.98	+17 25.2	2.119	2.994	10.5	20.5	11 17	1 9.15	-6 59.2	2.778	3.562	11.0	21.6
473233	2015 <i>KG</i> ₁₆₁		10 17.1	123°68'	0°2/17.2	18	262964	2007 <i>DH</i> ₉₆		10 17.1	199°67'	2°0/14.7	18
9 8	1 54.49	+12 50.8	1.743	2.552	16.4	21.6	9 8	1 50.47	+5 52.0	2.498	3.312	11.9	21.1
9 18	1 50.65	+12 22.6	1.667	2.557	13.0	21.4	9 18	1 46.76	+4 59.6	2.413	3.310	9.2	20.9
9 28	1 44.40	+11 39.2	1.611	2.562	8.9	21.2	9 28	1 41.38	+3 59.4	2.352	3.308	6.2	20.7
10 8	1 36.37	+10 43.5	1.580	2.567	4.4	20.9	10 8	1 34.81	+2 55.3	2.317	3.305	3.1	20.5
10 18	1 27.45	+9 40.7	1.575	2.571	0.4	20.6	10 18	1 27.64	+1 52.2	2.312	3.302	2.3	20.5
10 28	1 18.78	+8 37.7	1.599	2.576	5.1	21.0	10 28	1 20.59	+0 55.2	2.337	3.299	5.1	20.7
11 7	1 11.41	+7 41.9	1.650	2.580	9.5	21.3	11 7	1 14.36	+0 8.9	2.390	3.296	8.2	20.9
11 17	1 6.09	+6 58.7	1.725	2.584	13.3	21.5	11 17	1 9.50	-0 23.7	2.468	3.292	11.0	21.0
9759	1991 <i>NE</i> ₇		10 17.1	0°91'	2°4/19.5	18	45574	2000 <i>CE</i> ₇₃		10 17.1	27°75'	9°0/23.9	18
9 8	1 50.51	+18 34.8	2.104	2.885	14.8	17.5	9 8	1 56.12	+28 20.4	1.324	2.091	22.7	17.4
9 18	1 47.26	+18 29.7	2.017	2.885	12.0	17.4	9 18	1 53.07	+29 40.4	1.268	2.107	19.5	17.2
9 28	1 41.98	+18 8.8	1.950	2.884	8.8	17.1	9 28	1 46.64	+30 33.4	1.227	2.125	15.8	17.0
10 8	1 35.17	+17 33.1	1.909	2.884	5.2	16.9	10 8	1 37.63	+30 54.3	1.206	2.144	12.2	16.9
10 18	1 27.58	+16 45.0	1.894	2.885	2.5	16.8	10 18	1 27.34	+30 41.5	1.205	2.165	9.5	16.8
10 28	1 20.12	+15 49.5	1.907	2.885	4.2	16.9	10 28	1 17.46	+29 59.0	1.229	2.186	9.3	16.9
11 7	1 13.67	+14 52.7	1.948	2.886	7.7	17.1	11 7	1 9.52	+28 56.5	1.275	2.208	11.4	17.1
11 17	1 8.92	+14 0.6	2.015	2.887	11.1	17.3	11 17	1 4.53	+27 45.7	1.344	2.232	14.5	17.3
193392	2000 <i>VA</i> ₅₄		10 17.1	317°38'	6°8/22.6	18	291111	2005 <i>YV</i> ₁₇₄		10 17.1	319°79'	8°1/10.0	18

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
59343	1999 CA ₁₂₃	10 17.1 250°31		4.8/13.4 18			148730	2001 TJ ₈₇	10 17.1 95°95		3°0/19.4 18		
9 8	1 58.62	- 1 54.3	1.885	2.710	14.7	20.1	9 8	1 58.66	+18 8.7	1.671	2.456	17.9	20.1
9 18	1 53.86	- 2 32.6	1.794	2.694	11.7	19.8	9 18	1 54.09	+18 22.6	1.600	2.470	14.6	19.9
9 28	1 46.65	- 3 14.0	1.725	2.678	8.3	19.6	9 28	1 46.84	+18 18.9	1.549	2.483	10.6	19.7
10 8	1 37.54	- 3 52.9	1.682	2.661	5.4	19.4	10 8	1 37.60	+17 57.7	1.520	2.496	6.3	19.5
10 18	1 27.37	- 4 23.1	1.666	2.644	5.2	19.4	10 18	1 27.41	+17 21.4	1.518	2.509	3.1	19.3
10 28	1 17.24	- 4 38.9	1.678	2.626	8.2	19.5	10 28	1 17.54	+16 35.4	1.544	2.522	5.1	19.5
11 7	1 8.27	- 4 36.5	1.717	2.608	11.8	19.7	11 7	1 9.17	+15 47.1	1.597	2.534	9.2	19.7
11 17	1 1.29	- 4 14.9	1.779	2.589	15.2	19.9	11 17	1 3.11	+15 3.4	1.674	2.546	12.9	20.0
258443	2001 XX ₂₄₁	10 17.1 195°80		2°0/18.6 17			154236	2002 JM ₁₂₂	10 17.1 108°17		5°8/ 9.9 18		
9 8	1 56.75	+16 54.7	1.530	2.331	18.7	21.2	9 8	1 50.58	- 6 49.3	2.402	3.233	11.7	20.2
9 18	1 52.98	+16 41.6	1.448	2.330	15.1	21.0	9 18	1 46.79	- 8 15.0	2.345	3.244	9.3	20.0
9 28	1 46.33	+16 8.2	1.385	2.328	10.8	20.7	9 28	1 41.37	- 9 40.1	2.313	3.255	7.1	19.9
10 8	1 37.45	+15 15.8	1.345	2.326	6.0	20.4	10 8	1 34.79	-10 57.9	2.308	3.266	5.9	19.9
10 18	1 27.38	+14 8.5	1.330	2.324	2.0	20.2	10 18	1 27.71	-12 2.5	2.330	3.277	6.4	19.9
10 28	1 17.50	+12 53.9	1.342	2.322	5.4	20.4	10 28	1 20.85	-12 49.0	2.381	3.288	8.3	20.0
11 7	1 9.12	+11 41.7	1.381	2.319	10.3	20.7	11 7	1 14.90	-13 15.0	2.457	3.298	10.6	20.2
11 17	1 3.19	+10 40.3	1.444	2.316	14.6	20.9	11 17	1 10.37	-13 20.2	2.555	3.308	12.7	20.4
13677	Alvin	10 17.1		4.14 0°7/17.8 18			360287	2000 WL ₁₈₄	10 17.1 330°17		7°8/11.9 18		
9 8	1 50.54	+13 45.1	2.087	2.888	14.3	18.4	9 8	1 49.90	- 3 59.4	1.213	2.083	18.4	20.3
9 18	1 47.23	+13 28.1	2.003	2.888	11.4	18.2	9 18	1 48.31	- 4 57.0	1.132	2.057	14.8	20.0
9 28	1 41.93	+12 58.0	1.941	2.888	7.9	18.0	9 28	1 43.60	- 5 58.9	1.071	2.032	11.0	19.7
10 8	1 35.15	+12 16.9	1.903	2.888	4.1	17.8	10 8	1 36.33	- 6 55.1	1.030	2.008	8.1	19.4
10 18	1 27.63	+11 28.4	1.893	2.889	0.7	17.5	10 18	1 27.53	- 7 35.0	1.012	1.986	8.5	19.4
10 28	1 20.25	+10 37.8	1.912	2.890	4.2	17.8	10 28	1 18.71	- 7 48.6	1.017	1.965	12.1	19.5
11 7	1 13.87	+ 9 50.7	1.958	2.892	8.0	18.0	11 7	1 11.40	- 7 30.9	1.042	1.945	16.5	19.7
11 17	1 9.16	+ 9 12.2	2.030	2.893	11.4	18.2	11 17	1 6.76	- 6 41.8	1.086	1.927	20.7	19.9
154425	2003 BQ ₄₄	10 17.1 332°91		0°4/17.3 18			132516	2002 JV ₄₈	10 17.1 21°02		2°7/18.9 18		
9 8	1 50.71	+11 8.9	1.192	2.039	20.1	19.7	9 8	1 49.69	+17 29.7	1.020	1.863	23.1	18.6
9 18	1 49.07	+11 14.7	1.109	2.022	16.2	19.4	9 18	1 48.38	+17 25.3	0.965	1.871	18.6	18.3
9 28	1 44.20	+11 4.4	1.045	2.005	11.3	19.1	9 28	1 43.61	+16 53.7	0.926	1.880	13.4	18.1
10 8	1 36.63	+10 39.9	1.001	1.990	5.7	18.8	10 8	1 36.22	+15 57.1	0.907	1.891	7.5	17.8
10 18	1 27.46	+10 5.4	0.979	1.976	0.6	18.3	10 18	1 27.56	+14 42.0	0.909	1.903	2.7	17.6
10 28	1 18.27	+ 9 28.5	0.982	1.963	6.6	18.7	10 28	1 19.39	+13 19.5	0.934	1.916	6.3	17.9
11 7	1 10.69	+ 8 58.0	1.007	1.951	12.4	19.0	11 7	1 13.23	+12 2.7	0.981	1.931	11.9	18.2
11 17	1 5.91	+ 8 41.0	1.053	1.940	17.6	19.3	11 17	1 10.03	+11 1.7	1.050	1.946	16.8	18.5
174945	2004 CX ₈₂	10 17.1 22°97		1°3/18.1 18			367355	2008 FU ₁₁	10 17.1 56°19		3°5/19.4 18		
9 8	1 54.13	+14 8.9	1.842	2.643	15.9	20.4	9 8	1 59.22	+17 22.6	1.338	2.144	20.6	20.4
9 18	1 50.35	+14 7.8	1.761	2.645	12.7	20.2	9 18	1 55.15	+17 53.9	1.275	2.157	16.7	20.2
9 28	1 44.21	+13 52.7	1.700	2.646	9.0	20.0	9 28	1 47.89	+18 6.0	1.230	2.170	12.2	20.0
10 8	1 36.32	+13 25.2	1.664	2.648	4.8	19.7	10 8	1 38.21	+17 58.4	1.206	2.184	7.3	19.7
10 18	1 27.52	+12 48.4	1.654	2.650	1.3	19.5	10 18	1 27.36	+17 32.9	1.207	2.198	3.6	19.6
10 28	1 18.89	+12 7.5	1.673	2.652	4.6	19.7	10 28	1 16.92	+16 55.5	1.234	2.212	5.9	19.7
11 7	1 11.45	+11 28.6	1.718	2.654	8.8	20.0	11 7	1 8.33	+16 14.5	1.285	2.227	10.5	20.1
11 17	1 5.99	+10 57.1	1.789	2.656	12.5	20.2	11 17	1 2.53	+15 38.2	1.360	2.241	14.8	20.3
515666	2014 OY ₂₈₅	10 17.1 42°18		6°3/11.2 18			206364	2003 QS ₆₁	10 17.1 12°28		6°6/12.1 18		
9 8	1 52.42	- 7 12.1	2.014	2.851	13.5	21.0	9 8	1 48.37	- 0 51.7	1.223	2.093	18.3	19.1
9 18	1 48.54	- 8 10.9	1.957	2.859	10.7	20.8	9 18	1 46.61	- 2 13.4	1.171	2.097	14.3	18.9
9 28	1 42.70	- 9 7.7	1.922	2.868	8.1	20.7	9 28	1 42.00	- 3 41.1	1.138	2.102	10.1	18.6
10 8	1 35.46	- 9 56.2	1.912	2.876	6.4	20.6	10 8	1 35.31	- 5 4.4	1.127	2.108	7.0	18.5
10 18	1 27.62	-10 30.3	1.929	2.885	6.8	20.6	10 18	1 27.66	- 6 12.4	1.140	2.116	7.4	18.5
10 28	1 20.07	-10 45.5	1.973	2.895	8.9	20.8	10 28	1 20.41	- 6 55.8	1.177	2.125	10.7	18.8
11 7	1 13.62	-10 40.0	2.042	2.904	11.5	21.0	11 7	1 14.76	- 7 10.2	1.235	2.135	14.7	19.0
11 17	1 8.88	-10 14.3	2.133	2.914	14.0	21.2	11 17	1 11.51	- 6 55.6	1.313	2.146	18.2	19.3
415633	2014 QJ ₃₇₈	10 17.1 20°35		1°5/15.3 18			474194	2000 AA ₁₃₁	10 17.1 264°13		5°1/11.7 18		
9 8	1 48.62	+ 8 37.5	2.205	3.022	13.1	20.5	9 8	1 54.44	- 3 11.1	2.253	3.078	12.6	21.9
9 18	1 45.54	+ 7 40.5	2.126	3.024	10.2	20.3	9 18	1 50.26	- 4 17.0	2.152	3.052	10.0	21.6
9 28	1 40.67	+ 6 32.6	2.069	3.026	6.8	20.1	9 28	1 44.05	- 5 27.0	2.075	3.025	7.3	21.4
10 8	1 34.51	+ 5 18.3	2.039	3.028	3.2	19.9	10 8	1 36.26	- 6 35.1	2.024	2.997	5.3	21.3
10 18	1 27.72	+ 4 3.0	2.038	3.031	1.9	19.8	10 18	1 27.56	- 7 34.9	2.002	2.968	5.7	21.2
10 28	1 21.09	+ 2 53.1	2.065	3.033	5.1	20.0	10 28	1 18.81	- 8 19.9	2.008	2.939	8.2	21.3
11 7	1 15.39	+ 1 54.3	2.121	3.036	8.6	20.2	11 7	1 10.92	- 8 45.9	2.041	2.910	11.2	21.5
11 17	1 11.18	+ 1 10.2	2.201	3.039	11.6	20.4	11 17	1 4.61	- 8 51.0	2.097	2.879	14.1	21.6
30023	2000 DN ₁₆	10 17.1 163°83		1°1/16.1 18			508558	2016 UO ₈₇	10 17.1 130°05		0°2/17.2 18 R		
9 8	1 55.88	+ 9 30.4	1.890	2.700	15.2	20.1	9 8	1 58.30	+10 59.3	2.007	2.804	14.9	21.4
9 18	1 51.53	+ 8 51.4	1.812	2.705	12.0	19.9	9 18	1 53.26	+10 54.5	1.931	2.815	11.8	21.2
9 28	1 44.91	+ 8 0.2	1.755	2.709	8.1	19.7	9 28	1 46.00	+10 39.1	1.877	2.825	8.1	21.0
10 8	1 36.62	+ 7 0.6	1.723	2.712	3.8	19.4	10 8	1 37.13	+10 15.1	1.849	2.835	4.0	20.8
10 18	1 27.51	+ 5 58.2	1.720	2.715	1.4	19.2	10 18	1 27.49	+ 9 45.9	1.849	2.845	0.4	20.5
10 28	1 18.62	+ 4 59.6	1.746	2.717	5.4	19.5	10 28	1 18.10	+ 9 16.0	1.878	2.854	4.6	20.8
11 7	1 10.93	+ 4 10.9	1.799	2.719	9.5	19.8	11 7	1 9.91	+ 8 50.3	1.936	2.863	8.5	21.1
11 17	1 5.18	+ 3 36.7	1.877	2.721	13.1	20.0	11 17	1 3.62	+ 8 32.8	2.019	2.871	11.9	21.3
33752	1999 RM ₃₆	10 17.1 18°70		8°4/ 8.9 18			454474	2014 OG ₉₄	10 17.1 55°89		2°0/19.2 17		
9 8	1 45.07	- 0 58.2	1.199	2.076	18.1	16.8	9 8	1 51.10	+18 21.0	2.107	2.888	14.8	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
123697	2000 YV ₁₀₃	10 17.1 326°12		8°5/ 8.7 18			406252	2007 DW ₃₈	10 17.1 170°68		0°9/16.0 18		
9 8	1 48.14	- 8 13.8	1.661	2.517	15.0	18.3	9 8	1 52.04	+ 8 9.3	2.779	3.578	11.2	22.1
9 18	1 45.98	- 9 47.9	1.581	2.493	12.2	18.1	9 18	1 47.80	+ 7 39.8	2.693	3.581	8.7	21.9
9 28	1 41.46	-11 23.4	1.524	2.470	9.7	17.9	9 28	1 42.02	+ 7 3.0	2.632	3.583	5.9	21.7
10 8	1 35.09	-12 50.5	1.490	2.448	8.5	17.8	10 8	1 35.15	+ 6 21.5	2.597	3.586	2.8	21.5
10 18	1 27.69	-13 59.3	1.480	2.426	9.5	17.8	10 18	1 27.75	+ 5 38.6	2.593	3.587	1.1	21.4
10 28	1 20.34	-14 41.4	1.495	2.405	12.1	17.9	10 28	1 20.46	+ 4 58.5	2.619	3.589	4.0	21.6
11 7	1 14.12	-14 52.6	1.532	2.385	15.2	18.1	11 7	1 13.94	+ 4 24.7	2.674	3.590	7.0	21.8
11 17	1 9.86	-14 32.8	1.588	2.366	18.1	18.2	11 17	1 8.70	+ 4 0.1	2.756	3.590	9.7	22.0
48423	1988 WA	10 17.1 38°93		7°9/13.6 18			471554	2012 NG ₁	10 17.1 57°45		4°2/20.3 18		
9 8	2 3.07	- 7 31.9	1.151	2.003	20.4	16.5	9 8	1 56.57	+20 27.8	1.538	2.324	19.2	20.9
9 18	1 58.11	- 7 52.9	1.107	2.018	16.3	16.3	9 18	1 52.86	+20 50.0	1.463	2.331	15.8	20.7
9 28	1 49.74	- 8 8.1	1.080	2.034	12.0	16.1	9 28	1 46.26	+20 51.9	1.408	2.338	11.8	20.5
10 8	1 39.00	- 8 9.2	1.076	2.050	8.6	16.0	10 8	1 37.46	+20 32.5	1.374	2.344	7.6	20.3
10 18	1 27.33	- 7 49.6	1.095	2.067	8.3	16.1	10 18	1 27.54	+19 53.5	1.365	2.352	4.4	20.1
10 28	1 16.44	- 7 6.0	1.138	2.085	11.3	16.3	10 28	1 17.86	+19 0.6	1.382	2.359	5.8	20.2
11 7	1 7.75	- 5 59.6	1.205	2.103	15.1	16.6	11 7	1 9.73	+18 2.0	1.425	2.366	9.7	20.5
11 17	1 2.07	- 4 34.4	1.291	2.122	18.6	16.8	11 17	1 4.07	+17 6.7	1.493	2.374	13.7	20.7
486654	2013 QW ₈	10 17.1 152°00		4°4/22.6 17			124779	2001 SH ₂₅₀	10 17.1 191°36		1°7/15.8 18		
9 8	1 54.34	+26 46.7	3.041	3.747	12.2	21.8	9 8	1 58.43	+ 6 9.8	1.947	2.758	14.8	20.3
9 18	1 49.70	+27 14.7	2.947	3.752	10.4	21.7	9 18	1 53.54	+ 5 50.9	1.864	2.757	11.6	20.1
9 28	1 43.39	+27 29.2	2.873	3.756	8.3	21.5	9 28	1 46.34	+ 5 23.8	1.802	2.756	7.9	19.8
10 8	1 35.84	+27 29.0	2.824	3.761	6.1	21.4	10 8	1 37.39	+ 4 52.1	1.766	2.754	3.8	19.6
10 18	1 27.65	+27 14.3	2.803	3.765	4.6	21.3	10 18	1 27.55	+ 4 20.0	1.758	2.751	1.9	19.5
10 28	1 19.52	+26 46.9	2.811	3.769	4.7	21.3	10 28	1 17.87	+ 3 52.8	1.779	2.748	5.7	19.7
11 7	1 12.16	+26 10.5	2.849	3.772	6.3	21.4	11 7	1 9.37	+ 3 34.9	1.828	2.745	9.6	19.9
11 17	1 6.15	+25 29.4	2.914	3.776	8.4	21.6	11 17	1 2.80	+ 3 29.6	1.902	2.741	13.1	20.2
298715	2004 FT ₃₅	10 17.1 288°96		1°1/16.2 18			184952	2005 WG ₉₁	10 17.1 293°73		0°6/17.8 18		
9 8	1 54.06	+ 8 2.4	1.905	2.722	14.9	20.7	9 8	1 48.58	+13 17.7	3.043	3.827	10.6	20.8
9 18	1 50.38	+ 7 46.0	1.806	2.703	11.8	20.5	9 18	1 45.17	+13 3.7	2.932	3.808	8.5	20.6
9 28	1 44.36	+ 7 19.5	1.729	2.684	8.1	20.2	9 28	1 40.31	+12 40.6	2.846	3.789	5.9	20.4
10 8	1 36.50	+ 6 45.8	1.676	2.665	3.9	19.9	10 8	1 34.38	+12 9.8	2.786	3.770	3.1	20.2
10 18	1 27.57	+ 6 9.2	1.651	2.646	1.4	19.7	10 18	1 27.86	+11 33.6	2.755	3.750	0.6	20.0
10 28	1 18.62	+ 5 35.0	1.653	2.627	5.5	19.9	10 28	1 21.33	+10 55.1	2.754	3.731	3.2	20.2
11 7	1 10.70	+ 5 8.7	1.683	2.607	9.8	20.2	11 7	1 15.40	+10 18.2	2.782	3.712	6.1	20.3
11 17	1 4.66	+ 4 54.7	1.737	2.588	13.6	20.3	11 17	1 10.58	+ 9 46.1	2.838	3.693	8.8	20.5
15142	2000 EF ₁₀₈	10 17.1 105°14		4°1/12.9 18			80446	1999 YW ₁₃	10 17.1 257°58		4°2/13.8 18		
9 8	1 52.68	+ 0 54.5	2.021	2.851	13.7	17.7	9 8	1 55.17	+ 2 9.4	1.628	2.464	16.1	19.7
9 18	1 48.76	+ 0 13.4	1.957	2.862	10.6	17.5	9 18	1 51.51	+ 1 14.4	1.545	2.454	12.7	19.4
9 28	1 42.87	+ 0 26.5	1.916	2.873	7.3	17.3	9 28	1 45.24	+ 0 10.8	1.484	2.443	8.7	19.2
10 8	1 35.59	- 2 38.6	1.902	2.883	4.6	17.2	10 8	1 36.96	- 0 54.9	1.447	2.432	5.1	19.0
10 18	1 27.69	- 3 43.2	1.915	2.894	4.6	17.2	10 18	1 27.60	- 1 55.1	1.436	2.421	4.7	18.9
10 28	1 20.06	- 4 34.0	1.957	2.904	7.2	17.4	10 28	1 18.35	- 2 41.7	1.453	2.409	8.2	19.1
11 7	1 13.53	- 5 7.2	2.026	2.915	10.3	17.6	11 7	1 10.38	- 3 8.9	1.494	2.398	12.4	19.3
11 17	1 8.69	- 5 20.9	2.117	2.924	13.2	17.8	11 17	1 4.59	- 3 14.1	1.558	2.386	16.1	19.5
223180	2003 AQ ₁₅	10 17.1 248°58		0°1/17.0 18			298270	2002 XW ₂	10 17.1 357°60		7°8/11.3 18		
9 8	1 56.38	+11 7.7	1.768	2.577	16.2	21.4	9 8	1 49.62	- 5 11.9	1.343	2.208	17.3	19.4
9 18	1 52.37	+10 53.0	1.675	2.566	12.9	21.1	9 18	1 47.48	- 6 22.5	1.283	2.204	13.8	19.1
9 28	1 45.80	+10 25.2	1.603	2.554	8.9	20.9	9 28	1 42.59	- 7 34.1	1.243	2.200	10.3	18.9
10 8	1 37.22	+ 9 46.4	1.555	2.542	4.4	20.6	10 8	1 35.67	- 8 36.8	1.225	2.198	7.9	18.8
10 18	1 27.51	+ 9 0.7	1.533	2.530	0.5	20.2	10 18	1 27.74	- 9 21.3	1.231	2.198	8.5	18.8
10 28	1 17.84	+ 8 14.4	1.541	2.517	5.4	20.6	10 28	1 20.10	- 9 39.8	1.261	2.198	11.4	19.0
11 7	1 9.37	+ 7 34.0	1.575	2.504	9.9	20.8	11 7	1 13.95	- 9 29.5	1.313	2.200	14.9	19.2
11 17	1 3.00	+ 7 5.0	1.633	2.491	14.0	21.0	11 17	1 10.12	- 8 51.4	1.384	2.203	18.3	19.5
390361	2013 CO ₂₁₂	10 17.1 345°45		0°2/17.4 16			223556	2004 ES ₈₆	10 17.1 143°63		2°0/15.4 18		
9 8	1 46.97	+10 54.6	3.960	4.745	8.4	20.8	9 8	1 57.45	+ 6 31.7	1.858	2.673	15.3	21.4
9 18	1 43.45	+10 50.5	3.865	4.743	6.6	20.7	9 18	1 52.73	+ 5 51.9	1.786	2.683	11.9	21.2
9 28	1 38.89	+10 40.9	3.796	4.741	4.5	20.6	9 28	1 45.72	+ 5 2.6	1.736	2.692	8.0	21.0
10 8	1 33.58	+10 27.0	3.754	4.739	2.2	20.4	10 8	1 37.05	+ 4 8.2	1.712	2.700	3.9	20.8
10 18	1 27.90	+10 10.4	3.741	4.738	0.2	20.2	10 18	1 27.60	+ 3 14.5	1.716	2.708	2.4	20.7
10 28	1 22.27	+ 9 53.3	3.760	4.736	2.5	20.4	10 28	1 18.44	+ 2 27.7	1.748	2.715	6.0	21.0
11 7	1 17.11	+ 9 37.7	3.809	4.735	4.8	20.6	11 7	1 10.54	+ 1 53.3	1.808	2.722	9.9	21.2
11 17	1 12.79	+ 9 25.8	3.885	4.733	6.8	20.7	11 17	1 4.62	+ 1 34.3	1.892	2.728	13.3	21.4
273601	2007 CO ₆₁	10 17.1 236°72		0°1/17.2 18			287357	2002 UR ₁₈	10 17.1 8°29		3°0/15.2 18		
9 8	1 57.81	+11 2.1	1.854	2.657	15.8	21.5	9 8	1 46.05	+ 6 44.2	0.911	1.794	21.9	19.6
9 18	1 53.37	+10 55.2	1.760	2.647	12.6	21.3	9 18	1 45.72	+ 6 7.4	0.861	1.795	17.1	19.4
9 28	1 46.42	+10 36.3	1.686	2.636	8.7	21.0	9 28	1 41.93	+ 5 14.3	0.827	1.798	11.5	19.1
10 8	1 37.51	+10 7.4	1.638	2.624	4.3	20.7	10 8	1 35.49	+ 4 12.8	0.812	1.804	5.7	18.8
10 18	1 27.49	+ 9 31.9	1.616	2.613	0.4	20.4	10 18	1 27.77	+ 3 13.3	0.818	1.811	3.5	18.7
10 28	1 17.51	+ 8 55.2	1.624	2.600	5.1	20.8	10 28	1 20.50	+ 2 27.3	0.846	1.821	8.8	19.0
11 7	1 8.69	+ 8 23.0	1.659	2.588	9.6	21.0	11 7	1 15.21	+ 2 3.0	0.894	1.832	14.3	19.4
11 17	1 1.92	+ 8 0.5	1.719	2.575	13.5	21.2	11 17	1 12.84	+ 2 4.0	0.961	1.846	19.0	19.7
328972	2010 VJ ₁₇₉	10 17.1 194°53		0°7/16.6 17			481535	2007 MY ₁₉	10 17.1 33°75		12°3/ 8.2 18		
9 8	1 58.57	+ 9 36.6	1.741	2.550	16.4	21.6	9 8	1 52.48	-13 46.8	1.186	2.051	19.0	20.0

EPHEMERIDES

10 17.1

10 17.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
45355	2000 AF ₁₀₀	10 17.1 234°78 4°1/13.9 18					126045	2001 YD ₇₂	10 17.1 343°74 0°3/16.9 18				
9 8	1 54.50	+ 3 30.4	1.500	2.340	17.0	18.2	9 8	1 52.11	+ 9 25.5	1.234	2.080	19.6	19.4
9 18	1 51.07	+ 2 28.5	1.428	2.339	13.3	18.0	9 18	1 50.00	+ 9 29.7	1.157	2.070	15.6	19.2
9 28	1 44.96	+ 1 16.3	1.377	2.338	9.1	17.7	9 28	1 44.74	+ 9 20.3	1.099	2.060	10.8	18.9
10 8	1 36.82	+ 0 1.0	1.350	2.337	5.1	17.5	10 8	1 36.95	+ 9 0.0	1.061	2.051	5.3	18.5
10 18	1 27.67	- 1 8.9	1.349	2.336	4.6	17.5	10 18	1 27.72	+ 8 33.3	1.048	2.044	0.7	18.2
10 28	1 18.76	- 2 4.6	1.375	2.334	8.3	17.7	10 28	1 18.60	+ 8 7.2	1.058	2.038	6.6	18.6
11 7	1 11.28	- 2 39.7	1.425	2.333	12.5	18.0	11 7	1 11.09	+ 7 49.3	1.092	2.033	12.1	18.9
11 17	1 6.09	- 2 51.6	1.497	2.332	16.3	18.2	11 17	1 6.28	+ 7 44.9	1.148	2.029	16.9	19.1
331281	2011 DS ₁₉	10 17.1 263°63 4°9/10.8 18					351098	2003 UV ₂₄₇	10 17.1 343°45 10°2/11.6 18				
9 8	1 49.37	- 3 18.6	2.530	3.359	11.3	20.9	9 8	1 56.44	- 12 10.6	1.281	2.136	18.5	19.2
9 18	1 46.00	- 4 41.6	2.442	3.344	8.9	20.8	9 18	1 53.19	- 12 51.4	1.214	2.122	15.4	19.0
9 28	1 41.00	- 6 8.1	2.379	3.329	6.5	20.6	9 28	1 46.75	- 13 23.8	1.166	2.110	12.3	18.8
10 8	1 34.77	- 7 32.4	2.343	3.313	5.0	20.5	10 8	1 37.84	- 13 37.7	1.139	2.098	10.4	18.7
10 18	1 27.88	- 8 48.2	2.336	3.297	5.5	20.5	10 18	1 27.66	- 13 24.3	1.135	2.088	10.8	18.7
10 28	1 21.05	- 9 49.7	2.358	3.280	7.6	20.6	10 28	1 17.74	- 12 38.7	1.153	2.080	13.3	18.8
11 7	1 14.97	- 10 32.9	2.406	3.264	10.2	20.7	11 7	1 9.54	- 11 21.3	1.194	2.073	16.7	19.0
11 17	1 10.21	- 10 56.0	2.478	3.247	12.6	20.9	11 17	1 4.07	- 9 36.9	1.253	2.067	20.1	19.2
357300	2002 VK ₁₄₃	10 17.1 342°15 2°4/15.4 18					348284	2004 XZ ₁₅	10 17.1 58°33 4°9/13.7 18				
9 8	1 53.83	+ 4 47.5	1.634	2.468	16.2	20.6	9 8	1 56.87	- 1 0.5	1.576	2.415	16.4	19.9
9 18	1 50.41	+ 4 29.0	1.555	2.462	12.7	20.4	9 18	1 52.61	- 1 40.7	1.517	2.426	12.9	19.7
9 28	1 44.46	+ 4 2.5	1.497	2.457	8.6	20.1	9 28	1 45.80	- 2 24.0	1.480	2.437	9.0	19.5
10 8	1 36.59	+ 3 32.1	1.463	2.452	4.3	19.9	10 8	1 37.17	- 3 3.8	1.466	2.448	5.6	19.3
10 18	1 27.70	+ 3 3.3	1.456	2.448	2.7	19.7	10 18	1 27.74	- 3 33.5	1.479	2.460	5.3	19.3
10 28	1 18.97	+ 2 41.8	1.475	2.444	6.6	20.0	10 28	1 18.70	- 3 47.5	1.519	2.471	8.3	19.5
11 7	1 11.53	+ 2 32.5	1.520	2.441	10.9	20.2	11 7	1 11.14	- 3 42.7	1.583	2.483	12.0	19.8
11 17	1 6.21	+ 2 38.3	1.588	2.439	14.7	20.5	11 17	1 5.79	- 3 18.8	1.670	2.495	15.3	20.0
276169	2002 OZ ₃₂	10 17.1 261°47 3°7/12.8 18					69271	1989 GK ₂	10 17.1 123°48 0°9/17.9 18				
9 8	1 49.60	+ 0 43.3	2.407	3.235	11.8	20.5	9 8	1 56.79	+ 13 3.9	1.895	2.693	15.7	19.2
9 18	1 46.22	- 0 21.4	2.324	3.227	9.2	20.3	9 18	1 52.36	+ 13 3.0	1.816	2.698	12.5	19.0
9 28	1 41.15	- 1 31.5	2.264	3.220	6.4	20.1	9 28	1 45.61	+ 12 49.4	1.758	2.704	8.7	18.8
10 8	1 34.83	- 2 41.6	2.232	3.213	4.1	19.9	10 8	1 37.11	+ 12 24.7	1.724	2.709	4.5	18.5
10 18	1 27.88	- 3 46.3	2.228	3.205	4.1	19.9	10 18	1 27.74	+ 11 52.1	1.718	2.714	0.9	18.3
10 28	1 21.04	- 4 40.0	2.252	3.198	6.5	20.1	10 28	1 18.57	+ 11 16.4	1.741	2.719	4.6	18.6
11 7	1 15.01	- 5 18.5	2.304	3.190	9.4	20.3	11 7	1 10.62	+ 10 43.4	1.791	2.724	8.7	18.8
11 17	1 10.37	- 5 39.7	2.380	3.182	12.1	20.4	11 17	1 4.65	+ 10 17.9	1.867	2.729	12.3	19.1
115201	2003 SM ₁₁₁	10 17.1 272°96 10°2/24.3 18					446380	2014 HR ₁₃₁	10 17.1 169°43 7°3/ 8.9 18				
9 8	2 4.08	+ 33 51.6	2.025	2.702	18.4	19.0	9 8	1 54.42	- 11 56.9	2.352	3.175	12.2	22.1
9 18	1 59.14	+ 35 32.5	1.919	2.686	16.4	18.8	9 18	1 49.93	- 13 16.2	2.292	3.178	10.0	22.0
9 28	1 51.02	+ 36 56.1	1.831	2.670	14.2	18.7	9 28	1 43.63	- 14 31.5	2.255	3.181	8.2	21.8
10 8	1 40.11	+ 37 55.7	1.764	2.654	12.0	18.5	10 8	1 36.04	- 15 35.9	2.244	3.184	7.3	21.8
10 18	1 27.34	+ 38 25.5	1.721	2.638	10.5	18.4	10 18	1 27.85	- 16 23.4	2.261	3.186	7.9	21.8
10 28	1 14.12	+ 38 23.5	1.703	2.622	10.3	18.3	10 28	1 19.88	- 16 49.5	2.304	3.188	9.6	22.0
11 7	1 2.06	+ 37 53.1	1.711	2.605	11.6	18.4	11 7	1 12.89	- 16 52.8	2.372	3.189	11.7	22.1
11 17	0 52.49	+ 37 2.6	1.743	2.589	13.8	18.5	11 17	1 7.46	- 16 34.0	2.461	3.190	13.7	22.3
523739	2014 TZ ₃₃	10 17.1 8°20 3°5/20.1 17					374779	2006 TC ₁₀	10 17.1 19°16 3°4/15.4 18 R				
9 8	1 40.59	- 46 55.8	12.422	13.056	3.5	22.7	9 8	1 55.75	+ 3 2.9	1.019	1.885	21.4	19.6
9 18	1 38.01	- 47 36.9	12.444	13.086	3.5	22.7	9 18	1 53.03	+ 2 57.6	0.967	1.891	16.8	19.3
9 28	1 35.00	- 48 12.4	12.487	13.116	3.5	22.7	9 28	1 46.76	+ 2 44.7	0.933	1.900	11.4	19.0
10 8	1 31.68	- 48 41.5	12.549	13.146	3.6	22.7	10 8	1 37.83	+ 2 30.2	0.919	1.909	5.9	18.8
10 18	1 28.21	- 49 3.5	12.630	13.176	3.7	22.8	10 18	1 27.68	+ 2 20.9	0.928	1.920	3.8	18.7
10 28	1 24.77	- 49 17.8	12.728	13.206	3.9	22.8	10 28	1 18.08	+ 2 23.2	0.960	1.933	8.5	19.0
11 7	1 21.51	- 49 24.6	12.841	13.236	4.0	22.8	11 7	1 10.57	+ 2 41.7	1.014	1.946	13.7	19.4
11 17	1 18.60	- 49 24.2	12.965	13.266	4.1	22.9	11 17	1 6.13	+ 3 17.4	1.088	1.961	18.3	19.7
454859	2015 SB ₁₃	10 17.1 80°14 1°6/15.4 18					227006	2004 XC ₁₀₂	10 17.1 259°57 1°3/15.9 17				
9 8	1 51.21	+ 9 54.3	1.966	2.781	14.5	21.0	9 8	1 56.53	+ 4 52.9	2.645	3.444	11.7	21.1
9 18	1 47.71	+ 8 40.9	1.899	2.796	11.3	20.8	9 18	1 51.56	+ 4 50.9	2.541	3.428	9.2	20.9
9 28	1 42.23	+ 7 14.5	1.855	2.811	7.5	20.6	9 28	1 44.81	+ 4 44.4	2.460	3.412	6.2	20.7
10 8	1 35.35	+ 5 40.6	1.837	2.826	3.5	20.4	10 8	1 36.68	+ 4 35.5	2.407	3.395	3.1	20.5
10 18	1 27.86	+ 4 6.2	1.848	2.841	2.0	20.3	10 18	1 27.79	+ 4 26.9	2.384	3.378	1.5	20.3
10 28	1 20.67	+ 2 39.1	1.888	2.856	5.5	20.6	10 28	1 18.90	+ 4 21.6	2.392	3.360	4.5	20.5
11 7	1 14.59	+ 1 25.8	1.955	2.870	9.2	20.9	11 7	1 10.76	+ 4 22.5	2.429	3.343	7.7	20.7
11 17	1 10.22	+ 0 30.7	2.048	2.885	12.4	21.1	11 17	1 4.03	+ 4 31.5	2.492	3.325	10.6	20.9
340314	2006 DA ₈	10 17.1 27°64 2°2/18.6 18					141712	2002 LY ₉	10 17.1 88°71 3°7/14.4 18				
9 8	1 58.26	+ 14 25.8	1.643	2.444	17.6	20.4	9 8	1 58.53	+ 3 39.0	1.458	2.293	17.7	19.8
9 18	1 53.99	+ 14 52.6	1.564	2.446	14.2	20.2	9 18	1 54.01	+ 2 45.0	1.404	2.312	13.8	19.6
9 28	1 46.98	+ 15 5.8	1.505	2.448	10.1	20.0	9 28	1 46.78	+ 1 42.5	1.372	2.331	9.3	19.4
10 8	1 37.85	+ 15 5.6	1.470	2.451	5.7	19.7	10 8	1 37.65	+ 0 38.6	1.363	2.350	5.0	19.2
10 18	1 27.61	+ 14 53.6	1.460	2.454	2.2	19.5	10 18	1 27.72	- 0 18.8	1.381	2.368	4.2	19.2
10 28	1 17.54	+ 14 34.1	1.478	2.457	5.1	19.7	10 28	1 18.32	- 1 2.2	1.425	2.386	7.8	19.5
11 7	1 8.88	+ 14 12.8	1.523	2.460	9.5	20.0	11 7	1 10.56	- 1 26.6	1.495	2.404	11.9	19.8
11 17	1 2.54	+ 13 55.7	1.591	2.463	13.5	20.2	11 17	1 5.20	- 1 30.3	1.587	2.422	15.5	20.1
400979	2010 XM ₅₃	10 17.1 29°46 1°2/16.0 18					246356	2007 TL ₃₃₀	10 17.1 25°30 1°7/18.7 18				
9 8	1 52.23	+ 7 55.7	1.913	2.734	14.7	21.0	9 8	1 52.45	+ 16 42.2	1.732	2.532	16.8	20.5
9 18	1 48.68	+ 7 30.5	1.840	2.739	11.5	20.8	9 18	1 49.25	+ 16 26.4	1.653	2.534		

EPHEMERIDES

10 17.1

10 17.1

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
141540	2002 GC ₁₄	10 17.1 123°09' 0°1/17.3 18					224184	2005 QL ₁₇₆	10 17.1 330°69' 0°7/17.6 18				
9 8	1 55.51	+13 59.9	1.536	2.348	18.1	20.1	9 8	1 51.13	+12 43.5	1.283	2.120	19.6	20.0
9 18	1 51.84	+13 16.5	1.464	2.356	14.3	19.9	9 18	1 49.22	+12 37.2	1.200	2.106	15.7	19.7
9 28	1 45.47	+12 14.0	1.412	2.363	9.9	19.7	9 28	1 44.23	+12 12.6	1.136	2.093	11.0	19.4
10 8	1 37.10	+10 56.2	1.383	2.370	4.9	19.4	10 8	1 36.75	+11 31.7	1.093	2.081	5.6	19.0
10 18	1 27.78	+9 29.9	1.381	2.377	0.4	19.1	10 18	1 27.83	+10 39.5	1.074	2.070	0.7	18.7
10 28	1 18.77	+8 4.2	1.407	2.384	5.6	19.5	10 28	1 18.95	+9 44.1	1.079	2.059	6.2	19.0
11 7	1 11.25	+6 48.5	1.458	2.390	10.4	19.8	11 7	1 11.59	+8 54.9	1.108	2.050	11.7	19.3
11 17	1 6.04	+5 49.6	1.534	2.396	14.5	20.0	11 17	1 6.86	+8 19.9	1.158	2.041	16.6	19.6
124023	2001 FK ₁₁₂	10 17.1 131°22' 1°6/19.2 18					523278	2017 BM ₁₁	10 17.1 208°41' 1°0/16.1 18				
9 8	1 52.11	+17 57.4	2.923	3.683	11.6	21.3	9 8	1 52.23	+8 0.5	2.550	3.354	11.9	21.6
9 18	1 47.83	+17 40.0	2.840	3.696	9.3	21.1	9 18	1 48.20	+7 36.1	2.461	3.351	9.3	21.4
9 28	1 42.07	+17 10.9	2.779	3.709	6.7	21.0	9 28	1 42.49	+7 4.0	2.395	3.348	6.3	21.2
10 8	1 35.26	+16 31.4	2.746	3.721	3.9	20.8	10 8	1 35.54	+6 26.8	2.356	3.345	3.0	21.0
10 18	1 27.96	+15 43.8	2.741	3.733	1.7	20.7	10 18	1 27.96	+5 48.1	2.346	3.341	1.2	20.8
10 28	1 20.82	+14 51.8	2.768	3.745	3.2	20.8	10 28	1 20.48	+5 11.9	2.366	3.337	4.3	21.1
11 7	1 14.46	+13 59.8	2.824	3.756	5.9	21.0	11 7	1 13.81	+4 42.3	2.415	3.334	7.5	21.3
11 17	1 9.36	+13 11.8	2.908	3.767	8.5	21.2	11 17	1 8.52	+4 22.3	2.490	3.330	10.4	21.5
9274	Amylovell	10 17.1 131°29' 2°0/18.9 18 R					378174	2006 WF ₁₁₀	10 17.1 274°84' 0°4/16.9 18				
9 8	1 57.60	+16 37.7	2.129	2.904	14.9	19.6	9 8	1 54.71	+11 16.1	1.568	2.388	17.4	21.8
9 18	1 52.73	+16 41.2	2.050	2.915	12.0	19.4	9 18	1 51.44	+10 51.5	1.478	2.375	13.9	21.5
9 28	1 45.72	+16 31.0	1.992	2.926	8.6	19.2	9 28	1 45.43	+10 11.2	1.408	2.362	9.6	21.2
10 8	1 37.13	+16 7.9	1.959	2.936	4.9	19.0	10 8	1 37.23	+9 17.9	1.361	2.349	4.7	20.9
10 18	1 27.78	+15 34.2	1.954	2.946	2.0	18.8	10 18	1 27.79	+8 17.0	1.340	2.336	0.7	20.6
10 28	1 18.64	+14 54.2	1.978	2.956	4.2	19.0	10 28	1 18.38	+7 16.3	1.346	2.323	5.9	20.9
11 7	1 10.64	+14 13.4	2.031	2.965	7.8	19.3	11 7	1 10.28	+6 23.9	1.378	2.309	10.9	21.2
11 17	1 4.46	+13 37.0	2.111	2.973	11.1	19.5	11 17	1 4.47	+5 46.3	1.433	2.296	15.3	21.4
111335	2001 XL ₉₄	10 17.1 14°57' 0°4/17.5 18					20350	1998 HV ₁₂₅	10 17.1 334°31' 8°7/10.2 18 R				
9 8	1 52.08	+12 38.7	1.829	2.640	15.7	20.0	9 8	1 47.99	-6 49.0	1.378	2.245	16.8	16.2
9 18	1 48.78	+12 20.6	1.750	2.641	12.4	19.8	9 18	1 46.49	-8 3.3	1.296	2.216	13.7	16.0
9 28	1 43.23	+11 48.6	1.692	2.643	8.6	19.5	9 28	1 42.23	-9 19.8	1.234	2.188	10.6	15.7
10 8	1 35.98	+11 5.3	1.658	2.645	4.3	19.3	10 8	1 35.73	-10 28.2	1.193	2.162	8.8	15.6
10 18	1 27.89	+10 15.0	1.652	2.648	0.4	19.0	10 18	1 27.93	-11 17.7	1.176	2.136	9.6	15.5
10 28	1 19.98	+9 23.8	1.672	2.651	4.8	19.3	10 28	1 20.11	-11 39.2	1.182	2.113	12.6	15.6
11 7	1 13.23	+8 38.1	1.720	2.654	8.9	19.6	11 7	1 13.59	-11 27.9	1.208	2.090	16.4	15.8
11 17	1 8.38	+8 2.9	1.793	2.657	12.6	19.8	11 17	1 9.40	-10 43.9	1.254	2.070	20.0	16.0
400363	2007 VE ₂₂₆	10 17.1 295°90' 6°3/12.3 18					43247	2000 BV ₂₅	10 17.1 284°17' 1°6/15.5 18				
9 8	1 56.25	-5 30.2	1.775	2.611	15.0	21.0	9 8	1 51.52	+6 29.7	2.291	3.106	12.8	19.4
9 18	1 52.20	-6 13.5	1.691	2.595	12.0	20.7	9 18	1 47.87	+5 59.3	2.203	3.099	10.0	19.2
9 28	1 45.69	-6 57.1	1.628	2.578	8.9	20.5	9 28	1 42.39	+5 21.0	2.137	3.093	6.7	19.0
10 8	1 37.25	-7 34.1	1.589	2.561	6.6	20.3	10 8	1 35.54	+4 38.2	2.098	3.087	3.3	18.8
10 18	1 27.77	-7 57.8	1.577	2.545	6.8	20.3	10 18	1 27.98	+3 55.1	2.087	3.080	1.9	18.7
10 28	1 18.36	-8 2.3	1.592	2.529	9.5	20.4	10 28	1 20.51	+3 16.6	2.106	3.074	5.0	18.9
11 7	1 10.14	-7 44.9	1.631	2.512	12.8	20.6	11 7	1 13.93	+2 47.0	2.152	3.068	8.4	19.1
11 17	1 3.97	-7 5.5	1.692	2.496	16.1	20.8	11 17	1 8.85	+2 29.5	2.223	3.061	11.5	19.3
391198	2006 FC ₂₅	10 17.1 340°18' 0°2/17.3 18					180984	2005 NX ₁₂	10 17.1 266°09' 6°7/23.6 18				
9 8	1 55.14	+11 41.6	1.735	2.546	16.4	21.0	9 8	1 55.10	+29 42.1	2.142	2.856	16.5	20.4
9 18	1 51.34	+11 31.5	1.654	2.545	13.0	20.8	9 18	1 51.33	+30 17.4	2.042	2.848	14.3	20.2
9 28	1 45.08	+11 8.2	1.593	2.544	9.0	20.5	9 28	1 45.13	+30 32.8	1.960	2.839	11.7	20.0
10 8	1 36.93	+10 34.0	1.557	2.544	4.5	20.3	10 8	1 37.03	+30 25.5	1.900	2.829	9.1	19.9
10 18	1 27.81	+9 53.0	1.547	2.543	0.4	20.0	10 18	1 27.83	+29 54.3	1.865	2.820	7.1	19.7
10 28	1 18.85	+9 11.0	1.565	2.543	5.1	20.3	10 28	1 18.62	+29 1.7	1.856	2.811	6.9	19.7
11 7	1 11.15	+8 34.3	1.610	2.543	9.5	20.6	11 7	1 10.50	+27 53.6	1.875	2.802	8.8	19.8
11 17	1 5.53	+8 8.1	1.679	2.542	13.4	20.8	11 17	1 4.33	+26 38.0	1.919	2.792	11.5	20.0
73733	1993 FD ₈₃	10 17.1 40°47' 3°0/15.1 18					318264	2004 ST ₁₅	10 17.1 19°40' 2°2/15.4 18				
9 8	1 54.82	+4 39.8	1.385	2.229	18.0	18.6	9 8	1 55.16	+3 49.6	2.039	2.858	13.9	20.0
9 18	1 51.27	+4 5.0	1.334	2.246	14.0	18.4	9 18	1 50.87	+3 37.3	1.961	2.860	10.9	19.8
9 28	1 45.00	+3 21.3	1.303	2.265	9.4	18.2	9 28	1 44.49	+3 19.7	1.906	2.862	7.4	19.6
10 8	1 36.82	+2 34.8	1.295	2.284	4.8	18.0	10 8	1 36.57	+3 0.1	1.876	2.864	3.7	19.4
10 18	1 27.83	+1 52.4	1.312	2.303	3.4	17.9	10 18	1 27.89	+2 42.5	1.874	2.866	2.4	19.3
10 28	1 19.34	+1 21.1	1.356	2.324	7.2	18.2	10 28	1 19.39	+2 31.2	1.901	2.868	5.6	19.5
11 7	1 12.47	+1 5.9	1.424	2.344	11.5	18.5	11 7	1 11.97	+2 29.5	1.956	2.871	9.2	19.8
11 17	1 7.96	+1 8.7	1.514	2.365	15.3	18.8	11 17	1 6.31	+2 39.5	2.035	2.874	12.4	20.0
386686	2009 VY ₈₀	10 17.1 317°52' 1°3/16.3 18					397486	2007 RD ₃₇	10 17.1 67°82' 7°7/19.9 16				
9 8	1 53.74	+8 0.5	1.356	2.196	18.5	21.0	9 8	2 12.48	+25 16.9	1.734	2.457	19.6	20.3
9 18	1 51.11	+7 48.3	1.270	2.180	14.7	20.7	9 18	2 5.31	+27 5.8	1.667	2.482	16.6	20.2
9 28	1 45.45	+7 23.2	1.204	2.165	10.1	20.4	9 28	1 54.83	+28 36.9	1.621	2.507	13.3	20.0
10 8	1 37.33	+6 48.8	1.159	2.149	4.9	20.1	10 8	1 41.78	+29 44.2	1.598	2.532	10.1	19.9
10 18	1 27.77	+6 10.6	1.140	2.135	1.7	19.8	10 18	1 27.40	+30 23.4	1.601	2.557	8.0	19.8
10 28	1 18.21	+5 36.0	1.145	2.121	6.9	20.1	10 28	1 13.30	+30 35.0	1.633	2.582	8.2	19.9
11 7	1 10.11	+5 12.5	1.175	2.108	12.2	20.4	11 7	1 1.01	+30 24.9	1.692	2.607	10.4	20.1
11 17	1 4.56	+5 5.2	1.226	2.095	16.9	20.6	11 17	0 51.62	+30 1.8	1.776	2.631	13.2	20.3
91365	1999 JL ₈₄	10 17.1 58°14' 3°6/13.9 18					364062	2005 XY ₂₆	10 17.1 166°11' 5°2/11.7 18				
9 8	1 53.06	+7 20.3	1.428	2.268	17.8	18.3	9 8	1 53.19	-5 50.4	2.368	3.194	12.0	20.7
9 18	1 49.69	+5 36.2	1.383	2.294	13.7	18.1	9 18	1 48.99	-6 41.6	2.297	3.195	9.6	20.6
9 28	1 43.79	+3 38.7	1.359	2.322	9.0	17.9	9 28	1 43.03	-7 32.4	2.			

EPHEMERIDES

10 17.2

10 17.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
233972	1992 <i>PZ</i> ₅		10 17.2	48°56'	4.9/19.9	18	5603	Rausudake		10 17.2	176°79'	0.2/16.9	18
9 8	2 10.07	+18 55.2	0.878	1.699	27.6	18.8	9 8	1 47.70	+10 45.9	3.399	4.189	9.5	17.1
9 18	2 4.14	+19 40.3	0.855	1.743	22.2	18.6	9 18	1 44.25	+10 19.1	3.308	4.189	7.4	16.9
9 28	1 54.00	+19 56.3	0.846	1.788	16.0	18.5	9 28	1 39.61	+9 45.1	3.242	4.190	5.0	16.8
10 8	1 41.11	+19 42.5	0.856	1.833	9.6	18.3	10 8	1 34.10	+9 5.8	3.203	4.190	2.4	16.6
10 18	1 27.53	+19 3.4	0.888	1.878	5.0	18.2	10 18	1 28.18	+8 23.9	3.194	4.190	0.4	16.4
10 28	1 15.46	+18 9.7	0.944	1.923	7.2	18.5	10 28	1 22.33	+7 42.5	3.216	4.190	3.0	16.7
11 7	1 6.49	+17 14.3	1.023	1.968	12.1	18.9	11 7	1 17.05	+7 4.7	3.267	4.190	5.6	16.8
11 17	1 1.32	+16 27.5	1.122	2.012	16.5	19.4	11 17	1 12.76	+6 33.4	3.346	4.190	7.9	17.0
411879	2012 <i>FP</i> ₈		10 17.2	149°62'	2°0/14.6	18	436191	2009 <i>WP</i> ₁₀₇		10 17.2	258°87'	3.4/14.7	18
9 8	1 50.58	+5 20.5	2.662	3.474	11.3	21.7	9 8	1 57.20	+2 51.8	1.644	2.474	16.3	21.6
9 18	1 46.77	+4 28.3	2.584	3.479	8.7	21.6	9 18	1 53.12	+2 21.0	1.562	2.467	12.8	21.4
9 28	1 41.43	+3 29.2	2.530	3.485	5.8	21.4	9 28	1 46.41	+1 42.9	1.502	2.460	8.8	21.1
10 8	1 35.01	+2 27.3	2.503	3.490	3.0	21.2	10 8	1 37.67	+1 2.8	1.465	2.452	4.8	20.9
10 18	1 28.07	+1 27.1	2.506	3.495	2.3	21.2	10 18	1 27.84	+0 26.6	1.456	2.444	3.7	20.8
10 28	1 21.28	+0 33.2	2.539	3.499	4.9	21.4	10 28	1 18.15	+0 1.0	1.473	2.437	7.4	21.0
11 7	1 15.28	-0 10.4	2.600	3.504	7.7	21.5	11 7	1 9.78	-0 9.3	1.517	2.429	11.6	21.2
11 17	1 10.55	-0 40.9	2.687	3.508	10.3	21.7	11 17	1 3.60	-0 1.8	1.583	2.421	15.4	21.5
440113	2003 <i>SK</i> ₄₆		10 17.2	7°26'	0.8/17.6	18	253159	2002 <i>VJ</i> ₁₂₁		10 17.2	287°70'	5.7/22.2	17
9 8	1 52.24	+11 8.4	1.209	2.053	20.1	20.2	9 8	1 55.20	+26 33.9	2.141	2.873	16.0	20.3
9 18	1 50.02	+11 25.0	1.145	2.054	16.0	19.9	9 18	1 51.58	+26 57.3	2.016	2.840	13.8	20.1
9 28	1 44.67	+11 26.9	1.098	2.056	11.1	19.7	9 28	1 45.50	+27 1.9	1.910	2.807	11.1	19.8
10 8	1 36.90	+11 15.9	1.072	2.060	5.7	19.4	10 8	1 37.35	+26 45.1	1.827	2.774	8.2	19.6
10 18	1 27.89	+10 56.1	1.070	2.066	0.8	19.1	10 18	1 27.86	+26 5.6	1.770	2.739	5.9	19.4
10 28	1 19.16	+10 33.7	1.092	2.073	6.0	19.4	10 28	1 18.11	+25 5.8	1.739	2.705	6.2	19.3
11 7	1 12.14	+10 15.9	1.137	2.081	11.3	19.8	11 7	1 9.26	+23 51.7	1.737	2.670	8.9	19.4
11 17	1 7.82	+10 8.4	1.204	2.090	15.9	20.1	11 17	1 2.30	+22 31.5	1.760	2.635	12.3	19.6
348011	2003 <i>SX</i> ₂₈₇		10 17.2	5°59'	6.3/20.6	18	119364	2001 <i>SY</i> ₂₄₆		10 17.2	200°70'	1.3/15.9	18
9 8	1 57.15	+19 44.8	1.291	2.095	21.3	19.5	9 8	1 55.86	+8 34.3	1.988	2.797	14.6	20.4
9 18	1 54.11	+21 9.1	1.220	2.095	17.8	19.3	9 18	1 51.58	+7 56.1	1.901	2.794	11.5	20.2
9 28	1 47.68	+22 16.2	1.166	2.096	13.7	19.0	9 28	1 45.09	+7 6.7	1.836	2.790	7.8	20.0
10 8	1 38.49	+23 1.9	1.132	2.099	9.4	18.8	10 8	1 36.94	+6 9.8	1.798	2.786	3.7	19.7
10 18	1 27.73	+23 23.7	1.121	2.102	6.5	18.7	10 18	1 27.92	+5 10.5	1.787	2.781	1.6	19.6
10 28	1 17.09	+23 23.4	1.135	2.108	7.6	18.7	10 28	1 19.03	+4 15.2	1.805	2.776	5.4	19.8
11 7	1 8.21	+23 7.8	1.173	2.114	11.3	19.0	11 7	1 11.24	+3 29.7	1.852	2.770	9.4	20.1
11 17	1 2.28	+22 45.8	1.233	2.122	15.3	19.2	11 17	1 5.29	+2 58.4	1.923	2.764	12.9	20.3
237338	2009 <i>WS</i> ₆₀		10 17.2	317°70'	3°0/11.8	18	415168	2012 <i>FV</i> ₅₂		10 17.2	146°17'	1.8/14.9	18
9 8	1 45.82	-5 32.4	4.290	5.107	7.2	20.1	9 8	1 50.57	+6 0.5	2.769	3.577	11.0	22.2
9 18	1 42.51	-6 2.2	4.210	5.104	5.7	20.0	9 18	1 46.70	+5 11.9	2.691	3.584	8.5	22.0
9 28	1 38.28	-6 31.4	4.156	5.101	4.2	19.9	9 28	1 41.36	+4 16.5	2.637	3.591	5.7	21.8
10 8	1 33.41	-6 57.6	4.130	5.098	3.1	19.8	10 8	1 34.98	+3 18.0	2.610	3.597	2.9	21.7
10 18	1 28.23	-7 18.4	4.134	5.095	3.3	19.8	10 18	1 28.11	+2 20.5	2.613	3.604	2.0	21.6
10 28	1 23.12	-7 31.7	4.167	5.093	4.5	19.9	10 28	1 21.39	+1 28.5	2.647	3.609	4.5	21.8
11 7	1 18.43	-7 36.0	4.228	5.090	6.0	20.0	11 7	1 15.42	+0 45.7	2.709	3.615	7.3	22.0
11 17	1 14.50	-7 30.7	4.315	5.087	7.6	20.2	11 17	1 10.68	+0 14.9	2.797	3.620	9.9	22.2
104732	2000 <i>HH</i> ₂		10 17.2	140°13'	1°1/16.2	18	58979	1998 <i>RE</i> ₄₆		10 17.2	328°36'	2.8/18.9	18
9 8	1 56.65	+9 25.0	1.874	2.683	15.4	20.7	9 8	1 49.86	+16 9.5	1.202	2.036	20.8	18.5
9 18	1 52.18	+8 47.2	1.800	2.693	12.0	20.5	9 18	1 48.62	+16 26.4	1.114	2.015	17.1	18.2
9 28	1 45.44	+7 57.4	1.748	2.702	8.1	20.2	9 28	1 44.13	+16 22.6	1.044	1.995	12.5	17.8
10 8	1 37.06	+6 59.8	1.722	2.710	3.9	20.0	10 8	1 36.87	+15 57.5	0.993	1.977	7.2	17.5
10 18	1 27.89	+5 59.6	1.723	2.718	1.4	19.8	10 18	1 27.90	+15 13.4	0.965	1.959	2.9	17.2
10 28	1 18.99	+5 3.5	1.754	2.726	5.4	20.1	10 28	1 18.82	+14 17.4	0.961	1.943	6.3	17.3
11 7	1 11.33	+4 17.5	1.812	2.733	9.4	20.4	11 7	1 11.29	+13 19.9	0.979	1.928	12.0	17.6
11 17	1 5.62	+3 45.7	1.894	2.739	12.9	20.6	11 17	1 6.59	+12 31.1	1.018	1.914	17.2	17.9
78777	2002 <i>VE</i> ₆₅		10 17.2	100°84'	5°5/22.5	18	316531	2010 <i>WL</i> ₁₂		10 17.2	208°13'	3.7/20.8	17
9 8	1 57.68	+26 29.3	2.088	2.818	16.5	19.2	9 8	1 54.77	+21 36.6	2.304	3.057	14.5	21.9
9 18	1 53.08	+27 0.0	2.010	2.831	13.9	19.1	9 18	1 50.60	+21 56.3	2.211	3.056	12.0	21.7
9 28	1 46.13	+27 11.6	1.950	2.845	11.0	18.9	9 28	1 44.38	+22 0.9	2.139	3.055	9.1	21.5
10 8	1 37.43	+27 2.4	1.914	2.858	8.0	18.8	10 8	1 36.59	+21 50.1	2.091	3.054	6.1	21.3
10 18	1 27.85	+26 32.6	1.903	2.871	5.8	18.6	10 18	1 27.95	+21 24.5	2.071	3.053	3.8	21.2
10 28	1 18.49	+25 45.6	1.921	2.884	5.9	18.7	10 28	1 19.39	+20 47.4	2.079	3.051	4.6	21.2
11 7	1 10.36	+24 47.9	1.966	2.896	8.2	18.8	11 7	1 11.79	+20 3.9	2.115	3.050	7.4	21.4
11 17	1 4.22	+23 46.6	2.037	2.909	11.0	19.0	11 17	1 5.88	+19 19.6	2.178	3.049	10.4	21.6
255080	2005 <i>UQ</i> ₃₅		10 17.2	24°89'	0°1/17.3	18	362895	2012 <i>BS</i> ₁₃₁		10 17.2	245°41'	4°0/13.4	18
9 8	1 52.13	+12 8.7	2.116	2.919	14.1	21.4	9 8	1 54.70	-1 33.4	2.277	3.099	12.6	20.6
9 18	1 48.51	+11 46.4	2.032	2.919	11.1	21.2	9 18	1 50.34	-2 7.8	2.193	3.092	9.9	20.4
9 28	1 42.91	+11 12.0	1.970	2.920	7.7	20.9	9 28	1 44.07	-2 44.6	2.132	3.085	7.0	20.2
10 8	1 35.83	+10 28.1	1.934	2.920	3.8	20.7	10 8	1 36.39	-3 19.1	2.098	3.077	4.5	20.0
10 18	1 28.01	+9 38.5	1.925	2.921	0.3	20.4	10 18	1 27.98	-3 46.6	2.092	3.070	4.3	20.0
10 28	1 20.33	+8 48.5	1.945	2.922	4.4	20.8	10 28	1 19.68	-4 2.8	2.114	3.062	6.7	20.2
11 7	1 13.64	+8 3.7	1.993	2.922	8.1	21.0	11 7	1 12.31	-4 4.7	2.164	3.054	9.7	20.3
11 17	1 8.62	+7 28.5	2.066	2.923	11.5	21.2	11 17	1 6.52	-3 51.2	2.238	3.046	12.5	20.5
485557	2011 <i>UW</i> ₁₄₃		10 17.2	313°62'	3°8/14.5	17	185987	2001 <i>OD</i> ₁		10 17.2	103°96'	1.7/18.6	18
9 8	1 55.15	+0 55.8	1.685	2.521	15.7	21.1	9 8</						

EPHEMERIDES

10 17.2

10 17.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
57637	2001 <i>TH</i> ₁₈₉		10 17.2	67°85	3°1/19.5	18	154256	2002 <i>LV</i> ₅₅		10 17.2	113°42	2°5/14.0	18
9 8	1 57.75	+18 12.8	1.532	2.325	18.9	18.8	9 8	1 50.61	+ 4 44.2	2.596	3.410	11.5	20.3
9 18	1 53.69	+18 26.5	1.465	2.339	15.4	18.6	9 18	1 46.78	+ 3 35.5	2.528	3.425	8.8	20.2
9 28	1 46.81	+18 21.3	1.417	2.353	11.2	18.4	9 28	1 41.43	+ 2 20.2	2.484	3.439	5.9	20.0
10 8	1 37.83	+17 57.3	1.391	2.368	6.7	18.2	10 8	1 35.03	+ 1 2.9	2.467	3.453	3.2	19.9
10 18	1 27.85	+17 17.3	1.391	2.382	3.2	18.0	10 18	1 28.15	- 0 11.3	2.481	3.467	2.8	19.9
10 28	1 18.23	+16 27.3	1.418	2.397	5.3	18.2	10 28	1 21.47	- 1 17.0	2.525	3.480	5.3	20.1
11 7	1 10.19	+15 35.4	1.471	2.411	9.5	18.5	11 7	1 15.62	- 2 10.1	2.597	3.493	8.0	20.3
11 17	1 4.60	+14 49.3	1.548	2.425	13.5	18.8	11 17	1 11.08	- 2 48.1	2.695	3.506	10.5	20.4
127770	2003 <i>FR</i> ₄₇		10 17.2	150°63	0°7/17.8	18	147014	2002 <i>QF</i>		10 17.2	30°19	3°4/19.7	18
9 8	1 57.17	+13 26.9	1.967	2.760	15.3	20.8	9 8	1 51.16	+19 44.3	1.086	1.914	22.9	18.5
9 18	1 52.59	+13 12.3	1.887	2.767	12.2	20.6	9 18	1 49.42	+19 36.4	1.033	1.928	18.6	18.3
9 28	1 45.75	+12 44.3	1.828	2.773	8.5	20.4	9 28	1 44.32	+19 0.0	0.996	1.942	13.6	18.0
10 8	1 37.24	+12 4.9	1.795	2.779	4.3	20.2	10 8	1 36.73	+17 56.8	0.978	1.958	8.0	17.8
10 18	1 27.91	+11 17.9	1.789	2.785	0.7	19.9	10 18	1 27.99	+16 33.2	0.983	1.975	3.5	17.6
10 28	1 18.78	+10 28.6	1.812	2.790	4.5	20.2	10 28	1 19.78	+15 0.3	1.011	1.993	6.1	17.8
11 7	1 10.84	+ 9 43.2	1.864	2.795	8.6	20.5	11 7	1 13.54	+13 31.5	1.063	2.012	11.2	18.1
11 17	1 4.82	+ 9 6.8	1.941	2.799	12.1	20.7	11 17	1 10.16	+12 17.4	1.137	2.032	15.9	18.5
166574	2002 <i>RD</i> ₁₂₇		10 17.2	119°81	5°7/23.1	18	40724	1999 <i>SY</i> ₈		10 17.2	252°09	3°0/19.2	18
9 8	1 53.41	+28 20.0	1.947	2.681	17.4	20.0	9 8	2 0.12	+16 33.7	1.913	2.690	16.2	18.0
9 18	1 50.03	+28 25.7	1.858	2.682	14.8	19.8	9 18	1 55.34	+17 8.3	1.816	2.681	13.3	17.8
9 28	1 44.23	+28 8.2	1.787	2.682	11.8	19.6	9 28	1 47.96	+17 30.4	1.739	2.672	9.8	17.6
10 8	1 36.58	+27 25.9	1.738	2.683	8.6	19.4	10 8	1 38.50	+17 38.9	1.687	2.662	5.9	17.3
10 18	1 27.97	+26 19.6	1.714	2.684	6.1	19.3	10 18	1 27.82	+17 34.3	1.662	2.652	3.0	17.1
10 28	1 19.51	+24 54.3	1.718	2.684	6.1	19.3	10 28	1 17.10	+17 19.4	1.665	2.642	5.0	17.2
11 7	1 12.29	+23 18.4	1.748	2.685	8.6	19.4	11 7	1 7.52	+16 59.2	1.697	2.631	8.9	17.5
11 17	1 7.11	+21 41.3	1.805	2.685	11.7	19.6	11 17	1 0.05	+16 39.5	1.753	2.621	12.7	17.7
322974	2002 <i>LR</i> ₆₀		10 17.2	131°41	3°6/20.3	17	409167	2003 <i>UJ</i> ₂₁₄		10 17.2	314°17	0°1/17.1	17
9 8	2 0.71	+21 15.6	1.864	2.623	17.2	21.7	9 8	1 55.04	+ 9 11.9	2.213	3.016	13.5	21.1
9 18	1 55.55	+21 21.8	1.788	2.638	14.2	21.5	9 18	1 50.79	+ 9 18.7	2.121	3.008	10.7	20.9
9 28	1 47.85	+21 9.1	1.732	2.653	10.5	21.3	9 28	1 44.50	+ 9 17.6	2.051	3.001	7.4	20.7
10 8	1 38.28	+20 37.1	1.700	2.667	6.7	21.1	10 8	1 36.67	+ 9 10.4	2.006	2.993	3.6	20.4
10 18	1 27.82	+19 48.1	1.694	2.681	3.8	20.9	10 18	1 28.00	+ 8 59.5	1.990	2.986	0.4	20.2
10 28	1 17.67	+18 47.4	1.718	2.693	5.0	21.0	10 28	1 19.38	+ 8 48.4	2.003	2.980	4.3	20.5
11 7	1 8.92	+17 42.6	1.770	2.705	8.6	21.3	11 7	1 11.71	+ 8 40.8	2.045	2.973	8.1	20.7
11 17	1 2.37	+16 41.2	1.847	2.716	12.1	21.5	11 17	1 5.67	+ 8 39.9	2.112	2.966	11.4	20.9
514812	2007 <i>TJ</i> ₃₁₁		10 17.2	19°72	0°1/17.1	18	127392	2002 <i>LJ</i> ₉		10 17.2	137°54	5°1/11.8	18
9 8	1 56.74	+ 9 4.3	1.501	2.326	17.8	21.0	9 8	1 52.88	- 5 26.1	2.393	3.219	11.9	19.9
9 18	1 52.92	+ 9 15.7	1.430	2.330	14.1	20.8	9 18	1 48.74	- 6 18.0	2.324	3.222	9.4	19.7
9 28	1 46.33	+ 9 16.6	1.380	2.335	9.7	20.6	9 28	1 42.87	- 7 9.8	2.279	3.225	7.0	19.5
10 8	1 37.63	+ 9 9.0	1.352	2.341	4.7	20.3	10 8	1 35.77	- 7 56.0	2.260	3.228	5.2	19.4
10 18	1 27.88	+ 8 56.5	1.351	2.347	0.5	20.0	10 18	1 28.09	- 8 31.8	2.270	3.232	5.5	19.5
10 28	1 18.39	+ 8 44.1	1.376	2.354	5.6	20.4	10 28	1 20.61	- 8 52.8	2.307	3.234	7.5	19.6
11 7	1 10.39	+ 8 37.0	1.427	2.361	10.3	20.7	11 7	1 14.03	- 8 56.8	2.371	3.237	10.0	19.8
11 17	1 4.78	+ 8 39.3	1.501	2.369	14.4	21.0	11 17	1 8.92	- 8 43.5	2.459	3.240	12.3	19.9
313913	2004 <i>PP</i> ₈₂		10 17.2	0°34	6°0/21.5	18	206465	2003 <i>TA</i> ₁₈		10 17.2	319°53	4°3/21.0	18
9 8	1 55.96	+23 3.7	1.752	2.517	18.0	19.5	9 8	1 49.51	+23 21.3	1.588	2.372	18.8	19.9
9 18	1 52.35	+24 5.6	1.667	2.515	15.1	19.3	9 18	1 47.54	+23 11.7	1.493	2.357	15.7	19.7
9 28	1 46.04	+24 50.5	1.602	2.514	11.9	19.0	9 28	1 42.88	+22 36.6	1.416	2.343	12.0	19.4
10 8	1 37.57	+25 15.4	1.559	2.514	8.5	18.9	10 8	1 36.08	+21 35.0	1.360	2.329	7.9	19.2
10 18	1 27.88	+25 19.1	1.541	2.514	6.2	18.7	10 18	1 28.05	+20 9.3	1.329	2.316	4.5	18.9
10 28	1 18.22	+25 3.7	1.549	2.516	6.7	18.8	10 28	1 20.05	+18 26.9	1.324	2.303	5.6	19.0
11 7	1 9.85	+24 34.8	1.583	2.518	9.5	18.9	11 7	1 13.34	+16 38.7	1.345	2.290	9.7	19.2
11 17	1 3.75	+23 59.7	1.641	2.520	12.8	19.1	11 17	1 8.89	+14 56.2	1.390	2.279	14.0	19.4
301433	2009 <i>DP</i> ₆₉		10 17.2	6°25	2°2/15.1	18	355816	2008 <i>TN</i> ₅₈		10 17.2	354°75	0°4/16.5	18
9 8	1 51.99	+ 7 0.3	1.800	2.627	15.2	20.6	9 8	1 44.54	+ 9 21.9	4.056	4.851	8.0	20.9
9 18	1 48.72	+ 6 9.4	1.723	2.627	11.9	20.4	9 18	1 41.63	+ 8 55.1	3.965	4.850	6.2	20.8
9 28	1 43.21	+ 5 7.1	1.668	2.627	8.0	20.2	9 28	1 37.76	+ 8 22.8	3.899	4.849	4.2	20.7
10 8	1 36.03	+ 3 58.7	1.638	2.627	4.0	19.9	10 8	1 33.22	+ 7 46.9	3.861	4.849	2.0	20.5
10 18	1 28.03	+ 2 50.6	1.636	2.628	2.6	19.8	10 18	1 28.33	+ 7 9.5	3.852	4.848	0.5	20.4
10 28	1 20.22	+ 1 50.0	1.661	2.628	6.2	20.1	10 28	1 23.51	+ 6 33.1	3.875	4.847	2.7	20.6
11 7	1 13.57	+ 1 3.3	1.712	2.629	10.2	20.3	11 7	1 19.13	+ 6 0.4	3.927	4.847	4.8	20.7
11 17	1 8.80	+ 0 34.2	1.787	2.629	13.7	20.5	11 17	1 15.52	+ 5 33.3	4.006	4.847	6.8	20.8
488175	2015 <i>XL</i> ₆₈		10 17.2	248°37	5°6/10.6	18	388245	2006 <i>KR</i> ₅₅		10 17.2	170°51	4°4/12.2	18
9 8	1 51.83	- 7 32.9	2.519	3.345	11.4	21.9	9 8	1 53.70	- 0 38.7	2.301	3.123	12.5	21.3
9 18	1 47.93	- 8 33.7	2.440	3.335	9.2	21.8	9 18	1 49.47	- 1 56.3	2.228	3.127	9.7	21.2
9 28	1 42.34	- 9 33.8	2.385	3.326	7.0	21.6	9 28	1 43.42	- 3 18.3	2.178	3.131	6.8	21.0
10 8	1 35.53	-10 27.7	2.357	3.317	5.7	21.5	10 8	1 36.06	- 4 38.7	2.157	3.133	4.6	20.9
10 18	1 28.08	-11 10.0	2.356	3.307	6.1	21.5	10 18	1 28.08	- 5 51.3	2.164	3.136	4.9	20.9
10 28	1 20.75	-11 36.2	2.384	3.297	8.0	21.6	10 28	1 20.28	- 6 49.9	2.201	3.137	7.2	21.0
11 7	1 14.22	-11 44.1	2.437	3.287	10.3	21.8	11 7	1 13.43	- 7 30.7	2.264	3.138	10.1	21.2
11 17	1 9.08	-11 33.0	2.514	3.277	12.6	21.9	11 17	1 8.11	- 7 51.9	2.352	3.138	12.6	21.4
485868	2012 <i>FP</i> ₁₇		10 17.2	158°68	0°9/16.2	18	300810	2007 <i>WZ</i> ₁₄		10 17.2	4°54	3°3/14.6	18

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
259496	2003 <i>ST</i> ₂₅₀		10 17.2 348°70		2°1/16.3 18		84775	2002 <i>XW</i> ₅₁		10 17.2 342°06		4°3/13.6 18	
9 8	1 51.08	+ 4 0.0	0.890	1.771	22.5	19.1	9 8	1 53.88	- 0 2.4	1.801	2.636	14.8	19.6
9 18	1 50.28	+ 4 27.8	0.824	1.756	17.9	18.7	9 18	1 50.21	- 0 45.1	1.726	2.634	11.6	19.4
9 28	1 45.62	+ 4 49.2	0.773	1.744	12.4	18.4	9 28	1 44.25	- 1 32.3	1.674	2.631	8.1	19.2
10 8	1 37.72	+ 5 8.1	0.741	1.733	6.1	18.0	10 8	1 36.60	- 2 18.1	1.646	2.629	5.0	19.0
10 18	1 27.92	+ 5 29.2	0.730	1.725	2.4	17.8	10 18	1 28.09	- 2 56.4	1.646	2.627	4.7	19.0
10 28	1 18.21	+ 5 57.8	0.739	1.719	8.4	18.1	10 28	1 19.78	- 3 21.2	1.672	2.625	7.7	19.2
11 7	1 10.57	+ 6 38.2	0.769	1.716	14.6	18.4	11 7	1 12.64	- 3 28.8	1.724	2.624	11.2	19.4
11 17	1 6.35	+ 7 32.5	0.816	1.715	20.1	18.7	11 17	1 7.42	- 3 17.7	1.799	2.623	14.5	19.6
49428	1998 <i>XL</i> ₉₄		10 17.2 241°14		0°5/17.7 18		129995	1999 <i>VA</i> ₂₀		10 17.2 93°54		4°9/13.7 18	
9 8	1 52.80	+14 16.0	2.352	3.139	13.3	18.7	9 8	2 0.48	- 3 13.1	1.842	2.665	15.0	19.6
9 18	1 48.99	+13 42.2	2.248	3.125	10.6	18.5	9 18	1 55.06	- 3 41.8	1.782	2.681	11.8	19.4
9 28	1 43.26	+12 54.7	2.167	3.111	7.4	18.3	9 28	1 47.33	- 4 10.8	1.746	2.696	8.4	19.2
10 8	1 36.08	+11 55.4	2.112	3.096	3.8	18.0	10 8	1 37.99	- 4 34.5	1.734	2.712	5.5	19.1
10 18	1 28.10	+10 48.2	2.085	3.081	0.5	17.7	10 18	1 27.98	- 4 47.8	1.750	2.727	5.2	19.1
10 28	1 20.14	+ 9 38.6	2.089	3.066	4.1	18.0	10 28	1 18.36	- 4 46.6	1.795	2.742	7.8	19.3
11 7	1 13.04	+ 8 32.5	2.121	3.050	7.8	18.2	11 7	1 10.12	- 4 29.1	1.866	2.756	11.0	19.5
11 17	1 7.47	+ 7 35.5	2.180	3.033	11.1	18.4	11 17	1 3.91	- 3 55.4	1.960	2.770	14.0	19.8
244361	2002 <i>NN</i> ₃₂		10 17.2 25°69		4°4/21.5 18		237854	2002 <i>GV</i> ₁₀₅		10 17.2 281°50		4°8/14.0 18	
9 8	1 46.86	+26 4.6	1.246	2.043	22.2	18.7	9 8	1 59.64	- 2 15.5	1.719	2.548	15.7	20.7
9 18	1 45.70	+25 21.7	1.190	2.061	18.4	18.5	9 18	1 55.01	- 2 37.2	1.633	2.535	12.5	20.4
9 28	1 41.58	+24 4.0	1.149	2.079	13.9	18.3	9 28	1 47.74	- 3 0.5	1.568	2.522	8.9	20.2
10 8	1 35.34	+22 13.9	1.130	2.100	8.9	18.1	10 8	1 38.40	- 3 19.9	1.528	2.509	5.6	20.0
10 18	1 28.18	+19 59.1	1.133	2.121	4.9	17.9	10 18	1 27.93	- 3 29.8	1.515	2.495	5.2	19.9
10 28	1 21.52	+17 32.9	1.163	2.144	5.7	18.0	10 28	1 17.53	- 3 24.9	1.529	2.482	8.3	20.1
11 7	1 16.56	+15 10.9	1.218	2.168	10.0	18.4	11 7	1 8.41	- 3 2.5	1.569	2.469	12.1	20.3
11 17	1 14.06	+13 6.1	1.296	2.192	14.3	18.7	11 17	1 1.48	- 2 22.1	1.632	2.456	15.7	20.5
186834	2004 <i>FJ</i> ₈₆		10 17.2 208°23		2°3/15.5 18		46716	1997 <i>NX</i>		10 17.2 66°85		6°2/10.9 18	
9 8	1 58.08	+ 5 25.6	1.678	2.500	16.3	20.6	9 8	1 51.54	- 2 27.1	1.750	2.594	14.8	19.3
9 18	1 53.75	+ 4 59.3	1.598	2.498	12.8	20.4	9 18	1 48.30	- 4 8.2	1.692	2.603	11.6	19.1
9 28	1 46.82	+ 4 23.9	1.539	2.495	8.7	20.1	9 28	1 42.87	- 5 53.2	1.658	2.612	8.4	19.0
10 8	1 37.90	+ 3 43.8	1.504	2.492	4.4	19.9	10 8	1 35.87	- 7 33.0	1.649	2.621	6.4	18.9
10 18	1 27.95	+ 3 4.5	1.497	2.489	2.6	19.7	10 18	1 28.17	- 8 58.7	1.667	2.631	6.9	18.9
10 28	1 18.17	+ 2 32.4	1.517	2.485	6.6	20.0	10 28	1 20.76	-10 2.6	1.712	2.640	9.6	19.1
11 7	1 9.72	+ 2 12.9	1.564	2.482	10.9	20.2	11 7	1 14.56	-10 40.6	1.781	2.649	12.6	19.3
11 17	1 3.46	+ 2 9.1	1.634	2.477	14.7	20.5	11 17	1 10.23	-10 52.2	1.871	2.659	15.4	19.5
517358	2014 <i>JV</i> ₈₆		10 17.2 230°31		6°2/10.4 18		24409	Caninquin		10 17.2 106°44		0°2/17.4 18	
9 8	1 54.17	- 7 10.2	2.288	3.114	12.4	22.4	9 8	1 52.43	+12 14.9	2.501	3.292	12.5	19.7
9 18	1 49.99	- 8 24.8	2.207	3.103	10.0	22.2	9 18	1 48.37	+11 53.4	2.423	3.303	9.8	19.6
9 28	1 43.89	- 9 39.7	2.150	3.091	7.7	22.1	9 28	1 42.63	+11 21.8	2.368	3.315	6.7	19.4
10 8	1 36.36	-10 48.3	2.119	3.079	6.3	22.0	10 8	1 35.69	+10 42.4	2.340	3.326	3.3	19.2
10 18	1 28.09	-11 44.2	2.117	3.066	6.8	22.0	10 18	1 28.20	+ 9 58.3	2.340	3.337	0.3	18.9
10 28	1 19.92	-12 21.8	2.142	3.053	8.9	22.1	10 28	1 20.88	+ 9 14.0	2.371	3.347	3.7	19.2
11 7	1 12.65	-12 38.1	2.192	3.039	11.4	22.2	11 7	1 14.44	+ 8 33.8	2.430	3.358	7.0	19.5
11 17	1 6.95	-12 32.4	2.265	3.025	13.9	22.4	11 17	1 9.42	+ 8 1.4	2.516	3.368	9.9	19.7
515336	2013 <i>AY</i> ₉₈		10 17.2 200°22		3°9/13.1 18		257064	2008 <i>FG</i> ₁₀₂		10 17.2 288°70		2°9/14.2 18	
9 8	1 54.21	- 0 48.6	2.356	3.177	12.3	22.3	9 8	1 50.14	+ 5 25.7	2.031	2.858	13.7	21.0
9 18	1 49.88	- 1 39.9	2.275	3.174	9.6	22.1	9 18	1 47.13	+ 4 19.9	1.941	2.846	10.7	20.8
9 28	1 43.74	- 2 34.8	2.218	3.170	6.7	21.9	9 28	1 42.11	+ 3 3.4	1.874	2.833	7.2	20.6
10 8	1 36.26	- 3 28.2	2.187	3.166	4.4	21.8	10 8	1 35.57	+ 1 41.7	1.833	2.821	3.9	20.3
10 18	1 28.11	- 4 15.0	2.185	3.162	4.3	21.8	10 18	1 28.20	+ 0 21.2	1.820	2.808	3.3	20.3
10 28	1 20.09	- 4 50.2	2.213	3.157	6.7	21.9	10 28	1 20.91	- 0 50.6	1.836	2.796	6.5	20.4
11 7	1 12.98	- 5 10.3	2.267	3.151	9.6	22.1	11 7	1 14.56	- 1 47.5	1.878	2.784	10.1	20.6
11 17	1 7.37	- 5 13.8	2.346	3.146	12.3	22.3	11 17	1 9.86	- 2 25.7	1.944	2.771	13.4	20.8
319025	2005 <i>VS</i> ₁₄		10 17.2 313°64		3°4/14.2 18		69952	1998 <i>VW</i> ₁₂		10 17.2 347°57		1°2/16.2 18	
9 8	1 52.51	+ 1 57.1	1.983	2.812	13.9	20.7	9 8	1 49.57	+ 8 38.2	1.755	2.585	15.4	18.7
9 18	1 48.98	+ 1 19.1	1.899	2.804	10.9	20.5	9 18	1 47.01	+ 8 12.0	1.673	2.577	12.1	18.5
9 28	1 43.35	+ 0 35.3	1.839	2.796	7.5	20.3	9 28	1 42.19	+ 7 34.2	1.611	2.570	8.2	18.3
10 8	1 36.15	- 0 9.4	1.803	2.788	4.3	20.1	10 8	1 35.65	+ 6 48.5	1.574	2.564	4.0	18.0
10 18	1 28.12	- 0 49.6	1.795	2.781	3.7	20.0	10 18	1 28.20	+ 6 0.1	1.563	2.558	1.4	17.8
10 28	1 20.20	- 1 19.8	1.815	2.773	6.7	20.2	10 28	1 20.86	+ 5 15.3	1.579	2.554	5.6	18.1
11 7	1 13.30	- 1 35.6	1.861	2.766	10.2	20.4	11 7	1 14.63	+ 4 40.1	1.622	2.550	9.8	18.3
11 17	1 8.13	- 1 35.0	1.931	2.759	13.4	20.6	11 17	1 10.28	+ 4 19.0	1.687	2.547	13.5	18.5
351827	2006 <i>QQ</i> ₂₆		10 17.2 83°18		5°0/21.6 18		433778	2015 <i>BJ</i> ₆₄		10 17.2 123°81		0°1/17.2 16	
9 8	1 58.18	+23 49.6	1.948	2.697	16.9	20.7	9 8	2 0.43	+11 1.0	1.749	2.551	16.6	22.3
9 18	1 53.62	+24 24.1	1.872	2.710	14.2	20.5	9 18	1 55.34	+10 49.7	1.679	2.565	13.1	22.1
9 28	1 46.61	+24 40.4	1.815	2.723	10.9	20.4	9 28	1 47.73	+10 26.1	1.629	2.579	9.0	21.9
10 8	1 37.76	+24 36.8	1.781	2.736	7.7	20.2	10 8	1 38.28	+ 9 52.6	1.605	2.592	4.4	21.7
10 18	1 27.98	+24 13.8	1.774	2.749	5.3	20.1	10 18	1 27.98	+ 9 13.6	1.608	2.604	0.4	21.4
10 28	1 18.42	+23 34.9	1.794	2.762	5.7	20.1	10 28	1 18.00	+ 8 34.8	1.640	2.616	5.1	21.8
11 7	1 10.15	+22 46.5	1.841	2.775	8.4	20.3	11 7	1 9.44	+ 8 2.0	1.699	2.628	9.4	22.1
11 17	1 3.98	+21 55.8	1.914	2.788	11.5	20.5	11 17	1 3.07	+ 7 39.9	1.784	2.639	13.1	22.3
400612	2009 <i>BS</i> ₁₈₅		10 17.2 113°94		5°3/22.1 18		399736	2005 <i>DA</i> ₂		10 17.2 232°93		6°3/22.8 18	
9													

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
480131	2015 <i>FQ</i> ₁₄₇		10 17.2	89°96	1°2/16.4	17	371385	2006 <i>QJ</i> ₁₈₇		10 17.2	57°68	1°9/18.7	16
9 8	1 59.65	+ 7 28.1	1.609	2.427	17.1	21.5	9 8	1 56.48	+18 4.6	1.213	2.029	21.7	20.8
9 18	1 54.92	+ 7 19.1	1.542	2.439	13.4	21.3	9 18	1 53.08	+17 32.7	1.164	2.054	17.3	20.6
9 28	1 47.54	+ 7 0.4	1.496	2.451	9.1	21.0	9 28	1 46.51	+16 35.6	1.133	2.080	12.2	20.4
10 8	1 38.23	+ 6 35.4	1.474	2.463	4.4	20.8	10 8	1 37.74	+15 16.9	1.123	2.106	6.7	20.2
10 18	1 28.00	+ 6 8.6	1.480	2.475	1.4	20.6	10 18	1 28.09	+13 44.4	1.137	2.132	2.0	20.0
10 28	1 18.13	+ 5 45.7	1.512	2.486	5.8	20.9	10 28	1 19.10	+12 9.2	1.177	2.158	5.7	20.3
11 7	1 9.75	+ 5 31.6	1.572	2.498	10.2	21.2	11 7	1 12.06	+10 43.0	1.243	2.185	10.7	20.6
11 17	1 3.67	+ 5 29.6	1.655	2.509	14.1	21.5	11 17	1 7.74	+ 9 34.2	1.331	2.211	15.1	21.0
518063	2015 <i>XU</i> ₃₃₄		10 17.2	6°41	2°6/19.8	18	223985	2005 <i>AO</i> ₃₄		10 17.2	274°54	6°2/24.8	18
9 8	1 49.35	+19 47.8	1.906	2.691	16.0	20.6	9 8	1 52.23	+32 8.8	2.456	3.149	15.1	19.9
9 18	1 46.72	+19 30.6	1.822	2.692	13.1	20.4	9 18	1 48.76	+32 22.4	2.355	3.143	13.2	19.7
9 28	1 41.92	+18 54.5	1.759	2.693	9.6	20.2	9 28	1 43.23	+32 15.7	2.273	3.137	10.9	19.5
10 8	1 35.49	+18 0.6	1.719	2.695	5.8	20.0	10 8	1 36.14	+31 46.8	2.212	3.132	8.5	19.4
10 18	1 28.24	+16 52.4	1.706	2.697	2.7	19.8	10 18	1 28.21	+30 55.4	2.177	3.126	6.7	19.3
10 28	1 21.15	+15 36.2	1.720	2.700	4.4	19.9	10 28	1 20.35	+29 44.7	2.169	3.120	6.3	19.2
11 7	1 15.17	+14 19.7	1.762	2.703	8.1	20.2	11 7	1 13.46	+28 20.3	2.188	3.114	7.8	19.3
11 17	1 10.99	+13 10.1	1.829	2.707	11.7	20.4	11 17	1 8.24	+26 49.8	2.235	3.108	10.1	19.5
5041	Theotes		10 17.2	251°31	0°3/16.7	18	411121	2009 <i>WY</i> ₁₄₃		10 17.2	23°37	1°9/19.0	18
9 8	1 46.24	+ 8 44.8	4.473	5.262	7.4	18.1	9 8	1 53.17	+16 6.6	2.169	2.954	14.4	20.9
9 18	1 42.86	+ 8 34.2	4.378	5.259	5.8	18.0	9 18	1 49.39	+16 13.3	2.085	2.957	11.6	20.8
9 28	1 38.58	+ 8 19.3	4.309	5.257	3.9	17.8	9 28	1 43.59	+16 7.0	2.022	2.960	8.3	20.6
10 8	1 33.66	+ 8 1.5	4.268	5.255	1.9	17.7	10 8	1 36.29	+15 48.8	1.984	2.963	4.8	20.4
10 18	1 28.41	+ 7 42.3	4.256	5.252	0.4	17.5	10 18	1 28.21	+15 20.7	1.974	2.967	1.9	20.2
10 28	1 23.21	+ 7 23.8	4.276	5.250	2.4	17.7	10 28	1 20.27	+14 46.7	1.992	2.971	4.0	20.3
11 7	1 18.41	+ 7 7.7	4.326	5.247	4.4	17.9	11 7	1 13.32	+14 11.8	2.038	2.975	7.5	20.6
11 17	1 14.34	+ 6 55.8	4.405	5.245	6.2	18.0	11 17	1 8.04	+13 40.8	2.110	2.979	10.8	20.8
111502	2001 <i>YM</i> ₆₉		10 17.2	39°14	5°1/12.6	18	268031	2004 <i>PL</i> ₁₃		10 17.2	59°84	2°8/15.1	18
9 8	1 53.67	- 3 13.4	1.992	2.825	13.7	19.3	9 8	1 56.16	+ 6 2.5	1.424	2.261	18.0	20.1
9 18	1 49.76	- 4 4.2	1.923	2.827	10.8	19.2	9 18	1 52.30	+ 5 14.4	1.373	2.281	13.9	19.9
9 28	1 43.79	- 4 56.6	1.877	2.829	7.8	19.0	9 28	1 45.75	+ 4 15.6	1.342	2.302	9.3	19.7
10 8	1 36.34	- 5 44.5	1.857	2.832	5.4	18.8	10 8	1 37.33	+ 3 12.6	1.335	2.323	4.7	19.5
10 18	1 28.18	- 6 22.1	1.863	2.835	5.6	18.9	10 18	1 28.14	+ 2 13.0	1.353	2.345	3.2	19.4
10 28	1 20.24	- 6 44.1	1.898	2.837	8.0	19.0	10 28	1 19.45	+ 1 24.7	1.399	2.366	7.1	19.7
11 7	1 13.39	- 6 47.8	1.958	2.840	11.0	19.2	11 7	1 12.39	+ 0 53.3	1.469	2.388	11.4	20.0
11 17	1 8.28	- 6 32.4	2.041	2.843	13.8	19.4	11 17	1 7.66	+ 0 41.4	1.562	2.409	15.1	20.3
297066	2010 <i>JB</i> ₃₆		10 17.2	13°93	0°6/17.7	18	56510	2000 <i>HT</i> ₈		10 17.2	184°15	2°2/15.6	18
9 8	1 52.51	+13 31.2	1.598	2.414	17.3	20.9	9 8	1 58.01	+ 5 25.0	1.677	2.500	16.3	18.9
9 18	1 49.53	+13 11.4	1.523	2.416	13.8	20.7	9 18	1 53.68	+ 5 2.6	1.600	2.500	12.8	18.7
9 28	1 44.01	+12 35.1	1.467	2.418	9.6	20.5	9 28	1 46.78	+ 4 31.5	1.544	2.500	8.7	18.4
10 8	1 36.57	+11 45.0	1.434	2.420	4.9	20.2	10 8	1 37.93	+ 3 55.9	1.512	2.500	4.3	18.2
10 18	1 28.15	+10 46.1	1.427	2.423	0.6	19.9	10 18	1 28.08	+ 3 21.3	1.507	2.500	2.5	18.1
10 28	1 19.95	+ 9 45.5	1.447	2.427	5.2	20.3	10 28	1 18.43	+ 2 53.5	1.530	2.499	6.4	18.3
11 7	1 13.07	+ 8 51.1	1.494	2.430	9.8	20.5	11 7	1 10.12	+ 2 37.6	1.579	2.499	10.7	18.6
11 17	1 8.34	+ 8 9.1	1.564	2.434	13.8	20.8	11 17	1 3.99	+ 2 36.8	1.652	2.498	14.5	18.8
282263	2002 <i>JJ</i> ₁₄₅		10 17.2	59°40	4°4/21.5	18	229831	2008 <i>VH</i> ₇₂		10 17.2	143°50	7°7/11.2	18
9 8	1 54.20	+24 39.5	1.612	2.381	19.1	19.9	9 8	1 59.13	-10 26.7	1.851	2.678	14.8	20.2
9 18	1 50.79	+24 25.3	1.548	2.401	15.8	19.7	9 18	1 54.16	-11 21.5	1.789	2.681	12.1	20.0
9 28	1 44.76	+23 45.9	1.503	2.422	12.0	19.5	9 28	1 46.85	-12 11.8	1.749	2.685	9.5	19.9
10 8	1 36.86	+22 41.7	1.479	2.443	7.9	19.3	10 8	1 37.86	-12 50.0	1.734	2.688	7.8	19.8
10 18	1 28.14	+21 16.8	1.480	2.464	4.7	19.2	10 18	1 28.10	-13 9.6	1.745	2.691	8.2	19.8
10 28	1 19.85	+19 39.1	1.509	2.485	5.4	19.3	10 28	1 18.66	-13 6.2	1.782	2.694	10.3	20.0
11 7	1 13.07	+17 59.2	1.565	2.507	8.9	19.6	11 7	1 10.54	-12 38.9	1.845	2.697	13.0	20.1
11 17	1 8.56	+16 26.5	1.645	2.528	12.5	19.8	11 17	1 4.45	-11 49.3	1.929	2.699	15.6	20.3
85703	1998 <i>RC</i> ₇₅		10 17.2	343°49	2°4/18.9	18	244579	2002 <i>XA</i> ₈		10 17.2	44°03	4°4/21.8	18
9 8	1 55.76	+15 11.3	1.955	2.745	15.5	18.9	9 8	1 51.35	+25 38.1	1.679	2.444	18.6	19.7
9 18	1 51.77	+15 42.7	1.865	2.739	12.6	18.7	9 18	1 48.57	+25 15.5	1.607	2.457	15.5	19.5
9 28	1 45.44	+16 2.4	1.796	2.734	9.1	18.5	9 28	1 43.29	+24 26.7	1.553	2.471	11.8	19.3
10 8	1 37.28	+16 10.3	1.751	2.729	5.3	18.2	10 8	1 36.19	+23 12.4	1.522	2.484	7.9	19.1
10 18	1 28.10	+16 7.4	1.733	2.725	2.4	18.0	10 18	1 28.24	+21 36.5	1.515	2.498	4.8	19.0
10 28	1 18.95	+15 56.6	1.743	2.721	4.6	18.2	10 28	1 20.63	+19 47.2	1.536	2.513	5.3	19.1
11 7	1 10.89	+15 42.6	1.781	2.718	8.4	18.4	11 7	1 14.41	+17 55.1	1.584	2.528	8.7	19.3
11 17	1 4.75	+15 30.2	1.843	2.715	12.0	18.6	11 17	1 10.31	+16 10.4	1.658	2.543	12.3	19.6
213056	1999 <i>JA</i> ₁₄		10 17.2	63°94	6°0/13.7	18	140158	2001 <i>SX</i> ₁₆₉		10 17.2	248°01	3°3/15.6	18
9 8	2 0.55	- 1 37.1	1.238	2.087	19.4	19.3	9 8	2 16.32	+ 9 22.9	1.042	1.861	24.3	21.0
9 18	1 56.04	- 2 25.7	1.193	2.106	15.2	19.1	9 18	2 11.50	+ 8 25.9	0.935	1.831	20.0	20.6
9 28	1 48.43	- 3 16.9	1.167	2.126	10.6	18.9	9 28	2 1.53	+ 7 0.0	0.843	1.798	14.2	20.1
10 8	1 38.64	- 4 2.3	1.164	2.145	6.8	18.8	10 8	1 46.42	+ 5 6.6	0.773	1.761	7.3	19.6
10 18	1 28.00	- 4 33.4	1.185	2.165	6.5	18.8	10 18	1 27.26	+ 2 54.8	0.726	1.720	3.9	19.2
10 28	1 18.03	- 4 43.8	1.232	2.185	9.8	19.1	10 28	1 6.55	+ 0 42.9	0.707	1.675	11.7	19.5
11 7	1 10.00	- 4 31.2	1.302	2.205	13.8	19.4	11 7	0 47.45	- 1 7.6	0.711	1.626	20.3	19.7
11 17	1 4.71	- 3 56.4	1.392	2.224	17.4	19.7	11 17	0 32.55	- 2 21.6	0.734	1.574	28.1	20.0
393591	2003 <i>SK</i> ₄₀₇		10 17.2	285°79	7°8/11.1	18	64679	2001 <i>XU</i> ₆₈		10 17.2	117°01	1°5/18.6	18

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
510188	2011 <i>BW</i> ₁₂₃	10 17.2 238°87		0°3/17.0 18			40571	1999 <i>RD</i> ₁₂₉	10 17.2 93°23		1°9/18.7 18		
9 8	1 57.23	+10 51.1	1.740	2.549	16.4	22.6	9 8	1 59.81	+16 10.7	1.507	2.305	19.0	18.8
9 18	1 53.19	+10 33.3	1.649	2.540	13.0	22.4	9 18	1 55.29	+16 5.9	1.443	2.323	15.2	18.6
9 28	1 46.56	+10 2.2	1.578	2.530	9.0	22.1	9 28	1 47.92	+15 42.6	1.399	2.341	10.8	18.4
10 8	1 37.89	+9 20.2	1.532	2.519	4.4	21.8	10 8	1 38.48	+15 2.3	1.377	2.359	5.9	18.1
10 18	1 28.09	+8 31.8	1.513	2.509	0.6	21.5	10 18	1 28.09	+14 9.4	1.382	2.376	1.9	17.9
10 28	1 18.33	+7 43.3	1.521	2.498	5.4	21.8	10 28	1 18.14	+13 10.9	1.414	2.393	5.2	18.2
11 7	1 9.80	+7 1.6	1.557	2.486	10.1	22.1	11 7	1 9.84	+12 15.2	1.472	2.410	9.8	18.5
11 17	1 3.40	+6 32.0	1.617	2.474	14.1	22.3	11 17	1 4.03	+11 29.2	1.554	2.426	13.8	18.8
322076	2010 <i>VW</i> ₁₁₂	10 17.2 258°82		1°5/18.9 18			519479	2012 <i>CD</i> ₅₉	10 17.2 286°09		3°6/20.6 17		
9 8	1 51.00	+17 25.6	2.280	3.060	13.9	20.5	9 8	1 55.02	+20 46.7	2.204	2.964	14.9	22.2
9 18	1 47.64	+16 58.1	2.185	3.054	11.2	20.3	9 18	1 50.98	+21 8.5	2.111	2.961	12.3	22.0
9 28	1 42.38	+16 15.2	2.112	3.049	8.0	20.1	9 28	1 44.79	+21 15.4	2.038	2.958	9.3	21.8
10 8	1 35.71	+15 18.5	2.063	3.043	4.5	19.9	10 8	1 36.96	+21 6.9	1.989	2.955	6.1	21.6
10 18	1 28.28	+14 11.3	2.043	3.037	1.5	19.7	10 18	1 28.22	+20 43.7	1.968	2.952	3.7	21.5
10 28	1 20.95	+12 59.0	2.053	3.032	3.9	19.8	10 28	1 19.53	+20 9.0	1.975	2.949	4.7	21.5
11 7	1 14.53	+11 48.1	2.091	3.026	7.5	20.0	11 7	1 11.84	+19 28.1	2.010	2.946	7.7	21.7
11 17	1 9.66	+10 44.4	2.155	3.020	10.8	20.2	11 17	1 5.89	+18 46.8	2.071	2.943	10.8	21.9
490486	2009 <i>SW</i> ₃₆₂	10 17.2 342°66		2°9/19.4 17			46814	1998 <i>KS</i> ₆₄	10 17.2 109°63		1°6/15.9 18		
9 8	1 58.02	+16 17.6	2.036	2.814	15.4	21.3	9 8	1 58.39	+8 49.8	1.664	2.479	16.8	19.7
9 18	1 53.49	+16 59.5	1.945	2.810	12.5	21.1	9 18	1 53.77	+8 4.8	1.601	2.497	13.1	19.5
9 28	1 46.60	+17 30.2	1.874	2.806	9.2	20.9	9 28	1 46.67	+7 7.5	1.560	2.515	8.8	19.3
10 8	1 37.87	+17 48.7	1.829	2.803	5.6	20.7	10 8	1 37.80	+6 2.6	1.543	2.532	4.2	19.0
10 18	1 28.10	+17 55.4	1.810	2.800	3.0	20.5	10 18	1 28.16	+4 56.7	1.554	2.549	1.9	18.9
10 28	1 18.35	+17 52.5	1.821	2.797	4.7	20.6	10 28	1 18.93	+3 57.3	1.594	2.565	6.0	19.2
11 7	1 9.68	+17 44.2	1.859	2.795	8.2	20.9	11 7	1 11.15	+3 10.9	1.660	2.580	10.2	19.5
11 17	1 2.92	+17 35.1	1.923	2.792	11.7	21.1	11 17	1 5.54	+2 41.2	1.750	2.595	13.8	19.8
177310	2003 <i>YD</i> ₂₂	10 17.2 84°77		3°9/20.4 18			476558	2008 <i>KP</i> ₂₁	10 17.2 72°82		0°6/16.7 16		
9 8	1 57.12	+21 21.9	1.475	2.261	19.9	20.1	9 8	1 58.82	+11 49.5	1.518	2.331	18.2	21.8
9 18	1 53.42	+21 21.3	1.407	2.274	16.3	19.9	9 18	1 54.12	+11 2.2	1.470	2.363	14.2	21.6
9 28	1 46.79	+20 57.1	1.356	2.287	12.1	19.7	9 28	1 46.84	+9 59.6	1.442	2.396	9.5	21.4
10 8	1 37.97	+20 9.4	1.327	2.299	7.6	19.5	10 8	1 37.82	+8 46.8	1.439	2.428	4.5	21.2
10 18	1 28.11	+19 1.6	1.323	2.312	4.1	19.3	10 18	1 28.17	+7 31.0	1.463	2.459	0.9	21.0
10 28	1 18.61	+17 41.4	1.346	2.325	5.6	19.4	10 28	1 19.13	+6 20.5	1.515	2.490	5.6	21.4
11 7	1 10.76	+16 19.1	1.395	2.337	9.8	19.7	11 7	1 11.73	+5 22.7	1.593	2.521	10.0	21.8
11 17	1 5.43	+15 4.3	1.468	2.349	13.9	20.0	11 17	1 6.65	+4 42.0	1.696	2.551	13.7	22.1
412833	2014 <i>PN</i> ₄₆	10 17.2 68°86		1°0/18.2 18			469869	2005 <i>UQ</i> ₅₂	10 17.2 337°45		3°4/14.9 18		
9 8	1 53.84	+13 57.8	2.170	2.961	14.1	21.5	9 8	1 50.47	+4 54.0	1.199	2.059	19.2	20.2
9 18	1 49.82	+13 52.9	2.093	2.971	11.3	21.4	9 18	1 48.84	+4 19.2	1.123	2.045	15.2	19.9
9 28	1 43.82	+13 36.1	2.037	2.980	7.9	21.2	9 28	1 44.11	+3 32.1	1.066	2.032	10.4	19.6
10 8	1 36.39	+13 8.9	2.007	2.990	4.2	21.0	10 8	1 36.88	+2 38.7	1.030	2.020	5.4	19.3
10 18	1 28.26	+12 34.4	2.004	2.999	1.0	20.8	10 18	1 28.23	+1 47.4	1.018	2.009	3.9	19.2
10 28	1 20.31	+11 56.9	2.031	3.009	4.0	21.0	10 28	1 19.68	+1 7.8	1.029	2.000	8.5	19.5
11 7	1 13.40	+11 21.3	2.085	3.019	7.6	21.2	11 7	1 12.71	+0 47.6	1.063	1.991	13.7	19.7
11 17	1 8.15	+10 52.2	2.166	3.029	10.8	21.5	11 17	1 8.38	+0 50.5	1.117	1.984	18.3	20.0
115549	2003 <i>UE</i> ₆₆	10 17.2 323°49		6°6/10.1 18			67248	2000 <i>EY</i> ₈₇	10 17.2 303°23		3°2/20.7 18		
9 8	1 50.58	-7 50.4	2.130	2.968	12.8	18.9	9 8	1 49.74	+22 33.1	2.161	2.924	15.0	18.1
9 18	1 47.32	-9 3.5	2.059	2.960	10.3	18.7	9 18	1 47.00	+22 14.1	2.051	2.903	12.5	17.9
9 28	1 42.16	-10 15.8	2.010	2.953	8.0	18.5	9 28	1 42.17	+21 35.3	1.961	2.883	9.5	17.7
10 8	1 35.59	-11 20.5	1.988	2.947	6.7	18.4	10 8	1 35.72	+20 36.8	1.895	2.862	6.1	17.4
10 18	1 28.32	-12 10.9	1.991	2.940	7.2	18.5	10 18	1 28.34	+19 20.8	1.855	2.842	3.4	17.2
10 28	1 21.19	-12 41.6	2.022	2.934	9.3	18.6	10 28	1 20.94	+17 52.6	1.844	2.822	4.4	17.3
11 7	1 15.02	-12 50.0	2.077	2.928	11.8	18.7	11 7	1 14.46	+16 19.9	1.862	2.802	7.8	17.4
11 17	1 10.41	-12 36.0	2.153	2.922	14.2	18.9	11 17	1 9.64	+14 50.5	1.906	2.783	11.4	17.6
231471	2007 <i>TP</i> ₁₈₅	10 17.2 354°36		1°3/15.8 18			7830	Akihikotago	10 17.2 108°86		1°8/15.7 18		
9 8	1 50.02	+7 18.3	2.449	3.261	12.1	20.4	9 8	1 57.84	+7 43.4	1.697	2.515	16.4	18.1
9 18	1 46.62	+6 46.5	2.365	3.260	9.4	20.3	9 18	1 53.31	+7 1.6	1.634	2.531	12.8	17.9
9 28	1 41.54	+6 6.9	2.304	3.259	6.4	20.1	9 28	1 46.36	+6 8.8	1.591	2.547	8.6	17.7
10 8	1 35.26	+5 22.6	2.270	3.258	3.1	19.9	10 8	1 37.67	+5 9.7	1.573	2.562	4.1	17.5
10 18	1 28.36	+4 37.7	2.264	3.258	1.5	19.7	10 18	1 28.20	+4 10.6	1.583	2.576	2.1	17.4
10 28	1 21.58	+3 56.6	2.288	3.258	4.5	20.0	10 28	1 19.10	+3 18.4	1.621	2.591	6.0	17.7
11 7	1 15.61	+3 23.6	2.339	3.257	7.8	20.2	11 7	1 11.40	+2 39.1	1.686	2.605	10.2	18.0
11 17	1 11.01	+3 1.6	2.417	3.257	10.6	20.4	11 17	1 5.81	+2 16.1	1.774	2.618	13.7	18.2
104013	2000 <i>DL</i> ₁₀₇	10 17.2 167°20		2°4/15.0 18			461272	2015 <i>XM</i> ₆₂	10 17.2 133°41		0°4/17.7 18		
9 8	1 55.67	+4 3.5	2.192	3.005	13.3	20.4	9 8	1 50.58	+14 5.0	2.523	3.311	12.5	21.5
9 18	1 51.18	+3 32.5	2.112	3.008	10.4	20.2	9 18	1 47.02	+13 28.6	2.437	3.315	9.9	21.3
9 28	1 44.72	+2 55.3	2.056	3.011	7.0	20.0	9 28	1 41.80	+12 40.1	2.375	3.319	6.8	21.1
10 8	1 36.83	+2 15.8	2.026	3.013	3.7	19.8	10 8	1 35.38	+11 42.0	2.338	3.323	3.5	20.9
10 18	1 28.23	+1 38.6	2.025	3.014	2.6	19.7	10 18	1 28.39	+10 37.9	2.331	3.327	0.4	20.6
10 28	1 19.80	+1 8.4	2.053	3.016	5.6	19.9	10 28	1 21.53	+9 32.9	2.354	3.331	3.7	20.9
11 7	1 12.37	+0 49.0	2.108	3.017	9.0	20.1	11 7	1 15.51	+8 32.3	2.405	3.334	7.0	21.1
11 17	1 6.60	+0 43.0	2.189	3.018	12.0	20.3	11 17	1 10.86	+7 40.4	2.484	3.338	9.9	21.3
265272	2004 <i>FF</i> ₄₁	10 17.2 154°13		0°4/16.9 17			477821	2011 <i>EH</i> ₃₆	10 17.2 344°67		3°6/14.4 18		
9 8	1 58.03	+10 23.9	1.724	2.533	16.5	21.2	9 8	1 51.06	+5 50.8	1.326	2.1		

EPHEMERIDES

10 17.2

10 17.2

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
250702	2005 <i>QU</i> ₁₇₆		10 17.2 350°84	1°8/15.7 18			340277	2006 <i>BC</i> ₂₂₃		10 17.2 90°70	7°9/24.0 18		
9 8	1 52.40	+ 6 42.6	1.842	2.668	15.0	20.6	9 8	2 0.67	+30 2.7	1.822	2.539	18.9	20.7
9 18	1 49.09	+ 6 13.2	1.763	2.665	11.7	20.4	9 18	1 56.09	+31 1.9	1.746	2.551	16.4	20.5
9 28	1 43.55	+ 5 34.3	1.705	2.663	7.9	20.1	9 28	1 48.65	+31 39.0	1.687	2.563	13.4	20.4
10 8	1 36.36	+ 4 49.9	1.672	2.661	3.9	19.9	10 8	1 38.97	+31 50.0	1.649	2.574	10.5	20.2
10 18	1 28.31	+ 4 5.2	1.666	2.660	2.1	19.8	10 18	1 28.12	+31 33.0	1.635	2.586	8.3	20.1
10 28	1 20.41	+ 3 26.2	1.688	2.659	5.8	20.0	10 28	1 17.45	+30 50.8	1.647	2.597	8.0	20.1
11 7	1 13.63	+ 2 58.1	1.737	2.658	9.7	20.3	11 7	1 8.26	+29 50.3	1.685	2.608	9.9	20.3
11 17	1 8.70	+ 2 44.3	1.809	2.658	13.3	20.5	11 17	1 1.52	+28 40.9	1.748	2.619	12.5	20.4
477991	2011 <i>SX</i> ₁₁₇		10 17.2 3°73	1°3/18.0 18			58406	1995 <i>WN</i> ₁₈		10 17.2 3°19	2°1/15.9 18		
9 8	1 57.04	+11 29.4	1.488	2.307	18.2	20.1	9 8	1 46.72	+ 8 46.1	0.973	1.847	21.6	19.1
9 18	1 53.40	+12 0.7	1.412	2.306	14.6	19.9	9 18	1 46.32	+ 8 11.2	0.916	1.844	17.0	18.8
9 28	1 46.89	+12 20.6	1.356	2.307	10.3	19.6	9 28	1 42.53	+ 7 17.4	0.875	1.844	11.5	18.5
10 8	1 38.13	+12 29.7	1.322	2.307	5.4	19.4	10 8	1 36.12	+ 6 11.2	0.853	1.845	5.5	18.2
10 18	1 28.16	+12 29.8	1.314	2.309	1.3	19.1	10 18	1 28.36	+ 5 2.5	0.853	1.848	2.5	18.1
10 28	1 18.35	+12 24.9	1.332	2.312	5.4	19.4	10 28	1 20.94	+ 4 3.1	0.875	1.853	8.0	18.4
11 7	1 10.03	+12 20.5	1.376	2.315	10.1	19.7	11 7	1 15.37	+ 3 22.9	0.919	1.859	13.7	18.8
11 17	1 4.14	+12 21.4	1.443	2.320	14.4	19.9	11 17	1 12.67	+ 3 7.1	0.981	1.868	18.6	19.1
316496	2010 <i>VT</i> ₁₀₂		10 17.2 2°91	0°2/17.4 18			60442	2000 <i>CQ</i> ₈₃		10 17.2 256°45	1°5/18.5 18		
9 8	1 51.83	+12 31.9	2.112	2.913	14.1	20.9	9 8	1 56.00	+14 30.3	1.965	2.756	15.4	19.2
9 18	1 48.38	+12 8.2	2.027	2.913	11.2	20.8	9 18	1 51.95	+14 35.0	1.874	2.751	12.4	19.0
9 28	1 42.93	+11 32.0	1.965	2.913	7.7	20.5	9 28	1 45.57	+14 26.7	1.803	2.745	8.8	18.8
10 8	1 36.02	+10 45.7	1.927	2.914	3.9	20.3	10 8	1 37.41	+14 6.2	1.757	2.739	4.8	18.5
10 18	1 28.35	+ 9 53.5	1.917	2.914	0.3	20.0	10 18	1 28.26	+13 36.0	1.738	2.733	1.5	18.3
10 28	1 20.82	+ 9 0.7	1.937	2.914	4.3	20.3	10 28	1 19.17	+13 0.5	1.748	2.727	4.5	18.5
11 7	1 14.27	+ 8 12.9	1.984	2.914	8.1	20.6	11 7	1 11.17	+12 25.4	1.786	2.721	8.5	18.7
11 17	1 9.37	+ 7 34.8	2.056	2.915	11.5	20.8	11 17	1 5.06	+11 56.0	1.848	2.715	12.2	18.9
195372	2002 <i>FY</i> ₃₁		10 17.2 117°64	3°1/14.6 18			99661	2002 <i>HL</i> ₁₃		10 17.2 172°31	8°9/ 6.1 18		
9 8	1 56.29	+ 3 28.4	1.863	2.686	14.9	20.5	9 8	1 52.97	-11 27.7	2.033	2.867	13.5	19.0
9 18	1 51.93	+ 2 44.4	1.795	2.696	11.6	20.3	9 18	1 49.28	-13 53.1	1.977	2.869	11.2	18.9
9 28	1 45.36	+ 1 53.4	1.749	2.706	7.9	20.1	9 28	1 43.55	-16 16.1	1.946	2.871	9.4	18.8
10 8	1 37.18	+ 1 0.6	1.729	2.715	4.3	19.9	10 8	1 36.32	-18 26.1	1.943	2.872	8.9	18.7
10 18	1 28.26	+ 0 12.0	1.737	2.724	3.4	19.9	10 18	1 28.36	-20 13.6	1.966	2.873	9.9	18.8
10 28	1 19.63	- 0 26.4	1.773	2.733	6.6	20.1	10 28	1 20.59	-21 31.7	2.015	2.874	11.9	18.9
11 7	1 12.21	- 0 50.2	1.835	2.742	10.2	20.4	11 7	1 13.89	-22 17.7	2.087	2.874	14.1	19.1
11 17	1 6.70	- 0 57.2	1.921	2.750	13.5	20.6	11 17	1 8.90	-22 32.6	2.179	2.874	16.1	19.3
223934	2004 <i>XL</i> ₅		10 17.2 341°98	2°1/19.0 18			99683	2002 <i>JX</i> ₂₀		10 17.2 59°30	1°6/15.9 18		
9 8	1 51.26	+16 20.2	1.851	2.650	16.0	20.2	9 8	1 56.25	+ 5 23.1	2.061	2.875	14.0	19.3
9 18	1 48.39	+16 25.0	1.762	2.641	12.9	20.0	9 18	1 51.64	+ 5 13.4	1.997	2.892	10.9	19.1
9 28	1 43.22	+16 14.6	1.692	2.634	9.3	19.8	9 28	1 45.02	+ 4 57.6	1.955	2.909	7.3	18.9
10 8	1 36.27	+15 49.7	1.646	2.626	5.4	19.5	10 8	1 36.98	+ 4 38.8	1.938	2.926	3.6	18.7
10 18	1 28.33	+15 12.9	1.627	2.620	2.2	19.3	10 18	1 28.31	+ 4 20.7	1.950	2.944	1.8	18.6
10 28	1 20.45	+14 28.9	1.634	2.614	4.6	19.5	10 28	1 19.94	+ 4 7.2	1.991	2.961	5.1	18.9
11 7	1 13.66	+13 44.2	1.669	2.609	8.6	19.7	11 7	1 12.69	+ 4 1.8	2.060	2.979	8.6	19.1
11 17	1 8.76	+13 4.9	1.728	2.604	12.4	19.9	11 17	1 7.19	+ 4 6.6	2.153	2.996	11.7	19.4
374708	2006 <i>RU</i> ₁₀₀		10 17.2 359°31	3°8/15.3 18			441318	2008 <i>AJ</i> ₁₃₄		10 17.2 358°45	1°5/16.2 17		
9 8	1 57.64	+ 2 2.3	1.165	2.020	20.0	19.8	9 8	1 51.97	+ 7 10.2	1.393	2.237	18.0	20.9
9 18	1 54.46	+ 1 53.4	1.100	2.017	15.8	19.5	9 18	1 49.50	+ 6 58.9	1.322	2.233	14.1	20.7
9 28	1 47.89	+ 1 38.4	1.053	2.016	10.9	19.2	9 28	1 44.24	+ 6 36.5	1.269	2.231	9.6	20.4
10 8	1 38.70	+ 1 23.1	1.027	2.015	5.8	18.9	10 8	1 36.84	+ 6 7.1	1.240	2.229	4.7	20.1
10 18	1 28.13	+ 1 13.9	1.024	2.015	4.1	18.8	10 18	1 28.32	+ 5 36.1	1.234	2.229	1.8	19.9
10 28	1 17.87	+ 1 17.2	1.047	2.016	8.5	19.1	10 28	1 20.00	+ 5 10.2	1.255	2.230	6.5	20.2
11 7	1 9.46	+ 1 37.3	1.092	2.018	13.6	19.4	11 7	1 13.13	+ 4 55.4	1.299	2.232	11.3	20.5
11 17	1 3.95	+ 2 15.4	1.157	2.021	18.1	19.7	11 17	1 8.61	+ 4 55.7	1.366	2.235	15.5	20.8
82789	2001 <i>QU</i> ₂₂		10 17.2 33°32	1°6/16.2 18			9555	Frejakoča		10 17.2 152°71	2°5/15.4 18		
9 8	1 54.99	+ 8 4.2	1.143	1.993	20.6	18.5	9 8	1 59.39	+ 4 34.0	1.705	2.526	16.2	18.1
9 18	1 52.11	+ 7 44.0	1.094	2.008	16.1	18.3	9 18	1 54.69	+ 4 8.4	1.631	2.530	12.7	17.9
9 28	1 46.03	+ 7 10.0	1.062	2.025	10.9	18.0	9 28	1 47.44	+ 3 35.0	1.578	2.534	8.6	17.7
10 8	1 37.64	+ 6 27.4	1.052	2.042	5.2	17.8	10 8	1 38.29	+ 2 58.2	1.551	2.538	4.4	17.5
10 18	1 28.23	+ 5 43.6	1.065	2.060	1.9	17.6	10 18	1 28.21	+ 2 23.6	1.550	2.542	2.8	17.4
10 28	1 19.39	+ 5 6.9	1.103	2.080	7.0	18.0	10 28	1 18.38	+ 1 56.9	1.578	2.545	6.5	17.6
11 7	1 12.44	+ 4 44.2	1.165	2.099	12.1	18.4	11 7	1 9.91	+ 1 43.0	1.632	2.548	10.7	17.9
11 17	1 8.23	+ 4 39.1	1.248	2.120	16.4	18.7	11 17	1 3.61	+ 1 44.4	1.710	2.550	14.3	18.1
21538	1998 <i>QN</i> ₁		10 17.2 39°71	0°3/17.5 18			379998	2013 <i>CG</i> ₁₅₉		10 17.2 328°49	2°1/13.3 18		
9 8	1 52.06	+12 31.9	1.985	2.790	14.8	18.3	9 8	1 44.45	+ 0 38.5	4.119	4.934	7.5	20.8
9 18	1 48.61	+12 12.1	1.910	2.798	11.7	18.2	9 18	1 41.61	- 0 3.7	4.034	4.931	5.8	20.7
9 28	1 43.10	+11 39.7	1.857	2.807	8.0	18.0	9 28	1 37.83	- 0 48.2	3.974	4.928	4.0	20.5
10 8	1 36.10	+10 57.2	1.829	2.815	4.0	17.7	10 8	1 33.39	- 1 32.4	3.943	4.925	2.4	20.4
10 18	1 28.36	+10 8.8	1.828	2.824	0.4	17.4	10 18	1 28.62	- 2 13.7	3.942	4.922	2.4	20.4
10 28	1 20.84	+ 9 19.9	1.856	2.834	4.4	17.8	10 28	1 23.91	- 2 49.4	3.971	4.919	3.9	20.5
11 7	1 14.39	+ 8 36.3	1.911	2.843	8.3	18.0	11 7	1 19.63	- 3 17.3	4.029	4.916	5.7	20.6
11 17	1 9.69	+ 8 2.5	1.991	2.853	11.7	18.3	11 17	1 16.10	- 3 36.0	4.113	4.913	7.4	20.8
223945	2004 <i>XQ</i> ₃₁		10 17.2 286°82	2°1/19.4 17			230019	2000 <i>HE</i> ₁₇		10 17.2 344°77	1°3/16.1 18		
9 8													

EPHEMERIDES

10 17.2

10 17.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
63273	2001 <i>DH</i> ₄		10 17.2 118°06'	1°0/19.2	18		321086	2008 <i>SX</i> ₁₆₅		10 17.3 20°55'	0°7/16.1	17	
9 8	1 46.22	+16 14.8	4.804	5.560	7.4	19.2	9 8	1 45.04	+ 8 17.9	3.720	4.520	8.6	20.3
9 18	1 42.84	+16 10.7	4.713	5.568	5.9	19.1	9 18	1 42.18	+ 7 45.0	3.636	4.525	6.6	20.2
9 28	1 38.59	+16 0.2	4.646	5.575	4.2	18.9	9 28	1 38.28	+ 7 6.6	3.577	4.529	4.4	20.0
10 8	1 33.75	+15 44.3	4.607	5.583	2.4	18.8	10 8	1 33.65	+ 6 24.7	3.546	4.534	2.1	19.9
10 18	1 28.61	+15 24.1	4.598	5.590	1.0	18.7	10 18	1 28.68	+ 5 42.1	3.545	4.539	0.9	19.8
10 28	1 23.52	+15 1.2	4.620	5.597	2.0	18.8	10 28	1 23.78	+ 5 1.5	3.574	4.544	3.0	20.0
11 7	1 18.84	+14 37.8	4.672	5.605	3.8	18.9	11 7	1 19.37	+ 4 25.9	3.632	4.550	5.3	20.1
11 17	1 14.84	+14 15.7	4.754	5.612	5.5	19.1	11 17	1 15.81	+ 3 57.2	3.718	4.555	7.3	20.3
214119	2004 <i>VH</i> ₆₄		10 17.2 253°89'	8°0/10.2	18		480065	2015 <i>DC</i> ₉₈		10 17.3 85°50'	2°7/15.3	16	
9 8	2 4.67	-15 27.9	2.370	3.166	12.9	20.3	9 8	1 57.21	+ 5 38.7	1.522	2.352	17.3	21.5
9 18	1 58.31	-16 12.2	2.276	3.143	10.9	20.2	9 18	1 53.18	+ 4 59.4	1.458	2.363	13.5	21.3
9 28	1 49.71	-16 50.1	2.206	3.118	9.1	20.0	9 28	1 46.50	+ 4 10.0	1.415	2.373	9.1	21.0
10 8	1 39.39	-17 14.6	2.162	3.093	8.0	19.9	10 8	1 37.87	+ 3 16.0	1.395	2.384	4.6	20.8
10 18	1 28.14	-17 20.0	2.146	3.068	8.5	19.9	10 18	1 28.34	+ 2 24.3	1.402	2.394	3.0	20.7
10 28	1 16.93	-17 2.2	2.158	3.041	10.2	19.9	10 28	1 19.16	+ 1 42.1	1.436	2.404	6.9	21.0
11 7	1 6.75	-16 20.5	2.197	3.014	12.5	20.0	11 7	1 11.48	+ 1 15.1	1.496	2.415	11.2	21.3
11 17	0 58.36	-15 16.6	2.259	2.986	14.8	20.2	11 17	1 6.10	+ 1 6.3	1.579	2.425	15.0	21.5
515612	2014 <i>KC</i> ₃₆		10 17.2 201°39'	3°9/13.0	18		396320	2014 <i>DO</i> ₃₈		10 17.3 270°86'	2°4/15.1	18	
9 8	1 52.54	+ 2 7.3	2.123	2.949	13.3	21.6	9 8	1 53.49	+ 6 27.1	1.800	2.625	15.3	20.9
9 18	1 48.86	+ 0 49.9	2.044	2.946	10.3	21.4	9 18	1 50.13	+ 5 39.6	1.712	2.614	12.0	20.7
9 28	1 43.24	- 0 34.9	1.988	2.944	7.1	21.2	9 28	1 44.43	+ 4 40.6	1.645	2.602	8.1	20.4
10 8	1 36.19	- 2 1.2	1.958	2.940	4.4	21.0	10 8	1 36.92	+ 3 35.1	1.602	2.591	4.1	20.2
10 18	1 28.41	- 3 21.9	1.958	2.937	4.4	21.0	10 18	1 28.41	+ 2 29.3	1.588	2.579	2.8	20.1
10 28	1 20.78	- 4 30.1	1.986	2.933	7.1	21.1	10 28	1 19.97	+ 1 30.7	1.600	2.567	6.5	20.3
11 7	1 14.11	- 5 20.7	2.041	2.929	10.3	21.3	11 7	1 12.64	+ 0 45.8	1.640	2.555	10.6	20.5
11 17	1 9.06	- 5 51.1	2.119	2.924	13.2	21.5	11 17	1 7.23	+ 0 18.8	1.703	2.544	14.4	20.7
39753	1997 <i>CQ</i> ₇		10 17.2 68°41'	7°4/10.5	18		227833	2007 <i>CJ</i> ₅₀		10 17.3 336°65'	2°4/19.1	18	
9 8	1 53.91	- 5 3.0	1.618	2.464	15.8	18.6	9 8	1 51.05	+17 59.5	1.344	2.161	19.9	19.7
9 18	1 50.25	- 6 48.3	1.575	2.484	12.4	18.4	9 18	1 49.14	+17 46.6	1.264	2.154	16.2	19.5
9 28	1 44.25	- 8 33.8	1.554	2.503	9.3	18.3	9 28	1 44.24	+17 9.8	1.200	2.147	11.8	19.2
10 8	1 36.65	-10 9.3	1.558	2.523	7.4	18.2	10 8	1 36.98	+16 10.2	1.158	2.140	6.8	18.9
10 18	1 28.40	-11 25.8	1.588	2.543	8.1	18.3	10 18	1 28.40	+14 52.3	1.140	2.134	2.5	18.6
10 28	1 20.58	-12 16.5	1.643	2.563	10.5	18.5	10 28	1 19.94	+13 25.2	1.148	2.129	5.6	18.8
11 7	1 14.15	-12 38.7	1.723	2.582	13.4	18.7	11 7	1 12.99	+12 0.1	1.179	2.125	10.8	19.1
11 17	1 9.74	-12 33.5	1.823	2.602	16.1	19.0	11 17	1 8.57	+10 47.4	1.234	2.121	15.5	19.3
366620	2003 <i>QR</i> ₃₈		10 17.2 50°47'	4°3/19.9	16		188518	2004 <i>RR</i> ₇₂		10 17.3 29°74'	0°0/17.3	18	
9 8	2 0.28	+18 59.6	1.130	1.943	23.2	20.7	9 8	1 51.67	+11 57.8	1.912	2.723	15.1	20.1
9 18	1 56.51	+19 30.6	1.082	1.966	18.9	20.5	9 18	1 48.43	+11 32.8	1.837	2.729	11.9	19.9
9 28	1 49.18	+19 37.6	1.049	1.989	13.8	20.3	9 28	1 43.07	+10 54.8	1.783	2.735	8.2	19.7
10 8	1 39.25	+19 20.0	1.036	2.012	8.5	20.1	10 8	1 36.16	+10 6.9	1.754	2.741	4.0	19.5
10 18	1 28.19	+18 40.6	1.047	2.037	4.4	19.9	10 18	1 28.48	+ 9 13.4	1.752	2.748	0.3	19.2
10 28	1 17.78	+17 47.4	1.082	2.061	6.4	20.1	10 28	1 21.01	+ 8 20.5	1.778	2.756	4.6	19.6
11 7	1 9.57	+16 51.3	1.141	2.086	11.1	20.5	11 7	1 14.64	+ 7 34.1	1.831	2.763	8.6	19.8
11 17	1 4.46	+16 1.8	1.222	2.111	15.5	20.8	11 17	1 10.05	+ 6 59.0	1.910	2.771	12.1	20.0
400063	2006 <i>SO</i> ₉₈		10 17.2 350°63'	0°2/17.1	18		167446	2003 <i>XH</i> ₈		10 17.3 353°67'	4°2/14.5	18	
9 8	1 51.49	+12 3.1	1.774	2.589	15.9	21.4	9 8	1 58.73	- 0 48.2	1.683	2.514	15.9	19.6
9 18	1 48.54	+11 31.7	1.692	2.587	12.6	21.2	9 18	1 54.26	- 1 3.5	1.609	2.512	12.6	19.4
9 28	1 43.29	+10 45.5	1.632	2.585	8.6	20.9	9 28	1 47.22	- 1 21.0	1.555	2.511	8.8	19.2
10 8	1 36.30	+ 9 47.8	1.595	2.583	4.2	20.7	10 8	1 38.26	- 1 35.7	1.527	2.510	5.2	18.9
10 18	1 28.42	+ 8 43.7	1.586	2.582	0.5	20.4	10 18	1 28.32	- 1 42.6	1.525	2.509	4.5	18.9
10 28	1 20.68	+ 7 40.3	1.604	2.581	5.1	20.7	10 28	1 18.60	- 1 37.1	1.550	2.509	7.6	19.1
11 7	1 14.11	+ 6 44.7	1.649	2.580	9.4	21.0	11 7	1 10.23	- 1 16.3	1.602	2.509	11.4	19.3
11 17	1 9.44	+ 6 2.4	1.717	2.580	13.2	21.2	11 17	1 4.02	- 0 39.9	1.676	2.509	14.9	19.5
130352	2000 <i>GU</i> ₁₉		10 17.2 97°66'	0°8/16.2	18		37002	2000 <i>TP</i> ₂₉		10 17.3 36°15'	0°2/17.4	18	
9 8	1 49.62	+10 32.8	2.436	3.240	12.4	20.1	9 8	2 7.71	+ 6 14.2	1.260	2.084	20.6	17.1
9 18	1 46.35	+ 9 41.4	2.351	3.241	9.7	19.9	9 18	2 1.94	+ 7 17.1	1.204	2.102	16.3	16.9
9 28	1 41.41	+ 8 39.1	2.290	3.242	6.6	19.8	9 28	1 52.74	+ 8 13.9	1.168	2.122	11.2	16.7
10 8	1 35.26	+ 7 29.1	2.255	3.243	3.1	19.5	10 8	1 40.99	+ 9 4.8	1.154	2.142	5.5	16.4
10 18	1 28.51	+ 6 16.4	2.249	3.244	1.1	19.4	10 18	1 28.11	+ 9 49.8	1.167	2.163	0.4	16.1
10 28	1 21.90	+ 5 6.5	2.273	3.245	4.3	19.6	10 28	1 15.83	+10 31.0	1.206	2.185	6.1	16.6
11 7	1 16.10	+ 4 4.7	2.325	3.246	7.7	19.8	11 7	1 5.65	+11 11.1	1.272	2.207	11.2	16.9
11 17	1 11.69	+ 3 15.2	2.404	3.247	10.6	20.0	11 17	0 58.54	+11 53.0	1.360	2.230	15.5	17.3
144400	2004 <i>EZ</i> ₆		10 17.3 289°35'	0°2/17.4	18		53842	2000 <i>FT</i> ₉		10 17.3 311°11'	0°7/16.8	18	
9 8	1 54.44	+12 35.8	1.500	2.320	18.0	20.7	9 8	1 52.13	+10 51.6	1.367	2.203	18.7	20.0
9 18	1 51.63	+12 16.9	1.403	2.299	14.5	20.5	9 18	1 49.99	+10 25.9	1.277	2.184	14.9	19.8
9 28	1 45.93	+11 40.4	1.325	2.278	10.2	20.2	9 28	1 44.89	+ 9 42.6	1.207	2.165	10.3	19.4
10 8	1 37.84	+10 48.4	1.269	2.257	5.2	19.8	10 8	1 37.36	+ 8 44.9	1.158	2.147	5.1	19.1
10 18	1 28.29	+ 9 45.5	1.239	2.235	0.4	19.4	10 18	1 28.38	+ 7 38.8	1.134	2.130	1.0	18.8
10 28	1 18.63	+ 8 39.7	1.235	2.214	5.9	19.8	10 28	1 19.35	+ 6 33.5	1.135	2.113	6.6	19.1
11 7	1 10.24	+ 7 40.2	1.257	2.193	11.3	20.0	11 7	1 11.71	+ 5 38.5	1.160	2.096	12.0	19.4
11 17	1 4.25	+ 6 54.7	1.301	2.172	16.0	20.2	11 17	1 6.56	+ 5 1.2	1.207	2.080	16.9	19.6
421541	2014 <i>OC</i> ₁₇₁		10 17.3 3°45'	8°8/ 9.1	18		514144	2015 <i>JV</i> ₁₃		10 17.3 252°55'	2°5/15.5	18	

EPHEMERIDES

10 17.3

10 17.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
424096	2007 <i>EJ</i> ₁₁		10 17.3 130°45'	0°0'/17.3 16"			289229	2004 <i>XR</i> ₆₂		10 17.3 339°08'	2°1'/15.5 17"		
9 8	1 58.81	+11 33.7	2.003	2.797	15.1	22.4	9 8	1 50.30	+6 8.1	1.733	2.568	15.4	20.3
9 18	1 53.82	+11 14.3	1.930	2.811	11.9	22.2	9 18	1 47.72	+5 39.4	1.648	2.556	12.1	20.1
9 28	1 46.64	+10 43.2	1.878	2.825	8.1	22.0	9 28	1 42.84	+5 0.9	1.584	2.544	8.2	19.8
10 8	1 37.88	+10 2.9	1.852	2.839	4.0	21.8	10 8	1 36.17	+4 16.9	1.544	2.533	4.1	19.5
10 18	1 28.37	+9 17.3	1.855	2.851	0.3	21.5	10 18	1 28.53	+3 32.7	1.530	2.523	2.4	19.4
10 28	1 19.14	+8 32.1	1.887	2.863	4.6	21.9	10 28	1 20.96	+2 54.9	1.544	2.514	6.2	19.6
11 7	1 11.12	+7 52.5	1.948	2.875	8.5	22.1	11 7	1 14.49	+2 29.1	1.582	2.506	10.4	19.9
11 17	1 4.99	+7 23.0	2.034	2.885	11.9	22.4	11 17	1 9.93	+2 18.9	1.644	2.498	14.1	20.1
399690	2004 <i>TN</i> ₉₈		10 17.3	1°20' 0"/16.7 18"			513627	2011 <i>KU</i> ₄₇		10 17.3	6°71' 28.5"/ 8.0 18"		
9 8	1 50.30	+9 2.9	1.509	2.345	17.2	20.2	9 8	1 55.18	-50 55.8	1.012	1.773	28.5	18.4
9 18	1 47.99	+8 54.1	1.436	2.343	13.5	19.9	9 18	1 53.91	-52 42.9	1.021	1.775	28.6	18.4
9 28	1 43.13	+8 33.2	1.383	2.342	9.2	19.7	9 28	1 47.76	-53 35.1	1.038	1.779	28.7	18.5
10 8	1 36.32	+8 3.7	1.353	2.342	4.5	19.4	10 8	1 38.47	-53 23.6	1.063	1.786	29.0	18.6
10 18	1 28.49	+7 30.2	1.348	2.344	1.0	19.1	10 18	1 28.38	-52 5.3	1.095	1.796	29.2	18.6
10 28	1 20.86	+6 59.3	1.369	2.346	5.7	19.5	10 28	1 19.80	-49 43.2	1.135	1.809	29.5	18.7
11 7	1 14.54	+6 36.8	1.415	2.350	10.3	19.8	11 7	1 14.22	-46 27.3	1.184	1.825	29.8	18.9
11 17	1 10.36	+6 27.1	1.484	2.356	14.3	20.0	11 17	1 12.16	-42 29.9	1.243	1.843	30.1	19.0
449459	2013 <i>LB</i> ₃		10 17.3	74°13' 6"/11.0 18"			304309	2006 <i>SA</i> ₁₄₆		10 17.3	266°62' 0"/17.2 18"		
9 8	1 56.30	-11 16.1	2.247	3.068	12.8	20.4	9 8	1 52.87	+11 54.1	2.002	2.807	14.7	21.4
9 18	1 51.56	-12 1.2	2.187	3.075	10.4	20.3	9 18	1 49.39	+11 25.8	1.914	2.803	11.6	21.2
9 28	1 44.93	-12 41.2	2.150	3.083	8.2	20.2	9 28	1 43.78	+10 44.3	1.848	2.798	8.0	20.9
10 8	1 36.99	-13 10.5	2.140	3.090	6.9	20.1	10 8	1 36.57	+9 52.6	1.807	2.794	3.9	20.7
10 18	1 28.46	-13 24.2	2.156	3.097	7.2	20.2	10 18	1 28.51	+8 54.9	1.793	2.789	0.4	20.4
10 28	1 20.21	-13 18.8	2.199	3.105	9.0	20.3	10 28	1 20.55	+7 57.2	1.808	2.785	4.7	20.7
11 7	1 13.01	-12 53.6	2.268	3.112	11.2	20.4	11 7	1 13.63	+7 5.9	1.851	2.780	8.7	21.0
11 17	1 7.46	-12 9.7	2.359	3.119	13.4	20.6	11 17	1 8.45	+6 25.8	1.918	2.776	12.3	21.2
236581	2006 <i>HL</i> ₁₀₄		10 17.3	238°43' 3"/13.5 18"			518345	2017 <i>CN</i> ₃₁		10 17.3	303°13' 5"/11.4 18"		
9 8	1 52.25	+4 33.5	1.950	2.777	14.2	20.2	9 8	1 53.31	-6 47.5	2.185	3.015	12.8	21.2
9 18	1 48.91	+3 10.2	1.865	2.769	11.1	20.0	9 18	1 49.42	-7 42.4	2.112	3.011	10.2	21.1
9 28	1 43.45	+1 35.7	1.803	2.761	7.6	19.7	9 28	1 43.62	-8 36.5	2.063	3.007	7.7	20.9
10 8	1 36.40	-0 3.5	1.767	2.752	4.3	19.5	10 8	1 36.42	-9 23.7	2.039	3.003	6.0	20.8
10 18	1 28.50	-1 39.6	1.759	2.743	4.1	19.5	10 18	1 28.53	-9 58.4	2.042	3.000	6.4	20.8
10 28	1 20.70	-3 4.2	1.780	2.734	7.2	19.7	10 28	1 20.80	-10 15.8	2.073	2.996	8.5	20.9
11 7	1 13.93	-4 10.5	1.828	2.725	10.9	19.9	11 7	1 14.04	-10 13.7	2.129	2.993	11.1	21.1
11 17	1 8.91	-4 54.8	1.899	2.715	14.1	20.1	11 17	1 8.88	-9 51.9	2.208	2.989	13.6	21.3
415858	2001 <i>SA</i> ₁₃₇		10 17.3	9°07' 1°9"/18.3 17"			299123	2005 <i>EM</i> ₁₉₇		10 17.3	191°84' 0"/17.7 18"		
9 8	1 51.99	+13 29.8	0.921	1.780	23.7	20.3	9 8	1 54.71	+13 12.1	2.080	2.874	14.6	21.1
9 18	1 50.84	+13 50.7	0.864	1.781	19.1	20.0	9 18	1 50.74	+12 52.1	1.993	2.874	11.6	20.9
9 28	1 45.89	+13 50.3	0.822	1.783	13.5	19.7	9 28	1 44.65	+12 19.1	1.927	2.873	8.1	20.7
10 8	1 37.93	+13 29.8	0.799	1.787	7.3	19.4	10 8	1 36.98	+11 35.2	1.886	2.872	4.1	20.4
10 18	1 28.37	+12 53.8	0.797	1.792	1.9	19.1	10 18	1 28.49	+10 44.2	1.874	2.870	0.5	20.2
10 28	1 19.18	+12 11.3	0.816	1.799	6.8	19.4	10 28	1 20.12	+9 51.4	1.890	2.868	4.3	20.5
11 7	1 12.14	+11 33.2	0.857	1.807	12.9	19.8	11 7	1 12.78	+9 2.7	1.935	2.866	8.3	20.7
11 17	1 8.40	+11 8.1	0.916	1.817	18.2	20.1	11 17	1 7.18	+8 23.2	2.006	2.864	11.7	20.9
173787	2001 <i>SF</i> ₈₅		10 17.3	120°64' 2"/19.7 18"			246737	2009 <i>BW</i> ₆₇		10 17.3	42°28' 1°5"/16.0 18"		
9 8	1 55.40	+18 15.7	2.038	2.814	15.4	20.4	9 8	1 53.64	+8 10.2	1.714	2.538	16.0	20.7
9 18	1 51.39	+18 23.3	1.953	2.816	12.6	20.2	9 18	1 50.20	+7 36.1	1.643	2.544	12.5	20.4
9 28	1 45.15	+18 15.6	1.887	2.818	9.2	20.0	9 28	1 44.40	+6 50.6	1.593	2.550	8.4	20.2
10 8	1 37.23	+17 53.2	1.846	2.821	5.6	19.8	10 8	1 36.87	+5 57.9	1.567	2.556	4.1	20.0
10 18	1 28.43	+17 17.8	1.832	2.823	2.7	19.7	10 18	1 28.50	+5 4.0	1.568	2.562	1.8	19.8
10 28	1 19.76	+16 34.0	1.847	2.825	4.4	19.8	10 28	1 20.36	+4 15.4	1.596	2.568	5.8	20.1
11 7	1 12.18	+15 47.6	1.889	2.827	8.0	20.0	11 7	1 13.48	+3 38.2	1.651	2.575	9.9	20.4
11 17	1 6.45	+15 4.6	1.957	2.829	11.4	20.2	11 17	1 8.58	+3 16.2	1.729	2.582	13.6	20.6
515385	2013 <i>FT</i> ₂₁		10 17.3	135°90' 0"/16.9 18"			61865	2000 <i>QO</i> ₂₁₀		10 17.3	83°63' 1°1'/16.2 18"		
9 8	1 53.99	+10 34.7	2.548	3.340	12.3	22.5	9 8	1 53.00	+8 44.8	2.049	2.861	14.1	19.7
9 18	1 49.62	+10 11.8	2.468	3.350	9.6	22.3	9 18	1 49.31	+8 10.7	1.971	2.866	11.1	19.5
9 28	1 43.58	+9 40.0	2.412	3.359	6.5	22.1	9 28	1 43.61	+7 26.3	1.916	2.870	7.5	19.3
10 8	1 36.33	+9 1.5	2.382	3.369	3.2	21.9	10 8	1 36.44	+6 35.2	1.886	2.874	3.6	19.1
10 18	1 28.52	+8 19.7	2.381	3.377	0.4	21.7	10 18	1 28.54	+5 42.2	1.884	2.879	1.4	19.0
10 28	1 20.86	+7 38.8	2.411	3.386	3.8	22.0	10 28	1 20.82	+4 53.0	1.911	2.883	5.0	19.2
11 7	1 14.08	+7 2.9	2.470	3.394	7.1	22.2	11 7	1 14.14	+4 12.8	1.965	2.888	8.7	19.5
11 17	1 8.70	+6 35.5	2.556	3.402	9.9	22.4	11 17	1 9.14	+3 45.5	2.045	2.892	12.0	19.7
108907	2001 <i>PC</i> ₁₀		10 17.3	78°47' 1°0"/18.1 17"			424569	2008 <i>FP</i> ₁₀₄		10 17.3	202°62' 0°5'/16.9 17"		
9 8	1 59.73	+14 11.1	1.530	2.334	18.5	20.5	9 8	1 57.14	+11 10.1	1.876	2.679	15.6	22.4
9 18	1 55.10	+14 0.1	1.473	2.358	14.7	20.3	9 18	1 52.90	+10 38.1	1.788	2.676	12.4	22.1
9 28	1 47.74	+13 32.5	1.435	2.382	10.2	20.1	9 28	1 46.28	+9 52.3	1.721	2.671	8.5	21.9
10 8	1 38.46	+12 51.0	1.420	2.405	5.3	19.9	10 8	1 37.84	+8 55.9	1.679	2.667	4.1	21.6
10 18	1 28.36	+12 0.2	1.432	2.428	1.0	19.7	10 18	1 28.43	+7 53.8	1.665	2.661	0.7	21.4
10 28	1 18.74	+11 7.2	1.472	2.451	5.1	20.0	10 28	1 19.14	+6 52.7	1.680	2.655	5.2	21.7
11 7	1 10.76	+10 19.5	1.538	2.474	9.6	20.3	11 7	1 11.01	+5 59.5	1.723	2.649	9.5	21.9
11 17	1 5.17	+9 42.8	1.628	2.496	13.5	20.6	11 17	1 4.86	+5 19.3	1.791	2.642	13.3	22.1
331430	2012 <i>GP</i> ₁₂		10 17.3	125°85' 1°0'/16.5 17"			123555	2000 <i>XP</i> ₃₀		10 17.3	338°24' 3°0'/15.7 18"		
9 8	1 59.18	+9 43.8	1.764										

EPHEMERIDES

10 17.3

10 17.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
173793	2001 <i>SB</i> ₁₃₅		10 17.3	90°67	1°0/18.2	18	44053	1998 <i>FU</i> ₂₀		10 17.3	123°17	3°0/14.9	18
9 8	1 54.76	+14 3.1	2.003	2.797	15.0	20.0	9 8	1 57.35	+ 5 43.6	1.575	2.403	17.0	18.8
9 18	1 50.81	+13 53.8	1.923	2.803	12.0	19.8	9 18	1 53.25	+ 4 47.6	1.509	2.412	13.2	18.6
9 28	1 44.71	+13 31.2	1.865	2.809	8.4	19.6	9 28	1 46.56	+ 3 40.5	1.464	2.422	8.9	18.4
10 8	1 37.01	+12 57.1	1.831	2.815	4.4	19.4	10 8	1 37.97	+ 2 28.6	1.443	2.431	4.6	18.1
10 18	1 28.52	+12 14.9	1.825	2.820	1.0	19.1	10 18	1 28.49	+ 1 19.6	1.449	2.439	3.4	18.1
10 28	1 20.19	+11 29.8	1.847	2.826	4.3	19.4	10 28	1 19.34	+ 0 21.6	1.483	2.448	7.2	18.3
11 7	1 12.98	+10 47.3	1.898	2.832	8.2	19.6	11 7	1 11.63	- 0 19.1	1.543	2.456	11.4	18.6
11 17	1 7.57	+10 12.6	1.973	2.837	11.7	19.9	11 17	1 6.16	- 0 39.5	1.625	2.463	15.1	18.8
236878	2007 <i>RJ</i> ₂₈₃		10 17.3	322°04	2°4/21.7	18	515679	2014 <i>OE</i> ₄₀₀		10 17.3	146°45	1°9/15.2	18
9 8	1 45.76	+23 27.0	4.245	4.970	8.7	19.8	9 8	1 53.02	+ 5 26.5	2.559	3.367	11.8	22.4
9 18	1 42.74	+23 20.1	4.141	4.966	7.3	19.7	9 18	1 48.87	+ 4 47.8	2.481	3.374	9.1	22.2
9 28	1 38.69	+23 3.4	4.060	4.962	5.6	19.6	9 28	1 43.09	+ 4 2.7	2.427	3.381	6.2	22.0
10 8	1 33.92	+22 37.3	4.004	4.959	3.8	19.4	10 8	1 36.14	+ 3 14.7	2.400	3.387	3.1	21.9
10 18	1 28.77	+22 2.9	3.978	4.955	2.5	19.3	10 18	1 28.64	+ 2 27.9	2.402	3.393	2.1	21.8
10 28	1 23.67	+21 22.2	3.981	4.952	2.7	19.4	10 28	1 21.29	+ 1 46.6	2.434	3.399	4.8	22.0
11 7	1 19.01	+20 38.0	4.015	4.949	4.3	19.5	11 7	1 14.77	+ 1 14.8	2.495	3.404	7.8	22.2
11 17	1 15.16	+19 53.0	4.077	4.945	6.0	19.6	11 17	1 9.62	+ 0 54.8	2.582	3.409	10.5	22.4
705	<i>Erminia</i>		10 17.3	289°27	6°2/21.7	18	74720	1999 <i>RA</i> ₁₆₇		10 17.3	60°20	0°1/17.3	18
9 8	2 3.89	+24 33.9	2.172	2.896	16.1	13.3	9 8	2 2.95	+ 9 33.1	1.263	2.088	20.5	19.1
9 18	1 58.37	+25 51.8	2.073	2.891	13.7	13.1	9 18	1 58.19	+ 9 47.4	1.209	2.108	16.2	18.9
9 28	1 50.22	+26 56.4	1.995	2.886	11.0	12.9	9 28	1 50.17	+ 9 49.1	1.174	2.128	11.1	18.7
10 8	1 39.91	+27 43.9	1.941	2.881	8.2	12.7	10 8	1 39.78	+ 9 40.5	1.160	2.148	5.4	18.4
10 18	1 28.29	+28 11.5	1.914	2.876	6.3	12.6	10 18	1 28.36	+ 9 25.5	1.173	2.169	0.4	18.1
10 28	1 16.52	+28 19.4	1.916	2.871	6.7	12.6	10 28	1 17.52	+ 9 10.2	1.211	2.190	6.0	18.6
11 7	1 5.80	+28 11.2	1.946	2.866	8.9	12.7	11 7	1 8.66	+ 9 0.5	1.274	2.210	11.1	18.9
11 17	0 57.15	+27 52.7	2.002	2.861	11.7	12.9	11 17	1 2.66	+ 9 0.9	1.360	2.231	15.5	19.3
243221	2007 <i>VY</i> ₂₉		10 17.3	326°06	0°4/17.7	18	98955	2001 <i>CE</i> ₃₄		10 17.3	102°91	10°7/3.3	18 R
9 8	1 53.72	+13 8.2	1.809	2.615	16.0	21.1	9 8	1 55.68	-28 12.2	2.541	3.322	12.6	19.0
9 18	1 50.30	+12 46.9	1.726	2.614	12.7	20.9	9 18	1 50.98	-29 43.5	2.516	3.338	11.5	18.9
9 28	1 44.54	+12 10.9	1.663	2.612	8.8	20.7	9 28	1 44.49	-30 59.6	2.513	3.354	10.8	18.9
10 8	1 37.00	+11 22.6	1.625	2.611	4.5	20.4	10 8	1 36.78	-31 53.9	2.534	3.369	10.8	18.9
10 18	1 28.53	+10 26.4	1.614	2.610	0.4	20.1	10 18	1 28.60	-32 21.9	2.577	3.384	11.4	19.0
10 28	1 20.20	+ 9 28.7	1.630	2.609	4.8	20.5	10 28	1 20.76	-32 21.6	2.642	3.399	12.3	19.1
11 7	1 13.04	+ 8 36.5	1.674	2.608	9.1	20.7	11 7	1 13.99	-31 54.1	2.727	3.413	13.5	19.2
11 17	1 7.84	+ 7 55.2	1.742	2.607	12.9	20.9	11 17	1 8.82	-31 2.4	2.830	3.428	14.5	19.4
79683	1998 <i>SF</i> ₅₅		10 17.3	34°19	1°8/16.2	18	222595	2001 <i>XP</i> ₄		10 17.3	226°39	17°8/6.1	17
9 8	1 53.78	+ 9 12.7	1.023	1.881	21.9	18.5	9 8	2 11.03	-28 55.8	1.315	2.115	21.2	19.9
9 18	1 51.41	+ 8 35.0	0.982	1.902	17.1	18.3	9 18	2 4.98	-30 37.4	1.270	2.109	19.4	19.7
9 28	1 45.68	+ 7 40.2	0.959	1.923	11.5	18.0	9 28	1 55.06	-31 55.1	1.241	2.103	18.2	19.6
10 8	1 37.58	+ 6 35.6	0.956	1.946	5.4	17.8	10 8	1 42.25	-32 33.8	1.231	2.097	17.9	19.6
10 18	1 28.52	+ 5 30.4	0.976	1.971	2.1	17.7	10 18	1 28.18	-32 22.8	1.240	2.090	18.6	19.6
10 28	1 20.14	+ 4 35.2	1.019	1.996	7.4	18.1	10 28	1 14.80	-31 18.3	1.268	2.082	20.2	19.7
11 7	1 13.81	+ 3 57.7	1.086	2.022	12.6	18.5	11 7	1 3.82	-29 25.6	1.315	2.075	22.2	19.8
11 17	1 10.31	+ 3 42.0	1.172	2.048	17.0	18.8	11 17	0 56.23	-26 54.8	1.376	2.066	24.2	20.0
482693	2013 <i>CJ</i> ₁₁₄		10 17.3	222°47	1°3/16.1	18	130294	2000 <i>EA</i> ₅₉		10 17.3	290°50	0°1/17.2	18
9 8	1 55.17	+ 7 29.8	2.237	3.043	13.3	21.7	9 8	1 51.89	+11 17.1	2.257	3.059	13.3	20.4
9 18	1 50.94	+ 7 4.2	2.146	3.037	10.5	21.5	9 18	1 48.48	+10 56.7	2.157	3.044	10.6	20.2
9 28	1 44.74	+ 6 30.0	2.077	3.030	7.1	21.3	9 28	1 43.13	+10 25.2	2.079	3.029	7.3	19.9
10 8	1 37.04	+ 5 50.3	2.034	3.022	3.5	21.1	10 8	1 36.30	+ 9 44.9	2.026	3.013	3.6	19.7
10 18	1 28.55	+ 5 9.0	2.020	3.015	1.5	20.9	10 18	1 28.63	+ 8 59.2	2.002	2.998	0.3	19.4
10 28	1 20.13	+ 4 31.1	2.036	3.007	4.9	21.1	10 28	1 20.97	+ 8 13.0	2.006	2.983	4.3	19.7
11 7	1 12.64	+ 4 1.2	2.079	2.998	8.5	21.4	11 7	1 14.16	+ 7 31.5	2.039	2.968	8.0	19.9
11 17	1 6.75	+ 3 42.8	2.149	2.989	11.8	21.6	11 17	1 8.88	+ 6 59.1	2.097	2.953	11.4	20.1
354426	2003 <i>WP</i> ₈₄		10 17.3	302°43	6°5/22.8	18	453476	2009 <i>SE</i> ₂₁₄		10 17.3	77°95	1°0/16.2	18
9 8	1 52.55	+27 31.7	1.760	2.508	18.5	20.9	9 8	1 50.63	+10 22.1	2.254	3.061	13.2	21.6
9 18	1 50.11	+27 53.1	1.648	2.482	15.9	20.6	9 18	1 47.28	+ 9 29.9	2.177	3.069	10.3	21.4
9 28	1 44.93	+27 51.2	1.554	2.455	12.9	20.4	9 28	1 42.14	+ 8 26.3	2.123	3.076	6.9	21.2
10 8	1 37.44	+27 22.3	1.481	2.429	9.5	20.1	10 8	1 35.72	+ 7 15.2	2.095	3.084	3.3	21.0
10 18	1 28.50	+26 25.3	1.431	2.402	6.9	19.9	10 18	1 28.70	+ 6 1.7	2.096	3.091	1.2	20.8
10 28	1 19.36	+25 3.5	1.407	2.376	7.0	19.8	10 28	1 21.85	+ 4 51.9	2.126	3.099	4.6	21.1
11 7	1 11.35	+23 25.5	1.410	2.350	9.9	19.9	11 7	1 15.92	+ 3 51.3	2.185	3.106	8.1	21.3
11 17	1 5.59	+21 42.2	1.437	2.324	13.7	20.1	11 17	1 11.49	+ 3 4.0	2.269	3.113	11.1	21.5
397753	2008 <i>FV</i> ₁₀₈		10 17.3	83°23	1°1/16.2	18	388176	2006 <i>BH</i> ₁₂₇		10 17.3	235°71	6°3/11.0	18 R
9 8	1 55.42	+ 7 38.1	2.163	2.970	13.7	21.3	9 8	1 53.10	- 2 51.0	1.823	2.662	14.5	21.1
9 18	1 50.97	+ 7 16.9	2.096	2.987	10.6	21.2	9 18	1 49.72	- 4 26.8	1.750	2.657	11.5	20.9
9 28	1 44.60	+ 6 47.7	2.052	3.005	7.2	21.0	9 28	1 44.09	- 6 7.7	1.699	2.651	8.4	20.7
10 8	1 36.89	+ 6 13.6	2.034	3.022	3.4	20.8	10 8	1 36.79	- 7 45.1	1.674	2.645	6.4	20.6
10 18	1 28.57	+ 5 38.7	2.044	3.039	1.3	20.7	10 18	1 28.62	- 9 10.1	1.675	2.638	7.0	20.6
10 28	1 20.52	+ 5 7.5	2.084	3.056	4.7	20.9	10 28	1 20.60	-10 14.5	1.704	2.632	9.6	20.8
11 7	1 13.53	+ 4 44.1	2.152	3.073	8.2	21.2	11 7	1 13.70	-10 53.6	1.758	2.625	12.8	21.0
11 17	1 8.20	+ 4 31.3	2.246	3.090	11.2	21.4	11 17	1 8.66	-11 6.1	1.833	2.618	15.8	21.2
84974	2003 <i>YB</i> ₃₉		10 17.3	152°89	2°7/19.4	18	356174	2009 <i>HH</i> ₇₅		10 17.3	240°42	2°6/14.9</	

EPHEMERIDES

10 17.3

10 17.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
440650	2005 WL ₁₆₆		10 17.3 296°76	5°8/11.8	18		136411	2005 AL ₇₉		10 17.3 80°98	5°7/13.4	18	
9 8	1 53.42	- 5 35.1	2.092	2.924	13.2	21.2	9 8	1 59.45	- 0 25.2	1.370	2.212	18.2	19.7
9 18	1 49.71	- 6 28.5	2.011	2.912	10.5	21.0	9 18	1 55.06	- 1 31.1	1.321	2.231	14.2	19.5
9 28	1 43.96	- 7 22.4	1.953	2.900	7.8	20.8	9 28	1 47.83	- 2 41.5	1.293	2.250	9.9	19.3
10 8	1 36.70	- 8 10.7	1.920	2.889	6.0	20.7	10 8	1 38.60	- 3 47.8	1.288	2.269	6.4	19.1
10 18	1 28.63	- 8 47.3	1.914	2.877	6.3	20.7	10 18	1 28.56	- 4 41.2	1.309	2.288	6.2	19.2
10 28	1 20.65	- 9 6.9	1.936	2.865	8.5	20.8	10 28	1 19.07	- 5 14.2	1.356	2.307	9.4	19.4
11 7	1 13.65	- 9 6.6	1.982	2.854	11.4	21.0	11 7	1 11.32	- 5 23.4	1.427	2.325	13.2	19.7
11 17	1 8.31	- 8 46.0	2.052	2.842	14.1	21.1	11 17	1 6.05	- 5 8.8	1.519	2.343	16.7	19.9
96152	4358 T ₋₃		10 17.3 45°07	3°5/14.4	18		438713	2008 SJ ₅₉		10 17.3 40°60	1°9/16.2	18	
9 8	1 55.55	+ 0 22.5	1.972	2.798	14.1	19.0	9 8	2 0.07	+ 5 1.5	1.478	2.307	17.9	20.7
9 18	1 51.30	- 0 2.2	1.906	2.808	11.0	18.8	9 18	1 55.64	+ 5 4.9	1.412	2.315	14.0	20.5
9 28	1 44.96	- 0 30.1	1.862	2.817	7.6	18.6	9 28	1 48.36	+ 5 1.1	1.366	2.323	9.5	20.2
10 8	1 37.13	- 0 56.5	1.844	2.827	4.4	18.5	10 8	1 38.96	+ 4 53.6	1.343	2.332	4.7	20.0
10 18	1 28.62	- 1 16.9	1.853	2.838	3.8	18.5	10 18	1 28.53	+ 4 46.6	1.347	2.341	2.1	19.8
10 28	1 20.37	- 1 26.8	1.890	2.848	6.5	18.7	10 28	1 18.43	+ 4 45.1	1.378	2.351	6.4	20.1
11 7	1 13.25	- 1 23.5	1.954	2.859	9.8	18.9	11 7	1 9.91	+ 4 53.0	1.434	2.361	10.9	20.4
11 17	1 7.92	- 1 5.8	2.043	2.870	12.8	19.1	11 17	1 3.85	+ 5 12.7	1.513	2.371	14.9	20.7
100827	1998 HU ₂		10 17.3 11°58	4°9/14.1	18		120214	Danteberdeguez		10 17.3 108°84	2°2/15.2	18	
9 8	1 49.70	+ 1 56.0	1.106	1.977	19.7	18.7	9 8	1 53.54	+ 6 3.8	2.047	2.865	13.9	20.1
9 18	1 48.19	+ 1 10.0	1.054	1.982	15.4	18.4	9 18	1 49.73	+ 5 18.9	1.973	2.871	10.9	19.9
9 28	1 43.57	+ 0 15.9	1.021	1.988	10.6	18.2	9 28	1 43.92	+ 4 25.4	1.921	2.877	7.3	19.7
10 8	1 36.66	- 0 37.9	1.008	1.996	6.1	18.0	10 8	1 36.66	+ 3 27.6	1.896	2.884	3.7	19.5
10 18	1 28.65	- 1 22.0	1.019	2.006	5.4	18.0	10 18	1 28.70	+ 2 31.0	1.899	2.890	2.5	19.5
10 28	1 21.07	- 1 47.9	1.052	2.017	9.3	18.3	10 28	1 20.94	+ 1 41.6	1.930	2.896	5.6	19.7
11 7	1 15.22	- 1 50.7	1.108	2.030	13.9	18.6	11 7	1 14.23	+ 1 4.2	1.989	2.902	9.2	19.9
11 17	1 11.98	- 1 29.4	1.183	2.044	17.9	18.9	11 17	1 9.20	+ 0 41.8	2.072	2.908	12.4	20.1
155200	2005 UC ₄₃₈		10 17.3 162°47	1°7/15.8	18		300805	2007 WY ₅		10 17.3 356°87	2°0/18.7	18	
9 8	1 56.62	+ 7 43.3	1.950	2.761	14.8	21.2	9 8	1 57.10	+ 14 18.9	1.667	2.469	17.3	20.6
9 18	1 52.27	+ 7 1.3	1.872	2.766	11.6	21.0	9 18	1 53.29	+ 14 42.5	1.585	2.468	14.0	20.4
9 28	1 45.73	+ 6 8.8	1.816	2.770	7.8	20.8	9 28	1 46.82	+ 14 52.7	1.523	2.467	10.0	20.1
10 8	1 37.56	+ 5 10.0	1.786	2.774	3.8	20.5	10 8	1 38.27	+ 14 49.8	1.484	2.466	5.6	19.9
10 18	1 28.59	+ 4 10.4	1.784	2.777	2.0	20.4	10 18	1 28.58	+ 14 35.6	1.471	2.465	2.0	19.6
10 28	1 19.82	+ 3 16.3	1.811	2.780	5.6	20.7	10 28	1 19.00	+ 14 14.4	1.486	2.466	5.0	19.8
11 7	1 12.20	+ 2 33.4	1.866	2.782	9.5	20.9	11 7	1 10.73	+ 13 51.9	1.527	2.466	9.4	20.1
11 17	1 6.43	+ 2 5.5	1.945	2.784	12.9	21.1	11 17	1 4.69	+ 13 33.8	1.592	2.467	13.4	20.3
454053	2012 HP ₂₆		10 17.3 208°75	2°0/15.1	17		408002	2012 DT ₉₀		10 17.3 105°67	3°4/20.5	18	
9 8	1 54.50	+ 3 10.2	2.842	3.645	10.8	22.0	9 8	1 55.57	+ 20 23.2	2.290	3.048	14.4	21.1
9 18	1 49.93	+ 2 49.8	2.750	3.640	8.5	21.8	9 18	1 51.37	+ 20 43.6	2.200	3.049	11.9	21.0
9 28	1 43.81	+ 2 25.4	2.683	3.635	5.7	21.6	9 28	1 45.11	+ 20 49.9	2.131	3.051	9.0	20.8
10 8	1 36.54	+ 1 59.7	2.644	3.630	3.0	21.4	10 8	1 37.30	+ 20 41.6	2.087	3.052	5.8	20.6
10 18	1 28.68	+ 1 36.0	2.634	3.624	2.2	21.4	10 18	1 28.66	+ 20 19.6	2.070	3.054	3.5	20.4
10 28	1 20.90	+ 1 17.5	2.655	3.617	4.6	21.5	10 28	1 20.10	+ 19 47.2	2.081	3.056	4.4	20.5
11 7	1 13.83	+ 1 7.1	2.705	3.611	7.4	21.7	11 7	1 12.50	+ 19 9.2	2.121	3.057	7.3	20.7
11 17	1 8.03	+ 1 6.6	2.781	3.603	10.0	21.9	11 17	1 6.58	+ 18 31.0	2.188	3.059	10.4	20.9
309360	2007 TL ₇₄		10 17.3 11°39	1°8/16.1	18		516395	2000 CS ₁₅₀		10 17.3 12°27	2°4/19.3	18	
9 8	1 56.20	+ 5 50.7	1.563	2.394	17.0	20.2	9 8	1 54.80	+ 17 10.3	1.767	2.559	16.8	21.3
9 18	1 52.53	+ 5 40.9	1.491	2.395	13.3	19.9	9 18	1 51.32	+ 17 14.3	1.685	2.560	13.7	21.1
9 28	1 46.22	+ 5 22.5	1.439	2.397	9.1	19.7	9 28	1 45.36	+ 17 1.6	1.623	2.561	9.9	20.8
10 8	1 37.91	+ 4 59.4	1.410	2.399	4.5	19.4	10 8	1 37.51	+ 16 33.0	1.583	2.562	5.8	20.6
10 18	1 28.59	+ 4 36.4	1.408	2.402	2.1	19.3	10 18	1 28.66	+ 15 51.2	1.570	2.563	2.4	20.4
10 28	1 19.48	+ 4 19.1	1.432	2.405	6.2	19.6	10 28	1 19.94	+ 15 1.5	1.585	2.564	4.7	20.6
11 7	1 11.76	+ 4 12.3	1.482	2.409	10.7	19.8	11 7	1 12.46	+ 14 10.8	1.626	2.566	8.8	20.8
11 17	1 6.28	+ 4 19.1	1.556	2.413	14.6	20.1	11 17	1 7.05	+ 13 25.9	1.692	2.568	12.6	21.0
258796	2002 LD ₄		10 17.3 150°87	6°2/10.1	18		324867	2007 TX ₁₄₂		10 17.3 330°89	2°4/16.1	18	
9 8	1 55.13	- 12 14.9	2.779	3.591	10.8	20.9	9 8	1 57.09	+ 5 21.8	1.162	2.013	20.3	20.4
9 18	1 50.34	- 13 7.8	2.717	3.598	8.9	20.8	9 18	1 54.33	+ 5 16.6	1.088	2.004	16.1	20.1
9 28	1 44.00	- 13 56.3	2.681	3.605	7.1	20.6	9 28	1 48.13	+ 5 1.3	1.032	1.995	11.1	19.8
10 8	1 36.59	- 14 35.2	2.670	3.612	6.2	20.6	10 8	1 39.13	+ 4 40.2	0.997	1.986	5.6	19.4
10 18	1 28.70	- 15 0.5	2.688	3.618	6.6	20.6	10 18	1 28.54	+ 4 19.4	0.985	1.979	2.7	19.2
10 28	1 21.01	- 15 8.8	2.734	3.624	8.1	20.7	10 28	1 18.05	+ 4 6.4	0.997	1.972	7.8	19.5
11 7	1 14.15	- 14 59.2	2.805	3.629	9.9	20.9	11 7	1 9.32	+ 4 7.4	1.032	1.966	13.4	19.8
11 17	1 8.63	- 14 32.2	2.900	3.634	11.7	21.0	11 17	1 3.55	+ 4 25.9	1.088	1.961	18.3	20.1
243747	2000 QR ₉₈		10 17.3 52°02	3°7/14.9	17		251391	2007 VD ₂₀₉		10 17.3 158°26	1°1/16.2	18	
9 8	1 58.08	+ 5 5.2	1.091	1.945	21.1	19.8	9 8	1 53.91	+ 9 41.7	2.043	2.851	14.3	21.3
9 18	1 54.57	+ 4 14.4	1.049	1.967	16.4	19.6	9 18	1 50.09	+ 8 55.8	1.963	2.855	11.2	21.1
9 28	1 47.75	+ 3 12.1	1.026	1.989	11.0	19.3	9 28	1 44.22	+ 7 57.9	1.905	2.858	7.6	20.9
10 8	1 38.61	+ 2 6.6	1.023	2.012	5.7	19.1	10 8	1 36.85	+ 6 52.1	1.873	2.861	3.6	20.7
10 18	1 28.56	+ 1 7.7	1.045	2.036	4.2	19.1	10 18	1 28.72	+ 5 43.7	1.869	2.863	1.4	20.5
10 28	1 19.22	+ 0 24.6	1.091	2.059	8.5	19.4	10 28	1 20.77	+ 4 39.1	1.894	2.866	5.1	20.8
11 7	1 11.94	+ 0 3.0	1.160	2.083	13.3	19.8	11 7	1 13.86	+ 3 44.4	1.947	2.868	8.9	21.0
11 17	1 7.52	+ 0 4.7	1.249	2.107	17.4	20.1	11 17	1 8.67	+ 3 3.9	2.025	2.870	12.2	21.3
219970	2002 JR ₁₁₆		10 17.3 111°13	7°9/ 8.4	18		413216	2003 MA		10 17.3 82°53	25°1/14.3	16	
9 8	1 53.58	- 14 23.1	2.324	3.147	12.4								

EPHEMERIDES

10 17.3

10 17.3

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
375156	2008 CZ ₁₁₆	10 17.3 274°42'			0°5/17.7 18		364497	2007 ET ₃₁	10 17.3 151°91'			1°3/15.9 18	
9 8	1 59.92	+10 58.8	1.483	2.299	18.4	21.4	9 8	1 53.50	+7 9.3	2.636	3.437	11.7	21.8
9 18	1 55.91	+11 10.5	1.399	2.292	14.8	21.2	9 18	1 49.25	+6 39.1	2.555	3.444	9.1	21.6
9 28	1 48.86	+11 9.7	1.334	2.285	10.4	20.9	9 28	1 43.39	+6 1.9	2.498	3.450	6.1	21.5
10 8	1 39.39	+10 57.7	1.292	2.278	5.3	20.6	10 8	1 36.37	+5 20.5	2.468	3.455	3.0	21.3
10 18	1 28.53	+10 37.6	1.275	2.272	0.6	20.2	10 18	1 28.80	+4 38.8	2.467	3.461	1.4	21.2
10 28	1 17.73	+10 14.7	1.286	2.265	5.7	20.6	10 28	1 21.36	+4 0.6	2.496	3.466	4.3	21.4
11 7	1 8.39	+9 55.4	1.322	2.258	10.8	20.9	11 7	1 14.74	+3 29.9	2.555	3.470	7.3	21.6
11 17	1 1.60	+9 45.3	1.382	2.251	15.3	21.1	11 17	1 9.45	+3 9.2	2.640	3.474	10.0	21.8
46622	1994 EF ₇	10 17.3 192°84'			1°9/15.9 18 R		521883	2015 TF ₃₈₁	10 17.3 271°71'			3°9/13.7 18	
9 8	1 59.48	+6 32.6	1.694	2.511	16.4	19.5	9 8	1 54.87	-1 13.0	2.227	3.049	12.8	21.3
9 18	1 54.98	+6 9.6	1.614	2.510	12.9	19.3	9 18	1 50.70	-1 45.9	2.143	3.042	10.1	21.1
9 28	1 47.86	+5 36.8	1.554	2.509	8.8	19.1	9 28	1 44.59	-2 21.3	2.083	3.036	7.1	20.9
10 8	1 38.75	+4 58.2	1.519	2.507	4.3	18.8	10 8	1 37.04	-2 54.7	2.049	3.029	4.5	20.8
10 18	1 28.59	+4 18.9	1.511	2.505	2.1	18.6	10 18	1 28.75	-3 21.3	2.043	3.022	4.2	20.7
10 28	1 18.59	+3 45.3	1.532	2.503	6.2	18.9	10 28	1 20.56	-3 36.7	2.066	3.015	6.7	20.9
11 7	1 9.92	+3 22.9	1.579	2.500	10.6	19.2	11 7	1 13.31	-3 37.9	2.115	3.009	9.7	21.1
11 17	1 3.44	+3 15.1	1.650	2.496	14.5	19.4	11 17	1 7.64	-3 23.7	2.189	3.002	12.6	21.2
162396	2000 CV ₁₂₀	10 17.3 330°42'			0°8/15.9 18		69203	2088 T ₋₂	10 17.3 319°60'			0°3/17.6 18	
9 8	1 45.60	+6 56.0	4.232	5.030	7.6	20.0	9 8	1 51.39	+13 47.2	1.236	2.073	20.2	19.0
9 18	1 42.55	+6 33.4	4.141	5.028	5.9	19.9	9 18	1 49.74	+13 19.6	1.154	2.060	16.3	18.8
9 28	1 38.57	+6 6.6	4.075	5.026	4.0	19.7	9 28	1 44.93	+12 29.5	1.090	2.047	11.4	18.4
10 8	1 33.93	+5 37.4	4.037	5.024	1.9	19.6	10 8	1 37.56	+11 19.7	1.047	2.035	5.8	18.1
10 18	1 28.95	+5 7.9	4.029	5.022	0.9	19.5	10 18	1 28.70	+9 56.5	1.027	2.023	0.4	17.7
10 28	1 24.03	+4 40.2	4.051	5.021	2.8	19.6	10 28	1 19.88	+8 30.9	1.032	2.012	6.4	18.1
11 7	1 19.52	+4 16.7	4.103	5.019	4.8	19.8	11 7	1 12.62	+7 14.5	1.061	2.002	12.2	18.4
11 17	1 15.76	+3 58.9	4.183	5.017	6.7	19.9	11 17	1 8.03	+6 16.8	1.110	1.993	17.3	18.6
379154	2009 QU ₄	10 17.3 44°90'			0°1/17.3 15		457943	2009 VW ₁₁	10 17.3 286°99'			1°5/15.9 17	
9 8	1 57.45	+11 38.9	1.135	1.974	21.5	20.7	9 8	1 55.02	+5 29.5	2.329	3.137	12.8	21.6
9 18	1 54.09	+11 22.8	1.090	1.996	16.9	20.5	9 18	1 50.78	+5 20.0	2.239	3.131	10.0	21.4
9 28	1 47.47	+10 48.8	1.062	2.020	11.5	20.3	9 28	1 44.63	+5 4.6	2.173	3.126	6.8	21.2
10 8	1 38.52	+10 1.5	1.055	2.044	5.6	20.0	10 8	1 37.07	+4 46.0	2.132	3.120	3.4	20.9
10 18	1 28.62	+9 7.6	1.072	2.068	0.4	19.7	10 18	1 28.76	+4 27.5	2.120	3.114	1.7	20.8
10 28	1 19.38	+8 16.4	1.114	2.093	6.3	20.2	10 28	1 20.52	+4 12.9	2.138	3.108	4.8	21.0
11 7	1 12.14	+7 36.2	1.180	2.119	11.5	20.6	11 7	1 13.17	+4 5.6	2.184	3.103	8.2	21.2
11 17	1 7.72	+7 12.3	1.268	2.145	15.9	20.9	11 17	1 7.34	+4 8.0	2.256	3.097	11.3	21.4
441142	2007 TV ₁₄₈	10 17.3 4°21'			0°7/17.8 18		113285	2002 RQ ₁₆₄	10 17.3 127°18'			0°9/18.2 18	
9 8	1 57.61	+10 56.1	1.593	2.407	17.4	20.3	9 8	1 57.23	+14 1.2	2.221	3.003	14.1	21.0
9 18	1 53.75	+11 14.1	1.514	2.407	13.9	20.1	9 18	1 52.49	+13 49.7	2.144	3.017	11.2	20.8
9 28	1 47.16	+11 20.8	1.456	2.407	9.7	19.9	9 28	1 45.76	+13 26.0	2.089	3.030	7.9	20.7
10 8	1 38.45	+11 17.5	1.421	2.407	5.0	19.6	10 8	1 37.59	+12 52.0	2.060	3.043	4.1	20.5
10 18	1 28.62	+11 6.9	1.413	2.409	0.7	19.3	10 18	1 28.73	+12 10.8	2.059	3.055	0.9	20.2
10 28	1 18.94	+10 53.4	1.431	2.410	5.2	19.6	10 28	1 20.09	+11 27.0	2.088	3.066	3.9	20.5
11 7	1 10.64	+10 42.3	1.476	2.412	9.8	19.9	11 7	1 12.50	+10 45.8	2.146	3.078	7.6	20.7
11 17	1 4.62	+10 38.5	1.544	2.415	13.9	20.2	11 17	1 6.61	+10 11.6	2.231	3.088	10.8	21.0
102161	1999 RM ₂₁₇	10 17.3 12°06'			10°6/24.0 18 R		412310	2013 JF ₅₈	10 17.3 102°18'			0°3/17.6 18	
9 8	1 57.53	+28 23.7	1.176	1.952	24.5	17.8	9 8	1 51.27	+13 54.6	2.271	3.065	13.5	21.1
9 18	1 55.24	+30 3.8	1.109	1.954	21.3	17.6	9 18	1 47.87	+13 14.6	2.188	3.069	10.7	20.9
9 28	1 49.11	+31 17.7	1.057	1.957	17.6	17.4	9 28	1 42.63	+12 21.1	2.126	3.073	7.4	20.7
10 8	1 39.75	+31 57.7	1.022	1.961	13.9	17.2	10 8	1 36.06	+11 17.0	2.091	3.076	3.7	20.5
10 18	1 28.52	+31 58.9	1.008	1.966	11.1	17.1	10 18	1 28.84	+10 6.7	2.084	3.080	0.3	20.2
10 28	1 17.38	+31 22.9	1.015	1.972	10.8	17.1	10 28	1 21.76	+8 55.9	2.107	3.084	4.0	20.5
11 7	1 8.30	+30 19.6	1.045	1.979	13.1	17.2	11 7	1 15.61	+7 50.6	2.158	3.088	7.6	20.8
11 17	1 2.62	+29 3.0	1.094	1.987	16.6	17.5	11 17	1 10.97	+6 55.8	2.235	3.092	10.8	21.0
187777	1998 SZ ₇₀	10 17.3 33°08'			0°5/17.0 18		377556	2005 JR ₇₈	10 17.3 58°93'			0°4/17.6 16	
9 8	2 1.60	+6 28.4	1.607	2.423	17.2	19.0	9 8	1 58.66	+12 27.8	1.296	2.120	20.1	21.1
9 18	1 56.44	+7 0.1	1.550	2.445	13.5	18.8	9 18	1 54.79	+12 15.2	1.243	2.140	15.9	20.9
9 28	1 48.66	+7 25.1	1.515	2.468	9.2	18.6	9 28	1 47.87	+11 45.6	1.207	2.161	11.0	20.7
10 8	1 39.03	+7 45.0	1.504	2.492	4.4	18.4	10 8	1 38.75	+11 2.2	1.194	2.181	5.5	20.4
10 18	1 28.60	+8 1.9	1.520	2.516	0.7	18.1	10 18	1 28.67	+10 11.0	1.206	2.202	0.4	20.1
10 28	1 18.62	+8 19.0	1.564	2.541	5.2	18.5	10 28	1 19.12	+9 20.0	1.244	2.223	5.8	20.6
11 7	1 10.20	+8 39.3	1.636	2.567	9.5	18.8	11 7	1 11.40	+8 37.3	1.307	2.244	10.8	20.9
11 17	1 4.09	+9 5.3	1.731	2.593	13.1	19.1	11 17	1 6.32	+8 8.5	1.392	2.265	15.0	21.2
26903	1995 YT ₃	10 17.3 305°65'			9°7/8.6 18		383124	2005 TA ₄₄	10 17.3 241°13'			1°1/18.3 18	
9 8	1 53.74	-11 40.7	1.630	2.475	15.7	17.6	9 8	1 56.79	+14 36.0	1.785	2.581	16.5	21.7
9 18	1 50.63	-13 14.3	1.560	2.461	13.1	17.4	9 18	1 52.96	+14 24.9	1.691	2.572	13.3	21.5
9 28	1 44.97	-14 44.7	1.512	2.447	10.8	17.2	9 28	1 46.59	+13 58.1	1.618	2.562	9.5	21.2
10 8	1 37.36	-16 1.6	1.488	2.433	9.7	17.1	10 8	1 38.22	+13 17.0	1.569	2.553	5.1	20.9
10 18	1 28.71	-16 55.3	1.487	2.420	10.6	17.2	10 18	1 28.71	+12 25.0	1.547	2.542	1.1	20.6
10 28	1 20.20	-17 18.7	1.511	2.407	12.9	17.3	10 28	1 19.23	+11 28.1	1.553	2.532	4.9	20.9
11 7	1 12.97	-17 9.2	1.556	2.394	15.7	17.4	11 7	1 10.93	+10 33.8	1.586	2.521	9.4	21.1
11 17	1 7.85	-16 28.6	1.620	2.382	18.5	17.6	11 17	1 4.72	+9 48.5	1.644	2.510	13.5	21.4
384427	2009 XM ₁₆	10 17.3 356°01'			5°7/13.0 18		14613	Sanchez	10 17.3 9°32'			1°6/18.5 18	
9 8	1 54.58	-0 59.9	1.479	2.326	16.9	20.1	9 8	1 49.93	+14 29.5	1.234	2.071	20.2	16.5
9 18	1 51.38	-2 1.4	1.412	2.325	13.3	19.9	9 18	1 48.34	+14 31.6	1.170	2.073	16.2	16.3</

EPHEMERIDES

10 17.3

10 17.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
3743	Pauljaniczek		10 17.3 129°44	1°3/16.3 18			15606	Winer		10 17.3 58°98	3°4/15.3 18		
9 8	1 59.16	+ 9 48.4	1.586	2.400	17.5	17.5	9 8	1 59.42	+ 5 13.4	1.132	1.981	20.9	17.5
9 18	1 54.74	+ 9 4.0	1.518	2.413	13.7	17.3	9 18	1 55.65	+ 4 31.9	1.085	2.000	16.3	17.3
9 28	1 47.66	+ 8 5.2	1.470	2.425	9.3	17.1	9 28	1 48.57	+ 3 39.1	1.057	2.019	11.0	17.0
10 8	1 38.64	+ 6 56.9	1.447	2.436	4.5	16.8	10 8	1 39.13	+ 2 42.3	1.050	2.039	5.6	16.8
10 18	1 28.70	+ 5 45.9	1.452	2.446	1.6	16.7	10 18	1 28.70	+ 1 50.3	1.067	2.059	3.8	16.8
10 28	1 19.11	+ 4 40.3	1.484	2.457	6.0	17.0	10 28	1 18.93	+ 1 12.0	1.110	2.079	8.2	17.1
11 7	1 11.01	+ 3 47.4	1.542	2.466	10.6	17.3	11 7	1 11.18	+ 0 53.3	1.175	2.100	13.1	17.4
11 17	1 5.20	+ 3 12.0	1.625	2.475	14.5	17.5	11 17	1 6.30	+ 0 56.2	1.262	2.120	17.3	17.7
453460	2009 ST ₈₃		10 17.3 35°84	0°1/17.3 18			511958	2015 KC ₉		10 17.3 83°37	9°8/ 9.7 18		
9 8	1 53.82	+11 63.3	1.702	2.519	16.4	20.5	9 8	1 59.09	-14 15.8	1.675	2.506	16.0	20.9
9 18	1 50.32	+10 53.9	1.642	2.537	12.9	20.4	9 18	1 54.43	-15 32.7	1.629	2.517	13.3	20.7
9 28	1 44.51	+10 29.0	1.602	2.555	8.8	20.2	9 28	1 47.29	-16 41.1	1.603	2.528	11.0	20.6
10 8	1 37.03	+ 9 54.8	1.586	2.574	4.3	19.9	10 8	1 38.40	-17 31.7	1.602	2.539	9.8	20.6
10 18	1 28.82	+ 9 15.7	1.597	2.593	0.3	19.7	10 18	1 28.78	-17 57.1	1.625	2.550	10.4	20.6
10 28	1 20.93	+ 8 37.4	1.635	2.613	4.8	20.1	10 28	1 19.61	-17 53.1	1.672	2.561	12.3	20.8
11 7	1 14.35	+ 8 5.7	1.700	2.634	9.0	20.4	11 7	1 11.91	-17 19.8	1.742	2.572	14.7	21.0
11 17	1 9.76	+ 7 44.8	1.789	2.655	12.6	20.6	11 17	1 6.39	-16 20.7	1.832	2.582	17.0	21.2
72016	2000 XF ₁₃		10 17.3 297°85	0°7/16.9 18			449859	2015 ME ₉		10 17.4 177°55	6°0/23.6 18		
9 8	2 0.57	+ 6 58.4	1.688	2.503	16.6	18.7	9 8	1 57.16	+29 16.3	2.135	2.849	16.6	21.0
9 18	1 56.11	+ 7 15.7	1.595	2.489	13.2	18.5	9 18	1 53.02	+29 35.5	2.043	2.850	14.3	20.8
9 28	1 48.88	+ 7 26.1	1.523	2.476	9.2	18.2	9 28	1 46.49	+29 33.7	1.969	2.851	11.5	20.7
10 8	1 39.42	+ 7 31.4	1.474	2.462	4.5	17.9	10 8	1 38.13	+29 8.7	1.917	2.851	8.7	20.5
10 18	1 28.63	+ 7 34.3	1.453	2.449	0.9	17.6	10 18	1 28.79	+28 20.6	1.890	2.852	6.5	20.4
10 28	1 17.81	+ 7 38.5	1.460	2.436	5.6	17.9	10 28	1 19.56	+27 12.7	1.891	2.851	6.3	20.3
11 7	1 8.22	+ 7 48.1	1.493	2.423	10.3	18.2	11 7	1 11.47	+25 52.1	1.920	2.851	8.3	20.5
11 17	1 0.89	+ 8 6.4	1.551	2.410	14.5	18.4	11 17	1 5.36	+24 27.0	1.975	2.850	11.2	20.6
266820	2009 TQ ₂₁		10 17.3 356°40	3°2/14.5 18			28280	1999 CG ₂₈		10 17.4 141°58	1°1/18.2 18		
9 8	1 49.94	+ 3 43.9	1.739	2.578	15.1	19.7	9 8	1 59.78	+13 23.8	1.824	2.617	16.4	18.4
9 18	1 47.39	+ 2 59.0	1.664	2.575	11.8	19.5	9 18	1 55.08	+13 28.1	1.745	2.623	13.1	18.2
9 28	1 42.61	+ 2 6.0	1.611	2.572	8.0	19.3	9 28	1 47.88	+13 19.4	1.686	2.629	9.2	17.9
10 8	1 36.17	+ 1 10.3	1.583	2.570	4.4	19.0	10 8	1 38.80	+12 59.0	1.651	2.634	4.9	17.7
10 18	1 28.88	+ 0 18.3	1.580	2.569	3.6	19.0	10 18	1 28.75	+12 29.7	1.644	2.640	1.1	17.5
10 28	1 21.74	- 0 23.3	1.605	2.568	6.9	19.2	10 28	1 18.89	+11 56.3	1.666	2.645	4.7	17.7
11 7	1 15.72	- 0 49.3	1.655	2.569	10.7	19.4	11 7	1 10.32	+11 24.7	1.715	2.649	8.9	18.0
11 17	1 11.55	- 0 57.0	1.728	2.570	14.1	19.6	11 17	1 3.84	+11 0.1	1.789	2.653	12.7	18.2
49948	1999 XF ₂₀₅		10 17.3 324°68	0°2/17.5 18			471203	2010 TJ ₇₅		10 17.4 94°84	1°2/16.4 17		
9 8	1 57.70	+10 1.2	1.344	2.174	19.3	18.2	9 8	1 55.94	+11 28.6	1.404	2.229	18.8	21.7
9 18	1 54.48	+10 15.1	1.263	2.164	15.4	17.9	9 18	1 52.58	+10 30.6	1.339	2.240	14.8	21.5
9 28	1 48.09	+10 16.6	1.200	2.156	10.8	17.6	9 28	1 46.38	+ 9 14.2	1.293	2.250	10.0	21.3
10 8	1 39.13	+10 7.5	1.159	2.147	5.4	17.3	10 8	1 38.09	+ 7 44.9	1.271	2.260	4.8	21.0
10 18	1 28.67	+ 9 51.0	1.143	2.139	0.4	16.9	10 18	1 28.81	+ 6 11.3	1.274	2.269	1.5	20.8
10 28	1 18.26	+ 9 32.8	1.152	2.132	6.1	17.3	10 28	1 19.89	+ 4 43.9	1.305	2.279	6.4	21.2
11 7	1 9.39	+ 9 19.6	1.186	2.125	11.5	17.6	11 7	1 12.56	+ 3 32.0	1.361	2.289	11.3	21.5
11 17	1 3.20	+ 9 16.7	1.242	2.119	16.2	17.9	11 17	1 7.65	+ 2 41.4	1.439	2.298	15.5	21.7
253430	2003 QL ₆₃		10 17.3 54°51	5°9/13.2 18			296835	2009 WX ₆₆		10 17.4 1°44	0°7/16.7 17		
9 8	1 56.08	+ 1 48.9	1.146	2.005	20.0	19.4	9 8	1 50.75	+ 9 45.9	1.822	2.643	15.3	21.0
9 18	1 52.88	+ 0 20.3	1.106	2.026	15.5	19.2	9 18	1 47.97	+ 9 21.6	1.743	2.642	12.0	20.7
9 28	1 46.57	- 0 16.6	1.084	2.047	10.7	19.0	9 28	1 43.00	+ 8 45.5	1.686	2.642	8.2	20.5
10 8	1 38.10	- 2 50.5	1.085	2.069	6.7	18.9	10 8	1 36.38	+ 8 1.0	1.653	2.642	4.0	20.3
10 18	1 28.77	- 4 9.9	1.110	2.091	6.5	18.9	10 18	1 28.93	+ 7 12.9	1.647	2.643	0.9	20.0
10 28	1 20.09	- 5 5.0	1.159	2.113	10.1	19.2	10 28	1 21.61	+ 6 27.2	1.668	2.644	5.1	20.3
11 7	1 13.32	- 5 31.2	1.231	2.136	14.3	19.5	11 7	1 15.40	+ 5 49.8	1.716	2.647	9.2	20.6
11 17	1 9.19	- 5 28.5	1.323	2.158	18.0	19.8	11 17	1 11.00	+ 5 24.9	1.788	2.650	12.8	20.8
408515	2013 JY ₃₆		10 17.3 93°78	5°7/11.5 18			219263	2000 AH ₁₃₆		10 17.4 30°63	4°3/21.7 18		
9 8	1 55.12	- 8 28.0	2.424	3.245	12.0	20.6	9 8	1 53.55	+23 39.4	2.122	2.873	15.6	19.7
9 18	1 50.54	- 9 17.5	2.368	3.259	9.6	20.5	9 18	1 50.03	+23 56.0	2.037	2.877	13.1	19.5
9 28	1 44.26	-10 4.1	2.335	3.273	7.3	20.3	9 28	1 44.35	+23 54.9	1.971	2.882	10.1	19.3
10 8	1 36.81	-10 42.7	2.329	3.288	5.8	20.3	10 8	1 37.04	+23 35.5	1.929	2.887	6.9	19.1
10 18	1 28.86	-11 8.4	2.351	3.302	6.1	20.3	10 18	1 28.89	+22 58.8	1.913	2.892	4.6	19.0
10 28	1 21.18	-11 18.0	2.401	3.316	7.9	20.5	10 28	1 20.85	+22 8.7	1.925	2.897	5.0	19.1
11 7	1 14.45	-11 9.9	2.477	3.329	10.1	20.6	11 7	1 13.88	+21 11.2	1.964	2.902	7.7	19.2
11 17	1 9.20	-10 44.6	2.576	3.343	12.2	20.8	11 17	1 8.68	+20 13.1	2.030	2.908	10.7	19.4
377182	2003 UZ ₂₃₃		10 17.3 352°51	0°2/17.2 17			329103	2011 BE ₁₃₄		10 17.4 112°92	1°8/15.5 18		
9 8	1 50.67	+13 37.6	1.193	2.033	20.5	20.6	9 8	1 52.90	+ 5 28.5	2.447	3.258	12.2	21.2
9 18	1 49.11	+12 56.4	1.121	2.030	16.4	20.4	9 18	1 48.95	+ 4 58.7	2.369	3.263	9.5	21.1
9 28	1 44.42	+11 51.8	1.068	2.026	11.4	20.1	9 28	1 43.30	+ 4 22.4	2.314	3.268	6.4	20.9
10 8	1 37.27	+10 28.0	1.035	2.024	5.6	19.8	10 8	1 36.42	+ 3 43.2	2.285	3.273	3.2	20.7
10 18	1 28.82	+ 8 53.2	1.026	2.022	0.5	19.4	10 18	1 28.94	+ 3 4.8	2.285	3.277	2.0	20.6
10 28	1 20.57	+ 7 19.5	1.042	2.022	6.6	19.8	10 28	1 21.61	+ 2 31.7	2.315	3.282	4.8	20.8
11 7	1 13.97	+ 5 58.8	1.081	2.022	12.2	20.1	11 7	1 15.13	+ 2 7.4	2.373	3.287	7.9	21.0
11 17	1 10.03	+ 4 59.9	1.142	2.022	17.0	20.4	11 17	1 10.06	+ 1 54.5	2.457	3.291	10.7	21.2
108037	2001 FR ₁₅₄		10 17.3 45°22	1°8/16.3 18			407225	2009 VZ ₉₅		10 17.4 277°51	5°1/12.6 18		
9 8	2 0.70	+ 6 25.1	1.140	1.984	21.1	18.5	9						

EPHEMERIDES

10 17.4

10 17.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
317285	2002 <i>FE</i> ₉	10 17.4 194° 93		2° 2/19.1 17		R	207179	2005 <i>CP</i> ₇₈	10 17.4 320° 42		7° 1/11.4 18		
9 8	1 58.52	+17 28.8	1.685	2.472	17.7	21.1	9 8	1 52.98	- 4 26.8	1.576	2.425	16.0	19.7
9 18	1 54.47	+17 19.9	1.598	2.471	14.4	20.9	9 18	1 50.10	- 5 42.7	1.503	2.415	12.8	19.5
9 28	1 47.69	+16 52.2	1.531	2.469	10.4	20.7	9 28	1 44.67	- 7 1.7	1.452	2.405	9.5	19.2
10 8	1 38.81	+16 6.5	1.487	2.466	6.0	20.4	10 8	1 37.30	- 8 14.8	1.424	2.396	7.3	19.1
10 18	1 28.78	+15 6.0	1.470	2.463	2.2	20.1	10 18	1 28.90	- 9 13.0	1.422	2.387	7.7	19.1
10 28	1 18.86	+13 57.5	1.480	2.460	5.0	20.3	10 28	1 20.65	- 9 48.4	1.445	2.378	10.5	19.2
11 7	1 10.30	+12 49.4	1.518	2.456	9.5	20.6	11 7	1 13.67	- 9 56.9	1.491	2.370	14.0	19.4
11 17	1 4.00	+11 49.5	1.581	2.452	13.6	20.8	11 17	1 8.80	- 9 38.2	1.558	2.363	17.2	19.6
482635	2013 <i>AQ</i> ₈₄	10 17.4		1° 00		2° 9/15.5 16	385129	2013 <i>CC</i> ₂₁₅	10 17.4 331° 62		1° 4/14.8 18		
9 8	1 50.39	+ 5 19.5	1.201	2.061	19.2	20.6	9 8	1 45.09	+ 4 18.9	4.290	5.095	7.4	21.0
9 18	1 48.75	+ 4 55.3	1.137	2.058	15.1	20.4	9 18	1 42.18	+ 3 43.8	4.203	5.095	5.7	20.9
9 28	1 44.08	+ 4 19.8	1.091	2.056	10.3	20.1	9 28	1 38.37	+ 3 5.1	4.141	5.094	3.9	20.8
10 8	1 37.09	+ 3 39.0	1.066	2.056	5.2	19.8	10 8	1 33.92	+ 2 25.2	4.108	5.094	2.0	20.6
10 18	1 28.90	+ 3 0.2	1.065	2.057	3.2	19.7	10 18	1 29.16	+ 1 46.3	4.105	5.093	1.5	20.6
10 28	1 20.95	+ 2 31.6	1.087	2.060	7.7	20.0	10 28	1 24.45	+ 1 10.9	4.132	5.093	3.2	20.7
11 7	1 14.60	+ 2 19.5	1.133	2.065	12.6	20.3	11 7	1 20.15	+ 0 41.3	4.189	5.092	5.1	20.9
11 17	1 10.80	+ 2 27.0	1.199	2.071	17.0	20.6	11 17	1 16.57	+ 0 19.1	4.273	5.092	6.8	21.0
102188	1999 <i>RD</i> ₂₅₅	10 17.4		82° 92		4° 0/14.3 17	363673	2004 <i>TF</i> ₆₆	10 17.4 16° 59		4° 1/15.6 17		
9 8	1 59.32	+ 4 36.7	1.433	2.266	18.1	20.0	9 8	1 56.15	+ 2 7.2	0.884	1.760	23.0	19.8
9 18	1 54.80	+ 3 19.4	1.387	2.294	14.0	19.8	9 18	1 54.08	+ 2 3.0	0.836	1.765	18.1	19.5
9 28	1 47.59	+ 1 52.4	1.362	2.321	9.4	19.6	9 28	1 48.10	+ 1 51.9	0.804	1.772	12.4	19.2
10 8	1 38.55	+ 0 23.9	1.361	2.347	5.2	19.5	10 8	1 39.16	+ 1 40.8	0.791	1.781	6.6	18.9
10 18	1 28.81	- 0 56.6	1.387	2.374	4.4	19.5	10 18	1 28.81	+ 1 36.9	0.799	1.791	4.4	18.9
10 28	1 19.67	- 2 0.5	1.440	2.399	8.0	19.8	10 28	1 19.04	+ 1 47.3	0.830	1.803	9.2	19.2
11 7	1 12.20	- 2 42.4	1.518	2.425	12.0	20.1	11 7	1 11.56	+ 2 15.8	0.880	1.817	14.7	19.5
11 17	1 7.11	- 3 0.5	1.619	2.449	15.5	20.3	11 17	1 7.42	+ 3 2.8	0.950	1.831	19.5	19.9
400653	2009 <i>HU</i> ₂₅	10 17.4		274° 58		0° 2/17.5 18	330297	2006 <i>TX</i> ₅₆	10 17.4 359° 67		3° 3/15.4 18		
9 8	1 52.22	+13 41.0	1.964	2.765	15.0	21.4	9 8	1 46.37	+ 6 13.4	0.912	1.794	21.9	19.7
9 18	1 49.10	+13 2.1	1.869	2.755	12.0	21.2	9 18	1 46.39	+ 5 38.8	0.855	1.789	17.2	19.4
9 28	1 43.79	+12 7.3	1.796	2.744	8.3	20.9	9 28	1 42.92	+ 4 48.1	0.814	1.786	11.7	19.1
10 8	1 36.82	+10 59.5	1.747	2.733	4.2	20.7	10 8	1 36.68	+ 3 48.9	0.793	1.784	5.9	18.8
10 18	1 28.92	+ 9 43.3	1.726	2.722	0.3	20.3	10 18	1 28.99	+ 2 51.6	0.792	1.785	3.8	18.7
10 28	1 21.08	+ 8 25.7	1.734	2.712	4.7	20.7	10 28	1 21.58	+ 2 7.7	0.812	1.788	8.9	19.0
11 7	1 14.25	+ 7 14.2	1.769	2.701	8.9	20.9	11 7	1 16.09	+ 1 46.1	0.853	1.793	14.6	19.3
11 17	1 9.18	+ 6 15.1	1.830	2.690	12.6	21.1	11 17	1 13.55	+ 1 50.4	0.912	1.800	19.5	19.7
327151	2005 <i>GX</i> ₇₁	10 17.4		269° 22		0° 2/17.2 16	336813	2011 <i>DW</i> ₂₄	10 17.4 54° 98		2° 2/15.8 18		
9 8	1 58.13	+10 37.6	1.463	2.284	18.4	21.8	9 8	1 56.60	+ 7 24.6	1.365	2.201	18.7	20.2
9 18	1 54.52	+10 29.6	1.381	2.278	14.7	21.5	9 18	1 53.00	+ 6 43.7	1.312	2.219	14.5	20.0
9 28	1 47.94	+10 7.4	1.318	2.272	10.2	21.2	9 28	1 46.59	+ 5 50.5	1.279	2.238	9.8	19.8
10 8	1 39.01	+ 9 33.5	1.278	2.266	5.1	20.9	10 8	1 38.17	+ 4 50.8	1.268	2.257	4.8	19.6
10 18	1 28.77	+ 8 52.6	1.264	2.260	0.5	20.6	10 18	1 28.90	+ 3 52.2	1.283	2.277	2.5	19.5
10 28	1 18.62	+ 8 11.5	1.276	2.254	5.9	21.0	10 28	1 20.11	+ 3 2.9	1.325	2.297	6.8	19.8
11 7	1 9.93	+ 7 37.5	1.313	2.248	11.0	21.2	11 7	1 12.97	+ 2 29.2	1.391	2.317	11.3	20.1
11 17	1 3.72	+ 7 16.6	1.374	2.241	15.5	21.5	11 17	1 8.25	+ 2 14.4	1.480	2.337	15.3	20.4
324306	2006 <i>DD</i> ₁₃₂	10 17.4		265° 51		1° 5/18.8 17	473468	2015 <i>XS</i> ₆₄	10 17.4 309° 77		2° 3/20.1 17		
9 8	1 55.21	+14 52.6	2.393	3.171	13.3	21.3	9 8	1 50.79	+20 43.7	2.291	3.056	14.2	21.5
9 18	1 51.02	+15 2.2	2.296	3.165	10.8	21.1	9 18	1 47.65	+20 14.0	2.197	3.054	11.6	21.3
9 28	1 44.90	+15 0.9	2.221	3.158	7.7	20.9	9 28	1 42.62	+19 26.5	2.125	3.052	8.6	21.1
10 8	1 37.31	+14 49.6	2.172	3.152	4.3	20.7	10 8	1 36.19	+18 22.7	2.077	3.050	5.2	20.9
10 18	1 28.90	+14 29.8	2.151	3.145	1.6	20.5	10 18	1 29.03	+17 5.8	2.057	3.048	2.5	20.8
10 28	1 20.51	+14 5.0	2.160	3.138	3.8	20.6	10 28	1 21.98	+15 41.2	2.066	3.045	3.9	20.9
11 7	1 12.98	+13 39.1	2.197	3.132	7.2	20.8	11 7	1 15.84	+14 16.1	2.104	3.043	7.2	21.1
11 17	1 6.99	+13 16.6	2.261	3.125	10.4	21.0	11 17	1 11.26	+12 56.9	2.170	3.041	10.4	21.3
163804	2003 <i>QQ</i> ₈₈	10 17.4		8° 81		1° 6/18.1 18	106345	2000 <i>UQ</i> ₁₁₁	10 17.4 329° 32		1° 0/16.6 18		
9 8	1 56.33	+10 31.2	1.162	2.004	20.9	18.4	9 8	1 53.80	+ 9 48.1	1.570	2.396	17.1	19.6
9 18	1 53.64	+11 20.9	1.099	2.006	16.8	18.1	9 18	1 50.83	+ 9 18.2	1.490	2.391	13.5	19.3
9 28	1 47.58	+11 58.9	1.054	2.010	11.8	17.8	9 28	1 45.23	+ 8 34.1	1.430	2.386	9.3	19.1
10 8	1 38.88	+12 25.3	1.029	2.016	6.3	17.6	10 8	1 37.63	+ 7 39.5	1.393	2.382	4.5	18.8
10 18	1 28.79	+12 41.5	1.028	2.023	1.6	17.3	10 18	1 28.94	+ 6 40.5	1.382	2.378	1.3	18.6
10 28	1 18.97	+12 51.3	1.051	2.032	6.0	17.6	10 28	1 20.38	+ 5 44.7	1.399	2.374	5.9	18.9
11 7	1 11.00	+13 0.3	1.097	2.043	11.4	18.0	11 7	1 13.12	+ 4 59.3	1.441	2.371	10.6	19.1
11 17	1 5.92	+13 13.7	1.165	2.055	16.0	18.3	11 17	1 8.04	+ 4 29.8	1.505	2.368	14.7	19.4
26445	2000 <i>AY</i> ₆₁	10 17.4		79° 67		5° 0/12.9 18	287438	2002 <i>XK</i> ₁₁	10 17.4 177° 01		3° 4/14.8 16		
9 8	1 56.89	- 1 48.7	1.872	2.701	14.6	18.0	9 8	1 58.64	+ 2 59.0	1.720	2.545	15.9	20.8
9 18	1 52.33	- 2 51.6	1.823	2.725	11.4	17.9	9 18	1 54.25	+ 2 21.4	1.645	2.546	12.5	20.6
9 28	1 45.66	- 3 56.5	1.798	2.750	8.0	17.7	9 28	1 47.37	+ 1 36.6	1.591	2.547	8.6	20.3
10 8	1 37.56	- 4 56.8	1.798	2.774	5.4	17.6	10 8	1 38.60	+ 0 49.9	1.562	2.547	4.7	20.1
10 18	1 28.90	- 5 45.9	1.825	2.798	5.4	17.7	10 18	1 28.88	+ 0 7.6	1.560	2.548	3.7	20.0
10 28	1 20.65	- 6 18.6	1.881	2.822	7.9	17.9	10 28	1 19.36	- 0 24.1	1.585	2.548	7.1	20.3
11 7	1 13.66	- 6 32.1	1.962	2.846	10.9	18.1	11 7	1 11.13	- 0 40.5	1.637	2.547	11.1	20.5
11 17	1 8.54	- 6 26.1	2.066	2.869	13.6	18.3	11 17	1 5.02	- 0 39.2	1.713	2.546	14.6	20.7
258059	2001 <i>OC</i> ₄₄	10 17.4		37° 70		12° 6/27.1 18	220251	2002 <i>XN</i> ₇₇	10 17.4 331° 65		4° 9/20.9 18		
9 8													

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V	
298178	2002 <i>TV</i> ₁₆₆	10 17.4 34°09' 6.9"/24.2 18						244275	2002 <i>EG</i> ₉	10 17.4 170°87' 0.7"/16.9 18				
9 8	1 52.81	+30 5.8	1.634	2.375	19.9	19.9	9 8	2 1.13	+7 39.4	1.936	2.738	15.2	20.8	
9 18	1 50.21	+30 19.0	1.560	2.385	17.1	19.8	9 18	1 56.00	+7 42.4	1.853	2.740	12.0	20.6	
9 28	1 44.85	+30 4.5	1.502	2.395	13.8	19.6	9 28	1 48.49	+7 37.6	1.791	2.741	8.2	20.3	
10 8	1 37.42	+29 20.2	1.465	2.405	10.3	19.4	10 8	1 39.16	+7 27.1	1.755	2.743	4.0	20.1	
10 18	1 28.95	+28 7.1	1.451	2.416	7.5	19.3	10 18	1 28.90	+7 14.1	1.748	2.744	0.9	19.8	
10 28	1 20.76	+26 31.2	1.462	2.428	7.1	19.3	10 28	1 18.77	+7 2.6	1.770	2.744	5.0	20.2	
11 7	1 14.04	+24 43.0	1.500	2.440	9.4	19.4	11 7	1 9.84	+6 56.8	1.819	2.745	9.1	20.4	
11 17	1 9.64	+22 53.9	1.562	2.452	12.6	19.7	11 17	1 2.89	+6 59.8	1.895	2.745	12.7	20.6	
386720	2009 <i>XC</i> ₂	10 17.4 164°77' 7.6"/5.8 17						452750	2006 <i>BE</i> ₁₉₂	10 17.4 183°26' 0.4"/16.9 17				
9 8	1 58.28	-22 38.4	3.363	4.140	9.9	23.4	9 8	1 52.26	+10 29.6	2.430	3.229	12.6	22.1	
9 18	1 52.62	-23 55.9	3.315	4.149	8.7	23.3	9 18	1 48.57	+10 0.8	2.343	3.229	9.9	21.9	
9 28	1 45.54	-25 4.7	3.291	4.157	7.8	23.2	9 28	1 43.14	+9 22.1	2.279	3.229	6.8	21.7	
10 8	1 37.48	-25 59.6	3.295	4.164	7.6	23.2	10 8	1 36.44	+8 36.2	2.242	3.229	3.3	21.5	
10 18	1 28.97	-26 36.5	3.325	4.170	8.1	23.3	10 18	1 29.08	+7 46.8	2.233	3.229	0.6	21.3	
10 28	1 20.65	-26 53.0	3.381	4.176	9.1	23.4	10 28	1 21.82	+6 58.6	2.253	3.228	4.1	21.6	
11 7	1 13.10	-26 48.6	3.462	4.180	10.3	23.5	11 7	1 15.41	+6 16.3	2.302	3.228	7.5	21.8	
11 17	1 6.79	-26 24.9	3.563	4.183	11.5	23.6	11 17	1 10.41	+5 43.6	2.378	3.227	10.5	22.0	
39642	1995 <i>KO</i> ₁	10 17.4 79°29' 16.0"/3.9 18						446394	2014 <i>HP</i> ₁₇₆	10 17.4 120°23' 0.9"/18.3 18				
9 8	2 0.93	-26 42.8	1.421	2.238	19.1	18.7	9 8	1 55.35	+14 30.1	2.211	2.995	14.1	21.8	
9 18	1 56.33	-29 8.4	1.410	2.260	17.3	18.6	9 18	1 51.13	+14 11.3	2.133	3.007	11.2	21.6	
9 28	1 48.74	-31 8.8	1.418	2.282	16.2	18.6	9 28	1 44.94	+13 39.6	2.076	3.018	7.9	21.4	
10 8	1 39.14	-32 31.5	1.446	2.304	16.1	18.7	10 8	1 37.33	+12 57.1	2.046	3.028	4.1	21.2	
10 18	1 28.87	-33 9.1	1.494	2.326	16.9	18.8	10 18	1 29.04	+12 7.2	2.043	3.039	0.9	21.0	
10 28	1 19.36	-32 59.9	1.560	2.347	18.2	19.0	10 28	1 20.94	+11 14.9	2.071	3.049	3.9	21.3	
11 7	1 11.79	-32 8.7	1.643	2.369	19.7	19.1	11 7	1 13.87	+10 25.7	2.126	3.059	7.5	21.5	
11 17	1 6.86	-30 43.1	1.741	2.389	21.1	19.3	11 17	1 8.44	+9 44.4	2.208	3.068	10.8	21.7	
42770	1998 <i>TH</i> ₅	10 17.4 1°76' 1.7"/15.9 18						259457	2003 <i>SY</i> ₈₈	10 17.4 320°54' 2.7"/14.9 18				
9 8	1 50.52	+7 31.4	1.750	2.581	15.4	18.5	9 8	1 53.54	+2 53.1	2.214	3.034	13.0	20.4	
9 18	1 47.88	+6 59.9	1.675	2.580	12.1	18.3	9 18	1 49.73	+2 24.0	2.132	3.031	10.1	20.2	
9 28	1 43.00	+6 17.7	1.621	2.579	8.2	18.1	9 28	1 44.03	+1 49.5	2.072	3.028	6.9	20.0	
10 8	1 36.45	+5 29.1	1.591	2.580	4.0	17.8	10 8	1 36.91	+1 13.7	2.039	3.024	3.8	19.8	
10 18	1 29.03	+4 39.5	1.587	2.581	1.9	17.7	10 18	1 29.07	+0 41.0	2.033	3.021	2.9	19.7	
10 28	1 21.78	+3 55.5	1.610	2.583	5.7	18.0	10 28	1 21.34	+0 16.0	2.056	3.018	5.7	19.9	
11 7	1 15.66	+3 22.6	1.660	2.585	9.8	18.2	11 7	1 14.53	+0 2.3	2.107	3.016	9.0	20.1	
11 17	1 11.40	+3 4.7	1.733	2.589	13.4	18.4	11 17	1 9.27	+0 2.1	2.182	3.013	12.0	20.3	
324266	2006 <i>BR</i> ₂₆₂	10 17.4 182°57' 1.8"/19.5 18						482569	2012 <i>WO</i> ₇	10 17.4 2°20' 3.1"/19.9 16				
9 8	1 54.36	+17 15.5	2.810	3.570	12.0	22.1	9 8	1 49.70	+19 20.0	1.307	2.123	20.4	21.1	
9 18	1 50.02	+17 17.2	2.714	3.570	9.7	22.0	9 18	1 48.23	+19 15.2	1.234	2.122	16.7	20.9	
9 28	1 44.05	+17 7.9	2.642	3.570	7.0	21.8	9 28	1 43.79	+18 45.8	1.178	2.121	12.3	20.6	
10 8	1 36.86	+16 48.3	2.596	3.570	4.2	21.6	10 8	1 37.04	+17 52.3	1.143	2.121	7.4	20.4	
10 18	1 29.03	+16 19.9	2.578	3.569	1.9	21.4	10 18	1 29.06	+16 39.2	1.131	2.123	3.3	20.1	
10 28	1 21.26	+15 45.9	2.591	3.568	3.3	21.6	10 28	1 21.27	+15 15.2	1.144	2.126	5.6	20.3	
11 7	1 14.24	+15 10.2	2.633	3.567	6.2	21.7	11 7	1 15.02	+13 51.6	1.181	2.130	10.4	20.6	
11 17	1 8.54	+14 36.7	2.703	3.566	8.9	21.9	11 17	1 11.27	+12 38.7	1.241	2.134	15.0	20.8	
297168	2010 <i>VW</i> ₈₁	10 17.4 242°85' 3.1"/11.6 15						435074	2007 <i>BK</i> ₃	10 17.4 268°93' 4.5"/13.8 18				
9 8	1 46.78	-7 2.4	4.578	5.391	6.9	20.8	9 8	1 56.58	+1 29.6	1.680	2.512	15.9	21.9	
9 18	1 43.42	-7 31.9	4.498	5.387	5.5	20.7	9 18	1 52.98	+0 34.6	1.588	2.494	12.6	21.6	
9 28	1 39.19	-8 0.4	4.444	5.383	4.1	20.6	9 28	1 46.77	+0 29.0	1.517	2.474	8.8	21.4	
10 8	1 34.35	-8 25.4	4.417	5.379	3.2	20.5	10 8	1 38.48	+0 34.7	1.471	2.455	5.3	21.1	
10 18	1 29.20	-8 44.8	4.421	5.375	3.3	20.5	10 18	1 28.97	+0 35.0	1.452	2.435	5.0	21.1	
10 28	1 24.11	-8 56.5	4.453	5.371	4.4	20.6	10 28	1 19.43	+0 32.1	1.459	2.415	8.4	21.2	
11 7	1 19.42	-8 59.4	4.514	5.368	5.9	20.7	11 7	1 11.05	+0 34.8	1.492	2.394	12.5	21.4	
11 17	1 15.43	-8 52.7	4.601	5.364	7.3	20.8	11 17	1 4.79	+0 32.9	1.547	2.373	16.3	21.6	
443318	2014 <i>FG</i> ₅₂	10 17.4 153°53' 3.1"/14.8 18						481043	2005 <i>ER</i> ₁₉₂	10 17.4 259°10' 3.3"/13.9 18				
9 8	1 59.30	+1 3.3	2.122	2.935	13.7	21.3	9 8	1 52.13	+5 22.9	1.915	2.742	14.4	21.6	
9 18	1 54.22	+0 41.8	2.046	2.940	10.7	21.1	9 18	1 49.01	+4 4.6	1.829	2.732	11.3	21.4	
9 28	1 47.06	+0 16.7	1.992	2.944	7.4	20.9	9 28	1 43.75	+2 34.6	1.765	2.723	7.7	21.2	
10 8	1 38.37	+0 7.8	1.965	2.949	4.2	20.7	10 8	1 36.85	+0 58.7	1.727	2.713	4.2	20.9	
10 18	1 28.94	+0 27.5	1.967	2.953	3.4	20.6	10 18	1 29.08	+0 35.1	1.717	2.704	3.7	20.9	
10 28	1 19.70	+0 38.2	1.998	2.956	6.1	20.8	10 28	1 21.40	+0 58.4	1.736	2.694	7.0	21.1	
11 7	1 11.56	+0 37.0	2.056	2.960	9.5	21.0	11 7	1 14.73	+0 3.4	1.781	2.684	10.7	21.3	
11 17	1 5.17	+0 22.4	2.140	2.963	12.5	21.3	11 17	1 9.82	+0 34.8	1.850	2.674	14.1	21.5	
135593	2002 <i>GW</i> ₁₂₅	10 17.4 322°81' 0.5"/18.3 18						474236	2001 <i>QW</i> ₃₁₇	10 17.4 9°42' 3.1"/19.3 18				
9 8	1 45.88	+13 40.3	4.225	4.999	8.0	20.1	9 8	1 52.94	+15 43.1	1.097	1.935	22.2	20.6	
9 18	1 42.86	+13 23.9	4.127	4.996	6.4	20.0	9 18	1 51.25	+16 15.7	1.035	1.936	18.0	20.3	
9 28	1 38.89	+13 1.0	4.054	4.993	4.4	19.8	9 28	1 46.12	+16 28.1	0.989	1.940	13.1	20.1	
10 8	1 34.23	+12 32.7	4.008	4.991	2.3	19.7	10 8	1 38.27	+16 19.9	0.962	1.944	7.6	19.8	
10 18	1 29.22	+12 0.8	3.992	4.988	0.5	19.5	10 18	1 28.99	+15 53.9	0.957	1.951	3.2	19.6	
10 28	1 24.25	+11 27.5	4.007	4.986	2.2	19.7	10 28	1 19.97	+15 16.8	0.976	1.959	6.2	19.8	
11 7	1 19.71	+10 55.2	4.052	4.983	4.3	19.8	11 7	1 12.83	+14 38.3	1.018	1.968	11.5	20.1	
11 17	1 15.92	+10 26.3	4.126	4.981	6.3	19.9	11 17	1 8.63	+14 6.9	1.080	1.978	16.3	20.4	
448533	2010 <i>PD</i> ₃₃	10 17.4 74°72' 6.3"/23.1 18						135175	2001 <i>QP</i> ₂₇₀	10 17.4 30°40' 3.6"/14.3 18				
9 8	1 57.17	+27 23.6	1.877	2.613	17.9	21.4	9 8	1 53.06	+3 15.7	1.740	2.574	15.3	20.1	
9 18	1 53.34	+27 58.8	1.795	2.618	15.3	21.2	9 18	1 49.81	+2 22.0	1.671	2.578	11.9	19.9	
9 28	1 46.91													

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
390094	2012 <i>UF</i> ₁₆₀	10 17.4 255°91		5°0/14.0 18			53583	2000 <i>CR</i> ₅₀	10 17.4 98°43		1°6/18.5 18		
9 8	2 0.80	- 3 10.6	1.772	2.598	15.5	20.5	9 8	1 58.00	+15 28.5	1.317	2.132	20.4	19.5
9 18	1 55.88	- 3 33.3	1.698	2.597	12.3	20.3	9 18	1 54.73	+15 21.6	1.243	2.134	16.4	19.2
9 28	1 48.46	- 3 56.6	1.645	2.596	8.8	20.0	9 28	1 48.26	+14 54.3	1.188	2.136	11.7	18.9
10 8	1 39.17	- 4 14.9	1.617	2.595	5.7	19.9	10 8	1 39.29	+14 8.0	1.154	2.138	6.4	18.6
10 18	1 28.94	- 4 22.8	1.616	2.594	5.3	19.9	10 18	1 28.98	+13 7.3	1.144	2.139	1.7	18.4
10 28	1 18.93	- 4 15.8	1.643	2.593	8.1	20.0	10 28	1 18.89	+12 0.5	1.160	2.141	5.8	18.6
11 7	1 10.22	- 3 51.7	1.696	2.593	11.6	20.2	11 7	1 10.50	+10 57.8	1.202	2.143	11.1	18.9
11 17	1 3.63	- 3 10.6	1.773	2.592	14.9	20.4	11 17	1 4.83	+10 7.5	1.265	2.145	15.8	19.2
206447	2003 <i>SN</i> ₂₆₈	10 17.4 212°59		1°2/18.4 18			484235	2007 <i>EQ</i> ₁₄₂	10 17.4 251°90		0°1/17.4 18		
9 8	1 55.82	+14 46.0	1.974	2.764	15.4	21.4	9 8	1 52.09	+12 27.8	2.388	3.182	12.9	22.3
9 18	1 51.92	+14 36.1	1.885	2.762	12.4	21.2	9 18	1 48.60	+11 54.2	2.290	3.172	10.3	22.1
9 28	1 45.75	+14 12.0	1.817	2.759	8.7	21.0	9 28	1 43.28	+11 8.5	2.215	3.162	7.1	21.8
10 8	1 37.85	+13 35.2	1.774	2.756	4.7	20.8	10 8	1 36.59	+10 13.3	2.165	3.151	3.5	21.6
10 18	1 29.02	+12 48.9	1.758	2.753	1.2	20.5	10 18	1 29.16	+ 9 12.2	2.145	3.141	0.2	21.3
10 28	1 20.29	+11 58.3	1.771	2.750	4.4	20.7	10 28	1 21.77	+ 8 10.5	2.153	3.130	4.0	21.6
11 7	1 12.64	+11 9.7	1.811	2.747	8.4	21.0	11 7	1 15.19	+ 7 13.8	2.191	3.119	7.6	21.8
11 17	1 6.84	+10 28.7	1.877	2.743	12.1	21.2	11 17	1 10.07	+ 6 26.7	2.255	3.108	10.8	22.0
358687	2007 <i>YD</i> ₆₁	10 17.4 282°76		0°1/17.3 18			434783	2006 <i>MT</i> ₁₄	10 17.4 33°78		1°1/18.3 15		
9 8	1 57.52	+ 9 44.4	1.979	2.782	14.9	21.2	9 8	1 58.78	+17 58.0	1.060	1.884	23.6	20.3
9 18	1 53.39	+ 9 47.6	1.876	2.763	11.9	21.0	9 18	1 54.80	+16 55.6	1.041	1.936	18.5	20.2
9 28	1 46.90	+ 9 41.4	1.795	2.745	8.3	20.7	9 28	1 47.64	+15 28.3	1.039	1.989	12.6	20.0
10 8	1 38.50	+ 9 27.5	1.739	2.726	4.2	20.5	10 8	1 38.56	+13 43.6	1.058	2.043	6.5	19.9
10 18	1 28.98	+ 9 8.6	1.711	2.707	0.3	20.1	10 18	1 29.07	+11 52.8	1.101	2.097	1.1	19.7
10 28	1 19.37	+ 8 48.9	1.711	2.689	4.8	20.4	10 28	1 20.67	+10 8.5	1.170	2.151	5.7	20.2
11 7	1 10.74	+ 8 33.2	1.740	2.670	9.1	20.6	11 7	1 14.47	+ 8 41.3	1.265	2.206	10.7	20.6
11 17	1 3.98	+ 8 25.6	1.793	2.651	12.9	20.8	11 17	1 11.00	+ 7 36.9	1.381	2.260	14.7	21.0
469771	2005 <i>QD</i> ₆₈	10 17.4 25°48		3°7/15.2 18			240000	2001 <i>SY</i> ₂₄₄	10 17.4 333°04		0°2/17.6 17		
9 8	1 52.53	+ 5 6.5	0.977	1.848	21.7	20.6	9 8	1 52.82	+10 52.2	2.263	3.064	13.3	20.3
9 18	1 50.72	+ 4 25.4	0.936	1.863	16.9	20.4	9 18	1 49.26	+10 49.4	2.171	3.056	10.6	20.1
9 28	1 45.48	+ 3 32.1	0.912	1.879	11.4	20.2	9 28	1 43.79	+10 37.2	2.101	3.049	7.3	19.9
10 8	1 37.79	+ 2 35.1	0.908	1.898	5.9	19.9	10 8	1 36.87	+10 17.4	2.056	3.043	3.7	19.6
10 18	1 29.05	+ 1 44.0	0.926	1.918	4.1	19.9	10 18	1 29.16	+ 9 52.8	2.040	3.036	0.2	19.3
10 28	1 20.93	+ 1 8.4	0.967	1.939	8.6	20.3	10 28	1 21.49	+ 9 27.3	2.052	3.030	4.0	19.6
11 7	1 14.83	+ 0 54.3	1.030	1.961	13.7	20.6	11 7	1 14.69	+ 9 5.1	2.093	3.024	7.7	19.9
11 17	1 11.58	+ 1 3.5	1.112	1.985	18.0	21.0	11 17	1 9.43	+ 8 49.9	2.159	3.019	11.0	20.1
29442	1997 <i>NS</i> ₄	10 17.4 79°21		0°1/17.4 16			157061	2003 <i>SP</i> ₂₀₁	10 17.4 28°09		0°3/17.2 18		
9 8	1 55.64	+14 32.9	1.522	2.333	18.3	19.2	9 8	1 52.63	+10 28.6	1.856	2.671	15.3	19.6
9 18	1 52.10	+13 39.3	1.460	2.351	14.4	19.0	9 18	1 49.36	+10 12.4	1.787	2.681	12.0	19.4
9 28	1 45.94	+12 26.3	1.418	2.369	9.9	18.8	9 28	1 43.92	+ 9 44.8	1.739	2.692	8.2	19.2
10 8	1 37.90	+10 58.3	1.399	2.386	4.9	18.5	10 8	1 36.92	+ 9 8.9	1.716	2.703	4.0	19.0
10 18	1 29.04	+ 9 23.1	1.407	2.404	0.3	18.2	10 18	1 29.16	+ 8 28.9	1.719	2.715	0.5	18.7
10 28	1 20.58	+ 7 50.2	1.443	2.421	5.4	18.7	10 28	1 21.63	+ 7 50.2	1.751	2.728	4.7	19.1
11 7	1 13.62	+ 6 29.0	1.506	2.438	10.0	19.0	11 7	1 15.24	+ 7 18.2	1.809	2.741	8.7	19.4
11 17	1 8.91	+ 5 25.8	1.592	2.455	14.0	19.3	11 17	1 10.67	+ 6 56.9	1.892	2.755	12.1	19.6
323638	2004 <i>XT</i> ₄₁	10 17.4 297°51		5°9/13.5 18			300964	2008 <i>DP</i> ₅₁	10 17.4 324°42		4°3/20.3 18		
9 8	1 56.87	- 0 28.1	1.316	2.167	18.4	20.6	9 8	1 57.52	+18 49.1	1.688	2.471	17.8	20.2
9 18	1 53.79	- 1 22.9	1.241	2.156	14.6	20.4	9 18	1 54.01	+19 38.4	1.593	2.458	14.8	20.0
9 28	1 47.61	- 2 24.7	1.186	2.145	10.4	20.1	9 28	1 47.69	+20 13.3	1.518	2.446	11.2	19.7
10 8	1 38.97	- 3 25.1	1.152	2.135	6.7	19.9	10 8	1 39.06	+20 31.7	1.465	2.434	7.4	19.5
10 18	1 28.96	- 4 14.8	1.143	2.124	6.5	19.8	10 18	1 29.01	+20 32.9	1.437	2.422	4.5	19.3
10 28	1 19.07	- 4 44.8	1.159	2.114	10.1	20.0	10 28	1 18.84	+20 19.3	1.436	2.412	5.8	19.4
11 7	1 10.73	- 4 49.4	1.198	2.104	14.5	20.2	11 7	1 9.88	+19 56.4	1.461	2.401	9.6	19.6
11 17	1 5.00	- 4 27.7	1.257	2.095	18.7	20.5	11 17	1 3.21	+19 31.1	1.510	2.391	13.6	19.8
126617	2002 <i>CW</i> ₁₅₁	10 17.4 54°99		1°6/15.9 18			485326	2011 <i>BT</i> ₆₈	10 17.4 224°24		5°4/23.9 17		
9 8	1 53.47	+ 7 7.2	2.061	2.876	14.0	19.9	9 8	1 55.83	+29 54.7	2.877	3.565	13.2	22.1
9 18	1 49.78	+ 6 36.9	1.986	2.882	10.9	19.7	9 18	1 51.47	+30 23.8	2.770	3.557	11.4	22.0
9 28	1 44.09	+ 5 57.8	1.933	2.888	7.4	19.5	9 28	1 45.25	+30 37.4	2.683	3.549	9.4	21.8
10 8	1 36.95	+ 5 13.8	1.906	2.894	3.6	19.3	10 8	1 37.59	+30 33.7	2.619	3.540	7.3	21.7
10 18	1 29.10	+ 4 29.5	1.907	2.900	1.8	19.1	10 18	1 29.11	+30 12.2	2.582	3.532	5.7	21.6
10 28	1 21.43	+ 3 50.0	1.936	2.907	5.1	19.4	10 28	1 20.61	+29 34.5	2.573	3.523	5.5	21.5
11 7	1 14.78	+ 3 20.1	1.993	2.913	8.7	19.6	11 7	1 12.87	+28 44.7	2.592	3.513	7.0	21.6
11 17	1 9.80	+ 3 3.0	2.075	2.920	12.0	19.8	11 17	1 6.58	+27 47.9	2.639	3.504	9.1	21.7
3653	Klimishin	10 17.4 114°78		1°3/16.4 18			142120	2002 <i>RM</i> ₇	10 17.4 28°07		0°6/17.7 18		
9 8	1 57.45	+10 32.5	1.496	2.316	18.1	16.9	9 8	1 56.72	+11 12.1	1.092	1.936	21.8	19.3
9 18	1 53.65	+ 9 43.1	1.428	2.326	14.2	16.7	9 18	1 53.99	+11 23.3	1.038	1.947	17.3	19.0
9 28	1 47.11	+ 8 37.6	1.381	2.336	9.7	16.5	9 28	1 47.82	+11 18.1	1.001	1.959	12.0	18.8
10 8	1 38.56	+ 7 21.0	1.357	2.346	4.6	16.2	10 8	1 39.05	+10 58.9	0.984	1.972	6.1	18.5
10 18	1 29.03	+ 6 0.9	1.360	2.355	1.5	16.0	10 18	1 29.03	+10 30.7	0.990	1.986	0.6	18.2
10 28	1 19.84	+ 4 46.3	1.390	2.364	6.2	16.4	10 28	1 19.48	+10 1.0	1.020	2.002	6.3	18.6
11 7	1 12.16	+ 3 45.6	1.446	2.373	10.9	16.7	11 7	1 11.91	+ 9 37.8	1.074	2.018	11.8	19.0
11 17	1 6.81	+ 3 3.9	1.526	2.381	14.9	16.9	11 17	1 7.30	+ 9 27.0	1.148	2.035	16.5	19.3
35353	1997 <i>RW</i> ₉	10 17.4 163°77		2°3/19.2 18			342485	2008 <i>UN</i> ₁₅₃	10 17.4 342°87		0°5/17.0 18		
9 8	1 56.66	+18 2.8	1.421	2.223	1								

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
4132	Bartók		10 17.4 331°82	10°6/ 5.1	18	R	389446	2010 <i>CL</i> ₁₇₈		10 17.4 124°60	2°8/14.5	18	
9 8	1 39.41	+ 0 16.9	1.058	1.949	18.8	14.6	9 8	1 54.02	+ 6 9.2	2.014	2.832	14.2	21.6
9 18	1 40.63	- 3 26.7	0.981	1.920	14.9	14.3	9 18	1 50.21	+ 4 54.5	1.944	2.843	11.0	21.4
9 28	1 38.95	- 7 40.0	0.927	1.893	11.6	14.0	9 28	1 44.39	+ 3 29.8	1.897	2.853	7.4	21.2
10 8	1 34.85	-12 1.4	0.897	1.867	10.8	13.9	10 8	1 37.13	+ 2 0.7	1.876	2.863	3.9	21.0
10 18	1 29.29	-16 3.3	0.893	1.842	13.5	14.0	10 18	1 29.20	+ 0 34.4	1.884	2.873	3.1	21.0
10 28	1 23.68	-19 20.1	0.910	1.819	18.0	14.1	10 28	1 21.50	- 0 41.9	1.922	2.882	6.2	21.2
11 7	1 19.50	-21 37.1	0.947	1.798	22.4	14.3	11 7	1 14.88	- 1 42.4	1.986	2.891	9.7	21.4
11 17	1 17.85	-22 51.3	0.997	1.779	26.3	14.5	11 17	1 9.95	- 2 23.7	2.075	2.900	12.8	21.7
359954	2012 <i>BT</i> ₃₁		10 17.4 49°66	8°2/ 9.9	18		231476	2007 <i>VC</i> ₂₆₁		10 17.4 219°32	0°5/17.0	18	
9 8	1 54.93	-11 54.6	1.901	2.734	14.3	20.0	9 8	1 57.88	+ 9 5.7	2.282	3.077	13.4	21.6
9 18	1 50.98	-13 6.7	1.852	2.745	11.7	19.8	9 18	1 53.21	+ 8 57.7	2.187	3.070	10.6	21.4
9 28	1 44.91	-14 13.0	1.825	2.756	9.5	19.7	9 28	1 46.51	+ 8 41.1	2.115	3.063	7.3	21.2
10 8	1 37.35	-15 5.8	1.822	2.768	8.3	19.7	10 8	1 38.25	+ 8 18.1	2.068	3.055	3.6	20.9
10 18	1 29.15	-15 38.5	1.845	2.779	8.8	19.7	10 18	1 29.13	+ 7 51.7	2.050	3.046	0.6	20.7
10 28	1 21.29	-15 46.9	1.894	2.791	10.7	19.9	10 28	1 20.05	+ 7 26.0	2.063	3.038	4.4	21.0
11 7	1 14.62	-15 30.1	1.966	2.803	13.0	20.1	11 7	1 11.89	+ 7 5.2	2.104	3.029	8.1	21.2
11 17	1 9.78	-14 49.9	2.059	2.815	15.2	20.3	11 17	1 5.36	+ 6 52.7	2.171	3.019	11.4	21.4
520718	2014 <i>QC</i> ₄₆₉		10 17.4 313°07	0°1/17.5	17		61882	2000 <i>QA</i> ₂₁₈		10 17.4 345°97	2°5/15.3	18	
9 8	1 55.38	+10 1.8	2.261	3.059	13.4	21.6	9 8	1 55.66	+ 3 17.4	2.098	2.916	13.7	18.6
9 18	1 51.29	+10 7.8	2.167	3.051	10.7	21.4	9 18	1 51.53	+ 2 57.6	2.017	2.915	10.7	18.4
9 28	1 45.20	+10 5.6	2.095	3.043	7.4	21.2	9 28	1 45.35	+ 2 32.5	1.959	2.914	7.3	18.2
10 8	1 37.59	+ 9 56.6	2.049	3.035	3.7	20.9	10 8	1 37.65	+ 2 5.9	1.927	2.913	3.9	18.0
10 18	1 29.13	+ 9 43.3	2.031	3.028	0.2	20.6	10 18	1 29.17	+ 1 41.9	1.922	2.913	2.7	17.9
10 28	1 20.70	+ 9 29.1	2.043	3.020	4.1	20.9	10 28	1 20.83	+ 1 25.0	1.947	2.912	5.7	18.1
11 7	1 13.16	+ 9 17.8	2.082	3.013	7.8	21.1	11 7	1 13.50	+ 1 18.7	1.999	2.912	9.2	18.3
11 17	1 7.22	+ 9 12.8	2.148	3.006	11.1	21.3	11 17	1 7.85	+ 1 25.0	2.075	2.911	12.3	18.5
224906	2007 <i>CW</i> ₆₄		10 17.4 93°45	1°4/16.1	18		493078	2014 <i>SB</i> ₃₀₈		10 17.4 48°54	0°8/18.3	18	
9 8	2 1.29	+ 4 17.2	2.596	3.387	12.1	20.2	9 8	1 50.34	+15 18.7	2.471	3.256	12.8	21.0
9 18	1 55.22	+ 4 17.6	2.531	3.413	9.4	20.1	9 18	1 47.09	+14 46.3	2.385	3.260	10.2	20.8
9 28	1 47.45	+ 4 14.1	2.490	3.438	6.4	20.0	9 28	1 42.17	+14 1.0	2.322	3.264	7.1	20.6
10 8	1 38.51	+ 4 8.9	2.477	3.463	3.2	19.8	10 8	1 36.03	+13 5.1	2.285	3.268	3.8	20.4
10 18	1 29.09	+ 4 4.5	2.495	3.488	1.6	19.7	10 18	1 29.28	+12 2.0	2.276	3.272	0.8	20.2
10 28	1 19.95	+ 4 3.7	2.544	3.512	4.3	19.9	10 28	1 22.66	+10 56.9	2.297	3.276	3.5	20.4
11 7	1 11.79	+ 4 8.6	2.623	3.536	7.3	20.2	11 7	1 16.86	+ 9 55.1	2.347	3.281	6.9	20.6
11 17	1 5.16	+ 4 20.9	2.729	3.559	9.9	20.4	11 17	1 12.44	+ 9 1.3	2.424	3.285	9.9	20.8
112800	2002 <i>PD</i> ₁₆₈		10 17.4 84°11	1°2/18.7	18		467777	2009 <i>WM</i> ₂₄		10 17.4 6°55	4°5/10.8	16	
9 8	1 54.16	+14 36.5	2.414	3.195	13.2	20.7	9 8	1 49.98	-11 29.8	3.750	4.561	8.3	20.7
9 18	1 50.14	+14 36.8	2.327	3.198	10.5	20.5	9 18	1 46.11	-11 57.3	3.681	4.562	6.7	20.6
9 28	1 44.29	+14 26.0	2.262	3.201	7.5	20.3	9 28	1 41.14	-12 21.3	3.636	4.564	5.3	20.5
10 8	1 37.09	+14 5.4	2.223	3.203	4.1	20.1	10 8	1 35.41	-12 38.9	3.618	4.565	4.5	20.5
10 18	1 29.17	+13 37.2	2.211	3.206	1.3	19.9	10 18	1 29.33	-12 47.3	3.629	4.566	4.8	20.5
10 28	1 21.36	+13 5.1	2.230	3.209	3.6	20.1	10 28	1 23.35	-12 44.6	3.669	4.568	5.9	20.6
11 7	1 14.42	+12 33.3	2.277	3.212	7.0	20.3	11 7	1 17.92	-12 29.8	3.735	4.570	7.4	20.7
11 17	1 8.98	+12 6.2	2.351	3.214	10.0	20.5	11 17	1 13.39	-12 2.8	3.827	4.572	8.9	20.8
21196	1994 <i>PU</i> ₅		10 17.4 36°97	4°2/13.2	18		159514	2001 <i>CS</i> ₄₃		10 17.4 154°70	6°8/ 8.9	18	
9 8	1 51.66	+ 1 10.4	1.962	2.795	13.9	19.0	9 8	1 55.39	-15 32.5	2.888	3.694	10.6	20.5
9 18	1 48.46	+ 0 2.6	1.893	2.799	10.8	18.8	9 18	1 50.62	-16 30.3	2.830	3.701	8.9	20.4
9 28	1 43.25	- 1 11.1	1.847	2.804	7.5	18.6	9 28	1 44.35	-17 22.1	2.797	3.707	7.5	20.3
10 8	1 36.58	- 2 24.5	1.826	2.808	4.7	18.5	10 8	1 37.02	-18 2.7	2.790	3.713	6.8	20.3
10 18	1 29.21	- 3 30.8	1.833	2.813	4.6	18.5	10 18	1 29.23	-18 27.9	2.810	3.719	7.2	20.3
10 28	1 22.03	- 4 23.5	1.868	2.818	7.3	18.6	10 28	1 21.63	-18 34.7	2.857	3.724	8.5	20.4
11 7	1 15.89	- 4 58.1	1.929	2.823	10.5	18.8	11 7	1 14.84	-18 22.5	2.930	3.729	10.2	20.5
11 17	1 11.42	- 5 12.7	2.013	2.828	13.5	19.1	11 17	1 9.34	-17 52.0	3.025	3.733	11.8	20.7
172227	2002 <i>RG</i> ₁₀₉		10 17.4 17°51	5°9/22.0	18		275934	2001 <i>UK</i> ₄₉		10 17.4 280°16	1°3/18.7	17	
9 8	1 55.24	+23 52.5	1.552	2.325	19.6	19.2	9 8	1 51.38	+22 40.4	1.162	1.974	22.7	19.9
9 18	1 52.29	+24 33.8	1.477	2.330	16.5	19.0	9 18	1 50.12	+21 6.6	1.075	1.962	18.7	19.6
9 28	1 46.46	+24 53.6	1.419	2.334	12.8	18.8	9 28	1 45.48	+18 48.5	1.004	1.951	13.5	19.2
10 8	1 38.38	+24 49.4	1.382	2.340	9.1	18.6	10 8	1 38.09	+15 48.1	0.955	1.939	7.4	18.9
10 18	1 29.09	+24 21.5	1.369	2.346	6.2	18.4	10 18	1 29.15	+12 16.4	0.931	1.927	1.4	18.5
10 28	1 19.95	+23 33.9	1.382	2.353	6.6	18.5	10 28	1 20.34	+ 8 34.4	0.934	1.916	6.7	18.8
11 7	1 12.28	+22 35.0	1.419	2.361	9.7	18.7	11 7	1 13.28	+ 5 6.9	0.963	1.904	13.2	19.1
11 17	1 7.04	+21 33.9	1.481	2.369	13.3	18.9	11 17	1 9.09	+ 2 13.0	1.015	1.893	18.9	19.4
303086	2004 <i>BZ</i> ₈		10 17.4 22°04	6°8/12.3	18		15115	Yvonneroe		10 17.4 167°58	0°3/17.7	18	
9 8	1 58.93	- 8 1.5	1.857	2.685	14.8	20.0	9 8	1 58.37	+12 46.1	1.898	2.693	15.7	18.7
9 18	1 54.28	- 8 43.8	1.789	2.686	11.9	19.8	9 18	1 53.94	+12 26.4	1.816	2.697	12.5	18.5
9 28	1 47.29	- 9 23.3	1.744	2.686	9.0	19.7	9 28	1 47.16	+11 53.0	1.754	2.700	8.7	18.3
10 8	1 38.61	- 9 53.3	1.723	2.687	7.0	19.5	10 8	1 38.60	+11 8.2	1.718	2.703	4.4	18.0
10 18	1 29.10	-10 7.8	1.728	2.687	7.2	19.6	10 18	1 29.14	+10 16.2	1.709	2.705	0.3	17.7
10 28	1 19.84	-10 2.3	1.761	2.688	9.4	19.7	10 28	1 19.83	+ 9 22.9	1.729	2.707	4.7	18.1
11 7	1 11.83	- 9 35.3	1.818	2.689	12.3	19.9	11 7	1 11.72	+ 8 34.6	1.777	2.708	8.9	18.3
11 17	1 5.79	- 8 48.1	1.899	2.690	15.1	20.1	11 17	1 5.57	+ 7 56.8	1.850	2.709	12.6	18.5
249032	2007 <i>TA</i>		10 17.4 339°73	3°2/11.7	18		316655	1993 <i>TT</i> ₇		10 17.4 1°05	0°3/17.6	18	
9 8	1 45.75	- 4 39.8											

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V	
483169	2015 <i>PX</i> ₃₉	10 17.4 98°34' 2.7"/19.7 18						344455	2002 <i>LE</i> ₄₇	10 17.4 141°33' 5.3"/12.1 18				
9 8	1 58.08	+17 29.2	1.943	2.720	16.0	21.4	9 8	1 55.40	- 2 47.7	2.069	2.896	13.5	20.8	
9 18	1 53.76	+17 47.1	1.861	2.725	13.1	21.2	9 18	1 51.23	- 4 3.8	2.004	2.904	10.6	20.6	
9 28	1 47.07	+17 50.5	1.799	2.731	9.6	21.0	9 28	1 45.07	- 5 22.6	1.963	2.913	7.7	20.4	
10 8	1 38.58	+17 39.5	1.761	2.736	5.7	20.8	10 8	1 37.48	- 6 37.2	1.948	2.920	5.5	20.3	
10 18	1 29.14	+17 15.5	1.750	2.741	2.8	20.6	10 18	1 29.23	- 7 40.9	1.961	2.928	5.8	20.4	
10 28	1 19.84	+16 42.6	1.768	2.746	4.5	20.7	10 28	1 21.21	- 8 27.6	2.002	2.934	8.1	20.5	
11 7	1 11.71	+16 6.6	1.813	2.751	8.2	21.0	11 7	1 14.25	- 8 54.0	2.070	2.941	11.0	20.7	
11 17	1 5.54	+15 33.2	1.884	2.756	11.7	21.2	11 17	1 8.98	- 8 59.1	2.160	2.947	13.6	20.9	
26672	Ericabrooke	10 17.4 184°17' 0"/17.5 18						111284	2001 <i>XH</i> ₄₂	10 17.4 280°80' 17.0"/29.6 17				
9 8	2 1.04	+10 55.0	1.789	2.588	16.4	19.3	9 8	2 1.20	+41 37.8	1.296	1.982	26.6	18.9	
9 18	1 56.25	+10 52.2	1.705	2.589	13.1	19.1	9 18	1 59.31	+43 44.0	1.212	1.970	24.7	18.6	
9 28	1 48.88	+10 37.8	1.641	2.589	9.1	18.9	9 28	1 52.94	+45 21.1	1.140	1.957	22.4	18.4	
10 8	1 39.51	+10 13.6	1.602	2.588	4.6	18.6	10 8	1 42.37	+46 16.7	1.081	1.945	20.0	18.2	
10 18	1 29.09	+ 9 43.0	1.591	2.587	0.3	18.2	10 18	1 28.89	+46 19.3	1.039	1.932	18.0	18.0	
10 28	1 18.78	+ 9 11.3	1.608	2.586	5.0	18.6	10 28	1 14.87	+45 23.4	1.016	1.920	17.0	18.0	
11 7	1 9.76	+ 8 44.1	1.653	2.584	9.5	18.9	11 7	1 3.01	+43 35.7	1.011	1.907	17.5	17.9	
11 17	1 2.87	+ 8 26.3	1.723	2.581	13.4	19.1	11 17	0 55.31	+41 11.8	1.026	1.895	19.4	18.0	
3878	Jyoumon	10 17.4 18°65' 1.0"/16.6 18						106542	2000 <i>WP</i> ₆₆	10 17.4 291°77' 3.8"/15.2 18				
9 8	1 51.38	+ 9 23.0	1.762	2.585	15.6	17.2	9 8	1 59.01	+ 2 46.9	1.399	2.237	18.2	19.2	
9 18	1 48.54	+ 8 53.9	1.691	2.591	12.3	17.0	9 18	1 55.67	+ 2 23.3	1.305	2.213	14.5	18.9	
9 28	1 43.47	+ 8 12.9	1.642	2.598	8.3	16.8	9 28	1 49.14	+ 1 51.3	1.230	2.189	10.1	18.6	
10 8	1 36.77	+ 7 24.0	1.617	2.606	4.0	16.6	10 8	1 39.95	+ 1 16.2	1.178	2.165	5.6	18.3	
10 18	1 29.26	+ 6 32.4	1.618	2.614	1.2	16.4	10 18	1 29.07	+ 0 44.9	1.150	2.140	4.1	18.1	
10 28	1 21.96	+ 5 44.5	1.647	2.622	5.2	16.7	10 28	1 17.99	+ 0 25.0	1.149	2.116	8.4	18.3	
11 7	1 15.82	+ 5 6.2	1.702	2.632	9.3	17.0	11 7	1 8.27	+ 0 22.7	1.172	2.092	13.5	18.5	
11 17	1 11.54	+ 4 41.6	1.782	2.642	12.9	17.2	11 17	1 1.14	+ 0 41.3	1.215	2.068	18.2	18.7	
224699	2006 <i>BN</i> ₃₃	10 17.4 301°92' 2.9"/20.1 18						159843	2003 <i>VA</i> ₆	10 17.4 20°54' 7.0"/10.8 18				
9 8	1 55.28	+18 45.2	2.255	3.022	14.4	20.5	9 8	1 53.40	- 9 14.0	2.032	2.866	13.5	19.5	
9 18	1 51.36	+19 5.3	2.158	3.015	11.8	20.3	9 18	1 49.74	-10 14.2	1.972	2.869	10.9	19.3	
9 28	1 45.35	+19 12.2	2.082	3.008	8.8	20.1	9 28	1 44.08	-11 11.3	1.934	2.874	8.5	19.2	
10 8	1 37.73	+19 5.5	2.031	3.001	5.5	19.9	10 8	1 37.01	-11 58.4	1.922	2.878	7.0	19.1	
10 18	1 29.19	+18 46.3	2.007	2.995	3.0	19.7	10 18	1 29.27	-12 29.6	1.936	2.883	7.5	19.2	
10 28	1 20.66	+18 17.7	2.012	2.988	4.3	19.8	10 28	1 21.77	-12 40.5	1.976	2.889	9.4	19.3	
11 7	1 13.04	+17 44.3	2.044	2.982	7.5	20.0	11 7	1 15.32	-12 29.3	2.040	2.894	11.9	19.5	
11 17	1 7.08	+17 11.5	2.103	2.975	10.7	20.2	11 17	1 10.56	-11 57.0	2.127	2.900	14.2	19.7	
335510	2005 <i>YO</i> ₁₄₄	10 17.4 143°96' 15.8"/29.3 17						281443	2008 <i>SO</i> ₈₁	10 17.4 16°60' 4.0"/21.1 18				
9 8	2 5.53	+40 15.8	1.236	1.930	27.3	20.7	9 8	1 47.79	+23 56.7	1.255	2.060	21.7	18.6	
9 18	2 2.56	+42 15.6	1.166	1.934	25.0	20.5	9 18	1 46.83	+23 26.9	1.189	2.066	18.0	18.4	
9 28	1 54.92	+43 43.1	1.108	1.937	22.2	20.3	9 28	1 42.86	+22 24.8	1.139	2.073	13.5	18.1	
10 8	1 43.17	+44 26.2	1.065	1.940	19.3	20.2	10 8	1 36.64	+20 51.5	1.109	2.082	8.6	17.9	
10 18	1 28.84	+44 15.2	1.038	1.942	17.0	20.0	10 18	1 29.29	+18 53.3	1.102	2.091	4.4	17.7	
10 28	1 14.47	+43 7.9	1.031	1.945	15.9	20.0	10 28	1 22.27	+16 42.2	1.120	2.102	5.7	17.8	
11 7	1 2.65	+41 14.6	1.044	1.947	16.5	20.0	11 7	1 16.87	+14 32.9	1.164	2.114	10.2	18.1	
11 17	0 55.08	+38 53.4	1.077	1.948	18.6	20.2	11 17	1 13.97	+12 38.5	1.230	2.128	14.8	18.4	
284401	2006 <i>UD</i> ₅₄	10 17.4 327°48' 2.9"/19.7 18						260410	2004 <i>XT</i> ₂₂	10 17.4 254°02' 4.6"/23.0 17				
9 8	1 53.26	+19 11.6	1.369	2.176	20.1	20.2	9 8	1 53.31	+27 43.7	2.717	3.427	13.4	21.1	
9 18	1 51.05	+19 2.8	1.287	2.170	16.5	19.9	9 18	1 49.60	+27 47.5	2.604	3.412	11.5	20.9	
9 28	1 45.82	+18 29.7	1.223	2.164	12.1	19.6	9 28	1 44.03	+27 34.3	2.511	3.397	9.2	20.8	
10 8	1 38.17	+17 32.7	1.180	2.158	7.2	19.4	10 8	1 37.05	+27 3.0	2.442	3.382	6.8	20.6	
10 18	1 29.17	+16 15.8	1.161	2.153	3.1	19.1	10 18	1 29.27	+26 14.3	2.400	3.366	4.9	20.5	
10 28	1 20.26	+14 47.3	1.167	2.148	5.6	19.2	10 28	1 21.46	+25 10.8	2.387	3.351	4.9	20.4	
11 7	1 12.87	+13 18.9	1.198	2.144	10.6	19.5	11 7	1 14.44	+23 57.7	2.402	3.335	6.8	20.5	
11 17	1 8.03	+12 1.1	1.253	2.140	15.3	19.8	11 17	1 8.85	+22 41.2	2.446	3.318	9.4	20.7	
372860	2010 <i>VJ</i> ₁₇₃	10 17.4 354°00' 4.3"/15.1 18						227005	2004 <i>XR</i> ₁₀₀	10 17.4 289°62' 0.7"/16.8 17				
9 8	1 55.15	+ 2 16.6	1.078	1.942	20.6	20.7	9 8	1 53.16	+ 9 16.6	2.278	3.082	13.1	21.2	
9 18	1 52.98	+ 1 55.9	1.014	1.937	16.3	20.4	9 18	1 49.61	+ 8 57.8	2.175	3.064	10.4	21.0	
9 28	1 47.35	+ 1 27.3	0.967	1.933	11.3	20.2	9 28	1 44.12	+ 8 29.4	2.095	3.046	7.2	20.8	
10 8	1 38.97	+ 0 57.6	0.941	1.930	6.2	19.9	10 8	1 37.13	+ 7 53.9	2.041	3.028	3.5	20.5	
10 18	1 29.12	+ 0 34.7	0.937	1.928	4.7	19.8	10 18	1 29.26	+ 7 14.8	2.014	3.010	0.8	20.2	
10 28	1 19.52	+ 0 26.7	0.957	1.927	9.1	20.0	10 28	1 21.37	+ 6 36.8	2.017	2.992	4.5	20.5	
11 7	1 11.77	+ 0 38.6	0.998	1.928	14.3	20.3	11 7	1 14.29	+ 6 4.6	2.048	2.974	8.2	20.7	
11 17	1 6.97	+ 1 12.0	1.059	1.929	18.9	20.6	11 17	1 8.74	+ 5 42.1	2.104	2.956	11.6	20.9	
180287	2003 <i>WX</i> ₉₄	10 17.4 330°53' 3.2"/19.9 17						402530	2006 <i>EW</i> ₄₅	10 17.4 263°22' 1.3"/15.9 18				
9 8	1 53.28	+19 43.9	1.336	2.143	20.5	20.0	9 8	1 51.58	+ 8 14.4	2.412	3.220	12.4	21.3	
9 18	1 51.15	+19 37.6	1.255	2.137	16.9	19.7	9 18	1 48.17	+ 7 33.0	2.318	3.209	9.7	21.1	
9 28	1 45.94	+19 6.3	1.191	2.131	12.5	19.5	9 28	1 43.00	+ 6 42.0	2.246	3.199	6.6	20.9	
10 8	1 38.25	+18 10.0	1.149	2.126	7.5	19.2	10 8	1 36.51	+ 5 44.9	2.201	3.189	3.2	20.7	
10 18	1 29.17	+16 52.4	1.130	2.122	3.4	18.9	10 18	1 29.30	+ 4 45.9	2.184	3.178	1.5	20.5	
10 28	1 20.20	+15 22.2	1.136	2.117	5.7	19.1	10 28	1 22.15	+ 3 50.4	2.197	3.168	4.7	20.7	
11 7	1 12.78	+13 51.3	1.167	2.113	10.7	19.3	11 7	1 15.78	+ 3 3.3	2.239	3.157	8.0	20.9	
11 17	1 7.98	+12 30.6	1.221	2.110	15.5	19.6	11 17	1 10.81	+ 2 28.4	2.306	3.146	11.1	21.1	
436416	2011 <i>AE</i> ₅₉	10 17.4 228°67' 1.7"/16.0 18						345443	2006 <i>DO</i> ₂₁₁	10 17.4 225°25' 0.5"/17.9 18				
9 8	1 57.39	+ 7 57.9	1.751	2.567	16.0	22.4	9 8	1 56.42	+13 9.9	1.940	2.736	15.4	21.8	
9 18	1 53.47	+ 7 20.6	1.663	2.559	12.7	22.2	9 18	1 52.49	+12 54.4	1.8				

EPHEMERIDES

10 17.4

10 17.4

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
404103	2012 <i>FC</i> ₈₂		10 17.4 238°11	4°6/12.1	18		221512	2006 <i>EY</i> ₃₆		10 17.4 314°69	0°3/17.2	18	
9 8	1 51.30	- 1 49.6	2.351	3.179	12.1	21.0	9 8	1 52.38	+10 19.6	1.907	2.721	15.0	20.4
9 18	1 47.90	- 3 1.1	2.274	3.176	9.5	20.8	9 18	1 49.50	+10 5.6	1.804	2.697	12.0	20.2
9 28	1 42.77	- 4 16.2	2.221	3.173	6.8	20.6	9 28	1 44.34	+ 9 39.8	1.721	2.674	8.3	19.9
10 8	1 36.37	- 5 29.1	2.195	3.169	4.8	20.5	10 8	1 37.35	+ 9 4.5	1.663	2.651	4.1	19.6
10 18	1 29.32	- 6 33.9	2.197	3.166	5.0	20.5	10 18	1 29.27	+ 8 23.4	1.632	2.628	0.5	19.3
10 28	1 22.39	- 7 25.0	2.227	3.162	7.2	20.7	10 28	1 21.09	+ 7 42.1	1.629	2.606	5.0	19.6
11 7	1 16.29	- 7 58.6	2.284	3.159	9.9	20.8	11 7	1 13.86	+ 7 6.6	1.652	2.584	9.3	19.8
11 17	1 11.61	- 8 13.1	2.364	3.155	12.5	21.0	11 17	1 8.42	+ 6 41.8	1.699	2.563	13.3	20.0
406292	2007 <i>EK</i> ₂₂₁		10 17.4	7°15	2°8/19.6	18	333534	2005 <i>SC</i> ₉₈		10 17.4 24°12	2°9/19.8	18	
9 8	1 57.27	+16 48.4	1.996	2.776	15.6	20.8	9 8	1 52.58	+19 21.9	1.306	2.118	20.7	19.8
9 18	1 53.13	+17 19.0	1.910	2.776	12.7	20.6	9 18	1 50.46	+19 9.9	1.238	2.123	16.9	19.6
9 28	1 46.67	+17 36.9	1.845	2.777	9.3	20.4	9 28	1 45.32	+18 33.0	1.187	2.129	12.3	19.4
10 8	1 38.42	+17 41.7	1.803	2.778	5.7	20.2	10 8	1 37.87	+17 32.2	1.157	2.136	7.3	19.1
10 18	1 29.19	+17 34.3	1.789	2.779	2.9	20.0	10 18	1 29.25	+16 12.7	1.151	2.144	3.1	18.9
10 28	1 20.04	+17 17.8	1.803	2.781	4.5	20.1	10 28	1 20.92	+14 43.8	1.171	2.153	5.5	19.1
11 7	1 11.97	+16 56.9	1.845	2.783	8.1	20.3	11 7	1 14.22	+13 17.0	1.215	2.162	10.4	19.4
11 17	1 5.80	+16 37.0	1.912	2.785	11.5	20.5	11 17	1 10.07	+12 2.3	1.282	2.171	14.9	19.7
197078	2003 <i>UT</i> ₁₇₄		10 17.4	41°49	0°9/18.4	18	316163	2009 <i>VE</i> ₄₆		10 17.4 26°12	0°6/18.5	18	
9 8	1 52.27	+14 45.7	1.987	2.785	15.0	20.1	9 8	1 46.47	+13 57.7	4.127	4.900	8.2	21.0
9 18	1 48.97	+14 25.5	1.917	2.798	12.0	19.9	9 18	1 43.39	+13 44.2	4.035	4.902	6.5	20.9
9 28	1 43.62	+13 51.2	1.868	2.812	8.4	19.7	9 28	1 39.33	+13 24.0	3.967	4.905	4.6	20.7
10 8	1 36.81	+13 5.0	1.843	2.827	4.4	19.5	10 8	1 34.57	+12 58.3	3.926	4.907	2.4	20.6
10 18	1 29.30	+12 11.1	1.846	2.841	0.9	19.2	10 18	1 29.46	+12 28.8	3.915	4.910	0.6	20.4
10 28	1 22.01	+11 15.1	1.877	2.856	4.1	19.5	10 28	1 24.40	+11 57.7	3.934	4.913	2.2	20.6
11 7	1 15.81	+10 23.0	1.935	2.872	7.9	19.8	11 7	1 19.78	+11 27.4	3.984	4.915	4.4	20.7
11 17	1 11.33	+ 9 40.0	2.019	2.887	11.3	20.0	11 17	1 15.95	+11 0.3	4.061	4.918	6.3	20.9
453000	2007 <i>HW</i> ₉₄		10 17.4	181°85	2°1/15.1	18	225028	2007 <i>FU</i> ₂₂		10 17.4 52°78	0°1/17.5	18	
9 8	1 54.13	+ 3 35.3	2.794	3.599	11.0	22.4	9 8	1 56.53	+10 9.0	2.111	2.910	14.2	20.0
9 18	1 49.78	+ 3 6.8	2.709	3.600	8.5	22.2	9 18	1 52.20	+10 12.6	2.034	2.918	11.2	19.9
9 28	1 43.88	+ 2 33.7	2.648	3.600	5.8	22.1	9 28	1 45.81	+10 7.1	1.979	2.927	7.7	19.7
10 8	1 36.87	+ 1 59.1	2.614	3.600	3.1	21.9	10 8	1 37.91	+ 9 54.5	1.949	2.935	3.9	19.4
10 18	1 29.30	+ 1 26.4	2.610	3.599	2.3	21.8	10 18	1 29.26	+ 9 37.5	1.948	2.944	0.2	19.2
10 28	1 21.82	+ 0 59.3	2.636	3.598	4.6	22.0	10 28	1 20.77	+ 9 20.0	1.975	2.953	4.2	19.5
11 7	1 15.07	+ 0 40.9	2.691	3.597	7.4	22.2	11 7	1 13.34	+ 9 5.9	2.031	2.962	7.9	19.8
11 17	1 9.59	+ 0 33.1	2.773	3.595	10.0	22.3	11 17	1 7.62	+ 8 58.7	2.112	2.971	11.2	20.0
451322	2010 <i>VO</i> ₅₁		10 17.4	88°62	3°9/21.6	17	383513	2007 <i>CC</i> ₂₆		10 17.4 156°77	0°8/18.1	17	
9 8	1 54.34	+23 35.4	2.267	3.012	14.9	21.3	9 8	2 0.07	+13 15.9	1.964	2.751	15.5	21.5
9 18	1 50.53	+23 41.0	2.183	3.020	12.4	21.1	9 18	1 55.21	+13 11.2	1.882	2.758	12.4	21.3
9 28	1 44.69	+23 29.3	2.118	3.028	9.5	21.0	9 28	1 48.00	+12 53.9	1.821	2.764	8.7	21.1
10 8	1 37.36	+23 0.2	2.078	3.036	6.5	20.8	10 8	1 39.05	+12 25.5	1.786	2.769	4.6	20.9
10 18	1 29.27	+22 15.2	2.064	3.044	4.1	20.7	10 18	1 29.19	+11 49.0	1.778	2.774	0.8	20.6
10 28	1 21.32	+21 18.4	2.079	3.052	4.6	20.7	10 28	1 19.50	+11 9.6	1.800	2.778	4.4	20.9
11 7	1 14.38	+20 15.6	2.123	3.060	7.2	20.9	11 7	1 11.00	+10 32.7	1.850	2.782	8.5	21.1
11 17	1 9.12	+19 13.4	2.193	3.068	10.2	21.1	11 17	1 4.46	+10 3.4	1.925	2.785	12.1	21.4
404687	2014 <i>HL</i> ₁₇₉		10 17.4	216°88	0°2/17.7	18	24644	1985 <i>DA</i>		10 17.4 220°81	13°7/ 3.9	17	
9 8	1 53.94	+14 27.3	2.205	2.993	14.0	21.2	9 8	1 55.35	-10 28.2	1.159	2.023	19.5	18.6
9 18	1 50.23	+13 41.2	2.109	2.987	11.2	21.0	9 18	1 52.95	-14 4.7	1.108	2.019	16.3	18.4
9 28	1 44.51	+12 39.9	2.035	2.980	7.8	20.8	9 28	1 47.23	-17 42.3	1.080	2.014	14.1	18.3
10 8	1 37.30	+11 26.0	1.987	2.972	4.0	20.5	10 8	1 38.89	-20 59.6	1.076	2.009	13.9	18.3
10 18	1 29.27	+10 4.2	1.968	2.964	0.3	20.2	10 18	1 29.19	-23 36.5	1.094	2.003	15.8	18.4
10 28	1 21.32	+ 8 40.8	1.979	2.956	4.2	20.5	10 28	1 19.76	-25 19.7	1.134	1.997	18.8	18.5
11 7	1 14.31	+ 7 23.0	2.018	2.947	8.1	20.7	11 7	1 12.12	-26 6.0	1.191	1.991	21.9	18.7
11 17	1 8.91	+ 6 16.6	2.084	2.938	11.6	20.9	11 17	1 7.29	-26 2.6	1.262	1.984	24.6	18.9
321657	2010 <i>BM</i> ₁₁₇		10 17.4	300°28	5°0/ 7.2	18	400378	2007 <i>XT</i> ₅₀		10 17.4 214°62	18°8/29.1	16	
9 8	1 45.81	-15 39.6	4.228	5.039	7.4	20.2	9 8	2 1.73	-28 39.7	1.271	2.090	20.7	20.9
9 18	1 42.86	-16 38.7	4.161	5.033	6.3	20.1	9 18	1 58.00	-31 34.5	1.240	2.086	19.4	20.8
9 28	1 38.96	-17 33.9	4.119	5.027	5.3	20.0	9 28	1 50.64	-34 4.8	1.227	2.082	18.8	20.8
10 8	1 34.38	-18 21.8	4.104	5.021	5.0	20.0	10 8	1 40.53	-35 53.9	1.233	2.077	19.2	20.8
10 18	1 29.45	-18 59.3	4.117	5.015	5.5	20.0	10 18	1 29.11	-36 49.9	1.256	2.072	20.4	20.9
10 28	1 24.59	-19 24.1	4.157	5.009	6.4	20.1	10 28	1 18.19	-36 48.4	1.295	2.067	22.1	21.0
11 7	1 20.15	-19 35.1	4.222	5.003	7.6	20.2	11 7	1 9.37	-35 53.3	1.349	2.061	23.9	21.1
11 17	1 16.48	-19 32.0	4.310	4.997	8.8	20.3	11 17	1 3.65	-34 13.4	1.414	2.055	25.5	21.3
451624	2012 <i>FY</i> ₆₇		10 17.4	295°29	0°8/16.8	17	360941	2005 <i>UY</i> ₁₂		10 17.4 339°53	1°5/18.9	17	
9 8	1 56.43	+ 7 18.6	2.221	3.025	13.4	21.2	9 8	1 50.60	+17 43.7	1.904	2.696	15.8	21.1
9 18	1 52.17	+ 7 19.4	2.126	3.014	10.6	21.0	9 18	1 47.98	+17 10.0	1.815	2.691	12.8	20.9
9 28	1 45.87	+ 7 13.5	2.053	3.003	7.3	20.8	9 28	1 43.16	+16 17.4	1.746	2.687	9.2	20.7
10 8	1 37.99	+ 7 2.9	2.005	2.993	3.6	20.5	10 8	1 36.69	+15 8.0	1.702	2.683	5.1	20.4
10 18	1 29.23	+ 6 50.4	1.986	2.982	0.9	20.3	10 18	1 29.35	+13 46.3	1.685	2.679	1.6	20.2
10 28	1 20.48	+ 6 39.6	1.997	2.971	4.6	20.6	10 28	1 22.10	+12 19.2	1.696	2.676	4.3	20.4
11 7	1 12.64	+ 6 34.2	2.035	2.961	8.3	20.8	11 7	1 15.92	+10 55.1	1.734	2.673	8.4	20.6
11 17	1 6.41	+ 6 37.1	2.100	2.950	11.6	21.0	11 17	1 11.53	+ 9 41.3	1.798	2.671	12.2	20.8
412770	2014 <i>OB</i> ₃₈₇		10 17.4	35°32	2°9/20.4	18	11389	1998 <i>VV</i> ₅		10 17.4 317°37	2°6/15.1	18	

EPHEMERIDES

10 17.4

10 17.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
256417	2007 <i>BY</i> ₁₄	10 17.4 326°95			1°5/16.1 18		144183	2004 <i>BC</i> ₁₁₆	10 17.5 301°57			1°1/16.7 18	
9 8	1 53.66	+ 7 19.8	1.977	2.794	14.4	21.1	9 8	1 58.98	+ 8 8.6	1.473	2.298	18.1	20.0
9 18	1 50.18	+ 6 53.8	1.893	2.790	11.3	20.9	9 18	1 55.18	+ 8 0.2	1.395	2.295	14.4	19.7
9 28	1 44.58	+ 6 18.6	1.831	2.786	7.7	20.7	9 28	1 48.46	+ 7 40.4	1.336	2.292	9.9	19.5
10 8	1 37.37	+ 5 37.5	1.794	2.782	3.8	20.4	10 8	1 39.46	+ 7 12.4	1.301	2.289	4.8	19.2
10 18	1 29.31	+ 4 55.3	1.785	2.779	1.7	20.3	10 18	1 29.22	+ 6 41.0	1.291	2.287	1.3	18.9
10 28	1 21.36	+ 4 17.3	1.803	2.775	5.3	20.5	10 28	1 19.11	+ 6 12.7	1.308	2.284	6.2	19.3
11 7	1 14.42	+ 3 48.7	1.849	2.772	9.1	20.8	11 7	1 10.47	+ 5 53.6	1.351	2.282	11.1	19.5
11 17	1 9.22	+ 3 32.9	1.919	2.769	12.6	21.0	11 17	1 4.28	+ 5 48.2	1.416	2.279	15.4	19.8
207881	2007 <i>VM</i> ₃₁₄	10 17.4 66°08			3°7/14.2 18		328861	2009 <i>WX</i> ₂₁₇	10 17.5 312°58			3°2/14.2 18	
9 8	1 54.59	+ 2 24.5	1.814	2.644	15.0	20.1	9 8	1 51.19	+ 2 43.3	2.145	2.972	13.1	20.4
9 18	1 50.97	+ 1 32.6	1.743	2.648	11.7	19.9	9 18	1 48.10	+ 1 55.0	2.057	2.960	10.2	20.2
9 28	1 45.11	+ 0 34.0	1.695	2.652	8.0	19.7	9 28	1 43.09	+ 0 59.9	1.992	2.949	7.0	20.0
10 8	1 37.61	- 0 25.7	1.672	2.656	4.6	19.5	10 8	1 36.63	+ 0 2.9	1.953	2.937	4.0	19.8
10 18	1 29.31	- 1 19.8	1.676	2.661	4.1	19.5	10 18	1 29.39	- 0 50.6	1.941	2.926	3.5	19.7
10 28	1 21.22	- 2 1.9	1.707	2.665	7.1	19.7	10 28	1 22.20	- 1 34.8	1.957	2.915	6.3	19.9
11 7	1 14.29	- 2 27.3	1.765	2.670	10.7	19.9	11 7	1 15.89	- 2 5.1	2.001	2.905	9.7	20.1
11 17	1 9.24	- 2 33.9	1.846	2.674	14.0	20.2	11 17	1 11.12	- 2 18.8	2.068	2.895	12.7	20.2
136279	2003 <i>YU</i> ₁₂₅	10 17.4 332°55			4°8/20.7 18		37996	1998 <i>KE</i> ₂₇	10 17.5 259°41			4°3/13.8 18	
9 8	1 58.15	+20 30.7	1.404	2.195	20.5	19.9	9 8	1 55.80	+ 0 49.4	1.846	2.675	14.8	18.4
9 18	1 54.99	+21 6.4	1.323	2.192	17.0	19.6	9 18	1 52.06	- 0 2.5	1.760	2.664	11.7	18.2
9 28	1 48.62	+21 21.6	1.259	2.189	12.9	19.4	9 28	1 46.00	- 1 0.7	1.697	2.653	8.2	17.9
10 8	1 39.65	+21 14.0	1.216	2.186	8.5	19.1	10 8	1 38.14	- 1 59.3	1.659	2.641	5.0	17.7
10 18	1 29.18	+20 44.0	1.197	2.183	5.1	18.9	10 18	1 29.30	- 2 51.7	1.648	2.630	4.7	17.7
10 28	1 18.76	+19 55.5	1.204	2.181	6.3	19.0	10 28	1 20.53	- 3 31.1	1.665	2.618	7.7	17.8
11 7	1 9.92	+19 0.2	1.235	2.179	10.6	19.2	11 7	1 12.85	- 3 52.6	1.707	2.606	11.4	18.0
11 17	1 3.80	+18 5.1	1.289	2.177	14.9	19.5	11 17	1 7.06	- 3 54.0	1.773	2.594	14.7	18.2
266771	2009 <i>SN</i> ₁₆₉	10 17.4 46°63			4°4/20.9 18		228550	2001 <i>XL</i> ₁₅	10 17.5 321°92			0°7/17.0 18	
9 8	1 55.85	+21 53.0	1.331	2.126	21.2	20.4	9 8	1 54.57	+ 9 10.4	1.375	2.210	18.6	20.8
9 18	1 53.02	+22 0.7	1.266	2.137	17.5	20.2	9 18	1 52.09	+ 9 4.9	1.288	2.194	14.9	20.5
9 28	1 47.06	+21 42.9	1.218	2.149	13.1	20.0	9 28	1 46.61	+ 8 46.1	1.220	2.178	10.3	20.2
10 8	1 38.74	+20 59.4	1.190	2.161	8.4	19.7	10 8	1 38.67	+ 8 16.9	1.174	2.163	5.1	19.9
10 18	1 29.24	+19 53.1	1.186	2.174	4.7	19.6	10 18	1 29.26	+ 7 42.0	1.153	2.149	0.9	19.5
10 28	1 20.10	+18 32.4	1.208	2.187	5.9	19.7	10 28	1 19.81	+ 7 8.4	1.157	2.136	6.3	19.9
11 7	1 12.69	+17 8.3	1.254	2.201	10.2	20.0	11 7	1 11.74	+ 6 43.6	1.186	2.123	11.7	20.1
11 17	1 7.93	+15 51.5	1.324	2.214	14.4	20.2	11 17	1 6.18	+ 6 33.0	1.236	2.111	16.4	20.4
52328	1992 <i>EK</i> ₁₁	10 17.4 269°14			2°4/15.5 18		471249	2011 <i>BN</i> ₉₀	10 17.5 306°42			5°1/13.4 18	
9 8	1 54.93	+ 7 23.3	1.677	2.502	16.2	19.9	9 8	1 53.58	+ 2 21.4	1.396	2.245	17.6	21.5
9 18	1 51.73	+ 6 33.2	1.585	2.487	12.8	19.6	9 18	1 51.04	+ 1 7.7	1.320	2.235	13.9	21.2
9 28	1 45.98	+ 5 29.5	1.515	2.472	8.8	19.4	9 28	1 45.67	- 0 17.2	1.265	2.226	9.7	21.0
10 8	1 38.21	+ 4 17.1	1.468	2.456	4.4	19.1	10 8	1 38.09	- 1 45.0	1.233	2.217	5.9	20.8
10 18	1 29.27	+ 3 2.9	1.448	2.441	2.7	18.9	10 18	1 29.31	- 3 5.7	1.226	2.209	5.7	20.7
10 28	1 20.34	+ 1 55.2	1.456	2.425	6.7	19.1	10 28	1 20.65	- 4 8.9	1.244	2.201	9.4	20.9
11 7	1 12.57	+ 1 1.9	1.490	2.409	11.2	19.4	11 7	1 13.40	- 4 47.4	1.287	2.192	13.7	21.1
11 17	1 6.88	+ 0 27.9	1.547	2.393	15.3	19.6	11 17	1 8.50	- 4 58.3	1.349	2.185	17.7	21.4
471059	2009 <i>UL</i> ₁₄₃	10 17.4 331°78			2°1/21.5 18		16725	Toudono	10 17.5 314°13			7°4/22.0 18	
9 8	1 46.01	+23 5.2	4.158	4.885	8.9	20.7	9 8	2 5.57	+25 16.0	1.855	2.586	18.2	17.2
9 18	1 43.11	+22 45.7	4.054	4.882	7.3	20.6	9 18	2 0.44	+26 48.2	1.762	2.582	15.7	17.0
9 28	1 39.18	+22 15.8	3.973	4.879	5.6	20.5	9 28	1 52.24	+28 5.8	1.687	2.577	12.7	16.8
10 8	1 34.53	+21 36.2	3.918	4.876	3.7	20.4	10 8	1 41.49	+29 3.6	1.635	2.572	9.7	16.7
10 18	1 29.50	+20 48.4	3.893	4.874	2.3	20.2	10 18	1 29.11	+29 37.5	1.609	2.568	7.6	16.5
10 28	1 24.53	+19 54.7	3.897	4.871	2.6	20.3	10 28	1 16.51	+29 47.0	1.610	2.564	7.9	16.5
11 7	1 20.01	+18 58.2	3.932	4.868	4.3	20.4	11 7	1 5.17	+29 36.3	1.638	2.560	10.2	16.7
11 17	1 16.31	+18 2.2	3.996	4.866	6.1	20.5	11 17	0 56.27	+29 12.6	1.691	2.556	13.2	16.8
444503	2006 <i>RZ</i> ₈₀	10 17.5 216°65			0°7/18.1 18		173786	2001 <i>SC</i> ₈₄	10 17.5 110°74			1°8/19.1 18	
9 8	1 56.37	+12 53.5	2.117	2.908	14.4	21.3	9 8	1 54.96	+16 40.5	2.021	2.804	15.3	20.4
9 18	1 52.23	+12 48.8	2.026	2.905	11.6	21.1	9 18	1 51.22	+16 32.8	1.936	2.807	12.4	20.2
9 28	1 45.96	+12 32.4	1.958	2.902	8.1	20.8	9 28	1 45.30	+16 10.0	1.873	2.810	8.9	20.0
10 8	1 38.06	+12 5.9	1.914	2.898	4.2	20.6	10 8	1 37.75	+15 33.4	1.833	2.812	5.0	19.8
10 18	1 29.29	+11 32.3	1.899	2.895	0.7	20.3	10 18	1 29.34	+14 45.9	1.821	2.815	1.8	19.6
10 28	1 20.59	+10 55.9	1.912	2.891	4.2	20.6	10 28	1 21.07	+13 52.6	1.838	2.817	4.2	19.7
11 7	1 12.88	+10 21.9	1.954	2.887	8.1	20.8	11 7	1 13.86	+12 59.8	1.882	2.820	8.0	20.0
11 17	1 6.91	+ 9 54.9	2.022	2.883	11.5	21.0	11 17	1 8.45	+12 13.2	1.952	2.822	11.5	20.2
152455	2005 <i>VN</i> ₇	10 17.5 343°25			2°9/15.1 18		518529	2006 <i>SE</i> ₄₀₅	10 17.5 245°62			1°7/19.3 18	
9 8	1 56.14	+ 2 3.0	1.996	2.818	14.1	19.7	9 8	1 53.47	+17 58.7	2.230	3.005	14.3	21.6
9 18	1 52.05	+ 1 43.8	1.916	2.816	11.1	19.4	9 18	1 49.95	+17 35.2	2.130	2.995	11.6	21.4
9 28	1 45.81	+ 1 20.0	1.859	2.814	7.6	19.2	9 28	1 44.40	+16 55.6	2.050	2.984	8.4	21.2
10 8	1 37.97	+ 0 55.8	1.826	2.812	4.2	19.0	10 8	1 37.31	+16 1.0	1.996	2.974	4.8	21.0
10 18	1 29.31	+ 0 35.5	1.822	2.810	3.2	19.0	10 18	1 29.36	+14 54.7	1.970	2.963	1.8	20.8
10 28	1 20.77	+ 0 23.8	1.845	2.808	6.1	19.2	10 28	1 21.45	+13 42.0	1.972	2.952	3.9	20.9
11 7	1 13.29	+ 0 23.9	1.896	2.807	9.7	19.4	11 7	1 14.44	+12 29.4	2.004	2.941	7.6	21.1
11 17	1 7.58	+ 0 37.6	1.971	2.806	12.9	19.6	11 17	1 9.05	+11 23.4	2.062	2.929	11.1	21.3
12840	PaolaFerrari	10 17.5 189°17			3°2/14.8 18		3473	Sapporo	10 17.5 199°90			0°5/16.9 18	
9 8	1 58.29	+ 3 53.0	1.856	2.674	15.1	18.7	9 8	1 58.17	+10 44.0	1.930	2.730	15.3	18.1
9 18	1 53.91	+ 3											

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
252712	2002 <i>CN</i> ₁₅₃		10 17.5	24°03'	4°5'/21.5	18	260561	2005 <i>EE</i> ₂₁₂		10 17.5	276°94'	3°6'/14.6	18
9 8	1 55.18	+22 39.4	1.905	2.667	16.8	20.2	9 8	1 54.84	+5 39.9	1.429	2.269	17.8	20.4
9 18	1 51.68	+23 5.1	1.823	2.671	14.0	20.0	9 18	1 51.98	+4 34.4	1.352	2.262	14.0	20.1
9 28	1 45.79	+23 12.6	1.760	2.675	10.8	19.8	9 28	1 46.31	+3 14.9	1.295	2.256	9.6	19.9
10 8	1 38.05	+23 1.0	1.719	2.680	7.4	19.7	10 8	1 38.44	+1 48.3	1.261	2.249	5.1	19.6
10 18	1 29.33	+22 31.1	1.704	2.685	4.8	19.5	10 18	1 29.37	+0 23.8	1.253	2.242	4.1	19.5
10 28	1 20.73	+21 46.8	1.717	2.690	5.3	19.6	10 28	1 20.44	-0 48.3	1.271	2.236	8.1	19.7
11 7	1 13.30	+20 54.4	1.756	2.695	8.3	19.8	11 7	1 12.92	-1 39.8	1.314	2.229	12.7	20.0
11 17	1 7.85	+20 1.4	1.821	2.701	11.6	20.0	11 17	1 7.74	-2 6.4	1.378	2.223	16.9	20.2
228118	2008 <i>TZ</i> ₁₁₁		10 17.5	341°53'	1°6'/20.3	18	289160	2004 <i>VT</i> ₂₉		10 17.5	273°07'	3°3'/14.3	17
9 8	1 46.45	+19 5.6	4.244	4.991	8.4	20.1	9 8	1 55.17	+0 26.7	2.375	3.192	12.3	20.8
9 18	1 43.41	+18 57.7	4.144	4.990	6.8	20.0	9 18	1 51.06	-0 2.1	2.280	3.176	9.7	20.6
9 28	1 39.39	+18 41.5	4.067	4.988	5.0	19.9	9 28	1 45.06	-0 34.6	2.208	3.161	6.8	20.4
10 8	1 34.65	+18 17.7	4.017	4.986	3.1	19.7	10 8	1 37.64	-1 6.7	2.163	3.145	4.0	20.2
10 18	1 29.54	+17 47.7	3.996	4.985	1.6	19.6	10 18	1 29.42	-1 34.1	2.146	3.129	3.5	20.2
10 28	1 24.47	+17 13.6	4.006	4.983	2.3	19.7	10 28	1 21.22	-1 52.6	2.158	3.113	6.0	20.3
11 7	1 19.83	+16 37.7	4.046	4.982	4.2	19.8	11 7	1 13.83	-1 58.9	2.197	3.097	9.1	20.5
11 17	1 15.97	+16 2.9	4.114	4.980	6.0	19.9	11 17	1 7.92	-1 51.1	2.262	3.081	12.1	20.6
511929	2015 <i>HG</i> ₁₆₁		10 17.5	215°15'	0°3'/17.7	17	10324	Vladimirov		10 17.5	335°21'	1°6'/18.5	18
9 8	1 58.44	+12 18.1	1.805	2.605	16.2	22.2	9 8	1 50.99	+14 15.1	1.221	2.057	20.4	17.8
9 18	1 54.29	+12 3.2	1.716	2.600	13.0	22.0	9 18	1 49.69	+14 21.2	1.138	2.042	16.6	17.5
9 28	1 47.62	+11 34.4	1.647	2.594	9.1	21.8	9 28	1 45.21	+14 7.9	1.072	2.027	11.9	17.2
10 8	1 39.00	+10 54.0	1.603	2.588	4.6	21.5	10 8	1 38.09	+13 36.1	1.027	2.013	6.5	16.9
10 18	1 29.29	+10 5.7	1.586	2.582	0.3	21.1	10 18	1 29.39	+12 49.4	1.004	2.000	1.6	16.5
10 28	1 19.65	+9 15.8	1.597	2.575	4.9	21.5	10 28	1 20.63	+11 55.7	1.006	1.989	6.0	16.8
11 7	1 11.20	+8 30.8	1.636	2.568	9.4	21.7	11 7	1 13.40	+11 4.9	1.031	1.978	11.7	17.1
11 17	1 4.81	+7 56.3	1.700	2.560	13.4	22.0	11 17	1 8.87	+10 25.7	1.076	1.969	16.8	17.3
84241	2002 <i>SS</i> ₃₃		10 17.5	355°47'	1°0'/18.3	18	471571	2012 <i>QE</i> ₃₃		10 17.5	23°28'	6°0'/21.7	18
9 8	1 50.31	+14 57.4	1.464	2.286	18.3	18.4	9 8	1 55.35	+22 28.2	1.247	2.046	22.1	20.5
9 18	1 48.40	+14 37.9	1.386	2.282	14.7	18.1	9 18	1 52.96	+23 14.6	1.185	2.055	18.5	20.3
9 28	1 43.82	+13 59.0	1.327	2.279	10.4	17.9	9 28	1 47.26	+23 36.6	1.138	2.065	14.2	20.1
10 8	1 37.17	+13 3.2	1.291	2.276	5.5	17.6	10 8	1 38.97	+23 31.7	1.111	2.077	9.8	19.9
10 18	1 29.40	+11 55.6	1.279	2.275	1.1	17.3	10 18	1 29.35	+23 0.5	1.107	2.089	6.4	19.7
10 28	1 21.77	+10 44.4	1.293	2.274	5.2	17.6	10 28	1 20.02	+22 8.8	1.126	2.102	7.0	19.8
11 7	1 15.48	+9 38.8	1.332	2.275	10.1	17.9	11 7	1 12.51	+21 6.8	1.170	2.116	10.7	20.0
11 17	1 11.41	+8 46.2	1.394	2.276	14.4	18.1	11 17	1 7.83	+20 5.2	1.235	2.131	14.8	20.3
184577	2005 <i>QL</i> ₉₄		10 17.5	127°69'	0°8'/18.2	17	405748	2005 <i>YE</i> ₁₀₆		10 17.5	190°11'	4°8'/12.4	18
9 8	1 59.63	+14 6.1	1.789	2.581	16.7	20.8	9 8	1 53.50	-3 32.0	2.321	3.147	12.3	20.9
9 18	1 55.03	+13 50.9	1.715	2.593	13.3	20.6	9 18	1 49.65	-4 26.6	2.247	3.146	9.7	20.7
9 28	1 47.96	+13 20.6	1.662	2.605	9.3	20.4	9 28	1 44.01	-5 22.7	2.197	3.146	7.0	20.5
10 8	1 39.08	+12 37.6	1.633	2.617	4.9	20.2	10 8	1 37.06	-6 15.0	2.173	3.146	5.0	20.4
10 18	1 29.30	+11 45.7	1.632	2.628	0.9	19.9	10 18	1 29.47	-6 58.0	2.177	3.145	5.2	20.4
10 28	1 19.79	+10 51.3	1.659	2.638	4.7	20.2	10 28	1 22.03	-7 27.0	2.209	3.144	7.3	20.5
11 7	1 11.61	+10 1.1	1.714	2.648	8.9	20.5	11 7	1 15.47	-7 39.2	2.268	3.144	10.0	20.7
11 17	1 5.53	+9 20.8	1.794	2.657	12.7	20.7	11 17	1 10.38	-7 33.6	2.350	3.143	12.5	20.9
223849	2004 <i>TT</i> ₂₀₂		10 17.5	314°21'	0°3'/17.7	18	26883	1994 <i>PR</i> ₂₂		10 17.5	144°86'	0°1'/17.5	18
9 8	1 53.50	+11 37.4	2.033	2.836	14.5	20.3	9 8	1 59.91	+12 10.5	2.000	2.790	15.2	19.8
9 18	1 50.17	+11 32.1	1.936	2.823	11.6	20.1	9 18	1 54.97	+11 47.5	1.923	2.801	12.1	19.6
9 28	1 44.69	+11 15.6	1.861	2.809	8.1	19.9	9 28	1 47.79	+11 11.9	1.867	2.812	8.3	19.4
10 8	1 37.52	+10 49.6	1.810	2.796	4.1	19.6	10 8	1 38.98	+10 26.2	1.837	2.823	4.2	19.1
10 18	1 29.39	+10 17.2	1.787	2.783	0.3	19.3	10 18	1 29.37	+9 34.7	1.836	2.832	0.2	18.8
10 28	1 21.26	+9 43.2	1.792	2.771	4.4	19.6	10 28	1 19.99	+8 43.0	1.864	2.841	4.5	19.2
11 7	1 14.06	+9 12.6	1.825	2.759	8.5	19.8	11 7	1 11.79	+7 56.9	1.921	2.849	8.5	19.5
11 17	1 8.59	+8 50.1	1.882	2.747	12.1	20.0	11 17	1 5.50	+7 21.3	2.003	2.856	12.0	19.7
451628	2012 <i>FX</i> ₇₉		10 17.5	307°74'	0°2'/17.3	17	92412	2000 <i>JX</i> ₃₈		10 17.5	131°92'	1°8'/18.9	18
9 8	1 53.46	+10 41.3	2.126	2.930	14.0	21.8	9 8	1 59.31	+16 55.3	1.499	2.296	19.1	20.2
9 18	1 49.95	+10 25.8	2.035	2.923	11.1	21.6	9 18	1 55.37	+16 37.7	1.425	2.304	15.4	19.9
9 28	1 44.42	+9 59.7	1.966	2.916	7.6	21.3	9 28	1 48.53	+15 59.7	1.370	2.312	11.0	19.7
10 8	1 37.34	+9 25.2	1.923	2.910	3.8	21.1	10 8	1 39.49	+15 2.8	1.338	2.320	6.1	19.4
10 18	1 29.42	+8 46.0	1.907	2.903	0.4	20.8	10 18	1 29.34	+13 51.8	1.332	2.327	1.8	19.2
10 28	1 21.56	+8 6.8	1.920	2.897	4.4	21.1	10 28	1 19.46	+12 34.9	1.353	2.334	5.2	19.4
11 7	1 14.63	+7 32.8	1.960	2.890	8.2	21.3	11 7	1 11.15	+11 21.7	1.401	2.340	10.0	19.7
11 17	1 9.33	+7 8.1	2.026	2.884	11.7	21.5	11 17	1 5.31	+10 20.4	1.473	2.346	14.3	20.0
166051	2002 <i>CM</i> ₂₈		10 17.5	358°44'	2°5'/16.2	17	20903	2000 <i>XH</i> ₉		10 17.5	24°00'	6°6'/14.4	18
9 8	1 55.74	+5 46.3	1.052	1.911	21.4	19.3	9 8	2 2.10	-5 42.0	1.292	2.137	19.0	16.8
9 18	1 53.60	+5 37.5	0.988	1.908	16.9	19.0	9 18	1 57.65	-5 52.3	1.238	2.146	15.1	16.6
9 28	1 47.90	+5 17.0	0.941	1.906	11.6	18.7	9 28	1 50.06	-5 59.2	1.203	2.156	11.0	16.4
10 8	1 39.37	+4 50.0	0.914	1.905	5.8	18.4	10 8	1 40.19	-5 55.7	1.190	2.167	7.5	16.2
10 18	1 29.31	+4 23.2	0.910	1.905	2.7	18.2	10 18	1 29.31	-5 36.1	1.202	2.179	6.9	16.2
10 28	1 19.51	+4 5.1	0.929	1.906	7.9	18.5	10 28	1 18.94	-4 57.0	1.239	2.192	9.8	16.4
11 7	1 11.62	+4 2.2	0.970	1.908	13.6	18.8	11 7	1 10.41	-3 58.3	1.300	2.206	13.7	16.7
11 17	1 6.77	+4 18.0	1.031	1.911	18.5	19.1	11 17	1 4.59	-2 42.4	1.383	2.220	17.3	16.9
314436	2005 <i>UX</i> ₅₁₅		10 17.5	17°01'	4°9'/12.2	18	26668	Tonyho		10 17.5	148°55'	2°9'/14.2	18
9 8	1 51.79	-1 21.0	2.062	2.895	13.3								

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
400480	2008 <i>GB</i> ₁₃₂		10 17.5	43°12	3°7/13.7	18	199114	2005 <i>YG</i> ₅₈		10 17.5	128°40	6°1/25.2	17
9 8	1 51.73	+ 2 23.5	1.958	2.789	14.0	20.5	9 8	1 56.01	+32 37.6	2.648	3.324	14.5	20.7
9 18	1 48.55	+ 1 18.8	1.892	2.797	10.9	20.3	9 18	1 51.79	+33 1.9	2.558	3.332	12.6	20.6
9 28	1 43.38	+ 0 7.6	1.849	2.806	7.5	20.1	9 28	1 45.60	+33 7.5	2.487	3.340	10.5	20.5
10 8	1 36.78	- 1 4.3	1.831	2.815	4.4	20.0	10 8	1 37.93	+32 52.8	2.438	3.348	8.3	20.3
10 18	1 29.51	- 2 10.1	1.841	2.824	4.1	20.0	10 18	1 29.50	+32 17.4	2.414	3.356	6.6	20.2
10 28	1 22.44	- 3 3.4	1.879	2.833	6.9	20.1	10 28	1 21.18	+31 23.7	2.419	3.363	6.2	20.2
11 7	1 16.43	- 3 39.7	1.943	2.842	10.2	20.4	11 7	1 13.80	+30 16.7	2.451	3.370	7.4	20.3
11 17	1 12.07	- 3 56.9	2.030	2.852	13.1	20.6	11 17	1 8.04	+29 2.9	2.510	3.377	9.4	20.5
477455	2009 <i>WC</i> ₂₃₀		10 17.5	10°20	2°6/15.9	18	433610	2013 <i>YQ</i> ₈₉		10 17.5	5°33	3°9/15.0	18
9 8	1 52.02	+ 6 36.4	1.073	1.935	20.8	20.5	9 8	1 50.79	+ 4 28.3	1.096	1.963	20.2	19.8
9 18	1 50.43	+ 6 11.5	1.015	1.937	16.4	20.2	9 18	1 49.42	+ 3 48.1	1.038	1.962	15.8	19.5
9 28	1 45.55	+ 5 32.9	0.975	1.941	11.1	20.0	9 28	1 44.84	+ 2 56.0	0.997	1.963	10.8	19.2
10 8	1 38.13	+ 4 46.8	0.955	1.946	5.5	19.7	10 8	1 37.80	+ 1 59.6	0.976	1.966	5.8	19.0
10 18	1 29.43	+ 4 1.3	0.958	1.952	2.9	19.6	10 18	1 29.51	+ 1 8.0	0.979	1.969	4.3	18.9
10 28	1 21.08	+ 3 25.6	0.985	1.960	7.8	19.9	10 28	1 21.52	+ 0 30.8	1.004	1.975	8.6	19.2
11 7	1 14.54	+ 3 7.0	1.033	1.969	13.1	20.2	11 7	1 15.26	+ 0 14.9	1.052	1.982	13.6	19.5
11 17	1 10.78	+ 3 9.1	1.102	1.980	17.7	20.5	11 17	1 11.68	+ 0 22.8	1.119	1.990	18.1	19.8
459930	2014 <i>MK</i> ₅₉		10 17.5	74°49	5°6/24.1	17	262008	2006 <i>QK</i> ₇₈		10 17.5	37°82	0°2/17.4	18
9 8	1 55.35	+29 40.0	2.255	2.965	15.9	21.0	9 8	1 56.18	+11 38.4	1.216	2.052	20.5	20.1
9 18	1 51.43	+29 53.1	2.178	2.982	13.6	20.8	9 18	1 53.38	+11 20.3	1.156	2.060	16.3	19.9
9 28	1 45.38	+29 45.7	2.120	3.000	10.9	20.7	9 28	1 47.39	+10 44.3	1.113	2.070	11.2	19.6
10 8	1 37.80	+29 16.5	2.085	3.017	8.2	20.6	10 8	1 39.01	+ 9 54.5	1.092	2.080	5.6	19.3
10 18	1 29.47	+28 26.6	2.075	3.035	6.1	20.5	10 18	1 29.46	+ 8 57.2	1.095	2.091	0.4	19.0
10 28	1 21.36	+27 19.7	2.092	3.052	5.8	20.5	10 28	1 20.27	+ 8 1.6	1.123	2.102	6.2	19.4
11 7	1 14.37	+26 2.4	2.138	3.069	7.6	20.6	11 7	1 12.87	+ 7 16.5	1.175	2.114	11.5	19.8
11 17	1 9.17	+24 42.2	2.210	3.086	10.1	20.8	11 17	1 8.16	+ 6 47.8	1.249	2.126	16.1	20.1
120448	1981 <i>EO</i> ₄₃		10 17.5	164°98	1°0/18.5	18	323283	2003 <i>SQ</i> ₄₃₂		10 17.5	49°64	0°2/17.2	18
9 8	1 54.82	+14 23.1	2.434	3.214	13.1	20.3	9 8	1 50.59	+13 28.5	2.274	3.071	13.4	20.5
9 18	1 50.72	+14 15.4	2.346	3.216	10.5	20.2	9 18	1 47.50	+12 32.8	2.190	3.073	10.6	20.3
9 28	1 44.78	+13 56.5	2.279	3.218	7.4	20.0	9 28	1 42.62	+11 23.1	2.128	3.076	7.3	20.1
10 8	1 37.48	+13 27.6	2.239	3.220	4.0	19.8	10 8	1 36.43	+10 2.8	2.093	3.079	3.6	19.9
10 18	1 29.49	+12 51.5	2.226	3.222	1.0	19.5	10 18	1 29.60	+ 8 37.0	2.086	3.082	0.4	19.6
10 28	1 21.58	+12 12.1	2.244	3.223	3.6	19.7	10 28	1 22.89	+ 7 12.3	2.109	3.085	4.1	19.9
11 7	1 14.54	+11 34.0	2.290	3.224	7.0	20.0	11 7	1 17.08	+ 5 55.0	2.160	3.088	7.7	20.2
11 17	1 8.99	+11 1.4	2.364	3.225	10.1	20.2	11 17	1 12.74	+ 4 50.4	2.238	3.091	10.9	20.4
71309	2000 <i>AS</i> ₇₁		10 17.5	292°08	8°9/ 9.9	18	301845	1992 <i>SS</i> ₄		10 17.5	68°11	0°3/17.7	18
9 8	1 56.99	-11 54.4	1.764	2.598	15.2	18.4	9 8	1 59.37	+10 51.4	1.830	2.632	16.0	20.9
9 18	1 53.09	-13 6.7	1.695	2.589	12.6	18.3	9 18	1 54.73	+10 57.0	1.763	2.648	12.7	20.7
9 28	1 46.75	-14 14.6	1.648	2.580	10.2	18.1	9 28	1 47.72	+10 51.8	1.716	2.664	8.7	20.5
10 8	1 38.56	-15 9.2	1.625	2.572	9.0	18.0	10 8	1 39.00	+10 37.9	1.694	2.680	4.4	20.3
10 18	1 29.43	-15 42.5	1.627	2.563	9.6	18.0	10 18	1 29.47	+10 18.3	1.700	2.696	0.3	20.0
10 28	1 20.48	-15 48.9	1.653	2.555	11.7	18.1	10 28	1 20.21	+ 9 57.4	1.734	2.712	4.6	20.4
11 7	1 12.76	-15 26.8	1.703	2.546	14.4	18.3	11 7	1 12.25	+ 9 40.1	1.796	2.729	8.7	20.6
11 17	1 7.08	-14 37.9	1.774	2.538	17.0	18.5	11 17	1 6.31	+ 9 30.3	1.882	2.745	12.2	20.9
22198	4080 <i>P-L</i>		10 17.5	150°78	0°1/17.6	18	35605	1998 <i>HU</i> ₁₂₅		10 17.5	15°09	6°3/12.4	18
9 8	1 53.04	+12 33.0	2.600	3.386	12.2	19.4	9 8	1 54.94	- 5 44.9	1.788	2.626	14.8	17.2
9 18	1 49.14	+12 4.7	2.514	3.391	9.6	19.2	9 18	1 51.30	- 6 34.9	1.725	2.629	11.8	17.0
9 28	1 43.60	+11 26.1	2.452	3.396	6.6	19.0	9 28	1 45.40	- 7 24.1	1.684	2.632	8.8	16.8
10 8	1 36.86	+10 39.2	2.416	3.401	3.3	18.8	10 8	1 37.86	- 8 5.8	1.666	2.636	6.6	16.7
10 18	1 29.54	+ 9 47.7	2.409	3.405	0.2	18.5	10 18	1 29.53	- 8 33.5	1.675	2.640	6.8	16.7
10 28	1 22.33	+ 8 55.7	2.432	3.409	3.6	18.8	10 28	1 21.44	- 8 42.2	1.710	2.645	9.1	16.9
11 7	1 15.92	+ 8 8.0	2.485	3.413	6.8	19.1	11 7	1 14.55	- 8 29.6	1.770	2.650	12.1	17.1
11 17	1 10.86	+ 7 28.4	2.564	3.417	9.7	19.2	11 17	1 9.57	- 7 56.2	1.852	2.656	14.9	17.3
449295	2013 <i>EQ</i> ₉₈		10 17.5	166°49	0°7/16.8	18	435642	2008 <i>SH</i> ₂₀₄		10 17.5	15°82	4°8/15.1	18
9 8	1 54.02	+ 9 52.0	2.170	2.974	13.7	21.7	9 8	2 1.76	- 1 54.0	1.341	2.182	18.6	20.0
9 18	1 50.28	+ 9 21.3	2.086	2.975	10.8	21.5	9 18	1 57.45	- 1 54.7	1.278	2.186	14.8	19.8
9 28	1 44.57	+ 8 39.9	2.025	2.976	7.4	21.3	9 28	1 50.04	- 1 55.8	1.233	2.190	10.4	19.5
10 8	1 37.42	+ 7 51.1	1.989	2.977	3.6	21.1	10 8	1 40.29	- 1 51.6	1.212	2.195	6.2	19.3
10 18	1 29.52	+ 6 59.0	1.982	2.978	0.9	20.9	10 18	1 29.40	- 1 37.2	1.216	2.201	5.1	19.3
10 28	1 21.74	+ 6 9.1	2.004	2.978	4.5	21.2	10 28	1 18.85	- 1 8.3	1.245	2.208	8.4	19.5
11 7	1 14.92	+ 5 26.6	2.054	2.979	8.2	21.4	11 7	1 10.03	- 0 23.6	1.299	2.216	12.8	19.7
11 17	1 9.70	+ 4 55.4	2.129	2.979	11.5	21.6	11 17	1 3.87	+ 0 36.5	1.375	2.224	16.7	20.0
507652	2013 <i>PA</i> ₃₇		10 17.5	135°21	2°9/19.8	17	412616	2014 <i>OG</i> ₁₀₁		10 17.5	4°77	11°3/ 3.1	17
9 8	1 59.65	+19 13.9	1.569	2.354	18.9	21.9	9 8	1 47.42	-15 24.4	1.715	2.565	14.8	20.0
9 18	1 55.61	+19 10.0	1.493	2.362	15.5	21.7	9 18	1 45.65	-18 9.9	1.672	2.566	12.7	19.9
9 28	1 48.70	+18 45.3	1.436	2.369	11.3	21.5	9 28	1 41.66	-20 47.9	1.653	2.567	11.5	19.8
10 8	1 39.61	+18 0.2	1.401	2.376	6.8	21.2	10 8	1 36.04	-23 5.7	1.658	2.569	11.4	19.9
10 18	1 29.40	+16 57.9	1.391	2.383	3.1	21.0	10 18	1 29.62	-24 52.8	1.688	2.572	12.7	19.9
10 28	1 19.43	+15 45.6	1.410	2.389	5.2	21.2	10 28	1 23.41	-26 2.4	1.740	2.575	14.6	20.1
11 7	1 10.97	+14 32.4	1.455	2.395	9.6	21.4	11 7	1 18.32	-26 33.3	1.811	2.580	16.6	20.2
11 17	1 4.94	+13 27.0	1.524	2.401	13.7	21.7	11 17	1 15.04	-26 28.0	1.899	2.586	18.5	20.4
325934	2010 <i>VE</i> ₂₉		10 17.5	65°74	1°3/18.4	17	296757	2009 <i>US</i> ₂₉		10 17.5	214°29	1°9/14.1</	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
81333	2000 <i>GR</i> ₃₂		10 17.5 60°84	0°4/17.2	18		299589	2006 <i>GD</i> ₄₁		10 17.5 72°88	5°7/12.2	15	
9 8	1 55.81	+10 22.8	1.855	2.664	15.5	19.4	9 8	1 58.16	- 1 41.2	1.778	2.607	15.3	21.3
9 18	1 52.01	+10 6.8	1.780	2.670	12.3	19.2	9 18	1 53.43	- 3 17.3	1.742	2.644	11.9	21.1
9 28	1 45.92	+ 9 39.3	1.725	2.676	8.4	19.0	9 28	1 46.56	- 4 55.1	1.729	2.680	8.4	21.0
10 8	1 38.15	+ 9 3.1	1.695	2.682	4.2	18.8	10 8	1 38.29	- 6 26.2	1.743	2.716	6.0	20.9
10 18	1 29.52	+ 8 22.4	1.692	2.688	0.5	18.5	10 18	1 29.54	- 7 42.7	1.784	2.751	6.2	21.0
10 28	1 21.08	+ 7 42.8	1.717	2.694	4.8	18.8	10 28	1 21.31	- 8 38.3	1.853	2.786	8.6	21.3
11 7	1 13.81	+ 7 9.9	1.770	2.700	8.9	19.1	11 7	1 14.45	- 9 10.1	1.948	2.820	11.5	21.5
11 17	1 8.43	+ 6 47.8	1.847	2.707	12.5	19.3	11 17	1 9.51	- 9 18.5	2.065	2.854	14.1	21.8
431347	2007 <i>BA</i> ₇₆		10 17.5 296°02	0°5/16.9	16		176271	2001 <i>RH</i> ₁₁₁		10 17.5 55°94	0°3/17.8	18	
9 8	1 49.38	+ 9 50.3	3.023	3.819	10.4	21.7	9 8	1 56.38	+11 46.0	1.834	2.638	15.9	20.0
9 18	1 46.18	+ 9 24.3	2.918	3.802	8.2	21.5	9 18	1 52.48	+11 39.9	1.760	2.646	12.6	19.8
9 28	1 41.56	+ 8 50.3	2.836	3.785	5.6	21.3	9 28	1 46.26	+11 21.7	1.707	2.655	8.7	19.6
10 8	1 35.90	+ 8 10.6	2.781	3.768	2.8	21.1	10 8	1 38.33	+10 53.5	1.678	2.664	4.4	19.3
10 18	1 29.65	+ 7 28.0	2.756	3.751	0.6	20.9	10 18	1 29.53	+10 19.1	1.676	2.673	0.3	19.0
10 28	1 23.39	+ 6 46.1	2.760	3.735	3.5	21.1	10 28	1 20.94	+ 9 43.6	1.703	2.682	4.6	19.4
11 7	1 17.72	+ 6 8.6	2.794	3.718	6.4	21.3	11 7	1 13.55	+ 9 12.6	1.757	2.691	8.7	19.7
11 17	1 13.13	+ 5 38.6	2.854	3.701	9.0	21.4	11 17	1 8.11	+ 8 50.6	1.836	2.700	12.4	19.9
484955	2009 <i>SC</i> ₃₃₇		10 17.5 12°69	6°0/23.8	17		107796	2001 <i>FQ</i> ₅₄		10 17.5 154°10	0°3/17.9	18	
9 8	1 47.30	+28 52.9	1.533	2.297	20.2	19.8	9 8	1 54.78	+14 50.1	2.335	3.116	13.6	20.4
9 18	1 46.10	+28 45.3	1.461	2.304	17.2	19.6	9 18	1 50.70	+14 2.6	2.251	3.124	10.8	20.2
9 28	1 42.26	+28 7.7	1.405	2.312	13.6	19.4	9 28	1 44.77	+13 1.1	2.189	3.131	7.5	20.0
10 8	1 36.43	+26 59.4	1.370	2.321	9.8	19.3	10 8	1 37.50	+11 48.1	2.153	3.137	3.8	19.8
10 18	1 29.61	+25 23.2	1.358	2.332	6.7	19.1	10 18	1 29.58	+10 28.4	2.147	3.143	0.3	19.5
10 28	1 23.05	+23 27.1	1.371	2.344	6.4	19.1	10 28	1 21.82	+ 9 7.9	2.171	3.148	3.9	19.8
11 7	1 17.89	+21 23.2	1.410	2.358	9.1	19.3	11 7	1 15.01	+ 7 53.0	2.224	3.153	7.5	20.1
11 17	1 14.91	+19 23.4	1.474	2.372	12.7	19.6	11 17	1 9.73	+ 6 48.9	2.305	3.158	10.6	20.3
123432	2000 <i>WQ</i> ₁₁₈		10 17.5 330°78	3°8/14.5	18		451204	2009 <i>VR</i> ₁₀		10 17.5 52°40	3°0/21.2	16	
9 8	1 56.04	- 0 5.6	1.961	2.787	14.2	19.0	9 8	1 52.52	+25 10.6	2.010	2.760	16.4	20.4
9 18	1 52.09	- 0 29.8	1.880	2.781	11.2	18.8	9 18	1 49.20	+24 10.3	1.941	2.784	13.5	20.2
9 28	1 45.95	- 0 57.1	1.822	2.776	7.8	18.6	9 28	1 43.81	+22 46.5	1.891	2.808	10.1	20.1
10 8	1 38.17	- 1 23.0	1.788	2.771	4.7	18.4	10 8	1 37.00	+21 1.6	1.866	2.832	6.4	19.9
10 18	1 29.53	- 1 42.6	1.782	2.766	4.1	18.3	10 18	1 29.61	+19 0.9	1.869	2.857	3.3	19.8
10 28	1 21.00	- 1 51.3	1.804	2.761	6.8	18.5	10 28	1 22.57	+16 53.1	1.902	2.881	4.1	19.9
11 7	1 13.52	- 1 45.9	1.852	2.757	10.3	18.7	11 7	1 16.72	+14 47.8	1.964	2.906	7.4	20.1
11 17	1 7.84	- 1 25.0	1.924	2.753	13.5	18.9	11 17	1 12.64	+12 53.5	2.054	2.930	10.7	20.4
298609	2003 <i>YH</i> ₁₄₄		10 17.5 338°62	3°8/14.7	18		228524	2001 <i>UP</i> ₃₁		10 17.5 42°73	2°4/16.0	18	
9 8	1 51.85	+ 3 31.8	1.443	2.291	17.2	20.1	9 8	1 58.12	+ 6 29.7	1.197	2.042	20.2	20.0
9 18	1 49.65	+ 2 48.4	1.366	2.280	13.5	19.8	9 18	1 54.63	+ 6 3.6	1.151	2.063	15.8	19.8
9 28	1 44.75	+ 1 55.2	1.308	2.270	9.3	19.6	9 28	1 48.04	+ 5 26.0	1.123	2.084	10.6	19.6
10 8	1 37.73	+ 0 58.4	1.273	2.260	5.2	19.3	10 8	1 39.23	+ 4 42.8	1.117	2.107	5.2	19.4
10 18	1 29.55	+ 0 5.7	1.263	2.251	4.2	19.2	10 18	1 29.50	+ 4 1.3	1.136	2.130	2.6	19.3
10 28	1 21.45	+ 0 34.7	1.278	2.243	8.0	19.4	10 28	1 20.36	+ 3 29.1	1.180	2.153	7.1	19.6
11 7	1 14.67	- 0 56.5	1.317	2.236	12.4	19.7	11 7	1 13.08	+ 3 12.1	1.247	2.177	11.9	20.0
11 17	1 10.12	- 0 56.6	1.378	2.230	16.4	19.9	11 17	1 8.48	+ 3 13.1	1.337	2.202	16.0	20.3
295553	2008 <i>SO</i> ₄₂		10 17.5 321°20	0°2/17.8	18		182187	2000 <i>SY</i> ₃₆₃		10 17.5 56°08	4°2/15.1	17	
9 8	1 46.95	+11 38.8	4.262	5.041	7.9	21.0	9 8	2 1.01	+ 2 42.5	1.158	2.006	20.5	19.5
9 18	1 43.79	+11 27.4	4.165	5.038	6.2	20.9	9 18	1 57.04	+ 2 8.4	1.110	2.024	16.1	19.3
9 28	1 39.67	+11 10.4	4.093	5.035	4.3	20.8	9 28	1 49.76	+ 1 26.6	1.081	2.042	11.0	19.1
10 8	1 34.87	+10 49.0	4.048	5.032	2.2	20.6	10 8	1 40.11	+ 0 44.4	1.073	2.060	6.0	18.9
10 18	1 29.71	+10 24.9	4.033	5.029	0.2	20.4	10 18	1 29.46	+ 0 9.7	1.090	2.079	4.5	18.9
10 28	1 24.58	+10 0.2	4.049	5.026	2.3	20.6	10 28	1 19.42	- 0 10.0	1.131	2.098	8.5	19.2
11 7	1 19.87	+ 9 37.0	4.095	5.023	4.4	20.8	11 7	1 11.37	+ 0 10.3	1.196	2.118	13.2	19.5
11 17	1 15.90	+ 9 17.4	4.169	5.020	6.3	20.9	11 17	1 6.17	+ 0 9.8	1.282	2.137	17.3	19.8
460457	2014 <i>SF</i> ₂₂₇		10 17.5 330°77	5°0/11.5	18		481641	2007 <i>VY</i> ₉₇		10 17.5 288°39	2°7/15.6	16	
9 8	1 47.85	+ 0 1.1	2.027	2.868	13.2	20.1	9 8	2 0.01	+ 2 45.1	1.919	2.734	14.9	21.9
9 18	1 45.65	- 1 35.6	1.944	2.855	10.4	19.9	9 18	1 55.61	+ 2 35.5	1.812	2.707	11.8	21.7
9 28	1 41.54	- 3 20.0	1.885	2.842	7.4	19.7	9 28	1 48.70	+ 2 20.8	1.726	2.680	8.2	21.4
10 8	1 35.98	- 5 4.9	1.852	2.829	5.2	19.5	10 8	1 39.73	+ 2 4.5	1.666	2.652	4.4	21.1
10 18	1 29.64	- 6 41.8	1.847	2.817	5.7	19.5	10 18	1 29.47	+ 1 50.9	1.633	2.624	2.9	21.0
10 28	1 23.36	- 8 2.9	1.869	2.806	8.3	19.7	10 28	1 19.03	+ 1 44.8	1.629	2.595	6.4	21.1
11 7	1 17.96	- 9 2.3	1.917	2.795	11.4	19.8	11 7	1 9.56	+ 1 50.2	1.652	2.567	10.6	21.3
11 17	1 14.10	- 9 37.4	1.987	2.785	14.3	20.0	11 17	1 2.01	+ 2 9.6	1.699	2.538	14.5	21.5
21271	1996 <i>RF</i> ₃₃		10 17.5 274°70	1°6/14.6	18		430388	2014 <i>WL</i> ₇₃		10 17.5 209°31	1°5/18.5	17	
9 8	1 46.28	+ 2 30.0	4.336	5.142	7.3	19.1	9 8	2 0.33	+14 34.1	1.460	2.265	19.2	21.6
9 18	1 43.22	+ 2 1.4	4.250	5.142	5.7	19.0	9 18	1 56.48	+14 34.8	1.378	2.263	15.5	21.3
9 28	1 39.25	+ 1 30.2	4.189	5.141	3.9	18.8	9 28	1 49.55	+14 18.1	1.315	2.260	11.1	21.1
10 8	1 34.65	+ 0 58.6	4.156	5.141	2.1	18.7	10 8	1 40.19	+13 45.1	1.274	2.257	6.0	20.8
10 18	1 29.72	+ 0 28.7	4.154	5.140	1.8	18.7	10 18	1 29.45	+12 59.2	1.258	2.254	1.5	20.5
10 28	1 24.84	+ 0 2.8	4.182	5.140	3.3	18.8	10 28	1 18.82	+12 7.2	1.270	2.250	5.5	20.7
11 7	1 20.37	- 0 17.1	4.239	5.139	5.1	18.9	11 7	1 9.70	+11 17.5	1.307	2.246	10.6	21.0
11 17	1 16.61	- 0 29.6	4.324	5.139	6.8	19.0	11 17	1 3.16	+10 37.7	1.368	2.242	15.1	21.3
407856	2012 <i>BS</i> ₆₆		10 17.5 133°45	2°9/14.3	18		440388	2005 <i>GM</i> ₅₇		10 17.5 103°79	0°6/17.1	18	

EPHEMERIDES

10 17.5

10 17.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
436484	2011 <i>ES</i> ₂₂	10 17.5 247°16'		2°0'/15.9 18			295701	2008 <i>TW</i> ₁₇₄	10 17.5 229°44'		0°5'/16.5 18		
9 8	1 58.06	+ 6 54.0	1.773	2.589	15.8	22.1	9 8	1 46.86	+ 7 32.7	4.551	5.341	7.3	20.7
9 18	1 54.11	+ 6 20.9	1.680	2.576	12.5	21.8	9 18	1 43.64	+ 7 17.7	4.458	5.340	5.7	20.5
9 28	1 47.63	+ 5 36.8	1.608	2.563	8.6	21.6	9 28	1 39.55	+ 6 58.7	4.391	5.339	3.8	20.4
10 8	1 39.15	+ 4 45.7	1.561	2.549	4.3	21.3	10 8	1 34.83	+ 6 37.4	4.351	5.338	1.9	20.3
10 18	1 29.52	+ 3 53.1	1.541	2.535	2.3	21.1	10 18	1 29.78	+ 6 15.4	4.342	5.337	0.6	20.1
10 28	1 19.87	+ 3 5.9	1.549	2.520	6.2	21.3	10 28	1 24.78	+ 5 54.6	4.364	5.336	2.4	20.3
11 7	1 11.37	+ 2 30.3	1.584	2.504	10.6	21.6	11 7	1 20.16	+ 5 36.9	4.416	5.335	4.4	20.4
11 17	1 4.91	+ 2 10.8	1.643	2.489	14.5	21.8	11 17	1 16.24	+ 5 24.0	4.496	5.334	6.1	20.6
297209	2011 <i>FA</i> ₁₀₂	10 17.5 181°50'		3°5'/20.4 18			334338	2001 <i>XN</i> ₁₈₀	10 17.5 298°99'		0°4'/17.2 18		
9 8	1 57.06	+20 28.9	1.643	2.423	18.4	20.8	9 8	1 53.77	+11 33.0	1.564	2.386	17.4	21.0
9 18	1 53.59	+20 31.9	1.560	2.423	15.2	20.6	9 18	1 51.20	+11 5.4	1.469	2.366	13.9	20.7
9 28	1 47.38	+20 14.2	1.494	2.424	11.3	20.4	9 28	1 45.91	+10 21.2	1.393	2.347	9.7	20.4
10 8	1 39.03	+19 35.5	1.452	2.424	7.1	20.2	10 8	1 38.41	+ 9 23.1	1.340	2.328	4.8	20.1
10 18	1 29.52	+18 38.3	1.434	2.423	3.7	20.0	10 18	1 29.59	+ 8 16.5	1.313	2.309	0.6	19.7
10 28	1 20.13	+17 28.6	1.444	2.423	5.2	20.1	10 28	1 20.68	+ 7 9.4	1.312	2.290	5.8	20.1
11 7	1 12.11	+16 15.3	1.481	2.423	9.3	20.3	11 7	1 12.96	+ 6 10.5	1.337	2.272	10.9	20.3
11 17	1 6.36	+15 7.2	1.542	2.423	13.3	20.5	11 17	1 7.46	+ 5 27.0	1.385	2.254	15.4	20.5
25013	1998 <i>QR</i>	10 17.5 232°31'		1°3'/16.5 18			67188	2000 <i>CV</i> ₂₈	10 17.5 170°51'		0°7'/18.1 18		
9 8	1 56.50	+ 9 54.3	1.696	2.511	16.5	18.4	9 8	1 58.72	+14 4.9	1.971	2.758	15.5	20.4
9 18	1 52.93	+ 9 12.1	1.609	2.504	13.1	18.2	9 18	1 54.25	+13 44.4	1.886	2.762	12.4	20.2
9 28	1 46.82	+ 8 15.2	1.543	2.497	9.0	17.9	9 28	1 47.47	+13 9.5	1.823	2.765	8.7	20.0
10 8	1 38.73	+ 7 7.7	1.501	2.489	4.4	17.6	10 8	1 38.97	+12 22.3	1.784	2.768	4.5	19.8
10 18	1 29.54	+ 5 55.6	1.486	2.481	1.5	17.4	10 18	1 29.57	+11 26.7	1.774	2.770	0.7	19.5
10 28	1 20.43	+ 4 46.9	1.499	2.473	5.9	17.7	10 28	1 20.31	+10 28.4	1.792	2.771	4.4	19.8
11 7	1 12.53	+ 3 49.4	1.538	2.464	10.4	18.0	11 7	1 12.20	+ 9 34.1	1.839	2.772	8.5	20.0
11 17	1 6.72	+ 3 8.6	1.602	2.455	14.5	18.2	11 17	1 6.00	+ 8 49.3	1.912	2.772	12.2	20.3
404464	2013 <i>GG</i> ₁₂₃	10 17.5 99°44'		2°0'/15.5 18			233470	2006 <i>K7</i> ₁₀₉	10 17.5 314°75'		2°1'/19.7 18		
9 8	1 55.01	+ 4 45.3	2.305	3.116	12.8	21.2	9 8	1 51.52	+18 15.4	2.176	2.955	14.5	20.9
9 18	1 50.82	+ 4 16.4	2.232	3.126	10.0	21.1	9 18	1 48.57	+18 6.2	2.076	2.942	11.8	20.6
9 28	1 44.82	+ 3 41.4	2.183	3.136	6.8	20.9	9 28	1 43.60	+17 41.5	1.997	2.930	8.7	20.4
10 8	1 37.53	+ 3 3.9	2.159	3.146	3.5	20.7	10 8	1 37.07	+17 2.1	1.943	2.919	5.2	20.2
10 18	1 29.62	+ 2 28.1	2.165	3.156	2.3	20.6	10 18	1 29.66	+16 10.4	1.915	2.907	2.3	20.0
10 28	1 21.88	+ 1 58.5	2.200	3.166	5.0	20.8	10 28	1 22.25	+15 11.1	1.916	2.896	4.0	20.1
11 7	1 15.09	+ 1 38.5	2.262	3.175	8.3	21.1	11 7	1 15.73	+14 10.4	1.945	2.885	7.6	20.3
11 17	1 9.82	+ 1 30.6	2.351	3.185	11.1	21.3	11 17	1 10.82	+13 14.5	2.000	2.874	11.0	20.5
12706	Tanezaki	10 17.5 9°77'		1°6'/18.1 18 R			480240	2015 <i>HT</i> ₂₂	10 17.5 34°76'		5°1'/14.7 18		
9 8	2 1.10	+ 7 17.2	1.018	1.868	22.6	16.3	9 8	2 3.24	- 2 24.7	1.460	2.293	17.8	21.0
9 18	1 57.99	+ 8 47.6	0.961	1.873	18.1	16.0	9 18	1 58.42	- 2 38.0	1.393	2.296	14.1	20.7
9 28	1 51.02	+10 12.4	0.921	1.879	12.7	15.7	9 28	1 50.63	- 2 51.8	1.346	2.299	10.0	20.5
10 8	1 41.02	+11 29.9	0.901	1.889	6.7	15.5	10 8	1 40.61	- 3 0.4	1.322	2.303	6.2	20.3
10 18	1 29.43	+12 38.2	0.904	1.900	1.6	15.2	10 18	1 29.49	- 2 58.0	1.325	2.307	5.4	20.3
10 28	1 18.20	+13 37.4	0.932	1.914	6.5	15.6	10 28	1 18.68	- 2 40.2	1.354	2.311	8.6	20.5
11 7	1 9.15	+14 30.3	0.982	1.930	12.1	15.9	11 7	1 9.50	- 2 4.8	1.408	2.316	12.6	20.7
11 17	1 3.44	+15 20.6	1.054	1.948	17.0	16.3	11 17	1 2.85	- 1 12.6	1.484	2.321	16.3	21.0
412674	2014 <i>OX</i> ₁₁₀	10 17.5 340°19'		2°4'/19.7 18			172731	2004 <i>BY</i> ₁₂₀	10 17.5 255°59'		5°9'/12.5 18		
9 8	1 55.35	+17 13.3	2.114	2.892	14.9	21.1	9 8	1 58.25	- 6 9.5	2.058	2.881	13.7	20.3
9 18	1 51.57	+17 26.8	2.024	2.889	12.1	20.9	9 18	1 53.77	- 6 53.3	1.975	2.870	11.0	20.1
9 28	1 45.65	+17 26.8	1.955	2.887	8.9	20.7	9 28	1 47.10	- 7 36.7	1.916	2.860	8.2	19.9
10 8	1 38.07	+17 13.6	1.910	2.885	5.3	20.4	10 8	1 38.78	- 8 13.7	1.881	2.849	6.2	19.7
10 18	1 29.59	+16 48.8	1.892	2.883	2.5	20.3	10 18	1 29.58	- 8 38.3	1.874	2.838	6.3	19.7
10 28	1 21.16	+16 16.2	1.902	2.881	4.2	20.4	10 28	1 20.48	- 8 45.7	1.895	2.826	8.6	19.8
11 7	1 13.72	+15 40.8	1.941	2.880	7.7	20.6	11 7	1 12.41	- 8 33.4	1.942	2.815	11.5	20.0
11 17	1 8.02	+15 8.1	2.005	2.878	11.1	20.8	11 17	1 6.11	- 8 1.5	2.011	2.803	14.3	20.2
366148	2012 <i>EV</i> ₂	10 17.5 234°76'		3°3'/13.8 18			296742	2009 <i>TR</i> ₃₅	10 17.5 347°25'		1°2'/16.5 17		
9 8	1 51.92	+ 2 33.6	2.329	3.150	12.4	20.6	9 8	1 50.80	+ 8 32.5	1.773	2.600	15.4	20.1
9 18	1 48.50	+ 1 32.1	2.246	3.146	9.7	20.4	9 18	1 48.31	+ 8 6.4	1.690	2.592	12.2	20.1
9 28	1 43.32	+ 0 24.1	2.187	3.142	6.6	20.2	9 28	1 43.56	+ 7 28.9	1.628	2.585	8.3	19.6
10 8	1 36.83	- 0 45.5	2.154	3.137	3.9	20.0	10 8	1 37.08	+ 6 43.7	1.589	2.578	4.1	19.3
10 18	1 29.66	- 1 51.0	2.150	3.133	3.6	20.0	10 18	1 29.67	+ 5 55.8	1.578	2.573	1.4	19.1
10 28	1 22.59	- 2 46.7	2.175	3.129	6.2	20.1	10 28	1 22.33	+ 5 11.5	1.593	2.568	5.4	19.4
11 7	1 16.36	- 3 28.1	2.228	3.124	9.2	20.3	11 7	1 16.07	+ 4 36.8	1.634	2.564	9.6	19.6
11 17	1 11.56	- 3 52.6	2.305	3.119	12.0	20.5	11 17	1 11.65	+ 4 16.0	1.699	2.561	13.4	19.9
170010	Szalay	10 17.5 135°09'		2°8'/15.0 18			517906	2015 <i>TY</i> ₁₀₉	10 17.5 7°12'		3°9'/13.9 18		
9 8	1 56.38	+ 3 35.3	2.006	2.824	14.2	21.0	9 8	1 52.00	+ 1 28.4	1.862	2.697	14.4	20.9
9 18	1 52.24	+ 2 59.3	1.930	2.828	11.1	20.8	9 18	1 48.99	+ 0 37.3	1.791	2.698	11.3	20.7
9 28	1 45.98	+ 2 16.9	1.878	2.832	7.6	20.6	9 28	1 43.85	- 0 19.6	1.742	2.699	7.8	20.5
10 8	1 38.18	+ 1 32.5	1.850	2.836	4.1	20.4	10 8	1 37.15	- 1 16.7	1.717	2.701	4.7	20.3
10 18	1 29.61	+ 0 51.3	1.851	2.840	3.1	20.3	10 18	1 29.67	- 2 7.4	1.720	2.703	4.3	20.3
10 28	1 21.21	+ 0 18.5	1.881	2.844	6.1	20.5	10 28	1 22.36	- 2 45.8	1.750	2.706	7.1	20.5
11 7	1 13.89	- 0 1.5	1.937	2.847	9.6	20.7	11 7	1 16.12	- 3 7.5	1.805	2.709	10.6	20.7
11 17	1 8.32	- 0 6.4	2.018	2.850	12.8	21.0	11 17	1 11.63	- 3 10.5	1.884	2.713	13.7	20.9
350473	1999 <i>DG</i> ₁	10 17.5 306°87'		16°5'/30.5 17			370623	2003 <i>YN</i> ₄₈	10 17.5 333°92'		2°4'/16.1 18		
9 8	1 57.27	+41 24.5	1.222	1.923	27.3	20.2	9 8						

EPHEMERIDES

10 17.5

10 17.5

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
443723	2015 <i>LT</i> ₉		10 17.5 111°63	5°4/23.5 17			2787	Tovarishch		10 17.5 292°58	0°6/17.0 18		
9 8	1 58.97	+29 3.6	2.089	2.801	16.9	20.5	9 8	1 56.65	+8 17.5	2.174	2.977	13.8	16.2
9 18	1 54.40	+29 1.8	2.012	2.821	14.4	20.4	9 18	1 52.45	+8 16.0	2.084	2.971	10.9	16.0
9 28	1 47.51	+28 37.5	1.955	2.841	11.4	20.2	9 28	1 46.19	+8 6.8	2.016	2.965	7.5	15.8
10 8	1 38.94	+27 49.6	1.920	2.860	8.3	20.1	10 8	1 38.35	+7 51.8	1.973	2.960	3.7	15.6
10 18	1 29.59	+26 39.7	1.911	2.878	5.8	20.0	10 18	1 29.66	+7 34.2	1.958	2.954	0.7	15.3
10 28	1 20.55	+25 13.1	1.930	2.896	5.7	20.0	10 28	1 21.02	+7 17.7	1.973	2.949	4.5	15.6
11 7	1 12.79	+23 37.9	1.978	2.913	7.9	20.2	11 7	1 13.32	+7 6.2	2.016	2.943	8.2	15.8
11 17	1 7.02	+22 2.6	2.054	2.929	10.7	20.4	11 17	1 7.27	+7 3.0	2.085	2.938	11.6	16.0
485901	2012 <i>FT</i> ₇₁		10 17.5 171°79	5°0/10.6 18			513335	2007 <i>HF</i> ₇₅		10 17.5 243°36	1°4/16.3 18		
9 8	1 53.63	-9 44.8	3.226	4.036	9.5	22.4	9 8	1 57.21	+8 15.0	1.843	2.655	15.5	22.3
9 18	1 49.22	-10 37.9	3.157	4.040	7.7	22.3	9 18	1 53.34	+7 44.7	1.751	2.645	12.3	22.1
9 28	1 43.49	-11 28.7	3.113	4.043	6.0	22.2	9 28	1 47.05	+7 2.8	1.681	2.634	8.4	21.8
10 8	1 36.82	-12 12.9	3.096	4.045	5.0	22.1	10 8	1 38.87	+6 13.1	1.635	2.623	4.2	21.5
10 18	1 29.71	-12 46.7	3.108	4.047	5.4	22.1	10 18	1 29.63	+5 20.5	1.617	2.611	1.6	21.3
10 28	1 22.71	-13 7.0	3.149	4.049	6.8	22.2	10 28	1 20.42	+4 31.6	1.627	2.600	5.6	21.6
11 7	1 16.38	-13 12.2	3.217	4.050	8.5	22.4	11 7	1 12.30	+3 52.5	1.664	2.587	9.9	21.8
11 17	1 11.14	-13 2.2	3.309	4.050	10.3	22.5	11 17	1 6.13	+3 27.8	1.725	2.575	13.8	22.0
343701	2011 <i>DB</i> ₄₂		10 17.5 109°88	1°5/16.3 16			435077	2007 <i>BO</i> ₁₃		10 17.5 115°42	2°3/15.7 16		
9 8	1 58.30	+8 37.1	1.792	2.603	15.9	21.8	9 8	1 59.08	+6 4.3	1.771	2.586	15.9	22.0
9 18	1 53.91	+7 56.7	1.725	2.618	12.5	21.6	9 18	1 54.56	+5 25.2	1.704	2.600	12.4	21.8
9 28	1 47.18	+7 4.9	1.681	2.634	8.4	21.4	9 28	1 47.66	+4 37.0	1.659	2.614	8.4	21.6
10 8	1 38.78	+6 6.1	1.661	2.649	4.1	21.2	10 8	1 39.05	+3 44.2	1.639	2.627	4.2	21.4
10 18	1 29.61	+5 6.3	1.669	2.663	1.7	21.1	10 18	1 29.63	+2 52.9	1.647	2.639	2.5	21.3
10 28	1 20.75	+4 11.9	1.706	2.677	5.5	21.3	10 28	1 20.52	+2 9.4	1.683	2.651	6.1	21.5
11 7	1 13.18	+3 29.1	1.769	2.691	9.6	21.6	11 7	1 12.72	+1 38.9	1.747	2.663	10.0	21.8
11 17	1 7.60	+3 1.4	1.858	2.704	13.1	21.9	11 17	1 6.94	+1 24.4	1.834	2.674	13.5	22.0
330667	2008 <i>GL</i> ₉₅		10 17.5 31°02	1°8/16.6 18			185384	2006 <i>WL</i> ₆		10 17.5 161°25	0°8/18.4 18		
9 8	1 59.69	+5 44.5	1.109	1.958	21.2	19.6	9 8	1 53.30	+15 50.5	2.260	3.042	13.9	21.1
9 18	1 56.29	+5 51.3	1.058	1.971	16.7	19.4	9 18	1 49.71	+15 13.5	2.173	3.045	11.1	20.9
9 28	1 49.46	+5 48.4	1.024	1.986	11.4	19.1	9 28	1 44.22	+14 21.6	2.107	3.047	7.8	20.7
10 8	1 40.08	+5 39.9	1.012	2.001	5.6	18.9	10 8	1 37.32	+13 17.3	2.067	3.050	4.2	20.5
10 18	1 29.54	+5 31.1	1.023	2.018	2.0	18.7	10 18	1 29.72	+12 4.5	2.056	3.051	0.8	20.2
10 28	1 19.54	+5 28.2	1.058	2.035	7.1	19.1	10 28	1 22.24	+10 49.2	2.074	3.053	3.8	20.5
11 7	1 11.54	+5 36.1	1.117	2.054	12.3	19.4	11 7	1 15.70	+9 37.8	2.121	3.055	7.5	20.7
11 17	1 6.49	+5 57.5	1.197	2.073	16.8	19.8	11 17	1 10.71	+8 35.7	2.195	3.056	10.8	20.9
151656	2002 <i>XC</i> ₁₁₅		10 17.5 277°80	4°7/13.9 18			263253	2008 <i>BE</i> ₁₀		10 17.5 209°83	2°0/16.1 18		
9 8	1 57.27	+0 59.4	1.632	2.466	16.2	21.4	9 8	1 59.55	+6 52.2	1.657	2.475	16.7	21.3
9 18	1 53.80	+0 7.1	1.539	2.444	12.9	21.1	9 18	1 55.37	+6 24.4	1.575	2.472	13.2	21.0
9 28	1 47.63	-0 53.3	1.466	2.422	9.1	20.9	9 28	1 48.53	+5 45.9	1.514	2.468	9.0	20.8
10 8	1 39.27	-1 55.5	1.417	2.400	5.6	20.6	10 8	1 39.62	+5 0.8	1.476	2.464	4.5	20.5
10 18	1 29.59	-2 51.7	1.395	2.378	5.2	20.5	10 18	1 29.60	+4 14.7	1.466	2.460	2.2	20.3
10 28	1 19.82	-3 33.6	1.399	2.355	8.6	20.7	10 28	1 19.70	+3 34.4	1.483	2.455	6.3	20.6
11 7	1 11.23	-3 55.2	1.429	2.332	12.8	20.9	11 7	1 11.10	+3 5.9	1.527	2.450	10.8	20.8
11 17	1 4.79	-3 53.5	1.480	2.309	16.8	21.1	11 17	1 4.70	+2 53.2	1.595	2.444	14.7	21.1
261559	2005 <i>WM</i> ₁₆₄		10 17.5 65°98	1°1/16.5 18			392908	2012 <i>VM</i> ₆₀		10 17.5 343°63	0°7/16.9 18		
9 8	1 54.79	+8 30.7	2.023	2.833	14.4	20.8	9 8	1 54.58	+10 16.4	1.591	2.413	17.1	21.1
9 18	1 50.96	+8 4.9	1.952	2.844	11.3	20.6	9 18	1 51.56	+9 51.1	1.511	2.410	13.6	20.9
9 28	1 45.09	+7 29.5	1.902	2.855	7.6	20.4	9 28	1 45.95	+9 11.9	1.452	2.407	9.3	20.6
10 8	1 37.74	+6 48.0	1.878	2.866	3.7	20.2	10 8	1 38.34	+8 22.0	1.416	2.405	4.6	20.4
10 18	1 29.69	+6 4.9	1.882	2.877	1.2	20.0	10 18	1 29.67	+7 27.1	1.407	2.403	0.9	20.1
10 28	1 21.84	+5 25.2	1.915	2.889	4.8	20.3	10 28	1 21.12	+6 34.4	1.424	2.401	5.6	20.4
11 7	1 15.07	+4 54.0	1.975	2.900	8.5	20.6	11 7	1 13.85	+5 51.1	1.467	2.399	10.3	20.7
11 17	1 10.00	+4 34.5	2.060	2.912	11.8	20.8	11 17	1 8.74	+5 22.3	1.533	2.398	14.3	20.9
445263	2009 <i>SX</i> ₆₉		10 17.5 93°91	0°3/17.2 18			237976	2002 <i>RX</i> ₂₂₇		10 17.5 86°11	5°6/12.9 18		
9 8	1 53.28	+11 36.8	2.323	3.119	13.2	21.3	9 8	1 57.93	-3 45.4	1.847	2.676	14.8	20.1
9 18	1 49.50	+10 59.1	2.249	3.133	10.4	21.1	9 18	1 53.47	-4 40.4	1.791	2.692	11.7	19.9
9 28	1 43.94	+10 10.3	2.198	3.146	7.1	20.9	9 28	1 46.80	-5 36.1	1.758	2.707	8.4	19.8
10 8	1 37.13	+9 13.5	2.173	3.160	3.5	20.7	10 8	1 38.58	-6 25.8	1.749	2.722	6.0	19.7
10 18	1 29.72	+8 13.2	2.177	3.174	0.5	20.5	10 18	1 29.68	-7 3.3	1.768	2.738	6.0	19.7
10 28	1 22.51	+7 14.4	2.211	3.187	4.0	20.8	10 28	1 21.12	-7 23.4	1.814	2.753	8.4	19.9
11 7	1 16.22	+6 22.4	2.273	3.200	7.5	21.0	11 7	1 13.81	-7 23.6	1.886	2.767	11.4	20.1
11 17	1 11.42	+5 41.1	2.362	3.213	10.5	21.3	11 17	1 8.41	-7 4.2	1.980	2.782	14.2	20.3
219539	2001 <i>QL</i> ₂₃₈		10 17.5 323°92	15°9/21.6 17			514640	2005 <i>EH</i> ₆₅		10 17.5 234°46	4°6/12.5 18		
9 8	2 11.05	+27 17.0	1.024	1.799	27.5	19.7	9 8	1 54.00	+0 10.2	2.170	2.994	13.1	21.8
9 18	2 8.06	+30 39.7	0.947	1.786	24.5	19.4	9 18	1 50.36	-1 12.2	2.082	2.983	10.3	21.6
9 28	1 59.90	+33 52.1	0.885	1.775	21.1	19.1	9 28	1 44.75	-2 41.5	2.018	2.971	7.3	21.4
10 8	1 46.56	+36 38.4	0.840	1.764	18.0	18.9	10 8	1 37.64	-4 11.3	1.981	2.959	4.9	21.3
10 18	1 29.19	+38 40.4	0.815	1.754	16.0	18.7	10 18	1 29.72	-5 34.4	1.973	2.946	5.1	21.2
10 28	1 10.53	+39 46.0	0.811	1.745	16.4	18.7	10 28	1 21.86	-6 43.7	1.993	2.933	7.6	21.4
11 7	0 54.01	+39 57.6	0.827	1.737	18.8	18.8	11 7	1 14.88	-7 33.9	2.041	2.920	10.8	21.6
11 17	0 42.37	+39 30.1	0.860	1.730	22.2	19.0	11 17	1 9.48	-8 2.5	2.111	2.906	13.6	21.7
127692	2003 <i>EW</i> ₁₈		10 17.5 176°74	0°6/16.9 18			305032	2007 <i>TT</i> ₄₁₈		10 17.5 243°45	0°5/17.9 18		
9 8	1 57.83	+10 38.0	2.082	2.879	14.5	21.1	9 8						

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
141680	2002 <i>JT</i> ₁₁₂		10 17.5	50°82	3°5/15.6	17	23229	2000 <i>WX</i> ₅₈		10 17.5	19°69	1°6/16.5	18
9 8	2 1.03	+ 3 7.6	1.237	2.080	19.8	19.3	9 8	1 51.99	+ 8 55.0	1.172	2.024	20.1	17.1
9 18	1 57.01	+ 2 48.1	1.183	2.093	15.5	19.1	9 18	1 50.13	+ 8 25.5	1.117	2.033	15.8	16.8
9 28	1 49.80	+ 2 21.2	1.147	2.107	10.6	18.9	9 28	1 45.22	+ 7 40.4	1.080	2.043	10.7	16.6
10 8	1 40.24	+ 1 52.8	1.133	2.121	5.6	18.7	10 8	1 38.02	+ 6 45.5	1.065	2.055	5.2	16.3
10 18	1 29.61	+ 1 29.6	1.144	2.135	3.8	18.6	10 18	1 29.73	+ 5 48.4	1.072	2.068	1.8	16.2
10 28	1 19.47	+ 1 18.1	1.181	2.150	7.8	18.9	10 28	1 21.83	+ 4 58.4	1.105	2.082	6.8	16.5
11 7	1 11.19	+ 1 22.8	1.241	2.165	12.5	19.2	11 7	1 15.62	+ 4 23.3	1.160	2.097	11.9	16.9
11 17	1 5.66	+ 1 45.1	1.324	2.181	16.7	19.5	11 17	1 11.97	+ 4 7.6	1.237	2.113	16.3	17.2
449803	2014 <i>OA</i> ₃₀₅		10 17.5	72°07	6°1/11.5	18	391579	2007 <i>TG</i> ₃₂₂		10 17.5	117°04	2°8/15.4	18
9 8	1 54.55	- 6 46.8	2.114	2.943	13.2	21.2	9 8	2 1.14	+ 2 9.8	2.004	2.815	14.5	21.4
9 18	1 50.59	- 7 51.3	2.058	2.956	10.5	21.1	9 18	1 55.91	+ 1 55.5	1.933	2.826	11.3	21.2
9 28	1 44.72	- 8 54.5	2.026	2.969	7.9	21.0	9 28	1 48.49	+ 1 37.0	1.885	2.836	7.8	21.0
10 8	1 37.53	- 9 49.7	2.019	2.982	6.3	20.9	10 8	1 39.46	+ 1 18.2	1.862	2.847	4.2	20.8
10 18	1 29.74	- 10 31.3	2.039	2.995	6.6	20.9	10 18	1 29.68	+ 1 3.2	1.868	2.857	3.0	20.7
10 28	1 22.21	- 10 54.5	2.087	3.007	8.6	21.1	10 28	1 20.14	+ 0 56.1	1.902	2.866	5.9	21.0
11 7	1 15.73	- 10 57.3	2.160	3.020	11.0	21.3	11 7	1 11.79	+ 0 59.9	1.965	2.876	9.4	21.2
11 17	1 10.86	- 10 40.1	2.255	3.033	13.4	21.5	11 17	1 5.31	+ 1 16.0	2.053	2.885	12.6	21.4
350429	2012 <i>VY</i> ₈₂		10 17.5	33°18	1°8/18.9	18	97700	2000 <i>GU</i> ₆₂		10 17.5	324°40	0°7/16.8	17
9 8	1 54.43	+ 16 9.3	1.202	2.028	21.3	19.8	9 8	1 49.27	+ 9 26.0	2.630	3.434	11.6	19.1
9 18	1 51.94	+ 16 0.9	1.153	2.049	17.0	19.6	9 18	1 46.36	+ 8 59.0	2.530	3.419	9.1	18.9
9 28	1 46.35	+ 15 30.5	1.120	2.070	12.0	19.4	9 28	1 41.86	+ 8 23.3	2.453	3.405	6.2	18.7
10 8	1 38.52	+ 14 41.0	1.109	2.093	6.6	19.1	10 8	1 36.18	+ 7 41.4	2.403	3.391	3.1	18.5
10 18	1 29.69	+ 13 38.4	1.121	2.116	1.9	18.9	10 18	1 29.83	+ 6 56.5	2.381	3.377	0.8	18.3
10 28	1 21.38	+ 12 31.7	1.159	2.141	5.5	19.2	10 28	1 23.50	+ 6 13.1	2.389	3.363	3.9	18.5
11 7	1 14.87	+ 11 31.0	1.220	2.166	10.4	19.6	11 7	1 17.84	+ 5 35.2	2.425	3.350	7.1	18.7
11 17	1 10.98	+ 10 43.6	1.304	2.192	14.8	19.9	11 17	1 13.41	+ 5 6.4	2.487	3.338	10.0	18.8
270175	2001 <i>SX</i> ₂₄₂		10 17.5	349°17	3°3/15.7	18	467360	2003 <i>SJ</i> ₁₈₄		10 17.5	37°43	1°2/18.2	16
9 8	1 55.30	+ 3 32.7	1.209	2.063	19.5	19.8	9 8	2 1.17	+ 12 0.3	0.919	1.768	24.6	20.4
9 18	1 52.93	+ 3 19.9	1.138	2.055	15.4	19.5	9 18	1 57.83	+ 12 21.7	0.883	1.794	19.5	20.2
9 28	1 47.34	+ 2 58.9	1.086	2.049	10.7	19.2	9 28	1 50.61	+ 12 23.7	0.863	1.821	13.5	20.0
10 8	1 39.20	+ 2 35.0	1.055	2.043	5.6	18.9	10 8	1 40.66	+ 12 9.1	0.863	1.850	6.9	19.7
10 18	1 29.65	+ 2 14.9	1.047	2.039	3.6	18.8	10 18	1 29.64	+ 11 42.9	0.884	1.880	1.2	19.5
10 28	1 20.25	+ 2 5.7	1.064	2.036	8.0	19.0	10 28	1 19.50	+ 11 13.8	0.929	1.911	6.4	19.9
11 7	1 12.49	+ 2 12.6	1.104	2.034	13.1	19.3	11 7	1 11.82	+ 10 50.5	0.996	1.943	12.1	20.4
11 17	1 7.44	+ 2 38.0	1.164	2.033	17.6	19.6	11 17	1 7.46	+ 10 39.0	1.083	1.975	16.8	20.7
76898	2000 <i>YS</i> ₁₀₅		10 17.5	126°30	5°1/13.6	18 R	63687	2001 <i>QH</i> ₁₅₄		10 17.5	180°66	6°4/23.9	18
9 8	1 59.10	- 0 11.5	1.593	2.427	16.6	19.0	9 8	1 59.19	+ 29 24.3	2.289	2.991	15.9	19.5
9 18	1 54.88	- 1 10.8	1.529	2.434	13.0	18.8	9 18	1 54.75	+ 30 8.1	2.195	2.992	13.7	19.4
9 28	1 48.05	- 2 15.3	1.487	2.442	9.1	18.6	9 28	1 47.97	+ 30 33.8	2.119	2.992	11.2	19.2
10 8	1 39.31	- 3 17.7	1.468	2.449	5.8	18.4	10 8	1 39.36	+ 30 38.8	2.067	2.992	8.7	19.0
10 18	1 29.66	- 4 10.2	1.476	2.455	5.5	18.4	10 18	1 29.70	+ 30 21.8	2.039	2.992	6.8	18.9
10 28	1 20.31	- 4 45.6	1.511	2.462	8.6	18.6	10 28	1 20.04	+ 29 44.8	2.039	2.991	6.6	18.9
11 7	1 12.38	- 4 59.9	1.571	2.468	12.3	18.9	11 7	1 11.42	+ 28 52.8	2.067	2.991	8.3	19.0
11 17	1 6.66	- 4 52.0	1.654	2.474	15.7	19.1	11 17	1 4.68	+ 27 52.8	2.121	2.990	10.7	19.2
133457	2003 <i>SF</i> ₂₂₉		10 17.5	234°38	0°5/16.9	18	359856	2011 <i>US</i> ₃₈₄		10 17.5	338°47	2°5/19.6	17
9 8	1 53.96	+ 9 13.0	2.573	3.369	12.0	20.2	9 8	1 54.92	+ 17 21.7	1.780	2.571	16.8	21.5
9 18	1 50.00	+ 8 56.4	2.479	3.363	9.5	20.0	9 18	1 51.72	+ 17 30.7	1.693	2.566	13.7	21.3
9 28	1 44.33	+ 8 31.6	2.409	3.357	6.5	19.8	9 28	1 46.04	+ 17 23.6	1.625	2.562	10.0	21.0
10 8	1 37.38	+ 8 1.0	2.365	3.352	3.2	19.6	10 8	1 38.43	+ 17 0.5	1.581	2.558	6.0	20.8
10 18	1 29.75	+ 7 27.6	2.350	3.346	0.7	19.4	10 18	1 29.74	+ 16 23.7	1.562	2.554	2.7	20.6
10 28	1 22.17	+ 6 55.3	2.364	3.339	3.9	19.6	10 28	1 21.10	+ 15 38.1	1.571	2.551	4.7	20.7
11 7	1 15.35	+ 6 28.1	2.408	3.333	7.2	19.9	11 7	1 13.63	+ 14 50.4	1.606	2.548	8.8	21.0
11 17	1 9.88	+ 6 9.0	2.478	3.326	10.2	20.0	11 17	1 8.18	+ 14 7.4	1.667	2.546	12.6	21.2
227253	2005 <i>SW</i> ₇₅		10 17.5	77°11	0°3/17.3	16	308838	2006 <i>RV</i> ₅₂		10 17.5	328°38	0°7/16.9	18
9 8	1 57.82	+ 11 37.5	1.515	2.331	18.1	21.5	9 8	1 52.78	+ 11 8.3	1.887	2.698	15.2	21.0
9 18	1 54.05	+ 11 11.7	1.450	2.344	14.3	21.3	9 18	1 49.72	+ 10 28.2	1.803	2.695	12.0	20.8
9 28	1 47.57	+ 10 30.6	1.405	2.357	9.8	21.0	9 28	1 44.47	+ 9 34.3	1.740	2.693	8.2	20.5
10 8	1 39.09	+ 9 37.9	1.383	2.370	4.9	20.8	10 8	1 37.57	+ 8 30.2	1.702	2.690	4.0	20.3
10 18	1 29.67	+ 8 39.3	1.387	2.383	0.5	20.5	10 18	1 29.79	+ 7 21.1	1.692	2.688	0.9	20.0
10 28	1 20.58	+ 7 42.5	1.418	2.396	5.5	20.9	10 28	1 22.12	+ 6 14.1	1.710	2.685	5.0	20.3
11 7	1 12.98	+ 6 54.8	1.476	2.409	10.1	21.2	11 7	1 15.51	+ 5 15.9	1.754	2.683	9.1	20.6
11 17	1 7.68	+ 6 21.7	1.557	2.422	14.2	21.5	11 17	1 10.69	+ 4 31.8	1.824	2.681	12.8	20.8
316471	2010 <i>VD</i> ₁₁		10 17.5	2°86	5°3/22.2	18	53737	2000 <i>EQ</i> ₄₈		10 17.5	120°87	0°1/17.6	18
9 8	1 56.84	+ 24 34.9	2.028	2.772	16.5	20.6	9 8	1 58.58	+ 12 36.0	1.782	2.582	16.4	19.5
9 18	1 53.05	+ 25 14.6	1.939	2.771	13.9	20.4	9 18	1 54.28	+ 12 9.9	1.710	2.594	13.0	19.3
9 28	1 46.86	+ 25 36.9	1.869	2.771	11.0	20.3	9 28	1 47.56	+ 11 29.5	1.658	2.605	9.0	19.1
10 8	1 38.80	+ 25 40.0	1.822	2.772	7.9	20.1	10 8	1 39.07	+ 10 37.7	1.631	2.617	4.5	18.8
10 18	1 29.68	+ 25 23.5	1.800	2.772	5.6	19.9	10 18	1 29.72	+ 9 39.3	1.631	2.628	0.2	18.5
10 28	1 20.58	+ 24 49.9	1.806	2.773	5.8	20.0	10 28	1 20.63	+ 8 41.1	1.660	2.638	4.8	18.9
11 7	1 12.59	+ 24 5.0	1.839	2.774	8.3	20.1	11 7	1 12.83	+ 7 49.6	1.717	2.648	9.1	19.2
11 17	1 6.54	+ 23 15.7	1.897	2.775	11.4	20.3	11 17	1 7.08	+ 7 10.2	1.798	2.658	12.8	19.5
3136	Anshan		10 17.5	280°15	1°8/15.7	18	268851	2006 <i>XF</i> ₂₈					

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10 17.5

10 17.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
516045	2015 <i>TV</i> ₁₃₅		10 17.5 349°64	4.7/12.6	18		192485	1998 <i>HM</i> ₅		10 17.6 322°00	3°0/15.0	18	
9 8	1 51.55	- 0 35.5	2.026	2.860	13.5	20.8	9 8	1 51.06	+ 7 3.0	1.461	2.303	17.3	19.8
9 18	1 48.50	- 1 47.1	1.953	2.858	10.6	20.6	9 18	1 49.11	+ 6 1.7	1.378	2.290	13.7	19.6
9 28	1 43.49	- 3 3.7	1.902	2.857	7.5	20.4	9 28	1 44.49	+ 4 44.9	1.314	2.276	9.3	19.3
10 8	1 37.02	- 4 18.7	1.878	2.856	5.1	20.3	10 8	1 37.75	+ 3 18.7	1.274	2.263	4.8	19.0
10 18	1 29.82	- 5 25.4	1.880	2.854	5.2	20.3	10 18	1 29.81	+ 1 51.8	1.260	2.251	3.4	18.9
10 28	1 22.76	- 6 17.4	1.911	2.854	7.7	20.4	10 28	1 21.91	+ 0 34.5	1.271	2.239	7.6	19.1
11 7	1 16.66	- 6 50.2	1.967	2.853	10.8	20.6	11 7	1 15.28	- 0 24.5	1.306	2.228	12.3	19.4
11 17	1 12.18	- 7 2.1	2.046	2.852	13.6	20.8	11 17	1 10.85	- 0 59.7	1.364	2.217	16.5	19.6
47104	1999 <i>CD</i> ₁₈		10 17.6 266°40	0°7/16.9	18		38606	1999 <i>YC</i> ₁₃		10 17.6 283°80	3°9/10.5	18	
9 8	1 55.53	+ 7 53.7	2.531	3.328	12.2	18.2	9 8	1 47.97	- 10 24.4	4.293	5.104	7.3	19.0
9 18	1 51.32	+ 7 47.1	2.432	3.317	9.6	18.0	9 18	1 44.58	- 10 59.3	4.217	5.100	5.9	18.9
9 28	1 45.31	+ 7 33.8	2.356	3.305	6.6	17.8	9 28	1 40.25	- 11 31.9	4.166	5.095	4.7	18.8
10 8	1 37.93	+ 7 15.6	2.306	3.293	3.3	17.5	10 8	1 35.26	- 11 59.5	4.143	5.091	3.9	18.8
10 18	1 29.78	+ 6 55.4	2.285	3.281	0.8	17.3	10 18	1 29.94	- 12 19.4	4.148	5.086	4.2	18.8
10 28	1 21.64	+ 6 36.5	2.294	3.268	4.1	17.5	10 28	1 24.67	- 12 29.7	4.182	5.081	5.3	18.9
11 7	1 14.25	+ 6 22.6	2.332	3.256	7.5	17.7	11 7	1 19.84	- 12 29.1	4.244	5.077	6.6	19.0
11 17	1 8.27	+ 6 16.5	2.397	3.244	10.5	17.9	11 17	1 15.76	- 12 17.3	4.330	5.072	8.0	19.1
428562	2008 <i>CB</i> ₁₄₃		10 17.6 204°51	2°9/15.2	16		369252	2009 <i>DB</i> ₁₄₂		10 17.6 118°09	0°8/18.2	17	
9 8	1 56.59	+ 6 27.5	1.624	2.450	16.6	22.0	9 8	2 0.32	+ 14 39.3	1.576	2.374	18.3	21.4
9 18	1 53.05	+ 5 28.7	1.546	2.448	13.1	21.8	9 18	1 55.99	+ 14 16.2	1.506	2.388	14.6	21.2
9 28	1 46.94	+ 4 17.3	1.488	2.446	8.9	21.5	9 28	1 48.91	+ 13 35.5	1.457	2.402	10.2	21.0
10 8	1 38.86	+ 2 59.1	1.456	2.443	4.6	21.3	10 8	1 39.81	+ 12 39.8	1.431	2.415	5.3	20.7
10 18	1 29.74	+ 1 41.8	1.450	2.440	3.2	21.2	10 18	1 29.73	+ 11 34.2	1.431	2.427	0.8	20.4
10 28	1 20.78	+ 0 34.1	1.471	2.437	7.0	21.4	10 28	1 19.97	+ 10 26.3	1.460	2.439	5.1	20.8
11 7	1 13.10	- 0 16.9	1.518	2.434	11.3	21.6	11 7	1 11.73	+ 9 24.6	1.515	2.451	9.7	21.1
11 17	1 7.56	- 0 46.9	1.589	2.430	15.2	21.9	11 17	1 5.83	+ 8 35.6	1.595	2.462	13.8	21.4
276733	2004 <i>EP</i> ₁₂		10 17.6 12°43	2°3/19.1	18		192221	2007 <i>RQ</i> ₂₇₈		10 17.6 36°69	6°4/4.6	18 R	
9 8	1 58.91	+ 15 34.3	1.486	2.290	19.0	20.4	9 8	1 48.20	- 24 10.0	4.209	4.994	7.9	19.5
9 18	1 55.32	+ 15 49.5	1.408	2.290	15.4	20.2	9 18	1 44.83	- 25 5.2	4.161	4.996	7.0	19.4
9 28	1 48.77	+ 15 48.0	1.348	2.290	11.1	19.9	9 28	1 40.44	- 25 52.9	4.138	4.998	6.5	19.4
10 8	1 39.88	+ 15 30.0	1.310	2.291	6.3	19.7	10 8	1 35.36	- 26 29.6	4.139	5.000	6.4	19.4
10 18	1 29.70	+ 14 58.1	1.298	2.292	2.3	19.4	10 18	1 29.94	- 26 52.5	4.166	5.003	6.8	19.4
10 28	1 19.65	+ 14 17.8	1.312	2.293	5.3	19.6	10 28	1 24.62	- 26 59.9	4.218	5.005	7.6	19.5
11 7	1 11.08	+ 13 36.8	1.352	2.294	10.0	19.9	11 7	1 19.80	- 26 51.4	4.293	5.007	8.5	19.5
11 17	1 4.99	+ 13 2.4	1.415	2.295	14.4	20.2	11 17	1 15.81	- 26 27.5	4.388	5.010	9.4	19.6
516620	2007 <i>VR</i> ₁₅₉		10 17.6 246°92	4°3/13.6	18		177941	2005 <i>UR</i> ₂₆₅		10 17.6 190°53	0°6/16.6	18	
9 8	1 57.14	- 1 20.5	2.138	2.958	13.4	22.2	9 8	1 49.25	+ 8 30.2	3.851	4.639	8.5	21.3
9 18	1 52.88	- 2 2.9	2.049	2.946	10.6	22.0	9 18	1 45.71	+ 8 4.5	3.757	4.638	6.6	21.2
9 28	1 46.53	- 2 48.7	1.983	2.934	7.5	21.8	9 28	1 41.10	+ 7 33.3	3.689	4.636	4.5	21.1
10 8	1 38.59	- 3 32.7	1.943	2.921	4.9	21.6	10 8	1 35.71	+ 6 58.6	3.648	4.635	2.2	20.9
10 18	1 29.77	- 4 9.5	1.931	2.908	4.7	21.6	10 18	1 29.93	+ 6 22.7	3.638	4.633	0.7	20.8
10 28	1 20.99	- 4 33.8	1.947	2.895	7.2	21.7	10 28	1 24.20	+ 5 48.2	3.658	4.630	2.9	20.9
11 7	1 13.16	- 4 42.1	1.990	2.881	10.4	21.9	11 7	1 18.95	+ 5 17.7	3.709	4.628	5.1	21.1
11 17	1 7.00	- 4 32.9	2.057	2.867	13.4	22.0	11 17	1 14.54	+ 4 53.4	3.787	4.625	7.2	21.2
404848	2014 <i>KM</i> ₁₅		10 17.6 131°27	1°4/16.2	18		398559	2011 <i>UB</i> ₄₀₁		10 17.6 93°36	2°0/19.8	18	
9 8	1 54.57	+ 8 30.5	2.035	2.845	14.3	21.6	9 8	1 55.10	+ 19 39.2	2.079	2.847	15.4	21.3
9 18	1 50.87	+ 7 50.1	1.956	2.849	11.2	21.4	9 18	1 51.23	+ 19 6.2	2.005	2.865	12.4	21.1
9 28	1 45.11	+ 6 59.2	1.900	2.853	7.6	21.2	9 28	1 45.30	+ 18 15.2	1.953	2.883	9.0	21.0
10 8	1 37.84	+ 6 1.5	1.869	2.857	3.7	21.0	10 8	1 37.90	+ 17 8.4	1.925	2.900	5.3	20.8
10 18	1 29.81	+ 5 2.3	1.866	2.860	1.6	20.8	10 18	1 29.84	+ 15 49.9	1.925	2.917	2.1	20.6
10 28	1 21.93	+ 4 7.6	1.892	2.864	5.1	21.1	10 28	1 22.03	+ 14 26.0	1.954	2.934	3.9	20.8
11 7	1 15.08	+ 3 22.9	1.946	2.867	8.9	21.3	11 7	1 15.35	+ 13 4.1	2.013	2.951	7.5	21.0
11 17	1 9.93	+ 2 52.0	2.024	2.870	12.2	21.6	11 17	1 10.40	+ 11 50.7	2.098	2.967	10.8	21.2
100831	1998 <i>HW</i> ₉		10 17.6 89°90	2°6/15.7	18 R		306233	2011 <i>QU</i> ₆₂		10 17.6 92°39	1°5/16.2	18	
9 8	2 0.66	+ 6 17.2	1.509	2.332	17.8	19.7	9 8	1 54.54	+ 9 15.4	1.851	2.665	15.3	21.1
9 18	1 56.11	+ 5 34.1	1.453	2.353	13.9	19.5	9 18	1 51.02	+ 8 25.7	1.778	2.673	12.0	20.9
9 28	1 48.86	+ 4 40.5	1.418	2.374	9.4	19.3	9 28	1 45.30	+ 7 23.6	1.727	2.681	8.1	20.7
10 8	1 39.71	+ 3 42.2	1.406	2.394	4.7	19.0	10 8	1 37.96	+ 6 13.5	1.701	2.689	4.0	20.5
10 18	1 29.73	+ 2 46.2	1.422	2.414	2.8	19.0	10 18	1 29.84	+ 5 1.8	1.703	2.698	1.7	20.3
10 28	1 20.21	+ 1 59.8	1.465	2.433	6.7	19.3	10 28	1 21.93	+ 3 55.5	1.733	2.705	5.4	20.6
11 7	1 12.26	+ 1 28.8	1.533	2.453	11.0	19.6	11 7	1 15.18	+ 3 1.1	1.791	2.713	9.4	20.9
11 17	1 6.66	+ 1 16.0	1.625	2.471	14.7	19.8	11 17	1 10.26	+ 2 22.7	1.873	2.721	12.9	21.1
168732	2000 <i>OT</i> ₅₅		10 17.6 15°16	2°6/15.9	18		361044	2005 <i>XG</i> ₇₆		10 17.6 311°18	6°5/11.2	18	
9 8	1 49.21	+ 8 23.4	0.878	1.755	23.0	19.1	9 8	1 53.46	- 6 42.9	2.004	2.839	13.6	20.3
9 18	1 48.81	+ 7 41.5	0.830	1.760	18.1	18.9	9 18	1 50.09	- 7 50.1	1.929	2.830	10.9	20.1
9 28	1 44.78	+ 6 40.4	0.798	1.767	12.3	18.6	9 28	1 44.65	- 8 57.3	1.877	2.822	8.3	19.9
10 8	1 37.97	+ 5 27.9	0.785	1.776	6.0	18.3	10 8	1 37.66	- 9 57.5	1.850	2.813	6.7	19.8
10 18	1 29.80	+ 4 15.4	0.793	1.787	3.0	18.2	10 18	1 29.86	- 10 44.0	1.850	2.805	7.1	19.8
10 28	1 22.10	+ 3 15.5	0.822	1.800	8.4	18.5	10 28	1 22.16	- 11 11.0	1.876	2.797	9.3	19.9
11 7	1 16.45	+ 2 37.9	0.872	1.814	14.1	18.9	11 7	1 15.47	- 11 15.5	1.926	2.790	12.0	20.1
11 17	1 13.81	+ 2 26.8	0.941	1.829	19.0	19.2	11 17	1 10.46	- 10 57.4	1.999	2.782	14.7	20.2
478853	2012 <i>VN</i> ₇₀		10 17.6 341°76	2°2/15.9	16		449735	2014 <i>NE</i> ₃					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
205107	1999 <i>TP</i> ₂₆₇		10 17.6	47°04'	7.2/24.4	18	219034	1995 <i>FZ</i> ₁		10 17.6	195°42'	1.1/16.3	18
9 8	1 55.91	+30 3.0	1.492	2.238	21.4	19.7	9 8	1 53.22	+7 50.0	2.729	3.527	11.4	21.6
9 18	1 52.99	+30 21.1	1.430	2.258	18.3	19.5	9 18	1 49.30	+7 18.7	2.639	3.525	8.9	21.4
9 28	1 47.08	+30 9.8	1.384	2.278	14.7	19.3	9 28	1 43.81	+6 39.8	2.573	3.523	6.1	21.3
10 8	1 38.96	+29 27.0	1.358	2.299	10.9	19.2	10 8	1 37.16	+5 56.2	2.533	3.521	3.0	21.1
10 18	1 29.81	+28 14.2	1.354	2.320	7.9	19.0	10 18	1 29.92	+5 11.4	2.524	3.518	1.3	20.9
10 28	1 21.06	+26 38.1	1.376	2.342	7.4	19.1	10 28	1 22.74	+4 29.5	2.544	3.515	4.1	21.1
11 7	1 14.00	+24 50.3	1.423	2.364	9.7	19.3	11 7	1 16.29	+3 54.5	2.593	3.512	7.1	21.3
11 17	1 9.46	+23 2.8	1.495	2.386	13.0	19.5	11 17	1 11.11	+3 29.1	2.669	3.508	9.8	21.5
20125	1995 <i>YK</i>		10 17.6	344°56'	7.1/11.6	18	263965	2009 <i>JP</i> ₇		10 17.6	87°81'	0.5/17.9	17
9 8	1 52.81	-6 17.0	1.664	2.510	15.4	17.7	9 8	1 59.62	+13 55.8	1.451	2.260	19.1	21.2
9 18	1 50.01	-7 19.0	1.594	2.502	12.4	17.4	9 18	1 55.58	+13 28.4	1.390	2.278	15.2	21.0
9 28	1 44.82	-8 20.9	1.545	2.494	9.4	17.2	9 28	1 48.68	+12 42.9	1.348	2.296	10.5	20.8
10 8	1 37.81	-9 14.9	1.519	2.487	7.3	17.1	10 8	1 39.72	+11 42.6	1.329	2.314	5.4	20.6
10 18	1 29.86	-9 53.1	1.519	2.481	7.7	17.1	10 18	1 29.80	+10 33.8	1.335	2.332	0.5	20.3
10 28	1 22.06	-10 9.3	1.544	2.475	10.2	17.3	10 28	1 20.31	+9 24.7	1.369	2.349	5.3	20.7
11 7	1 15.45	-10 0.6	1.593	2.471	13.3	17.4	11 7	1 12.44	+8 24.0	1.430	2.366	10.1	21.0
11 17	1 10.80	-9 27.3	1.663	2.467	16.3	17.6	11 17	1 7.01	+7 38.1	1.514	2.382	14.3	21.3
441682	2008 <i>YM</i> ₄₅		10 17.6	281°96'	2.5/15.6	18	486515	2013 <i>GZ</i> ₁₂₂		10 17.6	44°40'	0.6/17.1	18
9 8	1 56.08	+5 25.8	1.829	2.650	15.2	21.7	9 8	1 57.86	+8 1.1	1.972	2.778	14.8	20.5
9 18	1 52.59	+4 52.5	1.731	2.630	12.1	21.4	9 18	1 53.51	+8 4.2	1.898	2.787	11.7	20.3
9 28	1 46.67	+4 9.6	1.654	2.610	8.3	21.2	9 28	1 46.97	+7 59.3	1.845	2.796	8.0	20.1
10 8	1 38.82	+3 21.2	1.602	2.590	4.3	20.9	10 8	1 38.81	+7 48.8	1.818	2.805	3.9	19.9
10 18	1 29.81	+2 32.8	1.578	2.569	2.7	20.7	10 18	1 29.85	+7 35.8	1.819	2.815	0.7	19.7
10 28	1 20.73	+1 51.0	1.581	2.549	6.4	20.9	10 28	1 21.09	+7 24.2	1.848	2.824	4.6	20.0
11 7	1 12.68	+1 21.7	1.610	2.528	10.6	21.1	11 7	1 13.44	+7 17.9	1.905	2.834	8.5	20.2
11 17	1 6.55	+1 8.8	1.663	2.507	14.5	21.3	11 17	1 7.63	+7 19.8	1.988	2.845	11.9	20.5
268929	2007 <i>DA</i> ₉		10 17.6	95°64'	0.5/17.9	16	439933	2001 <i>RE</i> ₁₂₉		10 17.6	26°84'	2.9/19.5	18
9 8	1 59.92	+12 54.8	1.736	2.534	16.9	21.8	9 8	2 0.12	+15 25.0	1.620	2.415	18.0	20.3
9 18	1 55.34	+12 39.2	1.671	2.553	13.4	21.6	9 18	1 55.97	+16 9.3	1.547	2.422	14.6	20.1
9 28	1 48.28	+12 9.5	1.626	2.572	9.3	21.4	9 28	1 49.05	+16 40.2	1.493	2.431	10.7	19.9
10 8	1 39.45	+11 28.2	1.605	2.590	4.7	21.2	10 8	1 39.99	+16 57.0	1.463	2.440	6.3	19.7
10 18	1 29.79	+10 39.9	1.612	2.608	0.5	20.9	10 18	1 29.80	+17 0.3	1.458	2.450	3.0	19.5
10 28	1 20.48	+9 50.7	1.647	2.626	4.7	21.3	10 28	1 19.78	+16 53.4	1.481	2.460	5.1	19.6
11 7	1 12.54	+9 7.0	1.710	2.643	9.0	21.6	11 7	1 11.18	+16 41.6	1.530	2.471	9.2	19.9
11 17	1 6.73	+8 33.9	1.797	2.660	12.7	21.8	11 17	1 4.91	+16 30.7	1.603	2.482	13.1	20.2
514035	2014 <i>LT</i> ₁₇		10 17.6	156°47'	4.6/12.9	18	160924	2001 <i>XT</i> ₁₄₀		10 17.6	53°05'	3.3/15.7	18
9 8	1 54.87	-1 29.6	2.182	3.005	13.0	21.8	9 8	2 0.87	+5 8.1	1.078	1.928	21.6	19.4
9 18	1 50.92	-2 32.1	2.110	3.009	10.2	21.7	9 18	1 57.19	+4 36.1	1.034	1.948	16.9	19.2
9 28	1 45.05	-3 38.0	2.062	3.013	7.3	21.5	9 28	1 50.05	+3 53.1	1.006	1.968	11.4	19.0
10 8	1 37.80	-4 41.4	2.040	3.016	4.9	21.4	10 8	1 40.44	+3 6.1	1.000	1.989	5.8	18.8
10 18	1 29.88	-5 36.3	2.046	3.019	5.0	21.4	10 18	1 29.79	+2 23.4	1.018	2.010	3.6	18.7
10 28	1 22.12	-6 17.3	2.081	3.021	7.3	21.5	10 28	1 19.81	+1 53.6	1.060	2.032	8.1	19.0
11 7	1 15.32	-6 40.9	2.142	3.024	10.2	21.7	11 7	1 11.93	+1 42.2	1.125	2.054	13.1	19.4
11 17	1 10.10	-6 45.6	2.227	3.026	12.9	21.9	11 17	1 7.01	+1 51.3	1.211	2.076	17.4	19.7
53033	1998 <i>WN</i> ₉		10 17.6	303°46'	3.8/15.1	18	199219	2006 <i>AO</i> ₃₇		10 17.6	56°75'	4.1/14.5	18
9 8	1 58.43	+2 12.6	1.488	2.324	17.4	19.0	9 8	1 56.74	+2 39.1	1.483	2.322	17.3	20.4
9 18	1 54.86	+1 45.0	1.408	2.315	13.8	18.8	9 18	1 53.14	+1 45.0	1.428	2.337	13.5	20.2
9 28	1 48.42	+1 10.6	1.349	2.307	9.6	18.5	9 28	1 46.92	+0 43.4	1.393	2.352	9.2	20.0
10 8	1 39.73	+0 34.7	1.313	2.298	5.4	18.2	10 8	1 38.82	-0 18.5	1.382	2.367	5.3	19.8
10 18	1 29.79	+0 4.0	1.302	2.290	4.1	18.1	10 18	1 29.87	-1 13.2	1.397	2.383	4.5	19.8
10 28	1 19.93	-0 14.7	1.318	2.283	7.8	18.3	10 28	1 21.32	-1 53.1	1.439	2.399	7.8	20.0
11 7	1 11.47	-0 16.6	1.358	2.275	12.3	18.6	11 7	1 14.25	-2 13.7	1.505	2.415	11.8	20.3
11 17	1 5.37	+0 0.6	1.421	2.268	16.3	18.8	11 17	1 9.41	-2 13.4	1.593	2.431	15.3	20.6
171304	2006 <i>HH</i> ₃₀		10 17.6	105°32'	1.8/19.5	18	320200	2007 <i>HO</i> ₁		10 17.6	235°28'	0.7/16.9	18
9 8	1 56.44	+19 29.1	2.096	2.862	15.4	20.5	9 8	1 56.67	+7 52.5	2.416	3.213	12.7	20.4
9 18	1 52.22	+18 48.8	2.023	2.882	12.4	20.4	9 18	1 52.28	+7 46.4	2.323	3.208	10.0	20.2
9 28	1 45.95	+17 50.5	1.972	2.902	8.9	20.2	9 28	1 46.01	+7 33.3	2.253	3.202	6.9	20.0
10 8	1 38.23	+16 36.5	1.945	2.922	5.1	20.0	10 8	1 38.34	+7 15.2	2.210	3.197	3.4	19.8
10 18	1 29.87	+15 11.3	1.947	2.941	1.9	19.8	10 18	1 29.90	+6 55.1	2.195	3.191	0.8	19.6
10 28	1 21.79	+13 41.6	1.979	2.959	3.9	20.0	10 28	1 21.50	+6 36.6	2.211	3.185	4.2	19.8
11 7	1 14.85	+12 15.0	2.040	2.977	7.5	20.3	11 7	1 13.94	+6 23.2	2.255	3.179	7.7	20.0
11 17	1 9.68	+10 57.9	2.128	2.994	10.8	20.5	11 17	1 7.87	+6 17.9	2.325	3.173	10.7	20.2
519407	2011 <i>SD</i> ₂₈₀		10 17.6	293°54'	5.3/13.8	18	286722	2002 <i>GZ</i> ₁₀₆		10 17.6	137°07'	2.9/14.9	18
9 8	1 59.89	-3 47.3	1.833	2.659	15.0	21.1	9 8	1 56.83	+1 21.7	2.367	3.178	12.5	20.4
9 18	1 55.50	-4 12.7	1.744	2.642	12.0	20.8	9 18	1 52.29	+0 58.3	2.289	3.183	9.8	20.3
9 28	1 48.62	-4 38.6	1.675	2.625	8.7	20.6	9 28	1 45.93	+0 31.4	2.235	3.187	6.7	20.1
10 8	1 39.76	-4 59.5	1.632	2.608	5.9	20.4	10 8	1 38.25	+0 4.7	2.208	3.191	3.8	19.9
10 18	1 29.79	-5 9.7	1.615	2.591	5.6	20.4	10 18	1 29.90	-0 17.8	2.209	3.195	3.1	19.9
10 28	1 19.82	-5 4.2	1.626	2.574	8.3	20.5	10 28	1 21.71	-0 32.4	2.240	3.199	5.5	20.0
11 7	1 10.98	-4 40.2	1.663	2.558	11.9	20.7	11 7	1 14.42	-0 36.1	2.299	3.203	8.6	20.2
11 17	1 4.14	-3 57.6	1.723	2.541	15.3	20.8	11 17	1 8.65	-0 27.4	2.383	3.206	11.4	20.4
14928	1994 <i>WN</i> ₁		10 17.6	29°51'	1.8/16.5	18	192332	1995 <i>FA</i>		10 17.6	190°96'	0.5/17.1	18
9 8	1 55.94	+7 43.4	1.151	2.000	20.6	17.2	9 8	1					

EPHEMERIDES

10 17.6

10 17.6

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
432970	2012 <i>LL</i> ₃	10 17.6 103°83		1.4/16.6 16			496919	2001 <i>TM</i> ₁₀₃	10 17.6 68°50		4.5/18.8 17		
9 8	1 59.45	+ 8 43.8	1.574	2.391	17.5	21.8	9 8	2 18.08	+11 42.8	1.091	1.897	24.3	20.3
9 18	1 55.27	+ 8 14.8	1.506	2.402	13.7	21.6	9 18	2 11.97	+13 37.6	1.020	1.902	19.9	20.0
9 28	1 48.42	+ 7 33.4	1.459	2.413	9.4	21.4	9 28	2 1.24	+15 26.4	0.967	1.908	14.6	19.7
10 8	1 39.61	+ 6 43.9	1.436	2.424	4.6	21.1	10 8	1 46.58	+17 3.3	0.936	1.914	8.7	19.5
10 18	1 29.84	+ 5 52.2	1.440	2.435	1.5	20.9	10 18	1 29.58	+18 21.9	0.929	1.920	4.5	19.3
10 28	1 20.38	+ 5 5.3	1.471	2.445	5.9	21.2	10 28	1 12.68	+19 19.6	0.949	1.926	7.7	19.5
11 7	1 12.37	+ 4 29.6	1.529	2.456	10.4	21.5	11 7	0 58.27	+20 0.1	0.994	1.932	13.3	19.8
11 17	1 6.62	+ 4 9.3	1.610	2.466	14.3	21.8	11 17	0 47.95	+20 30.7	1.061	1.938	18.3	20.1
343846	2011 <i>HO</i> ₃₈	10 17.6 179°70		1.4/16.2 18			170554	2003 <i>WZ</i> ₁₃₆	10 17.6 286°35		3°3/14.9 18		
9 8	1 54.25	+11 32.0	1.810	2.620	15.8	20.9	9 8	1 56.07	+ 3 5.4	1.835	2.661	15.0	20.3
9 18	1 50.97	+10 19.0	1.728	2.621	12.4	20.7	9 18	1 52.54	+ 2 29.9	1.742	2.644	11.9	20.0
9 28	1 45.39	+ 8 49.0	1.668	2.621	8.5	20.5	9 28	1 46.62	+ 1 47.0	1.671	2.627	8.2	19.8
10 8	1 38.10	+ 7 7.2	1.633	2.622	4.1	20.2	10 8	1 38.82	+ 1 1.2	1.624	2.610	4.6	19.5
10 18	1 29.93	+ 5 21.1	1.627	2.621	1.6	20.1	10 18	1 29.94	+ 0 18.5	1.605	2.593	3.6	19.4
10 28	1 21.93	+ 3 39.9	1.649	2.621	5.7	20.3	10 28	1 21.02	- 0 14.9	1.612	2.576	6.9	19.6
11 7	1 15.07	+ 2 12.4	1.699	2.620	9.9	20.6	11 7	1 13.16	- 0 33.8	1.647	2.559	10.8	19.8
11 17	1 10.10	+ 1 4.3	1.773	2.620	13.6	20.8	11 17	1 7.19	- 0 35.2	1.704	2.542	14.5	20.0
62441	2000 <i>SX</i> ₂₀₂	10 17.6 108°85		0°6/16.9 18			317430	2002 <i>QE</i> ₂₅	10 17.6 22°41		5°4/13.8 18		
9 8	1 55.31	+ 9 30.0	2.132	2.935	14.0	20.0	9 8	1 52.62	+ 2 54.8	1.130	1.994	19.9	20.2
9 18	1 51.41	+ 9 9.8	2.051	2.938	11.0	19.8	9 18	1 50.76	+ 1 38.6	1.077	2.000	15.5	19.9
9 28	1 45.50	+ 8 39.9	1.991	2.942	7.5	19.6	9 28	1 45.76	+ 0 11.0	1.042	2.007	10.7	19.7
10 8	1 38.10	+ 8 2.9	1.958	2.945	3.7	19.4	10 8	1 38.42	- 1 17.7	1.029	2.015	6.4	19.5
10 18	1 29.94	+ 7 22.8	1.952	2.948	0.8	19.1	10 18	1 29.96	- 2 36.0	1.039	2.024	6.0	19.5
10 28	1 21.90	+ 6 44.5	1.976	2.951	4.5	19.4	10 28	1 21.89	- 3 33.1	1.073	2.034	9.8	19.7
11 7	1 14.86	+ 6 12.7	2.027	2.954	8.2	19.7	11 7	1 15.55	- 4 2.5	1.129	2.045	14.4	20.0
11 17	1 9.46	+ 5 51.2	2.104	2.957	11.5	19.9	11 17	1 11.82	- 4 2.7	1.205	2.056	18.4	20.3
363016	1995 <i>TO</i> ₅	10 17.6 37°23		0°1/17.6 17			324709	2007 <i>EZ</i> ₁₁₇	10 17.6 259°89		1°3/16.4 17		
9 8	1 56.77	+12 30.8	1.163	1.998	21.3	21.4	9 8	1 56.44	+ 6 24.1	2.409	3.211	12.6	21.7
9 18	1 54.18	+12 8.5	1.099	2.003	17.0	21.1	9 18	1 52.19	+ 6 10.7	2.309	3.197	9.9	21.5
9 28	1 48.24	+11 26.1	1.052	2.009	11.8	20.8	9 28	1 46.04	+ 5 50.7	2.232	3.182	6.8	21.3
10 8	1 39.72	+10 27.3	1.027	2.015	5.9	20.5	10 8	1 38.42	+ 5 26.6	2.181	3.168	3.4	21.0
10 18	1 29.86	+ 9 19.1	1.024	2.021	0.3	20.1	10 18	1 29.97	+ 5 1.6	2.159	3.153	1.5	20.9
10 28	1 20.32	+ 8 11.7	1.047	2.027	6.4	20.6	10 28	1 21.51	+ 4 39.7	2.167	3.138	4.6	21.1
11 7	1 12.61	+ 7 15.4	1.094	2.034	12.0	21.0	11 7	1 13.85	+ 4 24.6	2.203	3.123	8.1	21.3
11 17	1 7.73	+ 6 37.3	1.161	2.041	16.8	21.3	11 17	1 7.66	+ 4 19.2	2.266	3.108	11.2	21.4
12251	1988 <i>TO</i> ₁	10 17.6 337°75		1°8/16.2 18			36123	1999 <i>RS</i> ₁₄₆	10 17.6 159°19		4°3/22.1 18 R		
9 8	1 50.70	+ 7 15.5	1.617	2.453	16.2	17.7	9 8	1 56.38	+24 26.9	2.367	3.101	14.7	19.0
9 18	1 48.63	+ 6 51.4	1.529	2.436	12.9	17.4	9 18	1 52.31	+24 45.3	2.275	3.103	12.3	18.8
9 28	1 44.09	+ 6 16.0	1.460	2.420	8.8	17.1	9 28	1 46.19	+24 47.4	2.203	3.105	9.6	18.6
10 8	1 37.59	+ 5 33.2	1.415	2.404	4.4	16.8	10 8	1 38.51	+24 32.4	2.155	3.106	6.7	18.4
10 18	1 29.96	+ 4 48.5	1.396	2.390	2.0	16.7	10 18	1 29.98	+24 0.8	2.133	3.108	4.6	18.3
10 28	1 22.32	+ 4 8.7	1.403	2.377	6.1	16.9	10 28	1 21.51	+23 15.6	2.140	3.109	4.8	18.3
11 7	1 15.80	+ 3 40.3	1.435	2.365	10.6	17.1	11 7	1 13.98	+22 22.2	2.176	3.111	7.2	18.5
11 17	1 11.28	+ 3 27.6	1.489	2.354	14.7	17.3	11 17	1 8.10	+21 26.7	2.238	3.112	10.0	18.7
355310	2007 <i>RB</i> ₃₀₉	10 17.6 306°41		0°9/15.9 18			245255	2005 <i>AU</i> ₁	10 17.6 339°14		9°2/10.1 18		
9 8	1 46.12	+ 6 47.1	4.304	5.101	7.5	21.2	9 8	1 49.67	- 5 55.6	1.276	2.144	17.8	19.3
9 18	1 43.21	+ 6 18.5	4.212	5.098	5.9	21.0	9 18	1 48.35	- 7 33.8	1.209	2.129	14.4	19.1
9 28	1 39.38	+ 5 45.7	4.145	5.096	4.0	20.9	9 28	1 44.15	- 9 15.4	1.162	2.116	11.2	18.8
10 8	1 34.90	+ 5 10.5	4.106	5.093	2.0	20.7	10 8	1 37.70	-10 48.4	1.136	2.104	9.3	18.7
10 18	1 30.09	+ 4 35.0	4.097	5.091	1.0	20.6	10 18	1 30.01	-12 0.5	1.134	2.093	10.1	18.7
10 28	1 25.31	+ 4 1.8	4.119	5.088	2.8	20.8	10 28	1 22.43	-12 41.5	1.154	2.083	13.1	18.9
11 7	1 20.94	+ 3 32.9	4.171	5.086	4.7	20.9	11 7	1 16.28	-12 46.7	1.195	2.074	16.7	19.1
11 17	1 17.28	+ 3 10.2	4.250	5.083	6.6	21.1	11 17	1 12.51	-12 17.0	1.254	2.067	20.2	19.3
483056	2015 <i>KR</i> ₅₄	10 17.6 53°58		2°5/15.7 16			472450	2015 <i>BJ</i> ₃₂₆	10 17.6 129°20		4°0/20.6 16		
9 8	1 57.07	+ 6 16.9	1.501	2.332	17.5	21.4	9 8	2 1.62	+20 31.4	1.637	2.408	18.8	21.3
9 18	1 53.34	+ 5 37.6	1.447	2.352	13.6	21.2	9 18	1 57.26	+20 53.6	1.559	2.416	15.5	21.1
9 28	1 47.02	+ 4 48.2	1.414	2.372	9.2	21.0	9 28	1 50.02	+20 56.5	1.500	2.424	11.7	20.9
10 8	1 38.87	+ 3 54.2	1.405	2.393	4.6	20.8	10 8	1 40.55	+20 39.1	1.463	2.431	7.5	20.7
10 18	1 29.92	+ 3 2.5	1.421	2.414	2.7	20.8	10 18	1 29.90	+20 2.7	1.452	2.438	4.3	20.5
10 28	1 21.39	+ 2 20.0	1.465	2.435	6.5	21.1	10 28	1 19.43	+19 12.2	1.468	2.445	5.5	20.6
11 7	1 14.36	+ 1 52.3	1.534	2.457	10.7	21.4	11 7	1 10.44	+18 15.7	1.511	2.451	9.3	20.9
11 17	1 9.54	+ 1 42.1	1.626	2.478	14.4	21.6	11 17	1 3.86	+17 21.5	1.578	2.457	13.2	21.1
484993	2009 <i>UF</i> ₁₄₉	10 17.6 187°89		2°1/20.1 18			422705	2000 <i>SQ</i> ₅₂	10 17.6 340°67		5°8/21.3 18		
9 8	1 52.35	+19 39.9	2.500	3.262	13.3	21.3	9 8	1 51.93	+21 41.0	1.113	1.931	23.1	20.0
9 18	1 48.91	+19 20.5	2.407	3.261	10.8	21.2	9 18	1 51.03	+22 19.0	1.036	1.920	19.5	19.7
9 28	1 43.70	+18 46.2	2.335	3.261	8.0	21.0	9 28	1 46.60	+22 30.9	0.974	1.910	15.0	19.4
10 8	1 37.19	+17 58.0	2.289	3.261	4.8	20.8	10 8	1 39.18	+22 13.5	0.930	1.902	10.1	19.1
10 18	1 30.00	+16 58.7	2.270	3.261	2.3	20.6	10 18	1 29.95	+21 26.9	0.908	1.894	6.2	18.9
10 28	1 22.89	+15 52.6	2.281	3.260	3.5	20.7	10 28	1 20.68	+20 17.3	0.908	1.888	7.2	18.9
11 7	1 16.60	+14 45.4	2.321	3.260	6.6	20.9	11 7	1 13.17	+18 57.0	0.930	1.882	11.9	19.1
11 17	1 11.74	+13 42.6	2.389	3.259	9.6	21.1	11 17	1 8.73	+17 39.4	0.973	1.879	16.9	19.4
472787	2015 <i>FH</i> ₁₅₀	10 17.6 96°11		2°2/15.9 18			408087	2012 <i>HY</i> ₅₆	10 17.6 252°25		0°5/16.9 18		
9 8	1 59.47	+ 6 4.0	1.65										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
485909	2012 <i>GE</i> ₃		10 17.6 181°79	0°7/16.9	18		192606	1999 <i>FE</i> ₄₂		10 17.6 257°67	0°8/18.6	18	
9 8	1 55.82	+ 8 5.5	2.594	3.388	12.0	21.7	9 8	1 53.60	+14 25.5	2.983	3.754	11.1	21.2
9 18	1 51.45	+ 7 56.5	2.505	3.388	9.4	21.6	9 18	1 49.67	+14 10.3	2.867	3.733	9.0	21.1
9 28	1 45.37	+ 7 40.6	2.440	3.388	6.5	21.4	9 28	1 44.18	+13 45.1	2.774	3.711	6.4	20.9
10 8	1 38.03	+ 7 20.0	2.402	3.388	3.2	21.2	10 8	1 37.48	+13 11.0	2.708	3.689	3.4	20.6
10 18	1 30.03	+ 6 57.6	2.392	3.388	0.8	21.0	10 18	1 30.08	+12 30.2	2.671	3.666	0.8	20.4
10 28	1 22.10	+ 6 36.6	2.413	3.388	3.9	21.2	10 28	1 22.62	+11 46.0	2.664	3.643	3.1	20.6
11 7	1 14.97	+ 6 20.6	2.463	3.387	7.1	21.4	11 7	1 15.76	+11 2.6	2.688	3.620	6.2	20.7
11 17	1 9.21	+ 6 12.2	2.540	3.386	10.0	21.6	11 17	1 10.07	+10 23.7	2.739	3.596	9.0	20.9
399179	2014 <i>FE</i> ₄₉		10 17.6 167°05	1°4/19.2	18		180809	2005 <i>EG</i> ₁₇₉		10 17.6 41°42	1°7/18.7	18	
9 8	1 56.00	+17 40.9	2.427	3.191	13.5	21.8	9 8	1 58.45	+14 32.9	1.123	1.953	22.2	20.2
9 18	1 51.76	+17 12.1	2.337	3.196	10.9	21.7	9 18	1 55.46	+14 39.7	1.071	1.970	17.8	19.9
9 28	1 45.66	+16 28.7	2.269	3.201	7.9	21.5	9 28	1 49.05	+14 26.0	1.036	1.988	12.6	19.7
10 8	1 38.19	+15 32.3	2.227	3.204	4.4	21.3	10 8	1 40.10	+13 53.9	1.022	2.006	6.8	19.5
10 18	1 30.03	+14 26.1	2.213	3.207	1.5	21.1	10 18	1 29.97	+13 8.5	1.030	2.026	1.8	19.2
10 28	1 21.99	+13 15.2	2.230	3.210	3.6	21.2	10 28	1 20.36	+12 18.2	1.064	2.046	5.8	19.6
11 7	1 14.86	+12 5.6	2.277	3.212	7.0	21.4	11 7	1 12.74	+11 32.7	1.121	2.066	11.2	19.9
11 17	1 9.26	+11 2.8	2.351	3.213	10.1	21.6	11 17	1 8.04	+10 59.3	1.199	2.087	15.8	20.3
419257	2009 <i>VK</i> ₈₅		10 17.6 349°46	1°8/16.1	16		94206	2001 <i>BS</i> ₂₆		10 17.6 268°65	3°8/21.5	18	
9 8	1 52.02	+ 6 38.4	1.830	2.657	15.0	21.5	9 8	1 54.87	+22 45.9	2.297	3.044	14.7	19.6
9 18	1 49.25	+ 6 12.7	1.749	2.651	11.8	21.2	9 18	1 51.20	+22 57.0	2.203	3.042	12.3	19.5
9 28	1 44.27	+ 5 37.7	1.688	2.645	8.0	21.0	9 28	1 45.48	+22 52.0	2.129	3.040	9.4	19.3
10 8	1 37.61	+ 4 57.3	1.652	2.641	4.0	20.8	10 8	1 38.19	+22 30.3	2.079	3.038	6.4	19.1
10 18	1 30.05	+ 4 16.4	1.643	2.637	2.0	20.6	10 18	1 30.05	+21 53.1	2.055	3.036	4.0	18.9
10 28	1 22.58	+ 3 40.8	1.661	2.633	5.6	20.9	10 28	1 21.95	+21 3.9	2.061	3.034	4.5	19.0
11 7	1 16.15	+ 3 15.8	1.705	2.631	9.6	21.1	11 7	1 14.78	+20 8.1	2.094	3.033	7.3	19.1
11 17	1 11.52	+ 3 4.9	1.773	2.629	13.2	21.3	11 17	1 9.25	+19 12.1	2.154	3.031	10.3	19.3
411960	2012 <i>HZ</i> ₃₇		10 17.6 209°33	0°4/18.1	17		292171	2006 <i>SR</i> ₁₂		10 17.6 347°29	1°5/18.7	18	
9 8	1 52.73	+13 29.9	2.857	3.635	11.4	22.3	9 8	1 48.97	+16 24.0	1.117	1.958	21.7	20.2
9 18	1 48.94	+13 5.4	2.759	3.631	9.1	22.1	9 18	1 48.37	+16 2.9	1.043	1.949	17.6	19.9
9 28	1 43.61	+12 30.8	2.685	3.626	6.3	21.9	9 28	1 44.52	+15 15.2	0.986	1.941	12.6	19.6
10 8	1 37.15	+11 47.7	2.637	3.621	3.3	21.7	10 8	1 38.04	+14 3.1	0.949	1.935	6.9	19.2
10 18	1 30.08	+10 59.2	2.619	3.615	0.4	21.5	10 18	1 30.07	+12 33.0	0.934	1.930	1.5	18.9
10 28	1 23.05	+10 9.0	2.631	3.609	3.2	21.7	10 28	1 22.19	+10 56.7	0.943	1.926	6.1	19.2
11 7	1 16.71	+ 9 21.5	2.673	3.603	6.3	21.9	11 7	1 15.96	+ 9 27.6	0.974	1.923	11.9	19.5
11 17	1 11.58	+ 8 40.3	2.742	3.596	9.1	22.1	11 17	1 12.49	+ 8 16.7	1.026	1.922	17.1	19.8
132467	2002 <i>JW</i> ₁		10 17.6 98°94	0°2/17.4	18		136853	1998 <i>DM</i> ₁₉		10 17.6 230°63	0°4/17.9	18	
9 8	1 57.74	+11 8.7	1.837	2.640	15.9	20.0	9 8	2 0.16	+12 29.2	1.714	2.513	17.0	21.4
9 18	1 53.62	+10 49.1	1.764	2.651	12.5	19.8	9 18	1 56.04	+12 19.3	1.621	2.504	13.7	21.1
9 28	1 47.16	+10 17.3	1.713	2.662	8.6	19.6	9 28	1 49.21	+11 55.1	1.548	2.495	9.6	20.9
10 8	1 39.00	+ 9 35.9	1.686	2.673	4.3	19.4	10 8	1 40.22	+11 18.4	1.500	2.485	5.0	20.6
10 18	1 30.01	+ 8 49.6	1.687	2.683	0.3	19.1	10 18	1 29.98	+10 32.7	1.478	2.474	0.4	20.2
10 28	1 21.24	+ 8 4.0	1.716	2.693	4.7	19.4	10 28	1 19.72	+ 9 44.3	1.484	2.463	5.1	20.5
11 7	1 13.69	+ 7 25.1	1.773	2.704	8.9	19.7	11 7	1 10.69	+ 9 0.2	1.517	2.451	9.9	20.8
11 17	1 8.09	+ 6 57.4	1.854	2.714	12.5	20.0	11 17	1 3.85	+ 8 26.5	1.575	2.439	14.1	21.0
480182	2015 <i>FC</i> ₃₃₁		10 17.6 194°88	1°3/18.7	16		98617	2000 <i>WQ</i> ₈₁		10 17.6 327°77	2°0/19.2	18	
9 8	1 59.37	+15 27.1	1.862	2.648	16.3	22.4	9 8	1 56.45	+16 10.4	1.560	2.362	18.3	19.0
9 18	1 55.11	+15 16.0	1.773	2.646	13.2	22.2	9 18	1 53.21	+16 12.8	1.485	2.366	14.8	18.8
9 28	1 48.36	+14 49.2	1.704	2.644	9.4	22.0	9 28	1 47.24	+15 57.6	1.429	2.371	10.6	18.5
10 8	1 39.69	+14 8.0	1.660	2.641	5.2	21.7	10 8	1 39.18	+15 25.8	1.396	2.377	6.0	18.3
10 18	1 29.97	+13 15.7	1.643	2.638	1.4	21.5	10 18	1 30.03	+14 40.9	1.388	2.382	2.1	18.0
10 28	1 20.33	+12 18.1	1.654	2.634	4.5	21.7	10 28	1 21.06	+13 49.0	1.407	2.388	4.9	18.2
11 7	1 11.86	+11 22.3	1.693	2.629	8.9	21.9	11 7	1 13.48	+12 58.1	1.452	2.395	9.4	18.5
11 17	1 5.43	+10 34.7	1.758	2.624	12.7	22.2	11 17	1 8.17	+12 15.0	1.521	2.401	13.6	18.8
27604	2001 <i>FY</i> ₁₇₄		10 17.6 194°66	4°7/13.6	18		446465	2014 <i>JA</i> ₇₄		10 17.6 100°34	0°1/17.7	16	
9 8	1 57.99	+ 0 51.8	1.730	2.558	15.7	19.8	9 8	1 54.69	+12 45.7	1.974	2.774	15.1	21.6
9 18	1 54.01	+ 0 13.4	1.654	2.557	12.3	19.6	9 18	1 51.15	+12 17.5	1.893	2.777	12.0	21.4
9 28	1 47.56	+ 0 25.5	1.601	2.555	8.6	19.3	9 28	1 45.47	+11 35.8	1.833	2.780	8.3	21.2
10 8	1 39.26	+ 0 37.7	1.572	2.553	5.4	19.2	10 8	1 38.18	+10 43.3	1.798	2.784	4.2	21.0
10 18	1 29.99	+ 0 42.2	1.571	2.551	5.2	19.1	10 18	1 30.07	+ 9 44.3	1.791	2.787	0.2	20.6
10 28	1 20.89	+ 0 31.4	1.597	2.548	8.2	19.3	10 28	1 22.11	+ 8 45.0	1.812	2.790	4.4	21.0
11 7	1 13.02	+ 0 5.3	1.649	2.544	11.9	19.5	11 7	1 15.21	+ 7 51.6	1.861	2.794	8.4	21.3
11 17	1 7.18	+ 0 6.8	1.723	2.541	15.3	19.7	11 17	1 10.07	+ 7 9.2	1.936	2.797	12.0	21.5
291728	2006 <i>JD</i> ₃₈		10 17.6 89°60	0°3/17.9	18		65348	2002 <i>NU</i> ₂₅		10 17.6 47°79	2°3/19.3	18	
9 8	1 54.85	+15 7.1	1.837	2.633	16.1	20.7	9 8	1 59.04	+17 11.5	1.141	1.961	22.6	19.0
9 18	1 51.31	+14 14.3	1.766	2.648	12.8	20.5	9 18	1 55.74	+17 5.9	1.096	1.987	18.1	18.8
9 28	1 45.55	+13 4.1	1.716	2.662	8.9	20.3	9 28	1 49.08	+16 36.6	1.068	2.014	12.9	18.6
10 8	1 38.17	+11 40.2	1.691	2.676	4.5	20.1	10 8	1 40.04	+15 46.0	1.060	2.042	7.2	18.4
10 18	1 30.04	+10 8.9	1.694	2.690	0.3	19.8	10 18	1 30.00	+14 40.2	1.075	2.070	2.4	18.2
10 28	1 22.19	+ 8 38.1	1.725	2.704	4.6	20.1	10 28	1 20.63	+13 29.1	1.116	2.098	5.6	18.5
11 7	1 15.54	+ 7 16.0	1.785	2.718	8.7	20.4	11 7	1 13.28	+12 23.4	1.181	2.127	10.7	18.9
11 17	1 10.77	+ 6 8.6	1.870	2.731	12.3	20.7	11 17	1 8.80	+11 31.2	1.268	2.156	15.2	19.2
395696	2012 <i>BB</i> ₂₇		10 17.6 322°04	2°6/13.4	18		28511	Marggraff		10 17.6 227°13	1°0/16.8	18	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
330602	2008 <i>DL</i> ₃₂		10 17.6 288°38	3°9/14.7	18		396636	2001 <i>VQ</i> ₇₆		10 17.6 211°53	9°7/26.3	17	
9 8	1 55.08	+ 4 59.0	1.423	2.264	17.8	21.1	9 8	1 59.20	+35 44.6	1.381	2.098	24.0	20.8
9 18	1 52.49	+ 3 59.1	1.337	2.248	14.1	20.8	9 18	1 56.57	+35 59.1	1.294	2.094	21.3	20.6
9 28	1 47.01	+ 2 45.4	1.272	2.232	9.7	20.5	9 28	1 50.27	+35 36.8	1.220	2.091	17.9	20.4
10 8	1 39.20	+ 1 24.4	1.229	2.216	5.3	20.2	10 8	1 40.98	+34 30.8	1.163	2.086	14.1	20.1
10 18	1 30.03	+ 0 5.2	1.212	2.201	4.3	20.1	10 18	1 29.99	+32 38.6	1.128	2.082	10.8	19.9
10 28	1 20.84	- 1 2.0	1.221	2.185	8.4	20.3	10 28	1 19.15	+30 6.2	1.117	2.076	9.7	19.9
11 7	1 12.98	- 1 48.7	1.253	2.170	13.1	20.5	11 7	1 10.23	+27 8.9	1.131	2.071	11.8	20.0
11 17	1 7.49	- 2 10.3	1.307	2.155	17.5	20.8	11 17	1 4.45	+24 6.3	1.170	2.065	15.6	20.2
241463	2008 <i>YQ</i> ₁₅₈		10 17.6 89°67	1°5/16.3	18		108470	2001 <i>KX</i> ₅₆		10 17.6 31°29	11°2/10.4	18	
9 8	1 55.16	+ 8 38.8	1.837	2.653	15.4	21.4	9 8	1 59.77	-16 16.7	1.468	2.304	17.6	18.7
9 18	1 51.63	+ 7 58.8	1.761	2.657	12.1	21.2	9 18	1 55.58	-17 23.1	1.426	2.315	14.8	18.5
9 28	1 45.85	+ 7 7.2	1.707	2.661	8.2	21.0	9 28	1 48.63	-18 17.4	1.405	2.327	12.5	18.4
10 8	1 38.39	+ 6 8.1	1.677	2.665	4.0	20.7	10 8	1 39.74	-18 49.9	1.405	2.339	11.2	18.4
10 18	1 30.08	+ 5 7.3	1.675	2.670	1.7	20.6	10 18	1 30.06	-18 53.2	1.428	2.353	11.7	18.4
10 28	1 21.94	+ 4 11.4	1.701	2.674	5.5	20.8	10 28	1 20.91	-18 24.0	1.475	2.367	13.5	18.6
11 7	1 14.95	+ 3 26.5	1.754	2.678	9.5	21.1	11 7	1 13.41	-17 23.9	1.543	2.381	15.9	18.8
11 17	1 9.83	+ 2 56.6	1.831	2.682	13.1	21.3	11 17	1 8.28	-15 57.7	1.631	2.396	18.2	19.0
395023	2009 <i>CO</i> ₃₂		10 17.6 163°63	3°1/14.3	18		220200	2002 <i>VU</i> ₂₃		10 17.6 6°12	2°1/19.0	18	
9 8	1 55.37	+ 2 42.7	2.310	3.123	12.7	21.9	9 8	1 52.17	+15 40.0	1.129	1.966	21.7	19.6
9 18	1 51.25	+ 1 47.2	2.233	3.128	9.9	21.8	9 18	1 50.80	+15 43.6	1.063	1.966	17.6	19.3
9 28	1 45.31	+ 0 45.6	2.179	3.132	6.8	21.6	9 28	1 46.12	+15 24.9	1.014	1.967	12.6	19.0
10 8	1 38.03	- 0 17.2	2.152	3.136	3.9	21.4	10 8	1 38.82	+14 45.3	0.985	1.969	7.1	18.8
10 18	1 30.10	- 1 15.8	2.155	3.139	3.4	21.4	10 18	1 30.11	+13 49.4	0.977	1.972	2.1	18.5
10 28	1 22.31	- 2 4.9	2.186	3.141	6.0	21.6	10 28	1 21.61	+12 46.4	0.994	1.977	5.9	18.7
11 7	1 15.43	- 2 40.3	2.246	3.144	9.0	21.8	11 7	1 14.85	+11 47.1	1.034	1.983	11.4	19.1
11 17	1 10.05	- 2 59.7	2.330	3.145	11.8	21.9	11 17	1 10.88	+11 0.5	1.095	1.990	16.3	19.4
38049	1998 <i>VY</i> ₆		10 17.6 253°70	6°9/15.4	18		119162	2001 <i>QD</i> ₂₆		10 17.6 17°79	3°2/15.8	18	
9 8	2 15.69	- 6 29.0	1.220	2.045	21.1	19.0	9 8	1 53.48	+ 4 58.1	1.011	1.878	21.4	19.1
9 18	2 9.42	- 6 20.8	1.142	2.037	17.2	18.7	9 18	1 51.79	+ 4 36.7	0.962	1.887	16.8	18.9
9 28	1 59.08	- 6 6.5	1.083	2.030	12.7	18.5	9 28	1 46.68	+ 4 4.1	0.930	1.897	11.5	18.6
10 8	1 45.39	- 5 38.6	1.045	2.022	8.3	18.2	10 8	1 39.00	+ 3 26.9	0.919	1.908	5.9	18.4
10 18	1 29.79	- 4 51.0	1.033	2.014	7.1	18.1	10 18	1 30.11	+ 2 53.4	0.929	1.922	3.5	18.3
10 28	1 14.35	- 3 40.8	1.048	2.005	10.6	18.3	10 28	1 21.68	+ 2 31.9	0.962	1.937	8.1	18.6
11 7	1 1.03	- 2 9.4	1.088	1.997	15.4	18.5	11 7	1 15.19	+ 2 28.3	1.017	1.953	13.3	19.0
11 17	0 51.20	- 0 21.4	1.150	1.988	20.0	18.8	11 17	1 11.55	+ 2 44.8	1.092	1.971	17.8	19.3
183769	2004 <i>BF</i> ₅		10 17.6 180°47	4°0/21.3	18		260423	2004 <i>XV</i> ₇₉		10 17.6 341°97	1°0/16.8	18	
9 8	1 58.09	+22 15.1	2.166	2.914	15.4	20.5	9 8	1 52.52	+ 8 35.4	1.821	2.642	15.3	20.0
9 18	1 53.87	+22 34.9	2.075	2.915	12.9	20.3	9 18	1 49.74	+ 8 17.3	1.735	2.633	12.1	19.7
9 28	1 47.40	+22 38.6	2.003	2.915	9.9	20.1	9 28	1 44.70	+ 7 48.6	1.670	2.625	8.3	19.5
10 8	1 39.20	+22 25.3	1.955	2.915	6.6	19.9	10 8	1 37.91	+ 7 12.4	1.629	2.617	4.1	19.2
10 18	1 30.05	+21 55.6	1.934	2.915	4.2	19.7	10 18	1 30.16	+ 6 33.3	1.615	2.611	1.2	19.0
10 28	1 20.94	+21 13.0	1.941	2.914	4.8	19.8	10 28	1 22.46	+ 5 56.8	1.628	2.604	5.2	19.3
11 7	1 12.87	+20 23.2	1.977	2.914	7.7	20.0	11 7	1 15.80	+ 5 28.5	1.668	2.599	9.4	19.5
11 17	1 6.60	+19 32.5	2.038	2.913	10.9	20.1	11 17	1 10.97	+ 5 12.7	1.732	2.594	13.1	19.7
508396	2016 <i>GO</i> ₁₇₄		10 17.6 45°13	4°8/15.2	17		448103	2008 <i>KQ</i> ₃₃		10 17.6 64°69	5°1/12.5	18	
9 8	2 2.05	+ 0 56.3	1.066	1.921	21.5	20.8	9 8	1 53.94	- 3 7.0	2.096	2.925	13.3	21.2
9 18	1 58.23	+ 0 31.9	1.021	1.937	16.9	20.6	9 18	1 50.29	- 4 8.4	2.031	2.933	10.4	21.0
9 28	1 50.89	+ 0 2.2	0.993	1.955	11.6	20.4	9 28	1 44.72	- 5 11.6	1.990	2.940	7.6	20.9
10 8	1 40.99	- 0 25.5	0.986	1.972	6.6	20.1	10 8	1 37.77	- 6 10.4	1.975	2.948	5.4	20.8
10 18	1 29.99	- 0 43.2	1.003	1.991	5.1	20.1	10 18	1 30.17	- 6 58.8	1.987	2.956	5.5	20.8
10 28	1 19.65	- 0 44.5	1.043	2.010	9.1	20.4	10 28	1 22.77	- 7 31.7	2.027	2.964	7.7	20.9
11 7	1 11.45	- 0 26.1	1.107	2.029	13.8	20.7	11 7	1 16.37	- 7 45.9	2.093	2.972	10.5	21.1
11 17	1 6.27	+ 0 12.0	1.190	2.049	18.0	21.1	11 17	1 11.57	- 7 40.9	2.182	2.980	13.1	21.3
474497	2003 <i>UU</i> ₃₂		10 17.6 67°33	0°8/17.1	18		51028	2000 <i>GT</i> ₁₁₃		10 17.6 18°56	3°7/20.8	18	
9 8	2 3.23	+ 7 17.2	1.653	2.463	17.1	20.9	9 8	1 50.62	+21 27.1	1.390	2.191	20.1	17.3
9 18	1 58.04	+ 7 25.8	1.592	2.483	13.4	20.7	9 18	1 48.95	+21 19.1	1.323	2.199	16.6	17.1
9 28	1 50.24	+ 7 26.2	1.551	2.502	9.2	20.5	9 28	1 44.46	+20 45.7	1.274	2.208	12.3	16.9
10 8	1 40.56	+ 7 20.8	1.535	2.522	4.5	20.2	10 8	1 37.85	+19 47.9	1.245	2.219	7.7	16.7
10 18	1 30.01	+ 7 13.0	1.547	2.542	0.9	20.0	10 18	1 30.17	+18 29.8	1.240	2.230	4.0	16.5
10 28	1 19.85	+ 7 7.2	1.586	2.562	5.3	20.4	10 28	1 22.75	+17 0.2	1.261	2.243	5.3	16.6
11 7	1 11.19	+ 7 7.3	1.653	2.582	9.6	20.7	11 7	1 16.82	+15 30.0	1.307	2.256	9.6	16.9
11 17	1 4.79	+ 7 16.4	1.744	2.602	13.2	21.0	11 17	1 13.23	+14 9.3	1.377	2.271	13.7	17.2
441620	2008 <i>UQ</i> ₃₄₅		10 17.6 298°36	9°9/ 9.0	18		407136	2009 <i>SD</i> ₃₆₃		10 17.6 6°13	3°8/20.6	15	
9 8	1 56.65	-12 32.8	1.677	2.514	15.7	20.8	9 8	1 54.00	+19 0.8	1.632	2.424	18.0	20.6
9 18	1 53.30	-13 56.7	1.598	2.492	13.2	20.6	9 18	1 51.30	+19 34.2	1.554	2.425	14.8	20.4
9 28	1 47.33	-15 17.1	1.540	2.470	11.0	20.4	9 28	1 45.98	+19 50.5	1.496	2.427	11.1	20.2
10 8	1 39.28	-16 24.2	1.505	2.448	9.9	20.3	10 8	1 38.62	+19 49.0	1.459	2.430	7.1	20.0
10 18	1 30.06	-17 8.4	1.495	2.426	10.6	20.3	10 18	1 30.15	+19 30.8	1.447	2.434	4.0	19.8
10 28	1 20.84	-17 22.4	1.508	2.405	12.9	20.4	10 28	1 21.76	+18 59.8	1.461	2.440	5.2	19.9
11 7	1 12.83	-17 3.7	1.544	2.383	15.8	20.5	11 7	1 14.66	+18 22.8	1.501	2.446	9.0	20.1
11 17	1 6.93	-16 13.8	1.599	2.362	18.6	20.6	11 17	1 9.72	+17 46.7	1.565	2.453	12.8	20.4
317842	2003 <i>SM</i> ₄₂₃		10 17.6 329°09	0°2/17.5	18		17015	1999 <i>CN</i> ₁₁₇		10 17.6 123°80			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
121468	Msovinskihaskell		10 17.6 318°52	3°3/14.1	18		60371	2000 AN ₁₃₉		10 17.6 321°22	3°8/14.9	18	
9 8	1 48.89	+ 6 36.5	1.803	2.637	14.9	19.4	9 8	1 54.88	+ 4 56.5	1.357	2.201	18.3	18.3
9 18	1 46.99	+ 5 12.5	1.706	2.614	11.7	19.2	9 18	1 52.35	+ 4 1.1	1.282	2.195	14.4	18.1
9 28	1 42.89	+ 3 33.0	1.632	2.592	8.0	18.9	9 28	1 46.90	+ 2 53.0	1.227	2.188	9.9	17.8
10 8	1 37.05	+ 1 44.4	1.583	2.570	4.4	18.6	10 8	1 39.16	+ 1 38.9	1.194	2.182	5.4	17.5
10 18	1 30.21	- 0 4.9	1.560	2.548	3.8	18.6	10 18	1 30.17	+ 0 27.8	1.187	2.176	4.2	17.4
10 28	1 23.32	- 1 45.0	1.566	2.527	7.3	18.7	10 28	1 21.30	- 0 30.5	1.204	2.171	8.2	17.7
11 7	1 17.39	- 3 7.1	1.598	2.507	11.3	18.9	11 7	1 13.87	- 1 8.4	1.246	2.165	12.9	17.9
11 17	1 13.21	- 4 5.8	1.653	2.487	15.0	19.1	11 17	1 8.87	- 1 22.1	1.309	2.161	17.2	18.2
487973	2015 TE ₃₀₅		10 17.6 324°19	5°1/12.5	17		167354	2003 WE ₂₈		10 17.6 306°28	1°6/18.9	18	
9 8	1 51.48	- 0 41.5	1.917	2.754	14.0	21.4	9 8	1 56.01	+ 15 17.8	1.784	2.579	16.6	20.2
9 18	1 48.72	- 1 56.7	1.839	2.746	11.0	21.2	9 18	1 52.65	+ 15 15.8	1.696	2.574	13.4	20.0
9 28	1 43.87	- 3 17.9	1.783	2.738	7.9	21.0	9 28	1 46.81	+ 14 58.4	1.627	2.569	9.6	19.7
10 8	1 37.45	- 4 37.9	1.753	2.731	5.4	20.8	10 8	1 39.03	+ 14 26.7	1.583	2.564	5.4	19.5
10 18	1 30.20	- 5 49.3	1.750	2.724	5.6	20.8	10 18	1 30.18	+ 13 43.7	1.564	2.559	1.6	19.2
10 28	1 23.03	- 6 44.8	1.774	2.717	8.2	21.0	10 28	1 21.37	+ 12 55.0	1.573	2.554	4.6	19.4
11 7	1 16.85	- 7 19.7	1.824	2.710	11.4	21.2	11 7	1 13.71	+ 12 7.1	1.610	2.549	8.9	19.7
11 17	1 12.36	- 7 32.0	1.895	2.704	14.4	21.4	11 17	1 8.06	+ 11 26.7	1.671	2.545	12.9	19.9
104446	2000 GT ₄		10 17.6 54°36	13°1/14.7	16		389024	2008 UK ₂₇₄		10 17.6 214°20	2°2/15.9	18	
9 8	2 20.47	- 18 13.1	1.046	1.869	23.9	18.6	9 8	2 0.09	+ 4 27.6	1.881	2.694	15.2	21.8
9 18	2 13.17	- 18 27.6	0.995	1.876	20.3	18.4	9 18	1 55.56	+ 4 12.5	1.797	2.691	12.0	21.5
9 28	2 1.40	- 18 22.0	0.960	1.884	16.6	18.2	9 28	1 48.63	+ 3 50.9	1.735	2.688	8.2	21.3
10 8	1 46.32	- 17 43.5	0.945	1.891	13.8	18.1	10 8	1 39.88	+ 3 26.3	1.699	2.685	4.2	21.1
10 18	1 29.87	- 16 24.4	0.953	1.899	13.3	18.1	10 18	1 30.15	+ 3 3.1	1.690	2.682	2.4	20.9
10 28	1 14.40	- 14 25.0	0.985	1.907	15.4	18.2	10 28	1 20.52	+ 2 46.2	1.709	2.678	5.9	21.2
11 7	1 1.87	- 11 53.9	1.039	1.916	18.9	18.5	11 7	1 12.03	+ 2 39.8	1.756	2.675	9.8	21.4
11 17	0 53.32	- 9 3.1	1.114	1.924	22.3	18.7	11 17	1 5.50	+ 2 46.3	1.828	2.671	13.4	21.6
153675	2001 TG ₁₉₀		10 17.6 307°31	0°8/18.2	18		298172	2002 TV ₁₅₄		10 17.6 347°27	2°9/20.4	18	
9 8	1 58.76	+ 11 54.9	1.546	2.357	18.0	19.9	9 8	1 47.86	+ 21 49.5	1.448	2.249	19.5	19.4
9 18	1 55.25	+ 12 6.5	1.459	2.348	14.5	19.7	9 18	1 46.83	+ 21 13.2	1.363	2.240	16.1	19.2
9 28	1 48.86	+ 12 5.2	1.391	2.340	10.2	19.4	9 28	1 43.10	+ 20 8.2	1.295	2.233	12.0	18.9
10 8	1 40.15	+ 11 52.1	1.346	2.331	5.4	19.1	10 8	1 37.26	+ 18 35.8	1.250	2.226	7.3	18.7
10 18	1 30.09	+ 11 30.0	1.327	2.323	0.8	18.8	10 18	1 30.25	+ 16 41.3	1.228	2.220	3.2	18.4
10 28	1 20.02	+ 11 4.0	1.335	2.315	5.3	19.1	10 28	1 23.32	+ 14 35.0	1.233	2.216	5.1	18.5
11 7	1 11.27	+ 10 40.6	1.368	2.307	10.2	19.4	11 7	1 17.73	+ 12 30.2	1.264	2.212	9.8	18.8
11 17	1 4.88	+ 10 25.5	1.425	2.300	14.6	19.6	11 17	1 14.36	+ 10 38.8	1.318	2.210	14.4	19.0
289531	2005 EE ₂₀₀		10 17.6 221°25	1°4/18.7	18		507104	2009 JX ₅		10 17.6 131°05	3°0/15.5	17	
9 8	1 59.23	+ 15 17.3	1.679	2.473	17.5	21.8	9 8	2 2.49	+ 4 7.1	1.613	2.432	17.0	21.6
9 18	1 55.38	+ 15 7.3	1.590	2.467	14.2	21.6	9 18	1 57.64	+ 3 35.1	1.546	2.443	13.4	21.4
9 28	1 48.80	+ 14 40.2	1.519	2.461	10.1	21.3	9 28	1 50.11	+ 2 55.2	1.499	2.453	9.1	21.1
10 8	1 40.06	+ 13 57.2	1.472	2.454	5.6	21.0	10 8	1 40.60	+ 2 12.4	1.477	2.463	4.8	20.9
10 18	1 30.10	+ 13 2.0	1.452	2.447	1.4	20.7	10 18	1 30.13	+ 1 33.0	1.482	2.472	3.2	20.8
10 28	1 20.17	+ 12 0.9	1.460	2.440	4.9	21.0	10 28	1 19.96	+ 1 3.3	1.514	2.481	6.8	21.1
11 7	1 11.51	+ 11 2.0	1.494	2.432	9.6	21.2	11 7	1 11.26	+ 0 48.0	1.573	2.489	11.0	21.4
11 17	1 5.07	+ 10 12.5	1.553	2.423	13.9	21.5	11 17	1 4.84	+ 0 49.5	1.656	2.496	14.7	21.6
378229	2007 BO ₅₅		10 17.6 297°26	0°6/17.3	18		478164	2011 UE ₁₇₆		10 17.6 193°68	2°4/20.4	18	
9 8	1 57.02	+ 9 56.9	1.468	2.292	18.2	21.5	9 8	1 55.42	+ 20 23.0	2.495	3.247	13.5	21.6
9 18	1 54.12	+ 9 47.6	1.374	2.273	14.6	21.2	9 18	1 51.40	+ 20 6.9	2.398	3.245	11.1	21.4
9 28	1 48.26	+ 9 24.4	1.300	2.255	10.2	20.9	9 28	1 45.52	+ 19 35.4	2.322	3.243	8.2	21.3
10 8	1 39.94	+ 8 49.7	1.248	2.236	5.1	20.6	10 8	1 38.25	+ 18 49.3	2.271	3.240	5.1	21.1
10 18	1 30.10	+ 8 8.2	1.221	2.217	0.7	20.2	10 18	1 30.23	+ 17 50.9	2.248	3.237	2.5	20.9
10 28	1 20.13	+ 7 26.9	1.221	2.199	6.0	20.5	10 28	1 22.27	+ 16 44.5	2.255	3.233	3.7	21.0
11 7	1 11.44	+ 6 53.3	1.245	2.181	11.3	20.8	11 7	1 15.16	+ 15 35.9	2.292	3.229	6.8	21.2
11 17	1 5.16	+ 6 33.5	1.292	2.164	16.1	21.0	11 17	1 9.55	+ 14 30.9	2.356	3.224	9.8	21.3
72828	2001 HG ₁₀		10 17.6 131°19	1°4/19.6	18		402823	2007 EF ₁₄₆		10 17.6 43°11	0°1/17.8	18	
9 8	1 52.03	+ 19 35.8	2.617	3.376	12.8	19.3	9 8	1 56.21	+ 10 49.2	2.092	2.891	14.3	21.0
9 18	1 48.54	+ 18 46.4	2.527	3.382	10.4	19.1	9 18	1 52.24	+ 10 46.4	2.011	2.895	11.4	20.8
9 28	1 43.41	+ 17 41.3	2.459	3.388	7.5	18.9	9 28	1 46.19	+ 10 33.6	1.953	2.900	7.9	20.6
10 8	1 37.11	+ 16 22.5	2.417	3.393	4.3	18.8	10 8	1 38.60	+ 10 12.9	1.919	2.905	4.0	20.4
10 18	1 30.23	+ 14 53.7	2.405	3.399	1.6	18.6	10 18	1 30.21	+ 9 47.3	1.913	2.910	0.2	20.1
10 28	1 23.48	+ 13 20.7	2.424	3.404	3.3	18.7	10 28	1 21.95	+ 9 21.0	1.936	2.915	4.2	20.4
11 7	1 17.55	+ 11 49.7	2.473	3.409	6.4	18.9	11 7	1 14.70	+ 8 58.6	1.988	2.920	8.0	20.7
11 17	1 12.97	+ 10 26.4	2.550	3.414	9.3	19.1	11 17	1 9.15	+ 8 43.7	2.064	2.926	11.3	20.9
231284	2006 BL ₅₇		10 17.6 144°79	0°5/18.1	18		323729	2005 JQ ₁₈₃		10 17.6 100°03	1°2/16.7	17	
9 8	1 59.22	+ 13 5.6	2.133	2.917	14.6	21.5	9 8	1 59.98	+ 10 25.4	1.631	2.440	17.3	21.3
9 18	1 54.52	+ 12 51.6	2.053	2.926	11.6	21.3	9 18	1 55.52	+ 9 37.0	1.570	2.462	13.6	21.1
9 28	1 47.69	+ 12 25.4	1.994	2.936	8.1	21.1	9 28	1 48.54	+ 8 34.4	1.531	2.483	9.2	20.9
10 8	1 39.31	+ 11 49.2	1.961	2.944	4.2	20.9	10 8	1 39.75	+ 7 22.7	1.516	2.504	4.5	20.7
10 18	1 30.15	+ 11 6.2	1.956	2.952	0.5	20.6	10 18	1 30.18	+ 6 8.5	1.528	2.524	1.4	20.5
10 28	1 21.16	+ 10 21.3	1.982	2.960	4.1	20.9	10 28	1 21.01	+ 5 0.0	1.569	2.543	5.6	20.9
11 7	1 13.24	+ 9 39.9	2.035	2.967	7.9	21.2	11 7	1 13.29	+ 4 4.2	1.637	2.562	9.9	21.2
11 17	1 7.08	+ 9 6.6	2.116	2.973	11.2	21.4	11 17	1 7.76	+ 3 25.4	1.729	2.581	13.6	21.4
209103	2003 SW ₇₄		10 17.6 6°00	1°5/18.7	18		327167	2005 JM ₄₇		10 17.6 61°08	1°0/16.9	15	
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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
454226	2013 <i>JQ</i> ₃₆		10 17.6	64°96'	3°3'/13.6	18	3666	Holman		10 17.7	215°29'	1°0'/16.6	18
9 8	1 51.51	+ 4 21.0	2.178	3.000	13.1	21.0	9 8	1 53.71	+ 8 27.8	2.678	3.474	11.6	17.8
9 18	1 48.29	+ 2 51.8	2.115	3.016	10.1	20.9	9 18	1 49.84	+ 7 58.5	2.584	3.469	9.1	17.6
9 28	1 43.30	+ 1 14.7	2.077	3.033	6.9	20.7	9 28	1 44.35	+ 7 21.2	2.514	3.463	6.2	17.4
10 8	1 37.07	- 0 24.1	2.065	3.049	4.0	20.6	10 8	1 37.65	+ 6 38.6	2.470	3.457	3.1	17.2
10 18	1 30.28	- 1 57.5	2.083	3.065	3.7	20.6	10 18	1 30.30	+ 5 54.1	2.456	3.451	1.1	17.0
10 28	1 23.70	- 3 18.6	2.129	3.082	6.3	20.8	10 28	1 23.01	+ 5 11.9	2.473	3.445	4.0	17.2
11 7	1 18.06	- 4 22.4	2.204	3.098	9.4	21.0	11 7	1 16.43	+ 4 36.0	2.518	3.438	7.1	17.4
11 17	1 13.91	- 5 6.4	2.302	3.115	12.1	21.2	11 17	1 11.14	+ 4 9.6	2.589	3.431	10.0	17.6
223181	2003 <i>AO</i> ₁₈		10 17.6	309°19'	4°5'/14.6	18	433948	1996 <i>AF</i> ₇		10 17.7	265°45'	4°7'/21.1	18
9 8	1 57.43	+ 1 23.3	1.452	2.293	17.5	20.0	9 8	1 59.13	+21 48.7	1.710	2.477	18.3	21.9
9 18	1 54.20	+ 0 43.5	1.375	2.284	13.9	19.8	9 18	1 55.58	+22 15.7	1.611	2.464	15.3	21.6
9 28	1 48.12	- 0 3 5	1.317	2.275	9.7	19.5	9 28	1 49.18	+22 24.0	1.531	2.450	11.8	21.4
10 8	1 39.77	- 0 51.2	1.282	2.266	5.7	19.3	10 8	1 40.42	+22 11.3	1.472	2.436	7.9	21.1
10 18	1 30.18	- 1 32.1	1.272	2.258	4.9	19.2	10 18	1 30.20	+21 37.7	1.439	2.422	4.9	20.9
10 28	1 20.66	- 1 58.5	1.288	2.250	8.4	19.4	10 28	1 19.84	+20 46.8	1.432	2.408	5.8	20.9
11 7	1 12.54	- 2 5 2	1.329	2.242	12.8	19.6	11 7	1 10.69	+19 46.2	1.452	2.393	9.6	21.1
11 17	1 6.79	- 1 50.3	1.391	2.235	16.8	19.9	11 17	1 3.84	+18 44.7	1.496	2.378	13.6	21.3
164763	1998 <i>WH</i> ₂₉		10 17.6	218°88'	0°7'/17.0	18	520673	2014 <i>QO</i> ₄₅₆		10 17.7	39°27'	0°3'/17.3	18
9 8	1 56.84	+ 9 18.8	2.001	2.805	14.7	20.7	9 8	1 51.60	+12 19.0	2.177	2.978	13.8	20.9
9 18	1 52.89	+ 9 0 3	1.915	2.803	11.6	20.5	9 18	1 48.54	+11 34.3	2.096	2.982	10.9	20.8
9 28	1 46.74	+ 8 31.4	1.850	2.800	8.0	20.2	9 28	1 43.61	+10 36.7	2.038	2.987	7.5	20.6
10 8	1 38.93	+ 7 54.9	1.811	2.798	4.0	20.0	10 8	1 37.31	+ 9 29.5	2.005	2.992	3.7	20.3
10 18	1 30.21	+ 7 15.0	1.799	2.795	0.8	19.7	10 18	1 30.33	+ 8 17.6	2.001	2.997	0.5	20.1
10 28	1 21.58	+ 6 36.8	1.816	2.792	4.8	20.0	10 28	1 23.48	+ 7 7.1	2.026	3.002	4.2	20.4
11 7	1 13.99	+ 6 5 5	1.861	2.789	8.8	20.3	11 7	1 17.55	+ 6 4 1	2.079	3.008	7.9	20.6
11 17	1 8.17	+ 5 45.2	1.931	2.786	12.3	20.5	11 17	1 13.15	+ 5 13.1	2.157	3.014	11.1	20.9
120134	2003 <i>GP</i> ₆		10 17.6	216°73'	2°8'/15.0	18	342343	2008 <i>TV</i> ₁₃₇		10 17.7	341°49'	1°5'/16.6	18
9 8	1 57.14	+ 4 53.0	1.984	2.799	14.4	20.4	9 8	1 47.63	+ 9 40.4	1.167	2.024	19.8	19.9
9 18	1 53.14	+ 4 2 2	1.896	2.792	11.3	20.2	9 18	1 47.21	+ 9 10.4	1.088	2.007	15.8	19.6
9 28	1 46.93	+ 3 2 2	1.831	2.785	7.8	20.0	9 28	1 43.74	+ 8 21.8	1.026	1.991	10.9	19.2
10 8	1 39.03	+ 1 57.8	1.792	2.778	4.2	19.8	10 8	1 37.77	+ 7 19.0	0.985	1.976	5.4	18.9
10 18	1 30.21	+ 0 55.1	1.781	2.770	3.1	19.7	10 18	1 30.30	+ 6 9.7	0.967	1.963	1.8	18.6
10 28	1 21.46	+ 0 0 8	1.798	2.761	6.3	19.9	10 28	1 22.82	+ 5 4 7	0.972	1.951	7.1	18.9
11 7	1 13.74	- 0 39.6	1.843	2.752	10.0	20.1	11 7	1 16.80	+ 4 14.2	1.000	1.941	12.8	19.2
11 17	1 7.80	- 1 2 7	1.912	2.743	13.5	20.3	11 17	1 13.35	+ 3 45.4	1.048	1.933	17.8	19.5
6301	1989 <i>BR</i> ₁		10 17.6	107°79'	0°0'/17.7	18	228965	2003 <i>UC</i> ₁₄₃		10 17.7	359°38'	2°4'/19.8	18
9 8	1 54.59	+11 46.3	2.572	3.358	12.3	17.6	9 8	1 52.75	+17 28.5	1.906	2.695	15.9	19.9
9 18	1 50.47	+11 24.9	2.495	3.372	9.7	17.5	9 18	1 49.91	+17 33.4	1.822	2.694	12.9	19.7
9 28	1 44.71	+10 53.9	2.441	3.386	6.7	17.3	9 28	1 44.83	+17 22.7	1.757	2.692	9.5	19.5
10 8	1 37.77	+10 15.7	2.414	3.399	3.4	17.1	10 8	1 38.03	+16 57.2	1.715	2.692	5.6	19.3
10 18	1 30.26	+ 9 33.5	2.416	3.412	0.1	16.8	10 18	1 30.30	+16 19.1	1.700	2.692	2.5	19.1
10 28	1 22.91	+ 8 51.2	2.448	3.425	3.5	17.2	10 28	1 22.64	+15 33.3	1.712	2.693	4.3	19.2
11 7	1 16.40	+ 8 13.2	2.509	3.438	6.7	17.4	11 7	1 16.03	+14 46.0	1.751	2.694	8.1	19.4
11 17	1 11.26	+ 7 42.9	2.597	3.450	9.6	17.6	11 17	1 11.25	+14 3 2	1.816	2.696	11.7	19.7
174143	2002 <i>NX</i> ₆₁		10 17.6	1°24'	5°6'/21.1	18	305063	2007 <i>UQ</i> ₈₃		10 17.7	113°46'	2°1'/19.8	18
9 8	1 53.55	+19 55.6	1.250	2.061	21.4	18.8	9 8	1 54.47	+19 30.8	1.957	2.732	16.0	21.1
9 18	1 51.85	+20 55.5	1.178	2.058	17.9	18.6	9 18	1 51.14	+19 2 4	1.872	2.736	13.0	20.9
9 28	1 46.91	+21 35.4	1.123	2.057	13.7	18.3	9 28	1 45.58	+18 14.9	1.808	2.740	9.5	20.7
10 8	1 39.31	+21 52.5	1.087	2.057	9.2	18.1	10 8	1 38.36	+17 9 9	1.769	2.744	5.6	20.5
10 18	1 30.19	+21 46.2	1.074	2.059	5.9	17.9	10 18	1 30.30	+15 51.3	1.756	2.748	2.3	20.3
10 28	1 21.14	+21 20.4	1.084	2.062	6.8	18.0	10 28	1 22.39	+14 25.8	1.772	2.752	4.2	20.4
11 7	1 13.71	+20 43.2	1.118	2.067	10.8	18.2	11 7	1 15.58	+13 1 3	1.816	2.756	8.0	20.7
11 17	1 9.04	+20 4 1	1.174	2.073	15.1	18.5	11 17	1 10.60	+11 45.3	1.886	2.760	11.6	20.9
438842	2009 <i>BM</i> ₁₇₁		10 17.7	354°00'	4°1'/14.3	18	69010	2002 <i>TD</i> ₂₅₆		10 17.7	169°97'	0°8'/18.4	18
9 8	1 52.96	+ 3 14.1	1.546	2.388	16.5	20.6	9 8	1 56.78	+15 44.2	1.703	2.499	17.2	19.6
9 18	1 50.39	+ 2 15.6	1.474	2.385	13.0	20.4	9 18	1 53.27	+15 7 8	1.621	2.501	13.8	19.3
9 28	1 45.29	+ 1 7 7	1.423	2.383	8.9	20.2	9 28	1 47.23	+14 12.5	1.559	2.503	9.8	19.1
10 8	1 38.27	- 0 2 9	1.396	2.381	5.1	19.9	10 8	1 39.26	+13 0 7	1.521	2.504	5.2	18.8
10 18	1 30.25	- 1 8 1	1.394	2.380	4.5	19.9	10 18	1 30.27	+11 37.9	1.509	2.505	0.8	18.5
10 28	1 22.39	- 1 59.7	1.419	2.380	7.9	20.1	10 28	1 21.43	+10 12.2	1.526	2.506	4.8	18.8
11 7	1 15.79	- 2 31.7	1.468	2.380	11.9	20.3	11 7	1 13.87	+ 8 52.4	1.570	2.506	9.4	19.1
11 17	1 11.27	- 2 41.3	1.539	2.380	15.6	20.6	11 17	1 8.41	+ 7 45.9	1.639	2.506	13.4	19.3
134071	2004 <i>XL</i> ₆₅		10 17.7	280°61'	1°5'/16.3	18	381382	2008 <i>FM</i> ₁₂₄		10 17.7	65°15'	0°4'/17.9	16
9 8	1 55.27	+ 6 12.6	2.303	3.110	12.9	20.0	9 8	1 59.21	+13 18.4	1.408	2.222	19.3	21.1
9 18	1 51.39	+ 5 55.4	2.209	3.099	10.2	19.8	9 18	1 55.39	+12 58.6	1.351	2.242	15.3	20.9
9 28	1 45.59	+ 5 31.2	2.137	3.089	7.0	19.6	9 28	1 48.71	+12 21.6	1.313	2.263	10.6	20.6
10 8	1 38.33	+ 5 3 0	2.092	3.079	3.5	19.4	10 8	1 39.95	+11 30.7	1.297	2.283	5.4	20.4
10 18	1 30.26	+ 4 34.2	2.075	3.069	1.6	19.2	10 18	1 30.25	+10 31.6	1.308	2.304	0.4	20.1
10 28	1 22.21	+ 4 9 2	2.088	3.059	4.8	19.4	10 28	1 20.99	+ 9 32.5	1.344	2.324	5.3	20.5
11 7	1 15.00	+ 3 51.9	2.128	3.049	8.3	19.6	11 7	1 13.38	+ 8 41.4	1.407	2.345	10.1	20.8
11 17	1 9.29	+ 3 45.2	2.194	3.038	11.4	19.8	11 17	1 8.23	+ 8 4 1	1.493	2.366	14.2	21.1
341088	2007 <i>JY</i> ₁		10 17.7	53°28'	4°6'/14.6	18	43613						

EPHEMERIDES

10 17.7

10 17.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
260137	2004 <i>PL</i> ₁₁₅		10 17.7 326°15	0°1/17.6 17			254497	2005 <i>EJ</i> ₅₁		10 17.7 149°14	0°4/17.9 18		
9 8	1 53.99	+10 50.6	1.917	2.726	15.1	21.0	9 8	2 4.12	+11 13.3	1.722	2.517	17.1	20.5
9 18	1 50.85	+10 38.7	1.827	2.717	12.0	20.8	9 18	1 58.99	+11 18.6	1.644	2.524	13.7	20.3
9 28	1 45.48	+10 15.2	1.757	2.708	8.4	20.6	9 28	1 51.14	+11 12.1	1.586	2.531	9.5	20.0
10 8	1 38.38	+9 42.4	1.713	2.699	4.2	20.3	10 8	1 41.23	+10 55.5	1.553	2.537	4.9	19.8
10 18	1 30.31	+9 4.1	1.695	2.691	0.2	20.0	10 18	1 30.25	+10 31.9	1.547	2.543	0.4	19.5
10 28	1 22.26	+8 25.4	1.705	2.683	4.6	20.3	10 28	1 19.45	+10 6.2	1.570	2.549	4.9	19.8
11 7	1 15.21	+7 52.1	1.742	2.676	8.8	20.5	11 7	1 10.02	+9 44.0	1.620	2.553	9.4	20.1
11 17	1 9.96	+7 28.7	1.804	2.669	12.5	20.8	11 17	1 2.87	+9 29.9	1.696	2.557	13.4	20.4
424415	2008 <i>AN</i> ₇₇		10 17.7 143°42	3°4/15.1 17			418702	2008 <i>UY</i> ₃₀		10 17.7 343°63	3°1/14.9 18		
9 8	2 0.85	+3 21.9	1.683	2.504	16.4	21.4	9 8	1 56.12	+0 31.4	2.220	3.038	13.0	20.5
9 18	1 56.29	+2 39.3	1.613	2.512	12.8	21.2	9 18	1 52.05	+0 15.8	2.137	3.034	10.2	20.3
9 28	1 49.18	+1 49.0	1.565	2.519	8.8	21.0	9 28	1 46.04	-0 2.7	2.077	3.030	7.1	20.1
10 8	1 40.18	+0 56.6	1.541	2.526	4.8	20.8	10 8	1 38.57	-0 20.2	2.044	3.027	4.1	19.9
10 18	1 30.25	+0 8.7	1.545	2.533	3.7	20.7	10 18	1 30.34	-0 32.9	2.038	3.024	3.3	19.9
10 28	1 20.58	-0 28.2	1.576	2.539	7.0	20.9	10 28	1 22.21	-0 37.0	2.061	3.021	5.9	20.0
11 7	1 12.25	-0 49.1	1.634	2.544	11.0	21.2	11 7	1 14.99	-0 29.8	2.111	3.018	9.1	20.2
11 17	1 6.08	-0 51.7	1.715	2.549	14.6	21.4	11 17	1 9.35	-0 9.9	2.186	3.016	12.0	20.4
180088	2003 <i>EQ</i> ₂₇		10 17.7 164°36	0°5/17.2 18			76106	2000 <i>DF</i> ₁₀₄		10 17.7 9°28	2°8/19.5 18		
9 8	1 57.62	+8 57.6	2.384	3.177	13.0	20.3	9 8	2 0.92	+15 7.2	1.645	2.438	17.9	18.3
9 18	1 53.08	+8 48.1	2.298	3.180	10.2	20.1	9 18	1 56.79	+15 51.7	1.564	2.439	14.6	18.1
9 28	1 46.66	+8 30.5	2.235	3.183	7.0	19.9	9 28	1 49.85	+16 23.8	1.503	2.440	10.6	17.9
10 8	1 38.84	+8 7.2	2.199	3.185	3.5	19.7	10 8	1 40.68	+16 42.3	1.465	2.442	6.3	17.7
10 18	1 30.30	+7 41.1	2.191	3.187	0.6	19.4	10 18	1 30.27	+16 47.8	1.453	2.444	2.9	17.5
10 28	1 21.86	+7 16.1	2.213	3.189	4.1	19.7	10 28	1 19.91	+16 43.2	1.468	2.447	5.1	17.6
11 7	1 14.31	+6 56.0	2.265	3.190	7.5	19.9	11 7	1 10.90	+16 33.6	1.510	2.450	9.3	17.9
11 17	1 8.29	+6 43.9	2.342	3.192	10.6	20.1	11 17	1 4.20	+16 24.7	1.576	2.454	13.3	18.1
473703	2015 <i>YP</i> ₈		10 17.7 334°51	6°0/11.9 18			227048	2005 <i>CQ</i> ₄		10 17.7 299°63	3°1/20.5 17		
9 8	1 51.93	-4 38.0	1.911	2.751	13.9	20.2	9 8	1 55.09	+19 25.8	2.256	3.020	14.5	21.3
9 18	1 49.14	-5 39.5	1.833	2.739	11.1	20.0	9 18	1 51.64	+19 42.1	2.143	2.997	12.0	21.1
9 28	1 44.23	-6 42.7	1.777	2.727	8.3	19.8	9 28	1 46.04	+19 44.5	2.050	2.974	9.0	20.8
10 8	1 37.72	-7 40.9	1.746	2.716	6.3	19.7	10 8	1 38.72	+19 32.6	1.982	2.951	5.8	20.6
10 18	1 30.35	-8 27.0	1.741	2.706	6.6	19.7	10 18	1 30.33	+19 7.1	1.940	2.928	3.2	20.4
10 28	1 23.04	-8 55.1	1.763	2.696	8.9	19.8	10 28	1 21.79	+18 30.9	1.927	2.905	4.3	20.4
11 7	1 16.73	-9 1.6	1.809	2.687	11.9	20.0	11 7	1 14.05	+17 49.0	1.943	2.882	7.6	20.6
11 17	1 12.13	-8 45.8	1.877	2.679	14.8	20.1	11 17	1 7.92	+17 7.3	1.984	2.859	11.1	20.8
57339	2001 <i>QG</i> ₂₆₀		10 17.7 264°40	3°3/20.4 18			458461	2011 <i>BU</i> ₃₆		10 17.7 356°70	9°3/7.9 17		
9 8	1 56.89	+20 10.3	1.716	2.494	17.8	19.5	9 8	1 49.56	-10 47.6	1.707	2.558	14.8	20.1
9 18	1 53.65	+20 12.8	1.621	2.484	14.7	19.2	9 18	1 47.48	-12 38.5	1.650	2.554	12.3	20.0
9 28	1 47.72	+19 55.5	1.545	2.474	11.0	19.0	9 28	1 43.17	-14 26.3	1.615	2.551	10.1	19.8
10 8	1 39.63	+19 17.8	1.491	2.463	6.9	18.7	10 8	1 37.20	-16 1.0	1.605	2.549	9.3	19.8
10 18	1 30.28	+18 21.7	1.463	2.453	3.6	18.5	10 18	1 30.39	-17 13.1	1.619	2.548	10.2	19.8
10 28	1 20.89	+17 12.9	1.462	2.442	5.1	18.6	10 28	1 23.76	-17 55.9	1.656	2.547	12.3	20.0
11 7	1 12.70	+15 59.6	1.488	2.431	9.2	18.8	11 7	1 18.25	-18 6.9	1.716	2.548	14.8	20.1
11 17	1 6.70	+14 50.8	1.539	2.420	13.4	19.0	11 17	1 14.56	-17 47.4	1.794	2.549	17.2	20.3
48094	2001 <i>FX</i> ₄₇		10 17.7 225°08	2°2/19.1 18 R			218306	2003 <i>SW</i> ₄₀₇		10 17.7 341°72	10°2/10.8 18		
9 8	2 1.38	+15 12.9	1.611	2.404	18.2	19.2	9 8	2 5.09	-17 39.5	1.791	2.601	15.9	19.8
9 18	1 57.25	+15 31.8	1.525	2.401	14.8	18.9	9 18	1 59.51	-18 26.3	1.730	2.600	13.6	19.6
9 28	1 50.22	+15 35.8	1.458	2.398	10.7	18.7	9 28	1 51.32	-19 1.9	1.689	2.600	11.5	19.5
10 8	1 40.89	+15 24.8	1.415	2.394	6.1	18.4	10 8	1 41.23	-19 18.1	1.672	2.599	10.3	19.4
10 18	1 30.23	+15 0.7	1.397	2.391	2.3	18.2	10 18	1 30.27	-19 8.3	1.680	2.598	10.6	19.5
10 28	1 19.61	+14 28.3	1.407	2.387	5.1	18.4	10 28	1 19.65	-18 29.2	1.714	2.598	12.3	19.6
11 7	1 10.34	+13 54.3	1.443	2.383	9.7	18.6	11 7	1 10.49	-17 22.0	1.771	2.597	14.6	19.7
11 17	1 3.45	+13 25.3	1.504	2.379	14.0	18.9	11 17	1 3.58	-15 50.7	1.849	2.597	17.0	19.9
359882	2011 <i>WA</i> ₃₄		10 17.7 336°04	0°6/18.3 18			310307	2011 <i>UD</i> ₁₀₈		10 17.7 14°83	3°9/15.1 18		
9 8	1 53.70	+14 9.5	1.828	2.631	16.0	21.4	9 8	1 54.83	+2 17.0	1.369	2.217	18.0	19.9
9 18	1 50.72	+13 47.0	1.743	2.627	12.8	21.2	9 18	1 52.11	+1 47.0	1.308	2.222	14.1	19.7
9 28	1 45.42	+13 8.9	1.678	2.624	9.0	20.9	9 28	1 46.59	+1 10.2	1.267	2.228	9.7	19.5
10 8	1 38.36	+12 17.5	1.636	2.621	4.7	20.7	10 8	1 38.98	+0 32.9	1.248	2.235	5.4	19.3
10 18	1 30.33	+11 17.1	1.622	2.618	0.7	20.4	10 18	1 30.35	+0 1.9	1.254	2.243	4.2	19.2
10 28	1 22.39	+10 14.1	1.635	2.615	4.5	20.7	10 28	1 22.01	-0 16.1	1.286	2.252	7.8	19.5
11 7	1 15.54	+9 15.7	1.676	2.613	8.8	20.9	11 7	1 15.16	-0 16.6	1.341	2.262	12.1	19.7
11 17	1 10.58	+8 27.9	1.741	2.611	12.6	21.1	11 17	1 10.64	+0 1.8	1.418	2.273	15.9	20.0
237876	2002 <i>JE</i> ₁₂₀		10 17.7 232°82	8°1/10.3 18			26260	1998 <i>RA</i> ₂		10 17.7 244°08	2°5/20.3 18		
9 8	1 58.26	-10 36.5	1.901	2.728	14.5	20.6	9 8	1 55.02	+20 32.2	2.132	2.895	15.2	18.2
9 18	1 54.09	-11 50.8	1.831	2.722	11.9	20.4	9 18	1 51.56	+20 12.0	2.030	2.884	12.5	18.0
9 28	1 47.61	-13 2.1	1.783	2.716	9.6	20.3	9 28	1 45.94	+19 33.4	1.948	2.873	9.3	17.8
10 8	1 39.40	-14 2.2	1.760	2.709	8.2	20.2	10 8	1 38.63	+18 36.9	1.891	2.862	5.7	17.5
10 18	1 30.30	-14 43.5	1.763	2.702	8.7	20.2	10 18	1 30.37	+17 25.2	1.861	2.851	2.7	17.3
10 28	1 21.35	-15 0.3	1.792	2.695	10.8	20.3	10 28	1 22.11	+16 3.9	1.859	2.839	4.1	17.4
11 7	1 13.55	-14 50.7	1.845	2.688	13.4	20.5	11 7	1 14.81	+14 40.4	1.887	2.827	7.8	17.6
11 17	1 7.65	-14 15.6	1.919	2.680	16.0	20.6	11 17	1 9.24	+13 22.1	1.941	2.815	11.4	17.8
5340	Burton		10 17.7 140°31	1°3/19.2 18			335543	2006 <i>BO</i> ₄₃		10 17.7			

EPHEMERIDES

10 17.7

10 17.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
213144	2000 <i>HT</i> ₃₀		10 17.7 232°74	2°7/20.7	18		317476	2002 <i>RX</i> ₁₉₂		10 17.7 90°35	1°8/18.9	16	
9 8	1 54.25	+21 50.4	2.183	2.940	15.1	20.5	9 8	2 2.93	+14 18.4	1.519	2.317	18.9	21.0
9 18	1 50.87	+21 23.6	2.084	2.934	12.5	20.3	9 18	1 58.40	+14 36.5	1.449	2.328	15.2	20.8
9 28	1 45.39	+20 37.6	2.005	2.927	9.3	20.1	9 28	1 50.93	+14 39.5	1.398	2.340	10.9	20.6
10 8	1 38.32	+19 33.0	1.951	2.920	5.8	19.8	10 8	1 41.21	+14 28.1	1.370	2.351	6.0	20.3
10 18	1 30.38	+18 12.7	1.924	2.913	2.9	19.6	10 18	1 30.34	+14 4.7	1.368	2.362	1.9	20.1
10 28	1 22.50	+16 42.5	1.926	2.905	4.1	19.7	10 28	1 19.73	+13 34.7	1.393	2.373	5.1	20.3
11 7	1 15.57	+15 10.1	1.957	2.897	7.5	19.9	11 7	1 10.69	+13 4.7	1.445	2.384	9.7	20.6
11 17	1 10.32	+13 43.1	2.015	2.889	11.0	20.1	11 17	1 4.15	+12 41.1	1.521	2.395	13.9	20.9
216420	2008 <i>SJ</i> ₂₇₂		10 17.7 69°27	0°5/18.1	18		80006	1999 <i>FN</i> ₅₅		10 17.7 159°81	0°4/18.1	18	
9 8	1 56.08	+13 37.8	1.712	2.516	16.8	20.5	9 8	1 57.33	+12 14.6	2.233	3.021	13.9	19.5
9 18	1 52.69	+13 15.6	1.634	2.520	13.4	20.3	9 18	1 53.05	+12 6.2	2.148	3.024	11.1	19.4
9 28	1 46.82	+12 37.6	1.576	2.523	9.4	20.0	9 28	1 46.77	+11 47.1	2.084	3.027	7.7	19.2
10 8	1 39.07	+11 46.4	1.542	2.527	4.9	19.8	10 8	1 38.99	+11 19.0	2.045	3.029	4.0	18.9
10 18	1 30.36	+10 46.7	1.534	2.531	0.5	19.4	10 18	1 30.41	+10 44.9	2.036	3.032	0.4	18.6
10 28	1 21.80	+9 45.3	1.555	2.534	4.8	19.8	10 28	1 21.94	+10 9.2	2.055	3.034	3.9	18.9
11 7	1 14.49	+8 49.7	1.602	2.538	9.2	20.1	11 7	1 14.42	+9 36.6	2.104	3.036	7.6	19.2
11 17	1 9.21	+8 5.7	1.673	2.542	13.1	20.3	11 17	1 8.53	+9 11.2	2.178	3.037	10.9	19.4
137475	1999 <i>UD</i> ₁₉		10 17.7 7°52	1°3/17.0	18		380788	2005 <i>VD</i> ₁₃₅		10 17.7 283°87	1°3/15.9	16	
9 8	1 57.12	+7 3.2	1.074	1.927	21.5	19.5	9 8	1 50.44	+6 14.3	3.151	3.952	9.9	21.8
9 18	1 54.83	+7 13.7	1.012	1.927	17.1	19.3	9 18	1 47.11	+5 45.0	3.048	3.937	7.8	21.6
9 28	1 49.02	+7 12.9	0.967	1.929	11.8	19.0	9 28	1 42.43	+5 9.8	2.970	3.921	5.3	21.5
10 8	1 40.41	+7 4.2	0.942	1.932	5.9	18.7	10 8	1 36.74	+4 31.3	2.919	3.906	2.7	21.3
10 18	1 30.32	+6 52.8	0.940	1.936	1.4	18.4	10 18	1 30.50	+3 52.5	2.898	3.891	1.5	21.2
10 28	1 20.49	+6 45.1	0.962	1.941	7.0	18.8	10 28	1 24.26	+3 16.8	2.907	3.875	3.8	21.3
11 7	1 12.56	+6 47.5	1.006	1.948	12.6	19.1	11 7	1 18.57	+2 47.4	2.945	3.860	6.5	21.5
11 17	1 7.62	+7 3.9	1.070	1.956	17.5	19.4	11 17	1 13.91	+2 26.9	3.009	3.844	8.9	21.6
138628	2000 <i>QM</i> ₂₅₁		10 17.7 50°23	0°2/21.1	08 C		46984	1998 <i>SU</i> ₁₆₂		10 17.7 352°76	0°9/18.4	18	
9 8	1 33.77	+19 5.9	38.873	39.605	1.0	23.2	9 8	1 54.55	+14 6.3	1.660	2.468	17.1	19.2
9 18	1 33.09	+19 4.1	38.778	39.613	0.8	23.2	9 18	1 51.66	+13 54.3	1.579	2.466	13.7	18.9
9 28	1 32.32	+19 1.5	38.708	39.620	0.6	23.1	9 28	1 46.24	+13 26.3	1.517	2.464	9.7	18.7
10 8	1 31.49	+18 58.2	38.665	39.627	0.4	23.1	10 8	1 38.87	+12 44.4	1.478	2.462	5.2	18.4
10 18	1 30.63	+18 54.3	38.650	39.634	0.2	23.1	10 18	1 30.43	+11 52.5	1.465	2.461	0.9	18.1
10 28	1 29.78	+18 49.9	38.666	39.641	0.3	23.1	10 28	1 22.09	+10 57.1	1.480	2.460	4.8	18.4
11 7	1 28.95	+18 45.2	38.711	39.648	0.5	23.1	11 7	1 14.97	+10 5.8	1.520	2.460	9.3	18.7
11 17	1 28.20	+18 40.5	38.785	39.655	0.7	23.2	11 17	1 9.93	+9 24.7	1.585	2.460	13.4	18.9
88002	2000 <i>UJ</i> ₃₉		10 17.7 340°79	0°8/17.0	18		479818	2014 <i>FJ</i> ₅₁		10 17.7 149°39	5°3/13.1	18	
9 8	1 52.91	+10 5.7	1.831	2.647	15.4	19.6	9 8	2 0.18	-5 2.2	2.129	2.945	13.5	21.5
9 18	1 50.07	+9 38.7	1.747	2.642	12.2	19.4	9 18	1 55.21	-5 44.2	2.059	2.951	10.8	21.3
9 28	1 44.98	+8 59.2	1.683	2.636	8.4	19.1	9 28	1 48.18	-6 25.9	2.013	2.957	7.9	21.1
10 8	1 38.16	+8 10.5	1.644	2.632	4.2	18.9	10 8	1 39.66	-7 1.7	1.993	2.963	5.7	21.0
10 18	1 30.40	+7 17.5	1.631	2.627	0.9	18.6	10 18	1 30.43	-7 26.4	2.001	2.968	5.6	21.0
10 28	1 22.71	+6 26.5	1.646	2.623	5.0	18.9	10 28	1 21.41	-7 35.7	2.037	2.973	7.8	21.2
11 7	1 16.09	+5 43.7	1.688	2.620	9.2	19.1	11 7	1 13.46	-7 27.5	2.100	2.977	10.6	21.4
11 17	1 11.28	+5 13.9	1.754	2.617	13.0	19.4	11 17	1 7.26	-7 1.6	2.187	2.981	13.2	21.5
516642	2008 <i>GX</i> ₁₂₇		10 17.7 119°31	3°5/13.8	18		5973	Takimoto		10 17.7 74°75	1°0/18.5	18	
9 8	1 53.18	+2 1.3	2.265	3.086	12.7	21.8	9 8	1 57.50	+15 12.3	1.662	2.461	17.5	17.2
9 18	1 49.65	+0 57.6	2.192	3.091	9.9	21.6	9 18	1 53.73	+14 47.8	1.598	2.479	14.0	17.0
9 28	1 44.32	-0 11.9	2.143	3.096	6.8	21.4	9 28	1 47.46	+14 6.2	1.552	2.496	9.8	16.8
10 8	1 37.70	-1 22.0	2.120	3.102	4.1	21.3	10 8	1 39.37	+13 10.3	1.531	2.514	5.2	16.6
10 18	1 30.44	-2 26.8	2.125	3.107	3.8	21.3	10 18	1 30.44	+12 4.9	1.536	2.532	1.0	16.3
10 28	1 23.33	-3 20.7	2.160	3.111	6.3	21.4	10 28	1 21.83	+10 57.6	1.569	2.549	4.6	16.6
11 7	1 17.10	-3 59.5	2.221	3.116	9.3	21.6	11 7	1 14.60	+9 55.8	1.629	2.567	9.0	16.9
11 17	1 12.35	-4 20.9	2.307	3.121	12.0	21.8	11 17	1 9.48	+9 5.8	1.714	2.584	12.8	17.2
298025	2002 <i>PR</i> ₉₂		10 17.7 64°30	5°1/23.0	18		74681	1999 <i>RX</i> ₁₁₅		10 17.7 47°99	2°5/16.0	18	
9 8	1 55.29	+27 23.1	1.789	2.532	18.4	20.3	9 8	1 56.86	+8 34.2	1.145	1.991	20.9	18.4
9 18	1 52.11	+27 14.9	1.714	2.546	15.5	20.2	9 18	1 54.05	+7 40.3	1.097	2.009	16.3	18.2
9 28	1 46.41	+26 41.8	1.657	2.559	12.1	20.0	9 28	1 48.04	+6 30.4	1.068	2.029	11.0	18.0
10 8	1 38.86	+25 43.0	1.621	2.573	8.5	19.8	10 8	1 39.74	+5 11.8	1.060	2.049	5.4	17.7
10 18	1 30.40	+24 21.2	1.610	2.586	5.6	19.7	10 18	1 30.44	+3 54.4	1.076	2.070	2.7	17.6
10 28	1 22.21	+22 42.9	1.627	2.600	5.6	19.7	10 28	1 21.68	+2 48.8	1.117	2.091	7.4	18.0
11 7	1 15.35	+20 57.7	1.672	2.614	8.4	19.9	11 7	1 14.78	+2 2.8	1.182	2.112	12.4	18.3
11 17	1 10.59	+19 15.7	1.742	2.628	11.8	20.1	11 17	1 10.57	+1 40.3	1.268	2.134	16.7	18.7
130189	2000 <i>AY</i> ₈₆		10 17.7 274°30	0°5/18.2	17		281233	2007 <i>JK</i> ₃₁		10 17.7 253°33	1°0/18.5	18	
9 8	1 53.53	+13 28.2	2.424	3.211	13.0	20.5	9 8	1 57.14	+15 7.0	1.869	2.659	16.1	22.0
9 18	1 50.07	+13 7.8	2.318	3.194	10.4	20.3	9 18	1 53.59	+14 45.4	1.768	2.644	13.0	21.7
9 28	1 44.76	+12 35.5	2.234	3.177	7.3	20.1	9 28	1 47.58	+14 7.2	1.686	2.628	9.3	21.5
10 8	1 38.01	+11 53.1	2.176	3.160	3.8	19.8	10 8	1 39.59	+13 13.8	1.630	2.612	5.0	21.2
10 18	1 30.44	+11 3.5	2.146	3.142	0.5	19.5	10 18	1 30.44	+12 8.9	1.600	2.596	1.0	20.8
10 28	1 22.82	+10 11.3	2.146	3.125	3.8	19.8	10 28	1 21.21	+10 58.9	1.599	2.578	4.6	21.1
11 7	1 15.96	+9 21.8	2.174	3.107	7.4	20.0	11 7	1 13.04	+9 51.6	1.625	2.561	9.1	21.3
11 17	1 10.53	+8 39.6	2.229	3.089	10.7	20.2	11 17	1 6.81	+8 54.1	1.676	2.543	13.2	21.5
71232	1999 <i>YH</i> ₂₆		10 17.7 356°86	3°3/16.1	18		318800	2005 <i>SJ</i> ₁₄₄		10 17.7 345°41	1°9/16.1	18	
9 8	2 1.30	+0 51.0	1.360	2.1									

EPHEMERIDES

10 17.7

10 17.7

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
85451	1997 <i>GC</i> ₁₈		10 17.7 173°76	1°0/16.7	18		451634	2012 <i>GR</i> ₂₇		10 17.7 260°11	2°8/14.5	17	
9 8	1 56.05	+10 5.7	2.224	3.021	13.6	20.8	9 8	1 53.76	+3 15.2	2.544	3.355	11.7	22.0
9 18	1 52.03	+9 21.6	2.139	3.024	10.7	20.6	9 18	1 50.10	+2 25.5	2.442	3.336	9.2	21.8
9 28	1 46.05	+8 26.1	2.077	3.026	7.3	20.4	9 28	1 44.71	+1 29.2	2.365	3.317	6.4	21.6
10 8	1 38.64	+7 22.7	2.040	3.027	3.6	20.2	10 8	1 38.00	+0 30.2	2.314	3.297	3.6	21.4
10 18	1 30.48	+6 16.3	2.033	3.028	1.1	20.0	10 18	1 30.53	-0 26.7	2.292	3.277	3.0	21.3
10 28	1 22.44	+5 12.6	2.056	3.029	4.6	20.3	10 28	1 23.04	-1 16.3	2.299	3.257	5.5	21.4
11 7	1 15.34	+4 17.5	2.107	3.029	8.2	20.5	11 7	1 16.25	-1 54.4	2.335	3.236	8.6	21.6
11 17	1 9.82	+3 35.1	2.184	3.029	11.5	20.7	11 17	1 10.78	-2 17.9	2.397	3.215	11.5	21.7
181936	1999 <i>TC</i> ₁₅₈		10 17.7 50°54	2°2/19.2	17		262218	2006 <i>SG</i> ₂₃₉		10 17.7 46°19	0°1/17.8	18	
9 8	1 59.47	+16 4.0	1.226	2.043	21.5	19.9	9 8	1 57.37	+11 7.1	1.820	2.625	15.9	20.8
9 18	1 56.17	+16 9.7	1.171	2.060	17.3	19.7	9 18	1 53.54	+11 2.8	1.744	2.631	12.7	20.6
9 28	1 49.59	+15 54.6	1.132	2.078	12.4	19.5	9 28	1 47.35	+10 46.9	1.688	2.637	8.8	20.3
10 8	1 40.58	+15 20.1	1.114	2.096	6.9	19.3	10 8	1 39.38	+10 21.6	1.657	2.643	4.5	20.1
10 18	1 30.42	+14 30.7	1.120	2.114	2.3	19.0	10 18	1 30.49	+9 50.4	1.652	2.649	0.2	19.8
10 28	1 20.70	+13 34.6	1.151	2.133	5.5	19.3	10 28	1 21.76	+9 18.6	1.676	2.655	4.6	20.1
11 7	1 12.86	+12 41.3	1.207	2.153	10.6	19.6	11 7	1 14.22	+8 51.4	1.727	2.662	8.8	20.4
11 17	1 7.80	+11 58.7	1.286	2.172	15.1	20.0	11 17	1 8.62	+8 33.4	1.802	2.668	12.5	20.7
159028	2004 <i>TP</i> ₅₅		10 17.7 61°77	0°8/16.9	18		480480	2015 <i>LN</i> ₂₂		10 17.7 192°61	1°0/18.6	18	
9 8	1 54.63	+9 5.1	2.178	2.982	13.7	20.7	9 8	1 57.01	+15 26.9	1.815	2.607	16.5	21.5
9 18	1 50.93	+8 42.1	2.099	2.988	10.8	20.6	9 18	1 53.39	+15 4.3	1.729	2.606	13.3	21.2
9 28	1 45.30	+8 9.7	2.043	2.994	7.3	20.4	9 28	1 47.33	+14 25.0	1.663	2.605	9.4	21.0
10 8	1 38.26	+7 30.8	2.012	3.000	3.6	20.1	10 8	1 39.42	+13 30.8	1.622	2.604	5.1	20.8
10 18	1 30.50	+6 49.6	2.010	3.005	0.9	20.0	10 18	1 30.49	+12 25.8	1.607	2.603	1.1	20.5
10 28	1 22.87	+6 10.7	2.036	3.011	4.4	20.2	10 28	1 21.67	+11 16.8	1.621	2.601	4.5	20.7
11 7	1 16.19	+5 38.8	2.091	3.017	8.0	20.5	11 7	1 14.02	+10 11.5	1.662	2.599	8.9	21.0
11 17	1 11.09	+5 17.4	2.170	3.023	11.2	20.7	11 17	1 8.35	+9 16.4	1.728	2.597	12.8	21.2
278265	2007 <i>FF</i> ₂₃		10 17.7 179°68	1°0/16.9	18		285009	2011 <i>AJ</i> ₂₀		10 17.7 318°53	6°4/11.7	18	
9 8	1 59.40	+9 2.0	2.011	2.810	14.8	22.0	9 8	1 54.31	-6 41.9	1.995	2.828	13.7	20.5
9 18	1 54.91	+8 36.8	1.926	2.812	11.7	21.8	9 18	1 50.97	-7 38.7	1.916	2.815	11.1	20.3
9 28	1 48.18	+8 1.2	1.864	2.813	8.0	21.6	9 28	1 45.51	-8 35.3	1.859	2.803	8.4	20.2
10 8	1 39.76	+7 18.1	1.826	2.813	4.0	21.3	10 8	1 38.45	-9 25.2	1.827	2.792	6.6	20.0
10 18	1 30.46	+6 32.0	1.818	2.813	1.1	21.1	10 18	1 30.52	-10 1.6	1.821	2.780	6.9	20.0
10 28	1 21.26	+5 48.5	1.838	2.812	4.9	21.4	10 28	1 22.67	-10 19.2	1.842	2.769	9.1	20.1
11 7	1 13.14	+5 12.8	1.886	2.811	8.9	21.6	11 7	1 15.80	-10 15.1	1.888	2.758	11.9	20.3
11 17	1 6.85	+4 49.0	1.960	2.809	12.4	21.8	11 17	1 10.62	-9 49.1	1.956	2.748	14.7	20.5
241641	1999 <i>XX</i> ₂₅₀		10 17.7 185°05	3°3/13.7	18		241067	2006 <i>SG</i> ₃₁₂		10 17.7 267°05	1°5/19.2	18	
9 8	1 54.09	-0 42.1	2.872	3.683	10.6	21.1	9 8	1 55.29	+16 16.8	2.019	2.803	15.3	21.0
9 18	1 49.98	-1 26.0	2.790	3.682	8.3	20.9	9 18	1 51.80	+16 5.8	1.930	2.802	12.4	20.8
9 28	1 44.39	-2 12.5	2.733	3.682	5.8	20.8	9 28	1 46.12	+15 39.7	1.862	2.800	8.9	20.6
10 8	1 37.73	-2 57.8	2.703	3.681	3.7	20.6	10 8	1 38.77	+14 59.9	1.819	2.799	5.0	20.4
10 18	1 30.53	-3 37.8	2.703	3.680	3.6	20.6	10 18	1 30.52	+14 9.4	1.803	2.797	1.6	20.1
10 28	1 23.40	-4 8.8	2.732	3.678	5.5	20.8	10 28	1 22.35	+13 13.5	1.815	2.796	4.1	20.3
11 7	1 16.97	-4 28.0	2.790	3.676	7.9	20.9	11 7	1 15.19	+12 18.6	1.855	2.794	8.0	20.5
11 17	1 11.73	-4 33.8	2.873	3.674	10.2	21.1	11 17	1 9.80	+11 30.5	1.921	2.792	11.6	20.8
49236	1998 <i>SK</i> ₁₅₁		10 17.7 283°23	0°3/17.5	18		407603	2011 <i>BA</i> ₅₄		10 17.7 303°41	6°5/23.9	17	
9 8	1 58.12	+10 35.7	1.579	2.394	17.5	19.7	9 8	1 56.95	+28 58.6	2.263	2.973	15.8	21.4
9 18	1 54.86	+10 25.6	1.483	2.376	14.1	19.4	9 18	1 53.30	+29 45.1	2.160	2.962	13.7	21.2
9 28	1 48.75	+10 1.7	1.406	2.358	9.9	19.1	9 28	1 47.33	+30 14.4	2.075	2.951	11.3	21.0
10 8	1 40.31	+9 26.3	1.353	2.340	5.0	18.8	10 8	1 39.49	+30 23.4	2.012	2.939	8.8	20.9
10 18	1 30.44	+8 43.6	1.325	2.322	0.4	18.4	10 18	1 30.50	+30 10.7	1.974	2.928	6.9	20.7
10 28	1 20.43	+8 0.0	1.325	2.303	5.6	18.8	10 28	1 21.39	+29 37.7	1.964	2.917	6.7	20.7
11 7	1 11.63	+7 23.0	1.350	2.285	10.7	19.0	11 7	1 13.21	+28 49.2	1.980	2.907	8.4	20.8
11 17	1 5.10	+6 58.6	1.399	2.267	15.3	19.2	11 17	1 6.83	+27 51.8	2.022	2.896	11.0	20.9
8732	Champion		10 17.7 341°10	3°9/14.9	18		209219	2003 <i>WX</i> ₅₂		10 17.7 27°71	0°5/17.3	18	
9 8	1 54.57	+4 52.4	1.256	2.106	19.1	17.0	9 8	1 56.82	+9 56.0	1.613	2.431	17.1	20.6
9 18	1 52.38	+3 59.3	1.185	2.101	15.1	16.7	9 18	1 53.41	+9 43.7	1.540	2.435	13.5	20.4
9 28	1 47.12	+2 53.2	1.134	2.096	10.4	16.4	9 28	1 47.42	+9 19.2	1.487	2.439	9.3	20.1
10 8	1 39.46	+1 41.2	1.104	2.092	5.6	16.2	10 8	1 39.47	+8 45.3	1.457	2.444	4.7	19.9
10 18	1 30.48	+0 32.7	1.098	2.088	4.3	16.1	10 18	1 30.51	+8 6.8	1.453	2.449	0.6	19.6
10 28	1 21.65	-0 22.1	1.117	2.085	8.5	16.3	10 28	1 21.73	+7 29.8	1.477	2.455	5.3	19.9
11 7	1 14.37	-0 55.6	1.159	2.082	13.3	16.6	11 7	1 14.26	+7 0.4	1.526	2.461	9.8	20.2
11 17	1 9.64	-1 4.1	1.222	2.080	17.7	16.9	11 17	1 8.92	+6 43.2	1.600	2.467	13.7	20.5
364068	2005 <i>XW</i> ₇₄		10 17.7 5°88	3°0/15.3	18		515953	2015 <i>RB</i> ₇₃		10 17.7 201°41	0°9/16.9	18	
9 8	1 55.55	+2 40.4	1.899	2.724	14.6	20.3	9 8	1 54.80	+9 36.5	2.126	2.930	14.0	21.3
9 18	1 51.96	+2 15.1	1.823	2.724	11.5	20.1	9 18	1 51.19	+9 5.1	2.041	2.930	11.0	21.1
9 28	1 46.18	+1 44.2	1.769	2.725	7.9	19.9	9 28	1 45.57	+8 23.0	1.978	2.929	7.5	20.9
10 8	1 38.76	+1 12.3	1.740	2.726	4.3	19.7	10 8	1 38.46	+7 33.3	1.941	2.928	3.7	20.6
10 18	1 30.51	+0 44.2	1.739	2.727	3.2	19.6	10 18	1 30.55	+6 40.6	1.932	2.927	1.0	20.4
10 28	1 22.39	+0 24.9	1.765	2.729	6.2	19.8	10 28	1 22.73	+5 50.2	1.951	2.926	4.6	20.7
11 7	1 15.36	+0 18.3	1.817	2.731	9.8	20.0	11 7	1 15.86	+5 7.6	1.999	2.925	8.4	20.9
11 17	1 10.11	+0 26.4	1.893	2.734	13.1	20.2	11 17	1 10.62	+4 36.7	2.072	2.924	11.7	21.1
127082	2002 <i>GB</i> ₇₀		10 17.7 64°27	2°2/15.9	18		400487	2008 <i>HH</i> ₂₄		10 17.7 51°80	5°0/12.8	18	

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
65635	1977 EA ₈		10 17.7 191°17'	4°9'/21.3 18			304194	2006 QP ₈₀		10 17.7 85°41'	0°2'/17.9 18		
9 8	2 3.33	+21 47.4	1.960	2.708	16.9	19.2	9 8	1 57.74	+12 4.3	1.911	2.709	15.5	21.2
9 18	1 58.47	+22 37.2	1.869	2.707	14.2	19.0	9 18	1 53.63	+11 49.0	1.840	2.723	12.3	21.0
9 28	1 50.96	+23 12.0	1.797	2.706	10.9	18.8	9 28	1 47.29	+11 21.4	1.790	2.736	8.5	20.8
10 8	1 41.33	+23 29.4	1.748	2.706	7.6	18.6	10 8	1 39.32	+10 44.0	1.765	2.750	4.3	20.6
10 18	1 30.47	+23 28.5	1.727	2.704	5.1	18.5	10 18	1 30.56	+10 0.8	1.767	2.763	0.2	20.3
10 28	1 19.56	+23 11.1	1.733	2.703	5.7	18.5	10 28	1 22.02	+9 17.1	1.798	2.776	4.4	20.7
11 7	1 9.81	+22 42.7	1.767	2.702	8.7	18.7	11 7	1 14.66	+8 38.6	1.856	2.789	8.4	21.0
11 17	1 2.19	+22 9.6	1.827	2.700	12.0	18.9	11 17	1 9.16	+8 9.9	1.940	2.802	11.9	21.2
71676	2000 EM ₁₆₈		10 17.7 322°47'	0°1'/17.8 17			451470	2011 UB ₃₂		10 17.7 292°75'	4°5'/21.9 15		
9 8	2 0.07	+8 14.5	1.907	2.711	15.4	18.8	9 8	1 55.18	+23 47.6	1.912	2.668	17.0	21.1
9 18	1 55.89	+8 43.3	1.805	2.692	12.3	18.6	9 18	1 52.14	+23 58.4	1.814	2.657	14.3	20.9
9 28	1 49.20	+9 6.1	1.725	2.673	8.6	18.3	9 28	1 46.63	+23 49.4	1.734	2.647	11.1	20.7
10 8	1 40.47	+9 23.7	1.669	2.655	4.4	18.0	10 8	1 39.17	+23 19.2	1.677	2.636	7.6	20.5
10 18	1 30.49	+9 37.8	1.641	2.638	0.1	17.6	10 18	1 30.57	+22 28.6	1.645	2.626	4.9	20.3
10 28	1 20.36	+9 51.1	1.642	2.620	4.7	18.0	10 28	1 21.93	+21 22.0	1.641	2.616	5.3	20.3
11 7	1 11.22	+10 6.6	1.670	2.604	9.1	18.2	11 7	1 14.37	+20 6.8	1.664	2.606	8.5	20.5
11 17	1 4.02	+10 27.6	1.723	2.588	13.0	18.4	11 17	1 8.78	+18 51.5	1.712	2.596	12.1	20.7
76265	2000 EB ₁₀₅		10 17.7 78°33'	4°8'/13.7 18			374678	2006 QC ₂₇		10 17.7 42°63'	1°5'/16.8 16		
9 8	1 57.62	-1 33.5	1.874	2.701	14.7	19.4	9 8	1 57.44	+10 17.1	1.047	1.896	22.2	20.6
9 18	1 53.46	-2 21.2	1.812	2.713	11.5	19.3	9 18	1 54.72	+9 37.2	1.006	1.919	17.4	20.3
9 28	1 47.11	-3 11.5	1.772	2.724	8.2	19.1	9 28	1 48.61	+8 39.1	0.982	1.942	11.8	20.1
10 8	1 39.19	-3 58.4	1.758	2.736	5.4	18.9	10 8	1 40.09	+7 29.7	0.978	1.967	5.7	19.9
10 18	1 30.54	-4 35.8	1.771	2.747	5.1	19.0	10 18	1 30.56	+6 18.3	0.997	1.993	1.7	19.7
10 28	1 22.16	-4 58.5	1.811	2.759	7.6	19.1	10 28	1 21.70	+5 15.6	1.041	2.019	6.9	20.1
11 7	1 14.95	-5 3.5	1.877	2.770	10.8	19.4	11 7	1 14.86	+4 30.3	1.108	2.046	12.2	20.5
11 17	1 9.60	-4 50.1	1.967	2.782	13.7	19.6	11 17	1 10.87	+4 6.6	1.196	2.073	16.7	20.9
408518	2013 JZ ₃₇		10 17.7 25°27'	6°3'/9.9 18			126836	2002 EP ₆₄		10 17.7 87°80'	0°7'/17.1 18		
9 8	1 49.87	-1 24.0	1.911	2.752	13.9	20.2	9 8	1 58.22	+11 25.6	1.847	2.648	15.9	20.3
9 18	1 47.43	-3 43.4	1.850	2.759	10.9	20.0	9 18	1 53.92	+10 38.5	1.787	2.673	12.4	20.1
9 28	1 43.01	-6 8.9	1.814	2.766	8.0	19.9	9 28	1 47.40	+9 38.2	1.748	2.697	8.5	20.0
10 8	1 37.16	-8 30.7	1.805	2.773	6.3	19.8	10 8	1 39.33	+8 28.9	1.735	2.721	4.1	19.7
10 18	1 30.60	-10 38.2	1.825	2.781	7.1	19.9	10 18	1 30.59	+7 16.6	1.749	2.745	0.9	19.5
10 28	1 24.23	-12 22.5	1.872	2.790	9.6	20.0	10 28	1 22.21	+6 8.2	1.793	2.768	4.9	19.9
11 7	1 18.86	-13 38.5	1.945	2.798	12.4	20.2	11 7	1 15.09	+5 10.2	1.864	2.791	8.8	20.2
11 17	1 15.10	-14 24.7	2.039	2.808	14.9	20.4	11 17	1 9.88	+4 26.9	1.961	2.814	12.2	20.4
343438	2010 DS ₇₇		10 17.7 13°36'	5°3'/14.6 18			454029	2012 EU ₁₆		10 17.7 127°64'	4°0'/13.3 18		
9 8	2 2.14	-3 6.2	1.583	2.413	16.8	20.5	9 8	1 53.52	-1 0.8	2.419	3.239	12.0	21.3
9 18	1 57.58	-3 24.4	1.513	2.414	13.4	20.3	9 18	1 49.84	-1 56.2	2.346	3.243	9.4	21.1
9 28	1 50.28	-3 42.8	1.464	2.416	9.6	20.1	9 28	1 44.46	-2 54.6	2.296	3.247	6.6	21.0
10 8	1 40.91	-3 55.7	1.439	2.417	6.2	19.9	10 8	1 37.85	-3 51.1	2.273	3.250	4.4	20.8
10 18	1 30.50	-3 57.3	1.439	2.419	5.5	19.9	10 18	1 30.64	-4 40.7	2.279	3.254	4.3	20.8
10 28	1 20.31	-3 43.2	1.467	2.421	8.4	20.0	10 28	1 23.55	-5 18.5	2.313	3.257	6.5	21.0
11 7	1 11.57	-3 11.4	1.520	2.424	12.1	20.3	11 7	1 17.30	-5 41.4	2.375	3.261	9.2	21.2
11 17	1 5.12	-2 22.2	1.596	2.427	15.7	20.5	11 17	1 12.43	-5 47.7	2.461	3.264	11.7	21.3
255392	2005 WS ₁₆₀		10 17.7 13°10'	2°5'/15.9 18			432731	2011 DE ₁₄		10 17.7 189°00'	2°2'/15.8 16		
9 8	1 57.43	+3 24.7	1.795	2.618	15.4	19.7	9 8	1 58.21	+7 2.1	1.881	2.692	15.2	22.4
9 18	1 53.57	+3 15.2	1.721	2.620	12.1	19.5	9 18	1 54.15	+6 12.9	1.798	2.692	12.0	22.1
9 28	1 47.37	+3 0.2	1.668	2.623	8.3	19.3	9 28	1 47.77	+5 12.6	1.738	2.691	8.2	21.9
10 8	1 39.40	+2 43.7	1.640	2.627	4.4	19.1	10 8	1 39.64	+4 5.9	1.702	2.689	4.2	21.7
10 18	1 30.54	+2 29.8	1.639	2.631	2.7	19.0	10 18	1 30.59	+2 59.0	1.695	2.687	2.5	21.6
10 28	1 21.85	+2 23.1	1.666	2.635	6.0	19.2	10 28	1 21.65	+1 58.9	1.717	2.685	6.0	21.8
11 7	1 14.33	+2 27.1	1.719	2.640	9.8	19.4	11 7	1 13.84	+1 11.8	1.765	2.682	10.0	22.0
11 17	1 8.74	+2 43.9	1.796	2.645	13.3	19.7	11 17	1 7.91	+0 41.6	1.838	2.678	13.5	22.2
479918	2014 HY ₅₅		10 17.7 247°65'	1°6'/16.5 18			402458	2006 BD ₉₅		10 17.7 318°65'	2°7'/20.2 17		
9 8	1 59.66	+6 23.4	1.990	2.796	14.7	21.9	9 8	1 54.62	+18 22.5	2.060	2.836	15.3	20.8
9 18	1 55.30	+6 9.7	1.895	2.785	11.7	21.6	9 18	1 51.40	+18 34.1	1.962	2.825	12.6	20.6
9 28	1 48.61	+5 48.0	1.822	2.773	8.0	21.4	9 28	1 45.97	+18 31.1	1.885	2.814	9.3	20.3
10 8	1 40.09	+5 21.3	1.774	2.761	4.1	21.1	10 8	1 38.80	+18 13.3	1.831	2.804	5.8	20.1
10 18	1 30.53	+4 53.6	1.754	2.748	1.7	20.9	10 18	1 30.62	+17 42.3	1.804	2.794	2.9	19.9
10 28	1 20.95	+4 29.7	1.763	2.735	5.3	21.2	10 28	1 22.40	+17 1.9	1.805	2.784	4.3	20.0
11 7	1 12.37	+4 14.4	1.800	2.722	9.4	21.4	11 7	1 15.12	+16 17.8	1.833	2.775	7.9	20.2
11 17	1 5.64	+4 10.8	1.861	2.709	13.0	21.6	11 17	1 9.58	+15 35.9	1.887	2.765	11.4	20.4
146067	2000 GQ ₃₅		10 17.7 190°62'	0°7'/18.4 18			483957	2006 BW ₁₇₁		10 17.7 249°26'	0°2'/18.0 17		
9 8	1 59.47	+13 53.9	1.939	2.726	15.7	21.0	9 8	1 54.21	+12 36.4	2.512	3.298	12.6	22.7
9 18	1 55.17	+13 39.1	1.850	2.726	12.6	20.8	9 18	1 50.53	+12 16.0	2.411	3.287	10.0	22.5
9 28	1 48.50	+13 10.2	1.782	2.724	8.9	20.5	9 28	1 45.06	+11 44.7	2.333	3.276	7.0	22.3
10 8	1 40.02	+12 29.0	1.739	2.722	4.7	20.3	10 8	1 38.23	+11 4.6	2.280	3.264	3.6	22.1
10 18	1 30.54	+11 38.9	1.724	2.720	0.8	20.0	10 18	1 30.64	+10 18.5	2.257	3.253	0.2	21.8
10 28	1 21.13	+10 45.7	1.737	2.717	4.4	20.3	10 28	1 23.05	+9 31.0	2.263	3.241	3.7	22.1
11 7	1 12.84	+9 55.7	1.779	2.713	8.6	20.5	11 7	1 16.22	+8 46.6	2.298	3.229	7.1	22.3
11 17	1 6.47	+9 14.6	1.846	2.709	12.4	20.7	11 17	1 10.77	+8 9.7	2.360	3.217	10.3	22.5
83049	2001 QX ₁₉₆		10 17.7 279°17'	6°0'/12.2 18			345473	2006 HP ₂₆		10 17.7 259°06'	7°5'/11.4 18		
9 8	1 56.13	-5 3.3	1.977	2.806									

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
398908	2013 <i>CK</i> ₁₄₃		10 17.7 333°49	0°8/17.1	18		350088	2011 <i>KJ</i> ₂₄		10 17.7 52°94	9°8/11.9	18	
9 8	1 53.65	+10 33.6	1.734	2.551	16.1	20.9	9 8	2 3.58	-12 44.3	1.422	2.257	18.1	20.1
9 18	1 50.85	+10 1.8	1.650	2.546	12.8	20.7	9 18	1 58.50	-13 46.7	1.390	2.283	14.9	19.9
9 28	1 45.67	+9 16.1	1.587	2.540	8.8	20.4	9 28	1 50.64	-14 39.3	1.379	2.311	11.8	19.8
10 8	1 38.65	+8 20.1	1.548	2.535	4.4	20.2	10 8	1 40.94	-15 12.8	1.390	2.338	10.0	19.8
10 18	1 30.63	+7 19.0	1.535	2.531	0.9	19.9	10 18	1 30.61	-15 20.4	1.425	2.366	10.2	19.9
10 28	1 22.69	+6 20.0	1.549	2.526	5.2	20.2	10 28	1 20.98	-14 58.9	1.485	2.394	12.2	20.1
11 7	1 15.86	+5 30.0	1.590	2.522	9.7	20.4	11 7	1 13.14	-14 9.9	1.567	2.422	14.8	20.3
11 17	1 10.97	+4 54.3	1.655	2.519	13.5	20.7	11 17	1 7.76	-12 57.7	1.670	2.450	17.3	20.6
104698	2000 <i>GJ</i> ₁₆₃		10 17.7 348°85	2°2/16.1	18		206573	2003 <i>UU</i> ₃₁₄		10 17.7 249°31	2°9/20.4	18	
9 8	1 45.95	+10 32.4	1.047	1.912	21.0	19.0	9 8	1 58.51	+19 17.8	2.161	2.921	15.1	20.9
9 18	1 46.17	+9 35.8	0.977	1.901	16.7	18.7	9 18	1 54.44	+19 28.8	2.055	2.907	12.5	20.7
9 28	1 43.20	+8 15.4	0.924	1.891	11.4	18.4	9 28	1 48.09	+19 25.2	1.970	2.893	9.4	20.5
10 8	1 37.66	+6 37.7	0.892	1.883	5.6	18.1	10 8	1 39.91	+19 6.2	1.908	2.878	5.9	20.3
10 18	1 30.66	+4 53.7	0.882	1.877	2.5	17.9	10 18	1 30.64	+18 33.1	1.874	2.863	3.1	20.1
10 28	1 23.76	+3 17.8	0.895	1.872	7.9	18.2	10 28	1 21.26	+17 49.4	1.869	2.847	4.4	20.1
11 7	1 18.46	+2 2.8	0.929	1.869	13.7	18.5	11 7	1 12.81	+17 0.8	1.893	2.831	7.9	20.3
11 17	1 15.83	+1 16.5	0.982	1.868	18.7	18.8	11 17	1 6.13	+16 13.5	1.942	2.815	11.4	20.5
14478	1994 <i>CF</i> ₂		10 17.7 281°19	1°0/16.7	18		5983	Praxiteles		10 17.7 334°86	1°7/18.9	18	
9 8	1 53.55	+8 32.9	2.396	3.199	12.6	18.4	9 8	1 58.03	+13 25.1	1.702	2.504	17.0	17.6
9 18	1 50.11	+8 4.9	2.294	3.182	10.0	18.2	9 18	1 54.54	+13 50.9	1.613	2.495	13.8	17.3
9 28	1 44.84	+7 27.9	2.216	3.166	6.9	17.9	9 28	1 48.39	+14 4.8	1.544	2.487	9.9	17.1
10 8	1 38.15	+6 44.4	2.163	3.150	3.4	17.7	10 8	1 40.13	+14 7.0	1.498	2.480	5.5	16.8
10 18	1 30.66	+5 58.3	2.139	3.134	1.2	17.5	10 18	1 30.63	+13 59.1	1.478	2.472	1.8	16.5
10 28	1 23.14	+5 14.4	2.144	3.117	4.4	17.7	10 28	1 21.09	+13 44.7	1.485	2.466	4.8	16.7
11 7	1 16.39	+4 37.3	2.177	3.101	7.9	17.9	11 7	1 12.73	+13 29.3	1.519	2.460	9.2	17.0
11 17	1 11.04	+4 10.8	2.236	3.084	11.1	18.1	11 17	1 6.50	+13 18.1	1.577	2.455	13.3	17.2
38515	1999 <i>TP</i> ₂₄₅		10 17.7 193°48	4°6/12.8	18		129167	Dianelambert		10 17.7 53°21	0°6/17.2	18	
9 8	1 55.48	-3 54.6	2.477	3.295	11.8	18.8	9 8	1 56.80	+9 42.0	1.843	2.652	15.6	20.2
9 18	1 51.36	-4 43.1	2.400	3.294	9.4	18.6	9 18	1 53.09	+9 24.6	1.766	2.656	12.3	20.0
9 28	1 45.51	-5 32.6	2.347	3.292	6.8	18.5	9 28	1 47.07	+8 56.1	1.709	2.660	8.5	19.8
10 8	1 38.41	-6 18.2	2.320	3.291	4.9	18.3	10 8	1 39.32	+8 19.5	1.677	2.664	4.2	19.5
10 18	1 30.66	-6 55.2	2.322	3.289	4.9	18.3	10 18	1 30.66	+7 39.1	1.672	2.668	0.7	19.3
10 28	1 23.02	-7 19.1	2.352	3.287	6.9	18.5	10 28	1 22.16	+7 0.4	1.696	2.672	4.9	19.6
11 7	1 16.21	-7 27.3	2.409	3.285	9.5	18.6	11 7	1 14.79	+6 29.0	1.746	2.677	9.0	19.9
11 17	1 10.79	-7 19.0	2.491	3.282	11.9	18.8	11 17	1 9.32	+6 9.1	1.821	2.681	12.7	20.1
384753	2011 <i>QM</i> ₅₄		10 17.7 123°28	5°3/22.9	18		423414	2005 <i>NY</i> ₁		10 17.7 71°09	5°0/13.9	16	
9 8	2 0.88	+26 32.6	2.155	2.875	16.3	21.0	9 8	1 57.56	+1 35.2	1.437	2.278	17.7	21.3
9 18	1 56.18	+27 0.1	2.073	2.888	13.8	20.9	9 18	1 54.12	+0 25.8	1.379	2.289	13.8	21.1
9 28	1 49.14	+27 8.8	2.010	2.901	10.9	20.7	9 28	1 47.94	-0 51.2	1.342	2.299	9.6	20.9
10 8	1 40.34	+26 57.3	1.970	2.913	7.9	20.6	10 8	1 39.77	-2 7.7	1.328	2.311	5.9	20.7
10 18	1 30.61	+26 25.6	1.957	2.925	5.7	20.4	10 18	1 30.65	-3 14.5	1.340	2.322	5.5	20.7
10 28	1 21.02	+25 37.0	1.971	2.936	5.7	20.5	10 28	1 21.88	-4 3.4	1.377	2.333	8.7	20.9
11 7	1 12.59	+24 37.7	2.014	2.947	7.9	20.6	11 7	1 14.60	-4 29.2	1.440	2.344	12.7	21.2
11 17	1 6.10	+23 34.9	2.083	2.957	10.7	20.8	11 17	1 9.62	-4 30.6	1.523	2.355	16.2	21.4
356669	2011 <i>UB</i> ₈₂		10 17.7 54°33	1°0/16.9	18		396150	2013 <i>EX</i> ₂		10 17.7 41°68	3°3/14.7	18	
9 8	1 55.73	+9 17.5	1.841	2.654	15.5	21.1	9 8	1 54.76	+3 28.6	1.904	2.729	14.6	20.7
9 18	1 52.20	+8 50.1	1.767	2.660	12.2	20.9	9 18	1 51.36	+2 35.6	1.829	2.731	11.4	20.5
9 28	1 46.41	+8 11.4	1.714	2.666	8.4	20.7	9 28	1 45.81	+1 34.8	1.776	2.732	7.8	20.3
10 8	1 38.95	+7 24.9	1.685	2.673	4.1	20.4	10 8	1 38.65	+0 31.8	1.749	2.733	4.4	20.1
10 18	1 30.64	+6 35.6	1.684	2.679	1.1	20.2	10 18	1 30.68	-0 27.2	1.748	2.735	3.6	20.0
10 28	1 22.51	+5 49.5	1.710	2.686	5.0	20.5	10 28	1 22.85	-1 15.7	1.776	2.736	6.6	20.2
11 7	1 15.51	+5 12.3	1.764	2.693	9.1	20.8	11 7	1 16.09	-1 48.6	1.830	2.738	10.2	20.5
11 17	1 10.37	+4 48.1	1.842	2.699	12.7	21.0	11 17	1 11.08	-2 3.4	1.908	2.739	13.4	20.7
433334	2013 <i>RX</i> ₂₇		10 17.7 69°12	1°1/17.0	16		23824	1998 <i>QX</i> ₇₂		10 17.7 40°27	2°6/14.8	18	
9 8	2 1.10	+8 44.4	1.363	2.188	19.3	21.1	9 8	1 51.40	+6 58.7	2.081	2.900	13.7	18.8
9 18	1 57.13	+8 29.5	1.302	2.201	15.2	20.9	9 18	1 48.51	+5 41.9	2.005	2.905	10.7	18.6
9 28	1 50.14	+8 1.8	1.260	2.215	10.4	20.7	9 28	1 43.73	+4 14.3	1.953	2.909	7.2	18.4
10 8	1 40.90	+7 25.3	1.241	2.229	5.1	20.4	10 8	1 37.57	+2 41.3	1.928	2.914	3.8	18.2
10 18	1 30.60	+6 45.6	1.247	2.243	1.3	20.2	10 18	1 30.71	+1 9.9	1.930	2.920	2.9	18.2
10 28	1 20.66	+6 10.1	1.279	2.256	6.1	20.6	10 28	1 24.01	-0 12.6	1.962	2.925	5.9	18.4
11 7	1 12.40	+5 45.1	1.337	2.270	11.0	20.9	11 7	1 18.24	-1 20.1	2.021	2.931	9.3	18.6
11 17	1 6.71	+5 34.9	1.418	2.284	15.2	21.2	11 17	1 14.02	-2 8.8	2.105	2.936	12.4	18.8
492710	2014 <i>QX</i> ₂₅		10 17.7 66°88	10°8/29.6	17		91823	1999 <i>TJ</i> ₂₈₀		10 17.7 63°10	1°0/16.8	18	
9 8	2 7.03	+41 55.8	2.360	2.959	17.6	21.5	9 8	1 55.10	+9 22.1	2.021	2.829	14.5	19.5
9 18	2 1.74	+43 37.2	2.281	2.972	16.1	21.4	9 18	1 51.41	+8 51.0	1.954	2.844	11.3	19.3
9 28	1 53.47	+44 57.7	2.218	2.986	14.4	21.3	9 28	1 45.70	+8 9.5	1.908	2.859	7.7	19.1
10 8	1 42.75	+45 51.3	2.175	2.999	12.7	21.2	10 8	1 38.54	+7 21.3	1.887	2.874	3.8	18.9
10 18	1 30.54	+46 13.6	2.154	3.013	11.4	21.2	10 18	1 30.70	+6 31.0	1.894	2.890	1.1	18.8
10 28	1 18.21	+46 3.8	2.156	3.026	10.8	21.2	10 28	1 23.08	+5 44.2	1.931	2.905	4.6	19.0
11 7	1 7.16	+45 25.9	2.183	3.040	11.1	21.2	11 7	1 16.52	+5 5.9	1.994	2.921	8.3	19.3
11 17	0 58.50	+44 27.3	2.233	3.054	12.1	21.3	11 17	1 11.65	+4 39.7	2.083	2.937	11.6	19.5
487148	2014 <i>OU</i> ₂₁₈		10 17.7 6°54	7°6/11.7	17		221766	2007 <i>GG</i> ₃₀		10 17.7 110°04	0°3/18.1	18	
9 8	1 53.00	-7 14.9	1.582	2.431	15.9	20.4	9 8	1					

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
72414	2001 CT ₃₀	10 17.8 138°53			2°6/19.6 18		343479	2010 EQ ₈₃	10 17.8 255°34			1°6/16.2 18	
9 8	2 2.99	+15 57.6	1.931	2.704	16.3	19.4	9 8	1 54.73	+10 13.5	1.975	2.782	14.8	21.1
9 18	1 58.06	+16 31.4	1.845	2.707	13.3	19.2	9 18	1 51.50	+9 9.5	1.875	2.766	11.7	20.9
9 28	1 50.59	+16 53.1	1.780	2.711	9.7	19.0	9 28	1 46.05	+7 50.0	1.798	2.751	8.0	20.6
10 8	1 41.16	+17 1.9	1.739	2.714	5.8	18.7	10 8	1 38.89	+6 19.3	1.747	2.734	4.0	20.4
10 18	1 30.64	+16 58.5	1.725	2.717	2.7	18.5	10 18	1 30.73	+4 43.8	1.724	2.718	1.8	20.2
10 28	1 20.17	+16 46.0	1.741	2.719	4.6	18.7	10 28	1 22.55	+3 11.9	1.730	2.701	5.6	20.4
11 7	1 10.88	+16 29.1	1.785	2.722	8.4	18.9	11 7	1 15.32	+1 51.4	1.763	2.683	9.7	20.6
11 17	1 3.63	+16 13.0	1.854	2.724	12.0	19.1	11 17	1 9.84	+0 48.4	1.822	2.665	13.4	20.8
359011	2008 UY ₂₀₅	10 17.8 314°84			0°7/18.9 18		191008	2001 YG ₁₂₂	10 17.8 323°00			3°7/20.4 18	
9 8	1 47.35	+14 43.2	4.136	4.903	8.3	21.2	9 8	1 57.13	+18 46.3	1.500	2.295	19.2	19.7
9 18	1 44.41	+14 26.5	4.035	4.898	6.6	21.1	9 18	1 54.32	+19 11.9	1.413	2.286	15.9	19.4
9 28	1 40.48	+14 2.8	3.957	4.892	4.7	20.9	9 28	1 48.55	+19 18.9	1.344	2.277	11.9	19.2
10 8	1 35.82	+13 33.0	3.908	4.887	2.6	20.8	10 8	1 40.34	+19 6.3	1.296	2.269	7.5	18.9
10 18	1 30.78	+12 58.9	3.887	4.882	0.7	20.6	10 18	1 30.69	+18 34.9	1.272	2.262	3.9	18.7
10 28	1 25.77	+12 22.9	3.898	4.877	2.2	20.7	10 28	1 20.99	+17 49.7	1.275	2.255	5.6	18.7
11 7	1 21.17	+11 47.5	3.939	4.873	4.3	20.9	11 7	1 12.64	+16 58.6	1.302	2.248	10.0	19.0
11 17	1 17.33	+11 15.1	4.007	4.868	6.3	21.0	11 17	1 6.73	+16 10.4	1.354	2.242	14.3	19.2
476841	2008 UG ₃₀₂	10 17.8 282°75			0°1/17.8 18		32861	1993 FM ₇	10 17.8 324°87			1°8/16.1 18	
9 8	1 58.27	+11 11.9	1.839	2.641	15.9	21.9	9 8	1 55.00	+6 41.4	2.064	2.877	14.0	18.6
9 18	1 54.68	+11 4.8	1.731	2.616	12.8	21.6	9 18	1 51.43	+6 8.3	1.981	2.876	11.0	18.4
9 28	1 48.53	+10 45.3	1.643	2.591	9.0	21.4	9 28	1 45.83	+5 26.4	1.921	2.875	7.5	18.2
10 8	1 40.26	+10 15.1	1.580	2.566	4.7	21.0	10 8	1 38.69	+4 39.6	1.887	2.874	3.8	17.9
10 18	1 30.66	+9 37.4	1.544	2.540	0.1	20.6	10 18	1 30.74	+3 52.5	1.880	2.873	2.0	17.8
10 28	1 20.85	+8 57.6	1.536	2.515	5.0	21.0	10 28	1 22.90	+3 10.6	1.902	2.873	5.2	18.0
11 7	1 12.01	+8 22.0	1.555	2.489	9.7	21.2	11 7	1 16.02	+2 38.9	1.952	2.872	8.9	18.2
11 17	1 5.14	+7 56.1	1.598	2.463	13.9	21.4	11 17	1 10.80	+2 20.7	2.026	2.871	12.2	18.5
382071	2011 EV ₇₅	10 17.8 138°30			0°1/17.7 17		134496	1999 AG ₁₇	10 17.8 352°51			6°1/22.5 18	
9 8	2 0.08	+11 38.1	1.876	2.671	15.9	21.8	9 8	1 54.23	+24 16.7	1.535	2.309	19.7	18.4
9 18	1 55.60	+11 18.1	1.799	2.681	12.6	21.6	9 18	1 52.04	+24 58.5	1.451	2.304	16.7	18.2
9 28	1 48.75	+10 45.3	1.744	2.690	8.7	21.4	9 28	1 46.95	+25 18.7	1.385	2.299	13.2	18.0
10 8	1 40.16	+10 2.6	1.713	2.699	4.4	21.1	10 8	1 39.52	+25 14.3	1.339	2.295	9.4	17.8
10 18	1 30.67	+9 14.0	1.710	2.707	0.2	20.8	10 18	1 30.72	+24 45.1	1.316	2.293	6.5	17.6
10 28	1 21.39	+8 25.6	1.736	2.714	4.6	21.2	10 28	1 21.91	+23 54.8	1.318	2.291	6.7	17.6
11 7	1 13.31	+7 43.4	1.790	2.721	8.8	21.4	11 7	1 14.46	+22 51.6	1.346	2.290	9.8	17.8
11 17	1 7.19	+7 12.0	1.869	2.728	12.5	21.7	11 17	1 9.40	+21 45.2	1.396	2.290	13.6	18.0
25618	2000 AJ ₃₄	10 17.8 74°93			1°7/16.6 18		123939	2001 EP ₁₇	10 17.8 167°96			8°0/5.3 18	
9 8	2 3.22	+7 11.0	1.470	2.289	18.4	17.8	9 8	1 55.30	-22 45.8	3.178	3.965	10.2	20.8
9 18	1 58.37	+6 50.2	1.417	2.314	14.4	17.6	9 18	1 50.88	-24 4.9	3.130	3.969	9.0	20.7
9 28	1 50.72	+6 19.0	1.385	2.338	9.8	17.4	9 28	1 45.01	-25 15.1	3.106	3.973	8.2	20.6
10 8	1 41.11	+5 41.9	1.376	2.363	4.8	17.2	10 8	1 38.13	-26 11.1	3.107	3.977	8.0	20.6
10 18	1 30.65	+5 4.6	1.393	2.388	1.9	17.0	10 18	1 30.77	-26 48.6	3.134	3.980	8.5	20.7
10 28	1 20.70	+4 33.6	1.438	2.412	6.1	17.4	10 28	1 23.54	-27 5.0	3.186	3.983	9.6	20.7
11 7	1 12.41	+4 14.1	1.509	2.436	10.5	17.7	11 7	1 17.05	-26 59.9	3.260	3.985	10.8	20.8
11 17	1 6.55	+4 9.2	1.604	2.460	14.3	18.0	11 17	1 11.75	-26 34.4	3.355	3.986	11.9	21.0
303140	2004 DA ₁₅	10 17.8 233°06			1°2/19.1 18		31442	Stark	10 17.8 218°11			1°1/18.7 18	
9 8	1 54.57	+17 21.4	2.253	3.027	14.2	21.3	9 8	1 58.81	+14 45.4	1.926	2.713	15.8	19.1
9 18	1 51.08	+16 44.8	2.152	3.018	11.5	21.1	9 18	1 54.79	+14 33.3	1.833	2.707	12.8	18.8
9 28	1 45.59	+15 51.6	2.073	3.008	8.3	20.8	9 28	1 48.37	+14 6.3	1.760	2.700	9.1	18.6
10 8	1 38.58	+14 43.8	2.019	2.999	4.6	20.6	10 8	1 40.07	+13 26.0	1.711	2.693	5.0	18.3
10 18	1 30.72	+13 24.9	1.994	2.989	1.3	20.4	10 18	1 30.72	+12 35.5	1.690	2.686	1.1	18.0
10 28	1 22.89	+12 1.0	1.998	2.978	3.8	20.5	10 28	1 21.38	+11 40.4	1.698	2.678	4.4	18.3
11 7	1 15.95	+10 39.2	2.032	2.968	7.6	20.7	11 7	1 13.12	+10 47.4	1.733	2.670	8.7	18.5
11 17	1 10.58	+9 25.8	2.092	2.957	11.1	20.9	11 17	1 6.78	+10 2.6	1.795	2.661	12.5	18.7
298047	2002 QB ₈	10 17.8 2°21			5°3/12.9 18		353824	2012 UP ₃₈	10 17.8 32°07			3°5/20.5 18	
9 8	1 55.01	-1 4.9	1.804	2.639	14.9	20.3	9 8	1 54.25	+20 10.0	1.252	2.062	21.5	20.1
9 18	1 51.68	-2 13.4	1.734	2.638	11.7	20.1	9 18	1 52.13	+20 7.5	1.195	2.077	17.6	19.9
9 28	1 46.10	-3 26.8	1.685	2.638	8.4	19.9	9 28	1 46.90	+19 39.5	1.155	2.094	12.9	19.7
10 8	1 38.84	-4 37.9	1.661	2.638	5.7	19.8	10 8	1 39.37	+18 47.3	1.136	2.112	7.9	19.5
10 18	1 30.72	-5 39.2	1.664	2.639	5.7	19.8	10 18	1 30.74	+17 35.6	1.139	2.131	3.7	19.3
10 28	1 22.76	-6 23.8	1.694	2.639	8.4	19.9	10 28	1 22.50	+16 13.7	1.168	2.150	5.5	19.4
11 7	1 15.92	-6 47.5	1.750	2.639	11.7	20.1	11 7	1 15.97	+14 52.7	1.222	2.171	10.0	19.8
11 17	1 10.93	-6 48.7	1.827	2.639	14.8	20.3	11 17	1 12.03	+13 42.5	1.298	2.192	14.4	20.1
131513	2001 TD ₆₉	10 17.8 343°76			0°3/17.9 18		37889	1998 FW ₅₉	10 17.8 78°25			1°3/18.6 18	
9 8	1 54.40	+11 21.7	1.038	1.890	22.2	20.1	9 8	2 4.88	+12 3.9	1.713	2.505	17.3	19.0
9 18	1 53.10	+11 25.7	0.967	1.881	17.9	19.8	9 18	1 59.65	+12 35.6	1.641	2.518	13.9	18.8
9 28	1 48.21	+11 11.5	0.913	1.873	12.6	19.5	9 28	1 51.71	+12 56.4	1.589	2.531	9.8	18.6
10 8	1 40.32	+10 41.3	0.878	1.866	6.5	19.2	10 8	1 41.72	+13 6.9	1.562	2.544	5.3	18.3
10 18	1 30.69	+10 0.3	0.864	1.860	0.3	18.7	10 18	1 30.68	+13 8.4	1.561	2.556	1.4	18.1
10 28	1 21.09	+9 17.4	0.874	1.856	6.7	19.2	10 28	1 19.87	+13 4.4	1.590	2.569	4.7	18.4
11 7	1 13.31	+8 42.5	0.905	1.853	12.8	19.5	11 7	1 10.47	+12 59.6	1.646	2.582	9.0	18.6
11 17	1 8.60	+8 23.3	0.956	1.851	18.2	19.8	11 17	1 3.36	+12 58.5	1.727	2.595	12.8	18.9
67585	2000 SP ₁₂₄	10 17.8 340°88			2°6/16.1 18		155067	2005 SH ₅₈	10 17.8 334°61			0°4/17.6 18	
9 8	1 48.69	+8 41.0	1.012	1.879	21.4	19.2	9 8	1 55.13	+9 36.0	1.250	2.091	19.8	20.2
9 18	1 48.55	+7 59.3	0.940	1.865	17.0	18.9	9 18	1 53.15	+9 40.6	1.169	2.077</		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
144109	2004 BA ₇₂	10 17.8 173°49'		3°1'/20.4 18			468867	2013 PB ₆₃	10 17.8 108°83'		0°2'/17.9 16		
9 8	1 58.71	+20 15.3	1.701	2.476	18.0	20.3	9 8	2 0.55	+13 47.9	1.514	2.318	18.6	22.6
9 18	1 55.05	+20 10.6	1.617	2.478	14.9	20.0	9 18	1 56.47	+13 12.5	1.448	2.333	14.8	22.4
9 28	1 48.71	+19 45.4	1.551	2.479	11.0	19.8	9 28	1 49.59	+12 19.0	1.401	2.348	10.3	22.1
10 8	1 40.28	+18 59.9	1.508	2.480	6.8	19.6	10 8	1 40.66	+11 11.0	1.378	2.363	5.3	21.9
10 18	1 30.72	+17 56.8	1.490	2.480	3.3	19.4	10 18	1 30.75	+9 54.9	1.381	2.377	0.2	21.5
10 28	1 21.26	+16 42.3	1.501	2.481	4.9	19.5	10 28	1 21.19	+8 39.2	1.412	2.391	5.3	22.0
11 7	1 13.11	+15 25.4	1.539	2.481	9.0	19.7	11 7	1 13.16	+7 32.6	1.470	2.405	10.0	22.3
11 17	1 7.18	+14 14.6	1.601	2.480	13.0	20.0	11 17	1 7.50	+6 41.6	1.551	2.417	14.1	22.6
204996	1996 TU ₅	10 17.8 350°78'		0°2'/17.7 18			197968	2004 RV ₁₀₈	10 17.8 188°09'		3°1'/20.5 18		
9 8	1 52.72	+11 53.9	1.334	2.168	19.1	19.4	9 8	1 59.55	+19 44.6	1.934	2.699	16.5	20.7
9 18	1 50.89	+11 34.5	1.258	2.162	15.3	19.1	9 18	1 55.42	+19 52.9	1.844	2.698	13.6	20.5
9 28	1 46.14	+10 57.5	1.201	2.157	10.7	18.8	9 28	1 48.83	+19 44.3	1.773	2.698	10.1	20.3
10 8	1 39.09	+10 6.1	1.165	2.153	5.4	18.5	10 8	1 40.33	+19 18.5	1.727	2.697	6.4	20.0
10 18	1 30.75	+9 6.3	1.154	2.150	0.3	18.1	10 18	1 30.76	+18 37.1	1.707	2.695	3.3	19.8
10 28	1 22.51	+8 6.5	1.167	2.148	5.8	18.6	10 28	1 21.24	+17 44.8	1.715	2.694	4.6	19.9
11 7	1 15.69	+7 15.8	1.205	2.147	11.1	18.9	11 7	1 12.87	+16 48.3	1.752	2.692	8.3	20.1
11 17	1 11.29	+6 40.9	1.265	2.146	15.6	19.1	11 17	1 6.48	+15 54.6	1.814	2.689	11.9	20.4
166212	2002 EX ₁₃₉	10 17.8 350°18'		2°7'/19.1 18			8783	Gopasyuk	10 17.8 183°80'		0°6'/17.3 18 R		
9 8	1 54.77	+13 28.5	0.992	1.841	23.2	19.2	9 8	1 59.01	+11 48.5	1.844	2.643	16.0	18.0
9 18	1 53.66	+14 13.2	0.922	1.832	18.9	18.9	9 18	1 54.92	+11 6.9	1.759	2.643	12.7	17.8
9 28	1 48.77	+14 40.8	0.868	1.824	13.7	18.6	9 28	1 48.42	+10 10.4	1.696	2.644	8.8	17.6
10 8	1 40.70	+14 50.6	0.833	1.818	7.9	18.3	10 8	1 40.08	+9 2.4	1.657	2.643	4.4	17.3
10 18	1 30.71	+14 43.8	0.819	1.814	2.8	18.0	10 18	1 30.77	+7 48.4	1.646	2.642	0.7	17.0
10 28	1 20.71	+14 26.2	0.827	1.811	6.6	18.2	10 28	1 21.58	+6 35.8	1.664	2.640	5.1	17.3
11 7	1 12.61	+14 6.5	0.857	1.810	12.5	18.5	11 7	1 13.55	+5 32.0	1.710	2.637	9.4	17.6
11 17	1 7.78	+13 53.2	0.906	1.810	18.0	18.8	11 17	1 7.50	+4 42.7	1.780	2.634	13.2	17.8
143935	2003 YE ₁₀₅	10 17.8 347°65'		1°3'/18.7 17			510269	2011 HW ₈₃	10 17.8 211°14'		0°8'/17.1 18		
9 8	1 53.36	+16 18.1	1.267	2.091	20.5	19.8	9 8	1 59.87	+9 35.0	2.006	2.803	14.9	22.7
9 18	1 51.61	+15 52.7	1.192	2.087	16.6	19.6	9 18	1 55.46	+9 12.7	1.913	2.797	11.9	22.5
9 28	1 46.76	+15 3.3	1.133	2.083	11.9	19.3	9 28	1 48.75	+8 39.4	1.843	2.791	8.2	22.2
10 8	1 39.44	+13 52.1	1.096	2.080	6.5	19.0	10 8	1 40.26	+7 57.9	1.797	2.784	4.1	22.0
10 18	1 30.75	+12 25.2	1.082	2.078	1.4	18.6	10 18	1 30.77	+7 12.3	1.780	2.776	0.9	21.7
10 28	1 22.17	+10 53.0	1.094	2.076	5.6	18.9	10 28	1 21.31	+6 28.1	1.792	2.768	4.9	22.0
11 7	1 15.15	+9 27.6	1.130	2.075	11.1	19.2	11 7	1 12.88	+5 50.9	1.832	2.759	9.0	22.2
11 17	1 10.72	+8 18.6	1.188	2.075	16.0	19.5	11 17	1 6.29	+5 25.2	1.898	2.749	12.6	22.4
233432	2006 HS ₅₃	10 17.8 144°39'		5°6'/12.8 18			461196	2015 VR ₁₀₃	10 17.8 29°27'		2°3'/15.6 18		
9 8	2 0.96	-6 11.4	2.196	3.010	13.3	20.3	9 8	1 52.87	+6 19.1	1.894	2.718	14.7	21.2
9 18	1 55.79	-6 58.9	2.131	3.019	10.6	20.1	9 18	1 49.88	+5 31.6	1.824	2.725	11.5	21.0
9 28	1 48.62	-7 45.3	2.088	3.029	7.9	20.0	9 28	1 44.80	+4 34.6	1.775	2.732	7.8	20.8
10 8	1 40.02	-8 24.9	2.072	3.038	5.9	19.9	10 8	1 38.19	+3 33.0	1.752	2.739	4.0	20.6
10 18	1 30.75	-8 52.4	2.084	3.046	5.9	19.9	10 18	1 30.82	+2 32.7	1.755	2.747	2.6	20.5
10 28	1 21.71	-9 3.6	2.125	3.053	8.0	20.0	10 28	1 23.63	+1 40.2	1.787	2.755	5.8	20.7
11 7	1 13.75	-8 56.7	2.192	3.061	10.6	20.2	11 7	1 17.49	+1 0.7	1.845	2.764	9.4	21.0
11 17	1 7.48	-8 31.7	2.283	3.067	13.1	20.4	11 17	1 13.07	+0 37.5	1.928	2.773	12.7	21.2
27615	Daniellu	10 17.8 116°80'		5°0'/13.6 18			311777	2006 UH ₂₉	10 17.8 24°62'		0°4'/18.2 18		
9 8	1 58.90	+0 43.3	1.677	2.506	16.1	18.8	9 8	1 54.12	+13 40.4	1.770	2.575	16.3	21.3
9 18	1 54.78	-0 31.1	1.616	2.519	12.6	18.6	9 18	1 51.15	+13 15.1	1.692	2.579	13.0	21.1
9 28	1 48.22	-1 51.6	1.577	2.531	8.8	18.4	9 28	1 45.85	+12 34.3	1.635	2.582	9.1	20.8
10 8	1 39.90	-3 10.7	1.564	2.543	5.6	18.2	10 8	1 38.78	+11 40.8	1.601	2.586	4.7	20.6
10 18	1 30.76	-4 20.3	1.577	2.555	5.4	18.3	10 18	1 30.81	+10 39.2	1.595	2.591	0.4	20.3
10 28	1 21.93	-5 12.7	1.618	2.567	8.3	18.5	10 28	1 22.98	+9 36.3	1.616	2.596	4.6	20.6
11 7	1 14.43	-5 43.4	1.684	2.577	11.8	18.7	11 7	1 16.30	+8 39.4	1.663	2.601	8.9	20.9
11 17	1 8.98	-5 51.1	1.772	2.588	15.0	18.9	11 17	1 11.54	+7 54.0	1.736	2.606	12.7	21.1
177217	2003 UA ₁₇₃	10 17.8 325°30'		2°5'/19.3 18			516228	2016 UF ₂₄	10 17.8 303°33'		2°1'/16.7 18		
9 8	1 57.62	+15 38.3	1.301	2.117	20.5	20.5	9 8	2 4.65	+3 22.2	1.648	2.463	16.9	21.4
9 18	1 55.10	+15 57.1	1.220	2.109	16.8	20.2	9 18	1 59.83	+3 39.6	1.559	2.453	13.5	21.2
9 28	1 49.31	+15 57.5	1.156	2.101	12.2	20.0	9 28	1 52.13	+3 53.3	1.490	2.442	9.4	20.9
10 8	1 40.82	+15 39.4	1.112	2.094	7.1	19.7	10 8	1 42.11	+4 6.0	1.446	2.432	4.9	20.6
10 18	1 30.73	+15 4.9	1.093	2.087	2.6	19.4	10 18	1 30.73	+4 20.7	1.429	2.423	2.2	20.4
10 28	1 20.61	+14 20.4	1.098	2.080	5.7	19.5	10 28	1 19.33	+4 41.0	1.440	2.413	6.1	20.7
11 7	1 12.04	+13 34.7	1.128	2.074	11.0	19.8	11 7	1 9.22	+5 9.6	1.478	2.404	10.7	20.9
11 17	1 6.19	+12 56.5	1.179	2.069	15.9	20.1	11 17	1 1.43	+5 48.4	1.540	2.395	14.9	21.2
381795	2009 UH ₂₁	10 17.8 239°13'		3°9'/14.9 18			155489	1998 XA ₈	10 17.8 43°13'		0°3'/17.5 18		
9 8	2 1.05	+1 3.5	1.827	2.645	15.4	21.3	9 8	1 54.34	+11 5.3	1.941	2.747	15.0	20.4
9 18	1 56.61	+0 31.3	1.738	2.635	12.2	21.0	9 18	1 50.96	+10 41.3	1.873	2.761	11.8	20.2
9 28	1 49.66	-0 6.3	1.672	2.624	8.5	20.8	9 28	1 45.50	+10 5.7	1.826	2.776	8.1	20.0
10 8	1 40.75	-0 44.1	1.630	2.613	5.0	20.6	10 8	1 38.52	+9 21.4	1.804	2.790	4.1	19.8
10 18	1 30.74	-1 16.5	1.616	2.602	4.1	20.5	10 18	1 30.83	+8 33.0	1.809	2.805	0.4	19.5
10 28	1 20.75	-1 37.5	1.630	2.590	7.2	20.7	10 28	1 23.34	+7 46.1	1.843	2.821	4.4	19.9
11 7	1 11.90	-1 42.9	1.671	2.577	11.1	20.9	11 7	1 16.94	+7 6.1	1.904	2.837	8.3	20.1
11 17	1 5.04	-1 30.7	1.735	2.565	14.7	21.1	11 17	1 12.28	+6 37.1	1.990	2.852	11.7	20.4
31848	Mikemattai	10 17.8 204°69'		0°3'/17.5 18			69859	1998 SQ ₅₇	10 17.8 305°23'		1°5'/16.4 18		
9 8	2 3.81	+9 2.1	2.006	2.796	15.2	19.1	9 8	1 54.06	+7 8.3	2.102	2.915	13.8	19.0
9 18	1 58.58	+9 5.0	1.913	2.792	12.1	18							

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
221073	Ovruch		10 17.8	1°32'	2°0'/19.3	18	412741	2014 OE ₃₆₀		10 17.8	317°76'	8°3'/6.7	18
9 8	1 50.51	+17 30.1	1.183	2.013	21.3	19.3	9 8	1 50.67	-10 39.5	2.119	2.955	12.9	20.4
9 18	1 49.54	+17 11.9	1.113	2.010	17.4	19.1	9 18	1 48.08	-12 50.4	2.052	2.947	10.7	20.3
9 28	1 45.41	+16 27.8	1.059	2.009	12.5	18.8	9 28	1 43.57	-15 0.5	2.010	2.938	8.9	20.2
10 8	1 38.80	+15 19.7	1.026	2.009	7.1	18.5	10 8	1 37.62	-17 0.5	1.995	2.930	8.3	20.1
10 18	1 30.83	+13 53.7	1.016	2.010	2.1	18.2	10 18	1 30.90	-18 41.4	2.006	2.922	9.3	20.2
10 28	1 23.01	+12 20.5	1.029	2.013	5.6	18.4	10 28	1 24.24	-19 56.2	2.043	2.914	11.2	20.3
11 7	1 16.81	+10 52.7	1.067	2.016	11.1	18.8	11 7	1 18.47	-20 41.4	2.104	2.907	13.5	20.4
11 17	1 13.23	+ 9 40.8	1.126	2.021	16.0	19.1	11 17	1 14.22	-20 57.1	2.184	2.900	15.6	20.6
113009	2002 RY ₃₉		10 17.8	68°34'	2°5'/16.0	18	322658	1999 RF ₃₁		10 17.8	30°57'	15°9'/24.2	18 R
9 8	1 59.27	+ 7 6.7	1.366	2.198	18.9	19.9	9 8	2 20.86	+30 37.3	1.152	1.882	27.3	19.0
9 18	1 55.61	+ 6 23.3	1.310	2.214	14.8	19.6	9 18	2 15.53	+34 23.8	1.095	1.895	24.3	18.8
9 28	1 49.07	+ 5 27.4	1.273	2.230	10.0	19.4	9 28	2 4 94	+37 50.8	1.054	1.911	21.1	18.7
10 8	1 40.42	+ 4 25.1	1.259	2.247	5.1	19.2	10 8	1 49.44	+40 41.1	1.032	1.927	18.1	18.5
10 18	1 30.80	+ 3 24.1	1.270	2.263	2.7	19.1	10 18	1 30.62	+42 38.5	1.032	1.945	16.2	18.5
10 28	1 21.59	+ 2 32.9	1.308	2.280	6.9	19.4	10 28	1 11.37	+43 35.8	1.054	1.963	16.0	18.5
11 7	1 14.01	+ 1 57.9	1.371	2.296	11.5	19.7	11 7	0 54.83	+43 40.1	1.097	1.983	17.3	18.7
11 17	1 8.88	+ 1 42.7	1.456	2.313	15.5	20.0	11 17	0 43.16	+43 7.9	1.160	2.004	19.5	18.9
98652	2000 WW ₁₄₃		10 17.8	235°79'	2°5'/15.5	18	249713	2000 QX ₇₄		10 17.8	22°48'	3°8'/20.8	18
9 8	1 58.50	+ 4 23.5	2.213	3.019	13.4	20.0	9 8	1 57.01	+19 41.8	1.727	2.507	17.7	19.8
9 18	1 54.18	+ 3 49.7	2.116	3.006	10.6	19.8	9 18	1 53.67	+20 11.0	1.650	2.512	14.6	19.6
9 28	1 47.77	+ 3 8.8	2.041	2.992	7.3	19.6	9 28	1 47.75	+20 23.0	1.592	2.519	10.9	19.4
10 8	1 39.75	+ 2 24.3	1.993	2.978	3.9	19.3	10 8	1 39.83	+20 17.3	1.557	2.526	7.1	19.2
10 18	1 30.82	+ 1 41.2	1.973	2.963	2.7	19.2	10 18	1 30.85	+19 54.8	1.546	2.533	4.0	19.0
10 28	1 21.87	+ 1 4.5	1.983	2.948	5.6	19.4	10 28	1 21.99	+19 19.7	1.563	2.541	5.1	19.1
11 7	1 13.79	+ 0 38.8	2.021	2.932	9.2	19.6	11 7	1 14.38	+18 38.6	1.606	2.549	8.6	19.4
11 17	1 7.34	+ 0 27.2	2.084	2.915	12.5	19.8	11 17	1 8.90	+17 58.4	1.674	2.558	12.3	19.6
167995	2005 GO ₁₁₆		10 17.8	315°44'	0°8'/18.5	18	267975	2004 FY ₁₂₃		10 17.8	223°66'	1°3'/16.7	18
9 8	1 55.14	+14 8.2	1.785	2.587	16.3	20.4	9 8	1 59.20	+ 8 51.3	1.811	2.619	15.9	21.4
9 18	1 52.07	+13 52.3	1.698	2.581	13.1	20.2	9 18	1 55.22	+ 8 20.9	1.721	2.612	12.6	21.2
9 28	1 46.59	+13 21.0	1.630	2.576	9.3	19.9	9 28	1 48.75	+ 7 38.4	1.653	2.604	8.7	21.0
10 8	1 39.24	+12 36.1	1.587	2.570	5.0	19.7	10 8	1 40.34	+ 6 47.2	1.609	2.596	4.3	20.7
10 18	1 30.84	+11 41.7	1.570	2.565	0.8	19.4	10 18	1 30.84	+ 5 52.6	1.592	2.587	1.4	20.5
10 28	1 22.48	+10 43.9	1.580	2.561	4.6	19.6	10 28	1 21.37	+ 5 1.2	1.604	2.578	5.5	20.7
11 7	1 15.24	+ 9 49.9	1.617	2.556	9.0	19.9	11 7	1 13.03	+ 4 19.4	1.643	2.569	9.9	21.0
11 17	1 9.95	+ 9 5.9	1.679	2.552	12.9	20.1	11 17	1 6.68	+ 3 51.9	1.707	2.559	13.8	21.2
13541	1991 VP ₃		10 17.8	258°93'	2°5'/16.1	18	154252	2002 LP ₅		10 17.8	121°72'	0°5'/18.4	18
9 8	2 0 93	+ 4 48.7	1.635	2.455	16.8	18.0	9 8	1 54.53	+13 50.6	2.435	3.218	13.0	21.1
9 18	1 56.86	+ 4 31.3	1.548	2.446	13.3	17.8	9 18	1 50.76	+13 29.2	2.351	3.224	10.4	21.0
9 28	1 50.05	+ 4 5.6	1.482	2.436	9.2	17.5	9 28	1 45.23	+12 56.4	2.290	3.230	7.3	20.8
10 8	1 41.06	+ 3 35.8	1.440	2.427	4.8	17.2	10 8	1 38.39	+12 14.0	2.254	3.237	3.8	20.6
10 18	1 30.81	+ 3 7.1	1.424	2.417	2.7	17.1	10 18	1 30.89	+11 25.4	2.247	3.243	0.6	20.3
10 28	1 20.57	+ 2 45.4	1.436	2.407	6.5	17.3	10 28	1 23.51	+10 35.0	2.269	3.248	3.5	20.6
11 7	1 11.59	+ 2 35.9	1.475	2.397	11.0	17.5	11 7	1 16.97	+ 9 47.7	2.320	3.254	6.9	20.8
11 17	1 4.84	+ 2 41.7	1.536	2.387	15.1	17.8	11 17	1 11.86	+ 9 7.9	2.398	3.260	10.0	21.0
146040	Alicebowman		10 17.8	239°70'	1°2'/18.7	18	356690	2011 UG ₁₂₃		10 17.8	239°75'	0°6'/17.3	18
9 8	1 59.13	+14 24.8	1.700	2.496	17.2	20.9	9 8	1 57.15	+ 9 35.5	1.969	2.773	14.9	21.5
9 18	1 55.43	+14 18.9	1.609	2.489	14.0	20.7	9 18	1 53.33	+ 9 19.1	1.884	2.772	11.8	21.3
9 28	1 49.05	+13 57.3	1.539	2.482	10.0	20.5	9 28	1 47.28	+ 8 52.1	1.820	2.770	8.2	21.1
10 8	1 40.55	+13 21.3	1.492	2.474	5.4	20.2	10 8	1 39.53	+ 8 17.3	1.781	2.768	4.1	20.8
10 18	1 30.82	+12 34.2	1.471	2.467	1.2	19.9	10 18	1 30.87	+ 7 38.6	1.770	2.765	0.7	20.6
10 28	1 21.10	+11 42.0	1.478	2.459	4.8	20.1	10 28	1 22.28	+ 7 1.3	1.787	2.763	4.7	20.9
11 7	1 12.59	+10 52.1	1.512	2.451	9.5	20.4	11 7	1 14.73	+ 6 30.6	1.831	2.761	8.7	21.1
11 17	1 6.24	+10 11.1	1.571	2.442	13.7	20.6	11 17	1 8.97	+ 6 10.6	1.901	2.759	12.3	21.3
135285	2001 SX ₁₄₈		10 17.8	326°52'	3°5'/20.2	18	395798	2012 WW ₂₂		10 17.8	255°69'	5°8'/13.5	18
9 8	1 53.49	+18 27.3	1.339	2.150	20.3	19.6	9 8	2 1 64	- 5 11.3	1.894	2.715	14.8	20.8
9 18	1 51.86	+18 43.0	1.250	2.134	16.8	19.3	9 18	1 56.93	- 5 44.9	1.812	2.706	11.9	20.6
9 28	1 47.12	+18 37.5	1.179	2.119	12.5	19.0	9 28	1 49.81	- 6 18.2	1.752	2.697	8.8	20.4
10 8	1 39.78	+18 9.7	1.128	2.105	7.7	18.7	10 8	1 40.83	- 6 45.2	1.717	2.688	6.3	20.2
10 18	1 30.84	+17 21.4	1.100	2.091	3.7	18.5	10 18	1 30.85	- 7 0.1	1.709	2.679	6.1	20.2
10 28	1 21.77	+16 18.9	1.096	2.078	5.7	18.5	10 28	1 20.95	- 6 58.0	1.728	2.669	8.5	20.3
11 7	1 14.10	+15 12.3	1.117	2.067	10.7	18.8	11 7	1 12.20	- 6 36.6	1.774	2.660	11.8	20.5
11 17	1 9.01	+14 11.6	1.160	2.056	15.6	19.0	11 17	1 5.40	- 5 56.0	1.843	2.650	14.9	20.7
84578	2002 VO ₁₇		10 17.8	331°04'	0°6'/17.3	18	162823	2001 BV ₅₈		10 17.8	286°72'	6°6'/23.1	18
9 8	1 54.43	+10 42.4	1.792	2.605	15.8	20.0	9 8	1 59.72	+26 41.7	1.846	2.582	18.1	19.8
9 18	1 51.44	+10 14.9	1.708	2.600	12.6	19.8	9 18	1 56.02	+27 29.6	1.754	2.578	15.6	19.6
9 28	1 46.11	+ 9 34.1	1.644	2.596	8.7	19.5	9 28	1 49.56	+27 58.1	1.680	2.573	12.5	19.4
10 8	1 38.98	+ 8 43.2	1.604	2.591	4.3	19.3	10 8	1 40.87	+28 3.9	1.627	2.569	9.4	19.2
10 18	1 30.87	+ 7 47.2	1.591	2.587	0.7	19.0	10 18	1 30.85	+27 45.4	1.599	2.565	7.0	19.1
10 28	1 22.82	+ 6 52.5	1.606	2.584	5.0	19.3	10 28	1 20.76	+27 5.0	1.598	2.561	6.9	19.1
11 7	1 15.87	+ 6 5.9	1.648	2.580	9.3	19.6	11 7	1 11.88	+26 9.1	1.622	2.557	9.3	19.2
11 17	1 10.81	+ 5 32.4	1.714	2.577	13.2	19.8	11 17	1 5.22	+25 6.3	1.672	2.552	12.5	19.4
523185	2016 TC ₁₀₀		10 17.8	306°86'	0°5'/17.3	18	379629	2011 DN ₁₃		10 17.8	144°96'	1°0'/18.6	18
9 8	1 52.30	+15 46.4	1.778	2.579	16.4	21.1							

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
509322	2006 <i>WM</i> ₁₀₆	10 17.8 323°06		0°1/17.9 18			123623	2000 <i>YJ</i> ₃₁	10 17.8 75°45		0°6/17.3 18		
9 8	1 53.65	+12 18.5	1.267	2.102	19.9	22.1	9 8	1 56.37	+9 46.4	2.196	2.994	13.8	19.7
9 18	1 52.00	+12 4.1	1.183	2.087	16.0	21.8	9 18	1 52.28	+9 26.0	2.127	3.011	10.8	19.5
9 28	1 47.22	+11 30.9	1.116	2.072	11.3	21.5	9 28	1 46.30	+8 56.2	2.080	3.028	7.4	19.3
10 8	1 39.83	+10 41.1	1.070	2.058	5.9	21.2	10 8	1 38.95	+8 19.8	2.059	3.045	3.7	19.1
10 18	1 30.87	+9 40.3	1.048	2.045	0.1	20.7	10 18	1 30.96	+7 40.7	2.066	3.062	0.6	18.9
10 28	1 21.83	+8 37.4	1.051	2.032	6.1	21.1	10 28	1 23.18	+7 3.4	2.103	3.079	4.2	19.2
11 7	1 14.24	+7 42.5	1.077	2.020	11.8	21.4	11 7	1 16.39	+6 32.5	2.167	3.095	7.7	19.5
11 17	1 9.25	+7 3.6	1.124	2.009	16.9	21.7	11 17	1 11.19	+6 11.2	2.258	3.112	10.8	19.7
347045	2010 <i>EU</i> ₁₂₂	10 17.8 271°78		1°6/19.1 18			451179	2009 <i>SZ</i> ₂₈₈	10 17.8 49°61		1°5/16.8 18		
9 8	1 57.59	+15 28.8	1.809	2.600	16.6	21.0	9 8	2 2.48	+4 44.2	1.905	2.711	15.3	20.7
9 18	1 54.00	+15 27.9	1.722	2.597	13.4	20.8	9 18	1 57.27	+4 54.9	1.843	2.733	12.0	20.5
9 28	1 47.94	+15 11.8	1.655	2.594	9.6	20.6	9 28	1 49.81	+5 0.4	1.804	2.754	8.2	20.4
10 8	1 39.95	+14 41.6	1.611	2.591	5.4	20.3	10 8	1 40.73	+5 3.3	1.790	2.776	4.1	20.2
10 18	1 30.88	+14 0.0	1.594	2.589	1.7	20.1	10 18	1 30.93	+5 6.5	1.804	2.798	1.6	20.0
10 28	1 21.86	+13 12.3	1.605	2.586	4.5	20.3	10 28	1 21.46	+5 13.3	1.847	2.821	5.0	20.3
11 7	1 13.99	+12 25.4	1.643	2.583	8.7	20.5	11 7	1 13.25	+5 26.3	1.919	2.843	8.7	20.6
11 17	1 8.12	+11 45.3	1.706	2.580	12.6	20.8	11 17	1 6.99	+5 47.5	2.015	2.866	12.0	20.8
192481	1998 <i>GQ</i> ₂	10 17.8 165°16		3°0/15.3 18			40918	1999 <i>TG</i> ₁₅₈	10 17.8 189°73		1°1/19.1 18		
9 8	2 2.12	+1 28.5	2.182	2.986	13.6	20.7	9 8	1 53.70	+16 28.7	2.409	3.184	13.4	19.6
9 18	1 56.84	+1 5.1	2.103	2.991	10.7	20.5	9 18	1 50.23	+15 59.4	2.317	3.184	10.8	19.4
9 28	1 49.48	+0 37.8	2.046	2.996	7.4	20.3	9 28	1 44.95	+15 16.1	2.247	3.183	7.7	19.2
10 8	1 40.57	+0 10.5	2.017	2.999	4.2	20.1	10 8	1 38.32	+14 20.6	2.203	3.182	4.2	19.0
10 18	1 30.87	-0 12.5	2.016	3.003	3.2	20.0	10 18	1 30.98	+13 16.3	2.187	3.182	1.2	18.8
10 28	1 21.33	-0 26.9	2.045	3.005	5.9	20.2	10 28	1 23.71	+12 8.3	2.200	3.180	3.5	19.0
11 7	1 12.84	-0 29.6	2.103	3.008	9.2	20.4	11 7	1 17.28	+11 2.4	2.243	3.179	7.0	19.2
11 17	1 6.06	-0 19.0	2.185	3.009	12.2	20.6	11 17	1 12.29	+10 3.7	2.313	3.178	10.1	19.4
405329	2003 <i>UW</i> ₂₄₉	10 17.8 359°66		6°5/13.7 17			57735	2001 <i>UQ</i> ₁₅₉	10 17.8 78°63		1°3/16.6 18		
9 8	1 56.60	-6 14.6	1.555	2.399	16.4	19.3	9 8	1 56.27	+7 53.0	2.023	2.832	14.4	19.6
9 18	1 53.36	-6 36.9	1.489	2.395	13.2	19.1	9 18	1 52.50	+7 27.7	1.945	2.836	11.3	19.4
9 28	1 47.51	-6 56.7	1.442	2.393	9.8	18.9	9 28	1 46.62	+6 53.0	1.889	2.841	7.8	19.2
10 8	1 39.70	-7 7.3	1.419	2.392	7.1	18.8	10 8	1 39.19	+6 12.5	1.858	2.845	3.9	19.0
10 18	1 30.90	-7 2.9	1.421	2.392	6.9	18.8	10 18	1 30.96	+5 30.5	1.855	2.850	1.4	18.8
10 28	1 22.30	-6 39.1	1.448	2.394	9.3	18.9	10 28	1 22.87	+4 52.3	1.881	2.854	4.9	19.1
11 7	1 15.04	-5 54.7	1.499	2.397	12.7	19.1	11 7	1 15.80	+4 22.8	1.934	2.859	8.7	19.3
11 17	1 9.93	-4 51.1	1.573	2.401	15.9	19.4	11 17	1 10.44	+4 5.4	2.012	2.863	12.0	19.5
10287	<i>Smale</i>	10 17.8 3°68		5°1/14.9 18			119527	2001 <i>UH</i> ₁₇₇	10 17.8 166°45		0°4/18.2 17		
9 8	1 50.57	+1 54.6	0.970	1.849	21.2	16.1	9 8	1 58.66	+13 48.0	1.995	2.782	15.3	20.4
9 18	1 49.93	+1 22.1	0.916	1.847	16.8	15.8	9 18	1 54.48	+13 19.3	1.910	2.786	12.3	20.2
9 28	1 45.85	+0 41.2	0.878	1.846	11.7	15.6	9 28	1 48.06	+12 36.1	1.847	2.790	8.6	19.9
10 8	1 39.08	+0 0.1	0.860	1.848	6.7	15.3	10 8	1 39.95	+11 40.9	1.809	2.793	4.5	19.7
10 18	1 30.91	-0 31.8	0.863	1.852	5.4	15.3	10 18	1 30.97	+10 38.0	1.799	2.796	0.4	19.4
10 28	1 23.03	-0 45.4	0.888	1.859	9.5	15.5	10 28	1 22.11	+9 33.4	1.819	2.798	4.3	19.7
11 7	1 16.99	-0 35.6	0.934	1.867	14.6	15.8	11 7	1 14.34	+8 34.0	1.866	2.799	8.4	20.0
11 17	1 13.80	-0 1.6	0.999	1.877	19.1	16.1	11 17	1 8.41	+7 45.2	1.940	2.800	12.0	20.2
483089	2015 <i>MD</i> ₅₃	10 17.8 91°97		3°6/21.1 18			219043	1995 <i>SW</i> ₆₂	10 17.8 49°96		2°2/16.4 15		
9 8	2 0.63	+21 22.2	1.950	2.705	16.7	21.1	9 8	1 59.20	+8 35.6	1.155	1.997	21.0	20.9
9 18	1 56.05	+21 33.4	1.879	2.725	13.8	20.9	9 18	1 55.88	+7 50.5	1.112	2.022	16.4	20.7
9 28	1 49.10	+21 27.0	1.828	2.746	10.3	20.8	9 28	1 49.38	+6 50.5	1.088	2.047	11.1	20.5
10 8	1 40.41	+21 2.6	1.801	2.765	6.7	20.6	10 8	1 40.63	+5 42.3	1.084	2.073	5.5	20.3
10 18	1 30.89	+20 22.3	1.800	2.785	3.8	20.5	10 18	1 30.96	+4 35.0	1.105	2.100	2.4	20.2
10 28	1 21.63	+19 30.7	1.828	2.804	4.6	20.6	10 28	1 21.91	+3 38.2	1.152	2.126	7.0	20.6
11 7	1 13.62	+18 34.6	1.884	2.823	7.8	20.8	11 7	1 14.76	+2 59.1	1.222	2.153	11.9	20.9
11 17	1 7.62	+17 40.6	1.966	2.841	11.1	21.0	11 17	1 10.31	+2 41.2	1.313	2.181	16.1	21.3
430343	2013 <i>YT</i> ₇₀	10 17.8 329°90		5°1/14.6 18			65722	1993 <i>FY</i> ₃₅	10 17.8 307°16		1°5/18.6 18		
9 8	1 57.49	+0 32.1	1.323	2.171	18.5	20.3	9 8	2 2.58	+11 34.5	1.652	2.452	17.5	18.2
9 18	1 54.69	-0 5.1	1.249	2.162	14.7	20.1	9 18	1 58.43	+12 12.4	1.557	2.438	14.2	17.9
9 28	1 48.83	-0 48.7	1.194	2.153	10.4	19.8	9 28	1 51.37	+12 41.1	1.481	2.425	10.2	17.6
10 8	1 40.54	-1 31.7	1.161	2.145	6.3	19.6	10 8	1 41.90	+13 0.5	1.429	2.411	5.6	17.3
10 18	1 30.89	-2 6.1	1.152	2.138	5.4	19.5	10 18	1 30.93	+13 11.3	1.403	2.398	1.5	17.0
10 28	1 21.32	-2 24.1	1.168	2.131	9.0	19.7	10 28	1 19.79	+13 16.2	1.405	2.385	5.0	17.2
11 7	1 13.24	-2 20.6	1.208	2.124	13.5	19.9	11 7	1 9.85	+13 19.7	1.434	2.373	9.8	17.5
11 17	1 7.69	-1 54.2	1.268	2.119	17.7	20.2	11 17	1 2.22	+13 26.3	1.487	2.361	14.2	17.7
261855	2006 <i>DB</i> ₂₁₃	10 17.8 134°70		1°4/16.8 17			409106	2003 <i>SM</i> ₄₃₂	10 17.8 99°62		5°0/22.2 18		
9 8	1 59.55	+10 23.7	1.481	2.298	18.4	21.3	9 8	2 5.04	+24 6.6	2.483	3.196	14.5	21.4
9 18	1 55.85	+9 37.8	1.410	2.305	14.5	21.1	9 18	1 59.29	+25 7.8	2.395	3.206	12.3	21.3
9 28	1 49.32	+8 35.7	1.358	2.312	10.0	20.8	9 28	1 51.31	+25 55.8	2.328	3.217	9.7	21.1
10 8	1 40.65	+7 22.2	1.331	2.318	4.9	20.6	10 8	1 41.61	+26 28.3	2.286	3.227	7.1	21.0
10 18	1 30.89	+6 4.6	1.329	2.324	1.5	20.3	10 18	1 30.94	+26 43.8	2.271	3.237	5.2	20.9
10 28	1 21.38	+4 52.0	1.355	2.330	6.1	20.7	10 28	1 20.27	+26 43.6	2.287	3.247	5.4	20.9
11 7	1 13.35	+3 52.9	1.407	2.335	10.9	21.0	11 7	1 10.56	+26 31.1	2.332	3.257	7.4	21.0
11 17	1 7.68	+3 12.7	1.481	2.340	15.1	21.2	11 17	1 2.61	+26 11.3	2.404	3.266	9.9	21.2
356080	2009 <i>DE</i> ₁₀₃	10 17.8 311°17		7°0/11.3 18			388901	2008 <i>SB</i> ₃₈	10 17.8 155°89		6°2/22.3 18		
9 8	1 52.01	-2 22.0	1.577	2.									

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
32352	2000 <i>QT</i> ₁₁₆		10 17.8 274°04	1.7/16.3	18		515604	2014 <i>JT</i> ₇₃		10 17.8 176°10	2°0/20.1	18	
9 8	1 55.60	+ 6 50.8	2.152	2.961	13.7	19.1	9 8	1 55.93	+19 39.7	2.320	3.079	14.2	22.3
9 18	1 52.00	+ 6 22.6	2.056	2.948	10.8	18.9	9 18	1 52.10	+19 12.5	2.228	3.081	11.6	22.1
9 28	1 46.36	+ 5 45.7	1.982	2.934	7.4	18.7	9 28	1 46.30	+18 28.8	2.156	3.082	8.5	21.9
10 8	1 39.13	+ 5 3.3	1.934	2.921	3.8	18.4	10 8	1 39.05	+17 29.8	2.110	3.083	5.1	21.7
10 18	1 31.00	+ 4 19.8	1.914	2.908	1.8	18.3	10 18	1 31.03	+16 18.6	2.092	3.084	2.2	21.5
10 28	1 22.85	+ 3 40.4	1.923	2.894	5.1	18.5	10 28	1 23.10	+15 0.7	2.104	3.084	3.7	21.6
11 7	1 15.58	+ 3 10.1	1.959	2.880	8.8	18.7	11 7	1 16.10	+13 42.5	2.145	3.084	7.1	21.8
11 17	1 9.90	+ 2 52.3	2.021	2.867	12.2	18.8	11 17	1 10.67	+12 30.3	2.213	3.083	10.3	22.0
149243	Dorothy Norton		10 17.8 266°31	0°1/17.8	18		168280	2007 <i>QR</i> ₅		10 17.8 11°53	0°3/18.4	18	
9 8	1 57.30	+12 38.4	1.589	2.399	17.6	20.5	9 8	1 47.78	+12 46.9	4.232	5.005	8.0	20.2
9 18	1 54.22	+12 12.1	1.497	2.387	14.2	20.3	9 18	1 44.77	+12 32.2	4.138	5.006	6.4	20.1
9 28	1 48.38	+11 28.7	1.426	2.375	10.0	20.0	9 28	1 40.79	+12 11.2	4.068	5.006	4.4	19.9
10 8	1 40.33	+10 30.9	1.377	2.363	5.1	19.7	10 8	1 36.13	+11 45.4	4.025	5.007	2.3	19.8
10 18	1 30.98	+ 9 23.7	1.355	2.351	0.1	19.3	10 18	1 31.10	+11 16.4	4.012	5.008	0.3	19.6
10 28	1 21.59	+ 8 14.9	1.359	2.339	5.4	19.7	10 28	1 26.11	+10 46.4	4.030	5.009	2.2	19.8
11 7	1 13.44	+ 7 13.2	1.390	2.326	10.4	19.9	11 7	1 21.53	+10 17.7	4.078	5.010	4.3	19.9
11 17	1 7.51	+ 6 25.8	1.445	2.313	14.8	20.1	11 17	1 17.69	+ 9 52.6	4.155	5.011	6.2	20.1
317920	2003 <i>UJ</i> ₃₂₈		10 17.8 358°01	0°6/17.2	18		117819	2005 <i>JJ</i> ₄		10 17.8 166°19	4°3/14.8	18	
9 8	1 52.02	+12 12.5	2.268	3.066	13.4	20.5	9 8	2 1.51	+ 1 13.2	1.590	2.417	16.9	20.0
9 18	1 48.99	+11 19.6	2.182	3.066	10.6	20.3	9 18	1 57.22	+ 0 34.4	1.518	2.419	13.3	19.8
9 28	1 44.13	+10 13.4	2.117	3.066	7.3	20.1	9 28	1 50.22	+ 0 10.4	1.466	2.420	9.3	19.6
10 8	1 37.93	+ 8 57.7	2.079	3.066	3.6	19.9	10 8	1 41.15	+ 0 55.1	1.439	2.422	5.5	19.4
10 18	1 31.03	+ 7 37.2	2.070	3.066	0.6	19.6	10 18	1 31.01	+ 0 32.9	1.438	2.423	4.6	19.3
10 28	1 24.22	+ 6 18.4	2.090	3.066	4.2	19.9	10 28	1 21.06	+ 0 57.3	1.464	2.424	7.8	19.5
11 7	1 18.26	+ 5 7.5	2.138	3.066	7.8	20.1	11 7	1 12.49	+ 0 2.8	1.515	2.424	11.8	19.7
11 17	1 13.77	+ 4 9.3	2.213	3.066	11.0	20.3	11 17	1 6.18	+ 0 50.9	1.590	2.425	15.5	20.0
228944	2003 <i>TD</i> ₅₄		10 17.8 256°18	2°3/15.6	18		481493	2007 <i>DM</i> ₃₅		10 17.8 170°62	4°8/23.5	17	
9 8	1 56.26	+ 3 15.1	2.430	3.238	12.3	20.4	9 8	2 0.04	+27 56.2	2.941	3.630	12.9	22.5
9 18	1 52.16	+ 2 54.3	2.341	3.233	9.7	20.2	9 18	1 55.08	+28 29.8	2.842	3.633	11.1	22.4
9 28	1 46.26	+ 2 28.7	2.276	3.227	6.7	20.0	9 28	1 48.27	+28 49.2	2.764	3.636	8.9	22.2
10 8	1 39.00	+ 2 1.6	2.237	3.222	3.6	19.8	10 8	1 40.05	+28 52.9	2.711	3.639	6.8	22.1
10 18	1 31.01	+ 1 36.8	2.227	3.217	2.5	19.7	10 18	1 31.04	+28 40.5	2.684	3.641	5.1	22.0
10 28	1 23.08	+ 1 18.1	2.247	3.212	5.1	19.9	10 28	1 22.02	+28 13.5	2.687	3.642	5.0	22.0
11 7	1 15.96	+ 1 8.8	2.294	3.206	8.2	20.1	11 7	1 13.78	+27 35.6	2.720	3.643	6.5	22.1
11 17	1 10.26	+ 1 10.9	2.368	3.201	11.1	20.3	11 17	1 6.96	+26 51.6	2.780	3.644	8.7	22.2
401280	2012 <i>CX</i> ₅₂		10 17.8 285°01	5°9/11.8	18		516707	2008 <i>WN</i> ₁₄₀		10 17.8 306°59	5°6/13.5	18	
9 8	1 54.45	+ 5 18.7	2.124	2.953	13.1	20.8	9 8	1 55.18	+ 0 10.7	1.531	2.374	16.6	21.1
9 18	1 51.03	+ 6 25.1	2.045	2.944	10.5	20.6	9 18	1 52.69	+ 0 9.4	1.438	2.348	13.3	20.8
9 28	1 45.63	+ 7 33.0	1.989	2.934	7.9	20.4	9 28	1 47.45	+ 0 16.3	1.365	2.322	9.6	20.5
10 8	1 38.72	+ 8 35.6	1.959	2.925	6.1	20.3	10 8	1 39.95	+ 0 24.2	1.315	2.296	6.3	20.3
10 18	1 31.02	+ 9 26.6	1.955	2.915	6.4	20.3	10 18	1 31.05	+ 0 24.2	1.291	2.271	6.1	20.2
10 28	1 23.38	+10 0.2	1.979	2.906	8.6	20.4	10 28	1 21.98	+ 0 7.3	1.292	2.245	9.4	20.3
11 7	1 16.65	+10 13.1	2.028	2.897	11.3	20.5	11 7	1 14.06	+ 0 27.0	1.317	2.221	13.7	20.5
11 17	1 11.51	+10 4.4	2.100	2.887	14.0	20.7	11 17	1 8.32	+ 0 20.5	1.363	2.196	17.7	20.7
63359	2001 <i>FQ</i> ₁₅₉		10 17.8 129°07	0°3/17.5	18		108066	2001 <i>FJ</i> ₁₆₄		10 17.8 116°75	1°3/18.9	18	
9 8	1 58.40	+10 40.2	2.042	2.838	14.7	20.4	9 8	2 1.20	+15 52.0	1.762	2.546	17.2	20.5
9 18	1 54.15	+10 21.3	1.964	2.846	11.7	20.2	9 18	1 56.69	+15 33.9	1.691	2.562	13.8	20.3
9 28	1 47.76	+ 9 51.5	1.907	2.854	8.1	20.0	9 28	1 49.67	+14 59.1	1.640	2.578	9.8	20.1
10 8	1 39.79	+ 9 13.4	1.876	2.862	4.0	19.8	10 8	1 40.80	+14 9.5	1.613	2.594	5.4	19.8
10 18	1 31.01	+ 8 30.9	1.873	2.869	0.4	19.5	10 18	1 31.04	+13 9.5	1.613	2.608	1.4	19.6
10 28	1 22.38	+ 7 49.2	1.899	2.876	4.4	19.9	10 28	1 21.55	+12 5.6	1.642	2.623	4.5	19.9
11 7	1 14.82	+ 7 13.5	1.953	2.883	8.3	20.1	11 7	1 13.42	+11 5.2	1.699	2.636	8.7	20.2
11 17	1 9.02	+ 6 47.9	2.032	2.889	11.7	20.4	11 17	1 7.40	+10 14.7	1.781	2.649	12.5	20.4
69600	1998 <i>FC</i> ₂₃		10 17.8 159°00	2°6/19.6	18		111185	2001 <i>WH</i> ₇		10 17.8 286°31	1°5/16.5	18	
9 8	2 2.84	+16 11.8	1.578	2.367	18.7	19.0	9 8	1 55.85	+ 7 25.9	2.030	2.841	14.3	20.4
9 18	1 58.59	+16 32.9	1.497	2.369	15.2	18.8	9 18	1 52.26	+ 6 58.9	1.944	2.837	11.3	20.2
9 28	1 51.37	+16 38.0	1.435	2.371	11.1	18.5	9 28	1 46.56	+ 6 22.6	1.881	2.833	7.7	20.0
10 8	1 41.82	+16 26.9	1.396	2.373	6.5	18.3	10 8	1 39.25	+ 5 40.4	1.843	2.830	3.9	19.7
10 18	1 30.97	+16 1.4	1.382	2.375	2.7	18.1	10 18	1 31.07	+ 4 57.0	1.832	2.826	1.6	19.6
10 28	1 20.19	+15 26.3	1.396	2.376	5.1	18.2	10 28	1 22.96	+ 4 17.6	1.850	2.823	5.1	19.8
11 7	1 10.85	+14 48.6	1.436	2.377	9.6	18.5	11 7	1 15.82	+ 3 47.4	1.895	2.819	8.9	20.0
11 17	1 3.95	+14 15.4	1.501	2.378	13.9	18.8	11 17	1 10.38	+ 3 29.8	1.965	2.816	12.3	20.3
218062	2002 <i>EQ</i> ₇₀		10 17.8 169°38	0°4/17.4	18		59187	1999 <i>AP</i> ₁₇		10 17.8 302°46	1°4/16.8	18	
9 8	1 54.94	+10 39.9	2.765	3.550	11.6	21.4	9 8	1 55.62	+ 9 13.5	1.494	2.321	17.8	20.0
9 18	1 50.87	+10 10.9	2.677	3.554	9.1	21.2	9 18	1 53.06	+ 8 43.4	1.405	2.306	14.2	19.8
9 28	1 45.22	+ 9 32.9	2.612	3.557	6.3	21.0	9 28	1 47.70	+ 7 58.4	1.335	2.291	9.8	19.5
10 8	1 38.43	+ 8 48.6	2.574	3.559	3.1	20.8	10 8	1 40.05	+ 7 2.4	1.288	2.276	4.9	19.2
10 18	1 31.04	+ 8 0.9	2.565	3.562	0.4	20.6	10 18	1 31.06	+ 6 1.3	1.266	2.262	1.6	18.9
10 28	1 23.73	+ 7 14.2	2.588	3.563	3.5	20.9	10 28	1 21.99	+ 5 3.4	1.271	2.247	6.3	19.2
11 7	1 17.15	+ 6 32.3	2.639	3.565	6.6	21.1	11 7	1 14.18	+ 4 17.0	1.301	2.233	11.3	19.4
11 17	1 11.83	+ 5 58.8	2.718	3.566	9.4	21.3	11 17	1 8.64	+ 3 47.9	1.353	2.220	15.8	19.6
299122	2005 <i>EC</i> ₁₉₂		10 17.8 148°19	1°8/19.5	18		297366	2000 <i>DP</i> ₄₉		10 17.8 245°36	0°3/18.2	18	

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
90515	2004 <i>ES</i> ₅₆		10 17.8 129°03	0°4/17.6	18		151479	2002 <i>JL</i> ₄		10 17.8 86°39	9°5/5.6	18	
9 8	2 1.00	+10 58.1	1.828	2.625	16.2	21.0	9 8	1 55.48	-20 7.4	2.401	3.209	12.5	19.5
9 18	1 56.44	+10 36.2	1.754	2.637	12.8	20.8	9 18	1 51.45	-21 58.5	2.373	3.231	10.8	19.4
9 28	1 49.46	+10 1.9	1.702	2.649	8.8	20.6	9 28	1 45.66	-23 38.8	2.368	3.253	9.7	19.4
10 8	1 40.71	+9 18.2	1.674	2.660	4.4	20.3	10 8	1 38.66	-25 0.7	2.388	3.274	9.5	19.4
10 18	1 31.07	+8 29.5	1.674	2.670	0.4	20.0	10 18	1 31.15	-25 58.8	2.434	3.296	10.1	19.5
10 28	1 21.66	+7 41.9	1.703	2.681	4.8	20.4	10 28	1 23.90	-26 29.5	2.503	3.317	11.4	19.6
11 7	1 13.50	+7 1.4	1.760	2.690	9.0	20.7	11 7	1 17.64	-26 33.0	2.595	3.337	12.8	19.7
11 17	1 7.35	+6 32.5	1.842	2.699	12.7	20.9	11 17	1 12.87	-26 11.5	2.704	3.358	14.1	19.9
324997	2008 <i>BF</i> ₁₈		10 17.8 93°04	0°7/17.3	18		134549	1999 <i>RN</i> ₁₅₄		10 17.8 328°84	4°8/20.9	18	R
9 8	2 1.16	+11 11.0	1.580	2.387	17.8	20.9	9 8	1 58.84	+20 2.7	1.354	2.149	20.9	19.0
9 18	1 56.78	+10 36.0	1.520	2.409	14.1	20.7	9 18	1 56.15	+20 41.9	1.271	2.143	17.4	18.8
9 28	1 49.76	+9 46.5	1.479	2.429	9.6	20.5	9 28	1 50.17	+21 1.0	1.206	2.136	13.3	18.5
10 8	1 40.84	+8 46.7	1.463	2.450	4.8	20.3	10 8	1 41.46	+20 57.6	1.160	2.131	8.7	18.3
10 18	1 31.07	+7 42.6	1.474	2.470	0.8	20.0	10 18	1 31.10	+20 31.6	1.139	2.125	5.1	18.0
10 28	1 21.69	+6 41.9	1.513	2.490	5.3	20.4	10 28	1 20.68	+19 47.6	1.142	2.120	6.3	18.1
11 7	1 13.80	+5 51.7	1.578	2.509	9.8	20.7	11 7	1 11.80	+18 54.3	1.169	2.116	10.7	18.3
11 17	1 8.16	+5 16.8	1.668	2.528	13.7	21.0	11 17	1 5.66	+18 1.8	1.220	2.112	15.2	18.6
145947	1999 <i>XZ</i> ₁₇₇		10 17.8 272°96	2°2/19.4	18		470509	2008 <i>CL</i> ₁₀₁		10 17.8 119°27	2°4/19.9	16	
9 8	1 59.24	+16 9.7	1.610	2.404	18.1	20.0	9 8	2 1.60	+18 10.3	1.715	2.492	17.8	22.1
9 18	1 55.90	+16 18.1	1.514	2.390	14.9	19.7	9 18	1 57.21	+18 6.8	1.641	2.506	14.5	21.9
9 28	1 49.68	+16 9.8	1.437	2.376	10.9	19.4	9 28	1 50.17	+17 45.2	1.587	2.519	10.6	21.7
10 8	1 41.10	+15 44.8	1.383	2.362	6.3	19.2	10 8	1 41.14	+17 6.1	1.556	2.532	6.2	21.5
10 18	1 31.06	+15 5.1	1.354	2.348	2.3	18.9	10 18	1 31.12	+16 12.7	1.551	2.544	2.6	21.3
10 28	1 20.90	+14 16.1	1.353	2.334	5.1	19.0	10 28	1 21.34	+15 11.3	1.575	2.556	4.6	21.4
11 7	1 11.96	+13 25.6	1.377	2.319	9.9	19.3	11 7	1 12.94	+14 9.6	1.626	2.567	8.8	21.7
11 17	1 5.33	+12 41.3	1.426	2.305	14.3	19.5	11 17	1 6.76	+13 15.0	1.703	2.578	12.6	22.0
310858	2003 <i>BK</i> ₆₂		10 17.8 281°73	2°8/20.1	17		339139	2004 <i>SW</i> ₅₈		10 17.9 354°49	7°2/16.9	16	
9 8	1 58.79	+17 53.6	2.121	2.888	15.2	21.5	9 8	2 21.66	-8 48.2	0.935	1.772	25.2	19.9
9 18	1 54.91	+18 13.0	2.007	2.865	12.5	21.2	9 18	2 15.48	-7 56.8	0.868	1.768	20.7	19.6
9 28	1 48.67	+18 19.1	1.914	2.841	9.4	21.0	9 28	2 4.25	-6 49.5	0.817	1.766	15.4	19.2
10 8	1 40.49	+18 11.3	1.845	2.817	5.8	20.7	10 8	1 48.81	-5 18.8	0.786	1.765	9.8	18.9
10 18	1 31.08	+17 50.3	1.804	2.793	2.9	20.5	10 18	1 31.01	-3 21.7	0.779	1.764	7.3	18.8
10 28	1 21.44	+17 19.0	1.790	2.769	4.4	20.6	10 28	1 13.56	-1 1.2	0.797	1.764	11.0	19.0
11 7	1 12.66	+16 42.7	1.805	2.745	8.2	20.7	11 7	0 59.00	+1 33.9	0.839	1.765	16.7	19.3
11 17	1 5.63	+16 7.1	1.846	2.720	11.9	20.9	11 17	0 48.88	+4 14.7	0.902	1.766	22.0	19.7
178362	1996 <i>XE</i> ₁₆		10 17.8 119°41	2°9/20.2	18		353078	2009 <i>DV</i> ₉₈		10 17.9 265°70	6°2/11.2	18	
9 8	1 59.20	+19 50.2	1.586	2.368	18.9	20.6	9 8	1 54.02	-3 7.7	1.949	2.783	14.0	21.0
9 18	1 55.61	+19 39.0	1.510	2.376	15.5	20.4	9 18	1 50.96	-4 44.7	1.868	2.771	11.1	20.8
9 28	1 49.23	+19 6.1	1.452	2.383	11.4	20.2	9 28	1 45.76	-6 27.0	1.810	2.759	8.3	20.6
10 8	1 40.71	+18 12.3	1.416	2.391	6.9	20.0	10 8	1 38.92	-8 6.7	1.778	2.746	6.4	20.4
10 18	1 31.08	+17 1.1	1.406	2.398	3.1	19.8	10 18	1 31.17	-9 35.0	1.773	2.734	6.9	20.4
10 28	1 21.66	+15 40.1	1.424	2.405	4.9	19.9	10 28	1 23.46	-10 43.9	1.795	2.721	9.4	20.6
11 7	1 13.67	+14 18.7	1.468	2.411	9.3	20.2	11 7	1 16.70	-11 28.4	1.843	2.708	12.4	20.7
11 17	1 8.00	+13 5.9	1.537	2.418	13.4	20.4	11 17	1 11.64	-11 46.6	1.912	2.695	15.3	20.9
26237	1998 <i>QQ</i> ₃₁		10 17.8 156°32	1°7/19.1	18		354462	2004 <i>BT</i> ₉₄		10 17.9 265°38	4°3/22.3	18	
9 8	2 2.52	+14 35.1	1.683	2.473	17.6	18.4	9 8	1 55.47	+25 7.2	2.084	2.825	16.2	21.0
9 18	1 58.10	+14 48.1	1.601	2.476	14.3	18.2	9 18	1 52.29	+25 3.9	1.980	2.813	13.7	20.8
9 28	1 50.92	+14 46.8	1.540	2.479	10.3	18.0	9 28	1 46.81	+24 40.0	1.895	2.801	10.6	20.6
10 8	1 41.59	+14 31.7	1.501	2.481	5.7	17.7	10 8	1 39.51	+23 54.6	1.833	2.789	7.4	20.4
10 18	1 31.07	+14 5.3	1.489	2.484	1.8	17.5	10 18	1 31.16	+22 48.8	1.797	2.776	4.7	20.2
10 28	1 20.65	+13 32.2	1.505	2.486	4.8	17.7	10 28	1 22.78	+21 27.3	1.789	2.763	5.0	20.2
11 7	1 11.56	+12 58.9	1.549	2.488	9.3	17.9	11 7	1 15.38	+19 57.5	1.809	2.751	7.9	20.3
11 17	1 4.75	+12 31.5	1.617	2.489	13.3	18.2	11 17	1 9.79	+18 28.0	1.856	2.738	11.4	20.5
506121	2016 <i>BP</i> ₈₁		10 17.8 71°50	0°0/17.7	16		144189	2004 <i>BX</i> ₁₁₉		10 17.9 186°61	3°8/14.6	18	
9 8	1 33.98	+9 26.2	42.189	42.969	0.9	22.6	9 8	2 1.25	+1 13.7	1.982	2.794	14.5	20.8
9 18	1 33.39	+9 22.8	42.096	42.971	0.7	22.6	9 18	1 56.51	+0 28.5	1.901	2.794	11.5	20.6
9 28	1 32.72	+9 19.1	42.029	42.973	0.5	22.6	9 28	1 49.49	-0 22.2	1.843	2.794	8.0	20.4
10 8	1 31.99	+9 15.0	41.990	42.975	0.2	22.5	10 8	1 40.77	-1 13.2	1.811	2.792	4.8	20.2
10 18	1 31.24	+9 10.8	41.981	42.977	0.0	22.5	10 18	1 31.15	-1 58.5	1.807	2.790	4.1	20.2
10 28	1 30.49	+9 6.6	42.002	42.979	0.2	22.5	10 28	1 21.64	-2 32.4	1.832	2.788	6.9	20.4
11 7	1 29.76	+9 2.5	42.052	42.981	0.5	22.6	11 7	1 13.24	-2 50.6	1.884	2.784	10.4	20.6
11 17	1 29.10	+8 58.8	42.132	42.983	0.7	22.6	11 17	1 6.68	-2 51.3	1.961	2.780	13.6	20.8
244386	2002 <i>PL</i> ₃₈		10 17.8 157°37	5°3/12.3	18		494272	2016 <i>QR</i> ₇₃		10 17.9 25°82	0°5/17.6	18	
9 8	1 56.79	-3 5.8	2.160	2.982	13.2	21.2	9 8	1 54.97	+11 0.6	1.156	1.999	20.9	20.8
9 18	1 52.72	-4 20.1	2.091	2.988	10.4	21.0	9 18	1 52.89	+10 44.0	1.102	2.011	16.6	20.6
9 28	1 46.70	-5 37.0	2.046	2.993	7.6	20.9	9 28	1 47.62	+10 10.2	1.066	2.024	11.4	20.4
10 8	1 39.26	-6 49.9	2.027	2.997	5.5	20.8	10 8	1 39.96	+9 23.4	1.050	2.038	5.7	20.1
10 18	1 31.13	-7 52.3	2.036	3.001	5.7	20.8	10 18	1 31.16	+8 30.5	1.058	2.054	0.5	19.8
10 28	1 23.16	-8 38.4	2.074	3.005	7.9	20.9	10 28	1 22.74	+7 40.4	1.090	2.070	6.1	20.2
11 7	1 16.16	-9 4.8	2.137	3.009	10.7	21.1	11 7	1 16.07	+7 1.6	1.145	2.088	11.4	20.6
11 17	1 10.77	-9 10.4	2.224	3.011	13.3	21.3	11 17	1 12.04	+6 39.5	1.223	2.106	15.9	20.9
399059	2013 <i>YF</i> ₂₈		10 17.8 264°22	0°3/18.1	18		107368	2001 <i>CH</i> ₃₀		10 17.9 221°79	0°5/17.4	18	
9 8	1 58.09												

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
469883	2005 <i>UJ</i> ₃₂₃		10 17.9	10°40'	2°1'/16.6	18	227672	2006 <i>BK</i> ₂₆₀		10 17.9	75°98'	1°5'/16.4	18
9 8	1 55.08	+ 7 5.0	1.149	2.001	20.4	20.5	9 8	1 54.65	+ 7 16.1	2.304	3.110	13.0	20.7
9 18	1 53.12	+ 6 48.6	1.088	2.003	16.2	20.3	9 18	1 50.95	+ 6 44.4	2.229	3.119	10.2	20.6
9 28	1 47.91	+ 6 19.1	1.044	2.006	11.1	20.0	9 28	1 45.46	+ 6 4.7	2.177	3.128	6.9	20.4
10 8	1 40.19	+ 5 41.8	1.021	2.010	5.6	19.7	10 8	1 38.67	+ 5 20.4	2.150	3.137	3.5	20.2
10 18	1 31.16	+ 5 3.5	1.021	2.016	2.2	19.5	10 18	1 31.23	+ 4 35.8	2.152	3.146	1.6	20.1
10 28	1 22.37	+ 4 32.5	1.045	2.023	7.1	19.8	10 28	1 23.93	+ 3 55.6	2.184	3.155	4.5	20.3
11 7	1 15.30	+ 4 15.8	1.093	2.030	12.3	20.2	11 7	1 17.52	+ 3 23.9	2.243	3.164	7.9	20.5
11 17	1 10.92	+ 4 17.2	1.161	2.039	16.9	20.5	11 17	1 12.57	+ 3 3.8	2.328	3.173	10.8	20.7
359368	2009 <i>WC</i> ₅₇		10 17.9	357°75'	1°8'/14.8	18	523736	2014 <i>QA</i> ₄₄₂		10 17.9	348°77'	0°8'/6.2	18
9 8	1 48.41	+ 1 36.0	4.110	4.914	7.7	20.8	9 8	1 34.69	-20 18.9	34.727	35.518	1.0	21.1
9 18	1 45.28	+ 1 11.2	4.024	4.914	6.0	20.7	9 18	1 33.97	-20 26.9	34.669	35.517	0.9	21.1
9 28	1 41.18	+ 0 44.1	3.963	4.914	4.1	20.5	9 28	1 33.15	-20 34.2	34.636	35.515	0.8	21.1
10 8	1 36.39	+ 0 17.0	3.931	4.913	2.4	20.4	10 8	1 32.26	-20 40.4	34.629	35.514	0.8	21.1
10 18	1 31.24	- 0 7.9	3.928	4.913	2.0	20.4	10 18	1 31.34	-20 45.2	34.649	35.512	0.8	21.1
10 28	1 26.14	- 0 28.3	3.956	4.913	3.5	20.5	10 28	1 30.41	-20 48.5	34.695	35.511	0.9	21.1
11 7	1 21.45	- 0 42.2	4.013	4.913	5.3	20.6	11 7	1 29.53	-20 50.2	34.766	35.510	1.1	21.1
11 17	1 17.52	- 0 48.5	4.096	4.913	7.1	20.7	11 17	1 28.72	-20 50.1	34.860	35.508	1.2	21.1
128204	2003 <i>SX</i> ₅₃		10 17.9	30°30'	4°7'/13.6	18	450145	1999 <i>RU</i> ₁₄₀		10 17.9	19°84'	6°1'/22.1	18
9 8	1 56.59	- 3 23.3	2.156	2.978	13.2	19.3	9 8	1 56.73	+21 59.2	1.316	2.110	21.4	19.5
9 18	1 52.60	- 4 1.4	2.084	2.981	10.4	19.1	9 18	1 54.21	+23 2.4	1.261	2.127	17.9	19.3
9 28	1 46.65	- 4 40.4	2.035	2.984	7.5	19.0	9 28	1 48.55	+23 43.4	1.222	2.145	13.8	19.1
10 8	1 39.28	- 5 15.2	2.012	2.986	5.2	18.8	10 8	1 40.49	+23 59.8	1.203	2.165	9.6	18.9
10 18	1 31.20	- 5 40.7	2.017	2.989	5.0	18.8	10 18	1 31.21	+23 51.5	1.207	2.187	6.4	18.8
10 28	1 23.26	- 5 52.7	2.049	2.993	7.2	19.0	10 28	1 22.25	+23 22.9	1.236	2.210	6.8	18.9
11 7	1 16.30	- 5 48.5	2.108	2.996	10.1	19.2	11 7	1 14.98	+22 42.4	1.288	2.234	10.0	19.1
11 17	1 10.93	- 5 27.8	2.191	3.000	12.7	19.3	11 17	1 10.36	+21 59.1	1.364	2.260	13.7	19.4
469410	2001 <i>VW</i> ₅₀		10 17.9	359°56'	11°6'/31.2	18	507401	2012 <i>JY</i> ₁₉		10 17.9	153°53'	11°0'/10.6	17
9 8	1 39.11	+41 58.4	1.081	1.818	28.3	19.3	9 8	2 10.26	-19 26.3	1.789	2.586	16.5	21.6
9 18	1 41.65	+42 2.0	1.007	1.812	25.7	19.1	9 18	2 3.72	-20 25.2	1.734	2.593	14.1	21.5
9 28	1 40.63	+41 12.3	0.943	1.808	22.4	18.8	9 28	1 54.45	-21 11.6	1.701	2.599	12.1	21.4
10 8	1 36.72	+39 20.9	0.894	1.806	18.4	18.6	10 8	1 43.24	-21 36.3	1.691	2.605	11.0	21.3
10 18	1 31.22	+36 24.9	0.861	1.807	14.4	18.4	10 18	1 31.18	-21 32.5	1.706	2.610	11.4	21.3
10 28	1 25.96	+32 33.6	0.850	1.810	11.8	18.3	10 28	1 19.58	-20 57.1	1.746	2.615	13.0	21.5
11 7	1 22.56	+28 10.2	0.863	1.816	12.4	18.3	11 7	1 9.58	-19 51.7	1.810	2.619	15.1	21.6
11 17	1 22.07	+23 44.0	0.899	1.823	15.8	18.5	11 17	1 1.97	-18 21.1	1.896	2.622	17.3	21.8
7218	<i>Skácel</i>		10 17.9	19°38'	3°5'/20.0	18	399049	2013 <i>KS</i> ₁₇		10 17.9	58°04'	4°1'/13.0	18
9 8	1 54.12	+17 24.0	0.983	1.823	24.0	17.0	9 8	1 52.14	+ 2 27.4	2.115	2.941	13.3	20.7
9 18	1 52.97	+17 47.8	0.929	1.830	19.6	16.7	9 18	1 49.07	+ 0 50.5	2.055	2.958	10.3	20.6
9 28	1 48.13	+17 46.5	0.890	1.839	14.3	16.5	9 28	1 44.18	- 0 53.2	2.019	2.974	7.1	20.4
10 8	1 40.40	+17 20.3	0.869	1.850	8.6	16.2	10 8	1 38.02	- 2 36.7	2.010	2.990	4.5	20.3
10 18	1 31.18	+16 33.0	0.869	1.862	3.7	16.0	10 18	1 31.26	- 4 12.6	2.030	3.007	4.5	20.3
10 28	1 22.31	+15 33.8	0.892	1.876	6.2	16.2	10 28	1 24.71	- 5 33.7	2.079	3.024	7.0	20.5
11 7	1 15.46	+14 34.4	0.937	1.891	11.6	16.6	11 7	1 19.10	- 6 35.3	2.154	3.041	9.9	20.7
11 17	1 11.71	+13 45.4	1.003	1.907	16.6	16.9	11 17	1 15.00	- 7 15.2	2.253	3.057	12.6	20.9
355830	2008 <i>TS</i> ₁₇₄		10 17.9	355°32'	1°3'/19.9	18	511999	2015 <i>KD</i> ₁₄₆		10 17.9	235°40'	0°4'/18.3	18
9 8	1 50.24	+16 42.1	4.249	4.999	8.4	21.0	9 8	1 58.33	+13 58.1	1.839	2.632	16.2	22.0
9 18	1 46.74	+16 47.3	4.150	4.999	6.8	20.9	9 18	1 54.68	+13 31.6	1.743	2.622	13.1	21.8
9 28	1 42.21	+16 45.6	4.075	4.999	4.9	20.8	9 28	1 48.55	+12 49.1	1.668	2.612	9.2	21.5
10 8	1 36.93	+16 37.6	4.026	4.998	2.9	20.6	10 8	1 40.45	+11 52.4	1.617	2.600	4.9	21.2
10 18	1 31.24	+16 24.3	4.007	4.998	1.4	20.5	10 18	1 31.22	+10 46.0	1.593	2.589	0.5	20.9
10 28	1 25.58	+16 7.4	4.019	4.998	2.2	20.6	10 28	1 21.97	+ 9 36.5	1.597	2.577	4.7	21.2
11 7	1 20.33	+15 49.0	4.062	4.998	4.1	20.7	11 7	1 13.80	+ 8 31.7	1.629	2.564	9.2	21.4
11 17	1 15.86	+15 31.4	4.133	4.998	6.0	20.8	11 17	1 7.60	+ 7 38.2	1.686	2.551	13.3	21.6
481678	2007 <i>YW</i> ₃₄		10 17.9	285°72'	3°2'/20.9	18	116577	2004 <i>BN</i> ₉₁		10 17.9	150°48'	3°5'/20.8	18
9 8	1 54.52	+21 57.9	1.937	2.702	16.5	21.5	9 8	2 0.52	+20 32.9	1.727	2.496	18.0	20.0
9 18	1 51.76	+21 40.2	1.826	2.680	13.8	21.2	9 18	1 56.56	+20 40.9	1.644	2.500	14.9	19.8
9 28	1 46.60	+21 1.2	1.735	2.658	10.4	21.0	9 28	1 49.89	+20 29.6	1.580	2.504	11.2	19.6
10 8	1 39.49	+20 0.5	1.666	2.635	6.7	20.7	10 8	1 41.12	+19 58.4	1.539	2.508	7.1	19.4
10 18	1 31.20	+18 40.3	1.624	2.613	3.4	20.5	10 18	1 31.22	+19 9.4	1.524	2.512	3.8	19.2
10 28	1 22.78	+17 6.3	1.610	2.590	4.6	20.5	10 28	1 21.42	+18 8.0	1.536	2.515	5.0	19.3
11 7	1 15.33	+15 27.5	1.624	2.568	8.5	20.7	11 7	1 12.94	+17 2.1	1.576	2.518	8.9	19.5
11 17	1 9.76	+13 53.1	1.664	2.545	12.5	20.9	11 17	1 6.68	+16 0.0	1.641	2.521	12.7	19.7
160981	2002 <i>CV</i> ₇₄		10 17.9	326°27'	9°9'/6.8	18	509453	2007 <i>HD</i> ₇₃		10 17.9	202°82'	3°2'/15.5	18
9 8	1 51.46	-12 16.8	1.770	2.614	14.7	19.9	9 8	2 2.83	+ 1 40.1	1.949	2.759	14.9	21.8
9 18	1 49.21	-14 19.3	1.705	2.602	12.4	19.8	9 18	1 57.86	+ 1 19.3	1.865	2.756	11.8	21.6
9 28	1 44.68	-16 19.2	1.663	2.590	10.5	19.6	9 28	1 50.52	+ 0 53.9	1.802	2.752	8.2	21.3
10 8	1 38.42	-18 5.9	1.645	2.579	9.9	19.6	10 8	1 41.36	+ 0 28.2	1.765	2.748	4.6	21.1
10 18	1 31.22	-19 29.3	1.651	2.568	10.9	19.6	10 18	1 31.22	+ 0 6.9	1.756	2.744	3.4	21.0
10 28	1 24.10	-20 21.8	1.682	2.558	13.0	19.7	10 28	1 21.15	- 0 5.2	1.776	2.739	6.4	21.2
11 7	1 18.04	-20 40.6	1.734	2.548	15.4	19.9	11 7	1 12.20	- 0 4.6	1.824	2.734	10.1	21.4
11 17	1 13.80	-20 26.7	1.804	2.539	17.8	20.0	11 17	1 5.17	+ 0 10.5	1.896	2.728	13.5	21.6
14561	1997 <i>WC</i> ₃₄		10 17.9	14°22'	1°1'/16.8	18	237436	1999 <i>RC</i> ₂₉		10 17.9			

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
328764	2009 <i>UW</i> ₉₇	10 17.9 320°56		1.3°/15.7 18			16732	1996 <i>HZ</i> ₁₆	10 17.9 38°92		0.1°/17.8 18		
9 8	1 48.91	+ 3 56.1	4.177	4.975	7.7	20.5	9 8	1 56.92	+11 17.8	1.519	2.338	17.9	18.3
9 18	1 45.67	+ 3 37.4	4.086	4.972	6.0	20.4	9 18	1 53.67	+11 3.9	1.459	2.354	14.2	18.1
9 28	1 41.46	+ 3 15.7	4.020	4.969	4.1	20.3	9 28	1 47.80	+10 35.9	1.418	2.370	9.8	17.9
10 8	1 36.56	+ 2 53.0	3.982	4.967	2.2	20.1	10 8	1 40.00	+ 9 57.3	1.401	2.387	5.0	17.6
10 18	1 31.29	+ 2 31.3	3.974	4.964	1.4	20.1	10 18	1 31.29	+ 9 13.0	1.409	2.405	0.2	17.3
10 28	1 26.05	+ 2 12.6	3.996	4.961	3.0	20.2	10 28	1 22.89	+ 8 29.7	1.443	2.423	5.1	17.7
11 7	1 21.22	+ 1 59.1	4.049	4.959	5.0	20.3	11 7	1 15.90	+ 7 54.0	1.504	2.442	9.6	18.1
11 17	1 17.14	+ 1 52.1	4.128	4.956	6.8	20.5	11 17	1 11.11	+ 7 30.7	1.589	2.461	13.5	18.3
335420	2005 <i>UA</i> ₄₀	10 17.9 63°17		1.2°/17.0 18			159771	2003 <i>HL</i> ₄₇	10 17.9 56°68		1.4°/19.2 17		
9 8	2 0.25	+ 9 5.1	1.440	2.262	18.6	20.4	9 8	1 57.90	+18 52.0	1.448	2.243	19.7	19.1
9 18	1 56.35	+ 8 41.3	1.383	2.280	14.6	20.2	9 18	1 54.40	+17 58.5	1.398	2.275	15.8	19.0
9 28	1 49.64	+ 8 4.7	1.345	2.299	10.0	20.0	9 28	1 48.19	+16 41.7	1.366	2.307	11.2	18.8
10 8	1 40.90	+ 7 19.5	1.331	2.319	4.9	19.8	10 8	1 40.11	+15 5.9	1.358	2.338	6.1	18.6
10 18	1 31.23	+ 6 31.9	1.342	2.338	1.3	19.6	10 18	1 31.29	+13 19.0	1.375	2.370	1.6	18.4
10 28	1 21.96	+ 5 49.0	1.381	2.357	5.8	19.9	10 28	1 22.99	+11 31.5	1.421	2.402	4.8	18.7
11 7	1 14.26	+ 5 17.3	1.445	2.377	10.4	20.2	11 7	1 16.31	+ 9 53.8	1.493	2.434	9.3	19.0
11 17	1 8.93	+ 5 0.7	1.532	2.396	14.4	20.5	11 17	1 11.93	+ 8 33.6	1.589	2.466	13.3	19.3
178028	2006 <i>RO</i> ₄₄	10 17.9 173°60		0.6°/17.4 17			104197	2000 <i>ET</i> ₁₀₅	10 17.9 286°77		3.8°/14.9 18		
9 8	2 1.59	+10 17.1	1.816	2.615	16.2	21.8	9 8	1 58.80	+ 0 48.1	1.873	2.695	14.9	19.0
9 18	1 57.08	+ 9 55.1	1.734	2.618	12.9	21.5	9 18	1 54.85	+ 0 20.4	1.788	2.686	11.8	18.8
9 28	1 50.07	+ 9 20.7	1.673	2.620	8.9	21.3	9 28	1 48.56	+ 0 11.8	1.723	2.676	8.3	18.6
10 8	1 41.16	+ 8 37.0	1.636	2.622	4.5	21.1	10 8	1 40.43	+ 0 43.7	1.684	2.667	4.9	18.4
10 18	1 31.23	+ 7 48.4	1.627	2.623	0.7	20.8	10 18	1 31.29	+ 1 10.0	1.672	2.657	4.0	18.3
10 28	1 21.42	+ 7 1.2	1.647	2.624	5.0	21.1	10 28	1 22.18	+ 1 25.5	1.688	2.648	6.9	18.5
11 7	1 12.82	+ 6 21.5	1.694	2.623	9.4	21.4	11 7	1 14.13	+ 1 26.1	1.730	2.638	10.6	18.7
11 17	1 6.27	+ 5 54.0	1.767	2.623	13.2	21.6	11 17	1 7.97	+ 1 10.3	1.796	2.629	14.1	18.9
77475	2001 <i>HM</i> ₂₈	10 17.9 82°76		2.5°/15.9 18			280098	2002 <i>ER</i> ₁₂₂	10 17.9 154°98		1.7°/15.9 18		
9 8	2 1.47	+ 3 42.6	1.876	2.687	15.3	19.2	9 8	1 54.04	+ 7 33.4	2.556	3.357	12.0	20.9
9 18	1 56.62	+ 3 24.9	1.812	2.705	12.0	19.0	9 18	1 50.33	+ 6 40.6	2.474	3.362	9.4	20.7
9 28	1 49.49	+ 3 1.5	1.771	2.723	8.2	18.8	9 28	1 44.98	+ 5 39.2	2.416	3.367	6.4	20.5
10 8	1 40.74	+ 2 36.4	1.755	2.740	4.3	18.6	10 8	1 38.45	+ 4 33.0	2.385	3.371	3.2	20.3
10 18	1 31.24	+ 2 14.2	1.767	2.758	2.7	18.5	10 18	1 31.32	+ 3 26.7	2.383	3.375	1.8	20.3
10 28	1 22.03	+ 1 59.3	1.807	2.775	5.7	18.8	10 28	1 24.29	+ 2 25.3	2.411	3.379	4.5	20.4
11 7	1 14.07	+ 1 55.2	1.875	2.792	9.4	19.0	11 7	1 18.04	+ 1 33.5	2.468	3.383	7.6	20.7
11 17	1 8.04	+ 2 3.9	1.968	2.809	12.7	19.3	11 17	1 13.12	+ 0 54.5	2.552	3.386	10.4	20.8
44072	1998 <i>FS</i> ₆₅	10 17.9 169°30		1.1°/18.8 18			128935	2004 <i>TF</i> ₁₀₇	10 17.9 296°07		4.0°/14.3 18		
9 8	2 0.37	+15 20.9	1.739	2.527	17.2	19.4	9 8	1 56.22	+ 0 28.3	2.117	2.939	13.4	19.5
9 18	1 56.31	+15 3.6	1.656	2.530	13.9	19.2	9 18	1 52.58	+ 1 3.8	2.024	2.922	10.6	19.3
9 28	1 49.65	+14 29.4	1.593	2.533	9.9	19.0	9 28	1 46.87	+ 1 43.2	1.954	2.906	7.5	19.1
10 8	1 40.99	+13 40.1	1.554	2.535	5.4	18.7	10 8	1 39.55	+ 2 21.6	1.909	2.889	4.8	18.9
10 18	1 31.25	+12 39.7	1.541	2.537	1.2	18.4	10 18	1 31.31	+ 2 53.9	1.892	2.873	4.3	18.9
10 28	1 21.64	+11 34.8	1.557	2.538	4.6	18.7	10 28	1 23.04	+ 3 14.9	1.903	2.857	6.9	19.0
11 7	1 13.29	+10 33.3	1.601	2.539	9.1	19.0	11 7	1 15.66	+ 3 20.8	1.940	2.840	10.1	19.2
11 17	1 7.08	+ 9 41.8	1.670	2.539	13.1	19.2	11 17	1 9.89	+ 3 10.1	2.002	2.824	13.3	19.3
50132	2000 <i>AU</i> ₁₂₅	10 17.9 324°88		3.0°/15.6 18			39794	1997 <i>SU</i> ₂₄	10 17.9 325°39		0.3°/17.4 18		
9 8	1 56.23	+ 6 20.5	1.436	2.271	17.9	18.1	9 8	1 50.17	+ 8 29.9	4.264	5.047	7.8	19.4
9 18	1 53.50	+ 5 30.6	1.360	2.267	14.2	17.8	9 18	1 46.65	+ 8 24.4	4.169	5.045	6.2	19.3
9 28	1 47.95	+ 4 27.7	1.304	2.263	9.7	17.6	9 28	1 42.15	+ 8 14.6	4.099	5.044	4.2	19.2
10 8	1 40.21	+ 3 17.5	1.272	2.259	5.1	17.3	10 8	1 36.93	+ 8 2.0	4.057	5.042	2.1	19.0
10 18	1 31.26	+ 2 8.1	1.264	2.256	3.3	17.2	10 18	1 31.35	+ 7 47.9	4.045	5.041	0.4	18.8
10 28	1 22.43	+ 1 8.6	1.283	2.253	7.3	17.4	10 28	1 25.78	+ 7 34.5	4.064	5.040	2.4	19.0
11 7	1 14.98	+ 0 26.6	1.326	2.250	12.0	17.7	11 7	1 20.63	+ 7 23.4	4.114	5.039	4.5	19.2
11 17	1 9.82	+ 0 6.3	1.392	2.247	16.1	17.9	11 17	1 16.22	+ 7 16.5	4.191	5.037	6.4	19.3
323065	2002 <i>ST</i> ₆₆	10 17.9 89°85		1.0°/18.9 18			329501	2002 <i>RA</i> ₁₃₄	10 17.9 26°26		7.2°/13.2 18		
9 8	1 57.75	+13 33.8	2.450	3.226	13.1	20.9	9 8	1 55.80	+ 1 36.8	1.135	1.998	19.9	19.9
9 18	1 53.36	+13 40.4	2.368	3.236	10.5	20.7	9 18	1 53.54	+ 2 50.5	1.086	2.006	15.7	19.6
9 28	1 47.14	+13 37.2	2.308	3.245	7.4	20.5	9 28	1 48.08	+ 4 8.9	1.055	2.015	11.3	19.4
10 8	1 39.56	+13 25.3	2.274	3.254	4.1	20.3	10 8	1 40.26	+ 5 21.4	1.046	2.025	7.8	19.3
10 18	1 31.28	+13 6.6	2.269	3.264	1.1	20.1	10 18	1 31.31	+ 6 17.0	1.059	2.036	7.7	19.3
10 28	1 23.10	+12 44.5	2.293	3.273	3.4	20.3	10 28	1 22.78	+ 6 46.9	1.096	2.048	11.0	19.5
11 7	1 15.80	+12 22.8	2.347	3.282	6.8	20.5	11 7	1 16.00	+ 6 47.3	1.155	2.060	15.0	19.8
11 17	1 9.98	+12 5.2	2.427	3.291	9.8	20.7	11 17	1 11.87	+ 6 19.0	1.233	2.074	18.7	20.1
344447	2002 <i>JU</i> ₇₈	10 17.9 144°91		0.7°/18.5 18			130839	2000 <i>UY</i> ₅₀	10 17.9 279°97		7.3°/25.6 18		
9 8	1 58.49	+14 31.1	2.170	2.950	14.5	21.9	9 8	1 56.21	+34 7.3	1.937	2.631	18.6	19.9
9 18	1 54.18	+14 6.3	2.089	2.959	11.6	21.8	9 18	1 53.45	+34 2.2	1.821	2.609	16.4	19.7
9 28	1 47.81	+13 27.9	2.029	2.968	8.2	21.6	9 28	1 47.98	+33 28.3	1.721	2.587	13.7	19.4
10 8	1 39.93	+12 38.2	1.994	2.976	4.3	21.4	10 8	1 40.31	+32 21.6	1.642	2.565	10.7	19.2
10 18	1 31.28	+11 40.8	1.988	2.984	0.7	21.1	10 18	1 31.31	+30 40.8	1.587	2.542	8.1	19.0
10 28	1 22.78	+10 41.3	2.012	2.992	3.9	21.4	10 28	1 22.21	+28 30.0	1.559	2.519	7.4	18.9
11 7	1 15.30	+ 9 45.4	2.065	2.998	7.6	21.6	11 7	1 14.28	+25 59.0	1.558	2.496	9.3	19.0
11 17	1 9.51	+ 8 58.3	2.144	3.005	11.0	21.8	11 17	1 8.51	+23 21.1	1.585	2.473	12.6	19.1
150766	2001 <i>QB</i> ₂₁₂	10 17.9 64°89		2.0°/16.3 18			99652	2002 <i>HD</i> ₄	10 17.9 38°01		6.2°/13.6 18		
9 8	1 58.23	+ 8 40.7	1.429										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
127669	2003 <i>EM</i> ₂	10 17.9 219°10			0°8/17.2 18		391997	2008 <i>YD</i> ₈₆	10 17.9 250°12			4°1/21.6 18	
9 8	1 58.61	+10 22.2	1.967	2.766	15.1	20.9	9 8	1 57.32	+22 37.5	1.882	2.641	17.1	21.2
9 18	1 54.66	+9 48.9	1.874	2.759	12.0	20.7	9 18	1 53.94	+22 45.7	1.791	2.638	14.3	21.0
9 28	1 48.40	+9 2.9	1.803	2.751	8.3	20.5	9 28	1 48.08	+22 34.4	1.719	2.636	10.9	20.8
10 8	1 40.36	+8 7.3	1.757	2.743	4.2	20.2	10 8	1 40.28	+22 2.9	1.670	2.633	7.3	20.5
10 18	1 31.32	+7 6.9	1.739	2.734	0.9	19.9	10 18	1 31.37	+21 12.5	1.647	2.630	4.4	20.4
10 28	1 22.29	+6 7.9	1.749	2.725	4.9	20.2	10 28	1 22.50	+20 7.9	1.651	2.628	5.0	20.4
11 7	1 14.28	+5 17.0	1.788	2.715	9.1	20.4	11 7	1 14.75	+18 56.7	1.683	2.625	8.4	20.6
11 17	1 8.10	+4 38.9	1.852	2.705	12.8	20.7	11 17	1 9.01	+17 46.9	1.740	2.622	12.0	20.8
75537	1999 <i>XN</i> ₂₃₀	10 17.9 37°43			3°9/20.7 18		296301	2009 <i>DU</i> ₁₂₁	10 17.9 323°96			4°5/20.1 16	
9 8	1 57.41	+20 3.4	1.227	2.034	22.0	18.5	9 8	1 59.92	+16 31.7	1.447	2.247	19.5	20.7
9 18	1 54.97	+20 16.3	1.165	2.044	18.1	18.3	9 18	1 57.16	+17 38.4	1.346	2.222	16.3	20.5
9 28	1 49.22	+20 4.6	1.119	2.056	13.5	18.1	9 28	1 51.14	+18 33.8	1.263	2.198	12.4	20.2
10 8	1 40.92	+19 28.0	1.093	2.068	8.4	17.9	10 8	1 42.24	+19 15.1	1.201	2.175	8.0	19.8
10 18	1 31.31	+18 29.8	1.090	2.081	4.2	17.7	10 18	1 31.35	+19 40.1	1.164	2.152	4.6	19.6
10 28	1 22.00	+17 18.2	1.112	2.094	5.8	17.8	10 28	1 19.98	+19 49.5	1.152	2.130	6.3	19.6
11 7	1 14.48	+16 4.3	1.159	2.108	10.5	18.1	11 7	1 9.79	+19 47.9	1.165	2.109	11.0	19.8
11 17	1 9.73	+14 58.5	1.227	2.122	15.0	18.4	11 17	1 2.21	+19 42.2	1.200	2.090	15.6	20.1
102426	1999 <i>TY</i> ₁₉₆	10 17.9 228°60			1°2/17.0 18		351342	2005 <i>AZ</i> ₈	10 17.9 344°53			7°2/23.9 18	
9 8	2 1.48	+6 39.2	1.880	2.685	15.5	19.7	9 8	1 58.71	+28 8.0	1.731	2.467	19.2	20.6
9 18	1 56.97	+6 38.1	1.795	2.683	12.3	19.4	9 18	1 55.52	+28 55.1	1.644	2.465	16.5	20.4
9 28	1 50.02	+6 29.6	1.731	2.681	8.5	19.2	9 28	1 49.47	+29 20.4	1.573	2.463	13.4	20.2
10 8	1 41.19	+6 16.3	1.692	2.678	4.3	19.0	10 8	1 41.10	+29 20.1	1.524	2.461	10.2	20.0
10 18	1 31.33	+6 1.6	1.681	2.676	1.3	18.7	10 18	1 31.37	+28 52.9	1.497	2.460	7.7	19.9
10 28	1 21.53	+5 49.8	1.698	2.673	5.1	19.0	10 28	1 21.60	+28 1.4	1.497	2.459	7.4	19.9
11 7	1 12.85	+5 45.2	1.744	2.671	9.3	19.3	11 7	1 13.14	+26 53.1	1.522	2.458	9.7	20.0
11 17	1 6.14	+5 50.7	1.814	2.668	13.0	19.5	11 17	1 7.01	+25 37.5	1.572	2.457	12.9	20.2
516136	2015 <i>VU</i> ₉₆	10 17.9 147°69			2°2/15.9 18		252867	2002 <i>JG</i> ₅	10 17.9 210°54			1°5/16.8 18	
9 8	1 58.13	+3 33.9	2.359	3.164	12.7	21.6	9 8	2 2.45	+7 33.1	1.643	2.454	17.1	20.8
9 18	1 53.70	+3 17.0	2.278	3.167	10.0	21.4	9 18	1 58.15	+7 15.6	1.559	2.451	13.6	20.6
9 28	1 47.40	+2 55.3	2.219	3.169	6.9	21.2	9 28	1 51.09	+6 47.3	1.495	2.446	9.4	20.3
10 8	1 39.73	+2 32.1	2.187	3.172	3.7	21.1	10 8	1 41.84	+6 11.9	1.455	2.442	4.8	20.1
10 18	1 31.35	+2 10.9	2.183	3.174	2.3	21.0	10 18	1 31.38	+5 34.1	1.442	2.437	1.6	19.8
10 28	1 23.07	+1 55.6	2.209	3.176	5.0	21.1	10 28	1 20.96	+5 0.2	1.456	2.431	5.9	20.1
11 7	1 15.67	+1 49.2	2.264	3.178	8.2	21.4	11 7	1 11.83	+4 36.3	1.498	2.425	10.5	20.4
11 17	1 9.77	+1 53.9	2.344	3.180	11.1	21.6	11 17	1 4.96	+4 26.5	1.563	2.419	14.6	20.6
354485	2004 <i>ES</i> ₅₈	10 17.9 188°46			3°0/21.6 18		22298	1990 <i>EJ</i>	10 17.9 191°41			2°3/20.5 18	
9 8	1 57.16	+23 0.8	2.714	3.443	13.1	22.3	9 8	1 57.03	+19 3.9	2.852	3.597	12.1	18.3
9 18	1 52.90	+22 51.9	2.613	3.442	10.9	22.2	9 18	1 52.69	+19 9.8	2.753	3.596	10.0	18.1
9 28	1 46.86	+22 27.8	2.534	3.440	8.3	22.0	9 28	1 46.67	+19 4.2	2.676	3.594	7.4	18.0
10 8	1 39.47	+21 48.6	2.479	3.438	5.5	21.8	10 8	1 39.39	+18 47.2	2.624	3.592	4.6	17.8
10 18	1 31.36	+20 55.9	2.453	3.436	3.3	21.7	10 18	1 31.40	+18 20.3	2.602	3.590	2.4	17.6
10 28	1 23.29	+19 53.3	2.457	3.432	3.8	21.7	10 28	1 23.43	+17 46.1	2.609	3.587	3.3	17.7
11 7	1 16.01	+18 46.0	2.491	3.429	6.3	21.8	11 7	1 16.17	+17 8.6	2.647	3.583	6.0	17.9
11 17	1 10.14	+17 39.6	2.553	3.424	9.1	22.0	11 17	1 10.20	+16 32.0	2.712	3.580	8.7	18.0
247910	2003 <i>VC</i> ₁₁	10 17.9 64°22			3°1/20.8 18		186019	2001 <i>QK</i> ₁₆₃	10 17.9 30°67			0°9/17.4 18	
9 8	1 56.13	+20 56.2	1.796	2.568	17.3	20.1	9 8	1 57.89	+9 18.8	1.133	1.977	21.2	19.6
9 18	1 52.95	+20 46.5	1.715	2.574	14.3	19.9	9 18	1 55.27	+9 12.1	1.082	1.991	16.8	19.4
9 28	1 47.31	+20 16.6	1.654	2.580	10.6	19.7	9 28	1 49.34	+8 50.7	1.048	2.006	11.5	19.1
10 8	1 39.82	+19 27.1	1.615	2.586	6.7	19.5	10 8	1 40.95	+8 18.8	1.034	2.023	5.8	18.9
10 18	1 31.35	+18 20.9	1.603	2.592	3.4	19.3	10 18	1 31.39	+7 42.5	1.044	2.040	0.9	18.6
10 28	1 23.03	+17 4.4	1.618	2.598	4.6	19.4	10 28	1 22.27	+7 9.7	1.078	2.058	6.3	19.0
11 7	1 15.91	+15 45.9	1.661	2.604	8.3	19.7	11 7	1 15.00	+6 47.6	1.136	2.078	11.6	19.4
11 17	1 10.80	+14 33.4	1.729	2.611	12.1	19.9	11 17	1 10.50	+6 40.9	1.216	2.098	16.1	19.7
202783	2007 <i>YK</i> ₂	10 17.9 46°47			4°6/27.5 18		231325	2006 <i>DR</i> ₇	10 17.9 350°95			1°2/18.9 18	
9 8	1 50.37	+36 24.8	4.472	5.092	9.5	19.5	9 8	1 58.20	+13 2.3	2.108	2.895	14.6	19.9
9 18	1 47.03	+36 39.5	4.369	5.094	8.5	19.4	9 18	1 54.20	+13 18.4	2.019	2.893	11.8	19.7
9 28	1 42.53	+36 41.8	4.285	5.096	7.2	19.3	9 28	1 48.02	+13 24.2	1.951	2.891	8.4	19.5
10 8	1 37.19	+36 30.8	4.224	5.098	6.0	19.2	10 8	1 40.18	+13 20.6	1.909	2.890	4.6	19.3
10 18	1 31.40	+36 6.6	4.189	5.100	5.0	19.2	10 18	1 31.40	+13 9.3	1.894	2.889	1.2	19.1
10 28	1 25.63	+35 30.3	4.181	5.102	4.6	19.1	10 28	1 22.65	+12 53.7	1.907	2.888	3.9	19.3
11 7	1 20.34	+34 44.1	4.202	5.104	5.1	19.2	11 7	1 14.86	+12 38.0	1.949	2.887	7.7	19.5
11 17	1 15.94	+33 51.3	4.250	5.106	6.1	19.3	11 17	1 8.79	+12 26.4	2.017	2.887	11.2	19.7
322950	2002 <i>GP</i> ₁₈₄	10 17.9 111°84			0°3/18.1 17		365004	2008 <i>KM</i> ₃₂	10 17.9 209°07			1°6/16.2 18	
9 8	1 58.82	+14 10.3	1.503	2.310	18.6	21.8	9 8	1 53.63	+8 37.2	2.271	3.077	13.2	21.1
9 18	1 55.38	+13 35.1	1.431	2.318	14.9	21.5	9 18	1 50.33	+7 44.3	2.185	3.075	10.3	20.9
9 28	1 49.15	+12 41.0	1.378	2.326	10.4	21.3	9 28	1 45.18	+6 40.8	2.122	3.074	7.0	20.7
10 8	1 40.80	+11 31.2	1.348	2.333	5.4	21.0	10 8	1 38.66	+5 30.6	2.085	3.072	3.5	20.5
10 18	1 31.36	+10 12.1	1.344	2.341	0.3	20.7	10 18	1 31.42	+4 18.8	2.077	3.070	1.7	20.3
10 28	1 22.15	+8 52.3	1.368	2.348	5.2	21.1	10 28	1 24.26	+3 11.6	2.098	3.068	4.8	20.6
11 7	1 14.40	+7 41.3	1.418	2.355	10.1	21.4	11 7	1 17.94	+2 14.5	2.147	3.066	8.3	20.8
11 17	1 8.97	+6 45.9	1.491	2.361	14.4	21.6	11 17	1 13.09	+1 31.5	2.222	3.064	11.4	21.0
322052	2010 <i>VE</i> ₆₅	10 17.9 4°47			0°9/18.7 18		436599	2011 <i>KE</i> ₇	10 17.9 16°20			10°6/ 8.7 18	
9 8	1 56.60	+13 27.9	2.098	2.887	14.6	20.9	9 8	1 53.76	-10 34.4				

EPHEMERIDES

10 17.9

10 17.9

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
297368	2000 <i>DH</i> ₉₀		10 17.9 273°01	1.6/19.3	18		433356	2013 <i>RJ</i> ₉₃		10 17.9 34°15	0.2/18.1	16	
9 8	1 57.51	+15 50.4	2.004	2.786	15.4	21.7	9 8	1 56.79	+13 43.6	1.358	2.178	19.6	21.6
9 18	1 53.99	+15 47.3	1.898	2.768	12.6	21.5	9 18	1 54.15	+13 14.3	1.286	2.181	15.7	21.4
9 28	1 48.11	+15 29.7	1.813	2.749	9.2	21.2	9 28	1 48.53	+12 25.2	1.233	2.184	11.0	21.1
10 8	1 40.34	+14 58.2	1.752	2.731	5.2	20.9	10 8	1 40.60	+11 19.6	1.202	2.188	5.7	20.9
10 18	1 31.41	+14 15.1	1.717	2.712	1.7	20.7	10 18	1 31.45	+10 4.0	1.196	2.192	0.2	20.5
10 28	1 22.35	+13 25.1	1.712	2.693	4.2	20.8	10 28	1 22.49	+ 8 47.6	1.215	2.196	5.6	20.9
11 7	1 14.22	+12 34.6	1.734	2.673	8.4	21.0	11 7	1 15.04	+ 7 40.4	1.260	2.201	10.8	21.2
11 17	1 7.89	+11 49.7	1.782	2.654	12.3	21.2	11 17	1 10.07	+ 6 49.8	1.328	2.205	15.3	21.5
422726	2001 <i>FX</i> ₁₄₀		10 17.9 130°28	0.3/17.7	16		413700	2005 <i>YH</i> ₃₂		10 17.9 144°31	3.6/22.1	17	
9 8	2 2.61	+11 9.5	1.853	2.646	16.1	22.3	9 8	1 56.92	+23 40.5	2.651	3.379	13.4	22.0
9 18	1 57.73	+10 49.7	1.780	2.660	12.8	22.1	9 18	1 52.78	+23 51.5	2.560	3.385	11.2	21.9
9 28	1 50.43	+10 17.7	1.729	2.674	8.9	21.9	9 28	1 46.82	+23 48.0	2.489	3.390	8.6	21.7
10 8	1 41.35	+ 9 36.1	1.702	2.687	4.5	21.7	10 8	1 39.51	+23 29.5	2.442	3.396	6.0	21.6
10 18	1 31.41	+ 8 49.4	1.704	2.700	0.3	21.4	10 18	1 31.47	+22 57.0	2.423	3.401	3.9	21.4
10 28	1 21.70	+ 8 3.4	1.734	2.712	4.7	21.8	10 28	1 23.48	+22 13.3	2.434	3.406	4.1	21.5
11 7	1 13.25	+ 7 24.0	1.793	2.723	8.9	22.0	11 7	1 16.31	+21 23.2	2.474	3.410	6.4	21.6
11 17	1 6.83	+ 6 55.7	1.877	2.734	12.5	22.3	11 17	1 10.59	+20 31.8	2.541	3.414	9.0	21.8
23461	1989 <i>TM</i> ₄		10 17.9 118°01	2.1/15.8	18		56065	1998 <i>XB</i> ₉₇		10 17.9 278°36	3.8/20.9	18	
9 8	1 55.36	+ 8 8.5	1.982	2.793	14.6	18.6	9 8	1 58.47	+20 27.8	1.660	2.436	18.4	20.1
9 18	1 51.88	+ 7 5.2	1.908	2.801	11.4	18.4	9 18	1 55.29	+20 43.6	1.567	2.428	15.3	19.8
9 28	1 46.33	+ 5 50.4	1.855	2.809	7.8	18.2	9 28	1 49.31	+20 40.1	1.493	2.419	11.6	19.6
10 8	1 39.26	+ 4 28.9	1.829	2.816	3.9	18.0	10 8	1 41.06	+20 16.1	1.442	2.411	7.5	19.3
10 18	1 31.43	+ 3 7.4	1.831	2.823	2.3	17.9	10 18	1 31.45	+19 33.0	1.415	2.402	4.1	19.1
10 28	1 23.77	+ 1 53.1	1.861	2.830	5.6	18.2	10 28	1 21.77	+18 35.4	1.415	2.394	5.3	19.2
11 7	1 17.14	+ 0 52.1	1.920	2.836	9.3	18.4	11 7	1 13.34	+17 31.5	1.441	2.385	9.3	19.4
11 17	1 12.21	+ 0 8.5	2.003	2.843	12.5	18.6	11 17	1 7.16	+16 29.9	1.492	2.377	13.5	19.6
447746	2007 <i>HG</i> ₁₇		10 17.9 141°05	4.8/13.3	18		278073	2007 <i>AV</i> ₁₂		10 17.9 299°14	2.8/15.9	18	
9 8	1 59.10	- 5 46.0	2.468	3.279	12.1	20.9	9 8	1 57.00	+ 6 4.1	1.440	2.274	18.0	21.3
9 18	1 54.32	- 6 17.3	2.395	3.283	9.6	20.7	9 18	1 54.38	+ 5 29.7	1.350	2.256	14.3	21.0
9 28	1 47.75	- 6 47.6	2.346	3.287	7.1	20.6	9 28	1 48.83	+ 4 42.8	1.281	2.239	9.9	20.7
10 8	1 39.91	- 7 12.2	2.323	3.291	5.2	20.4	10 8	1 40.87	+ 3 48.3	1.234	2.221	5.2	20.4
10 18	1 31.43	- 7 27.0	2.329	3.295	5.1	20.5	10 18	1 31.45	+ 2 53.1	1.212	2.204	3.0	20.2
10 28	1 23.10	- 7 28.6	2.364	3.298	6.9	20.6	10 28	1 21.92	+ 2 5.7	1.215	2.187	7.3	20.5
11 7	1 15.66	- 7 15.3	2.426	3.302	9.4	20.7	11 7	1 13.67	+ 1 33.8	1.244	2.171	12.3	20.7
11 17	1 9.69	- 6 46.8	2.513	3.305	11.8	20.9	11 17	1 7.77	+ 1 22.1	1.294	2.154	16.8	20.9
104936	2000 <i>JN</i> ₃₁		10 17.9 208°82	1.5/19.7	18		377525	2005 <i>GJ</i> ₇₄		10 17.9 114°42	4.6/14.8	17	
9 8	1 56.92	+17 44.0	2.610	3.368	12.9	20.8	9 8	2 5.11	- 0 31.7	1.650	2.469	16.7	21.1
9 18	1 52.78	+17 24.2	2.507	3.361	10.5	20.6	9 18	1 59.83	- 1 8.3	1.589	2.485	13.2	21.0
9 28	1 46.83	+16 50.8	2.426	3.354	7.6	20.4	9 28	1 51.93	- 1 48.1	1.550	2.500	9.3	20.8
10 8	1 39.51	+16 5.1	2.371	3.346	4.4	20.2	10 8	1 42.12	- 2 25.2	1.535	2.515	5.7	20.6
10 18	1 31.44	+15 9.4	2.344	3.337	1.7	20.0	10 18	1 31.45	- 2 53.3	1.548	2.530	4.9	20.6
10 28	1 23.37	+14 8.0	2.349	3.328	3.4	20.1	10 28	1 21.14	- 3 7.0	1.588	2.544	7.8	20.8
11 7	1 16.07	+13 6.1	2.383	3.319	6.6	20.3	11 7	1 12.30	- 3 3.3	1.655	2.557	11.4	21.0
11 17	1 10.16	+12 9.0	2.444	3.308	9.7	20.5	11 17	1 5.71	- 2 41.5	1.745	2.570	14.8	21.3
309178	2007 <i>CV</i> ₅		10 17.9 221°02	1.0/18.4	17		368837	2006 <i>DZ</i> ₇₁		10 17.9 236°11	0.2/18.1	17	
9 8	2 11.02	+ 9 55.5	1.407	2.207	20.0	20.5	9 8	1 55.68	+12 1.5	2.861	3.638	11.4	22.5
9 18	2 5.74	+10 36.6	1.320	2.202	16.2	20.2	9 18	1 51.63	+11 47.0	2.755	3.625	9.1	22.3
9 28	1 56.90	+11 8.9	1.252	2.196	11.6	19.9	9 28	1 45.96	+11 23.6	2.672	3.612	6.4	22.1
10 8	1 45.06	+11 32.3	1.206	2.190	6.2	19.6	10 8	1 39.07	+10 52.9	2.616	3.599	3.3	21.9
10 18	1 31.39	+11 47.4	1.187	2.183	1.0	19.2	10 18	1 31.48	+10 17.3	2.589	3.585	0.2	21.6
10 28	1 17.61	+11 57.2	1.196	2.176	5.8	19.5	10 28	1 23.85	+ 9 40.2	2.593	3.571	3.3	21.9
11 7	1 5.45	+12 6.5	1.232	2.169	11.3	19.8	11 7	1 16.87	+ 9 5.5	2.626	3.556	6.4	22.0
11 17	0 56.22	+12 20.2	1.291	2.161	16.2	20.1	11 17	1 11.10	+ 8 36.8	2.687	3.541	9.3	22.2
185063	2006 <i>RF</i> ₃₁		10 17.9 344°89	0.9/18.6	18		295928	2008 <i>WM</i> ₁₃₈		10 17.9 243°37	7.3/25.2	18	
9 8	1 53.71	+13 6.2	1.486	2.307	18.2	20.1	9 8	1 58.29	+31 55.1	1.999	2.700	17.9	20.3
9 18	1 51.62	+13 8.5	1.403	2.297	14.7	19.9	9 18	1 54.90	+32 24.6	1.902	2.695	15.7	20.1
9 28	1 46.79	+12 55.4	1.338	2.288	10.4	19.6	9 28	1 48.88	+32 31.1	1.822	2.690	13.0	19.9
10 8	1 39.76	+12 28.3	1.295	2.280	5.6	19.3	10 8	1 40.78	+32 11.4	1.763	2.684	10.2	19.7
10 18	1 31.44	+11 51.0	1.277	2.273	1.0	19.0	10 18	1 31.46	+31 24.1	1.727	2.678	7.9	19.6
10 28	1 23.11	+11 9.7	1.285	2.267	5.1	19.2	10 28	1 22.11	+30 12.0	1.718	2.672	7.4	19.5
11 7	1 16.04	+10 31.6	1.318	2.262	10.0	19.5	11 7	1 13.92	+28 42.3	1.736	2.666	9.1	19.6
11 17	1 11.21	+10 3.4	1.374	2.258	14.4	19.8	11 17	1 7.83	+27 4.4	1.779	2.660	11.9	19.8
176494	2001 <i>XX</i> ₂₃₇		10 17.9 221°32	1.4/16.9	18		371340	2006 <i>KL</i> ₁₉		10 17.9 106°28	0.8/17.4	17	
9 8	2 0.85	+ 8 44.2	1.419	2.242	18.8	20.0	9 8	2 5.07	+10 2.4	1.599	2.401	17.9	21.9
9 18	1 57.30	+ 8 22.2	1.342	2.240	15.0	19.7	9 18	1 59.90	+ 9 39.8	1.538	2.424	14.1	21.7
9 28	1 50.71	+ 7 46.8	1.284	2.238	10.4	19.5	9 28	1 52.02	+ 9 4.6	1.497	2.446	9.7	21.5
10 8	1 41.74	+ 7 1.5	1.248	2.236	5.2	19.2	10 8	1 42.18	+ 8 20.3	1.481	2.467	4.8	21.2
10 18	1 31.43	+ 6 12.5	1.238	2.233	1.5	18.9	10 18	1 31.45	+ 7 32.1	1.492	2.488	0.8	21.0
10 28	1 21.22	+ 5 27.3	1.254	2.231	6.3	19.2	10 28	1 21.13	+ 6 46.9	1.531	2.507	5.3	21.4
11 7	1 12.50	+ 4 53.5	1.296	2.228	11.4	19.5	11 7	1 12.35	+ 6 10.9	1.597	2.527	9.8	21.7
11 17	1 6.27	+ 4 36.1	1.360	2.225	15.8	19.8	11 17	1 5.91	+ 5 48.3	1.688	2.545	13.7	22.0
424637	2008 <i>LV</i> ₅		10 17.9 90°75	5.3/13.7	16		265126	2003 <i>UF</i> ₁₃₉		10 17.9 17°23	5.1/12.9	18	

EPHEMERIDES

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
141910	2002 <i>PL</i> ₇₈		10 17.9 56°31'	1.0°/17.3	18		488423	2016 <i>XM</i> ₈		10 17.9 325°80'	3.7°/20.9	18	
9 8	2 2.58	+ 8 37.8	1.277	2.105	20.2	20.2	9 8	1 56.35	+20 40.8	1.724	2.500	17.8	21.1
9 18	1 58.61	+ 8 32.3	1.222	2.122	15.9	19.9	9 18	1 53.44	+20 50.9	1.635	2.495	14.8	20.9
9 28	1 51.48	+ 8 14.1	1.185	2.140	11.0	19.7	9 28	1 47.92	+20 41.7	1.564	2.490	11.1	20.6
10 8	1 42.02	+ 7 47.2	1.170	2.158	5.5	19.5	10 8	1 40.32	+20 12.5	1.516	2.485	7.2	20.4
10 18	1 31.46	+ 7 16.7	1.180	2.176	1.1	19.2	10 18	1 31.52	+19 25.2	1.493	2.481	3.9	20.2
10 28	1 21.34	+ 6 49.7	1.217	2.195	6.1	19.6	10 28	1 22.73	+18 24.7	1.497	2.476	5.0	20.3
11 7	1 13.02	+ 6 32.3	1.278	2.214	11.1	19.9	11 7	1 15.12	+17 19.0	1.528	2.473	8.8	20.5
11 17	1 7.38	+ 6 28.7	1.361	2.233	15.4	20.3	11 17	1 9.62	+16 16.3	1.583	2.469	12.8	20.7
135756	2002 <i>RN</i>		10 17.9 94°65'	2.1°/19.6	18		130047	1999 <i>VJ</i> ₁₆₃		10 17.9 21°73'	0°1°/17.9	18	
9 8	2 2.66	+15 32.2	1.961	2.735	16.0	19.9	9 8	1 56.62	+10 4.4	1.198	2.038	20.5	18.9
9 18	1 57.80	+15 56.2	1.884	2.747	13.0	19.7	9 18	1 54.20	+10 10.1	1.143	2.049	16.3	18.6
9 28	1 50.54	+16 7.6	1.827	2.760	9.4	19.5	9 28	1 48.63	+10 1.5	1.105	2.062	11.3	18.4
10 8	1 41.47	+16 6.6	1.795	2.772	5.5	19.3	10 8	1 40.67	+ 9 41.7	1.088	2.076	5.7	18.1
10 18	1 31.47	+15 54.5	1.791	2.783	2.3	19.1	10 18	1 31.53	+ 9 15.6	1.094	2.091	0.2	17.7
10 28	1 21.61	+15 35.0	1.815	2.795	4.2	19.3	10 28	1 22.74	+ 8 50.0	1.126	2.107	5.8	18.2
11 7	1 12.94	+15 13.0	1.868	2.806	8.0	19.6	11 7	1 15.67	+ 8 31.9	1.181	2.125	11.0	18.6
11 17	1 6.24	+14 53.5	1.947	2.818	11.5	19.8	11 17	1 11.22	+ 8 26.0	1.258	2.143	15.4	18.9
477277	2009 <i>SC</i> ₁₃₀		10 17.9 348°89'	0°5°/17.7	18		301781	2010 <i>JZ</i> ₁₅₉		10 17.9 97°61'	2°3°/15.9	18	
9 8	2 0.36	+ 8 10.9	1.280	2.113	19.9	20.7	9 8	1 57.14	+ 6 12.3	1.867	2.684	15.2	21.4
9 18	1 57.31	+ 8 29.5	1.205	2.108	15.9	20.4	9 18	1 53.44	+ 5 29.2	1.795	2.691	11.9	21.2
9 28	1 50.98	+ 8 37.8	1.148	2.103	11.1	20.1	9 28	1 47.51	+ 4 36.7	1.744	2.698	8.1	21.0
10 8	1 41.99	+ 8 37.9	1.112	2.099	5.7	19.8	10 8	1 39.94	+ 3 39.4	1.719	2.705	4.2	20.8
10 18	1 31.46	+ 8 33.2	1.100	2.096	0.5	19.4	10 18	1 31.55	+ 2 43.3	1.721	2.712	2.5	20.7
10 28	1 20.98	+ 8 29.1	1.114	2.094	6.1	19.8	10 28	1 23.32	+ 1 54.7	1.751	2.720	5.8	20.9
11 7	1 12.09	+ 8 31.0	1.152	2.093	11.5	20.1	11 7	1 16.22	+ 1 18.8	1.808	2.726	9.6	21.2
11 17	1 5.93	+ 8 43.3	1.212	2.093	16.2	20.4	11 17	1 10.94	+ 0 59.0	1.889	2.733	13.0	21.4
42009	2000 <i>YM</i> ₅₀		10 17.9 136°84'	0°7°/18.8	18		18034	1999 <i>NF</i> ₆		10 17.9 355°97'	0°3°/17.7	18	
9 8	1 55.42	+14 39.8	2.533	3.308	12.8	19.8	9 8	1 54.69	+11 26.8	1.967	2.771	14.9	17.9
9 18	1 51.53	+14 18.9	2.447	3.315	10.2	19.6	9 18	1 51.55	+11 2.2	1.883	2.770	11.9	17.7
9 28	1 45.91	+13 46.4	2.385	3.322	7.2	19.4	9 28	1 46.26	+10 25.1	1.820	2.769	8.2	17.5
10 8	1 39.03	+13 4.1	2.348	3.329	3.9	19.2	10 8	1 39.34	+ 9 38.4	1.782	2.768	4.2	17.2
10 18	1 31.50	+12 15.1	2.339	3.335	0.8	19.0	10 18	1 31.55	+ 8 46.4	1.772	2.768	0.3	16.9
10 28	1 24.07	+11 23.7	2.361	3.341	3.3	19.2	10 28	1 23.84	+ 7 54.7	1.789	2.768	4.4	17.3
11 7	1 17.46	+10 34.7	2.413	3.347	6.6	19.4	11 7	1 17.12	+ 7 9.4	1.834	2.768	8.5	17.5
11 17	1 12.23	+ 9 52.3	2.491	3.353	9.6	19.6	11 17	1 12.12	+ 6 35.2	1.904	2.768	12.0	17.7
84930	2003 <i>WX</i> ₂₁		10 17.9 305°68'	8°5°/27.9	17		485871	2012 <i>FB</i> ₂₇		10 17.9 109°61'	0°9°/18.8	18	
9 8	1 54.57	+38 12.8	2.292	2.944	17.0	17.9	9 8	1 57.66	+13 18.9	2.451	3.228	13.1	21.6
9 18	1 51.93	+38 33.8	2.170	2.917	15.4	17.8	9 18	1 53.39	+13 22.7	2.365	3.234	10.5	21.4
9 28	1 46.86	+38 30.7	2.063	2.889	13.3	17.6	9 28	1 47.27	+13 16.8	2.302	3.239	7.4	21.2
10 8	1 39.80	+37 59.2	1.977	2.862	11.2	17.4	10 8	1 39.77	+13 2.1	2.264	3.245	4.0	21.0
10 18	1 31.50	+36 56.8	1.913	2.835	9.3	17.2	10 18	1 31.55	+12 41.0	2.255	3.250	0.9	20.8
10 28	1 23.04	+35 24.6	1.874	2.808	8.5	17.1	10 28	1 23.40	+12 16.7	2.276	3.255	3.4	21.0
11 7	1 15.57	+33 28.7	1.862	2.781	9.4	17.1	11 7	1 16.11	+11 53.2	2.325	3.261	6.8	21.2
11 17	1 9.99	+31 18.3	1.877	2.754	11.5	17.2	11 17	1 10.28	+11 34.2	2.402	3.266	9.8	21.4
471985	2013 <i>UJ</i> ₇		10 17.9 335°26'	3°5°/15.6	18		403382	2009 <i>PS</i> ₄		10 17.9 24°77'	4°8°/22.3	18	
9 8	1 49.42	+ 6 59.8	1.082	1.948	20.5	20.8	9 8	1 56.87	+23 34.2	1.946	2.699	16.8	20.6
9 18	1 49.14	+ 6 10.6	1.006	1.930	16.3	20.5	9 18	1 53.50	+24 3.4	1.864	2.704	14.1	20.4
9 28	1 45.62	+ 5 2.8	0.946	1.913	11.3	20.2	9 28	1 47.75	+24 14.6	1.800	2.709	11.0	20.2
10 8	1 39.38	+ 3 42.2	0.907	1.897	5.9	19.8	10 8	1 40.15	+24 6.4	1.759	2.715	7.7	20.0
10 18	1 31.50	+ 2 22.0	0.890	1.883	3.8	19.7	10 18	1 31.55	+23 39.5	1.744	2.721	5.1	19.9
10 28	1 23.56	+ 1 12.0	0.896	1.870	8.7	19.9	10 28	1 23.01	+22 57.2	1.756	2.728	5.4	19.9
11 7	1 17.15	+ 0 23.9	0.923	1.859	14.3	20.2	11 7	1 15.59	+22 5.8	1.794	2.735	8.1	20.1
11 17	1 13.47	+ 0 4.1	0.969	1.849	19.4	20.4	11 17	1 10.09	+21 12.4	1.858	2.742	11.3	20.3
225185	2008 <i>HC</i> ₅₆		10 17.9 40°65'	10°0°/ 9.9	18		179035	2001 <i>RB</i> ₁₂₀		10 17.9 350°14'	3°5°/15.0	18	
9 8	1 59.25	-17 10.5	1.821	2.643	15.3	19.0	9 8	1 53.70	+ 4 4.8	1.641	2.476	16.1	19.8
9 18	1 54.96	-18 17.5	1.782	2.659	12.9	18.8	9 18	1 51.16	+ 3 14.5	1.565	2.472	12.6	19.6
9 28	1 48.39	-19 13.5	1.764	2.676	11.0	18.8	9 28	1 46.20	+ 2 14.8	1.510	2.468	8.7	19.4
10 8	1 40.27	-19 50.5	1.770	2.693	10.0	18.7	10 8	1 39.38	+ 1 11.6	1.479	2.465	4.9	19.1
10 18	1 31.51	-20 2.5	1.800	2.711	10.5	18.8	10 18	1 31.57	+ 0 11.9	1.474	2.463	3.8	19.1
10 28	1 23.16	-19 46.4	1.854	2.729	12.0	18.9	10 28	1 23.85	- 0 36.6	1.496	2.461	7.1	19.3
11 7	1 16.14	-19 3.1	1.931	2.748	14.0	19.1	11 7	1 17.30	- 1 8.2	1.543	2.459	11.1	19.5
11 17	1 11.06	-17 56.0	2.028	2.766	15.9	19.3	11 17	1 12.70	- 1 19.7	1.613	2.459	14.8	19.7
342520	2008 <i>UW</i> ₂₀₁		10 17.9 314°60'	3°0°/20.8	18		319630	2006 <i>SA</i> ₃₆₀		10 17.9 29°06'	8°0°/12.9	17	
9 8	1 53.65	+22 17.4	1.684	2.460	18.1	20.0	9 8	1 54.77	- 1 44.4	0.988	1.862	21.3	19.0
9 18	1 51.32	+21 43.8	1.593	2.454	15.0	19.8	9 18	1 53.04	- 3 11.1	0.950	1.876	16.8	18.7
9 28	1 46.42	+20 45.0	1.521	2.449	11.2	19.6	9 28	1 47.88	- 4 41.9	0.930	1.892	12.1	18.6
10 8	1 39.52	+19 21.7	1.471	2.443	7.0	19.3	10 8	1 40.26	- 6 4.1	0.930	1.909	8.5	18.4
10 18	1 31.52	+17 38.1	1.447	2.438	3.3	19.1	10 18	1 31.57	- 7 5.4	0.952	1.928	8.5	18.5
10 28	1 23.57	+15 42.5	1.451	2.432	4.7	19.1	10 28	1 23.44	- 7 36.5	0.996	1.947	11.8	18.8
11 7	1 16.83	+13 46.3	1.482	2.427	9.0	19.4	11 7	1 17.25	- 7 34.5	1.061	1.968	15.9	19.1
11 17	1 12.17	+12 0.0	1.538	2.423	13.1	19.6	11 17	1 13.84	- 7 1.7	1.144	1.989	19.6	19.4
514495	2016 <i>WL</i> ₁₈		10 17.9 163°51'	0°4°/18.3	18		15899	Silvain		10 17.9 61°70'	1°		

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V	
144899	2004 VX ₃₄	10 17.9 218°23 4°3/14.7 18						318966	2005 UR ₂₇₅	10 17.9 351°95 4°3/22.5 18				
9 8	2 1.42	- 0 43.4	1.879	2.697	15.0	20.2	9 8	1 54.44	+24 55.5	2.028	2.775	16.4	20.7	
9 18	1 56.90	- 1 14.2	1.799	2.694	11.9	19.9	9 18	1 51.54	+24 55.5	1.937	2.773	13.8	20.5	
9 28	1 50.00	- 1 48.1	1.740	2.690	8.4	19.7	9 28	1 46.38	+24 35.2	1.865	2.772	10.7	20.3	
10 8	1 41.28	- 2 20.2	1.706	2.686	5.2	19.5	10 8	1 39.48	+23 53.8	1.815	2.771	7.4	20.1	
10 18	1 31.58	- 2 44.8	1.700	2.682	4.6	19.5	10 18	1 31.63	+22 53.1	1.791	2.770	4.7	20.0	
10 28	1 21.97	- 2 56.8	1.722	2.678	7.3	19.7	10 28	1 23.83	+21 37.7	1.795	2.770	4.9	20.0	
11 7	1 13.49	- 2 52.8	1.771	2.673	10.8	19.9	11 7	1 17.06	+20 15.1	1.826	2.769	7.8	20.2	
11 17	1 6.95	- 2 31.8	1.843	2.668	14.1	20.1	11 17	1 12.11	+18 53.3	1.884	2.769	11.1	20.4	
139363	2001 ME ₈	10 17.9 101°78 0°9/18.9 18						60396	2000 AG ₂₄₃	10 17.9 305°41 20°8/21.2 17				
9 8	1 56.07	+16 4.6	2.023	2.806	15.3	20.1	9 8	1 49.76	-23 27.5	0.972	1.841	21.9	18.2	
9 18	1 52.50	+15 29.4	1.945	2.817	12.3	19.9	9 18	1 50.13	-28 7.8	0.933	1.820	20.9	18.1	
9 28	1 46.82	+14 38.2	1.889	2.828	8.7	19.7	9 28	1 46.73	-32 31.3	0.915	1.799	21.1	18.0	
10 8	1 39.59	+13 33.6	1.857	2.838	4.7	19.5	10 8	1 40.14	-36 10.9	0.915	1.779	22.7	18.0	
10 18	1 31.59	+12 20.1	1.853	2.849	1.0	19.3	10 18	1 31.62	-38 45.7	0.932	1.759	25.0	18.1	
10 28	1 23.76	+11 4.0	1.878	2.859	4.0	19.5	10 28	1 23.08	-40 5.5	0.961	1.740	27.6	18.2	
11 7	1 17.00	+9 52.5	1.932	2.869	7.9	19.8	11 7	1 16.41	-40 12.3	1.001	1.721	30.1	18.4	
11 17	1 11.96	+8 51.3	2.011	2.879	11.3	20.0	11 17	1 12.94	-39 15.2	1.047	1.703	32.1	18.5	
191537	2003 UL ₂₂₃	10 17.9 286°94 0°2/17.8 17						51680	2001 KF ₉	10 17.9 111°25 1°5/19.2 18				
9 8	1 58.25	+9 14.4	2.388	3.179	13.0	19.6	9 8	2 2.26	+14 35.8	2.099	2.872	15.1	19.2	
9 18	1 53.96	+9 18.4	2.296	3.175	10.3	19.4	9 18	1 57.29	+14 46.1	2.023	2.887	12.2	19.1	
9 28	1 47.74	+9 15.0	2.226	3.171	7.2	19.2	9 28	1 50.10	+14 44.5	1.968	2.902	8.7	18.9	
10 8	1 40.07	+9 5.9	2.183	3.168	3.7	18.9	10 8	1 41.28	+14 31.8	1.938	2.916	4.9	18.7	
10 18	1 31.59	+8 53.4	2.168	3.164	0.2	18.6	10 18	1 31.63	+14 10.1	1.936	2.930	1.6	18.5	
10 28	1 23.12	+8 40.7	2.182	3.160	3.8	19.0	10 28	1 22.15	+13 43.3	1.964	2.944	3.9	18.7	
11 7	1 15.49	+8 31.4	2.226	3.157	7.4	19.2	11 7	1 13.79	+13 16.3	2.021	2.957	7.6	18.9	
11 17	1 9.35	+8 28.4	2.296	3.153	10.5	19.4	11 17	1 7.25	+12 53.5	2.104	2.970	10.9	19.2	
473322	2015 SW ₂	10 17.9 342°02 16°4/ 2.9 18						493925	2015 XQ ₃₄₀	10 17.9 213°74 2°4/20.8 18				
9 8	2 4.44	-35 1.1	1.745	2.511	18.0	19.7	9 8	1 54.43	+20 23.3	2.686	3.434	12.7	22.1	
9 18	1 59.79	-36 17.5	1.700	2.498	17.0	19.6	9 18	1 50.84	+20 12.7	2.586	3.431	10.5	21.9	
9 28	1 52.15	-37 9.8	1.673	2.487	16.5	19.6	9 28	1 45.53	+19 48.3	2.509	3.427	7.8	21.7	
10 8	1 42.35	-37 27.7	1.664	2.476	16.5	19.6	10 8	1 38.94	+19 10.5	2.456	3.424	4.9	21.5	
10 18	1 31.58	-37 4.2	1.673	2.466	17.1	19.6	10 18	1 31.65	+18 21.4	2.431	3.420	2.5	21.4	
10 28	1 21.25	-35 56.8	1.701	2.457	18.1	19.6	10 28	1 24.38	+17 24.6	2.437	3.415	3.4	21.4	
11 7	1 12.64	-34 8.7	1.746	2.449	19.5	19.7	11 7	1 17.85	+16 25.1	2.471	3.411	6.2	21.6	
11 17	1 6.54	-31 46.7	1.808	2.442	20.8	19.8	11 17	1 12.65	+15 28.0	2.534	3.406	9.1	21.8	
173764	2001 RF ₁₂₃	10 17.9 55°87 1°2/18.9 18						342223	2008 SK ₂₆₂	10 17.9 22°38 1°5/16.9 18				
9 8	1 58.60	+14 3.6	1.910	2.700	15.8	20.2	9 8	1 57.35	+8 21.8	1.485	2.311	17.9	21.4	
9 18	1 54.71	+14 8.4	1.830	2.705	12.7	20.0	9 18	1 54.31	+7 57.3	1.414	2.314	14.2	21.2	
9 28	1 48.50	+14 0.5	1.770	2.710	9.1	19.8	9 28	1 48.52	+7 20.3	1.362	2.318	9.7	20.9	
10 8	1 40.52	+13 40.8	1.734	2.715	5.0	19.6	10 8	1 40.64	+6 35.0	1.334	2.322	4.9	20.7	
10 18	1 31.59	+13 12.2	1.725	2.720	1.3	19.3	10 18	1 31.65	+5 47.3	1.331	2.326	1.6	20.5	
10 28	1 22.76	+12 39.1	1.744	2.725	4.2	19.6	10 28	1 22.83	+5 4.4	1.355	2.331	6.0	20.8	
11 7	1 15.04	+12 7.0	1.791	2.730	8.2	19.8	11 7	1 15.39	+4 33.0	1.404	2.336	10.6	21.1	
11 17	1 9.21	+11 41.0	1.863	2.736	11.8	20.1	11 17	1 10.20	+4 17.4	1.476	2.341	14.8	21.3	
236544	2006 HH ₄₆	10 17.9 84°58 6°1/13.6 18						415462	2014 MM ₃₅	10 17.9 119°21 7°0/11.5 18				
9 8	2 3.27	- 5 49.0	1.803	2.624	15.4	19.7	9 8	1 59.79	-10 34.0	2.182	2.998	13.3	20.8	
9 18	1 58.12	- 6 28.6	1.749	2.642	12.3	19.6	9 18	1 55.12	-11 29.0	2.122	3.007	10.8	20.6	
9 28	1 50.63	- 7 6.5	1.716	2.659	9.1	19.4	9 28	1 48.46	-12 19.9	2.085	3.015	8.5	20.5	
10 8	1 41.48	- 7 36.4	1.708	2.677	6.6	19.3	10 8	1 40.38	-13 0.3	2.074	3.023	7.1	20.4	
10 18	1 31.60	- 7 52.6	1.727	2.694	6.4	19.3	10 18	1 31.65	-13 24.7	2.089	3.031	7.4	20.4	
10 28	1 22.10	- 7 50.8	1.774	2.711	8.6	19.5	10 28	1 23.15	-13 29.2	2.132	3.039	9.1	20.6	
11 7	1 13.94	- 7 29.7	1.846	2.728	11.6	19.7	11 7	1 15.69	-13 12.7	2.200	3.047	11.4	20.7	
11 17	1 7.81	- 6 50.3	1.942	2.745	14.3	19.9	11 17	1 9.90	-12 36.0	2.290	3.054	13.6	20.9	
303492	2005 ER ₁₀₉	10 17.9 94°80 5°2/12.8 18						72353	2001 BW ₇₂	10 17.9 192°66 1°5/16.4 18				
9 8	1 56.62	- 0 48.4	1.932	2.758	14.3	20.6	9 8	1 55.13	+10 51.7	1.983	2.788	14.8	19.5	
9 18	1 52.82	- 2 14.6	1.875	2.776	11.2	20.5	9 18	1 51.86	+9 41.3	1.898	2.787	11.7	19.3	
9 28	1 46.96	- 3 45.0	1.842	2.792	8.0	20.3	9 28	1 46.47	+8 15.8	1.835	2.786	8.0	19.1	
10 8	1 39.63	- 5 12.1	1.834	2.809	5.5	20.2	10 8	1 39.48	+6 40.0	1.798	2.785	4.0	18.9	
10 18	1 31.63	- 6 28.3	1.855	2.825	5.6	20.2	10 18	1 31.65	+5 0.6	1.789	2.783	1.6	18.7	
10 28	1 23.89	- 7 27.1	1.903	2.842	8.0	20.4	10 28	1 23.92	+3 25.8	1.810	2.781	5.3	18.9	
11 7	1 17.26	- 8 4.5	1.977	2.857	11.0	20.6	11 7	1 17.20	+2 3.4	1.858	2.779	9.2	19.2	
11 17	1 12.36	- 8 19.4	2.074	2.873	13.7	20.9	11 17	1 12.17	+0 58.7	1.932	2.777	12.7	19.4	
442741	2012 WY ₁	10 17.9 48°78 2°8/15.9 18						421997	2014 QP ₃₁₀	10 17.9 65°34 1°8/20.1 15				
9 8	1 58.78	+5 4.2	1.486	2.316	17.7	20.8	9 8	1 55.54	+19 47.3	2.181	2.945	14.9	21.0	
9 18	1 55.22	+4 32.1	1.426	2.330	13.9	20.6	9 18	1 51.81	+19 10.2	2.116	2.972	12.0	20.8	
9 28	1 48.98	+3 50.9	1.387	2.344	9.5	20.4	9 28	1 46.17	+18 16.1	2.072	3.000	8.7	20.7	
10 8	1 40.77	+3 6.0	1.371	2.358	5.0	20.2	10 8	1 39.21	+17 7.5	2.053	3.027	5.1	20.5	
10 18	1 31.62	+2 24.0	1.381	2.372	3.0	20.1	10 18	1 31.66	+15 48.5	2.062	3.054	2.0	20.3	
10 28	1 22.79	+1 51.5	1.417	2.387	6.7	20.3	10 28	1 24.38	+14 25.3	2.100	3.081	3.6	20.5	
11 7	1 15.41	+1 33.7	1.479	2.403	10.9	20.6	11 7	1 18.16	+13 4.7	2.168	3.108	6.9	20.8	
11 17	1 10.28	+1 33.1	1.563	2.418	14.7	20.9	11 17	1 13.55	+11 52.6	2.262	3.134	10.0	21.0	
155879	2001 EK ₄	10 17.9 201°41 3°3/13.9 18						451136	2009 QH ₃₀	10 17.9 39°62 6°1/24.9 17				
9 8	1 53.93	+1 10.8	2.649	3.461	11.3	20.2	9 8	1 54.43	+31 4.0	1.762	2.487	19.2	20.4	
9 18	1 50.29	+0 12.4	2.565	3.459	8.9	20.0	9 18	1 51.75	+30 53.6	1.695	2.509	16.4	20.2	
9 28	1 45.05	- 0 50.7	2.505	3.455	6.2	19.9								

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
112227	2002 <i>KS</i> ₁₂	10 17.9 40°83		8°1/11.8 18			82834	2001 <i>QL</i> ₄₆	10 17.9 91°06		2°6/20.4 18		
9 8	1 56.66	- 6 1.9	1.409	2.259	17.5	18.9	9 8	1 57.80	+18 46.9	1.990	2.760	15.9	20.0
9 18	1 53.57	- 7 28.0	1.366	2.275	14.0	18.8	9 18	1 54.09	+18 50.0	1.906	2.765	13.0	19.8
9 28	1 47.81	- 8 52.9	1.343	2.292	10.6	18.6	9 28	1 48.10	+18 37.1	1.842	2.770	9.6	19.6
10 8	1 40.15	-10 6.4	1.344	2.310	8.3	18.5	10 8	1 40.37	+18 8.5	1.802	2.775	5.9	19.4
10 18	1 31.66	-10 59.4	1.368	2.328	8.7	18.6	10 18	1 31.72	+17 26.6	1.789	2.780	2.8	19.2
10 28	1 23.59	-11 25.3	1.418	2.346	11.1	18.8	10 28	1 23.15	+16 36.0	1.805	2.785	4.2	19.3
11 7	1 17.03	-11 22.3	1.489	2.365	14.2	19.0	11 7	1 15.66	+15 43.0	1.848	2.789	7.8	19.5
11 17	1 12.68	-10 52.1	1.582	2.385	17.1	19.3	11 17	1 10.01	+14 53.8	1.917	2.794	11.3	19.7
113748	2002 <i>TN</i> ₁₆₄	10 17.9 138°56		7°5/ 8.6 18			133601	2003 <i>UU</i> ₉₀	10 17.9 83°87		2°6/15.7 18		
9 8	1 55.76	-16 36.4	2.704	3.511	11.2	19.3	9 8	1 57.21	+ 5 46.2	1.783	2.603	15.6	19.7
9 18	1 51.65	-17 42.4	2.647	3.515	9.5	19.2	9 18	1 53.65	+ 5 0.6	1.712	2.610	12.3	19.5
9 28	1 45.93	-18 41.8	2.614	3.518	8.1	19.1	9 28	1 47.78	+ 4 5.4	1.662	2.616	8.4	19.3
10 8	1 39.08	-19 28.7	2.606	3.522	7.5	19.1	10 8	1 40.19	+ 3 5.7	1.637	2.623	4.4	19.1
10 18	1 31.68	-19 58.4	2.625	3.526	8.0	19.1	10 18	1 31.72	+ 2 7.8	1.639	2.630	2.8	19.0
10 28	1 24.43	-20 7.8	2.669	3.529	9.3	19.2	10 28	1 23.44	+ 1 18.4	1.669	2.637	6.1	19.2
11 7	1 17.98	-19 56.0	2.738	3.532	10.9	19.3	11 7	1 16.32	+ 0 42.9	1.726	2.644	10.0	19.4
11 17	1 12.86	-19 24.0	2.829	3.536	12.6	19.4	11 17	1 11.10	+ 0 24.7	1.806	2.650	13.5	19.7
418138	2008 <i>AK</i> ₄₃	10 17.9 232°45		2°5/16.1 18			423164	2004 <i>FE</i> ₂₁	10 17.9 247°05		6°7/21.5 18		
9 8	2 0.34	+ 6 23.2	1.638	2.457	16.9	21.5	9 8	2 12.92	+23 5.5	1.889	2.614	18.1	21.0
9 18	1 56.57	+ 5 44.9	1.552	2.449	13.4	21.3	9 18	2 7.05	+24 34.7	1.779	2.599	15.6	20.8
9 28	1 50.11	+ 4 55.1	1.487	2.441	9.2	21.0	9 28	1 57.87	+25 52.3	1.690	2.583	12.5	20.5
10 8	1 41.50	+ 3 58.6	1.445	2.432	4.8	20.7	10 8	1 45.79	+26 53.0	1.623	2.567	9.2	20.3
10 18	1 31.68	+ 3 1.7	1.430	2.423	2.7	20.6	10 18	1 31.71	+27 32.1	1.584	2.551	6.9	20.1
10 28	1 21.86	+ 2 11.9	1.443	2.413	6.6	20.8	10 28	1 17.08	+27 47.9	1.574	2.534	7.4	20.1
11 7	1 13.28	+ 1 35.9	1.482	2.404	11.1	21.0	11 7	1 3.52	+27 43.8	1.593	2.516	10.3	20.3
11 17	1 6.87	+ 1 18.0	1.544	2.393	15.1	21.3	11 17	0 52.42	+27 26.6	1.637	2.498	13.8	20.4
269017	2007 <i>EL</i> ₂₀₅	10 17.9 15°38		0°6/18.3 18			479735	2014 <i>DV</i> ₁₄₀	10 17.9 219°97		1°1/19.1 18		
9 8	2 5.55	+ 8 29.6	1.834	2.629	16.2	19.5	9 8	1 58.73	+15 36.8	2.215	2.988	14.4	22.2
9 18	2 0.34	+ 9 17.9	1.753	2.633	13.0	19.3	9 18	1 54.65	+15 19.8	2.115	2.980	11.7	22.0
9 28	1 52.51	+10 0.3	1.693	2.637	9.1	19.1	9 28	1 48.43	+14 48.8	2.035	2.971	8.4	21.8
10 8	1 42.66	+10 37.2	1.659	2.642	4.8	18.8	10 8	1 40.56	+14 5.0	1.981	2.961	4.7	21.5
10 18	1 31.69	+11 9.0	1.652	2.648	0.6	18.5	10 18	1 31.74	+13 11.3	1.955	2.950	1.2	21.3
10 28	1 20.81	+11 37.5	1.675	2.654	4.5	18.8	10 28	1 22.89	+12 12.8	1.959	2.939	3.9	21.5
11 7	1 11.16	+12 5.2	1.726	2.661	8.7	19.1	11 7	1 14.94	+11 15.4	1.992	2.928	7.7	21.7
11 17	1 3.63	+12 34.8	1.803	2.669	12.5	19.4	11 17	1 8.64	+10 24.9	2.051	2.916	11.2	21.9
516698	2008 <i>UG</i> ₃₅₈	10 17.9 290°28		0°3/17.7 18			521069	2015 <i>DJ</i> ₂₃₉	10 17.9 52°96		0°3/18.2 16		
9 8	1 54.86	+12 53.2	1.723	2.531	16.6	22.1	9 8	1 57.16	+13 56.9	1.415	2.231	19.2	21.4
9 18	1 52.26	+12 15.3	1.624	2.513	13.3	21.8	9 18	1 54.28	+13 26.3	1.349	2.240	15.3	21.1
9 28	1 47.16	+11 19.8	1.545	2.495	9.4	21.6	9 28	1 48.56	+12 36.6	1.301	2.251	10.7	20.9
10 8	1 40.04	+10 9.7	1.490	2.477	4.8	21.2	10 8	1 40.68	+11 31.4	1.276	2.261	5.6	20.6
10 18	1 31.71	+ 8 50.1	1.462	2.458	0.3	20.9	10 18	1 31.73	+10 17.0	1.276	2.272	0.3	20.3
10 28	1 23.27	+ 7 29.1	1.461	2.440	5.2	21.2	10 28	1 23.04	+ 9 2.5	1.302	2.283	5.3	20.7
11 7	1 15.89	+ 6 15.5	1.487	2.422	9.9	21.4	11 7	1 15.85	+ 7 56.8	1.354	2.294	10.2	21.0
11 17	1 10.48	+ 5 16.6	1.537	2.404	14.2	21.6	11 17	1 11.01	+ 7 7.0	1.430	2.306	14.5	21.3
410943	2009 <i>SZ</i> ₂₉₃	10 17.9 295°96		0°8/18.7 18			366152	2012 <i>EF</i> ₁₁	10 17.9 323°17		4°1/13.7 18		
9 8	1 58.35	+12 36.9	2.264	3.047	13.9	21.0	9 8	1 50.95	+ 3 55.5	1.836	2.670	14.7	20.3
9 18	1 54.21	+12 45.4	2.172	3.045	11.1	20.8	9 18	1 48.84	+ 2 32.4	1.749	2.656	11.5	20.0
9 28	1 48.04	+12 44.2	2.102	3.042	7.9	20.6	9 28	1 44.57	+ 0 57.8	1.685	2.643	8.0	19.8
10 8	1 40.31	+12 34.2	2.058	3.039	4.3	20.4	10 8	1 38.62	- 0 41.6	1.646	2.630	4.8	19.6
10 18	1 31.71	+12 17.6	2.041	3.037	0.9	20.1	10 18	1 31.74	- 2 17.4	1.634	2.617	4.5	19.5
10 28	1 23.13	+11 57.6	2.054	3.035	3.7	20.3	10 28	1 24.86	- 3 40.8	1.649	2.605	7.6	19.7
11 7	1 15.42	+11 38.5	2.096	3.032	7.4	20.6	11 7	1 18.94	- 4 44.7	1.690	2.593	11.2	19.9
11 17	1 9.32	+11 24.1	2.164	3.030	10.7	20.8	11 17	1 14.71	- 5 25.1	1.754	2.582	14.6	20.1
409301	2004 <i>TB</i> ₃₂	10 17.9 30°33		0°9/19.0 17			274122	2008 <i>EB</i> ₄₃	10 17.9 65°08		2°5/16.2 16		
9 8	1 52.14	+17 36.4	1.927	2.716	15.7	21.5	9 8	2 0.46	+ 6 59.9	1.387	2.216	18.8	20.9
9 18	1 49.59	+16 44.3	1.848	2.722	12.7	21.3	9 18	1 56.65	+ 6 15.8	1.335	2.237	14.7	20.7
9 28	1 44.93	+15 33.2	1.790	2.730	9.0	21.1	9 28	1 50.00	+ 5 19.8	1.303	2.259	10.0	20.5
10 8	1 38.71	+14 6.1	1.756	2.737	4.9	20.8	10 8	1 41.32	+ 4 18.1	1.293	2.281	5.1	20.3
10 18	1 31.72	+12 28.6	1.750	2.745	1.0	20.6	10 18	1 31.74	+ 3 18.4	1.310	2.302	2.7	20.2
10 28	1 24.88	+10 48.5	1.772	2.754	4.0	20.8	10 28	1 22.62	+ 2 28.6	1.353	2.324	6.7	20.5
11 7	1 19.08	+ 9 14.5	1.823	2.762	8.1	21.1	11 7	1 15.11	+ 1 54.9	1.421	2.346	11.1	20.8
11 17	1 14.99	+ 7 53.3	1.900	2.771	11.7	21.3	11 17	1 9.99	+ 1 40.4	1.512	2.368	15.0	21.1
258670	2002 <i>ED</i> ₁₂₀	10 17.9 152°44		1°4/14.9 18			492856	2014 <i>QY</i> ₃₅₃	10 17.9 354°27		5°4/21.9 17		
9 8	1 47.24	+ 2 6.1	5.331	6.129	6.2	21.3	9 8	2 0.60	+22 23.4	1.963	2.712	16.8	20.7
9 18	1 44.23	+ 1 39.2	5.248	6.134	4.8	21.1	9 18	1 56.66	+23 28.1	1.871	2.709	14.2	20.5
9 28	1 40.49	+ 1 10.5	5.191	6.139	3.3	21.0	9 28	1 50.15	+24 18.7	1.800	2.706	11.1	20.3
10 8	1 36.24	+ 0 41.6	5.162	6.144	1.9	20.9	10 8	1 41.58	+24 52.4	1.751	2.703	8.0	20.1
10 18	1 31.73	+ 0 14.3	5.164	6.149	1.5	20.9	10 18	1 31.74	+25 7.5	1.729	2.702	5.7	20.0
10 28	1 27.25	- 0 9.6	5.197	6.154	2.7	21.0	10 28	1 21.80	+25 5.3	1.733	2.701	6.0	20.0
11 7	1 23.09	- 0 28.6	5.259	6.158	4.2	21.1	11 7	1 12.91	+24 50.1	1.765	2.700	8.6	20.2
11 17	1 19.50	- 0 41.6	5.349	6.163	5.6	21.2	11 17	1 6.04	+24 27.8	1.822	2.700	11.7	20.4
239959	2001 <i>GV</i> ₁₁	10 17.9 136°96		3°0/15.4 18			350488	1999 <i>TF</i> ₁₅₂	10 17.9 342°81		1°8/16.6 18		
9 8	2 2.51	+ 1 8.2	2.264										

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2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V
423001	2003 <i>SK</i> ₂₄₇		10 17.9	72°48	1°6/19.2	17	438505	2007 <i>RM</i> ₃₄		10 17.9	17°52	1°6/16.7	16
9 8	2 6.93	+14 31.5	1.745	2.523	17.6	20.3	9 8	1 52.22	+10 8.3	1.289	2.131	19.2	20.7
9 18	2 1.13	+14 46.2	1.692	2.559	14.0	20.2	9 18	1 50.60	+9 21.5	1.228	2.137	15.2	20.4
9 28	1 52.77	+14 46.9	1.658	2.594	9.9	20.0	9 28	1 46.13	+8 17.5	1.185	2.145	10.4	20.2
10 8	1 42.63	+14 34.9	1.649	2.628	5.5	19.8	10 8	1 39.50	+7 2.1	1.165	2.153	5.2	19.9
10 18	1 31.75	+14 12.7	1.668	2.662	1.7	19.7	10 18	1 31.79	+5 43.7	1.168	2.163	1.8	19.7
10 28	1 21.33	+13 45.1	1.716	2.696	4.3	19.9	10 28	1 24.34	+4 32.2	1.197	2.174	6.4	20.1
11 7	1 12.45	+13 17.7	1.791	2.729	8.3	20.2	11 7	1 18.35	+3 36.5	1.250	2.186	11.3	20.4
11 17	1 5.81	+12 55.7	1.893	2.761	11.9	20.5	11 17	1 14.69	+3 1.8	1.325	2.199	15.6	20.7
145530	2006 <i>FW</i> ₃₂		10 17.9	94°08	1°2/16.9	18	114782	2003 <i>MB</i> ₆		10 17.9	142°96	0°4/18.4	18
9 8	1 59.64	+8 22.2	1.838	2.645	15.7	20.6	9 8	1 59.20	+14 6.8	2.130	2.910	14.7	20.8
9 18	1 55.47	+7 58.7	1.768	2.658	12.4	20.4	9 18	1 54.88	+13 37.2	2.049	2.921	11.7	20.6
9 28	1 48.99	+7 25.0	1.720	2.670	8.5	20.2	9 28	1 48.47	+12 53.9	1.991	2.931	8.2	20.4
10 8	1 40.79	+6 44.8	1.696	2.682	4.2	20.0	10 8	1 40.52	+11 59.4	1.957	2.940	4.3	20.2
10 18	1 31.76	+6 2.7	1.699	2.694	1.3	19.8	10 18	1 31.80	+10 57.8	1.953	2.949	0.5	19.9
10 28	1 22.95	+5 24.4	1.731	2.706	5.1	20.1	10 28	1 23.23	+9 54.6	1.978	2.957	4.0	20.2
11 7	1 15.32	+4 55.1	1.791	2.718	9.1	20.3	11 7	1 15.70	+8 56.2	2.031	2.965	7.8	20.5
11 17	1 9.62	+4 38.4	1.875	2.730	12.6	20.6	11 17	1 9.88	+8 7.5	2.112	2.972	11.2	20.7
131469	2001 <i>RR</i> ₉		10 17.9	297°06	9°6/26.6	17	444200	2005 <i>SM</i> ₁₅₆		10 17.9	41°86	0°8/17.3	18
9 8	1 52.92	+35 55.2	1.142	1.890	26.6	18.9	9 8	1 55.40	+10 14.6	1.918	2.726	15.1	21.3
9 18	1 52.67	+35 53.4	1.053	1.877	23.6	18.6	9 18	1 52.13	+9 45.4	1.842	2.732	12.0	21.1
9 28	1 48.56	+35 5.5	0.977	1.865	19.8	18.3	9 28	1 46.70	+9 4.3	1.788	2.738	8.2	20.9
10 8	1 41.16	+33 22.7	0.917	1.853	15.4	18.0	10 8	1 39.67	+8 14.9	1.758	2.744	4.1	20.7
10 18	1 31.77	+30 41.6	0.876	1.841	11.2	17.7	10 18	1 31.80	+7 21.8	1.755	2.751	0.8	20.5
10 28	1 22.36	+27 10.5	0.858	1.829	9.6	17.6	10 28	1 24.08	+6 31.0	1.781	2.758	4.7	20.8
11 7	1 14.90	+23 11.6	0.864	1.818	12.4	17.7	11 7	1 17.40	+5 48.4	1.834	2.765	8.6	21.0
11 17	1 10.77	+19 12.9	0.895	1.807	17.2	18.0	11 17	1 12.48	+5 18.1	1.912	2.772	12.1	21.3
437063	2012 <i>UP</i> ₄₆		10 17.9	57°35	0°4/17.7	16	471031	2009 <i>SD</i> ₃₃₉		10 17.9	16°97	0°8/18.6	18
9 8	1 55.40	+14 53.0	1.497	2.308	18.5	21.4	9 8	1 51.74	+14 14.6	1.019	1.868	22.6	20.3
9 18	1 52.60	+13 44.1	1.436	2.326	14.6	21.2	9 18	1 50.97	+14 1.0	0.965	1.876	18.2	20.0
9 28	1 47.20	+12 14.4	1.395	2.345	10.1	21.0	9 28	1 46.78	+13 24.1	0.927	1.885	12.8	19.8
10 8	1 39.92	+10 29.5	1.377	2.363	5.1	20.8	10 8	1 39.96	+12 27.5	0.908	1.895	6.8	19.5
10 18	1 31.78	+8 38.0	1.386	2.382	0.4	20.5	10 18	1 31.80	+11 18.6	0.912	1.908	0.9	19.1
10 28	1 23.99	+6 50.5	1.423	2.401	5.3	20.9	10 28	1 23.97	+10 8.3	0.938	1.922	6.0	19.5
11 7	1 17.61	+5 17.2	1.486	2.421	10.0	21.2	11 7	1 17.98	+9 7.8	0.987	1.937	11.7	19.9
11 17	1 13.38	+4 4.6	1.573	2.440	13.9	21.5	11 17	1 14.79	+8 25.3	1.056	1.954	16.6	20.3
100242	1994 <i>PS</i> ₃₅		10 17.9	6°28	0°1/18.1	18	359223	2009 <i>DV</i> ₁₂₆		10 17.9	352°84	1°5/16.7	18
9 8	1 49.69	+12 21.0	0.979	1.840	22.5	18.7	9 8	1 54.52	+9 35.3	1.770	2.586	15.8	20.9
9 18	1 49.54	+12 10.5	0.921	1.840	18.0	18.4	9 18	1 51.69	+8 48.6	1.690	2.585	12.5	20.6
9 28	1 45.93	+11 38.3	0.879	1.841	12.6	18.1	9 28	1 46.55	+7 48.4	1.630	2.584	8.6	20.4
10 8	1 39.59	+10 48.4	0.856	1.845	6.5	17.8	10 8	1 39.65	+6 39.0	1.596	2.583	4.3	20.2
10 18	1 31.78	+9 48.0	0.854	1.851	0.1	17.3	10 18	1 31.81	+5 26.5	1.588	2.582	1.6	20.0
10 28	1 24.20	+8 47.9	0.875	1.858	6.4	17.8	10 28	1 24.06	+4 18.6	1.608	2.582	5.5	20.2
11 7	1 18.41	+7 59.1	0.917	1.868	12.3	18.2	11 7	1 17.40	+3 22.2	1.654	2.582	9.7	20.5
11 17	1 15.47	+7 28.9	0.979	1.879	17.4	18.5	11 17	1 12.61	+2 42.4	1.725	2.582	13.4	20.7
453519	2009 <i>UK</i> ₁₄₉		10 17.9	316°28	1°8/16.2	18	403498	2009 <i>UA</i> ₁₃₇		10 17.9	354°45	3°3/20.3	17
9 8	1 54.68	+6 4.5	2.228	3.039	13.2	21.3	9 8	1 57.03	+16 41.9	1.691	2.484	17.5	20.4
9 18	1 51.31	+5 35.6	2.140	3.033	10.4	21.1	9 18	1 54.07	+17 25.0	1.606	2.478	14.4	20.2
9 28	1 46.03	+4 59.0	2.075	3.027	7.1	20.9	9 28	1 48.47	+17 54.6	1.539	2.473	10.7	20.0
10 8	1 39.30	+4 18.2	2.035	3.022	3.7	20.7	10 8	1 40.76	+18 9.8	1.495	2.469	6.7	19.7
10 18	1 31.79	+3 37.4	2.023	3.016	2.0	20.6	10 18	1 31.81	+18 10.9	1.477	2.467	3.5	19.5
10 28	1 24.31	+3 1.6	2.040	3.011	4.9	20.8	10 28	1 22.81	+18 0.8	1.485	2.465	4.9	19.6
11 7	1 17.68	+2 35.0	2.085	3.006	8.4	21.0	11 7	1 14.96	+17 44.7	1.519	2.464	8.9	19.9
11 17	1 12.54	+2 20.8	2.155	3.001	11.6	21.2	11 17	1 9.23	+17 28.6	1.578	2.465	12.7	20.1
378588	2008 <i>EQ</i> ₂₁		10 17.9	212°28	0°7/17.5	18	327730	2006 <i>SM</i> ₂₇₉		10 17.9	19°80	2°6/20.0	17
9 8	1 59.57	+11 16.2	1.783	2.585	16.4	21.6	9 8	1 53.32	+19 8.5	1.159	1.980	22.2	20.1
9 18	1 55.76	+10 42.1	1.694	2.580	13.1	21.4	9 18	1 52.02	+18 51.8	1.094	1.985	18.2	19.8
9 28	1 49.45	+9 53.5	1.626	2.574	9.1	21.1	9 28	1 47.43	+18 7.6	1.046	1.991	13.3	19.6
10 8	1 41.17	+8 53.4	1.582	2.569	4.6	20.8	10 8	1 40.30	+16 57.4	1.017	1.998	7.8	19.3
10 18	1 31.79	+7 47.1	1.566	2.562	0.7	20.5	10 18	1 31.81	+15 27.2	1.012	2.006	2.9	19.0
10 28	1 22.44	+6 41.8	1.578	2.555	5.1	20.9	10 28	1 23.57	+13 48.1	1.031	2.014	5.5	19.2
11 7	1 14.23	+5 44.9	1.617	2.548	9.6	21.1	11 7	1 17.04	+12 13.4	1.073	2.024	10.9	19.6
11 17	1 8.03	+5 2.1	1.681	2.540	13.6	21.3	11 17	1 13.22	+10 54.0	1.138	2.035	15.7	19.9
451839	2013 <i>JT</i> ₄₀		10 17.9	127°49	6°7/10.6	18	65026	2002 <i>AD</i> ₁₀₉		10 17.9	95°76	1°1/16.9	18
9 8	1 58.94	-13 29.1	2.644	3.449	11.5	21.5	9 8	1 56.84	+8 19.9	2.154	2.957	13.9	19.9
9 18	1 54.10	-14 22.4	2.588	3.461	9.5	21.4	9 18	1 53.00	+7 56.5	2.075	2.962	10.9	19.7
9 28	1 47.60	-15 10.3	2.555	3.472	7.8	21.3	9 28	1 47.17	+7 24.2	2.018	2.967	7.5	19.5
10 8	1 39.96	-15 47.3	2.548	3.483	6.8	21.3	10 8	1 39.88	+6 46.1	1.986	2.973	3.8	19.3
10 18	1 31.79	-16 9.1	2.569	3.494	7.1	21.3	10 18	1 31.82	+6 6.0	1.983	2.978	1.2	19.1
10 28	1 23.83	-16 12.6	2.618	3.504	8.5	21.4	10 28	1 23.87	+5 29.0	2.008	2.983	4.5	19.4
11 7	1 16.75	-15 56.9	2.692	3.514	10.3	21.5	11 7	1 16.87	+4 59.5	2.062	2.988	8.1	19.6
11 17	1 11.06	-15 23.0	2.789	3.524	12.1	21.7	11 17	1 11.48	+4 41.0	2.141	2.993	11.4	19.8
445715	2011 <i>UA</i> ₂₆₅		10 17.9	346°32	2°3/19.9	18	432607	2010 <i>TX</i> ₁₈₇					

EPHEMERIDES

10 17.9

10 18.0

2020	α_{2000}	δ_{2000}	Δ	r	β	V	2020	α_{2000}	δ_{2000}	Δ	r	β	V	
411118	2009 WE ₁₂₄	10 17.9 288°07' 2°9/15.1 18						322677	1999 TC ₃₀₁	10 18.0 263°03' 0°1/18.1 18				
9 8	1 56.17	+ 1 37.3	2.376	3.188	12.4	21.0	9 8	1 53.63	+10 57.3	2.212	3.089	10.8	21.0	
9 18	1 52.32	+ 1 9.3	2.290	3.183	9.8	20.9	9 28	1 47.67	+10 44.9	2.139	3.083	7.5	20.8	
9 28	1 46.65	+ 0 37.3	2.227	3.178	6.8	20.7	10 8	1 40.19	+10 24.8	2.092	3.076	3.9	20.6	
10 8	1 39.61	+ 0 5.0	2.191	3.173	3.9	20.5	10 18	1 31.85	+ 9 59.8	2.074	3.070	0.1	20.3	
10 18	1 31.83	- 0 23.5	2.182	3.168	3.1	20.4	10 28	1 23.51	+ 9 33.5	2.085	3.064	3.8	20.6	
10 28	1 24.11	- 0 44.0	2.203	3.163	5.5	20.6	11 7	1 16.02	+ 9 10.3	2.124	3.057	7.5	20.8	
11 7	1 17.19	- 0 53.2	2.251	3.158	8.6	20.7	11 17	1 10.05	+ 8 53.8	2.190	3.051	10.8	21.0	
11 17	1 11.71	- 0 49.3	2.325	3.153	11.4	20.9	11 27	1 6.11	+ 8 47.2	2.278	3.044	13.6	21.2	
494489	2016 WR ₄₁	10 17.9 312°00' 2°0/16.6 18						478845	2012 VC ₅₂	10 18.0 339°31' 1°9/16.6 17				
9 8	1 57.75	+ 6 18.8	1.631	2.455	16.7	20.9	9 18	1 50.68	+ 8 6.2	1.232	2.143	15.0	20.1	
9 18	1 54.64	+ 6 3.0	1.542	2.441	13.3	20.7	9 28	1 46.46	+ 7 18.9	1.169	2.129	10.4	19.8	
9 28	1 48.87	+ 5 37.6	1.473	2.428	9.2	20.4	10 8	1 39.86	+ 6 20.5	1.127	2.116	5.3	19.5	
10 8	1 40.98	+ 5 6.2	1.427	2.415	4.7	20.1	10 18	1 31.85	+ 5 17.8	1.109	2.104	2.0	19.3	
10 18	1 31.83	+ 4 34.0	1.408	2.402	2.1	19.9	10 28	1 23.80	+ 4 20.4	1.116	2.093	6.8	19.6	
10 28	1 22.62	+ 4 6.9	1.415	2.389	6.1	20.1	11 7	1 17.08	+ 3 37.0	1.147	2.084	12.0	19.8	
11 7	1 14.57	+ 3 50.7	1.448	2.377	10.7	20.4	11 17	1 12.74	+ 3 13.5	1.199	2.075	16.7	20.1	
11 17	1 8.62	+ 3 49.1	1.505	2.366	14.8	20.6	11 27	1 11.43	+ 3 12.8	1.268	2.068	20.5	20.3	
14244	Labnow	10 17.9 51°68' 1°1/17.1 18						228125	2008 YV ₃₀	10 18.0 319°11' 2°4/13.8 18				
9 8	1 58.78	+ 8 17.7	1.754	2.566	16.2	18.9	9 18	1 45.87	- 2 8.5	4.109	4.999	5.9	19.5	
9 18	1 55.03	+ 8 2.0	1.678	2.571	12.8	18.7	9 28	1 41.78	- 2 38.9	4.050	4.996	4.2	19.4	
9 28	1 48.84	+ 7 36.2	1.624	2.576	8.8	18.5	10 8	1 37.00	- 3 7.9	4.018	4.994	2.7	19.3	
10 8	1 40.82	+ 7 3.4	1.594	2.581	4.4	18.3	10 18	1 31.87	- 3 33.2	4.017	4.992	2.6	19.3	
10 18	1 31.84	+ 6 28.2	1.591	2.586	1.2	18.0	10 28	1 26.77	- 3 52.5	4.045	4.990	3.9	19.4	
10 28	1 23.00	+ 5 56.2	1.615	2.592	5.2	18.3	11 7	1 22.08	- 4 4.1	4.102	4.988	5.6	19.5	
11 7	1 15.35	+ 5 32.5	1.667	2.597	9.4	18.6	11 17	1 18.12	- 4 6.8	4.185	4.985	7.3	19.6	
11 17	1 9.69	+ 5 21.1	1.742	2.603	13.1	18.8	11 27	1 15.17	- 4 0.2	4.292	4.983	8.7	19.7	
518261	2016 WE ₅	10 17.9 344°75' 2°0/16.8 18						267527	2002 PX ₁₀	10 18.0 156°30' 7°2/25.5 18				
9 8	1 56.35	+ 6 14.1	1.366	2.205	18.5	20.6	9 18	1 57.73	+33 16.4	2.181	2.955	14.5	20.8	
9 18	1 53.96	+ 6 5.8	1.288	2.196	14.7	20.4	9 28	1 50.76	+33 39.7	2.108	2.960	12.1	20.6	
9 28	1 48.62	+ 5 47.4	1.230	2.188	10.2	20.1	10 8	1 41.86	+33 39.8	2.056	2.965	9.7	20.5	
10 8	1 40.91	+ 5 22.9	1.193	2.181	5.2	19.8	10 18	1 31.87	+33 15.3	2.030	2.969	7.7	20.4	
10 18	1 31.84	+ 4 57.6	1.180	2.175	2.1	19.6	10 28	1 21.90	+32 27.9	2.030	2.974	7.3	20.3	
10 28	1 22.78	+ 4 38.2	1.193	2.169	6.5	19.9	11 7	1 13.03	+31 23.3	2.058	2.977	8.6	20.4	
11 7	1 15.11	+ 4 30.5	1.230	2.165	11.5	20.1	11 17	1 6.12	+30 9.0	2.112	2.981	10.8	20.6	
11 17	1 9.86	+ 4 38.2	1.289	2.162	16.0	20.4	11 27	1 1.72	+28 53.6	2.189	2.984	13.2	20.7	
74951	1999 TX ₁₉₀	10 17.9 81°78' 8°8/24.8 18						411167	2010 DV ₁₉	10 18.0 8°67' 0°5/18.7 18				
9 8	2 3.57	+30 10.1	1.536	2.264	21.5	19.9	9 18	1 49.33	+15 48.4	2.261	3.130	10.9	20.5	
9 18	1 59.89	+31 15.7	1.460	2.272	18.7	19.7	9 28	1 44.62	+14 32.4	2.192	3.130	7.7	20.3	
9 28	1 52.86	+31 56.8	1.401	2.280	15.4	19.5	10 8	1 38.59	+13 3.0	2.149	3.131	4.1	20.1	
10 8	1 43.12	+32 7.9	1.360	2.288	12.1	19.3	10 18	1 31.87	+11 25.0	2.135	3.131	0.6	19.8	
10 18	1 31.84	+31 46.1	1.343	2.296	9.4	19.2	10 28	1 25.25	+ 9 45.1	2.152	3.132	3.6	20.1	
10 28	1 20.61	+30 54.2	1.349	2.304	8.9	19.2	11 7	1 19.46	+ 8 10.4	2.198	3.132	7.2	20.3	
11 7	1 11.04	+29 40.6	1.381	2.312	10.9	19.3	11 17	1 15.08	+ 6 47.1	2.271	3.133	10.4	20.5	
11 17	1 4.26	+28 17.0	1.437	2.320	14.0	19.5	11 27	1 12.54	+ 5 39.5	2.367	3.134	13.1	20.7	
390525	1996 VB ₂₆	10 17.9 239°82' 3°1/15.1 18						441758	2009 CN ₂₂	10 18.0 106°10' 4°7/22.8 18				
9 8	1 57.21	+ 4 35.2	1.942	2.759	14.6	21.9	9 18	1 56.69	+25 48.0	2.107	2.927	13.4	21.3	
9 18	1 53.66	+ 3 40.2	1.853	2.750	11.5	21.6	9 28	1 49.81	+25 50.7	2.049	2.945	10.5	21.2	
9 28	1 47.87	+ 2 35.8	1.786	2.740	8.0	21.4	10 8	1 41.27	+25 34.1	2.015	2.962	7.5	21.0	
10 8	1 40.34	+ 1 26.9	1.745	2.730	4.4	21.2	10 18	1 31.88	+24 59.1	2.007	2.980	5.1	20.9	
10 18	1 31.84	+ 0 19.9	1.731	2.719	3.4	21.1	10 28	1 22.66	+24 9.3	2.028	2.997	5.2	20.9	
10 28	1 23.35	- 0 38.0	1.746	2.709	6.5	21.3	11 7	1 14.57	+23 10.7	2.077	3.013	7.5	21.1	
11 7	1 15.85	- 1 21.1	1.788	2.698	10.3	21.5	11 17	1 8.34	+22 10.1	2.153	3.029	10.3	21.3	
11 17	1 10.12	- 1 45.7	1.853	2.686	13.7	21.7	11 27	1 4.42	+21 14.1	2.253	3.045	12.9	21.5	
403765	2011 CE ₂₀	10 18.0 14°34' 4°5/22.2 17						521399	2015 MV ₁₄₃	10 18.0 250°89' 5°2/12.9 18				
9 18	1 54.26	+23 53.7	2.111	2.944	13.0	20.7	9 18	1 52.89	- 4 18.1	2.062	2.959	10.5	20.6	
9 28	1 48.26	+24 13.6	2.041	2.945	10.1	20.5	9 28	1 47.16	- 5 17.8	2.005	2.952	7.7	20.4	
10 8	1 40.54	+24 16.7	1.994	2.947	7.1	20.4	10 8	1 39.93	- 6 14.0	1.974	2.945	5.5	20.3	
10 18	1 31.85	+24 2.9	1.974	2.949	4.8	20.2	10 18	1 31.88	- 7 0.6	1.970	2.938	5.6	20.3	
10 28	1 23.15	+23 34.7	1.981	2.951	5.1	20.3	10 28	1 23.89	- 7 32.0	1.994	2.931	7.8	20.4	
11 7	1 15.41	+22 57.2	2.016	2.954	7.5	20.4	11 7	1 16.82	- 7 44.9	2.044	2.924	10.7	20.6	
11 17	1 9.40	+22 16.1	2.078	2.957	10.5	20.6	11 17	1 11.34	- 7 38.2	2.117	2.917	13.4	20.7	
11 27	1 5.67	+21 37.6	2.162	2.959	13.2	20.8	11 27	1 7.91	- 7 12.6	2.210	2.909	15.8	20.9	
184916	2005 UW ₄₀₇	10 18.0 346°03' 1°4/16.8 18						183543	2003 HN ₂₅	10 18.0 144°85' 0°3/17.7 18				
9 18	1 52.76	+ 7 20.7	1.915	2.806	11.5	20.7	9 18	1 52.33	+10 44.9	2.168	3.049	10.8	21.2	
9 28	1 47.16	+ 6 46.8	1.853	2.805	7.9	20.4	9 28	1 46.72	+10 7.3	2.106	3.052	7.5	21.0	
10 8	1 39.94	+ 6 7.0	1.817	2.804	4.0	20.2	10 8	1 39.68	+ 9 21.5	2.070	3.055	3.8	20.8	
10 18	1 31.85	+ 5 25.5	1.808	2.802	1.5	20.0	10 18	1 31.89	+ 8 31.2	2.062	3.058	0.4	20.5	
10 28	1 23.82	+ 4 47.8	1.827	2.801	4.9	20.3	10 28	1 24.18	+ 7 41.7	2.083	3.061	4.0	20.8	
11 7	1 16.78	+ 4 18.8	1.874	2.801	8.8	20.5	11 7	1 17.37	+ 6 57.8	2.133	3.063	7.6	21.0	
11 17	1 11.45	+ 4 2.2	1.946	2.800	12.2	20.7	11 17	1 12.09	+ 6 23.8	2.208	3.065	10.9	21.2	
11 27	1 8.30	+ 3 59.9	2.039	2.799	15.1	20.9	11 27	1 8.79	+ 6 2.6	2.306	3.068	13.6	21.4	
22026	1999 XS ₁₁₉	10 18.0 25°41' 0°9/17.4 18						515000	2009 PC ₈	10 18.0 49°65' 3°4/14.5 18				
9 18	1 55.11	+ 7 31.9	1.630	2.525	13.0	17.7	9 18	1 50.70	+ 3 26.7	1.785	2.688	11.6	20.6	
9 28	1 48.90	+ 7 30.7	1.582	2.534	9.0	17.5	9 28	1 45.64	+ 2 1.9	1.750	2.706	7.9		