

EPHEMERIDES

8 27.9

8 28.0

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>427709</b>	2004 <i>FH</i> <sub>104</sub>		8 27.9 193°03	0°8/27.3	17		<b>245835</b>	2006 <i>KP</i> <sub>15</sub>		8 28.0 353°91	3°9/24.7	18	
7 20	22 54.56	- 9 17.1	1.850	2.677	15.3	22.5	7 20	22 51.20	-16 28.2	1.709	2.563	15.1	20.6
7 30	22 50.24	- 9 46.3	1.768	2.675	12.0	22.3	7 30	22 47.83	-17 22.5	1.637	2.562	11.8	20.4
8 9	22 43.64	-10 27.3	1.706	2.674	8.1	22.1	8 9	22 42.11	-18 24.2	1.587	2.561	8.0	20.2
8 19	22 35.24	-11 16.1	1.669	2.671	3.9	21.8	8 19	22 34.54	-19 26.6	1.561	2.560	4.7	20.0
8 29	22 25.88	-12 6.9	1.660	2.669	1.1	21.6	8 29	22 26.02	-20 22.2	1.561	2.560	4.3	20.0
9 8	22 16.59	-12 53.6	1.678	2.666	5.4	21.9	9 8	22 17.65	-21 4.0	1.587	2.559	7.5	20.2
9 18	22 8.39	-13 30.9	1.722	2.662	9.5	22.1	9 18	22 10.46	-21 27.9	1.638	2.559	11.2	20.4
9 28	22 2.14	-13 55.5	1.791	2.658	13.2	22.4	9 28	22 5.33	-21 32.4	1.711	2.560	14.6	20.6
<b>100138</b>	1993 <i>SN</i> <sub>14</sub>		8 27.9 5°31	0°9/27.4	18		<b>19926</b>	1979 <i>YQ</i>		8 28.0 311°10	6°5/22.4	18	
7 20	22 50.08	-10 25.4	1.418	2.273	17.6	19.1	7 20	22 49.47	-20 29.0	1.490	2.361	16.1	16.8
7 30	22 47.30	-10 33.5	1.350	2.273	13.8	18.8	7 30	22 47.23	-21 48.3	1.402	2.335	12.8	16.5
8 9	22 41.90	-10 53.4	1.300	2.274	9.4	18.6	8 9	22 42.22	-23 16.2	1.335	2.309	9.3	16.3
8 19	22 34.46	-11 21.1	1.273	2.276	4.5	18.3	8 19	22 34.82	-24 43.5	1.291	2.283	6.8	16.1
8 29	22 25.98	-11 50.7	1.270	2.279	1.2	18.1	8 29	22 25.97	-25 59.2	1.272	2.258	7.4	16.0
9 8	22 17.70	-12 15.7	1.292	2.283	6.0	18.4	9 8	22 16.96	-26 53.5	1.276	2.233	10.7	16.1
9 18	22 10.79	-12 31.4	1.337	2.288	10.7	18.7	9 18	22 9.16	-27 20.2	1.302	2.209	14.7	16.3
9 28	22 6.18	-12 34.3	1.405	2.293	14.9	19.0	9 28	22 3.77	-27 17.8	1.348	2.185	18.5	16.5
<b>26581</b>	2000 <i>EP</i> <sub>107</sub>		8 27.9 79°44	3°1/25.5	18		<b>166753</b>	2002 <i>UJ</i> <sub>6</sub>		8 28.0 232°16	6°5/20.7	18	
7 20	22 54.90	-16 47.1	1.880	2.723	14.4	17.8	7 20	22 54.77	-28 3.0	2.365	3.205	11.9	20.3
7 30	22 50.34	-17 16.4	1.814	2.732	11.2	17.6	7 30	22 50.15	-29 13.2	2.287	3.194	9.7	20.2
8 9	22 43.55	-17 50.3	1.770	2.740	7.6	17.4	8 9	22 43.46	-30 21.9	2.233	3.182	7.6	20.0
8 19	22 35.12	-18 23.6	1.750	2.749	4.2	17.2	8 19	22 35.14	-31 22.2	2.204	3.170	6.5	19.9
8 29	22 25.92	-18 50.7	1.757	2.758	3.5	17.2	8 29	22 25.95	-32 7.6	2.203	3.158	7.1	19.9
9 8	22 16.97	-19 6.8	1.792	2.767	6.5	17.4	9 8	22 16.82	-32 33.2	2.228	3.145	9.0	20.0
9 18	22 9.24	-19 9.2	1.852	2.776	10.0	17.6	9 18	22 8.65	-32 37.3	2.277	3.132	11.3	20.2
9 28	22 3.48	-18 57.2	1.936	2.785	13.2	17.8	9 28	22 2.22	-32 20.2	2.349	3.119	13.6	20.3
<b>473154</b>	2015 <i>KR</i> <sub>20</sub>		8 27.9 134°67	6°1/ 2.9	18		<b>252798</b>	2002 <i>FP</i> <sub>16</sub>		8 28.0 170°50	4°6/ 2.1	17	
7 20	22 51.88	+ 8 51.7	2.005	2.751	16.9	21.0	7 20	22 51.70	+ 9 37.6	1.892	2.639	17.7	20.6
7 30	22 47.94	+ 9 16.1	1.923	2.758	14.4	20.8	7 30	22 47.98	+ 8 48.7	1.802	2.643	14.9	20.4
8 9	22 41.96	+ 9 19.9	1.858	2.765	11.5	20.7	8 9	22 42.11	+ 7 31.5	1.729	2.647	11.6	20.2
8 19	22 34.40	+ 9 2.1	1.816	2.771	8.6	20.5	8 19	22 34.53	+ 5 46.9	1.680	2.649	7.9	20.0
8 29	22 25.99	+ 8 23.5	1.798	2.777	6.4	20.4	8 29	22 26.02	+ 3 39.3	1.658	2.651	4.9	19.8
9 8	22 17.66	+ 7 28.2	1.807	2.783	6.4	20.4	9 8	22 17.56	+ 1 17.6	1.664	2.653	5.3	19.9
9 18	22 10.29	+ 6 22.1	1.842	2.788	8.6	20.5	9 18	22 10.10	+ 1 7.6	1.700	2.653	8.6	20.1
9 28	22 4.64	+ 5 12.1	1.903	2.794	11.4	20.7	9 28	22 4.46	+ 3 25.4	1.762	2.653	12.2	20.3
<b>487147</b>	2014 <i>OB</i> <sub>218</sub>		8 27.9 267°93	4°8/22.3	18		<b>517441</b>	2014 <i>OM</i> <sub>127</sub>		8 28.0 242°91	2°4/25.3	18	
7 20	22 49.74	-22 17.5	2.400	3.246	11.6	20.9	7 20	22 50.01	-15 39.9	2.586	3.419	11.2	21.7
7 30	22 46.11	-23 23.8	2.318	3.236	9.1	20.7	7 30	22 46.09	-16 18.5	2.497	3.410	8.7	21.5
8 9	22 40.64	-24 32.4	2.261	3.225	6.6	20.5	8 9	22 40.51	-17 2.3	2.432	3.401	5.9	21.4
8 19	22 33.75	-25 37.5	2.230	3.215	5.0	20.4	8 19	22 33.66	-17 47.2	2.393	3.392	3.2	21.2
8 29	22 26.08	-26 32.9	2.226	3.204	5.4	20.4	8 29	22 26.13	-18 28.7	2.382	3.383	2.7	21.1
9 8	22 18.44	-27 13.7	2.249	3.194	7.5	20.5	9 8	22 18.62	-19 2.5	2.400	3.374	5.2	21.3
9 18	22 11.62	-27 36.8	2.298	3.183	10.1	20.7	9 18	22 11.85	-19 25.6	2.445	3.364	8.1	21.4
9 28	22 6.32	-27 41.4	2.369	3.172	12.6	20.8	9 28	22 6.43	-19 36.1	2.515	3.354	10.8	21.6
<b>3691</b>	Bede		8 27.9 71°34	8°1/26.9	18		<b>306943</b>	2001 <i>UR</i> <sub>131</sub>		8 28.0 358°35	5°3/24.4	18	
7 20	23 39.55	-28 8.1	0.794	1.640	28.6	16.5	7 20	22 50.96	-18 24.6	1.258	2.135	18.1	19.6
7 30	23 26.51	-27 36.3	0.766	1.678	22.7	16.3	7 30	22 48.47	-19 14.7	1.196	2.132	14.2	19.3
8 9	23 8.11	-26 51.2	0.754	1.716	16.2	16.1	8 9	22 42.96	-20 11.7	1.152	2.130	9.9	19.1
8 19	22 46.48	-25 40.9	0.762	1.753	10.2	16.0	8 19	22 35.08	-21 7.0	1.130	2.129	6.1	18.9
8 29	22 24.78	-24 1.1	0.795	1.790	8.2	16.0	8 29	22 25.97	-21 50.8	1.131	2.129	5.9	18.9
9 8	22 6.12	-21 58.1	0.852	1.826	11.9	16.4	9 8	22 17.12	-22 15.2	1.156	2.129	9.5	19.1
9 18	21 52.32	-19 44.1	0.933	1.861	16.8	16.8	9 18	22 9.89	-22 16.3	1.203	2.131	13.8	19.3
9 28	21 43.91	-17 29.1	1.033	1.895	21.0	17.2	9 28	22 5.34	-21 53.9	1.269	2.134	17.7	19.6
<b>297237</b>	1981 <i>EA</i> <sub>48</sub>		8 28.0 184°34	0°1/28.1	18		<b>469631</b>	2004 <i>RR</i> <sub>336</sub>		8 28.0 356°06	2°3/29.6	18	
7 20	22 53.20	- 7 55.6	2.538	3.343	12.2	22.0	7 20	22 43.47	- 3 35.1	1.100	1.964	20.9	20.9
7 30	22 48.49	- 8 9.1	2.449	3.343	9.6	21.8	7 30	22 42.83	- 3 25.4	1.032	1.957	16.9	20.6
8 9	22 42.08	- 8 31.2	2.382	3.343	6.6	21.6	8 9	22 39.29	- 3 37.6	0.981	1.951	12.1	20.3
8 19	22 34.39	- 8 59.5	2.342	3.342	3.2	21.4	8 19	22 33.38	- 4 10.1	0.948	1.948	6.7	20.0
8 29	22 26.02	- 9 30.6	2.331	3.341	0.3	21.1	8 29	22 26.16	- 4 57.7	0.937	1.946	2.4	19.8
9 8	22 17.72	-10 0.7	2.349	3.339	3.9	21.4	9 8	22 19.05	- 5 51.8	0.948	1.945	6.1	20.0
9 18	22 10.18	-10 26.5	2.396	3.337	7.2	21.6	9 18	22 13.43	- 6 43.3	0.981	1.947	11.5	20.3
9 28	22 4.06	-10 45.1	2.469	3.334	10.1	21.8	9 28	22 10.41	- 7 24.0	1.034	1.950	16.4	20.6
<b>46168</b>	2001 <i>FK</i> <sub>86</sub>		8 28.0 102°01	0°3/27.6	18		<b>283327</b>	1997 <i>JN</i> <sub>5</sub>		8 28.0 14°58	0°9/27.2	18	
7 20	22 49.65	- 8 23.5	2.679	3.490	11.5	20.2	7 20	22 48.55	- 8 6.6	1.665	2.506	16.0	20.5
7 30	22 45.52	- 8 54.3	2.609	3.509	8.9	20.0	7 30	22 45.76	- 8 53.6	1.591	2.507	12.6	20.3
8 9	22 39.94	- 9 33.4	2.563	3.527	6.0	19.9	8 9	22 40.70	- 9 55.5	1.538	2.509	8.5	20.0
8 19	22 33.29	-10 17.6	2.544	3.545	2.8	19.7	8 19	22 33.87	-11 7.4	1.508	2.511	4.0	19.8
8 29	22 26.16	-11 3.2	2.553	3.562	0.6	19.5	8 29	22 26.11	-12 22.3	1.504	2.513	1.3	19.6
9 8	22 19.17	-11 46.2	2.591	3.580	3.7	19.8	9 8	22 18.48	-13 32.2	1.527	2.516	5.6	19.9
9 18	22 12.94	-12 23.2	2.658	3.597	6.7	20.0	9 18	22 11.95	-14 30.5	1.575	2.519	10.0	20.1
9 28	22 7.98	-12 51.7	2.752	3.613	9.3	20.2	9 28	22 7.39	-15 12.6	1.646	2.522	13.7	20.4
<b>310707</b>	2002 <i>LN</i> <sub>31</sub>		8 28.0 152°68	7°4/ 9.7	18		<b>253542</b>	2003 <i>SF</i> <sub>233</sub>		8 28.0 345			

EPHEMERIDES

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>8370</b>	Vanlindt		8 28.0 111°12	2°1/25.9	18		<b>437521</b>	2013 YE <sub>103</sub>		8 28.0 156°78	4°5/23.1	18	
7 20	22 51.17	-10 38.7	1.840	2.677	14.9	18.0	7 20	22 51.68	-17 51.0	2.033	2.879	13.4	21.0
7 30	22 47.51	-11 50.2	1.773	2.689	11.5	17.8	7 30	22 47.86	-19 20.4	1.964	2.884	10.4	20.8
8 9	22 41.72	-13 13.9	1.728	2.700	7.7	17.6	8 9	22 41.95	-20 56.4	1.918	2.888	7.2	20.6
8 19	22 34.30	-14 43.4	1.709	2.711	3.7	17.4	8 19	22 34.45	-22 31.4	1.899	2.892	4.8	20.5
8 29	22 26.08	-16 10.9	1.717	2.722	2.6	17.3	8 29	22 26.11	-23 57.4	1.908	2.896	5.1	20.5
9 8	22 18.04	-17 28.7	1.753	2.733	6.1	17.6	9 8	22 17.87	-25 7.4	1.944	2.899	7.7	20.7
9 18	22 11.09	-18 31.0	1.815	2.743	9.9	17.8	9 18	22 10.64	-25 57.1	2.005	2.902	10.8	20.9
9 28	22 6.00	-19 14.5	1.900	2.753	13.2	18.1	9 28	22 5.20	-26 25.1	2.090	2.905	13.6	21.1
<b>348137</b>	2004 BF <sub>137</sub>		8 28.0 253°81	1°6/26.5	18		<b>510973</b>	2013 GX <sub>116</sub>		8 28.0 33°59	4°9/23.8	18	
7 20	22 51.11	-11 29.4	2.069	2.901	13.7	21.7	7 20	22 53.63	-22 19.9	1.989	2.838	13.5	20.7
7 30	22 47.40	-12 6.7	1.979	2.891	10.7	21.5	7 30	22 49.31	-22 57.2	1.926	2.845	10.6	20.6
8 9	22 41.66	-12 53.6	1.911	2.881	7.2	21.2	8 9	22 42.85	-23 34.8	1.886	2.852	7.6	20.4
8 19	22 34.32	-13 46.1	1.869	2.871	3.5	21.0	8 19	22 34.83	-24 7.0	1.870	2.860	5.2	20.3
8 29	22 26.09	-14 38.6	1.853	2.860	1.9	20.9	8 29	22 26.08	-24 28.0	1.880	2.867	5.3	20.3
9 8	22 17.86	-15 25.4	1.866	2.850	5.4	21.1	9 8	22 17.60	-24 33.7	1.917	2.875	7.6	20.5
9 18	22 10.51	-16 1.7	1.905	2.839	9.2	21.3	9 18	22 10.29	-24 22.4	1.980	2.884	10.5	20.7
9 28	22 4.85	-16 24.6	1.968	2.828	12.5	21.5	9 28	22 4.87	-23 54.7	2.065	2.892	13.3	20.9
<b>311960</b>	2007 DC <sub>59</sub>		8 28.0 264°19	0°7/28.6	18		<b>49954</b>	1999 XL <sub>216</sub>		8 28.0 194°94	1°6/26.6	18	
7 20	22 52.37	- 7 2.0	2.261	3.072	13.3	20.8	7 20	22 53.70	-10 36.8	1.794	2.628	15.4	19.8
7 30	22 48.08	- 6 58.7	2.173	3.070	10.6	20.6	7 30	22 49.69	-11 20.5	1.714	2.627	12.0	19.6
8 9	22 41.95	- 7 4.6	2.107	3.067	7.3	20.4	8 9	22 43.35	-12 16.1	1.655	2.625	8.1	19.4
8 19	22 34.39	- 7 18.0	2.066	3.065	3.7	20.2	8 19	22 35.19	-13 18.7	1.620	2.623	3.9	19.1
8 29	22 26.09	- 7 35.7	2.053	3.062	0.7	19.9	8 29	22 26.03	-14 21.6	1.612	2.620	2.0	19.0
9 8	22 17.85	- 7 54.2	2.068	3.060	4.0	20.2	9 8	22 16.95	-15 17.6	1.632	2.617	5.9	19.2
9 18	22 10.46	- 8 10.1	2.111	3.057	7.6	20.4	9 18	22 8.98	-16 1.3	1.678	2.613	10.1	19.5
9 28	22 4.62	- 8 20.5	2.179	3.055	10.8	20.6	9 28	22 3.00	-16 29.2	1.747	2.609	13.7	19.7
<b>141820</b>	2002 ND <sub>51</sub>		8 28.0 51°87	0°6/27.6	18		<b>204750</b>	2006 JM <sub>14</sub>		8 28.0 5°63	3°5/26.1	18	
7 20	22 52.57	- 7 18.2	1.205	2.059	20.1	19.4	7 20	22 59.03	-18 38.1	1.524	2.375	16.8	19.6
7 30	22 49.42	- 7 56.8	1.157	2.079	15.7	19.2	7 30	22 54.19	-18 35.8	1.454	2.375	13.2	19.4
8 9	22 43.37	- 8 53.5	1.127	2.100	10.6	18.9	8 9	22 46.54	-18 35.5	1.404	2.375	9.1	19.1
8 19	22 35.16	-10 2.1	1.118	2.121	5.0	18.7	8 19	22 36.73	-18 32.2	1.377	2.376	5.0	18.9
8 29	22 26.01	-11 13.4	1.133	2.143	1.0	18.5	8 29	22 25.88	-18 20.4	1.376	2.378	3.8	18.8
9 8	22 17.35	-12 17.8	1.173	2.165	6.4	18.9	9 8	22 15.36	-17 56.3	1.400	2.381	7.3	19.0
9 18	22 10.39	-13 8.2	1.237	2.187	11.4	19.3	9 18	22 6.41	-17 18.7	1.450	2.384	11.5	19.3
9 28	22 6.03	-13 40.2	1.321	2.209	15.6	19.6	9 28	21 59.98	-16 28.4	1.523	2.387	15.3	19.5
<b>511499</b>	2014 OC <sub>113</sub>		8 28.0 58°69	3°3/24.3	18		<b>404514</b>	2013 HY <sub>59</sub>		8 28.0 49°21	4°7/23.8	18	
7 20	22 48.04	-15 45.6	2.201	3.045	12.5	20.9	7 20	22 55.47	-23 24.9	2.244	3.084	12.5	20.6
7 30	22 44.79	-16 55.7	2.131	3.051	9.7	20.7	7 30	22 50.55	-23 56.2	2.172	3.085	9.9	20.5
8 9	22 39.74	-18 12.5	2.085	3.057	6.5	20.5	8 9	22 43.61	-24 26.8	2.124	3.086	7.1	20.3
8 19	22 33.32	-19 30.2	2.066	3.064	3.8	20.4	8 19	22 35.19	-24 51.6	2.100	3.087	5.0	20.2
8 29	22 26.21	-20 42.2	2.073	3.070	3.7	20.4	8 29	22 26.05	-25 5.5	2.104	3.088	5.1	20.2
9 8	22 19.21	-21 42.7	2.109	3.076	6.3	20.5	9 8	22 17.12	-25 4.9	2.136	3.090	7.2	20.3
9 18	22 13.10	-22 27.6	2.171	3.083	9.4	20.7	9 18	22 9.26	-24 48.4	2.194	3.091	10.0	20.5
9 28	22 8.52	-22 55.1	2.256	3.089	12.1	20.9	9 28	22 3.16	-24 16.6	2.275	3.092	12.5	20.7
<b>240685</b>	2005 EH <sub>170</sub>		8 28.0 57°76	1°9/30.0	16		<b>121638</b>	1999 VK <sub>216</sub>		8 28.0 194°28	5°3/4.3	18 R	
7 20	22 48.00	+ 0 36.3	1.729	2.536	16.9	20.2	7 20	22 48.74	+12 34.5	3.051	3.746	12.6	20.3
7 30	22 45.09	- 0 11.1	1.663	2.554	13.6	20.0	7 30	22 44.85	+12 48.9	2.949	3.743	10.9	20.2
8 9	22 40.08	- 1 19.7	1.618	2.571	9.7	19.8	8 9	22 39.56	+12 47.5	2.867	3.741	9.0	20.1
8 19	22 33.51	- 2 45.8	1.596	2.589	5.4	19.6	8 19	22 33.21	+12 29.5	2.808	3.737	7.1	19.9
8 29	22 26.19	- 4 22.9	1.600	2.607	2.0	19.4	8 29	22 26.26	+11 55.4	2.775	3.734	5.6	19.8
9 8	22 19.08	- 6 2.6	1.631	2.625	4.5	19.7	9 8	22 19.30	+11 7.5	2.769	3.729	5.4	19.8
9 18	22 13.07	- 7 36.6	1.689	2.644	8.5	19.9	9 18	22 12.91	+10 9.3	2.792	3.725	6.6	19.9
9 28	22 8.89	- 8 58.0	1.772	2.662	12.2	20.2	9 28	22 7.62	+ 9 5.4	2.842	3.720	8.5	20.0
<b>128110</b>	2003 QJ <sub>15</sub>		8 28.0 252°09	2°1/30.2	18		<b>401554</b>	2013 EO <sub>128</sub>		8 28.0 31°59	4°6/22.9	18	
7 20	22 50.49	- 1 53.9	2.491	3.280	12.9	20.0	7 20	22 46.63	-16 45.2	1.826	2.685	14.1	19.9
7 30	22 46.48	- 1 45.4	2.396	3.274	10.4	19.8	7 30	22 44.08	-18 26.6	1.767	2.695	10.8	19.7
8 9	22 40.80	- 1 48.1	2.322	3.268	7.6	19.6	8 9	22 39.46	-20 15.6	1.731	2.705	7.5	19.5
8 19	22 33.83	- 2 1.3	2.273	3.262	4.5	19.4	8 19	22 33.26	-22 3.9	1.721	2.716	4.9	19.4
8 29	22 26.15	- 2 22.8	2.252	3.256	2.2	19.3	8 29	22 26.26	-23 42.4	1.738	2.728	5.3	19.4
9 8	22 18.49	- 2 49.4	2.259	3.250	3.8	19.4	9 8	22 19.43	-25 3.3	1.781	2.739	8.1	19.6
9 18	22 11.53	- 3 17.6	2.294	3.244	6.9	19.6	9 18	22 13.66	-26 1.8	1.849	2.752	11.2	19.8
9 28	22 5.94	- 3 43.6	2.355	3.238	9.9	19.8	9 28	22 9.68	-26 36.4	1.939	2.764	14.1	20.0
<b>38258</b>	1999 RD <sub>14</sub>		8 28.0 9°07	1°2/26.9	18		<b>4863</b>	Yasutani		8 28.0 72°56	0°9/27.2	18 R	
7 20	22 52.58	-12 9.0	2.132	2.962	13.4	19.4	7 20	22 51.24	-10 9.7	1.995	2.825	14.2	16.8
7 30	22 48.35	-12 21.5	2.052	2.962	10.5	19.2	7 30	22 47.45	-10 35.7	1.917	2.827	11.1	16.6
8 9	22 42.17	-12 41.1	1.994	2.962	7.1	19.0	8 9	22 41.65	-11 11.5	1.861	2.829	7.5	16.3
8 19	22 34.50	-13 4.3	1.961	2.963	3.4	18.7	8 19	22 34.30	-11 53.4	1.829	2.832	3.5	16.1
8 29	22 26.08	-13 27.0	1.955	2.963	1.4	18.6	8 29	22 26.15	-12 36.3	1.825	2.834	1.2	15.9
9 8	22 17.79	-13 44.9	1.977	2.963	4.9	18.9	9 8	22 18.13	-13 14.9	1.848	2.836	5.0	16.2
9 18	22 10.44	-13 55.0	2.027	2.964	8.5	19.1	9 18	22 11.09	-13 44.8	1.898	2.838	8.8	16.5
9 28	22 4.77	-13 55.1	2.101	2.965	11.7	19.3	9 28	22 5.78	-14 3.2	1.972	2.840	12.1	16.7
<b>144119</b>	2004 BC <sub>82</sub>		8 28.0 359°06	0°1/27.9	18		<b>365722</b>	2010 VS <sub>182</sub>		8 28.0 185°11	5°0/21.9	18	
7 20	22 48.30	- 6 36.8	1.713	2.54									

EPHEMERIDES

8 28.0

8 28.0

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>51955</b>	2001 <i>QG</i> <sub>250</sub>		8 28.0 260°05	4.3/23.6	18		<b>279287</b>	2009 <i>WC</i> <sub>77</sub>		8 28.0 293°43	1.5/26.4	18	
7 20	22 51.36	-19 18.9	2.136	2.982	12.8	18.6	7 20	22 49.71	-13 5.8	2.516	3.345	11.6	21.1
7 30	22 47.63	-20 19.9	2.052	2.970	10.0	18.4	7 30	22 45.86	-13 31.5	2.433	3.343	9.0	21.0
8 9	22 41.85	-21 25.8	1.990	2.959	7.1	18.2	8 9	22 40.37	-14 3.2	2.372	3.341	6.1	20.8
8 19	22 34.45	-22 30.5	1.954	2.947	4.7	18.0	8 19	22 33.65	-14 37.6	2.338	3.340	3.0	20.6
8 29	22 26.15	-23 27.3	1.945	2.935	4.8	18.0	8 29	22 26.29	-15 10.6	2.332	3.338	1.8	20.5
9 8	22 17.87	-24 10.3	1.963	2.923	7.4	18.1	9 8	22 19.01	-15 38.3	2.354	3.336	4.6	20.7
9 18	22 10.50	-24 35.9	2.007	2.910	10.5	18.3	9 18	22 12.49	-15 57.7	2.404	3.335	7.7	20.9
9 28	22 4.84	-24 42.6	2.074	2.898	13.4	18.5	9 28	22 7.34	-16 6.8	2.479	3.333	10.5	21.1
<b>251810</b>	1999 <i>TR</i> <sub>66</sub>		8 28.0 161°14	1°1/28.9	17		<b>62198</b>	2000 <i>SS</i> <sub>52</sub>		8 28.0 79°97	5°2/24.0	18	
7 20	22 54.74	- 4 13.8	1.802	2.613	16.2	21.5	7 20	22 55.82	-20 36.4	1.662	2.516	15.5	18.8
7 30	22 50.40	- 4 29.9	1.723	2.618	13.0	21.3	7 30	22 51.53	-21 25.9	1.597	2.519	12.2	18.6
8 9	22 43.78	- 5 1.2	1.664	2.622	9.1	21.1	8 9	22 44.67	-22 18.3	1.554	2.523	8.6	18.4
8 19	22 35.39	- 5 45.0	1.629	2.626	4.8	20.9	8 19	22 35.84	-23 6.5	1.534	2.527	5.7	18.2
8 29	22 26.06	- 6 36.8	1.621	2.630	1.1	20.6	8 29	22 26.06	-23 42.5	1.540	2.530	5.7	18.2
9 8	22 16.85	- 7 30.2	1.640	2.633	4.8	20.9	9 8	22 16.55	-24 0.8	1.572	2.534	8.5	18.4
9 18	22 8.75	- 8 19.3	1.686	2.635	9.0	21.1	9 18	22 8.42	-23 58.7	1.628	2.538	12.0	18.6
9 28	22 2.63	- 8 59.4	1.757	2.637	12.8	21.4	9 28	22 2.57	-23 36.7	1.706	2.542	15.2	18.8
<b>282421</b>	2003 <i>UQ</i> <sub>274</sub>		8 28.0 339°97	5°6/1.8	18		<b>367692</b>	2010 <i>RW</i> <sub>99</sub>		8 28.0 251°13	2°0/29.5	18	
7 20	22 48.19	+ 5 33.2	1.643	2.431	18.5	19.9	7 20	22 53.71	- 2 40.6	1.672	2.485	17.2	21.8
7 30	22 45.63	+ 5 54.8	1.558	2.426	15.6	19.6	7 30	22 50.06	- 2 47.5	1.576	2.471	14.0	21.5
8 9	22 40.75	+ 5 54.3	1.490	2.421	12.2	19.4	8 9	22 43.89	- 3 12.0	1.499	2.456	10.1	21.3
8 19	22 34.01	+ 5 30.4	1.443	2.416	8.6	19.2	8 19	22 35.62	- 3 52.7	1.445	2.440	5.6	21.0
8 29	22 26.21	+ 4 44.7	1.420	2.412	5.9	19.0	8 29	22 26.07	- 4 45.6	1.417	2.425	2.0	20.7
9 8	22 18.40	+ 3 42.2	1.422	2.408	6.3	19.1	9 8	22 16.40	- 5 44.3	1.415	2.408	5.2	20.9
9 18	22 11.64	+ 2 30.4	1.448	2.405	9.5	19.2	9 18	22 7.76	- 6 41.7	1.439	2.392	9.9	21.1
9 28	22 6.85	+ 1 17.5	1.499	2.402	13.1	19.4	9 28	22 1.21	- 7 31.3	1.487	2.374	14.2	21.3
<b>344755</b>	2003 <i>VL</i> <sub>2</sub>		8 28.0 309°69	8°5/22.8	18		<b>222478</b>	2001 <i>SE</i> <sub>87</sub>		8 28.0 281°71	1°5/29.1	18	
7 20	23 2.16	-29 35.6	1.613	2.461	16.1	20.0	7 20	22 52.80	- 4 37.0	1.664	2.485	16.9	20.7
7 30	22 57.11	-30 10.5	1.528	2.438	13.3	19.7	7 30	22 49.39	- 4 36.6	1.565	2.466	13.7	20.4
8 9	22 48.88	-30 40.2	1.462	2.416	10.5	19.5	8 9	22 43.47	- 4 51.4	1.486	2.447	9.7	20.1
8 19	22 38.04	-30 55.7	1.420	2.393	8.6	19.3	8 19	22 35.43	- 5 20.0	1.430	2.428	5.3	19.8
8 29	22 25.77	-30 48.0	1.402	2.371	9.0	19.3	8 29	22 26.10	- 5 58.6	1.399	2.408	1.5	19.5
9 8	22 13.62	-30 12.2	1.409	2.349	11.4	19.4	9 8	22 16.61	- 6 41.4	1.395	2.389	5.2	19.7
9 18	22 3.08	-29 8.1	1.440	2.328	14.7	19.6	9 18	22 8.13	- 7 22.2	1.416	2.369	10.0	20.0
9 28	21 55.33	-27 39.6	1.491	2.307	18.0	19.7	9 28	22 1.74	- 7 55.3	1.460	2.349	14.3	20.2
<b>23383</b>	Schedios		8 28.0 270°78	1°5/30.8	16		<b>101107</b>	1998 <i>RE</i> <sub>45</sub>		8 28.0 357°07	0°4/27.8	18	
7 20	22 43.51	- 0 32.9	4.507	5.273	7.8	19.3	7 20	22 51.94	- 9 14.3	1.633	2.473	16.4	19.5
7 30	22 40.31	- 0 32.5	4.402	5.265	6.4	19.2	7 30	22 48.50	- 9 23.1	1.557	2.471	12.9	19.3
8 9	22 36.25	- 0 39.2	4.320	5.257	4.7	19.1	8 9	22 42.65	- 9 43.5	1.500	2.470	8.8	19.0
8 19	22 31.54	- 0 52.1	4.266	5.249	2.9	18.9	8 19	22 34.91	-10 12.1	1.467	2.469	4.2	18.8
8 29	22 26.50	- 1 10.0	4.240	5.241	1.6	18.8	8 29	22 26.18	-10 43.8	1.459	2.469	0.7	18.5
9 8	22 21.46	- 1 31.3	4.243	5.233	2.3	18.9	9 8	22 17.58	-11 12.8	1.478	2.469	5.4	18.9
9 18	22 16.76	- 1 54.1	4.276	5.225	4.0	19.0	9 18	22 10.17	-11 34.3	1.521	2.469	9.9	19.1
9 28	22 12.73	- 2 16.4	4.337	5.216	5.8	19.1	9 28	22 4.86	-11 44.8	1.588	2.470	13.8	19.4
<b>52967</b>	1998 <i>TV</i> <sub>26</sub>		8 28.0 63°69	2°8/26.1	17		<b>326119</b>	2011 <i>WH</i> <sub>45</sub>		8 28.0 287°25	1°0/26.2	17	
7 20	22 56.01	-13 43.8	1.395	2.249	17.9	18.7	7 20	22 43.34	-13 26.9	4.267	5.087	7.4	20.8
7 30	22 51.82	-14 19.5	1.343	2.267	13.9	18.5	7 30	22 40.26	-13 52.7	4.175	5.082	5.7	20.7
8 9	22 44.87	-15 4.6	1.311	2.285	9.3	18.3	8 9	22 36.25	-14 22.1	4.109	5.077	3.8	20.6
8 19	22 35.89	-15 52.3	1.302	2.304	4.7	18.1	8 19	22 31.58	-14 52.8	4.070	5.072	1.9	20.4
8 29	22 26.04	-16 34.9	1.317	2.323	3.2	18.0	8 29	22 26.55	-15 22.8	4.061	5.066	1.2	20.3
9 8	22 16.64	-17 5.6	1.359	2.341	7.1	18.3	9 8	22 21.56	-15 49.7	4.081	5.061	3.0	20.5
9 18	22 8.87	-17 20.4	1.424	2.360	11.4	18.6	9 18	22 16.94	-16 11.6	4.130	5.056	4.9	20.6
9 28	22 3.59	-17 18.1	1.511	2.379	15.2	18.9	9 28	22 13.06	-16 27.2	4.206	5.051	6.7	20.7
<b>387707</b>	2003 <i>AB</i> <sub>17</sub>		8 28.0 122°07	17°5/10.4	17		<b>202521</b>	2006 <i>BP</i> <sub>274</sub>		8 28.0 307°01	1°0/27.3	18	R
7 20	22 58.21	-38 55.0	1.088	1.960	20.5	19.8	7 20	22 49.47	- 8 55.6	1.553	2.399	16.8	21.2
7 30	22 55.87	-42 39.3	1.063	1.966	18.5	19.6	7 30	22 46.91	- 9 27.3	1.463	2.382	13.3	21.0
8 9	22 49.05	-46 5.3	1.058	1.971	17.6	19.6	8 9	22 41.82	-10 14.2	1.393	2.365	9.1	20.7
8 19	22 38.42	-48 51.5	1.072	1.975	18.1	19.7	8 19	22 34.64	-11 12.2	1.346	2.349	4.3	20.4
8 29	22 25.75	-50 41.2	1.106	1.980	19.7	19.8	8 29	22 26.21	-12 14.6	1.323	2.333	1.3	20.1
9 8	22 13.53	-51 28.9	1.156	1.984	21.8	20.0	9 8	22 17.70	-13 13.3	1.327	2.317	6.1	20.4
9 18	22 4.01	-51 19.0	1.220	1.989	24.0	20.1	9 18	22 10.29	-14 1.4	1.355	2.301	11.0	20.7
9 28	21 58.68	-50 21.8	1.296	1.993	25.9	20.3	9 28	22 5.03	-14 33.6	1.405	2.286	15.3	20.9
<b>370276</b>	2002 <i>QC</i> <sub>70</sub>		8 28.0 28°59	0°1/28.0	16		<b>134845</b>	2000 <i>KO</i> <sub>4</sub>		8 28.0 256°37	19°1/8.9	17	
7 20	22 54.86	- 9 35.3	1.155	2.014	20.5	20.6	7 20	23 6.02	-47 13.0	1.223	2.062	20.8	19.1
7 30	22 51.51	- 9 23.3	1.098	2.023	16.2	20.4	7 30	23 2.50	-50 0.1	1.188	2.053	19.6	19.0
8 9	22 45.01	- 9 24.7	1.059	2.033	11.0	20.2	8 9	22 53.89	-52 25.3	1.169	2.043	19.1	19.0
8 19	22 36.09	- 9 36.0	1.040	2.043	5.4	19.9	8 19	22 40.89	-54 10.1	1.168	2.033	19.6	19.0
8 29	22 26.03	- 9 51.2	1.045	2.055	0.6	19.6	8 29	22 25.54	-54 59.9	1.184	2.023	20.9	19.0
9 8	22 16.38	-10 4.2	1.073	2.067	6.4	20.0	9 8	22 10.75	-54 49.6	1.215	2.013	22.7	19.1
9 18	22 8.55	-10 9.9	1.125	2.080	11.7	20.4	9 18	21 59.12	-53 44.0	1.259	2.002	24.6	19.2
9 28	22 3.55	-10 4.8	1.197	2.094	16.2	20.7	9 28	21 52.26	-51 53.3	1.315	1.992	26.4	19.4
<b>320350</b>	2007 <i>TZ</i> <sub>187</sub>		8 28.0 0°03	2°1/29.2	17		<b>147538</b>	2004 <i>EF</i> <sub>24</sub>					

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8 28.0

8 28.1

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>478381</b>	2012 <i>AK</i> <sub>22</sub>		8 28.0 199°71	3°2/24.0	18		<b>60634</b>	2000 <i>FW</i> <sub>27</sub>		8 28.1 260°86	3°3/30.8	18	
7 20	22 53.23	-20 53.1	3.151	3.976	9.6	22.3	7 20	22 51.27	+ 0 53.2	1.694	2.496	17.5	19.8
7 30	22 48.28	-21 28.6	3.065	3.971	7.5	22.2	7 30	22 48.06	+ 0 52.6	1.602	2.486	14.4	19.6
8 9	22 41.86	-22 5.2	3.004	3.966	5.3	22.0	8 9	22 42.47	+ 0 32.1	1.529	2.476	10.7	19.4
8 19	22 34.35	-22 39.1	2.970	3.961	3.5	21.9	8 19	22 34.93	- 0 7.5	1.478	2.466	6.6	19.1
8 29	22 26.27	-23 6.5	2.966	3.955	3.5	21.9	8 29	22 26.25	- 1 3.3	1.452	2.456	3.4	18.9
9 8	22 18.26	-23 24.5	2.992	3.948	5.3	22.0	9 8	22 17.51	- 2 9.0	1.453	2.445	5.2	19.0
9 18	22 10.91	-23 31.1	3.045	3.941	7.5	22.1	9 18	22 9.79	- 3 17.5	1.479	2.435	9.4	19.2
9 28	22 4.78	-23 25.7	3.124	3.933	9.7	22.3	9 28	22 4.05	- 4 21.1	1.529	2.424	13.4	19.4
<b>268881</b>	2007 <i>BY</i> <sub>2</sub>		8 28.1 330°44	0°1/27.9	17		<b>386755</b>	2010 <i>CZ</i> <sub>40</sub>		8 28.1 268°65	1°0/29.0	18	
7 20	22 54.00	- 9 16.4	1.415	2.261	18.1	20.8	7 20	22 48.85	- 2 22.2	1.882	2.694	15.6	21.2
7 30	22 50.58	- 9 13.5	1.337	2.255	14.4	20.5	7 30	22 45.97	- 3 7.3	1.782	2.678	12.5	20.9
8 9	22 44.35	- 9 23.0	1.278	2.249	9.9	20.2	8 9	22 40.95	- 4 11.9	1.703	2.662	8.9	20.7
8 19	22 35.85	- 9 41.7	1.241	2.243	4.8	19.9	8 19	22 34.17	- 5 33.4	1.648	2.646	4.7	20.4
8 29	22 26.10	-10 4.4	1.228	2.238	0.6	19.6	8 29	22 26.35	- 7 6.0	1.620	2.630	1.0	20.1
9 8	22 16.44	-10 25.1	1.241	2.233	6.0	20.0	9 8	22 18.42	- 8 42.1	1.620	2.613	4.7	20.3
9 18	22 8.16	-10 38.6	1.278	2.229	11.0	20.3	9 18	22 11.35	-10 13.3	1.646	2.596	9.1	20.6
9 28	22 2.33	-10 41.2	1.336	2.225	15.4	20.5	9 28	22 6.01	-11 32.5	1.698	2.579	13.1	20.8
<b>353116</b>	2009 <i>FL</i> <sub>19</sub>		8 28.1 119°83	1°9/26.1	18		<b>273520</b>	2007 <i>BT</i> <sub>16</sub>		8 28.1 232°05	1°4/26.9	18	
7 20	22 50.42	-11 58.7	2.090	2.925	13.5	20.6	7 20	22 54.03	-10 32.5	1.887	2.717	14.9	21.6
7 30	22 46.74	-12 48.9	2.016	2.930	10.4	20.4	7 30	22 49.98	-11 8.3	1.797	2.707	11.7	21.3
8 9	22 41.15	-13 48.2	1.965	2.936	7.0	20.2	8 9	22 43.64	-11 55.4	1.728	2.696	7.9	21.1
8 19	22 34.09	-14 51.9	1.939	2.941	3.4	20.0	8 19	22 35.46	-12 49.7	1.683	2.685	3.8	20.8
8 29	22 26.30	-15 53.8	1.941	2.946	2.3	19.9	8 29	22 26.23	-13 45.0	1.666	2.674	1.7	20.7
9 8	22 18.63	-16 48.2	1.970	2.951	5.5	20.2	9 8	22 16.97	-14 34.9	1.676	2.662	5.7	20.9
9 18	22 11.89	-17 30.6	2.026	2.956	8.9	20.4	9 18	22 8.72	-15 14.1	1.713	2.650	9.8	21.1
9 28	22 6.80	-17 58.3	2.107	2.961	12.0	20.6	9 28	22 2.36	-15 39.1	1.774	2.637	13.5	21.3
<b>144072</b>	2004 <i>BE</i> <sub>47</sub>		8 28.1 39°95	0°1/27.9	18		<b>363983</b>	2005 <i>UW</i> <sub>210</sub>		8 28.1 138°98	6°0/4.9	18	
7 20	22 50.12	- 7 4.4	1.878	2.705	15.1	20.4	7 20	22 48.86	+13 35.2	2.670	3.367	14.2	21.8
7 30	22 46.74	- 7 33.4	1.800	2.707	11.9	20.2	7 30	22 45.15	+13 48.8	2.581	3.375	12.3	21.6
8 9	22 41.28	- 8 15.6	1.742	2.709	8.1	19.9	8 9	22 39.89	+13 44.0	2.510	3.382	10.2	21.5
8 19	22 34.20	- 9 7.4	1.709	2.710	3.9	19.7	8 19	22 33.48	+13 19.7	2.462	3.390	8.0	21.4
8 29	22 26.29	-10 3.5	1.703	2.712	0.5	19.4	8 29	22 26.45	+12 36.7	2.439	3.397	6.4	21.3
9 8	22 18.47	-10 57.8	1.723	2.714	4.8	19.8	9 8	22 19.46	+11 37.9	2.443	3.403	6.1	21.3
9 18	22 11.65	-11 44.7	1.770	2.716	8.9	20.0	9 18	22 13.17	+10 27.8	2.475	3.409	7.3	21.4
9 28	22 6.62	-12 20.0	1.842	2.718	12.4	20.2	9 28	22 8.14	+ 9 12.1	2.533	3.415	9.2	21.5
<b>352988</b>	2009 <i>BF</i> <sub>101</sub>		8 28.1 227°88	6°2/21.4	18		<b>357890</b>	2005 <i>UE</i> <sub>517</sub>		8 28.1 110°62	1°7/29.9	18	
7 20	22 52.82	-24 15.9	2.078	2.928	13.0	21.3	7 20	22 47.61	- 0 46.0	2.207	3.004	14.1	21.9
7 30	22 48.90	-25 37.6	2.005	2.922	10.4	21.1	7 30	22 44.49	- 1 19.1	2.121	3.005	11.3	21.7
8 9	22 42.79	-27 0.9	1.955	2.915	7.8	20.9	8 9	22 39.61	- 2 8.4	2.056	3.007	8.1	21.5
8 19	22 34.97	-28 18.2	1.930	2.909	6.3	20.8	8 19	22 33.39	- 3 11.5	2.015	3.008	4.6	21.3
8 29	22 26.23	-29 21.7	1.932	2.902	6.8	20.9	8 29	22 26.45	- 4 24.1	2.002	3.010	1.7	21.1
9 8	22 17.55	-30 5.5	1.960	2.894	9.1	21.0	9 8	22 19.56	- 5 40.5	2.018	3.011	3.9	21.3
9 18	22 9.89	-30 26.6	2.013	2.887	11.8	21.1	9 18	22 13.47	- 6 54.5	2.061	3.012	7.4	21.5
9 28	22 4.09	-30 25.0	2.087	2.879	14.4	21.3	9 28	22 8.83	- 8 0.9	2.130	3.014	10.7	21.7
<b>127388</b>	2002 <i>LF</i> <sub>5</sub>		8 28.1 50°46	0°5/28.6	18		<b>201739</b>	2003 <i>UQ</i> <sub>263</sub>		8 28.1 310°53	1°4/26.8	18	
7 20	22 46.84	- 3 49.9	2.098	2.913	14.1	18.8	7 20	22 49.70	- 9 39.5	1.780	2.619	15.3	20.1
7 30	22 43.89	- 4 38.3	2.026	2.925	11.1	18.7	7 30	22 46.63	-10 24.3	1.699	2.615	11.9	19.9
8 9	22 39.17	- 5 41.4	1.976	2.937	7.7	18.5	8 9	22 41.35	-11 22.2	1.639	2.611	8.1	19.6
8 19	22 33.13	- 6 55.7	1.950	2.949	3.9	18.3	8 19	22 34.33	-12 28.3	1.604	2.607	3.8	19.4
8 29	22 26.44	- 8 15.7	1.952	2.962	0.5	18.0	8 29	22 26.35	-13 36.0	1.595	2.603	1.7	19.2
9 8	22 19.88	- 9 34.8	1.983	2.975	4.1	18.3	9 8	22 18.43	-14 38.1	1.612	2.599	5.7	19.5
9 18	22 14.19	-10 47.1	2.040	2.988	7.8	18.6	9 18	22 11.54	-15 28.6	1.656	2.596	9.9	19.7
9 28	22 10.01	-11 48.0	2.123	3.001	11.0	18.8	9 28	22 6.53	-16 3.4	1.723	2.592	13.5	19.9
<b>178287</b>	1981 <i>UW</i> <sub>27</sub>		8 28.1 331°40	5°1/25.4	18		<b>433423</b>	2013 <i>TH</i> <sub>71</sub>		8 28.1 278°65	1°1/27.4	18	
7 20	22 46.83	-17 37.1	0.983	1.880	20.3	18.6	7 20	22 55.52	-10 56.1	1.556	2.397	17.0	21.4
7 30	22 46.45	-17 56.3	0.900	1.848	16.2	18.3	7 30	22 51.65	-11 5.2	1.469	2.385	13.5	21.1
8 9	22 42.52	-18 24.0	0.833	1.817	11.4	17.9	8 9	22 45.07	-11 25.2	1.402	2.373	9.2	20.8
8 19	22 35.39	-18 52.8	0.785	1.788	6.6	17.5	8 19	22 36.25	-11 52.2	1.358	2.361	4.4	20.5
8 29	22 26.16	-19 12.3	0.757	1.761	5.7	17.4	8 29	22 26.15	-12 20.6	1.340	2.349	1.4	20.3
9 8	22 16.64	-19 12.5	0.749	1.735	10.4	17.5	9 8	22 16.03	-12 44.2	1.347	2.337	6.1	20.6
9 18	22 8.75	-18 47.3	0.760	1.712	16.3	17.7	9 18	22 7.17	-12 58.2	1.380	2.325	11.0	20.8
9 28	22 4.16	-17 55.6	0.788	1.691	21.7	18.0	9 28	22 0.63	-12 59.3	1.435	2.313	15.2	21.0
<b>509037</b>	2005 <i>SF</i> <sub>53</sub>		8 28.1 336°55	0°8/28.6	18		<b>454821</b>	2015 <i>RH</i> <sub>115</sub>		8 28.1 316°05	4°0/24.4	18	
7 20	22 44.60	- 5 35.1	1.157	2.023	20.1	20.7	7 20	22 52.49	-19 34.1	2.050	2.896	13.3	20.8
7 30	22 43.81	- 5 46.3	1.078	2.005	16.1	20.4	7 30	22 48.54	-20 12.0	1.971	2.890	10.4	20.6
8 9	22 40.13	- 6 18.8	1.015	1.989	11.3	20.1	8 9	22 42.49	-20 52.9	1.915	2.884	7.3	20.4
8 19	22 33.97	- 7 9.9	0.972	1.974	5.8	19.8	8 19	22 34.82	-21 31.6	1.883	2.878	4.6	20.3
8 29	22 26.34	- 8 13.0	0.951	1.961	0.8	19.4	8 29	22 26.31	-22 2.2	1.879	2.873	4.4	20.3
9 8	22 18.64	- 9 18.6	0.953	1.948	6.4	19.7	9 8	22 17.90	-22 19.8	1.901	2.867	7.0	20.4
9 18	22 12.31	-10 16.9	0.976	1.938	12.1	20.0	9 18	22 10.52	-22 21.9	1.949	2.862	10.2	20.6
9 28	22 8.59	-10 59.8	1.019	1.929	17.3	20.3	9 28	22 4.92	-22 7.6	2.020	2.856	13.2	20.8
<b>357911</b>	2005 <i>VR</i> <sub>131</sub>		8 28.1 25°89	6°0/22.3	18		<b>180672</b>	2004 <i>GC</i> <sub>74</sub>					

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>207302</b>	2005 <i>GX</i> <sub>50</sub>		8 28.1 194°08	2°9/25.2	18		<b>468488</b>	2004 <i>XS</i> <sub>160</sub>		8 28.1 325°87	5°6/31.4	18	
7 20	22 51.84	-15 12.4	2.098	2.937	13.3	20.2	7 20	22 54.58	+ 1 10.7	1.563	2.364	18.7	19.8
7 30	22 47.94	-16 3.8	2.020	2.936	10.3	20.0	7 30	22 50.92	+ 2 16.1	1.474	2.352	15.7	19.6
8 9	22 42.04	-17 2.1	1.964	2.935	7.0	19.8	8 9	22 44.60	+ 3 6.6	1.402	2.341	12.1	19.3
8 19	22 34.59	-18 2.3	1.934	2.933	3.8	19.6	8 19	22 36.06	+ 3 39.8	1.352	2.331	8.3	19.1
8 29	22 26.34	-18 58.0	1.931	2.932	3.3	19.6	8 29	22 26.21	+ 3 55.1	1.326	2.320	5.8	18.9
9 8	22 18.17	-19 43.5	1.956	2.930	6.2	19.8	9 8	22 16.25	+ 3 54.5	1.325	2.311	6.8	18.9
9 18	22 10.94	-20 14.9	2.008	2.928	9.6	20.0	9 18	22 7.44	+ 3 42.3	1.349	2.302	10.4	19.1
9 28	22 5.41	-20 30.2	2.083	2.926	12.6	20.2	9 28	22 0.87	+ 3 24.4	1.396	2.294	14.3	19.3
<b>296215</b>	2009 <i>CN</i> <sub>23</sub>		8 28.1 19°75	0°1/27.9	18		<b>231549</b>	2008 <i>SS</i> <sub>254</sub>		8 28.1 51°28	5°9/2.1	18	
7 20	22 48.74	- 6 10.2	1.808	2.637	15.5	20.4	7 20	22 51.47	+ 6 15.7	1.689	2.465	18.5	20.1
7 30	22 45.78	- 6 52.4	1.730	2.638	12.2	20.2	7 30	22 48.10	+ 6 45.5	1.611	2.469	15.6	20.0
8 9	22 40.71	- 7 49.9	1.673	2.639	8.3	20.0	8 9	22 42.40	+ 6 53.7	1.550	2.473	12.3	19.8
8 19	22 33.99	- 8 58.7	1.640	2.641	4.0	19.8	8 19	22 34.86	+ 6 39.1	1.510	2.477	8.8	19.6
8 29	22 26.40	-10 12.7	1.633	2.643	0.5	19.5	8 29	22 26.34	+ 6 2.9	1.494	2.482	6.2	19.4
9 8	22 18.89	-11 24.5	1.653	2.644	5.0	19.8	9 8	22 17.89	+ 5 9.7	1.503	2.486	6.5	19.5
9 18	22 12.40	-12 27.6	1.700	2.646	9.1	20.1	9 18	22 10.55	+ 4 6.3	1.538	2.491	9.4	19.6
9 28	22 7.70	-13 17.1	1.771	2.648	12.8	20.3	9 28	22 5.20	+ 3 0.7	1.597	2.496	12.7	19.9
<b>271082</b>	2003 <i>OB</i> <sub>12</sub>		8 28.1 11°83	7°6/4.6	16		<b>5026</b>	Martes		8 28.1 5°66	2°8/29.5	18	R
7 20	22 42.87	+11 50.4	1.342	2.125	22.1	19.7	7 20	22 46.94	- 5 38.9	0.924	1.802	22.9	16.1
7 30	22 41.89	+11 54.5	1.272	2.129	19.0	19.5	7 30	22 46.02	- 4 52.5	0.869	1.801	18.5	15.8
8 9	22 38.43	+11 24.5	1.216	2.133	15.4	19.3	8 9	22 41.73	- 4 24.9	0.828	1.803	13.2	15.5
8 19	22 33.00	+10 18.4	1.178	2.138	11.6	19.1	8 19	22 34.74	- 4 15.4	0.806	1.806	7.4	15.3
8 29	22 26.50	+ 8 39.1	1.162	2.145	8.4	19.0	8 29	22 26.36	- 4 20.6	0.804	1.812	2.9	15.0
9 8	22 20.12	+ 6 35.1	1.169	2.153	7.8	19.0	9 8	22 18.28	- 4 34.0	0.822	1.820	6.7	15.3
9 18	22 14.98	+ 4 19.0	1.200	2.162	10.4	19.1	9 18	22 12.05	- 4 48.5	0.861	1.830	12.3	15.6
9 28	22 12.02	+ 2 4.6	1.254	2.172	14.0	19.4	9 28	22 8.84	- 4 57.2	0.919	1.841	17.3	16.0
<b>264453</b>	2000 <i>VD</i> <sub>9</sub>		8 28.1 278°96	3°7/31.9	18		<b>480903</b>	2002 <i>RF</i> <sub>213</sub>		8 28.1 351°62	1°8/26.4	18	
7 20	22 48.25	+ 3 43.0	2.235	3.008	14.6	21.0	7 20	22 33.06	- 5 0.4	1.039	1.926	20.1	19.7
7 30	22 45.08	+ 3 43.3	2.134	2.997	12.2	20.8	7 30	22 34.83	- 6 31.9	0.967	1.910	15.9	19.4
8 9	22 40.10	+ 3 26.5	2.053	2.985	9.3	20.6	8 9	22 34.00	- 8 36.2	0.913	1.896	10.7	19.1
8 19	22 33.68	+ 2 52.8	1.996	2.973	6.2	20.3	8 19	22 31.00	-11 5.8	0.879	1.885	5.0	18.7
8 29	22 26.43	+ 2 4.4	1.965	2.961	3.9	20.2	8 29	22 26.73	-13 46.0	0.868	1.876	2.4	18.5
9 8	22 19.13	+ 1 5.4	1.961	2.949	4.6	20.2	9 8	22 22.50	-16 18.6	0.879	1.870	8.1	18.8
9 18	22 12.55	+ 0 1.2	1.984	2.937	7.6	20.4	9 18	22 19.59	-18 27.2	0.911	1.866	13.8	19.1
9 28	22 7.43	- 1 2.3	2.033	2.925	10.7	20.5	9 28	22 19.10	-20 1.1	0.963	1.865	18.7	19.4
<b>485281</b>	2010 <i>XY</i> <sub>71</sub>		8 28.1 274°35	1°4/26.6	17		<b>38081</b>	1999 <i>HC</i> <sub>10</sub>		8 28.1 29°84	3°1/25.9	18	
7 20	22 49.37	-11 15.9	2.349	3.177	12.4	21.9	7 20	22 53.14	-14 39.6	1.338	2.201	18.0	18.4
7 30	22 45.89	-11 53.3	2.251	3.161	9.7	21.7	7 30	22 49.86	-15 10.0	1.281	2.210	14.0	18.2
8 9	22 40.61	-12 39.7	2.176	3.145	6.5	21.5	8 9	22 43.77	-15 49.3	1.243	2.219	9.4	17.9
8 19	22 33.92	-13 31.5	2.127	3.129	3.2	21.2	8 19	22 35.53	-16 30.9	1.227	2.229	4.9	17.7
8 29	22 26.41	-14 23.8	2.105	3.112	1.7	21.1	8 29	22 26.29	-17 6.9	1.235	2.240	3.5	17.6
9 8	22 18.87	-15 11.6	2.111	3.095	4.9	21.3	9 8	22 17.41	-17 30.6	1.268	2.251	7.5	17.9
9 18	22 12.04	-15 50.5	2.145	3.079	8.3	21.5	9 18	22 10.11	-17 38.1	1.324	2.263	11.9	18.2
9 28	22 6.65	-16 17.5	2.204	3.062	11.5	21.7	9 28	22 5.31	-17 27.9	1.402	2.276	15.8	18.5
<b>218490</b>	2004 <i>TW</i> <sub>48</sub>		8 28.1 158°83	3°0/31.6	18		<b>278793</b>	2008 <i>SA</i> <sub>204</sub>		8 28.1 1°97	3°9/31.4	18	
7 20	22 47.58	+ 2 51.8	2.432	3.205	13.6	20.3	7 20	22 43.79	+ 2 41.9	1.289	2.118	20.5	19.9
7 30	22 44.30	+ 2 38.7	2.341	3.206	11.2	20.2	7 30	22 42.72	+ 2 29.1	1.217	2.116	16.9	19.7
8 9	22 39.40	+ 2 9.9	2.272	3.206	8.4	20.0	8 9	22 39.07	+ 1 48.5	1.162	2.115	12.6	19.4
8 19	22 33.27	+ 1 26.4	2.227	3.207	5.4	19.8	8 19	22 33.36	+ 0 41.1	1.126	2.116	7.9	19.1
8 29	22 26.49	+ 0 30.8	2.208	3.208	3.1	19.7	8 29	22 26.50	- 0 47.9	1.113	2.117	4.1	18.9
9 8	22 19.73	- 0 32.4	2.218	3.209	4.0	19.7	9 8	22 19.74	- 2 28.6	1.124	2.120	5.7	19.0
9 18	22 13.69	- 1 38.1	2.256	3.209	6.8	19.9	9 18	22 14.25	- 4 9.6	1.159	2.124	10.3	19.3
9 28	22 8.98	- 2 41.2	2.321	3.210	9.7	20.1	9 28	22 11.03	- 5 40.5	1.216	2.129	14.7	19.6
<b>266998</b>	2010 <i>YO</i> <sub>1</sub>		8 28.1 234°93	1°1/28.8	18		<b>350851</b>	2002 <i>GY</i> <sub>106</sub>		8 28.1 97°73	0°8/29.1	18	
7 20	22 55.30	- 5 51.0	1.657	2.479	17.0	21.0	7 20	22 48.67	- 2 45.9	2.495	3.291	12.7	20.7
7 30	22 51.22	- 5 50.1	1.572	2.473	13.6	20.7	7 30	22 44.98	- 3 31.3	2.423	3.310	10.0	20.6
8 9	22 44.62	- 6 3.2	1.506	2.468	9.5	20.5	8 9	22 39.75	- 4 29.7	2.374	3.328	7.0	20.4
8 19	22 35.98	- 6 28.0	1.463	2.462	5.0	20.2	8 19	22 33.40	- 5 37.9	2.350	3.347	3.6	20.2
8 29	22 26.21	- 7 0.4	1.447	2.456	1.1	19.9	8 29	22 26.52	- 6 51.6	2.356	3.365	0.8	20.0
9 8	22 16.46	- 7 34.7	1.456	2.450	5.2	20.2	9 8	22 19.76	- 8 5.4	2.390	3.382	3.5	20.3
9 18	22 7.87	- 8 5.5	1.492	2.443	9.8	20.4	9 18	22 13.78	- 9 14.4	2.454	3.400	6.7	20.5
9 28	22 1.44	- 8 28.1	1.552	2.436	13.9	20.7	9 28	22 9.11	-10 14.5	2.543	3.417	9.5	20.7
<b>326818</b>	2003 <i>TG</i> <sub>39</sub>		8 28.1 288°30	4°0/1.5	18		<b>148405</b>	2000 <i>VJ</i> <sub>41</sub>		8 28.1 281°73	0°6/27.5	18	
7 20	22 47.81	+ 4 46.5	2.430	3.193	13.9	20.7	7 20	22 50.55	- 9 33.6	2.169	2.995	13.4	20.6
7 30	22 44.55	+ 4 53.8	2.331	3.185	11.6	20.6	7 30	22 46.93	- 9 54.7	2.075	2.982	10.5	20.4
8 9	22 39.64	+ 4 45.4	2.253	3.177	9.0	20.4	8 9	22 41.39	-10 25.6	2.003	2.970	7.2	20.2
8 19	22 33.43	+ 4 21.2	2.197	3.168	6.2	20.2	8 19	22 34.33	-11 3.0	1.955	2.957	3.4	19.9
8 29	22 26.48	+ 3 42.8	2.169	3.160	4.2	20.1	8 29	22 26.41	-11 42.8	1.935	2.945	0.9	19.7
9 8	22 19.52	+ 2 53.7	2.167	3.152	4.6	20.1	9 8	22 18.48	-12 19.9	1.943	2.932	4.6	20.0
9 18	22 13.23	+ 1 58.4	2.193	3.144	7.1	20.2	9 18	22 11.36	-12 50.1	1.978	2.919	8.4	20.2
9 28	22 8.27	+ 1 2.2	2.245	3.136	9.9	20.4	9 28	22 5.81	-13 10.1	2.038	2.907	11.8	20.4
<b>123201</b>	2000 <i>UK</i> <sub>24</sub>		8 28.1 297°52	0°5/27.7	18		<b>9954</b>	Brachiosaurus		8 28.1 293°18	2°9/25.9</		

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>474528</b>	2003 <i>UH</i> <sub>341</sub>		8 28.1 261 <sup>o</sup> .09	7.4/ 3.9	18		<b>354178</b>	2002 <i>CS</i> <sub>314</sub>		8 28.1 254 <sup>o</sup> .10	2.5/ 1.7	15	
7 20	22 50.84	+11 31.0	1.990	2.722	17.4	21.1	7 20	22 44.65	+ 4 35.9	4.653	5.386	8.1	21.4
7 30	22 47.47	+12 8.5	1.890	2.711	15.2	20.9	7 30	22 41.22	+ 4 48.7	4.545	5.378	6.7	21.2
8 9	22 41.95	+12 24.8	1.808	2.699	12.5	20.7	8 9	22 36.92	+ 4 53.4	4.460	5.371	5.2	21.1
8 19	22 34.69	+12 17.3	1.747	2.688	9.9	20.5	8 19	22 31.99	+ 4 50.4	4.401	5.363	3.7	21.0
8 29	22 26.38	+11 45.3	1.709	2.676	7.8	20.4	8 29	22 26.72	+ 4 40.4	4.370	5.356	2.6	20.9
9 8	22 17.95	+10 51.5	1.697	2.664	7.6	20.3	9 8	22 21.43	+ 4 24.8	4.369	5.348	2.8	20.9
9 18	22 10.35	+ 9 41.5	1.710	2.652	9.5	20.4	9 18	22 16.48	+ 4 5.1	4.397	5.340	4.1	21.0
9 28	22 4.47	+ 8 22.8	1.748	2.639	12.2	20.6	9 28	22 12.17	+ 3 43.5	4.453	5.332	5.6	21.1
<b>186021</b>	2001 <i>QD</i> <sub>184</sub>		8 28.1 30 <sup>o</sup> .88	0.4/28.4	16		<b>501722</b>	2014 <i>UW</i> <sub>48</sub>		8 28.1 315 <sup>o</sup> .71	3.3/26.1	17	
7 20	22 50.05	- 6 8.3	1.186	2.043	20.3	20.6	7 20	22 53.74	-13 58.1	1.169	2.039	19.6	21.4
7 30	22 47.67	- 6 26.6	1.132	2.054	16.0	20.4	7 30	22 51.11	-14 29.3	1.097	2.029	15.5	21.1
8 9	22 42.40	- 7 4.1	1.095	2.067	11.0	20.2	8 9	22 45.18	-15 13.0	1.042	2.020	10.6	20.8
8 19	22 34.91	- 7 56.1	1.079	2.081	5.4	19.9	8 19	22 36.51	-16 2.1	1.008	2.011	5.4	20.5
8 29	22 26.38	- 8 55.0	1.085	2.095	0.5	19.6	8 29	22 26.26	-16 47.5	0.996	2.002	3.8	20.4
9 8	22 18.20	- 9 51.8	1.116	2.111	6.0	20.0	9 8	22 16.09	-17 19.7	1.008	1.994	8.5	20.6
9 18	22 11.64	-10 38.7	1.170	2.127	11.2	20.4	9 18	22 7.57	-17 32.8	1.042	1.986	13.8	20.9
9 28	22 7.64	-11 10.5	1.245	2.144	15.6	20.7	9 28	22 2.00	-17 24.3	1.096	1.979	18.5	21.1
<b>90105</b>	2002 <i>XF</i> <sub>33</sub>		8 28.1 264 <sup>o</sup> .45	1.1/29.1	18		<b>72609</b>	2001 <i>FN</i> <sub>17</sub>		8 28.1 123 <sup>o</sup> .48	2.1/30.7	18	
7 20	22 50.15	- 2 57.7	1.659	2.480	17.0	19.9	7 20	22 47.60	+ 0 43.4	2.541	3.322	12.8	19.5
7 30	22 47.25	- 3 30.8	1.569	2.470	13.7	19.6	7 30	22 44.23	+ 0 20.1	2.455	3.328	10.4	19.3
8 9	22 41.96	- 4 23.7	1.499	2.460	9.6	19.4	8 9	22 39.33	- 0 17.5	2.391	3.333	7.6	19.2
8 19	22 34.74	- 5 33.5	1.452	2.450	5.1	19.1	8 19	22 33.27	- 1 7.8	2.351	3.338	4.6	19.0
8 29	22 26.39	- 6 54.5	1.431	2.440	1.1	18.8	8 29	22 26.62	- 2 7.5	2.339	3.343	2.2	18.8
9 8	22 17.98	- 8 18.6	1.436	2.430	5.1	19.0	9 8	22 20.03	- 3 12.1	2.356	3.348	3.6	18.9
9 18	22 10.61	- 9 37.4	1.467	2.419	9.8	19.3	9 18	22 14.13	- 4 16.7	2.401	3.353	6.5	19.1
9 28	22 5.24	-10 43.9	1.522	2.409	14.0	19.5	9 28	22 9.49	- 5 16.7	2.473	3.358	9.4	19.3
<b>152578</b>	1994 <i>PU</i> <sub>11</sub>		8 28.1 335 <sup>o</sup> .33	1.7/29.4	18		<b>444106</b>	2004 <i>TX</i> <sub>68</sub>		8 28.1 296 <sup>o</sup> .87	6.7/21.5	17	
7 20	22 51.89	- 4 50.1	1.934	2.748	15.2	19.9	7 20	22 54.96	-27 31.1	2.182	3.025	12.7	21.2
7 30	22 48.15	- 4 34.7	1.847	2.742	12.2	19.7	7 30	22 50.73	-28 27.1	2.087	2.997	10.3	21.0
8 9	22 42.31	- 4 31.0	1.779	2.737	8.7	19.4	8 9	22 44.21	-29 22.1	2.014	2.968	8.1	20.8
8 19	22 34.81	- 4 37.7	1.736	2.731	4.8	19.2	8 19	22 35.83	-30 9.4	1.967	2.939	6.7	20.7
8 29	22 26.40	- 4 52.2	1.719	2.726	1.7	19.0	8 29	22 26.36	-30 41.8	1.946	2.910	7.3	20.7
9 8	22 18.03	- 5 10.6	1.729	2.722	4.5	19.2	9 8	22 16.82	-30 54.1	1.951	2.880	9.4	20.8
9 18	22 10.62	- 5 28.8	1.765	2.718	8.4	19.4	9 18	22 8.23	-30 43.9	1.980	2.851	12.1	20.9
9 28	22 4.97	- 5 42.9	1.826	2.714	12.0	19.6	9 28	22 1.51	-30 11.6	2.031	2.822	14.8	21.0
<b>283333</b>	1998 <i>QW</i> <sub>29</sub>		8 28.1 13 <sup>o</sup> .98	5.2/31.2	18		<b>380767</b>	2005 <i>TA</i> <sub>153</sub>		8 28.1 272 <sup>o</sup> .25	0.6/27.6	18	
7 20	22 53.66	- 0 8.8	1.381	2.199	19.9	19.6	7 20	22 52.10	- 8 11.9	1.698	2.532	16.1	21.3
7 30	22 50.24	+ 0 55.4	1.313	2.204	16.5	19.4	7 30	22 48.83	- 8 43.1	1.604	2.515	12.8	21.1
8 9	22 44.08	+ 1 42.5	1.261	2.209	12.4	19.2	8 9	22 43.11	- 9 29.0	1.529	2.498	8.8	20.8
8 19	22 35.76	+ 2 10.9	1.231	2.215	8.2	19.0	8 19	22 35.37	-10 26.0	1.479	2.481	4.2	20.5
8 29	22 26.31	+ 2 21.0	1.224	2.222	5.3	18.8	8 29	22 26.41	-11 27.9	1.454	2.464	1.0	20.2
9 8	22 17.04	+ 2 16.1	1.242	2.231	6.6	18.9	9 8	22 17.33	-12 27.4	1.456	2.446	5.7	20.5
9 18	22 9.19	+ 2 1.5	1.283	2.240	10.4	19.2	9 18	22 9.28	-13 17.6	1.484	2.428	10.4	20.7
9 28	22 3.77	+ 1 43.5	1.347	2.250	14.3	19.4	9 28	22 3.25	-13 53.7	1.534	2.411	14.5	21.0
<b>192895</b>	1999 <i>XS</i> <sub>134</sub>		8 28.1 297 <sup>o</sup> .50	7.0/20.9	18		<b>383286</b>	2006 <i>DB</i> <sub>198</sub>		8 28.1 167 <sup>o</sup> .01	5.4/ 1.9	16	
7 20	22 50.03	-22 19.7	1.701	2.565	14.7	19.8	7 20	22 54.45	+ 6 26.8	2.140	2.889	15.9	20.9
7 30	22 47.46	-24 1.7	1.614	2.541	11.8	19.6	7 30	22 49.95	+ 6 59.3	2.052	2.892	13.4	20.7
8 9	22 42.32	-25 51.2	1.549	2.516	8.8	19.4	8 9	22 43.44	+ 7 14.5	1.983	2.895	10.6	20.6
8 19	22 35.02	-27 38.6	1.508	2.491	7.1	19.2	8 19	22 35.36	+ 7 11.5	1.937	2.898	7.7	20.4
8 29	22 26.38	-29 12.8	1.493	2.467	8.0	19.2	8 29	22 26.43	+ 6 50.9	1.916	2.900	5.6	20.3
9 8	22 17.57	-30 24.2	1.503	2.442	10.9	19.3	9 8	22 17.52	+ 6 15.8	1.923	2.901	5.9	20.3
9 18	22 9.82	-31 7.2	1.535	2.418	14.3	19.5	9 18	22 9.50	+ 5 30.9	1.958	2.903	8.2	20.4
9 28	22 4.23	-31 20.3	1.588	2.394	17.6	19.6	9 28	22 3.15	+ 4 41.9	2.017	2.904	11.1	20.6
<b>430181</b>	2013 <i>TJ</i> <sub>105</sub>		8 28.1 13 <sup>o</sup> .41	3.7/25.2	17		<b>512207</b>	2015 <i>TQ</i> <sub>76</sub>		8 28.1 302 <sup>o</sup> .80	0.0/28.1	17	
7 20	22 48.77	-12 39.7	1.223	2.095	18.8	20.3	7 20	22 48.75	- 7 23.0	2.172	2.994	13.5	22.1
7 30	22 46.82	-13 50.4	1.162	2.097	14.6	20.1	7 30	22 45.58	- 7 42.7	2.073	2.977	10.7	21.9
8 9	22 41.96	-15 16.3	1.120	2.099	9.8	19.8	8 9	22 40.53	- 8 13.6	1.996	2.961	7.4	21.7
8 19	22 34.79	-16 48.7	1.099	2.102	5.1	19.5	8 19	22 33.98	- 8 53.3	1.943	2.944	3.6	21.4
8 29	22 26.41	-18 16.3	1.103	2.106	4.3	19.5	8 29	22 26.57	- 9 37.6	1.918	2.928	0.3	21.1
9 8	22 18.26	-19 27.9	1.130	2.111	8.5	19.8	9 8	22 19.10	-10 21.5	1.920	2.912	4.3	21.4
9 18	22 11.64	-20 16.5	1.180	2.116	13.2	20.1	9 18	22 12.40	-11 0.4	1.950	2.896	8.2	21.6
9 28	22 7.59	-20 39.1	1.249	2.122	17.4	20.3	9 28	22 7.21	-11 30.3	2.004	2.880	11.6	21.8
<b>402764</b>	2007 <i>BW</i> <sub>29</sub>		8 28.1 159 <sup>o</sup> .27	0.9/29.0	18		<b>120769</b>	1998 <i>CM</i> <sub>1</sub>		8 28.1 264 <sup>o</sup> .10	3.5/28.9	16	
7 20	22 53.81	- 6 0.7	2.823	3.614	11.5	21.5	7 20	23 12.77	- 8 42.9	1.121	1.950	22.9	19.4
7 30	22 48.81	- 5 57.3	2.735	3.619	9.1	21.4	7 30	23 6.55	- 7 7.0	1.038	1.942	18.7	19.1
8 9	22 42.30	- 6 1.8	2.671	3.625	6.3	21.2	8 9	22 56.11	- 5 35.1	0.973	1.934	13.6	18.8
8 19	22 34.65	- 6 12.7	2.634	3.630	3.3	21.0	8 19	22 42.03	- 4 8.4	0.929	1.926	7.7	18.4
8 29	22 26.44	- 6 27.7	2.625	3.634	0.9	20.8	8 29	22 25.76	- 2 48.8	0.910	1.917	3.5	18.1
9 8	22 18.31	- 6 43.9	2.647	3.638	3.3	21.0	9 8	22 9.45	- 1 37.7	0.917	1.908	7.8	18.4
9 18	22 10.89	- 6 58.7	2.698	3.642	6.3	21.2	9 18	21 55.26	- 0 35.6	0.948	1.900	13.8	18.7
9 28	22 4.75	- 7 9.7	2.776	3.645	9.0	21.4	9 28	21 44.86	+ 0 19.4	1.001	1.891	19.2	19.0
<b>443683</b>	2015 <												

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>286409</b>	2001 YN <sub>103</sub>	8 28.1 218°51		1.1/29.1 18			<b>255397</b>	2005 WS <sub>178</sub>	8 28.1 237°29		2.5/30.7 18		
7 20	22 52.78	- 4 23.5	1.916	2.727	15.4	20.7	7 20	22 50.14	- 0 14.6	2.415	3.199	13.4	20.5
7 30	22 48.92	- 4 37.8	1.827	2.722	12.3	20.5	7 30	22 46.37	- 0 12.3	2.320	3.193	10.9	20.3
8 9	22 42.89	- 5 6.5	1.759	2.717	8.7	20.3	8 9	22 40.90	- 0 23.2	2.246	3.188	8.0	20.1
8 19	22 35.15	- 5 47.4	1.715	2.712	4.6	20.0	8 19	22 34.11	- 0 46.2	2.196	3.182	4.9	19.9
8 29	22 26.46	- 6 36.2	1.697	2.706	1.1	19.8	8 29	22 26.59	- 1 19.2	2.174	3.177	2.6	19.8
9 8	22 17.77	- 7 27.3	1.707	2.700	4.5	20.0	9 8	22 19.06	- 1 58.5	2.180	3.171	3.9	19.9
9 18	22 10.05	- 8 14.9	1.745	2.694	8.7	20.3	9 18	22 12.25	- 2 40.0	2.213	3.165	7.0	20.0
9 28	22 4.13	- 8 54.3	1.806	2.688	12.4	20.5	9 28	22 6.82	- 3 19.1	2.273	3.159	10.0	20.2
<b>425842</b>	2011 EP <sub>43</sub>	8 28.1 49°77		0.1/28.2 17			<b>254197</b>	2004 RG <sub>47</sub>	8 28.1 289°98		0.4/28.5 18		
7 20	22 47.89	- 2 7.0	1.398	2.232	18.9	20.5	7 20	22 49.05	- 6 3.4	2.241	3.056	13.3	20.7
7 30	22 45.57	- 3 29.7	1.340	2.251	14.9	20.3	7 30	22 45.65	- 6 26.8	2.154	3.053	10.5	20.5
8 9	22 40.78	- 5 16.8	1.302	2.269	10.2	20.1	8 9	22 40.47	- 7 1.9	2.089	3.051	7.3	20.3
8 19	22 34.12	- 7 21.4	1.287	2.289	5.0	19.9	8 19	22 33.91	- 7 46.1	2.048	3.048	3.7	20.0
8 29	22 26.57	- 9 32.7	1.298	2.308	0.4	19.6	8 29	22 26.62	- 8 35.3	2.036	3.045	0.4	19.7
9 8	22 19.29	- 11 38.4	1.335	2.328	5.6	20.0	9 8	22 19.37	- 9 24.4	2.051	3.043	4.0	20.0
9 18	22 13.34	- 13 28.1	1.398	2.348	10.4	20.3	9 18	22 12.92	- 10 9.0	2.093	3.040	7.7	20.3
9 28	22 9.56	- 14 55.0	1.484	2.368	14.4	20.6	9 28	22 7.93	- 10 45.0	2.161	3.038	10.9	20.5
<b>8914</b>	Nickjames	8 28.1 321°78		5.6/22.3 18			<b>410785</b>	2009 FV <sub>54</sub>	8 28.1 268°85		2.0/26.6 18		
7 20	22 49.89	- 22 1.6	1.948	2.805	13.4	17.2	7 20	22 52.73	- 9 59.1	1.421	2.270	17.9	21.0
7 30	22 46.76	- 23 15.2	1.874	2.797	10.6	17.0	7 30	22 49.83	- 10 47.2	1.335	2.256	14.1	20.7
8 9	22 41.46	- 24 32.0	1.823	2.790	7.7	16.8	8 9	22 44.10	- 11 52.3	1.269	2.242	9.6	20.4
8 19	22 34.45	- 25 44.7	1.796	2.783	5.8	16.7	8 19	22 35.97	- 13 8.8	1.224	2.228	4.7	20.1
8 29	22 26.53	- 26 45.7	1.796	2.776	6.3	16.7	8 29	22 26.41	- 14 28.0	1.205	2.213	2.4	19.9
9 8	22 18.67	- 27 28.6	1.821	2.769	8.7	16.8	9 8	22 16.74	- 15 39.8	1.211	2.198	7.2	20.2
9 18	22 11.84	- 27 50.1	1.871	2.763	11.7	17.0	9 18	22 8.33	- 16 36.2	1.242	2.183	12.3	20.4
9 28	22 6.86	- 27 49.5	1.942	2.757	14.5	17.2	9 28	22 2.35	- 17 11.9	1.293	2.168	16.8	20.6
<b>261790</b>	2006 BU <sub>164</sub>	8 28.1 193°73		0.3/27.7 18			<b>523229</b>	2016 XY <sub>24</sub>	8 28.1 177°37		4.7/ 2.9 18		
7 20	22 50.30	- 9 3.3	2.935	3.743	10.7	21.4	7 20	22 50.62	+ 8 52.3	2.952	3.671	12.5	21.1
7 30	22 46.13	- 9 23.6	2.844	3.741	8.4	21.2	7 30	22 46.40	+ 9 13.7	2.856	3.672	10.7	21.0
8 9	22 40.52	- 9 51.2	2.776	3.738	5.7	21.0	8 9	22 40.74	+ 9 20.8	2.780	3.673	8.6	20.8
8 19	22 33.84	- 10 23.6	2.735	3.735	2.7	20.8	8 19	22 33.98	+ 9 13.2	2.727	3.674	6.5	20.7
8 29	22 26.60	- 10 57.6	2.723	3.732	0.5	20.6	8 29	22 26.62	+ 8 51.4	2.702	3.674	4.9	20.6
9 8	22 19.39	- 11 29.9	2.741	3.729	3.5	20.9	9 8	22 19.27	+ 8 17.7	2.704	3.674	4.9	20.6
9 18	22 12.80	- 11 57.5	2.787	3.725	6.4	21.1	9 18	22 12.51	+ 7 35.4	2.735	3.674	6.5	20.7
9 28	22 7.37	- 12 18.0	2.860	3.721	9.0	21.2	9 28	22 6.90	+ 6 48.6	2.793	3.673	8.6	20.8
<b>283977</b>	2004 RS <sub>161</sub>	8 28.1 177°04		2.8/31.0 18			<b>70276</b>	1999 RT <sub>109</sub>	8 28.1 3°70		1.2/27.6 18		
7 20	22 50.62	+ 2 19.2	2.024	2.807	15.6	21.4	7 20	22 57.03	- 14 12.6	1.230	2.091	19.4	18.7
7 30	22 47.07	+ 1 53.2	1.937	2.809	12.8	21.2	7 30	22 53.29	- 13 37.9	1.163	2.090	15.3	18.5
8 9	22 41.54	+ 1 7.8	1.869	2.810	9.5	21.0	8 9	22 46.38	- 13 8.6	1.115	2.090	10.5	18.2
8 19	22 34.46	+ 0 4.5	1.825	2.810	5.8	20.8	8 19	22 36.97	- 12 41.5	1.088	2.091	5.1	17.9
8 29	22 26.53	- 1 12.5	1.807	2.811	2.9	20.6	8 29	22 26.33	- 12 12.7	1.085	2.094	1.5	17.7
9 8	22 18.65	- 2 37.1	1.818	2.810	4.4	20.7	9 8	22 16.02	- 11 38.9	1.106	2.098	6.6	18.0
9 18	22 11.65	- 4 2.2	1.857	2.810	8.0	20.9	9 18	22 7.47	- 10 58.3	1.151	2.104	11.8	18.3
9 28	22 6.30	- 5 20.9	1.921	2.809	11.5	21.2	9 28	22 1.76	- 10 10.4	1.217	2.111	16.3	18.6
<b>429559</b>	2011 CM <sub>76</sub>	8 28.1 213°35		1.0/27.2 18			<b>399933</b>	2005 YP <sub>177</sub>	8 28.1 55°74		1.3/29.3 18		
7 20	22 53.29	- 8 39.0	1.986	2.808	14.5	22.1	7 20	22 51.36	- 4 49.3	2.295	3.099	13.4	20.3
7 30	22 49.29	- 9 25.3	1.896	2.802	11.4	21.9	7 30	22 47.33	- 4 46.0	2.212	3.102	10.7	20.2
8 9	22 43.15	- 10 24.8	1.828	2.794	7.8	21.7	8 9	22 41.54	- 4 53.4	2.150	3.105	7.5	20.0
8 19	22 35.29	- 11 33.0	1.784	2.786	3.7	21.4	8 19	22 34.41	- 5 9.7	2.113	3.109	4.1	19.8
8 29	22 26.46	- 12 43.9	1.769	2.778	1.3	21.2	8 29	22 26.60	- 5 32.2	2.104	3.112	1.3	19.6
9 8	22 17.61	- 13 50.7	1.782	2.769	5.3	21.5	9 8	22 18.87	- 5 57.2	2.123	3.116	3.8	19.8
9 18	22 9.69	- 14 47.4	1.822	2.759	9.3	21.7	9 18	22 11.96	- 6 21.0	2.170	3.120	7.2	20.0
9 28	22 3.55	- 15 29.8	1.886	2.748	12.9	21.9	9 28	22 6.55	- 6 40.2	2.242	3.123	10.4	20.2
<b>444157</b>	2005 GP <sub>22</sub>	8 28.1 140°19		8.0/ 7.9 15			<b>153608</b>	2001 SQ <sub>318</sub>	8 28.1 218°41		1.7/29.7 18		
7 20	22 54.89	+ 21 0.7	2.891	3.511	14.5	22.7	7 20	22 51.37	- 1 48.4	1.836	2.643	16.1	20.8
7 30	22 49.80	+ 21 48.8	2.806	3.527	13.1	22.6	7 30	22 47.94	- 2 13.5	1.747	2.638	13.0	20.6
8 9	22 43.08	+ 22 18.1	2.739	3.542	11.4	22.5	8 9	22 42.30	- 2 56.7	1.679	2.634	9.3	20.3
8 19	22 35.11	+ 22 26.2	2.692	3.556	9.8	22.4	8 19	22 34.92	- 3 55.7	1.634	2.628	5.2	20.1
8 29	22 26.49	+ 22 12.1	2.669	3.569	8.5	22.4	8 29	22 26.54	- 5 5.7	1.615	2.623	1.7	19.8
9 8	22 17.91	+ 21 37.3	2.672	3.582	8.0	22.4	9 8	22 18.16	- 6 19.9	1.624	2.617	4.6	20.0
9 18	22 10.05	+ 20 45.0	2.702	3.593	8.5	22.4	9 18	22 10.75	- 7 31.4	1.659	2.611	8.8	20.3
9 28	22 3.52	+ 19 40.4	2.757	3.604	9.7	22.5	9 28	22 5.17	- 8 33.6	1.719	2.605	12.7	20.5
<b>480640</b>	2015 NR <sub>12</sub>	8 28.1 36°05		6.9/ 3.7 18			<b>164750</b>	1998 TW <sub>29</sub>	8 28.1 325°77		2.0/29.9 18		
7 20	22 48.73	+ 9 50.8	1.668	2.431	19.2	20.2	7 20	22 46.64	- 0 54.7	1.643	2.463	17.1	19.8
7 30	22 45.99	+ 10 15.5	1.594	2.439	16.4	20.0	7 30	22 44.52	- 1 20.2	1.554	2.453	13.9	19.6
8 9	22 40.99	+ 10 15.1	1.537	2.447	13.2	19.8	8 9	22 40.14	- 2 6.7	1.485	2.442	10.0	19.3
8 19	22 34.24	+ 9 48.1	1.499	2.456	9.9	19.7	8 19	22 33.92	- 3 12.3	1.438	2.433	5.7	19.1
8 29	22 26.57	+ 8 55.9	1.485	2.465	7.4	19.6	8 29	22 26.64	- 4 31.8	1.416	2.423	2.1	18.8
9 8	22 19.00	+ 7 43.5	1.496	2.474	7.2	19.6	9 8	22 19.32	- 5 57.4	1.420	2.415	4.9	19.0
9 18	22 12.54	+ 6 19.0	1.532	2.484	9.4	19.7	9 18	22 13.00	- 7 20.7	1.449	2.406	9.4	19.2
9 28	22 8.01	+ 4 51.3	1.591	2.494	12.5	19.9	9 28	22 8.59	- 8 33.8	1.502	2.399	13.5	19.5
<b>63898</b>	2001 SL <sub>10</sub>	8 28.1 326°38		1.8/26.5 18			<b>166602</b>	2002 RO <sub>209</sub>	8 28.1 23°70		5.3/24.4 18		
7 20	22 50.62	- 11 50.1	1.940	2.778									

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>318623</b>	2005 <i>JK</i> <sub>137</sub>		8 28.1 76°02	0°7/27.6	17		<b>172505</b>	Kimberlyespy		8 28.1 348°00	5°3/24.3	18	
7 20	22 53.80	- 7 39.7	1.429	2.270	18.2	21.5	7 20	22 45.38	-14 57.7	1.033	1.925	19.9	18.9
7 30	22 50.17	- 8 20.0	1.371	2.286	14.3	21.3	7 30	22 44.81	-16 10.7	0.970	1.916	15.5	18.6
8 9	22 43.91	- 9 16.3	1.332	2.302	9.7	21.1	8 9	22 41.04	-17 39.3	0.925	1.908	10.7	18.3
8 19	22 35.67	-10 23.1	1.315	2.318	4.6	20.8	8 19	22 34.58	-19 13.3	0.900	1.902	6.2	18.0
8 29	22 26.49	-11 32.5	1.324	2.334	1.0	20.6	8 29	22 26.64	-20 39.2	0.896	1.897	6.0	18.0
9 8	22 17.63	-12 36.1	1.359	2.349	5.9	21.0	9 8	22 18.82	-21 44.3	0.914	1.893	10.4	18.3
9 18	22 10.23	-13 27.1	1.419	2.365	10.6	21.3	9 18	22 12.68	-22 20.7	0.952	1.891	15.4	18.5
9 28	22 5.16	-14 1.4	1.501	2.381	14.6	21.6	9 28	22 9.43	-22 25.9	1.008	1.890	19.9	18.8
<b>138040</b>	2000 <i>DJ</i> <sub>21</sub>		8 28.1 264°12	0°0/28.1	18		<b>37950</b>	1998 <i>HU</i> <sub>33</sub>		8 28.1 65°76	1°7/26.9	18	
7 20	22 52.78	- 6 29.6	1.727	2.553	16.2	20.7	7 20	22 54.83	-12 2.1	1.642	2.483	16.2	18.7
7 30	22 49.37	- 6 57.9	1.629	2.534	13.0	20.4	7 30	22 50.69	-12 25.0	1.579	2.495	12.7	18.5
8 9	22 43.52	- 7 42.2	1.550	2.516	9.0	20.2	8 9	22 44.14	-12 57.3	1.536	2.507	8.5	18.3
8 19	22 35.62	- 8 39.3	1.495	2.496	4.5	19.9	8 19	22 35.78	-13 34.3	1.516	2.519	4.1	18.1
8 29	22 26.48	- 9 43.7	1.467	2.477	0.4	19.5	8 29	22 26.55	-14 9.8	1.523	2.530	2.0	18.0
9 8	22 17.16	-10 48.0	1.465	2.456	5.4	19.8	9 8	22 17.60	-14 38.1	1.556	2.543	5.9	18.3
9 18	22 8.82	-11 45.2	1.489	2.436	10.1	20.1	9 18	22 9.97	-14 55.1	1.615	2.555	10.0	18.5
9 28	22 2.49	-12 29.6	1.537	2.415	14.4	20.3	9 28	22 4.48	-14 58.6	1.697	2.567	13.7	18.8
<b>60771</b>	2000 <i>GS</i> <sub>154</sub>		8 28.1 113°73	2°5/30.1	18		<b>338000</b>	2002 <i>EK</i> <sub>27</sub>		8 28.1 47°29	2°4/26.5	17	
7 20	22 54.30	- 1 56.2	1.669	2.477	17.4	19.4	7 20	22 58.23	-12 37.8	1.311	2.163	19.0	19.8
7 30	22 50.32	- 1 50.7	1.593	2.483	14.1	19.2	7 30	22 53.41	-13 14.5	1.280	2.202	14.5	19.7
8 9	22 43.95	- 2 2.0	1.536	2.489	10.2	19.0	8 9	22 45.87	-14 0.9	1.268	2.242	9.6	19.5
8 19	22 35.71	- 2 28.8	1.502	2.494	5.9	18.7	8 19	22 36.49	-14 49.7	1.279	2.281	4.7	19.3
8 29	22 26.49	- 3 7.2	1.493	2.499	2.6	18.5	8 29	22 26.51	-15 33.2	1.315	2.321	2.7	19.3
9 8	22 17.40	- 3 51.7	1.511	2.505	5.0	18.7	9 8	22 17.28	-16 4.9	1.376	2.361	6.7	19.7
9 18	22 9.50	- 4 36.2	1.556	2.510	9.1	19.0	9 18	22 9.86	-16 21.3	1.462	2.401	11.0	20.0
9 28	22 3.67	- 5 15.0	1.624	2.515	13.0	19.2	9 28	22 4.98	-16 21.6	1.570	2.441	14.5	20.3
<b>512733</b>	2016 <i>UZ</i> <sub>26</sub>		8 28.1 106°69	0°0/28.1	18		<b>259700</b>	2003 <i>YD</i> <sub>31</sub>		8 28.1 252°38	1°2/27.2	18	
7 20	22 52.56	- 7 51.1	2.011	2.831	14.4	21.1	7 20	22 54.22	- 9 34.2	1.690	2.524	16.2	21.1
7 30	22 48.54	- 8 5.5	1.932	2.835	11.4	20.9	7 30	22 50.54	-10 8.0	1.598	2.510	12.8	20.9
8 9	22 42.51	- 8 30.8	1.876	2.840	7.8	20.7	8 9	22 44.34	-10 55.5	1.526	2.495	8.8	20.6
8 19	22 34.94	- 9 3.9	1.843	2.844	3.8	20.5	8 19	22 36.05	-11 52.4	1.478	2.480	4.2	20.3
8 29	22 26.58	- 9 40.5	1.838	2.848	0.4	20.2	8 29	22 26.52	-12 52.3	1.456	2.465	1.5	20.1
9 8	22 18.34	-10 15.7	1.861	2.852	4.5	20.5	9 8	22 16.89	-13 47.6	1.461	2.449	6.0	20.3
9 18	22 11.09	-10 45.1	1.911	2.857	8.3	20.8	9 18	22 8.34	-14 31.9	1.491	2.432	10.6	20.6
9 28	22 5.56	-11 5.4	1.985	2.861	11.8	21.0	9 28	22 1.88	-15 1.0	1.545	2.416	14.7	20.8
<b>482366</b>	2011 <i>YP</i> <sub>13</sub>		8 28.1 218°21	4°7/22.2	18		<b>278924</b>	2008 <i>TY</i> <sub>183</sub>		8 28.1 32°11	6°1/ 2.1	16	
7 20	22 50.35	-21 48.1	2.477	3.320	11.4	21.7	7 20	22 49.96	+ 5 38.5	1.425	2.222	20.4	19.8
7 30	22 46.64	-23 4.4	2.399	3.315	8.9	21.5	7 30	22 47.28	+ 6 8.7	1.359	2.231	17.1	19.6
8 9	22 41.15	-24 23.4	2.346	3.310	6.5	21.3	8 9	22 42.06	+ 6 14.2	1.309	2.242	13.3	19.4
8 19	22 34.28	-25 39.2	2.320	3.305	4.8	21.2	8 19	22 34.86	+ 5 53.9	1.280	2.253	9.4	19.2
8 29	22 26.66	-26 45.5	2.321	3.299	5.3	21.3	8 29	22 26.65	+ 5 10.0	1.273	2.265	6.4	19.1
9 8	22 19.07	-27 37.1	2.351	3.293	7.3	21.4	9 8	22 18.61	+ 4 8.6	1.291	2.277	6.8	19.2
9 18	22 12.27	-28 10.9	2.406	3.287	9.8	21.5	9 18	22 11.89	+ 2 58.0	1.332	2.291	9.9	19.4
9 28	22 6.94	-28 25.9	2.484	3.281	12.2	21.7	9 28	22 7.39	+ 1 47.3	1.397	2.304	13.6	19.6
<b>153516</b>	2001 <i>SH</i> <sub>14</sub>		8 28.1 293°33	1°5/27.0	18		<b>318409</b>	2005 <i>AM</i> <sub>7</sub>		8 28.1 163°27	0°3/28.4	17	
7 20	22 53.65	-11 23.5	1.561	2.406	16.8	20.2	7 20	22 58.36	- 7 12.7	1.790	2.605	16.2	21.7
7 30	22 50.23	-11 43.8	1.476	2.394	13.2	19.9	7 30	22 53.37	- 7 21.8	1.711	2.610	12.8	21.5
8 9	22 44.17	-12 15.4	1.410	2.382	9.0	19.6	8 9	22 45.98	- 7 43.3	1.653	2.615	8.9	21.3
8 19	22 35.95	-12 54.1	1.368	2.370	4.4	19.3	8 19	22 36.72	- 8 14.1	1.620	2.619	4.4	21.0
8 29	22 26.49	-13 33.4	1.351	2.359	1.8	19.1	8 29	22 26.49	- 8 49.5	1.613	2.623	0.4	20.7
9 8	22 17.02	-14 6.6	1.359	2.347	6.3	19.4	9 8	22 16.40	- 9 24.1	1.634	2.626	4.9	21.1
9 18	22 8.76	-14 28.5	1.393	2.336	11.0	19.6	9 18	22 7.51	- 9 53.0	1.682	2.628	9.3	21.3
9 28	22 2.75	-14 35.5	1.448	2.325	15.2	19.9	9 28	22 0.69	-10 12.4	1.755	2.629	13.1	21.6
<b>381099</b>	2007 <i>CD</i> <sub>23</sub>		8 28.1 145°28	0°2/28.3	17		<b>163005</b>	2001 <i>SX</i> <sub>265</sub>		8 28.1 41°41	3°6/26.3	17	
7 20	22 53.11	- 5 47.1	1.888	2.704	15.4	22.4	7 20	22 57.23	-14 59.0	0.962	1.841	22.1	19.1
7 30	22 49.12	- 6 22.9	1.811	2.712	12.2	22.2	7 30	22 53.83	-15 23.3	0.923	1.860	17.1	18.9
8 9	22 42.98	- 7 13.2	1.756	2.719	8.4	22.0	8 9	22 46.83	-15 57.6	0.900	1.879	11.5	18.6
8 19	22 35.21	- 8 14.3	1.725	2.725	4.1	21.7	8 19	22 37.19	-16 33.4	0.897	1.900	5.9	18.4
8 29	22 26.59	- 9 20.4	1.721	2.731	0.4	21.4	8 29	22 26.47	-17 1.2	0.916	1.921	4.0	18.4
9 8	22 18.09	-10 25.0	1.746	2.737	4.7	21.8	9 8	22 16.53	-17 13.4	0.957	1.943	8.6	18.7
9 18	22 10.63	-11 22.0	1.797	2.742	8.8	22.1	9 18	22 8.84	-17 6.9	1.020	1.966	13.7	19.1
9 28	22 5.01	-12 7.0	1.873	2.747	12.4	22.3	9 28	22 4.39	-16 41.6	1.102	1.989	18.1	19.4
<b>482641</b>	2013 <i>AR</i> <sub>115</sub>		8 28.1 216°12	1°5/26.6	18		<b>520430</b>	2014 <i>JT</i> <sub>91</sub>		8 28.1 61°82	4°3/23.3	18	
7 20	22 52.29	-11 53.1	2.349	3.172	12.5	22.5	7 20	22 49.18	-16 59.1	1.987	2.837	13.5	21.2
7 30	22 48.15	-12 27.8	2.259	3.166	9.8	22.3	7 30	22 45.97	-18 32.5	1.930	2.853	10.4	21.1
8 9	22 42.18	-13 10.5	2.192	3.160	6.6	22.1	8 9	22 40.79	-20 12.2	1.897	2.868	7.1	20.9
8 19	22 34.79	-13 57.5	2.151	3.153	3.2	21.9	8 19	22 34.13	-21 50.7	1.890	2.884	4.6	20.8
8 29	22 26.63	-14 44.1	2.138	3.145	1.7	21.8	8 29	22 26.75	-23 19.9	1.910	2.900	4.8	20.8
9 8	22 18.48	-15 25.2	2.154	3.137	4.9	22.0	9 8	22 19.55	-24 32.9	1.957	2.916	7.4	21.0
9 18	22 11.14	-15 57.1	2.198	3.129	8.3	22.2	9 18	22 13.36	-25 25.8	2.030	2.932	10.4	21.2
9 28	22 5.29	-16 17.2	2.266	3.120	11.3	22.3	9 28	22 8.88	-25 57.0	2.126	2.948	13.1	21.5
<b>253429</b>	2003 <i>QH</i> <sub>62</sub>		8 28.1 0°79	6°3/24.2	18		<b>27294</b>	2000 <i>AT</i> <sub>142</sub>		8 28			



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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>194946</b>	2002 AD <sub>157</sub>		8 28.1 115°23	2°3/30.1	17		<b>164072</b>	2003 WS <sub>81</sub>		8 28.2 251°58	2°0/26.5	18	
7 20	22 53.49	- 1 57.9	1.828	2.632	16.3	20.4	7 20	22 56.27	-14 23.7	2.104	2.932	13.6	19.9
7 30	22 49.48	- 1 57.7	1.751	2.639	13.2	20.2	7 30	22 51.58	-14 40.6	2.010	2.919	10.7	19.7
8 9	22 43.29	- 2 13.2	1.694	2.646	9.5	20.0	8 9	22 44.72	-15 3.5	1.937	2.905	7.3	19.5
8 19	22 35.40	- 2 42.8	1.660	2.652	5.4	19.8	8 19	22 36.15	-15 28.6	1.891	2.891	3.7	19.2
8 29	22 26.63	- 3 22.9	1.652	2.658	2.3	19.6	8 29	22 26.61	-15 50.9	1.872	2.877	2.3	19.1
9 8	22 17.99	- 4 8.3	1.672	2.665	4.6	19.7	9 8	22 17.06	-16 6.0	1.881	2.863	5.6	19.3
9 18	22 10.43	- 4 53.2	1.718	2.671	8.5	20.0	9 18	22 8.45	-16 10.8	1.917	2.848	9.3	19.5
9 28	22 4.74	- 5 32.6	1.788	2.677	12.2	20.2	9 28	22 1.62	-16 3.3	1.978	2.833	12.7	19.7
<b>373457</b>	2000 FJ <sub>2</sub>		8 28.1 186°40	3°1/25.7	18		<b>520054</b>	2013 VK <sub>30</sub>		8 28.2 291°49	5°3/31.5	18	
7 20	22 56.92	-15 36.2	1.815	2.653	15.0	21.1	7 20	22 54.33	+ 1 53.9	1.565	2.363	18.8	21.3
7 30	22 52.31	-16 12.7	1.738	2.653	11.8	20.9	7 30	22 50.86	+ 2 39.9	1.471	2.349	15.8	21.1
8 9	22 45.29	-16 56.1	1.683	2.653	8.0	20.7	8 9	22 44.73	+ 3 8.5	1.395	2.334	12.2	20.8
8 19	22 36.40	-17 40.6	1.652	2.652	4.3	20.5	8 19	22 36.35	+ 3 18.0	1.341	2.320	8.3	20.5
8 29	22 26.54	-18 19.9	1.649	2.651	3.4	20.4	8 29	22 26.58	+ 3 8.5	1.310	2.306	5.5	20.3
9 8	22 16.81	-18 48.0	1.672	2.649	6.7	20.6	9 8	22 16.65	+ 2 43.4	1.304	2.292	6.6	20.4
9 18	22 8.28	-19 1.3	1.722	2.647	10.5	20.9	9 18	22 7.80	+ 2 8.2	1.324	2.279	10.3	20.6
9 28	22 1.82	-18 58.4	1.795	2.645	14.0	21.1	9 28	22 1.17	+ 1 29.9	1.366	2.265	14.4	20.8
<b>307982</b>	2004 PG <sub>115</sub>		8 28.1 6°97	0°4/3.6	17		<b>44527</b>	1998 YC <sub>6</sub>		8 28.2 73°86	7°9/5.2	18	
7 20	22 30.12	+ 7 22.7	38.200	38.904	1.1	20.8	7 20	22 51.75	+13 26.1	1.948	2.668	18.1	17.9
7 30	22 29.52	+ 7 21.5	38.105	38.912	0.9	20.8	7 30	22 48.06	+14 8.8	1.874	2.682	15.7	17.8
8 9	22 28.84	+ 7 19.2	38.033	38.920	0.7	20.8	8 9	22 42.29	+14 28.6	1.816	2.696	13.1	17.6
8 19	22 28.10	+ 7 15.8	37.986	38.927	0.6	20.8	8 19	22 34.93	+14 23.1	1.779	2.709	10.4	17.5
8 29	22 27.34	+ 7 11.6	37.966	38.935	0.4	20.7	8 29	22 26.73	+13 52.2	1.766	2.723	8.4	17.4
9 8	22 26.58	+ 7 6.6	37.974	38.942	0.4	20.7	9 8	22 18.65	+12 59.5	1.777	2.737	8.0	17.4
9 18	22 25.85	+ 7 1.0	38.011	38.950	0.5	20.8	9 18	22 11.57	+11 50.8	1.814	2.750	9.4	17.5
9 28	22 25.18	+ 6 55.0	38.076	38.958	0.7	20.8	9 28	22 6.26	+10 33.8	1.876	2.764	11.7	17.7
<b>284922</b>	2010 CL <sub>82</sub>		8 28.1 72°43	0°8/27.5	18		<b>98546</b>	2000 VO <sub>55</sub>		8 28.2 1°28	0°6/27.9	18	
7 20	22 54.42	-10 23.2	1.784	2.616	15.5	20.6	7 20	22 49.21	-11 12.7	0.900	1.789	22.4	17.9
7 30	22 50.28	-10 36.5	1.710	2.621	12.2	20.4	7 30	22 48.09	-10 49.8	0.843	1.785	17.8	17.6
8 9	22 43.86	-10 59.6	1.657	2.625	8.3	20.2	8 9	22 43.40	-10 40.1	0.801	1.783	12.2	17.3
8 19	22 35.68	-11 28.9	1.628	2.630	4.0	19.9	8 19	22 35.79	-10 39.9	0.778	1.782	5.9	17.0
8 29	22 26.62	-11 59.3	1.626	2.635	1.1	19.7	8 29	22 26.65	-10 43.0	0.775	1.784	0.9	16.6
9 8	22 17.73	-12 25.5	1.650	2.639	5.2	20.0	9 8	22 17.81	-10 42.6	0.792	1.788	7.3	17.1
9 18	22 10.00	-12 43.5	1.701	2.644	9.4	20.3	9 18	22 10.96	-10 33.4	0.830	1.794	13.4	17.4
9 28	22 4.24	-12 50.5	1.775	2.649	13.0	20.5	9 28	22 7.32	-10 12.0	0.886	1.801	18.5	17.8
<b>81297</b>	2000 GR <sub>1</sub>		8 28.1 301°88	5°7/2.1	18		<b>240638</b>	2005 AF <sub>40</sub>		8 28.2 225°25	0°7/27.5	18	
7 20	22 48.19	+ 6 47.8	1.845	2.617	17.3	18.3	7 20	22 53.28	- 9 22.2	2.177	2.996	13.5	21.3
7 30	22 45.72	+ 7 4.1	1.734	2.590	14.8	18.1	7 30	22 49.12	- 9 48.9	2.085	2.988	10.7	21.0
8 9	22 41.04	+ 6 59.0	1.640	2.562	11.8	17.8	8 9	22 42.98	-10 25.7	2.014	2.979	7.3	20.8
8 19	22 34.49	+ 6 30.6	1.567	2.535	8.5	17.6	8 19	22 35.28	-11 9.3	1.968	2.970	3.5	20.6
8 29	22 26.72	+ 5 39.4	1.518	2.507	6.0	17.4	8 29	22 26.70	-11 55.1	1.951	2.960	0.9	20.4
9 8	22 18.68	+ 4 29.3	1.495	2.480	6.3	17.3	9 8	22 18.11	-12 37.7	1.961	2.950	4.7	20.6
9 18	22 11.40	+ 3 6.9	1.497	2.452	9.3	17.4	9 18	22 10.37	-13 13.0	2.000	2.939	8.5	20.8
9 28	22 5.88	+ 1 40.9	1.524	2.425	13.1	17.6	9 28	22 4.24	-13 37.4	2.063	2.928	11.8	21.0
<b>122922</b>	2000 SN <sub>174</sub>		8 28.1 234°38	5°5/1.8	18		<b>103966</b>	Luni		8 28.2 239°99	0°3/27.9	18	
7 20	22 53.77	+ 5 53.2	2.010	2.769	16.5	19.7	7 20	22 52.82	- 7 6.6	1.768	2.594	15.9	20.2
7 30	22 49.72	+ 6 26.4	1.913	2.760	14.0	19.5	7 30	22 49.27	- 7 41.8	1.678	2.585	12.6	19.9
8 9	22 43.53	+ 6 42.0	1.835	2.752	11.0	19.3	8 9	22 43.38	- 8 32.2	1.608	2.574	8.7	19.7
8 19	22 35.59	+ 6 38.6	1.779	2.743	8.0	19.1	8 19	22 35.58	- 9 34.1	1.563	2.564	4.2	19.4
8 29	22 26.62	+ 6 16.6	1.748	2.734	5.7	19.0	8 29	22 26.67	-10 41.4	1.543	2.553	0.6	19.1
9 8	22 17.57	+ 5 39.0	1.744	2.725	6.1	19.0	9 8	22 17.71	-11 46.7	1.551	2.542	5.3	19.4
9 18	22 9.38	+ 4 50.9	1.767	2.715	8.7	19.1	9 18	22 9.77	-12 43.5	1.586	2.530	9.8	19.7
9 28	22 2.93	+ 3 58.5	1.815	2.705	11.9	19.3	9 28	22 3.77	-13 26.6	1.644	2.518	13.8	19.9
<b>400892</b>	2010 RO <sub>50</sub>		8 28.1 350°72	2°8/31.0	18		<b>265726</b>	2005 UK <sub>413</sub>		8 28.2 306°13	5°5/2.5	17	
7 20	22 46.31	+ 1 32.4	1.869	2.670	16.1	20.8	7 20	22 48.80	+ 7 15.7	2.107	2.864	15.9	20.8
7 30	22 43.93	+ 1 11.8	1.783	2.667	13.2	20.6	7 30	22 45.74	+ 7 39.3	2.009	2.854	13.5	20.6
8 9	22 39.56	+ 0 31.3	1.717	2.664	9.7	20.3	8 9	22 40.75	+ 7 44.4	1.930	2.844	10.8	20.4
8 19	22 33.62	- 0 27.6	1.673	2.661	5.9	20.1	8 19	22 34.22	+ 7 29.8	1.873	2.834	7.9	20.2
8 29	22 26.81	- 1 40.8	1.655	2.659	2.9	19.9	8 29	22 26.80	+ 6 56.4	1.840	2.824	5.8	20.0
9 8	22 20.04	- 3 1.8	1.664	2.658	4.5	20.0	9 8	22 19.30	+ 6 7.4	1.834	2.814	5.9	20.0
9 18	22 14.15	- 4 23.2	1.699	2.657	8.2	20.2	9 18	22 12.58	+ 5 7.9	1.855	2.805	8.2	20.2
9 28	22 9.94	- 5 38.1	1.759	2.656	11.9	20.5	9 28	22 7.41	+ 4 4.4	1.900	2.795	11.2	20.3
<b>332082</b>	2005 TH <sub>141</sub>		8 28.2 95°19	1°8/26.7	17		<b>516838</b>	2010 XB <sub>80</sub>		8 28.2 281°62	4°3/1.7	18	
7 20	22 53.72	-10 56.6	1.629	2.470	16.4	20.9	7 20	22 49.08	+ 5 15.1	2.341	3.101	14.4	21.5
7 30	22 49.93	-11 38.7	1.562	2.479	12.7	20.7	7 30	22 45.68	+ 5 28.1	2.246	3.096	12.1	21.3
8 9	22 43.72	-12 32.6	1.516	2.487	8.6	20.5	8 9	22 40.55	+ 5 25.0	2.171	3.092	9.4	21.2
8 19	22 35.65	-13 32.8	1.494	2.496	4.1	20.2	8 19	22 34.06	+ 5 5.4	2.119	3.088	6.6	21.0
8 29	22 26.65	-14 32.2	1.497	2.505	2.1	20.1	8 29	22 26.82	+ 4 30.7	2.093	3.083	4.5	20.8
9 8	22 17.86	-15 23.4	1.528	2.513	6.1	20.4	9 8	22 19.57	+ 3 44.5	2.095	3.079	4.9	20.9
9 18	22 10.34	-16 1.2	1.583	2.521	10.3	20.7	9 18	22 13.04	+ 2 51.3	2.124	3.075	7.3	21.0
9 28	22 4.94	-16 22.6	1.662	2.530	14.0	20.9	9 28	22 7.91	+ 1 56.6	2.179	3.070	10.1	21.2
<b>45884</b>	2000 WB <sub>93</sub>		8 28.2 146°50	1°8/29.6	18		<b>14320</b>	1978 UV <sub>7</sub>		8 28.2 3°61	2°2/30.1	18	
7 20	22 55.43	- 2 35.5	1										

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>4492</b>	Debussy		8 28.2 306°88	1.5°/27.1	18	A	<b>521513</b>	2015 OX <sub>96</sub>		8 28.2 190°79	1.8°/29.9	18	
7 20	22 53.84	-12 31.2	1.753	2.593	15.4	17.0	7 20	22 51.99	-2 56.8	2.414	3.206	13.2	21.9
7 30	22 50.17	-12 38.5	1.660	2.575	12.2	16.8	7 30	22 47.83	-2 52.7	2.324	3.205	10.6	21.7
8 9	22 44.05	-12 54.0	1.586	2.557	8.3	16.5	8 9	22 41.94	-2 59.8	2.255	3.204	7.6	21.5
8 19	22 35.94	-13 14.1	1.537	2.539	4.1	16.2	8 19	22 34.74	-3 17.0	2.212	3.203	4.4	21.3
8 29	22 26.66	-13 33.9	1.514	2.522	1.7	16.0	8 29	22 26.83	-3 41.6	2.196	3.202	1.8	21.2
9 8	22 17.32	-13 48.0	1.517	2.505	5.8	16.3	9 8	22 18.95	-4 10.3	2.209	3.201	3.7	21.3
9 18	22 9.02	-13 52.5	1.546	2.488	10.2	16.5	9 18	22 11.84	-4 39.3	2.250	3.200	7.0	21.5
9 28	22 2.76	-13 45.0	1.597	2.471	14.2	16.7	9 28	22 6.14	-5 5.0	2.317	3.198	10.0	21.7
<b>144833</b>	2004 JM <sub>24</sub>		8 28.2 61°83	0°9/27.3	18		<b>233766</b>	2008 TL <sub>104</sub>		8 28.2 1°83	3°1/30.5	18	
7 20	22 51.36	-9 42.6	1.937	2.768	14.5	20.2	7 20	22 48.66	-0 58.1	1.377	2.207	19.4	20.2
7 30	22 47.68	-10 11.4	1.867	2.777	11.3	20.0	7 30	22 46.48	-0 49.8	1.304	2.206	15.8	20.0
8 9	22 41.97	-10 50.7	1.819	2.787	7.6	19.8	8 9	22 41.70	-1 2.4	1.248	2.205	11.5	19.7
8 19	22 34.75	-11 36.2	1.796	2.798	3.6	19.5	8 19	22 34.83	-1 34.8	1.213	2.205	6.9	19.4
8 29	22 26.78	-12 22.8	1.799	2.808	1.1	19.4	8 29	22 26.81	-2 23.0	1.201	2.207	3.2	19.2
9 8	22 18.99	-13 4.8	1.830	2.818	4.9	19.7	9 8	22 18.89	-3 19.8	1.213	2.208	5.5	19.4
9 18	22 12.23	-13 38.0	1.887	2.829	8.7	19.9	9 18	22 12.24	-4 17.4	1.250	2.211	10.1	19.7
9 28	22 7.21	-13 59.2	1.969	2.839	12.0	20.2	9 28	22 7.86	-5 8.1	1.309	2.215	14.4	19.9
<b>5574</b>	Seagrave		8 28.2 205°94	1°2/26.9	18		<b>367736</b>	2010 UV <sub>72</sub>		8 28.2 6°84	1°8/26.8	18	
7 20	22 50.32	-8 12.0	2.103	2.926	13.8	17.0	7 20	22 46.43	-8 21.0	1.079	1.953	20.5	19.6
7 30	22 46.87	-9 17.2	2.016	2.923	10.8	16.8	7 30	22 45.37	-9 16.5	1.018	1.953	16.1	19.4
8 9	22 41.48	-10 36.1	1.951	2.919	7.3	16.6	8 9	22 41.27	-10 33.6	0.975	1.954	10.9	19.1
8 19	22 34.57	-12 3.9	1.913	2.915	3.5	16.4	8 19	22 34.70	-12 5.1	0.952	1.956	5.2	18.8
8 29	22 26.80	-13 34.1	1.902	2.910	1.5	16.2	8 29	22 26.82	-13 39.6	0.951	1.960	2.3	18.6
9 8	22 19.03	-14 59.3	1.921	2.906	5.1	16.5	9 8	22 19.14	-15 4.5	0.973	1.964	7.6	19.0
9 18	22 12.10	-16 13.3	1.966	2.900	8.9	16.7	9 18	22 13.05	-16 9.8	1.017	1.969	13.1	19.3
9 28	22 6.78	-17 11.7	2.037	2.895	12.2	16.9	9 28	22 9.67	-16 49.9	1.080	1.975	17.8	19.6
<b>33040</b>	Pavelmayer		8 28.2 214°69	1°7/29.5	18		<b>466301</b>	2013 QC <sub>28</sub>		8 28.2 65°70	0°2/28.3	17	
7 20	22 55.32	-3 23.8	1.616	2.430	17.6	19.6	7 20	22 51.44	-4 34.4	1.354	2.194	19.1	21.1
7 30	22 51.42	-3 28.9	1.530	2.426	14.2	19.4	7 30	22 48.58	-5 21.2	1.292	2.205	15.1	20.9
8 9	22 44.94	-3 51.1	1.464	2.421	10.2	19.1	8 9	22 43.04	-6 28.9	1.249	2.217	10.4	20.7
8 19	22 36.38	-4 28.5	1.420	2.416	5.6	18.8	8 19	22 35.42	-7 52.3	1.228	2.229	5.1	20.4
8 29	22 26.63	-5 16.6	1.402	2.411	1.8	18.6	8 29	22 26.77	-9 22.7	1.231	2.241	0.4	20.1
9 8	22 16.87	-6 9.1	1.411	2.405	5.2	18.8	9 8	22 18.37	-10 49.9	1.260	2.253	5.8	20.5
9 18	22 8.29	-6 59.2	1.445	2.398	9.8	19.0	9 18	22 11.38	-12 5.2	1.314	2.265	10.7	20.8
9 28	22 1.88	-7 40.9	1.503	2.391	14.1	19.3	9 28	22 6.76	-13 2.3	1.389	2.278	15.0	21.1
<b>455621</b>	2004 VT <sub>1</sub>		8 28.2 307°59	4°1/31.8	17		<b>402404</b>	2005 YG <sub>129</sub>		8 28.2 205°96	1°1/29.4	18	
7 20	22 48.95	+2 49.2	2.059	2.842	15.4	21.4	7 20	22 50.47	-4 6.2	2.735	3.527	11.8	21.7
7 30	22 46.08	+3 5.3	1.942	2.810	12.9	21.1	7 30	22 46.45	-4 16.4	2.640	3.523	9.4	21.6
8 9	22 41.17	+3 4.9	1.845	2.779	10.0	20.9	8 9	22 40.92	-4 36.6	2.567	3.519	6.6	21.4
8 19	22 34.53	+2 47.4	1.770	2.748	6.7	20.6	8 19	22 34.22	-5 5.3	2.520	3.515	3.6	21.2
8 29	22 26.79	+2 13.6	1.720	2.717	4.3	20.4	8 29	22 26.89	-5 39.7	2.502	3.510	1.1	21.0
9 8	22 18.80	+1 27.2	1.697	2.686	5.2	20.4	9 8	22 19.56	-6 16.4	2.512	3.505	3.4	21.2
9 18	22 11.47	+0 33.2	1.700	2.655	8.5	20.6	9 18	22 12.88	-6 51.7	2.552	3.499	6.4	21.3
9 28	22 5.70	-0 22.2	1.728	2.624	12.1	20.7	9 28	22 7.42	-7 22.4	2.618	3.494	9.2	21.5
<b>65336</b>	2002 LS <sub>58</sub>		8 28.2 215°87	1°5/30.0	18		<b>246298</b>	2007 TE <sub>102</sub>		8 28.2 349°98	1°4/29.2	18	
7 20	22 47.34	-0 26.4	2.481	3.269	12.9	19.7	7 20	22 40.83	-2 52.1	0.937	1.815	22.6	19.1
7 30	22 44.20	-1 7.1	2.387	3.267	10.4	19.5	7 30	22 41.38	-3 13.7	0.871	1.805	18.3	18.8
8 9	22 39.48	-2 3.2	2.316	3.264	7.5	19.3	8 9	22 38.83	-4 4.9	0.820	1.796	13.0	18.5
8 19	22 33.53	-3 12.3	2.269	3.261	4.2	19.1	8 19	22 33.64	-5 23.0	0.787	1.789	6.9	18.2
8 29	22 26.92	-4 30.4	2.251	3.258	1.5	18.9	8 29	22 26.92	-6 59.3	0.775	1.784	1.4	17.8
9 8	22 20.31	-5 52.1	2.262	3.255	3.5	19.1	9 8	22 20.25	-8 39.9	0.783	1.781	6.7	18.1
9 18	22 14.37	-7 11.7	2.301	3.252	6.8	19.3	9 18	22 15.17	-10 10.9	0.811	1.779	12.9	18.5
9 28	22 9.72	-8 24.1	2.368	3.249	9.9	19.5	9 28	22 12.94	-11 21.1	0.858	1.779	18.3	18.8
<b>428614</b>	2008 EX <sub>162</sub>		8 28.2 185°49	2°7/26.2	17		<b>207577</b>	2006 PF <sub>31</sub>		8 28.2 33°04	1°0/29.1	18	
7 20	22 57.62	-14 37.1	1.637	2.479	16.3	21.8	7 20	22 49.68	-3 53.4	1.847	2.665	15.6	20.4
7 30	22 53.13	-15 4.4	1.563	2.479	12.7	21.6	7 30	22 46.56	-4 17.4	1.768	2.667	12.5	20.2
8 9	22 46.02	-15 39.6	1.508	2.479	8.7	21.4	8 9	22 41.35	-4 57.1	1.710	2.670	8.7	20.0
8 19	22 36.86	-16 17.2	1.478	2.479	4.5	21.1	8 19	22 34.53	-5 49.7	1.675	2.673	4.6	19.8
8 29	22 26.62	-16 50.4	1.473	2.478	3.1	21.0	8 29	22 26.86	-6 50.3	1.667	2.676	1.0	19.5
9 8	22 16.55	-17 13.2	1.496	2.477	6.8	21.3	9 8	22 19.27	-7 52.4	1.685	2.679	4.5	19.8
9 18	22 7.80	-17 21.9	1.543	2.476	11.0	21.5	9 18	22 12.67	-8 50.0	1.730	2.682	8.6	20.0
9 28	22 1.33	-17 14.8	1.614	2.475	14.7	21.7	9 28	22 7.83	-9 37.7	1.800	2.686	12.2	20.3
<b>507940</b>	2015 AS <sub>196</sub>		8 28.2 89°14	0°5/27.8	17		<b>435157</b>	2007 LT <sub>6</sub>		8 28.2 348°24	13°2/8.9	18	
7 20	22 56.06	-8 41.4	1.572	2.405	17.2	21.6	7 20	22 37.13	+16 42.4	1.136	1.918	25.4	19.9
7 30	22 51.76	-9 2.4	1.510	2.420	13.5	21.4	7 30	22 38.09	+18 3.4	1.058	1.901	23.0	19.6
8 9	22 44.96	-9 36.4	1.467	2.434	9.2	21.2	8 9	22 36.41	+18 49.4	0.992	1.886	20.2	19.4
8 19	22 36.27	-10 18.8	1.447	2.449	4.4	20.9	8 19	22 32.43	+18 52.1	0.941	1.873	17.1	19.1
8 29	22 26.68	-11 3.6	1.453	2.463	0.8	20.7	8 29	22 27.04	+18 6.6	0.907	1.862	14.5	19.0
9 8	22 17.39	-11 44.3	1.486	2.477	5.5	21.1	9 8	22 21.53	+16 34.8	0.891	1.854	13.2	18.9
9 18	22 9.47	-12 15.5	1.545	2.491	9.9	21.4	9 18	22 17.28	+14 26.1	0.894	1.848	14.1	18.9
9 28	22 3.78	-12 34.1	1.627	2.504	13.8	21.6	9 28	22 15.53	+11 56.4	0.916	1.844	16.8	19.0
<b>108590</b>	2001 MM <sub>12</sub>		8 28.2 84°82	4°8/31.2	18		<b>511160</b>	2013 YO <sub>41</sub>		8 28.2 165°31	1°5/29.6	17	
7 20	22 59.15	+0 41.9	1.587	2.380	18.8	19.6	7 20	22 53.44	-2 35.4	2.195	2.98		

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>382518</b>	2001 <i>SG</i> <sub>156</sub>		8 28.2 309°14	5°1/31.9	18		<b>129110</b>	2004 <i>XM</i> <sub>40</sub>		8 28.2 16°89	2°4/26.9	18	
7 20	22 48.31	+ 3 23.2	1.467	2.275	19.4	20.8	7 20	22 51.47	-12 37.1	0.957	1.841	21.7	18.7
7 30	22 46.35	+ 3 41.3	1.370	2.253	16.4	20.5	7 30	22 49.62	-12 51.2	0.906	1.846	17.0	18.4
8 9	22 41.81	+ 3 36.3	1.289	2.232	12.6	20.2	8 9	22 44.28	-13 18.9	0.872	1.853	11.5	18.1
8 19	22 35.02	+ 3 6.6	1.229	2.211	8.5	20.0	8 19	22 36.19	-13 53.5	0.856	1.860	5.6	17.9
8 29	22 26.81	+ 2 13.6	1.191	2.190	5.3	19.7	8 29	22 26.77	-14 25.8	0.861	1.869	2.8	17.7
9 8	22 18.35	+ 1 3.0	1.178	2.170	6.4	19.7	9 8	22 17.78	-14 47.1	0.889	1.880	8.0	18.1
9 18	22 10.92	- 0 16.8	1.188	2.150	10.5	19.9	9 18	22 10.80	-14 52.2	0.937	1.891	13.5	18.4
9 28	22 5.67	- 1 35.8	1.221	2.131	15.0	20.1	9 28	22 6.91	-14 38.7	1.003	1.904	18.3	18.8
<b>403980</b>	2012 <i>BX</i> <sub>103</sub>		8 28.2 121°62	4°1/22.8	18		<b>244900</b>	2003 <i>WC</i> <sub>82</sub>		8 28.2 307°73	3°5/31.7	17	
7 20	22 50.06	-20 34.3	2.624	3.463	10.9	21.7	7 20	22 49.90	+ 2 4.0	2.369	3.143	13.9	20.5
7 30	22 46.23	-21 49.4	2.560	3.474	8.5	21.5	7 30	22 46.31	+ 2 21.1	2.274	3.137	11.5	20.3
8 9	22 40.79	-23 7.0	2.520	3.485	6.0	21.4	8 9	22 41.00	+ 2 24.3	2.199	3.132	8.7	20.1
8 19	22 34.15	-24 21.4	2.507	3.495	4.3	21.3	8 19	22 34.34	+ 2 13.8	2.148	3.126	5.8	19.9
8 29	22 26.91	-25 27.2	2.523	3.505	4.6	21.3	8 29	22 26.93	+ 1 51.1	2.124	3.120	3.6	19.8
9 8	22 19.78	-26 19.5	2.567	3.515	6.6	21.5	9 8	22 19.51	+ 1 19.4	2.127	3.115	4.4	19.8
9 18	22 13.42	-26 55.8	2.638	3.524	8.9	21.6	9 18	22 12.80	+ 0 42.6	2.158	3.110	7.1	20.0
9 28	22 8.42	-27 15.0	2.732	3.533	11.1	21.8	9 28	22 7.49	+ 0 5.2	2.215	3.105	10.1	20.1
<b>382625</b>	2002 <i>PC</i> <sub>130</sub>		8 28.2 339°64	21°0/17.7	14	C	<b>327650</b>	2006 <i>QM</i> <sub>28</sub>		8 28.2 352°93	1°4/29.1	18	
7 20	22 54.22	- 3 8.9	0.734	1.613	27.1	20.0	7 20	22 47.85	- 5 32.2	1.074	1.940	21.3	20.0
7 30	22 54.64	+ 2 3.6	0.630	1.554	24.5	19.5	7 30	22 46.59	- 5 25.1	1.006	1.933	17.1	19.8
8 9	22 50.56	+ 8 20.8	0.544	1.497	22.0	19.0	8 9	22 42.21	- 5 38.0	0.955	1.928	12.1	19.5
8 19	22 41.13	+15 41.9	0.477	1.443	21.1	18.6	8 19	22 35.25	- 6 8.8	0.922	1.924	6.4	19.1
8 29	22 26.08	+23 43.1	0.432	1.392	23.4	18.4	8 29	22 26.84	- 6 51.5	0.912	1.921	1.4	18.8
9 8	22 6.41	+31 36.4	0.407	1.345	28.8	18.4	9 8	22 18.53	- 7 37.7	0.923	1.920	6.3	19.1
9 18	21 44.72	+38 27.9	0.400	1.305	35.3	18.4	9 18	22 11.81	- 8 18.5	0.956	1.919	12.0	19.4
9 28	21 25.15	+43 50.2	0.405	1.270	41.3	18.6	9 28	22 7.87	- 8 47.0	1.008	1.921	17.1	19.7
<b>368864</b>	2006 <i>PT</i> <sub>31</sub>		8 28.2 43°24	1°9/29.4	17		<b>387961</b>	2005 <i>GB</i> <sub>109</sub>		8 28.2 118°12	1°3/29.5	18	
7 20	22 54.55	- 4 26.6	1.113	1.961	21.8	20.4	7 20	22 51.14	- 2 46.1	2.120	2.921	14.4	21.6
7 30	22 51.37	- 4 18.4	1.064	1.980	17.4	20.1	7 30	22 47.36	- 3 10.4	2.043	2.931	11.5	21.4
8 9	22 45.06	- 4 30.5	1.032	1.998	12.2	19.9	8 9	22 41.72	- 3 49.2	1.987	2.941	8.1	21.2
8 19	22 36.42	- 4 59.9	1.019	2.018	6.5	19.7	8 19	22 34.67	- 4 39.8	1.955	2.950	4.4	21.0
8 29	22 26.72	- 5 40.5	1.030	2.039	1.9	19.4	8 29	22 26.91	- 5 38.1	1.951	2.959	1.3	20.8
9 8	22 17.52	- 6 23.9	1.064	2.060	6.0	19.8	9 8	22 19.26	- 6 38.5	1.975	2.968	4.0	21.0
9 18	22 10.15	- 7 2.7	1.121	2.081	11.1	20.1	9 18	22 12.50	- 7 35.7	2.026	2.977	7.6	21.2
9 28	22 5.56	- 7 30.9	1.199	2.103	15.7	20.5	9 28	22 7.33	- 8 24.9	2.103	2.985	10.9	21.5
<b>285356</b>	1999 <i>RS</i> <sub>233</sub>		8 28.2 327°96	7°6/22.9	17		<b>120052</b>	2003 <i>BD</i> <sub>67</sub>		8 28.2 163°55	0°1/28.1	18	
7 20	22 50.32	-21 10.3	1.156	2.041	18.7	19.7	7 20	22 54.83	- 7 33.0	1.948	2.765	15.0	20.7
7 30	22 48.71	-22 22.0	1.085	2.025	14.9	19.4	7 30	22 50.48	- 7 56.8	1.869	2.770	11.8	20.5
8 9	22 43.79	-23 41.0	1.033	2.009	10.9	19.2	8 9	22 43.98	- 8 32.7	1.810	2.773	8.1	20.3
8 19	22 36.07	-24 56.4	1.001	1.995	7.9	19.0	8 19	22 35.83	- 9 17.2	1.776	2.777	4.0	20.0
8 29	22 26.73	-25 55.3	0.992	1.981	8.4	18.9	8 29	22 26.81	-10 5.4	1.770	2.780	0.4	19.7
9 8	22 17.41	-26 27.3	1.004	1.968	11.9	19.1	9 8	22 17.89	-10 51.5	1.791	2.782	4.7	20.1
9 18	22 9.75	-26 27.4	1.036	1.956	16.3	19.3	9 18	22 10.00	-11 30.7	1.840	2.784	8.7	20.3
9 28	22 5.06	-25 56.1	1.086	1.946	20.4	19.5	9 28	22 3.93	-11 59.2	1.914	2.785	12.3	20.6
<b>345526</b>	2006 <i>LT</i> <sub>3</sub>		8 28.2 355°80	0°3/27.9	18		<b>64333</b>	2001 <i>UT</i> <sub>58</sub>		8 28.2 182°43	1°9/30.1	18	
7 20	22 49.21	- 6 28.1	1.752	2.583	15.8	20.3	7 20	22 50.37	- 1 30.5	2.239	3.033	14.0	20.2
7 30	22 46.36	- 7 11.7	1.673	2.583	12.5	20.1	7 30	22 46.74	- 1 42.8	2.151	3.033	11.3	20.0
8 9	22 41.33	- 8 11.1	1.615	2.582	8.5	19.9	8 9	22 41.31	- 2 9.2	2.084	3.033	8.1	19.8
8 19	22 34.57	- 9 22.0	1.580	2.582	4.1	19.6	8 19	22 34.49	- 2 48.1	2.041	3.033	4.7	19.6
8 29	22 26.89	-10 38.0	1.572	2.581	0.6	19.4	8 29	22 26.93	- 3 36.2	2.026	3.033	1.9	19.4
9 8	22 19.27	-11 51.5	1.590	2.581	5.1	19.7	9 8	22 19.40	- 4 28.8	2.039	3.032	3.9	19.5
9 18	22 12.67	-12 55.7	1.635	2.581	9.4	19.9	9 18	22 12.66	- 5 20.8	2.080	3.031	7.3	19.7
9 28	22 7.92	-13 45.4	1.703	2.582	13.2	20.2	9 28	22 7.41	- 6 7.7	2.146	3.031	10.6	19.9
<b>79708</b>	1998 <i>SP</i> <sub>101</sub>		8 28.2 332°30	0°7/27.7	18		<b>254002</b>	2004 <i>FW</i> <sub>4</sub>		8 28.2 350°98	18°7/24.7	17	
7 20	22 49.79	- 9 48.6	1.202	2.067	19.5	19.1	7 20	23 22.39	-43 7.4	0.828	1.687	26.5	19.4
7 30	22 47.99	- 9 53.2	1.122	2.052	15.5	18.8	7 30	23 16.16	-43 49.3	0.782	1.681	23.7	19.2
8 9	22 43.14	-10 12.5	1.061	2.037	10.7	18.4	8 9	23 3.43	-44 3.7	0.748	1.677	20.9	19.0
8 19	22 35.72	-10 42.8	1.019	2.023	5.2	18.1	8 19	22 45.65	-43 29.1	0.730	1.674	19.1	18.9
8 29	22 26.78	-11 17.4	1.001	2.010	1.1	17.8	8 29	22 25.97	-41 49.4	0.729	1.672	18.9	18.9
9 8	22 17.78	-11 48.6	1.005	1.998	6.8	18.1	9 8	22 8.19	-39 4.9	0.747	1.671	20.7	19.0
9 18	22 10.23	-12 9.4	1.031	1.988	12.4	18.4	9 18	21 55.04	-35 31.2	0.782	1.671	23.7	19.2
9 28	22 5.35	-12 15.2	1.078	1.978	17.3	18.7	9 28	21 47.68	-31 30.3	0.834	1.672	26.9	19.4
<b>510182</b>	2011 <i>BB</i> <sub>102</sub>		8 28.2 226°85	0°1/28.3	17		<b>242572</b>	2005 <i>GY</i> <sub>7</sub>		8 28.2 45°28	6°4/3.8	18	
7 20	22 55.01	- 7 17.6	1.808	2.628	15.8	22.5	7 20	22 48.36	+10 8.4	1.746	2.504	18.6	20.4
7 30	22 50.93	- 7 34.6	1.718	2.621	12.6	22.3	7 30	22 45.63	+10 17.3	1.674	2.516	15.9	20.2
8 9	22 44.49	- 8 4.8	1.650	2.613	8.7	22.1	8 9	22 40.78	+10 0.9	1.618	2.528	12.7	20.0
8 19	22 36.16	- 8 45.1	1.605	2.605	4.3	21.8	8 19	22 34.28	+ 9 18.3	1.583	2.540	9.4	19.8
8 29	22 26.75	- 9 30.5	1.587	2.596	0.4	21.5	8 29	22 26.95	+ 8 11.8	1.572	2.553	6.9	19.7
9 8	22 17.32	-10 14.9	1.596	2.587	5.0	21.8	9 8	22 19.75	+ 6 47.3	1.586	2.566	6.6	19.7
9 18	22 8.93	-10 53.0	1.632	2.578	9.5	22.0	9 18	22 13.59	+ 5 12.9	1.626	2.580	8.9	19.9
9 28	22 2.50	-11 20.4	1.691	2.568	13.4	22.3	9 28	22 9.27	+ 3 37.6	1.691	2.593	11.9	20.1
<b>420788</b>	2013 <i>GB</i> <sub>97</sub>		8 28.2 25°78	3°8/30.9	17		<b>252147</b>						

EPHEMERIDES

8 28.2

8 28.2

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>487062</b>	2014 <i>OJ</i> <sub>89</sub>		8 28.2 314°43	2°1/25.8	18		<b>449726</b>	2014 <i>NP</i> <sub>19</sub>		8 28.2 227°42	4°1/2.4	18	
7 20	22 46.36	-10 32.1	2.091	2.930	13.3	20.8	7 20	22 47.97	+ 7 6.2	2.674	3.416	13.2	21.4
7 30	22 43.89	-11 44.9	2.001	2.917	10.4	20.6	7 30	22 44.63	+ 7 4.2	2.574	3.411	11.1	21.2
8 9	22 39.55	-13 10.6	1.933	2.905	7.0	20.4	8 9	22 39.78	+ 6 46.0	2.494	3.405	8.7	21.0
8 19	22 33.71	-14 44.0	1.891	2.893	3.4	20.1	8 19	22 33.74	+ 6 11.6	2.437	3.400	6.2	20.9
8 29	22 27.01	-16 18.0	1.876	2.881	2.4	20.0	8 29	22 27.06	+ 5 22.8	2.408	3.394	4.4	20.7
9 8	22 20.26	-17 45.2	1.889	2.870	5.7	20.2	9 8	22 20.35	+ 4 22.8	2.406	3.388	4.5	20.8
9 18	22 14.30	-18 59.2	1.929	2.858	9.4	20.4	9 18	22 14.25	+ 3 16.3	2.432	3.382	6.6	20.9
9 28	22 9.86	-19 55.7	1.994	2.847	12.6	20.6	9 28	22 9.36	+ 2 8.4	2.485	3.375	9.1	21.0
<b>296607</b>	2009 <i>RV</i> <sub>70</sub>		8 28.2 316°85	1°0/27.6	18		<b>7576</b>	1990 <i>BN</i>		8 28.2 198°26	0°2/27.9	18	
7 20	22 50.77	- 9 51.1	1.318	2.176	18.5	20.6	7 20	22 50.05	- 6 17.6	2.244	3.057	13.4	17.7
7 30	22 48.60	-10 4.3	1.230	2.155	14.8	20.3	7 30	22 46.54	- 7 3.9	2.156	3.055	10.5	17.5
8 9	22 43.51	-10 32.2	1.161	2.135	10.2	20.0	8 9	22 41.22	- 8 3.3	2.090	3.053	7.2	17.3
8 19	22 35.93	-11 11.0	1.113	2.116	5.0	19.7	8 19	22 34.49	- 9 12.2	2.050	3.051	3.5	17.0
8 29	22 26.81	-11 53.9	1.088	2.097	1.3	19.4	8 29	22 27.00	-10 25.4	2.038	3.048	0.5	16.8
9 8	22 17.53	-12 33.1	1.087	2.080	6.7	19.7	9 8	22 19.52	-11 36.8	2.055	3.045	4.3	17.1
9 18	22 9.53	-13 1.5	1.110	2.062	12.1	19.9	9 18	22 12.83	-12 41.1	2.099	3.041	7.9	17.3
9 28	22 4.07	-13 14.1	1.153	2.046	17.0	20.2	9 28	22 7.62	-13 33.8	2.169	3.037	11.2	17.5
<b>216953</b>	1999 <i>VS</i> <sub>172</sub>		8 28.2 327°28	1°8/29.7	18		<b>324256</b>	2006 <i>BZ</i> <sub>210</sub>		8 28.2 242°48	1°2/29.5	18	
7 20	22 49.44	- 3 58.6	1.885	2.703	15.4	19.8	7 20	22 51.99	- 4 21.8	2.847	3.635	11.5	21.4
7 30	22 46.50	- 3 51.0	1.791	2.688	12.4	19.6	7 30	22 47.67	- 4 22.6	2.740	3.620	9.2	21.2
8 9	22 41.44	- 3 56.8	1.716	2.674	8.9	19.3	8 9	22 41.81	- 4 32.6	2.655	3.605	6.5	21.0
8 19	22 34.68	- 4 14.7	1.665	2.660	5.0	19.1	8 19	22 34.74	- 4 50.3	2.596	3.589	3.6	20.8
8 29	22 26.93	- 4 41.8	1.639	2.647	1.8	18.8	8 29	22 26.98	- 5 13.7	2.565	3.573	1.2	20.6
9 8	22 19.13	- 5 13.6	1.640	2.634	4.5	19.0	9 8	22 19.16	- 5 39.7	2.565	3.557	3.3	20.7
9 18	22 12.21	- 5 45.1	1.667	2.622	8.6	19.2	9 18	22 11.92	- 6 5.2	2.593	3.540	6.4	20.9
9 28	22 7.02	- 6 11.7	1.718	2.611	12.3	19.4	9 28	22 5.86	- 6 27.2	2.648	3.523	9.2	21.1
<b>516303</b>	2016 <i>XQ</i> <sub>10</sub>		8 28.2 256°26	1°8/26.4	18		<b>476973</b>	2008 <i>YF</i> <sub>21</sub>		8 28.2 316°26	6°2/1.1	18	
7 20	22 50.81	-12 15.8	2.207	3.038	13.0	21.8	7 20	22 52.31	+ 3 7.6	1.577	2.372	18.8	20.5
7 30	22 47.20	-12 54.5	2.119	3.031	10.1	21.6	7 30	22 49.37	+ 4 6.8	1.478	2.352	16.0	20.3
8 9	22 41.70	-13 41.6	2.054	3.023	6.8	21.4	8 9	22 43.83	+ 4 49.5	1.397	2.331	12.5	20.0
8 19	22 34.72	-14 33.2	2.014	3.016	3.4	21.1	8 19	22 36.05	+ 5 12.8	1.337	2.311	9.0	19.8
8 29	22 26.94	-15 24.0	2.002	3.008	2.0	21.0	8 29	22 26.85	+ 5 15.8	1.301	2.292	6.4	19.6
9 8	22 19.16	-16 8.7	2.018	3.000	5.2	21.2	9 8	22 17.40	+ 5 0.8	1.289	2.273	7.2	19.6
9 18	22 12.22	-16 43.0	2.060	2.992	8.7	21.4	9 18	22 8.94	+ 4 32.3	1.301	2.255	10.5	19.7
9 28	22 6.83	-17 4.2	2.127	2.984	11.8	21.6	9 28	22 2.62	+ 3 57.2	1.336	2.238	14.5	19.9
<b>121631</b>	Josephnuth		8 28.2 260°50	2°3/25.4	18		<b>335366</b>	2005 <i>SK</i> <sub>145</sub>		8 28.2 33°06	1°5/26.4	18	
7 20	22 48.60	-13 0.5	2.423	3.256	11.9	19.9	7 20	22 47.92	-12 58.6	2.579	3.410	11.3	20.9
7 30	22 45.35	-14 3.1	2.331	3.244	9.3	19.7	7 30	22 44.53	-13 29.0	2.508	3.419	8.8	20.8
8 9	22 40.39	-15 14.5	2.263	3.233	6.2	19.5	8 9	22 39.63	-14 5.3	2.459	3.429	5.9	20.6
8 19	22 34.08	-16 30.1	2.220	3.221	3.3	19.3	8 19	22 33.63	-14 44.0	2.437	3.439	2.9	20.4
8 29	22 27.00	-17 44.3	2.206	3.209	2.6	19.2	8 29	22 27.09	-15 21.2	2.443	3.449	1.8	20.3
9 8	22 19.88	-18 51.1	2.221	3.197	5.4	19.4	9 8	22 20.66	-15 52.9	2.477	3.459	4.4	20.6
9 18	22 13.46	-19 45.9	2.263	3.184	8.6	19.6	9 18	22 14.97	-16 16.3	2.538	3.470	7.3	20.8
9 28	22 8.41	-20 25.7	2.330	3.172	11.5	19.7	9 28	22 10.56	-16 29.3	2.625	3.481	9.9	20.9
<b>204116</b>	2003 <i>WQ</i> <sub>156</sub>		8 28.2 286°15	13°4/9.7	18		<b>178153</b>	2006 <i>TR</i> <sub>97</sub>		8 28.2 2°57	0°2/28.3	18	
7 20	22 55.95	-43 21.7	1.851	2.682	15.1	19.7	7 20	22 43.51	- 9 38.1	0.816	1.716	23.0	18.3
7 30	22 52.75	-45 52.9	1.803	2.670	13.9	19.6	7 30	22 43.83	- 9 12.4	0.764	1.712	18.3	18.0
8 9	22 46.37	-48 11.3	1.778	2.657	13.4	19.5	8 9	22 40.62	- 9 3.1	0.727	1.710	12.7	17.7
8 19	22 37.32	-50 4.8	1.775	2.644	13.7	19.5	8 19	22 34.56	- 9 7.1	0.707	1.712	6.3	17.4
8 29	22 26.70	-51 23.2	1.793	2.632	14.9	19.6	8 29	22 27.00	- 9 18.1	0.706	1.715	0.5	17.0
9 8	22 16.07	-52 1.3	1.831	2.619	16.5	19.7	9 8	22 19.75	- 9 28.3	0.724	1.722	7.1	17.5
9 18	22 6.98	-51 59.4	1.885	2.607	18.2	19.8	9 18	22 14.44	- 9 31.0	0.762	1.731	13.2	17.9
9 28	22 0.70	-51 21.7	1.954	2.594	19.7	19.9	9 28	22 12.26	- 9 21.1	0.817	1.743	18.5	18.2
<b>223183</b>	2003 <i>AE</i> <sub>40</sub>		8 28.2 216°48	2°0/29.9	18		<b>11134</b>	České Budějovice		8 28.2 26°28	0°4/28.6	18	
7 20	22 53.46	- 1 40.0	1.979	2.775	15.5	20.9	7 20	22 50.20	- 5 52.4	2.028	2.846	14.4	18.8
7 30	22 49.51	- 1 51.6	1.885	2.769	12.5	20.7	7 30	22 46.81	- 6 14.7	1.947	2.847	11.4	18.6
8 9	22 43.43	- 2 19.3	1.812	2.762	9.1	20.5	8 9	22 41.48	- 6 49.8	1.886	2.848	7.9	18.4
8 19	22 35.64	- 3 1.3	1.762	2.754	5.2	20.3	8 19	22 34.64	- 7 35.0	1.850	2.849	4.0	18.2
8 29	22 26.87	- 3 54.2	1.739	2.746	2.0	20.0	8 29	22 27.01	- 8 25.5	1.841	2.850	0.5	17.9
9 8	22 18.06	- 4 52.3	1.745	2.738	4.4	20.2	9 8	22 19.44	- 9 16.1	1.859	2.852	4.3	18.2
9 18	22 10.15	- 5 49.7	1.777	2.729	8.4	20.4	9 18	22 12.78	-10 1.6	1.904	2.853	8.2	18.4
9 28	22 3.98	- 6 40.8	1.835	2.719	12.1	20.6	9 28	22 7.75	-10 37.7	1.974	2.854	11.6	18.7
<b>89785</b>	2002 <i>AB</i> <sub>110</sub>		8 28.2 32°75	2°8/30.3	18		<b>308655</b>	2006 <i>BT</i> <sub>91</sub>		8 28.2 338°90	2°3/29.3	18	
7 20	22 54.13	- 2 43.4	1.793	2.600	16.5	18.9	7 20	22 56.07	- 7 27.2	1.313	2.155	19.5	19.8
7 30	22 50.01	- 2 11.0	1.722	2.610	13.3	18.7	7 30	22 52.70	- 6 31.6	1.230	2.142	15.8	19.6
8 9	22 43.68	- 1 51.9	1.671	2.622	9.7	18.5	8 9	22 46.26	- 5 45.7	1.165	2.130	11.3	19.3
8 19	22 35.69	- 1 45.7	1.643	2.633	5.8	18.3	8 19	22 37.26	- 5 9.3	1.121	2.119	6.2	19.0
8 29	22 26.87	- 1 50.2	1.641	2.645	2.9	18.2	8 29	22 26.77	- 4 41.0	1.101	2.109	2.3	18.7
9 8	22 18.25	- 2 1.8	1.666	2.658	4.8	18.3	9 8	22 16.25	- 4 18.2	1.105	2.100	6.0	18.9
9 18	22 10.76	- 2 16.4	1.717	2.671	8.4	18.6	9 18	22 7.16	- 3 57.7	1.134	2.092	11.2	19.2
9 28	22 5.18	- 2 29.6	1.792	2.684	11.9	18.8	9 28	22 0.74	- 3 36.0	1.183	2.086	15.9	19.4
<b>430693</b>	2003 <i>YN</i> <sub>39</sub>		8 28.2 204°65	3°1/30.8	18		<b>75656</b>	2000 <i>AS</i> <sub>68</sub>		8 28.2 277°20	3°4/25.4</		

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>465009</b>	2006 <i>GN</i> <sub>33</sub>		8 28.2 55°78	1.7°/29.5	17		<b>293948</b>	2007 <i>TF</i> <sub>24</sub>		8 28.2 346°63	5°1/	2.4	18
7 20	22 52.18	- 1 53.2	1.191	2.030	21.2	20.9	7 20	22 45.79	+ 7 36.2	1.654	2.435	18.6	20.2
7 30	22 49.42	- 2 21.1	1.138	2.048	17.0	20.6	7 30	22 43.92	+ 7 20.9	1.567	2.431	15.7	20.0
8 9	22 43.76	- 3 13.4	1.101	2.065	12.0	20.4	8 9	22 39.84	+ 6 38.4	1.498	2.427	12.3	19.7
8 19	22 35.87	- 4 26.0	1.085	2.083	6.4	20.2	8 19	22 33.99	+ 5 28.7	1.450	2.423	8.5	19.5
8 29	22 26.93	- 5 50.6	1.093	2.102	1.7	19.9	8 29	22 27.13	+ 3 55.0	1.426	2.420	5.5	19.3
9 8	22 18.35	- 7 16.4	1.125	2.120	5.7	20.2	9 8	22 20.27	+ 2 4.8	1.428	2.418	5.8	19.3
9 18	22 11.41	- 8 33.7	1.180	2.139	10.9	20.6	9 18	22 14.39	+ 0 8.1	1.455	2.416	9.0	19.5
9 28	22 7.06	- 9 34.9	1.258	2.158	15.3	20.9	9 28	22 10.39	- 1 44.7	1.507	2.414	12.8	19.8
<b>350905</b>	2002 <i>RG</i> <sub>97</sub>		8 28.2 349°39	5°3/	1.7	18	<b>185862</b>	2000 <i>GO</i> <sub>163</sub>		8 28.2 94°38	4°5/	23.8	18
7 20	22 42.32	+ 4 44.0	1.322	2.143	20.5	19.7	7 20	22 52.85	- 15 19.8	1.623	2.475	15.9	19.9
7 30	22 41.72	+ 4 51.9	1.242	2.132	17.2	19.4	7 30	22 49.38	- 17 0.3	1.566	2.490	12.2	19.7
8 9	22 38.63	+ 4 32.0	1.177	2.123	13.3	19.2	8 9	22 43.46	- 18 50.5	1.531	2.504	8.4	19.5
8 19	22 33.47	+ 3 43.5	1.132	2.114	9.1	18.9	8 19	22 35.69	- 20 41.2	1.522	2.519	5.1	19.3
8 29	22 27.12	+ 2 29.1	1.109	2.108	5.7	18.7	8 29	22 27.00	- 22 22.0	1.538	2.533	5.2	19.4
9 8	22 20.73	+ 0 56.9	1.109	2.103	6.3	18.7	9 8	22 18.53	- 23 43.9	1.582	2.547	8.3	19.6
9 18	22 15.51	- 0 42.7	1.132	2.099	10.2	18.9	9 18	22 11.35	- 24 41.9	1.650	2.560	11.9	19.9
9 28	22 12.47	- 2 18.1	1.178	2.097	14.6	19.2	9 28	22 6.30	- 25 14.4	1.740	2.574	15.1	20.1
<b>55088</b>	2001 <i>QV</i> <sub>120</sub>		8 28.2 301°81	1°3/	27.1	18	<b>62253</b>	2000 <i>SM</i> <sub>83</sub>		8 28.2 252°70	1°9/	30.4	18
7 20	22 53.14	- 11 40.9	1.911	2.744	14.6	19.3	7 20	22 48.38	- 0 12.3	2.260	3.052	13.9	19.9
7 30	22 49.31	- 11 59.3	1.827	2.739	11.4	19.1	7 30	22 45.26	- 0 39.4	2.166	3.046	11.3	19.7
8 9	22 43.30	- 12 26.6	1.765	2.734	7.8	18.9	8 9	22 40.39	- 1 22.4	2.093	3.040	8.2	19.5
8 19	22 35.58	- 12 58.8	1.728	2.730	3.8	18.6	8 19	22 34.14	- 2 19.8	2.044	3.034	4.8	19.3
8 29	22 26.95	- 13 31.0	1.717	2.725	1.6	18.5	8 29	22 27.13	- 3 27.6	2.022	3.029	2.0	19.1
9 8	22 18.37	- 13 58.0	1.733	2.720	5.3	18.7	9 8	22 20.11	- 4 40.5	2.029	3.023	3.9	19.2
9 18	22 10.81	- 14 15.8	1.776	2.716	9.3	18.9	9 18	22 13.81	- 5 52.7	2.063	3.016	7.3	19.4
9 28	22 5.08	- 14 21.7	1.842	2.711	12.8	19.1	9 28	22 8.94	- 6 58.7	2.124	3.010	10.6	19.6
<b>317975</b>	2003 <i>YC</i> <sub>116</sub>		8 28.2 132°00	5°8/	21.7	18	<b>327630</b>	2006 <i>MC</i> <sub>3</sub>		8 28.2 40°37	0°7/	29.1	18
7 20	22 53.14	- 23 38.2	2.187	3.033	12.6	20.5	7 20	22 46.87	- 3 37.4	2.482	3.286	12.5	21.0
7 30	22 49.06	- 25 3.7	2.127	3.042	9.9	20.3	7 30	22 43.85	- 4 14.0	2.397	3.289	9.9	20.8
8 9	22 42.97	- 26 30.1	2.090	3.050	7.4	20.2	8 9	22 39.28	- 5 3.4	2.335	3.292	6.9	20.6
8 19	22 35.36	- 27 50.2	2.080	3.059	5.8	20.1	8 19	22 33.54	- 6 2.7	2.298	3.295	3.6	20.4
8 29	22 26.98	- 28 56.9	2.096	3.067	6.3	20.1	8 29	22 27.19	- 7 8.1	2.289	3.298	0.7	20.2
9 8	22 18.74	- 29 44.7	2.140	3.074	8.4	20.3	9 8	22 20.88	- 8 14.4	2.308	3.301	3.5	20.4
9 18	22 11.52	- 30 11.2	2.208	3.082	10.9	20.4	9 18	22 15.26	- 9 16.9	2.356	3.305	6.8	20.7
9 28	22 6.03	- 30 16.3	2.299	3.089	13.3	20.6	9 28	22 10.91	- 10 11.2	2.430	3.308	9.8	20.9
<b>128488</b>	2004 <i>PX</i> <sub>12</sub>		8 28.2 351°66	0°9/	27.4	18	<b>276480</b>	2003 <i>NO</i> <sub>1</sub>		8 28.2 357°72	12°8/	4.6	18
7 20	22 47.68	- 8 58.8	1.742	2.585	15.4	19.7	7 20	22 44.63	+ 9 16.6	1.038	1.857	25.1	19.3
7 30	22 45.23	- 9 30.7	1.663	2.580	12.1	19.5	7 30	22 44.24	+ 11 32.6	0.973	1.848	22.2	19.0
8 9	22 40.62	- 10 15.5	1.604	2.576	8.2	19.3	8 9	22 40.78	+ 13 23.6	0.922	1.841	18.9	18.8
8 19	22 34.31	- 11 9.1	1.569	2.572	3.9	19.0	8 19	22 34.71	+ 14 41.1	0.887	1.838	15.6	18.6
8 29	22 27.08	- 12 5.5	1.560	2.569	1.1	18.8	8 29	22 27.07	+ 15 19.0	0.870	1.836	13.3	18.5
9 8	22 19.90	- 12 58.1	1.577	2.567	5.3	19.1	9 8	22 19.39	+ 15 16.9	0.871	1.838	12.9	18.5
9 18	22 13.73	- 13 41.2	1.619	2.566	9.5	19.3	9 18	22 13.22	+ 14 41.1	0.891	1.842	14.7	18.6
9 28	22 9.39	- 14 10.5	1.685	2.565	13.2	19.5	9 28	22 9.85	+ 13 42.9	0.930	1.848	17.6	18.8
<b>511253</b>	2014 <i>BR</i> <sub>48</sub>		8 28.2 243°81	0°6/	28.8	18	<b>385830</b>	2006 <i>HE</i> <sub>3</sub>		8 28.2 193°14	2°9/	25.1	17
7 20	22 54.13	- 6 7.2	2.068	2.877	14.5	22.3	7 20	22 54.86	- 16 15.8	2.387	3.215	12.2	22.7
7 30	22 50.01	- 6 18.1	1.969	2.864	11.6	22.1	7 30	22 50.22	- 17 5.1	2.303	3.213	9.5	22.5
8 9	22 43.79	- 6 41.1	1.891	2.851	8.1	21.8	8 9	22 43.71	- 18 0.0	2.243	3.210	6.5	22.3
8 19	22 35.86	- 7 14.0	1.838	2.836	4.2	21.6	8 19	22 35.74	- 18 55.4	2.209	3.206	3.7	22.1
8 29	22 26.95	- 7 52.9	1.812	2.822	0.6	21.3	8 29	22 27.00	- 19 46.0	2.204	3.202	3.3	22.1
9 8	22 17.95	- 8 32.9	1.815	2.807	4.4	21.5	9 8	22 18.31	- 20 26.8	2.227	3.197	5.8	22.2
9 18	22 9.80	- 9 9.1	1.845	2.792	8.5	21.7	9 18	22 10.46	- 20 54.3	2.278	3.192	8.9	22.4
9 28	22 3.35	- 9 37.5	1.899	2.776	12.1	21.9	9 28	22 4.16	- 21 6.9	2.354	3.186	11.7	22.6
<b>226314</b>	2003 <i>DU</i> <sub>3</sub>		8 28.2 208°50	0°4/	27.9	17	<b>481754</b>	2008 <i>HK</i> <sub>69</sub>		8 28.2 51°30	6°9/	20.5	18
7 20	22 55.20	- 8 31.1	1.957	2.776	14.8	21.7	7 20	22 50.48	- 25 15.3	1.961	2.818	13.3	19.9
7 30	22 50.89	- 8 52.2	1.869	2.771	11.7	21.5	7 30	22 47.22	- 26 57.8	1.913	2.832	10.6	19.7
8 9	22 44.38	- 9 24.6	1.802	2.766	8.0	21.3	8 9	22 41.83	- 28 39.6	1.889	2.847	8.2	19.6
8 19	22 36.14	- 10 5.1	1.760	2.761	3.9	21.0	8 19	22 34.84	- 30 12.2	1.890	2.862	6.9	19.6
8 29	22 26.93	- 10 48.8	1.746	2.755	0.6	20.7	8 29	22 27.08	- 31 27.4	1.917	2.877	7.6	19.7
9 8	22 17.74	- 11 30.1	1.759	2.749	4.9	21.0	9 8	22 19.53	- 32 19.7	1.969	2.893	9.7	19.8
9 18	22 9.53	- 12 4.1	1.799	2.742	9.0	21.3	9 18	22 13.10	- 32 47.0	2.045	2.908	12.1	20.0
9 28	22 3.15	- 12 27.3	1.864	2.735	12.6	21.5	9 28	22 8.52	- 32 49.8	2.142	2.924	14.4	20.2
<b>36541</b>	2000 <i>QJ</i> <sub>95</sub>		8 28.2 146°84	0°4/	28.5	18	<b>468132</b>	2014 <i>UJ</i> <sub>99</sub>		8 28.2 298°12	2°7/	26.3	17
7 20	22 53.65	- 4 56.3	1.512	2.340	18.0	19.6	7 20	22 52.62	- 11 51.4	1.263	2.125	18.9	21.3
7 30	22 50.21	- 5 31.4	1.438	2.344	14.3	19.3	7 30	22 50.17	- 12 34.6	1.185	2.113	14.9	21.0
8 9	22 44.19	- 6 25.2	1.383	2.348	9.9	19.1	8 9	22 44.65	- 13 33.3	1.125	2.101	10.2	20.7
8 19	22 36.11	- 7 33.6	1.351	2.351	5.0	18.8	8 19	22 36.55	- 14 41.3	1.086	2.089	5.1	20.4
8 29	22 26.93	- 8 49.7	1.344	2.354	0.4	18.5	8 29	22 26.92	- 15 49.1	1.071	2.077	3.2	20.3
9 8	22 17.87	- 10 4.8	1.364	2.357	5.5	18.9	9 8	22 17.25	- 16 46.4	1.080	2.066	7.9	20.5
9 18	22 10.08	- 11 11.0	1.409	2.360	10.3	19.2	9 18	22 9.01	- 17 25.6	1.111	2.055	13.2	20.8
9 28	22 4.53	- 12 2.4	1.478	2.362	14.5	19.4	9 28	22 3.46	- 17 42.4	1.163	2.044	17.8	21.0
<b>12572</b>	Sadegh		8 28										

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>28584</b>	2000 <i>ER</i> <sub>110</sub>		8 28.2 204° 93	1° 9/26.6	18		<b>429970</b>	2013 <i>AQ</i> <sub>54</sub>		8 28.2 243° 25	2° 7/ 2.2	15	
7 20	22 54.86	-11 29.2	1.898	2.728	14.8	19.8	7 20	22 45.36	+ 5 40.0	4.718	5.442	8.1	21.4
7 30	22 50.73	-12 12.3	1.814	2.724	11.6	19.6	7 30	22 41.89	+ 5 55.8	4.613	5.438	6.8	21.3
8 9	22 44.34	-13 6.1	1.751	2.720	7.9	19.3	8 9	22 37.57	+ 6 3.6	4.531	5.435	5.3	21.2
8 19	22 36.16	-14 5.8	1.713	2.715	3.9	19.1	8 19	22 32.62	+ 6 3.5	4.475	5.431	3.9	21.1
8 29	22 26.99	-15 4.9	1.703	2.710	2.2	19.0	8 29	22 27.34	+ 5 56.0	4.447	5.428	2.8	21.0
9 8	22 17.84	-15 57.0	1.720	2.704	5.8	19.2	9 8	22 22.05	+ 5 42.4	4.448	5.424	2.9	21.0
9 18	22 9.72	-16 36.8	1.764	2.697	9.8	19.4	9 18	22 17.08	+ 5 24.4	4.479	5.420	4.1	21.1
9 28	22 3.50	-17 1.2	1.832	2.691	13.4	19.6	9 28	22 12.76	+ 5 4.0	4.537	5.417	5.6	21.2
<b>126745</b>	2002 <i>CN</i> <sub>311</sub>		8 28.2 282° 54	0° 9/28.9	18		<b>450482</b>	2005 <i>XR</i> <sub>74</sub>		8 28.2 291° 06	2° 5/30.7	18	
7 20	22 51.00	- 4 30.1	1.730	2.552	16.3	20.8	7 20	22 51.76	- 1 5.6	2.316	3.103	13.8	20.9
7 30	22 48.04	- 4 51.1	1.634	2.536	13.1	20.6	7 30	22 47.81	- 0 52.6	2.226	3.102	11.2	20.7
8 9	22 42.73	- 5 28.9	1.557	2.519	9.3	20.3	8 9	22 42.08	- 0 51.9	2.157	3.101	8.2	20.5
8 19	22 35.47	- 6 21.3	1.504	2.502	4.9	20.0	8 19	22 34.98	- 1 2.9	2.113	3.100	5.0	20.3
8 29	22 27.04	- 7 23.3	1.476	2.485	0.9	19.7	8 29	22 27.14	- 1 23.5	2.095	3.099	2.6	20.1
9 8	22 18.48	- 8 27.9	1.475	2.468	5.0	19.9	9 8	22 19.32	- 1 50.3	2.106	3.098	4.0	20.2
9 18	22 10.87	- 9 28.2	1.499	2.452	9.6	20.2	9 18	22 12.28	- 2 19.5	2.145	3.097	7.2	20.4
9 28	22 5.18	-10 18.0	1.548	2.435	13.8	20.4	9 28	22 6.69	- 2 47.0	2.209	3.096	10.2	20.6
<b>149104</b>	2002 <i>CK</i> <sub>205</sub>		8 28.2 36° 53	0° 9/27.3	18		<b>96341</b>	1997 <i>OX</i> <sub>1</sub>		8 28.2 5° 86	2° 3/29.9	18	
7 20	22 48.02	- 7 53.7	2.020	2.850	14.1	19.9	7 20	22 37.17	- 0 58.7	0.791	1.680	24.6	17.9
7 30	22 45.14	- 8 48.0	1.945	2.854	11.0	19.7	7 30	22 38.83	- 1 18.1	0.740	1.679	19.9	17.6
8 9	22 40.36	- 9 55.3	1.891	2.859	7.4	19.5	8 9	22 37.24	- 2 12.3	0.703	1.680	14.3	17.3
8 19	22 34.14	-11 11.1	1.862	2.864	3.5	19.3	8 19	22 32.98	- 3 38.0	0.683	1.684	8.0	17.0
8 29	22 27.17	-12 29.2	1.861	2.870	1.1	19.1	8 29	22 27.30	- 5 24.7	0.681	1.690	2.4	16.7
9 8	22 20.28	-13 42.7	1.887	2.875	4.8	19.4	9 8	22 21.85	- 7 16.3	0.699	1.698	6.6	17.0
9 18	22 14.28	-14 46.1	1.940	2.881	8.6	19.6	9 18	22 18.14	- 8 56.9	0.736	1.709	12.8	17.4
9 28	22 9.87	-15 35.1	2.018	2.887	11.9	19.8	9 28	22 17.32	-10 14.3	0.791	1.722	18.2	17.7
<b>479904</b>	2014 <i>HW</i> <sub>42</sub>		8 28.2 200° 78	3° 5/24.7	18		<b>220781</b>	2004 <i>TD</i> <sub>144</sub>		8 28.2 356° 43	9° 4/ 7.8	17	
7 20	22 53.32	-17 29.2	2.214	3.051	12.7	21.8	7 20	22 40.30	+16 54.7	1.539	2.282	21.3	19.8
7 30	22 49.19	-18 19.1	2.134	3.049	9.9	21.6	7 30	22 39.86	+17 13.5	1.455	2.275	18.9	19.6
8 9	22 43.09	-19 14.1	2.078	3.046	6.8	21.4	8 9	22 37.21	+16 59.0	1.386	2.270	16.1	19.4
8 19	22 35.47	-20 8.7	2.047	3.043	4.1	21.2	8 19	22 32.77	+16 7.6	1.335	2.266	13.1	19.2
8 29	22 27.06	-20 57.1	2.044	3.040	3.8	21.2	8 29	22 27.32	+14 39.2	1.303	2.263	10.5	19.0
9 8	22 18.71	-21 34.1	2.069	3.037	6.4	21.4	9 8	22 21.86	+12 39.2	1.295	2.263	9.4	19.0
9 18	22 11.28	-21 56.5	2.120	3.033	9.5	21.6	9 18	22 17.42	+10 17.8	1.310	2.263	10.6	19.0
9 28	22 5.49	-22 2.7	2.196	3.029	12.4	21.8	9 28	22 14.89	+ 7 48.3	1.349	2.266	13.3	19.2
<b>390091</b>	2012 <i>UA</i> <sub>156</sub>		8 28.2 203° 89	6° 4/22.9	18		<b>356248</b>	2009 <i>UO</i> <sub>12</sub>		8 28.2 250° 45	1° 3/30.8	17	
7 20	22 59.68	-26 30.3	1.992	2.832	13.8	20.9	7 20	22 43.04	- 0 50.1	4.578	5.347	7.7	21.9
7 30	22 54.45	-27 17.2	1.922	2.830	11.1	20.8	7 30	22 40.14	- 1 1.5	4.476	5.341	6.2	21.8
8 9	22 46.80	-28 2.1	1.873	2.828	8.5	20.6	8 9	22 36.41	- 1 20.1	4.397	5.336	4.5	21.6
8 19	22 37.32	-28 37.7	1.849	2.826	6.6	20.5	8 19	22 32.07	- 1 44.9	4.344	5.330	2.7	21.5
8 29	22 26.91	-28 57.5	1.852	2.823	6.9	20.5	8 29	22 27.40	- 2 14.4	4.321	5.325	1.4	21.4
9 8	22 16.73	-28 57.1	1.881	2.820	9.0	20.6	9 8	22 22.73	- 2 46.9	4.328	5.319	2.1	21.5
9 18	22 7.81	-28 35.4	1.935	2.817	11.8	20.8	9 18	22 18.39	- 3 20.2	4.363	5.313	3.9	21.6
9 28	22 1.00	-27 53.8	2.011	2.814	14.5	21.0	9 28	22 14.68	- 3 52.1	4.427	5.308	5.7	21.7
<b>392784</b>	2012 <i>TG</i> <sub>130</sub>		8 28.2 285° 31	1° 9/29.7	18		<b>443613</b>	2014 <i>LC</i> <sub>22</sub>		8 28.2 17° 88	4° 7/22.9	18	
7 20	22 52.34	- 3 23.7	1.779	2.592	16.3	21.5	7 20	22 48.46	-17 36.3	1.923	2.777	13.7	20.3
7 30	22 49.03	- 3 22.3	1.680	2.575	13.2	21.3	7 30	22 45.72	-19 11.5	1.854	2.779	10.6	20.1
8 9	22 43.38	- 3 36.2	1.601	2.557	9.5	21.0	8 9	22 40.91	-20 54.1	1.809	2.781	7.4	19.9
8 19	22 35.80	- 4 4.1	1.545	2.540	5.4	20.7	8 19	22 34.48	-22 36.3	1.790	2.783	5.0	19.8
8 29	22 27.03	- 4 42.7	1.515	2.523	1.9	20.4	8 29	22 27.19	-24 9.5	1.798	2.786	5.3	19.8
9 8	22 18.13	- 5 26.7	1.511	2.505	4.8	20.6	9 8	22 19.98	-25 26.0	1.832	2.789	8.0	20.0
9 18	22 10.15	- 6 10.1	1.533	2.488	9.2	20.8	9 18	22 13.74	-26 21.1	1.891	2.792	11.1	20.2
9 28	22 4.08	- 6 47.4	1.579	2.470	13.3	21.0	9 28	22 9.26	-26 53.0	1.973	2.795	14.0	20.4
<b>94613</b>	2001 <i>VQ</i> <sub>114</sub>		8 28.2 347° 95	2° 8/26.5	17		<b>110810</b>	2001 <i>UC</i> <sub>47</sub>		8 28.2 276° 17	0° 6/27.7	18	
7 20	22 52.38	-12 48.9	1.106	1.980	20.2	19.6	7 20	22 50.32	- 8 25.3	2.078	2.902	13.9	20.2
7 30	22 50.22	-13 16.7	1.040	1.975	15.9	19.3	7 30	22 46.96	- 8 57.2	1.991	2.897	10.9	20.0
8 9	22 44.77	-13 58.2	0.992	1.970	10.9	19.0	8 9	22 41.66	- 9 40.6	1.925	2.891	7.5	19.8
8 19	22 36.61	-14 46.8	0.963	1.967	5.4	18.7	8 19	22 34.83	-10 32.1	1.884	2.886	3.6	19.5
8 29	22 26.97	-15 33.2	0.957	1.964	3.2	18.6	8 29	22 27.17	-11 26.5	1.871	2.880	0.8	19.3
9 8	22 17.48	-16 7.9	0.974	1.962	8.1	18.9	9 8	22 19.51	-12 18.3	1.885	2.875	4.7	19.6
9 18	22 9.71	-16 24.6	1.012	1.961	13.5	19.2	9 18	22 12.72	-13 2.5	1.926	2.869	8.5	19.8
9 28	22 4.87	-16 20.6	1.070	1.960	18.2	19.5	9 28	22 7.53	-13 35.2	1.992	2.864	11.9	20.0
<b>166919</b>	2003 <i>FT</i> <sub>45</sub>		8 28.2 58° 04	1° 2/29.0	17		<b>288296</b>	2004 <i>BD</i> <sub>6</sub>		8 28.2 304° 67	4° 7/31.0	18	
7 20	22 54.89	- 4 41.1	1.184	2.028	21.0	20.7	7 20	22 54.66	- 0 6.4	1.426	2.239	19.6	20.7
7 30	22 51.63	- 4 51.1	1.129	2.043	16.7	20.5	7 30	22 51.44	+ 0 38.6	1.337	2.227	16.3	20.4
8 9	22 45.34	- 5 21.6	1.091	2.058	11.7	20.3	8 9	22 45.38	+ 1 6.3	1.267	2.214	12.3	20.2
8 19	22 36.72	- 6 8.6	1.074	2.073	6.1	20.0	8 19	22 36.92	+ 1 15.4	1.216	2.202	8.0	19.9
8 29	22 26.98	- 7 5.1	1.080	2.089	1.2	19.7	8 29	22 26.99	+ 1 6.7	1.190	2.191	4.8	19.7
9 8	22 17.62	- 8 2.0	1.110	2.105	5.9	20.1	9 8	22 16.91	+ 0 44.0	1.188	2.179	6.4	19.8
9 18	22 9.97	- 8 51.5	1.164	2.121	11.1	20.5	9 18	22 8.05	+ 0 13.2	1.210	2.168	10.7	20.0
9 28	22 5.03	- 9 27.5	1.239	2.137	15.7	20.8	9 28	22 1.61	- 0 18.6	1.254	2.157	15.2	20.2
<b>212196</b>	2005 <i>GR</i> <sub>117</sub>		8 28.2 275° 04	3° 1/25.6	18								

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$		
<b>92159</b>	1999 <i>XB</i> <sub>142</sub>	8 28.2 249°16' 15.2"/5.3 17								<b>450428</b>	2005 <i>UN</i> <sub>101</sub>	8 28.3 253°29' 2.7"/31.2 18			
7 20	22 59.90	+16 44.5	1.309	2.037	25.1	19.6	7 20	22 48.58	+1 33.6	2.261	3.044	14.2	21.6		
7 30	22 56.28	+19 1.5	1.225	2.027	22.8	19.4	7 30	22 45.41	+1 18.4	2.170	3.042	11.6	21.4		
8 9	22 49.23	+20 54.8	1.156	2.017	20.2	19.1	8 9	22 40.51	+0 46.9	2.101	3.041	8.6	21.2		
8 19	22 39.07	+22 14.3	1.102	2.007	17.6	18.9	8 19	22 34.25	+0 0.3	2.055	3.039	5.3	21.0		
8 29	22 26.80	+22 51.4	1.068	1.996	15.7	18.8	8 29	22 27.26	-0 58.1	2.036	3.038	2.8	20.8		
9 8	22 14.03	+22 42.8	1.054	1.985	15.2	18.7	9 8	22 20.27	-2 3.6	2.044	3.037	4.0	20.9		
9 18	22 2.57	+21 52.4	1.060	1.974	16.6	18.8	9 18	22 14.04	-3 10.5	2.081	3.035	7.2	21.1		
9 28	21 54.04	+20 31.5	1.085	1.963	19.1	18.9	9 28	22 9.23	-4 13.4	2.143	3.034	10.3	21.3		
<b>158782</b>	2003 <i>SB</i> <sub>97</sub>	8 28.2 250°50' 6.2"/5.0 18								<b>117283</b>	2004 <i>TQ</i> <sub>168</sub>	8 28.3 345°45' 0.8"/27.5 18			
7 20	22 48.11	+13 30.0	2.653	3.353	14.2	20.1	7 20	22 48.69	-8 57.0	2.023	2.854	14.0	19.6		
7 30	22 44.87	+13 46.7	2.550	3.346	12.4	19.9	7 30	22 45.73	-9 30.9	1.940	2.851	11.0	19.4		
8 9	22 40.05	+13 45.1	2.466	3.338	10.3	19.7	8 9	22 40.83	-10 16.1	1.879	2.848	7.4	19.2		
8 19	22 34.00	+13 23.8	2.403	3.331	8.2	19.6	8 19	22 34.44	-11 9.0	1.843	2.845	3.6	18.9		
8 29	22 27.25	+12 43.0	2.365	3.323	6.6	19.5	8 29	22 27.24	-12 4.2	1.833	2.842	1.0	18.7		
9 8	22 20.45	+11 45.4	2.354	3.315	6.2	19.4	9 8	22 20.08	-12 56.1	1.851	2.840	4.8	19.0		
9 18	22 14.26	+10 35.2	2.370	3.307	7.5	19.5	9 18	22 13.80	-13 39.5	1.895	2.838	8.6	19.2		
9 28	22 9.30	+9 18.1	2.413	3.299	9.5	19.6	9 28	22 9.12	-14 10.9	1.964	2.837	12.0	19.5		
<b>504112</b>	2006 <i>KA</i> <sub>54</sub>	8 28.2 11°52' 4.2"/31.2 17								<b>328596</b>	2009 <i>SK</i> <sub>74</sub>	8 28.3 275°42' 1.7"/30.3 18			
7 20	22 46.87	+1 2.3	1.058	1.905	22.8	21.1	7 20	22 47.38	-0 39.6	2.483	3.272	12.9	21.2		
7 30	22 45.80	+1 12.1	0.996	1.907	18.8	20.9	7 30	22 44.37	-1 8.2	2.381	3.261	10.4	21.0		
8 9	22 41.68	+0 53.6	0.950	1.910	13.9	20.6	8 9	22 39.76	-1 51.5	2.301	3.249	7.5	20.8		
8 19	22 35.09	+0 7.5	0.922	1.914	8.6	20.3	8 19	22 33.89	-2 47.7	2.247	3.238	4.4	20.6		
8 29	22 27.16	-1 1.1	0.915	1.920	4.4	20.1	8 29	22 27.29	-3 53.4	2.219	3.226	1.7	20.4		
9 8	22 19.41	-2 22.2	0.930	1.927	6.4	20.3	9 8	22 20.65	-5 3.8	2.221	3.214	3.6	20.5		
9 18	22 13.24	-3 44.0	0.967	1.935	11.4	20.6	9 18	22 14.64	-6 13.6	2.250	3.202	6.9	20.7		
9 28	22 9.79	-4 56.0	1.025	1.944	16.3	20.9	9 28	22 9.90	-7 17.8	2.306	3.191	10.0	20.9		
<b>513562</b>	2010 <i>TX</i> <sub>58</sub>	8 28.3 26°9' 2.9"/30.7 18								<b>342538</b>	2008 <i>UT</i> <sub>220</sub>	8 28.3 113°27' 0.7"/28.8 18			
7 20	22 51.01	-0 56.1	1.852	2.656	16.1	21.1	7 20	22 52.98	-5 49.3	1.808	2.628	15.8	20.9		
7 30	22 47.62	-0 42.4	1.776	2.662	13.1	20.9	7 30	22 49.28	-6 2.5	1.728	2.629	12.6	20.7		
8 9	22 42.15	-0 44.1	1.720	2.668	9.6	20.7	8 9	22 43.37	-6 29.5	1.669	2.631	8.8	20.5		
8 19	22 35.07	-1 0.4	1.687	2.675	5.8	20.5	8 19	22 35.72	-7 7.4	1.633	2.632	4.5	20.3		
8 29	22 27.17	-1 28.5	1.679	2.683	3.0	20.4	8 29	22 27.16	-7 51.6	1.624	2.634	0.7	20.0		
9 8	22 19.39	-2 3.8	1.698	2.691	4.6	20.5	9 8	22 18.67	-8 36.4	1.642	2.635	4.7	20.3		
9 18	22 12.61	-2 41.3	1.743	2.699	8.2	20.7	9 18	22 11.23	-9 16.4	1.687	2.637	8.9	20.5		
9 28	22 7.60	-3 15.7	1.813	2.708	11.7	21.0	9 28	22 5.68	-9 47.1	1.755	2.638	12.6	20.8		
<b>433496</b>	2013 <i>WK</i> <sub>33</sub>	8 28.3 331°18' 3.4"/25.7 16								<b>63864</b>	2001 <i>RX</i> <sub>107</sub>	8 28.3 249°34' 0.3"/27.9 18			
7 20	22 52.08	-14 13.3	1.402	2.263	17.4	21.3	7 20	22 53.85	-7 39.5	1.886	2.707	15.2	20.6		
7 30	22 49.36	-14 58.5	1.329	2.256	13.7	21.1	7 30	22 50.09	-8 7.9	1.789	2.693	12.1	20.3		
8 9	22 43.86	-15 55.0	1.275	2.250	9.3	20.8	8 9	22 44.05	-8 49.9	1.713	2.677	8.4	20.1		
8 19	22 36.09	-16 55.9	1.243	2.244	5.0	20.5	8 19	22 36.14	-9 42.1	1.661	2.662	4.1	19.8		
8 29	22 27.09	-17 52.6	1.235	2.239	3.8	20.5	8 29	22 27.12	-10 39.3	1.636	2.645	0.6	19.5		
9 8	22 18.16	-18 36.5	1.253	2.234	7.8	20.7	9 8	22 17.98	-11 34.9	1.638	2.629	5.1	19.8		
9 18	22 10.59	-19 2.0	1.294	2.230	12.3	20.9	9 18	22 9.77	-12 23.0	1.668	2.612	9.5	20.0		
9 28	22 5.44	-19 6.7	1.355	2.226	16.4	21.2	9 28	22 3.39	-12 58.9	1.721	2.594	13.4	20.2		
<b>237287</b>	2008 <i>XK</i> <sub>34</sub>	8 28.3 354°09' 2.3"/26.4 18								<b>516082</b>	2015 <i>TP</i> <sub>327</sub>	8 28.3 294°72' 1.1"/26.9 18			
7 20	22 53.26	-13 14.6	1.664	2.510	15.8	20.5	7 20	22 47.43	-8 18.1	2.289	3.114	12.8	20.9		
7 30	22 49.75	-13 45.3	1.589	2.508	12.4	20.2	7 30	22 44.54	-9 21.5	2.202	3.109	10.0	20.7		
8 9	22 43.80	-14 25.2	1.535	2.507	8.4	20.0	8 9	22 39.94	-10 37.2	2.137	3.105	6.7	20.5		
8 19	22 35.95	-15 9.3	1.505	2.507	4.2	19.8	8 19	22 33.99	-12 1.0	2.098	3.100	3.2	20.3		
8 29	22 27.10	-15 50.9	1.500	2.506	2.6	19.7	8 29	22 27.30	-13 27.0	2.088	3.096	1.4	20.1		
9 8	22 18.38	-16 23.8	1.522	2.506	6.3	19.9	9 8	22 20.61	-14 48.8	2.106	3.091	4.7	20.4		
9 18	22 10.84	-16 43.5	1.569	2.506	10.5	20.1	9 18	22 14.65	-16 0.7	2.152	3.087	8.2	20.6		
9 28	22 5.39	-16 47.6	1.638	2.506	14.2	20.4	9 28	22 10.09	-16 58.5	2.223	3.083	11.3	20.8		
<b>446074</b>	2013 <i>CV</i> <sub>162</sub>	8 28.3 64°41' 0.2"/28.0 15								<b>240923</b>	2006 <i>FN</i> <sub>4</sub>	8 28.3 79°83' 3.8"/1.2 16			
7 20	22 51.13	-7 55.1	2.098	2.919	13.9	21.5	7 20	22 49.81	+4 45.5	1.816	2.597	17.2	21.6		
7 30	22 47.38	-8 19.5	2.031	2.934	10.9	21.4	7 30	22 46.73	+4 24.1	1.741	2.608	14.2	21.4		
8 9	22 41.78	-8 54.6	1.985	2.949	7.4	21.2	8 9	22 41.57	+3 40.3	1.685	2.619	10.7	21.2		
8 19	22 34.82	-9 36.7	1.964	2.964	3.6	21.0	8 19	22 34.82	+2 35.2	1.651	2.631	7.0	21.0		
8 29	22 27.21	-10 21.4	1.970	2.980	0.4	20.7	8 29	22 27.24	+1 13.3	1.643	2.642	4.0	20.9		
9 8	22 19.77	-11 3.7	2.004	2.995	4.3	21.1	9 8	22 19.78	+0 18.5	1.661	2.653	4.9	20.9		
9 18	22 13.27	-11 39.4	2.065	3.010	7.9	21.3	9 18	22 13.33	+1 52.1	1.707	2.664	8.2	21.2		
9 28	22 8.37	-12 5.2	2.152	3.026	11.0	21.6	9 28	22 8.66	+3 19.7	1.778	2.675	11.7	21.4		
<b>122735</b>	2000 <i>SW</i> <sub>49</sub>	8 28.3 298°44' 0.7"/28.7 18								<b>136363</b>	2004 <i>DS</i> <sub>30</sub>	8 28.3 269°36' 2.5"/25.7 18			
7 20	22 55.17	-7 45.3	1.617	2.447	17.0	20.1	7 20	22 50.20	-12 36.5	2.017	2.855	13.7	20.3		
7 30	22 51.54	-7 33.3	1.522	2.429	13.6	19.8	7 30	22 47.05	-13 36.8	1.928	2.844	10.7	20.1		
8 9	22 45.28	-7 32.9	1.447	2.411	9.6	19.5	8 9	22 41.85	-14 47.9	1.862	2.833	7.3	19.8		
8 19	22 36.82	-7 42.1	1.394	2.393	4.9	19.2	8 19	22 35.01	-16 4.4	1.821	2.822	3.8	19.6		
8 29	22 27.03	-7 57.2	1.366	2.376	0.7	18.9	8 29	22 27.23	-17 19.6	1.807	2.811	2.9	19.5		
9 8	22 17.11	-8 13.3	1.365	2.359	5.3	19.2	9 8	22 19.41	-18 26.4	1.821	2.799	6.1	19.7		
9 18	22 8.28	-8 25.8	1.389	2.342	10.2	19.4	9 18	22 12.46	-19 19.3	1.861	2.788	9.8	19.9		
9 28	22 1.63	-8 30.4	1.436	2.325	14.6	19.6	9 28	22 7.19	-19 54.8	1.924	2.776	13.1	20.1		
<b>208160</b>	2000 <i>HF</i> <sub>69</sub>	8 28.3 177°66' 3.0"/31.9 18								<b>22907</b>	van Voorthuisen	8 28.3 322°62' 4.8"/2.1 18			
7 20	22 50.91	+3 52.4	2.681	3.435	12.9	21.2	7 20	22 47.38	+6 2.4	2.030	2.800	16.0	18.9		

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8 28.3

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>390105</b>	2012 <i>VJ</i> <sub>25</sub>		8 28.3 335°04	1°2/27.3	18		<b>98393</b>	2000 <i>UG</i> <sub>2</sub>		8 28.3 307°13	11°0/17.9	18	
7 20	22 52.03	-10 15.8	1.602	2.445	16.5	21.1	7 20	22 54.37	-31 37.5	1.522	2.386	16.1	18.3
7 30	22 48.91	-10 40.8	1.524	2.441	13.0	20.9	7 30	22 51.67	-33 22.4	1.445	2.360	13.7	18.1
8 9	22 43.34	-11 18.0	1.465	2.436	8.8	20.7	8 9	22 45.82	-35 5.7	1.388	2.334	11.7	17.9
8 19	22 35.80	-12 3.1	1.430	2.432	4.3	20.4	8 19	22 37.27	-36 35.1	1.354	2.308	11.0	17.8
8 29	22 27.18	-12 49.8	1.420	2.429	1.5	20.2	8 29	22 27.08	-37 38.1	1.342	2.282	12.1	17.8
9 8	22 18.63	-13 31.4	1.436	2.425	5.8	20.5	9 8	22 16.78	-38 6.0	1.352	2.257	14.6	17.8
9 18	22 11.25	-14 2.2	1.477	2.422	10.3	20.7	9 18	22 7.91	-37 56.0	1.382	2.232	17.6	18.0
9 28	22 5.97	-14 18.7	1.541	2.420	14.3	21.0	9 28	22 1.78	-37 10.3	1.429	2.208	20.5	18.1
<b>348010</b>	2003 <i>SJ</i> <sub>278</sub>		8 28.3	2°61	1°7/29.1	18	<b>2681</b>	Ostrovskij		8 28.3 214°01	1°8/26.3	18	
7 20	22 53.82	- 7 18.7	1.079	1.939	21.5	19.8	7 20	22 53.17	-12 48.2	2.409	3.232	12.3	17.5
7 30	22 51.34	- 6 42.8	1.014	1.938	17.3	19.5	7 30	22 48.95	-13 27.8	2.318	3.225	9.6	17.3
8 9	22 45.54	- 6 21.8	0.966	1.937	12.2	19.2	8 9	22 42.92	-14 14.8	2.251	3.218	6.5	17.1
8 19	22 37.03	- 6 14.4	0.937	1.937	6.5	18.9	8 19	22 35.47	-15 5.5	2.209	3.210	3.3	16.9
8 29	22 27.08	- 6 16.7	0.930	1.939	1.7	18.6	8 29	22 27.25	-15 54.8	2.196	3.201	2.1	16.8
9 8	22 17.33	- 6 23.1	0.946	1.942	6.3	18.9	9 8	22 19.01	-16 37.9	2.212	3.192	5.0	17.0
9 18	22 9.32	- 6 27.8	0.983	1.946	12.0	19.2	9 18	22 11.55	-17 10.9	2.255	3.183	8.3	17.2
9 28	22 4.28	- 6 25.9	1.041	1.951	16.9	19.5	9 28	22 5.56	-17 31.4	2.324	3.173	11.2	17.3
<b>510671</b>	2012 <i>UM</i> <sub>15</sub>		8 28.3 354°03	0°4/28.6	18		<b>88561</b>	2001 <i>QF</i> <sub>233</sub>		8 28.3 258°00	0°0/28.2	18	
7 20	22 47.21	- 5 17.7	1.364	2.212	18.5	21.6	7 20	22 52.10	- 7 42.3	2.198	3.014	13.5	19.7
7 30	22 45.50	- 5 46.5	1.290	2.208	14.8	21.3	7 30	22 48.32	- 8 0.3	2.102	3.002	10.7	19.5
8 9	22 41.21	- 6 35.1	1.234	2.204	10.3	21.0	8 9	22 42.61	- 8 29.0	2.027	2.989	7.4	19.2
8 19	22 34.81	- 7 39.6	1.200	2.201	5.2	20.7	8 19	22 35.37	- 9 5.8	1.977	2.977	3.7	19.0
8 29	22 27.26	- 8 53.1	1.190	2.200	0.4	20.4	8 29	22 27.26	- 9 46.6	1.954	2.964	0.3	18.7
9 8	22 19.77	-10 6.2	1.204	2.199	5.7	20.8	9 8	22 19.09	-10 26.6	1.960	2.951	4.3	19.0
9 18	22 13.53	-11 10.5	1.242	2.199	10.7	21.1	9 18	22 11.72	-11 1.4	1.993	2.938	8.1	19.2
9 28	22 9.54	-11 59.4	1.302	2.200	15.1	21.3	9 28	22 5.89	-11 27.3	2.052	2.925	11.5	19.4
<b>337971</b>	2002 <i>CS</i> <sub>80</sub>		8 28.3	78°47	0°2/28.4	16	<b>62911</b>	2000 <i>UR</i> <sub>109</sub>		8 28.3 315°22	4°7/2.2	18	
7 20	22 58.92	- 8 51.3	1.709	2.531	16.5	20.4	7 20	22 46.85	+ 6 32.0	2.000	2.770	16.2	18.9
7 30	22 53.86	- 8 43.6	1.644	2.547	13.0	20.2	7 30	22 44.44	+ 6 29.3	1.901	2.757	13.7	18.7
8 9	22 46.39	- 8 46.1	1.600	2.564	8.9	20.0	8 9	22 40.09	+ 6 5.3	1.821	2.745	10.7	18.5
8 19	22 37.15	- 8 56.0	1.580	2.580	4.4	19.7	8 19	22 34.18	+ 5 19.7	1.763	2.733	7.5	18.3
8 29	22 27.10	- 9 9.1	1.586	2.596	0.3	19.5	8 29	22 27.35	+ 4 14.6	1.730	2.722	5.0	18.1
9 8	22 17.35	- 9 21.0	1.620	2.612	4.9	19.8	9 8	22 20.45	+ 2 54.9	1.723	2.710	5.3	18.1
9 18	22 8.93	- 9 28.2	1.681	2.628	9.1	20.1	9 18	22 14.32	+ 1 27.5	1.743	2.700	8.1	18.2
9 28	22 2.65	- 9 27.8	1.765	2.644	12.8	20.4	9 28	22 9.76	+ 0 0.3	1.788	2.689	11.5	18.4
<b>279115</b>	2009 <i>HA</i> <sub>99</sub>		8 28.3 286°62	1°5/27.1	18		<b>513934</b>	2014 <i>DR</i> <sub>56</sub>		8 28.3 275°76	4°7/24.7	18	
7 20	22 51.64	- 8 45.0	1.398	2.247	18.1	20.7	7 20	22 58.07	-20 30.4	1.837	2.680	14.7	21.8
7 30	22 49.08	- 9 32.7	1.317	2.238	14.3	20.5	7 30	22 53.59	-21 5.2	1.747	2.662	11.7	21.5
8 9	22 43.75	-10 38.4	1.256	2.229	9.8	20.2	8 9	22 46.55	-21 43.2	1.677	2.644	8.3	21.3
8 19	22 36.12	-11 56.7	1.217	2.220	4.7	19.9	8 19	22 37.43	-22 18.0	1.632	2.626	5.4	21.1
8 29	22 27.16	-13 18.9	1.202	2.211	1.8	19.6	8 29	22 27.10	-22 42.8	1.614	2.607	5.1	21.0
9 8	22 18.17	-14 34.9	1.213	2.202	6.7	19.9	9 8	22 16.73	-22 51.9	1.622	2.588	8.0	21.2
9 18	22 10.44	-15 36.4	1.248	2.194	11.8	20.2	9 18	22 7.50	-22 42.4	1.656	2.569	11.6	21.4
9 28	22 5.10	-16 17.8	1.304	2.185	16.3	20.5	9 28	22 0.41	-22 14.0	1.712	2.550	15.1	21.5
<b>424396</b>	2007 <i>YT</i> <sub>64</sub>		8 28.3 200°08	2°1/26.7	17		<b>387547</b>	2001 <i>BE</i> <sub>5</sub>		8 28.3 180°31	9°4/16.5	18	
7 20	22 57.85	-12 52.8	1.712	2.547	16.0	22.4	7 20	23 5.15	-42 28.9	2.687	3.484	11.8	22.3
7 30	22 53.34	-13 20.4	1.632	2.545	12.5	22.1	7 30	22 58.49	-43 47.0	2.636	3.486	10.5	22.2
8 9	22 46.29	-13 57.2	1.573	2.542	8.5	21.9	8 9	22 49.47	-44 54.1	2.608	3.487	9.6	22.1
8 19	22 37.23	-14 38.5	1.538	2.539	4.3	21.6	8 19	22 38.67	-45 42.9	2.604	3.487	9.4	22.1
8 29	22 27.08	-15 17.7	1.529	2.536	2.4	21.5	8 29	22 27.03	-46 7.7	2.625	3.487	10.0	22.2
9 8	22 17.01	-15 48.6	1.547	2.532	6.2	21.7	9 8	22 15.66	-46 5.8	2.670	3.485	11.1	22.2
9 18	22 8.16	-16 7.0	1.592	2.527	10.5	22.0	9 18	22 5.59	-45 37.9	2.737	3.483	12.5	22.3
9 28	22 1.48	-16 10.4	1.659	2.523	14.3	22.2	9 28	21 57.63	-44 47.0	2.823	3.481	13.9	22.5
<b>451078</b>	2009 <i>BT</i> <sub>63</sub>		8 28.3 113°80	6°0/30.5	15		<b>245373</b>	2005 <i>GH</i> <sub>73</sub>		8 28.3 152°88	3°5/24.4	17	
7 20	23 9.43	- 2 13.9	1.086	1.905	24.2	21.1	7 20	22 53.28	-17 20.2	2.323	3.158	12.3	21.2
7 30	23 3.71	- 0 39.9	1.020	1.913	20.0	20.9	7 30	22 49.04	-18 22.7	2.252	3.165	9.5	21.0
8 9	22 54.10	+ 0 38.7	0.971	1.921	15.0	20.6	8 9	22 42.95	-19 30.2	2.204	3.172	6.6	20.8
8 19	22 41.28	+ 1 38.5	0.942	1.928	9.7	20.3	8 19	22 35.47	-20 37.1	2.183	3.178	4.0	20.7
8 29	22 26.76	+ 2 17.5	0.936	1.935	6.1	20.2	8 29	22 27.28	-21 37.3	2.190	3.184	3.9	20.7
9 8	22 12.52	+ 2 37.6	0.954	1.942	8.2	20.3	9 8	22 19.19	-22 25.8	2.225	3.189	6.3	20.8
9 18	22 0.46	+ 2 43.5	0.995	1.949	13.0	20.6	9 18	22 11.99	-22 59.1	2.287	3.194	9.2	21.0
9 28	21 51.96	+ 2 42.3	1.058	1.956	17.8	20.9	9 28	22 6.35	-23 15.7	2.373	3.198	11.8	21.2
<b>231903</b>	2000 <i>XT</i> <sub>39</sub>		8 28.3 229°19	3°0/25.7	18		<b>336541</b>	2009 <i>BS</i> <sub>38</sub>		8 28.3 70°04	1°0/26.9	18	
7 20	22 57.86	-16 56.3	2.138	2.968	13.4	20.7	7 20	22 47.41	-11 17.5	3.005	3.824	10.2	21.0
7 30	22 52.90	-17 23.5	2.048	2.958	10.5	20.5	7 30	22 43.98	-11 50.5	2.930	3.835	7.9	20.8
8 9	22 45.77	-17 55.3	1.981	2.947	7.2	20.3	8 9	22 39.25	-12 29.5	2.879	3.845	5.3	20.7
8 19	22 36.92	-18 27.0	1.939	2.936	4.1	20.0	8 19	22 33.57	-13 11.7	2.854	3.856	2.5	20.5
8 29	22 27.12	-18 53.3	1.924	2.925	3.3	20.0	8 29	22 27.43	-13 53.5	2.859	3.866	1.2	20.4
9 8	22 17.35	-19 9.5	1.939	2.913	6.1	20.1	9 8	22 21.37	-14 31.5	2.892	3.877	3.7	20.6
9 18	22 8.54	-19 12.7	1.980	2.901	9.6	20.3	9 18	22 15.91	-15 2.8	2.954	3.887	6.3	20.8
9 28	22 1.53	-19 1.7	2.045	2.888	12.8	20.5	9 28	22 11.54	-15 25.4	3.042	3.898	8.7	21.0
<b>312540</b>	2009 <i>ER</i> <sub>21</sub>		8 28										



EPHEMERIDES

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>507937</b>	2015 <i>AJ</i> <sub>159</sub>		8 28.3 243°02	2°3/29.9	17		<b>304385</b>	2006 <i>SE</i> <sub>393</sub>		8 28.3 324°50	0°2/28.1	18	
7 20	22 56.33	- 3 1.5	1.629	2.440	17.7	22.1	7 20	22 51.16	- 8 16.2	1.877	2.706	15.0	21.1
7 30	22 52.39	- 2 51.3	1.538	2.430	14.4	21.9	7 30	22 47.89	- 8 33.5	1.792	2.700	11.9	20.8
8 9	22 45.84	- 2 57.0	1.466	2.421	10.4	21.6	8 9	22 42.47	- 9 2.6	1.728	2.694	8.1	20.6
8 19	22 37.13	- 3 17.8	1.417	2.411	6.0	21.3	8 19	22 35.37	- 9 40.3	1.687	2.689	4.0	20.3
8 29	22 27.15	- 3 50.3	1.393	2.400	2.4	21.1	8 29	22 27.34	-10 21.8	1.674	2.683	0.5	20.1
9 8	22 17.08	- 4 29.0	1.396	2.389	5.2	21.2	9 8	22 19.34	-11 1.5	1.687	2.678	4.8	20.4
9 18	22 8.13	- 5 8.1	1.424	2.378	9.8	21.5	9 18	22 12.30	-11 34.5	1.726	2.674	8.9	20.6
9 28	22 1.35	- 5 41.6	1.476	2.367	14.1	21.7	9 28	22 7.04	-11 57.0	1.789	2.669	12.6	20.8
<b>61894</b>	2000 <i>QT</i> <sub>224</sub>		8 28.3 305°22	6°9/22.4	18		<b>351197</b>	2004 <i>DL</i> <sub>49</sub>		8 28.3 254°74	1°0/27.4	18	
7 20	22 54.54	-23 29.6	1.628	2.488	15.5	18.3	7 20	22 54.73	-10 59.0	2.319	3.136	12.9	21.2
7 30	22 51.05	-24 44.3	1.560	2.483	12.3	18.1	7 30	22 50.36	-11 18.2	2.215	3.117	10.2	20.9
8 9	22 44.89	-26 1.3	1.513	2.478	9.2	17.9	8 9	22 44.03	-11 45.5	2.133	3.098	7.0	20.7
8 19	22 36.61	-27 11.7	1.490	2.474	7.1	17.8	8 19	22 36.13	-12 18.0	2.077	3.078	3.4	20.5
8 29	22 27.20	-28 6.1	1.492	2.469	7.6	17.8	8 29	22 27.29	-12 51.4	2.049	3.057	1.2	20.3
9 8	22 17.93	-28 37.4	1.518	2.465	10.2	17.9	9 8	22 18.34	-13 21.2	2.049	3.036	4.7	20.5
9 18	22 9.99	-28 42.9	1.567	2.461	13.5	18.1	9 18	22 10.15	-13 43.6	2.078	3.015	8.3	20.7
9 28	22 4.36	-28 22.9	1.637	2.457	16.5	18.3	9 28	22 3.48	-13 55.9	2.132	2.993	11.6	20.8
<b>74158</b>	1998 <i>QU</i> <sub>97</sub>		8 28.3 48°71	4°7/30.0	18		<b>490190</b>	2008 <i>UD</i> <sub>309</sub>		8 28.3 324°62	5°7/24.9	16	
7 20	23 12.20	- 5 5.1	1.240	2.051	22.2	18.0	7 20	22 52.79	-19 46.5	1.252	2.127	18.2	21.6
7 30	23 4.97	- 3 17.1	1.184	2.074	18.0	17.8	7 30	22 50.81	-20 13.3	1.158	2.092	14.6	21.2
8 9	22 54.33	- 1 40.5	1.147	2.097	13.1	17.6	8 9	22 45.53	-20 45.8	1.082	2.058	10.5	20.9
8 19	22 41.14	- 0 18.4	1.132	2.121	8.1	17.4	8 19	22 37.32	-21 16.5	1.027	2.025	6.7	20.6
8 29	22 26.88	+ 0 47.2	1.143	2.145	4.8	17.3	8 29	22 27.17	-21 35.5	0.995	1.993	6.2	20.5
9 8	22 13.30	+ 1 36.8	1.181	2.170	7.0	17.5	9 8	22 16.68	-21 34.3	0.985	1.962	10.1	20.6
9 18	22 1.91	+ 2 12.9	1.244	2.195	11.4	17.8	9 18	22 7.55	-21 8.0	0.996	1.933	15.1	20.8
9 28	21 53.74	+ 2 40.0	1.331	2.220	15.5	18.1	9 28	22 1.29	-20 16.3	1.027	1.904	19.9	21.0
<b>370252</b>	2002 <i>PN</i> <sub>183</sub>		8 28.3 37°02	2°1/26.9	17		<b>414080</b>	2007 <i>TL</i> <sub>116</sub>		8 28.3 170°79	2°2/29.9	17	
7 20	22 52.44	-10 40.1	1.129	1.996	20.3	20.9	7 20	22 56.91	- 2 16.4	1.606	2.414	18.0	21.4
7 30	22 49.89	-11 18.5	1.079	2.010	15.8	20.6	7 30	22 52.72	- 2 17.1	1.527	2.417	14.6	21.2
8 9	22 44.27	-12 12.2	1.048	2.025	10.7	20.4	8 9	22 45.97	- 2 35.6	1.466	2.419	10.5	20.9
8 19	22 36.31	-13 14.1	1.037	2.041	5.1	20.2	8 19	22 37.15	- 3 10.0	1.428	2.421	6.0	20.7
8 29	22 27.25	-14 14.5	1.049	2.057	2.4	20.0	8 29	22 27.21	- 3 56.3	1.415	2.422	2.3	20.4
9 8	22 18.62	-15 4.2	1.085	2.074	7.3	20.4	9 8	22 17.34	- 4 48.2	1.429	2.423	5.1	20.6
9 18	22 11.75	-15 36.7	1.143	2.092	12.3	20.7	9 18	22 8.69	- 5 38.9	1.470	2.424	9.6	20.9
9 28	22 7.59	-15 49.2	1.222	2.110	16.6	21.0	9 28	22 2.25	- 6 22.2	1.534	2.423	13.7	21.1
<b>522946</b>	2016 <i>PD</i> <sub>113</sub>		8 28.3 349°33	4°2/24.7	18		<b>3951</b>	Zichichi		8 28.3 291°89	4°1/31.1	18	
7 20	22 52.77	-17 26.7	1.703	2.557	15.2	21.4	7 20	22 52.94	+ 0 20.7	1.503	2.313	18.9	16.5
7 30	22 49.40	-18 20.5	1.632	2.555	11.9	21.2	7 30	22 50.08	+ 0 45.3	1.405	2.294	15.7	16.2
8 9	22 43.61	-19 20.9	1.582	2.554	8.2	21.0	8 9	22 44.52	+ 0 51.1	1.326	2.274	11.9	15.9
8 19	22 35.94	-20 21.1	1.555	2.553	5.0	20.8	8 19	22 36.62	+ 0 37.1	1.267	2.254	7.6	15.6
8 29	22 27.28	-21 13.3	1.555	2.552	4.7	20.8	8 29	22 27.24	+ 0 4.9	1.232	2.235	4.3	15.4
9 8	22 18.74	-21 51.0	1.580	2.551	7.7	21.0	9 8	22 17.60	- 0 40.4	1.222	2.215	6.0	15.4
9 18	22 11.39	-22 10.0	1.630	2.550	11.4	21.2	9 18	22 9.00	- 1 32.1	1.237	2.195	10.5	15.6
9 28	22 6.10	-22 9.1	1.703	2.550	14.7	21.4	9 28	22 2.65	- 2 22.1	1.274	2.176	15.0	15.8
<b>44635</b>	1999 <i>RO</i> <sub>97</sub>		8 28.3 25°78	3°6/26.1	18		<b>333883</b>	1998 <i>HU</i> <sub>30</sub>		8 28.3 174°58	5°1/2.7	18	
7 20	22 53.97	-14 50.8	1.118	1.991	20.0	18.4	7 20	22 51.04	+ 8 13.6	2.093	2.841	16.2	21.3
7 30	22 51.27	-15 22.2	1.064	1.999	15.6	18.2	7 30	22 47.55	+ 8 11.8	2.003	2.842	13.7	21.2
8 9	22 45.32	-16 3.8	1.029	2.007	10.6	17.9	8 9	22 42.12	+ 7 48.9	1.931	2.844	10.8	21.0
8 19	22 36.87	-16 48.0	1.014	2.016	5.6	17.7	8 19	22 35.17	+ 7 4.5	1.882	2.845	7.8	20.8
8 29	22 27.21	-17 25.5	1.022	2.027	4.0	17.6	8 29	22 27.37	+ 6 0.6	1.859	2.845	5.4	20.7
9 8	22 17.96	-17 48.3	1.053	2.038	8.3	17.9	9 8	22 19.57	+ 4 42.2	1.862	2.845	5.5	20.7
9 18	22 10.54	-17 52.1	1.106	2.049	13.2	18.2	9 18	22 12.63	+ 3 15.9	1.893	2.845	8.0	20.8
9 28	22 5.99	-17 35.8	1.178	2.062	17.4	18.5	9 28	22 7.28	+ 1 49.1	1.950	2.845	11.0	21.0
<b>280907</b>	2005 <i>YX</i> <sub>21</sub>		8 28.3 119°88	5°4/22.9	17		<b>436867</b>	2012 <i>TU</i> <sub>11</sub>		8 28.3 16°14	5°0/1.6	16	
7 20	22 54.11	-20 8.7	1.880	2.729	14.2	21.0	7 20	22 47.63	+ 4 50.7	1.447	2.251	19.9	20.6
7 30	22 50.17	-21 37.1	1.821	2.740	11.1	20.8	7 30	22 45.64	+ 4 55.3	1.375	2.254	16.6	20.3
8 9	22 43.97	-23 9.8	1.784	2.751	7.9	20.6	8 9	22 41.21	+ 4 34.3	1.319	2.259	12.7	20.1
8 19	22 36.05	-24 38.5	1.772	2.761	5.6	20.5	8 19	22 34.82	+ 3 47.6	1.284	2.264	8.6	19.9
8 29	22 27.28	-25 54.8	1.788	2.771	6.0	20.5	8 29	22 27.39	+ 2 38.7	1.272	2.269	5.3	19.7
9 8	22 18.69	-26 52.1	1.830	2.781	8.5	20.7	9 8	22 20.05	+ 1 15.0	1.284	2.276	6.0	19.8
9 18	22 11.25	-27 26.8	1.897	2.790	11.5	20.9	9 18	22 13.91	- 0 14.0	1.321	2.283	9.6	20.0
9 28	22 5.76	-27 38.6	1.986	2.799	14.3	21.1	9 28	22 9.88	- 1 38.7	1.381	2.291	13.5	20.3
<b>13421</b>	Holvorcem		8 28.3 314°00	1°1/27.3	18		<b>311372</b>	2005 <i>SZ</i> <sub>172</sub>		8 28.3 45°71	3°0/31.3	18	
7 20	22 50.42	- 9 17.2	1.679	2.519	16.0	17.2	7 20	22 49.91	+ 1 13.2	2.078	2.866	15.1	20.5
7 30	22 47.62	- 9 53.5	1.595	2.511	12.6	17.0	7 30	22 46.61	+ 1 11.1	1.995	2.869	12.4	20.3
8 9	22 42.47	-10 43.6	1.532	2.502	8.6	16.7	8 9	22 41.44	+ 0 52.6	1.931	2.872	9.2	20.1
8 19	22 35.44	-11 43.0	1.492	2.494	4.1	16.4	8 19	22 34.81	+ 0 18.7	1.891	2.876	5.8	19.9
8 29	22 27.33	-12 45.3	1.477	2.486	1.4	16.2	8 29	22 27.40	- 0 27.6	1.877	2.879	3.1	19.8
9 8	22 19.22	-13 43.0	1.489	2.478	5.7	16.5	9 8	22 20.05	- 1 21.6	1.891	2.883	4.3	19.9
9 18	22 12.16	-14 29.8	1.526	2.471	10.1	16.7	9 18	22 13.55	- 2 17.9	1.931	2.887	7.6	20.1
9 28	22 7.07	-15 1.3	1.587	2.464	14.1	17.0	9 28	22 8.62	- 3 10.9	1.997	2.891	10.8	20.3
<b>296065</b>	2009 <i>AU</i> <sub>43</sub>		8 28.3 167°30	0°9/27.3	18		<b>74481</b>	1999 <i>CL</i> <sub>83</sub>		8 28.3 27			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>24161</b>	1999 <i>VU</i> <sub>219</sub>		8 28.3	6°64	4°0/ 1.4	18	<b>218424</b>	2004 <i>RM</i> <sub>157</sub>		8 28.3	276°70	3°1/31.2	18
7 20	22 48.87	+ 4 57.4	1.812	2.593	17.2	18.9	7 20	22 51.90	+ 0 29.6	2.305	3.084	14.0	20.3
7 30	22 46.15	+ 4 41.6	1.726	2.593	14.3	18.7	7 30	22 48.05	+ 0 47.4	2.209	3.078	11.6	20.1
8 9	22 41.33	+ 4 3.0	1.660	2.594	10.9	18.5	8 9	22 42.39	+ 0 52.0	2.134	3.072	8.6	19.9
8 19	22 34.82	+ 3 2.3	1.615	2.594	7.2	18.2	8 19	22 35.30	+ 0 43.8	2.083	3.066	5.5	19.7
8 29	22 27.40	+ 1 43.1	1.596	2.594	4.3	18.1	8 29	22 27.41	+ 0 24.3	2.059	3.059	3.2	19.5
9 8	22 19.99	+ 0 12.0	1.603	2.595	5.0	18.1	9 8	22 19.50	+ 0 3.2	2.063	3.053	4.3	19.6
9 18	22 13.53	+ 1 22.8	1.637	2.595	8.4	18.3	9 18	22 12.33	+ 0 34.9	2.095	3.047	7.3	19.8
9 28	22 8.84	+ 2 52.9	1.696	2.596	12.1	18.5	9 28	22 6.61	+ 1 6.2	2.152	3.041	10.4	19.9
<b>477496</b>	2010 <i>CK</i> <sub>62</sub>		8 28.3	140°17	1°8/26.8	16	<b>434368</b>	2004 <i>TK</i> <sub>111</sub>		8 28.3	284°58	9°6/ 8.2	18
7 20	22 58.72	-13 52.8	2.155	2.976	13.6	21.7	7 20	22 48.55	+19 40.0	1.863	2.551	19.7	20.9
7 30	22 53.33	-14 7.9	2.081	2.986	10.6	21.5	7 30	22 46.06	+20 2.0	1.770	2.546	17.7	20.7
8 9	22 45.90	-14 28.6	2.029	2.995	7.2	21.3	8 9	22 41.38	+19 54.6	1.692	2.542	15.3	20.5
8 19	22 36.95	-14 51.1	2.003	3.004	3.6	21.1	8 19	22 34.93	+19 14.1	1.631	2.537	12.7	20.3
8 29	22 27.26	-15 11.0	2.006	3.012	2.0	21.0	8 29	22 27.43	+17 59.4	1.593	2.533	10.6	20.2
9 8	22 17.77	-15 24.2	2.037	3.020	5.1	21.3	9 8	22 19.88	+16 14.0	1.578	2.528	9.6	20.1
9 18	22 9.33	-15 28.1	2.096	3.027	8.6	21.5	9 18	22 13.26	+14 5.6	1.588	2.524	10.5	20.2
9 28	22 2.66	-15 21.3	2.180	3.034	11.7	21.7	9 28	22 8.46	+11 45.4	1.623	2.519	12.7	20.3
<b>1093</b>	Freda		8 28.3	8°23	17°3/11.2	18	<b>81245</b>	2000 <i>FU</i> <sub>33</sub>		8 28.3	55°26	0°5/28.7	18
7 20	22 58.63	-51 1.5	1.460	2.283	18.8	12.4	7 20	22 50.96	+ 4 10.4	1.442	2.277	18.4	19.0
7 30	22 55.65	-52 51.0	1.441	2.286	17.8	12.3	7 30	22 48.19	+ 4 51.8	1.378	2.287	14.6	18.8
8 9	22 48.60	-54 14.3	1.438	2.291	17.3	12.3	8 9	22 42.90	+ 5 53.1	1.333	2.298	10.1	18.6
8 19	22 38.49	-55 0.0	1.452	2.297	17.5	12.4	8 19	22 35.64	+ 7 9.8	1.309	2.310	5.1	18.3
8 29	22 27.15	-55 0.6	1.483	2.305	18.3	12.4	8 29	22 27.39	+ 8 34.2	1.311	2.321	0.5	18.0
9 8	22 16.71	-54 15.0	1.530	2.314	19.4	12.6	9 8	22 19.34	+ 9 57.0	1.339	2.333	5.3	18.4
9 18	22 8.84	-52 48.0	1.593	2.325	20.6	12.7	9 18	22 12.60	+11 9.8	1.392	2.345	10.1	18.7
9 28	22 4.50	-50 47.6	1.669	2.337	21.8	12.8	9 28	22 8.06	+12 6.6	1.467	2.357	14.2	19.0
<b>36896</b>	2000 <i>SQ</i> <sub>171</sub>		8 28.3	219°39	4°0/ 1.4	18 R	<b>402062</b>	2003 <i>SE</i> <sub>428</sub>		8 28.3	336°31	2°6/26.1	18
7 20	22 51.32	+ 4 3.9	2.373	3.134	14.2	19.3	7 20	22 53.93	-16 27.7	2.081	2.919	13.4	20.7
7 30	22 47.53	+ 4 19.3	2.278	3.131	11.9	19.1	7 30	22 49.84	-16 42.5	1.999	2.913	10.5	20.5
8 9	22 41.99	+ 4 19.6	2.203	3.127	9.1	18.9	8 9	22 43.68	-17 1.5	1.938	2.907	7.2	20.3
8 19	22 35.08	+ 4 4.5	2.152	3.124	6.3	18.7	8 19	22 35.94	-17 20.5	1.903	2.902	3.9	20.1
8 29	22 27.41	+ 3 35.7	2.128	3.120	4.2	18.6	8 29	22 27.37	-17 35.1	1.894	2.897	2.9	20.0
9 8	22 19.71	+ 2 56.3	2.131	3.116	4.7	18.6	9 8	22 18.89	-17 41.0	1.913	2.893	5.8	20.2
9 18	22 12.74	+ 2 10.5	2.161	3.112	7.2	18.8	9 18	22 11.39	-17 35.8	1.959	2.889	9.2	20.4
9 28	22 7.17	+ 1 23.6	2.218	3.108	10.1	18.9	9 28	22 5.61	-17 18.3	2.029	2.885	12.4	20.6
<b>345929</b>	2007 <i>RW</i> <sub>233</sub>		8 28.3	56°23	2°8/26.4	18	<b>500849</b>	2013 <i>HA</i> <sub>73</sub>		8 28.3	8°70	5°8/ 1.2	17
7 20	22 59.63	-16 43.1	1.766	2.603	15.5	20.1	7 20	22 48.94	+ 3 8.6	1.063	1.899	23.5	20.7
7 30	22 54.54	-16 49.3	1.694	2.607	12.1	19.9	7 30	22 47.55	+ 3 39.2	0.999	1.899	19.6	20.5
8 9	22 46.99	-16 59.4	1.643	2.611	8.3	19.6	8 9	22 43.03	+ 3 41.2	0.949	1.900	15.0	20.2
8 19	22 37.57	-17 8.9	1.616	2.616	4.4	19.4	8 19	22 35.92	+ 3 13.1	0.917	1.903	10.0	20.0
8 29	22 27.22	-17 12.6	1.616	2.620	3.0	19.3	8 29	22 27.38	+ 2 17.8	0.906	1.906	6.2	19.8
9 8	22 17.13	-17 6.5	1.644	2.625	6.3	19.6	9 8	22 18.94	+ 1 3.8	0.917	1.910	7.2	19.8
9 18	22 8.35	-16 48.6	1.698	2.630	10.2	19.8	9 18	22 12.11	+ 0 17.6	0.949	1.915	11.7	20.1
9 28	22 1.75	-16 18.4	1.775	2.635	13.7	20.0	9 28	22 8.06	+ 1 34.6	1.001	1.922	16.4	20.4
<b>111293</b>	2001 <i>XA</i> <sub>52</sub>		8 28.3	249°89	1°4/26.9	18	<b>434222</b>	2003 <i>SB</i> <sub>167</sub>		8 28.3	347°33	2°5/29.7	18
7 20	22 51.06	-10 56.5	2.198	3.025	13.1	20.1	7 20	22 45.80	- 5 12.9	1.132	1.995	20.5	19.8
7 30	22 47.50	-11 33.3	2.110	3.019	10.3	19.9	7 30	22 45.04	- 4 39.3	1.054	1.979	16.7	19.5
8 9	22 42.05	-12 19.4	2.045	3.013	7.0	19.7	8 9	22 41.33	- 4 22.5	0.994	1.964	12.1	19.2
8 19	22 35.13	-13 11.2	2.005	3.007	3.4	19.4	8 19	22 35.12	- 4 22.0	0.953	1.952	6.8	18.9
8 29	22 27.40	-14 3.3	1.993	3.000	1.6	19.3	8 29	22 27.43	- 4 34.7	0.933	1.941	2.5	18.6
9 8	22 19.69	-14 50.4	2.008	2.994	4.9	19.5	9 8	22 19.70	- 4 54.9	0.935	1.932	6.1	18.8
9 18	22 12.79	-15 28.3	2.051	2.987	8.5	19.7	9 18	22 13.35	- 5 15.8	0.959	1.926	11.5	19.0
9 28	22 7.43	-15 53.7	2.118	2.980	11.7	19.9	9 28	22 9.62	- 5 30.6	1.002	1.921	16.5	19.3
<b>474676</b>	2005 <i>CL</i> <sub>64</sub>		8 28.3	181°21	0°2/28.5	18	<b>191088</b>	2002 <i>CP</i> <sub>286</sub>		8 28.3	308°62	0°0/28.3	17
7 20	22 57.12	- 8 16.0	2.380	3.182	13.0	22.1	7 20	22 43.27	- 7 23.8	4.197	4.999	7.8	20.1
7 30	22 51.97	- 8 18.1	2.291	3.183	10.3	21.9	7 30	22 40.48	- 7 49.7	4.100	4.993	6.1	19.9
8 9	22 44.95	- 8 28.6	2.225	3.184	7.1	21.7	8 9	22 36.78	- 8 21.5	4.028	4.987	4.2	19.8
8 19	22 36.51	- 8 45.0	2.185	3.183	3.6	21.5	8 19	22 32.40	- 8 57.5	3.983	4.982	2.1	19.6
8 29	22 27.31	- 9 4.3	2.173	3.183	0.3	21.2	8 29	22 27.67	- 9 35.6	3.966	4.976	0.1	19.4
9 8	22 18.17	- 9 22.9	2.191	3.182	4.0	21.5	9 8	22 22.94	-10 13.3	3.980	4.971	2.4	19.6
9 18	22 9.88	- 9 37.6	2.237	3.180	7.5	21.7	9 18	22 18.57	-10 48.5	4.023	4.965	4.5	19.8
9 28	22 3.13	- 9 45.8	2.310	3.178	10.6	21.9	9 28	22 14.91	-11 19.0	4.094	4.960	6.4	19.9
<b>477048</b>	2009 <i>AS</i> <sub>45</sub>		8 28.3	147°39	1°5/26.7	16	<b>149542</b>	2003 <i>HO</i> <sub>33</sub>		8 28.3	186°57	5°3/22.9	18
7 20	22 50.95	- 9 42.4	2.095	2.922	13.7	21.6	7 20	22 54.59	-24 4.8	2.226	3.068	12.5	20.5
7 30	22 47.44	-10 42.1	2.018	2.927	10.7	21.4	7 30	22 50.27	-24 57.0	2.155	3.068	9.9	20.3
8 9	22 42.01	-11 53.3	1.963	2.931	7.2	21.2	8 9	22 43.93	-25 49.1	2.108	3.068	7.3	20.2
8 19	22 35.10	-13 11.3	1.933	2.935	3.5	21.0	8 19	22 36.05	-26 35.2	2.085	3.068	5.5	20.1
8 29	22 27.41	-14 29.5	1.932	2.939	1.8	20.9	8 29	22 27.40	-27 9.3	2.090	3.067	5.8	20.1
9 8	22 19.79	-15 41.4	1.958	2.942	5.2	21.1	9 8	22 18.89	-27 27.0	2.122	3.067	7.8	20.2
9 18	22 13.06	-16 41.7	2.012	2.946	8.8	21.4	9 18	22 11.38	-27 26.5	2.179	3.067	10.5	20.4
9 28	22 7.93	-17 26.6	2.091	2.949	12.0	21.6	9 28	22 5.59	-27 7.7	2.259	3.066	12.9	20.6
<b>478815</b>	2012 <i>VO</i> <sub>10</sub>		8 28.3	255°38	5°9/ 2.9	18	<b>195414</b>	2002 <i>GF</i> <sub>40</sub>		8 2			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>301425</b>	2009 <i>DT</i> <sub>57</sub>		8 28.3 349°05	1.9°/26.8	18		<b>399257</b>	2014 <i>HK</i> <sub>33</sub>		8 28.3 353°75	7°4/22.1	18	
7 20	22 52.75	-12 46.4	1.724	2.567	15.5	20.5	7 20	22 50.91	-24 36.6	1.546	2.415	15.7	20.0
7 30	22 49.33	-13 9.7	1.647	2.565	12.1	20.3	7 30	22 48.34	-25 46.5	1.482	2.410	12.5	19.8
8 9	22 43.57	-13 42.0	1.591	2.562	8.2	20.0	8 9	22 43.12	-26 57.2	1.440	2.406	9.5	19.6
8 19	22 35.98	-14 18.7	1.558	2.560	4.1	19.8	8 19	22 35.82	-27 59.7	1.420	2.402	7.5	19.5
8 29	22 27.41	-14 53.9	1.551	2.558	2.2	19.6	8 29	22 27.45	-28 44.7	1.424	2.400	8.0	19.5
9 8	22 18.94	-15 21.9	1.571	2.557	5.9	19.9	9 8	22 19.24	-29 5.8	1.451	2.398	10.6	19.7
9 18	22 11.59	-15 38.4	1.616	2.556	10.0	20.1	9 18	22 12.39	-29 0.5	1.502	2.398	13.8	19.9
9 28	22 6.23	-15 40.9	1.684	2.555	13.7	20.4	9 28	22 7.84	-28 29.8	1.572	2.398	16.8	20.1
<b>272756</b>	2005 <i>YT</i> <sub>145</sub>		8 28.3 241°27	4°6/22.9	18		<b>241143</b>	2007 <i>RA</i> <sub>15</sub>		8 28.3 302°10	4°6/2.0	18	
7 20	22 51.72	-21 55.0	2.471	3.312	11.5	20.4	7 20	22 47.02	+ 6 52.0	1.776	2.553	17.7	20.8
7 30	22 47.90	-22 55.7	2.390	3.304	9.0	20.2	7 30	22 44.93	+ 6 32.4	1.676	2.538	14.9	20.6
8 9	22 42.27	-23 58.6	2.334	3.297	6.5	20.0	8 9	22 40.68	+ 5 46.9	1.593	2.522	11.6	20.3
8 19	22 35.25	-24 58.2	2.303	3.289	4.8	19.9	8 19	22 34.65	+ 4 35.2	1.532	2.507	8.0	20.1
8 29	22 27.47	-25 48.8	2.300	3.281	5.0	19.9	8 29	22 27.53	+ 3 0.1	1.496	2.492	5.0	19.9
9 8	22 19.73	-26 25.5	2.325	3.273	7.1	20.0	9 8	22 20.27	+ 1 8.6	1.486	2.477	5.4	19.9
9 18	22 12.77	-26 45.6	2.375	3.265	9.6	20.2	9 18	22 13.87	- 0 50.0	1.502	2.462	8.9	20.0
9 28	22 7.29	-26 48.3	2.449	3.257	12.1	20.3	9 28	22 9.24	- 2 45.3	1.543	2.447	12.8	20.2
<b>126644</b>	2002 <i>CU</i> <sub>176</sub>		8 28.3 104°41	0°5/27.8	18		<b>260588</b>	2005 <i>EE</i> <sub>308</sub>		8 28.3 345°61	1°1/29.0	17	
7 20	22 51.76	- 8 54.6	2.292	3.109	13.0	20.5	7 20	22 48.39	- 5 13.0	1.130	1.990	20.8	20.3
7 30	22 47.83	- 9 21.3	2.217	3.119	10.2	20.4	7 30	22 47.07	- 5 18.8	1.058	1.982	16.7	20.0
8 9	22 42.14	- 9 57.4	2.164	3.129	6.9	20.2	8 9	22 42.70	- 5 45.7	1.003	1.974	11.8	19.7
8 19	22 35.14	-10 39.5	2.137	3.138	3.3	20.0	8 19	22 35.80	- 6 31.1	0.967	1.968	6.2	19.4
8 29	22 27.49	-11 23.3	2.138	3.148	0.7	19.8	8 29	22 27.44	- 7 28.3	0.954	1.963	1.1	19.0
9 8	22 19.95	-12 4.1	2.167	3.157	4.2	20.1	9 8	22 19.11	- 8 28.1	0.963	1.959	6.2	19.4
9 18	22 13.26	-12 38.1	2.224	3.166	7.6	20.3	9 18	22 12.25	- 9 21.1	0.994	1.956	11.9	19.7
9 28	22 8.06	-13 2.3	2.307	3.175	10.6	20.5	9 28	22 8.09	- 9 59.8	1.045	1.954	16.9	20.0
<b>260405</b>	2004 <i>XQ</i> <sub>9</sub>		8 28.3 305°32	3°8/1.2	18		<b>339430</b>	2005 <i>EY</i> <sub>84</sub>		8 28.3 164°36	6°3/21.7	18	
7 20	22 49.77	+ 3 11.1	2.299	3.070	14.3	20.2	7 20	22 58.35	-28 9.3	2.374	3.206	12.1	20.7
7 30	22 46.42	+ 3 25.2	2.203	3.063	11.9	20.0	7 30	22 53.10	-29 10.6	2.309	3.211	9.8	20.6
8 9	22 41.31	+ 3 24.1	2.127	3.056	9.1	19.8	8 9	22 45.80	-30 9.0	2.268	3.216	7.7	20.5
8 19	22 34.80	+ 3 7.9	2.075	3.050	6.2	19.6	8 19	22 36.96	-30 58.1	2.253	3.220	6.4	20.4
8 29	22 27.51	+ 2 38.1	2.048	3.043	4.0	19.4	8 29	22 27.37	-31 31.9	2.265	3.223	6.8	20.4
9 8	22 20.18	+ 1 58.1	2.049	3.037	4.6	19.5	9 8	22 17.98	-31 46.6	2.305	3.226	8.6	20.5
9 18	22 13.57	+ 1 12.4	2.078	3.031	7.3	19.6	9 18	22 9.64	-31 40.9	2.369	3.229	10.8	20.7
9 28	22 8.38	+ 0 26.0	2.132	3.024	10.3	19.8	9 28	22 3.08	-31 15.9	2.456	3.231	13.0	20.9
<b>247745</b>	2003 <i>NX</i> <sub>8</sub>		8 28.3 10°41	10°5/10.4	18		<b>130812</b>	2000 <i>UP</i> <sub>6</sub>		8 28.3 284°22	1°4/29.5	18	
7 20	22 27.12	+24 16.8	0.824	1.615	32.2	18.6	7 20	22 51.94	- 3 33.5	1.787	2.602	16.2	20.0
7 30	22 20.89	+23 32.1	0.769	1.618	28.9	18.3	7 30	22 48.86	- 3 44.9	1.683	2.579	13.1	19.8
8 9	22 31.83	+21 36.9	0.722	1.625	24.6	18.1	8 9	22 43.45	- 4 12.7	1.599	2.556	9.4	19.5
8 19	22 30.45	+18 24.2	0.688	1.635	19.4	17.8	8 19	22 36.06	- 4 55.4	1.537	2.533	5.2	19.2
8 29	22 27.82	+13 58.5	0.671	1.648	14.1	17.6	8 29	22 27.43	- 5 49.1	1.501	2.510	1.5	18.9
9 8	22 25.37	+ 8 42.9	0.675	1.664	10.6	17.5	9 8	22 18.58	- 6 47.7	1.492	2.487	4.8	19.1
9 18	22 24.39	+ 3 14.1	0.703	1.682	11.9	17.7	9 18	22 10.59	- 7 44.5	1.510	2.463	9.4	19.3
9 28	22 25.87	- 1 49.7	0.754	1.703	16.3	18.0	9 28	22 4.47	- 8 33.2	1.551	2.440	13.6	19.5
<b>289678</b>	2005 <i>GM</i> <sub>150</sub>		8 28.3 161°64	3°8/25.3	18		<b>252852</b>	2002 <i>GY</i> <sub>147</sub>		8 28.3 166°03	2°1/31.2	18	
7 20	22 56.04	-15 28.1	1.616	2.463	16.2	21.1	7 20	22 48.69	+ 2 8.1	2.753	3.519	12.3	21.0
7 30	22 52.10	-16 25.5	1.546	2.466	12.6	20.9	7 30	22 45.20	+ 1 31.9	2.660	3.523	10.0	20.8
8 9	22 45.56	-17 31.9	1.497	2.468	8.6	20.6	8 9	22 40.26	+ 0 40.9	2.590	3.526	7.4	20.6
8 19	22 36.99	-18 40.1	1.472	2.471	4.9	20.4	8 19	22 34.21	- 0 23.2	2.545	3.529	4.5	20.5
8 29	22 27.35	-19 41.6	1.472	2.473	4.2	20.4	8 29	22 27.58	- 1 37.1	2.528	3.532	2.2	20.3
9 8	22 17.86	-20 29.0	1.500	2.474	7.6	20.6	9 8	22 20.97	- 2 56.2	2.541	3.534	3.3	20.4
9 18	22 9.66	-20 57.6	1.552	2.475	11.6	20.8	9 18	22 14.98	- 4 15.3	2.584	3.536	6.1	20.6
9 28	22 3.71	-21 5.7	1.626	2.476	15.2	21.1	9 28	22 10.16	- 5 29.6	2.654	3.537	8.9	20.8
<b>174126</b>	2002 <i>LS</i> <sub>17</sub>		8 28.3 35°81	5°7/24.1	18		<b>476871</b>	2008 <i>VC</i> <sub>15</sub>		8 28.3 309°63	0°7/28.9	18	
7 20	22 53.00	-17 35.2	1.232	2.105	18.6	19.8	7 20	22 50.93	- 5 42.4	1.585	2.417	17.1	21.4
7 30	22 50.38	-18 52.0	1.178	2.112	14.5	19.6	7 30	22 48.26	- 5 53.3	1.494	2.402	13.8	21.2
8 9	22 44.70	-20 17.6	1.143	2.119	10.1	19.4	8 9	22 43.11	- 6 20.3	1.423	2.388	9.7	20.9
8 19	22 36.63	-21 41.8	1.130	2.127	6.4	19.2	8 19	22 35.90	- 7 0.8	1.374	2.374	5.0	20.6
8 29	22 27.38	-22 52.9	1.141	2.135	6.4	19.2	8 29	22 27.46	- 7 50.0	1.350	2.360	0.7	20.2
9 8	22 18.45	-23 41.7	1.175	2.144	9.9	19.4	9 8	22 18.92	- 8 41.1	1.352	2.346	5.2	20.5
9 18	22 11.18	-24 3.6	1.231	2.154	14.0	19.7	9 18	22 11.43	- 9 27.4	1.378	2.333	10.0	20.8
9 28	22 6.61	-23 58.5	1.307	2.163	17.8	20.0	9 28	22 6.03	-10 3.0	1.428	2.320	14.4	21.0
<b>106021</b>	2000 <i>SX</i> <sub>294</sub>		8 28.3 348°84	0°2/28.2	18	R	<b>20289</b>	Nettimi		8 28.3 19°99	4°2/25.9	18	
7 20	22 54.08	- 9 53.0	1.894	2.721	14.9	18.5	7 20	22 56.34	-16 55.6	1.170	2.041	19.5	17.1
7 30	22 50.13	- 9 47.9	1.811	2.718	11.8	18.3	7 30	22 53.13	-17 19.7	1.113	2.045	15.3	16.8
8 9	22 43.99	- 9 51.6	1.749	2.715	8.1	18.1	8 9	22 46.65	-17 50.9	1.073	2.050	10.5	16.6
8 19	22 36.16	-10 1.3	1.712	2.713	4.0	17.8	8 19	22 37.62	-18 21.7	1.055	2.055	5.8	16.3
8 29	22 27.42	-10 13.3	1.701	2.710	0.4	17.5	8 29	22 27.35	-18 43.5	1.059	2.062	4.6	16.3
9 8	22 18.76	-10 23.6	1.717	2.709	4.7	17.8	9 8	22 17.44	-18 49.5	1.087	2.069	8.5	16.5
9 18	22 11.12	-10 28.6	1.760	2.707	8.8	18.1	9 18	22 9.37	-18 36.6	1.137	2.077	13.3	16.8
9 28	22 5.32	-10 25.7	1.827	2.707	12.4	18.3	9 28	22 4.20	-18 4.7	1.207	2.086	17.5	17.1
<b>154963</b>	2004 <i>TG</i> <sub>220</sub>		8 28.3 310°32	4°5/23.3	18		<b>267663</b>	2002 <i>TM</i> <sub>142&lt;/</sub>					

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>327803</b>	2006 VF <sub>22</sub>		8 28.3 87°20	3°5/25.7	17		<b>307081</b>	2002 AG <sub>88</sub>		8 28.3 172°56	0°8/27.5	18	
7 20	22 56.60	-15 5.2	1.518	2.367	16.9	21.1	7 20	22 53.66	-8 21.2	2.231	3.045	13.4	21.2
7 30	22 52.54	-15 54.0	1.458	2.379	13.2	20.9	7 30	22 49.47	-9 6.4	2.148	3.048	10.5	21.0
8 9	22 45.82	-16 51.2	1.419	2.391	8.9	20.7	8 9	22 43.40	-10 2.8	2.087	3.051	7.2	20.8
8 19	22 37.10	-17 49.9	1.403	2.403	4.9	20.5	8 19	22 35.87	-11 6.6	2.053	3.053	3.4	20.6
8 29	22 27.40	-18 41.9	1.413	2.415	3.9	20.4	8 29	22 27.56	-12 12.4	2.046	3.055	1.0	20.4
9 8	22 18.00	-19 20.1	1.449	2.427	7.4	20.7	9 8	22 19.30	-13 14.5	2.068	3.056	4.5	20.7
9 18	22 10.05	-19 40.4	1.509	2.438	11.4	20.9	9 18	22 11.89	-14 7.9	2.119	3.056	8.1	20.9
9 28	22 4.44	-19 41.5	1.592	2.450	15.0	21.2	9 28	22 6.03	-14 48.9	2.195	3.056	11.3	21.1
<b>316006</b>	2009 EN <sub>22</sub>		8 28.3 182°86	4°4/25.1	17		<b>261780</b>	2006 BE <sub>124</sub>		8 28.3 311°28	0°2/28.1	18	
7 20	22 58.24	-17 5.9	1.556	2.404	16.6	21.3	7 20	22 49.65	-8 5.3	2.101	2.926	13.8	20.9
7 30	22 53.99	-17 57.9	1.485	2.405	13.0	21.0	7 30	22 46.58	-8 25.2	2.006	2.911	10.9	20.7
8 9	22 46.96	-18 57.5	1.434	2.405	9.0	20.8	8 9	22 41.58	-8 56.1	1.932	2.897	7.5	20.5
8 19	22 37.74	-19 57.0	1.407	2.405	5.3	20.6	8 19	22 35.04	-9 35.4	1.882	2.883	3.7	20.2
8 29	22 27.35	-20 48.0	1.406	2.404	4.8	20.6	8 29	22 27.62	-10 18.6	1.859	2.869	0.4	19.9
9 8	22 17.12	-21 23.0	1.431	2.403	8.1	20.8	9 8	22 20.14	-11 0.7	1.864	2.856	4.4	20.2
9 18	22 8.29	-21 38.0	1.480	2.402	12.2	21.0	9 18	22 13.44	-11 37.0	1.895	2.842	8.3	20.4
9 28	22 1.87	-21 32.0	1.551	2.400	15.8	21.2	9 28	22 8.31	-12 3.6	1.951	2.829	11.8	20.6
<b>153151</b>	2000 SV <sub>266</sub>		8 28.3 71°58	6°0/ 3.2	18		<b>172941</b>	2005 JU <sub>66</sub>		8 28.3 166°02	1°2/27.3	17	
7 20	22 50.91	+ 9 4.5	1.677	2.440	19.1	19.5	7 20	22 57.48	-10 14.4	1.835	2.659	15.5	21.6
7 30	22 47.86	+ 9 10.2	1.605	2.452	16.2	19.4	7 30	22 52.88	-10 46.2	1.758	2.663	12.2	21.4
8 9	22 42.55	+ 8 50.1	1.550	2.465	12.8	19.2	8 9	22 45.93	-11 29.1	1.701	2.668	8.3	21.2
8 19	22 35.49	+ 8 3.8	1.516	2.478	9.3	19.0	8 19	22 37.18	-12 18.5	1.670	2.671	4.0	20.9
8 29	22 27.52	+ 6 53.9	1.506	2.491	6.5	18.9	8 29	22 27.47	-13 8.5	1.665	2.674	1.5	20.7
9 8	22 19.69	+ 5 26.7	1.521	2.504	6.4	18.9	9 8	22 17.87	-13 52.9	1.689	2.676	5.4	21.0
9 18	22 12.97	+ 3 50.7	1.562	2.517	9.0	19.1	9 18	22 9.40	-14 26.8	1.739	2.678	9.5	21.3
9 28	22 8.20	+ 2 15.5	1.627	2.530	12.3	19.3	9 28	22 2.93	-14 47.1	1.814	2.679	13.2	21.5
<b>13566</b>	1992 UM <sub>9</sub>		8 28.3 351°50	1°8/30.1	18		<b>93694</b>	2000 VD <sub>23</sub>		8 28.3 284°48	2°5/26.4	18	
7 20	22 47.38	- 1 38.7	2.018	2.825	14.8	17.8	7 20	22 54.11	-13 33.4	1.714	2.557	15.6	19.4
7 30	22 44.78	- 1 57.6	1.931	2.822	12.0	17.6	7 30	22 50.58	-14 5.9	1.629	2.546	12.2	19.1
8 9	22 40.31	- 2 32.4	1.865	2.819	8.6	17.4	8 9	22 44.59	-14 47.8	1.565	2.536	8.4	18.9
8 19	22 34.36	- 3 21.3	1.823	2.816	4.9	17.2	8 19	22 36.61	-15 34.0	1.524	2.525	4.3	18.6
8 29	22 27.61	- 4 20.2	1.807	2.814	1.8	17.0	8 29	22 27.50	-16 18.0	1.509	2.515	2.8	18.5
9 8	22 20.87	- 5 23.6	1.818	2.813	4.1	17.1	9 8	22 18.39	-16 53.1	1.521	2.504	6.5	18.7
9 18	22 14.96	- 6 25.5	1.856	2.812	7.8	17.3	9 18	22 10.38	-17 14.7	1.558	2.494	10.7	18.9
9 28	22 10.60	- 7 20.4	1.919	2.811	11.3	17.6	9 28	22 4.42	-17 20.0	1.618	2.483	14.5	19.1
<b>351164</b>	2004 AL <sub>12</sub>		8 28.3 245°73	0°3/28.6	18		<b>332321</b>	2006 WZ <sub>92</sub>		8 28.3 102°96	4°9/24.4	17	
7 20	22 53.15	- 6 46.1	2.194	3.004	13.7	21.8	7 20	22 56.35	-18 9.1	1.582	2.434	16.2	21.0
7 30	22 49.21	- 7 1.9	2.096	2.992	10.9	21.6	7 30	22 52.35	-19 15.2	1.522	2.444	12.6	20.8
8 9	22 43.32	- 7 29.0	2.019	2.980	7.6	21.3	8 9	22 45.72	-20 27.5	1.483	2.454	8.8	20.6
8 19	22 35.86	- 8 5.0	1.968	2.967	3.9	21.1	8 19	22 37.09	-21 37.9	1.468	2.464	5.5	20.4
8 29	22 27.50	- 8 45.9	1.944	2.954	0.3	20.8	8 29	22 27.48	-22 37.3	1.479	2.473	5.4	20.5
9 8	22 19.08	- 9 27.0	1.948	2.940	4.2	21.1	9 8	22 18.12	-23 18.7	1.516	2.482	8.4	20.7
9 18	22 11.44	-10 3.7	1.980	2.927	8.1	21.3	9 18	22 10.17	-23 38.6	1.577	2.491	12.1	20.9
9 28	22 5.36	-10 32.2	2.038	2.913	11.5	21.5	9 28	22 4.51	-23 36.4	1.659	2.500	15.4	21.1
<b>342351</b>	2008 TF <sub>169</sub>		8 28.3 331°01	5°2/ 2.4	18		<b>383297</b>	2006 EC <sub>72</sub>		8 28.3 112°33	8°5/19.4	18	
7 20	22 46.39	+ 7 32.8	1.587	2.372	19.2	20.4	7 20	22 57.97	-31 50.7	2.053	2.893	13.5	21.1
7 30	22 44.64	+ 7 17.7	1.498	2.364	16.2	20.1	7 30	22 53.20	-33 26.9	2.009	2.909	11.2	21.0
8 9	22 40.59	+ 6 34.2	1.427	2.356	12.7	19.9	8 9	22 46.08	-34 57.0	1.989	2.924	9.3	20.9
8 19	22 34.65	+ 5 22.0	1.375	2.349	8.8	19.6	8 19	22 37.19	-36 12.5	1.993	2.939	8.5	20.9
8 29	22 27.60	+ 3 44.2	1.348	2.343	5.6	19.4	8 29	22 27.50	-37 5.7	2.022	2.954	9.2	21.0
9 8	22 20.50	+ 1 48.7	1.346	2.336	5.9	19.5	9 8	22 18.09	-37 32.6	2.077	2.968	10.9	21.1
9 18	22 14.40	+ 0 13.9	1.369	2.331	9.3	19.6	9 18	22 9.98	-37 32.6	2.154	2.982	12.9	21.3
9 28	22 10.25	- 2 12.2	1.417	2.326	13.3	19.9	9 28	22 3.95	-37 8.1	2.252	2.995	14.9	21.5
<b>349191</b>	2007 RD <sub>172</sub>		8 28.3 322°50	1°5/27.1	18		<b>201995</b>	2004 PT <sub>86</sub>		8 28.3 309°90	3°3/26.1	18	
7 20	22 50.46	-10 3.2	1.667	2.510	15.9	21.2	7 20	22 53.44	-14 48.6	1.461	2.318	17.1	20.3
7 30	22 47.70	-10 41.6	1.585	2.502	12.5	20.9	7 30	22 50.81	-15 16.1	1.362	2.287	13.6	20.0
8 9	22 42.60	-11 33.2	1.523	2.494	8.5	20.7	8 9	22 45.28	-15 53.8	1.281	2.256	9.4	19.6
8 19	22 35.60	-12 33.3	1.485	2.487	4.1	20.4	8 19	22 37.20	-16 36.3	1.223	2.225	5.1	19.3
8 29	22 27.54	-13 35.2	1.472	2.480	1.7	20.2	8 29	22 27.47	-17 16.1	1.190	2.194	3.6	19.1
9 8	22 19.49	-14 31.4	1.486	2.474	5.9	20.5	9 8	22 17.41	-17 44.9	1.180	2.164	7.8	19.3
9 18	22 12.50	-15 15.8	1.525	2.468	10.3	20.7	9 18	22 8.46	-17 56.8	1.195	2.134	12.8	19.5
9 28	22 7.49	-15 44.3	1.586	2.462	14.2	21.0	9 28	22 1.92	-17 48.6	1.230	2.105	17.4	19.7
<b>317919</b>	2003 US <sub>325</sub>		8 28.3 358°80	5°8/ 4.1	18		<b>309111</b>	2006 WR <sub>113</sub>		8 28.3 288°06	5°0/23.2	18	
7 20	22 46.51	+10 39.0	2.093	2.836	16.4	20.5	7 20	22 51.43	-20 16.7	2.016	2.866	13.3	21.0
7 30	22 44.08	+10 42.2	2.004	2.834	14.1	20.4	7 30	22 48.17	-21 26.6	1.934	2.854	10.5	20.8
8 9	22 39.83	+10 23.2	1.932	2.833	11.4	20.2	8 9	22 42.77	-22 41.4	1.875	2.843	7.5	20.6
8 19	22 34.14	+ 9 41.0	1.881	2.833	8.6	20.0	8 19	22 35.67	-23 54.3	1.841	2.831	5.3	20.4
8 29	22 27.66	+ 8 37.3	1.855	2.833	6.3	19.9	8 29	22 27.60	-24 57.8	1.834	2.820	5.5	20.4
9 8	22 21.18	+ 7 16.5	1.855	2.833	6.1	19.9	9 8	22 19.52	-25 45.4	1.853	2.809	8.1	20.5
9 18	22 15.49	+ 5 45.3	1.882	2.834	8.0	20.0	9 18	22 12.38	-26 13.3	1.898	2.797	11.2	20.7
9 28	22 11.30	+ 4 11.4	1.934	2.835	10.7	20.2	9 28	22 7.00	-26 20.1	1.964	2.786	14.1	20.9
<b>478694</b>	2012 UV <sub>25</sub>		8 28.3 184°63	0°0/28.4	18		<b>506877</b>	2008 AS <sub>36</sub>		8 28.3 171°55	0°8/29.1	17	
7 20	22 56.67												

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>134006</b>	2004 VY <sub>17</sub>		8 28.3 262°21	3°5/25.1	18		<b>398080</b>	2009 JW <sub>13</sub>		8 28.4 31°48	2°1/26.6	15	
7 20	22 54.83	-16 18.9	2.006	2.843	13.8	20.6	7 20	22 51.21	-12 27.4	1.729	2.574	15.4	21.3
7 30	22 50.91	-17 8.3	1.909	2.824	10.9	20.3	7 30	22 48.02	-13 2.6	1.665	2.584	11.9	21.1
8 9	22 44.73	-18 5.3	1.835	2.804	7.5	20.1	8 9	22 42.62	-13 47.1	1.622	2.594	8.0	20.9
8 19	22 36.68	-19 4.5	1.785	2.783	4.4	19.9	8 19	22 35.54	-14 35.8	1.603	2.605	4.0	20.7
8 29	22 27.53	-19 58.9	1.763	2.762	3.9	19.8	8 29	22 27.65	-15 22.4	1.610	2.616	2.3	20.6
9 8	22 18.25	-20 42.1	1.768	2.741	6.9	19.9	9 8	22 19.97	-16 0.8	1.643	2.628	5.8	20.8
9 18	22 9.86	-21 9.6	1.800	2.719	10.5	20.1	9 18	22 13.42	-16 26.7	1.702	2.640	9.7	21.1
9 28	22 3.29	-21 19.1	1.854	2.696	14.0	20.3	9 28	22 8.78	-16 37.7	1.783	2.653	13.2	21.3
<b>146302</b>	2001 KK <sub>3</sub>		8 28.4 92°39	1°5/27.2	18		<b>433191</b>	2012 UF <sub>19</sub>		8 28.4 26°04	8°8/23.2	16	
7 20	22 56.64	-10 22.4	1.558	2.395	17.2	20.1	7 20	22 58.42	-27 23.2	1.263	2.133	18.4	20.1
7 30	22 52.45	-10 57.0	1.497	2.410	13.4	19.9	7 30	22 54.60	-28 14.1	1.219	2.144	14.8	19.9
8 9	22 45.73	-11 43.7	1.456	2.425	9.1	19.6	8 9	22 47.51	-29 0.4	1.193	2.155	11.4	19.8
8 19	22 37.08	-12 37.1	1.438	2.440	4.4	19.4	8 19	22 38.01	-29 31.7	1.188	2.168	9.0	19.7
8 29	22 27.52	-13 30.1	1.446	2.455	1.7	19.3	8 29	22 27.49	-29 39.2	1.206	2.182	9.2	19.7
9 8	22 18.23	-14 15.7	1.481	2.469	5.9	19.6	9 8	22 17.58	-29 18.5	1.247	2.196	11.7	19.9
9 18	22 10.33	-14 48.8	1.542	2.483	10.3	19.9	9 18	22 9.64	-28 30.6	1.310	2.212	15.0	20.1
9 28	22 4.67	-15 6.4	1.625	2.497	14.1	20.1	9 28	22 4.61	-27 19.7	1.392	2.228	18.1	20.4
<b>210397</b>	2007 VH <sub>224</sub>		8 28.4 315°33	2°1/30.4	18		<b>461844</b>	2006 DC <sub>180</sub>		8 28.4 156°35	1°7/27.2	17	
7 20	22 50.04	-1 4.4	1.876	2.681	15.9	20.3	7 20	23 0.82	-11 53.9	1.638	2.468	16.8	21.9
7 30	22 47.06	-1 17.4	1.789	2.677	12.9	20.1	7 30	22 55.77	-12 16.5	1.565	2.474	13.2	21.7
8 9	22 42.00	-1 47.6	1.721	2.673	9.4	19.8	8 9	22 48.06	-12 49.0	1.513	2.480	9.0	21.5
8 19	22 35.29	-2 33.5	1.677	2.669	5.4	19.6	8 19	22 38.30	-13 26.5	1.485	2.486	4.4	21.2
8 29	22 27.64	-3 31.1	1.658	2.665	2.2	19.4	8 29	22 27.47	-14 2.8	1.483	2.491	1.9	21.1
9 8	22 19.99	-4 34.5	1.667	2.661	4.4	19.5	9 8	22 16.83	-14 31.6	1.508	2.495	6.0	21.4
9 18	22 13.25	-5 37.2	1.702	2.658	8.4	19.8	9 18	22 7.56	-14 48.8	1.560	2.498	10.4	21.6
9 28	22 8.24	-6 33.2	1.761	2.654	12.1	20.0	9 28	22 0.60	-14 51.9	1.635	2.501	14.3	21.9
<b>312042</b>	2007 RQ <sub>212</sub>		8 28.4 3°55	2°6/26.8	18		<b>353217</b>	2009 UG <sub>60</sub>		8 28.4 261°52	0°4/27.6	17	
7 20	22 48.29	-11 42.9	0.940	1.828	21.7	19.5	7 20	22 43.57	-9 57.5	4.584	5.391	7.1	21.5
7 30	22 47.46	-12 10.4	0.884	1.826	17.1	19.2	7 30	22 40.67	-10 21.6	4.488	5.385	5.5	21.4
8 9	22 43.20	-12 54.5	0.844	1.826	11.6	18.9	8 9	22 36.92	-10 50.1	4.418	5.380	3.7	21.2
8 19	22 36.13	-13 48.2	0.822	1.827	5.7	18.6	8 19	22 32.56	-11 21.5	4.374	5.375	1.8	21.1
8 29	22 27.58	-14 41.0	0.822	1.829	3.0	18.5	8 29	22 27.87	-11 53.6	4.360	5.369	0.5	20.9
9 8	22 19.28	-15 22.2	0.842	1.834	8.2	18.8	9 8	22 23.19	-12 24.3	4.377	5.364	2.4	21.1
9 18	22 12.83	-15 44.5	0.883	1.839	13.9	19.1	9 18	22 18.84	-12 51.9	4.422	5.359	4.3	21.3
9 28	22 9.43	-15 44.3	0.942	1.846	18.8	19.5	9 28	22 15.13	-13 14.6	4.495	5.353	6.0	21.4
<b>187561</b>	2006 VV <sub>60</sub>		8 28.4 231°92	2°2/26.6	17		<b>394286</b>	2006 UW <sub>325</sub>		8 28.4 8°58	6°0/3.4	18	
7 20	22 55.57	-12 24.5	1.707	2.545	15.9	21.5	7 20	22 49.47	+ 9 1.9	1.999	2.749	16.8	20.9
7 30	22 51.72	-13 2.7	1.624	2.538	12.5	21.2	7 30	22 46.50	+ 9 22.6	1.912	2.750	14.4	20.7
8 9	22 45.37	-13 51.7	1.561	2.531	8.5	21.0	8 9	22 41.56	+ 9 22.3	1.843	2.750	11.6	20.5
8 19	22 37.01	-14 46.3	1.523	2.524	4.3	20.7	8 19	22 35.06	+ 9 0.1	1.796	2.751	8.6	20.4
8 29	22 27.53	-15 39.5	1.511	2.517	2.5	20.6	8 29	22 27.70	+ 8 16.7	1.773	2.752	6.4	20.2
9 8	22 18.05	-16 24.5	1.525	2.509	6.4	20.8	9 8	22 20.33	+ 7 16.3	1.775	2.753	6.3	20.2
9 18	22 9.70	-16 55.8	1.566	2.501	10.6	21.0	9 18	22 13.83	+ 6 4.8	1.804	2.755	8.4	20.4
9 28	22 3.45	-17 10.5	1.629	2.493	14.5	21.3	9 28	22 8.95	+ 4 49.6	1.858	2.756	11.2	20.5
<b>215567</b>	2003 EF <sub>62</sub>		8 28.4 41°09	5°5/23.2	18		<b>159952</b>	2005 YK <sub>109</sub>		8 28.4 241°92	1°8/30.3	18	
7 20	22 54.29	-23 25.1	2.018	2.865	13.4	20.1	7 20	22 50.72	- 2 7.6	2.389	3.180	13.3	20.9
7 30	22 50.24	-24 18.1	1.953	2.869	10.6	19.9	7 30	22 47.08	- 2 10.7	2.298	3.178	10.7	20.7
8 9	22 44.04	-25 11.4	1.911	2.873	7.8	19.8	8 9	22 41.74	- 2 26.1	2.228	3.176	7.7	20.5
8 19	22 36.21	-25 58.7	1.893	2.878	5.7	19.6	8 19	22 35.09	- 2 52.6	2.183	3.174	4.5	20.3
8 29	22 27.59	-26 33.3	1.902	2.882	5.9	19.7	8 29	22 27.72	- 3 27.3	2.165	3.171	1.9	20.1
9 8	22 19.16	-26 50.7	1.937	2.887	8.2	19.8	9 8	22 20.35	- 4 6.4	2.176	3.169	3.7	20.2
9 18	22 11.83	-26 48.9	1.998	2.892	10.9	20.0	9 18	22 13.72	- 4 45.8	2.214	3.167	6.9	20.4
9 28	22 6.37	-26 28.3	2.080	2.897	13.6	20.2	9 28	22 8.46	- 5 21.3	2.278	3.164	10.0	20.6
<b>161328</b>	2003 QV <sub>66</sub>		8 28.4 327°70	7°0/3.5	18		<b>92218</b>	2000 AT <sub>20</sub>		8 28.4 262°43	0°3/28.0	18	
7 20	22 42.31	+ 8 53.7	1.391	2.187	20.9	18.8	7 20	22 50.80	- 8 26.1	2.482	3.295	12.2	19.8
7 30	22 41.94	+ 9 5.6	1.289	2.159	18.1	18.6	7 30	22 47.16	- 8 49.1	2.382	3.282	9.7	19.6
8 9	22 39.12	+ 8 46.9	1.203	2.132	14.6	18.3	8 9	22 41.82	- 9 21.5	2.306	3.269	6.6	19.4
8 19	22 34.13	+ 7 54.0	1.136	2.105	10.8	18.0	8 19	22 35.15	-10 0.7	2.255	3.255	3.3	19.2
8 29	22 27.72	+ 6 26.8	1.090	2.080	7.6	17.7	8 29	22 27.71	-10 42.8	2.232	3.241	0.5	18.9
9 8	22 21.02	+ 4 31.1	1.066	2.055	7.4	17.6	9 8	22 20.22	-11 23.5	2.237	3.228	4.0	19.2
9 18	22 15.27	+ 2 18.1	1.066	2.032	10.8	17.8	9 18	22 13.41	-11 58.9	2.271	3.214	7.4	19.4
9 28	22 11.69	+ 0 1.9	1.088	2.011	15.2	17.9	9 28	22 7.93	-12 25.6	2.330	3.199	10.5	19.5
<b>185265</b>	2006 UE <sub>128</sub>		8 28.4 248°71	2°6/26.4	18		<b>513658</b>	2011 SO <sub>254</sub>		8 28.4 11°11	4°0/31.6	18	
7 20	22 56.21	-13 25.0	1.610	2.452	16.4	21.1	7 20	22 51.58	+ 1 13.4	1.675	2.476	17.7	21.5
7 30	22 52.40	-14 0.3	1.527	2.445	12.9	20.8	7 30	22 48.49	+ 1 34.3	1.596	2.477	14.6	21.3
8 9	22 45.95	-14 45.8	1.465	2.436	8.8	20.6	8 9	22 43.10	+ 1 37.0	1.536	2.479	11.0	21.1
8 19	22 37.34	-15 36.1	1.427	2.428	4.5	20.3	8 19	22 35.88	+ 1 21.4	1.497	2.481	7.1	20.9
8 29	22 27.52	-16 23.8	1.414	2.419	2.9	20.2	8 29	22 27.66	+ 0 49.8	1.483	2.483	4.1	20.7
9 8	22 17.70	-17 1.9	1.427	2.411	6.8	20.4	9 8	22 19.49	+ 0 7.3	1.494	2.486	5.3	20.8
9 18	22 9.10	-17 25.1	1.466	2.402	11.2	20.6	9 18	22 12.40	- 0 40.1	1.531	2.489	8.9	21.0
9 28	22 2.74	-17 30.9	1.527	2.392	15.2	20.9	9 28	22 7.25	- 1 25.9	1.592	2.493	12.6	21.2
<b>516956</b>	2012 DO <sub>6</sub>		8 28.4 209°19	7°0/18.7	18		<b>170658</b>	2003 YJ <sub>134</sub>		8 28.4 180°89	5°5/23.0	18	
7 20	22 56.62	-34 51.3											

EPHEMERIDES

8 28.4

8 28.4

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>169767</b>	2002 <i>PS</i> <sub>73</sub>	8 28.4 341°46'		7°9'/3.2 18			<b>469638</b>	2004 <i>TK</i> <sub>7</sub>	8 28.4 332°50'		6°4'/23.4 16		
7 20	22 51.19	+ 8 6.8	1.602	2.374	19.5	19.5	7 20	22 42.93	-17 5.9	1.106	2.000	18.7	20.5
7 30	22 48.48	+ 9 11.6	1.516	2.365	16.9	19.3	7 30	22 43.22	-18 20.5	1.021	1.968	14.8	20.1
8 9	22 43.31	+ 9 55.6	1.446	2.358	13.8	19.1	8 9	22 40.48	-19 50.8	0.955	1.937	10.5	19.8
8 19	22 36.09	+10 15.4	1.396	2.351	10.6	18.9	8 19	22 35.01	-21 27.6	0.908	1.908	6.9	19.5
8 29	22 27.65	+10 9.6	1.369	2.345	8.3	18.7	8 29	22 27.76	-22 57.4	0.883	1.880	7.3	19.4
9 8	22 19.11	+ 9 40.6	1.366	2.340	8.2	18.7	9 8	22 20.23	-24 6.4	0.879	1.854	11.5	19.6
9 18	22 11.61	+ 8 53.9	1.386	2.335	10.5	18.8	9 18	22 14.04	-24 44.6	0.895	1.830	16.6	19.8
9 28	22 6.16	+ 7 57.4	1.429	2.332	13.7	19.0	9 28	22 10.67	-24 47.7	0.928	1.808	21.3	20.0
<b>328558</b>	2009 <i>RS</i> <sub>73</sub>	8 28.4 242°95'		2°9'/25.2 17			<b>407551</b>	2010 <i>WW</i> <sub>73</sub>	8 28.4 303°77'		5°6'/22.0 18		
7 20	22 53.71	-18 14.8	2.656	3.484	11.1	22.2	7 20	22 50.31	-22 49.3	2.169	3.020	12.5	20.0
7 30	22 49.30	-18 43.8	2.566	3.474	8.7	22.0	7 30	22 47.19	-24 6.2	2.090	3.009	9.9	19.8
8 9	22 43.20	-19 15.6	2.499	3.465	6.0	21.9	8 9	22 42.07	-25 25.8	2.035	2.998	7.3	19.7
8 19	22 35.79	-19 46.4	2.459	3.455	3.6	21.7	8 19	22 35.36	-26 41.5	2.005	2.988	5.7	19.5
8 29	22 27.69	-20 12.1	2.448	3.445	3.2	21.6	8 29	22 27.76	-27 46.0	2.002	2.978	6.1	19.6
9 8	22 19.61	-20 28.9	2.465	3.434	5.4	21.8	9 8	22 20.17	-28 33.3	2.025	2.967	8.4	19.7
9 18	22 12.26	-20 34.4	2.509	3.424	8.2	21.9	9 18	22 13.45	-29 0.2	2.074	2.957	11.1	19.8
9 28	22 6.28	-20 27.5	2.579	3.413	10.7	22.1	9 28	22 8.37	-29 5.6	2.144	2.948	13.7	20.0
<b>298273</b>	2002 <i>XJ</i> <sub>12</sub>	8 28.4 343°47'		2°7'/30.2 18			<b>70476</b>	1999 <i>TA</i> <sub>37</sub>	8 28.4 314°83'		4°5'/1.9 18		
7 20	22 53.14	- 3 31.0	1.627	2.446	17.4	19.4	7 20	22 46.56	+ 6 32.8	1.663	2.448	18.4	19.1
7 30	22 49.87	- 3 1.6	1.543	2.439	14.1	19.2	7 30	22 44.76	+ 6 10.3	1.568	2.435	15.5	18.9
8 9	22 44.15	- 2 46.1	1.477	2.433	10.3	18.9	8 9	22 40.72	+ 5 20.5	1.490	2.423	12.0	18.6
8 19	22 36.45	- 2 44.0	1.434	2.427	6.0	18.7	8 19	22 34.82	+ 4 3.1	1.433	2.410	8.1	18.4
8 29	22 27.64	- 2 53.0	1.416	2.422	2.7	18.5	8 29	22 27.80	+ 2 21.7	1.401	2.398	4.9	18.1
9 8	22 18.82	- 3 9.0	1.424	2.418	5.1	18.6	9 8	22 20.68	+ 0 24.0	1.395	2.387	5.5	18.2
9 18	22 11.11	- 3 27.3	1.456	2.414	9.3	18.8	9 18	22 14.48	- 1 39.6	1.414	2.376	9.1	18.3
9 28	22 5.46	- 3 43.0	1.513	2.411	13.3	19.1	9 28	22 10.14	- 3 38.2	1.459	2.365	13.2	18.6
<b>378625</b>	2008 <i>FM</i> <sub>83</sub>	8 28.4 48°65'		5°8'/24.3 17			<b>202415</b>	2005 <i>UJ</i> <sub>24</sub>	8 28.4 334°37'		0°5'/28.9 18		
7 20	22 56.11	-19 35.6	1.339	2.205	17.8	20.6	7 20	22 50.77	- 6 7.7	2.038	2.855	14.4	20.7
7 30	22 52.57	-20 35.7	1.288	2.216	14.0	20.4	7 30	22 47.46	- 6 21.7	1.952	2.852	11.4	20.5
8 9	22 46.08	-21 40.6	1.256	2.228	9.8	20.2	8 9	22 42.20	- 6 48.0	1.888	2.849	8.0	20.3
8 19	22 37.36	-22 41.0	1.246	2.240	6.4	20.0	8 19	22 35.41	- 7 23.9	1.847	2.846	4.1	20.1
8 29	22 27.60	-23 27.4	1.260	2.253	6.3	20.1	8 29	22 27.78	- 8 5.5	1.833	2.843	0.5	19.8
9 8	22 18.23	-23 52.7	1.299	2.266	9.4	20.3	9 8	22 20.17	- 8 47.6	1.847	2.840	4.2	20.1
9 18	22 10.52	-23 54.3	1.360	2.280	13.2	20.5	9 18	22 13.44	- 9 25.4	1.888	2.838	8.1	20.3
9 28	22 5.43	-23 32.8	1.442	2.293	16.7	20.8	9 28	22 8.31	- 9 55.0	1.953	2.836	11.6	20.5
<b>412474</b>	2014 <i>HN</i> <sub>124</sub>	8 28.4 212°02'		8°7'/19.6 16			<b>215603</b>	2003 <i>SH</i> <sub>13</sub>	8 28.4 257°31'		1°0'/29.2 18		
7 20	22 53.19	-16 48.6	1.200	2.073	19.0	20.3	7 20	22 52.03	- 3 6.6	1.532	2.356	18.0	20.3
7 30	22 51.13	-20 8.2	1.136	2.071	14.8	20.1	7 30	22 49.25	- 3 40.4	1.445	2.348	14.5	20.1
8 9	22 45.78	-23 48.9	1.094	2.067	10.8	19.9	8 9	22 43.90	- 4 35.3	1.377	2.339	10.3	19.8
8 19	22 37.56	-27 31.6	1.077	2.064	8.7	19.7	8 19	22 36.43	- 5 48.5	1.332	2.330	5.4	19.5
8 29	22 27.57	-30 53.8	1.086	2.059	10.4	19.8	8 29	22 27.70	- 7 13.5	1.311	2.320	1.0	19.2
9 8	22 17.45	-33 36.4	1.120	2.055	14.3	20.0	9 8	22 18.89	- 8 41.3	1.317	2.311	5.3	19.5
9 18	22 8.88	-35 30.0	1.176	2.050	18.4	20.3	9 18	22 11.18	-10 2.8	1.347	2.301	10.3	19.7
9 28	22 3.26	-36 34.3	1.249	2.045	22.0	20.5	9 28	22 5.63	-11 10.5	1.401	2.292	14.7	20.0
<b>65021</b>	2002 <i>AY</i> <sub>103</sub>	8 28.4 114°23'		0°1'/28.3 18			<b>13263</b>	1998 <i>QV</i> <sub>22</sub>	8 28.4 249°66'		0°6'/27.8 18		
7 20	22 51.56	- 7 26.8	2.287	3.100	13.1	20.0	7 20	22 51.19	- 9 20.1	2.415	3.232	12.4	18.6
7 30	22 47.76	- 7 52.0	2.208	3.107	10.3	19.8	7 30	22 47.49	- 9 43.5	2.324	3.225	9.8	18.4
8 9	22 42.20	- 8 27.5	2.152	3.114	7.1	19.7	8 9	22 42.06	-10 15.9	2.255	3.219	6.7	18.2
8 19	22 35.32	- 9 10.4	2.121	3.121	3.5	19.4	8 19	22 35.29	-10 54.2	2.211	3.212	3.2	18.0
8 29	22 27.75	- 9 56.5	2.118	3.128	0.3	19.2	8 29	22 27.79	-11 34.5	2.196	3.205	0.7	17.8
9 8	22 20.27	-10 40.9	2.143	3.134	4.0	19.5	9 8	22 20.29	-12 12.4	2.209	3.198	4.1	18.0
9 18	22 13.62	-11 19.5	2.196	3.141	7.5	19.7	9 18	22 13.52	-12 44.0	2.250	3.191	7.5	18.2
9 28	22 8.43	-11 49.1	2.274	3.147	10.6	19.9	9 28	22 8.14	-13 6.5	2.316	3.184	10.6	18.4
<b>301427</b>	2009 <i>DZ</i> <sub>59</sub>	8 28.4 357°57'		3°0'/25.9 18			<b>211763</b>	2004 <i>BP</i> <sub>45</sub>	8 28.4 261°51'		4°1'/24.1 18		
7 20	22 52.64	-15 4.4	1.737	2.585	15.2	20.3	7 20	22 52.50	-17 32.0	2.051	2.894	13.4	20.5
7 30	22 49.30	-15 41.5	1.663	2.584	11.9	20.1	7 30	22 49.03	-18 39.5	1.962	2.880	10.5	20.3
8 9	22 43.63	-16 26.3	1.610	2.583	8.1	19.9	8 9	22 43.42	-19 54.4	1.896	2.865	7.3	20.1
8 19	22 36.14	-17 13.3	1.582	2.582	4.3	19.6	8 19	22 36.09	-21 10.4	1.855	2.849	4.6	19.9
8 29	22 27.70	-17 55.7	1.579	2.582	3.3	19.6	8 29	22 27.74	-22 20.0	1.841	2.834	4.6	19.9
9 8	22 19.36	-18 27.4	1.602	2.582	6.6	19.8	9 8	22 19.33	-23 16.6	1.854	2.818	7.3	20.0
9 18	22 12.17	-18 44.5	1.651	2.582	10.5	20.0	9 18	22 11.79	-23 55.3	1.893	2.802	10.7	20.2
9 28	22 6.95	-18 45.0	1.722	2.583	14.0	20.2	9 28	22 5.97	-24 14.0	1.955	2.786	13.8	20.4
<b>254545</b>	2005 <i>EM</i> <sub>208</sub>	8 28.4 6°56'		0°1'/28.3 17			<b>374875</b>	2006 <i>VM</i> <sub>124</sub>	8 28.4 215°35'		1°0'/27.6 18		
7 20	22 52.67	- 9 10.6	1.089	1.955	21.0	20.0	7 20	22 55.82	- 9 31.2	1.850	2.674	15.3	22.5
7 30	22 50.50	- 9 2.8	1.026	1.955	16.7	19.7	7 30	22 51.72	-10 1.5	1.763	2.669	12.1	22.3
8 9	22 45.08	- 9 10.1	0.981	1.956	11.5	19.4	8 9	22 45.31	-10 43.8	1.696	2.662	8.3	22.0
8 19	22 37.05	- 9 28.9	0.955	1.958	5.7	19.1	8 19	22 37.02	-11 34.1	1.654	2.656	4.0	21.8
8 29	22 27.63	- 9 53.0	0.951	1.961	0.5	18.7	8 29	22 27.69	-12 26.4	1.640	2.648	1.2	21.6
9 8	22 18.44	-10 14.8	0.970	1.966	6.5	19.2	9 8	22 18.34	-13 14.6	1.652	2.641	5.3	21.8
9 18	22 10.96	-10 28.2	1.012	1.971	12.1	19.5	9 18	22 10.01	-13 53.1	1.692	2.633	9.6	22.1
9 28	22 6.35	-10 28.8	1.073	1.978	17.0	19.8	9 28	22 3.60	-14 18.4	1.755	2.624	13.3	22.3
<b>202797</b>	2008 <i>QR</i> <sub>30</sub>	8 28.4 299°76'		2°1'/1.2 17			<b>259908</b>	2004 <i>EW</i> <sub>13</sub>	8 28.4 148°67'		2°0'/26.7 18		

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>209092</b>	2003 <i>ST</i> <sub>40</sub>		8 28.4 331 <sup>o</sup> .12		0 <sup>o</sup> .2/28.3 18		<b>194901</b>	2002 <i>AY</i> <sub>98</sub>		8 28.4 214 <sup>o</sup> .73		0 <sup>o</sup> .8/27.7 18	
7 20	22 59.67	-11 46.0	1.518	2.355	17.5	19.9	7 20	22 55.42	-9 39.8	2.040	2.860	14.3	20.5
7 30	22 55.30	-11 11.7	1.432	2.344	14.0	19.6	7 30	22 51.18	-10 5.0	1.951	2.854	11.3	20.3
8 9	22 48.07	-10 43.6	1.365	2.333	9.7	19.4	8 9	22 44.82	-10 40.6	1.883	2.848	7.7	20.1
8 19	22 38.50	-10 19.3	1.321	2.322	4.9	19.0	8 19	22 36.77	-11 23.0	1.840	2.841	3.8	19.8
8 29	22 27.59	-9 56.0	1.303	2.313	0.4	18.7	8 29	22 27.78	-12 7.4	1.825	2.834	1.0	19.6
9 8	22 16.71	-9 30.3	1.311	2.304	5.6	19.1	9 8	22 18.79	-12 48.1	1.837	2.826	4.9	19.9
9 18	22 7.15	-9 0.2	1.344	2.295	10.6	19.3	9 18	22 10.70	-13 20.7	1.877	2.818	8.8	20.1
9 28	22 0.04	-8 24.0	1.400	2.288	14.9	19.6	9 28	22 4.36	-13 41.9	1.942	2.809	12.3	20.3
<b>444700</b>	2007 <i>EY</i> <sub>80</sub>		8 28.4 254 <sup>o</sup> .35		1 <sup>o</sup> .3/29.5 18		<b>151411</b>	2002 <i>EN</i> <sub>131</sub>		8 28.4 31 <sup>o</sup> .79		2 <sup>o</sup> .2/30.1 18	
7 20	22 54.06	-5 12.9	2.298	3.098	13.5	21.3	7 20	22 56.69	-4 7.4	2.039	2.837	15.0	19.7
7 30	22 49.80	-5 3.6	2.205	3.093	10.8	21.1	7 30	22 52.02	-3 34.6	1.957	2.841	12.1	19.6
8 9	22 43.69	-5 4.3	2.134	3.088	7.7	20.9	8 9	22 45.28	-3 12.4	1.896	2.845	8.8	19.4
8 19	22 36.13	-5 13.6	2.088	3.083	4.2	20.7	8 19	22 36.95	-3 0.1	1.858	2.850	5.1	19.1
8 29	22 27.77	-5 29.0	2.070	3.078	1.3	20.5	8 29	22 27.78	-2 56.0	1.848	2.854	2.3	19.0
9 8	22 19.42	-5 47.1	2.080	3.073	3.8	20.7	9 8	22 18.70	-2 57.3	1.867	2.859	4.3	19.1
9 18	22 11.86	-6 4.5	2.118	3.068	7.4	20.9	9 18	22 10.60	-3 0.8	1.912	2.864	7.9	19.4
9 28	22 5.80	-6 17.8	2.181	3.063	10.6	21.1	9 28	22 4.25	-3 3.2	1.983	2.869	11.2	19.6
<b>328091</b>	2007 <i>YR</i> <sub>63</sub>		8 28.4 208 <sup>o</sup> .32		1 <sup>o</sup> .8/27.0 18		<b>252825</b>	2002 <i>GW</i> <sub>92</sub>		8 28.4 144 <sup>o</sup> .61		1 <sup>o</sup> .1/27.3 18	
7 20	22 55.67	-10 56.0	1.585	2.424	16.8	21.4	7 20	22 54.23	-12 4.8	2.393	3.212	12.5	20.4
7 30	22 51.96	-11 31.7	1.508	2.422	13.2	21.2	7 30	22 49.80	-12 18.3	2.312	3.215	9.7	20.2
8 9	22 45.65	-12 20.0	1.450	2.420	9.0	20.9	8 9	22 43.60	-12 38.1	2.253	3.218	6.6	20.0
8 19	22 37.25	-13 15.7	1.416	2.418	4.4	20.7	8 19	22 36.06	-13 1.1	2.220	3.221	3.2	19.8
8 29	22 27.70	-14 11.6	1.408	2.415	2.0	20.5	8 29	22 27.84	-13 23.7	2.215	3.223	1.3	19.6
9 8	22 18.21	-15 0.2	1.426	2.413	6.2	20.8	9 8	22 19.70	-13 42.0	2.239	3.226	4.4	19.9
9 18	22 9.95	-15 35.8	1.469	2.410	10.8	21.0	9 18	22 12.40	-13 53.2	2.291	3.228	7.6	20.1
9 28	22 3.92	-15 54.9	1.535	2.406	14.8	21.3	9 28	22 6.59	-13 55.3	2.368	3.230	10.6	20.3
<b>1956</b>	<i>Artek</i>		8 28.4 196 <sup>o</sup> .67		0 <sup>o</sup> .0/28.4 18		<b>483401</b>	1997 <i>MQ</i>		8 28.4 351 <sup>o</sup> .60		2 <sup>o</sup> .8/24.9 17	
7 20	22 50.24	-7 16.8	2.733	3.539	11.4	17.7	7 20	22 45.32	-8 9.9	1.817	2.659	14.9	20.5
7 30	22 46.51	-7 42.4	2.643	3.537	9.0	17.6	7 30	22 43.57	-10 19.4	1.734	2.653	11.5	20.3
8 9	22 41.27	-8 17.1	2.575	3.535	6.2	17.4	8 9	22 39.78	-12 48.9	1.675	2.649	7.7	20.1
8 19	22 34.88	-8 58.4	2.533	3.532	3.1	17.2	8 19	22 34.34	-15 30.3	1.642	2.645	3.9	19.8
8 29	22 27.88	-9 42.8	2.520	3.530	0.2	16.9	8 29	22 27.94	-18 12.1	1.639	2.641	3.4	19.8
9 8	22 20.89	-10 26.4	2.536	3.527	3.5	17.2	9 8	22 21.49	-20 42.3	1.664	2.639	7.0	20.0
9 18	22 14.53	-11 5.4	2.581	3.524	6.6	17.4	9 18	22 15.91	-22 51.2	1.717	2.637	10.9	20.3
9 28	22 9.38	-11 36.9	2.652	3.521	9.4	17.6	9 28	22 12.02	-24 32.7	1.793	2.636	14.3	20.5
<b>287186</b>	2002 <i>RW</i> <sub>282</sub>		8 28.4 76 <sup>o</sup> .67		0 <sup>o</sup> .5/27.9 18		<b>511122</b>	2013 <i>WF</i> <sub>58</sub>		8 28.4 285 <sup>o</sup> .55		2 <sup>o</sup> .7/30.5 18	
7 20	22 53.76	-9 4.3	1.897	2.722	15.0	21.1	7 20	22 51.80	-0 49.2	1.602	2.414	17.9	22.1
7 30	22 49.90	-9 22.2	1.821	2.727	11.8	20.9	7 30	22 49.06	-0 52.4	1.505	2.397	14.7	21.8
8 9	22 43.90	-9 50.9	1.766	2.732	8.1	20.7	8 9	22 43.82	-1 15.3	1.428	2.380	10.8	21.5
8 19	22 36.27	-10 26.7	1.736	2.737	3.9	20.4	8 19	22 36.47	-1 57.3	1.372	2.363	6.4	21.2
8 29	22 27.79	-11 4.9	1.732	2.742	0.7	20.2	8 29	22 27.80	-2 54.7	1.340	2.347	2.8	21.0
9 8	22 19.43	-11 40.1	1.756	2.747	4.8	20.5	9 8	22 18.95	-4 1.0	1.335	2.330	5.2	21.1
9 18	22 12.10	-12 7.9	1.806	2.752	8.8	20.8	9 18	22 11.09	-5 8.6	1.355	2.313	9.8	21.3
9 28	22 6.58	-12 25.1	1.881	2.757	12.3	21.0	9 28	22 5.28	-6 9.5	1.398	2.296	14.2	21.5
<b>288928</b>	2004 <i>SN</i> <sub>29</sub>		8 28.4 255 <sup>o</sup> .06		1 <sup>o</sup> .4/27.1 18		<b>6536</b>	<i>Vysochinska</i>		8 28.4 30 <sup>o</sup> .48		2 <sup>o</sup> .5/26.5 18	<i>R</i>
7 20	22 53.58	-12 42.8	2.362	3.185	12.5	20.5	7 20	22 48.63	-9 14.6	1.054	1.929	20.9	16.2
7 30	22 49.40	-12 58.8	2.273	3.179	9.8	20.3	7 30	22 47.23	-10 22.8	1.007	1.942	16.2	15.9
8 9	22 43.39	-13 21.2	2.207	3.174	6.6	20.1	8 9	22 42.75	-11 50.7	0.977	1.956	10.9	15.7
8 19	22 35.98	-13 46.6	2.167	3.168	3.3	19.9	8 19	22 35.88	-13 29.2	0.967	1.972	5.3	15.4
8 29	22 27.81	-14 11.1	2.155	3.162	1.6	19.8	8 29	22 27.87	-15 5.7	0.981	1.988	2.9	15.4
9 8	22 19.68	-14 30.8	2.171	3.156	4.6	20.0	9 8	22 20.22	-16 28.0	1.017	2.005	7.8	15.7
9 18	22 12.35	-14 42.6	2.215	3.151	7.9	20.2	9 18	22 14.28	-17 27.6	1.075	2.024	12.9	16.0
9 28	22 6.51	-14 44.4	2.284	3.145	11.0	20.4	9 28	22 11.03	-18 0.9	1.153	2.043	17.3	16.4
<b>289300</b>	2005 <i>AX</i> <sub>2</sub>		8 28.4 253 <sup>o</sup> .21		0 <sup>o</sup> .2/28.5 18		<b>471683</b>	2012 <i>TR</i> <sub>197</sub>		8 28.4 357 <sup>o</sup> .11		3 <sup>o</sup> .1/27.2 18	
7 20	22 57.81	-8 6.8	1.510	2.341	17.9	21.2	7 20	22 57.95	-18 9.6	1.106	1.980	20.2	19.2
7 30	22 53.87	-8 7.0	1.425	2.333	14.3	20.9	7 30	22 54.80	-17 35.9	1.040	1.973	16.1	18.9
8 9	22 47.12	-8 20.3	1.360	2.325	10.0	20.6	8 9	22 48.13	-17 3.2	0.991	1.968	11.2	18.6
8 19	22 38.07	-8 43.9	1.316	2.317	5.0	20.3	8 19	22 38.64	-16 26.8	0.963	1.965	5.9	18.3
8 29	22 27.67	-9 12.8	1.298	2.308	0.3	20.0	8 29	22 27.69	-15 42.0	0.957	1.963	3.3	18.2
9 8	22 17.25	-9 41.0	1.306	2.299	5.6	20.3	9 8	22 17.06	-14 46.0	0.974	1.964	7.7	18.5
9 18	22 8.08	-10 2.8	1.339	2.290	10.6	20.6	9 18	22 8.35	-13 38.7	1.014	1.966	13.0	18.8
9 28	22 1.29	-10 14.1	1.395	2.281	15.1	20.9	9 28	22 2.75	-12 22.0	1.074	1.970	17.7	19.1
<b>448409</b>	2009 <i>SB</i> <sub>26</sub>		8 28.4 28 <sup>o</sup> .64		6 <sup>o</sup> .6/ 6.5 18		<b>165056</b>	2000 <i>ED</i> <sub>79</sub>		8 28.4 164 <sup>o</sup> .49		2 <sup>o</sup> .3/26.4 18	
7 20	22 46.76	+16 21.6	2.246	2.943	16.5	20.8	7 20	22 58.11	-15 43.5	2.295	3.117	12.8	20.3
7 30	22 44.20	+16 5.5	2.155	2.947	14.5	20.6	7 30	22 52.92	-16 2.8	2.215	3.121	10.0	20.1
8 9	22 39.91	+15 23.9	2.082	2.952	12.1	20.5	8 9	22 45.78	-16 26.5	2.159	3.124	6.8	20.0
8 19	22 34.28	+14 15.9	2.029	2.956	9.5	20.3	8 19	22 37.16	-16 50.5	2.129	3.127	3.6	19.8
8 29	22 27.93	+12 43.1	2.001	2.961	7.4	20.2	8 29	22 27.80	-17 10.4	2.127	3.130	2.5	19.7
9 8	22 21.61	+10 50.3	1.999	2.966	6.7	20.2	9 8	22 18.57	-17 22.4	2.154	3.133	5.3	19.9
9 18	22 16.07	+8 45.2	2.025	2.971	7.9	20.3	9 18	22 10.30	-17 24.1	2.208	3.134	8.5	20.1
9 28	22 11.95	+6 36.4	2.078	2.976	10.2	20.4	9 28	22 3.68	-17 14.2	2.288	3.136	11.4	20.3
<b>156152</b>													

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>475371</b>	2006 <i>DQ</i> <sub>134</sub>		8 28.4 34°24'	2°2/26.7	16		<b>254102</b>	2004 <i>KV</i> <sub>16</sub>		8 28.4 299°37'	2°4/30.5	18	
7 20	22 51.74	-11 20.1	1.476	2.328	17.2	20.9	7 20	22 54.14	-2 21.6	2.199	2.989	14.3	20.4
7 30	22 48.90	-12 4.3	1.414	2.336	13.4	20.7	7 30	22 49.99	-2 0.0	2.106	2.985	11.6	20.2
8 9	22 43.52	-13 1.0	1.371	2.345	9.0	20.4	8 9	22 43.92	-1 50.0	2.035	2.981	8.5	20.0
8 19	22 36.19	-14 4.2	1.352	2.355	4.4	20.2	8 19	22 36.33	-1 51.0	1.988	2.977	5.1	19.8
8 29	22 27.88	-15 5.8	1.358	2.365	2.5	20.1	8 29	22 27.90	-2 1.1	1.969	2.973	2.5	19.6
9 8	22 19.78	-15 58.0	1.389	2.375	6.5	20.4	9 8	22 19.47	-2 17.3	1.977	2.969	4.1	19.7
9 18	22 13.00	-16 35.2	1.444	2.386	10.8	20.7	9 18	22 11.85	-2 35.8	2.013	2.965	7.5	19.9
9 28	22 8.41	-16 54.4	1.522	2.397	14.7	20.9	9 28	22 5.80	-2 53.0	2.074	2.961	10.8	20.1
<b>358816</b>	2008 <i>EU</i> <sub>122</sub>		8 28.4 242°67'	0°1/28.3	18		<b>206595</b>	2003 <i>WN</i> <sub>39</sub>		8 28.4 299°50'	0°6/27.9	18	
7 20	22 54.26	-8 58.8	2.232	3.046	13.4	20.9	7 20	22 54.24	-9 35.5	1.822	2.651	15.4	20.5
7 30	22 50.03	-9 3.3	2.144	3.043	10.6	20.7	7 30	22 50.50	-9 48.5	1.739	2.647	12.2	20.2
8 9	22 43.90	-9 16.3	2.077	3.039	7.3	20.5	8 9	22 44.48	-10 12.1	1.676	2.643	8.3	20.0
8 19	22 36.29	-9 35.4	2.036	3.036	3.6	20.3	8 19	22 36.68	-10 43.0	1.637	2.639	4.1	19.7
8 29	22 27.88	-9 57.2	2.022	3.032	0.3	20.0	8 29	22 27.89	-11 16.3	1.625	2.635	0.8	19.5
9 8	22 19.50	-10 17.6	2.037	3.028	4.1	20.3	9 8	22 19.13	-11 46.7	1.640	2.631	5.0	19.8
9 18	22 11.97	-10 33.2	2.080	3.025	7.8	20.5	9 18	22 11.41	-12 9.5	1.681	2.627	9.2	20.0
9 28	22 6.00	-10 41.3	2.147	3.021	11.1	20.7	9 28	22 5.59	-12 21.5	1.746	2.624	13.0	20.3
<b>266261</b>	2006 <i>YD</i> <sub>37</sub>		8 28.4 157°04'	0°9/27.7	17		<b>485915</b>	2012 <i>GG</i> <sub>19</sub>		8 28.4 241°81'	5°7/5.6	18	
7 20	22 56.72	-9 31.0	1.971	2.789	14.8	21.5	7 20	22 48.40	+14 55.7	2.878	3.561	13.5	21.8
7 30	22 52.16	-9 58.9	1.893	2.796	11.6	21.3	7 30	22 45.16	+14 49.4	2.766	3.549	11.8	21.7
8 9	22 45.45	-10 37.4	1.837	2.802	7.9	21.1	8 9	22 40.44	+14 24.0	2.672	3.537	9.9	21.5
8 19	22 37.07	-11 22.5	1.806	2.807	3.8	20.9	8 19	22 34.57	+13 38.4	2.600	3.524	7.8	21.4
8 29	22 27.83	-12 9.0	1.803	2.812	1.0	20.7	8 29	22 28.02	+12 33.3	2.554	3.511	6.2	21.2
9 8	22 18.71	-12 51.2	1.827	2.816	4.9	21.0	9 8	22 21.41	+11 11.7	2.535	3.498	5.7	21.2
9 18	22 10.61	-13 24.7	1.879	2.820	8.8	21.2	9 18	22 15.33	+9 38.3	2.545	3.484	6.9	21.3
9 28	22 4.35	-13 46.3	1.956	2.823	12.3	21.4	9 28	22 10.38	+7 59.2	2.583	3.470	8.9	21.4
<b>186708</b>	2004 <i>BU</i> <sub>72</sub>		8 28.4 232°46'	0°9/29.2	18		<b>509828</b>	2008 <i>WA</i> <sub>136</sub>		8 28.4 235°67'	3°5/24.8	18	
7 20	22 54.00	-3 40.4	1.856	2.664	15.9	21.6	7 20	22 53.84	-16 25.1	2.165	3.000	13.0	22.1
7 30	22 50.38	-4 9.5	1.760	2.653	12.8	21.4	7 30	22 49.95	-17 24.6	2.075	2.989	10.2	21.9
8 9	22 44.49	-4 55.8	1.684	2.642	9.1	21.2	8 9	22 44.02	-18 31.1	2.009	2.977	7.1	21.7
8 19	22 36.73	-5 56.6	1.633	2.630	4.8	20.9	8 19	22 36.44	-19 39.3	1.968	2.965	4.2	21.5
8 29	22 27.85	-7 6.8	1.608	2.617	0.9	20.6	8 29	22 27.92	-20 42.4	1.955	2.952	3.9	21.5
9 8	22 18.86	-8 19.6	1.610	2.604	4.7	20.8	9 8	22 19.36	-21 34.2	1.970	2.939	6.6	21.6
9 18	22 10.78	-9 27.9	1.640	2.590	9.1	21.1	9 18	22 11.63	-22 10.6	2.012	2.925	9.9	21.8
9 28	22 4.54	-10 25.6	1.694	2.576	13.1	21.3	9 28	22 5.56	-22 29.2	2.077	2.912	13.0	22.0
<b>298633</b>	2004 <i>BD</i> <sub>37</sub>		8 28.4 257°35'	0°0/28.4	18		<b>447093</b>	2004 <i>TZ</i> <sub>99</sub>		8 28.4 198°06'	3°7/2.7	18	
7 20	22 53.15	-7 24.5	2.139	2.953	13.9	21.6	7 20	22 48.97	+7 41.5	3.024	3.752	12.1	22.0
7 30	22 49.39	-7 43.6	2.040	2.939	11.1	21.4	7 30	22 45.43	+7 30.1	2.921	3.749	10.2	21.9
8 9	22 43.62	-8 14.1	1.963	2.924	7.7	21.1	8 9	22 40.52	+7 3.7	2.840	3.745	8.0	21.7
8 19	22 36.23	-8 53.4	1.910	2.909	3.9	20.9	8 19	22 34.58	+6 22.4	2.782	3.741	5.7	21.5
8 29	22 27.89	-9 37.3	1.884	2.894	0.2	20.5	8 29	22 28.04	+5 27.9	2.752	3.737	4.0	21.4
9 8	22 19.46	-10 20.7	1.887	2.878	4.4	20.9	9 8	22 21.49	+4 23.6	2.750	3.732	4.0	21.4
9 18	22 11.82	-10 58.7	1.917	2.863	8.3	21.1	9 18	22 15.47	+3 13.4	2.778	3.727	5.9	21.5
9 28	22 5.77	-11 27.6	1.972	2.846	11.8	21.3	9 28	22 10.51	+2 2.3	2.833	3.721	8.2	21.7
<b>167486</b>	2003 <i>YT</i> <sub>64</sub>		8 28.4 184°56'	2°8/31.3	18		<b>418938</b>	2009 <i>DB</i> <sub>74</sub>		8 28.4 95°44'	0°4/28.7	17	
7 20	22 53.16	+0 49.6	2.325	3.100	14.1	20.7	7 20	22 53.49	-3 46.9	1.412	2.242	19.0	21.1
7 30	22 49.09	+0 52.3	2.233	3.100	11.5	20.5	7 30	22 50.40	-4 35.5	1.346	2.253	15.1	20.8
8 9	22 43.22	+0 40.9	2.163	3.100	8.6	20.3	8 9	22 44.65	-5 45.6	1.299	2.263	10.5	20.6
8 19	22 35.95	+0 15.9	2.116	3.099	5.4	20.1	8 19	22 36.82	-7 12.2	1.274	2.274	5.3	20.3
8 29	22 27.91	-0 20.1	2.097	3.098	2.9	20.0	8 29	22 27.91	-8 47.0	1.274	2.284	0.4	20.0
9 8	22 19.87	-1 3.5	2.106	3.097	4.1	20.0	9 8	22 19.18	-10 19.7	1.301	2.294	5.5	20.4
9 18	22 12.59	-1 49.5	2.143	3.095	7.1	20.2	9 18	22 11.81	-11 41.2	1.352	2.305	10.4	20.7
9 28	22 6.77	-2 33.5	2.206	3.093	10.2	20.4	9 28	22 6.74	-12 45.0	1.427	2.314	14.7	21.0
<b>128307</b>	2004 <i>BV</i> <sub>56</sub>		8 28.4 114°01'	0°5/28.8	18		<b>41132</b>	1999 <i>VC</i> <sub>98</sub>		8 28.4 4°14'	3°8/25.6	18	
7 20	22 57.27	-6 24.9	1.692	2.510	16.8	20.0	7 20	22 52.56	-15 52.5	1.471	2.331	16.8	18.9
7 30	22 52.86	-6 37.1	1.622	2.522	13.3	19.8	7 30	22 49.71	-16 34.6	1.404	2.331	13.2	18.6
8 9	22 46.05	-7 3.0	1.572	2.534	9.3	19.6	8 9	22 44.20	-17 24.9	1.356	2.331	9.0	18.4
8 19	22 37.40	-7 39.4	1.546	2.545	4.7	19.4	8 19	22 36.61	-18 16.8	1.332	2.332	5.0	18.2
8 29	22 27.82	-8 21.2	1.546	2.556	0.5	19.1	8 29	22 27.93	-19 2.2	1.332	2.333	4.2	18.1
9 8	22 18.44	-9 2.5	1.574	2.567	4.8	19.4	9 8	22 19.41	-19 33.9	1.356	2.335	7.7	18.4
9 18	22 10.30	-9 37.8	1.627	2.577	9.2	19.7	9 18	22 12.22	-19 47.5	1.405	2.338	11.8	18.6
9 28	22 4.24	-10 3.1	1.705	2.587	13.0	20.0	9 28	22 7.33	-19 41.6	1.475	2.342	15.6	18.8
<b>457619</b>	2009 <i>BW</i> <sub>89</sub>		8 28.4 163°00'	2°4/25.8	18		<b>389588</b>	2011 <i>FH</i> <sub>126</sub>		8 28.4 282°61'	4°3/31.7	18	
7 20	22 50.25	-10 59.0	1.966	2.802	14.2	20.8	7 20	22 52.78	+2 4.3	1.602	2.400	18.5	21.3
7 30	22 47.21	-12 17.9	1.888	2.802	11.0	20.6	7 30	22 49.84	+2 21.5	1.508	2.387	15.4	21.0
8 9	22 42.14	-13 49.4	1.832	2.803	7.4	20.4	8 9	22 44.37	+2 18.6	1.433	2.374	11.7	20.8
8 19	22 35.48	-15 27.4	1.803	2.804	3.8	20.2	8 19	22 36.79	+1 54.9	1.379	2.361	7.7	20.5
8 29	22 27.94	-17 4.1	1.801	2.805	2.8	20.1	8 29	22 27.92	+1 12.3	1.349	2.349	4.5	20.3
9 8	22 20.43	-18 31.5	1.826	2.805	6.1	20.3	9 8	22 18.88	+0 16.1	1.344	2.336	5.7	20.3
9 18	22 13.83	-19 43.4	1.879	2.806	9.7	20.5	9 18	22 10.86	-0 46.5	1.364	2.323	9.7	20.5
9 28	22 8.91	-20 36.0	1.955	2.806	13.0	20.8	9 28	22 4.92	-1 47.6	1.408	2.310	13.9	20.8
<b>511247</b>	2014 <i>BN</i> <sub>36</sub>		8 28.4 191°69'	0°7/27.8	18		<b>493747</b>	2015 <i>TM</i> <sub>234</sub>		8 28.4 276°60'	7°9/20.8	17	
7													



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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>184038</b>	2004 <i>FW</i> <sub>77</sub>		8 28.4 226°61	0°9/27.7	18		<b>3889</b>	Menshikov		8 28.4 346°36	2°0/26.9	18	
7 20	22 55.12	- 8 46.1	1.817	2.642	15.6	21.0	7 20	22 46.34	-10 25.6	1.283	2.151	18.3	16.2
7 30	22 51.30	- 9 21.3	1.728	2.634	12.3	20.7	7 30	22 45.25	-11 2.6	1.208	2.140	14.4	16.0
8 9	22 45.14	-10 9.9	1.659	2.625	8.5	20.5	8 9	22 41.45	-11 55.6	1.151	2.129	9.9	15.7
8 19	22 37.08	-11 7.7	1.615	2.616	4.1	20.2	8 19	22 35.40	-12 59.2	1.116	2.120	4.8	15.4
8 29	22 27.91	-12 8.7	1.597	2.607	1.1	20.0	8 29	22 28.07	-14 4.9	1.104	2.112	2.3	15.2
9 8	22 18.69	-13 6.0	1.607	2.597	5.4	20.2	9 8	22 20.74	-15 3.2	1.115	2.105	7.0	15.5
9 18	22 10.47	-13 53.5	1.644	2.586	9.7	20.5	9 18	22 14.68	-15 46.4	1.149	2.100	12.0	15.7
9 28	22 4.17	-14 27.1	1.704	2.575	13.6	20.7	9 28	22 10.98	-16 9.5	1.203	2.096	16.5	16.0
<b>267692</b>	2002 <i>VH</i> <sub>113</sub>		8 28.4 259°89	2°3/26.6	18		<b>299090</b>	2005 <i>EB</i> <sub>65</sub>		8 28.4 93°62	5°1/24.4	18	
7 20	22 54.85	-12 1.7	1.738	2.575	15.7	20.8	7 20	22 59.28	-22 37.0	1.921	2.761	14.3	20.1
7 30	22 51.32	-12 44.7	1.645	2.559	12.4	20.6	7 30	22 54.28	-23 13.0	1.856	2.768	11.3	20.0
8 9	22 45.31	-13 39.6	1.573	2.543	8.5	20.3	8 9	22 46.94	-23 49.3	1.813	2.775	8.1	19.8
8 19	22 37.23	-14 41.5	1.526	2.527	4.3	20.0	8 19	22 37.85	-24 19.5	1.794	2.782	5.6	19.6
8 29	22 27.91	-15 43.2	1.504	2.510	2.6	19.9	8 29	22 27.94	-24 37.6	1.802	2.789	5.5	19.7
9 8	22 18.47	-16 37.2	1.509	2.493	6.4	20.1	9 8	22 18.29	-24 39.3	1.838	2.796	7.8	19.8
9 18	22 10.04	-17 17.5	1.540	2.476	10.8	20.3	9 18	22 9.90	-24 23.1	1.898	2.803	10.9	20.0
9 28	22 3.63	-17 40.4	1.594	2.458	14.7	20.5	9 28	22 3.57	-23 49.9	1.982	2.810	13.7	20.2
<b>381713</b>	2009 <i>QQ</i> <sub>6</sub>		8 28.4 318°05	1°2/29.3	18		<b>96963</b>	1999 <i>TR</i> <sub>186</sub>		8 28.4 249°52	6°7/ 3.4	18	
7 20	22 49.14	- 4 46.2	1.296	2.143	19.4	21.3	7 20	22 54.01	+ 9 32.9	2.096	2.829	16.6	19.3
7 30	22 47.61	- 4 52.3	1.206	2.122	15.7	21.0	7 30	22 50.21	+10 15.4	1.994	2.818	14.4	19.1
8 9	22 43.23	- 5 18.4	1.133	2.101	11.2	20.7	8 9	22 44.31	+10 39.5	1.911	2.807	11.8	18.9
8 19	22 36.38	- 6 2.7	1.081	2.080	6.0	20.3	8 19	22 36.68	+10 42.8	1.849	2.795	9.1	18.7
8 29	22 27.97	- 7 0.0	1.051	2.060	1.2	20.0	8 29	22 28.00	+10 24.9	1.812	2.783	7.1	18.5
9 8	22 19.30	- 8 2.0	1.045	2.041	5.9	20.2	9 8	22 19.16	+ 9 47.9	1.801	2.771	7.0	18.5
9 18	22 11.81	- 8 59.8	1.062	2.023	11.5	20.5	9 18	22 11.10	+ 8 56.3	1.816	2.758	8.9	18.6
9 28	22 6.77	- 9 45.3	1.100	2.006	16.6	20.7	9 28	22 4.67	+ 7 56.6	1.856	2.746	11.7	18.8
<b>223165</b>	2002 <i>XB</i> <sub>87</sub>		8 28.4 201°44	2°1/30.3	18		<b>476237</b>	2007 <i>VD</i> <sub>41</sub>		8 28.4 184°64	1°6/30.0	18	
7 20	22 57.26	- 2 13.3	2.123	2.909	14.9	21.2	7 20	22 51.96	- 2 26.7	2.064	2.864	14.8	22.0
7 30	22 52.56	- 2 9.0	2.028	2.905	12.1	21.0	7 30	22 48.42	- 2 41.2	1.978	2.864	11.9	21.8
8 9	22 45.78	- 2 18.1	1.954	2.900	8.8	20.8	8 9	22 42.93	- 3 10.4	1.912	2.864	8.5	21.6
8 19	22 37.33	- 2 39.4	1.905	2.895	5.1	20.5	8 19	22 35.91	- 3 52.5	1.870	2.864	4.8	21.4
8 29	22 27.94	- 3 10.2	1.883	2.889	2.2	20.3	8 29	22 28.05	- 4 43.6	1.856	2.863	1.6	21.1
9 8	22 18.50	- 3 46.3	1.889	2.882	4.2	20.5	9 8	22 20.21	- 5 38.5	1.869	2.863	4.0	21.3
9 18	22 9.93	- 4 23.1	1.924	2.874	7.9	20.7	9 18	22 13.23	- 6 31.7	1.909	2.862	7.8	21.5
9 28	22 3.05	- 4 56.0	1.984	2.866	11.4	20.9	9 28	22 7.86	- 7 18.2	1.975	2.861	11.3	21.8
<b>90616</b>	6835 <i>P-L</i>		8 28.4 24°75	1°5/27.0	18		<b>244552</b>	2002 <i>VN</i> <sub>50</sub>		8 28.4 344°61	9°4/20.4	18	
7 20	22 52.05	-11 30.5	1.988	2.821	14.1	19.7	7 20	22 52.87	-28 47.7	1.507	2.375	16.1	19.3
7 30	22 48.55	-12 2.6	1.911	2.823	11.0	19.5	7 30	22 50.26	-30 12.3	1.445	2.367	13.2	19.1
8 9	22 43.03	-12 43.8	1.855	2.824	7.5	19.3	8 9	22 44.77	-31 34.5	1.404	2.359	10.7	19.0
8 19	22 35.94	-13 30.2	1.824	2.826	3.7	19.1	8 19	22 36.99	-32 43.7	1.384	2.353	9.4	18.9
8 29	22 28.03	-14 16.1	1.820	2.828	1.8	19.0	8 29	22 27.98	-33 29.7	1.389	2.347	10.1	18.9
9 8	22 20.20	-14 56.1	1.844	2.830	5.2	19.2	9 8	22 19.15	-33 45.8	1.415	2.342	12.5	19.0
9 18	22 13.32	-15 25.9	1.893	2.832	8.9	19.4	9 18	22 11.77	-33 30.4	1.463	2.338	15.4	19.2
9 28	22 8.14	-15 42.8	1.967	2.834	12.2	19.7	9 28	22 6.89	-32 45.8	1.530	2.334	18.2	19.4
<b>263059</b>	2007 <i>HZ</i> <sub>67</sub>		8 28.4 231°95	1°8/30.6	18		<b>145031</b>	2005 <i>EB</i> <sub>272</sub>		8 28.4 66°60	0°1/28.6	18	
7 20	22 49.00	- 0 22.4	2.552	3.335	12.7	21.0	7 20	22 50.27	- 4 50.8	1.848	2.669	15.5	19.9
7 30	22 45.74	- 0 47.7	2.455	3.330	10.3	20.8	7 30	22 47.28	- 5 37.0	1.774	2.676	12.3	19.7
8 9	22 40.91	- 1 27.2	2.379	3.324	7.5	20.6	8 9	22 42.22	- 6 39.2	1.720	2.683	8.5	19.5
8 19	22 34.85	- 2 19.1	2.328	3.317	4.4	20.4	8 19	22 35.57	- 7 53.6	1.690	2.690	4.3	19.3
8 29	22 28.10	- 3 20.2	2.305	3.311	1.8	20.2	8 29	22 28.07	- 9 13.9	1.687	2.697	0.2	19.0
9 8	22 21.32	- 4 25.9	2.311	3.304	3.4	20.3	9 8	22 20.67	-10 32.6	1.712	2.704	4.6	19.3
9 18	22 15.17	- 5 31.3	2.345	3.298	6.6	20.5	9 18	22 14.24	-11 43.2	1.763	2.712	8.7	19.6
9 28	22 10.26	- 6 31.7	2.406	3.291	9.6	20.7	9 28	22 9.55	-12 40.4	1.838	2.719	12.3	19.8
<b>471002</b>	2009 <i>SN</i> <sub>170</sub>		8 28.4 289°50	2°9/30.3	18		<b>514610</b>	2003 <i>TL</i> <sub>45</sub>		8 28.4 314°77	3°6/26.3	18	
7 20	22 55.84	- 2 42.5	1.568	2.381	18.1	21.3	7 20	22 58.07	-17 48.9	1.569	2.418	16.5	20.8
7 30	22 52.30	- 2 16.3	1.477	2.369	14.9	21.0	7 30	22 54.18	-17 56.9	1.479	2.399	13.1	20.5
8 9	22 46.10	- 2 5.4	1.404	2.357	10.9	20.8	8 9	22 47.45	-18 9.1	1.410	2.381	9.1	20.2
8 19	22 37.68	- 2 9.6	1.354	2.346	6.5	20.5	8 19	22 38.36	-18 19.9	1.363	2.363	5.1	20.0
8 29	22 27.93	- 2 26.5	1.328	2.334	3.0	20.3	8 29	22 27.90	-18 23.2	1.342	2.345	3.9	19.8
9 8	22 18.04	- 2 51.7	1.328	2.322	5.4	20.4	9 8	22 17.39	-18 13.7	1.347	2.328	7.4	20.0
9 18	22 9.26	- 3 19.6	1.353	2.311	9.9	20.6	9 18	22 8.14	-17 48.6	1.376	2.311	11.8	20.2
9 28	22 2.69	- 3 44.5	1.402	2.299	14.3	20.8	9 28	22 1.29	-17 7.6	1.427	2.295	15.9	20.4
<b>342078</b>	2008 <i>SY</i> <sub>36</sub>		8 28.4 332°03	1°1/27.9	18		<b>66903</b>	1999 <i>VK</i> <sub>147</sub>		8 28.4 71°75	6°2/ 4.9	18	
7 20	22 50.79	-11 22.8	1.218	2.085	19.2	20.8	7 20	22 50.47	+12 10.9	2.292	3.008	15.8	19.6
7 30	22 49.13	-11 15.9	1.132	2.062	15.4	20.5	7 30	22 46.98	+12 29.1	2.216	3.025	13.6	19.4
8 9	22 44.40	-11 20.6	1.064	2.040	10.7	20.2	8 9	22 41.77	+12 26.9	2.158	3.042	11.1	19.3
8 19	22 37.01	-11 33.2	1.016	2.019	5.3	19.8	8 19	22 35.27	+12 3.6	2.123	3.060	8.6	19.2
8 29	22 27.96	-11 48.0	0.990	1.999	1.3	19.5	8 29	22 28.10	+11 20.2	2.111	3.077	6.7	19.1
9 8	22 18.73	-11 58.4	0.987	1.981	6.8	19.8	9 8	22 21.02	+10 20.3	2.127	3.094	6.3	19.1
9 18	22 10.83	-11 58.7	1.007	1.964	12.4	20.0	9 18	22 14.77	+ 9 9.4	2.169	3.111	7.7	19.2
9 28	22 5.61	-11 45.1	1.046	1.949	17.5	20.3	9 28	22 9.96	+ 7 53.8	2.237	3.128	9.9	19.4
<b>287039</b>	2002 <i>QQ</i> <sub>115</sub>		8 28.4 266°08	1°0/27.6	18		<b>34502</b>	2000 <i>SE</i> <sub>157</sub>		8 28.4			

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8 28.5

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>219299</b>	2000 <i>DZ</i> <sub>51</sub>		8 28.4 151°41'	0°2'/28.3	18		<b>337255</b>	2000 <i>SX</i> <sub>72</sub>		8 28.5 314°90'	5°9'/24.6	18	
7 20	22 55.41	- 6 50.8	1.885	2.701	15.4	21.4	7 20	22 54.98	-20 1.4	1.390	2.256	17.3	20.2
7 30	22 51.27	- 7 24.9	1.808	2.708	12.2	21.2	7 30	22 52.47	-20 41.8	1.291	2.219	13.9	19.9
8 9	22 44.94	- 8 12.6	1.752	2.714	8.4	21.0	8 9	22 46.82	-21 28.9	1.211	2.183	10.1	19.6
8 19	22 36.92	- 9 10.1	1.720	2.720	4.1	20.7	8 19	22 38.34	-22 15.2	1.152	2.148	6.6	19.3
8 29	22 28.00	-10 11.6	1.716	2.726	0.4	20.4	8 29	22 27.97	-22 50.7	1.117	2.112	6.4	19.2
9 8	22 19.18	-11 10.8	1.740	2.731	4.7	20.8	9 8	22 17.18	-23 6.2	1.106	2.078	10.1	19.3
9 18	22 11.40	-12 1.8	1.791	2.736	8.9	21.1	9 18	22 7.58	-22 56.5	1.117	2.043	14.8	19.4
9 28	22 5.47	-12 40.6	1.866	2.740	12.5	21.3	9 28	22 0.64	-22 20.1	1.147	2.010	19.3	19.6
<b>161689</b>	2006 <i>HD</i> <sub>30</sub>		8 28.4 356°94'	13°1'/20.4	18		<b>398108</b>	2009 <i>SF</i> <sub>243</sub>		8 28.5 4°15'	8°0'/2.7	18	
7 20	22 51.55	-33 46.1	1.063	1.952	19.7	18.0	7 20	22 54.20	+ 6 22.3	1.627	2.400	19.2	19.4
7 30	22 50.35	-34 58.3	1.015	1.943	16.8	17.8	7 30	22 50.80	+ 7 55.2	1.548	2.400	16.5	19.2
8 9	22 45.37	-35 59.0	0.983	1.937	14.4	17.6	8 9	22 44.94	+ 9 10.6	1.488	2.401	13.4	19.0
8 19	22 37.40	-36 35.0	0.970	1.932	13.1	17.5	8 19	22 37.07	+10 4.9	1.449	2.403	10.4	18.9
8 29	22 27.97	-36 34.6	0.976	1.930	13.8	17.6	8 29	22 28.06	+10 35.6	1.432	2.406	8.2	18.8
9 8	22 19.02	-35 52.7	1.002	1.931	16.1	17.7	9 8	22 19.04	+10 43.8	1.441	2.411	8.3	18.8
9 18	22 12.22	-34 31.5	1.045	1.933	19.0	17.9	9 18	22 11.14	+10 33.4	1.473	2.417	10.5	18.9
9 28	22 8.67	-32 38.2	1.105	1.938	21.9	18.1	9 28	22 5.31	+10 10.7	1.528	2.424	13.4	19.1
<b>107318</b>	2001 <i>CE</i> <sub>12</sub>		8 28.5 318°41'	0°1'/28.4	18		<b>169934</b>	2002 <i>TA</i> <sub>16</sub>		8 28.5 291°75'	2°4'/30.8	18	
7 20	22 55.92	- 9 22.2	1.304	2.152	19.2	19.0	7 20	22 50.18	- 0 1.5	1.914	2.712	15.9	20.1
7 30	22 52.88	- 9 13.2	1.223	2.141	15.4	18.7	7 30	22 47.28	- 0 16.0	1.822	2.705	13.0	19.9
8 9	22 46.77	- 9 16.8	1.160	2.131	10.7	18.4	8 9	22 42.32	- 0 48.4	1.751	2.699	9.5	19.7
8 19	22 38.10	- 9 30.3	1.119	2.121	5.4	18.1	8 19	22 35.71	- 1 37.4	1.702	2.692	5.7	19.5
8 29	22 27.93	- 9 48.3	1.101	2.111	0.4	17.7	8 29	22 28.14	- 2 39.4	1.680	2.685	2.5	19.2
9 8	22 17.72	-10 4.7	1.107	2.102	6.1	18.1	9 8	22 20.53	- 3 48.2	1.684	2.679	4.4	19.4
9 18	22 8.91	-10 14.0	1.137	2.093	11.6	18.4	9 18	22 13.78	- 4 57.4	1.715	2.672	8.2	19.6
9 28	22 2.75	-10 12.1	1.189	2.085	16.4	18.7	9 28	22 8.71	- 6 0.4	1.771	2.666	11.9	19.8
<b>246565</b>	2008 <i>SY</i> <sub>192</sub>		8 28.5 156°76'	6°9'/22.2	16		<b>463398</b>	2013 <i>GD</i> <sub>79</sub>		8 28.5 99°62'	0°8'/27.9	17	
7 20	22 59.74	-27 29.4	2.043	2.881	13.6	21.3	7 20	22 57.14	- 8 27.0	1.315	2.158	19.4	21.5
7 30	22 54.66	-28 32.5	1.980	2.886	11.0	21.2	7 30	22 53.56	- 8 52.3	1.249	2.165	15.3	21.3
8 9	22 47.23	-29 33.1	1.940	2.891	8.5	21.0	8 9	22 47.01	- 9 33.7	1.202	2.171	10.5	21.0
8 19	22 38.03	-30 23.7	1.925	2.895	7.0	20.9	8 19	22 38.12	-10 26.3	1.176	2.178	5.1	20.8
8 29	22 27.96	-30 57.4	1.936	2.899	7.4	21.0	8 29	22 28.00	-11 22.4	1.175	2.184	1.0	20.5
9 8	22 18.11	-31 9.6	1.973	2.902	9.3	21.1	9 8	22 18.09	-12 13.4	1.199	2.191	6.2	20.9
9 18	22 9.49	-30 59.2	2.035	2.905	11.9	21.3	9 18	22 9.71	-12 52.6	1.247	2.197	11.3	21.2
9 28	22 2.92	-30 27.6	2.119	2.907	14.3	21.5	9 28	22 3.93	-13 15.7	1.317	2.203	15.8	21.5
<b>100080</b>	1992 <i>RY</i> <sub>6</sub>		8 28.5 22°25'	0°2'/28.6	18		<b>129878</b>	1999 <i>SQ</i> <sub>2</sub>		8 28.5 313°24'	9°1'/21.9	18	
7 20	22 46.74	- 4 20.0	1.387	2.232	18.5	18.4	7 20	22 59.12	-29 20.4	1.551	2.407	16.3	19.1
7 30	22 45.12	- 5 8.3	1.327	2.242	14.6	18.2	7 30	22 55.29	-30 18.6	1.474	2.388	13.5	18.9
8 9	22 41.04	- 6 17.3	1.285	2.253	10.1	18.0	8 9	22 48.35	-31 13.5	1.417	2.370	10.8	18.7
8 19	22 35.06	- 7 41.8	1.265	2.266	5.0	17.7	8 19	22 38.87	-31 55.3	1.382	2.352	9.2	18.6
8 29	22 28.14	- 9 13.5	1.269	2.279	0.3	17.4	8 29	22 27.96	-32 14.1	1.371	2.335	9.7	18.6
9 8	22 21.40	-10 42.3	1.299	2.294	5.4	17.8	9 8	22 17.12	-32 3.7	1.384	2.318	12.1	18.7
9 18	22 15.90	-11 59.6	1.353	2.309	10.1	18.1	9 18	22 7.80	-31 22.9	1.418	2.302	15.2	18.8
9 28	22 12.51	-12 59.2	1.430	2.325	14.2	18.4	9 28	22 1.16	-30 14.6	1.473	2.286	18.4	19.0
<b>308338</b>	2005 <i>PN</i> <sub>16</sub>		8 28.5 303°81'	6°4'/22.0	18		<b>824</b>	Anastasia		8 28.5 38°18'	1°2'/27.3	18	R
7 20	22 52.90	-24 25.7	1.958	2.810	13.5	19.8	7 20	22 49.68	- 8 10.6	1.644	2.484	16.3	14.3
7 30	22 49.55	-25 37.4	1.882	2.800	10.9	19.6	7 30	22 47.07	- 9 6.4	1.578	2.493	12.7	14.1
8 9	22 43.92	-26 50.7	1.828	2.789	8.2	19.4	8 9	22 42.21	-10 17.2	1.533	2.504	8.6	13.9
8 19	22 36.49	-27 58.0	1.799	2.778	6.5	19.3	8 19	22 35.62	-11 37.4	1.512	2.514	4.1	13.7
8 29	22 28.05	-28 51.4	1.796	2.768	7.0	19.3	8 29	22 28.15	-12 59.3	1.517	2.525	1.5	13.5
9 8	22 19.64	-29 24.9	1.818	2.758	9.3	19.4	9 8	22 20.84	-14 14.7	1.548	2.537	5.6	13.8
9 18	22 12.27	-29 35.5	1.864	2.748	12.1	19.6	9 18	22 14.64	-15 16.9	1.605	2.549	9.8	14.1
9 28	22 6.79	-29 23.1	1.932	2.738	14.9	19.7	9 28	22 10.36	-16 1.7	1.685	2.561	13.4	14.4
<b>181269</b>	2005 <i>WV</i> <sub>86</sub>		8 28.5 51°98'	5°2'/23.4	18		<b>261785</b>	2006 <i>BF</i> <sub>149</sub>		8 28.5 192°42'	1°3'/30.3	18	
7 20	22 53.14	-21 43.5	1.970	2.820	13.6	19.6	7 20	22 48.89	- 0 57.6	2.922	3.700	11.4	21.3
7 30	22 49.43	-22 45.6	1.913	2.832	10.7	19.4	7 30	22 45.44	- 1 33.7	2.826	3.699	9.2	21.1
8 9	22 43.60	-23 49.4	1.879	2.844	7.7	19.3	8 9	22 40.59	- 2 22.4	2.752	3.697	6.6	20.9
8 19	22 36.21	-24 48.1	1.869	2.857	5.5	19.2	8 19	22 34.69	- 3 21.7	2.704	3.694	3.8	20.7
8 29	22 28.08	-25 34.9	1.886	2.869	5.6	19.2	8 29	22 28.21	- 4 28.2	2.684	3.692	1.3	20.6
9 8	22 20.16	-26 4.8	1.929	2.882	7.9	19.4	9 8	22 21.72	- 5 37.9	2.695	3.689	3.0	20.7
9 18	22 13.35	-26 15.6	1.997	2.895	10.7	19.6	9 18	22 15.79	- 6 46.1	2.735	3.685	5.9	20.9
9 28	22 8.35	-26 7.0	2.087	2.909	13.4	19.8	9 28	22 10.93	- 7 48.8	2.803	3.681	8.6	21.1
<b>476691</b>	2008 <i>TS</i> <sub>102</sub>		8 28.5 314°96'	5°5'/24.8	16		<b>288263</b>	2003 <i>YG</i> <sub>145</sub>		8 28.5 249°47'	0°7'/27.9	18	
7 20	22 55.50	-20 8.4	1.455	2.317	16.9	21.6	7 20	22 57.99	-11 11.6	2.074	2.892	14.2	20.5
7 30	22 52.48	-20 45.0	1.369	2.295	13.5	21.4	7 30	22 53.23	-11 9.8	1.982	2.884	11.2	20.3
8 9	22 46.49	-21 26.5	1.302	2.274	9.6	21.1	8 9	22 46.29	-11 15.2	1.912	2.875	7.7	20.1
8 19	22 37.99	-22 5.5	1.258	2.253	6.3	20.8	8 19	22 37.65	-11 25.0	1.866	2.867	3.8	19.8
8 29	22 28.00	-22 33.2	1.238	2.233	5.9	20.8	8 29	22 28.04	-11 35.5	1.849	2.858	0.8	19.6
9 8	22 17.90	-22 42.3	1.242	2.213	9.2	20.9	9 8	22 18.44	-11 42.7	1.860	2.849	4.7	19.8
9 18	22 9.12	-22 28.9	1.269	2.194	13.5	21.1	9 18	22 9.79	-11 43.7	1.898	2.840	8.6	20.0
9 28	22 2.86	-21 52.9	1.317	2.176	17.5	21.3	9 28	22 2.91	-11 36.3	1.961	2.831	12.1	20.3
<b>319301</b>	2006 <i>BD</i> <sub>113</sub>		8 28.5 327°99'	0°1'/28.4	18		<b>290785</b>	2005 <i>VD</i> <sub>43</sub>					

EPHEMERIDES

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>407007</b>	2009 RT <sub>73</sub>		8 28.5	7°15	3°9/25.2	17	<b>171357</b>	2006 KA <sub>83</sub>		8 28.5	77°30	2°6/31.0	18
7 20	22 55.30	-19 52.1	2.040	2.881	13.5	21.2	7 20	22 52.72	+ 0 50.0	1.838	2.630	16.6	20.6
7 30	22 51.08	-20 16.7	1.967	2.882	10.6	21.0	7 30	22 49.11	+ 0 34.1	1.771	2.649	13.5	20.4
8 9	22 44.76	-20 43.3	1.916	2.883	7.4	20.8	8 9	22 43.43	- 0 0.4	1.723	2.668	9.8	20.3
8 19	22 36.83	-21 6.9	1.890	2.884	4.6	20.7	8 19	22 36.18	- 0 51.3	1.699	2.686	5.9	20.1
8 29	22 28.11	-21 22.4	1.890	2.886	4.2	20.7	8 29	22 28.18	- 1 54.3	1.700	2.705	2.8	19.9
9 8	22 19.55	-21 25.6	1.918	2.888	6.7	20.8	9 8	22 20.36	- 3 3.1	1.730	2.723	4.4	20.1
9 18	22 12.04	-21 14.6	1.972	2.890	9.8	21.0	9 18	22 13.59	- 4 10.9	1.785	2.742	8.0	20.3
9 28	22 6.34	-20 49.0	2.049	2.893	12.8	21.2	9 28	22 8.60	- 5 11.9	1.866	2.760	11.5	20.6
<b>199392</b>	2006 BB <sub>257</sub>		8 28.5	15°70	1°9/26.9	18	<b>99187</b>	2001 FP <sub>189</sub>		8 28.5	77°05	1°5/26.8	18
7 20	22 49.83	-10 4.5	1.375	2.232	17.9	19.4	7 20	22 50.87	-11 46.4	2.324	3.151	12.5	19.9
7 30	22 47.68	-10 49.8	1.311	2.236	14.0	19.1	7 30	22 47.34	-12 24.2	2.247	3.155	9.8	19.7
8 9	22 42.91	-11 50.3	1.265	2.240	9.5	18.9	8 9	22 42.07	-13 9.8	2.192	3.160	6.6	19.5
8 19	22 36.07	-12 59.7	1.242	2.245	4.6	18.6	8 19	22 35.49	-13 59.5	2.163	3.164	3.3	19.3
8 29	22 28.15	-14 9.6	1.243	2.251	2.2	18.5	8 29	22 28.23	-14 48.4	2.162	3.169	1.7	19.2
9 8	22 20.39	-15 11.0	1.269	2.258	6.5	18.8	9 8	22 21.05	-15 31.6	2.189	3.174	4.7	19.4
9 18	22 13.95	-15 57.2	1.319	2.265	11.2	19.1	9 18	22 14.66	-16 5.4	2.244	3.178	7.9	19.6
9 28	22 9.77	-16 24.2	1.390	2.273	15.3	19.3	9 28	22 9.71	-16 27.3	2.323	3.183	10.9	19.8
<b>347578</b>	2001 AY <sub>49</sub>		8 28.5	274°83	4°4/ 5.8	16	<b>511250</b>	2014 BD <sub>47</sub>		8 28.5	227°71	0°8/29.2	18 R
7 20	22 46.42	+14 31.1	4.510	5.170	9.2	21.0	7 20	22 55.61	- 5 26.6	2.197	2.998	14.0	22.5
7 30	22 43.04	+14 58.9	4.404	5.166	8.1	20.9	7 30	22 51.30	- 5 36.5	2.098	2.987	11.3	22.3
8 9	22 38.72	+15 16.0	4.318	5.162	6.8	20.8	8 9	22 44.97	- 5 58.2	2.020	2.975	7.9	22.1
8 19	22 33.70	+15 21.9	4.256	5.158	5.6	20.7	8 19	22 37.03	- 6 29.7	1.967	2.964	4.2	21.8
8 29	22 28.29	+15 16.4	4.219	5.154	4.7	20.6	8 29	22 28.15	- 7 7.4	1.942	2.951	0.8	21.5
9 8	22 22.86	+15 0.7	4.210	5.150	4.5	20.6	9 8	22 19.18	- 7 46.7	1.945	2.938	4.1	21.8
9 18	22 17.75	+14 36.4	4.229	5.146	5.0	20.6	9 18	22 11.00	- 8 23.1	1.976	2.925	7.9	22.0
9 28	22 13.32	+14 5.9	4.275	5.142	6.1	20.7	9 28	22 4.41	- 8 52.6	2.033	2.910	11.4	22.2
<b>7247</b>	Robertstirling		8 28.5	319°00	13°7/11.6	17	<b>263135</b>	2007 VH <sub>121</sub>		8 28.5	89°30	6°7/ 2.8	17
7 20	22 41.49	+24 36.4	1.061	1.797	29.4	17.1	7 20	22 57.33	+ 7 25.6	1.497	2.267	20.8	20.3
7 30	22 42.24	+24 56.5	0.978	1.784	27.0	16.8	7 30	22 53.28	+ 8 1.9	1.432	2.284	17.5	20.1
8 9	22 39.95	+24 24.1	0.904	1.771	23.9	16.5	8 9	22 46.60	+ 8 13.4	1.384	2.302	13.8	19.9
8 19	22 34.95	+22 47.1	0.842	1.759	20.2	16.3	8 19	22 37.87	+ 7 58.5	1.355	2.319	10.0	19.7
8 29	22 28.20	+19 58.0	0.796	1.748	16.4	16.0	8 29	22 28.11	+ 7 18.6	1.351	2.336	7.1	19.6
9 8	22 21.22	+16 1.0	0.770	1.738	13.9	15.8	9 8	22 18.55	+ 6 19.5	1.371	2.353	7.2	19.7
9 18	22 15.63	+11 15.3	0.766	1.729	14.4	15.8	9 18	22 10.36	+ 5 9.1	1.416	2.369	10.0	19.9
9 28	22 12.91	+ 6 12.5	0.784	1.720	17.8	16.0	9 28	22 4.47	+ 3 56.5	1.485	2.385	13.4	20.1
<b>203962</b>	2003 SR <sub>122</sub>		8 28.5	234°53	3°4/31.5	18	<b>443377</b>	2014 HW <sub>5</sub>		8 28.5	22°73	8°1/23.8	16
7 20	22 54.52	+ 1 23.9	2.201	2.974	14.8	20.6	7 20	23 1.06	-28 45.1	1.469	2.325	17.0	20.1
7 30	22 50.44	+ 1 36.8	2.099	2.963	12.3	20.4	7 30	22 56.34	-29 15.6	1.420	2.336	13.8	19.9
8 9	22 44.38	+ 1 35.0	2.018	2.952	9.3	20.2	8 9	22 48.65	-29 39.8	1.391	2.348	10.6	19.7
8 19	22 36.73	+ 1 18.6	1.960	2.941	6.0	20.0	8 19	22 38.79	-29 49.3	1.385	2.361	8.4	19.7
8 29	22 28.12	+ 0 49.3	1.930	2.929	3.5	19.8	8 29	22 28.07	-29 37.3	1.402	2.375	8.5	19.7
9 8	22 19.41	+ 0 10.7	1.927	2.917	4.5	19.8	9 8	22 17.93	-29 0.7	1.444	2.390	10.6	19.9
9 18	22 11.46	- 0 32.5	1.952	2.904	7.7	20.0	9 18	22 9.60	-28 0.9	1.509	2.406	13.6	20.1
9 28	22 5.06	- 1 15.2	2.002	2.891	11.0	20.2	9 28	22 3.96	-26 41.8	1.594	2.423	16.5	20.3
<b>474167</b>	1999 TO <sub>68</sub>		8 28.5	322°56	4°9/25.8	18	<b>371373</b>	2006 QB <sub>61</sub>		8 28.5	333°90	1°6/29.6	17
7 20	22 59.49	-20 38.1	1.454	2.310	17.2	20.2	7 20	22 44.34	- 2 46.5	1.097	1.958	21.2	20.4
7 30	22 55.58	-20 46.5	1.369	2.291	13.8	20.0	7 30	22 44.19	- 3 3.5	1.017	1.941	17.3	20.1
8 9	22 48.59	-20 56.4	1.303	2.273	9.8	19.7	8 9	22 41.11	- 3 47.2	0.953	1.924	12.4	19.8
8 19	22 39.03	-21 1.4	1.259	2.255	6.1	19.4	8 19	22 35.47	- 4 55.9	0.908	1.908	6.8	19.4
8 29	22 27.99	-20 54.2	1.240	2.238	5.2	19.3	8 29	22 28.23	- 6 22.8	0.885	1.894	1.6	19.0
9 8	22 16.95	-20 29.8	1.245	2.222	8.5	19.5	9 8	22 20.83	- 7 56.7	0.883	1.881	6.2	19.3
9 18	22 7.35	-19 46.2	1.275	2.207	12.9	19.7	9 18	22 14.76	- 9 24.9	0.904	1.870	12.2	19.6
9 28	22 0.39	-18 44.8	1.326	2.192	17.0	19.9	9 28	22 11.33	-10 36.6	0.943	1.860	17.6	19.8
<b>8861</b>	Jenskandler		8 28.5	156°40	4°4/ 2.4	18	<b>37275</b>	2000 XF <sub>43</sub>		8 28.5	265°00	7°6/22.1	18
7 20	22 53.29	+ 7 8.9	2.344	3.084	14.9	18.1	7 20	23 1.31	-28 28.1	1.918	2.757	14.3	17.3
7 30	22 49.21	+ 7 7.3	2.256	3.092	12.5	18.0	7 30	22 56.38	-29 24.1	1.835	2.741	11.8	17.1
8 9	22 43.36	+ 6 47.5	2.187	3.099	9.8	17.8	8 9	22 48.78	-30 17.9	1.774	2.724	9.3	16.9
8 19	22 36.13	+ 6 9.6	2.142	3.105	6.9	17.6	8 19	22 39.02	-31 1.2	1.738	2.707	7.7	16.8
8 29	22 28.17	+ 5 15.5	2.123	3.111	4.7	17.5	8 29	22 28.05	-31 25.9	1.727	2.689	8.1	16.8
9 8	22 20.23	+ 4 9.5	2.133	3.116	4.9	17.5	9 8	22 17.12	-31 26.8	1.741	2.672	10.3	16.9
9 18	22 13.08	+ 2 57.1	2.171	3.121	7.2	17.7	9 18	22 7.43	-31 2.2	1.780	2.654	13.1	17.0
9 28	22 7.38	+ 1 44.3	2.235	3.125	10.0	17.9	9 28	22 0.00	-30 13.9	1.841	2.636	15.9	17.2
<b>386898</b>	2011 HZ <sub>4</sub>		8 28.5	2°05	5°6/23.2	18	<b>147921</b>	2006 UY <sub>243</sub>		8 28.5	257°48	0°5/28.9	18
7 20	22 45.19	-14 37.3	1.262	2.141	17.8	19.5	7 20	22 51.60	- 5 40.0	2.063	2.876	14.4	21.0
7 30	22 44.40	-16 32.1	1.200	2.139	13.8	19.2	7 30	22 48.19	- 6 1.8	1.977	2.874	11.4	20.8
8 9	22 40.89	-18 42.4	1.159	2.139	9.5	19.0	8 9	22 42.83	- 6 36.5	1.913	2.873	8.0	20.6
8 19	22 35.17	-20 57.1	1.140	2.139	6.0	18.8	8 19	22 35.95	- 7 21.4	1.873	2.871	4.1	20.3
8 29	22 28.22	-23 1.8	1.146	2.141	6.4	18.8	8 29	22 28.24	- 8 12.0	1.860	2.870	0.5	20.0
9 8	22 21.36	-24 43.7	1.175	2.143	10.1	19.1	9 8	22 20.54	- 9 3.1	1.875	2.868	4.2	20.3
9 18	22 15.85	-25 54.9	1.227	2.147	14.3	19.3	9 18	22 13.69	- 9 49.4	1.917	2.866	8.0	20.6
9 28	22 12.71	-26 32.6	1.298	2.152	18.0	19.6	9 28	22 8.45	-10 26.6	1.983	2.865	11.5	20.8
<b>41736</b>	2000 UN <sub>102</sub>		8 28.5	64°18	3°1/30.7	18	<b>343453</b>	2010 EH <sub>39</sub>		8 28.5	201°89	4°4/24.9	18
7 20	22 55.67	- 1 13.1	1.375	2									

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>387974</b>	2005 <i>JW</i> <sub>170</sub>		8 28.5 32°16'	2°8/26.2	16		<b>182630</b>	2001 <i>UE</i> <sub>138</sub>		8 28.5 257°71'	0°4/28.1	18	
7 20	22 53.44	-14 18.1	1.744	2.589	15.3	21.4	7 20	22 51.62	-7 57.3	2.206	3.023	13.4	21.2
7 30	22 49.97	-14 55.8	1.675	2.593	11.9	21.2	7 30	22 48.17	-8 27.4	2.111	3.012	10.6	21.0
8 9	22 44.20	-15 41.6	1.626	2.598	8.1	21.0	8 9	22 42.83	-9 9.0	2.038	3.002	7.3	20.8
8 19	22 36.65	-16 30.0	1.602	2.602	4.3	20.8	8 19	22 35.98	-9 58.8	1.991	2.991	3.6	20.5
8 29	22 28.20	-17 14.5	1.603	2.607	3.0	20.7	8 29	22 28.28	-10 52.2	1.970	2.980	0.5	20.2
9 8	22 19.90	-17 48.9	1.632	2.613	6.3	20.9	9 8	22 20.52	-11 43.9	1.978	2.969	4.3	20.5
9 18	22 12.73	-18 9.3	1.685	2.618	10.2	21.2	9 18	22 13.52	-12 29.0	2.013	2.957	8.1	20.7
9 28	22 7.53	-18 13.6	1.761	2.624	13.6	21.4	9 28	22 8.03	-13 3.7	2.074	2.946	11.4	20.9
<b>474081</b>	2016 <i>JN</i> <sub>35</sub>		8 28.5 22°78'	4°0/25.7	17		<b>401401</b>	2013 <i>CL</i> <sub>57</sub>		8 28.5 85°38'	3°8/1.7	18	
7 20	22 50.44	-13 32.9	1.068	1.948	20.3	20.0	7 20	22 50.66	+4 43.7	2.178	2.943	15.2	20.9
7 30	22 48.84	-14 31.9	1.017	1.955	15.8	19.8	7 30	22 47.29	+4 40.3	2.098	2.953	12.6	20.7
8 9	22 44.04	-15 44.9	0.984	1.964	10.7	19.5	8 9	22 42.11	+4 19.0	2.037	2.963	9.6	20.5
8 19	22 36.74	-17 2.5	0.971	1.974	5.7	19.3	8 19	22 35.57	+3 40.4	2.000	2.973	6.5	20.4
8 29	22 28.20	-18 13.2	0.981	1.985	4.5	19.2	8 29	22 28.31	+2 47.0	1.989	2.984	4.1	20.2
9 8	22 20.00	-19 6.4	1.013	1.997	8.8	19.5	9 8	22 21.13	+1 43.7	2.005	2.994	4.5	20.3
9 18	22 13.53	-19 36.0	1.067	2.010	13.6	19.8	9 18	22 14.76	+0 36.0	2.049	3.004	7.2	20.5
9 28	22 9.85	-19 40.2	1.140	2.024	17.9	20.1	9 28	22 9.89	-0 30.0	2.119	3.014	10.2	20.7
<b>216145</b>	2006 <i>SY</i> <sub>261</sub>		8 28.5 344°07'	1°7/27.0	18		<b>327816</b>	2006 <i>VW</i> <sub>104</sub>		8 28.5 64°93'	4°9/25.1	17	
7 20	22 51.97	-11 43.1	1.815	2.654	15.0	20.8	7 20	22 58.23	-18 16.1	1.402	2.259	17.7	20.2
7 30	22 48.79	-12 13.4	1.735	2.650	11.8	20.6	7 30	22 54.24	-19 5.1	1.347	2.271	13.8	20.0
8 9	22 43.41	-12 53.6	1.677	2.647	8.0	20.4	8 9	22 47.36	-19 59.8	1.311	2.283	9.6	19.8
8 19	22 36.29	-13 39.4	1.643	2.644	4.0	20.2	8 19	22 38.28	-20 51.9	1.299	2.295	5.8	19.6
8 29	22 28.22	-14 24.9	1.635	2.642	1.9	20.0	8 29	22 28.17	-21 32.8	1.311	2.308	5.3	19.6
9 8	22 20.21	-15 4.0	1.653	2.640	5.6	20.2	9 8	22 18.43	-21 55.8	1.347	2.320	8.5	19.9
9 18	22 13.21	-15 32.1	1.697	2.638	9.6	20.5	9 18	22 10.28	-21 57.7	1.408	2.332	12.5	20.1
9 28	22 8.06	-15 46.1	1.765	2.637	13.2	20.7	9 28	22 4.69	-21 39.0	1.490	2.345	16.1	20.4
<b>742</b>	Edisona		8 28.5 345°07'	6°6/22.3	18		<b>512865</b>	2016 <i>VD</i> <sub>19</sub>		8 28.5 1°02'	3°6/25.0	18	
7 20	22 52.64	-24 40.0	1.835	2.692	14.1	13.8	7 20	22 52.68	-16 18.9	1.940	2.784	14.0	21.0
7 30	22 49.46	-25 47.9	1.767	2.687	11.3	13.6	7 30	22 49.23	-17 15.9	1.866	2.784	10.9	20.8
8 9	22 43.92	-26 56.3	1.721	2.683	8.6	13.5	8 9	22 43.65	-18 19.8	1.814	2.784	7.5	20.6
8 19	22 36.55	-27 57.6	1.698	2.679	6.8	13.3	8 19	22 36.40	-19 24.7	1.787	2.784	4.4	20.4
8 29	22 28.21	-28 43.9	1.701	2.675	7.2	13.4	8 29	22 28.27	-20 23.5	1.786	2.784	4.0	20.3
9 8	22 19.98	-29 9.5	1.729	2.672	9.5	13.5	9 8	22 20.21	-21 10.1	1.813	2.784	6.8	20.5
9 18	22 12.89	-29 11.7	1.781	2.669	12.4	13.7	9 18	22 13.15	-21 40.3	1.865	2.784	10.2	20.7
9 28	22 7.79	-28 51.1	1.854	2.667	15.1	13.9	9 28	22 7.88	-21 52.3	1.940	2.784	13.3	20.9
<b>284917</b>	2010 <i>BG</i> <sub>4</sub>		8 28.5 83°07'	0°9/29.2	16		<b>289799</b>	2005 <i>JK</i> <sub>131</sub>		8 28.5 151°16'	0°3/28.3	17	
7 20	23 0.30	-6 44.2	1.857	2.663	16.0	20.6	7 20	22 54.64	-6 6.7	1.698	2.520	16.6	21.8
7 30	22 54.91	-6 34.0	1.794	2.687	12.7	20.5	7 30	22 51.00	-6 50.8	1.622	2.525	13.2	21.6
8 9	22 47.30	-6 34.9	1.753	2.710	8.8	20.3	8 9	22 44.99	-7 51.3	1.566	2.530	9.1	21.4
8 19	22 38.09	-6 44.4	1.736	2.733	4.6	20.1	8 19	22 37.12	-9 3.8	1.535	2.535	4.5	21.1
8 29	22 28.15	-6 59.1	1.746	2.755	0.9	19.9	8 29	22 28.24	-10 21.5	1.529	2.539	0.5	20.8
9 8	22 18.51	-7 14.8	1.785	2.778	4.3	20.2	9 8	22 19.44	-11 36.3	1.551	2.543	5.1	21.2
9 18	22 10.12	-7 27.8	1.851	2.800	8.3	20.4	9 18	22 11.76	-12 41.2	1.600	2.546	9.6	21.5
9 28	22 3.72	-7 34.9	1.941	2.822	11.7	20.7	9 28	22 6.09	-13 31.2	1.672	2.549	13.5	21.7
<b>218467</b>	2004 <i>RL</i> <sub>328</sub>		8 28.5 298°49'	2°0/30.4	18		<b>25412</b>	Arbesfeld		8 28.5 326°76'	2°4/30.1	18	
7 20	22 51.07	-2 23.1	2.190	2.987	14.1	20.5	7 20	22 49.62	-3 5.5	1.229	2.074	20.4	17.9
7 30	22 47.76	-2 20.6	2.089	2.973	11.5	20.3	7 30	22 48.12	-2 56.1	1.145	2.058	16.7	17.7
8 9	22 42.57	-2 31.2	2.010	2.959	8.4	20.1	8 9	22 43.69	-3 7.5	1.079	2.043	12.1	17.3
8 19	22 35.86	-2 53.8	1.954	2.945	4.9	19.8	8 19	22 36.75	-3 38.8	1.032	2.028	6.9	17.0
8 29	22 28.26	-3 25.7	1.925	2.931	2.1	19.6	8 29	22 28.25	-4 26.0	1.007	2.015	2.5	16.7
9 8	22 20.57	-4 3.0	1.924	2.918	4.0	19.7	9 8	22 19.59	-5 21.3	1.006	2.003	5.9	16.9
9 18	22 13.61	-4 41.1	1.950	2.904	7.6	19.9	9 18	22 12.20	-6 15.9	1.027	1.991	11.4	17.2
9 28	22 8.13	-5 15.4	2.001	2.891	11.0	20.1	9 28	22 7.35	-7 1.5	1.069	1.980	16.4	17.4
<b>377998</b>	2006 <i>RZ</i> <sub>83</sub>		8 28.5 269°94'	6°1/3.6	18		<b>481424</b>	2006 <i>UA</i> <sub>129</sub>		8 28.5 331°01'	0°1/28.4	18	
7 20	22 52.04	+11 19.8	1.882	2.618	18.2	21.9	7 20	22 51.91	-7 56.0	1.859	2.686	15.2	21.7
7 30	22 49.16	+11 5.5	1.761	2.590	15.8	21.7	7 30	22 48.71	-8 12.0	1.775	2.681	12.0	21.5
8 9	22 43.97	+10 23.1	1.658	2.562	12.8	21.4	8 9	22 43.36	-8 40.1	1.711	2.676	8.3	21.3
8 19	22 36.76	+9 10.1	1.576	2.532	9.5	21.1	8 19	22 36.30	-9 17.1	1.671	2.671	4.1	21.0
8 29	22 28.20	+7 26.8	1.518	2.502	6.7	20.9	8 29	22 28.30	-9 58.4	1.657	2.667	0.3	20.7
9 8	22 19.26	+5 18.8	1.487	2.470	6.5	20.8	9 8	22 20.31	-10 38.3	1.670	2.663	4.7	21.0
9 18	22 11.02	+2 55.3	1.483	2.439	9.4	20.9	9 18	22 13.27	-11 11.8	1.709	2.659	8.9	21.3
9 28	22 4.54	+0 28.6	1.506	2.406	13.3	21.1	9 28	22 8.01	-11 35.1	1.773	2.655	12.6	21.5
<b>149096</b>	2002 <i>CS</i> <sub>158</sub>		8 28.5 232°05'	1°2/27.2	18		<b>155184</b>	2005 <i>UW</i> <sub>329</sub>		8 28.5 263°32'	1°2/27.6	17	
7 20	22 51.37	-10 37.5	2.293	3.116	12.8	20.5	7 20	22 59.22	-13 28.8	2.362	3.175	12.8	20.3
7 30	22 47.83	-11 13.5	2.207	3.113	10.0	20.3	7 30	22 53.98	-13 23.8	2.263	3.162	10.1	20.1
8 9	22 42.50	-11 58.7	2.143	3.110	6.8	20.1	8 9	22 46.74	-13 23.3	2.185	3.148	6.9	19.9
8 19	22 35.77	-12 49.2	2.105	3.107	3.3	19.9	8 19	22 37.92	-13 24.6	2.134	3.134	3.5	19.7
8 29	22 28.28	-13 40.3	2.095	3.103	1.4	19.8	8 29	22 28.22	-13 24.2	2.112	3.120	1.3	19.5
9 8	22 20.81	-14 27.0	2.113	3.100	4.6	20.0	9 8	22 18.49	-13 19.3	2.119	3.106	4.5	19.7
9 18	22 14.11	-15 4.9	2.159	3.096	8.0	20.2	9 18	22 9.59	-13 7.5	2.155	3.092	8.1	19.9
9 28	22 8.87	-15 31.2	2.229	3.092	11.1	20.4	9 28	22 2.28	-12 47.5	2.216	3.077	11.3	20.1
<b>31326</b>	1998 <i>HF</i> <sub>34</sub>		8 28.5 101°02'	4°2/24.7	18		<b>379189</b>	2009 <i>RO</i> <sub>69</sub>		8 28.5 302°99'	5°3/1.5	18	
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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>412451</b>	2014 <i>GG</i> <sub>15</sub>		8 28.5 223°12	2°9/25.9	18		<b>328142</b>	2008 <i>BS</i> <sub>41</sub>		8 28.5 154°72	0°3/28.8	18	
7 20	22 54.92	-15 20.4	2.034	2.869	13.8	21.4	7 20	22 53.53	-4 20.7	1.674	2.493	16.9	20.6
7 30	22 50.91	-15 59.2	1.953	2.865	10.8	21.2	7 30	22 50.19	-5 3.2	1.596	2.497	13.5	20.4
8 9	22 44.77	-16 44.6	1.893	2.861	7.4	21.0	8 9	22 44.49	-6 4.0	1.538	2.500	9.4	20.1
8 19	22 36.97	-17 31.8	1.858	2.857	4.0	20.8	8 19	22 36.91	-7 19.1	1.504	2.503	4.8	19.9
8 29	22 28.27	-18 14.8	1.851	2.853	3.1	20.7	8 29	22 28.30	-8 41.9	1.496	2.506	0.3	19.5
9 8	22 19.61	-18 48.1	1.871	2.848	6.1	20.9	9 8	22 19.75	-10 4.0	1.515	2.508	5.0	19.9
9 18	22 11.91	-19 8.1	1.918	2.844	9.6	21.1	9 18	22 12.30	-11 17.7	1.560	2.510	9.5	20.2
9 28	22 5.97	-19 12.8	1.988	2.839	12.8	21.3	9 28	22 6.83	-12 17.2	1.629	2.512	13.5	20.4
<b>419680</b>	2010 <i>TP</i> <sub>185</sub>		8 28.5 211°07	0°3/28.3	17		<b>478900</b>	2012 <i>WC</i> <sub>22</sub>		8 28.5 310°25	3°8/25.2	18	
7 20	22 56.95	-7 48.5	1.687	2.511	16.6	21.9	7 20	22 54.66	-17 8.3	1.802	2.648	14.8	21.2
7 30	22 52.95	-8 9.1	1.603	2.507	13.2	21.7	7 30	22 50.99	-17 53.6	1.726	2.645	11.6	21.0
8 9	22 46.45	-8 43.4	1.539	2.503	9.2	21.4	8 9	22 44.98	-18 45.1	1.672	2.642	8.0	20.8
8 19	22 37.91	-9 27.9	1.498	2.498	4.6	21.2	8 19	22 37.13	-19 36.7	1.643	2.640	4.7	20.6
8 29	22 28.22	-10 17.0	1.483	2.493	0.4	20.8	8 29	22 28.30	-20 21.4	1.639	2.637	4.2	20.6
9 8	22 18.53	-11 4.0	1.495	2.487	5.3	21.2	9 8	22 19.54	-20 53.1	1.662	2.635	7.2	20.7
9 18	22 9.95	-11 43.1	1.533	2.481	9.8	21.4	9 18	22 11.90	-21 8.1	1.710	2.633	10.8	20.9
9 28	22 3.47	-12 9.9	1.595	2.474	13.9	21.7	9 28	22 6.24	-21 5.0	1.781	2.631	14.1	21.2
<b>115642</b>	2003 <i>UE</i> <sub>131</sub>		8 28.5 326°68	2°9/25.8	18		<b>114986</b>	2003 <i>QO</i> <sub>67</sub>		8 28.5 343°94	8°1/31.6	18	
7 20	22 51.05	-13 2.5	1.700	2.548	15.5	19.0	7 20	22 58.20	+1 3.4	1.292	2.102	21.4	18.9
7 30	22 48.31	-14 1.1	1.622	2.543	12.1	18.8	7 30	22 54.88	+3 3.1	1.207	2.089	18.2	18.7
8 9	22 43.23	-15 11.1	1.566	2.538	8.2	18.6	8 9	22 48.39	+4 51.4	1.139	2.076	14.5	18.4
8 19	22 36.29	-16 26.4	1.533	2.534	4.3	18.3	8 19	22 39.15	+6 22.9	1.092	2.065	10.7	18.1
8 29	22 28.31	-17 39.1	1.526	2.529	3.3	18.3	8 29	22 28.18	+7 33.0	1.068	2.055	8.2	18.0
9 8	22 20.35	-18 41.2	1.545	2.525	6.8	18.5	9 8	22 16.97	+8 19.9	1.067	2.046	9.1	18.0
9 18	22 13.45	-19 27.0	1.590	2.522	10.8	18.7	9 18	22 7.09	+8 45.4	1.089	2.040	12.5	18.2
9 28	22 8.50	-19 53.3	1.657	2.518	14.4	18.9	9 28	21 59.92	+8 55.3	1.131	2.034	16.5	18.4
<b>391188</b>	2006 <i>BE</i> <sub>263</sub>		8 28.5 313°13	1°8/26.7	18		<b>167914</b>	2005 <i>EO</i> <sub>102</sub>		8 28.5 306°24	1°4/27.3	18	
7 20	22 46.83	-6 12.3	1.513	2.358	17.2	20.2	7 20	22 54.79	-11 46.0	1.877	2.708	14.9	20.2
7 30	22 45.38	-7 43.6	1.423	2.342	13.6	19.9	7 30	22 50.95	-12 5.5	1.795	2.706	11.7	19.9
8 9	22 41.50	-9 39.2	1.353	2.326	9.3	19.6	8 9	22 44.87	-12 33.8	1.735	2.703	8.0	19.7
8 19	22 35.56	-11 53.2	1.307	2.310	4.5	19.3	8 19	22 37.06	-13 7.2	1.700	2.701	3.9	19.5
8 29	22 28.35	-14 14.7	1.287	2.295	2.2	19.1	8 29	22 28.30	-13 40.3	1.691	2.699	1.6	19.3
9 8	22 20.97	-16 30.9	1.294	2.280	6.8	19.4	9 8	22 19.60	-14 7.9	1.709	2.697	5.3	19.6
9 18	22 14.59	-18 29.8	1.326	2.266	11.7	19.6	9 18	22 11.93	-14 25.9	1.753	2.695	9.3	19.8
9 28	22 10.26	-20 3.2	1.380	2.253	16.0	19.8	9 28	22 6.11	-14 31.7	1.822	2.693	12.9	20.0
<b>383240</b>	2006 <i>BU</i> <sub>129</sub>		8 28.5 259°87	1°1/27.5	18		<b>6852</b>	Nannibignami		8 28.5 251°20	0°0/28.5	18	R
7 20	22 52.67	-8 41.7	1.869	2.697	15.1	21.4	7 20	22 54.43	-6 27.1	1.814	2.633	15.8	18.0
7 30	22 49.45	-9 27.2	1.775	2.683	11.9	21.2	7 30	22 50.93	-6 56.4	1.717	2.618	12.7	17.7
8 9	22 43.99	-10 26.9	1.701	2.668	8.2	21.0	8 9	22 45.07	-7 40.9	1.641	2.603	8.8	17.5
8 19	22 36.69	-11 36.7	1.652	2.654	4.0	20.7	8 19	22 37.27	-8 37.5	1.588	2.588	4.5	17.2
8 29	22 28.30	-12 50.0	1.630	2.638	1.3	20.5	8 29	22 28.29	-9 40.8	1.562	2.572	0.2	16.8
9 8	22 19.78	-13 59.6	1.635	2.623	5.4	20.7	9 8	22 19.15	-10 43.8	1.563	2.555	5.0	17.1
9 18	22 12.15	-14 58.9	1.666	2.608	9.7	20.9	9 18	22 10.94	-11 39.9	1.591	2.538	9.5	17.4
9 28	22 6.31	-15 43.1	1.722	2.592	13.5	21.1	9 28	22 4.60	-12 23.7	1.642	2.521	13.6	17.6
<b>358903</b>	2008 <i>GG</i> <sub>88</sub>		8 28.5 7°52	4°8/24.2	18		<b>314692</b>	2006 <i>RQ</i> <sub>28</sub>		8 28.5 103°17	2°9/30.8	17	
7 20	22 53.98	-21 1.6	1.952	2.800	13.8	20.5	7 20	22 57.30	-0 37.2	1.553	2.356	18.7	20.9
7 30	22 50.24	-21 47.2	1.882	2.800	10.8	20.3	7 30	22 53.20	-0 32.4	1.484	2.370	15.2	20.7
8 9	22 44.32	-22 35.0	1.834	2.801	7.7	20.1	8 9	22 46.54	-0 46.8	1.434	2.383	11.1	20.5
8 19	22 36.74	-23 19.1	1.811	2.802	5.2	20.0	8 19	22 37.91	-1 18.8	1.406	2.396	6.6	20.2
8 29	22 28.30	-23 52.9	1.814	2.803	5.2	20.0	8 29	22 28.27	-2 4.5	1.403	2.409	3.1	20.1
9 8	22 20.00	-24 11.5	1.844	2.805	7.6	20.1	9 8	22 18.80	-2 57.4	1.427	2.421	5.1	20.2
9 18	22 12.78	-24 12.3	1.898	2.807	10.7	20.3	9 18	22 10.65	-3 50.6	1.476	2.433	9.3	20.5
9 28	22 7.42	-23 55.2	1.976	2.809	13.6	20.5	9 28	22 4.71	-4 37.6	1.549	2.444	13.3	20.8
<b>289699</b>	2005 <i>GP</i> <sub>203</sub>		8 28.5 51°19	0°0/28.5	16		<b>238015</b>	2002 <i>TK</i> <sub>355</sub>		8 28.5 25°04	4°0/1.2	18	
7 20	22 51.85	-6 24.4	1.702	2.530	16.3	21.2	7 20	22 48.71	+3 30.7	1.559	2.360	18.7	20.7
7 30	22 48.68	-6 55.5	1.636	2.543	12.9	21.1	7 30	22 46.51	+3 25.3	1.487	2.367	15.5	20.5
8 9	22 43.30	-7 41.3	1.591	2.555	8.8	20.8	8 9	22 41.99	+2 56.4	1.433	2.375	11.7	20.3
8 19	22 36.24	-8 37.8	1.568	2.569	4.4	20.6	8 19	22 35.67	+2 4.8	1.400	2.383	7.6	20.1
8 29	22 28.33	-9 38.7	1.572	2.582	0.2	20.3	8 29	22 28.38	+0 54.7	1.392	2.392	4.3	19.9
9 8	22 20.60	-10 37.4	1.603	2.596	4.8	20.7	9 8	22 21.19	-0 26.7	1.408	2.402	5.2	20.0
9 18	22 13.98	-11 27.8	1.659	2.609	9.0	21.0	9 18	22 15.11	-1 50.6	1.450	2.412	8.9	20.2
9 28	22 9.26	-12 5.6	1.739	2.624	12.7	21.2	9 28	22 10.99	-3 8.8	1.516	2.422	12.8	20.5
<b>299828</b>	2006 <i>SM</i> <sub>173</sub>		8 28.5 108°12	3°5/25.7	18		<b>16493</b>	1990 <i>SB</i> <sub>6</sub>		8 28.5 313°19	0°9/27.6	18	
7 20	22 59.58	-19 11.2	2.086	2.917	13.6	20.3	7 20	22 50.44	-9 12.4	1.948	2.778	14.5	18.6
7 30	22 54.33	-19 31.6	2.016	2.925	10.7	20.1	7 30	22 47.52	-9 46.1	1.859	2.769	11.4	18.4
8 9	22 46.95	-19 54.1	1.968	2.933	7.4	19.9	8 9	22 42.54	-10 31.7	1.792	2.760	7.8	18.1
8 19	22 37.98	-20 13.8	1.946	2.941	4.4	19.8	8 19	22 35.92	-11 25.4	1.750	2.751	3.8	17.9
8 29	22 28.25	-20 25.8	1.951	2.948	3.8	19.8	8 29	22 28.37	-12 21.8	1.733	2.742	1.1	17.7
9 8	22 18.73	-20 26.4	1.984	2.956	6.3	19.9	9 8	22 20.79	-13 14.7	1.744	2.734	5.0	17.9
9 18	22 10.35	-20 13.7	2.044	2.963	9.5	20.1	9 18	22 14.08	-13 58.7	1.782	2.726	9.0	18.1
9 28	22 3.83	-19 47.6	2.129	2.971	12.4	20.3	9 28	22 9.04	-14 29.9	1.843	2.718	12.5	18.3
<b>266680</b>	2009 <i>MV</i> <sub>6</sub>		8 28.5 77°88	10°9/2.2	17		<b>335050</b>	2004 <i>RY</i> <sub>108</sub>		8 28.5 179°85	0°3/28.8	18	

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>257697</b>	1999 <i>WC</i> <sub>21</sub>		8 28.5 198°38	0°7/27.7	18		<b>251968</b>	2000 <i>AK</i> <sub>73</sub>		8 28.5 217°64	4°0/2.3	18	
7 20	22 51.68	-9 40.0	2.668	3.480	11.5	21.8	7 20	22 50.26	+6 1.2	2.596	3.342	13.5	20.5
7 30	22 47.80	-10 8.4	2.579	3.478	9.0	21.7	7 30	22 46.79	+6 7.4	2.498	3.338	11.3	20.3
8 9	22 42.35	-10 44.8	2.512	3.475	6.2	21.5	8 9	22 41.74	+5 58.0	2.421	3.335	8.9	20.1
8 19	22 35.70	-11 26.4	2.472	3.472	3.0	21.3	8 19	22 35.45	+5 33.2	2.366	3.331	6.3	20.0
8 29	22 28.40	-12 9.3	2.460	3.469	0.8	21.1	8 29	22 28.46	+4 54.2	2.339	3.327	4.3	19.8
9 8	22 21.10	-12 49.4	2.477	3.466	3.8	21.3	9 8	22 21.45	+4 4.4	2.339	3.323	4.5	19.8
9 18	22 14.47	-13 23.3	2.523	3.462	7.0	21.5	9 18	22 15.05	+3 8.0	2.367	3.318	6.6	20.0
9 28	22 9.09	-13 48.2	2.595	3.458	9.7	21.7	9 28	22 9.90	+2 10.1	2.422	3.314	9.3	20.1
<b>132891</b>	2002 <i>RY</i> <sub>173</sub>		8 28.5 278°63	1°8/30.1	18		<b>388618</b>	2007 <i>TS</i> <sub>18</sub>		8 28.5 3°74	21°1/23.1	17	
7 20	22 53.20	-3 7.4	1.930	2.735	15.5	19.8	7 20	23 29.58	-48 47.6	0.938	1.769	26.3	19.4
7 30	22 49.65	-3 7.8	1.843	2.732	12.5	19.6	7 30	23 22.19	-49 55.5	0.900	1.768	24.1	19.2
8 9	22 43.98	-3 22.5	1.775	2.728	9.0	19.3	8 9	23 8.04	-50 32.9	0.874	1.767	22.3	19.1
8 19	22 36.64	-3 49.9	1.731	2.725	5.1	19.1	8 19	22 48.77	-50 18.0	0.863	1.768	21.2	19.1
8 29	22 28.36	-4 26.7	1.714	2.721	1.8	18.9	8 29	22 27.83	-48 55.1	0.869	1.769	21.3	19.1
9 8	22 20.07	-5 7.9	1.723	2.718	4.3	19.0	9 8	22 9.20	-46 24.6	0.892	1.771	22.6	19.2
9 18	22 12.69	-5 48.4	1.760	2.714	8.2	19.3	9 18	21 55.55	-43 1.2	0.933	1.773	24.7	19.3
9 28	22 7.04	-6 23.3	1.821	2.711	11.9	19.5	9 28	21 47.85	-39 5.2	0.989	1.777	27.0	19.5
<b>95784</b>	2003 <i>FS</i> <sub>6</sub>		8 28.5 3°91	0°3/28.7	18		<b>473351</b>	2015 <i>TL</i> <sub>209</sub>		8 28.5 277°19	5°4/22.9	17	
7 20	22 52.13	-7 29.2	1.303	2.153	19.2	19.5	7 20	22 57.12	-25 58.1	2.517	3.349	11.5	21.6
7 30	22 49.73	-7 29.8	1.234	2.152	15.3	19.3	7 30	22 52.44	-26 41.1	2.422	3.326	9.3	21.4
8 9	22 44.51	-7 45.9	1.182	2.152	10.6	19.0	8 9	22 45.78	-27 23.4	2.349	3.303	7.1	21.3
8 19	22 37.04	-8 14.4	1.152	2.153	5.4	18.7	8 19	22 37.53	-27 59.5	2.303	3.279	5.6	21.1
8 29	22 28.33	-8 49.6	1.145	2.155	0.4	18.3	8 29	22 28.37	-28 23.8	2.284	3.256	5.8	21.1
9 8	22 19.75	-9 24.3	1.162	2.158	5.7	18.8	9 8	22 19.16	-28 32.2	2.293	3.232	7.7	21.2
9 18	22 12.56	-9 52.3	1.203	2.161	10.8	19.1	9 18	22 10.76	-28 22.5	2.328	3.208	10.2	21.3
9 28	22 7.81	-10 8.5	1.266	2.166	15.3	19.3	9 28	22 3.95	-27 55.0	2.386	3.184	12.6	21.5
<b>446512</b>	2014 <i>KZ</i> <sub>82</sub>		8 28.5 13°07	6°3/22.7	18		<b>418964</b>	2009 <i>HL</i> <sub>13</sub>		8 28.5 76°51	5°1/24.8	17	
7 20	22 54.25	-24 38.0	1.902	2.754	13.9	20.6	7 20	22 58.62	-17 14.6	1.348	2.205	18.2	20.8
7 30	22 50.59	-25 39.6	1.838	2.755	11.1	20.4	7 30	22 54.58	-18 24.5	1.301	2.225	14.2	20.6
8 9	22 44.64	-26 41.0	1.796	2.757	8.3	20.3	8 9	22 47.62	-19 41.5	1.273	2.245	9.8	20.4
8 19	22 36.94	-27 35.2	1.778	2.759	6.5	20.1	8 19	22 38.47	-20 56.2	1.268	2.265	6.0	20.3
8 29	22 28.35	-28 14.7	1.786	2.761	6.8	20.2	8 29	22 28.33	-21 58.5	1.288	2.285	5.5	20.3
9 8	22 19.94	-28 34.6	1.820	2.764	9.0	20.3	9 8	22 18.64	-22 40.6	1.333	2.304	8.8	20.5
9 18	22 12.67	-28 32.7	1.878	2.767	11.8	20.5	9 18	22 10.63	-22 59.2	1.402	2.324	12.8	20.8
9 28	22 7.36	-28 9.6	1.957	2.770	14.4	20.7	9 28	22 5.22	-22 54.3	1.492	2.343	16.3	21.1
<b>168647</b>	2000 <i>DF</i> <sub>54</sub>		8 28.5 358°87	1°6/30.1	18		<b>50153</b>	2000 <i>AF</i> <sub>141</sub>		8 28.5 338°47	6°7/1.9	18	
7 20	22 47.96	-0 11.5	1.731	2.542	16.8	19.6	7 20	22 50.36	+3 57.2	1.261	2.075	21.6	18.0
7 30	22 45.77	-0 58.3	1.648	2.541	13.6	19.4	7 30	22 48.63	+4 50.1	1.180	2.065	18.4	17.8
8 9	22 41.44	-2 7.0	1.585	2.540	9.7	19.2	8 9	22 44.03	+5 20.1	1.115	2.055	14.4	17.5
8 19	22 35.41	-3 34.7	1.545	2.540	5.5	18.9	8 19	22 36.97	+5 24.2	1.069	2.046	10.3	17.3
8 29	22 28.43	-5 15.0	1.531	2.540	1.6	18.7	8 29	22 28.41	+5 2.1	1.045	2.038	7.1	17.1
9 8	22 21.46	-6 59.3	1.545	2.540	4.5	18.9	9 8	22 19.71	+4 18.4	1.042	2.031	7.6	17.1
9 18	22 15.43	-8 38.8	1.584	2.541	8.8	19.1	9 18	22 12.28	+3 20.7	1.062	2.025	11.3	17.3
9 28	22 11.18	-10 5.5	1.648	2.542	12.7	19.4	9 28	22 7.33	+2 19.2	1.104	2.020	15.6	17.5
<b>67827</b>	2000 <i>VK</i> <sub>46</sub>		8 28.5 317°33	0°8/28.9	18		<b>294943</b>	2008 <i>DB</i> <sub>62</sub>		8 28.5 30°18	2°9/26.2	18	
7 20	22 55.16	-7 40.0	1.253	2.101	19.9	18.5	7 20	22 55.62	-16 28.5	1.972	2.810	14.0	20.9
7 30	22 52.52	-7 24.6	1.171	2.088	16.0	18.2	7 30	22 51.44	-16 50.2	1.899	2.813	11.0	20.7
8 9	22 46.75	-7 23.7	1.106	2.074	11.3	17.9	8 9	22 45.12	-17 16.5	1.848	2.817	7.5	20.5
8 19	22 38.32	-7 35.2	1.061	2.062	5.9	17.6	8 19	22 37.18	-17 42.8	1.822	2.821	4.1	20.3
8 29	22 28.28	-7 54.6	1.040	2.050	0.8	17.2	8 29	22 28.41	-18 4.0	1.822	2.825	3.1	20.3
9 8	22 18.12	-8 15.4	1.042	2.038	6.1	17.5	9 8	22 19.80	-18 15.6	1.850	2.829	6.0	20.5
9 18	22 9.35	-8 31.5	1.068	2.027	11.7	17.8	9 18	22 12.25	-18 15.0	1.904	2.834	9.4	20.7
9 28	22 3.26	-8 37.8	1.115	2.017	16.7	18.1	9 28	22 6.52	-18 1.0	1.982	2.838	12.6	20.9
<b>452445</b>	2003 <i>ST</i> <sub>113</sub>		8 28.5 350°84	5°3/1.9	17		<b>494368</b>	2016 <i>UL</i> <sub>23</sub>		8 28.5 334°78	4°6/31.8	16	
7 20	22 48.84	+4 14.5	1.771	2.558	17.4	20.8	7 20	22 46.41	+1 15.1	1.329	2.157	20.0	21.5
7 30	22 46.47	+4 49.6	1.684	2.551	14.6	20.6	7 30	22 45.40	+1 39.1	1.239	2.137	16.7	21.2
8 9	22 41.95	+5 6.2	1.615	2.545	11.4	20.4	8 9	22 41.75	+1 40.9	1.166	2.118	12.8	20.9
8 19	22 35.69	+5 3.1	1.567	2.539	8.1	20.2	8 19	22 35.83	+1 19.1	1.113	2.100	8.4	20.6
8 29	22 28.43	+4 41.1	1.543	2.535	5.6	20.0	8 29	22 28.47	+0 35.7	1.081	2.083	4.8	20.4
9 8	22 21.13	+4 4.0	1.545	2.531	5.9	20.0	9 8	22 20.91	-0 23.5	1.073	2.068	6.1	20.4
9 18	22 14.73	+3 17.2	1.571	2.529	8.8	20.2	9 18	22 14.44	-1 29.9	1.088	2.054	10.6	20.6
9 28	22 10.11	+2 27.5	1.621	2.527	12.2	20.4	9 28	22 10.25	-2 33.9	1.124	2.042	15.2	20.8
<b>276470</b>	2003 <i>JT</i> <sub>7</sub>		8 28.5 97°77	4°8/24.2	16		<b>353608</b>	2011 <i>UH</i> <sub>11</sub>		8 28.5 279°83	0°6/29.1	18	
7 20	22 59.14	-19 50.2	1.885	2.723	14.6	21.4	7 20	22 53.36	-6 11.8	1.960	2.775	15.0	21.7
7 30	22 54.13	-20 57.9	1.835	2.748	11.3	21.2	7 30	22 49.82	-6 19.8	1.868	2.766	12.0	21.5
8 9	22 46.87	-22 8.3	1.808	2.773	8.0	21.1	8 9	22 44.16	-6 40.3	1.797	2.756	8.4	21.3
8 19	22 37.96	-23 14.1	1.807	2.797	5.3	21.0	8 19	22 36.79	-7 10.8	1.749	2.747	4.4	21.0
8 29	22 28.33	-24 8.1	1.833	2.821	5.2	21.0	8 29	22 28.45	-7 47.5	1.728	2.738	0.6	20.7
9 8	22 19.04	-24 44.8	1.886	2.844	7.7	21.2	9 8	22 20.05	-8 25.4	1.735	2.729	4.4	21.0
9 18	22 11.04	-25 1.8	1.964	2.866	10.7	21.4	9 18	22 12.53	-8 59.4	1.768	2.719	8.5	21.2
9 28	22 5.06	-24 59.4	2.066	2.888	13.5	21.7	9 28	22 6.74	-9 25.5	1.826	2.710	12.2	21.4
<b>445230</b>	2009 <i>HK</i> <sub>52</sub>		8 28.5 22°49	22°5/17.3	17		<b>515421</b>	2013 <i>HC</i> <sub>122</sub>		8 28.5 201°98	4°8/23.4	18	
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8 28.6

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>252106</b>	2000 <i>WC</i> <sub>8</sub>		8 28.5 283°60	3°7/25.6	18		<b>472280</b>	2014 <i>UY</i> <sub>197</sub>		8 28.6 119°80	3°3/31.0	17	
7 20	22 53.92	-13 16.4	1.479	2.332	17.1	20.6	7 20	22 56.60	+ 0 8.8	1.466	2.272	19.5	21.3
7 30	22 51.31	-14 18.5	1.384	2.307	13.6	20.3	7 30	22 52.95	+ 0 14.1	1.393	2.279	16.0	21.1
8 9	22 45.86	-15 36.0	1.309	2.282	9.4	20.0	8 9	22 46.60	- 0 1.5	1.338	2.286	11.8	20.8
8 19	22 37.93	-17 2.3	1.256	2.257	5.1	19.7	8 19	22 38.11	- 0 37.1	1.304	2.293	7.2	20.6
8 29	22 28.38	-18 27.8	1.229	2.232	4.1	19.6	8 29	22 28.46	- 1 28.6	1.295	2.299	3.5	20.4
9 8	22 18.52	-19 41.8	1.226	2.206	8.2	19.7	9 8	22 18.90	- 2 29.1	1.311	2.306	5.4	20.5
9 18	22 9.73	-20 36.0	1.248	2.180	13.1	19.9	9 18	22 10.66	- 3 30.7	1.353	2.312	9.8	20.8
9 28	22 3.29	-21 5.6	1.291	2.154	17.5	20.1	9 28	22 4.73	- 4 25.9	1.418	2.317	14.0	21.1
<b>356429</b>	2010 <i>VB</i> <sub>176</sub>		8 28.5 285°04	0°6/29.7	15		<b>59710</b>	1999 <i>JV</i> <sub>123</sub>		8 28.6 102°35	2°0/30.4	18	
7 20	22 45.77	- 5 7.8	4.359	5.143	7.8	21.0	7 20	22 54.95	- 1 7.3	1.856	2.652	16.4	19.7
7 30	22 42.60	- 5 14.0	4.251	5.131	6.2	20.9	7 30	22 50.95	- 1 22.8	1.786	2.669	13.2	19.6
8 9	22 38.52	- 5 26.1	4.168	5.118	4.4	20.7	8 9	22 44.81	- 1 55.3	1.736	2.685	9.5	19.4
8 19	22 33.75	- 5 43.0	4.111	5.105	2.4	20.6	8 19	22 37.07	- 2 42.5	1.709	2.701	5.5	19.2
8 29	22 28.61	- 6 3.0	4.084	5.093	0.7	20.4	8 29	22 28.52	- 3 39.9	1.709	2.716	2.1	19.0
9 8	22 23.44	- 6 24.4	4.087	5.080	2.1	20.5	9 8	22 20.13	- 4 41.4	1.737	2.731	4.3	19.2
9 18	22 18.61	- 6 45.2	4.119	5.067	4.2	20.7	9 18	22 12.80	- 5 40.8	1.792	2.746	8.1	19.4
9 28	22 14.45	- 7 3.5	4.179	5.054	6.1	20.8	9 28	22 7.30	- 6 32.7	1.871	2.760	11.7	19.7
<b>360976</b>	2005 <i>UQ</i> <sub>257</sub>		8 28.5 260°37	1°8/26.8	18		<b>209975</b>	2006 <i>HY</i> <sub>34</sub>		8 28.6 39°45	4°2/25.7	17	
7 20	22 52.13	-12 22.5	2.214	3.042	13.0	21.7	7 20	22 52.65	-12 24.6	0.954	1.836	22.0	19.4
7 30	22 48.54	-12 57.6	2.131	3.040	10.2	21.5	7 30	22 50.69	-13 42.6	0.919	1.859	17.0	19.2
8 9	22 43.08	-13 40.7	2.071	3.039	6.9	21.3	8 9	22 45.34	-15 15.7	0.902	1.882	11.4	19.0
8 19	22 36.18	-14 27.8	2.036	3.037	3.5	21.1	8 19	22 37.46	-16 52.3	0.904	1.907	6.0	18.8
8 29	22 28.50	-15 13.9	2.028	3.035	2.0	21.0	8 29	22 28.51	-18 18.8	0.929	1.933	4.7	18.8
9 8	22 20.85	-15 53.9	2.049	3.033	5.0	21.2	9 8	22 20.17	-19 23.9	0.976	1.959	9.0	19.1
9 18	22 14.03	-16 23.8	2.097	3.031	8.4	21.4	9 18	22 13.82	-20 1.9	1.044	1.987	13.9	19.5
9 28	22 8.74	-16 41.2	2.169	3.029	11.5	21.6	9 28	22 10.41	-20 12.0	1.131	2.014	18.0	19.8
<b>252905</b>	2002 <i>JP</i> <sub>132</sub>		8 28.5 165°73	1°4/29.7	17		<b>104617</b>	2000 <i>GX</i> <sub>109</sub>		8 28.6 338°61	6°5/4.6	18	
7 20	22 56.58	- 3 5.8	1.724	2.531	17.0	21.3	7 20	22 48.10	+13 14.1	1.589	2.338	20.5	19.6
7 30	22 52.55	- 3 23.4	1.644	2.535	13.7	21.1	7 30	22 46.23	+12 44.4	1.500	2.335	17.7	19.3
8 9	22 46.12	- 3 58.1	1.583	2.538	9.8	20.9	8 9	22 42.00	+11 40.3	1.427	2.333	14.3	19.1
8 19	22 37.79	- 4 47.4	1.546	2.541	5.3	20.6	8 19	22 35.84	+10 0.5	1.374	2.331	10.6	18.9
8 29	22 28.42	- 5 46.4	1.535	2.544	1.4	20.4	8 29	22 28.58	+ 7 47.9	1.345	2.329	7.4	18.7
9 8	22 19.10	- 6 48.3	1.551	2.546	4.7	20.6	9 8	22 21.27	+ 5 11.6	1.342	2.328	6.7	18.7
9 18	22 10.88	- 7 46.4	1.594	2.547	9.1	20.9	9 18	22 15.00	+ 2 24.6	1.365	2.326	9.4	18.8
9 28	22 4.67	- 8 35.0	1.661	2.548	13.0	21.1	9 28	22 10.70	- 0 18.6	1.414	2.325	13.2	19.1
<b>379634</b>	2011 <i>DH</i> <sub>24</sub>		8 28.5 206°78	3°5/1.1	18		<b>2794</b>	Kulik		8 28.6 308°38	0°6/28.9	18	
7 20	22 54.41	+ 3 45.8	2.164	2.927	15.3	21.7	7 20	22 55.98	- 8 19.9	1.436	2.275	18.3	16.5
7 30	22 50.45	+ 3 36.1	2.065	2.921	12.8	21.5	7 30	22 52.96	- 8 2.3	1.339	2.251	14.8	16.2
8 9	22 44.50	+ 3 8.1	1.986	2.915	9.7	21.2	8 9	22 47.03	- 7 56.4	1.260	2.227	10.5	15.9
8 19	22 36.95	+ 2 22.1	1.930	2.907	6.4	21.0	8 19	22 38.56	- 8 0.4	1.203	2.203	5.5	15.6
8 29	22 28.46	+ 1 20.9	1.901	2.899	3.7	20.9	8 29	22 28.45	- 8 10.4	1.171	2.180	0.6	15.1
9 8	22 19.89	+ 0 9.4	1.900	2.891	4.5	20.9	9 8	22 18.04	- 8 21.4	1.163	2.158	5.7	15.5
9 18	22 12.09	- 1 6.3	1.927	2.881	7.7	21.1	9 18	22 8.76	- 8 28.2	1.179	2.136	11.1	15.7
9 28	22 5.86	- 2 19.6	1.981	2.871	11.1	21.3	9 28	22 1.89	- 8 26.4	1.217	2.114	16.0	15.9
<b>72340</b>	2001 <i>BO</i> <sub>64</sub>		8 28.5 168°40	0°4/28.9	18		<b>253456</b>	2003 <i>SS</i> <sub>5</sub>		8 28.6 347°77	6°2/25.2	18	
7 20	22 56.04	- 7 22.9	1.910	2.725	15.3	19.1	7 20	22 54.72	-19 51.9	1.071	1.953	20.1	19.7
7 30	22 51.88	- 7 25.5	1.827	2.726	12.2	18.9	7 30	22 52.66	-20 27.2	1.008	1.945	16.0	19.4
8 9	22 45.52	- 7 39.3	1.766	2.726	8.5	18.7	8 9	22 47.07	-21 7.9	0.961	1.938	11.4	19.2
8 19	22 37.44	- 8 1.6	1.728	2.727	4.3	18.5	8 19	22 38.56	-21 44.9	0.935	1.933	7.2	18.9
8 29	22 28.44	- 8 28.6	1.717	2.727	0.4	18.1	8 29	22 28.45	-22 7.5	0.930	1.928	6.6	18.9
9 8	22 19.50	- 8 55.5	1.734	2.728	4.5	18.5	9 8	22 18.54	-22 7.6	0.948	1.925	10.4	19.1
9 18	22 11.56	- 9 18.1	1.778	2.728	8.6	18.7	9 18	22 10.47	-21 42.1	0.985	1.923	15.1	19.3
9 28	22 5.45	- 9 32.7	1.847	2.728	12.2	18.9	9 28	22 5.52	-20 52.4	1.042	1.922	19.5	19.6
<b>28200</b>	1998 <i>XF</i> <sub>44</sub>		8 28.5 239°55	3°1/26.1	18		<b>519575</b>	2012 <i>SV</i> <sub>70</sub>		8 28.6 229°64	1°8/27.0	18	
7 20	22 57.49	-15 12.7	1.758	2.597	15.4	18.1	7 20	22 58.95	-13 45.3	2.252	3.069	13.2	22.5
7 30	22 53.39	-15 48.2	1.675	2.589	12.2	17.9	7 30	22 53.95	-14 1.4	2.156	3.058	10.4	22.3
8 9	22 46.78	-16 31.5	1.612	2.581	8.4	17.7	8 9	22 46.88	-14 23.5	2.082	3.046	7.1	22.0
8 19	22 38.16	-17 17.1	1.574	2.573	4.5	17.4	8 19	22 38.16	-14 48.0	2.034	3.034	3.6	21.8
8 29	22 28.41	-17 58.3	1.562	2.565	3.4	17.3	8 29	22 28.50	-15 10.5	2.015	3.021	1.9	21.7
9 8	22 18.66	-18 28.6	1.577	2.556	6.7	17.5	9 8	22 18.79	-15 26.8	2.024	3.008	5.1	21.8
9 18	22 10.04	-18 44.0	1.617	2.547	10.8	17.8	9 18	22 9.95	-15 33.6	2.061	2.994	8.6	22.0
9 28	22 3.49	-18 42.4	1.681	2.538	14.4	18.0	9 28	22 2.76	-15 29.3	2.124	2.979	11.9	22.2
<b>85635</b>	1998 <i>MV</i> <sub>1</sub>		8 28.6 14°58	2°8/31.2	18		<b>371402</b>	2006 <i>RV</i> <sub>73</sub>		8 28.6 106°04	1°7/30.0	17	
7 20	22 50.01	+ 0 0.9	1.869	2.670	16.1	19.8	7 20	22 53.51	- 1 20.8	1.554	2.367	18.3	21.2
7 30	22 47.18	+ 0 1.8	1.790	2.673	13.2	19.6	7 30	22 50.35	- 1 52.0	1.481	2.375	14.7	21.0
8 9	22 42.31	- 0 14.3	1.729	2.676	9.7	19.4	8 9	22 44.73	- 2 44.4	1.428	2.383	10.5	20.7
8 19	22 35.85	- 0 46.2	1.692	2.679	5.9	19.1	8 19	22 37.15	- 3 55.0	1.396	2.391	5.8	20.5
8 29	22 28.53	- 1 30.7	1.679	2.683	3.0	19.0	8 29	22 28.54	- 5 17.3	1.390	2.399	1.7	20.2
9 8	22 21.26	- 2 22.6	1.694	2.688	4.4	19.1	9 8	22 20.03	- 6 43.0	1.411	2.406	4.8	20.5
9 18	22 14.92	- 3 16.0	1.735	2.693	8.0	19.3	9 18	22 12.71	- 8 3.4	1.457	2.413	9.4	20.8
9 28	22 10.26	- 4 5.0	1.800	2.698	11.5	19.5	9 28	22 7.50	- 9 11.3	1.527	2.421	13.6	21.0
<b>126252</b>	2002 <i>AF</i> <sub>70</sub>		8 28.6 10°61	10°4/19.8	18		<b>213536</b>	2002 <i>JN</i> <sub>51</sub>		8 28.6 3			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>446166</b>	2013 <i>EX</i> <sub>122</sub>		8 28.6 276°21	0°2/28.8	18		<b>42156</b>	2001 <i>BV</i> <sub>63</sub>		8 28.6 312°83	3°5/30.9	18	
7 20	22 51.27	- 6 18.9	2.159	2.972	13.8	21.4	7 20	22 50.63	- 0 41.4	1.508	2.326	18.5	18.8
7 30	22 47.95	- 6 42.8	2.070	2.968	11.0	21.2	7 30	22 48.64	- 0 23.6	1.401	2.295	15.4	18.5
8 9	22 42.76	- 7 18.8	2.002	2.963	7.6	21.0	8 9	22 44.03	- 0 24.5	1.312	2.264	11.6	18.2
8 19	22 36.09	- 8 4.1	1.959	2.958	3.9	20.8	8 19	22 37.10	- 0 44.8	1.244	2.234	7.2	17.8
8 29	22 28.60	- 8 54.6	1.943	2.953	0.2	20.5	8 29	22 28.59	- 1 22.7	1.199	2.204	3.7	17.6
9 8	22 21.09	- 9 44.9	1.955	2.948	4.1	20.8	9 8	22 19.66	- 2 13.0	1.179	2.174	5.6	17.6
9 18	22 14.38	-10 30.1	1.995	2.943	7.8	21.0	9 18	22 11.61	- 3 8.7	1.183	2.145	10.4	17.8
9 28	22 9.18	-11 6.3	2.059	2.939	11.2	21.2	9 28	22 5.68	- 4 1.4	1.209	2.116	15.2	18.0
<b>20668</b>	1999 <i>UN</i> <sub>11</sub>		8 28.6 125°81	5°2/ 2.4	18		<b>10300</b>	Tanakadate		8 28.6 167°29	0°2/28.8	18	
7 20	22 54.56	+ 6 59.2	1.732	2.495	18.6	18.3	7 20	22 55.60	- 4 51.8	1.627	2.446	17.3	18.4
7 30	22 50.94	+ 7 3.2	1.654	2.506	15.6	18.1	7 30	22 51.97	- 5 31.4	1.549	2.449	13.8	18.2
8 9	22 45.01	+ 6 43.5	1.595	2.515	12.2	17.9	8 9	22 45.86	- 6 29.0	1.491	2.452	9.6	17.9
8 19	22 37.27	+ 6 0.0	1.556	2.525	8.5	17.8	8 19	22 37.76	- 7 40.8	1.456	2.455	4.9	17.7
8 29	22 28.56	+ 4 55.3	1.543	2.534	5.6	17.6	8 29	22 28.57	- 8 59.9	1.447	2.457	0.2	17.3
9 8	22 19.92	+ 3 35.4	1.556	2.543	5.9	17.7	9 8	22 19.41	-10 18.0	1.465	2.458	5.1	17.7
9 18	22 12.36	+ 2 8.4	1.595	2.551	8.8	17.8	9 18	22 11.41	-11 27.4	1.509	2.459	9.8	18.0
9 28	22 6.75	+ 0 42.9	1.659	2.559	12.3	18.1	9 28	22 5.50	-12 22.3	1.577	2.459	13.9	18.2
<b>443052</b>	2013 <i>EN</i> <sub>119</sub>		8 28.6 89°20	0°2/28.4	18		<b>134612</b>	1999 <i>TO</i> <sub>218</sub>		8 28.6 126°30	2°5/31.1	18	
7 20	22 54.85	- 9 0.9	2.231	3.044	13.4	21.2	7 20	22 53.44	+ 0 32.3	2.043	2.828	15.4	20.1
7 30	22 50.54	- 9 7.9	2.154	3.053	10.6	21.1	7 30	22 49.66	+ 0 20.5	1.963	2.837	12.6	19.9
8 9	22 44.38	- 9 23.4	2.100	3.061	7.3	20.9	8 9	22 43.92	- 0 8.1	1.904	2.846	9.2	19.7
8 19	22 36.84	- 9 44.9	2.070	3.070	3.6	20.7	8 19	22 36.67	- 0 51.8	1.868	2.854	5.6	19.5
8 29	22 28.59	-10 8.5	2.069	3.079	0.3	20.4	8 29	22 28.62	- 1 47.1	1.859	2.863	2.7	19.3
9 8	22 20.45	-10 30.4	2.096	3.087	4.0	20.7	9 8	22 20.64	- 2 48.6	1.877	2.871	4.1	19.4
9 18	22 13.21	-10 47.3	2.150	3.096	7.6	21.0	9 18	22 13.57	- 3 50.5	1.924	2.879	7.6	19.7
9 28	22 7.52	-10 56.5	2.230	3.104	10.7	21.2	9 28	22 8.13	- 4 47.1	1.995	2.886	11.0	19.9
<b>512810</b>	2016 <i>UL</i> <sub>93</sub>		8 28.6 60°00	2°4/30.9	18		<b>20</b>	Massalia		8 28.6 243°47	0°3/28.9	18	
7 20	22 51.49	- 0 13.8	1.911	2.708	15.9	21.7	7 20	22 55.13	- 5 57.1	1.817	2.633	15.9	10.7
7 30	22 48.33	- 0 25.3	1.829	2.711	13.0	21.5	7 30	22 51.49	- 6 18.0	1.723	2.621	12.8	10.4
8 9	22 43.12	- 0 54.1	1.767	2.714	9.5	21.3	8 9	22 45.52	- 6 53.6	1.649	2.610	9.0	10.2
8 19	22 36.30	- 1 38.6	1.728	2.717	5.7	21.1	8 19	22 37.62	- 7 41.2	1.599	2.598	4.6	9.9
8 29	22 28.61	- 2 35.0	1.715	2.720	2.5	20.9	8 29	22 28.58	- 8 35.9	1.576	2.585	0.4	9.6
9 8	22 20.96	- 3 37.6	1.729	2.723	4.3	21.0	9 8	22 19.43	- 9 31.1	1.579	2.572	4.8	9.9
9 18	22 14.22	- 4 40.1	1.770	2.727	8.0	21.3	9 18	22 11.22	-10 20.8	1.609	2.559	9.3	10.1
9 28	22 9.17	- 5 36.6	1.836	2.730	11.6	21.5	9 28	22 4.89	-10 59.7	1.664	2.546	13.3	10.3
<b>313987</b>	2004 <i>TV</i> <sub>124</sub>		8 28.6 8°17	3°1/25.9	18		<b>320255</b>	2007 <i>PZ</i> <sub>4</sub>		8 28.6 12°21	1°0/27.7	18	
7 20	22 54.87	-17 15.8	2.062	2.900	13.5	20.3	7 20	22 46.51	- 6 18.7	1.321	2.176	18.6	19.4
7 30	22 50.84	-17 41.1	1.986	2.900	10.6	20.1	7 30	22 45.28	- 7 21.4	1.256	2.179	14.7	19.2
8 9	22 44.74	-18 10.6	1.933	2.901	7.3	19.9	8 9	22 41.47	- 8 45.3	1.210	2.184	10.0	19.0
8 19	22 37.06	-18 39.5	1.904	2.902	4.1	19.7	8 19	22 35.62	-10 23.9	1.186	2.189	4.8	18.7
8 29	22 28.58	-19 2.8	1.902	2.903	3.4	19.6	8 29	22 28.67	-12 7.4	1.186	2.195	1.3	18.5
9 8	22 20.22	-19 16.0	1.928	2.904	6.0	19.8	9 8	22 21.84	-13 44.6	1.211	2.203	6.2	18.8
9 18	22 12.84	-19 16.4	1.980	2.906	9.3	20.0	9 18	22 16.26	-15 5.9	1.259	2.211	11.1	19.1
9 28	22 7.20	-19 3.1	2.056	2.908	12.4	20.2	9 28	22 12.88	-16 5.1	1.330	2.220	15.4	19.4
<b>238545</b>	2004 <i>VS</i> <sub>62</sub>		8 28.6 302°44	1°7/30.1	18		<b>156692</b>	2002 <i>LV</i> <sub>8</sub>		8 28.6 25°27	0°3/28.9	18	
7 20	22 48.72	- 0 28.9	1.637	2.452	17.4	19.8	7 20	22 48.94	- 5 29.6	1.921	2.743	14.9	19.6
7 30	22 46.90	- 1 6.1	1.525	2.420	14.3	19.5	7 30	22 46.27	- 6 1.4	1.848	2.751	11.8	19.4
8 9	22 42.69	- 2 7.6	1.432	2.388	10.5	19.2	8 9	22 41.65	- 6 47.3	1.796	2.759	8.2	19.2
8 19	22 36.36	- 3 32.6	1.362	2.356	6.0	18.9	8 19	22 35.55	- 7 43.9	1.768	2.767	4.2	19.0
8 29	22 28.60	- 5 16.2	1.316	2.325	1.8	18.6	8 29	22 28.68	- 8 45.9	1.766	2.776	0.3	18.7
9 8	22 20.47	- 7 9.4	1.297	2.293	5.1	18.7	9 8	22 21.91	- 9 47.1	1.792	2.786	4.2	19.1
9 18	22 13.11	- 9 1.8	1.303	2.261	10.2	18.9	9 18	22 16.04	-10 41.8	1.844	2.796	8.1	19.3
9 28	22 7.67	-10 42.9	1.333	2.230	14.9	19.1	9 28	22 11.80	-11 25.6	1.920	2.806	11.6	19.6
<b>260958</b>	2005 <i>SF</i> <sub>39</sub>		8 28.6 161°00	1°1/27.5	18		<b>108766</b>	2001 <i>OJ</i> <sub>48</sub>		8 28.6 325°05	10°3/ 3.9	18	
7 20	22 53.22	-10 46.0	2.275	3.096	13.0	21.5	7 20	22 53.11	+10 4.4	1.415	2.184	21.8	19.0
7 30	22 49.32	-11 11.3	2.193	3.097	10.2	21.3	7 30	22 50.72	+11 36.5	1.326	2.170	19.2	18.8
8 9	22 43.60	-11 45.0	2.133	3.098	6.9	21.1	8 9	22 45.50	+12 47.1	1.253	2.157	16.1	18.5
8 19	22 36.48	-12 23.6	2.099	3.100	3.4	20.9	8 19	22 37.83	+13 30.5	1.199	2.144	13.0	18.3
8 29	22 28.61	-13 2.7	2.092	3.101	1.2	20.7	8 29	22 28.57	+13 42.5	1.165	2.131	10.7	18.2
9 8	22 20.80	-13 37.6	2.114	3.102	4.4	21.0	9 8	22 19.01	+13 23.5	1.153	2.120	10.5	18.1
9 18	22 13.81	-14 4.7	2.163	3.103	7.9	21.2	9 18	22 10.54	+12 38.6	1.164	2.109	12.5	18.2
9 28	22 8.32	-14 21.3	2.238	3.103	11.0	21.4	9 28	22 4.43	+11 37.0	1.196	2.099	15.7	18.4
<b>263585</b>	2008 <i>FX</i> <sub>98</sub>		8 28.6 308°59	5°1/23.4	18		<b>43025</b>	Valusha		8 28.6 320°39	0°5/28.9	18	
7 20	22 52.47	-21 6.1	2.042	2.891	13.2	20.5	7 20	22 52.64	- 7 19.5	1.267	2.117	19.6	18.6
7 30	22 49.15	-22 8.6	1.965	2.883	10.4	20.3	7 30	22 50.56	- 7 16.2	1.182	2.101	15.8	18.3
8 9	22 43.72	-23 14.6	1.910	2.875	7.5	20.1	8 9	22 45.47	- 7 29.1	1.115	2.085	11.1	18.0
8 19	22 36.62	-24 17.6	1.879	2.868	5.4	20.0	8 19	22 37.82	- 7 55.7	1.069	2.070	5.8	17.7
8 29	22 28.61	-25 10.6	1.876	2.861	5.5	20.0	8 29	22 28.58	- 8 30.8	1.045	2.055	0.5	17.3
9 8	22 20.62	-25 47.8	1.898	2.854	7.9	20.1	9 8	22 19.16	- 9 6.9	1.046	2.041	6.0	17.6
9 18	22 13.57	-26 5.8	1.946	2.847	10.9	20.3	9 18	22 11.05	- 9 36.9	1.069	2.028	11.6	17.9
9 28	22 8.27	-26 3.8	2.016	2.840	13.7	20.5	9 28	22 5.51	- 9 55.0	1.113	2.016	16.6	18.1
<b>445490</b>	2010 <i>VJ</i> <sub>177</sub>		8 28.6 297°32	0°1/28.5	18		<b>479496</b>	2014 <i>AN</i> <sub>42</sub>		8 28.6 169°41	1°5/30.1	18	













EPHEMERIDES

8 28.7

8 28.7

Table with 13 columns: 2020, α2000, δ2000, Δ, r, β, V, 2020, α2000, δ2000, Δ, r, β, V. It contains multiple sections of astronomical data for various objects including 351853, 313229, 478689, 340284, 120496, 377283, 21708, 57732, 358132, 315358, 256487, 31986, 402181, 60330, 437347, 176113, 71945, and 206078.









EPHEMERIDES

8 28.8

8 28.8

Table with 14 columns: 2020, alpha\_2000, delta\_2000, Delta, r, beta, V, 2020, alpha\_2000, delta\_2000, Delta, r, beta, V. Contains multiple star entries such as 205155 1999 XE197, 253562 2003 SH268, 95781 2003 EO60, 443948 2002 XO32, 231743 1999 RL168, 267179 2000 QF9, 182793 2002 AG30, 192180 2007 ED213, 121513 1999 UJ6, 126938 2002 EC153, 195300 2002 EA93, 105928 2000 SA219, 206587 2003 WJ20, 255074 2005 UZ17, 178749 2000 UO86, 253687 2003 UY236, 511386 2014 GA32, and 174404 2002 VM72. Each entry includes a date and time grid with corresponding alpha, delta, and magnitude data.





















EPHEMERIDES

8 28.9

8 28.9

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>67332</b>	2000 $HF_{81}$			8 28.9 281°40 7°8/20.9 17									
7 20	22 50.56	-12 14.2	1.118	1.993	20.0	18.0	7 20	22 55.51	-15 18.7	1.257	2.121	18.8	20.7
<b>479394</b>	2013 $YE_{24}$			8 28.9 185°49 8°7/5.6 18									
7 20	22 56.19	+13 22.4	1.818	2.537	19.3	21.3	7 20	22 46.72	-11 20.3	1.140	2.018	19.5	17.6
<b>221981</b>	1996 $EB_{13}$			8 28.9 27°42 7°2/25.9 18									
7 20	23 13.09	-29 35.4	1.588	2.418	17.2	19.0	7 20	22 57.55	-6 3.3	1.923	2.730	15.5	22.8
<b>47332</b>	1999 $XC_{32}$			8 28.9 290°08 4°1/31.9 18									
7 20	22 55.12	+1 14.1	1.544	2.345	18.9	18.8	7 20	22 52.30	+10 26.9	2.121	2.851	16.5	19.3
<b>276788</b>	2004 $KR_{18}$			8 28.9 31°99 6°7/23.4 18									
7 20	22 55.16	-23 22.8	1.573	2.433	15.9	19.4	7 20	22 55.88	-5 29.5	2.191	2.991	14.1	22.1
<b>103861</b>	2000 $DS_{40}$			8 28.9 264°14 0°7/29.6 18									
7 20	22 54.18	-5 11.6	1.956	2.765	15.2	20.4	7 20	22 55.47	-6 51.8	2.306	3.108	13.4	20.8
<b>23638</b>	Nagano			8 28.9 210°48 1°9/27.3 18									
7 20	22 56.14	-9 55.4	1.675	2.506	16.4	19.7	7 20	22 53.29	-23 54.0	1.979	2.830	13.5	19.7
<b>501748</b>	2014 $UT_{134}$			8 28.9 1°09 0°3/28.8 17									
7 20	22 49.75	-9 0.1	0.856	1.743	23.4	19.9	7 20	22 56.91	-5 27.2	1.802	2.613	16.2	21.2
<b>424442</b>	2008 $CQ_{36}$			8 28.9 270°39 2°3/30.5 18									
7 20	22 58.70	-3 28.1	1.584	2.394	18.1	21.7	7 20	22 58.90	-16 54.0	1.630	2.473	16.2	17.4
<b>289140</b>	2004 $VW_7$			8 28.9 301°92 4°6/25.8 18									
7 20	22 55.51	-15 18.7	1.257	2.121	18.8	20.7	7 20	22 55.51	-15 18.7	1.257	2.121	18.8	20.7
<b>27782</b>	1992 $EH_{24}$			8 28.9 346°26 3°6/26.1 18									
7 20	22 46.72	-11 20.3	1.140	2.018	19.5	17.6	7 20	22 46.72	-11 20.3	1.140	2.018	19.5	17.6
<b>510221</b>	2011 $EM_{12}$			8 28.9 149°70 0°2/29.2 17									
7 20	22 57.55	-6 3.3	1.923	2.730	15.5	22.8	7 20	22 57.55	-6 3.3	1.923	2.730	15.5	22.8
<b>48391</b>	1981 $DH_2$			8 28.9 274°73 6°3/4.3 18									
7 20	22 52.30	+10 26.9	2.121	2.851	16.5	19.3	7 20	22 52.30	+10 26.9	2.121	2.851	16.5	19.3
<b>240629</b>	2004 $YS$			8 28.9 222°68 0°5/29.5 18									
7 20	22 55.88	-5 29.5	2.191	2.991	14.1	22.1	7 20	22 55.88	-5 29.5	2.191	2.991	14.1	22.1
<b>100519</b>	Bombig			8 28.9 227°43 0°3/28.7 18									
7 20	22 55.47	-6 51.8	2.306	3.108	13.4	20.8	7 20	22 55.47	-6 51.8	2.306	3.108	13.4	20.8
<b>400409</b>	2008 $CF_6$			8 28.9 55°87 7°1/20.1 18									
7 20	22 53.29	-23 54.0	1.979	2.830	13.5	19.7	7 20	22 53.29	-23 54.0	1.979	2.830	13.5	19.7
<b>218867</b>	2006 $XB_{21}$			8 28.9 249°53 0°6/29.4 18									
7 20	22 56.91	-5 27.2	1.802	2.613	16.2	21.2	7 20	22 56.91	-5 27.2	1.802	2.613	16.2	21.2
<b>2999</b>	Dante			8 28.9 223°92 4°6/25.2 18									
7 20	22 58.90	-16 54.0	1.630	2.473	16.2	17.4	7 20	22 58.90	-16 54.0	1.630	2.473	16.2	17.4



