

EPHEMERIDES

12 2.9

12 3.0

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>77458</b>	2001 <i>HF</i> <sub>12</sub>	12	2.9	91°32	1.4/ 3.4	18	<b>443133</b>	2014 <i>BW</i> <sub>16</sub>	12	3.0	211°40	0°1/ 2.9	18
10 28	5 7.84	+25 42.1	1.846	2.656	14.9	19.4	10 28	5 8.93	+21 38.8	2.033	2.838	13.9	22.0
11 7	5 2.25	+25 56.3	1.777	2.667	11.5	19.2	11 7	5 3.01	+21 44.3	1.942	2.831	10.7	21.8
11 17	4 54.03	+26 4.6	1.730	2.678	7.5	19.0	11 17	4 54.57	+21 47.0	1.875	2.824	6.9	21.5
11 27	4 44.03	+26 5.4	1.709	2.689	3.3	18.7	11 27	4 44.31	+21 46.5	1.836	2.817	2.6	21.3
12 7	4 33.42	+25 58.7	1.718	2.699	2.2	18.7	12 7	4 33.27	+21 42.9	1.826	2.808	1.8	21.2
12 17	4 23.46	+25 46.3	1.755	2.710	6.2	19.0	12 17	4 22.63	+21 37.7	1.846	2.799	6.2	21.4
12 27	4 15.31	+25 31.4	1.820	2.721	10.2	19.2	12 27	4 13.55	+21 33.0	1.895	2.790	10.2	21.7
1 6	4 9.74	+25 17.6	1.908	2.731	13.5	19.5	1 6	4 6.83	+21 31.6	1.968	2.780	13.6	21.9
<b>147545</b>	2004 <i>EA</i> <sub>50</sub>	12	2.9	150°78	1.2/ 2.6	18	<b>259876</b>	2004 <i>DO</i> <sub>15</sub>	12	3.0	8°11	2°8/ 2.5	18
10 28	5 8.98	+20 17.7	1.817	2.630	15.0	20.9	10 28	5 4.30	+17 8.7	1.141	1.992	19.6	19.7
11 7	5 3.03	+19 58.2	1.744	2.637	11.5	20.7	11 7	5 0.75	+16 52.2	1.079	1.993	15.1	19.4
11 17	4 54.49	+19 35.5	1.693	2.644	7.3	20.5	11 17	4 53.66	+16 36.2	1.036	1.994	9.8	19.1
11 27	4 44.20	+19 10.5	1.670	2.651	2.9	20.2	11 27	4 44.04	+16 23.3	1.016	1.996	4.4	18.8
12 7	4 33.31	+18 45.2	1.676	2.657	2.4	20.2	12 7	4 33.49	+16 16.1	1.020	2.000	4.0	18.8
12 17	4 23.08	+18 22.2	1.711	2.662	6.7	20.5	12 17	4 23.77	+16 17.0	1.048	2.004	9.2	19.1
12 27	4 14.64	+18 4.6	1.773	2.667	10.8	20.8	12 27	4 16.49	+16 28.1	1.099	2.009	14.4	19.4
1 6	4 8.73	+17 54.7	1.859	2.671	14.3	21.0	1 6	4 12.63	+16 50.1	1.170	2.015	18.8	19.7
<b>411140</b>	2009 <i>WU</i> <sub>249</sub>	12	2.9	61°41	0°8/ 3.2	18	<b>404609</b>	2014 <i>FC</i> <sub>48</sub>	12	3.0	181°91	5°3/ 4.8	18
10 28	5 5.79	+23 4.9	2.109	2.917	13.4	20.8	10 28	5 11.43	+37 12.1	2.191	2.959	14.2	21.0
11 7	5 0.36	+23 31.2	2.040	2.931	10.2	20.6	11 7	5 5.09	+37 49.2	2.107	2.960	11.6	20.8
11 17	4 52.68	+23 54.7	1.996	2.945	6.6	20.4	11 17	4 55.96	+38 14.1	2.045	2.961	8.7	20.6
11 27	4 43.49	+24 14.0	1.979	2.959	2.6	20.2	11 27	4 44.85	+38 22.3	2.009	2.960	6.1	20.4
12 7	4 33.77	+24 28.7	1.991	2.974	1.7	20.2	12 7	4 32.95	+38 12.0	2.001	2.960	5.4	20.4
12 17	4 24.58	+24 39.2	2.033	2.988	5.5	20.5	12 17	4 21.59	+37 44.2	2.023	2.959	7.1	20.5
12 27	4 16.91	+24 47.3	2.104	3.003	9.1	20.7	12 27	4 12.04	+37 3.3	2.072	2.957	10.0	20.7
1 6	4 11.43	+24 55.2	2.199	3.017	12.2	20.9	1 6	4 5.16	+36 15.8	2.147	2.955	12.8	20.9
<b>119438</b>	2001 <i>TE</i> <sub>138</sub>	12	2.9	140°90	3°2/ 2.3	18	<b>269121</b>	2007 <i>MG</i> <sub>9</sub>	12	3.0	17°19	4°6/ 1.7	18
10 28	5 8.35	+14 20.0	1.759	2.574	15.4	20.2	10 28	5 2.13	+ 9 2.5	2.118	2.929	13.2	20.0
11 7	5 2.56	+14 4.6	1.689	2.582	11.8	20.0	11 7	4 57.49	+ 8 36.9	2.043	2.930	10.4	19.8
11 17	4 54.21	+13 51.8	1.641	2.589	7.8	19.8	11 17	4 50.84	+ 8 17.1	1.993	2.931	7.4	19.7
11 27	4 44.10	+13 43.4	1.620	2.596	4.0	19.6	11 27	4 42.83	+ 8 5.9	1.969	2.933	5.0	19.5
12 7	4 33.37	+13 41.3	1.627	2.602	3.9	19.6	12 7	4 34.32	+ 8 5.4	1.973	2.935	5.1	19.5
12 17	4 23.27	+13 46.8	1.663	2.608	7.5	19.8	12 17	4 26.24	+ 8 16.9	2.006	2.937	7.5	19.7
12 27	4 14.92	+14 1.0	1.726	2.614	11.4	20.1	12 27	4 19.46	+ 8 40.4	2.065	2.939	10.5	19.9
1 6	4 9.09	+14 24.0	1.812	2.619	14.8	20.3	1 6	4 14.62	+ 9 14.8	2.149	2.941	13.3	20.1
<b>412357</b>	2013 <i>LV</i> <sub>19</sub>	12	2.9	120°15	0°3/ 2.9	18	<b>126057</b>	2001 <i>YR</i> <sub>79</sub>	12	3.0	30°21	2°2/ 3.5	18
10 28	5 4.16	+21 56.0	2.550	3.352	11.5	22.0	10 28	5 6.45	+26 52.0	1.217	2.055	19.4	19.4
11 7	4 58.67	+21 45.2	2.478	3.366	8.7	21.8	11 7	5 2.29	+27 4.3	1.162	2.067	15.0	19.1
11 17	4 51.39	+21 31.2	2.430	3.379	5.5	21.6	11 17	4 54.54	+27 7.2	1.126	2.080	9.8	18.9
11 27	4 42.95	+21 14.5	2.411	3.393	2.1	21.4	11 27	4 44.33	+26 58.5	1.114	2.093	4.4	18.6
12 7	4 34.15	+20 56.1	2.423	3.405	1.5	21.4	12 7	4 33.36	+26 38.9	1.126	2.108	3.0	18.6
12 17	4 25.82	+20 37.8	2.465	3.418	4.9	21.6	12 17	4 23.44	+26 11.6	1.163	2.123	8.0	18.9
12 27	4 18.72	+20 21.6	2.537	3.430	8.0	21.9	12 27	4 16.11	+25 42.6	1.225	2.139	12.9	19.2
1 6	4 13.41	+20 9.5	2.634	3.441	10.7	22.1	1 6	4 12.22	+25 17.4	1.308	2.156	17.1	19.6
<b>385561</b>	2004 <i>TO</i> <sub>140</sub>	12	3.0	140°76	4°1/ 4.2	18	<b>519413</b>	2011 <i>UB</i> <sub>62</sub>	12	3.0	76°62	0°9/ 3.2	17
10 28	5 11.29	+32 40.4	1.884	2.674	15.4	21.2	10 28	5 11.11	+22 25.9	1.828	2.635	15.2	21.1
11 7	5 5.10	+33 10.8	1.809	2.682	12.2	21.0	11 7	5 4.63	+23 8.6	1.769	2.658	11.6	20.9
11 17	4 55.98	+33 30.4	1.757	2.690	8.6	20.8	11 17	4 55.51	+23 48.9	1.733	2.682	7.4	20.7
11 27	4 44.82	+33 35.4	1.730	2.697	5.2	20.6	11 27	4 44.62	+24 24.5	1.724	2.705	3.0	20.4
12 7	4 32.92	+33 24.4	1.731	2.703	4.3	20.5	12 7	4 33.17	+24 53.8	1.745	2.728	2.0	20.4
12 17	4 21.69	+32 59.2	1.762	2.709	7.0	20.7	12 17	4 22.45	+25 16.7	1.796	2.750	6.2	20.7
12 27	4 12.46	+32 24.4	1.820	2.715	10.5	20.9	12 27	4 13.61	+25 35.1	1.875	2.773	10.1	21.0
1 6	4 6.07	+31 46.4	1.902	2.720	13.8	21.2	1 6	4 7.40	+25 51.6	1.978	2.795	13.4	21.3
<b>491394</b>	2012 <i>CS</i> <sub>29</sub>	12	3.0	344°67	7°8/ 1.2	17	<b>411089</b>	2009 <i>VJ</i> <sub>111</sub>	12	3.0	326°68	2°4/ 1.9	18
10 28	4 58.48	+ 6 58.0	1.307	2.152	18.0	20.9	10 28	5 0.57	+20 21.7	1.724	2.556	14.9	20.4
11 7	4 55.95	+ 6 9.8	1.233	2.135	14.5	20.6	11 7	4 57.05	+19 16.3	1.627	2.531	11.5	20.1
11 17	4 50.48	+ 5 31.1	1.178	2.120	10.9	20.4	11 17	4 50.96	+18 2.8	1.553	2.507	7.5	19.8
11 27	4 42.82	+ 5 8.6	1.145	2.107	8.2	20.2	11 27	4 42.99	+16 44.5	1.504	2.484	3.4	19.5
12 7	4 34.20	+ 5 7.6	1.136	2.095	8.4	20.2	12 7	4 34.19	+15 26.4	1.483	2.462	3.5	19.4
12 17	4 26.07	+ 5 30.6	1.151	2.084	11.5	20.3	12 17	4 25.79	+14 14.6	1.491	2.440	7.8	19.7
12 27	4 19.81	+ 6 16.9	1.188	2.076	15.5	20.5	12 27	4 18.97	+13 14.7	1.524	2.419	12.1	19.9
1 6	4 16.39	+ 7 22.6	1.245	2.069	19.2	20.7	1 6	4 14.58	+12 30.5	1.579	2.399	16.0	20.1
<b>212649</b>	2006 <i>UW</i> <sub>80</sub>	12	3.0	146°38	1°5/ 2.4	18	<b>261571</b>	2005 <i>WS</i> <sub>188</sub>	12	3.0	129°63	0°7/ 2.7	18
10 28	5 5.20	+19 31.1	2.179	2.988	13.0	20.6	10 28	5 3.94	+21 58.8	2.220	3.030	12.7	21.2
11 7	4 59.74	+18 58.5	2.103	2.995	9.9	20.4	11 7	4 58.83	+21 30.2	2.142	3.034	9.7	21.0
11 17	4 52.21	+18 23.1	2.051	3.001	6.3	20.2	11 17	4 51.66	+20 57.1	2.088	3.038	6.2	20.8
11 27	4 43.31	+17 46.5	2.027	3.007	2.7	20.0	11 27	4 43.14	+20 20.8	2.061	3.043	2.4	20.6
12 7	4 33.95	+17 11.0	2.033	3.013	2.4	20.0	12 7	4 34.15	+19 43.2	2.065	3.047	1.8	20.5
12 17	4 25.12	+16 39.3	2.069	3.018	6.0	20.2	12 17	4 25.67	+19 7.1	2.098	3.051	5.6	20.8
12 27	4 17.71	+16 14.2	2.133	3.023	9.5	20.5	12 27	4 18.57	+18 35.6	2.160	3.054	9.1	21.0
1 6	4 12.35	+15 57.4	2.222	3.027	12.5	20.7	1 6	4 13.50	+18 11.1	2.246	3.058	12.2	21.2
<b>139550</b>	2001 <i>QX</i> <sub>56</sub>	12	3.0	124°51	7°1/ 5.5	18	<b>461328</b>	2015 <i>XA</i> <sub>266</sub>	12	3.0	86°95		

EPHEMERIDES

12 3.0

12 3.0

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>402500</b>	2006 <i>DU</i> <sub>38</sub>	12 3.0	11°86'	4.3/ 4.4	17		<b>139707</b>	2001 <i>QD</i> <sub>229</sub>	12 3.0	95°50'	1.9/ 2.3	18	
10 28	5 5.86	+33 47.7	2.029	2.822	14.4	20.9	10 28	5 6.14	+18 29.4	2.048	2.860	13.6	21.2
11 7	5 0.89	+34 17.2	1.950	2.823	11.5	20.7	11 7	5 0.44	+17 52.8	1.987	2.880	10.3	21.0
11 17	4 53.29	+34 36.0	1.893	2.824	8.3	20.5	11 17	4 52.64	+17 14.4	1.950	2.899	6.6	20.9
11 27	4 43.84	+34 40.8	1.862	2.826	5.3	20.3	11 27	4 43.51	+16 36.2	1.940	2.919	2.9	20.7
12 7	4 33.67	+34 30.4	1.859	2.828	4.4	20.3	12 7	4 34.04	+16 0.9	1.960	2.938	2.8	20.7
12 17	4 24.04	+34 6.3	1.884	2.830	6.7	20.4	12 17	4 25.23	+15 31.0	2.009	2.957	6.2	21.0
12 27	4 16.14	+33 32.7	1.936	2.832	9.9	20.6	12 27	4 17.97	+15 9.2	2.087	2.975	9.7	21.2
1 6	4 10.76	+32 54.8	2.012	2.835	12.9	20.8	1 6	4 12.85	+14 56.8	2.189	2.993	12.7	21.4
<b>73060</b>	2002 <i>FZ</i> <sub>7</sub>	12 3.0	134°64'	4.0/ 3.9	18		<b>175906</b>	1999 <i>YG</i> <sub>27</sub>	12 3.0	226°31'	1.8/ 2.5	18	
10 28	5 13.93	+31 0.6	1.619	2.418	17.1	20.6	10 28	5 8.43	+18 31.9	1.788	2.603	15.1	21.3
11 7	5 7.50	+31 37.2	1.549	2.429	13.5	20.4	11 7	5 2.91	+18 13.8	1.700	2.594	11.7	21.0
11 17	4 57.72	+32 3.4	1.500	2.438	9.4	20.1	11 17	4 54.66	+17 54.0	1.634	2.585	7.6	20.8
11 27	4 45.57	+32 14.6	1.477	2.447	5.4	19.9	11 27	4 44.44	+17 33.6	1.595	2.575	3.2	20.5
12 7	4 32.54	+32 9.1	1.481	2.456	4.3	19.9	12 7	4 33.37	+17 14.4	1.585	2.565	2.8	20.4
12 17	4 20.35	+31 48.4	1.514	2.464	7.6	20.1	12 17	4 22.75	+16 58.8	1.603	2.554	7.2	20.7
12 27	4 10.49	+31 18.1	1.573	2.472	11.6	20.4	12 27	4 13.83	+16 49.8	1.648	2.542	11.5	20.9
1 6	4 3.90	+30 44.9	1.656	2.479	15.3	20.6	1 6	4 7.48	+16 49.2	1.717	2.530	15.3	21.1
<b>74776</b>	1999 <i>RJ</i> <sub>237</sub>	12 3.0	99°24'	1.6/ 2.7	18		<b>359415</b>	2010 <i>KU</i> <sub>114</sub>	12 3.0	71°05'	11.6/ 9.1	18	
10 28	5 11.61	+18 8.5	1.534	2.353	17.0	19.6	10 28	5 22.71	+54 40.5	1.982	2.668	18.0	20.7
11 7	5 5.29	+18 9.3	1.476	2.373	13.0	19.4	11 7	5 14.94	+55 58.4	1.933	2.695	16.0	20.5
11 17	4 56.05	+18 10.1	1.440	2.392	8.3	19.2	11 17	5 2.78	+56 51.4	1.902	2.721	14.0	20.5
11 27	4 44.85	+18 11.2	1.430	2.410	3.4	18.9	11 27	4 47.55	+57 11.0	1.892	2.747	12.4	20.4
12 7	4 33.09	+18 13.4	1.447	2.429	2.7	18.9	12 7	4 31.42	+56 53.1	1.905	2.773	11.6	20.4
12 17	4 22.22	+18 18.0	1.494	2.446	7.4	19.2	12 17	4 16.77	+55 59.8	1.942	2.799	11.9	20.5
12 27	4 13.49	+18 27.1	1.566	2.464	11.8	19.5	12 27	4 5.49	+54 39.5	2.003	2.825	13.1	20.6
1 6	4 7.69	+18 41.9	1.662	2.480	15.4	19.8	1 6	3 58.51	+53 3.6	2.087	2.850	14.6	20.8
<b>95325</b>	2002 <i>CR</i> <sub>109</sub>	12 3.0	157°04'	0.2/ 2.9	18		<b>226535</b>	2003 <i>UG</i> <sub>180</sub>	12 3.0	120°22'	1.0/ 3.4	18	
10 28	5 4.52	+21 35.8	2.258	3.066	12.6	19.6	10 28	5 5.97	+25 13.8	2.895	3.683	10.6	20.3
11 7	4 59.32	+21 34.9	2.177	3.068	9.6	19.5	11 7	4 59.93	+25 30.9	2.823	3.702	8.1	20.2
11 17	4 52.03	+21 31.1	2.120	3.070	6.2	19.2	11 17	4 52.20	+25 44.0	2.777	3.721	5.3	20.0
11 27	4 43.31	+21 24.7	2.091	3.072	2.3	19.0	11 27	4 43.36	+25 52.3	2.760	3.739	2.3	19.8
12 7	4 34.06	+21 16.3	2.091	3.074	1.6	18.9	12 7	4 34.15	+25 55.6	2.774	3.756	1.5	19.8
12 17	4 25.24	+21 7.3	2.122	3.076	5.4	19.2	12 17	4 25.36	+25 54.7	2.821	3.773	4.4	20.0
12 27	4 17.76	+21 0.0	2.181	3.077	9.0	19.4	12 27	4 17.71	+25 51.2	2.897	3.789	7.1	20.2
1 6	4 12.30	+20 56.1	2.265	3.078	12.0	19.6	1 6	4 11.75	+25 47.3	3.000	3.805	9.6	20.4
<b>307254</b>	2002 <i>LM</i> <sub>46</sub>	12 3.0	44°98'	1.7/ 2.1	17		<b>307647</b>	2003 <i>SK</i> <sub>158</sub>	12 3.0	81°17'	7.2/ 1.1	18	
10 28	5 7.61	+23 28.7	1.788	2.602	15.2	18.6	10 28	5 6.39	+5 7.7	1.727	2.536	15.9	20.6
11 7	5 1.54	+21 50.5	1.739	2.634	11.4	18.4	11 7	5 0.83	+4 7.9	1.679	2.558	12.7	20.4
11 17	4 53.23	+20 4.6	1.714	2.666	7.2	18.2	11 17	4 52.97	+3 18.1	1.652	2.579	9.6	20.3
11 27	4 43.64	+18 15.9	1.718	2.699	2.9	18.0	11 27	4 43.67	+2 43.5	1.652	2.601	7.4	20.2
12 7	4 33.96	+16 30.7	1.752	2.731	2.8	18.1	12 7	4 34.02	+2 27.7	1.678	2.622	7.7	20.3
12 17	4 25.27	+14 55.6	1.817	2.764	6.8	18.4	12 17	4 25.12	+2 32.0	1.731	2.644	9.9	20.4
12 27	4 18.46	+13 35.7	1.909	2.797	10.5	18.7	12 27	4 17.95	+2 55.5	1.810	2.664	12.7	20.7
1 6	4 14.03	+12 33.5	2.026	2.831	13.5	19.0	1 6	4 13.11	+3 35.2	1.910	2.685	15.3	20.9
<b>82761</b>	2001 <i>QL</i> <sub>9</sub>	12 3.0	85°03'	2.6/ 3.9	18		<b>199839</b>	2007 <i>ER</i> <sub>45</sub>	12 3.0	178°23'	0.4/ 3.1	18	
10 28	5 6.80	+29 47.9	1.916	2.719	14.7	19.6	10 28	5 8.58	+23 41.9	1.826	2.637	15.0	21.7
11 7	5 1.54	+29 52.8	1.839	2.723	11.5	19.4	11 7	5 2.95	+23 39.9	1.746	2.638	11.6	21.5
11 17	4 53.66	+29 47.9	1.785	2.727	7.8	19.2	11 17	4 54.63	+23 32.6	1.689	2.639	7.5	21.3
11 27	4 43.98	+29 31.8	1.756	2.731	4.0	19.0	11 27	4 44.41	+23 19.5	1.659	2.639	2.9	21.0
12 7	4 33.65	+29 4.6	1.756	2.735	2.9	18.9	12 7	4 33.48	+23 1.5	1.657	2.639	1.9	20.9
12 17	4 23.95	+28 28.8	1.785	2.739	6.3	19.1	12 17	4 23.12	+22 40.7	1.684	2.639	6.4	21.2
12 27	4 16.02	+27 49.0	1.841	2.743	10.0	19.4	12 27	4 14.54	+22 20.7	1.739	2.638	10.6	21.5
1 6	4 10.64	+27 10.2	1.921	2.746	13.4	19.6	1 6	4 8.55	+22 4.8	1.817	2.637	14.2	21.7
<b>252719</b>	2002 <i>CO</i> <sub>197</sub>	12 3.0	132°74'	0.0/ 2.8	18		<b>303079</b>	2004 <i>AB</i>	12 3.0	277°47'	5.9/ 30.1	18	
10 28	5 11.79	+22 32.8	1.623	2.436	16.5	20.9	10 28	5 5.31	+7 24.3	2.334	3.130	12.6	21.1
11 7	5 5.49	+22 29.7	1.555	2.448	12.6	20.7	11 7	5 0.05	+6 15.7	2.219	3.094	10.2	20.8
11 17	4 56.23	+22 22.0	1.509	2.460	8.1	20.4	11 17	4 52.68	+5 9.0	2.129	3.056	7.7	20.6
11 27	4 44.96	+22 9.2	1.490	2.471	3.1	20.1	11 27	4 43.70	+4 9.0	2.066	3.018	6.0	20.4
12 7	4 33.04	+21 52.3	1.499	2.482	2.0	20.1	12 7	4 33.91	+3 20.1	2.033	2.978	6.5	20.4
12 17	4 21.91	+21 33.9	1.537	2.492	7.0	20.4	12 17	4 24.22	+2 46.4	2.030	2.938	8.9	20.5
12 27	4 12.89	+21 17.5	1.602	2.501	11.4	20.7	12 27	4 15.61	+2 30.2	2.053	2.897	11.9	20.6
1 6	4 6.77	+21 6.6	1.690	2.509	15.2	21.0	1 6	4 8.85	+2 31.6	2.100	2.855	14.8	20.7
<b>73364</b>	2002 <i>KX</i> <sub>6</sub>	12 3.0	147°23'	0.2/ 2.9	18		<b>80802</b>	2000 <i>CD</i> <sub>99</sub>	12 3.0	179°37'	2.1/ 2.5	18	
10 28	5 3.66	+23 41.4	2.769	3.566	10.8	19.8	10 28	5 8.19	+17 39.0	1.772	2.588	15.2	20.8
11 7	4 58.19	+23 5.0	2.688	3.574	8.2	19.6	11 7	5 2.60	+17 19.4	1.695	2.590	11.7	20.6
11 17	4 51.08	+22 23.5	2.633	3.581	5.2	19.4	11 17	4 54.38	+16 58.8	1.640	2.590	7.6	20.4
11 27	4 42.90	+21 37.8	2.607	3.588	2.0	19.2	11 27	4 44.32	+16 38.8	1.611	2.591	3.4	20.1
12 7	4 34.40	+20 50.1	2.613	3.595	1.4	19.2	12 7	4 33.57	+16 21.5	1.611	2.591	3.0	20.1
12 17	4 26.34	+20 2.8	2.650	3.601	4.6	19.4	12 17	4 23.39	+16 9.2	1.640	2.590	7.2	20.4
12 27	4 19.44	+19 18.9	2.716	3.607	7.6	19.6	12 27	4 14.94	+16 4.1	1.696	2.589	11.3	20.6
1 6	4 14.21	+18 41.0	2.809	3.613	10.2	19.8	1 6	4 9.04	+16 7.7	1.776	2.587	14.9	20.8
<b>88901</b>	2001 <i>SA</i> <sub>347</sub>	12 3.0	333°73'	1.0/ 3.2	18		<b>300754</b>	2007 <i>VL</i> <sub>221</sub>	12 3.0	115°27'	1.5/ 3.5	15	
10 28													

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12 3.0

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>199696</b>	2006 <i>HD</i> <sub>31</sub>	12	3.0	315°15	6°2/30.5	17	<b>184312</b>	2005 <i>EG</i> <sub>278</sub>	12	3.0	113°44	10°9/	3.1 18
10 28	5 0.50	+ 7 6.6	2.038	2.852	13.6	20.2	10 28	5 25.92	+36 10.2	1.216	2.009	22.1	20.1
11 7	4 56.45	+ 6 5.3	1.955	2.839	10.9	20.0	11 7	5 19.13	+38 59.8	1.153	2.017	18.3	19.9
11 17	4 50.33	+ 5 9.2	1.894	2.826	8.2	19.8	11 17	5 6.77	+41 41.2	1.110	2.024	14.4	19.7
11 27	4 42.76	+ 4 22.9	1.860	2.814	6.3	19.7	11 27	4 49.64	+43 56.5	1.090	2.031	11.5	19.5
12 7	4 34.59	+ 3 50.9	1.853	2.801	6.7	19.7	12 7	4 29.95	+45 30.5	1.096	2.038	11.1	19.5
12 17	4 26.76	+ 3 36.0	1.874	2.790	9.0	19.8	12 17	4 10.88	+46 17.5	1.127	2.044	13.5	19.7
12 27	4 20.21	+ 3 39.2	1.919	2.778	11.9	20.0	12 27	3 55.56	+46 24.8	1.182	2.051	17.0	19.9
1 6	4 15.63	+ 3 59.4	1.988	2.767	14.7	20.1	1 6	3 45.80	+46 7.2	1.255	2.057	20.4	20.2
<b>521782</b>	2015 <i>SR</i> <sub>27</sub>	12	3.0	75°34	0°4/	3.1 18	<b>63421</b>	2001 <i>KC</i> <sub>67</sub>	12	3.0	128°82	1°9/	3.8 18
10 28	5 7.99	+21 25.6	1.886	2.697	14.6	20.6	10 28	5 7.68	+29 17.3	2.137	2.933	13.7	19.8
11 7	5 2.44	+21 58.7	1.809	2.701	11.2	20.3	11 7	5 1.86	+29 6.2	2.062	2.943	10.6	19.6
11 17	4 54.30	+22 30.9	1.755	2.706	7.2	20.1	11 17	4 53.71	+28 45.8	2.010	2.952	7.0	19.4
11 27	4 44.31	+23 0.4	1.729	2.710	2.8	19.8	11 27	4 44.03	+28 15.2	1.985	2.961	3.4	19.2
12 7	4 33.57	+23 26.2	1.731	2.714	1.8	19.8	12 7	4 33.87	+27 35.7	1.990	2.970	2.3	19.1
12 17	4 23.32	+23 48.0	1.763	2.718	6.2	20.1	12 17	4 24.34	+26 50.0	2.025	2.979	5.6	19.4
12 27	4 14.74	+24 7.4	1.823	2.723	10.2	20.3	12 27	4 16.44	+26 2.6	2.088	2.987	9.2	19.6
1 6	4 8.64	+24 26.3	1.907	2.727	13.7	20.6	1 6	4 10.86	+25 18.1	2.176	2.995	12.3	19.8
<b>74137</b>	1998 <i>QY</i> <sub>74</sub>	12	3.0	324°41	3°7/	4.6 18	<b>482842</b>	2014 <i>BR</i> <sub>22</sub>	12	3.0	167°75	2°0/	3.7 18
10 28	5 7.54	+34 5.6	1.722	2.522	16.3	19.1	10 28	5 9.03	+28 33.5	1.829	2.633	15.3	21.6
11 7	5 2.54	+33 49.7	1.638	2.517	13.0	18.8	11 7	5 3.36	+28 30.1	1.750	2.635	11.9	21.3
11 17	4 54.52	+33 17.8	1.576	2.513	9.1	18.6	11 17	4 54.92	+28 17.1	1.693	2.637	7.9	21.1
11 27	4 44.40	+32 27.7	1.539	2.509	5.3	18.4	11 27	4 44.56	+27 53.2	1.662	2.639	3.7	20.9
12 7	4 33.55	+31 20.6	1.529	2.505	3.9	18.3	12 7	4 33.50	+27 19.0	1.660	2.640	2.5	20.8
12 17	4 23.44	+30 1.2	1.548	2.502	7.0	18.5	12 17	4 23.09	+26 37.4	1.686	2.642	6.4	21.0
12 27	4 15.41	+28 37.0	1.593	2.498	11.1	18.7	12 27	4 14.57	+25 53.5	1.741	2.642	10.5	21.3
1 6	4 10.30	+27 16.0	1.663	2.495	14.8	18.9	1 6	4 8.73	+25 12.4	1.819	2.643	14.1	21.5
<b>211221</b>	2002 <i>PA</i> <sub>86</sub>	12	3.0	47°22	10°0/	6.7 18	<b>261786</b>	2006 <i>BQ</i> <sub>151</sub>	12	3.0	330°60	0°3/	3.1 17
10 28	5 13.96	+45 33.2	1.590	2.350	19.1	19.6	10 28	5 2.86	+23 10.4	1.790	2.613	14.8	20.5
11 7	5 8.30	+46 40.6	1.533	2.365	16.2	19.5	11 7	4 58.81	+23 14.0	1.702	2.601	11.4	20.2
11 17	4 58.59	+47 25.9	1.494	2.381	13.3	19.3	11 17	4 52.14	+23 13.3	1.636	2.589	7.4	20.0
11 27	4 46.02	+47 40.9	1.478	2.397	10.9	19.2	11 27	4 43.55	+23 8.1	1.596	2.578	2.9	19.7
12 7	4 32.52	+47 21.8	1.486	2.414	10.0	19.2	12 7	4 34.13	+22 58.8	1.584	2.567	1.9	19.6
12 17	4 20.21	+46 31.2	1.518	2.431	11.0	19.3	12 17	4 25.11	+22 47.2	1.599	2.557	6.5	19.9
12 27	4 10.86	+45 17.6	1.575	2.448	13.2	19.5	12 27	4 17.71	+22 36.2	1.641	2.547	10.8	20.1
1 6	4 5.43	+43 52.4	1.653	2.466	15.8	19.7	1 6	4 12.79	+22 28.7	1.707	2.538	14.5	20.3
<b>366507</b>	2002 <i>PZ</i> <sub>122</sub>	12	3.0	150°97	2°1/	4.1 17	<b>520224</b>	2014 <i>DU</i> <sub>152</sub>	12	3.0	272°68	2°8/	2.5 18
10 28	5 4.77	+30 43.1	2.596	3.383	11.7	21.5	10 28	5 6.96	+14 51.2	1.674	2.495	15.7	21.5
11 7	4 59.34	+30 36.0	2.513	3.387	9.2	21.4	11 7	5 1.96	+14 48.9	1.590	2.487	12.2	21.2
11 17	4 51.99	+30 20.3	2.454	3.392	6.2	21.2	11 17	4 54.17	+14 49.6	1.528	2.478	8.1	21.0
11 27	4 43.34	+29 55.2	2.422	3.395	3.3	21.0	11 27	4 44.34	+14 54.9	1.492	2.470	3.9	20.7
12 7	4 34.26	+29 21.2	2.421	3.399	2.4	20.9	12 7	4 33.61	+15 6.0	1.483	2.461	3.6	20.7
12 17	4 25.65	+28 40.6	2.451	3.403	4.9	21.1	12 17	4 23.30	+15 23.6	1.503	2.452	7.7	20.9
12 27	4 18.35	+27 56.9	2.509	3.406	7.9	21.3	12 27	4 14.72	+15 48.6	1.549	2.444	12.0	21.1
1 6	4 12.96	+27 13.8	2.594	3.409	10.6	21.5	1 6	4 8.77	+16 21.3	1.617	2.435	15.8	21.3
<b>133762</b>	2003 <i>WQ</i> <sub>60</sub>	12	3.0	240°79	2°6/	1.7 18	<b>276375</b>	2002 <i>VU</i> <sub>92</sub>	12	3.1	63°09	2°8/	2.3 18
10 28	5 2.18	+16 19.2	2.623	3.429	11.1	20.1	10 28	5 8.30	+17 36.1	1.336	2.170	18.3	20.8
11 7	4 57.27	+15 26.2	2.529	3.418	8.5	19.9	11 7	5 3.08	+17 1.1	1.283	2.187	13.9	20.5
11 17	4 50.64	+14 31.2	2.461	3.407	5.7	19.7	11 17	4 54.79	+16 25.3	1.251	2.205	9.0	20.3
11 27	4 42.83	+13 36.9	2.422	3.396	3.0	19.5	11 27	4 44.47	+15 51.5	1.244	2.223	4.1	20.1
12 7	4 34.58	+12 46.0	2.413	3.385	3.2	19.5	12 7	4 33.63	+15 23.3	1.263	2.242	3.9	20.1
12 17	4 26.64	+12 1.7	2.435	3.374	5.9	19.6	12 17	4 23.79	+15 3.9	1.309	2.260	8.4	20.4
12 27	4 19.78	+11 26.4	2.485	3.362	8.9	19.8	12 27	4 16.23	+14 56.0	1.379	2.278	12.9	20.7
1 6	4 14.57	+11 1.7	2.561	3.350	11.5	20.0	1 6	4 11.70	+15 0.2	1.471	2.297	16.7	21.0
<b>311829</b>	2006 <i>VG</i> <sub>3</sub>	12	3.0	64°15	1°4/	2.5 18	<b>511878</b>	2015 <i>GQ</i> <sub>35</sub>	12	3.1	279°37	2°2/	2.5 18
10 28	5 4.75	+20 21.3	1.834	2.654	14.6	20.9	10 28	5 7.23	+18 18.4	1.436	2.267	17.4	22.1
11 7	4 59.83	+19 48.3	1.763	2.661	11.1	20.6	11 7	5 2.68	+17 57.9	1.351	2.254	13.4	21.8
11 17	4 52.50	+19 11.6	1.716	2.668	7.1	20.4	11 17	4 54.90	+17 35.6	1.288	2.241	8.8	21.5
11 27	4 43.57	+18 33.0	1.695	2.675	2.9	20.2	11 27	4 44.69	+17 13.2	1.248	2.229	3.8	21.2
12 7	4 34.12	+17 55.2	1.702	2.683	2.5	20.2	12 7	4 33.39	+16 53.1	1.235	2.216	3.4	21.1
12 17	4 25.30	+17 21.5	1.738	2.690	6.6	20.4	12 17	4 22.58	+16 38.5	1.249	2.203	8.4	21.4
12 27	4 18.13	+16 55.0	1.801	2.698	10.5	20.7	12 27	4 13.79	+16 32.5	1.288	2.190	13.4	21.6
1 6	4 13.32	+16 37.9	1.888	2.705	13.9	20.9	1 6	4 8.08	+16 37.3	1.348	2.177	17.8	21.9
<b>228014</b>	2008 <i>ER</i> <sub>41</sub>	12	3.0	111°47	0°6/	3.2 18	<b>263050</b>	2007 <i>HD</i> <sub>48</sub>	12	3.1	1°73	0°2/	3.1 17
10 28	5 11.83	+23 52.3	1.731	2.539	15.8	21.2	10 28	5 3.92	+22 15.1	1.883	2.702	14.3	20.4
11 7	5 5.31	+23 55.8	1.669	2.559	12.1	21.0	11 7	4 59.37	+22 25.1	1.805	2.701	11.0	20.2
11 17	4 56.02	+23 54.0	1.629	2.578	7.8	20.8	11 17	4 52.35	+22 32.3	1.749	2.701	7.1	20.0
11 27	4 44.91	+23 46.0	1.616	2.596	3.1	20.5	11 27	4 43.60	+22 36.1	1.720	2.701	2.7	19.7
12 7	4 33.27	+23 32.3	1.631	2.614	1.9	20.5	12 7	4 34.16	+22 36.7	1.719	2.702	1.8	19.7
12 17	4 22.45	+23 15.3	1.676	2.631	6.5	20.8	12 17	4 25.20	+22 35.4	1.746	2.703	6.1	19.9
12 27	4 13.66	+22 58.4	1.749	2.648	10.6	21.1	12 27	4 17.83	+22 34.4	1.801	2.704	10.1	20.2
1 6	4 7.62	+22 45.2	1.845	2.664	14.1	21.4	1 6	4 12.82	+22 36.1	1.879	2.706	13.6	20.4
<b>470980</b>	2009 <i>SN</i> <sub>56</sub>	12	3.0	74°70	0°0/	2.8 18	<b>340211</b>	2006 <i>AR</i> <sub>61</sub>	12	3.1			

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>233428</b>	2006 <i>HV</i> <sub>31</sub>	12	3.1 221°30	1°3/ 3.6 18			<b>27473</b>	2000 <i>GV</i> <sub>78</sub>	12	3.1 223°81	0°8/ 2.7 18	R	
10 28	5 4.11	+26 47.5	2.655	3.449	11.3	20.9	10 28	5 2.34	+20 10.5	2.903	3.704	10.3	19.5
11 7	4 58.89	+26 52.8	2.562	3.443	8.7	20.7	11 7	4 57.33	+19 57.2	2.808	3.695	7.9	19.3
11 17	4 51.78	+26 52.7	2.493	3.437	5.8	20.5	11 17	4 50.68	+19 41.8	2.737	3.686	5.0	19.1
11 27	4 43.33	+26 46.4	2.453	3.431	2.6	20.3	11 27	4 42.92	+19 24.9	2.696	3.676	2.0	18.9
12 7	4 34.34	+26 34.0	2.443	3.424	1.8	20.2	12 7	4 34.69	+19 7.6	2.685	3.666	1.6	18.9
12 17	4 25.68	+26 16.8	2.463	3.417	4.8	20.4	12 17	4 26.74	+18 51.3	2.705	3.656	4.6	19.1
12 27	4 18.18	+25 57.2	2.513	3.409	7.9	20.6	12 27	4 19.76	+18 37.9	2.755	3.645	7.6	19.3
1 6	4 12.49	+25 37.9	2.589	3.402	10.7	20.8	1 6	4 14.32	+18 28.8	2.832	3.634	10.2	19.4
<b>151890</b>	2004 <i>BN</i> <sub>80</sub>	12	3.1 224°00	1°0/ 3.4 18			<b>30293</b>	2000 <i>HO</i> <sub>72</sub>	12	3.1 105°10	1°8/ 3.7 18		
10 28	5 9.57	+25 43.2	1.754	2.564	15.6	20.7	10 28	5 6.90	+28 9.3	1.951	2.755	14.4	18.9
11 7	5 3.99	+25 36.7	1.666	2.557	12.1	20.5	11 7	5 1.56	+28 5.7	1.875	2.761	11.2	18.7
11 17	4 55.48	+25 22.6	1.600	2.549	7.9	20.2	11 17	4 53.70	+27 53.6	1.821	2.767	7.4	18.4
11 27	4 44.85	+24 59.8	1.560	2.540	3.3	19.9	11 27	4 44.12	+27 31.8	1.795	2.772	3.5	18.2
12 7	4 33.34	+24 29.2	1.549	2.532	2.1	19.8	12 7	4 33.96	+27 1.1	1.797	2.778	2.3	18.2
12 17	4 22.36	+23 53.5	1.566	2.522	6.8	20.1	12 17	4 24.42	+26 24.3	1.828	2.783	6.0	18.4
12 27	4 13.25	+23 17.6	1.611	2.512	11.2	20.3	12 27	4 16.60	+25 45.7	1.887	2.789	9.8	18.6
1 6	4 6.92	+22 46.0	1.679	2.502	15.1	20.6	1 6	4 11.23	+25 9.6	1.970	2.794	13.1	18.9
<b>315920</b>	2008 <i>RG</i> <sub>145</sub>	12	3.1 184°21	4°8/ 4.8 17			<b>251370</b>	2007 <i>UF</i> <sub>57</sub>	12	3.1 65°49	0°5/ 2.9 16		
10 28	5 7.53	+37 7.8	2.550	3.316	12.5	21.2	10 28	5 11.82	+22 53.9	1.177	2.012	20.1	20.6
11 7	5 1.83	+37 45.4	2.464	3.316	10.2	21.0	11 7	5 6.12	+22 30.2	1.131	2.036	15.3	20.4
11 17	4 53.81	+38 12.4	2.401	3.316	7.7	20.9	11 17	4 56.86	+21 59.7	1.104	2.059	9.7	20.1
11 27	4 44.14	+38 25.5	2.365	3.315	5.5	20.7	11 27	4 45.32	+21 23.6	1.101	2.083	3.7	19.9
12 7	4 33.81	+38 23.1	2.358	3.315	4.8	20.7	12 7	4 33.29	+20 45.1	1.124	2.107	2.5	19.8
12 17	4 23.88	+38 5.9	2.380	3.314	6.3	20.8	12 17	4 22.57	+20 8.8	1.173	2.131	8.2	20.3
12 27	4 15.41	+37 37.1	2.431	3.313	8.8	20.9	12 27	4 14.61	+19 39.9	1.247	2.155	13.3	20.6
1 6	4 9.13	+37 1.6	2.506	3.312	11.2	21.1	1 6	4 10.13	+19 21.7	1.341	2.178	17.4	20.9
<b>59116</b>	1998 <i>XL</i> <sub>3</sub>	12	3.1 146°19	2°2/ 3.7 18			<b>70613</b>	1999 <i>TG</i> <sub>201</sub>	12	3.1 35°23	0°3/ 3.2 18		
10 28	5 10.38	+28 8.8	1.341	2.164	18.8	18.6	10 28	5 6.28	+24 6.5	1.574	2.398	16.4	19.9
11 7	5 5.33	+28 5.9	1.269	2.165	14.6	18.3	11 7	5 1.54	+23 54.8	1.504	2.403	12.6	19.6
11 17	4 56.64	+27 51.5	1.216	2.166	9.7	18.0	11 17	4 53.89	+23 36.6	1.454	2.407	8.1	19.4
11 27	4 45.34	+27 23.6	1.188	2.166	4.5	17.7	11 27	4 44.25	+23 11.9	1.431	2.412	3.2	19.1
12 7	4 33.07	+26 42.9	1.185	2.167	2.9	17.7	12 7	4 33.90	+22 42.2	1.434	2.417	2.0	19.0
12 17	4 21.68	+25 53.7	1.209	2.167	8.0	18.0	12 17	4 24.25	+22 10.8	1.465	2.422	6.9	19.4
12 27	4 12.81	+25 3.2	1.259	2.168	13.0	18.2	12 27	4 16.61	+21 42.1	1.522	2.428	11.4	19.6
1 6	4 7.44	+24 18.3	1.329	2.168	17.4	18.5	1 6	4 11.77	+21 19.9	1.602	2.434	15.3	19.9
<b>220062</b>	2002 <i>RY</i> <sub>143</sub>	12	3.1 91°22	0°0/ 2.9 18			<b>512392</b>	2016 <i>OS</i> <sub>3</sub>	12	3.1 56°08	1°3/ 2.8 18		
10 28	5 13.12	+23 41.2	1.588	2.399	16.9	21.4	10 28	5 9.09	+18 30.2	1.359	2.190	18.1	20.6
11 7	5 6.28	+23 23.0	1.536	2.428	12.8	21.2	11 7	5 3.86	+18 40.0	1.302	2.205	13.8	20.4
11 17	4 56.59	+22 58.4	1.506	2.456	8.2	21.0	11 17	4 55.43	+18 50.1	1.266	2.220	8.9	20.1
11 27	4 45.13	+22 27.8	1.503	2.484	3.1	20.8	11 27	4 44.83	+19 0.5	1.254	2.235	3.5	19.9
12 7	4 33.31	+21 53.2	1.528	2.511	2.0	20.8	12 7	4 33.54	+19 11.6	1.269	2.251	2.7	19.9
12 17	4 22.55	+21 18.5	1.583	2.537	6.8	21.1	12 17	4 23.15	+19 24.1	1.311	2.267	7.8	20.2
12 27	4 14.03	+20 47.8	1.664	2.563	11.1	21.4	12 27	4 15.04	+19 40.0	1.378	2.283	12.5	20.5
1 6	4 8.41	+20 24.6	1.769	2.588	14.6	21.7	1 6	4 10.04	+20 0.7	1.467	2.299	16.4	20.8
<b>340078</b>	2005 <i>WM</i> <sub>10</sub>	12	3.1 296°89	0°7/ 3.2 18			<b>290211</b>	2005 <i>SF</i> <sub>42</sub>	12	3.1 55°15	1°2/ 2.6 18		
10 28	5 7.11	+23 24.0	1.514	2.340	16.9	20.8	10 28	5 4.25	+20 41.2	1.899	2.717	14.2	20.7
11 7	5 2.63	+23 36.8	1.427	2.326	13.1	20.6	11 7	4 59.41	+20 11.5	1.828	2.725	10.8	20.5
11 17	4 54.91	+23 45.6	1.360	2.313	8.6	20.3	11 17	4 52.26	+19 38.1	1.780	2.732	6.9	20.2
11 27	4 44.74	+23 48.8	1.318	2.299	3.5	19.9	11 27	4 43.56	+19 2.6	1.759	2.740	2.8	20.0
12 7	4 33.41	+23 46.2	1.303	2.286	2.2	19.8	12 7	4 34.36	+18 27.4	1.767	2.748	2.3	20.0
12 17	4 22.52	+23 39.2	1.315	2.273	7.5	20.1	12 17	4 25.75	+17 55.5	1.803	2.756	6.3	20.3
12 27	4 13.62	+23 31.2	1.353	2.260	12.5	20.4	12 27	4 18.74	+17 30.1	1.867	2.764	10.2	20.5
1 6	4 7.79	+23 26.2	1.412	2.247	16.8	20.6	1 6	4 14.00	+17 13.2	1.955	2.772	13.5	20.7
<b>137792</b>	1999 <i>XP</i> <sub>245</sub>	12	3.1 20°95	4°9/ 2.2 18			<b>479366</b>	2013 <i>XS</i> <sub>15</sub>	12	3.1 38°37	0°0/ 2.9 18		
10 28	5 2.41	+14 25.7	0.930	1.797	21.7	19.0	10 28	5 8.17	+21 51.6	1.269	2.106	18.9	21.3
11 7	4 59.63	+13 49.8	0.886	1.807	16.7	18.7	11 7	5 3.55	+22 1.6	1.208	2.113	14.5	21.0
11 17	4 53.06	+13 18.4	0.860	1.819	11.1	18.5	11 17	4 55.45	+22 8.3	1.166	2.121	9.3	20.8
11 27	4 43.94	+12 56.5	0.855	1.833	6.0	18.2	11 27	4 44.91	+22 10.8	1.148	2.130	3.6	20.5
12 7	4 34.08	+12 48.2	0.872	1.848	5.8	18.3	12 7	4 33.50	+22 9.4	1.156	2.139	2.3	20.4
12 17	4 25.37	+12 55.7	0.911	1.865	10.6	18.6	12 17	4 22.98	+22 6.0	1.190	2.149	8.0	20.8
12 27	4 19.38	+13 19.5	0.972	1.884	15.6	19.0	12 27	4 14.89	+22 4.0	1.248	2.158	13.0	21.1
1 6	4 16.96	+13 57.2	1.051	1.904	19.9	19.3	1 6	4 10.16	+22 6.7	1.328	2.169	17.3	21.4
<b>287156</b>	2002 <i>RQ</i> <sub>234</sub>	12	3.1 73°37	4°6/ 4.9 17			<b>102436</b>	1999 <i>TX</i> <sub>211</sub>	12	3.1 344°87	0°6/ 2.9 18		
10 28	5 6.75	+36 27.2	2.324	3.099	13.3	21.3	10 28	5 3.25	+19 40.6	1.304	2.148	18.0	19.3
11 7	5 1.30	+36 54.1	2.248	3.106	10.7	21.1	11 7	4 59.96	+19 57.2	1.227	2.137	13.9	19.0
11 17	4 53.48	+37 9.4	2.194	3.114	7.9	20.9	11 17	4 53.33	+20 14.1	1.170	2.127	9.0	18.7
11 27	4 44.02	+37 10.0	2.166	3.121	5.5	20.8	11 27	4 44.18	+20 30.9	1.137	2.119	3.5	18.3
12 7	4 33.97	+36 55.0	2.166	3.128	4.7	20.8	12 7	4 33.90	+20 47.4	1.129	2.112	2.4	18.3
12 17	4 24.47	+36 26.0	2.196	3.136	6.4	20.9	12 17	4 24.15	+21 4.3	1.146	2.105	8.1	18.6
12 27	4 16.57	+35 46.8	2.254	3.143	9.0	21.1	12 27	4 16.53	+21 23.2	1.187	2.100	13.3	18.9
1 6	4 10.98	+35 2.7	2.336	3.151	11.7	21.2	1 6	4 12.12	+21 46.2	1.250	2.097	17.7	19.1
<b>154178</b>	2002 <i>GW</i> <sub>105</sub>	12	3.1 165°11	3°4/ 2.1 18			<b>108605</b>	2001 <i>MZ</i> <sub>19</sub>	12	3.1 71°82	4°0/ 4.3 18		

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>373909</b>	2003 UA <sub>77</sub>	12	3.1	64°03	5°6/	4.7 18	<b>209253</b>	2003 WY <sub>146</sub>	12	3.1	28°20	11°4/	1.4 18
10 28	5 13.50	+34 15.9	1.268	2.080	20.3	21.0	10 28	5 2.90	- 0 30.0	1.208	2.036	20.2	19.3
11 7	5 7.86	+34 46.1	1.215	2.098	16.1	20.8	11 7	4 59.06	- 1 43.4	1.171	2.053	16.8	19.1
11 17	4 58.25	+34 59.3	1.180	2.117	11.5	20.6	11 17	4 52.27	- 2 36.0	1.153	2.071	13.6	19.0
11 27	4 45.95	+34 50.3	1.169	2.136	7.2	20.4	11 27	4 43.61	- 2 59.9	1.155	2.090	11.7	18.9
12 7	4 32.90	+34 18.1	1.183	2.155	5.8	20.4	12 7	4 34.49	- 2 50.8	1.181	2.111	11.8	19.0
12 17	4 21.17	+33 27.2	1.222	2.174	8.8	20.6	12 17	4 26.33	- 2 9.2	1.229	2.133	13.8	19.2
12 27	4 12.41	+32 26.5	1.287	2.193	13.0	20.9	12 27	4 20.31	- 1 0.0	1.298	2.156	16.5	19.4
1 6	4 7.49	+31 25.6	1.373	2.212	16.9	21.2	1 6	4 17.13	+ 0 29.4	1.386	2.179	19.2	19.7
<b>105318</b>	2000 QB <sub>75</sub>	12	3.1	62°55	0°6/	2.9 18	<b>438362</b>	2006 SB <sub>273</sub>	12	3.1	71°06	6°3/	4.9 18
10 28	5 4.77	+21 29.3	1.933	2.750	14.1	19.5	10 28	5 16.89	+37 33.6	1.883	2.651	16.2	21.3
11 7	4 59.83	+21 14.6	1.860	2.756	10.8	19.3	11 7	5 9.40	+38 39.5	1.835	2.686	13.1	21.1
11 17	4 52.56	+20 56.2	1.810	2.762	6.9	19.1	11 17	4 58.79	+39 30.6	1.809	2.722	9.9	21.0
11 27	4 43.70	+20 34.9	1.787	2.768	2.7	18.9	11 27	4 46.11	+40 1.2	1.809	2.756	7.1	20.9
12 7	4 34.30	+20 12.3	1.792	2.775	1.9	18.8	12 7	4 32.88	+40 8.9	1.838	2.791	6.3	20.9
12 17	4 25.45	+19 50.8	1.827	2.781	6.1	19.1	12 17	4 20.65	+39 55.3	1.894	2.825	8.0	21.1
12 27	4 18.19	+19 33.2	1.889	2.788	10.0	19.4	12 27	4 10.77	+39 26.1	1.978	2.858	10.6	21.3
1 6	4 13.21	+19 21.7	1.974	2.794	13.3	19.6	1 6	4 4.01	+38 48.7	2.086	2.891	13.2	21.6
<b>176072</b>	2000 WN <sub>76</sub>	12	3.1	354°48	2°3/	3.5 18	<b>483870</b>	2005 YY <sub>135</sub>	12	3.1	182°07	2°3/	2.4 18
10 28	5 8.04	+25 45.2	1.206	2.043	19.6	19.9	10 28	5 4.22	+13 29.0	2.744	3.542	10.9	21.4
11 7	5 3.98	+26 15.3	1.136	2.041	15.3	19.7	11 7	4 58.76	+13 26.7	2.659	3.542	8.4	21.2
11 17	4 56.07	+26 38.9	1.085	2.039	10.1	19.4	11 17	4 51.63	+13 26.9	2.599	3.542	5.6	21.1
11 27	4 45.26	+26 52.9	1.058	2.037	4.6	19.1	11 27	4 43.34	+13 30.6	2.568	3.542	3.0	20.9
12 7	4 33.24	+26 55.5	1.055	2.036	3.2	19.0	12 7	4 34.61	+13 38.6	2.568	3.541	2.8	20.9
12 17	4 21.99	+26 48.0	1.077	2.036	8.5	19.3	12 17	4 26.18	+13 51.5	2.598	3.540	5.4	21.1
12 27	4 13.34	+26 35.4	1.123	2.037	13.8	19.6	12 27	4 18.78	+14 9.9	2.658	3.539	8.2	21.2
1 6	4 8.42	+26 23.5	1.189	2.038	18.4	19.9	1 6	4 12.99	+14 33.8	2.745	3.537	10.7	21.4
<b>332304</b>	2006 UR <sub>360</sub>	12	3.1	46°95	1°2/	2.9 18	<b>522092</b>	2015 YE <sub>25</sub>	12	3.1	21°48	3°3/	4.6 17
10 28	5 9.97	+18 0.5	1.196	2.035	19.7	20.4	10 28	5 5.31	+33 45.9	1.865	2.664	15.2	20.7
11 7	5 4.92	+18 25.3	1.143	2.049	15.0	20.2	11 7	5 0.52	+33 23.0	1.791	2.670	12.0	20.5
11 17	4 56.31	+18 52.2	1.109	2.064	9.6	19.9	11 17	4 53.10	+32 45.4	1.738	2.676	8.4	20.3
11 27	4 45.23	+19 20.1	1.098	2.080	3.8	19.6	11 27	4 43.94	+31 52.2	1.712	2.682	4.7	20.1
12 7	4 33.34	+19 48.2	1.114	2.096	2.7	19.6	12 7	4 34.27	+30 45.0	1.713	2.690	3.4	20.0
12 17	4 22.46	+20 16.2	1.155	2.113	8.3	20.0	12 17	4 25.36	+29 28.6	1.743	2.697	6.3	20.2
12 27	4 14.15	+20 45.4	1.221	2.130	13.4	20.3	12 27	4 18.33	+28 9.5	1.800	2.705	10.0	20.5
1 6	4 9.29	+21 17.3	1.307	2.147	17.6	20.7	1 6	4 13.86	+26 54.3	1.882	2.714	13.3	20.7
<b>182056</b>	2000 DD <sub>93</sub>	12	3.1	295°12	3°2/	3.8 17	<b>266007</b>	2006 EX <sub>4</sub>	12	3.1	142°98	2°2/	4.1 18
10 28	5 7.42	+29 33.3	1.785	2.591	15.5	20.2	10 28	5 5.35	+30 53.6	3.109	3.885	10.2	22.0
11 7	5 2.78	+29 58.4	1.679	2.565	12.3	19.9	11 7	4 59.54	+31 5.4	3.029	3.897	8.0	21.8
11 17	4 55.04	+30 15.6	1.595	2.538	8.5	19.6	11 17	4 52.07	+31 10.4	2.975	3.908	5.5	21.7
11 27	4 44.87	+30 21.6	1.537	2.511	4.6	19.3	11 27	4 43.49	+31 7.4	2.949	3.919	3.1	21.5
12 7	4 33.44	+30 14.4	1.506	2.484	3.6	19.2	12 7	4 34.54	+30 56.2	2.954	3.929	2.4	21.5
12 17	4 22.23	+29 54.8	1.503	2.457	7.3	19.4	12 17	4 25.97	+30 38.1	2.990	3.939	4.4	21.6
12 27	4 12.75	+29 26.8	1.527	2.430	11.6	19.6	12 27	4 18.49	+30 15.3	3.057	3.948	6.9	21.8
1 6	4 6.14	+28 56.1	1.574	2.403	15.6	19.7	1 6	4 12.66	+29 50.6	3.150	3.957	9.1	22.0
<b>332273</b>	2006 SN <sub>149</sub>	12	3.1	288°99	2°3/	2.4 18	<b>428524</b>	2008 AG <sub>74</sub>	12	3.1	358°39	4°1/	4.3 18
10 28	5 6.33	+19 41.7	1.423	2.256	17.4	20.7	10 28	5 9.27	+31 47.5	1.309	2.130	19.3	21.1
11 7	5 2.10	+19 1.5	1.334	2.238	13.5	20.5	11 7	5 4.75	+31 56.7	1.237	2.129	15.3	20.8
11 17	4 54.63	+18 15.8	1.266	2.220	8.8	20.1	11 17	4 56.45	+31 51.1	1.184	2.128	10.6	20.6
11 27	4 44.69	+17 26.9	1.222	2.203	3.8	19.8	11 27	4 45.40	+31 26.9	1.155	2.128	5.9	20.3
12 7	4 33.63	+16 38.6	1.205	2.185	3.5	19.7	12 7	4 33.31	+30 44.0	1.150	2.128	4.4	20.2
12 17	4 23.03	+15 56.1	1.214	2.167	8.7	20.0	12 17	4 22.11	+29 46.5	1.172	2.128	8.4	20.5
12 27	4 14.46	+15 24.4	1.248	2.150	13.8	20.2	12 27	4 13.56	+28 42.8	1.218	2.129	13.2	20.7
1 6	4 8.97	+15 6.8	1.303	2.132	18.2	20.5	1 6	4 8.64	+27 41.8	1.285	2.130	17.5	21.0
<b>30546</b>	2001 OA <sub>38</sub>	12	3.1	109°06	0°5/	2.9 18	<b>67084</b>	2000 AY <sub>38</sub>	12	3.1	196°23	0°7/	3.3 18
10 28	5 10.63	+20 16.2	1.648	2.464	16.2	19.0	10 28	5 7.62	+23 40.4	2.121	2.924	13.5	19.9
11 7	5 4.65	+20 29.2	1.582	2.477	12.4	18.8	11 7	5 2.01	+23 52.6	2.035	2.923	10.4	19.7
11 17	4 55.81	+20 40.8	1.538	2.489	7.9	18.6	11 17	4 54.02	+24 1.0	1.973	2.921	6.7	19.5
11 27	4 45.00	+20 50.3	1.520	2.501	3.0	18.3	11 27	4 44.34	+24 4.6	1.938	2.918	2.7	19.3
12 7	4 33.52	+20 57.7	1.531	2.513	2.1	18.3	12 7	4 33.97	+24 3.4	1.933	2.916	1.7	19.2
12 17	4 22.76	+21 4.1	1.570	2.525	6.8	18.6	12 17	4 24.02	+23 58.5	1.958	2.913	5.7	19.4
12 27	4 13.98	+21 11.5	1.636	2.536	11.2	18.9	12 27	4 15.56	+23 52.2	2.011	2.909	9.5	19.7
1 6	4 8.00	+21 22.2	1.726	2.547	14.8	19.1	1 6	4 9.36	+23 47.2	2.089	2.905	12.8	19.9
<b>20980</b>	1981 ED <sub>16</sub>	12	3.1	244°33	0°7/	3.3 18	<b>482252</b>	2011 NO <sub>3</sub>	12	3.1	38°09	13°0/	12.4 17
10 28	5 9.53	+25 15.2	1.655	2.469	16.2	19.5	10 28	5 28.48	+56 35.8	1.259	1.978	25.1	19.2
11 7	5 4.20	+25 2.9	1.564	2.457	12.6	19.3	11 7	5 19.72	+56 40.0	1.228	2.019	21.9	19.1
11 17	4 55.79	+24 42.6	1.495	2.445	8.2	19.0	11 17	5 5.45	+56 3.9	1.211	2.061	18.4	19.0
11 27	4 45.09	+24 13.5	1.452	2.432	3.3	18.7	11 27	4 48.36	+54 38.7	1.213	2.103	15.3	19.0
12 7	4 33.40	+23 36.7	1.436	2.419	2.1	18.5	12 7	4 31.85	+52 25.8	1.237	2.147	13.3	19.0
12 17	4 22.21	+22 55.6	1.449	2.406	7.1	18.8	12 17	4 18.62	+49 37.1	1.285	2.190	13.2	19.1
12 27	4 12.97	+22 15.3	1.489	2.392	11.9	19.1	12 27	4 10.11	+46 31.8	1.359	2.234	14.8	19.3
1 6	4 6.65	+21 40.9	1.552	2.377	16.0	19.3	1 6	4 6.46	+43 28.3	1.455	2.278	17.0	19.6
<b>8658</b>	1990 RG <sub>3</sub>	12	3.1	46°66	0°9/	2.8 18	<b>133421</b>	2003 SK <sub>190</sub>	12	3.1	195°56	5°5/	30.6 18
10 28	5 4.32	+20 35.6	1.948	2.765									

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12 3.1

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>484064</b>	2006 <i>HG</i> <sub>48</sub>	12	3.1 178°26	0°9/ 2.7 17			<b>57679</b>	2001 <i>UD</i> <sub>46</sub>	12	3.1 115°86	2°0/ 3.5 18		
10 28	5 2.57	+19 8.8	2.945	3.744	10.2	22.5	10 28	5 11.18	+25 53.3	1.700	2.508	16.1	19.7
11 7	4 57.45	+18 58.8	2.859	3.746	7.8	22.3	11 7	5 5.23	+26 24.0	1.629	2.518	12.4	19.5
11 17	4 50.75	+18 47.6	2.799	3.747	5.0	22.1	11 17	4 56.30	+26 49.2	1.581	2.527	8.2	19.3
11 27	4 43.01	+18 35.8	2.767	3.747	2.0	21.9	11 27	4 45.28	+27 6.1	1.558	2.536	3.8	19.0
12 7	4 34.87	+18 24.3	2.767	3.747	1.7	21.9	12 7	4 33.47	+27 13.5	1.564	2.545	2.6	19.0
12 17	4 27.04	+18 14.4	2.797	3.747	4.6	22.1	12 17	4 22.34	+27 12.3	1.599	2.554	6.8	19.3
12 27	4 20.19	+18 7.5	2.858	3.747	7.4	22.3	12 27	4 13.22	+27 6.0	1.661	2.562	10.9	19.5
1 6	4 14.85	+18 4.8	2.944	3.746	9.8	22.5	1 6	4 6.99	+26 58.7	1.746	2.570	14.5	19.8
<b>511847</b>	2015 <i>FR</i> <sub>334</sub>	12	3.1 155°11	2°6/ 2.4 18			<b>169100</b>	2001 <i>KX</i> <sub>69</sub>	12	3.1 213°79	1°6/ 2.7 18		
10 28	5 9.03	+15 11.7	1.953	2.760	14.3	21.6	10 28	5 6.23	+18 3.9	2.007	2.819	13.8	20.5
11 7	5 2.99	+14 59.8	1.878	2.768	11.0	21.4	11 7	5 0.98	+17 55.7	1.923	2.816	10.6	20.2
11 17	4 54.58	+14 49.6	1.828	2.775	7.2	21.2	11 17	4 53.38	+17 46.9	1.862	2.812	6.9	20.0
11 27	4 44.53	+14 42.5	1.804	2.781	3.6	20.9	11 27	4 44.13	+17 38.5	1.828	2.808	2.9	19.8
12 7	4 33.90	+14 39.8	1.810	2.787	3.3	20.9	12 7	4 34.19	+17 31.6	1.824	2.804	2.5	19.7
12 17	4 23.82	+14 43.0	1.846	2.792	6.8	21.2	12 17	4 24.69	+17 27.8	1.849	2.800	6.4	20.0
12 27	4 15.33	+14 53.2	1.909	2.796	10.5	21.4	12 27	4 16.66	+17 29.0	1.901	2.795	10.2	20.2
1 6	4 9.17	+15 11.0	1.997	2.800	13.8	21.6	1 6	4 10.87	+17 36.5	1.978	2.790	13.5	20.4
<b>161708</b>	2006 <i>KX</i> <sub>37</sub>	12	3.1 98°86	9°1/29.4 18			<b>167269</b>	2003 <i>UP</i> <sub>142</sub>	12	3.1 334°24	5°5/ 4.3 18		
10 28	5 1.95	- 6 46.8	2.480	3.239	13.0	20.2	10 28	5 6.51	+33 8.8	1.474	2.289	17.8	19.6
11 7	4 57.01	- 8 1.1	2.431	3.254	11.3	20.1	11 7	5 2.62	+33 55.3	1.392	2.277	14.4	19.3
11 17	4 50.46	- 9 1.3	2.405	3.269	9.8	20.0	11 17	4 55.18	+34 30.4	1.330	2.267	10.4	19.1
11 27	4 42.88	- 9 42.2	2.404	3.284	9.1	20.0	11 27	4 45.01	+34 48.6	1.291	2.257	6.7	18.8
12 7	4 35.00	-10 0.7	2.429	3.299	9.4	20.0	12 7	4 33.58	+34 46.8	1.277	2.248	5.7	18.7
12 17	4 27.57	- 9 56.0	2.479	3.314	10.4	20.1	12 17	4 22.70	+34 25.5	1.289	2.239	8.6	18.9
12 27	4 21.28	- 9 29.3	2.553	3.328	11.9	20.3	12 27	4 14.09	+33 50.4	1.326	2.232	12.8	19.1
1 6	4 16.63	- 8 44.0	2.648	3.342	13.5	20.4	1 6	4 8.90	+33 9.1	1.384	2.225	16.7	19.3
<b>360645</b>	2004 <i>KF</i> <sub>14</sub>	12	3.1 250°56	6°4/29.8 18			<b>227681</b>	2006 <i>CJ</i> <sub>42</sub>	12	3.1 5°71	4°3/ 4.8 17		
10 28	5 3.59	+ 6 24.3	2.263	3.063	12.8	21.0	10 28	5 6.17	+35 22.2	2.110	2.895	14.2	20.4
11 7	4 58.66	+ 5 0.4	2.173	3.048	10.4	20.8	11 7	5 1.13	+35 35.2	2.028	2.895	11.4	20.2
11 17	4 51.76	+ 3 39.9	2.108	3.032	8.0	20.6	11 17	4 53.54	+35 35.7	1.968	2.895	8.3	20.1
11 27	4 43.46	+ 2 28.2	2.070	3.016	6.5	20.5	11 27	4 44.19	+35 21.0	1.934	2.896	5.4	19.9
12 7	4 34.59	+ 1 30.3	2.062	2.999	7.0	20.5	12 7	4 34.19	+34 50.6	1.928	2.896	4.4	19.8
12 17	4 26.02	+ 0 49.9	2.081	2.982	9.1	20.6	12 17	4 24.75	+34 6.8	1.951	2.897	6.5	20.0
12 27	4 18.64	+ 0 29.0	2.127	2.965	11.8	20.7	12 27	4 17.02	+33 14.3	2.001	2.898	9.6	20.1
1 6	4 13.11	+ 0 27.1	2.196	2.947	14.3	20.9	1 6	4 11.74	+32 19.0	2.076	2.900	12.6	20.3
<b>228851</b>	2003 <i>FD</i> <sub>65</sub>	12	3.1 315°86	0°0/ 2.9 18			<b>474241</b>	2001 <i>RX</i> <sub>112</sub>	12	3.1 66°20	0°1/ 3.1 16		
10 28	5 6.76	+20 57.1	1.403	2.236	17.6	20.1	10 28	5 10.36	+23 23.1	1.402	2.227	18.0	21.9
11 7	5 2.61	+21 19.4	1.319	2.222	13.6	19.8	11 7	5 4.69	+23 16.2	1.350	2.250	13.7	21.7
11 17	4 55.08	+21 41.2	1.255	2.209	8.9	19.5	11 17	4 55.89	+23 3.4	1.319	2.272	8.8	21.5
11 27	4 44.95	+22 1.2	1.215	2.197	3.5	19.2	11 27	4 45.05	+22 44.5	1.313	2.294	3.4	21.2
12 7	4 33.57	+22 18.4	1.201	2.184	2.2	19.1	12 7	4 33.71	+22 21.3	1.334	2.317	2.1	21.2
12 17	4 22.62	+22 33.3	1.214	2.173	7.9	19.4	12 17	4 23.40	+21 57.0	1.382	2.339	7.3	21.6
12 27	4 13.73	+22 47.8	1.252	2.162	13.1	19.6	12 27	4 15.45	+21 35.8	1.456	2.362	11.9	21.9
1 6	4 8.07	+23 4.8	1.311	2.151	17.5	19.9	1 6	4 10.59	+21 21.2	1.552	2.384	15.7	22.2
<b>125028</b>	2001 <i>TM</i> <sub>189</sub>	12	3.1 109°51	2°4/ 3.9 18			<b>28634</b>	2000 <i>FR</i> <sub>39</sub>	12	3.1 147°56	4°0/ 4.1 18		
10 28	5 10.82	+29 23.8	1.722	2.526	16.1	19.5	10 28	5 10.43	+32 20.9	2.172	2.955	13.9	18.7
11 7	5 4.81	+29 23.4	1.655	2.539	12.5	19.3	11 7	5 4.31	+33 5.5	2.093	2.961	11.0	18.5
11 17	4 55.90	+29 12.5	1.609	2.552	8.4	19.0	11 17	4 55.59	+33 41.5	2.037	2.967	7.8	18.4
11 27	4 45.06	+28 49.3	1.589	2.565	4.1	18.8	11 27	4 45.00	+34 5.2	2.007	2.972	4.9	18.2
12 7	4 33.62	+28 14.6	1.597	2.577	2.8	18.8	12 7	4 33.65	+34 14.8	2.007	2.977	4.1	18.2
12 17	4 23.01	+27 31.8	1.635	2.589	6.6	19.0	12 17	4 22.79	+34 10.5	2.037	2.981	6.4	18.3
12 27	4 14.49	+26 46.2	1.699	2.601	10.7	19.3	12 27	4 13.59	+33 55.8	2.095	2.985	9.6	18.5
1 6	4 8.81	+26 3.5	1.787	2.613	14.2	19.6	1 6	4 6.88	+33 35.3	2.177	2.989	12.5	18.7
<b>94482</b>	2001 <i>UV</i> <sub>6</sub>	12	3.1 195°43	0°3/ 3.2 18			<b>103594</b>	2000 <i>CC</i> <sub>11</sub>	12	3.1 235°82	2°1/ 3.9 18		
10 28	5 8.92	+23 0.1	1.795	2.607	15.2	19.7	10 28	5 7.66	+29 36.4	2.144	2.939	13.6	19.5
11 7	5 3.38	+23 6.0	1.713	2.605	11.7	19.5	11 7	5 2.15	+29 29.4	2.049	2.929	10.7	19.3
11 17	4 55.08	+23 7.8	1.654	2.604	7.6	19.2	11 17	4 54.18	+29 12.7	1.977	2.919	7.2	19.0
11 27	4 44.81	+23 4.8	1.621	2.602	3.0	18.9	11 27	4 44.45	+28 45.2	1.933	2.908	3.6	18.8
12 7	4 33.73	+22 57.2	1.617	2.600	1.9	18.8	12 7	4 34.01	+28 7.3	1.917	2.897	2.5	18.7
12 17	4 23.18	+22 46.1	1.642	2.597	6.5	19.1	12 17	4 24.01	+27 21.6	1.931	2.885	5.9	18.9
12 27	4 14.41	+22 36.6	1.694	2.595	10.8	19.4	12 27	4 15.57	+26 32.5	1.974	2.873	9.6	19.1
1 6	4 8.28	+22 28.9	1.770	2.592	14.5	19.6	1 6	4 9.47	+25 45.1	2.042	2.861	12.9	19.3
<b>271355</b>	2003 <i>WF</i> <sub>192</sub>	12	3.1 352°53	2°3/ 3.9 16			<b>332966</b>	2011 <i>EX</i> <sub>73</sub>	12	3.1 210°20	0°4/ 3.2 18		
10 28	5 3.40	+28 55.5	1.924	2.734	14.4	20.9	10 28	5 4.36	+23 4.1	2.612	3.412	11.3	20.8
11 7	4 59.11	+29 1.8	1.842	2.731	11.2	20.7	11 7	4 59.13	+23 15.8	2.523	3.408	8.7	20.7
11 17	4 52.30	+28 59.5	1.782	2.727	7.6	20.5	11 17	4 52.01	+23 24.7	2.457	3.405	5.6	20.5
11 27	4 43.72	+28 47.2	1.749	2.725	3.8	20.2	11 27	4 43.57	+23 30.2	2.421	3.401	2.2	20.2
12 7	4 34.44	+28 25.1	1.743	2.723	2.7	20.2	12 7	4 34.58	+23 32.5	2.414	3.397	1.4	20.2
12 17	4 25.66	+27 55.3	1.765	2.721	6.1	20.4	12 17	4 25.89	+23 32.1	2.439	3.393	4.8	20.4
12 27	4 18.52	+27 21.8	1.815	2.720	9.9	20.6	12 27	4 18.35	+23 30.9	2.492	3.388	8.0	20.6
1 6	4 13.79	+26 49.1	1.889	2.720	13.3	20.8	1 6	4 12.58	+23 30.7	2.572	3.383	10.8	20.8
<b>456063</b>	2006 <i>AA</i> <sub>60</sub>	12	3.1 275°80	0°8/ 3.4 17			<b>286830</b>	2002 <i>NA</i>	12	3.1 134°92	3°4/ 4.8 17		

EPHEMERIDES

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>245878</b>	2006 <i>QU</i> <sub>8</sub>	12	3.1	82°24	0°5/ 2.9	18	<b>401326</b>	2013 <i>AR</i> <sub>40</sub>	12	3.1	131°54	2°8/ 4.3	18
10 28	5 8.10	+21 43.3	1.879	2.690	14.7	20.7	10 28	5 9.15	+31 42.4	2.179	2.966	13.7	21.5
11 7	5 2.25	+21 30.3	1.821	2.713	11.1	20.6	11 7	5 3.07	+31 40.5	2.104	2.977	10.7	21.4
11 17	4 54.04	+21 13.7	1.786	2.736	7.1	20.4	11 17	4 54.62	+31 28.1	2.052	2.988	7.4	21.2
11 27	4 44.31	+20 53.9	1.778	2.759	2.7	20.1	11 27	4 44.59	+31 3.6	2.027	2.998	4.0	21.0
12 7	4 34.19	+20 32.5	1.799	2.781	1.9	20.1	12 7	4 34.07	+30 27.6	2.031	3.008	3.0	20.9
12 17	4 24.82	+20 11.9	1.849	2.804	6.1	20.4	12 17	4 24.20	+29 42.6	2.066	3.017	5.8	21.1
12 27	4 17.19	+19 54.9	1.928	2.825	9.9	20.7	12 27	4 16.00	+28 53.3	2.129	3.026	9.1	21.4
1 6	4 11.96	+19 43.9	2.030	2.847	13.1	21.0	1 6	4 10.15	+28 4.8	2.218	3.035	12.1	21.6
<b>57262</b>	2001 <i>QS</i> <sub>106</sub>	12	3.1	354°43	4°3/ 4.7	18	<b>419380</b>	2009 <i>YT</i> <sub>9</sub>	12	3.1	325°13	2°7/ 4.5	18
10 28	5 6.79	+33 48.5	1.298	2.120	19.4	18.0	10 28	5 4.90	+32 56.2	2.212	3.003	13.4	20.5
11 7	5 2.91	+33 38.5	1.225	2.116	15.5	17.7	11 7	4 59.95	+32 32.2	2.122	2.997	10.6	20.3
11 17	4 55.28	+33 9.6	1.171	2.114	10.9	17.4	11 17	4 52.69	+31 55.6	2.055	2.992	7.3	20.1
11 27	4 44.99	+32 18.7	1.139	2.112	6.2	17.2	11 27	4 43.88	+31 5.6	2.015	2.986	4.0	19.9
12 7	4 33.73	+31 7.2	1.133	2.110	4.5	17.1	12 7	4 34.52	+30 3.5	2.004	2.981	2.9	19.8
12 17	4 23.41	+29 41.1	1.152	2.110	8.3	17.3	12 17	4 25.70	+28 52.8	2.022	2.976	5.7	20.0
12 27	4 15.72	+28 10.6	1.196	2.110	13.1	17.6	12 27	4 18.43	+27 39.0	2.070	2.972	9.1	20.2
1 6	4 11.59	+26 45.6	1.261	2.111	17.4	17.8	1 6	4 13.40	+26 27.8	2.143	2.967	12.2	20.3
<b>42931</b>	1999 <i>TG</i> <sub>17</sub>	12	3.1	43°83	0°3/ 3.2	18	<b>179203</b>	2001 <i>TA</i> <sub>185</sub>	12	3.1	18°87	1°1/ 2.7	18
10 28	5 9.00	+20 56.2	1.437	2.265	17.5	17.6	10 28	5 4.64	+21 10.0	1.910	2.727	14.2	20.5
11 7	5 3.79	+21 32.1	1.380	2.280	13.4	17.4	11 7	4 59.84	+20 39.5	1.831	2.728	10.9	20.3
11 17	4 55.46	+22 7.0	1.344	2.297	8.6	17.1	11 17	4 52.67	+20 4.6	1.776	2.728	7.0	20.0
11 27	4 44.97	+22 38.9	1.332	2.314	3.3	16.9	11 27	4 43.88	+19 26.7	1.748	2.729	2.8	19.8
12 7	4 33.76	+23 6.4	1.348	2.331	2.1	16.8	12 7	4 34.51	+18 48.4	1.748	2.729	2.2	19.7
12 17	4 23.37	+23 29.4	1.391	2.349	7.2	17.2	12 17	4 25.67	+18 12.8	1.777	2.730	6.4	20.0
12 27	4 15.19	+23 49.9	1.460	2.367	11.7	17.5	12 27	4 18.41	+17 43.4	1.834	2.731	10.3	20.3
1 6	4 10.05	+24 10.2	1.552	2.386	15.6	17.8	1 6	4 13.45	+17 22.5	1.914	2.732	13.7	20.5
<b>191897</b>	2005 <i>AW</i> <sub>55</sub>	12	3.1	93°44	2°0/ 3.9	18	<b>368857</b>	2006 <i>HH</i> <sub>134</sub>	12	3.1	139°93	4°0/ 1.4	18
10 28	5 5.12	+29 20.9	2.350	3.145	12.6	19.9	10 28	5 1.83	+10 24.8	2.581	3.384	11.4	21.5
11 7	4 59.86	+29 22.0	2.274	3.154	9.8	19.7	11 7	4 56.99	+9 40.5	2.507	3.390	8.9	21.3
11 17	4 52.50	+29 15.0	2.221	3.162	6.6	19.5	11 17	4 50.53	+8 59.4	2.458	3.396	6.2	21.2
11 27	4 43.75	+28 59.1	2.196	3.171	3.3	19.3	11 27	4 42.99	+8 24.2	2.438	3.401	4.2	21.1
12 7	4 34.52	+28 34.8	2.201	3.180	2.3	19.3	12 7	4 35.09	+7 57.5	2.446	3.406	4.4	21.1
12 17	4 25.81	+28 4.0	2.235	3.188	5.2	19.5	12 17	4 27.56	+7 41.1	2.485	3.411	6.5	21.2
12 27	4 18.52	+27 30.2	2.298	3.197	8.4	19.7	12 27	4 21.12	+7 36.0	2.551	3.416	9.1	21.4
1 6	4 13.28	+26 57.0	2.386	3.205	11.3	19.9	1 6	4 16.28	+7 42.1	2.642	3.420	11.5	21.6
<b>503889</b>	2001 <i>TQ</i> <sub>259</sub>	12	3.1	100°74	14°9/26.3	17	<b>333755</b>	2010 <i>VC</i> <sub>1</sub>	12	3.1	307°15	37°4/28.0	17
10 28	5 8.94	+ 1 12.9	1.106	1.934	21.6	21.2	10 28	5 11.70	-19 32.8	0.506	1.347	37.4	20.0
11 7	5 4.08	- 2 13.5	1.060	1.938	18.4	21.0	11 7	5 14.23	-31 0.5	0.433	1.271	41.8	19.6
11 17	4 55.76	- 5 27.2	1.034	1.943	15.8	20.9	11 17	5 11.04	-44 44.3	0.382	1.187	50.4	19.5
11 27	4 45.09	- 8 10.0	1.031	1.947	14.9	20.8	11 27	4 57.70	-59 46.9	0.354	1.097	62.8	19.5
12 7	4 33.70	-10 7.0	1.051	1.952	16.0	20.9	12 7	4 43.46	-74 48.9	0.345	1.000	77.7	19.7
12 17	4 23.32	-11 11.2	1.092	1.956	18.5	21.1	12 17	22 42.01	-84 21.3	0.351	0.896	93.8	20.1
12 27	4 15.42	-11 24.4	1.151	1.960	21.4	21.3	12 27	18 45.93	-72 7.3	0.374	0.789	110.2	20.8
1 6	4 10.86	-10 55.3	1.225	1.964	24.1	21.5	1 6	18 14.96	-56 27.5	0.423	0.683	123.8	21.7
<b>408616</b>	2014 <i>KT</i> <sub>33</sub>	12	3.1	145°11	5°6/ 1.5	18	<b>353248</b>	2010 <i>EV</i> <sub>36</sub>	12	3.1	97°31	0°0/ 3.0	18
10 28	5 5.53	+ 5 6.0	2.321	3.113	12.8	21.5	10 28	5 8.44	+22 27.5	1.764	2.578	15.3	20.9
11 7	4 59.90	+ 4 33.5	2.252	3.123	10.3	21.4	11 7	5 2.89	+22 30.8	1.695	2.589	11.7	20.7
11 17	4 52.41	+ 4 8.7	2.208	3.132	7.7	21.2	11 17	4 54.70	+22 30.2	1.649	2.600	7.5	20.5
11 27	4 43.70	+ 3 54.9	2.190	3.140	5.8	21.2	11 27	4 44.69	+22 25.5	1.629	2.611	2.9	20.2
12 7	4 34.58	+ 3 54.4	2.202	3.148	5.9	21.2	12 7	4 34.06	+22 17.1	1.638	2.621	1.8	20.2
12 17	4 25.90	+ 4 7.9	2.243	3.156	7.9	21.3	12 17	4 24.09	+22 6.9	1.676	2.631	6.4	20.5
12 27	4 18.49	+ 4 35.2	2.311	3.163	10.4	21.5	12 27	4 15.95	+21 57.8	1.740	2.642	10.5	20.8
1 6	4 12.90	+ 5 14.4	2.402	3.170	12.8	21.7	1 6	4 10.41	+21 52.6	1.829	2.652	14.0	21.0
<b>186935</b>	2004 <i>PV</i> <sub>104</sub>	12	3.1	36°97	2°6/ 3.6	18	<b>227040</b>	2005 <i>AZ</i> <sub>81</sub>	12	3.1	296°71	1°9/ 3.5	18
10 28	5 7.52	+27 15.7	1.859	2.666	14.9	19.5	10 28	5 6.87	+25 32.1	2.211	3.012	13.1	20.6
11 7	5 2.33	+27 59.2	1.786	2.673	11.6	19.3	11 7	5 1.76	+26 14.5	2.104	2.988	10.2	20.3
11 17	4 54.42	+28 37.1	1.737	2.681	7.8	19.1	11 17	4 54.14	+26 54.7	2.020	2.964	6.8	20.1
11 27	4 44.60	+29 6.5	1.713	2.689	4.0	18.9	11 27	4 44.59	+27 30.2	1.963	2.940	3.3	19.8
12 7	4 34.02	+29 25.5	1.718	2.697	3.0	18.8	12 7	4 34.02	+27 58.9	1.936	2.916	2.4	19.7
12 17	4 23.97	+29 34.6	1.752	2.705	6.4	19.1	12 17	4 23.55	+28 20.2	1.939	2.892	5.9	19.9
12 27	4 15.69	+29 36.2	1.813	2.714	10.2	19.3	12 27	4 14.37	+28 35.2	1.971	2.868	9.7	20.1
1 6	4 10.01	+29 34.3	1.898	2.723	13.5	19.5	1 6	4 7.41	+28 46.7	2.027	2.844	13.1	20.3
<b>296771</b>	2009 <i>UF</i> <sub>88</sub>	12	3.1	36°46	1°5/ 2.7	17	<b>385754</b>	2005 <i>YG</i> <sub>24</sub>	12	3.1	256°26	0°7/ 2.9	18
10 28	5 4.02	+18 35.3	1.733	2.559	15.1	20.0	10 28	5 7.62	+20 57.5	1.825	2.639	14.9	21.5
11 7	4 59.40	+18 25.6	1.675	2.575	11.5	19.8	11 7	5 2.49	+20 48.4	1.731	2.625	11.5	21.3
11 17	4 52.36	+18 15.1	1.638	2.591	7.3	19.6	11 17	4 54.63	+20 35.9	1.659	2.610	7.4	21.0
11 27	4 43.73	+18 5.1	1.628	2.609	3.1	19.3	11 27	4 44.76	+20 20.4	1.614	2.595	2.9	20.7
12 7	4 34.62	+17 56.9	1.646	2.627	2.5	19.4	12 7	4 33.96	+20 3.0	1.597	2.579	2.1	20.6
12 17	4 26.18	+17 52.4	1.691	2.645	6.6	19.7	12 17	4 23.52	+19 46.0	1.609	2.564	6.8	20.9
12 27	4 19.45	+17 53.3	1.763	2.664	10.5	19.9	12 27	4 14.72	+19 32.3	1.649	2.547	11.2	21.1
1 6	4 15.15	+18 0.8	1.859	2.683	13.8	20.2	1 6	4 8.46	+19 24.9	1.712	2.531	15.0	21.3
<b>401079</b>	2011 <i>UY</i> <sub>102</sub>	12	3.1	289°27	0°9/ 3.5	17	<b>481838</b>	2008 <i>WC</i> <sub>38</sub>	12	3.1	106°26		

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>521666</b>	2015 <i>RV</i> <sub>142</sub>	12	3.1 143°88	0°4/ 2.9	18		<b>216216</b>	2006 <i>UR</i> <sub>93</sub>	12	3.1 189°71	0°1/ 3.2	18	
10 28	5 7.41	+21 29.4	2.038	2.846	13.8	22.3	10 28	5 6.53	+22 25.5	2.041	2.850	13.7	20.9
11 7	5 1.81	+21 23.7	1.962	2.853	10.5	22.1	11 7	5 1.27	+22 32.3	1.959	2.850	10.5	20.7
11 17	4 53.89	+21 14.8	1.909	2.859	6.7	21.9	11 17	4 53.64	+22 36.0	1.900	2.849	6.8	20.5
11 27	4 44.37	+21 3.0	1.884	2.865	2.6	21.6	11 27	4 44.33	+22 36.1	1.868	2.849	2.7	20.2
12 7	4 34.30	+20 49.1	1.888	2.871	1.8	21.6	12 7	4 34.35	+22 32.8	1.865	2.848	1.7	20.1
12 17	4 24.75	+20 35.1	1.922	2.876	5.9	21.9	12 17	4 24.82	+22 27.4	1.892	2.847	5.8	20.4
12 27	4 16.75	+20 23.5	1.984	2.881	9.7	22.1	12 27	4 16.80	+22 22.3	1.947	2.846	9.7	20.7
1 6	4 11.01	+20 16.5	2.070	2.885	12.9	22.3	1 6	4 11.04	+22 19.9	2.026	2.845	13.0	20.9
<b>120315</b>	2004 <i>LZ</i> <sub>4</sub>	12	3.1 58°68	5°7/ 2.3	18		<b>57973</b>	2002 <i>OW</i>	12	3.1 194°42	2°2/ 2.3	18	
10 28	5 6.47	+ 5 52.3	1.834	2.640	15.2	19.8	10 28	5 6.19	+17 39.5	2.167	2.975	13.1	20.0
11 7	5 1.05	+ 5 45.0	1.775	2.655	12.0	19.6	11 7	5 0.75	+17 2.5	2.082	2.973	10.0	19.8
11 17	4 53.34	+ 5 48.1	1.738	2.671	8.7	19.4	11 17	4 53.17	+16 23.5	2.022	2.971	6.5	19.6
11 27	4 44.14	+ 6 4.2	1.728	2.687	6.1	19.3	11 27	4 44.11	+15 44.7	1.990	2.968	3.1	19.4
12 7	4 34.47	+ 6 34.4	1.745	2.703	6.0	19.3	12 7	4 34.51	+15 8.5	1.987	2.964	2.9	19.4
12 17	4 25.41	+ 7 18.2	1.791	2.720	8.4	19.5	12 17	4 25.35	+14 37.8	2.015	2.961	6.4	19.6
12 27	4 17.94	+ 8 13.9	1.863	2.736	11.5	19.7	12 27	4 17.57	+14 15.2	2.070	2.956	9.9	19.8
1 6	4 12.74	+ 9 18.7	1.958	2.753	14.3	20.0	1 6	4 11.86	+14 2.3	2.150	2.952	13.0	20.0
<b>396551</b>	1998 <i>QT</i> <sub>73</sub>	12	3.1 36°92	8°1/30.3	18		<b>3617</b>	Eicher	12	3.1 218°19	6°8/30.4	18	
10 28	5 2.64	+ 5 18.9	1.615	2.435	16.2	19.8	10 28	5 4.28	+ 5 2.9	2.085	2.885	13.8	17.1
11 7	4 58.21	+ 3 44.6	1.575	2.459	13.0	19.7	11 7	4 59.31	+ 3 54.0	2.007	2.880	11.2	16.9
11 17	4 51.50	+ 2 20.6	1.557	2.484	10.0	19.6	11 17	4 52.26	+ 2 51.5	1.952	2.874	8.6	16.7
11 27	4 43.39	+ 1 13.9	1.565	2.510	8.2	19.5	11 27	4 43.77	+ 2 0.8	1.924	2.868	7.0	16.6
12 7	4 34.98	+ 0 29.7	1.598	2.536	8.6	19.6	12 7	4 34.73	+ 1 26.1	1.924	2.862	7.3	16.6
12 17	4 27.35	+ 0 10.2	1.657	2.562	10.7	19.8	12 17	4 26.08	+ 1 10.4	1.951	2.856	9.4	16.8
12 27	4 21.42	+ 0 14.7	1.740	2.589	13.4	20.0	12 27	4 18.76	+ 1 14.2	2.004	2.849	12.1	16.9
1 6	4 17.76	+ 0 39.8	1.843	2.617	15.9	20.3	1 6	4 13.42	+ 1 36.0	2.080	2.841	14.7	17.1
<b>515818</b>	2015 <i>MO</i> <sub>79</sub>	12	3.1 207°90	0°8/ 3.4	18		<b>487501</b>	2014 <i>SM</i> <sub>313</sub>	12	3.1 264°57	3°4/ 4.1	18	
10 28	5 8.50	+26 10.9	1.846	2.654	15.0	22.0	10 28	5 7.03	+31 19.2	2.328	3.116	12.9	20.9
11 7	5 3.03	+25 51.9	1.761	2.650	11.6	21.8	11 7	5 1.69	+31 57.7	2.236	3.109	10.2	20.7
11 17	4 54.86	+25 24.4	1.699	2.647	7.6	21.5	11 17	4 53.97	+32 28.9	2.168	3.102	7.2	20.5
11 27	4 44.81	+24 48.0	1.663	2.643	3.1	21.2	11 27	4 44.50	+32 50.0	2.128	3.095	4.4	20.3
12 7	4 34.03	+24 4.4	1.656	2.639	1.9	21.1	12 7	4 34.25	+32 59.3	2.116	3.088	3.6	20.2
12 17	4 23.83	+23 17.0	1.679	2.635	6.4	21.4	12 17	4 24.32	+32 57.1	2.134	3.081	6.0	20.4
12 27	4 15.41	+22 30.9	1.729	2.630	10.6	21.7	12 27	4 15.80	+32 45.9	2.180	3.074	9.1	20.5
1 6	4 9.58	+21 50.5	1.803	2.625	14.2	21.9	1 6	4 9.50	+32 29.7	2.251	3.067	12.0	20.7
<b>291149</b>	2005 <i>YZ</i> <sub>256</sub>	12	3.1 229°92	1°5/ 3.8	17		<b>408586</b>	2013 <i>LL</i> <sub>23</sub>	12	3.1 78°86	5°9/ 1.4	18	
10 28	5 4.93	+28 20.7	2.320	3.118	12.6	20.8	10 28	5 3.38	+ 5 7.8	2.174	2.975	13.3	20.7
11 7	4 59.83	+28 6.8	2.232	3.114	9.8	20.6	11 7	4 58.39	+ 4 29.5	2.114	2.989	10.6	20.6
11 17	4 52.59	+27 44.6	2.167	3.111	6.5	20.4	11 17	4 51.53	+ 3 59.5	2.077	3.003	8.0	20.4
11 27	4 43.88	+27 13.8	2.130	3.108	3.0	20.2	11 27	4 43.44	+ 3 41.3	2.067	3.017	6.1	20.4
12 7	4 34.63	+26 35.3	2.123	3.104	1.9	20.1	12 7	4 34.98	+ 3 37.4	2.085	3.031	6.3	20.4
12 17	4 25.82	+25 51.7	2.145	3.100	5.3	20.3	12 17	4 27.02	+ 3 48.7	2.130	3.045	8.2	20.5
12 27	4 18.42	+25 6.9	2.197	3.097	8.7	20.6	12 27	4 20.37	+ 4 14.7	2.203	3.059	10.7	20.7
1 6	4 13.07	+24 24.7	2.274	3.093	11.8	20.8	1 6	4 15.58	+ 4 53.4	2.298	3.072	13.1	20.9
<b>517045</b>	2013 <i>AN</i> <sub>40</sub>	12	3.1 337°04	0°7/ 3.4	18		<b>403433</b>	2009 <i>SZ</i> <sub>183</sub>	12	3.1 134°38	4°1/ 4.7	18	
10 28	5 5.99	+25 7.0	1.678	2.498	15.8	21.7	10 28	5 7.74	+34 58.9	2.389	3.164	13.0	21.3
11 7	5 1.36	+24 57.0	1.599	2.495	12.2	21.4	11 7	5 2.07	+35 23.8	2.308	3.170	10.4	21.1
11 17	4 53.91	+24 39.7	1.541	2.492	7.9	21.2	11 17	4 54.09	+35 38.3	2.251	3.175	7.6	20.9
11 27	4 44.47	+24 14.9	1.509	2.490	3.2	20.9	11 27	4 44.49	+35 39.5	2.221	3.180	5.0	20.8
12 7	4 34.25	+23 43.8	1.505	2.488	1.9	20.8	12 7	4 34.30	+35 26.6	2.219	3.185	4.2	20.7
12 17	4 24.61	+23 9.4	1.528	2.486	6.7	21.1	12 17	4 24.60	+35 0.7	2.247	3.190	6.0	20.9
12 27	4 16.83	+22 36.4	1.578	2.484	11.1	21.4	12 27	4 16.43	+34 25.7	2.304	3.194	8.8	21.0
1 6	4 11.76	+22 8.7	1.651	2.482	14.9	21.6	1 6	4 10.51	+33 46.4	2.385	3.199	11.5	21.2
<b>358335</b>	2006 <i>VH</i> <sub>77</sub>	12	3.1 207°39	0°8/ 2.9	18		<b>155382</b>	1993 <i>TZ</i> <sub>15</sub>	12	3.1 58°60	0°6/ 2.9	18	
10 28	5 5.82	+19 48.9	2.147	2.956	13.1	21.2	10 28	5 4.71	+21 6.4	1.999	2.813	13.8	20.1
11 7	5 0.59	+19 47.0	2.062	2.954	10.1	21.0	11 7	4 59.71	+20 55.5	1.934	2.828	10.5	20.0
11 17	4 53.13	+19 43.5	2.001	2.951	6.5	20.7	11 17	4 52.51	+20 41.6	1.892	2.843	6.7	19.8
11 27	4 44.11	+19 38.8	1.967	2.948	2.6	20.5	11 27	4 43.85	+20 25.5	1.877	2.858	2.6	19.5
12 7	4 34.47	+19 33.7	1.963	2.945	1.9	20.4	12 7	4 34.75	+20 8.6	1.891	2.873	1.8	19.5
12 17	4 25.22	+19 29.5	1.989	2.942	5.8	20.7	12 17	4 26.23	+19 52.7	1.934	2.889	5.8	19.8
12 27	4 17.36	+19 28.1	2.042	2.938	9.5	20.9	12 27	4 19.25	+19 40.4	2.005	2.904	9.5	20.1
1 6	4 11.61	+19 31.2	2.121	2.934	12.7	21.1	1 6	4 14.45	+19 33.6	2.100	2.920	12.6	20.3
<b>352989</b>	2009 <i>BG</i> <sub>103</sub>	12	3.1 309°13	3°1/ 4.3	18		<b>432287</b>	2009 <i>SF</i> <sub>211</sub>	12	3.1 74°83	1°4/ 3.5	16	
10 28	5 6.68	+31 46.3	1.651	2.461	16.4	20.3	10 28	5 12.98	+25 43.4	1.420	2.238	18.2	21.5
11 7	5 2.21	+31 36.1	1.562	2.448	13.0	20.1	11 7	5 6.75	+25 50.8	1.369	2.263	13.9	21.3
11 17	4 54.63	+31 11.9	1.494	2.436	9.0	19.8	11 17	4 57.28	+25 50.3	1.339	2.289	9.0	21.0
11 27	4 44.80	+30 31.5	1.450	2.424	4.8	19.5	11 27	4 45.72	+25 40.4	1.334	2.314	3.8	20.8
12 7	4 34.03	+29 35.7	1.434	2.412	3.4	19.4	12 7	4 33.65	+25 21.8	1.357	2.339	2.4	20.8
12 17	4 23.86	+28 28.4	1.445	2.401	7.1	19.6	12 17	4 22.69	+24 57.7	1.407	2.364	7.2	21.1
12 27	4 15.71	+27 16.7	1.482	2.390	11.5	19.9	12 27	4 14.18	+24 32.9	1.483	2.388	11.7	21.5
1 6	4 10.53	+26 8.1	1.543	2.379	15.5	20.1	1 6	4 8.88	+24 12.1	1.582	2.412	15.5	21.8
<b>83345</b>	2001 <i>RY</i> <sub>140</sub>	12	3.1 22°97	0°2/ 3.1	17		<b>35244</b>	1995 <i>TX</i> <sub>7</sub>	12	3.1 199°34	0°5/ 3.3	18	



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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>135693</b>	2002 OB <sub>26</sub>	12	3.1 178°13	0°8/ 3.5 18			<b>176961</b>	2002 XZ <sub>47</sub>	12	3.2 71°33	1°1/ 3.6 18		
10 28	5 8.34	+25 33.6	2.565	3.354	11.8	21.5	10 28	5 7.33	+26 42.3	1.807	2.617	15.2	19.9
11 7	5 2.18	+25 32.2	2.477	3.357	9.1	21.3	11 7	5 2.03	+26 27.6	1.740	2.631	11.7	19.7
11 17	4 54.01	+25 25.4	2.415	3.359	5.9	21.1	11 17	4 54.15	+26 4.6	1.696	2.644	7.6	19.5
11 27	4 44.47	+25 12.7	2.381	3.360	2.5	20.9	11 27	4 44.57	+25 33.1	1.678	2.657	3.2	19.3
12 7	4 34.42	+24 54.4	2.378	3.360	1.5	20.8	12 7	4 34.47	+24 54.7	1.688	2.671	1.9	19.2
12 17	4 24.77	+24 32.3	2.406	3.359	4.9	21.1	12 17	4 25.11	+24 12.8	1.728	2.684	6.1	19.5
12 27	4 16.41	+24 9.0	2.464	3.358	8.2	21.3	12 27	4 17.58	+23 31.9	1.794	2.698	10.1	19.8
1 6	4 9.99	+23 47.3	2.549	3.356	11.0	21.4	1 6	4 12.59	+22 56.3	1.885	2.711	13.5	20.0
<b>355046</b>	2006 SO <sub>19</sub>	12	3.1 144°67	11°7/ 3.8 17			<b>168067</b>	2006 CO <sub>7</sub>	12	3.2 135°95	1°1/ 2.8 18		
10 28	5 44.39	+0 18.2	0.662	1.479	33.2	20.8	10 28	5 8.28	+20 15.8	2.018	2.825	13.9	21.3
11 7	5 33.37	+0 21.7	0.620	1.503	27.0	20.6	11 7	5 2.43	+19 56.1	1.946	2.836	10.6	21.1
11 17	5 15.73	+0 59.6	0.590	1.523	19.9	20.3	11 17	4 54.29	+19 33.5	1.897	2.847	6.8	20.9
11 27	4 53.16	+2 20.4	0.579	1.541	13.5	20.0	11 27	4 44.61	+19 9.0	1.876	2.857	2.7	20.6
12 7	4 29.12	+4 21.5	0.591	1.555	12.1	20.0	12 7	4 34.44	+18 44.3	1.885	2.867	2.1	20.6
12 17	4 7.58	+6 50.0	0.626	1.566	16.9	20.4	12 17	4 24.85	+18 21.8	1.924	2.876	6.1	20.9
12 27	3 51.55	+9 30.0	0.682	1.574	23.1	20.7	12 27	4 16.85	+18 4.2	1.991	2.884	9.8	21.1
1 6	3 42.11	+12 9.5	0.755	1.579	28.4	21.1	1 6	4 11.11	+17 53.6	2.082	2.892	13.0	21.4
<b>427283</b>	2014 WN <sub>208</sub>	12	3.1 136°12	1°0/ 2.9 17			<b>223052</b>	2002 TR <sub>105</sub>	12	3.2 320°40	0°9/ 3.5 18		
10 28	5 5.45	+17 34.1	2.424	3.227	12.0	20.3	10 28	5 3.00	+25 49.8	2.139	2.949	13.2	20.2
11 7	5 0.07	+17 54.4	2.341	3.229	9.2	20.1	11 7	4 58.62	+25 40.7	2.048	2.939	10.2	20.0
11 17	4 52.72	+18 15.8	2.282	3.231	5.9	19.9	11 17	4 52.00	+25 25.0	1.981	2.929	6.6	19.7
11 27	4 44.00	+18 38.3	2.252	3.232	2.4	19.7	11 27	4 43.78	+25 2.6	1.940	2.920	2.8	19.5
12 7	4 34.72	+19 1.5	2.253	3.234	1.8	19.6	12 7	4 34.92	+24 34.4	1.928	2.910	1.7	19.4
12 17	4 25.77	+19 25.6	2.284	3.236	5.3	19.9	12 17	4 26.44	+24 2.7	1.945	2.901	5.6	19.6
12 27	4 18.02	+19 50.9	2.344	3.237	8.6	20.1	12 27	4 19.36	+23 30.8	1.990	2.893	9.3	19.8
1 6	4 12.13	+20 18.3	2.430	3.239	11.4	20.3	1 6	4 14.40	+23 2.3	2.059	2.884	12.6	20.0
<b>454461</b>	2014 OC <sub>52</sub>	12	3.1 101°57	1°0/ 2.9 17			<b>215756</b>	2004 FQ <sub>62</sub>	12	3.2 220°97	2°7/ 2.2 18		
10 28	5 5.35	+19 50.1	2.077	2.889	13.4	22.1	10 28	5 4.98	+15 6.3	2.225	3.034	12.8	21.5
11 7	5 0.22	+19 42.4	2.002	2.895	10.2	21.9	11 7	4 59.86	+14 39.9	2.138	3.027	9.8	21.3
11 17	4 52.89	+19 32.8	1.951	2.901	6.6	21.7	11 17	4 52.66	+14 14.2	2.074	3.021	6.5	21.1
11 27	4 44.07	+19 22.1	1.927	2.907	2.6	21.4	11 27	4 44.02	+13 51.0	2.038	3.014	3.4	20.9
12 7	4 34.70	+19 11.3	1.932	2.913	2.0	21.4	12 7	4 34.79	+13 32.5	2.032	3.007	3.3	20.9
12 17	4 25.83	+19 2.1	1.966	2.919	5.9	21.7	12 17	4 25.91	+13 20.6	2.055	2.999	6.5	21.0
12 27	4 18.41	+18 56.5	2.029	2.925	9.5	21.9	12 27	4 18.32	+13 17.1	2.107	2.991	9.8	21.2
1 6	4 13.12	+18 56.3	2.116	2.931	12.7	22.1	1 6	4 12.68	+13 22.6	2.182	2.983	12.9	21.4
<b>47286</b>	1999 VH <sub>176</sub>	12	3.1 327°22	4°6/ 1.8 18			<b>129484</b>	1994 PG <sub>15</sub>	12	3.2 95°73	1°6/ 2.7 18		
10 28	5 3.73	+15 33.9	1.238	2.084	18.6	18.9	10 28	5 7.55	+19 1.4	1.841	2.655	14.8	20.2
11 7	5 0.40	+14 38.6	1.162	2.072	14.5	18.6	11 7	5 2.02	+18 41.1	1.776	2.670	11.3	20.0
11 17	4 53.73	+13 41.8	1.106	2.060	9.8	18.3	11 17	4 54.07	+18 19.0	1.734	2.685	7.2	19.8
11 27	4 44.57	+12 48.5	1.073	2.050	5.5	18.1	11 27	4 44.54	+17 56.5	1.720	2.700	3.0	19.5
12 7	4 34.34	+12 4.5	1.065	2.039	5.6	18.0	12 7	4 34.51	+17 35.4	1.733	2.714	2.5	19.5
12 17	4 24.71	+11 35.2	1.081	2.030	10.1	18.3	12 17	4 25.15	+17 18.3	1.776	2.728	6.5	19.8
12 27	4 17.24	+11 24.2	1.121	2.021	15.1	18.5	12 27	4 17.50	+17 7.3	1.847	2.742	10.4	20.1
1 6	4 12.98	+11 32.0	1.180	2.014	19.5	18.8	1 6	4 12.23	+17 4.2	1.941	2.755	13.7	20.3
<b>449049</b>	2012 DX <sub>56</sub>	12	3.2 2°47	6°2/30.9 18			<b>440769</b>	2006 HS <sub>23</sub>	12	3.2 315°93	3°1/ 2.1 18		
10 28	5 2.45	+6 42.6	1.994	2.805	14.0	21.2	10 28	5 5.06	+17 6.8	1.633	2.459	15.8	20.7
11 7	4 58.00	+5 44.4	1.923	2.804	11.2	21.1	11 7	5 0.60	+16 22.1	1.554	2.455	12.2	20.4
11 17	4 51.47	+4 52.6	1.874	2.804	8.4	20.9	11 17	4 53.44	+15 35.3	1.498	2.450	8.0	20.2
11 27	4 43.52	+4 11.9	1.852	2.804	6.4	20.8	11 27	4 44.38	+14 49.6	1.468	2.446	4.0	19.9
12 7	4 35.06	+3 46.2	1.857	2.805	6.7	20.8	12 7	4 34.58	+14 9.0	1.465	2.441	3.9	19.9
12 17	4 27.04	+3 37.7	1.889	2.805	8.9	20.9	12 17	4 25.33	+13 37.1	1.489	2.437	7.9	20.2
12 27	4 20.38	+3 47.0	1.947	2.806	11.8	21.1	12 27	4 17.84	+13 17.2	1.540	2.434	12.1	20.4
1 6	4 15.73	+4 12.5	2.027	2.806	14.4	21.3	1 6	4 12.93	+13 10.8	1.612	2.430	15.9	20.6
<b>273515</b>	2007 BH <sub>11</sub>	12	3.2 337°90	2°4/ 2.8 18			<b>364847</b>	2008 CA <sub>195</sub>	12	3.2 114°14	4°3/ 4.7 18		
10 28	5 8.03	+16 9.1	1.447	2.276	17.4	20.4	10 28	5 9.64	+34 50.1	2.291	3.066	13.5	21.5
11 7	5 3.25	+16 11.6	1.373	2.274	13.4	20.1	11 7	5 3.61	+35 23.3	2.218	3.079	10.8	21.3
11 17	4 55.34	+16 16.9	1.320	2.272	8.8	19.9	11 17	4 55.14	+35 45.9	2.167	3.090	7.8	21.2
11 27	4 45.15	+16 25.8	1.291	2.270	4.0	19.6	11 27	4 44.98	+35 54.7	2.143	3.102	5.2	21.0
12 7	4 34.01	+16 39.1	1.289	2.269	3.4	19.6	12 7	4 34.23	+35 48.5	2.148	3.114	4.4	21.0
12 17	4 23.45	+16 57.8	1.314	2.267	8.1	19.8	12 17	4 24.03	+35 28.6	2.183	3.125	6.3	21.2
12 27	4 14.92	+17 22.6	1.364	2.266	12.8	20.1	12 27	4 15.48	+34 58.6	2.246	3.136	9.1	21.3
1 6	4 9.37	+17 54.3	1.436	2.265	16.9	20.4	1 6	4 9.29	+34 23.6	2.334	3.146	11.7	21.5
<b>290226</b>	2005 SL <sub>59</sub>	12	3.2 351°28	0°9/ 3.4 18			<b>410896</b>	2009 SD <sub>97</sub>	12	3.2 83°03	5°8/30.9 18		
10 28	5 5.47	+24 47.4	1.946	2.758	14.2	21.4	10 28	5 3.55	+6 52.1	2.144	2.948	13.3	21.5
11 7	5 0.64	+24 51.5	1.865	2.757	10.9	21.1	11 7	4 58.55	+5 52.6	2.086	2.965	10.6	21.3
11 17	4 53.34	+24 50.3	1.807	2.756	7.1	20.9	11 17	4 51.66	+4 59.7	2.053	2.981	7.9	21.2
11 27	4 44.30	+24 43.1	1.776	2.756	3.0	20.7	11 27	4 43.58	+4 17.5	2.046	2.998	6.0	21.1
12 7	4 34.58	+24 30.2	1.772	2.755	1.8	20.6	12 7	4 35.15	+3 49.3	2.067	3.014	6.2	21.2
12 17	4 25.34	+24 13.5	1.798	2.755	6.0	20.8	12 17	4 27.26	+3 37.1	2.116	3.030	8.3	21.3
12 27	4 17.69	+23 56.1	1.851	2.754	9.9	21.1	12 27	4 20.70	+3 41.2	2.192	3.046	10.8	21.5
1 6	4 12.39	+23 41.1	1.929	2.754	13.3	21.3	1 6	4 16.02	+4 0.0	2.291	3.062	13.2	21.7
<b>154163</b>	2002 GZ <sub>56</sub>	12	3.2 287°87	1°3/ 2.6 17			<b>112428</b>	2002 NP <sub>50</sub>	12	3.2 30°29	0°4/ 3.0 18 R		
10 28	5 3.83	+21 13.2	2.072	2.886	13.4	19.8	10						

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>448963</b>	2011 <i>WN</i> <sub>123</sub>	12	3.2 281°70	0°5/ 3.3 17			<b>319161</b>	2005 <i>YB</i> <sub>80</sub>	12	3.2 181°09	2°5/ 4.3 17		
10 28	5 6.41	+23 46.7	1.899	2.712	14.5	21.8	10 28	5 6.18	+31 16.5	2.453	3.239	12.4	21.0
11 7	5 1.41	+23 48.3	1.818	2.711	11.1	21.6	11 7	5 0.76	+31 15.4	2.366	3.240	9.7	20.9
11 17	4 53.88	+23 45.1	1.760	2.710	7.2	21.3	11 17	4 53.23	+31 5.2	2.304	3.240	6.7	20.7
11 27	4 44.55	+23 36.6	1.728	2.709	2.9	21.1	11 27	4 44.25	+30 44.6	2.268	3.240	3.6	20.5
12 7	4 34.51	+23 23.5	1.725	2.708	1.7	21.0	12 7	4 34.75	+30 13.9	2.263	3.240	2.7	20.4
12 17	4 24.97	+23 7.5	1.751	2.707	6.1	21.3	12 17	4 25.70	+29 35.1	2.287	3.239	5.3	20.6
12 27	4 17.06	+22 51.7	1.804	2.706	10.2	21.5	12 27	4 18.04	+28 52.0	2.341	3.238	8.4	20.8
1 6	4 11.57	+22 39.3	1.881	2.705	13.7	21.7	1 6	4 12.43	+28 8.8	2.420	3.237	11.2	21.0
<b>201693</b>	2003 <i>UC</i> <sub>124</sub>	12	3.2 164°83	3°9/ 4.8 18			<b>181009</b>	2005 <i>NE</i> <sub>63</sub>	12	3.2 94°16	7°0/ 1.0 16		
10 28	5 10.06	+34 41.2	1.870	2.658	15.6	20.3	10 28	5 9.59	+7 41.7	1.630	2.440	16.6	20.5
11 7	5 4.37	+34 31.5	1.788	2.659	12.4	20.1	11 7	5 3.50	+6 22.7	1.582	2.465	13.1	20.3
11 17	4 55.81	+34 6.7	1.729	2.661	8.8	19.9	11 17	4 54.95	+5 11.3	1.558	2.489	9.6	20.2
11 27	4 45.28	+33 24.6	1.695	2.662	5.3	19.7	11 27	4 44.86	+4 13.6	1.559	2.513	7.2	20.1
12 7	4 34.10	+32 25.8	1.689	2.663	4.0	19.6	12 7	4 34.44	+3 34.4	1.587	2.537	7.5	20.2
12 17	4 23.66	+31 14.3	1.712	2.663	6.7	19.8	12 17	4 24.89	+3 16.4	1.643	2.560	10.0	20.4
12 27	4 15.21	+29 57.0	1.763	2.664	10.4	20.0	12 27	4 17.23	+3 19.4	1.724	2.582	13.1	20.6
1 6	4 9.56	+28 41.3	1.838	2.664	13.8	20.2	1 6	4 12.08	+3 40.8	1.827	2.603	15.9	20.9
<b>245832</b>	2006 <i>KQ</i> <sub>2</sub>	12	3.2 270°35	7°8/ 1.7 18			<b>265592</b>	2005 <i>QE</i> <sub>189</sub>	12	3.2 141°10	4°8/ 1.5 18		
10 28	5 6.42	+2 21.3	1.758	2.559	15.9	20.1	10 28	5 4.94	+6 25.7	2.581	3.371	11.7	21.4
11 7	5 1.39	+1 49.6	1.683	2.555	13.1	19.9	11 7	4 59.35	+5 52.4	2.513	3.383	9.3	21.3
11 17	4 53.85	+1 30.3	1.629	2.550	10.1	19.7	11 17	4 52.10	+5 25.3	2.469	3.395	6.9	21.1
11 27	4 44.55	+1 28.5	1.600	2.545	8.1	19.6	11 27	4 43.76	+5 7.1	2.454	3.407	5.1	21.0
12 7	4 34.53	+1 47.1	1.597	2.540	8.1	19.6	12 7	4 35.08	+4 59.8	2.468	3.418	5.2	21.1
12 17	4 24.96	+2 26.7	1.621	2.535	10.3	19.7	12 17	4 26.81	+5 4.5	2.512	3.428	7.0	21.2
12 27	4 16.96	+3 25.7	1.671	2.530	13.4	19.9	12 27	4 19.67	+5 21.3	2.584	3.437	9.4	21.4
1 6	4 11.32	+4 40.1	1.743	2.525	16.3	20.1	1 6	4 14.18	+5 49.1	2.681	3.446	11.6	21.5
<b>434045</b>	2001 <i>TV</i> <sub>158</sub>	12	3.2 71°29	5°1/ 1.7 18			<b>222411</b>	2001 <i>FF</i> <sub>130</sub>	12	3.2 325°11	3°0/ 3.9 18		
10 28	5 9.38	+13 13.0	1.450	2.275	17.5	20.8	10 28	5 3.83	+29 30.7	1.717	2.533	15.6	19.9
11 7	5 3.61	+12 6.1	1.405	2.301	13.5	20.6	11 7	5 0.12	+29 48.6	1.620	2.511	12.4	19.7
11 17	4 55.11	+11 2.3	1.382	2.328	9.2	20.4	11 17	4 53.46	+29 57.8	1.545	2.490	8.5	19.4
11 27	4 44.92	+10 7.0	1.383	2.354	5.6	20.3	11 27	4 44.54	+29 55.6	1.494	2.469	4.6	19.1
12 7	4 34.40	+9 24.8	1.412	2.380	5.8	20.4	12 7	4 34.53	+29 40.8	1.470	2.449	3.4	19.0
12 17	4 24.88	+8 59.1	1.469	2.406	9.1	20.7	12 17	4 24.84	+29 14.9	1.473	2.429	7.1	19.2
12 27	4 17.47	+8 51.1	1.550	2.432	12.9	20.9	12 27	4 16.91	+28 42.3	1.502	2.411	11.4	19.4
1 6	4 12.81	+8 59.7	1.653	2.457	16.1	21.2	1 6	4 11.77	+28 8.5	1.554	2.393	15.3	19.6
<b>520783</b>	2014 <i>SJ</i> <sub>357</sub>	12	3.2 76°43	2°1/ 2.7 18			<b>443715</b>	2015 <i>KX</i> <sub>146</sub>	12	3.2 165°55	5°7/ 1.1 18		
10 28	5 4.92	+14 49.2	2.266	3.073	12.6	21.5	10 28	5 7.13	+8 54.7	1.936	2.742	14.5	21.7
11 7	4 59.69	+14 55.5	2.193	3.082	9.7	21.3	11 7	5 1.60	+7 53.2	1.865	2.747	11.5	21.6
11 17	4 52.49	+15 4.4	2.145	3.092	6.3	21.1	11 17	4 53.81	+6 56.3	1.816	2.751	8.3	21.4
11 27	4 43.95	+15 16.4	2.124	3.102	3.0	20.9	11 27	4 44.50	+6 8.5	1.795	2.754	6.0	21.2
12 7	4 34.93	+15 32.3	2.133	3.111	2.7	20.9	12 7	4 34.66	+5 34.1	1.802	2.757	6.2	21.3
12 17	4 26.33	+15 52.1	2.173	3.121	5.8	21.1	12 17	4 25.34	+5 15.7	1.837	2.759	8.8	21.4
12 27	4 19.03	+16 16.5	2.240	3.130	9.1	21.3	12 27	4 17.55	+5 14.5	1.899	2.761	11.9	21.6
1 6	4 13.64	+16 45.5	2.333	3.140	11.9	21.5	1 6	4 11.95	+5 29.4	1.984	2.762	14.8	21.8
<b>472815</b>	2015 <i>FV</i> <sub>162</sub>	12	3.2 347°48	2°3/ 2.9 18			<b>385438</b>	2003 <i>HQ</i> <sub>3</sub>	12	3.2 175°92	1°1/ 2.8 18		
10 28	5 7.02	+16 35.0	1.198	2.042	19.3	20.7	10 28	5 8.49	+20 11.1	2.045	2.851	13.8	22.1
11 7	5 3.11	+16 43.9	1.128	2.037	15.0	20.4	11 7	5 2.71	+19 53.7	1.964	2.854	10.6	21.9
11 17	4 55.59	+16 56.3	1.077	2.033	9.8	20.1	11 17	4 54.57	+19 33.3	1.907	2.856	6.8	21.7
11 27	4 45.38	+17 12.9	1.049	2.029	4.3	19.8	11 27	4 44.82	+19 11.0	1.877	2.857	2.7	21.4
12 7	4 33.99	+17 34.1	1.045	2.027	3.4	19.8	12 7	4 34.46	+18 48.1	1.876	2.858	2.1	21.4
12 17	4 23.25	+18 0.3	1.067	2.025	8.9	20.1	12 17	4 24.59	+18 27.1	1.906	2.858	6.1	21.7
12 27	4 14.87	+18 32.3	1.113	2.023	14.2	20.4	12 27	4 16.27	+18 10.7	1.964	2.857	9.9	21.9
1 6	4 9.95	+19 10.5	1.178	2.023	18.8	20.6	1 6	4 10.21	+18 0.9	2.046	2.856	13.2	22.1
<b>10617</b>	Takumi	12	3.2 52°45	3°0/ 4.0 18			<b>223063</b>	2002 <i>TX</i> <sub>207</sub>	12	3.2 42°82	3°3/ 3.9 18		
10 28	5 10.55	+29 37.9	1.243	2.070	19.8	16.4	10 28	5 9.75	+29 9.0	1.285	2.111	19.3	19.8
11 7	5 5.74	+29 40.7	1.181	2.078	15.5	16.2	11 7	5 5.05	+29 30.7	1.225	2.121	15.1	19.6
11 17	4 57.14	+29 30.1	1.138	2.086	10.4	15.9	11 17	4 56.68	+29 41.3	1.184	2.132	10.2	19.4
11 27	4 45.88	+29 3.7	1.118	2.095	5.2	15.7	11 27	4 45.74	+29 37.4	1.166	2.143	5.2	19.1
12 7	4 33.76	+28 22.1	1.124	2.105	3.5	15.6	12 7	4 33.91	+29 18.5	1.174	2.154	3.8	19.1
12 17	4 22.70	+27 30.1	1.155	2.114	8.2	15.9	12 17	4 23.08	+28 47.6	1.208	2.166	8.0	19.4
12 27	4 14.36	+26 35.6	1.211	2.124	13.1	16.2	12 27	4 14.85	+28 11.2	1.267	2.178	12.8	19.7
1 6	4 9.66	+25 46.2	1.288	2.134	17.4	16.5	1 6	4 10.15	+27 36.3	1.346	2.191	16.9	19.9
<b>67894</b>	2000 <i>WX</i> <sub>69</sub>	12	3.2 139°36	2°6/ 4.1 18			<b>411584</b>	2011 <i>ES</i> <sub>41</sub>	12	3.2 2°03	6°5/ 4.6 17		
10 28	5 13.85	+30 16.4	1.692	2.490	16.6	19.3	10 28	5 9.10	+37 45.5	2.037	2.812	14.9	20.0
11 7	5 7.32	+30 12.3	1.621	2.502	13.0	19.1	11 7	5 3.92	+38 56.0	1.957	2.812	12.3	19.8
11 17	4 57.71	+29 56.3	1.572	2.513	8.8	18.9	11 17	4 55.78	+39 55.3	1.900	2.812	9.5	19.7
11 27	4 46.02	+29 26.4	1.548	2.523	4.4	18.6	11 27	4 45.41	+40 37.8	1.867	2.812	7.2	19.5
12 7	4 33.68	+28 43.3	1.553	2.533	3.0	18.6	12 7	4 34.04	+40 59.8	1.862	2.813	6.5	19.5
12 17	4 22.21	+27 50.9	1.587	2.541	6.8	18.8	12 17	4 23.09	+41 0.9	1.885	2.814	8.1	19.6
12 27	4 12.95	+26 55.4	1.648	2.550	11.0	19.1	12 27	4 13.96	+40 44.7	1.934	2.815	10.7	19.8
1 6	4 6.70	+26 3.3	1.734	2.557	14.7	19.4	1 6	4 7.63	+40 17.3	2.006	2.817	13.4	19.9
<b>261538</b>	2005 <i>WW</i> <sub>119</sub>	12	3.2 359°61	0°6/ 3.3 18			<b>206044</b>	2002 <i>QJ</i> <sub>72</sub>	12	3.2 72°75	2°0/ 2.6 18		
10 28	5 4.7												

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12 3.2

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	
<b>28959</b>	2001 <i>DL</i> <sub>74</sub>	12	3.2	156°55	5°4/29.9	18	R	<b>432234</b>	2009 <i>KZ</i> <sub>6</sub>	12	3.2	129°60	4°4/ 2.2	16
10 28	5 2.22	+ 4 53.3	2.921	3.707	10.6	18.4	10 28	5 10.85	+11 59.5	1.618	2.432	16.5	22.4	
11 7	4 57.15	+ 3 36.5	2.849	3.713	8.6	18.3	11 7	5 4.81	+11 32.1	1.554	2.444	12.8	22.2	
11 17	4 50.64	+ 2 24.6	2.804	3.719	6.6	18.2	11 17	4 56.04	+11 9.4	1.512	2.456	8.8	21.9	
11 27	4 43.21	+ 1 21.5	2.788	3.725	5.5	18.1	11 27	4 45.42	+10 54.2	1.496	2.468	5.2	21.8	
12 7	4 35.48	+ 0 30.7	2.801	3.730	5.8	18.2	12 7	4 34.20	+10 49.2	1.508	2.478	5.0	21.8	
12 17	4 28.08	- 0 5.7	2.844	3.735	7.4	18.3	12 17	4 23.70	+10 55.8	1.548	2.488	8.5	22.0	
12 27	4 21.63	- 0 26.6	2.915	3.739	9.3	18.4	12 27	4 15.11	+11 14.7	1.614	2.498	12.3	22.3	
1 6	4 16.60	- 0 32.6	3.009	3.743	11.2	18.6	1 6	4 9.21	+11 44.8	1.703	2.507	15.8	22.5	
<b>195708</b>	2002 <i>PV</i> <sub>38</sub>	12	3.2	115°31	0°2/ 3.1	18		<b>270096</b>	2001 <i>QP</i> <sub>231</sub>	12	3.2	38°75	1°6/ 3.7	18
10 28	5 4.11	+22 41.2	2.535	3.336	11.6	21.1	10 28	5 7.99	+27 48.7	1.251	2.084	19.3	19.9	
11 7	4 58.92	+22 24.4	2.460	3.347	8.8	21.0	11 7	5 3.54	+27 28.7	1.195	2.096	14.9	19.6	
11 17	4 51.92	+22 3.8	2.409	3.358	5.6	20.8	11 17	4 55.59	+26 56.4	1.158	2.110	9.8	19.4	
11 27	4 43.74	+21 39.8	2.387	3.368	2.2	20.6	11 27	4 45.28	+26 11.5	1.144	2.124	4.3	19.1	
12 7	4 35.17	+21 13.9	2.396	3.378	1.4	20.5	12 7	4 34.32	+25 16.7	1.156	2.139	2.5	19.0	
12 17	4 27.05	+20 48.0	2.435	3.388	4.8	20.8	12 17	4 24.44	+24 18.0	1.194	2.154	7.7	19.4	
12 27	4 20.16	+20 24.5	2.503	3.398	8.0	21.0	12 27	4 17.11	+23 22.5	1.257	2.170	12.7	19.7	
1 6	4 15.04	+20 5.4	2.597	3.408	10.7	21.2	1 6	4 13.14	+22 36.1	1.341	2.186	16.9	20.0	
<b>275149</b>	2009 <i>VP</i> <sub>86</sub>	12	3.2	342°15	0°9/ 2.9	17		<b>256453</b>	2007 <i>CD</i> <sub>49</sub>	12	3.2	8°78	3°6/ 2.0	18
10 28	5 3.70	+19 18.8	1.969	2.787	13.8	20.8	10 28	5 3.23	+14 30.3	1.807	2.630	14.7	20.6	
11 7	4 59.27	+19 25.4	1.885	2.781	10.6	20.6	11 7	4 58.92	+13 52.7	1.733	2.631	11.3	20.4	
11 17	4 52.51	+19 31.4	1.825	2.776	6.8	20.3	11 17	4 52.25	+13 16.4	1.683	2.632	7.6	20.2	
11 27	4 44.07	+19 37.2	1.791	2.772	2.7	20.1	11 27	4 43.96	+12 44.2	1.659	2.633	4.2	20.0	
12 7	4 34.93	+19 43.2	1.785	2.768	2.0	20.0	12 7	4 35.09	+12 19.5	1.662	2.635	4.2	20.0	
12 17	4 26.17	+19 50.2	1.809	2.764	6.1	20.3	12 17	4 26.72	+12 4.6	1.693	2.637	7.5	20.2	
12 27	4 18.86	+19 59.8	1.860	2.761	10.0	20.5	12 27	4 19.90	+12 1.5	1.750	2.640	11.2	20.4	
1 6	4 13.75	+20 13.3	1.934	2.758	13.4	20.7	1 6	4 15.34	+12 10.2	1.831	2.642	14.5	20.6	
<b>91881</b>	1999 <i>UR</i> <sub>46</sub>	12	3.2	77°17	1°6/ 2.8	18		<b>167350</b>	2003 <i>WL</i> <sub>9</sub>	12	3.2	126°32	2°9/ 4.5	18
10 28	5 5.85	+16 28.5	2.125	2.935	13.2	19.2	10 28	5 11.16	+32 39.3	2.192	2.973	13.8	20.0	
11 7	5 0.61	+16 39.4	2.048	2.939	10.1	19.1	11 7	5 4.63	+32 32.3	2.120	2.989	10.9	19.8	
11 17	4 53.21	+16 52.0	1.995	2.944	6.6	18.8	11 17	4 55.71	+32 13.7	2.071	3.004	7.5	19.6	
11 27	4 44.30	+17 6.8	1.969	2.948	2.9	18.6	11 27	4 45.24	+31 42.2	2.049	3.019	4.2	19.4	
12 7	4 34.81	+17 23.8	1.973	2.953	2.3	18.6	12 7	4 34.34	+30 58.4	2.057	3.033	3.1	19.4	
12 17	4 25.74	+17 43.4	2.006	2.958	5.9	18.8	12 17	4 24.16	+30 5.4	2.096	3.047	5.7	19.6	
12 27	4 18.05	+18 6.4	2.068	2.962	9.5	19.1	12 27	4 15.72	+29 8.3	2.163	3.060	9.0	19.8	
1 6	4 12.44	+18 33.2	2.155	2.967	12.6	19.3	1 6	4 9.68	+28 12.4	2.257	3.072	12.0	20.0	
<b>279631</b>	2011 <i>EG</i> <sub>53</sub>	12	3.2	76°00	1°6/ 2.9	18		<b>230388</b>	2002 <i>GG</i> <sub>122</sub>	12	3.2	223°36	0°1/ 3.2	18
10 28	5 10.34	+17 49.1	1.516	2.338	17.1	19.9	10 28	5 4.73	+23 36.5	2.223	3.030	12.8	20.6	
11 7	5 4.63	+17 55.1	1.458	2.356	13.0	19.6	11 7	4 59.78	+23 25.6	2.138	3.028	9.8	20.4	
11 17	4 56.00	+18 1.9	1.422	2.374	8.4	19.4	11 17	4 52.69	+23 9.9	2.077	3.026	6.3	20.2	
11 27	4 45.39	+18 9.6	1.411	2.391	3.5	19.2	11 27	4 44.13	+22 49.6	2.044	3.024	2.5	19.9	
12 7	4 34.18	+18 18.7	1.427	2.409	2.7	19.2	12 7	4 34.99	+22 25.8	2.040	3.022	1.5	19.8	
12 17	4 23.79	+18 30.2	1.472	2.426	7.3	19.5	12 17	4 26.28	+22 0.6	2.065	3.021	5.4	20.1	
12 27	4 15.49	+18 45.5	1.543	2.444	11.7	19.8	12 27	4 18.93	+21 36.9	2.119	3.018	9.0	20.3	
1 6	4 10.05	+19 5.9	1.636	2.461	15.4	20.1	1 6	4 13.63	+21 17.4	2.198	3.016	12.2	20.5	
<b>414608</b>	2009 <i>UL</i> <sub>115</sub>	12	3.2	33°31	1°6/ 2.6	18		<b>409042</b>	2003 <i>RO</i> <sub>25</sub>	12	3.2	70°79	3°1/ 1.8	18
10 28	5 3.66	+18 32.4	2.106	2.920	13.2	21.8	10 28	5 5.05	+15 50.1	2.147	2.957	13.1	21.3	
11 7	4 58.96	+18 10.8	2.028	2.922	10.1	21.6	11 7	4 59.65	+14 49.7	2.092	2.983	10.0	21.1	
11 17	4 52.15	+17 47.7	1.973	2.924	6.5	21.4	11 17	4 52.35	+13 49.2	2.062	3.008	6.6	21.0	
11 27	4 43.89	+17 24.6	1.946	2.926	2.8	21.2	11 27	4 43.90	+12 51.9	2.060	3.034	3.6	20.8	
12 7	4 35.10	+17 3.2	1.948	2.928	2.4	21.1	12 7	4 35.19	+12 1.2	2.088	3.059	3.7	20.9	
12 17	4 26.75	+16 45.8	1.979	2.930	6.0	21.4	12 17	4 27.12	+11 20.3	2.145	3.084	6.5	21.1	
12 27	4 19.79	+16 34.5	2.037	2.932	9.6	21.6	12 27	4 20.48	+10 51.3	2.230	3.109	9.6	21.3	
1 6	4 14.86	+16 30.7	2.120	2.934	12.7	21.8	1 6	4 15.79	+10 34.7	2.339	3.134	12.3	21.6	
<b>183579</b>	2003 <i>SD</i> <sub>25</sub>	12	3.2	17°72	2°5/ 2.0	18		<b>333201</b>	2012 <i>GS</i> <sub>28</sub>	12	3.2	146°64	2°9/ 2.3	18
10 28	4 59.31	+15 16.1	2.550	3.363	11.2	19.4	10 28	5 3.90	+11 27.3	2.752	3.549	10.9	20.8	
11 7	4 55.27	+14 40.3	2.475	3.368	8.6	19.2	11 7	4 58.60	+11 22.4	2.674	3.555	8.4	20.7	
11 17	4 49.60	+14 4.9	2.425	3.373	5.7	19.0	11 17	4 51.69	+11 21.3	2.622	3.562	5.7	20.5	
11 27	4 42.85	+13 32.0	2.403	3.378	3.1	18.9	11 27	4 43.69	+11 25.0	2.598	3.568	3.4	20.4	
12 7	4 35.74	+13 3.9	2.411	3.384	3.1	18.9	12 7	4 35.29	+11 34.6	2.604	3.574	3.3	20.4	
12 17	4 29.00	+12 42.5	2.448	3.390	5.6	19.0	12 17	4 27.22	+11 50.5	2.641	3.579	5.6	20.5	
12 27	4 23.32	+12 29.3	2.513	3.397	8.4	19.2	12 27	4 20.18	+12 13.1	2.708	3.585	8.2	20.7	
1 6	4 19.22	+12 25.0	2.602	3.404	11.0	19.4	1 6	4 14.69	+12 41.9	2.800	3.589	10.6	20.9	
<b>91886</b>	1999 <i>UB</i> <sub>50</sub>	12	3.2	93°06	1°1/ 2.8	18		<b>173180</b>	1997 <i>UP</i> <sub>17</sub>	12	3.2	53°91	0°6/ 3.3	18
10 28	5 5.50	+19 6.2	2.236	3.044	12.7	19.8	10 28	5 7.23	+22 56.0	1.844	2.657	14.8	20.3	
11 7	5 0.13	+18 57.7	2.169	3.059	9.7	19.6	11 7	5 2.11	+23 13.4	1.769	2.662	11.4	20.1	
11 17	4 52.77	+18 48.1	2.126	3.075	6.2	19.5	11 17	4 54.39	+23 27.6	1.716	2.666	7.4	19.8	
11 27	4 44.09	+18 38.0	2.110	3.090	2.5	19.2	11 27	4 44.84	+23 37.6	1.690	2.670	3.0	19.6	
12 7	4 35.00	+18 28.5	2.124	3.105	2.0	19.2	12 7	4 34.58	+23 43.0	1.692	2.675	1.8	19.5	
12 17	4 26.42	+18 21.1	2.168	3.120	5.5	19.5	12 17	4 24.84	+23 44.8	1.723	2.680	6.2	19.8	
12 27	4 19.22	+18 17.6	2.241	3.135	8.9	19.7	12 27	4 16.78	+23 45.4	1.782	2.684	10.2	20.1	
1 6	4 13.99	+18 19.2	2.339	3.150	11.8	20.0	1 6	4 11.22	+23 47.4	1.864	2.689	13.7	20.3	
<b>201627</b>	2003 <i>SA</i> <sub>260</sub>	12	3.2	67°53	3°3/ 4.0	18		<b>517364</b>	2014 <i>KA</i> <sub>16</sub>					

EPHEMERIDES

12 3.2

12 3.2

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>420947</b>	2013 <i>PC</i> <sub>4</sub>	12	3.2	88°77	1.6°/ 4.0	18	<b>255522</b>	2006 <i>DQ</i> <sub>5</sub>	12	3.2	328°15	0.5°/ 3.1	17
10 28	5 5.64	+29 51.3	2.420	3.211	12.4	20.7	10 28	5 3.53	+20 46.5	1.823	2.645	14.6	20.3
11 7	5 0.20	+29 23.2	2.345	3.223	9.6	20.5	11 7	4 59.45	+20 49.0	1.734	2.633	11.2	20.1
11 17	4 52.79	+28 45.6	2.293	3.235	6.4	20.3	11 17	4 52.81	+20 49.6	1.668	2.621	7.3	19.8
11 27	4 44.11	+27 58.7	2.270	3.246	3.0	20.1	11 27	4 44.29	+20 48.2	1.628	2.609	2.9	19.5
12 7	4 35.08	+27 4.2	2.277	3.258	1.9	20.1	12 7	4 34.94	+20 45.6	1.615	2.598	1.9	19.4
12 17	4 26.62	+26 5.4	2.315	3.270	5.0	20.3	12 17	4 25.94	+20 43.1	1.630	2.587	6.4	19.7
12 27	4 19.58	+25 6.5	2.382	3.281	8.2	20.5	12 27	4 18.49	+20 43.0	1.673	2.577	10.7	19.9
1 6	4 14.52	+24 11.5	2.475	3.292	11.0	20.7	1 6	4 13.43	+20 47.4	1.738	2.567	14.4	20.2
<b>340964</b>	2007 <i>EJ</i> <sub>101</sub>	12	3.2	161°55	2.4°/ 3.8	18	<b>495332</b>	2014 <i>LH</i> <sub>8</sub>	12	3.2	213°78	1.9°/ 2.8	18
10 28	5 11.64	+27 45.1	1.920	2.717	14.9	21.7	10 28	5 8.28	+15 47.2	2.081	2.886	13.6	21.6
11 7	5 5.51	+28 11.5	1.841	2.722	11.6	21.5	11 7	5 2.64	+15 55.6	1.993	2.881	10.5	21.4
11 17	4 56.60	+28 31.1	1.784	2.726	7.8	21.3	11 17	4 54.65	+16 6.2	1.929	2.876	6.9	21.1
11 27	4 45.72	+28 41.4	1.755	2.730	3.9	21.1	11 27	4 44.97	+16 19.6	1.892	2.870	3.1	20.9
12 7	4 34.05	+28 41.2	1.754	2.734	2.8	21.0	12 7	4 34.55	+16 36.1	1.885	2.864	2.6	20.8
12 17	4 22.94	+28 31.5	1.783	2.737	6.3	21.2	12 17	4 24.48	+16 56.1	1.908	2.858	6.3	21.1
12 27	4 13.62	+28 16.0	1.840	2.739	10.2	21.5	12 27	4 15.81	+17 20.2	1.960	2.851	10.1	21.3
1 6	4 6.96	+27 58.9	1.922	2.741	13.6	21.7	1 6	4 9.33	+17 48.9	2.036	2.844	13.4	21.5
<b>223136</b>	2002 <i>VM</i> <sub>97</sub>	12	3.2	49°10	1.1°/ 3.5	18	<b>175101</b>	2004 <i>JA</i> <sub>40</sub>	12	3.2	6°59	4.4°/ 1.6	18
10 28	5 11.45	+26 19.9	1.141	1.977	20.6	19.9	10 28	5 0.85	+ 8 46.0	2.449	3.255	11.8	19.7
11 7	5 6.11	+26 4.3	1.101	2.004	15.7	19.7	11 7	4 56.51	+ 8 14.9	2.373	3.255	9.3	19.6
11 17	4 57.11	+25 38.1	1.079	2.032	10.1	19.5	11 17	4 50.46	+ 7 48.7	2.320	3.256	6.7	19.4
11 27	4 45.83	+25 1.3	1.080	2.061	4.2	19.2	11 27	4 43.26	+ 7 30.2	2.295	3.256	4.7	19.3
12 7	4 34.12	+24 16.9	1.107	2.090	2.4	19.2	12 7	4 35.63	+ 7 21.4	2.299	3.257	4.8	19.3
12 17	4 23.82	+23 30.4	1.160	2.120	7.9	19.6	12 17	4 28.34	+ 7 23.8	2.331	3.258	6.9	19.4
12 27	4 16.36	+22 48.2	1.237	2.149	12.9	20.0	12 27	4 22.13	+ 7 37.6	2.391	3.260	9.5	19.6
1 6	4 12.41	+22 15.4	1.335	2.179	17.0	20.3	1 6	4 17.56	+ 8 2.3	2.475	3.261	11.9	19.8
<b>192395</b>	1996 <i>TN</i> <sub>36</sub>	12	3.2	355°76	5°3/ 4.7	18	<b>356537</b>	2011 <i>SS</i> <sub>134</sub>	12	3.2	103°46	0°6/ 3.0	18
10 28	5 6.66	+33 35.0	1.328	2.149	19.1	19.9	10 28	5 7.13	+21 29.2	1.846	2.661	14.7	21.3
11 7	5 3.01	+34 3.4	1.256	2.145	15.3	19.7	11 7	5 1.90	+21 14.9	1.774	2.668	11.3	21.1
11 17	4 55.62	+34 16.9	1.202	2.142	11.0	19.4	11 17	4 54.17	+20 56.8	1.724	2.675	7.2	20.8
11 27	4 45.47	+34 10.6	1.172	2.140	6.9	19.2	11 27	4 44.75	+20 35.6	1.701	2.682	2.8	20.6
12 7	4 34.20	+33 43.0	1.165	2.139	5.5	19.1	12 7	4 34.73	+20 12.9	1.706	2.689	1.9	20.5
12 17	4 23.72	+32 56.8	1.184	2.139	8.7	19.3	12 17	4 25.31	+19 51.1	1.741	2.696	6.3	20.8
12 27	4 15.78	+31 59.7	1.228	2.139	13.1	19.6	12 27	4 17.57	+19 33.3	1.803	2.702	10.3	21.1
1 6	4 11.42	+31 0.7	1.292	2.141	17.2	19.8	1 6	4 12.26	+19 21.9	1.888	2.709	13.8	21.3
<b>449910</b>	2015 <i>MZ</i> <sub>128</sub>	12	3.2	70°68	5°6/ 2.6	18	<b>195003</b>	2002 <i>BA</i> <sub>29</sub>	12	3.2	301°20	5°7/ 4.3	18
10 28	5 8.80	+ 6 42.0	1.698	2.506	16.1	20.7	10 28	5 10.64	+33 32.5	1.594	2.395	17.3	19.8
11 7	5 3.10	+ 6 39.5	1.639	2.521	12.7	20.5	11 7	5 5.79	+34 30.2	1.509	2.386	14.0	19.6
11 17	4 54.88	+ 6 47.5	1.602	2.537	9.1	20.4	11 17	4 57.38	+35 17.8	1.445	2.377	10.2	19.3
11 27	4 44.98	+ 7 8.6	1.590	2.552	6.2	20.2	11 27	4 46.22	+35 49.2	1.405	2.367	6.8	19.1
12 7	4 34.55	+ 7 43.7	1.605	2.568	5.9	20.2	12 7	4 33.74	+36 0.3	1.391	2.359	5.9	19.0
12 17	4 24.78	+ 8 31.9	1.650	2.583	8.6	20.4	12 17	4 21.72	+35 50.7	1.404	2.350	8.6	19.2
12 27	4 16.76	+ 9 31.4	1.720	2.599	12.0	20.7	12 27	4 11.91	+35 25.4	1.443	2.341	12.5	19.4
1 6	4 11.22	+10 39.3	1.814	2.614	15.1	20.9	1 6	4 5.47	+34 51.7	1.503	2.333	16.2	19.6
<b>482704</b>	2013 <i>CL</i> <sub>186</sub>	12	3.2	147°32	2°9/ 4.4	18	<b>246060</b>	2006 <i>VY</i> <sub>51</sub>	12	3.2	110°37	1°1/ 3.6	18
10 28	5 8.98	+32 21.5	2.350	3.131	13.0	21.4	10 28	5 8.41	+26 9.3	2.133	2.932	13.6	21.7
11 7	5 2.97	+32 23.9	2.271	3.140	10.2	21.2	11 7	5 2.54	+26 6.3	2.064	2.948	10.4	21.5
11 17	4 54.69	+32 16.1	2.215	3.147	7.1	21.0	11 17	4 54.42	+25 56.9	2.018	2.964	6.8	21.3
11 27	4 44.90	+31 56.5	2.186	3.155	4.1	20.9	11 27	4 44.80	+25 40.3	2.000	2.979	2.9	21.1
12 7	4 34.60	+31 25.3	2.187	3.162	3.1	20.8	12 7	4 34.73	+25 17.6	2.011	2.994	1.8	21.0
12 17	4 24.86	+30 44.6	2.218	3.168	5.5	21.0	12 17	4 25.27	+24 50.7	2.053	3.008	5.5	21.3
12 27	4 16.66	+29 58.7	2.278	3.174	8.6	21.2	12 27	4 17.39	+24 23.2	2.123	3.022	9.0	21.5
1 6	4 10.67	+29 12.2	2.364	3.180	11.5	21.4	1 6	4 11.75	+23 58.3	2.219	3.036	12.1	21.8
<b>109875</b>	2001 <i>RZ</i> <sub>153</sub>	12	3.2	113°99	4°2/ 1.7	18	<b>484491</b>	2008 <i>CC</i> <sub>198</sub>	12	3.2	208°93	0°5/ 3.4	17
10 28	5 5.02	+11 8.2	2.187	2.993	13.0	19.5	10 28	5 6.35	+24 37.5	2.514	3.309	11.8	22.7
11 7	4 59.73	+10 25.6	2.121	3.006	10.1	19.4	11 7	5 0.85	+24 32.9	2.420	3.304	9.1	22.5
11 17	4 52.51	+ 9 46.5	2.079	3.019	7.0	19.2	11 17	4 53.34	+24 23.4	2.351	3.297	5.9	22.3
11 27	4 44.03	+ 9 14.0	2.065	3.031	4.6	19.1	11 27	4 44.42	+24 8.8	2.311	3.291	2.4	22.1
12 7	4 35.15	+ 8 50.7	2.080	3.044	4.7	19.1	12 7	4 34.93	+23 49.6	2.301	3.284	1.4	22.0
12 17	4 26.78	+ 8 38.6	2.124	3.056	7.1	19.3	12 17	4 25.79	+23 27.5	2.321	3.276	5.0	22.2
12 27	4 19.75	+ 8 38.6	2.196	3.067	10.1	19.5	12 27	4 17.87	+23 5.1	2.372	3.268	8.3	22.4
1 6	4 14.64	+ 8 50.4	2.291	3.078	12.7	19.7	1 6	4 11.84	+22 45.1	2.447	3.259	11.3	22.6
<b>229005</b>	2003 <i>WX</i> <sub>188</sub>	12	3.2	28°74	3°8/ 5.3	18	<b>85152</b>	1985 <i>QL</i> <sub>3</sub>	12	3.2	120°10	5°3/ 1.4	18
10 28	5 8.18	+36 52.2	1.899	2.684	15.5	19.2	10 28	5 8.07	+10 9.5	1.861	2.669	14.9	20.0
11 7	5 2.75	+36 11.2	1.824	2.692	12.4	19.0	11 7	5 2.31	+ 9 10.6	1.800	2.684	11.7	19.8
11 17	4 54.66	+35 12.0	1.771	2.701	8.8	18.8	11 17	4 54.27	+ 8 16.2	1.762	2.699	8.3	19.7
11 27	4 44.87	+33 53.8	1.744	2.710	5.3	18.6	11 27	4 44.75	+ 7 30.5	1.751	2.714	5.7	19.5
12 7	4 34.68	+32 19.2	1.746	2.720	3.9	18.5	12 7	4 34.80	+ 6 57.4	1.768	2.728	5.8	19.6
12 17	4 25.38	+30 34.2	1.777	2.731	6.4	18.7	12 17	4 25.51	+ 6 39.5	1.814	2.741	8.5	19.8
12 27	4 18.08	+28 47.0	1.837	2.741	9.9	19.0	12 27	4 17.84	+ 6 37.8	1.887	2.754	11.7	20.0
1 6	4 13.41	+27 5.3	1.923	2.753	13.2	19.2	1 6	4 12.44	+ 6 51.2	1.982	2.766	14.5	20.2
<b>390732</b>	2003 <i>NC</i> <sub>1</sub>	12	3.2	97°73	4°4/ 5.2	18	<b>244300</b>	2002 <i>FW</i> <sub>25</sub>	12	3.2	141°44</		

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>361336</b>	2006 <i>UK</i> <sub>93</sub>	12	3.2 346°96	4°1/ 1.7	18		<b>79124</b>	1990 <i>RU</i> <sub>8</sub>	12	3.2 116°79	1°5/ 2.8	18	
10 28	5 3.45	+14 23.2	1.725	2.551	15.1	21.1	10 28	5 10.51	+19 4.6	1.787	2.598	15.3	19.5
11 7	4 59.23	+13 28.9	1.650	2.548	11.7	20.8	11 7	5 4.40	+18 46.6	1.723	2.614	11.7	19.3
11 17	4 52.55	+12 34.7	1.597	2.545	8.0	20.6	11 17	4 55.73	+18 26.9	1.681	2.631	7.5	19.1
11 27	4 44.16	+11 44.8	1.570	2.543	4.7	20.4	11 27	4 45.38	+18 6.4	1.666	2.646	3.1	18.8
12 7	4 35.13	+11 3.3	1.570	2.541	4.8	20.4	12 7	4 34.52	+17 47.0	1.681	2.662	2.5	18.8
12 17	4 26.61	+10 33.9	1.598	2.539	8.2	20.6	12 17	4 24.37	+17 31.0	1.725	2.676	6.7	19.1
12 27	4 19.70	+10 19.0	1.651	2.538	11.9	20.8	12 27	4 16.05	+17 21.0	1.796	2.690	10.7	19.4
1 6	4 15.15	+10 19.1	1.727	2.537	15.3	21.1	1 6	4 10.26	+17 18.7	1.891	2.704	14.0	19.6
<b>225340</b>	1998 <i>SQ</i> <sub>29</sub>	12	3.2 111°79	1°6/ 3.6	18		<b>493261</b>	2014 <i>UB</i> <sub>119</sub>	12	3.2 315°82	0°3/ 3.3	17	
10 28	5 13.68	+26 12.0	1.776	2.577	15.8	21.5	10 28	5 3.57	+24 2.3	2.236	3.044	12.7	21.8
11 7	5 6.96	+26 27.9	1.714	2.598	12.2	21.3	11 7	4 58.98	+23 55.1	2.148	3.039	9.8	21.6
11 17	4 57.44	+26 37.1	1.673	2.618	8.0	21.1	11 17	4 52.27	+23 43.1	2.085	3.034	6.3	21.4
11 27	4 46.03	+26 37.5	1.660	2.638	3.6	20.8	11 27	4 44.07	+23 26.2	2.048	3.028	2.5	21.1
12 7	4 34.05	+26 29.0	1.675	2.657	2.3	20.8	12 7	4 35.27	+23 5.5	2.041	3.024	1.5	21.0
12 17	4 22.89	+26 13.5	1.720	2.675	6.4	21.1	12 17	4 26.86	+22 42.7	2.063	3.019	5.4	21.3
12 27	4 13.75	+25 55.0	1.793	2.693	10.4	21.4	12 27	4 19.76	+22 20.8	2.113	3.014	8.9	21.5
1 6	4 7.40	+25 37.5	1.890	2.709	13.8	21.6	1 6	4 14.69	+22 2.4	2.188	3.010	12.1	21.7
<b>135530</b>	2002 <i>AX</i> <sub>202</sub>	12	3.2 183°64	2°0/ 3.8	17		<b>358260</b>	2006 <i>TC</i> <sub>45</sub>	12	3.2 6°21	1°3/ 3.5	18	
10 28	5 12.54	+28 23.6	1.693	2.496	16.4	20.6	10 28	5 7.51	+24 39.8	1.910	2.719	14.5	21.1
11 7	5 6.52	+28 19.7	1.612	2.496	12.8	20.4	11 7	5 2.38	+25 3.0	1.830	2.719	11.2	20.9
11 17	4 57.42	+28 5.8	1.552	2.497	8.5	20.1	11 17	4 54.65	+25 22.2	1.772	2.719	7.4	20.6
11 27	4 46.11	+27 39.9	1.519	2.496	4.0	19.9	11 27	4 45.05	+25 35.6	1.740	2.720	3.2	20.4
12 7	4 33.97	+27 2.6	1.514	2.495	2.6	19.8	12 7	4 34.68	+25 42.5	1.738	2.720	2.0	20.3
12 17	4 22.51	+26 17.2	1.538	2.493	6.9	20.0	12 17	4 24.76	+25 43.7	1.764	2.720	6.1	20.6
12 27	4 13.13	+25 29.4	1.589	2.491	11.3	20.3	12 27	4 16.49	+25 41.6	1.818	2.720	10.1	20.8
1 6	4 6.71	+24 45.2	1.663	2.488	15.1	20.5	1 6	4 10.68	+25 39.4	1.896	2.721	13.5	21.0
<b>277221</b>	2005 <i>QE</i> <sub>159</sub>	12	3.2 129°76	1°7/ 3.7	18 R		<b>247287</b>	2001 <i>SE</i> <sub>246</sub>	12	3.2 45°91	2°3/ 3.7	18	
10 28	5 13.11	+26 26.2	1.898	2.695	15.1	21.0	10 28	5 10.30	+26 32.5	1.251	2.082	19.5	19.8
11 7	5 6.46	+26 42.9	1.829	2.711	11.6	20.8	11 7	5 5.34	+26 54.5	1.201	2.101	15.0	19.5
11 17	4 57.11	+26 53.0	1.783	2.727	7.7	20.6	11 17	4 56.82	+27 8.1	1.170	2.121	9.9	19.3
11 27	4 45.92	+26 54.7	1.764	2.741	3.5	20.4	11 27	4 45.89	+27 10.5	1.162	2.141	4.5	19.1
12 7	4 34.12	+26 47.5	1.774	2.755	2.3	20.3	12 7	4 34.25	+27 1.6	1.180	2.162	2.9	19.0
12 17	4 23.01	+26 33.1	1.814	2.768	6.1	20.6	12 17	4 23.72	+26 44.1	1.225	2.184	7.7	19.4
12 27	4 13.79	+26 15.2	1.882	2.781	10.0	20.8	12 27	4 15.80	+26 23.3	1.293	2.205	12.5	19.7
1 6	4 7.21	+25 57.8	1.975	2.792	13.4	21.1	1 6	4 11.32	+26 4.4	1.384	2.227	16.5	20.0
<b>318136</b>	2004 <i>PM</i> <sub>29</sub>	12	3.2 70°69	0°4/ 3.1	18		<b>387341</b>	2012 <i>WO</i> <sub>6</sub>	12	3.2 9°08	0°6/ 2.9	16	
10 28	5 5.93	+21 36.2	2.002	2.814	13.9	21.2	10 28	5 0.13	+21 7.0	2.416	3.229	11.7	21.2
11 7	5 0.74	+21 26.5	1.937	2.830	10.5	21.1	11 7	4 56.12	+20 52.8	2.338	3.232	8.9	21.0
11 17	4 53.31	+21 13.6	1.895	2.845	6.7	20.9	11 17	4 50.30	+20 35.9	2.284	3.235	5.7	20.8
11 27	4 44.41	+20 57.9	1.880	2.861	2.6	20.6	11 27	4 43.27	+20 17.2	2.258	3.239	2.2	20.6
12 7	4 35.05	+20 40.7	1.894	2.877	1.7	20.6	12 7	4 35.79	+19 57.9	2.260	3.243	1.6	20.5
12 17	4 26.29	+20 24.0	1.938	2.893	5.8	20.9	12 17	4 28.70	+19 39.8	2.293	3.247	5.0	20.8
12 27	4 19.08	+20 10.4	2.009	2.908	9.4	21.2	12 27	4 22.76	+19 25.1	2.353	3.253	8.2	21.0
1 6	4 14.08	+20 1.8	2.105	2.924	12.6	21.4	1 6	4 18.56	+19 15.3	2.439	3.258	11.1	21.2
<b>516374</b>	2017 <i>FQ</i> <sub>67</sub>	12	3.2 113°46	3°4/ 2.2	18		<b>484527</b>	2008 <i>EE</i> <sub>154</sub>	12	3.2 275°24	4°1/ 1.7	17	
10 28	5 3.90	+11 31.1	2.382	3.186	12.2	20.9	10 28	5 3.94	+13 0.9	2.030	2.844	13.6	22.6
11 7	4 58.87	+11 17.3	2.307	3.192	9.4	20.8	11 7	4 59.38	+12 14.0	1.940	2.831	10.6	22.4
11 17	4 52.00	+11 7.4	2.257	3.198	6.5	20.6	11 17	4 52.60	+11 28.1	1.873	2.817	7.3	22.1
11 27	4 43.90	+11 3.1	2.235	3.205	3.9	20.4	11 27	4 44.23	+10 46.5	1.833	2.803	4.5	21.9
12 7	4 35.35	+11 5.9	2.242	3.211	3.8	20.4	12 7	4 35.19	+10 12.7	1.821	2.789	4.6	21.9
12 17	4 27.20	+11 16.7	2.278	3.217	6.3	20.6	12 17	4 26.48	+9 49.7	1.838	2.775	7.6	22.1
12 27	4 20.23	+11 35.9	2.343	3.223	9.2	20.8	12 27	4 19.11	+9 39.7	1.882	2.762	11.1	22.3
1 6	4 15.03	+12 2.9	2.433	3.228	11.8	21.0	1 6	4 13.81	+9 43.1	1.950	2.748	14.3	22.5
<b>448858</b>	2011 <i>UK</i> <sub>144</sub>	12	3.2 345°78	4°6/ 4.2	18		<b>441358</b>	2008 <i>DC</i> <sub>63</sub>	12	3.2 339°92	3°1/ 2.4	18	
10 28	5 8.27	+31 35.9	1.658	2.464	16.5	20.7	10 28	5 4.39	+14 58.3	1.741	2.564	15.1	20.7
11 7	5 3.65	+32 25.4	1.578	2.460	13.2	20.5	11 7	5 0.03	+14 38.9	1.662	2.560	11.7	20.5
11 17	4 55.82	+33 6.0	1.519	2.457	9.4	20.3	11 17	4 53.15	+14 21.4	1.606	2.556	7.8	20.2
11 27	4 45.59	+33 32.9	1.486	2.453	5.8	20.1	11 27	4 44.47	+14 7.9	1.576	2.552	4.0	20.0
12 7	4 34.28	+33 43.2	1.478	2.450	4.8	20.0	12 7	4 35.06	+14 0.6	1.573	2.549	3.8	20.0
12 17	4 23.49	+33 37.3	1.498	2.448	7.7	20.2	12 17	4 26.11	+14 1.3	1.598	2.546	7.5	20.2
12 27	4 14.72	+33 19.2	1.544	2.446	11.6	20.4	12 27	4 18.76	+14 11.4	1.649	2.544	11.4	20.4
1 6	4 9.00	+32 55.1	1.613	2.445	15.2	20.6	1 6	4 13.81	+14 31.1	1.723	2.541	15.0	20.6
<b>437282</b>	2013 <i>AU</i> <sub>94</sub>	12	3.2 41°47	4°4/ 1.9	16		<b>8217</b>	<i>Dominikhašek</i>	12	3.2 95°65	1°6/ 2.8	18 R	
10 28	5 7.53	+16 37.5	1.185	2.028	19.5	19.7	10 28	5 11.87	+19 43.3	1.476	2.297	17.5	18.5
11 7	5 2.72	+15 23.6	1.148	2.056	14.8	19.5	11 7	5 5.85	+19 21.2	1.419	2.316	13.3	18.3
11 17	4 54.79	+14 10.0	1.131	2.085	9.7	19.3	11 17	4 56.83	+18 56.3	1.383	2.335	8.6	18.0
11 27	4 44.96	+13 2.6	1.138	2.115	5.2	19.1	11 27	4 45.84	+18 30.2	1.373	2.354	3.5	17.8
12 7	4 34.83	+12 7.5	1.171	2.145	5.3	19.2	12 7	4 34.30	+18 5.1	1.391	2.372	2.8	17.8
12 17	4 25.90	+11 29.3	1.229	2.176	9.4	19.6	12 17	4 23.69	+17 44.1	1.436	2.390	7.5	18.1
12 27	4 19.39	+11 10.1	1.310	2.207	13.6	19.9	12 27	4 15.29	+17 30.5	1.508	2.407	12.0	18.4
1 6	4 15.92	+11 9.0	1.413	2.239	17.3	20.2	1 6	4 9.86	+17 26.1	1.602	2.424	15.7	18.7
<b>511661</b>	2015 <i>BY</i> <sub>301</sub>	12	3.2 185°62	2°3/ 2.8	18		<b>220929</b>	2005 <i>GE</i> <sub>220</sub>	12	3.2 163°04	3°0/ 2.4	18	</

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>434298</b>	2004 <i>EW</i> <sub>17</sub>		12 3.2 194°40'	4.7/	1.9 18		<b>80657</b>	2000 <i>BH</i> <sub>8</sub>		12 3.2 55°73'	5°6/	4.7 18	
10 28	5 8.97	+9 31.2	2.039	2.839	14.1	21.7	10 28	5 12.34	+33 56.4	1.356	2.166	19.3	18.9
11 7	5 3.09	+9 3.4	1.957	2.837	11.1	21.5	11 7	5 7.18	+34 36.6	1.295	2.177	15.5	18.7
11 17	4 54.91	+8 40.9	1.898	2.834	7.8	21.3	11 17	4 58.21	+35 2.1	1.254	2.189	11.1	18.5
11 27	4 45.12	+8 26.4	1.866	2.831	5.2	21.1	11 27	4 46.53	+35 7.2	1.235	2.201	7.1	18.3
12 7	4 34.68	+8 22.6	1.863	2.826	5.2	21.1	12 7	4 33.91	+34 50.0	1.242	2.213	5.8	18.3
12 17	4 24.65	+8 30.8	1.890	2.821	7.9	21.3	12 17	4 22.31	+34 13.1	1.275	2.225	8.7	18.5
12 27	4 16.05	+8 51.5	1.944	2.815	11.2	21.5	12 27	4 13.44	+33 24.1	1.333	2.238	12.8	18.7
1 6	4 9.62	+9 23.7	2.022	2.808	14.2	21.7	1 6	4 8.23	+32 32.0	1.412	2.251	16.6	19.0
<b>347491</b>	1995 <i>WV</i> <sub>9</sub>		12 3.2 22°53'	2°4/	3.7 18		<b>89064</b>	2001 <i>TX</i> <sub>146</sub>		12 3.2 154°32'	3°5/	2.4 18	
10 28	5 6.79	+25 55.5	1.258	2.094	19.0	20.2	10 28	5 8.93	+13 38.0	1.842	2.652	14.9	20.2
11 7	5 2.86	+26 30.4	1.200	2.103	14.7	19.9	11 7	5 3.24	+13 16.8	1.769	2.658	11.6	20.0
11 17	4 55.39	+26 58.8	1.161	2.114	9.8	19.7	11 17	4 55.07	+12 58.3	1.718	2.664	7.8	19.8
11 27	4 45.41	+27 17.4	1.146	2.125	4.5	19.4	11 27	4 45.20	+12 44.8	1.695	2.669	4.2	19.6
12 7	4 34.54	+27 25.0	1.156	2.138	3.1	19.4	12 7	4 34.71	+12 38.3	1.700	2.673	4.1	19.6
12 17	4 24.55	+27 22.8	1.192	2.151	7.8	19.7	12 17	4 24.77	+12 40.4	1.734	2.677	7.4	19.8
12 27	4 17.01	+27 15.2	1.252	2.166	12.6	20.0	12 27	4 16.47	+12 52.1	1.795	2.681	11.2	20.0
1 6	4 12.87	+27 7.0	1.333	2.181	16.7	20.3	1 6	4 10.55	+13 13.5	1.880	2.684	14.5	20.2
<b>302532</b>	2002 <i>LL</i> <sub>64</sub>		12 3.2 60°72'	2°6/	4.0 16		<b>494599</b>	2017 <i>BJ</i> <sub>111</sub>		12 3.2 312°37'	0°5/	3.0 18	
10 28	5 11.39	+29 4.3	1.583	2.392	17.1	21.5	10 28	5 4.90	+24 34.5	1.753	2.572	15.2	20.4
11 7	5 5.42	+29 12.4	1.533	2.420	13.2	21.3	11 7	5 0.58	+23 45.5	1.662	2.559	11.7	20.2
11 17	4 56.49	+29 10.0	1.505	2.449	8.8	21.1	11 17	4 53.58	+22 46.5	1.594	2.546	7.6	19.9
11 27	4 45.68	+28 55.5	1.502	2.477	4.3	20.9	11 27	4 44.68	+21 39.2	1.552	2.534	3.0	19.6
12 7	4 34.44	+28 29.5	1.526	2.506	2.9	20.9	12 7	4 35.01	+20 27.1	1.539	2.521	2.0	19.5
12 17	4 24.23	+27 55.4	1.579	2.535	6.7	21.2	12 17	4 25.84	+19 15.5	1.554	2.509	6.8	19.8
12 27	4 16.26	+27 18.5	1.658	2.563	10.7	21.5	12 27	4 18.39	+18 10.5	1.595	2.498	11.2	20.0
1 6	4 11.22	+26 43.9	1.761	2.591	14.2	21.8	1 6	4 13.47	+17 16.8	1.661	2.487	15.1	20.2
<b>300290</b>	2007 <i>PL</i> <sub>1</sub>		12 3.2 167°42'	0°3/	3.3 18		<b>460555</b>	2014 <i>TC</i> <sub>62</sub>		12 3.2 357°60'	12°5/	5.2 16	
10 28	5 8.31	+24 38.3	1.934	2.741	14.5	21.1	10 28	5 17.06	+50 46.3	1.891	2.609	17.8	20.2
11 7	5 2.82	+24 20.8	1.855	2.744	11.1	20.9	11 7	5 11.81	+52 59.7	1.820	2.607	15.9	20.0
11 17	4 54.82	+23 56.6	1.798	2.746	7.2	20.7	11 17	5 2.03	+54 55.4	1.768	2.604	14.1	19.9
11 27	4 45.09	+23 25.9	1.767	2.748	2.9	20.4	11 27	4 48.39	+56 22.3	1.739	2.603	12.8	19.8
12 7	4 34.74	+22 50.2	1.766	2.750	1.7	20.3	12 7	4 32.60	+57 12.3	1.732	2.602	12.5	19.8
12 17	4 24.95	+22 12.4	1.795	2.751	6.0	20.6	12 17	4 17.08	+57 22.6	1.749	2.602	13.2	19.9
12 27	4 16.83	+21 36.7	1.851	2.752	10.1	20.9	12 27	4 4.34	+56 58.4	1.788	2.603	14.6	20.0
1 6	4 11.13	+21 6.7	1.932	2.752	13.5	21.1	1 6	3 56.03	+56 9.9	1.847	2.605	16.4	20.1
<b>514244</b>	2015 <i>PY</i> <sub>30</sub>		12 3.2 163°13'	3°7/	4.6 18		<b>133709</b>	2003 <i>UX</i> <sub>245</sub>		12 3.2 13°42'	1°2/	2.9 18	
10 28	5 11.63	+33 48.2	2.219	2.995	13.8	22.2	10 28	5 2.68	+19 44.3	1.746	2.573	14.9	19.2
11 7	5 5.25	+33 59.9	2.137	3.001	11.0	22.0	11 7	4 58.69	+19 31.4	1.676	2.577	11.4	19.0
11 17	4 56.33	+34 0.3	2.078	3.006	7.8	21.8	11 17	4 52.25	+19 16.5	1.628	2.582	7.3	18.8
11 27	4 45.67	+33 46.9	2.046	3.011	4.8	21.7	11 27	4 44.12	+19 0.7	1.607	2.588	3.0	18.5
12 7	4 34.39	+33 19.1	2.043	3.015	3.8	21.6	12 7	4 35.39	+18 45.8	1.612	2.594	2.3	18.5
12 17	4 23.70	+32 39.0	2.071	3.018	6.1	21.8	12 17	4 27.20	+18 33.8	1.646	2.602	6.5	18.8
12 27	4 14.71	+31 51.2	2.127	3.021	9.3	22.0	12 27	4 20.65	+18 27.2	1.706	2.610	10.5	19.0
1 6	4 8.18	+31 1.4	2.209	3.023	12.2	22.2	1 6	4 16.45	+18 27.5	1.789	2.618	14.0	19.3
<b>266115</b>	2006 <i>SV</i> <sub>303</sub>		12 3.2 310°01'	1°8/	3.6 18		<b>406764</b>	2008 <i>KB</i> <sub>14</sub>		12 3.2 107°70'	5°0/	1.9 18	
10 28	5 7.85	+25 11.1	1.305	2.138	18.7	20.8	10 28	5 4.73	+7 33.2	2.148	2.951	13.4	21.0
11 7	5 4.02	+25 33.7	1.220	2.122	14.6	20.5	11 7	4 59.70	+7 12.2	2.075	2.955	10.6	20.8
11 17	4 56.47	+25 50.8	1.155	2.107	9.7	20.2	11 17	4 52.65	+6 58.2	2.025	2.959	7.6	20.6
11 27	4 46.00	+25 59.7	1.113	2.093	4.3	19.8	11 27	4 44.24	+6 54.0	2.002	2.963	5.3	20.5
12 7	4 34.10	+25 59.0	1.096	2.079	2.8	19.7	12 7	4 35.32	+7 1.5	2.008	2.967	5.3	20.5
12 17	4 22.63	+25 49.9	1.105	2.065	8.3	20.0	12 17	4 26.81	+7 21.5	2.043	2.971	7.6	20.7
12 27	4 13.47	+25 36.7	1.138	2.052	13.7	20.2	12 27	4 19.61	+7 53.6	2.104	2.974	10.5	20.8
1 6	4 7.86	+25 24.8	1.192	2.039	18.4	20.5	1 6	4 14.34	+8 36.3	2.190	2.978	13.2	21.0
<b>408640</b>	2014 <i>MM</i> <sub>4</sub>		12 3.2 101°21'	3°4/	4.5 18		<b>484411</b>	2007 <i>XL</i> <sub>54</sub>		12 3.2 308°51'	2°4/	3.8 17	
10 28	5 9.70	+32 52.6	2.241	3.023	13.5	21.3	10 28	5 7.14	+27 12.1	1.747	2.559	15.5	21.7
11 7	5 3.62	+33 11.1	2.173	3.041	10.7	21.2	11 7	5 2.57	+27 39.4	1.657	2.547	12.2	21.5
11 17	4 55.19	+33 19.4	2.128	3.059	7.5	21.0	11 17	4 55.07	+28 0.7	1.589	2.535	8.2	21.2
11 27	4 45.19	+33 15.2	2.110	3.076	4.5	20.9	11 27	4 45.35	+28 13.5	1.547	2.524	4.1	20.9
12 7	4 34.71	+32 58.1	2.122	3.094	3.6	20.8	12 7	4 34.59	+28 16.2	1.532	2.513	2.9	20.8
12 17	4 24.85	+32 30.1	2.162	3.110	5.8	21.0	12 17	4 24.22	+28 9.6	1.546	2.502	6.8	21.0
12 27	4 16.64	+31 55.0	2.232	3.127	8.8	21.2	12 27	4 15.61	+27 57.1	1.586	2.491	11.1	21.3
1 6	4 10.76	+31 17.6	2.327	3.143	11.6	21.4	1 6	4 9.76	+27 43.1	1.649	2.481	14.9	21.5
<b>320147</b>	2007 <i>FK</i> <sub>2</sub>		12 3.2 244°56'	2°2/	2.6 17		<b>103370</b>	2000 <i>AH</i> <sub>111</sub>		12 3.2 238°50'	5°3/	1.9 18	
10 28	5 4.88	+15 17.2	2.344	3.150	12.3	21.0	10 28	5 6.78	+6 46.2	2.170	2.967	13.4	20.3
11 7	4 59.84	+15 10.0	2.252	3.140	9.5	20.8	11 7	5 1.40	+6 26.1	2.080	2.955	10.8	20.1
11 17	4 52.79	+15 4.4	2.184	3.131	6.3	20.6	11 17	4 53.87	+6 13.3	2.012	2.943	7.9	19.9
11 27	4 44.31	+15 1.4	2.144	3.121	3.1	20.3	11 27	4 44.77	+6 10.9	1.972	2.930	5.6	19.8
12 7	4 35.20	+15 2.2	2.133	3.110	2.8	20.3	12 7	4 34.98	+6 21.0	1.960	2.917	5.7	19.7
12 17	4 26.38	+15 7.8	2.153	3.100	5.9	20.5	12 17	4 25.48	+6 44.6	1.978	2.903	8.0	19.9
12 27	4 18.74	+15 19.4	2.201	3.089	9.3	20.7	12 27	4 17.23	+7 21.4	2.023	2.889	11.0	20.0
1 6	4 12.96	+15 37.3	2.274	3.079	12.3	20.9	1 6	4 10.96	+8 9.9	2.092	2.875	13.9	20.2
<b>308283</b>	2005 <i>HG</i> <sub>8</sub>		12 3.2 89°53'	0°2/	3.3 18								

EPHEMERIDES

12 3.2

12 3.3

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>491283</b>	2011 <i>UZ</i> <sub>406</sub>	12 3.2 34°62	5°5 / 5.7	17			<b>150451</b>	2000 <i>HC</i> <sub>10</sub>	12 3.2 162°58	0°8 / 3.0	18		
10 28	5 9.49	+37 50.8	1.497	2.294	18.4	20.4	10 28	5 9.81	+20 45.4	1.963	2.769	14.3	20.9
11 7	5 4.58	+37 43.1	1.433	2.305	14.9	20.2	11 7	5 3.88	+20 34.3	1.886	2.775	11.0	20.7
11 17	4 56.26	+37 15.1	1.390	2.318	10.9	20.0	11 17	4 55.49	+20 20.1	1.831	2.780	7.1	20.5
11 27	4 45.69	+36 23.6	1.370	2.331	7.1	19.8	11 27	4 45.40	+20 3.4	1.804	2.784	2.8	20.2
12 7	4 34.52	+35 10.0	1.376	2.345	5.6	19.8	12 7	4 34.69	+19 45.4	1.806	2.788	2.0	20.1
12 17	4 24.46	+33 40.1	1.409	2.360	7.9	20.0	12 17	4 24.52	+19 28.2	1.838	2.791	6.2	20.4
12 27	4 16.90	+32 3.5	1.468	2.375	11.7	20.2	12 27	4 15.98	+19 14.5	1.898	2.794	10.1	20.7
1 6	4 12.61	+30 29.7	1.550	2.390	15.2	20.5	1 6	4 9.81	+19 6.6	1.983	2.796	13.5	20.9
<b>446092</b>	2013 <i>CE</i> <sub>187</sub>	12 3.2 301°13	1°6 / 3.6	17			<b>119292</b>	2001 <i>SR</i> <sub>1</sub>	12 3.2 56°71	0°1 / 3.3	18	R	
10 28	5 7.20	+25 3.8	1.682	2.500	15.8	21.8	10 28	5 8.48	+23 43.4	1.494	2.318	17.2	20.0
11 7	5 2.76	+25 26.2	1.587	2.481	12.4	21.5	11 7	5 3.60	+23 32.0	1.424	2.323	13.2	19.8
11 17	4 55.30	+25 44.2	1.514	2.463	8.2	21.2	11 17	4 55.64	+23 14.1	1.376	2.328	8.5	19.5
11 27	4 45.48	+25 55.8	1.466	2.445	3.7	20.9	11 27	4 45.52	+22 49.8	1.352	2.333	3.4	19.2
12 7	4 34.51	+25 59.7	1.445	2.427	2.3	20.8	12 7	4 34.64	+22 20.8	1.355	2.339	2.0	19.1
12 17	4 23.83	+25 56.8	1.452	2.410	7.0	21.0	12 17	4 24.49	+21 50.3	1.386	2.344	7.2	19.5
12 27	4 14.91	+25 49.9	1.486	2.392	11.6	21.3	12 27	4 16.45	+21 22.9	1.443	2.350	11.8	19.8
1 6	4 8.82	+25 43.1	1.542	2.375	15.7	21.5	1 6	4 11.38	+21 2.3	1.522	2.356	15.8	20.0
<b>189373</b>	2008 <i>FG</i> <sub>26</sub>	12 3.2 324°60	1°6 / 3.7	18			<b>222214</b>	2000 <i>ET</i> <sub>101</sub>	12 3.2 254°53	1°9 / 2.7	18		
10 28	5 6.46	+26 23.2	1.888	2.698	14.7	20.7	10 28	5 7.84	+19 14.8	1.605	2.427	16.2	21.1
11 7	5 1.68	+26 36.2	1.805	2.694	11.4	20.4	11 7	5 3.00	+18 47.9	1.522	2.421	12.5	20.9
11 17	4 54.27	+26 43.0	1.744	2.691	7.5	20.2	11 17	4 55.25	+18 18.0	1.462	2.414	8.1	20.6
11 27	4 44.97	+26 42.1	1.709	2.687	3.4	19.9	11 27	4 45.40	+17 46.6	1.427	2.407	3.5	20.3
12 7	4 34.88	+26 33.4	1.702	2.684	2.2	19.9	12 7	4 34.68	+17 16.6	1.420	2.400	2.9	20.3
12 17	4 25.25	+26 18.3	1.724	2.681	6.2	20.1	12 17	4 24.48	+16 51.0	1.440	2.393	7.6	20.5
12 27	4 17.28	+26 0.1	1.773	2.678	10.2	20.3	12 27	4 16.13	+16 33.5	1.487	2.386	12.1	20.8
1 6	4 11.80	+25 42.6	1.846	2.675	13.7	20.6	1 6	4 10.53	+16 26.2	1.556	2.379	16.1	21.0
<b>178788</b>	2001 <i>CY</i> <sub>49</sub>	12 3.2 197°24	3°2 / 4.2	18			<b>111478</b>	2001 <i>YN</i> <sub>18</sub>	12 3.2 171°27	0°8 / 2.9	18		
10 28	5 12.12	+30 32.0	1.705	2.505	16.4	20.4	10 28	5 5.56	+20 10.4	2.124	2.934	13.2	20.1
11 7	5 6.37	+30 44.9	1.622	2.503	12.9	20.2	11 7	5 0.54	+20 4.7	2.043	2.934	10.1	19.9
11 17	4 57.46	+30 47.0	1.561	2.501	8.9	20.0	11 17	4 53.32	+19 57.1	1.985	2.935	6.5	19.7
11 27	4 46.25	+30 35.4	1.525	2.499	4.8	19.7	11 27	4 44.56	+19 48.0	1.955	2.935	2.6	19.5
12 7	4 34.11	+30 9.2	1.518	2.496	3.5	19.6	12 7	4 35.21	+19 38.3	1.953	2.936	1.8	19.4
12 17	4 22.61	+29 31.0	1.538	2.492	7.1	19.8	12 17	4 26.28	+19 29.8	1.982	2.936	5.7	19.7
12 27	4 13.17	+28 46.4	1.586	2.488	11.3	20.1	12 27	4 18.74	+19 24.3	2.039	2.936	9.4	19.9
1 6	4 6.76	+28 1.7	1.657	2.484	15.1	20.3	1 6	4 13.31	+19 23.7	2.120	2.936	12.6	20.1
<b>214044</b>	2004 <i>EU</i> <sub>65</sub>	12 3.2 99°27	4°2 / 4.0	18			<b>132731</b>	2002 <i>PL</i> <sub>24</sub>	12 3.2 43°52	0°7 / 2.9	17		
10 28	5 12.69	+31 10.5	2.003	2.790	14.7	19.9	10 28	5 3.83	+20 42.2	2.196	3.007	12.8	20.3
11 7	5 6.43	+32 15.0	1.930	2.801	11.7	19.7	11 7	4 59.12	+20 30.5	2.119	3.011	9.8	20.1
11 17	4 57.33	+33 12.0	1.880	2.811	8.3	19.5	11 17	4 52.34	+20 16.1	2.065	3.015	6.3	19.9
11 27	4 46.18	+33 57.0	1.857	2.822	5.2	19.3	11 27	4 44.16	+19 59.9	2.038	3.019	2.5	19.6
12 7	4 34.17	+34 26.8	1.863	2.833	4.4	19.3	12 7	4 35.46	+19 43.2	2.041	3.023	1.8	19.6
12 17	4 22.67	+34 41.0	1.899	2.843	6.8	19.5	12 17	4 27.20	+19 27.7	2.073	3.027	5.5	19.8
12 27	4 12.97	+34 42.5	1.963	2.853	10.1	19.7	12 27	4 20.28	+19 15.7	2.133	3.031	9.0	20.1
1 6	4 5.97	+34 36.2	2.050	2.864	13.1	19.9	1 6	4 15.34	+19 8.9	2.218	3.036	12.1	20.3
<b>265396</b>	2004 <i>TS</i> <sub>15</sub>	12 3.2 20°34	3°1 / 4.0	18			<b>409123</b>	2003 <i>UF</i> <sub>16</sub>	12 3.2 22°68	4°6 / 1.5	18		
10 28	5 5.31	+28 39.1	1.534	2.356	16.9	19.8	10 28	5 1.83	+13 26.0	1.696	2.525	15.2	19.8
11 7	5 1.23	+29 10.0	1.473	2.367	13.2	19.6	11 7	4 57.91	+12 21.0	1.636	2.535	11.8	19.6
11 17	4 54.13	+29 32.2	1.432	2.378	8.9	19.4	11 17	4 51.67	+11 17.6	1.599	2.546	8.1	19.4
11 27	4 44.92	+29 43.1	1.415	2.391	4.7	19.2	11 27	4 43.91	+10 20.7	1.587	2.557	5.1	19.3
12 7	4 34.97	+29 41.6	1.425	2.404	3.4	19.1	12 7	4 35.67	+9 34.7	1.602	2.570	5.3	19.3
12 17	4 25.75	+29 29.4	1.462	2.419	7.0	19.4	12 17	4 28.06	+9 3.1	1.645	2.583	8.3	19.5
12 27	4 18.61	+29 10.9	1.525	2.434	11.1	19.6	12 27	4 22.06	+8 47.9	1.713	2.597	11.7	19.8
1 6	4 14.37	+28 50.9	1.610	2.451	14.7	19.9	1 6	4 18.32	+8 48.6	1.803	2.611	14.8	20.0
<b>251191</b>	2006 <i>UK</i> <sub>90</sub>	12 3.2 53°25	0°5 / 3.4	18			<b>395586</b>	2011 <i>UL</i> <sub>284</sub>	12 3.3 79°93	3°3 / 3.8	18		
10 28	5 6.49	+24 33.9	1.774	2.589	15.2	20.7	10 28	5 13.52	+28 20.6	1.823	2.619	15.6	20.7
11 7	5 1.58	+24 22.9	1.705	2.599	11.7	20.4	11 7	5 7.09	+29 21.4	1.760	2.639	12.2	20.5
11 17	4 54.09	+24 5.5	1.658	2.608	7.5	20.2	11 17	4 57.73	+30 15.8	1.720	2.659	8.3	20.3
11 27	4 44.85	+23 41.9	1.638	2.618	3.0	20.0	11 27	4 46.34	+30 59.4	1.707	2.679	4.6	20.1
12 7	4 35.02	+23 13.5	1.645	2.629	1.7	19.9	12 7	4 34.20	+31 29.5	1.722	2.698	3.6	20.1
12 17	4 25.85	+22 43.1	1.682	2.639	6.2	20.2	12 17	4 22.73	+31 45.9	1.767	2.717	6.7	20.3
12 27	4 18.46	+22 14.5	1.745	2.649	10.3	20.5	12 27	4 13.24	+31 51.7	1.840	2.736	10.3	20.6
1 6	4 13.58	+21 51.2	1.832	2.660	13.8	20.7	1 6	4 6.58	+31 51.4	1.937	2.755	13.5	20.8
<b>409094</b>	2003 <i>SE</i> <sub>358</sub>	12 3.2 247°33	6°3 / 30.3	17			<b>33838</b>	Brandabaker	12 3.3 235°03	0°3 / 3.1	18		
10 28	5 1.98	+4 58.9	2.341	3.140	12.5	20.9	10 28	5 3.67	+21 51.9	2.648	3.449	11.2	20.1
11 7	4 57.48	+3 50.5	2.265	3.136	10.1	20.7	11 7	4 58.76	+21 43.1	2.554	3.441	8.5	19.9
11 17	4 51.19	+2 48.2	2.212	3.133	7.8	20.6	11 17	4 52.04	+21 31.3	2.485	3.433	5.5	19.7
11 27	4 43.68	+1 56.6	2.187	3.130	6.4	20.5	11 27	4 44.06	+21 16.7	2.444	3.425	2.2	19.5
12 7	4 35.71	+1 19.4	2.190	3.126	6.7	20.5	12 7	4 35.55	+21 0.4	2.434	3.416	1.4	19.4
12 17	4 28.09	+0 59.1	2.221	3.123	8.6	20.6	12 17	4 27.33	+20 43.7	2.454	3.408	4.8	19.6
12 27	4 21.60	+0 56.7	2.278	3.119	11.0	20.7	12 27	4 20.19	+20 28.8	2.503	3.399	8.0	19.8
1 6	4 16.83	+1 10.8	2.357	3.115	13.3	20.9	1 6	4 14.75	+20 17.6	2.578	3.390	10.8	20.0
<b>359293</b>	2009 <i>HL</i> <sub>44</sub>	12 3.2 235°76	0°2 / 3.3	18			<b>187384</b>	2005 <i>UN</i> <sub>407</sub>	12 3.3 300°62	1°3 / 2.9	18		</

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>358112</b>	2006 <i>OH</i> <sub>13</sub>		12 3.3 39°80	4.7/ 4.9 17			<b>328731</b>	2009 <i>TC</i> <sub>46</sub>		12 3.3 46°23	2.4/ 2.9 18		
10 28	5 10.39	+33 47.6	1.367	2.179	19.1	20.0	10 28	5 7.56	+12 39.4	2.252	3.053	12.9	20.2
11 7	5 5.23	+34 0.0	1.322	2.206	15.0	19.9	11 7	5 1.92	+13 7.2	2.171	3.056	10.0	20.1
<b>445323</b>	2010 <i>GS</i> <sub>28</sub>		12 3.3 166°79	10°2/27.9 18			<b>51209</b>	2000 <i>JG</i> <sub>14</sub>		12 3.3 283°97	1°6/ 3.6 18		
10 28	5 5.70	-11 17.0	2.610	3.337	13.2	22.4	10 28	5 6.68	+25 24.8	2.367	3.164	12.4	19.0
11 7	5 0.07	-12 51.4	2.554	3.343	11.8	22.3	11 7	5 1.50	+26 0.9	2.269	3.152	9.7	18.8
<b>364787</b>	2008 <i>AY</i> <sub>32</sub>		12 3.3 339°13	3°1/ 3.4 17			<b>399337</b>	2000 <i>CN</i> <sub>39</sub>		12 3.3 294°16	21°6/29.7 17		
10 28	5 3.17	+24 33.5	1.224	2.069	18.9	20.6	10 28	5 1.80	-18 47.2	1.144	1.900	25.2	20.2
11 7	5 0.82	+25 40.1	1.137	2.045	14.9	20.3	11 7	5 5.35	-20 42.0	1.094	1.892	23.6	20.1
<b>325739</b>	2009 <i>VK</i> <sub>79</sub>		12 3.3 186°46	3°0/ 4.6 17			<b>104846</b>	2000 <i>HH</i> <sub>73</sub>		12 3.3 84°19	11°8/28.9 18		
10 28	5 6.56	+32 43.5	2.465	3.247	12.4	20.9	10 28	5 5.46	- 9 46.5	2.015	2.768	15.8	19.2
11 7	5 1.21	+32 47.5	2.378	3.247	9.8	20.7	11 7	5 0.18	-11 33.3	1.980	2.790	13.9	19.1
<b>209763</b>	2005 <i>EM</i> <sub>253</sub>		12 3.3 285°32	5°2/ 1.4 18			<b>422050</b>	2014 <i>QR</i> <sub>360</sub>		12 3.3 90°22	4°6/ 1.6 18		
10 28	5 4.74	+11 42.1	1.758	2.578	15.1	20.6	10 28	5 3.52	+ 9 38.7	2.214	3.021	12.9	21.2
11 7	5 0.37	+10 42.2	1.671	2.563	11.9	20.4	11 7	5 5.72	+ 8 55.2	2.146	3.030	10.1	21.0
<b>53915</b>	2000 <i>GR</i> <sub>7</sub>		12 3.3 192°08	3°9/ 2.3 18			<b>449646</b>	2014 <i>KN</i> <sub>41</sub>		12 3.3 190°40	0°2/ 3.4 18		
10 28	5 8.28	+13 4.9	1.713	2.529	15.7	19.7	10 28	5 7.91	+24 34.7	2.262	3.060	12.9	21.5
11 7	5 3.03	+12 40.9	1.636	2.528	12.2	19.5	11 7	5 2.26	+24 14.7	2.174	3.059	9.9	21.3
<b>48629</b>	1995 <i>SP</i>		12 3.3 12°75	8°4/ 4.6 18			<b>217863</b>	2001 <i>QF</i> <sub>134</sub>		12 3.3 201°99	15°4/ 8.9 18		
10 28	5 8.51	+34 38.0	1.053	1.887	22.1	17.3	10 28	5 26.73	+53 14.5	1.269	2.004	24.2	20.0
11 7	5 5.49	+36 9.4	0.997	1.890	18.0	17.0	11 7	5 20.95	+54 39.8	1.201	2.002	21.7	19.8
<b>190697</b>	2001 <i>FQ</i> <sub>16</sub>		12 3.3 220°46	0°1/ 3.3 18 R			<b>438032</b>	2004 <i>GF</i> <sub>8</sub>		12 3.3 207°88	2°7/ 2.4 18		
10 28	5 4.76	+23 1.5	2.600	3.399	11.4	20.2	10 28	5 8.63	+16 55.3	1.787	2.601	15.2	22.6
11 7	4 59.65	+22 59.8	2.508	3.393	8.7	20.0	11 7	5 3.28	+16 20.7	1.704	2.597	11.7	22.3
<b>463458</b>	2013 <i>PP</i> <sub>15</sub>		12 3.3 310°43	1°8/ 4.0 17			<b>109216</b>	2001 <i>QU</i> <sub>85</sub>		12 3.3 142°13	5°2/ 5.1 18		
10 28	5 4.34	+29 6.4	2.177	2.978	13.3	21.3	10 28	5 12.02	+37 25.8	2.319	3.082	13.7	20.1
11 7	4 59.79	+28 51.7	2.083	2.967	10.4	21.1	11 7	5 5.70	+38 6.3	2.242	3.091	11.1	19.9



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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>150107</b>	1978 VL <sub>4</sub>	12	3.3 357°00	1.8/ 2.8 18			<b>60144</b>	1999 TN <sub>293</sub>	12	3.3 139°87	0°6/ 3.1 18		
10 28	4 58.65	+22 3.6	0.921	1.793	21.4	19.0	10 28	5 8.46	+22 43.6	2.053	2.858	13.8	19.9
11 7	4 57.55	+21 19.2	0.860	1.785	16.5	18.7	11 7	5 2.73	+22 12.5	1.978	2.867	10.6	19.7
11 17	4 52.51	+20 25.0	0.817	1.780	10.7	18.4	11 17	4 54.72	+21 36.0	1.927	2.876	6.8	19.5
11 27	4 44.55	+19 25.0	0.794	1.776	4.4	18.0	11 27	4 45.19	+20 55.2	1.903	2.884	2.7	19.3
12 7	4 35.46	+18 25.2	0.792	1.775	3.4	18.0	12 7	4 35.17	+20 12.2	1.909	2.892	1.8	19.2
12 17	4 27.24	+17 33.2	0.813	1.776	9.7	18.3	12 17	4 25.73	+19 30.4	1.946	2.899	5.9	19.5
12 27	4 21.72	+16 55.9	0.855	1.779	15.7	18.7	12 27	4 17.87	+18 53.3	2.010	2.906	9.6	19.8
1 6	4 19.91	+16 36.5	0.914	1.784	20.7	19.0	1 6	4 12.25	+18 23.9	2.099	2.913	12.8	20.0
<b>122143</b>	2000 JY <sub>41</sub>	12	3.3 142°94	0°0/ 3.1 18			<b>98042</b>	2000 RA <sub>24</sub>	12	3.3 23°70	1°9/ 2.8 18		
10 28	5 10.53	+23 11.0	1.901	2.706	14.7	21.1	10 28	5 7.04	+20 44.3	1.129	1.976	20.0	18.9
11 7	5 4.53	+23 1.9	1.828	2.716	11.3	20.9	11 7	5 3.23	+20 9.1	1.069	1.980	15.4	18.7
11 17	4 55.98	+22 47.7	1.777	2.725	7.3	20.7	11 17	4 55.77	+19 28.5	1.028	1.985	9.9	18.4
11 27	4 45.69	+22 28.6	1.753	2.734	2.9	20.4	11 27	4 45.75	+18 45.1	1.010	1.991	4.1	18.1
12 7	4 34.80	+22 5.5	1.759	2.742	1.7	20.3	12 7	4 34.84	+18 3.0	1.016	1.998	3.2	18.1
12 17	4 24.54	+21 40.9	1.794	2.750	6.1	20.6	12 17	4 24.88	+17 27.3	1.047	2.005	8.9	18.4
12 27	4 16.01	+21 18.3	1.858	2.757	10.1	20.9	12 27	4 17.47	+17 3.0	1.102	2.013	14.2	18.7
1 6	4 9.97	+21 0.7	1.946	2.763	13.5	21.1	1 6	4 13.53	+16 52.4	1.176	2.022	18.7	19.0
<b>5684</b>	Kogo	12	3.3 92°31	1°4/ 3.0 18			<b>160230</b>	2002 GY <sub>181</sub>	12	3.3 19°98	3°5/ 2.1 18		
10 28	5 14.38	+18 40.1	1.452	2.269	17.9	17.6	10 28	5 5.28	+17 34.8	1.494	2.326	16.8	19.3
11 7	5 7.85	+18 42.5	1.398	2.293	13.7	17.4	11 7	5 1.03	+16 32.5	1.426	2.329	12.9	19.1
11 17	4 58.22	+18 44.5	1.366	2.317	8.8	17.2	11 17	4 53.96	+15 27.0	1.380	2.332	8.5	18.8
11 27	4 46.56	+18 46.2	1.360	2.340	3.6	17.0	11 27	4 44.97	+14 22.8	1.359	2.336	4.4	18.6
12 7	4 34.34	+18 48.1	1.381	2.363	2.6	16.9	12 7	4 35.32	+13 24.8	1.364	2.340	4.3	18.6
12 17	4 23.10	+18 51.7	1.431	2.386	7.4	17.3	12 17	4 26.37	+12 38.3	1.397	2.345	8.4	18.9
12 27	4 14.17	+18 59.3	1.507	2.407	11.9	17.6	12 27	4 19.33	+12 6.9	1.455	2.350	12.6	19.1
1 6	4 8.30	+19 12.4	1.606	2.428	15.7	17.9	1 6	4 14.98	+11 52.0	1.534	2.355	16.4	19.4
<b>160329</b>	2003 OC <sub>31</sub>	12	3.3 68°47	5°1/ 5.2 18			<b>520598</b>	2014 OK <sub>405</sub>	12	3.3 158°58	1°6/ 3.8 18		
10 28	5 15.81	+36 7.7	1.636	2.420	17.6	20.4	10 28	5 7.56	+26 54.9	2.142	2.942	13.5	22.3
11 7	5 8.90	+36 24.2	1.588	2.454	14.0	20.3	11 7	5 2.21	+27 3.0	2.061	2.944	10.5	22.1
11 17	4 58.81	+36 24.2	1.561	2.487	10.1	20.1	11 17	4 54.50	+27 4.8	2.002	2.947	6.9	21.9
11 27	4 46.74	+36 4.2	1.559	2.520	6.5	20.0	11 27	4 45.16	+26 59.0	1.971	2.949	3.2	21.6
12 7	4 34.29	+35 24.3	1.585	2.553	5.2	20.0	12 7	4 35.19	+26 45.7	1.969	2.951	2.0	21.6
12 17	4 23.06	+34 28.9	1.638	2.585	7.5	20.2	12 17	4 25.67	+26 26.4	1.997	2.952	5.6	21.8
12 27	4 14.34	+33 25.4	1.719	2.617	10.8	20.4	12 27	4 17.67	+26 4.3	2.053	2.954	9.2	22.0
1 6	4 8.81	+32 21.6	1.824	2.649	14.0	20.7	1 6	4 11.90	+25 43.0	2.134	2.955	12.4	22.2
<b>414952</b>	2011 BU <sub>100</sub>	12	3.3 256°60	1°2/ 2.8 18			<b>141338</b>	2002 AD <sub>4</sub>	12	3.3 142°64	14°7/ 7.2 18		
10 28	5 3.72	+19 8.2	2.483	3.289	11.7	21.9	10 28	5 28.61	+50 46.8	1.358	2.093	22.9	19.9
11 7	4 58.95	+18 52.2	2.388	3.277	9.0	21.7	11 7	5 22.07	+52 47.2	1.298	2.101	20.3	19.7
11 17	4 52.27	+18 34.5	2.317	3.266	5.8	21.5	11 17	5 9.33	+54 22.7	1.253	2.107	17.6	19.5
11 27	4 44.25	+18 15.9	2.274	3.254	2.5	21.2	11 27	4 51.50	+55 17.4	1.228	2.114	15.5	19.4
12 7	4 35.65	+17 57.9	2.261	3.242	2.0	21.2	12 7	4 31.38	+55 20.2	1.224	2.119	14.7	19.4
12 17	4 27.33	+17 42.1	2.278	3.230	5.3	21.4	12 17	4 12.68	+54 30.7	1.243	2.125	15.4	19.5
12 27	4 20.13	+17 30.6	2.324	3.217	8.6	21.6	12 27	3 58.60	+53 0.9	1.282	2.129	17.4	19.6
1 6	4 14.69	+17 24.9	2.395	3.205	11.6	21.7	1 6	3 50.59	+51 9.2	1.341	2.133	19.8	19.8
<b>482706</b>	2013 CG <sub>193</sub>	12	3.3 320°36	0°2/ 3.3 17			<b>415258</b>	2012 KW <sub>23</sub>	12	3.3 238°46	0°5/ 3.1 18		
10 28	5 5.55	+22 3.7	1.496	2.326	16.8	21.4	10 28	5 4.16	+21 29.8	2.479	3.282	11.8	21.7
11 7	5 1.78	+22 16.8	1.406	2.308	13.1	21.1	11 7	4 59.29	+21 18.0	2.387	3.276	9.0	21.5
11 17	4 54.85	+22 27.3	1.337	2.291	8.6	20.8	11 17	4 52.49	+21 3.1	2.320	3.269	5.8	21.3
11 27	4 45.46	+22 34.5	1.293	2.274	3.4	20.5	11 27	4 44.35	+20 45.6	2.281	3.262	2.3	21.0
12 7	4 34.88	+22 38.1	1.275	2.258	2.0	20.3	12 7	4 35.66	+20 26.6	2.272	3.255	1.5	20.9
12 17	4 24.63	+22 39.2	1.283	2.242	7.4	20.6	12 17	4 27.29	+20 7.9	2.293	3.247	5.1	21.2
12 27	4 16.27	+22 40.5	1.317	2.228	12.4	20.9	12 27	4 20.08	+19 51.6	2.343	3.240	8.4	21.4
1 6	4 10.89	+22 45.2	1.373	2.214	16.8	21.1	1 6	4 14.68	+19 39.7	2.419	3.232	11.4	21.6
<b>187381</b>	2005 UZ <sub>395</sub>	12	3.3 310°86	0°8/ 3.1 18			<b>78346</b>	2002 PY <sub>93</sub>	12	3.3 36°15	2°3/ 4.0 17		
10 28	5 5.52	+20 17.5	2.023	2.836	13.7	21.1	10 28	5 5.76	+28 29.8	1.971	2.777	14.3	19.5
11 7	5 0.68	+20 13.0	1.941	2.834	10.5	20.9	11 7	5 0.98	+28 46.6	1.902	2.788	11.1	19.3
11 17	4 53.54	+20 6.5	1.882	2.833	6.8	20.6	11 17	4 53.76	+28 55.9	1.856	2.799	7.5	19.1
11 27	4 44.77	+19 58.4	1.850	2.831	2.7	20.4	11 27	4 44.87	+28 55.9	1.835	2.811	3.8	18.9
12 7	4 35.36	+19 49.6	1.847	2.830	1.9	20.3	12 7	4 35.39	+28 46.5	1.843	2.823	2.6	18.9
12 17	4 26.36	+19 41.9	1.873	2.828	5.9	20.6	12 17	4 26.49	+28 29.3	1.880	2.836	5.9	19.1
12 27	4 18.81	+19 37.1	1.927	2.827	9.8	20.8	12 27	4 19.23	+28 7.8	1.944	2.848	9.4	19.3
1 6	4 13.45	+19 37.4	2.005	2.825	13.1	21.0	1 6	4 14.32	+27 45.8	2.033	2.862	12.6	19.6
<b>325722</b>	2009 UQ <sub>134</sub>	12	3.3 54°18	1°7/ 2.7 18			<b>86284</b>	1999 UA <sub>28</sub>	12	3.3 160°81	2°9/ 2.3 18		
10 28	5 4.54	+18 48.7	1.981	2.797	13.8	20.7	10 28	5 10.20	+16 52.2	1.743	2.556	15.6	19.6
11 7	4 59.74	+18 20.4	1.917	2.812	10.5	20.5	11 7	5 4.41	+16 10.3	1.669	2.561	12.0	19.4
11 17	4 52.78	+17 50.3	1.877	2.827	6.8	20.3	11 17	4 55.98	+15 27.1	1.618	2.566	7.9	19.1
11 27	4 44.41	+17 20.3	1.863	2.843	3.0	20.1	11 27	4 45.75	+14 45.2	1.594	2.571	3.9	18.9
12 7	4 35.61	+16 52.7	1.878	2.858	2.5	20.1	12 7	4 34.88	+14 7.9	1.598	2.575	3.7	18.9
12 17	4 27.40	+16 29.7	1.922	2.874	6.1	20.4	12 17	4 24.64	+13 38.7	1.632	2.578	7.5	19.2
12 27	4 20.68	+16 13.9	1.994	2.889	9.7	20.6	12 27	4 16.18	+13 20.5	1.692	2.581	11.6	19.4
1 6	4 16.09	+16 6.4	2.089	2.905	12.8	20.9	1 6	4 10.28	+13 14.4	1.775	2.583	15.1	19.6
<b>458529</b>	2011 DZ	12	3.3 260°31	3°7/ 4.6 17			<b>283798</b>	2003 SS <sub>59</sub>	12	3.3 65°20	2°0/ 3.8 18		
10 28	5 7.23	+33 47.0	2.510	3.287	12.4	21.3							

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$		
<b>389229</b>	2009 <i>EN</i> <sub>9</sub>	12	3.3	154°60	3°2/	2.1	18	<b>336077</b>	2008 <i>FK</i> <sub>105</sub>	12	3.3	189°50	0°9/	3.0	18
10 28	5 6.70	+12 27.5	2.584	3.379	11.6	22.1	10 28	5 10.84	+20 11.2	1.923	2.728	14.6	22.3		
11 7	5 0.89	+12 0.1	2.509	3.389	9.0	22.0	11 7	5 4.89	+20 2.7	1.839	2.728	11.2	22.1		
11 17	4 53.34	+11 35.0	2.458	3.398	6.1	21.8	11 17	4 56.34	+19 51.7	1.778	2.726	7.3	21.9		
11 27	4 44.64	+11 14.1	2.437	3.407	3.6	21.6	11 27	4 45.96	+19 38.6	1.744	2.724	2.9	21.6		
12 7	4 35.54	+10 59.4	2.446	3.414	3.6	21.7	12 7	4 34.83	+19 24.4	1.739	2.721	2.1	21.5		
12 17	4 26.85	+10 52.2	2.486	3.422	6.0	21.8	12 17	4 24.17	+19 11.2	1.765	2.718	6.4	21.8		
12 27	4 19.31	+10 53.6	2.555	3.428	8.8	22.0	12 27	4 15.15	+19 1.5	1.818	2.714	10.5	22.0		
1 6	4 13.47	+11 3.6	2.649	3.434	11.3	22.2	1 6	4 8.58	+18 57.7	1.896	2.709	14.0	22.3		
<b>283632</b>	2002 <i>DL</i> <sub>17</sub>	12	3.3	247°63	18°9/30.8	18	<b>209030</b>	2003 <i>HL</i> <sub>16</sub>	12	3.3	141°72	1°3/	3.6	17	
10 28	5 12.05	-17 34.8	1.315	2.058	23.1	20.1	10 28	5 14.82	+24 41.2	1.602	2.409	17.0	20.9		
11 7	5 6.67	-19 6.4	1.260	2.052	21.4	19.9	11 7	5 8.41	+25 2.2	1.532	2.420	13.1	20.7		
11 17	4 57.87	-20 4.8	1.220	2.045	19.8	19.8	11 17	4 58.82	+25 17.9	1.483	2.430	8.6	20.5		
11 27	4 46.61	-20 17.2	1.197	2.038	19.0	19.7	11 27	4 46.96	+25 26.1	1.460	2.439	3.7	20.2		
12 7	4 34.36	-19 36.1	1.192	2.031	19.1	19.7	12 7	4 34.26	+25 25.8	1.465	2.447	2.2	20.1		
12 17	4 22.81	-18 1.1	1.207	2.023	20.3	19.7	12 17	4 22.30	+25 18.6	1.499	2.455	7.0	20.7		
12 27	4 13.51	-15 39.2	1.240	2.016	22.0	19.9	12 27	4 12.50	+25 8.2	1.560	2.462	11.5	20.4		
1 6	4 7.46	-12 43.1	1.290	2.008	24.1	20.0	1 6	4 5.78	+24 58.9	1.645	2.469	15.3	21.0		
<b>104307</b>	2000 <i>EO</i> <sub>186</sub>	12	3.3	10°48	10°1/	5.7	17	<b>317210</b>	2002 <i>CE</i> <sub>25</sub>	12	3.3	164°31	3°0/	4.2	17
10 28	5 9.99	+43 41.4	1.616	2.387	18.3	18.2	10 28	5 14.37	+30 2.4	1.741	2.537	16.3	21.6		
11 7	5 5.81	+45 18.0	1.551	2.391	15.7	18.0	11 7	5 8.01	+30 17.3	1.664	2.542	12.8	21.4		
11 17	4 57.74	+46 36.8	1.506	2.396	13.0	17.8	11 17	4 58.54	+30 22.1	1.608	2.547	8.8	21.2		
11 27	4 46.67	+47 29.2	1.483	2.403	10.9	17.7	11 27	4 46.85	+30 13.8	1.578	2.551	4.6	20.9		
12 7	4 34.29	+47 49.3	1.484	2.410	10.2	17.7	12 7	4 34.32	+29 51.6	1.576	2.554	3.3	20.8		
12 17	4 22.59	+47 37.0	1.509	2.419	11.3	17.8	12 17	4 22.49	+29 17.9	1.604	2.557	6.9	21.1		
12 27	4 13.49	+46 58.4	1.557	2.428	13.5	18.0	12 27	4 12.75	+28 38.0	1.658	2.559	11.0	21.3		
1 6	4 8.15	+46 3.2	1.627	2.439	16.0	18.2	1 6	4 6.01	+27 58.1	1.737	2.560	14.7	21.6		
<b>439874</b>	1999 <i>VB</i> <sub>153</sub>	12	3.3	32°34	0°2/	3.2	18	<b>231154</b>	2005 <i>UQ</i> <sub>48</sub>	12	3.3	289°87	1°6/	3.7	18
10 28	5 7.22	+21 28.7	1.482	2.310	17.1	21.4	10 28	5 8.69	+26 39.6	1.555	2.373	16.9	20.9		
11 7	5 2.68	+21 34.5	1.417	2.318	13.1	21.1	11 7	5 4.04	+26 41.6	1.471	2.365	13.2	20.7		
11 17	4 55.13	+21 37.4	1.373	2.326	8.4	20.9	11 17	4 56.21	+26 35.3	1.409	2.357	8.8	20.4		
11 27	4 45.48	+21 37.1	1.353	2.334	3.3	20.6	11 27	4 46.01	+26 19.1	1.371	2.350	3.9	20.1		
12 7	4 35.07	+21 34.2	1.360	2.344	2.0	20.6	12 7	4 34.80	+25 53.2	1.360	2.342	2.4	20.0		
12 17	4 25.36	+21 30.5	1.395	2.353	7.1	20.9	12 17	4 24.13	+25 20.3	1.377	2.335	7.2	20.3		
12 27	4 17.69	+21 28.7	1.455	2.363	11.7	21.2	12 27	4 15.49	+24 45.6	1.419	2.328	11.9	20.5		
1 6	4 12.90	+21 31.4	1.537	2.373	15.6	21.5	1 6	4 9.88	+24 14.4	1.484	2.320	16.0	20.8		
<b>314231</b>	2005 <i>PX</i> <sub>3</sub>	12	3.3	52°40	2°1/	3.8	18	<b>22418</b>	1995 <i>WM</i> <sub>4</sub>	12	3.3	75°88	1°3/	2.9	18
10 28	5 11.55	+26 3.5	1.628	2.439	16.6	20.6	10 28	5 9.06	+19 0.1	1.684	2.501	15.8	18.0		
11 7	5 5.58	+26 39.5	1.580	2.469	12.7	20.4	11 7	5 3.58	+18 56.4	1.623	2.518	12.1	17.8		
11 17	4 56.74	+27 9.1	1.554	2.500	8.4	20.2	11 17	4 55.46	+18 51.6	1.584	2.535	7.8	17.6		
11 27	4 46.03	+27 29.5	1.553	2.531	3.9	20.0	11 27	4 45.57	+18 46.6	1.572	2.552	3.2	17.3		
12 7	4 34.82	+27 39.9	1.581	2.562	2.6	20.0	12 7	4 35.12	+18 42.2	1.587	2.569	2.3	17.3		
12 17	4 24.52	+27 41.5	1.637	2.593	6.5	20.3	12 17	4 25.40	+18 40.1	1.631	2.586	6.7	17.6		
12 27	4 16.34	+27 37.6	1.720	2.624	10.4	20.6	12 27	4 17.53	+18 42.3	1.703	2.603	10.8	17.9		
1 6	4 11.00	+27 32.4	1.827	2.655	13.8	20.9	1 6	4 12.24	+18 50.4	1.797	2.619	14.3	18.2		
<b>273764</b>	2007 <i>EH</i> <sub>159</sub>	12	3.3	137°04	1°5/	2.9	18	<b>459365</b>	2012 <i>JF</i> <sub>15</sub>	12	3.3	103°98	2°2/	3.9	17
10 28	5 10.36	+18 49.0	1.951	2.757	14.4	21.6	10 28	5 7.07	+28 4.3	2.455	3.246	12.2	21.2		
11 7	5 4.26	+18 33.1	1.881	2.770	11.0	21.4	11 7	5 1.61	+28 34.0	2.377	3.254	9.5	21.1		
11 17	4 55.76	+18 15.8	1.834	2.782	7.1	21.2	11 17	4 54.05	+28 58.2	2.322	3.262	6.4	20.9		
11 27	4 45.66	+17 57.8	1.814	2.793	3.0	20.9	11 27	4 45.02	+29 15.0	2.295	3.269	3.3	20.7		
12 7	4 35.02	+17 40.9	1.824	2.804	2.4	20.9	12 7	4 35.43	+29 23.5	2.299	3.277	2.4	20.7		
12 17	4 24.98	+17 27.1	1.863	2.815	6.3	21.2	12 17	4 26.22	+29 24.4	2.332	3.285	5.1	20.8		
12 27	4 16.59	+17 18.6	1.931	2.824	10.1	21.4	12 27	4 18.33	+29 19.7	2.395	3.292	8.2	21.1		
1 6	4 10.54	+17 17.1	2.023	2.833	13.4	21.7	1 6	4 12.43	+29 12.3	2.483	3.299	11.0	21.3		
<b>190212</b>	2006 <i>BY</i> <sub>45</sub>	12	3.3	344°20	1°1/	2.9	17	<b>27880</b>	1996 <i>EQ</i>	12	3.3	269°32	4°1/	2.1	18
10 28	5 4.14	+19 52.8	2.106	2.920	13.2	20.4	10 28	5 7.03	+14 28.6	1.597	2.420	16.2	19.0		
11 7	4 59.55	+19 38.9	2.024	2.918	10.1	20.2	11 7	5 2.41	+13 46.4	1.515	2.412	12.7	18.8		
11 17	4 52.79	+19 23.0	1.966	2.916	6.5	20.0	11 17	4 54.97	+13 4.8	1.455	2.403	8.6	18.5		
11 27	4 44.52	+19 5.7	1.935	2.915	2.7	19.7	11 27	4 45.49	+12 27.4	1.421	2.395	4.8	18.3		
12 7	4 35.66	+18 48.7	1.932	2.914	2.0	19.7	12 7	4 35.14	+11 57.9	1.413	2.386	4.8	18.2		
12 17	4 27.21	+18 33.8	1.959	2.913	5.8	19.9	12 17	4 25.27	+11 39.9	1.433	2.377	8.6	18.4		
12 27	4 20.13	+18 23.3	2.014	2.912	9.5	20.2	12 27	4 17.15	+11 35.6	1.478	2.369	12.8	18.7		
1 6	4 15.10	+18 18.9	2.093	2.911	12.7	20.4	1 6	4 11.70	+11 45.6	1.545	2.360	16.6	18.9		
<b>21596</b>	1998 <i>WG</i> <sub>7</sub>	12	3.3	89°73	1°7/	2.9	18	<b>91539</b>	1999 <i>RP</i> <sub>204</sub>	12	3.3	68°11	0°3/	3.4	18
10 28	5 12.64	+17 43.6	1.613	2.426	16.6	18.2	10 28	5 6.16	+25 27.8	2.027	2.834	13.9	19.0		
11 7	5 6.26	+17 42.1	1.558	2.451	12.6	18.0	11 7	5 1.05	+24 57.4	1.957	2.846	10.6	18.8		
11 17	4 57.12	+17 40.8	1.526	2.476	8.1	17.8	11 17	4 53.69	+24 19.6	1.910	2.858	6.9	18.6		
11 27	4 46.18	+17 40.4	1.520	2.500	3.5	17.5	11 27	4 44.86	+23 35.3	1.890	2.871	2.7	18.4		
12 7	4 34.75	+17 41.6	1.543	2.523	2.7	17.5	12 7	4 35.58	+22 46.8	1.900	2.883	1.5	18.3		
12 17	4 24.18	+17 45.9	1.594	2.547	7.0	17.9	12 17	4 26.92	+21 57.5	1.939	2.895	5.6	18.6		
12 27	4 15.65	+17 54.8	1.672	2.569	11.1	18.2	12 27	4 19.84	+21 11.5	2.006	2.907	9.3	18.8		
1 6	4 9.87	+18 9.5	1.774	2.591	14.6	18.4	1 6	4 14.97	+20 32.3	2.098	2.920	12.5	19.1		
<b>284637</b>	2007 <i>VO</i> <sub>303</sub>	12	3.3	80°73	6°8/	6.0									

EPHEMERIDES

12 3.3

12 3.3

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>515502</b>	2014 <i>DP</i> <sub>113</sub>	12 3.3 317°11	4°3/ 2.1 18				<b>373029</b>	2011 <i>EZ</i> <sub>7</sub>	12 3.3 306°75	4°4/ 1.7 17			
10 28	5 5.40	+14 37.7	1.430	2.264	17.3	21.3	10 28	5 2.42	+10 7.1	2.290	3.098	12.5	21.6
11 7	5 1.48	+13 55.7	1.351	2.254	13.5	21.0	11 7	4 58.00	+ 9 26.7	2.210	3.094	9.8	21.4
11 17	4 54.54	+13 14.4	1.293	2.244	9.1	20.7	11 17	4 51.70	+ 8 50.0	2.153	3.091	7.0	21.2
11 27	4 45.37	+12 37.7	1.259	2.234	5.1	20.5	11 27	4 44.11	+ 8 20.1	2.124	3.088	4.7	21.1
12 7	4 35.23	+12 9.8	1.250	2.224	5.0	20.4	12 7	4 36.03	+ 7 59.8	2.123	3.084	4.8	21.1
12 17	4 25.58	+11 54.5	1.268	2.216	9.1	20.7	12 17	4 28.29	+ 7 51.0	2.151	3.081	7.2	21.2
12 27	4 17.84	+11 54.1	1.310	2.207	13.6	20.9	12 27	4 21.71	+ 7 54.7	2.206	3.078	10.0	21.4
1 6	4 12.97	+12 9.0	1.374	2.199	17.7	21.1	1 6	4 16.91	+ 8 10.4	2.285	3.075	12.7	21.6
<b>59644</b>	1999 <i>JS</i> <sub>88</sub>	12 3.3 115°66	3°9/ 2.4 18				<b>224063</b>	2005 <i>NE</i> <sub>17</sub>	12 3.3 65°87	0°8/ 3.5 18			
10 28	5 8.21	+12 48.1	1.712	2.528	15.7	18.5	10 28	5 10.95	+25 8.0	1.375	2.199	18.4	20.4
11 7	5 2.95	+12 27.4	1.643	2.534	12.2	18.3	11 7	5 5.65	+25 0.3	1.318	2.216	14.1	20.2
11 17	4 55.11	+12 10.7	1.595	2.540	8.2	18.1	11 17	4 57.06	+24 44.7	1.281	2.232	9.1	20.0
11 27	4 45.48	+12 0.4	1.573	2.546	4.7	17.9	11 27	4 46.27	+24 20.6	1.269	2.250	3.7	19.7
12 7	4 35.20	+11 58.6	1.579	2.552	4.5	17.9	12 7	4 34.84	+23 49.8	1.284	2.267	2.1	19.7
12 17	4 25.49	+12 6.8	1.614	2.557	7.9	18.1	12 17	4 24.39	+23 15.9	1.325	2.284	7.3	20.0
12 27	4 17.50	+12 25.7	1.674	2.563	11.7	18.4	12 27	4 16.33	+22 44.1	1.392	2.301	12.0	20.4
1 6	4 11.98	+12 54.7	1.758	2.568	15.1	18.6	1 6	4 11.44	+22 18.9	1.482	2.319	16.0	20.6
<b>1318</b>	<i>Nerina</i>	12 3.3 261°89	14°6/ 5.5 18				<b>111178</b>	2001 <i>VL</i> <sub>125</sub>	12 3.3 128°66	0°6/ 3.0 18			
10 28	5 27.93	+55 36.4	1.838	2.521	19.3	16.5	10 28	5 7.09	+21 53.9	2.358	3.158	12.4	20.4
11 7	5 21.66	+57 42.0	1.748	2.502	17.7	16.3	11 7	5 1.42	+21 27.8	2.285	3.171	9.4	20.2
11 17	5 9.49	+59 28.7	1.676	2.482	16.2	16.2	11 17	4 53.81	+20 57.6	2.236	3.184	6.0	20.0
11 27	4 51.93	+60 42.5	1.624	2.462	15.0	16.0	11 27	4 44.91	+20 24.5	2.216	3.196	2.4	19.8
12 7	4 31.11	+61 11.3	1.594	2.441	14.7	16.0	12 7	4 35.62	+19 50.2	2.226	3.208	1.6	19.8
12 17	4 10.48	+60 50.4	1.586	2.420	15.3	16.0	12 17	4 26.84	+19 17.1	2.267	3.220	5.2	20.0
12 27	3 53.63	+59 46.1	1.599	2.398	16.8	16.0	12 27	4 19.40	+18 48.0	2.337	3.231	8.6	20.3
1 6	3 42.71	+58 12.3	1.631	2.376	18.7	16.1	1 6	4 13.91	+18 25.2	2.433	3.241	11.4	20.5
<b>331183</b>	2011 <i>AT</i> <sub>45</sub>	12 3.3 287°36	1°2/ 2.9 17				<b>267549</b>	2002 <i>PH</i> <sub>173</sub>	12 3.3 96°12	1°7/ 2.7 18			
10 28	5 4.07	+19 17.3	2.208	3.019	12.8	21.3	10 28	5 4.37	+17 53.6	2.465	3.269	11.8	21.1
11 7	4 59.49	+19 4.6	2.116	3.009	9.8	21.1	11 7	4 59.26	+17 29.8	2.396	3.285	9.0	21.0
11 17	4 52.79	+18 50.2	2.048	2.998	6.4	20.8	11 17	4 52.37	+17 5.1	2.353	3.300	5.8	20.8
11 27	4 44.57	+18 35.0	2.007	2.987	2.7	20.6	11 27	4 44.35	+16 41.0	2.337	3.316	2.6	20.6
12 7	4 35.70	+18 20.4	1.995	2.977	2.1	20.5	12 7	4 35.96	+16 19.1	2.352	3.331	2.3	20.6
12 17	4 27.15	+18 8.0	2.013	2.966	5.8	20.7	12 17	4 28.03	+16 1.2	2.397	3.346	5.3	20.9
12 27	4 19.85	+18 0.0	2.059	2.956	9.4	20.9	12 27	4 21.31	+15 49.1	2.470	3.360	8.3	21.1
1 6	4 14.53	+17 58.0	2.129	2.945	12.6	21.1	1 6	4 16.34	+15 43.8	2.569	3.375	11.0	21.3
<b>510134</b>	2010 <i>UJ</i> <sub>69</sub>	12 3.3 66°83	5°9/ 4.8 18				<b>467833</b>	2010 <i>RN</i> <sub>90</sub>	12 3.3 94°01	1°0/ 3.6 16			
10 28	5 16.56	+33 48.7	1.229	2.040	20.9	21.0	10 28	5 16.87	+26 10.3	1.480	2.288	18.1	22.1
11 7	5 10.63	+34 33.6	1.180	2.062	16.6	20.8	11 7	5 9.73	+25 55.8	1.429	2.317	13.9	21.9
11 17	5 0.57	+35 2.4	1.149	2.085	11.9	20.6	11 17	4 59.42	+25 32.1	1.399	2.346	9.0	21.7
11 27	4 47.68	+35 8.9	1.142	2.107	7.5	20.4	11 27	4 47.12	+24 58.8	1.395	2.374	3.7	21.5
12 7	4 33.99	+34 51.0	1.159	2.130	6.0	20.4	12 7	4 34.42	+24 17.8	1.419	2.402	2.1	21.4
12 17	4 21.65	+34 12.4	1.202	2.153	9.0	20.7	12 17	4 22.90	+23 33.5	1.472	2.428	7.0	21.8
12 27	4 12.42	+33 21.8	1.269	2.175	13.2	21.0	12 27	4 13.85	+22 51.7	1.551	2.454	11.5	22.1
1 6	4 7.17	+32 29.0	1.358	2.198	17.0	21.3	1 6	4 7.99	+22 17.0	1.654	2.479	15.2	22.4
<b>379146</b>	2009 <i>OM</i>	12 3.3 84°40	0°7/ 3.5 18				<b>510561</b>	2012 <i>PV</i> <sub>9</sub>	12 3.3 86°98	3°2/ 2.3 18			
10 28	5 14.64	+24 42.2	1.488	2.301	17.8	21.1	10 28	5 9.11	+16 55.2	1.552	2.374	16.7	21.8
11 7	5 8.05	+24 38.2	1.438	2.329	13.6	20.9	11 7	5 3.75	+16 8.0	1.492	2.389	12.8	21.6
11 17	4 58.36	+24 27.1	1.408	2.357	8.7	20.7	11 17	4 55.62	+15 19.8	1.454	2.404	8.4	21.4
11 27	4 46.70	+24 8.4	1.404	2.384	3.5	20.5	11 27	4 45.68	+14 34.0	1.441	2.418	4.2	21.2
12 7	4 34.58	+23 43.3	1.428	2.411	2.0	20.4	12 7	4 35.21	+13 54.4	1.456	2.433	4.0	21.2
12 17	4 23.55	+23 15.0	1.480	2.437	6.9	20.8	12 17	4 25.53	+13 24.6	1.499	2.447	7.9	21.5
12 27	4 14.87	+22 48.3	1.559	2.463	11.4	21.1	12 27	4 17.83	+13 7.4	1.568	2.461	12.0	21.8
1 6	4 9.27	+22 27.1	1.661	2.488	15.0	21.4	1 6	4 12.82	+13 3.6	1.660	2.475	15.6	22.0
<b>321507</b>	2009 <i>SS</i> <sub>169</sub>	12 3.3 111°35	0°9/ 2.9 18				<b>10603</b>	1996 <i>UF</i> <sub>4</sub>	12 3.3 58°68	1°2/ 3.6 18			
10 28	5 6.02	+20 45.1	2.465	3.265	11.9	21.3	10 28	5 7.79	+25 4.6	1.842	2.653	14.9	18.2
11 7	5 0.48	+20 18.9	2.396	3.283	9.0	21.2	11 7	5 2.67	+25 19.8	1.772	2.663	11.5	18.0
11 17	4 53.13	+19 49.8	2.352	3.300	5.8	21.0	11 17	4 54.96	+25 29.8	1.725	2.673	7.5	17.8
11 27	4 44.62	+19 18.8	2.336	3.317	2.3	20.8	11 27	4 45.46	+25 33.3	1.704	2.683	3.3	17.5
12 7	4 35.76	+18 47.8	2.351	3.333	1.7	20.8	12 7	4 35.31	+25 30.2	1.711	2.694	2.0	17.5
12 17	4 27.40	+18 19.0	2.397	3.349	5.1	21.0	12 17	4 25.74	+25 21.9	1.747	2.704	6.0	17.7
12 27	4 20.31	+17 54.7	2.472	3.364	8.2	21.3	12 27	4 17.91	+25 11.3	1.811	2.715	10.0	18.0
1 6	4 15.04	+17 36.6	2.573	3.380	10.9	21.5	1 6	4 12.58	+25 1.8	1.898	2.726	13.4	18.2
<b>7131</b>	<i>Longtom</i>	12 3.3 44°81	1°1/ 3.1 18				<b>337314</b>	2001 <i>BM</i> <sub>4</sub>	12 3.3 15°67	13°8/ 7.7 18			
10 28	5 7.40	+16 49.1	1.999	2.809	13.9	16.2	10 28	5 9.70	+46 52.5	1.112	1.906	23.7	18.5
11 7	5 2.05	+17 19.2	1.932	2.823	10.7	16.1	11 7	5 7.13	+48 39.6	1.065	1.914	20.6	18.4
11 17	4 54.41	+17 51.7	1.888	2.837	6.9	15.9	11 17	4 59.31	+49 58.6	1.033	1.924	17.5	18.2
11 27	4 45.19	+18 25.9	1.871	2.851	2.9	15.6	11 27	4 47.48	+50 37.1	1.019	1.936	14.9	18.1
12 7	4 35.40	+19 1.1	1.884	2.865	2.0	15.6	12 7	4 34.13	+50 28.3	1.025	1.950	13.8	18.1
12 17	4 26.10	+19 36.7	1.926	2.880	5.9	15.9	12 17	4 22.19	+49 34.4	1.052	1.965	14.6	18.2
12 27	4 18.30	+20 13.0	1.997	2.895	9.5	16.1	12 27	4 14.11	+48 7.3	1.099	1.983	16.8	18.4
1 6	4 12.70	+20 50.2	2.092	2.910	12.7	16.4	1 6	4 11.01	+46 22.9	1.165	2.001	19.5	18.6
<b>518100</b>	2016 <i>AT</i> <sub>229</sub>	12 3.3 11°18	5°2/ 1.9 18				<b>26460</b>	2000 <i>AZ</i> <sub>120</sub>	12 3.3 179°01	7°0/ 1.1 18 R			
10													

## EPHEMERIDES

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>24388</b>	2000 AB <sub>175</sub>	12 3.3 283°90	1°0/ 2.8 18				<b>37428</b>	2001 YX <sub>91</sub>	12 3.3 54°02	4°1/ 2.9 18			
10 28	5 4.55	+22 15.3	2.246	3.054	12.7	17.0	10 28	5 12.68	+13 13.4	1.075	1.915	21.3	17.7
11 7	4 59.85	+21 27.2	2.147	3.037	9.8	16.8	11 7	5 7.28	+13 12.5	1.034	1.939	16.4	17.5
11 17	4 53.02	+20 32.7	2.071	3.021	6.3	16.6	11 17	4 58.22	+13 18.8	1.011	1.963	10.9	17.3
11 27	4 44.69	+19 33.2	2.023	3.004	2.6	16.3	11 27	4 46.76	+13 34.0	1.011	1.988	5.5	17.1
12 7	4 35.74	+18 31.8	2.006	2.987	2.0	16.2	12 7	4 34.69	+13 58.6	1.035	2.013	4.8	17.1
12 17	4 27.12	+17 32.2	2.018	2.970	5.8	16.5	12 17	4 23.86	+14 32.4	1.085	2.038	9.4	17.4
12 27	4 19.80	+16 38.7	2.059	2.954	9.5	16.6	12 27	4 15.78	+15 14.6	1.158	2.064	14.3	17.8
1 6	4 14.46	+15 54.5	2.125	2.937	12.8	16.8	1 6	4 11.25	+16 3.7	1.252	2.089	18.3	18.1
<b>515285</b>	2012 TL <sub>223</sub>	12 3.3 76°91	3°1/ 2.8 18				<b>303519</b>	2005 EH <sub>206</sub>	12 3.3 268°03	3°9/ 1.9 18			
10 28	5 11.64	+13 37.8	1.567	2.383	16.9	21.4	10 28	5 5.68	+14 28.9	1.905	2.720	14.3	21.0
11 7	5 5.58	+13 40.5	1.514	2.406	13.0	21.2	11 7	5 1.01	+13 37.7	1.814	2.706	11.2	20.7
11 17	4 56.76	+13 47.8	1.482	2.429	8.6	21.0	11 17	4 53.94	+12 45.9	1.745	2.691	7.6	20.5
11 27	4 46.13	+14 0.9	1.476	2.452	4.3	20.8	11 27	4 45.12	+11 56.9	1.704	2.676	4.4	20.3
12 7	4 34.97	+14 20.2	1.498	2.475	3.8	20.8	12 7	4 35.53	+11 14.6	1.691	2.661	4.5	20.3
12 17	4 24.63	+14 45.9	1.548	2.497	7.6	21.1	12 17	4 26.30	+10 42.8	1.706	2.646	7.8	20.4
12 27	4 16.30	+15 18.1	1.625	2.520	11.6	21.4	12 27	4 18.51	+10 24.0	1.748	2.631	11.6	20.6
1 6	4 10.71	+15 56.3	1.725	2.541	15.0	21.6	1 6	4 12.96	+10 19.5	1.813	2.615	15.0	20.8
<b>245977</b>	2006 SV <sub>128</sub>	12 3.3 28°04	1°4/ 3.9 18				<b>302709</b>	2002 TR <sub>208</sub>	12 3.3 54°29	0°2/ 3.3 18			
10 28	5 6.65	+29 5.0	1.530	2.349	17.1	19.1	10 28	5 10.78	+20 9.0	1.541	2.361	16.9	19.9
11 7	5 2.18	+28 24.5	1.464	2.358	13.2	18.9	11 7	5 5.10	+20 33.8	1.490	2.386	12.9	19.7
11 17	4 54.76	+27 30.7	1.418	2.367	8.7	18.6	11 17	4 56.54	+20 57.8	1.460	2.411	8.2	19.5
11 27	4 45.37	+26 24.2	1.398	2.377	3.9	18.4	11 27	4 46.08	+21 19.6	1.455	2.436	3.2	19.3
12 7	4 35.41	+25 8.6	1.405	2.388	2.1	18.3	12 7	4 35.06	+21 38.5	1.479	2.462	1.9	19.2
12 17	4 26.31	+23 50.0	1.440	2.399	6.8	18.6	12 17	4 24.90	+21 55.2	1.531	2.488	6.7	19.6
12 27	4 19.32	+22 35.6	1.501	2.411	11.2	18.9	12 27	4 16.82	+22 11.4	1.609	2.514	11.0	19.9
1 6	4 15.17	+21 31.2	1.585	2.424	15.1	19.2	1 6	4 11.57	+22 29.0	1.711	2.540	14.6	20.2
<b>304092</b>	2006 HR <sub>28</sub>	12 3.3 161°00	4°4/ 2.5 18				<b>223384</b>	2003 SJ <sub>72</sub>	12 3.3 40°56	0°6/ 3.6 18			
10 28	5 9.13	+ 8 37.6	2.054	2.852	14.0	20.7	10 28	5 5.19	+25 12.0	1.928	2.740	14.3	19.7
11 7	5 3.28	+ 8 34.1	1.978	2.856	11.1	20.5	11 7	5 0.52	+25 0.2	1.860	2.752	11.0	19.5
11 17	4 55.19	+ 8 38.0	1.925	2.860	7.8	20.4	11 17	4 53.48	+24 41.9	1.814	2.763	7.1	19.3
11 27	4 45.54	+ 8 51.2	1.898	2.864	5.0	20.2	11 27	4 44.87	+24 17.3	1.795	2.775	2.9	19.1
12 7	4 35.28	+ 9 14.9	1.901	2.867	4.8	20.2	12 7	4 35.75	+23 47.9	1.804	2.787	1.6	19.0
12 17	4 25.44	+ 9 49.0	1.934	2.869	7.4	20.4	12 17	4 27.22	+23 16.2	1.842	2.800	5.7	19.3
12 27	4 17.04	+10 32.9	1.995	2.872	10.7	20.6	12 27	4 20.31	+22 45.9	1.908	2.813	9.5	19.6
1 6	4 10.76	+11 24.9	2.080	2.873	13.6	20.8	1 6	4 15.68	+22 20.2	1.998	2.826	12.8	19.8
<b>393539</b>	2002 UW <sub>38</sub>	12 3.3 76°37	2°3/ 3.7 17				<b>301790</b>	2010 LO <sub>1</sub>	12 3.3 227°75	1°7/ 3.9 18			
10 28	5 13.52	+25 48.6	1.823	2.623	15.5	20.9	10 28	5 9.53	+27 36.9	2.129	2.924	13.7	20.9
11 7	5 7.03	+26 40.8	1.764	2.647	12.0	20.8	11 7	5 3.93	+27 41.6	2.034	2.914	10.7	20.6
11 17	4 57.74	+27 28.2	1.727	2.670	7.9	20.6	11 17	4 55.82	+27 39.1	1.962	2.904	7.2	20.4
11 27	4 46.56	+28 7.3	1.718	2.694	3.8	20.4	11 27	4 45.87	+27 28.0	1.916	2.893	3.4	20.2
12 7	4 34.72	+28 36.0	1.738	2.718	2.7	20.4	12 7	4 35.12	+27 8.0	1.901	2.882	2.2	20.0
12 17	4 23.59	+28 54.2	1.787	2.741	6.3	20.6	12 17	4 24.74	+26 40.9	1.915	2.870	5.8	20.3
12 27	4 14.40	+29 4.5	1.865	2.764	10.1	20.9	12 27	4 15.87	+26 10.3	1.958	2.858	9.6	20.5
1 6	4 7.94	+29 10.7	1.967	2.787	13.3	21.2	1 6	4 9.34	+25 40.5	2.026	2.845	13.0	20.7
<b>35351</b>	1997 MP <sub>3</sub>	12 3.3 102°13	3°0/ 2.7 17				<b>69532</b>	1997 GC <sub>17</sub>	12 3.3 275°78	3°0/ 4.1 18			
10 28	5 13.13	+15 44.9	1.421	2.242	18.1	19.4	10 28	5 9.06	+29 34.6	1.806	2.609	15.5	19.9
11 7	5 7.04	+15 27.9	1.364	2.260	13.9	19.1	11 7	5 4.09	+29 56.7	1.717	2.600	12.2	19.7
11 17	4 57.86	+15 12.7	1.328	2.278	9.1	18.9	11 17	4 56.18	+30 10.3	1.649	2.590	8.4	19.4
11 27	4 46.61	+15 1.3	1.317	2.295	4.4	18.7	11 27	4 46.08	+30 12.7	1.608	2.581	4.5	19.2
12 7	4 34.72	+14 55.6	1.334	2.312	3.8	18.7	12 7	4 34.99	+30 2.4	1.594	2.572	3.3	19.1
12 17	4 23.75	+14 57.4	1.378	2.328	8.2	19.0	12 17	4 24.32	+29 41.0	1.608	2.562	6.8	19.3
12 27	4 15.01	+15 8.2	1.448	2.344	12.6	19.3	12 27	4 15.46	+29 12.4	1.649	2.553	10.8	19.5
1 6	4 9.30	+15 28.4	1.540	2.359	16.4	19.6	1 6	4 9.36	+28 42.1	1.714	2.544	14.5	19.7
<b>133145</b>	2003 QZ <sub>15</sub>	12 3.3 320°51	2°6/ 4.1 18				<b>60479</b>	2000 DX <sub>37</sub>	12 3.3 87°33	1°7/ 2.8 18			
10 28	5 10.56	+29 29.0	1.359	2.180	18.7	19.9	10 28	5 7.08	+18 33.5	1.845	2.660	14.7	20.1
11 7	5 5.88	+29 23.4	1.284	2.178	14.7	19.7	11 7	5 1.98	+18 15.6	1.775	2.669	11.3	19.9
11 17	4 57.57	+29 4.7	1.229	2.176	10.0	19.4	11 17	4 54.45	+17 56.4	1.727	2.677	7.3	19.7
11 27	4 46.63	+28 30.8	1.197	2.174	4.9	19.1	11 27	4 45.28	+17 37.2	1.706	2.686	3.2	19.4
12 7	4 34.66	+27 42.4	1.191	2.172	3.1	19.0	12 7	4 35.52	+17 19.9	1.714	2.694	2.5	19.4
12 17	4 23.48	+26 44.1	1.212	2.171	7.8	19.3	12 17	4 26.34	+17 6.7	1.750	2.703	6.5	19.7
12 27	4 14.76	+25 43.6	1.257	2.169	12.8	19.5	12 27	4 18.79	+16 59.6	1.814	2.711	10.4	19.9
1 6	4 9.50	+24 48.5	1.325	2.168	17.2	19.8	1 6	4 13.58	+17 0.2	1.901	2.720	13.8	20.2
<b>484212</b>	2007 CN <sub>32</sub>	12 3.3 26°97	1°5/ 2.9 17				<b>20758</b>	2000 CS <sub>94</sub>	12 3.3 16°63	9°5/30.8 18			
10 28	5 5.11	+19 1.8	1.857	2.676	14.5	21.2	10 28	5 2.58	+ 3 31.8	1.390	2.218	18.0	16.9
11 7	5 0.54	+18 47.0	1.783	2.679	11.1	21.0	11 7	4 59.03	+ 2 10.4	1.337	2.223	14.8	16.7
11 17	4 53.56	+18 30.7	1.732	2.683	7.2	20.8	11 17	4 52.76	+ 1 1.3	1.303	2.229	11.7	16.5
11 27	4 44.92	+18 14.0	1.707	2.687	3.0	20.5	11 27	4 44.64	+ 0 12.6	1.292	2.236	9.7	16.4
12 7	4 35.67	+17 58.6	1.710	2.691	2.4	20.5	12 7	4 35.90	+ 0 10.1	1.306	2.245	10.0	16.5
12 17	4 26.92	+17 46.6	1.742	2.696	6.4	20.7	12 17	4 27.85	+ 0 4.4	1.343	2.254	12.3	16.6
12 27	4 19.74	+17 40.3	1.800	2.700	10.3	21.0	12 27	4 21.64	+ 0 28.3	1.402	2.264	15.3	16.9
1 6	4 14.85	+17 41.0	1.883	2.705	13.7	21.2	1 6	4 18.04	+ 1 23.1	1.482	2.275	18.2	17.1
<b>333060</b>	2011 TF	12 3.3 216°90	4°5/ 1.8 18				<b>470966</b>	2009 QQ <sub>49</sub>	12 3.3 216°87	0°5/ 3.5 18			
10 28	5 5.94	+11 48.7	1.951	2.763	14.2	21.1	10 28						

## EPHEMERIDES

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>414340</b>	2008 <i>SH</i> <sub>245</sub>		12 3.3 177°06'	5°6'/30.2	17		<b>223921</b>	2004 <i>WJ</i>		12 3.3 16°63'	2°7'/2.7	18	
10 28	5 2.75	+ 6 37.4	2.539	3.336	11.7	21.3	10 28	5 2.65	+16 48.0	1.452	2.291	16.8	19.7
11 7	4 58.01	+ 5 18.8	2.464	3.336	9.4	21.1	11 7	4 59.13	+16 28.1	1.394	2.300	12.9	19.5
11 17	4 51.62	+ 4 4.3	2.414	3.337	7.2	21.0	11 17	4 52.86	+16 8.9	1.356	2.310	8.4	19.3
11 27	4 44.12	+ 2 58.4	2.392	3.337	5.7	20.9	11 27	4 44.71	+15 52.8	1.343	2.322	4.0	19.0
12 7	4 36.22	+ 2 5.1	2.399	3.337	6.1	20.9	12 7	4 35.93	+15 42.2	1.355	2.335	3.5	19.0
12 17	4 28.67	+ 1 27.3	2.435	3.337	7.9	21.0	12 17	4 27.84	+15 39.1	1.394	2.349	7.6	19.3
12 27	4 22.20	+ 1 6.2	2.498	3.337	10.2	21.2	12 27	4 21.63	+15 45.1	1.458	2.364	11.9	19.6
1 6	4 17.32	+ 1 1.3	2.584	3.337	12.4	21.3	1 6	4 18.05	+16 0.6	1.544	2.380	15.5	19.9
<b>213388</b>	2001 <i>UO</i> <sub>130</sub>		12 3.3 110°05'	1°0'/3.0	18		<b>141459</b>	2002 <i>CQ</i> <sub>100</sub>		12 3.3 201°99'	1°4'/2.9	18	
10 28	5 7.76	+19 37.1	2.163	2.968	13.2	20.9	10 28	5 5.14	+18 46.8	2.196	3.005	12.9	20.0
11 7	5 2.13	+19 30.7	2.094	2.983	10.1	20.7	11 7	5 0.26	+18 32.2	2.113	3.004	9.9	19.8
11 17	4 54.38	+19 22.7	2.050	2.998	6.5	20.5	11 17	4 53.28	+18 16.3	2.054	3.003	6.4	19.5
11 27	4 45.22	+19 13.6	2.032	3.012	2.6	20.3	11 27	4 44.84	+18 0.0	2.023	3.002	2.7	19.3
12 7	4 35.60	+19 4.6	2.045	3.027	1.9	20.3	12 7	4 35.83	+17 44.8	2.021	3.001	2.2	19.3
12 17	4 26.51	+18 57.0	2.087	3.040	5.6	20.6	12 17	4 27.22	+17 32.6	2.048	3.000	5.8	19.5
12 27	4 18.86	+18 52.8	2.159	3.054	9.1	20.8	12 27	4 19.91	+17 25.2	2.104	2.999	9.3	19.7
1 6	4 13.28	+18 53.4	2.255	3.067	12.1	21.0	1 6	4 14.60	+17 24.1	2.184	2.998	12.4	19.9
<b>448501</b>	2010 <i>LO</i> <sub>82</sub>		12 3.3 65°74'	4°1'/4.5	18		<b>272877</b>	2006 <i>BL</i> <sub>94</sub>		12 3.3 85°14'	5°2'/5.5	17	
10 28	5 10.46	+32 16.5	1.848	2.642	15.5	21.2	10 28	5 8.91	+38 31.6	2.279	3.045	13.8	20.9
11 7	5 4.90	+32 53.6	1.782	2.657	12.3	21.0	11 7	5 3.46	+38 54.8	2.199	3.049	11.3	20.7
11 17	4 56.50	+33 20.4	1.738	2.672	8.7	20.8	11 17	4 55.48	+39 4.6	2.140	3.052	8.6	20.6
11 27	4 46.13	+33 33.3	1.720	2.687	5.3	20.7	11 27	4 45.73	+38 57.9	2.107	3.056	6.1	20.4
12 7	4 35.07	+33 30.8	1.730	2.702	4.3	20.6	12 7	4 35.33	+38 33.4	2.102	3.059	5.3	20.4
12 17	4 24.69	+33 14.4	1.768	2.717	6.8	20.8	12 17	4 25.48	+37 52.9	2.125	3.063	6.7	20.5
12 27	4 16.25	+32 48.4	1.833	2.732	10.2	21.1	12 27	4 17.30	+37 0.9	2.177	3.066	9.3	20.6
1 6	4 10.56	+32 18.4	1.922	2.748	13.4	21.3	1 6	4 11.56	+36 3.4	2.253	3.070	12.0	20.8
<b>156871</b>	2003 <i>DF</i> <sub>19</sub>		12 3.3 283°89'	0°1'/3.3	18		<b>372204</b>	2008 <i>TJ</i> <sub>152</sub>		12 3.3 20°05'	4°7'/1.5	17	
10 28	5 8.10	+22 51.9	1.595	2.416	16.4	20.6	10 28	5 2.45	+ 9 32.1	2.243	3.051	12.7	21.2
11 7	5 3.62	+22 40.5	1.501	2.398	12.7	20.3	11 7	4 58.05	+ 8 45.6	2.168	3.052	10.0	21.0
11 17	4 56.04	+22 23.5	1.428	2.380	8.3	20.0	11 17	4 51.77	+ 8 3.2	2.117	3.053	7.2	20.9
11 27	4 46.10	+22 0.7	1.380	2.361	3.3	19.7	11 27	4 44.22	+ 7 28.4	2.093	3.055	5.0	20.8
12 7	4 35.02	+21 33.4	1.360	2.343	2.0	19.6	12 7	4 36.21	+ 7 4.1	2.098	3.056	5.2	20.8
12 17	4 24.30	+21 4.5	1.367	2.325	7.3	19.8	12 17	4 28.58	+ 6 52.5	2.131	3.058	7.4	20.9
12 27	4 15.42	+20 38.3	1.400	2.306	12.2	20.1	12 27	4 22.14	+ 6 54.4	2.191	3.060	10.2	21.1
1 6	4 9.43	+20 19.0	1.456	2.288	16.5	20.3	1 6	4 17.50	+ 7 9.1	2.274	3.062	12.8	21.3
<b>10125</b>	Stenkyrka		12 3.3 79°03'	3°8'/4.3	18 R		<b>271372</b>	2003 <i>YP</i> <sub>71</sub>		12 3.3 331°30'	0°8'/3.5	18	
10 28	5 15.93	+30 17.4	1.306	2.119	19.8	17.7	10 28	5 5.95	+22 33.2	2.016	2.826	13.8	20.2
11 7	5 9.83	+30 44.0	1.253	2.141	15.5	17.5	11 7	5 1.33	+23 8.1	1.926	2.817	10.7	19.9
11 17	4 59.95	+30 58.3	1.220	2.162	10.6	17.3	11 17	4 54.24	+23 41.9	1.859	2.807	7.0	19.7
11 27	4 47.52	+30 56.2	1.210	2.183	5.7	17.1	11 27	4 45.32	+24 13.0	1.819	2.798	2.9	19.4
12 7	4 34.35	+30 36.6	1.226	2.204	4.1	17.0	12 7	4 35.53	+24 40.1	1.807	2.790	1.7	19.3
12 17	4 22.37	+30 3.2	1.269	2.225	8.0	17.3	12 17	4 26.01	+25 2.9	1.825	2.782	5.9	19.6
12 27	4 13.19	+29 23.0	1.338	2.245	12.5	17.6	12 27	4 17.91	+25 22.4	1.871	2.774	9.8	19.8
1 6	4 7.68	+28 43.6	1.428	2.266	16.5	17.9	1 6	4 12.09	+25 40.7	1.941	2.767	13.2	20.0
<b>187593</b>	2006 <i>WY</i> <sub>117</sub>		12 3.3 8°14'	1°5'/2.9	18		<b>407189</b>	2009 <i>US</i> <sub>98</sub>		12 3.3 355°14'	1°3'/2.9	17	
10 28	5 5.18	+18 59.6	1.888	2.706	14.3	20.8	10 28	5 2.52	+19 40.1	1.652	2.482	15.5	20.6
11 7	5 0.60	+18 45.1	1.811	2.706	11.0	20.5	11 7	4 58.97	+19 29.3	1.575	2.478	11.9	20.4
11 17	4 53.64	+18 29.0	1.756	2.707	7.1	20.3	11 17	4 52.78	+19 16.5	1.520	2.474	7.7	20.1
11 27	4 45.01	+18 12.6	1.728	2.708	3.0	20.1	11 27	4 44.72	+19 2.9	1.490	2.471	3.2	19.8
12 7	4 35.73	+17 57.4	1.728	2.709	2.4	20.0	12 7	4 35.90	+18 50.2	1.486	2.469	2.3	19.8
12 17	4 26.92	+17 45.5	1.756	2.710	6.4	20.3	12 17	4 27.56	+18 40.5	1.511	2.467	6.8	20.1
12 27	4 19.64	+17 39.1	1.812	2.711	10.3	20.5	12 27	4 20.88	+18 36.1	1.560	2.467	11.1	20.3
1 6	4 14.63	+17 39.7	1.891	2.713	13.7	20.7	1 6	4 16.69	+18 39.0	1.633	2.468	14.9	20.6
<b>147258</b>	2002 <i>XG</i> <sub>102</sub>		12 3.3 120°68'	0°4'/3.5	18		<b>401550</b>	2013 <i>EK</i> <sub>125</sub>		12 3.3 134°11'	1°4'/2.9	18	
10 28	5 12.95	+23 26.2	1.821	2.624	15.4	20.0	10 28	5 6.75	+18 18.7	2.044	2.854	13.7	21.9
11 7	5 6.51	+23 31.8	1.755	2.641	11.8	19.8	11 7	5 1.61	+18 14.4	1.966	2.857	10.5	21.7
11 17	4 57.38	+23 32.8	1.711	2.658	7.6	19.6	11 17	4 54.21	+18 9.7	1.911	2.860	6.8	21.5
11 27	4 46.45	+23 28.2	1.695	2.675	3.1	19.4	11 27	4 45.22	+18 5.3	1.884	2.863	2.9	21.3
12 7	4 34.93	+23 18.6	1.707	2.690	1.7	19.3	12 7	4 35.63	+18 2.1	1.885	2.866	2.2	21.2
12 17	4 24.13	+23 5.6	1.750	2.705	6.2	19.7	12 17	4 26.47	+18 1.5	1.916	2.869	6.0	21.5
12 27	4 15.21	+22 52.6	1.820	2.720	10.2	19.9	12 27	4 18.77	+18 5.0	1.975	2.872	9.7	21.7
1 6	4 8.92	+22 42.6	1.915	2.733	13.7	20.2	1 6	4 13.22	+18 13.9	2.058	2.874	13.0	21.9
<b>149357</b>	2002 <i>XP</i> <sub>33</sub>		12 3.3 21°36'	3°8'/4.8	18		<b>247054</b>	2000 <i>OJ</i> <sub>53</sub>		12 3.3 61°95'	0°5'/3.2	18	
10 28	5 8.43	+33 15.2	1.196	2.022	20.4	19.6	10 28	5 12.59	+24 22.2	1.173	2.006	20.3	19.3
11 7	5 4.53	+32 51.4	1.133	2.028	16.2	19.4	11 7	5 7.10	+23 37.1	1.126	2.029	15.5	19.0
11 17	4 56.75	+32 7.5	1.089	2.034	11.2	19.1	11 17	4 58.03	+22 42.5	1.099	2.053	9.9	18.8
11 27	4 46.30	+31 1.8	1.067	2.041	6.0	18.9	11 27	4 46.70	+21 40.6	1.095	2.077	3.9	18.5
12 7	4 35.04	+29 37.2	1.069	2.049	4.0	18.8	12 7	4 34.89	+20 36.3	1.118	2.101	2.4	18.5
12 17	4 24.90	+28 1.4	1.098	2.058	8.2	19.0	12 17	4 24.40	+19 36.2	1.166	2.125	8.1	18.9
12 27	4 17.53	+26 25.7	1.150	2.068	13.2	19.4	12 27	4 16.64	+18 46.6	1.239	2.149	13.2	19.3
1 6	4 13.80	+24 59.5	1.224	2.078	17.6	19.6	1 6	4 12.32	+18 11.3	1.334	2.172	17.3	19.6
<b>488162</b>	2015 <i>XR</i> <sub>5</sub>		12 3.3 76°11'	4°3'/2.4	18		<b>29778</b>	1999 <i>CO</i> <sub>48</sub>		12 3.3 104°43'	6°6'/5.8	18	
10 28	5 6.42	+ 9 36.5											

## EPHEMERIDES

12 3.3

12 3.4

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>404297</b>	2013 EQ <sub>111</sub>	12	3.3 222°25	0°8/ 3.1 18			<b>520685</b>	2014 QR <sub>460</sub>	12	3.4 187°81	0°1/ 3.3 18		
10 28	5 6.76	+19 51.4	2.036	2.846	13.7	21.1	10 28	5 5.86	+22 43.3	2.281	3.085	12.6	21.9
11 7	5 1.72	+19 50.4	1.953	2.844	10.5	20.9	11 7	5 0.80	+22 33.5	2.197	3.085	9.7	21.7
11 17	4 54.34	+19 47.9	1.892	2.842	6.8	20.7	11 17	4 53.64	+22 19.6	2.136	3.084	6.3	21.5
11 27	4 45.31	+19 44.3	1.859	2.840	2.8	20.4	11 27	4 45.03	+22 2.0	2.103	3.084	2.5	21.2
12 7	4 35.59	+19 40.2	1.855	2.837	1.9	20.3	12 7	4 35.85	+21 41.8	2.100	3.083	1.5	21.2
12 17	4 26.28	+19 37.0	1.880	2.835	5.9	20.6	12 17	4 27.07	+21 20.7	2.127	3.082	5.3	21.4
12 27	4 18.41	+19 36.7	1.934	2.832	9.8	20.8	12 27	4 19.61	+21 1.4	2.182	3.081	8.8	21.6
1 6	4 12.74	+19 41.0	2.011	2.830	13.1	21.0	1 6	4 14.14	+20 46.2	2.263	3.080	11.9	21.8
<b>343759</b>	2011 FE <sub>83</sub>	12	3.3 109°70	2°1/ 3.9 18			<b>224601</b>	2005 YD <sub>32</sub>	12	3.4 86°48	3°3/ 2.5 18		
10 28	5 13.18	+27 1.4	1.784	2.584	15.8	21.2	10 28	5 5.25	+12 11.1	2.188	2.994	13.0	20.3
11 7	5 6.87	+27 23.9	1.718	2.601	12.2	21.0	11 7	5 0.26	+12 1.1	2.113	3.000	10.1	20.2
11 17	4 57.72	+27 39.4	1.675	2.618	8.1	20.8	11 17	4 53.25	+11 55.2	2.062	3.005	6.9	20.0
11 27	4 46.63	+27 45.5	1.658	2.634	3.9	20.6	11 27	4 44.87	+11 54.9	2.039	3.011	3.9	19.8
12 7	4 34.88	+27 41.7	1.670	2.650	2.5	20.5	12 7	4 35.96	+12 1.5	2.044	3.016	3.7	19.8
12 17	4 23.87	+27 29.4	1.711	2.666	6.4	20.8	12 17	4 27.47	+12 16.0	2.079	3.022	6.5	20.0
12 27	4 14.83	+27 12.5	1.779	2.681	10.3	21.1	12 27	4 20.26	+12 38.5	2.142	3.027	9.7	20.2
1 6	4 8.56	+26 55.4	1.872	2.695	13.8	21.3	1 6	4 14.98	+13 8.6	2.230	3.032	12.5	20.4
<b>434484</b>	2005 RA <sub>11</sub>	12	3.3 34°25	5°7/ 1.7 18			<b>289552</b>	2005 EW <sub>237</sub>	12	3.4 311°53	2°1/ 2.8 18		
10 28	5 5.92	+14 45.8	1.082	1.934	20.4	19.7	10 28	5 6.39	+17 44.9	1.720	2.541	15.4	20.5
11 7	5 2.09	+13 24.1	1.040	1.951	15.7	19.5	11 7	5 1.82	+17 26.5	1.639	2.536	11.9	20.3
11 17	4 54.88	+12 4.2	1.017	1.971	10.6	19.3	11 17	4 54.61	+17 7.4	1.581	2.532	7.8	20.1
11 27	4 45.50	+10 53.6	1.017	1.991	6.4	19.1	11 27	4 45.49	+16 49.1	1.549	2.528	3.5	19.8
12 7	4 35.61	+9 59.2	1.041	2.012	6.5	19.2	12 7	4 35.60	+16 33.7	1.544	2.524	3.0	19.8
12 17	4 26.83	+9 25.9	1.089	2.034	10.5	19.5	12 17	4 26.16	+16 23.4	1.567	2.520	7.1	20.0
12 27	4 20.53	+9 15.4	1.159	2.057	14.9	19.8	12 27	4 18.40	+16 20.5	1.617	2.516	11.3	20.2
1 6	4 17.41	+9 25.7	1.249	2.081	18.7	20.1	1 6	4 13.13	+16 26.4	1.689	2.512	15.0	20.5
<b>441079</b>	2007 RY <sub>152</sub>	12	3.3 199°93	6°5/ 5.6 18			<b>169821</b>	2002 QT <sub>57</sub>	12	3.4 229°99	5°5/ 5.1 18		
10 28	5 13.52	+39 50.7	1.987	2.750	15.6	21.2	10 28	5 11.39	+36 38.8	1.953	2.731	15.4	20.1
11 7	5 7.56	+40 27.5	1.902	2.748	13.0	21.1	11 7	5 5.89	+37 14.2	1.868	2.728	12.5	19.9
11 17	4 58.44	+40 49.2	1.838	2.746	10.0	20.9	11 17	4 57.37	+37 36.7	1.804	2.724	9.4	19.7
11 27	4 47.01	+40 50.6	1.800	2.743	7.4	20.7	11 27	4 46.63	+37 41.9	1.765	2.720	6.5	19.5
12 7	4 34.64	+40 29.1	1.788	2.741	6.5	20.6	12 7	4 34.95	+37 27.6	1.754	2.716	5.6	19.4
12 17	4 22.88	+39 46.1	1.804	2.737	8.1	20.7	12 17	4 23.79	+36 54.7	1.770	2.712	7.5	19.5
12 27	4 13.17	+38 47.2	1.848	2.734	10.9	20.9	12 27	4 14.55	+36 8.5	1.814	2.707	10.7	19.7
1 6	4 6.46	+37 40.5	1.915	2.730	13.8	21.1	1 6	4 8.16	+35 15.9	1.882	2.703	13.8	19.9
<b>446695</b>	2015 OX <sub>24</sub>	12	3.4 127°24	1°5/ 3.9 18			<b>480983</b>	2003 YL <sub>26</sub>	12	3.4 346°35	6°2/ 5.8 17		
10 28	5 10.00	+28 14.2	1.940	2.739	14.7	21.3	10 28	5 3.14	+37 39.1	1.242	2.063	20.1	19.7
11 7	5 4.24	+27 56.1	1.865	2.748	11.4	21.1	11 7	5 0.93	+37 34.5	1.162	2.048	16.5	19.5
11 17	4 55.93	+27 28.5	1.814	2.757	7.5	20.8	11 17	4 54.80	+37 6.2	1.100	2.035	12.3	19.2
11 27	4 45.91	+26 50.9	1.789	2.766	3.4	20.6	11 27	4 45.74	+36 9.4	1.059	2.024	8.1	18.9
12 7	4 35.34	+26 4.8	1.793	2.775	2.0	20.5	12 7	4 35.50	+34 44.2	1.042	2.014	6.3	18.8
12 17	4 25.44	+25 13.7	1.827	2.783	5.9	20.8	12 17	4 26.07	+32 56.8	1.049	2.006	9.1	18.9
12 27	4 17.30	+24 22.5	1.889	2.791	9.8	21.0	12 27	4 19.29	+30 59.2	1.080	2.000	13.6	19.2
1 6	4 11.66	+23 36.0	1.975	2.798	13.1	21.3	1 6	4 16.21	+29 4.2	1.132	1.995	18.0	19.4
<b>333496</b>	2005 AX <sub>42</sub>	12	3.4 296°00	3°3/ 4.7 18			<b>364288</b>	2006 TT <sub>89</sub>	12	3.4 348°61	4°5/ 4.3 17		
10 28	5 6.11	+32 53.3	2.238	3.026	13.4	20.5	10 28	5 8.37	+31 25.5	1.674	2.480	16.4	20.8
11 7	5 1.35	+32 56.4	2.141	3.013	10.6	20.3	11 7	5 3.89	+32 12.8	1.594	2.476	13.1	20.5
11 17	4 54.18	+32 48.9	2.067	3.000	7.5	20.1	11 17	4 56.26	+32 51.4	1.535	2.472	9.3	20.3
11 27	4 45.28	+32 28.8	2.020	2.988	4.4	19.9	11 27	4 46.25	+33 16.7	1.501	2.469	5.7	20.1
12 7	4 35.66	+31 55.8	2.000	2.975	3.4	19.8	12 7	4 35.19	+33 26.0	1.494	2.467	4.6	20.0
12 17	4 26.41	+31 12.0	2.011	2.962	5.9	19.9	12 17	4 24.61	+33 19.6	1.514	2.465	7.5	20.2
12 27	4 18.63	+30 21.6	2.049	2.950	9.2	20.1	12 27	4 16.00	+33 1.5	1.560	2.463	11.4	20.4
1 6	4 13.10	+29 29.7	2.112	2.938	12.3	20.3	1 6	4 10.38	+32 37.6	1.628	2.462	15.0	20.6
<b>186738</b>	2004 CN <sub>37</sub>	12	3.4 165°67	4°4/ 4.9 18			<b>271700</b>	2004 RQ <sub>148</sub>	12	3.4 125°90	1°9/ 2.7 18		
10 28	5 13.74	+34 34.6	1.780	2.566	16.4	20.4	10 28	5 9.94	+18 21.6	1.909	2.717	14.6	21.8
11 7	5 7.66	+34 44.5	1.701	2.569	13.1	20.2	11 7	5 4.03	+17 53.4	1.841	2.731	11.2	21.6
11 17	4 58.43	+34 40.2	1.643	2.573	9.4	20.0	11 17	4 55.75	+17 23.5	1.797	2.745	7.2	21.4
11 27	4 46.98	+34 18.3	1.610	2.575	5.8	19.7	11 27	4 45.88	+16 53.7	1.780	2.758	3.2	21.2
12 7	4 34.72	+33 38.0	1.606	2.577	4.5	19.7	12 7	4 35.50	+16 26.3	1.792	2.771	2.7	21.2
12 17	4 23.20	+32 42.3	1.629	2.579	7.2	19.8	12 17	4 25.77	+16 3.6	1.833	2.783	6.5	21.4
12 27	4 13.83	+31 38.0	1.681	2.581	10.9	20.1	12 27	4 17.69	+15 48.4	1.903	2.795	10.3	21.7
1 6	4 7.49	+30 32.7	1.756	2.581	14.4	20.3	1 6	4 11.95	+15 42.0	1.996	2.806	13.5	21.9
<b>194374</b>	2001 UM <sub>210</sub>	12	3.4 314°24	2°0/ 3.8 18			<b>331264</b>	2011 CK <sub>57</sub>	12	3.4 349°76	1°6/ 2.8 17		
10 28	5 8.19	+26 51.0	1.452	2.275	17.6	20.5	10 28	5 3.97	+18 21.3	2.025	2.841	13.6	21.4
11 7	5 4.00	+27 1.9	1.369	2.266	13.8	20.2	11 7	4 59.59	+18 5.2	1.944	2.839	10.4	21.2
11 17	4 56.43	+27 4.8	1.307	2.256	9.2	20.0	11 17	4 52.99	+17 48.0	1.886	2.837	6.8	20.9
11 27	4 46.31	+26 57.3	1.268	2.247	4.3	19.7	11 27	4 44.84	+17 31.1	1.855	2.835	3.0	20.7
12 7	4 35.05	+26 39.2	1.256	2.238	2.7	19.5	12 7	4 36.07	+17 16.0	1.853	2.833	2.4	20.7
12 17	4 24.31	+26 12.7	1.271	2.230	7.5	19.8	12 17	4 27.71	+17 4.8	1.879	2.832	6.1	20.9
12 27	4 15.70	+25 42.9	1.311	2.222	12.4	20.1	12 27	4 20.73	+16 59.4	1.933	2.831	9.8	21.1
1 6	4 10.30	+25 15.3	1.372	2.214	16.7	20.3	1 6	4 15.86	+17 1.0	2.011	2.831	13.1	21.3
<b>406782</b>	2008 RT <sub>27</sub>	12	3.4 46°86	7°9/ 7.1 17			<b>62965</b>	2000 VH <sub>44</sub>	12	3.4 109°64	0°4/ 3.5 18		
10 28	5 12.43	+45 0.5	1.957	2.704	16.4	19.7							

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12 3.4

12 3.4

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>334251</b>	2001 <i>TE</i> <sub>187</sub>		12 3.4	32°73	0°9/ 3.6	18	<b>477851</b>	2011 <i>GT</i> <sub>27</sub>		12 3.4	179°84	7°5/ 1.2	18
10 28	5 8.10	+24 22.7	1.170	2.011	19.9	20.2	10 28	5 8.39	+2 18.9	2.004	2.793	14.7	21.9
11 7	5 4.05	+24 27.8	1.119	2.025	15.3	19.9	11 7	5 2.79	+1 27.1	1.932	2.794	12.1	21.7
11 17	4 56.39	+24 26.0	1.086	2.041	9.9	19.7	11 17	4 54.98	+0 45.5	1.882	2.795	9.5	21.5
11 27	4 46.25	+24 16.3	1.076	2.057	4.1	19.4	11 27	4 45.63	+0 18.9	1.858	2.796	7.7	21.4
12 7	4 35.35	+23 59.7	1.091	2.074	2.2	19.3	12 7	4 35.70	+0 11.0	1.861	2.795	7.9	21.4
12 17	4 25.48	+23 39.4	1.131	2.092	7.8	19.7	12 17	4 26.22	+0 23.3	1.893	2.794	9.8	21.6
12 27	4 18.19	+23 20.2	1.195	2.111	12.9	20.1	12 27	4 18.16	+0 55.2	1.950	2.793	12.5	21.7
1 6	4 14.32	+23 6.5	1.280	2.130	17.2	20.4	1 6	4 12.21	+1 43.8	2.029	2.791	15.0	21.9
<b>296175</b>	2009 <i>BD</i> <sub>143</sub>		12 3.4	66°78	1°9/ 2.9	18	<b>6310</b>	Jankonke		12 3.4	326°08	4°7/ 3.9	18
10 28	5 7.77	+17 30.6	1.719	2.537	15.5	20.5	10 28	5 21.85	+5 45.7	1.054	1.872	23.2	16.7
11 7	5 2.77	+17 24.1	1.648	2.544	11.9	20.3	11 7	5 15.57	+7 10.9	0.979	1.869	18.6	16.4
11 17	4 55.16	+17 17.9	1.600	2.551	7.7	20.1	11 17	5 4.64	+9 4.6	0.923	1.866	12.9	16.0
11 27	4 45.72	+17 13.1	1.578	2.557	3.4	19.9	11 27	4 49.89	+11 26.5	0.890	1.864	7.0	15.7
12 7	4 35.62	+17 10.9	1.584	2.564	2.7	19.8	12 7	4 33.15	+14 8.5	0.884	1.862	5.2	15.6
12 17	4 26.08	+17 12.8	1.618	2.571	6.9	20.1	12 17	4 16.88	+16 58.1	0.905	1.860	10.6	15.9
12 27	4 18.27	+17 20.3	1.679	2.578	11.0	20.4	12 27	4 3.49	+19 43.5	0.953	1.858	16.6	16.2
1 6	4 12.96	+17 34.6	1.763	2.585	14.5	20.6	1 6	3 54.56	+22 18.0	1.022	1.857	21.8	16.5
<b>195895</b>	2002 <i>RK</i> <sub>33</sub>		12 3.4	56°00	2°9/ 2.3	18	<b>8699</b>	1993 <i>FO</i> <sub>48</sub>		12 3.4	145°10	0°0/ 3.2	18
10 28	5 3.70	+14 58.6	2.155	2.967	13.0	19.7	10 28	5 6.65	+23 0.0	2.348	3.149	12.4	19.5
11 7	4 59.06	+14 24.9	2.088	2.979	10.0	19.5	11 7	5 1.32	+22 52.7	2.269	3.155	9.5	19.3
11 17	4 52.46	+13 52.1	2.045	2.992	6.6	19.3	11 17	4 53.95	+22 41.5	2.214	3.161	6.1	19.1
11 27	4 44.58	+13 22.8	2.030	3.005	3.6	19.2	11 27	4 45.20	+22 26.4	2.186	3.166	2.4	18.9
12 7	4 36.29	+12 59.2	2.044	3.017	3.4	19.2	12 7	4 35.95	+22 8.4	2.189	3.172	1.4	18.8
12 17	4 28.47	+12 43.3	2.086	3.030	6.3	19.4	12 17	4 27.13	+21 49.3	2.221	3.177	5.1	19.1
12 27	4 21.98	+12 36.8	2.156	3.043	9.5	19.6	12 27	4 19.62	+21 31.4	2.283	3.181	8.5	19.3
1 6	4 17.40	+12 39.9	2.251	3.056	12.3	19.8	1 6	4 14.06	+21 17.1	2.370	3.186	11.5	19.5
<b>162225</b>	1999 <i>TX</i> <sub>121</sub>		12 3.4	55°08	0°5/ 3.5	18	<b>42014</b>	2000 <i>YM</i> <sub>61</sub>		12 3.4	219°28	4°4/ 2.1	18
10 28	5 9.13	+24 45.2	1.503	2.325	17.2	19.8	10 28	5 4.60	+8 50.7	2.306	3.107	12.6	19.4
11 7	5 4.06	+24 31.5	1.446	2.343	13.2	19.6	11 7	4 59.73	+8 28.0	2.225	3.105	10.0	19.2
11 17	4 56.03	+24 10.6	1.410	2.361	8.5	19.4	11 17	4 52.94	+8 10.6	2.167	3.102	7.1	19.1
11 27	4 46.04	+23 42.5	1.398	2.379	3.4	19.1	11 27	4 44.82	+8 1.4	2.136	3.099	4.8	18.9
12 7	4 35.48	+23 9.2	1.414	2.397	1.9	19.1	12 7	4 36.16	+8 2.0	2.135	3.096	4.8	18.9
12 17	4 25.81	+22 34.2	1.457	2.416	6.8	19.4	12 17	4 27.83	+8 13.8	2.162	3.093	7.1	19.0
12 27	4 18.26	+22 2.3	1.527	2.435	11.2	19.7	12 27	4 20.67	+8 36.9	2.217	3.090	9.9	19.2
1 6	4 13.58	+21 37.1	1.619	2.454	15.0	20.0	1 6	4 15.32	+9 10.2	2.297	3.086	12.6	19.4
<b>383116</b>	2005 <i>SR</i> <sub>258</sub>		12 3.4	2°35	4°5/ 4.8	18	<b>178130</b>	2006 <i>TR</i> <sub>47</sub>		12 3.4	48°61	3°3/ 3.9	18
10 28	5 9.82	+32 58.0	1.386	2.200	18.8	20.4	10 28	5 10.68	+28 22.7	1.796	2.598	15.6	19.9
11 7	5 5.44	+33 8.8	1.313	2.200	15.0	20.1	11 7	5 5.29	+29 16.6	1.723	2.605	12.2	19.7
11 17	4 57.42	+33 4.5	1.259	2.199	10.6	19.9	11 17	4 56.97	+30 4.5	1.672	2.612	8.4	19.5
11 27	4 46.74	+32 41.2	1.229	2.199	6.2	19.6	11 27	4 46.53	+30 42.6	1.647	2.620	4.6	19.3
12 7	4 35.04	+31 58.5	1.224	2.200	4.6	19.6	12 7	4 35.19	+31 8.1	1.651	2.627	3.6	19.2
12 17	4 24.16	+31 0.2	1.245	2.201	8.1	19.8	12 17	4 24.36	+31 21.0	1.683	2.635	6.8	19.4
12 27	4 15.77	+29 54.4	1.291	2.202	12.6	20.0	12 27	4 15.40	+31 23.8	1.742	2.643	10.5	19.7
1 6	4 10.84	+28 49.7	1.359	2.204	16.7	20.3	1 6	4 9.21	+31 21.2	1.825	2.651	13.9	19.9
<b>487936</b>	2015 <i>TE</i> <sub>220</sub>		12 3.4	49°90	4°0/ 4.3	17	<b>42765</b>	1998 <i>SR</i> <sub>137</sub>		12 3.4	74°21	0°0/ 3.2	18
10 28	5 10.12	+31 16.6	1.813	2.611	15.6	21.6	10 28	5 6.51	+22 0.0	2.171	2.977	13.1	19.0
11 7	5 4.89	+31 58.1	1.738	2.615	12.4	21.4	11 7	5 1.34	+22 8.9	2.099	2.988	10.0	18.8
11 17	4 56.71	+32 30.7	1.684	2.620	8.7	21.2	11 17	4 54.03	+22 15.2	2.052	3.000	6.5	18.6
11 27	4 46.41	+32 50.5	1.656	2.624	5.2	21.0	11 27	4 45.25	+22 18.6	2.031	3.012	2.6	18.4
12 7	4 35.22	+32 55.5	1.656	2.629	4.2	21.0	12 7	4 35.94	+22 19.3	2.040	3.023	1.4	18.3
12 17	4 24.59	+32 46.3	1.684	2.634	7.0	21.2	12 17	4 27.11	+22 18.3	2.079	3.035	5.3	18.6
12 27	4 15.85	+32 27.0	1.739	2.639	10.6	21.4	12 27	4 19.69	+22 17.6	2.146	3.047	8.9	18.9
1 6	4 9.91	+32 3.0	1.817	2.644	13.9	21.6	1 6	4 14.35	+22 19.1	2.239	3.059	11.9	19.1
<b>199666</b>	2006 <i>GA</i> <sub>49</sub>		12 3.4	113°10	1°2/ 3.8	17	<b>90248</b>	2003 <i>BO</i> <sub>63</sub>		12 3.4	138°74	0°9/ 3.7	18
10 28	5 5.79	+26 8.7	2.594	3.387	11.6	20.6	10 28	5 11.48	+25 26.7	1.887	2.689	15.0	20.4
11 7	5 0.53	+26 18.4	2.516	3.397	8.9	20.5	11 7	5 5.47	+25 23.7	1.814	2.699	11.5	20.2
11 17	4 53.38	+26 23.2	2.463	3.407	5.9	20.3	11 17	4 56.83	+25 14.2	1.763	2.709	7.5	19.9
11 27	4 44.96	+26 22.3	2.438	3.416	2.7	20.1	11 27	4 46.38	+24 57.3	1.739	2.718	3.2	19.7
12 7	4 36.07	+26 15.8	2.443	3.425	1.6	20.0	12 7	4 35.31	+24 33.7	1.744	2.727	1.8	19.6
12 17	4 27.58	+26 4.9	2.479	3.434	4.7	20.3	12 17	4 24.87	+24 6.0	1.779	2.735	6.0	19.9
12 27	4 20.29	+25 51.7	2.544	3.443	7.7	20.5	12 27	4 16.22	+23 38.0	1.842	2.743	10.1	20.2
1 6	4 14.82	+25 38.7	2.635	3.452	10.4	20.7	1 6	4 10.13	+23 13.5	1.929	2.750	13.5	20.4
<b>85988</b>	1999 <i>JX</i> <sub>5</sub>		12 3.4	267°17	9°7/ 27.4	18	<b>67739</b>	2000 <i>UV</i> <sub>29</sub>		12 3.4	94°34	4°1/ 4.3	18
10 28	5 4.51	- 1 32.4	2.126	2.908	14.2	19.5	10 28	5 16.37	+30 34.5	1.441	2.246	18.6	19.9
11 7	4 59.84	- 3 36.4	2.048	2.894	12.1	19.3	11 7	5 10.09	+31 12.7	1.382	2.264	14.7	19.7
11 17	4 53.11	- 5 32.2	1.993	2.880	10.5	19.2	11 17	5 0.19	+31 39.9	1.343	2.282	10.1	19.5
11 27	4 44.91	- 7 11.6	1.965	2.866	9.7	19.1	11 27	4 47.79	+31 51.3	1.329	2.300	5.7	19.3
12 7	4 36.08	- 8 27.9	1.964	2.851	10.4	19.1	12 7	4 34.55	+31 45.1	1.342	2.318	4.3	19.2
12 17	4 27.56	- 9 16.6	1.988	2.836	12.1	19.2	12 17	4 22.32	+31 23.5	1.382	2.335	7.8	19.5
12 27	4 20.26	- 9 36.6	2.036	2.822	14.2	19.3	12 27	4 12.67	+30 52.4	1.448	2.352	12.1	19.8
1 6	4 14.88	- 9 30.3	2.104	2.807	16.3	19.4	1 6	4 6.52	+30 19.3	1.536	2.368	15.8	20.1
<b>490481</b>	2009 <i>SO</i> <sub>352</sub>		12 3.4	55°61	5°6/ 5.1	18	<b>66049</b>	1998 <i>QB</i> <sub>86</sub>		12 3.4	53°15	4°4/ 5.6	18
10 28	5 10.22												

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>521919</b>	2015 <i>US</i> <sub>50</sub>	12	3.4	104°52'	4°8'	2.2	18						
10 28	5 5.64	+ 8 46.3	2.058	2.864	13.8	21.7							
11 7	5 0.70	+ 8 24.4	1.984	2.866	10.9	21.6							
11 17	4 53.64	+ 8 8.7	1.933	2.869	7.7	21.4							
11 27	4 45.11	+ 8 2.3	1.908	2.872	5.2	21.2							
12 7	4 36.03	+ 8 6.9	1.912	2.874	5.2	21.2							
12 17	4 27.36	+ 8 23.6	1.944	2.877	7.6	21.4							
12 27	4 20.04	+ 8 52.3	2.003	2.879	10.7	21.6							
1 6	4 14.74	+ 9 31.6	2.086	2.882	13.5	21.8							
<b>332486</b>	2008 <i>EB</i> <sub>157</sub>	12	3.4	97°24'	1°6'	2.9	18						
10 28	5 12.18	+19 12.3	1.592	2.407	16.7	20.9							
11 7	5 6.12	+18 53.3	1.534	2.428	12.7	20.7							
11 17	4 57.25	+18 32.5	1.498	2.448	8.2	20.5							
11 27	4 46.53	+18 10.9	1.488	2.468	3.5	20.3							
12 7	4 35.29	+17 50.7	1.506	2.487	2.6	20.2							
12 17	4 24.89	+17 34.4	1.553	2.506	7.1	20.6							
12 27	4 16.53	+17 24.7	1.626	2.525	11.3	20.9							
1 6	4 10.94	+17 23.3	1.723	2.542	14.9	21.1							
<b>17485</b>	1991 <i>RP</i> <sub>9</sub>	12	3.4	359°50'	4°8'	3.6	18						
10 28	5 12.79	+27 58.9	1.438	2.253	18.2	16.4							
11 7	5 7.88	+29 33.0	1.363	2.251	14.4	16.1							
11 17	4 59.24	+31 4.5	1.309	2.250	10.1	15.9							
11 27	4 47.64	+32 26.0	1.279	2.250	6.0	15.7							
12 7	4 34.57	+33 30.8	1.277	2.250	5.1	15.6							
12 17	4 21.91	+34 15.8	1.301	2.251	8.6	15.8							
12 27	4 11.55	+34 42.9	1.351	2.252	12.9	16.1							
1 6	4 4.74	+34 57.9	1.423	2.254	16.8	16.3							
<b>371817</b>	2007 <i>TV</i> <sub>337</sub>	12	3.4	167°41'	7°5'	6.9	17						
10 28	5 15.43	+50 33.8	3.124	3.806	12.0	21.1							
11 7	5 8.47	+51 34.1	3.042	3.810	10.6	21.0							
11 17	4 58.85	+52 20.1	2.982	3.813	9.1	20.9							
11 27	4 47.27	+52 46.7	2.946	3.816	8.0	20.8							
12 7	4 34.83	+52 51.1	2.937	3.819	7.5	20.8							
12 17	4 22.79	+52 33.4	2.955	3.821	8.0	20.8							
12 27	4 12.37	+51 56.7	3.000	3.823	9.1	20.9							
1 6	4 4.43	+51 6.6	3.069	3.824	10.5	21.0							
<b>438451</b>	2006 <i>YV</i> <sub>8</sub>	12	3.4	286°30'	3°1'	2.8	18						
10 28	5 9.38	+14 45.0	1.565	2.386	16.7	21.1							
11 7	5 4.78	+14 41.3	1.465	2.360	13.1	20.8							
11 17	4 57.02	+14 41.1	1.386	2.335	8.8	20.4							
11 27	4 46.73	+14 46.1	1.331	2.308	4.4	20.1							
12 7	4 35.08	+14 57.9	1.304	2.282	3.9	20.0							
12 17	4 23.55	+15 17.4	1.304	2.256	8.4	20.2							
12 27	4 13.70	+15 45.8	1.330	2.229	13.3	20.4							
1 6	4 6.72	+16 23.3	1.378	2.202	17.7	20.6							
<b>96809</b>	1999 <i>RV</i> <sub>150</sub>	12	3.4	107°51'	1°0'	3.7	18						
10 28	5 11.04	+25 11.8	1.879	2.682	15.0	19.6							
11 7	5 5.10	+25 17.2	1.812	2.698	11.5	19.5							
11 17	4 56.58	+25 16.7	1.767	2.714	7.5	19.2							
11 27	4 46.30	+25 9.3	1.750	2.729	3.2	19.0							
12 7	4 35.46	+24 55.4	1.761	2.744	1.8	18.9							
12 17	4 25.27	+24 37.0	1.802	2.758	6.0	19.3							
12 27	4 16.88	+24 17.4	1.870	2.772	9.9	19.5							
1 6	4 11.02	+24 0.3	1.963	2.786	13.2	19.8							
<b>19574</b>	<i>Davidwards</i>	12	3.4	68°87'	0°9'	3.2	18						
10 28	5 13.14	+20 8.2	1.278	2.106	19.2	17.9							
11 7	5 7.46	+20 9.4	1.228	2.128	14.7	17.7							
11 17	4 58.38	+20 8.6	1.197	2.150	9.4	17.5							
11 27	4 47.05	+20 5.8	1.191	2.172	3.8	17.2							
12 7	4 35.08	+20 1.9	1.212	2.194	2.4	17.2							
12 17	4 24.17	+19 59.0	1.259	2.216	7.8	17.6							
12 27	4 15.76	+19 59.9	1.331	2.238	12.6	17.9							
1 6	4 10.66	+20 6.8	1.425	2.260	16.6	18.2							
<b>330546</b>	2008 <i>AC</i> <sub>70</sub>	12	3.4	337°42'	0°4'	3.3	18						
10 28	5 6.62	+24 46.2	1.175	2.017	19.7	19.9							
11 7	5 3.25	+24 3.7	1.101	2.010	15.3	19.6							
11 17	4 56.17	+23 9.1	1.047	2.003	10.0	19.3							
11 27	4 46.34	+22 3.9	1.015	1.996	4.0	18.9							
12 7	4 35.41	+20 52.4	1.007	1.991	2.4	18.8							
12 17	4 25.23	+19 42.1	1.025	1.986	8.6	19.1							
12 27	4 17.54	+18 41.0	1.067	1.982	14.2	19.4							
1 6	4 13.37	+17 54.8	1.128	1.979	19.0	19.7							
<b>332793</b>	2009 <i>WB</i> <sub>28</sub>	12	3.4	339°20'	0°3'	3.3	17						
10 28	5 4.37	+23 41.6	2.091	2.902	13.4	20.7							
11 7	4 59.89	+23 9.7	2.007	2.899	10.3	20.5							
11 17	4 53.20	+22 31.6	1.946	2.895	6.6	20.3							
11 27	4 44.99	+21 48.2	1.912	2.892	2.6	20.0							
12 7	4 36.20	+21 1.9	1.907	2.890	1.6	19.9							
12 17	4 27.86	+20 15.9	1.931	2.887	5.7	20.2							
12 27	4 20.93	+19 34.0	1.984	2.885	9.4	20.4							
1 6	4 16.11	+18 59.3	2.061	2.883	12.7	20.6							
<b>473574</b>	2015 <i>XP</i> <sub>226</sub>	12	3.4	7°51'	1°3'	3.0	18						
10 28	5 4.22	+19 36.6	1.654	2.481	15.6	20.7							
11 7	5 0.26	+19 23.7	1.581	2.482	12.0	20.5							
11 17	4 53.67	+19 8.9	1.531	2.484	7.8	20.3							
11 27	4 45.22	+18 53.3	1.505	2.486	3.2	20.0							
12 7	4 36.07	+18 38.6	1.507	2.489	2.4	19.9							
12 17	4 27.45	+18 27.1	1.537	2.493	6.8	20.2							
12 27	4 20.54	+18 21.2	1.592	2.498	11.0	20.5							
1 6	4 16.13	+18 22.7	1.670	2.503	14.7	20.7							
<b>133638</b>	2003 <i>UP</i> <sub>145</sub>	12	3.4	82°84'	0°3'	3.5	18						
10 28	5 9.97	+22 51.5	1.755	2.567	15.5	19.5							
11 7	5 4.44	+23 0.9	1.690	2.582	11.9	19.3							
11 17	4 56.24	+23 6.4	1.647	2.596	7.7	19.1							
11 27	4 46.20	+23 7.4	1.630	2.611	3.1	18.9							
12 7	4 35.55	+23 4.0	1.642	2.625	1.7	18.8							
12 17	4 25.56	+22 57.8	1.683	2.640	6.2	19.1							
12 27	4 17.40	+22 51.6	1.751	2.654	10.3	19.4							
1 6	4 11.84	+22 48.1	1.842	2.668	13.8	19.6							



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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>64963</b>	2001 YP <sub>144</sub>	12 3.4	24°72'	3°1'	3.9	18 R	<b>460242</b>	2014 QE <sub>262</sub>	12 3.4	20°26'	3°7'	2.8	17
10 28	5 9.58	+26 56.7	1.292	2.121	19.0	19.0	10 28	5 3.94	+12 59.5	1.461	2.295	17.0	20.1
11 7	5 5.31	+27 42.3	1.230	2.128	14.9	18.7	11 7	5 0.11	+12 55.0	1.407	2.309	13.1	19.9
11 17	4 57.41	+28 21.3	1.187	2.135	10.0	18.5	11 17	4 53.57	+12 56.1	1.374	2.324	8.8	19.7
11 27	4 46.84	+28 49.4	1.167	2.144	5.1	18.2	11 27	4 45.20	+13 4.9	1.365	2.341	4.7	19.5
12 7	4 35.21	+29 4.2	1.173	2.153	3.6	18.2	12 7	4 36.23	+13 22.4	1.383	2.358	4.3	19.5
12 17	4 24.38	+29 6.2	1.204	2.163	8.0	18.4	12 17	4 27.96	+13 49.0	1.426	2.377	7.9	19.8
12 27	4 16.01	+28 59.9	1.260	2.173	12.7	18.7	12 27	4 21.55	+14 24.4	1.495	2.397	11.9	20.1
1 6	4 11.13	+28 50.8	1.338	2.184	16.8	19.0	1 6	4 17.74	+15 7.2	1.587	2.418	15.4	20.4
<b>311718</b>	2006 SG <sub>359</sub>	12 3.4	63°12'	0°6'	3.5	18	<b>177386</b>	2004 BY <sub>73</sub>	12 3.4	297°85'	5°9'	5.5	17
10 28	5 13.49	+22 0.6	1.714	2.521	16.0	20.2	10 28	5 9.99	+37 45.3	1.809	2.592	16.3	20.0
11 7	5 6.95	+22 33.9	1.666	2.555	12.2	20.1	11 7	5 5.20	+38 6.5	1.717	2.579	13.4	19.8
11 17	4 57.72	+23 4.5	1.641	2.589	7.8	19.9	11 17	4 57.19	+38 12.4	1.645	2.565	10.1	19.6
11 27	4 46.75	+23 30.3	1.642	2.622	3.2	19.7	11 27	4 46.77	+37 58.3	1.597	2.552	7.0	19.4
12 7	4 35.33	+23 50.6	1.673	2.656	1.7	19.7	12 7	4 35.30	+37 22.1	1.576	2.540	5.9	19.3
12 17	4 24.78	+24 5.7	1.733	2.689	6.2	20.0	12 17	4 24.34	+36 25.8	1.582	2.527	7.9	19.4
12 27	4 16.23	+24 17.9	1.820	2.722	10.1	20.3	12 27	4 15.42	+35 15.7	1.615	2.514	11.3	19.5
1 6	4 10.37	+24 29.7	1.932	2.754	13.4	20.6	1 6	4 9.53	+34 0.2	1.672	2.502	14.8	19.7
<b>406775</b>	2008 PB <sub>2</sub>	12 3.4	58°18'	12°4'	1.2	18	<b>475332</b>	2006 AK <sub>27</sub>	12 3.4	350°14'	1°4'	3.1	18
10 28	5 5.13	-16 29.4	2.187	2.902	15.7	20.3	10 28	5 4.84	+19 45.7	1.248	2.092	18.7	20.9
11 7	5 0.05	-17 30.2	2.148	2.918	14.3	20.2	11 7	5 1.66	+19 37.3	1.176	2.085	14.4	20.7
11 17	4 53.06	-18 8.3	2.128	2.935	13.1	20.1	11 17	4 55.08	+19 26.8	1.123	2.080	9.4	20.4
11 27	4 44.88	-18 18.1	2.129	2.951	12.5	20.1	11 27	4 45.96	+19 15.3	1.094	2.075	3.9	20.0
12 7	4 36.37	-17 57.1	2.152	2.968	12.5	20.2	12 7	4 35.76	+19 4.6	1.089	2.071	2.7	20.0
12 17	4 28.41	-17 5.7	2.198	2.985	13.2	20.3	12 17	4 26.17	+18 57.3	1.109	2.069	8.2	20.3
12 27	4 21.80	-15 47.5	2.265	3.002	14.3	20.4	12 27	4 18.77	+18 56.5	1.153	2.067	13.5	20.6
1 6	4 17.09	-14 8.3	2.352	3.019	15.6	20.5	1 6	4 14.61	+19 4.2	1.218	2.067	18.0	20.8
<b>414376</b>	2008 UB <sub>253</sub>	12 3.4	126°16'	7°1'	6.1	18	<b>188971</b>	2008 DH <sub>58</sub>	12 3.4	190°26'	1°4'	3.9	18
10 28	5 16.43	+46 19.5	2.882	3.589	12.5	21.0	10 28	5 8.04	+26 21.1	2.122	2.922	13.6	20.7
11 7	5 9.22	+47 30.1	2.810	3.603	10.7	20.9	11 7	5 2.81	+26 31.7	2.038	2.922	10.5	20.5
11 17	4 59.34	+48 27.1	2.760	3.617	8.9	20.8	11 17	4 55.18	+26 36.6	1.977	2.921	7.0	20.3
11 27	4 47.51	+49 5.4	2.735	3.631	7.5	20.7	11 27	4 45.86	+26 34.4	1.943	2.920	3.2	20.1
12 7	4 34.83	+49 21.9	2.739	3.644	7.1	20.7	12 7	4 35.85	+26 25.0	1.938	2.920	2.0	20.0
12 17	4 22.57	+49 16.7	2.772	3.657	7.7	20.8	12 17	4 26.25	+26 9.9	1.963	2.919	5.6	20.2
12 27	4 11.93	+48 52.9	2.831	3.670	9.1	20.9	12 27	4 18.14	+25 51.9	2.016	2.917	9.3	20.5
1 6	4 3.79	+48 16.2	2.915	3.682	10.8	21.0	1 6	4 12.28	+25 34.6	2.093	2.916	12.5	20.7
<b>226652</b>	2004 FT <sub>110</sub>	12 3.4	227°86'	1°1'	3.0	18	<b>52516</b>	1996 HO <sub>20</sub>	12 3.4	189°32'	0°3'	3.5	18
10 28	5 10.01	+20 55.4	1.868	2.676	14.8	20.9	10 28	5 10.90	+23 15.8	1.958	2.761	14.5	19.5
11 7	5 4.56	+20 29.5	1.776	2.667	11.5	20.7	11 7	5 5.13	+23 19.5	1.874	2.760	11.2	19.3
11 17	4 56.44	+19 59.0	1.707	2.656	7.5	20.4	11 17	4 56.75	+23 19.2	1.812	2.759	7.3	19.0
11 27	4 46.38	+19 25.0	1.665	2.645	3.1	20.1	11 27	4 46.51	+23 13.9	1.777	2.757	3.0	18.8
12 7	4 35.47	+18 49.6	1.651	2.633	2.2	20.0	12 7	4 35.49	+23 4.0	1.772	2.755	1.6	18.7
12 17	4 24.98	+18 15.9	1.667	2.621	6.7	20.3	12 17	4 24.93	+22 51.1	1.796	2.752	6.0	18.9
12 27	4 16.10	+17 47.6	1.711	2.608	11.0	20.5	12 27	4 15.99	+22 38.0	1.849	2.749	10.1	19.2
1 6	4 9.71	+17 27.7	1.779	2.594	14.7	20.7	1 6	4 9.50	+22 27.8	1.926	2.745	13.6	19.4
<b>300418</b>	2007 RQ <sub>318</sub>	12 3.4	146°56'	1°4'	3.8	18	<b>130355</b>	2000 GG <sub>35</sub>	12 3.4	347°93'	3°2'	2.1	17
10 28	5 10.54	+26 21.1	2.082	2.878	13.9	21.7	10 28	5 2.99	+15 0.2	2.148	2.962	13.0	19.9
11 7	5 4.63	+26 28.0	2.005	2.886	10.8	21.3	11 7	4 58.70	+14 16.3	2.068	2.960	10.0	19.7
11 17	4 56.29	+26 28.7	1.950	2.894	7.1	21.3	11 17	4 52.40	+13 32.5	2.012	2.958	6.7	19.5
11 27	4 46.25	+26 21.8	1.924	2.901	3.2	21.1	11 27	4 44.72	+12 51.5	1.983	2.957	3.8	19.3
12 7	4 35.59	+26 7.6	1.926	2.908	1.9	21.0	12 7	4 36.51	+12 16.4	1.983	2.955	3.7	19.3
12 17	4 25.47	+25 47.7	1.959	2.915	5.6	21.2	12 17	4 28.69	+11 49.9	2.011	2.954	6.6	19.5
12 27	4 16.94	+25 25.5	2.020	2.920	9.3	21.5	12 27	4 22.15	+11 34.0	2.067	2.953	9.9	19.7
1 6	4 10.76	+25 4.6	2.106	2.926	12.6	21.7	1 6	4 17.51	+11 29.5	2.147	2.952	12.9	19.9
<b>247567</b>	2002 SZ <sub>51</sub>	12 3.4	42°21'	9°5'	5.7	17	<b>407025</b>	2009 SS <sub>40</sub>	12 3.4	6°34'	1°0'	3.7	16
10 28	5 16.77	+46 22.0	2.117	2.845	15.8	19.6	10 28	5 3.85	+24 47.0	1.580	2.408	16.2	20.5
11 7	5 10.59	+48 6.5	2.051	2.857	13.7	19.4	11 7	5 0.25	+24 53.7	1.509	2.409	12.5	20.2
11 17	5 0.82	+49 35.1	2.007	2.869	11.6	19.3	11 17	4 53.82	+24 54.7	1.459	2.411	8.2	20.0
11 27	4 48.26	+50 39.6	1.987	2.882	10.0	19.2	11 27	4 45.37	+24 49.1	1.434	2.414	3.5	19.7
12 7	4 34.39	+51 14.8	1.993	2.894	9.5	19.2	12 7	4 36.14	+24 37.3	1.435	2.418	1.9	19.6
12 17	4 21.00	+51 19.7	2.024	2.907	10.3	19.3	12 17	4 27.49	+24 21.6	1.463	2.423	6.6	19.9
12 27	4 9.83	+50 58.9	2.081	2.921	11.9	19.4	12 27	4 20.68	+24 5.3	1.518	2.430	11.0	20.2
1 6	4 2.06	+50 20.5	2.159	2.934	13.8	19.6	1 6	4 16.56	+23 52.1	1.594	2.437	14.8	20.5
<b>211282</b>	2002 RR <sub>151</sub>	12 3.4	281°52'	1°2'	3.9	18	<b>307516</b>	2003 AR <sub>32</sub>	12 3.4	271°98'	3°1'	4.6	17
10 28	5 7.69	+27 13.5	1.833	2.641	15.1	20.2	10 28	5 8.38	+31 50.3	2.010	2.803	14.5	20.6
11 7	5 2.91	+26 56.1	1.745	2.634	11.7	19.9	11 7	5 3.38	+31 52.3	1.918	2.794	11.5	20.4
11 17	4 55.41	+26 29.5	1.679	2.626	7.8	19.7	11 17	4 55.71	+31 43.4	1.848	2.784	8.0	20.1
11 27	4 45.97	+25 53.2	1.639	2.618	3.4	19.4	11 27	4 46.12	+31 21.3	1.804	2.775	4.5	19.9
12 7	4 35.74	+25 8.4	1.628	2.611	1.9	19.3	12 7	4 35.71	+30 46.1	1.788	2.765	3.3	19.8
12 17	4 26.00	+24 18.6	1.645	2.603	6.3	19.5	12 17	4 25.76	+29 59.9	1.801	2.755	6.2	20.0
12 27	4 17.98	+23 28.9	1.690	2.595	10.5	19.8	12 27	4 17.46	+29 7.8	1.842	2.745	9.9	20.2
1 6	4 12.52	+22 44.3	1.758	2.588	14.2	20.0	1 6	4 11.66	+28 15.4	1.908	2.735	13.3	20.4
<b>520879</b>	2014 WN <sub>501</sub>	12 3.4	46°65'	0°8'	3.3	17	<b>174085</b>	2002 GU <sub>98</sub>	12 3.4	75°64'	0°7'	3.6	18
10 28	5 7.77	+17 34.6	2.249	3.052	12.8	20.6							

EPHEMERIDES

12 3.4

12 3.4

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>369858</b>	2012 <i>JJ</i> <sub>63</sub>	12	3.4	280°16	0°1/ 3.5	17	<b>145163</b>	2005 <i>HT</i> <sub>6</sub>	12	3.4	248°04	0°3/ 3.3	18
10 28	5 5.56	+22 40.4	2.251	3.057	12.7	21.7	10 28	5 7.87	+22 48.9	2.128	2.932	13.4	20.2
11 7	5 0.75	+22 44.0	2.164	3.053	9.8	21.5	11 7	5 2.71	+22 30.6	2.030	2.918	10.4	19.9
11 17	4 53.79	+22 44.6	2.100	3.048	6.4	21.3	11 17	4 55.18	+22 7.2	1.955	2.903	6.8	19.7
11 27	4 45.31	+22 41.6	2.064	3.044	2.6	21.1	11 27	4 45.93	+21 39.1	1.907	2.888	2.7	19.4
12 7	4 36.18	+22 35.7	2.057	3.040	1.4	21.0	12 7	4 35.90	+21 7.6	1.889	2.872	1.6	19.3
12 17	4 27.40	+22 28.0	2.080	3.036	5.3	21.2	12 17	4 26.20	+20 35.2	1.901	2.856	5.8	19.5
12 27	4 19.91	+22 20.6	2.131	3.032	8.9	21.5	12 27	4 17.88	+20 5.4	1.941	2.840	9.8	19.7
1 6	4 14.43	+22 15.8	2.207	3.028	12.0	21.7	1 6	4 11.74	+19 41.1	2.006	2.823	13.2	19.9
<b>262425</b>	2006 <i>UU</i> <sub>72</sub>	12	3.4	20°35	2°5/ 4.3	18	<b>409084</b>	2003 <i>SQ</i> <sub>328</sub>	12	3.4	134°31	3°6/ 1.9	18
10 28	5 8.10	+29 34.2	1.842	2.645	15.2	20.9	10 28	5 4.01	+11 48.1	2.540	3.341	11.6	21.9
11 7	5 3.22	+29 39.2	1.763	2.646	11.9	20.7	11 7	4 59.08	+11 8.6	2.467	3.349	9.0	21.7
11 17	4 55.61	+29 34.7	1.705	2.647	8.1	20.4	11 17	4 52.47	+10 31.6	2.418	3.357	6.2	21.5
11 27	4 46.06	+29 18.8	1.674	2.649	4.2	20.2	11 27	4 44.73	+9 59.6	2.397	3.364	4.0	21.4
12 7	4 35.77	+28 51.7	1.670	2.650	2.8	20.1	12 7	4 36.61	+9 34.9	2.406	3.371	4.0	21.4
12 17	4 26.05	+28 15.9	1.696	2.652	6.3	20.3	12 17	4 28.86	+9 19.5	2.445	3.378	6.2	21.6
12 27	4 18.10	+27 35.9	1.748	2.654	10.2	20.6	12 27	4 22.21	+9 14.3	2.512	3.385	8.9	21.7
1 6	4 12.76	+26 57.0	1.824	2.655	13.7	20.8	1 6	4 17.21	+9 19.4	2.604	3.391	11.4	21.9
<b>29994</b>	Zuoyu	12	3.4	152°42	3°7/ 4.6	18	<b>439424</b>	2013 <i>EP</i> <sub>1</sub>	12	3.4	37°29	3°4/ 4.4	18
10 28	5 13.58	+32 9.5	1.792	2.582	16.1	18.5	10 28	5 9.40	+30 36.9	1.796	2.597	15.6	20.7
11 7	5 7.53	+32 24.2	1.715	2.589	12.7	18.3	11 7	5 4.38	+31 2.9	1.719	2.599	12.4	20.5
11 17	4 58.44	+32 27.3	1.660	2.594	8.9	18.1	11 17	4 56.46	+31 19.5	1.663	2.602	8.6	20.3
11 27	4 47.20	+32 15.5	1.630	2.600	5.1	17.9	11 27	4 46.46	+31 23.8	1.633	2.605	4.8	20.1
12 7	4 35.16	+31 48.2	1.629	2.604	3.8	17.8	12 7	4 35.63	+31 14.6	1.631	2.608	3.6	20.0
12 17	4 23.81	+31 7.9	1.656	2.609	6.8	18.0	12 17	4 25.35	+30 53.3	1.657	2.611	6.7	20.2
12 27	4 14.51	+30 20.1	1.711	2.613	10.7	18.2	12 27	4 16.95	+30 24.5	1.710	2.614	10.5	20.4
1 6	4 8.13	+29 31.4	1.790	2.616	14.2	18.5	1 6	4 11.30	+29 53.3	1.787	2.618	14.0	20.6
<b>175092</b>	2004 <i>HJ</i> <sub>55</sub>	12	3.4	200°09	5°2/ 2.1	18	<b>223132</b>	2002 <i>VR</i> <sub>76</sub>	12	3.4	90°64	1°1/ 3.3	18
10 28	5 6.29	+7 22.1	2.111	2.911	13.6	20.4	10 28	5 14.73	+18 8.2	1.568	2.380	17.1	20.1
11 7	5 1.23	+6 56.2	2.032	2.910	10.9	20.2	11 7	5 8.20	+18 27.4	1.512	2.403	13.1	19.9
11 17	4 54.05	+6 37.3	1.976	2.908	7.9	20.1	11 17	4 58.73	+18 47.4	1.478	2.427	8.4	19.7
11 27	4 45.40	+6 28.5	1.947	2.906	5.6	19.9	11 27	4 47.28	+19 7.4	1.470	2.450	3.4	19.4
12 7	4 36.16	+6 31.9	1.947	2.904	5.6	19.9	12 7	4 35.23	+19 27.0	1.490	2.472	2.2	19.4
12 17	4 27.29	+6 48.8	1.975	2.902	7.9	20.0	12 17	4 24.02	+19 46.6	1.539	2.494	6.9	19.7
12 27	4 19.72	+7 18.9	2.030	2.899	10.9	20.2	12 27	4 14.93	+20 7.4	1.616	2.516	11.3	20.0
1 6	4 14.14	+8 0.7	2.109	2.897	13.7	20.4	1 6	4 8.74	+20 30.9	1.715	2.537	14.9	20.3
<b>421934</b>	2014 <i>QC</i> <sub>241</sub>	12	3.4	177°90	1°9/ 4.1	17	<b>265462</b>	2005 <i>AQ</i> <sub>14</sub>	12	3.4	19°46	5°0/ 2.3	18
10 28	5 7.61	+28 12.7	2.327	3.119	12.8	21.7	10 28	5 4.44	+7 54.1	2.013	2.821	13.9	19.6
11 7	5 2.30	+28 25.2	2.241	3.120	10.0	21.5	11 7	4 59.89	+7 37.4	1.941	2.824	11.0	19.4
11 17	4 54.78	+28 31.1	2.180	3.120	6.7	21.3	11 17	4 53.22	+7 28.2	1.892	2.827	7.9	19.2
11 27	4 45.70	+28 29.0	2.146	3.121	3.3	21.1	11 27	4 45.09	+7 29.2	1.869	2.831	5.5	19.1
12 7	4 35.99	+28 18.6	2.141	3.121	2.3	21.0	12 7	4 36.41	+7 42.3	1.874	2.835	5.3	19.1
12 17	4 26.67	+28 1.2	2.166	3.121	5.3	21.2	12 17	4 28.14	+8 7.9	1.907	2.840	7.7	19.2
12 27	4 18.74	+27 39.8	2.220	3.120	8.6	21.4	12 27	4 21.21	+8 45.6	1.967	2.844	10.8	19.4
1 6	4 12.89	+27 17.7	2.300	3.120	11.6	21.6	1 6	4 16.29	+9 33.6	2.050	2.849	13.6	19.6
<b>263325</b>	2008 <i>CD</i> <sub>51</sub>	12	3.4	168°66	5°8/ 2.1	18	<b>383499</b>	2007 <i>BD</i> <sub>76</sub>	12	3.4	356°70	7°4/ 2.1	18
10 28	5 6.49	+6 20.1	1.956	2.759	14.5	20.1	10 28	5 1.40	+10 5.0	1.020	1.879	20.7	20.0
11 7	5 1.51	+5 53.0	1.881	2.759	11.6	19.9	11 7	4 59.36	+9 14.3	0.960	1.873	16.5	19.8
11 17	4 54.29	+5 34.4	1.829	2.759	8.6	19.7	11 17	4 53.74	+8 31.7	0.917	1.868	11.9	19.5
11 27	4 45.50	+5 27.6	1.803	2.760	6.2	19.6	11 27	4 45.50	+8 4.4	0.895	1.865	8.1	19.3
12 7	4 36.11	+5 35.1	1.805	2.760	6.2	19.6	12 7	4 36.17	+7 58.2	0.895	1.864	8.0	19.3
12 17	4 27.13	+5 57.9	1.835	2.760	8.5	19.7	12 17	4 27.54	+8 16.0	0.918	1.864	11.8	19.5
12 27	4 19.57	+6 35.3	1.891	2.761	11.5	19.9	12 27	4 21.27	+8 56.9	0.961	1.867	16.5	19.8
1 6	4 14.12	+7 25.1	1.970	2.761	14.4	20.1	1 6	4 18.39	+9 56.8	1.023	1.871	20.7	20.0
<b>482074</b>	2010 <i>DV</i> <sub>34</sub>	12	3.4	348°12	2°0/ 3.9	18	<b>54170</b>	2000 <i>HK</i> <sub>57</sub>	12	3.4	310°74	2°5/ 2.8	18
10 28	5 5.47	+26 15.9	1.226	2.066	19.2	21.0	10 28	5 6.11	+18 24.3	1.362	2.198	17.8	19.0
11 7	5 2.45	+26 28.3	1.153	2.058	15.0	20.7	11 7	5 2.57	+17 58.1	1.274	2.180	13.9	18.7
11 17	4 55.76	+26 32.3	1.098	2.051	10.0	20.4	11 17	4 55.72	+17 29.5	1.207	2.161	9.2	18.4
11 27	4 46.31	+26 26.1	1.066	2.046	4.6	20.1	11 27	4 46.31	+17 0.5	1.164	2.143	4.2	18.1
12 7	4 35.65	+26 9.2	1.058	2.041	2.7	20.0	12 7	4 35.66	+16 34.3	1.145	2.126	3.5	18.0
12 17	4 25.62	+25 44.5	1.076	2.037	8.1	20.3	12 17	4 25.38	+16 14.4	1.153	2.109	8.6	18.2
12 27	4 17.97	+25 17.4	1.116	2.035	13.4	20.6	12 27	4 17.09	+16 4.6	1.185	2.093	13.8	18.5
1 6	4 13.82	+24 53.5	1.178	2.034	18.0	20.8	1 6	4 11.90	+16 7.1	1.238	2.077	18.4	18.7
<b>305760</b>	2009 <i>DD</i> <sub>17</sub>	12	3.4	167°21	11°3/ 28.9	18	<b>3243</b>	Skytel	12	3.4	149°23	3°9/ 4.9	18
10 28	5 4.90	-6 35.3	1.949	2.718	15.7	20.4	10 28	5 8.88	+34 54.1	2.531	3.301	12.5	17.8
11 7	5 0.24	-8 12.8	1.889	2.719	13.7	20.2	11 7	5 3.22	+35 17.5	2.449	3.307	10.0	17.6
11 17	4 53.44	-9 34.2	1.851	2.720	12.1	20.1	11 17	4 55.35	+35 30.9	2.389	3.311	7.3	17.4
11 27	4 45.16	-10 32.1	1.837	2.720	11.3	20.1	11 27	4 45.94	+35 31.8	2.357	3.316	4.8	17.3
12 7	4 36.34	-11 1.2	1.847	2.721	11.7	20.1	12 7	4 35.94	+35 19.4	2.354	3.320	3.9	17.2
12 17	4 27.97	-10 59.5	1.881	2.721	13.0	20.2	12 17	4 26.36	+34 54.8	2.381	3.324	5.7	17.3
12 27	4 21.00	-10 28.5	1.937	2.721	14.8	20.3	12 27	4 18.19	+34 21.3	2.436	3.328	8.3	17.5
1 6	4 16.08	-9 32.6	2.013	2.722	16.7	20.5	1 6	4 12.13	+33 43.5	2.517	3.331	10.9	17.7
<b>345726</b>	2007 <i>BH</i> <sub>79</sub>	12	3.4	177°84	1°2/ 3.1	18	<b>130723</b>	2000 <i>SO</i> <sub>216</sub>	12	3.4	122°32	4°1/ 2.5	18
10 28	5 10.43	+19 54.0											

EPHEMERIDES

12 3.4

12 3.4

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$		
<b>168768</b>	2000 <i>RN</i> <sub>15</sub>	12	3.4	158°09'	0°6'	3.2	17	<b>119142</b>	2001 <i>PL</i> <sub>27</sub>	12	3.4	5°57'	2°8'	4.2	18
10 28	5 12.89	+22 48.2	1.668	2.477	16.3	20.6	10 28	5 7.12	+29 3.0	1.237	2.070	19.5	19.5		
11 7	5 6.88	+22 17.8	1.593	2.484	12.5	20.3	11 7	5 3.64	+29 5.4	1.169	2.070	15.3	19.3		
11 17	4 57.96	+21 40.9	1.540	2.489	8.1	20.1	11 17	4 56.45	+28 55.2	1.120	2.070	10.4	19.0		
11 27	4 47.03	+20 58.4	1.514	2.495	3.2	19.8	11 27	4 46.58	+28 30.3	1.094	2.072	5.1	18.7		
12 7	4 35.39	+20 12.9	1.516	2.499	2.0	19.7	12 7	4 35.67	+27 51.4	1.093	2.074	3.2	18.6		
12 17	4 24.45	+19 28.4	1.548	2.503	6.9	20.1	12 17	4 25.59	+27 2.6	1.116	2.077	8.0	18.9		
12 27	4 15.50	+18 49.5	1.606	2.506	11.4	20.3	12 27	4 18.01	+26 11.4	1.164	2.082	13.1	19.2		
1 6	4 9.35	+18 20.0	1.688	2.508	15.2	20.6	1 6	4 13.94	+25 24.9	1.233	2.087	17.5	19.5		
<b>76583</b>	2000 <i>GF</i> <sub>136</sub>	12	3.4	76°97'	7°5'	29.6	18	<b>293223</b>	2007 <i>BN</i> <sub>40</sub>	12	3.4	312°10'	1°4'	3.0	18
10 28	5 2.22	+0 39.1	2.419	3.204	12.5	17.9	10 28	5 5.83	+18 56.2	2.025	2.838	13.7	21.6		
11 7	4 57.81	-0 43.7	2.351	3.207	10.5	17.8	11 7	5 1.11	+18 42.7	1.944	2.836	10.5	21.4		
11 17	4 51.71	-1 57.8	2.308	3.209	8.6	17.6	11 17	4 54.11	+18 27.9	1.885	2.835	6.8	21.2		
11 27	4 44.46	-2 58.2	2.291	3.211	7.6	17.6	11 27	4 45.51	+18 12.7	1.854	2.833	2.9	20.9		
12 7	4 36.80	-3 40.6	2.302	3.213	7.9	17.6	12 7	4 36.27	+17 58.5	1.851	2.832	2.2	20.9		
12 17	4 29.50	-4 2.7	2.340	3.215	9.4	17.7	12 17	4 27.43	+17 47.2	1.877	2.831	6.1	21.1		
12 27	4 23.28	-4 4.3	2.402	3.217	11.4	17.8	12 27	4 20.02	+17 41.0	1.931	2.829	9.8	21.3		
1 6	4 18.69	-3 47.2	2.487	3.219	13.3	18.0	1 6	4 14.75	+17 41.4	2.009	2.828	13.1	21.5		
<b>144007</b>	2004 <i>AP</i> <sub>9</sub>	12	3.4	26°04'	1°8'	4.2	18	<b>273507</b>	2007 <i>AC</i> <sub>30</sub>	12	3.4	269°11'	0°0'	3.2	18
10 28	5 8.13	+29 42.3	1.676	2.485	16.2	19.3	10 28	5 9.71	+22 17.0	1.611	2.429	16.4	21.3		
11 7	5 3.37	+29 12.8	1.601	2.489	12.7	19.1	11 7	5 4.92	+22 19.3	1.522	2.417	12.7	21.1		
11 17	4 55.73	+28 30.6	1.547	2.492	8.5	18.8	11 17	4 57.05	+22 17.9	1.453	2.404	8.3	20.8		
11 27	4 46.14	+27 35.3	1.519	2.496	4.0	18.6	11 27	4 46.82	+22 12.2	1.410	2.391	3.4	20.5		
12 7	4 35.89	+26 29.4	1.518	2.500	2.3	18.5	12 7	4 35.49	+22 2.5	1.395	2.378	1.9	20.3		
12 17	4 26.37	+25 17.9	1.546	2.505	6.5	18.7	12 17	4 24.54	+21 50.7	1.407	2.365	7.1	20.6		
12 27	4 18.81	+24 7.4	1.601	2.510	10.8	19.0	12 27	4 15.44	+21 40.1	1.446	2.352	11.9	20.9		
1 6	4 13.99	+23 4.0	1.680	2.515	14.5	19.2	1 6	4 9.20	+21 34.0	1.508	2.339	16.1	21.1		
<b>75181</b>	1999 <i>VW</i> <sub>158</sub>	12	3.4	257°92'	3°5'	4.2	18	<b>300702</b>	2007 <i>VZ</i> <sub>90</sub>	12	3.4	58°05'	0°4'	3.6	18
10 28	5 12.33	+29 20.4	1.577	2.384	17.2	19.4	10 28	5 9.74	+25 33.8	1.563	2.380	16.9	19.8		
11 7	5 7.25	+29 54.0	1.490	2.374	13.6	19.1	11 7	5 4.44	+25 7.0	1.508	2.402	12.9	19.7		
11 17	4 58.71	+30 19.7	1.423	2.364	9.4	18.9	11 17	4 56.29	+24 31.7	1.474	2.424	8.3	19.4		
11 27	4 47.51	+30 33.2	1.381	2.354	5.2	18.6	11 27	4 46.33	+23 48.8	1.465	2.446	3.4	19.2		
12 7	4 35.05	+30 32.1	1.366	2.344	3.8	18.5	12 7	4 35.89	+23 0.9	1.485	2.468	1.8	19.1		
12 17	4 23.01	+30 17.0	1.379	2.333	7.6	18.7	12 17	4 26.37	+22 12.4	1.532	2.490	6.6	19.5		
12 27	4 13.08	+30 52.5	1.417	2.323	12.1	18.9	12 27	4 18.94	+21 28.3	1.606	2.513	10.9	19.8		
1 6	4 6.39	+29 25.1	1.478	2.312	16.2	19.1	1 6	4 14.28	+20 52.5	1.703	2.535	14.5	20.1		
<b>70768</b>	1999 <i>VS</i> <sub>35</sub>	12	3.4	119°39'	0°6'	3.5	18	<b>41167</b>	1999 <i>VV</i> <sub>172</sub>	12	3.4	88°83'	0°0'	3.5	18
10 28	5 12.28	+21 42.7	1.921	2.723	14.7	18.5	10 28	5 7.90	+21 23.4	2.243	3.045	12.9	18.3		
11 7	5 6.21	+22 22.6	1.846	2.732	11.3	18.3	11 7	5 2.42	+21 43.1	2.171	3.057	9.9	18.2		
11 17	4 57.48	+23 1.5	1.794	2.741	7.4	18.1	11 17	4 54.82	+22 1.1	2.122	3.070	6.4	18.0		
11 27	4 46.87	+23 37.4	1.770	2.749	3.0	17.8	11 27	4 45.77	+22 16.7	2.102	3.082	2.5	17.7		
12 7	4 35.47	+24 8.6	1.775	2.758	1.7	17.8	12 7	4 36.16	+22 29.6	2.111	3.094	1.4	17.7		
12 17	4 24.55	+24 34.7	1.810	2.766	6.0	18.1	12 17	4 27.00	+22 40.3	2.151	3.107	5.2	18.0		
12 27	4 15.31	+24 56.8	1.874	2.774	10.0	18.3	12 27	4 19.21	+22 50.2	2.219	3.119	8.7	18.2		
1 6	4 8.57	+25 17.3	1.962	2.782	13.4	18.6	1 6	4 13.46	+23 1.0	2.313	3.131	11.6	18.4		
<b>249200</b>	2008 <i>DN</i> <sub>9</sub>	12	3.4	69°00'	5°7'	1.9	18	<b>448358</b>	2009 <i>HD</i> <sub>18</sub>	12	3.4	167°12'	1°5'	3.9	18
10 28	5 6.36	+8 16.4	1.829	2.639	15.0	20.3	10 28	5 9.10	+27 14.5	2.317	3.109	12.9	21.8		
11 7	5 1.37	+7 32.2	1.772	2.655	11.9	20.1	11 7	5 3.42	+27 21.1	2.234	3.112	10.0	21.7		
11 17	4 54.14	+6 54.9	1.737	2.672	8.6	19.9	11 17	4 55.51	+27 21.4	2.174	3.116	6.6	21.5		
11 27	4 45.45	+6 28.6	1.728	2.688	6.1	19.8	11 27	4 46.05	+27 14.1	2.142	3.118	3.1	21.2		
12 7	4 36.31	+6 16.3	1.747	2.705	6.1	19.8	12 7	4 36.00	+26 59.4	2.140	3.121	1.9	21.2		
12 17	4 27.77	+6 19.4	1.793	2.721	8.5	20.0	12 17	4 26.37	+26 38.8	2.168	3.123	5.2	21.4		
12 27	4 20.78	+6 37.9	1.866	2.738	11.6	20.2	12 27	4 18.15	+26 15.3	2.225	3.124	8.6	21.6		
1 6	4 16.00	+7 9.9	1.961	2.754	14.4	20.5	1 6	4 12.04	+25 52.2	2.308	3.125	11.7	21.8		
<b>73978</b>	1998 <i>DU</i> <sub>6</sub>	12	3.4	152°80'	2°9'	2.6	18	<b>68776</b>	2002 <i>EZ</i> <sub>154</sub>	12	3.4	119°18'	0°5'	3.3	18
10 28	5 10.78	+17 23.8	1.615	2.432	16.4	19.8	10 28	5 10.90	+20 31.8	1.952	2.756	14.5	20.0		
11 7	5 5.26	+16 43.0	1.543	2.437	12.7	19.5	11 7	5 4.93	+20 35.6	1.883	2.771	11.1	19.8		
11 17	4 56.93	+16 0.5	1.493	2.443	8.3	19.3	11 17	4 56.51	+20 37.6	1.837	2.785	7.1	19.6		
11 27	4 46.63	+15 18.9	1.470	2.447	4.0	19.0	11 27	4 46.44	+20 37.4	1.819	2.799	2.8	19.3		
12 7	4 35.64	+14 41.7	1.474	2.451	3.7	19.0	12 7	4 35.80	+20 35.7	1.830	2.813	1.7	19.3		
12 17	4 25.29	+14 12.5	1.506	2.455	7.8	19.3	12 17	4 25.74	+20 33.5	1.870	2.825	5.9	19.6		
12 27	4 16.85	+13 54.5	1.565	2.458	12.0	19.6	12 27	4 17.32	+20 33.1	1.939	2.838	9.8	19.8		
1 6	4 11.12	+13 48.9	1.646	2.461	15.7	19.8	1 6	4 11.27	+20 36.4	2.033	2.850	13.1	20.1		
<b>326559</b>	2002 <i>PG</i> <sub>166</sub>	12	3.4	74°22'	0°3'	3.5	18	<b>196085</b>	2002 <i>TU</i> <sub>88</sub>	12	3.4	103°38'	0°0'	3.2	18
10 28	5 6.09	+23 30.4	2.276	3.078	12.7	21.3	10 28	5 5.17	+23 46.1	2.544	3.343	11.6	20.4		
11 7	5 0.97	+23 29.8	2.207	3.094	9.7	21.1	11 7	5 0.06	+23 25.1	2.470	3.355	8.9	20.2		
11 17	4 53.82	+23 25.1	2.161	3.109	6.3	20.9	11 17	4 53.15	+22 59.5	2.420	3.367	5.7	20.0		
11 27	4 45.32	+23 16.4	2.144	3.124	2.5	20.7	11 27	4 45.06	+22 29.9	2.398	3.378	2.3	19.8		
12 7	4 36.37	+23 4.3	2.156	3.139	1.4	20.6	12 7	4 36.58	+21 57.6	2.407	3.390	1.3	19.7		
12 17	4 27.90	+22 50.3	2.198	3.154	5.0	20.9	12 17	4 28.55	+21 25.0	2.446	3.401	4.7	20.0		
12 27	4 20.80	+22 36.9	2.268	3.169	8.4	21.2	12 27	4 21.72	+20 54.5	2.514	3.412	7.8	20.2		
1 6	4 15.68	+22 26.2	2.364	3.184	11.3	21.4	1 6	4 16.67	+20 28.7	2.609	3.423	10.6	20.4		
<b>102858</b>	1999 <i>VY</i> <sub>225</sub>	12	3.4	22°19'	4°2'	2.4	18	<b>129076</b>	2004 <i>VB</i>						

EPHEMERIDES

12 3.4

12 3.5

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>143105</b>	2002 XS <sub>21</sub>	12	3.4	27°84	4.8/ 5.6	18	<b>288057</b>	2003 UA <sub>309</sub>	12	3.5	173°24	4.5/ 4.4	18
10 28	5 8.97	+36 44.7	1.318	2.129	19.8	18.0	10 28	5 12.76	+32 12.5	1.897	2.685	15.4	20.5
11 7	5 4.64	+36 15.6	1.264	2.146	15.8	17.8	11 7	5 7.06	+33 7.1	1.815	2.686	12.3	20.3
11 17	4 56.74	+35 24.4	1.228	2.164	11.2	17.6	11 17	4 58.35	+33 53.4	1.756	2.686	8.9	20.1
11 27	4 46.55	+34 9.7	1.215	2.183	6.8	17.4	11 27	4 47.37	+34 26.6	1.723	2.687	5.6	19.9
12 7	4 35.85	+32 34.7	1.227	2.203	4.8	17.4	12 7	4 35.37	+34 43.5	1.718	2.687	4.7	19.8
12 17	4 26.39	+30 47.7	1.266	2.224	7.8	17.6	12 17	4 23.82	+34 44.1	1.741	2.687	7.2	20.0
12 27	4 19.58	+28 59.6	1.331	2.246	12.0	17.9	12 27	4 14.11	+34 31.9	1.792	2.687	10.6	20.2
1 6	4 16.10	+27 20.0	1.419	2.269	15.8	18.2	1 6	4 7.23	+34 12.4	1.867	2.687	13.9	20.4
<b>97917</b>	2000 QB <sub>95</sub>	12	3.4	314°56	3.1/ 4.2	18	<b>267774</b>	2003 SB <sub>82</sub>	12	3.5	42°12	2.5/ 4.3	17
10 28	5 10.91	+28 45.1	1.304	2.127	19.2	19.6	10 28	5 7.14	+29 14.3	2.134	2.931	13.6	20.6
11 7	5 6.60	+29 3.2	1.227	2.122	15.2	19.3	11 7	5 2.20	+29 33.7	2.056	2.935	10.7	20.4
11 17	4 58.49	+29 11.1	1.170	2.117	10.3	19.0	11 17	4 54.88	+29 45.8	2.000	2.940	7.3	20.2
11 27	4 47.48	+29 5.1	1.136	2.112	5.3	18.7	11 27	4 45.89	+29 48.5	1.971	2.944	3.9	20.0
12 7	4 35.21	+28 44.0	1.127	2.107	3.5	18.6	12 7	4 36.24	+29 41.4	1.971	2.949	2.7	19.9
12 17	4 23.60	+28 10.5	1.144	2.103	8.2	18.9	12 17	4 27.05	+29 25.8	2.000	2.954	5.7	20.1
12 27	4 14.49	+27 30.9	1.186	2.099	13.3	19.2	12 27	4 19.37	+29 4.8	2.057	2.959	9.1	20.3
1 6	4 9.00	+26 52.8	1.248	2.095	17.8	19.4	1 6	4 13.94	+28 42.2	2.139	2.965	12.2	20.5
<b>475342</b>	2006 BP <sub>66</sub>	12	3.4	324°51	0.8/ 3.6	18	<b>276189</b>	2002 PO <sub>189</sub>	12	3.5	222°18	2.3/ 2.7	18
10 28	5 7.08	+23 54.1	1.406	2.237	17.7	21.6	10 28	5 4.52	+15 12.5	2.543	3.345	11.5	21.5
11 7	5 3.32	+24 1.2	1.323	2.225	13.8	21.3	11 7	4 59.67	+14 56.7	2.454	3.340	8.9	21.3
11 17	4 56.21	+24 3.1	1.261	2.214	9.1	21.0	11 17	4 53.02	+14 42.0	2.390	3.335	5.9	21.1
11 27	4 46.56	+23 58.6	1.222	2.203	3.8	20.7	11 27	4 45.11	+14 29.7	2.354	3.330	3.0	20.9
12 7	4 35.72	+23 47.8	1.209	2.193	2.1	20.6	12 7	4 36.67	+14 21.2	2.348	3.324	2.8	20.9
12 17	4 25.34	+23 32.6	1.223	2.183	7.5	20.9	12 17	4 28.51	+14 17.8	2.372	3.318	5.5	21.0
12 27	4 17.04	+23 17.2	1.261	2.174	12.7	21.1	12 27	4 21.43	+14 20.8	2.425	3.312	8.6	21.2
1 6	4 11.89	+23 5.9	1.321	2.166	17.1	21.4	1 6	4 16.02	+14 30.6	2.503	3.306	11.3	21.4
<b>223333</b>	2003 QY <sub>70</sub>	12	3.4	29°29	0.7/ 3.6	18	<b>351007</b>	2003 MT <sub>1</sub>	12	3.5	89°09	2.6/ 2.9	18
10 28	5 6.24	+23 17.4	1.819	2.635	14.9	20.0	10 28	5 11.82	+15 8.2	1.818	2.625	15.3	20.2
11 7	5 1.67	+23 33.6	1.750	2.644	11.4	19.8	11 7	5 5.55	+15 1.2	1.763	2.651	11.7	20.1
11 17	4 54.58	+23 46.3	1.704	2.654	7.4	19.6	11 17	4 56.86	+14 56.6	1.732	2.678	7.7	19.9
11 27	4 45.73	+23 54.5	1.684	2.664	3.1	19.4	11 27	4 46.61	+14 55.4	1.727	2.703	3.7	19.7
12 7	4 36.23	+23 58.2	1.692	2.676	1.7	19.3	12 7	4 35.93	+14 58.7	1.751	2.729	3.2	19.7
12 17	4 27.28	+23 58.4	1.729	2.687	6.0	19.6	12 17	4 25.99	+15 7.5	1.805	2.754	6.7	20.0
12 27	4 19.98	+23 57.4	1.793	2.699	9.9	19.9	12 27	4 17.80	+15 22.6	1.886	2.778	10.4	20.3
1 6	4 15.10	+23 57.9	1.880	2.712	13.3	20.1	1 6	4 12.03	+15 44.3	1.992	2.802	13.6	20.5
<b>301812</b>	2011 OW <sub>24</sub>	12	3.4	71°38	9.8/ 1.7	18	<b>389445</b>	2010 CR <sub>177</sub>	12	3.5	165°26	2.2/ 4.1	18
10 28	5 8.97	- 2 10.4	1.682	2.469	17.1	20.5	10 28	5 11.93	+27 56.9	2.124	2.914	13.9	21.7
11 7	5 3.34	- 3 12.2	1.643	2.496	14.3	20.4	11 7	5 5.86	+28 19.2	2.042	2.919	10.9	21.5
11 17	4 55.37	- 3 56.8	1.624	2.522	11.7	20.3	11 17	4 57.26	+28 35.0	1.983	2.923	7.3	21.2
11 27	4 45.94	- 4 18.3	1.629	2.549	10.0	20.2	11 27	4 46.86	+28 42.0	1.952	2.926	3.7	21.0
12 7	4 36.18	- 4 13.6	1.659	2.575	10.1	20.3	12 7	4 35.74	+28 39.6	1.950	2.930	2.5	21.0
12 17	4 27.19	- 3 42.8	1.715	2.601	11.6	20.5	12 17	4 25.07	+28 28.5	1.978	2.932	5.8	21.2
12 27	4 19.95	- 2 49.0	1.795	2.626	13.9	20.7	12 27	4 16.00	+28 12.0	2.035	2.934	9.4	21.4
1 6	4 15.06	- 1 37.5	1.896	2.652	16.1	20.9	1 6	4 9.31	+27 54.1	2.117	2.935	12.6	21.6
<b>414515</b>	2009 SB <sub>40</sub>	12	3.4	102°74	3.6/ 4.6	17	<b>513605</b>	2011 GA <sub>30</sub>	12	3.5	299°90	0.1/ 3.4	18
10 28	5 9.06	+32 14.9	2.270	3.053	13.3	21.9	10 28	5 8.67	+21 35.5	1.405	2.234	17.8	21.8
11 7	5 3.59	+32 47.4	2.191	3.059	10.6	21.7	11 7	5 4.65	+21 42.0	1.316	2.217	13.9	21.5
11 17	4 55.74	+33 11.4	2.135	3.066	7.5	21.5	11 17	4 57.20	+21 45.7	1.247	2.200	9.1	21.2
11 27	4 46.19	+33 23.9	2.107	3.072	4.6	21.4	11 27	4 47.06	+21 46.1	1.202	2.183	3.7	20.8
12 7	4 35.97	+33 23.8	2.107	3.078	3.7	21.3	12 7	4 35.56	+21 43.3	1.183	2.166	2.1	20.7
12 17	4 26.20	+33 11.9	2.137	3.085	5.9	21.5	12 17	4 24.39	+21 38.8	1.190	2.150	7.8	21.0
12 27	4 17.93	+32 51.4	2.195	3.091	8.9	21.7	12 27	4 15.24	+21 35.9	1.223	2.134	13.2	21.3
1 6	4 11.93	+32 26.5	2.278	3.097	11.8	21.9	1 6	4 9.30	+21 38.0	1.276	2.118	17.8	21.5
<b>180731</b>	2004 JW <sub>35</sub>	12	3.5	343°41	2.1/ 2.9	18	<b>13441</b>	Janmerlin	12	3.5	50°79	7.2/ 1.4	18
10 28	5 6.35	+16 51.7	1.873	2.689	14.5	20.4	10 28	5 7.93	+ 8 47.0	1.425	2.249	17.8	16.2
11 7	5 1.69	+16 43.2	1.794	2.687	11.2	20.2	11 7	5 2.92	+ 7 23.0	1.385	2.276	14.0	16.0
11 17	4 54.59	+16 35.4	1.737	2.686	7.3	20.0	11 17	4 55.26	+ 6 7.1	1.367	2.304	10.2	15.8
11 27	4 45.77	+16 29.6	1.706	2.685	3.4	19.7	11 27	4 45.96	+ 5 6.1	1.374	2.332	7.5	15.8
12 7	4 36.23	+16 26.9	1.704	2.684	2.8	19.7	12 7	4 36.32	+ 4 25.2	1.406	2.360	7.7	15.9
12 17	4 27.12	+16 29.0	1.730	2.683	6.6	19.9	12 17	4 27.61	+ 4 7.1	1.464	2.389	10.3	16.1
12 27	4 19.52	+16 37.1	1.784	2.682	10.5	20.2	12 27	4 20.90	+ 4 11.3	1.547	2.417	13.6	16.3
1 6	4 14.21	+16 52.2	1.861	2.681	13.9	20.4	1 6	4 16.79	+ 4 34.9	1.650	2.446	16.5	16.6
<b>486930</b>	2014 MW <sub>23</sub>	12	3.5	78°22	3.3/ 4.8	17	<b>185008</b>	2006 PE <sub>27</sub>	12	3.5	134°72	2.4/ 4.2	18
10 28	5 8.96	+32 49.1	2.017	2.806	14.6	21.4	10 28	5 14.52	+28 48.8	1.657	2.457	16.8	20.9
11 7	5 3.68	+32 49.4	1.941	2.813	11.5	21.2	11 7	5 8.36	+28 56.5	1.586	2.468	13.1	20.7
11 17	4 55.82	+32 37.9	1.887	2.821	8.1	21.0	11 17	4 59.07	+28 54.5	1.537	2.479	8.8	20.5
11 27	4 46.22	+32 12.9	1.859	2.828	4.7	20.8	11 27	4 47.60	+28 40.4	1.513	2.488	4.4	20.3
12 7	4 36.02	+31 34.6	1.860	2.835	3.4	20.7	12 7	4 35.37	+28 14.1	1.517	2.498	2.8	20.2
12 17	4 26.43	+30 45.9	1.889	2.842	6.1	20.9	12 17	4 23.91	+27 38.5	1.550	2.506	6.8	20.5
12 27	4 18.59	+29 51.7	1.947	2.850	9.5	21.1	12 27	4 14.60	+26 59.0	1.611	2.514	11.0	20.7
1 6	4 13.21	+28 57.8	2.029	2.857	12.7	21.4	1 6	4 8.30	+26 21.3	1.694	2.522	14.8	21.0
<b>55483</b>	2001 UD <sub>23</sub>	12	3.5	359°89	0.1/ 3.4	18	<b>115828</b>	2003 UR <sub>253</sub>	12	3.5	18°66	0.5/ 3.5	18
10 28	5 3.89	+24 43.7	2.206	3.014	12.9</								

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>224775</b>	2006 <i>FY</i> <sub>51</sub>	12	3.5 239°27	2.4/ 2.2	18		<b>246929</b>	1999 <i>CW</i> <sub>129</sub>	12	3.5 0°36	2.2/ 2.9	18	
10 28	5 4.28	+16 45.2	2.648	3.449	11.2	20.4	10 28	5 6.93	+16 35.6	1.770	2.588	15.1	20.6
11 7	4 59.42	+15 53.3	2.553	3.439	8.6	20.2	11 7	5 2.29	+16 30.3	1.693	2.588	11.7	20.4
11 17	4 52.82	+14 59.4	2.483	3.428	5.7	20.0	11 17	4 55.09	+16 26.2	1.638	2.588	7.7	20.2
11 27	4 45.03	+14 5.7	2.442	3.417	3.0	19.8	11 27	4 46.06	+16 24.5	1.609	2.588	3.6	19.9
12 7	4 36.75	+13 15.0	2.432	3.405	3.0	19.8	12 7	4 36.28	+16 26.4	1.608	2.588	2.9	19.9
12 17	4 28.77	+12 30.4	2.452	3.394	5.7	20.0	12 17	4 26.96	+16 33.2	1.635	2.588	6.8	20.1
12 27	4 21.82	+11 54.3	2.501	3.382	8.6	20.1	12 27	4 19.24	+16 46.1	1.689	2.589	10.9	20.4
1 6	4 16.49	+11 28.4	2.576	3.370	11.3	20.3	1 6	4 13.93	+17 5.8	1.766	2.589	14.4	20.6
<b>520693</b>	2014 <i>QT</i> <sub>462</sub>	12	3.5 296°04	0°3/ 3.3	17		<b>238569</b>	2004 <i>XL</i> <sub>80</sub>	12	3.5 19°34	0°9/ 3.2	18	
10 28	5 5.63	+22 24.4	2.079	2.889	13.5	21.9	10 28	5 7.06	+22 5.1	1.469	2.298	17.2	19.6
11 7	5 1.01	+22 8.7	1.993	2.884	10.4	21.7	11 7	5 2.84	+21 37.3	1.399	2.301	13.2	19.4
11 17	4 54.11	+21 48.6	1.929	2.879	6.7	21.4	11 17	4 55.62	+21 3.9	1.351	2.304	8.5	19.2
11 27	4 45.61	+21 24.6	1.893	2.874	2.7	21.2	11 27	4 46.29	+20 26.1	1.327	2.308	3.4	18.9
12 7	4 36.45	+20 58.4	1.885	2.869	1.6	21.1	12 7	4 36.18	+19 46.9	1.329	2.312	2.2	18.8
12 17	4 27.68	+20 32.0	1.907	2.864	5.7	21.3	12 17	4 26.76	+19 10.1	1.359	2.317	7.3	19.1
12 27	4 20.31	+20 8.6	1.957	2.859	9.5	21.6	12 27	4 19.35	+18 40.2	1.414	2.322	12.0	19.4
1 6	4 15.07	+19 50.8	2.031	2.854	12.8	21.8	1 6	4 14.79	+18 20.2	1.491	2.328	15.9	19.7
<b>143159</b>	2002 <i>XR</i> <sub>54</sub>	12	3.5 23°49	3°2/ 2.6	18		<b>356516</b>	2011 <i>ST</i> <sub>83</sub>	12	3.5 107°56	1°5/ 2.9	18	
10 28	5 5.70	+15 31.0	1.604	2.430	16.1	19.7	10 28	5 8.14	+19 35.2	1.878	2.690	14.6	21.8
11 7	5 1.45	+15 4.6	1.536	2.435	12.4	19.5	11 7	5 2.96	+19 10.5	1.806	2.699	11.2	21.6
11 17	4 54.54	+14 39.6	1.490	2.440	8.2	19.3	11 17	4 55.36	+18 43.3	1.757	2.707	7.3	21.4
11 27	4 45.79	+14 18.5	1.469	2.446	4.2	19.1	11 27	4 46.12	+18 14.9	1.735	2.715	3.1	21.2
12 7	4 36.37	+14 3.9	1.475	2.452	3.8	19.0	12 7	4 36.30	+17 47.6	1.742	2.723	2.4	21.1
12 17	4 27.52	+13 58.0	1.509	2.459	7.6	19.3	12 17	4 27.04	+17 23.9	1.777	2.730	6.4	21.4
12 27	4 20.43	+14 2.4	1.568	2.466	11.7	19.5	12 27	4 19.40	+17 6.6	1.840	2.738	10.3	21.7
1 6	4 15.85	+14 17.4	1.649	2.474	15.3	19.8	1 6	4 14.08	+16 57.4	1.927	2.745	13.6	21.9
<b>98907</b>	2001 <i>BM</i> <sub>59</sub>	12	3.5 298°94	1°1/ 3.9	18		<b>271506</b>	2004 <i>FZ</i> <sub>125</sub>	12	3.5 247°64	2°3/ 2.8	18	
10 28	5 8.38	+28 20.7	1.672	2.483	16.2	18.4	10 28	5 9.13	+18 29.4	1.612	2.432	16.3	20.5
11 7	5 3.77	+27 40.6	1.582	2.472	12.6	18.1	11 7	5 4.30	+17 58.4	1.529	2.425	12.6	20.3
11 17	4 56.20	+26 47.3	1.515	2.462	8.4	17.8	11 17	4 56.57	+17 24.7	1.467	2.418	8.3	20.0
11 27	4 46.51	+25 41.0	1.472	2.451	3.7	17.5	11 27	4 46.71	+16 50.4	1.431	2.410	3.8	19.7
12 7	4 35.96	+24 24.5	1.458	2.441	1.9	17.4	12 7	4 35.95	+16 18.4	1.423	2.402	3.2	19.7
12 17	4 25.99	+23 3.3	1.472	2.431	6.7	17.7	12 17	4 25.67	+15 52.1	1.442	2.395	7.6	19.9
12 27	4 17.92	+21 44.7	1.514	2.421	11.4	17.9	12 27	4 17.19	+15 34.9	1.488	2.387	12.1	20.2
1 6	4 12.64	+20 35.3	1.579	2.412	15.4	18.1	1 6	4 11.44	+15 28.8	1.556	2.378	16.1	20.4
<b>292729</b>	2006 <i>UU</i> <sub>143</sub>	12	3.5 37°01	0°9/ 3.2	18		<b>171083</b>	2005 <i>EZ</i> <sub>188</sub>	12	3.5 287°58	2°3/ 2.8	18	
10 28	5 6.99	+22 58.3	1.436	2.265	17.4	19.4	10 28	5 7.12	+17 11.1	1.799	2.616	15.0	20.2
11 7	5 2.55	+22 16.7	1.383	2.285	13.3	19.2	11 7	5 2.41	+16 51.0	1.719	2.613	11.6	20.0
11 17	4 55.22	+21 28.4	1.351	2.304	8.5	19.0	11 17	4 55.16	+16 30.6	1.661	2.611	7.6	19.7
11 27	4 46.01	+20 35.8	1.344	2.325	3.4	18.7	11 27	4 46.10	+16 11.5	1.630	2.608	3.6	19.5
12 7	4 36.32	+19 42.6	1.364	2.347	2.2	18.7	12 7	4 36.30	+15 55.9	1.626	2.606	3.0	19.4
12 17	4 27.53	+18 53.7	1.411	2.369	7.1	19.0	12 17	4 26.94	+15 45.8	1.651	2.603	6.9	19.7
12 27	4 20.83	+18 13.7	1.483	2.391	11.5	19.4	12 27	4 19.18	+15 43.4	1.703	2.601	11.0	19.9
1 6	4 16.92	+17 45.4	1.578	2.414	15.2	19.6	1 6	4 13.81	+15 49.8	1.778	2.598	14.5	20.1
<b>220520</b>	2004 <i>EW</i> <sub>62</sub>	12	3.5 350°32	6°6/ 5.2	18		<b>226437</b>	2003 <i>SF</i> <sub>39</sub>	12	3.5 23°28	3°5/ 4.5	17	
10 28	5 11.97	+36 0.6	1.375	2.180	19.4	19.8	10 28	5 7.10	+31 11.0	1.882	2.683	15.0	20.1
11 7	5 7.58	+36 41.5	1.302	2.178	15.8	19.5	11 7	5 2.53	+31 36.2	1.809	2.689	11.9	19.9
11 17	4 59.22	+37 6.7	1.246	2.176	11.8	19.3	11 17	4 55.28	+31 52.0	1.758	2.696	8.3	19.7
11 27	4 47.87	+37 9.7	1.214	2.174	8.0	19.1	11 27	4 46.14	+31 55.6	1.733	2.703	4.8	19.5
12 7	4 35.25	+36 47.1	1.206	2.173	6.7	19.0	12 7	4 36.28	+31 46.2	1.735	2.710	3.6	19.4
12 17	4 23.41	+36 1.1	1.224	2.172	9.2	19.1	12 17	4 26.98	+31 25.4	1.765	2.719	6.4	19.6
12 27	4 14.22	+34 59.7	1.266	2.172	13.2	19.4	12 27	4 19.42	+30 57.2	1.823	2.727	9.9	19.8
1 6	4 8.80	+33 52.9	1.329	2.172	17.2	19.6	1 6	4 14.40	+30 26.6	1.904	2.736	13.2	20.1
<b>188506</b>	2004 <i>RR</i> <sub>1</sub>	12	3.5 123°78	1°6/ 2.8	18		<b>480797</b>	2016 <i>PK</i> <sub>56</sub>	12	3.5 87°09	4°1/ 2.9	18	
10 28	5 5.75	+19 15.6	2.258	3.064	12.7	20.2	10 28	5 12.66	+11 53.5	1.472	2.288	17.7	21.6
11 7	5 0.75	+18 42.1	2.181	3.070	9.7	20.1	11 7	5 6.83	+11 50.1	1.414	2.305	13.8	21.4
11 17	4 53.76	+18 6.1	2.128	3.076	6.3	19.9	11 17	4 58.03	+11 53.3	1.377	2.322	9.3	21.1
11 27	4 45.43	+17 29.3	2.103	3.082	2.8	19.7	11 27	4 47.22	+12 5.1	1.365	2.339	5.2	21.0
12 7	4 36.63	+16 53.9	2.108	3.088	2.3	19.6	12 7	4 35.74	+12 26.3	1.381	2.355	4.6	21.0
12 17	4 28.28	+16 22.6	2.143	3.094	5.7	19.9	12 17	4 25.04	+12 56.9	1.424	2.371	8.3	21.2
12 27	4 21.23	+15 57.8	2.206	3.099	9.0	20.1	12 27	4 16.42	+13 36.5	1.493	2.387	12.5	21.5
1 6	4 16.11	+15 41.2	2.294	3.104	12.0	20.3	1 6	4 10.68	+14 23.6	1.585	2.403	16.1	21.8
<b>349929</b>	2009 <i>WT</i> <sub>202</sub>	12	3.5 96°11	6°2/ 3.2	17		<b>318428</b>	2005 <i>BY</i> <sub>44</sub>	12	3.5 353°32	1°1/ 3.2	18	
10 28	5 26.71	+25 45.3	1.143	1.955	22.1	20.2	10 28	5 7.51	+20 17.1	1.628	2.450	16.1	21.2
11 7	5 19.82	+28 18.8	1.079	1.965	17.5	20.0	11 7	5 2.99	+20 3.3	1.551	2.449	12.4	20.9
11 17	5 7.83	+30 55.9	1.034	1.975	12.3	19.7	11 17	4 55.67	+19 46.7	1.496	2.448	8.0	20.7
11 27	4 51.59	+33 22.1	1.015	1.984	7.4	19.5	11 27	4 46.33	+19 28.2	1.466	2.447	3.3	20.4
12 7	4 33.16	+35 22.7	1.023	1.994	6.7	19.5	12 7	4 36.18	+19 9.5	1.464	2.446	2.2	20.3
12 17	4 15.33	+36 49.3	1.059	2.003	10.8	19.7	12 17	4 26.57	+18 53.0	1.490	2.446	6.9	20.6
12 27	4 0.84	+37 44.4	1.119	2.013	15.7	20.0	12 27	4 18.75	+18 41.9	1.541	2.446	11.4	20.9
1 6	3 51.32	+38 17.5	1.200	2.022	20.0	20.3	1 6	4 13.58	+18 38.2	1.616	2.446	15.2	21.1
<b>150401</b>	2000 <i>EZ</i> <sub>74</sub>	12	3.5 358°81	5°7/ 1.9	18		<b>325991</b>	2010 <i>VM</i> <sub>191</sub>	12	3.5 322°17	0°		

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>41347</b>	2000 AR <sub>22</sub>	12 3.5 104°37'	0°9/ 3.3 18	R			<b>366361</b>	2000 BR <sub>21</sub>	12 3.5 129°91'	6°9/ 7.1 17			
10 28	5 7.26	+18 39.5	2.362	3.163	12.3	18.6	10 28	5 12.63	+45 48.3	2.489	3.215	13.8	21.0
11 7	5 1.86	+18 49.9	2.288	3.174	9.4	18.4	11 7	5 6.54	+46 14.3	2.408	3.219	11.7	20.9
11 17	4 54.49	+19 0.3	2.238	3.185	6.1	18.2	11 17	4 57.77	+46 23.8	2.348	3.223	9.6	20.7
11 27	4 45.77	+19 10.6	2.217	3.196	2.5	18.0	11 27	4 47.15	+46 12.5	2.312	3.227	7.7	20.6
12 7	4 36.54	+19 21.1	2.225	3.207	1.7	18.0	12 7	4 35.88	+45 38.9	2.303	3.231	6.9	20.6
12 17	4 27.71	+19 32.2	2.264	3.218	5.1	18.2	12 17	4 25.25	+44 44.4	2.323	3.235	7.7	20.6
12 27	4 20.15	+19 45.1	2.332	3.228	8.5	18.5	12 27	4 16.45	+43 34.1	2.370	3.239	9.5	20.8
1 6	4 14.47	+20 0.7	2.425	3.238	11.3	18.7	1 6	4 10.23	+42 15.0	2.442	3.242	11.6	20.9
<b>516833</b>	2010 VY <sub>90</sub>	12 3.5 113°09'	1°0/ 3.8 18				<b>283020</b>	2007 VU <sub>193</sub>	12 3.5 356°05'	3°3/ 4.4 18			
10 28	5 7.74	+25 31.0	2.238	3.037	13.0	21.4	10 28	5 5.45	+29 52.9	1.026	1.873	21.5	20.0
11 7	5 2.43	+25 34.1	2.162	3.046	10.0	21.2	11 7	5 3.14	+29 51.4	0.960	1.868	17.0	19.7
11 17	4 54.94	+25 31.8	2.110	3.054	6.6	21.0	11 17	4 56.62	+29 34.0	0.912	1.864	11.7	19.4
11 27	4 45.96	+25 23.4	2.084	3.063	2.9	20.8	11 27	4 46.93	+28 58.0	0.884	1.862	5.9	19.0
12 7	4 36.44	+25 9.5	2.089	3.071	1.6	20.7	12 7	4 35.97	+28 4.5	0.879	1.861	3.7	18.9
12 17	4 27.38	+24 51.5	2.123	3.080	5.2	21.0	12 17	4 25.91	+26 59.5	0.897	1.861	8.9	19.2
12 27	4 19.74	+24 32.3	2.186	3.088	8.7	21.2	12 27	4 18.72	+25 52.5	0.938	1.862	14.6	19.5
1 6	4 14.19	+24 14.9	2.274	3.095	11.7	21.5	1 6	4 15.50	+24 52.9	0.998	1.865	19.5	19.8
<b>459333</b>	2012 HZ <sub>27</sub>	12 3.5 50°99'	0°4/ 3.6 17				<b>216470</b>	1997 UG <sub>18</sub>	12 3.5 111°39'	0°3/ 3.6 18			
10 28	5 7.30	+22 9.9	2.167	2.971	13.2	20.8	10 28	5 8.83	+22 39.3	1.989	2.795	14.2	20.7
11 7	5 2.20	+22 34.9	2.090	2.978	10.1	20.6	11 7	5 3.55	+22 51.0	1.913	2.801	10.9	20.5
11 17	4 54.86	+22 58.1	2.037	2.984	6.6	20.4	11 17	4 55.84	+22 59.6	1.859	2.806	7.1	20.3
11 27	4 45.96	+23 18.4	2.011	2.991	2.7	20.2	11 27	4 46.40	+23 4.5	1.832	2.812	2.9	20.1
12 7	4 36.43	+23 35.2	2.014	2.997	1.4	20.1	12 7	4 36.29	+23 5.5	1.834	2.817	1.5	20.0
12 17	4 27.28	+23 48.8	2.047	3.004	5.3	20.4	12 17	4 26.65	+23 3.8	1.865	2.822	5.7	20.3
12 27	4 19.52	+24 0.6	2.109	3.011	8.9	20.6	12 27	4 18.55	+23 1.6	1.925	2.827	9.6	20.5
1 6	4 13.86	+24 12.5	2.196	3.018	12.0	20.8	1 6	4 12.76	+23 1.3	2.009	2.832	12.9	20.7
<b>242241</b>	2003 SG <sub>179</sub>	12 3.5 313°50'	5°6/ 1.5 17				<b>231228</b>	2005 WV <sub>188</sub>	12 3.5 335°81'	2°8/ 3.1 18			
10 28	5 3.44	+ 6 45.1	2.212	3.015	13.0	20.1	10 28	5 6.00	+15 51.3	1.259	2.100	18.7	20.0
11 7	4 59.04	+ 5 58.1	2.135	3.012	10.4	19.9	11 7	5 2.74	+15 53.3	1.181	2.088	14.6	19.7
11 17	4 52.73	+ 5 17.2	2.081	3.009	7.8	19.7	11 17	4 56.04	+15 59.1	1.122	2.076	9.7	19.4
11 27	4 45.08	+ 4 46.1	2.053	3.006	5.9	19.6	11 27	4 46.70	+16 10.2	1.086	2.066	4.6	19.1
12 7	4 36.91	+ 4 28.2	2.054	3.004	6.0	19.6	12 7	4 36.09	+16 27.7	1.075	2.056	3.6	19.0
12 17	4 29.08	+ 4 25.1	2.082	3.001	8.1	19.7	12 17	4 25.92	+16 52.4	1.090	2.047	8.7	19.2
12 27	4 22.44	+ 4 37.6	2.137	2.998	10.8	19.9	12 27	4 17.84	+17 25.0	1.128	2.040	13.9	19.5
1 6	4 17.61	+ 5 4.1	2.215	2.996	13.3	20.1	1 6	4 13.01	+18 5.3	1.186	2.033	18.5	19.8
<b>293573</b>	2007 HB <sub>80</sub>	12 3.5 258°25'	0°2/ 3.5 18				<b>82120</b>	2001 FG <sub>76</sub>	12 3.5 156°12'	0°3/ 3.6 18			
10 28	5 7.55	+21 38.6	2.293	3.094	12.7	20.7	10 28	5 13.21	+22 14.2	1.768	2.574	15.7	20.1
11 7	5 2.39	+22 1.3	2.201	3.087	9.8	20.5	11 7	5 7.21	+22 29.7	1.692	2.580	12.1	19.9
11 17	4 55.03	+22 22.8	2.133	3.080	6.4	20.3	11 17	4 58.35	+22 42.5	1.638	2.585	7.9	19.7
11 27	4 46.07	+22 42.1	2.093	3.073	2.6	20.0	11 27	4 47.46	+22 51.3	1.610	2.590	3.2	19.4
12 7	4 36.36	+22 58.8	2.083	3.066	1.4	19.9	12 7	4 35.74	+22 55.7	1.611	2.595	1.7	19.3
12 17	4 26.92	+23 12.8	2.103	3.059	5.3	20.2	12 17	4 24.57	+22 56.6	1.642	2.598	6.4	19.6
12 27	4 18.73	+23 25.6	2.152	3.052	8.9	20.4	12 27	4 15.22	+22 56.6	1.700	2.602	10.7	19.9
1 6	4 12.55	+23 38.9	2.226	3.045	12.0	20.6	1 6	4 8.59	+22 58.5	1.782	2.605	14.4	20.1
<b>30168</b>	Linusfreyer	12 3.5 125°37'	0°2/ 3.4 18				<b>515398</b>	2013 GU <sub>105</sub>	12 3.5 102°65'	4°9/ 5.6 18			
10 28	5 11.82	+22 37.2	1.859	2.663	15.1	19.4	10 28	5 13.79	+39 9.8	2.778	3.520	12.1	21.9
11 7	5 5.79	+22 23.6	1.790	2.678	11.5	19.2	11 7	5 6.85	+39 51.3	2.714	3.547	9.9	21.8
11 17	4 57.20	+22 5.3	1.744	2.692	7.5	19.0	11 17	4 57.70	+40 21.1	2.673	3.574	7.6	21.6
11 27	4 46.87	+21 42.6	1.725	2.705	3.0	18.7	11 27	4 47.08	+40 36.1	2.660	3.600	5.6	21.6
12 7	4 35.98	+21 17.0	1.734	2.718	1.7	18.7	12 7	4 35.97	+40 34.9	2.677	3.625	4.9	21.6
12 17	4 25.76	+20 50.9	1.774	2.730	6.1	19.0	12 17	4 25.41	+40 18.4	2.723	3.650	6.0	21.7
12 27	4 17.30	+20 27.7	1.842	2.741	10.1	19.3	12 27	4 16.35	+39 49.9	2.799	3.674	8.0	21.8
1 6	4 11.34	+20 10.5	1.933	2.752	13.5	19.5	1 6	4 9.46	+39 14.3	2.900	3.697	10.1	22.0
<b>102555</b>	1999 UG <sub>22</sub>	12 3.5 318°99'	0°7/ 3.7 18				<b>329252</b>	1995 VQ <sub>10</sub>	12 3.5 88°80'	2°0/ 3.0 18			
10 28	5 8.07	+23 47.8	1.638	2.457	16.1	20.0	10 28	5 14.02	+18 23.6	1.555	2.368	17.1	21.6
11 7	5 3.62	+23 55.9	1.555	2.450	12.5	19.7	11 7	5 7.63	+18 3.5	1.503	2.396	13.0	21.4
11 17	4 56.22	+23 59.5	1.494	2.444	8.2	19.5	11 17	4 58.40	+17 42.4	1.474	2.422	8.4	21.2
11 27	4 46.63	+23 57.4	1.457	2.438	3.4	19.2	11 27	4 47.37	+17 21.7	1.470	2.449	3.7	21.0
12 7	4 36.08	+23 49.8	1.448	2.432	1.8	19.1	12 7	4 35.88	+17 3.4	1.494	2.475	2.8	21.0
12 17	4 25.98	+23 38.3	1.467	2.426	6.7	19.4	12 17	4 25.32	+16 50.0	1.547	2.500	7.2	21.4
12 27	4 17.70	+23 26.1	1.512	2.421	11.3	19.6	12 27	4 16.88	+16 43.9	1.627	2.525	11.4	21.7
1 6	4 12.19	+23 17.0	1.581	2.416	15.2	19.9	1 6	4 11.25	+16 46.3	1.730	2.549	14.9	22.0
<b>178914</b>	2001 PN <sub>37</sub>	12 3.5 11°53' 13°4/ 6.6 17					<b>45045</b>	1999 XD <sub>17</sub>	12 3.5 51°13'	6°9/ 7.4 18			
10 28	5 8.75	+44 41.5	1.145	1.945	22.8	18.8	10 28	5 23.79	+44 28.2	1.184	1.961	23.4	17.5
11 7	5 6.51	+46 50.9	1.097	1.952	19.8	18.6	11 7	5 16.07	+43 25.0	1.137	1.992	19.2	17.3
11 17	4 59.29	+48 36.6	1.065	1.961	16.7	18.5	11 17	5 3.94	+41 47.2	1.107	2.023	14.3	17.2
11 27	4 48.13	+49 45.8	1.053	1.972	14.3	18.4	11 27	4 49.40	+39 32.2	1.100	2.054	9.5	17.0
12 7	4 35.27	+50 10.3	1.060	1.986	13.4	18.4	12 7	4 34.99	+36 46.4	1.119	2.086	6.9	17.0
12 17	4 23.48	+49 50.3	1.089	2.001	14.4	18.5	12 17	4 22.88	+33 45.1	1.166	2.118	9.0	17.2
12 27	4 15.24	+48 55.3	1.138	2.019	16.6	18.7	12 27	4 14.48	+30 46.8	1.240	2.150	13.0	17.5
1 6	4 11.84	+47 39.5	1.205	2.038	19.2	18.9	1 6	4 10.20	+28 6.4	1.338	2.183	16.9	17.8
<b>399362</b>	2001 HE <sub>18</sub>	12 3.5 221°24'	7°5/ 2.4 18				<b>150771</b>	2001 QX <sub>236</sub>	12 3.5 103°54'	3°2/ 4.5 18			
10 28	5 11.11	- 2 9.3	2.286	3.047</									

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>153220</b>	2000 YN <sub>29</sub>	12	3.5 304 <sup>o</sup> .41	0 <sup>o</sup> .2/ 3.6 17			<b>301585</b>	2010 BV <sub>38</sub>	12	3.5 101 <sup>o</sup> .80	6 <sup>o</sup> .2/ 1.7 18		
10 28	5 18.06	+22 48.6	2.062	2.848	14.4	22.1	10 28	5 8.15	+ 6 30.6	1.951	2.751	14.6	21.0
11 7	5 11.67	+22 53.8	1.906	2.783	11.5	21.7	11 7	5 2.66	+ 5 37.2	1.894	2.769	11.7	20.8
11 17	5 1.97	+22 55.7	1.774	2.716	7.8	21.4	11 17	4 55.05	+ 4 51.4	1.860	2.787	8.7	20.7
11 27	4 49.30	+22 52.4	1.668	2.648	3.3	20.9	11 27	4 46.05	+ 4 17.5	1.852	2.805	6.5	20.6
12 7	4 34.55	+22 42.4	1.594	2.577	1.8	20.7	12 7	4 36.63	+ 3 59.0	1.873	2.822	6.6	20.6
12 17	4 19.10	+22 26.2	1.552	2.505	7.1	20.9	12 17	4 27.81	+ 3 57.3	1.921	2.839	8.7	20.8
12 27	4 4.64	+22 6.5	1.539	2.430	12.4	21.0	12 27	4 20.48	+ 4 12.3	1.996	2.855	11.5	21.0
1 6	3 52.61	+21 48.0	1.552	2.353	17.2	21.1	1 6	4 15.26	+ 4 42.1	2.093	2.871	14.1	21.2
<b>263538</b>	2008 FS <sub>14</sub>	12	3.5 51 <sup>o</sup> .33	2 <sup>o</sup> .8/ 2.9 18			<b>32527</b>	2001 OS <sub>104</sub>	12	3.5 68 <sup>o</sup> .57	2 <sup>o</sup> .2/ 4.2 18		
10 28	5 9.70	+17 36.3	1.257	2.092	19.1	20.4	10 28	5 9.05	+28 20.3	1.892	2.695	14.9	17.9
11 7	5 5.10	+17 7.9	1.201	2.105	14.7	20.1	11 7	5 3.93	+28 32.8	1.819	2.703	11.6	17.7
11 17	4 57.18	+16 39.0	1.165	2.118	9.6	19.9	11 17	4 56.17	+28 37.3	1.768	2.711	7.8	17.5
11 27	4 46.99	+16 12.3	1.152	2.131	4.5	19.6	11 27	4 46.59	+28 32.2	1.743	2.719	3.9	17.2
12 7	4 36.07	+15 50.8	1.166	2.145	3.7	19.6	12 7	4 36.32	+28 17.3	1.747	2.727	2.6	17.2
12 17	4 26.05	+15 37.6	1.205	2.160	8.5	20.0	12 17	4 26.62	+27 54.5	1.779	2.735	6.0	17.4
12 27	4 18.36	+15 35.2	1.268	2.174	13.2	20.3	12 27	4 18.65	+27 27.6	1.839	2.744	9.8	17.7
1 6	4 13.83	+15 44.5	1.353	2.189	17.3	20.6	1 6	4 13.20	+27 1.0	1.923	2.752	13.2	17.9
<b>253770</b>	2003 WQ <sub>126</sub>	12	3.5 273 <sup>o</sup> .80	10 <sup>o</sup> .3/ 8.3 18			<b>130004</b>	1999 VN <sub>42</sub>	12	3.5 48 <sup>o</sup> .74	0 <sup>o</sup> .1/ 3.6 18		
10 28	5 22.61	+49 43.2	1.675	2.401	19.5	19.7	10 28	5 8.47	+24 2.8	1.632	2.450	16.2	20.5
11 7	5 16.07	+49 54.0	1.573	2.381	17.0	19.5	11 7	5 3.72	+23 47.1	1.561	2.456	12.5	20.3
11 17	5 4.90	+49 37.2	1.488	2.360	14.3	19.2	11 17	4 56.14	+23 25.0	1.511	2.462	8.1	20.0
11 27	4 50.27	+48 42.5	1.425	2.339	11.7	19.0	11 27	4 46.59	+22 56.6	1.487	2.468	3.3	19.7
12 7	4 34.28	+47 4.5	1.387	2.318	10.3	18.9	12 7	4 36.33	+22 23.6	1.490	2.474	1.7	19.7
12 17	4 19.41	+44 46.0	1.375	2.296	11.2	18.9	12 17	4 26.72	+21 49.5	1.522	2.480	6.6	20.0
12 27	4 7.79	+41 59.4	1.390	2.274	13.9	19.0	12 27	4 18.99	+21 18.3	1.580	2.487	11.0	20.3
1 6	4 0.55	+39 1.8	1.430	2.252	17.3	19.2	1 6	4 13.97	+20 53.8	1.661	2.494	14.8	20.5
<b>44453</b>	1998 UL <sub>40</sub>	12	3.5 75 <sup>o</sup> .89	2 <sup>o</sup> .2/ 4.3 18			<b>69943</b>	1998 UE <sub>34</sub>	12	3.5 11 <sup>o</sup> .53	0 <sup>o</sup> .5/ 3.3 18		
10 28	5 10.96	+29 5.8	1.768	2.570	15.8	19.4	10 28	5 5.34	+23 9.6	2.138	2.946	13.2	18.7
11 7	5 5.37	+29 4.0	1.705	2.588	12.3	19.3	11 7	5 0.70	+22 36.0	2.057	2.947	10.1	18.5
11 17	4 57.02	+28 52.4	1.664	2.606	8.2	19.1	11 17	4 53.90	+21 56.6	1.999	2.948	6.6	18.2
11 27	4 46.86	+28 29.6	1.649	2.625	4.1	18.9	11 27	4 45.64	+21 12.7	1.968	2.948	2.6	18.0
12 7	4 36.15	+27 56.6	1.662	2.643	2.5	18.8	12 7	4 36.84	+20 26.6	1.966	2.949	1.6	17.9
12 17	4 26.22	+27 16.4	1.704	2.661	6.2	19.1	12 17	4 28.49	+19 41.5	1.995	2.950	5.5	18.2
12 27	4 18.24	+26 34.0	1.773	2.679	10.1	19.3	12 27	4 21.53	+19 0.9	2.051	2.951	9.2	18.4
1 6	4 12.94	+25 54.4	1.867	2.697	13.5	19.6	1 6	4 16.63	+18 27.7	2.132	2.953	12.4	18.6
<b>98731</b>	2000 YF <sub>30</sub>	12	3.5 195 <sup>o</sup> .98	0 <sup>o</sup> .5/ 3.4 18			<b>133783</b>	2003 WP <sub>103</sub>	12	3.5 7 <sup>o</sup> .11	0 <sup>o</sup> .5/ 3.6 17		
10 28	5 10.06	+20 11.8	2.165	2.965	13.4	20.2	10 28	5 5.78	+22 56.9	2.012	2.823	13.8	19.6
11 7	5 4.37	+20 20.4	2.078	2.963	10.3	20.0	11 7	5 1.28	+23 11.9	1.932	2.823	10.7	19.4
11 17	4 56.35	+20 27.9	2.013	2.960	6.7	19.8	11 17	4 54.43	+23 24.0	1.876	2.825	6.9	19.1
11 27	4 46.65	+20 33.9	1.977	2.957	2.7	19.5	11 27	4 45.90	+23 32.5	1.846	2.826	2.9	18.9
12 7	4 36.23	+20 38.5	1.971	2.953	1.6	19.4	12 7	4 36.68	+23 37.2	1.845	2.828	1.5	18.8
12 17	4 26.15	+20 42.6	1.994	2.949	5.6	19.7	12 17	4 27.86	+23 38.9	1.872	2.830	5.6	19.1
12 27	4 17.46	+20 47.7	2.047	2.944	9.4	19.9	12 27	4 20.49	+23 39.6	1.927	2.833	9.4	19.3
1 6	4 10.92	+20 55.7	2.125	2.939	12.7	20.1	1 6	4 15.32	+23 41.7	2.007	2.836	12.7	19.5
<b>263377</b>	2008 CR <sub>180</sub>	12	3.5 338 <sup>o</sup> .65	1 <sup>o</sup> .9/ 4.2 17			<b>147015</b>	2002 QV <sub>16</sub>	12	3.5 121 <sup>o</sup> .36	0 <sup>o</sup> .5/ 3.7 18		
10 28	5 6.62	+28 30.6	1.659	2.474	16.1	20.2	10 28	5 14.57	+25 1.3	1.825	2.624	15.5	21.3
11 7	5 2.52	+28 18.0	1.577	2.468	12.6	20.0	11 7	5 7.90	+24 44.7	1.760	2.644	11.9	21.1
11 17	4 55.50	+27 54.8	1.515	2.461	8.5	19.7	11 17	4 58.57	+24 20.9	1.718	2.663	7.7	20.9
11 27	4 46.37	+27 20.0	1.478	2.456	4.0	19.5	11 27	4 47.49	+23 49.9	1.702	2.682	3.2	20.6
12 7	4 36.39	+26 34.7	1.468	2.451	2.3	19.3	12 7	4 35.90	+23 13.4	1.716	2.700	1.6	20.5
12 17	4 26.95	+25 42.8	1.487	2.446	6.6	19.6	12 17	4 25.09	+22 34.6	1.760	2.717	6.1	20.9
12 27	4 19.38	+24 49.8	1.531	2.442	11.0	19.9	12 27	4 16.22	+21 57.8	1.833	2.733	10.2	21.2
1 6	4 14.56	+24 1.3	1.599	2.438	14.9	20.1	1 6	4 9.99	+21 26.9	1.929	2.748	13.6	21.4
<b>327500</b>	2006 AQ <sub>36</sub>	12	3.5 273 <sup>o</sup> .73	3 <sup>o</sup> .9/ 2.5 17			<b>366508</b>	2002 PM <sub>152</sub>	12	3.5 142 <sup>o</sup> .11	1 <sup>o</sup> .9/ 2.8 18		
10 28	5 5.29	+10 37.6	2.217	3.021	12.9	21.1	10 28	5 5.11	+15 32.8	2.980	3.773	10.2	22.2
11 7	5 0.57	+10 21.6	2.132	3.015	10.2	20.9	11 7	4 59.82	+15 19.2	2.904	3.785	7.8	22.1
11 17	4 53.81	+10 10.4	2.070	3.009	7.1	20.7	11 17	4 53.02	+15 6.4	2.853	3.796	5.2	21.9
11 27	4 45.61	+10 6.0	2.036	3.004	4.5	20.5	11 27	4 45.22	+14 55.3	2.831	3.806	2.6	21.7
12 7	4 36.79	+10 10.3	2.030	2.998	4.3	20.5	12 7	4 37.08	+14 47.2	2.840	3.817	2.3	21.7
12 17	4 28.28	+10 24.3	2.053	2.992	6.9	20.7	12 17	4 29.25	+14 43.0	2.881	3.826	4.7	21.9
12 27	4 20.97	+10 48.2	2.104	2.986	10.0	20.8	12 27	4 22.38	+14 43.8	2.951	3.835	7.3	22.1
1 6	4 15.54	+11 21.4	2.180	2.980	12.9	21.0	1 6	4 16.97	+14 50.1	3.047	3.844	9.7	22.3
<b>37662</b>	1994 PT <sub>26</sub>	12	3.5 33 <sup>o</sup> .61	0 <sup>o</sup> .2/ 3.6 18			<b>183484</b>	2003 DZ <sub>14</sub>	12	3.5 290 <sup>o</sup> .76	0 <sup>o</sup> .8/ 3.3 17		
10 28	5 6.81	+22 54.5	1.939	2.750	14.3	19.0	10 28	5 6.97	+20 2.9	1.936	2.748	14.2	20.7
11 7	5 2.08	+22 58.1	1.863	2.754	11.0	18.8	11 7	5 2.39	+20 4.8	1.842	2.734	11.0	20.5
11 17	4 54.93	+22 58.1	1.809	2.758	7.1	18.6	11 17	4 55.28	+20 5.4	1.771	2.720	7.2	20.2
11 27	4 46.09	+22 54.0	1.782	2.763	2.9	18.4	11 27	4 46.30	+20 4.8	1.726	2.707	3.0	20.0
12 7	4 36.57	+22 46.4	1.784	2.767	1.5	18.3	12 7	4 36.44	+20 3.6	1.710	2.693	1.8	19.8
12 17	4 27.53	+22 36.8	1.814	2.772	5.8	18.6	12 17	4 26.86	+20 2.9	1.723	2.679	6.2	20.1
12 27	4 20.03	+22 27.7	1.872	2.777	9.7	18.8	12 27	4 18.71	+20 4.8	1.763	2.665	10.3	20.3
1 6	4 14.83	+22 21.7	1.954	2.782	13.1	19.0	1 6	4 12.87	+20 11.1	1.827	2.652	14.0	20.5
<b>221498</b>	2006 DH <sub>4</sub>	12	3.5										

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$		
<b>361821</b>	2008 <i>CK</i> <sub>128</sub>	12	3.5	353°53	3°1/	4.5	17	<b>374636</b>	2006 <i>HE</i> <sub>63</sub>	12	3.5	160°90	1°2/	3.2	16
10 28	5 8.43	+30 23.4	1.778	2.582	15.7	21.5	10 28	5 13.60	+20 7.9	1.746	2.552	15.8	22.7		
11 7	5 3.80	+30 38.4	1.698	2.580	12.4	21.2	11 7	5 7.44	+19 51.5	1.670	2.559	12.2	22.5		
11 17	4 56.29	+30 43.7	1.639	2.579	8.5	21.0	11 17	4 58.47	+19 32.1	1.617	2.565	7.9	22.2		
11 27	4 46.71	+30 36.6	1.606	2.578	4.7	20.8	11 27	4 47.55	+19 10.5	1.591	2.571	3.3	22.0		
12 7	4 36.27	+30 16.8	1.599	2.577	3.3	20.7	12 7	4 35.90	+18 48.4	1.593	2.575	2.2	21.9		
12 17	4 26.37	+29 46.1	1.621	2.577	6.6	20.9	12 17	4 24.86	+18 28.2	1.625	2.579	6.8	22.2		
12 27	4 18.30	+29 9.2	1.670	2.577	10.5	21.1	12 27	4 15.67	+18 13.1	1.685	2.582	11.1	22.5		
1 6	4 12.93	+28 31.6	1.742	2.577	14.1	21.4	1 6	4 9.16	+18 5.4	1.768	2.585	14.7	22.7		
<b>13247</b>	1998 <i>MW</i> <sub>34</sub>	12	3.5	172°11	1°6/	3.0	18	<b>453006</b>	2007 <i>JB</i> <sub>38</sub>	12	3.5	227°95	0°6/	3.3	17
10 28	5 11.03	+19 37.2	1.741	2.553	15.6	18.5	10 28	5 6.04	+20 49.1	2.529	3.329	11.7	22.2		
11 7	5 5.49	+19 10.6	1.664	2.555	12.0	18.3	11 7	5 1.01	+20 42.7	2.435	3.321	9.0	22.0		
11 17	4 57.22	+18 40.8	1.608	2.557	7.8	18.0	11 17	4 54.07	+20 34.0	2.366	3.313	5.8	21.8		
11 27	4 47.04	+18 9.5	1.579	2.559	3.4	17.8	11 27	4 45.75	+20 23.5	2.324	3.305	2.4	21.6		
12 7	4 36.12	+17 38.8	1.579	2.560	2.6	17.7	12 7	4 36.85	+20 11.8	2.313	3.296	1.5	21.5		
12 17	4 25.76	+17 11.8	1.608	2.561	6.9	18.0	12 17	4 28.22	+20 0.3	2.333	3.287	5.0	21.7		
12 27	4 17.17	+16 51.8	1.663	2.561	11.2	18.2	12 27	4 20.70	+19 51.0	2.381	3.278	8.3	21.9		
1 6	4 11.18	+16 41.1	1.742	2.561	14.8	18.5	1 6	4 14.96	+19 45.6	2.455	3.268	11.2	22.1		
<b>475720</b>	2006 <i>WK</i> <sub>29</sub>	12	3.5	56°36	6°7/	29.3	16	<b>101062</b>	1998 <i>RF</i> <sub>5</sub>	12	3.5	118°97	0°3/	3.4	18
10 28	5 26.75	+22 41.7	1.305	2.107	20.4	20.6	10 28	5 12.70	+21 10.9	1.672	2.482	16.2	20.1		
11 7	5 17.45	+18 26.1	1.234	2.121	15.7	20.3	11 7	5 6.85	+21 15.8	1.603	2.494	12.5	19.9		
11 17	5 4.66	+13 45.3	1.192	2.136	10.6	20.1	11 17	4 58.13	+21 18.1	1.557	2.506	8.1	19.6		
11 27	4 49.82	+ 8 58.2	1.183	2.151	6.9	19.9	11 27	4 47.43	+21 17.3	1.537	2.517	3.2	19.4		
12 7	4 34.79	+ 4 29.8	1.210	2.166	8.4	20.1	12 7	4 36.00	+21 14.0	1.545	2.528	1.8	19.3		
12 17	4 21.37	+ 0 42.2	1.271	2.182	12.8	20.4	12 17	4 25.23	+21 9.5	1.582	2.539	6.6	19.6		
12 27	4 10.88	- 2 13.4	1.360	2.198	17.1	20.7	12 27	4 16.40	+21 6.7	1.646	2.549	10.9	19.9		
1 6	4 3.99	- 4 17.4	1.471	2.214	20.6	21.0	1 6	4 10.31	+21 7.9	1.734	2.559	14.6	20.2		
<b>156873</b>	2003 <i>DF</i> <sub>20</sub>	12	3.5	250°56	0°5/	3.4	18	<b>386681</b>	2009 <i>VE</i> <sub>64</sub>	12	3.5	22°01	1°0/	3.3	18
10 28	5 9.96	+21 42.1	1.793	2.604	15.3	20.8	10 28	5 6.78	+21 15.3	1.139	1.986	19.9	20.8		
11 7	5 4.89	+21 32.4	1.700	2.591	11.9	20.5	11 7	5 3.35	+21 0.2	1.082	1.993	15.3	20.5		
11 17	4 57.01	+21 18.8	1.629	2.578	7.8	20.3	11 17	4 56.33	+20 40.8	1.045	2.001	9.9	20.2		
11 27	4 47.03	+21 1.3	1.584	2.564	3.1	20.0	11 27	4 46.78	+20 18.4	1.029	2.011	4.0	19.9		
12 7	4 36.08	+20 41.1	1.567	2.550	1.9	19.8	12 7	4 36.35	+19 55.2	1.039	2.022	2.5	19.9		
12 17	4 25.48	+20 20.4	1.579	2.536	6.6	20.1	12 17	4 26.83	+19 35.0	1.073	2.033	8.2	20.3		
12 27	4 16.52	+20 2.6	1.619	2.521	11.1	20.3	12 27	4 19.78	+19 21.8	1.130	2.046	13.5	20.6		
1 6	4 10.14	+19 50.8	1.682	2.506	15.0	20.6	1 6	4 16.10	+19 18.1	1.208	2.060	17.9	20.9		
<b>37341</b>	2001 <i>SO</i> <sub>16</sub>	12	3.5	53°56	5°4/	2.2	18	<b>7863</b>	Turnbull	12	3.5	60°25	0°3/	3.6	18
10 28	5 8.56	+12 4.8	1.357	2.187	18.2	20.0	10 28	5 6.82	+23 32.2	2.086	2.893	13.6	18.0		
11 7	5 3.89	+11 15.1	1.304	2.202	14.2	19.8	11 7	5 1.80	+23 28.7	2.021	2.909	10.4	17.8		
11 17	4 56.26	+10 30.2	1.271	2.216	9.8	19.6	11 17	4 54.60	+23 21.0	1.979	2.926	6.7	17.6		
11 27	4 46.63	+ 9 54.9	1.261	2.232	6.1	19.4	11 27	4 45.94	+23 8.9	1.963	2.943	2.7	17.4		
12 7	4 36.40	+ 9 33.3	1.278	2.247	6.0	19.5	12 7	4 36.81	+22 53.3	1.977	2.961	1.4	17.3		
12 17	4 26.99	+ 9 28.0	1.321	2.263	9.4	19.7	12 17	4 28.23	+22 36.1	2.021	2.978	5.3	17.6		
12 27	4 19.67	+ 9 39.6	1.388	2.279	13.4	20.0	12 27	4 21.13	+22 20.0	2.092	2.995	8.9	17.9		
1 6	4 15.20	+10 6.4	1.476	2.295	17.0	20.3	1 6	4 16.16	+22 7.3	2.188	3.013	12.0	18.1		
<b>361012</b>	2005 <i>VG</i> <sub>02</sub>	12	3.5	114°17	0°1/	3.5	18	<b>20492</b>	1999 <i>OC</i> <sub>5</sub>	12	3.5	76°08	8°2/	2.4	18
10 28	5 8.06	+22 9.6	2.295	3.094	12.7	22.1	10 28	5 10.21	+ 1 14.6	1.675	2.469	16.9	17.4		
11 7	5 2.56	+22 7.2	2.222	3.108	9.7	21.9	11 7	5 4.49	+ 0 37.0	1.627	2.492	13.8	17.2		
11 17	4 55.01	+22 1.6	2.174	3.121	6.3	21.7	11 17	4 56.34	+ 0 13.9	1.600	2.515	10.7	17.1		
11 27	4 46.08	+21 53.0	2.153	3.134	2.5	21.5	11 27	4 46.62	+ 0 10.1	1.598	2.537	8.6	17.0		
12 7	4 36.67	+21 41.9	2.163	3.146	1.4	21.5	12 7	4 36.48	+ 0 27.9	1.622	2.560	8.5	17.1		
12 17	4 27.73	+21 30.0	2.203	3.158	5.1	21.7	12 17	4 27.07	+ 1 7.1	1.673	2.582	10.4	17.2		
12 27	4 20.14	+21 19.4	2.271	3.170	8.5	22.0	12 27	4 19.43	+ 2 4.8	1.749	2.604	13.1	17.5		
1 6	4 14.55	+21 12.1	2.366	3.182	11.5	22.2	1 6	4 14.19	+ 3 16.6	1.848	2.626	15.7	17.7		
<b>329562</b>	2002 <i>UV</i> <sub>71</sub>	12	3.5	84°92	1°9/	2.9	18	<b>200190</b>	1999 <i>RO</i> <sub>101</sub>	12	3.5	96°71	2°9/	4.7	18
10 28	5 13.82	+20 32.1	1.525	2.340	17.3	21.2	10 28	5 14.45	+32 10.8	1.919	2.703	15.4	20.5		
11 7	5 7.48	+19 42.9	1.474	2.368	13.2	21.0	11 7	5 7.79	+32 0.8	1.857	2.728	12.1	20.4		
11 17	4 58.31	+18 49.4	1.445	2.395	8.5	20.8	11 17	4 58.47	+31 38.4	1.818	2.753	8.3	20.2		
11 27	4 47.37	+17 54.3	1.442	2.422	3.6	20.6	11 27	4 47.47	+31 2.2	1.806	2.777	4.5	20.0		
12 7	4 36.06	+17 1.7	1.468	2.448	2.9	20.6	12 7	4 36.06	+30 13.5	1.823	2.800	3.1	19.9		
12 17	4 25.75	+16 16.0	1.522	2.474	7.3	20.9	12 17	4 25.53	+29 16.0	1.869	2.823	6.0	20.2		
12 27	4 17.62	+15 41.1	1.602	2.500	11.5	21.2	12 27	4 16.99	+28 15.5	1.944	2.846	9.6	20.4		
1 6	4 12.31	+15 19.0	1.706	2.524	15.1	21.5	1 6	4 11.10	+27 17.8	2.044	2.867	12.8	20.7		
<b>439701</b>	2014 <i>KN</i> <sub>42</sub>	12	3.5	166°33	6°8/	1.9	18	<b>186625</b>	2003 <i>FQ</i> <sub>103</sub>	12	3.5	198°64	5°9/	30.9	18
10 28	5 7.62	+ 3 0.3	2.085	2.874	14.2	21.0	10 28	5 4.85	+ 6 6.7	2.325	3.120	12.7	20.6		
11 7	5 2.34	+ 2 26.0	2.012	2.876	11.6	20.8	11 7	5 0.06	+ 5 3.1	2.247	3.118	10.2	20.4		
11 17	4 54.94	+ 2 1.8	1.962	2.879	8.9	20.7	11 17	4 53.41	+ 4 5.0	2.193	3.116	7.8	20.2		
11 27	4 46.08	+ 1 51.7	1.938	2.881	7.0	20.6	11 27	4 45.48	+ 3 16.7	2.167	3.114	6.1	20.1		
12 7	4 36.67	+ 1 58.3	1.942	2.883	7.1	20.6	12 7	4 37.06	+ 2 41.8	2.169	3.111	6.3	20.1		
12 17	4 27.66	+ 2 22.4	1.973	2.884	9.0	20.7	12 17	4 28.98	+ 2 22.8	2.199	3.108	8.3	20.2		
12 27	4 19.99	+ 3 3.2	2.032	2.885	11.6	20.8	12 27	4 22.06	+ 2 20.6	2.256	3.105	10.8	20.4		
1 6	4 14.31	+ 3 57.9	2.113	2.886	14.1	21.0	1 6	4 16.89	+ 2 34.3	2.336	3.101	13.2	20.6		
<b>477788</b>	2011 <i>BJ</i> <sub>76</sub>	12													



EPHEMERIDES

12 3.5

12 3.6

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>113208</b>	2002 RR <sub>114</sub>	12	3.5 102°04	3°7/ 2.6	18		<b>176615</b>	2002 GN <sub>57</sub>	12	3.5 262°42	1°3/ 3.9	18	
10 28	5 7.74	+12 50.6	1.872	2.683	14.7	19.9	10 28	5 12.79	+26 54.2	1.630	2.437	16.7	21.2
11 7	5 2.71	+12 29.5	1.800	2.689	11.4	19.7	11 7	5 7.64	+26 41.5	1.528	2.415	13.2	20.9
11 17	4 55.31	+12 11.9	1.751	2.695	7.8	19.5	11 17	4 59.16	+26 18.8	1.447	2.393	8.8	20.6
11 27	4 46.29	+12 0.2	1.729	2.701	4.5	19.3	11 27	4 48.07	+25 44.5	1.391	2.370	3.9	20.3
12 7	4 36.64	+11 56.5	1.734	2.707	4.2	19.3	12 7	4 35.68	+24 59.2	1.363	2.346	2.1	20.1
12 17	4 27.49	+12 2.0	1.768	2.712	7.3	19.5	12 17	4 23.59	+24 6.3	1.363	2.321	7.2	20.3
12 27	4 19.85	+12 17.6	1.829	2.718	10.9	19.8	12 27	4 13.43	+23 11.9	1.390	2.296	12.3	20.6
1 6	4 14.47	+12 42.9	1.914	2.723	14.1	20.0	1 6	4 6.32	+22 22.7	1.440	2.271	16.8	20.8
<b>267541</b>	2002 PH <sub>114</sub>	12	3.5 139°59	4°8/ 1.8	18		<b>64876</b>	2001 YG <sub>64</sub>	12	3.5 159°82	1°6/ 3.3	18	
10 28	5 4.27	+6 14.5	2.628	3.418	11.5	21.0	10 28	5 12.56	+16 18.0	2.070	2.867	14.0	19.9
11 7	4 59.37	+5 41.9	2.555	3.425	9.2	20.8	11 7	5 6.29	+16 34.1	1.990	2.874	10.8	19.7
11 17	4 52.84	+5 15.5	2.507	3.432	6.8	20.7	11 17	4 57.63	+16 52.6	1.934	2.879	7.1	19.5
11 27	4 45.22	+4 57.9	2.486	3.438	5.1	20.6	11 27	4 47.26	+17 13.0	1.906	2.885	3.1	19.2
12 7	4 37.21	+4 51.4	2.495	3.444	5.1	20.6	12 7	4 36.19	+17 35.4	1.909	2.889	2.3	19.2
12 17	4 29.54	+4 56.8	2.533	3.450	6.9	20.7	12 17	4 25.55	+17 59.7	1.941	2.893	6.0	19.4
12 27	4 22.89	+5 14.4	2.598	3.456	9.2	20.9	12 27	4 16.38	+18 26.5	2.003	2.897	9.8	19.7
1 6	4 17.80	+5 43.0	2.688	3.461	11.4	21.0	1 6	4 9.47	+18 56.3	2.090	2.899	13.0	19.9
<b>124063</b>	2001 FL <sub>171</sub>	12	3.5 148°09	5°7/ 5.8	17		<b>364330</b>	2006 UG <sub>120</sub>	12	3.6 319°92	4°2/ 2.1	17	
10 28	5 12.54	+42 5.6	2.902	3.633	11.9	20.1	10 28	5 4.34	+14 42.3	1.665	2.492	15.6	20.7
11 7	5 6.17	+42 54.9	2.821	3.640	10.0	20.0	11 7	5 0.62	+13 49.6	1.579	2.477	12.2	20.5
11 17	4 57.50	+43 32.6	2.763	3.648	8.0	19.9	11 17	4 54.28	+12 56.1	1.515	2.463	8.3	20.2
11 27	4 47.17	+43 54.6	2.731	3.655	6.3	19.8	11 27	4 46.01	+12 6.1	1.475	2.449	4.9	20.0
12 7	4 36.16	+43 59.0	2.729	3.662	5.7	19.8	12 7	4 36.88	+11 23.8	1.463	2.436	4.8	20.0
12 17	4 25.51	+43 46.1	2.755	3.669	6.6	19.8	12 17	4 28.12	+10 53.3	1.478	2.423	8.4	20.1
12 27	4 16.27	+43 18.7	2.810	3.675	8.4	19.9	12 27	4 20.94	+10 37.7	1.519	2.410	12.4	20.4
1 6	4 9.18	+42 41.8	2.890	3.680	10.3	20.1	1 6	4 16.19	+10 37.8	1.581	2.399	16.1	20.6
<b>119027</b>	2001 CQ <sub>2</sub>	12	3.5 196°13	0°7/ 3.2	18		<b>469368</b>	2001 QB <sub>146</sub>	12	3.6 60°34	0°8/ 3.4	16	
10 28	5 5.40	+20 1.5	3.125	3.916	9.9	20.9	10 28	5 11.50	+21 37.6	1.359	2.186	18.4	21.6
11 7	5 0.13	+19 53.4	3.032	3.912	7.6	20.7	11 7	5 6.27	+21 21.6	1.307	2.206	14.1	21.4
11 17	4 53.31	+19 43.8	2.963	3.908	4.9	20.5	11 17	4 57.87	+21 1.4	1.275	2.228	9.1	21.2
11 27	4 45.43	+19 32.9	2.924	3.904	2.0	20.3	11 27	4 47.36	+20 37.7	1.268	2.249	3.6	20.9
12 7	4 37.10	+19 21.6	2.917	3.899	1.3	20.3	12 7	4 36.26	+20 12.6	1.288	2.271	2.2	20.9
12 17	4 29.02	+19 11.0	2.941	3.893	4.2	20.5	12 17	4 26.13	+19 49.5	1.334	2.292	7.3	21.3
12 27	4 21.83	+19 2.4	2.995	3.887	7.0	20.6	12 27	4 18.31	+19 32.1	1.406	2.314	12.0	21.6
1 6	4 16.08	+18 57.3	3.077	3.881	9.4	20.8	1 6	4 13.55	+19 22.9	1.500	2.336	15.9	21.9
<b>249457</b>	2009 HF <sub>59</sub>	12	3.5 84°93	1°9/ 3.3	18		<b>1466</b>	Mündleria	12	3.6 205°14	7°2/ 1.3	18	
10 28	5 13.55	+16 43.2	1.350	2.174	18.7	19.8	10 28	5 8.88	+4 11.0	1.944	2.737	14.9	16.7
11 7	5 8.05	+16 56.9	1.288	2.186	14.4	19.6	11 7	5 3.55	+3 14.5	1.865	2.733	12.2	16.5
11 17	4 59.18	+17 13.6	1.246	2.197	9.4	19.3	11 17	4 55.89	+2 26.3	1.809	2.728	9.4	16.3
11 27	4 47.93	+17 33.1	1.229	2.209	4.1	19.0	11 27	4 46.59	+1 51.6	1.779	2.723	7.5	16.2
12 7	4 35.80	+17 55.2	1.238	2.220	2.9	19.0	12 7	4 36.60	+1 34.5	1.776	2.717	7.6	16.2
12 17	4 24.44	+18 20.0	1.275	2.231	7.9	19.3	12 17	4 27.00	+1 37.2	1.801	2.711	9.8	16.3
12 27	4 15.36	+18 48.4	1.337	2.243	12.7	19.6	12 27	4 18.83	+1 59.7	1.852	2.703	12.6	16.4
1 6	4 9.50	+19 21.1	1.422	2.254	16.8	19.9	1 6	4 12.82	+2 39.7	1.925	2.696	15.4	16.6
<b>308856</b>	Daniket	12	3.5 278°39	4°2/ 2.0	18		<b>15204</b>	1978 UG	12	3.6 46°80	1°2/ 3.8	18	
10 28	5 5.77	+13 9.6	1.905	2.720	14.4	21.7	10 28	5 11.53	+24 16.0	1.273	2.103	19.2	17.4
11 7	5 1.26	+12 19.3	1.824	2.714	11.2	21.5	11 7	5 6.66	+24 33.6	1.222	2.122	14.8	17.2
11 17	4 54.43	+11 30.2	1.765	2.708	7.8	21.2	11 17	4 58.30	+24 45.3	1.191	2.142	9.7	17.0
11 27	4 45.96	+10 45.9	1.733	2.703	4.8	21.1	11 27	4 47.58	+24 49.5	1.183	2.163	4.1	16.7
12 7	4 36.83	+10 10.1	1.728	2.697	4.8	21.1	12 7	4 36.13	+24 45.9	1.201	2.184	2.2	16.6
12 17	4 28.09	+9 46.0	1.753	2.692	7.8	21.2	12 17	4 25.68	+24 36.7	1.245	2.206	7.4	17.0
12 27	4 20.79	+9 35.7	1.803	2.686	11.3	21.4	12 27	4 17.72	+24 26.2	1.314	2.228	12.2	17.4
1 6	4 15.66	+9 39.4	1.877	2.680	14.5	21.6	1 6	4 13.07	+24 18.4	1.405	2.250	16.3	17.7
<b>510268</b>	2011 HS <sub>81</sub>	12	3.5 188°08	1°8/ 3.0	18		<b>15232</b>	1987 SD <sub>13</sub>	12	3.6 20°21	0°2/ 3.6	18	
10 28	5 10.85	+17 21.8	2.081	2.882	13.8	22.3	10 28	5 7.03	+22 24.4	1.076	1.925	20.6	17.4
11 7	5 5.00	+17 12.7	1.996	2.881	10.6	22.1	11 7	5 3.82	+22 33.8	1.021	1.933	15.9	17.1
11 17	4 56.80	+17 3.6	1.934	2.880	7.0	21.8	11 17	4 56.82	+22 39.0	0.985	1.942	10.3	16.9
11 27	4 46.91	+16 55.3	1.900	2.878	3.2	21.6	11 27	4 47.09	+22 39.2	0.970	1.952	4.2	16.6
12 7	4 36.33	+16 48.9	1.896	2.876	2.5	21.6	12 7	4 36.37	+22 34.9	0.980	1.963	2.2	16.5
12 17	4 26.13	+16 45.9	1.922	2.873	6.2	21.8	12 17	4 26.60	+22 28.5	1.013	1.976	8.2	16.9
12 27	4 17.38	+16 47.9	1.976	2.869	9.9	22.0	12 27	4 19.44	+22 23.9	1.070	1.990	13.7	17.2
1 6	4 10.84	+16 56.3	2.055	2.864	13.2	22.2	1 6	4 15.87	+22 24.5	1.147	2.005	18.2	17.5
<b>483860</b>	2005 YH <sub>88</sub>	12	3.5 340°54	2°9/ 4.7	17		<b>124092</b>	2001 HJ <sub>32</sub>	12	3.6 199°13	4°1/ 5.0	18	
10 28	5 7.37	+31 49.2	2.011	2.806	14.4	21.3	10 28	5 10.09	+36 13.5	2.894	3.650	11.4	20.5
11 7	5 2.67	+31 44.8	1.926	2.803	11.4	21.1	11 7	5 4.22	+36 51.7	2.801	3.647	9.2	20.4
11 17	4 55.42	+31 29.3	1.863	2.800	7.9	20.8	11 17	4 56.24	+37 21.1	2.731	3.644	6.9	20.2
11 27	4 46.38	+31 0.9	1.826	2.798	4.4	20.6	11 27	4 46.73	+37 38.8	2.689	3.640	4.9	20.1
12 7	4 36.63	+30 20.2	1.818	2.795	3.1	20.5	12 7	4 36.53	+37 43.3	2.677	3.635	4.2	20.0
12 17	4 27.40	+29 29.9	1.838	2.793	6.0	20.7	12 17	4 26.59	+37 34.6	2.695	3.630	5.6	20.1
12 27	4 19.80	+28 34.9	1.886	2.791	9.6	20.9	12 27	4 17.86	+37 15.2	2.742	3.625	7.9	20.2
1 6	4 14.61	+27 40.8	1.958	2.790	12.9	21.1	1 6	4 11.04	+36 49.0	2.815	3.619	10.2	20.4
<b>86625</b>	2000 EQ <sub>124</sub>	12	3.5 181°35	0°5/ 3.7	18		<b>376978</b>	2002 NV <sub>74</sub>	12	3.6 93°12	0°5/ 3.7	18	
10 28	5 11.93	+23 45.5	1.880	2.683	15.0	20.4	10 28	5 13.72					

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>137252</b>	1999 <i>RG</i> <sub>82</sub>		12 3.6 140°03	2°3/	4.3	18	<b>80874</b>	2000 <i>DF</i> <sub>35</sub>		12 3.6 134°54	1°7/	4.0	18
10 28	5 14.68	+28 59.7	1.714	2.511	16.4	20.4	10 28	5 12.88	+26 40.2	1.717	2.521	16.1	20.1
11 7	5 8.52	+29 2.7	1.641	2.521	12.8	20.1	11 7	5 7.14	+26 49.0	1.644	2.529	12.5	19.8
11 17	4 59.31	+28 55.7	1.590	2.531	8.7	19.9	11 17	4 58.46	+26 50.5	1.592	2.537	8.3	19.6
11 27	4 47.99	+28 36.8	1.565	2.540	4.3	19.7	11 27	4 47.70	+26 42.9	1.566	2.544	3.8	19.4
12 7	4 35.92	+28 6.0	1.568	2.549	2.7	19.6	12 7	4 36.15	+26 26.2	1.569	2.551	2.2	19.3
12 17	4 24.59	+27 26.3	1.600	2.557	6.6	19.9	12 17	4 25.24	+26 2.4	1.600	2.557	6.5	19.6
12 27	4 15.33	+26 43.2	1.660	2.564	10.8	20.1	12 27	4 16.29	+25 35.9	1.659	2.564	10.7	19.8
1 6	4 9.00	+26 2.3	1.743	2.570	14.4	20.4	1 6	4 10.15	+25 11.3	1.741	2.569	14.4	20.1
<b>215311</b>	2001 <i>SC</i> <sub>233</sub>		12 3.6 106°98	3°2/	2.5	18	<b>208808</b>	2002 <i>QL</i> <sub>107</sub>		12 3.6 342°21	9°6/	30.9	18
10 28	5 6.64	+14 39.4	2.011	2.822	13.9	20.7	10 28	5 5.62	- 0 9.2	1.701	2.500	16.5	20.0
11 7	5 1.73	+14 4.5	1.938	2.828	10.7	20.5	11 7	5 1.33	- 1 15.8	1.634	2.497	13.8	19.8
11 17	4 54.64	+13 30.7	1.889	2.834	7.2	20.3	11 17	4 54.59	- 2 9.1	1.587	2.495	11.3	19.7
11 27	4 46.06	+13 0.5	1.866	2.840	4.0	20.1	11 27	4 46.12	- 2 42.2	1.565	2.493	9.7	19.6
12 7	4 36.94	+12 36.6	1.872	2.846	3.7	20.1	12 7	4 36.97	- 2 50.4	1.567	2.491	9.9	19.6
12 17	4 28.29	+12 21.2	1.908	2.852	6.8	20.3	12 17	4 28.27	- 2 31.8	1.594	2.489	11.8	19.7
12 27	4 21.06	+12 15.9	1.970	2.858	10.2	20.5	12 27	4 21.12	- 1 47.9	1.645	2.488	14.4	19.9
1 6	4 15.92	+12 21.3	2.056	2.863	13.3	20.7	1 6	4 16.27	- 0 42.9	1.717	2.487	17.0	20.1
<b>212156</b>	2005 <i>FB</i> <sub>8</sub>		12 3.6 229°78	2°7/	3.1	18	<b>46861</b>	1998 <i>QJ</i> <sub>73</sub>		12 3.6 314°92	5°6/	1.4	18 R
10 28	5 9.36	+13 56.0	1.869	2.678	14.8	20.2	10 28	5 5.26	+12 15.8	1.649	2.473	15.8	18.3
11 7	5 4.14	+14 3.9	1.788	2.677	11.5	20.0	11 7	5 1.26	+10 59.5	1.569	2.463	12.5	18.1
11 17	4 56.41	+14 16.1	1.729	2.675	7.7	19.8	11 17	4 54.65	+ 9 43.5	1.511	2.454	8.9	17.8
11 27	4 46.85	+14 33.5	1.697	2.674	3.9	19.5	11 27	4 46.18	+ 8 33.5	1.478	2.444	6.0	17.7
12 7	4 36.50	+14 56.5	1.694	2.672	3.2	19.5	12 7	4 36.93	+ 7 35.3	1.472	2.436	6.3	17.7
12 17	4 26.52	+15 25.2	1.720	2.670	6.8	19.7	12 17	4 28.11	+ 6 54.0	1.494	2.427	9.4	17.8
12 27	4 18.07	+15 59.7	1.773	2.669	10.7	20.0	12 27	4 20.91	+ 6 32.4	1.540	2.419	13.1	18.0
1 6	4 11.96	+16 39.7	1.851	2.667	14.2	20.2	1 6	4 16.13	+ 6 30.4	1.607	2.411	16.5	18.2
<b>1363</b>	Herberta		12 3.6 98°62	0°3/	3.4	18	<b>143888</b>	2003 <i>YL</i> <sub>40</sub>		12 3.6 55°48	5°4/	3.2	18
10 28	5 7.09	+22 7.4	2.118	2.924	13.4	16.0	10 28	5 13.14	+ 9 28.7	1.207	2.034	20.2	19.2
11 7	5 2.09	+21 56.2	2.042	2.931	10.3	15.8	11 7	5 7.69	+ 9 28.7	1.161	2.056	15.8	19.0
11 17	4 54.88	+21 41.3	1.989	2.938	6.6	15.6	11 17	4 58.89	+ 9 39.9	1.134	2.078	10.9	18.7
11 27	4 46.16	+21 23.1	1.964	2.944	2.7	15.4	11 27	4 47.84	+10 4.6	1.130	2.101	6.5	18.6
12 7	4 36.89	+21 2.9	1.967	2.950	1.5	15.3	12 7	4 36.14	+10 43.2	1.152	2.124	5.9	18.6
12 17	4 28.08	+20 42.7	2.000	2.957	5.5	15.6	12 17	4 25.45	+11 34.2	1.200	2.147	9.5	18.9
12 27	4 20.70	+20 25.0	2.062	2.963	9.1	15.8	12 27	4 17.19	+12 35.3	1.272	2.170	13.8	19.2
1 6	4 15.41	+20 12.3	2.148	2.969	12.3	16.1	1 6	4 12.18	+13 43.4	1.365	2.194	17.6	19.5
<b>214867</b>	2007 <i>HN</i> <sub>17</sub>		12 3.6 124°79	3°2/	4.7	18	<b>267006</b>	1993 <i>BR</i> <sub>11</sub>		12 3.6 235°92	1°1/	3.8	18
10 28	5 10.51	+33 9.0	2.946	3.710	11.0	21.4	10 28	5 11.78	+25 13.1	1.744	2.550	15.8	21.6
11 7	5 4.26	+33 43.6	2.871	3.727	8.8	21.2	11 7	5 6.49	+25 17.8	1.654	2.541	12.3	21.4
11 17	4 56.10	+34 10.5	2.821	3.743	6.3	21.1	11 17	4 58.21	+25 16.5	1.585	2.531	8.2	21.1
11 27	4 46.63	+34 27.4	2.799	3.759	4.0	21.0	11 27	4 47.68	+25 7.7	1.542	2.521	3.6	20.8
12 7	4 36.66	+34 33.5	2.808	3.775	3.3	20.9	12 7	4 36.12	+24 51.2	1.528	2.511	1.9	20.7
12 17	4 27.06	+34 29.0	2.847	3.790	4.9	21.1	12 17	4 24.97	+24 29.1	1.542	2.500	6.6	20.9
12 27	4 18.68	+34 16.4	2.917	3.805	7.3	21.3	12 27	4 15.60	+24 5.2	1.584	2.488	11.1	21.2
1 6	4 12.11	+33 58.9	3.013	3.819	9.5	21.4	1 6	4 9.01	+23 44.0	1.648	2.477	15.1	21.4
<b>515936</b>	2015 <i>RA</i> <sub>23</sub>		12 3.6 150°90	1°3/	3.1	18	<b>353775</b>	2012 <i>HS</i> <sub>56</sub>		12 3.6 157°29	3°8/	1.9	18
10 28	5 9.04	+19 39.9	2.027	2.832	13.9	21.8	10 28	5 3.86	+ 9 46.8	2.830	3.624	10.7	21.8
11 7	5 3.63	+19 18.5	1.949	2.838	10.7	21.6	11 7	4 59.01	+ 9 10.2	2.753	3.629	8.4	21.7
11 17	4 55.90	+18 54.6	1.896	2.844	6.9	21.4	11 17	4 52.63	+ 8 37.0	2.701	3.634	6.0	21.5
11 27	4 46.59	+18 29.5	1.869	2.849	3.0	21.1	11 27	4 45.24	+ 8 9.6	2.677	3.639	4.1	21.4
12 7	4 36.68	+18 4.8	1.872	2.853	2.2	21.1	12 7	4 37.47	+ 7 50.1	2.684	3.643	4.1	21.4
12 17	4 27.26	+17 43.0	1.905	2.858	6.0	21.4	12 17	4 30.01	+ 7 40.0	2.720	3.647	6.0	21.6
12 27	4 19.35	+17 26.5	1.965	2.861	9.8	21.6	12 27	4 23.50	+ 7 40.0	2.785	3.650	8.4	21.7
1 6	4 13.63	+17 17.4	2.050	2.865	13.0	21.8	1 6	4 18.44	+ 7 50.0	2.874	3.654	10.6	21.9
<b>495794</b>	2017 <i>FT</i> <sub>66</sub>		12 3.6 192°21	2°0/	4.1	17	<b>397979</b>	2009 <i>BQ</i> <sub>16</sub>		12 3.6 226°26	4°5/	2.2	18
10 28	5 8.95	+27 6.6	2.302	3.095	12.9	21.1	10 28	5 7.22	+11 12.4	1.965	2.773	14.2	21.4
11 7	5 3.60	+27 38.7	2.216	3.094	10.1	20.9	11 7	5 2.34	+10 36.3	1.883	2.768	11.2	21.2
11 17	4 55.96	+28 6.2	2.153	3.094	6.8	20.7	11 17	4 55.17	+10 3.8	1.824	2.763	7.9	21.0
11 27	4 46.66	+28 26.8	2.118	3.093	3.4	20.5	11 27	4 46.36	+ 9 38.2	1.791	2.758	5.0	20.8
12 7	4 36.63	+28 39.4	2.113	3.092	2.3	20.4	12 7	4 36.88	+ 9 22.2	1.787	2.753	4.9	20.8
12 17	4 26.91	+28 44.2	2.137	3.092	5.4	20.6	12 17	4 27.77	+ 9 18.1	1.811	2.748	7.7	20.9
12 27	4 18.55	+28 43.4	2.191	3.091	8.7	20.8	12 27	4 20.05	+ 9 26.9	1.862	2.742	11.1	21.1
1 6	4 12.30	+28 39.8	2.269	3.090	11.8	21.0	1 6	4 14.48	+ 9 48.2	1.936	2.736	14.3	21.3
<b>13833</b>	1999 <i>XW</i> <sub>13</sub>		12 3.6 348°04	5°1/	1.6	18	<b>278120</b>	2007 <i>CB</i> <sub>12</sub>		12 3.6 266°96	2°1/	3.1	18
10 28	5 3.75	+10 28.6	1.970	2.784	14.0	16.9	10 28	5 10.00	+17 43.4	1.697	2.512	15.8	21.3
11 7	4 59.62	+ 9 31.6	1.894	2.781	11.0	16.7	11 7	5 5.16	+17 30.7	1.600	2.493	12.3	21.0
11 17	4 53.34	+ 8 37.8	1.841	2.779	7.9	16.5	11 17	4 57.41	+17 17.5	1.526	2.475	8.2	20.8
11 27	4 45.58	+ 7 51.5	1.814	2.777	5.5	16.4	11 27	4 47.41	+17 4.9	1.477	2.456	3.7	20.4
12 7	4 37.23	+ 7 16.7	1.814	2.775	5.6	16.4	12 7	4 36.29	+16 54.5	1.456	2.437	2.9	20.3
12 17	4 29.28	+ 6 56.1	1.843	2.774	8.1	16.5	12 17	4 25.42	+16 48.5	1.463	2.417	7.4	20.6
12 27	4 22.68	+ 6 51.3	1.898	2.772	11.3	16.7	12 27	4 16.18	+16 49.2	1.497	2.397	12.0	20.8
1 6	4 18.09	+ 7 1.6	1.975	2.772	14.2	16.9	1 6	4 9.60	+16 58.3	1.554	2.377	16.1	21.0
<b>413191</b>	2002 <i>TO</i> <sub>350</sub>		12 3.6 46°02	0°2/	3.7	17	<b>391534</b>	2007 <i>RJ</i> <					

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>46055</b>	2001 <i>DA</i> <sub>83</sub>	12	3.6 224°03	1.4/ 3.1	18		<b>265918</b>	2006 <i>BA</i> <sub>110</sub>	12	3.6 126°18	3°3/ 2.6	18	
10 28	5 8.48	+19 8.4	1.974	2.782	14.1	19.9	10 28	5 5.76	+11 32.6	2.480	3.278	11.9	20.8
11 7	5 3.42	+18 53.1	1.887	2.777	10.9	19.7	11 7	5 0.67	+11 16.1	2.406	3.287	9.3	20.6
11 17	4 55.93	+18 35.9	1.824	2.772	7.1	19.4	11 17	4 53.81	+11 3.2	2.356	3.295	6.4	20.4
11 27	4 46.69	+18 18.0	1.787	2.766	3.1	19.2	11 27	4 45.75	+10 55.7	2.335	3.303	3.9	20.3
12 7	4 36.71	+18 0.7	1.779	2.760	2.2	19.1	12 7	4 37.25	+10 55.1	2.343	3.311	3.7	20.3
12 17	4 27.11	+17 46.1	1.801	2.754	6.3	19.4	12 17	4 29.12	+11 2.3	2.380	3.319	6.0	20.5
12 27	4 18.99	+17 36.7	1.850	2.748	10.2	19.6	12 27	4 22.10	+11 17.8	2.447	3.327	8.8	20.7
1 6	4 13.11	+17 34.2	1.923	2.741	13.7	19.8	1 6	4 16.79	+11 41.2	2.538	3.334	11.4	20.8
<b>295180</b>	2008 <i>FL</i> <sub>90</sub>	12	3.6 190°54	3°4/ 2.3	18		<b>69748</b>	1998 <i>KG</i> <sub>59</sub>	12	3.6 212°55	5°1/ 2.5	18	
10 28	5 6.40	+11 55.2	2.512	3.308	11.8	21.6	10 28	5 9.57	+7 30.1	2.054	2.849	14.1	19.8
11 7	5 1.20	+11 26.1	2.427	3.307	9.2	21.4	11 7	5 4.06	+7 14.3	1.969	2.844	11.3	19.6
11 17	4 54.18	+10 59.6	2.367	3.305	6.4	21.3	11 17	4 56.27	+7 6.1	1.907	2.838	8.2	19.4
11 27	4 45.91	+10 37.8	2.335	3.303	3.9	21.1	11 27	4 46.83	+7 8.2	1.871	2.832	5.6	19.3
12 7	4 37.13	+10 22.9	2.333	3.300	3.8	21.1	12 7	4 36.67	+7 22.6	1.865	2.825	5.5	19.3
12 17	4 28.67	+10 16.3	2.361	3.297	6.2	21.2	12 17	4 26.84	+7 49.9	1.887	2.818	7.9	19.4
12 27	4 21.30	+10 19.3	2.417	3.293	9.1	21.4	12 27	4 18.35	+8 29.7	1.938	2.811	11.1	19.6
1 6	4 15.63	+10 31.6	2.499	3.289	11.7	21.6	1 6	4 11.96	+9 20.2	2.012	2.803	14.1	19.8
<b>268229</b>	2005 <i>EY</i> <sub>50</sub>	12	3.6 277°21	3°2/ 2.3	17		<b>476328</b>	2007 <i>YW</i> <sub>63</sub>	12	3.6 161°20	4°3/ 4.9	18	
10 28	5 3.70	+13 33.6	2.401	3.207	12.0	20.4	10 28	5 15.34	+33 27.6	1.667	2.458	17.1	21.6
11 7	4 59.27	+12 58.6	2.316	3.202	9.3	20.2	11 7	5 9.39	+33 41.9	1.590	2.462	13.7	21.4
11 17	4 53.00	+12 24.9	2.255	3.198	6.4	20.0	11 17	5 0.12	+33 42.8	1.534	2.466	9.7	21.1
11 27	4 45.45	+11 54.8	2.221	3.193	3.8	19.8	11 27	4 48.45	+33 26.4	1.502	2.469	5.8	20.9
12 7	4 37.38	+11 30.8	2.217	3.188	3.6	19.8	12 7	4 35.86	+32 51.6	1.498	2.472	4.4	20.8
12 17	4 29.62	+11 15.0	2.243	3.183	6.2	19.9	12 17	4 24.01	+32 1.6	1.522	2.474	7.3	21.0
12 27	4 22.96	+11 8.7	2.296	3.178	9.2	20.1	12 27	4 14.40	+31 2.8	1.573	2.476	11.3	21.3
1 6	4 18.02	+11 12.4	2.373	3.173	12.0	20.3	1 6	4 7.96	+30 3.0	1.648	2.478	15.0	21.5
<b>42551</b>	1996 <i>JH</i> <sub>14</sub>	12	3.6 80°59	1°5/ 3.9	18		<b>458511</b>	2011 <i>CG</i> <sub>46</sub>	12	3.6 296°03	10°7/ 1.3	17	
10 28	5 8.26	+25 31.2	2.236	3.033	13.1	19.1	10 28	5 6.84	-11 8.9	2.270	3.005	14.7	20.4
11 7	5 3.06	+25 58.4	2.155	3.038	10.1	18.9	11 7	5 1.79	-11 45.2	2.190	2.991	13.1	20.2
11 17	4 55.61	+26 21.4	2.098	3.042	6.7	18.7	11 17	4 54.71	-12 3.0	2.130	2.977	11.6	20.1
11 27	4 46.54	+26 38.9	2.069	3.046	3.1	18.5	11 27	4 46.18	-11 56.7	2.094	2.963	10.8	20.0
12 7	4 36.80	+26 49.7	2.069	3.050	1.9	18.4	12 7	4 37.03	-11 23.1	2.082	2.949	10.8	20.0
12 17	4 27.44	+26 54.6	2.099	3.055	5.3	18.7	12 17	4 28.16	-10 21.7	2.096	2.935	11.9	20.1
12 27	4 19.44	+26 55.3	2.157	3.059	8.8	18.9	12 27	4 20.47	-8 55.1	2.134	2.921	13.5	20.2
1 6	4 13.56	+26 54.6	2.241	3.063	11.8	19.1	1 6	4 14.64	-7 8.3	2.194	2.908	15.4	20.3
<b>520587</b>	2014 <i>OZ</i> <sub>79</sub>	12	3.6 164°28	1°6/ 3.2	18		<b>265141</b>	2003 <i>UX</i> <sub>303</sub>	12	3.6 294°32	0°4/ 3.7	18	
10 28	5 8.57	+16 49.5	2.170	2.973	13.2	21.9	10 28	5 9.68	+25 12.2	1.374	2.200	18.3	20.7
11 7	5 3.20	+16 54.4	2.089	2.975	10.2	21.7	11 7	5 5.54	+24 49.0	1.290	2.189	14.3	20.5
11 17	4 55.65	+17 0.6	2.031	2.977	6.7	21.5	11 17	4 57.92	+24 16.0	1.226	2.178	9.4	20.2
11 27	4 46.55	+17 8.3	2.001	2.979	3.0	21.3	11 27	4 47.66	+23 32.9	1.186	2.167	3.9	19.8
12 7	4 36.80	+17 18.2	2.001	2.981	2.2	21.2	12 7	4 36.23	+22 42.0	1.172	2.156	2.0	19.6
12 17	4 27.43	+17 30.9	2.030	2.983	5.8	21.5	12 17	4 25.35	+21 48.0	1.185	2.145	7.7	20.0
12 27	4 19.39	+17 47.2	2.088	2.984	9.3	21.7	12 27	4 16.67	+20 57.5	1.222	2.134	13.1	20.2
1 6	4 13.40	+18 7.9	2.172	2.985	12.5	21.9	1 6	4 11.26	+20 16.5	1.282	2.124	17.7	20.5
<b>439080</b>	2011 <i>OV</i> <sub>1</sub>	12	3.6 125°13	0°0/ 3.5	18		<b>241772</b>	2001 <i>HD</i> <sub>40</sub>	12	3.6 156°36	3°5/ 2.3	18	
10 28	5 11.00	+24 16.0	2.043	2.841	14.1	22.0	10 28	5 7.72	+14 20.4	2.020	2.827	13.9	20.8
11 7	5 5.06	+23 52.9	1.971	2.856	10.8	21.8	11 7	5 2.58	+13 36.4	1.944	2.831	10.8	20.6
11 17	4 56.78	+23 23.6	1.924	2.870	7.0	21.6	11 17	4 55.23	+12 53.1	1.891	2.835	7.3	20.4
11 27	4 46.95	+22 48.7	1.903	2.883	2.8	21.4	11 27	4 46.37	+12 13.4	1.866	2.838	4.2	20.2
12 7	4 36.63	+22 9.9	1.913	2.896	1.5	21.3	12 7	4 36.95	+11 40.6	1.870	2.842	4.0	20.2
12 17	4 26.93	+21 30.2	1.953	2.909	5.6	21.6	12 17	4 27.99	+11 17.3	1.903	2.844	7.1	20.4
12 27	4 18.84	+20 53.3	2.021	2.921	9.4	21.9	12 27	4 20.46	+11 5.4	1.963	2.847	10.5	20.6
1 6	4 13.05	+20 22.6	2.114	2.932	12.6	22.1	1 6	4 15.03	+11 5.5	2.047	2.849	13.5	20.8
<b>346397</b>	2008 <i>SC</i> <sub>116</sub>	12	3.6 68°41	5°9/ 1.9	18		<b>400652</b>	2009 <i>HZ</i> <sub>24</sub>	12	3.6 183°16	1°9/ 4.1	18	
10 28	5 7.68	+9 44.6	1.619	2.436	16.3	20.4	10 28	5 10.67	+27 20.4	2.365	3.152	12.8	21.7
11 7	5 3.02	+8 52.5	1.550	2.439	12.9	20.1	11 7	5 4.86	+27 46.5	2.278	3.153	10.0	21.5
11 17	4 55.73	+8 5.7	1.503	2.442	9.3	19.9	11 17	4 56.77	+28 7.4	2.214	3.153	6.7	21.3
11 27	4 46.61	+7 29.1	1.481	2.445	6.4	19.8	11 27	4 47.03	+28 21.1	2.178	3.152	3.4	21.1
12 7	4 36.79	+7 6.9	1.486	2.448	6.4	19.8	12 7	4 36.58	+28 26.7	2.172	3.151	2.2	21.0
12 17	4 27.52	+7 1.6	1.517	2.451	9.3	20.0	12 17	4 26.47	+28 24.8	2.196	3.150	5.3	21.2
12 27	4 19.96	+7 13.9	1.574	2.454	12.9	20.2	12 27	4 17.71	+28 17.4	2.250	3.148	8.6	21.4
1 6	4 14.89	+7 42.4	1.653	2.457	16.2	20.4	1 6	4 11.05	+28 8.0	2.330	3.146	11.6	21.6
<b>442972</b>	2013 <i>CB</i> <sub>137</sub>	12	3.6 56°39	2°6/ 4.5	18		<b>477272</b>	2009 <i>SJ</i> <sub>110</sub>	12	3.6 43°77	2°9/ 4.1	16	
10 28	5 9.49	+29 54.5	1.814	2.615	15.5	20.7	10 28	5 13.83	+26 35.2	1.112	1.946	21.2	20.5
11 7	5 4.51	+29 58.2	1.738	2.619	12.2	20.5	11 7	5 8.88	+27 17.0	1.070	1.970	16.4	20.3
11 17	4 56.75	+29 51.9	1.683	2.624	8.3	20.3	11 17	4 59.97	+27 50.5	1.045	1.995	10.9	20.1
11 27	4 47.03	+29 33.8	1.654	2.628	4.3	20.1	11 27	4 48.36	+28 11.2	1.044	2.021	5.3	19.9
12 7	4 36.57	+29 4.1	1.652	2.632	2.9	20.0	12 7	4 35.99	+28 17.7	1.067	2.048	3.4	19.8
12 17	4 26.71	+28 25.4	1.680	2.636	6.3	20.2	12 17	4 24.87	+28 11.8	1.115	2.075	8.1	20.2
12 27	4 18.67	+27 42.5	1.734	2.641	10.2	20.5	12 27	4 16.67	+27 59.2	1.187	2.103	13.1	20.6
1 6	4 13.27	+27 0.9	1.813	2.645	13.7	20.7	1 6	4 12.23	+27 46.1	1.280	2.130	17.2	20.9
<b>203960</b>	2003 <i>SO</i> <sub>105</sub>	12	3.6 58°10	0°0/ 3.4	18		<b>135959</b>	2002 <i>TP</i> <sub>255</sub>	12	3.6 2°22	0°1/ 3.5	18	

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>48496</b>	1993 <i>BM</i> <sub>3</sub>	12	3.6	221° 79'	3° 0'	4.2	18						
10 28	5 13.15	+28 26.5	1.647	2.450	16.7	19.0							
11 7	5 7.82	+28 59.7	1.564	2.447	13.2	18.8							
11 17	4 59.23	+29 25.6	1.502	2.443	9.0	18.5							
11 27	4 48.17	+29 40.8	1.465	2.439	4.8	18.3							
12 7	4 35.99	+29 43.1	1.456	2.435	3.4	18.2							
12 17	4 24.28	+29 33.2	1.475	2.431	7.1	18.4							
12 27	4 14.59	+29 15.2	1.521	2.426	11.5	18.6							
1 6	4 7.94	+28 54.6	1.590	2.422	15.4	18.9							
<b>483986</b>	2006 <i>BC</i> <sub>284</sub>	12	3.6	229° 86'	3° 0'	2.5	17						
10 28	5 4.80	+13 32.5	2.531	3.332	11.6	22.2							
11 7	5 0.06	+13 5.7	2.442	3.325	9.0	22.1							
11 17	4 53.51	+12 40.5	2.377	3.318	6.2	21.9							
11 27	4 45.71	+12 18.7	2.339	3.311	3.5	21.7							
12 7	4 37.38	+12 2.4	2.332	3.304	3.4	21.7							
12 17	4 29.32	+11 53.2	2.355	3.296	5.9	21.8							
12 27	4 22.31	+11 52.4	2.406	3.288	8.9	22.0							
1 6	4 16.96	+12 0.4	2.482	3.280	11.6	22.2							
<b>480935</b>	2003 <i>OO</i> <sub>20</sub>	12	3.6	91° 14'	2° 7'	4.3	18						
10 28	5 13.67	+29 3.2	1.788	2.584	15.9	20.8							
11 7	5 7.56	+29 22.6	1.726	2.605	12.4	20.6							
11 17	4 58.61	+29 33.1	1.686	2.626	8.4	20.4							
11 27	4 47.75	+29 32.3	1.672	2.646	4.3	20.2							
12 7	4 36.28	+29 19.8	1.687	2.666	2.9	20.2							
12 17	4 25.58	+28 57.7	1.730	2.686	6.3	20.4							
12 27	4 16.86	+28 30.3	1.801	2.705	10.1	20.7							
1 6	4 10.90	+28 2.6	1.897	2.723	13.5	20.9							
<b>211331</b>	2002 <i>TT</i> <sub>17</sub>	12	3.6	78° 67'	2° 9'	2.7	18						
10 28	5 7.47	+16 31.5	1.811	2.627	14.9	20.8							
11 7	5 2.64	+15 53.6	1.741	2.634	11.5	20.6							
11 17	4 55.40	+15 15.3	1.693	2.641	7.6	20.4							
11 27	4 46.50	+14 39.1	1.672	2.648	3.9	20.2							
12 7	4 37.00	+14 8.0	1.678	2.655	3.5	20.2							
12 17	4 28.06	+13 44.9	1.713	2.662	7.0	20.4							
12 27	4 20.71	+13 32.0	1.775	2.669	10.8	20.7							
1 6	4 15.67	+13 30.3	1.861	2.676	14.2	20.9							
<b>309637</b>	2008 <i>CD</i> <sub>177</sub>	12	3.6	251° 93'	2° 0'	4.2	18						
10 28	5 8.86	+28 23.8	2.016	2.814	14.3	21.1							
11 7	5 3.86	+28 26.9	1.927	2.809	11.2	20.9							
11 17	4 56.30	+28 22.0	1.861	2.803	7.6	20.6							
11 27	4 46.89	+28 7.6	1.822	2.797	3.7	20.4							
12 7	4 36.69	+27 43.7	1.811	2.791	2.3	20.3							
12 17	4 26.91	+27 12.4	1.829	2.785	5.8	20.5							
12 27	4 18.70	+26 37.6	1.875	2.779	9.7	20.7							
1 6	4 12.88	+26 3.7	1.945	2.773	13.1	20.9							
<b>19745</b>	2000 <i>AP</i> <sub>199</sub>	12	3.6	153° 62'	3° 9'	2.8	18						
10 28	5 10.36	+10 14.0	2.097	2.893	13.9	18.6							
11 7	5 4.54	+10 8.9	2.021	2.900	10.9	18.4							
11 17	4 56.51	+10 9.7	1.969	2.906	7.6	18.2							
11 27	4 46.94	+10 18.1	1.944	2.912	4.6	18.1							
12 7	4 36.76	+10 35.2	1.948	2.917	4.3	18.1							
12 17	4 27.00	+11 1.3	1.982	2.921	7.0	18.2							
12 27	4 18.64	+11 36.2	2.044	2.926	10.2	18.4							
1 6	4 12.36	+12 18.9	2.131	2.929	13.2	18.6							
<b>120802</b>	1998 <i>FV</i> <sub>94</sub>	12	3.6	184° 17'	4° 9'	4.9	18						
10 28	5 14.59	+35 7.0	2.130	2.901	14.5	20.1							
11 7	5 8.40	+35 50.2	2.044	2.901	11.8	19.9							
11 17	4 59.36	+36 23.1	1.981	2.901	8.7	19.7							
11 27	4 48.20	+36 41.1	1.944	2.900	5.9	19.5							
12 7	4 36.11	+36 41.8	1.935	2.899	4.9	19.5							
12 17	4 24.45	+36 25.6	1.956	2.897	6.9	19.6							
12 27	4 14.53	+35 56.4	2.005	2.895	9.9	19.8							
1 6	4 7.26	+35 20.2	2.078	2.892	12.9	20.0							
<b>69439</b>	1996 <i>PX</i>	12	3.6	168° 98'	2° 9'	4.5	18						
10 28	5 15.27	+30 16.7	1.746	2.539	16.3	19.5							
11 7	5 9.13	+30 24.8	1.667	2.544	12.9	19.3							
11 17	4 59.88	+30 22.4	1.609	2.547	8.9	19.1							
11 27	4 48.40	+30 6.6	1.577	2.550	4.7	18.8							
12 7	4 36.05	+29 37.1	1.573	2.552	3.2	18.7							
12 17	4 24.35	+28 56.4	1.598	2.554	6.7	19.0							
12 27	4 14.70	+28 10.2	1.651	2.554	10.9	19.2							
1 6	4 8.01	+27 24.6	1.728	2.554	14.6	19.4							
<b>361328</b>	2006 <i>UK</i> <sub>59</sub>	12	3.6	319° 57'	1° 6'	4.1	18						
10 28	5 8.38	+26 33.6	1.869	2.675	14.9	21.6							
11 7	5 3.66	+26 42.6	1.785	2.672	11.6	21.4							
11 17	4 56.27	+26 45.1	1.723	2.669	7.7	21.2							
11 27	4 46.94	+26 39.7	1.688	2.666	3.6	20.9							
12 7	4 36.78	+26 26.2	1.681	2.663	2.1	20.8							
12 17	4 27.06	+26 6.4	1.702	2.660	6.1	21.1							
12 27	4 18.99	+25 43.8	1.750	2.657	10.1	21.3							
1 6	4 13.42	+25 22.4	1.823	2.655	13.7	21.5							
<b>520809</b>	2014 <i>TK</i> <sub>87</sub>	12	3.6	123° 27'	0° 3'	3.7	18						
10 28	5 10.18	+21 6.7	2.621	3.409	11.6	21.3							
11 7	5 4.14	+21 45.1	2.540	3.419	8.9	21.1							
11 17	4 56.14	+22 23.0	2.485	3.429	5.8	20.9							
11 27	4 46.76	+22 58.9	2.460	3.439	2.4	20.7							
12 7	4 36.81	+23 31.8	2.465	3.448	1.2	20.6							
12 17	4 27.17	+24 1.2	2.503	3.458	4.6	20.9							
12 27	4 18.68	+24 27.7	2.570	3.467	7.8	21.1							
1 6	4 12.01	+24 52.6	2.665	3.475	10.5	21.3							
<b>509666</b>	2008 <i>HN</i> <sub>46</sub>	12	3.6	177° 12'	0° 9'	3.3	18						
10 28	5 12.25	+20 13.4	1.956	2.757	14.5	23.1							
11 7	5 6.30	+20 6.9	1.873	2.760	11.2	22.9							
11 17	4 57.80	+19 58.2	1.814	2.761	7.3	22.6							
11 27	4 47.49	+19 47.5	1.783	2.762	3.0	22.4							
12 7	4 36.45	+19 35.7	1.780	2.763	1.9	22.3							
12 17	4 25.86	+19 24.5	1.808	2.763	6.1	22.6							
12 27	4 16.88	+19 16.5	1.864	2.761	10.2	22.8							
1 6	4 10.29	+19 13.8	1.945	2.760	13.6								

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>485346</b>	2011 <i>CH</i> <sub>30</sub>		12 3.6 195°28	4°0/ 5.7 18			<b>131526</b>	2001 <i>UJ</i> <sub>46</sub>		12 3.6 343°04	3°0/ 3.0 18		
10 28	5 9.45	+38 22.5	3.127	3.874	10.8	22.6	10 28	5 4.93	+17 51.7	0.999	1.858	21.1	19.7
11 7	5 3.57	+38 34.9	3.032	3.871	8.8	22.4	11 7	5 2.72	+17 28.8	0.931	1.848	16.5	19.4
11 17	4 55.77	+38 36.8	2.961	3.867	6.7	22.3	11 17	4 56.54	+17 4.9	0.880	1.838	11.0	19.0
11 27	4 46.64	+38 26.1	2.917	3.863	4.7	22.2	11 27	4 47.30	+16 43.1	0.850	1.830	5.1	18.7
12 7	4 36.99	+38 2.1	2.902	3.859	4.0	22.1	12 7	4 36.65	+16 26.8	0.842	1.824	4.1	18.6
12 17	4 27.68	+37 26.0	2.919	3.854	5.2	22.2	12 17	4 26.63	+16 19.8	0.858	1.818	9.8	18.9
12 27	4 19.56	+36 40.7	2.965	3.849	7.3	22.3	12 27	4 19.16	+16 25.2	0.894	1.814	15.7	19.2
1 6	4 13.23	+35 50.3	3.037	3.843	9.5	22.5	1 6	4 15.47	+16 44.2	0.949	1.811	20.8	19.5
<b>492549</b>	2014 <i>OV</i> <sub>123</sub>		12 3.6 329°17	3°6/ 2.8 18			<b>242416</b>	2004 <i>GW</i> <sub>33</sub>		12 3.6 250°53	1°5/ 3.9 18		
10 28	5 5.58	+13 44.2	1.677	2.500	15.6	20.6	10 28	5 12.74	+25 18.3	1.776	2.579	15.7	20.7
11 7	5 1.62	+13 25.9	1.593	2.489	12.2	20.3	11 7	5 7.39	+25 39.6	1.679	2.565	12.3	20.4
11 17	4 55.02	+13 10.8	1.532	2.480	8.3	20.1	11 17	4 58.98	+25 56.5	1.604	2.549	8.3	20.1
11 27	4 46.47	+13 1.4	1.496	2.470	4.6	19.8	11 27	4 48.19	+26 6.5	1.555	2.533	3.8	19.8
12 7	4 37.05	+13 0.0	1.486	2.461	4.2	19.8	12 7	4 36.19	+26 8.3	1.534	2.517	2.2	19.7
12 17	4 27.98	+13 8.1	1.504	2.453	7.8	20.0	12 17	4 24.45	+26 2.6	1.542	2.500	6.7	19.9
12 27	4 20.49	+13 26.9	1.548	2.446	11.9	20.2	12 27	4 14.44	+25 52.5	1.578	2.482	11.2	20.2
1 6	4 15.45	+13 56.0	1.614	2.438	15.5	20.4	1 6	4 7.21	+25 42.1	1.637	2.464	15.2	20.4
<b>77203</b>	2001 <i>FL</i> <sub>20</sub>		12 3.6 170°35	3°8/ 4.7 18			<b>259537</b>	2003 <i>UT</i> <sub>74</sub>		12 3.6 119°81	1°0/ 3.3 16		
10 28	5 14.43	+31 43.5	1.690	2.485	16.8	19.8	10 28	5 13.80	+22 17.6	1.598	2.409	16.8	21.2
11 7	5 8.71	+32 4.6	1.611	2.487	13.3	19.6	11 7	5 7.77	+21 42.6	1.533	2.424	12.9	21.0
11 17	4 59.73	+32 14.6	1.554	2.489	9.4	19.4	11 17	4 58.83	+21 1.7	1.489	2.438	8.4	20.8
11 27	4 48.39	+32 9.8	1.521	2.491	5.4	19.1	11 27	4 47.94	+20 16.1	1.472	2.452	3.4	20.5
12 7	4 36.09	+31 48.8	1.516	2.492	4.0	19.1	12 7	4 36.44	+19 29.0	1.483	2.465	2.1	20.5
12 17	4 24.41	+31 13.6	1.539	2.492	7.1	19.2	12 17	4 25.75	+18 44.4	1.523	2.478	6.9	20.8
12 27	4 14.85	+30 30.0	1.589	2.493	11.2	19.5	12 27	4 17.12	+18 7.0	1.589	2.490	11.4	21.1
1 6	4 8.36	+29 44.7	1.663	2.493	14.9	19.7	1 6	4 11.32	+17 39.8	1.679	2.502	15.1	21.4
<b>192100</b>	2006 <i>BA</i> <sub>269</sub>		12 3.6 26°95	9°1/ 5.1 18			<b>104395</b>	2000 <i>FW</i> <sub>41</sub>		12 3.6 261°57	2°2/ 2.9 18		
10 28	5 13.20	+35 43.8	1.070	1.893	22.5	18.3	10 28	5 4.91	+15 48.0	2.415	3.219	12.0	20.2
11 7	5 9.44	+37 33.0	1.026	1.910	18.4	18.1	11 7	5 0.29	+15 33.9	2.326	3.213	9.3	20.0
11 17	5 0.99	+39 5.7	1.000	1.929	14.0	17.9	11 17	4 53.76	+15 20.6	2.262	3.207	6.2	19.8
11 27	4 49.05	+40 10.9	0.994	1.949	10.3	17.8	11 27	4 45.89	+15 9.5	2.225	3.202	3.1	19.6
12 7	4 35.80	+40 41.8	1.011	1.970	9.2	17.8	12 7	4 37.45	+15 1.9	2.218	3.196	2.7	19.5
12 17	4 23.75	+40 39.1	1.051	1.993	11.3	18.0	12 17	4 29.29	+14 59.1	2.241	3.190	5.6	19.7
12 27	4 15.05	+40 11.2	1.113	2.017	14.9	18.3	12 27	4 22.24	+15 2.5	2.292	3.184	8.8	19.9
1 6	4 10.81	+39 30.0	1.195	2.042	18.4	18.6	1 6	4 16.95	+15 12.7	2.369	3.178	11.7	20.1
<b>435409</b>	2008 <i>AU</i> <sub>62</sub>		12 3.6 308°76	0°1/ 3.6 18			<b>420673</b>	2012 <i>KA</i> <sub>2</sub>		12 3.6 121°21	0°5/ 3.5 18		
10 28	5 7.63	+24 12.8	1.233	2.071	19.2	21.5	10 28	5 7.07	+19 45.8	2.479	3.277	11.9	21.3
11 7	5 4.57	+23 56.8	1.142	2.048	15.1	21.2	11 7	5 1.85	+19 56.4	2.399	3.284	9.1	21.1
11 17	4 57.72	+23 31.9	1.070	2.025	10.1	20.8	11 17	4 54.72	+20 6.4	2.344	3.291	5.9	20.9
11 27	4 47.81	+22 57.4	1.021	2.002	4.2	20.4	11 27	4 46.26	+20 15.5	2.317	3.297	2.4	20.7
12 7	4 36.32	+22 15.2	0.996	1.980	2.2	20.2	12 7	4 37.27	+20 23.8	2.321	3.304	1.4	20.6
12 17	4 25.14	+21 29.5	0.997	1.958	8.5	20.5	12 17	4 28.62	+20 32.1	2.355	3.310	4.9	20.9
12 27	4 16.21	+20 47.1	1.020	1.937	14.5	20.8	12 27	4 21.15	+20 41.4	2.418	3.316	8.1	21.1
1 6	4 10.86	+20 14.3	1.064	1.917	19.7	21.0	1 6	4 15.47	+20 52.9	2.507	3.322	10.9	21.3
<b>273554</b>	2007 <i>BW</i> <sub>64</sub>		12 3.6 197°72	3°3/ 2.7 18			<b>346548</b>	2008 <i>UQ</i> <sub>304</sub>		12 3.6 2°69	2°7/ 4.3 18		
10 28	5 9.92	+14 58.5	1.767	2.579	15.4	21.4	10 28	5 7.81	+27 57.5	1.342	2.170	18.5	20.2
11 7	5 4.72	+14 29.4	1.687	2.577	12.0	21.2	11 7	5 4.19	+28 15.2	1.271	2.169	14.5	19.9
11 17	4 56.90	+14 1.4	1.630	2.575	8.1	21.0	11 17	4 57.09	+28 23.6	1.220	2.169	9.9	19.7
11 27	4 47.20	+13 37.0	1.598	2.573	4.3	20.8	11 27	4 47.42	+28 20.2	1.192	2.169	4.9	19.4
12 7	4 36.72	+13 18.7	1.595	2.570	3.9	20.7	12 7	4 36.67	+28 4.3	1.189	2.170	3.1	19.3
12 17	4 26.71	+13 8.9	1.620	2.567	7.5	20.9	12 17	4 26.58	+27 38.4	1.212	2.173	7.6	19.5
12 27	4 18.33	+13 9.5	1.672	2.564	11.5	21.2	12 27	4 18.78	+27 7.8	1.260	2.176	12.4	19.8
1 6	4 12.40	+13 21.1	1.748	2.560	15.0	21.4	1 6	4 14.26	+26 38.5	1.329	2.180	16.7	20.1
<b>49851</b>	1999 <i>XM</i> <sub>95</sub>		12 3.6 353°86	4°0/ 4.3 18			<b>523752</b>	2014 <i>VU</i> <sub>37</sub>		12 3.6 203°33	0°0/ 3.4 18		
10 28	5 10.29	+28 51.1	1.252	2.079	19.6	18.1	10 28	4 43.30	+20 31.8	41.560	42.354	0.8	21.5
11 7	5 6.53	+29 36.5	1.180	2.076	15.5	17.8	11 7	4 42.58	+20 29.2	41.470	42.354	0.6	21.4
11 17	4 58.87	+30 13.7	1.127	2.073	10.8	17.5	11 17	4 41.77	+20 26.5	41.407	42.353	0.4	21.4
11 27	4 48.20	+30 37.7	1.097	2.071	5.9	17.3	11 27	4 40.92	+20 23.8	41.373	42.353	0.2	21.4
12 7	4 36.18	+30 45.3	1.092	2.070	4.4	17.2	12 7	4 40.04	+20 21.0	41.370	42.352	0.1	21.4
12 17	4 24.77	+30 37.0	1.112	2.070	8.5	17.4	12 17	4 39.18	+20 18.4	41.397	42.352	0.3	21.4
12 27	4 15.90	+30 18.0	1.155	2.070	13.4	17.7	12 27	4 38.36	+20 15.9	41.455	42.352	0.6	21.4
1 6	4 10.73	+29 55.4	1.220	2.071	17.8	17.9	1 6	4 37.61	+20 13.6	41.541	42.351	0.8	21.5
<b>316685</b>	1996 <i>AS</i> <sub>10</sub>		12 3.6 268°82	0°7/ 3.9 17			<b>332819</b>	2009 <i>WQ</i> <sub>252</sub>		12 3.6 244°52	1°2/ 3.8 18		
10 28	5 6.78	+25 25.9	2.196	2.998	13.1	21.3	10 28	5 9.29	+23 53.2	2.489	3.280	12.1	20.9
11 7	5 2.01	+25 16.9	2.107	2.992	10.2	21.1	11 7	5 3.80	+24 31.8	2.394	3.273	9.4	20.7
11 17	4 55.00	+25 1.9	2.041	2.987	6.7	20.8	11 17	4 56.16	+25 8.7	2.323	3.266	6.2	20.5
11 27	4 46.40	+24 40.6	2.002	2.981	2.9	20.6	11 27	4 46.92	+25 42.1	2.281	3.259	2.8	20.2
12 7	4 37.15	+24 13.9	1.993	2.976	1.5	20.5	12 7	4 36.92	+26 10.5	2.270	3.252	1.7	20.2
12 17	4 28.26	+23 43.9	2.013	2.970	5.3	20.7	12 17	4 27.11	+26 33.6	2.289	3.245	5.0	20.4
12 27	4 20.73	+23 13.8	2.061	2.965	9.0	20.9	12 27	4 18.47	+26 52.2	2.338	3.237	8.3	20.6
1 6	4 15.29	+22 47.0	2.135	2.959	12.2	21.1	1 6	4 11.73	+27 8.2	2.414	3.229	11.3	20.8
<b>38101</b>	1999 <i>JE</i> <sub>15</sub>		12 3.6 119°07	2°4/ 4.1 18 R			<b>517385</b>	2014 <i>KE</i> <sub>93</sub>		12 3.6 190			

EPHEMERIDES

12 3.6

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>80684</b>	2000 <i>BW</i> <sub>32</sub>		12 3.6 124°72'	3°9'	2.8	18	<b>137096</b>	1998 <i>XG</i> <sub>97</sub>		12 3.6 351°76'	2°3'	4.3	18
10 28	5 11.55	+12 58.1	1.680	2.491	16.1	19.5	10 28	5 7.98	+28 31.5	1.668	2.480	16.2	19.8
11 7	5 5.94	+12 38.1	1.613	2.501	12.6	19.3	11 7	5 3.71	+28 35.9	1.589	2.477	12.7	19.5
11 17	4 57.64	+12 22.1	1.567	2.511	8.5	19.1	11 17	4 56.49	+28 31.1	1.530	2.475	8.6	19.3
11 27	4 47.50	+12 12.4	1.548	2.521	4.8	18.9	11 27	4 47.14	+28 15.3	1.497	2.473	4.3	19.0
12 7	4 36.68	+12 11.1	1.556	2.530	4.4	18.9	12 7	4 36.90	+27 48.6	1.491	2.472	2.6	18.9
12 17	4 26.47	+12 19.5	1.593	2.539	7.8	19.1	12 17	4 27.21	+27 13.7	1.512	2.471	6.6	19.2
12 27	4 18.03	+12 38.2	1.657	2.547	11.7	19.3	12 27	4 19.38	+26 35.4	1.560	2.470	10.9	19.4
1 6	4 12.16	+13 6.8	1.744	2.555	15.1	19.6	1 6	4 14.33	+25 59.0	1.631	2.470	14.7	19.6
<b>30166</b>	Leodeng		12 3.6 93°02'	3°9'	4.6	18	<b>477857</b>	2011 <i>GQ</i> <sub>49</sub>		12 3.6 193°57'	1°5'	4.0	18
10 28	5 14.30	+30 54.7	1.600	2.400	17.3	18.5	10 28	5 12.54	+26 5.8	1.847	2.647	15.3	22.3
11 7	5 8.66	+31 29.4	1.532	2.411	13.7	18.3	11 7	5 6.92	+26 17.8	1.763	2.646	11.9	22.1
11 17	4 59.71	+31 54.0	1.486	2.423	9.5	18.1	11 17	4 58.46	+26 23.7	1.700	2.644	8.0	21.8
11 27	4 48.41	+32 4.3	1.464	2.434	5.5	17.9	11 27	4 47.92	+26 21.7	1.665	2.642	3.6	21.6
12 7	4 36.22	+31 58.5	1.469	2.445	4.1	17.8	12 7	4 36.50	+26 11.4	1.657	2.640	2.1	21.4
12 17	4 24.76	+31 38.3	1.503	2.456	7.3	18.1	12 17	4 25.53	+25 54.2	1.680	2.637	6.2	21.7
12 27	4 15.53	+31 8.7	1.562	2.467	11.3	18.3	12 27	4 16.32	+25 33.9	1.729	2.633	10.4	22.0
1 6	4 9.44	+30 36.3	1.645	2.478	14.9	18.6	1 6	4 9.76	+25 14.5	1.803	2.629	14.1	22.2
<b>330181</b>	2006 <i>DQ</i> <sub>47</sub>		12 3.6 171°68'	2°0'	4.4	17	<b>119361</b>	2001 <i>SK</i> <sub>246</sub>		12 3.6 359°17'	2°3'	2.9	18
10 28	5 7.55	+29 31.0	2.733	3.514	11.4	22.3	10 28	5 6.62	+17 29.6	1.897	2.712	14.4	20.0
11 7	5 2.19	+29 36.4	2.646	3.517	8.9	22.1	11 7	5 2.05	+17 1.8	1.819	2.712	11.1	19.8
11 17	4 54.93	+29 35.0	2.583	3.519	6.1	22.0	11 17	4 55.11	+16 32.9	1.763	2.712	7.3	19.5
11 27	4 46.35	+29 25.6	2.548	3.520	3.2	21.8	11 27	4 46.51	+16 5.0	1.734	2.712	3.5	19.3
12 7	4 37.26	+29 8.3	2.543	3.522	2.1	21.7	12 7	4 37.25	+15 40.4	1.733	2.712	2.9	19.3
12 17	4 28.52	+28 44.5	2.569	3.523	4.6	21.9	12 17	4 28.42	+15 21.7	1.760	2.712	6.6	19.5
12 27	4 20.94	+28 16.7	2.624	3.523	7.5	22.1	12 27	4 21.09	+15 11.0	1.815	2.712	10.4	19.7
1 6	4 15.15	+27 48.2	2.706	3.524	10.2	22.3	1 6	4 15.98	+15 9.6	1.893	2.712	13.8	19.9
<b>107844</b>	2001 <i>FE</i> <sub>74</sub>		12 3.6 104°33'	9°8'	6.3	18	<b>42648</b>	1998 <i>FR</i> <sub>72</sub>		12 3.6 96°70'	1°4'	3.9	18
10 28	5 26.06	+48 2.5	2.165	2.870	16.2	19.6	10 28	5 16.05	+25 43.1	1.584	2.389	17.2	19.1
11 7	5 18.12	+49 51.1	2.104	2.891	14.0	19.5	11 7	5 9.60	+25 52.5	1.526	2.412	13.3	18.9
11 17	5 6.20	+51 22.4	2.064	2.911	11.9	19.4	11 17	5 0.07	+25 54.9	1.490	2.435	8.7	18.7
11 27	4 51.20	+52 27.2	2.049	2.931	10.3	19.4	11 27	4 48.49	+25 48.5	1.479	2.457	3.8	18.5
12 7	4 34.75	+52 59.6	2.060	2.950	9.8	19.4	12 7	4 36.29	+25 33.7	1.497	2.479	2.1	18.4
12 17	4 18.92	+52 58.9	2.097	2.969	10.5	19.4	12 17	4 25.00	+25 12.7	1.543	2.501	6.6	18.7
12 27	4 5.61	+52 30.5	2.161	2.988	12.0	19.6	12 27	4 15.92	+24 50.0	1.616	2.521	10.9	19.0
1 6	3 56.06	+51 43.9	2.246	3.006	13.8	19.7	1 6	4 9.84	+24 30.1	1.713	2.541	14.6	19.3
<b>327097</b>	2004 <i>XJ</i> <sub>96</sub>		12 3.6 291°99'	2°9'	3.1	18	<b>82755</b>	2001 <i>QX</i> <sub>7</sub>		12 3.6 19°93'	4°5'	2.4	18
10 28	5 7.10	+12 13.5	2.268	3.069	12.8	20.7	10 28	5 5.73	+12 46.9	1.636	2.459	15.9	19.2
11 7	5 2.09	+12 22.1	2.181	3.064	10.0	20.5	11 7	5 1.60	+12 4.8	1.568	2.463	12.4	19.0
11 17	4 55.01	+12 35.6	2.118	3.059	6.8	20.3	11 17	4 54.91	+11 25.8	1.521	2.467	8.6	18.8
11 27	4 46.44	+12 54.9	2.082	3.055	3.7	20.1	11 27	4 46.44	+10 53.6	1.500	2.471	5.2	18.6
12 7	4 37.22	+13 20.5	2.076	3.050	3.3	20.0	12 7	4 37.30	+10 31.9	1.506	2.476	5.1	18.6
12 17	4 28.26	+13 52.4	2.099	3.046	6.1	20.2	12 17	4 28.70	+10 23.0	1.539	2.482	8.3	18.8
12 27	4 20.49	+14 30.4	2.152	3.041	9.4	20.4	12 27	4 21.76	+10 28.3	1.597	2.488	12.0	19.0
1 6	4 14.61	+15 13.9	2.229	3.037	12.4	20.6	1 6	4 17.25	+10 47.1	1.677	2.494	15.4	19.3
<b>276897</b>	2004 <i>RH</i> <sub>351</sub>		12 3.6 129°80'	0°4'	3.5	18	<b>202261</b>	2005 <i>AM</i> <sub>54</sub>		12 3.6 17°30'	1°9'	3.9	18
10 28	5 11.85	+21 58.9	1.916	2.719	14.7	21.9	10 28	5 6.13	+24 42.5	1.083	1.932	20.6	18.5
11 7	5 5.95	+21 47.2	1.845	2.732	11.3	21.7	11 7	5 3.29	+25 14.0	1.031	1.941	15.9	18.3
11 17	4 57.55	+21 31.5	1.797	2.744	7.3	21.5	11 17	4 56.64	+25 39.5	0.997	1.952	10.5	18.0
11 27	4 47.45	+21 12.2	1.776	2.756	3.0	21.3	11 27	4 47.26	+25 56.5	0.985	1.965	4.7	17.7
12 7	4 36.76	+20 50.5	1.785	2.768	1.6	21.2	12 7	4 36.90	+26 3.9	0.996	1.979	2.7	17.7
12 17	4 26.67	+20 28.7	1.823	2.778	6.0	21.5	12 17	4 27.46	+26 3.1	1.032	1.996	8.0	18.0
12 27	4 18.26	+20 9.9	1.889	2.789	9.9	21.8	12 27	4 20.63	+25 58.4	1.091	2.013	13.2	18.4
1 6	4 12.27	+19 56.6	1.979	2.798	13.3	22.0	1 6	4 17.37	+25 54.4	1.170	2.032	17.6	18.7
<b>169803</b>	2002 <i>QG</i> <sub>11</sub>		12 3.6 54°45'	1°3'	3.2	18	<b>340213</b>	2006 <i>AK</i> <sub>72</sub>		12 3.6 241°99'	3°6'	2.7	18
10 28	5 8.30	+20 17.9	1.670	2.489	15.9	20.6	10 28	5 9.10	+13 41.7	1.798	2.610	15.2	21.0
11 7	5 3.57	+19 57.0	1.601	2.497	12.2	20.3	11 7	5 4.16	+13 19.0	1.713	2.602	11.9	20.8
11 17	4 56.17	+19 33.2	1.555	2.506	7.9	20.1	11 17	4 56.62	+12 58.8	1.650	2.594	8.1	20.5
11 27	4 46.93	+19 7.6	1.535	2.515	3.3	19.9	11 27	4 47.18	+12 43.5	1.613	2.586	4.5	20.3
12 7	4 37.03	+18 42.3	1.542	2.524	2.2	19.8	12 7	4 36.90	+12 35.6	1.604	2.578	4.1	20.3
12 17	4 27.75	+18 20.2	1.577	2.533	6.7	20.1	12 17	4 26.97	+12 36.8	1.623	2.569	7.6	20.4
12 27	4 20.24	+18 4.2	1.639	2.543	10.9	20.4	12 27	4 18.60	+12 48.5	1.669	2.560	11.5	20.7
1 6	4 15.29	+17 56.3	1.724	2.552	14.5	20.6	1 6	4 12.61	+13 10.8	1.739	2.551	15.1	20.9
<b>368017</b>	2012 <i>FV</i> <sub>71</sub>		12 3.6 116°22'	4°4'	2.2	18	<b>92147</b>	1999 <i>XH</i> <sub>122</sub>		12 3.6 52°74'	2°9'	4.9	18
10 28	5 5.37	+ 9 11.4	2.304	3.104	12.7	20.9	10 28	5 8.56	+32 9.7	2.043	2.834	14.4	18.9
11 7	5 0.57	+ 8 41.4	2.230	3.109	10.0	20.8	11 7	5 3.54	+32 0.4	1.967	2.841	11.3	18.7
11 17	4 53.90	+ 8 16.4	2.180	3.114	7.1	20.6	11 17	4 56.04	+31 39.6	1.913	2.848	7.9	18.5
11 27	4 45.95	+ 7 59.1	2.157	3.119	4.8	20.5	11 27	4 46.86	+31 6.0	1.885	2.856	4.4	18.3
12 7	4 37.52	+ 7 51.8	2.163	3.124	4.8	20.5	12 7	4 37.11	+30 20.5	1.886	2.863	3.0	18.3
12 17	4 29.46	+ 7 55.7	2.198	3.129	7.0	20.6	12 17	4 27.95	+29 26.1	1.916	2.871	5.8	18.5
12 27	4 22.58	+ 8 11.2	2.261	3.134	9.8	20.8	12 27	4 20.46	+28 28.0	1.974	2.879	9.2	18.7
1 6	4 17.48	+ 8 37.4	2.347	3.138	12.4	21.0	1 6	4 15.34	+27 31.5	2.057	2.887	12.4	18.9
<b>267121</b>	2000 <i>DJ</i> <sub>87</sub>		12 3.6 226°56'	5°7'	1.5	18	<b>3</b>						

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>260248</b>	2004 <i>RY</i> <sub>331</sub>	12 3.6 41°77'	2.5°/ 3.2 18				<b>90682</b>	1981 <i>EF</i> <sub>6</sub>	12 3.6 337°01'	4°0'/ 5.2 17			
10 28	5 8.06	+14 7.6	1.886	2.698	14.6	20.2	10 28	5 7.80	+34 1.5	1.879	2.673	15.3	19.2
11 7	5 3.10	+14 19.3	1.817	2.707	11.3	20.0	11 7	5 3.45	+34 7.7	1.793	2.666	12.3	19.0
11 17	4 55.76	+14 35.2	1.770	2.716	7.5	19.8	11 17	4 56.29	+34 1.0	1.727	2.659	8.8	18.8
11 27	4 46.77	+14 55.9	1.749	2.726	3.7	19.5	11 27	4 47.09	+33 38.8	1.687	2.653	5.4	18.6
12 7	4 37.14	+15 21.6	1.757	2.736	3.0	19.5	12 7	4 37.05	+33 0.7	1.674	2.648	4.1	18.5
12 17	4 27.98	+15 52.2	1.795	2.746	6.5	19.8	12 17	4 27.52	+32 9.1	1.689	2.643	6.6	18.7
12 27	4 20.33	+16 27.6	1.859	2.757	10.2	20.0	12 27	4 19.76	+31 9.7	1.732	2.638	10.2	18.9
1 6	4 14.93	+17 7.5	1.948	2.768	13.4	20.2	1 6	4 14.63	+30 9.0	1.798	2.634	13.7	19.1
<b>421528</b>	2014 <i>OQ</i> <sub>129</sub>	12 3.6 211°92'	4°9'/ 5.5 18				<b>424577</b>	2008 <i>GD</i> <sub>28</sub>	12 3.6 168°81'	3°8'/ 2.4 16			
10 28	5 13.39	+38 1.5	2.459	3.213	13.2	21.9	10 28	5 11.25	+13 20.9	2.000	2.801	14.3	22.5
11 7	5 7.23	+38 25.8	2.362	3.206	10.8	21.7	11 7	5 5.38	+12 41.8	1.923	2.806	11.1	22.4
11 17	4 58.51	+38 38.1	2.288	3.198	8.2	21.5	11 17	4 57.17	+12 4.4	1.869	2.810	7.6	22.1
11 27	4 47.93	+38 34.8	2.241	3.190	5.8	21.3	11 27	4 47.36	+11 31.5	1.843	2.814	4.5	22.0
12 7	4 36.54	+38 14.2	2.223	3.181	4.9	21.3	12 7	4 36.94	+11 6.0	1.846	2.817	4.3	22.0
12 17	4 25.53	+37 37.3	2.234	3.171	6.5	21.3	12 17	4 27.00	+10 50.3	1.879	2.819	7.3	22.2
12 27	4 16.07	+36 48.3	2.274	3.161	9.1	21.5	12 27	4 18.55	+10 46.1	1.939	2.820	10.7	22.4
1 6	4 8.98	+35 52.8	2.340	3.150	11.8	21.7	1 6	4 12.31	+10 53.5	2.024	2.820	13.9	22.6
<b>409168</b>	2003 <i>UA</i> <sub>215</sub>	12 3.6 359°81'	1°1'/ 3.3 17				<b>326499</b>	2002 <i>JJ</i> <sub>65</sub>	12 3.6 160°28'	1°3'/ 3.0 18			
10 28	5 4.78	+19 47.0	1.862	2.681	14.5	20.9	10 28	5 5.71	+18 52.2	2.989	3.781	10.2	22.0
11 7	5 0.77	+19 38.0	1.784	2.680	11.1	20.7	11 7	5 0.46	+18 25.4	2.906	3.787	7.8	21.9
11 17	4 54.35	+19 27.3	1.728	2.679	7.2	20.5	11 17	4 53.68	+17 56.9	2.849	3.794	5.1	21.7
11 27	4 46.24	+19 15.7	1.698	2.678	3.0	20.2	11 27	4 45.88	+17 27.8	2.821	3.799	2.3	21.5
12 7	4 37.42	+19 4.5	1.696	2.679	2.0	20.1	12 7	4 37.71	+16 59.8	2.825	3.805	1.8	21.5
12 17	4 29.02	+18 55.5	1.723	2.680	6.1	20.4	12 17	4 29.85	+16 34.4	2.860	3.809	4.5	21.7
12 27	4 22.11	+18 50.9	1.776	2.681	10.1	20.6	12 27	4 22.96	+16 13.6	2.925	3.813	7.2	21.9
1 6	4 17.46	+18 52.4	1.853	2.683	13.6	20.9	1 6	4 17.55	+15 58.5	3.016	3.817	9.6	22.0
<b>191190</b>	2002 <i>OA</i> <sub>20</sub>	12 3.6 89°40'	8°0'/ 8.4 17				<b>440077</b>	2002 <i>SL</i> <sub>69</sub>	12 3.6 90°47'	7°1'/ 2.1 15			
10 28	5 17.09	+50 12.2	2.538	3.234	14.2	19.6	10 28	5 9.23	+ 2 55.5	1.928	2.718	15.1	22.0
11 7	5 10.16	+50 45.7	2.472	3.253	12.3	19.5	11 7	5 3.65	+ 2 14.5	1.874	2.739	12.3	21.9
11 17	5 0.33	+51 0.6	2.426	3.272	10.4	19.4	11 17	4 55.93	+ 1 44.7	1.843	2.760	9.4	21.8
11 27	4 48.58	+50 52.2	2.403	3.291	8.8	19.3	11 27	4 46.80	+ 1 30.3	1.838	2.780	7.4	21.7
12 7	4 36.28	+50 18.5	2.407	3.309	8.0	19.3	12 7	4 37.27	+ 1 33.8	1.860	2.800	7.4	21.7
12 17	4 24.83	+49 21.5	2.438	3.328	8.5	19.3	12 17	4 28.33	+ 1 55.8	1.910	2.820	9.3	21.9
12 27	4 15.48	+48 6.6	2.495	3.346	9.8	19.4	12 27	4 20.89	+ 2 34.9	1.986	2.839	11.8	22.1
1 6	4 8.96	+46 41.3	2.578	3.363	11.5	19.6	1 6	4 15.59	+ 3 27.9	2.084	2.858	14.3	22.3
<b>460517</b>	2014 <i>TW</i> <sub>2</sub>	12 3.6 267°62'	3°5'/ 4.6 17				<b>362718</b>	2011 <i>UJ</i> <sub>242</sub>	12 3.6 226°95'	1°5'/ 2.9 18			
10 28	5 9.08	+31 46.4	2.316	3.100	13.1	21.1	10 28	5 8.12	+20 38.2	2.162	2.965	13.3	20.9
11 7	5 3.92	+32 21.9	2.229	3.097	10.4	21.0	11 7	5 2.99	+19 51.8	2.071	2.958	10.2	20.7
11 17	4 56.36	+32 49.8	2.164	3.095	7.4	20.8	11 17	4 55.66	+19 0.4	2.003	2.951	6.7	20.5
11 27	4 47.06	+33 7.2	2.127	3.092	4.5	20.6	11 27	4 46.77	+18 5.9	1.964	2.943	2.9	20.2
12 7	4 36.98	+33 12.6	2.118	3.090	3.6	20.5	12 7	4 37.25	+17 11.3	1.954	2.935	2.3	20.2
12 17	4 27.23	+33 6.3	2.139	3.088	5.8	20.7	12 17	4 28.12	+16 20.2	1.975	2.926	6.0	20.4
12 27	4 18.88	+32 51.1	2.188	3.085	8.9	20.8	12 27	4 20.35	+15 36.3	2.024	2.917	9.7	20.6
1 6	4 12.72	+32 31.0	2.262	3.083	11.8	21.0	1 6	4 14.64	+15 2.4	2.097	2.908	12.9	20.8
<b>404442</b>	2013 <i>GT</i> <sub>101</sub>	12 3.6 86°54'	0°2'/ 3.7 18				<b>331667</b>	2002 <i>PP</i> <sub>162</sub>	12 3.6 178°74'	4°0'/ 2.7 18			
10 28	5 9.90	+21 38.2	2.245	3.042	13.0	20.7	10 28	5 12.08	+12 19.0	1.855	2.658	15.2	21.5
11 7	5 4.15	+22 0.6	2.178	3.061	10.0	20.6	11 7	5 6.25	+11 55.2	1.777	2.660	11.9	21.3
11 17	4 56.26	+22 21.3	2.135	3.080	6.4	20.4	11 17	4 57.88	+11 35.0	1.721	2.662	8.2	21.1
11 27	4 46.93	+22 39.2	2.120	3.099	2.6	20.2	11 27	4 47.70	+11 21.0	1.692	2.662	4.8	20.9
12 7	4 37.09	+22 53.9	2.135	3.118	1.3	20.1	12 7	4 36.78	+11 15.3	1.691	2.662	4.5	20.9
12 17	4 27.72	+23 5.9	2.180	3.137	5.1	20.4	12 17	4 26.32	+11 19.7	1.720	2.661	7.6	21.1
12 27	4 19.75	+23 16.4	2.255	3.155	8.5	20.6	12 27	4 17.45	+11 34.9	1.776	2.660	11.4	21.3
1 6	4 13.84	+23 27.4	2.355	3.173	11.5	20.9	1 6	4 10.97	+12 0.7	1.855	2.658	14.7	21.5
<b>18561</b>	Fengningding	12 3.6 29°10'	1°1'/ 3.3 18				<b>94360</b>	2001 <i>RW</i> <sub>15</sub>	12 3.6 68°73'	4°7'/ 1.5 18			
10 28	5 6.81	+19 32.8	1.862	2.677	14.6	18.7	10 28	5 16.17	+23 39.7	1.003	1.843	22.5	18.3
11 7	5 2.27	+19 26.1	1.787	2.681	11.2	18.5	11 7	5 10.73	+20 58.2	0.947	1.854	17.3	18.0
11 17	4 55.29	+19 17.9	1.736	2.685	7.3	18.3	11 17	5 1.20	+17 57.1	0.911	1.866	11.3	17.7
11 27	4 46.61	+19 9.0	1.710	2.690	3.1	18.0	11 27	4 49.01	+14 48.0	0.899	1.878	5.7	17.5
12 7	4 37.27	+19 0.6	1.713	2.695	2.0	18.0	12 7	4 36.24	+11 48.2	0.914	1.890	6.1	17.6
12 17	4 28.39	+18 54.2	1.744	2.700	6.1	18.2	12 17	4 24.91	+ 9 14.7	0.955	1.902	11.5	17.9
12 27	4 21.07	+18 52.0	1.803	2.706	10.1	18.5	12 27	4 16.65	+ 7 18.5	1.020	1.914	16.9	18.2
1 6	4 16.03	+18 55.5	1.885	2.712	13.5	18.7	1 6	4 12.21	+ 6 1.5	1.103	1.926	21.3	18.6
<b>297993</b>	2002 <i>ND</i> <sub>57</sub>	12 3.6 324°19'	7°4'/ 6.3 18				<b>278446</b>	2007 <i>SA</i> <sub>16</sub>	12 3.6 30°59'	4°8'/ 2.1 18			
10 28	5 13.36	+41 26.8	1.775	2.542	17.1	20.2	10 28	5 3.58	+ 9 32.8	2.078	2.888	13.5	20.1
11 7	5 8.24	+42 1.6	1.694	2.539	14.3	20.0	11 7	4 59.40	+ 8 51.8	2.012	2.897	10.6	19.9
11 17	4 59.65	+42 18.7	1.632	2.536	11.3	19.8	11 17	4 53.24	+ 8 15.8	1.969	2.906	7.6	19.7
11 27	4 48.50	+42 12.2	1.593	2.533	8.6	19.6	11 27	4 45.75	+ 7 48.3	1.953	2.915	5.2	19.6
12 7	4 36.30	+41 39.3	1.580	2.531	7.5	19.5	12 7	4 37.79	+ 7 32.0	1.964	2.925	5.2	19.6
12 17	4 24.77	+40 41.7	1.594	2.528	8.9	19.6	12 17	4 30.27	+ 7 28.6	2.003	2.935	7.5	19.8
12 27	4 15.53	+39 26.4	1.634	2.526	11.7	19.8	12 27	4 24.02	+ 7 38.6	2.069	2.945	10.4	20.0
1 6	4 9.58	+38 3.0	1.698	2.524	14.8	20.0	1 6	4 19.66	+ 8 1.1	2.159	2.956	13.1	20.2
<b>388257</b>	2006 <i>PR</i> <sub>26</sub>	12 3.6 94°48'	0°9'/ 3.4 18				<b>26161</b>	1995 <i>BY</i> <sub>2</sub>	12 3.6 11°18'	7°4'/ 2.9 18			

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>44961</b>	1999 VS <sub>86</sub>	12	3.6	47°07'	7.1/ 2.1	18	<b>15187</b>	2112 T-2	12	3.7	61°85'	0°0/ 3.4	18
10 28	5 7.40	+ 6 16.5	1.596	2.410	16.7	19.1	10 28	5 6.44	+22 48.9	2.222	3.026	12.9	18.7
11 7	5 2.86	+ 5 28.5	1.534	2.417	13.4	18.9	11 7	5 1.57	+22 42.8	2.153	3.041	9.9	18.5
11 17	4 55.73	+ 4 49.8	1.494	2.425	10.0	18.7	11 17	4 54.65	+22 32.9	2.107	3.055	6.4	18.3
11 27	4 46.83	+ 4 25.7	1.477	2.433	7.5	18.6	11 27	4 46.35	+22 19.6	2.089	3.069	2.6	18.1
12 7	4 37.28	+ 4 19.9	1.487	2.441	7.5	18.6	12 7	4 37.58	+22 3.8	2.100	3.083	1.3	18.0
12 17	4 28.31	+ 4 34.0	1.524	2.449	9.9	18.8	12 17	4 29.28	+21 47.1	2.141	3.098	5.1	18.3
12 27	4 21.06	+ 5 7.0	1.585	2.458	13.2	19.0	12 27	4 22.33	+21 32.0	2.210	3.112	8.5	18.6
1 6	4 16.26	+ 5 56.0	1.667	2.467	16.2	19.2	1 6	4 17.36	+21 20.6	2.304	3.127	11.5	18.8
<b>456221</b>	2006 KW <sub>44</sub>	12	3.6	43°06'	5°0/ 2.2	17	<b>121589</b>	1999 VJ <sub>110</sub>	12	3.7	344°07'	0°3/ 3.5	17
10 28	5 4.60	+ 7 35.5	2.234	3.035	13.0	21.0	10 28	5 5.91	+22 10.6	1.960	2.773	14.1	20.7
11 7	5 0.08	+ 7 6.0	2.162	3.039	10.3	20.8	11 7	5 1.60	+22 0.1	1.877	2.770	10.9	20.5
11 17	4 53.66	+ 6 43.0	2.112	3.043	7.5	20.7	11 17	4 54.92	+21 45.7	1.817	2.766	7.1	20.2
11 27	4 45.94	+ 6 29.4	2.090	3.048	5.4	20.6	11 27	4 46.54	+21 27.8	1.783	2.763	2.9	20.0
12 7	4 37.73	+ 6 27.3	2.096	3.053	5.3	20.6	12 7	4 37.46	+21 7.8	1.777	2.761	1.5	19.9
12 17	4 29.87	+ 6 38.0	2.130	3.057	7.4	20.7	12 17	4 28.78	+20 47.6	1.801	2.759	5.8	20.1
12 27	4 23.21	+ 7 1.4	2.191	3.062	10.1	20.9	12 27	4 21.56	+20 30.1	1.851	2.757	9.8	20.4
1 6	4 18.35	+ 7 36.2	2.277	3.067	12.7	21.1	1 6	4 16.55	+20 17.9	1.926	2.755	13.2	20.6
<b>148210</b>	2000 CR <sub>111</sub>	12	3.7	339°00'	1°7/ 3.9	18	<b>377312</b>	2004 HA <sub>14</sub>	12	3.7	309°20'	0°5/ 3.7	18
10 28	5 6.05	+24 45.7	1.137	1.982	20.0	19.7	10 28	5 9.10	+22 40.8	1.337	2.168	18.4	21.1
11 7	5 3.57	+25 9.0	1.060	1.969	15.7	19.4	11 7	5 5.46	+22 54.4	1.249	2.150	14.4	20.8
11 17	4 57.20	+25 27.0	1.002	1.956	10.5	19.0	11 17	4 58.24	+23 5.0	1.181	2.133	9.6	20.4
11 27	4 47.73	+25 37.2	0.965	1.945	4.7	18.7	11 27	4 48.15	+23 11.1	1.136	2.116	4.0	20.1
12 7	4 36.75	+25 38.3	0.952	1.935	2.6	18.5	12 7	4 36.59	+23 12.1	1.116	2.100	2.0	19.9
12 17	4 26.25	+25 31.5	0.963	1.927	8.4	18.8	12 17	4 25.34	+23 9.1	1.123	2.084	7.9	20.2
12 27	4 18.19	+25 21.1	0.997	1.919	14.2	19.1	12 27	4 16.19	+23 5.6	1.154	2.069	13.4	20.5
1 6	4 13.87	+25 12.6	1.050	1.913	19.1	19.4	1 6	4 10.40	+23 5.6	1.206	2.054	18.2	20.7
<b>209802</b>	2005 GY <sub>58</sub>	12	3.7	276°00'	7°5/30.9	18	<b>302713</b>	2002 TQ <sub>233</sub>	12	3.7	52°78'	6°0/ 6.0	18
10 28	5 6.48	+ 4 28.9	1.916	2.716	14.8	20.4	10 28	5 13.24	+38 9.7	1.631	2.414	17.7	19.9
11 7	5 2.04	+ 3 23.8	1.825	2.697	12.2	20.2	11 7	5 7.89	+38 28.1	1.570	2.431	14.4	19.7
11 17	4 55.24	+ 2 25.5	1.757	2.678	9.5	20.0	11 17	4 59.21	+38 28.9	1.529	2.449	10.7	19.5
11 27	4 46.69	+ 1 39.9	1.715	2.659	7.7	19.8	11 27	4 48.28	+38 7.9	1.511	2.466	7.4	19.4
12 7	4 37.32	+ 1 12.0	1.699	2.639	8.0	19.8	12 7	4 36.66	+37 24.5	1.520	2.484	6.0	19.4
12 17	4 28.18	+ 1 5.0	1.710	2.619	10.2	19.9	12 17	4 26.02	+36 22.5	1.556	2.502	7.9	19.5
12 27	4 20.36	+ 1 19.7	1.746	2.599	13.2	20.1	12 27	4 17.74	+35 9.5	1.619	2.520	11.2	19.7
1 6	4 14.66	+ 1 54.3	1.804	2.579	16.1	20.2	1 6	4 12.64	+33 54.2	1.705	2.539	14.4	20.0
<b>441087</b>	2007 RJ <sub>201</sub>	12	3.7	63°03'	0°9/ 3.9	15	<b>375189</b>	2008 DY <sub>84</sub>	12	3.7	352°01'	2°9/ 4.0	18
10 28	5 11.06	+25 4.4	1.600	2.413	16.7	21.6	10 28	5 6.06	+25 35.5	1.015	1.867	21.4	20.5
11 7	5 5.82	+25 4.0	1.540	2.432	12.8	21.4	11 7	5 3.95	+26 19.0	0.947	1.859	16.8	20.2
11 17	4 57.69	+24 57.1	1.502	2.450	8.4	21.2	11 17	4 57.63	+26 57.4	0.897	1.853	11.4	19.9
11 27	4 47.62	+24 42.8	1.489	2.469	3.6	21.0	11 27	4 47.96	+27 26.6	0.868	1.847	5.5	19.6
12 7	4 36.94	+24 22.2	1.504	2.487	1.8	20.9	12 7	4 36.72	+27 43.3	0.862	1.844	3.5	19.4
12 17	4 27.03	+23 57.9	1.547	2.506	6.4	21.2	12 17	4 26.11	+27 47.7	0.878	1.842	9.0	19.8
12 27	4 19.15	+23 33.9	1.617	2.525	10.7	21.5	12 27	4 18.25	+27 44.1	0.917	1.842	14.8	20.1
1 6	4 14.04	+23 14.0	1.710	2.544	14.3	21.8	1 6	4 14.45	+27 38.7	0.974	1.843	19.8	20.4
<b>441886</b>	2010 CZ <sub>98</sub>	12	3.7	140°20'	6°8/ 1.6	18	<b>334210</b>	2001 SQ <sub>309</sub>	12	3.7	87°07'	1°3/ 3.3	18
10 28	5 8.72	+ 3 27.1	2.136	2.922	14.0	21.8	10 28	5 12.50	+20 19.1	1.577	2.392	16.8	21.9
11 7	5 3.19	+ 2 35.0	2.071	2.933	11.4	21.6	11 7	5 6.82	+19 59.2	1.519	2.412	12.9	21.7
11 17	4 55.64	+ 1 51.9	2.029	2.944	8.8	21.5	11 17	4 58.29	+19 36.4	1.482	2.432	8.3	21.5
11 27	4 46.74	+ 1 22.2	2.013	2.954	7.0	21.4	11 27	4 47.87	+19 11.7	1.471	2.451	3.5	21.2
12 7	4 37.37	+ 1 9.0	2.026	2.963	7.1	21.4	12 7	4 36.88	+18 47.3	1.488	2.470	2.3	21.2
12 17	4 28.46	+ 1 13.8	2.067	2.972	8.9	21.5	12 17	4 26.70	+18 25.9	1.533	2.488	6.9	21.5
12 27	4 20.89	+ 1 36.2	2.134	2.980	11.4	21.7	12 27	4 18.53	+18 10.7	1.604	2.507	11.2	21.8
1 6	4 15.27	+ 2 13.9	2.225	2.988	13.8	21.9	1 6	4 13.11	+18 3.7	1.699	2.525	14.8	22.1
<b>170530</b>	2003 WR <sub>95</sub>	12	3.7	59°56'	1°5/ 3.8	18	<b>297205</b>	2011 DT <sub>7</sub>	12	3.7	132°50'	3°0/ 2.8	17
10 28	5 15.24	+22 52.9	1.547	2.357	17.3	20.2	10 28	5 5.29	+11 50.3	2.588	3.385	11.5	21.0
11 7	5 9.17	+23 49.9	1.491	2.380	13.3	20.0	11 7	5 0.41	+11 40.1	2.509	3.390	8.9	20.9
11 17	4 59.97	+24 44.8	1.458	2.404	8.7	19.8	11 17	4 53.80	+11 33.4	2.455	3.394	6.1	20.7
11 27	4 48.59	+25 33.8	1.450	2.429	3.9	19.6	11 27	4 46.02	+11 31.8	2.428	3.398	3.6	20.5
12 7	4 36.44	+26 14.2	1.471	2.453	2.2	19.5	12 7	4 37.77	+11 36.4	2.432	3.402	3.4	20.5
12 17	4 25.08	+26 45.2	1.520	2.477	6.7	19.9	12 17	4 29.83	+11 47.9	2.466	3.406	5.7	20.7
12 27	4 15.88	+27 8.7	1.596	2.502	11.0	20.2	12 27	4 22.94	+12 6.8	2.528	3.410	8.5	20.9
1 6	4 9.71	+27 28.2	1.695	2.526	14.6	20.5	1 6	4 17.66	+12 32.7	2.616	3.414	11.0	21.0
<b>41820</b>	2000 WT <sub>45</sub>	12	3.7	15°94'	2°5/ 3.0	18	<b>91572</b>	1999 RF <sub>253</sub>	12	3.7	156°92'	2°2/ 4.5	18
10 28	5 9.37	+19 1.8	1.259	2.095	19.0	19.0	10 28	5 8.69	+29 57.4	2.312	3.099	13.0	19.3
11 7	5 5.29	+18 27.0	1.192	2.096	14.7	18.7	11 7	5 3.45	+29 59.3	2.228	3.102	10.2	19.2
11 17	4 57.77	+17 49.1	1.144	2.098	9.7	18.4	11 17	4 55.97	+29 52.8	2.167	3.104	7.0	19.0
11 27	4 47.78	+17 10.6	1.120	2.100	4.4	18.1	11 27	4 46.94	+29 36.7	2.133	3.106	3.7	18.8
12 7	4 36.83	+16 35.3	1.121	2.102	3.5	18.1	12 7	4 37.31	+29 11.1	2.129	3.108	2.4	18.7
12 17	4 26.60	+16 7.5	1.148	2.105	8.5	18.4	12 17	4 28.11	+28 38.0	2.155	3.110	5.2	18.9
12 27	4 18.64	+15 51.0	1.200	2.108	13.6	18.7	12 27	4 20.32	+28 0.8	2.210	3.112	8.6	19.1
1 6	4 13.91	+15 47.7	1.271	2.111	18.0	19.0	1 6	4 14.64	+27 23.7	2.290	3.113	11.5	19.3
<b>221994</b>	1997 PT <sub>4</sub>	12	3.7	32°99'	1°6/ 4.1	18 R	<b>148281</b>	2000 GT <sub>97</sub>	12	3.7	186°48'	2°3/ 2.9	18
10 28	5 9.40	+26 54.4	1.110	1.950	20.8								



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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>376744</b>	1999 TZ <sub>261</sub>	12	3.7 351°84	5°1/ 4.5 18			<b>111821</b>	2002 DS <sub>2</sub>	12	3.7 301°24	3°7/ 4.1 18		
10 28	5 6.85	+29 56.5	1.064	1.907	21.3	20.5	10 28	5 21.74	+ 7 36.9	1.107	1.923	22.4	18.9
11 7	5 4.59	+30 48.1	0.996	1.899	17.0	20.2	11 7	5 16.02	+ 9 3.8	1.023	1.913	17.9	18.6
11 17	4 58.06	+31 29.7	0.945	1.893	12.0	19.9	11 17	5 5.71	+10 57.8	0.958	1.902	12.4	18.2
11 27	4 48.16	+31 55.3	0.914	1.888	7.0	19.6	11 27	4 51.46	+13 18.4	0.916	1.892	6.4	17.9
12 7	4 36.66	+32 0.7	0.907	1.884	5.3	19.5	12 7	4 34.91	+15 57.9	0.902	1.882	4.3	17.7
12 17	4 25.82	+31 46.6	0.922	1.882	9.4	19.7	12 17	4 18.42	+18 44.1	0.915	1.872	10.0	18.0
12 27	4 17.79	+31 19.3	0.960	1.882	14.6	20.0	12 27	4 4.50	+21 25.9	0.955	1.863	16.3	18.3
1 6	4 13.86	+30 47.5	1.017	1.883	19.4	20.3	1 6	3 54.88	+23 56.6	1.017	1.854	21.7	18.6
<b>218069</b>	2002 FN <sub>19</sub>	12	3.7 227°60	0°6/ 3.9 17			<b>291088</b>	2005 YZ <sub>131</sub>	12	3.7 32°94	2°5/ 3.0 18		
10 28	5 7.57	+24 40.3	2.208	3.009	13.1	21.3	10 28	5 6.23	+16 7.9	1.797	2.616	14.9	20.5
11 7	5 2.66	+24 38.5	2.121	3.006	10.1	21.1	11 7	5 1.83	+15 54.4	1.731	2.625	11.5	20.3
11 17	4 55.52	+24 31.6	2.058	3.004	6.7	20.9	11 17	4 55.03	+15 42.2	1.686	2.635	7.6	20.1
11 27	4 46.79	+24 19.4	2.022	3.001	2.8	20.6	11 27	4 46.58	+15 33.0	1.668	2.645	3.7	19.9
12 7	4 37.40	+24 2.3	2.015	2.998	1.4	20.5	12 7	4 37.54	+15 28.3	1.677	2.656	3.0	19.9
12 17	4 28.38	+23 42.1	2.038	2.995	5.3	20.8	12 17	4 29.02	+15 29.7	1.714	2.667	6.6	20.1
12 27	4 20.71	+23 21.5	2.089	2.993	8.9	21.0	12 27	4 22.05	+15 38.3	1.779	2.678	10.4	20.4
1 6	4 15.12	+23 3.5	2.166	2.990	12.1	21.2	1 6	4 17.37	+15 54.6	1.866	2.690	13.8	20.6
<b>82303</b>	2001 KV <sub>44</sub>	12	3.7 114°71	4°8/ 2.4 18			<b>138089</b>	2000 DQ <sub>67</sub>	12	3.7 337°47	9°1/ 30.9 18		
10 28	5 11.00	+11 59.1	1.649	2.461	16.3	19.5	10 28	5 5.64	+ 1 15.7	1.748	2.548	16.0	19.8
11 7	5 5.54	+11 15.0	1.586	2.474	12.8	19.3	11 7	5 1.42	+ 0 2.9	1.679	2.545	13.4	19.6
11 17	4 57.44	+10 34.6	1.545	2.486	8.8	19.1	11 17	4 54.81	- 0 58.6	1.632	2.543	10.8	19.5
11 27	4 47.55	+10 1.9	1.529	2.498	5.5	19.0	11 27	4 46.52	- 1 41.9	1.608	2.540	9.2	19.4
12 7	4 37.06	+ 9 40.3	1.541	2.509	5.3	19.0	12 7	4 37.56	- 2 2.0	1.611	2.538	9.4	19.4
12 17	4 27.21	+ 9 32.2	1.581	2.520	8.4	19.2	12 17	4 29.03	- 1 56.7	1.639	2.536	11.4	19.5
12 27	4 19.16	+ 9 38.5	1.647	2.531	12.1	19.4	12 27	4 21.99	- 1 26.5	1.690	2.534	14.0	19.7
1 6	4 13.64	+ 9 58.5	1.735	2.541	15.4	19.7	1 6	4 17.18	- 0 35.2	1.762	2.533	16.6	19.8
<b>143792</b>	2003 WL <sub>104</sub>	12	3.7 57°86	1°1/ 3.4 18			<b>494095</b>	2016 CW <sub>33</sub>	12	3.7 244°58	0°4/ 3.8 17		
10 28	5 12.59	+21 6.5	1.210	2.043	19.8	20.2	10 28	5 6.34	+23 39.9	2.437	3.235	12.1	21.9
11 7	5 7.59	+20 47.6	1.160	2.063	15.2	19.9	11 7	5 1.53	+23 42.3	2.348	3.232	9.3	21.7
11 17	4 59.10	+20 24.7	1.129	2.083	9.8	19.7	11 17	4 54.71	+23 41.0	2.282	3.228	6.1	21.5
11 27	4 48.26	+19 58.9	1.122	2.103	4.0	19.4	11 27	4 46.46	+23 35.8	2.245	3.224	2.6	21.3
12 7	4 36.74	+19 32.8	1.141	2.124	2.4	19.4	12 7	4 37.60	+23 26.9	2.237	3.220	1.3	21.2
12 17	4 26.30	+19 9.9	1.186	2.145	7.9	19.8	12 17	4 29.04	+23 15.6	2.259	3.216	4.9	21.4
12 27	4 18.38	+18 54.1	1.255	2.166	12.9	20.1	12 27	4 21.67	+23 4.0	2.310	3.212	8.3	21.6
1 6	4 13.79	+18 47.9	1.345	2.187	17.0	20.4	1 6	4 16.15	+22 54.4	2.387	3.208	11.2	21.8
<b>516420</b>	2003 FS <sub>2</sub>	12	3.7 252°34	5°0/ 1.4 18			<b>214524</b>	2006 JC <sub>35</sub>	12	3.7 80°57	1°4/ 3.4 18		
10 28	5 10.76	+ 8 40.2	2.499	3.282	12.3	24.1	10 28	5 15.39	+18 31.7	1.329	2.151	19.0	20.3
11 7	5 4.88	+ 7 44.3	2.385	3.253	9.9	23.9	11 7	5 9.51	+18 38.6	1.275	2.172	14.6	20.1
11 17	4 56.92	+ 6 50.3	2.296	3.222	7.3	23.7	11 17	5 0.28	+18 45.9	1.242	2.192	9.5	19.9
11 27	4 47.39	+ 6 2.0	2.235	3.191	5.3	23.5	11 27	4 48.76	+18 53.2	1.233	2.213	4.0	19.6
12 7	4 37.07	+ 5 23.1	2.205	3.158	5.5	23.5	12 7	4 36.51	+19 1.0	1.251	2.234	2.5	19.6
12 17	4 26.84	+ 4 56.5	2.206	3.123	7.8	23.5	12 17	4 25.22	+19 10.2	1.296	2.254	7.6	20.0
12 27	4 17.62	+ 4 44.3	2.235	3.088	10.7	23.7	12 27	4 16.32	+19 23.0	1.367	2.274	12.4	20.3
1 6	4 10.17	+ 4 46.7	2.288	3.051	13.5	23.8	1 6	4 10.66	+19 40.8	1.460	2.293	16.4	20.6
<b>347954</b>	2003 QV <sub>23</sub>	12	3.7 62°97	7°2/ 6.7 18			<b>387632</b>	2002 PD <sub>40</sub>	12	3.7 178°07	8°5/ 29.4 18		
10 28	5 16.50	+41 5.9	1.588	2.360	18.6	20.3	10 28	5 7.53	- 9 48.5	3.077	3.796	11.5	21.5
11 7	5 10.55	+41 29.2	1.530	2.380	15.3	20.2	11 7	5 1.78	-10 58.5	3.011	3.799	10.2	21.4
11 17	5 0.99	+41 32.1	1.492	2.401	11.8	20.0	11 17	4 54.54	-11 56.0	2.968	3.802	9.1	21.4
11 27	4 49.01	+41 9.3	1.477	2.423	8.6	19.9	11 27	4 46.31	-12 36.5	2.950	3.803	8.5	21.3
12 7	4 36.38	+40 19.7	1.488	2.444	7.2	19.8	12 7	4 37.70	-12 56.9	2.960	3.803	8.7	21.4
12 17	4 24.90	+39 7.6	1.526	2.465	8.7	20.0	12 17	4 29.37	-12 56.2	2.997	3.803	9.6	21.4
12 27	4 16.08	+37 42.0	1.590	2.486	11.7	20.2	12 27	4 21.96	-12 35.0	3.058	3.801	10.8	21.5
1 6	4 10.72	+36 13.1	1.677	2.508	14.8	20.4	1 6	4 15.95	-11 55.8	3.141	3.798	12.1	21.6
<b>242055</b>	2002 RO <sub>255</sub>	12	3.7 200°70	1°3/ 2.9 18			<b>70501</b>	1999 TZ <sub>95</sub>	12	3.7 8°71	11°2/ 30.1 18		
10 28	5 5.45	+19 17.4	3.066	3.857	10.0	21.3	10 28	5 3.10	+ 2 25.2	1.278	2.108	19.2	18.0
11 7	5 0.32	+18 44.0	2.972	3.853	7.7	21.1	11 7	5 0.13	+ 0 33.0	1.225	2.110	16.0	17.8
11 17	4 53.66	+18 8.2	2.903	3.848	5.0	21.0	11 17	4 54.25	- 1 6.3	1.192	2.112	13.1	17.7
11 27	4 45.96	+17 31.2	2.864	3.842	2.3	20.8	11 27	4 46.34	- 2 22.2	1.180	2.116	11.3	17.6
12 7	4 37.84	+16 54.8	2.857	3.836	1.8	20.7	12 7	4 37.71	- 3 6.7	1.191	2.121	11.8	17.6
12 17	4 29.98	+16 21.1	2.881	3.830	4.5	20.9	12 17	4 29.72	- 3 16.1	1.225	2.127	14.0	17.8
12 27	4 23.05	+15 51.9	2.935	3.823	7.2	21.1	12 27	4 23.65	- 2 51.7	1.280	2.135	16.9	18.0
1 6	4 17.54	+15 29.0	3.015	3.815	9.7	21.2	1 6	4 20.31	- 1 59.2	1.353	2.143	19.8	18.2
<b>355326</b>	2007 TN <sub>45</sub>	12	3.7 317°93	3°2/ 2.6 18			<b>369814</b>	2012 HT <sub>53</sub>	12	3.7 159°40	3°9/ 2.1 18		
10 28	5 5.44	+17 29.9	1.539	2.368	16.5	21.0	10 28	5 4.77	+11 17.0	2.465	3.265	11.9	21.1
11 7	5 1.92	+16 43.5	1.450	2.351	12.8	20.7	11 7	5 0.08	+10 34.3	2.386	3.267	9.3	21.0
11 17	4 55.51	+15 53.9	1.383	2.334	8.6	20.4	11 17	4 53.63	+ 9 54.1	2.333	3.269	6.6	20.8
11 27	4 46.92	+15 4.4	1.340	2.317	4.4	20.1	11 27	4 45.98	+ 9 19.4	2.306	3.271	4.3	20.7
12 7	4 37.32	+14 19.1	1.324	2.301	4.0	20.1	12 7	4 37.88	+ 8 52.7	2.310	3.273	4.3	20.7
12 17	4 28.07	+13 42.6	1.334	2.286	8.2	20.3	12 17	4 30.11	+ 8 36.1	2.342	3.275	6.5	20.8
12 27	4 20.53	+13 18.9	1.370	2.271	12.8	20.5	12 27	4 23.44	+ 8 30.7	2.403	3.276	9.2	21.0
1 6	4 15.68	+13 9.9	1.427	2.257	16.9	20.7	1 6	4 18.43	+ 8 36.6	2.488	3.278	11.8	21.2
<b>438217</b>	2005 UZ <sub>291</sub>	12	3.7 51°09	3°2/ 4.4 18			<b>121073</b>	1999 EL <sub>12</sub>	12	3.7 348°46	6°2/ 2.7 18		
10 28	5 12.43	+28 40.4	1.416	2									

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>145453</b>	2005 <i>RR</i> <sub>43</sub>		12 3.7 50°57	0°2/ 2.6 17			<b>74068</b>	1998 <i>MJ</i> <sub>4</sub>		12 3.7 203°18	1°7/ 4.3 18		
10 28	4 43.65	+13 49.5	39.099	39.893	0.9	20.1	10 28	5 13.39	+28 8.3	1.796	2.594	15.8	20.2
11 7	4 42.91	+13 48.0	39.016	39.897	0.7	20.1	11 7	5 7.72	+27 59.4	1.710	2.591	12.4	20.0
11 17	4 42.08	+13 46.8	38.959	39.900	0.4	20.1	11 17	4 59.11	+27 40.9	1.645	2.587	8.3	19.7
11 27	4 41.19	+13 45.8	38.932	39.904	0.2	20.0	11 27	4 48.36	+27 11.3	1.606	2.583	3.9	19.5
12 7	4 40.29	+13 45.1	38.935	39.907	0.2	20.0	12 7	4 36.73	+26 31.3	1.596	2.578	2.2	19.3
12 17	4 39.39	+13 44.8	38.969	39.910	0.4	20.0	12 17	4 25.63	+25 44.0	1.615	2.572	6.4	19.6
12 27	4 38.54	+13 45.0	39.032	39.914	0.6	20.1	12 27	4 16.39	+24 54.7	1.661	2.566	10.7	19.8
1 6	4 37.77	+13 45.7	39.123	39.917	0.8	20.1	1 6	4 9.91	+24 9.0	1.732	2.559	14.5	20.0
<b>412291</b>	2013 <i>JD</i> <sub>30</sub>		12 3.7 122°51	1°6/ 3.1 18			<b>220146</b>	2002 <i>TW</i> <sub>156</sub>		12 3.7 89°44	0°9/ 3.4 18		
10 28	5 7.28	+17 6.7	2.624	3.419	11.4	22.1	10 28	5 12.70	+22 41.9	1.485	2.303	17.6	20.9
11 7	5 1.85	+16 55.9	2.552	3.434	8.7	21.9	11 7	5 7.22	+22 6.7	1.424	2.318	13.5	20.7
11 17	4 54.70	+16 45.2	2.505	3.449	5.7	21.7	11 17	4 58.69	+21 25.0	1.383	2.333	8.7	20.4
11 27	4 46.39	+16 35.4	2.486	3.464	2.6	21.6	11 27	4 48.12	+20 38.4	1.368	2.349	3.6	20.2
12 7	4 37.69	+16 27.6	2.498	3.478	2.1	21.5	12 7	4 36.92	+19 50.0	1.381	2.364	2.1	20.1
12 17	4 29.38	+16 23.1	2.542	3.491	4.9	21.8	12 17	4 26.58	+19 4.3	1.421	2.378	7.1	20.5
12 27	4 22.19	+16 22.9	2.614	3.505	7.9	22.0	12 27	4 18.39	+18 26.1	1.488	2.393	11.7	20.8
1 6	4 16.67	+16 28.0	2.712	3.517	10.5	22.2	1 6	4 13.13	+17 58.8	1.577	2.407	15.6	21.1
<b>47781</b>	2000 <i>EK</i> <sub>17</sub>		12 3.7 277°51	3°1/ 4.8 18			<b>457306</b>	2008 <i>SN</i> <sub>34</sub>		12 3.7 25°64	2°2/ 2.9 17		
10 28	5 7.91	+31 52.6	2.363	3.147	12.9	18.9	10 28	5 4.67	+17 31.5	1.923	2.741	14.1	21.2
11 7	5 3.04	+32 9.1	2.267	3.137	10.2	18.7	11 7	5 0.52	+17 2.7	1.854	2.748	10.8	21.0
11 17	4 55.85	+32 17.0	2.195	3.127	7.2	18.5	11 17	4 54.14	+16 33.2	1.808	2.757	7.1	20.8
11 27	4 46.98	+32 14.4	2.149	3.116	4.3	18.3	11 27	4 46.25	+16 5.1	1.788	2.765	3.4	20.6
12 7	4 37.36	+32 0.2	2.132	3.106	3.2	18.2	12 7	4 37.81	+15 40.6	1.796	2.775	2.8	20.6
12 17	4 28.03	+31 35.7	2.144	3.096	5.6	18.4	12 17	4 29.87	+15 22.1	1.832	2.784	6.3	20.8
12 27	4 20.05	+31 4.0	2.185	3.085	8.7	18.5	12 27	4 23.36	+15 11.8	1.896	2.794	10.0	21.1
1 6	4 14.17	+30 29.5	2.251	3.075	11.7	18.7	1 6	4 18.97	+15 10.5	1.983	2.805	13.1	21.3
<b>296866</b>	2009 <i>XB</i> <sub>7</sub>		12 3.7 17°09	4°1/ 2.6 18			<b>72848</b>	2001 <i>HV</i> <sub>36</sub>		12 3.7 321°23	2°3/ 4.1 18		
10 28	5 5.35	+10 27.2	2.073	2.881	13.6	20.3	10 28	5 9.92	+26 36.7	2.192	2.986	13.4	19.0
11 7	5 0.89	+10 9.5	1.998	2.883	10.7	20.1	11 7	5 4.71	+27 26.0	2.103	2.982	10.5	18.8
11 17	4 54.33	+9 57.0	1.946	2.885	7.5	19.9	11 17	4 57.04	+28 12.1	2.038	2.978	7.1	18.5
11 27	4 46.32	+9 52.2	1.921	2.888	4.7	19.7	11 27	4 47.53	+28 52.1	1.999	2.974	3.7	18.3
12 7	4 37.73	+9 56.8	1.923	2.891	4.5	19.7	12 7	4 37.13	+29 23.7	1.991	2.970	2.6	18.2
12 17	4 29.51	+10 11.8	1.954	2.894	7.1	19.9	12 17	4 26.98	+29 46.3	2.012	2.966	5.7	18.4
12 27	4 22.58	+10 37.3	2.013	2.897	10.2	20.1	12 27	4 18.19	+30 1.3	2.062	2.963	9.2	18.6
1 6	4 17.61	+11 12.3	2.095	2.901	13.1	20.3	1 6	4 11.63	+30 11.4	2.137	2.959	12.3	18.8
<b>132641</b>	2002 <i>LY</i> <sub>37</sub>		12 3.7 126°56	4°8/ 1.7 18			<b>402340</b>	2005 <i>UD</i> <sub>371</sub>		12 3.7 359°81	0°7/ 3.9 17		
10 28	5 8.63	+11 11.0	2.104	2.905	13.7	19.9	10 28	5 7.29	+24 30.1	1.902	2.712	14.6	21.8
11 7	5 3.17	+10 5.3	2.038	2.918	10.7	19.7	11 7	5 2.80	+24 30.4	1.822	2.712	11.3	21.6
11 17	4 55.66	+9 2.2	1.995	2.931	7.6	19.6	11 17	4 55.79	+24 25.5	1.764	2.711	7.4	21.3
11 27	4 46.81	+8 5.8	1.980	2.943	5.1	19.5	11 27	4 46.99	+24 14.8	1.732	2.711	3.2	21.1
12 7	4 37.52	+7 20.1	1.995	2.955	5.2	19.5	12 7	4 37.45	+23 59.0	1.728	2.711	1.6	21.0
12 17	4 28.75	+6 48.0	2.038	2.966	7.7	19.7	12 17	4 28.34	+23 40.0	1.753	2.712	5.8	21.2
12 27	4 21.36	+6 31.1	2.109	2.977	10.6	19.9	12 27	4 20.80	+23 20.8	1.805	2.712	9.8	21.5
1 6	4 15.98	+6 29.0	2.204	2.987	13.3	20.1	1 6	4 15.61	+23 4.6	1.881	2.713	13.3	21.7
<b>154864</b>	2004 <i>RM</i> <sub>83</sub>		12 3.7 123°71	0°5/ 3.8 18			<b>173274</b>	1999 <i>SS</i> <sub>7</sub>		12 3.7 106°32	2°1/ 4.2 18		
10 28	5 8.00	+23 58.4	2.221	3.021	13.1	20.7	10 28	5 19.23	+27 9.0	1.766	2.556	16.3	20.2
11 7	5 2.92	+24 0.7	2.141	3.025	10.1	20.5	11 7	5 11.85	+27 34.3	1.708	2.584	12.7	20.0
11 17	4 55.65	+23 58.8	2.084	3.030	6.6	20.3	11 17	5 1.54	+27 52.3	1.672	2.612	8.4	19.8
11 27	4 46.86	+23 52.2	2.055	3.034	2.8	20.1	11 27	4 49.26	+28 0.1	1.663	2.639	4.1	19.6
12 7	4 37.47	+23 41.4	2.055	3.038	1.4	20.0	12 7	4 36.39	+27 56.9	1.684	2.665	2.5	19.5
12 17	4 28.48	+23 27.8	2.085	3.042	5.2	20.2	12 17	4 24.40	+27 44.5	1.734	2.689	6.3	19.8
12 27	4 20.85	+23 13.9	2.144	3.046	8.8	20.5	12 27	4 14.53	+27 26.9	1.813	2.713	10.2	20.1
1 6	4 15.28	+23 2.3	2.227	3.050	11.9	20.7	1 6	4 7.57	+27 8.8	1.916	2.736	13.6	20.4
<b>319415</b>	2006 <i>HC</i> <sub>37</sub>		12 3.7 94°32	2°1/ 2.7 18			<b>177545</b>	2004 <i>FZ</i> <sub>63</sub>		12 3.7 244°91	3°3/ 4.5 18		
10 28	5 6.07	+16 23.4	2.685	3.481	11.1	21.0	10 28	5 11.28	+30 3.9	2.069	2.858	14.3	20.2
11 7	5 0.80	+15 49.9	2.622	3.505	8.5	20.9	11 7	5 5.97	+30 41.8	1.978	2.852	11.3	20.0
11 17	4 53.93	+15 16.4	2.585	3.529	5.6	20.8	11 17	4 57.97	+31 12.8	1.911	2.845	7.9	19.7
11 27	4 46.06	+14 44.6	2.577	3.552	2.9	20.6	11 27	4 47.94	+31 33.9	1.869	2.839	4.6	19.5
12 7	4 37.90	+14 16.4	2.599	3.575	2.5	20.6	12 7	4 36.96	+31 42.9	1.857	2.832	3.5	19.4
12 17	4 30.17	+13 53.6	2.652	3.597	5.1	20.8	12 17	4 26.28	+31 40.0	1.873	2.825	6.2	19.6
12 27	4 23.56	+13 37.7	2.734	3.619	7.8	21.0	12 27	4 17.16	+31 28.1	1.918	2.818	9.8	19.8
1 6	4 18.53	+13 29.5	2.841	3.640	10.2	21.2	1 6	4 10.50	+31 11.6	1.987	2.811	13.0	20.0
<b>133591</b>	2003 <i>UA</i> <sub>71</sub>		12 3.7 132°24	0°6/ 3.9 18			<b>153293</b>	2001 <i>FV</i> <sub>62</sub>		12 3.7 124°53	7°2/ 6.7 18		
10 28	5 11.23	+24 41.0	2.137	2.932	13.7	21.0	10 28	5 16.92	+46 58.2	2.833	3.537	12.7	20.0
11 7	5 5.36	+24 35.3	2.063	2.944	10.5	20.8	11 7	5 9.99	+47 59.9	2.760	3.551	10.9	19.8
11 17	4 57.19	+24 24.1	2.012	2.957	6.9	20.6	11 17	5 0.40	+48 47.3	2.710	3.565	9.1	19.7
11 27	4 47.46	+24 7.2	1.989	2.968	2.9	20.4	11 27	4 48.87	+49 15.6	2.684	3.579	7.7	19.7
12 7	4 37.19	+23 45.3	1.996	2.979	1.4	20.3	12 7	4 36.54	+49 22.0	2.687	3.592	7.2	19.6
12 17	4 27.44	+23 20.5	2.033	2.990	5.3	20.6	12 17	4 24.66	+49 6.7	2.717	3.605	7.8	19.7
12 27	4 19.22	+22 55.9	2.099	3.000	9.0	20.8	12 27	4 14.45	+48 33.2	2.774	3.618	9.2	19.8
1 6	4 13.22	+22 34.7	2.190	3.009	12.2	21.0	1 6	4 6.74	+47 47.3	2.857	3.630	10.8	20.0
<b>108724</b>	2001 <i>OS</i> <sub>24</sub>		12 3.7 169°63	3°5/ 5.3 18			<b>117440</b>	2005 <i>AM</i> <sub>37</sub>		12 3.7 223°77	2°8/ 4.9 18		

EPHEMERIDES

12 3.7

12 3.7

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>1581</b>	Abanderada	12	3.7	247°97	0°6/ 3.5	18	<b>173134</b>	1994 YP <sub>2</sub>	12	3.7	330°13	13°5/10.7	17
10 28	5 5.81	+20 45.1	2.572	3.371	11.5	16.2	10 28	5 22.44	+52 37.1	1.007	1.775	27.3	19.4
11 7	5 1.04	+20 38.4	2.476	3.361	8.9	16.1	11 7	5 18.46	+52 36.6	0.933	1.767	24.1	19.1
11 17	4 54.38	+20 29.6	2.405	3.352	5.8	15.8	11 17	5 7.79	+51 51.4	0.872	1.760	20.3	18.8
11 27	4 46.38	+20 19.1	2.362	3.342	2.4	15.6	11 27	4 52.19	+50 5.2	0.828	1.753	16.4	18.6
12 7	4 37.78	+20 7.5	2.349	3.332	1.4	15.5	12 7	4 35.12	+47 10.4	0.803	1.747	13.7	18.4
12 17	4 29.43	+19 56.3	2.366	3.322	4.8	15.7	12 17	4 20.33	+43 17.0	0.801	1.741	14.2	18.4
12 27	4 22.14	+19 47.3	2.413	3.311	8.1	15.9	12 27	4 10.53	+38 52.7	0.823	1.736	17.6	18.6
1 6	4 16.57	+19 42.2	2.485	3.301	11.0	16.1	1 6	4 6.57	+34 29.7	0.867	1.733	21.9	18.8
<b>225730</b>	2001 RR <sub>110</sub>	12	3.7	146°27	0°9/ 3.9	18	<b>350485</b>	1999 TY <sub>120</sub>	12	3.7	41°97	2°2/ 3.2	18
10 28	5 13.87	+24 54.3	1.961	2.756	14.7	21.0	10 28	5 10.23	+19 12.0	1.256	2.091	19.1	20.1
11 7	5 7.66	+24 59.7	1.886	2.767	11.4	20.8	11 7	5 5.51	+18 40.3	1.214	2.117	14.6	19.9
11 17	4 58.84	+24 59.7	1.833	2.777	7.5	20.6	11 17	4 57.61	+18 6.9	1.192	2.145	9.4	19.7
11 27	4 48.21	+24 53.1	1.808	2.786	3.2	20.3	11 27	4 47.69	+17 34.2	1.194	2.174	4.1	19.4
12 7	4 36.90	+24 40.1	1.812	2.795	1.6	20.2	12 7	4 37.30	+17 5.4	1.221	2.203	3.1	19.5
12 17	4 26.15	+24 22.5	1.846	2.803	5.8	20.5	12 17	4 27.97	+16 44.0	1.275	2.232	7.8	19.8
12 27	4 17.10	+24 3.5	1.908	2.810	9.7	20.8	12 27	4 20.98	+16 32.5	1.354	2.262	12.4	20.2
1 6	4 10.54	+23 46.6	1.996	2.816	13.1	21.0	1 6	4 17.00	+16 32.2	1.454	2.293	16.2	20.5
<b>291803</b>	2006 KH <sub>75</sub>	12	3.7	184°22	4°0/ 1.5	18	<b>76787</b>	2000 LC <sub>13</sub>	12	3.7	179°36	2°7/ 2.8	18
10 28	5 4.43	+10 19.7	2.912	3.704	10.5	21.0	10 28	5 7.96	+13 1.3	2.804	3.592	10.9	20.6
11 7	4 59.57	+9 18.8	2.829	3.704	8.3	20.9	11 7	5 2.36	+12 45.0	2.718	3.594	8.5	20.4
11 17	4 53.20	+8 19.8	2.772	3.703	5.9	20.7	11 17	4 55.09	+12 30.9	2.657	3.595	5.8	20.3
11 27	4 45.84	+7 25.7	2.744	3.703	4.2	20.6	11 27	4 46.66	+12 20.4	2.625	3.596	3.3	20.1
12 7	4 38.09	+6 39.4	2.746	3.702	4.3	20.6	12 7	4 37.76	+12 14.7	2.624	3.595	3.0	20.1
12 17	4 30.62	+6 3.4	2.779	3.700	6.2	20.7	12 17	4 29.14	+12 15.0	2.654	3.595	5.4	20.2
12 27	4 24.08	+5 39.2	2.840	3.698	8.5	20.9	12 27	4 21.53	+12 22.0	2.714	3.593	8.1	20.4
1 6	4 18.95	+5 27.1	2.927	3.696	10.7	21.0	1 6	4 15.47	+12 36.0	2.800	3.591	10.6	20.6
<b>81186</b>	2000 ED <sub>189</sub>	12	3.7	82°69	0°1/ 3.7	18	<b>66134</b>	1998 SV <sub>127</sub>	12	3.7	77°15	2°6/ 2.9	18
10 28	5 12.60	+23 18.8	1.509	2.325	17.4	19.9	10 28	5 6.84	+15 11.8	2.185	2.990	13.1	19.7
11 7	5 7.24	+23 14.8	1.446	2.339	13.4	19.7	11 7	5 1.85	+14 52.1	2.119	3.006	10.0	19.6
11 17	4 58.79	+23 5.6	1.404	2.354	8.7	19.5	11 17	4 54.87	+14 33.7	2.078	3.022	6.7	19.4
11 27	4 48.22	+22 50.7	1.388	2.368	3.6	19.2	11 27	4 46.57	+14 18.5	2.063	3.038	3.5	19.2
12 7	4 36.93	+22 31.2	1.399	2.382	1.7	19.1	12 7	4 37.83	+14 8.0	2.078	3.054	3.0	19.2
12 17	4 26.42	+22 9.7	1.437	2.396	6.8	19.5	12 17	4 29.56	+14 3.7	2.122	3.070	6.0	19.4
12 27	4 18.03	+21 50.3	1.502	2.410	11.4	19.8	12 27	4 22.61	+14 6.7	2.195	3.086	9.2	19.7
1 6	4 12.59	+21 36.4	1.590	2.424	15.3	20.1	1 6	4 17.58	+14 17.3	2.292	3.102	12.0	19.9
<b>442778</b>	2012 XE <sub>124</sub>	12	3.7	164°54	4°7/ 2.6	18	<b>145346</b>	2005 MU <sub>12</sub>	12	3.7	32°78	6°0/ 1.9	18
10 28	5 8.91	+10 34.0	1.780	2.590	15.4	21.0	10 28	5 6.22	+9 11.3	1.694	2.510	15.8	20.0
11 7	5 3.97	+10 7.9	1.705	2.591	12.1	20.8	11 7	5 1.93	+8 15.3	1.628	2.515	12.5	19.8
11 17	4 56.53	+9 47.3	1.652	2.592	8.5	20.5	11 17	4 55.19	+7 24.9	1.584	2.520	9.1	19.6
11 27	4 47.31	+9 35.2	1.625	2.593	5.4	20.4	11 27	4 46.77	+6 45.1	1.565	2.526	6.4	19.5
12 7	4 37.36	+9 34.1	1.626	2.593	5.2	20.4	12 7	4 37.73	+6 19.9	1.573	2.532	6.5	19.5
12 17	4 27.85	+9 45.5	1.654	2.594	8.1	20.5	12 17	4 29.20	+6 12.0	1.608	2.538	9.1	19.7
12 27	4 19.91	+10 9.7	1.709	2.594	11.7	20.7	12 27	4 22.27	+6 21.9	1.668	2.545	12.4	19.9
1 6	4 14.31	+10 45.4	1.787	2.594	15.0	21.0	1 6	4 17.66	+6 48.0	1.750	2.552	15.5	20.1
<b>483228</b>	2015 RE <sub>59</sub>	12	3.7	312°19	2°9/ 2.8	18	<b>369009</b>	2007 LF <sub>10</sub>	12	3.7	197°49	4°4/ 2.1	17
10 28	5 6.57	+16 42.2	1.732	2.552	15.3	21.6	10 28	5 5.19	+7 41.7	2.685	3.475	11.3	22.4
11 7	5 2.41	+16 7.6	1.648	2.543	11.9	21.3	11 7	5 0.33	+7 10.8	2.601	3.472	9.0	22.3
11 17	4 55.65	+15 32.1	1.586	2.535	7.9	21.1	11 17	4 53.81	+6 45.0	2.542	3.469	6.6	22.1
11 27	4 46.99	+14 58.2	1.549	2.526	4.0	20.8	11 27	4 46.15	+6 26.6	2.510	3.466	4.7	22.0
12 7	4 37.50	+14 28.9	1.540	2.518	3.6	20.8	12 7	4 38.02	+6 17.9	2.508	3.463	4.7	22.0
12 17	4 28.41	+14 7.3	1.559	2.510	7.4	21.0	12 17	4 30.15	+6 20.1	2.536	3.459	6.6	22.1
12 27	4 20.89	+13 56.1	1.605	2.502	11.5	21.2	12 27	4 23.26	+6 33.7	2.592	3.455	9.0	22.3
1 6	4 15.78	+13 56.5	1.673	2.495	15.2	21.4	1 6	4 17.90	+6 57.8	2.672	3.451	11.4	22.4
<b>457259</b>	2008 RV <sub>15</sub>	12	3.7	40°72	0°9/ 4.0	18	<b>3706</b>	Sinnott	12	3.7	344°43	3°2/ 3.1	18
10 28	5 6.59	+25 45.1	2.061	2.867	13.8	21.3	10 28	5 8.32	+16 54.6	1.155	1.999	19.9	16.5
11 7	5 1.98	+25 36.8	1.989	2.875	10.6	21.2	11 7	5 4.93	+16 33.3	1.085	1.993	15.5	16.2
11 17	4 55.10	+25 22.1	1.939	2.885	7.0	21.0	11 17	4 57.88	+16 12.6	1.034	1.988	10.3	15.9
11 27	4 46.67	+25 1.1	1.915	2.894	3.0	20.7	11 27	4 48.07	+15 55.0	1.005	1.984	5.0	15.6
12 7	4 37.70	+24 34.6	1.921	2.904	1.5	20.6	12 7	4 37.05	+15 43.6	1.001	1.981	4.0	15.6
12 17	4 29.22	+24 5.1	1.955	2.914	5.3	20.9	12 17	4 26.64	+15 41.1	1.021	1.978	9.2	15.8
12 27	4 22.22	+23 35.8	2.018	2.924	9.0	21.2	12 27	4 18.57	+15 50.0	1.064	1.976	14.5	16.1
1 6	4 17.38	+23 10.0	2.105	2.935	12.2	21.4	1 6	4 13.94	+16 10.9	1.127	1.975	19.2	16.4
<b>2216</b>	Kerch	12	3.7	79°40	5°0/ 2.1	18	<b>38993</b>	2000 UX <sub>20</sub>	12	3.7	233°99	3°4/ 2.7	18
10 28	5 5.67	+8 25.7	2.164	2.966	13.3	16.0	10 28	5 11.20	+16 30.9	1.588	2.405	16.6	19.4
11 7	5 0.95	+7 46.5	2.096	2.975	10.5	15.8	11 7	5 6.23	+15 46.2	1.503	2.396	13.0	19.1
11 17	4 54.29	+7 12.9	2.052	2.985	7.6	15.7	11 17	4 58.28	+14 59.8	1.440	2.388	8.7	18.9
11 27	4 46.32	+6 48.4	2.035	2.994	5.4	15.6	11 27	4 48.14	+14 14.7	1.403	2.379	4.6	18.6
12 7	4 37.88	+6 35.5	2.046	3.004	5.4	15.6	12 7	4 37.04	+13 34.8	1.392	2.369	4.1	18.6
12 17	4 29.86	+6 35.7	2.086	3.013	7.5	15.7	12 17	4 26.37	+13 4.1	1.410	2.359	8.2	18.8
12 27	4 23.11	+6 49.3	2.152	3.023	10.3	15.9	12 27	4 17.51	+12 46.1	1.454	2.348	12.7	19.0
1 6	4 18.22	+7 15.1	2.243	3.032	12.9	16.1	1 6	4 11.40	+12 42.1	1.520	2.338	16.7	19.2
<b>223345</b>	2003 QP <sub>107</sub>	12	3.7	110°38	0°0/ 3.5	18	<b>458006</b>	2009 WK <sub>85</sub>	12	3.7	254°19	3°0/ 4.5	18
10 28	5 8.38	+21 24.6	2.327	3.126	12.6	20.2	10 28	5 9.53	+30 20.8	2.418	3		

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12 3.7

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>326778</b>	2003 <i>SF</i> <sub>223</sub>	12 3.7 43°50	6°6/ 4.9 18				<b>160831</b>	2000 <i>XK</i> <sub>39</sub>	12 3.7 30°90	7°9/ 5.4 18			
10 28	5 15.16	+36 49.5	1.962	2.732	15.6	19.6	10 28	5 14.73	+37 54.8	1.519	2.306	18.6	18.5
11 7	5 9.32	+38 20.7	1.896	2.747	12.8	19.4	11 7	5 9.87	+39 11.8	1.451	2.312	15.4	18.3
11 17	5 0.33	+39 41.2	1.854	2.764	9.8	19.3	11 17	5 1.14	+40 14.7	1.402	2.317	11.9	18.1
11 27	4 49.00	+40 44.2	1.837	2.780	7.4	19.2	11 27	4 49.45	+40 55.4	1.377	2.323	8.9	17.9
12 7	4 36.63	+41 25.2	1.848	2.797	6.7	19.2	12 7	4 36.45	+41 9.0	1.376	2.330	7.9	17.9
12 17	4 24.74	+41 43.5	1.887	2.814	8.2	19.3	12 17	4 24.13	+40 55.2	1.402	2.337	9.7	18.0
12 27	4 14.78	+41 42.3	1.952	2.831	10.7	19.5	12 27	4 14.32	+40 20.2	1.452	2.344	12.8	18.2
1 6	4 7.77	+41 28.2	2.041	2.849	13.3	19.7	1 6	4 8.19	+39 33.4	1.524	2.352	16.1	18.4
<b>449396</b>	2013 <i>GP</i> <sub>123</sub>	12 3.7 288°71	1°3/ 4.0 18				<b>159911</b>	2004 <i>VN</i> <sub>39</sub>	12 3.7 197°43	1°1/ 4.0 17			
10 28	5 9.41	+25 6.5	1.905	2.710	14.7	21.6	10 28	5 8.91	+24 41.4	2.410	3.203	12.4	20.8
11 7	5 4.61	+25 26.0	1.817	2.704	11.5	21.4	11 7	5 3.62	+25 5.6	2.322	3.202	9.6	20.6
11 17	4 57.13	+25 41.1	1.751	2.697	7.6	21.1	11 17	4 56.20	+25 26.7	2.257	3.200	6.4	20.4
11 27	4 47.67	+25 50.2	1.712	2.690	3.5	20.9	11 27	4 47.22	+25 43.1	2.221	3.199	2.9	20.2
12 7	4 37.29	+25 52.5	1.701	2.684	1.9	20.7	12 7	4 37.56	+25 54.1	2.215	3.197	1.6	20.1
12 17	4 27.25	+25 48.9	1.719	2.677	6.0	21.0	12 17	4 28.18	+26 0.2	2.239	3.195	5.0	20.3
12 27	4 18.78	+25 41.9	1.764	2.671	10.1	21.2	12 27	4 20.04	+26 2.9	2.292	3.193	8.3	20.5
1 6	4 12.77	+25 35.0	1.834	2.664	13.7	21.4	1 6	4 13.85	+26 4.5	2.371	3.191	11.3	20.7
<b>305212</b>	2007 <i>WS</i> <sub>39</sub>	12 3.7 135°78	0°7/ 3.6 18				<b>325373</b>	2008 <i>RW</i> <sub>40</sub>	12 3.7 186°10	2°0/ 2.9 17			
10 28	5 11.62	+18 46.8	1.934	2.737	14.6	20.4	10 28	5 5.43	+16 20.0	2.690	3.488	11.1	21.7
11 7	5 6.03	+19 10.6	1.855	2.742	11.3	20.2	11 7	5 0.56	+15 56.8	2.604	3.488	8.5	21.5
11 17	4 57.90	+19 35.4	1.799	2.746	7.3	20.0	11 17	4 53.99	+15 33.5	2.543	3.487	5.7	21.3
11 27	4 47.93	+20 0.3	1.771	2.750	3.0	19.7	11 27	4 46.26	+15 11.6	2.511	3.486	2.8	21.1
12 7	4 37.18	+20 24.7	1.771	2.754	1.7	19.7	12 7	4 38.06	+14 52.6	2.508	3.485	2.5	21.1
12 17	4 26.83	+20 48.4	1.802	2.758	6.0	20.0	12 17	4 30.14	+14 38.2	2.536	3.484	5.1	21.3
12 27	4 18.03	+21 12.3	1.861	2.762	10.0	20.2	12 27	4 23.25	+14 29.8	2.594	3.482	8.0	21.4
1 6	4 11.60	+21 37.6	1.944	2.765	13.4	20.4	1 6	4 17.94	+14 28.4	2.677	3.480	10.7	21.6
<b>227698</b>	2006 <i>DL</i> <sub>60</sub>	12 3.7 221°38	1°6/ 4.3 18				<b>42878</b>	1999 <i>RT</i> <sub>135</sub>	12 3.7 134°55	0°9/ 3.5 18			
10 28	5 7.47	+27 46.7	2.548	3.336	11.9	21.2	10 28	5 14.73	+20 29.8	1.783	2.586	15.7	19.5
11 7	5 2.43	+27 54.3	2.456	3.332	9.3	21.0	11 7	5 8.43	+20 21.7	1.714	2.600	12.1	19.3
11 17	4 55.36	+27 56.0	2.387	3.327	6.3	20.8	11 17	4 59.41	+20 11.1	1.668	2.614	7.8	19.1
11 27	4 46.85	+27 50.7	2.347	3.322	3.1	20.6	11 27	4 48.53	+19 58.2	1.648	2.627	3.2	18.8
12 7	4 37.72	+27 38.2	2.336	3.317	1.9	20.5	12 7	4 36.99	+19 43.9	1.657	2.640	1.9	18.7
12 17	4 28.88	+27 19.9	2.356	3.312	4.8	20.7	12 17	4 26.10	+19 30.4	1.696	2.651	6.4	19.1
12 27	4 21.23	+26 58.3	2.405	3.307	8.0	20.9	12 27	4 17.04	+19 20.4	1.763	2.662	10.5	19.3
1 6	4 15.45	+26 36.3	2.480	3.301	10.8	21.0	1 6	4 10.60	+19 16.3	1.854	2.672	14.1	19.6
<b>321050</b>	2008 <i>RY</i> <sub>27</sub>	12 3.7 173°32	4°7/ 1.9 18				<b>107457</b>	2001 <i>DS</i> <sub>24</sub>	12 3.7 3°92	2°7/ 3.2 18			
10 28	5 5.24	+ 7 24.6	2.545	3.337	11.8	21.0	10 28	5 7.92	+16 6.7	1.475	2.302	17.1	19.2
11 7	5 0.43	+ 6 48.4	2.467	3.338	9.4	20.8	11 7	5 3.84	+15 59.9	1.403	2.302	13.3	18.9
11 17	4 53.91	+ 6 17.4	2.412	3.340	6.9	20.6	11 17	4 56.78	+15 55.2	1.351	2.302	8.8	18.7
11 27	4 46.21	+ 5 54.7	2.386	3.341	5.0	20.5	11 27	4 47.56	+15 54.3	1.324	2.303	4.2	18.4
12 7	4 38.05	+ 5 42.6	2.388	3.342	5.1	20.5	12 7	4 37.43	+15 58.5	1.324	2.304	3.3	18.3
12 17	4 30.20	+ 5 42.3	2.420	3.342	6.9	20.7	12 17	4 27.81	+16 9.2	1.350	2.306	7.7	18.6
12 27	4 23.39	+ 5 54.5	2.480	3.342	9.4	20.8	12 27	4 20.07	+16 27.6	1.402	2.308	12.2	18.9
1 6	4 18.18	+ 6 18.1	2.564	3.342	11.8	21.0	1 6	4 15.12	+16 53.9	1.476	2.311	16.2	19.1
<b>129502</b>	1995 <i>MT</i> <sub>6</sub>	12 3.7 185°71	3°2/ 2.7 17				<b>188404</b>	2004 <i>EM</i> <sub>44</sub>	12 3.7 134°50	1°2/ 3.4 18			
10 28	5 5.49	+11 53.0	2.524	3.322	11.7	20.4	10 28	5 13.05	+20 6.4	1.884	2.686	15.0	21.5
11 7	5 0.69	+11 38.3	2.441	3.322	9.2	20.3	11 7	5 6.98	+19 48.6	1.814	2.700	11.5	21.3
11 17	4 54.12	+11 26.8	2.383	3.322	6.3	20.1	11 17	4 58.40	+19 28.2	1.766	2.713	7.5	21.0
11 27	4 46.31	+11 20.5	2.352	3.321	3.8	19.9	11 27	4 48.10	+19 5.9	1.746	2.725	3.2	20.8
12 7	4 38.00	+11 20.7	2.351	3.321	3.5	19.9	12 7	4 37.20	+18 43.5	1.755	2.737	2.0	20.7
12 17	4 29.96	+11 28.3	2.380	3.320	5.9	20.1	12 17	4 26.91	+18 23.1	1.794	2.748	6.2	21.0
12 27	4 22.99	+11 44.0	2.437	3.320	8.7	20.2	12 27	4 18.31	+18 7.7	1.860	2.758	10.2	21.3
1 6	4 17.67	+12 7.5	2.520	3.319	11.4	20.4	1 6	4 12.15	+17 59.3	1.952	2.768	13.6	21.5
<b>471210</b>	2010 <i>VW</i> <sub>11</sub>	12 3.7 5°81	0°7/29.8 17				<b>147459</b>	2004 <i>BV</i> <sub>48</sub>	12 3.7 182°66	0°9/ 4.0 18			
10 28	4 43.81	- 6 24.3	35.947	36.681	1.1	21.1	10 28	5 13.40	+25 46.7	1.810	2.610	15.6	20.9
11 7	4 43.07	- 6 29.6	35.878	36.682	0.9	21.0	11 7	5 7.66	+25 39.9	1.727	2.611	12.1	20.7
11 17	4 42.25	- 6 33.9	35.834	36.684	0.8	21.0	11 17	4 59.08	+25 25.7	1.667	2.612	8.0	20.5
11 27	4 41.36	- 6 36.9	35.816	36.685	0.7	21.0	11 27	4 48.46	+25 3.4	1.633	2.611	3.5	20.2
12 7	4 40.46	- 6 38.6	35.825	36.686	0.8	21.0	12 7	4 37.00	+24 33.6	1.627	2.610	1.7	20.1
12 17	4 39.56	- 6 38.9	35.861	36.688	0.8	21.0	12 17	4 26.08	+23 59.1	1.651	2.609	6.2	20.4
12 27	4 38.71	- 6 37.7	35.924	36.689	1.0	21.1	12 27	4 16.96	+23 24.1	1.703	2.607	10.5	20.6
1 6	4 37.95	- 6 35.0	36.010	36.690	1.1	21.1	1 6	4 10.51	+22 53.3	1.779	2.604	14.3	20.8
<b>379556</b>	2011 <i>AA</i> <sub>47</sub>	12 3.7 295°74	2°4/ 4.4 18				<b>356991</b>	1998 <i>QA</i> <sub>1</sub>	12 3.7 125°27	2°9/ 4.8 16			
10 28	5 10.90	+28 43.7	1.422	2.239	18.2	21.0	10 28	5 23.11	+31 52.7	2.157	2.917	14.6	23.7
11 7	5 6.74	+28 43.5	1.336	2.228	14.4	20.7	11 7	5 14.35	+31 56.1	2.091	2.948	11.5	23.6
11 17	4 59.01	+28 32.1	1.270	2.216	9.8	20.4	11 17	5 2.97	+31 48.4	2.049	2.977	7.9	23.4
11 27	4 48.57	+28 7.1	1.228	2.205	4.8	20.1	11 27	4 49.89	+31 27.0	2.035	3.004	4.4	23.2
12 7	4 36.87	+27 28.5	1.212	2.194	2.9	19.9	12 7	4 36.39	+30 52.1	2.053	3.029	3.0	23.2
12 17	4 25.67	+26 39.6	1.222	2.183	7.6	20.2	12 17	4 23.78	+30 6.7	2.103	3.053	5.7	23.4
12 27	4 16.68	+25 47.0	1.258	2.172	12.6	20.4	12 27	4 13.16	+29 15.9	2.183	3.076	9.1	23.6
1 6	4 11.02	+24 58.1	1.316	2.161	17.1	20.7	1 6	4 5.24	+28 25.5	2.289	3.096	12.1	23.9
<b>356527</b>	2011 <i>SH</i> <sub>104</sub>	12 3.7 283°76	7°9/ 5.4 17				<b>131283</b>	2001 <i>FX</i> <sub>96</sub>	12 3.7 178°30				

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$		
<b>73046</b>	Davidmann	12	3.7	146°46	3°2/	2.9	18	<b>321525</b>	2009 SD <sub>235</sub>	12	3.7	31°71	2°7/	4.2	18
10 28	5 10.42	+13 15.2	1.982	2.784	14.3	20.1	10 28	5 10.90	+26 29.6	1.103	1.942	21.0	19.7		
11 7	5 4.90	+13 3.3	1.907	2.791	11.1	19.9	11 7	5 7.05	+27 3.3	1.053	1.956	16.3	19.4		
11 17	4 57.05	+12 54.8	1.855	2.797	7.5	19.7	11 17	4 59.25	+27 28.9	1.021	1.972	10.9	19.2		
11 27	4 47.58	+12 51.5	1.830	2.803	4.2	19.5	11 27	4 48.64	+27 42.9	1.010	1.988	5.3	18.9		
12 7	4 37.47	+12 54.7	1.835	2.809	3.7	19.5	12 7	4 37.05	+27 43.8	1.024	2.006	3.2	18.9		
12 17	4 27.81	+13 5.4	1.868	2.814	6.8	19.7	12 17	4 26.51	+27 33.8	1.063	2.025	8.1	19.2		
12 27	4 19.62	+13 24.3	1.930	2.819	10.3	19.9	12 27	4 18.74	+27 18.2	1.125	2.044	13.2	19.6		
1 6	4 13.62	+13 51.2	2.015	2.823	13.5	20.2	1 6	4 14.68	+27 2.9	1.208	2.065	17.6	19.9		
<b>365633</b>	2010 UB <sub>79</sub>	12	3.7	89°97	2°3/	4.6	18	<b>181410</b>	2006 SE <sub>162</sub>	12	3.7	345°42	9°7/	1.3	18
10 28	5 9.72	+29 34.8	2.083	2.875	14.1	21.1	10 28	5 4.45	+ 1 4.3	1.552	2.362	17.3	19.5		
11 7	5 4.49	+29 40.1	2.008	2.885	11.0	20.9	11 7	5 0.93	- 0 2.3	1.483	2.355	14.4	19.3		
11 17	4 56.83	+29 36.9	1.955	2.894	7.5	20.7	11 17	4 54.79	- 0 55.6	1.434	2.349	11.7	19.2		
11 27	4 47.49	+29 23.6	1.929	2.903	3.9	20.5	11 27	4 46.76	- 1 28.6	1.408	2.343	9.9	19.0		
12 7	4 37.53	+29 0.3	1.932	2.912	2.5	20.4	12 7	4 37.93	- 1 35.7	1.406	2.338	10.1	19.0		
12 17	4 28.11	+28 29.3	1.965	2.921	5.6	20.6	12 17	4 29.53	- 1 15.0	1.428	2.334	12.1	19.1		
12 27	4 20.27	+27 54.2	2.025	2.930	9.1	20.9	12 27	4 22.73	- 0 27.7	1.474	2.330	15.0	19.3		
1 6	4 14.74	+27 19.5	2.111	2.938	12.2	21.1	1 6	4 18.37	+ 0 41.5	1.539	2.328	17.9	19.5		
<b>29807</b>	1999 CR <sub>99</sub>	12	3.7	282°00	0°5/	3.8	18	<b>64846</b>	2001 YA <sub>18</sub>	12	3.7	16°71	1°6/	3.3	18
10 28	5 8.72	+23 27.2	1.933	2.740	14.5	18.2	10 28	5 7.05	+18 52.1	1.835	2.651	14.8	19.5		
11 7	5 3.99	+23 33.0	1.845	2.734	11.2	18.0	11 7	5 2.62	+18 37.8	1.759	2.652	11.4	19.2		
11 17	4 56.69	+23 34.9	1.780	2.727	7.4	17.8	11 17	4 55.73	+18 22.1	1.705	2.654	7.4	19.0		
11 27	4 47.51	+23 32.2	1.741	2.720	3.1	17.5	11 27	4 47.10	+18 6.3	1.677	2.657	3.3	18.8		
12 7	4 37.49	+23 25.0	1.730	2.713	1.5	17.4	12 7	4 37.78	+17 52.1	1.678	2.659	2.3	18.7		
12 17	4 27.82	+23 14.7	1.748	2.707	5.9	17.6	12 17	4 28.91	+17 41.2	1.706	2.662	6.3	19.0		
12 27	4 19.65	+23 4.1	1.794	2.700	10.0	17.9	12 27	4 21.58	+17 36.1	1.762	2.665	10.3	19.2		
1 6	4 13.85	+22 56.0	1.864	2.693	13.6	18.1	1 6	4 16.56	+17 38.0	1.842	2.668	13.8	19.4		
<b>490947</b>	2011 CV <sub>97</sub>	12	3.7	167°42	2°6/	4.9	17	<b>382717</b>	2002 XG <sub>43</sub>	12	3.7	5°50	8°9/	2.5	18
10 28	5 8.19	+32 1.9	2.531	3.310	12.2	21.9	10 28	5 3.01	+ 6 57.7	0.983	1.839	21.6	20.0		
11 7	5 3.00	+32 1.7	2.444	3.311	9.7	21.8	11 7	5 0.99	+ 6 5.9	0.930	1.838	17.5	19.8		
11 17	4 55.73	+31 52.4	2.381	3.313	6.8	21.6	11 17	4 55.35	+ 5 27.6	0.894	1.839	13.1	19.5		
11 27	4 47.02	+31 32.6	2.345	3.314	3.9	21.4	11 27	4 47.09	+ 5 10.6	0.878	1.841	9.6	19.4		
12 7	4 37.77	+31 2.6	2.339	3.315	2.7	21.3	12 7	4 37.79	+ 5 20.6	0.883	1.846	9.4	19.4		
12 17	4 28.91	+30 24.1	2.363	3.316	5.0	21.5	12 17	4 29.25	+ 5 58.4	0.911	1.853	12.6	19.6		
12 27	4 21.36	+29 40.7	2.416	3.316	8.0	21.7	12 27	4 23.08	+ 7 1.3	0.958	1.861	16.8	19.9		
1 6	4 15.77	+28 56.4	2.495	3.317	10.8	21.9	1 6	4 20.29	+ 8 22.7	1.024	1.871	20.8	20.1		
<b>441745</b>	2009 BM <sub>139</sub>	12	3.7	99°98	2°6/	3.0	18	<b>518383</b>	2017 FZ <sub>160</sub>	12	3.7	247°11	0°7/	3.9	18
10 28	5 8.92	+16 23.9	1.805	2.618	15.1	21.2	10 28	5 7.00	+24 51.3	2.489	3.284	12.0	21.8		
11 7	5 4.01	+16 3.2	1.732	2.623	11.7	21.0	11 7	5 2.13	+24 52.8	2.394	3.276	9.3	21.6		
11 17	4 56.59	+15 43.0	1.681	2.628	7.7	20.8	11 17	4 55.23	+24 49.9	2.323	3.267	6.1	21.4		
11 27	4 47.42	+15 25.2	1.655	2.632	3.8	20.6	11 27	4 46.88	+24 42.0	2.280	3.258	2.7	21.1		
12 7	4 37.58	+15 11.7	1.659	2.637	3.2	20.5	12 7	4 37.88	+24 29.5	2.266	3.249	1.3	21.0		
12 17	4 28.22	+15 4.5	1.690	2.642	6.8	20.8	12 17	4 29.14	+24 13.6	2.283	3.240	4.8	21.3		
12 27	4 20.45	+15 5.3	1.749	2.646	10.8	21.0	12 27	4 21.56	+23 56.6	2.328	3.231	8.2	21.5		
1 6	4 15.05	+15 15.0	1.831	2.650	14.2	21.2	1 6	4 15.83	+23 41.2	2.400	3.221	11.2	21.6		
<b>88478</b>	2001 QA <sub>118</sub>	12	3.7	146°84	2°5/	2.9	18	<b>270962</b>	2002 VF <sub>93</sub>	12	3.7	18°49	2°7/	3.3	18
10 28	5 11.03	+18 4.7	1.755	2.566	15.5	20.1	10 28	5 7.27	+17 31.6	1.099	1.948	20.3	20.1		
11 7	5 5.65	+17 23.4	1.682	2.572	12.0	19.9	11 7	5 4.08	+17 17.2	1.043	1.953	15.7	19.8		
11 17	4 57.65	+16 39.8	1.631	2.578	7.9	19.7	11 17	4 57.26	+17 3.6	1.005	1.960	10.3	19.5		
11 27	4 47.85	+15 56.4	1.606	2.584	3.8	19.4	11 27	4 47.84	+16 52.8	0.989	1.969	4.7	19.3		
12 7	4 37.38	+15 16.3	1.610	2.589	3.2	19.4	12 7	4 37.45	+16 47.3	0.997	1.978	3.5	19.2		
12 17	4 27.49	+14 43.1	1.643	2.593	7.1	19.7	12 17	4 27.88	+16 49.2	1.029	1.988	8.8	19.6		
12 27	4 19.32	+14 19.8	1.703	2.597	11.1	19.9	12 27	4 20.76	+17 0.6	1.084	2.000	14.0	19.9		
1 6	4 13.63	+14 8.2	1.786	2.601	14.6	20.2	1 6	4 17.03	+17 21.9	1.159	2.012	18.4	20.2		
<b>516757</b>	2009 SM <sub>280</sub>	12	3.7	109°20	1°4/	4.1	18	<b>475040</b>	2005 UP <sub>59</sub>	12	3.7	132°70	1°1/	3.4	16
10 28	5 9.66	+26 5.1	2.366	3.157	12.6	21.9	10 28	5 12.94	+20 7.3	1.862	2.665	15.1	22.3		
11 7	5 4.12	+26 24.4	2.292	3.170	9.8	21.7	11 7	5 6.98	+19 55.2	1.791	2.678	11.6	22.1		
11 17	4 56.46	+26 39.0	2.241	3.182	6.5	21.6	11 17	4 58.47	+19 40.8	1.743	2.690	7.5	21.9		
11 27	4 47.33	+26 47.4	2.218	3.194	3.0	21.4	11 27	4 48.19	+19 24.5	1.723	2.702	3.2	21.7		
12 7	4 37.64	+26 49.3	2.225	3.206	1.8	21.3	12 7	4 37.30	+19 7.8	1.731	2.713	2.0	21.6		
12 17	4 28.36	+26 45.6	2.262	3.218	4.9	21.5	12 17	4 26.99	+18 52.7	1.769	2.724	6.2	21.9		
12 27	4 20.43	+26 38.4	2.328	3.229	8.2	21.8	12 27	4 18.39	+18 41.7	1.835	2.734	10.2	22.2		
1 6	4 14.51	+26 30.4	2.420	3.240	11.1	22.0	1 6	4 12.25	+18 37.0	1.925	2.743	13.6	22.4		
<b>6713</b>	Coggie	12	3.7	173°22	7°9/	30.3	18	<b>281971</b>	2011 GC <sub>70</sub>	12	3.7	120°15	2°1/	3.1	18
10 28	5 9.83	+ 7 19.3	1.718	2.524	16.0	17.6	10 28	5 11.06	+18 55.1	1.740	2.552	15.6	21.1		
11 7	5 4.67	+ 5 28.1	1.648	2.525	13.0	17.4	11 7	5 5.68	+18 20.7	1.671	2.562	12.0	20.9		
11 17	4 56.99	+ 3 40.7	1.602	2.527	10.0	17.2	11 17	4 57.67	+17 43.8	1.623	2.571	7.9	20.7		
11 27	4 47.58	+ 2 5.2	1.582	2.528	8.0	17.1	11 27	4 47.88	+17 6.4	1.602	2.581	3.6	20.4		
12 7	4 37.52	+ 0 48.8	1.589	2.529	8.5	17.1	12 7	4 37.46	+16 31.3	1.610	2.590	2.8	20.4		
12 17	4 28.00	- 0 3.3	1.623	2.529	10.9	17.2	12 17	4 27.65	+16 1.7	1.646	2.599	6.8	20.7		
12 27	4 20.12	- 0 29.1	1.683	2.529	13.9	17.4	12 27	4 19.59	+15 40.6	1.710	2.607	10.9	20.9		
1 6	4 14.62	- 0 30.4	1.763	2.529	16.8	17.6	1 6	4 14.04	+15 29.8	1.796	2.615	14.4	21.2		
<b>112998</b>	2002 RN <sub>37</sub>	12	3.7	123°21	3°6/	2.7	18	<b>263591</b>	2008 FT <sub>112</sub>	12	3.7	27°38	1°4/	3.3	18

EPHEMERIDES

12 3.7

12 3.8

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>208086</b>	1999 <i>XO</i> <sub>104</sub>	12	3.7	304°54	11.2°/ 3.8	18	<b>215185</b>	2000 <i>JD</i> <sub>83</sub>	12	3.7	258°64	1.4°/ 3.2	18
10 28	5 15.63	- 8 20.8	1.728	2.478	18.1	19.5	10 28	5 7.93	+20 39.3	1.984	2.793	14.1	20.9
11 7	5 9.58	- 8 19.7	1.633	2.457	15.8	19.3	11 7	5 3.22	+20 5.0	1.895	2.785	10.9	20.7
11 17	5 0.57	- 7 53.8	1.558	2.435	13.5	19.1	11 17	4 56.11	+19 26.4	1.829	2.778	7.1	20.5
11 27	4 49.24	- 6 56.2	1.505	2.413	11.6	18.9	11 27	4 47.30	+18 44.9	1.790	2.770	3.1	20.2
12 7	4 36.71	- 5 23.6	1.479	2.392	11.3	18.8	12 7	4 37.77	+18 3.1	1.780	2.762	2.2	20.1
12 17	4 24.36	- 3 17.8	1.480	2.371	12.8	18.9	12 17	4 28.62	+17 24.3	1.800	2.754	6.2	20.4
12 27	4 13.57	- 0 45.1	1.509	2.351	15.5	19.0	12 27	4 20.91	+16 51.8	1.846	2.746	10.1	20.6
1 6	4 5.41	+ 2 5.0	1.561	2.331	18.5	19.2	1 6	4 15.41	+16 28.4	1.918	2.738	13.6	20.8
<b>208094</b>	1999 <i>YC</i> <sub>10</sub>	12	3.7	37°28	1°6/ 3.3	18	<b>9429</b>	Poreč	12	3.7	72°18	0°7/ 3.9	18
10 28	5 8.63	+19 23.1	1.560	2.383	16.6	20.5	10 28	5 7.81	+25 1.6	2.151	2.952	13.4	18.1
11 7	5 4.18	+19 7.2	1.492	2.390	12.8	20.3	11 7	5 2.91	+24 59.9	2.074	2.959	10.3	17.9
11 17	4 56.89	+18 49.4	1.446	2.397	8.3	20.1	11 17	4 55.79	+24 52.9	2.021	2.966	6.8	17.7
11 27	4 47.61	+18 31.0	1.424	2.404	3.6	19.8	11 27	4 47.13	+24 40.3	1.995	2.974	2.9	17.5
12 7	4 37.58	+18 14.0	1.429	2.411	2.4	19.8	12 7	4 37.88	+24 22.7	1.998	2.981	1.4	17.4
12 17	4 28.16	+18 0.6	1.463	2.419	7.0	20.1	12 17	4 29.08	+24 1.8	2.030	2.988	5.2	17.6
12 27	4 20.59	+17 53.6	1.522	2.428	11.4	20.3	12 27	4 21.70	+23 40.6	2.091	2.996	8.8	17.9
1 6	4 15.70	+17 54.6	1.603	2.436	15.2	20.6	1 6	4 16.43	+23 22.0	2.177	3.003	12.0	18.1
<b>223595</b>	2004 <i>GG</i> <sub>36</sub>	12	3.7	239°59	2°7/ 4.3	18	<b>39547</b>	1992 <i>DE</i> <sub>7</sub>	12	3.7	286°83	8°1/ 1.4	18
10 28	5 13.67	+27 30.2	1.681	2.483	16.5	20.8	10 28	5 6.83	+ 2 58.9	1.804	2.604	15.6	19.2
11 7	5 8.42	+28 4.4	1.593	2.477	13.0	20.5	11 7	5 2.45	+ 2 0.8	1.727	2.596	12.9	19.0
11 17	4 59.95	+28 32.7	1.527	2.469	8.9	20.3	11 17	4 55.66	+ 1 12.6	1.671	2.589	10.2	18.8
11 27	4 49.00	+28 51.8	1.487	2.462	4.6	20.0	11 27	4 47.14	+ 0 40.1	1.640	2.581	8.3	18.7
12 7	4 36.85	+28 59.3	1.474	2.454	3.0	19.9	12 7	4 37.86	+ 0 27.9	1.635	2.573	8.4	18.7
12 17	4 25.07	+28 55.5	1.490	2.446	7.0	20.1	12 17	4 28.94	+ 0 38.1	1.656	2.565	10.5	18.8
12 27	4 15.20	+28 44.0	1.532	2.438	11.4	20.4	12 27	4 21.45	+ 1 10.5	1.702	2.557	13.4	19.0
1 6	4 8.30	+28 29.7	1.598	2.429	15.3	20.6	1 6	4 16.18	+ 2 1.8	1.770	2.550	16.2	19.1
<b>186346</b>	2002 <i>EK</i> <sub>112</sub>	12	3.7	90°37	5°1/ 2.1	18	<b>206415</b>	2003 <i>SM</i> <sub>116</sub>	12	3.7	17°17	4°1/ 4.8	18
10 28	5 6.19	+ 8 26.8	2.164	2.964	13.3	20.6	10 28	5 6.75	+30 17.0	1.124	1.963	20.7	19.4
11 7	5 1.40	+ 7 44.4	2.097	2.975	10.6	20.4	11 7	5 3.99	+30 43.5	1.071	1.972	16.3	19.2
11 17	4 54.65	+ 7 7.5	2.053	2.985	7.7	20.3	11 17	4 57.35	+30 57.0	1.035	1.983	11.3	19.0
11 27	4 46.60	+ 6 39.7	2.036	2.995	5.4	20.2	11 27	4 47.93	+30 53.7	1.021	1.995	6.2	18.7
12 7	4 38.08	+ 6 23.5	2.048	3.005	5.4	20.2	12 7	4 37.52	+30 33.1	1.030	2.009	4.3	18.7
12 17	4 29.99	+ 6 20.7	2.088	3.015	7.6	20.3	12 17	4 28.08	+29 58.7	1.064	2.025	8.3	18.9
12 27	4 23.17	+ 6 31.6	2.155	3.025	10.3	20.5	12 27	4 21.30	+29 17.5	1.121	2.042	13.0	19.3
1 6	4 18.21	+ 6 55.1	2.246	3.035	12.9	20.7	1 6	4 18.12	+28 37.0	1.198	2.061	17.3	19.6
<b>234774</b>	2002 <i>PM</i> <sub>117</sub>	12	3.7	100°08	5°7/ 1.6	18	<b>277028</b>	2005 <i>CO</i> <sub>5</sub>	12	3.7	316°09	6°5/ 5.9	18
10 28	5 10.12	+ 7 42.9	2.146	2.937	13.7	20.6	10 28	5 10.26	+40 24.2	2.137	2.899	14.7	20.4
11 7	5 4.18	+ 6 35.7	2.094	2.965	10.9	20.4	11 7	5 5.54	+41 2.8	2.045	2.888	12.3	20.2
11 17	4 56.31	+ 5 34.5	2.066	2.992	8.0	20.3	11 17	4 57.92	+41 27.7	1.973	2.877	9.7	20.0
11 27	4 47.22	+ 4 43.5	2.066	3.018	6.0	20.2	11 27	4 48.14	+41 34.1	1.927	2.866	7.4	19.8
12 7	4 37.83	+ 4 6.4	2.095	3.044	6.0	20.3	12 7	4 37.37	+41 19.4	1.907	2.856	6.5	19.8
12 17	4 29.04	+ 3 45.2	2.153	3.068	8.1	20.5	12 17	4 26.97	+40 44.2	1.914	2.846	7.8	19.8
12 27	4 21.66	+ 3 40.5	2.238	3.093	10.6	20.7	12 27	4 18.30	+39 52.8	1.948	2.836	10.3	20.0
1 6	4 16.23	+ 3 50.9	2.347	3.116	13.0	20.9	1 6	4 12.29	+38 52.2	2.006	2.826	13.1	20.1
<b>406291</b>	2007 <i>EB</i> <sub>219</sub>	12	3.7	99°11	3°8/ 5.0	18	<b>75512</b>	1999 <i>XW</i> <sub>202</sub>	12	3.7	338°09	8°1/ 6.7	18
10 28	5 10.99	+33 29.4	2.299	3.075	13.4	21.5	10 28	5 11.30	+41 48.7	1.527	2.307	18.8	18.5
11 7	5 5.42	+34 0.5	2.224	3.086	10.7	21.4	11 7	5 7.39	+42 17.9	1.444	2.298	15.9	18.3
11 17	4 57.45	+34 22.2	2.172	3.097	7.7	21.2	11 17	4 59.62	+42 26.7	1.380	2.290	12.5	18.0
11 27	4 47.81	+34 31.6	2.146	3.108	4.9	21.0	11 27	4 48.93	+42 8.1	1.339	2.282	9.5	17.9
12 7	4 37.51	+34 27.5	2.150	3.119	3.9	21.0	12 7	4 37.01	+41 19.2	1.321	2.275	8.1	17.8
12 17	4 27.68	+34 10.9	2.183	3.130	5.9	21.1	12 17	4 25.82	+40 2.4	1.329	2.269	9.7	17.8
12 27	4 19.37	+33 45.2	2.244	3.140	8.7	21.3	12 27	4 17.16	+38 26.5	1.362	2.263	12.9	18.0
1 6	4 13.32	+33 14.9	2.330	3.150	11.5	21.5	1 6	4 12.13	+36 43.2	1.417	2.258	16.4	18.2
<b>470062</b>	2006 <i>SK</i> <sub>239</sub>	12	3.7	90°39	1°8/ 3.3	16	<b>177706</b>	2005 <i>GE</i> <sub>90</sub>	12	3.8	124°93	3°1/ 4.7	18
10 28	5 15.11	+19 13.7	1.486	2.300	17.7	22.2	10 28	5 16.93	+30 26.6	1.740	2.530	16.5	21.0
11 7	5 8.98	+18 53.2	1.432	2.325	13.6	22.0	11 7	5 10.49	+30 44.2	1.671	2.545	13.0	20.8
11 17	4 59.85	+18 30.8	1.399	2.348	8.8	21.8	11 17	5 0.97	+30 51.5	1.624	2.560	9.0	20.6
11 27	4 48.76	+18 7.8	1.392	2.372	3.8	21.5	11 27	4 49.31	+30 45.5	1.603	2.575	4.9	20.4
12 7	4 37.11	+17 46.4	1.413	2.394	2.6	21.5	12 7	4 36.89	+30 25.5	1.610	2.588	3.3	20.3
12 17	4 26.37	+17 29.2	1.462	2.417	7.2	21.9	12 17	4 25.23	+29 53.8	1.647	2.601	6.6	20.6
12 27	4 17.81	+17 19.2	1.537	2.439	11.6	22.2	12 27	4 15.69	+29 15.6	1.711	2.614	10.6	20.8
1 6	4 12.17	+17 18.1	1.635	2.460	15.3	22.5	1 6	4 9.10	+28 37.0	1.799	2.625	14.1	21.1
<b>215622</b>	2003 <i>SJ</i> <sub>223</sub>	12	3.7	80°65	3°7/ 2.7	18	<b>229451</b>	2005 <i>UH</i> <sub>148</sub>	12	3.8	152°97	0°9/ 3.4	18
10 28	5 13.05	+17 0.2	1.367	2.191	18.5	20.1	10 28	5 12.02	+21 53.1	1.850	2.654	15.1	21.0
11 7	5 7.57	+16 2.8	1.314	2.211	14.2	19.9	11 7	5 6.39	+21 23.9	1.773	2.661	11.6	20.8
11 17	4 59.00	+15 4.2	1.282	2.231	9.4	19.7	11 17	4 58.16	+20 49.6	1.719	2.667	7.6	20.6
11 27	4 48.42	+14 8.8	1.274	2.251	4.9	19.5	11 27	4 48.14	+20 11.5	1.693	2.672	3.1	20.3
12 7	4 37.27	+13 21.2	1.294	2.270	4.4	19.5	12 7	4 37.46	+19 31.6	1.695	2.677	1.9	20.2
12 17	4 27.07	+12 45.8	1.340	2.290	8.5	19.8	12 17	4 27.35	+18 53.4	1.726	2.682	6.3	20.5
12 27	4 19.10	+12 25.6	1.412	2.309	12.8	20.1	12 27	4 18.94	+18 20.7	1.786	2.686	10.4	20.8
1 6	4 14.09	+12 20.9	1.505	2.327	16.6	20.4	1 6	4 12.99	+17 56.4	1.869	2.689	13.9	21.0
<b>457390</b>	2008 <i>TR</i> <sub>60</sub>	12	3.7	53°89	3°4/ 2.3	18	<b>21509</b>	Lucascavin	12	3.8	355°55	0°1/ 3.8	1

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12 3.8

12 3.8

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>414362</b>	2008 <i>TF</i> <sub>128</sub>	12	3.8 331°04	4.9/ 1.4	17		<b>3812</b>	Lidaksum	12	3.8 281°76	6.7/ 1.9	18	
10 28	5 3.91	+12 3.7	2.075	2.888	13.4	21.0	10 28	5 5.50	+1 14.4	2.395	3.176	12.8	16.6
11 7	4 59.92	+10 48.5	1.993	2.880	10.6	20.8	11 7	5 0.90	+0 45.2	2.308	3.164	10.6	16.4
11 17	4 53.87	+9 33.7	1.933	2.872	7.5	20.6	11 17	4 54.43	+0 26.0	2.244	3.153	8.4	16.2
11 27	4 46.38	+8 24.0	1.901	2.865	5.2	20.4	11 27	4 46.63	+0 20.4	2.207	3.141	6.9	16.1
12 7	4 38.30	+7 24.0	1.897	2.858	5.4	20.4	12 7	4 38.24	+0 31.0	2.197	3.130	6.9	16.1
12 17	4 30.57	+6 37.8	1.922	2.852	7.9	20.6	12 17	4 30.07	+0 58.7	2.215	3.118	8.5	16.2
12 27	4 24.08	+6 8.0	1.973	2.845	11.0	20.7	12 27	4 22.95	+1 42.7	2.259	3.107	10.8	16.3
1 6	4 19.51	+5 54.9	2.047	2.840	13.9	20.9	1 6	4 17.52	+2 40.7	2.328	3.095	13.2	16.5
<b>66464</b>	1999 <i>RS</i> <sub>14</sub>	12	3.8 87°46	0°2/ 3.7	18		<b>482720</b>	2013 <i>EP</i> <sub>18</sub>	12	3.8 278°76	5.4/ 1.8	18	
10 28	5 12.75	+23 8.0	1.781	2.586	15.6	19.6	10 28	5 6.69	+10 17.3	1.882	2.692	14.7	21.4
11 7	5 6.83	+22 48.9	1.722	2.610	11.9	19.4	11 7	5 2.27	+9 18.8	1.802	2.687	11.6	21.2
11 17	4 58.33	+22 24.6	1.686	2.633	7.7	19.2	11 17	4 55.52	+8 23.5	1.745	2.682	8.4	21.0
11 27	4 48.15	+21 55.6	1.676	2.656	3.1	19.0	11 27	4 47.12	+7 36.0	1.714	2.676	5.8	20.9
12 7	4 37.50	+21 23.7	1.696	2.679	1.6	18.9	12 7	4 38.04	+7 0.5	1.711	2.671	5.9	20.9
12 17	4 27.61	+20 52.1	1.744	2.702	6.0	19.2	12 17	4 29.33	+6 40.1	1.735	2.666	8.5	21.0
12 27	4 19.58	+20 24.1	1.821	2.724	10.0	19.5	12 27	4 22.04	+6 36.5	1.786	2.661	11.8	21.2
1 6	4 14.06	+20 2.8	1.921	2.745	13.4	19.8	1 6	4 16.90	+6 49.0	1.859	2.655	14.9	21.4
<b>298708</b>	2004 <i>EJ</i> <sub>92</sub>	12	3.8 353°71	4.5/ 4.8	17		<b>145326</b>	2005 <i>LB</i> <sub>33</sub>	12	3.8 355°08	0.3/ 3.8	18	
10 28	5 5.96	+31 7.2	1.307	2.135	18.9	19.6	10 28	5 12.04	+19 56.9	1.671	2.483	16.2	19.6
11 7	5 3.28	+31 40.4	1.233	2.127	15.1	19.3	11 7	5 7.00	+20 46.7	1.591	2.482	12.5	19.3
11 17	4 56.96	+32 2.2	1.178	2.121	10.7	19.1	11 17	4 58.96	+21 38.9	1.532	2.481	8.2	19.1
11 27	4 47.88	+32 8.3	1.145	2.116	6.3	18.8	11 27	4 48.66	+22 30.9	1.500	2.480	3.4	18.8
12 7	4 37.55	+31 56.6	1.136	2.113	4.7	18.7	12 7	4 37.27	+23 20.2	1.495	2.479	1.7	18.7
12 17	4 27.79	+31 28.8	1.153	2.111	8.2	18.9	12 17	4 26.22	+24 5.1	1.520	2.479	6.5	19.0
12 27	4 20.34	+30 50.9	1.193	2.111	12.8	19.2	12 27	4 16.93	+24 45.7	1.572	2.479	11.0	19.2
1 6	4 16.32	+30 10.3	1.254	2.112	17.0	19.4	1 6	4 10.39	+25 23.6	1.647	2.479	14.9	19.5
<b>273078</b>	2006 <i>EG</i> <sub>7</sub>	12	3.8 136°32	3°7/ 2.3	18		<b>227237</b>	2005 <i>SR</i> <sub>22</sub>	12	3.8 126°69	0°7/ 3.6	18	
10 28	5 5.27	+11 29.1	2.457	3.257	12.0	21.3	10 28	5 13.47	+20 31.6	1.752	2.558	15.8	21.1
11 7	5 0.57	+10 53.7	2.380	3.261	9.4	21.2	11 7	5 7.63	+20 29.7	1.682	2.570	12.1	20.9
11 17	4 54.10	+10 21.2	2.328	3.265	6.5	21.0	11 17	4 59.06	+20 25.6	1.634	2.582	7.9	20.7
11 27	4 46.43	+9 54.1	2.303	3.269	4.2	20.9	11 27	4 48.57	+20 19.3	1.613	2.593	3.3	20.4
12 7	4 38.30	+9 34.7	2.307	3.273	4.1	20.9	12 7	4 37.39	+20 11.5	1.620	2.603	1.8	20.3
12 17	4 30.50	+9 24.7	2.342	3.277	6.3	21.0	12 17	4 26.80	+20 4.0	1.657	2.614	6.4	20.7
12 27	4 23.81	+9 25.1	2.404	3.281	9.1	21.2	12 27	4 18.03	+19 59.2	1.721	2.623	10.6	20.9
1 6	4 18.78	+9 35.8	2.490	3.284	11.6	21.4	1 6	4 11.86	+19 59.5	1.809	2.632	14.2	21.2
<b>512249</b>	2016 <i>BD</i> <sub>82</sub>	12	3.8 172°78	13°7/ 7.8	17		<b>382420</b>	1998 <i>RC</i> <sub>13</sub>	12	3.8 29°77	0°9/ 3.6	16	
10 28	5 28.13	+50 14.6	1.397	2.132	22.3	21.9	10 28	5 8.84	+21 27.3	1.089	1.935	20.6	20.8
11 7	5 22.06	+51 50.5	1.329	2.134	19.7	21.8	11 7	5 5.30	+21 15.2	1.039	1.948	15.9	20.6
11 17	5 10.17	+53 2.0	1.276	2.136	17.0	21.6	11 17	4 58.05	+20 58.9	1.007	1.963	10.3	20.3
11 27	4 53.56	+53 34.8	1.243	2.137	14.7	21.4	11 27	4 48.24	+20 39.4	0.997	1.978	4.2	20.1
12 7	4 34.82	+53 18.9	1.232	2.138	13.7	21.4	12 7	4 37.58	+20 18.8	1.011	1.995	2.3	20.0
12 17	4 17.31	+52 14.0	1.244	2.138	14.5	21.4	12 17	4 27.93	+20 0.6	1.051	2.013	8.2	20.4
12 27	4 3.96	+50 31.6	1.278	2.138	16.6	21.6	12 27	4 20.85	+19 48.8	1.113	2.031	13.4	20.7
1 6	3 56.20	+48 29.0	1.332	2.137	19.2	21.7	1 6	4 17.22	+19 45.9	1.196	2.051	17.8	21.1
<b>300775</b>	2007 <i>VN</i> <sub>261</sub>	12	3.8 289°92	2°2/ 4.4	18		<b>507886</b>	2014 <i>PH</i> <sub>53</sub>	12	3.8 114°30	15°5/ 8.7	17	
10 28	5 10.31	+27 49.1	1.813	2.617	15.4	21.0	10 28	5 28.33	+52 9.4	1.268	2.005	24.1	21.7
11 7	5 5.51	+28 4.8	1.729	2.612	12.1	20.8	11 7	5 22.98	+53 58.3	1.208	2.010	21.5	21.5
11 17	4 57.87	+28 13.2	1.666	2.608	8.2	20.6	11 17	5 11.19	+55 20.0	1.162	2.015	18.8	21.3
11 27	4 48.13	+28 12.3	1.628	2.604	4.1	20.3	11 27	4 54.11	+55 58.2	1.135	2.020	16.6	21.2
12 7	4 37.46	+28 1.4	1.619	2.600	2.5	20.2	12 7	4 34.71	+55 41.8	1.127	2.024	15.5	21.1
12 17	4 27.21	+27 41.9	1.638	2.596	6.3	20.4	12 17	4 16.85	+54 30.7	1.141	2.029	16.0	21.2
12 27	4 18.69	+27 17.6	1.684	2.592	10.4	20.7	12 27	4 3.76	+52 38.1	1.176	2.033	17.9	21.3
1 6	4 12.81	+26 53.1	1.754	2.588	14.1	20.9	1 6	3 56.87	+50 23.3	1.229	2.037	20.4	21.5
<b>30746</b>	1981 <i>EG</i> <sub>24</sub>	12	3.8 175°56	0°7/ 4.0	18		<b>387156</b>	2012 <i>TR</i> <sub>240</sub>	12	3.8 285°82	2°0/ 3.3	18	
10 28	5 9.61	+25 5.0	2.373	3.165	12.6	20.2	10 28	5 9.41	+18 24.9	1.603	2.423	16.4	21.4
11 7	5 4.15	+25 1.4	2.287	3.167	9.7	20.0	11 7	5 5.05	+18 9.5	1.515	2.410	12.8	21.2
11 17	4 56.55	+24 52.7	2.225	3.168	6.4	19.8	11 17	4 57.73	+17 52.9	1.448	2.398	8.4	20.9
11 27	4 47.48	+24 38.3	2.191	3.170	2.8	19.6	11 27	4 48.17	+17 36.4	1.406	2.386	3.8	20.6
12 7	4 37.80	+24 18.9	2.187	3.170	1.3	19.5	12 7	4 37.55	+17 21.7	1.392	2.373	2.8	20.5
12 17	4 28.50	+23 56.1	2.214	3.170	5.0	19.7	12 17	4 27.28	+17 11.4	1.405	2.361	7.4	20.7
12 27	4 20.50	+23 32.7	2.269	3.170	8.4	20.0	12 27	4 18.73	+17 7.9	1.444	2.349	12.0	21.0
1 6	4 14.49	+23 11.6	2.351	3.170	11.4	20.2	1 6	4 12.89	+17 13.2	1.506	2.337	16.1	21.2
<b>300389</b>	2007 <i>RL</i> <sub>202</sub>	12	3.8 170°77	3°5/ 2.5	18		<b>234676</b>	2002 <i>GA</i> <sub>52</sub>	12	3.8 161°61	0°2/ 3.7	18	
10 28	5 9.05	+14 9.9	2.096	2.899	13.6	21.7	10 28	5 11.12	+22 6.8	2.022	2.823	14.1	21.1
11 7	5 3.77	+13 25.9	2.017	2.902	10.6	21.5	11 7	5 5.61	+22 1.2	1.942	2.828	10.9	20.9
11 17	4 56.33	+12 42.6	1.962	2.904	7.2	21.3	11 17	4 57.67	+21 52.0	1.885	2.832	7.1	20.7
11 27	4 47.38	+12 2.9	1.935	2.906	4.2	21.1	11 27	4 48.02	+21 39.3	1.855	2.835	2.9	20.4
12 7	4 37.86	+11 29.8	1.937	2.908	4.0	21.1	12 7	4 37.69	+21 23.8	1.855	2.838	1.5	20.3
12 17	4 28.76	+11 6.0	1.968	2.909	6.9	21.3	12 17	4 27.80	+21 7.5	1.884	2.841	5.7	20.6
12 27	4 21.03	+10 53.4	2.027	2.909	10.2	21.5	12 27	4 19.44	+20 52.9	1.941	2.843	9.6	20.8
1 6	4 15.34	+10 52.5	2.110	2.910	13.2	21.7	1 6	4 13.35	+20 42.7	2.024	2.845	12.9	21.1
<b>490977</b>	2011 <i>EK</i> <sub>72</sub>	12	3.8 256°19	1°8/ 4.3	18		<b>509591</b>	2008 <i>DY</i> <sub>24</sub>	12	3.8 259°08	1°2/ 4.2	18	

EPHEMERIDES

12 3.8

12 3.8

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>34029</b>	2000 OX <sub>25</sub>	12	3.8 239°26	3°3/ 4.8 18			<b>154404</b>	2003 AU <sub>56</sub>	12	3.8 312°59	2°5/ 4.4 18		
10 28	5 10.42	+31 24.2	2.016	2.806	14.6	18.8	10 28	5 9.77	+27 53.9	1.400	2.222	18.2	19.8
11 7	5 5.38	+31 41.8	1.932	2.805	11.6	18.6	11 7	5 6.07	+28 6.5	1.314	2.208	14.4	19.5
11 17	4 57.68	+31 50.0	1.870	2.805	8.1	18.4	11 17	4 58.81	+28 10.3	1.247	2.194	9.9	19.2
11 27	4 48.07	+31 46.2	1.835	2.804	4.7	18.2	11 27	4 48.77	+28 2.2	1.203	2.180	4.9	18.9
12 7	4 37.66	+31 29.7	1.828	2.804	3.4	18.1	12 7	4 37.37	+27 41.4	1.185	2.167	2.9	18.7
12 17	4 27.68	+31 1.9	1.849	2.803	6.1	18.2	12 17	4 26.37	+27 10.1	1.193	2.154	7.6	19.0
12 27	4 19.35	+30 27.0	1.899	2.803	9.6	18.5	12 27	4 17.52	+26 33.7	1.226	2.142	12.7	19.2
1 6	4 13.49	+29 49.9	1.973	2.802	12.9	18.7	1 6	4 11.99	+25 58.7	1.281	2.130	17.3	19.5
<b>101896</b>	1999 PM <sub>3</sub>	12	3.8 66°64	2°5/ 4.5 18			<b>56360</b>	2000 AP <sub>239</sub>	12	3.8 312°46	20°0/ 4.2 18		
10 28	5 15.08	+28 31.4	1.305	2.122	19.6	19.8	10 28	5 15.30	-17 13.7	1.115	1.872	25.7	17.8
11 7	5 9.74	+28 36.9	1.250	2.141	15.2	19.6	11 7	5 10.42	-18 23.8	1.059	1.865	23.7	17.6
11 17	5 0.77	+28 31.4	1.215	2.160	10.2	19.4	11 17	5 1.62	-18 55.5	1.017	1.859	21.7	17.4
11 27	4 49.33	+28 12.4	1.203	2.180	5.0	19.1	11 27	4 49.89	-18 34.4	0.990	1.853	20.3	17.3
12 7	4 37.13	+27 40.7	1.218	2.199	2.9	19.0	12 7	4 36.89	-17 12.4	0.981	1.847	20.1	17.3
12 17	4 26.00	+27 0.1	1.259	2.219	7.4	19.4	12 17	4 24.59	-14 50.3	0.991	1.842	21.1	17.3
12 27	4 17.46	+26 17.2	1.326	2.239	12.2	19.7	12 27	4 14.80	-11 38.7	1.020	1.837	23.1	17.5
1 6	4 12.35	+25 38.5	1.414	2.258	16.2	20.0	1 6	4 8.68	-7 54.7	1.067	1.832	25.5	17.6
<b>331294</b>	2011 EH <sub>7</sub>	12	3.8 33°25	7°0/ 1.3 17			<b>107210</b>	2001 BX <sub>39</sub>	12	3.8 181°83	0°6/ 4.0 18		
10 28	5 4.75	+1 38.9	2.311	3.097	13.1	21.0	10 28	5 11.24	+26 24.9	2.072	2.867	14.0	20.0
11 7	5 0.31	+0 46.7	2.239	3.097	10.8	20.9	11 7	5 5.69	+25 54.8	1.987	2.868	10.9	19.8
11 17	4 54.03	+0 3.7	2.189	3.097	8.6	20.7	11 17	4 57.73	+25 16.2	1.924	2.868	7.2	19.5
11 27	4 46.49	-0 25.7	2.165	3.097	7.2	20.7	11 27	4 48.08	+24 29.4	1.889	2.868	3.1	19.3
12 7	4 38.45	-0 38.2	2.169	3.097	7.3	20.7	12 7	4 37.79	+23 36.3	1.884	2.868	1.4	19.2
12 17	4 30.74	-0 32.4	2.200	3.097	8.9	20.8	12 17	4 28.01	+22 40.4	1.909	2.867	5.6	19.4
12 27	4 24.14	-0 8.6	2.257	3.097	11.1	20.9	12 27	4 19.78	+21 46.4	1.963	2.865	9.4	19.7
1 6	4 19.26	+0 31.2	2.337	3.097	13.3	21.1	1 6	4 13.85	+20 58.5	2.042	2.864	12.8	19.9
<b>504074</b>	2006 AD	12	3.8 228°22	39°8/28.0 17			<b>233677</b>	2008 RJ <sub>70</sub>	12	3.8 246°76	0°7/ 4.1 18		
10 28	6 56.77	-65 33.7	1.268	1.547	39.8	19.8	10 28	5 7.12	+26 38.0	2.536	3.327	11.9	20.1
11 7	6 40.20	-68 31.4	1.241	1.530	40.2	19.8	11 7	5 2.22	+26 15.9	2.439	3.319	9.2	19.9
11 17	6 7.93	-70 48.2	1.207	1.508	40.9	19.7	11 17	4 55.35	+25 46.9	2.367	3.310	6.1	19.6
11 27	5 19.26	-71 47.3	1.166	1.479	41.7	19.6	11 27	4 47.09	+25 10.9	2.322	3.300	2.7	19.4
12 7	4 23.03	-70 50.3	1.120	1.444	42.9	19.5	12 7	4 38.26	+24 29.3	2.308	3.291	1.3	19.3
12 17	3 34.16	-67 41.2	1.070	1.403	44.4	19.4	12 17	4 29.74	+23 44.4	2.324	3.282	4.7	19.5
12 27	3 0.73	-62 32.2	1.018	1.356	46.3	19.3	12 27	4 22.40	+22 59.6	2.370	3.272	8.1	19.7
1 6	2 41.47	-55 43.4	0.967	1.301	48.7	19.1	1 6	4 16.88	+22 18.4	2.442	3.262	11.0	19.9
<b>9971</b>	Ishihara	12	3.8 159°89	1°5/ 4.1 18 R			<b>61942</b>	2000 RP <sub>12</sub>	12	3.8 101°01	2°4/ 4.3 18		
10 28	5 15.73	+25 50.5	1.615	2.419	17.0	17.7	10 28	5 17.70	+26 58.4	1.484	2.289	18.2	19.1
11 7	5 9.86	+26 0.8	1.539	2.424	13.3	17.4	11 7	5 11.50	+27 27.5	1.423	2.308	14.2	18.9
11 17	5 0.79	+26 4.5	1.485	2.429	8.8	17.2	11 17	5 1.88	+27 49.3	1.383	2.326	9.5	18.7
11 27	4 49.40	+25 59.5	1.455	2.433	4.0	16.9	11 27	4 49.86	+28 0.3	1.367	2.344	4.6	18.4
12 7	4 37.06	+25 45.4	1.454	2.437	2.1	16.8	12 7	4 36.99	+27 59.3	1.380	2.361	2.8	18.4
12 17	4 25.34	+25 24.3	1.482	2.440	6.7	17.1	12 17	4 24.98	+27 47.8	1.420	2.377	7.1	18.7
12 27	4 15.68	+25 0.6	1.536	2.443	11.3	17.4	12 27	4 15.33	+27 30.5	1.487	2.394	11.5	19.0
1 6	4 9.04	+24 39.0	1.614	2.444	15.2	17.6	1 6	4 8.96	+27 12.7	1.576	2.409	15.4	19.2
<b>299421</b>	2005 YM <sub>109</sub>	12	3.8 352°11	0°4/ 3.6 18			<b>484327</b>	2007 TN <sub>346</sub>	12	3.8 344°07	6°9/ 4.5 17		
10 28	5 2.86	+21 38.1	2.821	3.621	10.6	21.2	10 28	5 12.96	+33 37.0	1.482	2.285	18.3	21.4
11 7	4 58.70	+21 27.3	2.734	3.619	8.1	21.0	11 7	5 8.79	+35 8.5	1.403	2.278	15.0	21.2
11 17	4 52.93	+21 14.0	2.671	3.618	5.3	20.9	11 17	5 0.80	+36 32.4	1.344	2.272	11.2	20.9
11 27	4 46.03	+20 58.6	2.637	3.617	2.2	20.6	11 27	4 49.70	+37 40.6	1.308	2.266	7.9	20.7
12 7	4 38.69	+20 42.1	2.632	3.615	1.2	20.6	12 7	4 36.96	+38 26.2	1.298	2.261	7.0	20.7
12 17	4 31.60	+20 25.9	2.658	3.615	4.3	20.8	12 17	4 24.53	+38 46.7	1.314	2.257	9.5	20.8
12 27	4 25.47	+20 11.8	2.713	3.614	7.2	21.0	12 27	4 14.36	+38 45.6	1.355	2.253	13.2	21.0
1 6	4 20.83	+20 1.2	2.794	3.613	9.8	21.2	1 6	4 7.81	+38 30.4	1.417	2.251	16.8	21.2
<b>112015</b>	2002 GX <sub>163</sub>	12	3.8 165°75	0°2/ 3.7 18			<b>492275</b>	2013 XP <sub>15</sub>	12	3.8 20°99	0°2/ 3.8 16		
10 28	5 14.66	+21 52.2	1.752	2.555	15.9	20.9	10 28	5 8.29	+23 16.1	1.066	1.913	20.9	21.2
11 7	5 8.72	+21 52.9	1.674	2.560	12.3	20.7	11 7	5 5.18	+23 14.6	1.010	1.921	16.2	20.9
11 17	4 59.90	+21 50.2	1.618	2.564	8.0	20.5	11 17	4 58.21	+23 7.0	0.973	1.929	10.6	20.6
11 27	4 49.01	+21 43.7	1.588	2.568	3.3	20.2	11 27	4 48.45	+22 53.1	0.957	1.939	4.4	20.3
12 7	4 37.28	+21 33.9	1.588	2.571	1.6	20.1	12 7	4 37.67	+22 34.2	0.965	1.949	2.0	20.2
12 17	4 26.08	+21 22.3	1.616	2.573	6.4	20.4	12 17	4 27.82	+22 13.6	0.998	1.961	8.2	20.6
12 27	4 16.70	+21 12.2	1.672	2.575	10.8	20.6	12 27	4 20.59	+21 56.4	1.053	1.974	13.7	21.0
1 6	4 10.02	+21 6.3	1.752	2.576	14.5	20.9	1 6	4 16.98	+21 46.4	1.128	1.988	18.3	21.3
<b>180719</b>	2004 JR <sub>21</sub>	12	3.8 292°15	1°2/ 4.1 18			<b>102011</b>	1999 RR <sub>84</sub>	12	3.8 76°47	6°2/ 5.6 18		
10 28	5 9.42	+25 1.0	1.937	2.741	14.5	20.5	10 28	5 18.42	+36 3.8	1.399	2.192	19.7	19.2
11 7	5 4.63	+25 15.0	1.851	2.737	11.3	20.3	11 7	5 12.54	+36 42.0	1.343	2.212	15.9	19.0
11 17	4 57.23	+25 24.4	1.787	2.733	7.5	20.1	11 17	5 2.75	+37 3.6	1.306	2.231	11.7	18.8
11 27	4 47.93	+25 27.9	1.750	2.729	3.4	19.8	11 27	4 50.24	+37 2.5	1.292	2.251	7.8	18.7
12 7	4 37.78	+25 25.0	1.742	2.725	1.8	19.7	12 7	4 36.86	+36 36.8	1.304	2.271	6.3	18.6
12 17	4 27.99	+25 16.8	1.762	2.721	5.8	20.0	12 17	4 24.59	+35 49.6	1.342	2.290	8.6	18.8
12 27	4 19.74	+25 6.1	1.810	2.717	9.9	20.2	12 27	4 15.11	+34 49.4	1.405	2.309	12.4	19.1
1 6	4 13.89	+24 56.2	1.883	2.713	13.4	20.4	1 6	4 9.33	+33 45.9	1.492	2.328	15.9	19.4
<b>337603</b>	2001 TB <sub>5</sub>	12	3.8 341°24	9°3/ 5.1 18			<b>369914</b>	2013 CF <sub>176</sub>	12	3.8 269°04	8°2/ 6.0 17		
10 28	5 10.01	+37 10.4	1.213	2.027	20.9	19.7							



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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>131088</b>	2000 YZ <sub>131</sub>	12 3.8 261°10	1°1/ 3.5 17				<b>460508</b>	2014 SA <sub>334</sub>	12 3.8 72°98	1°6/ 3.2 18			
10 28	5 7.16	+19 28.4	2.229	3.033	12.9	20.1	10 28	5 7.03	+19 6.2	2.209	3.014	13.0	21.1
11 7	5 2.46	+19 21.0	2.140	3.028	9.9	19.9	11 7	5 2.13	+18 37.2	2.142	3.030	9.9	20.9
11 17	4 55.63	+19 12.3	2.075	3.022	6.5	19.7	11 17	4 55.24	+18 6.5	2.099	3.046	6.5	20.7
11 27	4 47.26	+19 2.8	2.037	3.016	2.8	19.4	11 27	4 47.04	+17 35.4	2.083	3.062	2.9	20.5
12 7	4 38.22	+18 53.5	2.028	3.011	1.8	19.3	12 7	4 38.41	+17 6.2	2.097	3.078	2.2	20.5
12 17	4 29.47	+18 45.9	2.049	3.005	5.5	19.6	12 17	4 30.27	+16 40.9	2.141	3.094	5.5	20.8
12 27	4 21.97	+18 41.7	2.099	2.999	9.1	19.8	12 27	4 23.45	+16 21.9	2.213	3.110	8.8	21.0
1 6	4 16.42	+18 42.6	2.173	2.993	12.2	20.0	1 6	4 18.56	+16 10.6	2.310	3.126	11.7	21.2
<b>77208</b>	2001 FG <sub>21</sub>	12 3.8 203°43	6°3/ 1.6 18				<b>160051</b>	1999 TB <sub>260</sub>	12 3.8 53°56	0°1/ 3.8 18			
10 28	5 7.94	+ 4 56.5	2.235	3.024	13.4	19.5	10 28	5 17.89	+19 36.3	1.396	2.209	18.7	19.0
11 7	5 2.87	+ 4 3.6	2.154	3.020	10.9	19.3	11 7	5 11.34	+20 25.8	1.354	2.245	14.3	18.8
11 17	4 55.79	+ 3 17.6	2.097	3.016	8.3	19.2	11 17	5 1.57	+21 15.4	1.333	2.281	9.2	18.6
11 27	4 47.30	+ 2 42.6	2.066	3.011	6.5	19.1	11 27	4 49.68	+22 2.0	1.337	2.317	3.8	18.4
12 7	4 38.21	+ 2 22.3	2.063	3.006	6.6	19.1	12 7	4 37.22	+22 43.3	1.370	2.353	1.7	18.4
12 17	4 29.44	+ 2 18.6	2.089	3.000	8.6	19.2	12 17	4 25.81	+23 18.5	1.431	2.390	6.8	18.8
12 27	4 21.86	+ 2 32.0	2.142	2.994	11.1	19.3	12 27	4 16.78	+23 49.2	1.518	2.425	11.3	19.1
1 6	4 16.14	+ 3 0.9	2.218	2.987	13.7	19.5	1 6	4 10.92	+24 17.7	1.629	2.461	15.0	19.4
<b>16801</b>	Petrínpragensis	12 3.8 23°02	1°8/ 3.3 18				<b>226111</b>	2002 PH <sub>120</sub>	12 3.8 17°43	5°5/ 6.1 18			
10 28	5 8.72	+19 58.5	1.356	2.188	18.1	18.6	10 28	5 7.47	+37 9.0	1.546	2.346	17.8	18.5
11 7	5 4.73	+19 29.4	1.290	2.192	14.0	18.4	11 7	5 3.80	+37 14.2	1.484	2.357	14.4	18.3
11 17	4 57.56	+18 56.8	1.244	2.197	9.2	18.1	11 17	4 56.91	+37 1.6	1.442	2.370	10.6	18.1
11 27	4 48.13	+18 22.7	1.222	2.202	4.0	17.8	11 27	4 47.83	+36 28.1	1.424	2.384	7.0	18.0
12 7	4 37.83	+17 50.2	1.226	2.208	2.8	17.8	12 7	4 38.06	+35 34.2	1.430	2.399	5.5	17.9
12 17	4 28.23	+17 23.0	1.256	2.214	7.7	18.1	12 17	4 29.14	+34 24.2	1.464	2.416	7.6	18.1
12 27	4 20.72	+17 4.8	1.311	2.221	12.6	18.4	12 27	4 22.42	+33 5.8	1.523	2.434	11.0	18.3
1 6	4 16.20	+16 57.8	1.388	2.228	16.7	18.6	1 6	4 18.70	+31 47.4	1.605	2.452	14.4	18.6
<b>401476</b>	2013 CP <sub>194</sub>	12 3.8 337°41	1°1/ 4.1 17				<b>364923</b>	2008 FF <sub>2</sub>	12 3.8 250°14	0°0/ 3.6 17			
10 28	5 9.75	+25 9.6	1.753	2.563	15.6	21.7	10 28	5 8.72	+23 21.3	2.170	2.971	13.3	21.9
11 7	5 5.12	+25 17.5	1.672	2.561	12.1	21.5	11 7	5 3.82	+23 10.0	2.075	2.960	10.3	21.7
11 17	4 57.67	+25 19.8	1.613	2.559	8.1	21.2	11 17	4 56.61	+22 54.1	2.003	2.949	6.8	21.5
11 27	4 48.17	+25 15.3	1.579	2.558	3.6	21.0	11 27	4 47.71	+22 33.5	1.958	2.938	2.8	21.2
12 7	4 37.79	+25 4.1	1.573	2.556	1.8	20.8	12 7	4 38.06	+22 9.1	1.943	2.926	1.3	21.1
12 17	4 27.86	+24 47.7	1.595	2.555	6.2	21.1	12 17	4 28.70	+21 43.1	1.957	2.915	5.5	21.3
12 27	4 19.65	+24 29.6	1.645	2.554	10.5	21.4	12 27	4 20.67	+21 18.5	2.000	2.903	9.3	21.5
1 6	4 14.05	+24 13.7	1.718	2.553	14.2	21.6	1 6	4 14.75	+20 58.0	2.068	2.890	12.6	21.7
<b>277746</b>	2006 DS <sub>107</sub>	12 3.8 29°48	3°3/ 2.8 18				<b>250504</b>	2004 GP <sub>5</sub>	12 3.8 129°15	4°6/ 5.2 18			
10 28	5 5.54	+14 47.7	1.845	2.663	14.6	20.5	10 28	5 14.34	+35 9.6	2.308	3.073	13.7	20.5
11 7	5 1.38	+14 13.6	1.779	2.672	11.3	20.3	11 7	5 8.20	+35 56.6	2.231	3.083	11.0	20.4
11 17	4 54.94	+13 41.0	1.735	2.682	7.6	20.1	11 17	4 59.47	+36 33.8	2.177	3.094	8.2	20.2
11 27	4 46.95	+13 12.6	1.717	2.692	4.2	19.9	11 27	4 48.89	+36 57.3	2.150	3.104	5.6	20.1
12 7	4 38.40	+12 51.1	1.727	2.702	3.8	19.9	12 7	4 37.54	+37 4.9	2.152	3.114	4.7	20.0
12 17	4 30.35	+12 38.7	1.765	2.713	7.0	20.1	12 17	4 26.62	+36 56.9	2.183	3.123	6.4	20.2
12 27	4 23.78	+12 37.0	1.830	2.724	10.5	20.4	12 27	4 17.30	+36 36.6	2.243	3.132	9.1	20.3
1 6	4 19.36	+12 46.1	1.918	2.736	13.7	20.6	1 6	4 10.38	+36 9.2	2.328	3.141	11.7	20.5
<b>497788</b>	2006 SQ <sub>392</sub>	12 3.8 279°84	15°1/ 3.5 17				<b>61216</b>	2000 OA <sub>11</sub>	12 3.8 92°77	4°8/ 2.9 18			
10 28	5 27.65	+43 26.6	1.200	1.974	23.4	21.5	10 28	5 16.26	+11 35.5	1.440	2.251	18.3	19.6
11 7	5 23.05	+46 33.2	1.129	1.966	20.5	21.2	11 7	5 9.90	+11 8.4	1.390	2.277	14.3	19.4
11 17	5 12.15	+49 29.6	1.076	1.959	17.6	21.0	11 17	5 0.56	+10 47.5	1.362	2.303	9.8	19.2
11 27	4 55.18	+51 55.6	1.044	1.952	15.5	20.9	11 27	4 49.27	+10 35.8	1.358	2.328	5.8	19.1
12 7	4 34.17	+53 32.1	1.034	1.945	15.2	20.9	12 7	4 37.44	+10 35.6	1.381	2.352	5.3	19.1
12 17	4 12.91	+54 9.7	1.047	1.938	16.8	20.9	12 17	4 26.53	+10 48.0	1.432	2.376	8.7	19.4
12 27	3 55.60	+53 55.4	1.079	1.931	19.6	21.1	12 27	4 17.80	+11 12.8	1.509	2.399	12.6	19.6
1 6	3 44.91	+53 7.2	1.129	1.924	22.6	21.3	1 6	4 11.97	+11 48.6	1.608	2.421	16.1	19.9
<b>118648</b>	2000 JF <sub>31</sub>	12 3.8 159°34	1°2/ 4.2 18				<b>482575</b>	2012 WY <sub>32</sub>	12 3.8 42°07	4°2/ 5.5 18			
10 28	5 13.82	+25 53.0	2.032	2.824	14.4	20.3	10 28	5 18.57	+34 58.0	1.145	1.956	22.1	19.0
11 7	5 7.76	+25 57.7	1.952	2.831	11.2	20.1	11 7	5 12.31	+34 30.1	1.113	1.997	17.3	18.8
11 17	4 59.14	+25 56.4	1.895	2.837	7.4	19.9	11 17	5 2.17	+33 41.7	1.100	2.039	12.0	18.7
11 27	4 48.71	+25 47.8	1.865	2.843	3.3	19.6	11 27	4 49.81	+32 31.5	1.110	2.081	6.7	18.5
12 7	4 37.58	+25 31.9	1.865	2.848	1.7	19.5	12 7	4 37.31	+31 4.2	1.145	2.123	4.3	18.5
12 17	4 26.93	+25 10.7	1.895	2.852	5.6	19.8	12 17	4 26.58	+29 28.7	1.207	2.166	7.8	18.8
12 27	4 17.91	+24 47.4	1.954	2.856	9.5	20.1	12 27	4 18.98	+27 55.7	1.294	2.209	12.2	19.2
1 6	4 11.31	+24 25.8	2.037	2.859	12.9	20.3	1 6	4 15.03	+26 33.7	1.403	2.252	16.0	19.6
<b>269383</b>	2009 QG <sub>1</sub>	12 3.8 38°13	3°1/ 3.3 18				<b>33176</b>	1998 FN <sub>12</sub>	12 3.8 161°20	0°9/ 4.1 18			
10 28	5 10.43	+16 22.7	1.134	1.975	20.3	20.4	10 28	5 9.04	+25 10.9	2.133	2.932	13.6	19.6
11 7	5 6.34	+16 9.1	1.083	1.990	15.7	20.1	11 7	5 4.05	+25 13.1	2.050	2.934	10.5	19.4
11 17	4 58.70	+15 57.9	1.052	2.005	10.4	19.9	11 17	4 56.72	+25 10.0	1.990	2.935	6.9	19.1
11 27	4 48.60	+15 51.1	1.043	2.022	4.9	19.6	11 27	4 47.75	+25 0.9	1.957	2.936	3.1	18.9
12 7	4 37.68	+15 50.8	1.058	2.039	3.8	19.6	12 7	4 38.10	+24 46.3	1.953	2.936	1.5	18.8
12 17	4 27.71	+15 58.6	1.099	2.057	8.7	20.0	12 17	4 28.83	+24 27.8	1.979	2.937	5.3	19.1
12 27	4 20.20	+16 15.7	1.163	2.075	13.6	20.3	12 27	4 21.00	+24 8.1	2.033	2.938	9.0	19.3
1 6	4 16.03	+16 42.2	1.248	2.094	17.8	20.6	1 6	4 15.32	+23 50.4	2.112	2.938	12.3	19.5
<b>448956</b>	2011 WB <sub>84</sub>	12 3.8 298°98	1°1/ 3.6 18				<b>460128</b>	2014 PR <sub>40</sub>	12 3.8 2°84	6°5/ 1.9 18			
10 28	5 9.46	+18 7.8	1.829	2.640	15.0								

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>514178</b>	2015 <i>MM</i> <sub>54</sub>	12 3.8 145°40'	1°5'/ 3.4 18				<b>176062</b>	2000 <i>UQ</i> <sub>46</sub>	12 3.8 26°10'	3°4'/ 4.3 18			
10 28	5 12.94	+17 58.7	2.055	2.852	14.1	22.8	10 28	5 11.52	+26 38.3	1.022	1.866	21.9	19.6
11 7	5 6.89	+17 54.3	1.980	2.863	10.8	22.6	11 7	5 8.11	+27 28.1	0.969	1.875	17.2	19.3
11 17	4 58.48	+17 49.7	1.929	2.874	7.1	22.4	11 17	5 0.41	+28 10.8	0.934	1.885	11.7	19.0
11 27	4 48.44	+17 45.4	1.905	2.884	3.2	22.2	11 27	4 49.52	+28 41.2	0.919	1.897	5.9	18.8
12 7	4 37.79	+17 42.3	1.912	2.893	2.2	22.2	12 7	4 37.39	+28 56.1	0.928	1.909	3.9	18.7
12 17	4 27.61	+17 41.6	1.948	2.901	5.9	22.4	12 17	4 26.24	+28 56.3	0.961	1.923	8.7	19.0
12 27	4 18.94	+17 45.0	2.013	2.909	9.6	22.7	12 27	4 18.04	+28 47.4	1.016	1.938	14.1	19.4
1 6	4 12.50	+17 53.7	2.104	2.916	12.8	22.9	1 6	4 13.88	+28 35.9	1.092	1.953	18.7	19.7
<b>391168</b>	2006 <i>AW</i> <sub>39</sub>	12 3.8 358°10'	1°5'/ 3.5 18				<b>331073</b>	2009 <i>WU</i> <sub>64</sub>	12 3.8 338°90'	3°1'/ 2.6 17			
10 28	5 9.40	+18 53.6	1.435	2.262	17.6	21.2	10 28	5 5.20	+15 28.7	2.090	2.901	13.4	20.9
11 7	5 5.26	+18 49.3	1.361	2.261	13.6	20.9	11 7	5 1.01	+14 45.7	2.008	2.898	10.4	20.7
11 17	4 57.98	+18 44.5	1.308	2.260	9.0	20.7	11 17	4 54.72	+14 2.3	1.949	2.894	7.0	20.5
11 27	4 48.39	+18 39.8	1.279	2.259	3.9	20.4	11 27	4 46.95	+13 21.5	1.918	2.891	3.9	20.3
12 7	4 37.79	+18 36.5	1.277	2.259	2.5	20.3	12 7	4 38.58	+12 46.1	1.915	2.889	3.6	20.3
12 17	4 27.72	+18 36.3	1.301	2.260	7.4	20.6	12 17	4 30.57	+12 19.0	1.940	2.886	6.6	20.4
12 27	4 19.62	+18 41.4	1.351	2.260	12.3	20.9	12 27	4 23.83	+12 2.4	1.993	2.884	10.0	20.6
1 6	4 14.46	+18 53.6	1.422	2.262	16.4	21.1	1 6	4 19.05	+11 57.2	2.070	2.882	13.1	20.8
<b>515861</b>	2015 <i>OH</i> <sub>85</sub>	12 3.8 151°38'	1°5'/ 4.3 18				<b>159687</b>	2002 <i>LG</i> <sub>53</sub>	12 3.8 93°43'	2°4'/ 5.1 18			
10 28	5 11.00	+26 57.4	2.009	2.806	14.4	21.7	10 28	5 10.42	+32 25.7	2.478	3.253	12.6	20.1
11 7	5 5.70	+27 1.7	1.929	2.810	11.2	21.5	11 7	5 4.65	+32 6.9	2.407	3.272	9.9	19.9
11 17	4 57.87	+26 59.1	1.871	2.813	7.5	21.2	11 17	4 56.84	+31 37.8	2.359	3.291	6.8	19.8
11 27	4 48.24	+26 48.6	1.839	2.816	3.5	21.0	11 27	4 47.74	+30 57.7	2.339	3.309	3.8	19.6
12 7	4 37.89	+26 30.1	1.837	2.819	1.9	20.9	12 7	4 38.26	+30 7.9	2.349	3.327	2.5	19.5
12 17	4 28.00	+26 5.5	1.864	2.822	5.6	21.2	12 17	4 29.35	+29 11.2	2.390	3.345	4.8	19.7
12 27	4 19.70	+25 38.5	1.919	2.824	9.5	21.4	12 27	4 21.88	+28 11.9	2.461	3.362	7.8	19.9
1 6	4 13.77	+25 12.8	1.999	2.826	12.8	21.6	1 6	4 16.42	+27 14.4	2.558	3.380	10.5	20.2
<b>4493</b>	<i>Naitomitsu</i>	12 3.8 4°81'	1°0'/ 4.2 18				<b>228728</b>	2002 <i>TM</i> <sub>119</sub>	12 3.8 0°87'	1°8'/ 4.6 17			
10 28	5 7.46	+27 19.9	1.997	2.801	14.2	15.7	10 28	5 7.14	+29 5.5	2.259	3.052	13.1	20.3
11 7	5 2.96	+26 57.1	1.916	2.801	11.0	15.5	11 7	5 2.53	+28 58.8	2.174	3.052	10.2	20.1
11 17	4 56.05	+26 25.7	1.856	2.801	7.3	15.3	11 17	4 55.72	+28 43.9	2.112	3.052	6.9	19.9
11 27	4 47.48	+25 45.5	1.824	2.802	3.3	15.1	11 27	4 47.36	+28 20.0	2.077	3.052	3.5	19.6
12 7	4 38.26	+24 58.4	1.819	2.802	1.6	14.9	12 7	4 38.40	+27 47.8	2.071	3.052	2.1	19.5
12 17	4 29.52	+24 7.5	1.844	2.804	5.5	15.2	12 17	4 29.84	+27 9.4	2.095	3.052	5.1	19.8
12 27	4 22.31	+23 17.5	1.897	2.805	9.4	15.5	12 27	4 22.64	+26 28.5	2.147	3.053	8.6	20.0
1 6	4 17.36	+22 32.4	1.975	2.807	12.8	15.7	1 6	4 17.51	+25 49.1	2.224	3.053	11.6	20.2
<b>51743</b>	2001 <i>KK</i> <sub>55</sub>	12 3.8 178°12'	3°2'/ 2.8 18				<b>243995</b>	2001 <i>RL</i> <sub>142</sub>	12 3.8 77°02'	1°4'/ 3.6 18			
10 28	5 9.04	+13 30.2	2.220	3.019	13.1	19.9	10 28	5 14.17	+16 21.0	1.910	2.709	14.9	19.7
11 7	5 3.76	+13 3.2	2.139	3.021	10.2	19.7	11 7	5 7.85	+16 48.0	1.852	2.736	11.4	19.5
11 17	4 56.41	+12 38.2	2.081	3.022	7.0	19.5	11 17	4 59.10	+17 17.3	1.817	2.762	7.5	19.3
11 27	4 47.60	+12 17.2	2.051	3.022	4.0	19.3	11 27	4 48.72	+17 48.4	1.810	2.789	3.3	19.1
12 7	4 38.20	+12 2.5	2.050	3.023	3.7	19.3	12 7	4 37.81	+18 20.4	1.833	2.815	2.1	19.1
12 17	4 29.15	+11 55.7	2.079	3.022	6.4	19.5	12 17	4 27.52	+18 52.9	1.886	2.840	5.9	19.4
12 27	4 21.38	+11 58.2	2.137	3.021	9.7	19.7	12 27	4 18.90	+19 26.2	1.967	2.866	9.6	19.7
1 6	4 15.54	+12 10.0	2.219	3.020	12.6	19.9	1 6	4 12.64	+20 0.9	2.074	2.891	12.8	19.9
<b>222892</b>	2002 <i>GR</i> <sub>116</sub>	12 3.8 103°00'	5°3'/ 1.9 18				<b>267491</b>	2002 <i>GN</i> <sub>189</sub>	12 3.8 133°99'	0°6'/ 3.6 18			
10 28	5 5.86	+7 49.5	2.235	3.033	13.0	20.2	10 28	5 7.97	+20 50.1	2.263	3.064	12.8	20.7
11 7	5 1.23	+7 1.4	2.164	3.039	10.4	20.1	11 7	5 3.02	+20 45.8	2.182	3.067	9.9	20.5
11 17	4 54.70	+6 18.9	2.116	3.045	7.7	19.9	11 17	4 55.98	+20 39.3	2.124	3.071	6.4	20.3
11 27	4 46.87	+5 45.4	2.095	3.050	5.6	19.8	11 27	4 47.47	+20 30.9	2.095	3.074	2.7	20.0
12 7	4 38.55	+5 24.0	2.103	3.056	5.6	19.8	12 7	4 38.37	+20 21.4	2.094	3.077	1.4	19.9
12 17	4 30.62	+5 16.6	2.139	3.062	7.7	19.9	12 17	4 29.63	+20 12.2	2.124	3.081	5.2	20.2
12 27	4 23.88	+5 23.7	2.202	3.067	10.3	20.1	12 27	4 22.17	+20 5.3	2.182	3.084	8.7	20.4
1 6	4 18.94	+5 44.3	2.288	3.073	12.8	20.3	1 6	4 16.66	+20 2.4	2.266	3.086	11.8	20.6
<b>378542</b>	2008 <i>CE</i> <sub>4</sub>	12 3.8 231°13'	0°7'/ 3.7 18				<b>471543</b>	2012 <i>JE</i> <sub>59</sub>	12 3.8 114°73'	0°7'/ 3.9 16			
10 28	5 13.08	+20 35.3	1.570	2.384	16.9	21.8	10 28	5 15.84	+23 31.8	1.599	2.405	17.0	22.5
11 7	5 8.01	+20 38.2	1.486	2.378	13.2	21.5	11 7	5 9.86	+23 47.6	1.532	2.419	13.2	22.3
11 17	4 59.79	+20 39.2	1.423	2.372	8.7	21.2	11 17	5 0.78	+23 59.3	1.487	2.433	8.6	22.1
11 27	4 49.17	+20 38.0	1.386	2.366	3.6	20.9	11 27	4 49.52	+24 5.0	1.467	2.447	3.7	21.8
12 7	4 37.45	+20 34.9	1.375	2.359	1.9	20.8	12 7	4 37.45	+24 4.4	1.476	2.460	1.7	21.7
12 17	4 26.14	+20 31.5	1.393	2.352	7.1	21.1	12 17	4 26.07	+23 58.9	1.513	2.472	6.6	22.1
12 27	4 16.72	+20 30.5	1.438	2.344	11.9	21.4	12 27	4 16.76	+23 51.7	1.578	2.484	11.1	22.4
1 6	4 10.21	+20 34.4	1.505	2.337	16.1	21.6	1 6	4 10.39	+23 46.5	1.666	2.496	14.9	22.6
<b>407946</b>	2012 <i>DF</i>	12 3.8 353°50'	9°0'/ 6.3 17				<b>354403</b>	2003 <i>UB</i> <sub>150</sub>	12 3.8 14°85'	4°3'/ 2.9 17			
10 28	5 13.11	+42 58.7	1.739	2.502	17.5	20.2	10 28	5 4.63	+15 18.3	1.153	2.003	19.5	20.3
11 7	5 8.70	+44 11.0	1.661	2.499	14.9	20.0	11 7	5 1.91	+14 38.4	1.099	2.009	15.2	20.1
11 17	5 0.58	+45 7.1	1.603	2.496	12.2	19.8	11 17	4 55.89	+14 0.5	1.064	2.017	10.2	19.8
11 27	4 49.60	+45 39.1	1.568	2.494	9.9	19.7	11 27	4 47.55	+13 29.0	1.051	2.027	5.5	19.6
12 7	4 37.27	+45 42.1	1.557	2.492	9.0	19.7	12 7	4 38.37	+13 8.1	1.062	2.039	4.9	19.6
12 17	4 25.45	+45 16.0	1.572	2.491	10.2	19.7	12 17	4 29.97	+13 0.9	1.097	2.051	9.2	19.9
12 27	4 15.96	+44 26.3	1.611	2.491	12.6	19.9	12 27	4 23.78	+13 8.8	1.155	2.065	13.8	20.2
1 6	4 9.94	+43 22.2	1.672	2.491	15.3	20.0	1 6	4 20.64	+13 31.0	1.233	2.081	17.9	20.5
<b>836</b>	<i>Jole</i>	12 3.8 35°17'	4°0'/ 2.9 18				<b>185716</b>	199					

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>307466</b>	2002 <i>WJ</i> <sub>18</sub>	12 3.8 19°40'	3.8	19°40'	3.8	3.5	18	<b>223866</b>	2004 <i>TU</i> <sub>308</sub>	12 3.8 114°67'	1.9	4.6	18
10 28	5 9.07	+11 44.4	1.462	2.286	17.5	19.8	10 28	5 8.91	+29 35.9	2.185	2.976	13.5	20.2
11 7	5 4.79	+11 55.7	1.397	2.291	13.7	19.6	11 7	5 3.96	+29 23.9	2.100	2.977	10.6	20.1
11 17	4 57.57	+12 15.1	1.352	2.298	9.3	19.4	11 17	4 56.68	+29 2.6	2.039	2.978	7.2	19.8
11 27	4 48.24	+12 44.0	1.331	2.306	5.1	19.2	11 27	4 47.80	+28 31.4	2.004	2.978	3.6	19.6
12 7	4 38.06	+13 22.6	1.337	2.314	4.3	19.1	12 7	4 38.30	+27 51.0	1.998	2.979	2.1	19.5
12 17	4 28.42	+14 9.8	1.370	2.323	8.0	19.4	12 17	4 29.24	+27 4.1	2.022	2.980	5.3	19.7
12 27	4 20.65	+15 4.5	1.429	2.333	12.2	19.6	12 27	4 21.66	+26 14.9	2.075	2.981	8.8	20.0
1 6	4 15.63	+16 4.8	1.510	2.343	16.0	19.9	1 6	4 16.24	+25 27.9	2.153	2.981	12.0	20.2
<b>519711</b>	2013 <i>BZ</i> <sub>28</sub>	12 3.8 289°76'	0.4	3.7	18		<b>191267</b>	2003 <i>CO</i> <sub>3</sub>	12 3.8 267°07'	3.3	4.8	18	
10 28	5 9.13	+24 10.1	1.760	2.572	15.5	20.9	10 28	5 12.57	+30 36.1	1.640	2.442	16.9	20.2
11 7	5 4.62	+23 31.5	1.672	2.563	12.0	20.7	11 7	5 7.77	+30 48.9	1.555	2.436	13.4	20.0
11 17	4 57.38	+22 44.5	1.606	2.554	7.9	20.4	11 17	4 59.72	+30 51.2	1.490	2.429	9.3	19.7
11 27	4 48.16	+21 50.2	1.565	2.546	3.3	20.1	11 27	4 49.22	+30 39.7	1.450	2.422	5.1	19.5
12 7	4 38.10	+20 51.5	1.553	2.537	1.7	20.0	12 7	4 37.64	+30 13.5	1.437	2.416	3.5	19.3
12 17	4 28.49	+19 52.7	1.570	2.528	6.4	20.3	12 17	4 26.54	+29 34.7	1.452	2.409	7.0	19.5
12 27	4 20.56	+18 59.2	1.614	2.520	10.9	20.5	12 27	4 17.43	+28 49.1	1.493	2.402	11.4	19.8
1 6	4 15.16	+18 15.2	1.681	2.512	14.7	20.8	1 6	4 11.35	+28 3.0	1.558	2.396	15.3	20.0
<b>246809</b>	2009 <i>FP</i> <sub>66</sub>	12 3.8 82°89'	0.7	3.6	18		<b>184637</b>	2005 <i>SL</i> <sub>14</sub>	12 3.8 41°40'	4.1	4.7	18	
10 28	5 9.48	+21 21.2	1.860	2.669	14.9	21.1	10 28	5 11.99	+30 56.3	1.744	2.541	16.2	19.8
11 7	5 4.58	+21 8.9	1.785	2.676	11.4	20.9	11 7	5 7.02	+31 44.9	1.675	2.552	12.8	19.6
11 17	4 57.18	+20 53.3	1.734	2.682	7.5	20.7	11 17	4 59.05	+32 24.9	1.628	2.562	9.1	19.4
11 27	4 48.02	+20 35.0	1.708	2.688	3.1	20.4	11 27	4 48.88	+32 52.2	1.606	2.574	5.5	19.2
12 7	4 38.19	+20 15.2	1.711	2.695	1.7	20.3	12 7	4 37.83	+33 4.4	1.612	2.585	4.2	19.2
12 17	4 28.86	+19 56.2	1.743	2.701	6.0	20.6	12 17	4 27.33	+33 2.1	1.645	2.597	6.9	19.4
12 27	4 21.13	+19 40.9	1.803	2.707	10.0	20.9	12 27	4 18.75	+32 48.9	1.705	2.609	10.5	19.6
1 6	4 15.76	+19 31.4	1.886	2.714	13.5	21.1	1 6	4 13.00	+32 30.1	1.789	2.622	13.9	19.8
<b>484569</b>	2008 <i>LJ</i> <sub>5</sub>	12 3.8 160°94'	4.3	2.7	18		<b>271527</b>	2004 <i>GP</i> <sub>87</sub>	12 3.8 268°50'	2.1	3.5	18	
10 28	5 7.99	+ 6 17.5	2.825	3.603	11.1	21.6	10 28	5 11.85	+16 47.0	1.548	2.365	17.0	20.4
11 7	5 2.50	+ 6 7.1	2.746	3.609	8.9	21.5	11 7	5 7.07	+16 51.1	1.466	2.359	13.2	20.2
11 17	4 55.40	+ 6 3.2	2.692	3.615	6.5	21.3	11 17	4 59.22	+16 57.3	1.404	2.353	8.8	19.9
11 27	4 47.20	+ 6 7.5	2.666	3.620	4.6	21.2	11 27	4 49.02	+17 6.3	1.368	2.347	4.0	19.6
12 7	4 38.57	+ 6 21.3	2.670	3.624	4.5	21.2	12 7	4 37.74	+17 18.8	1.359	2.341	2.8	19.5
12 17	4 30.21	+ 6 45.0	2.705	3.629	6.2	21.3	12 17	4 26.83	+17 35.3	1.378	2.334	7.4	19.8
12 27	4 22.82	+ 7 18.1	2.769	3.632	8.5	21.5	12 27	4 17.75	+17 57.1	1.423	2.328	12.1	20.0
1 6	4 16.93	+ 7 59.6	2.858	3.635	10.7	21.7	1 6	4 11.50	+18 24.9	1.491	2.322	16.2	20.3
<b>300714</b>	2007 <i>VJ</i> <sub>117</sub>	12 3.8 15°83'	1.8	4.3	18		<b>477279</b>	2009 <i>SO</i> <sub>131</sub>	12 3.8 127°15'	2.3	4.3	18	
10 28	5 9.68	+26 30.4	1.615	2.429	16.5	20.7	10 28	5 16.07	+27 2.4	1.700	2.499	16.5	21.8
11 7	5 5.32	+26 42.6	1.540	2.431	12.9	20.4	11 7	5 10.07	+27 31.4	1.629	2.510	12.9	21.6
11 17	4 57.96	+26 47.9	1.487	2.433	8.6	20.2	11 17	5 0.98	+27 54.0	1.579	2.521	8.7	21.4
11 27	4 48.43	+26 44.6	1.458	2.436	4.1	19.9	11 27	4 49.67	+28 7.2	1.555	2.531	4.3	21.2
12 7	4 37.99	+26 32.4	1.457	2.439	2.2	19.8	12 7	4 37.48	+28 9.5	1.560	2.541	2.6	21.1
12 17	4 28.10	+26 13.2	1.483	2.443	6.5	20.1	12 17	4 25.90	+28 2.0	1.593	2.550	6.5	21.3
12 27	4 20.10	+25 51.1	1.535	2.447	10.9	20.4	12 27	4 16.33	+27 48.4	1.654	2.559	10.7	21.6
1 6	4 14.90	+25 30.4	1.611	2.452	14.7	20.6	1 6	4 9.67	+27 33.4	1.738	2.567	14.4	21.9
<b>88322</b>	2001 <i>OZ</i> <sub>43</sub>	12 3.8 96°60'	1.8	4.4	18		<b>460857</b>	2014 <i>WS</i> <sub>109</sub>	12 3.8 84°49'	2.9	2.4	18	
10 28	5 14.68	+27 27.0	1.641	2.443	16.8	19.9	10 28	5 5.91	+15 50.2	2.414	3.216	12.1	20.8
11 7	5 8.90	+27 31.4	1.576	2.460	13.1	19.7	11 7	5 1.15	+14 52.8	2.342	3.227	9.3	20.6
11 17	5 0.10	+27 27.4	1.533	2.476	8.7	19.5	11 17	4 54.61	+13 54.7	2.295	3.238	6.3	20.4
11 27	4 49.23	+27 13.2	1.516	2.492	4.1	19.3	11 27	4 46.90	+12 58.7	2.276	3.248	3.5	20.3
12 7	4 37.66	+26 49.1	1.526	2.508	2.3	19.2	12 7	4 38.79	+12 8.0	2.287	3.259	3.4	20.3
12 17	4 26.85	+26 18.0	1.565	2.524	6.4	19.5	12 17	4 31.10	+11 25.5	2.328	3.269	5.9	20.5
12 27	4 18.13	+25 44.7	1.631	2.539	10.7	19.8	12 27	4 24.58	+10 53.5	2.397	3.280	8.9	20.7
1 6	4 12.28	+25 13.9	1.721	2.554	14.3	20.0	1 6	4 19.77	+10 33.0	2.492	3.291	11.5	20.9
<b>88387</b>	2001 <i>QT</i>	12 3.8 127°14'	1.7	3.4	18		<b>269205</b>	2008 <i>JG</i> <sub>15</sub>	12 3.8 151°98'	3.3	2.9	18	
10 28	5 12.10	+19 14.2	1.673	2.485	16.1	20.4	10 28	5 12.47	+14 32.1	1.935	2.736	14.7	22.1
11 7	5 6.80	+18 53.8	1.602	2.493	12.5	20.1	11 7	5 6.64	+14 1.4	1.862	2.745	11.4	21.9
11 17	4 58.71	+18 31.3	1.552	2.500	8.2	19.9	11 17	4 58.42	+13 32.2	1.811	2.753	7.7	21.7
11 27	4 48.67	+18 8.1	1.528	2.507	3.6	19.7	11 27	4 48.54	+13 6.6	1.788	2.761	4.2	21.5
12 7	4 37.90	+17 46.0	1.533	2.514	2.5	19.6	12 7	4 38.03	+12 47.2	1.794	2.768	3.8	21.5
12 17	4 27.71	+17 27.7	1.565	2.521	6.8	19.9	12 17	4 28.03	+12 36.0	1.829	2.774	7.0	21.7
12 27	4 19.33	+17 15.9	1.625	2.527	11.1	20.2	12 27	4 19.58	+12 34.7	1.892	2.780	10.6	22.0
1 6	4 13.57	+17 12.5	1.708	2.533	14.8	20.4	1 6	4 13.41	+12 43.6	1.979	2.785	13.8	22.2
<b>401590</b>	2013 <i>GT</i> <sub>9</sub>	12 3.8 160°81'	1.4	3.4	18		<b>11291</b>	1991 <i>RZ</i> <sub>10</sub>	12 3.8 79°11'	0.2	3.8	18	
10 28	5 8.95	+18 16.1	2.147	2.950	13.4	21.2	10 28	5 8.78	+21 58.6	2.372	3.168	12.4	18.9
11 7	5 3.87	+18 9.2	2.066	2.952	10.3	21.0	11 7	5 3.39	+21 55.5	2.309	3.192	9.5	18.8
11 17	4 56.59	+18 1.8	2.008	2.954	6.8	20.8	11 17	4 56.08	+21 49.7	2.270	3.216	6.2	18.6
11 27	4 47.77	+17 54.7	1.978	2.956	3.0	20.5	11 27	4 47.50	+21 41.1	2.260	3.239	2.5	18.4
12 7	4 38.30	+17 48.8	1.977	2.958	2.1	20.5	12 7	4 38.53	+21 30.6	2.279	3.262	1.2	18.3
12 17	4 29.20	+17 45.7	2.006	2.960	5.7	20.7	12 17	4 30.04	+21 19.5	2.329	3.285	4.8	18.6
12 27	4 21.44	+17 46.7	2.063	2.961	9.3	20.9	12 27	4 22.86	+21 9.9	2.407	3.308	8.0	18.9
1 6	4 15.71	+17 53.2	2.145	2.962	12.4	21.2	1 6	4 17.55	+21 3.5	2.512	3.331	10.8	19.1
<b>156909</b>	2003 <i>EP</i> <sub>52</sub>	12 3.8 262°22'	1.6	4.1	18		<b>327507</b>	2006 <i>AB</i> <sub>105</sub>	12 3.9 248°58'	4.5	2.3	17	
10 28	5 13.48	+24 58.3											

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>190512</b>	2000 <i>JE</i> <sub>22</sub>	12 3.9 116°88	2.4/ 4.5	18			<b>517356</b>	2014 <i>JN</i> <sub>85</sub>	12 3.9 353°07	5.2/ 3.3	18		
10 28	5 16.84	+28 23.8	1.961	2.746	15.1	20.9	10 28	5 10.39	+7 58.0	1.666	2.474	16.4	21.1
11 7	5 10.16	+28 49.9	1.894	2.767	11.8	20.7	11 7	5 5.56	+7 59.5	1.590	2.472	13.1	20.8
11 17	5 0.78	+29 8.6	1.850	2.787	8.0	20.5	11 17	4 58.01	+8 11.1	1.535	2.471	9.3	20.6
11 27	4 49.52	+29 17.2	1.833	2.807	4.1	20.3	11 27	4 48.48	+8 35.4	1.505	2.470	6.1	20.4
12 7	4 37.61	+29 14.8	1.846	2.825	2.7	20.3	12 7	4 38.08	+9 13.5	1.502	2.469	5.5	20.4
12 17	4 26.34	+29 2.7	1.888	2.843	5.9	20.5	12 17	4 28.06	+10 4.8	1.527	2.469	8.4	20.6
12 27	4 16.91	+28 44.5	1.959	2.860	9.6	20.8	12 27	4 19.67	+11 7.4	1.579	2.469	12.1	20.8
1 6	4 10.08	+28 24.6	2.056	2.877	12.8	21.0	1 6	4 13.78	+12 18.7	1.653	2.469	15.6	21.0
<b>268796</b>	2006 <i>UJ</i> <sub>141</sub>	12 3.9 318°98	0.3/ 3.8	18			<b>162028</b>	1995 <i>UU</i> <sub>55</sub>	12 3.9 102°84	0.6/ 4.0	18		
10 28	5 9.32	+21 19.6	1.287	2.121	18.8	21.2	10 28	5 11.23	+24 25.1	1.769	2.576	15.6	20.6
11 7	5 5.89	+21 26.0	1.204	2.107	14.7	20.9	11 7	5 6.15	+24 21.2	1.695	2.582	12.1	20.4
11 17	4 58.87	+21 30.1	1.141	2.094	9.8	20.6	11 17	4 58.33	+24 11.6	1.642	2.588	7.9	20.2
11 27	4 49.02	+21 31.4	1.100	2.081	4.1	20.3	11 27	4 48.58	+23 55.7	1.615	2.594	3.4	19.9
12 7	4 37.75	+21 30.0	1.085	2.069	2.0	20.1	12 7	4 38.07	+23 34.5	1.616	2.600	1.5	19.8
12 17	4 26.84	+21 27.4	1.095	2.057	8.0	20.4	12 17	4 28.10	+23 10.1	1.647	2.606	6.1	20.1
12 27	4 18.07	+21 27.0	1.130	2.046	13.5	20.7	12 27	4 19.90	+22 46.3	1.704	2.611	10.3	20.4
1 6	4 12.66	+21 32.0	1.185	2.036	18.2	21.0	1 6	4 14.26	+22 26.6	1.786	2.617	13.9	20.6
<b>164926</b>	1999 <i>XL</i> <sub>87</sub>	12 3.9 4°31	0.8/ 3.6	18			<b>446450</b>	2014 <i>JM</i> <sub>62</sub>	12 3.9 138°09	2.0/ 3.3	18		
10 28	5 2.55	+23 10.8	1.095	1.950	20.0	18.7	10 28	5 10.08	+16 43.3	2.103	2.904	13.6	21.3
11 7	5 0.77	+22 37.2	1.034	1.948	15.5	18.5	11 7	5 4.73	+16 34.1	2.027	2.912	10.5	21.1
11 17	4 55.42	+21 54.9	0.991	1.949	10.1	18.2	11 17	4 57.15	+16 25.4	1.974	2.919	7.0	20.9
11 27	4 47.48	+21 6.3	0.970	1.952	4.2	17.9	11 27	4 48.04	+16 18.5	1.949	2.926	3.3	20.7
12 7	4 38.54	+20 15.6	0.973	1.956	2.3	17.8	12 7	4 38.32	+16 14.3	1.953	2.933	2.5	20.7
12 17	4 30.35	+19 28.5	0.999	1.963	8.2	18.1	12 17	4 29.02	+16 14.3	1.987	2.939	5.9	20.9
12 27	4 24.52	+18 51.0	1.048	1.971	13.6	18.5	12 27	4 21.10	+16 19.7	2.049	2.945	9.5	21.1
1 6	4 21.96	+18 26.8	1.117	1.981	18.2	18.8	1 6	4 15.27	+16 31.4	2.136	2.950	12.6	21.3
<b>25826</b>	2000 <i>DX</i> <sub>93</sub>	12 3.9 82°85	1.9/ 3.3	18			<b>7553</b>	Buie	12 3.9 276°99	0.0/ 3.8	18	R	
10 28	5 7.48	+16 25.7	2.302	3.104	12.6	18.8	10 28	5 11.32	+21 54.8	1.634	2.448	16.4	18.3
11 7	5 2.49	+16 16.7	2.232	3.118	9.7	18.6	11 7	5 6.77	+21 59.4	1.540	2.432	12.8	18.0
11 17	4 55.56	+16 8.6	2.187	3.132	6.4	18.5	11 17	4 59.12	+22 1.0	1.467	2.416	8.5	17.7
11 27	4 47.32	+16 2.3	2.169	3.145	3.1	18.3	11 27	4 49.06	+21 59.2	1.420	2.400	3.6	17.4
12 7	4 38.62	+15 59.0	2.180	3.159	2.4	18.3	12 7	4 37.79	+21 53.9	1.400	2.383	1.7	17.2
12 17	4 30.32	+15 59.8	2.222	3.173	5.4	18.5	12 17	4 26.77	+21 46.5	1.408	2.367	6.9	17.5
12 27	4 23.26	+16 5.8	2.292	3.187	8.6	18.7	12 27	4 17.48	+21 40.1	1.442	2.350	11.7	17.8
1 6	4 18.05	+16 17.5	2.387	3.200	11.5	18.9	1 6	4 11.00	+21 37.9	1.499	2.334	16.0	18.0
<b>126307</b>	2002 <i>AY</i> <sub>120</sub>	12 3.9 239°51	4.4/ 5.6	18			<b>418693</b>	2008 <i>UP</i> <sub>9</sub>	12 3.9 30°36	6.9/ 5.7	17		
10 28	5 12.30	+37 35.4	2.709	3.460	12.2	20.1	10 28	5 12.80	+39 29.4	2.039	2.802	15.3	21.1
11 7	5 6.51	+37 54.3	2.602	3.445	10.0	19.9	11 7	5 7.68	+40 37.2	1.966	2.810	12.7	21.0
11 17	4 58.41	+38 2.3	2.519	3.429	7.6	19.7	11 17	4 59.55	+41 32.4	1.915	2.817	10.0	20.8
11 27	4 48.59	+37 56.5	2.462	3.412	5.3	19.6	11 27	4 49.16	+42 9.2	1.888	2.825	7.7	20.7
12 7	4 37.99	+37 35.4	2.435	3.395	4.4	19.5	12 7	4 37.79	+42 24.1	1.889	2.834	6.9	20.7
12 17	4 27.65	+36 59.8	2.438	3.377	5.9	19.5	12 17	4 26.86	+42 17.2	1.916	2.843	8.1	20.8
12 27	4 18.60	+36 13.0	2.470	3.359	8.4	19.7	12 27	4 17.79	+41 52.3	1.970	2.852	10.5	20.9
1 6	4 11.64	+35 20.2	2.528	3.340	11.0	19.8	1 6	4 11.53	+41 16.0	2.048	2.862	13.1	21.1
<b>15352</b>	1994 <i>VB</i> <sub>7</sub>	12 3.9 5°94	1.3/ 3.5	18			<b>34271</b>	Vinjivale	12 3.9 194°24	0.2/ 3.9	18		
10 28	5 6.91	+21 37.4	1.179	2.023	19.6	17.7	10 28	5 9.03	+23 42.4	2.072	2.875	13.8	19.4
11 7	5 3.93	+21 10.2	1.114	2.022	15.1	17.4	11 7	5 4.14	+23 33.0	1.989	2.874	10.7	19.2
11 17	4 57.40	+20 37.2	1.068	2.023	9.9	17.1	11 17	4 56.88	+23 18.8	1.928	2.874	7.0	18.9
11 27	4 48.29	+20 0.2	1.044	2.025	4.2	16.8	11 27	4 47.97	+22 59.6	1.894	2.873	2.9	18.7
12 7	4 38.16	+19 22.6	1.045	2.028	2.5	16.7	12 7	4 38.36	+22 36.6	1.889	2.872	1.3	18.6
12 17	4 28.75	+18 48.8	1.071	2.032	8.1	17.1	12 17	4 29.15	+22 11.8	1.913	2.872	5.5	18.8
12 27	4 21.65	+18 23.7	1.120	2.038	13.5	17.4	12 27	4 21.38	+21 48.1	1.966	2.871	9.3	19.1
1 6	4 17.84	+18 10.4	1.190	2.044	18.0	17.7	1 6	4 15.79	+21 28.7	2.044	2.870	12.6	19.3
<b>166362</b>	2002 <i>LF</i> <sub>17</sub>	12 3.9 96°99	1.2/ 3.4	18			<b>241255</b>	2007 <i>TU</i> <sub>279</sub>	12 3.9 136°78	6.1/ 1.5	18		
10 28	5 12.03	+22 17.2	1.892	2.695	14.9	20.2	10 28	5 8.48	+7 59.1	1.993	2.793	14.3	20.5
11 7	5 6.25	+21 27.6	1.828	2.715	11.4	20.0	11 7	5 3.48	+6 46.8	1.924	2.800	11.5	20.4
11 17	4 58.07	+20 32.3	1.787	2.734	7.4	19.8	11 17	4 56.31	+5 39.4	1.878	2.806	8.5	20.2
11 27	4 48.35	+19 33.4	1.773	2.753	3.1	19.6	11 27	4 47.69	+4 41.9	1.859	2.812	6.4	20.1
12 7	4 38.18	+18 34.2	1.789	2.771	2.0	19.5	12 7	4 38.53	+3 58.9	1.869	2.818	6.5	20.1
12 17	4 28.71	+17 39.0	1.835	2.789	6.1	19.8	12 17	4 29.83	+3 33.3	1.906	2.824	8.8	20.3
12 27	4 20.95	+16 51.7	1.908	2.807	9.9	20.1	12 27	4 22.51	+3 26.2	1.969	2.829	11.6	20.4
1 6	4 15.53	+16 15.3	2.007	2.824	13.2	20.3	1 6	4 17.25	+3 36.4	2.056	2.834	14.3	20.6
<b>415611</b>	2014 <i>QS</i> <sub>354</sub>	12 3.9 78°57	0.7/ 3.6	18			<b>43326</b>	2000 <i>KH</i> <sub>73</sub>	12 3.9 161°83	0.7/ 4.1	18		
10 28	5 7.79	+20 52.2	2.166	2.970	13.2	21.3	10 28	5 15.31	+25 13.8	1.579	2.386	17.2	19.0
11 7	5 2.92	+20 39.6	2.092	2.980	10.1	21.1	11 7	5 9.64	+25 2.3	1.503	2.390	13.4	18.8
11 17	4 55.94	+20 24.5	2.043	2.990	6.6	20.9	11 17	5 0.79	+24 43.2	1.448	2.395	8.8	18.5
11 27	4 47.50	+20 7.4	2.020	3.000	2.8	20.7	11 27	4 49.66	+24 15.6	1.419	2.398	3.8	18.2
12 7	4 38.54	+19 49.6	2.027	3.010	1.6	20.6	12 7	4 37.62	+23 40.6	1.417	2.401	1.7	18.1
12 17	4 30.01	+19 33.0	2.063	3.019	5.3	20.9	12 17	4 26.23	+23 1.8	1.444	2.404	6.8	18.4
12 27	4 22.84	+19 19.7	2.128	3.029	8.9	21.1	12 27	4 16.93	+22 24.2	1.498	2.405	11.5	18.7
1 6	4 17.68	+19 11.7	2.217	3.039	11.9	21.4	1 6	4 10.61	+21 52.6	1.575	2.407	15.5	18.9
<b>270899</b>	2002 <i>TV</i> <sub>270</sub>	12 3.9 20°99	0.9/ 4.1	18			<b>351369</b>	2005 <i>CY</i> <sub>67</sub>	12 3.9 251°25	4.4/ 5.3	18		
10 28													

EPHEMERIDES

12 3.9

12 3.9

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$		
<b>65187</b>	2002 <i>CJ</i> <sub>246</sub>	12	3.9	129° 94'	0° 8'	4.1	18	<b>410590</b>	2008 <i>GB</i> <sub>140</sub>	12	3.9	103° 51'	4° 3'	5.0	18
10 28	5 9.16	+25 11.0	2.291	3.085	12.9	20.0	10 28	5 13.76	+33 44.3	2.277	3.048	13.7	21.3		
11 7	5 4.00	+25 13.1	2.211	3.091	10.0	19.8	11 7	5 7.80	+34 33.3	2.204	3.062	11.0	21.1		
11 17	4 56.68	+25 10.2	2.154	3.097	6.6	19.6	11 17	4 59.31	+35 13.3	2.153	3.075	8.0	21.0		
11 27	4 47.86	+25 1.8	2.125	3.103	2.9	19.4	11 27	4 49.01	+35 40.6	2.130	3.088	5.3	20.8		
12 7	4 38.45	+24 48.2	2.126	3.109	1.4	19.3	12 7	4 37.96	+35 53.1	2.135	3.101	4.3	20.8		
12 17	4 29.43	+24 30.9	2.156	3.114	5.0	19.6	12 17	4 27.35	+35 51.1	2.170	3.113	6.2	20.9		
12 27	4 21.75	+24 12.5	2.216	3.119	8.5	19.8	12 27	4 18.30	+35 37.5	2.234	3.126	9.0	21.1		
1 6	4 16.08	+23 55.8	2.301	3.124	11.5	20.0	1 6	4 11.61	+35 17.2	2.322	3.138	11.7	21.3		
<b>212997</b>	3238 <i>T</i> <sub>-2</sub>	12	3.9	52° 88'	8° 8'	30.2	18	<b>106042</b>	2000 <i>SK</i> <sub>306</sub>	12	3.9	101° 02'	2° 4'	4.8	18
10 28	5 4.26	- 2 59.4	2.286	3.059	13.5	20.0	10 28	5 10.34	+30 5.9	2.109	2.899	14.0	19.3		
11 7	5 0.00	- 4 19.2	2.226	3.066	11.6	19.9	11 7	5 5.15	+30 5.9	2.031	2.906	11.0	19.1		
11 17	4 53.95	- 5 26.9	2.189	3.073	9.8	19.8	11 17	4 57.54	+29 56.9	1.975	2.913	7.5	18.9		
11 27	4 46.69	- 6 17.0	2.177	3.080	8.9	19.7	11 27	4 48.25	+29 37.3	1.947	2.919	4.0	18.7		
12 7	4 39.00	- 6 45.6	2.192	3.087	9.1	19.8	12 7	4 38.33	+29 7.6	1.946	2.926	2.5	18.7		
12 17	4 31.67	- 6 51.0	2.232	3.094	10.4	19.9	12 17	4 28.91	+28 29.9	1.976	2.933	5.5	18.9		
12 27	4 25.47	- 6 33.6	2.296	3.101	12.1	20.0	12 27	4 21.05	+27 48.5	2.034	2.939	9.0	19.1		
1 6	4 20.96	- 5 56.5	2.381	3.109	14.0	20.1	1 6	4 15.48	+27 7.7	2.117	2.946	12.2	19.3		
<b>441031</b>	2007 <i>FW</i> <sub>2</sub>	12	3.9	245° 26'	2° 9'	3.3	18	<b>148647</b>	2001 <i>SL</i> <sub>75</sub>	12	3.9	93° 05'	4° 1'	5.1	18
10 28	5 12.81	+13 51.2	1.893	2.694	15.0	21.5	10 28	5 16.27	+32 29.3	1.639	2.431	17.3	19.7		
11 7	5 7.38	+13 51.7	1.796	2.679	11.8	21.2	11 7	5 10.36	+32 50.8	1.575	2.448	13.7	19.5		
11 17	4 59.26	+13 56.3	1.721	2.664	8.0	21.0	11 17	5 1.21	+33 0.0	1.532	2.465	9.7	19.3		
11 27	4 49.09	+14 6.0	1.673	2.648	4.2	20.7	11 27	4 49.82	+32 53.3	1.514	2.481	5.7	19.1		
12 7	4 37.86	+14 21.8	1.654	2.631	3.4	20.6	12 7	4 37.65	+32 29.9	1.523	2.498	4.2	19.1		
12 17	4 26.82	+14 44.3	1.664	2.614	7.1	20.8	12 17	4 26.31	+31 52.3	1.560	2.514	7.0	19.3		
12 27	4 17.20	+15 13.9	1.702	2.596	11.2	21.0	12 27	4 17.20	+31 6.6	1.624	2.530	10.9	19.6		
1 6	4 9.96	+15 50.5	1.765	2.578	14.9	21.2	1 6	4 11.18	+30 19.6	1.712	2.545	14.4	19.8		
<b>143052</b>	2002 <i>WY</i> <sub>2</sub>	12	3.9	174° 16'	2° 0'	3.5	18	<b>397302</b>	2006 <i>SD</i> <sub>216</sub>	12	3.9	89° 12'	4° 6'	2.5	18
10 28	5 13.80	+16 15.3	1.749	2.554	15.8	20.2	10 28	5 9.86	+10 59.2	1.985	2.787	14.3	21.5		
11 7	5 8.16	+16 25.2	1.669	2.556	12.3	20.0	11 7	5 4.41	+10 13.5	1.929	2.809	11.2	21.4		
11 17	4 59.72	+16 37.7	1.612	2.558	8.2	19.7	11 17	4 56.84	+ 9 32.0	1.895	2.832	7.9	21.2		
11 27	4 49.23	+16 53.1	1.581	2.559	3.8	19.5	11 27	4 47.89	+ 8 58.2	1.889	2.854	5.1	21.1		
12 7	4 37.83	+17 11.4	1.578	2.559	2.6	19.4	12 7	4 38.54	+ 8 34.9	1.911	2.876	4.9	21.1		
12 17	4 26.86	+17 33.0	1.605	2.560	6.8	19.7	12 17	4 29.77	+ 8 24.1	1.963	2.897	7.4	21.3		
12 27	4 17.57	+17 58.5	1.659	2.559	11.0	19.9	12 27	4 22.47	+ 8 26.4	2.041	2.918	10.5	21.5		
1 6	4 10.87	+18 28.5	1.738	2.559	14.7	20.2	1 6	4 17.26	+ 8 41.1	2.143	2.939	13.2	21.8		
<b>152607</b>	1995 <i>YE</i> <sub>20</sub>	12	3.9	298° 76'	1° 6'	3.4	17	<b>22594</b>	<i>Stoops</i>	12	3.9	155° 00'	0° 0'	3.7	18
10 28	5 7.11	+18 30.0	2.108	2.915	13.4	20.9	10 28	5 14.38	+21 18.2	1.565	2.376	17.1	18.9		
11 7	5 2.60	+18 15.2	2.022	2.911	10.4	20.7	11 7	5 9.01	+21 36.1	1.489	2.379	13.3	18.6		
11 17	4 55.88	+17 59.4	1.959	2.907	6.8	20.5	11 17	5 0.48	+21 52.4	1.434	2.382	8.7	18.4		
11 27	4 47.58	+17 43.5	1.924	2.902	3.1	20.2	11 27	4 49.60	+22 5.9	1.405	2.385	3.6	18.1		
12 7	4 38.60	+17 29.2	1.917	2.898	2.2	20.2	12 7	4 37.71	+22 15.9	1.403	2.387	1.7	17.9		
12 17	4 29.94	+17 18.2	1.940	2.894	5.8	20.4	12 17	4 26.32	+22 23.0	1.430	2.389	6.8	18.3		
12 27	4 22.59	+17 12.3	1.990	2.890	9.5	20.6	12 27	4 16.91	+22 29.6	1.483	2.391	11.5	18.6		
1 6	4 17.26	+17 13.1	2.065	2.886	12.7	20.8	1 6	4 10.44	+22 38.5	1.559	2.392	15.6	18.8		
<b>455522</b>	2003 <i>XA</i> <sub>28</sub>	12	3.9	37° 11'	1° 6'	4.3	18	<b>45648</b>	2000 <i>ED</i> <sub>47</sub>	12	3.9	324° 80'	3° 1'	2.8	18
10 28	5 8.94	+26 2.0	1.822	2.630	15.2	20.7	10 28	5 5.10	+15 9.7	2.064	2.876	13.5	17.8		
11 7	5 4.28	+26 21.7	1.760	2.647	11.7	20.6	11 7	5 1.08	+14 34.4	1.977	2.867	10.5	17.6		
11 17	4 57.05	+26 35.7	1.720	2.664	7.8	20.4	11 17	4 54.91	+13 59.4	1.914	2.859	7.1	17.4		
11 27	4 48.05	+26 42.4	1.705	2.683	3.7	20.1	11 27	4 47.20	+13 27.3	1.877	2.851	3.9	17.2		
12 7	4 38.42	+26 41.6	1.719	2.701	2.0	20.1	12 7	4 38.81	+13 0.6	1.868	2.843	3.6	17.2		
12 17	4 29.37	+26 34.5	1.761	2.720	5.8	20.4	12 17	4 30.73	+12 42.0	1.888	2.836	6.6	17.3		
12 27	4 22.02	+26 24.1	1.831	2.740	9.6	20.6	12 27	4 23.91	+12 33.3	1.936	2.828	10.1	17.5		
1 6	4 17.12	+26 13.8	1.924	2.760	12.9	20.9	1 6	4 19.06	+12 35.4	2.007	2.822	13.3	17.7		
<b>89086</b>	2001 <i>TG</i> <sub>172</sub>	12	3.9	333° 05'	1° 6'	3.3	18	<b>73070</b>	2002 <i>FB</i> <sub>35</sub>	12	3.9	188° 87'	0° 9'	4.2	18
10 28	5 7.87	+19 20.7	1.900	2.712	14.5	20.0	10 28	5 11.97	+25 15.4	1.995	2.793	14.4	20.8		
11 7	5 3.38	+18 55.2	1.818	2.710	11.2	19.8	11 7	5 6.56	+25 18.0	1.910	2.792	11.2	20.6		
11 17	4 56.47	+18 27.2	1.760	2.708	7.3	19.5	11 17	4 58.58	+25 15.1	1.848	2.791	7.4	20.4		
11 27	4 47.83	+17 58.2	1.728	2.707	3.3	19.3	11 27	4 48.74	+25 5.5	1.812	2.790	3.3	20.1		
12 7	4 38.49	+17 30.5	1.724	2.705	2.3	19.2	12 7	4 38.11	+24 49.6	1.805	2.788	1.6	20.0		
12 17	4 29.56	+17 6.5	1.749	2.704	6.3	19.5	12 17	4 27.89	+24 29.0	1.828	2.786	5.7	20.3		
12 27	4 22.11	+16 49.2	1.801	2.703	10.2	19.7	12 27	4 19.23	+24 6.9	1.879	2.784	9.7	20.5		
1 6	4 16.90	+16 40.2	1.877	2.701	13.7	19.9	1 6	4 12.95	+23 47.1	1.955	2.781	13.1	20.7		
<b>2509</b>	<i>Chukotka</i>	12	3.9	76° 11'	1° 9'	4.4	18	<b>326789</b>	2003 <i>SA</i> <sub>288</sub>	12	3.9	23° 75'	0° 9'	3.5	18
10 28	5 14.82	+27 17.7	1.562	2.368	17.4	16.6	10 28	5 6.56	+22 32.1	2.046	2.855	13.7	19.9		
11 7	5 9.10	+27 25.7	1.504	2.389	13.5	16.4	11 7	5 2.15	+21 50.0	1.969	2.859	10.5	19.7		
11 17	5 0.28	+27 25.3	1.467	2.411	9.0	16.1	11 17	4 55.53	+21 2.2	1.915	2.863	6.9	19.5		
11 27	4 49.39	+27 14.7	1.456	2.433	4.2	15.9	11 27	4 47.42	+20 10.5	1.887	2.867	2.9	19.3		
12 7	4 37.83	+26 54.2	1.472	2.454	2.3	15.9	12 7	4 38.75	+19 17.6	1.889	2.872	1.7	19.2		
12 17	4 27.14	+26 26.4	1.516	2.475	6.5	16.2	12 17	4 30.55	+18 27.2	1.920	2.877	5.7	19.5		
12 27	4 18.62	+25 56.3	1.587	2.496	10.8	16.5	12 27	4 23.77	+17 43.1	1.979	2.882	9.4	19.7		
1 6	4 13.06	+25 28.6	1.681	2.517	14.5	16.7	1 6	4 19.07	+17 8.0	2.063	2.887	12.6	19.9		
<b>74784</b>	1999 <i>RH</i> <sub>250</sub>	12	3.9	294° 61'	4° 3'	4.7									

EPHEMERIDES

12 3.9

12 3.9

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>227837</b>	2007 <i>CX</i> <sub>56</sub>	12	3.9 302°54	1.7°/ 3.5	18	R	<b>205953</b>	2002 <i>JH</i> <sub>122</sub>	12	3.9 206°16	0°5/ 3.7	18	
10 28	5 9.47	+18 55.6	1.426	2.253	17.6	20.2	10 28	5 11.09	+22 22.9	2.180	2.976	13.4	21.5
11 7	5 5.72	+18 46.7	1.335	2.235	13.8	19.9	11 7	5 5.63	+21 59.6	2.088	2.971	10.4	21.3
11 17	4 58.66	+18 36.7	1.265	2.216	9.2	19.6	11 17	4 57.86	+21 31.5	2.020	2.966	6.8	21.1
11 27	4 48.98	+18 26.4	1.218	2.198	4.1	19.2	11 27	4 48.45	+20 59.2	1.980	2.959	2.8	20.8
12 7	4 37.97	+18 17.5	1.197	2.180	2.7	19.1	12 7	4 38.34	+20 24.3	1.970	2.953	1.5	20.7
12 17	4 27.19	+18 12.0	1.203	2.162	7.9	19.3	12 17	4 28.58	+19 49.4	1.990	2.946	5.5	21.0
12 27	4 18.28	+18 12.9	1.234	2.145	13.1	19.6	12 27	4 20.20	+19 17.8	2.039	2.938	9.3	21.2
1 6	4 12.41	+18 22.3	1.286	2.128	17.7	19.8	1 6	4 13.94	+18 52.4	2.113	2.929	12.6	21.4
<b>195047</b>	2002 <i>CF</i> <sub>69</sub>	12	3.9 337°39	0°3/ 3.9	18		<b>487750</b>	2015 <i>RB</i> <sub>119</sub>	12	3.9 21°57	8°8/ 30.9	18	
10 28	5 7.96	+22 53.0	1.325	2.159	18.4	20.4	10 28	5 5.10	+ 6 41.9	1.392	2.220	18.0	20.2
11 7	5 4.73	+23 0.6	1.245	2.148	14.4	20.1	11 7	5 1.67	+ 4 59.5	1.340	2.229	14.5	20.0
11 17	4 58.05	+23 4.3	1.186	2.138	9.5	19.8	11 17	4 55.50	+ 3 25.2	1.308	2.238	11.2	19.8
11 27	4 48.72	+23 3.0	1.149	2.129	4.0	19.5	11 27	4 47.47	+ 2 7.8	1.299	2.249	9.0	19.7
12 7	4 38.12	+22 56.9	1.137	2.121	1.8	19.3	12 7	4 38.83	+ 1 14.3	1.316	2.260	9.3	19.8
12 17	4 27.94	+22 47.9	1.152	2.114	7.5	19.7	12 17	4 30.84	+ 0 48.6	1.356	2.273	11.7	20.0
12 27	4 19.87	+22 39.4	1.190	2.108	12.8	20.0	12 27	4 24.67	+ 0 50.9	1.420	2.286	14.8	20.2
1 6	4 15.01	+22 35.4	1.250	2.103	17.4	20.2	1 6	4 21.05	+ 1 17.5	1.503	2.300	17.8	20.4
<b>324778</b>	2007 <i>GF</i> <sub>53</sub>	12	3.9 148°61	2°7/ 2.7	18		<b>124728</b>	2001 <i>SR</i> <sub>171</sub>	12	3.9 79°75	1°2/ 4.2	18	
10 28	5 6.53	+15 32.5	2.503	3.302	11.8	21.3	10 28	5 15.86	+24 57.7	1.538	2.346	17.5	20.8
11 7	5 1.66	+14 50.8	2.424	3.307	9.1	21.1	11 7	5 9.89	+25 9.2	1.483	2.370	13.5	20.6
11 17	4 55.02	+14 8.8	2.370	3.312	6.1	21.0	11 17	5 0.82	+25 14.5	1.448	2.394	8.9	20.4
11 27	4 47.17	+13 28.8	2.343	3.316	3.4	20.8	11 27	4 49.66	+25 12.2	1.439	2.418	3.9	20.2
12 7	4 38.87	+12 53.4	2.347	3.321	3.1	20.8	12 7	4 37.86	+25 2.2	1.458	2.441	1.9	20.1
12 17	4 30.92	+12 24.8	2.381	3.325	5.7	20.9	12 17	4 26.93	+24 46.7	1.505	2.464	6.5	20.4
12 27	4 24.08	+12 4.9	2.443	3.328	8.6	21.1	12 27	4 18.18	+24 29.8	1.579	2.487	10.9	20.8
1 6	4 18.92	+11 54.6	2.531	3.332	11.3	21.3	1 6	4 12.42	+24 15.4	1.676	2.510	14.6	21.0
<b>68172</b>	2001 <i>BE</i> <sub>34</sub>	12	3.9 281°48	4°4/ 5.5	17		<b>490805</b>	2010 <i>VF</i> <sub>90</sub>	12	3.9 317°67	0°4/ 3.7	17	
10 28	5 10.54	+35 32.3	2.232	3.005	13.8	18.8	10 28	5 7.86	+24 2.6	2.009	2.815	14.0	21.3
11 7	5 5.50	+35 54.7	2.144	3.002	11.2	18.6	11 7	5 3.31	+23 22.1	1.922	2.811	10.9	21.0
11 17	4 57.91	+36 5.9	2.078	2.999	8.3	18.4	11 17	4 56.42	+22 34.3	1.859	2.806	7.1	20.8
11 27	4 48.48	+36 2.9	2.039	2.996	5.5	18.3	11 27	4 47.87	+21 40.4	1.823	2.802	2.9	20.5
12 7	4 38.26	+35 44.4	2.027	2.993	4.5	18.2	12 7	4 38.66	+20 43.1	1.815	2.799	1.5	20.4
12 17	4 28.44	+35 11.7	2.044	2.990	6.3	18.3	12 17	4 29.88	+19 46.4	1.837	2.795	5.7	20.7
12 27	4 20.15	+34 28.7	2.089	2.987	9.2	18.5	12 27	4 22.57	+18 54.6	1.887	2.791	9.7	20.9
1 6	4 14.22	+33 40.9	2.160	2.985	12.1	18.7	1 6	4 17.44	+18 11.3	1.962	2.788	13.1	21.2
<b>308932</b>	2006 <i>SO</i> <sub>367</sub>	12	3.9 47°51	5°7/ 3.3	18		<b>240128</b>	2002 <i>GM</i> <sub>141</sub>	12	3.9 146°09	1°2/ 4.3	18	
10 28	5 10.77	+ 7 30.2	1.551	2.362	17.2	19.3	10 28	5 13.03	+25 52.9	2.211	2.999	13.5	22.1
11 7	5 5.70	+ 7 22.8	1.499	2.383	13.6	19.1	11 7	5 7.05	+25 59.9	2.133	3.010	10.5	21.9
11 17	4 57.96	+ 7 25.9	1.468	2.403	9.8	19.0	11 17	4 58.74	+26 1.4	2.078	3.019	6.9	21.7
11 27	4 48.43	+ 7 42.4	1.461	2.425	6.5	18.8	11 27	4 48.80	+25 56.2	2.051	3.028	3.2	21.5
12 7	4 38.33	+ 8 13.3	1.481	2.446	6.0	18.9	12 7	4 38.24	+25 44.5	2.054	3.037	1.6	21.4
12 17	4 28.92	+ 8 57.7	1.529	2.468	8.6	19.1	12 17	4 28.14	+25 27.6	2.088	3.045	5.2	21.6
12 27	4 21.34	+ 9 53.8	1.602	2.490	12.1	19.3	12 27	4 19.52	+25 8.5	2.150	3.052	8.8	21.9
1 6	4 16.32	+10 58.5	1.698	2.513	15.3	19.6	1 6	4 13.09	+24 50.3	2.238	3.059	11.9	22.1
<b>308940</b>	2006 <i>SS</i> <sub>400</sub>	12	3.9 165°41	1°9/ 4.4	18		<b>84837</b>	2003 <i>AT</i> <sub>10</sub>	12	3.9 41°65	5°9/ 2.8	18	
10 28	5 11.16	+26 54.2	2.001	2.798	14.4	21.3	10 28	5 8.95	+ 9 22.8	1.454	2.276	17.7	18.0
11 7	5 6.00	+27 14.0	1.919	2.799	11.3	21.0	11 7	5 4.42	+ 8 45.8	1.407	2.298	13.9	17.8
11 17	4 58.26	+27 28.0	1.859	2.800	7.6	20.8	11 17	4 57.17	+ 8 17.1	1.381	2.320	9.9	17.7
11 27	4 48.63	+27 34.4	1.825	2.801	3.7	20.6	11 27	4 48.14	+ 8 0.8	1.379	2.344	6.6	17.5
12 7	4 38.20	+27 32.4	1.820	2.801	2.2	20.5	12 7	4 38.59	+ 7 59.6	1.402	2.367	6.2	17.6
12 17	4 28.15	+27 22.9	1.845	2.802	5.7	20.7	12 17	4 29.80	+ 8 14.5	1.452	2.391	9.0	17.8
12 27	4 19.67	+27 8.9	1.897	2.802	9.5	21.0	12 27	4 22.90	+ 8 44.8	1.527	2.416	12.6	18.1
1 6	4 13.57	+26 54.1	1.974	2.803	12.9	21.2	1 6	4 18.59	+ 9 27.8	1.624	2.441	15.8	18.4
<b>309603</b>	2008 <i>BK</i> <sub>26</sub>	12	3.9 43°03	1°9/ 4.5	18		<b>168421</b>	1998 <i>QW</i> <sub>75</sub>	12	3.9 80°05	8°6/ 1.2	18	
10 28	5 10.11	+28 24.3	1.835	2.637	15.3	20.6	10 28	5 10.08	+ 1 54.8	1.817	2.608	15.9	20.0
11 7	5 5.34	+28 21.4	1.757	2.640	12.0	20.4	11 7	5 4.66	+ 0 28.6	1.773	2.634	13.1	19.9
11 17	4 57.85	+28 9.6	1.701	2.643	8.1	20.1	11 17	4 57.04	+ 0 45.7	1.751	2.659	10.4	19.8
11 27	4 48.45	+27 47.6	1.671	2.647	4.0	19.9	11 27	4 48.03	+ 0 41.7	1.755	2.684	8.8	19.8
12 7	4 38.30	+27 16.1	1.669	2.651	2.2	19.8	12 7	4 38.64	+ 0 15.1	1.785	2.709	8.9	19.8
12 17	4 28.68	+26 37.8	1.695	2.654	6.0	20.0	12 17	4 29.92	+ 0 24.0	1.842	2.734	10.6	20.0
12 27	4 20.79	+25 57.0	1.749	2.658	10.0	20.3	12 27	4 22.78	+ 0 9.5	1.923	2.758	12.9	20.2
1 6	4 15.44	+25 18.7	1.827	2.662	13.5	20.5	1 6	4 17.82	+ 1 35.3	2.025	2.782	15.2	20.4
<b>428591</b>	2008 <i>EO</i> <sub>52</sub>	12	3.9 212°07	3°5/ 4.8	18		<b>518579</b>	2007 <i>LT</i> <sub>36</sub>	12	3.9 62°40	8°3/ 29.5	18	
10 28	5 16.88	+31 43.2	2.079	2.855	14.7	22.6	10 28	5 6.59	+ 1 38.4	2.155	2.941	13.9	20.9
11 7	5 10.60	+32 10.1	1.983	2.847	11.7	22.4	11 7	5 1.79	+ 0 17.8	2.103	2.957	11.5	20.8
11 17	5 1.40	+32 28.2	1.908	2.838	8.3	22.1	11 17	4 55.12	+ 0 5.0	2.075	2.974	9.5	20.7
11 27	4 50.01	+32 33.8	1.861	2.828	4.9	21.9	11 27	4 47.24	+ 0 36.2	2.074	2.991	8.4	20.6
12 7	4 37.56	+32 25.1	1.843	2.817	3.7	21.8	12 7	4 38.99	+ 0 46.1	2.101	3.008	8.7	20.7
12 17	4 25.43	+32 2.6	1.854	2.805	6.4	22.0	12 17	4 31.21	+ 0 31.5	2.155	3.026	10.3	20.8
12 27	4 14.96	+31 30.4	1.895	2.793	10.0	22.2	12 27	4 24.70	+ 0 52.2	2.233	3.043	12.3	21.0
1 6	4 7.12	+30 54.1	1.960	2.779	13.4	22.4	1 6	4 20.01	+ 0 50.5	2.332	3.060	14.2	21.2
<b>119442</b>	2001 <i>TC</i> <sub>147</sub>	12	3.9 313°08	0°5/ 3.8	18		<b>326871</b>	2003 <i>UA</i> <sub>294</sub>	12	3.9 4			

EPHEMERIDES

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>147741</b>	2005 <i>NA</i> <sub>17</sub>		12 3.9 167°01	1.6/ 3.6	18		<b>350209</b>	2012 <i>RH</i> <sub>8</sub>		12 3.9 47°80	1.1/ 4.2	18	
10 28	5 15.41	+16 58.2	2.068	2.859	14.2	20.6	10 28	5 12.83	+24 54.3	1.300	2.125	19.2	20.2
11 7	5 8.97	+17 7.2	1.986	2.866	11.0	20.4	11 7	5 8.09	+25 1.9	1.248	2.145	14.8	20.0
11 17	5 0.07	+17 17.5	1.928	2.871	7.2	20.1	11 17	4 59.91	+25 2.8	1.215	2.165	9.7	19.7
11 27	4 49.40	+17 29.2	1.898	2.876	3.3	19.9	11 27	4 49.38	+24 55.5	1.206	2.186	4.2	19.5
12 7	4 37.99	+17 42.2	1.898	2.879	2.2	19.8	12 7	4 38.10	+24 40.7	1.223	2.207	2.0	19.4
12 17	4 26.97	+17 57.2	1.929	2.882	6.0	20.1	12 17	4 27.77	+24 21.0	1.267	2.228	7.1	19.8
12 27	4 17.44	+18 14.9	1.989	2.884	9.8	20.3	12 27	4 19.85	+24 1.1	1.335	2.250	11.9	20.1
1 6	4 10.19	+18 36.5	2.075	2.885	13.1	20.6	1 6	4 15.16	+23 45.2	1.426	2.272	16.0	20.4
<b>349700</b>	2008 <i>XG</i> <sub>34</sub>		12 3.9 156°58	1.6/ 4.4	18		<b>221041</b>	2005 <i>QF</i> <sub>74</sub>		12 3.9 46°17	2.5/ 3.3	18	
10 28	5 12.84	+27 47.3	2.002	2.794	14.6	21.8	10 28	5 10.72	+18 57.1	1.278	2.111	19.0	19.4
11 7	5 7.21	+27 43.4	1.921	2.799	11.4	21.6	11 7	5 6.37	+18 20.3	1.223	2.125	14.6	19.2
11 17	4 58.99	+27 31.4	1.863	2.804	7.6	21.3	11 17	4 58.75	+17 41.2	1.187	2.140	9.6	19.0
11 27	4 48.96	+27 10.2	1.832	2.809	3.6	21.1	11 27	4 48.90	+17 2.5	1.176	2.155	4.4	18.7
12 7	4 38.22	+26 40.3	1.830	2.813	2.0	21.0	12 7	4 38.32	+16 27.9	1.190	2.171	3.3	18.7
12 17	4 28.00	+26 4.2	1.858	2.816	5.7	21.2	12 17	4 28.60	+16 1.3	1.230	2.187	8.0	19.0
12 27	4 19.42	+25 26.0	1.914	2.819	9.5	21.5	12 27	4 21.14	+15 45.9	1.295	2.203	12.8	19.3
1 6	4 13.27	+24 50.0	1.996	2.822	12.9	21.7	1 6	4 16.74	+15 43.1	1.381	2.220	16.8	19.6
<b>68497</b>	2001 <i>UZ</i> <sub>33</sub>		12 3.9 3°56	3.8/ 2.9	17		<b>82544</b>	2001 <i>OU</i> <sub>67</sub>		12 3.9 126°23	1.2/ 4.2	18	
10 28	5 4.93	+11 27.5	2.060	2.870	13.6	19.1	10 28	5 15.15	+25 45.4	1.809	2.606	15.7	20.0
11 7	5 0.91	+11 11.3	1.983	2.870	10.7	18.9	11 7	5 9.12	+25 49.9	1.739	2.620	12.2	19.8
11 17	4 54.79	+10 59.6	1.929	2.870	7.4	18.8	11 17	5 0.29	+25 47.9	1.691	2.634	8.1	19.6
11 27	4 47.20	+10 54.8	1.902	2.871	4.5	18.6	11 27	4 49.51	+25 38.2	1.669	2.646	3.6	19.4
12 7	4 39.00	+10 58.6	1.902	2.873	4.2	18.6	12 7	4 38.03	+25 20.9	1.676	2.659	1.8	19.3
12 17	4 31.14	+11 12.0	1.931	2.875	6.8	18.7	12 17	4 27.19	+24 58.2	1.712	2.670	6.0	19.6
12 27	4 24.52	+11 35.2	1.987	2.877	10.0	18.9	12 27	4 18.19	+24 33.9	1.776	2.681	10.1	19.8
1 6	4 19.84	+12 7.7	2.067	2.880	13.0	19.1	1 6	4 11.86	+24 12.0	1.865	2.692	13.6	20.1
<b>268557</b>	2006 <i>BH</i> <sub>32</sub>		12 3.9 230°66	5.2/ 2.3	17		<b>365038</b>	2008 <i>SG</i> <sub>284</sub>		12 3.9 110°99	5.4/ 1.3	18	
10 28	5 6.13	+ 6 58.8	2.317	3.112	12.8	20.6	10 28	5 6.28	+ 5 15.7	2.744	3.526	11.3	21.5
11 7	5 1.56	+ 6 25.7	2.237	3.110	10.2	20.5	11 7	5 1.19	+ 4 9.6	2.684	3.545	9.1	21.4
11 17	4 55.10	+ 5 58.9	2.181	3.108	7.6	20.3	11 17	4 54.60	+ 3 9.2	2.649	3.564	7.0	21.3
11 27	4 47.31	+ 5 41.6	2.152	3.106	5.5	20.2	11 27	4 47.03	+ 2 18.4	2.642	3.582	5.6	21.2
12 7	4 38.97	+ 5 36.1	2.150	3.104	5.5	20.2	12 7	4 39.16	+ 1 40.0	2.664	3.600	5.7	21.3
12 17	4 30.93	+ 5 43.8	2.178	3.103	7.4	20.3	12 17	4 31.66	+ 1 16.1	2.716	3.617	7.2	21.4
12 27	4 24.00	+ 6 4.8	2.233	3.101	10.1	20.5	12 27	4 25.17	+ 1 7.1	2.795	3.634	9.2	21.5
1 6	4 18.81	+ 6 37.9	2.312	3.099	12.6	20.6	1 6	4 20.17	+ 1 12.0	2.898	3.651	11.2	21.7
<b>164981</b>	2000 <i>AT</i> <sub>167</sub>		12 3.9 333°72	9.3/30.8	18		<b>488018</b>	2015 <i>UL</i> <sub>14</sub>		12 3.9 238°35	0.9/ 4.1	18	
10 28	5 4.91	+ 4 21.3	1.492	2.312	17.4	19.3	10 28	5 10.79	+24 22.0	2.006	2.807	14.3	22.1
11 7	5 1.67	+ 2 54.4	1.418	2.300	14.4	19.1	11 7	5 5.76	+24 36.4	1.918	2.802	11.1	21.8
11 17	4 55.68	+ 1 36.0	1.365	2.289	11.4	18.9	11 17	4 58.18	+24 46.8	1.852	2.797	7.4	21.6
11 27	4 47.68	+ 0 34.1	1.335	2.279	9.5	18.7	11 27	4 48.71	+24 52.1	1.813	2.791	3.3	21.3
12 7	4 38.79	- 0 4.1	1.330	2.270	9.8	18.7	12 7	4 38.37	+24 51.6	1.803	2.786	1.6	21.2
12 17	4 30.28	- 0 14.7	1.349	2.261	12.1	18.9	12 17	4 28.36	+24 46.5	1.822	2.781	5.7	21.5
12 27	4 23.41	+ 0 3.0	1.391	2.253	15.3	19.0	12 27	4 19.82	+24 39.1	1.869	2.775	9.6	21.7
1 6	4 19.06	+ 0 45.6	1.452	2.246	18.5	19.2	1 6	4 13.61	+24 32.4	1.941	2.769	13.1	21.9
<b>139104</b>	2001 <i>FH</i> <sub>44</sub>		12 3.9 152°17	4.0/ 2.5	18		<b>213909</b>	2003 <i>UC</i> <sub>96</sub>		12 3.9 114°46	1.2/ 3.6	18	
10 28	5 12.44	+14 39.4	1.790	2.596	15.5	19.9	10 28	5 15.91	+20 27.7	1.611	2.418	16.9	21.1
11 7	5 6.84	+13 43.0	1.718	2.604	12.1	19.7	11 7	5 9.77	+20 11.4	1.549	2.437	13.0	20.8
11 17	4 58.71	+12 46.5	1.669	2.611	8.2	19.5	11 17	5 0.72	+19 52.1	1.507	2.455	8.5	20.6
11 27	4 48.83	+11 53.9	1.646	2.617	4.8	19.3	11 27	4 49.69	+19 30.6	1.492	2.472	3.6	20.4
12 7	4 38.31	+11 9.0	1.652	2.623	4.5	19.3	12 7	4 38.00	+19 8.4	1.506	2.488	2.1	20.3
12 17	4 28.34	+10 35.5	1.687	2.628	7.8	19.5	12 17	4 27.07	+18 48.4	1.548	2.504	6.7	20.6
12 27	4 20.04	+10 16.0	1.748	2.633	11.5	19.7	12 27	4 18.16	+18 33.5	1.617	2.519	11.1	20.9
1 6	4 14.14	+10 10.9	1.833	2.637	14.8	19.9	1 6	4 12.05	+18 26.3	1.710	2.534	14.8	21.2
<b>51648</b>	2001 <i>HN</i> <sub>63</sub>		12 3.9 164°31	0.0/ 3.9	18		<b>227145</b>	2005 <i>PX</i> <sub>2</sub>		12 3.9 99°47	3.5/ 4.9	18	
10 28	5 14.39	+24 23.5	2.002	2.795	14.5	20.3	10 28	5 18.48	+31 30.3	1.703	2.490	16.9	21.3
11 7	5 8.24	+23 52.9	1.921	2.802	11.2	20.1	11 7	5 11.83	+31 45.8	1.643	2.514	13.4	21.2
11 17	4 59.58	+23 15.2	1.863	2.807	7.4	19.8	11 17	5 2.08	+31 49.7	1.604	2.538	9.3	21.0
11 27	4 49.18	+22 31.0	1.833	2.812	3.1	19.6	11 27	4 50.24	+31 39.0	1.592	2.561	5.2	20.8
12 7	4 38.15	+21 42.3	1.833	2.816	1.4	19.5	12 7	4 37.77	+31 13.3	1.607	2.584	3.6	20.7
12 17	4 27.67	+20 52.6	1.863	2.820	5.8	19.8	12 17	4 26.20	+30 35.4	1.651	2.606	6.6	21.0
12 27	4 18.83	+20 6.4	1.922	2.822	9.8	20.0	12 27	4 16.84	+29 51.2	1.723	2.627	10.4	21.2
1 6	4 12.38	+19 27.4	2.006	2.824	13.2	20.2	1 6	4 10.48	+29 7.0	1.820	2.648	13.9	21.5
<b>89183</b>	2001 <i>UD</i> <sub>70</sub>		12 3.9 203°94	1.1/ 3.5	18		<b>79872</b>	1998 <i>YU</i> <sub>7</sub>		12 3.9 107°96	2.3/ 4.8	18	
10 28	5 12.11	+20 35.7	1.935	2.737	14.6	20.6	10 28	5 12.24	+30 21.3	2.065	2.852	14.4	19.8
11 7	5 6.70	+20 15.0	1.847	2.733	11.3	20.4	11 7	5 6.61	+30 13.3	1.992	2.865	11.3	19.6
11 17	4 58.72	+19 50.9	1.783	2.729	7.4	20.2	11 17	4 58.52	+29 55.4	1.941	2.878	7.7	19.4
11 27	4 48.89	+19 24.1	1.745	2.724	3.2	19.9	11 27	4 48.75	+29 26.4	1.917	2.890	4.0	19.2
12 7	4 38.26	+18 56.4	1.736	2.719	1.9	19.8	12 7	4 38.42	+28 47.1	1.923	2.903	2.4	19.1
12 17	4 28.01	+18 30.4	1.757	2.713	6.2	20.1	12 17	4 28.68	+28 0.3	1.958	2.914	5.5	19.3
12 27	4 19.31	+18 9.0	1.806	2.706	10.3	20.3	12 27	4 20.60	+27 10.7	2.021	2.926	9.1	19.6
1 6	4 12.96	+17 55.0	1.879	2.699	13.9	20.5	1 6	4 14.89	+26 23.0	2.110	2.937	12.2	19.8
<b>135812</b>	2002 <i>RL</i> <sub>169</sub>		12 3.9 129°97	0.6/ 4.1	18		<b>41303</b>	1999 <i>XP</i> <sub>139</sub>		12 3.9 147°44	0.0		

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>325830</b>	2010 <i>SN</i> <sub>15</sub>		12 3.9 126°40	1.1/ 4.2	17		<b>300479</b>	2007 <i>TG</i> <sub>123</sub>		12 3.9 67°19	5.1/ 4.9	18	
10 28	5 16.59	+26 7.2	1.512	2.319	17.8	21.3	10 28	5 17.33	+32 14.0	1.668	2.457	17.1	20.1
11 7	5 10.73	+26 0.7	1.444	2.331	13.9	21.0	11 7	5 11.40	+33 24.7	1.607	2.477	13.7	19.9
11 17	5 1.58	+25 45.8	1.397	2.342	9.2	20.8	11 17	5 2.13	+34 26.0	1.568	2.496	9.9	19.7
11 27	4 50.13	+25 21.3	1.374	2.353	4.1	20.5	11 27	4 50.44	+35 11.9	1.554	2.516	6.4	19.5
12 7	4 37.83	+24 48.2	1.380	2.363	1.9	20.4	12 7	4 37.78	+35 38.5	1.567	2.535	5.2	19.5
12 17	4 26.32	+24 9.9	1.413	2.373	6.8	20.7	12 17	4 25.79	+35 45.9	1.608	2.555	7.6	19.7
12 27	4 17.04	+23 31.8	1.473	2.382	11.5	21.0	12 27	4 16.00	+35 38.2	1.676	2.574	11.1	20.0
1 6	4 10.88	+22 59.1	1.557	2.391	15.5	21.3	1 6	4 9.36	+35 21.7	1.768	2.594	14.3	20.2
<b>474910</b>	2005 <i>SV</i> <sub>211</sub>		12 3.9 16°37	1.3/ 3.6	16		<b>426829</b>	2013 <i>VZ</i>		12 3.9 103°61	0.7/ 3.8	18	
10 28	5 7.69	+21 5.5	1.143	1.988	20.0	21.0	10 28	5 16.50	+20 30.7	1.548	2.356	17.4	21.0
11 7	5 4.62	+20 45.4	1.084	1.992	15.4	20.7	11 7	5 10.39	+20 32.0	1.487	2.376	13.4	20.8
11 17	4 57.96	+20 21.1	1.043	1.998	10.1	20.4	11 17	5 1.23	+20 31.1	1.448	2.395	8.7	20.6
11 27	4 48.70	+19 53.9	1.025	2.005	4.3	20.1	11 27	4 49.97	+20 27.9	1.434	2.414	3.6	20.3
12 7	4 38.47	+19 26.6	1.030	2.014	2.4	20.1	12 7	4 38.01	+20 22.9	1.449	2.432	1.8	20.3
12 17	4 29.03	+19 3.2	1.061	2.023	8.1	20.4	12 17	4 26.83	+20 17.8	1.492	2.449	6.8	20.6
12 27	4 21.98	+18 47.6	1.115	2.034	13.4	20.8	12 27	4 17.75	+20 15.3	1.562	2.466	11.3	20.9
1 6	4 18.26	+18 42.5	1.190	2.045	17.9	21.1	1 6	4 11.59	+20 17.8	1.655	2.483	15.0	21.2
<b>181806</b>	1998 <i>QT</i> <sub>95</sub>		12 3.9 114°12	2.2/ 3.2	18		<b>243929</b>	2001 <i>OU</i> <sub>61</sub>		12 3.9 72°36	4.0/ 5.3	18	
10 28	5 14.02	+19 12.0	1.726	2.532	16.0	20.6	10 28	5 14.19	+33 12.5	1.841	2.626	15.9	19.7
11 7	5 8.07	+18 25.9	1.662	2.550	12.3	20.4	11 7	5 8.47	+33 32.4	1.779	2.648	12.6	19.5
11 17	4 59.49	+17 36.6	1.621	2.567	8.0	20.2	11 17	4 59.91	+33 40.4	1.739	2.669	9.0	19.3
11 27	4 49.17	+16 46.7	1.606	2.584	3.7	19.9	11 27	4 49.41	+33 33.6	1.725	2.690	5.4	19.2
12 7	4 38.30	+15 59.6	1.620	2.600	2.9	19.9	12 7	4 38.29	+33 11.4	1.738	2.711	4.1	19.1
12 17	4 28.15	+15 19.1	1.664	2.615	6.9	20.2	12 17	4 27.92	+32 36.3	1.780	2.732	6.5	19.3
12 27	4 19.84	+14 48.5	1.734	2.630	10.9	20.5	12 27	4 19.51	+31 53.4	1.850	2.753	9.9	19.6
1 6	4 14.08	+14 29.8	1.829	2.644	14.3	20.7	1 6	4 13.83	+31 8.6	1.944	2.774	13.0	19.8
<b>7518</b>	1989 <i>FG</i>		12 3.9 319°24	0.9/ 4.1	18		<b>22047</b>	1999 <i>XU</i> <sub>215</sub>		12 3.9 147°50	2.6/ 5.1	18	
10 28	5 9.56	+23 45.8	1.541	2.361	16.9	17.0	10 28	5 13.67	+31 56.0	2.110	2.890	14.3	18.4
11 7	5 5.64	+24 1.8	1.454	2.349	13.2	16.7	11 7	5 7.76	+31 41.1	2.029	2.897	11.3	18.2
11 17	4 58.56	+24 14.0	1.388	2.337	8.8	16.5	11 17	4 59.32	+31 14.6	1.971	2.904	7.8	18.0
11 27	4 49.02	+24 20.9	1.346	2.326	3.9	16.1	11 27	4 49.16	+30 35.3	1.940	2.911	4.3	17.8
12 7	4 38.29	+24 21.9	1.331	2.315	1.8	16.0	12 7	4 38.40	+29 44.0	1.938	2.917	2.7	17.7
12 17	4 27.87	+24 17.9	1.343	2.305	6.9	16.3	12 17	4 28.22	+28 44.0	1.967	2.922	5.6	17.9
12 27	4 19.30	+24 12.1	1.381	2.295	11.8	16.5	12 27	4 19.73	+27 40.6	2.024	2.928	9.1	18.2
1 6	4 13.64	+24 8.0	1.442	2.285	16.0	16.8	1 6	4 13.64	+26 39.3	2.107	2.932	12.3	18.4
<b>208088</b>	1999 <i>XX</i> <sub>144</sub>		12 3.9 21°65	0.1/ 3.9	18		<b>160977</b>	2002 <i>CH</i> <sub>59</sub>		12 3.9 149°44	3.6/ 5.1	18	
10 28	5 10.40	+21 29.3	1.603	2.420	16.5	20.6	10 28	5 14.93	+32 29.6	2.061	2.839	14.7	20.5
11 7	5 5.90	+21 38.8	1.529	2.423	12.8	20.4	11 7	5 8.94	+32 51.0	1.982	2.846	11.7	20.3
11 17	4 58.46	+21 46.1	1.476	2.425	8.4	20.1	11 17	5 0.24	+33 2.3	1.925	2.854	8.3	20.1
11 27	4 48.89	+21 50.6	1.448	2.428	3.5	19.9	11 27	4 49.60	+33 0.6	1.894	2.860	5.0	19.9
12 7	4 38.40	+21 52.3	1.447	2.431	1.6	19.7	12 7	4 38.19	+32 44.7	1.893	2.866	3.7	19.8
12 17	4 28.41	+21 52.5	1.475	2.435	6.5	20.1	12 17	4 27.29	+32 16.2	1.921	2.872	6.1	20.0
12 27	4 20.24	+21 53.6	1.528	2.438	11.1	20.3	12 27	4 18.12	+31 39.3	1.977	2.877	9.5	20.2
1 6	4 14.80	+21 58.1	1.605	2.443	15.0	20.6	1 6	4 11.49	+30 59.5	2.058	2.882	12.7	20.4
<b>177210</b>	2003 <i>UE</i> <sub>134</sub>		12 3.9 71°99	5.0/ 5.4	18		<b>309592</b>	2008 <i>AX</i> <sub>135</sub>		12 3.9 4°89	0.3/ 3.9	17	
10 28	5 17.72	+33 55.1	1.326	2.128	20.1	20.0	10 28	5 9.79	+18 36.7	1.410	2.238	17.8	19.5
11 7	5 12.17	+34 13.7	1.269	2.147	16.0	19.7	11 7	5 5.88	+19 21.8	1.338	2.237	13.8	19.3
11 17	5 2.75	+34 16.2	1.232	2.166	11.4	19.5	11 17	4 58.72	+20 10.4	1.287	2.238	9.1	19.0
11 27	4 50.64	+33 58.1	1.218	2.185	6.9	19.3	11 27	4 49.11	+21 0.8	1.260	2.240	3.8	18.7
12 7	4 37.69	+33 18.8	1.229	2.204	5.1	19.3	12 7	4 38.38	+21 50.5	1.259	2.243	1.7	18.6
12 17	4 25.86	+32 22.5	1.267	2.222	8.1	19.5	12 17	4 28.08	+22 37.8	1.286	2.247	7.1	18.9
12 27	4 16.81	+31 17.9	1.330	2.241	12.3	19.8	12 27	4 19.75	+23 22.4	1.337	2.252	12.0	19.2
1 6	4 11.41	+30 14.1	1.416	2.259	16.2	20.1	1 6	4 14.44	+24 5.5	1.412	2.258	16.1	19.5
<b>216166</b>	2006 <i>SM</i> <sub>385</sub>		12 3.9 206°15	2.6/ 3.3	18		<b>369239</b>	2008 <i>VO</i> <sub>16</sub>		12 3.9 31°51	1.7/ 3.3	18	
10 28	5 10.21	+13 59.7	2.233	3.030	13.1	20.8	10 28	5 5.99	+18 51.0	2.079	2.890	13.5	21.1
11 7	5 4.89	+13 59.4	2.145	3.026	10.2	20.6	11 7	5 1.72	+18 22.3	2.006	2.897	10.3	20.9
11 17	4 57.42	+14 2.2	2.081	3.022	6.9	20.4	11 17	4 55.33	+17 51.8	1.956	2.904	6.8	20.7
11 27	4 48.37	+14 9.1	2.044	3.018	3.6	20.2	11 27	4 47.50	+17 21.3	1.933	2.912	3.1	20.5
12 7	4 38.63	+14 20.8	2.037	3.014	3.0	20.1	12 7	4 39.14	+16 52.8	1.939	2.920	2.3	20.4
12 17	4 29.15	+14 38.1	2.060	3.009	6.0	20.3	12 17	4 31.20	+16 28.8	1.974	2.928	5.8	20.7
12 27	4 20.90	+15 1.3	2.112	3.004	9.4	20.5	12 27	4 24.59	+16 11.5	2.036	2.937	9.3	20.9
1 6	4 14.60	+15 30.5	2.189	2.998	12.5	20.7	1 6	4 19.97	+16 2.4	2.123	2.945	12.4	21.1
<b>273659</b>	2007 <i>DS</i> <sub>90</sub>		12 3.9 191°21	1.1/ 3.6	18		<b>491482</b>	2012 <i>HS</i> <sub>43</sub>		12 3.9 223°36	0.1/ 3.9	18	
10 28	5 12.72	+19 50.0	2.015	2.814	14.3	21.7	10 28	5 7.92	+22 1.8	2.576	3.369	11.6	22.4
11 7	5 7.08	+19 40.1	1.929	2.813	11.0	21.5	11 7	5 2.97	+21 59.7	2.481	3.363	9.0	22.2
11 17	4 58.96	+19 28.2	1.865	2.811	7.3	21.2	11 17	4 56.09	+21 54.8	2.412	3.356	5.9	22.0
11 27	4 49.04	+19 14.7	1.829	2.808	3.1	21.0	11 27	4 47.84	+21 47.3	2.370	3.349	2.5	21.8
12 7	4 38.35	+19 0.8	1.823	2.805	1.9	20.9	12 7	4 38.98	+21 37.6	2.358	3.342	1.1	21.6
12 17	4 28.03	+18 48.1	1.846	2.802	6.0	21.1	12 17	4 30.35	+21 26.9	2.377	3.334	4.7	21.9
12 27	4 19.19	+18 39.2	1.898	2.797	9.9	21.4	12 27	4 22.80	+21 17.2	2.426	3.326	8.0	22.1
1 6	4 12.64	+18 35.9	1.975	2.792	13.4	21.6	1 6	4 17.00	+21 10.3	2.500	3.318	10.9	22.3
<b>474417</b>	2002 <i>XS</i> <sub>1</sub>		12 3.9 19°07	2.3/ 3.6	18		<b>448332</b>	2009 <i>DF</i> <sub>142</sub>		12 3.9 156°08	3.6/ 4.9		



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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>438025</b>	2004 CA <sub>52</sub>	12	3.9 289°24	11°5/ 2.9	18		<b>20525</b>	1999 RU <sub>43</sub>	12	3.9 108°81	6°7/ 5.2	18	
10 28	5 13.39	- 4 50.0	1.522	2.299	19.0	20.6	10 28	5 22.58	+37 58.3	2.049	2.800	15.6	17.6
11 7	5 8.45	- 5 21.4	1.434	2.280	16.5	20.4	11 7	5 15.29	+39 28.2	1.982	2.819	12.9	17.5
11 17	5 0.38	- 5 31.8	1.366	2.259	13.8	20.1	11 17	5 4.68	+40 46.6	1.937	2.838	10.0	17.3
11 27	4 49.85	- 5 12.9	1.319	2.239	11.9	20.0	11 27	4 51.58	+41 46.3	1.919	2.857	7.5	17.2
12 7	4 38.04	- 4 19.9	1.297	2.219	11.7	19.9	12 7	4 37.36	+42 22.5	1.930	2.875	6.8	17.2
12 17	4 26.41	- 2 52.3	1.300	2.199	13.6	20.0	12 17	4 23.64	+42 34.2	1.970	2.893	8.2	17.4
12 27	4 16.46	- 0 54.5	1.327	2.179	16.6	20.1	12 27	4 11.96	+42 25.6	2.037	2.910	10.7	17.5
1 6	4 9.29	+ 1 25.0	1.375	2.159	19.8	20.3	1 6	4 3.37	+42 3.6	2.128	2.926	13.2	17.7
<b>48130</b>	2001 FF <sub>119</sub>	12	3.9 148°18	4°5/ 5.9	18 R		<b>55314</b>	2001 SC <sub>64</sub>	12	3.9 345°63	2°7/ 4.4	18	
10 28	5 15.07	+36 52.9	2.192	2.955	14.4	19.1	10 28	5 9.92	+26 56.7	1.657	2.468	16.3	18.3
11 7	5 8.93	+36 59.9	2.111	2.962	11.7	18.9	11 7	5 5.79	+27 36.5	1.574	2.462	12.8	18.1
11 17	5 0.15	+36 53.4	2.053	2.970	8.6	18.7	11 17	4 58.60	+28 11.5	1.513	2.457	8.8	17.8
11 27	4 49.54	+36 30.4	2.020	2.976	5.7	18.6	11 27	4 49.09	+28 38.5	1.477	2.453	4.5	17.6
12 7	4 38.27	+35 50.5	2.016	2.983	4.5	18.5	12 7	4 38.46	+28 55.2	1.468	2.449	2.9	17.5
12 17	4 27.59	+34 55.9	2.042	2.988	6.3	18.6	12 17	4 28.18	+29 1.5	1.487	2.445	6.7	17.7
12 27	4 18.67	+33 52.2	2.097	2.994	9.2	18.8	12 27	4 19.70	+29 0.2	1.532	2.443	11.0	18.0
1 6	4 12.27	+32 45.6	2.177	2.999	12.1	19.0	1 6	4 14.03	+28 55.5	1.600	2.441	14.8	18.2
<b>273224</b>	2006 JJ <sub>54</sub>	12	3.9 250°94	0°9/ 4.1	18		<b>183632</b>	2003 UB <sub>383</sub>	12	3.9 5°58	6°7/ 2.1	18	
10 28	5 10.22	+23 30.9	2.615	3.401	11.7	20.8	10 28	5 6.84	+ 9 28.0	1.478	2.303	17.3	20.2
11 7	5 4.87	+24 2.5	2.512	3.389	9.1	20.6	11 7	5 3.13	+ 8 24.8	1.411	2.303	13.8	20.0
11 17	4 57.44	+24 32.5	2.434	3.376	6.0	20.3	11 17	4 56.63	+ 7 27.1	1.365	2.304	10.1	19.7
11 27	4 48.46	+24 59.5	2.385	3.363	2.7	20.1	11 27	4 48.17	+ 6 40.9	1.343	2.305	7.1	19.6
12 7	4 38.70	+25 22.4	2.366	3.349	1.4	20.0	12 7	4 38.91	+ 6 11.3	1.346	2.306	7.1	19.6
12 17	4 29.05	+25 40.9	2.379	3.335	4.7	20.2	12 17	4 30.17	+ 6 1.6	1.375	2.309	10.0	19.8
12 27	4 20.45	+25 55.9	2.421	3.322	8.0	20.4	12 27	4 23.18	+ 6 12.6	1.428	2.312	13.6	20.0
1 6	4 13.63	+26 9.3	2.490	3.307	10.9	20.6	1 6	4 18.76	+ 6 42.2	1.502	2.315	17.0	20.2
<b>163323</b>	2002 JS <sub>115</sub>	12	3.9 201°15	2°8/ 2.9	18		<b>52883</b>	1998 SO <sub>54</sub>	12	3.9 155°81	5°8/ 2.0	18	
10 28	5 10.01	+16 17.3	1.970	2.776	14.3	21.1	10 28	5 11.48	+10 0.6	1.777	2.581	15.7	19.6
11 7	5 4.98	+15 41.2	1.887	2.774	11.1	20.9	11 7	5 6.17	+ 8 55.4	1.706	2.587	12.4	19.4
11 17	4 57.58	+15 4.6	1.827	2.771	7.5	20.7	11 17	4 58.36	+ 7 54.1	1.658	2.592	9.0	19.2
11 27	4 48.50	+14 29.6	1.793	2.768	3.9	20.4	11 27	4 48.82	+ 7 1.6	1.636	2.597	6.3	19.0
12 7	4 38.71	+13 59.0	1.788	2.765	3.4	20.4	12 7	4 38.63	+ 6 22.5	1.642	2.601	6.2	19.0
12 17	4 29.30	+13 35.6	1.813	2.761	6.7	20.6	12 17	4 28.95	+ 6 0.1	1.676	2.605	8.9	19.2
12 27	4 21.32	+13 21.7	1.865	2.757	10.5	20.8	12 27	4 20.87	+ 5 55.7	1.736	2.608	12.3	19.4
1 6	4 15.53	+13 18.5	1.941	2.753	13.8	21.0	1 6	4 15.13	+ 6 8.3	1.818	2.611	15.4	19.6
<b>371274</b>	2006 DR <sub>94</sub>	12	3.9 185°13	3°4/ 5.2	18		<b>45254</b>	1999 YS <sub>12</sub>	12	3.9 228°93	0°6/ 3.7	18	
10 28	5 10.34	+33 47.4	2.724	3.491	11.8	21.8	10 28	5 7.52	+20 45.6	2.581	3.376	11.6	19.1
11 7	5 4.92	+34 12.6	2.635	3.491	9.4	21.6	11 7	5 2.66	+20 40.0	2.486	3.369	8.9	18.9
11 17	4 57.41	+34 29.6	2.568	3.490	6.8	21.5	11 17	4 55.90	+20 32.2	2.416	3.361	5.9	18.7
11 27	4 48.40	+34 35.9	2.529	3.490	4.4	21.3	11 27	4 47.79	+20 22.7	2.375	3.354	2.5	18.5
12 7	4 38.75	+34 30.5	2.520	3.489	3.5	21.3	12 7	4 39.07	+20 12.2	2.363	3.346	1.3	18.4
12 17	4 29.38	+34 14.1	2.541	3.487	5.2	21.4	12 17	4 30.59	+20 2.0	2.382	3.338	4.7	18.6
12 27	4 21.23	+33 49.4	2.591	3.486	7.8	21.5	12 27	4 23.16	+19 53.8	2.430	3.329	8.0	18.8
1 6	4 14.97	+33 20.0	2.667	3.484	10.3	21.7	1 6	4 17.45	+19 49.2	2.504	3.321	10.9	19.0
<b>340113</b>	2005 WM <sub>168</sub>	12	3.9 286°83	1°5/ 3.7	18		<b>493945</b>	2016 AK <sub>22</sub>	12	3.9 38°09	3°2/ 5.2	17	
10 28	5 11.11	+18 18.9	1.588	2.406	16.6	20.7	10 28	5 9.45	+32 51.2	2.155	2.940	13.9	21.3
11 7	5 6.65	+18 22.4	1.501	2.395	13.0	20.4	11 7	5 4.62	+32 54.7	2.075	2.943	11.1	21.1
11 17	4 59.14	+18 26.6	1.434	2.383	8.6	20.2	11 17	4 57.37	+32 47.5	2.017	2.948	7.8	20.9
11 27	4 49.30	+18 31.7	1.393	2.372	3.8	19.9	11 27	4 48.42	+32 27.8	1.985	2.952	4.6	20.7
12 7	4 38.32	+18 38.3	1.379	2.361	2.3	19.7	12 7	4 38.81	+31 55.6	1.981	2.956	3.3	20.7
12 17	4 27.62	+18 47.3	1.392	2.350	7.1	20.0	12 17	4 29.69	+31 13.0	2.007	2.961	5.7	20.8
12 27	4 18.66	+19 0.6	1.432	2.340	11.9	20.2	12 27	4 22.10	+30 24.5	2.061	2.966	8.9	21.0
1 6	4 12.48	+19 19.5	1.495	2.329	16.0	20.5	1 6	4 16.79	+29 35.0	2.140	2.971	12.0	21.2
<b>210356</b>	2007 UP <sub>41</sub>	12	3.9 313°98	1°0/ 4.2	18		<b>137196</b>	1999 JS <sub>129</sub>	12	3.9 288°70	3°6/ 3.1	18	
10 28	5 9.67	+24 15.8	1.646	2.461	16.2	20.3	10 28	5 8.86	+12 36.1	1.966	2.772	14.3	19.5
11 7	5 5.55	+24 29.9	1.557	2.449	12.7	20.1	11 7	5 4.36	+12 25.2	1.866	2.751	11.3	19.2
11 17	4 58.43	+24 39.7	1.490	2.438	8.5	19.8	11 17	4 57.39	+12 18.3	1.787	2.729	7.8	19.0
11 27	4 49.00	+24 43.7	1.448	2.427	3.8	19.5	11 27	4 48.54	+12 17.5	1.735	2.707	4.5	18.8
12 7	4 38.46	+24 41.5	1.432	2.416	1.8	19.3	12 7	4 38.71	+12 24.5	1.711	2.685	4.0	18.7
12 17	4 28.22	+24 34.2	1.445	2.406	6.6	19.6	12 17	4 29.00	+12 40.4	1.716	2.663	7.2	18.8
12 27	4 19.71	+24 24.7	1.484	2.396	11.2	19.8	12 27	4 20.57	+13 6.0	1.748	2.641	11.0	19.0
1 6	4 13.97	+24 16.9	1.546	2.386	15.3	20.1	1 6	4 14.29	+13 41.0	1.804	2.619	14.5	19.2
<b>319616</b>	2006 SN <sub>279</sub>	12	3.9 141°28	1°1/ 3.6	18		<b>518541</b>	2006 VD <sub>59</sub>	12	3.9 342°96	1°7/ 3.4	18	
10 28	5 14.08	+21 56.6	1.653	2.461	16.5	20.8	10 28	5 8.19	+19 11.3	1.873	2.685	14.7	21.6
11 7	5 8.48	+21 20.8	1.581	2.470	12.7	20.6	11 7	5 3.77	+18 45.3	1.792	2.683	11.3	21.4
11 17	5 0.00	+20 39.2	1.530	2.477	8.3	20.4	11 17	4 56.89	+18 17.0	1.734	2.682	7.5	21.2
11 27	4 49.51	+19 53.3	1.505	2.485	3.5	20.1	11 27	4 48.26	+17 47.9	1.702	2.681	3.4	20.9
12 7	4 38.30	+19 6.0	1.509	2.492	2.1	20.0	12 7	4 38.91	+17 20.3	1.698	2.680	2.4	20.9
12 17	4 27.74	+18 21.2	1.542	2.498	6.8	20.3	12 17	4 29.97	+16 56.7	1.724	2.679	6.3	21.1
12 27	4 19.09	+17 43.6	1.601	2.504	11.2	20.6	12 27	4 22.52	+16 39.9	1.776	2.678	10.3	21.3
1 6	4 13.16	+17 16.2	1.684	2.509	15.0	20.9	1 6	4 17.34	+16 31.8	1.852	2.677	13.8	21.6
<b>310559</b>	2001 QN <sub>132</sub>	12	3.9 32°88	3°5/ 5.1	17		<b>439917</b>	2001 QQ <sub>69</sub>	12	3.9 40°90	4°9/ 5.7	17	
10 28	5 10.62	+31 44.2	1.416										

EPHEMERIDES

12 3.9

12 3.9

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>272348</b>	2005 <i>SJ</i> <sub>146</sub>	12 3.9 55°34'	5°1'	5.2	18		<b>108585</b>	2001 <i>MS</i> <sub>9</sub>	12 3.9 68°15'	4°0'	4.8	18	
10 28	5 15.31	+32 55.4	1.396	2.201	19.1	20.0	10 28	5 16.07	+29 50.5	1.444	2.250	18.5	19.3
11 7	5 10.39	+33 35.1	1.334	2.213	15.3	19.8	11 7	5 10.79	+30 34.8	1.381	2.264	14.7	19.1
11 17	5 1.74	+34 2.0	1.292	2.226	11.0	19.6	11 17	5 1.94	+31 9.9	1.339	2.278	10.2	18.9
11 27	4 50.40	+34 10.8	1.273	2.239	6.8	19.4	11 27	4 50.50	+31 31.1	1.321	2.292	5.8	18.7
12 7	4 38.03	+33 59.1	1.280	2.253	5.2	19.3	12 7	4 38.06	+31 35.8	1.329	2.306	4.2	18.6
12 17	4 26.52	+33 29.2	1.313	2.267	8.1	19.5	12 17	4 26.39	+31 25.1	1.365	2.321	7.5	18.8
12 27	4 17.54	+32 47.6	1.372	2.281	12.2	19.8	12 27	4 17.10	+31 4.2	1.426	2.335	11.8	19.1
1 6	4 12.05	+32 2.5	1.452	2.295	15.9	20.1	1 6	4 11.17	+30 39.5	1.510	2.350	15.6	19.4
<b>493421</b>	2014 <i>WS</i> <sub>259</sub>	12 3.9 87°34'	0°5'	3.9	17		<b>291705</b>	2006 <i>JE</i> <sub>7</sub>	12 3.9 73°76'	2°7'	4.3	18	
10 28	5 14.99	+20 7.9	2.451	3.233	12.5	20.8	10 28	5 16.06	+26 5.3	1.697	2.496	16.5	20.4
11 7	5 8.51	+21 9.9	2.367	3.242	9.7	20.7	11 7	5 10.27	+27 4.9	1.630	2.511	12.9	20.2
11 17	4 59.81	+22 13.2	2.310	3.251	6.3	20.5	11 17	5 1.39	+28 0.6	1.584	2.525	8.7	20.0
11 27	4 49.49	+23 15.5	2.281	3.260	2.7	20.2	11 27	4 50.25	+28 48.1	1.565	2.539	4.5	19.8
12 7	4 38.41	+24 14.4	2.285	3.268	1.3	20.1	12 7	4 38.15	+29 24.3	1.574	2.553	3.0	19.7
12 17	4 27.57	+25 8.1	2.321	3.277	4.9	20.4	12 17	4 26.60	+29 48.4	1.612	2.567	6.6	20.0
12 27	4 17.95	+25 56.3	2.389	3.286	8.2	20.6	12 27	4 16.99	+30 2.6	1.677	2.582	10.6	20.3
1 6	4 10.31	+26 40.1	2.483	3.295	11.1	20.9	1 6	4 10.28	+30 11.1	1.766	2.596	14.2	20.5
<b>187609</b>	2006 <i>YX</i> <sub>30</sub>	12 3.9 33°75'	0°8'	4.2	18		<b>260742</b>	2005 <i>LB</i> <sub>46</sub>	12 3.9 196°36'	4°6'	2.2	18	
10 28	5 9.56	+24 28.1	1.891	2.697	14.8	20.8	10 28	5 8.40	+11 10.1	2.129	2.930	13.5	21.3
11 7	5 4.90	+24 34.7	1.813	2.700	11.5	20.6	11 7	5 3.54	+10 15.3	2.049	2.929	10.7	21.1
11 17	4 57.68	+24 36.6	1.757	2.703	7.6	20.3	11 17	4 56.58	+9 23.0	1.991	2.927	7.6	20.9
11 27	4 48.62	+24 32.9	1.728	2.707	3.3	20.1	11 27	4 48.14	+8 36.7	1.961	2.925	5.1	20.7
12 7	4 38.81	+24 23.8	1.727	2.711	1.5	20.0	12 7	4 39.10	+8 0.0	1.960	2.922	5.0	20.7
12 17	4 29.42	+24 10.8	1.755	2.714	5.7	20.2	12 17	4 30.40	+7 35.9	1.987	2.919	7.5	20.9
12 27	4 21.62	+23 56.8	1.810	2.718	9.7	20.5	12 27	4 22.98	+7 26.0	2.042	2.916	10.6	21.0
1 6	4 16.19	+23 44.9	1.889	2.723	13.2	20.7	1 6	4 17.50	+7 30.0	2.121	2.913	13.4	21.2
<b>487470</b>	2014 <i>SE</i> <sub>152</sub>	12 3.9 140°07'	2°8'	5.0	17		<b>303133</b>	2004 <i>CG</i> <sub>102</sub>	12 3.9 276°73'	7°6'	1.1	18	
10 28	5 10.77	+31 37.3	2.514	3.289	12.4	21.6	10 28	5 7.12	+4 28.3	1.907	2.706	14.9	20.6
11 7	5 5.30	+31 54.4	2.432	3.296	9.8	21.5	11 7	5 2.83	+3 14.2	1.828	2.698	12.3	20.4
11 17	4 57.68	+32 3.4	2.374	3.303	6.9	21.3	11 17	4 56.26	+2 7.2	1.771	2.690	9.6	20.2
11 27	4 48.56	+32 2.5	2.343	3.310	4.0	21.1	11 27	4 48.05	+1 13.4	1.740	2.681	7.8	20.1
12 7	4 38.84	+31 51.0	2.341	3.316	2.9	21.1	12 7	4 39.13	+0 37.7	1.736	2.673	8.0	20.1
12 17	4 29.50	+31 30.1	2.370	3.322	5.1	21.2	12 17	4 30.53	+0 23.5	1.758	2.665	10.1	20.2
12 27	4 21.47	+31 2.8	2.428	3.328	8.0	21.4	12 27	4 23.26	+0 31.3	1.805	2.657	12.9	20.4
1 6	4 15.44	+30 32.8	2.512	3.333	10.7	21.6	1 6	4 18.08	+0 59.3	1.874	2.649	15.6	20.5
<b>148559</b>	2001 <i>QW</i> <sub>203</sub>	12 3.9 147°01'	3°4'	5.2	18		<b>386994</b>	2012 <i>QB</i> <sub>38</sub>	12 3.9 34°50'	5°1'	5.1	18	
10 28	5 16.31	+32 53.3	1.860	2.641	15.9	20.5	10 28	5 13.55	+31 52.8	1.309	2.123	19.7	20.1
11 7	5 10.22	+32 53.2	1.782	2.650	12.7	20.3	11 7	5 9.28	+32 41.3	1.249	2.134	15.7	19.9
11 17	5 1.18	+32 40.6	1.726	2.657	8.9	20.1	11 17	5 1.17	+33 18.1	1.207	2.144	11.2	19.7
11 27	4 50.07	+32 12.7	1.696	2.664	5.1	19.9	11 27	4 50.24	+33 37.5	1.188	2.156	6.9	19.5
12 7	4 38.21	+31 29.5	1.695	2.671	3.5	19.8	12 7	4 38.19	+33 36.8	1.194	2.168	5.3	19.4
12 17	4 27.01	+30 34.3	1.723	2.677	6.4	20.0	12 17	4 26.96	+33 17.2	1.226	2.181	8.3	19.6
12 27	4 17.79	+29 33.1	1.778	2.683	10.1	20.2	12 27	4 18.29	+32 45.2	1.282	2.195	12.6	19.9
1 6	4 11.36	+28 32.4	1.859	2.688	13.6	20.5	1 6	4 13.21	+32 8.6	1.360	2.209	16.5	20.2
<b>113991</b>	2002 <i>UN</i> <sub>28</sub>	12 3.9 195°29'	1°6'	3.8	18		<b>272096</b>	2005 <i>GV</i> <sub>63</sub>	12 3.9 215°41'	1°6'	4.5	18	
10 28	5 14.80	+16 28.8	1.647	2.454	16.6	18.4	10 28	5 9.04	+27 3.0	2.725	3.508	11.4	20.9
11 7	5 9.31	+16 52.5	1.566	2.453	12.9	18.2	11 7	5 3.88	+27 26.8	2.632	3.504	8.9	20.7
11 17	5 0.80	+17 20.0	1.506	2.452	8.6	17.9	11 17	4 56.77	+27 46.4	2.562	3.500	6.0	20.5
11 27	4 50.02	+17 50.8	1.473	2.451	3.8	17.6	11 27	4 48.24	+28 0.3	2.521	3.495	3.0	20.3
12 7	4 38.18	+18 24.0	1.467	2.450	2.3	17.5	12 7	4 39.06	+28 7.6	2.510	3.490	1.9	20.2
12 17	4 26.71	+18 59.0	1.491	2.448	6.9	17.8	12 17	4 30.08	+28 8.9	2.529	3.485	4.5	20.4
12 27	4 17.01	+19 35.9	1.542	2.446	11.5	18.1	12 27	4 22.18	+28 5.6	2.579	3.480	7.5	20.6
1 6	4 10.07	+20 15.2	1.617	2.443	15.4	18.3	1 6	4 16.01	+28 0.3	2.655	3.474	10.3	20.8
<b>6026</b>	<i>Xenophanes</i>	12 3.9 233°87'	1°2'	3.5	18		<b>284694</b>	2008 <i>SU</i> <sub>96</sub>	12 3.9 250°41'	0°3'	3.9	18	
10 28	5 8.46	+19 57.8	2.171	2.974	13.2	17.4	10 28	5 11.74	+22 55.4	1.873	2.677	15.0	20.8
11 7	5 3.70	+19 37.7	2.083	2.969	10.2	17.2	11 7	5 6.76	+22 36.1	1.777	2.663	11.7	20.6
11 17	4 56.74	+19 15.0	2.018	2.964	6.7	17.0	11 17	4 59.06	+22 11.2	1.703	2.649	7.7	20.3
11 27	4 48.21	+18 50.8	1.980	2.959	2.9	16.7	11 27	4 49.31	+21 40.9	1.655	2.634	3.3	20.0
12 7	4 39.01	+18 26.7	1.972	2.954	1.9	16.7	12 7	4 38.59	+21 6.7	1.635	2.619	1.5	19.9
12 17	4 30.12	+18 4.7	1.994	2.949	5.6	16.9	12 17	4 28.16	+20 31.4	1.645	2.603	6.2	20.1
12 27	4 22.53	+17 47.5	2.043	2.943	9.3	17.1	12 27	4 19.28	+19 59.0	1.683	2.587	10.6	20.4
1 6	4 16.94	+17 36.8	2.118	2.938	12.5	17.3	1 6	4 12.87	+19 33.0	1.745	2.571	14.5	20.6
<b>267526</b>	2002 <i>PC</i> <sub>10</sub>	12 3.9 359°54'	2°2'	4.9	17		<b>195702</b>	2002 <i>PB</i> <sub>30</sub>	12 3.9 58°33'	3°5'	5.4	17	
10 28	5 8.61	+30 22.2	2.249	3.038	13.3	20.3	10 28	5 9.83	+33 43.5	2.254	3.033	13.6	20.4
11 7	5 3.87	+30 16.9	2.164	3.038	10.5	20.2	11 7	5 4.86	+33 50.0	2.174	3.038	10.8	20.2
11 17	4 56.86	+30 2.5	2.101	3.038	7.2	20.0	11 17	4 57.52	+33 45.8	2.117	3.044	7.7	20.0
11 27	4 48.26	+29 37.9	2.065	3.037	3.8	19.7	11 27	4 48.55	+33 28.8	2.086	3.050	4.7	19.8
12 7	4 39.02	+29 3.6	2.058	3.037	2.4	19.6	12 7	4 38.96	+32 59.0	2.083	3.056	3.5	19.8
12 17	4 30.19	+28 21.9	2.080	3.038	5.2	19.8	12 17	4 29.83	+32 18.3	2.110	3.062	5.6	19.9
12 27	4 22.76	+27 36.6	2.132	3.038	8.6	20.0	12 27	4 22.20	+31 30.9	2.165	3.068	8.7	20.1
1 6	4 17.44	+26 52.1	2.208	3.038	11.7	20.2	1 6	4 16.79	+30 41.6	2.246	3.075	11.6	20.3
<b>99682</b>	2002 <i>JL</i> <sub>20</sub>	12 3.9 223°40'	1°7'	4.5	18		<b>415420</b>	2013 <i>PT</i> <sub>71</sub>	12 3.9 126°03'	3°7'	5.6	17	
10 28	5 12.37												

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>370025</b>	2000 <i>HO</i> <sub>16</sub>	12	3.9 252°78	3°6/ 5.1 18			<b>191277</b>	2003 <i>EN</i> <sub>29</sub>	12	3.9 286°00	0°2/ 4.1 18	R	
10 28	5 10.26	+33 8.9	2.524	3.296	12.4	21.1	10 28	5 11.00	+24 5.5	1.590	2.405	16.7	20.4
11 7	5 5.16	+33 38.2	2.427	3.288	10.0	21.0	11 7	5 6.76	+23 54.8	1.498	2.390	13.1	20.1
11 17	4 57.78	+33 59.5	2.354	3.279	7.2	20.8	11 17	4 59.37	+23 37.5	1.426	2.374	8.7	19.8
11 27	4 48.72	+34 10.1	2.308	3.269	4.6	20.6	11 27	4 49.56	+23 13.2	1.379	2.359	3.7	19.5
12 7	4 38.87	+34 8.6	2.290	3.260	3.6	20.5	12 7	4 38.57	+22 42.9	1.359	2.343	1.6	19.3
12 17	4 29.25	+33 55.3	2.303	3.251	5.5	20.6	12 17	4 27.89	+22 9.4	1.367	2.327	6.9	19.6
12 27	4 20.88	+33 33.0	2.344	3.241	8.4	20.8	12 27	4 19.01	+21 37.4	1.401	2.312	11.8	19.9
1 6	4 14.54	+33 5.6	2.411	3.231	11.1	20.9	1 6	4 13.00	+21 11.4	1.458	2.297	16.1	20.1
<b>231566</b>	2008 <i>TQ</i> <sub>146</sub>	12	3.9 341°19	1°2/ 3.6 17			<b>199913</b>	2007 <i>GO</i> <sub>22</sub>	12	3.9 175°94	0°8/ 4.2 18		
10 28	5 6.19	+19 34.5	2.038	2.849	13.7	20.8	10 28	5 13.74	+24 33.6	2.052	2.845	14.2	21.6
11 7	5 2.14	+19 22.6	1.953	2.844	10.6	20.6	11 7	5 7.97	+24 39.4	1.968	2.847	11.1	21.4
11 17	4 55.83	+19 8.9	1.891	2.839	6.9	20.4	11 17	4 59.66	+24 40.3	1.906	2.849	7.3	21.2
11 27	4 47.89	+18 54.5	1.855	2.834	3.0	20.1	11 27	4 49.53	+24 35.5	1.872	2.850	3.2	21.0
12 7	4 39.25	+18 40.7	1.847	2.829	1.9	20.0	12 7	4 38.62	+24 24.8	1.868	2.851	1.4	20.8
12 17	4 30.92	+18 29.2	1.868	2.825	5.7	20.3	12 17	4 28.11	+24 9.8	1.893	2.851	5.5	21.1
12 27	4 23.91	+18 22.1	1.917	2.822	9.5	20.5	12 27	4 19.14	+23 53.3	1.947	2.850	9.5	21.3
1 6	4 18.96	+18 21.0	1.991	2.819	12.9	20.7	1 6	4 12.50	+23 38.7	2.026	2.849	12.9	21.6
<b>301911</b>	1998 <i>YW</i> <sub>19</sub>	12	3.9 7°27	2°7/ 3.8 17			<b>420702</b>	2012 <i>LN</i> <sub>1</sub>	12	3.9 258°05	4°4/ 2.8 18		
10 28	5 0.97	+15 37.1	0.929	1.798	21.5	19.7	10 28	5 7.14	+ 8 23.6	2.418	3.210	12.4	21.3
11 7	5 0.04	+15 54.7	0.879	1.801	16.7	19.4	11 7	5 2.46	+ 8 5.6	2.327	3.201	9.8	21.1
11 17	4 55.34	+16 18.5	0.846	1.806	11.1	19.1	11 17	4 55.87	+ 7 53.4	2.261	3.191	7.1	20.9
11 27	4 47.87	+16 49.7	0.834	1.814	5.2	18.8	11 27	4 47.91	+ 7 49.2	2.221	3.182	4.9	20.8
12 7	4 39.28	+17 28.0	0.843	1.826	3.4	18.8	12 7	4 39.33	+ 7 54.9	2.211	3.172	4.7	20.7
12 17	4 31.46	+18 12.2	0.875	1.840	8.8	19.1	12 17	4 30.96	+ 8 11.4	2.229	3.162	6.8	20.8
12 27	4 26.11	+19 1.4	0.928	1.856	14.2	19.5	12 27	4 23.64	+ 8 38.9	2.276	3.152	9.6	21.0
1 6	4 24.23	+19 54.3	1.001	1.875	18.9	19.8	1 6	4 18.01	+ 9 16.3	2.348	3.142	12.3	21.2
<b>249000</b>	2007 <i>JX</i> <sub>34</sub>	12	3.9 35°13	1°4/ 3.4 18			<b>144043</b>	2004 <i>BT</i> <sub>26</sub>	12	3.9 39°57	4°5/ 3.5 18		
10 28	5 7.28	+20 50.2	2.139	2.944	13.3	20.0	10 28	5 12.14	+12 41.6	1.099	1.938	21.0	19.4
11 7	5 2.74	+20 8.0	2.059	2.947	10.2	19.8	11 7	5 7.92	+12 34.8	1.051	1.954	16.4	19.1
11 17	4 56.08	+19 21.5	2.002	2.949	6.7	19.6	11 17	5 0.10	+12 35.8	1.022	1.972	11.1	18.9
11 27	4 47.96	+18 32.6	1.973	2.952	3.0	19.3	11 27	4 49.76	+12 47.0	1.015	1.990	6.1	18.7
12 7	4 39.28	+17 44.1	1.973	2.955	2.0	19.3	12 7	4 38.59	+13 9.6	1.032	2.009	5.0	18.7
12 17	4 31.02	+16 59.3	2.003	2.958	5.6	19.5	12 17	4 28.37	+13 43.3	1.074	2.029	9.2	19.0
12 27	4 24.10	+16 21.3	2.061	2.961	9.2	19.7	12 27	4 20.64	+14 27.2	1.140	2.050	14.0	19.3
1 6	4 19.16	+15 52.6	2.144	2.964	12.4	20.0	1 6	4 16.29	+15 19.4	1.226	2.071	18.2	19.7
<b>263643</b>	2008 <i>GX</i> <sub>78</sub>	12	3.9 200°04	3°2/ 4.7 17			<b>20431</b>	1999 <i>AA</i> <sub>10</sub>	12	3.9 195°83	2°0/ 3.5 18		
10 28	5 13.35	+30 15.4	2.346	3.123	13.1	21.6	10 28	5 14.35	+18 52.9	1.625	2.435	16.6	18.9
11 7	5 7.65	+31 3.1	2.256	3.121	10.4	21.4	11 7	5 8.96	+18 28.9	1.544	2.433	13.0	18.6
11 17	4 59.49	+31 45.1	2.189	3.119	7.4	21.2	11 17	5 0.58	+18 2.6	1.484	2.431	8.6	18.4
11 27	4 49.48	+32 18.0	2.150	3.116	4.4	21.0	11 27	4 49.99	+17 35.5	1.450	2.428	3.9	18.1
12 7	4 38.58	+32 39.6	2.140	3.114	3.4	20.9	12 7	4 38.45	+17 9.6	1.444	2.425	2.7	18.0
12 17	4 27.91	+32 49.5	2.161	3.110	5.7	21.1	12 17	4 27.37	+16 48.0	1.466	2.421	7.2	18.3
12 27	4 18.58	+32 49.7	2.210	3.107	8.8	21.3	12 27	4 18.13	+16 33.8	1.515	2.416	11.8	18.5
1 6	4 11.46	+32 43.9	2.286	3.104	11.8	21.5	1 6	4 11.66	+16 29.2	1.587	2.411	15.8	18.8
<b>384635</b>	2011 <i>EP</i> <sub>19</sub>	12	3.9 289°55	1°7/ 3.6 18			<b>11504</b>	Kazo	12	3.9 1°30	7°2/ 5.8 18		
10 28	5 11.37	+18 53.9	1.456	2.278	17.6	21.3	10 28	5 10.00	+35 43.3	1.103	1.929	21.9	16.8
11 7	5 7.14	+18 46.0	1.372	2.268	13.7	21.1	11 7	5 7.51	+36 27.1	1.038	1.926	17.9	16.5
11 17	4 59.65	+18 37.2	1.308	2.258	9.1	20.8	11 17	5 0.58	+36 53.0	0.990	1.925	13.4	16.3
11 27	4 49.68	+18 28.4	1.269	2.248	4.1	20.4	11 27	4 50.21	+36 53.8	0.961	1.925	9.0	16.0
12 7	4 38.50	+18 20.7	1.256	2.238	2.5	20.3	12 7	4 38.34	+36 25.9	0.956	1.926	7.3	16.0
12 17	4 27.68	+18 16.2	1.270	2.229	7.6	20.6	12 17	4 27.31	+35 32.0	0.973	1.928	9.9	16.1
12 27	4 18.76	+18 17.6	1.310	2.219	12.6	20.9	12 27	4 19.24	+34 21.9	1.013	1.932	14.4	16.4
1 6	4 12.83	+18 26.9	1.371	2.209	17.0	21.1	1 6	4 15.33	+33 7.2	1.073	1.937	18.7	16.6
<b>402278</b>	2005 <i>SS</i> <sub>91</sub>	12	3.9 91°91	0°8/ 4.2 17			<b>213876</b>	2003 <i>SO</i> <sub>246</sub>	12	3.9 126°86	0°8/ 3.8 18		
10 28	5 10.08	+24 55.4	2.060	2.860	14.0	21.9	10 28	5 15.59	+21 43.2	1.608	2.416	16.9	21.0
11 7	5 5.09	+24 58.1	1.983	2.866	10.8	21.8	11 7	5 9.75	+21 25.0	1.540	2.429	13.1	20.8
11 17	4 57.72	+24 55.8	1.929	2.873	7.2	21.5	11 17	5 0.95	+21 2.4	1.494	2.441	8.5	20.6
11 27	4 48.68	+24 47.7	1.901	2.880	3.2	21.3	11 27	4 50.07	+20 35.9	1.473	2.453	3.6	20.3
12 7	4 38.98	+24 34.2	1.903	2.886	1.4	21.2	12 7	4 38.45	+20 7.3	1.480	2.464	1.8	20.2
12 17	4 29.71	+24 17.0	1.934	2.893	5.3	21.5	12 17	4 27.52	+19 39.8	1.517	2.474	6.7	20.6
12 27	4 21.93	+23 58.8	1.993	2.899	9.1	21.7	12 27	4 18.59	+19 16.9	1.580	2.484	11.2	20.9
1 6	4 16.35	+23 42.8	2.077	2.906	12.4	21.9	1 6	4 12.47	+19 1.7	1.667	2.494	15.0	21.1
<b>227184</b>	2005 <i>QZ</i> <sub>54</sub>	12	3.9 72°31	0°9/ 3.8 18			<b>456624</b>	2007 <i>HS</i> <sub>95</sub>	12	3.9 135°53	0°8/ 3.7 18		
10 28	5 15.13	+20 34.5	1.426	2.243	18.2	20.9	10 28	5 7.79	+21 15.0	2.539	3.334	11.8	21.6
11 7	5 9.54	+20 30.8	1.373	2.266	14.0	20.7	11 7	5 2.80	+20 51.9	2.459	3.342	9.0	21.4
11 17	5 0.81	+20 24.6	1.340	2.289	9.1	20.4	11 17	4 55.98	+20 25.7	2.404	3.349	5.9	21.2
11 27	4 49.97	+20 16.2	1.333	2.312	3.8	20.2	11 27	4 47.91	+19 57.3	2.376	3.355	2.5	21.0
12 7	4 38.48	+20 6.7	1.352	2.335	1.9	20.1	12 7	4 39.37	+19 28.2	2.379	3.362	1.4	20.9
12 17	4 27.86	+19 58.1	1.399	2.358	7.0	20.5	12 17	4 31.19	+19 0.4	2.413	3.368	4.7	21.2
12 27	4 19.45	+19 53.2	1.472	2.381	11.5	20.8	12 27	4 24.16	+18 36.2	2.475	3.374	7.9	21.4
1 6	4 14.04	+19 54.5	1.568	2.403	15.4	21.1	1 6	4 18.85	+18 17.5	2.564	3.380	10.7	21.6
<b>445632</b>	2011 <i>SZ</i> <sub>244</sub>	12	3.9 304°24	2°6/ 4.6 17			<b>493138</b>	2014 <i>TT</i> <sub>45</sub>	12	3.9 282°76	0°4/ 3.8 18		</

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>266215</b>	2006 <i>WR</i> <sub>157</sub>	12 3.9 68°36'	4.6°/ 5.1 18				<b>354374</b>	2003 <i>RR</i> <sub>8</sub>	12 3.9 30°72'	3.8°/ 5.4 17			
10 28	5 16.72	+31 43.0	1.365	2.171	19.4	20.2	10 28	5 17.12	+33 26.5	0.915	1.750	24.6	19.3
11 7	5 11.51	+32 19.1	1.305	2.186	15.4	20.0	11 7	5 11.90	+32 55.4	0.896	1.793	19.1	19.1
11 17	5 2.52	+32 43.0	1.264	2.201	10.9	19.8	11 17	5 2.39	+32 3.7	0.893	1.839	12.9	18.9
11 27	4 50.83	+32 49.9	1.247	2.216	6.4	19.6	11 27	4 50.47	+30 51.4	0.911	1.886	6.8	18.8
12 7	4 38.14	+32 37.6	1.256	2.231	4.7	19.5	12 7	4 38.51	+29 24.7	0.953	1.934	3.9	18.8
12 17	4 26.35	+32 8.5	1.291	2.246	7.9	19.8	12 17	4 28.55	+27 53.4	1.020	1.983	8.1	19.2
12 27	4 17.13	+31 29.2	1.351	2.261	12.2	20.1	12 27	4 21.96	+26 28.4	1.109	2.032	13.0	19.6
1 6	4 11.47	+30 47.5	1.434	2.277	16.1	20.3	1 6	4 19.20	+25 16.9	1.220	2.082	17.1	20.0
<b>298596</b>	2003 <i>YM</i> <sub>114</sub>	12 3.9 347°11'	0.8°/ 4.2 18				<b>265460</b>	2005 <i>AG</i> <sub>12</sub>	12 3.9 30°19'	4.8°/ 3.2 18			
10 28	5 8.47	+25 52.0	1.534	2.355	17.0	19.9	10 28	5 7.80	+ 8 13.7	1.994	2.796	14.3	19.7
11 7	5 4.74	+25 36.7	1.455	2.349	13.2	19.6	11 7	5 3.22	+ 8 5.4	1.924	2.802	11.3	19.6
11 17	4 57.95	+25 12.8	1.396	2.345	8.8	19.4	11 17	4 56.46	+ 8 4.8	1.875	2.809	8.1	19.4
11 27	4 48.92	+24 40.0	1.362	2.341	3.9	19.1	11 27	4 48.19	+ 8 14.4	1.853	2.816	5.4	19.2
12 7	4 38.93	+23 59.9	1.354	2.337	1.7	18.9	12 7	4 39.30	+ 8 35.3	1.859	2.824	5.0	19.2
12 17	4 29.44	+23 16.1	1.373	2.335	6.7	19.2	12 17	4 30.81	+ 9 7.9	1.894	2.832	7.4	19.4
12 27	4 21.85	+22 33.9	1.418	2.333	11.4	19.5	12 27	4 23.64	+ 9 51.3	1.955	2.840	10.5	19.6
1 6	4 17.09	+21 58.1	1.486	2.331	15.5	19.7	1 6	4 18.50	+10 43.6	2.041	2.848	13.4	19.8
<b>475820</b>	2007 <i>AB</i> <sub>13</sub>	12 3.9 17°23'	1.5°/ 3.9 18				<b>412470</b>	2014 <i>HR</i> <sub>25</sub>	12 3.9 207°18'	2.2°/ 3.2 18			
10 28	5 7.80	+17 42.9	0.931	1.791	22.2	20.0	10 28	5 10.47	+17 29.1	2.097	2.898	13.7	22.0
11 7	5 5.39	+18 6.8	0.882	1.799	17.2	19.7	11 7	5 5.32	+16 58.4	2.009	2.894	10.6	21.8
11 17	4 58.89	+18 34.4	0.850	1.808	11.3	19.4	11 17	4 57.88	+16 26.4	1.945	2.889	7.1	21.6
11 27	4 49.40	+19 5.1	0.839	1.820	4.9	19.1	11 27	4 48.81	+15 54.8	1.908	2.884	3.5	21.3
12 7	4 38.75	+19 37.9	0.850	1.833	2.6	19.0	12 7	4 39.04	+15 25.8	1.900	2.879	2.8	21.3
12 17	4 29.01	+20 12.2	0.884	1.848	8.7	19.5	12 17	4 29.59	+15 2.0	1.922	2.873	6.2	21.5
12 27	4 22.02	+20 48.4	0.939	1.865	14.4	19.8	12 27	4 21.50	+14 45.8	1.972	2.866	9.9	21.7
1 6	4 18.82	+21 27.1	1.014	1.883	19.2	20.2	1 6	4 15.50	+14 38.7	2.047	2.859	13.1	21.9
<b>60269</b>	1999 <i>XN</i> <sub>46</sub>	12 3.9 39°64'	0.2°/ 3.9 18				<b>493179</b>	2014 <i>UB</i> <sub>12</sub>	12 3.9 58°96'	1.1°/ 4.4 18			
10 28	5 11.55	+24 37.4	1.226	2.058	19.7	19.0	10 28	5 8.72	+26 38.9	2.150	2.947	13.5	21.1
11 7	5 7.46	+24 2.2	1.167	2.068	15.3	18.8	11 7	5 3.91	+26 31.2	2.077	2.959	10.5	20.9
11 17	4 59.80	+23 17.5	1.126	2.078	10.0	18.5	11 17	4 56.88	+26 16.8	2.028	2.971	7.0	20.7
11 27	4 49.66	+22 24.6	1.109	2.089	4.2	18.2	11 27	4 48.35	+25 55.5	2.006	2.984	3.2	20.5
12 7	4 38.67	+21 27.2	1.117	2.101	1.9	18.1	12 7	4 39.27	+25 28.1	2.013	2.996	1.5	20.4
12 17	4 28.59	+20 31.2	1.151	2.113	7.6	18.5	12 17	4 30.67	+24 56.8	2.050	3.009	5.1	20.7
12 27	4 20.94	+19 42.9	1.210	2.126	12.8	18.8	12 27	4 23.51	+24 25.0	2.114	3.021	8.6	20.9
1 6	4 16.59	+19 6.9	1.290	2.139	17.2	19.1	1 6	4 18.45	+23 56.1	2.204	3.034	11.7	21.1
<b>215166</b>	2000 <i>CQ</i> <sub>40</sub>	12 3.9 325°00'	1.8°/ 3.6 17				<b>494754</b>	2005 <i>YU</i> <sub>141</sub>	12 3.9 281°91'	2.5°/ 3.4 18			
10 28	5 6.72	+18 15.9	1.415	2.248	17.5	20.2	10 28	5 8.52	+14 28.0	2.211	3.012	13.1	21.3
11 7	5 3.81	+18 13.5	1.321	2.224	13.7	19.9	11 7	5 3.87	+14 26.4	2.111	2.995	10.2	21.1
11 17	4 57.68	+18 11.5	1.248	2.200	9.2	19.6	11 17	4 57.01	+14 27.5	2.035	2.978	6.9	20.8
11 27	4 48.97	+18 10.9	1.198	2.178	4.2	19.3	11 27	4 48.50	+14 32.6	1.985	2.960	3.6	20.6
12 7	4 38.86	+18 12.9	1.173	2.156	2.6	19.1	12 7	4 39.16	+14 42.6	1.965	2.943	2.9	20.5
12 17	4 28.90	+18 19.2	1.175	2.135	7.8	19.4	12 17	4 29.96	+14 58.3	1.974	2.925	6.1	20.7
12 27	4 20.70	+18 31.7	1.201	2.115	13.0	19.6	12 27	4 21.90	+15 20.2	2.012	2.907	9.7	20.9
1 6	4 15.45	+18 52.0	1.248	2.097	17.7	19.8	1 6	4 15.77	+15 48.7	2.075	2.890	12.9	21.0
<b>184423</b>	2005 <i>NY</i> <sub>6</sub>	12 3.9 63°71'	3.1°/ 4.8 18				<b>320100</b>	2007 <i>ET</i> <sub>114</sub>	12 3.9 139°40'	4.8°/ 2.1 18			
10 28	5 20.98	+29 4.3	1.344	2.148	19.8	19.9	10 28	5 6.54	+ 8 49.8	2.382	3.177	12.4	20.9
11 7	5 14.19	+29 29.8	1.304	2.186	15.4	19.7	11 7	5 1.89	+ 8 1.4	2.307	3.181	9.9	20.8
11 17	5 3.84	+29 44.4	1.284	2.224	10.4	19.5	11 17	4 55.43	+ 7 17.3	2.256	3.185	7.2	20.6
11 27	4 51.21	+29 44.4	1.288	2.261	5.4	19.4	11 27	4 47.72	+ 6 40.8	2.232	3.189	5.1	20.5
12 7	4 38.07	+29 29.5	1.319	2.298	3.4	19.3	12 7	4 39.54	+ 6 14.9	2.237	3.193	5.1	20.5
12 17	4 26.22	+29 2.9	1.377	2.335	7.2	19.7	12 17	4 31.68	+ 6 1.5	2.271	3.197	7.1	20.6
12 27	4 17.08	+28 31.0	1.462	2.371	11.5	20.0	12 27	4 24.93	+ 6 1.5	2.333	3.200	9.7	20.8
1 6	4 11.41	+27 59.9	1.569	2.407	15.2	20.3	1 6	4 19.88	+ 6 14.3	2.419	3.204	12.2	21.0
<b>43960</b>	1997 <i>CE</i> <sub>27</sub>	12 3.9 74°59'	2.9°/ 4.9 18				<b>442415</b>	2011 <i>UH</i> <sub>108</sub>	12 3.9 68°94'	4.2°/ 4.6 18			
10 28	5 17.56	+30 32.2	1.406	2.211	19.0	18.7	10 28	5 16.71	+29 58.6	1.740	2.531	16.5	20.4
11 7	5 11.66	+30 27.6	1.352	2.235	14.9	18.5	11 7	5 10.89	+31 7.7	1.674	2.547	13.1	20.2
11 17	5 2.28	+30 9.9	1.318	2.259	10.2	18.3	11 17	5 1.91	+32 10.0	1.630	2.562	9.2	20.0
11 27	4 50.61	+29 37.0	1.308	2.282	5.2	18.1	11 27	4 50.59	+33 0.2	1.611	2.578	5.6	19.8
12 7	4 38.30	+28 50.1	1.326	2.306	3.1	18.0	12 7	4 38.28	+33 34.4	1.621	2.593	4.4	19.8
12 17	4 27.08	+27 53.9	1.370	2.330	7.0	18.3	12 17	4 26.52	+33 52.0	1.659	2.609	7.1	20.0
12 27	4 18.39	+26 55.8	1.441	2.353	11.5	18.7	12 27	4 16.75	+33 56.1	1.724	2.625	10.7	20.3
1 6	4 12.99	+26 2.6	1.535	2.376	15.4	19.0	1 6	4 9.94	+33 52.0	1.814	2.640	14.0	20.5
<b>89022</b>	2001 <i>TX</i> <sub>94</sub>	12 3.9 149°27'	1.4°/ 4.5 18				<b>240964</b>	2006 <i>HO</i> <sub>88</sub>	12 3.9 154°50'	3.1°/ 4.6 18			
10 28	5 10.55	+27 6.7	2.051	2.847	14.1	20.1	10 28	5 15.98	+28 40.5	2.042	2.825	14.6	20.4
11 7	5 5.55	+27 4.4	1.969	2.849	11.0	19.9	11 7	5 9.95	+29 30.7	1.960	2.831	11.5	20.2
11 17	4 58.09	+26 55.0	1.909	2.851	7.4	19.7	11 17	5 1.13	+30 15.6	1.901	2.835	8.0	20.0
11 27	4 48.89	+26 37.6	1.876	2.852	3.5	19.5	11 27	4 50.25	+30 51.3	1.870	2.840	4.5	19.8
12 7	4 38.98	+26 12.6	1.871	2.854	1.8	19.4	12 7	4 38.42	+31 15.3	1.868	2.844	3.2	19.7
12 17	4 29.49	+25 42.1	1.896	2.855	5.5	19.6	12 17	4 26.93	+31 27.2	1.895	2.848	6.1	19.9
12 27	4 21.52	+25 9.8	1.950	2.856	9.2	19.8	12 27	4 17.07	+31 29.2	1.951	2.851	9.7	20.2
1 6	4 15.82	+24 39.6	2.028	2.858	12.6	20.1	1 6	4 9.74	+31 25.5	2.033	2.854	12.9	20.4
<b>54076</b>	2000 <i>GL</i> <sub>154</sub>	12 3.9 40°83'	3.0°/ 4.9 18				<b>447587</b>	2006 <i>UQ</i> <sub>26</sub>	12 4.0 324°				