

EPHEMERIDES

12 8.9

12 9.0

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>200220</b>	1999 <i>TC</i> <sub>225</sub>		12 8.9 71°02'	3°2'	9.7 18		<b>198636</b>	2005 <i>AM</i> <sub>57</sub>		12 8.9 303°82'	2°9'	8.2 18	
11 7	5 33.22	+30 55.2	1.643	2.484	14.9	20.7	11 7	5 26.20	+15 25.9	2.137	2.983	11.7	20.2
11 17	5 26.54	+31 11.5	1.580	2.492	11.1	20.5	11 17	5 20.92	+14 54.7	2.056	2.972	8.6	20.0
11 27	5 17.11	+31 17.4	1.541	2.499	6.9	20.2	11 27	5 13.79	+14 25.7	2.000	2.961	5.3	19.8
12 7	5 6.07	+31 10.4	1.529	2.507	3.5	20.1	12 7	5 5.53	+14 0.8	1.973	2.950	3.0	19.6
12 17	4 54.87	+30 50.3	1.544	2.514	4.8	20.2	12 17	4 57.03	+13 42.1	1.974	2.939	4.6	19.7
12 27	4 45.03	+30 20.3	1.587	2.522	8.8	20.4	12 27	4 49.26	+13 31.4	2.004	2.928	8.0	19.9
1 6	4 37.71	+29 45.5	1.656	2.530	12.6	20.7	1 6	4 43.06	+13 29.6	2.060	2.918	11.3	20.1
1 16	4 33.55	+29 11.2	1.746	2.537	16.0	20.9	1 16	4 39.01	+13 36.9	2.139	2.907	14.1	20.3
<b>306165</b>	2010 <i>MF</i> <sub>84</sub>		12 8.9 201°53'	2°0'	9.7 18		<b>421960</b>	2014 <i>QZ</i> <sub>269</sub>		12 8.9 82°19'	5°1'	8.0 18	
11 7	5 33.62	+30 31.4	2.209	3.035	12.1	21.2	11 7	5 27.18	+ 8 1.4	2.140	2.973	12.2	20.4
11 17	5 26.26	+30 11.3	2.126	3.031	9.0	21.0	11 17	5 21.42	+ 7 33.2	2.081	2.983	9.4	20.2
11 27	5 16.76	+29 41.1	2.068	3.026	5.5	20.7	11 27	5 13.96	+ 7 13.8	2.048	2.993	6.6	20.0
12 7	5 6.00	+29 0.4	2.040	3.021	2.2	20.5	12 7	5 5.55	+ 7 5.6	2.043	3.003	5.1	20.0
12 17	4 55.10	+28 10.3	2.043	3.014	3.6	20.6	12 17	4 57.06	+ 7 9.8	2.066	3.013	6.1	20.0
12 27	4 45.20	+27 14.4	2.076	3.008	7.2	20.8	12 27	4 49.41	+ 7 26.9	2.117	3.023	8.7	20.2
1 6	4 37.25	+26 17.6	2.137	3.000	10.7	21.0	1 6	4 43.33	+ 7 55.6	2.194	3.033	11.4	20.4
1 16	4 31.82	+25 24.1	2.222	2.993	13.6	21.2	1 16	4 39.32	+ 8 34.1	2.294	3.043	13.9	20.6
<b>203991</b>	2003 <i>SN</i> <sub>319</sub>		12 8.9 97°89'	1°5'	9.3 18		<b>81604</b>	2000 <i>HG</i> <sub>63</sub>		12 8.9 183°56'	1°8'	9.3 18	
11 7	5 33.80	+26 38.3	1.814	2.655	13.7	21.3	11 7	5 31.44	+27 36.2	1.994	2.833	12.7	19.9
11 17	5 26.55	+26 52.1	1.759	2.673	10.0	21.1	11 17	5 24.92	+27 51.6	1.921	2.833	9.4	19.7
11 27	5 16.95	+26 59.9	1.728	2.690	5.8	20.9	11 27	5 16.12	+28 1.0	1.872	2.833	5.6	19.5
12 7	5 6.03	+27 0.1	1.725	2.708	1.8	20.7	12 7	5 5.94	+28 2.8	1.851	2.833	2.1	19.2
12 17	4 55.07	+26 52.8	1.752	2.725	3.8	20.8	12 17	4 55.51	+27 56.6	1.860	2.833	3.7	19.4
12 27	4 45.38	+26 40.1	1.807	2.742	7.9	21.1	12 27	4 46.06	+27 44.0	1.898	2.832	7.6	19.6
1 6	4 37.93	+26 25.4	1.889	2.758	11.5	21.4	1 6	4 38.61	+27 28.3	1.962	2.831	11.2	19.8
1 16	4 33.29	+26 11.9	1.993	2.774	14.6	21.6	1 16	4 33.78	+27 12.7	2.050	2.831	14.3	20.0
<b>179993</b>	2002 <i>XT</i> <sub>81</sub>		12 8.9 20°54'	3°9'	9.9 18		<b>166364</b>	2002 <i>LY</i> <sub>24</sub>		12 8.9 190°91'	1°6'	8.7 18	
11 7	5 29.53	+32 0.5	1.243	2.104	17.4	19.1	11 7	5 30.92	+18 31.2	2.005	2.848	12.5	20.9
11 17	5 24.36	+32 6.8	1.195	2.116	13.0	18.9	11 17	5 24.40	+18 23.1	1.931	2.847	9.1	20.7
11 27	5 16.01	+31 58.8	1.168	2.128	8.2	18.6	11 27	5 15.77	+18 15.8	1.882	2.846	5.3	20.5
12 7	5 5.88	+31 34.5	1.164	2.142	4.3	18.5	12 7	5 5.88	+18 9.8	1.861	2.844	1.8	20.2
12 17	4 55.73	+30 55.1	1.186	2.158	5.6	18.6	12 17	4 55.76	+18 5.9	1.871	2.842	3.9	20.4
12 27	4 47.34	+30 6.1	1.233	2.175	10.0	18.9	12 27	4 46.55	+18 5.5	1.909	2.839	7.9	20.6
1 6	4 41.92	+29 14.5	1.303	2.193	14.3	19.2	1 6	4 39.16	+18 9.7	1.974	2.837	11.5	20.8
1 16	4 40.03	+28 26.3	1.394	2.211	17.9	19.5	1 16	4 34.22	+18 19.4	2.062	2.833	14.5	21.1
<b>521237</b>	2015 <i>HL</i> <sub>189</sub>		12 8.9 324°73'	0°3'	9.1 18		<b>148193</b>	2000 <i>BQ</i> <sub>45</sub>		12 8.9 225°92'	0°7'	9.1 18	
11 7	5 32.28	+25 43.3	1.367	2.226	16.3	20.6	11 7	5 33.52	+25 2.2	1.768	2.612	13.9	21.6
11 17	5 26.19	+25 11.0	1.298	2.222	11.9	20.3	11 17	5 26.69	+25 2.0	1.688	2.604	10.2	21.4
11 27	5 17.06	+24 29.8	1.252	2.219	6.8	20.0	11 27	5 17.24	+24 56.7	1.631	2.595	5.8	21.1
12 7	5 6.08	+23 40.5	1.231	2.215	1.2	19.7	12 7	5 6.15	+24 45.2	1.602	2.587	1.3	20.8
12 17	4 54.85	+22 46.1	1.237	2.212	4.5	19.9	12 17	4 54.68	+24 28.1	1.603	2.577	3.9	20.9
12 27	4 45.06	+21 52.2	1.269	2.209	9.9	20.2	12 27	4 44.27	+24 7.6	1.632	2.567	8.5	21.2
1 6	4 38.02	+21 4.3	1.326	2.206	14.7	20.5	1 6	4 36.08	+23 47.3	1.687	2.557	12.7	21.4
1 16	4 34.42	+20 26.7	1.402	2.204	18.7	20.7	1 16	4 30.85	+23 30.6	1.764	2.546	16.2	21.6
<b>411132</b>	2009 <i>WD</i> <sub>218</sub>		12 8.9 345°85'	8°2'	5.7 17		<b>418392</b>	2008 <i>HT</i> <sub>66</sub>		12 8.9 149°38'	1°0'	8.9 17	
11 7	5 24.01	+ 7 30.8	1.552	2.405	15.0	20.4	11 7	5 44.57	+18 9.5	1.202	2.049	18.8	20.5
11 17	5 19.78	+ 5 41.0	1.484	2.393	11.9	20.2	11 17	5 35.85	+20 7.6	1.135	2.053	13.8	20.2
11 27	5 13.30	+ 3 58.6	1.440	2.381	9.2	20.0	11 27	5 22.98	+22 17.4	1.092	2.057	7.9	19.9
12 7	5 5.44	+ 2 31.8	1.421	2.370	8.3	19.9	12 7	5 7.18	+24 29.3	1.076	2.060	1.6	19.5
12 17	4 57.34	+ 1 27.2	1.429	2.361	9.8	20.0	12 17	4 50.47	+26 32.0	1.089	2.063	5.4	19.8
12 27	4 50.20	+ 0 49.3	1.460	2.353	12.8	20.1	12 27	4 35.27	+28 18.5	1.131	2.065	11.5	20.1
1 6	4 45.03	+ 0 38.0	1.514	2.346	16.0	20.3	1 6	4 23.54	+29 47.5	1.194	2.067	16.8	20.5
1 16	4 42.46	+ 0 50.6	1.585	2.341	18.8	20.5	1 16	4 16.35	+31 2.4	1.288	2.069	21.0	20.8
<b>490956</b>	2011 <i>DG</i> <sub>14</sub>		12 8.9 195°29'	2°5'	8.3 18		<b>148746</b>	2001 <i>TP</i> <sub>139</sub>		12 8.9 181°97'	0°5'	9.1 18	
11 7	5 26.35	+14 42.6	2.694	3.529	9.9	22.5	11 7	5 34.17	+24 10.1	2.095	2.930	12.4	21.1
11 17	5 20.65	+14 23.9	2.617	3.528	7.3	22.4	11 17	5 26.74	+24 17.6	2.019	2.931	9.0	20.9
11 27	5 13.49	+14 8.0	2.567	3.525	4.5	22.2	11 27	5 17.09	+24 21.5	1.969	2.932	5.1	20.6
12 7	5 5.46	+13 55.8	2.547	3.523	2.5	22.0	12 7	5 6.11	+24 20.8	1.947	2.932	1.0	20.3
12 17	4 57.30	+13 48.7	2.556	3.520	3.8	22.1	12 17	4 54.89	+24 15.5	1.957	2.931	3.4	20.5
12 27	4 49.75	+13 47.4	2.597	3.517	6.6	22.3	12 27	4 44.63	+24 7.1	1.997	2.929	7.4	20.8
1 6	4 43.47	+13 52.6	2.664	3.514	9.3	22.5	1 6	4 36.29	+23 58.1	2.064	2.926	11.0	21.0
1 16	4 38.94	+14 4.2	2.756	3.510	11.7	22.6	1 16	4 30.51	+23 51.0	2.154	2.923	14.1	21.2
<b>369733</b>	2012 <i>EK</i> <sub>11</sub>		12 8.9 160°31'	4°7'	7.7 18		<b>138368</b>	2000 <i>GE</i> <sub>140</sub>		12 9.0 119°24'	1°4'	8.7 18	
11 7	5 26.31	+ 7 54.1	2.500	3.327	10.9	21.2	11 7	5 30.68	+18 25.1	2.297	3.134	11.4	20.4
11 17	5 20.64	+ 7 18.0	2.433	3.330	8.4	21.0	11 17	5 23.84	+18 21.4	2.238	3.152	8.2	20.2
11 27	5 13.47	+ 6 49.2	2.392	3.333	6.0	20.9	11 27	5 15.29	+18 18.5	2.206	3.169	4.7	20.0
12 7	5 5.46	+ 6 30.0	2.379	3.336	4.8	20.8	12 7	5 5.79	+18 16.8	2.203	3.186	1.5	19.8
12 17	4 57.34	+ 6 22.0	2.396	3.339	5.7	20.9	12 17	4 56.25	+18 16.7	2.231	3.202	3.4	20.0
12 27	4 49.90	+ 6 26.2	2.442	3.341	8.0	21.0	12 27	4 47.61	+18 19.2	2.290	3.218	6.8	20.2
1 6	4 43.80	+ 6 42.0	2.514	3.344	10.4	21.2	1 6	4 40.61	+18 25.2	2.375	3.233	9.9	20.5
1 16	4 39.51	+ 7 8.1	2.609	3.345	12.7	21.4	1 16	4 35.75	+18 35.4	2.485	3.248	12.5	20.7
<b>52258</b>	1981 <i>EE</i> <sub>44</sub>		12 8.9 3°73'	4°3'	7.9 18		<b>144382</b>	2004 <i>DZ</i> <sub>62</sub>		12 9.0 92°30'	2°7'	8.5 18	

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>439913</b>	2001 <i>FM</i> <sub>119</sub>	12	9.0 270°14	14.4/ 2.7	18		<b>348555</b>	2005 <i>UK</i> <sub>461</sub>	12	9.0 316°75	1.7/ 9.2	18	
11 7	5 30.04	- 8 57.8	1.645	2.430	17.4	20.9	11 7	5 31.23	+25 57.7	1.374	2.234	16.2	21.0
11 17	5 24.21	-11 8.0	1.576	2.409	15.7	20.8	11 17	5 25.74	+26 17.9	1.297	2.220	11.9	20.7
11 27	5 15.90	-12 57.0	1.528	2.387	14.6	20.6	11 27	5 17.04	+26 33.1	1.242	2.207	7.0	20.4
12 7	5 5.95	-14 14.5	1.503	2.365	14.5	20.6	12 7	5 6.18	+26 40.8	1.211	2.195	2.2	20.1
12 17	4 55.51	-14 53.2	1.500	2.343	15.6	20.6	12 17	4 54.71	+26 39.7	1.208	2.183	4.8	20.2
12 27	4 45.93	-14 50.4	1.518	2.320	17.4	20.7	12 27	4 44.47	+26 31.7	1.230	2.171	10.0	20.5
1 6	4 38.35	-14 9.5	1.555	2.297	19.7	20.8	1 6	4 36.94	+26 20.7	1.276	2.160	14.9	20.7
1 16	4 33.54	-12 57.0	1.607	2.274	21.8	20.9	1 16	4 33.02	+26 11.1	1.341	2.149	19.0	21.0
<b>100204</b>	1994 <i>GT</i> <sub>3</sub>	12	9.0 294°02	1.7/ 9.4	18		<b>314253</b>	2005 <i>QM</i> <sub>101</sub>	12	9.0 68°37	0.3/ 8.9	18	
11 7	5 28.38	+27 43.9	2.250	3.088	11.5	19.8	11 7	5 29.92	+23 8.3	1.855	2.703	13.1	20.8
11 17	5 22.63	+27 57.9	2.163	3.075	8.5	19.6	11 17	5 23.69	+22 48.1	1.796	2.715	9.5	20.6
11 27	5 14.84	+28 6.7	2.102	3.063	5.1	19.4	11 27	5 15.34	+22 24.1	1.762	2.727	5.3	20.3
12 7	5 5.75	+28 8.8	2.069	3.050	2.0	19.1	12 7	5 5.83	+21 57.3	1.755	2.740	0.9	20.1
12 17	4 56.33	+28 3.8	2.065	3.037	3.5	19.2	12 17	4 56.27	+21 29.3	1.778	2.752	3.6	20.3
12 27	4 47.67	+27 53.1	2.091	3.025	7.0	19.4	12 27	4 47.84	+21 2.8	1.830	2.765	7.7	20.6
1 6	4 40.69	+27 39.1	2.143	3.012	10.4	19.6	1 6	4 41.41	+20 40.5	1.907	2.778	11.4	20.8
1 16	4 36.02	+27 24.8	2.220	3.000	13.3	19.8	1 16	4 37.53	+20 24.4	2.007	2.790	14.5	21.1
<b>195732</b>	2002 <i>PC</i> <sub>88</sub>	12	9.0 86°32	1.7/ 8.6	18		<b>418739</b>	2008 <i>UH</i> <sub>139</sub>	12	9.0 356°64	2.6/ 9.4	18	
11 7	5 27.89	+17 55.3	2.387	3.227	10.9	20.6	11 7	5 29.17	+29 18.2	2.163	3.000	12.0	20.7
11 17	5 21.77	+17 39.6	2.333	3.247	7.8	20.5	11 17	5 23.25	+29 51.8	2.089	2.999	8.9	20.5
11 27	5 14.10	+17 24.8	2.305	3.267	4.5	20.3	11 27	5 15.19	+30 19.5	2.040	2.998	5.5	20.3
12 7	5 5.59	+17 12.0	2.306	3.287	1.8	20.1	12 7	5 5.82	+30 38.9	2.019	2.997	2.8	20.1
12 17	4 57.09	+17 2.1	2.337	3.307	3.5	20.3	12 17	4 56.17	+30 48.8	2.028	2.997	4.0	20.2
12 27	4 49.43	+16 56.3	2.399	3.326	6.6	20.5	12 27	4 47.37	+30 50.1	2.065	2.997	7.3	20.4
1 6	4 43.28	+16 55.5	2.487	3.345	9.5	20.7	1 6	4 40.37	+30 45.4	2.129	2.997	10.5	20.6
1 16	4 39.10	+17 0.1	2.600	3.364	12.0	20.9	1 16	4 35.82	+30 37.7	2.217	2.997	13.3	20.8
<b>453985</b>	2012 <i>BU</i> <sub>144</sub>	12	9.0 211°43	0.3/ 9.1	18		<b>237832</b>	2002 <i>CN</i> <sub>307</sub>	12	9.0 284°16	0.1/ 9.0	18	
11 7	5 29.34	+24 16.7	2.119	2.962	12.0	21.9	11 7	5 31.57	+22 29.2	1.640	2.492	14.4	20.7
11 17	5 23.23	+24 11.8	2.044	2.960	8.7	21.7	11 17	5 25.56	+22 39.1	1.554	2.475	10.5	20.4
11 27	5 15.11	+24 3.0	1.994	2.958	4.9	21.5	11 27	5 16.78	+22 47.5	1.491	2.457	6.0	20.1
12 7	5 5.79	+23 50.1	1.972	2.957	0.9	21.2	12 7	5 6.13	+22 53.2	1.455	2.440	1.0	19.7
12 17	4 56.26	+23 33.9	1.980	2.955	3.3	21.4	12 17	4 54.92	+22 55.9	1.447	2.422	4.1	19.9
12 27	4 47.62	+23 16.2	2.018	2.953	7.2	21.6	12 27	4 44.65	+22 56.8	1.467	2.404	9.1	20.1
1 6	4 40.75	+22 59.6	2.082	2.950	10.7	21.8	1 6	4 36.62	+22 58.3	1.512	2.387	13.6	20.4
1 16	4 36.24	+22 46.3	2.170	2.948	13.7	22.0	1 16	4 31.67	+23 2.8	1.578	2.369	17.4	20.6
<b>521792</b>	2015 <i>SW</i> <sub>29</sub>	12	9.0 93°72	1.0/ 8.6	18		<b>373206</b>	2012 <i>DB</i> <sub>91</sub>	12	9.0 142°19	0.5/ 8.9	18	
11 7	5 30.32	+22 23.6	2.076	2.918	12.2	20.7	11 7	5 35.78	+22 11.2	1.609	2.455	14.9	21.5
11 17	5 23.70	+21 37.0	2.017	2.934	8.7	20.6	11 17	5 28.23	+22 4.9	1.548	2.466	10.8	21.3
11 27	5 15.22	+20 46.7	1.985	2.949	4.9	20.4	11 27	5 18.03	+21 55.9	1.510	2.475	6.1	21.0
12 7	5 5.78	+19 54.7	1.981	2.965	1.2	20.1	12 7	5 6.30	+21 43.9	1.500	2.485	1.1	20.7
12 17	4 56.39	+19 3.8	2.008	2.980	3.6	20.3	12 17	4 54.45	+21 29.8	1.519	2.493	4.1	21.0
12 27	4 48.06	+18 17.3	2.064	2.995	7.3	20.6	12 27	4 43.95	+21 15.9	1.566	2.501	8.9	21.3
1 6	4 41.56	+17 38.1	2.148	3.009	10.7	20.8	1 6	4 35.91	+21 5.3	1.639	2.508	13.0	21.5
1 16	4 37.36	+17 7.9	2.254	3.024	13.5	21.0	1 16	4 30.96	+21 0.2	1.734	2.514	16.5	21.8
<b>185353</b>	2006 <i>VZ</i> <sub>71</sub>	12	9.0 78°53	3.6/ 8.3	18		<b>394557</b>	2007 <i>UQ</i> <sub>95</sub>	12	9.0 38°61	4.0/ 7.8	17	
11 7	5 28.68	+13 25.9	1.895	2.741	13.0	20.7	11 7	5 29.68	+17 24.4	1.388	2.251	15.9	20.6
11 17	5 22.77	+13 5.3	1.831	2.745	9.7	20.5	11 17	5 23.84	+16 6.5	1.340	2.265	11.6	20.4
11 27	5 14.84	+12 49.8	1.791	2.749	6.1	20.3	11 27	5 15.50	+14 49.4	1.316	2.279	7.0	20.2
12 7	5 5.74	+12 41.3	1.779	2.754	3.6	20.2	12 7	5 5.86	+13 38.2	1.317	2.295	4.0	20.1
12 17	4 56.49	+12 41.2	1.795	2.759	5.2	20.3	12 17	4 56.29	+12 38.4	1.346	2.311	6.2	20.2
12 27	4 48.18	+12 50.4	1.840	2.763	8.6	20.5	12 27	4 48.16	+11 54.1	1.400	2.327	10.4	20.5
1 6	4 41.69	+13 8.6	1.910	2.768	12.0	20.7	1 6	4 42.45	+11 27.3	1.479	2.344	14.4	20.8
1 16	4 37.58	+13 35.2	2.003	2.772	14.9	21.0	1 16	4 39.68	+11 17.2	1.577	2.362	17.7	21.1
<b>132437</b>	2002 <i>GJ</i> <sub>165</sub>	12	9.0 320°96	1.8/ 8.7	18		<b>354447</b>	2003 <i>YB</i> <sub>145</sub>	12	9.0 27°59	10.1/ 11.7	18	
11 7	5 29.91	+18 51.8	1.534	2.391	14.9	19.6	11 7	5 35.03	+43 20.8	1.178	2.010	20.2	19.2
11 17	5 24.25	+18 43.5	1.461	2.384	10.9	19.3	11 17	5 28.98	+44 19.2	1.141	2.029	16.4	19.0
11 27	5 15.94	+18 36.2	1.412	2.378	6.3	19.0	11 27	5 18.85	+44 50.3	1.122	2.049	12.8	18.9
12 7	5 5.95	+18 30.6	1.388	2.371	2.0	18.7	12 7	5 6.44	+44 46.9	1.125	2.071	10.4	18.8
12 17	4 55.61	+18 28.0	1.392	2.365	4.7	18.9	12 17	4 54.11	+44 8.0	1.151	2.094	10.5	18.9
12 27	4 46.36	+18 29.7	1.423	2.359	9.4	19.2	12 27	4 44.20	+43 0.8	1.200	2.118	12.8	19.1
1 6	4 39.40	+18 37.3	1.479	2.354	13.8	19.4	1 6	4 38.13	+41 37.3	1.271	2.143	15.9	19.3
1 16	4 35.46	+18 51.6	1.555	2.349	17.5	19.6	1 16	4 36.41	+40 9.0	1.362	2.169	18.8	19.6
<b>169090</b>	2001 <i>JT</i> <sub>7</sub>	12	9.0 163°66	1.2/ 9.2	18		<b>1540</b>	Kevola	12	9.0 282°39	2.8/ 9.3	18	
11 7	5 32.69	+25 20.5	2.210	3.043	11.9	20.8	11 7	5 31.68	+28 46.4	2.006	2.843	12.8	15.2
11 17	5 25.62	+25 47.1	2.137	3.048	8.6	20.6	11 17	5 25.31	+29 30.5	1.924	2.834	9.5	15.0
11 27	5 16.46	+26 10.2	2.091	3.053	5.0	20.3	11 27	5 16.49	+30 9.5	1.868	2.826	5.9	14.8
12 7	5 6.03	+26 28.1	2.073	3.056	1.5	20.1	12 7	5 6.08	+30 40.1	1.839	2.817	2.9	14.6
12 17	4 55.37	+26 39.8	2.087	3.060	3.3	20.3	12 17	4 55.20	+31 0.3	1.839	2.808	4.3	14.6
12 27	4 45.59	+26 46.1	2.130	3.063	7.0	20.5	12 27	4 45.19	+31 10.4	1.868	2.799	7.9	14.9
1 6	4 37.62	+26 49.0	2.202	3.065	10.4	20.7	1 6	4 37.15	+31 12.8	1.924	2.791	11.5	15.1
1 16	4 32.07	+26 50.9	2.297	3.067	13.2	20.9	1 16	4 31.84	+31 11.2	2.003	2.782	14.6	15.2
<b>464606</b>	2016 <i>CE</i> <sub>136</sub>	12	9.0 65°86	14.6/ 12.1	17		<b>235994</b>	2005 <i>GY</i> <sub>1</sub>	12	9.0 313°04	10.5/ 9.1		

EPHEMERIDES

12 9.0

12 9.0

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>404774</b>	2014 <i>JF</i> <sub>46</sub>		12 9.0 289°21	1.7/ 9.3	18		<b>416144</b>	2002 <i>QO</i> <sub>135</sub>		12 9.0 22°97	8°0/ 8.3	18	
11 7	5 31.92	+26 21.6	1.661	2.509	14.4	21.0	11 7	5 26.27	+0 59.6	1.795	2.620	14.5	20.1
11 17	5 25.74	+26 41.3	1.584	2.502	10.6	20.8	11 17	5 21.05	+0 33.3	1.743	2.629	11.8	19.9
11 27	5 16.82	+26 55.8	1.531	2.495	6.2	20.5	11 27	5 13.90	+0 24.0	1.714	2.639	9.3	19.8
12 7	5 6.15	+27 3.0	1.505	2.488	2.0	20.2	12 7	5 5.66	+0 34.8	1.710	2.649	8.1	19.7
12 17	4 55.06	+27 2.2	1.507	2.481	4.2	20.3	12 17	4 57.33	+1 6.9	1.733	2.660	8.8	19.8
12 27	4 45.05	+26 54.8	1.536	2.474	8.8	20.6	12 27	4 49.96	+1 58.9	1.781	2.672	11.0	20.0
1 6	4 37.38	+26 44.3	1.591	2.467	13.0	20.8	1 6	4 44.37	+3 7.0	1.854	2.684	13.5	20.2
1 16	4 32.79	+26 34.3	1.668	2.460	16.6	21.1	1 16	4 41.09	+4 26.8	1.947	2.697	16.0	20.4
<b>414660</b>	2009 <i>WW</i> <sub>26</sub>		12 9.0 348°69	0°9/ 8.7	17		<b>198828</b>	2005 <i>EA</i> <sub>277</sub>		12 9.0 341°98	0°1/ 9.0	17	
11 7	5 27.64	+22 10.6	2.089	2.936	11.9	20.9	11 7	5 26.96	+23 29.8	1.976	2.826	12.4	20.1
11 17	5 21.97	+21 35.6	2.016	2.934	8.6	20.6	11 17	5 21.71	+23 26.5	1.900	2.820	9.0	19.8
11 27	5 14.38	+20 57.1	1.968	2.933	4.9	20.4	11 27	5 14.37	+23 20.2	1.848	2.814	5.1	19.6
12 7	5 5.70	+20 16.6	1.948	2.932	1.1	20.2	12 7	5 5.76	+23 10.7	1.824	2.808	0.9	19.3
12 17	4 56.88	+19 36.4	1.958	2.931	3.5	20.3	12 17	4 56.89	+22 58.8	1.829	2.803	3.4	19.5
12 27	4 48.96	+18 59.3	1.997	2.930	7.4	20.6	12 27	4 48.89	+22 46.1	1.862	2.799	7.5	19.7
1 6	4 42.76	+18 28.1	2.063	2.930	10.8	20.8	1 6	4 42.69	+22 34.9	1.921	2.795	11.2	19.9
1 16	4 38.82	+18 4.5	2.152	2.929	13.8	21.0	1 16	4 38.91	+22 27.3	2.003	2.791	14.3	20.1
<b>78891</b>	2003 <i>SH</i> <sub>40</sub>		12 9.0 66°52	4°3/ 7.7	18		<b>391633</b>	2007 <i>VG</i> <sub>160</sub>		12 9.0 139°20	0°6/ 9.1	18	
11 7	5 26.80	+12 7.0	2.130	2.971	12.0	19.0	11 7	5 33.58	+23 43.6	2.351	3.181	11.4	21.9
11 17	5 21.17	+11 12.4	2.070	2.980	8.9	18.9	11 17	5 26.08	+24 9.0	2.285	3.195	8.2	21.7
11 27	5 13.86	+10 22.5	2.037	2.990	6.0	18.7	11 27	5 16.67	+24 31.9	2.247	3.209	4.7	21.5
12 7	5 5.61	+9 40.4	2.032	2.999	4.3	18.6	12 7	5 6.15	+24 50.9	2.238	3.222	1.0	21.2
12 17	4 57.32	+9 8.9	2.055	3.009	5.6	18.7	12 17	4 55.49	+25 5.1	2.261	3.234	3.1	21.4
12 27	4 49.89	+8 49.9	2.107	3.019	8.4	18.9	12 27	4 45.72	+25 15.3	2.315	3.246	6.6	21.7
1 6	4 44.05	+8 43.7	2.185	3.028	11.3	19.1	1 6	4 37.69	+25 23.0	2.397	3.257	9.8	21.9
1 16	4 40.28	+8 49.4	2.285	3.038	13.8	19.3	1 16	4 31.92	+25 30.3	2.503	3.267	12.4	22.1
<b>145751</b>	1995 <i>YK</i> <sub>6</sub>		12 9.0 273°86	1°3/ 8.7	18		<b>80667</b>	2000 <i>BA</i> <sub>15</sub>		12 9.0 339°84	3°2/ 9.2	18	
11 7	5 32.00	+20 49.4	1.560	2.414	14.9	20.7	11 7	5 31.07	+26 29.5	1.143	2.013	18.0	17.9
11 17	5 25.91	+20 28.7	1.475	2.397	10.9	20.4	11 17	5 26.21	+27 26.4	1.074	2.002	13.4	17.6
11 27	5 17.00	+20 5.5	1.413	2.379	6.3	20.1	11 27	5 17.60	+28 20.3	1.025	1.991	8.1	17.3
12 7	5 6.21	+19 40.7	1.378	2.362	1.6	19.8	12 7	5 6.39	+29 5.6	1.001	1.982	3.5	17.0
12 17	4 54.90	+19 16.1	1.370	2.344	4.6	19.9	12 17	4 54.40	+29 37.8	1.000	1.974	5.9	17.1
12 27	4 44.62	+18 54.9	1.390	2.326	9.7	20.2	12 27	4 43.84	+29 56.8	1.024	1.967	11.4	17.4
1 6	4 36.67	+18 39.9	1.435	2.307	14.3	20.4	1 6	4 36.49	+30 6.0	1.070	1.961	16.5	17.7
1 16	4 31.87	+18 33.5	1.500	2.289	18.2	20.6	1 16	4 33.34	+30 10.7	1.134	1.956	20.9	18.0
<b>359300</b>	2009 <i>HD</i> <sub>83</sub>		12 9.0 60°92	3°9/ 8.2	18		<b>85268</b>	1994 <i>AK</i> <sub>5</sub>		12 9.0 257°20	0°5/ 8.9	18	
11 7	5 29.04	+13 48.7	1.747	2.596	13.8	20.7	11 7	5 27.60	+21 18.2	2.482	3.321	10.5	20.3
11 17	5 23.16	+13 16.4	1.686	2.602	10.2	20.5	11 17	5 21.84	+21 14.6	2.394	3.309	7.6	20.1
11 27	5 15.13	+12 48.9	1.648	2.607	6.4	20.3	11 27	5 14.35	+21 9.8	2.332	3.296	4.3	19.9
12 7	5 5.85	+12 28.6	1.638	2.613	3.9	20.1	12 7	5 5.77	+21 3.8	2.299	3.283	0.9	19.6
12 17	4 56.44	+12 17.8	1.656	2.619	5.6	20.2	12 17	4 56.92	+20 57.3	2.297	3.270	3.0	19.8
12 27	4 48.08	+12 17.7	1.701	2.624	9.2	20.5	12 27	4 48.72	+20 51.3	2.325	3.257	6.5	20.0
1 6	4 41.68	+12 28.5	1.771	2.630	12.7	20.7	1 6	4 41.95	+20 47.4	2.380	3.243	9.7	20.2
1 16	4 37.82	+12 49.4	1.863	2.636	15.8	20.9	1 16	4 37.16	+20 46.9	2.459	3.230	12.5	20.3
<b>233302</b>	2006 <i>BK</i> <sub>45</sub>		12 9.0 324°68	0°8/ 8.8	17		<b>322142</b>	2010 <i>WH</i> <sub>4</sub>		12 9.0 57°76	0°4/ 8.9	15	
11 7	5 27.64	+21 7.4	1.973	2.823	12.4	21.2	11 7	5 29.35	+22 23.3	1.887	2.736	12.9	21.6
11 17	5 22.17	+20 58.4	1.896	2.816	9.0	20.9	11 17	5 23.36	+22 12.8	1.823	2.742	9.3	21.4
11 27	5 14.61	+20 48.2	1.844	2.810	5.1	20.7	11 27	5 15.25	+21 59.7	1.784	2.749	5.2	21.2
12 7	5 5.78	+20 36.9	1.819	2.803	1.1	20.4	12 7	5 5.92	+21 44.4	1.772	2.757	0.9	20.9
12 17	4 56.69	+20 25.7	1.824	2.797	3.6	20.6	12 17	4 56.46	+21 28.0	1.790	2.764	3.6	21.1
12 27	4 48.46	+20 16.2	1.857	2.792	7.7	20.8	12 27	4 48.03	+21 12.5	1.836	2.771	7.7	21.4
1 6	4 42.02	+20 10.3	1.916	2.786	11.4	21.0	1 6	4 41.55	+21 0.2	1.908	2.779	11.4	21.6
1 16	4 37.98	+20 9.3	1.997	2.781	14.5	21.2	1 16	4 37.58	+20 52.9	2.003	2.786	14.5	21.8
<b>181796</b>	1998 <i>HN</i> <sub>122</sub>		12 9.0 200°67	1°9/ 8.7	18		<b>327985</b>	2007 <i>GY</i> <sub>21</sub>		12 9.0 130°05	3°2/ 9.6	17	
11 7	5 34.09	+17 13.8	1.908	2.747	13.2	21.1	11 7	5 31.59	+31 40.0	2.411	3.235	11.3	21.5
11 17	5 26.86	+17 14.9	1.829	2.743	9.7	20.8	11 17	5 24.84	+32 20.4	2.341	3.241	8.5	21.3
11 27	5 17.29	+17 18.5	1.776	2.738	5.7	20.6	11 27	5 16.07	+32 53.5	2.297	3.248	5.5	21.1
12 7	5 6.25	+17 24.6	1.751	2.733	2.1	20.3	12 7	5 6.07	+33 16.7	2.281	3.254	3.3	21.0
12 17	4 54.88	+17 33.5	1.756	2.726	4.3	20.5	12 17	4 55.83	+33 28.6	2.296	3.260	4.2	21.0
12 27	4 44.44	+17 46.0	1.790	2.719	8.4	20.7	12 27	4 46.43	+33 30.1	2.340	3.265	6.9	21.2
1 6	4 35.97	+18 2.7	1.852	2.711	12.2	20.9	1 6	4 38.77	+33 23.8	2.412	3.271	9.8	21.4
1 16	4 30.16	+18 24.4	1.936	2.702	15.5	21.1	1 16	4 33.46	+33 13.1	2.508	3.276	12.3	21.6
<b>85881</b>	1999 <i>CC</i> <sub>19</sub>		12 9.0 317°13	6°6/ 8.7	18		<b>457962</b>	2009 <i>VQ</i> <sub>70</sub>		12 9.0 307°79	2°2/ 9.4	17	
11 7	5 30.50	+7 8.3	1.383	2.231	16.7	18.2	11 7	5 29.59	+28 2.9	1.883	2.728	13.2	21.3
11 17	5 24.93	+7 3.9	1.309	2.219	13.0	18.0	11 17	5 23.68	+28 26.6	1.820	2.735	9.7	21.1
11 27	5 16.49	+7 15.2	1.257	2.207	9.2	17.7	11 27	5 15.50	+28 44.2	1.782	2.743	5.8	20.9
12 7	5 6.15	+7 45.5	1.229	2.195	6.7	17.6	12 7	5 5.97	+28 53.6	1.771	2.751	2.4	20.7
12 17	4 55.27	+8 35.2	1.227	2.184	8.1	17.6	12 17	4 56.26	+28 54.4	1.788	2.760	3.9	20.8
12 27	4 45.44	+9 42.7	1.251	2.173	11.9	17.8	12 27	4 47.61	+28 47.9	1.834	2.769	7.7	21.1
1 6	4 37.98	+11 4.0	1.298	2.163	16.1	18.0	1 6	4 41.00	+28 37.3	1.905	2.779	11.3	21.3
1 16	4 33.74	+12 34.4	1.365	2.153	19.8	18.2	1 16	4 37.05	+28 25.8	1.999	2.789	14.3	21.5
<b>437784</b>	2015 <i>CH</i> <sub>11</sub>		12 9.0 248°77	4°2/ 8.3	18		<b>269452</b>	2009 <i>SM</i> <sub>267</sub>		12 9.0 337°27	5°8/ 6.9	17	

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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>450676</b>	2006 VB <sub>35</sub>	12 9.0 70°03	1.2/ 8.7	18			<b>332259</b>	2006 QV <sub>76</sub>	12 9.0 256°98	4.2/ 8.4	18		
11 7	5 29.59	+21 0.4	1.849	2.698	13.1	21.6	11 7	5 32.40	+14 3.8	1.472	2.324	15.7	21.4
11 17	5 23.53	+20 34.6	1.784	2.704	9.5	21.3	11 17	5 26.21	+13 38.3	1.396	2.314	11.7	21.2
11 27	5 15.35	+20 6.8	1.744	2.710	5.4	21.1	11 27	5 17.19	+13 18.2	1.343	2.303	7.4	20.9
12 7	5 5.94	+19 38.1	1.732	2.716	1.4	20.9	12 7	5 6.34	+13 5.9	1.315	2.292	4.2	20.7
12 17	4 56.43	+19 10.7	1.749	2.722	3.9	21.0	12 17	4 55.04	+13 3.6	1.315	2.281	6.3	20.8
12 27	4 47.97	+18 46.9	1.794	2.728	8.0	21.3	12 27	4 44.83	+13 12.9	1.342	2.270	10.7	21.0
1 6	4 41.47	+18 29.2	1.866	2.734	11.7	21.6	1 6	4 36.99	+13 33.9	1.393	2.258	15.1	21.2
1 16	4 37.50	+18 18.9	1.959	2.740	14.8	21.8	1 16	4 32.31	+14 5.7	1.463	2.246	18.9	21.4
<b>445651</b>	2011 UG <sub>48</sub>	12 9.0 8°57	1.4/ 9.3	17			<b>153742</b>	2001 UG <sub>146</sub>	12 9.0 158°69	2.4/ 9.4	18		
11 7	5 30.67	+25 57.9	1.616	2.468	14.5	21.0	11 7	5 35.04	+27 56.7	1.767	2.605	14.1	20.3
11 17	5 24.78	+26 10.3	1.549	2.469	10.6	20.8	11 17	5 27.85	+28 29.3	1.698	2.609	10.4	20.1
11 27	5 16.26	+26 17.4	1.505	2.470	6.2	20.5	11 27	5 17.98	+28 55.7	1.653	2.613	6.3	19.9
12 7	5 6.13	+26 17.7	1.488	2.471	1.8	20.2	12 7	5 6.46	+29 12.8	1.636	2.616	2.7	19.6
12 17	4 55.73	+26 11.0	1.498	2.472	4.1	20.4	12 17	4 54.64	+29 19.3	1.647	2.619	4.3	19.8
12 27	4 46.51	+25 59.3	1.536	2.474	8.6	20.7	12 27	4 43.98	+29 16.4	1.688	2.621	8.4	20.0
1 6	4 39.62	+25 46.1	1.599	2.477	12.8	20.9	1 6	4 35.66	+29 7.8	1.755	2.624	12.3	20.3
1 16	4 35.75	+25 34.7	1.683	2.479	16.2	21.2	1 16	4 30.39	+28 57.6	1.843	2.625	15.6	20.5
<b>254757</b>	2005 QA <sub>2</sub>	12 9.0 85°21	4.1/ 8.1	18			<b>52045</b>	2002 PE <sub>80</sub>	12 9.0 109°38	1.5/ 8.5	18		
11 7	5 28.43	+12 34.1	1.931	2.775	12.9	20.4	11 7	5 31.46	+21 28.3	1.889	2.734	13.1	19.1
11 17	5 22.57	+11 59.6	1.869	2.781	9.6	20.2	11 17	5 24.76	+20 35.2	1.827	2.745	9.4	18.9
11 27	5 14.76	+11 30.5	1.831	2.787	6.2	20.0	11 27	5 15.98	+19 38.5	1.791	2.755	5.4	18.7
12 7	5 5.85	+11 9.3	1.821	2.793	4.1	19.9	12 7	5 6.09	+18 40.7	1.782	2.765	1.7	18.5
12 17	4 56.83	+10 57.9	1.840	2.799	5.6	20.0	12 17	4 56.20	+17 45.1	1.804	2.775	4.1	18.7
12 27	4 48.74	+10 57.6	1.887	2.805	8.8	20.2	12 27	4 47.45	+16 55.7	1.855	2.785	8.1	18.9
1 6	4 42.42	+11 8.4	1.959	2.811	12.0	20.4	1 6	4 40.69	+16 15.4	1.933	2.795	11.7	19.2
1 16	4 38.42	+11 29.3	2.053	2.817	14.8	20.6	1 16	4 36.43	+15 46.1	2.033	2.804	14.7	19.4
<b>42105</b>	2001 AZ <sub>35</sub>	12 9.0 236°33	4.6/10.2	18			<b>474188</b>	1999 VL <sub>226</sub>	12 9.0 18°00	5.0/ 9.1	17		
11 7	5 31.96	+36 39.6	2.246	3.061	12.3	19.0	11 7	5 25.61	+11 54.0	0.828	1.720	20.8	19.3
11 17	5 25.37	+37 7.0	2.167	3.057	9.6	18.8	11 17	5 21.94	+12 11.3	0.801	1.738	15.4	19.1
11 27	5 16.47	+37 22.7	2.114	3.053	6.8	18.7	11 27	5 14.85	+12 44.2	0.792	1.759	9.6	18.9
12 7	5 6.16	+37 23.6	2.087	3.050	4.8	18.5	12 7	5 5.91	+13 32.4	0.804	1.783	5.2	18.7
12 17	4 55.57	+37 8.7	2.090	3.046	5.3	18.6	12 17	4 57.05	+14 33.2	0.838	1.810	7.2	18.9
12 27	4 45.95	+36 40.0	2.121	3.042	7.8	18.7	12 27	4 50.17	+15 42.5	0.893	1.838	12.2	19.3
1 6	4 38.32	+36 1.7	2.180	3.038	10.7	18.9	1 6	4 46.48	+16 55.9	0.969	1.869	16.9	19.7
1 16	4 33.31	+35 19.1	2.261	3.034	13.3	19.1	1 16	4 46.47	+18 9.7	1.063	1.902	20.8	20.1
<b>227712</b>	2006 DA <sub>116</sub>	12 9.0 156°62	0.2/ 9.1	17			<b>267780</b>	2003 SF <sub>120</sub>	12 9.0 25°21	3.4/ 8.4	18		
11 7	5 28.22	+23 35.7	2.412	3.251	10.8	21.1	11 7	5 26.89	+14 45.9	1.773	2.626	13.4	20.0
11 17	5 22.26	+23 38.7	2.338	3.253	7.8	20.9	11 17	5 21.62	+14 20.4	1.715	2.634	9.9	19.8
11 27	5 14.56	+23 39.0	2.290	3.254	4.4	20.7	11 27	5 14.30	+13 59.2	1.681	2.643	6.1	19.6
12 7	5 5.82	+23 36.4	2.272	3.256	0.8	20.4	12 7	5 5.82	+13 44.3	1.674	2.652	3.4	19.5
12 17	4 56.92	+23 31.0	2.284	3.258	2.9	20.6	12 17	4 57.23	+13 37.5	1.695	2.661	5.1	19.6
12 27	4 48.77	+23 24.3	2.325	3.259	6.4	20.8	12 27	4 49.65	+13 39.8	1.744	2.671	8.7	19.8
1 6	4 42.17	+23 17.8	2.395	3.261	9.6	21.0	1 6	4 43.95	+13 51.5	1.817	2.682	12.2	20.1
1 16	4 37.62	+23 13.4	2.488	3.262	12.2	21.2	1 16	4 40.68	+14 11.9	1.913	2.693	15.2	20.3
<b>164336</b>	2005 BB <sub>11</sub>	12 9.0 339°41	3.0/ 9.6	18			<b>212912</b>	2007 XY <sub>34</sub>	12 9.0 85°39	1.5/ 9.4	18		
11 7	5 31.44	+30 0.5	1.510	2.360	15.5	19.8	11 7	5 33.21	+27 25.2	1.779	2.621	13.9	20.6
11 17	5 25.64	+30 13.5	1.439	2.355	11.6	19.6	11 17	5 26.21	+27 24.2	1.725	2.639	10.1	20.4
11 27	5 16.87	+30 16.7	1.390	2.351	7.2	19.3	11 27	5 16.87	+27 16.0	1.695	2.657	5.9	20.2
12 7	5 6.25	+30 7.4	1.367	2.346	3.3	19.1	12 7	5 6.25	+26 59.8	1.692	2.675	1.9	20.0
12 17	4 55.27	+29 45.3	1.370	2.342	4.9	19.1	12 17	4 55.63	+26 36.3	1.719	2.692	3.8	20.2
12 27	4 45.58	+29 13.7	1.401	2.339	9.3	19.4	12 27	4 46.31	+26 8.6	1.774	2.710	7.9	20.5
1 6	4 38.50	+28 37.9	1.455	2.336	13.6	19.6	1 6	4 39.25	+25 40.6	1.855	2.727	11.6	20.7
1 16	4 34.76	+28 3.2	1.531	2.334	17.3	19.9	1 16	4 35.00	+25 15.7	1.959	2.744	14.7	21.0
<b>355010</b>	2006 QN <sub>46</sub>	12 9.0 98°49	7.8/ 7.8	18			<b>107898</b>	2001 FL <sub>95</sub>	12 9.0 250°82	0.8/ 9.2	17		
11 7	5 28.89	+ 2 15.6	1.873	2.695	14.2	20.7	11 7	5 29.42	+24 9.0	2.229	3.069	11.5	19.6
11 17	5 22.88	+ 1 31.6	1.818	2.703	11.4	20.6	11 17	5 23.34	+24 30.9	2.153	3.067	8.4	19.4
11 27	5 14.93	+ 1 2.2	1.786	2.711	8.9	20.4	11 27	5 15.28	+24 50.5	2.102	3.066	4.8	19.2
12 7	5 5.88	+ 0 51.2	1.781	2.720	7.8	20.4	12 7	5 6.00	+25 6.4	2.081	3.064	1.1	18.9
12 17	4 56.74	+ 1 0.6	1.802	2.728	8.6	20.4	12 17	4 56.46	+25 18.1	2.089	3.063	3.2	19.0
12 27	4 48.56	+ 1 30.3	1.850	2.736	10.9	20.6	12 27	4 47.71	+25 26.1	2.127	3.061	6.9	19.3
1 6	4 42.17	+ 2 17.3	1.922	2.743	13.5	20.8	1 6	4 40.63	+25 32.1	2.192	3.060	10.2	19.5
1 16	4 38.10	+ 3 18.0	2.015	2.751	15.9	21.0	1 16	4 35.82	+25 38.0	2.281	3.058	13.1	19.7
<b>12677</b>	1981 EO <sub>4</sub>	12 9.0 75°92	2.7/ 9.9	18			<b>83346</b>	2001 RD <sub>141</sub>	12 9.0 84°72	0.5/ 9.1	18		
11 7	5 31.05	+32 9.7	2.086	2.916	12.6	19.1	11 7	5 31.56	+23 28.2	1.893	2.737	13.1	19.5
11 17	5 24.49	+32 2.2	2.022	2.927	9.4	18.9	11 17	5 24.98	+23 43.4	1.833	2.750	9.5	19.3
11 27	5 15.84	+31 44.2	1.984	2.939	5.9	18.7	11 27	5 16.20	+23 56.0	1.798	2.763	5.3	19.1
12 7	5 6.03	+31 14.9	1.973	2.950	3.0	18.5	12 7	5 6.16	+24 4.8	1.792	2.776	1.0	18.8
12 17	4 56.20	+30 35.3	1.992	2.961	4.0	18.6	12 17	4 55.99	+24 9.7	1.814	2.789	3.5	19.1
12 27	4 47.49	+29 48.8	2.040	2.973	7.2	18.8	12 27	4 46.90	+24 11.7	1.865	2.801	7.6	19.3
1 6	4 40.78	+28 59.8	2.115	2.984	10.5	19.1	1 6	4 39.84	+24 13.0	1.943	2.814	11.2	19.6
1 16	4 36.59	+28 12.7	2.213	2.995	13.3	19.3	1 16	4 35.37	+24 15.6	2.044	2.826	14.3	19.8
<b>377553</b>	2005 JZ <sub>54</sub>	12 9.0 207°36	3.0/ 8.6	18			<b>287167</b>	2002 RJ <sub>251</sub>	12 9.0 48°95	1.3/ 9.3	17		
11 7	5 32.89	+15 52.7	1.556	2.406	15.1	21.2</							

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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>180386</b>	2003 YS <sub>153</sub>	12 9.0	35°22'	10.3/10.8	18		<b>113270</b>	2002 RN <sub>152</sub>	12 9.1	200°54'	2.0/9.7	18	
11 7	5 37.92	+40 31.7	1.030	1.876	21.4	19.0	11 7	5 29.02	+30 16.8	2.482	3.311	10.9	19.7
11 17	5 31.60	+41 59.1	0.993	1.892	17.2	18.8	11 17	5 22.90	+30 11.2	2.404	3.310	8.0	19.5
11 27	5 20.65	+43 1.0	0.974	1.910	13.2	18.6	11 27	5 14.97	+29 57.8	2.352	3.309	4.9	19.3
12 7	5 6.95	+43 27.3	0.977	1.929	10.5	18.5	12 7	5 6.00	+29 36.1	2.328	3.307	2.2	19.1
12 17	4 53.15	+43 14.6	1.002	1.949	10.9	18.6	12 17	4 56.88	+29 6.6	2.335	3.306	3.3	19.2
12 27	4 41.96	+42 29.3	1.049	1.970	13.8	18.9	12 27	4 48.57	+28 31.5	2.371	3.304	6.4	19.4
1 6	4 35.09	+41 24.1	1.117	1.992	17.3	19.1	1 6	4 41.88	+27 54.2	2.436	3.302	9.4	19.6
1 16	4 33.11	+40 11.6	1.203	2.014	20.6	19.4	1 16	4 37.31	+27 17.9	2.525	3.300	12.0	19.7
<b>451827</b>	2013 HY <sub>132</sub>	12 9.0	273°85'	4.9/9.8	17		<b>232494</b>	2003 OG <sub>31</sub>	12 9.1	110°04'	8.4/12.9	18	
11 7	5 33.39	+34 56.9	1.948	2.773	13.6	21.6	11 7	5 40.94	+53 2.2	2.662	3.388	12.9	20.1
11 17	5 26.78	+35 43.2	1.869	2.766	10.5	21.4	11 17	5 31.87	+53 41.8	2.605	3.406	11.2	20.0
11 27	5 17.47	+36 18.9	1.815	2.759	7.3	21.2	11 27	5 20.12	+54 0.8	2.571	3.424	9.6	20.0
12 7	5 6.42	+36 39.7	1.787	2.752	5.1	21.1	12 7	5 6.88	+53 55.1	2.562	3.442	8.6	19.9
12 17	4 54.90	+36 43.2	1.787	2.745	5.8	21.1	12 17	4 53.65	+53 23.4	2.580	3.459	8.5	19.9
12 27	4 44.41	+36 30.7	1.816	2.738	8.8	21.3	12 27	4 41.95	+52 28.6	2.624	3.476	9.3	20.0
1 6	4 36.16	+36 6.5	1.870	2.731	12.0	21.5	1 6	4 32.87	+51 16.9	2.694	3.492	10.7	20.1
1 16	4 30.94	+35 36.4	1.947	2.725	15.0	21.7	1 16	4 26.97	+49 55.7	2.787	3.508	12.3	20.3
<b>523748</b>	2014 UP <sub>224</sub>	12 9.0	276°04'	0.4/7.3	18		<b>273495</b>	2007 AW <sub>15</sub>	12 9.1	302°86'	5.9/8.5	18	
11 7	5 6.62	+4 31.3	39.798	40.607	0.8	22.2	11 7	5 30.88	+9 38.1	1.402	2.254	16.4	20.2
11 17	5 5.89	+4 28.0	39.726	40.605	0.6	22.2	11 17	5 25.21	+9 21.1	1.329	2.243	12.5	19.9
11 27	5 5.08	+4 25.4	39.680	40.603	0.5	22.1	11 27	5 16.71	+9 15.9	1.277	2.232	8.5	19.7
12 7	5 4.24	+4 23.6	39.664	40.600	0.4	22.1	12 7	5 6.35	+9 25.4	1.251	2.221	5.9	19.5
12 17	5 3.39	+4 22.5	39.677	40.598	0.5	22.1	12 17	4 55.50	+9 51.3	1.251	2.210	7.5	19.5
12 27	5 2.57	+4 22.4	39.719	40.596	0.6	22.2	12 27	4 45.73	+10 33.3	1.276	2.200	11.5	19.7
1 6	5 1.81	+4 23.1	39.788	40.594	0.8	22.2	1 6	4 38.32	+11 29.0	1.325	2.190	15.8	20.0
1 16	5 1.13	+4 24.6	39.883	40.591	1.0	22.2	1 16	4 34.09	+12 35.3	1.394	2.181	19.5	20.2
<b>284501</b>	2007 PU <sub>18</sub>	12 9.0	83°56'	0.4/8.9	15		<b>145316</b>	2005 LV <sub>5</sub>	12 9.1	91°58'	2.0/8.6	18	
11 7	5 33.47	+22 29.5	1.707	2.553	14.2	21.1	11 7	5 30.22	+18 32.2	1.889	2.735	13.0	20.0
11 17	5 26.32	+22 17.7	1.658	2.576	10.2	20.9	11 17	5 23.92	+18 7.3	1.829	2.747	9.4	19.8
11 27	5 16.90	+22 3.0	1.634	2.599	5.7	20.7	11 27	5 15.58	+17 42.9	1.795	2.759	5.4	19.6
12 7	5 6.28	+21 45.7	1.637	2.622	1.0	20.4	12 7	5 6.11	+17 20.2	1.789	2.771	2.1	19.4
12 17	4 55.72	+21 27.0	1.670	2.644	3.8	20.7	12 17	4 56.57	+17 1.2	1.812	2.783	4.2	19.6
12 27	4 46.49	+21 9.6	1.731	2.666	8.1	21.0	12 27	4 48.09	+16 47.7	1.864	2.794	8.0	19.8
1 6	4 39.53	+20 55.8	1.818	2.688	11.9	21.3	1 6	4 41.53	+16 41.1	1.941	2.805	11.5	20.1
1 16	4 35.33	+20 47.7	1.927	2.709	15.0	21.5	1 16	4 37.41	+16 42.1	2.042	2.817	14.5	20.3
<b>283326</b>	1997 CE <sub>2</sub>	12 9.1	82°02'	3.7/8.6	18		<b>98310</b>	2000 ST <sub>256</sub>	12 9.1	273°28'	4.3/9.8	18	
11 7	5 31.54	+13 9.2	1.662	2.509	14.5	20.3	11 7	5 35.75	+31 43.8	1.367	2.214	17.0	19.7
11 17	5 25.03	+13 0.6	1.608	2.522	10.7	20.1	11 17	5 29.23	+32 10.9	1.294	2.207	12.9	19.4
11 27	5 16.25	+12 58.7	1.577	2.536	6.7	19.9	11 27	5 19.17	+32 26.1	1.243	2.200	8.3	19.2
12 7	5 6.19	+13 4.8	1.573	2.549	3.8	19.8	12 7	5 6.79	+32 24.9	1.216	2.193	4.5	18.9
12 17	4 56.03	+13 19.6	1.598	2.563	5.4	19.9	12 17	4 53.88	+32 5.6	1.216	2.186	5.9	19.0
12 27	4 47.04	+13 43.0	1.650	2.576	9.2	20.2	12 27	4 42.46	+31 31.4	1.242	2.179	10.5	19.2
1 6	4 40.18	+14 14.4	1.728	2.589	12.9	20.4	1 6	4 34.11	+30 49.3	1.292	2.171	15.1	19.5
1 16	4 36.01	+14 52.6	1.827	2.602	15.9	20.7	1 16	4 29.67	+30 6.8	1.362	2.164	19.1	19.7
<b>111993</b>	2002 GA <sub>111</sub>	12 9.1	89°60'	0.7/8.9	18		<b>295747</b>	2008 UR <sub>113</sub>	12 9.1	147°09'	1.0/8.8	18	
11 7	5 36.03	+20 17.6	1.381	2.235	16.5	19.6	11 7	5 32.30	+22 4.0	1.801	2.647	13.6	21.2
11 17	5 28.73	+20 36.1	1.330	2.251	11.9	19.4	11 17	5 25.59	+21 32.2	1.734	2.652	9.8	21.0
11 27	5 18.50	+20 55.1	1.301	2.267	6.7	19.2	11 27	5 16.59	+20 56.9	1.692	2.657	5.6	20.7
12 7	5 6.60	+21 13.1	1.299	2.283	1.3	18.8	12 7	5 6.29	+20 19.2	1.678	2.662	1.3	20.4
12 17	4 54.59	+21 29.5	1.324	2.299	4.5	19.1	12 17	4 55.88	+19 41.7	1.693	2.666	3.9	20.6
12 27	4 44.12	+21 44.9	1.376	2.314	9.6	19.4	12 27	4 46.60	+19 7.4	1.737	2.670	8.3	20.9
1 6	4 36.41	+22 1.1	1.454	2.329	14.0	19.7	1 6	4 39.43	+18 39.4	1.807	2.674	12.1	21.2
1 16	4 32.08	+22 19.7	1.551	2.344	17.6	20.0	1 16	4 34.95	+18 19.8	1.900	2.677	15.3	21.4
<b>334057</b>	2001 OR <sub>47</sub>	12 9.1	72°96'	2.9/9.9	18		<b>487025</b>	2014 OD <sub>20</sub>	12 9.1	60°91'	3.0/8.6	18	
11 7	5 39.61	+31 23.7	1.460	2.298	16.6	20.1	11 7	5 28.97	+14 45.3	1.888	2.735	13.0	21.1
11 17	5 30.94	+31 14.6	1.424	2.333	12.2	19.9	11 17	5 23.08	+14 34.5	1.826	2.742	9.6	20.9
11 27	5 19.47	+30 52.1	1.410	2.368	7.4	19.8	11 27	5 15.15	+14 28.1	1.788	2.749	5.8	20.7
12 7	5 6.72	+30 15.3	1.423	2.402	3.3	19.6	12 7	5 6.05	+14 27.4	1.778	2.756	3.0	20.6
12 17	4 54.35	+29 26.7	1.464	2.436	4.7	19.8	12 17	4 56.81	+14 33.2	1.797	2.764	4.7	20.7
12 27	4 43.95	+28 31.8	1.534	2.469	8.9	20.1	12 27	4 48.52	+14 46.1	1.844	2.771	8.3	20.9
1 6	4 36.51	+27 37.4	1.628	2.502	12.9	20.4	1 6	4 42.06	+15 6.1	1.917	2.779	11.8	21.1
1 16	4 32.46	+26 48.7	1.745	2.534	16.1	20.7	1 16	4 38.01	+15 32.8	2.012	2.786	14.7	21.4
<b>386737</b>	2010 AR <sub>50</sub>	12 9.1	238°82'	3.9/8.2	18		<b>49577</b>	1999 CB <sub>124</sub>	12 9.1	1°66'	5.0/9.3	18	
11 7	5 30.67	+14 9.9	1.709	2.557	14.1	20.5	11 7	5 33.48	+31 47.7	1.574	2.416	15.4	18.2
11 17	5 24.57	+13 37.0	1.636	2.551	10.5	20.3	11 17	5 27.29	+33 1.7	1.507	2.415	11.7	18.0
11 27	5 16.11	+13 8.2	1.586	2.545	6.6	20.0	11 27	5 17.97	+34 7.7	1.462	2.415	7.9	17.8
12 7	5 6.20	+12 46.0	1.564	2.540	3.9	19.9	12 7	5 6.59	+34 59.5	1.444	2.415	5.1	17.6
12 17	4 56.00	+12 32.9	1.570	2.534	5.7	20.0	12 17	4 54.66	+35 33.1	1.453	2.416	6.3	17.7
12 27	4 46.79	+12 30.6	1.603	2.527	9.6	20.2	12 27	4 43.94	+35 48.6	1.489	2.417	9.9	17.9
1 6	4 39.62	+12 39.6	1.662	2.521	13.4	20.4	1 6	4 35.87	+35 50.0	1.550	2.419	13.6	18.2
1 16	4 35.15	+12 59.5	1.741	2.514	16.7	20.6	1 16	4 31.29	+35 42.9	1.631	2.421	16.9	18.4
<b>158275</b>	2001 UK <sub>8</sub>	12 9.1	0°87'	0.3/9.0	18		<b>231672</b>	1994 EN <sub>4</sub>	12 9.1	142°21'	2.9/8.4	18	
11 7	5 28.20	+21 30.8	1.078	1.957	18.1	19.5	11 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>481842</b>	2008 <i>WV</i> <sub>73</sub>	12	9.1	1°95	1°0/ 9.1	18	<b>291810</b>	2006 <i>KN</i> <sub>91</sub>	12	9.1	36°72	3°6/ 9.3	18
11 7	5 32.05	+16 44.5	1.261	2.125	17.1	19.7	11 7	5 31.84	+9 45.9	1.789	2.626	14.1	19.0
11 17	5 26.40	+17 48.9	1.197	2.123	12.5	19.5	11 17	5 25.15	+10 32.0	1.737	2.645	10.5	18.8
11 27	5 17.53	+19 2.7	1.155	2.122	7.2	19.2	11 27	5 16.32	+11 29.3	1.710	2.666	6.6	18.6
12 7	5 6.52	+20 22.2	1.138	2.122	1.6	18.8	12 7	5 6.28	+12 36.4	1.711	2.686	3.8	18.5
12 17	4 54.97	+21 42.7	1.148	2.124	4.8	19.0	12 17	4 56.14	+13 50.7	1.742	2.707	5.0	18.6
12 27	4 44.69	+23 0.2	1.185	2.126	10.3	19.4	12 27	4 47.07	+15 9.3	1.802	2.729	8.5	18.8
1 6	4 37.18	+24 12.7	1.245	2.130	15.1	19.7	1 6	4 39.98	+16 29.4	1.889	2.751	11.9	19.1
1 16	4 33.29	+25 20.3	1.326	2.134	19.2	19.9	1 16	4 35.44	+17 48.9	1.999	2.774	14.8	19.3
<b>136138</b>	2003 <i>SH</i> <sub>199</sub>	12	9.1	55°48	2°1/ 8.6	18	<b>367239</b>	2007 <i>JL</i> <sub>12</sub>	12	9.1	113°24	4°1/ 8.1	18
11 7	5 33.33	+21 7.8	1.202	2.068	17.6	19.3	11 7	5 27.13	+8 52.6	2.607	3.432	10.5	21.8
11 17	5 26.96	+20 17.9	1.153	2.080	12.7	19.1	11 17	5 21.23	+8 30.4	2.549	3.448	8.0	21.7
11 27	5 17.55	+19 24.7	1.126	2.093	7.2	18.8	11 27	5 13.92	+8 14.9	2.518	3.463	5.5	21.5
12 7	5 6.47	+18 31.5	1.123	2.106	2.3	18.5	12 7	5 5.86	+8 7.9	2.516	3.478	4.1	21.5
12 17	4 55.42	+17 42.7	1.147	2.120	5.4	18.8	12 17	4 57.75	+8 10.4	2.544	3.492	5.0	21.6
12 27	4 46.11	+17 3.1	1.197	2.134	10.7	19.1	12 27	4 50.34	+8 22.6	2.601	3.507	7.3	21.7
1 6	4 39.71	+16 36.2	1.269	2.148	15.3	19.4	1 6	4 44.26	+8 44.1	2.685	3.520	9.7	21.9
1 16	4 36.77	+16 23.0	1.361	2.162	19.1	19.7	1 16	4 39.91	+9 13.5	2.793	3.534	11.8	22.1
<b>458415</b>	2011 <i>AP</i> <sub>10</sub>	12	9.1	342°87	3°8/ 8.6	17	<b>359912</b>	2011 <i>WS</i> <sub>108</sub>	12	9.1	189°28	0°1/ 9.1	18
11 7	5 28.06	+11 26.6	1.976	2.817	12.7	21.0	11 7	5 31.27	+22 21.6	1.989	2.832	12.6	21.3
11 17	5 22.45	+11 25.1	1.904	2.814	9.5	20.8	11 17	5 24.86	+22 34.8	1.915	2.831	9.2	21.1
11 27	5 14.84	+11 31.3	1.856	2.812	6.2	20.6	11 27	5 16.25	+22 46.5	1.866	2.831	5.2	20.8
12 7	5 6.02	+11 46.1	1.836	2.809	3.9	20.4	12 7	5 6.29	+22 55.9	1.846	2.830	0.9	20.5
12 17	4 56.95	+12 10.2	1.845	2.807	5.2	20.5	12 17	4 56.07	+23 2.5	1.855	2.829	3.4	20.7
12 27	4 48.69	+12 43.2	1.883	2.805	8.5	20.7	12 27	4 46.75	+23 7.5	1.893	2.828	7.6	21.0
1 6	4 42.12	+13 24.1	1.946	2.804	11.8	20.9	1 6	4 39.32	+23 12.3	1.958	2.827	11.2	21.2
1 16	4 37.86	+14 11.5	2.032	2.802	14.7	21.1	1 16	4 34.41	+23 18.9	2.046	2.825	14.3	21.4
<b>473780</b>	2016 <i>EH</i> <sub>80</sub>	12	9.1	328°07	3°1/ 8.7	18	<b>26050</b>	3167 <i>T</i> <sub>-2</sub>	12	9.1	132°02	0°6/ 8.9	18
11 7	5 27.15	+13 23.9	1.899	2.747	12.9	20.7	11 7	5 35.44	+21 27.7	1.982	2.817	12.9	20.5
11 17	5 22.00	+13 30.7	1.816	2.732	9.6	20.5	11 17	5 27.60	+21 23.4	1.923	2.836	9.3	20.3
11 27	5 14.70	+13 44.3	1.757	2.717	6.0	20.3	11 27	5 17.64	+21 17.3	1.890	2.854	5.2	20.1
12 7	5 6.01	+14 5.5	1.725	2.703	3.2	20.1	12 7	5 6.51	+21 9.2	1.886	2.870	1.0	19.8
12 17	4 56.92	+14 34.4	1.722	2.689	4.8	20.1	12 17	4 55.35	+20 59.8	1.913	2.886	3.5	20.0
12 27	4 48.57	+15 10.7	1.746	2.676	8.5	20.3	12 27	4 45.33	+20 50.8	1.970	2.901	7.6	20.3
1 6	4 41.95	+15 53.5	1.797	2.663	12.2	20.5	1 6	4 37.36	+20 44.2	2.054	2.915	11.1	20.6
1 16	4 37.73	+16 41.8	1.869	2.651	15.4	20.7	1 16	4 31.96	+20 41.9	2.161	2.928	14.1	20.8
<b>123057</b>	2000 <i>SP</i> <sub>300</sub>	12	9.1	279°46	1°2/ 8.8	18	<b>223802</b>	2004 <i>TW</i> <sub>38</sub>	12	9.1	260°10	4°4/ 7.8	17
11 7	5 31.01	+21 43.1	1.639	2.492	14.3	19.3	11 7	5 27.06	+11 26.2	2.167	3.006	11.9	21.1
11 17	5 25.05	+21 10.4	1.560	2.481	10.5	19.0	11 17	5 21.54	+10 39.7	2.094	3.002	9.0	20.9
11 27	5 16.49	+20 33.8	1.505	2.471	6.0	18.7	11 27	5 14.26	+9 58.1	2.047	2.998	6.1	20.7
12 7	5 6.32	+19 54.6	1.476	2.460	1.5	18.4	12 7	5 5.94	+9 24.3	2.027	2.994	4.4	20.6
12 17	4 55.81	+19 15.5	1.475	2.449	4.4	18.6	12 17	4 57.44	+9 0.8	2.037	2.990	5.7	20.7
12 27	4 46.37	+18 40.1	1.503	2.438	9.1	18.8	12 27	4 49.71	+8 49.5	2.075	2.986	8.5	20.8
1 6	4 39.14	+18 11.9	1.555	2.427	13.4	19.1	1 6	4 43.52	+8 50.6	2.139	2.983	11.5	21.0
1 16	4 34.83	+17 53.3	1.629	2.416	17.1	19.3	1 16	4 39.40	+9 3.3	2.225	2.979	14.1	21.2
<b>323634</b>	2004 <i>XW</i> <sub>6</sub>	12	9.1	54°08	3°3/ 9.7	18	<b>288185</b>	2003 <i>XA</i> <sub>3</sub>	12	9.1	20°11	4°4/ 7.9	18
11 7	5 33.75	+30 57.2	1.818	2.654	13.9	19.3	11 7	5 28.34	+16 4.6	1.352	2.217	16.0	19.9
11 17	5 26.60	+31 28.3	1.777	2.685	10.3	19.2	11 17	5 23.15	+14 57.2	1.298	2.223	11.8	19.6
11 27	5 17.11	+31 49.7	1.760	2.716	6.5	19.0	11 27	5 15.37	+13 51.9	1.267	2.230	7.3	19.4
12 7	5 6.39	+31 59.0	1.771	2.747	3.5	18.9	12 7	5 6.13	+12 53.8	1.261	2.237	4.4	19.2
12 17	4 55.74	+31 55.7	1.810	2.778	4.5	19.0	12 17	4 56.81	+12 7.6	1.281	2.246	6.5	19.4
12 27	4 46.47	+31 42.2	1.878	2.810	7.9	19.3	12 27	4 48.84	+11 37.1	1.327	2.255	10.8	19.7
1 6	4 39.51	+31 22.8	1.972	2.841	11.2	19.5	1 6	4 43.28	+11 23.6	1.396	2.265	14.8	19.9
1 16	4 35.36	+31 1.7	2.089	2.872	14.0	19.8	1 16	4 40.69	+11 26.1	1.484	2.276	18.3	20.2
<b>3300</b>	McGlasson	12	9.1	135°36	5°3/ 10.4	18	<b>298028</b>	2002 <i>PG</i> <sub>119</sub>	12	9.1	127°53	0°6/ 8.9	18
11 7	5 34.01	+41 15.4	2.857	3.642	10.8	16.2	11 7	5 32.14	+21 49.6	2.252	3.087	11.6	21.7
11 17	5 26.56	+42 3.5	2.790	3.653	8.7	16.0	11 17	5 25.04	+21 34.6	2.192	3.105	8.3	21.5
11 27	5 17.10	+42 39.6	2.749	3.664	6.7	15.9	11 27	5 16.13	+21 17.3	2.158	3.121	4.7	21.3
12 7	5 6.41	+43 0.3	2.736	3.675	5.4	15.9	12 7	5 6.25	+20 58.3	2.153	3.137	1.0	21.1
12 17	4 55.51	+43 4.1	2.752	3.685	5.7	15.9	12 17	4 56.35	+20 38.6	2.180	3.153	3.2	21.3
12 27	4 45.45	+42 52.4	2.798	3.694	7.2	16.0	12 27	4 47.41	+20 20.2	2.236	3.168	6.8	21.6
1 6	4 37.15	+42 28.5	2.871	3.704	9.2	16.1	1 6	4 40.22	+20 5.1	2.321	3.182	10.0	21.8
1 16	4 31.18	+41 57.0	2.968	3.713	11.1	16.3	1 16	4 35.25	+19 54.8	2.429	3.195	12.7	22.0
<b>331439</b>	2012 <i>GC</i> <sub>21</sub>	12	9.1	127°17	4°1/ 8.2	18	<b>435438</b>	2008 <i>CS</i> <sub>161</sub>	12	9.1	280°38	2°1/ 8.8	18
11 7	5 26.99	+9 46.6	2.364	3.196	11.2	20.9	11 7	5 32.91	+17 59.6	1.395	2.253	16.1	21.6
11 17	5 21.33	+9 26.6	2.297	3.200	8.5	20.7	11 17	5 26.93	+17 56.9	1.314	2.237	11.9	21.3
11 27	5 14.07	+9 13.3	2.255	3.204	5.8	20.6	11 27	5 17.84	+17 57.0	1.255	2.221	7.0	20.9
12 7	5 5.88	+9 8.7	2.242	3.208	4.2	20.5	12 7	5 6.62	+18 0.3	1.221	2.204	2.4	20.6
12 17	4 57.57	+9 13.7	2.259	3.212	5.2	20.5	12 17	4 54.75	+18 7.3	1.215	2.188	5.2	20.8
12 27	4 49.97	+9 20.0	2.304	3.216	7.8	20.7	12 27	4 43.95	+18 19.3	1.234	2.171	10.5	21.0
1 6	4 43.80	+9 53.7	2.377	3.219	10.5	20.9	1 6	4 35.68	+18 37.4	1.278	2.154	15.4	21.2
1 16	4 39.54	+10 26.7	2.472	3.223	12.9	21.1	1 16	4 30.86	+19 2.4	1.341	2.138	19.6	21.5
<b>280026</b>	2001 <i>XA</i> <sub>53</sub>	12	9.1	20°46	0°3/ 9.0	18	<b>411076</b>	2009 <i>VU</i> <sub>76</sub>	12	9.1	80°23	5°0/ 10.4	18
11 7	5 32.30</												

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>447521</b>	2006 <i>SB</i> <sub>124</sub>	12 9.1	8°62	2°3/ 9.1	18		<b>332054</b>	2005 <i>RB</i> <sub>25</sub>	12 9.1	55°14	4°6/10.3	18	
11 7	5 27.21	+15 41.8	1.134	2.011	17.6	19.6	11 7	5 37.55	+33 55.0	1.246	2.093	18.3	19.5
11 17	5 22.91	+16 16.3	1.082	2.013	12.9	19.3	11 17	5 30.10	+33 59.4	1.207	2.119	13.8	19.3
11 27	5 15.51	+16 59.7	1.050	2.018	7.5	19.1	11 27	5 19.32	+33 46.6	1.189	2.144	8.9	19.1
12 7	5 6.19	+17 50.9	1.042	2.025	2.6	18.8	12 7	5 6.84	+33 14.1	1.195	2.170	4.9	19.0
12 17	4 56.57	+18 47.1	1.059	2.034	5.3	19.0	12 17	4 54.63	+32 23.9	1.227	2.196	5.9	19.1
12 27	4 48.37	+19 45.9	1.100	2.044	10.6	19.3	12 27	4 44.56	+31 22.7	1.285	2.223	10.1	19.4
1 6	4 42.94	+20 45.7	1.164	2.056	15.3	19.6	1 6	4 37.80	+30 19.1	1.368	2.249	14.3	19.7
1 16	4 41.00	+21 45.0	1.247	2.070	19.3	19.9	1 16	4 34.81	+29 20.1	1.470	2.276	17.8	20.0
<b>103796</b>	2000 <i>DQ</i> <sub>12</sub>	12 9.1	135°03	1°1/ 8.8	18		<b>308123</b>	2004 <i>XP</i> <sub>101</sub>	12 9.1	39°78	0°7/ 9.2	18	
11 7	5 30.38	+20 22.1	1.935	2.781	12.8	20.2	11 7	5 32.56	+23 10.0	1.329	2.190	16.5	18.7
11 17	5 24.15	+20 11.2	1.867	2.785	9.3	20.0	11 17	5 26.43	+23 37.0	1.279	2.204	12.0	18.5
11 27	5 15.81	+19 59.4	1.823	2.788	5.3	19.8	11 27	5 17.33	+24 1.6	1.252	2.219	6.8	18.2
12 7	5 6.22	+19 47.3	1.808	2.792	1.3	19.5	12 7	5 6.54	+24 21.7	1.251	2.235	1.4	17.9
12 17	4 56.46	+19 35.9	1.822	2.795	3.7	19.7	12 17	4 55.61	+24 36.3	1.276	2.251	4.4	18.2
12 27	4 47.68	+19 26.9	1.865	2.798	7.8	19.9	12 27	4 46.22	+24 46.5	1.327	2.268	9.4	18.5
1 6	4 40.78	+19 22.1	1.934	2.801	11.4	20.2	1 6	4 39.57	+24 54.8	1.403	2.286	13.9	18.8
1 16	4 36.36	+19 22.7	2.025	2.804	14.5	20.4	1 16	4 36.29	+25 3.9	1.499	2.304	17.5	19.1
<b>81411</b>	2000 <i>GT</i> <sub>91</sub>	12 9.1	235°30	2°4/ 9.3	18		<b>188121</b>	2002 <i>BX</i> <sub>19</sub>	12 9.1	325°14	8°6/ 8.3	17	
11 7	5 33.51	+27 55.3	2.151	2.983	12.2	20.2	11 7	5 28.13	- 0 33.7	1.837	2.652	14.7	20.4
11 17	5 26.61	+28 39.4	2.065	2.973	9.1	20.0	11 17	5 22.62	- 0 58.0	1.766	2.644	12.1	20.2
11 27	5 17.35	+29 19.4	2.005	2.963	5.6	19.7	11 27	5 15.03	- 1 4.5	1.719	2.636	9.8	20.0
12 7	5 6.52	+29 52.0	1.973	2.953	2.6	19.5	12 7	5 6.15	- 0 49.3	1.696	2.628	8.6	19.9
12 17	4 55.22	+30 15.2	1.972	2.942	4.0	19.6	12 17	4 56.98	- 0 10.6	1.699	2.621	9.4	20.0
12 27	4 44.69	+30 29.1	2.001	2.931	7.6	19.8	12 27	4 48.63	+ 0 50.2	1.729	2.614	11.6	20.1
1 6	4 36.02	+30 35.8	2.057	2.919	11.0	20.0	1 6	4 42.05	+ 2 9.5	1.783	2.608	14.3	20.2
1 16	4 29.96	+30 38.6	2.136	2.908	14.1	20.2	1 16	4 37.87	+ 3 42.2	1.858	2.602	16.8	20.4
<b>234313</b>	2001 <i>BF</i> <sub>6</sub>	12 9.1	14°76	4°3/ 8.2	18		<b>238082</b>	2003 <i>FS</i> <sub>98</sub>	12 9.1	256°06	8°7/ 9.9	18	
11 7	5 28.49	+15 27.8	1.307	2.174	16.4	19.2	11 7	5 39.37	+41 25.0	1.636	2.445	16.4	20.2
11 17	5 23.40	+14 39.5	1.251	2.177	12.1	19.0	11 17	5 32.02	+42 50.3	1.566	2.442	13.5	20.0
11 27	5 15.59	+13 55.0	1.218	2.181	7.5	18.8	11 27	5 20.91	+43 59.1	1.518	2.439	10.6	19.8
12 7	5 6.19	+13 18.3	1.208	2.186	4.3	18.6	12 7	5 7.24	+44 42.6	1.495	2.435	8.8	19.7
12 17	4 56.64	+12 52.9	1.225	2.192	6.5	18.7	12 17	4 52.83	+44 55.7	1.498	2.432	9.3	19.7
12 27	4 48.43	+12 41.7	1.267	2.198	10.9	19.0	12 27	4 39.86	+44 39.7	1.527	2.429	11.7	19.9
1 6	4 42.70	+12 45.1	1.332	2.206	15.1	19.3	1 6	4 30.07	+44 1.9	1.580	2.426	14.7	20.0
1 16	4 40.08	+13 2.0	1.416	2.214	18.7	19.5	1 16	4 24.40	+43 11.8	1.652	2.422	17.6	20.2
<b>458090</b>	2010 <i>AK</i> <sub>74</sub>	12 9.1	0°03	11°1/10.1	17		<b>451273</b>	2010 <i>RV</i> <sub>43</sub>	12 9.1	19°48	3°1/ 8.5	18	
11 7	5 29.61	- 8 48.0	1.752	2.534	16.6	19.8	11 7	5 28.40	+15 27.5	1.669	2.523	14.1	21.0
11 17	5 23.69	- 8 45.7	1.689	2.532	14.4	19.7	11 17	5 22.94	+15 7.4	1.607	2.527	10.3	20.8
11 27	5 15.60	- 8 16.0	1.647	2.531	12.4	19.5	11 27	5 15.23	+14 51.2	1.568	2.530	6.3	20.6
12 7	5 6.22	- 7 15.4	1.628	2.530	11.2	19.5	12 7	5 6.18	+14 40.8	1.556	2.535	3.2	20.4
12 17	4 56.62	- 5 43.6	1.635	2.531	11.5	19.5	12 17	4 56.96	+14 37.7	1.572	2.540	5.1	20.5
12 27	4 47.97	- 3 44.7	1.668	2.532	13.1	19.6	12 27	4 48.78	+14 43.1	1.615	2.545	9.0	20.8
1 6	4 41.24	- 1 26.1	1.725	2.534	15.3	19.7	1 6	4 42.64	+14 57.2	1.682	2.550	12.8	21.0
1 16	4 37.04	+ 1 4.2	1.804	2.538	17.6	19.9	1 16	4 39.11	+15 19.6	1.771	2.557	16.0	21.2
<b>209988</b>	2006 <i>JP</i> <sub>19</sub>	12 9.1	135°60	0°3/ 9.0	17		<b>206475</b>	2003 <i>UP</i> <sub>48</sub>	12 9.1	45°51	0°4/ 9.1	18	
11 7	5 35.63	+21 40.4	1.418	2.271	16.2	20.6	11 7	5 32.48	+20 12.8	1.621	2.472	14.6	19.6
11 17	5 28.61	+21 50.0	1.355	2.276	11.7	20.4	11 17	5 26.10	+20 44.5	1.557	2.477	10.6	19.4
11 27	5 18.59	+21 58.4	1.316	2.282	6.7	20.1	11 27	5 17.12	+21 17.8	1.516	2.482	6.0	19.1
12 7	5 6.75	+22 4.4	1.303	2.287	1.2	19.7	12 7	5 6.53	+21 50.8	1.503	2.487	1.1	18.8
12 17	4 54.64	+22 7.7	1.317	2.292	4.4	20.0	12 17	4 55.65	+22 22.1	1.518	2.493	4.0	19.1
12 27	4 43.94	+22 10.0	1.359	2.297	9.6	20.3	12 27	4 45.90	+22 51.2	1.561	2.498	8.6	19.3
1 6	4 35.94	+22 13.7	1.425	2.301	14.2	20.6	1 6	4 38.42	+23 19.1	1.629	2.504	12.8	19.6
1 16	4 31.34	+22 21.2	1.512	2.305	17.9	20.8	1 16	4 33.91	+23 47.0	1.720	2.510	16.2	19.9
<b>456203</b>	2006 <i>JL</i> <sub>19</sub>	12 9.1	280°93	1°2/ 9.3	18		<b>424089</b>	2007 <i>DU</i> <sub>103</sub>	12 9.1	143°12	8°1/12.4	15	
11 7	5 29.48	+25 25.4	2.302	3.140	11.3	21.4	11 7	5 47.58	+52 46.7	2.815	3.530	12.5	23.4
11 17	5 23.46	+25 54.2	2.221	3.134	8.3	21.2	11 17	5 36.64	+53 31.9	2.754	3.549	10.8	23.3
11 27	5 15.46	+26 20.1	2.166	3.128	4.8	21.0	11 27	5 22.87	+53 56.8	2.717	3.566	9.2	23.2
12 7	5 6.20	+26 41.6	2.140	3.122	1.5	20.7	12 7	5 7.52	+53 56.5	2.705	3.583	8.2	23.2
12 17	4 56.62	+26 57.5	2.143	3.117	3.2	20.8	12 17	4 52.13	+53 29.2	2.721	3.598	8.2	23.2
12 27	4 47.78	+27 8.3	2.177	3.111	6.8	21.1	12 27	4 38.30	+52 37.8	2.766	3.612	9.1	23.3
1 6	4 40.55	+27 15.7	2.238	3.105	10.1	21.3	1 6	4 27.22	+51 28.8	2.837	3.625	10.5	23.4
1 16	4 35.57	+27 21.6	2.323	3.099	12.9	21.4	1 16	4 19.48	+50 9.7	2.931	3.637	12.0	23.6
<b>3493</b>	Stepanov	12 9.1	246°29	3°2/ 8.7	18	R	<b>36339</b>	2000 <i>NF</i> <sub>10</sub>	12 9.1	132°83	0°1/ 9.1	18	
11 7	5 33.39	+15 36.4	1.467	2.319	15.7	16.6	11 7	5 33.55	+23 27.7	1.804	2.648	13.7	20.4
11 17	5 27.01	+15 25.5	1.392	2.311	11.7	16.3	11 17	5 26.55	+23 19.3	1.741	2.657	9.9	20.2
11 27	5 17.75	+15 19.3	1.341	2.303	7.1	16.1	11 27	5 17.21	+23 7.1	1.702	2.667	5.6	19.9
12 7	5 6.63	+15 19.1	1.315	2.295	3.3	15.8	12 7	5 6.54	+22 50.9	1.691	2.676	1.0	19.6
12 17	4 55.05	+15 25.9	1.316	2.286	5.6	15.9	12 17	4 55.75	+22 31.9	1.709	2.684	3.7	19.9
12 27	4 44.59	+15 40.7	1.345	2.277	10.3	16.2	12 27	4 46.12	+22 12.5	1.757	2.692	8.0	20.1
1 6	4 36.56	+16 4.1	1.398	2.268	14.8	16.4	1 6	4 38.66	+21 55.4	1.831	2.700	11.9	20.4
1 16	4 31.75	+16 35.5	1.471	2.258	18.6	16.7	1 16	4 33.95	+21 43.2	1.927	2.707	15.1	20.6
<b>147270</b>	2002 <i>YT</i> <sub>16</sub>	12 9.1	328°79	1°1/ 9.3	18		<b>301841</b>	4260 <i>T</i> <sub>-3</sub>	12 9.1	105°04	4°5/ 9.8		

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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>301758</b>	2010 <i>JA</i> <sub>34</sub>		12 9.1 177°71	2°0/ 8.6	18		<b>327626</b>	2006 <i>HD</i> <sub>76</sub>		12 9.1 92°04	7°4/ 6.2	18	
11 7	5 30.89	+17 34.2	2.204	3.041	11.7	21.2	11 7	5 26.14	+0 17.1	2.476	3.282	11.6	20.4
11 17	5 24.32	+17 15.8	2.130	3.043	8.5	21.0	11 17	5 20.61	-1 4.1	2.425	3.293	9.6	20.2
11 27	5 15.87	+16 58.3	2.083	3.045	5.0	20.8	11 27	5 13.66	-2 13.4	2.400	3.305	8.0	20.2
12 7	5 6.32	+16 42.8	2.064	3.045	2.1	20.6	12 7	5 5.94	-3 6.6	2.402	3.317	7.4	20.1
12 17	4 56.59	+16 30.6	2.076	3.046	3.9	20.8	12 17	4 58.18	-3 40.8	2.432	3.328	8.2	20.2
12 27	4 47.70	+16 23.1	2.118	3.045	7.4	21.0	12 27	4 51.14	-3 54.9	2.489	3.339	9.8	20.3
1 6	4 40.47	+16 21.5	2.187	3.045	10.7	21.2	1 6	4 45.44	-3 50.1	2.569	3.351	11.7	20.5
1 16	4 35.45	+16 26.4	2.280	3.043	13.5	21.4	1 16	4 41.49	-3 29.0	2.671	3.362	13.4	20.6
<b>419375</b>	2009 <i>XK</i> <sub>16</sub>		12 9.1 334°11	2°5/ 9.9	18		<b>85229</b>	1993 <i>FU</i> <sub>46</sub>		12 9.1 100°80	0°9/ 8.9	18	
11 7	5 28.80	+31 9.7	1.987	2.825	12.8	20.7	11 7	5 29.50	+20 40.3	2.069	2.913	12.1	20.1
11 17	5 23.23	+30 59.6	1.907	2.817	9.6	20.5	11 17	5 23.42	+20 28.6	2.003	2.920	8.8	19.9
11 27	5 15.42	+30 39.2	1.851	2.809	5.9	20.2	11 27	5 15.40	+20 15.7	1.962	2.927	5.0	19.7
12 7	5 6.25	+30 7.7	1.822	2.801	2.8	20.0	12 7	5 6.26	+20 2.4	1.950	2.934	1.2	19.5
12 17	4 56.84	+29 26.1	1.822	2.794	3.9	20.1	12 17	4 57.00	+19 49.6	1.968	2.941	3.5	19.6
12 27	4 48.42	+28 37.6	1.851	2.787	7.6	20.3	12 27	4 48.65	+19 38.9	2.014	2.948	7.3	19.9
1 6	4 41.97	+27 46.8	1.906	2.781	11.2	20.5	1 6	4 42.07	+19 32.1	2.088	2.954	10.7	20.1
1 16	4 38.10	+26 58.3	1.984	2.775	14.3	20.7	1 16	4 37.79	+19 30.5	2.184	2.961	13.6	20.3
<b>230897</b>	2004 <i>TB</i> <sub>23</sub>		12 9.1 163°40	0°6/ 8.9	18		<b>278894</b>	2008 <i>TD</i> <sub>108</sub>		12 9.1 263°08	1°6/ 8.7	18	
11 7	5 28.82	+21 53.2	2.202	3.045	11.6	20.7	11 7	5 27.39	+17 44.9	2.409	3.249	10.8	21.4
11 17	5 22.88	+21 36.0	2.129	3.046	8.4	20.5	11 17	5 21.80	+17 37.0	2.325	3.240	7.9	21.2
11 27	5 15.07	+21 16.5	2.082	3.047	4.7	20.3	11 27	5 14.49	+17 30.3	2.267	3.230	4.6	21.0
12 7	5 6.18	+20 55.3	2.063	3.048	1.0	20.0	12 7	5 6.11	+17 25.6	2.238	3.220	1.8	20.8
12 17	4 57.13	+20 33.7	2.075	3.049	3.3	20.2	12 17	4 57.48	+17 23.5	2.239	3.209	3.5	20.9
12 27	4 48.92	+20 13.6	2.116	3.049	7.0	20.5	12 27	4 49.50	+17 25.0	2.270	3.199	6.8	21.1
1 6	4 42.37	+19 57.2	2.184	3.050	10.4	20.7	1 6	4 42.94	+17 31.0	2.328	3.189	10.0	21.3
1 16	4 38.02	+19 46.0	2.275	3.050	13.2	20.9	1 16	4 38.36	+17 42.1	2.410	3.178	12.7	21.5
<b>70563</b>	1999 <i>TH</i> <sub>147</sub>		12 9.1 355°88	3°0/ 9.4	18		<b>478802</b>	2012 <i>UT</i> <sub>166</sub>		12 9.1 354°33	7°8/ 10.4	16	
11 7	5 30.39	+27 31.7	1.290	2.154	16.8	18.2	11 7	5 31.17	+37 31.2	1.172	2.024	18.9	21.0
11 17	5 25.35	+28 13.6	1.225	2.149	12.5	17.9	11 17	5 26.54	+38 23.4	1.109	2.017	15.0	20.8
11 27	5 17.03	+28 49.5	1.182	2.146	7.6	17.7	11 27	5 17.96	+38 56.9	1.066	2.012	10.9	20.5
12 7	5 6.57	+29 15.6	1.162	2.143	3.3	17.4	12 7	5 6.77	+39 4.6	1.045	2.008	8.1	20.4
12 17	4 55.62	+29 29.4	1.169	2.142	5.3	17.5	12 17	4 55.04	+38 43.2	1.047	2.006	8.7	20.4
12 27	4 46.05	+29 32.0	1.200	2.142	10.2	17.8	12 27	4 45.09	+37 56.7	1.073	2.005	12.2	20.6
1 6	4 39.33	+29 27.6	1.255	2.143	14.8	18.1	1 6	4 38.65	+36 54.5	1.120	2.005	16.4	20.8
1 16	4 36.30	+29 20.7	1.329	2.144	18.8	18.3	1 16	4 36.55	+35 47.0	1.185	2.007	20.2	21.1
<b>256808</b>	2008 <i>CV</i> <sub>92</sub>		12 9.1 209°81	1°4/ 9.4	18		<b>150331</b>	1999 <i>VG</i> <sub>180</sub>		12 9.1 44°98	2°0/ 8.9	18	
11 7	5 31.03	+27 21.5	2.241	3.075	11.7	21.2	11 7	5 33.58	+19 9.1	1.074	1.946	18.8	19.8
11 17	5 24.59	+27 27.2	2.160	3.071	8.6	21.0	11 17	5 27.34	+18 59.4	1.037	1.967	13.5	19.5
11 27	5 16.11	+27 27.3	2.106	3.067	5.1	20.8	11 27	5 17.88	+18 51.5	1.020	1.988	7.7	19.3
12 7	5 6.39	+27 20.6	2.080	3.062	1.7	20.5	12 7	5 6.70	+18 45.9	1.027	2.011	2.3	19.0
12 17	4 56.41	+27 7.2	2.084	3.057	3.3	20.6	12 17	4 55.63	+18 43.9	1.059	2.034	5.4	19.3
12 27	4 47.28	+26 48.8	2.118	3.052	6.9	20.9	12 27	4 46.47	+18 47.3	1.116	2.057	10.8	19.7
1 6	4 39.89	+26 28.4	2.180	3.047	10.3	21.1	1 6	4 40.43	+18 57.5	1.195	2.081	15.5	20.0
1 16	4 34.86	+26 8.9	2.265	3.041	13.2	21.3	1 16	4 38.02	+19 14.7	1.293	2.106	19.4	20.4
<b>432739</b>	2011 <i>DY</i> <sub>37</sub>		12 9.1 140°71	1°2/ 8.8	18		<b>262599</b>	2006 <i>VC</i> <sub>118</sub>		12 9.1 128°77	1°5/ 9.4	18	
11 7	5 33.99	+20 26.2	1.833	2.675	13.6	22.3	11 7	5 31.70	+26 41.1	2.018	2.856	12.6	21.1
11 17	5 26.80	+20 10.8	1.770	2.686	9.8	22.1	11 17	5 25.21	+26 58.8	1.948	2.861	9.2	20.8
11 27	5 17.34	+19 54.1	1.733	2.697	5.6	21.9	11 27	5 16.51	+27 11.4	1.904	2.865	5.4	20.6
12 7	5 6.59	+19 36.8	1.723	2.706	1.5	21.6	12 7	5 6.48	+27 17.4	1.887	2.870	1.8	20.4
12 17	4 55.75	+19 20.1	1.743	2.716	3.9	21.8	12 17	4 56.23	+27 16.3	1.900	2.874	3.6	20.5
12 27	4 46.04	+19 6.2	1.792	2.724	8.1	22.1	12 27	4 46.96	+27 9.7	1.943	2.878	7.4	20.8
1 6	4 38.44	+18 57.1	1.867	2.732	11.9	22.4	1 6	4 39.63	+27 0.1	2.012	2.881	10.9	21.0
1 16	4 33.52	+18 54.3	1.965	2.739	15.0	22.6	1 16	4 34.87	+26 50.5	2.104	2.885	13.9	21.2
<b>108842</b>	2001 <i>OS</i> <sub>89</sub>		12 9.1 187°13	4°1/ 9.9	18		<b>446907</b>	2002 <i>RE</i> <sub>21</sub>		12 9.1 54°08	2°0/ 8.8	17	
11 7	5 36.31	+33 1.6	1.729	2.560	14.8	20.3	11 7	5 32.42	+18 25.9	1.486	2.341	15.4	21.4
11 17	5 29.04	+33 27.0	1.657	2.560	11.2	20.0	11 17	5 25.81	+18 14.6	1.446	2.367	11.1	21.2
11 27	5 18.87	+33 40.8	1.608	2.559	7.4	19.8	11 27	5 16.79	+18 5.0	1.429	2.394	6.4	21.0
12 7	5 6.89	+33 39.4	1.585	2.558	4.4	19.6	12 7	5 6.51	+17 57.9	1.438	2.421	2.2	20.8
12 17	4 54.58	+33 21.7	1.591	2.557	5.3	19.7	12 17	4 56.34	+17 54.3	1.476	2.448	4.6	21.0
12 27	4 43.55	+32 50.3	1.625	2.556	9.0	19.9	12 27	4 47.61	+17 55.7	1.540	2.475	8.9	21.3
1 6	4 35.08	+32 11.0	1.685	2.554	12.8	20.1	1 6	4 41.29	+18 3.1	1.630	2.503	12.9	21.6
1 16	4 29.88	+31 29.9	1.767	2.551	16.1	20.3	1 16	4 37.86	+18 16.7	1.740	2.530	16.1	21.9
<b>99813</b>	2002 <i>LT</i> <sub>34</sub>		12 9.1 189°44	1°6/ 8.9	18		<b>474754</b>	2005 <i>QC</i> <sub>33</sub>		12 9.1 99°10	2°8/ 9.7	16	
11 7	5 31.96	+17 26.9	2.172	3.008	11.9	20.4	11 7	5 37.90	+30 18.5	1.633	2.468	15.3	21.8
11 17	5 25.20	+17 35.0	2.095	3.007	8.7	20.2	11 17	5 29.86	+30 27.2	1.582	2.491	11.3	21.6
11 27	5 16.44	+17 45.4	2.044	3.006	5.1	20.0	11 27	5 19.12	+30 25.3	1.555	2.513	6.9	21.4
12 7	5 6.45	+17 57.9	2.022	3.004	1.8	19.7	12 7	5 6.93	+30 10.8	1.556	2.535	3.1	21.2
12 17	4 56.20	+18 12.5	2.030	3.001	3.7	19.9	12 17	4 54.81	+29 44.1	1.585	2.556	4.5	21.3
12 27	4 46.75	+18 29.6	2.069	2.998	7.4	20.1	12 27	4 44.26	+29 9.2	1.643	2.577	8.6	21.6
1 6	4 38.99	+18 49.6	2.135	2.995	10.8	20.3	1 6	4 36.38	+28 31.4	1.726	2.597	12.4	21.9
1 16	4 33.52	+19 13.0	2.225	2.991	13.7	20.5	1 16	4 31.69	+27 55.7	1.832	2.616	15.6	22.2
<b>492988</b>	2014 <i>SP</i> <sub>165</sub>		12 9.1 177°27	4°3/ 7.9	17		<b>225460</b>	2000 <i>EG</i> <sub>53</sub>		12 9.1 283°05	0°4/ 9.2</		



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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>332445</b>	2008 <i>AU</i> <sub>2</sub>	12	9.1 292°95	0°7/ 9.3 18			<b>363714</b>	2004 <i>VT</i> <sub>16</sub>	12	9.1 62°89	0°3/ 9.2 16		
11 7	5 33.32	+26 2.3	1.333	2.192	16.7	20.5	11 7	5 44.77	+25 18.2	1.092	1.946	19.9	21.0
11 17	5 27.36	+25 39.8	1.258	2.182	12.3	20.2	11 17	5 34.77	+24 49.9	1.073	1.994	14.1	20.9
11 27	5 18.14	+25 8.2	1.205	2.172	7.1	19.9	11 27	5 21.65	+24 13.9	1.075	2.041	7.8	20.7
12 7	5 6.83	+24 27.4	1.177	2.162	1.5	19.5	12 7	5 7.34	+23 31.4	1.103	2.087	1.4	20.4
12 17	4 55.08	+23 39.7	1.176	2.152	4.6	19.7	12 17	4 53.88	+22 46.1	1.157	2.133	4.8	20.8
12 27	4 44.71	+22 50.1	1.201	2.142	10.2	20.0	12 27	4 43.03	+22 3.8	1.239	2.177	10.2	21.2
1 6	4 37.17	+22 4.8	1.249	2.132	15.2	20.3	1 6	4 35.76	+21 29.6	1.344	2.221	14.8	21.6
1 16	4 33.24	+21 28.3	1.318	2.123	19.4	20.5	1 16	4 32.31	+21 5.9	1.469	2.264	18.3	22.0
<b>83741</b>	2001 <i>TT</i> <sub>130</sub>	12	9.1 226°09	0°4/ 9.2 18			<b>5749</b>	1991 <i>FV</i>	12	9.1 128°15	0°6/ 9.3 18		
11 7	5 31.37	+23 1.8	1.952	2.795	12.8	19.4	11 7	5 29.71	+26 17.0	2.308	3.144	11.3	16.9
11 17	5 25.07	+23 22.5	1.877	2.793	9.3	19.2	11 17	5 23.45	+25 54.4	2.237	3.150	8.2	16.7
11 27	5 16.51	+23 41.5	1.827	2.792	5.3	19.0	11 27	5 15.39	+25 26.1	2.192	3.155	4.7	16.5
12 7	5 6.53	+23 57.5	1.805	2.790	1.0	18.7	12 7	5 6.32	+24 52.3	2.177	3.161	1.1	16.2
12 17	4 56.23	+24 9.8	1.813	2.788	3.5	18.9	12 17	4 57.17	+24 14.5	2.192	3.166	3.0	16.4
12 27	4 46.84	+24 19.1	1.850	2.785	7.6	19.1	12 27	4 48.91	+23 35.6	2.237	3.171	6.6	16.7
1 6	4 39.37	+24 27.0	1.913	2.783	11.4	19.3	1 6	4 42.32	+22 58.5	2.309	3.176	9.8	16.9
1 16	4 34.48	+24 35.6	1.999	2.781	14.5	19.5	1 16	4 37.92	+22 25.9	2.406	3.181	12.6	17.1
<b>260901</b>	2005 <i>QO</i> <sub>187</sub>	12	9.1 154°72	2°7/ 9.7 18			<b>129413</b>	2226 <i>T</i> <sub>3</sub>	12	9.1 1°62	4°6/ 9.9 18		
11 7	5 32.67	+31 6.2	2.441	3.263	11.3	21.5	11 7	5 33.10	+32 45.4	1.383	2.232	16.7	19.7
11 17	5 25.65	+31 28.3	2.369	3.270	8.4	21.3	11 17	5 27.25	+33 13.6	1.318	2.231	12.7	19.5
11 27	5 16.68	+31 42.9	2.324	3.276	5.3	21.1	11 27	5 18.08	+33 29.1	1.275	2.230	8.4	19.2
12 7	5 6.54	+31 47.9	2.307	3.283	2.9	21.0	12 7	5 6.84	+33 27.5	1.256	2.230	4.9	19.1
12 17	4 56.22	+31 42.9	2.321	3.288	3.8	21.1	12 17	4 55.24	+33 7.7	1.263	2.231	6.0	19.1
12 27	4 46.78	+31 29.3	2.365	3.294	6.7	21.3	12 27	4 45.15	+32 33.2	1.296	2.232	10.1	19.4
1 6	4 39.06	+31 10.1	2.438	3.298	9.6	21.5	1 6	4 37.99	+31 50.6	1.352	2.234	14.4	19.6
1 16	4 33.65	+30 48.7	2.534	3.303	12.2	21.6	1 16	4 34.52	+31 7.0	1.429	2.236	18.1	19.9
<b>199396</b>	2006 <i>BA</i> <sub>266</sub>	12	9.1 174°61	3°3/ 8.1 17			<b>183528</b>	2003 <i>FT</i> <sub>126</sub>	12	9.1 339°30	3°1/ 8.4 18		
11 7	5 26.56	+13 13.8	2.505	3.341	10.6	20.8	11 7	5 28.31	+16 6.1	1.760	2.612	13.6	20.2
11 17	5 21.03	+12 39.6	2.433	3.342	7.8	20.6	11 17	5 22.91	+15 35.6	1.689	2.608	10.0	20.0
11 27	5 13.99	+12 8.8	2.388	3.342	5.1	20.4	11 27	5 15.29	+15 7.5	1.642	2.604	6.1	19.7
12 7	5 6.07	+11 43.4	2.371	3.343	3.3	20.3	12 7	5 6.33	+14 44.0	1.622	2.601	3.1	19.5
12 17	4 58.02	+11 25.2	2.384	3.343	4.5	20.4	12 17	4 57.13	+14 27.2	1.630	2.598	5.0	19.7
12 27	4 50.64	+11 15.5	2.427	3.343	7.2	20.6	12 27	4 48.89	+14 19.2	1.666	2.595	8.9	19.9
1 6	4 44.61	+11 14.8	2.497	3.344	9.9	20.8	1 6	4 42.56	+14 20.9	1.727	2.593	12.7	20.1
1 16	4 40.40	+11 22.9	2.590	3.343	12.3	20.9	1 16	4 38.79	+14 32.2	1.809	2.590	15.9	20.3
<b>292476</b>	2006 <i>SB</i> <sub>392</sub>	12	9.1 90°86	3°4/ 8.3 18			<b>102800</b>	1999 <i>VS</i> <sub>165</sub>	12	9.1 244°19	0°4/ 9.2 18		
11 7	5 29.96	+14 35.2	1.898	2.742	13.1	21.2	11 7	5 33.97	+25 12.0	1.592	2.440	14.9	19.7
11 17	5 23.76	+14 0.8	1.841	2.755	9.6	21.1	11 17	5 27.40	+24 53.5	1.513	2.432	10.9	19.4
11 27	5 15.60	+13 30.2	1.809	2.768	6.0	20.9	11 27	5 18.01	+24 28.1	1.457	2.422	6.3	19.1
12 7	5 6.35	+13 5.7	1.805	2.781	3.5	20.7	12 7	5 6.84	+23 55.7	1.429	2.413	1.2	18.8
12 17	4 57.04	+12 49.1	1.830	2.793	5.1	20.9	12 17	4 55.28	+23 17.8	1.428	2.403	4.1	18.9
12 27	4 48.76	+12 42.1	1.883	2.806	8.5	21.1	12 27	4 44.91	+22 38.4	1.456	2.393	9.1	19.2
1 6	4 42.32	+12 45.1	1.961	2.818	11.8	21.3	1 6	4 36.96	+22 2.0	1.508	2.383	13.6	19.5
1 16	4 38.25	+12 57.7	2.062	2.830	14.6	21.6	1 16	4 32.19	+21 32.5	1.582	2.372	17.4	19.7
<b>14314</b>	Tokigawa	12	9.1 359°65	0°4/ 9.2 17			<b>431717</b>	2008 <i>EQ</i> <sub>147</sub>	12	9.1 125°94	0°3/ 9.1 18		
11 7	5 27.68	+23 37.6	1.761	2.615	13.4	17.8	11 7	5 35.69	+22 35.5	1.794	2.634	13.9	22.2
11 17	5 22.56	+23 43.0	1.692	2.613	9.8	17.6	11 17	5 28.06	+22 29.2	1.736	2.651	10.0	22.0
11 27	5 15.13	+23 45.5	1.646	2.612	5.6	17.3	11 27	5 18.08	+22 19.8	1.703	2.668	5.6	21.7
12 7	5 6.29	+23 44.5	1.627	2.612	1.1	17.0	12 7	5 6.81	+22 7.3	1.699	2.683	1.0	21.4
12 17	4 57.19	+23 40.4	1.636	2.612	3.6	17.2	12 17	4 55.50	+21 52.4	1.724	2.698	3.7	21.7
12 27	4 49.08	+23 34.7	1.673	2.613	8.0	17.5	12 27	4 45.44	+21 37.6	1.778	2.712	8.0	22.0
1 6	4 42.99	+23 29.6	1.736	2.614	11.9	17.7	1 6	4 37.61	+21 25.3	1.859	2.725	11.9	22.2
1 16	4 39.54	+23 27.3	1.820	2.617	15.2	17.9	1 16	4 32.57	+21 17.7	1.962	2.738	15.0	22.5
<b>9788</b>	Yagami	12	9.1 246°89	0°1/ 9.1 18			<b>431672</b>	2008 <i>CT</i> <sub>137</sub>	12	9.1 348°37	3°9/ 8.7 18		
11 7	5 28.36	+22 53.4	2.497	3.335	10.5	18.8	11 7	5 30.69	+15 18.3	1.165	2.034	17.8	20.7
11 17	5 22.52	+22 52.1	2.410	3.324	7.6	18.6	11 17	5 25.53	+15 1.3	1.102	2.029	13.2	20.4
11 27	5 14.93	+22 48.6	2.350	3.314	4.3	18.3	11 27	5 17.14	+14 50.5	1.061	2.026	8.1	20.1
12 7	5 6.25	+22 42.6	2.318	3.303	0.8	18.1	12 7	5 6.70	+14 48.1	1.042	2.022	4.0	19.9
12 17	4 57.31	+22 34.7	2.318	3.292	2.9	18.2	12 17	4 55.83	+14 55.7	1.049	2.020	6.4	20.0
12 27	4 49.03	+22 26.0	2.347	3.281	6.4	18.4	12 27	4 46.36	+15 14.4	1.081	2.018	11.6	20.3
1 6	4 42.19	+22 18.2	2.404	3.269	9.6	18.6	1 6	4 39.72	+15 43.9	1.134	2.017	16.4	20.6
1 16	4 37.35	+22 13.1	2.485	3.257	12.3	18.8	1 16	4 36.68	+16 22.8	1.206	2.017	20.6	20.8
<b>129990</b>	1999 <i>VW</i> <sub>13</sub>	12	9.1 165°87	17°3/10.2 17			<b>315212</b>	2007 <i>RJ</i> <sub>60</sub>	12	9.1 125°76	0°9/ 9.3 18		
11 7	5 54.04	+52 25.1	1.165	1.946	23.4	19.8	11 7	5 38.47	+26 12.6	1.527	2.369	15.8	21.4
11 17	5 45.87	+55 9.3	1.114	1.947	20.8	19.6	11 17	5 30.40	+25 59.7	1.470	2.386	11.5	21.1
11 27	5 30.42	+57 23.4	1.080	1.949	18.6	19.5	11 27	5 19.52	+25 39.1	1.438	2.401	6.6	20.9
12 7	5 9.22	+58 46.7	1.066	1.950	17.4	19.4	12 7	5 7.07	+25 10.3	1.432	2.416	1.5	20.6
12 17	4 46.13	+59 6.2	1.072	1.950	17.7	19.4	12 17	4 54.63	+24 34.9	1.455	2.430	4.1	20.8
12 27	4 26.21	+58 24.8	1.098	1.951	19.2	19.5	12 27	4 43.77	+23 57.1	1.507	2.443	9.0	21.1
1 6	4 12.99	+57 0.2	1.141	1.951	21.5	19.7	1 6	4 35.63	+23 21.8	1.584	2.455	13.2	21.4
1 16	4 7.55	+55 12.9	1.200	1.951	23.9	19.9	1 16	4 30.80	+22 52.8	1.682	2.467	16.7	21.7
<b>269341</b>	2008 <i>TD</i> <sub>52</sub>	12	9.1 169°92	0°4/ 9.2 18			<b>160771</b>	2000 <i>SM</i> <sub>195</sub>	12	9.1 67°94	0°1/ 9.1 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>43663</b>	2002 <i>FS</i> <sub>10</sub>	12	9.1 116°47'	2.7/ 8.7	18		<b>241338</b>	2007 <i>VB</i> <sub>243</sub>	12	9.1 159°06'	2.2/ 8.6	18	
11 7	5 35.56	+16 20.1	1.589	2.434	15.1	19.0	11 7	5 31.11	+17 4.4	2.186	3.024	11.8	21.6
11 17	5 28.11	+16 7.5	1.535	2.451	11.0	18.8	11 17	5 24.49	+16 43.1	2.118	3.030	8.6	21.4
11 27	5 18.17	+15 58.1	1.505	2.467	6.5	18.5	11 27	5 16.02	+16 23.1	2.075	3.036	5.1	21.2
12 7	5 6.84	+15 53.1	1.503	2.483	2.9	18.4	12 7	5 6.48	+16 5.6	2.061	3.041	2.3	21.0
12 17	4 55.47	+15 53.5	1.529	2.499	5.0	18.5	12 17	4 56.82	+15 52.0	2.078	3.046	4.0	21.2
12 27	4 45.44	+16 0.3	1.584	2.513	9.2	18.8	12 27	4 48.02	+15 43.9	2.124	3.050	7.4	21.4
1 6	4 37.77	+16 14.1	1.664	2.527	13.2	19.1	1 6	4 40.89	+15 42.2	2.198	3.054	10.7	21.6
1 16	4 33.04	+16 34.9	1.765	2.541	16.4	19.3	1 16	4 35.98	+15 47.4	2.294	3.057	13.5	21.8
<b>520658</b>	2014 <i>QH</i> <sub>274</sub>	12	9.1 56°46'	6.1/ 8.2	18		<b>151714</b>	2003 <i>BM</i> <sub>43</sub>	12	9.1 188°18'	1.6/ 9.5	18	
11 7	5 27.55	+ 5 7.4	2.037	2.865	12.9	20.5	11 7	5 34.57	+28 15.7	1.759	2.599	14.2	20.2
11 17	5 21.89	+ 4 38.7	1.987	2.881	10.1	20.3	11 17	5 27.57	+28 3.8	1.686	2.599	10.4	20.0
11 27	5 14.51	+ 4 21.6	1.961	2.896	7.5	20.2	11 27	5 17.98	+27 43.0	1.636	2.598	6.2	19.7
12 7	5 6.19	+ 4 18.9	1.961	2.912	6.2	20.2	12 7	5 6.85	+27 12.5	1.614	2.597	2.0	19.5
12 17	4 57.82	+ 4 31.7	1.989	2.928	7.0	20.2	12 17	4 55.50	+26 33.4	1.621	2.595	3.9	19.6
12 27	4 50.34	+ 4 59.6	2.045	2.944	9.3	20.4	12 27	4 45.35	+25 49.4	1.657	2.594	8.3	19.8
1 6	4 44.49	+ 5 40.7	2.126	2.961	11.9	20.6	1 6	4 37.52	+25 5.5	1.719	2.591	12.4	20.1
1 16	4 40.74	+ 6 32.2	2.229	2.977	14.3	20.8	1 16	4 32.67	+24 26.1	1.804	2.589	15.8	20.3
<b>252748</b>	2002 <i>EB</i> <sub>17</sub>	12	9.1 24°93'	0.6/ 9.2	18		<b>353028</b>	2009 <i>CV</i> <sub>15</sub>	12	9.1 275°76'	0.6/ 9.0	18	
11 7	5 29.66	+24 49.7	1.846	2.694	13.2	20.6	11 7	5 30.81	+21 53.6	1.794	2.643	13.5	21.6
11 17	5 23.86	+24 46.7	1.778	2.697	9.6	20.3	11 17	5 24.87	+21 43.8	1.712	2.631	9.8	21.3
11 27	5 15.81	+24 39.3	1.735	2.700	5.5	20.1	11 27	5 16.51	+21 31.6	1.654	2.620	5.6	21.0
12 7	5 6.44	+24 27.1	1.720	2.704	1.2	19.8	12 7	5 6.60	+21 17.3	1.624	2.608	1.1	20.7
12 17	4 56.89	+24 10.7	1.733	2.708	3.5	20.0	12 17	4 56.32	+21 1.8	1.622	2.597	3.8	20.9
12 27	4 48.37	+23 52.5	1.774	2.712	7.7	20.3	12 27	4 46.97	+20 47.2	1.649	2.585	8.4	21.1
1 6	4 41.85	+23 35.2	1.841	2.716	11.5	20.5	1 6	4 39.63	+20 36.0	1.701	2.574	12.5	21.3
1 16	4 37.94	+23 21.4	1.931	2.721	14.7	20.7	1 16	4 35.03	+20 30.4	1.776	2.562	15.9	21.6
<b>330802</b>	2008 <i>UV</i> <sub>313</sub>	12	9.1 61°80'	1.7/ 8.5	18		<b>220041</b>	2002 <i>RD</i> <sub>59</sub>	12	9.1 79°03'	2.8/ 8.6	18	
11 7	5 28.02	+20 1.5	2.184	3.028	11.6	20.4	11 7	5 35.97	+17 47.6	1.407	2.259	16.3	20.4
11 17	5 22.21	+19 17.2	2.123	3.040	8.4	20.2	11 17	5 28.40	+17 11.8	1.368	2.287	11.8	20.2
11 27	5 14.68	+18 31.4	2.088	3.052	4.8	20.0	11 27	5 18.27	+16 37.8	1.351	2.315	6.9	20.0
12 7	5 6.22	+17 46.2	2.082	3.064	1.8	19.8	12 7	5 6.86	+16 7.9	1.361	2.342	3.0	19.8
12 17	4 57.74	+17 4.0	2.105	3.076	3.7	20.0	12 17	4 55.65	+15 44.6	1.399	2.369	5.3	20.0
12 27	4 50.17	+16 27.5	2.158	3.088	7.1	20.2	12 27	4 46.06	+15 30.2	1.464	2.395	9.7	20.4
1 6	4 44.23	+15 58.8	2.238	3.100	10.3	20.5	1 6	4 39.10	+15 26.1	1.554	2.421	13.7	20.7
1 16	4 40.39	+15 38.9	2.342	3.112	13.0	20.7	1 16	4 35.23	+15 32.2	1.665	2.447	17.0	21.0
<b>130387</b>	2000 <i>JJ</i> <sub>40</sub>	12	9.1 153°33'	0.3/ 9.1	18		<b>27349</b>	Enos	12	9.1 139°29'	0.3/ 9.2	18	
11 7	5 36.50	+22 30.5	1.529	2.377	15.5	20.4	11 7	5 32.00	+23 8.9	2.067	2.907	12.3	18.9
11 17	5 29.12	+22 28.8	1.465	2.383	11.3	20.1	11 17	5 25.34	+23 21.4	1.999	2.914	8.9	18.7
11 27	5 18.91	+22 24.3	1.425	2.390	6.4	19.8	11 27	5 16.59	+23 31.7	1.957	2.920	5.1	18.5
12 7	5 7.00	+22 16.1	1.411	2.395	1.1	19.5	12 7	5 6.60	+23 38.8	1.942	2.927	1.0	18.2
12 17	4 54.88	+22 5.1	1.425	2.400	4.2	19.7	12 17	4 56.42	+23 42.5	1.958	2.933	3.3	18.4
12 27	4 44.11	+21 53.5	1.468	2.404	9.2	20.1	12 27	4 47.17	+23 43.8	2.004	2.939	7.2	18.7
1 6	4 35.91	+21 44.3	1.536	2.408	13.6	20.3	1 6	4 39.78	+23 44.7	2.077	2.944	10.7	18.9
1 16	4 30.95	+21 40.2	1.625	2.411	17.2	20.6	1 16	4 34.84	+23 47.0	2.173	2.949	13.7	19.1
<b>404724</b>	2014 <i>JU</i> <sub>18</sub>	12	9.1 327°89'	0.4/ 9.1	18		<b>142790</b>	2002 <i>UX</i> <sub>16</sub>	12	9.1 1°16'	6.7/ 8.3	18	
11 7	5 30.21	+21 51.9	1.372	2.235	16.0	20.8	11 7	5 27.51	+ 7 55.6	1.439	2.292	16.0	19.1
11 17	5 25.03	+21 53.6	1.297	2.224	11.7	20.5	11 17	5 22.63	+ 7 22.9	1.378	2.290	12.4	18.8
11 27	5 16.84	+21 53.9	1.245	2.213	6.7	20.2	11 27	5 15.26	+ 7 2.9	1.340	2.289	8.8	18.6
12 7	5 6.67	+21 52.2	1.218	2.202	1.2	19.8	12 7	5 6.38	+ 6 59.3	1.326	2.289	6.7	18.5
12 17	4 55.98	+21 48.9	1.217	2.192	4.5	20.0	12 17	4 57.25	+ 7 14.5	1.337	2.290	8.0	18.6
12 27	4 46.47	+21 46.0	1.242	2.183	9.9	20.3	12 27	4 49.21	+ 7 48.1	1.374	2.292	11.4	18.8
1 6	4 39.51	+21 46.0	1.290	2.175	14.7	20.6	1 6	4 43.37	+ 8 37.9	1.434	2.295	15.0	19.0
1 16	4 35.93	+21 51.0	1.359	2.167	18.8	20.8	1 16	4 40.37	+ 9 39.8	1.513	2.298	18.3	19.3
<b>58033</b>	2002 <i>VB</i> <sub>88</sub>	12	9.1 2°25'	1.0/ 9.4	18		<b>156701</b>	2002 <i>LH</i> <sub>45</sub>	12	9.1 126°31'	0.9/ 9.3	18	
11 7	5 31.01	+28 0.3	1.638	2.487	14.5	18.4	11 7	5 29.99	+25 23.5	2.468	3.301	10.8	20.5
11 17	5 25.05	+27 21.1	1.568	2.486	10.7	18.1	11 17	5 23.63	+25 36.4	2.400	3.311	7.8	20.4
11 27	5 16.55	+26 31.5	1.522	2.486	6.2	17.9	11 27	5 15.53	+25 45.7	2.358	3.320	4.5	20.2
12 7	5 6.58	+25 32.5	1.503	2.486	1.6	17.6	12 7	5 6.41	+25 50.5	2.346	3.329	1.2	19.9
12 17	4 56.47	+24 27.1	1.512	2.487	3.9	17.7	12 17	4 57.15	+25 50.7	2.364	3.338	2.9	20.1
12 27	4 47.64	+23 20.7	1.549	2.488	8.5	18.0	12 27	4 48.69	+25 47.4	2.413	3.347	6.2	20.3
1 6	4 41.12	+22 18.9	1.611	2.489	12.7	18.3	1 6	4 41.79	+25 42.3	2.490	3.355	9.3	20.5
1 16	4 37.54	+21 26.2	1.696	2.491	16.2	18.5	1 16	4 36.96	+25 37.7	2.591	3.363	11.8	20.7
<b>34009</b>	2000 <i>OX</i> <sub>12</sub>	12	9.1 183°74'	0.5/ 9.2	18		<b>481879</b>	2008 <i>YP</i> <sub>147</sub>	12	9.1 359°58'	6.2/ 11.1	17	
11 7	5 33.81	+24 41.7	1.963	2.801	13.0	20.4	11 7	5 33.42	+38 41.1	1.352	2.189	17.7	21.0
11 17	5 26.79	+24 39.4	1.888	2.801	9.4	20.1	11 17	5 27.58	+38 33.8	1.285	2.187	13.9	20.7
11 27	5 17.46	+24 32.7	1.838	2.801	5.4	19.9	11 27	5 18.27	+38 4.1	1.240	2.185	9.8	20.5
12 7	5 6.75	+24 20.7	1.816	2.801	1.1	19.6	12 7	5 6.92	+37 8.5	1.217	2.185	6.6	20.3
12 17	4 55.80	+24 4.1	1.825	2.799	3.5	19.8	12 17	4 55.40	+35 48.5	1.221	2.185	7.0	20.3
12 27	4 45.86	+23 44.9	1.863	2.798	7.7	20.0	12 27	4 45.68	+34 11.4	1.251	2.186	10.5	20.6
1 6	4 37.93	+23 26.3	1.928	2.795	11.5	20.3	1 6	4 39.14	+32 28.1	1.304	2.188	14.6	20.8
1 16	4 32.66	+23 10.9	2.016	2.792	14.6	20.5	1 16	4 36.39	+30 48.7	1.378	2.191	18.3	21.0
<b>123245</b>	2000 <i>UC</i> <sub>65</sub>	12	9.1 233°15'	0.1/ 9.1	18		<b>287302</b>	2002 <i>TX</i> <sub>214</sub>	12	9.1 46°45'	0.6/ 9.2	18	

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12 9.2

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>326596</b>	2002 <i>QB</i> <sub>146</sub>	12	9.1 162°78	0°2/ 9.1 17			<b>291730</b>	2006 <i>JU</i> <sub>40</sub>	12	9.1 235°31	1°5/ 8.8 18		
11 7	5 28.43	+22 27.0	2.533	3.370	10.4	21.7	11 7	5 27.45	+18 22.4	2.434	3.274	10.7	21.7
11 17	5 22.48	+22 26.5	2.459	3.373	7.5	21.5	11 17	5 21.84	+18 9.7	2.355	3.270	7.8	21.5
11 27	5 14.87	+22 24.2	2.411	3.375	4.2	21.3	11 27	5 14.56	+17 57.6	2.303	3.266	4.5	21.3
12 7	5 6.30	+22 19.8	2.393	3.377	0.8	21.1	12 7	5 6.28	+17 46.8	2.280	3.262	1.7	21.1
12 17	4 57.57	+22 13.9	2.405	3.379	2.8	21.2	12 17	4 57.81	+17 38.4	2.287	3.257	3.4	21.2
12 27	4 49.55	+22 7.7	2.448	3.381	6.2	21.5	12 27	4 50.01	+17 33.4	2.323	3.253	6.7	21.4
1 6	4 42.97	+22 2.5	2.518	3.383	9.2	21.7	1 6	4 43.64	+17 33.0	2.387	3.249	9.8	21.6
1 16	4 38.34	+21 59.9	2.613	3.384	11.8	21.8	1 16	4 39.22	+17 37.8	2.475	3.244	12.4	21.8
<b>477773</b>	2011 <i>AS</i> <sub>66</sub>	12	9.1 350°03	3°1/ 9.8 18			<b>368329</b>	2002 <i>PA</i> <sub>198</sub>	12	9.1 291°13	0°5/ 9.3 17		
11 7	5 32.68	+29 58.4	1.200	2.062	17.9	21.3	11 7	5 28.83	+26 9.4	2.234	3.074	11.5	20.7
11 17	5 27.21	+30 0.7	1.136	2.058	13.4	21.0	11 17	5 23.00	+25 40.4	2.153	3.067	8.4	20.5
11 27	5 18.19	+29 50.5	1.091	2.054	8.2	20.7	11 27	5 15.27	+25 5.1	2.097	3.061	4.8	20.2
12 7	5 6.93	+29 25.3	1.071	2.052	3.5	20.4	12 7	5 6.41	+24 24.0	2.070	3.055	1.0	20.0
12 17	4 55.29	+28 45.8	1.075	2.050	5.4	20.6	12 17	4 57.38	+23 38.9	2.073	3.048	3.1	20.1
12 27	4 45.29	+27 57.0	1.105	2.048	10.6	20.8	12 27	4 49.19	+22 52.8	2.106	3.042	6.9	20.3
1 6	4 38.46	+27 6.5	1.157	2.048	15.6	21.1	1 6	4 42.69	+22 9.3	2.167	3.036	10.3	20.5
1 16	4 35.54	+26 20.8	1.229	2.048	19.8	21.4	1 16	4 38.41	+21 31.1	2.250	3.030	13.2	20.7
<b>421746</b>	2014 <i>PP</i> <sub>50</sub>	12	9.1 26°06	21°1/13.9 17			<b>339059</b>	2004 <i>PD</i> <sub>22</sub>	12	9.1 100°37	2°4/ 8.7 18		
11 7	5 35.98	-19 45.4	1.003	1.772	27.1	20.7	11 7	5 34.07	+16 54.4	1.724	2.568	14.2	21.3
11 17	5 29.40	-20 22.0	0.964	1.777	24.9	20.5	11 17	5 26.86	+16 40.2	1.673	2.589	10.3	21.1
11 27	5 19.28	-20 5.3	0.938	1.782	22.8	20.4	11 27	5 17.43	+16 28.6	1.647	2.609	6.1	20.9
12 7	5 7.11	-18 45.2	0.927	1.789	21.4	20.3	12 7	5 6.78	+16 20.4	1.648	2.629	2.6	20.8
12 17	4 54.80	-16 20.2	0.934	1.796	21.1	20.4	12 17	4 56.14	+16 16.8	1.679	2.649	4.6	20.9
12 27	4 44.36	-12 59.7	0.959	1.803	22.1	20.5	12 27	4 46.75	+16 19.1	1.738	2.668	8.5	21.2
1 6	4 37.21	-9 2.2	1.004	1.812	24.0	20.6	1 6	4 39.52	+16 27.8	1.824	2.687	12.2	21.5
1 16	4 34.02	-4 47.4	1.067	1.821	26.2	20.8	1 16	4 34.99	+16 43.3	1.931	2.705	15.3	21.7
<b>11449</b>	Stephwerner	12	9.1 190°73	0°4/ 9.2 18			<b>416129</b>	2002 <i>QA</i> <sub>99</sub>	12	9.1 99°10	1°0/ 9.4 17		
11 7	5 29.77	+24 29.1	2.167	3.008	11.8	17.9	11 7	5 29.49	+26 51.9	2.407	3.241	11.0	21.7
11 17	5 23.71	+24 25.0	2.092	3.007	8.6	17.7	11 17	5 23.27	+26 47.0	2.343	3.254	8.0	21.6
11 27	5 15.67	+24 17.0	2.043	3.007	4.9	17.5	11 27	5 15.33	+26 36.8	2.305	3.266	4.6	21.4
12 7	5 6.45	+24 4.9	2.022	3.006	1.0	17.2	12 7	5 6.42	+26 21.0	2.296	3.279	1.4	21.2
12 17	4 57.04	+23 49.2	2.031	3.006	3.1	17.3	12 17	4 57.44	+26 0.3	2.317	3.291	2.9	21.3
12 27	4 48.48	+23 32.0	2.069	3.005	7.0	17.6	12 27	4 49.33	+25 36.7	2.368	3.303	6.3	21.6
1 6	4 41.65	+23 15.5	2.135	3.004	10.4	17.8	1 6	4 42.84	+25 12.7	2.448	3.315	9.3	21.8
1 16	4 37.12	+23 2.0	2.224	3.003	13.3	18.0	1 16	4 38.44	+24 50.9	2.551	3.327	11.9	22.0
<b>130235</b>	2000 <i>CC</i> <sub>24</sub>	12	9.1 303°41	5°7/ 8.1 18			<b>227230</b>	2005 <i>RZ</i> <sub>40</sub>	12	9.1 226°58	1°2/ 9.3 18 R		
11 7	5 26.93	+6 32.4	2.116	2.946	12.4	19.5	11 7	5 35.06	+25 38.4	1.823	2.662	13.8	21.0
11 17	5 21.65	+6 6.7	2.038	2.936	9.7	19.3	11 17	5 28.06	+25 49.8	1.739	2.652	10.1	20.8
11 27	5 14.53	+5 50.9	1.984	2.925	7.1	19.1	11 27	5 18.40	+25 56.4	1.679	2.642	5.9	20.5
12 7	5 6.26	+5 47.7	1.958	2.914	5.7	19.0	12 7	5 7.03	+25 56.5	1.647	2.631	1.6	20.2
12 17	4 57.72	+5 58.7	1.960	2.904	6.7	19.1	12 17	4 55.20	+25 49.5	1.645	2.619	3.8	20.3
12 27	4 49.88	+6 24.4	1.989	2.893	9.2	19.2	12 27	4 44.35	+25 37.3	1.672	2.607	8.4	20.6
1 6	4 43.55	+7 3.4	2.044	2.883	12.1	19.4	1 6	4 35.68	+25 23.0	1.725	2.594	12.5	20.8
1 16	4 39.33	+7 53.4	2.121	2.873	14.7	19.5	1 16	4 29.96	+25 10.3	1.800	2.581	16.0	21.0
<b>352213</b>	2007 <i>TW</i> <sub>2</sub>	12	9.1 83°82	3°9/ 9.9 18			<b>490784</b>	2010 <i>UQ</i> <sub>77</sub>	12	9.1 325°44	7°6/ 10.0 17		
11 7	5 35.65	+32 19.3	1.730	2.563	14.7	20.8	11 7	5 33.61	+39 48.5	1.717	2.536	15.4	21.4
11 17	5 28.39	+32 52.9	1.675	2.580	11.0	20.6	11 17	5 27.72	+40 55.6	1.637	2.522	12.5	21.2
11 27	5 18.44	+33 15.6	1.644	2.596	7.1	20.4	11 27	5 18.54	+41 48.5	1.579	2.508	9.6	21.0
12 7	5 6.95	+33 24.0	1.639	2.613	4.2	20.2	12 7	5 7.10	+42 20.2	1.546	2.495	7.7	20.9
12 17	4 55.34	+33 17.2	1.663	2.629	5.1	20.3	12 17	4 54.94	+42 26.7	1.539	2.483	8.2	20.9
12 27	4 45.12	+32 57.7	1.715	2.645	8.6	20.6	12 27	4 43.93	+42 8.8	1.559	2.471	10.8	21.0
1 6	4 37.40	+32 30.6	1.792	2.661	12.1	20.8	1 6	4 35.61	+41 32.3	1.601	2.459	13.9	21.2
1 16	4 32.79	+32 1.1	1.892	2.677	15.1	21.1	1 16	4 30.93	+40 45.2	1.665	2.448	16.9	21.4
<b>275620</b>	2000 <i>CP</i> <sub>79</sub>	12	9.1 16°55	5°2/ 10.7 17			<b>56647</b>	2000 <i>KG</i> <sub>34</sub>	12	9.1 32°76	5°6/ 8.4 18		
11 7	5 31.87	+38 3.8	2.018	2.835	13.5	20.8	11 7	5 30.44	+11 51.7	1.256	2.118	17.2	18.5
11 17	5 25.60	+38 21.9	1.948	2.837	10.6	20.6	11 17	5 24.93	+11 15.7	1.206	2.126	12.9	18.3
11 27	5 16.87	+38 25.5	1.902	2.840	7.6	20.4	11 27	5 16.62	+10 49.0	1.177	2.136	8.5	18.1
12 7	5 6.69	+38 11.9	1.882	2.842	5.4	20.3	12 7	5 6.70	+10 35.5	1.173	2.146	5.6	18.0
12 17	4 56.32	+37 40.6	1.890	2.845	5.8	20.3	12 17	4 56.66	+10 37.4	1.194	2.156	7.3	18.1
12 27	4 47.12	+36 54.6	1.926	2.848	8.3	20.5	12 27	4 48.04	+10 55.4	1.240	2.168	11.4	18.4
1 6	4 40.13	+35 59.4	1.988	2.852	11.3	20.7	1 6	4 42.00	+11 27.7	1.309	2.179	15.5	18.6
1 16	4 35.97	+35 1.0	2.072	2.856	14.0	20.9	1 16	4 39.15	+12 11.7	1.397	2.192	19.0	18.9
<b>263262</b>	2008 <i>BJ</i> <sub>19</sub>	12	9.1 63°42	3°1/ 8.7 18			<b>494070</b>	2016 <i>BE</i> <sub>68</sub>	12	9.2 317°48	2°9/ 9.6 18		
11 7	5 30.10	+14 40.5	1.811	2.657	13.5	20.1	11 7	5 30.53	+30 7.1	2.123	2.957	12.3	20.9
11 17	5 24.13	+14 31.7	1.745	2.660	9.9	19.9	11 17	5 24.56	+30 43.0	2.043	2.951	9.2	20.7
11 27	5 15.98	+14 27.7	1.703	2.663	6.1	19.7	11 27	5 16.34	+31 12.5	1.989	2.944	5.8	20.5
12 7	5 6.54	+14 29.6	1.688	2.666	3.1	19.5	12 7	5 6.67	+31 32.9	1.962	2.938	3.1	20.3
12 17	4 56.88	+14 38.2	1.702	2.669	4.8	19.6	12 17	4 56.63	+31 42.8	1.964	2.932	4.2	20.4
12 27	4 48.18	+14 54.2	1.744	2.672	8.6	19.8	12 27	4 47.42	+31 42.9	1.995	2.927	7.5	20.6
1 6	4 41.41	+15 17.4	1.811	2.675	12.2	20.1	1 6	4 40.06	+31 35.9	2.053	2.921	10.8	20.8
1 16	4 37.15	+15 47.3	1.901	2.679	15.4	20.3	1 16	4 35.24	+31 25.4	2.134	2.916	13.7	21.0
<b>312564</b>	2009 <i>HN</i> <sub>4</sub>	12	9.1 119°65	1°7/ 8.8 18			<b>414352</b>	2008 <i>TB</i> <sub>32</sub>	12	9.2 82°79	0°6/ 8.9 17		

EPHEMERIDES

12 9.2

12 9.2

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>153518</b>	2001 <i>ST</i> <sub>14</sub>		12 9.2 82°40	1.4°/ 8.9	18		<b>32706</b>	2212 <i>T</i> <sub>-2</sub>		12 9.2 265°27	0.8°/ 9.3	18	
11 7	5 34.91	+20 10.6	1.510	2.361	15.5	20.8	11 7	5 30.86	+25 9.6	1.950	2.793	12.8	19.1
11 17	5 27.73	+19 55.8	1.463	2.383	11.1	20.6	11 17	5 24.78	+25 14.2	1.875	2.790	9.4	18.9
11 27	5 18.02	+19 40.4	1.440	2.405	6.3	20.4	11 27	5 16.45	+25 14.6	1.824	2.788	5.4	18.7
12 7	5 6.95	+19 25.1	1.443	2.427	1.7	20.1	12 7	5 6.74	+25 9.7	1.801	2.785	1.3	18.4
12 17	4 55.94	+19 11.3	1.475	2.449	4.4	20.4	12 17	4 56.76	+24 59.9	1.807	2.782	3.5	18.5
12 27	4 46.39	+19 1.3	1.535	2.470	9.0	20.7	12 27	4 47.71	+24 46.9	1.843	2.779	7.6	18.8
1 6	4 39.32	+18 57.0	1.619	2.491	13.0	21.0	1 6	4 40.60	+24 33.4	1.904	2.776	11.3	19.0
1 16	4 35.27	+18 59.5	1.725	2.511	16.3	21.3	1 16	4 36.06	+24 22.0	1.988	2.774	14.5	19.2
<b>206480</b>	2003 <i>UW</i> <sub>52</sub>		12 9.2 122°00	2.2°/ 9.8	18		<b>243956</b>	2001 <i>QR</i> <sub>194</sub>		12 9.2 60°74	3.2°/10.2	17	
11 7	5 34.88	+30 33.0	2.032	2.860	13.0	20.7	11 7	5 34.14	+33 8.6	1.719	2.553	14.7	19.9
11 17	5 27.41	+30 22.6	1.970	2.875	9.6	20.5	11 17	5 27.15	+32 53.5	1.666	2.572	11.0	19.7
11 27	5 17.75	+30 2.5	1.933	2.890	5.8	20.3	11 27	5 17.69	+32 25.0	1.636	2.591	6.9	19.6
12 7	5 6.90	+29 31.9	1.925	2.904	2.5	20.1	12 7	5 6.93	+31 42.4	1.634	2.611	3.6	19.4
12 17	4 56.05	+28 52.0	1.946	2.918	3.7	20.2	12 17	4 56.27	+30 47.7	1.660	2.630	4.5	19.5
12 27	4 46.41	+28 6.2	1.998	2.932	7.3	20.5	12 27	4 47.09	+29 45.7	1.714	2.650	8.1	19.8
1 6	4 38.88	+27 19.2	2.077	2.944	10.7	20.7	1 6	4 40.35	+28 42.6	1.795	2.670	11.8	20.0
1 16	4 33.99	+26 35.2	2.180	2.957	13.6	20.9	1 16	4 36.57	+27 43.9	1.898	2.690	14.9	20.3
<b>95766</b>	2003 <i>EK</i> <sub>46</sub>		12 9.2 177°79	0.7°/ 9.3	18		<b>513594</b>	2011 <i>DP</i> <sub>25</sub>		12 9.2 249°51	2.0°/ 8.8	18	
11 7	5 33.93	+24 56.8	1.850	2.691	13.5	20.6	11 7	5 33.13	+18 30.9	1.652	2.501	14.5	21.5
11 17	5 27.03	+24 56.8	1.778	2.692	9.9	20.3	11 17	5 26.77	+18 18.6	1.571	2.489	10.6	21.2
11 27	5 17.70	+24 52.1	1.730	2.694	5.7	20.1	11 27	5 17.76	+18 7.2	1.513	2.477	6.2	20.9
12 7	5 6.92	+24 41.8	1.710	2.694	1.3	19.8	12 7	5 7.01	+17 57.3	1.481	2.464	2.2	20.7
12 17	4 55.89	+24 26.3	1.720	2.694	3.6	20.0	12 17	4 55.80	+17 50.2	1.479	2.451	4.6	20.8
12 27	4 45.94	+24 7.9	1.758	2.694	8.0	20.2	12 27	4 45.56	+17 47.7	1.504	2.438	9.3	21.0
1 6	4 38.11	+23 49.7	1.823	2.693	11.9	20.5	1 6	4 37.51	+17 51.4	1.555	2.424	13.6	21.3
1 16	4 33.06	+23 34.7	1.911	2.692	15.1	20.7	1 16	4 32.42	+18 2.4	1.627	2.410	17.3	21.5
<b>496750</b>	2016 <i>NT</i> <sub>54</sub>		12 9.2 119°93	1.8°/ 8.8	16		<b>405214</b>	2003 <i>QC</i> <sub>39</sub>		12 9.2 55°44	1.7°/14.5	17	
11 7	5 36.17	+19 17.5	1.705	2.547	14.4	22.3	11 7	5 51.71	+55 56.3	1.079	1.857	25.1	20.3
11 17	5 28.43	+18 54.0	1.652	2.567	10.4	22.1	11 17	5 43.78	+57 42.4	1.037	1.865	22.4	20.1
11 27	5 18.35	+18 30.1	1.623	2.586	6.0	21.9	11 27	5 28.73	+58 48.3	1.009	1.875	19.8	20.0
12 7	5 7.01	+18 7.0	1.622	2.604	2.0	21.7	12 7	5 9.03	+58 57.1	0.999	1.884	18.1	19.9
12 17	4 55.69	+17 46.5	1.650	2.622	4.3	21.9	12 17	4 49.05	+58 1.8	1.007	1.895	17.7	19.9
12 27	4 45.69	+17 31.0	1.708	2.638	8.6	22.2	12 27	4 33.28	+56 11.0	1.034	1.905	18.8	20.0
1 6	4 37.97	+17 22.2	1.791	2.654	12.4	22.4	1 6	4 24.14	+53 45.1	1.081	1.915	20.8	20.2
1 16	4 33.08	+17 21.2	1.897	2.669	15.6	22.7	1 16	4 21.88	+51 5.0	1.144	1.926	23.2	20.4
<b>64036</b>	2001 <i>SO</i> <sub>190</sub>		12 9.2 332°45	1.3°/ 8.9	18 R		<b>523124</b>	2016 <i>SM</i> <sub>53</sub>		12 9.2 103°09	3.8°/ 9.8	18	
11 7	5 30.12	+20 47.7	1.271	2.138	16.7	19.8	11 7	5 37.23	+31 23.8	1.534	2.372	15.9	22.0
11 17	5 25.15	+20 36.5	1.199	2.128	12.2	19.5	11 17	5 29.88	+31 51.8	1.475	2.384	11.9	21.8
11 27	5 17.02	+20 24.1	1.150	2.118	7.0	19.2	11 27	5 19.49	+32 8.6	1.440	2.396	7.6	21.5
12 7	5 6.85	+20 11.2	1.124	2.108	1.7	18.8	12 7	5 7.31	+32 10.7	1.430	2.407	4.1	21.4
12 17	4 56.17	+19 59.2	1.125	2.100	4.9	19.0	12 17	4 54.94	+31 57.2	1.449	2.418	5.3	21.5
12 27	4 46.76	+19 50.6	1.150	2.092	10.5	19.3	12 27	4 44.11	+31 31.2	1.495	2.429	9.3	21.7
1 6	4 40.04	+19 48.2	1.198	2.085	15.5	19.5	1 6	4 36.07	+30 58.5	1.566	2.439	13.3	22.0
1 16	4 36.83	+19 53.5	1.266	2.079	19.7	19.8	1 16	4 31.49	+30 25.1	1.658	2.449	16.7	22.2
<b>187079</b>	2005 <i>NR</i> <sub>54</sub>		12 9.2 238°88	1.1°/ 8.9	18		<b>288233</b>	2003 <i>YD</i> <sub>72</sub>		12 9.2 78°24	1.2°/ 9.4	18	
11 7	5 33.31	+21 20.9	1.564	2.416	15.0	21.0	11 7	5 33.07	+26 31.2	1.716	2.561	14.2	20.4
11 17	5 26.94	+21 0.5	1.490	2.410	10.9	20.8	11 17	5 26.43	+26 31.4	1.659	2.575	10.3	20.2
11 27	5 17.82	+20 37.4	1.438	2.404	6.3	20.5	11 27	5 17.36	+26 25.2	1.625	2.588	6.0	20.0
12 7	5 6.98	+20 12.4	1.413	2.397	1.5	20.1	12 7	5 6.91	+26 11.8	1.618	2.602	1.7	19.7
12 17	4 55.78	+19 47.3	1.417	2.391	4.4	20.3	12 17	4 56.38	+25 51.8	1.640	2.615	3.8	19.9
12 27	4 45.74	+19 25.0	1.448	2.384	9.3	20.6	12 27	4 47.11	+25 28.1	1.691	2.628	8.1	20.2
1 6	4 38.06	+19 8.6	1.503	2.376	13.7	20.9	1 6	4 40.12	+25 4.3	1.767	2.642	11.9	20.5
1 16	4 33.47	+19 0.3	1.580	2.369	17.5	21.1	1 16	4 35.98	+24 43.8	1.865	2.655	15.2	20.7
<b>193012</b>	2000 <i>EV</i> <sub>25</sub>		12 9.2 151°83	6.1°/ 7.3	18		<b>316509</b>	2010 <i>VW</i> <sub>152</sub>		12 9.2 71°37	0.6°/ 9.0	18	
11 7	5 26.11	+ 3 40.9	2.506	3.322	11.2	20.8	11 7	5 30.10	+21 5.3	1.965	2.810	12.6	20.9
11 17	5 20.74	+ 2 49.6	2.442	3.325	9.0	20.7	11 17	5 24.07	+21 5.2	1.900	2.818	9.1	20.7
11 27	5 13.91	+ 2 8.0	2.403	3.328	7.0	20.5	11 27	5 15.97	+21 4.2	1.860	2.825	5.2	20.4
12 7	5 6.25	+ 1 39.1	2.392	3.330	6.1	20.5	12 7	5 6.67	+21 2.2	1.848	2.832	1.1	20.2
12 17	4 58.47	+ 1 25.4	2.409	3.332	6.9	20.5	12 17	4 57.20	+20 59.7	1.866	2.840	3.4	20.4
12 27	4 51.35	+ 1 27.5	2.454	3.334	8.8	20.7	12 27	4 48.70	+20 58.1	1.912	2.847	7.5	20.6
1 6	4 45.52	+ 1 44.5	2.525	3.336	11.0	20.8	1 6	4 42.04	+20 58.8	1.985	2.855	11.0	20.9
1 16	4 41.45	+ 2 14.5	2.617	3.338	13.0	21.0	1 16	4 37.80	+21 3.2	2.080	2.862	14.0	21.1
<b>328479</b>	2009 <i>HL</i> <sub>103</sub>		12 9.2 61°62	1.0°/ 9.1	18		<b>209750</b>	2005 <i>EZ</i> <sub>206</sub>		12 9.2 238°96	2.0°/ 9.6	18	
11 7	5 35.07	+19 24.2	1.263	2.123	17.3	20.4	11 7	5 33.04	+28 45.1	2.191	3.021	12.1	21.3
11 17	5 28.56	+19 45.9	1.206	2.130	12.6	20.1	11 17	5 26.33	+28 54.2	2.100	3.007	9.0	21.1
11 27	5 18.85	+20 10.0	1.171	2.138	7.2	19.8	11 27	5 17.36	+28 56.7	2.034	2.993	5.5	20.9
12 7	5 7.17	+20 35.1	1.161	2.145	1.6	19.5	12 7	5 6.95	+28 50.6	1.997	2.978	2.2	20.6
12 17	4 55.20	+20 59.9	1.177	2.153	4.8	19.7	12 17	4 56.14	+28 35.8	1.991	2.963	3.6	20.7
12 27	4 44.73	+21 24.4	1.220	2.160	10.2	20.1	12 27	4 46.14	+28 13.9	2.014	2.947	7.3	20.9
1 6	4 37.13	+21 49.8	1.287	2.168	15.0	20.4	1 6	4 37.97	+27 48.4	2.064	2.930	10.9	21.1
1 16	4 33.14	+22 17.4	1.373	2.176	18.9	20.6	1 16	4 32.31	+27 22.8	2.138	2.913	13.9	21.3
<b>81208</b>	2000 <i>FO</i> <sub>15</sub>		12 9.2 220°47	1.3°/ 8.9	18		<b>516463</b>	2005 <i>MW</i> <sub>13</sub>		12 9.2 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>471934</b>	2013 <i>QG</i> <sub>13</sub>	12	9.2 200°94	1.5°/ 8.9	17		<b>366002</b>	2012 <i>BB</i> <sub>101</sub>	12	9.2 16°35	1.7°/ 8.7	18	
11 7	5 28.61	+17 4.2	2.492	3.328	10.6	21.1	11 7	5 29.06	+19 33.3	1.950	2.797	12.6	21.2
11 17	5 22.70	+17 11.3	2.414	3.326	7.7	20.9	11 17	5 23.34	+19 5.7	1.879	2.798	9.2	21.0
11 27	5 15.12	+17 20.7	2.363	3.325	4.5	20.7	11 27	5 15.58	+18 37.2	1.834	2.798	5.3	20.8
12 7	5 6.53	+17 32.4	2.341	3.322	1.7	20.5	12 7	5 6.63	+18 9.4	1.817	2.799	1.8	20.6
12 17	4 57.71	+17 46.6	2.349	3.320	3.3	20.6	12 17	4 57.50	+17 44.1	1.828	2.800	3.9	20.7
12 27	4 49.54	+18 3.5	2.388	3.318	6.5	20.8	12 27	4 49.29	+17 23.7	1.869	2.801	7.8	21.0
1 6	4 42.78	+18 23.5	2.455	3.315	9.6	21.0	1 6	4 42.90	+17 10.0	1.935	2.802	11.4	21.2
1 16	4 37.93	+18 46.7	2.546	3.312	12.2	21.2	1 16	4 38.88	+17 4.0	2.024	2.804	14.5	21.4
<b>144636</b>	2004 <i>FP</i> <sub>88</sub>	12	9.2 26°68	0.7°/ 9.1	18		<b>97631</b>	Kentrobison	12	9.2 179°93	2°3/ 9.6	18	
11 7	5 30.79	+20 12.3	1.579	2.434	14.7	19.9	11 7	5 30.48	+29 29.4	2.449	3.277	11.0	19.8
11 17	5 25.00	+20 26.2	1.518	2.440	10.6	19.7	11 17	5 24.23	+29 55.0	2.372	3.277	8.2	19.6
11 27	5 16.67	+20 41.0	1.480	2.446	6.0	19.5	11 27	5 16.06	+30 14.7	2.321	3.277	5.1	19.4
12 7	5 6.82	+20 55.8	1.468	2.452	1.3	19.2	12 7	5 6.72	+30 26.7	2.299	3.277	2.5	19.3
12 17	4 56.72	+21 10.3	1.484	2.459	4.0	19.4	12 17	4 57.13	+30 30.2	2.308	3.277	3.5	19.3
12 27	4 47.77	+21 25.2	1.527	2.466	8.7	19.7	12 27	4 48.30	+30 26.1	2.346	3.277	6.5	19.5
1 6	4 41.07	+21 41.5	1.596	2.474	12.8	19.9	1 6	4 41.08	+30 16.8	2.412	3.277	9.6	19.7
1 16	4 37.28	+22 0.3	1.686	2.482	16.2	20.2	1 16	4 36.07	+30 5.3	2.502	3.276	12.2	19.9
<b>94805</b>	2001 <i>XD</i> <sub>160</sub>	12	9.2 102°37	3.7°/ 9.0	18		<b>21117</b>	Tashimaseizo	12	9.2 312°76	1.5°/ 9.4	18	
11 7	5 33.53	+12 10.3	1.623	2.466	15.0	18.8	11 7	5 33.28	+25 21.3	1.318	2.178	16.7	17.2
11 17	5 26.86	+12 25.2	1.559	2.471	11.1	18.6	11 17	5 27.58	+25 43.1	1.245	2.168	12.4	16.9
11 27	5 17.70	+12 49.3	1.518	2.476	7.0	18.4	11 27	5 18.52	+26 0.5	1.193	2.158	7.3	16.6
12 7	5 7.01	+13 22.7	1.505	2.482	3.8	18.2	12 7	5 7.22	+26 10.9	1.166	2.149	2.1	16.2
12 17	4 56.04	+14 4.7	1.520	2.487	5.4	18.3	12 17	4 55.32	+26 12.9	1.165	2.140	4.7	16.4
12 27	4 46.17	+14 53.8	1.563	2.492	9.4	18.6	12 27	4 44.71	+26 8.3	1.190	2.132	10.2	16.7
1 6	4 38.49	+15 48.5	1.632	2.497	13.3	18.8	1 6	4 36.93	+26 0.9	1.239	2.124	15.2	16.9
1 16	4 33.67	+16 47.0	1.723	2.502	16.6	19.1	1 16	4 32.87	+25 54.9	1.307	2.116	19.3	17.2
<b>385733</b>	2005 <i>UG</i> <sub>439</sub>	12	9.2 12°62	3°3/10.2	18		<b>26636</b>	2000 <i>HX</i> <sub>57</sub>	12	9.2 314°01	3°9/ 9.3	18	
11 7	5 32.26	+32 36.0	1.151	2.012	18.6	19.7	11 7	5 33.94	+29 21.7	1.671	2.513	14.7	16.9
11 17	5 26.88	+32 3.2	1.094	2.015	13.9	19.4	11 17	5 27.77	+30 30.4	1.590	2.500	11.1	16.7
11 27	5 17.98	+31 11.8	1.057	2.018	8.6	19.1	11 27	5 18.56	+31 34.8	1.532	2.489	7.1	16.4
12 7	5 7.05	+30 1.3	1.043	2.023	3.8	18.9	12 7	5 7.25	+32 29.4	1.501	2.477	4.1	16.2
12 17	4 56.04	+28 35.8	1.054	2.029	5.3	19.0	12 17	4 55.20	+33 9.8	1.499	2.466	5.4	16.3
12 27	4 46.92	+27 4.3	1.091	2.036	10.5	19.3	12 27	4 44.09	+33 35.3	1.524	2.455	9.4	16.5
1 6	4 41.03	+25 36.7	1.150	2.044	15.4	19.6	1 6	4 35.38	+33 48.5	1.574	2.444	13.4	16.7
1 16	4 38.96	+24 20.4	1.229	2.052	19.5	19.9	1 16	4 29.99	+33 54.0	1.645	2.434	16.9	16.9
<b>517278</b>	2014 <i>FL</i> <sub>74</sub>	12	9.2 65°60	2.7°/ 9.3	18		<b>426191</b>	2012 <i>JQ</i> <sub>48</sub>	12	9.2 106°03	0°9/ 9.3	18	
11 7	5 34.91	+27 5.2	1.681	2.523	14.6	21.2	11 7	5 37.47	+23 29.4	1.502	2.349	15.8	21.0
11 17	5 28.12	+28 0.7	1.615	2.528	10.8	20.9	11 17	5 29.94	+24 2.4	1.446	2.364	11.5	20.8
11 27	5 18.54	+28 52.0	1.573	2.533	6.5	20.7	11 27	5 19.51	+24 32.9	1.414	2.378	6.5	20.5
12 7	5 7.18	+29 34.7	1.558	2.538	2.9	20.5	12 7	5 7.36	+24 58.1	1.408	2.392	1.5	20.2
12 17	4 55.42	+30 6.2	1.572	2.543	4.6	20.6	12 17	4 55.03	+25 16.4	1.431	2.406	4.2	20.5
12 27	4 44.81	+30 26.3	1.614	2.548	8.7	20.9	12 27	4 44.12	+25 28.8	1.482	2.419	9.0	20.8
1 6	4 36.58	+30 38.0	1.682	2.553	12.6	21.1	1 6	4 35.87	+25 37.8	1.558	2.432	13.3	21.1
1 16	4 31.50	+30 44.9	1.771	2.558	15.9	21.3	1 16	4 30.95	+25 46.6	1.656	2.445	16.8	21.3
<b>387004</b>	2012 <i>RD</i> <sub>7</sub>	12	9.2 95°61	1°0/ 9.4	18		<b>129998</b>	1999 <i>VA</i> <sub>31</sub>	12	9.2 76°74	2°0/ 8.6	18	
11 7	5 36.01	+25 59.4	1.652	2.494	14.8	20.7	11 7	5 32.53	+20 26.0	1.664	2.514	14.3	18.9
11 17	5 28.52	+25 58.5	1.600	2.515	10.7	20.5	11 17	5 25.89	+19 31.2	1.611	2.530	10.3	18.7
11 27	5 18.51	+25 51.3	1.572	2.535	6.2	20.3	11 27	5 16.99	+18 34.1	1.582	2.547	6.0	18.5
12 7	5 7.13	+25 36.9	1.572	2.556	1.6	20.0	12 7	5 6.90	+17 37.7	1.581	2.563	2.2	18.3
12 17	4 55.77	+25 16.3	1.601	2.575	3.8	20.2	12 17	4 56.85	+16 45.5	1.608	2.579	4.5	18.5
12 27	4 45.84	+24 52.4	1.658	2.595	8.3	20.5	12 27	4 48.10	+16 1.6	1.664	2.596	8.7	18.8
1 6	4 38.35	+24 29.0	1.741	2.614	12.2	20.8	1 6	4 41.55	+15 28.5	1.746	2.612	12.5	19.0
1 16	4 33.86	+24 9.5	1.846	2.632	15.4	21.1	1 16	4 37.71	+15 7.5	1.849	2.628	15.7	19.3
<b>105064</b>	2000 <i>KH</i> <sub>63</sub>	12	9.2 291°99	4.3°/ 8.0	18		<b>253296</b>	2003 <i>BW</i> <sub>71</sub>	12	9.2 262°98	1°0/ 8.9	17	
11 7	5 26.75	+10 55.3	2.252	3.089	11.5	19.5	11 7	5 30.04	+21 51.3	2.003	2.847	12.5	20.5
11 17	5 21.54	+10 22.2	2.165	3.072	8.8	19.3	11 17	5 24.11	+21 19.4	1.922	2.839	9.1	20.3
11 27	5 14.56	+9 54.5	2.103	3.054	6.0	19.1	11 27	5 16.07	+20 44.0	1.866	2.831	5.2	20.0
12 7	5 6.45	+9 34.6	2.069	3.037	4.3	19.0	12 7	5 6.76	+20 6.5	1.839	2.823	1.3	19.8
12 17	4 58.03	+9 24.5	2.064	3.019	5.5	19.0	12 17	4 57.20	+19 28.9	1.841	2.814	3.7	19.9
12 27	4 50.24	+9 25.7	2.088	3.001	8.3	19.2	12 27	4 48.52	+18 54.2	1.872	2.806	7.7	20.2
1 6	4 43.87	+9 38.3	2.137	2.984	11.4	19.3	1 6	4 41.64	+18 25.3	1.930	2.797	11.4	20.4
1 16	4 39.52	+10 1.4	2.209	2.966	14.1	19.5	1 16	4 37.19	+18 4.1	2.010	2.789	14.6	20.6
<b>365009</b>	2008 <i>LU</i> <sub>6</sub>	12	9.2 69°06	6.8°/ 8.6	18		<b>55244</b>	2001 <i>RA</i> <sub>89</sub>	12	9.2 311°08	1.4°/ 9.4	18	
11 7	5 33.96	+7 32.0	1.396	2.239	16.9	20.9	11 7	5 32.14	+25 15.1	1.379	2.238	16.2	18.1
11 17	5 27.02	+6 57.3	1.360	2.266	13.0	20.7	11 17	5 26.71	+25 32.3	1.299	2.223	12.0	17.8
11 27	5 17.62	+6 36.6	1.345	2.292	9.1	20.6	11 27	5 18.04	+25 45.3	1.242	2.208	7.0	17.5
12 7	5 6.97	+6 33.1	1.355	2.318	6.9	20.5	12 7	5 7.17	+25 51.7	1.209	2.193	1.9	17.1
12 17	4 56.43	+6 48.0	1.393	2.343	8.0	20.6	12 17	4 55.64	+25 50.5	1.203	2.179	4.6	17.3
12 27	4 47.38	+7 20.3	1.456	2.369	11.3	20.9	12 27	4 45.26	+25 43.4	1.223	2.165	10.0	17.6
1 6	4 40.78	+8 7.0	1.543	2.395	14.7	21.2	1 6	4 37.54	+25 34.3	1.266	2.151	14.9	17.8
1 16	4 37.13	+9 4.2	1.650	2.420	17.6	21.4	1 16	4 33.41	+25 27.0	1.330	2.139	19.1	18.0
<b>237614</b>	2001 <i>QY</i> <sub>262</sub>	12	9.2 57°90	5.4°/ 9.9	18		<b>274071</b>	2007 <i>XE</i> <sub>4</sub>	12	9.2 30°23	1.2°/ 9.0	18	
11 7	5 39.3												

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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>12232</b>	1986 QZ <sub>2</sub>		12 9.2 178°04	4°3/10.1	18		<b>247247</b>	2001 RT <sub>38</sub>		12 9.2 47°17	3°3/ 8.6	18	
11 7	5 35.92	+35 2.0	2.183	2.997	12.7	18.2	11 7	5 30.24	+15 52.8	1.573	2.427	14.8	20.2
11 17	5 28.47	+35 35.0	2.108	2.999	9.8	18.0	11 17	5 24.36	+15 23.3	1.524	2.444	10.8	20.0
11 27	5 18.60	+35 57.1	2.057	3.000	6.7	17.9	11 27	5 16.21	+14 57.5	1.499	2.461	6.5	19.8
12 7	5 7.23	+36 5.0	2.035	3.001	4.5	17.7	12 7	5 6.80	+14 37.5	1.500	2.478	3.3	19.7
12 17	4 55.56	+35 57.3	2.042	3.001	5.1	17.8	12 17	4 57.38	+14 25.5	1.528	2.496	5.2	19.8
12 27	4 44.91	+35 35.7	2.079	3.001	7.8	17.9	12 27	4 49.19	+14 22.8	1.584	2.515	9.2	20.1
1 6	4 36.35	+35 4.7	2.142	3.000	10.9	18.1	1 6	4 43.17	+14 29.8	1.665	2.533	12.9	20.4
1 16	4 30.54	+34 29.3	2.229	2.998	13.6	18.3	1 16	4 39.85	+14 46.1	1.767	2.552	16.0	20.6
<b>219180</b>	1999 TH <sub>187</sub>		12 9.2 59°61	1°7/ 8.6	18		<b>473350</b>	2015 TG <sub>205</sub>		12 9.2 102°48	4°0/ 8.0	15	
11 7	5 29.03	+20 6.9	2.056	2.902	12.2	19.5	11 7	5 31.59	+13 17.2	2.019	2.855	12.7	21.7
11 17	5 23.19	+19 23.0	1.988	2.905	8.8	19.3	11 17	5 24.85	+12 22.1	1.968	2.876	9.4	21.5
11 27	5 15.46	+18 37.2	1.945	2.909	5.1	19.1	11 27	5 16.31	+11 31.3	1.943	2.897	6.1	21.3
12 7	5 6.64	+17 51.4	1.930	2.912	1.8	18.9	12 7	5 6.82	+10 47.8	1.946	2.917	4.1	21.2
12 17	4 57.72	+17 8.5	1.945	2.916	3.9	19.0	12 17	4 57.38	+10 14.3	1.979	2.936	5.5	21.4
12 27	4 49.72	+16 31.2	1.989	2.920	7.6	19.3	12 27	4 48.97	+9 53.0	2.041	2.955	8.5	21.6
1 6	4 43.45	+16 2.0	2.060	2.923	11.0	19.5	1 6	4 42.34	+9 44.1	2.129	2.974	11.5	21.8
1 16	4 39.44	+15 42.1	2.153	2.927	13.9	19.7	1 16	4 37.97	+9 47.1	2.240	2.992	14.1	22.0
<b>5400</b>	1989 CM		12 9.2 16°90	0°3/ 9.2	18		<b>430819</b>	2005 GZ <sub>70</sub>		12 9.2 219°47	0°6/ 9.1	18	
11 7	5 28.64	+23 48.3	1.783	2.635	13.4	17.5	11 7	5 34.70	+22 30.0	1.621	2.468	14.8	22.3
11 17	5 23.26	+23 46.9	1.718	2.639	9.7	17.3	11 17	5 27.96	+22 13.7	1.544	2.462	10.8	22.1
11 27	5 15.64	+23 42.0	1.678	2.644	5.5	17.1	11 27	5 18.48	+21 53.7	1.491	2.456	6.2	21.8
12 7	5 6.69	+23 33.5	1.665	2.649	1.1	16.8	12 7	5 7.27	+21 30.2	1.465	2.449	1.2	21.4
12 17	4 57.55	+23 22.0	1.680	2.655	3.5	17.0	12 17	4 55.70	+21 4.7	1.467	2.442	4.1	21.6
12 27	4 49.46	+23 9.6	1.723	2.662	7.8	17.3	12 27	4 45.27	+20 40.1	1.498	2.434	9.0	21.9
1 6	4 43.37	+22 58.6	1.792	2.669	11.6	17.5	1 6	4 37.18	+20 19.9	1.554	2.426	13.4	22.2
1 16	4 39.88	+22 51.2	1.883	2.677	14.8	17.7	1 16	4 32.18	+20 6.7	1.632	2.418	17.1	22.4
<b>112679</b>	2002 PL <sub>96</sub>		12 9.2 55°75	0°6/ 9.3	18		<b>39558</b>	Kishine		12 9.2 194°70	2°3/ 8.7	18	
11 7	5 33.57	+24 2.6	1.522	2.374	15.3	19.7	11 7	5 34.47	+18 4.8	1.677	2.522	14.5	18.7
11 17	5 26.91	+24 13.7	1.476	2.396	11.0	19.5	11 17	5 27.61	+17 41.0	1.604	2.520	10.6	18.5
11 27	5 17.68	+24 21.0	1.454	2.419	6.3	19.3	11 27	5 18.20	+17 17.8	1.555	2.518	6.2	18.2
12 7	5 7.04	+24 23.1	1.458	2.442	1.3	19.0	12 7	5 7.24	+16 56.6	1.534	2.515	2.5	18.0
12 17	4 56.41	+24 20.4	1.490	2.465	3.9	19.3	12 17	4 55.98	+16 39.2	1.541	2.512	4.7	18.1
12 27	4 47.22	+24 14.9	1.549	2.488	8.5	19.6	12 27	4 45.81	+16 27.8	1.577	2.508	9.2	18.4
1 6	4 40.51	+24 9.4	1.634	2.512	12.6	19.9	1 6	4 37.85	+16 24.3	1.639	2.504	13.3	18.6
1 16	4 36.82	+24 6.5	1.740	2.535	15.8	20.2	1 16	4 32.79	+16 29.4	1.722	2.499	16.7	18.9
<b>412529</b>	2014 MY <sub>37</sub>		12 9.2 80°91	0°9/ 9.4	18		<b>60063</b>	1999 TN <sub>121</sub>		12 9.2 91°50	3°8/ 8.3	18	
11 7	5 30.77	+25 21.1	2.041	2.882	12.4	21.0	11 7	5 29.37	+11 59.7	2.215	3.049	11.8	19.5
11 17	5 24.55	+25 26.5	1.977	2.891	9.0	20.8	11 17	5 23.19	+11 27.5	2.163	3.070	8.8	19.3
11 27	5 16.27	+25 27.5	1.938	2.901	5.2	20.6	11 27	5 15.38	+11 0.8	2.137	3.089	5.7	19.2
12 7	5 6.80	+25 23.5	1.926	2.910	1.3	20.3	12 7	5 6.69	+10 41.4	2.139	3.109	3.8	19.1
12 17	4 57.19	+25 14.6	1.945	2.920	3.3	20.5	12 17	4 58.00	+10 31.1	2.171	3.129	5.0	19.2
12 27	4 48.55	+25 2.6	1.993	2.929	7.1	20.8	12 27	4 50.18	+10 30.7	2.233	3.148	7.8	19.4
1 6	4 41.78	+24 50.0	2.067	2.938	10.6	21.0	1 6	4 43.95	+10 40.0	2.320	3.167	10.6	19.6
1 16	4 37.43	+24 39.3	2.165	2.948	13.5	21.2	1 16	4 39.75	+10 58.2	2.431	3.185	13.0	19.8
<b>378585</b>	2008 EY <sub>6</sub>		12 9.2 307°99	4°3/ 9.7	18		<b>509008</b>	2005 JM <sub>50</sub>		12 9.2 109°68	0°9/ 9.1	18	
11 7	5 34.81	+30 33.0	1.304	2.157	17.3	21.2	11 7	5 36.53	+20 40.9	1.642	2.485	14.8	21.9
11 17	5 28.97	+31 14.9	1.229	2.146	13.1	20.9	11 17	5 28.91	+20 38.9	1.589	2.505	10.7	21.7
11 27	5 19.46	+31 47.7	1.176	2.135	8.4	20.6	11 27	5 18.81	+20 36.1	1.561	2.525	6.0	21.5
12 7	5 7.46	+32 6.0	1.147	2.125	4.6	20.3	12 7	5 7.33	+20 32.1	1.560	2.544	1.4	21.2
12 17	4 54.73	+32 6.6	1.144	2.114	6.1	20.4	12 17	4 55.83	+20 27.6	1.588	2.562	4.0	21.4
12 27	4 43.38	+31 51.4	1.167	2.105	10.8	20.6	12 27	4 45.68	+20 24.3	1.645	2.580	8.5	21.7
1 6	4 35.11	+31 26.3	1.212	2.095	15.6	20.9	1 6	4 37.92	+20 24.1	1.728	2.597	12.5	22.0
1 16	4 30.87	+30 58.4	1.277	2.086	19.7	21.1	1 16	4 33.10	+20 28.7	1.833	2.613	15.7	22.3
<b>271576</b>	2004 LZ <sub>14</sub>		12 9.2 126°32	2°1/ 8.9	18		<b>339056</b>	2004 OW		12 9.2 126°01	1°3/ 9.4	18	
11 7	5 34.61	+16 31.3	1.934	2.770	13.2	21.0	11 7	5 35.82	+26 11.4	1.847	2.684	13.7	21.5
11 17	5 27.23	+16 31.6	1.876	2.787	9.6	20.8	11 17	5 28.37	+26 22.7	1.786	2.698	10.0	21.3
11 27	5 17.74	+16 34.8	1.843	2.804	5.6	20.6	11 27	5 18.52	+26 28.3	1.750	2.712	5.8	21.0
12 7	5 7.06	+16 41.1	1.838	2.819	2.3	20.4	12 7	5 7.29	+26 26.9	1.742	2.725	1.7	20.8
12 17	4 56.30	+16 50.8	1.864	2.834	4.1	20.6	12 17	4 55.94	+26 18.4	1.764	2.738	3.7	21.0
12 27	4 46.61	+17 4.4	1.920	2.849	7.9	20.8	12 27	4 45.80	+26 4.8	1.815	2.750	7.8	21.2
1 6	4 38.89	+17 22.4	2.002	2.862	11.4	21.1	1 6	4 37.87	+25 49.5	1.893	2.762	11.5	21.5
1 16	4 33.68	+17 45.0	2.108	2.875	14.4	21.3	1 16	4 32.76	+25 35.8	1.993	2.773	14.7	21.7
<b>114989</b>	2003 QQ <sub>69</sub>		12 9.2 30°27	8°8/10.7	18		<b>40641</b>	1999 RV <sub>181</sub>		12 9.2 107°31	1°0/ 9.4	18	
11 7	5 36.02	+39 40.8	1.252	2.088	18.9	17.2	11 7	5 34.13	+25 44.7	1.823	2.664	13.7	20.0
11 17	5 29.84	+40 56.7	1.210	2.105	15.1	17.0	11 17	5 27.14	+25 47.2	1.764	2.678	9.9	19.8
11 27	5 19.81	+41 51.6	1.188	2.123	11.4	16.8	11 27	5 17.82	+25 44.3	1.729	2.692	5.7	19.6
12 7	5 7.47	+42 17.5	1.189	2.142	9.0	16.7	12 7	5 7.16	+25 35.0	1.722	2.705	1.5	19.3
12 17	4 54.96	+42 11.7	1.215	2.163	9.4	16.8	12 17	4 56.42	+25 20.0	1.744	2.718	3.6	19.5
12 27	4 44.50	+41 38.7	1.264	2.184	12.0	17.0	12 27	4 46.86	+25 1.5	1.795	2.731	7.8	19.8
1 6	4 37.62	+40 48.0	1.336	2.206	15.3	17.3	1 6	4 39.49	+24 42.8	1.872	2.744	11.5	20.1
1 16	4 34.94	+39 49.5	1.427	2.229	18.4	17.6	1 16	4 34.87	+24 26.9	1.973	2.756	14.7	20.3
<b>115150</b>	2003 SH <sub>67</sub>		12 9.2 115°45	2°9/ 8.7	18		<b>265898</b>	2006 BP <sub>29</sub>		12 9.2 184°26	0°4/ 9.3	17	
11 7	5 36.24	+16 45.7	1.593	2.437	15.1	20.6	11 7	5 29.63					

EPHEMERIDES

12 9.2

12 9.2

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>404948</b>	1995 YL <sub>9</sub>	12	9.2 225°45	1°8/ 9.8 17			<b>53172</b>	1999 CQ <sub>21</sub>	12	9.2 127°49	3°9/10.1 18		
11 7	5 30.74	+29 29.6	2.149	2.983	12.1	20.9	11 7	5 37.08	+33 3.3	1.776	2.604	14.6	18.3
11 17	5 24.58	+29 18.3	2.073	2.982	9.0	20.7	11 17	5 29.56	+33 24.7	1.713	2.614	11.0	18.1
11 27	5 16.35	+28 58.7	2.023	2.982	5.4	20.4	11 27	5 19.33	+33 34.4	1.674	2.625	7.2	17.9
12 7	5 6.91	+28 30.2	2.000	2.981	2.1	20.2	12 7	5 7.49	+33 29.3	1.661	2.635	4.2	17.8
12 17	4 57.30	+27 53.8	2.007	2.980	3.4	20.3	12 17	4 55.49	+33 8.7	1.678	2.644	5.1	17.9
12 27	4 48.64	+27 12.5	2.044	2.980	7.0	20.5	12 27	4 44.84	+32 35.7	1.723	2.653	8.5	18.1
1 6	4 41.82	+26 30.0	2.108	2.979	10.4	20.8	1 6	4 36.68	+31 56.0	1.794	2.662	12.1	18.3
1 16	4 37.40	+25 50.1	2.195	2.978	13.4	21.0	1 16	4 31.67	+31 15.2	1.887	2.670	15.2	18.6
<b>324115</b>	2005 XL <sub>116</sub>	12	9.2 287°35	1°8/ 9.0 17			<b>458649</b>	2011 GP <sub>57</sub>	12	9.2 289°29	2°6/ 9.6 18		
11 7	5 30.08	+16 32.2	2.056	2.898	12.3	20.6	11 7	5 30.72	+29 32.6	2.278	3.109	11.6	21.5
11 17	5 24.21	+16 47.2	1.973	2.887	9.0	20.4	11 17	5 24.74	+30 6.9	2.188	3.094	8.7	21.2
11 27	5 16.24	+17 6.2	1.914	2.876	5.3	20.1	11 27	5 16.60	+30 35.9	2.123	3.079	5.5	21.0
12 7	5 6.92	+17 29.0	1.884	2.866	2.0	19.9	12 7	5 7.02	+30 56.9	2.086	3.063	2.8	20.8
12 17	4 57.21	+17 55.2	1.884	2.855	3.8	20.0	12 17	4 56.98	+31 8.6	2.079	3.048	3.9	20.9
12 27	4 48.22	+18 24.6	1.913	2.845	7.7	20.2	12 27	4 47.64	+31 11.2	2.101	3.033	7.2	21.0
1 6	4 40.91	+18 57.0	1.968	2.834	11.3	20.4	1 6	4 39.98	+31 7.3	2.151	3.017	10.5	21.2
1 16	4 35.93	+19 32.5	2.047	2.824	14.4	20.6	1 16	4 34.71	+30 59.8	2.224	3.002	13.4	21.4
<b>25511</b>	Annpipinsky	12	9.2 17°92	0°8/ 9.3 18			<b>399617</b>	2004 DL <sub>61</sub>	12	9.2 317°57	7°1/10.6 17		
11 7	5 33.67	+23 30.9	1.272	2.134	17.1	18.3	11 7	5 34.39	+39 39.1	1.657	2.478	15.8	20.5
11 17	5 27.76	+23 54.7	1.211	2.136	12.5	18.0	11 17	5 28.34	+40 20.7	1.578	2.466	12.7	20.3
11 27	5 18.59	+24 16.2	1.172	2.138	7.2	17.7	11 27	5 19.00	+40 45.8	1.520	2.454	9.5	20.1
12 7	5 7.36	+24 32.9	1.157	2.141	1.6	17.4	12 7	5 7.48	+40 48.5	1.487	2.442	7.3	19.9
12 17	4 55.74	+24 43.6	1.168	2.144	4.6	17.6	12 17	4 55.41	+40 26.1	1.480	2.431	7.7	19.9
12 27	4 45.59	+24 49.7	1.206	2.148	10.0	17.9	12 27	4 44.63	+39 41.2	1.500	2.420	10.5	20.1
1 6	4 38.30	+24 54.2	1.267	2.152	14.9	18.2	1 6	4 36.63	+38 40.9	1.543	2.410	13.9	20.2
1 16	4 34.66	+25 0.0	1.347	2.157	18.9	18.5	1 16	4 32.26	+37 33.8	1.608	2.400	17.1	20.4
<b>411123</b>	2009 WZ <sub>163</sub>	12	9.2 25°08	0°6/ 9.4 18			<b>413284</b>	2003 UG <sub>110</sub>	12	9.2 337°55	2°8/ 9.4 17		
11 7	5 29.00	+25 35.1	1.802	2.652	13.4	20.3	11 7	5 30.01	+28 0.1	1.771	2.618	13.7	20.1
11 17	5 23.50	+25 20.3	1.740	2.659	9.7	20.1	11 17	5 24.71	+28 48.8	1.690	2.605	10.2	19.9
11 27	5 15.78	+24 59.8	1.703	2.667	5.6	19.8	11 27	5 16.77	+29 33.3	1.633	2.593	6.4	19.6
12 7	5 6.81	+24 33.9	1.692	2.676	1.2	19.6	12 7	5 7.07	+30 10.2	1.603	2.582	3.1	19.4
12 17	4 57.72	+24 4.2	1.710	2.685	3.5	19.7	12 17	4 56.82	+30 36.9	1.600	2.571	4.5	19.5
12 27	4 49.73	+23 33.4	1.756	2.695	7.7	20.0	12 27	4 47.44	+30 53.2	1.626	2.561	8.5	19.7
1 6	4 43.76	+23 4.9	1.828	2.706	11.4	20.3	1 6	4 40.17	+31 1.5	1.676	2.552	12.4	19.9
1 16	4 40.36	+22 41.4	1.922	2.716	14.6	20.5	1 16	4 35.82	+31 5.2	1.748	2.544	15.8	20.1
<b>195530</b>	2002 JV <sub>28</sub>	12	9.2 131°96	2°0/ 8.5 18			<b>80752</b>	2000 CG <sub>49</sub>	12	9.2 334°05	6°0/ 8.2 18		
11 7	5 28.28	+16 18.8	2.908	3.738	9.4	21.8	11 7	5 29.35	+12 5.2	1.227	2.092	17.3	19.3
11 17	5 22.16	+15 53.0	2.845	3.753	6.9	21.7	11 17	5 24.59	+11 19.5	1.160	2.082	13.2	19.0
11 27	5 14.74	+15 28.5	2.810	3.768	4.1	21.5	11 27	5 16.81	+10 41.5	1.114	2.073	8.8	18.7
12 7	5 6.61	+15 6.5	2.805	3.783	2.1	21.4	12 7	5 7.08	+10 16.3	1.092	2.064	6.0	18.5
12 17	4 58.44	+14 48.4	2.831	3.797	3.3	21.5	12 17	4 56.89	+10 7.5	1.094	2.056	7.9	18.6
12 27	4 50.94	+14 35.2	2.889	3.810	5.9	21.7	12 27	4 47.92	+10 17.3	1.120	2.049	12.3	18.8
1 6	4 44.66	+14 27.9	2.974	3.823	8.4	21.9	1 6	4 41.53	+10 44.9	1.169	2.043	16.8	19.1
1 16	4 40.03	+14 26.6	3.085	3.836	10.6	22.0	1 16	4 38.51	+11 27.6	1.235	2.037	20.7	19.3
<b>182314</b>	2001 ON <sub>62</sub>	12	9.2 108°87	15°2/14.2 18			<b>210392</b>	2007 VU <sub>167</sub>	12	9.2 207°98	1°2/ 9.5 18		
11 7	5 53.32	+53 45.5	1.161	1.938	23.7	20.3	11 7	5 32.39	+26 20.8	2.034	2.871	12.6	21.1
11 17	5 44.13	+54 56.6	1.110	1.946	20.7	20.1	11 17	5 25.92	+26 25.6	1.956	2.868	9.2	20.9
11 27	5 28.61	+55 29.7	1.075	1.954	17.8	19.9	11 27	5 17.21	+26 25.1	1.903	2.865	5.4	20.6
12 7	5 9.21	+55 10.0	1.059	1.962	15.7	19.8	12 7	5 7.13	+26 18.2	1.878	2.861	1.6	20.4
12 17	4 49.78	+53 52.4	1.064	1.970	15.3	19.9	12 17	4 56.76	+26 5.0	1.883	2.858	3.4	20.5
12 27	4 34.19	+51 46.1	1.091	1.977	16.7	20.0	12 27	4 47.31	+25 47.5	1.918	2.853	7.4	20.7
1 6	4 24.53	+49 11.3	1.139	1.984	19.2	20.1	1 6	4 39.78	+25 28.7	1.979	2.849	11.1	20.9
1 16	4 21.11	+46 28.1	1.205	1.991	22.0	20.4	1 16	4 34.79	+25 11.5	2.063	2.844	14.2	21.1
<b>516858</b>	2011 ED <sub>70</sub>	12	9.2 319°50	4°3/ 8.5 18			<b>79022</b>	1200 T-2	12	9.2 344°37	10°0/10.7 17		
11 7	5 29.94	+15 19.1	1.246	2.112	17.0	21.6	11 7	5 35.23	+43 19.5	1.425	2.244	18.0	18.7
11 17	5 25.12	+14 43.1	1.171	2.097	12.7	21.3	11 17	5 29.63	+44 36.1	1.357	2.235	15.0	18.4
11 27	5 17.17	+14 10.9	1.118	2.082	8.0	21.0	11 27	5 20.04	+45 32.4	1.308	2.228	12.1	18.3
12 7	5 7.14	+13 46.1	1.089	2.067	4.4	20.8	12 7	5 7.71	+45 59.5	1.283	2.221	10.2	18.1
12 17	4 56.52	+13 32.1	1.085	2.053	6.7	20.8	12 17	4 54.65	+45 52.3	1.281	2.215	10.5	18.1
12 27	4 47.06	+13 31.5	1.106	2.040	11.7	21.1	12 27	4 43.22	+45 13.1	1.303	2.210	12.8	18.3
1 6	4 40.21	+13 45.3	1.148	2.028	16.6	21.3	1 6	4 35.24	+44 10.7	1.346	2.206	15.9	18.4
1 16	4 36.85	+14 12.6	1.209	2.016	20.8	21.6	1 16	4 31.64	+42 56.0	1.410	2.203	19.0	18.6
<b>134196</b>	2005 DW	12	9.2 148°58	8°2/10.2 18			<b>421592</b>	2014 OT <sub>213</sub>	12	9.2 104°57	3°8/ 8.6 18		
11 7	5 39.99	+47 43.5	2.517	3.274	12.8	19.6	11 7	5 30.06	+11 26.4	2.112	2.946	12.3	20.7
11 17	5 31.93	+49 12.5	2.448	3.277	10.9	19.5	11 17	5 23.88	+11 14.9	2.052	2.958	9.2	20.5
11 27	5 20.90	+50 25.7	2.403	3.279	9.3	19.4	11 27	5 15.88	+11 10.0	2.017	2.970	6.0	20.4
12 7	5 7.83	+51 16.6	2.384	3.282	8.3	19.3	12 7	5 6.86	+11 13.1	2.010	2.982	3.8	20.2
12 17	4 54.09	+51 41.6	2.392	3.284	8.5	19.4	12 17	4 57.73	+11 24.9	2.033	2.993	5.0	20.3
12 27	4 41.29	+51 41.2	2.428	3.286	9.8	19.4	12 27	4 49.47	+11 45.5	2.085	3.004	8.0	20.5
1 6	4 30.83	+51 20.1	2.489	3.288	11.5	19.6	1 6	4 42.85	+12 14.3	2.163	3.015	11.0	20.8
1 16	4 23.59	+50 44.8	2.571	3.290	13.2	19.7	1 16	4 38.39	+12 50.0	2.265	3.026	13.7	21.0
<b>364774</b>	2007 YK <sub>28</sub>	12	9.2 278°75	3°0/ 8.4 17			<b>171702</b>	2000 SH <sub>280</sub>	12	9.2 61°16	0°2/ 9.2 18		
11 7	5 29.52	+16 23.8	1.949	2.795	12.7</								

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12 9.2

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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>409085</b>	2003 <i>SE</i> <sub>329</sub>	12 9.2 57°70	5°1/10.5 17				<b>191284</b>	2003 <i>FA</i> <sub>36</sub>	12 9.2 221°71	1°7/ 8.9 18			
11 7	5 33.03	+37 26.8	2.107	2.921	13.1	21.0	11 7	5 32.77	+19 11.9	1.841	2.684	13.4	20.9
11 17	5 26.47	+38 0.0	2.042	2.930	10.2	20.8	11 17	5 26.31	+18 53.1	1.762	2.678	9.8	20.7
11 27	5 17.54	+38 20.4	2.001	2.938	7.3	20.7	11 27	5 17.50	+18 33.9	1.707	2.671	5.7	20.5
12 7	5 7.18	+38 24.5	1.987	2.946	5.3	20.6	12 7	5 7.22	+18 15.3	1.681	2.663	1.9	20.2
12 17	4 56.62	+38 11.5	2.001	2.955	5.7	20.6	12 17	4 56.62	+17 58.7	1.683	2.655	4.2	20.3
12 27	4 47.17	+37 43.6	2.044	2.964	8.1	20.8	12 27	4 46.96	+17 46.3	1.715	2.647	8.4	20.6
1 6	4 39.85	+37 5.4	2.112	2.972	10.9	21.0	1 6	4 39.27	+17 39.9	1.773	2.639	12.4	20.8
1 16	4 35.28	+36 22.4	2.204	2.981	13.5	21.2	1 16	4 34.25	+17 40.7	1.852	2.629	15.7	21.0
<b>485948</b>	2012 <i>HK</i> <sub>49</sub>	12 9.2 200°77	4°7/ 8.2 17				<b>406728</b>	2008 <i>GE</i> <sub>75</sub>	12 9.2 174°21	2°0/ 9.6 18			
11 7	5 27.43	+ 8 32.1	2.334	3.164	11.5	21.6	11 7	5 32.37	+28 28.5	2.531	3.355	10.8	22.3
11 17	5 21.92	+ 8 4.5	2.263	3.163	8.8	21.5	11 17	5 25.60	+28 57.0	2.454	3.358	8.0	22.1
11 27	5 14.78	+ 7 44.4	2.218	3.162	6.2	21.3	11 27	5 16.94	+29 20.3	2.403	3.360	4.9	21.9
12 7	5 6.67	+ 7 34.0	2.200	3.161	4.7	21.2	12 7	5 7.11	+29 36.7	2.382	3.361	2.2	21.8
12 17	4 58.38	+ 7 34.9	2.212	3.160	5.7	21.3	12 17	4 57.02	+29 45.1	2.392	3.362	3.3	21.9
12 27	4 50.78	+ 7 47.6	2.252	3.159	8.2	21.4	12 27	4 47.68	+29 46.3	2.432	3.363	6.4	22.1
1 6	4 44.59	+ 8 11.5	2.318	3.158	10.9	21.6	1 6	4 39.92	+29 42.5	2.501	3.363	9.4	22.2
1 16	4 40.32	+ 8 45.1	2.408	3.157	13.3	21.8	1 16	4 34.33	+29 36.4	2.594	3.363	11.9	22.4
<b>308890</b>	2006 <i>SU</i> <sub>151</sub>	12 9.2 208°49	0°5/ 9.3 18				<b>443622</b>	2014 <i>MA</i> <sub>21</sub>	12 9.2 190°64	1°8/ 9.1 18			
11 7	5 31.78	+24 54.7	2.224	3.059	11.7	21.4	11 7	5 32.05	+15 55.2	2.154	2.990	12.1	21.3
11 17	5 25.30	+24 52.2	2.143	3.055	8.6	21.2	11 17	5 25.50	+16 15.0	2.078	2.989	8.8	21.1
11 27	5 16.80	+24 45.4	2.087	3.050	4.9	20.9	11 27	5 16.94	+16 39.1	2.027	2.988	5.2	20.8
12 7	5 7.05	+24 34.0	2.060	3.044	1.1	20.6	12 7	5 7.12	+17 6.9	2.005	2.987	2.0	20.6
12 17	4 57.05	+24 18.3	2.064	3.038	3.1	20.8	12 17	4 57.00	+17 37.8	2.014	2.985	3.7	20.7
12 27	4 47.86	+24 0.1	2.097	3.032	6.9	21.0	12 27	4 47.65	+18 11.3	2.053	2.983	7.4	21.0
1 6	4 40.40	+23 42.1	2.158	3.025	10.4	21.2	1 6	4 39.96	+18 47.3	2.119	2.981	10.8	21.2
1 16	4 35.25	+23 26.7	2.243	3.018	13.4	21.4	1 16	4 34.55	+19 25.6	2.210	2.979	13.7	21.4
<b>492972</b>	2014 <i>SV</i> <sub>147</sub>	12 9.2 98°12	7°2/10.6 18				<b>117461</b>	2005 <i>AO</i> <sub>79</sub>	12 9.2 168°05	0°6/ 9.4 18			
11 7	5 39.01	+44 22.7	2.404	3.179	12.8	21.6	11 7	5 33.06	+24 49.7	2.186	3.020	12.0	20.8
11 17	5 30.91	+45 37.3	2.346	3.195	10.6	21.4	11 17	5 26.20	+24 53.3	2.113	3.024	8.7	20.6
11 27	5 20.14	+46 36.2	2.313	3.212	8.6	21.3	11 27	5 17.30	+24 52.9	2.065	3.028	5.0	20.4
12 7	5 7.68	+47 14.1	2.307	3.229	7.3	21.3	12 7	5 7.18	+24 47.8	2.047	3.031	1.1	20.1
12 17	4 54.88	+47 28.4	2.330	3.245	7.6	21.3	12 17	4 56.85	+24 38.2	2.059	3.033	3.1	20.3
12 27	4 43.20	+47 20.5	2.380	3.261	9.0	21.5	12 27	4 47.43	+24 25.7	2.101	3.035	7.0	20.5
1 6	4 33.81	+46 55.2	2.456	3.276	11.0	21.6	1 6	4 39.80	+24 12.7	2.170	3.037	10.4	20.8
1 16	4 27.44	+46 18.9	2.554	3.292	12.9	21.8	1 16	4 34.54	+24 1.7	2.264	3.037	13.3	21.0
<b>278196</b>	2007 <i>EJ</i> <sub>12</sub>	12 9.2 210°64	1°6/ 9.6 18				<b>97387</b>	2000 <i>AY</i> <sub>88</sub>	12 9.2 50°76	2°1/ 9.9 18			
11 7	5 35.01	+27 57.8	1.871	2.706	13.6	21.0	11 7	5 30.70	+30 17.1	2.058	2.893	12.6	18.7
11 17	5 28.00	+27 52.3	1.790	2.701	10.0	20.8	11 17	5 24.59	+30 5.7	1.992	2.900	9.3	18.5
11 27	5 18.47	+27 38.9	1.735	2.696	6.0	20.5	11 27	5 16.39	+29 45.3	1.950	2.908	5.7	18.3
12 7	5 7.38	+27 16.5	1.707	2.689	2.0	20.2	12 7	5 7.00	+29 15.2	1.935	2.915	2.4	18.1
12 17	4 55.97	+26 45.5	1.709	2.683	3.8	20.4	12 17	4 57.53	+28 36.8	1.951	2.923	3.6	18.2
12 27	4 45.63	+26 9.0	1.740	2.675	8.0	20.6	12 27	4 49.09	+27 53.0	1.995	2.931	7.1	18.5
1 6	4 37.46	+25 31.5	1.797	2.667	12.0	20.8	1 6	4 42.59	+27 8.1	2.066	2.939	10.5	18.7
1 16	4 32.16	+24 57.1	1.877	2.659	15.4	21.0	1 16	4 38.55	+26 25.9	2.161	2.947	13.4	18.9
<b>100986</b>	1998 <i>QB</i> <sub>33</sub>	12 9.2 120°56	0°9/ 9.0 18				<b>26150</b>	1994 <i>RW</i> <sub>11</sub>	12 9.2 109°19	2°0/ 8.8 18			
11 7	5 35.45	+21 28.7	1.689	2.533	14.4	20.5	11 7	5 35.21	+18 59.4	1.711	2.554	14.3	18.9
11 17	5 28.15	+21 12.3	1.631	2.548	10.4	20.3	11 17	5 27.85	+18 31.0	1.658	2.574	10.4	18.7
11 27	5 18.43	+20 53.7	1.598	2.562	5.9	20.0	11 27	5 18.21	+18 2.5	1.630	2.594	6.0	18.5
12 7	5 7.35	+20 33.3	1.592	2.576	1.3	19.7	12 7	5 7.34	+17 35.4	1.630	2.612	2.2	18.3
12 17	4 56.21	+20 12.7	1.615	2.589	4.0	20.0	12 17	4 56.48	+17 11.9	1.659	2.631	4.4	18.5
12 27	4 46.35	+19 54.4	1.668	2.602	8.4	20.3	12 27	4 46.92	+16 54.1	1.717	2.648	8.5	18.8
1 6	4 38.78	+19 40.8	1.746	2.614	12.4	20.5	1 6	4 39.57	+16 43.9	1.801	2.665	12.3	19.0
1 16	4 34.08	+19 33.8	1.846	2.626	15.6	20.8	1 16	4 34.98	+16 42.2	1.907	2.682	15.4	19.3
<b>325559</b>	2009 <i>SQ</i> <sub>102</sub>	12 9.2 308°31	0°4/ 9.3 17				<b>268763</b>	2006 <i>ST</i> <sub>61</sub>	12 9.2 23°22	5°5/ 8.5 18			
11 7	5 29.73	+24 24.8	1.997	2.841	12.5	21.2	11 7	5 31.02	+12 43.4	1.140	2.007	18.2	19.8
11 17	5 24.03	+24 23.1	1.919	2.835	9.1	21.0	11 17	5 25.76	+12 8.3	1.088	2.012	13.7	19.6
11 27	5 16.16	+24 17.6	1.865	2.829	5.2	20.7	11 27	5 17.41	+11 42.4	1.057	2.018	8.8	19.3
12 7	5 6.96	+24 7.9	1.839	2.823	1.1	20.4	12 7	5 7.23	+11 29.3	1.050	2.025	5.6	19.2
12 17	4 57.46	+23 54.4	1.842	2.818	3.3	20.6	12 17	4 56.83	+11 31.7	1.067	2.032	7.4	19.3
12 27	4 48.84	+23 39.0	1.875	2.812	7.4	20.8	12 27	4 47.94	+11 50.3	1.108	2.040	12.0	19.6
1 6	4 42.05	+23 24.3	1.933	2.807	11.1	21.1	1 6	4 41.85	+12 23.6	1.171	2.049	16.4	19.9
1 16	4 37.73	+23 12.6	2.015	2.801	14.3	21.3	1 16	4 39.21	+13 8.7	1.253	2.059	20.2	20.2
<b>195587</b>	2002 <i>JF</i> <sub>121</sub>	12 9.2 117°78	2°3/ 9.1 18				<b>164871</b>	1999 <i>UE</i> <sub>20</sub>	12 9.2 320°01	2°0/ 8.8 18			
11 7	5 34.39	+14 47.7	1.952	2.787	13.1	20.0	11 7	5 30.68	+18 50.3	1.595	2.449	14.6	20.4
11 17	5 27.17	+15 9.4	1.891	2.801	9.6	19.9	11 17	5 25.06	+18 29.9	1.522	2.443	10.7	20.1
11 27	5 17.83	+15 36.4	1.855	2.815	5.7	19.6	11 27	5 16.89	+18 9.8	1.473	2.438	6.2	19.9
12 7	5 7.25	+16 8.0	1.849	2.829	2.5	19.5	12 7	5 7.14	+17 51.4	1.450	2.433	2.2	19.6
12 17	4 56.52	+16 43.4	1.872	2.842	4.1	19.6	12 17	4 57.05	+17 36.4	1.455	2.428	4.6	19.7
12 27	4 46.77	+17 21.8	1.926	2.855	7.9	19.9	12 27	4 48.02	+17 26.9	1.487	2.423	9.2	20.0
1 6	4 38.93	+18 2.7	2.006	2.867	11.4	20.1	1 6	4 41.17	+17 24.9	1.544	2.418	13.4	20.2
1 16	4 33.59	+18 45.6	2.110	2.879	14.3	20.3	1 16	4 37.19	+17 31.1	1.622	2.414	17.0	20.5
<b>64686</b>	2001 <i>XS</i> <sub>72</sub>	12 9.2 49°68	4°9/ 8.4 18				<b>222905</b>	2002 <i>HD</i> <sub>5</sub>	12 9.2 255°20	2°9/ 8.5 18			



EPHEMERIDES

12 9.2

12 9.2

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>248240</b>	2005 <i>ET</i> <sub>281</sub>	12	9.2 248°89	5°7/ 8.2 18			<b>414704</b>	2009 <i>WF</i> <sub>182</sub>	12	9.2 314°34	2°9/ 9.2 17		
11 7	5 30.34	+ 7 10.1	2.002	2.830	13.1	21.1	11 7	5 33.71	+27 41.4	2.062	2.895	12.6	20.6
11 17	5 24.37	+ 6 43.3	1.921	2.819	10.2	20.9	11 17	5 27.22	+28 54.7	1.976	2.884	9.4	20.4
11 27	5 16.36	+ 6 26.3	1.865	2.807	7.4	20.7	11 27	5 18.21	+30 5.8	1.916	2.872	5.9	20.2
12 7	5 7.04	+ 6 21.8	1.836	2.794	5.7	20.6	12 7	5 7.46	+31 10.4	1.884	2.861	3.1	20.0
12 17	4 57.37	+ 6 31.8	1.835	2.782	6.8	20.6	12 17	4 56.06	+32 4.5	1.883	2.851	4.4	20.0
12 27	4 48.45	+ 6 56.7	1.862	2.769	9.6	20.8	12 27	4 45.36	+32 46.8	1.911	2.840	8.0	20.2
1 6	4 41.18	+ 7 35.3	1.915	2.755	12.8	21.0	1 6	4 36.52	+33 18.4	1.967	2.830	11.5	20.4
1 16	4 36.22	+ 8 25.3	1.990	2.742	15.6	21.1	1 16	4 30.40	+33 42.2	2.045	2.820	14.5	20.6
<b>157056</b>	2003 <i>SJ</i> <sub>153</sub>	12	9.2 75°42	4°2/10.0 18			<b>493333</b>	2014 <i>VL</i> <sub>11</sub>	12	9.2 27°77	1°9/ 9.2 17		
11 7	5 33.75	+34 13.8	2.174	2.993	12.5	19.6	11 7	5 30.85	+14 53.4	2.051	2.890	12.4	20.3
11 17	5 26.85	+34 57.1	2.116	3.011	9.6	19.5	11 17	5 24.69	+15 31.5	1.983	2.896	9.1	20.1
11 27	5 17.72	+35 30.4	2.083	3.028	6.5	19.3	11 27	5 16.51	+16 15.6	1.941	2.902	5.4	19.9
12 7	5 7.28	+35 50.4	2.078	3.045	4.3	19.2	12 7	5 7.10	+17 4.6	1.927	2.908	2.1	19.7
12 17	4 56.66	+35 55.7	2.102	3.062	5.0	19.3	12 17	4 57.43	+17 56.8	1.943	2.915	3.7	19.8
12 27	4 47.10	+35 48.0	2.156	3.079	7.6	19.5	12 27	4 48.56	+18 50.7	1.990	2.922	7.4	20.1
1 6	4 39.56	+35 30.8	2.236	3.096	10.4	19.7	1 6	4 41.40	+19 45.4	2.063	2.930	10.9	20.3
1 16	4 34.62	+35 8.7	2.339	3.112	12.9	19.9	1 16	4 36.56	+20 40.0	2.161	2.937	13.8	20.5
<b>520423</b>	2014 <i>JT</i> <sub>90</sub>	12	9.2 184°92	4°2/ 7.9 18			<b>156668</b>	2002 <i>JT</i> <sub>103</sub>	12	9.2 149°19	0°2/ 9.3 17		
11 7	5 30.85	+13 2.7	2.074	2.910	12.4	21.7	11 7	5 30.01	+22 57.7	2.338	3.176	11.2	20.4
11 17	5 24.54	+12 4.0	2.003	2.911	9.3	21.5	11 17	5 23.92	+23 6.6	2.265	3.179	8.1	20.3
11 27	5 16.34	+11 8.5	1.957	2.910	6.1	21.4	11 27	5 16.01	+23 13.6	2.218	3.182	4.6	20.0
12 7	5 7.03	+10 19.5	1.940	2.910	4.2	21.2	12 7	5 7.00	+23 18.1	2.200	3.185	0.9	19.8
12 17	4 57.55	+ 9 40.3	1.953	2.909	5.6	21.3	12 17	4 57.79	+23 20.0	2.213	3.187	2.9	19.9
12 27	4 48.95	+ 9 13.4	1.994	2.907	8.7	21.5	12 27	4 49.35	+23 20.4	2.255	3.190	6.5	20.2
1 6	4 42.03	+ 8 59.8	2.062	2.905	11.9	21.7	1 6	4 42.48	+23 20.7	2.325	3.192	9.7	20.4
1 16	4 37.34	+ 8 59.1	2.152	2.903	14.6	21.9	1 16	4 37.74	+23 22.5	2.419	3.195	12.5	20.6
<b>159766</b>	2003 <i>HN</i> <sub>8</sub>	12	9.2 160°01	6°8/ 8.3 18			<b>349764</b>	2009 <i>AY</i> <sub>28</sub>	12	9.2 356°98	7°4/ 9.0 18		
11 7	5 31.92	+ 4 34.7	1.878	2.701	14.1	20.1	11 7	5 29.71	+ 5 42.2	1.334	2.183	17.2	20.0
11 17	5 25.44	+ 4 4.9	1.815	2.705	11.1	19.9	11 17	5 24.62	+ 5 34.4	1.271	2.179	13.5	19.8
11 27	5 16.90	+ 3 47.9	1.775	2.709	8.3	19.8	11 27	5 16.76	+ 5 44.3	1.230	2.177	9.8	19.6
12 7	5 7.14	+ 3 46.9	1.762	2.712	6.8	19.7	12 7	5 7.17	+ 6 15.1	1.213	2.175	7.4	19.4
12 17	4 57.19	+ 4 3.5	1.777	2.716	7.7	19.8	12 17	4 57.21	+ 7 7.3	1.220	2.174	8.5	19.5
12 27	4 48.16	+ 4 37.4	1.820	2.718	10.3	19.9	12 27	4 48.39	+ 8 18.5	1.253	2.174	12.0	19.7
1 6	4 40.96	+ 5 26.3	1.887	2.720	13.2	20.1	1 6	4 41.93	+ 9 44.0	1.309	2.176	15.8	19.9
1 16	4 36.18	+ 6 26.8	1.977	2.722	15.9	20.3	1 16	4 38.59	+11 18.4	1.385	2.178	19.3	20.2
<b>136575</b>	1981 <i>EN</i> <sub>28</sub>	12	9.2 246°81	3°1/ 9.8 18			<b>350909</b>	2002 <i>RU</i> <sub>236</sub>	12	9.2 102°34	0°4/ 9.3 18		
11 7	5 35.27	+30 16.3	1.719	2.556	14.5	20.4	11 7	5 32.81	+23 57.1	1.862	2.704	13.3	21.3
11 17	5 28.59	+30 35.5	1.637	2.546	10.9	20.2	11 17	5 26.24	+23 59.6	1.799	2.715	9.7	21.1
11 27	5 19.02	+30 45.9	1.579	2.536	6.9	19.9	11 27	5 17.41	+23 58.6	1.761	2.725	5.5	20.9
12 7	5 7.57	+30 44.2	1.547	2.526	3.3	19.7	12 7	5 7.27	+23 53.4	1.751	2.735	1.1	20.6
12 17	4 55.63	+30 29.6	1.544	2.515	4.7	19.7	12 17	4 56.98	+23 44.4	1.770	2.745	3.5	20.8
12 27	4 44.79	+30 4.2	1.569	2.504	8.8	20.0	12 27	4 47.79	+23 33.5	1.818	2.755	7.7	21.0
1 6	4 36.34	+29 32.8	1.620	2.493	12.9	20.2	1 6	4 40.64	+23 23.2	1.893	2.765	11.4	21.3
1 16	4 31.09	+29 0.8	1.692	2.481	16.5	20.4	1 16	4 36.14	+23 15.8	1.990	2.774	14.5	21.5
<b>369202</b>	2008 <i>TA</i> <sub>135</sub>	12	9.2 145°52	0°9/ 9.5 14 C			<b>515139</b>	2011 <i>HX</i> <sub>13</sub>	12	9.2 280°81	3°8/ 8.5 18		
11 7	5 29.29	+26 38.5	3.003	3.829	9.3	22.4	11 7	5 32.14	+14 58.2	1.529	2.381	15.3	21.5
11 17	5 23.03	+26 38.2	2.933	3.839	6.7	22.3	11 17	5 26.38	+14 29.2	1.445	2.362	11.4	21.3
11 27	5 15.33	+26 33.7	2.889	3.849	3.9	22.1	11 27	5 17.83	+14 3.9	1.383	2.343	7.2	21.0
12 7	5 6.84	+26 24.6	2.876	3.859	1.2	21.9	12 7	5 7.40	+13 44.7	1.347	2.324	3.9	20.7
12 17	4 58.25	+26 11.2	2.894	3.868	2.5	22.0	12 17	4 56.39	+13 34.2	1.338	2.305	6.0	20.8
12 27	4 50.33	+25 54.9	2.944	3.876	5.3	22.2	12 27	4 46.30	+13 34.6	1.356	2.286	10.5	21.0
1 6	4 43.69	+25 37.6	3.022	3.885	7.9	22.4	1 6	4 38.43	+13 46.7	1.399	2.266	14.9	21.2
1 16	4 38.79	+25 21.1	3.126	3.892	10.1	22.6	1 16	4 33.64	+14 10.3	1.461	2.247	18.8	21.4
<b>427076</b>	2014 <i>UJ</i> <sub>24</sub>	12	9.2 21°64	5°5/ 7.6 18			<b>57734</b>	2001 <i>UA</i> <sub>159</sub>	12	9.2 146°66	1°4/ 9.0 18		
11 7	5 26.61	+ 8 28.8	2.095	2.931	12.3	20.6	11 7	5 33.78	+19 16.0	1.786	2.629	13.8	19.6
11 17	5 21.46	+ 7 34.0	2.032	2.934	9.5	20.4	11 17	5 27.00	+19 10.0	1.720	2.636	10.0	19.4
11 27	5 14.58	+ 6 46.8	1.994	2.938	6.9	20.3	11 27	5 17.88	+19 4.5	1.679	2.642	5.8	19.2
12 7	5 6.71	+ 6 10.7	1.984	2.941	5.5	20.2	12 7	5 7.37	+18 59.6	1.665	2.648	1.7	18.9
12 17	4 58.71	+ 5 48.5	2.001	2.945	6.6	20.3	12 17	4 56.66	+18 56.1	1.680	2.653	4.0	19.1
12 27	4 51.50	+ 5 41.6	2.046	2.949	9.1	20.4	12 27	4 47.02	+18 55.5	1.725	2.658	8.3	19.4
1 6	4 45.84	+ 5 49.5	2.116	2.953	11.8	20.6	1 6	4 39.47	+18 59.2	1.795	2.663	12.1	19.6
1 16	4 42.22	+ 6 10.6	2.208	2.958	14.3	20.8	1 16	4 34.62	+19 8.3	1.888	2.667	15.4	19.9
<b>271185</b>	2003 <i>SP</i> <sub>300</sub>	12	9.2 155°34	2°6/10.0 17			<b>4141</b>	Nintanlena	12	9.2 208°03	5°0/10.5 18		
11 7	5 31.00	+31 36.3	2.359	3.184	11.5	21.1	11 7	5 35.43	+36 7.4	1.772	2.596	14.8	17.1
11 17	5 24.70	+31 38.9	2.284	3.186	8.6	20.9	11 17	5 28.64	+36 27.4	1.699	2.595	11.4	16.9
11 27	5 16.45	+31 32.8	2.235	3.188	5.4	20.7	11 27	5 18.99	+36 33.0	1.650	2.595	7.9	16.7
12 7	5 7.07	+31 16.9	2.214	3.190	2.8	20.5	12 7	5 7.59	+36 20.8	1.627	2.594	5.3	16.6
12 17	4 57.51	+30 51.3	2.223	3.192	3.6	20.6	12 17	4 55.91	+35 49.8	1.632	2.593	5.9	16.6
12 27	4 48.84	+30 18.5	2.261	3.194	6.7	20.8	12 27	4 45.51	+35 3.5	1.665	2.593	9.0	16.8
1 6	4 41.90	+29 41.8	2.328	3.195	9.7	21.0	1 6	4 37.64	+34 8.2	1.723	2.592	12.5	17.0
1 16	4 37.24	+29 5.0	2.418	3.196	12.4	21.2	1 16	4 32.99	+33 10.7	1.803	2.591	15.7	17.2
<b>330150</b>	2006 <i>AD</i> <sub>80</sub>	12	9.2 254°17	7°6/ 7.2 18			<b>248303</b>	2005 <i>LC</i> <sub>48</sub>	12	9.2 138°90	2°1/ 9.9 18		

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12 9.2

12 9.3

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>442822</b>	2013 <i>AL</i> <sub>64</sub>	12	9.2 359°82	4.4/ 8.9	18		<b>290581</b>	2005 <i>UZ</i> <sub>152</sub>	12	9.3 277°76	1.3/ 9.5	18	
11 7	5 31.13	+11 24.3	1.581	2.428	15.1	21.0	11 7	5 33.77	+25 49.4	1.584	2.432	15.0	21.3
11 17	5 25.33	+11 22.0	1.514	2.428	11.3	20.7	11 17	5 27.67	+26 0.4	1.501	2.419	11.1	21.0
11 27	5 17.06	+11 29.2	1.471	2.427	7.4	20.5	11 27	5 18.62	+26 6.3	1.441	2.405	6.5	20.7
12 7	5 7.24	+11 47.3	1.453	2.427	4.5	20.3	12 7	5 7.60	+26 5.1	1.407	2.391	1.9	20.4
12 17	4 57.11	+12 16.6	1.463	2.427	6.0	20.4	12 17	4 56.01	+25 56.4	1.401	2.376	4.2	20.5
12 27	4 48.00	+12 56.6	1.500	2.428	9.8	20.6	12 27	4 45.47	+25 42.0	1.423	2.362	9.1	20.7
1 6	4 41.03	+13 45.5	1.562	2.428	13.7	20.9	1 6	4 37.33	+25 25.7	1.470	2.348	13.7	21.0
1 16	4 36.87	+14 41.3	1.645	2.429	17.1	21.1	1 16	4 32.44	+25 11.5	1.537	2.334	17.5	21.2
<b>227980</b>	2007 <i>HA</i> <sub>88</sub>	12	9.3 188°87	0°5/ 9.2	17		<b>321102</b>	2008 <i>TA</i> <sub>53</sub>	12	9.3 58°72	0°5/ 9.4	17	
11 7	5 30.23	+20 26.2	2.225	3.065	11.6	20.5	11 7	5 29.33	+24 14.9	2.217	3.057	11.6	21.3
11 17	5 24.20	+20 42.0	2.150	3.064	8.4	20.3	11 17	5 23.53	+24 19.7	2.149	3.063	8.4	21.1
11 27	5 16.23	+20 58.2	2.101	3.064	4.8	20.1	11 27	5 15.83	+24 21.5	2.106	3.069	4.8	20.9
12 7	5 7.08	+21 14.1	2.080	3.064	1.0	19.8	12 7	5 7.03	+24 19.7	2.091	3.075	1.0	20.6
12 17	4 57.68	+21 29.3	2.089	3.064	3.1	19.9	12 17	4 58.06	+24 14.4	2.106	3.081	3.0	20.8
12 27	4 49.02	+21 44.2	2.129	3.063	6.9	20.2	12 27	4 49.92	+24 7.1	2.151	3.087	6.7	21.0
1 6	4 41.98	+21 59.6	2.195	3.063	10.2	20.4	1 6	4 43.45	+23 59.7	2.223	3.094	10.0	21.2
1 16	4 37.15	+22 16.5	2.285	3.062	13.1	20.6	1 16	4 39.17	+23 54.1	2.318	3.100	12.8	21.4
<b>305137</b>	2007 <i>VE</i> <sub>156</sub>	12	9.3 101°26	2°0/ 9.7	18		<b>513609</b>	2011 <i>GW</i> <sub>58</sub>	12	9.3 219°37	1°0/ 9.4	18	
11 7	5 35.49	+28 36.7	1.970	2.802	13.2	21.1	11 7	5 35.17	+25 32.0	1.943	2.779	13.2	22.4
11 17	5 28.04	+28 49.2	1.916	2.824	9.7	20.9	11 17	5 28.16	+25 40.8	1.859	2.770	9.7	22.2
11 27	5 18.37	+28 54.2	1.887	2.845	5.8	20.7	11 27	5 18.68	+25 44.9	1.799	2.761	5.7	21.9
12 7	5 7.47	+28 50.1	1.885	2.866	2.3	20.5	12 7	5 7.60	+25 42.9	1.768	2.751	1.5	21.6
12 17	4 56.54	+28 37.2	1.914	2.886	3.7	20.7	12 17	4 56.10	+25 34.5	1.766	2.741	3.6	21.8
12 27	4 46.82	+28 17.7	1.972	2.906	7.4	20.9	12 27	4 45.52	+25 21.4	1.794	2.729	7.9	22.0
1 6	4 39.23	+27 55.2	2.058	2.926	10.8	21.2	1 6	4 36.98	+25 6.6	1.849	2.717	11.8	22.2
1 16	4 34.31	+27 33.3	2.166	2.945	13.7	21.4	1 16	4 31.19	+24 53.5	1.927	2.705	15.1	22.4
<b>270726</b>	2002 <i>QS</i> <sub>122</sub>	12	9.3 212°92	4°0/10.5	18		<b>481835</b>	2008 <i>VS</i> <sub>76</sub>	12	9.3 27°32	2°5/ 8.9	18	
11 7	5 32.00	+37 3.6	2.664	3.469	10.9	21.1	11 7	5 30.88	+17 40.1	1.239	2.106	17.1	20.4
11 17	5 25.42	+37 17.0	2.580	3.464	8.5	20.9	11 17	5 25.55	+17 32.2	1.188	2.115	12.5	20.1
11 27	5 16.90	+37 19.5	2.522	3.459	6.0	20.8	11 27	5 17.29	+17 27.7	1.160	2.126	7.3	19.9
12 7	5 7.21	+37 9.0	2.492	3.454	4.2	20.7	12 7	5 7.32	+17 27.6	1.156	2.138	2.7	19.7
12 17	4 57.31	+36 45.1	2.492	3.449	4.6	20.7	12 17	4 57.20	+17 32.8	1.177	2.151	5.2	19.8
12 27	4 48.21	+36 9.5	2.522	3.443	6.7	20.8	12 27	4 48.55	+17 44.3	1.224	2.164	10.2	20.2
1 6	4 40.78	+35 26.2	2.580	3.437	9.3	21.0	1 6	4 42.56	+18 2.7	1.294	2.178	14.7	20.5
1 16	4 35.58	+34 39.3	2.662	3.430	11.7	21.1	1 16	4 39.88	+18 27.7	1.384	2.193	18.5	20.8
<b>24668</b>	1988 <i>TV</i>	12	9.3 35°70	3°8/ 8.5	18		<b>519901</b>	2013 <i>PL</i> <sub>80</sub>	12	9.3 156°69	0°1/ 9.3	17	
11 7	5 31.76	+17 29.4	1.110	1.982	18.3	17.5	11 7	5 28.81	+22 55.9	2.757	3.590	9.8	22.0
11 17	5 26.25	+16 36.2	1.066	1.995	13.4	17.2	11 17	5 22.83	+22 54.5	2.684	3.595	7.1	21.8
11 27	5 17.65	+15 45.3	1.043	2.008	8.0	17.0	11 27	5 15.33	+22 50.9	2.637	3.600	4.0	21.7
12 7	5 7.35	+15 0.9	1.043	2.023	3.9	16.8	12 7	5 6.94	+22 45.2	2.620	3.604	0.7	21.4
12 17	4 57.03	+14 27.2	1.068	2.038	6.4	17.0	12 17	4 58.42	+22 37.6	2.634	3.609	2.6	21.6
12 27	4 48.42	+14 7.7	1.118	2.054	11.3	17.3	12 27	4 50.56	+22 29.4	2.679	3.613	5.7	21.8
1 6	4 42.71	+14 3.4	1.190	2.071	15.9	17.6	1 6	4 44.02	+22 22.0	2.752	3.616	8.5	22.0
1 16	4 40.45	+14 13.3	1.280	2.089	19.7	17.9	1 16	4 39.29	+22 16.8	2.850	3.619	11.0	22.2
<b>86812</b>	2000 <i>GB</i> <sub>125</sub>	12	9.3 179°46	4°6/ 8.3	18		<b>100889</b>	1998 <i>HU</i> <sub>117</sub>	12	9.3 231°06	1°9/ 9.0	18	
11 7	5 32.60	+10 29.4	2.013	2.844	13.0	19.8	11 7	5 34.54	+17 56.5	1.609	2.456	14.9	19.7
11 17	5 25.90	+9 58.0	1.943	2.846	9.8	19.6	11 17	5 27.98	+17 55.3	1.532	2.449	10.9	19.5
11 27	5 17.18	+9 33.3	1.898	2.847	6.6	19.4	11 27	5 18.68	+17 56.5	1.478	2.441	6.4	19.2
12 7	5 7.27	+9 17.8	1.880	2.847	4.7	19.2	12 7	5 7.62	+18 0.3	1.451	2.433	2.2	18.9
12 17	4 57.15	+9 13.4	1.893	2.847	5.9	19.3	12 17	4 56.09	+18 7.0	1.452	2.425	4.6	19.0
12 27	4 47.90	+9 21.0	1.934	2.846	9.0	19.5	12 27	4 45.58	+18 17.7	1.481	2.416	9.3	19.3
1 6	4 40.41	+9 40.2	2.001	2.845	12.1	19.7	1 6	4 37.33	+18 33.3	1.536	2.406	13.7	19.5
1 16	4 35.26	+10 9.8	2.090	2.842	14.9	19.9	1 16	4 32.12	+18 54.6	1.612	2.396	17.4	19.7
<b>293888</b>	2007 <i>RR</i> <sub>290</sub>	12	9.3 69°64	0°9/ 9.1	15		<b>72690</b>	2001 <i>FX</i> <sub>71</sub>	12	9.3 73°08	3°3/ 9.9	18	
11 7	5 33.63	+21 15.2	1.637	2.486	14.6	21.3	11 7	5 32.19	+31 48.5	2.185	3.012	12.2	18.9
11 17	5 26.84	+21 3.5	1.591	2.509	10.5	21.1	11 17	5 25.79	+32 24.5	2.117	3.019	9.2	18.7
11 27	5 17.71	+20 50.3	1.568	2.533	5.9	20.9	11 27	5 17.21	+32 52.5	2.075	3.026	6.0	18.6
12 7	5 7.35	+20 36.0	1.572	2.556	1.3	20.6	12 7	5 7.31	+33 9.8	2.060	3.033	3.5	18.4
12 17	4 57.02	+20 22.0	1.605	2.579	3.9	20.8	12 17	4 57.16	+33 15.2	2.074	3.040	4.3	18.5
12 27	4 48.02	+20 10.2	1.666	2.602	8.3	21.2	12 27	4 47.94	+33 9.8	2.118	3.047	7.3	18.7
1 6	4 41.30	+20 2.8	1.753	2.625	12.1	21.4	1 6	4 40.60	+32 56.8	2.189	3.054	10.4	18.9
1 16	4 37.36	+20 1.2	1.861	2.648	15.3	21.7	1 16	4 35.77	+32 40.0	2.283	3.061	13.1	19.1
<b>460491</b>	2014 <i>SO</i> <sub>307</sub>	12	9.3 182°64	2°6/ 8.4	18		<b>485740</b>	2012 <i>BU</i> <sub>86</sub>	12	9.3 317°61	5°0/ 9.3	17	
11 7	5 27.75	+15 55.3	2.425	3.263	10.8	21.1	11 7	5 33.54	+31 38.8	1.633	2.473	15.0	21.1
11 17	5 22.16	+15 18.8	2.351	3.263	7.9	20.9	11 17	5 27.88	+32 52.7	1.543	2.450	11.6	20.8
11 27	5 14.97	+14 43.8	2.304	3.263	4.9	20.7	11 27	5 18.99	+34 1.3	1.476	2.428	7.9	20.5
12 7	5 6.85	+14 12.2	2.286	3.263	2.7	20.5	12 7	5 7.73	+34 58.2	1.436	2.407	5.2	20.3
12 17	4 58.59	+13 45.9	2.298	3.263	4.1	20.6	12 17	4 55.51	+35 38.3	1.423	2.385	6.3	20.3
12 27	4 51.03	+13 26.7	2.339	3.262	7.0	20.8	12 27	4 44.12	+36 0.2	1.436	2.365	10.1	20.5
1 6	4 44.88	+13 15.6	2.408	3.262	10.0	21.0	1 6	4 35.18	+36 7.0	1.475	2.345	14.1	20.7
1 16	4 40.63	+13 13.1	2.500	3.261	12.5	21.2	1 16	4 29.75	+36 4.2	1.533	2.326	17.8	20.9
<b>147535</b>	2004 <i>EH</i> <sub>14</sub>	12	9.3 117°31	1°3/ 9.0	18		<b>108055</b>	2001 <i>FS</i> <sub>158</sub>	12	9.3 33°01	5°4/ 9.8	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>46077</b>	2001 <i>EJ</i> <sub>5</sub>	12	9.3 138°76	3°4/ 8.5 18			<b>314244</b>	2005 <i>QD</i> <sub>65</sub>	12	9.3 14°38	2°6/ 9.7 17		
11 7	5 28.35	+11 57.5	2.395	3.228	11.1	19.4	11 7	5 32.21	+28 46.7	1.838	2.678	13.6	20.6
11 17	5 22.60	+11 40.6	2.327	3.233	8.3	19.3	11 17	5 26.12	+29 14.8	1.767	2.679	10.1	20.4
11 27	5 15.24	+11 29.0	2.284	3.237	5.4	19.1	11 27	5 17.55	+29 36.4	1.721	2.680	6.2	20.2
12 7	5 6.94	+11 24.1	2.271	3.242	3.5	19.0	12 7	5 7.44	+29 48.8	1.702	2.681	2.8	20.0
12 17	4 58.49	+11 26.8	2.287	3.246	4.6	19.1	12 17	4 57.00	+29 51.0	1.711	2.683	4.2	20.1
12 27	4 50.75	+11 37.9	2.332	3.251	7.3	19.2	12 27	4 47.60	+29 44.4	1.749	2.685	8.0	20.3
1 6	4 44.43	+11 57.0	2.405	3.255	10.2	19.4	1 6	4 40.33	+29 32.3	1.813	2.687	11.7	20.6
1 16	4 40.01	+12 23.4	2.501	3.258	12.6	19.6	1 16	4 35.87	+29 18.5	1.899	2.689	14.9	20.8
<b>459397</b>	2012 <i>KK</i> <sub>31</sub>	12	9.3 120°71	1°8/ 9.6 17			<b>183167</b>	2002 <i>SA</i> <sub>33</sub>	12	9.3 141°68	1°8/ 8.8 18		
11 7	5 31.17	+27 35.6	2.403	3.233	11.1	21.5	11 7	5 34.78	+20 4.4	1.661	2.507	14.5	20.2
11 17	5 24.84	+28 5.4	2.332	3.239	8.2	21.4	11 17	5 27.83	+19 30.6	1.597	2.515	10.6	20.0
11 27	5 16.60	+28 30.7	2.286	3.245	4.9	21.2	11 27	5 18.41	+18 55.1	1.558	2.522	6.1	19.7
12 7	5 7.21	+28 49.6	2.270	3.250	2.1	21.0	12 7	5 7.58	+18 19.5	1.547	2.529	2.0	19.5
12 17	4 57.58	+29 1.2	2.284	3.256	3.3	21.1	12 17	4 56.62	+17 46.4	1.564	2.536	4.4	19.7
12 27	4 48.73	+29 6.2	2.328	3.261	6.5	21.3	12 27	4 46.88	+17 18.9	1.609	2.542	8.8	20.0
1 6	4 41.51	+29 6.5	2.400	3.266	9.5	21.5	1 6	4 39.40	+16 59.5	1.681	2.548	12.9	20.2
1 16	4 36.47	+29 4.6	2.496	3.271	12.2	21.7	1 16	4 34.78	+16 49.7	1.773	2.553	16.2	20.5
<b>25934</b>	2001 <i>DC</i> <sub>74</sub>	12	9.3 211°44	4°3/10.1 18 R			<b>238270</b>	2003 <i>WP</i> <sub>63</sub>	12	9.3 65°73	1°0/ 9.4 18		
11 7	5 36.19	+35 44.9	2.441	3.247	11.8	19.1	11 7	5 34.28	+24 33.5	1.603	2.450	14.9	19.7
11 17	5 28.74	+36 24.2	2.354	3.240	9.1	18.9	11 17	5 27.60	+24 55.3	1.550	2.467	10.8	19.5
11 27	5 18.96	+36 53.8	2.293	3.231	6.4	18.7	11 27	5 18.33	+25 13.4	1.520	2.484	6.2	19.3
12 7	5 7.67	+37 9.9	2.260	3.222	4.5	18.6	12 7	5 7.57	+25 25.7	1.518	2.501	1.6	19.0
12 17	4 55.97	+37 10.7	2.258	3.213	5.0	18.6	12 17	4 56.69	+25 31.8	1.544	2.519	3.9	19.2
12 27	4 45.06	+36 57.3	2.285	3.203	7.5	18.8	12 27	4 47.13	+25 33.0	1.597	2.536	8.4	19.5
1 6	4 36.02	+36 33.3	2.340	3.192	10.3	18.9	1 6	4 39.96	+25 32.2	1.677	2.553	12.4	19.8
1 16	4 29.53	+36 3.4	2.419	3.180	12.9	19.1	1 16	4 35.79	+25 32.2	1.778	2.571	15.7	20.1
<b>485531</b>	2011 <i>UX</i> <sub>50</sub>	12	9.3 10°98	0°1/ 9.3 17			<b>325379</b>	2008 <i>SG</i> <sub>125</sub>	12	9.3 138°02	3°9/ 7.8 18		
11 7	5 31.35	+22 23.8	1.636	2.488	14.4	21.2	11 7	5 27.34	+ 9 41.3	2.890	3.713	9.7	21.2
11 17	5 25.57	+22 31.1	1.569	2.489	10.5	20.9	11 17	5 21.59	+ 8 55.4	2.828	3.725	7.4	21.0
11 27	5 17.25	+22 36.7	1.525	2.490	6.0	20.7	11 27	5 14.57	+ 8 14.4	2.792	3.736	5.1	20.9
12 7	5 7.36	+22 39.8	1.507	2.492	1.1	20.3	12 7	5 6.85	+ 7 40.7	2.787	3.746	4.0	20.9
12 17	4 57.18	+22 40.5	1.518	2.493	3.8	20.5	12 17	4 59.08	+ 7 16.0	2.811	3.757	4.8	20.9
12 27	4 48.09	+22 40.2	1.556	2.496	8.5	20.8	12 27	4 51.93	+ 7 1.7	2.866	3.766	6.9	21.1
1 6	4 41.21	+22 41.1	1.620	2.498	12.6	21.1	1 6	4 45.95	+ 6 57.7	2.948	3.776	9.1	21.2
1 16	4 37.21	+22 45.0	1.705	2.501	16.1	21.3	1 16	4 41.54	+ 7 3.6	3.053	3.785	11.1	21.4
<b>28545</b>	2000 <i>ED</i> <sub>20</sub>	12	9.3 302°73	16°7/ 1.1 18			<b>197464</b>	2003 <i>YY</i> <sub>130</sub>	12	9.3 278°68	2°5/ 9.9 18		
11 7	5 29.05	-10 40.7	1.446	2.235	19.2	18.6	11 7	5 30.08	+30 39.1	2.408	3.236	11.2	20.6
11 17	5 24.20	-13 15.2	1.382	2.212	17.7	18.5	11 17	5 24.21	+30 54.9	2.320	3.224	8.4	20.4
11 27	5 16.65	-15 25.4	1.339	2.190	16.8	18.3	11 27	5 16.34	+31 3.8	2.258	3.213	5.3	20.1
12 7	5 7.28	-16 59.0	1.316	2.167	16.9	18.3	12 7	5 7.22	+31 4.0	2.224	3.201	2.7	20.0
12 17	4 57.34	-17 46.8	1.312	2.145	18.0	18.3	12 17	4 57.77	+30 54.9	2.220	3.189	3.6	20.0
12 27	4 48.30	-17 45.8	1.328	2.122	19.9	18.3	12 27	4 49.03	+30 37.9	2.245	3.177	6.7	20.2
1 6	4 41.41	-16 59.7	1.360	2.101	22.0	18.4	1 6	4 41.91	+30 15.8	2.297	3.165	9.8	20.3
1 16	4 37.50	-15 36.5	1.405	2.080	24.2	18.6	1 16	4 37.03	+29 52.0	2.374	3.153	12.6	20.5
<b>410888</b>	2009 <i>SW</i> <sub>65</sub>	12	9.3 16°40	0°1/ 9.3 18			<b>486655</b>	2013 <i>QG</i> <sub>12</sub>	12	9.3 176°63	5°3/11.0 17		
11 7	5 29.56	+22 45.0	1.856	2.705	13.1	21.2	11 7	5 34.20	+42 2.5	2.822	3.604	10.9	21.9
11 17	5 24.01	+22 50.7	1.789	2.708	9.5	21.0	11 17	5 27.04	+42 27.8	2.744	3.606	8.8	21.8
11 27	5 16.25	+22 54.4	1.746	2.711	5.4	20.7	11 27	5 17.86	+42 40.0	2.692	3.607	6.8	21.6
12 7	5 7.17	+22 55.5	1.730	2.715	1.0	20.4	12 7	5 7.50	+42 36.5	2.667	3.608	5.4	21.6
12 17	4 57.85	+22 54.3	1.743	2.719	3.4	20.6	12 17	4 56.93	+42 16.2	2.672	3.609	5.6	21.6
12 27	4 49.50	+22 52.2	1.785	2.723	7.6	20.9	12 27	4 47.25	+41 40.9	2.706	3.609	7.2	21.7
1 6	4 43.07	+22 50.9	1.852	2.728	11.4	21.1	1 6	4 39.32	+40 54.7	2.767	3.608	9.2	21.8
1 16	4 39.18	+22 52.4	1.942	2.733	14.6	21.3	1 16	4 33.73	+40 2.4	2.853	3.608	11.3	22.0
<b>439952</b>	2001 <i>SB</i> <sub>339</sub>	12	9.3 59°28	1°6/ 8.9 17			<b>325669</b>	2009 <i>TF</i>	12	9.3 146°46	4°6/ 8.1 18		
11 7	5 34.01	+20 49.9	1.626	2.475	14.7	20.8	11 7	5 28.10	+ 9 35.6	2.291	3.122	11.6	21.1
11 17	5 26.94	+20 8.8	1.589	2.508	10.5	20.7	11 17	5 22.48	+ 8 58.4	2.223	3.125	8.8	20.9
11 27	5 17.69	+19 26.3	1.576	2.541	6.0	20.5	11 27	5 15.22	+ 8 27.6	2.182	3.128	6.1	20.7
12 7	5 7.39	+18 44.4	1.591	2.574	1.8	20.3	12 7	5 7.00	+ 8 5.9	2.168	3.131	4.6	20.7
12 17	4 57.31	+18 6.1	1.634	2.607	4.2	20.5	12 17	4 58.63	+ 7 55.2	2.183	3.133	5.6	20.7
12 27	4 48.66	+17 34.3	1.706	2.640	8.3	20.8	12 27	4 50.99	+ 7 56.5	2.228	3.136	8.2	20.9
1 6	4 42.28	+17 11.4	1.803	2.672	12.0	21.1	1 6	4 44.81	+ 8 9.5	2.298	3.138	10.9	21.1
1 16	4 38.61	+16 58.1	1.923	2.705	15.0	21.4	1 16	4 40.58	+ 8 32.9	2.391	3.140	13.4	21.3
<b>457345</b>	2008 <i>SP</i> <sub>222</sub>	12	9.3 21°94	5°5/10.6 16			<b>471955</b>	2013 <i>SR</i> <sub>15</sub>	12	9.3 136°30	1°0/ 9.5 16		
11 7	5 31.61	+36 50.5	1.715	2.544	14.9	20.8	11 7	5 38.72	+25 28.6	1.698	2.535	14.7	22.5
11 17	5 25.87	+37 20.3	1.657	2.554	11.6	20.6	11 17	5 30.71	+25 33.2	1.638	2.550	10.7	22.3
11 27	5 17.42	+37 35.4	1.623	2.565	8.2	20.5	11 27	5 20.07	+25 32.2	1.602	2.564	6.2	22.0
12 7	5 7.39	+37 32.3	1.613	2.577	5.7	20.4	12 7	5 7.91	+25 24.2	1.594	2.577	1.5	21.8
12 17	4 57.19	+37 10.4	1.631	2.589	6.2	20.4	12 17	4 55.64	+25 9.5	1.615	2.590	3.8	22.0
12 27	4 48.32	+36 33.0	1.675	2.603	9.0	20.6	12 27	4 44.73	+24 50.6	1.666	2.601	8.3	22.3
1 6	4 41.92	+35 45.9	1.744	2.617	12.2	20.8	1 6	4 36.27	+24 31.4	1.743	2.612	12.4	22.5
1 16	4 38.60	+34 55.4	1.836	2.631	15.1	21.1	1 16	4 30.88	+24 15.3	1.842	2.622	15.7	22.8
<b>216418</b>	2008 <i>SQ</i> <sub>106</sub>	12	9.3 109°77	1°1/ 9.5 17			<b>46322</b>	2001 <i>QD</i> <sub>99</sub>	12	9.3 74°41	2°1/ 9.8 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>24970</b>	1998 <i>FC</i> <sub>12</sub>	12 9.3 102°79	3°3/ 8.8 18				<b>286953</b>	2002 <i>PM</i> <sub>173</sub>	12 9.3 309°74	5°8/11.3 18			
11 7	5 39.54	+16 6.2	1.376	2.222	17.0	18.2	11 7	5 33.63	+41 17.8	2.224	3.023	13.0	20.3
11 17	5 31.34	+15 42.2	1.332	2.248	12.4	18.0	11 17	5 27.04	+41 29.0	2.144	3.018	10.4	20.1
11 27	5 20.37	+15 22.2	1.312	2.273	7.4	17.8	11 27	5 18.03	+41 24.4	2.088	3.013	7.8	19.9
12 7	5 7.95	+15 7.7	1.318	2.297	3.4	17.6	12 7	5 7.58	+41 0.7	2.058	3.008	6.0	19.8
12 17	4 55.64	+15 0.4	1.352	2.321	5.6	17.8	12 17	4 56.90	+40 17.5	2.056	3.003	6.2	19.8
12 27	4 45.00	+15 1.7	1.413	2.343	10.1	18.2	12 27	4 47.34	+39 17.9	2.083	2.998	8.2	20.0
1 6	4 37.12	+15 12.4	1.500	2.365	14.2	18.5	1 6	4 39.91	+38 7.6	2.136	2.994	10.9	20.1
1 16	4 32.53	+15 31.8	1.606	2.386	17.6	18.7	1 16	4 35.26	+36 53.2	2.213	2.989	13.5	20.3
<b>405197</b>	2003 <i>DU</i> <sub>4</sub>	12 9.3 235°41	5°4/10.8 18				<b>314962</b>	2006 <i>WC</i> <sub>190</sub>	12 9.3 12°62	3°9/ 9.1 17			
11 7	5 35.73	+40 33.1	2.447	3.240	12.1	21.4	11 7	5 29.00	+12 58.8	1.321	2.184	16.5	20.0
11 17	5 28.48	+40 55.9	2.357	3.228	9.7	21.2	11 17	5 24.15	+13 7.8	1.266	2.188	12.3	19.7
11 27	5 18.85	+41 4.9	2.291	3.215	7.3	21.1	11 27	5 16.56	+13 26.6	1.232	2.194	7.7	19.5
12 7	5 7.71	+40 56.6	2.252	3.201	5.6	20.9	12 7	5 7.32	+13 56.0	1.223	2.201	4.1	19.3
12 17	4 56.22	+40 29.7	2.242	3.187	5.9	20.9	12 17	4 57.82	+14 35.4	1.240	2.210	5.8	19.5
12 27	4 45.65	+39 46.2	2.262	3.173	7.9	21.0	12 27	4 49.56	+15 23.4	1.283	2.220	10.2	19.7
1 6	4 37.06	+38 50.9	2.309	3.158	10.5	21.2	1 6	4 43.71	+16 17.9	1.349	2.230	14.4	20.0
1 16	4 31.15	+37 49.8	2.380	3.143	13.0	21.3	1 16	4 40.94	+17 16.9	1.435	2.242	18.0	20.3
<b>14100</b>	Weierstrass	12 9.3 218°19	0°2/ 9.2 18				<b>69018</b>	2002 <i>VH</i> <sub>24</sub>	12 9.3 68°69	3°3/10.2 18 R			
11 7	5 28.80	+22 33.7	2.547	3.383	10.4	18.8	11 7	5 35.96	+32 36.8	1.710	2.543	14.8	18.0
11 17	5 23.01	+22 27.1	2.466	3.379	7.5	18.6	11 17	5 28.67	+32 36.8	1.662	2.567	11.1	17.8
11 27	5 15.55	+22 18.3	2.411	3.374	4.3	18.4	11 27	5 18.85	+32 24.5	1.637	2.591	7.0	17.7
12 7	5 7.07	+22 7.5	2.385	3.369	0.8	18.2	12 7	5 7.72	+31 58.2	1.639	2.615	3.7	17.5
12 17	4 58.39	+21 55.2	2.390	3.364	2.8	18.3	12 17	4 56.67	+31 19.3	1.670	2.639	4.6	17.6
12 27	4 50.37	+21 42.8	2.425	3.359	6.2	18.5	12 27	4 47.12	+30 31.8	1.728	2.663	8.2	17.9
1 6	4 43.76	+21 32.1	2.488	3.354	9.3	18.7	1 6	4 40.06	+29 41.6	1.813	2.687	11.7	18.2
1 16	4 39.09	+21 24.5	2.575	3.348	11.9	18.9	1 16	4 35.99	+28 53.8	1.921	2.711	14.8	18.4
<b>296185</b>	2009 <i>BH</i> <sub>159</sub>	12 9.3 151°40	5°4/10.9 18				<b>193011</b>	2000 <i>EO</i> <sub>19</sub>	12 9.3 221°16	5°3/10.4 18			
11 7	5 37.20	+39 58.6	2.321	3.116	12.6	21.5	11 7	5 34.32	+40 42.4	2.805	3.593	10.9	20.5
11 17	5 29.44	+40 25.3	2.251	3.125	10.0	21.4	11 17	5 27.32	+41 30.3	2.720	3.585	8.8	20.3
11 27	5 19.31	+40 37.8	2.206	3.132	7.4	21.2	11 27	5 18.17	+42 6.9	2.660	3.577	6.7	20.2
12 7	5 7.78	+40 32.6	2.188	3.140	5.6	21.1	12 7	5 7.64	+42 28.7	2.628	3.569	5.4	20.1
12 17	4 56.08	+40 8.8	2.200	3.146	5.9	21.2	12 17	4 56.70	+42 33.9	2.625	3.561	5.7	20.1
12 27	4 45.51	+39 29.0	2.240	3.152	7.9	21.3	12 27	4 46.47	+42 22.9	2.652	3.552	7.4	20.2
1 6	4 37.09	+38 38.3	2.308	3.158	10.5	21.5	1 6	4 37.93	+41 59.2	2.706	3.543	9.6	20.3
1 16	4 31.42	+37 42.7	2.399	3.163	12.9	21.7	1 16	4 31.74	+41 27.2	2.783	3.533	11.6	20.5
<b>434472</b>	2005 <i>QA</i> <sub>100</sub>	12 9.3 192°72	0°1/ 9.3 18				<b>455439</b>	2003 <i>SA</i> <sub>65</sub>	12 9.3 55°44	6°7/10.9 17			
11 7	5 35.34	+23 36.8	1.960	2.796	13.1	22.4	11 7	5 35.50	+41 9.8	2.037	2.839	13.9	20.8
11 17	5 28.14	+23 23.0	1.881	2.794	9.5	22.1	11 17	5 28.56	+42 1.0	1.981	2.854	11.2	20.7
11 27	5 18.61	+23 5.0	1.828	2.791	5.4	21.9	11 27	5 18.96	+42 36.5	1.947	2.868	8.6	20.5
12 7	5 7.67	+22 42.7	1.804	2.788	1.0	21.6	12 7	5 7.77	+42 51.7	1.940	2.883	6.9	20.4
12 17	4 56.46	+22 17.1	1.810	2.784	3.5	21.7	12 17	4 56.38	+42 44.9	1.960	2.898	7.1	20.5
12 27	4 46.24	+21 50.9	1.845	2.780	7.8	22.0	12 27	4 46.25	+42 18.5	2.007	2.914	9.0	20.6
1 6	4 38.04	+21 27.1	1.908	2.774	11.6	22.2	1 6	4 38.51	+41 38.0	2.080	2.929	11.5	20.8
1 16	4 32.48	+21 8.5	1.994	2.768	14.8	22.4	1 16	4 33.81	+40 50.0	2.175	2.945	13.9	21.0
<b>150463</b>	2000 <i>JA</i> <sub>9</sub>	12 9.3 277°79	0°5/ 9.4 18				<b>302156</b>	2001 <i>SF</i> <sub>286</sub>	12 9.3 207°26	11°3/ 5.8 17			
11 7	5 33.76	+25 10.5	1.572	2.421	15.0	20.2	11 7	6 2.30	+ 6 56.5	1.288	2.085	20.7	22.0
11 17	5 27.69	+24 54.9	1.485	2.403	11.1	20.0	11 17	5 48.98	+ 4 7.4	1.202	2.078	16.7	21.7
11 27	5 18.69	+24 32.5	1.420	2.385	6.5	19.6	11 27	5 31.14	+ 1 17.5	1.142	2.068	12.8	21.4
12 7	5 7.73	+24 2.9	1.382	2.367	1.4	19.3	12 7	5 10.17	- 1 18.1	1.114	2.052	11.3	21.3
12 17	4 56.20	+23 27.4	1.372	2.348	4.1	19.4	12 17	4 48.34	- 3 22.9	1.117	2.033	13.8	21.4
12 27	4 45.72	+22 49.5	1.390	2.329	9.3	19.7	12 27	4 28.27	- 4 45.6	1.151	2.008	18.2	21.6
1 6	4 37.63	+22 14.0	1.433	2.310	14.0	19.9	1 6	4 11.96	- 5 25.1	1.209	1.980	22.8	21.8
1 16	4 32.77	+21 45.0	1.496	2.292	18.0	20.1	1 16	4 0.38	- 5 27.5	1.284	1.946	26.6	22.0
<b>87040</b>	2000 <i>KJ</i> <sub>6</sub>	12 9.3 156°51	1°3/ 9.0 18				<b>333818</b>	2012 <i>GG</i> <sub>28</sub>	12 9.3 122°27	0°6/ 9.2 17			
11 7	5 34.24	+19 37.5	1.963	2.801	13.0	20.8	11 7	5 31.03	+19 11.5	2.274	3.111	11.5	20.9
11 17	5 27.21	+19 27.9	1.895	2.808	9.4	20.6	11 17	5 24.80	+19 40.5	2.200	3.113	8.3	20.7
11 27	5 18.02	+19 18.1	1.852	2.815	5.4	20.3	11 27	5 16.66	+20 11.3	2.152	3.115	4.8	20.4
12 7	5 7.56	+19 8.3	1.838	2.821	1.6	20.1	12 7	5 7.35	+20 42.8	2.133	3.117	1.1	20.2
12 17	4 56.92	+18 59.6	1.854	2.827	3.7	20.2	12 17	4 57.76	+21 14.0	2.144	3.119	3.1	20.3
12 27	4 47.28	+18 53.4	1.900	2.832	7.7	20.5	12 27	4 48.89	+21 44.5	2.186	3.120	6.7	20.6
1 6	4 39.57	+18 51.4	1.972	2.836	11.4	20.7	1 6	4 41.61	+22 14.7	2.256	3.122	10.1	20.8
1 16	4 34.39	+18 54.7	2.068	2.840	14.4	21.0	1 16	4 36.49	+22 45.1	2.350	3.124	12.9	21.0
<b>140208</b>	2001 <i>SV</i> <sub>228</sub>	12 9.3 121°01	2°4/ 8.7 18				<b>319948</b>	2007 <i>BZ</i> <sub>27</sub>	12 9.3 85°05	2°6/ 9.9 18			
11 7	5 31.08	+16 21.8	2.189	3.026	11.8	20.2	11 7	5 32.54	+30 48.7	2.011	2.843	12.9	21.0
11 17	5 24.66	+16 1.4	2.128	3.039	8.6	20.0	11 17	5 26.12	+30 55.4	1.944	2.851	9.6	20.9
11 27	5 16.45	+15 43.2	2.093	3.053	5.2	19.9	11 27	5 17.46	+30 53.0	1.902	2.858	6.0	20.6
12 7	5 7.25	+15 28.3	2.086	3.066	2.5	19.7	12 7	5 7.49	+30 40.2	1.888	2.866	2.9	20.5
12 17	4 57.97	+15 18.0	2.110	3.078	4.0	19.8	12 17	4 57.37	+30 17.0	1.903	2.874	4.0	20.6
12 27	4 49.57	+15 13.6	2.164	3.090	7.3	20.1	12 27	4 48.32	+29 46.1	1.947	2.881	7.4	20.8
1 6	4 42.82	+15 15.8	2.244	3.102	10.5	20.3	1 6	4 41.29	+29 11.6	2.017	2.889	10.8	21.0
1 16	4 38.22	+15 24.7	2.348	3.113	13.1	20.5	1 16	4 36.86	+28 37.5	2.111	2.896	13.8	21.2
<b>69046</b>	2002 <i>XV</i> <sub>61</sub>	12 9.3 40°70	0°3/ 9.2 18				<b>30761</b>	1981 <i>EF</i> <sub>42</sub>	12 9.3 186°40	0°5/ 9.4 18			

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12 9.3

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>117738</b>	2005 <i>GS</i> <sub>26</sub>		12 9.3 254°79	3°0/ 8.7 18			<b>76071</b>	2000 <i>DC</i> <sub>80</sub>		12 9.3 29°21	1°1/ 9.5 18		
11 7	5 30.89	+15 30.3	1.943	2.785	12.9	20.3	11 7	5 32.61	+25 26.1	1.762	2.607	13.9	19.4
11 17	5 24.97	+15 8.4	1.860	2.774	9.6	20.1	11 17	5 26.46	+25 37.4	1.692	2.608	10.2	19.2
11 27	5 16.89	+14 49.3	1.803	2.762	5.9	19.9	11 27	5 17.81	+25 44.2	1.645	2.609	5.9	18.9
12 7	5 7.43	+14 34.7	1.773	2.751	3.0	19.6	12 7	5 7.63	+25 45.2	1.626	2.610	1.6	18.6
12 17	4 57.62	+14 26.2	1.772	2.739	4.7	19.7	12 17	4 57.16	+25 40.1	1.636	2.611	3.7	18.8
12 27	4 48.60	+14 25.3	1.799	2.727	8.5	19.9	12 27	4 47.74	+25 30.6	1.673	2.612	8.1	19.1
1 6	4 41.35	+14 32.8	1.853	2.715	12.1	20.1	1 6	4 40.47	+25 19.7	1.737	2.613	12.0	19.3
1 16	4 36.53	+14 48.7	1.929	2.702	15.3	20.3	1 16	4 36.03	+25 10.5	1.822	2.614	15.4	19.5
<b>283814</b>	2003 <i>SS</i> <sub>244</sub>		12 9.3 96°64	2°3/ 9.8 18			<b>274134</b>	2008 <i>EU</i> <sub>151</sub>		12 9.3 171°63	2°6/ 9.8 18		
11 7	5 36.36	+28 52.8	1.838	2.672	13.9	21.5	11 7	5 37.43	+29 24.0	1.778	2.611	14.3	21.5
11 17	5 28.89	+29 9.9	1.785	2.693	10.2	21.3	11 17	5 30.01	+29 42.8	1.707	2.614	10.7	21.3
11 27	5 19.01	+29 19.0	1.756	2.714	6.2	21.1	11 27	5 19.86	+29 53.3	1.660	2.617	6.6	21.1
12 7	5 7.80	+29 18.3	1.755	2.735	2.6	20.9	12 7	5 8.03	+29 52.8	1.640	2.619	2.9	20.9
12 17	4 56.55	+29 7.5	1.783	2.755	4.0	21.0	12 17	4 55.89	+29 40.6	1.649	2.621	4.3	21.0
12 27	4 46.58	+28 49.1	1.840	2.775	7.8	21.3	12 27	4 44.94	+29 19.1	1.687	2.622	8.4	21.2
1 6	4 38.89	+28 27.1	1.924	2.794	11.3	21.6	1 6	4 36.38	+28 52.7	1.752	2.622	12.3	21.4
1 16	4 34.05	+28 5.3	2.031	2.813	14.3	21.8	1 16	4 30.89	+28 26.1	1.839	2.622	15.6	21.7
<b>400315</b>	2007 <i>TT</i> <sub>325</sub>		12 9.3 259°84	1°5/ 8.9 18			<b>91245</b>	1999 <i>CN</i> <sub>34</sub>		12 9.3 279°59	0°2/ 9.3 18		
11 7	5 31.61	+21 10.7	1.800	2.647	13.5	21.3	11 7	5 33.32	+23 27.6	1.581	2.431	14.9	19.5
11 17	5 25.57	+20 29.2	1.724	2.642	9.9	21.0	11 17	5 27.33	+23 30.2	1.500	2.419	11.0	19.2
11 27	5 17.23	+19 44.2	1.673	2.637	5.7	20.8	11 27	5 18.50	+23 29.7	1.442	2.407	6.3	18.9
12 7	5 7.50	+18 57.7	1.649	2.632	1.7	20.5	12 7	5 7.80	+23 25.1	1.411	2.395	1.2	18.5
12 17	4 57.51	+18 12.5	1.654	2.627	4.1	20.7	12 17	4 56.57	+23 16.4	1.407	2.383	4.0	18.7
12 27	4 48.54	+17 32.1	1.688	2.622	8.4	20.9	12 27	4 46.37	+23 5.7	1.431	2.370	9.1	19.0
1 6	4 41.56	+16 59.9	1.747	2.616	12.4	21.1	1 6	4 38.51	+22 56.0	1.480	2.358	13.6	19.2
1 16	4 37.23	+16 37.6	1.829	2.611	15.7	21.4	1 16	4 33.79	+22 50.2	1.550	2.346	17.4	19.4
<b>449918</b>	2015 <i>NB</i> <sub>24</sub>		12 9.3 121°81	2°3/ 9.8 18			<b>228902</b>	2003 <i>SS</i> <sub>79</sub>		12 9.3 26°06	8°5/ 6.7 18		
11 7	5 35.32	+29 1.6	1.863	2.697	13.7	21.7	11 7	5 27.04	+ 3 33.7	1.728	2.562	14.6	19.3
11 17	5 28.23	+29 13.6	1.799	2.708	10.1	21.5	11 17	5 22.05	+ 2 1.6	1.681	2.572	11.8	19.1
11 27	5 18.71	+29 17.7	1.760	2.718	6.2	21.3	11 27	5 15.12	+ 0 43.0	1.657	2.583	9.5	19.0
12 7	5 7.77	+29 11.9	1.748	2.729	2.6	21.1	12 7	5 7.10	- 0 15.9	1.659	2.594	8.6	19.0
12 17	4 56.67	+28 56.4	1.766	2.739	3.9	21.2	12 17	4 59.02	- 0 51.2	1.687	2.607	9.6	19.0
12 27	4 46.74	+28 33.4	1.813	2.748	7.8	21.4	12 27	4 51.92	- 1 1.3	1.740	2.620	11.8	19.2
1 6	4 39.04	+28 7.0	1.886	2.758	11.5	21.7	1 6	4 46.64	- 0 48.2	1.815	2.633	14.3	19.4
1 16	4 34.16	+27 41.4	1.983	2.766	14.6	21.9	1 16	4 43.67	- 0 15.8	1.910	2.648	16.6	19.6
<b>265844</b>	2005 <i>YF</i> <sub>73</sub>		12 9.3 105°08	2°4/10.0 18			<b>80894</b>	2000 <i>DK</i> <sub>52</sub>		12 9.3 179°00	2°3/ 8.8 18		
11 7	5 32.08	+31 8.1	2.191	3.019	12.1	20.5	11 7	5 34.01	+17 11.3	1.979	2.816	12.9	20.9
11 17	5 25.61	+31 1.3	2.122	3.027	9.0	20.3	11 17	5 27.09	+16 53.1	1.906	2.818	9.5	20.7
11 27	5 17.11	+30 45.3	2.079	3.034	5.6	20.2	11 27	5 18.03	+16 36.5	1.859	2.819	5.6	20.4
12 7	5 7.46	+30 19.1	2.063	3.042	2.6	20.0	12 7	5 7.67	+16 22.4	1.840	2.820	2.4	20.2
12 17	4 57.70	+29 43.8	2.078	3.049	3.6	20.1	12 17	4 57.08	+16 12.1	1.850	2.820	4.2	20.4
12 27	4 48.94	+29 2.1	2.122	3.056	6.9	20.3	12 27	4 47.42	+16 7.2	1.891	2.819	8.1	20.6
1 6	4 42.05	+28 18.1	2.193	3.064	10.1	20.5	1 6	4 39.63	+16 8.8	1.958	2.818	11.7	20.8
1 16	4 37.56	+27 35.8	2.289	3.071	12.9	20.7	1 16	4 34.31	+16 17.5	2.048	2.815	14.7	21.0
<b>24607</b>	Sevnattu		12 9.3 42°32	2°9/10.0 18			<b>168632</b>	2000 <i>CB</i> <sub>88</sub>		12 9.3 324°61	0°4/ 9.4 18		
11 7	5 36.16	+30 40.7	1.071	1.934	19.5	16.9	11 7	5 30.68	+23 20.7	1.505	2.362	15.1	19.9
11 17	5 29.71	+30 23.4	1.034	1.956	14.4	16.6	11 17	5 25.55	+23 32.1	1.425	2.348	11.1	19.6
11 27	5 19.73	+29 51.1	1.016	1.979	8.7	16.4	11 27	5 17.54	+23 41.3	1.368	2.334	6.4	19.3
12 7	5 7.93	+29 3.3	1.022	2.003	3.5	16.2	12 7	5 7.63	+23 46.9	1.337	2.321	1.3	18.9
12 17	4 56.37	+28 3.7	1.052	2.027	5.2	16.4	12 17	4 57.14	+23 48.6	1.332	2.308	4.1	19.1
12 27	4 47.00	+26 59.5	1.108	2.053	10.4	16.7	12 27	4 47.68	+23 47.8	1.355	2.296	9.2	19.4
1 6	4 41.04	+25 59.0	1.186	2.078	15.1	17.1	1 6	4 40.57	+23 47.1	1.401	2.285	13.8	19.6
1 16	4 38.92	+25 7.8	1.284	2.104	19.0	17.4	1 16	4 36.64	+23 49.0	1.468	2.274	17.7	19.8
<b>269921</b>	2000 <i>KJ</i> <sub>37</sub>		12 9.3 217°19	0°3/ 9.4 18			<b>57733</b>	2001 <i>UU</i> <sub>158</sub>		12 9.3 155°42	1°8/ 8.9 18		
11 7	5 28.73	+24 4.2	2.798	3.630	9.7	22.2	11 7	5 33.94	+18 27.1	1.936	2.774	13.1	19.8
11 17	5 22.90	+24 2.8	2.713	3.623	7.1	22.0	11 17	5 27.04	+18 10.0	1.868	2.782	9.5	19.6
11 27	5 15.51	+23 58.5	2.654	3.617	4.0	21.8	11 27	5 17.98	+17 53.4	1.826	2.788	5.6	19.4
12 7	5 7.17	+23 51.3	2.626	3.610	0.8	21.5	12 7	5 7.67	+17 38.2	1.812	2.794	2.0	19.2
12 17	4 58.61	+23 41.3	2.628	3.603	2.5	21.7	12 17	4 57.18	+17 25.7	1.829	2.800	4.0	19.3
12 27	4 50.65	+23 29.9	2.661	3.595	5.7	21.9	12 27	4 47.69	+17 17.6	1.874	2.805	7.9	19.6
1 6	4 43.98	+23 18.6	2.723	3.587	8.6	22.0	1 6	4 40.14	+17 15.3	1.946	2.809	11.6	19.8
1 16	4 39.11	+23 9.1	2.809	3.579	11.1	22.2	1 16	4 35.09	+17 19.6	2.041	2.813	14.6	20.0
<b>489098</b>	2006 <i>BV</i> <sub>109</sub>		12 9.3 18°78	0°3/ 9.3 18			<b>332056</b>	2005 <i>RM</i> <sub>44</sub>		12 9.3 87°89	5°0/ 8.9 18		
11 7	5 29.82	+21 56.2	1.876	2.724	13.0	21.3	11 7	5 37.37	+ 9 30.9	1.652	2.483	15.3	20.7
11 17	5 24.23	+22 0.9	1.808	2.726	9.5	21.1	11 17	5 29.37	+ 9 18.6	1.614	2.517	11.5	20.5
11 27	5 16.45	+22 4.3	1.765	2.730	5.4	20.9	11 27	5 19.16	+ 9 16.6	1.600	2.550	7.6	20.4
12 7	5 7.36	+22 6.1	1.749	2.733	1.0	20.6	12 7	5 7.86	+ 9 26.2	1.614	2.582	5.1	20.3
12 17	4 58.04	+22 6.4	1.762	2.737	3.4	20.7	12 17	4 56.70	+ 9 47.7	1.656	2.613	6.3	20.5
12 27	4 49.66	+22 6.4	1.803	2.741	7.6	21.0	12 27	4 46.90	+10 20.3	1.727	2.644	9.5	20.7
1 6	4 43.17	+22 7.9	1.871	2.746	11.3	21.3	1 6	4 39.37	+11 2.1	1.824	2.674	12.8	21.0
1 16	4 39.19	+22 12.3	1.961	2.751	14.5	21.5	1 16	4 34.58	+11 50.8	1.942	2.703	15.6	21.3
<b>474254</b>	2001 <i>SE</i> <sub>231</sub>		12 9.3 45°81	1°6/ 9.5 16			<b>256397</b>	2007 <i>AD</i> <sub>5</sub>		12 9.3 59°01	0°2/ 9.4 18		

EPHEMERIDES

12 9.3

12 9.3

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>77754</b>	2001 <i>PH</i> <sub>11</sub>	12 9.3	39°97'	4.6/10.6	18		<b>60927</b>	2000 <i>JQ</i> <sub>45</sub>	12 9.3	208°94'	0.3/9.2	18	
11 7	5 32.11	+37 22.1	2.363	3.173	12.0	19.2	11 7	5 28.53	+22 32.3	2.491	3.328	10.6	19.9
11 17	5 25.79	+37 47.5	2.289	3.174	9.4	19.0	11 17	5 22.89	+22 18.9	2.413	3.327	7.7	19.7
11 27	5 17.33	+38 1.3	2.239	3.176	6.7	18.9	11 27	5 15.57	+22 3.1	2.362	3.325	4.4	19.5
12 7	5 7.56	+38 0.6	2.217	3.177	4.8	18.7	12 7	5 7.27	+21 45.3	2.339	3.324	0.9	19.2
12 17	4 57.55	+37 44.7	2.224	3.178	5.2	18.8	12 17	4 58.78	+21 26.4	2.348	3.322	2.8	19.4
12 27	4 48.46	+37 15.5	2.259	3.179	7.4	18.9	12 27	4 51.00	+21 8.1	2.386	3.320	6.2	19.6
1 6	4 41.23	+36 37.0	2.322	3.181	10.1	19.1	1 6	4 44.65	+20 52.2	2.452	3.319	9.3	19.8
1 16	4 36.48	+35 54.0	2.408	3.182	12.6	19.3	1 16	4 40.25	+20 40.2	2.542	3.317	12.0	20.0
<b>201377</b>	2002 <i>UN</i> <sub>15</sub>	12 9.3	93°61'	7.0/6.7	18 R		<b>331436</b>	2012 <i>GO</i> <sub>17</sub>	12 9.3	119°75'	4.4/8.7	18	
11 7	5 26.82	+1 57.0	2.447	3.258	11.6	19.9	11 7	5 28.52	+ 8 20.5	2.395	3.221	11.3	20.3
11 17	5 21.48	+ 0 44.2	2.390	3.265	9.5	19.8	11 17	5 22.81	+ 8 10.2	2.328	3.225	8.7	20.2
11 27	5 14.67	- 0 18.0	2.358	3.272	7.7	19.7	11 27	5 15.50	+ 8 7.9	2.286	3.230	6.0	20.0
12 7	5 7.04	- 1 5.3	2.354	3.279	7.0	19.7	12 7	5 7.25	+ 8 15.3	2.272	3.235	4.4	19.9
12 17	4 59.32	- 1 35.1	2.377	3.286	7.7	19.7	12 17	4 58.84	+ 8 32.9	2.288	3.239	5.3	20.0
12 27	4 52.28	- 1 46.2	2.428	3.293	9.5	19.8	12 27	4 51.11	+ 9 0.8	2.333	3.243	7.7	20.1
1 6	4 46.57	- 1 39.4	2.503	3.300	11.5	20.0	1 6	4 44.78	+ 9 37.8	2.404	3.248	10.4	20.3
1 16	4 42.63	- 1 17.1	2.600	3.307	13.4	20.1	1 16	4 40.32	+10 22.3	2.500	3.252	12.8	20.5
<b>197447</b>	2003 <i>YE</i> <sub>104</sub>	12 9.3	325°19'	1.4/9.1	18		<b>482361</b>	2011 <i>WF</i> <sub>150</sub>	12 9.3	333°66'	6.6/11.2	17	
11 7	5 28.41	+18 33.1	2.053	2.899	12.1	19.7	11 7	5 34.28	+39 36.0	1.561	2.386	16.4	20.7
11 17	5 23.15	+18 35.6	1.973	2.890	8.9	19.5	11 17	5 28.41	+39 48.5	1.484	2.376	13.1	20.5
11 27	5 15.87	+18 39.7	1.917	2.881	5.2	19.2	11 27	5 19.24	+39 41.4	1.429	2.367	9.6	20.3
12 7	5 7.31	+18 45.5	1.889	2.872	1.6	19.0	12 7	5 8.01	+39 10.2	1.398	2.358	6.9	20.1
12 17	4 58.42	+18 53.5	1.890	2.863	3.6	19.1	12 17	4 56.39	+38 14.2	1.393	2.350	7.2	20.1
12 27	4 50.26	+19 4.2	1.920	2.855	7.5	19.3	12 27	4 46.23	+36 58.1	1.414	2.343	10.2	20.3
1 6	4 43.75	+19 18.5	1.976	2.847	11.0	19.5	1 6	4 38.95	+35 30.7	1.460	2.336	13.9	20.5
1 16	4 39.52	+19 36.7	2.055	2.839	14.1	19.7	1 16	4 35.29	+34 1.5	1.527	2.330	17.3	20.7
<b>296385</b>	2009 <i>FY</i> <sub>57</sub>	12 9.3	347°41'	0.9/9.5	18		<b>431777</b>	2008 <i>JC</i> <sub>35</sub>	12 9.3	158°09'	7.1/9.5	18	
11 7	5 31.81	+25 29.2	1.709	2.557	14.1	20.4	11 7	5 37.58	+ 1 0.3	1.925	2.725	14.7	21.0
11 17	5 25.95	+25 29.0	1.638	2.555	10.3	20.2	11 17	5 29.64	+ 1 13.3	1.858	2.732	11.8	20.8
11 27	5 17.57	+25 23.5	1.590	2.554	6.0	19.9	11 27	5 19.50	+ 1 43.8	1.815	2.739	8.9	20.7
12 7	5 7.63	+25 12.1	1.569	2.553	1.5	19.6	12 7	5 8.03	+ 2 33.4	1.799	2.745	7.1	20.6
12 17	4 57.40	+24 55.1	1.576	2.551	3.7	19.8	12 17	4 56.33	+ 3 41.4	1.813	2.750	7.8	20.6
12 27	4 48.25	+24 35.0	1.611	2.551	8.2	20.0	12 27	4 45.59	+ 5 5.0	1.857	2.754	10.2	20.8
1 6	4 41.27	+24 15.0	1.672	2.550	12.3	20.3	1 6	4 36.77	+ 6 39.7	1.929	2.758	13.1	21.0
1 16	4 37.14	+23 58.5	1.754	2.549	15.7	20.5	1 16	4 30.49	+ 8 20.9	2.023	2.761	15.8	21.2
<b>333546</b>	2005 <i>UA</i> <sub>44</sub>	12 9.3	88°98'	0.7/9.4	18		<b>251365</b>	2007 <i>TQ</i> <sub>447</sub>	12 9.3	97°97'	3.6/8.9	16	
11 7	5 37.97	+24 20.2	1.578	2.421	15.3	20.9	11 7	5 38.66	+14 57.8	1.428	2.273	16.5	21.3
11 17	5 30.20	+24 30.3	1.531	2.447	11.1	20.7	11 17	5 30.70	+14 35.8	1.385	2.299	12.1	21.1
11 27	5 19.82	+24 36.0	1.509	2.472	6.3	20.4	11 27	5 20.11	+14 19.0	1.365	2.325	7.4	20.9
12 7	5 8.03	+24 35.9	1.513	2.497	1.4	20.2	12 7	5 8.13	+14 9.1	1.372	2.350	3.8	20.8
12 17	4 56.28	+24 30.2	1.547	2.522	3.8	20.4	12 17	4 56.24	+14 7.3	1.407	2.374	5.6	21.0
12 27	4 46.03	+24 21.1	1.608	2.546	8.4	20.7	12 27	4 45.93	+14 14.8	1.469	2.398	9.9	21.3
1 6	4 38.32	+24 11.9	1.696	2.569	12.4	21.0	1 6	4 38.24	+14 31.5	1.556	2.420	13.9	21.6
1 16	4 33.70	+24 5.3	1.806	2.592	15.7	21.3	1 16	4 33.69	+14 56.6	1.664	2.442	17.2	21.9
<b>28400</b>	Morgansinko	12 9.3	58°06'	0.8/9.5	18		<b>140747</b>	2001 <i>UV</i> <sub>109</sub>	12 9.3	143°62'	8.2/6.4	18	
11 7	5 31.82	+25 11.1	1.859	2.702	13.3	19.4	11 7	5 38.46	+12 49.3	1.188	2.042	18.6	19.4
11 17	5 25.57	+25 13.1	1.805	2.721	9.7	19.2	11 17	5 31.07	+10 19.3	1.133	2.048	14.2	19.1
11 27	5 17.15	+25 10.5	1.776	2.739	5.5	19.0	11 27	5 20.55	+ 7 51.3	1.102	2.053	10.0	18.9
12 7	5 7.53	+25 2.7	1.774	2.758	1.3	18.7	12 7	5 8.25	+ 5 36.9	1.096	2.058	8.2	18.8
12 17	4 57.85	+24 50.4	1.802	2.777	3.4	18.9	12 17	4 55.89	+ 3 47.8	1.118	2.063	10.4	19.0
12 27	4 49.31	+24 35.5	1.858	2.796	7.4	19.2	12 27	4 45.23	+ 2 31.4	1.164	2.067	14.4	19.2
1 6	4 42.80	+24 20.9	1.940	2.815	11.0	19.5	1 6	4 37.52	+ 1 49.1	1.232	2.070	18.5	19.5
1 16	4 38.85	+24 8.9	2.046	2.834	14.0	19.7	1 16	4 33.36	+ 1 37.2	1.317	2.074	21.9	19.7
<b>138076</b>	2000 <i>DQ</i> <sub>57</sub>	12 9.3	190°77'	0.5/9.5	18		<b>1601</b>	Patry	12 9.3	161°64'	0.2/9.4	18 A	
11 7	5 32.26	+25 10.6	2.588	3.416	10.5	20.9	11 7	5 37.04	+22 43.2	1.656	2.498	14.8	16.2
11 17	5 25.54	+25 5.9	2.506	3.414	7.7	20.7	11 17	5 29.77	+22 55.9	1.588	2.503	10.8	16.0
11 27	5 17.07	+24 57.1	2.451	3.412	4.4	20.5	11 27	5 19.78	+23 6.5	1.544	2.507	6.2	15.7
12 7	5 7.54	+24 43.7	2.425	3.409	1.0	20.2	12 7	5 8.13	+23 13.5	1.527	2.511	1.2	15.4
12 17	4 57.80	+24 26.4	2.431	3.405	2.7	20.4	12 17	4 56.16	+23 16.4	1.540	2.515	3.8	15.6
12 27	4 48.79	+24 6.8	2.468	3.401	6.1	20.6	12 27	4 45.39	+23 16.8	1.581	2.518	8.6	15.9
1 6	4 41.27	+23 47.0	2.533	3.396	9.2	20.8	1 6	4 36.98	+23 17.0	1.648	2.520	12.8	16.2
1 16	4 35.79	+23 29.3	2.623	3.390	11.8	21.0	1 16	4 31.64	+23 19.7	1.737	2.522	16.3	16.4
<b>23774</b>	Herbelliott	12 9.3	76°91'	0.8/9.3	18		<b>413257</b>	2003 <i>SH</i> <sub>428</sub>	12 9.3	28°80'	13.5/13.8	17	
11 7	5 35.72	+18 36.8	1.676	2.519	14.6	18.4	11 7	5 47.48	+60 14.2	2.000	2.700	17.4	20.5
11 17	5 28.56	+19 13.0	1.623	2.539	10.5	18.2	11 17	5 39.20	+61 47.5	1.948	2.707	15.8	20.4
11 27	5 18.94	+19 51.8	1.595	2.558	6.0	18.0	11 27	5 25.96	+62 53.2	1.914	2.715	14.5	20.3
12 7	5 7.89	+20 31.2	1.594	2.578	1.4	17.8	12 7	5 9.37	+63 21.9	1.901	2.724	13.7	20.3
12 17	4 56.71	+21 9.5	1.623	2.598	3.8	18.0	12 17	4 52.11	+63 9.2	1.909	2.732	13.5	20.3
12 27	4 46.74	+21 46.1	1.681	2.617	8.2	18.3	12 27	4 37.19	+62 17.7	1.938	2.742	14.1	20.3
1 6	4 39.03	+22 21.2	1.765	2.637	12.1	18.6	1 6	4 26.72	+60 56.6	1.988	2.751	15.2	20.4
1 16	4 34.18	+22 55.8	1.872	2.656	15.3	18.8	1 16	4 21.51	+59 17.5	2.057	2.761	16.6	20.6
<b>36990</b>	2000 <i>SA</i> <sub>359</sub>	12 9.3	168°49'	3.9/8.6	18		<b>308904</b>	2006 <i>SK</i> <sub>232</sub>	12 9.3	11°17'	0.6/9.5	18	
11 7	5 32.25	+12 57											

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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>166286</b>	2002 <i>GB</i> <sub>153</sub>	12	9.3 162°08	2.4/ 9.9	18		<b>211332</b>	2002 <i>TH</i> <sub>23</sub>	12	9.3 94°73	1.6/ 9.6	18	
11 7	5 35.21	+29 50.6	2.062	2.890	12.8	21.2	11 7	5 33.90	+26 57.3	1.852	2.691	13.6	20.2
11 17	5 28.11	+30 3.0	1.990	2.895	9.5	21.0	11 17	5 27.26	+27 13.0	1.790	2.702	9.9	20.0
11 27	5 18.71	+30 7.5	1.943	2.899	5.9	20.8	11 27	5 18.25	+27 22.9	1.752	2.713	5.9	19.7
12 7	5 7.92	+30 2.0	1.924	2.903	2.7	20.6	12 7	5 7.84	+27 25.4	1.741	2.724	2.0	19.5
12 17	4 56.90	+29 46.5	1.936	2.907	3.8	20.7	12 17	4 57.25	+27 20.2	1.760	2.734	3.7	19.7
12 27	4 46.92	+29 23.0	1.977	2.910	7.4	20.9	12 27	4 47.77	+27 9.1	1.808	2.745	7.7	19.9
1 6	4 38.96	+28 55.4	2.044	2.912	10.9	21.2	1 6	4 40.43	+26 55.2	1.882	2.755	11.4	20.2
1 16	4 33.64	+28 27.5	2.136	2.914	13.8	21.4	1 16	4 35.82	+26 41.9	1.978	2.765	14.5	20.4
<b>388554</b>	2007 <i>NA</i> <sub>1</sub>	12	9.3 134°69	0.9/ 9.1	18		<b>403105</b>	2008 <i>CJ</i> <sub>158</sub>	12	9.3 31°41	3.1/ 9.9	17	
11 7	5 34.03	+21 37.9	2.084	2.920	12.4	21.5	11 7	5 33.23	+30 41.8	1.876	2.710	13.6	21.3
11 17	5 26.94	+21 9.8	2.021	2.933	9.0	21.3	11 17	5 26.96	+31 8.0	1.805	2.712	10.2	21.1
11 27	5 17.88	+20 39.0	1.984	2.947	5.1	21.1	11 27	5 18.18	+31 26.0	1.758	2.713	6.5	20.9
12 7	5 7.74	+20 6.6	1.976	2.959	1.3	20.8	12 7	5 7.84	+31 32.9	1.738	2.714	3.4	20.7
12 17	4 57.54	+19 34.4	1.998	2.971	3.4	21.0	12 17	4 57.19	+31 27.8	1.746	2.716	4.4	20.8
12 27	4 48.36	+19 5.0	2.050	2.982	7.3	21.3	12 27	4 47.60	+31 12.4	1.784	2.718	8.0	21.0
1 6	4 41.04	+18 40.8	2.130	2.993	10.7	21.5	1 6	4 40.15	+30 50.6	1.847	2.719	11.6	21.2
1 16	4 36.09	+18 23.6	2.233	3.003	13.6	21.7	1 16	4 35.54	+30 26.8	1.932	2.721	14.7	21.4
<b>261372</b>	2005 <i>UF</i> <sub>353</sub>	12	9.3 233°48	2.6/ 8.4	18		<b>230821</b>	2004 <i>LT</i> <sub>11</sub>	12	9.3 99°63	0.4/ 9.4	18	
11 7	5 30.02	+17 33.8	2.200	3.040	11.7	20.3	11 7	5 35.78	+25 57.6	1.591	2.436	15.1	20.2
11 17	5 24.09	+16 40.1	2.121	3.034	8.6	20.1	11 17	5 28.72	+25 24.2	1.532	2.449	11.0	20.0
11 27	5 16.32	+15 45.6	2.068	3.028	5.2	19.9	11 27	5 19.07	+24 42.9	1.497	2.461	6.3	19.7
12 7	5 7.45	+14 53.0	2.043	3.022	2.7	19.7	12 7	5 7.99	+23 54.8	1.490	2.474	1.3	19.4
12 17	4 58.40	+14 5.1	2.049	3.015	4.3	19.8	12 17	4 56.88	+23 2.7	1.511	2.486	3.8	19.6
12 27	4 50.13	+13 25.1	2.085	3.009	7.7	20.0	12 27	4 47.18	+22 11.2	1.560	2.498	8.6	19.9
1 6	4 43.45	+12 55.0	2.147	3.002	11.0	20.2	1 6	4 39.95	+21 25.0	1.635	2.510	12.7	20.2
1 16	4 38.91	+12 35.8	2.232	2.995	13.8	20.4	1 16	4 35.74	+20 47.6	1.732	2.522	16.1	20.5
<b>444169</b>	2005 <i>JO</i> <sub>106</sub>	12	9.3 110°98	2.6/ 8.9	18		<b>383496</b>	2007 <i>BP</i> <sub>62</sub>	12	9.3 260°53	1.2/ 9.1	18	
11 7	5 32.67	+14 23.2	2.185	3.017	12.0	21.8	11 7	5 33.64	+20 41.2	1.607	2.457	14.8	22.2
11 17	5 25.86	+14 24.8	2.128	3.036	8.8	21.7	11 17	5 27.50	+20 26.3	1.526	2.445	10.8	21.9
11 27	5 17.24	+14 30.7	2.097	3.054	5.4	21.5	11 27	5 18.62	+20 9.8	1.469	2.433	6.3	21.6
12 7	5 7.62	+14 41.3	2.095	3.072	2.7	21.3	12 7	5 7.96	+19 52.3	1.438	2.421	1.6	21.3
12 17	4 57.92	+14 56.9	2.123	3.090	4.1	21.5	12 17	4 56.82	+19 35.1	1.435	2.409	4.3	21.5
12 27	4 49.11	+15 17.5	2.181	3.107	7.3	21.7	12 27	4 46.69	+19 20.6	1.460	2.397	9.2	21.7
1 6	4 41.98	+15 42.9	2.267	3.124	10.4	21.9	1 6	4 38.82	+19 11.5	1.510	2.384	13.6	22.0
1 16	4 37.02	+16 12.7	2.376	3.140	13.0	22.1	1 16	4 33.98	+19 9.5	1.581	2.371	17.4	22.2
<b>384625</b>	2011 <i>CJ</i> <sub>117</sub>	12	9.3 160°16	2.3/ 9.9	18		<b>362827</b>	2012 <i>AA</i> <sub>4</sub>	12	9.3 127°13	1.7/ 9.1	18	
11 7	5 36.92	+29 45.4	1.698	2.533	14.8	21.1	11 7	5 31.30	+17 34.4	2.121	2.959	12.1	20.8
11 17	5 29.69	+29 42.1	1.628	2.538	11.0	20.9	11 17	5 25.06	+17 35.4	2.053	2.967	8.8	20.6
11 27	5 19.72	+29 28.6	1.583	2.542	6.7	20.6	11 27	5 16.89	+17 38.3	2.012	2.973	5.2	20.4
12 7	5 8.12	+29 3.4	1.565	2.545	2.7	20.4	12 7	5 7.59	+17 43.5	1.998	2.980	1.9	20.2
12 17	4 56.31	+28 27.3	1.575	2.548	4.2	20.5	12 17	4 58.09	+17 51.3	2.015	2.987	3.6	20.3
12 27	4 45.80	+27 43.9	1.614	2.551	8.5	20.8	12 27	4 49.45	+18 2.2	2.061	2.993	7.3	20.6
1 6	4 37.75	+26 58.8	1.679	2.553	12.5	21.0	1 6	4 42.49	+18 16.8	2.134	2.999	10.6	20.8
1 16	4 32.82	+26 16.8	1.766	2.554	15.9	21.2	1 16	4 37.77	+18 35.6	2.231	3.005	13.5	21.0
<b>147467</b>	2004 <i>BS</i> <sub>108</sub>	12	9.3 262°77	3.6/ 9.8	18		<b>159913</b>	2004 <i>VY</i> <sub>64</sub>	12	9.3 252°68	0.1/ 9.3	17	
11 7	5 36.52	+30 18.1	1.539	2.380	15.7	20.3	11 7	5 30.71	+21 36.2	2.236	3.074	11.6	19.8
11 17	5 30.00	+30 52.3	1.460	2.370	11.9	20.0	11 17	5 24.72	+21 57.0	2.158	3.072	8.4	19.6
11 27	5 20.23	+31 18.1	1.403	2.360	7.6	19.7	11 27	5 16.76	+22 17.6	2.106	3.069	4.8	19.4
12 7	5 8.27	+31 31.1	1.372	2.349	3.9	19.5	12 7	5 7.58	+22 36.9	2.082	3.066	0.9	19.1
12 17	4 55.67	+31 29.0	1.368	2.338	5.3	19.6	12 17	4 58.09	+22 54.4	2.089	3.064	3.0	19.2
12 27	4 44.24	+31 13.5	1.392	2.327	9.6	19.8	12 27	4 49.34	+23 10.1	2.125	3.061	6.8	19.5
1 6	4 35.48	+30 49.6	1.440	2.316	14.0	20.0	1 6	4 42.19	+23 25.3	2.189	3.059	10.2	19.7
1 16	4 30.28	+30 23.3	1.509	2.305	17.8	20.2	1 16	4 37.25	+23 41.0	2.277	3.056	13.1	19.9
<b>481955</b>	2009 <i>DA</i> <sub>98</sub>	12	9.3 154°37	4.9/10.6	18		<b>486299</b>	2013 <i>CH</i> <sub>76</sub>	12	9.3 269°92	1.3/ 9.6	17	
11 7	5 36.71	+37 45.3	2.311	3.113	12.4	21.5	11 7	5 32.62	+26 32.4	1.867	2.708	13.4	21.8
11 17	5 29.18	+38 17.1	2.240	3.121	9.7	21.4	11 17	5 26.54	+26 36.4	1.784	2.698	9.9	21.6
11 27	5 19.31	+38 36.6	2.194	3.128	7.0	21.2	11 27	5 17.98	+26 34.7	1.725	2.687	5.8	21.3
12 7	5 8.04	+38 40.2	2.176	3.134	5.1	21.1	12 7	5 7.83	+26 26.1	1.693	2.676	1.8	21.0
12 17	4 56.54	+38 26.9	2.188	3.140	5.4	21.1	12 17	4 57.28	+26 10.5	1.690	2.665	3.6	21.1
12 27	4 46.08	+37 58.7	2.228	3.145	7.7	21.3	12 27	4 47.64	+25 50.0	1.716	2.654	7.9	21.4
1 6	4 37.67	+37 20.1	2.296	3.150	10.4	21.5	1 6	4 40.04	+25 28.1	1.768	2.643	11.9	21.6
1 16	4 31.95	+36 36.5	2.388	3.154	12.9	21.6	1 16	4 35.20	+25 8.1	1.842	2.631	15.3	21.8
<b>51842</b>	2001 <i>OQ</i> <sub>68</sub>	12	9.3 202°65	5.7/10.8	18		<b>416213</b>	2002 <i>UQ</i> <sub>61</sub>	12	9.3 145°09	0.9/ 9.0	17	
11 7	5 36.86	+40 11.8	2.278	3.074	12.8	19.5	11 7	5 28.96	+21 18.3	2.475	3.312	10.6	21.3
11 17	5 29.47	+40 41.5	2.198	3.071	10.2	19.3	11 17	5 23.16	+20 51.4	2.402	3.316	7.7	21.2
11 27	5 19.57	+40 57.0	2.141	3.067	7.7	19.1	11 27	5 15.73	+20 22.4	2.356	3.319	4.4	21.0
12 7	5 8.11	+40 54.6	2.112	3.062	5.9	19.0	12 7	5 7.37	+19 52.4	2.339	3.323	1.2	20.7
12 17	4 56.32	+40 32.6	2.112	3.058	6.1	19.0	12 17	4 58.89	+19 23.0	2.353	3.326	3.0	20.9
12 27	4 45.57	+39 53.3	2.140	3.052	8.3	19.2	12 27	4 51.14	+18 56.1	2.396	3.329	6.3	21.1
1 6	4 36.97	+39 1.9	2.196	3.047	10.9	19.3	1 6	4 44.85	+18 33.6	2.468	3.332	9.4	21.3
1 16	4 31.20	+38 4.6	2.275	3.041	13.5	19.5	1 16	4 40.49	+18 17.0	2.564	3.334	12.0	21.5
<b>367300</b>	2007 <i>VY</i> <sub>281</sub>	12	9.3 36°21	1.1/ 9.1	18		<b>74989</b>	1999 <i>TO</i> <sub>262</sub>	12	9.3 43°13	4.2/10.		

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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>435100</b>	2007 <i>DZ</i> <sub>4</sub>	12	9.3 161°52	2°5/ 8.9 18			<b>10085</b>	1990 <i>QF</i> <sub>5</sub>	12	9.4 205°94	6°0/11.0 18		
11 7	5 33.77	+17 33.6	1.585	2.434	15.0	21.3	11 7	5 34.41	+42 49.3	2.599	3.382	11.7	17.7
11 17	5 27.39	+17 12.0	1.518	2.436	11.0	21.0	11 17	5 27.56	+43 26.7	2.521	3.380	9.6	17.6
11 27	5 18.44	+16 52.0	1.475	2.438	6.5	20.8	11 27	5 18.46	+43 50.3	2.467	3.378	7.5	17.4
12 7	5 7.92	+16 35.1	1.458	2.439	2.7	20.5	12 7	5 7.95	+43 56.6	2.440	3.376	6.1	17.4
12 17	4 57.14	+16 23.1	1.470	2.441	4.8	20.7	12 17	4 57.14	+43 44.0	2.442	3.374	6.3	17.4
12 27	4 47.50	+16 17.8	1.509	2.442	9.3	20.9	12 27	4 47.24	+43 14.1	2.472	3.371	7.9	17.5
1 6	4 40.11	+16 20.7	1.573	2.443	13.4	21.2	1 6	4 39.24	+42 31.1	2.528	3.368	10.0	17.6
1 16	4 35.65	+16 32.1	1.658	2.443	16.9	21.4	1 16	4 33.79	+41 40.4	2.609	3.366	12.2	17.7
<b>492015</b>	2013 <i>GU</i>	12	9.3 14°08	1°0/ 9.2 18			<b>98327</b>	2000 <i>SN</i> <sub>274</sub>	12	9.4 6°26	1°4/ 9.5 18		
11 7	5 31.32	+19 23.0	1.603	2.456	14.6	20.5	11 7	5 35.94	+25 34.2	1.340	2.195	16.8	19.4
11 17	5 25.68	+19 39.9	1.538	2.459	10.6	20.3	11 17	5 29.60	+25 49.4	1.274	2.195	12.4	19.2
11 27	5 17.50	+19 58.8	1.496	2.461	6.1	20.0	11 27	5 19.98	+25 59.2	1.230	2.195	7.3	18.9
12 7	5 7.75	+20 18.9	1.480	2.464	1.5	19.7	12 7	5 8.27	+26 1.3	1.212	2.195	2.0	18.6
12 17	4 57.68	+20 39.6	1.493	2.468	4.0	19.9	12 17	4 56.15	+25 55.1	1.220	2.195	4.5	18.7
12 27	4 48.67	+21 0.9	1.533	2.472	8.6	20.2	12 27	4 45.43	+25 42.9	1.254	2.195	9.8	19.0
1 6	4 41.85	+21 23.8	1.598	2.477	12.7	20.4	1 6	4 37.57	+25 29.1	1.312	2.196	14.6	19.3
1 16	4 37.90	+21 48.8	1.685	2.482	16.2	20.7	1 16	4 33.33	+25 17.7	1.391	2.196	18.6	19.6
<b>301795</b>	2010 <i>LG</i> <sub>107</sub>	12	9.3 251°66	3°1/ 8.8 18			<b>143169</b>	2002 <i>XZ</i> <sub>62</sub>	12	9.4 323°55	2°7/ 8.8 17		
11 7	5 31.80	+15 3.3	1.836	2.679	13.5	20.8	11 7	5 29.41	+17 18.4	1.601	2.457	14.5	19.8
11 17	5 25.80	+14 49.2	1.756	2.670	10.0	20.6	11 17	5 24.40	+16 56.6	1.522	2.443	10.7	19.5
11 27	5 17.51	+14 39.1	1.701	2.661	6.2	20.4	11 27	5 16.85	+16 36.7	1.466	2.430	6.4	19.3
12 7	5 7.75	+14 34.4	1.674	2.652	3.2	20.2	12 7	5 7.67	+16 20.3	1.437	2.418	2.8	19.0
12 17	4 57.63	+14 36.3	1.675	2.643	4.9	20.2	12 17	4 58.06	+16 9.4	1.434	2.406	4.9	19.1
12 27	4 48.35	+14 45.8	1.704	2.633	8.7	20.5	12 27	4 49.37	+16 5.9	1.459	2.394	9.3	19.3
1 6	4 40.94	+15 3.2	1.759	2.623	12.5	20.7	1 6	4 42.75	+16 11.1	1.508	2.383	13.6	19.6
1 16	4 36.11	+15 28.4	1.837	2.614	15.8	20.9	1 16	4 38.96	+16 25.2	1.578	2.373	17.2	19.8
<b>416655</b>	2004 <i>TJ</i> <sub>185</sub>	12	9.3 64°85	4°5/10.3 17			<b>256770</b>	2008 <i>BP</i> <sub>50</sub>	12	9.4 109°03	2°1/ 8.9 18		
11 7	5 33.59	+35 4.4	2.064	2.885	13.1	21.4	11 7	5 31.04	+17 26.3	1.977	2.819	12.7	21.2
11 17	5 27.11	+35 38.8	1.997	2.891	10.1	21.3	11 17	5 24.98	+17 10.6	1.911	2.826	9.3	21.0
11 27	5 18.23	+36 2.2	1.953	2.897	6.9	21.1	11 27	5 16.90	+16 56.5	1.870	2.832	5.5	20.8
12 7	5 7.88	+36 11.3	1.937	2.903	4.7	21.0	12 7	5 7.65	+16 45.1	1.858	2.839	2.3	20.6
12 17	4 57.28	+36 4.9	1.950	2.909	5.2	21.0	12 17	4 58.23	+16 37.6	1.874	2.845	4.0	20.7
12 27	4 47.72	+35 44.8	1.991	2.916	7.9	21.2	12 27	4 49.73	+16 35.3	1.920	2.851	7.7	20.9
1 6	4 40.25	+35 15.3	2.058	2.922	11.0	21.4	1 6	4 43.01	+16 39.1	1.992	2.857	11.2	21.2
1 16	4 35.52	+34 41.5	2.148	2.928	13.7	21.6	1 16	4 38.64	+16 49.5	2.087	2.863	14.2	21.4
<b>240995</b>	2006 <i>KM</i> <sub>62</sub>	12	9.3 191°42	3°2/ 8.5 18			<b>138412</b>	2000 <i>HD</i> <sub>34</sub>	12	9.4 230°77	6°5/10.7 18		
11 7	5 31.73	+15 17.2	2.051	2.889	12.5	21.6	11 7	5 37.39	+40 43.2	2.095	2.893	13.7	20.0
11 17	5 25.43	+14 38.4	1.977	2.888	9.2	21.4	11 17	5 30.20	+41 28.7	2.014	2.886	11.1	19.8
11 27	5 17.15	+14 1.7	1.929	2.886	5.8	21.2	11 27	5 20.19	+41 59.6	1.956	2.879	8.4	19.6
12 7	5 7.67	+13 29.5	1.908	2.885	3.3	21.0	12 7	5 8.32	+42 10.9	1.925	2.872	6.7	19.5
12 17	4 57.99	+13 3.9	1.918	2.882	4.8	21.1	12 17	4 55.99	+42 0.2	1.922	2.864	7.0	19.5
12 27	4 49.15	+12 47.1	1.957	2.879	8.2	21.3	12 27	4 44.72	+41 29.0	1.947	2.856	9.1	19.6
1 6	4 42.04	+12 40.3	2.022	2.876	11.6	21.5	1 6	4 35.80	+40 42.9	1.998	2.848	11.9	19.8
1 16	4 37.22	+12 43.5	2.109	2.872	14.5	21.7	1 16	4 30.00	+39 48.8	2.071	2.839	14.6	20.0
<b>403478</b>	2009 <i>UL</i> <sub>8</sub>	12	9.3 27°28	5°9/ 8.2 18			<b>413775</b>	2006 <i>GF</i> <sub>51</sub>	12	9.4 302°99	9°2/ 7.6 18		
11 7	5 28.01	+ 8 22.7	1.762	2.604	14.0	20.0	11 7	5 28.38	- 3 19.6	2.082	2.879	13.8	20.3
11 17	5 22.87	+ 7 39.2	1.707	2.612	10.8	19.8	11 17	5 23.14	- 3 57.9	1.997	2.856	11.8	20.1
11 27	5 15.70	+ 7 5.4	1.675	2.620	7.7	19.7	11 27	5 15.96	- 4 19.3	1.935	2.834	10.0	19.9
12 7	5 7.39	+ 6 45.0	1.669	2.629	6.0	19.6	12 7	5 7.50	- 4 19.0	1.898	2.811	9.2	19.8
12 17	4 58.94	+ 6 40.2	1.690	2.639	7.1	19.7	12 17	4 58.64	- 3 54.4	1.887	2.789	9.8	19.8
12 27	4 51.46	+ 6 51.7	1.738	2.649	9.9	19.9	12 27	4 50.39	- 3 5.4	1.902	2.767	11.7	19.9
1 6	4 45.79	+ 7 18.1	1.810	2.660	13.0	20.1	1 6	4 43.63	- 1 54.9	1.940	2.745	14.1	20.0
1 16	4 42.48	+ 7 57.0	1.903	2.671	15.7	20.3	1 16	4 39.01	- 0 27.3	2.000	2.723	16.4	20.2
<b>115282</b>	2003 <i>SD</i> <sub>190</sub>	12	9.3 46°18	0°8/ 9.4 18			<b>134992</b>	2001 <i>FP</i> <sub>138</sub>	12	9.4 143°51	1°7/ 9.8 18		
11 7	5 31.62	+23 34.3	1.992	2.834	12.6	19.0	11 7	5 34.53	+28 15.5	2.281	3.108	11.8	21.3
11 17	5 25.52	+24 7.8	1.928	2.843	9.2	18.8	11 17	5 27.38	+28 24.2	2.214	3.119	8.7	21.1
11 27	5 17.26	+24 39.6	1.889	2.852	5.3	18.6	11 27	5 18.22	+28 26.5	2.172	3.130	5.2	20.9
12 7	5 7.70	+25 7.8	1.878	2.862	1.3	18.3	12 7	5 7.91	+28 21.3	2.159	3.140	2.0	20.7
12 17	4 57.90	+25 31.1	1.897	2.872	3.3	18.5	12 17	4 57.45	+28 8.4	2.177	3.149	3.3	20.8
12 27	4 49.02	+25 49.9	1.945	2.882	7.2	18.8	12 27	4 47.93	+27 49.7	2.225	3.158	6.7	21.0
1 6	4 42.00	+26 5.5	2.020	2.893	10.7	19.0	1 6	4 40.22	+27 28.3	2.301	3.167	9.9	21.3
1 16	4 37.46	+26 19.7	2.118	2.903	13.7	19.2	1 16	4 34.87	+27 7.2	2.401	3.174	12.6	21.5
<b>404067</b>	2012 <i>DC</i> <sub>50</sub>	12	9.3 67°47	4°7/ 8.4 18			<b>289522</b>	2005 <i>EK</i> <sub>186</sub>	12	9.4 167°53	1°1/ 9.1 18		
11 7	5 28.61	+ 9 53.2	2.092	2.927	12.4	20.8	11 7	5 32.43	+19 44.6	2.176	3.012	11.9	21.1
11 17	5 23.06	+ 9 21.1	2.030	2.934	9.4	20.6	11 17	5 25.90	+19 40.1	2.104	3.016	8.7	20.9
11 27	5 15.74	+ 8 56.2	1.992	2.941	6.5	20.4	11 27	5 17.42	+19 35.4	2.057	3.019	5.0	20.7
12 7	5 7.39	+ 8 41.0	1.983	2.948	4.7	20.3	12 7	5 7.76	+19 30.8	2.039	3.022	1.4	20.4
12 17	4 58.91	+ 8 37.3	2.002	2.955	5.8	20.4	12 17	4 57.90	+19 26.9	2.051	3.024	3.4	20.6
12 27	4 51.24	+ 8 45.7	2.049	2.962	8.5	20.6	12 27	4 48.87	+19 24.8	2.094	3.026	7.1	20.8
1 6	4 45.16	+ 9 5.7	2.122	2.969	11.4	20.8	1 6	4 41.53	+19 25.8	2.163	3.028	10.5	21.0
1 16	4 41.17	+ 9 35.8	2.217	2.976	14.0	21.0	1 16	4 36.46	+19 31.2	2.257	3.029	13.4	21.3
<b>136767</b>	1996 <i>JA</i> <sub>9</sub>	12	9.3 79°35	3°9/ 8.7 18			<b>163995</b>	2003 <i>UO</i> <sub>150</sub>	12	9.4 76°36	2°0/ 9.7 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>158751</b>	2003 QZ <sub>62</sub>	12 9.4 53°22	1.1°/ 9.2 18				<b>441002</b>	2007 DS <sub>53</sub>	12 9.4 226°12	3.1°/ 8.7 18			
11 7	5 29.86	+19 7.0	2.103	2.946	12.0	19.6	11 7	5 33.22	+15 55.6	1.853	2.694	13.5	22.3
11 17	5 24.10	+19 11.0	2.035	2.951	8.7	19.4	11 17	5 26.82	+15 25.6	1.772	2.685	10.0	22.0
11 27	5 16.42	+19 16.0	1.993	2.956	5.0	19.2	11 27	5 18.12	+14 57.7	1.716	2.676	6.2	21.8
12 7	5 7.58	+19 22.0	1.978	2.961	1.4	18.9	12 7	5 7.95	+14 33.7	1.688	2.666	3.2	21.6
12 17	4 58.54	+19 29.2	1.993	2.967	3.4	19.1	12 17	4 57.43	+14 15.9	1.689	2.656	4.9	21.7
12 27	4 50.32	+19 38.3	2.038	2.973	7.1	19.3	12 27	4 47.78	+14 6.2	1.719	2.646	8.8	21.9
1 6	4 43.78	+19 50.0	2.109	2.978	10.5	19.6	1 6	4 40.05	+14 5.8	1.774	2.634	12.7	22.1
1 16	4 39.47	+20 5.2	2.203	2.984	13.4	19.8	1 16	4 34.91	+14 15.1	1.852	2.623	15.9	22.3
<b>439783</b>	2015 GJ <sub>36</sub>	12 9.4 213°64	0°3/ 9.3 18				<b>37980</b>	1998 HH <sub>126</sub>	12 9.4 156°59	5°9/ 8.5 18			
11 7	5 35.90	+22 14.7	1.815	2.655	13.8	22.1	11 7	5 32.07	+ 5 41.8	2.057	2.877	13.1	19.2
11 17	5 28.92	+22 16.1	1.734	2.648	10.1	21.9	11 17	5 25.61	+ 5 17.3	1.992	2.883	10.3	19.1
11 27	5 19.38	+22 15.3	1.677	2.641	5.8	21.6	11 27	5 17.24	+ 5 3.9	1.952	2.888	7.5	18.9
12 7	5 8.18	+22 11.7	1.648	2.632	1.1	21.3	12 7	5 7.76	+ 5 4.0	1.940	2.893	6.0	18.8
12 17	4 56.57	+22 5.5	1.649	2.624	3.7	21.4	12 17	4 58.10	+ 5 19.1	1.956	2.898	6.9	18.9
12 27	4 45.91	+21 58.2	1.679	2.614	8.3	21.7	12 27	4 49.28	+ 5 48.9	2.000	2.902	9.4	19.0
1 6	4 37.37	+21 52.4	1.735	2.604	12.4	21.9	1 6	4 42.14	+ 6 31.6	2.071	2.905	12.2	19.2
1 16	4 31.67	+21 50.3	1.813	2.593	15.9	22.1	1 16	4 37.22	+ 7 24.6	2.164	2.909	14.7	19.4
<b>185650</b>	2608 T-3	12 9.4 118°01	0°3/ 9.3 18				<b>283283</b>	2011 HF <sub>63</sub>	12 9.4 313°27	5°5/ 7.7 17			
11 7	5 37.24	+23 33.5	1.764	2.602	14.2	20.7	11 7	5 26.87	+ 7 16.8	2.279	3.108	11.7	20.5
11 17	5 29.53	+23 11.6	1.708	2.621	10.3	20.5	11 17	5 21.79	+ 6 28.3	2.207	3.103	9.2	20.3
11 27	5 19.48	+22 45.2	1.677	2.640	5.8	20.3	11 27	5 15.06	+ 5 47.5	2.159	3.098	6.8	20.1
12 7	5 8.16	+22 14.9	1.674	2.658	1.1	20.0	12 7	5 7.34	+ 5 17.7	2.139	3.093	5.5	20.1
12 17	4 56.84	+21 42.5	1.701	2.676	3.6	20.2	12 17	4 59.42	+ 5 1.3	2.148	3.088	6.5	20.1
12 27	4 46.83	+21 11.0	1.757	2.693	8.0	20.5	12 27	4 52.16	+ 4 59.6	2.184	3.084	8.8	20.2
1 6	4 39.10	+20 43.9	1.840	2.709	11.9	20.8	1 6	4 46.31	+ 5 12.3	2.246	3.079	11.4	20.4
1 16	4 34.18	+20 23.5	1.946	2.724	15.0	21.1	1 16	4 42.36	+ 5 37.6	2.330	3.075	13.8	20.6
<b>36129</b>	1999 RW <sub>156</sub>	12 9.4 6°23	0°6/ 9.2 18				<b>299614</b>	2006 HB <sub>98</sub>	12 9.4 201°30	1°1/ 9.6 18			
11 7	5 30.04	+21 53.1	1.914	2.760	12.9	18.5	11 7	5 33.82	+25 56.9	1.861	2.701	13.5	21.6
11 17	5 24.43	+21 41.2	1.843	2.760	9.3	18.3	11 17	5 27.34	+26 1.7	1.786	2.699	9.9	21.4
11 27	5 16.68	+21 27.3	1.796	2.761	5.3	18.0	11 27	5 18.43	+26 1.3	1.735	2.697	5.8	21.1
12 7	5 7.64	+21 11.6	1.777	2.761	1.2	17.7	12 7	5 8.01	+25 54.4	1.712	2.695	1.6	20.8
12 17	4 58.37	+20 55.4	1.787	2.762	3.5	17.9	12 17	4 57.27	+25 41.3	1.718	2.693	3.6	21.0
12 27	4 50.03	+20 40.6	1.826	2.763	7.6	18.2	12 27	4 47.54	+25 23.9	1.753	2.690	7.8	21.2
1 6	4 43.54	+20 29.3	1.891	2.765	11.3	18.4	1 6	4 39.89	+25 5.4	1.814	2.688	11.7	21.5
1 16	4 39.51	+20 23.2	1.978	2.766	14.5	18.6	1 16	4 34.99	+24 49.1	1.898	2.685	15.0	21.7
<b>165576</b>	2001 DC <sub>108</sub>	12 9.4 321°34	5°4/ 8.5 18				<b>59193</b>	1999 AJ <sub>31</sub>	12 9.4 199°07	0°5/ 9.5 18			
11 7	5 30.27	+10 46.4	1.565	2.413	15.1	19.8	11 7	5 34.81	+24 38.6	1.935	2.772	13.2	20.6
11 17	5 24.94	+10 12.4	1.494	2.406	11.5	19.6	11 17	5 27.97	+24 37.8	1.856	2.769	9.6	20.4
11 27	5 17.13	+ 9 46.7	1.445	2.399	7.8	19.4	11 27	5 18.76	+24 32.7	1.803	2.766	5.6	20.1
12 7	5 7.75	+ 9 32.7	1.422	2.392	5.5	19.2	12 7	5 8.07	+24 22.5	1.778	2.762	1.2	19.8
12 17	4 58.00	+ 9 32.9	1.426	2.385	6.9	19.3	12 17	4 57.07	+24 7.5	1.782	2.758	3.4	20.0
12 27	4 49.23	+ 9 48.3	1.457	2.379	10.5	19.5	12 27	4 47.03	+23 49.8	1.817	2.753	7.7	20.2
1 6	4 42.53	+10 18.2	1.511	2.373	14.4	19.7	1 6	4 38.99	+23 32.3	1.877	2.747	11.6	20.5
1 16	4 38.63	+11 0.2	1.585	2.367	17.7	19.9	1 16	4 33.64	+23 17.9	1.961	2.741	14.8	20.7
<b>84315</b>	2002 TU <sub>41</sub>	12 9.4 344°07	5°7/ 9.0 17				<b>188528</b>	2004 RR <sub>148</sub>	12 9.4 161°49	3°8/ 8.5 18			
11 7	5 33.03	+29 40.0	1.290	2.147	17.2	18.1	11 7	5 29.18	+12 23.8	2.183	3.019	11.9	20.6
11 17	5 28.20	+31 26.5	1.215	2.133	13.2	17.8	11 17	5 23.50	+11 54.2	2.113	3.021	8.9	20.4
11 27	5 19.65	+33 11.0	1.163	2.120	8.8	17.6	11 27	5 16.04	+11 29.4	2.069	3.022	5.8	20.2
12 7	5 8.33	+34 44.4	1.135	2.108	5.8	17.4	12 7	5 7.53	+11 11.7	2.052	3.023	3.8	20.1
12 17	4 55.93	+35 58.6	1.133	2.097	7.3	17.4	12 17	4 58.84	+11 2.6	2.065	3.024	5.0	20.2
12 27	4 44.61	+36 50.0	1.156	2.088	11.6	17.6	12 27	4 50.91	+11 3.3	2.106	3.025	8.0	20.4
1 6	4 36.26	+37 21.3	1.201	2.081	16.0	17.9	1 6	4 44.52	+11 13.9	2.174	3.026	11.0	20.6
1 16	4 32.08	+37 38.2	1.266	2.075	19.9	18.1	1 16	4 40.20	+11 33.7	2.265	3.027	13.7	20.8
<b>192474</b>	1998 FM <sub>72</sub>	12 9.4 16°24	1°7/ 9.0 18				<b>155578</b>	1999 XE <sub>145</sub>	12 9.4 97°32	1°9/ 8.8 18			
11 7	5 31.44	+20 5.6	1.404	2.264	15.9	18.7	11 7	5 29.84	+18 53.0	2.173	3.014	11.8	19.7
11 17	5 25.97	+19 42.4	1.343	2.267	11.6	18.4	11 17	5 23.95	+18 16.3	2.107	3.021	8.5	19.5
11 27	5 17.75	+19 18.3	1.304	2.270	6.7	18.2	11 27	5 16.27	+17 39.1	2.067	3.029	5.0	19.3
12 7	5 7.86	+18 54.8	1.290	2.273	2.1	17.9	12 7	5 7.57	+17 3.2	2.056	3.037	2.0	19.1
12 17	4 57.73	+18 34.0	1.303	2.277	4.6	18.1	12 17	4 58.78	+16 30.7	2.074	3.044	3.8	19.3
12 27	4 48.87	+18 18.7	1.342	2.282	9.6	18.4	12 27	4 50.85	+16 3.9	2.122	3.052	7.2	19.5
1 6	4 42.46	+18 11.0	1.406	2.287	14.0	18.6	1 6	4 44.55	+15 44.5	2.197	3.059	10.5	19.7
1 16	4 39.16	+18 12.1	1.490	2.292	17.7	18.9	1 16	4 40.38	+15 33.4	2.295	3.067	13.2	19.9
<b>435476</b>	2008 FC <sub>103</sub>	12 9.4 279°88	4°0/ 8.7 18				<b>220070</b>	2002 RT <sub>160</sub>	12 9.4 19°49	3°8/ 8.8 18			
11 7	5 32.94	+14 35.7	1.443	2.296	15.9	21.8	11 7	5 31.89	+15 45.2	1.188	2.055	17.7	20.1
11 17	5 27.16	+14 8.7	1.368	2.286	11.9	21.5	11 17	5 26.61	+15 19.1	1.133	2.059	13.1	19.8
11 27	5 18.54	+13 46.4	1.315	2.276	7.5	21.2	11 27	5 18.24	+14 58.1	1.099	2.063	8.0	19.5
12 7	5 8.05	+13 31.5	1.288	2.266	4.2	21.0	12 7	5 7.99	+14 44.8	1.088	2.068	4.0	19.3
12 17	4 57.08	+13 26.3	1.288	2.255	6.1	21.1	12 17	4 57.48	+14 41.3	1.103	2.073	6.2	19.5
12 27	4 47.17	+13 32.5	1.314	2.245	10.6	21.3	12 27	4 48.41	+14 49.1	1.142	2.080	11.1	19.8
1 6	4 39.62	+13 50.5	1.364	2.235	15.0	21.6	1 6	4 42.09	+15 8.5	1.204	2.087	15.7	20.1
1 16	4 35.22	+14 19.5	1.434	2.225	18.9	21.8	1 16	4 39.21	+15 38.1	1.285	2.094	19.6	20.3
<b>81037</b>	2000 EN <sub>55</sub>	12 9.4 166°60	2°1/ 8.8 18				<b>414976</b>	2011 DJ <sub>1</sub>	12 9.4 17°76	4°4/ 10.6 17			
11 7	5 31.36	+17 49.7	2.220	3.057	11.7</								

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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>50384</b>	2000 <i>CQ</i> <sub>89</sub>	12 9.4	0°05	12°7/12.2	18		<b>70624</b>	1999 <i>TS</i> <sub>215</sub>	12 9.4	76°40	2°5/	8.9	18
11 7	5 44.97	+54 18.7	1.798	2.542	17.6	18.7	11 7	5 35.35	+17 9.6	1.671	2.514	14.6	19.7
11 17	5 37.20	+55 49.3	1.735	2.542	15.7	18.6	11 17	5 28.09	+16 48.8	1.630	2.545	10.6	19.6
11 27	5 24.84	+56 54.5	1.692	2.541	13.9	18.5	11 27	5 18.63	+16 30.5	1.614	2.575	6.2	19.4
12 7	5 9.35	+57 24.2	1.670	2.541	12.8	18.4	12 7	5 8.05	+16 15.8	1.625	2.605	2.7	19.2
12 17	4 53.09	+57 13.1	1.671	2.541	12.8	18.4	12 17	4 57.59	+16 6.2	1.664	2.635	4.5	19.4
12 27	4 38.80	+56 23.7	1.695	2.542	13.8	18.5	12 27	4 48.46	+16 3.1	1.733	2.664	8.5	19.7
1 6	4 28.51	+55 5.3	1.741	2.542	15.6	18.6	1 6	4 41.54	+16 7.3	1.827	2.692	12.1	20.0
1 16	4 23.14	+53 29.7	1.806	2.543	17.5	18.7	1 16	4 37.32	+16 18.7	1.943	2.720	15.1	20.3
<b>101776</b>	1999 <i>GF</i> <sub>3</sub>	12 9.4	339°64	6°0/	7.7	17	<b>266559</b>	2008 <i>GU</i> <sub>47</sub>	12 9.4	221°52	3°2/	8.8	18
11 7	5 26.66	+7 31.2	2.021	2.856	12.7	19.2	11 7	5 34.27	+15 28.9	1.803	2.643	13.8	22.0
11 17	5 21.83	+6 36.5	1.950	2.850	10.0	19.0	11 17	5 27.68	+15 5.2	1.722	2.634	10.3	21.7
11 27	5 15.17	+5 50.1	1.903	2.844	7.4	18.8	11 27	5 18.67	+14 44.5	1.666	2.626	6.3	21.5
12 7	5 7.39	+5 15.8	1.883	2.838	6.0	18.7	12 7	5 8.12	+14 28.4	1.638	2.616	3.3	21.3
12 17	4 59.39	+4 56.7	1.891	2.833	7.1	18.8	12 17	4 57.19	+14 18.8	1.639	2.606	5.0	21.4
12 27	4 52.13	+4 54.3	1.926	2.828	9.6	18.9	12 27	4 47.15	+14 17.2	1.668	2.595	9.0	21.6
1 6	4 46.43	+5 8.0	1.985	2.824	12.5	19.1	1 6	4 39.09	+14 24.5	1.723	2.584	12.9	21.8
1 16	4 42.83	+5 35.9	2.066	2.820	15.0	19.3	1 16	4 33.72	+14 41.0	1.800	2.572	16.3	22.0
<b>113762</b>	2002 <i>TJ</i> <sub>172</sub>	12 9.4	9°06	1°6/	9.9	18	<b>493984</b>	2016 <i>AB</i> <sub>97</sub>	12 9.4	282°59	2°9/	8.9	18
11 7	5 33.52	+30 3.1	1.595	2.439	15.1	18.8	11 7	5 28.70	+13 26.6	2.322	3.157	11.3	21.0
11 17	5 27.32	+29 16.5	1.525	2.439	11.2	18.5	11 17	5 23.18	+13 23.6	2.243	3.151	8.4	20.8
11 27	5 18.44	+28 16.7	1.479	2.440	6.7	18.3	11 27	5 15.92	+13 25.5	2.189	3.146	5.3	20.6
12 7	5 8.03	+27 4.5	1.459	2.442	2.2	18.0	12 7	5 7.57	+13 33.2	2.164	3.140	3.0	20.5
12 17	4 57.50	+25 43.7	1.468	2.443	3.9	18.1	12 17	4 58.96	+13 47.1	2.169	3.134	4.2	20.5
12 27	4 48.33	+24 20.7	1.505	2.446	8.6	18.4	12 27	4 51.00	+14 7.7	2.203	3.129	7.3	20.7
1 6	4 41.61	+23 2.3	1.568	2.448	12.8	18.7	1 6	4 44.46	+14 34.5	2.265	3.123	10.3	20.9
1 16	4 37.93	+21 54.0	1.653	2.451	16.4	18.9	1 16	4 39.91	+15 7.1	2.350	3.118	13.0	21.1
<b>29453</b>	1997 <i>RU</i> <sub>6</sub>	12 9.4	134°60	3°2/	10.1	18	<b>372104</b>	2008 <i>SZ</i> <sub>122</sub>	12 9.4	30°27	1°0/	9.6	17
11 7	5 37.64	+31 25.7	1.816	2.644	14.3	19.1	11 7	5 29.79	+25 57.6	2.240	3.078	11.6	21.7
11 17	5 30.15	+31 42.5	1.752	2.655	10.7	18.9	11 17	5 24.07	+26 0.8	2.167	3.079	8.5	21.5
11 27	5 20.02	+31 49.0	1.711	2.665	6.8	18.7	11 27	5 16.44	+25 59.5	2.120	3.081	4.9	21.3
12 7	5 8.34	+31 42.8	1.699	2.675	3.5	18.5	12 7	5 7.67	+25 53.1	2.100	3.084	1.4	21.0
12 17	4 56.49	+31 23.3	1.715	2.684	4.5	18.6	12 17	4 58.69	+25 41.9	2.111	3.086	3.0	21.2
12 27	4 45.90	+30 53.4	1.760	2.693	8.2	18.8	12 27	4 50.52	+25 27.5	2.151	3.088	6.6	21.4
1 6	4 37.71	+30 18.1	1.832	2.701	11.8	19.1	1 6	4 44.00	+25 12.2	2.218	3.091	9.9	21.6
1 16	4 32.53	+29 42.6	1.926	2.709	15.0	19.3	1 16	4 39.70	+24 58.5	2.309	3.093	12.8	21.8
<b>132086</b>	2002 <i>CN</i> <sub>170</sub>	12 9.4	268°58	2°3/	9.7	18	<b>180794</b>	2004 <i>XD</i> <sub>101</sub>	12 9.4	319°97	1°1/	9.6	18
11 7	5 34.79	+27 33.0	1.672	2.515	14.6	19.8	11 7	5 32.86	+26 4.4	1.581	2.431	14.9	19.9
11 17	5 28.44	+28 3.8	1.596	2.510	10.9	19.6	11 17	5 27.02	+26 0.6	1.508	2.426	11.0	19.6
11 27	5 19.27	+28 29.0	1.544	2.505	6.6	19.3	11 27	5 18.42	+25 50.3	1.457	2.421	6.4	19.3
12 7	5 8.24	+28 45.7	1.519	2.500	2.7	19.1	12 7	5 8.08	+25 32.8	1.433	2.416	1.7	19.0
12 17	4 56.73	+28 52.2	1.521	2.494	4.3	19.2	12 17	4 57.38	+25 8.7	1.436	2.412	3.9	19.2
12 27	4 46.29	+28 49.6	1.552	2.489	8.7	19.4	12 27	4 47.81	+24 40.9	1.467	2.407	8.8	19.4
1 6	4 38.19	+28 41.4	1.608	2.484	12.8	19.7	1 6	4 40.61	+24 13.6	1.522	2.403	13.1	19.7
1 16	4 33.23	+28 31.7	1.686	2.479	16.4	19.9	1 16	4 36.50	+23 50.6	1.599	2.399	16.8	19.9
<b>370262</b>	2002 <i>QR</i> <sub>24</sub>	12 9.4	159°24	6°6/	7.1	18	<b>448532</b>	2010 <i>PT</i> <sub>10</sub>	12 9.4	159°99	4°8/	11.0	17
11 7	5 26.79	-6 6.9	3.556	4.314	9.3	22.8	11 7	5 36.73	+38 24.7	2.152	2.957	13.2	21.0
11 17	5 21.17	-6 50.6	3.498	4.323	8.0	22.8	11 17	5 29.30	+38 26.2	2.078	2.961	10.3	20.8
11 27	5 14.51	-7 22.6	3.466	4.331	7.0	22.7	11 27	5 19.47	+38 12.7	2.028	2.964	7.3	20.6
12 7	5 7.26	-7 40.5	3.461	4.339	6.0	22.7	12 7	5 8.26	+37 41.7	2.006	2.968	5.0	20.5
12 17	4 59.95	-7 42.9	3.484	4.346	7.0	22.7	12 17	4 56.92	+36 53.4	2.013	2.971	5.3	20.5
12 27	4 53.10	-7 29.7	3.534	4.352	8.0	22.8	12 27	4 46.78	+35 51.5	2.050	2.973	7.8	20.7
1 6	4 47.18	-7 2.3	3.610	4.358	9.2	22.9	1 6	4 38.85	+34 41.9	2.113	2.976	10.8	20.9
1 16	4 42.55	-6 22.6	3.708	4.363	10.5	23.0	1 16	4 33.71	+33 31.0	2.201	2.977	13.6	21.1
<b>286851</b>	2002 <i>NQ</i> <sub>66</sub>	12 9.4	104°19	5°3/	11.1	18	<b>206419</b>	2003 <i>SS</i> <sub>137</sub>	12 9.4	76°95	2°1/	9.8	18
11 7	5 37.34	+38 36.0	1.832	2.645	14.8	20.5	11 7	5 34.64	+28 3.8	1.677	2.519	14.6	20.8
11 17	5 30.04	+38 37.8	1.764	2.651	11.6	20.3	11 17	5 28.07	+28 16.9	1.617	2.530	10.8	20.6
11 27	5 19.97	+38 22.3	1.720	2.658	8.2	20.1	11 27	5 18.88	+28 22.6	1.580	2.540	6.5	20.4
12 7	5 8.34	+37 46.8	1.702	2.665	5.7	19.9	12 7	5 8.15	+28 19.1	1.570	2.551	2.5	20.2
12 17	4 56.61	+36 51.5	1.712	2.671	5.9	20.0	12 17	4 57.25	+28 6.2	1.588	2.562	4.0	20.3
12 27	4 46.32	+35 41.3	1.751	2.677	8.7	20.1	12 27	4 47.59	+27 46.4	1.634	2.572	8.3	20.6
1 6	4 38.59	+34 23.6	1.816	2.684	12.0	20.4	1 6	4 40.30	+27 23.8	1.706	2.583	12.2	20.9
1 16	4 34.01	+33 5.6	1.903	2.690	15.0	20.6	1 16	4 35.99	+27 2.3	1.800	2.593	15.5	21.1
<b>71674</b>	2000 <i>EJ</i> <sub>167</sub>	12 9.4	350°51	4°6/	10.3	18	<b>166346</b>	2002 <i>JN</i> <sub>145</sub>	12 9.4	140°83	6°6/	8.3	18
11 7	5 33.03	+35 49.7	2.205	3.022	12.5	19.4	11 7	5 31.99	+3 41.7	2.117	2.930	13.1	20.4
11 17	5 26.73	+36 28.8	2.131	3.021	9.7	19.2	11 17	5 25.47	+3 8.3	2.058	2.941	10.4	20.3
11 27	5 18.10	+36 57.2	2.080	3.021	6.8	19.0	11 27	5 17.16	+2 47.1	2.023	2.951	7.9	20.1
12 7	5 8.00	+37 11.7	2.057	3.020	4.8	18.9	12 7	5 7.81	+2 40.8	2.016	2.961	6.6	20.1
12 17	4 57.56	+37 10.7	2.063	3.020	5.3	18.9	12 17	4 58.35	+2 51.1	2.038	2.970	7.4	20.1
12 27	4 48.03	+36 55.5	2.097	3.019	7.8	19.1	12 27	4 49.74	+3 17.9	2.087	2.978	9.6	20.3
1 6	4 40.45	+36 29.9	2.158	3.019	10.7	19.2	1 6	4 42.76	+3 59.0	2.163	2.986	12.1	20.5
1 16	4 35.49	+35 58.7	2.242	3.019	13.3	19.4	1 16	4 37.93	+4 51.7	2.260	2.994	14.5	20.7
<b>244674</b>	2003 <i>NS</i> <sub>5</sub>	12 9.4	44°58	0°9/	9.8	17	<b>270235</b>	2001 <i>TC</i> <sub>229</sub>	12 9.4	162°77	1°8/	8.9	18

EPHEMERIDES

12 9.4

12 9.4

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>333091</b>	2011 <i>UX</i> <sub>222</sub>	12 9.4	44°10'	2.5/ 9.8	18		<b>40867</b>	1999 <i>TD</i> <sub>118</sub>	12 9.4	85°35'	3.2/10.1	18	
11 7	5 34.00	+28 27.9	1.716	2.557	14.4	21.3	11 7	5 37.74	+31 25.2	1.750	2.581	14.6	18.7
11 17	5 27.72	+28 54.9	1.647	2.560	10.7	21.1	11 17	5 30.11	+31 38.7	1.701	2.605	10.9	18.5
11 27	5 18.77	+29 15.3	1.603	2.562	6.5	20.9	11 27	5 19.93	+31 41.3	1.675	2.630	6.8	18.3
12 7	5 8.16	+29 26.2	1.585	2.565	2.9	20.6	12 7	5 8.38	+31 31.1	1.677	2.654	3.5	18.2
12 17	4 57.22	+29 26.5	1.596	2.569	4.3	20.7	12 17	4 56.85	+31 8.1	1.707	2.677	4.5	18.3
12 27	4 47.41	+29 17.8	1.635	2.572	8.3	21.0	12 27	4 46.77	+30 35.9	1.767	2.701	8.1	18.6
1 6	4 39.90	+29 3.9	1.699	2.575	12.2	21.2	1 6	4 39.14	+29 59.4	1.852	2.724	11.6	18.8
1 16	4 35.38	+28 48.8	1.785	2.579	15.6	21.5	1 16	4 34.52	+29 23.6	1.960	2.746	14.7	19.1
<b>285160</b>	1995 <i>WP</i> <sub>6</sub>	12 9.4	110°34'	2.5/ 9.0	16		<b>172627</b>	2003 <i>XP</i> <sub>10</sub>	12 9.4	7°19'	8.6/10.2	18	
11 7	5 39.58	+17 13.2	1.514	2.355	15.9	21.9	11 7	5 35.21	- 1 49.2	1.653	2.457	16.5	19.0
11 17	5 31.43	+16 57.8	1.466	2.380	11.6	21.7	11 17	5 28.39	- 1 26.2	1.585	2.458	13.5	18.8
11 27	5 20.66	+16 44.9	1.442	2.403	6.8	21.5	11 27	5 19.10	- 0 39.5	1.539	2.458	10.6	18.7
12 7	5 8.49	+16 35.2	1.445	2.426	2.8	21.3	12 7	5 8.26	+ 0 33.0	1.519	2.459	8.7	18.6
12 17	4 56.36	+16 30.1	1.477	2.448	4.9	21.5	12 17	4 57.09	+ 2 10.1	1.527	2.461	9.2	18.6
12 27	4 45.73	+16 31.0	1.538	2.469	9.3	21.8	12 27	4 46.91	+ 4 7.0	1.562	2.462	11.6	18.7
1 6	4 37.66	+16 38.9	1.624	2.489	13.3	22.1	1 6	4 38.81	+ 6 16.7	1.624	2.464	14.7	18.9
1 16	4 32.69	+16 54.1	1.731	2.508	16.6	22.4	1 16	4 33.50	+ 8 32.3	1.708	2.467	17.6	19.1
<b>135527</b>	2002 <i>AE</i> <sub>161</sub>	12 9.4	209°79'	0.2/ 9.4	18		<b>238035</b>	2002 <i>XS</i> <sub>44</sub>	12 9.4	32°79'	4.0/ 8.2	18	
11 7	5 37.03	+24 8.3	1.743	2.582	14.3	20.8	11 7	5 30.60	+16 8.5	1.599	2.452	14.6	19.5
11 17	5 29.84	+23 55.9	1.663	2.576	10.5	20.5	11 17	5 24.98	+14 59.4	1.540	2.458	10.8	19.3
11 27	5 19.98	+23 38.4	1.606	2.569	6.1	20.3	11 27	5 17.07	+13 51.5	1.505	2.465	6.8	19.1
12 7	5 8.41	+23 15.5	1.578	2.562	1.2	19.9	12 7	5 7.84	+12 49.4	1.496	2.472	4.1	18.9
12 17	4 56.45	+22 48.1	1.578	2.554	3.8	20.1	12 17	4 58.51	+11 57.5	1.516	2.480	5.9	19.0
12 27	4 45.57	+22 19.2	1.608	2.545	8.5	20.3	12 27	4 50.32	+11 19.4	1.562	2.487	9.7	19.3
1 6	4 36.94	+21 52.5	1.664	2.535	12.8	20.6	1 6	4 44.24	+10 56.8	1.633	2.496	13.4	19.5
1 16	4 31.31	+21 31.5	1.743	2.524	16.4	20.8	1 16	4 40.83	+10 49.4	1.725	2.504	16.6	19.8
<b>457388</b>	2008 <i>TZ</i> <sub>56</sub>	12 9.4	31°72'	1.1/ 9.6	16		<b>353977</b>	2000 <i>CC</i> <sub>142</sub>	12 9.4	4°46'	5.2/ 8.9	18	
11 7	5 30.09	+26 2.9	1.996	2.838	12.6	21.1	11 7	5 29.40	+11 27.1	1.327	2.187	16.6	20.0
11 17	5 24.45	+26 11.3	1.931	2.846	9.2	20.9	11 17	5 24.62	+11 11.5	1.268	2.187	12.6	19.8
11 27	5 16.72	+26 14.9	1.891	2.854	5.4	20.7	11 27	5 17.10	+11 6.4	1.229	2.187	8.3	19.5
12 7	5 7.76	+26 13.0	1.879	2.862	1.6	20.5	12 7	5 7.88	+11 14.2	1.215	2.189	5.3	19.4
12 17	4 58.61	+26 5.6	1.895	2.870	3.3	20.6	12 17	4 58.33	+11 36.1	1.227	2.191	6.8	19.5
12 27	4 50.41	+25 54.3	1.941	2.879	7.1	20.9	12 27	4 49.97	+12 11.9	1.263	2.195	10.9	19.7
1 6	4 44.06	+25 41.8	2.013	2.889	10.6	21.1	1 6	4 43.97	+12 59.4	1.323	2.199	15.0	20.0
1 16	4 40.13	+25 30.6	2.108	2.898	13.6	21.3	1 16	4 41.06	+13 55.8	1.402	2.205	18.6	20.2
<b>350533</b>	2000 <i>LC</i> <sub>33</sub>	12 9.4	244°76'	1.1/ 9.3	18		<b>382026</b>	2011 <i>BE</i> <sub>125</sub>	12 9.4	238°20'	0.5/ 9.5	18	
11 7	5 33.28	+18 8.3	2.081	2.917	12.4	20.7	11 7	5 35.93	+24 44.3	1.704	2.546	14.4	22.0
11 17	5 26.84	+18 32.6	1.995	2.907	9.1	20.4	11 17	5 29.21	+24 40.3	1.620	2.534	10.6	21.7
11 27	5 18.18	+18 59.9	1.934	2.896	5.3	20.2	11 27	5 19.72	+24 31.3	1.559	2.522	6.2	21.5
12 7	5 8.07	+19 29.4	1.902	2.885	1.5	19.9	12 7	5 8.41	+24 16.2	1.525	2.509	1.4	21.1
12 17	4 57.51	+20 0.0	1.900	2.874	3.5	20.0	12 17	4 56.60	+23 55.6	1.521	2.496	3.8	21.3
12 27	4 47.65	+20 31.4	1.928	2.862	7.5	20.3	12 27	4 45.80	+23 31.9	1.545	2.482	8.7	21.5
1 6	4 39.49	+21 3.7	1.984	2.850	11.2	20.5	1 6	4 37.26	+23 9.0	1.594	2.468	13.1	21.7
1 16	4 33.75	+21 37.2	2.063	2.838	14.4	20.6	1 16	4 31.78	+22 50.3	1.666	2.453	16.8	22.0
<b>294032</b>	2007 <i>TG</i> <sub>128</sub>	12 9.4	84°99'	3.1/ 9.8	18		<b>411096</b>	2009 <i>WM</i> <sub>28</sub>	12 9.4	57°95'	0.4/ 9.5	16	
11 7	5 37.27	+29 32.2	1.776	2.609	14.3	20.7	11 7	5 31.17	+24 8.4	1.987	2.829	12.6	21.6
11 17	5 29.87	+30 14.5	1.723	2.629	10.6	20.6	11 17	5 25.12	+24 10.4	1.930	2.846	9.2	21.4
11 27	5 19.88	+30 48.9	1.694	2.650	6.6	20.4	11 27	5 17.05	+24 8.9	1.899	2.862	5.2	21.2
12 7	5 8.38	+31 12.1	1.693	2.670	3.3	20.2	12 7	5 7.84	+24 3.5	1.895	2.879	1.1	20.9
12 17	4 56.73	+31 22.4	1.720	2.690	4.5	20.3	12 17	4 58.54	+23 54.9	1.920	2.896	3.2	21.1
12 27	4 46.37	+31 21.4	1.777	2.709	8.1	20.6	12 27	4 50.24	+23 44.5	1.975	2.913	7.1	21.4
1 6	4 38.38	+31 12.9	1.859	2.729	11.7	20.8	1 6	4 43.82	+23 34.7	2.056	2.930	10.5	21.7
1 16	4 33.39	+31 1.3	1.964	2.748	14.7	21.1	1 16	4 39.79	+23 27.5	2.160	2.947	13.4	21.9
<b>388226</b>	2006 <i>JT</i> <sub>26</sub>	12 9.4	148°22'	0.6/ 9.2	18		<b>342114</b>	2008 <i>SF</i> <sub>94</sub>	12 9.4	342°51'	2.7/ 8.8	18	
11 7	5 33.71	+22 29.4	2.447	3.275	11.0	21.7	11 7	5 30.90	+19 5.5	1.378	2.240	16.0	20.2
11 17	5 26.57	+22 0.1	2.379	3.288	8.0	21.5	11 17	5 25.74	+18 20.9	1.310	2.234	11.8	19.9
11 27	5 17.73	+21 27.7	2.337	3.299	4.5	21.3	11 27	5 17.75	+17 35.0	1.264	2.229	7.0	19.7
12 7	5 7.94	+20 52.9	2.326	3.310	1.0	21.1	12 7	5 8.02	+16 50.7	1.243	2.224	2.9	19.4
12 17	4 58.10	+20 17.4	2.347	3.320	3.0	21.3	12 17	4 57.94	+16 11.7	1.249	2.220	5.3	19.6
12 27	4 49.13	+19 43.7	2.399	3.330	6.4	21.5	12 27	4 49.07	+15 41.9	1.280	2.217	10.2	19.8
1 6	4 41.76	+19 14.1	2.479	3.339	9.5	21.7	1 6	4 42.64	+15 24.1	1.335	2.214	14.7	20.1
1 16	4 36.48	+18 50.4	2.584	3.346	12.1	21.9	1 16	4 39.36	+15 19.2	1.410	2.212	18.6	20.3
<b>29613</b>	Charlespicard	12 9.4	104°46'	3.6/ 8.8	18		<b>367642</b>	2009 <i>WM</i> <sub>50</sub>	12 9.4	330°29'	2.0/ 9.2	17	
11 7	5 37.20	+16 19.0	1.334	2.186	17.0	19.7	11 7	5 29.72	+16 29.3	1.983	2.827	12.6	20.2
11 17	5 30.06	+15 44.5	1.283	2.201	12.5	19.5	11 17	5 24.24	+16 38.6	1.905	2.821	9.3	20.0
11 27	5 20.05	+15 13.4	1.254	2.216	7.6	19.3	11 27	5 16.68	+16 51.7	1.852	2.814	5.5	19.7
12 7	5 8.41	+14 48.1	1.251	2.230	3.7	19.1	12 7	5 7.80	+17 8.7	1.827	2.809	2.2	19.5
12 17	4 56.71	+14 31.2	1.276	2.245	5.8	19.2	12 17	4 58.57	+17 29.6	1.831	2.803	3.9	19.6
12 27	4 46.55	+14 24.8	1.327	2.258	10.4	19.5	12 27	4 50.11	+17 54.3	1.864	2.798	7.7	19.8
1 6	4 39.09	+14 29.9	1.401	2.272	14.7	19.8	1 6	4 43.34	+18 23.0	1.923	2.793	11.3	20.1
1 16	4 34.93	+14 45.8	1.496	2.284	18.3	20.1	1 16	4 38.93	+18 55.4	2.005	2.789	14.5	20.3
<b>445161</b>	2008 <i>YU</i> <sub>122</sub>	12 9.4	67°69'	2.6/ 8.9	18		<b>237411</b>	1998 <i>SN</i> <sub>155</sub>	12 9.4	92°35'	1.4/ 9.2	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>64366</b>	2001 <i>UK</i> <sub>107</sub>	12 9.4 244°72	1°2/ 9.2 18				<b>334957</b>	2004 <i>CY</i> <sub>109</sub>	12 9.4 246°84	13°3/ 6.7 18			
11 7	5 33.79	+19 52.6	1.697	2.543	14.3	19.9	11 7	5 32.76	-10 39.8	1.773	2.539	17.0	21.1
11 17	5 27.55	+19 49.0	1.618	2.535	10.5	19.6	11 17	5 26.60	-11 52.9	1.705	2.526	15.2	20.9
11 27	5 18.72	+19 45.5	1.563	2.527	6.1	19.4	11 27	5 18.11	-12 41.6	1.658	2.513	13.8	20.8
12 7	5 8.22	+19 42.2	1.535	2.519	1.6	19.0	12 7	5 8.12	-12 58.4	1.633	2.500	13.3	20.7
12 17	4 57.28	+19 39.7	1.536	2.510	4.1	19.2	12 17	4 57.74	-12 39.1	1.631	2.485	13.9	20.7
12 27	4 47.31	+19 39.4	1.565	2.501	8.7	19.5	12 27	4 48.21	-11 43.7	1.652	2.471	15.5	20.8
1 6	4 39.47	+19 42.9	1.620	2.492	12.9	19.7	1 6	4 40.56	-10 17.1	1.693	2.456	17.5	20.9
1 16	4 34.50	+19 51.9	1.696	2.483	16.5	19.9	1 16	4 35.52	- 8 26.5	1.753	2.440	19.6	21.0
<b>454831</b>	2015 <i>RU</i> <sub>205</sub>	12 9.4 23°18	1°4/ 9.6 18				<b>202785</b>	2008 <i>GE</i> <sub>44</sub>	12 9.4 243°57	0°6/ 9.5 18			
11 7	5 33.09	+25 30.5	1.800	2.643	13.7	20.9	11 7	5 35.94	+24 30.4	1.696	2.538	14.5	21.6
11 17	5 26.95	+25 55.3	1.729	2.644	10.1	20.6	11 17	5 29.28	+24 32.1	1.610	2.525	10.7	21.3
11 27	5 18.32	+26 16.3	1.682	2.645	5.9	20.4	11 27	5 19.81	+24 29.4	1.548	2.512	6.2	21.0
12 7	5 8.13	+26 31.4	1.663	2.646	1.8	20.1	12 7	5 8.48	+24 21.1	1.514	2.498	1.4	20.7
12 17	4 57.60	+26 39.8	1.672	2.647	3.7	20.3	12 17	4 56.60	+24 7.2	1.508	2.483	3.9	20.8
12 27	4 48.07	+26 42.4	1.710	2.649	7.9	20.5	12 27	4 45.70	+23 49.9	1.530	2.468	8.7	21.1
1 6	4 40.65	+26 41.7	1.774	2.650	11.8	20.8	1 6	4 37.05	+23 32.6	1.578	2.452	13.1	21.3
1 16	4 36.02	+26 40.6	1.861	2.652	15.1	21.0	1 16	4 31.49	+23 18.9	1.648	2.436	16.9	21.5
<b>515187</b>	2011 <i>UC</i> <sub>95</sub>	12 9.4 194°33	4°4/10.1 18				<b>327755</b>	2006 <i>TX</i> <sub>123</sub>	12 9.4 141°37	1°5/ 9.6 18			
11 7	5 36.94	+34 25.1	2.164	2.979	12.8	21.8	11 7	5 38.42	+25 53.9	1.712	2.548	14.6	21.4
11 17	5 29.66	+35 9.5	2.086	2.977	9.9	21.6	11 17	5 30.82	+26 17.2	1.648	2.559	10.7	21.2
11 27	5 19.86	+35 44.2	2.032	2.975	6.8	21.4	11 27	5 20.52	+26 35.5	1.608	2.569	6.3	21.0
12 7	5 8.45	+36 5.3	2.006	2.972	4.5	21.3	12 7	5 8.58	+26 46.4	1.596	2.579	2.0	20.7
12 17	4 56.60	+36 10.7	2.010	2.969	5.2	21.3	12 17	4 56.40	+26 49.0	1.613	2.588	3.9	20.9
12 27	4 45.68	+36 1.5	2.043	2.965	8.0	21.5	12 27	4 45.45	+26 44.9	1.659	2.596	8.3	21.1
1 6	4 36.81	+35 41.5	2.103	2.961	11.0	21.7	1 6	4 36.90	+26 37.3	1.732	2.603	12.3	21.4
1 16	4 30.72	+35 15.7	2.186	2.956	13.8	21.8	1 16	4 31.42	+26 30.0	1.827	2.610	15.7	21.6
<b>210312</b>	2007 <i>TQ</i> <sub>160</sub>	12 9.4 53°19	4°6/10.0 18				<b>34963</b>	3091 <i>T-2</i>	12 9.4 217°67	4°3/ 8.3 18			
11 7	5 36.03	+32 28.6	1.602	2.439	15.5	19.7	11 7	5 29.98	+11 11.5	2.180	3.013	12.0	19.5
11 17	5 29.41	+33 18.0	1.544	2.450	11.7	19.5	11 17	5 24.18	+10 33.6	2.104	3.008	9.1	19.3
11 27	5 19.83	+33 56.8	1.509	2.461	7.8	19.3	11 27	5 16.54	+10 1.0	2.054	3.003	6.2	19.1
12 7	5 8.43	+34 20.5	1.500	2.472	4.8	19.2	12 7	5 7.80	+ 9 36.3	2.031	2.998	4.4	19.0
12 17	4 56.74	+34 26.9	1.519	2.484	5.7	19.2	12 17	4 58.82	+ 9 21.6	2.037	2.992	5.5	19.1
12 27	4 46.41	+34 17.8	1.565	2.496	9.2	19.5	12 27	4 50.56	+ 9 18.5	2.073	2.987	8.4	19.2
1 6	4 38.70	+33 58.3	1.635	2.508	12.8	19.7	1 6	4 43.84	+ 9 26.9	2.134	2.980	11.4	19.4
1 16	4 34.31	+33 34.2	1.728	2.521	16.0	20.0	1 16	4 39.22	+ 9 46.0	2.219	2.974	14.1	19.6
<b>39698</b>	1996 <i>TX</i> <sub>7</sub>	12 9.4 154°01	2°5/ 8.9 18 R				<b>483241</b>	2015 <i>RO</i> <sub>143</sub>	12 9.4 334°60	1°3/ 9.2 18			
11 7	5 35.92	+17 11.7	1.675	2.517	14.6	19.5	11 7	5 32.06	+19 37.8	1.738	2.586	13.9	21.3
11 17	5 28.87	+16 54.5	1.610	2.524	10.7	19.3	11 17	5 26.16	+19 34.0	1.667	2.585	10.1	21.0
11 27	5 19.34	+16 39.3	1.569	2.531	6.4	19.1	11 27	5 17.86	+19 30.6	1.620	2.584	5.9	20.8
12 7	5 8.33	+16 27.3	1.556	2.537	2.7	18.9	12 7	5 8.08	+19 27.8	1.600	2.583	1.7	20.5
12 17	4 57.10	+16 19.8	1.571	2.542	4.7	19.0	12 17	4 57.99	+19 26.4	1.608	2.582	3.9	20.7
12 27	4 47.02	+16 18.4	1.615	2.546	8.9	19.3	12 27	4 48.89	+19 27.5	1.645	2.581	8.3	20.9
1 6	4 39.14	+16 24.1	1.685	2.550	12.9	19.5	1 6	4 41.82	+19 32.7	1.707	2.581	12.3	21.2
1 16	4 34.12	+16 37.5	1.776	2.554	16.3	19.8	1 16	4 37.46	+19 43.0	1.791	2.580	15.7	21.4
<b>245389</b>	2005 <i>GU</i> <sub>130</sub>	12 9.4 189°12	7°8/ 7.5 18				<b>27398</b>	2000 <i>EN</i> <sub>104</sub>	12 9.4 277°58	6°4/ 7.5 18			
11 7	5 30.10	- 1 3.7	2.342	3.137	12.5	20.9	11 7	5 29.76	+ 8 4.1	1.879	2.714	13.6	18.0
11 17	5 24.09	- 1 55.1	2.275	3.136	10.4	20.7	11 17	5 24.30	+ 6 58.1	1.802	2.702	10.6	17.8
11 27	5 16.42	- 2 33.0	2.232	3.135	8.6	20.6	11 27	5 16.75	+ 5 59.5	1.749	2.690	7.8	17.6
12 7	5 7.75	- 2 53.5	2.216	3.133	7.8	20.6	12 7	5 7.87	+ 5 12.9	1.723	2.678	6.4	17.5
12 17	4 58.91	- 2 54.3	2.228	3.131	8.5	20.6	12 17	4 58.69	+ 4 42.3	1.724	2.666	7.6	17.6
12 27	4 50.74	- 2 35.0	2.267	3.128	10.2	20.7	12 27	4 50.28	+ 4 30.2	1.753	2.654	10.5	17.7
1 6	4 44.00	- 1 57.5	2.330	3.125	12.3	20.8	1 6	4 43.61	+ 4 36.3	1.806	2.642	13.6	17.9
1 16	4 39.19	- 1 5.0	2.415	3.121	14.3	21.0	1 16	4 39.29	+ 4 59.0	1.880	2.630	16.4	18.1
<b>6394</b>	1990 <i>QM</i> <sub>2</sub>	12 9.4 68°40	21°3/ 8.9 18				<b>209673</b>	2005 <i>CX</i> <sub>64</sub>	12 9.4 182°44	0°5/ 9.5 18			
11 7	5 34.87	-17 44.0	1.082	1.854	25.3	16.5	11 7	5 33.71	+24 8.0	2.021	2.858	12.7	21.1
11 17	5 28.73	-19 47.6	1.057	1.865	23.4	16.4	11 17	5 27.14	+24 14.3	1.946	2.858	9.3	20.8
11 27	5 19.43	-21 4.6	1.046	1.876	22.0	16.3	11 27	5 18.35	+24 17.4	1.896	2.858	5.3	20.6
12 7	5 8.34	-21 24.1	1.051	1.887	21.3	16.3	12 7	5 8.20	+24 16.2	1.874	2.858	1.2	20.3
12 17	4 57.22	-20 42.5	1.072	1.899	21.6	16.4	12 17	4 57.76	+24 10.9	1.882	2.857	3.3	20.5
12 27	4 47.82	-19 4.6	1.110	1.910	22.6	16.5	12 27	4 48.23	+24 2.9	1.920	2.857	7.3	20.7
1 6	4 41.37	-16 42.8	1.163	1.922	24.2	16.7	1 6	4 40.58	+23 54.5	1.985	2.855	11.0	21.0
1 16	4 38.49	-13 51.4	1.230	1.933	25.8	16.9	1 16	4 35.46	+23 48.2	2.073	2.854	14.1	21.2
<b>301751</b>	2010 <i>HF</i> <sub>107</sub>	12 9.4 153°29	1°0/ 9.6 18				<b>300627</b>	2007 <i>UE</i> <sub>38</sub>	12 9.4 127°86	5°3/10.2 18			
11 7	5 34.39	+25 15.2	1.982	2.819	12.9	21.6	11 7	5 38.82	+36 7.3	2.017	2.828	13.7	20.5
11 17	5 27.63	+25 26.6	1.912	2.824	9.4	21.4	11 17	5 31.16	+37 7.4	1.952	2.839	10.7	20.3
11 27	5 18.60	+25 33.8	1.867	2.829	5.5	21.2	11 27	5 20.78	+37 55.9	1.912	2.849	7.6	20.1
12 7	5 8.19	+25 35.7	1.850	2.833	1.5	20.9	12 7	5 8.69	+38 27.8	1.899	2.859	5.5	20.0
12 17	4 57.55	+25 31.8	1.863	2.838	3.4	21.0	12 17	4 56.24	+38 40.7	1.916	2.868	6.0	20.1
12 27	4 47.88	+25 23.9	1.905	2.841	7.4	21.3	12 27	4 44.92	+38 35.6	1.961	2.877	8.6	20.2
1 6	4 40.18	+25 14.4	1.974	2.845	11.1	21.5	1 6	4 35.92	+38 17.2	2.032	2.886	11.5	20.4
1 16	4 35.07	+25 6.1	2.066	2.848	14.1	21.8	1 16	4 29.96	+37 51.2	2.126	2.894	14.2	20.7
<b>369646</b>	2011 <i>EN</i> <sub>81</sub>	12 9.4 245°46	0°5/ 9.5 18				<b>228190</b>	2009 <i>UY</i> <sub>38</sub>	12 9.4 251°97				

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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>480339</b>	2015 <i>KH</i> <sub>7</sub>	12 9.4 115°33	2.4/ 9.4 18				<b>151304</b>	2002 <i>CJ</i> <sub>85</sub>	12 9.4 26°54	7.5/12.0 17			
11 7	5 37.01	+14 22.8	1.729	2.565	14.5	21.3	11 7	5 36.96	+43 59.5	1.839	2.635	15.4	20.0
11 17	5 29.64	+14 55.0	1.667	2.578	10.7	21.0	11 17	5 30.09	+44 18.4	1.772	2.639	12.6	19.8
11 27	5 19.81	+15 34.0	1.630	2.590	6.4	20.8	11 27	5 20.22	+44 16.8	1.727	2.644	9.8	19.6
12 7	5 8.49	+16 18.8	1.621	2.602	2.7	20.6	12 7	5 8.60	+43 50.2	1.707	2.648	7.8	19.5
12 17	4 56.93	+17 7.6	1.642	2.614	4.4	20.8	12 17	4 56.84	+42 57.9	1.713	2.653	7.8	19.5
12 27	4 46.45	+17 58.7	1.693	2.625	8.5	21.0	12 27	4 46.60	+41 44.4	1.746	2.659	9.8	19.7
1 6	4 38.13	+18 51.2	1.770	2.636	12.4	21.3	1 6	4 39.09	+40 17.8	1.805	2.664	12.5	19.9
1 16	4 32.62	+19 44.4	1.870	2.646	15.6	21.5	1 16	4 34.95	+38 46.7	1.887	2.670	15.2	20.1
<b>41277</b>	1999 <i>XS</i> <sub>85</sub>	12 9.4 25°57	4.3/ 9.2 18				<b>432689</b>	2011 <i>BH</i> <sub>73</sub>	12 9.4 86°45	4.3/ 8.7 18			
11 7	5 30.37	+10 19.7	1.729	2.571	14.2	17.6	11 7	5 34.94	+13 49.1	1.468	2.316	16.0	21.1
11 17	5 24.78	+10 30.5	1.670	2.580	10.7	17.4	11 17	5 28.24	+13 14.2	1.419	2.333	11.8	20.9
11 27	5 17.01	+10 51.5	1.635	2.589	7.0	17.3	11 27	5 19.00	+12 45.3	1.392	2.350	7.5	20.7
12 7	5 7.94	+11 23.4	1.626	2.598	4.4	17.1	12 7	5 8.35	+12 25.2	1.392	2.367	4.4	20.6
12 17	4 58.66	+12 5.7	1.645	2.609	5.5	17.2	12 17	4 57.66	+12 15.9	1.419	2.384	6.1	20.7
12 27	4 50.35	+12 57.0	1.692	2.620	8.9	17.4	12 27	4 48.32	+12 18.7	1.473	2.400	10.0	21.0
1 6	4 43.96	+13 55.1	1.765	2.631	12.4	17.7	1 6	4 41.37	+12 33.5	1.552	2.416	13.9	21.3
1 16	4 40.07	+14 57.8	1.860	2.643	15.4	17.9	1 16	4 37.37	+12 58.9	1.651	2.432	17.2	21.5
<b>109181</b>	2001 <i>QN</i> <sub>67</sub>	12 9.4 111°13	2.5/ 8.9 18				<b>226475</b>	2003 <i>SJ</i> <sub>179</sub>	12 9.4 56°06	3.0/ 9.9 17			
11 7	5 32.00	+15 58.8	2.024	2.862	12.6	20.4	11 7	5 32.52	+30 41.6	2.152	2.981	12.3	20.4
11 17	5 25.67	+15 44.9	1.962	2.874	9.2	20.2	11 17	5 26.32	+31 15.3	2.081	2.985	9.2	20.2
11 27	5 17.40	+15 33.8	1.927	2.886	5.6	20.0	11 27	5 17.92	+31 41.8	2.036	2.989	5.9	20.0
12 7	5 8.01	+15 26.8	1.919	2.898	2.6	19.8	12 7	5 8.17	+31 58.5	2.018	2.994	3.2	19.8
12 17	4 58.50	+15 24.8	1.941	2.909	4.2	19.9	12 17	4 58.13	+32 4.4	2.030	2.998	4.1	19.9
12 27	4 49.91	+15 28.7	1.992	2.921	7.7	20.2	12 27	4 48.97	+32 0.4	2.071	3.003	7.2	20.1
1 6	4 43.08	+15 39.0	2.070	2.931	11.0	20.4	1 6	4 41.68	+31 49.5	2.139	3.008	10.4	20.3
1 16	4 38.54	+15 55.7	2.170	2.942	13.9	20.6	1 16	4 36.88	+31 35.3	2.230	3.012	13.2	20.5
<b>10961</b>	Buysballot	12 9.4 160°01	0.1/ 9.4 18				<b>186008</b>	2001 <i>QG</i> <sub>102</sub>	12 9.4 69°00	6.0/ 9.0 18			
11 7	5 37.25	+23 5.1	1.625	2.468	15.0	19.9	11 7	5 36.89	+ 8 43.7	1.393	2.233	17.1	20.3
11 17	5 30.06	+23 3.8	1.558	2.473	10.9	19.7	11 17	5 29.48	+ 8 22.8	1.359	2.265	12.9	20.1
11 27	5 20.15	+22 59.3	1.515	2.478	6.3	19.5	11 27	5 19.60	+ 8 14.9	1.348	2.297	8.8	20.0
12 7	5 8.58	+22 50.8	1.498	2.483	1.2	19.1	12 7	5 8.45	+ 8 22.0	1.362	2.329	6.1	19.9
12 17	4 56.74	+22 38.7	1.511	2.486	3.9	19.3	12 17	4 57.47	+ 8 44.5	1.403	2.360	7.3	20.0
12 27	4 46.12	+22 25.4	1.552	2.489	8.7	19.6	12 27	4 48.03	+ 9 21.3	1.472	2.391	10.7	20.3
1 6	4 37.91	+22 13.8	1.619	2.492	12.9	19.9	1 6	4 41.10	+10 9.5	1.564	2.421	14.2	20.6
1 16	4 32.78	+22 6.7	1.707	2.494	16.5	20.1	1 16	4 37.16	+11 5.8	1.677	2.452	17.2	20.9
<b>406998</b>	2009 <i>RW</i> <sub>50</sub>	12 9.4 79°69	0.6/ 9.6 18				<b>275453</b>	2011 <i>CA</i> <sub>74</sub>	12 9.4 228°46	4.6/10.8 18			
11 7	5 31.64	+25 0.3	2.120	2.957	12.1	21.2	11 7	5 33.37	+38 42.3	2.622	3.421	11.2	21.0
11 17	5 25.42	+25 0.1	2.059	2.972	8.8	21.0	11 17	5 26.79	+39 4.4	2.537	3.414	8.9	20.8
11 27	5 17.26	+24 55.7	2.024	2.987	5.1	20.8	11 27	5 18.14	+39 15.0	2.477	3.407	6.5	20.6
12 7	5 7.99	+24 46.9	2.017	3.001	1.2	20.6	12 7	5 8.21	+39 11.3	2.445	3.400	4.8	20.5
12 17	4 58.62	+24 34.0	2.040	3.016	3.0	20.8	12 17	4 58.00	+38 52.3	2.443	3.393	5.1	20.5
12 27	4 50.20	+24 19.0	2.093	3.030	6.8	21.0	12 27	4 48.58	+38 19.7	2.469	3.385	7.1	20.6
1 6	4 43.56	+24 4.2	2.172	3.044	10.1	21.3	1 6	4 40.89	+37 37.4	2.523	3.377	9.6	20.8
1 16	4 39.24	+23 51.9	2.276	3.059	13.0	21.5	1 16	4 35.53	+36 49.9	2.602	3.369	11.9	20.9
<b>452581</b>	2005 <i>GZ</i> <sub>112</sub>	12 9.4 206°99	3.4/ 8.9 18				<b>349171</b>	2007 <i>RG</i> <sub>8</sub>	12 9.4 43°95	2.8/10.1 17			
11 7	5 32.02	+12 7.8	2.318	3.146	11.6	21.8	11 7	5 34.54	+30 40.8	1.449	2.296	16.2	20.2
11 17	5 25.63	+12 0.9	2.237	3.141	8.7	21.6	11 17	5 28.28	+30 34.5	1.396	2.310	12.0	20.0
11 27	5 17.41	+11 59.5	2.182	3.135	5.6	21.4	11 27	5 19.14	+30 16.4	1.366	2.325	7.4	19.7
12 7	5 8.05	+12 4.8	2.155	3.128	3.4	21.3	12 7	5 8.40	+29 45.0	1.361	2.341	3.3	19.5
12 17	4 58.39	+12 17.5	2.159	3.121	4.6	21.3	12 17	4 57.61	+29 2.2	1.383	2.357	4.5	19.7
12 27	4 49.41	+12 37.9	2.193	3.113	7.6	21.5	12 27	4 48.38	+28 12.5	1.433	2.373	8.9	20.0
1 6	4 41.90	+13 5.5	2.254	3.105	10.7	21.7	1 6	4 41.83	+27 22.2	1.507	2.390	13.0	20.2
1 16	4 36.47	+13 39.7	2.339	3.096	13.4	21.9	1 16	4 38.54	+26 36.4	1.602	2.408	16.5	20.5
<b>120029</b>	2003 <i>AD</i> <sub>60</sub>	12 9.4 120°53	6.0/11.3 18				<b>266814</b>	2009 <i>TX</i> <sub>2</sub>	12 9.4 21°51	2.5/ 9.7 17			
11 7	5 41.90	+40 15.5	1.909	2.708	14.8	19.0	11 7	5 32.71	+27 42.8	1.895	2.734	13.3	20.2
11 17	5 33.31	+40 36.1	1.851	2.726	11.7	18.8	11 17	5 26.68	+28 27.4	1.826	2.737	9.9	20.0
11 27	5 21.89	+40 39.0	1.815	2.744	8.6	18.7	11 27	5 18.23	+29 7.3	1.782	2.741	6.0	19.8
12 7	5 8.91	+40 20.2	1.806	2.760	6.3	18.6	12 7	5 8.25	+29 39.4	1.765	2.745	2.7	19.6
12 17	4 55.91	+39 39.6	1.826	2.776	6.5	18.6	12 17	4 57.91	+30 1.8	1.778	2.749	4.0	19.7
12 27	4 44.48	+38 41.2	1.875	2.792	8.9	18.8	12 27	4 48.52	+30 14.8	1.819	2.754	7.8	20.0
1 6	4 35.75	+37 32.6	1.950	2.807	11.8	19.0	1 6	4 41.16	+30 20.8	1.886	2.759	11.4	20.2
1 16	4 30.30	+36 21.2	2.048	2.821	14.5	19.2	1 16	4 36.52	+30 23.1	1.976	2.765	14.4	20.4
<b>356003</b>	2009 <i>BM</i> <sub>64</sub>	12 9.4 91°89	2.2/ 9.1 18				<b>97672</b>	2000 <i>FW</i> <sub>46</sub>	12 9.4 253°98	1.2/ 9.6 18			
11 7	5 33.01	+17 1.3	1.765	2.610	13.9	21.1	11 7	5 31.11	+26 2.3	2.596	3.425	10.5	20.1
11 17	5 26.68	+16 56.6	1.704	2.620	10.1	20.9	11 17	5 25.05	+26 26.1	2.504	3.411	7.7	19.9
11 27	5 18.09	+16 54.8	1.668	2.630	6.0	20.7	11 27	5 17.15	+26 46.8	2.437	3.397	4.6	19.7
12 7	5 8.18	+16 56.4	1.659	2.640	2.4	20.5	12 7	5 8.03	+27 3.0	2.400	3.382	1.6	19.5
12 17	4 58.09	+17 2.0	1.679	2.650	4.3	20.6	12 17	4 58.54	+27 13.8	2.394	3.367	2.9	19.5
12 27	4 49.05	+17 12.3	1.727	2.660	8.3	20.9	12 27	4 49.61	+27 19.8	2.418	3.352	6.2	19.7
1 6	4 42.03	+17 27.9	1.801	2.670	12.0	21.1	1 6	4 42.09	+27 22.4	2.471	3.337	9.3	19.9
1 16	4 37.62	+17 48.9	1.897	2.680	15.2	21.4	1 16	4 36.59	+27 23.6	2.548	3.322	12.0	20.1
<b>108484</b>	2001 <i>KL</i> <sub>61</sub>	12 9.4 105°29	1.3/ 9.6 18				<b>213348</b>	2001 <i>SC</i> <sub>308</sub>	12 9.4 128°39	3.4/ 8.6 18			

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>437968</b>	2003 <i>GJ</i> <sub>41</sub>	12	9.4 167°91	2°2/ 8.9	18		<b>450035</b>	2015 <i>RM</i> <sub>1</sub>	12	9.4 105°62	4°5/ 8.2	18	
11 7	5 33.84	+17 16.3	2.045	2.880	12.6	22.2	11 7	5 32.23	+12 12.6	1.999	2.834	12.9	21.4
11 17	5 27.08	+16 57.4	1.974	2.885	9.2	22.0	11 17	5 25.74	+11 16.4	1.946	2.851	9.7	21.3
11 27	5 18.27	+16 39.8	1.929	2.889	5.5	21.8	11 27	5 17.41	+10 25.2	1.917	2.868	6.4	21.1
12 7	5 8.24	+16 24.7	1.912	2.892	2.4	21.6	12 7	5 8.08	+9 42.4	1.917	2.885	4.5	21.0
12 17	4 58.01	+16 13.4	1.925	2.895	4.1	21.7	12 17	4 58.72	+9 10.8	1.946	2.901	5.7	21.1
12 27	4 48.68	+16 7.3	1.968	2.897	7.8	21.9	12 27	4 50.35	+8 52.2	2.004	2.917	8.7	21.3
1 6	4 41.14	+16 7.6	2.038	2.898	11.2	22.2	1 6	4 43.75	+8 46.9	2.088	2.933	11.7	21.5
1 16	4 35.97	+16 14.9	2.131	2.899	14.2	22.4	1 16	4 39.38	+8 53.9	2.194	2.948	14.3	21.8
<b>364978</b>	2008 <i>HQ</i> <sub>42</sub>	12	9.4 80°86	0°2/ 9.4	18		<b>484836</b>	2009 <i>HD</i> <sub>41</sub>	12	9.4 138°81	1°5/ 9.1	18	
11 7	5 31.90	+22 21.9	1.964	2.807	12.8	21.3	11 7	5 32.18	+19 1.9	2.102	2.940	12.2	21.9
11 17	5 25.80	+22 25.5	1.899	2.814	9.3	21.1	11 17	5 25.84	+18 49.7	2.034	2.947	8.9	21.7
11 27	5 17.58	+22 27.2	1.858	2.822	5.3	20.8	11 27	5 17.56	+18 37.8	1.992	2.954	5.2	21.5
12 7	5 8.11	+22 26.6	1.846	2.830	1.0	20.5	12 7	5 8.13	+18 26.9	1.970	2.961	1.7	21.3
12 17	4 58.44	+22 24.1	1.862	2.838	3.3	20.7	12 17	4 58.53	+18 17.8	1.995	2.968	3.5	21.4
12 27	4 49.72	+22 21.0	1.908	2.846	7.3	21.0	12 27	4 49.81	+18 12.0	2.041	2.974	7.3	21.6
1 6	4 42.87	+22 19.0	1.981	2.853	10.9	21.2	1 6	4 42.82	+18 10.7	2.115	2.980	10.7	21.9
1 16	4 38.47	+22 19.8	2.076	2.861	14.0	21.5	1 16	4 38.10	+18 14.9	2.211	2.985	13.6	22.1
<b>333544</b>	2005 <i>TR</i> <sub>175</sub>	12	9.4 93°28	3°4/ 8.9	18		<b>47176</b>	1999 <i>TK</i> <sub>105</sub>	12	9.4 252°28	3°4/ 10.0	18	
11 7	5 36.06	+14 40.9	1.585	2.428	15.3	21.4	11 7	5 36.96	+30 38.5	1.527	2.367	15.9	19.1
11 17	5 28.89	+14 23.2	1.537	2.450	11.2	21.2	11 17	5 30.41	+30 58.7	1.450	2.360	12.0	18.8
11 27	5 19.32	+14 10.8	1.513	2.472	6.9	21.0	11 27	5 20.66	+31 9.0	1.395	2.353	7.6	18.5
12 7	5 8.44	+14 4.9	1.516	2.493	3.6	20.8	12 7	5 8.79	+31 5.7	1.367	2.345	3.8	18.3
12 17	4 57.56	+14 6.8	1.547	2.514	5.2	21.0	12 17	4 56.40	+30 47.5	1.366	2.337	5.1	18.3
12 27	4 47.99	+14 17.0	1.606	2.535	9.2	21.3	12 27	4 45.26	+30 17.2	1.392	2.329	9.5	18.6
1 6	4 40.71	+14 35.6	1.691	2.555	13.0	21.5	1 6	4 36.80	+29 40.6	1.443	2.321	13.9	18.8
1 16	4 36.27	+15 1.9	1.797	2.574	16.1	21.8	1 16	4 31.87	+29 3.8	1.515	2.313	17.7	19.0
<b>357687</b>	2005 <i>ND</i> <sub>11</sub>	12	9.4 248°85	4°1/ 8.8	18		<b>514199</b>	2015 <i>ML</i> <sub>118</sub>	12	9.4 238°36	1°6/ 9.7	18	
11 7	5 31.40	+11 1.8	2.097	2.929	12.5	21.3	11 7	5 36.20	+26 53.5	1.892	2.726	13.5	22.0
11 17	5 25.42	+10 49.9	2.013	2.917	9.5	21.1	11 17	5 29.36	+27 8.5	1.803	2.713	10.1	21.8
11 27	5 17.41	+10 44.8	1.953	2.904	6.3	20.9	11 27	5 19.88	+27 18.2	1.738	2.699	6.0	21.5
12 7	5 8.10	+10 48.4	1.921	2.892	4.1	20.7	12 7	5 8.63	+27 20.3	1.702	2.684	2.1	21.2
12 17	4 58.42	+11 1.6	1.919	2.878	5.3	20.7	12 17	4 56.85	+27 14.0	1.695	2.669	3.8	21.3
12 27	4 49.42	+11 24.8	1.945	2.865	8.5	20.9	12 27	4 45.95	+27 0.8	1.717	2.653	8.1	21.6
1 6	4 42.01	+11 57.3	1.998	2.851	11.8	21.1	1 6	4 37.13	+26 44.2	1.765	2.636	12.1	21.8
1 16	4 36.83	+12 38.0	2.074	2.837	14.7	21.3	1 16	4 31.19	+26 27.8	1.837	2.619	15.6	22.0
<b>63649</b>	2001 <i>QT</i> <sub>105</sub>	12	9.4 14°57	4°3/ 8.5	18		<b>339896</b>	2005 <i>TL</i> <sub>169</sub>	12	9.4 145°95	0°3/ 9.4	18	
11 7	5 30.68	+16 8.8	1.224	2.091	17.2	18.1	11 7	5 36.16	+22 55.8	1.897	2.734	13.4	22.0
11 17	5 25.71	+15 14.6	1.169	2.094	12.8	17.8	11 17	5 28.90	+22 44.2	1.832	2.744	9.7	21.7
11 27	5 17.82	+14 23.2	1.135	2.098	7.9	17.5	11 27	5 19.36	+22 29.3	1.791	2.754	5.6	21.5
12 7	5 8.18	+13 39.2	1.125	2.103	4.4	17.4	12 7	5 8.50	+22 11.0	1.779	2.763	1.1	21.2
12 17	4 58.33	+13 6.6	1.140	2.108	6.5	17.5	12 17	4 57.49	+21 50.4	1.797	2.772	3.4	21.4
12 27	4 49.87	+12 49.0	1.180	2.115	11.1	17.8	12 27	4 47.58	+21 29.9	1.844	2.780	7.7	21.7
1 6	4 44.02	+12 47.1	1.243	2.122	15.6	18.1	1 6	4 39.73	+21 12.2	1.919	2.787	11.5	21.9
1 16	4 41.43	+13 0.0	1.325	2.130	19.4	18.3	1 16	4 34.54	+20 59.5	2.016	2.793	14.6	22.2
<b>156025</b>	2001 <i>RD</i> <sub>115</sub>	12	9.4 332°67	2°4/ 9.1	18		<b>184187</b>	2004 <i>PX</i> <sub>3</sub>	12	9.4 58°53	2°4/ 9.1	18	
11 7	5 30.46	+18 29.8	1.221	2.089	17.2	19.5	11 7	5 30.89	+16 1.1	1.907	2.751	13.0	19.8
11 17	5 25.94	+18 16.7	1.148	2.076	12.7	19.2	11 17	5 25.05	+15 57.4	1.846	2.760	9.6	19.6
11 27	5 18.21	+18 5.5	1.096	2.063	7.5	18.9	11 27	5 17.16	+15 57.4	1.809	2.770	5.7	19.4
12 7	5 8.31	+17 57.5	1.068	2.051	2.7	18.6	12 7	5 8.06	+16 1.6	1.800	2.780	2.6	19.2
12 17	4 57.79	+17 54.4	1.066	2.040	5.3	18.7	12 17	4 58.80	+16 10.6	1.819	2.790	4.2	19.3
12 27	4 48.46	+17 57.9	1.088	2.030	10.8	19.0	12 27	4 50.46	+16 24.9	1.868	2.800	7.9	19.5
1 6	4 41.79	+18 9.7	1.132	2.021	15.9	19.3	1 6	4 43.94	+16 44.7	1.942	2.810	11.4	19.8
1 16	4 38.69	+18 30.2	1.195	2.013	20.3	19.5	1 16	4 39.79	+17 9.7	2.039	2.820	14.3	20.0
<b>17605</b>	1995 <i>SR</i> <sub>26</sub>	12	9.4 84°09	0°7/ 9.3	18 R		<b>309500</b>	2007 <i>VP</i> <sub>308</sub>	12	9.4 321°94	2°4/ 10.2	17	
11 7	5 31.21	+21 24.7	2.008	2.851	12.5	18.5	11 7	5 32.36	+31 21.8	1.517	2.364	15.6	19.6
11 17	5 25.23	+21 12.6	1.942	2.858	9.1	18.3	11 17	5 27.04	+30 48.4	1.430	2.345	11.8	19.3
11 27	5 17.23	+20 58.9	1.902	2.865	5.2	18.1	11 27	5 18.70	+29 59.7	1.366	2.326	7.3	19.0
12 7	5 8.05	+20 44.0	1.889	2.873	1.2	17.8	12 7	5 8.42	+28 55.0	1.328	2.308	3.0	18.7
12 17	4 58.71	+20 29.0	1.905	2.880	3.3	18.0	12 17	4 57.68	+27 36.7	1.316	2.291	4.4	18.8
12 27	4 50.30	+20 15.6	1.951	2.887	7.3	18.3	12 27	4 48.14	+26 11.0	1.332	2.275	9.2	19.0
1 6	4 43.68	+20 5.8	2.023	2.894	10.8	18.5	1 6	4 41.13	+24 46.1	1.373	2.259	13.9	19.3
1 16	4 39.42	+20 1.1	2.119	2.901	13.8	18.7	1 16	4 37.44	+23 28.9	1.435	2.244	18.0	19.5
<b>11379</b>	Flaubert	12	9.4 112°41	0°2/ 9.4	18		<b>180354</b>	2003 <i>YL</i> <sub>76</sub>	12	9.4 339°83	0°6/ 9.5	18	
11 7	5 34.57	+22 8.8	2.068	2.903	12.5	18.8	11 7	5 34.07	+22 39.5	1.219	2.083	17.5	19.7
11 17	5 27.54	+22 13.2	2.010	2.922	9.1	18.7	11 17	5 28.68	+23 8.1	1.151	2.077	12.9	19.5
11 27	5 18.49	+22 15.8	1.977	2.940	5.2	18.5	11 27	5 19.84	+23 36.4	1.104	2.071	7.5	19.1
12 7	5 8.29	+22 16.0	1.973	2.957	1.0	18.2	12 7	5 8.68	+24 1.7	1.082	2.066	1.6	18.8
12 17	4 58.02	+22 14.1	2.000	2.975	3.1	18.4	12 17	4 56.89	+24 22.0	1.085	2.062	4.6	18.9
12 27	4 48.74	+22 11.4	2.056	2.991	7.0	18.7	12 27	4 46.43	+24 37.8	1.114	2.058	10.4	19.3
1 6	4 41.34	+22 9.6	2.140	3.007	10.5	18.9	1 6	4 38.88	+24 51.5	1.166	2.055	15.5	19.5
1 16	4 36.35	+22 10.5	2.247	3.023	13.3	19.1	1 16	4 35.15	+25 5.8	1.236	2.053	19.8	19.8
<b>516518</b>	2006 <i>HJ</i> <sub>4</sub>	12	9.4 207°91	1°1/ 9.2	18		<b>198683</b>	2005 <i>CC</i> <sub>10</sub>	12	9.4 358°77	1°5/ 9.8	17	

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12 9.5

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>427397</b>	1997 <i>NZ</i> <sub>1</sub>		12 9.4 167°02	1.7/ 9.2	18		<b>245029</b>	2004 <i>EX</i> <sub>21</sub>		12 9.4 188°59	1.9/ 9.1	18	
11 7	5 35.46	+18 13.7	1.991	2.825	12.9	21.9	11 7	5 35.07	+18 26.4	1.804	2.645	13.8	21.0
11 17	5 28.36	+18 8.7	1.919	2.830	9.5	21.7	11 17	5 28.32	+18 14.1	1.730	2.644	10.1	20.8
11 27	5 19.07	+18 4.9	1.874	2.835	5.5	21.5	11 27	5 19.16	+18 2.6	1.681	2.643	6.0	20.5
12 7	5 8.47	+18 2.5	1.856	2.839	1.9	21.2	12 7	5 8.53	+17 52.6	1.660	2.642	2.1	20.3
12 17	4 57.64	+18 2.1	1.869	2.842	3.8	21.4	12 17	4 57.58	+17 45.2	1.668	2.640	4.2	20.4
12 27	4 47.73	+18 4.9	1.912	2.844	7.8	21.6	12 27	4 47.62	+17 41.9	1.704	2.637	8.4	20.6
1 6	4 39.71	+18 11.9	1.982	2.845	11.4	21.9	1 6	4 39.69	+17 44.2	1.767	2.634	12.4	20.9
1 16	4 34.19	+18 23.8	2.075	2.846	14.5	22.1	1 16	4 34.47	+17 52.9	1.853	2.630	15.7	21.1
<b>136045</b>	2002 <i>XK</i> <sub>8</sub>		12 9.4 82°01	3°5/10.3	18		<b>281122</b>	2007 <i>BW</i> <sub>57</sub>		12 9.5 285°06	0°9/ 9.3	18	R
11 7	5 35.80	+32 23.5	1.833	2.662	14.1	19.8	11 7	5 33.81	+21 5.3	1.504	2.357	15.4	20.8
11 17	5 28.85	+32 40.1	1.776	2.678	10.6	19.7	11 17	5 28.02	+21 2.3	1.423	2.343	11.4	20.5
11 27	5 19.40	+32 45.8	1.742	2.694	6.8	19.5	11 27	5 19.30	+20 58.3	1.364	2.329	6.6	20.2
12 7	5 8.53	+32 38.3	1.736	2.710	3.8	19.3	12 7	5 8.60	+20 53.1	1.331	2.315	1.5	19.8
12 17	4 57.55	+32 17.5	1.758	2.726	4.6	19.4	12 17	4 57.30	+20 47.2	1.325	2.301	4.3	20.0
12 27	4 47.84	+31 46.3	1.809	2.742	8.0	19.6	12 27	4 47.02	+20 42.5	1.347	2.286	9.5	20.3
1 6	4 40.45	+31 9.5	1.886	2.758	11.4	19.9	1 6	4 39.09	+20 41.4	1.393	2.272	14.2	20.5
1 16	4 35.95	+30 32.2	1.985	2.773	14.4	20.1	1 16	4 34.39	+20 46.0	1.459	2.258	18.2	20.7
<b>406667</b>	2008 <i>EQ</i> <sub>56</sub>		12 9.4 270°09	1°5/ 9.1	17		<b>25819</b>	Tripathi		12 9.5 87°79	0°1/ 9.4	18	
11 7	5 31.12	+19 0.7	2.015	2.857	12.5	21.6	11 7	5 30.65	+22 56.1	2.316	3.152	11.3	18.9
11 17	5 25.37	+18 48.9	1.929	2.844	9.2	21.4	11 17	5 24.60	+22 50.7	2.254	3.167	8.2	18.7
11 27	5 17.46	+18 37.4	1.868	2.831	5.4	21.2	11 27	5 16.81	+22 42.8	2.219	3.182	4.6	18.5
12 7	5 8.18	+18 26.8	1.835	2.818	1.8	20.9	12 7	5 8.04	+22 32.6	2.212	3.196	0.9	18.3
12 17	4 58.51	+18 18.1	1.832	2.804	3.8	21.0	12 17	4 59.17	+22 20.7	2.235	3.210	2.8	18.5
12 27	4 49.59	+18 12.9	1.857	2.791	7.8	21.2	12 27	4 51.14	+22 8.6	2.289	3.225	6.4	18.7
1 6	4 42.39	+18 12.6	1.909	2.777	11.5	21.4	1 6	4 44.70	+21 58.2	2.370	3.239	9.5	19.0
1 16	4 37.57	+18 18.3	1.983	2.764	14.7	21.6	1 16	4 40.35	+21 50.9	2.475	3.253	12.2	19.2
<b>227219</b>	2005 <i>RZ</i> <sub>4</sub>		12 9.4 94°07	1°4/ 9.2	18		<b>299625</b>	2006 <i>JT</i> <sub>43</sub>		12 9.5 122°72	2°1/ 9.1	18	
11 7	5 37.15	+19 33.0	1.591	2.435	15.2	21.0	11 7	5 33.67	+17 3.5	2.052	2.888	12.6	21.7
11 17	5 29.76	+19 28.1	1.542	2.458	11.0	20.8	11 17	5 26.89	+16 52.0	1.992	2.903	9.2	21.5
11 27	5 19.87	+19 23.5	1.517	2.480	6.3	20.6	11 27	5 18.15	+16 42.4	1.958	2.918	5.4	21.3
12 7	5 8.62	+19 19.3	1.519	2.502	1.8	20.3	12 7	5 8.31	+16 35.6	1.952	2.932	2.3	21.1
12 17	4 57.36	+19 16.3	1.550	2.524	4.1	20.5	12 17	4 58.36	+16 32.4	1.976	2.946	3.9	21.3
12 27	4 47.46	+19 15.9	1.609	2.545	8.6	20.8	12 27	4 49.37	+16 33.9	2.029	2.959	7.5	21.5
1 6	4 39.95	+19 19.8	1.694	2.565	12.6	21.1	1 6	4 42.16	+16 40.9	2.110	2.972	10.8	21.8
1 16	4 35.38	+19 28.9	1.801	2.585	15.8	21.4	1 16	4 37.29	+16 53.6	2.214	2.984	13.7	22.0
<b>514533</b>	2016 <i>YZ</i> <sub>11</sub>		12 9.4 38°63	8°7/ 8.9	18		<b>350916</b>	2002 <i>RY</i> <sub>291</sub>		12 9.5 90°02	4°9/ 8.8	18	
11 7	5 30.22	+ 0 42.1	1.651	2.472	15.8	20.3	11 7	5 31.77	+ 9 50.2	1.810	2.646	13.9	20.6
11 17	5 25.15	+ 0 13.0	1.598	2.480	12.9	20.1	11 17	5 25.76	+ 9 32.0	1.748	2.653	10.6	20.4
11 27	5 17.28	+ 0 2.4	1.566	2.488	10.2	20.0	11 27	5 17.62	+ 9 22.8	1.709	2.659	7.2	20.2
12 7	5 8.12	+ 0 14.0	1.558	2.497	8.7	19.9	12 7	5 8.22	+ 9 24.6	1.698	2.666	5.0	20.1
12 17	4 58.80	+ 0 49.1	1.577	2.506	9.4	20.0	12 17	4 58.62	+ 9 38.7	1.715	2.672	6.1	20.2
12 27	4 50.50	+ 1 46.2	1.622	2.515	11.7	20.2	12 27	4 49.96	+10 5.0	1.759	2.678	9.2	20.4
1 6	4 44.16	+ 3 0.8	1.690	2.525	14.5	20.4	1 6	4 43.17	+10 42.2	1.829	2.684	12.6	20.6
1 16	4 40.36	+ 4 27.8	1.779	2.534	17.1	20.6	1 16	4 38.84	+11 28.2	1.921	2.691	15.5	20.8
<b>435496</b>	2008 <i>GR</i> <sub>81</sub>		12 9.4 251°76	0°2/ 9.5	18		<b>114289</b>	2002 <i>XG</i> <sub>28</sub>		12 9.5 315°71	6°3/ 9.8	18	
11 7	5 35.68	+22 54.6	1.599	2.445	15.0	21.8	11 7	5 35.62	+33 24.8	1.312	2.159	17.6	19.0
11 17	5 29.28	+23 3.8	1.517	2.434	11.0	21.5	11 17	5 30.32	+34 35.3	1.231	2.140	13.7	18.7
11 27	5 19.97	+23 10.8	1.458	2.422	6.4	21.2	11 27	5 21.12	+35 36.6	1.171	2.122	9.6	18.4
12 7	5 8.71	+23 14.4	1.426	2.410	1.3	20.9	12 7	5 9.04	+36 20.9	1.135	2.105	6.5	18.2
12 17	4 56.87	+23 14.2	1.422	2.397	4.0	21.0	12 17	4 55.87	+36 42.2	1.125	2.087	7.6	18.2
12 27	4 46.04	+23 11.4	1.446	2.385	9.0	21.3	12 27	4 43.88	+36 40.1	1.139	2.071	11.7	18.4
1 6	4 37.54	+23 8.9	1.495	2.372	13.6	21.5	1 6	4 35.02	+36 20.5	1.175	2.055	16.2	18.6
1 16	4 32.22	+23 9.4	1.566	2.358	17.4	21.8	1 16	4 30.45	+35 51.6	1.231	2.041	20.3	18.8
<b>152022</b>	2004 <i>LF</i> <sub>23</sub>		12 9.4 133°80	2°7/10.1	18		<b>137124</b>	1999 <i>BH</i> <sub>30</sub>		12 9.5 358°27	1°1/ 9.7	18	
11 7	5 37.43	+30 20.1	1.811	2.642	14.2	20.3	11 7	5 32.72	+26 5.3	1.846	2.688	13.5	20.0
11 17	5 30.08	+30 29.7	1.746	2.652	10.6	20.1	11 17	5 26.68	+26 6.9	1.773	2.688	9.9	19.7
11 27	5 20.15	+30 29.9	1.706	2.662	6.6	19.9	11 27	5 18.25	+26 3.1	1.725	2.687	5.8	19.5
12 7	5 8.70	+30 18.4	1.693	2.672	3.0	19.7	12 7	5 8.35	+25 53.0	1.704	2.687	1.6	19.2
12 17	4 57.08	+29 55.5	1.709	2.681	4.2	19.8	12 17	4 58.18	+25 36.8	1.712	2.687	3.5	19.4
12 27	4 46.70	+29 23.9	1.754	2.689	8.0	20.0	12 27	4 49.01	+25 16.9	1.749	2.687	7.7	19.6
1 6	4 38.66	+28 48.4	1.825	2.697	11.8	20.3	1 6	4 41.89	+24 56.3	1.811	2.687	11.6	19.8
1 16	4 33.58	+28 13.8	1.920	2.705	14.9	20.5	1 16	4 37.46	+24 38.2	1.896	2.688	14.9	20.1
<b>231637</b>	2009 <i>UK</i> <sub>88</sub>		12 9.4 15°78	4°8/ 8.1	18		<b>35146</b>	1993 <i>FC</i> <sub>9</sub>		12 9.5 108°98	0°9/ 9.3	18	
11 7	5 28.42	+11 33.2	1.980	2.821	12.7	19.8	11 7	5 31.31	+20 19.1	2.077	2.918	12.2	19.3
11 17	5 23.19	+10 38.0	1.914	2.822	9.7	19.6	11 17	5 25.32	+20 16.6	2.008	2.923	8.9	19.1
11 27	5 16.09	+ 9 48.0	1.874	2.824	6.6	19.4	11 27	5 17.34	+20 13.7	1.965	2.928	5.1	18.9
12 7	5 7.89	+ 9 6.7	1.860	2.827	4.8	19.3	12 7	5 8.17	+20 10.7	1.949	2.933	1.3	18.7
12 17	4 59.52	+ 8 37.3	1.875	2.829	6.0	19.4	12 17	4 58.79	+20 8.0	1.963	2.937	3.3	18.8
12 27	4 51.99	+ 8 21.5	1.918	2.832	8.9	19.6	12 27	4 50.27	+20 6.7	2.006	2.942	7.2	19.1
1 6	4 46.11	+ 8 19.9	1.986	2.835	12.0	19.8	1 6	4 43.47	+20 8.4	2.077	2.946	10.6	19.3
1 16	4 42.40	+ 8 31.1	2.076	2.839	14.7	20.0	1 16	4 38.97	+20 13.9	2.170	2.951	13.6	19.5
<b>134230</b>	2005 <i>YB</i> <sub>43</sub>		12 9.4 166°04	3°5/ 8.8	18		<b>349697</b>	2008 <i>XC</i> <sub>11</sub>		12 9.5 16°22	4°4/ 9.1	18	

EPHEMERIDES

12 9.5

12 9.5

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>109162</b>	2001 <i>QW</i> <sub>62</sub>	12 9.5 40°54'	4.8/ 8.7	18			<b>421964</b>	2014 <i>QR</i> <sub>281</sub>	12 9.5 154°03'	7.3/ 8.2	18		
11 7	5 32.55	+13 22.1	1.306	2.165	16.9	19.3	11 7	5 30.11	- 2 13.2	2.588	3.373	11.7	21.6
11 17	5 26.89	+12 46.3	1.254	2.174	12.7	19.0	11 17	5 24.01	- 2 44.4	2.527	3.381	9.8	21.5
11 27	5 18.46	+12 17.9	1.224	2.183	8.1	18.8	11 27	5 16.43	- 3 1.8	2.490	3.388	8.1	21.4
12 7	5 8.41	+11 59.9	1.218	2.193	4.9	18.7	12 7	5 8.02	- 3 2.6	2.481	3.395	7.3	21.4
12 17	4 58.18	+11 54.9	1.238	2.204	6.6	18.8	12 17	4 59.48	- 2 45.6	2.500	3.401	7.8	21.4
12 27	4 49.32	+12 4.0	1.284	2.215	10.8	19.0	12 27	4 51.60	- 2 11.0	2.546	3.407	9.3	21.5
1 6	4 42.97	+12 26.4	1.353	2.226	15.0	19.3	1 6	4 45.02	- 1 21.3	2.619	3.412	11.2	21.6
1 16	4 39.76	+13 0.3	1.441	2.237	18.5	19.6	1 16	4 40.19	- 0 19.4	2.714	3.417	13.0	21.8
<b>312216</b>	2007 <i>VR</i> <sub>320</sub>	12 9.5 307°36'	2.4/ 9.9	17			<b>296240</b>	2009 <i>CE</i> <sub>60</sub>	12 9.5 16°19'	11.2/ 11.9	17		
11 7	5 32.91	+28 59.9	1.740	2.581	14.2	21.4	11 7	5 35.72	+44 20.6	1.163	1.992	20.5	19.4
11 17	5 27.12	+29 11.3	1.660	2.572	10.6	21.1	11 17	5 30.70	+45 36.6	1.116	1.999	17.1	19.2
11 27	5 18.67	+29 15.0	1.603	2.563	6.5	20.9	11 27	5 21.26	+46 26.0	1.087	2.008	13.8	19.1
12 7	5 8.48	+29 8.8	1.573	2.553	2.8	20.6	12 7	5 9.05	+46 39.4	1.079	2.019	11.6	19.0
12 17	4 57.85	+28 52.3	1.571	2.544	4.1	20.7	12 17	4 56.46	+46 13.4	1.093	2.031	11.6	19.0
12 27	4 48.23	+28 27.7	1.597	2.536	8.4	20.9	12 27	4 46.09	+45 13.3	1.130	2.044	13.7	19.2
1 6	4 40.82	+27 59.2	1.648	2.527	12.4	21.1	1 6	4 39.68	+43 51.0	1.188	2.059	16.7	19.4
1 16	4 36.37	+27 31.3	1.722	2.519	15.9	21.4	1 16	4 37.91	+42 19.3	1.264	2.075	19.8	19.7
<b>54158</b>	2000 <i>HY</i> <sub>48</sub>	12 9.5 276°84'	0.3/ 9.5	18	R		<b>171</b>	<i>Ophelia</i>	12 9.5 295°18'	0.5/ 9.4	18	R	
11 7	5 34.52	+23 29.1	1.560	2.409	15.1	20.2	11 7	5 29.62	+21 32.3	2.201	3.042	11.6	13.1
11 17	5 28.52	+23 35.5	1.477	2.396	11.2	19.9	11 17	5 24.19	+21 30.5	2.114	3.029	8.5	12.9
11 27	5 19.59	+23 38.9	1.417	2.382	6.5	19.6	11 27	5 16.79	+21 27.5	2.053	3.016	4.9	12.7
12 7	5 8.69	+23 38.2	1.384	2.368	1.4	19.3	12 7	5 8.12	+21 23.3	2.019	3.003	1.1	12.4
12 17	4 57.18	+23 33.2	1.378	2.354	4.0	19.4	12 17	4 59.11	+21 18.3	2.016	2.991	3.1	12.5
12 27	4 46.67	+23 25.5	1.400	2.340	9.1	19.7	12 27	4 50.77	+21 13.8	2.041	2.978	7.0	12.7
1 6	4 38.52	+23 18.2	1.446	2.326	13.8	19.9	1 6	4 44.01	+21 11.2	2.094	2.966	10.5	12.9
1 16	4 33.59	+23 14.3	1.514	2.312	17.7	20.1	1 16	4 39.44	+21 12.1	2.170	2.953	13.5	13.1
<b>183313</b>	2002 <i>VH</i> <sub>14</sub>	12 9.5 99°92'	4.4/ 9.5	18			<b>301528</b>	2009 <i>FK</i> <sub>37</sub>	12 9.5 345°35'	5.1/ 8.8	18		
11 7	5 46.44	+29 48.6	1.690	2.511	15.5	19.5	11 7	5 26.98	+13 28.4	1.176	2.049	17.4	19.6
11 17	5 36.96	+31 28.5	1.639	2.537	11.6	19.3	11 17	5 23.42	+12 59.4	1.107	2.034	13.2	19.3
11 27	5 24.28	+33 0.8	1.613	2.563	7.6	19.1	11 27	5 16.81	+12 38.0	1.058	2.021	8.5	19.0
12 7	5 9.60	+34 17.8	1.617	2.588	4.6	19.0	12 7	5 8.17	+12 28.1	1.032	2.009	5.2	18.8
12 17	4 54.56	+35 14.2	1.651	2.613	5.7	19.1	12 17	4 58.96	+12 32.5	1.031	1.999	7.0	18.9
12 27	4 40.97	+35 50.0	1.714	2.636	9.2	19.4	12 27	4 50.88	+12 52.6	1.053	1.990	11.7	19.1
1 6	4 30.21	+36 9.3	1.805	2.659	12.7	19.7	1 6	4 45.35	+13 27.4	1.096	1.984	16.5	19.4
1 16	4 23.03	+36 18.3	1.917	2.681	15.7	19.9	1 16	4 43.21	+14 14.6	1.158	1.979	20.6	19.6
<b>493060</b>	2014 <i>SY</i> <sub>281</sub>	12 9.5 324°54'	2.0/ 9.7	18			<b>84786</b>	2002 <i>XF</i> <sub>77</sub>	12 9.5 173°92'	1.5/ 9.6	18		
11 7	5 31.85	+27 34.6	2.188	3.021	12.0	21.0	11 7	5 37.09	+25 23.1	1.688	2.528	14.6	20.0
11 17	5 25.87	+28 7.4	2.110	3.019	8.9	20.8	11 17	5 30.13	+25 54.0	1.617	2.530	10.8	19.7
11 27	5 17.76	+28 35.9	2.058	3.016	5.4	20.6	11 27	5 20.38	+26 21.3	1.570	2.531	6.4	19.5
12 7	5 8.29	+28 57.7	2.034	3.014	2.3	20.4	12 7	5 8.86	+26 42.2	1.549	2.532	2.0	19.2
12 17	4 58.46	+29 11.7	2.040	3.012	3.5	20.5	12 17	4 56.92	+26 55.1	1.558	2.533	3.9	19.3
12 27	4 49.41	+29 18.3	2.075	3.010	7.0	20.7	12 27	4 46.07	+27 0.8	1.596	2.533	8.5	19.6
1 6	4 42.09	+29 19.7	2.137	3.008	10.3	20.9	1 6	4 37.57	+27 2.2	1.659	2.533	12.6	19.9
1 16	4 37.16	+29 18.5	2.223	3.006	13.2	21.1	1 16	4 32.17	+27 2.7	1.744	2.533	16.1	20.1
<b>300743</b>	2007 <i>VS</i> <sub>171</sub>	12 9.5 356°47'	3.6/ 9.9	18			<b>517137</b>	2013 <i>JR</i> <sub>27</sub>	12 9.5 82°33'	6.1/ 9.1	18		
11 7	5 33.27	+30 7.4	1.480	2.329	15.8	20.1	11 7	5 31.18	+ 3 1.0	2.213	3.024	12.7	20.9
11 17	5 27.76	+30 42.4	1.412	2.326	11.9	19.8	11 17	5 24.92	+ 2 54.1	2.161	3.042	10.0	20.7
11 27	5 19.17	+31 8.9	1.366	2.324	7.6	19.6	11 27	5 16.99	+ 3 0.0	2.133	3.061	7.6	20.6
12 7	5 8.60	+31 23.1	1.345	2.323	3.9	19.3	12 7	5 8.13	+ 3 20.6	2.133	3.079	6.1	20.6
12 17	4 57.56	+31 23.0	1.351	2.322	5.1	19.4	12 17	4 59.21	+ 3 55.9	2.161	3.097	6.7	20.6
12 27	4 47.77	+31 10.6	1.383	2.322	9.4	19.7	12 27	4 51.11	+ 4 44.9	2.218	3.115	8.8	20.8
1 6	4 40.59	+30 50.6	1.440	2.323	13.6	19.9	1 6	4 44.55	+ 5 44.9	2.302	3.133	11.2	21.0
1 16	4 36.81	+30 28.1	1.517	2.324	17.2	20.1	1 16	4 40.01	+ 6 52.9	2.409	3.151	13.5	21.2
<b>29350</b>	1995 <i>FQ</i> <sub>20</sub>	12 9.5 230°03'	5.0/ 10.1	18			<b>73781</b>	1994 <i>TW</i> <sub>2</sub>	12 9.5 54°43'	8.2/ 11.1	18		
11 7	5 36.59	+35 36.4	2.100	2.913	13.1	19.2	11 7	5 42.16	+40 47.9	1.480	2.293	17.7	18.4
11 17	5 29.68	+36 30.8	2.019	2.908	10.3	19.0	11 17	5 34.25	+41 59.4	1.442	2.323	14.1	18.2
11 27	5 20.12	+37 15.1	1.963	2.902	7.3	18.8	11 27	5 22.79	+42 50.2	1.426	2.352	10.7	18.1
12 7	5 8.79	+37 44.8	1.934	2.896	5.2	18.7	12 7	5 9.31	+43 13.4	1.435	2.382	8.5	18.1
12 17	4 56.93	+37 57.1	1.934	2.889	5.8	18.7	12 17	4 55.79	+43 6.8	1.469	2.411	8.7	18.1
12 27	4 45.96	+37 52.7	1.963	2.883	8.4	18.8	12 27	4 44.26	+42 34.7	1.530	2.441	11.0	18.3
1 6	4 37.10	+37 35.4	2.019	2.876	11.5	19.0	1 6	4 36.08	+41 45.9	1.614	2.471	13.8	18.6
1 16	4 31.13	+37 10.6	2.097	2.869	14.3	19.2	1 16	4 31.85	+40 49.8	1.718	2.501	16.5	18.9
<b>32229</b>	<i>Higashino</i>	12 9.5 168°97'	4.1/ 8.6	18			<b>316954</b>	2001 <i>DS</i> <sub>81</sub>	12 9.5 267°22'	4.2/ 10.6	18		
11 7	5 30.45	+11 15.8	2.139	2.972	12.2	19.3	11 7	5 33.39	+35 38.9	2.212	3.028	12.5	21.0
11 17	5 24.59	+10 49.0	2.069	2.973	9.2	19.2	11 17	5 27.10	+35 55.9	2.130	3.022	9.7	20.8
11 27	5 16.90	+10 28.2	2.024	2.975	6.2	19.0	11 27	5 18.50	+36 1.5	2.073	3.016	6.7	20.6
12 7	5 8.11	+10 15.6	2.007	2.976	4.2	18.9	12 7	5 8.47	+35 53.2	2.043	3.010	4.4	20.4
12 17	4 59.12	+10 12.7	2.019	2.977	5.3	18.9	12 17	4 58.13	+35 30.1	2.042	3.004	4.9	20.5
12 27	4 50.89	+10 20.3	2.061	2.978	8.2	19.1	12 27	4 48.70	+34 54.4	2.071	2.997	7.6	20.6
1 6	4 44.25	+10 38.2	2.128	2.978	11.3	19.3	1 6	4 41.21	+34 10.6	2.125	2.991	10.6	20.8
1 16	4 39.72	+11 5.3	2.218	2.979	13.9	19.5	1 16	4 36.31	+33 23.6	2.204	2.985	13.4	21.0
<b>14954</b>	1996 <i>DL</i>	12 9.5 323°23'	3.7/ 8.9	18			<b>4729</b>	<i>Mikhailmil'</i>	12 9.5 41°30'	0.3/ 9.4	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>292078</b>	2006 <i>RF</i> <sub>26</sub>	12 9.5 71°07'	0.7/ 9.4	18			<b>161173</b>	2002 <i>TW</i> <sub>62</sub>	12 9.5 122°02'	0.2/ 9.4	18		
11 7	5 38.74	+20 14.8	1.280	2.134	17.5	20.3	11 7	5 29.87	+23 5.3	2.625	3.457	10.2	20.4
11 17	5 31.43	+20 35.9	1.237	2.157	12.7	20.1	11 17	5 23.93	+22 51.6	2.557	3.468	7.4	20.3
11 27	5 21.06	+20 57.6	1.215	2.180	7.2	19.8	11 27	5 16.43	+22 35.3	2.515	3.478	4.2	20.1
12 7	5 8.97	+21 18.3	1.219	2.203	1.6	19.5	12 7	5 8.06	+22 16.7	2.503	3.488	0.9	19.8
12 17	4 56.84	+21 37.0	1.251	2.227	4.4	19.8	12 17	4 59.59	+21 56.7	2.522	3.497	2.6	20.0
12 27	4 46.40	+21 54.2	1.309	2.249	9.6	20.2	12 27	4 51.83	+21 37.1	2.572	3.507	5.8	20.2
1 6	4 38.85	+22 11.8	1.391	2.272	14.1	20.5	1 6	4 45.48	+21 19.4	2.650	3.516	8.7	20.4
1 16	4 34.80	+22 31.3	1.494	2.295	17.8	20.8	1 16	4 40.98	+21 5.4	2.752	3.525	11.2	20.6
<b>329523</b>	2002 <i>SK</i> <sub>47</sub>	12 9.5 82°31'	1.3/ 9.7	16			<b>156784</b>	2003 <i>AJ</i> <sub>94</sub>	12 9.5 224°07'	0.6/ 9.4	18		
11 7	5 40.30	+26 5.3	1.460	2.303	16.4	21.5	11 7	5 35.83	+20 19.9	2.028	2.862	12.8	20.7
11 17	5 32.24	+26 13.9	1.418	2.332	11.9	21.3	11 17	5 28.90	+20 36.9	1.940	2.851	9.4	20.4
11 27	5 21.37	+26 15.7	1.399	2.361	6.9	21.1	11 27	5 19.62	+20 54.6	1.878	2.840	5.4	20.2
12 7	5 9.01	+26 9.2	1.407	2.390	2.0	20.9	12 7	5 8.77	+21 11.9	1.844	2.828	1.2	19.9
12 17	4 56.77	+25 54.8	1.443	2.418	4.0	21.1	12 17	4 57.43	+21 28.1	1.841	2.816	3.4	20.0
12 27	4 46.21	+25 35.8	1.507	2.446	8.7	21.4	12 27	4 46.84	+21 43.5	1.868	2.802	7.7	20.2
1 6	4 38.44	+25 16.2	1.597	2.473	12.9	21.7	1 6	4 38.08	+21 59.3	1.922	2.788	11.5	20.5
1 16	4 33.97	+24 59.9	1.708	2.499	16.2	22.0	1 16	4 31.88	+22 16.7	1.999	2.774	14.8	20.6
<b>65865</b>	1997 <i>OQ</i> <sub>1</sub>	12 9.5 304°25'	8.8/ 8.5	18			<b>517267</b>	2014 <i>FG</i> <sub>9</sub>	12 9.5 355°60'	7.4/ 8.3	18		
11 7	5 31.84	+3 20.3	1.448	2.283	16.9	19.2	11 7	5 27.56	+10 47.5	1.040	1.916	18.9	20.1
11 17	5 26.47	+2 43.4	1.375	2.270	13.7	19.0	11 17	5 23.96	+9 49.8	0.983	1.909	14.6	19.8
11 27	5 18.38	+2 23.5	1.322	2.256	10.6	18.7	11 27	5 17.15	+9 2.9	0.946	1.904	10.1	19.5
12 7	5 8.49	+2 25.9	1.294	2.244	8.8	18.6	12 7	5 8.29	+8 33.4	0.931	1.901	7.4	19.4
12 17	4 58.07	+2 53.5	1.291	2.231	9.8	18.6	12 17	4 58.99	+8 26.0	0.938	1.899	9.1	19.5
12 27	4 48.59	+3 46.1	1.313	2.219	12.9	18.8	12 27	4 51.07	+8 42.6	0.967	1.899	13.4	19.7
1 6	4 41.30	+4 59.7	1.357	2.207	16.4	19.0	1 6	4 45.91	+9 20.7	1.017	1.900	17.9	20.0
1 16	4 37.01	+6 28.9	1.421	2.195	19.8	19.2	1 16	4 44.29	+10 16.0	1.084	1.903	21.8	20.2
<b>333374</b>	2002 <i>NY</i> <sub>79</sub>	12 9.5 165°11'	0.5/ 9.4	17			<b>57312</b>	2001 <i>QM</i> <sub>216</sub>	12 9.5 359°68'	2.8/ 9.9	18		
11 7	5 30.29	+21 1.9	2.610	3.442	10.3	21.5	11 7	5 35.08	+28 20.3	1.380	2.232	16.6	18.9
11 17	5 24.31	+21 6.7	2.535	3.445	7.5	21.3	11 17	5 29.21	+28 47.8	1.314	2.231	12.4	18.7
11 27	5 16.69	+21 10.9	2.486	3.448	4.3	21.1	11 27	5 20.09	+29 7.7	1.269	2.230	7.6	18.4
12 7	5 8.10	+21 14.2	2.467	3.451	0.9	20.9	12 7	5 8.88	+29 16.7	1.250	2.230	3.2	18.1
12 17	4 59.31	+21 16.9	2.479	3.453	2.7	21.0	12 17	4 57.20	+29 13.3	1.257	2.230	4.9	18.3
12 27	4 51.18	+21 19.6	2.521	3.455	6.0	21.3	12 27	4 46.88	+28 59.6	1.290	2.231	9.7	18.5
1 6	4 44.41	+21 23.4	2.591	3.457	8.9	21.5	1 6	4 39.34	+28 40.5	1.347	2.232	14.2	18.8
1 16	4 39.53	+21 29.4	2.687	3.458	11.5	21.6	1 16	4 35.38	+28 21.0	1.424	2.233	18.1	19.1
<b>457904</b>	2009 <i>UA</i> <sub>6</sub>	12 9.5 0°78'	5.6/10.7	17			<b>219030</b>	1994 <i>TR</i> <sub>14</sub>	12 9.5 347°21'	9.0/10.5	17		
11 7	5 33.57	+37 17.8	1.878	2.698	14.2	21.0	11 7	5 35.65	+40 24.3	1.412	2.239	17.7	19.8
11 17	5 27.62	+37 53.8	1.807	2.698	11.2	20.8	11 17	5 30.27	+41 42.8	1.344	2.232	14.4	19.6
11 27	5 18.96	+38 16.4	1.759	2.697	8.0	20.6	11 27	5 21.03	+42 44.2	1.296	2.225	11.2	19.4
12 7	5 8.59	+38 21.6	1.736	2.697	5.8	20.5	12 7	5 9.12	+43 19.9	1.271	2.220	9.1	19.3
12 17	4 57.87	+38 7.8	1.742	2.697	6.2	20.5	12 17	4 56.43	+43 24.9	1.271	2.215	9.5	19.3
12 27	4 48.27	+37 37.2	1.774	2.698	8.8	20.7	12 27	4 45.20	+43 0.6	1.295	2.211	12.2	19.4
1 6	4 40.99	+36 55.1	1.832	2.699	12.0	20.9	1 6	4 37.22	+42 14.7	1.341	2.208	15.5	19.6
1 16	4 36.72	+36 7.6	1.912	2.701	14.9	21.1	1 16	4 33.45	+41 17.0	1.407	2.206	18.8	19.8
<b>487031</b>	2014 <i>OV</i> <sub>30</sub>	12 9.5 37°83'	1.8/ 9.2	18			<b>514146</b>	2015 <i>KD</i> <sub>42</sub>	12 9.5 187°00'	0.2/ 9.5	18		
11 7	5 31.46	+17 44.5	1.898	2.742	13.1	21.5	11 7	5 36.11	+23 18.9	1.878	2.715	13.5	22.5
11 17	5 25.62	+17 44.4	1.828	2.743	9.6	21.3	11 17	5 29.13	+23 22.0	1.803	2.715	9.9	22.3
11 27	5 17.63	+17 46.5	1.783	2.745	5.6	21.1	11 27	5 19.72	+23 22.0	1.752	2.714	5.7	22.0
12 7	5 8.32	+17 51.2	1.765	2.747	2.0	20.9	12 7	5 8.79	+23 18.2	1.729	2.713	1.2	21.7
12 17	4 58.73	+17 58.9	1.776	2.749	3.9	21.0	12 17	4 57.53	+23 10.7	1.736	2.711	3.5	21.9
12 27	4 50.03	+18 10.2	1.816	2.751	7.8	21.2	12 27	4 47.25	+23 1.3	1.772	2.709	7.9	22.2
1 6	4 43.17	+18 25.7	1.882	2.753	11.5	21.5	1 6	4 39.03	+22 52.3	1.835	2.705	11.8	22.4
1 16	4 38.76	+18 45.8	1.971	2.755	14.7	21.7	1 16	4 33.54	+22 46.4	1.921	2.702	15.1	22.6
<b>101469</b>	1998 <i>WU</i> <sub>16</sub>	12 9.5 82°82'	2.8/ 8.6	18			<b>209636</b>	2005 <i>BV</i> <sub>1</sub>	12 9.5 242°17'	13.7/ 3.2	18		
11 7	5 32.80	+18 38.5	1.788	2.633	13.7	19.5	11 7	5 31.03	-20 31.2	2.371	3.059	15.2	20.0
11 17	5 26.47	+17 36.1	1.729	2.645	10.0	19.2	11 17	5 25.08	-22 6.0	2.310	3.044	14.4	19.9
11 27	5 18.01	+16 32.6	1.695	2.656	6.0	19.0	11 27	5 17.27	-23 16.8	2.269	3.028	13.8	19.9
12 7	5 8.37	+15 31.5	1.688	2.668	2.9	18.9	12 7	5 8.29	-23 57.2	2.248	3.011	13.8	19.8
12 17	4 58.68	+14 36.5	1.711	2.679	4.7	19.0	12 17	4 58.99	-24 3.5	2.249	2.994	14.2	19.8
12 27	4 50.11	+13 51.3	1.762	2.691	8.6	19.3	12 27	4 50.32	-23 35.1	2.269	2.976	15.1	19.9
1 6	4 43.54	+13 18.4	1.840	2.702	12.2	19.5	1 6	4 43.12	-22 35.4	2.308	2.958	16.2	19.9
1 16	4 39.49	+12 58.3	1.939	2.713	15.2	19.7	1 16	4 37.99	-21 9.6	2.362	2.939	17.4	20.0
<b>430747</b>	2004 <i>NE</i>	12 9.5 110°38'	4.5/11.1	16			<b>328123</b>	2008 <i>AB</i> <sub>102</sub>	12 9.5 32°59'	2.7/ 9.3	18		
11 7	5 41.77	+37 33.1	1.869	2.676	14.8	21.4	11 7	5 34.57	+16 27.5	1.079	1.947	18.9	20.0
11 17	5 33.06	+37 20.4	1.811	2.698	11.4	21.2	11 17	5 28.98	+16 39.3	1.029	1.956	13.9	19.7
11 27	5 21.75	+36 50.6	1.778	2.719	7.8	21.1	11 27	5 19.96	+16 58.0	0.999	1.965	8.3	19.4
12 7	5 9.10	+36 2.0	1.772	2.739	4.9	20.9	12 7	5 8.86	+17 23.1	0.993	1.975	3.1	19.2
12 17	4 56.60	+34 56.0	1.795	2.758	5.2	21.0	12 17	4 57.46	+17 53.9	1.012	1.986	5.5	19.4
12 27	4 45.71	+33 38.3	1.849	2.777	8.2	21.2	12 27	4 47.70	+18 29.5	1.055	1.998	11.0	19.7
1 6	4 37.44	+32 16.4	1.929	2.795	11.5	21.5	1 6	4 40.99	+19 9.3	1.120	2.010	16.0	20.0
1 16	4 32.29	+30 57.3	2.033	2.813	14.4	21.7	1 16	4 38.06	+19 52.8	1.205	2.023	20.1	20.3
<b>222044</b>	1998 <i>UR</i> <sub>30</sub>	12 9.5 23°98'	5.6/ 8.9	18			<b>378015</b>	2006 <i>SM</i> <sub>156</sub>	12 9.5 92°90'	3.8/ 8.9	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>472527</b>	2015 CZ <sub>52</sub>	12	9.5 179°84	4°3/ 8.8 18			<b>363391</b>	2002 XW <sub>56</sub>	12	9.5 336°89	1°8/ 9.5 17		
11 7	5 34.99	+12 20.4	1.747	2.583	14.4	21.6	11 7	5 30.13	+16 40.2	1.340	2.203	16.3	19.5
11 17	5 28.29	+11 54.0	1.677	2.585	10.8	21.4	11 17	5 25.73	+17 13.0	1.259	2.184	12.1	19.2
11 27	5 19.22	+11 33.7	1.632	2.586	7.0	21.1	11 27	5 18.25	+17 54.0	1.200	2.166	7.2	18.9
12 7	5 8.71	+11 22.1	1.614	2.586	4.4	21.0	12 7	5 8.61	+18 42.3	1.166	2.149	2.3	18.6
12 17	4 57.91	+11 20.7	1.624	2.586	5.8	21.1	12 17	4 58.17	+19 36.0	1.157	2.133	4.7	18.7
12 27	4 48.10	+11 30.7	1.663	2.585	9.5	21.3	12 27	4 48.65	+20 32.8	1.175	2.118	10.1	18.9
1 6	4 40.31	+11 51.7	1.727	2.584	13.1	21.5	1 6	4 41.53	+21 31.4	1.216	2.105	15.1	19.2
1 16	4 35.21	+12 22.6	1.813	2.582	16.3	21.7	1 16	4 37.80	+22 30.7	1.277	2.094	19.3	19.4
<b>169750</b>	2002 PD <sub>5</sub>	12	9.5 24°76	0°1/ 9.5 18			<b>157416</b>	2004 TL <sub>286</sub>	12	9.5 274°80	3°1/ 9.9 18		
11 7	5 33.18	+25 54.7	1.562	2.412	15.1	19.2	11 7	5 33.32	+30 45.7	2.184	3.011	12.2	20.2
11 17	5 27.20	+25 2.2	1.497	2.416	11.0	19.0	11 17	5 27.12	+31 25.4	2.102	3.005	9.2	20.0
11 27	5 18.63	+24 0.9	1.456	2.420	6.3	18.7	11 27	5 18.62	+31 58.7	2.046	2.998	6.0	19.8
12 7	5 8.57	+22 52.7	1.441	2.425	1.3	18.4	12 7	5 8.63	+32 22.6	2.017	2.991	3.4	19.6
12 17	4 58.40	+21 41.7	1.454	2.430	3.9	18.6	12 17	4 58.20	+32 35.2	2.017	2.985	4.2	19.7
12 27	4 49.52	+20 33.5	1.495	2.435	8.7	18.9	12 27	4 48.55	+32 37.1	2.047	2.978	7.4	19.9
1 6	4 43.00	+19 33.5	1.562	2.441	13.0	19.2	1 6	4 40.70	+32 30.9	2.104	2.971	10.6	20.1
1 16	4 39.43	+18 45.2	1.650	2.447	16.5	19.4	1 16	4 35.39	+32 20.4	2.184	2.965	13.5	20.2
<b>160655</b>	1999 XB <sub>114</sub>	12	9.5 51°37	9°6/ 11.4 18			<b>487761</b>	2015 RX <sub>194</sub>	12	9.5 110°93	0°3/ 9.5 18		
11 7	5 40.97	+44 41.0	1.599	2.397	17.3	19.0	11 7	5 33.25	+23 30.0	1.870	2.712	13.3	21.8
11 17	5 33.78	+45 55.3	1.543	2.407	14.4	18.9	11 17	5 27.04	+23 36.7	1.800	2.715	9.7	21.6
11 27	5 22.82	+46 48.3	1.509	2.417	11.6	18.7	11 27	5 18.53	+23 40.6	1.755	2.719	5.6	21.3
12 7	5 9.46	+47 12.0	1.498	2.428	9.8	18.6	12 7	5 8.60	+23 40.9	1.738	2.722	1.2	21.0
12 17	4 55.69	+47 2.8	1.512	2.439	9.9	18.7	12 17	4 58.40	+23 37.7	1.749	2.725	3.4	21.2
12 27	4 43.66	+46 23.9	1.551	2.450	11.8	18.8	12 27	4 49.18	+23 32.4	1.790	2.728	7.6	21.5
1 6	4 34.97	+45 24.1	1.614	2.461	14.4	19.0	1 6	4 41.95	+23 27.3	1.857	2.732	11.4	21.7
1 16	4 30.38	+44 13.6	1.697	2.472	17.0	19.2	1 16	4 37.34	+23 24.6	1.946	2.735	14.7	22.0
<b>80379</b>	1999 XV <sub>159</sub>	12	9.5 355°30	4°7/ 9.5 18			<b>161567</b>	2005 BX	12	9.5 28°31	0°6/ 9.4 18		
11 7	5 31.44	+10 33.0	1.346	2.201	16.8	18.4	11 7	5 32.58	+20 49.7	1.204	2.071	17.5	18.9
11 17	5 26.35	+10 50.2	1.280	2.196	12.7	18.1	11 17	5 27.26	+21 2.6	1.157	2.084	12.7	18.7
11 27	5 18.40	+11 20.9	1.235	2.193	8.3	17.8	11 27	5 18.87	+21 15.9	1.131	2.098	7.3	18.4
12 7	5 8.58	+12 6.1	1.215	2.190	4.9	17.6	12 7	5 8.67	+21 28.6	1.129	2.113	1.6	18.1
12 17	4 58.27	+13 4.5	1.221	2.189	6.3	17.7	12 17	4 58.31	+21 40.2	1.153	2.130	4.4	18.3
12 27	4 49.06	+14 13.7	1.254	2.188	10.6	18.0	12 27	4 49.48	+21 51.9	1.203	2.147	9.8	18.7
1 6	4 42.23	+15 30.1	1.309	2.189	14.9	18.2	1 6	4 43.44	+22 5.3	1.275	2.166	14.4	19.0
1 16	4 38.59	+16 50.4	1.386	2.190	18.7	18.5	1 16	4 40.81	+22 21.7	1.368	2.185	18.2	19.3
<b>446201</b>	2013 GK <sub>5</sub>	12	9.5 325°37	1°6/ 9.7 18			<b>410817</b>	2009 MN	12	9.5 254°70	8°4/ 12.3 18		
11 7	5 33.10	+25 59.1	1.734	2.578	14.1	21.0	11 7	5 44.03	+50 28.9	2.469	3.209	13.5	21.4
11 17	5 27.26	+26 23.2	1.658	2.574	10.4	20.7	11 17	5 35.31	+50 57.5	2.369	3.186	11.6	21.2
11 27	5 18.80	+26 43.3	1.607	2.569	6.2	20.5	11 27	5 23.48	+51 6.1	2.291	3.163	9.8	21.0
12 7	5 8.65	+26 57.0	1.582	2.564	2.0	20.2	12 7	5 9.64	+50 48.9	2.238	3.140	8.6	20.9
12 17	4 58.06	+27 3.4	1.585	2.560	3.8	20.3	12 17	4 55.33	+50 3.0	2.213	3.116	8.5	20.9
12 27	4 48.45	+27 3.4	1.617	2.556	8.2	20.6	12 27	4 42.28	+48 50.5	2.215	3.091	9.8	20.9
1 6	4 41.00	+26 59.8	1.674	2.552	12.3	20.8	1 6	4 31.85	+47 18.1	2.244	3.065	11.8	21.0
1 16	4 36.45	+26 55.7	1.753	2.549	15.7	21.0	1 16	4 24.82	+45 34.6	2.297	3.039	14.0	21.1
<b>443711</b>	2015 KA <sub>135</sub>	12	9.5 168°18	0°6/ 9.6 18			<b>438690</b>	2008 OG <sub>20</sub>	12	9.5 192°02	8°0/ 11.5 18		
11 7	5 36.21	+25 15.3	1.747	2.587	14.2	21.8	11 7	5 42.38	+43 59.4	1.887	2.674	15.4	21.3
11 17	5 29.31	+25 4.4	1.677	2.590	10.4	21.6	11 17	5 34.36	+44 42.5	1.812	2.673	12.7	21.1
11 27	5 19.85	+24 47.6	1.630	2.593	6.0	21.3	11 27	5 23.01	+45 6.3	1.760	2.671	10.0	20.9
12 7	5 8.84	+24 24.7	1.611	2.595	1.4	21.0	12 7	5 9.54	+45 4.8	1.733	2.669	8.2	20.8
12 17	4 57.59	+23 56.7	1.621	2.597	3.6	21.2	12 17	4 55.66	+44 35.1	1.733	2.667	8.3	20.8
12 27	4 47.48	+23 26.5	1.660	2.598	8.2	21.4	12 27	4 43.23	+43 40.5	1.761	2.664	10.3	20.9
1 6	4 39.61	+22 58.0	1.725	2.599	12.2	21.7	1 6	4 33.70	+42 28.6	1.813	2.661	13.0	21.1
1 16	4 34.64	+22 34.4	1.812	2.599	15.6	21.9	1 16	4 27.83	+41 8.7	1.888	2.657	15.8	21.3
<b>313047</b>	2000 QL <sub>200</sub>	12	9.5 101°39	6°5/ 11.4 17			<b>90344</b>	2003 GA <sub>9</sub>	12	9.5 268°48	3°6/ 9.9 18		
11 7	5 38.40	+42 8.8	2.146	2.937	13.7	20.8	11 7	5 36.35	+30 26.0	1.615	2.454	15.3	19.0
11 17	5 30.84	+42 43.9	2.085	2.951	11.0	20.6	11 17	5 29.94	+31 0.8	1.540	2.448	11.5	18.8
11 27	5 20.68	+43 2.5	2.048	2.965	8.5	20.5	11 27	5 20.50	+31 27.2	1.487	2.443	7.4	18.5
12 7	5 9.00	+43 0.7	2.036	2.979	6.7	20.4	12 7	5 9.06	+31 41.3	1.461	2.438	3.9	18.3
12 17	4 57.17	+42 37.3	2.053	2.992	6.8	20.5	12 17	4 57.08	+31 41.1	1.463	2.433	5.0	18.4
12 27	4 46.62	+41 55.1	2.099	3.006	8.7	20.6	12 27	4 46.24	+31 28.1	1.492	2.427	9.1	18.6
1 6	4 38.44	+41 0.1	2.170	3.019	11.1	20.8	1 6	4 37.92	+31 7.0	1.546	2.422	13.2	18.8
1 16	4 33.25	+39 59.0	2.264	3.032	13.5	21.0	1 16	4 32.94	+30 43.1	1.621	2.417	16.8	19.1
<b>229815</b>	2008 SX <sub>256</sub>	12	9.5 139°90	0°5/ 9.6 18			<b>287134</b>	2002 RF <sub>196</sub>	12	9.5 101°27	1°1/ 9.3 18		
11 7	5 31.23	+23 49.4	2.702	3.530	10.1	20.3	11 7	5 33.06	+20 5.3	1.831	2.675	13.5	20.9
11 17	5 24.98	+24 6.1	2.631	3.539	7.3	20.2	11 17	5 26.85	+20 0.3	1.766	2.682	9.8	20.7
11 27	5 17.11	+24 20.7	2.586	3.548	4.2	20.0	11 27	5 18.39	+19 55.1	1.725	2.689	5.7	20.5
12 7	5 8.28	+24 32.3	2.572	3.556	1.0	19.8	12 7	5 8.58	+19 50.0	1.712	2.695	1.5	20.2
12 17	4 59.27	+24 40.5	2.589	3.564	2.5	19.9	12 17	4 58.57	+19 45.7	1.728	2.702	3.7	20.4
12 27	4 50.92	+24 46.1	2.636	3.571	5.7	20.1	12 27	4 49.55	+19 43.4	1.772	2.709	7.9	20.7
1 6	4 43.95	+24 50.2	2.712	3.578	8.6	20.3	1 6	4 42.51	+19 44.8	1.843	2.715	11.6	20.9
1 16	4 38.86	+24 54.4	2.814	3.585	11.0	20.5	1 16	4 38.05	+19 51.0	1.936	2.721	14.8	21.1
<b>485724</b>	2012 BA <sub>25</sub>	12	9.5 315°48	5°2/ 8.7 17			<b>183001</b>	2002 PR <sub>49</sub>	12	9.5 75°79	1°8/ 9.2 18		
11 7	5 29.80	+10 3.6	1.737	2.579	14.2	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>249024</b>	2007 <i>RP</i> <sub>216</sub>	12 9.5 166°97	6°0/10.8 18				<b>366561</b>	2002 <i>RM</i> <sub>182</sub>	12 9.5 106°79	1°1/ 9.9 18			
11 7	5 38.39	+38 32.6	1.908	2.717	14.4	20.6	11 7	5 31.54	+28 27.7	2.477	3.304	10.9	20.5
11 17	5 31.18	+39 12.9	1.837	2.719	11.4	20.4	11 17	5 25.26	+28 4.3	2.409	3.315	8.0	20.4
11 27	5 21.08	+39 38.6	1.788	2.721	8.4	20.2	11 27	5 17.27	+27 33.9	2.367	3.326	4.8	20.2
12 7	5 9.15	+39 45.1	1.766	2.722	6.2	20.1	12 7	5 8.35	+26 56.9	2.354	3.336	1.6	20.0
12 17	4 56.85	+39 30.4	1.772	2.724	6.6	20.1	12 17	4 59.36	+26 14.5	2.372	3.346	2.8	20.1
12 27	4 45.77	+38 56.8	1.806	2.725	9.1	20.3	12 27	4 51.23	+25 29.5	2.420	3.356	6.1	20.3
1 6	4 37.17	+38 10.3	1.866	2.725	12.2	20.5	1 6	4 44.69	+24 45.3	2.497	3.366	9.1	20.5
1 16	4 31.79	+37 17.8	1.948	2.726	15.0	20.7	1 16	4 40.21	+24 4.6	2.598	3.376	11.7	20.7
<b>298179</b>	2002 <i>TO</i> <sub>167</sub>	12 9.5 69°37	3°6/10.7 18				<b>351111</b>	2003 <i>UK</i> <sub>354</sub>	12 9.5 7°29	2°7/ 9.2 16			
11 7	5 36.89	+34 1.4	1.705	2.533	15.0	20.1	11 7	5 30.97	+17 7.0	1.361	2.223	16.2	20.7
11 17	5 29.76	+33 47.7	1.649	2.551	11.3	19.9	11 17	5 25.95	+16 57.1	1.300	2.223	11.9	20.4
11 27	5 20.02	+33 19.9	1.618	2.569	7.3	19.7	11 27	5 18.13	+16 50.9	1.260	2.225	7.1	20.2
12 7	5 8.89	+32 36.6	1.612	2.587	4.0	19.6	12 7	5 8.57	+16 49.5	1.245	2.227	2.9	19.9
12 17	4 57.80	+31 39.7	1.636	2.606	4.6	19.6	12 17	4 58.68	+16 54.0	1.257	2.230	5.0	20.1
12 27	4 48.20	+30 34.2	1.688	2.624	8.2	19.9	12 27	4 50.00	+17 5.5	1.294	2.234	9.8	20.3
1 6	4 41.11	+29 26.7	1.766	2.642	11.9	20.2	1 6	4 43.73	+17 24.4	1.355	2.238	14.3	20.6
1 16	4 37.05	+28 23.2	1.866	2.660	15.0	20.4	1 16	4 40.58	+17 50.4	1.436	2.244	18.0	20.9
<b>233399</b>	2006 <i>FN</i> <sub>34</sub>	12 9.5 271°35	6°2/ 6.7 18				<b>119417</b>	2001 <i>TH</i> <sub>88</sub>	12 9.5 351°09	0°9/ 9.7 18			
11 7	5 29.08	+ 4 58.0	2.570	3.382	11.0	20.4	11 7	5 31.98	+26 4.6	1.732	2.578	14.0	19.3
11 17	5 23.55	+ 3 43.5	2.475	3.357	8.9	20.2	11 17	5 26.34	+25 57.5	1.660	2.576	10.3	19.1
11 27	5 16.39	+ 2 35.1	2.407	3.332	7.0	20.0	11 27	5 18.22	+25 44.4	1.611	2.574	6.0	18.9
12 7	5 8.19	+ 1 37.2	2.368	3.305	6.2	19.9	12 7	5 8.58	+25 24.7	1.589	2.573	1.6	18.6
12 17	4 59.66	+ 0 53.3	2.358	3.279	7.1	20.0	12 17	4 58.65	+24 59.4	1.596	2.572	3.6	18.7
12 27	4 51.62	+ 0 26.0	2.376	3.252	9.2	20.1	12 27	4 49.75	+24 31.1	1.630	2.571	8.0	19.0
1 6	4 44.80	+ 0 15.7	2.420	3.225	11.6	20.2	1 6	4 42.99	+24 3.6	1.690	2.570	12.1	19.2
1 16	4 39.74	+ 0 21.4	2.485	3.197	13.8	20.3	1 16	4 39.01	+23 40.1	1.772	2.570	15.5	19.4
<b>251186</b>	2006 <i>UQ</i> <sub>79</sub>	12 9.5 244°36	2°5/10.0 17				<b>16982</b>	Tsinghua	12 9.5 161°06	1°1/ 9.4 18			
11 7	5 33.85	+29 56.4	1.974	2.807	13.1	20.7	11 7	5 37.78	+19 43.2	1.540	2.385	15.5	18.9
11 17	5 27.58	+30 9.2	1.896	2.802	9.8	20.5	11 17	5 30.72	+19 52.4	1.473	2.389	11.4	18.6
11 27	5 18.90	+30 14.1	1.841	2.798	6.1	20.2	11 27	5 20.81	+20 2.7	1.430	2.393	6.6	18.4
12 7	5 8.71	+30 9.1	1.814	2.793	2.9	20.0	12 7	5 9.12	+20 13.1	1.413	2.397	1.7	18.1
12 17	4 58.16	+29 53.6	1.817	2.788	3.9	20.1	12 17	4 57.08	+20 23.4	1.425	2.400	4.2	18.2
12 27	4 48.57	+29 29.9	1.848	2.784	7.6	20.3	12 27	4 46.24	+20 34.5	1.465	2.402	9.1	18.5
1 6	4 40.98	+29 1.6	1.906	2.779	11.3	20.5	1 6	4 37.84	+20 47.7	1.530	2.404	13.5	18.8
1 16	4 36.09	+28 32.9	1.986	2.774	14.4	20.7	1 16	4 32.63	+21 4.6	1.616	2.405	17.1	19.1
<b>318319</b>	2004 <i>TS</i> <sub>149</sub>	12 9.5 100°89	0°3/ 9.6 18				<b>322989</b>	2002 <i>OR</i> <sub>6</sub>	12 9.5 198°71	0°3/ 9.6 18			
11 7	5 32.15	+24 16.8	2.277	3.111	11.5	21.2	11 7	5 30.35	+25 6.7	2.998	3.823	9.3	21.6
11 17	5 25.78	+24 9.4	2.216	3.127	8.4	21.0	11 17	5 24.25	+24 50.0	2.912	3.819	6.8	21.4
11 27	5 17.60	+23 58.5	2.181	3.143	4.8	20.8	11 27	5 16.68	+24 29.4	2.854	3.815	3.9	21.2
12 7	5 8.41	+23 43.9	2.174	3.159	1.0	20.5	12 7	5 8.25	+24 5.0	2.826	3.810	0.9	21.0
12 17	4 59.13	+23 26.5	2.199	3.174	2.8	20.7	12 17	4 59.65	+23 37.6	2.829	3.804	2.3	21.1
12 27	4 50.75	+23 8.1	2.253	3.189	6.4	21.0	12 27	4 51.65	+23 9.1	2.864	3.798	5.3	21.3
1 6	4 44.04	+22 50.8	2.334	3.204	9.6	21.2	1 6	4 44.88	+22 41.3	2.929	3.792	8.1	21.5
1 16	4 39.49	+22 36.8	2.440	3.218	12.3	21.4	1 16	4 39.82	+22 16.3	3.018	3.785	10.5	21.7
<b>499442</b>	2010 <i>DG</i> <sub>78</sub>	12 9.5 218°07	11°0/11.4 17				<b>470443</b>	2007 <i>XV</i> <sub>50</sub>	12 9.5 107°20	0°2/10.5 17			
11 7	5 53.94	+45 11.5	1.335	2.128	20.3	22.0	11 7	5 8.84	+33 12.1	46.152	46.961	0.7	21.2
11 17	5 44.56	+46 16.3	1.255	2.118	17.0	21.7	11 17	5 8.06	+33 13.0	46.073	46.962	0.5	21.2
11 27	5 29.74	+46 56.4	1.195	2.107	13.7	21.5	11 27	5 7.21	+33 13.4	46.020	46.964	0.4	21.2
12 7	5 11.03	+46 58.4	1.158	2.094	11.3	21.3	12 7	5 6.32	+33 13.3	45.998	46.965	0.2	21.1
12 17	4 51.22	+46 14.4	1.146	2.080	11.5	21.3	12 17	5 5.42	+33 12.8	46.005	46.967	0.3	21.1
12 27	4 33.66	+44 48.6	1.159	2.065	14.2	21.4	12 27	5 4.54	+33 11.9	46.043	46.969	0.4	21.2
1 6	4 20.77	+42 55.9	1.195	2.048	18.0	21.6	1 6	5 3.72	+33 10.7	46.110	46.970	0.6	21.2
1 16	4 13.59	+40 53.9	1.250	2.029	21.7	21.8	1 16	5 3.00	+33 9.2	46.204	46.972	0.8	21.2
<b>340459</b>	2006 <i>HA</i> <sub>9</sub>	12 9.5 34°25	20°6/10.5 17 R				<b>93808</b>	2000 <i>WL</i> <sub>55</sub>	12 9.5 332°75	1°4/ 9.4 17			
11 7	5 55.25	+54 23.4	0.982	1.771	26.3	20.0	11 7	5 31.30	+17 45.3	1.983	2.825	12.7	19.3
11 17	5 48.95	+57 44.2	0.942	1.775	23.8	19.8	11 17	5 25.57	+18 2.4	1.907	2.821	9.3	19.1
11 27	5 34.14	+60 29.8	0.919	1.779	21.8	19.7	11 27	5 17.71	+18 22.7	1.855	2.818	5.4	18.8
12 7	5 12.17	+62 15.9	0.912	1.784	20.7	19.7	12 7	5 8.49	+18 45.6	1.832	2.815	1.7	18.6
12 17	4 47.60	+62 46.8	0.922	1.789	20.9	19.7	12 17	4 58.92	+19 10.5	1.838	2.812	3.6	18.7
12 27	4 26.85	+62 6.1	0.949	1.795	22.2	19.8	12 27	4 50.12	+19 37.4	1.873	2.809	7.5	18.9
1 6	4 14.28	+60 34.7	0.991	1.801	24.1	20.0	1 6	4 43.06	+20 6.3	1.935	2.806	11.2	19.2
1 16	4 10.82	+58 36.2	1.047	1.807	26.2	20.2	1 16	4 38.39	+20 37.6	2.019	2.804	14.3	19.4
<b>480104</b>	2015 <i>FP</i> <sub>42</sub>	12 9.5 329°82	4°2/ 8.7 18				<b>317296</b>	2002 <i>GJ</i> <sub>73</sub>	12 9.5 190°67	4°6/ 8.5 18			
11 7	5 33.06	+15 46.3	1.330	2.189	16.7	20.6	11 7	5 29.36	+ 9 24.1	2.238	3.068	11.9	20.1
11 17	5 27.52	+14 59.1	1.264	2.185	12.4	20.3	11 17	5 23.82	+ 8 52.7	2.167	3.067	9.1	19.9
11 27	5 19.05	+14 14.6	1.220	2.181	7.8	20.1	11 27	5 16.54	+ 8 28.3	2.121	3.067	6.3	19.8
12 7	5 8.75	+13 36.5	1.201	2.178	4.3	19.9	12 7	5 8.24	+ 8 13.3	2.103	3.066	4.7	19.7
12 17	4 58.08	+13 8.7	1.207	2.175	6.3	20.0	12 17	4 59.72	+ 8 9.4	2.114	3.066	5.7	19.7
12 27	4 48.64	+12 54.2	1.240	2.172	10.9	20.2	12 27	4 51.92	+ 8 17.5	2.154	3.065	8.3	19.9
1 6	4 41.72	+12 54.2	1.296	2.170	15.4	20.5	1 6	4 45.57	+ 8 37.1	2.220	3.064	11.1	20.1
1 16	4 38.05	+13 8.3	1.371	2.168	19.3	20.7	1 16	4 41.23	+ 9 6.7	2.308	3.063	13.6	20.2
<b>195996</b>	2002 <i>RD</i> <sub>234</sub>	12 9.5 174°07	0°1/ 9.5 17				<b>409066</b>	2003 <i>SU</i> <sub>207</sub>	12 9.5 91°87	4°3/10.3 17	</		

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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>133438</b>	2003 SS <sub>207</sub>	12 9.5	44°70	0°6/ 9.4	18		<b>119163</b>	2001 QX <sub>26</sub>	12 9.5	123°93	1°7/ 9.3	18	
11 7	5 30.93	+21 28.1	1.877	2.723	13.1	19.3	11 7	5 36.29	+18 29.7	1.785	2.624	14.0	20.2
11 17	5 25.20	+21 25.4	1.821	2.739	9.5	19.1	11 17	5 29.15	+18 23.5	1.726	2.639	10.2	19.9
11 27	5 17.39	+21 21.4	1.791	2.755	5.4	18.9	11 27	5 19.71	+18 18.4	1.692	2.653	6.0	19.7
12 7	5 8.40	+21 16.4	1.788	2.772	1.2	18.6	12 7	5 8.93	+18 14.9	1.685	2.667	2.0	19.5
12 17	4 59.31	+21 10.8	1.813	2.789	3.3	18.8	12 17	4 58.02	+18 13.5	1.708	2.680	4.0	19.7
12 27	4 51.24	+21 6.3	1.868	2.806	7.4	19.1	12 27	4 48.23	+18 15.5	1.759	2.693	8.1	19.9
1 6	4 45.06	+21 4.3	1.948	2.824	10.9	19.4	1 6	4 40.55	+18 22.0	1.838	2.705	11.9	20.2
1 16	4 41.31	+21 6.3	2.051	2.841	13.9	19.6	1 16	4 35.55	+18 33.8	1.938	2.717	15.1	20.4
<b>522176</b>	2016 AS <sub>256</sub>	12 9.5	356°53	2°1/ 9.9	16		<b>113032</b>	2002 RH <sub>48</sub>	12 9.5	142°99	3°3/ 8.9	18	
11 7	5 30.52	+28 48.7	1.812	2.656	13.6	21.0	11 7	5 36.04	+15 0.2	1.739	2.577	14.4	20.0
11 17	5 25.26	+28 51.9	1.739	2.653	10.1	20.8	11 17	5 29.03	+14 40.0	1.677	2.587	10.6	19.8
11 27	5 17.61	+28 47.3	1.691	2.651	6.2	20.5	11 27	5 19.67	+14 23.9	1.638	2.597	6.6	19.5
12 7	5 8.48	+28 33.7	1.668	2.649	2.5	20.3	12 7	5 8.93	+14 13.5	1.628	2.605	3.4	19.4
12 17	4 59.06	+28 11.5	1.674	2.648	3.8	20.4	12 17	4 58.02	+14 9.9	1.646	2.614	5.0	19.5
12 27	4 50.64	+27 43.2	1.708	2.648	7.8	20.6	12 27	4 48.19	+14 14.5	1.694	2.621	8.9	19.7
1 6	4 44.26	+27 12.5	1.768	2.648	11.6	20.9	1 6	4 40.46	+14 27.5	1.767	2.628	12.6	20.0
1 16	4 40.59	+26 43.4	1.849	2.649	14.9	21.1	1 16	4 35.44	+14 48.7	1.862	2.635	15.8	20.2
<b>332828</b>	2009 YN <sub>16</sub>	12 9.5	27°36	4°9/ 8.8	17		<b>487176</b>	2014 OC <sub>304</sub>	12 9.5	299°06	2°6/10.1	17	
11 7	5 28.78	+7 54.1	2.186	3.015	12.2	20.2	11 7	5 33.50	+30 15.6	1.928	2.761	13.3	21.5
11 17	5 23.43	+7 38.3	2.119	3.018	9.4	20.1	11 17	5 27.37	+30 25.0	1.852	2.759	10.0	21.3
11 27	5 16.33	+7 31.7	2.077	3.021	6.6	19.9	11 27	5 18.82	+30 25.9	1.801	2.757	6.2	21.1
12 7	5 8.21	+7 36.0	2.063	3.024	4.9	19.8	12 7	5 8.78	+30 16.5	1.777	2.755	2.9	20.9
12 17	4 59.89	+7 52.3	2.076	3.027	5.8	19.9	12 17	4 58.42	+29 56.4	1.781	2.753	4.0	20.9
12 27	4 52.29	+8 20.5	2.119	3.031	8.3	20.0	12 27	4 49.06	+29 28.2	1.815	2.751	7.7	21.1
1 6	4 46.17	+8 59.3	2.187	3.035	11.1	20.2	1 6	4 41.75	+28 55.8	1.874	2.749	11.3	21.4
1 16	4 42.05	+9 46.7	2.279	3.039	13.6	20.4	1 16	4 37.16	+28 23.4	1.957	2.748	14.5	21.6
<b>402692</b>	2006 VN <sub>46</sub>	12 9.5	355°40	2°0/ 9.8	18		<b>123866</b>	2001 DO <sub>9</sub>	12 9.5	21°65	5°2/10.6	17	
11 7	5 33.26	+26 58.6	1.756	2.599	14.0	20.8	11 7	5 34.26	+36 16.0	1.897	2.718	14.0	19.6
11 17	5 27.36	+27 26.4	1.684	2.598	10.4	20.6	11 17	5 28.12	+36 55.3	1.829	2.722	10.9	19.4
11 27	5 18.88	+27 49.3	1.636	2.597	6.2	20.3	11 27	5 19.34	+37 22.2	1.785	2.725	7.7	19.2
12 7	5 8.76	+28 4.8	1.615	2.596	2.4	20.1	12 7	5 8.90	+37 32.8	1.766	2.729	5.4	19.1
12 17	4 58.24	+28 11.7	1.622	2.596	3.9	20.2	12 17	4 58.12	+37 25.4	1.776	2.734	5.9	19.1
12 27	4 48.73	+28 11.1	1.657	2.596	8.1	20.4	12 27	4 48.46	+37 2.0	1.813	2.738	8.6	19.3
1 6	4 41.37	+28 5.9	1.718	2.596	12.0	20.7	1 6	4 41.07	+36 27.5	1.876	2.743	11.7	19.5
1 16	4 36.89	+27 59.4	1.801	2.596	15.4	20.9	1 16	4 36.64	+35 47.8	1.961	2.748	14.6	19.7
<b>132527</b>	2002 JB <sub>60</sub>	12 9.5	167°54	1°8/ 9.0	18		<b>177650</b>	2004 VN <sub>75</sub>	12 9.5	358°44	0°8/ 9.2	17	
11 7	5 33.25	+17 55.6	2.460	3.288	11.0	21.5	11 7	5 39.67	+30 35.2	0.904	1.773	21.7	19.0
11 17	5 26.48	+17 33.5	2.387	3.294	8.0	21.3	11 17	5 33.33	+28 15.3	0.843	1.771	16.0	18.6
11 27	5 18.02	+17 11.8	2.340	3.299	4.8	21.1	11 27	5 22.68	+25 24.8	0.802	1.770	9.3	18.3
12 7	5 8.55	+16 51.4	2.323	3.304	2.0	21.0	12 7	5 9.57	+22 11.9	0.785	1.769	1.9	17.8
12 17	4 58.93	+16 33.7	2.338	3.308	3.4	21.1	12 17	4 56.44	+18 53.5	0.793	1.769	6.0	18.1
12 27	4 50.07	+16 20.2	2.383	3.310	6.7	21.3	12 27	4 45.70	+15 51.2	0.826	1.770	13.2	18.5
1 6	4 42.70	+16 12.1	2.456	3.313	9.7	21.5	1 6	4 38.87	+13 20.9	0.881	1.771	19.3	18.8
1 16	4 37.34	+16 10.3	2.554	3.314	12.3	21.7	1 16	4 36.51	+11 28.8	0.954	1.774	24.1	19.2
<b>272071</b>	2005 ER <sub>227</sub>	12 9.5	313°30	3°0/ 9.8	16		<b>452102</b>	2014 QS <sub>185</sub>	12 9.5	297°01	8°1/ 7.5	17	
11 7	5 32.06	+29 38.3	2.046	2.880	12.7	20.1	11 7	5 29.12	+1 43.5	1.959	2.776	13.8	20.8
11 17	5 26.45	+30 20.0	1.956	2.863	9.6	19.9	11 17	5 23.91	+0 44.5	1.888	2.768	11.3	20.6
11 27	5 18.40	+30 56.5	1.890	2.846	6.1	19.6	11 27	5 16.75	-0 1.3	1.841	2.760	9.2	20.4
12 7	5 8.70	+31 24.7	1.852	2.829	3.2	19.4	12 7	5 8.37	-0 29.2	1.819	2.752	8.1	20.4
12 17	4 58.43	+31 42.3	1.843	2.813	4.3	19.5	12 17	4 59.72	-0 35.9	1.824	2.744	9.0	20.4
12 27	4 48.86	+31 49.5	1.863	2.797	7.8	19.6	12 27	4 51.80	-0 20.5	1.856	2.736	11.1	20.5
1 6	4 41.13	+31 48.8	1.909	2.781	11.3	19.8	1 6	4 45.49	+0 15.1	1.910	2.729	13.7	20.7
1 16	4 36.03	+31 43.5	1.978	2.766	14.5	20.0	1 16	4 41.38	+1 7.6	1.986	2.721	16.2	20.8
<b>414723</b>	2009 XB <sub>5</sub>	12 9.5	4°46	0°8/ 9.3	17		<b>135511</b>	2001 XB <sub>244</sub>	12 9.5	204°79	2°5/ 9.9	18	
11 7	5 29.42	+21 23.1	1.819	2.669	13.3	21.3	11 7	5 37.17	+28 46.0	1.905	2.735	13.6	20.2
11 17	5 24.32	+21 11.8	1.750	2.669	9.7	21.1	11 17	5 30.15	+29 12.6	1.825	2.731	10.2	19.9
11 27	5 17.02	+20 58.9	1.705	2.670	5.6	20.8	11 27	5 20.51	+29 32.6	1.770	2.727	6.3	19.7
12 7	5 8.39	+20 45.1	1.687	2.671	1.3	20.6	12 7	5 9.17	+29 43.3	1.743	2.722	2.8	19.5
12 17	4 59.50	+20 31.4	1.697	2.673	3.5	20.7	12 17	4 57.38	+29 43.3	1.745	2.717	4.1	19.5
12 27	4 51.55	+20 19.8	1.736	2.675	7.8	21.0	12 27	4 46.56	+29 33.8	1.776	2.711	8.0	19.8
1 6	4 45.48	+20 12.1	1.800	2.678	11.6	21.2	1 6	4 37.88	+29 18.6	1.834	2.704	11.8	20.0
1 16	4 41.90	+20 9.7	1.886	2.681	14.8	21.4	1 16	4 32.10	+29 1.6	1.915	2.697	15.1	20.2
<b>432268</b>	2009 SC <sub>46</sub>	12 9.5	107°08	3°7/10.3	18		<b>447971</b>	2008 CB <sub>86</sub>	12 9.5	298°15	4°8/ 8.8	17	
11 7	5 38.93	+31 45.9	1.557	2.391	15.9	20.9	11 7	5 30.68	+10 33.5	1.813	2.653	13.8	21.6
11 17	5 31.66	+32 6.7	1.497	2.403	12.0	20.7	11 17	5 25.31	+10 12.2	1.731	2.639	10.5	21.4
11 27	5 21.37	+32 15.9	1.460	2.414	7.7	20.5	11 27	5 17.68	+9 58.9	1.674	2.625	7.2	21.1
12 7	5 9.28	+32 10.4	1.449	2.425	4.1	20.3	12 7	5 8.59	+9 56.1	1.642	2.611	4.9	21.0
12 17	4 56.98	+31 49.4	1.466	2.436	5.1	20.4	12 17	4 59.06	+10 5.4	1.639	2.598	6.1	21.0
12 27	4 46.16	+31 16.4	1.511	2.446	9.0	20.6	12 27	4 50.29	+10 27.5	1.663	2.585	9.5	21.2
1 6	4 38.07	+30 37.4	1.581	2.457	13.0	20.9	1 6	4 43.31	+11 1.6	1.712	2.571	13.1	21.4
1 16	4 33.38	+29 58.3	1.672	2.467	16.4	21.2	1 16	4 38.81	+11 46.0	1.783	2.559	16.3	21.6
<b>157125</b>	2004 NQ <sub>15</sub>	12 9.5	218°77	1°1/ 9.3	18		<b>54982</b>	2001 PH <sub>62</sub>	12 9.5	59°26	1°5/ 9.3	18	
11 7	5 34.81	+20 58.6	1.836	2.676	13.6	20.9							

EPHEMERIDES

12 9.5

12 9.5

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>258044</b>	2001 <i>MY</i> <sub>6</sub>	12	9.5 268°77	4.8/ 8.9	15		<b>243937</b>	2001 <i>PZ</i> <sub>21</sub>	12	9.5 118°99	1.1/ 9.8	18	
11 7	5 32.93	+ 9 11.0	1.966	2.794	13.3	20.9	11 7	5 34.62	+27 11.8	2.188	3.018	12.1	21.0
11 17	5 26.89	+ 9 3.1	1.874	2.774	10.3	20.6	11 17	5 27.70	+27 4.6	2.126	3.033	8.9	20.8
11 27	5 18.60	+ 9 4.5	1.806	2.754	7.1	20.4	11 27	5 18.80	+26 51.2	2.089	3.049	5.2	20.7
12 7	5 8.79	+ 9 17.1	1.766	2.733	4.9	20.2	12 7	5 8.79	+26 31.1	2.081	3.063	1.6	20.4
12 17	4 58.45	+ 9 42.1	1.755	2.712	6.0	20.3	12 17	4 58.71	+26 5.3	2.103	3.078	3.0	20.6
12 27	4 48.75	+10 19.5	1.772	2.691	9.2	20.4	12 27	4 49.62	+25 36.1	2.155	3.091	6.7	20.8
1 6	4 40.70	+11 7.7	1.816	2.669	12.8	20.6	1 6	4 42.37	+25 6.7	2.235	3.105	10.0	21.1
1 16	4 35.07	+12 4.9	1.882	2.647	15.9	20.8	1 16	4 37.47	+24 39.9	2.339	3.118	12.8	21.3
<b>197027</b>	2003 <i>UA</i> <sub>124</sub>	12	9.5 355°58	7.6/11.9	17		<b>506090</b>	2016 <i>AB</i> <sub>4</sub>	12	9.5 10°41	4.5/ 9.1	17	
11 7	5 35.28	+41 11.9	1.341	2.170	18.3	19.4	11 7	5 29.79	+ 9 42.8	1.955	2.791	13.1	20.7
11 17	5 29.81	+41 17.9	1.274	2.166	14.8	19.1	11 17	5 24.39	+ 9 37.6	1.888	2.792	10.0	20.5
11 27	5 20.64	+40 59.8	1.226	2.162	11.0	18.9	11 27	5 17.03	+ 9 41.4	1.844	2.794	6.7	20.3
12 7	5 9.20	+40 12.6	1.201	2.160	8.0	18.7	12 7	5 8.45	+ 9 55.7	1.827	2.796	4.6	20.1
12 17	4 57.46	+38 56.1	1.201	2.158	8.1	18.7	12 17	4 59.63	+10 21.1	1.839	2.798	5.6	20.2
12 27	4 47.51	+37 17.4	1.226	2.158	11.0	18.9	12 27	4 51.60	+10 57.2	1.879	2.801	8.6	20.4
1 6	4 40.84	+35 28.0	1.274	2.158	14.9	19.1	1 6	4 45.24	+11 42.5	1.945	2.804	11.8	20.6
1 16	4 38.14	+33 39.0	1.344	2.160	18.5	19.4	1 16	4 41.12	+12 34.9	2.034	2.807	14.6	20.8
<b>362373</b>	2010 <i>NW</i> <sub>55</sub>	12	9.5 153°67	2.3/ 8.9	18		<b>43012</b>	1999 <i>US</i> <sub>49</sub>	12	9.5 56°64	2.2/ 9.2	18	
11 7	5 31.49	+17 49.0	2.118	2.957	12.1	21.0	11 7	5 33.19	+17 48.8	1.578	2.428	14.9	19.3
11 17	5 25.47	+17 12.6	2.048	2.960	8.9	20.8	11 17	5 27.21	+17 39.1	1.519	2.437	10.9	19.1
11 27	5 17.56	+16 36.4	2.003	2.963	5.3	20.6	11 27	5 18.74	+17 31.7	1.484	2.447	6.4	18.9
12 7	5 8.53	+16 2.4	1.986	2.966	2.4	20.4	12 7	5 8.81	+17 27.3	1.475	2.457	2.4	18.7
12 17	4 59.35	+15 32.5	2.000	2.969	4.0	20.5	12 17	4 58.67	+17 26.9	1.494	2.467	4.4	18.8
12 27	4 51.00	+15 9.2	2.043	2.971	7.5	20.8	12 27	4 49.70	+17 31.7	1.541	2.477	8.8	19.1
1 6	4 44.32	+14 53.9	2.112	2.974	10.8	21.0	1 6	4 42.93	+17 42.6	1.612	2.488	12.8	19.4
1 16	4 39.84	+14 47.3	2.205	2.976	13.7	21.2	1 16	4 38.99	+17 59.9	1.705	2.498	16.2	19.6
<b>59564</b>	1999 <i>JR</i> <sub>46</sub>	12	9.5 299°07	0.5/ 9.6	18		<b>447155</b>	2005 <i>HE</i> <sub>10</sub>	12	9.5 130°20	3.2/10.0	18	
11 7	5 34.62	+22 56.9	1.553	2.403	15.2	18.3	11 7	5 37.14	+31 16.0	2.230	3.049	12.3	21.7
11 17	5 28.68	+23 21.4	1.477	2.395	11.2	18.0	11 17	5 29.75	+31 59.0	2.165	3.062	9.3	21.5
11 27	5 19.83	+23 44.9	1.424	2.388	6.5	17.8	11 27	5 20.11	+32 34.5	2.125	3.074	6.0	21.3
12 7	5 9.06	+24 5.4	1.397	2.381	1.5	17.4	12 7	5 9.10	+32 59.2	2.113	3.086	3.4	21.2
12 17	4 57.73	+24 21.4	1.398	2.374	3.9	17.6	12 17	4 57.83	+33 11.6	2.132	3.098	4.2	21.3
12 27	4 47.43	+24 33.5	1.426	2.367	8.9	17.8	12 27	4 47.50	+33 12.5	2.181	3.109	7.2	21.5
1 6	4 39.48	+24 43.6	1.480	2.360	13.4	18.1	1 6	4 39.09	+33 5.2	2.258	3.120	10.2	21.7
1 16	4 34.72	+24 54.4	1.554	2.354	17.2	18.3	1 16	4 33.25	+32 53.3	2.358	3.130	12.9	21.9
<b>84665</b>	2002 <i>VZ</i> <sub>81</sub>	12	9.5 81°62	3.5/ 8.7	18		<b>88829</b>	2001 <i>SS</i> <sub>162</sub>	12	9.5 344°17	0.2/ 9.6	18	
11 7	5 32.36	+15 5.4	1.834	2.676	13.5	18.9	11 7	5 32.36	+24 0.2	1.894	2.736	13.2	19.7
11 17	5 26.17	+14 20.7	1.780	2.692	10.0	18.7	11 17	5 26.46	+23 54.7	1.821	2.736	9.6	19.5
11 27	5 17.95	+13 39.3	1.750	2.708	6.3	18.6	11 27	5 18.29	+23 45.5	1.772	2.735	5.6	19.3
12 7	5 8.61	+13 3.9	1.748	2.724	3.6	18.4	12 7	5 8.74	+23 32.2	1.751	2.735	1.2	19.0
12 17	4 59.21	+12 37.0	1.775	2.739	5.1	18.6	12 17	4 58.90	+23 15.7	1.759	2.735	3.3	19.1
12 27	4 50.86	+12 20.6	1.830	2.755	8.5	18.8	12 27	4 50.01	+22 57.9	1.795	2.734	7.6	19.4
1 6	4 44.41	+12 15.4	1.911	2.770	11.9	19.0	1 6	4 43.05	+22 41.6	1.858	2.734	11.4	19.6
1 16	4 40.38	+12 21.0	2.014	2.785	14.8	19.3	1 16	4 38.66	+22 29.1	1.944	2.734	14.6	19.8
<b>245810</b>	2006 <i>HA</i> <sub>125</sub>	12	9.5 117°57	1.3/ 9.8	18		<b>229269</b>	2005 <i>AJ</i> <sub>55</sub>	12	9.5 315°43	3.5/ 9.0	17	
11 7	5 36.36	+26 14.5	2.087	2.916	12.6	21.5	11 7	5 29.67	+12 5.4	2.188	3.022	11.9	20.2
11 17	5 29.07	+26 32.6	2.027	2.934	9.2	21.3	11 17	5 24.19	+11 58.6	2.113	3.019	9.0	20.0
11 27	5 19.63	+26 46.0	1.992	2.952	5.4	21.1	11 27	5 16.88	+11 58.0	2.063	3.016	5.8	19.8
12 7	5 8.96	+26 52.8	1.987	2.969	1.8	20.9	12 7	5 8.44	+12 4.7	2.040	3.013	3.6	19.7
12 17	4 58.16	+26 52.9	2.011	2.985	3.3	21.0	12 17	4 59.74	+12 19.5	2.048	3.010	4.7	19.8
12 27	4 48.39	+26 47.5	2.066	3.001	7.0	21.3	12 27	4 51.73	+12 42.4	2.084	3.008	7.7	19.9
1 6	4 40.56	+26 39.3	2.148	3.017	10.4	21.5	1 6	4 45.22	+13 13.0	2.147	3.005	10.8	20.1
1 16	4 35.24	+26 31.2	2.254	3.031	13.2	21.7	1 16	4 40.78	+13 50.3	2.233	3.002	13.6	20.3
<b>51297</b>	2000 <i>KN</i> <sub>45</sub>	12	9.5 39°61	3.2/ 8.6	18		<b>266571</b>	2008 <i>GW</i> <sub>129</sub>	12	9.5 160°45	2.1/ 9.3	18	
11 7	5 28.77	+15 15.9	2.095	2.938	12.1	18.4	11 7	5 36.23	+17 16.6	1.697	2.538	14.5	20.8
11 17	5 23.46	+14 31.4	2.034	2.946	8.9	18.2	11 17	5 29.38	+17 18.0	1.629	2.543	10.7	20.6
11 27	5 16.38	+13 49.5	1.997	2.955	5.6	18.0	11 27	5 20.02	+17 22.3	1.585	2.547	6.3	20.3
12 7	5 8.30	+13 12.6	1.989	2.964	3.3	17.9	12 7	5 9.10	+17 29.7	1.569	2.551	2.3	20.1
12 17	5 0.10	+12 43.0	2.009	2.973	4.6	18.0	12 17	4 57.87	+17 40.3	1.581	2.554	4.3	20.2
12 27	4 52.74	+12 22.9	2.058	2.983	7.8	18.2	12 27	4 47.70	+17 54.8	1.622	2.556	8.7	20.5
1 6	4 46.97	+12 13.1	2.134	2.993	10.9	18.4	1 6	4 39.69	+18 13.8	1.689	2.558	12.7	20.7
1 16	4 43.29	+12 13.5	2.232	3.003	13.6	18.6	1 16	4 34.51	+18 37.6	1.778	2.560	16.1	21.0
<b>1128</b>	Astrid	12	9.5 140°48	0.2/ 9.6	18		<b>375222</b>	2008 <i>FE</i> <sub>51</sub>	12	9.5 89°40	1.3/ 9.3	17	
11 7	5 32.61	+23 35.0	2.038	2.877	12.5	15.5	11 7	5 31.86	+19 40.7	1.998	2.839	12.6	21.6
11 17	5 26.47	+23 34.2	1.967	2.880	9.1	15.3	11 17	5 25.87	+19 31.5	1.933	2.848	9.2	21.4
11 27	5 18.22	+23 30.4	1.920	2.883	5.3	15.0	11 27	5 17.85	+19 22.4	1.893	2.856	5.3	21.2
12 7	5 8.69	+23 23.2	1.902	2.886	1.1	14.8	12 7	5 8.63	+19 13.8	1.881	2.864	1.6	21.0
12 17	4 58.93	+23 13.0	1.913	2.888	3.1	14.9	12 17	4 59.25	+19 6.5	1.898	2.872	3.5	21.1
12 27	4 50.05	+23 1.5	1.953	2.891	7.1	15.2	12 27	4 50.77	+19 2.0	1.945	2.880	7.4	21.4
1 6	4 42.99	+22 50.8	2.021	2.893	10.7	15.4	1 6	4 44.07	+19 1.5	2.018	2.888	10.9	21.6
1 16	4 38.34	+22 43.2	2.111	2.896	13.8	15.6	1 16	4 39.72	+19 6.1	2.114	2.896	13.9	21.8
<b>83260</b>	2001 <i>RP</i> <sub>72</sub>	12	9.5 111°67	1.7/ 9.9	18		<b>517535</b>	2014 <i>SP</i> <sub>133</sub>	12	9.5 74°41	5.5/10.4	18	

EPHEMERIDES

12 9.5

12 9.6

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>487537</b>	2014 <i>UH</i> <sub>176</sub>	12 9.5 117°24	0°3/ 9.6 18				<b>353100</b>	2009 <i>EF</i> <sub>17</sub>	12 9.6 159°93	5°7/ 8.8 18			
11 7	5 31.25	+23 35.7	2.415	3.248	11.0	21.5	11 7	5 31.98	+7 33.8	1.892	2.721	13.7	21.0
11 17	5 25.20	+23 42.8	2.346	3.257	8.0	21.3	11 17	5 26.03	+7 9.6	1.825	2.723	10.7	20.9
11 27	5 17.39	+23 47.6	2.303	3.265	4.6	21.1	11 27	5 18.01	+6 55.7	1.781	2.724	7.6	20.7
12 7	5 8.54	+23 49.4	2.289	3.273	1.0	20.8	12 7	5 8.73	+6 54.7	1.765	2.725	5.7	20.6
12 17	4 59.52	+23 48.4	2.306	3.281	2.7	21.0	12 17	4 59.20	+7 8.1	1.777	2.727	6.7	20.6
12 27	4 51.24	+23 45.5	2.352	3.289	6.2	21.2	12 27	4 50.52	+7 36.1	1.816	2.728	9.5	20.8
1 6	4 44.50	+23 42.3	2.427	3.296	9.3	21.4	1 6	4 43.60	+8 16.8	1.881	2.728	12.6	21.0
1 16	4 39.80	+23 40.6	2.526	3.304	12.0	21.6	1 16	4 39.05	+9 7.9	1.968	2.729	15.4	21.2
<b>47836</b>	2000 <i>EU</i> <sub>116</sub>	12 9.5 269°24	1°7/ 9.0 18				<b>270238</b>	2001 <i>TD</i> <sub>252</sub>	12 9.6 195°79	1°3/ 9.7 18			
11 7	5 29.28	+19 13.0	2.353	3.192	11.1	18.4	11 7	5 36.92	+25 26.9	1.856	2.691	13.7	21.6
11 17	5 23.82	+18 41.4	2.274	3.187	8.1	18.2	11 17	5 29.96	+25 47.8	1.779	2.689	10.1	21.4
11 27	5 16.62	+18 8.9	2.220	3.182	4.8	18.0	11 27	5 20.43	+26 4.7	1.726	2.687	6.0	21.1
12 7	5 8.39	+17 37.1	2.195	3.177	1.8	17.7	12 7	5 9.25	+26 15.5	1.701	2.684	1.8	20.8
12 17	4 59.95	+17 7.6	2.201	3.172	3.4	17.9	12 17	4 57.65	+26 19.5	1.706	2.681	3.6	20.9
12 27	4 52.20	+16 42.6	2.236	3.167	6.8	18.1	12 27	4 47.02	+26 17.5	1.740	2.677	7.9	21.2
1 6	4 45.91	+16 23.8	2.298	3.162	10.0	18.3	1 6	4 38.51	+26 12.5	1.800	2.672	11.9	21.4
1 16	4 41.60	+16 12.3	2.384	3.157	12.7	18.4	1 16	4 32.84	+26 7.5	1.884	2.667	15.2	21.6
<b>266210</b>	2006 <i>WE</i> <sub>103</sub>	12 9.5 327°27	0°5/ 9.6 18				<b>400659</b>	2009 <i>HO</i> <sub>73</sub>	12 9.6 240°57	2°0/ 10.2 17			
11 7	5 34.86	+23 17.4	1.331	2.189	16.7	20.5	11 7	5 35.24	+30 16.8	2.331	3.152	11.8	21.5
11 17	5 29.19	+23 34.1	1.261	2.183	12.3	20.2	11 17	5 28.41	+30 5.6	2.235	3.136	8.8	21.3
11 27	5 20.27	+23 48.7	1.213	2.178	7.2	19.9	11 27	5 19.41	+29 45.7	2.164	3.119	5.5	21.1
12 7	5 9.20	+23 59.2	1.189	2.174	1.6	19.6	12 7	5 9.03	+29 15.7	2.121	3.101	2.3	20.9
12 17	4 57.58	+24 4.9	1.193	2.169	4.3	19.7	12 17	4 58.30	+28 36.3	2.110	3.083	3.4	20.9
12 27	4 47.20	+24 7.0	1.222	2.165	9.8	20.1	12 27	4 48.34	+27 50.1	2.129	3.064	6.9	21.1
1 6	4 39.54	+24 8.5	1.275	2.161	14.7	20.3	1 6	4 40.12	+27 1.2	2.177	3.044	10.3	21.3
1 16	4 35.43	+24 12.3	1.348	2.158	18.8	20.6	1 16	4 34.29	+26 13.8	2.248	3.024	13.3	21.4
<b>109598</b>	2001 <i>QD</i> <sub>282</sub>	12 9.5 7°35	15°3/ 2.8 18				<b>337497</b>	2001 <i>SD</i> <sub>103</sub>	12 9.6 102°22	3°2/ 10.2 18			
11 7	5 33.88	+5 31.7	0.881	1.749	22.2	18.2	11 7	5 38.52	+30 46.0	1.623	2.458	15.4	21.5
11 17	5 28.74	+1 26.7	0.840	1.749	18.4	18.0	11 17	5 31.25	+31 2.1	1.565	2.472	11.5	21.2
11 27	5 19.99	-2 25.0	0.819	1.749	15.8	17.8	11 27	5 21.15	+31 7.8	1.530	2.486	7.2	21.0
12 7	5 9.12	-5 40.4	0.821	1.751	15.6	17.8	12 7	5 9.38	+31 0.4	1.522	2.500	3.5	20.8
12 17	4 58.05	-8 1.2	0.844	1.753	17.8	18.0	12 17	4 57.46	+30 39.7	1.542	2.513	4.6	20.9
12 27	4 48.79	-9 20.1	0.885	1.756	21.1	18.2	12 27	4 46.95	+30 9.0	1.590	2.526	8.6	21.2
1 6	4 42.77	-9 41.9	0.943	1.760	24.5	18.4	1 6	4 39.03	+29 33.5	1.663	2.539	12.5	21.5
1 16	4 40.64	-9 17.7	1.013	1.765	27.4	18.7	1 16	4 34.33	+28 58.7	1.759	2.551	15.8	21.7
<b>369171</b>	2008 <i>SD</i> <sub>140</sub>	12 9.5 72°38	1°8/ 9.9 17				<b>480053</b>	2015 <i>CA</i> <sub>46</sub>	12 9.6 221°82	4°2/ 10.3 18			
11 7	5 31.85	+28 31.3	2.243	3.075	11.8	21.7	11 7	5 39.45	+32 24.7	1.564	2.397	16.0	21.4
11 17	5 25.79	+28 42.1	2.179	3.086	8.7	21.5	11 17	5 32.44	+32 53.1	1.487	2.391	12.2	21.2
11 27	5 17.79	+28 46.9	2.139	3.097	5.3	21.3	11 27	5 22.13	+33 10.3	1.433	2.386	8.0	20.9
12 7	5 8.64	+28 44.2	2.128	3.108	2.2	21.2	12 7	5 9.64	+33 11.8	1.405	2.379	4.6	20.7
12 17	4 59.34	+28 34.2	2.146	3.119	3.3	21.2	12 17	4 56.60	+32 55.6	1.404	2.373	5.5	20.8
12 27	4 50.92	+28 18.5	2.194	3.130	6.6	21.5	12 27	4 44.82	+32 24.5	1.431	2.365	9.6	21.0
1 6	4 44.22	+27 59.8	2.269	3.141	9.8	21.7	1 6	4 35.80	+31 44.5	1.483	2.358	13.8	21.2
1 16	4 39.79	+27 41.1	2.368	3.153	12.5	21.9	1 16	4 30.37	+31 2.5	1.556	2.350	17.5	21.4
<b>494079</b>	2016 <i>BY</i> <sub>75</sub>	12 9.5 277°33	0°3/ 9.5 18				<b>197041</b>	2003 <i>UP</i> <sub>135</sub>	12 9.6 29°66	1°6/ 10.1 17			
11 7	5 29.92	+21 50.9	2.421	3.257	10.9	21.6	11 7	5 31.49	+29 5.8	2.102	2.936	12.4	20.1
11 17	5 24.40	+21 51.8	2.330	3.243	7.9	21.4	11 17	5 25.66	+28 51.5	2.031	2.940	9.1	19.9
11 27	5 17.05	+21 51.5	2.265	3.228	4.6	21.1	11 27	5 17.77	+28 29.3	1.984	2.943	5.5	19.7
12 7	5 8.52	+21 49.8	2.229	3.213	1.0	20.8	12 7	5 8.69	+27 58.7	1.966	2.947	2.1	19.5
12 17	4 59.65	+21 46.9	2.223	3.198	2.8	21.0	12 17	4 59.44	+27 20.9	1.976	2.951	3.3	19.6
12 27	4 51.37	+21 43.9	2.247	3.183	6.4	21.2	12 27	4 51.12	+26 38.9	2.016	2.955	6.9	19.8
1 6	4 44.51	+21 42.2	2.298	3.168	9.8	21.3	1 6	4 44.64	+25 56.4	2.083	2.959	10.3	20.0
1 16	4 39.67	+21 43.1	2.374	3.153	12.6	21.5	1 16	4 40.53	+25 17.1	2.174	2.963	13.3	20.2
<b>120960</b>	1998 <i>VC</i> <sub>3</sub>	12 9.6 57°69	0°5/ 9.6 18 R				<b>137985</b>	2000 <i>CP</i> <sub>56</sub>	12 9.6 313°34	7°4/ 10.8 17			
11 7	5 37.18	+24 32.5	1.268	2.124	17.5	19.7	11 7	5 36.72	+39 54.3	1.663	2.480	15.9	19.3
11 17	5 30.47	+24 29.6	1.225	2.146	12.7	19.4	11 17	5 30.66	+40 45.8	1.584	2.468	12.9	19.1
11 27	5 20.70	+24 21.4	1.203	2.168	7.3	19.2	11 27	5 21.22	+41 21.6	1.526	2.456	9.8	18.9
12 7	5 9.25	+24 7.2	1.207	2.191	1.6	18.9	12 7	5 9.48	+41 35.0	1.493	2.444	7.6	18.8
12 17	4 57.82	+23 48.2	1.237	2.214	4.2	19.2	12 17	4 57.05	+41 22.7	1.485	2.433	8.0	18.8
12 27	4 48.12	+23 27.8	1.294	2.236	9.4	19.5	12 27	4 45.84	+40 46.4	1.504	2.422	10.6	18.9
1 6	4 41.31	+23 9.9	1.374	2.259	13.9	19.9	1 6	4 37.41	+39 53.0	1.547	2.412	13.9	19.1
1 16	4 37.95	+22 57.4	1.475	2.282	17.6	20.2	1 16	4 32.67	+38 51.0	1.611	2.402	17.1	19.2
<b>153032</b>	2000 <i>PB</i> <sub>15</sub>	12 9.6 117°92	1°0/ 9.4 18				<b>323894</b>	2005 <i>SS</i> <sub>287</sub>	12 9.6 323°35	0°8/ 9.6 17 R			
11 7	5 36.20	+20 21.3	1.827	2.666	13.8	20.8	11 7	5 33.98	+22 4.8	1.825	2.667	13.6	20.5
11 17	5 29.12	+20 19.5	1.769	2.682	10.0	20.6	11 17	5 27.96	+22 56.4	1.744	2.659	10.0	20.3
11 27	5 19.75	+20 17.2	1.734	2.697	5.7	20.4	11 27	5 19.38	+23 49.5	1.688	2.651	5.8	20.0
12 7	5 9.07	+20 14.3	1.728	2.712	1.5	20.1	12 7	5 9.08	+24 41.3	1.660	2.644	1.4	19.7
12 17	4 58.26	+20 11.4	1.752	2.726	3.6	20.3	12 17	4 58.20	+25 29.0	1.661	2.636	3.6	19.8
12 27	4 48.57	+20 9.8	1.805	2.740	7.8	20.6	12 27	4 48.11	+26 11.2	1.691	2.629	8.0	20.1
1 6	4 40.95	+20 11.1	1.884	2.754	11.6	20.9	1 6	4 39.99	+26 48.4	1.747	2.623	12.0	20.3
1 16	4 35.99	+20 16.7	1.986	2.766	14.7	21.1	1 16	4 34.65	+27 22.1	1.827	2.617	15.4	20.5
<b>394925</b>	2008 <i>WV</i> <sub>79</sub>	12 9.6 27°26	2°8/ 9.1 18				<b>311877</b>	2006 <i>WA</i> <sub>137</sub>	12 9.6 331°85	0°1/ 9.6 17			

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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>358161</b>	2006 <i>RR</i> <sub>90</sub>		12 9.6 115°15	0°9/ 9.7 18			<b>200325</b>	2000 <i>GM</i> <sub>32</sub>		12 9.6 132°99	3°0/10.1 18		
11 7	5 33.87	+25 29.2	1.952	2.789	13.0	21.3	11 7	5 39.24	+30 37.6	1.943	2.766	13.7	21.0
11 17	5 27.50	+25 34.6	1.884	2.796	9.5	21.1	11 17	5 31.47	+31 2.6	1.880	2.781	10.2	20.8
11 27	5 18.89	+25 35.4	1.841	2.802	5.6	20.9	11 27	5 21.21	+31 18.7	1.842	2.795	6.5	20.7
12 7	5 8.94	+25 30.7	1.826	2.809	1.5	20.6	12 7	5 9.46	+31 23.4	1.832	2.808	3.3	20.5
12 17	4 58.76	+25 20.6	1.840	2.815	3.3	20.8	12 17	4 57.52	+31 15.7	1.851	2.821	4.2	20.6
12 27	4 49.57	+25 7.0	1.883	2.821	7.3	21.1	12 27	4 46.76	+30 57.8	1.901	2.833	7.7	20.8
1 6	4 42.33	+24 52.6	1.953	2.827	11.0	21.3	1 6	4 38.24	+30 33.7	1.977	2.844	11.2	21.0
1 16	4 37.65	+24 40.2	2.046	2.833	14.1	21.5	1 16	4 32.59	+30 8.2	2.076	2.855	14.2	21.3
<b>72695</b>	2001 <i>FN</i> <sub>73</sub>		12 9.6 18°52	5°6/ 8.3 18			<b>407980</b>	2012 <i>DT</i> <sub>49</sub>		12 9.6 105°50	4°9/10.7 18		
11 7	5 28.86	+7 27.7	2.098	2.927	12.6	19.0	11 7	5 35.67	+37 33.2	2.340	3.145	12.2	20.8
11 17	5 23.61	+6 48.6	2.031	2.928	9.8	18.8	11 17	5 28.77	+38 10.9	2.275	3.156	9.6	20.6
11 27	5 16.56	+6 18.4	1.989	2.930	7.1	18.7	11 27	5 19.63	+38 37.0	2.234	3.167	6.9	20.5
12 7	5 8.45	+6 0.1	1.974	2.931	5.6	18.6	12 7	5 9.14	+38 48.1	2.221	3.178	5.0	20.4
12 17	5 0.15	+5 55.7	1.988	2.933	6.5	18.6	12 17	4 58.42	+38 42.9	2.237	3.189	5.4	20.4
12 27	4 52.59	+6 6.0	2.029	2.934	9.0	18.8	12 27	4 48.67	+38 23.1	2.282	3.199	7.5	20.6
1 6	4 46.56	+6 30.1	2.095	2.936	11.8	19.0	1 6	4 40.86	+37 52.8	2.354	3.210	10.1	20.7
1 16	4 42.59	+7 6.0	2.184	2.938	14.3	19.1	1 16	4 35.61	+37 16.9	2.450	3.220	12.5	20.9
<b>490693</b>	2010 <i>NV</i> <sub>6</sub>		12 9.6 134°03	3°2/10.5 18			<b>227128</b>	2005 <i>OJ</i> <sub>7</sub>		12 9.6 128°08	0°2/ 9.5 18		
11 7	5 36.37	+33 30.7	2.301	3.115	12.1	21.7	11 7	5 37.86	+22 7.7	1.803	2.639	14.0	21.1
11 17	5 29.06	+33 36.2	2.234	3.128	9.2	21.5	11 17	5 30.42	+22 12.3	1.742	2.654	10.2	20.9
11 27	5 19.67	+33 31.5	2.193	3.140	6.0	21.4	11 27	5 20.57	+22 15.0	1.707	2.669	5.8	20.7
12 7	5 9.08	+33 14.7	2.180	3.152	3.4	21.2	12 7	5 9.33	+22 15.0	1.699	2.683	1.2	20.4
12 17	4 58.39	+32 46.0	2.197	3.164	4.0	21.3	12 17	4 57.94	+22 12.4	1.722	2.697	3.5	20.6
12 27	4 48.73	+32 8.0	2.245	3.175	6.9	21.5	12 27	4 47.70	+22 8.7	1.773	2.710	7.8	20.9
1 6	4 40.98	+31 25.0	2.320	3.185	9.9	21.7	1 6	4 39.64	+22 6.2	1.852	2.722	11.7	21.1
1 16	4 35.69	+30 41.4	2.420	3.195	12.5	21.9	1 16	4 34.37	+22 6.8	1.953	2.733	14.9	21.4
<b>227592</b>	2006 <i>AO</i> <sub>27</sub>		12 9.6 119°59	0°8/ 9.4 18			<b>47823</b>	2000 <i>EK</i> <sub>97</sub>		12 9.6 315°73	2°6/ 8.7 18 R		
11 7	5 31.07	+21 4.5	2.355	3.190	11.2	21.2	11 7	5 29.15	+17 47.2	2.053	2.897	12.2	18.5
11 17	5 25.07	+20 51.1	2.287	3.199	8.1	21.0	11 17	5 24.01	+17 1.2	1.971	2.886	9.0	18.3
11 27	5 17.34	+20 36.5	2.246	3.208	4.7	20.8	11 27	5 16.91	+16 14.6	1.914	2.875	5.5	18.0
12 7	5 8.61	+20 21.0	2.234	3.217	1.2	20.6	12 7	5 8.59	+15 29.8	1.885	2.864	2.7	17.8
12 17	4 59.74	+20 5.7	2.252	3.226	2.9	20.7	12 17	4 59.99	+14 49.7	1.884	2.853	4.3	17.9
12 27	4 51.66	+19 52.0	2.300	3.235	6.4	20.9	12 27	4 52.13	+14 17.1	1.913	2.843	7.9	18.1
1 6	4 45.11	+19 41.7	2.376	3.243	9.6	21.2	1 6	4 45.89	+13 54.1	1.968	2.832	11.4	18.3
1 16	4 40.59	+19 35.8	2.475	3.251	12.2	21.4	1 16	4 41.87	+13 41.5	2.045	2.823	14.4	18.5
<b>18078</b>	2000 <i>FL</i> <sub>31</sub>		12 9.6 26°14	4°8/ 9.6 18			<b>353841</b>	2012 <i>VF</i> <sub>17</sub>		12 9.6 52°50	1°4/ 9.4 18		
11 7	5 32.70	+10 7.3	1.339	2.191	17.0	16.6	11 7	5 33.77	+19 46.4	1.550	2.401	15.1	20.3
11 17	5 27.16	+10 25.2	1.288	2.202	12.8	16.4	11 17	5 27.80	+19 40.3	1.489	2.408	11.0	20.1
11 27	5 18.89	+10 56.6	1.258	2.214	8.4	16.2	11 27	5 19.23	+19 34.6	1.450	2.414	6.4	19.8
12 7	5 8.97	+11 41.8	1.253	2.227	5.0	16.0	12 7	5 9.08	+19 29.6	1.438	2.421	1.8	19.5
12 17	4 58.82	+12 39.3	1.274	2.241	6.2	16.2	12 17	4 58.69	+19 26.1	1.453	2.428	4.1	19.7
12 27	4 49.92	+13 46.3	1.322	2.255	10.3	16.4	12 27	4 49.46	+19 25.6	1.496	2.435	8.8	20.0
1 6	4 43.45	+14 59.3	1.393	2.271	14.3	16.7	1 6	4 42.51	+19 29.6	1.564	2.442	13.0	20.3
1 16	4 40.07	+16 15.4	1.486	2.287	17.8	17.0	1 16	4 38.49	+19 39.3	1.653	2.450	16.5	20.5
<b>67487</b>	2000 <i>RQ</i> <sub>19</sub>		12 9.6 132°54	2°8/10.3 18			<b>28887</b>	2000 <i>KQ</i> <sub>58</sub>		12 9.6 26°08	5°9/10.2 18		
11 7	5 40.78	+31 5.9	1.572	2.404	15.9	19.7	11 7	5 34.63	+7 23.4	0.980	1.844	20.8	16.1
11 17	5 32.95	+31 0.1	1.510	2.416	11.9	19.4	11 17	5 29.15	+8 12.8	0.941	1.860	15.8	15.9
11 27	5 22.15	+30 42.0	1.471	2.427	7.4	19.2	11 27	5 20.24	+9 24.5	0.921	1.878	10.4	15.7
12 7	5 9.63	+30 9.8	1.459	2.438	3.3	19.0	12 7	5 9.30	+10 56.8	0.923	1.897	6.3	15.5
12 17	4 57.00	+29 24.4	1.476	2.448	4.5	19.1	12 17	4 58.18	+12 43.9	0.950	1.918	7.3	15.6
12 27	4 45.91	+28 30.8	1.520	2.458	8.8	19.4	12 27	4 48.81	+14 38.3	1.001	1.941	11.9	16.0
1 6	4 37.57	+27 35.4	1.591	2.467	13.0	19.6	1 6	4 42.57	+16 33.0	1.074	1.964	16.5	16.3
1 16	4 32.59	+26 44.1	1.684	2.475	16.5	19.9	1 16	4 40.11	+18 23.1	1.167	1.989	20.4	16.6
<b>85918</b>	1999 <i>CD</i> <sub>100</sub>		12 9.6 267°78	3°0/10.1 18			<b>514704</b>	2006 <i>QY</i> <sub>84</sub>		12 9.6 171°03	7°6/ 8.1 18		
11 7	5 34.64	+30 54.1	2.060	2.887	12.8	20.0	11 7	5 31.48	+0 24.2	2.215	3.016	13.0	22.0
11 17	5 28.36	+31 18.0	1.968	2.871	9.7	19.8	11 17	5 25.41	+0 20.4	2.151	3.019	10.6	21.8
11 27	5 19.60	+31 34.3	1.901	2.854	6.3	19.6	11 27	5 17.59	+0 51.5	2.111	3.022	8.6	21.7
12 7	5 9.16	+31 40.3	1.861	2.837	3.3	19.3	12 7	5 8.73	+1 5.5	2.097	3.024	7.6	21.7
12 17	4 58.18	+31 34.4	1.850	2.820	4.2	19.4	12 17	4 59.69	+1 0.1	2.111	3.026	8.2	21.7
12 27	4 47.98	+31 18.1	1.869	2.802	7.8	19.5	12 27	4 51.39	+0 35.4	2.153	3.027	10.1	21.8
1 6	4 39.71	+30 54.7	1.914	2.784	11.4	19.7	1 6	4 44.58	+0 6.6	2.219	3.027	12.4	22.0
1 16	4 34.15	+30 28.8	1.982	2.766	14.6	19.9	1 16	4 39.81	+1 2.5	2.307	3.027	14.6	22.1
<b>21239</b>	1995 <i>WP</i> <sub>17</sub>		12 9.6 68°13	2°2/ 9.9 18			<b>133171</b>	2003 <i>QG</i> <sub>42</sub>		12 9.6 38°00	9°0/ 7.4 18		
11 7	5 39.43	+28 9.8	1.569	2.407	15.7	18.6	11 7	5 28.57	+0 20.2	1.854	2.671	14.5	18.9
11 17	5 31.65	+28 27.1	1.530	2.440	11.5	18.5	11 17	5 23.46	+0 56.8	1.809	2.685	12.0	18.8
11 27	5 21.23	+28 36.1	1.514	2.473	6.9	18.3	11 27	5 16.49	+1 57.8	1.788	2.699	9.9	18.7
12 7	5 9.42	+28 34.8	1.525	2.506	2.7	18.1	12 7	5 8.49	+2 37.7	1.791	2.714	9.0	18.6
12 17	4 57.72	+28 23.2	1.565	2.539	4.1	18.3	12 17	5 0.43	+2 53.5	1.820	2.729	9.7	18.7
12 27	4 47.62	+28 4.4	1.633	2.571	8.3	18.6	12 27	4 53.28	+2 44.7	1.875	2.745	11.6	18.9
1 6	4 40.14	+27 42.7	1.727	2.603	12.1	18.9	1 6	4 47.82	+2 14.2	1.952	2.761	13.8	19.0
1 16	4 35.78	+27 22.3	1.843	2.634	15.2	19.2	1 16	4 44.55	+1 26.0	2.049	2.777	15.9	19.2
<b>61694</b>	2000 <i>QB</i> <sub>132</sub>		12 9.6 199°89	0°7/ 9.4 18			<b>193478</b>	2000 <i>XN</i> <sub>37</sub>		12 9.6 41°40	8°0/ 9.9 18 R		
11 7	5 31												

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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>393546</b>	2002 <i>VW</i> <sub>126</sub>	12 9.6	68°37'	1.8°/ 9.0	18		<b>444784</b>	2007 <i>TC</i> <sub>64</sub>	12 9.6	356°95'	1.6°/ 9.3	18	
11 7	5 34.32	+21 10.6	1.707	2.553	14.2	19.9	11 7	5 32.25	+19 50.3	1.607	2.459	14.6	21.2
11 17	5 27.73	+20 16.1	1.657	2.573	10.3	19.7	11 17	5 26.71	+19 32.0	1.538	2.458	10.7	21.0
11 27	5 18.94	+19 18.9	1.631	2.594	6.0	19.5	11 27	5 18.66	+19 13.2	1.492	2.457	6.3	20.7
12 7	5 8.99	+18 21.8	1.632	2.615	2.0	19.3	12 7	5 9.04	+18 55.1	1.473	2.456	2.0	20.4
12 17	4 59.09	+17 28.2	1.663	2.635	4.1	19.5	12 17	4 59.11	+18 39.2	1.482	2.456	4.2	20.6
12 27	4 50.45	+16 42.1	1.722	2.656	8.3	19.8	12 27	4 50.23	+18 27.5	1.518	2.456	8.7	20.9
1 6	4 43.94	+16 6.2	1.807	2.677	12.0	20.0	1 6	4 43.50	+18 22.2	1.578	2.456	12.9	21.1
1 16	4 40.06	+15 41.7	1.915	2.697	15.1	20.3	1 16	4 39.60	+18 24.4	1.661	2.457	16.4	21.3
<b>521327</b>	2015 <i>KD</i> <sub>172</sub>	12 9.6	48°28'	5°5'/ 9.5	18		<b>356823</b>	2011 <i>UM</i> <sub>391</sub>	12 9.6	330°57'	0°5'/ 9.6	18	
11 7	5 33.52	+7 25.5	1.639	2.473	15.3	20.6	11 7	5 37.36	+17 45.3	1.778	2.615	14.1	20.1
11 17	5 27.38	+7 33.0	1.581	2.483	11.7	20.4	11 17	5 30.44	+18 49.4	1.701	2.613	10.4	19.9
11 27	5 18.90	+7 54.0	1.546	2.493	8.1	20.2	11 27	5 20.88	+19 59.6	1.649	2.611	6.0	19.6
12 7	5 9.02	+8 29.7	1.537	2.503	5.7	20.1	12 7	5 9.53	+21 12.8	1.626	2.610	1.4	19.3
12 17	4 58.92	+9 19.6	1.556	2.514	6.6	20.2	12 17	4 57.62	+22 25.2	1.633	2.609	3.6	19.5
12 27	4 49.85	+10 21.6	1.603	2.524	9.8	20.4	12 27	4 46.55	+23 34.0	1.670	2.607	8.2	19.8
1 6	4 42.83	+11 32.4	1.675	2.536	13.2	20.6	1 6	4 37.53	+24 38.0	1.735	2.606	12.3	20.0
1 16	4 38.49	+12 48.8	1.769	2.547	16.3	20.8	1 16	4 31.39	+25 37.5	1.822	2.605	15.7	20.2
<b>31516</b>	Leibowitz	12 9.6	232°06'	2°3'/ 9.9	18		<b>30269</b>	Anandapadmanaban	12 9.6	262°41'	0°4'/ 9.6	18	
11 7	5 36.78	+28 16.5	1.869	2.702	13.7	18.9	11 7	5 35.66	+23 28.9	1.658	2.502	14.6	19.1
11 17	5 30.04	+28 39.4	1.785	2.692	10.3	18.7	11 17	5 29.45	+23 37.0	1.572	2.488	10.8	18.8
11 27	5 20.61	+28 56.2	1.725	2.682	6.3	18.4	11 27	5 20.41	+23 42.4	1.510	2.473	6.3	18.5
12 7	5 9.42	+29 4.1	1.692	2.672	2.7	18.2	12 7	5 9.45	+23 43.9	1.475	2.459	1.4	18.2
12 17	4 57.69	+29 1.9	1.689	2.661	4.0	18.2	12 17	4 57.87	+23 41.0	1.468	2.444	3.8	18.3
12 27	4 46.89	+28 50.9	1.714	2.650	8.1	18.5	12 27	4 47.22	+23 35.1	1.489	2.429	8.7	18.6
1 6	4 38.22	+28 34.6	1.766	2.639	12.1	18.7	1 6	4 38.80	+23 29.2	1.536	2.413	13.2	18.8
1 16	4 32.47	+28 17.1	1.841	2.626	15.5	18.9	1 16	4 33.45	+23 26.0	1.604	2.398	17.0	19.0
<b>308920</b>	2006 <i>SO</i> <sub>318</sub>	12 9.6	75°65'	2°1'/ 9.9	18		<b>54459</b>	2000 <i>NX</i> <sub>24</sub>	12 9.6	215°77'	0°6'/ 9.7	18	
11 7	5 34.65	+27 31.4	1.843	2.680	13.7	20.8	11 7	5 32.98	+25 28.0	2.166	3.000	12.1	19.3
11 17	5 28.32	+27 59.1	1.775	2.685	10.1	20.5	11 17	5 26.80	+25 20.4	2.085	2.996	8.8	19.1
11 27	5 19.51	+28 21.3	1.731	2.691	6.1	20.3	11 27	5 18.54	+25 8.0	2.030	2.991	5.2	18.8
12 7	5 9.16	+28 35.6	1.715	2.696	2.5	20.1	12 7	5 9.01	+24 50.5	2.003	2.987	1.3	18.6
12 17	4 58.50	+28 40.8	1.728	2.701	3.8	20.2	12 17	4 59.20	+24 28.4	2.006	2.982	3.0	18.7
12 27	4 48.86	+28 38.3	1.769	2.707	7.8	20.5	12 27	4 50.20	+24 3.8	2.039	2.977	6.9	18.9
1 6	4 41.33	+28 30.9	1.837	2.712	11.5	20.7	1 6	4 42.93	+23 39.7	2.099	2.971	10.4	19.1
1 16	4 36.59	+28 22.2	1.927	2.717	14.7	20.9	1 16	4 38.01	+23 18.6	2.183	2.966	13.5	19.3
<b>484101</b>	2006 <i>RH</i> <sub>84</sub>	12 9.6	30°51'	6°3'/ 10.7	17		<b>474745</b>	2005 <i>OR</i> <sub>17</sub>	12 9.6	61°54'	1°8'/ 9.2	16	
11 7	5 36.08	+36 45.4	1.523	2.353	16.4	21.3	11 7	5 37.91	+20 35.1	1.276	2.132	17.4	21.2
11 17	5 29.99	+37 34.1	1.466	2.363	12.9	21.1	11 17	5 30.79	+20 2.3	1.240	2.161	12.6	21.0
11 27	5 20.69	+38 7.6	1.431	2.373	9.2	20.9	11 27	5 20.83	+19 28.5	1.225	2.190	7.2	20.8
12 7	5 9.42	+38 20.6	1.421	2.384	6.6	20.7	12 7	5 9.44	+18 55.5	1.236	2.219	2.2	20.5
12 17	4 57.83	+38 11.1	1.437	2.395	7.0	20.8	12 17	4 58.22	+18 26.0	1.274	2.248	4.7	20.8
12 27	4 47.73	+37 42.1	1.480	2.407	10.0	21.0	12 27	4 48.75	+18 3.3	1.338	2.277	9.6	21.2
1 6	4 40.46	+37 0.1	1.546	2.419	13.4	21.2	1 6	4 42.08	+17 49.7	1.427	2.306	13.9	21.5
1 16	4 36.72	+36 12.8	1.633	2.433	16.5	21.5	1 16	4 38.68	+17 45.9	1.536	2.334	17.4	21.8
<b>278948</b>	2008 <i>UR</i> <sub>62</sub>	12 9.6	355°57'	3°3'/ 10.1	18		<b>186261</b>	2001 <i>YD</i> <sub>22</sub>	12 9.6	312°43'	1°3'/ 9.9	17	
11 7	5 32.12	+31 17.7	2.110	2.940	12.5	19.9	11 7	5 32.51	+28 1.7	1.826	2.667	13.6	19.9
11 17	5 26.38	+31 52.6	2.035	2.938	9.4	19.7	11 17	5 26.84	+27 42.9	1.745	2.658	10.1	19.7
11 27	5 18.38	+32 20.1	1.985	2.937	6.1	19.5	11 27	5 18.71	+27 15.5	1.687	2.649	6.0	19.4
12 7	5 8.93	+32 37.4	1.962	2.936	3.5	19.3	12 7	5 9.06	+26 39.3	1.657	2.640	1.9	19.1
12 17	4 59.13	+32 43.3	1.968	2.935	4.3	19.4	12 17	4 59.06	+25 55.6	1.655	2.631	3.5	19.2
12 27	4 50.17	+32 38.7	2.002	2.935	7.4	19.6	12 27	4 50.05	+25 7.9	1.682	2.623	7.8	19.5
1 6	4 43.06	+32 26.4	2.064	2.935	10.6	19.8	1 6	4 43.10	+24 21.0	1.735	2.615	11.9	19.7
1 16	4 38.47	+32 10.4	2.148	2.935	13.5	20.0	1 16	4 38.87	+23 38.8	1.811	2.607	15.3	19.9
<b>35742</b>	1999 <i>GD</i> <sub>29</sub>	12 9.6	100°44'	4°1'/ 8.9	18		<b>472299</b>	2014 <i>WC</i> <sub>428</sub>	12 9.6	128°33'	12°6'/ 15.6	18	
11 7	5 34.56	+13 13.4	1.707	2.547	14.5	19.2	11 7	5 58.71	+57 5.6	1.680	2.401	19.5	20.4
11 17	5 27.97	+12 41.1	1.653	2.563	10.8	19.0	11 17	5 47.15	+57 35.3	1.620	2.413	17.2	20.3
11 27	5 19.15	+12 14.6	1.623	2.579	6.9	18.8	11 27	5 30.63	+57 30.9	1.577	2.424	14.9	20.1
12 7	5 9.07	+11 56.2	1.620	2.594	4.2	18.7	12 7	5 11.47	+56 42.4	1.557	2.435	13.2	20.1
12 17	4 58.91	+11 47.8	1.646	2.609	5.6	18.8	12 17	4 52.77	+55 7.6	1.560	2.445	12.6	20.1
12 27	4 49.86	+11 50.5	1.700	2.624	9.1	19.1	12 27	4 37.38	+52 54.2	1.589	2.455	13.5	20.1
1 6	4 42.88	+12 4.2	1.779	2.638	12.7	19.3	1 6	4 26.86	+50 17.5	1.642	2.464	15.4	20.3
1 16	4 38.51	+12 27.7	1.879	2.652	15.7	19.5	1 16	4 21.52	+47 33.5	1.719	2.473	17.6	20.5
<b>267819</b>	2003 <i>UB</i> <sub>33</sub>	12 9.6	292°41'	3°0'/ 10.0	17		<b>392750</b>	2012 <i>TD</i> <sub>6</sub>	12 9.6	16°80'	10°4'/ 11.1	18	
11 7	5 32.76	+30 32.1	2.196	3.024	12.1	20.7	11 7	5 38.57	+42 15.0	1.247	2.074	19.6	20.2
11 17	5 26.86	+31 6.1	2.108	3.011	9.2	20.5	11 17	5 32.90	+43 43.6	1.194	2.078	16.1	20.0
11 27	5 18.70	+31 33.8	2.046	2.999	5.9	20.3	11 27	5 22.89	+44 50.5	1.160	2.084	12.8	19.9
12 7	5 9.02	+31 52.5	2.011	2.986	3.2	20.1	12 7	5 9.99	+45 25.6	1.148	2.090	10.6	19.8
12 17	4 58.87	+32 0.6	2.005	2.974	4.1	20.1	12 17	4 56.48	+45 23.8	1.159	2.098	10.9	19.8
12 27	4 49.44	+31 58.7	2.029	2.962	7.3	20.3	12 27	4 44.89	+44 48.3	1.193	2.106	13.3	20.0
1 6	4 41.76	+31 49.4	2.080	2.950	10.6	20.5	1 6	4 37.11	+43 49.2	1.249	2.115	16.4	20.2
1 16	4 36.56	+31 36.2	2.154	2.937	13.6	20.7	1 16	4 33.96	+42 38.4	1.323	2.125	19.6	20.4
<b>46489</b>	4156 <i>T-2</i>	12 9.6	127°03'	0°2'/ 9.6	18		<b>90584</b>	2030 <i>P-L</i>	12 9.6	80°65'	2°0'/ 9.2	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>331171</b>	2011 <i>AP</i> <sub>18</sub>	12	9.6 192°76	0°3/ 9.5 18			<b>390538</b>	1999 <i>RJ</i> <sub>214</sub>	12	9.6 73°27	3°3/10.2 18		
11 7	5 30.52	+21 32.2	2.963	3.790	9.4	21.6	11 7	5 40.90	+30 46.3	1.646	2.475	15.4	20.2
11 17	5 24.53	+21 35.5	2.880	3.788	6.8	21.4	11 17	5 32.76	+31 14.1	1.606	2.510	11.5	20.0
11 27	5 17.07	+21 37.8	2.824	3.785	3.9	21.2	11 27	5 21.95	+31 31.4	1.589	2.543	7.2	19.9
12 7	5 8.71	+21 39.0	2.798	3.782	0.9	21.0	12 7	5 9.73	+31 35.2	1.600	2.577	3.6	19.7
12 17	5 0.13	+21 39.2	2.804	3.778	2.4	21.1	12 17	4 57.60	+31 25.3	1.640	2.610	4.6	19.9
12 27	4 52.09	+21 39.1	2.841	3.774	5.4	21.3	12 27	4 47.07	+31 4.7	1.708	2.643	8.3	20.1
1 6	4 45.25	+21 39.7	2.907	3.770	8.1	21.5	1 6	4 39.17	+30 38.4	1.802	2.675	11.9	20.4
1 16	4 40.08	+21 42.2	2.998	3.765	10.5	21.6	1 16	4 34.42	+30 11.5	1.919	2.706	14.9	20.7
<b>253524</b>	2003 <i>SF</i> <sub>186</sub>	12	9.6 163°84	1°3/ 9.8 18			<b>46662</b>	1996 <i>DO</i>	12	9.6 311°99	2°3/10.0 18		
11 7	5 39.23	+25 42.6	1.651	2.488	15.0	21.2	11 7	5 33.67	+28 27.9	1.637	2.481	14.8	18.3
11 17	5 31.88	+25 59.7	1.582	2.493	11.1	21.0	11 17	5 28.08	+28 41.2	1.556	2.470	11.1	18.0
11 27	5 21.68	+26 11.8	1.536	2.497	6.5	20.7	11 27	5 19.65	+28 47.1	1.499	2.459	6.8	17.7
12 7	5 9.70	+26 16.8	1.518	2.501	2.0	20.4	12 7	5 9.35	+28 43.3	1.467	2.448	2.8	17.5
12 17	4 57.37	+26 13.8	1.529	2.504	3.9	20.6	12 17	4 58.52	+28 29.2	1.463	2.438	4.2	17.5
12 27	4 46.24	+26 4.7	1.569	2.507	8.5	20.9	12 27	4 48.71	+28 7.0	1.487	2.428	8.7	17.8
1 6	4 37.55	+25 53.0	1.634	2.509	12.8	21.1	1 6	4 41.21	+27 40.8	1.536	2.418	12.9	18.0
1 16	4 32.04	+25 42.5	1.722	2.510	16.3	21.4	1 16	4 36.82	+27 15.2	1.606	2.408	16.6	18.2
<b>79413</b>	1997 <i>JQ</i> <sub>14</sub>	12	9.6 157°88	1°4/ 9.3 18 R			<b>340960</b>	2007 <i>EH</i> <sub>92</sub>	12	9.6 145°02	2°3/ 9.3 18		
11 7	5 36.24	+19 51.7	1.943	2.778	13.2	21.0	11 7	5 35.39	+17 15.6	1.671	2.514	14.6	21.0
11 17	5 29.17	+19 34.6	1.874	2.785	9.6	20.8	11 17	5 28.88	+17 6.2	1.605	2.519	10.7	20.8
11 27	5 19.90	+19 16.9	1.831	2.792	5.6	20.6	11 27	5 19.88	+16 59.4	1.562	2.524	6.4	20.6
12 7	5 9.31	+18 59.0	1.816	2.799	1.7	20.3	12 7	5 9.36	+16 55.8	1.547	2.528	2.6	20.3
12 17	4 58.53	+18 42.2	1.831	2.804	3.7	20.5	12 17	4 58.57	+16 56.4	1.560	2.532	4.4	20.5
12 27	4 48.74	+18 28.5	1.876	2.809	7.7	20.8	12 27	4 48.84	+17 2.3	1.602	2.536	8.7	20.7
1 6	4 40.89	+18 19.8	1.947	2.813	11.4	21.0	1 6	4 41.26	+17 14.2	1.669	2.540	12.7	21.0
1 16	4 35.59	+18 17.4	2.042	2.816	14.5	21.2	1 16	4 36.48	+17 32.6	1.758	2.543	16.1	21.2
<b>71211</b>	1999 <i>XO</i> <sub>257</sub>	12	9.6 355°83	1°1/ 9.6 18			<b>251693</b>	1995 <i>WB</i> <sub>15</sub>	12	9.6 308°19	2°4/10.0 17		
11 7	5 34.44	+23 4.1	1.510	2.362	15.4	18.5	11 7	5 33.10	+28 54.8	1.940	2.776	13.2	20.4
11 17	5 28.69	+23 48.8	1.441	2.359	11.4	18.3	11 17	5 27.28	+29 16.8	1.860	2.769	9.8	20.2
11 27	5 20.00	+24 33.6	1.394	2.358	6.6	18.0	11 27	5 19.03	+29 32.5	1.804	2.762	6.1	20.0
12 7	5 9.38	+25 15.2	1.373	2.357	1.8	17.7	12 7	5 9.21	+29 39.5	1.775	2.755	2.8	19.7
12 17	4 58.23	+25 51.0	1.380	2.356	4.0	17.8	12 17	4 58.96	+29 36.9	1.775	2.748	3.9	19.8
12 27	4 48.14	+26 20.3	1.414	2.356	8.9	18.1	12 27	4 49.59	+29 25.9	1.804	2.741	7.7	20.0
1 6	4 40.46	+26 44.6	1.474	2.356	13.4	18.4	1 6	4 42.18	+29 9.9	1.859	2.735	11.4	20.2
1 16	4 36.00	+27 6.3	1.554	2.357	17.1	18.6	1 16	4 37.47	+28 52.4	1.937	2.729	14.6	20.4
<b>55692</b>	3118 <i>T</i> <sub>-2</sub>	12	9.6 113°54	4°0/ 8.9 18			<b>366721</b>	2003 <i>YD</i> <sub>47</sub>	12	9.6 358°29	0°5/ 9.4 17		
11 7	5 36.19	+13 35.2	1.670	2.508	14.8	19.5	11 7	5 30.14	+23 4.3	2.089	2.932	12.1	20.0
11 17	5 29.22	+13 6.2	1.616	2.525	11.0	19.3	11 17	5 24.73	+22 34.9	2.015	2.931	8.8	19.8
11 27	5 19.92	+12 42.7	1.585	2.541	7.0	19.1	11 27	5 17.36	+22 1.8	1.967	2.930	5.1	19.5
12 7	5 9.31	+12 26.9	1.582	2.557	4.1	19.0	12 7	5 8.83	+21 25.9	1.946	2.930	1.1	19.2
12 17	4 58.60	+12 20.6	1.608	2.572	5.5	19.1	12 17	5 0.10	+20 49.2	1.954	2.930	3.1	19.4
12 27	4 49.08	+12 24.8	1.661	2.586	9.2	19.4	12 27	4 52.20	+20 14.3	1.992	2.930	7.0	19.7
1 6	4 41.70	+12 39.5	1.740	2.600	12.9	19.6	1 6	4 46.00	+19 44.0	2.057	2.930	10.6	19.9
1 16	4 37.04	+13 3.6	1.841	2.614	15.9	19.9	1 16	4 42.04	+19 20.4	2.144	2.931	13.5	20.1
<b>300549</b>	2007 <i>TS</i> <sub>266</sub>	12	9.6 215°44	3°0/10.1 18			<b>337728</b>	2001 <i>UF</i> <sub>61</sub>	12	9.6 33°81	1°5/ 9.3 18		
11 7	5 36.72	+31 11.9	2.237	3.056	12.2	20.8	11 7	5 33.88	+20 57.3	1.348	2.207	16.5	20.8
11 17	5 29.69	+31 37.9	2.150	3.048	9.3	20.6	11 17	5 28.20	+20 29.4	1.289	2.212	12.1	20.5
11 27	5 20.33	+31 56.3	2.089	3.040	6.0	20.4	11 27	5 19.62	+19 59.4	1.253	2.218	7.0	20.2
12 7	5 9.43	+32 4.3	2.055	3.031	3.2	20.2	12 7	5 9.32	+19 29.0	1.242	2.225	2.0	19.9
12 17	4 58.11	+32 0.8	2.053	3.021	4.1	20.2	12 17	4 58.79	+19 0.6	1.257	2.232	4.5	20.1
12 27	4 47.58	+31 46.9	2.080	3.010	7.3	20.4	12 27	4 49.62	+18 37.5	1.299	2.240	9.6	20.5
1 6	4 38.90	+31 25.9	2.134	2.999	10.6	20.6	1 6	4 43.01	+18 22.5	1.364	2.248	14.2	20.7
1 16	4 32.79	+31 1.9	2.213	2.988	13.5	20.8	1 16	4 39.63	+18 17.0	1.450	2.256	18.0	21.0
<b>5441</b>	Andymurray	12	9.6 164°98	3°8/ 8.9 18			<b>460744</b>	2014 <i>VB</i> <sub>22</sub>	12	9.6 215°72	1°2/ 9.7 18		
11 7	5 29.90	+10 30.2	2.455	3.281	11.1	17.1	11 7	5 32.78	+25 5.8	2.677	3.502	10.3	21.1
11 17	5 24.22	+10 14.5	2.383	3.284	8.4	16.9	11 17	5 26.46	+25 44.2	2.593	3.498	7.6	20.9
11 27	5 16.94	+10 5.0	2.337	3.286	5.6	16.8	11 27	5 18.34	+26 20.8	2.535	3.494	4.5	20.7
12 7	5 8.70	+10 3.3	2.320	3.287	3.9	16.7	12 7	5 9.05	+26 53.6	2.507	3.489	1.5	20.5
12 17	5 0.26	+10 10.2	2.332	3.289	4.8	16.7	12 17	4 59.41	+27 21.3	2.510	3.484	2.8	20.6
12 27	4 52.46	+10 26.1	2.374	3.291	7.3	16.9	12 27	4 50.32	+27 43.7	2.545	3.479	5.9	20.8
1 6	4 46.02	+10 50.6	2.443	3.292	10.1	17.1	1 6	4 42.61	+28 1.8	2.608	3.473	8.9	21.0
1 16	4 41.42	+11 22.6	2.536	3.293	12.5	17.3	1 16	4 36.85	+28 17.1	2.696	3.468	11.5	21.2
<b>443202</b>	2014 <i>DH</i> <sub>68</sub>	12	9.6 129°64	0°3/ 9.6 18			<b>257013</b>	2008 <i>FW</i> <sub>1</sub>	12	9.6 334°92	2°2/10.1 17		
11 7	5 35.02	+21 48.0	1.780	2.622	13.9	21.3	11 7	5 33.67	+28 59.0	1.890	2.726	13.5	21.0
11 17	5 28.55	+21 55.1	1.713	2.628	10.2	21.1	11 17	5 27.64	+29 6.3	1.816	2.725	10.0	20.8
11 27	5 19.66	+22 0.9	1.670	2.633	5.9	20.9	11 27	5 19.19	+29 6.1	1.766	2.724	6.1	20.6
12 7	5 9.28	+22 4.7	1.654	2.638	1.2	20.6	12 7	5 9.23	+28 56.7	1.743	2.723	2.6	20.4
12 17	4 58.63	+22 6.6	1.667	2.643	3.5	20.8	12 17	4 58.97	+28 38.0	1.748	2.722	3.8	20.4
12 27	4 49.00	+22 7.8	1.709	2.648	7.9	21.0	12 27	4 49.69	+28 12.4	1.783	2.721	7.7	20.7
1 6	4 41.45	+22 10.0	1.778	2.652	11.9	21.3	1 6	4 42.46	+27 43.7	1.843	2.720	11.4	20.9
1 16	4 36.64	+22 15.1	1.868	2.657	15.2	21.5	1 16	4 37.95	+27 15.8	1.927	2.720	14.6	21.1
<b>165980</b>	2001 <i>YZ</i> <sub>89</sub>	12	9.6 9°03	1°9/ 9.9 18			<b>43782</b>	1989 <i>US</i> <sub>2</sub>	12	9.6 31°76	5°7/ 8.1 18		
11 7	5 35.												

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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>363590</b>	2004 <i>CF</i> <sub>104</sub>	12	9.6 292°84	0°3/ 9.5 17			<b>209819</b>	2005 <i>GY</i> <sub>99</sub>	12	9.6 254°25	6°8/ 8.1 18		
11 7	5 33.19	+24 37.8	1.786	2.630	13.8	20.8	11 7	5 31.94	+4 8.1	2.117	2.932	13.0	20.9
11 17	5 27.48	+23 59.8	1.692	2.608	10.2	20.6	11 17	5 26.08	+3 25.5	2.031	2.914	10.5	20.7
11 27	5 19.23	+23 14.5	1.622	2.586	5.9	20.3	11 27	5 18.24	+2 53.5	1.968	2.896	8.1	20.5
12 7	5 9.29	+22 22.5	1.580	2.564	1.3	19.9	12 7	5 9.10	+2 35.8	1.933	2.877	6.8	20.4
12 17	4 58.85	+21 26.5	1.566	2.542	3.7	20.0	12 17	4 59.54	+2 35.3	1.925	2.858	7.7	20.5
12 27	4 49.28	+20 30.8	1.581	2.520	8.4	20.3	12 27	4 50.60	+2 53.0	1.946	2.838	10.1	20.6
1 6	4 41.73	+19 40.0	1.622	2.498	12.7	20.5	1 6	4 43.17	+3 27.6	1.991	2.818	12.9	20.7
1 16	4 36.97	+18 58.1	1.685	2.476	16.5	20.7	1 16	4 37.90	+4 16.7	2.059	2.797	15.6	20.9
<b>483516</b>	2003 <i>PE</i> <sub>12</sub>	12	9.6 48°17	9°0/ 9.3 18			<b>142897</b>	2002 <i>VT</i> <sub>47</sub>	12	9.6 20°91	2°7/ 8.9 18		
11 7	5 33.18	+2 2.7	1.402	2.233	17.5	19.8	11 7	5 31.74	+18 18.9	1.691	2.540	14.1	19.7
11 17	5 27.26	+1 27.8	1.361	2.252	14.1	19.6	11 17	5 26.19	+17 34.1	1.625	2.543	10.4	19.4
11 27	5 18.89	+1 12.8	1.341	2.271	10.9	19.5	11 27	5 18.33	+16 49.1	1.583	2.545	6.2	19.2
12 7	5 9.16	+1 21.7	1.346	2.291	9.1	19.5	12 7	5 9.09	+16 6.5	1.568	2.548	2.8	19.0
12 17	4 59.39	+1 55.6	1.375	2.311	9.8	19.5	12 17	4 59.65	+15 29.4	1.581	2.551	4.7	19.1
12 27	4 50.90	+2 52.2	1.429	2.332	12.3	19.8	12 27	4 51.24	+15 0.8	1.621	2.554	8.8	19.4
1 6	4 44.70	+4 6.3	1.507	2.353	15.3	20.0	1 6	4 44.84	+14 42.7	1.687	2.558	12.6	19.6
1 16	4 41.34	+5 32.1	1.604	2.374	18.1	20.2	1 16	4 41.07	+14 35.7	1.774	2.562	15.9	19.9
<b>327675</b>	2006 <i>RO</i> <sub>23</sub>	12	9.6 69°76	1°0/ 9.8 18			<b>488244</b>	2016 <i>BY</i> <sub>15</sub>	12	9.6 91°82	6°8/ 10.9 17		
11 7	5 41.28	+25 20.9	1.274	2.124	17.8	20.6	11 7	5 38.06	+42 53.3	2.351	3.135	12.8	21.0
11 17	5 33.40	+25 23.8	1.238	2.155	13.0	20.4	11 17	5 30.90	+43 57.5	2.285	3.143	10.5	20.8
11 27	5 22.44	+25 20.3	1.223	2.186	7.5	20.2	11 27	5 21.13	+44 47.4	2.243	3.151	8.4	20.7
12 7	5 9.89	+25 9.1	1.233	2.217	1.9	19.9	12 7	5 9.71	+45 18.0	2.228	3.159	7.0	20.7
12 17	4 57.52	+24 51.2	1.271	2.248	4.2	20.2	12 17	4 57.87	+45 26.9	2.241	3.167	7.2	20.7
12 27	4 47.04	+24 30.2	1.336	2.278	9.3	20.5	12 27	4 47.02	+45 15.0	2.282	3.175	8.7	20.8
1 6	4 39.61	+24 10.4	1.426	2.308	13.8	20.9	1 6	4 38.31	+44 46.9	2.348	3.183	10.9	21.0
1 16	4 35.72	+23 55.3	1.536	2.337	17.3	21.2	1 16	4 32.49	+44 8.6	2.437	3.191	13.0	21.1
<b>70098</b>	1999 <i>JR</i> <sub>120</sub>	12	9.6 278°32	0°3/ 9.6 18			<b>269893</b>	2000 <i>GO</i> <sub>77</sub>	12	9.6 236°34	3°7/ 10.1 18		
11 7	5 36.78	+22 17.1	1.371	2.224	16.6	19.2	11 7	5 38.48	+30 52.6	1.754	2.584	14.6	21.2
11 17	5 30.77	+22 39.7	1.293	2.213	12.3	18.9	11 17	5 31.62	+31 33.8	1.672	2.575	11.1	21.0
11 27	5 21.43	+23 2.2	1.238	2.202	7.2	18.6	11 27	5 21.77	+32 7.4	1.613	2.566	7.2	20.7
12 7	5 9.81	+23 22.3	1.207	2.191	1.6	18.2	12 7	5 9.88	+32 28.9	1.581	2.556	4.0	20.5
12 17	4 57.44	+23 38.4	1.204	2.180	4.3	18.4	12 17	4 57.35	+32 35.7	1.577	2.546	5.0	20.5
12 27	4 46.18	+23 51.0	1.227	2.169	9.9	18.7	12 27	4 45.81	+32 28.8	1.602	2.535	8.9	20.7
1 6	4 37.58	+24 2.4	1.275	2.159	14.9	18.9	1 6	4 36.64	+32 12.2	1.653	2.524	12.8	21.0
1 16	4 32.58	+24 15.3	1.342	2.148	19.1	19.2	1 16	4 30.71	+31 51.4	1.725	2.513	16.3	21.2
<b>182359</b>	2001 <i>QD</i> <sub>114</sub>	12	9.6 86°86	4°9/ 8.8 18			<b>109453</b>	2001 <i>QA</i> <sub>209</sub>	12	9.6 171°11	4°2/ 8.6 18		
11 7	5 36.84	+12 11.3	1.575	2.414	15.5	20.2	11 7	5 28.61	+8 38.2	2.654	3.475	10.5	20.1
11 17	5 29.64	+11 26.6	1.533	2.441	11.6	20.0	11 17	5 23.22	+8 14.4	2.582	3.477	8.1	19.9
11 27	5 20.13	+10 49.1	1.515	2.468	7.6	19.8	11 27	5 16.39	+7 57.2	2.536	3.478	5.7	19.8
12 7	5 9.42	+10 22.1	1.523	2.494	5.0	19.7	12 7	5 8.68	+7 48.5	2.518	3.479	4.2	19.7
12 17	4 58.78	+10 7.9	1.560	2.519	6.3	19.9	12 17	5 0.81	+7 49.6	2.531	3.480	5.0	19.7
12 27	4 49.48	+10 7.6	1.624	2.544	9.8	20.1	12 27	4 53.51	+8 0.9	2.572	3.481	7.2	19.9
1 6	4 42.44	+10 20.5	1.713	2.569	13.2	20.4	1 6	4 47.44	+8 21.9	2.641	3.481	9.7	20.1
1 16	4 38.17	+10 44.8	1.823	2.593	16.2	20.6	1 16	4 43.04	+8 51.6	2.734	3.481	11.9	20.2
<b>46445</b>	2102 <i>P-L</i>	12	9.6 120°17	2°4/ 10.1 18			<b>243</b>	1da	12	9.6 359°65	0°6/ 9.7 18 A		
11 7	5 39.86	+29 11.9	1.695	2.526	15.0	19.5	11 7	5 32.30	+24 51.1	1.896	2.738	13.2	14.3
11 17	5 32.16	+29 21.1	1.636	2.542	11.1	19.3	11 17	5 26.57	+24 49.5	1.823	2.738	9.6	14.1
11 27	5 21.76	+29 21.4	1.601	2.558	6.8	19.1	11 27	5 18.57	+24 43.6	1.774	2.737	5.6	13.8
12 7	5 9.79	+29 10.7	1.593	2.573	2.8	18.9	12 7	5 9.17	+24 33.0	1.753	2.737	1.4	13.5
12 17	4 57.69	+28 49.0	1.614	2.588	4.1	19.0	12 17	4 59.48	+24 18.1	1.761	2.737	3.3	13.7
12 27	4 46.97	+28 19.6	1.665	2.602	8.2	19.3	12 27	4 50.71	+24 0.9	1.798	2.737	7.5	13.9
1 6	4 38.73	+27 47.1	1.741	2.615	12.1	19.5	1 6	4 43.87	+23 44.2	1.860	2.738	11.3	14.2
1 16	4 33.61	+27 16.2	1.840	2.628	15.4	19.8	1 16	4 39.60	+23 30.6	1.946	2.738	14.5	14.4
<b>200061</b>	2008 <i>QQ</i> <sub>8</sub>	12	9.6 61°66	4°3/ 10.8 17			<b>215059</b>	2009 <i>DK</i> <sub>113</sub>	12	9.6 162°33	0°1/ 9.6 18		
11 7	5 34.09	+35 56.0	2.168	2.984	12.7	20.4	11 7	5 33.92	+23 1.5	2.145	2.979	12.2	21.5
11 17	5 27.77	+36 15.9	2.100	2.991	9.8	20.2	11 17	5 27.47	+22 59.9	2.072	2.983	8.9	21.3
11 27	5 19.19	+36 24.0	2.056	2.998	6.8	20.1	11 27	5 18.97	+22 55.7	2.025	2.987	5.1	21.0
12 7	5 9.26	+36 17.8	2.040	3.005	4.6	19.9	12 7	5 9.25	+22 48.6	2.006	2.990	1.1	20.8
12 17	4 59.13	+35 56.9	2.052	3.012	4.9	20.0	12 17	4 59.28	+22 39.0	2.018	2.993	3.0	20.9
12 27	4 50.00	+35 23.5	2.093	3.020	7.5	20.1	12 27	4 50.17	+22 28.5	2.059	2.996	6.9	21.2
1 6	4 42.85	+34 42.1	2.161	3.027	10.4	20.3	1 6	4 42.80	+22 19.1	2.128	2.998	10.4	21.4
1 16	4 38.28	+33 57.5	2.252	3.035	13.1	20.5	1 16	4 37.76	+22 12.7	2.220	3.000	13.3	21.6
<b>431766</b>	2008 <i>HT</i> <sub>39</sub>	12	9.6 172°80	4°0/ 8.6 18			<b>54490</b>	2000 <i>ON</i> <sub>34</sub>	12	9.6 169°82	3°5/ 8.7 18		
11 7	5 35.52	+13 50.4	1.902	2.735	13.5	22.0	11 7	5 31.44	+13 38.3	2.263	3.095	11.7	19.0
11 17	5 28.67	+13 3.0	1.833	2.739	10.1	21.8	11 17	5 25.47	+13 0.5	2.192	3.097	8.7	18.9
11 27	5 19.66	+12 18.8	1.788	2.742	6.5	21.5	11 27	5 17.75	+12 26.0	2.146	3.100	5.6	18.7
12 7	5 9.37	+11 40.9	1.772	2.744	4.1	21.4	12 7	5 8.98	+11 57.2	2.129	3.101	3.5	18.5
12 17	4 58.86	+11 12.1	1.785	2.746	5.5	21.5	12 17	5 0.04	+11 35.9	2.142	3.103	4.7	18.6
12 27	4 49.30	+10 54.7	1.827	2.747	8.9	21.7	12 27	4 51.84	+11 23.8	2.184	3.104	7.7	18.8
1 6	4 41.63	+10 49.4	1.895	2.747	12.4	21.9	1 6	4 45.15	+11 21.6	2.253	3.105	10.7	19.0
1 16	4 36.44	+10 56.0	1.985	2.746	15.4	22.1	1 16	4 40.49	+11 29.0	2.346	3.105	13.3	19.2
<b>127244</b>	2002 <i>JK</i> <sub>29</sub>	12	9.6 101°50	0°7/ 9.5 18			<b>14771</b>	4105 <i>T-1</i>	12	9.6 148°92	0°5/ 9.5 18		
11 7	5 31.62												

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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>223327</b>	2003 <i>QN</i> <sub>53</sub>	12 9.6 81°03	0°8/ 9.5 18				<b>351415</b>	2005 <i>GR</i> <sub>22</sub>	12 9.6 241°37	0°9/ 9.5 18			
11 7	5 32.77	+20 35.7	2.250	3.085	11.7	20.3	11 7	5 34.03	+20 6.8	2.179	3.012	12.0	21.4
11 17	5 26.35	+20 32.0	2.199	3.110	8.4	20.2	11 17	5 27.71	+20 8.9	2.087	2.998	8.8	21.2
11 27	5 18.18	+20 27.7	2.173	3.135	4.8	20.0	11 27	5 19.26	+20 11.1	2.021	2.983	5.2	20.9
12 7	5 9.07	+20 22.9	2.176	3.160	1.2	19.8	12 7	5 9.40	+20 13.1	1.984	2.967	1.4	20.6
12 17	4 59.92	+20 18.2	2.210	3.184	3.0	19.9	12 17	4 59.10	+20 15.1	1.977	2.951	3.3	20.8
12 27	4 51.68	+20 14.7	2.273	3.208	6.5	20.2	12 27	4 49.45	+20 18.0	2.000	2.935	7.2	21.0
1 6	4 45.08	+20 13.7	2.364	3.232	9.6	20.4	1 6	4 41.42	+20 23.0	2.050	2.918	10.9	21.2
1 16	4 40.59	+20 16.2	2.479	3.256	12.2	20.7	1 16	4 35.71	+20 31.4	2.124	2.900	14.0	21.3
<b>469466</b>	2002 <i>RR</i> <sub>60</sub>	12 9.6 100°50	2°5/10.2 18				<b>282784</b>	2006 <i>KP</i> <sub>37</sub>	12 9.6 58°36	4°9/ 8.8 18			
11 7	5 41.06	+29 55.8	1.607	2.439	15.6	21.7	11 7	5 29.38	+ 8 9.2	2.203	3.031	12.1	20.1
11 17	5 33.02	+29 55.7	1.556	2.463	11.6	21.5	11 17	5 23.99	+ 7 44.8	2.143	3.040	9.3	19.9
11 27	5 22.23	+29 45.0	1.528	2.486	7.1	21.3	11 27	5 16.92	+ 7 29.0	2.107	3.050	6.6	19.7
12 7	5 9.93	+29 22.2	1.528	2.508	3.0	21.1	12 7	5 8.87	+ 7 23.9	2.099	3.060	5.0	19.7
12 17	4 57.66	+28 48.2	1.556	2.530	4.2	21.3	12 17	5 0.68	+ 7 30.8	2.120	3.070	5.8	19.7
12 27	4 46.95	+28 7.1	1.613	2.551	8.4	21.6	12 27	4 53.23	+ 7 49.8	2.169	3.080	8.2	19.9
1 6	4 38.90	+27 24.4	1.696	2.571	12.3	21.8	1 6	4 47.26	+ 8 19.8	2.244	3.090	10.9	20.1
1 16	4 34.06	+26 45.1	1.802	2.591	15.6	22.1	1 16	4 43.26	+ 8 59.1	2.342	3.100	13.4	20.3
<b>65133</b>	2002 <i>CH</i> <sub>94</sub>	12 9.6 118°53	0°4/ 9.6 18				<b>460101</b>	2014 <i>PY</i> <sub>6</sub>	12 9.6 54°02	1°7/10.2 17			
11 7	5 32.12	+21 42.2	2.131	2.969	12.1	20.0	11 7	5 33.60	+29 8.4	1.914	2.749	13.3	21.2
11 17	5 26.18	+21 43.4	2.060	2.973	8.8	19.8	11 17	5 27.48	+28 51.5	1.845	2.754	9.9	21.0
11 27	5 18.26	+21 43.4	2.014	2.976	5.1	19.6	11 27	5 19.07	+28 25.8	1.800	2.759	6.0	20.7
12 7	5 9.13	+21 41.8	1.996	2.980	1.1	19.3	12 7	5 9.34	+27 51.0	1.783	2.764	2.2	20.5
12 17	4 59.76	+21 39.2	2.008	2.983	3.0	19.5	12 17	4 59.44	+27 8.3	1.795	2.770	3.4	20.6
12 27	4 51.20	+21 36.5	2.049	2.987	6.9	19.7	12 27	4 50.60	+26 21.3	1.836	2.775	7.4	20.9
1 6	4 44.33	+21 35.5	2.118	2.990	10.4	20.0	1 6	4 43.80	+25 34.4	1.904	2.781	11.1	21.1
1 16	4 39.73	+21 37.4	2.210	2.993	13.3	20.2	1 16	4 39.60	+24 51.6	1.994	2.787	14.2	21.3
<b>134777</b>	2000 <i>DB</i> <sub>64</sub>	12 9.6 337°16	1°1/ 9.4 18				<b>295446</b>	2008 <i>OB</i> <sub>3</sub>	12 9.6 59°63	9°8/ 9.6 18			
11 7	5 32.18	+21 10.0	1.624	2.475	14.5	19.8	11 7	5 31.54	- 7 36.4	2.085	2.857	14.6	19.9
11 17	5 26.77	+20 51.4	1.551	2.470	10.7	19.6	11 17	5 25.50	- 8 1.8	2.042	2.877	12.6	19.8
11 27	5 18.83	+20 31.0	1.501	2.466	6.2	19.3	11 27	5 17.73	- 8 5.9	2.021	2.897	10.8	19.7
12 7	5 9.28	+20 9.5	1.478	2.462	1.6	19.0	12 7	5 9.04	- 7 45.7	2.025	2.916	9.9	19.7
12 17	4 59.38	+19 48.5	1.483	2.458	3.9	19.2	12 17	5 0.30	- 7 0.4	2.054	2.936	10.2	19.8
12 27	4 50.49	+19 30.5	1.515	2.455	8.6	19.4	12 27	4 52.45	- 5 52.2	2.109	2.956	11.5	19.9
1 6	4 43.74	+19 18.1	1.572	2.452	12.9	19.7	1 6	4 46.22	- 4 25.8	2.188	2.976	13.2	20.0
1 16	4 39.82	+19 12.8	1.651	2.449	16.4	19.9	1 16	4 42.07	- 2 46.6	2.289	2.996	15.0	20.2
<b>307897</b>	2004 <i>CT</i> <sub>35</sub>	12 9.6 292°55	5°2/ 8.8 17				<b>64440</b>	2001 <i>VD</i> <sub>23</sub>	12 9.6 26°95	1°1/ 9.8 18			
11 7	5 31.41	+10 2.8	1.795	2.633	14.0	20.7	11 7	5 34.01	+25 1.7	1.160	2.026	18.1	18.5
11 17	5 26.03	+ 9 36.0	1.712	2.618	10.8	20.4	11 17	5 28.76	+25 12.1	1.110	2.036	13.3	18.2
11 27	5 18.37	+ 9 17.4	1.653	2.603	7.4	20.2	11 27	5 20.18	+25 17.1	1.081	2.047	7.7	18.0
12 7	5 9.20	+ 9 9.8	1.621	2.588	5.2	20.0	12 7	5 9.60	+25 15.3	1.075	2.059	2.0	17.7
12 17	4 59.57	+ 9 15.3	1.617	2.574	6.4	20.1	12 17	4 58.78	+25 6.7	1.095	2.072	4.4	17.9
12 27	4 50.69	+ 9 34.7	1.639	2.559	9.7	20.2	12 27	4 49.59	+24 54.1	1.139	2.086	9.9	18.2
1 6	4 43.60	+10 7.2	1.687	2.545	13.3	20.4	1 6	4 43.37	+24 41.6	1.207	2.101	14.8	18.5
1 16	4 39.02	+10 51.1	1.756	2.531	16.5	20.6	1 16	4 40.79	+24 32.7	1.294	2.116	18.8	18.8
<b>260595</b>	2005 <i>FR</i> <sub>7</sub>	12 9.6 257°63	7°2/ 8.1 18				<b>297025</b>	2010 <i>GA</i> <sub>33</sub>	12 9.6 59°16	0°6/ 9.6 17			
11 7	5 31.63	+ 4 12.6	1.928	2.748	13.9	20.6	11 7	5 31.28	+18 56.7	2.501	3.333	10.7	20.1
11 17	5 25.98	+ 3 25.9	1.850	2.737	11.1	20.4	11 17	5 25.33	+19 27.8	2.434	3.344	7.8	19.9
11 27	5 18.24	+ 2 50.7	1.796	2.725	8.6	20.2	11 27	5 17.70	+20 0.6	2.393	3.355	4.5	19.7
12 7	5 9.17	+ 2 31.4	1.768	2.713	7.3	20.1	12 7	5 9.05	+20 34.1	2.382	3.365	1.1	19.5
12 17	4 59.72	+ 2 30.8	1.768	2.701	8.2	20.2	12 17	5 0.19	+21 7.3	2.401	3.376	2.7	19.6
12 27	4 51.00	+ 2 49.9	1.794	2.689	10.6	20.3	12 27	4 51.99	+21 39.8	2.452	3.387	6.0	19.9
1 6	4 43.94	+ 3 27.0	1.845	2.677	13.6	20.5	1 6	4 45.20	+22 11.7	2.530	3.399	9.0	20.1
1 16	4 39.20	+ 4 19.1	1.917	2.664	16.3	20.6	1 16	4 40.33	+22 43.4	2.634	3.410	11.6	20.3
<b>270975</b>	2002 <i>VW</i> <sub>133</sub>	12 9.6 348°11	3°6/ 9.4 18				<b>5713</b>	1982 <i>FF</i> <sub>3</sub>	12 9.6 6°47	0°6/ 9.7 18			
11 7	5 31.45	+15 24.6	1.128	1.998	18.2	19.9	11 7	5 33.92	+24 50.7	1.079	1.949	18.8	16.3
11 17	5 27.08	+15 20.3	1.064	1.991	13.6	19.6	11 17	5 29.03	+24 41.7	1.020	1.949	13.9	16.0
11 27	5 19.38	+15 23.3	1.019	1.984	8.4	19.3	11 27	5 20.52	+24 26.1	0.982	1.949	8.1	15.7
12 7	5 9.46	+15 35.3	0.998	1.978	3.9	19.0	12 7	5 9.71	+24 3.6	0.967	1.951	1.8	15.3
12 17	4 58.94	+15 57.0	1.000	1.974	6.0	19.1	12 17	4 58.48	+23 35.6	0.976	1.953	4.7	15.5
12 27	4 49.69	+16 28.2	1.028	1.970	11.3	19.4	12 27	4 48.88	+23 6.3	1.009	1.957	10.7	15.9
1 6	4 43.22	+17 8.2	1.076	1.968	16.4	19.7	1 6	4 42.43	+22 41.0	1.064	1.961	16.0	16.2
1 16	4 40.40	+17 55.3	1.144	1.967	20.7	20.0	1 16	4 39.90	+22 23.3	1.138	1.966	20.4	16.5
<b>236201</b>	2005 <i>WF</i> <sub>81</sub>	12 9.6 314°30	0°7/ 9.7 18				<b>187642</b>	2007 <i>CP</i> <sub>40</sub>	12 9.7 146°66	0°7/ 9.5 18			
11 7	5 33.60	+24 27.7	1.384	2.240	16.3	20.8	11 7	5 31.97	+21 11.8	2.189	3.026	11.8	21.3
11 17	5 28.46	+24 33.4	1.303	2.225	12.1	20.5	11 17	5 26.03	+21 2.5	2.116	3.029	8.6	21.1
11 27	5 20.14	+24 34.9	1.245	2.210	7.1	20.2	11 27	5 18.18	+20 51.9	2.070	3.032	5.0	20.9
12 7	5 9.63	+24 30.9	1.212	2.195	1.7	19.8	12 7	5 9.17	+20 40.3	2.051	3.035	1.2	20.6
12 17	4 58.43	+24 21.2	1.205	2.181	4.2	20.0	12 17	4 59.95	+20 28.4	2.063	3.037	3.1	20.8
12 27	4 48.30	+24 7.9	1.224	2.168	9.7	20.3	12 27	4 51.52	+20 17.9	2.104	3.040	6.8	21.0
1 6	4 40.74	+23 54.8	1.266	2.155	14.7	20.5	1 6	4 44.73	+20 10.4	2.172	3.042	10.2	21.3
1 16	4 36.66	+23 45.4	1.329	2.142	18.9	20.7	1 16	4 40.13	+20 7.2	2.264	3.044	13.1	21.5
<b>404263</b>	2013 <i>EC</i> <sub>46</sub>	12 9.6 185°68	0°1/ 9.6 18				<b>104880</b>	2000 <i>HK</i> <sub>102</sub>	12 9.7 139°17	4°3/ 8.4 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>426738</b>	2013 <i>TW</i> <sub>77</sub>		12 9.7 96°88	2.2°/ 8.9	18		<b>229437</b>	2005 <i>TZ</i> <sub>170</sub>		12 9.7 34°09	1.6°/ 9.9	18	
11 7	5 28.62	+17 0.3	2.561	3.396	10.4	20.9	11 7	5 35.24	+27 28.3	1.063	1.931	19.2	19.4
11 17	5 23.34	+16 26.5	2.487	3.397	7.6	20.7	11 17	5 29.70	+27 13.8	1.023	1.949	14.1	19.2
11 27	5 16.52	+15 53.6	2.440	3.398	4.6	20.5	11 27	5 20.69	+26 49.2	1.003	1.969	8.3	19.0
12 7	5 8.82	+15 23.1	2.421	3.400	2.3	20.3	12 7	5 9.77	+26 14.3	1.006	1.990	2.4	18.7
12 17	5 0.96	+14 56.7	2.433	3.401	3.5	20.4	12 17	4 58.89	+25 31.8	1.034	2.012	4.6	18.9
12 27	4 53.73	+14 36.3	2.475	3.403	6.5	20.6	12 27	4 49.96	+24 47.3	1.087	2.035	10.2	19.3
1 6	4 47.82	+14 22.8	2.544	3.404	9.3	20.8	1 6	4 44.23	+24 7.0	1.162	2.058	15.0	19.6
1 16	4 43.68	+14 16.8	2.638	3.405	11.8	21.0	1 16	4 42.24	+23 34.9	1.256	2.083	19.0	20.0
<b>229347</b>	2005 <i>QC</i> <sub>50</sub>		12 9.7 75°17	1.6°/ 9.5	18		<b>176257</b>	2001 <i>RE</i> <sub>6</sub>		12 9.7 8°50	18°1/ 2.1	17	
11 7	5 37.14	+18 22.8	1.427	2.276	16.3	19.8	11 7	5 33.57	- 1 3.9	0.903	1.756	23.1	18.8
11 17	5 30.41	+18 31.3	1.375	2.293	11.9	19.6	11 17	5 28.68	- 5 3.9	0.867	1.756	20.2	18.6
11 27	5 20.89	+18 42.4	1.347	2.310	6.9	19.4	11 27	5 20.27	- 8 38.5	0.851	1.757	18.4	18.5
12 7	5 9.76	+18 55.5	1.345	2.328	2.1	19.1	12 7	5 9.73	-11 26.4	0.854	1.758	18.4	18.5
12 17	4 58.47	+19 10.4	1.370	2.345	4.3	19.3	12 17	4 58.92	-13 13.0	0.877	1.760	20.1	18.6
12 27	4 48.55	+19 27.7	1.423	2.362	9.1	19.6	12 27	4 49.81	-13 54.8	0.917	1.763	22.7	18.8
1 6	4 41.17	+19 48.0	1.500	2.378	13.4	19.9	1 6	4 43.81	-13 39.5	0.971	1.767	25.4	19.0
1 16	4 36.94	+20 12.0	1.599	2.395	17.0	20.2	1 16	4 41.62	-12 39.7	1.036	1.772	27.9	19.3
<b>367427</b>	2008 <i>SZ</i> <sub>9</sub>		12 9.7 103°80	4.4°/ 10.8	17		<b>155224</b>	2005 <i>VW</i> <sub>60</sub>		12 9.7 277°68	0°5/ 9.8	18	
11 7	5 34.63	+36 35.9	2.375	3.183	12.0	20.9	11 7	5 35.32	+24 23.7	1.581	2.427	15.1	20.9
11 17	5 28.09	+37 2.3	2.306	3.191	9.3	20.8	11 17	5 29.41	+24 23.4	1.497	2.414	11.2	20.6
11 27	5 19.41	+37 17.5	2.262	3.199	6.6	20.6	11 27	5 20.60	+24 18.7	1.437	2.400	6.6	20.3
12 7	5 9.45	+37 18.9	2.245	3.207	4.6	20.5	12 7	5 9.83	+24 8.6	1.402	2.386	1.5	19.9
12 17	4 59.27	+37 5.8	2.258	3.214	4.9	20.5	12 17	4 58.46	+23 53.3	1.396	2.372	3.9	20.1
12 27	4 50.01	+36 39.8	2.300	3.222	7.2	20.7	12 27	4 48.08	+23 35.1	1.417	2.358	8.9	20.3
1 6	4 42.60	+36 5.0	2.369	3.230	9.8	20.9	1 6	4 40.02	+23 17.5	1.463	2.344	13.5	20.6
1 16	4 37.62	+35 25.8	2.461	3.237	12.3	21.0	1 16	4 35.12	+23 3.9	1.530	2.330	17.4	20.8
<b>447657</b>	2006 <i>WO</i> <sub>10</sub>		12 9.7 49°80	2°9/ 9.7	18		<b>484961</b>	2009 <i>TC</i> <sub>7</sub>		12 9.7 69°56	3°2/ 8.7	18	
11 7	5 35.86	+12 58.1	1.601	2.442	15.2	20.1	11 7	5 31.45	+15 53.5	2.051	2.890	12.4	20.8
11 17	5 29.25	+13 37.2	1.549	2.460	11.3	19.9	11 17	5 25.54	+15 2.2	1.997	2.908	9.2	20.6
11 27	5 20.16	+14 25.3	1.520	2.478	6.9	19.7	11 27	5 17.84	+14 12.9	1.968	2.925	5.7	20.5
12 7	5 9.62	+15 21.1	1.518	2.497	3.2	19.5	12 7	5 9.16	+13 28.5	1.967	2.942	3.2	20.3
12 17	4 58.87	+16 22.0	1.544	2.516	4.6	19.6	12 17	5 0.44	+12 51.5	1.995	2.960	4.6	20.5
12 27	4 49.27	+17 25.9	1.600	2.535	8.7	19.9	12 27	4 52.64	+12 24.2	2.053	2.977	7.8	20.7
1 6	4 41.86	+18 30.5	1.682	2.555	12.5	20.2	1 6	4 46.53	+12 7.8	2.136	2.994	10.9	20.9
1 16	4 37.29	+19 34.8	1.786	2.574	15.8	20.5	1 16	4 42.58	+12 2.2	2.243	3.012	13.6	21.1
<b>333526</b>	2005 <i>QT</i> <sub>50</sub>		12 9.7 138°69	3°5/ 9.0	18		<b>178016</b>	2006 <i>RU</i> <sub>6</sub>		12 9.7 330°67	8°9/ 10.9	17	
11 7	5 36.70	+13 12.0	2.014	2.841	13.1	22.0	11 7	5 38.75	+43 7.8	1.702	2.504	16.2	19.9
11 17	5 29.40	+12 50.7	1.954	2.857	9.8	21.8	11 17	5 32.49	+44 23.0	1.628	2.497	13.5	19.7
11 27	5 20.08	+12 34.4	1.919	2.872	6.2	21.6	11 27	5 22.64	+45 20.9	1.576	2.490	10.8	19.5
12 7	5 9.61	+12 24.6	1.913	2.887	3.7	21.5	12 7	5 10.30	+45 53.9	1.548	2.483	9.1	19.4
12 17	4 59.03	+12 22.4	1.937	2.900	4.9	21.6	12 17	4 57.19	+45 57.1	1.546	2.477	9.4	19.4
12 27	4 49.41	+12 28.9	1.990	2.912	8.2	21.8	12 27	4 45.35	+45 31.8	1.569	2.471	11.4	19.5
1 6	4 41.63	+12 43.8	2.071	2.924	11.4	22.0	1 6	4 36.45	+44 44.8	1.616	2.466	14.2	19.7
1 16	4 36.22	+13 6.6	2.174	2.934	14.2	22.2	1 16	4 31.43	+43 45.2	1.683	2.461	17.0	19.9
<b>97143</b>	1999 <i>VW</i> <sub>142</sub>		12 9.7 312°75	2°4/ 10.1	18		<b>175448</b>	2006 <i>QY</i> <sub>50</sub>		12 9.7 77°55	1°4/ 9.9	18	
11 7	5 34.98	+28 24.0	1.656	2.498	14.8	20.0	11 7	5 36.44	+26 26.9	1.811	2.648	13.9	20.2
11 17	5 29.03	+28 43.2	1.581	2.493	11.0	19.8	11 17	5 29.53	+26 39.9	1.760	2.670	10.2	20.0
11 27	5 20.28	+28 55.5	1.529	2.488	6.8	19.5	11 27	5 20.27	+26 47.2	1.733	2.693	6.0	19.8
12 7	5 9.71	+28 58.2	1.503	2.484	2.8	19.3	12 7	5 9.71	+26 47.4	1.733	2.715	1.9	19.6
12 17	4 58.68	+28 50.4	1.505	2.479	4.2	19.3	12 17	4 59.06	+26 40.6	1.763	2.738	3.5	19.8
12 27	4 48.71	+28 34.2	1.535	2.475	8.5	19.6	12 27	4 49.63	+26 28.7	1.821	2.760	7.5	20.0
1 6	4 41.06	+28 13.4	1.590	2.471	12.7	19.8	1 6	4 42.37	+26 14.9	1.906	2.782	11.2	20.3
1 16	4 36.50	+27 52.4	1.667	2.467	16.2	20.0	1 16	4 37.84	+26 2.1	2.014	2.803	14.2	20.6
<b>52454</b>	1994 <i>WV</i> <sub>4</sub>		12 9.7 157°05	3°2/ 9.2	18		<b>323891</b>	2005 <i>SM</i> <sub>255</sub>		12 9.7 3°45	6°6/ 10.2	17	
11 7	5 35.53	+14 37.2	1.754	2.592	14.2	19.8	11 7	5 30.97	+33 32.3	1.202	2.061	18.1	19.6
11 17	5 28.96	+14 27.5	1.686	2.597	10.6	19.6	11 17	5 27.09	+34 47.5	1.145	2.059	14.1	19.4
11 27	5 20.02	+14 22.7	1.643	2.601	6.6	19.4	11 27	5 19.58	+35 51.0	1.107	2.060	9.8	19.1
12 7	5 9.63	+14 24.0	1.627	2.604	3.4	19.2	12 7	5 9.65	+36 35.5	1.093	2.062	6.8	19.0
12 17	4 58.96	+14 32.2	1.639	2.608	4.9	19.3	12 17	4 59.09	+36 56.6	1.103	2.066	7.6	19.0
12 27	4 49.27	+14 47.7	1.681	2.611	8.7	19.5	12 27	4 50.00	+36 55.2	1.136	2.072	11.2	19.3
1 6	4 41.60	+15 10.6	1.748	2.613	12.5	19.7	1 6	4 44.01	+36 37.4	1.191	2.080	15.3	19.5
1 16	4 36.60	+15 40.4	1.837	2.615	15.8	20.0	1 16	4 41.98	+36 10.4	1.266	2.090	19.0	19.8
<b>340921</b>	2007 <i>DB</i> <sub>111</sub>		12 9.7 105°10	1°2/ 9.4	18		<b>413798</b>	2006 <i>HQ</i> <sub>153</sub>		12 9.7 21°75	2°5/ 9.9	17	
11 7	5 37.00	+20 21.0	1.729	2.569	14.3	21.2	11 7	5 33.13	+28 38.2	2.131	2.962	12.3	20.7
11 17	5 29.91	+20 7.4	1.675	2.588	10.4	21.0	11 17	5 27.18	+29 18.3	2.058	2.965	9.2	20.5
11 27	5 20.48	+19 53.0	1.644	2.607	6.0	20.8	11 27	5 19.03	+29 53.4	2.011	2.967	5.7	20.3
12 7	5 9.72	+19 38.3	1.641	2.625	1.7	20.6	12 7	5 9.48	+30 20.7	1.992	2.970	2.8	20.2
12 17	4 58.89	+19 24.5	1.668	2.642	3.8	20.8	12 17	4 59.57	+30 38.6	2.002	2.973	3.8	20.2
12 27	4 49.26	+19 13.5	1.723	2.659	8.1	21.1	12 27	4 50.47	+30 47.6	2.042	2.976	7.1	20.4
1 6	4 41.81	+19 7.2	1.805	2.676	11.9	21.3	1 6	4 43.16	+30 49.9	2.108	2.980	10.4	20.7
1 16	4 37.11	+19 7.0	1.909	2.692	15.1	21.6	1 16	4 38.31	+30 48.5	2.198	2.984	13.3	20.9
<b>385355</b>	2002 <i>PQ</i> <sub>87</sub>		12 9.7 152°73	10°2/ 7.9	18		<b>367630</b>	2009 <i>VW</i> <sub>49</sub>		12 9.7 78°91			

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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>286834</b>	2002 <i>NO</i> <sub>14</sub>	12 9.7 60°14	2°9/10.5	17			<b>444806</b>	2007 <i>TR</i> <sub>427</sub>	12 9.7 93°41	6°4/ 7.9	15		
11 7	5 38.58	+31 42.4	1.555	2.391	15.9	20.3	11 7	5 33.75	+ 8 9.5	1.852	2.680	14.0	21.9
11 17	5 31.27	+31 30.4	1.512	2.419	11.8	20.1	11 17	5 27.29	+ 6 54.8	1.804	2.700	10.9	21.7
11 27	5 21.27	+31 5.9	1.492	2.447	7.3	19.9	11 27	5 18.89	+ 5 49.1	1.781	2.720	7.9	21.6
12 7	5 9.91	+30 28.0	1.497	2.476	3.4	19.8	12 7	5 9.43	+ 4 57.0	1.785	2.739	6.4	21.5
12 17	4 58.69	+29 38.8	1.531	2.504	4.3	19.9	12 17	4 59.96	+ 4 22.1	1.817	2.758	7.4	21.6
12 27	4 49.10	+28 43.2	1.594	2.533	8.3	20.2	12 27	4 51.54	+ 4 6.0	1.877	2.776	10.0	21.8
1 6	4 42.15	+27 47.5	1.681	2.561	12.1	20.5	1 6	4 44.96	+ 4 7.8	1.962	2.795	12.8	22.1
1 16	4 38.32	+26 56.7	1.792	2.590	15.3	20.8	1 16	4 40.73	+ 4 25.2	2.068	2.813	15.3	22.3
<b>216895</b>	2009 <i>HQ</i> <sub>28</sub>	12 9.7 263°44	1°9/ 9.1	16			<b>294572</b>	2007 <i>YW</i> <sub>50</sub>	12 9.7 143°00	0°9/ 9.5	18		
11 7	5 33.21	+19 22.8	2.042	2.879	12.5	21.0	11 7	5 33.47	+20 32.7	1.967	2.806	12.9	21.0
11 17	5 27.25	+18 46.6	1.948	2.861	9.3	20.7	11 17	5 27.36	+20 29.8	1.896	2.809	9.4	20.8
11 27	5 19.10	+18 8.5	1.880	2.841	5.5	20.5	11 27	5 19.09	+20 26.4	1.850	2.812	5.5	20.5
12 7	5 9.51	+17 30.2	1.840	2.821	2.1	20.2	12 7	5 9.51	+20 22.7	1.832	2.815	1.4	20.3
12 17	4 59.50	+16 53.8	1.830	2.801	4.0	20.3	12 17	4 59.66	+20 18.9	1.843	2.818	3.4	20.4
12 27	4 50.20	+16 22.2	1.849	2.781	7.9	20.5	12 27	4 50.69	+20 16.6	1.883	2.821	7.4	20.7
1 6	4 42.60	+15 58.0	1.895	2.760	11.7	20.7	1 6	4 43.55	+20 17.0	1.951	2.823	11.1	20.9
1 16	4 37.39	+15 42.8	1.963	2.739	15.0	20.9	1 16	4 38.85	+20 21.6	2.041	2.825	14.2	21.1
<b>364830</b>	2008 <i>CR</i> <sub>73</sub>	12 9.7 324°83	6°7/10.3	17			<b>513161</b>	2003 <i>WX</i> <sub>194</sub>	12 9.7 35°15	0°9/ 9.5	18		
11 7	5 35.87	+36 47.4	1.592	2.420	15.9	20.6	11 7	5 35.55	+21 46.2	1.208	2.071	17.8	21.1
11 17	5 30.32	+37 51.3	1.511	2.406	12.7	20.4	11 17	5 29.84	+21 35.0	1.152	2.076	13.0	20.9
11 27	5 21.39	+38 43.0	1.453	2.393	9.3	20.1	11 27	5 20.88	+21 21.8	1.117	2.083	7.5	20.6
12 7	5 10.07	+39 16.0	1.420	2.380	6.9	20.0	12 7	5 9.91	+21 6.6	1.105	2.089	1.8	20.2
12 17	4 57.93	+39 25.8	1.413	2.368	7.5	20.0	12 17	4 58.64	+20 51.0	1.120	2.096	4.5	20.4
12 27	4 46.87	+39 12.9	1.432	2.356	10.5	20.1	12 27	4 48.88	+20 37.7	1.160	2.104	10.1	20.8
1 6	4 38.51	+38 43.0	1.475	2.345	14.1	20.3	1 6	4 42.00	+20 29.8	1.223	2.112	15.0	21.1
1 16	4 33.82	+38 3.5	1.538	2.335	17.5	20.5	1 16	4 38.68	+20 29.3	1.306	2.120	19.1	21.4
<b>464607</b>	2016 <i>CD</i> <sub>138</sub>	12 9.7 271°41	0°5/ 9.8	18			<b>404720</b>	2014 <i>JA</i> <sub>14</sub>	12 9.7 320°70	0°8/ 9.6	18		
11 7	5 30.74	+25 4.3	2.416	3.249	11.0	21.2	11 7	5 34.08	+19 59.9	1.575	2.425	15.0	20.6
11 17	5 25.17	+24 56.3	2.330	3.240	8.1	21.0	11 17	5 28.41	+20 17.5	1.500	2.419	11.0	20.4
11 27	5 17.76	+24 44.2	2.269	3.230	4.7	20.7	11 27	5 19.99	+20 36.9	1.448	2.412	6.4	20.1
12 7	5 9.21	+24 27.9	2.236	3.220	1.1	20.5	12 7	5 9.75	+20 57.0	1.423	2.406	1.5	19.8
12 17	5 0.37	+24 8.0	2.234	3.210	2.7	20.6	12 17	4 58.98	+21 17.0	1.425	2.401	3.9	19.9
12 27	4 52.19	+23 46.2	2.262	3.200	6.3	20.8	12 27	4 49.19	+21 37.0	1.454	2.395	8.8	20.2
1 6	4 45.49	+23 24.8	2.318	3.190	9.6	21.0	1 6	4 41.62	+21 58.0	1.509	2.390	13.2	20.5
1 16	4 40.85	+23 6.1	2.398	3.180	12.4	21.2	1 16	4 37.06	+22 21.2	1.585	2.386	16.9	20.7
<b>306590</b>	2000 <i>GL</i> <sub>3</sub>	12 9.7 353°04	26°7/ 7.0	18			<b>189869</b>	2003 <i>QO</i> <sub>15</sub>	12 9.7 15°94	0°3/ 9.6	18		
11 7	5 1.71	-11 50.2	0.628	1.511	26.7	17.2	11 7	5 30.52	+23 47.7	1.651	2.504	14.3	19.3
11 17	5 6.03	-19 9.3	0.600	1.476	28.2	17.1	11 17	5 25.48	+23 21.3	1.589	2.509	10.4	19.1
11 27	5 7.50	-25 42.3	0.591	1.446	30.9	17.1	11 27	5 18.08	+22 50.5	1.551	2.516	6.0	18.8
12 7	5 7.08	-30 52.2	0.596	1.422	33.9	17.1	12 7	5 9.29	+22 16.1	1.539	2.523	1.3	18.5
12 17	5 6.14	-34 20.2	0.610	1.405	36.6	17.3	12 17	5 0.32	+21 40.3	1.554	2.531	3.5	18.7
12 27	5 6.41	-36 4.8	0.630	1.394	38.6	17.4	12 27	4 52.45	+21 6.4	1.598	2.540	8.0	19.0
1 6	5 9.29	-36 16.2	0.653	1.390	39.9	17.5	1 6	4 46.66	+20 37.7	1.666	2.549	12.0	19.3
1 16	5 15.62	-35 7.4	0.677	1.394	40.6	17.6	1 16	4 43.54	+20 16.3	1.757	2.560	15.4	19.5
<b>454674</b>	2014 <i>QF</i> <sub>386</sub>	12 9.7 67°04	2°1/10.3	17			<b>441714</b>	2009 <i>BQ</i> <sub>6</sub>	12 9.7 336°07	3°4/10.7	18		
11 7	5 33.17	+30 22.4	2.121	2.950	12.5	21.4	11 7	5 35.26	+33 17.4	1.500	2.340	16.1	20.7
11 17	5 27.03	+30 13.8	2.055	2.960	9.3	21.2	11 17	5 29.48	+32 56.0	1.425	2.333	12.3	20.4
11 27	5 18.82	+29 56.4	2.014	2.970	5.7	21.0	11 27	5 20.63	+32 18.7	1.371	2.327	7.9	20.2
12 7	5 9.42	+29 29.7	2.000	2.979	2.5	20.8	12 7	5 9.87	+31 23.9	1.343	2.321	4.0	19.9
12 17	4 59.90	+28 54.5	2.016	2.989	3.4	20.9	12 17	4 58.76	+30 13.5	1.342	2.315	4.8	20.0
12 27	4 51.36	+28 13.7	2.061	2.999	6.8	21.2	12 27	4 49.02	+28 53.4	1.369	2.310	9.1	20.2
1 6	4 44.68	+27 31.2	2.134	3.009	10.2	21.4	1 6	4 41.93	+27 31.6	1.420	2.306	13.5	20.5
1 16	4 40.41	+26 50.8	2.230	3.019	13.0	21.6	1 16	4 38.22	+26 15.6	1.493	2.302	17.3	20.7
<b>107039</b>	2000 <i>YR</i> <sub>127</sub>	12 9.7 330°42	8°5/11.9	17			<b>202681</b>	2006 <i>UX</i> <sub>89</sub>	12 9.7 203°92	1°2/ 9.3	18		
11 7	5 36.12	+41 58.9	1.367	2.191	18.3	19.3	11 7	5 32.77	+21 5.8	2.111	2.949	12.2	20.9
11 17	5 30.97	+42 23.9	1.287	2.175	15.0	19.1	11 17	5 26.73	+20 34.8	2.034	2.946	8.9	20.7
11 27	5 21.90	+42 25.9	1.228	2.159	11.5	18.8	11 27	5 18.68	+20 1.4	1.982	2.944	5.2	20.5
12 7	5 10.18	+41 58.1	1.190	2.144	8.9	18.6	12 7	5 9.42	+19 26.8	1.958	2.941	1.5	20.2
12 17	4 57.78	+40 57.7	1.177	2.130	8.9	18.6	12 17	4 59.93	+18 52.9	1.965	2.939	3.4	20.3
12 27	4 46.96	+39 29.5	1.189	2.117	11.8	18.7	12 27	4 51.26	+18 22.3	2.001	2.936	7.2	20.6
1 6	4 39.47	+37 44.5	1.223	2.105	15.6	18.9	1 6	4 44.29	+17 57.3	2.064	2.932	10.8	20.8
1 16	4 36.19	+35 54.9	1.278	2.094	19.3	19.1	1 16	4 39.60	+17 39.6	2.151	2.929	13.8	21.0
<b>275840</b>	2001 <i>RS</i> <sub>152</sub>	12 9.7 26°67	8°2/ 9.0	18			<b>98874</b>	2001 <i>BE</i> <sub>14</sub>	12 9.7 42°00	4°1/10.8	17		
11 7	5 32.52	+ 5 55.0	1.263	2.111	18.0	19.8	11 7	5 34.36	+35 13.9	2.103	2.922	13.0	19.4
11 17	5 27.29	+ 5 15.3	1.212	2.118	14.2	19.6	11 17	5 28.14	+35 29.9	2.031	2.924	10.0	19.2
11 27	5 19.26	+ 4 52.3	1.181	2.125	10.5	19.4	11 27	5 19.59	+35 34.4	1.983	2.927	6.8	19.0
12 7	5 9.55	+ 4 50.8	1.174	2.132	8.2	19.3	12 7	5 9.63	+35 24.7	1.962	2.930	4.4	18.9
12 17	4 59.58	+ 5 12.7	1.191	2.141	9.3	19.3	12 17	4 59.40	+35 0.6	1.970	2.933	4.8	18.9
12 27	4 50.91	+ 5 57.2	1.233	2.150	12.5	19.6	12 27	4 50.18	+34 24.3	2.006	2.936	7.6	19.1
1 6	4 44.68	+ 7 0.1	1.297	2.160	16.2	19.8	1 6	4 42.97	+33 40.5	2.069	2.939	10.7	19.3
1 16	4 41.59	+ 8 15.9	1.380	2.170	19.5	20.1	1 16	4 38.39	+32 54.2	2.156	2.942	13.5	19.5
<b>433490</b>	2013 <i>WZ</i> <sub>16</sub>	12 9.7 137°41	0°7/ 9.8	18			<b>492087</b>	2013 <i>JW</i> <sub>35</sub>	12 9.7 88°87	1°9			

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12 9.7

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>129218</b>	2005 <i>NP</i> <sub>96</sub>		12 9.7 84°66	1.1/ 9.9	18		<b>199980</b>	2007 <i>JN</i> <sub>5</sub>		12 9.7 172°52	0.7/ 9.8	18	
11 7	5 39.26	+25 52.6	1.497	2.340	16.0	19.8	11 7	5 36.71	+24 37.6	1.890	2.725	13.5	21.4
11 17	5 31.92	+25 55.5	1.448	2.362	11.7	19.6	11 17	5 29.89	+24 43.4	1.817	2.727	9.9	21.2
11 27	5 21.78	+25 52.3	1.422	2.384	6.8	19.4	11 27	5 20.64	+24 45.2	1.768	2.730	5.8	21.0
12 7	5 10.08	+25 41.5	1.422	2.406	1.9	19.1	12 7	5 9.90	+24 42.0	1.748	2.731	1.4	20.7
12 17	4 58.35	+25 23.9	1.451	2.427	3.8	19.3	12 17	4 58.83	+24 33.8	1.757	2.732	3.3	20.8
12 27	4 48.13	+25 2.4	1.508	2.448	8.6	19.6	12 27	4 48.75	+24 22.2	1.795	2.733	7.6	21.1
1 6	4 40.54	+24 41.1	1.590	2.469	12.8	19.9	1 6	4 40.72	+24 10.0	1.860	2.733	11.5	21.3
1 16	4 36.16	+24 23.5	1.693	2.489	16.2	20.2	1 16	4 35.40	+24 0.0	1.948	2.733	14.8	21.6
<b>439476</b>	2013 <i>YM</i> <sub>90</sub>		12 9.7 266°70	4.1/ 9.1	18		<b>401112</b>	2011 <i>UQ</i> <sub>256</sub>		12 9.7 51°02	1.4/ 9.4	18	
11 7	5 34.25	+13 16.8	1.658	2.500	14.8	21.4	11 7	5 33.11	+20 54.3	1.730	2.576	14.0	20.6
11 17	5 28.39	+12 57.2	1.575	2.486	11.2	21.2	11 17	5 27.28	+20 26.4	1.664	2.581	10.2	20.4
11 27	5 19.94	+12 43.6	1.515	2.472	7.2	20.9	11 27	5 19.11	+19 56.6	1.622	2.586	6.0	20.2
12 7	5 9.75	+12 38.0	1.482	2.457	4.2	20.7	12 7	5 9.56	+19 26.1	1.607	2.591	1.8	19.9
12 17	4 59.02	+12 42.2	1.477	2.443	5.7	20.7	12 17	4 59.79	+18 57.1	1.621	2.596	3.8	20.1
12 27	4 49.13	+12 57.2	1.499	2.428	9.7	20.9	12 27	4 51.06	+18 32.2	1.663	2.601	8.2	20.4
1 6	4 41.25	+13 22.9	1.546	2.413	13.8	21.2	1 6	4 44.38	+18 13.9	1.731	2.606	12.1	20.6
1 16	4 36.18	+13 58.2	1.615	2.398	17.4	21.4	1 16	4 40.35	+18 3.6	1.820	2.611	15.4	20.8
<b>86520</b>	2000 <i>DH</i> <sub>69</sub>		12 9.7 220°91	4.2/10.5	18		<b>464386</b>	2016 <i>AE</i> <sub>194</sub>		12 9.7 127°51	4.8/ 9.1	18	
11 7	5 38.71	+33 8.7	1.669	2.498	15.3	19.1	11 7	5 30.22	+5 40.6	2.594	3.406	11.0	21.2
11 17	5 31.91	+33 31.7	1.593	2.494	11.7	18.9	11 17	5 24.47	+5 31.8	2.527	3.413	8.6	21.1
11 27	5 22.05	+33 43.1	1.539	2.489	7.8	18.7	11 27	5 17.25	+5 32.2	2.487	3.421	6.3	20.9
12 7	5 10.21	+33 39.0	1.512	2.485	4.5	18.5	12 7	5 9.14	+5 43.5	2.474	3.428	4.9	20.9
12 17	4 57.88	+33 17.9	1.512	2.480	5.3	18.5	12 17	5 0.88	+6 6.2	2.491	3.435	5.5	20.9
12 27	4 46.76	+32 42.6	1.541	2.475	9.0	18.7	12 27	4 53.24	+6 39.9	2.538	3.441	7.5	21.0
1 6	4 38.19	+31 59.0	1.595	2.470	13.0	18.9	1 6	4 46.85	+7 23.3	2.612	3.448	9.9	21.2
1 16	4 32.98	+31 13.6	1.670	2.464	16.5	19.2	1 16	4 42.20	+8 14.3	2.710	3.454	12.1	21.4
<b>473501</b>	2015 <i>XL</i> <sub>131</sub>		12 9.7 6°69	5°0/10.3	16		<b>340179</b>	2005 <i>YN</i> <sub>188</sub>		12 9.7 337°48	1°0/ 9.8	16	
11 7	5 34.13	+34 1.4	1.749	2.581	14.6	20.9	11 7	5 32.87	+24 43.6	1.282	2.144	17.0	21.5
11 17	5 28.49	+34 54.3	1.681	2.581	11.3	20.7	11 17	5 28.13	+24 53.8	1.210	2.134	12.6	21.2
11 27	5 20.05	+35 37.0	1.636	2.583	7.8	20.5	11 27	5 20.09	+24 59.9	1.159	2.124	7.4	20.9
12 7	5 9.78	+36 4.9	1.617	2.585	5.2	20.3	12 7	5 9.84	+25 0.1	1.132	2.115	1.9	20.5
12 17	4 59.04	+36 15.4	1.626	2.587	5.8	20.4	12 17	4 58.96	+24 54.0	1.130	2.107	4.3	20.7
12 27	4 49.38	+36 9.5	1.661	2.591	8.9	20.6	12 27	4 49.29	+24 43.6	1.154	2.100	9.9	21.0
1 6	4 42.04	+35 51.7	1.722	2.595	12.3	20.8	1 6	4 42.33	+24 32.8	1.202	2.094	14.9	21.2
1 16	4 37.80	+35 27.3	1.804	2.599	15.4	21.0	1 16	4 38.96	+24 25.2	1.268	2.089	19.2	21.5
<b>420945</b>	2013 <i>PV</i> <sub>1</sub>		12 9.7 114°61	6°1/11.6	18		<b>278564</b>	2008 <i>GK</i> <sub>97</sub>		12 9.7 165°48	0°5/ 9.8	18	
11 7	5 35.94	+42 56.8	2.445	3.229	12.4	20.5	11 7	5 37.97	+24 32.9	1.902	2.734	13.5	22.0
11 17	5 29.25	+43 25.5	2.370	3.230	10.1	20.4	11 17	5 30.75	+24 32.8	1.830	2.740	9.9	21.7
11 27	5 20.23	+43 39.2	2.318	3.231	7.9	20.2	11 27	5 21.11	+24 28.3	1.784	2.745	5.8	21.5
12 7	5 9.78	+43 34.7	2.293	3.232	6.3	20.1	12 7	5 10.00	+24 18.7	1.765	2.749	1.4	21.2
12 17	4 59.06	+43 10.6	2.296	3.232	6.4	20.1	12 17	4 58.63	+24 4.2	1.777	2.752	3.3	21.4
12 27	4 49.33	+42 29.0	2.328	3.233	8.0	20.2	12 27	4 48.28	+23 47.0	1.818	2.755	7.6	21.6
1 6	4 41.60	+41 34.8	2.386	3.234	10.3	20.4	1 6	4 40.01	+23 30.0	1.886	2.757	11.5	21.9
1 16	4 36.51	+40 33.7	2.468	3.235	12.5	20.6	1 16	4 34.47	+23 16.1	1.977	2.758	14.7	22.1
<b>152939</b>	2000 <i>FY</i> <sub>4</sub>		12 9.7 328°64	2°1/ 9.9	18		<b>361752</b>	2007 <i>YZ</i> <sub>3</sub>		12 9.7 195°14	0°6/ 9.8	18	
11 7	5 33.77	+26 35.7	1.241	2.102	17.4	20.2	11 7	5 35.88	+23 2.9	2.343	3.170	11.5	21.6
11 17	5 28.98	+26 54.4	1.166	2.089	13.0	19.9	11 17	5 29.01	+23 37.2	2.261	3.167	8.5	21.4
11 27	5 20.69	+27 7.1	1.112	2.077	7.9	19.6	11 27	5 20.07	+24 10.7	2.205	3.165	4.9	21.1
12 7	5 9.97	+27 11.1	1.082	2.065	2.7	19.2	12 7	5 9.79	+24 41.5	2.178	3.162	1.2	20.9
12 17	4 58.50	+27 5.0	1.078	2.054	4.7	19.3	12 17	4 59.12	+25 8.1	2.183	3.158	2.9	21.0
12 27	4 48.26	+26 50.9	1.098	2.044	10.3	19.6	12 27	4 49.11	+25 30.5	2.218	3.154	6.6	21.2
1 6	4 40.91	+26 33.5	1.141	2.035	15.5	19.9	1 6	4 40.71	+25 49.5	2.282	3.149	9.9	21.4
1 16	4 37.38	+26 17.6	1.203	2.026	19.9	20.1	1 16	4 34.56	+26 7.0	2.371	3.144	12.8	21.6
<b>64865</b>	2001 <i>YD</i> <sub>53</sub>		12 9.7 47°73	1.4/ 9.9	18		<b>102768</b>	1999 <i>VC</i> <sub>139</sub>		12 9.7 50°07	1°3/ 9.5	18	
11 7	5 37.26	+26 11.5	1.229	2.086	17.9	19.2	11 7	5 34.39	+20 4.6	1.479	2.332	15.6	19.4
11 17	5 30.86	+26 15.6	1.188	2.109	13.1	19.0	11 17	5 28.42	+19 57.5	1.427	2.346	11.4	19.2
11 27	5 21.30	+26 12.6	1.168	2.132	7.6	18.7	11 27	5 19.83	+19 50.5	1.397	2.361	6.6	19.0
12 7	5 10.00	+26 1.1	1.173	2.156	2.2	18.5	12 7	5 9.72	+19 44.0	1.393	2.376	1.8	18.7
12 17	4 58.72	+25 42.1	1.203	2.180	4.3	18.7	12 17	4 59.46	+19 38.8	1.416	2.392	4.1	18.9
12 27	4 49.19	+25 19.1	1.260	2.205	9.4	19.0	12 27	4 50.48	+19 36.7	1.467	2.408	8.8	19.2
1 6	4 42.62	+24 56.8	1.341	2.230	14.0	19.4	1 6	4 43.86	+19 39.2	1.543	2.424	13.0	19.5
1 16	4 39.56	+24 38.8	1.442	2.255	17.7	19.7	1 16	4 40.22	+19 47.5	1.639	2.440	16.4	19.8
<b>339002</b>	2004 <i>GK</i> <sub>42</sub>		12 9.7 139°82	2°8/10.1	18		<b>252769</b>	2002 <i>EW</i> <sub>89</sub>		12 9.7 177°80	3°0/10.4	18	
11 7	5 39.38	+28 46.3	1.733	2.565	14.7	21.4	11 7	5 40.03	+30 49.2	1.585	2.418	15.8	20.4
11 17	5 32.11	+29 22.5	1.667	2.573	11.0	21.1	11 17	5 32.82	+30 54.1	1.513	2.419	11.9	20.1
11 27	5 22.03	+29 51.8	1.625	2.581	6.8	20.9	11 27	5 22.54	+30 47.9	1.465	2.420	7.5	19.9
12 7	5 10.20	+30 10.7	1.609	2.588	3.2	20.7	12 7	5 10.35	+30 27.9	1.442	2.421	3.5	19.7
12 17	4 58.01	+30 17.6	1.623	2.595	4.3	20.8	12 17	4 57.79	+29 54.1	1.449	2.421	4.6	19.7
12 27	4 46.98	+30 13.7	1.666	2.602	8.3	21.1	12 27	4 46.58	+29 10.2	1.483	2.421	8.9	20.0
1 6	4 38.35	+30 2.9	1.735	2.608	12.2	21.3	1 6	4 38.02	+28 22.4	1.542	2.420	13.2	20.2
1 16	4 32.84	+29 49.6	1.826	2.613	15.5	21.5	1 16	4 32.85	+27 36.8	1.624	2.419	16.8	20.5
<b>227201</b>	2005 <i>QY</i> <sub>103</sub>		12 9.7 7°33	5°6/ 8.7	18		<b>280150</b>	2002 <i>PJ</i> <sub>110</sub>		12 9.7 213°27	2°0/ 9.1</		

EPHEMERIDES

12 9.7

12 9.7

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>179201</b>	2001 <i>TE</i> <sub>178</sub>	12	9.7	47°19	2°2/10.2	18	<b>359298</b>	2009 <i>HL</i> <sub>78</sub>	12	9.7	166°09	2°6/ 9.1	18
11 7	5 34.32	+29 30.1	1.817	2.653	13.9	20.3	11 7	5 32.80	+16 7.1	2.100	2.935	12.3	21.5
11 17	5 28.24	+29 28.3	1.749	2.658	10.3	20.1	11 17	5 26.74	+15 45.1	2.028	2.938	9.1	21.3
11 27	5 19.72	+29 17.7	1.705	2.663	6.4	19.9	11 27	5 18.72	+15 25.3	1.982	2.940	5.6	21.1
12 7	5 9.73	+28 57.2	1.688	2.668	2.6	19.6	12 7	5 9.54	+15 9.2	1.964	2.942	2.7	20.9
12 17	4 59.51	+28 27.4	1.699	2.673	3.8	19.7	12 17	5 0.12	+14 58.2	1.975	2.944	4.1	21.0
12 27	4 50.39	+27 51.1	1.739	2.679	7.7	20.0	12 27	4 51.51	+14 53.7	2.016	2.945	7.6	21.2
1 6	4 43.41	+27 12.9	1.805	2.684	11.5	20.2	1 6	4 44.55	+14 56.4	2.084	2.946	10.9	21.4
1 16	4 39.20	+26 36.9	1.894	2.690	14.7	20.5	1 16	4 39.81	+15 6.6	2.175	2.947	13.8	21.6
<b>204681</b>	2006 <i>DQ</i> <sub>110</sub>	12	9.7	51°83	2°8/ 9.2	18	<b>266829</b>	2009 <i>TF</i> <sub>39</sub>	12	9.7	12°04	6°5/ 9.1	18
11 7	5 34.69	+17 51.9	1.387	2.242	16.3	18.6	11 7	5 29.79	+ 5 56.2	1.723	2.558	14.6	19.7
11 17	5 28.62	+17 17.9	1.342	2.262	11.9	18.4	11 17	5 24.83	+ 5 34.2	1.663	2.561	11.5	19.6
11 27	5 19.91	+16 45.9	1.319	2.282	7.1	18.2	11 27	5 17.74	+ 5 25.2	1.625	2.565	8.4	19.4
12 7	5 9.75	+16 18.2	1.321	2.302	3.1	18.0	12 7	5 9.35	+ 5 32.3	1.612	2.569	6.6	19.3
12 17	4 59.57	+15 57.1	1.351	2.323	5.0	18.2	12 17	5 0.72	+ 5 56.6	1.626	2.574	7.4	19.3
12 27	4 50.80	+15 45.0	1.407	2.344	9.5	18.5	12 27	4 52.97	+ 6 37.7	1.667	2.580	10.1	19.5
1 6	4 44.48	+15 43.0	1.488	2.365	13.6	18.8	1 6	4 47.04	+ 7 32.7	1.732	2.586	13.2	19.7
1 16	4 41.17	+15 50.9	1.589	2.386	17.0	19.1	1 16	4 43.52	+ 8 38.2	1.819	2.594	16.0	19.9
<b>409719</b>	2006 <i>BP</i> <sub>254</sub>	12	9.7	324°06	3°6/10.7	17	<b>145370</b>	2005 <i>MZ</i> <sub>43</sub>	12	9.7	164°54	0°2/ 9.7	18
11 7	5 33.88	+34 4.8	2.141	2.961	12.7	21.2	11 7	5 33.80	+24 0.4	2.166	3.000	12.1	20.7
11 17	5 27.79	+34 13.2	2.063	2.959	9.7	21.0	11 17	5 27.46	+23 33.8	2.092	3.003	8.8	20.5
11 27	5 19.43	+34 10.8	2.010	2.958	6.5	20.8	11 27	5 19.14	+23 2.6	2.044	3.005	5.1	20.3
12 7	5 9.68	+33 55.5	1.985	2.956	3.9	20.6	12 7	5 9.65	+22 27.6	2.024	3.008	1.1	20.0
12 17	4 59.65	+33 27.2	1.988	2.954	4.4	20.6	12 17	4 59.97	+21 50.5	2.034	3.010	3.0	20.1
12 27	4 50.55	+32 48.2	2.020	2.953	7.3	20.8	12 27	4 51.17	+21 13.9	2.075	3.012	6.9	20.4
1 6	4 43.38	+32 3.0	2.079	2.951	10.5	21.0	1 6	4 44.10	+20 40.8	2.143	3.013	10.3	20.6
1 16	4 38.77	+31 16.3	2.162	2.950	13.4	21.2	1 16	4 39.31	+20 13.5	2.235	3.014	13.3	20.8
<b>151849</b>	2003 <i>GN</i> <sub>29</sub>	12	9.7	184°56	1°0/ 9.9	18	<b>23257</b>	Denny	12	9.7	12°61	3°3/10.5	18
11 7	5 33.12	+26 34.2	2.684	3.507	10.3	21.4	11 7	5 34.97	+31 10.7	1.410	2.257	16.6	18.4
11 17	5 26.73	+26 36.6	2.603	3.508	7.6	21.2	11 17	5 29.38	+31 13.5	1.346	2.259	12.5	18.2
11 27	5 18.63	+26 34.7	2.549	3.507	4.5	21.1	11 27	5 20.66	+31 4.1	1.303	2.261	7.9	17.9
12 7	5 9.50	+26 27.5	2.524	3.506	1.4	20.8	12 7	5 10.01	+30 40.2	1.286	2.264	3.8	17.7
12 17	5 0.13	+26 15.4	2.530	3.505	2.6	20.9	12 17	4 59.04	+30 2.5	1.295	2.268	4.8	17.8
12 27	4 51.43	+25 59.6	2.567	3.503	5.8	21.1	12 27	4 49.48	+29 15.1	1.330	2.272	9.3	18.0
1 6	4 44.14	+25 42.2	2.633	3.500	8.8	21.3	1 6	4 42.64	+28 24.6	1.389	2.277	13.7	18.3
1 16	4 38.81	+25 25.6	2.724	3.497	11.3	21.5	1 16	4 39.23	+27 37.0	1.470	2.282	17.4	18.5
<b>408969</b>	2002 <i>PS</i> <sub>92</sub>	12	9.7	38°20	5°1/ 8.2	18	<b>146483</b>	2001 <i>RF</i> <sub>129</sub>	12	9.7	335°52	6°2/10.5	17
11 7	5 30.57	+12 27.6	1.770	2.614	13.9	20.1	11 7	5 35.37	+36 14.4	1.605	2.435	15.8	18.8
11 17	5 25.10	+11 12.8	1.725	2.635	10.4	20.0	11 17	5 29.86	+37 8.1	1.529	2.425	12.4	18.6
11 27	5 17.70	+10 3.8	1.705	2.657	7.1	19.8	11 27	5 21.11	+37 49.4	1.475	2.416	9.0	18.4
12 7	5 9.27	+ 9 5.0	1.712	2.679	5.1	19.7	12 7	5 10.16	+38 12.3	1.446	2.408	6.5	18.2
12 17	5 0.85	+ 8 20.2	1.747	2.701	6.3	19.9	12 17	4 58.53	+38 13.6	1.443	2.400	7.0	18.2
12 27	4 53.49	+ 7 51.6	1.809	2.725	9.3	20.1	12 27	4 48.04	+37 54.4	1.466	2.393	10.0	18.4
1 6	4 47.96	+ 7 39.5	1.896	2.748	12.3	20.3	1 6	4 40.17	+37 20.4	1.513	2.387	13.6	18.6
1 16	4 44.74	+ 7 42.3	2.005	2.772	15.0	20.6	1 16	4 35.82	+36 38.8	1.582	2.381	17.0	18.8
<b>386014</b>	2007 <i>DR</i> <sub>47</sub>	12	9.7	251°28	5°0/10.6	18	<b>262625</b>	2006 <i>WR</i> <sub>8</sub>	12	9.7	311°43	2°0/ 9.3	18
11 7	5 38.73	+34 40.3	1.614	2.442	15.8	21.2	11 7	5 32.16	+18 17.4	1.918	2.760	13.0	20.8
11 17	5 32.12	+35 9.4	1.538	2.436	12.2	21.0	11 17	5 26.49	+17 54.3	1.845	2.759	9.6	20.6
11 27	5 22.29	+35 25.5	1.484	2.431	8.4	20.8	11 27	5 18.68	+17 31.9	1.797	2.758	5.7	20.3
12 7	5 10.35	+35 24.1	1.455	2.425	5.3	20.6	12 7	5 9.57	+17 11.5	1.776	2.757	2.3	20.1
12 17	4 57.85	+35 3.1	1.454	2.418	5.9	20.6	12 17	5 0.19	+16 54.5	1.784	2.756	4.0	20.2
12 27	4 46.61	+34 25.3	1.480	2.412	9.5	20.8	12 27	4 51.66	+16 43.0	1.821	2.756	7.9	20.5
1 6	4 38.04	+33 37.1	1.531	2.406	13.4	21.0	1 6	4 44.92	+16 38.2	1.884	2.755	11.5	20.7
1 16	4 32.98	+32 45.9	1.603	2.399	16.9	21.2	1 16	4 40.59	+16 41.0	1.970	2.754	14.7	20.9
<b>102700</b>	1999 <i>VR</i> <sub>86</sub>	12	9.7	36°79	3°8/10.1	18	<b>484188</b>	2006 <i>VG</i> <sub>41</sub>	12	9.7	58°09	0°1/ 9.7	17
11 7	5 37.56	+28 47.6	1.068	1.931	19.5	19.1	11 7	5 33.63	+22 59.8	1.791	2.635	13.7	21.5
11 17	5 31.78	+29 32.1	1.024	1.945	14.6	18.8	11 17	5 27.68	+23 0.5	1.727	2.642	10.0	21.2
11 27	5 22.19	+30 7.0	0.999	1.961	9.0	18.6	11 27	5 19.41	+22 58.8	1.687	2.650	5.8	21.0
12 7	5 10.30	+30 27.4	0.998	1.978	4.3	18.4	12 7	5 9.73	+22 54.0	1.674	2.658	1.3	20.7
12 17	4 58.17	+30 30.9	1.021	1.995	5.7	18.5	12 17	4 59.81	+22 46.7	1.690	2.666	3.3	20.9
12 27	4 47.96	+30 20.7	1.069	2.013	10.7	18.8	12 27	4 50.92	+22 38.5	1.734	2.674	7.7	21.2
1 6	4 41.18	+30 2.9	1.139	2.032	15.5	19.2	1 6	4 44.05	+22 31.7	1.804	2.682	11.5	21.4
1 16	4 38.50	+29 43.6	1.227	2.052	19.5	19.5	1 16	4 39.82	+22 28.3	1.897	2.691	14.8	21.7
<b>403148</b>	2008 <i>FV</i> <sub>20</sub>	12	9.7	249°59	0°9/ 9.6	17	<b>40703</b>	1999 <i>RR</i> <sub>237</sub>	12	9.7	88°60	3°6/ 9.2	18
11 7	5 32.78	+19 51.8	2.113	2.950	12.2	22.2	11 7	5 31.60	+11 54.7	2.109	2.942	12.4	19.3
11 17	5 26.89	+19 55.2	2.030	2.942	9.0	22.0	11 17	5 25.85	+11 47.5	2.042	2.947	9.3	19.1
11 27	5 18.91	+19 59.1	1.972	2.934	5.2	21.7	11 27	5 18.22	+11 46.9	1.999	2.952	6.1	18.9
12 7	5 9.59	+20 3.3	1.942	2.925	1.4	21.5	12 7	5 9.46	+11 53.9	1.984	2.956	3.7	18.8
12 17	4 59.89	+20 8.0	1.942	2.917	3.2	21.6	12 17	5 0.48	+12 9.2	1.998	2.961	4.8	18.9
12 27	4 50.90	+20 13.8	1.972	2.908	7.2	21.8	12 27	4 52.25	+12 32.9	2.041	2.966	7.8	19.1
1 6	4 43.56	+20 22.0	2.028	2.899	10.8	22.0	1 6	4 45.61	+13 4.2	2.111	2.971	10.9	19.3
1 16	4 38.52	+20 33.5	2.108	2.890	13.9	22.2	1 16	4 41.11	+13 42.1	2.205	2.976	13.7	19.5
<b>330213</b>	2006 <i>GD</i> <sub>24</sub>	12	9.7	215°47	1°1/ 9.4	18	<b>79363</b>	1997 <i>EC</i> <sub>4</sub>	12	9.7	207°77	4°0/10.4	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>271154</b>	2003 <i>SL</i> <sub>178</sub>	12	9.7	68°42'	0°9'/9.5	18	<b>413730</b>	2006 <i>BD</i> <sub>139</sub>	12	9.7	263°43'	3°5'/10.6	18
11 7	5 31.69	+21 31.8	2.120	2.959	12.1	20.8	11 7	5 33.79	+33 46.5	2.292	3.110	12.0	21.5
11 17	5 25.87	+21 8.2	2.058	2.972	8.8	20.6	11 17	5 27.70	+33 59.3	2.208	3.103	9.2	21.3
11 27	5 18.18	+20 42.7	2.022	2.985	5.1	20.4	11 27	5 19.42	+34 2.4	2.149	3.096	6.2	21.1
12 7	5 9.44	+20 16.2	2.015	2.998	1.3	20.2	12 7	5 9.77	+33 53.6	2.118	3.089	3.7	20.9
12 17	5 0.60	+19 50.3	2.037	3.012	3.1	20.4	12 17	4 59.79	+33 32.4	2.115	3.081	4.2	20.9
12 27	4 52.65	+19 27.1	2.088	3.025	6.8	20.6	12 27	4 50.62	+33 0.6	2.143	3.074	7.1	21.1
1 6	4 46.37	+19 8.5	2.167	3.038	10.2	20.8	1 6	4 43.24	+32 22.2	2.197	3.067	10.1	21.3
1 16	4 42.29	+18 55.9	2.269	3.052	13.0	21.1	1 16	4 38.27	+31 41.4	2.276	3.059	12.9	21.5
<b>8076</b>	Foscarini	12	9.7	73°09'	0°1'/9.7	18	<b>520830</b>	2014 <i>UD</i> <sub>234</sub>	12	9.7	190°84'	0°1'/9.7	17
11 7	5 32.04	+23 38.2	2.251	3.086	11.6	17.7	11 7	5 31.19	+23 30.9	2.420	3.253	11.0	21.9
11 17	5 26.06	+23 34.8	2.192	3.103	8.4	17.5	11 17	5 25.47	+23 16.1	2.342	3.253	8.0	21.7
11 27	5 18.28	+23 28.5	2.158	3.120	4.9	17.4	11 27	5 17.99	+22 58.2	2.290	3.252	4.6	21.5
12 7	5 9.47	+23 19.3	2.154	3.138	1.1	17.1	12 7	5 9.45	+22 37.5	2.267	3.251	1.0	21.2
12 17	5 0.57	+23 7.8	2.179	3.155	2.8	17.3	12 17	5 0.70	+22 14.8	2.275	3.251	2.7	21.3
12 27	4 52.52	+22 55.4	2.234	3.172	6.4	17.5	12 27	4 52.65	+21 52.0	2.313	3.250	6.2	21.6
1 6	4 46.11	+22 44.1	2.316	3.189	9.6	17.8	1 6	4 46.09	+21 31.3	2.378	3.249	9.4	21.8
1 16	4 41.82	+22 35.6	2.423	3.206	12.3	18.0	1 16	4 41.54	+21 14.5	2.468	3.248	12.2	21.9
<b>219126</b>	1998 <i>UF</i> <sub>16</sub>	12	9.7	22°84'	0°7'/9.8	18	<b>378023</b>	2006 <i>SS</i> <sub>311</sub>	12	9.7	251°66'	1°1'/9.9	18
11 7	5 33.05	+23 31.0	0.983	1.860	19.6	19.2	11 7	5 37.77	+26 1.7	1.587	2.429	15.3	21.6
11 17	5 28.51	+23 48.1	0.940	1.872	14.4	18.9	11 17	5 31.33	+26 0.3	1.502	2.416	11.4	21.3
11 27	5 20.33	+24 2.1	0.917	1.885	8.3	18.7	11 27	5 21.86	+25 52.7	1.440	2.402	6.8	21.0
12 7	5 9.96	+24 11.1	0.915	1.900	2.0	18.3	12 7	5 10.35	+25 37.2	1.405	2.388	1.9	20.7
12 17	4 59.37	+24 14.5	0.938	1.916	4.7	18.6	12 17	4 58.22	+25 14.0	1.397	2.374	3.9	20.8
12 27	4 50.59	+24 14.7	0.984	1.934	10.6	19.0	12 27	4 47.12	+24 45.8	1.418	2.359	9.0	21.0
1 6	4 45.06	+24 14.8	1.051	1.953	15.8	19.3	1 6	4 38.43	+24 17.0	1.464	2.343	13.6	21.3
1 16	4 43.43	+24 17.9	1.137	1.973	20.0	19.7	1 16	4 33.01	+23 52.1	1.531	2.328	17.6	21.5
<b>278533</b>	2008 <i>EP</i> <sub>47</sub>	12	9.7	123°80'	1°0'/9.6	18	<b>189357</b>	2008 <i>DF</i> <sub>38</sub>	12	9.7	122°03'	3°6'/10.4	18
11 7	5 38.25	+20 18.8	1.749	2.586	14.3	21.2	11 7	5 40.96	+31 47.4	1.710	2.536	15.1	20.5
11 17	5 30.97	+20 18.7	1.689	2.601	10.5	21.0	11 17	5 33.25	+32 9.8	1.650	2.551	11.4	20.3
11 27	5 21.27	+20 18.2	1.654	2.616	6.1	20.8	11 27	5 22.70	+32 21.5	1.614	2.565	7.3	20.1
12 7	5 10.14	+20 17.2	1.647	2.631	1.6	20.5	12 7	5 10.48	+32 19.2	1.604	2.579	3.9	19.9
12 17	4 58.85	+20 15.9	1.670	2.645	3.6	20.7	12 17	4 58.06	+32 2.1	1.623	2.593	4.7	20.0
12 27	4 48.72	+20 15.7	1.721	2.658	8.0	21.0	12 27	4 47.01	+31 33.3	1.671	2.605	8.4	20.3
1 6	4 40.77	+20 18.3	1.799	2.670	11.9	21.2	1 6	4 38.51	+30 58.1	1.745	2.618	12.2	20.5
1 16	4 35.61	+20 25.0	1.900	2.682	15.2	21.5	1 16	4 33.21	+30 22.0	1.842	2.629	15.4	20.8
<b>208733</b>	2002 <i>LS</i> <sub>50</sub>	12	9.7	54°72'	9°0'/8.9	18	<b>27516</b>	2000 <i>HN</i> <sub>10</sub>	12	9.7	232°41'	0°3'/9.8	18
11 7	5 34.17	+1 59.1	1.499	2.324	16.9	19.3	11 7	5 30.99	+23 48.5	2.670	3.499	10.2	19.5
11 17	5 27.86	+1 3.2	1.469	2.354	13.6	19.2	11 17	5 25.27	+23 50.6	2.583	3.491	7.5	19.3
11 27	5 19.34	+0 26.2	1.460	2.384	10.6	19.1	11 27	5 17.88	+23 50.3	2.522	3.483	4.3	19.1
12 7	5 9.69	+0 12.5	1.475	2.414	9.0	19.1	12 7	5 9.44	+23 47.1	2.491	3.475	1.0	18.8
12 17	5 0.14	+0 23.7	1.516	2.445	9.7	19.2	12 17	5 0.72	+23 41.2	2.490	3.466	2.5	19.0
12 27	4 51.88	+0 58.4	1.583	2.475	12.0	19.4	12 27	4 52.57	+23 33.7	2.521	3.457	5.8	19.2
1 6	4 45.79	+1 52.1	1.672	2.505	14.7	19.6	1 6	4 45.75	+23 26.1	2.579	3.448	8.8	19.3
1 16	4 42.35	+2 59.6	1.782	2.536	17.1	19.9	1 16	4 40.79	+23 20.1	2.662	3.439	11.4	19.5
<b>224545</b>	2005 <i>WM</i> <sub>134</sub>	12	9.7	70°94'	4°5'/9.8	18	<b>515123</b>	2011 <i>EW</i> <sub>70</sub>	12	9.7	314°84'	6°6'/10.6	18
11 7	5 34.87	+7 36.4	2.024	2.844	13.3	19.6	11 7	5 36.72	+35 26.1	1.268	2.112	18.3	21.4
11 17	5 28.21	+8 1.6	1.964	2.859	10.2	19.4	11 17	5 31.64	+36 11.8	1.188	2.094	14.4	21.1
11 27	5 19.58	+8 38.1	1.929	2.874	6.9	19.2	11 27	5 22.56	+36 43.4	1.128	2.077	10.2	20.8
12 7	5 9.78	+9 26.2	1.922	2.889	4.6	19.1	12 7	5 10.58	+36 53.5	1.091	2.059	7.0	20.6
12 17	4 59.79	+10 24.5	1.945	2.904	5.4	19.2	12 17	4 57.59	+36 37.8	1.079	2.043	7.6	20.6
12 27	4 50.67	+11 31.1	1.998	2.919	8.2	19.4	12 27	4 45.93	+35 58.5	1.091	2.027	11.6	20.7
1 6	4 43.26	+12 43.2	2.078	2.934	11.3	19.6	1 6	4 37.53	+35 3.7	1.125	2.011	16.3	20.9
1 16	4 38.13	+13 58.3	2.182	2.948	14.0	19.8	1 16	4 33.47	+34 3.1	1.178	1.997	20.5	21.2
<b>296526</b>	2009 <i>OW</i> <sub>5</sub>	12	9.7	114°27'	4°1'/10.7	18	<b>307965</b>	2004 <i>HL</i> <sub>65</sub>	12	9.7	282°67'	2°9'/8.8	17
11 7	5 41.25	+33 19.9	1.574	2.402	16.1	20.4	11 7	5 32.43	+18 1.1	1.890	2.733	13.2	20.6
11 17	5 33.64	+33 31.9	1.515	2.415	12.2	20.2	11 17	5 26.83	+17 6.3	1.804	2.718	9.8	20.4
11 27	5 22.98	+33 30.5	1.478	2.429	8.0	19.9	11 27	5 18.98	+16 9.9	1.742	2.702	6.0	20.1
12 7	5 10.53	+33 12.4	1.467	2.441	4.5	19.8	12 7	5 9.70	+15 14.7	1.708	2.687	3.0	19.9
12 17	4 57.91	+32 37.6	1.485	2.454	5.2	19.8	12 17	5 0.04	+14 24.1	1.703	2.671	4.7	20.0
12 27	4 46.84	+31 50.3	1.530	2.466	9.0	20.1	12 27	4 51.17	+13 41.9	1.726	2.656	8.6	20.2
1 6	4 38.55	+30 57.3	1.601	2.477	12.9	20.3	1 6	4 44.10	+13 10.9	1.776	2.640	12.4	20.4
1 16	4 33.69	+30 5.3	1.694	2.488	16.3	20.6	1 16	4 39.50	+12 52.3	1.847	2.625	15.7	20.6
<b>283764</b>	2003 <i>GW</i> <sub>8</sub>	12	9.7	233°14'	1°9'/9.3	18	<b>284026</b>	2004 <i>VC</i> <sub>64</sub>	12	9.7	202°39'	0°7'/9.6	18
11 7	5 35.13	+18 50.2	1.918	2.755	13.2	21.3	11 7	5 35.99	+20 12.2	1.871	2.708	13.5	20.4
11 17	5 28.79	+18 27.4	1.833	2.744	9.8	21.0	11 17	5 29.47	+20 25.2	1.793	2.706	9.9	20.2
11 27	5 20.11	+18 4.3	1.772	2.733	5.8	20.8	11 27	5 20.54	+20 38.9	1.741	2.703	5.8	19.9
12 7	5 9.93	+17 42.0	1.739	2.721	2.2	20.5	12 7	5 10.05	+20 52.5	1.716	2.700	1.4	19.6
12 17	4 59.33	+17 22.0	1.736	2.708	4.0	20.6	12 17	4 59.14	+21 5.4	1.721	2.696	3.5	19.8
12 27	4 49.53	+17 6.5	1.762	2.695	8.2	20.9	12 27	4 49.10	+21 18.3	1.755	2.692	7.8	20.0
1 6	4 41.58	+16 57.4	1.814	2.681	12.1	21.1	1 6	4 41.01	+21 32.1	1.815	2.688	11.8	20.3
1 16	4 36.19	+16 56.1	1.889	2.667	15.4	21.3	1 16	4 35.57	+21 48.3	1.899	2.683	15.1	20.5
<b>472798</b>	2015 <i>FL</i> <sub>156</sub>	12	9.7	236°20'	1°9'/9.9	18	<b>208137</b>	2000 <i>ES</i> <sub>28</sub>	12	9.7	346°78'	7°0'/10.5	18
11 7	5 38.												



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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>112703</b>	2002 <i>PS</i> <sub>106</sub>	12	9.7 314°37	3°3/ 8.8	18		<b>352271</b>	2007 <i>TC</i> <sub>284</sub>	12	9.7 55°42	4°8/10.8	18	
11 7	5 29.70	+14 38.1	2.179	3.017	11.8	19.8	11 7	5 37.84	+34 44.7	1.562	2.393	16.1	20.4
11 17	5 24.50	+13 57.0	2.103	3.013	8.8	19.6	11 17	5 31.32	+35 5.1	1.502	2.403	12.3	20.2
11 27	5 17.48	+13 18.5	2.052	3.008	5.7	19.4	11 27	5 21.75	+35 11.3	1.464	2.412	8.4	20.0
12 7	5 9.37	+12 44.9	2.029	3.003	3.4	19.3	12 7	5 10.36	+34 59.6	1.452	2.422	5.2	19.9
12 17	5 1.01	+12 18.4	2.035	2.998	4.6	19.3	12 17	4 58.72	+34 29.7	1.466	2.432	5.7	19.9
12 27	4 53.35	+12 1.2	2.070	2.994	7.7	19.5	12 27	4 48.53	+33 45.3	1.508	2.443	9.1	20.1
1 6	4 47.19	+11 54.1	2.131	2.990	10.9	19.7	1 6	4 41.05	+32 53.2	1.575	2.453	12.9	20.4
1 16	4 43.09	+11 57.1	2.215	2.985	13.7	19.9	1 16	4 36.95	+32 0.0	1.663	2.464	16.2	20.6
<b>167281</b>	2003 <i>UB</i> <sub>169</sub>	12	9.7 348°97	3°6/ 8.6	18		<b>175941</b>	2000 <i>FN</i> <sub>27</sub>	12	9.7 328°41	9°5/10.4	17	
11 7	5 31.86	+18 50.5	1.429	2.287	15.7	19.4	11 7	5 37.12	+41 22.1	1.466	2.286	17.5	19.3
11 17	5 26.83	+17 31.8	1.360	2.282	11.7	19.2	11 17	5 31.96	+42 49.0	1.386	2.268	14.5	19.1
11 27	5 19.11	+16 9.9	1.315	2.278	7.1	18.9	11 27	5 22.81	+44 0.5	1.328	2.251	11.6	18.9
12 7	5 9.75	+14 49.7	1.295	2.274	3.7	18.7	12 7	5 10.72	+44 47.1	1.292	2.234	9.7	18.7
12 17	5 0.09	+13 37.2	1.302	2.271	5.8	18.8	12 17	4 57.48	+45 1.8	1.281	2.219	10.1	18.7
12 27	4 51.59	+12 38.2	1.336	2.268	10.3	19.1	12 27	4 45.45	+44 44.8	1.293	2.204	12.6	18.8
1 6	4 45.40	+11 56.2	1.393	2.267	14.6	19.3	1 6	4 36.58	+44 2.7	1.328	2.190	15.9	19.0
1 16	4 42.17	+11 32.1	1.470	2.266	18.2	19.6	1 16	4 32.07	+43 5.8	1.382	2.178	19.2	19.2
<b>29227</b>	Wegener	12	9.7 254°93	1°5/10.0	18		<b>9361</b>	1992 <i>EM</i> <sub>18</sub>	12	9.7 101°02	2°7/ 9.1	18	
11 7	5 37.12	+26 56.1	1.789	2.625	14.1	18.4	11 7	5 33.80	+17 7.7	1.833	2.674	13.6	18.5
11 17	5 30.66	+27 3.0	1.698	2.608	10.5	18.1	11 17	5 27.66	+16 33.1	1.771	2.684	10.0	18.3
11 27	5 21.42	+27 3.9	1.632	2.591	6.4	17.8	11 27	5 19.36	+16 0.0	1.733	2.693	6.1	18.1
12 7	5 10.29	+26 56.9	1.592	2.574	2.1	17.5	12 7	5 9.82	+15 30.3	1.724	2.703	2.9	17.9
12 17	4 58.55	+26 41.3	1.581	2.556	3.7	17.6	12 17	5 0.12	+15 6.2	1.743	2.712	4.5	18.1
12 27	4 47.67	+26 19.3	1.599	2.538	8.3	17.8	12 27	4 51.42	+14 49.9	1.790	2.721	8.2	18.3
1 6	4 38.94	+25 54.7	1.643	2.519	12.6	18.0	1 6	4 44.63	+14 42.7	1.864	2.730	11.8	18.6
1 16	4 33.20	+25 31.6	1.709	2.500	16.3	18.2	1 16	4 40.32	+14 44.7	1.960	2.739	14.9	18.8
<b>250006</b>	2002 <i>AT</i>	12	9.7 301°77	4°6/10.4	18		<b>376198</b>	2011 <i>CN</i> <sub>81</sub>	12	9.7 291°45	7°9/ 7.9	17	
11 7	5 37.67	+31 44.7	1.250	2.100	18.1	20.0	11 7	5 29.22	- 0 45.9	2.262	3.062	12.8	21.1
11 17	5 32.18	+32 15.2	1.172	2.086	13.9	19.7	11 17	5 24.06	- 1 35.1	2.194	3.058	10.6	20.9
11 27	5 22.79	+32 34.1	1.115	2.071	9.1	19.4	11 27	5 17.22	- 2 10.5	2.149	3.054	8.8	20.8
12 7	5 10.66	+32 36.2	1.081	2.057	5.0	19.2	12 7	5 9.36	- 2 28.2	2.131	3.050	7.9	20.7
12 17	4 57.63	+32 18.5	1.073	2.044	6.1	19.2	12 17	5 1.27	- 2 25.8	2.139	3.047	8.5	20.8
12 27	4 45.95	+31 43.7	1.089	2.030	11.0	19.4	12 27	4 53.81	- 2 3.0	2.174	3.043	10.3	20.9
1 6	4 37.44	+30 59.4	1.128	2.017	16.0	19.7	1 6	4 47.74	- 1 21.8	2.233	3.039	12.4	21.0
1 16	4 33.12	+30 13.5	1.187	2.005	20.4	19.9	1 16	4 43.58	- 0 25.4	2.314	3.035	14.5	21.1
<b>356341</b>	2010 <i>KL</i> <sub>111</sub>	12	9.7 202°70	2°2/10.4	18		<b>486548</b>	2013 <i>HH</i> <sub>41</sub>	12	9.7 209°03	1°5/ 9.3	18	
11 7	5 35.99	+31 4.9	2.260	3.080	12.1	20.7	11 7	5 32.59	+19 58.5	2.120	2.958	12.2	21.8
11 17	5 29.19	+30 53.7	2.177	3.077	9.1	20.5	11 17	5 26.68	+19 27.8	2.043	2.955	8.9	21.6
11 27	5 20.25	+30 33.0	2.119	3.073	5.7	20.3	11 27	5 18.80	+18 55.6	1.991	2.953	5.2	21.4
12 7	5 10.01	+30 1.9	2.090	3.068	2.6	20.1	12 7	5 9.71	+18 23.4	1.968	2.950	1.8	21.1
12 17	4 59.53	+29 21.2	2.091	3.063	3.4	20.2	12 17	5 0.37	+17 53.0	1.974	2.947	3.5	21.3
12 27	4 49.93	+28 33.5	2.122	3.058	6.8	20.4	12 27	4 51.83	+17 26.6	2.010	2.944	7.3	21.5
1 6	4 42.15	+27 43.3	2.181	3.052	10.2	20.6	1 6	4 44.95	+17 6.5	2.073	2.941	10.8	21.7
1 16	4 36.79	+26 54.7	2.265	3.046	13.1	20.8	1 16	4 40.31	+16 54.0	2.159	2.937	13.7	21.9
<b>348639</b>	2005 <i>YN</i> <sub>167</sub>	12	9.7 284°97	4°2/ 9.3	18		<b>451527</b>	2011 <i>WM</i> <sub>11</sub>	12	9.7 222°75	0°1/ 9.8	18	
11 7	5 34.15	+12 36.5	1.594	2.438	15.2	21.2	11 7	5 34.24	+22 45.8	1.913	2.752	13.2	21.7
11 17	5 28.36	+12 23.1	1.522	2.433	11.4	20.9	11 17	5 28.18	+22 54.9	1.837	2.750	9.7	21.5
11 27	5 20.00	+12 17.2	1.473	2.429	7.4	20.7	11 27	5 19.80	+23 2.1	1.786	2.748	5.6	21.2
12 7	5 9.99	+12 20.6	1.450	2.424	4.4	20.5	12 7	5 9.95	+23 6.7	1.762	2.746	1.2	20.9
12 17	4 59.55	+12 34.6	1.454	2.420	5.8	20.6	12 17	4 59.74	+23 8.5	1.768	2.744	3.2	21.1
12 27	4 50.05	+12 59.5	1.486	2.416	9.7	20.8	12 27	4 50.39	+23 8.5	1.803	2.742	7.5	21.3
1 6	4 42.65	+13 34.3	1.543	2.412	13.7	21.0	1 6	4 42.94	+23 8.6	1.864	2.740	11.4	21.5
1 16	4 38.09	+14 17.6	1.620	2.407	17.2	21.3	1 16	4 38.06	+23 10.8	1.948	2.738	14.6	21.8
<b>477840</b>	2011 <i>FX</i> <sub>40</sub>	12	9.7 233°97	3°1/10.3	18		<b>119416</b>	2001 <i>TD</i> <sub>87</sub>	12	9.7 306°37	0°6/ 9.9	18	
11 7	5 38.04	+30 28.1	1.631	2.466	15.3	22.1	11 7	5 34.32	+25 22.8	1.407	2.262	16.2	19.5
11 17	5 31.49	+30 44.8	1.554	2.461	11.5	21.8	11 17	5 29.13	+25 8.1	1.323	2.243	12.0	19.2
11 27	5 21.94	+30 52.0	1.500	2.456	7.3	21.6	11 27	5 20.77	+24 46.4	1.260	2.225	7.1	18.9
12 7	5 10.43	+30 46.6	1.473	2.451	3.6	21.3	12 7	5 10.22	+24 17.0	1.223	2.207	1.7	18.5
12 17	4 58.41	+30 27.6	1.473	2.445	4.6	21.4	12 17	4 58.98	+23 41.2	1.212	2.189	4.1	18.6
12 27	4 47.55	+29 57.8	1.501	2.439	8.8	21.6	12 27	4 48.80	+23 2.8	1.228	2.172	9.7	18.9
1 6	4 39.18	+29 22.2	1.555	2.433	13.0	21.9	1 6	4 41.15	+22 26.8	1.267	2.155	14.7	19.1
1 16	4 34.10	+28 46.4	1.630	2.427	16.7	22.1	1 16	4 36.95	+21 57.7	1.326	2.138	19.0	19.3
<b>139463</b>	2001 <i>OF</i> <sub>85</sub>	12	9.7 51°24	1°2/ 9.5	18		<b>256650</b>	2007 <i>WO</i> <sub>54</sub>	12	9.7 55°35	3°6/10.3	18	
11 7	5 33.15	+20 53.3	1.771	2.617	13.8	19.6	11 7	5 40.53	+29 24.4	1.105	1.961	19.5	20.3
11 17	5 27.36	+20 31.5	1.705	2.621	10.1	19.4	11 17	5 33.84	+29 55.9	1.062	1.981	14.5	20.0
11 27	5 19.27	+20 8.0	1.663	2.626	5.9	19.2	11 27	5 23.37	+30 16.3	1.040	2.001	9.0	19.8
12 7	5 9.80	+19 43.9	1.647	2.631	1.7	18.9	12 7	5 10.72	+30 21.3	1.041	2.021	4.1	19.6
12 17	5 0.11	+19 20.8	1.661	2.636	3.7	19.1	12 17	4 57.97	+30 9.9	1.068	2.042	5.5	19.7
12 27	4 51.42	+19 1.2	1.703	2.641	8.0	19.3	12 27	4 47.23	+29 46.4	1.119	2.062	10.5	20.1
1 6	4 44.72	+18 47.1	1.770	2.646	11.9	19.6	1 6	4 39.96	+29 17.4	1.193	2.084	15.2	20.4
1 16	4 40.62	+18 40.2	1.860	2.651	15.1	19.8	1 16	4 36.76	+28 49.5	1.287	2.105	19.1	20.7
<b>295407</b>	2008 <i>JT</i> <sub>20</sub>	12	9.7 145°39	2°0/ 9.2	18		<b>178355</b>	1996 <i>RZ</i> <sub>9</sub>	12	9.8 150°41	0°1/ 9.8	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>298050</b>	2002 <i>QP</i> <sub>36</sub>	12 9.8 46°76'	1.9°/ 9.5 18				<b>241265</b>	2007 <i>TH</i> <sub>381</sub>	12 9.8 89°07'	0.9°/ 9.9 18			
11 7	5 34.40	+19 5.8	1.448	2.301	15.9	20.2	11 7	5 36.38	+24 24.9	1.762	2.601	14.1	20.8
11 17	5 28.45	+18 51.0	1.402	2.321	11.5	20.0	11 17	5 29.79	+24 43.8	1.701	2.614	10.4	20.6
11 27	5 19.92	+18 37.3	1.378	2.342	6.7	19.8	11 27	5 20.73	+24 59.5	1.665	2.626	6.1	20.4
12 7	5 9.96	+18 25.7	1.381	2.363	2.3	19.5	12 7	5 10.19	+25 10.1	1.655	2.639	1.6	20.1
12 17	4 59.94	+18 17.4	1.410	2.385	4.3	19.7	12 17	4 59.41	+25 15.3	1.675	2.651	3.4	20.3
12 27	4 51.26	+18 14.1	1.467	2.407	8.9	20.0	12 27	4 49.73	+25 16.0	1.724	2.664	7.8	20.6
1 6	4 44.95	+18 17.1	1.548	2.429	13.0	20.3	1 6	4 42.22	+25 14.9	1.799	2.676	11.6	20.8
1 16	4 41.57	+18 26.8	1.651	2.451	16.3	20.6	1 16	4 37.49	+25 14.4	1.896	2.688	14.9	21.1
<b>191426</b>	2003 <i>SR</i> <sub>149</sub>	12 9.8 192°99'	3°5/ 9.1 17				<b>224043</b>	2005 <i>MP</i> <sub>18</sub>	12 9.8 47°83'	3°6/ 9.6 18			
11 7	5 30.83	+11 44.6	2.384	3.212	11.3	19.9	11 7	5 36.76	+14 35.4	1.161	2.021	18.5	19.9
11 17	5 25.20	+11 33.2	2.309	3.211	8.5	19.7	11 17	5 30.57	+14 36.4	1.121	2.042	13.7	19.7
11 27	5 17.89	+11 27.4	2.259	3.210	5.6	19.6	11 27	5 21.30	+14 45.7	1.102	2.064	8.3	19.5
12 7	5 9.53	+11 28.6	2.238	3.209	3.6	19.4	12 7	5 10.30	+15 3.5	1.107	2.087	3.9	19.3
12 17	5 0.94	+11 37.6	2.247	3.208	4.5	19.5	12 17	4 59.24	+15 29.6	1.138	2.110	5.7	19.5
12 27	4 52.98	+11 54.8	2.285	3.207	7.3	19.7	12 27	4 49.83	+16 3.2	1.195	2.134	10.5	19.8
1 6	4 46.39	+12 19.6	2.350	3.205	10.2	19.8	1 6	4 43.26	+16 43.1	1.274	2.158	14.9	20.1
1 16	4 41.72	+12 51.4	2.440	3.204	12.7	20.0	1 16	4 40.11	+17 27.8	1.373	2.182	18.6	20.4
<b>404988</b>	2000 <i>CL</i> <sub>73</sub>	12 9.8 28°08'	0°3/ 9.7 17				<b>187156</b>	2005 <i>RX</i> <sub>5</sub>	12 9.8 144°53'	3°8/ 9.0 18			
11 7	5 31.63	+22 35.9	1.625	2.477	14.5	20.3	11 7	5 36.04	+14 27.5	1.716	2.554	14.5	21.1
11 17	5 26.37	+22 29.0	1.571	2.490	10.5	20.1	11 17	5 29.44	+13 51.9	1.652	2.562	10.8	20.9
11 27	5 18.73	+22 19.8	1.540	2.504	6.1	19.9	11 27	5 20.49	+13 20.2	1.612	2.569	6.9	20.7
12 7	5 9.72	+22 8.3	1.535	2.519	1.3	19.6	12 7	5 10.13	+12 55.1	1.600	2.575	3.9	20.5
12 17	5 0.55	+21 55.6	1.558	2.535	3.5	19.8	12 17	4 59.57	+12 38.7	1.616	2.581	5.4	20.6
12 27	4 52.52	+21 43.7	1.609	2.551	8.0	20.1	12 27	4 50.06	+12 32.8	1.661	2.587	9.1	20.9
1 6	4 46.61	+21 34.8	1.685	2.568	11.9	20.4	1 6	4 42.60	+12 38.0	1.731	2.592	12.8	21.1
1 16	4 43.39	+21 30.6	1.783	2.586	15.2	20.7	1 16	4 37.83	+12 53.7	1.822	2.597	16.0	21.3
<b>278354</b>	2007 <i>JC</i> <sub>24</sub>	12 9.8 103°29'	4°3/ 9.2 18				<b>383522</b>	2007 <i>CX</i> <sub>65</sub>	12 9.8 343°26'	2°5/ 10.1 18			
11 7	5 31.35	+ 7 19.1	2.652	3.465	10.7	21.2	11 7	5 36.74	+27 34.1	1.399	2.249	16.6	21.1
11 17	5 25.27	+ 7 10.4	2.597	3.486	8.3	21.1	11 17	5 30.87	+28 2.3	1.330	2.246	12.4	20.8
11 27	5 17.77	+ 7 9.6	2.568	3.506	5.8	20.9	11 27	5 21.74	+28 24.1	1.283	2.244	7.6	20.5
12 7	5 9.49	+ 7 18.2	2.567	3.526	4.3	20.9	12 7	5 10.47	+28 36.2	1.261	2.242	3.0	20.3
12 17	5 1.13	+ 7 36.4	2.597	3.545	5.0	20.9	12 17	4 58.64	+28 36.9	1.266	2.240	4.6	20.4
12 27	4 53.44	+ 8 4.0	2.656	3.564	7.1	21.1	12 27	4 48.07	+28 27.9	1.297	2.239	9.5	20.6
1 6	4 47.02	+ 8 39.9	2.744	3.583	9.4	21.3	1 6	4 40.22	+28 13.5	1.352	2.238	14.1	20.9
1 16	4 42.33	+ 9 22.6	2.855	3.601	11.5	21.5	1 16	4 35.92	+27 58.6	1.428	2.237	18.0	21.2
<b>341053</b>	2007 <i>HS</i> <sub>2</sub>	12 9.8 176°02'	0°9/ 9.6 18				<b>58703</b>	1998 <i>BH</i> <sub>44</sub>	12 9.8 50°07'	1°5/ 9.6 18			
11 7	5 36.09	+21 2.9	1.988	2.823	13.0	21.8	11 7	5 37.24	+19 34.7	1.245	2.103	17.6	17.6
11 17	5 29.35	+20 49.9	1.914	2.825	9.5	21.6	11 17	5 30.75	+19 34.1	1.207	2.129	12.8	17.4
11 27	5 20.40	+20 35.4	1.865	2.827	5.5	21.4	11 27	5 21.32	+19 34.7	1.191	2.155	7.4	17.2
12 7	5 10.10	+20 19.6	1.845	2.828	1.5	21.1	12 7	5 10.30	+19 36.4	1.199	2.182	2.1	16.9
12 17	4 59.52	+20 3.5	1.854	2.829	3.4	21.2	12 17	4 59.30	+19 39.5	1.234	2.210	4.4	17.2
12 27	4 49.85	+19 49.0	1.893	2.829	7.5	21.5	12 27	4 49.96	+19 45.5	1.295	2.237	9.5	17.5
1 6	4 42.05	+19 38.2	1.959	2.828	11.2	21.7	1 6	4 43.39	+19 55.7	1.380	2.265	13.9	17.9
1 16	4 36.75	+19 32.8	2.048	2.827	14.3	21.9	1 16	4 40.14	+20 10.9	1.486	2.293	17.5	18.2
<b>408626</b>	2014 <i>KP</i> <sub>89</sub>	12 9.8 204°07'	0°9/ 9.6 18				<b>415235</b>	2012 <i>JZ</i> <sub>3</sub>	12 9.8 285°80'	3°4/ 8.8 17			
11 7	5 34.56	+20 4.8	2.253	3.084	11.8	21.7	11 7	5 30.17	+14 15.4	2.226	3.062	11.7	21.6
11 17	5 28.11	+20 4.5	2.170	3.079	8.6	21.5	11 17	5 24.83	+13 35.5	2.151	3.059	8.8	21.4
11 27	5 19.66	+20 4.1	2.113	3.074	5.0	21.3	11 27	5 17.72	+12 58.4	2.101	3.056	5.6	21.2
12 7	5 9.95	+20 3.4	2.085	3.069	1.4	21.0	12 7	5 9.53	+12 26.5	2.079	3.053	3.4	21.0
12 17	4 59.89	+20 2.8	2.088	3.062	3.1	21.1	12 17	5 1.12	+12 1.9	2.087	3.050	4.6	21.1
12 27	4 50.55	+20 3.3	2.121	3.056	6.9	21.4	12 27	4 53.40	+11 46.5	2.124	3.047	7.6	21.3
1 6	4 42.80	+20 6.0	2.181	3.048	10.3	21.6	1 6	4 47.16	+11 41.1	2.187	3.044	10.7	21.5
1 16	4 37.27	+20 12.3	2.266	3.040	13.3	21.8	1 16	4 42.93	+11 45.6	2.273	3.041	13.4	21.7
<b>267855</b>	2003 <i>VR</i> <sub>2</sub>	12 9.8 18°15'	6°1/ 11.3 18				<b>232849</b>	2004 <i>TK</i> <sub>161</sub>	12 9.8 67°53'	1°8/ 9.3 18			
11 7	5 32.11	+35 5.8	0.819	1.697	22.5	19.5	11 7	5 32.04	+19 4.3	2.021	2.861	12.5	20.2
11 17	5 28.63	+35 10.4	0.781	1.707	17.3	19.2	11 17	5 26.24	+18 38.0	1.961	2.875	9.1	20.0
11 27	5 20.70	+34 51.2	0.759	1.719	11.6	19.0	11 27	5 18.51	+18 11.8	1.927	2.888	5.4	19.8
12 7	5 10.18	+34 5.0	0.757	1.733	6.8	18.8	12 7	5 9.69	+17 47.0	1.920	2.902	2.0	19.6
12 17	4 59.57	+32 54.7	0.776	1.749	7.2	18.9	12 17	5 0.76	+17 25.2	1.943	2.915	3.6	19.7
12 27	4 51.33	+31 30.3	0.817	1.768	12.0	19.2	12 27	4 52.74	+17 8.4	1.995	2.929	7.3	20.0
1 6	4 47.02	+30 4.3	0.878	1.788	17.1	19.6	1 6	4 46.45	+16 58.0	2.073	2.943	10.7	20.2
1 16	4 47.11	+28 46.2	0.956	1.810	21.4	19.9	1 16	4 42.41	+16 54.7	2.175	2.957	13.5	20.4
<b>172781</b>	2004 <i>EV</i> <sub>75</sub>	12 9.8 166°02'	2°4/ 9.2 18				<b>296373</b>	2009 <i>FK</i> <sub>43</sub>	12 9.8 258°13'	1°1/ 9.5 17			
11 7	5 32.65	+16 0.9	2.290	3.121	11.6	20.6	11 7	5 29.41	+18 2.8	3.328	4.152	8.5	21.4
11 17	5 26.56	+15 44.1	2.217	3.125	8.5	20.4	11 17	5 23.94	+18 8.0	3.225	4.130	6.2	21.2
11 27	5 18.68	+15 29.6	2.170	3.128	5.2	20.2	11 27	5 17.11	+18 14.4	3.149	4.108	3.7	21.0
12 7	5 9.72	+15 18.6	2.152	3.131	2.5	20.0	12 7	5 9.41	+18 22.0	3.104	4.085	1.3	20.8
12 17	5 0.54	+15 12.2	2.164	3.133	3.8	20.1	12 17	5 1.41	+18 31.0	3.090	4.063	2.4	20.9
12 27	4 52.09	+15 11.3	2.206	3.135	7.0	20.3	12 27	4 53.75	+18 41.7	3.108	4.039	5.1	21.0
1 6	4 45.15	+15 16.7	2.276	3.137	10.2	20.5	1 6	4 47.05	+18 54.6	3.155	4.016	7.7	21.2
1 16	4 40.27	+15 28.4	2.369	3.138	12.9	20.7	1 16	4 41.78	+19 10.0	3.228	3.992	9.9	21.3
<b>26985</b>	1997 <i>VP</i> <sub>3</sub>	12 9.8 216°82'	2°0/ 8.9 18				<b>407715</b>	2011 <i>UD</i> <sub>268</sub>	12 9.8 343°15'	9°1/ 6.2 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>372903</b>	2011 AB <sub>53</sub>	12	9.8 246°91	5°3/11.2	18		<b>328768</b>	2009 UV <sub>106</sub>	12	9.8 263°11	1°8/ 9.9	17	
11 7	5 36.27	+40 48.5	2.634	3.421	11.5	21.5	11 7	5 33.85	+26 58.7	2.235	3.065	11.9	21.0
11 17	5 29.53	+41 13.6	2.542	3.408	9.3	21.3	11 17	5 27.77	+27 33.5	2.157	3.063	8.8	20.8
11 27	5 20.58	+41 26.1	2.474	3.394	7.0	21.1	11 27	5 19.57	+28 4.7	2.104	3.062	5.4	20.6
12 7	5 10.19	+41 22.7	2.434	3.380	5.5	21.0	12 7	5 10.00	+28 29.8	2.080	3.060	2.2	20.4
12 17	4 59.40	+41 2.0	2.422	3.366	5.6	21.0	12 17	5 0.05	+28 47.6	2.085	3.059	3.3	20.4
12 27	4 49.39	+40 25.6	2.440	3.351	7.4	21.1	12 27	4 50.82	+28 58.3	2.121	3.057	6.8	20.7
1 6	4 41.14	+39 37.3	2.485	3.336	9.8	21.2	1 6	4 43.26	+29 3.7	2.184	3.056	10.1	20.9
1 16	4 35.33	+38 42.5	2.555	3.321	12.2	21.4	1 16	4 38.05	+29 6.4	2.271	3.054	13.0	21.1
<b>372761</b>	2010 CV <sub>69</sub>	12	9.8 34°92	3°8/ 9.2	18		<b>13631</b>	1995 WL <sub>5</sub>	12	9.8 46°87	0°2/ 9.7	18	
11 7	5 30.31	+11 27.7	2.091	2.926	12.4	20.5	11 7	5 36.70	+25 19.7	1.225	2.083	17.8	18.1
11 17	5 24.98	+11 16.9	2.027	2.932	9.3	20.3	11 17	5 30.61	+24 38.2	1.175	2.097	13.0	17.8
11 27	5 17.82	+11 12.9	1.987	2.939	6.2	20.1	11 27	5 21.37	+23 48.6	1.146	2.112	7.5	17.6
12 7	5 9.56	+11 17.1	1.974	2.945	3.9	20.0	12 7	5 10.37	+22 52.7	1.143	2.127	1.6	17.2
12 17	5 1.10	+11 30.4	1.990	2.952	4.9	20.1	12 17	4 59.31	+21 54.5	1.165	2.142	4.3	17.5
12 27	4 53.39	+11 52.8	2.035	2.960	7.9	20.3	12 27	4 49.94	+20 59.9	1.214	2.158	9.7	17.8
1 6	4 47.24	+12 23.5	2.107	2.967	10.9	20.5	1 6	4 43.47	+20 14.0	1.286	2.175	14.5	18.1
1 16	4 43.19	+13 1.3	2.201	2.975	13.6	20.7	1 16	4 40.46	+19 40.1	1.379	2.191	18.4	18.4
<b>323691</b>	2005 GH <sub>84</sub>	12	9.8 163°80	2°5/ 9.2	18		<b>451762</b>	2013 FA <sub>7</sub>	12	9.8 140°85	3°5/ 9.0	18	
11 7	5 37.71	+16 50.8	1.965	2.795	13.3	22.6	11 7	5 32.27	+13 50.0	1.998	2.834	12.8	21.3
11 17	5 30.46	+16 26.3	1.896	2.803	9.8	22.4	11 17	5 26.51	+13 22.6	1.929	2.837	9.6	21.1
11 27	5 21.02	+16 3.3	1.851	2.809	5.9	22.1	11 27	5 18.76	+12 59.6	1.884	2.839	6.1	20.9
12 7	5 10.27	+15 43.2	1.836	2.815	2.7	22.0	12 7	5 9.81	+12 42.7	1.867	2.841	3.6	20.8
12 17	4 59.31	+15 27.5	1.850	2.820	4.2	22.1	12 17	5 0.61	+12 33.9	1.879	2.843	4.9	20.9
12 27	4 49.31	+15 18.1	1.895	2.824	8.0	22.3	12 27	4 52.23	+12 34.1	1.919	2.845	8.1	21.1
1 6	4 41.20	+15 16.0	1.966	2.827	11.6	22.5	1 6	4 45.54	+12 43.9	1.986	2.847	11.5	21.3
1 16	4 35.59	+15 21.8	2.061	2.829	14.6	22.7	1 16	4 41.10	+13 2.5	2.075	2.849	14.4	21.5
<b>48332</b>	2002 OK <sub>3</sub>	12	9.8 162°69	1°3/10.1	18		<b>139028</b>	Haynald	12	9.8 297°00	2°9/10.0	18	
11 7	5 35.53	+28 12.1	1.914	2.748	13.4	19.0	11 7	5 37.83	+27 29.1	1.372	2.221	16.8	20.0
11 17	5 29.08	+27 50.6	1.840	2.749	9.9	18.8	11 17	5 31.91	+28 9.7	1.297	2.212	12.7	19.7
11 27	5 20.30	+27 20.7	1.791	2.751	5.9	18.5	11 27	5 22.51	+28 45.2	1.244	2.204	7.8	19.4
12 7	5 10.12	+26 42.1	1.769	2.752	1.9	18.3	12 7	5 10.72	+29 11.3	1.216	2.196	3.3	19.2
12 17	4 59.72	+25 56.4	1.777	2.753	3.3	18.4	12 17	4 58.16	+29 24.8	1.214	2.188	4.9	19.2
12 27	4 50.36	+25 7.2	1.815	2.754	7.4	18.6	12 27	4 46.78	+29 26.6	1.239	2.181	9.9	19.5
1 6	4 43.04	+24 19.0	1.879	2.755	11.2	18.9	1 6	4 38.20	+29 20.6	1.288	2.173	14.7	19.8
1 16	4 38.37	+23 35.7	1.966	2.756	14.5	19.1	1 16	4 33.37	+29 12.0	1.357	2.166	18.8	20.0
<b>253288</b>	2003 BA <sub>39</sub>	12	9.8 224°80	0°9/ 9.9	18		<b>184418</b>	2005 MY <sub>46</sub>	12	9.8 119°13	4°2/ 8.9	18	
11 7	5 33.92	+26 4.6	2.013	2.848	12.8	21.1	11 7	5 36.56	+13 45.5	1.649	2.488	15.0	20.6
11 17	5 27.90	+26 2.4	1.936	2.846	9.4	20.9	11 17	5 29.82	+13 6.7	1.592	2.501	11.2	20.4
11 27	5 19.64	+25 55.0	1.883	2.844	5.6	20.7	11 27	5 20.71	+12 32.9	1.559	2.514	7.2	20.2
12 7	5 9.99	+25 41.6	1.859	2.842	1.6	20.4	12 7	5 10.23	+12 6.9	1.553	2.526	4.3	20.1
12 17	5 0.04	+25 22.8	1.864	2.839	3.2	20.5	12 17	4 59.60	+11 51.0	1.575	2.538	5.7	20.2
12 27	4 50.96	+25 0.5	1.898	2.837	7.2	20.8	12 27	4 50.12	+11 46.8	1.625	2.550	9.4	20.4
1 6	4 43.74	+24 37.8	1.959	2.835	10.9	21.0	1 6	4 42.79	+11 54.5	1.700	2.561	13.1	20.7
1 16	4 39.01	+24 17.6	2.043	2.832	14.0	21.2	1 16	4 38.18	+12 13.2	1.797	2.571	16.2	20.9
<b>326553</b>	2002 PJ <sub>101</sub>	12	9.8 119°43	0°3/ 9.9	18		<b>234147</b>	2000 FP	12	9.8 292°49	1°5/10.1	18	
11 7	5 32.41	+25 34.3	2.549	3.376	10.7	21.0	11 7	5 32.07	+27 23.2	2.225	3.058	11.8	21.1
11 17	5 26.24	+25 10.4	2.480	3.388	7.8	20.9	11 17	5 26.52	+27 30.3	2.136	3.044	8.8	20.9
11 27	5 18.43	+24 41.7	2.439	3.399	4.5	20.7	11 27	5 18.86	+27 32.2	2.072	3.031	5.3	20.6
12 7	5 9.70	+24 8.8	2.426	3.410	1.1	20.4	12 7	5 9.85	+27 27.7	2.036	3.018	1.9	20.4
12 17	5 0.88	+23 33.0	2.445	3.420	2.5	20.6	12 17	5 0.44	+27 16.6	2.030	3.004	3.1	20.4
12 27	4 52.84	+22 56.5	2.494	3.431	5.9	20.8	12 27	4 51.72	+27 0.3	2.053	2.991	6.8	20.6
1 6	4 46.28	+22 22.0	2.572	3.441	8.9	21.0	1 6	4 44.63	+26 41.5	2.103	2.978	10.3	20.8
1 16	4 41.68	+21 51.7	2.674	3.451	11.4	21.2	1 16	4 39.84	+26 23.1	2.177	2.965	13.3	21.0
<b>172060</b>	2001 XR <sub>208</sub>	12	9.8 240°60	1°1/ 9.3	18		<b>489221</b>	2006 KT <sub>58</sub>	12	9.8 131°77	4°1/ 9.0	17	
11 7	5 29.81	+21 8.2	2.778	3.609	9.8	20.1	11 7	5 29.94	+ 9 17.6	2.482	3.305	11.1	22.1
11 17	5 24.32	+20 28.0	2.693	3.603	7.1	20.0	11 17	5 24.49	+ 9 1.0	2.412	3.309	8.5	21.9
11 27	5 17.34	+19 45.2	2.636	3.597	4.2	19.8	11 27	5 17.47	+ 8 51.4	2.368	3.312	5.8	21.7
12 7	5 9.47	+19 1.4	2.608	3.591	1.3	19.5	12 7	5 9.52	+ 8 50.4	2.352	3.316	4.2	21.6
12 17	5 1.44	+18 18.3	2.612	3.585	2.8	19.6	12 17	5 1.37	+ 8 58.9	2.365	3.319	5.0	21.7
12 27	4 54.00	+17 38.2	2.646	3.578	5.8	19.8	12 27	4 53.85	+ 9 17.3	2.408	3.322	7.4	21.8
1 6	4 47.80	+17 3.3	2.709	3.572	8.7	20.0	1 6	4 47.63	+ 9 44.8	2.478	3.325	10.0	22.0
1 16	4 43.31	+16 35.0	2.796	3.565	11.2	20.2	1 16	4 43.21	+10 20.2	2.571	3.328	12.3	22.2
<b>142879</b>	2002 VX <sub>38</sub>	12	9.8 21°75	2°1/ 9.7	18		<b>330949</b>	2009 SG <sub>284</sub>	12	9.8 331°10	0°4/ 9.8	17	
11 7	5 35.48	+16 58.7	1.262	2.121	17.4	19.2	11 7	5 31.91	+22 45.1	1.799	2.646	13.6	20.5
11 17	5 29.88	+17 15.5	1.202	2.124	12.9	18.9	11 17	5 26.77	+23 5.8	1.718	2.635	10.0	20.2
11 27	5 21.13	+17 38.2	1.164	2.128	7.7	18.6	11 27	5 19.17	+23 25.7	1.660	2.624	5.9	20.0
12 7	5 10.36	+18 6.0	1.150	2.132	2.7	18.3	12 7	5 9.95	+23 43.5	1.629	2.613	1.4	19.6
12 17	4 59.15	+18 37.9	1.162	2.137	4.8	18.5	12 17	5 0.21	+23 58.3	1.627	2.604	3.4	19.8
12 27	4 49.24	+19 13.1	1.201	2.143	10.0	18.8	12 27	4 51.27	+24 10.5	1.653	2.594	7.8	20.0
1 6	4 42.00	+19 51.4	1.262	2.149	14.8	19.1	1 6	4 44.24	+24 21.5	1.704	2.586	11.9	20.2
1 16	4 38.22	+20 32.5	1.344	2.156	18.8	19.4	1 16	4 39.89	+24 33.2	1.778	2.578	15.4	20.5
<b>263363</b>	2008 CM <sub>157</sub>	12	9.8 350°13	0°3/ 9.8	18		<b>517279</b>	2014 GO <sub>22</sub>	12	9.8 203°05	0°1/ 9.8	18	
11 7	5 34.17	+25 15.8	1.123	1.991	18.4	20.4	11 7	5 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>359872</b>	2011 WL <sub>10</sub>	12 9.8 107°83	1.7/ 9.3 18				<b>300433</b>	2007 TX <sub>21</sub>	12 9.8 357°60	3.2/ 8.9 18			
11 7	5 33.67	+19 54.3	1.883	2.724	13.3	21.5	11 7	5 31.16	+19 27.2	1.353	2.216	16.2	18.9
11 17	5 27.63	+19 20.0	1.815	2.729	9.7	21.3	11 17	5 26.51	+18 19.8	1.288	2.212	12.0	18.6
11 27	5 19.43	+18 44.5	1.773	2.735	5.7	21.1	11 27	5 19.08	+17 9.6	1.245	2.210	7.2	18.3
12 7	5 9.96	+18 9.3	1.758	2.740	2.0	20.9	12 7	5 9.94	+16 0.9	1.228	2.208	3.3	18.1
12 17	5 0.30	+17 36.6	1.773	2.746	3.8	21.0	12 17	5 0.51	+14 59.0	1.236	2.208	5.5	18.2
12 27	4 51.61	+17 9.2	1.816	2.751	7.8	21.2	12 27	4 52.28	+14 9.2	1.271	2.208	10.2	18.5
1 6	4 44.80	+16 49.2	1.886	2.756	11.5	21.5	1 6	4 46.43	+13 34.8	1.329	2.210	14.7	18.8
1 16	4 40.45	+16 37.9	1.978	2.761	14.6	21.7	1 16	4 43.64	+13 16.7	1.407	2.212	18.4	19.0
<b>62536</b>	2000 SZ <sub>257</sub>	12 9.8 31°65	1.0/ 9.9 18				<b>473504</b>	2015 XL <sub>134</sub>	12 9.8 117°42	0.1/ 9.8 18			
11 7	5 33.22	+25 46.3	1.768	2.611	13.9	19.4	11 7	5 33.46	+22 54.4	2.096	2.932	12.3	21.9
11 17	5 27.55	+25 46.8	1.702	2.617	10.2	19.2	11 17	5 27.42	+22 58.4	2.025	2.937	9.0	21.7
11 27	5 19.49	+25 42.3	1.661	2.623	6.0	19.0	11 27	5 19.33	+23 0.3	1.980	2.942	5.2	21.5
12 7	5 9.99	+25 31.8	1.647	2.630	1.7	18.7	12 7	5 9.98	+22 59.5	1.963	2.947	1.2	21.2
12 17	5 0.24	+25 16.0	1.660	2.637	3.4	18.8	12 17	5 0.39	+22 56.3	1.975	2.952	3.0	21.3
12 27	4 51.53	+24 56.9	1.703	2.644	7.7	19.1	12 27	4 51.62	+22 51.8	2.017	2.956	6.9	21.6
1 6	4 44.88	+24 37.7	1.770	2.652	11.6	19.4	1 6	4 44.60	+22 48.0	2.087	2.961	10.4	21.8
1 16	4 40.93	+24 21.4	1.861	2.660	14.8	19.6	1 16	4 39.90	+22 46.5	2.179	2.965	13.4	22.0
<b>401598</b>	2013 GL <sub>22</sub>	12 9.8 176°25	4.3/10.6 18				<b>71063</b>	1999 XH <sub>101</sub>	12 9.8 168°49	0.7/ 9.7 18			
11 7	5 36.93	+34 45.9	2.209	3.022	12.6	21.4	11 7	5 32.44	+19 40.0	2.392	3.224	11.1	18.6
11 17	5 30.17	+35 23.5	2.133	3.023	9.8	21.2	11 17	5 26.49	+19 53.9	2.316	3.225	8.1	18.4
11 27	5 21.02	+35 51.2	2.082	3.024	6.7	21.0	11 27	5 18.74	+20 8.7	2.265	3.226	4.7	18.2
12 7	5 10.34	+36 5.7	2.059	3.024	4.5	20.9	12 7	5 9.86	+20 23.9	2.244	3.227	1.2	18.0
12 17	4 59.29	+36 5.1	2.065	3.025	4.9	20.9	12 17	5 0.70	+20 39.1	2.253	3.228	2.8	18.1
12 27	4 49.11	+35 50.9	2.100	3.025	7.6	21.1	12 27	4 52.20	+20 54.7	2.293	3.229	6.3	18.3
1 6	4 40.89	+35 26.7	2.161	3.025	10.6	21.2	1 6	4 45.16	+21 11.1	2.360	3.230	9.5	18.5
1 16	4 35.30	+34 57.3	2.247	3.024	13.3	21.4	1 16	4 40.15	+21 29.3	2.452	3.230	12.3	18.7
<b>218855</b>	2006 VC <sub>94</sub>	12 9.8 6°47	0.4/ 9.8 18				<b>460227</b>	2014 QT <sub>218</sub>	12 9.8 74°99	0.9/ 9.6 16			
11 7	5 33.66	+24 25.9	1.116	1.985	18.4	19.8	11 7	5 32.72	+21 21.9	2.043	2.882	12.5	21.9
11 17	5 28.94	+24 16.3	1.058	1.985	13.6	19.5	11 17	5 26.78	+21 1.6	1.982	2.895	9.1	21.7
11 27	5 20.74	+24 1.1	1.019	1.986	7.9	19.2	11 27	5 18.88	+20 39.5	1.946	2.909	5.3	21.5
12 7	5 10.32	+23 39.8	1.004	1.988	1.8	18.8	12 7	5 9.87	+20 16.5	1.938	2.922	1.4	21.3
12 17	4 59.47	+23 14.0	1.013	1.991	4.5	19.0	12 17	5 0.74	+19 54.0	1.960	2.935	3.2	21.4
12 27	4 50.16	+22 47.5	1.047	1.994	10.4	19.4	12 27	4 52.53	+19 34.0	2.011	2.948	7.0	21.7
1 6	4 43.86	+22 25.1	1.102	1.999	15.6	19.7	1 6	4 46.07	+19 18.5	2.089	2.962	10.5	21.9
1 16	4 41.33	+22 10.0	1.177	2.005	19.9	20.0	1 16	4 41.88	+19 8.9	2.190	2.975	13.4	22.1
<b>233620</b>	2007 TL <sub>221</sub>	12 9.8 196°70	1.0/ 9.5 18				<b>407666</b>	2011 SL <sub>183</sub>	12 9.8 348°02	5.6/10.4 18			
11 7	5 30.37	+19 45.4	2.609	3.441	10.3	21.5	11 7	5 36.78	+34 27.7	1.599	2.430	15.7	20.3
11 17	5 24.84	+19 36.5	2.530	3.440	7.5	21.3	11 17	5 30.90	+35 24.7	1.527	2.427	12.2	20.1
11 27	5 17.71	+19 27.4	2.478	3.438	4.4	21.1	11 27	5 21.82	+36 10.7	1.479	2.424	8.6	19.9
12 7	5 9.60	+19 18.5	2.454	3.437	1.4	20.9	12 7	5 10.60	+36 40.2	1.455	2.421	5.8	19.7
12 17	5 1.28	+19 10.6	2.461	3.435	2.8	21.0	12 17	4 58.76	+36 49.6	1.458	2.419	6.5	19.7
12 27	4 53.55	+19 4.7	2.499	3.433	6.0	21.2	12 27	4 48.07	+36 40.1	1.488	2.417	9.7	19.9
1 6	4 47.14	+19 1.9	2.564	3.431	9.0	21.4	1 6	4 39.99	+36 16.9	1.542	2.416	13.4	20.1
1 16	4 42.54	+19 3.1	2.654	3.429	11.5	21.6	1 16	4 35.38	+35 46.3	1.617	2.415	16.7	20.4
<b>71244</b>	2000 AM <sub>9</sub>	12 9.8 59°71	0.3/ 9.8 18				<b>220195</b>	2002 VF <sub>20</sub>	12 9.8 341°78	3.2/ 9.1 18			
11 7	5 37.67	+19 16.7	1.580	2.423	15.3	18.4	11 7	5 33.66	+18 22.7	1.303	2.163	16.8	19.6
11 17	5 30.95	+20 5.4	1.523	2.438	11.2	18.1	11 17	5 28.50	+17 34.2	1.236	2.159	12.5	19.4
11 27	5 21.54	+20 57.2	1.491	2.454	6.5	17.9	11 27	5 20.32	+16 45.1	1.191	2.155	7.6	19.1
12 7	5 10.47	+21 49.1	1.486	2.470	1.5	17.6	12 7	5 10.24	+15 58.8	1.170	2.151	3.4	18.8
12 17	4 59.10	+22 38.5	1.509	2.485	3.6	17.8	12 17	4 59.75	+15 19.3	1.176	2.148	5.6	19.0
12 27	4 48.90	+23 23.9	1.561	2.502	8.4	18.1	12 27	4 50.49	+14 50.7	1.207	2.145	10.5	19.2
1 6	4 41.03	+24 5.7	1.639	2.518	12.5	18.4	1 6	4 43.77	+14 35.6	1.261	2.143	15.2	19.5
1 16	4 36.17	+24 44.9	1.740	2.534	15.9	18.7	1 16	4 40.35	+14 34.3	1.335	2.141	19.2	19.8
<b>297534</b>	2001 HO <sub>38</sub>	12 9.8 48°86	5.5/ 8.6 18				<b>32050</b>	2000 JA <sub>37</sub>	12 9.8 278°67	2.8/10.1 18			
11 7	5 34.42	+12 55.9	1.419	2.269	16.3	19.6	11 7	5 37.50	+28 9.3	1.557	2.398	15.6	18.3
11 17	5 28.29	+11 43.8	1.383	2.296	12.2	19.4	11 17	5 31.40	+28 45.4	1.476	2.388	11.7	18.0
11 27	5 19.77	+10 39.0	1.369	2.323	8.1	19.3	11 27	5 22.13	+29 16.0	1.418	2.377	7.3	17.8
12 7	5 10.03	+9 46.2	1.381	2.350	5.5	19.2	12 7	5 10.69	+29 37.1	1.386	2.366	3.3	17.5
12 17	5 0.38	+9 9.4	1.420	2.378	6.9	19.4	12 17	4 58.52	+29 46.2	1.381	2.355	4.6	17.6
12 27	4 52.13	+8 50.7	1.485	2.406	10.4	19.6	12 27	4 47.37	+29 44.1	1.404	2.344	9.2	17.8
1 6	4 46.19	+8 49.5	1.573	2.435	13.9	19.9	1 6	4 38.71	+29 34.7	1.452	2.332	13.6	18.0
1 16	4 43.04	+9 3.5	1.683	2.463	16.9	20.2	1 16	4 33.45	+29 22.6	1.521	2.322	17.5	18.3
<b>82113</b>	2001 FG <sub>61</sub>	12 9.8 207°53	0.4/ 9.9 18				<b>451685</b>	2013 BK <sub>66</sub>	12 9.8 253°68	2.1/ 9.4 18			
11 7	5 31.97	+24 15.6	2.761	3.587	10.0	21.1	11 7	5 33.75	+17 10.4	2.029	2.865	12.7	21.7
11 17	5 26.00	+24 17.9	2.675	3.582	7.3	20.9	11 17	5 27.81	+17 2.7	1.941	2.852	9.4	21.4
11 27	5 18.39	+24 17.6	2.616	3.576	4.3	20.7	11 27	5 19.68	+16 57.1	1.878	2.838	5.7	21.2
12 7	5 9.77	+24 14.0	2.587	3.570	1.0	20.5	12 7	5 10.10	+16 54.3	1.843	2.823	2.3	20.9
12 17	5 0.88	+24 7.4	2.588	3.564	2.4	20.6	12 17	5 0.07	+16 55.1	1.837	2.809	3.9	21.0
12 27	4 52.57	+23 58.7	2.621	3.557	5.6	20.8	12 27	4 50.73	+17 0.5	1.861	2.794	7.8	21.2
1 6	4 45.56	+23 49.7	2.682	3.550	8.6	21.0	1 6	4 43.06	+17 11.2	1.911	2.779	11.5	21.4
1 16	4 40.38	+23 41.9	2.768	3.543	11.1	21.1	1 16	4 37.77	+17 27.9	1.984	2.763	14.7	21.6
<b>319366</b>	2006 DU <sub>54</sub>	12 9.8 133°81	1.3/ 9.5 18				<b>321545</b>	2009 SY <sub>277</sub>	12 9.8 240°14	3.9/10.4 18			
11 7	5 35.46	+20 2.7	1.847	2.686	13.6	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>155877</b>	2001 <i>DF</i> <sub>106</sub>	12 9.8 158°34'	0°3'/ 9.9 18				<b>240152</b>	2002 <i>NX</i> <sub>16</sub>	12 9.8 191°92'	2°2'/ 9.5 18			
11 7	5 32.14	+24 21.8	2.673	3.500	10.2	20.6	11 7	5 34.99	+15 40.2	2.183	3.012	12.2	20.8
11 17	5 26.10	+24 19.7	2.598	3.505	7.5	20.4	11 17	5 28.49	+15 42.6	2.104	3.010	9.0	20.6
11 27	5 18.43	+24 14.6	2.549	3.509	4.4	20.2	11 27	5 19.97	+15 48.5	2.051	3.008	5.5	20.4
12 7	5 9.79	+24 6.2	2.530	3.514	1.0	20.0	12 7	5 10.19	+15 58.4	2.027	3.006	2.5	20.2
12 17	5 0.97	+23 54.8	2.542	3.518	2.4	20.1	12 17	5 0.09	+16 12.4	2.033	3.003	3.8	20.3
12 27	4 52.81	+23 41.8	2.585	3.522	5.7	20.4	12 27	4 50.69	+16 30.7	2.069	2.999	7.3	20.5
1 6	4 46.02	+23 28.8	2.656	3.525	8.6	20.5	1 6	4 42.91	+16 53.5	2.132	2.995	10.7	20.7
1 16	4 41.10	+23 17.8	2.752	3.528	11.1	20.7	1 16	4 37.35	+17 20.8	2.220	2.991	13.6	20.9
<b>201690</b>	2003 <i>UO</i> <sub>119</sub>	12 9.8 247°37'	4°6'/10.7 18				<b>308965</b>	2006 <i>TG</i> <sub>67</sub>	12 9.8 350°31'	1°8'/ 9.2 18			
11 7	5 35.23	+36 30.2	2.340	3.148	12.1	20.0	11 7	5 32.00	+22 55.4	1.459	2.317	15.6	19.5
11 17	5 28.92	+37 7.1	2.260	3.145	9.5	19.8	11 17	5 27.04	+21 44.1	1.388	2.310	11.4	19.2
11 27	5 20.31	+37 33.6	2.205	3.141	6.8	19.6	11 27	5 19.38	+20 25.2	1.340	2.305	6.7	19.0
12 7	5 10.24	+37 46.4	2.178	3.138	4.8	19.5	12 7	5 10.07	+19 2.5	1.318	2.301	2.1	18.7
12 17	4 59.77	+37 43.9	2.179	3.134	5.2	19.5	12 17	5 0.48	+17 41.3	1.323	2.297	4.6	18.8
12 27	4 50.11	+37 27.2	2.209	3.131	7.5	19.6	12 27	4 52.05	+16 28.3	1.355	2.294	9.5	19.1
1 6	4 42.28	+36 59.8	2.267	3.127	10.2	19.8	1 6	4 45.94	+15 28.4	1.411	2.293	13.9	19.3
1 16	4 36.97	+36 26.6	2.347	3.124	12.8	20.0	1 16	4 42.80	+14 44.5	1.489	2.292	17.7	19.6
<b>488635</b>	2002 <i>VH</i> <sub>90</sub>	12 9.8 33°90'	4°9'/ 8.8 16				<b>142889</b>	2002 <i>VC</i> <sub>45</sub>	12 9.8 337°63'	2°8'/10.2 18			
11 7	5 33.91	+16 46.3	1.007	1.880	19.6	20.2	11 7	5 34.35	+28 39.7	1.604	2.448	15.1	19.8
11 17	5 28.74	+15 32.7	0.971	1.899	14.4	19.9	11 17	5 28.92	+29 7.6	1.529	2.441	11.3	19.6
11 27	5 20.35	+14 23.1	0.955	1.919	9.0	19.7	11 27	5 20.60	+29 28.8	1.476	2.435	7.0	19.3
12 7	5 10.21	+13 23.4	0.962	1.940	5.0	19.6	12 7	5 10.38	+29 40.3	1.450	2.429	3.2	19.1
12 17	5 0.13	+12 39.2	0.993	1.962	7.0	19.8	12 17	4 59.62	+29 40.7	1.451	2.424	4.4	19.1
12 27	4 51.86	+12 14.0	1.048	1.985	11.8	20.1	12 27	4 49.90	+29 31.2	1.479	2.419	8.7	19.4
1 6	4 46.58	+12 8.1	1.124	2.009	16.4	20.4	1 6	4 42.52	+29 15.8	1.532	2.415	12.9	19.6
1 16	4 44.78	+12 19.2	1.218	2.034	20.1	20.8	1 16	4 38.28	+28 58.8	1.606	2.412	16.5	19.8
<b>419289</b>	2009 <i>WD</i> <sub>31</sub>	12 9.8 17°52'	0°5'/ 9.7 16				<b>138934</b>	2001 <i>BW</i> <sub>8</sub>	12 9.8 311°38'	2°7'/ 9.6 18			
11 7	5 31.30	+21 30.3	1.777	2.625	13.6	21.2	11 7	5 35.35	+16 44.5	1.303	2.159	17.1	19.9
11 17	5 26.12	+21 30.0	1.712	2.630	10.0	21.0	11 17	5 29.94	+16 44.3	1.230	2.151	12.7	19.6
11 27	5 18.69	+21 28.7	1.671	2.635	5.8	20.8	11 27	5 21.34	+16 49.1	1.179	2.142	7.7	19.3
12 7	5 9.87	+21 26.4	1.657	2.641	1.3	20.5	12 7	5 10.57	+16 59.7	1.152	2.133	3.1	19.0
12 17	5 0.80	+21 23.5	1.672	2.648	3.4	20.7	12 17	4 59.14	+17 16.2	1.151	2.125	5.1	19.1
12 27	4 52.67	+21 21.3	1.714	2.655	7.7	20.9	12 27	4 48.82	+17 39.1	1.177	2.118	10.4	19.3
1 6	4 46.47	+21 21.6	1.782	2.663	11.5	21.2	1 6	4 41.08	+18 8.4	1.225	2.110	15.3	19.6
1 16	4 42.82	+21 25.6	1.872	2.671	14.7	21.4	1 16	4 36.80	+18 44.1	1.294	2.103	19.5	19.9
<b>456194</b>	2006 <i>HB</i> <sub>118</sub>	12 9.8 261°39'	2°0'/ 9.6 18				<b>378111</b>	2006 <i>UQ</i> <sub>237</sub>	12 9.8 111°18'	0°9'/ 9.9 18			
11 7	5 32.26	+15 15.7	2.529	3.356	10.8	21.3	11 7	5 39.89	+24 38.8	1.540	2.381	15.7	21.7
11 17	5 26.39	+15 30.2	2.435	3.340	8.0	21.1	11 17	5 32.66	+24 52.8	1.482	2.395	11.6	21.5
11 27	5 18.74	+15 48.9	2.367	3.324	4.9	20.9	11 27	5 22.58	+25 2.5	1.448	2.409	6.8	21.2
12 7	5 9.90	+16 11.8	2.328	3.308	2.2	20.7	12 7	5 10.78	+25 6.1	1.440	2.423	1.8	20.9
12 17	5 0.66	+16 38.5	2.321	3.292	3.3	20.7	12 17	4 58.75	+25 3.3	1.460	2.436	3.8	21.1
12 27	4 51.91	+17 8.9	2.344	3.275	6.6	20.9	12 27	4 48.08	+24 55.9	1.509	2.449	8.6	21.4
1 6	4 44.45	+17 42.6	2.395	3.258	9.7	21.1	1 6	4 39.94	+24 47.2	1.583	2.461	12.8	21.7
1 16	4 38.88	+18 19.5	2.471	3.241	12.4	21.3	1 16	4 35.02	+24 40.6	1.679	2.473	16.4	22.0
<b>320959</b>	2008 <i>HP</i> <sub>21</sub>	12 9.8 293°69'	2°0'/ 9.4 17				<b>265510</b>	2005 <i>JE</i> <sub>160</sub>	12 9.8 78°17'	3°1'/10.2 18			
11 7	5 32.22	+17 51.3	1.898	2.741	13.1	21.3	11 7	5 41.77	+28 43.0	1.386	2.227	17.2	20.7
11 17	5 26.81	+17 38.9	1.815	2.729	9.7	21.1	11 17	5 34.28	+29 20.5	1.339	2.250	12.7	20.4
11 27	5 19.14	+17 28.0	1.755	2.717	5.8	20.9	11 27	5 23.57	+29 49.4	1.314	2.272	7.9	20.2
12 7	5 10.01	+17 19.5	1.723	2.705	2.3	20.6	12 7	5 11.00	+30 5.6	1.315	2.295	3.6	20.0
12 17	5 0.44	+17 14.5	1.720	2.693	4.0	20.7	12 17	4 58.28	+30 7.7	1.344	2.317	4.8	20.2
12 27	4 51.62	+17 14.3	1.745	2.681	8.0	20.9	12 27	4 47.23	+29 58.1	1.399	2.338	9.2	20.5
1 6	4 44.57	+17 20.1	1.796	2.669	11.9	21.1	1 6	4 39.13	+29 41.9	1.480	2.360	13.5	20.8
1 16	4 39.98	+17 32.5	1.870	2.658	15.2	21.3	1 16	4 34.61	+29 24.5	1.581	2.381	17.0	21.1
<b>35159</b>	1993 <i>LH</i> <sub>1</sub>	12 9.8 15°21'	7°9'/12.4 18				<b>216902</b>	2009 <i>HA</i> <sub>92</sub>	12 9.8 185°99'	1°2'/ 9.5 18			
11 7	5 39.30	+42 50.8	1.503	2.313	17.6	18.1	11 7	5 38.29	+21 21.3	1.571	2.414	15.4	20.9
11 17	5 32.88	+43 4.7	1.438	2.316	14.3	17.9	11 17	5 31.52	+20 56.8	1.499	2.414	11.3	20.7
11 27	5 22.92	+42 55.5	1.393	2.319	10.9	17.7	11 27	5 21.97	+20 29.5	1.451	2.414	6.6	20.4
12 7	5 10.83	+42 18.0	1.372	2.322	8.3	17.6	12 7	5 10.67	+20 0.3	1.430	2.413	1.8	20.1
12 17	4 58.51	+41 11.5	1.377	2.327	8.2	17.6	12 17	4 59.01	+19 31.1	1.437	2.412	4.1	20.3
12 27	4 47.94	+39 42.0	1.407	2.331	10.7	17.8	12 27	4 48.51	+19 5.1	1.472	2.410	9.0	20.6
1 6	4 40.54	+37 59.9	1.462	2.337	14.0	18.0	1 6	4 40.38	+18 45.2	1.533	2.408	13.4	20.8
1 16	4 36.94	+36 15.8	1.539	2.342	17.2	18.2	1 16	4 35.33	+18 33.9	1.615	2.405	17.1	21.1
<b>312097</b>	2007 <i>TF</i> <sub>129</sub>	12 9.8 151°86'	1°5'/10.1 18				<b>173289</b>	1999 <i>TC</i> <sub>157</sub>	12 9.8 52°21'	7°0'/11.1 18			
11 7	5 36.63	+27 4.4	2.178	3.004	12.3	21.6	11 7	5 39.79	+38 54.7	1.602	2.419	16.4	20.2
11 17	5 29.72	+27 16.8	2.107	3.012	9.1	21.4	11 17	5 33.11	+39 47.7	1.541	2.426	13.1	20.0
11 27	5 20.66	+27 23.8	2.061	3.019	5.4	21.2	11 27	5 23.08	+40 24.4	1.501	2.434	9.7	19.8
12 7	5 10.32	+27 24.1	2.044	3.026	1.9	21.0	12 7	5 10.94	+40 38.8	1.487	2.441	7.3	19.7
12 17	4 59.72	+27 17.3	2.058	3.032	3.1	21.1	12 17	4 58.37	+40 28.1	1.498	2.449	7.6	19.8
12 27	4 50.02	+27 5.1	2.101	3.038	6.8	21.3	12 27	4 47.26	+39 55.0	1.536	2.457	10.2	19.9
1 6	4 42.15	+26 50.0	2.173	3.043	10.2	21.6	1 6	4 39.03	+39 6.8	1.599	2.466	13.4	20.2
1 16	4 36.70	+26 35.2	2.268	3.048	13.1	21.8	1 16	4 34.44	+38 11.6	1.683	2.474	16.5	20.4
<b>285869</b>	2001 <i>KK</i> <sub>16</sub>	12 9.8 206°35'	0°4'/ 9.7 18				<b>252025</b>	2000 <i>KW</i> <sub>15</sub>	12 9.8 128°85'				

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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>27271</b>	2000 <i>AD</i> <sub>23</sub>	12	9.8 229°78	2°5/10.6	18		<b>403459</b>	2009 <i>SL</i> <sub>332</sub>	12	9.8 83°22	1°2/ 9.5	18	
11 7	5 33.80	+31 56.5	2.344	3.164	11.7	18.6	11 7	5 33.99	+21 4.5	2.201	3.034	11.9	20.6
11 17	5 27.67	+31 50.8	2.262	3.161	8.8	18.4	11 17	5 27.47	+20 30.9	2.149	3.059	8.6	20.5
11 27	5 19.51	+31 35.9	2.206	3.157	5.7	18.2	11 27	5 19.22	+19 55.5	2.123	3.084	5.0	20.3
12 7	5 10.12	+31 10.7	2.177	3.154	2.9	18.0	12 7	5 10.03	+19 19.8	2.126	3.108	1.5	20.1
12 17	5 0.48	+30 35.6	2.179	3.150	3.5	18.0	12 17	5 0.86	+18 45.6	2.159	3.133	3.1	20.3
12 27	4 51.67	+29 53.1	2.210	3.146	6.6	18.2	12 27	4 52.64	+18 15.4	2.223	3.157	6.6	20.5
1 6	4 44.56	+29 7.2	2.270	3.142	9.7	18.4	1 6	4 46.10	+17 51.0	2.314	3.180	9.8	20.8
1 16	4 39.75	+28 21.6	2.353	3.138	12.5	18.6	1 16	4 41.70	+17 33.7	2.429	3.204	12.5	21.0
<b>191971</b>	2005 <i>WK</i> <sub>14</sub>	12	9.8 212°83	0°1/ 9.8	18		<b>93063</b>	2000 <i>SJ</i> <sub>22</sub>	12	9.8 49°84	2°1/ 9.6	18	
11 7	5 36.60	+23 35.2	1.757	2.597	14.2	21.2	11 7	5 35.23	+17 33.4	1.472	2.323	15.8	19.6
11 17	5 30.17	+23 29.4	1.680	2.593	10.4	21.0	11 17	5 29.32	+17 33.5	1.413	2.331	11.6	19.4
11 27	5 21.17	+23 20.0	1.627	2.589	6.1	20.7	11 27	5 20.70	+17 36.9	1.376	2.339	6.9	19.2
12 7	5 10.51	+23 6.3	1.600	2.584	1.4	20.4	12 7	5 10.42	+17 43.9	1.365	2.347	2.5	18.9
12 17	4 59.45	+22 49.2	1.603	2.580	3.5	20.5	12 17	4 59.85	+17 54.7	1.382	2.356	4.4	19.1
12 27	4 49.37	+22 30.7	1.635	2.574	8.1	20.8	12 27	4 50.45	+18 10.0	1.425	2.365	9.1	19.3
1 6	4 41.42	+22 13.9	1.692	2.569	12.3	21.0	1 6	4 43.40	+18 30.3	1.494	2.374	13.4	19.6
1 16	4 36.30	+22 1.5	1.772	2.563	15.8	21.2	1 16	4 39.37	+18 55.7	1.583	2.383	16.9	19.9
<b>2448</b>	Sholokhov	12	9.8 242°15	7°0/ 8.8	18	A	<b>7160</b>	Tokunaga	12	9.8 2°79	0°2/ 9.8	18	
11 7	5 32.15	+ 1 46.5	2.193	2.999	12.9	15.7	11 7	5 30.89	+23 30.9	1.095	1.969	18.3	16.0
11 17	5 26.39	+ 1 20.2	2.115	2.990	10.5	15.5	11 17	5 27.00	+23 19.0	1.036	1.967	13.5	15.7
11 27	5 18.77	+ 1 7.1	2.061	2.981	8.3	15.3	11 27	5 19.70	+23 2.6	0.998	1.966	7.9	15.4
12 7	5 9.97	+ 1 10.2	2.034	2.971	7.1	15.2	12 7	5 10.23	+22 42.0	0.983	1.967	1.8	15.0
12 17	5 0.84	+ 1 31.4	2.034	2.962	7.7	15.2	12 17	5 0.32	+22 18.9	0.991	1.969	4.5	15.2
12 27	4 52.34	+ 2 10.3	2.063	2.952	9.8	15.4	12 27	4 51.88	+21 56.9	1.024	1.973	10.4	15.6
1 6	4 45.30	+ 3 4.9	2.117	2.942	12.3	15.5	1 6	4 46.34	+21 40.0	1.079	1.979	15.6	15.9
1 16	4 40.31	+ 4 11.9	2.193	2.932	14.7	15.7	1 16	4 44.48	+21 30.8	1.152	1.986	19.9	16.2
<b>364995</b>	2008 <i>KE</i> <sub>3</sub>	12	9.8 71°71	3°0/ 9.5	18		<b>416142</b>	2002 <i>QR</i> <sub>126</sub>	12	9.8 38°84	5°7/11.1	17	
11 7	5 32.93	+13 33.4	2.026	2.861	12.8	20.8	11 7	5 35.86	+38 44.6	2.068	2.876	13.5	21.0
11 17	5 26.98	+13 36.9	1.965	2.873	9.5	20.6	11 17	5 29.60	+39 26.1	2.003	2.884	10.7	20.8
11 27	5 19.08	+13 46.0	1.929	2.885	5.9	20.4	11 27	5 20.80	+39 54.1	1.962	2.892	7.9	20.6
12 7	5 10.02	+14 1.5	1.920	2.897	3.1	20.2	12 7	5 10.44	+40 4.8	1.947	2.901	6.0	20.5
12 17	5 0.78	+14 23.3	1.941	2.909	4.3	20.3	12 17	4 59.77	+39 56.7	1.960	2.909	6.2	20.6
12 27	4 52.37	+14 51.1	1.991	2.921	7.6	20.6	12 27	4 50.16	+39 31.5	2.000	2.918	8.4	20.7
1 6	4 45.64	+15 24.4	2.068	2.933	10.9	20.8	1 6	4 42.71	+38 54.1	2.066	2.928	11.1	20.9
1 16	4 41.15	+16 2.4	2.168	2.946	13.7	21.0	1 16	4 38.08	+38 10.2	2.156	2.937	13.6	21.1
<b>226955</b>	2004 <i>VY</i> <sub>40</sub>	12	9.8 18°27	2°2/ 9.2	17		<b>47880</b>	2000 <i>FY</i> <sub>27</sub>	12	9.8 26°74	1°5/10.1	18	R
11 7	5 31.26	+18 16.8	2.049	2.889	12.4	21.0	11 7	5 33.62	+26 40.7	1.228	2.090	17.5	17.2
11 17	5 25.82	+17 40.6	1.977	2.891	9.1	20.8	11 17	5 28.51	+26 40.6	1.183	2.106	12.9	16.9
11 27	5 18.43	+17 4.5	1.931	2.892	5.5	20.6	11 27	5 20.30	+26 32.8	1.159	2.123	7.6	16.7
12 7	5 9.89	+16 30.3	1.913	2.893	2.4	20.4	12 7	5 10.32	+26 16.6	1.159	2.142	2.3	16.4
12 17	5 1.12	+16 0.1	1.924	2.895	3.9	20.5	12 17	5 0.23	+25 53.0	1.184	2.161	4.2	16.6
12 27	4 53.17	+15 36.3	1.964	2.896	7.5	20.7	12 27	4 51.72	+25 25.8	1.235	2.182	9.3	17.0
1 6	4 46.88	+15 20.5	2.030	2.898	10.9	20.9	1 6	4 46.01	+24 59.6	1.310	2.204	13.8	17.3
1 16	4 42.80	+15 13.4	2.119	2.900	13.9	21.1	1 16	4 43.67	+24 38.1	1.405	2.227	17.6	17.6
<b>278817</b>	2008 <i>SD</i> <sub>256</sub>	12	9.8 4°51	0°5/ 9.9	17		<b>329506</b>	2002 <i>RN</i> <sub>162</sub>	12	9.8 83°54	5°0/ 8.6	18	
11 7	5 31.13	+24 24.2	1.934	2.778	12.9	20.9	11 7	5 30.01	+ 8 8.6	2.326	3.150	11.7	21.1
11 17	5 25.96	+24 24.3	1.863	2.778	9.5	20.7	11 17	5 24.61	+ 7 30.5	2.266	3.160	9.0	21.0
11 27	5 18.62	+24 20.8	1.815	2.778	5.5	20.5	11 27	5 17.62	+ 7 0.2	2.231	3.171	6.5	20.8
12 7	5 9.94	+24 13.5	1.795	2.779	1.3	20.2	12 7	5 9.71	+ 6 40.1	2.223	3.181	5.0	20.8
12 17	5 0.97	+24 2.6	1.804	2.781	3.1	20.3	12 17	5 1.67	+ 6 32.0	2.245	3.191	5.8	20.8
12 27	4 52.87	+23 49.8	1.841	2.783	7.2	20.6	12 27	4 54.33	+ 6 36.7	2.295	3.201	8.1	21.0
1 6	4 46.58	+23 37.6	1.905	2.786	10.9	20.8	1 6	4 48.39	+ 6 53.5	2.371	3.211	10.6	21.2
1 16	4 42.71	+23 28.0	1.991	2.789	14.0	21.0	1 16	4 44.31	+ 7 20.8	2.470	3.221	12.9	21.4
<b>213190</b>	2000 <i>ST</i> <sub>277</sub>	12	9.8 97°13	1°4/ 9.5	18		<b>490489</b>	2009 <i>TM</i> <sub>7</sub>	12	9.8 39°56	1°0/10.1	17	
11 7	5 39.47	+21 14.4	1.408	2.255	16.6	19.8	11 7	5 34.37	+27 34.4	1.633	2.477	14.8	20.1
11 17	5 32.33	+20 46.6	1.356	2.273	12.1	19.6	11 17	5 28.31	+27 5.4	1.587	2.502	10.8	19.9
11 27	5 22.34	+20 16.6	1.327	2.290	7.0	19.3	11 27	5 19.88	+26 28.4	1.565	2.527	6.3	19.7
12 7	5 10.75	+19 45.5	1.324	2.307	2.0	19.1	12 7	5 10.20	+25 44.2	1.569	2.552	1.8	19.4
12 17	4 59.07	+19 15.6	1.349	2.324	4.3	19.3	12 17	5 0.57	+24 55.2	1.601	2.578	3.4	19.6
12 27	4 48.90	+18 50.4	1.401	2.340	9.3	19.6	12 27	4 52.28	+24 5.8	1.662	2.604	7.7	19.9
1 6	4 41.36	+18 32.5	1.478	2.356	13.6	19.9	1 6	4 46.25	+23 20.2	1.748	2.631	11.6	20.2
1 16	4 37.05	+18 23.9	1.576	2.371	17.2	20.2	1 16	4 42.97	+22 41.7	1.857	2.658	14.8	20.5
<b>69344</b>	1993 <i>TH</i> <sub>30</sub>	12	9.8 332°74	2°6/ 9.9	18		<b>22898</b>	Falce	12	9.8 84°71	4°2/ 8.7	18	
11 7	5 38.17	+26 5.6	1.281	2.134	17.5	19.0	11 7	5 31.59	+12 9.9	2.130	2.962	12.3	19.1
11 17	5 32.31	+26 54.5	1.212	2.130	13.1	18.7	11 17	5 25.85	+11 24.2	2.072	2.976	9.3	19.0
11 27	5 22.87	+27 40.2	1.165	2.127	8.0	18.4	11 27	5 18.36	+10 43.6	2.039	2.989	6.2	18.8
12 7	5 10.96	+28 18.0	1.142	2.123	3.1	18.1	12 7	5 9.88	+10 10.8	2.034	3.002	4.2	18.7
12 17	4 58.31	+28 44.1	1.145	2.120	4.9	18.2	12 17	5 1.30	+ 9 47.9	2.059	3.016	5.3	18.8
12 27	4 46.95	+28 58.6	1.175	2.118	10.2	18.5	12 27	4 53.54	+ 9 36.6	2.112	3.029	8.0	19.0
1 6	4 38.52	+29 4.9	1.228	2.115	15.1	18.8	1 6	4 47.36	+ 9 36.9	2.191	3.042	10.9	19.2
1 16	4 33.97	+29 7.8	1.300	2.113	19.2	19.1	1 16	4 43.24	+ 9 48.0	2.293	3.055	13.5	19.4
<b>197653</b>	2004 <i>MH</i> <sub>8</sub>	12	9.8 153°24	6°3/11.3	18		<b>112144</b>	2002 <i>JS</i> <sub>63</sub>	12	9.8 191°23	0°5/ 9.9	18	
11 7	5 43.67	+40 45.0											

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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>264874</b>	2002 <i>RM</i> <sub>240</sub>	12 9.8 196°24	3°8/ 8.8 17				<b>486572</b>	2013 <i>HY</i> <sub>135</sub>	12 9.8 292°94	3°6/10.4 17			
11 7	5 29.95	+11 24.8	2.503	3.329	10.9	21.0	11 7	5 35.81	+31 31.8	1.887	2.716	13.8	21.8
11 17	5 24.57	+10 50.8	2.428	3.328	8.2	20.8	11 17	5 29.74	+32 5.8	1.808	2.710	10.5	21.6
11 27	5 17.62	+10 21.5	2.379	3.327	5.6	20.6	11 27	5 21.03	+32 31.6	1.752	2.703	6.9	21.4
12 7	5 9.73	+9 59.1	2.359	3.326	3.8	20.5	12 7	5 10.57	+32 45.9	1.723	2.697	3.9	21.2
12 17	5 1.63	+9 45.2	2.368	3.324	4.8	20.6	12 17	4 59.60	+32 46.9	1.722	2.691	4.7	21.2
12 27	4 54.14	+9 41.0	2.407	3.322	7.3	20.7	12 27	4 49.53	+32 35.6	1.750	2.684	8.1	21.4
1 6	4 47.94	+9 46.7	2.472	3.320	10.0	20.9	1 6	4 41.58	+32 15.9	1.804	2.678	11.7	21.6
1 16	4 43.54	+10 1.7	2.562	3.318	12.4	21.1	1 16	4 36.52	+31 52.4	1.880	2.672	15.0	21.8
<b>457914</b>	2009 <i>UP</i> <sub>28</sub>	12 9.8 46°14	3°6/10.3 17				<b>228199</b>	3765 <i>T</i> <sub>-3</sub>	12 9.8 71°54	5°1/ 8.5 18			
11 7	5 35.35	+31 30.4	2.085	2.910	12.8	21.2	11 7	5 30.49	+9 13.0	2.145	2.974	12.3	20.2
11 17	5 29.12	+32 16.9	2.015	2.914	9.7	21.0	11 17	5 25.12	+8 24.3	2.081	2.979	9.5	20.0
11 27	5 20.52	+32 56.2	1.969	2.918	6.4	20.8	11 27	5 17.99	+7 42.5	2.042	2.985	6.8	19.8
12 7	5 10.41	+33 24.8	1.951	2.923	3.8	20.6	12 7	5 9.84	+7 11.0	2.031	2.991	5.2	19.7
12 17	4 59.91	+33 40.8	1.962	2.928	4.5	20.7	12 17	5 1.52	+6 52.0	2.049	2.997	6.1	19.8
12 27	4 50.27	+33 44.6	2.002	2.933	7.5	20.9	12 27	4 53.95	+6 47.0	2.094	3.003	8.6	20.0
1 6	4 42.57	+33 39.3	2.068	2.938	10.7	21.1	1 6	4 47.89	+6 55.5	2.165	3.009	11.4	20.2
1 16	4 37.47	+33 28.6	2.158	2.943	13.5	21.3	1 16	4 43.85	+7 16.1	2.259	3.015	13.9	20.4
<b>229967</b>	1999 <i>TU</i> <sub>225</sub>	12 9.8 93°96	3°5/10.5 17				<b>410469</b>	2008 <i>CX</i> <sub>201</sub>	12 9.8 181°96	3°8/ 8.9 18			
11 7	5 35.69	+32 44.3	2.170	2.990	12.6	20.4	11 7	5 32.01	+12 6.2	2.304	3.132	11.6	22.0
11 17	5 29.19	+33 11.7	2.104	3.000	9.5	20.2	11 17	5 26.18	+11 32.0	2.231	3.132	8.8	21.8
11 27	5 20.45	+33 30.1	2.063	3.011	6.3	20.1	11 27	5 18.61	+11 2.4	2.183	3.133	5.9	21.6
12 7	5 10.37	+33 37.0	2.049	3.021	3.7	19.9	12 7	5 9.99	+10 39.5	2.163	3.132	3.9	21.5
12 17	5 0.05	+33 31.4	2.065	3.031	4.3	20.0	12 17	5 1.14	+10 25.2	2.173	3.132	4.9	21.6
12 27	4 50.67	+33 15.0	2.111	3.042	7.2	20.2	12 27	4 52.99	+10 20.9	2.213	3.131	7.7	21.8
1 6	4 43.20	+32 51.2	2.183	3.052	10.2	20.4	1 6	4 46.28	+10 26.7	2.280	3.130	10.6	21.9
1 16	4 38.26	+32 24.4	2.279	3.062	12.9	20.6	1 16	4 41.56	+10 42.0	2.369	3.128	13.2	22.1
<b>131397</b>	2001 <i>KX</i> <sub>62</sub>	12 9.8 190°79	5°0/ 8.3 18				<b>401536</b>	2013 <i>ED</i> <sub>104</sub>	12 9.8 252°59	5°0/ 9.0 17			
11 7	5 29.40	+5 41.9	2.836	3.646	10.2	20.7	11 7	5 33.56	+8 13.1	2.169	2.990	12.5	21.7
11 17	5 24.00	+5 2.3	2.762	3.644	8.1	20.6	11 17	5 27.57	+7 56.5	2.079	2.973	9.8	21.5
11 27	5 17.23	+4 30.1	2.714	3.643	6.1	20.4	11 27	5 19.57	+7 48.6	2.013	2.955	6.9	21.3
12 7	5 9.65	+4 7.8	2.694	3.640	5.0	20.4	12 7	5 10.23	+7 51.6	1.975	2.937	5.0	21.1
12 17	5 1.88	+3 57.1	2.704	3.638	5.7	20.4	12 17	5 0.44	+8 6.8	1.966	2.919	5.9	21.2
12 27	4 54.63	+3 58.8	2.743	3.635	7.5	20.5	12 27	4 51.23	+8 34.5	1.987	2.900	8.7	21.3
1 6	4 48.51	+4 12.6	2.809	3.632	9.7	20.7	1 6	4 43.50	+9 13.8	2.034	2.880	11.9	21.5
1 16	4 43.95	+4 37.0	2.898	3.629	11.7	20.8	1 16	4 37.93	+10 2.8	2.104	2.861	14.7	21.6
<b>454907</b>	2015 <i>TX</i> <sub>129</sub>	12 9.8 276°27	7°4/ 8.2 18				<b>86050</b>	1999 <i>PG</i> <sub>8</sub>	12 9.8 102°38	2°4/ 10.4 18			
11 7	5 31.10	+3 28.5	1.980	2.798	13.6	21.2	11 7	5 35.92	+30 27.6	2.288	3.109	12.0	20.2
11 17	5 25.73	+2 34.6	1.913	2.796	11.0	21.0	11 17	5 29.09	+30 38.0	2.228	3.128	8.9	20.0
11 27	5 18.42	+1 52.6	1.869	2.793	8.6	20.9	11 27	5 20.29	+30 40.6	2.193	3.146	5.6	19.8
12 7	5 9.93	+1 26.9	1.851	2.791	7.4	20.8	12 7	5 10.35	+30 34.0	2.187	3.165	2.7	19.7
12 17	5 1.17	+1 20.3	1.860	2.789	8.2	20.8	12 17	5 0.30	+30 18.3	2.211	3.182	3.4	19.8
12 27	4 53.17	+1 33.7	1.896	2.786	10.4	21.0	12 27	4 51.20	+29 55.5	2.265	3.200	6.5	20.0
1 6	4 46.76	+2 5.3	1.956	2.784	13.1	21.1	1 6	4 43.90	+29 28.7	2.347	3.217	9.6	20.2
1 16	4 42.54	+2 52.2	2.038	2.781	15.5	21.3	1 16	4 38.92	+29 1.5	2.453	3.234	12.2	20.4
<b>258027</b>	2001 <i>HB</i> <sub>3</sub>	12 9.8 207°42	4°2/ 8.5 18				<b>418438</b>	2008 <i>PX</i> <sub>21</sub>	12 9.8 55°56	2°3/ 9.5 18			
11 7	5 33.24	+11 54.6	2.314	3.139	11.7	21.3	11 7	5 33.09	+15 43.2	1.975	2.812	12.9	20.4
11 17	5 27.09	+11 2.9	2.234	3.133	8.9	21.1	11 17	5 27.04	+15 43.1	1.927	2.838	9.5	20.2
11 27	5 19.14	+10 14.8	2.179	3.127	6.0	20.9	11 27	5 19.08	+15 46.8	1.904	2.863	5.7	20.0
12 7	5 10.09	+9 33.2	2.154	3.120	4.2	20.8	12 7	5 10.07	+15 54.7	1.909	2.889	2.6	19.9
12 17	5 0.78	+9 1.0	2.158	3.113	5.3	20.9	12 17	5 1.01	+16 7.1	1.944	2.915	3.9	20.0
12 27	4 52.15	+8 40.0	2.192	3.105	8.1	21.0	12 27	4 52.90	+16 24.1	2.007	2.940	7.3	20.3
1 6	4 44.98	+8 31.3	2.253	3.096	11.0	21.2	1 6	4 46.55	+16 45.8	2.097	2.966	10.6	20.5
1 16	4 39.82	+8 34.3	2.337	3.087	13.6	21.4	1 16	4 42.45	+17 11.8	2.211	2.992	13.3	20.8
<b>169844</b>	2002 <i>RD</i> <sub>9</sub>	12 9.8 87°37	1°3/ 9.6 18				<b>373860</b>	2003 <i>QQ</i> <sub>101</sub>	12 9.8 119°86	1°3/ 9.7 18			
11 7	5 34.90	+19 43.9	1.785	2.626	13.9	20.1	11 7	5 40.51	+19 8.0	1.600	2.438	15.4	20.9
11 17	5 28.69	+19 38.1	1.723	2.637	10.1	19.9	11 17	5 32.95	+19 16.4	1.544	2.455	11.3	20.7
11 27	5 20.19	+19 32.6	1.686	2.648	5.9	19.7	11 27	5 22.71	+19 26.1	1.511	2.472	6.6	20.5
12 7	5 10.33	+19 27.6	1.676	2.659	1.8	19.5	12 7	5 10.91	+19 36.3	1.505	2.488	1.9	20.2
12 17	5 0.27	+19 23.9	1.695	2.670	3.6	19.6	12 17	4 58.92	+19 46.9	1.529	2.504	3.9	20.4
12 27	4 51.22	+19 22.6	1.742	2.680	7.8	19.9	12 27	4 48.19	+19 58.5	1.581	2.519	8.5	20.7
1 6	4 44.18	+19 25.3	1.816	2.691	11.7	20.2	1 6	4 39.86	+20 12.5	1.660	2.533	12.7	21.0
1 16	4 39.75	+19 32.9	1.912	2.701	14.8	20.4	1 16	4 34.55	+20 29.9	1.760	2.546	16.1	21.2
<b>348764</b>	2006 <i>JM</i> <sub>21</sub>	12 9.8 200°49	3°8/ 9.1 18				<b>323348</b>	2003 <i>UP</i> <sub>325</sub>	12 9.8 206°84	5°0/ 8.2 18			
11 7	5 33.96	+13 13.0	1.902	2.737	13.4	21.3	11 7	5 30.50	+9 6.7	2.364	3.188	11.5	21.3
11 17	5 27.95	+12 47.8	1.828	2.735	10.1	21.0	11 17	5 25.04	+8 10.0	2.291	3.186	8.9	21.1
11 27	5 19.78	+12 27.7	1.779	2.733	6.5	20.8	11 27	5 17.93	+7 19.1	2.243	3.184	6.4	21.0
12 7	5 10.26	+12 14.7	1.757	2.731	3.9	20.7	12 7	5 9.84	+6 37.2	2.224	3.181	5.0	20.9
12 17	5 0.41	+12 10.5	1.765	2.728	5.2	20.7	12 17	5 1.54	+6 7.1	2.234	3.179	5.9	20.9
12 27	4 51.40	+12 16.1	1.800	2.726	8.6	20.9	12 27	4 53.89	+5 50.6	2.272	3.176	8.3	21.1
1 6	4 44.16	+12 31.6	1.862	2.723	12.1	21.2	1 6	4 47.60	+5 47.8	2.337	3.173	10.9	21.2
1 16	4 39.34	+12 56.3	1.946	2.719	15.2	21.4	1 16	4 43.19	+5 57.9	2.424	3.169	13.3	21.4
<b>91699</b>	1999 <i>TU</i> <sub>138</sub>	12 9.8 40°80	4°7/10.6 17				<b>342090</b>	2008 <i>SE</i> <sub>53</sub>	12 9.8 275°57	1°2/ 9.6 18			
11 7	5 35.99	+35 3											

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>366519</b>	2002 <i>PL</i> <sub>188</sub>	12 9.8 96°23	3°6/10.9	17			<b>484118</b>	2006 <i>SV</i> <sub>206</sub>	12 9.8 356°83	3°0/ 9.1	17		
11 7	5 34.73	+34 53.9	2.345	3.157	12.0	21.6	11 7	5 32.52	+16 30.7	1.782	2.626	13.8	21.6
11 17	5 28.35	+35 1.5	2.275	3.166	9.2	21.4	11 17	5 27.03	+15 55.2	1.712	2.626	10.2	21.4
11 27	5 19.92	+34 58.4	2.230	3.174	6.2	21.2	11 27	5 19.30	+15 21.4	1.666	2.625	6.3	21.2
12 7	5 10.29	+34 42.8	2.214	3.182	3.9	21.1	12 7	5 10.20	+14 51.8	1.646	2.625	3.2	21.0
12 17	5 0.49	+34 14.8	2.226	3.191	4.2	21.1	12 17	5 0.81	+14 28.6	1.656	2.625	4.7	21.1
12 27	4 51.60	+33 36.7	2.268	3.199	6.8	21.3	12 27	4 52.34	+14 14.2	1.693	2.625	8.5	21.3
1 6	4 44.52	+32 52.5	2.338	3.207	9.7	21.5	1 6	4 45.75	+14 9.5	1.755	2.625	12.3	21.6
1 16	4 39.80	+32 6.7	2.432	3.215	12.2	21.7	1 16	4 41.66	+14 15.0	1.840	2.625	15.5	21.8
<b>62447</b>	2000 <i>SR</i> <sub>207</sub>	12 9.8 199°78	2°8/ 9.3	18			<b>428617</b>	2008 <i>FQ</i> <sub>10</sub>	12 9.8 133°92	1°3/10.1	18		
11 7	5 37.78	+17 13.0	1.651	2.491	14.9	20.2	11 7	5 40.48	+27 4.0	1.913	2.739	13.7	21.9
11 17	5 31.08	+16 45.1	1.576	2.488	11.1	20.0	11 17	5 32.68	+27 4.4	1.850	2.755	10.1	21.7
11 27	5 21.75	+16 18.5	1.525	2.485	6.8	19.7	11 27	5 22.48	+26 58.1	1.813	2.771	6.0	21.5
12 7	5 10.74	+15 54.9	1.501	2.481	3.0	19.5	12 7	5 10.89	+26 44.1	1.804	2.786	1.9	21.2
12 17	4 59.32	+15 36.4	1.506	2.476	4.8	19.6	12 17	4 59.17	+26 22.6	1.825	2.800	3.3	21.4
12 27	4 48.93	+15 25.2	1.539	2.471	9.2	19.8	12 27	4 48.62	+25 56.3	1.876	2.814	7.4	21.7
1 6	4 40.71	+15 23.0	1.597	2.465	13.4	20.1	1 6	4 40.25	+25 28.9	1.955	2.826	11.1	21.9
1 16	4 35.39	+15 30.3	1.677	2.459	16.9	20.3	1 16	4 34.66	+25 4.0	2.057	2.838	14.2	22.1
<b>131823</b>	2002 <i>AY</i> <sub>97</sub>	12 9.8 84°28	3°5/10.5	18			<b>443947</b>	2002 <i>VY</i> <sub>116</sub>	12 9.8 43°50	7°3/10.9	18		
11 7	5 44.74	+30 53.9	1.339	2.175	17.9	19.2	11 7	5 39.69	+38 41.9	1.594	2.411	16.4	20.4
11 17	5 36.42	+31 10.9	1.296	2.203	13.4	19.0	11 17	5 33.10	+39 51.9	1.538	2.423	13.1	20.2
11 27	5 24.79	+31 15.5	1.276	2.231	8.4	18.8	11 27	5 23.17	+40 46.3	1.505	2.436	9.8	20.1
12 7	5 11.36	+31 4.3	1.281	2.259	4.0	18.6	12 7	5 11.10	+41 18.3	1.496	2.449	7.5	20.0
12 17	4 58.01	+30 37.7	1.313	2.286	5.0	18.7	12 17	4 58.60	+41 24.6	1.514	2.462	7.8	20.0
12 27	4 46.59	+30 0.1	1.373	2.312	9.4	19.0	12 27	4 47.54	+41 7.3	1.558	2.476	10.3	20.2
1 6	4 38.36	+29 18.7	1.458	2.338	13.6	19.3	1 6	4 39.37	+40 32.9	1.626	2.490	13.4	20.4
1 16	4 33.86	+28 39.6	1.564	2.363	17.1	19.6	1 16	4 34.85	+39 49.6	1.716	2.504	16.3	20.6
<b>77702</b>	2001 <i>OL</i> <sub>23</sub>	12 9.8 188°75	0°3/ 9.9	18			<b>356169</b>	2009 <i>HT</i> <sub>59</sub>	12 9.8 216°46	3°5/ 9.3	18		
11 7	5 32.73	+22 24.3	2.490	3.320	10.8	19.8	11 7	5 33.64	+11 58.0	2.320	3.144	11.7	21.3
11 17	5 26.78	+22 50.5	2.411	3.319	7.9	19.6	11 17	5 27.47	+11 49.3	2.236	3.137	8.8	21.1
11 27	5 19.02	+23 16.0	2.358	3.319	4.6	19.4	11 27	5 19.45	+11 46.2	2.178	3.129	5.8	20.9
12 7	5 10.11	+23 39.8	2.335	3.319	1.1	19.1	12 7	5 10.24	+11 50.1	2.148	3.120	3.6	20.8
12 17	5 0.89	+24 1.0	2.342	3.318	2.6	19.2	12 17	5 0.69	+12 1.6	2.149	3.111	4.6	20.8
12 27	4 52.28	+24 19.6	2.380	3.317	6.1	19.5	12 27	4 51.76	+12 21.2	2.179	3.102	7.5	21.0
1 6	4 45.09	+24 36.5	2.446	3.317	9.2	19.7	1 6	4 44.26	+12 48.3	2.237	3.092	10.6	21.2
1 16	4 39.90	+24 52.7	2.537	3.316	11.9	19.8	1 16	4 38.80	+13 22.4	2.319	3.081	13.4	21.3
<b>196372</b>	2003 <i>FH</i> <sub>119</sub>	12 9.8 215°32	0°6/ 9.7	18			<b>243936</b>	2001 <i>PA</i> <sub>15</sub>	12 9.8 43°78	4°9/ 8.9	18		
11 7	5 36.44	+21 32.3	1.920	2.756	13.3	20.7	11 7	5 33.17	+13 10.4	1.489	2.338	15.7	19.5
11 17	5 29.93	+21 30.6	1.838	2.750	9.8	20.5	11 17	5 27.52	+12 19.0	1.445	2.359	11.7	19.3
11 27	5 21.03	+21 27.5	1.781	2.743	5.7	20.2	11 27	5 19.52	+11 34.2	1.425	2.380	7.7	19.1
12 7	5 10.59	+21 22.8	1.752	2.736	1.4	19.9	12 7	5 10.24	+10 59.7	1.430	2.402	5.0	19.0
12 17	4 59.72	+21 16.6	1.753	2.728	3.4	20.0	12 17	5 0.93	+10 38.4	1.462	2.425	6.3	19.1
12 27	4 49.68	+21 10.4	1.782	2.720	7.7	20.3	12 27	4 52.87	+10 31.9	1.521	2.447	9.8	19.4
1 6	4 41.56	+21 6.3	1.839	2.711	11.7	20.5	1 6	4 46.99	+10 39.7	1.604	2.470	13.4	19.7
1 16	4 36.05	+21 6.1	1.918	2.702	15.0	20.7	1 16	4 43.81	+11 0.0	1.707	2.494	16.5	19.9
<b>415434</b>	2013 <i>QL</i> <sub>89</sub>	12 9.8 128°19	3°5/ 9.1	17			<b>353850</b>	2012 <i>VE</i> <sub>45</sub>	12 9.8 86°09	1°1/ 9.6	18		
11 7	5 30.51	+11 38.4	2.438	3.265	11.1	21.5	11 7	5 35.34	+21 16.8	1.663	2.508	14.6	20.3
11 17	5 25.01	+11 19.8	2.368	3.270	8.4	21.3	11 17	5 29.21	+20 55.7	1.600	2.515	10.7	20.1
11 27	5 17.91	+11 6.6	2.324	3.274	5.6	21.2	11 27	5 20.60	+20 32.6	1.560	2.523	6.2	19.9
12 7	5 9.85	+11 0.2	2.309	3.278	3.6	21.0	12 7	5 10.51	+20 8.3	1.546	2.530	1.7	19.6
12 17	5 1.61	+11 1.8	2.323	3.283	4.5	21.1	12 17	5 0.19	+19 44.6	1.562	2.537	3.8	19.7
12 27	4 54.00	+11 12.0	2.367	3.287	7.1	21.3	12 27	4 50.98	+19 23.9	1.605	2.544	8.3	20.0
1 6	4 47.74	+11 30.4	2.437	3.291	9.9	21.5	1 6	4 43.93	+19 8.8	1.674	2.551	12.3	20.3
1 16	4 43.33	+11 56.3	2.532	3.295	12.3	21.6	1 16	4 39.67	+19 1.0	1.765	2.558	15.7	20.5
<b>333239</b>	2012 <i>HP</i> <sub>52</sub>	12 9.8 152°51	1°3/10.1	17			<b>408979</b>	2002 <i>QL</i> <sub>130</sub>	12 9.8 124°76	4°7/11.1	17		
11 7	5 32.94	+27 6.5	2.589	3.413	10.6	21.5	11 7	5 35.95	+38 15.4	2.512	3.310	11.7	21.6
11 17	5 26.85	+27 19.9	2.514	3.418	7.8	21.3	11 17	5 29.30	+38 45.5	2.441	3.317	9.2	21.5
11 27	5 19.02	+27 29.0	2.465	3.422	4.7	21.1	11 27	5 20.54	+39 4.1	2.395	3.324	6.7	21.3
12 7	5 10.11	+27 32.6	2.445	3.426	1.7	20.9	12 7	5 10.50	+39 8.2	2.376	3.331	4.9	21.2
12 17	5 0.96	+27 30.5	2.456	3.430	2.7	21.0	12 17	5 0.20	+38 57.0	2.387	3.338	5.1	21.2
12 27	4 52.50	+27 23.6	2.497	3.434	5.9	21.2	12 27	4 50.76	+38 31.9	2.427	3.345	7.1	21.4
1 6	4 45.49	+27 13.9	2.567	3.437	8.8	21.4	1 6	4 43.11	+37 56.9	2.495	3.351	9.6	21.5
1 16	4 40.47	+27 3.7	2.661	3.440	11.4	21.6	1 16	4 37.85	+37 16.4	2.586	3.358	11.9	21.7
<b>103668</b>	2000 <i>CB</i> <sub>51</sub>	12 9.8 257°86	6°3/11.9	18			<b>139967</b>	2001 <i>SF</i> <sub>12</sub>	12 9.8 134°99	3°1/ 9.0	18		
11 7	5 37.56	+43 48.4	2.460	3.238	12.5	19.6	11 7	5 33.38	+15 22.5	2.123	2.956	12.3	20.6
11 17	5 30.74	+44 11.3	2.374	3.229	10.3	19.5	11 17	5 27.26	+14 43.4	2.057	2.965	9.1	20.4
11 27	5 21.48	+44 18.8	2.311	3.220	8.1	19.3	11 27	5 19.28	+14 6.5	2.017	2.972	5.7	20.2
12 7	5 10.68	+44 7.1	2.274	3.210	6.5	19.2	12 7	5 10.21	+13 34.2	2.004	2.980	3.2	20.1
12 17	4 59.53	+43 34.8	2.266	3.201	6.6	19.2	12 17	5 0.98	+13 8.5	2.022	2.987	4.5	20.2
12 27	4 49.34	+42 43.9	2.286	3.191	8.2	19.3	12 27	4 52.58	+12 51.4	2.069	2.994	7.7	20.4
1 6	4 41.17	+41 39.6	2.333	3.181	10.5	19.4	1 6	4 45.81	+12 43.7	2.143	3.001	10.9	20.6
1 16	4 35.71	+40 28.2	2.404	3.171	12.8	19.6	1 16	4 41.21	+12 45.6	2.240	3.007	13.6	20.8
<b>15675</b>	Goloseevo	12 9.8 44°35	2°3/ 9.4	18			<b>322161</b>	2010 <i>WH</i> <sub>69</sub>	12 9.8 85°77	0°9/10.0	18		



EPHEMERIDES

12 9.8

12 9.9

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>490932</b>	2011 CS <sub>64</sub>	12 9.8	23°50	3.4/ 9.6	18		<b>367442</b>	2008 SG <sub>248</sub>	12 9.9	51°73	0.4/ 9.9	18	
11 7	5 31.96	+12 39.4	1.843	2.683	13.6	20.8	11 7	5 32.62	+24 20.6	2.050	2.888	12.5	20.7
11 17	5 26.54	+12 44.9	1.779	2.688	10.2	20.6	11 17	5 26.86	+24 21.6	1.991	2.903	9.1	20.5
11 27	5 19.01	+12 57.8	1.738	2.694	6.5	20.3	11 27	5 19.11	+24 19.3	1.957	2.918	5.3	20.3
12 7	5 10.17	+13 18.8	1.725	2.700	3.6	20.2	12 7	5 10.20	+24 13.1	1.950	2.934	1.3	20.1
12 17	5 1.05	+13 47.9	1.740	2.707	4.7	20.3	12 17	5 1.14	+24 3.6	1.973	2.949	2.9	20.2
12 27	4 52.79	+14 24.3	1.783	2.715	8.2	20.5	12 27	4 53.00	+23 52.3	2.025	2.965	6.7	20.5
1 6	4 46.30	+15 7.0	1.852	2.722	11.7	20.7	1 6	4 46.62	+23 41.4	2.103	2.981	10.2	20.7
1 16	4 42.20	+15 54.6	1.944	2.731	14.7	20.9	1 16	4 42.55	+23 32.9	2.206	2.997	13.1	21.0
<b>458606</b>	2011 FF <sub>50</sub>	12 9.8	91°08	4.6/11.0	16		<b>221615</b>	2006 XJ <sub>38</sub>	12 9.9	65°54	3.3/ 9.8	18	
11 7	5 34.92	+37 31.8	2.438	3.241	11.8	21.8	11 7	5 41.24	+13 29.9	1.297	2.142	17.9	19.9
11 17	5 28.61	+37 59.6	2.365	3.246	9.3	21.6	11 17	5 33.63	+13 53.5	1.260	2.173	13.2	19.7
11 27	5 20.17	+38 16.1	2.318	3.251	6.7	21.5	11 27	5 23.15	+14 25.9	1.245	2.204	8.0	19.5
12 7	5 10.42	+38 18.6	2.298	3.256	4.8	21.4	12 7	5 11.09	+15 6.1	1.256	2.235	3.7	19.3
12 17	5 0.41	+38 6.1	2.307	3.261	5.0	21.4	12 17	4 59.07	+15 52.1	1.294	2.266	5.2	19.5
12 27	4 51.25	+37 40.3	2.345	3.265	7.1	21.5	12 27	4 48.67	+16 42.0	1.359	2.296	9.7	19.8
1 6	4 43.89	+37 4.8	2.410	3.270	9.7	21.7	1 6	4 41.03	+17 34.3	1.450	2.326	13.9	20.1
1 16	4 38.92	+36 24.4	2.499	3.275	12.1	21.9	1 16	4 36.71	+18 28.0	1.561	2.356	17.4	20.4
<b>475247</b>	2005 WX <sub>32</sub>	12 9.8	44°53	0.1/ 9.9	16		<b>286933</b>	2002 PN <sub>123</sub>	12 9.9	149°40	0.7/10.0	18	
11 7	5 37.55	+24 16.0	1.146	2.008	18.6	20.9	11 7	5 36.31	+26 13.6	2.228	3.055	12.0	21.2
11 17	5 31.34	+23 58.6	1.108	2.032	13.5	20.6	11 17	5 29.44	+25 58.9	2.158	3.064	8.8	21.0
11 27	5 21.92	+23 35.9	1.091	2.057	7.8	20.4	11 27	5 20.56	+25 38.6	2.113	3.072	5.2	20.8
12 7	5 10.79	+23 8.2	1.099	2.083	1.7	20.1	12 7	5 10.53	+25 12.6	2.097	3.080	1.4	20.5
12 17	4 59.73	+22 37.9	1.132	2.109	4.2	20.4	12 17	5 0.33	+24 41.7	2.112	3.087	2.8	20.7
12 27	4 50.51	+22 9.0	1.190	2.136	9.7	20.8	12 27	4 51.04	+24 8.5	2.157	3.094	6.6	20.9
1 6	4 44.29	+21 45.7	1.272	2.163	14.4	21.1	1 6	4 43.52	+23 36.2	2.230	3.100	10.0	21.1
1 16	4 41.60	+21 30.4	1.374	2.191	18.2	21.4	1 16	4 38.31	+23 7.5	2.327	3.106	12.8	21.4
<b>278188</b>	2007 DW <sub>110</sub>	12 9.8	185°83	1.3/ 9.6	18		<b>484302</b>	2007 TZ <sub>4</sub>	12 9.9	17°71	3.3/10.3	17	
11 7	5 36.63	+19 42.5	2.176	3.004	12.2	22.3	11 7	5 34.21	+29 8.3	1.268	2.125	17.4	21.0
11 17	5 29.74	+19 27.9	2.097	3.004	9.0	22.1	11 17	5 29.24	+29 38.1	1.213	2.132	13.0	20.7
11 27	5 20.79	+19 12.7	2.044	3.004	5.3	21.9	11 27	5 20.98	+29 59.0	1.179	2.140	8.2	20.5
12 7	5 10.57	+18 57.4	2.020	3.002	1.7	21.6	12 7	5 10.67	+30 7.6	1.169	2.149	3.8	20.3
12 17	5 0.06	+18 42.9	2.027	3.000	3.3	21.7	12 17	4 59.99	+30 2.6	1.184	2.159	5.0	20.4
12 27	4 50.35	+18 30.9	2.064	2.997	7.1	22.0	12 27	4 50.78	+29 46.6	1.225	2.170	9.6	20.7
1 6	4 42.34	+18 23.1	2.129	2.993	10.6	22.2	1 6	4 44.42	+29 24.6	1.289	2.182	14.1	20.9
1 16	4 36.63	+18 20.8	2.217	2.989	13.6	22.4	1 16	4 41.63	+29 2.0	1.373	2.195	17.9	21.2
<b>81439</b>	2000 GQ <sub>112</sub>	12 9.8	284°42	7.8/ 7.8	18		<b>335337</b>	2005 SM	12 9.9	92°13	4.5/10.8	18	
11 7	5 31.64	+ 4 7.5	1.860	2.682	14.2	19.8	11 7	5 41.10	+33 56.4	1.545	2.374	16.3	21.0
11 17	5 26.26	+ 2 57.8	1.793	2.679	11.5	19.6	11 17	5 33.83	+34 18.4	1.489	2.388	12.5	20.8
11 27	5 18.83	+ 1 59.5	1.750	2.676	9.0	19.5	11 27	5 23.43	+34 26.8	1.454	2.403	8.3	20.6
12 7	5 10.13	+ 1 17.7	1.732	2.673	7.8	19.4	12 7	5 11.19	+34 17.8	1.446	2.418	4.9	20.4
12 17	5 1.16	+ 0 56.4	1.742	2.670	8.7	19.4	12 17	4 58.76	+33 50.7	1.465	2.432	5.5	20.5
12 27	4 52.98	+ 0 56.9	1.777	2.667	11.1	19.6	12 27	4 47.86	+33 9.5	1.511	2.446	9.1	20.7
1 6	4 46.51	+ 1 18.0	1.837	2.664	13.8	19.7	1 6	4 39.78	+32 20.9	1.583	2.460	12.9	21.0
1 16	4 42.35	+ 1 56.5	1.917	2.661	16.4	19.9	1 16	4 35.15	+31 31.7	1.676	2.473	16.3	21.3
<b>154463</b>	2003 DL <sub>6</sub>	12 9.8	212°65	1.2/ 9.6	18		<b>143378</b>	2003 BU <sub>16</sub>	12 9.9	355°23	4.6/ 9.5	18	
11 7	5 36.34	+20 9.5	1.973	2.807	13.1	21.0	11 7	5 30.48	+12 3.4	1.352	2.210	16.5	19.0
11 17	5 29.79	+19 56.9	1.891	2.801	9.6	20.8	11 17	5 26.19	+11 58.8	1.286	2.204	12.5	18.7
11 27	5 20.95	+19 43.5	1.833	2.794	5.7	20.5	11 27	5 19.13	+12 4.5	1.241	2.200	8.2	18.5
12 7	5 10.64	+19 29.6	1.804	2.787	1.7	20.2	12 7	5 10.27	+12 22.6	1.221	2.196	4.8	18.3
12 17	4 59.93	+19 16.2	1.804	2.778	3.5	20.3	12 17	5 0.92	+12 53.4	1.226	2.194	6.2	18.3
12 27	4 50.03	+19 5.0	1.834	2.770	7.7	20.6	12 27	4 52.59	+13 36.3	1.256	2.193	10.3	18.6
1 6	4 41.97	+18 58.0	1.891	2.760	11.5	20.8	1 6	4 46.54	+14 29.2	1.310	2.193	14.6	18.8
1 16	4 36.44	+18 56.6	1.971	2.750	14.8	21.0	1 16	4 43.52	+15 29.5	1.384	2.195	18.4	19.1
<b>303104</b>	2004 BZ <sub>107</sub>	12 9.8	324°33	8.0/11.4	17		<b>175960</b>	2000 HD <sub>85</sub>	12 9.9	171°29	3.2/ 9.3	18	
11 7	5 36.54	+40 36.7	1.503	2.324	17.1	20.1	11 7	5 33.48	+12 20.0	2.416	3.238	11.3	21.1
11 17	5 31.35	+41 17.9	1.419	2.305	13.9	19.9	11 17	5 27.23	+12 9.8	2.342	3.242	8.5	20.9
11 27	5 22.48	+41 41.0	1.356	2.287	10.7	19.6	11 27	5 19.26	+12 4.8	2.294	3.245	5.5	20.7
12 7	5 11.06	+41 39.0	1.316	2.269	8.3	19.5	12 7	5 10.25	+12 6.0	2.275	3.247	3.3	20.6
12 17	4 58.81	+41 8.3	1.301	2.252	8.5	19.4	12 17	5 1.00	+12 14.1	2.287	3.249	4.3	20.6
12 27	4 47.83	+40 11.3	1.312	2.236	11.2	19.5	12 27	4 52.42	+12 29.6	2.328	3.250	7.1	20.8
1 6	4 39.83	+38 56.3	1.345	2.221	14.9	19.7	1 6	4 45.25	+12 52.2	2.398	3.251	10.0	21.0
1 16	4 35.78	+37 33.4	1.400	2.207	18.4	19.9	1 16	4 40.02	+13 21.2	2.491	3.252	12.6	21.2
<b>129657</b>	1998 QQ <sub>33</sub>	12 9.8	100°31	5.9/ 8.8	18		<b>446348</b>	2014 HF <sub>8</sub>	12 9.9	139°76	5.4/ 8.4	18	
11 7	5 35.14	+ 6 32.7	2.048	2.865	13.3	20.3	11 7	5 33.45	+ 8 37.4	2.130	2.953	12.7	21.7
11 17	5 28.38	+ 5 49.9	2.002	2.891	10.4	20.2	11 17	5 27.27	+ 7 43.8	2.068	2.962	9.8	21.6
11 27	5 19.84	+ 5 17.4	1.981	2.916	7.5	20.1	11 27	5 19.28	+ 6 57.6	2.032	2.972	7.0	21.4
12 7	5 10.33	+ 4 58.2	1.988	2.940	5.9	20.0	12 7	5 10.24	+ 6 22.1	2.023	2.980	5.4	21.3
12 17	5 0.82	+ 4 53.8	2.023	2.964	6.7	20.1	12 17	5 1.06	+ 6 0.0	2.043	2.989	6.3	21.4
12 27	4 52.25	+ 5 4.6	2.087	2.988	9.1	20.3	12 27	4 52.69	+ 5 52.7	2.092	2.996	8.9	21.6
1 6	4 45.40	+ 5 29.1	2.177	3.011	11.7	20.5	1 6	4 45.91	+ 5 59.7	2.167	3.004	11.6	21.8
1 16	4 40.72	+ 6 5.0	2.289	3.033	14.0	20.7	1 16	4 41.24	+ 6 19.4	2.264	3.011	14.1	22.0
<b>147316</b>	2003 BJ <sub>6</sub>	12 9.8	35°22	1.2/ 9.7	18		<b>415638</b>	2014 QW <sub>379</sub>	12 9.9	97°46	3.6/ 9.0	18	
11 7	5 35.85	+20 32.2	1.014	1.886	19.6	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>522085</b>	2015 <i>XO</i> <sub>421</sub>	12 9.9 42°78'	2°0'	9.7	18		<b>157143</b>	2004 <i>PX</i> <sub>1</sub>	12 9.9 160°75'	0°7'	9.9	18	
11 7	5 33.20	+16 19.6	1.911	2.751	13.2	20.9	11 7	5 38.02	+24 25.1	1.907	2.740	13.5	20.8
11 17	5 27.44	+16 34.0	1.846	2.758	9.7	20.7	11 17	5 31.08	+24 34.9	1.836	2.745	9.9	20.6
11 27	5 19.54	+16 52.6	1.805	2.766	5.8	20.5	11 27	5 21.72	+24 41.2	1.790	2.750	5.8	20.3
12 7	5 10.33	+17 15.2	1.792	2.773	2.3	20.2	12 7	5 10.86	+24 42.6	1.771	2.755	1.5	20.0
12 17	5 0.85	+17 41.2	1.808	2.781	3.7	20.4	12 17	4 59.69	+24 39.0	1.782	2.758	3.2	20.2
12 27	4 52.22	+18 10.5	1.853	2.789	7.6	20.6	12 27	4 49.49	+24 31.8	1.823	2.762	7.5	20.5
1 6	4 45.37	+18 42.7	1.924	2.798	11.2	20.8	1 6	4 41.32	+24 23.5	1.891	2.764	11.3	20.7
1 16	4 40.92	+19 17.6	2.019	2.807	14.2	21.1	1 16	4 35.85	+24 16.9	1.982	2.767	14.5	20.9
<b>329182</b>	2012 <i>DZ</i> <sub>25</sub>	12 9.9 142°31'	4°6'	10.8	18		<b>269702</b>	1997 <i>TP</i> <sub>21</sub>	12 9.9 123°87'	0°7'	10.0	18	
11 7	5 36.81	+37 12.8	2.542	3.341	11.5	20.8	11 7	5 38.90	+25 5.6	1.876	2.707	13.8	21.7
11 17	5 29.97	+37 54.4	2.470	3.348	9.1	20.6	11 17	5 31.60	+25 8.8	1.815	2.723	10.1	21.5
11 27	5 20.98	+38 25.7	2.424	3.355	6.6	20.4	11 27	5 21.94	+25 7.4	1.779	2.739	5.9	21.3
12 7	5 10.66	+38 43.4	2.405	3.361	4.8	20.3	12 7	5 10.89	+25 0.4	1.770	2.754	1.6	21.0
12 17	5 0.02	+38 46.0	2.416	3.367	5.0	20.4	12 17	4 59.68	+24 48.0	1.792	2.768	3.2	21.2
12 27	4 50.18	+38 34.4	2.456	3.373	7.1	20.5	12 27	4 49.59	+24 32.3	1.843	2.782	7.4	21.5
1 6	4 42.09	+38 12.1	2.524	3.378	9.6	20.7	1 6	4 41.62	+24 16.3	1.921	2.795	11.2	21.7
1 16	4 36.39	+37 43.5	2.616	3.384	11.9	20.9	1 16	4 36.37	+24 2.7	2.023	2.807	14.3	22.0
<b>414292</b>	2008 <i>QF</i> <sub>1</sub>	12 9.9 53°46'	7°8'	9.1	17		<b>481437</b>	2006 <i>VA</i> <sub>38</sub>	12 9.9 337°59'	2°2'	10.1	18	
11 7	5 31.72	+0 30.5	1.972	2.780	14.1	20.7	11 7	5 35.52	+27 1.1	1.788	2.626	14.0	20.9
11 17	5 25.98	-0 5.9	1.933	2.805	11.5	20.6	11 17	5 29.60	+27 40.5	1.713	2.623	10.4	20.6
11 27	5 18.50	-0 26.4	1.916	2.831	9.1	20.5	11 27	5 21.04	+28 15.8	1.661	2.620	6.4	20.4
12 7	5 10.06	-0 27.9	1.925	2.856	7.9	20.5	12 7	5 10.74	+28 44.0	1.637	2.618	2.7	20.1
12 17	5 1.61	-0 9.4	1.961	2.882	8.4	20.5	12 17	4 59.93	+29 3.1	1.641	2.615	3.9	20.2
12 27	4 54.07	+0 28.2	2.024	2.908	10.2	20.7	12 27	4 50.02	+29 13.3	1.674	2.613	8.0	20.5
1 6	4 48.18	+1 21.6	2.111	2.934	12.4	20.9	1 6	4 42.22	+29 17.0	1.733	2.611	11.9	20.7
1 16	4 44.40	+2 26.8	2.220	2.960	14.5	21.1	1 16	4 37.29	+29 17.7	1.814	2.610	15.3	20.9
<b>386901</b>	2011 <i>HS</i> <sub>29</sub>	12 9.9 210°23'	1°4'	9.6	18		<b>81366</b>	2000 <i>GM</i> <sub>63</sub>	12 9.9 52°40'	2°2'	9.5	18	
11 7	5 36.61	+19 41.9	1.924	2.759	13.3	22.2	11 7	5 34.58	+18 3.6	1.576	2.425	15.1	19.1
11 17	5 30.04	+19 28.5	1.843	2.753	9.8	22.0	11 17	5 28.58	+17 44.9	1.528	2.445	11.0	18.9
11 27	5 21.13	+19 14.7	1.786	2.747	5.8	21.7	11 27	5 20.20	+17 28.2	1.504	2.466	6.5	18.7
12 7	5 10.71	+19 0.9	1.758	2.740	1.8	21.4	12 7	5 10.49	+17 14.5	1.505	2.487	2.6	18.5
12 17	4 59.90	+18 48.1	1.759	2.733	3.7	21.6	12 17	5 0.71	+17 5.4	1.535	2.508	4.3	18.7
12 27	4 49.93	+18 38.1	1.789	2.725	7.9	21.8	12 27	4 52.14	+17 2.2	1.592	2.530	8.5	19.0
1 6	4 41.83	+18 32.7	1.847	2.716	11.8	22.0	1 6	4 45.75	+17 6.1	1.674	2.551	12.4	19.3
1 16	4 36.31	+18 33.4	1.927	2.707	15.1	22.2	1 16	4 42.09	+17 17.1	1.778	2.573	15.6	19.6
<b>115784</b>	2003 <i>UJ</i> <sub>218</sub>	12 9.9 355°71'	2°9'	9.3	18		<b>343811</b>	2011 <i>HC</i> <sub>6</sub>	12 9.9 218°45'	0°5'	9.9	18	
11 7	5 33.35	+16 52.2	1.628	2.476	14.7	19.6	11 7	5 37.81	+24 6.8	1.893	2.726	13.6	21.8
11 17	5 27.87	+16 27.0	1.559	2.475	10.9	19.4	11 17	5 31.09	+24 14.6	1.809	2.718	10.0	21.6
11 27	5 19.93	+16 4.2	1.513	2.474	6.7	19.2	11 27	5 21.84	+24 19.2	1.749	2.710	5.9	21.3
12 7	5 10.44	+15 45.5	1.494	2.474	3.1	18.9	12 7	5 10.92	+24 19.2	1.718	2.702	1.5	21.0
12 17	5 0.62	+15 32.8	1.502	2.473	4.7	19.1	12 17	4 59.50	+24 14.5	1.716	2.692	3.3	21.1
12 27	4 51.78	+15 28.0	1.538	2.473	8.9	19.3	12 27	4 48.95	+24 6.3	1.744	2.682	7.8	21.4
1 6	4 44.99	+15 32.1	1.599	2.473	13.0	19.5	1 6	4 40.39	+23 57.3	1.798	2.672	11.8	21.6
1 16	4 40.95	+15 45.1	1.681	2.474	16.4	19.8	1 16	4 34.59	+23 50.3	1.875	2.661	15.2	21.8
<b>515629</b>	2014 <i>LL</i> <sub>12</sub>	12 9.9 180°72'	0°7'	9.9	18		<b>353030</b>	2009 <i>CJ</i> <sub>21</sub>	12 9.9 222°40'	5°7'	8.9	18	
11 7	5 35.70	+24 47.2	2.190	3.019	12.1	22.2	11 7	5 33.41	+7 47.3	1.943	2.769	13.6	21.7
11 17	5 29.17	+24 55.4	2.112	3.020	8.9	22.0	11 17	5 27.57	+7 17.1	1.869	2.765	10.6	21.5
11 27	5 20.53	+25 0.2	2.061	3.020	5.2	21.8	11 27	5 19.64	+6 56.4	1.819	2.760	7.6	21.3
12 7	5 10.57	+25 0.5	2.037	3.021	1.4	21.5	12 7	5 10.40	+6 48.1	1.795	2.755	5.7	21.2
12 17	5 0.30	+24 56.1	2.044	3.020	2.9	21.7	12 17	5 0.82	+6 54.1	1.800	2.750	6.6	21.3
12 27	4 50.83	+24 48.4	2.081	3.019	6.8	21.9	12 27	4 52.00	+7 14.9	1.833	2.745	9.4	21.4
1 6	4 43.08	+24 39.5	2.146	3.018	10.2	22.1	1 6	4 44.86	+7 49.2	1.892	2.739	12.6	21.6
1 16	4 37.68	+24 31.8	2.235	3.016	13.2	22.3	1 16	4 40.03	+8 34.9	1.972	2.733	15.4	21.8
<b>67206</b>	2000 <i>DU</i> <sub>15</sub>	12 9.9 323°36'	4°2'	9.1	18		<b>464370</b>	2016 <i>AP</i> <sub>172</sub>	12 9.9 8°28'	6°7'	9.6	17	
11 7	5 31.44	+14 27.1	1.500	2.353	15.4	19.4	11 7	5 32.07	+1 30.7	2.131	2.937	13.2	20.5
11 17	5 26.81	+13 55.2	1.419	2.337	11.6	19.1	11 17	5 26.40	+1 28.3	2.061	2.937	10.7	20.3
11 27	5 19.50	+13 27.8	1.362	2.321	7.5	18.8	11 27	5 18.88	+1 40.8	2.016	2.938	8.3	20.1
12 7	5 10.39	+13 7.8	1.329	2.305	4.3	18.6	12 7	5 10.22	+2 10.3	1.997	2.939	6.8	20.1
12 17	5 0.70	+12 57.8	1.323	2.291	5.9	18.7	12 17	5 1.30	+2 57.3	2.006	2.940	7.3	20.1
12 27	4 51.89	+13 0.0	1.343	2.276	10.1	18.9	12 27	4 53.07	+4 0.2	2.044	2.942	9.4	20.2
1 6	4 45.17	+13 14.8	1.387	2.263	14.4	19.1	1 6	4 46.34	+5 16.0	2.107	2.943	11.9	20.4
1 16	4 41.38	+13 41.4	1.450	2.251	18.2	19.3	1 16	4 41.70	+6 40.7	2.194	2.945	14.4	20.6
<b>141852</b>	2002 <i>PU</i> <sub>8</sub>	12 9.9 243°68'	2°0'	9.4	18		<b>261495</b>	2005 <i>WJ</i> <sub>15</sub>	12 9.9 343°36'	0°4'	9.9	17	
11 7	5 36.49	+20 23.5	1.435	2.286	16.1	20.3	11 7	5 32.69	+24 3.8	1.821	2.665	13.5	20.9
11 17	5 30.47	+19 45.0	1.366	2.285	11.9	20.0	11 17	5 27.34	+24 3.9	1.745	2.661	10.0	20.7
11 27	5 21.55	+19 4.0	1.320	2.284	7.0	19.7	11 27	5 19.63	+24 0.7	1.694	2.657	5.8	20.4
12 7	5 10.82	+18 22.6	1.300	2.282	2.4	19.4	12 7	5 10.41	+23 53.5	1.670	2.653	1.4	20.1
12 17	4 59.73	+17 43.9	1.307	2.281	4.6	19.6	12 17	5 0.82	+23 42.7	1.674	2.650	3.3	20.3
12 27	4 49.84	+17 11.6	1.341	2.280	9.6	19.9	12 27	4 52.12	+23 30.2	1.706	2.648	7.6	20.5
1 6	4 42.42	+16 49.1	1.400	2.279	14.2	20.1	1 6	4 45.36	+23 18.3	1.764	2.645	11.6	20.8
1 16	4 38.17	+16 37.9	1.479	2.277	18.0	20.4	1 16	4 41.21	+23 9.5	1.845	2.643	14.9	21.0
<b>207290</b>	2005 <i>GT</i> <sub>24</sub>	12 9.9 148°26'	1°9'	10.3	18		<b>46478</b>	1097 <i>T</i> <sub>-2</sub>	12 9.9 59°14'	0°7'	10.0	18	
11 7	5 36.7												

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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>208100</b>	2000 AC <sub>221</sub>	12	9.9	212°64	4.5/ 9.5	18	<b>72570</b>	2001 EB <sub>14</sub>	12	9.9	93°18	5.6/10.5	18
11 7	5 34.78	+ 9 21.0	1.957	2.782	13.5	20.4	11 7	5 41.33	+35 14.7	1.804	2.619	14.9	18.4
11 17	5 28.60	+ 9 22.6	1.881	2.780	10.3	20.2	11 17	5 33.99	+36 24.3	1.743	2.632	11.6	18.2
11 27	5 20.27	+ 9 33.9	1.830	2.777	7.0	19.9	11 27	5 23.65	+37 22.5	1.706	2.645	8.2	18.0
12 7	5 10.56	+ 9 56.2	1.806	2.774	4.6	19.8	12 7	5 11.39	+38 3.6	1.696	2.658	5.8	17.9
12 17	5 0.49	+10 29.6	1.811	2.771	5.6	19.9	12 17	4 58.67	+38 24.2	1.715	2.670	6.3	18.0
12 27	4 51.16	+11 13.5	1.845	2.767	8.7	20.0	12 27	4 47.16	+38 25.2	1.761	2.683	9.1	18.2
1 6	4 43.54	+12 6.1	1.906	2.764	12.0	20.2	1 6	4 38.15	+38 11.5	1.833	2.695	12.2	18.4
1 16	4 38.29	+13 5.3	1.990	2.760	15.0	20.4	1 16	4 32.43	+37 49.3	1.928	2.707	15.1	18.6
<b>94912</b>	2001 YR <sub>47</sub>	12	9.9	184°39	0°5/ 9.9	18	<b>190221</b>	2006 DM <sub>12</sub>	12	9.9	280°42	0°7/ 9.7	18
11 7	5 37.35	+24 18.2	2.001	2.832	13.0	20.5	11 7	5 31.97	+21 24.4	2.218	3.055	11.7	20.3
11 17	5 30.54	+24 22.1	1.924	2.832	9.6	20.3	11 17	5 26.51	+21 16.4	2.131	3.042	8.6	20.0
11 27	5 21.41	+24 22.5	1.871	2.832	5.6	20.1	11 27	5 19.06	+21 7.0	2.068	3.030	5.0	19.8
12 7	5 10.82	+24 18.3	1.848	2.831	1.4	19.8	12 7	5 10.33	+20 56.4	2.034	3.017	1.3	19.5
12 17	4 59.89	+24 9.6	1.854	2.830	3.1	19.9	12 17	5 1.23	+20 45.3	2.029	3.005	3.0	19.6
12 27	4 49.84	+23 58.0	1.890	2.828	7.3	20.2	12 27	4 52.78	+20 35.1	2.054	2.992	6.8	19.9
1 6	4 41.70	+23 46.0	1.953	2.826	11.1	20.4	1 6	4 45.87	+20 27.5	2.106	2.980	10.3	20.0
1 16	4 36.14	+23 36.3	2.039	2.823	14.3	20.6	1 16	4 41.12	+20 24.1	2.182	2.967	13.4	20.2
<b>191232</b>	2002 SL <sub>18</sub>	12	9.9	105°18	8°0/12.9	18	<b>46570</b>	1991 TK <sub>8</sub>	12	9.9	20°54	5°3/ 9.3	18
11 7	5 43.79	+51 39.8	2.744	3.471	12.5	20.5	11 7	5 33.67	+12 46.8	1.185	2.046	18.1	17.9
11 17	5 35.28	+52 29.0	2.688	3.491	10.8	20.4	11 17	5 28.68	+12 15.6	1.131	2.051	13.7	17.6
11 27	5 24.13	+52 59.6	2.655	3.511	9.2	20.4	11 27	5 20.63	+11 53.3	1.097	2.056	8.9	17.4
12 7	5 11.42	+53 7.4	2.647	3.531	8.2	20.3	12 7	5 10.70	+11 43.4	1.088	2.062	5.5	17.2
12 17	4 58.51	+52 50.5	2.666	3.550	8.1	20.3	12 17	5 0.43	+11 48.2	1.102	2.069	7.0	17.3
12 27	4 46.85	+52 11.0	2.712	3.568	8.9	20.4	12 27	4 51.51	+12 8.2	1.142	2.077	11.3	17.6
1 6	4 37.56	+51 14.5	2.784	3.587	10.3	20.6	1 6	4 45.23	+12 42.1	1.204	2.086	15.8	17.9
1 16	4 31.27	+50 7.4	2.879	3.605	11.8	20.7	1 16	4 42.30	+13 27.1	1.285	2.095	19.6	18.1
<b>439083</b>	2011 OC <sub>55</sub>	12	9.9	74°93	5°3/ 9.4	18	<b>454906</b>	2015 TE <sub>122</sub>	12	9.9	214°34	1°4/ 9.7	18
11 7	5 35.00	+ 9 14.8	1.641	2.476	15.2	20.5	11 7	5 34.53	+17 58.6	2.116	2.949	12.3	21.7
11 17	5 28.87	+ 8 59.2	1.585	2.488	11.6	20.3	11 17	5 28.39	+18 9.5	2.036	2.945	9.1	21.5
11 27	5 20.42	+ 8 54.2	1.553	2.501	8.0	20.1	11 27	5 20.16	+18 22.7	1.981	2.941	5.4	21.3
12 7	5 10.59	+ 9 2.1	1.546	2.513	5.5	20.0	12 7	5 10.59	+18 38.1	1.955	2.937	1.8	21.0
12 17	5 0.56	+ 9 23.6	1.568	2.526	6.4	20.1	12 17	5 0.63	+18 55.2	1.958	2.932	3.3	21.1
12 27	4 51.58	+ 9 58.1	1.616	2.538	9.7	20.3	12 27	4 51.38	+19 14.4	1.992	2.928	7.2	21.4
1 6	4 44.65	+10 43.7	1.690	2.551	13.1	20.5	1 6	4 43.78	+19 35.9	2.053	2.923	10.7	21.6
1 16	4 40.36	+11 37.6	1.785	2.563	16.2	20.8	1 16	4 38.46	+20 0.3	2.137	2.917	13.8	21.8
<b>271588</b>	2004 NZ <sub>5</sub>	12	9.9	116°80	3°8/ 9.3	18	<b>397376</b>	2006 UQ <sub>335</sub>	12	9.9	275°70	2°9/ 8.9	18
11 7	5 36.40	+13 36.2	1.718	2.554	14.6	20.9	11 7	5 33.20	+17 56.1	1.928	2.768	13.1	20.5
11 17	5 29.84	+13 16.9	1.658	2.566	10.9	20.7	11 17	5 27.44	+16 56.1	1.852	2.765	9.7	20.3
11 27	5 20.97	+13 3.3	1.623	2.578	6.9	20.5	11 27	5 19.58	+15 54.9	1.802	2.761	5.9	20.1
12 7	5 10.71	+12 57.1	1.614	2.589	3.9	20.4	12 7	5 10.44	+14 55.6	1.780	2.758	3.0	19.9
12 17	5 0.26	+12 59.5	1.634	2.600	5.2	20.5	12 17	5 1.06	+14 1.9	1.787	2.755	4.6	20.0
12 27	4 50.86	+13 11.3	1.682	2.611	8.9	20.7	12 27	4 52.54	+13 17.4	1.823	2.752	8.3	20.2
1 6	4 43.50	+13 32.2	1.756	2.621	12.5	21.0	1 6	4 45.81	+12 44.4	1.886	2.749	11.9	20.4
1 16	4 38.78	+14 1.1	1.852	2.631	15.7	21.2	1 16	4 41.44	+12 24.0	1.970	2.746	14.9	20.6
<b>274317</b>	2008 QJ <sub>48</sub>	12	9.9	85°65	2°2/10.6	17	<b>343270</b>	2010 AE <sub>1</sub>	12	9.9	332°66	0°2/ 9.9	18
11 7	5 33.97	+30 50.1	2.266	3.090	12.0	20.8	11 7	5 33.83	+23 21.6	1.303	2.164	16.8	20.8
11 17	5 27.83	+30 45.4	2.197	3.098	8.9	20.7	11 17	5 29.02	+23 13.5	1.230	2.153	12.5	20.6
11 27	5 19.71	+30 32.4	2.153	3.107	5.6	20.5	11 27	5 21.00	+23 1.6	1.178	2.144	7.3	20.2
12 7	5 10.43	+30 10.1	2.138	3.116	2.6	20.3	12 7	5 10.83	+22 45.4	1.151	2.135	1.7	19.9
12 17	5 0.99	+29 39.0	2.152	3.124	3.3	20.4	12 17	5 0.05	+22 26.0	1.149	2.126	4.2	20.0
12 27	4 52.45	+29 1.8	2.196	3.133	6.5	20.6	12 27	4 50.44	+22 6.3	1.173	2.119	9.8	20.3
1 6	4 45.65	+28 22.0	2.267	3.141	9.7	20.8	1 6	4 43.45	+21 50.1	1.220	2.112	14.8	20.6
1 16	4 41.15	+27 43.3	2.363	3.150	12.4	21.0	1 16	4 39.95	+21 40.3	1.287	2.106	19.0	20.8
<b>198000</b>	2004 RS <sub>177</sub>	12	9.9	10°13	2°2/10.4	18	<b>274440</b>	2008 SQ <sub>44</sub>	12	9.9	50°37	0°6/ 9.7	17
11 7	5 35.42	+29 9.8	1.338	2.190	17.0	19.7	11 7	5 31.87	+21 43.6	2.119	2.958	12.1	20.9
11 17	5 30.02	+28 58.4	1.274	2.191	12.7	19.5	11 17	5 26.33	+21 31.9	2.052	2.965	8.8	20.7
11 27	5 21.43	+28 35.9	1.232	2.193	7.8	19.2	11 27	5 18.87	+21 18.5	2.011	2.973	5.1	20.5
12 7	5 10.86	+28 1.2	1.214	2.195	2.9	18.9	12 7	5 10.28	+21 3.9	1.997	2.981	1.3	20.3
12 17	4 59.95	+27 15.8	1.222	2.198	4.3	19.0	12 17	5 1.49	+20 49.0	2.013	2.989	3.0	20.4
12 27	4 50.46	+26 24.4	1.257	2.202	9.3	19.3	12 27	4 53.53	+20 35.4	2.059	2.997	6.8	20.7
1 6	4 43.73	+25 33.6	1.315	2.206	14.0	19.6	1 6	4 47.21	+20 25.0	2.131	3.006	10.2	20.9
1 16	4 40.46	+24 48.7	1.394	2.211	17.9	19.9	1 16	4 43.09	+20 19.1	2.226	3.014	13.1	21.1
<b>189348</b>	2008 BR <sub>43</sub>	12	9.9	272°72	4°1/10.5	18	<b>103392</b>	2000 AC <sub>127</sub>	12	9.9	268°68	6°4/ 8.9	18
11 7	5 39.42	+31 33.6	1.438	2.277	16.8	20.7	11 7	5 33.03	+ 6 8.3	1.880	2.705	14.0	19.2
11 17	5 33.26	+31 59.5	1.357	2.265	12.8	20.4	11 17	5 27.44	+ 5 39.4	1.802	2.695	11.1	19.0
11 27	5 23.56	+32 14.8	1.297	2.252	8.4	20.1	11 27	5 19.67	+ 5 21.7	1.748	2.685	8.2	18.8
12 7	5 11.42	+32 15.0	1.263	2.239	4.5	19.9	12 7	5 10.50	+ 5 18.6	1.720	2.675	6.4	18.7
12 17	4 58.49	+31 57.6	1.255	2.226	5.5	19.9	12 17	5 0.92	+ 5 32.0	1.719	2.665	7.3	18.7
12 27	4 46.76	+31 25.3	1.274	2.213	10.0	20.1	12 27	4 52.06	+ 6 2.2	1.746	2.655	10.0	18.9
1 6	4 37.84	+30 44.3	1.316	2.200	14.6	20.3	1 6	4 44.90	+ 6 47.6	1.798	2.645	13.2	19.1
1 16	4 32.71	+30 1.8	1.380	2.186	18.7	20.6	1 16	4 40.11	+ 7 45.1	1.872	2.634	16.1	19.2
<b>68543</b>	2001 WQ <sub>101</sub>	12	9.9	183°40	0°1/ 9.9	18	<b>450797</b>	2007 TJ <sub>318</sub>	12	9.9	6°78	7°5/ 6.9	18
11 7	5 37.33	+23 7.4	1.953	2.786	13.2								

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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>287891</b>	2003 SE <sub>338</sub>	12	9.9 143°89	0°4/ 9.9 18			<b>370847</b>	2005 CO <sub>21</sub>	12	9.9 305°09	9°7/12.9 18		
11 7	5 37.16	+24 42.6	2.174	3.001	12.3	22.5	11 7	5 42.45	+52 52.2	2.303	3.038	14.4	20.0
11 17	5 30.13	+24 34.1	2.106	3.013	9.0	22.3	11 17	5 35.12	+53 43.2	2.225	3.030	12.7	19.9
11 27	5 21.06	+24 21.3	2.064	3.024	5.2	22.1	11 27	5 24.48	+54 13.4	2.167	3.023	11.0	19.8
12 7	5 10.79	+24 4.0	2.050	3.034	1.3	21.8	12 7	5 11.68	+54 16.6	2.133	3.015	9.9	19.7
12 17	5 0.36	+23 42.8	2.068	3.044	2.9	22.0	12 17	4 58.37	+53 49.7	2.124	3.008	9.8	19.7
12 27	4 50.85	+23 19.9	2.116	3.053	6.7	22.3	12 27	4 46.39	+52 54.4	2.141	3.001	10.8	19.7
1 6	4 43.14	+22 58.0	2.191	3.061	10.1	22.5	1 6	4 37.19	+51 37.2	2.182	2.994	12.4	19.8
1 16	4 37.79	+22 39.4	2.291	3.069	13.0	22.7	1 16	4 31.57	+50 6.6	2.244	2.987	14.3	19.9
<b>147019</b>	2002 QA <sub>47</sub>	12	9.9 114°95	0°1/ 9.9 18			<b>439051</b>	2011 GU <sub>71</sub>	12	9.9 197°24	1°7/10.1 18		
11 7	5 40.82	+25 7.6	1.738	2.570	14.6	20.8	11 7	5 39.69	+26 16.8	1.992	2.817	13.3	21.6
11 17	5 33.01	+24 37.2	1.682	2.591	10.7	20.6	11 17	5 32.49	+26 51.3	1.910	2.815	9.9	21.4
11 27	5 22.75	+24 0.6	1.650	2.611	6.2	20.4	11 27	5 22.73	+27 22.2	1.854	2.811	6.0	21.2
12 7	5 11.17	+23 18.3	1.647	2.631	1.4	20.1	12 7	5 11.28	+27 46.6	1.826	2.807	2.2	20.9
12 17	4 59.57	+22 32.7	1.674	2.650	3.4	20.3	12 17	4 59.31	+28 2.7	1.828	2.802	3.5	21.0
12 27	4 49.32	+21 47.8	1.730	2.668	7.9	20.6	12 27	4 48.18	+28 10.9	1.861	2.797	7.6	21.2
1 6	4 41.38	+21 7.5	1.813	2.685	11.8	20.9	1 6	4 39.04	+28 13.5	1.920	2.791	11.3	21.4
1 16	4 36.32	+20 34.9	1.918	2.702	15.0	21.1	1 16	4 32.64	+28 13.7	2.004	2.784	14.6	21.7
<b>228424</b>	2001 PH <sub>22</sub>	12	9.9 125°42	1°1/10.1 18			<b>24503</b>	Kero	12	9.9 136°71	5°4/10.5 18		
11 7	5 39.86	+26 0.5	1.855	2.684	14.0	21.4	11 7	5 41.22	+35 59.8	1.998	2.806	13.9	17.9
11 17	5 32.39	+26 7.0	1.794	2.701	10.3	21.2	11 17	5 33.79	+37 3.3	1.930	2.814	10.9	17.8
11 27	5 22.48	+26 8.0	1.758	2.717	6.1	21.0	11 27	5 23.55	+37 56.0	1.886	2.822	7.8	17.6
12 7	5 11.14	+26 2.4	1.750	2.732	1.8	20.7	12 7	5 11.47	+38 32.4	1.870	2.829	5.6	17.5
12 17	4 59.64	+25 50.0	1.771	2.747	3.3	20.9	12 17	4 58.90	+38 49.5	1.882	2.836	6.1	17.5
12 27	4 49.29	+25 33.1	1.823	2.761	7.5	21.2	12 27	4 47.36	+38 48.0	1.923	2.842	8.6	17.7
1 6	4 41.12	+25 15.0	1.901	2.774	11.3	21.4	1 6	4 38.12	+38 32.3	1.991	2.848	11.6	17.9
1 16	4 35.74	+24 58.8	2.002	2.787	14.4	21.6	1 16	4 31.93	+38 8.3	2.081	2.854	14.3	18.1
<b>297957</b>	2002 GT <sub>121</sub>	12	9.9 146°73	2°3/10.5 18			<b>317305</b>	2002 GQ <sub>108</sub>	12	9.9 177°08	5°4/10.3 18		
11 7	5 38.61	+30 35.6	2.464	3.276	11.5	22.3	11 7	5 41.04	+34 15.2	1.819	2.637	14.7	20.0
11 17	5 31.10	+30 49.3	2.395	3.290	8.6	22.2	11 17	5 33.95	+35 25.7	1.746	2.638	11.4	19.8
11 27	5 21.61	+30 55.5	2.352	3.302	5.4	22.0	11 27	5 23.80	+36 27.0	1.697	2.638	8.0	19.6
12 7	5 10.95	+30 52.5	2.338	3.314	2.7	21.8	12 7	5 11.56	+37 12.8	1.675	2.639	5.6	19.5
12 17	5 0.11	+30 40.0	2.355	3.325	3.3	21.9	12 17	4 58.66	+37 39.3	1.681	2.639	6.2	19.5
12 27	4 50.14	+30 19.6	2.403	3.336	6.3	22.1	12 27	4 46.77	+37 46.5	1.716	2.639	9.1	19.7
1 6	4 41.90	+29 54.5	2.480	3.345	9.3	22.3	1 6	4 37.30	+37 38.7	1.776	2.639	12.5	19.9
1 16	4 35.95	+29 28.2	2.581	3.354	11.9	22.5	1 16	4 31.12	+37 21.7	1.858	2.638	15.6	20.1
<b>227746</b>	2006 HJ <sub>36</sub>	12	9.9 301°72	2°1/10.2 18			<b>208105</b>	2000 BH <sub>12</sub>	12	9.9 181°08	4°9/ 9.1 18		
11 7	5 33.76	+27 50.0	2.039	2.872	12.7	20.5	11 7	5 33.58	+ 8 2.7	2.271	3.089	12.1	21.1
11 17	5 28.25	+28 16.4	1.944	2.852	9.5	20.2	11 17	5 27.46	+ 7 39.8	2.198	3.090	9.4	20.9
11 27	5 20.32	+28 38.2	1.874	2.832	5.9	20.0	11 27	5 19.54	+ 7 25.1	2.150	3.090	6.7	20.7
12 7	5 10.72	+28 53.3	1.832	2.812	2.5	19.7	12 7	5 10.53	+ 7 20.8	2.130	3.090	4.9	20.6
12 17	5 0.52	+29 0.0	1.818	2.792	3.6	19.8	12 17	5 1.26	+ 7 28.1	2.140	3.090	5.7	20.7
12 27	4 50.97	+28 59.0	1.834	2.772	7.5	20.0	12 27	4 52.67	+ 7 47.6	2.179	3.089	8.2	20.8
1 6	4 43.19	+28 52.6	1.876	2.753	11.2	20.2	1 6	4 45.54	+ 8 18.0	2.245	3.087	11.0	21.0
1 16	4 37.99	+28 44.1	1.941	2.734	14.5	20.3	1 16	4 40.44	+ 8 57.9	2.333	3.086	13.6	21.2
<b>269493</b>	2009 UF <sub>31</sub>	12	9.9 336°22	2°7/ 9.1 17			<b>43257</b>	2000 CO <sub>87</sub>	12	9.9 219°25	3°8/10.7 18		
11 7	5 31.19	+17 18.8	2.043	2.884	12.4	19.9	11 7	5 39.64	+32 40.5	1.658	2.486	15.4	19.2
11 17	5 25.93	+16 35.0	1.968	2.880	9.2	19.7	11 17	5 32.91	+32 54.9	1.581	2.483	11.8	19.0
11 27	5 18.72	+15 51.5	1.918	2.877	5.7	19.5	11 27	5 23.14	+32 57.5	1.527	2.479	7.7	18.7
12 7	5 10.31	+15 10.8	1.895	2.874	2.8	19.3	12 7	5 11.39	+32 45.0	1.500	2.474	4.3	18.5
12 17	5 1.66	+14 35.3	1.902	2.871	4.2	19.4	12 17	4 59.16	+32 16.5	1.500	2.470	5.0	18.6
12 27	4 53.77	+14 7.6	1.938	2.869	7.7	19.6	12 27	4 48.13	+31 35.1	1.528	2.465	8.8	18.8
1 6	4 47.51	+13 49.4	2.000	2.866	11.2	19.8	1 6	4 39.62	+30 46.7	1.582	2.460	12.9	19.0
1 16	4 43.45	+13 41.3	2.085	2.864	14.1	20.0	1 16	4 34.44	+29 57.8	1.658	2.454	16.4	19.2
<b>65663</b>	1986 QC <sub>3</sub>	12	9.9 19°78	6°9/10.9 18			<b>413168</b>	2002 QA <sub>58</sub>	12	9.9 28°72	0°6/ 9.8 17		
11 7	5 39.67	+35 46.2	1.192	2.035	19.2	17.4	11 7	5 31.67	+22 25.2	1.898	2.742	13.1	20.8
11 17	5 33.92	+36 38.6	1.133	2.038	15.1	17.2	11 17	5 26.39	+22 5.3	1.835	2.750	9.5	20.6
11 27	5 24.10	+37 14.9	1.095	2.042	10.6	16.9	11 27	5 19.01	+21 42.9	1.796	2.759	5.5	20.4
12 7	5 11.61	+37 27.6	1.079	2.046	7.3	16.8	12 7	5 10.41	+21 18.6	1.785	2.769	1.3	20.2
12 17	4 58.54	+37 13.4	1.087	2.050	7.8	16.8	12 17	5 1.63	+20 54.0	1.802	2.779	3.2	20.3
12 27	4 47.22	+36 35.9	1.120	2.055	11.5	17.0	12 27	4 53.78	+20 31.3	1.849	2.789	7.3	20.6
1 6	4 39.41	+35 44.0	1.175	2.061	15.8	17.3	1 6	4 47.74	+20 12.8	1.921	2.800	10.9	20.8
1 16	4 35.93	+34 47.4	1.250	2.067	19.6	17.5	1 16	4 44.09	+20 0.3	2.016	2.811	14.0	21.1
<b>262069</b>	2006 RD <sub>49</sub>	12	9.9 83°32	0°2/ 9.9 18			<b>519769</b>	2013 EV <sub>155</sub>	12	9.9 148°43	0°1/ 9.9 18		
11 7	5 39.89	+23 6.4	1.382	2.230	16.8	20.9	11 7	5 34.69	+22 44.8	2.099	2.933	12.4	22.0
11 17	5 32.88	+23 0.9	1.332	2.249	12.3	20.7	11 17	5 28.53	+22 52.7	2.026	2.937	9.1	21.8
11 27	5 22.92	+22 52.0	1.305	2.268	7.1	20.5	11 27	5 20.27	+22 58.8	1.979	2.940	5.3	21.6
12 7	5 11.27	+22 39.1	1.303	2.287	1.6	20.2	12 7	5 10.71	+23 2.4	1.960	2.943	1.2	21.3
12 17	4 59.51	+22 23.2	1.329	2.305	3.9	20.4	12 17	5 0.86	+23 3.4	1.970	2.947	2.9	21.4
12 27	4 49.27	+22 7.1	1.382	2.324	9.0	20.7	12 27	4 51.82	+23 2.8	2.010	2.949	6.9	21.7
1 6	4 41.74	+21 54.0	1.460	2.342	13.5	21.0	1 6	4 44.51	+23 2.3	2.078	2.952	10.4	21.9
1 16	4 37.52	+21 46.5	1.558	2.360	17.1	21.3	1 16	4 39.55	+23 3.7	2.169	2.955	13.4	22.1
<b>466290</b>	2013 PS <sub>48</sub>	12	9.9 297°19	2°2/10.6 18			<b>228193</b>	2693 P-L	12	9.9 30°59	6°8/ 8.6 18		
11 7	5 33.40	+30 46.6	2.241	3.066	12.0	20.7							

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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>448960</b>	2011 <i>WM</i> <sub>102</sub>	12 9.9 100°76	1°5/ 9.7 18				<b>49873</b>	1999 <i>XZ</i> <sub>124</sub>	12 9.9 177°48	3°8/10.4 18			
11 7	5 34.93	+18 40.5	1.911	2.749	13.3	21.3	11 7	5 40.86	+31 8.4	1.656	2.485	15.4	19.0
11 17	5 28.73	+18 38.6	1.848	2.759	9.7	21.1	11 17	5 33.82	+31 44.6	1.584	2.486	11.7	18.8
11 27	5 20.38	+18 38.0	1.808	2.769	5.7	20.9	11 27	5 23.70	+32 11.8	1.535	2.487	7.6	18.6
12 7	5 10.73	+18 38.8	1.797	2.779	1.9	20.6	12 7	5 11.57	+32 25.7	1.512	2.488	4.1	18.4
12 17	5 0.85	+18 41.6	1.815	2.789	3.5	20.8	12 17	4 58.92	+32 24.2	1.518	2.488	5.0	18.4
12 27	4 51.90	+18 47.1	1.862	2.798	7.5	21.0	12 27	4 47.45	+32 9.0	1.552	2.488	8.9	18.6
1 6	4 44.80	+18 56.4	1.935	2.808	11.1	21.3	1 6	4 38.51	+31 45.0	1.612	2.487	12.9	18.9
1 16	4 40.15	+19 10.1	2.032	2.817	14.2	21.5	1 16	4 32.92	+31 17.8	1.693	2.486	16.3	19.1
<b>20412</b>	1998 <i>QG</i> <sub>73</sub>	12 9.9 327°88	0°9/ 9.7 18				<b>420660</b>	2012 <i>JA</i> <sub>27</sub>	12 9.9 190°55	3°2/ 9.8 18			
11 7	5 32.25	+22 20.4	2.056	2.895	12.4	17.0	11 7	5 34.63	+10 1.9	2.613	3.426	10.9	20.9
11 17	5 26.76	+21 48.2	1.979	2.892	9.1	16.8	11 17	5 28.12	+10 26.6	2.532	3.425	8.2	20.8
11 27	5 19.24	+21 12.6	1.927	2.889	5.3	16.6	11 27	5 19.93	+10 59.1	2.477	3.424	5.4	20.6
12 7	5 10.47	+20 34.7	1.902	2.886	1.4	16.3	12 7	5 10.67	+11 39.3	2.452	3.423	3.3	20.4
12 17	5 1.45	+19 56.6	1.908	2.883	3.2	16.4	12 17	5 1.11	+12 26.5	2.458	3.421	4.0	20.5
12 27	4 53.24	+19 21.1	1.942	2.880	7.1	16.7	12 27	4 52.08	+13 19.6	2.496	3.419	6.7	20.7
1 6	4 46.73	+18 50.8	2.004	2.878	10.8	16.9	1 6	4 44.35	+14 17.1	2.564	3.417	9.5	20.8
1 16	4 42.50	+18 27.8	2.088	2.876	13.8	17.1	1 16	4 38.45	+15 17.6	2.656	3.414	12.0	21.0
<b>494004</b>	2016 <i>AX</i> <sub>112</sub>	12 9.9 304°04	3°5/ 9.3 17				<b>403973</b>	2012 <i>BV</i> <sub>83</sub>	12 9.9 2°97	2°3/10.4 17			
11 7	5 30.94	+11 58.6	2.266	3.096	11.7	21.6	11 7	5 34.87	+28 53.8	1.843	2.678	13.8	21.8
11 17	5 25.63	+11 49.4	2.188	3.092	8.9	21.5	11 17	5 29.06	+29 7.5	1.770	2.678	10.3	21.5
11 27	5 18.54	+11 46.2	2.136	3.087	5.8	21.3	11 27	5 20.76	+29 14.1	1.721	2.678	6.4	21.3
12 7	5 10.32	+11 50.2	2.111	3.083	3.6	21.1	12 7	5 10.89	+29 11.6	1.699	2.678	2.7	21.1
12 17	5 1.80	+12 2.2	2.115	3.078	4.6	21.2	12 17	5 0.65	+28 59.6	1.705	2.679	3.8	21.2
12 27	4 53.91	+12 22.6	2.149	3.074	7.5	21.3	12 27	4 51.38	+28 40.0	1.739	2.679	7.7	21.4
1 6	4 47.43	+12 50.7	2.210	3.070	10.5	21.5	1 6	4 44.18	+28 16.4	1.800	2.680	11.5	21.6
1 16	4 42.93	+13 25.7	2.294	3.066	13.2	21.7	1 16	4 39.72	+27 52.7	1.884	2.681	14.7	21.8
<b>234759</b>	2002 <i>OB</i> <sub>30</sub>	12 9.9 141°11	2°4/10.4 18				<b>6666</b>	Frö	12 9.9 27°57	1°2/ 9.7 18			
11 7	5 38.37	+30 17.1	2.362	3.177	11.8	21.8	11 7	5 33.59	+21 57.3	1.167	2.034	17.9	17.1
11 17	5 31.03	+30 35.5	2.294	3.190	8.8	21.6	11 17	5 28.64	+21 29.8	1.123	2.049	13.1	16.9
11 27	5 21.63	+30 46.5	2.252	3.203	5.6	21.4	11 27	5 20.62	+20 59.8	1.099	2.065	7.6	16.6
12 7	5 11.01	+30 48.3	2.239	3.216	2.7	21.3	12 7	5 10.83	+20 28.9	1.099	2.083	2.0	16.3
12 17	5 0.19	+30 40.4	2.257	3.227	3.4	21.3	12 17	5 0.94	+19 59.7	1.125	2.101	4.4	16.6
12 27	4 50.26	+30 24.4	2.305	3.238	6.5	21.6	12 27	4 52.62	+19 35.7	1.175	2.121	9.8	16.9
1 6	4 42.11	+30 3.3	2.382	3.248	9.6	21.8	1 6	4 47.05	+19 19.9	1.249	2.142	14.4	17.3
1 16	4 36.33	+29 40.7	2.483	3.258	12.2	22.0	1 16	4 44.83	+19 13.6	1.342	2.163	18.3	17.6
<b>296874</b>	2009 <i>YY</i> <sub>21</sub>	12 9.9 39°11	4°5/10.2 18				<b>205965</b>	2002 <i>LH</i> <sub>29</sub>	12 9.9 183°19	6°6/12.7 18			
11 7	5 35.81	+ 7 45.8	1.793	2.619	14.5	19.8	11 7	5 45.40	+46 6.4	2.452	3.209	13.1	20.3
11 17	5 29.35	+ 8 24.5	1.740	2.638	11.1	19.6	11 17	5 36.42	+46 10.9	2.370	3.210	10.8	20.2
11 27	5 20.72	+ 9 16.2	1.711	2.658	7.4	19.4	11 27	5 24.86	+45 56.6	2.311	3.210	8.6	20.0
12 7	5 10.82	+10 20.1	1.709	2.679	4.7	19.3	12 7	5 11.80	+45 19.5	2.279	3.210	6.9	19.9
12 17	5 0.73	+11 34.1	1.737	2.700	5.4	19.4	12 17	4 58.62	+44 19.0	2.277	3.208	6.8	19.9
12 27	4 51.62	+12 55.0	1.794	2.721	8.5	19.6	12 27	4 46.75	+42 58.7	2.305	3.206	8.3	20.0
1 6	4 44.42	+14 19.3	1.878	2.743	11.8	19.9	1 6	4 37.28	+41 25.5	2.361	3.204	10.6	20.2
1 16	4 39.71	+15 44.3	1.985	2.765	14.7	20.1	1 16	4 30.80	+39 47.2	2.441	3.200	12.9	20.3
<b>492051</b>	2013 <i>HV</i> <sub>8</sub>	12 9.9 306°11	8°8/ 8.1 17				<b>510099</b>	2010 <i>PZ</i> <sub>61</sub>	12 9.9 47°46	5°0/ 9.5 18			
11 7	5 31.77	+ 2 54.0	1.649	2.475	15.6	21.6	11 7	5 37.09	+13 44.0	1.052	1.917	19.6	21.0
11 17	5 26.94	+ 1 58.4	1.564	2.451	12.8	21.4	11 17	5 31.31	+13 15.4	1.011	1.933	14.7	20.8
11 27	5 19.63	+ 1 16.6	1.501	2.428	10.2	21.2	11 27	5 22.22	+12 56.0	0.990	1.951	9.3	20.5
12 7	5 10.64	+ 0 54.3	1.463	2.405	8.8	21.0	12 7	5 11.22	+12 48.5	0.992	1.969	5.2	20.4
12 17	5 1.03	+ 0 55.8	1.450	2.382	9.8	21.0	12 17	5 0.10	+12 54.9	1.018	1.987	6.9	20.5
12 27	4 52.09	+ 1 22.8	1.462	2.359	12.5	21.1	12 27	4 50.69	+13 15.2	1.068	2.006	11.6	20.9
1 6	4 44.99	+ 2 13.2	1.497	2.337	15.7	21.3	1 6	4 44.28	+13 48.1	1.141	2.026	16.2	21.2
1 16	4 40.53	+ 3 22.7	1.552	2.315	18.9	21.4	1 16	4 41.49	+14 30.8	1.231	2.046	20.0	21.5
<b>332976</b>	2011 <i>FG</i> <sub>6</sub>	12 9.9 252°85	1°8/ 9.6 18				<b>108764</b>	2001 <i>OZ</i> <sub>47</sub>	12 9.9 197°18	0°9/10.1 18			
11 7	5 31.43	+16 47.9	2.518	3.348	10.7	20.5	11 7	5 38.83	+26 27.7	1.978	2.806	13.3	20.3
11 17	5 25.92	+16 48.2	2.431	3.339	7.9	20.3	11 17	5 31.76	+26 18.1	1.897	2.803	9.8	20.1
11 27	5 18.69	+16 50.8	2.371	3.329	4.8	20.1	11 27	5 22.26	+26 2.2	1.841	2.800	5.9	19.8
12 7	5 10.38	+16 56.2	2.339	3.319	2.0	19.9	12 7	5 11.24	+25 39.1	1.812	2.795	1.7	19.5
12 17	5 1.74	+17 4.6	2.338	3.310	3.2	20.0	12 17	4 59.87	+25 9.6	1.814	2.790	3.2	19.6
12 27	4 53.64	+17 16.5	2.367	3.300	6.4	20.2	12 27	4 49.43	+24 36.2	1.846	2.784	7.4	19.9
1 6	4 46.85	+17 32.3	2.424	3.290	9.5	20.3	1 6	4 40.98	+24 2.8	1.905	2.778	11.3	20.1
1 16	4 41.92	+17 52.1	2.505	3.279	12.1	20.5	1 16	4 35.22	+23 32.9	1.988	2.771	14.6	20.3
<b>403686</b>	2010 <i>VX</i> <sub>55</sub>	12 9.9 74°34	0°8/ 9.8 17				<b>195673</b>	2002 <i>OA</i> <sub>18</sub>	12 9.9 117°82	3°5/ 9.0 18			
11 7	5 33.80	+20 48.1	1.965	2.804	12.9	21.7	11 7	5 31.05	+12 26.9	2.461	3.288	11.0	20.6
11 17	5 27.93	+20 47.4	1.899	2.812	9.4	21.5	11 17	5 25.48	+11 55.6	2.396	3.297	8.3	20.5
11 27	5 19.93	+20 46.3	1.858	2.820	5.5	21.2	11 27	5 18.36	+11 28.7	2.356	3.306	5.5	20.3
12 7	5 10.66	+20 44.7	1.844	2.827	1.4	21.0	12 7	5 10.32	+11 8.1	2.345	3.315	3.6	20.2
12 17	5 1.15	+20 42.8	1.860	2.835	3.2	21.1	12 17	5 2.14	+10 55.3	2.363	3.323	4.5	20.3
12 27	4 52.52	+20 42.0	1.904	2.843	7.2	21.4	12 27	4 54.62	+10 51.3	2.412	3.331	7.1	20.4
1 6	4 45.69	+20 43.6	1.976	2.851	10.8	21.6	1 6	4 48.45	+10 56.4	2.487	3.339	9.8	20.6
1 16	4 41.25	+20 48.8	2.070	2.859	13.9	21.9	1 16	4 44.09	+11 9.9	2.586	3.347	12.2	20.8
<b>332049</b>	2005 <i>QC</i> <sub>158</sub>	12 9.9 52°20	1°6/10.1 18				<b>207545</b>	2006 <i>KK</i> <sub>120</sub>	12 9.9 59°97	3°9/ 9.8 18			

EPHEMERIDES

12 9.9

12 9.9

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>441692</b>	2008 YS <sub>113</sub>	12 9.9	7°16	1.3/ 9.8	16		<b>37201</b>	2000 WS <sub>94</sub>	12 9.9	46°39	1°0/10.1	18	
11 7	5 33.33	+19 27.3	1.275	2.137	17.0	20.7	11 7	5 34.12	+25 40.9	1.895	2.734	13.3	18.5
11 17	5 28.57	+19 36.1	1.214	2.138	12.5	20.4	11 17	5 28.34	+25 45.5	1.829	2.741	9.8	18.3
11 27	5 20.74	+19 47.1	1.174	2.139	7.4	20.1	11 27	5 20.29	+25 45.6	1.787	2.748	5.8	18.1
12 7	5 10.95	+20 0.1	1.158	2.142	2.1	19.8	12 7	5 10.86	+25 40.1	1.772	2.755	1.7	17.9
12 17	5 0.70	+20 14.7	1.169	2.145	4.3	20.0	12 17	5 1.17	+25 29.4	1.786	2.763	3.2	18.0
12 27	4 51.67	+20 31.4	1.204	2.150	9.6	20.3	12 27	4 52.44	+25 15.1	1.829	2.771	7.2	18.3
1 6	4 45.21	+20 51.2	1.264	2.155	14.4	20.6	1 6	4 45.64	+25 0.0	1.899	2.779	11.0	18.5
1 16	4 42.10	+21 14.8	1.343	2.162	18.4	20.9	1 16	4 41.38	+24 46.8	1.991	2.787	14.1	18.7
<b>184557</b>	2005 QN <sub>52</sub>	12 9.9	120°51	3°7/ 9.2	18		<b>3321</b>	Dasha	12 9.9	51°12	5°4/ 9.3	18	
11 7	5 33.64	+11 58.7	2.305	3.129	11.8	20.8	11 7	5 35.13	+11 31.6	1.394	2.242	16.7	16.1
11 17	5 27.40	+11 33.0	2.245	3.145	8.8	20.6	11 17	5 29.26	+10 55.1	1.351	2.262	12.6	15.9
11 27	5 19.48	+11 12.5	2.211	3.160	5.8	20.5	11 27	5 20.83	+10 27.9	1.329	2.282	8.4	15.7
12 7	5 10.59	+10 59.0	2.205	3.175	3.8	20.4	12 7	5 10.97	+10 13.2	1.332	2.303	5.5	15.6
12 17	5 1.59	+10 53.8	2.230	3.189	4.7	20.5	12 17	5 1.03	+10 12.9	1.362	2.323	6.7	15.7
12 27	4 53.36	+10 57.7	2.284	3.203	7.4	20.7	12 27	4 52.39	+10 27.3	1.417	2.345	10.3	16.0
1 6	4 46.63	+11 10.4	2.365	3.217	10.2	20.9	1 6	4 46.10	+10 55.1	1.497	2.366	14.0	16.2
1 16	4 41.88	+11 31.2	2.470	3.230	12.7	21.1	1 16	4 42.69	+11 33.8	1.597	2.387	17.2	16.5
<b>235821</b>	2004 XD <sub>97</sub>	12 9.9	182°06	2°1/ 9.7	17		<b>364356</b>	2006 UZ <sub>237</sub>	12 9.9	298°39	2°6/ 9.4	17	
11 7	5 33.05	+14 46.9	2.398	3.225	11.3	20.2	11 7	5 32.91	+17 27.9	1.802	2.646	13.7	21.5
11 17	5 27.13	+15 3.0	2.320	3.225	8.4	20.0	11 17	5 27.60	+16 58.7	1.720	2.634	10.2	21.2
11 27	5 19.44	+15 23.8	2.269	3.225	5.1	19.8	11 27	5 19.97	+16 30.5	1.662	2.623	6.2	21.0
12 7	5 10.62	+15 49.1	2.246	3.225	2.3	19.7	12 7	5 10.82	+16 4.9	1.631	2.611	2.8	20.7
12 17	5 1.49	+16 18.4	2.254	3.225	3.4	19.7	12 17	5 1.23	+15 44.2	1.628	2.600	4.4	20.8
12 27	4 52.98	+16 51.4	2.293	3.225	6.6	19.9	12 27	4 52.44	+15 30.6	1.654	2.588	8.5	21.0
1 6	4 45.87	+17 27.6	2.359	3.225	9.7	20.1	1 6	4 45.49	+15 25.5	1.705	2.577	12.4	21.3
1 16	4 40.72	+18 6.6	2.450	3.224	12.4	20.3	1 16	4 41.08	+15 29.6	1.777	2.567	15.8	21.5
<b>264371</b>	2000 DO <sub>9</sub>	12 9.9	237°49	1°0/ 9.7	18		<b>516409</b>	2002 JG <sub>93</sub>	12 9.9	210°39	2°0/10.2	18	
11 7	5 31.67	+19 52.7	2.596	3.426	10.4	21.5	11 7	5 38.21	+27 42.0	2.132	2.956	12.6	22.0
11 17	5 26.08	+19 42.6	2.508	3.416	7.7	21.3	11 17	5 31.36	+28 12.4	2.047	2.950	9.4	21.8
11 27	5 18.81	+19 32.1	2.446	3.406	4.5	21.1	11 27	5 22.14	+28 38.2	1.988	2.944	5.8	21.6
12 7	5 10.48	+19 21.6	2.414	3.396	1.4	20.9	12 7	5 11.32	+28 56.7	1.957	2.937	2.5	21.4
12 17	5 1.85	+19 11.8	2.412	3.386	2.8	21.0	12 17	5 0.02	+29 6.4	1.956	2.929	3.5	21.4
12 27	4 53.78	+19 4.0	2.440	3.375	6.1	21.2	12 27	4 49.46	+29 8.0	1.986	2.921	7.2	21.6
1 6	4 47.00	+18 59.3	2.497	3.364	9.2	21.3	1 6	4 40.75	+29 3.8	2.042	2.913	10.8	21.8
1 16	4 42.08	+18 58.8	2.578	3.353	11.8	21.5	1 16	4 34.60	+28 57.1	2.123	2.904	13.8	22.0
<b>77373</b>	2001 FN <sub>136</sub>	12 9.9	173°88	1°5/ 9.7	18		<b>40025</b>	1998 HQ <sub>149</sub>	12 9.9	203°26	0°3/10.0	18	
11 7	5 32.94	+16 32.7	2.674	3.498	10.3	19.9	11 7	5 36.45	+25 7.5	1.958	2.791	13.2	19.2
11 17	5 26.89	+16 47.0	2.596	3.500	7.6	19.7	11 17	5 30.03	+24 47.3	1.879	2.788	9.7	18.9
11 27	5 19.24	+17 4.0	2.544	3.502	4.6	19.5	11 27	5 21.29	+24 21.5	1.824	2.785	5.7	18.7
12 7	5 10.57	+17 23.6	2.522	3.503	1.8	19.4	12 7	5 11.12	+23 50.2	1.798	2.782	1.4	18.4
12 17	5 1.65	+17 45.5	2.531	3.504	2.9	19.4	12 17	5 0.63	+23 14.7	1.801	2.778	3.1	18.5
12 27	4 53.28	+18 9.7	2.572	3.504	6.0	19.6	12 27	4 51.06	+22 37.9	1.834	2.774	7.4	18.8
1 6	4 46.19	+18 36.0	2.641	3.505	8.9	19.8	1 6	4 43.41	+22 3.4	1.894	2.769	11.2	19.0
1 16	4 40.89	+19 4.6	2.735	3.505	11.4	20.0	1 16	4 38.34	+21 34.3	1.977	2.764	14.5	19.2
<b>384339</b>	2009 TM <sub>3</sub>	12 9.9	21°01	2°5/10.4	18		<b>24075</b>	1999 TY <sub>209</sub>	12 9.9	13°23	9°4/10.6	18	
11 7	5 33.75	+29 2.6	0.959	1.833	20.3	20.0	11 7	5 40.70	+40 25.9	1.414	2.234	18.0	16.5
11 17	5 29.50	+28 51.9	0.916	1.844	15.1	19.8	11 17	5 34.77	+42 9.3	1.354	2.236	14.7	16.3
11 27	5 21.42	+28 28.2	0.891	1.856	9.1	19.5	11 27	5 24.81	+43 36.3	1.316	2.240	11.6	16.2
12 7	5 11.11	+27 50.8	0.888	1.871	3.4	19.2	12 7	5 12.04	+44 37.0	1.301	2.244	9.6	16.1
12 17	5 0.62	+27 2.2	0.909	1.886	4.9	19.4	12 17	4 58.39	+45 4.9	1.311	2.249	10.0	16.1
12 27	4 52.08	+26 9.0	0.952	1.904	10.6	19.8	12 27	4 46.21	+45 0.7	1.345	2.255	12.3	16.2
1 6	4 46.91	+25 18.9	1.017	1.922	15.8	20.1	1 6	4 37.36	+44 32.0	1.402	2.261	15.4	16.5
1 16	4 45.69	+24 37.1	1.101	1.942	20.1	20.5	1 16	4 32.85	+43 48.6	1.478	2.268	18.4	16.7
<b>7925</b>	Shelus	12 9.9	56°72	0°8/10.1	18		<b>520247</b>	2014 DV <sub>154</sub>	12 9.9	198°77	4°8/10.5	18	
11 7	5 33.74	+25 31.7	2.027	2.863	12.7	18.0	11 7	5 40.25	+34 57.8	2.079	2.889	13.4	21.8
11 17	5 27.82	+25 32.4	1.969	2.880	9.3	17.8	11 17	5 33.12	+35 51.5	2.000	2.887	10.4	21.6
11 27	5 19.86	+25 28.6	1.937	2.897	5.5	17.6	11 27	5 23.28	+36 35.5	1.945	2.884	7.3	21.4
12 7	5 10.72	+25 19.9	1.932	2.915	1.5	17.4	12 7	5 11.62	+37 5.3	1.918	2.881	5.1	21.2
12 17	5 1.45	+25 6.8	1.956	2.933	2.9	17.5	12 17	4 59.39	+37 17.9	1.920	2.877	5.5	21.3
12 27	4 53.13	+24 50.9	2.010	2.950	6.8	17.8	12 27	4 48.04	+37 13.9	1.951	2.874	8.2	21.4
1 6	4 46.64	+24 34.9	2.090	2.968	10.2	18.0	1 6	4 38.79	+36 57.2	2.008	2.869	11.4	21.6
1 16	4 42.51	+24 21.2	2.194	2.986	13.1	18.2	1 16	4 32.46	+36 33.1	2.089	2.864	14.2	21.8
<b>84130</b>	2002 RF <sub>42</sub>	12 9.9	39°44	2°3/ 9.6	18		<b>275276</b>	2010 AN <sub>65</sub>	12 9.9	348°62	3°8/ 9.2	17	
11 7	5 31.77	+16 28.4	1.974	2.815	12.8	18.9	11 7	5 30.28	+12 23.6	2.140	2.975	12.1	20.6
11 17	5 26.39	+16 21.7	1.914	2.826	9.4	18.7	11 17	5 25.28	+11 58.4	2.067	2.973	9.2	20.4
11 27	5 19.05	+16 18.0	1.878	2.837	5.7	18.5	11 27	5 18.45	+11 38.5	2.018	2.971	6.1	20.2
12 7	5 10.54	+16 18.3	1.869	2.849	2.5	18.3	12 7	5 10.49	+11 25.9	1.997	2.969	3.9	20.0
12 17	5 1.84	+16 23.1	1.889	2.861	3.8	18.4	12 17	5 2.26	+11 22.1	2.005	2.967	4.9	20.1
12 27	4 53.99	+16 33.0	1.938	2.873	7.4	18.7	12 27	4 54.71	+11 28.0	2.041	2.965	7.8	20.3
1 6	4 47.82	+16 48.3	2.013	2.886	10.8	18.9	1 6	4 48.64	+11 43.5	2.103	2.964	10.9	20.5
1 16	4 43.90	+17 8.9	2.112	2.899	13.7	19.1	1 16	4 44.62	+12 7.9	2.188	2.963	13.7	20.6
<b>516319</b>	2017 AA <sub>7</sub>	12 9.9	26°02	1°1/ 9.8	18		<b>174170</b>	2002 PE <sub>90</sub>	12 9.9	122°53	2°6/10.9	18	
11 7	5 34.94	+19 6.3	1.591	2.439	15.0	20.3	11 7	5 38.89					

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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>135770</b>	2002 <i>RW</i> <sub>37</sub>		12 9.9 181°00		2.7/10.7	18	<b>114807</b>	2003 <i>OK</i> <sub>1</sub>		12 9.9 41°58		2.2/ 9.1	18
11 7	5 37.82	+31 34.5	2.234	3.051	12.3	20.6	11 7	5 33.15	+20 8.6	1.942	2.782	13.0	18.9
11 17	5 30.91	+31 41.5	2.156	3.052	9.3	20.4	11 17	5 27.40	+19 1.9	1.878	2.791	9.5	18.7
11 27	5 21.78	+31 39.6	2.102	3.053	6.0	20.2	11 27	5 19.65	+17 52.6	1.839	2.800	5.7	18.5
12 7	5 11.27	+31 27.1	2.077	3.053	3.1	20.0	12 7	5 10.78	+16 43.9	1.828	2.808	2.4	18.3
12 17	5 0.46	+31 3.6	2.082	3.052	3.7	20.1	12 17	5 1.80	+15 39.5	1.847	2.818	4.1	18.5
12 27	4 50.54	+30 31.5	2.116	3.051	6.9	20.3	12 27	4 53.77	+14 43.6	1.895	2.827	7.8	18.7
1 6	4 42.48	+29 54.4	2.179	3.049	10.2	20.5	1 6	4 47.54	+13 58.8	1.970	2.837	11.3	18.9
1 16	4 36.90	+29 16.7	2.266	3.047	13.1	20.7	1 16	4 43.61	+13 26.5	2.067	2.847	14.2	19.2
<b>145451</b>	2005 <i>RM</i> <sub>43</sub>		12 9.9 6°80		0°1/ 9.6	17	<b>300495</b>	2007 <i>TE</i> <sub>155</sub>		12 9.9 56°69		5°4/ 8.4	18
11 7	5 11.02	+19 0.0	36.660	37.487	0.8	20.2	11 7	5 34.05	+12 47.4	1.640	2.482	14.9	20.2
11 17	5 10.20	+19 0.0	36.588	37.495	0.6	20.2	11 17	5 28.33	+11 28.9	1.580	2.489	11.3	20.0
11 27	5 9.30	+19 0.1	36.543	37.503	0.4	20.2	11 27	5 20.30	+10 14.8	1.545	2.496	7.7	19.8
12 7	5 8.34	+19 0.3	36.529	37.511	0.1	20.1	12 7	5 10.94	+9 10.2	1.536	2.503	5.4	19.7
12 17	5 7.38	+19 0.7	36.545	37.519	0.2	20.1	12 17	5 1.41	+8 19.7	1.555	2.511	6.8	19.8
12 27	5 6.45	+19 1.3	36.593	37.527	0.5	20.2	12 27	4 52.93	+7 46.6	1.601	2.519	10.1	20.0
1 6	5 5.58	+19 2.1	36.669	37.535	0.7	20.2	1 6	4 46.46	+7 31.7	1.671	2.526	13.6	20.2
1 16	5 4.81	+19 3.3	36.773	37.542	0.9	20.2	1 16	4 42.59	+7 33.7	1.763	2.534	16.6	20.4
<b>523484</b>	2017 <i>GG</i> <sub>3</sub>		12 9.9 197°93		4°7/ 8.6	18	<b>45138</b>	1999 <i>XC</i> <sub>97</sub>		12 9.9 74°69		1°2/10.1	18
11 7	5 30.10	+7 19.2	2.734	3.548	10.4	22.5	11 7	5 41.44	+24 34.1	1.359	2.205	17.2	18.7
11 17	5 24.77	+6 40.8	2.659	3.546	8.1	22.3	11 17	5 34.21	+24 59.2	1.313	2.228	12.6	18.5
11 27	5 18.01	+6 9.1	2.609	3.543	6.0	22.2	11 27	5 23.89	+25 20.1	1.289	2.251	7.4	18.2
12 7	5 10.38	+5 46.5	2.588	3.541	4.7	22.1	12 7	5 11.78	+25 34.2	1.291	2.274	2.1	18.0
12 17	5 2.55	+5 34.8	2.596	3.537	5.4	22.2	12 17	4 59.55	+25 40.5	1.320	2.297	4.0	18.2
12 27	4 55.25	+5 34.9	2.634	3.534	7.4	22.3	12 27	4 48.90	+25 40.7	1.377	2.319	9.0	18.5
1 6	4 49.10	+5 46.5	2.698	3.530	9.7	22.4	1 6	4 41.07	+25 38.3	1.458	2.342	13.4	18.8
1 16	4 44.58	+6 8.5	2.786	3.526	11.9	22.6	1 16	4 36.70	+25 36.8	1.560	2.364	17.0	19.1
<b>349150</b>	2007 <i>NY</i> <sub>5</sub>		12 9.9 99°71		3°9/10.2	18	<b>218101</b>	2002 <i>NH</i> <sub>27</sub>		12 9.9 97°86		0°2/ 9.9	18
11 7	5 41.53	+30 6.1	1.744	2.570	14.9	20.1	11 7	5 41.77	+23 49.0	1.613	2.448	15.4	20.8
11 17	5 34.21	+31 15.2	1.681	2.582	11.2	19.9	11 17	5 33.94	+23 42.7	1.564	2.474	11.3	20.6
11 27	5 23.96	+32 17.6	1.643	2.594	7.3	19.7	11 27	5 23.52	+23 32.2	1.539	2.500	6.5	20.4
12 7	5 11.81	+33 7.9	1.632	2.606	4.2	19.5	12 7	5 11.68	+23 17.0	1.542	2.526	1.5	20.2
12 17	4 59.18	+33 42.5	1.651	2.617	5.1	19.6	12 17	4 59.83	+22 58.2	1.574	2.550	3.5	20.4
12 27	4 47.67	+34 1.4	1.698	2.629	8.6	19.8	12 27	4 49.39	+22 38.3	1.635	2.574	8.1	20.7
1 6	4 38.58	+34 8.0	1.771	2.640	12.2	20.1	1 6	4 41.42	+22 20.6	1.722	2.598	12.1	21.0
1 16	4 32.69	+34 7.2	1.866	2.651	15.3	20.3	1 16	4 36.47	+22 7.8	1.831	2.620	15.4	21.3
<b>152289</b>	2005 <i>TB</i> <sub>18</sub>		12 9.9 91°09		0°7/ 9.8	18	<b>151310</b>	2002 <i>CO</i> <sub>98</sub>		12 9.9 284°94		2°2/10.4	17
11 7	5 34.10	+20 53.6	2.003	2.840	12.8	20.0	11 7	5 34.68	+29 7.0	2.054	2.884	12.8	20.2
11 17	5 28.20	+20 53.3	1.934	2.846	9.3	19.8	11 17	5 28.87	+29 20.7	1.971	2.876	9.6	20.0
11 27	5 20.20	+20 52.5	1.890	2.852	5.5	19.6	11 27	5 20.74	+29 27.8	1.913	2.869	6.0	19.8
12 7	5 10.90	+20 51.0	1.874	2.858	1.4	19.3	12 7	5 11.09	+29 26.4	1.882	2.861	2.7	19.5
12 17	5 1.35	+20 49.2	1.887	2.863	3.1	19.5	12 17	5 1.03	+29 15.9	1.880	2.853	3.6	19.6
12 27	4 52.64	+20 48.2	1.930	2.869	7.1	19.7	12 27	4 51.76	+28 57.8	1.907	2.846	7.2	19.8
1 6	4 45.70	+20 49.5	1.999	2.875	10.7	20.0	1 6	4 44.33	+28 35.4	1.961	2.838	10.8	20.0
1 16	4 41.12	+20 54.3	2.092	2.880	13.8	20.2	1 16	4 39.44	+28 12.2	2.039	2.831	13.9	20.2
<b>6973</b>	Karajan		12 9.9 209°34		1°3/ 9.7	18	<b>65792</b>	1995 <i>WJ</i> <sub>1</sub>		12 9.9 58°67		2°6/10.3	18
11 7	5 34.79	+19 28.8	2.206	3.038	12.0	19.0	11 7	5 40.10	+28 9.7	1.459	2.300	16.4	18.7
11 17	5 28.61	+19 18.4	2.124	3.033	8.8	18.7	11 17	5 33.10	+28 39.4	1.416	2.327	12.2	18.5
11 27	5 20.43	+19 8.0	2.067	3.027	5.2	18.5	11 27	5 23.19	+29 1.1	1.395	2.354	7.4	18.3
12 7	5 10.98	+18 57.8	2.039	3.021	1.7	18.3	12 7	5 11.63	+29 12.0	1.401	2.381	3.1	18.1
12 17	5 1.18	+18 48.8	2.041	3.015	3.2	18.4	12 17	5 0.00	+29 11.1	1.434	2.408	4.3	18.3
12 27	4 52.09	+18 42.3	2.073	3.008	7.0	18.6	12 27	4 49.91	+29 0.9	1.495	2.436	8.6	18.6
1 6	4 44.60	+18 39.6	2.132	3.001	10.5	18.8	1 6	4 42.51	+28 45.7	1.580	2.463	12.6	18.9
1 16	4 39.31	+18 41.9	2.216	2.993	13.4	19.0	1 16	4 38.40	+28 30.0	1.688	2.490	16.0	19.2
<b>223924</b>	2004 <i>WR</i> <sub>4</sub>		12 9.9 31°77		1°5/10.3	17	<b>273116</b>	2006 <i>FC</i> <sub>40</sub>		12 9.9 235°10		5°0/ 8.7	17
11 7	5 33.68	+27 18.8	1.916	2.753	13.3	20.0	11 7	5 30.60	+8 15.8	2.336	3.159	11.7	21.2
11 17	5 28.07	+27 24.9	1.849	2.759	9.8	19.8	11 17	5 25.36	+7 35.5	2.263	3.157	9.1	21.0
11 27	5 20.18	+27 25.2	1.806	2.766	5.9	19.6	11 27	5 18.46	+7 2.3	2.215	3.155	6.5	20.8
12 7	5 10.92	+27 18.4	1.790	2.772	2.1	19.3	12 7	5 10.54	+6 39.0	2.195	3.153	5.1	20.7
12 17	5 1.39	+27 4.8	1.804	2.779	3.3	19.4	12 17	5 2.39	+6 27.8	2.204	3.150	5.9	20.8
12 27	4 52.81	+26 46.2	1.845	2.787	7.2	19.7	12 27	4 54.86	+6 29.6	2.241	3.148	8.2	20.9
1 6	4 46.15	+26 25.7	1.913	2.794	10.8	19.9	1 6	4 48.69	+6 44.1	2.304	3.146	10.8	21.1
1 16	4 42.03	+26 6.5	2.005	2.802	14.0	20.1	1 16	4 44.38	+7 9.8	2.391	3.144	13.3	21.3
<b>317705</b>	2003 <i>QW</i> <sub>8</sub>		12 9.9 60°38		6°5/ 8.7	18	<b>32502</b>	2001 <i>BG</i> <sub>77</sub>		12 9.9 159°50		5°5/ 8.9	18
11 7	5 31.26	+4 59.5	2.045	2.866	13.2	20.0	11 7	5 31.20	+4 59.0	2.463	3.273	11.5	19.2
11 17	5 25.88	+4 11.9	1.992	2.878	10.5	19.9	11 17	5 25.69	+4 33.0	2.393	3.276	9.1	19.1
11 27	5 18.73	+3 35.4	1.962	2.892	7.9	19.7	11 27	5 18.61	+4 16.7	2.349	3.278	6.9	18.9
12 7	5 10.56	+3 13.6	1.958	2.905	6.6	19.7	12 7	5 10.57	+4 12.4	2.332	3.281	5.5	18.9
12 17	5 2.26	+3 8.6	1.983	2.918	7.3	19.7	12 17	5 2.33	+4 21.5	2.345	3.283	6.2	18.9
12 27	4 54.77	+3 20.7	2.034	2.932	9.5	19.9	12 27	4 54.70	+4 44.0	2.386	3.285	8.2	19.0
1 6	4 48.83	+3 48.4	2.111	2.945	12.0	20.1	1 6	4 48.36	+5 18.8	2.453	3.286	10.6	19.2
1 16	4 44.96	+4 29.0	2.209	2.959	14.3	20.3	1 16	4 43.81	+6 3.7	2.544	3.288	12.8	19.4
<b>189520</b>	2000 <i>KU</i> <sub>71</sub>		12 9.9 89°54		5°4/ 9.5	18	<b>175588</b>	Kathrynsmith		12 9.9 159°86		1°2/ 9.8	18
11 7	5 37.87	+9 19.0	1.638	2.468	15								

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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>383110</b>	2005 <i>SN</i> <sub>221</sub>	12 9.9	0°70	1°1/10.1	18		<b>421096</b>	2013 <i>QJ</i> <sub>56</sub>	12 9.9	74°20	0°1/10.0	17	
11 7	5 33.67	+25 8.6	1.136	2.004	18.3	20.2	11 7	5 32.65	+22 56.3	2.340	3.173	11.3	21.1
11 17	5 29.32	+25 16.4	1.075	2.001	13.6	19.9	11 17	5 26.94	+23 5.2	2.272	3.182	8.3	20.9
11 27	5 21.47	+25 18.8	1.034	1.999	8.1	19.6	11 27	5 19.42	+23 12.4	2.230	3.191	4.8	20.7
12 7	5 11.32	+25 14.4	1.015	1.999	2.2	19.3	12 7	5 10.81	+23 17.3	2.216	3.200	1.1	20.4
12 17	5 0.62	+25 3.0	1.022	2.000	4.4	19.4	12 17	5 1.98	+23 19.9	2.233	3.209	2.6	20.6
12 27	4 51.34	+24 47.5	1.053	2.002	10.2	19.8	12 27	4 53.87	+23 20.9	2.279	3.218	6.2	20.8
1 6	4 45.02	+24 32.1	1.106	2.005	15.3	20.1	1 6	4 47.29	+23 21.8	2.353	3.228	9.4	21.0
1 16	4 42.46	+24 20.7	1.178	2.010	19.7	20.4	1 16	4 42.76	+23 24.1	2.451	3.237	12.1	21.2
<b>30802</b>	1989 <i>SH</i> <sub>3</sub>	12 9.9	44°60	0°6/ 9.9	18		<b>154223</b>	2002 <i>JQ</i> <sub>76</sub>	12 9.9	182°01	4°1/10.8	17	
11 7	5 37.53	+21 39.7	1.209	2.068	18.0	17.7	11 7	5 36.78	+35 28.1	2.447	3.253	11.7	20.1
11 17	5 31.50	+21 42.2	1.168	2.090	13.1	17.5	11 17	5 30.21	+36 3.0	2.369	3.253	9.1	19.9
11 27	5 22.36	+21 43.5	1.148	2.113	7.6	17.3	11 27	5 21.45	+36 28.5	2.315	3.253	6.4	19.8
12 7	5 11.47	+21 43.0	1.152	2.136	1.8	17.0	12 7	5 11.30	+36 41.4	2.290	3.253	4.4	19.6
12 17	5 0.50	+21 41.1	1.183	2.160	4.1	17.2	12 17	5 0.78	+36 40.3	2.294	3.253	4.7	19.7
12 27	4 51.17	+21 39.7	1.239	2.184	9.4	17.6	12 27	4 51.03	+36 26.3	2.328	3.252	7.0	19.8
1 6	4 44.68	+21 41.3	1.319	2.209	14.0	17.9	1 6	4 43.02	+36 2.7	2.389	3.251	9.8	20.0
1 16	4 41.60	+21 47.3	1.419	2.234	17.8	18.2	1 16	4 37.39	+35 33.6	2.475	3.250	12.3	20.2
<b>174903</b>	2004 <i>BL</i> <sub>119</sub>	12 9.9	328°43	1°1/ 9.8	18		<b>419513</b>	2010 <i>GY</i> <sub>163</sub>	12 9.9	235°24	1°8/ 9.4	17	
11 7	5 32.89	+21 6.5	1.511	2.365	15.3	20.1	11 7	5 30.98	+18 24.2	2.494	3.326	10.7	21.4
11 17	5 28.10	+20 52.0	1.432	2.353	11.3	19.8	11 17	5 25.63	+17 56.7	2.415	3.323	7.9	21.2
11 27	5 20.53	+20 35.9	1.376	2.340	6.7	19.5	11 27	5 18.62	+17 29.2	2.361	3.320	4.7	21.0
12 7	5 11.11	+20 18.9	1.345	2.329	1.8	19.2	12 7	5 10.62	+17 3.0	2.337	3.317	2.0	20.8
12 17	5 1.13	+20 2.3	1.341	2.318	4.0	19.3	12 17	5 2.40	+16 39.6	2.343	3.314	3.2	20.9
12 27	4 52.10	+19 48.5	1.364	2.307	9.0	19.6	12 27	4 54.78	+16 20.6	2.378	3.311	6.4	21.1
1 6	4 45.27	+19 39.9	1.411	2.298	13.6	19.8	1 6	4 48.51	+16 7.5	2.442	3.308	9.4	21.3
1 16	4 41.46	+19 38.5	1.480	2.289	17.5	20.1	1 16	4 44.09	+16 1.0	2.529	3.304	12.0	21.4
<b>40120</b>	1998 <i>QT</i> <sub>23</sub>	12 9.9	359°93	5°7/ 9.0	18		<b>145998</b>	2000 <i>CE</i> <sub>23</sub>	12 9.9	268°39	1°2/10.3	18	
11 7	5 31.01	+7 57.3	1.885	2.717	13.7	17.3	11 7	5 37.78	+27 10.9	1.528	2.371	15.7	20.0
11 17	5 26.01	+7 25.0	1.817	2.716	10.6	17.1	11 17	5 31.71	+26 54.6	1.451	2.364	11.7	19.7
11 27	5 18.98	+7 2.4	1.773	2.715	7.6	17.0	11 27	5 22.63	+26 29.7	1.396	2.357	7.0	19.4
12 7	5 10.71	+6 52.5	1.755	2.715	5.8	16.9	12 7	5 11.61	+25 55.3	1.366	2.349	2.1	19.1
12 17	5 2.14	+6 57.3	1.765	2.715	6.7	16.9	12 17	5 0.10	+25 12.8	1.365	2.342	3.8	19.2
12 27	4 54.35	+7 17.2	1.802	2.716	9.4	17.1	12 27	4 49.73	+24 26.2	1.392	2.335	8.9	19.5
1 6	4 48.21	+7 51.0	1.863	2.717	12.5	17.3	1 6	4 41.84	+23 40.9	1.443	2.327	13.5	19.7
1 16	4 44.33	+8 36.1	1.947	2.718	15.2	17.5	1 16	4 37.21	+23 1.7	1.516	2.320	17.4	19.9
<b>256121</b>	2006 <i>UM</i> <sub>331</sub>	12 9.9	122°28	1°6/ 9.6	18		<b>460340</b>	2014 <i>RP</i> <sub>11</sub>	12 9.9	34°60	9°6/14.9	16	
11 7	5 34.12	+19 20.8	2.013	2.850	12.7	21.4	11 7	5 45.22	+51 39.2	1.798	2.554	17.2	20.3
11 17	5 28.18	+19 1.0	1.944	2.855	9.3	21.2	11 17	5 37.04	+51 39.0	1.742	2.570	14.6	20.2
11 27	5 20.20	+18 41.2	1.900	2.860	5.5	21.0	11 27	5 25.46	+51 10.9	1.706	2.588	12.1	20.1
12 7	5 10.98	+18 22.1	1.883	2.865	1.9	20.8	12 7	5 12.16	+50 10.0	1.693	2.605	10.1	20.0
12 17	5 1.53	+18 5.2	1.896	2.870	3.5	20.9	12 17	4 59.13	+48 36.7	1.706	2.624	9.6	20.0
12 27	4 52.92	+17 52.3	1.939	2.875	7.3	21.2	12 27	4 48.23	+46 38.0	1.746	2.643	10.8	20.1
1 6	4 46.06	+17 44.7	2.008	2.879	10.9	21.4	1 6	4 40.64	+44 25.0	1.812	2.662	12.9	20.3
1 16	4 41.51	+17 43.7	2.100	2.884	13.9	21.6	1 16	4 36.78	+42 8.8	1.901	2.682	15.2	20.5
<b>45901</b>	2000 <i>YH</i> <sub>16</sub>	12 9.9	246°63	7°3/12.1	18		<b>57131</b>	2001 <i>PF</i> <sub>6</sub>	12 9.9	13°37	2°9/10.3	18	
11 7	5 42.52	+43 46.1	1.992	2.776	14.8	18.3	11 7	5 35.14	+27 36.1	1.121	1.985	18.7	18.1
11 17	5 35.13	+44 9.1	1.906	2.765	12.2	18.1	11 17	5 30.49	+28 8.6	1.065	1.988	14.0	17.8
11 27	5 24.60	+44 13.3	1.842	2.754	9.5	18.0	11 27	5 22.18	+28 33.9	1.030	1.993	8.6	17.6
12 7	5 12.05	+43 53.5	1.803	2.743	7.6	17.8	12 7	5 11.52	+28 48.1	1.017	1.999	3.6	17.3
12 17	4 59.01	+43 7.6	1.791	2.731	7.6	17.8	12 17	5 0.36	+28 49.5	1.030	2.006	5.0	17.4
12 27	4 47.21	+41 58.5	1.808	2.719	9.6	17.9	12 27	4 50.75	+28 40.1	1.066	2.014	10.3	17.7
1 6	4 38.02	+40 33.8	1.850	2.706	12.4	18.0	1 6	4 44.26	+28 25.1	1.125	2.023	15.3	18.0
1 16	4 32.22	+39 2.3	1.916	2.694	15.2	18.2	1 16	4 41.67	+28 9.6	1.203	2.033	19.4	18.3
<b>463981</b>	2014 <i>WK</i> <sub>41</sub>	12 9.9	349°79	0°7/10.0	18		<b>314818</b>	2006 <i>UR</i> <sub>45</sub>	12 9.9	7°27	1°9/ 9.6	18	
11 7	5 33.77	+22 46.3	2.030	2.867	12.6	20.8	11 7	5 33.19	+19 15.3	1.692	2.539	14.2	21.3
11 17	5 28.18	+23 26.8	1.952	2.864	9.3	20.6	11 17	5 27.89	+18 53.4	1.623	2.540	10.5	21.0
11 27	5 20.35	+24 7.5	1.899	2.861	5.5	20.3	11 27	5 20.19	+18 31.6	1.578	2.540	6.2	20.8
12 7	5 11.05	+24 46.1	1.875	2.858	1.5	20.0	12 7	5 11.02	+18 11.1	1.559	2.541	2.2	20.5
12 17	5 1.29	+25 20.9	1.879	2.856	3.0	20.2	12 17	5 1.52	+17 53.7	1.569	2.543	4.0	20.7
12 27	4 52.24	+25 51.2	1.914	2.854	7.1	20.4	12 27	4 52.99	+17 41.3	1.606	2.545	8.3	20.9
1 6	4 44.91	+26 17.7	1.975	2.853	10.7	20.6	1 6	4 46.44	+17 35.7	1.668	2.547	12.3	21.2
1 16	4 40.00	+26 41.9	2.059	2.852	13.8	20.8	1 16	4 42.54	+17 37.8	1.752	2.549	15.7	21.4
<b>280990</b>	2006 <i>DZ</i> <sub>93</sub>	12 9.9	45°81	7°2/ 8.9	18		<b>116433</b>	2003 <i>YN</i> <sub>153</sub>	12 9.9	233°36	6°0/11.2	18	
11 7	5 34.87	+8 44.7	1.305	2.153	17.6	18.7	11 7	5 40.34	+39 31.9	2.113	2.910	13.6	19.5
11 17	5 29.15	+7 46.0	1.268	2.175	13.6	18.5	11 17	5 33.35	+40 13.6	2.028	2.901	11.0	19.3
11 27	5 20.84	+7 0.3	1.251	2.198	9.6	18.3	11 27	5 23.53	+40 42.0	1.967	2.892	8.2	19.1
12 7	5 11.11	+6 32.4	1.259	2.222	7.2	18.3	12 7	5 11.83	+40 52.2	1.931	2.882	6.3	19.0
12 17	5 1.37	+6 25.1	1.293	2.246	8.3	18.4	12 17	4 59.55	+40 41.6	1.925	2.872	6.5	19.0
12 27	4 53.01	+6 38.5	1.351	2.270	11.5	18.6	12 27	4 48.21	+40 11.7	1.946	2.862	8.7	19.1
1 6	4 47.07	+7 10.1	1.433	2.295	15.0	18.9	1 6	4 39.08	+39 27.3	1.994	2.851	11.6	19.3
1 16	4 44.05	+7 55.7	1.534	2.320	18.0	19.2	1 16	4 32.98	+38 35.3	2.065	2.840	14.4	19.5
<b>89613</b>	2001 <i>XM</i> <sub>185</sub>	12 9.9	48°70	2°1/ 9.7	18		<b>350483</b>	1999 <i>TM</i> <sub>72</sub>	12 9.9	92°73	3°8/10.3	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>500570</b>	2012 <i>UB</i> <sub>68</sub>	12	9.9 336°39	23°4/29.8	18		<b>477243</b>	2009 <i>RS</i> <sub>48</sub>	12	9.9 102°57	1°0/ 9.8	16	
11 7	5 31.83	-12 19.7	0.911	1.729	25.8	20.2	11 7	5 40.39	+21 18.9	1.628	2.465	15.2	22.6
11 17	5 28.16	-16 3.8	0.876	1.720	24.2	20.0	11 17	5 32.98	+21 4.5	1.576	2.487	11.1	22.4
11 27	5 20.89	-19 8.4	0.856	1.712	23.5	19.9	11 27	5 23.04	+20 48.4	1.548	2.509	6.5	22.1
12 7	5 11.25	-21 14.1	0.852	1.704	23.7	19.9	12 7	5 11.68	+20 30.9	1.547	2.531	1.7	21.9
12 17	5 1.00	-22 9.3	0.863	1.698	24.8	20.0	12 17	5 0.25	+20 13.1	1.576	2.551	3.7	22.1
12 27	4 52.17	-21 52.6	0.886	1.693	26.6	20.1	12 27	4 50.14	+19 57.5	1.633	2.571	8.2	22.4
1 6	4 46.31	-20 33.5	0.921	1.688	28.6	20.2	1 6	4 42.37	+19 46.5	1.716	2.591	12.2	22.7
1 16	4 44.30	-18 26.1	0.966	1.685	30.5	20.4	1 16	4 37.52	+19 41.7	1.822	2.610	15.5	22.9
<b>466937</b>	2016 <i>AC</i> <sub>95</sub>	12	9.9 339°78	6°2/12.0	18		<b>21220</b>	1994 <i>WE</i> <sub>4</sub>	12	9.9 93°29	1°2/10.1	18	R
11 7	5 36.07	+40 37.6	1.814	2.623	15.1	20.1	11 7	5 35.43	+25 5.3	2.196	3.026	12.1	18.0
11 17	5 30.40	+40 43.8	1.733	2.614	12.1	19.9	11 17	5 29.14	+25 35.2	2.129	3.036	8.9	17.9
11 27	5 21.83	+40 31.7	1.674	2.605	9.0	19.7	11 27	5 20.80	+26 2.2	2.088	3.047	5.3	17.7
12 7	5 11.42	+39 57.8	1.640	2.596	6.6	19.5	12 7	5 11.18	+26 24.5	2.075	3.057	1.7	17.4
12 17	5 0.63	+39 1.4	1.633	2.588	6.6	19.5	12 17	5 1.29	+26 41.2	2.092	3.067	2.9	17.5
12 27	4 51.04	+37 46.4	1.654	2.581	9.1	19.7	12 27	4 52.20	+26 52.5	2.139	3.078	6.6	17.8
1 6	4 43.89	+36 20.2	1.700	2.575	12.3	19.8	1 6	4 44.81	+27 0.2	2.214	3.088	9.9	18.0
1 16	4 39.91	+34 51.1	1.769	2.569	15.4	20.0	1 16	4 39.72	+27 6.2	2.313	3.098	12.7	18.2
<b>85727</b>	1998 <i>SC</i> <sub>75</sub>	12	9.9 168°75	1°2/10.2	18		<b>68915</b>	2002 <i>KQ</i> <sub>8</sub>	12	9.9 72°59	5°5/ 9.1	18	
11 7	5 40.10	+25 28.0	1.988	2.813	13.3	20.3	11 7	5 31.99	+ 6 49.1	2.133	2.954	12.7	19.2
11 17	5 32.77	+25 47.1	1.914	2.818	9.8	20.1	11 17	5 26.41	+ 6 20.8	2.076	2.967	9.9	19.1
11 27	5 23.00	+26 2.3	1.864	2.823	5.9	19.9	11 27	5 19.10	+ 6 2.4	2.044	2.981	7.2	19.0
12 7	5 11.69	+26 11.6	1.844	2.826	1.8	19.6	12 7	5 10.77	+ 5 56.2	2.039	2.995	5.5	18.9
12 17	5 0.02	+26 14.1	1.854	2.829	3.2	19.7	12 17	5 2.30	+ 6 3.5	2.063	3.009	6.2	18.9
12 27	4 49.28	+26 11.0	1.893	2.831	7.3	20.0	12 27	4 54.61	+ 6 24.5	2.115	3.023	8.6	19.1
1 6	4 40.53	+26 4.9	1.961	2.832	11.1	20.2	1 6	4 48.44	+ 6 57.7	2.192	3.036	11.2	19.3
1 16	4 34.48	+25 58.7	2.052	2.833	14.2	20.4	1 16	4 44.29	+ 7 40.8	2.293	3.050	13.6	19.5
<b>449156</b>	2013 <i>AZ</i> <sub>121</sub>	12	9.9 318°57	3°6/ 9.6	18		<b>489945</b>	2008 <i>RY</i> <sub>109</sub>	12	9.9 96°97	4°3/ 8.8	18	
11 7	5 34.78	+13 8.3	1.736	2.574	14.4	21.4	11 7	5 31.13	+10 36.8	2.333	3.159	11.6	21.5
11 17	5 29.03	+13 6.0	1.663	2.572	10.8	21.1	11 17	5 25.71	+ 9 55.9	2.269	3.167	8.8	21.4
11 27	5 20.88	+13 10.8	1.615	2.570	6.9	20.9	11 27	5 18.67	+ 9 20.6	2.230	3.175	6.1	21.2
12 7	5 11.21	+13 23.7	1.593	2.569	3.8	20.7	12 7	5 10.68	+ 8 53.6	2.219	3.183	4.4	21.1
12 17	5 1.13	+13 45.1	1.599	2.567	5.0	20.8	12 17	5 2.52	+ 8 36.7	2.237	3.191	5.2	21.2
12 27	4 51.91	+14 15.0	1.633	2.566	8.8	21.0	12 27	4 55.06	+ 8 31.2	2.285	3.198	7.7	21.4
1 6	4 44.60	+14 52.3	1.694	2.564	12.6	21.2	1 6	4 48.98	+ 8 36.9	2.358	3.206	10.4	21.6
1 16	4 39.90	+15 36.0	1.776	2.563	15.9	21.5	1 16	4 44.79	+ 8 53.0	2.455	3.214	12.8	21.7
<b>181756</b>	1996 <i>TO</i> <sub>27</sub>	12	9.9 67°02	2°0/ 9.7	18		<b>393094</b>	2013 <i>AP</i> <sub>119</sub>	12	9.9 23°04	1°1/ 9.9	18	
11 7	5 34.19	+17 38.9	1.849	2.689	13.5	20.2	11 7	5 35.29	+19 49.7	1.517	2.366	15.5	20.6
11 17	5 28.36	+17 30.5	1.787	2.700	10.0	20.0	11 17	5 29.71	+19 56.4	1.452	2.370	11.4	20.4
11 27	5 20.36	+17 24.3	1.750	2.710	6.0	19.7	11 27	5 21.40	+20 4.2	1.410	2.373	6.7	20.1
12 7	5 11.06	+17 20.8	1.739	2.720	2.3	19.5	12 7	5 11.37	+20 12.9	1.393	2.377	1.9	19.8
12 17	5 1.54	+17 21.0	1.758	2.731	3.8	19.7	12 17	5 0.94	+20 22.3	1.405	2.381	3.8	20.0
12 27	4 52.95	+17 25.6	1.805	2.742	7.7	19.9	12 27	4 51.60	+20 33.2	1.443	2.386	8.7	20.3
1 6	4 46.23	+17 35.4	1.878	2.752	11.4	20.2	1 6	4 44.52	+20 46.7	1.507	2.391	13.0	20.5
1 16	4 41.95	+17 50.8	1.975	2.763	14.5	20.4	1 16	4 40.43	+21 3.9	1.591	2.396	16.7	20.8
<b>77212</b>	2001 <i>FT</i> <sub>22</sub>	12	9.9 194°57	1°4/10.2	18		<b>102815</b>	1999 <i>VL</i> <sub>177</sub>	12	9.9 86°40	5°7/ 9.1	18	
11 7	5 39.90	+25 59.1	1.840	2.670	14.0	20.1	11 7	5 37.91	+11 19.4	1.427	2.268	16.7	19.3
11 17	5 32.88	+26 16.7	1.761	2.668	10.4	19.8	11 17	5 31.34	+10 29.9	1.379	2.287	12.7	19.1
11 27	5 23.19	+26 29.8	1.707	2.666	6.3	19.6	11 27	5 22.16	+ 9 49.1	1.354	2.305	8.6	19.0
12 7	5 11.77	+26 36.3	1.680	2.662	2.0	19.3	12 7	5 11.50	+ 9 20.8	1.354	2.322	5.8	18.8
12 17	4 59.87	+26 35.1	1.683	2.659	3.5	19.4	12 17	5 0.75	+ 9 7.9	1.381	2.340	7.0	19.0
12 27	4 48.91	+26 27.7	1.715	2.654	7.9	19.6	12 27	4 51.32	+ 9 11.5	1.435	2.358	10.6	19.2
1 6	4 40.09	+26 17.0	1.774	2.649	11.9	19.9	1 6	4 44.27	+ 9 30.6	1.512	2.375	14.3	19.5
1 16	4 34.15	+26 6.6	1.856	2.644	15.3	20.1	1 16	4 40.18	+10 2.6	1.611	2.391	17.5	19.7
<b>139486</b>	2001 <i>PT</i> <sub>15</sub>	12	9.9 118°12	1°0/ 9.9	18		<b>443302</b>	2014 <i>FC</i> <sub>21</sub>	12	9.9 168°11	2°2/ 9.5	15	
11 7	5 36.86	+19 3.9	2.300	3.125	11.8	20.6	11 7	5 35.75	+17 1.0	2.292	3.118	11.7	23.0
11 17	5 29.91	+19 16.8	2.239	3.145	8.6	20.4	11 17	5 29.17	+16 40.1	2.218	3.123	8.7	22.8
11 27	5 21.11	+19 30.6	2.204	3.164	5.0	20.2	11 27	5 20.73	+16 20.6	2.171	3.128	5.3	22.6
12 7	5 11.23	+19 44.8	2.199	3.182	1.5	20.0	12 7	5 11.18	+16 3.4	2.152	3.132	2.4	22.4
12 17	5 1.19	+19 59.1	2.225	3.200	2.9	20.2	12 17	5 1.40	+15 49.9	2.165	3.135	3.6	22.5
12 27	4 51.97	+20 13.8	2.282	3.217	6.4	20.4	12 27	4 52.37	+15 41.4	2.207	3.137	7.0	22.7
1 6	4 44.38	+20 29.6	2.367	3.234	9.6	20.7	1 6	4 44.89	+15 39.0	2.277	3.139	10.2	22.9
1 16	4 38.93	+20 47.1	2.476	3.250	12.3	20.9	1 16	4 39.52	+15 43.2	2.372	3.140	12.9	23.1
<b>206121</b>	2002 <i>RR</i> <sub>274</sub>	12	9.9 144°38	0°2/ 9.9	18		<b>334294</b>	2001 <i>UC</i> <sub>219</sub>	12	9.9 19°28	0°9/ 9.9	18	
11 7	5 35.93	+22 44.1	1.932	2.768	13.2	21.3	11 7	5 34.16	+21 52.8	1.159	2.026	18.0	20.1
11 17	5 29.69	+22 41.5	1.861	2.772	9.7	21.1	11 17	5 29.40	+21 39.7	1.106	2.032	13.3	19.8
11 27	5 21.18	+22 36.5	1.815	2.776	5.7	20.9	11 27	5 21.39	+21 24.5	1.073	2.039	7.8	19.6
12 7	5 11.27	+22 28.8	1.796	2.780	1.3	20.6	12 7	5 11.37	+21 7.7	1.063	2.047	2.0	19.2
12 17	5 1.08	+22 18.8	1.807	2.784	3.1	20.7	12 17	5 1.02	+20 51.0	1.079	2.056	4.4	19.4
12 27	4 51.79	+22 8.2	1.848	2.787	7.3	21.0	12 27	4 52.14	+20 37.2	1.119	2.066	10.0	19.8
1 6	4 44.39	+21 59.2	1.914	2.791	11.1	21.2	1 6	4 46.08	+20 29.2	1.182	2.078	14.9	20.1
1 16	4 39.52	+21 53.8	2.005	2.794	14.3	21.4	1 16	4 43.52	+20 28.7	1.265	2.090	19.0	20.4
<b>427095</b>	2014 <i>UM</i> <sub>53</sub>	12	9.9 3°60	4°2/10.1	17		<b>348740</b>	2006 <i>GH</i> <sub>4</sub>	12	9.9 70°15	3°1/10.6	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>122163</b>	2000 $KA_2$	12 9.9	142°65	2°5/ 9.6	18		<b>484627</b>	2008 $SA_{159}$	12 10.0	19°46	4°7/11.2	17	
11 7	5 40.08	+17 37.2	1.569	2.408	15.6	19.9	11 7	5 35.57	+36 28.7	2.090	2.903	13.2	21.1
11 17	5 32.98	+17 15.8	1.507	2.418	11.5	19.7	11 17	5 29.61	+36 54.3	2.018	2.906	10.3	20.9
11 27	5 23.19	+16 56.1	1.468	2.427	7.0	19.5	11 27	5 21.23	+37 7.9	1.970	2.908	7.3	20.7
12 7	5 11.77	+16 39.3	1.456	2.436	2.9	19.2	12 7	5 11.35	+37 6.6	1.948	2.911	5.0	20.6
12 17	5 0.09	+16 27.1	1.472	2.444	4.6	19.4	12 17	5 1.13	+36 49.2	1.955	2.914	5.3	20.6
12 27	4 49.61	+16 21.3	1.517	2.452	9.1	19.7	12 27	4 51.88	+36 17.8	1.990	2.917	7.8	20.8
1 6	4 41.47	+16 23.2	1.587	2.459	13.2	19.9	1 6	4 44.64	+35 36.9	2.051	2.921	10.7	21.0
1 16	4 36.34	+16 33.4	1.679	2.465	16.7	20.2	1 16	4 40.08	+34 51.8	2.136	2.925	13.5	21.2
<b>474969</b>	2005 $TH_{63}$	12 9.9	68°64	2°2/10.3	18		<b>470250</b>	2006 $XP_{72}$	12 10.0	348°60	4°6/10.8	18	
11 7	5 39.50	+26 55.4	1.425	2.269	16.6	21.4	11 7	5 35.91	+32 0.1	1.166	2.022	18.7	20.5
11 17	5 32.97	+27 23.0	1.369	2.283	12.3	21.2	11 17	5 31.27	+32 22.2	1.100	2.016	14.3	20.2
11 27	5 23.34	+27 44.5	1.336	2.296	7.4	21.0	11 27	5 22.82	+32 31.1	1.053	2.010	9.4	20.0
12 7	5 11.82	+27 56.9	1.328	2.309	2.8	20.7	12 7	5 11.79	+32 22.1	1.029	2.006	5.1	19.7
12 17	4 59.99	+27 58.8	1.347	2.323	4.2	20.9	12 17	5 0.09	+31 54.0	1.029	2.002	5.9	19.7
12 27	4 49.56	+27 52.2	1.394	2.337	8.9	21.2	12 27	4 49.90	+31 10.7	1.054	1.999	10.7	20.0
1 6	4 41.83	+27 41.1	1.465	2.350	13.3	21.5	1 6	4 42.89	+30 20.0	1.101	1.998	15.6	20.3
1 16	4 37.50	+27 29.8	1.558	2.364	16.9	21.7	1 16	4 39.97	+29 29.7	1.167	1.997	19.9	20.5
<b>321441</b>	2009 $QS_{52}$	12 9.9	80°05	2°8/ 9.4	18		<b>40826</b>	1999 $TP_{91}$	12 10.0	111°32	1°8/10.3	18	
11 7	5 32.73	+15 37.0	2.072	2.908	12.5	20.5	11 7	5 39.33	+27 9.8	1.923	2.751	13.6	19.3
11 17	5 27.11	+15 14.8	2.006	2.915	9.2	20.4	11 17	5 32.17	+27 32.4	1.863	2.768	10.1	19.1
11 27	5 19.59	+14 55.5	1.965	2.922	5.7	20.2	11 27	5 22.63	+27 49.4	1.827	2.784	6.1	18.9
12 7	5 10.92	+14 40.8	1.952	2.930	2.9	20.0	12 7	5 11.66	+27 58.7	1.820	2.801	2.3	18.7
12 17	5 2.05	+14 31.8	1.968	2.937	4.1	20.1	12 17	5 0.47	+27 59.6	1.842	2.817	3.4	18.8
12 27	4 53.97	+14 29.9	2.014	2.944	7.5	20.3	12 27	4 50.36	+27 53.5	1.894	2.832	7.3	19.1
1 6	4 47.51	+14 35.5	2.085	2.952	10.8	20.5	1 6	4 42.33	+27 43.4	1.973	2.847	10.9	19.3
1 16	4 43.23	+14 48.5	2.180	2.959	13.6	20.7	1 16	4 37.01	+27 32.6	2.075	2.861	13.9	19.6
<b>281912</b>	2011 $EX_{52}$	12 9.9	285°20	2°2/ 9.7	18		<b>197067</b>	2003 $UJ_{161}$	12 10.0	352°35	4°2/10.6	17	
11 7	5 36.29	+18 2.3	1.475	2.324	15.9	21.4	11 7	5 32.05	+31 37.4	1.538	2.384	15.5	19.1
11 17	5 30.71	+17 56.1	1.395	2.311	11.8	21.2	11 17	5 27.73	+32 13.9	1.465	2.376	11.9	18.8
11 27	5 22.17	+17 52.3	1.337	2.299	7.2	20.9	11 27	5 20.46	+32 41.4	1.414	2.368	7.9	18.6
12 7	5 11.60	+17 51.5	1.304	2.286	2.6	20.6	12 7	5 11.22	+32 55.9	1.387	2.362	4.5	18.4
12 17	5 0.37	+17 54.6	1.299	2.274	4.6	20.6	12 17	5 1.39	+32 55.5	1.387	2.357	5.3	18.4
12 27	4 50.06	+18 2.7	1.321	2.261	9.6	20.9	12 27	4 52.60	+32 41.6	1.413	2.353	9.0	18.6
1 6	4 42.06	+18 16.9	1.367	2.249	14.3	21.1	1 6	4 46.18	+32 18.4	1.462	2.351	13.1	18.8
1 16	4 37.23	+18 37.8	1.434	2.237	18.3	21.4	1 16	4 42.97	+31 51.3	1.534	2.350	16.6	19.1
<b>480216</b>	2015 $GS_{28}$	12 9.9	136°92	2°5/ 9.5	16		<b>367407</b>	2008 $QZ_{29}$	12 10.0	104°06	3°5/ 9.3	18	
11 7	5 38.36	+17 41.5	1.828	2.661	14.0	22.8	11 7	5 31.97	+11 56.0	2.368	3.194	11.4	21.2
11 17	5 31.36	+17 9.8	1.765	2.674	10.3	22.6	11 17	5 26.33	+11 35.2	2.305	3.205	8.6	21.0
11 27	5 22.09	+16 39.0	1.728	2.686	6.2	22.4	11 27	5 19.05	+11 19.8	2.267	3.216	5.7	20.9
12 7	5 11.50	+16 10.8	1.718	2.698	2.7	22.2	12 7	5 10.81	+11 11.2	2.257	3.227	3.6	20.8
12 17	5 0.75	+15 47.1	1.738	2.708	4.3	22.3	12 17	5 2.42	+11 10.7	2.277	3.238	4.5	20.8
12 27	4 51.04	+15 30.2	1.787	2.718	8.2	22.6	12 27	4 54.71	+11 18.7	2.327	3.248	7.2	21.0
1 6	4 43.34	+15 21.5	1.862	2.728	11.9	22.8	1 6	4 48.41	+11 35.0	2.403	3.258	9.9	21.2
1 16	4 38.24	+15 21.7	1.960	2.737	15.0	23.1	1 16	4 43.99	+11 59.0	2.503	3.268	12.4	21.4
<b>119862</b>	2002 $CY_{121}$	12 9.9	251°91	0°2/ 9.9	17		<b>59695</b>	1999 $JU_{116}$	12 10.0	248°84	1°7/10.2	18	
11 7	5 33.67	+23 3.3	2.184	3.018	12.0	20.4	11 7	5 39.62	+26 23.1	1.463	2.306	16.3	19.3
11 17	5 27.93	+22 51.7	2.099	3.010	8.8	20.2	11 17	5 33.34	+26 40.1	1.385	2.298	12.2	19.0
11 27	5 20.15	+22 37.2	2.040	3.001	5.2	20.0	11 27	5 23.79	+26 51.6	1.329	2.290	7.4	18.8
12 7	5 11.08	+22 19.8	2.009	2.993	1.2	19.7	12 7	5 12.02	+26 55.0	1.299	2.282	2.5	18.4
12 17	5 1.65	+22 0.5	2.008	2.984	2.9	19.8	12 17	4 59.56	+26 48.9	1.297	2.273	4.1	18.5
12 27	4 52.94	+21 40.9	2.036	2.976	6.8	20.0	12 27	4 48.21	+26 35.4	1.322	2.264	9.3	18.8
1 6	4 45.84	+21 23.4	2.092	2.967	10.4	20.2	1 6	4 39.47	+26 18.5	1.371	2.255	14.0	19.1
1 16	4 40.98	+21 10.0	2.172	2.958	13.4	20.4	1 16	4 34.24	+26 2.7	1.441	2.246	18.1	19.3
<b>409137</b>	2003 $UP_{55}$	12 10.0	44°97	5°9/11.0	18		<b>88371</b>	2001 $PF_{15}$	12 10.0	58°94	1°1/ 9.8	18	
11 7	5 38.86	+37 5.9	1.830	2.644	14.7	19.8	11 7	5 38.23	+21 20.4	1.318	2.171	17.1	19.2
11 17	5 32.18	+38 4.7	1.782	2.668	11.6	19.7	11 17	5 31.87	+21 3.7	1.272	2.191	12.5	19.0
11 27	5 22.76	+38 49.9	1.758	2.692	8.4	19.6	11 27	5 22.58	+20 45.3	1.247	2.211	7.3	18.7
12 7	5 11.68	+39 16.7	1.759	2.717	6.1	19.5	12 7	5 11.65	+20 26.1	1.248	2.232	1.9	18.5
12 17	5 0.38	+39 23.2	1.789	2.741	6.4	19.5	12 17	5 0.63	+20 7.6	1.276	2.253	4.1	18.7
12 27	4 50.35	+39 11.3	1.845	2.766	8.7	19.7	12 27	4 51.13	+19 52.5	1.331	2.274	9.2	19.0
1 6	4 42.74	+38 46.1	1.928	2.792	11.6	20.0	1 6	4 44.30	+19 43.3	1.409	2.295	13.7	19.3
1 16	4 38.20	+38 13.7	2.032	2.817	14.2	20.2	1 16	4 40.72	+19 41.5	1.509	2.316	17.3	19.6
<b>514782</b>	2007 $GC_{40}$	12 10.0	233°36	1°5/10.2	18		<b>328963</b>	2010 $VX_{158}$	12 10.0	18°31	6°1/ 8.9	18	
11 7	5 38.57	+26 1.4	1.845	2.677	13.9	22.3	11 7	5 35.31	+12 37.6	1.199	2.058	18.2	20.4
11 17	5 32.02	+26 21.7	1.760	2.668	10.4	22.0	11 17	5 30.08	+11 39.7	1.142	2.059	13.8	20.1
11 27	5 22.79	+26 37.9	1.699	2.658	6.3	21.8	11 27	5 21.76	+10 48.9	1.106	2.062	9.3	19.9
12 7	5 11.75	+26 47.8	1.665	2.647	2.1	21.5	12 7	5 11.51	+10 10.7	1.093	2.064	6.2	19.7
12 17	5 0.11	+26 50.1	1.660	2.636	3.5	21.5	12 17	5 0.88	+ 9 49.3	1.105	2.068	7.7	19.8
12 27	4 49.31	+26 45.9	1.685	2.625	7.9	21.8	12 27	4 51.58	+ 9 47.2	1.141	2.071	11.9	20.1
1 6	4 40.58	+26 37.9	1.736	2.613	12.0	22.0	1 6	4 44.91	+10 3.7	1.200	2.075	16.3	20.4
1 16	4 34.71	+26 29.7	1.810	2.600	15.5	22.2	1 16	4 41.60	+10 36.3	1.277	2.080	20.1	20.6
<b>365997</b>	2012 $BE_{91}$	12 10.0	224°94	5°1/ 9.3	18		<b>94855</b>	2001 $XR_{210}$	12 10.0	229°57	1°9/ 9.6	18	
11 7	5 32.77	+											