

EPHEMERIDES

12 23.9

12 24.0

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>294315</b>	2007 <i>VW</i> <sub>49</sub>		12 23.9	26°22'	1°0'/23.9	18	<b>180924</b>	2005 <i>LH</i> <sub>17</sub>		12 23.9	228°23'	0°9'/23.9	18
11 17	6 42.10	+22 59.8	1.291	2.110	19.3	21.0	11 17	6 42.38	+23 50.9	1.587	2.392	17.0	20.8
11 27	6 37.59	+22 33.1	1.218	2.111	15.1	20.7	11 27	6 37.49	+24 18.2	1.502	2.386	13.2	20.5
12 7	6 29.45	+22 6.1	1.166	2.112	10.0	20.4	12 7	6 29.32	+24 48.6	1.437	2.381	8.8	20.3
12 17	6 18.57	+21 38.0	1.137	2.114	4.3	20.1	12 17	6 18.57	+25 18.5	1.399	2.375	3.8	20.0
12 27	6 6.52	+21 9.1	1.134	2.115	2.1	19.9	12 27	6 6.54	+25 44.1	1.388	2.369	1.9	19.8
1 6	5 55.18	+20 40.9	1.157	2.117	7.8	20.3	1 6	5 54.85	+26 3.1	1.405	2.363	7.0	20.1
1 16	5 46.14	+20 15.9	1.205	2.119	13.1	20.6	1 16	5 45.03	+26 15.6	1.449	2.356	11.8	20.4
1 26	5 40.55	+19 56.6	1.275	2.121	17.6	20.9	1 26	5 38.24	+26 23.5	1.516	2.350	15.9	20.6
<b>363872</b>	2005 <i>SU</i> <sub>29</sub>		12 23.9	143°96'	5°8'/24.0	18	<b>335319</b>	2005 <i>QH</i> <sub>83</sub>		12 23.9	57°38'	2°6'/24.1	18
11 17	6 36.38	+7 32.9	2.233	2.999	13.9	21.5	11 17	6 44.73	+29 23.9	1.308	2.123	19.3	20.7
11 27	6 31.52	+6 43.7	2.155	3.004	11.3	21.4	11 27	6 39.41	+29 32.2	1.255	2.144	15.0	20.5
12 7	6 24.65	+6 4.0	2.099	3.009	8.6	21.2	12 7	6 30.42	+29 35.4	1.223	2.166	10.0	20.3
12 17	6 16.36	+5 36.4	2.070	3.014	6.4	21.1	12 17	6 18.87	+29 29.1	1.213	2.188	4.8	20.0
12 27	6 7.48	+5 22.9	2.069	3.018	5.9	21.0	12 27	6 6.52	+29 11.1	1.231	2.210	3.1	20.0
1 6	5 58.93	+5 24.0	2.097	3.022	7.6	21.2	1 6	5 55.24	+28 42.6	1.275	2.232	7.6	20.3
1 16	5 51.56	+5 38.7	2.152	3.026	10.1	21.3	1 16	5 46.56	+28 7.7	1.344	2.255	12.3	20.6
1 26	5 46.05	+6 4.9	2.231	3.030	12.7	21.5	1 26	5 41.37	+27 31.4	1.435	2.277	16.2	20.9
<b>220532</b>	2004 <i>FK</i> <sub>25</sub>		12 23.9	322°87'	3°3'/23.7	18	<b>154159</b>	2002 <i>GB</i> <sub>39</sub>		12 23.9	174°36'	4°2'/24.2	18
11 17	6 37.95	+19 32.7	1.287	2.111	19.1	20.0	11 17	6 35.43	+11 16.5	2.294	3.071	13.2	19.8
11 27	6 34.50	+18 39.3	1.204	2.098	15.1	19.7	11 27	6 30.83	+10 47.5	2.210	3.071	10.6	19.6
12 7	6 27.54	+17 46.7	1.141	2.086	10.3	19.4	12 7	6 24.25	+10 26.0	2.148	3.072	7.7	19.4
12 17	6 17.84	+16 56.6	1.101	2.075	5.2	19.1	12 17	6 16.23	+10 13.6	2.114	3.072	5.0	19.3
12 27	6 6.81	+16 12.1	1.086	2.064	3.9	19.0	12 27	6 7.60	+10 11.2	2.108	3.073	4.3	19.2
1 6	5 56.23	+15 35.9	1.097	2.054	8.6	19.3	1 6	5 59.24	+10 18.8	2.132	3.073	6.4	19.4
1 16	5 47.72	+15 10.6	1.132	2.044	13.8	19.5	1 16	5 52.01	+10 35.6	2.184	3.073	9.3	19.6
1 26	5 42.49	+14 57.2	1.187	2.036	18.5	19.8	1 26	5 46.60	+11 0.1	2.260	3.073	12.1	19.7
<b>167207</b>	2003 <i>UH</i> <sub>1</sub>		12 23.9	36°02'	8°1'/24.1	18	<b>275641</b>	2000 <i>GE</i> <sub>46</sub>		12 23.9	253°19'	1°0'/23.9	18
11 17	6 44.43	+40 28.3	1.459	2.256	18.6	19.8	11 17	6 41.59	+25 0.4	1.724	2.525	16.0	21.4
11 27	6 39.68	+41 26.6	1.400	2.266	15.2	19.6	11 27	6 36.71	+25 16.8	1.629	2.512	12.5	21.1
12 7	6 30.93	+42 11.9	1.360	2.278	11.7	19.5	12 7	6 28.74	+25 34.2	1.557	2.500	8.3	20.8
12 17	6 19.19	+42 35.4	1.343	2.290	8.8	19.3	12 17	6 18.32	+25 49.5	1.510	2.486	3.6	20.5
12 27	6 6.29	+42 31.2	1.352	2.302	8.2	19.3	12 27	6 6.65	+25 59.8	1.492	2.473	1.9	20.4
1 6	5 54.35	+41 59.3	1.385	2.315	10.2	19.5	1 6	5 55.23	+26 3.7	1.502	2.459	6.7	20.6
1 16	5 45.11	+41 5.7	1.443	2.329	13.4	19.7	1 16	5 45.49	+26 2.0	1.539	2.445	11.3	20.9
1 26	5 39.68	+39 58.9	1.522	2.342	16.6	19.9	1 26	5 38.59	+25 56.9	1.599	2.431	15.4	21.1
<b>282078</b>	2000 <i>GP</i> <sub>51</sub>		12 23.9	293°92'	3°8'/24.0	18	<b>173873</b>	2001 <i>TQ</i> <sub>256</sub>		12 23.9	101°83'	1°7'/23.9	18
11 17	6 38.07	+15 55.9	1.494	2.303	17.6	20.6	11 17	6 41.60	+26 59.9	2.127	2.915	13.8	21.3
11 27	6 34.23	+15 28.3	1.401	2.285	14.0	20.3	11 27	6 35.80	+27 30.0	2.059	2.935	10.6	21.1
12 7	6 27.23	+15 7.1	1.328	2.268	9.8	20.0	12 7	6 27.57	+27 58.8	2.015	2.954	7.0	20.9
12 17	6 17.71	+14 54.0	1.279	2.251	5.4	19.7	12 17	6 17.63	+28 23.4	1.999	2.973	3.3	20.7
12 27	6 6.85	+14 49.8	1.257	2.233	4.1	19.6	12 27	6 7.02	+28 40.9	2.012	2.991	2.1	20.6
1 6	5 56.20	+14 55.0	1.262	2.216	8.1	19.8	1 6	5 56.92	+28 50.5	2.056	3.009	5.5	20.9
1 16	5 47.25	+15 9.2	1.291	2.199	12.9	20.0	1 16	5 48.35	+28 53.0	2.128	3.027	9.0	21.2
1 26	5 41.20	+15 31.3	1.343	2.182	17.3	20.2	1 26	5 42.10	+28 50.5	2.225	3.044	12.1	21.4
<b>397614</b>	2007 <i>VM</i> <sub>241</sub>		12 23.9	57°64'	2°2'/23.6	18	<b>216415</b>	2008 <i>SF</i> <sub>61</sub>		12 24.0	100°88'	5°0'/24.4	18
11 17	6 43.41	+24 17.9	1.535	2.340	17.4	20.2	11 17	6 35.33	+7 16.4	2.556	3.316	12.5	20.8
11 27	6 38.02	+25 32.8	1.480	2.365	13.4	20.0	11 27	6 30.39	+6 43.8	2.488	3.334	10.1	20.6
12 7	6 29.43	+26 51.1	1.446	2.389	8.8	19.8	12 7	6 23.75	+6 20.4	2.443	3.351	7.6	20.5
12 17	6 18.48	+28 6.4	1.439	2.414	4.1	19.6	12 17	6 15.96	+6 8.2	2.425	3.369	5.6	20.4
12 27	6 6.60	+29 12.3	1.460	2.439	2.8	19.6	12 27	6 7.75	+6 8.0	2.436	3.386	5.0	20.4
1 6	5 55.41	+30 4.9	1.509	2.464	7.0	19.9	1 6	5 59.88	+6 19.5	2.476	3.403	6.5	20.5
1 16	5 46.30	+30 43.9	1.586	2.489	11.3	20.2	1 16	5 53.05	+6 41.5	2.545	3.420	8.7	20.7
1 26	5 40.26	+31 11.3	1.685	2.514	14.8	20.5	1 26	5 47.85	+7 12.1	2.639	3.436	11.0	20.9
<b>267966</b>	2004 <i>FZ</i> <sub>72</sub>		12 23.9	41°58'	3°9'/23.9	18	<b>520976</b>	2015 <i>AV</i> <sub>1</sub>		12 24.0	110°17'	3°4'/24.9	18
11 17	6 42.74	+30 27.9	1.185	2.010	20.3	20.3	11 17	6 37.77	+8 47.3	2.615	3.372	12.3	21.4
11 27	6 38.42	+30 57.0	1.131	2.025	15.9	20.1	11 27	6 32.32	+9 16.3	2.536	3.386	9.8	21.2
12 7	6 30.09	+31 20.8	1.096	2.041	10.8	19.8	12 7	6 25.08	+9 56.0	2.480	3.399	7.0	21.0
12 17	6 18.82	+31 33.3	1.084	2.057	5.7	19.6	12 17	6 16.56	+10 45.9	2.453	3.412	4.4	20.9
12 27	6 6.49	+31 30.1	1.097	2.074	4.3	19.6	12 27	6 7.48	+11 44.5	2.457	3.425	3.5	20.9
1 6	5 55.21	+31 11.5	1.135	2.091	8.5	19.9	1 6	5 58.66	+12 49.5	2.493	3.437	5.4	21.0
1 16	5 46.69	+30 41.6	1.196	2.109	13.3	20.2	1 16	5 50.87	+13 58.0	2.559	3.449	8.1	21.2
1 26	5 41.97	+30 6.6	1.279	2.127	17.4	20.5	1 26	5 44.72	+15 7.6	2.652	3.461	10.6	21.4
<b>10866</b>	Peru		12 23.9	284°57'	1°1'/23.9	18	<b>263217</b>	2008 <i>AF</i> <sub>36</sub>		12 24.0	194°47'	1°3'/23.9	17
11 17	6 40.27	+25 54.8	1.625	2.433	16.5	18.6	11 17	6 40.12	+27 13.4	2.252	3.039	13.1	21.4
11 27	6 35.85	+26 0.7	1.533	2.419	12.9	18.3	11 27	6 34.71	+27 20.9	2.162	3.038	10.2	21.2
12 7	6 28.24	+26 5.8	1.461	2.405	8.6	18.0	12 7	6 26.93	+27 26.4	2.097	3.036	6.8	21.0
12 17	6 18.11	+26 7.1	1.415	2.392	3.8	17.7	12 17	6 17.41	+27 27.6	2.059	3.033	3.1	20.8
12 27	6 6.71	+26 2.6	1.396	2.378	1.9	17.5	12 27	6 7.12	+27 22.9	2.050	3.031	1.8	20.7
1 6	5 55.62	+25 51.5	1.405	2.364	6.9	17.8	1 6	5 57.17	+27 12.2	2.072	3.028	5.3	20.9
1 16	5 46.32	+25 35.5	1.441	2.350	11.7	18.1	1 16	5 48.58	+26 56.5	2.123	3.024	8.9	21.1
1 26	5 39.96	+25 17.5	1.499	2.337	15.9	18.3	1 26	5 42.17	+26 38.3	2.200	3.020	12.1	21.3
<b>171569</b>	1999 <i>UD</i> <sub>3</sub>		12 23.9	16°24'	4°0'/23.8	17	<b>455238</b>	2001 <i>SZ</i> <sub>179</sub>		12 24.0	178°90'	7°4'/25.4	18

EPHEMERIDES

12 24.0

12 24.0

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>464334</b>	2016 AZ <sub>111</sub>	12 24.0 301°83 0°0/24.0 18					<b>185519</b>	2007 VT <sub>63</sub>	12 24.0 106°28 0°1/24.0 18				
11 17	6 35.84	+22 4.0	2.225	3.020	13.0	20.6	11 17	6 39.63	+22 23.4	1.869	2.668	15.0	20.9
11 27	6 31.48	+22 22.5	2.132	3.012	10.1	20.4	11 27	6 34.63	+22 32.8	1.793	2.674	11.6	20.7
12 7	6 24.88	+22 43.7	2.062	3.004	6.7	20.2	12 7	6 27.02	+22 44.4	1.738	2.681	7.6	20.5
12 17	6 16.58	+23 6.1	2.019	2.996	2.8	19.9	12 17	6 17.49	+22 56.2	1.710	2.687	3.2	20.2
12 27	6 7.46	+23 27.7	2.005	2.988	1.2	19.8	12 27	6 7.13	+23 6.6	1.711	2.693	1.4	20.1
1 6	5 58.55	+23 47.3	2.022	2.980	5.2	20.0	1 6	5 57.23	+23 14.7	1.741	2.699	5.8	20.4
1 16	5 50.83	+24 4.4	2.066	2.972	8.9	20.2	1 16	5 48.90	+23 20.7	1.799	2.705	9.9	20.7
1 26	5 45.12	+24 19.3	2.136	2.964	12.2	20.4	1 26	5 43.02	+23 25.6	1.881	2.711	13.5	20.9
<b>518441</b>	2004 FC <sub>6</sub>	12 24.0 290°86 6°7/23.2 18					<b>237868</b>	2002 JC <sub>13</sub>	12 24.0 210°28 4°8/23.9 18				
11 17	6 45.34	+35 28.4	1.568	2.365	17.5	21.6	11 17	6 38.62	+11 44.2	2.036	2.814	14.6	20.9
11 27	6 40.96	+36 33.6	1.457	2.330	14.4	21.3	11 27	6 33.58	+10 59.8	1.947	2.810	11.7	20.7
12 7	6 32.46	+37 36.3	1.367	2.294	10.7	21.0	12 7	6 26.22	+10 22.3	1.881	2.805	8.5	20.5
12 17	6 20.27	+38 27.5	1.300	2.258	7.5	20.7	12 17	6 17.14	+9 54.0	1.842	2.800	5.6	20.3
12 27	6 5.73	+38 57.9	1.260	2.222	7.0	20.6	12 27	6 7.27	+9 36.8	1.831	2.794	5.0	20.3
1 6	5 50.92	+39 1.9	1.246	2.185	10.2	20.6	1 6	5 57.70	+9 31.5	1.849	2.788	7.3	20.4
1 16	5 38.09	+38 40.7	1.257	2.147	14.7	20.8	1 16	5 49.44	+9 37.9	1.895	2.782	10.6	20.6
1 26	5 29.06	+38 1.1	1.290	2.110	19.0	20.9	1 26	5 43.29	+9 54.5	1.965	2.775	13.7	20.8
<b>175676</b>	1995 DK <sub>8</sub>	12 24.0 141°33 2°5/24.2 18					<b>484100</b>	2006 RM <sub>82</sub>	12 24.0 53°55 3°1/23.9 17				
11 17	6 38.01	+15 53.4	2.139	2.924	13.8	21.2	11 17	6 40.93	+30 23.9	1.707	2.510	16.0	21.7
11 27	6 32.96	+15 44.9	2.059	2.930	10.8	21.0	11 27	6 36.00	+30 49.6	1.639	2.521	12.5	21.5
12 7	6 25.72	+15 42.1	2.002	2.936	7.4	20.8	12 7	6 28.06	+31 11.1	1.593	2.532	8.5	21.3
12 17	6 16.89	+15 45.2	1.972	2.942	3.9	20.6	12 17	6 17.94	+31 24.1	1.573	2.544	4.5	21.1
12 27	6 7.38	+15 53.8	1.971	2.947	2.8	20.5	12 27	6 6.96	+31 25.7	1.580	2.556	3.4	21.1
1 6	5 58.22	+16 7.3	2.000	2.953	5.8	20.7	1 6	5 56.61	+31 15.4	1.615	2.568	6.8	21.3
1 16	5 50.35	+16 25.1	2.058	2.957	9.3	20.9	1 16	5 48.19	+30 55.5	1.677	2.580	10.7	21.6
1 26	5 44.53	+16 46.4	2.141	2.962	12.4	21.1	1 26	5 42.62	+30 30.1	1.762	2.593	14.2	21.8
<b>287898</b>	2003 SY <sub>388</sub>	12 24.0 101°17 4°5/24.4 17					<b>262669</b>	2006 WW <sub>122</sub>	12 24.0 310°98 1°0/23.8 18				
11 17	6 35.00	+9 36.5	2.331	3.103	13.2	21.4	11 17	6 38.46	+21 22.2	1.721	2.526	15.8	20.5
11 27	6 30.42	+9 12.7	2.253	3.110	10.6	21.2	11 27	6 34.51	+22 26.3	1.618	2.503	12.4	20.2
12 7	6 23.94	+8 57.7	2.198	3.117	7.8	21.0	12 7	6 27.51	+23 40.0	1.537	2.481	8.3	19.9
12 17	6 16.11	+8 53.2	2.169	3.124	5.3	20.9	12 17	6 17.95	+24 59.5	1.483	2.459	3.6	19.6
12 27	6 7.71	+8 59.7	2.170	3.130	4.6	20.9	12 27	6 6.86	+26 19.0	1.457	2.438	1.9	19.4
1 6	5 59.62	+9 16.9	2.199	3.137	6.5	21.0	1 6	5 55.69	+27 33.2	1.459	2.417	6.8	19.6
1 16	5 52.65	+9 43.5	2.257	3.144	9.2	21.2	1 16	5 45.95	+28 38.4	1.489	2.396	11.6	19.9
1 26	5 47.43	+10 17.5	2.339	3.150	11.8	21.4	1 26	5 38.92	+29 33.8	1.543	2.376	15.8	20.1
<b>485558</b>	2011 UZ <sub>144</sub>	12 24.0 5°86 9°8/23.9 17					<b>107419</b>	2001 DV <sub>10</sub>	12 24.0 161°23 2°3/24.2 18				
11 17	6 42.72	+43 25.7	1.446	2.239	18.9	20.4	11 17	6 39.17	+16 29.0	2.060	2.846	14.2	20.4
11 27	6 38.86	+44 37.9	1.380	2.239	15.8	20.2	11 27	6 33.98	+16 23.6	1.977	2.850	11.1	20.2
12 7	6 30.73	+45 35.7	1.333	2.240	12.7	20.0	12 7	6 26.46	+16 23.9	1.918	2.854	7.6	20.0
12 17	6 19.27	+46 9.1	1.308	2.242	10.4	19.9	12 17	6 17.24	+16 29.8	1.885	2.857	3.9	19.8
12 27	6 6.34	+46 10.3	1.307	2.245	9.9	19.9	12 27	6 7.26	+16 40.6	1.882	2.860	2.6	19.7
1 6	5 54.23	+45 38.6	1.331	2.249	11.7	20.0	1 6	5 57.64	+16 55.8	1.909	2.863	5.9	20.0
1 16	5 44.92	+44 39.7	1.377	2.254	14.5	20.2	1 16	5 49.37	+17 14.5	1.964	2.865	9.6	20.2
1 26	5 39.67	+43 23.4	1.444	2.259	17.6	20.4	1 26	5 43.25	+17 36.2	2.044	2.867	12.8	20.4
<b>53717</b>	2000 EG <sub>10</sub>	12 24.0 179°27 0°7/24.0 18					<b>139716</b>	2001 QF <sub>240</sub>	12 24.0 91°02 2°5/23.9 18				
11 17	6 41.31	+21 36.8	1.663	2.465	16.4	20.0	11 17	6 40.83	+29 52.1	1.935	2.730	14.7	20.1
11 27	6 36.29	+21 33.9	1.582	2.466	12.8	19.8	11 27	6 35.62	+30 11.2	1.860	2.738	11.5	19.9
12 7	6 28.30	+21 33.5	1.523	2.466	8.5	19.6	12 7	6 27.68	+30 26.6	1.807	2.745	7.8	19.7
12 17	6 18.08	+21 34.1	1.490	2.466	3.6	19.3	12 17	6 17.77	+30 34.8	1.780	2.752	4.0	19.5
12 27	6 6.86	+21 34.5	1.485	2.466	1.7	19.1	12 27	6 7.05	+30 33.3	1.783	2.760	2.9	19.5
1 6	5 56.09	+21 34.3	1.508	2.466	6.5	19.4	1 6	5 56.84	+30 21.9	1.814	2.767	6.2	19.7
1 16	5 47.10	+21 34.0	1.558	2.465	11.1	19.7	1 16	5 48.32	+30 2.5	1.873	2.774	9.9	19.9
1 26	5 40.88	+21 34.8	1.631	2.465	15.0	20.0	1 26	5 42.36	+29 38.3	1.956	2.781	13.2	20.1
<b>227100</b>	2005 MM <sub>50</sub>	12 24.0 42°70 3°1/24.3 18					<b>114837</b>	2003 OB <sub>28</sub>	12 24.0 31°78 1°2/24.1 18				
11 17	6 40.01	+15 47.8	1.150	1.974	20.9	20.0	11 17	6 33.36	+19 26.0	2.323	3.118	12.5	18.5
11 27	6 35.87	+15 50.8	1.102	1.995	16.3	19.8	11 27	6 29.19	+19 25.2	2.256	3.135	9.7	18.4
12 7	6 28.20	+16 5.3	1.072	2.017	10.9	19.6	12 7	6 23.14	+19 27.7	2.213	3.153	6.4	18.2
12 17	6 18.01	+16 30.5	1.065	2.039	5.5	19.3	12 17	6 15.77	+19 32.8	2.197	3.172	2.9	18.0
12 27	6 6.95	+17 4.1	1.083	2.062	3.5	19.3	12 27	6 7.92	+19 39.9	2.210	3.191	1.6	17.9
1 6	5 56.82	+17 42.9	1.126	2.085	8.1	19.6	1 6	6 0.46	+19 48.6	2.254	3.211	4.8	18.2
1 16	5 49.09	+18 24.2	1.194	2.110	13.0	20.0	1 16	5 54.17	+19 58.6	2.325	3.231	8.0	18.4
1 26	5 44.73	+19 6.2	1.282	2.134	17.2	20.3	1 26	5 49.68	+20 9.7	2.422	3.251	10.9	18.7
<b>42530</b>	1995 GA	12 24.0 209°73 3°8/24.4 18					<b>186574</b>	2003 AY <sub>41</sub>	12 24.0 332°54 9°8/25.6 17				
11 17	6 41.25	+13 26.8	1.685	2.475	16.7	19.3	11 17	6 33.82	- 0 34.0	1.629	2.395	18.2	19.8
11 27	6 36.19	+13 20.6	1.598	2.471	13.3	19.1	11 27	6 30.52	- 1 7.4	1.544	2.382	15.6	19.6
12 7	6 28.26	+13 24.4	1.533	2.466	9.3	18.8	12 7	6 24.58	- 1 19.6	1.478	2.369	12.9	19.4
12 17	6 18.09	+13 38.8	1.493	2.461	5.3	18.6	12 17	6 16.58	- 1 5.4	1.433	2.357	10.6	19.2
12 27	6 6.84	+14 3.4	1.481	2.455	4.0	18.5	12 27	6 7.54	- 0 21.9	1.413	2.346	9.8	19.1
1 6	5 55.88	+14 36.5	1.498	2.449	7.4	18.7	1 6	5 58.71	+ 0 49.4	1.418	2.336	11.2	19.2
1 16	5 46.53	+15 16.3	1.541	2.442	11.6	18.9	1 16	5 51.29	+ 2 23.9	1.448	2.326	13.9	19.3
1 26	5 39.81	+16 0.5	1.608	2.435	15.5	19.1	1 26	5 46.29	+ 4 14.1	1.500	2.317	16.9	19.5
<b>275627</b>	2000 DG <sub>90</sub>	12 24.0 242°20 0°6/24.0 18					<b>168378</b>	1997 ET <sub>30</sub>	12 24.0 144°90 3°1/23.9 17				
11 17	6 41.35	+21 47.4	1.752	2.551	15.9	22.2	11 17	6 50.60	+31 13.5	2.191	2.958	14.1	21.7
11 27	6 36.37	+21 47.5	1.658	2.540	12.4	22.0	11 27	6 42.78	+31 49.1	2.116	2.977	11.0	21.5
12 7	6 28.43	+21 49.9											

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12 24.0

12 24.0

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>314797</b>	2006 TX <sub>46</sub>		12 24.0	20°66'	7.3/23.7	18	<b>480390</b>	2015 KO <sub>50</sub>		12 24.0	334°05'	1.9/23.9	18
11 17	6 35.73	+ 9 11.6	1.568	2.365	17.5	20.0	11 17	6 39.98	+25 18.8	1.329	2.151	18.7	20.6
11 27	6 31.81	+ 7 53.5	1.501	2.370	14.2	19.8	11 27	6 36.27	+25 55.0	1.251	2.145	14.6	20.4
12 7	6 25.24	+ 6 45.7	1.455	2.376	10.8	19.6	12 7	6 28.89	+26 34.0	1.193	2.140	9.8	20.1
12 17	6 16.76	+ 5 53.2	1.433	2.383	8.0	19.4	12 17	6 18.56	+27 11.0	1.159	2.135	4.5	19.8
12 27	6 7.53	+ 5 20.1	1.437	2.390	7.5	19.4	12 27	6 6.78	+27 41.2	1.150	2.131	2.7	19.6
1 6	5 58.81	+ 5 7.8	1.467	2.399	9.6	19.6	1 6	5 55.41	+28 1.4	1.168	2.127	7.9	19.9
1 16	5 51.74	+ 5 15.2	1.522	2.407	12.8	19.8	1 16	5 46.23	+28 12.0	1.210	2.123	13.1	20.2
1 26	5 47.16	+ 5 39.1	1.598	2.417	16.0	20.0	1 26	5 40.52	+28 15.7	1.273	2.121	17.6	20.5
<b>100779</b>	1998 FJ <sub>53</sub>		12 24.0	231°84'	4.2/24.1	18	<b>353537</b>	2011 SQ <sub>171</sub>		12 24.0	230°77'	2°5/24.0	18
11 17	6 40.77	+14 18.0	1.668	2.462	16.7	20.3	11 17	6 38.96	+17 21.6	2.089	2.876	14.0	21.1
11 27	6 35.87	+13 46.3	1.579	2.453	13.4	20.0	11 27	6 33.92	+16 55.7	1.994	2.867	11.0	20.9
12 7	6 28.08	+13 21.6	1.511	2.445	9.4	19.8	12 7	6 26.52	+16 33.2	1.922	2.858	7.5	20.6
12 17	6 18.06	+13 5.6	1.468	2.436	5.5	19.5	12 17	6 17.35	+16 14.8	1.877	2.848	3.9	20.4
12 27	6 6.94	+12 59.6	1.453	2.426	4.5	19.4	12 27	6 7.33	+16 1.0	1.862	2.838	2.8	20.3
1 6	5 56.11	+13 3.8	1.466	2.416	7.8	19.6	1 6	5 57.58	+15 52.4	1.876	2.828	6.1	20.5
1 16	5 46.90	+13 17.7	1.506	2.405	12.0	19.8	1 16	5 49.12	+15 49.2	1.918	2.817	9.8	20.7
1 26	5 40.34	+13 40.2	1.569	2.395	15.9	20.0	1 26	5 42.80	+15 51.7	1.985	2.806	13.2	20.9
<b>124145</b>	2001 MN <sub>11</sub>		12 24.0	66°48'	5°3/24.7	18	<b>461458</b>	2002 PL <sub>194</sub>		12 24.0	139°27'	9°3/24.7	17
11 17	6 51.17	+36 59.6	1.422	2.215	19.2	18.9	11 17	6 53.53	+56 17.3	2.723	3.410	13.4	21.4
11 27	6 44.16	+37 6.3	1.374	2.244	15.2	18.7	11 27	6 45.79	+57 12.4	2.655	3.418	11.9	21.3
12 7	6 33.37	+36 59.7	1.345	2.274	10.8	18.5	12 7	6 34.53	+57 50.8	2.607	3.424	10.6	21.2
12 17	6 20.08	+36 34.1	1.341	2.303	6.7	18.4	12 17	6 20.72	+58 5.6	2.582	3.431	9.6	21.2
12 27	6 6.24	+35 47.5	1.364	2.332	5.4	18.4	12 27	6 5.95	+57 52.4	2.583	3.437	9.4	21.2
1 6	5 53.81	+34 43.4	1.414	2.361	8.3	18.6	1 6	5 52.04	+57 11.1	2.609	3.443	10.0	21.2
1 16	5 44.26	+33 29.2	1.491	2.390	12.1	18.9	1 16	5 40.53	+56 5.9	2.660	3.449	11.1	21.3
1 26	5 38.40	+32 12.9	1.591	2.419	15.6	19.2	1 26	5 32.42	+54 43.9	2.734	3.455	12.5	21.4
<b>135215</b>	2001 RT <sub>85</sub>		12 24.0	21°20'	1°9/24.1	18	<b>481948</b>	2009 CQ <sub>61</sub>		12 24.0	292°30'	0°3/24.0	17
11 17	6 37.72	+19 54.8	1.222	2.051	19.6	19.3	11 17	6 38.72	+22 26.8	1.725	2.530	15.8	21.9
11 27	6 34.25	+19 38.5	1.159	2.057	15.3	19.0	11 27	6 34.56	+22 27.2	1.622	2.508	12.4	21.6
12 7	6 27.30	+19 27.0	1.116	2.063	10.2	18.8	12 7	6 27.43	+22 29.6	1.541	2.485	8.3	21.3
12 17	6 17.75	+19 20.1	1.094	2.071	4.7	18.5	12 17	6 17.90	+22 32.5	1.485	2.462	3.6	21.0
12 27	6 7.15	+19 17.4	1.098	2.079	2.6	18.4	12 27	6 7.06	+22 34.5	1.458	2.440	1.6	20.8
1 6	5 57.25	+19 18.5	1.128	2.089	7.8	18.7	1 6	5 56.35	+22 34.6	1.458	2.417	6.6	21.0
1 16	5 49.60	+19 23.6	1.181	2.099	12.9	19.0	1 16	5 47.16	+22 33.5	1.485	2.394	11.4	21.3
1 26	5 45.23	+19 32.8	1.256	2.110	17.3	19.3	1 26	5 40.66	+22 32.6	1.535	2.372	15.6	21.5
<b>404659</b>	2014 HJ <sub>64</sub>		12 24.0	135°26'	4°9/23.3	18	<b>27223</b>	1999 GC <sub>5</sub>		12 24.0	354°71'	4°9/25.0	18
11 17	6 44.81	+33 51.1	2.015	2.797	14.6	21.6	11 17	6 33.86	+ 8 18.6	1.882	2.667	15.4	17.2
11 27	6 38.94	+35 4.3	1.940	2.805	11.7	21.4	11 27	6 30.18	+ 8 25.0	1.799	2.664	12.5	16.9
12 7	6 30.07	+36 13.5	1.888	2.813	8.4	21.2	12 7	6 24.15	+ 8 45.5	1.737	2.660	9.2	16.7
12 17	6 18.90	+37 12.2	1.863	2.821	5.6	21.1	12 17	6 16.37	+ 9 21.4	1.700	2.658	6.1	16.5
12 27	6 6.63	+37 54.8	1.867	2.829	5.2	21.0	12 27	6 7.75	+10 11.8	1.690	2.656	5.0	16.5
1 6	5 54.74	+38 18.7	1.901	2.836	7.5	21.2	1 6	5 59.39	+11 14.4	1.709	2.655	7.2	16.6
1 16	5 44.58	+38 25.2	1.962	2.842	10.6	21.4	1 16	5 52.30	+12 25.6	1.755	2.655	10.6	16.8
1 26	5 37.21	+38 18.4	2.047	2.849	13.6	21.6	1 26	5 47.35	+13 41.3	1.825	2.655	13.8	17.0
<b>88709</b>	2001 SA <sub>3</sub>		12 24.0	287°11'	1°3/24.1	18	<b>359811</b>	2011 UZ <sub>263</sub>		12 24.0	6°32'	3°0/23.4	18
11 17	6 37.52	+19 34.8	1.944	2.741	14.6	19.6	11 17	6 39.29	+25 17.1	1.480	2.296	17.4	19.9
11 27	6 33.00	+19 35.8	1.858	2.738	11.3	19.3	11 27	6 35.44	+26 40.3	1.405	2.296	13.6	19.6
12 7	6 26.00	+19 40.9	1.794	2.735	7.5	19.1	12 7	6 28.21	+28 9.2	1.352	2.297	9.1	19.4
12 17	6 17.13	+19 49.1	1.756	2.732	3.4	18.8	12 17	6 18.26	+29 37.1	1.324	2.298	4.6	19.1
12 27	6 7.40	+19 59.5	1.748	2.729	1.8	18.7	12 27	6 6.94	+30 56.1	1.324	2.301	3.6	19.1
1 6	5 57.98	+20 11.3	1.768	2.725	5.8	19.0	1 6	5 55.94	+32 0.6	1.351	2.304	7.8	19.3
1 16	5 49.96	+20 24.0	1.816	2.722	9.9	19.2	1 16	5 46.89	+32 48.8	1.403	2.308	12.3	19.6
1 26	5 44.22	+20 37.9	1.888	2.719	13.4	19.4	1 26	5 41.02	+33 22.6	1.478	2.313	16.2	19.8
<b>226959</b>	2004 VX <sub>64</sub>		12 24.0	346°55'	2°7/23.5	18	<b>323221</b>	2003 SC <sub>79</sub>		12 24.0	122°56'	5°9/24.1	18
11 17	6 38.95	+27 40.4	2.074	2.868	13.9	19.9	11 17	6 35.19	+ 6 6.5	2.426	3.185	13.1	20.6
11 27	6 34.24	+28 43.5	1.989	2.867	10.8	19.7	11 27	6 30.48	+ 5 15.4	2.349	3.191	10.8	20.5
12 7	6 26.92	+29 47.8	1.927	2.865	7.3	19.4	12 7	6 23.97	+ 4 33.9	2.295	3.198	8.3	20.3
12 17	6 17.57	+30 48.7	1.892	2.864	3.9	19.2	12 17	6 16.19	+ 4 4.6	2.268	3.205	6.4	20.2
12 27	6 7.20	+31 41.4	1.887	2.862	3.1	19.2	12 27	6 7.88	+ 3 49.6	2.269	3.211	6.0	20.2
1 6	5 57.03	+32 23.0	1.912	2.861	6.2	19.4	1 6	5 59.88	+ 3 49.3	2.299	3.217	7.4	20.3
1 16	5 48.27	+32 52.7	1.964	2.860	9.8	19.6	1 16	5 52.93	+ 4 2.8	2.356	3.223	9.7	20.4
1 26	5 41.86	+33 12.2	2.041	2.860	13.0	19.8	1 26	5 47.68	+ 4 27.8	2.437	3.229	12.0	20.6
<b>438485</b>	2007 FD <sub>25</sub>		12 24.0	187°70'	0°6/24.0	18	<b>359305</b>	2009 HO <sub>85</sub>		12 24.0	188°95'	0°6/23.9	18
11 17	6 42.44	+24 33.9	2.010	2.800	14.4	22.5	11 17	6 39.76	+23 55.4	2.246	3.033	13.2	21.6
11 27	6 36.77	+24 44.7	1.923	2.799	11.2	22.2	11 27	6 34.47	+24 17.2	2.157	3.033	10.2	21.4
12 7	6 28.46	+24 55.7	1.858	2.798	7.4	22.0	12 7	6 26.85	+24 40.2	2.092	3.032	6.7	21.2
12 17	6 18.17	+25 4.7	1.821	2.797	3.2	21.8	12 17	6 17.49	+25 2.4	2.054	3.030	2.9	21.0
12 27	6 6.97	+25 9.5	1.813	2.795	1.5	21.6	12 27	6 7.31	+25 21.4	2.047	3.028	1.4	20.8
1 6	5 56.13	+25 9.6	1.835	2.792	5.8	21.9	1 6	5 57.40	+25 36.0	2.070	3.026	5.2	21.1
1 16	5 46.82	+25 5.7	1.886	2.789	9.8	22.1	1 16	5 48.79	+25 46.3	2.122	3.023	8.9	21.3
1 26	5 39.94	+24 59.7	1.962	2.785	13.3	22.4	1 26	5 42.29	+25 53.3	2.199	3.020	12.1	21.5
<b>372845</b>	2010 VK <sub>92</sub>		12 24.0	153°38'	2°0/23.9	18	<b>242308</b>	2003 WA <sub>89</sub>		12 24.0	136°40'	4°7/23.9	18
11 17	6 46.91	+27 21.1											

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12 24.0

12 24.0

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>419347</b>	2009 <i>WS</i> <sub>186</sub>		12 24.0 120°01	1.2/24.0	18		<b>193067</b>	2000 <i>GZ</i> <sub>13</sub>		12 24.0 343°41	0°8/23.9	18	
11 17	6 37.65	+20 27.1	2.486	3.269	12.1	21.9	11 17	6 35.29	+24 43.1	1.810	2.619	15.0	19.9
11 27	6 32.37	+20 8.6	2.408	3.281	9.4	21.7	11 27	6 31.63	+24 56.3	1.723	2.611	11.7	19.7
12 7	6 25.19	+19 51.5	2.355	3.293	6.2	21.5	12 7	6 25.30	+25 10.4	1.658	2.603	7.7	19.4
12 17	6 16.69	+19 35.5	2.329	3.304	2.8	21.3	12 17	6 16.93	+25 22.9	1.619	2.596	3.3	19.1
12 27	6 7.69	+19 20.9	2.335	3.315	1.6	21.3	12 27	6 7.59	+25 32.1	1.607	2.589	1.6	19.0
1 6	5 59.06	+19 8.1	2.371	3.326	4.8	21.5	1 6	5 58.56	+25 36.7	1.624	2.583	6.0	19.3
1 16	5 51.61	+18 57.5	2.436	3.336	8.0	21.7	1 16	5 51.04	+25 37.3	1.667	2.578	10.3	19.5
1 26	5 45.97	+18 49.7	2.528	3.347	10.8	21.9	1 26	5 45.98	+25 35.4	1.734	2.574	14.0	19.7
<b>331747</b>	2002 <i>TJ</i> <sub>383</sub>		12 24.0 86°92	1°9/23.6	17		<b>238244</b>	2003 <i>UE</i> <sub>255</sub>		12 24.0 147°85	1°1/24.1	18	
11 17	6 39.50	+26 17.6	2.451	3.235	12.3	21.2	11 17	6 40.32	+20 24.9	2.013	2.803	14.4	21.6
11 27	6 34.07	+27 16.4	2.377	3.250	9.5	21.1	11 27	6 34.97	+20 21.3	1.933	2.810	11.1	21.4
12 7	6 26.48	+28 15.9	2.328	3.265	6.3	20.9	12 7	6 27.19	+20 20.3	1.876	2.816	7.4	21.1
12 17	6 17.30	+29 12.4	2.307	3.280	3.1	20.7	12 17	6 17.63	+20 21.1	1.846	2.822	3.3	20.9
12 27	6 7.41	+30 2.4	2.318	3.295	2.3	20.7	12 27	6 7.33	+20 23.0	1.846	2.827	1.7	20.8
1 6	5 57.80	+30 43.6	2.359	3.310	5.2	20.9	1 6	5 57.43	+20 25.4	1.875	2.832	5.6	21.1
1 16	5 49.43	+31 15.5	2.430	3.325	8.3	21.1	1 16	5 48.99	+20 28.6	1.933	2.836	9.5	21.3
1 26	5 43.04	+31 39.3	2.527	3.339	11.0	21.3	1 26	5 42.83	+20 33.3	2.015	2.840	12.9	21.5
<b>139713</b>	2001 <i>QH</i> <sub>235</sub>		12 24.0 116°69	4°4/24.0	18		<b>131428</b>	2001 <i>OO</i> <sub>100</sub>		12 24.0 150°11	0°0/24.0	18	
11 17	6 42.83	+35 9.8	2.041	2.824	14.4	20.2	11 17	6 36.18	+22 37.9	2.836	3.618	10.9	20.6
11 27	6 37.22	+35 40.4	1.965	2.831	11.5	20.0	11 27	6 31.17	+22 52.9	2.751	3.624	8.4	20.5
12 7	6 28.80	+36 3.9	1.912	2.838	8.2	19.8	12 7	6 24.41	+23 9.3	2.691	3.630	5.5	20.3
12 17	6 18.32	+36 15.5	1.884	2.845	5.3	19.7	12 17	6 16.40	+23 25.5	2.659	3.635	2.3	20.1
12 27	6 6.99	+36 12.1	1.886	2.851	4.6	19.7	12 27	6 7.85	+23 40.4	2.659	3.641	1.0	20.0
1 6	5 56.20	+35 53.3	1.916	2.858	6.9	19.8	1 6	5 59.54	+23 53.3	2.689	3.646	4.2	20.2
1 16	5 47.17	+35 21.9	1.974	2.864	10.1	20.0	1 16	5 52.21	+24 4.0	2.750	3.650	7.2	20.4
1 26	5 40.79	+34 42.4	2.056	2.870	13.1	20.2	1 26	5 46.48	+24 13.0	2.837	3.655	9.8	20.6
<b>449363</b>	2013 <i>GL</i> <sub>74</sub>		12 24.0 305°84	4°3/24.4	18		<b>82597</b>	2001 <i>OK</i> <sub>93</sub>		12 24.0 188°34	0°2/24.0	18	
11 17	6 36.52	+11 55.8	1.827	2.618	15.6	21.6	11 17	6 42.64	+22 46.6	1.874	2.666	15.2	20.6
11 27	6 32.34	+11 44.1	1.741	2.612	12.5	21.3	11 27	6 37.13	+23 3.4	1.787	2.666	11.8	20.4
12 7	6 25.64	+11 42.6	1.676	2.606	8.9	21.1	12 7	6 28.83	+23 22.5	1.724	2.665	7.8	20.2
12 17	6 17.03	+11 52.4	1.636	2.600	5.5	20.9	12 17	6 18.41	+23 41.7	1.687	2.663	3.3	19.9
12 27	6 7.51	+12 13.8	1.624	2.594	4.4	20.8	12 27	6 6.98	+23 58.4	1.679	2.661	1.4	19.7
1 6	5 58.25	+12 45.5	1.640	2.589	7.2	21.0	1 6	5 55.91	+24 11.3	1.701	2.659	6.0	20.1
1 16	5 50.37	+13 25.7	1.683	2.583	10.9	21.2	1 16	5 46.42	+24 20.5	1.751	2.655	10.3	20.3
1 26	5 44.78	+14 11.8	1.750	2.578	14.4	21.4	1 26	5 39.51	+24 27.3	1.826	2.652	14.0	20.5
<b>480826</b>	1999 <i>TJ</i> <sub>77</sub>		12 24.0 6°33	3°1/23.9	17		<b>172110</b>	2002 <i>GV</i> <sub>79</sub>		12 24.0 296°35	1°7/23.9	18	
11 17	6 30.82	+19 29.2	1.010	1.862	21.1	20.5	11 17	6 40.90	+25 38.8	1.331	2.151	18.8	20.2
11 27	6 29.49	+18 48.7	0.952	1.862	16.5	20.2	11 27	6 37.16	+26 1.1	1.244	2.137	14.8	19.9
12 7	6 24.46	+18 12.6	0.913	1.865	11.1	19.9	12 7	6 29.63	+26 25.0	1.177	2.123	9.9	19.6
12 17	6 16.65	+17 43.0	0.894	1.870	5.5	19.7	12 17	6 18.99	+26 46.2	1.133	2.109	4.5	19.3
12 27	6 7.73	+17 21.9	0.898	1.878	3.7	19.6	12 27	6 6.70	+27 0.6	1.115	2.096	2.5	19.1
1 6	5 59.57	+17 10.2	0.925	1.887	8.7	19.9	1 6	5 54.70	+27 5.8	1.123	2.082	8.0	19.4
1 16	5 53.77	+17 8.2	0.974	1.899	14.0	20.2	1 16	5 44.85	+27 3.0	1.155	2.069	13.5	19.7
1 26	5 51.41	+17 15.1	1.042	1.913	18.7	20.6	1 26	5 38.56	+26 55.4	1.209	2.057	18.3	19.9
<b>293799</b>	2007 <i>RL</i> <sub>146</sub>		12 24.0 60°03	4°0/24.3	18		<b>515839</b>	2015 <i>NQ</i> <sub>23</sub>		12 24.0 84°47	0°4/24.0	18	
11 17	6 42.95	+15 6.3	1.133	1.952	21.4	20.3	11 17	6 41.61	+23 23.4	1.681	2.483	16.3	20.9
11 27	6 38.18	+14 49.4	1.084	1.974	16.8	20.0	11 27	6 36.41	+23 40.6	1.614	2.498	12.6	20.7
12 7	6 29.76	+14 44.1	1.054	1.995	11.5	19.8	12 7	6 28.32	+23 59.7	1.569	2.512	8.2	20.5
12 17	6 18.76	+14 50.7	1.046	2.017	6.1	19.6	12 17	6 18.15	+24 17.8	1.549	2.526	3.5	20.2
12 27	6 6.89	+15 8.4	1.063	2.040	4.4	19.6	12 27	6 7.14	+24 32.6	1.558	2.539	1.5	20.1
1 6	5 56.03	+15 35.1	1.105	2.062	8.6	19.9	1 6	5 56.72	+24 42.9	1.595	2.553	6.2	20.4
1 16	5 47.68	+16 8.4	1.172	2.084	13.5	20.2	1 16	5 48.13	+24 49.3	1.659	2.567	10.5	20.7
1 26	5 42.81	+16 45.9	1.259	2.107	17.7	20.5	1 26	5 42.28	+24 53.1	1.747	2.580	14.2	21.0
<b>69967</b>	1998 <i>VS</i> <sub>49</sub>		12 24.0 320°43	2°3/23.9	18 R		<b>265235</b>	2004 <i>DH</i> <sub>26</sub>		12 24.0 216°73	0°0/24.0	18	
11 17	6 35.89	+18 0.7	2.167	2.959	13.4	19.6	11 17	6 42.83	+22 35.0	1.937	2.727	14.9	21.0
11 27	6 31.43	+17 32.5	2.079	2.956	10.5	19.4	11 27	6 37.29	+22 48.0	1.842	2.719	11.6	20.8
12 7	6 24.81	+17 7.1	2.014	2.952	7.1	19.2	12 7	6 28.97	+23 3.2	1.770	2.710	7.7	20.6
12 17	6 16.62	+16 45.3	1.977	2.949	3.6	19.0	12 17	6 18.50	+23 18.6	1.724	2.701	3.3	20.3
12 27	6 7.74	+16 27.7	1.968	2.945	2.6	18.9	12 27	6 6.95	+23 32.0	1.708	2.690	1.4	20.1
1 6	5 59.17	+16 15.0	1.989	2.942	5.7	19.1	1 6	5 55.64	+23 42.1	1.722	2.679	6.0	20.4
1 16	5 51.82	+16 7.5	2.038	2.939	9.2	19.3	1 16	5 45.82	+23 49.1	1.765	2.668	10.3	20.6
1 26	5 46.46	+16 5.6	2.112	2.937	12.4	19.5	1 26	5 38.52	+23 54.3	1.832	2.655	14.0	20.8
<b>156100</b>	2001 <i>SA</i> <sub>233</sub>		12 24.0 239°69	3°8/23.7	18		<b>213310</b>	2001 <i>RN</i> <sub>90</sub>		12 24.0 131°35	0°5/23.9	18	
11 17	6 43.14	+30 32.7	1.688	2.487	16.3	19.9	11 17	6 39.86	+23 29.9	2.150	2.939	13.6	21.0
11 27	6 38.17	+31 18.2	1.602	2.481	12.9	19.7	11 27	6 34.56	+23 51.9	2.071	2.948	10.5	20.8
12 7	6 29.87	+32 1.6	1.539	2.476	8.9	19.4	12 7	6 26.90	+24 15.5	2.016	2.956	6.9	20.6
12 17	6 18.95	+32 37.1	1.500	2.470	5.0	19.2	12 17	6 17.52	+24 38.2	1.988	2.964	2.9	20.4
12 27	6 6.72	+32 59.6	1.490	2.464	4.1	19.1	12 27	6 7.40	+24 58.0	1.990	2.972	1.3	20.2
1 6	5 54.85	+33 6.8	1.508	2.458	7.6	19.3	1 6	5 57.65	+25 13.6	2.022	2.979	5.3	20.5
1 16	5 44.88	+33 0.1	1.552	2.451	11.7	19.5	1 16	5 49.29	+25 25.1	2.083	2.986	9.0	20.8
1 26	5 37.99	+32 43.7	1.619	2.445	15.5	19.7	1 26	5 43.11	+25 33.5	2.170	2.993	12.2	21.0
<b>188341</b>	2003 <i>SJ</i> <sub>61</sub>		12 24.0 31°72	0°4/24.1	18		<b>355482</b>	2007 <i>WS</i> <sub>5</sub>		12 24.0 25°9			

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>293975</b>	2007 <i>TH</i> <sub>57</sub>		12 24.0 203°28	1.4°/24.1	18		<b>181352</b>	2006 <i>RY</i> <sub>37</sub>		12 24.1 96°93	0.6°/24.0	18	
11 17	6 39.77	+19 39.2	2.170	2.956	13.6	21.6	11 17	6 44.35	+23 43.1	1.475	2.281	18.0	20.6
11 27	6 34.47	+19 29.0	2.078	2.952	10.6	21.4	11 27	6 38.92	+24 2.3	1.410	2.296	13.9	20.3
12 7	6 26.86	+19 21.5	2.010	2.948	7.1	21.2	12 7	6 30.18	+24 23.4	1.366	2.310	9.1	20.1
12 17	6 17.53	+19 16.1	1.969	2.943	3.3	20.9	12 17	6 19.00	+24 43.1	1.348	2.324	3.9	19.8
12 27	6 7.40	+19 12.5	1.957	2.938	1.9	20.8	12 27	6 6.86	+24 58.2	1.356	2.338	1.7	19.7
1 6	5 57.56	+19 10.7	1.976	2.932	5.5	21.1	1 6	5 55.44	+25 7.5	1.393	2.352	6.9	20.1
1 16	5 49.01	+19 10.7	2.024	2.926	9.3	21.3	1 16	5 46.16	+25 11.8	1.456	2.365	11.6	20.4
1 26	5 42.57	+19 13.3	2.097	2.919	12.6	21.5	1 26	5 40.05	+25 13.3	1.542	2.378	15.6	20.7
<b>104490</b>	2000 <i>GZ</i> <sub>28</sub>		12 24.0 178°44	5°5'/23.7	18		<b>227842</b>	2007 <i>DK</i> <sub>7</sub>		12 24.1 334°34	1°0'/24.1	18	
11 17	6 44.91	+39 33.3	2.423	3.185	13.0	20.5	11 17	6 37.35	+20 55.6	1.289	2.116	18.9	20.8
11 27	6 38.69	+40 22.1	2.339	3.186	10.6	20.3	11 27	6 34.21	+20 57.2	1.209	2.106	14.8	20.6
12 7	6 29.75	+41 2.7	2.279	3.187	8.1	20.2	12 7	6 27.54	+21 3.7	1.149	2.097	9.9	20.3
12 17	6 18.78	+41 29.8	2.245	3.188	6.0	20.0	12 17	6 18.07	+21 13.7	1.111	2.089	4.3	19.9
12 27	6 6.88	+41 39.3	2.241	3.188	5.7	20.0	12 27	6 7.20	+21 25.4	1.099	2.081	2.0	19.7
1 6	5 55.36	+41 30.2	2.266	3.188	7.3	20.1	1 6	5 56.72	+21 37.4	1.112	2.074	7.7	20.1
1 16	5 45.42	+41 4.8	2.318	3.187	9.8	20.3	1 16	5 48.30	+21 49.5	1.150	2.068	13.1	20.3
1 26	5 37.99	+40 27.5	2.396	3.185	12.2	20.4	1 26	5 43.20	+22 2.3	1.209	2.063	17.8	20.6
<b>69907</b>	1998 <i>SW</i> <sub>146</sub>		12 24.0 61°26	0°7'/24.0	18		<b>49820</b>	1999 <i>XS</i> <sub>64</sub>		12 24.1 254°40	0°9'/24.0	18	
11 17	6 38.51	+24 35.9	2.032	2.828	14.0	19.3	11 17	6 41.95	+22 36.2	1.621	2.424	16.7	18.7
11 27	6 33.52	+24 50.1	1.966	2.846	10.8	19.1	11 27	6 37.08	+22 16.4	1.529	2.413	13.1	18.4
12 7	6 26.18	+25 4.5	1.923	2.865	7.1	18.9	12 7	6 29.08	+21 56.6	1.459	2.402	8.7	18.1
12 17	6 17.20	+25 17.0	1.908	2.884	3.0	18.7	12 17	6 18.62	+21 36.0	1.414	2.390	3.8	17.8
12 27	6 7.59	+25 25.8	1.921	2.903	1.4	18.6	12 27	6 6.98	+21 14.1	1.397	2.379	1.8	17.6
1 6	5 58.49	+25 30.3	1.964	2.922	5.3	18.9	1 6	5 55.68	+20 51.8	1.408	2.366	6.9	17.9
1 16	5 50.89	+25 31.1	2.035	2.941	9.0	19.2	1 16	5 46.17	+20 30.9	1.446	2.354	11.7	18.2
1 26	5 45.53	+25 29.7	2.131	2.960	12.2	19.4	1 26	5 39.55	+20 13.7	1.507	2.342	16.0	18.4
<b>410858</b>	2009 <i>RU</i> <sub>46</sub>		12 24.0 189°65	5°3'/24.1	17		<b>175257</b>	2005 <i>JD</i> <sub>82</sub>		12 24.1 136°37	0°6'/24.2	18	
11 17	6 35.58	+ 8 10.2	2.329	3.096	13.3	21.2	11 17	6 40.52	+19 2.9	2.187	2.970	13.6	20.4
11 27	6 30.96	+ 7 27.5	2.244	3.095	10.9	21.0	11 27	6 35.01	+19 37.6	2.107	2.980	10.5	20.3
12 7	6 24.41	+ 6 53.6	2.182	3.095	8.2	20.8	12 7	6 27.19	+20 17.9	2.051	2.989	6.9	20.1
12 17	6 16.45	+ 6 30.8	2.147	3.094	6.0	20.7	12 17	6 17.68	+21 1.4	2.022	2.998	3.0	19.8
12 27	6 7.88	+ 6 20.9	2.141	3.093	5.5	20.6	12 27	6 7.40	+21 45.6	2.025	3.006	1.3	19.7
1 6	5 59.58	+ 6 24.3	2.163	3.092	7.1	20.8	1 6	5 57.44	+22 28.1	2.058	3.014	5.2	20.0
1 16	5 52.37	+ 6 40.1	2.213	3.091	9.7	20.9	1 16	5 48.78	+23 7.6	2.120	3.022	8.9	20.2
1 26	5 46.92	+ 7 6.3	2.287	3.089	12.3	21.1	1 26	5 42.23	+23 43.6	2.208	3.029	12.1	20.5
<b>391117</b>	2005 <i>VS</i> <sub>70</sub>		12 24.1 39°24	1°7'/23.8	18		<b>131627</b>	2001 <i>XF</i> <sub>60</sub>		12 24.1 41°52	0°4'/24.0	18	
11 17	6 41.03	+24 1.9	1.397	2.213	18.3	20.8	11 17	6 41.64	+22 21.3	1.160	1.988	20.5	18.5
11 27	6 36.75	+24 51.2	1.329	2.220	14.2	20.6	11 27	6 37.68	+22 47.0	1.098	1.995	16.0	18.3
12 7	6 29.01	+25 44.8	1.281	2.226	9.4	20.3	12 7	6 29.83	+23 18.0	1.055	2.003	10.5	18.0
12 17	6 18.60	+26 37.6	1.257	2.234	4.2	20.0	12 17	6 18.99	+23 50.3	1.034	2.011	4.5	17.7
12 27	6 6.98	+27 24.2	1.260	2.241	2.4	19.9	12 27	6 6.86	+24 19.7	1.038	2.020	1.9	17.5
1 6	5 55.90	+28 1.0	1.291	2.249	7.4	20.3	1 6	5 55.48	+24 43.4	1.068	2.029	8.0	17.9
1 16	5 46.95	+28 27.4	1.347	2.257	12.2	20.5	1 16	5 46.60	+25 1.2	1.121	2.039	13.5	18.3
1 26	5 41.27	+28 45.4	1.424	2.266	16.3	20.8	1 26	5 41.43	+25 14.9	1.196	2.049	18.1	18.6
<b>63763</b>	2001 <i>QB</i> <sub>283</sub>		12 24.1 97°73	2°9'/24.1	18		<b>347227</b>	2011 <i>HS</i> <sub>82</sub>		12 24.1 233°94	2°2'/23.9	18	
11 17	6 37.87	+16 13.9	1.912	2.705	14.9	20.0	11 17	6 43.26	+27 35.0	1.856	2.649	15.3	21.7
11 27	6 33.18	+15 50.6	1.832	2.708	11.7	19.8	11 27	6 37.95	+28 7.2	1.761	2.639	12.0	21.5
12 7	6 26.08	+15 32.6	1.774	2.711	8.0	19.6	12 7	6 29.61	+28 39.1	1.688	2.627	8.1	21.2
12 17	6 17.21	+15 20.7	1.743	2.713	4.3	19.4	12 17	6 18.86	+29 6.6	1.642	2.616	4.0	20.9
12 27	6 7.58	+15 15.4	1.740	2.716	3.2	19.3	12 27	6 6.87	+29 25.8	1.625	2.603	2.7	20.8
1 6	5 58.34	+15 16.5	1.767	2.719	6.4	19.5	1 6	5 55.11	+29 34.7	1.636	2.590	6.6	21.0
1 16	5 50.53	+15 24.0	1.820	2.722	10.1	19.7	1 16	5 44.97	+29 34.1	1.676	2.577	10.9	21.3
1 26	5 44.97	+15 37.1	1.898	2.725	13.5	19.9	1 26	5 37.59	+29 26.8	1.739	2.563	14.7	21.5
<b>133416</b>	2003 <i>SW</i> <sub>181</sub>		12 24.1 87°54	5°6'/24.5	18		<b>493283</b>	2014 <i>UO</i> <sub>158</sub>		12 24.1 83°01	1°2'/24.2	17	
11 17	6 38.83	+ 9 6.8	1.791	2.571	16.3	20.1	11 17	6 36.54	+18 53.8	2.272	3.061	13.0	22.0
11 27	6 33.86	+ 8 36.2	1.725	2.587	13.1	19.9	11 27	6 31.80	+18 58.7	2.195	3.071	10.0	21.8
12 7	6 26.47	+ 8 17.5	1.681	2.601	9.6	19.7	12 7	6 24.99	+19 7.5	2.142	3.081	6.7	21.6
12 17	6 17.34	+ 8 12.7	1.662	2.616	6.6	19.6	12 17	6 16.72	+19 19.4	2.116	3.091	3.1	21.4
12 27	6 7.55	+ 8 22.7	1.670	2.631	5.7	19.6	12 27	6 7.83	+19 33.5	2.120	3.100	1.7	21.3
1 6	5 58.26	+ 8 46.6	1.706	2.645	7.9	19.7	1 6	5 59.29	+19 49.0	2.154	3.110	5.0	21.6
1 16	5 50.50	+ 9 22.2	1.769	2.660	11.1	20.0	1 16	5 51.97	+20 5.2	2.216	3.120	8.5	21.8
1 26	5 45.05	+10 6.4	1.856	2.674	14.1	20.2	1 26	5 46.56	+20 22.2	2.304	3.130	11.5	22.0
<b>427190</b>	2014 <i>VH</i> <sub>14</sub>		12 24.1 55°78	6°4'/22.6	18		<b>486232</b>	2013 <i>BL</i> <sub>4</sub>		12 24.1 0°69	1°7'/24.3	18	
11 17	6 47.81	+36 1.7	1.994	2.769	15.0	20.6	11 17	6 42.82	+30 17.0	1.609	2.412	16.8	20.8
11 27	6 41.34	+38 0.6	1.943	2.800	12.0	20.5	11 27	6 37.67	+29 46.7	1.528	2.411	13.2	20.6
12 7	6 31.71	+39 53.2	1.917	2.831	9.0	20.4	12 7	6 29.32	+29 8.1	1.469	2.411	8.9	20.3
12 17	6 19.67	+41 30.7	1.918	2.862	6.8	20.3	12 17	6 18.64	+28 19.3	1.436	2.411	4.1	20.1
12 27	6 6.54	+42 45.8	1.949	2.893	6.6	20.4	12 27	6 7.05	+27 20.2	1.430	2.411	2.2	19.9
1 6	5 53.91	+43 35.7	2.009	2.925	8.5	20.5	1 6	5 56.15	+26 13.8	1.453	2.411	6.7	20.2
1 16	5 43.20	+44 1.9	2.096	2.956	11.0	20.7	1 16	5 47.31	+25 5.2	1.503	2.412	11.3	20.5
1 26	5 35.48	+44 9.7	2.207	2.986	13.4	21.0	1 26	5 41.51	+23 59.7	1.576	2.414	15.3	20.7
<b>206520</b>	2003 <i>UM</i> <sub>141</sub>		12 24.1 99°35	2°1'/24.3	18		<b>84371</b>	2002 <i>TY</i> <sub>128</sub>		12 24.1 116°23			

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12 24.1

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>25301</b>	Ambrofogar		12 24.1	93°25	1.6°/23.8	18	<b>520654</b>	2014 QC <sub>55</sub>		12 24.1	196°72	4.4°/24.3	18
11 17	6 38.17	+26 4.1	2.306	3.096	12.8	19.0	11 17	6 37.27	+10 31.8	2.265	3.037	13.5	22.5
11 27	6 33.26	+26 45.5	2.224	3.101	9.9	18.8	11 27	6 32.39	+10 8.6	2.176	3.035	10.9	22.3
12 7	6 26.09	+27 27.5	2.166	3.105	6.6	18.6	12 7	6 25.44	+9 53.7	2.111	3.032	7.9	22.1
12 17	6 17.24	+28 7.0	2.136	3.110	3.1	18.4	12 17	6 16.96	+9 48.6	2.072	3.030	5.2	21.9
12 27	6 7.61	+28 41.1	2.135	3.114	2.0	18.4	12 27	6 7.79	+9 54.3	2.063	3.026	4.5	21.9
1 6	5 58.26	+29 8.0	2.165	3.119	5.3	18.6	1 6	5 58.87	+10 10.2	2.083	3.023	6.6	22.0
1 16	5 50.17	+29 27.3	2.224	3.123	8.7	18.8	1 16	5 51.09	+10 35.4	2.131	3.019	9.5	22.2
1 26	5 44.13	+29 40.4	2.308	3.128	11.6	19.0	1 26	5 45.17	+11 8.0	2.204	3.015	12.4	22.4
<b>282601</b>	2005 GA <sub>94</sub>		12 24.1	315°93	2°8°/24.6	18	<b>11131</b>	1996 VO <sub>30</sub>		12 24.1	52°30	1°3°/24.1	18
11 17	6 35.21	+13 19.7	2.025	2.814	14.3	20.2	11 17	6 43.08	+21 54.6	1.174	1.998	20.5	16.8
11 27	6 31.34	+13 41.9	1.920	2.793	11.4	19.9	11 27	6 38.32	+21 32.7	1.124	2.018	15.9	16.5
12 7	6 25.08	+14 15.1	1.837	2.772	7.9	19.7	12 7	6 29.89	+21 13.1	1.092	2.039	10.4	16.3
12 17	6 16.92	+14 59.1	1.781	2.751	4.3	19.4	12 17	6 18.90	+20 55.1	1.083	2.060	4.5	16.0
12 27	6 7.71	+15 52.5	1.754	2.730	3.0	19.3	12 27	6 7.07	+20 38.4	1.100	2.081	2.2	16.0
1 6	5 58.54	+16 52.6	1.755	2.710	6.2	19.5	1 6	5 56.30	+20 23.8	1.142	2.103	7.7	16.4
1 16	5 50.49	+17 56.5	1.785	2.690	10.1	19.7	1 16	5 48.08	+20 12.8	1.209	2.125	12.9	16.7
1 26	5 44.51	+19 1.6	1.840	2.671	13.7	19.8	1 26	5 43.33	+20 6.5	1.298	2.147	17.1	17.0
<b>506117</b>	2016 BW <sub>13</sub>		12 24.1	97°99	20°2°/29.7	17	<b>37804</b>	1997 YE <sub>4</sub>		12 24.1	72°74	1°0°/24.1	18
11 17	6 42.07	-17 21.1	1.193	1.896	26.7	21.0	11 17	6 44.21	+22 13.4	1.295	2.110	19.5	18.1
11 27	6 37.59	-18 57.5	1.145	1.904	24.7	20.8	11 27	6 39.01	+21 53.9	1.236	2.126	15.1	17.8
12 7	6 29.55	-19 53.3	1.109	1.911	22.7	20.7	12 7	6 30.30	+21 36.1	1.198	2.143	9.9	17.6
12 17	6 18.83	-19 56.3	1.087	1.918	21.0	20.6	12 17	6 19.09	+21 18.9	1.183	2.160	4.3	17.3
12 27	6 6.97	-18 59.5	1.082	1.925	20.2	20.6	12 27	6 6.99	+21 1.8	1.195	2.176	2.0	17.2
1 6	5 55.80	-17 4.8	1.095	1.932	20.4	20.6	1 6	5 55.81	+20 45.7	1.233	2.193	7.4	17.6
1 16	5 46.89	-14 22.3	1.127	1.939	21.7	20.7	1 16	5 47.01	+20 32.1	1.297	2.210	12.4	17.9
1 26	5 41.37	-11 7.8	1.177	1.945	23.5	20.9	1 26	5 41.57	+20 22.8	1.383	2.226	16.6	18.2
<b>298009</b>	2002 OR <sub>35</sub>		12 24.1	49°13	6°3°/24.4	18	<b>96852</b>	1999 RW <sub>235</sub>		12 24.1	132°61	1°2°/24.2	18
11 17	6 37.15	+8 48.5	1.677	2.464	16.9	20.9	11 17	6 41.49	+18 16.5	2.114	2.896	14.0	20.2
11 27	6 32.83	+8 5.4	1.607	2.471	13.7	20.7	11 27	6 35.75	+18 34.5	2.038	2.910	10.9	20.0
12 7	6 25.95	+7 34.4	1.558	2.479	10.2	20.5	12 7	6 27.68	+18 57.8	1.986	2.923	7.2	19.8
12 17	6 17.20	+7 18.4	1.533	2.486	7.2	20.3	12 17	6 17.92	+19 24.8	1.962	2.936	3.3	19.6
12 27	6 7.68	+7 19.4	1.535	2.494	6.4	20.3	12 27	6 7.45	+19 53.7	1.967	2.948	1.7	19.5
1 6	5 58.62	+7 36.9	1.564	2.502	8.6	20.5	1 6	5 57.38	+20 22.9	2.003	2.959	5.4	19.8
1 16	5 51.12	+8 9.0	1.619	2.510	11.9	20.7	1 16	5 48.70	+20 51.3	2.069	2.970	9.1	20.1
1 26	5 46.02	+8 52.2	1.697	2.518	15.1	20.9	1 26	5 42.20	+21 18.8	2.160	2.980	12.3	20.3
<b>44284</b>	1998 QX <sub>78</sub>		12 24.1	101°75	6°5°/24.1	18	<b>272111</b>	2005 JM <sub>123</sub>		12 24.1	185°66	0°1°/24.1	18
11 17	6 39.13	+7 53.8	1.919	2.691	15.6	18.3	11 17	6 43.69	+23 16.2	1.765	2.559	15.9	21.9
11 27	6 33.92	+6 52.1	1.852	2.705	12.7	18.2	11 27	6 38.10	+23 15.7	1.680	2.560	12.4	21.7
12 7	6 26.42	+6 0.8	1.808	2.720	9.7	18.0	12 7	6 29.57	+23 16.1	1.618	2.559	8.2	21.5
12 17	6 17.33	+5 23.6	1.789	2.734	7.1	17.9	12 17	6 18.82	+23 15.3	1.582	2.559	3.5	21.2
12 27	6 7.65	+5 2.9	1.798	2.748	6.6	17.9	12 27	6 7.07	+23 12.0	1.575	2.557	1.5	21.0
1 6	5 58.45	+4 59.2	1.835	2.761	8.4	18.0	1 6	5 55.74	+23 5.7	1.597	2.555	6.3	21.3
1 16	5 50.70	+5 11.5	1.899	2.775	11.2	18.2	1 16	5 46.16	+22 57.6	1.647	2.552	10.8	21.6
1 26	5 45.12	+5 36.9	1.986	2.788	13.9	18.4	1 26	5 39.31	+22 49.6	1.721	2.549	14.6	21.8
<b>18836</b>	Raymundto		12 24.1	260°66	0°5°/24.1	18	<b>395837</b>	2012 XM <sub>105</sub>		12 24.1	219°62	2°7°/23.8	18
11 17	6 42.13	+23 3.3	1.483	2.292	17.7	18.6	11 17	6 42.19	+29 1.2	2.098	2.886	14.0	21.2
11 27	6 37.51	+22 49.4	1.396	2.283	13.9	18.3	11 27	6 36.80	+29 41.1	2.005	2.879	11.0	21.0
12 7	6 29.51	+22 35.8	1.330	2.275	9.2	18.0	12 7	6 28.69	+30 19.9	1.936	2.872	7.5	20.8
12 17	6 18.87	+22 21.2	1.289	2.266	4.0	17.7	12 17	6 18.47	+30 53.4	1.893	2.864	3.9	20.5
12 27	6 6.95	+22 4.7	1.275	2.257	1.8	17.5	12 27	6 7.19	+31 17.9	1.880	2.856	3.0	20.5
1 6	5 55.44	+21 46.7	1.288	2.247	7.2	17.8	1 6	5 56.14	+31 31.4	1.896	2.847	6.2	20.6
1 16	5 45.90	+21 29.1	1.327	2.238	12.4	18.1	1 16	5 46.54	+31 34.5	1.941	2.838	9.9	20.8
1 26	5 39.49	+21 14.3	1.388	2.229	16.8	18.3	1 26	5 39.39	+31 29.8	2.011	2.828	13.2	21.0
<b>355295</b>	2007 RV <sub>177</sub>		12 24.1	44°64	0°8°/24.1	17	<b>283181</b>	2009 US		12 24.1	249°31	5°1°/22.9	18
11 17	6 39.16	+20 20.7	1.532	2.342	17.2	21.3	11 17	6 49.97	+21 45.7	1.168	1.980	21.3	19.6
11 27	6 34.79	+20 33.8	1.465	2.353	13.3	21.1	11 27	6 44.07	+19 34.5	1.088	1.975	16.9	19.3
12 7	6 27.43	+20 51.9	1.419	2.363	8.8	20.8	12 7	6 34.02	+17 12.2	1.028	1.970	11.7	18.9
12 17	6 17.88	+21 13.2	1.398	2.375	3.8	20.6	12 17	6 20.81	+14 44.6	0.993	1.964	6.5	18.6
12 27	6 7.41	+21 35.4	1.404	2.386	1.7	20.4	12 27	6 6.27	+12 21.7	0.985	1.958	5.8	18.6
1 6	5 57.51	+21 56.9	1.438	2.398	6.6	20.8	1 6	5 52.60	+10 15.2	1.004	1.952	10.8	18.8
1 16	5 49.48	+22 16.9	1.498	2.410	11.1	21.1	1 16	5 41.64	+8 33.9	1.048	1.946	16.2	19.1
1 26	5 44.27	+22 35.7	1.582	2.423	15.0	21.4	1 26	5 34.60	+7 21.3	1.113	1.939	21.0	19.4
<b>178230</b>	2006 WK <sub>8</sub>		12 24.1	101°88	1°0°/24.2	18	<b>485596</b>	2011 UL <sub>255</sub>		12 24.1	44°37	0°7°/23.9	17
11 17	6 38.53	+19 10.7	1.971	2.765	14.5	20.2	11 17	6 42.86	+21 41.4	1.343	2.157	19.0	20.9
11 27	6 33.73	+19 26.1	1.891	2.770	11.3	20.0	11 27	6 37.77	+22 34.2	1.299	2.189	14.5	20.7
12 7	6 26.49	+19 46.6	1.834	2.775	7.5	19.8	12 7	6 29.37	+23 32.0	1.277	2.222	9.4	20.5
12 17	6 17.44	+20 10.7	1.804	2.780	3.3	19.5	12 17	6 18.67	+24 29.6	1.278	2.255	4.0	20.3
12 27	6 7.59	+20 36.6	1.803	2.784	1.6	19.4	12 27	6 7.21	+25 21.8	1.307	2.289	1.8	20.2
1 6	5 58.08	+21 2.8	1.831	2.789	5.6	19.7	1 6	5 56.69	+26 5.3	1.364	2.323	6.9	20.6
1 16	5 49.99	+21 28.3	1.888	2.794	9.6	19.9	1 16	5 48.46	+26 39.6	1.446	2.358	11.5	21.0
1 26	5 44.15	+21 52.9	1.969	2.798	13.0	20.2	1 26	5 43.41	+27 6.1	1.551	2.392	15.3	21.3
<b>416175</b>	2002 SS <sub>13</sub>		12 24.1	41°28	1°6°/23.9	18	<b>517953</b>	2015 TA <sub>324</sub>		12 24.1	106°27	7°4°/24.4	18
11 17	6 39.05	+22 15.4	1.904	2.702	14.8	1							

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>336835</b>	2011 <i>FH</i> <sub>2</sub>		12 24.1 181°73	1°3/24.0	18		<b>206197</b>	2002 <i>UQ</i> <sub>18</sub>		12 24.1 82°86	0°4/24.1	18	
11 17	6 43.60	+26 8.5	2.053	2.840	14.3	21.7	11 17	6 37.49	+21 58.3	2.437	3.224	12.3	21.1
11 27	6 37.72	+26 27.9	1.967	2.841	11.1	21.5	11 27	6 32.36	+22 1.3	2.369	3.244	9.4	21.0
12 7	6 29.18	+26 46.8	1.903	2.841	7.4	21.3	12 7	6 25.30	+22 5.6	2.324	3.264	6.2	20.8
12 17	6 18.64	+27 2.1	1.866	2.841	3.3	21.0	12 17	6 16.91	+22 10.3	2.308	3.284	2.6	20.6
12 27	6 7.18	+27 11.4	1.860	2.841	1.8	20.9	12 27	6 8.03	+22 14.3	2.321	3.303	1.1	20.5
1 6	5 56.08	+27 13.8	1.884	2.839	5.8	21.2	1 6	5 59.56	+22 17.4	2.366	3.323	4.6	20.8
1 16	5 46.51	+27 10.0	1.936	2.837	9.7	21.4	1 16	5 52.30	+22 19.8	2.439	3.342	7.8	21.0
1 26	5 39.38	+27 2.3	2.014	2.834	13.1	21.6	1 26	5 46.88	+22 22.1	2.538	3.361	10.6	21.2
<b>171104</b>	2005 <i>ER</i> <sub>277</sub>		12 24.1 308°96	7°8/22.9	17		<b>27727</b>	1990 <i>QM</i> <sub>7</sub>		12 24.1 165°56	3°7/23.9	18	
11 17	6 43.23	+38 6.0	1.642	2.436	17.0	20.1	11 17	6 45.19	+31 50.1	1.812	2.602	15.7	18.8
11 27	6 38.99	+39 35.9	1.557	2.423	14.0	19.9	11 27	6 39.45	+32 23.5	1.733	2.606	12.4	18.6
12 7	6 30.95	+41 0.6	1.493	2.411	10.8	19.7	12 7	6 30.57	+32 52.4	1.675	2.609	8.6	18.4
12 17	6 19.70	+42 10.5	1.453	2.399	8.3	19.5	12 17	6 19.32	+33 11.6	1.644	2.611	4.9	18.2
12 27	6 6.68	+42 56.8	1.440	2.388	8.1	19.4	12 27	6 7.01	+33 17.0	1.641	2.614	4.0	18.1
1 6	5 53.85	+43 15.2	1.452	2.376	10.4	19.6	1 6	5 55.20	+33 7.9	1.667	2.615	7.1	18.3
1 16	5 43.14	+43 7.5	1.489	2.366	13.7	19.7	1 16	5 45.30	+32 46.5	1.720	2.617	10.9	18.5
1 26	5 36.03	+42 40.1	1.547	2.355	17.0	19.9	1 26	5 38.33	+32 17.4	1.797	2.618	14.4	18.8
<b>283906</b>	2004 <i>EH</i> <sub>45</sub>		12 24.1 40°72	1°6/24.0	18		<b>518326</b>	2017 <i>BR</i> <sub>104</sub>		12 24.1 272°38	2°0/23.9	18	
11 17	6 42.13	+26 15.7	1.439	2.251	18.0	21.3	11 17	6 39.93	+20 57.6	1.916	2.711	14.8	20.9
11 27	6 37.58	+26 32.6	1.365	2.253	14.0	21.0	11 27	6 34.91	+20 10.1	1.825	2.704	11.6	20.7
12 7	6 29.57	+26 49.1	1.311	2.255	9.4	20.8	12 7	6 27.34	+19 21.9	1.758	2.698	7.8	20.4
12 17	6 18.92	+27 1.4	1.282	2.258	4.2	20.5	12 17	6 17.89	+18 33.8	1.717	2.691	3.7	20.2
12 27	6 7.09	+27 6.3	1.279	2.260	2.3	20.4	12 27	6 7.60	+17 47.3	1.706	2.685	2.4	20.1
1 6	5 55.84	+27 2.7	1.304	2.263	7.3	20.7	1 6	5 57.71	+17 4.7	1.724	2.678	6.3	20.3
1 16	5 46.72	+26 52.6	1.354	2.265	12.1	21.0	1 16	5 49.31	+16 28.2	1.769	2.672	10.3	20.5
1 26	5 40.86	+26 39.0	1.426	2.268	16.3	21.2	1 26	5 43.28	+15 59.3	1.840	2.665	13.9	20.7
<b>273027</b>	2006 <i>DG</i> <sub>112</sub>		12 24.1 83°53	4°3/24.4	18		<b>248343</b>	2005 <i>QY</i> <sub>93</sub>		12 24.1 198°63	1°9/24.3	18	
11 17	6 35.76	+10 45.3	2.246	3.022	13.5	21.0	11 17	6 38.03	+16 33.7	2.255	3.038	13.2	20.6
11 27	6 31.14	+10 19.6	2.172	3.033	10.8	20.9	11 27	6 33.11	+16 39.9	2.165	3.036	10.4	20.5
12 7	6 24.56	+10 2.3	2.121	3.043	7.8	20.7	12 7	6 26.02	+16 52.0	2.098	3.033	7.0	20.2
12 17	6 16.60	+9 54.7	2.096	3.054	5.1	20.6	12 17	6 17.31	+17 9.4	2.059	3.031	3.5	20.0
12 27	6 8.08	+9 57.7	2.100	3.064	4.4	20.5	12 27	6 7.84	+17 31.2	2.049	3.028	2.2	19.9
1 6	5 59.90	+10 10.9	2.133	3.074	6.4	20.7	1 6	5 58.61	+17 56.3	2.070	3.025	5.4	20.1
1 16	5 52.90	+10 33.0	2.195	3.085	9.2	20.9	1 16	5 50.54	+18 23.5	2.120	3.021	8.9	20.3
1 26	5 47.73	+11 2.3	2.281	3.095	12.0	21.1	1 26	5 44.43	+18 52.1	2.195	3.017	12.1	20.5
<b>69190</b>	2027 <i>T</i> <sub>-1</sub>		12 24.1 121°02	5°6/23.9	18		<b>167987</b>	2005 <i>GQ</i> <sub>69</sub>		12 24.1 347°20	8°8/23.8	18	
11 17	6 42.95	+42 29.9	2.784	3.534	11.8	19.5	11 17	6 35.27	+6 22.6	1.505	2.298	18.3	19.4
11 27	6 36.84	+43 12.5	2.711	3.546	9.7	19.4	11 27	6 31.81	+5 1.3	1.430	2.292	15.2	19.2
12 7	6 28.38	+43 45.5	2.662	3.559	7.6	19.2	12 7	6 25.56	+3 52.4	1.375	2.288	12.0	19.0
12 17	6 18.24	+44 4.6	2.640	3.570	6.0	19.1	12 17	6 17.21	+3 2.0	1.342	2.283	9.4	18.9
12 27	6 7.42	+44 6.8	2.647	3.582	5.7	19.1	12 27	6 7.89	+2 35.1	1.335	2.280	8.9	18.8
1 6	5 57.05	+43 51.8	2.682	3.593	6.8	19.2	1 6	5 58.95	+2 33.3	1.352	2.277	10.9	18.9
1 16	5 48.12	+43 21.9	2.746	3.604	8.8	19.4	1 16	5 51.63	+2 55.2	1.393	2.275	14.1	19.1
1 26	5 41.42	+42 41.0	2.835	3.615	10.8	19.5	1 26	5 46.89	+3 36.5	1.455	2.274	17.3	19.3
<b>74959</b>	1999 <i>TD</i> <sub>198</sub>		12 24.1 188°80	3°2/23.9	18		<b>520739</b>	2014 <i>QZ</i> <sub>473</sub>		12 24.1 103°96	2°6/24.4	18	
11 17	6 45.79	+30 41.0	1.824	2.613	15.7	19.4	11 17	6 36.47	+14 18.0	2.431	3.208	12.5	21.8
11 27	6 39.90	+31 7.8	1.739	2.613	12.4	19.2	11 27	6 31.59	+14 17.8	2.355	3.221	9.8	21.6
12 7	6 30.87	+31 30.8	1.677	2.612	8.5	19.0	12 7	6 24.83	+14 24.0	2.303	3.234	6.8	21.5
12 17	6 19.44	+31 45.1	1.640	2.610	4.6	18.8	12 17	6 16.74	+14 36.7	2.278	3.246	3.7	21.3
12 27	6 6.91	+31 47.1	1.633	2.608	3.5	18.7	12 27	6 8.11	+14 55.2	2.283	3.258	2.8	21.2
1 6	5 54.82	+31 36.0	1.654	2.605	6.9	18.9	1 6	5 59.80	+15 18.8	2.319	3.270	5.2	21.4
1 16	5 44.60	+31 13.9	1.703	2.602	10.9	19.1	1 16	5 52.59	+15 46.2	2.384	3.282	8.2	21.6
1 26	5 37.30	+30 45.3	1.776	2.597	14.5	19.3	1 26	5 47.13	+16 16.3	2.474	3.293	11.0	21.8
<b>133796</b>	2003 <i>WS</i> <sub>132</sub>		12 24.1 331°38	2°8/23.7	18		<b>234239</b>	2000 <i>SL</i> <sub>305</sub>		12 24.1 46°38	2°6/24.1	18	
11 17	6 37.83	+29 16.1	2.139	2.933	13.5	19.5	11 17	6 42.24	+29 19.0	1.438	2.251	18.0	20.0
11 27	6 33.38	+30 0.4	2.051	2.928	10.6	19.3	11 27	6 37.55	+29 31.5	1.375	2.262	14.1	19.8
12 7	6 26.42	+30 43.8	1.986	2.924	7.2	19.0	12 7	6 29.44	+29 39.8	1.331	2.274	9.5	19.5
12 17	6 17.53	+31 22.1	1.949	2.919	3.9	18.8	12 17	6 18.83	+29 39.6	1.312	2.286	4.7	19.3
12 27	6 7.70	+31 51.8	1.940	2.915	3.1	18.8	12 27	6 7.27	+29 28.4	1.319	2.298	3.0	19.2
1 6	5 58.11	+32 11.1	1.961	2.911	6.0	19.0	1 6	5 56.49	+29 6.6	1.354	2.311	7.3	19.5
1 16	5 49.87	+32 20.1	2.009	2.907	9.5	19.2	1 16	5 47.97	+28 37.3	1.414	2.325	11.8	19.8
1 26	5 43.92	+32 20.8	2.082	2.904	12.7	19.4	1 26	5 42.69	+28 5.0	1.497	2.338	15.7	20.1
<b>484532</b>	2008 <i>FT</i> <sub>2</sub>		12 24.1 30°90	3°8/24.3	18		<b>375603</b>	2008 <i>WZ</i> <sub>5</sub>		12 24.1 216°22	3°6/23.8	18	
11 17	6 36.90	+13 47.4	1.846	2.639	15.4	21.3	11 17	6 39.10	+33 43.0	2.526	3.305	12.1	21.2
11 27	6 32.57	+13 26.5	1.767	2.641	12.2	21.1	11 27	6 34.02	+34 21.8	2.437	3.302	9.6	21.1
12 7	6 25.79	+13 13.5	1.711	2.644	8.5	20.9	12 7	6 26.66	+34 56.4	2.373	3.300	6.8	20.9
12 17	6 17.22	+13 9.4	1.680	2.647	5.0	20.7	12 17	6 17.60	+35 22.7	2.336	3.298	4.3	20.7
12 27	6 7.86	+13 14.8	1.677	2.649	4.0	20.6	12 27	6 7.74	+35 38.0	2.329	3.295	3.8	20.7
1 6	5 58.87	+13 29.2	1.702	2.652	6.8	20.8	1 6	5 58.13	+35 41.1	2.351	3.292	5.9	20.8
1 16	5 51.31	+13 51.3	1.754	2.656	10.5	21.0	1 16	5 49.78	+35 32.9	2.402	3.289	8.7	21.0
1 26	5 46.00	+14 19.7	1.830	2.659	13.8	21.2	1 26	5 43.50	+35 16.3	2.478	3.287	11.3	21.2
<b>178980</b>	2001 <i>QJ</i> <sub>263</sub>		12 24.1 57°72	0°8/24.1	18		<b>410462</b>	2008 <i>CB</i> <sub>180</sub>		12 24.1 275°86	0°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>519683</b>	2013 AC <sub>104</sub>	12 24.1 289°70		4°2/23.6 18			<b>273095</b>	2006 EG <sub>66</sub>	12 24.1 161°35		1°4/24.1 17		
11 17	6 41.99	+31 13.7	1.728	2.527	16.0	21.2	11 17	6 36.48	+19 21.6	2.501	3.286	12.1	21.5
11 27	6 37.31	+32 8.3	1.645	2.523	12.7	20.9	11 27	6 31.65	+19 8.4	2.415	3.288	9.4	21.3
12 7	6 29.39	+33 0.8	1.583	2.519	8.9	20.7	12 7	6 24.93	+18 57.5	2.352	3.290	6.2	21.1
12 17	6 18.92	+33 45.1	1.547	2.514	5.3	20.5	12 17	6 16.83	+18 48.8	2.318	3.292	2.9	20.9
12 27	6 7.17	+34 15.9	1.539	2.510	4.5	20.4	12 27	6 8.15	+18 42.2	2.314	3.294	1.7	20.8
1 6	5 55.75	+34 30.5	1.558	2.506	7.6	20.6	1 6	5 59.75	+18 37.8	2.340	3.295	4.8	21.0
1 16	5 46.17	+34 29.9	1.604	2.502	11.5	20.8	1 16	5 52.45	+18 35.8	2.395	3.296	8.0	21.3
1 26	5 39.58	+34 18.2	1.673	2.498	15.1	21.0	1 26	5 46.89	+18 36.4	2.476	3.298	10.9	21.4
<b>302915</b>	2003 SZ <sub>77</sub>	12 24.1 51°28		1°5/24.1 18			<b>513390</b>	2008 HP <sub>22</sub>	12 24.1 290°85		1°5/24.1 18		
11 17	6 35.56	+29 13.8	2.751	3.536	11.1	20.5	11 17	6 40.32	+20 51.3	1.417	2.231	18.1	22.1
11 27	6 30.79	+29 16.9	2.679	3.552	8.5	20.4	11 27	6 36.33	+20 35.7	1.329	2.218	14.3	21.9
12 7	6 24.24	+29 16.8	2.632	3.569	5.7	20.2	12 7	6 28.93	+20 22.7	1.261	2.206	9.6	21.6
12 17	6 16.46	+29 12.1	2.613	3.586	2.8	20.1	12 17	6 18.81	+20 11.9	1.217	2.193	4.3	21.2
12 27	6 8.25	+29 1.7	2.624	3.602	1.8	20.0	12 27	6 7.30	+20 2.8	1.199	2.181	2.3	21.0
1 6	6 0.41	+28 46.1	2.665	3.619	4.4	20.2	1 6	5 56.11	+19 55.5	1.209	2.169	7.6	21.3
1 16	5 53.69	+28 26.2	2.736	3.636	7.2	20.4	1 16	5 46.85	+19 50.9	1.243	2.156	12.8	21.6
1 26	5 48.67	+28 4.0	2.833	3.653	9.7	20.6	1 26	5 40.74	+19 50.1	1.299	2.145	17.4	21.8
<b>407491</b>	2010 VB <sub>55</sub>	12 24.1 59°13		0°1/24.1 17			<b>344321</b>	2001 UF <sub>221</sub>	12 24.1 76°16		2°7/24.2 18		
11 17	6 38.47	+22 16.5	1.902	2.701	14.8	21.7	11 17	6 41.63	+18 1.5	1.526	2.330	17.6	21.1
11 27	6 33.79	+22 29.3	1.828	2.710	11.4	21.5	11 27	6 36.56	+17 36.2	1.462	2.345	13.7	20.9
12 7	6 26.60	+22 44.5	1.777	2.719	7.5	21.3	12 7	6 28.55	+17 16.0	1.420	2.360	9.2	20.6
12 17	6 17.57	+23 0.3	1.752	2.729	3.2	21.0	12 17	6 18.43	+17 1.3	1.402	2.375	4.6	20.4
12 27	6 7.78	+23 14.7	1.756	2.738	1.3	20.9	12 27	6 7.54	+16 52.5	1.412	2.390	3.1	20.4
1 6	5 58.42	+23 26.8	1.789	2.748	5.6	21.2	1 6	5 57.32	+16 49.5	1.450	2.406	7.1	20.6
1 16	5 50.58	+23 36.6	1.850	2.758	9.6	21.5	1 16	5 49.03	+16 52.4	1.513	2.421	11.4	20.9
1 26	5 45.09	+23 44.9	1.935	2.768	13.0	21.7	1 26	5 43.54	+17 0.9	1.600	2.436	15.2	21.2
<b>450277</b>	2004 CY <sub>103</sub>	12 24.1 332°63		3°4/23.6 17			<b>223880</b>	2004 UK <sub>8</sub>	12 24.1 9°67		4°6/23.7 17		
11 17	6 35.54	+20 21.5	1.358	2.183	18.2	20.4	11 17	6 40.50	+34 41.3	2.106	2.892	14.0	20.3
11 27	6 32.68	+19 12.6	1.267	2.162	14.4	20.1	11 27	6 35.61	+35 32.6	2.025	2.892	11.1	20.1
12 7	6 26.52	+18 0.9	1.196	2.142	9.9	19.8	12 7	6 27.98	+36 18.9	1.966	2.893	8.1	19.9
12 17	6 17.75	+16 49.0	1.149	2.123	5.2	19.5	12 17	6 18.26	+36 54.9	1.934	2.893	5.4	19.8
12 27	6 7.67	+15 41.0	1.127	2.105	4.0	19.3	12 27	6 7.56	+37 16.5	1.931	2.894	4.8	19.7
1 6	5 57.91	+14 41.4	1.131	2.088	8.5	19.6	1 6	5 57.20	+37 21.9	1.956	2.895	7.1	19.9
1 16	5 50.03	+13 54.1	1.160	2.072	13.6	19.8	1 16	5 48.41	+37 12.8	2.008	2.895	10.1	20.1
1 26	5 45.22	+13 21.2	1.209	2.058	18.2	20.0	1 26	5 42.14	+36 52.8	2.085	2.896	13.0	20.3
<b>174145</b>	2002 OU <sub>1</sub>	12 24.1 65°34		1°0/24.0 17			<b>85598</b>	1998 FZ <sub>86</sub>	12 24.1 345°80		6°8/23.4 18		
11 17	6 42.72	+23 6.1	1.659	2.459	16.5	20.0	11 17	6 45.32	+34 34.3	1.387	2.193	18.9	17.7
11 27	6 37.07	+22 29.0	1.599	2.481	12.7	19.8	11 27	6 40.88	+35 54.9	1.314	2.192	15.2	17.4
12 7	6 28.66	+21 51.3	1.561	2.504	8.3	19.6	12 7	6 32.29	+37 11.3	1.261	2.192	11.2	17.2
12 17	6 18.38	+21 13.0	1.550	2.526	3.6	19.4	12 17	6 20.34	+38 13.7	1.232	2.191	7.7	17.0
12 27	6 7.53	+20 35.0	1.566	2.548	1.8	19.3	12 27	6 6.69	+38 53.1	1.228	2.190	7.1	17.0
1 6	5 57.46	+19 59.1	1.612	2.570	6.3	19.7	1 6	5 53.54	+39 6.0	1.250	2.190	10.1	17.1
1 16	5 49.32	+19 27.5	1.685	2.592	10.5	20.0	1 16	5 42.91	+38 55.0	1.297	2.189	14.1	17.4
1 26	5 43.86	+19 1.9	1.782	2.614	14.0	20.2	1 26	5 36.22	+38 27.2	1.364	2.189	17.9	17.6
<b>139270</b>	2001 HU <sub>61</sub>	12 24.1 140°33		4°8/24.3 18			<b>176208</b>	2001 QJ <sub>18</sub>	12 24.1 66°39		1°2/24.1 18		
11 17	6 38.81	+ 8 47.3	2.489	3.246	12.8	21.0	11 17	6 42.13	+25 59.3	1.772	2.570	15.7	19.7
11 27	6 33.24	+ 8 10.8	2.413	3.260	10.4	20.8	11 27	6 36.64	+26 13.1	1.714	2.595	12.1	19.6
12 7	6 25.85	+ 7 42.7	2.361	3.273	7.7	20.7	12 7	6 28.43	+26 25.9	1.678	2.620	7.9	19.4
12 17	6 17.17	+ 7 24.6	2.337	3.286	5.4	20.6	12 17	6 18.33	+26 34.8	1.669	2.644	3.5	19.2
12 27	6 7.99	+ 7 17.7	2.343	3.298	4.8	20.6	12 27	6 7.60	+26 37.9	1.688	2.669	1.8	19.1
1 6	5 59.16	+ 7 22.2	2.379	3.309	6.5	20.7	1 6	5 57.57	+26 34.8	1.736	2.694	5.9	19.4
1 16	5 51.44	+ 7 37.1	2.443	3.319	9.0	20.9	1 16	5 49.37	+26 27.0	1.812	2.718	9.9	19.7
1 26	5 45.45	+ 8 0.7	2.533	3.329	11.4	21.0	1 26	5 43.78	+26 16.7	1.912	2.742	13.3	20.0
<b>360360</b>	2001 YG <sub>94</sub>	12 24.1 69°25		7°1/23.3 18			<b>118838</b>	2000 SO <sub>205</sub>	12 24.1 65°01		0°8/24.1 18		
11 17	6 44.89	+39 30.7	1.905	2.683	15.5	20.6	11 17	6 38.18	+21 13.9	1.965	2.761	14.4	20.0
11 27	6 39.49	+40 52.2	1.838	2.693	12.7	20.4	11 27	6 33.48	+21 10.5	1.888	2.769	11.2	19.8
12 7	6 30.77	+42 5.2	1.793	2.703	9.8	20.3	12 7	6 26.36	+21 9.4	1.835	2.776	7.4	19.6
12 17	6 19.48	+43 1.7	1.774	2.714	7.6	20.2	12 17	6 17.50	+21 9.6	1.808	2.784	3.2	19.3
12 27	6 7.02	+43 35.6	1.782	2.724	7.3	20.2	12 27	6 7.92	+21 10.2	1.810	2.791	1.5	19.2
1 6	5 55.06	+43 44.9	1.817	2.735	9.1	20.3	1 6	5 58.75	+21 11.1	1.841	2.799	5.6	19.5
1 16	5 45.11	+43 32.3	1.878	2.745	11.7	20.5	1 16	5 51.04	+21 12.4	1.900	2.807	9.5	19.8
1 26	5 38.29	+43 3.6	1.962	2.756	14.4	20.7	1 26	5 45.58	+21 14.8	1.983	2.815	12.8	20.0
<b>347395</b>	2012 SQ <sub>4</sub>	12 24.1 114°90		2°0/24.3 18			<b>259312</b>	2003 FH <sub>29</sub>	12 24.1 244°48		5°8/23.6 18		
11 17	6 43.45	+17 29.2	1.905	2.689	15.3	21.6	11 17	6 43.34	+38 48.1	2.226	2.998	13.8	21.4
11 27	6 37.38	+17 27.4	1.839	2.710	11.9	21.4	11 27	6 37.91	+39 40.6	2.135	2.989	11.2	21.2
12 7	6 28.80	+17 31.0	1.795	2.731	8.0	21.2	12 7	6 29.58	+40 25.9	2.067	2.980	8.6	21.0
12 17	6 18.47	+17 39.2	1.778	2.751	3.9	21.0	12 17	6 18.99	+40 57.8	2.024	2.970	6.3	20.9
12 27	6 7.49	+17 51.1	1.791	2.770	2.4	20.9	12 27	6 7.27	+41 11.8	2.011	2.961	6.0	20.8
1 6	5 57.07	+18 5.7	1.834	2.788	6.0	21.2	1 6	5 55.83	+41 6.2	2.025	2.951	7.8	20.9
1 16	5 48.26	+18 22.4	1.905	2.806	9.8	21.5	1 16	5 45.99	+40 43.0	2.067	2.941	10.5	21.1
1 26	5 41.86	+18 41.0	2.001	2.823	13.1	21.7	1 26	5 38.79	+40 6.8	2.133	2.931	13.2	21.3
<b>31065</b>	Beishizhang	12 24.1 355°22		2°0/24.1 18			<b>291364</b>	2006 BP <sub>263</sub>	12 24.1 180°32		2°9/24.4 17		
11 17	6 37.12	+19 6.8	1.752	2.556	15.6	18.8	11 17	6 35.91	+14 6.8	2.288	3.070		



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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>217700</b>	1999 <i>TA</i> <sub>60</sub>	12 24.1 148°82' 0°4/24.1 18					<b>261158</b>	2005 <i>TU</i> <sub>92</sub>	12 24.1 341°70' 1°2/24.1 17				
11 17	6 37.92	+22 11.3	2.199	2.990	13.3	21.2	11 17	6 38.13	+20 56.8	1.999	2.795	14.3	21.0
11 27	6 33.10	+22 9.8	2.114	2.992	10.3	21.0	11 27	6 33.45	+20 37.8	1.915	2.795	11.1	20.8
12 7	6 26.05	+22 9.5	2.053	2.994	6.8	20.8	12 7	6 26.37	+20 20.1	1.853	2.794	7.4	20.6
12 17	6 17.37	+22 9.5	2.019	2.995	2.9	20.5	12 17	6 17.54	+20 3.7	1.818	2.794	3.3	20.4
12 27	6 7.98	+22 8.9	2.015	2.997	1.2	20.4	12 27	6 7.94	+19 48.5	1.812	2.793	1.8	20.2
1 6	5 58.92	+22 7.5	2.040	2.998	5.2	20.7	1 6	5 58.70	+19 35.0	1.836	2.793	5.7	20.5
1 16	5 51.14	+22 5.6	2.094	3.000	8.8	20.9	1 16	5 50.87	+19 24.0	1.887	2.793	9.6	20.7
1 26	5 45.41	+22 4.1	2.174	3.001	12.0	21.1	1 26	5 45.26	+19 16.3	1.962	2.792	13.0	21.0
<b>514753</b>	2007 <i>EJ</i> <sub>17</sub>	12 24.1 202°09' 0°8/24.1 18					<b>451602</b>	2012 <i>CC</i> <sub>57</sub>	12 24.1 296°56' 1°4/24.1 18				
11 17	6 41.97	+20 58.6	1.966	2.755	14.7	22.6	11 17	6 39.00	+27 20.3	1.915	2.714	14.7	21.3
11 27	6 36.55	+20 58.1	1.876	2.752	11.5	22.4	11 27	6 34.58	+27 22.6	1.816	2.698	11.5	21.1
12 7	6 28.51	+21 0.1	1.808	2.748	7.6	22.1	12 7	6 27.40	+27 22.5	1.740	2.681	7.7	20.8
12 17	6 18.48	+21 3.5	1.767	2.743	3.4	21.9	12 17	6 18.08	+27 17.6	1.690	2.665	3.5	20.5
12 27	6 7.51	+21 7.1	1.756	2.738	1.5	21.7	12 27	6 7.70	+27 6.1	1.668	2.649	1.9	20.4
1 6	5 56.84	+21 10.4	1.774	2.732	5.9	22.0	1 6	5 57.55	+26 47.9	1.675	2.633	6.1	20.6
1 16	5 47.64	+21 13.5	1.821	2.725	10.0	22.2	1 16	5 48.91	+26 24.6	1.710	2.617	10.3	20.8
1 26	5 40.83	+21 17.4	1.893	2.718	13.6	22.4	1 26	5 42.76	+25 59.0	1.768	2.601	14.1	21.0
<b>488225</b>	2016 <i>AQ</i> <sub>13</sub>	12 24.1 158°40' 0°3/24.1 17					<b>318933</b>	2005 <i>UH</i> <sub>107</sub>	12 24.1 24°53' 2°1/24.2 17				
11 17	6 38.52	+25 13.2	2.241	3.032	13.1	20.9	11 17	6 37.01	+17 37.8	1.960	2.755	14.5	21.1
11 27	6 33.53	+25 1.0	2.155	3.033	10.1	20.7	11 27	6 32.61	+17 27.0	1.879	2.757	11.3	20.9
12 7	6 26.30	+24 47.3	2.093	3.033	6.7	20.5	12 7	6 25.84	+17 21.0	1.820	2.759	7.7	20.7
12 17	6 17.46	+24 30.8	2.058	3.034	2.9	20.3	12 17	6 17.32	+17 19.9	1.788	2.761	3.8	20.4
12 27	6 7.95	+24 11.1	2.052	3.034	1.2	20.1	12 27	6 8.04	+17 23.3	1.784	2.763	2.5	20.3
1 6	5 58.80	+23 48.8	2.077	3.035	5.1	20.4	1 6	5 59.11	+17 31.0	1.809	2.765	5.9	20.6
1 16	5 50.98	+23 25.4	2.130	3.035	8.7	20.6	1 16	5 51.55	+17 42.4	1.862	2.767	9.7	20.8
1 26	5 45.23	+23 2.6	2.210	3.036	11.9	20.9	1 26	5 46.17	+17 57.2	1.939	2.770	13.1	21.0
<b>241537</b>	2010 <i>EE</i> <sub>42</sub>	12 24.1 173°14' 0°9/24.1 18					<b>319965</b>	2007 <i>BC</i> <sub>99</sub>	12 24.1 113°55' 0°1/24.1 18				
11 17	6 41.63	+25 3.8	1.993	2.784	14.5	21.6	11 17	6 38.92	+22 59.6	2.134	2.926	13.6	21.7
11 27	6 36.29	+25 21.2	1.909	2.786	11.2	21.4	11 27	6 33.91	+23 0.8	2.055	2.933	10.5	21.5
12 7	6 28.32	+25 38.8	1.847	2.788	7.4	21.2	12 7	6 26.59	+23 2.8	1.999	2.939	6.9	21.3
12 17	6 18.39	+25 54.2	1.813	2.789	3.3	20.9	12 17	6 17.62	+23 4.4	1.970	2.946	2.9	21.0
12 27	6 7.57	+26 4.9	1.809	2.790	1.6	20.8	12 27	6 7.95	+23 4.4	1.970	2.952	1.2	20.9
1 6	5 57.11	+26 10.0	1.834	2.790	5.7	21.1	1 6	5 58.67	+23 2.6	2.001	2.959	5.2	21.2
1 16	5 48.17	+26 10.1	1.887	2.791	9.7	21.3	1 16	5 50.75	+22 59.5	2.060	2.965	8.9	21.4
1 26	5 41.65	+26 7.1	1.965	2.790	13.2	21.6	1 26	5 44.98	+22 56.3	2.144	2.971	12.1	21.7
<b>394194</b>	2006 <i>SA</i> <sub>60</sub>	12 24.1 124°31' 4°5/23.7 18					<b>415676</b>	2014 <i>RZ</i> <sub>19</sub>	12 24.1 71°59' 0°8/24.1 18				
11 17	6 45.65	+35 38.6	2.375	3.143	13.1	21.5	11 17	6 39.34	+25 21.3	2.028	2.823	14.1	21.4
11 27	6 39.12	+36 32.3	2.306	3.162	10.4	21.4	11 27	6 34.32	+25 31.6	1.958	2.837	10.9	21.2
12 7	6 30.02	+37 19.9	2.260	3.180	7.6	21.2	12 7	6 26.89	+25 41.3	1.910	2.852	7.2	21.0
12 17	6 19.06	+37 56.2	2.242	3.197	5.1	21.1	12 17	6 17.74	+25 48.4	1.890	2.866	3.1	20.8
12 27	6 7.32	+38 17.5	2.254	3.213	4.6	21.1	12 27	6 7.92	+25 51.3	1.898	2.880	1.5	20.7
1 6	5 56.03	+38 22.7	2.296	3.229	6.6	21.2	1 6	5 58.59	+25 49.5	1.936	2.894	5.4	21.0
1 16	5 46.32	+38 13.7	2.367	3.244	9.2	21.4	1 16	5 50.76	+25 44.0	2.002	2.908	9.1	21.2
1 26	5 39.03	+37 54.2	2.463	3.259	11.7	21.6	1 26	5 45.20	+25 36.4	2.093	2.922	12.3	21.5
<b>288313</b>	2004 <i>BC</i> <sub>36</sub>	12 24.1 224°40' 3°9/24.2 17					<b>359738</b>	2011 <i>UU</i> <sub>50</sub>	12 24.1 355°07' 1°0/24.2 18				
11 17	6 43.56	+34 49.0	2.196	2.973	13.7	21.1	11 17	6 38.03	+20 35.1	1.657	2.464	16.2	20.6
11 27	6 37.83	+35 7.4	2.102	2.966	11.0	20.9	11 27	6 33.94	+20 37.3	1.577	2.463	12.6	20.4
12 7	6 29.36	+35 19.0	2.032	2.958	7.8	20.6	12 7	6 27.00	+20 43.4	1.518	2.461	8.4	20.1
12 17	6 18.84	+35 19.5	1.988	2.950	4.9	20.5	12 17	6 17.91	+20 52.3	1.484	2.460	3.7	19.9
12 27	6 7.39	+35 5.9	1.973	2.942	4.1	20.4	12 27	6 7.83	+21 2.7	1.478	2.460	1.7	19.7
1 6	5 56.30	+34 38.2	1.988	2.933	6.5	20.5	1 6	5 58.13	+21 13.4	1.500	2.460	6.4	20.0
1 16	5 46.80	+33 58.9	2.032	2.923	9.8	20.7	1 16	5 50.09	+21 24.3	1.548	2.460	10.9	20.3
1 26	5 39.81	+33 12.4	2.100	2.914	12.9	20.9	1 26	5 44.68	+21 35.9	1.620	2.460	14.8	20.5
<b>167304</b>	2003 <i>UE</i> <sub>223</sub>	12 24.1 62°15' 3°0/24.1 18					<b>454638</b>	2014 <i>QL</i> <sub>207</sub>	12 24.1 131°06' 1°0/24.2 18				
11 17	6 43.33	+30 10.4	1.600	2.402	16.9	19.6	11 17	6 38.11	+20 25.0	2.121	2.913	13.7	21.8
11 27	6 38.05	+30 33.6	1.540	2.421	13.2	19.4	11 27	6 33.30	+20 20.7	2.038	2.916	10.6	21.6
12 7	6 29.60	+30 52.3	1.501	2.440	8.9	19.2	12 7	6 26.22	+20 19.1	1.979	2.918	7.0	21.4
12 17	6 18.91	+31 2.2	1.487	2.459	4.7	19.0	12 17	6 17.49	+20 19.3	1.946	2.921	3.2	21.2
12 27	6 7.40	+31 0.1	1.502	2.478	3.4	19.0	12 27	6 8.02	+20 20.8	1.943	2.924	1.6	21.1
1 6	5 56.68	+30 46.3	1.543	2.498	6.9	19.2	1 6	5 58.90	+20 23.1	1.969	2.927	5.4	21.3
1 16	5 48.06	+30 23.3	1.612	2.517	11.0	19.5	1 16	5 51.10	+20 26.3	2.024	2.929	9.1	21.6
1 26	5 42.46	+29 55.5	1.704	2.536	14.5	19.8	1 26	5 45.40	+20 31.0	2.104	2.931	12.3	21.8
<b>99674</b>	2002 <i>JN</i> <sub>11</sub>	12 24.1 169°87' 4°3/23.7 18 R					<b>287820</b>	2003 <i>SE</i> <sub>193</sub>	12 24.1 152°93' 2°3/24.2 18				
11 17	6 41.28	+35 34.1	2.458	3.232	12.5	19.8	11 17	6 43.64	+30 9.2	2.012	2.798	14.5	21.0
11 27	6 35.83	+36 21.8	2.374	3.234	10.0	19.7	11 27	6 37.82	+30 15.3	1.931	2.804	11.3	20.8
12 7	6 27.94	+37 4.1	2.314	3.236	7.3	19.5	12 7	6 29.29	+30 16.7	1.873	2.809	7.7	20.6
12 17	6 18.22	+37 36.4	2.282	3.237	5.0	19.4	12 17	6 18.80	+30 10.3	1.842	2.814	3.9	20.3
12 27	6 7.64	+37 55.4	2.278	3.238	4.5	19.3	12 27	6 7.50	+29 54.4	1.841	2.818	2.6	20.3
1 6	5 57.36	+37 59.6	2.305	3.239	6.4	19.5	1 6	5 56.72	+29 29.1	1.869	2.822	6.0	20.5
1 16	5 48.45	+37 50.4	2.359	3.240	9.1	19.6	1 16	5 47.61	+28 57.0	1.925	2.826	9.7	20.7
1 26	5 41.77	+37 31.1	2.439	3.240	11.7	19.8	1 26	5 41.05	+28 21.8	2.007	2.829	13.0	20.9
<b>414630</b>	2009 <i>VM</i> <sub>29</sub>	12 24.1 227°69' 3°3/23.7 18					<b>306758</b>	2000 <i>YM</i> <sub>81</sub>	12 24.1 64°98' 0°9/24.2 18				
11 17	6 39.90	+31 58.2	2.464	3.245	12.3	20.8	11 17	6 41.25	+20 22.3	1.546	2.352	17.3	19.7
11 27	6 34.75	+32 44.0	2.372	3.239	9.7	20.6	11 27						

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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>389091</b>	2008 <i>XS</i> <sub>32</sub>		12 24.1 102°09	0°4/24.1	17		<b>154421</b>	2003 <i>BO</i> <sub>33</sub>		12 24.1 214°22	4°3/24.3	18	
11 17	6 37.13	+23 10.8	2.498	3.285	12.0	21.4	11 17	6 39.98	+12 51.7	1.821	2.607	15.8	19.7
11 27	6 32.16	+22 53.8	2.416	3.291	9.3	21.2	11 27	6 35.12	+12 25.7	1.734	2.603	12.6	19.5
12 7	6 25.27	+22 36.4	2.358	3.298	6.1	21.0	12 7	6 27.65	+12 7.9	1.669	2.598	9.0	19.3
12 17	6 17.03	+22 18.2	2.328	3.304	2.6	20.8	12 17	6 18.20	+12 0.0	1.629	2.593	5.5	19.1
12 27	6 8.24	+21 59.0	2.329	3.311	1.1	20.7	12 27	6 7.81	+12 2.7	1.618	2.588	4.5	19.0
1 6	5 59.81	+21 39.6	2.360	3.317	4.6	21.0	1 6	5 57.71	+12 15.8	1.635	2.582	7.3	19.2
1 16	5 52.54	+21 20.7	2.420	3.323	7.9	21.2	1 16	5 49.06	+12 38.4	1.679	2.576	11.1	19.4
1 26	5 47.07	+21 3.6	2.507	3.330	10.7	21.4	1 26	5 42.79	+13 8.6	1.747	2.570	14.6	19.6
<b>260624</b>	2005 <i>GA</i> <sub>74</sub>		12 24.1 175°47	0°9/24.3	18		<b>293816</b>	2007 <i>RJ</i> <sub>173</sub>		12 24.1 161°70	2°7/24.4	18	
11 17	6 40.10	+18 52.6	2.404	3.183	12.7	21.3	11 17	6 39.90	+15 23.0	2.047	2.830	14.4	21.4
11 27	6 34.61	+19 13.7	2.316	3.185	9.8	21.1	11 27	6 34.72	+15 15.4	1.965	2.835	11.3	21.2
12 7	6 27.01	+19 39.4	2.251	3.187	6.5	20.9	12 7	6 27.20	+15 14.4	1.905	2.839	7.8	21.0
12 17	6 17.83	+20 8.2	2.214	3.189	2.9	20.6	12 17	6 17.95	+15 19.9	1.873	2.842	4.2	20.8
12 27	6 7.91	+20 38.5	2.208	3.190	1.4	20.5	12 27	6 7.95	+15 31.7	1.869	2.845	3.0	20.7
1 6	5 58.22	+21 8.5	2.234	3.190	4.9	20.8	1 6	5 58.27	+15 49.0	1.895	2.848	6.0	20.9
1 16	5 49.68	+21 37.5	2.289	3.190	8.4	21.0	1 16	5 49.95	+16 10.8	1.950	2.850	9.6	21.2
1 26	5 43.05	+22 5.1	2.370	3.189	11.4	21.2	1 26	5 43.77	+16 36.2	2.029	2.852	12.9	21.4
<b>522179</b>	2016 <i>AH</i> <sub>257</sub>		12 24.1 113°88	3°9/24.9	17		<b>339800</b>	2005 <i>SY</i> <sub>192</sub>		12 24.1 209°32	3°1/24.1	18	
11 17	6 35.80	+ 8 35.4	2.629	3.390	12.2	21.4	11 17	6 40.99	+16 59.6	1.695	2.491	16.4	21.6
11 27	6 30.98	+ 8 39.8	2.550	3.400	9.8	21.2	11 27	6 36.10	+16 28.2	1.612	2.489	12.9	21.4
12 7	6 24.44	+ 8 53.8	2.494	3.410	7.1	21.1	12 7	6 28.38	+16 1.2	1.549	2.486	8.9	21.1
12 17	6 16.68	+ 9 18.1	2.466	3.420	4.7	20.9	12 17	6 18.53	+15 39.9	1.513	2.484	4.7	20.9
12 27	6 8.39	+ 9 52.1	2.467	3.430	4.0	20.9	12 27	6 7.71	+15 25.1	1.504	2.480	3.5	20.8
1 6	6 0.36	+10 34.5	2.499	3.439	5.6	21.0	1 6	5 57.28	+15 17.4	1.524	2.477	7.1	21.0
1 16	5 53.30	+11 23.2	2.560	3.449	8.1	21.2	1 16	5 48.49	+15 17.1	1.570	2.473	11.3	21.2
1 26	5 47.81	+12 16.1	2.648	3.458	10.6	21.4	1 26	5 42.30	+15 24.0	1.640	2.470	15.1	21.5
<b>274620</b>	2008 <i>TN</i> <sub>66</sub>		12 24.1 273°20	0°8/24.1	18		<b>164929</b>	1999 <i>XK</i> <sub>102</sub>		12 24.1 8°09	2°8/23.8	18	
11 17	6 36.98	+25 11.6	2.383	3.173	12.4	20.9	11 17	6 29.49	+24 9.6	0.894	1.758	22.1	18.3
11 27	6 32.38	+25 27.8	2.290	3.167	9.6	20.7	11 27	6 29.27	+25 16.2	0.844	1.761	17.2	18.1
12 7	6 25.64	+25 44.1	2.220	3.160	6.4	20.5	12 7	6 24.90	+26 28.9	0.811	1.767	11.4	17.8
12 17	6 17.28	+25 58.6	2.178	3.154	2.8	20.3	12 17	6 17.28	+27 40.9	0.798	1.776	5.3	17.5
12 27	6 8.15	+26 9.6	2.166	3.147	1.4	20.2	12 27	6 8.23	+28 43.7	0.807	1.788	3.5	17.4
1 6	5 59.25	+26 16.3	2.184	3.141	5.0	20.4	1 6	5 59.97	+29 31.9	0.839	1.803	9.0	17.8
1 16	5 51.50	+26 18.7	2.231	3.134	8.4	20.6	1 16	5 54.40	+30 4.1	0.891	1.820	14.6	18.2
1 26	5 45.69	+26 18.3	2.303	3.128	11.5	20.8	1 26	5 52.75	+30 22.7	0.962	1.840	19.3	18.5
<b>44212</b>	1998 <i>OJ</i> <sub>12</sub>		12 24.1 135°41	1°9/24.0	18		<b>15572</b>	2000 <i>GH</i> <sub>65</sub>		12 24.1 146°63	0°1/24.1	18	
11 17	6 42.56	+27 54.0	2.058	2.846	14.2	20.0	11 17	6 36.74	+23 25.0	2.867	3.647	10.8	19.3
11 27	6 36.91	+28 15.2	1.981	2.856	11.0	19.9	11 27	6 31.69	+23 33.4	2.782	3.654	8.3	19.1
12 7	6 28.68	+28 34.4	1.927	2.865	7.4	19.6	12 7	6 24.92	+23 42.3	2.723	3.661	5.4	18.9
12 17	6 18.56	+28 48.5	1.900	2.874	3.5	19.4	12 17	6 16.92	+23 50.4	2.692	3.668	2.3	18.7
12 27	6 7.66	+28 55.0	1.903	2.882	2.3	19.4	12 27	6 8.39	+23 56.9	2.692	3.674	0.9	18.6
1 6	5 57.20	+28 53.3	1.936	2.890	5.7	19.6	1 6	6 0.12	+24 1.2	2.724	3.680	4.1	18.9
1 16	5 48.32	+28 44.6	1.997	2.898	9.4	19.8	1 16	5 52.84	+24 3.5	2.785	3.686	7.1	19.1
1 26	5 41.84	+28 31.4	2.083	2.905	12.6	20.1	1 26	5 47.14	+24 4.6	2.873	3.691	9.6	19.3
<b>3039</b>	Yangel		12 24.1 192°07	7°4/24.3	18		<b>63352</b>	2001 <i>FG</i> <sub>129</sub>		12 24.1 232°10	6°2/24.2	18	
11 17	6 38.21	+ 3 5.9	2.184	2.932	14.7	17.4	11 17	6 37.99	+ 6 33.1	2.206	2.966	14.2	19.9
11 27	6 33.22	+ 2 11.2	2.100	2.931	12.3	17.2	11 27	6 33.15	+ 5 46.4	2.111	2.956	11.7	19.7
12 7	6 26.11	+ 1 28.8	2.038	2.929	9.9	17.0	12 7	6 26.15	+ 5 9.5	2.038	2.944	9.1	19.5
12 17	6 17.46	+ 1 2.3	2.001	2.927	7.9	16.9	12 17	6 17.54	+ 4 45.5	1.992	2.933	6.8	19.3
12 27	6 8.10	+ 0 54.4	1.992	2.924	7.5	16.9	12 27	6 8.12	+ 4 36.6	1.973	2.920	6.3	19.3
1 6	5 59.00	+ 1 5.5	2.011	2.921	8.8	16.9	1 6	5 58.88	+ 4 43.5	1.983	2.908	8.0	19.4
1 16	5 51.06	+ 1 34.2	2.057	2.917	11.2	17.1	1 16	5 50.76	+ 5 5.2	2.021	2.894	10.7	19.5
1 26	5 45.04	+ 2 17.2	2.126	2.913	13.7	17.2	1 26	5 44.53	+ 5 39.5	2.083	2.881	13.5	19.7
<b>390486</b>	2014 <i>AT</i> <sub>19</sub>		12 24.1 109°92	6°4/25.2	18		<b>224853</b>	2006 <i>YM</i> <sub>17</sub>		12 24.1 3°83	3°8/24.4	18	
11 17	6 40.14	+ 6 24.0	1.644	2.420	17.6	20.7	11 17	6 36.26	+15 28.2	1.159	1.989	20.4	20.1
11 27	6 35.34	+ 6 12.6	1.571	2.427	14.4	20.5	11 27	6 33.52	+15 15.0	1.092	1.987	16.2	19.9
12 7	6 27.81	+ 6 17.7	1.518	2.434	10.8	20.3	12 7	6 27.23	+15 12.9	1.043	1.987	11.2	19.6
12 17	6 18.25	+ 6 41.4	1.490	2.441	7.6	20.1	12 17	6 18.18	+15 23.0	1.015	1.988	6.0	19.3
12 27	6 7.79	+ 7 23.8	1.488	2.447	6.5	20.1	12 27	6 7.87	+15 44.7	1.012	1.990	4.2	19.2
1 6	5 57.75	+ 8 22.4	1.514	2.454	8.6	20.2	1 6	5 58.09	+16 16.1	1.034	1.994	8.5	19.5
1 16	5 49.31	+ 9 33.0	1.566	2.460	12.0	20.5	1 16	5 50.49	+16 54.6	1.079	1.998	13.7	19.8
1 26	5 43.40	+10 50.8	1.642	2.466	15.4	20.7	1 26	5 46.23	+17 37.5	1.144	2.003	18.3	20.0
<b>211300</b>	2002 <i>RN</i> <sub>268</sub>		12 24.1 327°16	0°9/24.2	18		<b>475043</b>	2005 <i>UK</i> <sub>67</sub>		12 24.1 56°62	1°1/24.2	18	
11 17	6 39.00	+20 46.1	1.770	2.571	15.6	20.8	11 17	6 42.70	+20 48.3	1.318	2.133	19.2	21.0
11 27	6 34.52	+20 45.3	1.687	2.570	12.2	20.6	11 27	6 37.83	+20 47.2	1.265	2.154	14.8	20.8
12 7	6 27.32	+20 47.6	1.626	2.568	8.1	20.4	12 7	6 29.60	+20 50.5	1.231	2.176	9.8	20.6
12 17	6 18.07	+20 52.2	1.591	2.567	3.6	20.1	12 17	6 19.01	+20 56.3	1.222	2.198	4.3	20.3
12 27	6 7.86	+20 57.8	1.583	2.565	1.7	20.0	12 27	6 7.60	+21 3.2	1.239	2.221	1.9	20.2
1 6	5 58.03	+21 3.8	1.605	2.564	6.1	20.2	1 6	5 57.07	+21 10.1	1.283	2.243	7.1	20.6
1 16	5 49.76	+21 10.1	1.653	2.563	10.5	20.5	1 16	5 48.81	+21 17.4	1.352	2.266	11.9	21.0
1 26	5 44.01	+21 17.4	1.726	2.562	14.2	20.7	1 26	5 43.74	+21 25.7	1.443	2.288	16.0	21.3
<b>30416</b>	Schacht		12 24.1 85°41	1°7/24.3	18		<b>385687</b>	2005 <i>SF</i> <sub>286</sub>		12 24.1 323°02	1°7/23.8	18	R

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12 24.2

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>429809</b>	2012 <i>JW</i> <sub>24</sub>		12 24.1 144°19'	0°0'/24.1 18			<b>155414</b>	1996 <i>HQ</i> <sub>24</sub>		12 24.2 207°13'	1°7'/24.2 18		
11 17	6 45.14	+21 42.4	1.814	2.603	15.8	21.8	11 17	6 41.56	+18 54.3	1.988	2.775	14.6	21.2
11 27	6 39.14	+22 8.5	1.739	2.615	12.2	21.6	11 27	6 36.23	+18 45.2	1.896	2.770	11.5	21.0
12 7	6 30.29	+22 38.4	1.686	2.625	8.1	21.4	12 7	6 28.35	+18 39.8	1.827	2.765	7.7	20.8
12 17	6 19.33	+23 9.1	1.659	2.635	3.4	21.1	12 17	6 18.54	+18 37.6	1.785	2.759	3.7	20.5
12 27	6 7.43	+23 37.7	1.662	2.645	1.4	21.0	12 27	6 7.80	+18 38.1	1.773	2.753	2.1	20.4
1 6	5 56.00	+24 2.1	1.695	2.653	6.0	21.3	1 6	5 57.34	+18 41.0	1.790	2.745	6.0	20.6
1 16	5 46.28	+24 22.2	1.757	2.661	10.3	21.6	1 16	5 48.29	+18 46.3	1.835	2.738	10.0	20.9
1 26	5 39.23	+24 38.7	1.843	2.668	13.9	21.9	1 26	5 41.55	+18 54.4	1.905	2.729	13.6	21.1
<b>326749</b>	2003 <i>RL</i> <sub>24</sub>		12 24.1 81°39'	1°5'/24.1 18			<b>235161</b>	2003 <i>SC</i> <sub>6</sub>		12 24.2 13°96'	8°1'/24.7 17		
11 17	6 45.89	+26 20.3	1.357	2.167	19.0	20.8	11 17	6 33.55	+4 10.7	1.737	2.516	16.8	19.6
11 27	6 40.47	+26 34.2	1.297	2.184	14.7	20.6	11 27	6 30.10	+3 14.1	1.669	2.520	14.0	19.4
12 7	6 31.46	+26 46.9	1.258	2.202	9.8	20.3	12 7	6 24.29	+2 32.5	1.621	2.526	11.1	19.3
12 17	6 19.85	+26 54.5	1.243	2.219	4.4	20.1	12 17	6 16.77	+2 10.2	1.597	2.532	8.8	19.1
12 27	6 7.27	+26 54.0	1.255	2.236	2.3	20.0	12 27	6 8.53	+2 9.7	1.599	2.539	8.2	19.1
1 6	5 55.58	+26 45.1	1.294	2.253	7.3	20.4	1 6	6 0.69	+2 31.0	1.626	2.547	9.7	19.2
1 16	5 46.31	+26 30.4	1.358	2.269	12.1	20.7	1 16	5 54.25	+3 11.4	1.678	2.556	12.3	19.4
1 26	5 40.46	+26 13.4	1.445	2.286	16.2	21.0	1 26	5 49.98	+4 6.5	1.752	2.566	15.0	19.6
<b>195729</b>	2002 <i>PO</i> <sub>79</sub>		12 24.1 52°66'	5°9'/24.0 17			<b>483659</b>	2005 <i>EO</i> <sub>137</sub>		12 24.2 346°78'	22°9'/19.7 17		
11 17	6 42.16	+39 57.0	2.185	2.958	13.9	20.3	11 17	6 52.78	+65 32.1	1.238	1.960	25.0	20.6
11 27	6 36.89	+40 41.4	2.112	2.965	11.4	20.2	11 27	6 53.80	+68 18.7	1.186	1.944	24.0	20.4
12 7	6 28.81	+41 16.4	2.062	2.973	8.7	20.0	12 7	6 45.65	+70 36.2	1.148	1.930	23.3	20.3
12 17	6 18.69	+41 36.5	2.037	2.981	6.5	19.9	12 17	6 27.75	+72 5.6	1.124	1.917	22.9	20.3
12 27	6 7.71	+41 38.2	2.040	2.989	6.0	19.9	12 27	6 3.87	+72 29.4	1.113	1.907	23.0	20.2
1 6	5 57.24	+41 20.8	2.071	2.997	7.6	20.0	1 6	5 41.73	+71 42.1	1.116	1.898	23.6	20.2
1 16	5 48.49	+40 47.3	2.129	3.005	10.2	20.2	1 16	5 27.87	+69 53.5	1.132	1.892	24.7	20.3
1 26	5 42.37	+40 2.5	2.211	3.013	12.7	20.4	1 26	5 24.40	+67 21.5	1.161	1.888	25.9	20.4
<b>494014</b>	2016 <i>AV</i> <sub>139</sub>		12 24.1 3°51'	1°8'/24.1 17			<b>402727</b>	2006 <i>WS</i> <sub>110</sub>		12 24.2 29°53'	0°3'/24.2 18		
11 17	6 36.95	+19 20.1	2.257	3.046	13.0	21.6	11 17	6 38.43	+21 47.3	1.810	2.612	15.3	21.3
11 27	6 32.27	+18 50.9	2.171	3.046	10.2	21.5	11 27	6 34.03	+21 57.4	1.731	2.615	11.9	21.1
12 7	6 25.50	+18 23.5	2.108	3.046	6.8	21.2	12 7	6 26.98	+22 10.5	1.675	2.618	7.8	20.9
12 17	6 17.22	+17 58.2	2.073	3.046	3.3	21.0	12 17	6 17.96	+22 24.8	1.645	2.622	3.4	20.6
12 27	6 8.31	+17 35.9	2.067	3.046	2.2	20.9	12 27	6 8.06	+22 38.7	1.643	2.625	1.4	20.5
1 6	5 59.71	+17 17.2	2.092	3.046	5.4	21.2	1 6	5 58.55	+22 50.9	1.670	2.629	5.9	20.8
1 16	5 52.33	+17 2.8	2.144	3.047	8.8	21.4	1 16	5 50.59	+23 1.4	1.724	2.633	10.1	21.0
1 26	5 46.88	+16 53.4	2.223	3.047	11.9	21.6	1 26	5 45.08	+23 10.8	1.802	2.638	13.7	21.3
<b>80352</b>	1999 <i>XX</i> <sub>119</sub>		12 24.1 66°71'	3°0'/24.0 18			<b>28068</b>	Stephbillings		12 24.2 113°04'	3°0'/24.1 18		
11 17	6 44.32	+28 33.8	1.370	2.182	18.8	19.5	11 17	6 46.88	+30 13.2	1.690	2.482	16.6	19.2
11 27	6 39.47	+29 7.8	1.306	2.194	14.6	19.3	11 27	6 40.76	+30 37.7	1.623	2.498	13.0	19.0
12 7	6 30.96	+29 39.6	1.263	2.205	9.9	19.1	12 7	6 31.45	+30 57.9	1.578	2.514	8.8	18.8
12 17	6 19.71	+30 3.8	1.244	2.217	5.0	18.8	12 17	6 19.84	+31 9.1	1.558	2.529	4.6	18.6
12 27	6 7.32	+30 15.9	1.251	2.229	3.4	18.8	12 27	6 7.35	+31 8.1	1.568	2.544	3.3	18.5
1 6	5 55.70	+30 14.6	1.285	2.241	7.7	19.0	1 6	5 55.57	+30 54.6	1.606	2.558	6.9	18.8
1 16	5 46.45	+30 2.4	1.344	2.253	12.4	19.3	1 16	5 45.88	+30 31.5	1.671	2.572	10.9	19.0
1 26	5 40.68	+29 43.8	1.425	2.265	16.4	19.6	1 26	5 39.24	+30 3.0	1.760	2.585	14.4	19.3
<b>490917</b>	2011 <i>CG</i> <sub>18</sub>		12 24.1 5°21'	3°8'/24.8 17			<b>333001</b>	2011 <i>HB</i> <sub>38</sub>		12 24.2 273°86'	4°3'/24.4 18		
11 17	6 35.62	+11 50.8	1.846	2.637	15.4	20.5	11 17	6 34.33	+9 44.9	2.490	3.260	12.5	20.9
11 27	6 31.72	+11 58.1	1.765	2.637	12.3	20.3	11 27	6 30.07	+9 19.5	2.401	3.257	10.1	20.7
12 7	6 25.40	+12 16.9	1.707	2.638	8.7	20.1	12 7	6 24.00	+9 2.2	2.336	3.254	7.4	20.5
12 17	6 17.27	+12 47.4	1.673	2.639	5.1	19.9	12 17	6 16.61	+8 54.5	2.297	3.251	5.1	20.4
12 27	6 8.28	+13 28.7	1.668	2.641	3.9	19.8	12 27	6 8.62	+8 57.2	2.287	3.248	4.4	20.3
1 6	5 59.59	+14 18.5	1.691	2.643	6.6	20.0	1 6	6 0.84	+9 10.3	2.307	3.245	6.2	20.5
1 16	5 52.25	+15 13.9	1.741	2.646	10.3	20.2	1 16	5 54.04	+9 32.7	2.354	3.241	8.8	20.6
1 26	5 47.13	+16 12.2	1.815	2.649	13.7	20.4	1 26	5 48.86	+10 2.8	2.427	3.238	11.4	20.8
<b>404335</b>	2013 <i>FT</i> <sub>20</sub>		12 24.2 206°44'	2°4'/23.9 17			<b>321602</b>	2009 <i>UZ</i> <sub>147</sub>		12 24.2 117°07'	1°1'/24.2 17		
11 17	6 40.91	+29 1.8	2.123	2.912	13.8	21.7	11 17	6 37.54	+20 13.0	2.319	3.106	12.8	21.1
11 27	6 35.79	+29 31.2	2.035	2.909	10.8	21.5	11 27	6 32.68	+20 6.5	2.238	3.113	9.9	21.0
12 7	6 28.08	+29 58.6	1.970	2.907	7.3	21.3	12 7	6 25.75	+20 2.4	2.180	3.119	6.6	20.8
12 17	6 18.42	+30 20.5	1.932	2.904	3.8	21.1	12 17	6 17.35	+20 0.1	2.150	3.125	3.0	20.5
12 27	6 7.83	+30 34.0	1.924	2.901	2.7	21.0	12 27	6 8.33	+19 59.1	2.150	3.131	1.5	20.4
1 6	5 57.55	+30 37.8	1.945	2.898	5.9	21.2	1 6	5 59.65	+19 59.3	2.181	3.137	5.0	20.7
1 16	5 48.71	+30 32.8	1.995	2.894	9.5	21.4	1 16	5 52.17	+20 0.7	2.240	3.143	8.4	20.9
1 26	5 42.22	+30 21.7	2.069	2.891	12.7	21.6	1 26	5 46.59	+20 3.7	2.324	3.149	11.4	21.1
<b>114202</b>	2002 <i>VD</i> <sub>100</sub>		12 24.2 359°04'	4°2'/23.4 18			<b>125918</b>	2001 <i>XG</i> <sub>229</sub>		12 24.2 108°55'	1°3'/24.1 18		
11 17	6 41.79	+17 44.9	1.772	2.565	15.9	18.5	11 17	6 44.91	+26 0.3	1.798	2.590	15.8	20.6
11 27	6 36.44	+16 15.0	1.689	2.564	12.6	18.2	11 27	6 38.94	+26 20.6	1.731	2.609	12.2	20.4
12 7	6 28.43	+14 44.6	1.630	2.564	8.8	18.0	12 7	6 30.12	+26 40.3	1.687	2.627	8.1	20.2
12 17	6 18.51	+13 17.2	1.597	2.564	5.2	17.8	12 17	6 19.26	+26 55.9	1.669	2.644	3.6	20.0
12 27	6 7.83	+11 57.4	1.594	2.564	4.6	17.8	12 27	6 7.62	+27 4.9	1.681	2.662	1.9	19.9
1 6	5 57.66	+10 49.3	1.619	2.564	7.7	17.9	1 6	5 56.59	+27 6.5	1.722	2.678	6.1	20.2
1 16	5 49.13	+9 55.8	1.672	2.564	11.5	18.2	1 16	5 47.41	+27 2.1	1.790	2.694	10.1	20.5
1 26	5 43.09	+9 17.9	1.749	2.565	15.0	18.4	1 26	5 40.94	+26 54.1	1.883	2.710	13.6	20.7
<b>266833</b>	2009 <i>UY</i> <sub>13</sub>		12 24.2 115°39'	0°9'/24.2 18			<b>155876</b>	2001 <i>DS</i> <sub>96</sub>		12 24.2 252°05'	5°4'/24.4 18		</

EPHEMERIDES

12 24.2

12 24.2

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>229446</b>	2005 <i>UZ</i> <sub>70</sub>		12 24.2 307°98		1°1/24.2 18		<b>6489</b>	Golevka		12 24.2 159°98		0°7/24.2 15 A	
11 17	6 42.20	+26 57.5	1.505	2.315	17.5	20.0	11 17	6 42.28	+20 38.6	3.180	3.940	10.2	25.3
11 27	6 37.65	+26 47.2	1.423	2.310	13.7	19.8	11 27	6 35.69	+20 39.0	3.092	3.952	7.9	25.2
12 7	6 29.73	+26 33.7	1.361	2.305	9.2	19.5	12 7	6 27.46	+20 40.6	3.030	3.963	5.2	25.0
12 17	6 19.25	+26 14.2	1.324	2.301	4.1	19.2	12 17	6 18.07	+20 42.7	2.998	3.972	2.3	24.8
12 27	6 7.60	+25 47.6	1.314	2.296	1.9	19.0	12 27	6 8.21	+20 44.4	3.000	3.981	1.1	24.7
1 6	5 56.46	+25 14.8	1.332	2.292	7.0	19.3	1 6	5 58.62	+20 45.7	3.034	3.988	3.9	25.0
1 16	5 47.36	+24 38.9	1.376	2.288	11.9	19.6	1 16	5 49.97	+20 46.7	3.101	3.994	6.7	25.2
1 26	5 41.39	+24 3.8	1.442	2.284	16.2	19.9	1 26	5 42.86	+20 47.9	3.195	3.999	9.1	25.3
<b>410080</b>	2007 <i>DQ</i> <sub>65</sub>		12 24.2 192°13		0°6/24.2 17		<b>368559</b>	2004 <i>BN</i> <sub>36</sub>		12 24.2 22°37		2°0/24.2 18	
11 17	6 38.12	+21 46.6	2.170	2.961	13.4	22.0	11 17	6 37.85	+28 59.1	2.067	2.864	13.8	20.6
11 27	6 33.37	+21 44.5	2.083	2.961	10.4	21.8	11 27	6 33.37	+29 7.9	1.989	2.868	10.8	20.4
12 7	6 26.36	+21 44.2	2.020	2.961	6.9	21.6	12 7	6 26.45	+29 13.4	1.934	2.873	7.2	20.2
12 17	6 17.68	+21 44.5	1.984	2.960	3.0	21.4	12 17	6 17.75	+29 13.2	1.905	2.879	3.6	19.9
12 27	6 8.25	+21 44.6	1.978	2.960	1.3	21.2	12 27	6 8.33	+29 5.7	1.905	2.884	2.3	19.9
1 6	5 59.14	+21 44.2	2.001	2.959	5.2	21.5	1 6	5 59.32	+28 50.7	1.934	2.890	5.6	20.1
1 16	5 51.30	+21 43.7	2.053	2.958	8.9	21.7	1 16	5 51.79	+28 29.9	1.991	2.896	9.2	20.3
1 26	5 45.54	+21 43.8	2.130	2.958	12.2	21.9	1 26	5 46.52	+28 5.9	2.073	2.903	12.4	20.5
<b>518080</b>	2016 <i>AY</i> <sub>227</sub>		12 24.2 240°38		1°4/24.1 18		<b>170542</b>	2003 <i>WZ</i> <sub>116</sub>		12 24.2 114°18		2°1/24.1 18	
11 17	6 37.96	+27 16.4	2.602	3.385	11.7	22.2	11 17	6 43.91	+28 37.6	2.061	2.846	14.3	20.0
11 27	6 33.05	+27 33.6	2.503	3.376	9.1	22.0	11 27	6 37.93	+29 1.7	1.991	2.864	11.1	19.9
12 7	6 26.09	+27 49.6	2.429	3.366	6.1	21.8	12 7	6 29.37	+29 23.2	1.945	2.881	7.4	19.7
12 17	6 17.57	+28 2.4	2.382	3.356	2.9	21.6	12 17	6 18.97	+29 38.6	1.925	2.897	3.7	19.5
12 27	6 8.30	+28 10.0	2.366	3.346	1.7	21.5	12 27	6 7.86	+29 45.5	1.935	2.914	2.5	19.4
1 6	5 59.22	+28 11.7	2.381	3.336	4.8	21.7	1 6	5 57.28	+29 43.3	1.976	2.929	5.7	19.7
1 16	5 51.22	+28 8.1	2.425	3.325	8.0	21.9	1 16	5 48.32	+29 33.4	2.045	2.944	9.3	19.9
1 26	5 45.04	+28 0.6	2.495	3.314	10.9	22.1	1 26	5 41.82	+29 18.7	2.139	2.959	12.4	20.1
<b>310557</b>	2001 <i>PJ</i> <sub>40</sub>		12 24.2 53°40		0°1/24.2 17		<b>452928</b>	2006 <i>WQ</i> <sub>73</sub>		12 24.2 38°29		0°9/24.2 17	
11 17	6 42.95	+26 19.2	1.649	2.451	16.5	19.9	11 17	6 38.82	+21 43.4	1.720	2.525	15.8	21.6
11 27	6 37.42	+25 43.6	1.589	2.471	12.8	19.7	11 27	6 34.38	+21 32.2	1.647	2.532	12.3	21.3
12 7	6 29.06	+25 4.3	1.550	2.493	8.4	19.5	12 7	6 27.24	+21 22.7	1.596	2.539	8.1	21.1
12 17	6 18.77	+24 20.8	1.538	2.514	3.6	19.3	12 17	6 18.12	+21 14.2	1.570	2.547	3.6	20.9
12 27	6 7.91	+23 33.8	1.553	2.536	1.4	19.2	12 27	6 8.19	+21 6.3	1.573	2.554	1.6	20.7
1 6	5 57.87	+22 45.9	1.598	2.558	6.1	19.5	1 6	5 58.77	+20 58.8	1.603	2.563	6.1	21.0
1 16	5 49.81	+22 0.2	1.670	2.580	10.4	19.8	1 16	5 51.00	+20 52.7	1.661	2.571	10.3	21.3
1 26	5 44.49	+21 19.5	1.766	2.602	14.0	20.1	1 26	5 45.77	+20 48.8	1.742	2.580	14.0	21.6
<b>124056</b>	2001 <i>FW</i> <sub>160</sub>		12 24.2 208°90		3°0/23.9 18		<b>304182</b>	2006 <i>QV</i> <sub>37</sub>		12 24.2 134°37		1°1/24.1 18	
11 17	6 39.79	+32 54.8	2.814	3.587	11.1	20.6	11 17	6 41.93	+25 42.2	2.160	2.946	13.7	21.2
11 27	6 34.40	+33 24.0	2.719	3.582	8.8	20.4	11 27	6 36.33	+26 3.9	2.082	2.957	10.6	21.0
12 7	6 26.93	+33 49.2	2.648	3.576	6.2	20.3	12 7	6 28.31	+26 25.4	2.028	2.967	7.0	20.8
12 17	6 17.92	+34 7.4	2.606	3.570	3.7	20.1	12 17	6 18.54	+26 44.0	2.002	2.977	3.1	20.6
12 27	6 8.19	+34 16.1	2.594	3.563	3.1	20.0	12 27	6 8.03	+26 57.3	2.006	2.986	1.7	20.5
1 6	5 58.66	+34 14.6	2.612	3.556	5.2	20.2	1 6	5 57.91	+27 4.6	2.040	2.996	5.3	20.8
1 16	5 50.24	+34 3.7	2.660	3.549	7.9	20.3	1 16	5 49.23	+27 6.3	2.102	3.004	9.0	21.0
1 26	5 43.66	+33 45.8	2.734	3.541	10.4	20.5	1 26	5 42.80	+27 4.2	2.190	3.012	12.1	21.2
<b>53903</b>	2000 <i>FD</i> <sub>55</sub>		12 24.2 36°18		2°6/24.4 18		<b>359919</b>	2011 <i>WT</i> <sub>129</sub>		12 24.2 60°05		5°3/24.8 18	
11 17	6 39.76	+16 22.9	1.377	2.189	18.7	18.9	11 17	6 38.43	+ 9 47.8	1.702	2.489	16.7	20.6
11 27	6 35.72	+16 27.7	1.308	2.195	14.7	18.6	11 27	6 33.87	+ 9 27.6	1.638	2.504	13.4	20.4
12 7	6 28.44	+16 42.2	1.259	2.201	10.0	18.4	12 7	6 26.79	+ 9 19.8	1.595	2.519	9.8	20.3
12 17	6 18.71	+17 5.8	1.233	2.207	5.0	18.1	12 17	6 17.90	+ 9 26.0	1.577	2.535	6.4	20.1
12 27	6 7.88	+17 36.7	1.234	2.214	3.0	18.0	12 27	6 8.30	+ 9 46.4	1.586	2.551	5.4	20.1
1 6	5 57.58	+18 12.3	1.262	2.221	7.4	18.3	1 6	5 59.21	+10 19.6	1.622	2.567	7.7	20.2
1 16	5 49.25	+18 50.6	1.315	2.228	12.2	18.6	1 16	5 51.69	+11 3.0	1.685	2.583	11.1	20.5
1 26	5 43.95	+19 30.0	1.390	2.236	16.4	18.8	1 26	5 46.55	+11 53.1	1.772	2.599	14.3	20.7
<b>481702</b>	2008 <i>CF</i> <sub>8</sub>		12 24.2 9°50		4°5/25.1 18		<b>457484</b>	2008 <i>UF</i> <sub>303</sub>		12 24.2 56°01		6°0/23.1 17	
11 17	6 37.13	+10 7.0	1.582	2.377	17.4	20.5	11 17	6 42.54	+38 0.6	2.259	3.032	13.5	21.2
11 27	6 33.31	+10 21.3	1.505	2.378	14.0	20.3	11 27	6 37.28	+39 23.6	2.187	3.041	11.0	21.0
12 7	6 26.70	+10 51.1	1.449	2.380	10.0	20.0	12 7	6 29.23	+40 40.4	2.139	3.051	8.4	20.9
12 17	6 17.96	+11 36.8	1.418	2.382	6.1	19.8	12 17	6 19.04	+41 44.6	2.118	3.061	6.4	20.7
12 27	6 8.21	+12 36.8	1.413	2.385	4.6	19.7	12 27	6 7.81	+42 30.8	2.126	3.071	6.1	20.8
1 6	5 58.80	+13 47.4	1.436	2.389	7.5	19.9	1 6	5 56.87	+42 56.7	2.162	3.081	7.8	20.9
1 16	5 50.97	+15 4.1	1.485	2.393	11.5	20.2	1 16	5 47.48	+43 3.6	2.225	3.091	10.2	21.0
1 26	5 45.71	+16 22.7	1.558	2.398	15.3	20.4	1 26	5 40.63	+42 55.4	2.312	3.101	12.6	21.2
<b>484105</b>	2006 <i>RL</i> <sub>122</sub>		12 24.2 62°11		0°9/24.2 17		<b>461868</b>	2006 <i>HV</i> <sub>95</sub>		12 24.2 270°80		0°4/24.2 18	
11 17	6 40.85	+25 21.8	1.733	2.535	15.9	22.0	11 17	6 37.26	+24 14.7	2.381	3.170	12.4	22.1
11 27	6 35.95	+25 29.9	1.665	2.548	12.3	21.8	11 27	6 32.68	+24 23.0	2.283	3.159	9.7	21.9
12 7	6 28.25	+25 37.4	1.619	2.562	8.1	21.6	12 7	6 25.94	+24 31.6	2.208	3.148	6.4	21.7
12 17	6 18.53	+25 42.0	1.599	2.575	3.5	21.3	12 17	6 17.57	+24 39.1	2.161	3.137	2.8	21.4
12 27	6 8.02	+25 41.9	1.607	2.588	1.6	21.2	12 27	6 8.40	+24 44.1	2.144	3.126	1.2	21.3
1 6	5 58.09	+25 36.7	1.643	2.602	6.0	21.5	1 6	5 59.42	+24 45.9	2.157	3.115	4.9	21.6
1 16	5 49.94	+25 27.7	1.707	2.616	10.2	21.8	1 16	5 51.58	+24 44.9	2.199	3.103	8.5	21.8
1 26	5 44.42	+25 17.0	1.794	2.629	13.8	22.1	1 26	5 45.65	+24 42.2	2.266	3.092	11.6	21.9
<b>286299</b>	2001 <i>WK</i> <sub>11</sub>		12 24.2 66°05		0°3/24.2 18		<b>240179</b>	2002 <i>QH</i> <sub>43</sub>		12 24.2 119°33		0°7/24	

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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>517337</b>	2014 <i>JA</i> <sub>63</sub>		12 24.2 134°01'		0°2/24.2 18		<b>251282</b>	2006 <i>WJ</i> <sub>77</sub>		12 24.2 63°27'		0°9/24.2 18	
11 17	6 41.89	+20 4.2	2.137	2.920	13.9	21.9	11 17	6 39.33	+21 29.7	1.849	2.648	15.1	21.1
11 27	6 36.30	+20 42.7	2.058	2.931	10.8	21.7	11 27	6 34.59	+21 18.0	1.774	2.656	11.7	20.9
12 7	6 28.33	+21 26.3	2.003	2.941	7.1	21.5	12 7	6 27.29	+21 8.0	1.722	2.663	7.8	20.7
12 17	6 18.58	+22 12.3	1.976	2.951	3.0	21.2	12 17	6 18.15	+20 59.0	1.695	2.671	3.4	20.4
12 27	6 8.02	+22 57.7	1.979	2.961	1.2	21.1	12 27	6 8.24	+20 50.7	1.697	2.679	1.6	20.3
1 6	5 57.78	+23 40.2	2.013	2.970	5.3	21.4	1 6	5 58.80	+20 43.0	1.728	2.687	5.8	20.6
1 16	5 48.90	+24 18.4	2.076	2.978	9.0	21.7	1 16	5 50.92	+20 36.6	1.786	2.695	9.9	20.9
1 26	5 42.20	+24 52.3	2.165	2.986	12.2	21.9	1 26	5 45.43	+20 32.6	1.869	2.703	13.4	21.1
<b>107694</b>	2001 <i>FO</i> <sub>15</sub>		12 24.2 188°20'		2°8/24.1 18		<b>466961</b>	2016 <i>AT</i> <sub>183</sub>		12 24.2 352°87'		3°0/24.0 18	
11 17	6 45.44	+29 15.6	1.775	2.567	15.9	19.9	11 17	6 36.26	+16 18.8	2.297	3.083	13.0	21.2
11 27	6 39.83	+29 44.5	1.691	2.567	12.5	19.6	11 27	6 31.72	+15 34.7	2.211	3.082	10.2	21.0
12 7	6 31.05	+30 11.0	1.629	2.566	8.5	19.4	12 7	6 25.18	+14 53.5	2.148	3.081	7.1	20.8
12 17	6 19.85	+30 30.5	1.593	2.565	4.4	19.1	12 17	6 17.20	+14 16.9	2.113	3.081	4.0	20.6
12 27	6 7.51	+30 39.1	1.585	2.563	3.1	19.1	12 27	6 8.61	+13 46.2	2.107	3.080	3.2	20.6
1 6	5 55.58	+30 35.7	1.607	2.560	6.8	19.3	1 6	6 0.33	+13 22.6	2.131	3.080	5.8	20.7
1 16	5 45.50	+30 22.0	1.656	2.557	11.0	19.5	1 16	5 53.19	+13 6.8	2.183	3.079	9.0	20.9
1 26	5 38.33	+30 1.9	1.729	2.554	14.7	19.7	1 26	5 47.90	+12 58.7	2.260	3.079	11.9	21.1
<b>233281</b>	2006 <i>AO</i> <sub>77</sub>		12 24.2 244°18'		0°7/24.2 18		<b>494141</b>	2016 <i>CR</i> <sub>201</sub>		12 24.2 321°22'		2°6/24.5 18	
11 17	6 41.39	+21 28.8	1.928	2.720	14.9	21.3	11 17	6 35.52	+14 35.7	2.351	3.133	12.8	21.5
11 27	6 36.38	+21 25.6	1.829	2.707	11.6	21.1	11 27	6 31.19	+14 36.4	2.262	3.131	10.1	21.3
12 7	6 28.66	+21 24.6	1.753	2.693	7.8	20.8	12 7	6 24.88	+14 43.8	2.198	3.130	7.0	21.1
12 17	6 18.82	+21 24.5	1.704	2.679	3.4	20.5	12 17	6 17.10	+14 58.0	2.160	3.128	3.8	20.9
12 27	6 7.91	+21 24.3	1.683	2.665	1.5	20.4	12 27	6 8.65	+15 18.4	2.151	3.127	2.7	20.8
1 6	5 57.19	+21 23.5	1.692	2.650	6.0	20.6	1 6	6 0.41	+15 44.2	2.173	3.125	5.4	21.0
1 16	5 47.90	+21 22.6	1.729	2.634	10.3	20.9	1 16	5 53.24	+16 13.9	2.223	3.124	8.6	21.2
1 26	5 41.03	+21 22.5	1.790	2.619	14.1	21.1	1 26	5 47.85	+16 46.6	2.298	3.122	11.5	21.4
<b>165110</b>	2000 <i>HR</i> <sub>84</sub>		12 24.2 178°56'		0°4/24.2 18		<b>236003</b>	2005 <i>GA</i> <sub>24</sub>		12 24.2 52°86'		2°3/24.1 17	
11 17	6 36.43	+21 16.0	2.850	3.629	10.9	21.0	11 17	6 38.85	+29 18.6	2.143	2.936	13.5	20.5
11 27	6 31.56	+21 26.8	2.759	3.630	8.4	20.8	11 27	6 34.02	+29 40.4	2.073	2.949	10.5	20.3
12 7	6 24.95	+21 39.7	2.693	3.631	5.5	20.6	12 7	6 26.82	+29 59.4	2.025	2.963	7.1	20.1
12 17	6 17.08	+21 53.5	2.656	3.631	2.4	20.4	12 17	6 17.93	+30 12.6	2.004	2.976	3.6	19.9
12 27	6 8.63	+22 7.1	2.649	3.631	1.0	20.3	12 27	6 8.37	+30 17.7	2.013	2.990	2.5	19.9
1 6	6 0.38	+22 19.9	2.674	3.631	4.2	20.5	1 6	5 59.25	+30 14.3	2.051	3.004	5.5	20.1
1 16	5 53.07	+22 31.7	2.729	3.631	7.2	20.7	1 16	5 51.59	+30 3.7	2.116	3.018	8.9	20.3
1 26	5 47.31	+22 42.6	2.811	3.630	9.8	20.9	1 26	5 46.15	+29 48.2	2.207	3.033	11.9	20.5
<b>22253</b>	<i>Siv</i> <sub>ers</sub>		12 24.2 150°35'		7°2/23.9 18		<b>449607</b>	2014 <i>JA</i> <sub>69</sub>		12 24.2 168°86'		0°6/24.2 18	
11 17	6 49.59	+43 29.7	2.223	2.974	14.4	18.3	11 17	6 41.69	+25 0.1	2.254	3.038	13.2	22.2
11 27	6 42.85	+44 27.9	2.149	2.982	12.0	18.2	11 27	6 36.08	+25 6.7	2.168	3.042	10.3	22.1
12 7	6 32.92	+45 14.8	2.097	2.990	9.5	18.0	12 7	6 28.15	+25 12.9	2.107	3.045	6.8	21.8
12 17	6 20.60	+45 43.4	2.071	2.998	7.6	17.9	12 17	6 18.52	+25 16.7	2.072	3.048	3.0	21.6
12 27	6 7.24	+45 48.8	2.073	3.005	7.3	17.9	12 27	6 8.14	+25 16.6	2.068	3.050	1.3	21.5
1 6	5 54.45	+45 30.3	2.104	3.011	8.6	18.0	1 6	5 58.11	+25 12.3	2.095	3.052	5.1	21.8
1 16	5 43.64	+44 51.2	2.161	3.017	10.9	18.2	1 16	5 49.42	+25 4.7	2.151	3.053	8.8	22.0
1 26	5 35.85	+43 58.0	2.242	3.022	13.3	18.3	1 26	5 42.87	+24 55.3	2.232	3.054	11.9	22.2
<b>276378</b>	2002 <i>VV</i> <sub>115</sub>		12 24.2 85°22'		2°4/24.3 18		<b>416099</b>	2002 <i>PQ</i> <sub>23</sub>		12 24.2 76°94'		1°4/24.2 14 C	
11 17	6 46.58	+29 25.8	1.492	2.294	18.0	20.4	11 17	6 40.65	+28 2.8	2.347	3.131	12.8	21.6
11 27	6 40.80	+29 31.8	1.430	2.311	14.0	20.2	11 27	6 34.99	+28 7.3	2.284	3.157	9.8	21.4
12 7	6 31.61	+29 32.9	1.389	2.329	9.4	20.0	12 7	6 27.22	+28 9.0	2.245	3.182	6.5	21.3
12 17	6 20.00	+29 25.2	1.372	2.346	4.6	19.7	12 17	6 18.04	+28 5.9	2.234	3.208	3.0	21.1
12 27	6 7.52	+29 6.5	1.384	2.363	2.8	19.7	12 27	6 8.37	+27 57.0	2.253	3.233	1.7	21.0
1 6	5 55.93	+28 37.7	1.423	2.380	7.0	20.0	1 6	5 59.23	+27 42.4	2.302	3.258	4.9	21.3
1 16	5 46.65	+28 2.4	1.488	2.396	11.5	20.3	1 16	5 51.50	+27 23.7	2.381	3.282	8.1	21.5
1 26	5 40.63	+27 25.4	1.577	2.413	15.3	20.5	1 26	5 45.81	+27 2.9	2.485	3.307	10.9	21.8
<b>74607</b>	1999 <i>RJ</i> <sub>14</sub>		12 24.2 123°85'		1°4/24.1 18		<b>141764</b>	2002 <i>MG</i> <sub>2</sub>		12 24.2 147°05'		0°8/24.2 18	
11 17	6 43.91	+26 41.8	2.061	2.847	14.2	20.0	11 17	6 45.24	+21 56.5	1.852	2.639	15.6	21.2
11 27	6 37.89	+26 57.7	1.989	2.863	11.0	19.9	11 27	6 39.13	+21 46.5	1.775	2.650	12.1	21.0
12 7	6 29.34	+27 12.2	1.940	2.878	7.3	19.7	12 7	6 30.28	+21 37.6	1.721	2.660	8.0	20.8
12 17	6 18.98	+27 22.5	1.919	2.893	3.3	19.4	12 17	6 19.44	+21 28.8	1.694	2.669	3.5	20.5
12 27	6 7.90	+27 26.3	1.927	2.908	1.8	19.4	12 27	6 7.81	+21 19.2	1.696	2.678	1.5	20.4
1 6	5 57.34	+27 23.4	1.966	2.921	5.5	19.6	1 6	5 56.70	+21 9.1	1.729	2.686	6.0	20.7
1 16	5 48.37	+27 14.9	2.033	2.935	9.2	19.9	1 16	5 47.29	+20 59.4	1.789	2.693	10.1	21.0
1 26	5 41.81	+27 3.2	2.126	2.947	12.4	20.1	1 26	5 40.47	+20 51.6	1.875	2.699	13.7	21.2
<b>252310</b>	2001 <i>RJ</i> <sub>97</sub>		12 24.2 52°52'		3°1/24.1 17		<b>128151</b>	2003 <i>QZ</i> <sub>78</sub>		12 24.2 109°87'		6°5/23.9 18	
11 17	6 41.45	+30 57.8	1.845	2.641	15.3	21.1	11 17	6 48.88	+40 6.3	2.034	2.799	15.1	19.1
11 27	6 36.54	+31 19.2	1.768	2.645	12.0	20.9	11 27	6 42.31	+41 8.1	1.970	2.817	12.3	19.0
12 7	6 28.74	+31 36.3	1.713	2.649	8.2	20.7	12 7	6 32.56	+41 59.8	1.928	2.836	9.4	18.8
12 17	6 18.81	+31 44.9	1.683	2.654	4.5	20.4	12 17	6 20.46	+42 34.6	1.913	2.853	7.1	18.7
12 27	6 7.96	+31 42.3	1.682	2.658	3.3	20.4	12 27	6 7.42	+42 47.6	1.926	2.871	6.6	18.7
1 6	5 57.60	+31 28.1	1.710	2.662	6.5	20.6	1 6	5 55.03	+42 38.1	1.967	2.887	8.3	18.8
1 16	5 48.99	+31 4.4	1.764	2.667	10.3	20.8	1 16	5 44.69	+42 9.5	2.035	2.903	10.9	19.0
1 26	5 43.08	+30 35.1	1.843	2.672	13.8	21.1	1 26	5 37.38	+41 27.8	2.127	2.919	13.5	19.2
<b>420097</b>	2011 <i>EV</i> <sub>68</sub>		12 24.2 223°03'		4°2/23.7 18		<b>375551</b>	2008 <i>UG</i> <sub>271</sub>		12 24.2 174°88'			

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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>111073</b>	2001 <i>VU</i> <sub>51</sub>		12 24.2 275°84	2°2/24.2	18		<b>263753</b>	2008 <i>JM</i> <sub>34</sub>		12 24.2 126°72	3°0/24.6	18	
11 17	6 40.89	+29 32.9	1.979	2.773	14.5	19.4	11 17	6 37.61	+13 5.8	2.258	3.035	13.4	20.4
11 27	6 35.93	+29 39.4	1.894	2.770	11.3	19.2	11 27	6 32.81	+13 8.5	2.176	3.041	10.6	20.2
12 7	6 28.29	+29 42.0	1.830	2.768	7.7	19.0	12 7	6 25.96	+13 19.3	2.118	3.047	7.4	20.0
12 17	6 18.65	+29 37.8	1.793	2.766	3.8	18.7	12 17	6 17.60	+13 38.2	2.087	3.053	4.3	19.8
12 27	6 8.12	+29 24.8	1.785	2.764	2.5	18.6	12 27	6 8.57	+14 4.7	2.085	3.059	3.2	19.7
1 6	5 58.00	+29 3.1	1.806	2.761	6.0	18.9	1 6	5 59.83	+14 37.3	2.114	3.064	5.7	19.9
1 16	5 49.45	+28 34.8	1.855	2.759	9.8	19.1	1 16	5 52.24	+15 14.5	2.171	3.070	8.9	20.1
1 26	5 43.39	+28 3.2	1.928	2.757	13.2	19.3	1 26	5 46.53	+15 54.7	2.253	3.075	11.8	20.3
<b>399240</b>	2014 <i>HO</i> <sub>10</sub>		12 24.2 137°95	2°9/24.3	18		<b>255831</b>	2006 <i>SO</i> <sub>90</sub>		12 24.2 238°68	0°1/24.2	17	
11 17	6 40.12	+15 37.7	2.015	2.799	14.6	22.0	11 17	6 40.16	+22 58.4	2.212	2.999	13.3	21.8
11 27	6 34.94	+15 18.6	1.937	2.807	11.5	21.8	11 27	6 35.10	+23 0.1	2.112	2.987	10.4	21.6
12 7	6 27.43	+15 5.3	1.881	2.814	7.9	21.6	12 7	6 27.66	+23 2.6	2.036	2.975	6.9	21.3
12 17	6 18.23	+14 58.2	1.853	2.822	4.3	21.4	12 17	6 18.40	+23 4.7	1.987	2.962	3.0	21.1
12 27	6 8.31	+14 57.7	1.853	2.829	3.2	21.3	12 27	6 8.24	+23 5.2	1.967	2.949	1.2	20.9
1 6	5 58.78	+15 3.3	1.883	2.835	6.1	21.5	1 6	5 58.28	+23 3.5	1.978	2.936	5.3	21.2
1 16	5 50.64	+15 14.8	1.941	2.841	9.7	21.7	1 16	5 49.55	+23 0.1	2.018	2.922	9.1	21.4
1 26	5 44.67	+15 31.3	2.024	2.847	12.9	22.0	1 26	5 42.94	+22 56.3	2.083	2.908	12.5	21.6
<b>382713</b>	2002 <i>XB</i> <sub>1</sub>		12 24.2 37°52	1°1/24.4	16		<b>470964</b>	2009 <i>QU</i> <sub>33</sub>		12 24.2 43°48	1°5/24.2	16	
11 17	6 41.20	+18 17.2	1.040	1.873	22.0	20.4	11 17	6 43.29	+26 2.5	1.131	1.959	20.9	21.1
11 27	6 37.45	+18 52.1	0.996	1.895	17.0	20.2	11 27	6 38.99	+26 13.7	1.082	1.979	16.2	20.8
12 7	6 29.80	+19 37.7	0.971	1.919	11.2	19.9	12 7	6 30.78	+26 24.1	1.052	1.999	10.7	20.6
12 17	6 19.35	+20 30.3	0.967	1.944	4.9	19.7	12 17	6 19.77	+26 29.6	1.044	2.021	4.7	20.3
12 27	6 7.91	+21 24.5	0.988	1.970	2.0	19.6	12 27	6 7.80	+26 27.3	1.061	2.043	2.3	20.2
1 6	5 57.49	+22 15.7	1.033	1.996	7.9	20.0	1 6	5 56.91	+26 17.4	1.104	2.065	7.8	20.6
1 16	5 49.71	+23 1.4	1.102	2.024	13.3	20.4	1 16	5 48.71	+26 2.3	1.170	2.089	13.0	21.0
1 26	5 45.59	+23 41.4	1.192	2.052	17.7	20.8	1 26	5 44.20	+25 45.8	1.258	2.112	17.3	21.3
<b>34242</b>	2000 <i>QD</i> <sub>100</sub>		12 24.2 212°12	1°1/24.1	18 R		<b>347825</b>	2002 <i>PD</i> <sub>3</sub>		12 24.2 51°67	3°3/24.0	18	
11 17	6 44.72	+24 30.4	1.586	2.387	17.1	18.9	11 17	6 41.45	+18 30.8	1.535	2.339	17.5	19.7
11 27	6 39.60	+24 56.1	1.500	2.383	13.4	18.6	11 27	6 36.38	+17 34.1	1.477	2.359	13.6	19.5
12 7	6 31.13	+25 24.0	1.436	2.378	9.0	18.4	12 7	6 28.49	+16 40.5	1.441	2.380	9.2	19.3
12 17	6 20.02	+25 50.5	1.397	2.373	4.0	18.1	12 17	6 18.67	+15 52.2	1.429	2.401	4.9	19.1
12 27	6 7.58	+26 11.7	1.386	2.367	1.9	17.9	12 27	6 8.23	+15 11.3	1.446	2.422	3.6	19.1
1 6	5 55.47	+26 25.5	1.403	2.361	6.9	18.2	1 6	5 58.55	+14 39.8	1.490	2.444	7.2	19.3
1 16	5 45.26	+26 32.4	1.447	2.355	11.8	18.5	1 16	5 50.80	+14 18.7	1.561	2.465	11.3	19.6
1 26	5 38.12	+26 34.5	1.514	2.348	16.0	18.7	1 26	5 45.75	+14 7.8	1.654	2.487	14.9	19.9
<b>448880</b>	2011 <i>UN</i> <sub>240</sub>		12 24.2 169°64	3°6/23.9	18		<b>27942</b>	1997 <i>LL</i> <sub>9</sub>		12 24.2 183°18	1°4/24.3	18	
11 17	6 43.37	+32 3.5	2.124	2.907	14.0	21.6	11 17	6 42.86	+19 7.7	2.018	2.801	14.6	20.6
11 27	6 37.82	+32 45.6	2.041	2.909	11.0	21.5	11 27	6 37.22	+19 6.0	1.930	2.802	11.4	20.4
12 7	6 29.54	+33 23.9	1.981	2.912	7.7	21.3	12 7	6 29.05	+19 8.1	1.866	2.803	7.6	20.1
12 17	6 19.21	+33 54.0	1.948	2.914	4.6	21.1	12 17	6 18.99	+19 13.3	1.828	2.802	3.5	19.9
12 27	6 7.92	+34 11.9	1.945	2.915	3.8	21.0	12 27	6 8.05	+19 20.6	1.820	2.801	1.9	19.8
1 6	5 56.98	+34 16.4	1.971	2.916	6.4	21.2	1 6	5 57.42	+19 29.2	1.843	2.799	5.8	20.0
1 16	5 47.59	+34 8.6	2.024	2.917	9.8	21.4	1 16	5 48.22	+19 39.1	1.894	2.796	9.8	20.3
1 26	5 40.69	+33 51.9	2.103	2.917	12.8	21.6	1 26	5 41.32	+19 50.5	1.970	2.793	13.2	20.5
<b>129581</b>	1997 <i>SB</i> <sub>6</sub>		12 24.2 86°27	4°6/24.1	17		<b>464427</b>	2016 <i>BC</i> <sub>31</sub>		12 24.2 348°81	6°6/23.6	16	
11 17	6 41.82	+36 43.1	2.319	3.094	13.2	20.0	11 17	6 38.71	+36 49.4	1.657	2.459	16.5	20.5
11 27	6 36.37	+37 18.2	2.246	3.105	10.5	19.9	11 27	6 35.29	+37 53.0	1.577	2.451	13.4	20.3
12 7	6 28.42	+37 46.0	2.196	3.116	7.7	19.7	12 7	6 28.46	+38 49.9	1.518	2.443	10.1	20.1
12 17	6 18.66	+38 2.2	2.173	3.127	5.3	19.6	12 17	6 18.93	+39 33.0	1.483	2.437	7.3	19.9
12 27	6 8.16	+38 3.8	2.178	3.138	4.7	19.6	12 27	6 8.05	+39 55.9	1.474	2.432	6.8	19.9
1 6	5 58.13	+37 50.4	2.213	3.149	6.5	19.7	1 6	5 57.53	+39 56.4	1.491	2.427	9.1	20.0
1 16	5 49.64	+37 24.3	2.276	3.160	9.2	19.9	1 16	5 48.98	+39 36.5	1.533	2.424	12.4	20.2
1 26	5 43.49	+36 49.3	2.363	3.171	11.8	20.1	1 26	5 43.61	+39 1.9	1.596	2.421	15.7	20.4
<b>236113</b>	2005 <i>SC</i> <sub>21</sub>		12 24.2 95°90	3°4/24.0	18		<b>132488</b>	2002 <i>JW</i> <sub>27</sub>		12 24.2 221°60	3°2/23.8	18	
11 17	6 48.69	+30 18.5	1.718	2.506	16.5	20.9	11 17	6 43.88	+30 27.0	2.195	2.975	13.6	21.1
11 27	6 42.09	+31 2.7	1.661	2.533	12.9	20.7	11 27	6 38.28	+31 13.9	2.098	2.966	10.8	20.8
12 7	6 32.33	+31 43.1	1.625	2.559	8.8	20.5	12 7	6 29.94	+31 59.3	2.024	2.956	7.5	20.6
12 17	6 20.34	+32 14.0	1.616	2.585	4.8	20.3	12 17	6 19.45	+32 38.5	1.978	2.946	4.3	20.4
12 27	6 7.54	+32 31.2	1.636	2.610	3.7	20.3	12 27	6 7.85	+33 7.3	1.962	2.935	3.5	20.3
1 6	5 55.52	+32 34.0	1.685	2.635	6.9	20.6	1 6	5 56.39	+33 23.5	1.976	2.923	6.3	20.5
1 16	5 45.63	+32 24.6	1.761	2.659	10.7	20.8	1 16	5 46.33	+33 27.7	2.018	2.911	9.8	20.7
1 26	5 38.79	+32 7.5	1.862	2.682	14.0	21.1	1 26	5 38.67	+33 22.4	2.086	2.898	13.0	20.9
<b>245772</b>	2006 <i>FM</i> <sub>50</sub>		12 24.2 161°33	1°0/24.4	18		<b>218143</b>	2002 <i>RC</i> <sub>60</sub>		12 24.2 47°50	3°3/24.2	18	
11 17	6 38.25	+17 29.0	2.717	3.490	11.5	20.5	11 17	6 41.73	+18 5.9	1.204	2.025	20.3	19.3
11 27	6 33.06	+18 2.6	2.628	3.494	8.9	20.3	11 27	6 37.37	+17 30.4	1.151	2.042	15.9	19.1
12 7	6 26.02	+18 41.8	2.563	3.498	6.0	20.1	12 7	6 29.53	+17 1.2	1.117	2.060	10.7	18.9
12 17	6 17.61	+19 24.9	2.528	3.501	2.7	19.9	12 17	6 19.21	+16 39.1	1.105	2.079	5.4	18.6
12 27	6 8.55	+20 10.1	2.523	3.504	1.3	19.8	12 27	6 8.03	+16 25.3	1.119	2.098	3.7	18.6
1 6	5 59.67	+20 55.4	2.551	3.507	4.4	20.0	1 6	5 57.74	+16 19.8	1.159	2.117	8.1	18.9
1 16	5 51.75	+21 39.3	2.609	3.510	7.5	20.2	1 16	5 49.80	+16 22.6	1.223	2.137	12.9	19.2
1 26	5 45.45	+22 21.1	2.694	3.512	10.2	20.4	1 26	5 45.15	+16 32.9	1.309	2.157	17.1	19.6
<b>85439</b>	1997 <i>EP</i> <sub>40</sub>		12 24.2 303°81	2°8/23.9	18		<b>66626</b>	1999 <i>RJ</i> <sub>205</sub>		12 24.2 165°38	3°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>113714</b>	2002 <i>TK</i> <sub>133</sub>		12 24.2 331°18	0°6/24.2 18			<b>27326</b>	Jimobrien		12 24.2 207°54	2°7/24.4 18		
11 17	6 36.74	+25 29.5	2.073	2.872	13.7	19.5	11 17	6 38.96	+15 14.5	2.318	3.095	13.1	19.5
11 27	6 32.61	+25 28.7	1.982	2.864	10.7	19.2	11 27	6 33.91	+15 3.2	2.224	3.090	10.3	19.3
12 7	6 26.07	+25 26.8	1.914	2.856	7.1	19.0	12 7	6 26.74	+14 57.3	2.153	3.085	7.2	19.1
12 17	6 17.74	+25 22.4	1.872	2.848	3.1	18.7	12 17	6 17.99	+14 57.4	2.110	3.079	3.9	18.9
12 27	6 8.56	+25 14.3	1.859	2.841	1.4	18.6	12 27	6 8.49	+15 3.3	2.097	3.072	2.9	18.8
1 6	5 59.67	+25 2.4	1.875	2.834	5.4	18.9	1 6	5 59.20	+15 14.7	2.114	3.065	5.6	19.0
1 16	5 52.11	+24 47.8	1.919	2.827	9.3	19.1	1 16	5 51.04	+15 30.9	2.160	3.058	9.0	19.2
1 26	5 46.73	+24 32.2	1.987	2.821	12.7	19.3	1 26	5 44.76	+15 51.3	2.232	3.050	12.0	19.4
<b>98534</b>	2000 <i>VC</i> <sub>46</sub>		12 24.2 176°32	5°9/23.7 18			<b>451815</b>	2013 <i>HO</i> <sub>61</sub>		12 24.2 79°37	0°8/24.2 17		
11 17	6 48.37	+39 7.0	2.281	3.041	13.8	20.0	11 17	6 39.57	+21 42.6	1.945	2.740	14.6	21.8
11 27	6 41.81	+40 7.5	2.198	3.044	11.3	19.8	11 27	6 34.68	+21 32.5	1.870	2.749	11.3	21.6
12 7	6 32.27	+41 0.4	2.138	3.047	8.6	19.7	12 7	6 27.34	+21 23.8	1.817	2.758	7.5	21.3
12 17	6 20.44	+41 39.2	2.106	3.048	6.4	19.5	12 17	6 18.24	+21 15.9	1.791	2.767	3.3	21.1
12 27	6 7.51	+41 58.9	2.102	3.049	6.0	19.5	12 27	6 8.42	+21 8.2	1.794	2.776	1.5	21.0
1 6	5 54.93	+41 58.0	2.127	3.049	7.7	19.6	1 6	5 59.06	+21 0.8	1.827	2.785	5.6	21.3
1 16	5 44.06	+41 38.7	2.181	3.048	10.3	19.8	1 16	5 51.18	+20 54.3	1.887	2.794	9.5	21.5
1 26	5 35.91	+41 6.0	2.259	3.046	12.9	19.9	1 26	5 45.60	+20 49.7	1.972	2.803	12.9	21.8
<b>273491</b>	2007 <i>AT</i> <sub>9</sub>		12 24.2 335°84	0°4/24.2 18			<b>416788</b>	2005 <i>GT</i> <sub>66</sub>		12 24.2 262°16	1°9/24.3 16		
11 17	6 38.67	+22 2.9	1.264	2.090	19.2	20.7	11 17	6 35.76	+17 30.4	2.586	3.367	11.8	22.1
11 27	6 35.62	+22 32.6	1.185	2.081	15.1	20.4	11 27	6 31.30	+17 18.2	2.485	3.355	9.2	21.9
12 7	6 28.91	+23 8.9	1.125	2.073	10.1	20.1	12 7	6 24.96	+17 9.3	2.408	3.343	6.3	21.7
12 17	6 19.21	+23 48.6	1.088	2.066	4.4	19.7	12 17	6 17.22	+17 4.1	2.359	3.331	3.2	21.5
12 27	6 7.96	+24 27.0	1.077	2.059	1.8	19.5	12 27	6 8.80	+17 2.4	2.340	3.318	2.1	21.4
1 6	5 57.03	+25 0.8	1.091	2.053	7.7	19.9	1 6	6 0.53	+17 4.3	2.351	3.305	4.9	21.6
1 16	5 48.20	+25 28.5	1.129	2.048	13.3	20.2	1 16	5 53.23	+17 9.5	2.392	3.293	8.1	21.7
1 26	5 42.84	+25 51.0	1.188	2.043	18.0	20.5	1 26	5 47.57	+17 18.0	2.458	3.280	11.0	21.9
<b>265916</b>	2006 <i>BP</i> <sub>91</sub>		12 24.2 83°34	0°1/24.2 18			<b>51605</b>	2001 <i>HD</i> <sub>29</sub>		12 24.2 123°39	0°5/24.2 18		
11 17	6 38.71	+23 30.5	2.212	3.002	13.2	21.0	11 17	6 41.49	+21 48.8	2.189	2.973	13.6	20.1
11 27	6 33.74	+23 32.0	2.138	3.015	10.2	20.8	11 27	6 35.84	+21 48.4	2.114	2.988	10.5	20.0
12 7	6 26.58	+23 34.0	2.087	3.027	6.7	20.6	12 7	6 27.95	+21 49.5	2.064	3.002	6.9	19.8
12 17	6 17.87	+23 35.1	2.063	3.040	2.9	20.4	12 17	6 18.46	+21 51.0	2.041	3.016	3.0	19.6
12 27	6 8.55	+23 34.2	2.070	3.052	1.1	20.3	12 27	6 8.35	+21 51.9	2.048	3.030	1.2	19.4
1 6	5 59.63	+23 31.3	2.106	3.064	5.0	20.6	1 6	5 58.67	+21 51.8	2.085	3.043	5.1	19.7
1 16	5 52.04	+23 26.8	2.170	3.076	8.5	20.8	1 16	5 50.38	+21 51.2	2.152	3.055	8.7	20.0
1 26	5 46.50	+23 21.9	2.261	3.088	11.6	21.0	1 26	5 44.20	+21 51.0	2.244	3.067	11.8	20.2
<b>46104</b>	2001 <i>FR</i> <sub>12</sub>		12 24.2 87°80	5°8/24.8 18			<b>51735</b>	2001 <i>KL</i> <sub>47</sub>		12 24.2 202°70	1°4/24.1 18		
11 17	6 35.64	+6 5.5	2.275	3.037	13.8	19.0	11 17	6 41.27	+21 47.1	1.958	2.749	14.7	19.2
11 27	6 31.23	+5 34.0	2.197	3.042	11.3	18.8	11 27	6 36.03	+21 9.4	1.871	2.748	11.4	19.0
12 7	6 24.88	+5 13.6	2.142	3.048	8.7	18.7	12 7	6 28.27	+20 31.1	1.807	2.746	7.6	18.7
12 17	6 17.15	+5 6.7	2.112	3.054	6.5	18.5	12 17	6 18.66	+19 52.4	1.770	2.745	3.5	18.5
12 27	6 8.82	+5 14.4	2.110	3.059	5.8	18.5	12 27	6 8.26	+19 14.3	1.762	2.743	1.9	18.4
1 6	6 0.77	+5 36.3	2.137	3.065	7.3	18.6	1 6	5 58.28	+18 38.4	1.784	2.741	5.9	18.6
1 16	5 53.83	+6 10.7	2.192	3.071	9.8	18.8	1 16	5 49.79	+18 6.8	1.835	2.739	9.9	18.8
1 26	5 48.65	+6 54.8	2.271	3.076	12.3	19.0	1 26	5 43.64	+17 40.9	1.910	2.736	13.4	19.1
<b>315188</b>	2007 <i>PZ</i> <sub>13</sub>		12 24.2 175°60	3°6/24.9 18			<b>23557</b>	1994 <i>PU</i> <sub>26</sub>		12 24.2 127°67	0°7/24.3 18		
11 17	6 35.87	+8 30.5	3.101	3.851	10.7	21.0	11 17	6 41.70	+20 48.3	2.097	2.883	14.0	20.0
11 27	6 30.93	+8 32.2	3.010	3.854	8.6	20.8	11 27	6 36.13	+20 54.5	2.022	2.896	10.9	19.8
12 7	6 24.48	+8 42.0	2.943	3.856	6.3	20.7	12 7	6 28.21	+21 3.4	1.970	2.909	7.2	19.6
12 17	6 16.94	+9 0.5	2.905	3.857	4.3	20.5	12 17	6 18.60	+21 13.8	1.946	2.921	3.1	19.4
12 27	6 8.90	+9 27.6	2.897	3.858	3.6	20.5	12 27	6 8.30	+21 24.2	1.951	2.933	1.3	19.3
1 6	6 1.03	+10 2.4	2.921	3.858	5.1	20.6	1 6	5 58.41	+21 33.9	1.987	2.944	5.3	19.6
1 16	5 53.94	+10 43.4	2.974	3.858	7.3	20.7	1 16	5 49.95	+21 42.9	2.051	2.955	9.0	19.8
1 26	5 48.19	+11 28.9	3.055	3.858	9.5	20.9	1 26	5 43.68	+21 51.6	2.141	2.965	12.3	20.0
<b>114233</b>	2002 <i>VE</i> <sub>124</sub>		12 24.2 99°58	1°7/24.3 18			<b>449757</b>	2014 <i>OT</i> <sub>38</sub>		12 24.2 221°64	1°4/24.2 17		
11 17	6 45.62	+28 53.9	1.536	2.338	17.6	19.8	11 17	6 41.11	+27 29.4	2.127	2.915	13.7	22.2
11 27	6 40.12	+28 39.6	1.464	2.345	13.7	19.6	11 27	6 35.95	+27 37.3	2.035	2.910	10.7	21.9
12 7	6 31.27	+28 19.8	1.412	2.353	9.2	19.3	12 7	6 28.27	+27 43.0	1.967	2.905	7.2	21.7
12 17	6 19.98	+27 51.6	1.385	2.360	4.3	19.1	12 17	6 18.70	+27 44.1	1.925	2.900	3.4	21.5
12 27	6 7.74	+27 14.1	1.386	2.367	2.2	18.9	12 27	6 8.24	+27 38.8	1.913	2.894	1.9	21.3
1 6	5 56.25	+26 29.0	1.415	2.373	6.8	19.2	1 6	5 58.10	+27 26.9	1.931	2.888	5.5	21.6
1 16	5 46.94	+25 40.5	1.471	2.380	11.5	19.5	1 16	5 49.36	+27 9.5	1.978	2.881	9.3	21.8
1 26	5 40.79	+24 53.3	1.550	2.387	15.5	19.8	1 26	5 42.93	+26 49.3	2.049	2.875	12.7	22.0
<b>88262</b>	2001 <i>HM</i> <sub>35</sub>		12 24.2 173°43	0°0/24.2 18			<b>474233</b>	2001 <i>QV</i> <sub>122</sub>		12 24.2 86°45	3°3/24.7 18		
11 17	6 37.43	+22 54.9	2.741	3.522	11.2	20.5	11 17	6 44.25	+13 50.1	1.619	2.406	17.4	21.4
11 27	6 32.43	+23 2.8	2.652	3.524	8.7	20.3	11 27	6 38.44	+13 54.3	1.562	2.433	13.7	21.2
12 7	6 25.61	+23 11.5	2.588	3.526	5.7	20.2	12 7	6 29.84	+14 8.6	1.526	2.459	9.4	21.0
12 17	6 17.45	+23 20.0	2.551	3.527	2.4	19.9	12 17	6 19.30	+14 32.6	1.516	2.485	5.1	20.8
12 27	6 8.70	+23 27.1	2.546	3.528	0.9	19.8	12 27	6 8.07	+15 4.7	1.534	2.510	3.5	20.8
1 6	6 0.19	+23 32.3	2.572	3.529	4.3	20.1	1 6	5 57.51	+15 42.5	1.581	2.535	6.8	21.0
1 16	5 52.68	+23 35.8	2.627	3.529	7.4	20.3	1 16	5 48.81	+16 23.7	1.656	2.559	10.8	21.3
1 26	5 46.83	+23 38.1	2.709	3.529	10.1	20.5	1 26	5 42.79	+17 6.6	1.754	2.583	14.3	21.6
<b>397371</b>	2006 <i>UX</i> <sub>247</sub>		12 24.2 108°99	0°2/24.2 18			<b>488279</b>	2016 <i>TB</i> <sub>82</sub>		12 24.2 35°60	2°6/24.2 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>218125</b>	2002 <i>PZ</i> <sub>125</sub>		12 24.2	85°11'	3°6'/24.2	18	<b>20978</b>	1981 <i>EW</i> <sub>10</sub>		12 24.2	244°88'	3°1'/24.3	18
11 17	6 48.67	+31 4.8	1.484	2.283	18.2	20.5	11 17	6 45.65	+30 46.2	1.622	2.420	17.0	19.9
11 27	6 42.51	+31 32.2	1.428	2.306	14.3	20.3	11 27	6 40.49	+31 0.6	1.532	2.410	13.5	19.6
12 7	6 32.82	+31 54.1	1.392	2.329	9.7	20.1	12 7	6 31.84	+31 10.2	1.462	2.399	9.3	19.3
12 17	6 20.63	+32 4.8	1.382	2.352	5.3	19.9	12 17	6 20.43	+31 10.2	1.417	2.389	4.9	19.1
12 27	6 7.58	+32 0.8	1.399	2.374	3.9	19.9	12 27	6 7.67	+30 56.9	1.400	2.377	3.5	18.9
1 6	5 55.48	+31 42.4	1.443	2.396	7.5	20.1	1 6	5 55.29	+30 29.9	1.411	2.366	7.4	19.2
1 16	5 45.83	+31 13.2	1.514	2.418	11.7	20.4	1 16	5 44.92	+29 52.4	1.449	2.354	12.0	19.4
1 26	5 39.57	+30 38.8	1.608	2.439	15.3	20.7	1 26	5 37.77	+29 9.6	1.510	2.342	16.1	19.6
<b>50278</b>	2000 <i>CZ</i> <sub>12</sub>		12 24.2	91°94'	0°3'/24.2	18	<b>517406</b>	2014 <i>LA</i> <sub>18</sub>		12 24.2	166°62'	0°9'/24.3	18
11 17	6 40.35	+22 38.5	1.827	2.625	15.3	19.6	11 17	6 40.60	+20 17.7	2.237	3.020	13.3	22.5
11 27	6 35.55	+22 37.1	1.748	2.629	11.9	19.4	11 27	6 35.26	+20 22.4	2.151	3.024	10.4	22.3
12 7	6 28.08	+22 37.1	1.691	2.633	7.9	19.2	12 7	6 27.67	+20 30.0	2.090	3.028	6.9	22.1
12 17	6 18.63	+22 37.0	1.661	2.637	3.4	18.9	12 17	6 18.44	+20 39.5	2.056	3.031	3.1	21.9
12 27	6 8.31	+22 35.8	1.659	2.641	1.3	18.8	12 27	6 8.47	+20 49.8	2.052	3.033	1.4	21.8
1 6	5 58.42	+22 33.0	1.685	2.644	5.9	19.1	1 6	5 58.80	+21 0.0	2.078	3.035	5.1	22.0
1 16	5 50.12	+22 29.3	1.739	2.648	10.1	19.4	1 16	5 50.40	+21 10.0	2.134	3.037	8.8	22.3
1 26	5 44.30	+22 26.1	1.818	2.652	13.7	19.6	1 26	5 44.04	+21 20.1	2.215	3.038	12.0	22.5
<b>264638</b>	2001 <i>WC</i> <sub>69</sub>		12 24.2	59°16'	1°7'/24.1	18	<b>461615</b>	2005 <i>AA</i> <sub>28</sub>		12 24.2	274°55'	12°3'/28.2	18
11 17	6 41.14	+26 8.5	1.768	2.569	15.7	20.9	11 17	6 45.27	- 5 50.4	1.201	1.953	24.2	20.7
11 27	6 36.24	+26 42.6	1.703	2.585	12.1	20.7	11 27	6 40.74	- 5 42.4	1.121	1.946	21.1	20.4
12 7	6 28.54	+27 16.8	1.660	2.602	8.0	20.5	12 7	6 32.37	- 4 55.9	1.056	1.940	17.5	20.2
12 17	6 18.81	+27 47.3	1.644	2.618	3.7	20.3	12 17	6 20.82	- 3 22.9	1.011	1.933	14.1	20.0
12 27	6 8.26	+28 10.9	1.655	2.635	2.2	20.3	12 27	6 7.51	- 1 1.5	0.989	1.927	12.3	19.8
1 6	5 58.24	+28 26.0	1.696	2.652	6.1	20.5	1 6	5 54.37	+ 2 0.5	0.992	1.920	13.5	19.9
1 16	5 49.98	+28 33.3	1.763	2.670	10.1	20.8	1 16	5 43.29	+ 5 27.9	1.021	1.914	17.0	20.1
1 26	5 44.34	+28 34.8	1.855	2.687	13.5	21.1	1 26	5 35.76	+ 9 3.0	1.073	1.907	21.0	20.3
<b>453866</b>	2011 <i>UB</i> <sub>102</sub>		12 24.2	94°01'	2°8'/24.1	17	<b>63977</b>	2001 <i>SQ</i> <sub>79</sub>		12 24.2	326°13'	0°1'/24.2	18
11 17	6 43.61	+29 47.7	1.904	2.694	15.1	22.1	11 17	6 36.56	+24 0.8	2.121	2.918	13.5	18.8
11 27	6 38.02	+30 19.2	1.836	2.711	11.8	21.9	11 27	6 32.43	+23 56.6	2.028	2.909	10.5	18.6
12 7	6 29.65	+30 47.4	1.791	2.727	8.0	21.7	12 7	6 25.97	+23 52.3	1.959	2.900	7.0	18.4
12 17	6 19.27	+31 8.2	1.772	2.742	4.2	21.5	12 17	6 17.77	+23 46.7	1.916	2.892	3.0	18.1
12 27	6 8.09	+31 18.6	1.782	2.758	3.1	21.5	12 27	6 8.75	+23 39.0	1.902	2.884	1.2	18.0
1 6	5 57.46	+31 17.7	1.821	2.773	6.3	21.7	1 6	5 59.99	+23 29.2	1.917	2.876	5.3	18.2
1 16	5 48.59	+31 7.3	1.888	2.788	9.9	21.9	1 16	5 52.50	+23 18.0	1.960	2.869	9.1	18.5
1 26	5 42.35	+30 50.6	1.979	2.803	13.1	22.2	1 26	5 47.11	+23 6.9	2.028	2.862	12.5	18.7
<b>2989</b>	<i>Imago</i>		12 24.2	110°57'	0°7'/24.2	18 R	<b>331191</b>	2011 <i>AZ</i> <sub>60</sub>		12 24.2	351°34'	1°4'/24.4	17
11 17	6 46.33	+23 43.7	1.580	2.378	17.3	16.8	11 17	6 36.97	+17 49.6	1.915	2.712	14.7	20.7
11 27	6 40.48	+24 7.1	1.515	2.395	13.4	16.6	11 27	6 32.92	+18 8.4	1.830	2.710	11.5	20.5
12 7	6 31.45	+24 32.4	1.471	2.412	8.9	16.3	12 7	6 26.39	+18 34.0	1.768	2.708	7.7	20.3
12 17	6 20.09	+24 56.2	1.452	2.428	3.8	16.1	12 17	6 17.98	+19 5.3	1.731	2.706	3.6	20.0
12 27	6 7.79	+25 15.1	1.462	2.444	1.6	16.0	12 27	6 8.67	+19 40.4	1.723	2.704	1.8	19.9
1 6	5 56.16	+25 27.7	1.501	2.459	6.5	16.3	1 6	5 59.61	+20 17.2	1.744	2.703	5.7	20.1
1 16	5 46.58	+25 34.7	1.567	2.474	11.1	16.6	1 16	5 51.90	+20 53.9	1.793	2.703	9.8	20.4
1 26	5 40.00	+25 38.1	1.656	2.488	14.9	16.9	1 26	5 46.41	+21 29.9	1.866	2.702	13.3	20.6
<b>475288</b>	2005 <i>WO</i> <sub>205</sub>		12 24.2	342°69'	0°5'/24.2	18	<b>81489</b>	2000 <i>GM</i> <sub>155</sub>		12 24.2	34°46'	1°7'/24.2	18
11 17	6 38.42	+22 22.2	1.305	2.129	18.8	21.5	11 17	6 40.46	+26 51.5	1.719	2.523	15.9	19.7
11 27	6 35.31	+22 50.5	1.227	2.122	14.8	21.2	11 27	6 35.95	+27 9.8	1.643	2.527	12.4	19.4
12 7	6 28.64	+23 24.6	1.168	2.116	9.8	20.9	12 7	6 28.52	+27 27.2	1.589	2.531	8.3	19.2
12 17	6 19.12	+24 1.1	1.132	2.110	4.3	20.6	12 17	6 18.91	+27 40.3	1.561	2.536	3.8	18.9
12 27	6 8.14	+24 36.0	1.123	2.105	1.7	20.4	12 27	6 8.33	+27 46.5	1.560	2.541	2.2	18.8
1 6	5 57.51	+25 6.1	1.138	2.101	7.5	20.7	1 6	5 58.23	+27 45.1	1.588	2.546	6.3	19.1
1 16	5 48.93	+25 30.3	1.179	2.097	12.9	21.0	1 16	5 49.87	+27 37.1	1.642	2.551	10.5	19.4
1 26	5 43.70	+25 49.6	1.240	2.095	17.5	21.3	1 26	5 44.23	+27 25.2	1.720	2.556	14.2	19.6
<b>245860</b>	2006 <i>OB</i> <sub>14</sub>		12 24.2	112°80'	5°5'/25.0	18	<b>150780</b>	2001 <i>QM</i> <sub>272</sub>		12 24.2	123°70'	0°9'/24.4	18
11 17	6 39.49	+ 7 0.1	2.076	2.838	14.9	20.7	11 17	6 40.11	+19 2.3	2.025	2.814	14.3	20.3
11 27	6 34.32	+ 6 44.7	2.005	2.853	12.1	20.5	11 27	6 35.13	+19 26.5	1.945	2.820	11.2	20.1
12 7	6 26.98	+ 6 41.8	1.956	2.868	9.1	20.4	12 7	6 27.73	+19 56.2	1.887	2.826	7.4	19.9
12 17	6 18.10	+ 6 52.8	1.933	2.882	6.4	20.2	12 17	6 18.52	+20 29.7	1.857	2.832	3.3	19.6
12 27	6 8.59	+ 7 18.1	1.939	2.896	5.5	20.2	12 27	6 8.48	+21 4.7	1.856	2.838	1.4	19.5
1 6	5 59.47	+ 7 56.3	1.974	2.909	7.3	20.3	1 6	5 58.75	+21 39.2	1.885	2.843	5.5	19.8
1 16	5 51.64	+ 8 44.8	2.036	2.922	10.1	20.5	1 16	5 50.39	+22 11.9	1.943	2.849	9.3	20.0
1 26	5 45.84	+ 9 40.4	2.124	2.935	12.8	20.7	1 26	5 44.25	+22 42.5	2.026	2.854	12.7	20.3
<b>419365</b>	2009 <i>XF</i> <sub>1</sub>		12 24.2	339°43'	3°9'/23.3	17	<b>469492</b>	2002 <i>VV</i> <sub>143</sub>		12 24.2	35°34'	1°9'/24.1	18
11 17	6 39.01	+28 50.5	1.870	2.671	14.9	20.0	11 17	6 41.56	+24 53.2	1.067	1.902	21.4	20.7
11 27	6 35.04	+30 13.1	1.781	2.661	11.8	19.8	11 27	6 37.98	+25 31.0	1.020	1.920	16.6	20.4
12 7	6 28.14	+31 38.3	1.715	2.652	8.2	19.6	12 7	6 30.35	+26 11.0	0.991	1.940	10.9	20.2
12 17	6 18.85	+32 59.9	1.675	2.643	4.8	19.3	12 17	6 19.75	+26 47.7	0.983	1.960	4.9	19.9
12 27	6 8.23	+34 11.4	1.664	2.635	4.2	19.3	12 27	6 8.05	+27 15.9	1.000	1.982	2.6	19.9
1 6	5 57.69	+35 8.2	1.682	2.628	7.3	19.5	1 6	5 57.37	+27 33.2	1.042	2.004	8.1	20.3
1 16	5 48.63	+35 48.8	1.726	2.621	11.0	19.7	1 16	5 49.41	+27 41.0	1.107	2.027	13.4	20.6
1 26	5 42.20	+36 15.1	1.794	2.615	14.4	19.9	1 26	5 45.23	+27 42.4	1.193	2.051	17.8	21.0
<b>186244</b>	2001 <i>XQ</i> <sub>163</sub>		12 24.2	26°56'	0°9'/24.4	18	<b>182269</b>	2001 <i>HF</i> <sub>33</sub>		12 24.2	201°54		



EPHEMERIDES

12 24.2

12 24.3

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>99829</b>	2002 <i>NV</i> <sub>9</sub>		12 24.2 73°89	2.5/24.5	18		<b>51454</b>	2001 <i>FX</i> <sub>37</sub>		12 24.2 223°57	1.4/24.2	18	
11 17	6 37.17	+15 28.4	2.232	3.015	13.3	19.6	11 17	6 43.14	+20 58.5	1.667	2.465	16.6	20.0
11 27	6 32.46	+15 20.1	2.160	3.030	10.4	19.4	11 27	6 38.09	+20 39.4	1.579	2.459	13.0	19.7
12 7	6 25.73	+15 17.7	2.112	3.046	7.1	19.3	12 7	6 30.02	+20 22.0	1.512	2.453	8.7	19.4
12 17	6 17.58	+15 21.3	2.092	3.061	3.9	19.1	12 17	6 19.63	+20 5.8	1.471	2.447	4.0	19.1
12 27	6 8.87	+15 30.6	2.100	3.076	2.7	19.0	12 27	6 8.12	+19 50.6	1.458	2.440	2.0	19.0
1 6	6 0.53	+15 44.9	2.138	3.091	5.4	19.2	1 6	5 56.96	+19 36.8	1.474	2.432	6.7	19.3
1 16	5 53.40	+16 3.5	2.205	3.106	8.6	19.5	1 16	5 47.53	+19 25.6	1.517	2.424	11.3	19.5
1 26	5 48.17	+16 25.5	2.297	3.121	11.5	19.7	1 26	5 40.87	+19 18.3	1.583	2.416	15.4	19.8
<b>43577</b>	2001 <i>HH</i> <sub>36</sub>		12 24.2 190°50	1.2/24.2	18		<b>55062</b>	2001 <i>QU</i> <sub>77</sub>		12 24.3 75°06	3.3/24.0	18	
11 17	6 40.90	+20 48.7	2.249	3.031	13.3	19.4	11 17	6 43.50	+30 42.7	1.908	2.698	15.0	18.3
11 27	6 35.48	+20 28.4	2.158	3.030	10.4	19.2	11 27	6 37.98	+31 26.4	1.846	2.719	11.8	18.1
12 7	6 27.82	+20 9.0	2.092	3.029	6.9	19.0	12 7	6 29.67	+32 6.5	1.806	2.740	8.1	17.9
12 17	6 18.53	+19 50.5	2.053	3.027	3.2	18.8	12 17	6 19.36	+32 38.3	1.793	2.761	4.5	17.8
12 27	6 8.50	+19 32.8	2.044	3.025	1.7	18.7	12 27	6 8.26	+32 58.1	1.808	2.782	3.6	17.8
1 6	5 58.78	+19 16.4	2.065	3.022	5.3	18.9	1 6	5 57.74	+33 4.9	1.853	2.802	6.5	18.0
1 16	5 50.34	+19 2.4	2.116	3.018	8.9	19.1	1 16	5 48.99	+33 0.2	1.925	2.822	9.9	18.2
1 26	5 43.95	+18 51.5	2.193	3.014	12.1	19.3	1 26	5 42.88	+32 47.4	2.021	2.843	13.0	18.5
<b>75440</b>	1999 <i>XQ</i> <sub>128</sub>		12 24.2 120°51	2.1/24.0	18		<b>520878</b>	2014 <i>WS</i> <sub>500</sub>		12 24.3 51°09	4.3/25.1	18	
11 17	6 43.20	+27 19.8	1.959	2.749	14.7	19.7	11 17	6 37.27	+9 37.4	1.985	2.763	15.0	20.6
11 27	6 37.72	+27 56.6	1.885	2.760	11.5	19.5	11 27	6 32.74	+9 41.2	1.920	2.782	12.0	20.5
12 7	6 29.51	+28 32.9	1.833	2.771	7.7	19.3	12 7	6 26.01	+9 56.9	1.877	2.800	8.6	20.3
12 17	6 19.30	+29 4.6	1.808	2.781	3.8	19.1	12 17	6 17.75	+10 24.8	1.860	2.820	5.5	20.1
12 27	6 8.21	+29 28.3	1.812	2.791	2.5	19.0	12 27	6 8.87	+11 4.2	1.872	2.839	4.4	20.1
1 6	5 57.54	+29 42.5	1.846	2.801	6.0	19.2	1 6	6 0.41	+11 52.7	1.912	2.859	6.5	20.3
1 16	5 48.49	+29 47.9	1.909	2.810	9.8	19.5	1 16	5 53.27	+12 47.6	1.980	2.878	9.6	20.5
1 26	5 41.96	+29 46.7	1.995	2.819	13.1	19.7	1 26	5 48.18	+13 45.9	2.073	2.898	12.6	20.7
<b>328453</b>	2008 <i>TS</i> <sub>170</sub>		12 24.2 152°46	5.8/24.1	18		<b>485154</b>	2010 <i>RC</i> <sub>10</sub>		12 24.3 143°80	0.8/24.2	18	
11 17	6 35.98	+1 59.8	3.248	3.972	10.8	21.6	11 17	6 40.93	+25 48.2	2.138	2.927	13.7	22.2
11 27	6 30.87	+1 1.3	3.170	3.982	9.0	21.5	11 27	6 35.69	+25 52.6	2.056	2.932	10.6	22.0
12 7	6 24.39	+0 11.6	3.115	3.990	7.3	21.4	12 7	6 28.05	+25 55.9	1.997	2.937	7.0	21.8
12 17	6 16.95	-0 26.8	3.088	3.999	6.1	21.3	12 17	6 18.66	+25 56.1	1.966	2.941	3.1	21.5
12 27	6 9.12	-0 51.9	3.091	4.007	5.8	21.3	12 27	6 8.52	+25 51.9	1.964	2.946	1.4	21.4
1 6	6 1.51	-1 3.1	3.123	4.014	6.7	21.4	1 6	5 58.77	+25 43.0	1.992	2.950	5.3	21.7
1 16	5 54.68	-1 1.0	3.183	4.021	8.3	21.5	1 16	5 50.43	+25 30.5	2.049	2.954	9.0	21.9
1 26	5 49.11	-0 47.1	3.268	4.027	9.9	21.6	1 26	5 44.31	+25 16.4	2.131	2.957	12.2	22.1
<b>375048</b>	2007 <i>LY</i> <sub>10</sub>		12 24.2 138°99	3.3/24.3	18		<b>359218</b>	2009 <i>DO</i> <sub>113</sub>		12 24.3 242°67	3.1/24.4	17	
11 17	6 36.77	+12 8.8	3.030	3.790	10.7	22.7	11 17	6 39.16	+14 51.0	2.120	2.901	14.0	22.2
11 27	6 31.58	+11 35.4	2.950	3.803	8.5	22.5	11 27	6 34.39	+14 36.8	2.021	2.889	11.1	22.0
12 7	6 24.89	+11 6.9	2.896	3.815	6.1	22.4	12 7	6 27.29	+14 28.7	1.946	2.877	7.8	21.8
12 17	6 17.17	+10 44.6	2.870	3.827	3.9	22.3	12 17	6 18.40	+14 27.5	1.897	2.864	4.4	21.6
12 27	6 9.05	+10 29.4	2.875	3.838	3.4	22.2	12 27	6 8.61	+14 33.4	1.877	2.851	3.2	21.5
1 6	6 1.20	+10 21.4	2.911	3.849	5.0	22.4	1 6	5 58.97	+14 45.9	1.886	2.838	6.1	21.6
1 16	5 54.23	+10 20.7	2.976	3.860	7.3	22.5	1 16	5 50.52	+15 4.4	1.924	2.824	9.8	21.8
1 26	5 48.66	+10 26.5	3.069	3.870	9.5	22.7	1 26	5 44.13	+15 27.9	1.987	2.810	13.1	22.0
<b>225647</b>	2001 <i>FU</i> <sub>119</sub>		12 24.2 187°88	0.9/24.2	18		<b>348797</b>	2006 <i>QO</i> <sub>29</sub>		12 24.3 75°58	2.0/24.5	18	
11 17	6 44.79	+25 4.7	1.931	2.718	15.0	21.8	11 17	6 44.92	+17 17.8	1.342	2.148	19.4	20.8
11 27	6 39.03	+25 17.9	1.843	2.718	11.7	21.6	11 27	6 39.66	+17 33.3	1.286	2.169	15.1	20.6
12 7	6 30.45	+25 31.1	1.778	2.717	7.8	21.4	12 7	6 31.04	+17 57.9	1.250	2.191	10.1	20.3
12 17	6 19.75	+25 41.7	1.740	2.715	3.4	21.1	12 17	6 20.01	+18 29.6	1.239	2.213	4.7	20.1
12 27	6 8.05	+25 47.4	1.731	2.713	1.6	21.0	12 27	6 8.06	+19 5.4	1.254	2.235	2.4	20.0
1 6	5 56.69	+25 47.2	1.752	2.710	5.9	21.2	1 6	5 56.90	+19 42.5	1.297	2.256	7.2	20.4
1 16	5 46.92	+25 42.1	1.802	2.706	10.1	21.5	1 16	5 47.96	+20 19.0	1.365	2.277	12.0	20.7
1 26	5 39.73	+25 34.2	1.876	2.701	13.7	21.7	1 26	5 42.21	+20 54.3	1.456	2.298	16.0	21.0
<b>274323</b>	2008 <i>RT</i> <sub>5</sub>		12 24.2 124°81	0.8/24.2	18		<b>519182</b>	2010 <i>OV</i> <sub>109</sub>		12 24.3 182°81	2.3/24.2	18	
11 17	6 44.51	+24 49.2	1.890	2.680	15.2	21.5	11 17	6 39.52	+17 30.5	2.417	3.194	12.6	22.0
11 27	6 38.65	+25 4.9	1.818	2.694	11.8	21.3	11 27	6 34.22	+16 59.6	2.328	3.195	9.9	21.8
12 7	6 30.07	+25 20.9	1.769	2.708	7.8	21.1	12 7	6 26.91	+16 31.3	2.262	3.195	6.8	21.6
12 17	6 19.52	+25 34.3	1.746	2.722	3.4	20.8	12 17	6 18.14	+16 6.3	2.225	3.195	3.6	21.4
12 27	6 8.17	+25 42.9	1.753	2.735	1.5	20.7	12 27	6 8.75	+15 45.3	2.218	3.194	2.6	21.3
1 6	5 57.34	+25 46.0	1.789	2.747	5.8	21.0	1 6	5 59.64	+15 29.0	2.241	3.193	5.3	21.5
1 16	5 48.20	+25 44.3	1.854	2.759	9.8	21.3	1 16	5 51.67	+15 17.9	2.294	3.191	8.6	21.7
1 26	5 41.62	+25 39.9	1.944	2.770	13.3	21.5	1 26	5 45.54	+15 12.3	2.373	3.189	11.5	21.9
<b>79582</b>	1998 <i>QF</i> <sub>108</sub>		12 24.2 175°71	3.4/24.3	18		<b>493268</b>	2014 <i>UH</i> <sub>134</sub>		12 24.3 84°65	2.3/24.2	18	
11 17	6 46.79	+31 53.4	1.764	2.553	16.1	20.0	11 17	6 37.87	+17 39.6	2.298	3.082	13.0	21.3
11 27	6 40.96	+32 11.6	1.683	2.555	12.8	19.8	11 27	6 32.95	+17 8.9	2.223	3.094	10.1	21.1
12 7	6 31.89	+32 24.1	1.623	2.556	8.8	19.6	12 7	6 26.04	+16 41.3	2.171	3.106	6.9	21.0
12 17	6 20.40	+32 26.3	1.589	2.557	4.9	19.4	12 17	6 17.75	+16 17.4	2.148	3.118	3.6	20.8
12 27	6 7.83	+32 14.8	1.583	2.558	3.7	19.3	12 27	6 8.91	+15 58.1	2.154	3.130	2.5	20.7
1 6	5 55.79	+31 49.5	1.606	2.558	7.0	19.5	1 6	6 0.47	+15 43.7	2.190	3.142	5.3	20.9
1 16	5 45.73	+31 13.6	1.657	2.557	11.0	19.7	1 16	5 53.24	+15 34.9	2.254	3.154	8.5	21.1
1 26	5 38.68	+30 32.0	1.731	2.556	14.7	20.0	1 26	5 47.88	+15 31.4	2.344	3.166	11.4	21.4
<b>72362</b>	2001 <i>BT</i> <sub>78</sub>		12 24.2 41°89	2.5/23.8	18		<b>283285</b>	2011 <i>HJ</i> <sub>67</sub>		12 24.3 130°38	5.2/24.9	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>469479</b>	2002 <i>TW</i> <sub>70</sub>		12 24.3	36°68'	0°9/24.2	18	<b>149688</b>	2004 <i>GU</i> <sub>71</sub>		12 24.3	234°43'	2°2/24.0	18
11 17	6 42.26	+23 31.5	1.047	1.882	21.8	20.4	11 17	6 43.66	+26 14.4	1.626	2.427	16.8	20.3
11 27	6 38.28	+23 1.0	1.001	1.902	16.8	20.2	11 27	6 38.89	+26 58.8	1.540	2.422	13.2	20.0
12 7	6 30.37	+22 30.9	0.974	1.923	11.1	20.0	12 7	6 30.82	+27 45.3	1.477	2.418	8.9	19.8
12 17	6 19.72	+22 0.6	0.969	1.946	4.8	19.7	12 17	6 20.13	+28 29.1	1.439	2.413	4.3	19.5
12 27	6 8.23	+21 30.6	0.988	1.970	2.0	19.6	12 27	6 8.07	+29 5.1	1.428	2.408	2.7	19.4
1 6	5 57.92	+21 2.8	1.032	1.995	7.9	20.0	1 6	5 56.30	+29 30.2	1.446	2.402	7.1	19.6
1 16	5 50.33	+20 39.5	1.099	2.020	13.3	20.4	1 16	5 46.35	+29 44.5	1.491	2.397	11.6	19.9
1 26	5 46.40	+20 22.6	1.186	2.046	17.7	20.8	1 26	5 39.43	+29 50.5	1.558	2.391	15.6	20.1
<b>299071</b>	2005 <i>CW</i> <sub>76</sub>		12 24.3	4°45'	6°2/25.4	18	<b>216894</b>	2009 <i>FK</i> <sub>2</sub>		12 24.3	249°53'	0°6/24.3	18
11 17	6 38.81	+6 18.0	1.692	2.469	17.2	20.6	11 17	6 40.81	+20 49.1	2.305	3.086	13.0	20.8
11 27	6 34.52	+6 16.5	1.612	2.469	14.1	20.4	11 27	6 35.69	+21 0.2	2.195	3.067	10.2	20.6
12 7	6 27.57	+6 32.0	1.553	2.469	10.6	20.2	12 7	6 28.21	+21 14.6	2.109	3.047	6.8	20.4
12 17	6 18.59	+7 6.4	1.517	2.469	7.4	20.0	12 17	6 18.89	+21 30.9	2.051	3.026	3.0	20.1
12 27	6 8.63	+7 59.3	1.509	2.470	6.2	19.9	12 27	6 8.56	+21 47.6	2.023	3.005	1.2	19.9
1 6	5 58.95	+9 8.0	1.528	2.470	8.3	20.1	1 6	5 58.28	+22 3.4	2.025	2.983	5.2	20.1
1 16	5 50.75	+10 28.0	1.574	2.471	11.7	20.3	1 16	5 49.10	+22 18.0	2.057	2.960	9.1	20.3
1 26	5 44.98	+11 54.1	1.643	2.472	15.2	20.5	1 26	5 41.93	+22 31.7	2.115	2.937	12.5	20.5
<b>235401</b>	2003 <i>WL</i> <sub>169</sub>		12 24.3	26°49'	4°6/23.3	17	<b>305221</b>	2007 <i>XZ</i>		12 24.3	17°25'	4°4/23.8	17
11 17	6 40.61	+29 58.1	1.655	2.460	16.3	18.8	11 17	6 39.85	+29 37.9	1.359	2.179	18.5	20.3
11 27	6 36.39	+31 31.2	1.595	2.476	12.8	18.6	11 27	6 36.44	+30 43.6	1.294	2.184	14.5	20.1
12 7	6 29.02	+33 3.7	1.557	2.493	8.9	18.4	12 7	6 29.39	+31 48.4	1.249	2.191	10.1	19.8
12 17	6 19.25	+34 28.0	1.545	2.511	5.5	18.3	12 17	6 19.52	+32 45.2	1.228	2.198	5.8	19.6
12 27	6 8.38	+35 37.2	1.561	2.529	4.9	18.3	12 27	6 8.34	+33 27.4	1.233	2.207	4.7	19.6
1 6	5 57.98	+36 27.4	1.604	2.549	7.8	18.5	1 6	5 57.72	+33 51.7	1.264	2.216	8.3	19.8
1 16	5 49.45	+36 58.7	1.674	2.569	11.3	18.8	1 16	5 49.33	+33 59.2	1.319	2.227	12.7	20.1
1 26	5 43.86	+37 14.5	1.767	2.590	14.5	19.0	1 26	5 44.36	+33 54.1	1.396	2.238	16.6	20.4
<b>139758</b>	2001 <i>QR</i> <sub>283</sub>		12 24.3	58°03'	1°6/24.3	18	<b>490633</b>	2010 <i>CV</i> <sub>85</sub>		12 24.3	101°03'	3°8/24.9	17
11 17	6 39.35	+19 28.6	1.790	2.589	15.6	19.9	11 17	6 35.92	+9 58.5	2.492	3.259	12.6	21.0
11 27	6 34.76	+19 18.3	1.717	2.598	12.1	19.7	11 27	6 31.39	+9 56.0	2.411	3.266	10.1	20.8
12 7	6 27.58	+19 11.7	1.667	2.607	8.1	19.5	12 7	6 25.04	+10 2.5	2.353	3.273	7.3	20.7
12 17	6 18.53	+19 8.4	1.643	2.617	3.8	19.2	12 17	6 17.39	+10 18.7	2.322	3.279	4.7	20.5
12 27	6 8.71	+19 8.0	1.647	2.627	2.0	19.1	12 27	6 9.16	+10 44.5	2.321	3.286	3.9	20.5
1 6	5 59.35	+19 10.2	1.679	2.637	6.0	19.4	1 6	6 1.18	+11 18.6	2.349	3.293	5.7	20.6
1 16	5 51.56	+19 14.8	1.739	2.647	10.1	19.7	1 16	5 54.20	+11 59.4	2.406	3.299	8.4	20.8
1 26	5 46.18	+19 22.2	1.822	2.658	13.6	19.9	1 26	5 48.86	+12 44.9	2.490	3.305	11.0	21.0
<b>460945</b>	2014 <i>WX</i> <sub>259</sub>		12 24.3	134°32'	1°4/24.4	17	<b>187551</b>	2006 <i>UX</i> <sub>255</sub>		12 24.3	179°30'	0°6/24.3	18
11 17	6 36.59	+18 34.5	2.402	3.187	12.5	21.7	11 17	6 39.89	+21 57.9	2.147	2.935	13.6	21.1
11 27	6 32.08	+18 33.9	2.315	3.188	9.7	21.5	11 27	6 34.89	+21 53.0	2.060	2.936	10.6	20.9
12 7	6 25.58	+18 37.0	2.252	3.189	6.5	21.3	12 7	6 27.57	+21 49.5	1.997	2.937	7.0	20.7
12 17	6 17.64	+18 43.5	2.217	3.190	3.1	21.1	12 17	6 18.54	+21 46.3	1.961	2.937	3.1	20.4
12 27	6 9.04	+18 52.5	2.211	3.191	1.7	21.0	12 27	6 8.74	+21 42.8	1.955	2.937	1.3	20.3
1 6	6 0.68	+19 3.7	2.235	3.192	4.9	21.2	1 6	5 59.26	+21 38.6	1.978	2.936	5.3	20.6
1 16	5 53.42	+19 16.4	2.289	3.193	8.2	21.4	1 16	5 51.09	+21 34.4	2.030	2.936	9.0	20.8
1 26	5 47.94	+19 30.7	2.368	3.194	11.2	21.6	1 26	5 45.05	+21 31.1	2.108	2.935	12.3	21.0
<b>135790</b>	2002 <i>RM</i> <sub>93</sub>		12 24.3	93°88'	0°5/24.3	18	<b>421829</b>	2014 <i>QV</i> <sub>113</sub>		12 24.3	206°74'	4°1/24.4	18
11 17	6 42.49	+22 45.8	1.919	2.710	14.9	20.5	11 17	6 38.25	+12 21.0	2.187	2.963	13.8	21.8
11 27	6 36.91	+22 32.7	1.851	2.728	11.6	20.3	11 27	6 33.50	+11 48.6	2.098	2.960	11.1	21.7
12 7	6 28.84	+22 20.0	1.806	2.746	7.6	20.1	12 7	6 26.60	+11 23.1	2.033	2.957	8.0	21.5
12 17	6 19.01	+22 6.9	1.787	2.763	3.3	19.9	12 17	6 18.11	+11 5.9	1.994	2.954	5.1	21.3
12 27	6 8.55	+21 52.9	1.798	2.781	1.3	19.8	12 27	6 8.90	+10 58.3	1.984	2.950	4.2	21.2
1 6	5 58.65	+21 38.3	1.839	2.797	5.6	20.1	1 6	5 59.94	+11 0.5	2.003	2.947	6.5	21.4
1 16	5 50.38	+21 24.5	1.908	2.814	9.5	20.4	1 16	5 52.15	+11 11.9	2.050	2.943	9.7	21.5
1 26	5 44.49	+21 12.6	2.002	2.830	12.8	20.6	1 26	5 46.29	+11 31.5	2.122	2.938	12.7	21.7
<b>154695</b>	2004 <i>HD</i> <sub>50</sub>		12 24.3	206°35'	1°1/24.2	18	<b>416375</b>	2003 <i>TS</i> <sub>26</sub>		12 24.3	155°41'	2°7/24.2	17
11 17	6 44.30	+25 50.4	1.936	2.724	14.9	21.3	11 17	6 37.43	+15 51.8	2.554	3.330	12.1	21.9
11 27	6 38.75	+26 3.5	1.844	2.720	11.7	21.1	11 27	6 32.50	+15 21.0	2.469	3.334	9.5	21.7
12 7	6 30.37	+26 16.1	1.776	2.714	7.8	20.9	12 7	6 25.74	+14 53.8	2.408	3.338	6.6	21.5
12 17	6 19.81	+26 25.5	1.733	2.708	3.5	20.6	12 17	6 17.68	+14 31.1	2.375	3.342	3.7	21.3
12 27	6 8.21	+26 29.1	1.720	2.702	1.7	20.5	12 27	6 9.08	+14 13.8	2.372	3.345	2.8	21.3
1 6	5 56.90	+26 26.2	1.737	2.695	6.0	20.7	1 6	6 0.75	+14 2.3	2.399	3.348	5.2	21.5
1 16	5 47.15	+26 17.9	1.783	2.687	10.2	21.0	1 16	5 53.47	+13 56.8	2.456	3.351	8.1	21.6
1 26	5 39.97	+26 6.4	1.852	2.678	13.8	21.2	1 26	5 47.86	+13 57.1	2.539	3.354	10.9	21.8
<b>139023</b>	2001 <i>DU</i> <sub>65</sub>		12 24.3	197°45'	2°1/24.4	18	<b>459281</b>	2012 <i>GB</i>		12 24.3	184°18'	4°2/24.0	18
11 17	6 43.29	+18 4.8	1.838	2.626	15.6	20.6	11 17	6 42.02	+36 9.2	2.551	3.321	12.2	21.0
11 27	6 37.91	+17 54.5	1.750	2.623	12.3	20.3	11 27	6 36.52	+36 46.0	2.465	3.321	9.8	20.8
12 7	6 29.78	+17 49.0	1.684	2.620	8.3	20.1	12 7	6 28.64	+37 16.8	2.401	3.321	7.2	20.6
12 17	6 19.55	+17 47.9	1.644	2.616	4.1	19.8	12 17	6 19.01	+37 37.4	2.366	3.321	4.9	20.5
12 27	6 8.32	+17 50.6	1.633	2.612	2.5	19.7	12 27	6 8.56	+37 44.9	2.359	3.320	4.3	20.5
1 6	5 57.39	+17 56.8	1.651	2.607	6.4	20.0	1 6	5 58.41	+37 38.4	2.383	3.319	6.2	20.6
1 16	5 48.00	+18 6.3	1.697	2.601	10.6	20.2	1 16	5 49.59	+37 19.3	2.435	3.317	8.8	20.7
1 26	5 41.10	+18 19.0	1.768	2.595	14.3	20.4	1 26	5 42.92	+36 51.1	2.512	3.316	11.3	20.9
<b>120405</b>	<i>Svyatylivka</i>		12 24.3	115°37'	0°1/24.3	18	<b>130397</b>	2000 <i>LB</i> <sub>32</sub>		12 24.3	147°12'	1°0/24.3	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>201550</b>	2003 <i>RC</i> <sub>15</sub>		12 24.3	1°05'	0°5'/24.3	18	<b>426534</b>	2013 <i>RV</i> <sub>67</sub>		12 24.3	110°45'	2°0'/24.1	18
11 17	6 38.58	+23 17.6	1.393	2.213	18.1	19.8	11 17	6 49.86	+26 2.8	1.652	2.440	17.1	21.7
11 27	6 35.07	+23 2.5	1.318	2.211	14.1	19.5	11 27	6 43.16	+26 45.9	1.590	2.465	13.2	21.5
12 7	6 28.28	+22 47.8	1.264	2.210	9.4	19.3	12 7	6 33.25	+27 29.2	1.551	2.489	8.8	21.3
12 17	6 18.98	+22 32.4	1.233	2.210	4.1	18.9	12 17	6 21.02	+28 7.6	1.538	2.512	4.1	21.1
12 27	6 8.58	+22 15.9	1.229	2.211	1.6	18.8	12 27	6 7.88	+28 36.7	1.554	2.534	2.5	21.0
1 6	5 58.70	+21 58.8	1.250	2.212	7.0	19.1	1 6	5 55.47	+28 54.7	1.600	2.555	6.6	21.4
1 16	5 50.81	+21 42.6	1.297	2.215	12.0	19.4	1 16	5 45.16	+29 2.7	1.674	2.576	10.9	21.7
1 26	5 45.97	+21 29.3	1.366	2.218	16.3	19.7	1 26	5 37.94	+29 3.7	1.771	2.595	14.5	21.9
<b>124335</b>	2001 <i>QL</i> <sub>108</sub>		12 24.3	119°57'	1°5'/24.2	18	<b>61146</b>	2000 <i>NO</i> <sub>10</sub>		12 24.3	103°41'	0°2'/24.3	18
11 17	6 46.34	+26 46.9	1.884	2.670	15.4	21.4	11 17	6 44.61	+22 14.5	1.815	2.605	15.7	19.4
11 27	6 40.09	+27 4.5	1.815	2.689	11.9	21.2	11 27	6 38.72	+22 23.5	1.750	2.626	12.1	19.2
12 7	6 31.05	+27 20.7	1.769	2.707	7.9	21.0	12 7	6 30.13	+22 34.7	1.707	2.647	8.0	19.0
12 17	6 20.02	+27 32.2	1.750	2.724	3.6	20.7	12 17	6 19.63	+22 45.9	1.691	2.667	3.4	18.8
12 27	6 8.22	+27 36.4	1.760	2.741	2.0	20.7	12 27	6 8.40	+22 55.2	1.704	2.686	1.3	18.7
1 6	5 57.01	+27 32.9	1.800	2.757	5.9	20.9	1 6	5 57.77	+23 2.0	1.747	2.705	5.8	19.0
1 16	5 47.59	+27 23.1	1.869	2.772	9.8	21.2	1 16	5 48.89	+23 6.5	1.818	2.724	9.9	19.3
1 26	5 40.82	+27 10.0	1.962	2.786	13.2	21.5	1 26	5 42.57	+23 10.1	1.913	2.742	13.3	19.6
<b>457826</b>	2009 <i>SW</i> <sub>59</sub>		12 24.3	9°52'	5°7'/24.0	17	<b>272142</b>	2005 <i>NP</i> <sub>8</sub>		12 24.3	195°25'	0°9'/24.3	18
11 17	6 35.67	+11 56.5	1.697	2.494	16.3	21.1	11 17	6 43.71	+21 26.2	1.786	2.578	15.8	22.2
11 27	6 31.99	+10 52.0	1.624	2.496	13.1	20.9	11 27	6 38.35	+21 17.8	1.699	2.576	12.4	21.9
12 7	6 25.81	+9 55.0	1.572	2.499	9.6	20.7	12 7	6 30.14	+21 11.4	1.635	2.574	8.3	21.7
12 17	6 17.81	+9 9.2	1.545	2.503	6.6	20.5	12 17	6 19.75	+21 5.9	1.596	2.572	3.7	21.4
12 27	6 9.04	+8 37.7	1.545	2.507	5.9	20.5	12 27	6 8.34	+21 0.4	1.587	2.568	1.6	21.3
1 6	6 0.68	+8 21.9	1.571	2.512	8.2	20.7	1 6	5 57.29	+20 54.6	1.606	2.565	6.2	21.6
1 16	5 53.81	+8 21.6	1.623	2.518	11.6	20.9	1 16	5 47.88	+20 49.5	1.654	2.560	10.6	21.8
1 26	5 49.26	+8 34.7	1.698	2.525	14.8	21.1	1 26	5 41.10	+20 46.2	1.725	2.556	14.5	22.0
<b>453208</b>	2008 <i>GK</i> <sub>120</sub>		12 24.3	259°88'	5°9'/23.3	17	<b>73340</b>	2002 <i>JV</i> <sub>114</sub>		12 24.3	121°77'	0°8'/24.1	18
11 17	6 44.23	+37 35.1	2.164	2.937	14.0	21.2	11 17	6 43.54	+22 13.7	1.946	2.734	14.9	19.7
11 27	6 39.04	+38 44.4	2.068	2.924	11.5	21.0	11 27	6 38.02	+23 6.4	1.870	2.745	11.5	19.5
12 7	6 30.82	+39 48.6	1.996	2.911	8.7	20.8	12 7	6 29.82	+24 3.6	1.816	2.755	7.6	19.2
12 17	6 20.13	+40 41.1	1.950	2.897	6.5	20.7	12 17	6 19.58	+25 1.7	1.790	2.766	3.3	19.0
12 27	6 8.10	+41 16.1	1.932	2.883	6.1	20.6	12 27	6 8.40	+25 56.2	1.794	2.776	1.5	18.9
1 6	5 56.17	+41 30.6	1.943	2.869	8.1	20.7	1 6	5 57.55	+26 44.1	1.828	2.785	5.7	19.2
1 16	5 45.77	+41 25.7	1.981	2.854	10.9	20.8	1 16	5 48.22	+27 24.0	1.891	2.794	9.7	19.5
1 26	5 38.06	+41 5.6	2.043	2.840	13.8	21.0	1 26	5 41.34	+27 56.6	1.979	2.803	13.1	19.7
<b>451925</b>	2014 <i>KK</i> <sub>89</sub>		12 24.3	141°60'	3°9'/24.2	17	<b>331464</b>	2012 <i>HB</i> <sub>32</sub>		12 24.3	175°03'	0°1'/24.3	18
11 17	6 40.13	+13 28.1	2.206	2.980	13.8	22.2	11 17	6 45.11	+22 29.3	1.716	2.509	16.4	21.6
11 27	6 34.78	+12 46.1	2.127	2.989	10.9	22.0	11 27	6 39.57	+22 37.0	1.634	2.512	12.8	21.4
12 7	6 27.34	+12 9.6	2.072	2.998	7.8	21.8	12 7	6 31.00	+22 47.0	1.573	2.514	8.5	21.2
12 17	6 18.39	+11 40.3	2.044	3.006	4.8	21.7	12 17	6 20.13	+22 57.1	1.539	2.515	3.7	20.9
12 27	6 8.84	+11 19.8	2.046	3.013	4.0	21.6	12 27	6 8.21	+23 5.2	1.533	2.516	1.4	20.7
1 6	5 59.65	+11 8.5	2.077	3.021	6.3	21.8	1 6	5 56.69	+23 10.3	1.557	2.516	6.3	21.1
1 16	5 51.73	+11 6.6	2.137	3.027	9.4	22.0	1 16	5 46.93	+23 12.8	1.608	2.515	10.9	21.3
1 26	5 45.76	+11 13.2	2.222	3.034	12.3	22.2	1 26	5 39.96	+23 14.4	1.683	2.514	14.8	21.6
<b>329857</b>	2004 <i>TY</i> <sub>368</sub>		12 24.3	328°69'	4°3'/24.2	18	<b>112839</b>	2002 <i>QJ</i> <sub>18</sub>		12 24.3	9°73'	6°9'/24.5	18
11 17	6 35.78	+13 37.8	1.911	2.704	14.9	20.5	11 17	6 43.36	+42 38.9	2.060	2.829	14.8	19.2
11 27	6 31.97	+12 56.6	1.822	2.694	11.9	20.3	11 27	6 38.31	+43 17.9	1.984	2.830	12.3	19.0
12 7	6 25.80	+12 21.4	1.754	2.685	8.5	20.1	12 7	6 30.18	+43 45.1	1.928	2.832	9.7	18.8
12 17	6 17.84	+11 54.5	1.712	2.676	5.3	19.8	12 17	6 19.76	+43 54.4	1.898	2.834	7.5	18.7
12 27	6 9.02	+11 37.6	1.698	2.667	4.5	19.8	12 27	6 8.38	+43 41.8	1.894	2.836	7.0	18.7
1 6	6 0.45	+11 31.4	1.712	2.659	7.1	19.9	1 6	5 57.56	+43 7.2	1.918	2.839	8.5	18.8
1 16	5 53.17	+11 36.0	1.752	2.652	10.6	20.1	1 16	5 48.65	+42 14.3	1.968	2.842	11.0	18.9
1 26	5 48.03	+11 50.1	1.816	2.645	14.0	20.3	1 26	5 42.62	+41 9.2	2.042	2.845	13.5	19.1
<b>356291</b>	2010 <i>ET</i> <sub>98</sub>		12 24.3	45°23'	9°7'/25.7	18	<b>359314</b>	2009 <i>JV</i> <sub>6</sub>		12 24.3	259°84'	1°6'/24.5	18
11 17	6 38.44	+1 54.0	1.416	2.194	19.9	19.1	11 17	6 39.32	+17 34.7	1.962	2.753	14.7	21.5
11 27	6 34.35	+0 58.5	1.363	2.211	16.7	18.9	11 27	6 34.79	+17 49.9	1.869	2.745	11.5	21.3
12 7	6 27.43	+0 24.0	1.330	2.229	13.4	18.7	12 7	6 27.74	+18 11.8	1.799	2.737	7.8	21.0
12 17	6 18.50	+0 15.7	1.317	2.248	10.7	18.6	12 17	6 18.73	+18 39.6	1.756	2.729	3.7	20.8
12 27	6 8.82	+0 35.8	1.329	2.267	9.8	18.6	12 27	6 8.73	+19 11.4	1.741	2.721	1.9	20.6
1 6	5 59.77	+1 22.3	1.366	2.287	11.2	18.8	1 6	5 58.91	+19 45.4	1.755	2.713	5.8	20.9
1 16	5 52.53	+2 30.0	1.427	2.307	13.9	19.0	1 16	5 50.39	+20 20.0	1.798	2.705	9.9	21.1
1 26	5 47.95	+3 52.0	1.509	2.327	16.8	19.2	1 26	5 44.12	+20 54.3	1.865	2.697	13.5	21.3
<b>189154</b>	2002 <i>JO</i> <sub>43</sub>		12 24.3	185°77'	3°2'/24.1	17	<b>242390</b>	2004 <i>EZ</i> <sub>102</sub>		12 24.3	78°29'	4°1'/24.6	18
11 17	6 38.19	+15 27.3	2.433	3.209	12.6	20.4	11 17	6 42.28	+13 52.7	1.459	2.258	18.5	20.9
11 27	6 33.20	+14 43.2	2.344	3.209	9.9	20.2	11 27	6 37.44	+13 37.0	1.396	2.273	14.6	20.7
12 7	6 26.26	+14 2.5	2.280	3.209	7.0	20.0	12 7	6 29.56	+13 31.7	1.354	2.288	10.2	20.5
12 17	6 17.94	+13 26.4	2.243	3.208	4.1	19.9	12 17	6 19.47	+13 37.6	1.335	2.303	5.8	20.3
12 27	6 9.01	+12 56.6	2.236	3.207	3.3	19.8	12 27	6 8.51	+13 54.2	1.344	2.318	4.3	20.2
1 6	6 0.37	+12 34.0	2.260	3.206	5.7	20.0	1 6	5 58.16	+14 20.2	1.379	2.333	7.6	20.5
1 16	5 52.82	+12 19.2	2.313	3.205	8.7	20.1	1 16	5 49.73	+14 53.3	1.441	2.348	11.9	20.8
1 26	5 47.04	+12 12.3	2.391	3.204	11.5	20.3	1 26	5 44.16	+15 31.3	1.525	2.362	15.7	21.0
<b>311872</b>	2006 <i>WN</i> <sub>98</sub>		12 24.3	317°65'	1°3'/24.3	18	<b>45246</b>	1999 <i>XF</i> <sub>245</sub>		12 24.3	324°21'	3°	

EPHEMERIDES

12 24.3

12 24.3

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>200462</b>	2000 WZ <sub>117</sub>		12 24.3	11:77	4:0/24.0	18	<b>180571</b>	2004 EA <sub>87</sub>		12 24.3	192:14	5:4/24.7	18
11 17	6 40.42	+29 56.5	1.351	2.170	18.6	19.0	11 17	6 37.82	+ 6 49.1	2.388	3.145	13.3	21.1
11 27	6 36.93	+30 43.7	1.282	2.172	14.7	18.7	11 27	6 32.98	+ 6 19.4	2.300	3.143	10.9	20.9
12 7	6 29.76	+31 28.8	1.233	2.175	10.1	18.5	12 7	6 26.20	+ 5 59.8	2.235	3.142	8.3	20.7
12 17	6 19.73	+32 5.5	1.208	2.179	5.6	18.3	12 17	6 17.98	+ 5 52.3	2.196	3.139	6.1	20.6
12 27	6 8.38	+32 28.2	1.208	2.183	4.4	18.2	12 27	6 9.10	+ 5 58.3	2.186	3.137	5.5	20.5
1 6	5 57.59	+32 34.7	1.234	2.189	8.2	18.4	1 6	6 0.44	+ 6 17.4	2.205	3.134	7.0	20.6
1 16	5 49.06	+32 26.8	1.284	2.195	12.7	18.7	1 16	5 52.82	+ 6 48.4	2.252	3.130	9.6	20.8
1 26	5 43.98	+32 9.1	1.356	2.202	16.8	19.0	1 26	5 46.93	+ 7 28.7	2.324	3.126	12.1	20.9
<b>266347</b>	2007 DK <sub>101</sub>		12 24.3	348:28	0:2/24.3	17	<b>148199</b>	2000 CE <sub>40</sub>		12 24.3	255:91	0:4/24.3	18
11 17	6 38.65	+23 9.1	2.054	2.848	14.0	20.9	11 17	6 44.11	+23 12.1	1.895	2.684	15.2	20.8
11 27	6 34.15	+23 23.7	1.968	2.848	10.9	20.7	11 27	6 38.84	+23 1.2	1.786	2.662	12.0	20.5
12 7	6 27.22	+23 40.1	1.906	2.847	7.2	20.5	12 7	6 30.64	+22 50.2	1.700	2.640	8.0	20.2
12 17	6 18.47	+23 56.4	1.870	2.847	3.1	20.2	12 17	6 20.10	+22 37.6	1.640	2.616	3.5	19.9
12 27	6 8.87	+24 10.7	1.864	2.846	1.2	20.1	12 27	6 8.28	+22 22.5	1.610	2.592	1.4	19.7
1 6	5 59.56	+24 22.0	1.887	2.846	5.4	20.4	1 6	5 56.55	+22 5.0	1.609	2.567	6.2	20.0
1 16	5 51.60	+24 30.2	1.938	2.845	9.3	20.6	1 16	5 46.28	+21 46.4	1.636	2.542	10.8	20.2
1 26	5 45.84	+24 36.3	2.013	2.845	12.6	20.8	1 26	5 38.57	+21 29.0	1.688	2.516	14.9	20.4
<b>409135</b>	2003 UK <sub>52</sub>		12 24.3	71:67	6:0/23.9	18	<b>109543</b>	2001 QB <sub>255</sub>		12 24.3	253:86	5:7/23.6	18
11 17	6 38.54	+ 8 31.0	2.201	2.966	14.1	20.1	11 17	6 42.81	+40 52.1	2.684	3.440	12.0	19.9
11 27	6 33.44	+ 7 15.9	2.136	2.984	11.4	19.9	11 27	6 37.39	+41 45.1	2.586	3.427	9.9	19.7
12 7	6 26.38	+ 6 9.1	2.094	3.002	8.7	19.8	12 7	6 29.44	+42 30.9	2.511	3.413	7.8	19.5
12 17	6 17.98	+ 5 14.2	2.079	3.021	6.5	19.7	12 17	6 19.50	+43 4.3	2.463	3.398	6.1	19.4
12 27	6 9.10	+ 4 33.9	2.092	3.039	6.1	19.7	12 27	6 8.53	+43 21.3	2.444	3.384	5.8	19.3
1 6	6 0.66	+ 4 9.6	2.135	3.057	7.7	19.8	1 6	5 57.71	+43 20.2	2.454	3.369	7.2	19.4
1 16	5 53.46	+ 4 0.8	2.204	3.075	10.1	20.0	1 16	5 48.18	+43 2.4	2.492	3.354	9.4	19.5
1 26	5 48.13	+ 4 5.8	2.298	3.093	12.5	20.2	1 26	5 40.88	+42 31.6	2.554	3.339	11.7	19.7
<b>384620</b>	2011 CJ <sub>82</sub>		12 24.3	269:43	0:6/24.3	18	<b>198785</b>	2005 EH <sub>124</sub>		12 24.3	5:06	0:6/24.3	17
11 17	6 42.46	+22 17.4	1.588	2.391	17.0	21.8	11 17	6 36.63	+23 59.2	1.870	2.675	14.8	19.9
11 27	6 38.01	+22 10.9	1.491	2.375	13.4	21.5	11 27	6 32.83	+24 14.4	1.790	2.675	11.5	19.7
12 7	6 30.31	+22 6.1	1.416	2.358	9.0	21.2	12 7	6 26.47	+24 31.1	1.733	2.676	7.6	19.5
12 17	6 20.00	+22 1.6	1.365	2.342	4.0	20.9	12 17	6 18.19	+24 47.0	1.701	2.678	3.3	19.2
12 27	6 8.29	+21 56.2	1.342	2.324	1.6	20.7	12 27	6 9.04	+25 0.2	1.698	2.680	1.4	19.1
1 6	5 56.76	+21 49.3	1.347	2.307	6.9	21.0	1 6	6 0.24	+25 9.5	1.723	2.683	5.7	19.4
1 16	5 46.95	+21 42.1	1.378	2.290	12.0	21.2	1 16	5 52.89	+25 15.3	1.775	2.686	9.7	19.6
1 26	5 40.08	+21 36.3	1.432	2.272	16.4	21.4	1 26	5 47.89	+25 18.4	1.851	2.690	13.2	19.9
<b>50237</b>	2000 BJ <sub>3</sub>		12 24.3	204:75	3:8/24.0	18	<b>366325</b>	2013 EO <sub>21</sub>		12 24.3	156:92	0:8/24.3	18
11 17	6 41.10	+35 12.0	2.640	3.411	11.8	18.9	11 17	6 41.31	+25 37.0	2.067	2.857	14.1	21.5
11 27	6 35.76	+35 47.0	2.550	3.408	9.5	18.7	11 27	6 36.16	+25 42.6	1.984	2.860	10.9	21.3
12 7	6 28.15	+36 16.6	2.483	3.405	6.8	18.5	12 7	6 28.52	+25 47.4	1.924	2.863	7.2	21.0
12 17	6 18.85	+36 37.3	2.444	3.401	4.5	18.4	12 17	6 19.04	+25 49.2	1.890	2.866	3.2	20.8
12 27	6 8.76	+36 46.1	2.434	3.397	4.0	18.4	12 27	6 8.75	+25 46.6	1.887	2.868	1.4	20.7
1 6	5 58.91	+36 42.1	2.455	3.393	5.8	18.5	1 6	5 58.83	+25 39.2	1.912	2.870	5.4	20.9
1 16	5 50.29	+36 26.5	2.504	3.388	8.5	18.6	1 16	5 50.35	+25 28.1	1.966	2.872	9.3	21.2
1 26	5 43.71	+36 2.3	2.578	3.384	11.0	18.8	1 26	5 44.17	+25 15.3	2.046	2.874	12.6	21.4
<b>149751</b>	2004 OW <sub>7</sub>		12 24.3	119:35	0:2/24.3	18	<b>440023</b>	2002 OZ <sub>17</sub>		12 24.3	78:47	5:8/25.4	15
11 17	6 40.31	+23 55.7	2.315	3.100	12.9	20.9	11 17	6 41.82	+ 6 31.7	1.848	2.612	16.4	21.8
11 27	6 34.99	+23 59.3	2.238	3.112	10.0	20.8	11 27	6 36.27	+ 6 20.2	1.793	2.642	13.3	21.6
12 7	6 27.53	+24 3.0	2.185	3.124	6.6	20.6	12 7	6 28.38	+ 6 23.2	1.759	2.670	9.9	21.5
12 17	6 18.53	+24 5.4	2.159	3.135	2.8	20.3	12 17	6 18.89	+ 6 42.0	1.750	2.699	6.9	21.4
12 27	6 8.91	+24 5.4	2.164	3.146	1.1	20.2	12 27	6 8.85	+ 7 16.2	1.770	2.727	5.9	21.4
1 6	5 59.67	+24 2.6	2.199	3.157	4.8	20.5	1 6	5 59.37	+ 8 3.6	1.818	2.755	7.6	21.5
1 16	5 51.72	+23 57.8	2.263	3.168	8.3	20.8	1 16	5 51.43	+ 9 0.7	1.894	2.782	10.6	21.8
1 26	5 45.78	+23 52.0	2.353	3.178	11.3	21.0	1 26	5 45.75	+10 3.8	1.994	2.809	13.4	22.0
<b>329690</b>	2003 UQ <sub>203</sub>		12 24.3	78:60	4:5/24.2	18	<b>127251</b>	2002 JD <sub>38</sub>		12 24.3	153:60	1:0/24.4	18
11 17	6 36.64	+11 28.7	2.293	3.068	13.3	20.4	11 17	6 37.95	+19 3.8	2.743	3.519	11.3	20.4
11 27	6 32.10	+10 41.3	2.212	3.071	10.7	20.2	11 27	6 32.88	+19 11.1	2.657	3.525	8.8	20.3
12 7	6 25.60	+10 0.3	2.153	3.074	7.8	20.1	12 7	6 26.03	+19 21.7	2.597	3.532	5.9	20.1
12 17	6 17.71	+ 9 27.9	2.122	3.078	5.3	19.9	12 17	6 17.89	+19 34.6	2.564	3.538	2.7	19.9
12 27	6 9.21	+ 9 6.0	2.120	3.081	4.6	19.9	12 27	6 9.19	+19 49.0	2.563	3.544	1.3	19.8
1 6	6 1.02	+ 8 55.2	2.146	3.085	6.6	20.0	1 6	6 0.72	+20 4.2	2.592	3.549	4.3	20.0
1 16	5 53.94	+ 8 55.3	2.201	3.088	9.4	20.2	1 16	5 53.24	+20 19.7	2.652	3.554	7.4	20.2
1 26	5 48.66	+ 9 5.2	2.280	3.091	12.1	20.4	1 26	5 47.36	+20 35.5	2.739	3.558	10.0	20.4
<b>490971</b>	2011 EH <sub>9</sub>		12 24.3	260:46	7:4/24.8	17	<b>299022</b>	2005 AP <sub>12</sub>		12 24.3	282:41	2:1/24.1	16
11 17	6 35.08	+ 0 9.5	2.520	3.254	13.3	21.9	11 17	6 41.55	+27 12.0	1.773	2.573	15.7	20.6
11 27	6 30.84	+ 0 34.0	2.426	3.242	11.3	21.8	11 27	6 37.17	+27 39.2	1.674	2.555	12.3	20.3
12 7	6 24.79	+ 1 4.7	2.354	3.231	9.4	21.6	12 7	6 29.71	+28 6.7	1.596	2.537	8.4	20.0
12 17	6 17.39	+ 1 19.4	2.307	3.219	7.8	21.5	12 17	6 19.75	+28 30.4	1.544	2.518	4.1	19.7
12 27	6 9.31	+ 1 15.8	2.287	3.207	7.4	21.5	12 27	6 8.44	+28 46.8	1.520	2.500	2.5	19.6
1 6	6 1.37	+ 0 53.7	2.295	3.194	8.4	21.5	1 6	5 57.24	+28 53.8	1.525	2.482	6.7	19.8
1 16	5 54.34	+ 0 14.5	2.330	3.182	10.4	21.6	1 16	5 47.62	+28 51.9	1.556	2.463	11.2	20.0
1 26	5 48.88	+ 0 38.5	2.388	3.169	12.5	21.7	1 26	5 40.76	+28 43.9	1.611	2.445	15.2	20.2
<b>19137</b>	Copiapó		12 24.3	207:01	0:0/24.3	18	<b>171837</b>	2001 HQ <sub>52</sub>		12 24.3	196:70	0:6/24.3	18
11 17	6 42.80	+24 36.3	2.162	2.945	13.7	18.7							

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12 24.3

12 24.3

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>251289</b>	2006 WY <sub>124</sub>	12 24.3	24°87'	0°0'/24.3	18		<b>159919</b>	2004 XU <sub>163</sub>	12 24.3	28°48'	4°7'/23.3	17	
11 17	6 39.52	+24 7.9	1.665	2.472	16.2	20.3	11 17	6 41.84	+30 19.8	1.745	2.544	15.9	18.6
11 27	6 35.25	+23 58.1	1.591	2.476	12.6	20.1	11 27	6 37.38	+31 55.6	1.677	2.555	12.5	18.4
12 7	6 28.13	+23 48.1	1.538	2.482	8.3	19.9	12 7	6 29.80	+33 31.3	1.633	2.566	8.8	18.2
12 17	6 18.91	+23 36.4	1.511	2.487	3.6	19.6	12 17	6 19.78	+34 59.4	1.614	2.579	5.5	18.0
12 27	6 8.82	+23 22.3	1.511	2.493	1.3	19.5	12 27	6 8.57	+36 12.7	1.625	2.592	5.0	18.0
1 6	5 59.23	+23 6.2	1.539	2.500	6.1	19.8	1 6	5 57.69	+37 6.9	1.663	2.605	7.8	18.2
1 16	5 51.38	+22 49.6	1.594	2.507	10.5	20.1	1 16	5 48.59	+37 41.7	1.728	2.619	11.2	18.5
1 26	5 46.18	+22 34.3	1.673	2.514	14.3	20.3	1 26	5 42.37	+38 0.4	1.816	2.634	14.4	18.7
<b>291750</b>	2006 KC <sub>4</sub>	12 24.3	133°13'	0°7'/24.2	17		<b>249949</b>	2001 TZ <sub>199</sub>	12 24.3	20°28'	1°0'/24.5	18	
11 17	6 38.46	+24 6.8	3.005	3.780	10.5	21.2	11 17	6 38.17	+18 33.7	1.549	2.358	17.1	19.5
11 27	6 33.17	+24 37.0	2.924	3.792	8.1	21.1	11 27	6 34.43	+19 3.1	1.477	2.364	13.3	19.3
12 7	6 26.18	+25 8.2	2.868	3.805	5.3	20.9	12 7	6 27.75	+19 40.8	1.427	2.370	8.9	19.0
12 17	6 17.95	+25 38.2	2.842	3.816	2.3	20.7	12 17	6 18.85	+20 24.4	1.402	2.378	4.0	18.8
12 27	6 9.19	+26 5.4	2.847	3.828	1.1	20.6	12 27	6 8.93	+21 10.8	1.404	2.386	1.6	18.6
1 6	6 0.64	+26 28.6	2.883	3.839	4.0	20.9	1 6	5 59.42	+21 56.6	1.433	2.394	6.4	19.0
1 16	5 53.04	+26 47.5	2.950	3.850	6.8	21.1	1 16	5 51.62	+22 39.9	1.489	2.403	11.0	19.3
1 26	5 46.97	+27 2.6	3.045	3.860	9.2	21.3	1 26	5 46.54	+23 19.7	1.568	2.413	14.9	19.5
<b>206151</b>	2002 TN <sub>127</sub>	12 24.3	198°71'	6°1'/24.3	18		<b>96363</b>	1997 WD <sub>16</sub>	12 24.3	62°07'	2°9'/24.4	18	
11 17	6 47.90	+41 11.5	2.283	3.040	13.9	20.6	11 17	6 43.94	+18 22.6	1.218	2.035	20.4	19.1
11 27	6 41.57	+41 49.5	2.195	3.037	11.4	20.4	11 27	6 39.26	+17 55.3	1.163	2.052	15.9	18.9
12 7	6 32.26	+42 17.5	2.130	3.034	8.8	20.3	12 7	6 31.02	+17 34.1	1.126	2.069	10.7	18.6
12 17	6 20.72	+42 29.7	2.091	3.030	6.7	20.1	12 17	6 20.22	+17 19.6	1.112	2.086	5.3	18.4
12 27	6 8.15	+42 21.8	2.080	3.026	6.2	20.1	12 27	6 8.47	+17 11.9	1.124	2.104	3.3	18.3
1 6	5 56.03	+41 53.4	2.098	3.021	7.8	20.2	1 6	5 57.60	+17 10.8	1.162	2.121	7.9	18.6
1 16	5 45.67	+41 7.5	2.144	3.015	10.3	20.3	1 16	5 49.09	+17 16.3	1.225	2.139	12.9	18.9
1 26	5 38.06	+40 9.7	2.215	3.009	12.9	20.5	1 26	5 43.94	+17 27.9	1.309	2.157	17.1	19.3
<b>333322</b>	2001 QG <sub>26</sub>	12 24.3	50°32'	2°1'/24.4	18 R		<b>343783</b>	2011 GP <sub>30</sub>	12 24.3	311°26'	1°8'/24.4	18	
11 17	6 42.92	+18 36.8	1.251	2.067	20.0	19.9	11 17	6 39.43	+19 35.2	1.368	2.185	18.5	20.9
11 27	6 38.29	+18 32.1	1.202	2.091	15.5	19.7	11 27	6 36.04	+19 25.5	1.281	2.171	14.6	20.6
12 7	6 30.25	+18 34.4	1.172	2.116	10.3	19.4	12 7	6 29.23	+19 20.9	1.213	2.158	9.9	20.3
12 17	6 19.83	+18 42.7	1.165	2.140	4.8	19.2	12 17	6 19.65	+19 21.1	1.169	2.145	4.7	20.0
12 27	6 8.58	+18 55.5	1.185	2.166	2.5	19.1	12 27	6 8.60	+19 25.1	1.151	2.132	2.4	19.8
1 6	5 58.25	+19 11.3	1.231	2.191	7.3	19.5	1 6	5 57.81	+19 32.4	1.159	2.120	7.6	20.1
1 16	5 50.22	+19 29.2	1.302	2.217	12.2	19.8	1 16	5 48.89	+19 42.6	1.191	2.108	12.9	20.4
1 26	5 45.40	+19 49.0	1.394	2.243	16.2	20.2	1 26	5 43.14	+19 56.0	1.245	2.097	17.6	20.6
<b>455493</b>	2003 UK <sub>351</sub>	12 24.3	248°84'	1°7'/24.5	18		<b>383840</b>	2008 GT <sub>123</sub>	12 24.3	310°19'	2°2'/24.3	18	
11 17	6 37.12	+17 48.8	2.341	3.126	12.8	21.7	11 17	6 41.47	+19 56.5	1.393	2.206	18.5	21.2
11 27	6 32.63	+17 48.8	2.249	3.121	10.0	21.5	11 27	6 37.39	+19 28.7	1.313	2.201	14.6	20.9
12 7	6 26.09	+17 53.3	2.181	3.117	6.8	21.3	12 7	6 29.94	+19 3.7	1.252	2.196	9.9	20.6
12 17	6 18.01	+18 1.8	2.140	3.113	3.3	21.0	12 17	6 19.87	+18 41.8	1.216	2.191	4.7	20.3
12 27	6 9.20	+18 13.8	2.129	3.108	1.9	20.9	12 27	6 8.56	+18 23.6	1.206	2.186	2.7	20.2
1 6	6 0.59	+18 28.5	2.147	3.104	5.1	21.1	1 6	5 57.67	+18 9.9	1.222	2.182	7.6	20.5
1 16	5 53.07	+18 45.4	2.195	3.099	8.5	21.3	1 16	5 48.76	+18 1.6	1.264	2.177	12.6	20.7
1 26	5 47.39	+19 4.0	2.268	3.094	11.6	21.5	1 26	5 42.97	+17 59.6	1.327	2.173	17.0	21.0
<b>489980</b>	2008 SA <sub>117</sub>	12 24.3	157°35'	5°2'/23.9	17		<b>184860</b>	2005 UD <sub>82</sub>	12 24.3	77°15'	0°7'/24.3	18	
11 17	6 43.87	+41 30.6	2.983	3.730	11.1	22.6	11 17	6 40.13	+24 52.0	1.998	2.792	14.3	21.2
11 27	6 37.77	+42 18.0	2.902	3.737	9.2	22.5	11 27	6 35.31	+25 0.5	1.921	2.799	11.1	21.0
12 7	6 29.43	+42 57.3	2.846	3.743	7.2	22.4	12 7	6 28.00	+25 8.9	1.866	2.807	7.3	20.8
12 17	6 19.43	+43 24.2	2.817	3.749	5.6	22.3	12 17	6 18.87	+25 15.3	1.838	2.814	3.2	20.6
12 27	6 8.68	+43 35.7	2.818	3.755	5.3	22.3	12 27	6 8.96	+25 17.9	1.839	2.821	1.3	20.5
1 6	5 58.24	+43 31.0	2.848	3.760	6.4	22.3	1 6	5 59.46	+25 16.4	1.870	2.829	5.4	20.8
1 16	5 49.07	+43 11.6	2.906	3.764	8.3	22.5	1 16	5 51.43	+25 11.4	1.928	2.836	9.3	21.0
1 26	5 41.94	+42 41.0	2.990	3.768	10.3	22.6	1 26	5 45.70	+25 4.6	2.012	2.843	12.6	21.2
<b>362580</b>	2010 VS <sub>120</sub>	12 24.3	153°94'	2°6'/23.9	18		<b>240413</b>	2003 UD <sub>265</sub>	12 24.3	54°84'	0°7'/24.2	18	
11 17	6 42.31	+28 46.2	2.398	3.177	12.7	21.0	11 17	6 42.04	+22 12.5	1.555	2.361	17.2	20.1
11 27	6 36.80	+29 40.6	2.314	3.183	9.9	20.8	11 27	6 37.38	+22 54.7	1.492	2.377	13.3	19.9
12 7	6 28.93	+30 34.4	2.255	3.188	6.8	20.6	12 7	6 29.65	+23 41.7	1.450	2.393	8.8	19.7
12 17	6 19.27	+31 23.6	2.223	3.193	3.7	20.4	12 17	6 19.65	+24 29.5	1.433	2.409	3.8	19.4
12 27	6 8.74	+32 4.4	2.223	3.197	2.9	20.4	12 27	6 8.68	+25 13.9	1.443	2.426	1.6	19.3
1 6	5 58.43	+32 34.7	2.253	3.201	5.5	20.5	1 6	5 58.26	+25 51.7	1.482	2.442	6.4	19.7
1 16	5 49.37	+32 54.4	2.312	3.205	8.7	20.7	1 16	5 49.73	+26 22.3	1.548	2.459	10.9	20.0
1 26	5 42.42	+33 5.2	2.397	3.208	11.5	20.9	1 26	5 44.08	+26 46.4	1.637	2.476	14.7	20.3
<b>247581</b>	2002 TJ <sub>46</sub>	12 24.3	356°68'	16°6'/21.2	18		<b>7928</b>	Bijaoui	12 24.3	150°42'	1°6'/24.4	18	
11 17	6 36.12	-9 22.1	1.532	2.260	20.7	19.0	11 17	6 40.57	+29 56.0	2.796	3.570	11.2	18.5
11 27	6 32.72	-12 15.5	1.474	2.256	19.0	18.9	11 27	6 34.94	+29 54.5	2.711	3.577	8.7	18.3
12 7	6 26.56	-14 46.2	1.435	2.254	17.5	18.8	12 7	6 27.40	+29 49.1	2.651	3.584	5.9	18.2
12 17	6 18.32	-16 42.5	1.416	2.252	16.7	18.7	12 17	6 18.52	+29 38.1	2.619	3.590	2.9	18.0
12 27	6 9.10	-17 55.3	1.417	2.251	16.8	18.7	12 27	6 9.11	+29 20.6	2.618	3.597	1.9	17.9
1 6	6 0.22	-18 21.6	1.438	2.251	17.7	18.8	1 6	6 0.04	+28 56.9	2.649	3.602	4.4	18.1
1 16	5 52.89	-18 3.7	1.477	2.252	19.1	18.9	1 16	5 52.11	+28 28.5	2.709	3.608	7.3	18.3
1 26	5 48.10	-17 8.9	1.532	2.254	20.8	19.0	1 26	5 45.96	+27 57.6	2.797	3.613	9.9	18.5
<b>458478</b>	2011 BX <sub>104</sub>	12 24.3	238°42'	4°4'/24.9	17		<b>486206</b>	2013 AH <sub>77</sub>	12 24.3	11°22'	0°1'/24.3	17	
11 17	6 36.45	+9 27.9	2.272	3.042									

EPHEMERIDES

12 24.3

12 24.3

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>311875</b>	2006 <i>WW</i> <sub>131</sub>	12 24.3 303°13	2°1/23.8	18			<b>196002</b>	2002 <i>RU</i> <sub>239</sub>	12 24.3 288°75	4°6/24.8	18		
11 17	6 40.89	+24 21.9	1.808	2.607	15.4	20.7	11 17	6 35.74	+9 8.3	2.303	3.073	13.4	20.1
11 27	6 36.83	+25 28.4	1.698	2.580	12.2	20.4	11 27	6 31.57	+8 50.7	2.211	3.067	10.8	19.9
12 7	6 29.69	+26 42.2	1.612	2.553	8.3	20.1	12 7	6 25.41	+8 42.7	2.143	3.061	8.0	19.7
12 17	6 19.91	+27 58.7	1.551	2.526	4.0	19.8	12 17	6 17.76	+8 45.8	2.101	3.055	5.5	19.6
12 27	6 8.50	+29 11.8	1.519	2.499	2.7	19.7	12 27	6 9.40	+9 0.7	2.087	3.049	4.7	19.5
1 6	5 56.87	+30 16.4	1.517	2.472	6.9	19.9	1 6	6 1.22	+9 26.8	2.102	3.043	6.5	19.6
1 16	5 46.55	+31 9.3	1.542	2.445	11.5	20.1	1 16	5 54.08	+10 2.6	2.146	3.037	9.4	19.8
1 26	5 38.90	+31 51.0	1.590	2.419	15.6	20.3	1 26	5 48.69	+10 45.8	2.214	3.031	12.2	20.0
<b>436863</b>	2012 <i>SK</i> <sub>60</sub>	12 24.3 144°36	2°5/24.5	18			<b>288358</b>	2004 <i>CF</i> <sub>1</sub>	12 24.3 264°59	2°1/23.9	17		
11 17	6 43.65	+16 22.9	1.992	2.771	14.9	22.5	11 17	6 41.97	+25 32.9	1.962	2.754	14.6	20.7
11 27	6 37.83	+16 11.2	1.915	2.783	11.7	22.3	11 27	6 37.21	+26 29.1	1.866	2.743	11.5	20.4
12 7	6 29.56	+16 5.2	1.861	2.794	8.0	22.1	12 7	6 29.62	+27 28.9	1.792	2.731	7.7	20.2
12 17	6 19.53	+16 4.7	1.835	2.805	4.2	21.9	12 17	6 19.75	+28 27.9	1.746	2.720	3.8	19.9
12 27	6 8.75	+16 9.4	1.837	2.814	2.8	21.9	12 27	6 8.63	+29 21.2	1.729	2.708	2.5	19.8
1 6	5 58.39	+16 18.8	1.870	2.823	6.0	22.1	1 6	5 57.57	+30 5.2	1.742	2.697	6.3	20.0
1 16	5 49.50	+16 32.4	1.931	2.832	9.7	22.3	1 16	5 47.90	+30 38.6	1.783	2.685	10.3	20.3
1 26	5 42.89	+16 49.7	2.018	2.839	13.0	22.6	1 26	5 40.72	+31 2.7	1.848	2.673	13.9	20.5
<b>487534</b>	2014 <i>UC</i> <sub>161</sub>	12 24.3 122°54	0°8/24.3	17			<b>331842</b>	2003 <i>UM</i> <sub>196</sub>	12 24.3 33°31	8°1/23.7	18		
11 17	6 38.50	+21 34.2	2.459	3.242	12.3	20.5	11 17	6 36.58	+2 24.2	2.212	2.961	14.5	20.1
11 27	6 33.50	+21 20.9	2.377	3.250	9.5	20.4	11 27	6 32.13	+0 56.8	2.136	2.963	12.3	19.9
12 7	6 26.53	+21 8.5	2.320	3.258	6.3	20.2	12 7	6 25.71	-0 19.2	2.083	2.966	10.1	19.8
12 17	6 18.18	+20 56.7	2.290	3.265	2.8	20.0	12 17	6 17.85	-1 19.2	2.055	2.969	8.5	19.7
12 27	6 9.25	+20 45.1	2.291	3.273	1.3	19.9	12 27	6 9.38	-1 59.4	2.054	2.972	8.2	19.7
1 6	6 0.65	+20 34.0	2.322	3.280	4.7	20.1	1 6	6 1.20	-2 18.2	2.081	2.975	9.4	19.8
1 16	5 53.20	+20 24.1	2.383	3.287	8.0	20.3	1 16	5 54.14	-2 16.4	2.133	2.979	11.4	19.9
1 26	5 47.57	+20 16.0	2.469	3.293	10.8	20.5	1 26	5 48.89	-1 56.6	2.207	2.982	13.6	20.1
<b>181334</b>	2006 <i>QY</i> <sub>119</sub>	12 24.3 42°23	2°3/24.2	18			<b>196129</b>	2002 <i>TT</i> <sub>210</sub>	12 24.3 350°28	2°8/24.1	18		
11 17	6 41.57	+27 50.7	1.542	2.351	17.2	19.6	11 17	6 38.35	+29 54.2	2.099	2.894	13.7	19.7
11 27	6 37.08	+28 17.5	1.482	2.368	13.3	19.4	11 27	6 34.11	+30 29.4	2.014	2.891	10.8	19.5
12 7	6 29.44	+28 42.4	1.443	2.385	8.9	19.2	12 7	6 27.35	+31 2.5	1.952	2.888	7.4	19.3
12 17	6 19.54	+29 1.4	1.429	2.403	4.4	19.0	12 17	6 18.67	+31 29.8	1.916	2.886	4.1	19.1
12 27	6 8.76	+29 11.2	1.442	2.422	2.7	18.9	12 27	6 9.07	+31 48.1	1.908	2.884	3.1	19.0
1 6	5 58.67	+29 11.0	1.483	2.441	6.7	19.2	1 6	5 59.75	+31 56.1	1.930	2.882	6.0	19.2
1 16	5 50.59	+29 2.5	1.550	2.460	10.9	19.5	1 16	5 51.81	+31 54.4	1.979	2.881	9.4	19.4
1 26	5 45.46	+28 48.9	1.640	2.480	14.6	19.8	1 26	5 46.16	+31 45.4	2.053	2.880	12.6	19.6
<b>426039</b>	2011 <i>SX</i> <sub>174</sub>	12 24.3 37°97	2°2/24.1	18			<b>303137</b>	2004 <i>CW</i> <sub>112</sub>	12 24.3 355°55	1°7/24.7	18		
11 17	6 36.14	+30 1.7	2.692	3.477	11.3	20.4	11 17	6 38.83	+16 5.0	1.574	2.378	17.1	20.0
11 27	6 31.70	+30 27.2	2.616	3.487	8.8	20.2	11 27	6 35.02	+16 41.1	1.493	2.375	13.5	19.7
12 7	6 25.37	+30 50.1	2.564	3.498	6.0	20.0	12 7	6 28.25	+17 28.9	1.433	2.374	9.1	19.5
12 17	6 17.69	+31 7.9	2.540	3.510	3.2	19.9	12 17	6 19.15	+18 26.4	1.398	2.372	4.4	19.2
12 27	6 9.43	+31 18.8	2.546	3.521	2.4	19.8	12 27	6 8.88	+19 30.2	1.390	2.371	2.1	19.0
1 6	6 1.46	+31 22.2	2.581	3.533	4.7	20.0	1 6	5 58.86	+20 35.9	1.411	2.371	6.6	19.3
1 16	5 54.58	+31 18.6	2.646	3.545	7.5	20.2	1 16	5 50.47	+21 39.9	1.458	2.371	11.2	19.6
1 26	5 49.44	+31 9.8	2.737	3.557	10.0	20.4	1 26	5 44.77	+22 40.2	1.528	2.372	15.3	19.8
<b>288124</b>	2003 <i>WX</i> <sub>71</sub>	12 24.3 91°09	2°7/24.6	18			<b>103376</b>	2000 <i>AX</i> <sub>118</sub>	12 24.3 328°35	0°2/24.3	18		
11 17	6 47.45	+32 12.0	1.853	2.637	15.7	20.5	11 17	6 38.55	+25 5.5	2.037	2.834	14.0	19.3
11 27	6 41.00	+32 4.4	1.788	2.658	12.3	20.3	11 27	6 34.14	+24 49.5	1.947	2.827	10.9	19.1
12 7	6 31.68	+31 49.5	1.745	2.678	8.4	20.1	12 7	6 27.28	+24 31.7	1.880	2.821	7.3	18.9
12 17	6 20.39	+31 24.1	1.728	2.698	4.4	19.9	12 17	6 18.61	+24 11.2	1.840	2.816	3.2	18.6
12 27	6 8.48	+30 47.0	1.740	2.717	2.9	19.9	12 27	6 9.11	+23 47.6	1.828	2.810	1.2	18.4
1 6	5 57.36	+30 0.2	1.783	2.737	6.2	20.1	1 6	5 59.95	+23 21.5	1.845	2.805	5.4	18.7
1 16	5 48.23	+29 7.5	1.853	2.756	9.9	20.4	1 16	5 52.17	+22 54.7	1.891	2.800	9.4	18.9
1 26	5 41.88	+28 13.7	1.948	2.774	13.2	20.6	1 26	5 46.61	+22 29.2	1.961	2.796	12.8	19.2
<b>44006</b>	1997 <i>TF</i> <sub>17</sub>	12 24.3 94°70	2°9/24.6	18			<b>438686</b>	2008 <i>JB</i> <sub>14</sub>	12 24.3 259°72	3°8/24.5	18		
11 17	6 44.65	+15 6.9	1.757	2.540	16.4	18.8	11 17	6 41.18	+15 0.5	1.598	2.395	17.2	21.8
11 27	6 38.70	+15 3.4	1.697	2.566	12.8	18.7	11 27	6 36.82	+14 37.5	1.508	2.384	13.7	21.6
12 7	6 30.13	+15 7.9	1.660	2.592	8.8	18.5	12 7	6 29.44	+14 22.0	1.438	2.373	9.6	21.3
12 17	6 19.74	+15 20.0	1.648	2.618	4.7	18.3	12 17	6 19.68	+14 15.3	1.393	2.361	5.5	21.0
12 27	6 8.71	+15 38.7	1.666	2.643	3.1	18.2	12 27	6 8.69	+14 18.0	1.375	2.350	4.0	20.9
1 6	5 58.30	+16 2.5	1.713	2.667	6.4	18.5	1 6	5 57.92	+14 29.9	1.384	2.338	7.6	21.1
1 16	5 49.61	+16 30.1	1.788	2.691	10.2	18.8	1 16	5 48.76	+14 50.1	1.420	2.326	12.1	21.3
1 26	5 43.44	+17 0.3	1.888	2.714	13.6	19.0	1 26	5 42.32	+15 17.3	1.478	2.314	16.2	21.5
<b>329093</b>	2011 <i>BN</i> <sub>92</sub>	12 24.3 207°80	5°5/25.1	18			<b>195743</b>	2002 <i>PW</i> <sub>101</sub>	12 24.3 163°78	0°8/24.3	18		
11 17	6 36.06	+4 1.0	2.690	3.433	12.3	21.4	11 17	6 38.26	+21 49.3	2.461	3.245	12.2	20.3
11 27	6 31.47	+3 40.8	2.598	3.429	10.2	21.2	11 27	6 33.37	+21 32.3	2.374	3.247	9.5	20.2
12 7	6 25.17	+3 31.6	2.529	3.424	8.0	21.1	12 7	6 26.50	+21 15.8	2.311	3.249	6.3	20.0
12 17	6 17.61	+3 35.3	2.486	3.420	6.1	20.9	12 17	6 18.20	+20 59.4	2.275	3.250	2.8	19.7
12 27	6 9.45	+3 53.0	2.473	3.415	5.6	20.9	12 27	6 9.28	+20 43.2	2.270	3.251	1.3	19.6
1 6	6 1.45	+4 24.0	2.488	3.409	6.8	21.0	1 6	6 0.66	+20 27.6	2.295	3.252	4.7	19.9
1 16	5 54.33	+5 6.7	2.532	3.403	8.9	21.1	1 16	5 53.17	+20 13.3	2.349	3.253	8.0	20.1
1 26	5 48.71	+5 58.5	2.602	3.398	11.2	21.2	1 26	5 47.49	+20 1.1	2.429	3.254	11.0	20.3
<b>481841</b>	2008 <i>WS</i> <sub>48</sub>	12 24.3 39°36	1°0/24.4	18			<b>323612</b>	2004 <i>TK</i> <sub>369</sub>	12 24.3 52°28	3°9/24.4	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>126894</b>	2002 <i>EW</i> <sub>104</sub>		12 24.3 129°21	2°8/24.2	18		<b>267557</b>	2002 <i>PL</i> <sub>186</sub>		12 24.3 177°81	0°5/24.3	18	
11 17	6 45.79	+30 16.7	2.133	2.912	14.0	20.2	11 17	6 38.43	+24 22.1	2.750	3.529	11.2	21.1
11 27	6 39.60	+30 48.7	2.060	2.928	11.0	20.0	11 27	6 33.40	+24 35.9	2.660	3.530	8.7	21.0
12 7	6 30.79	+31 17.2	2.011	2.943	7.5	19.8	12 7	6 26.49	+24 49.9	2.594	3.531	5.7	20.8
12 17	6 20.09	+31 38.5	1.989	2.958	4.1	19.6	12 17	6 18.22	+25 2.7	2.557	3.532	2.5	20.6
12 27	6 8.61	+31 49.3	1.996	2.971	3.0	19.6	12 27	6 9.32	+25 12.9	2.550	3.532	1.0	20.4
1 6	5 57.61	+31 49.0	2.034	2.985	5.9	19.8	1 6	6 0.63	+25 19.8	2.575	3.532	4.3	20.7
1 16	5 48.21	+31 39.0	2.101	2.997	9.3	20.0	1 16	5 52.95	+25 23.6	2.629	3.532	7.4	20.9
1 26	5 41.26	+31 22.4	2.193	3.009	12.3	20.2	1 26	5 46.95	+25 25.1	2.711	3.531	10.1	21.1
<b>352564</b>	2008 <i>DW</i> <sub>8</sub>		12 24.3 78°28	15°0/27.5	17		<b>196078</b>	2002 <i>TH</i> <sub>80</sub>		12 24.3 353°05	6°0/24.3	18	
11 17	7 7.53	+53 37.0	1.105	1.867	25.4	20.7	11 17	6 35.09	+ 8 33.2	2.048	2.826	14.6	19.3
11 27	7 0.76	+54 31.7	1.051	1.875	22.3	20.5	11 27	6 31.25	+ 7 37.1	1.966	2.823	11.9	19.1
12 7	6 46.74	+54 56.6	1.010	1.884	19.0	20.4	12 7	6 25.28	+ 6 50.0	1.906	2.820	9.1	19.0
12 17	6 27.24	+54 33.5	0.987	1.893	16.2	20.2	12 17	6 17.75	+ 6 15.1	1.871	2.818	6.7	18.8
12 27	6 6.15	+53 10.8	0.985	1.901	15.0	20.2	12 27	6 9.50	+ 5 54.9	1.864	2.817	6.1	18.8
1 6	5 47.81	+50 53.0	1.006	1.910	16.0	20.3	1 6	6 1.53	+ 5 50.3	1.885	2.816	7.9	18.9
1 16	5 35.06	+47 58.4	1.048	1.919	18.5	20.5	1 16	5 54.74	+ 6 0.7	1.931	2.815	10.6	19.0
1 26	5 28.83	+44 49.9	1.110	1.928	21.6	20.7	1 26	5 49.88	+ 6 23.9	2.002	2.815	13.4	19.2
<b>168180</b>	2006 <i>HV</i> <sub>88</sub>		12 24.3 111°59	6°4/25.3	18		<b>208812</b>	2002 <i>RE</i> <sub>3</sub>		12 24.3 118°02	1°0/24.3	18	
11 17	6 40.08	+ 5 10.2	1.972	2.731	15.7	20.2	11 17	6 43.33	+25 31.1	2.135	2.918	13.9	21.5
11 27	6 35.02	+ 4 47.6	1.902	2.745	12.9	20.0	11 27	6 37.57	+25 48.3	2.062	2.935	10.7	21.3
12 7	6 27.69	+ 4 39.3	1.853	2.758	9.9	19.9	12 7	6 29.39	+26 5.1	2.013	2.951	7.1	21.1
12 17	6 18.74	+ 4 47.3	1.829	2.771	7.3	19.8	12 17	6 19.49	+26 19.0	1.992	2.967	3.2	20.9
12 27	6 9.11	+ 5 12.4	1.833	2.784	6.4	19.7	12 27	6 8.89	+26 27.9	2.000	2.982	1.5	20.8
1 6	5 59.86	+ 5 53.2	1.866	2.796	8.0	19.9	1 6	5 58.74	+26 31.2	2.039	2.996	5.2	21.1
1 16	5 51.97	+ 6 46.7	1.926	2.808	10.7	20.0	1 16	5 50.07	+26 29.5	2.107	3.010	8.9	21.3
1 26	5 46.18	+ 7 49.1	2.010	2.819	13.5	20.2	1 26	5 43.67	+26 24.8	2.200	3.024	12.0	21.5
<b>419394</b>	2010 <i>AN</i> <sub>22</sub>		12 24.3 349°21	0°5/24.4	17		<b>150550</b>	2000 <i>SV</i> <sub>182</sub>		12 24.3 23°04	4°1/24.6	18	
11 17	6 36.26	+21 56.3	1.930	2.732	14.5	21.1	11 17	6 37.40	+12 52.3	1.910	2.698	15.1	19.8
11 27	6 32.50	+21 56.1	1.844	2.727	11.3	20.9	11 27	6 33.21	+12 26.4	1.831	2.700	12.1	19.6
12 7	6 26.28	+21 58.1	1.780	2.723	7.5	20.7	12 7	6 26.65	+12 8.5	1.773	2.702	8.6	19.4
12 17	6 18.21	+22 1.1	1.743	2.719	3.3	20.4	12 17	6 18.36	+12 0.2	1.741	2.705	5.3	19.2
12 27	6 9.28	+22 4.1	1.733	2.715	1.3	20.2	12 27	6 9.29	+12 2.2	1.737	2.707	4.3	19.1
1 6	6 0.63	+22 6.7	1.752	2.713	5.6	20.5	1 6	6 0.55	+12 14.2	1.761	2.710	6.8	19.3
1 16	5 53.35	+22 9.0	1.799	2.711	9.6	20.8	1 16	5 53.14	+12 35.1	1.813	2.713	10.2	19.5
1 26	5 48.29	+22 11.6	1.870	2.709	13.1	21.0	1 26	5 47.88	+13 3.3	1.888	2.716	13.5	19.7
<b>215015</b>	2008 <i>TP</i> <sub>120</sub>		12 24.3 132°24	1°3/24.5	18		<b>385215</b>	2000 <i>AR</i> <sub>92</sub>		12 24.3 299°56	10°7/26.3	17	
11 17	6 37.52	+18 15.4	2.583	3.362	11.9	20.6	11 17	6 58.64	+49 22.1	1.481	2.236	20.2	20.0
11 27	6 32.68	+18 19.6	2.500	3.370	9.2	20.4	11 27	6 52.24	+49 35.3	1.386	2.216	17.5	19.8
12 7	6 26.00	+18 27.7	2.442	3.377	6.2	20.3	12 7	6 40.54	+49 24.9	1.308	2.196	14.5	19.5
12 17	6 17.98	+18 38.9	2.411	3.384	3.0	20.1	12 17	6 24.66	+48 38.1	1.252	2.176	11.8	19.3
12 27	6 9.38	+18 52.6	2.411	3.391	1.6	20.0	12 27	6 7.02	+47 6.1	1.221	2.157	10.7	19.2
1 6	6 1.04	+19 8.0	2.442	3.398	4.6	20.2	1 6	5 50.59	+44 50.4	1.216	2.137	12.2	19.2
1 16	5 53.73	+19 24.5	2.502	3.405	7.7	20.4	1 16	5 37.78	+42 3.0	1.236	2.118	15.4	19.3
1 26	5 48.10	+19 41.9	2.588	3.411	10.4	20.6	1 26	5 29.95	+39 1.6	1.280	2.100	19.1	19.5
<b>336059</b>	2008 <i>EF</i> <sub>95</sub>		12 24.3 218°79	3°0/24.5	18		<b>225330</b>	1998 <i>QZ</i> <sub>58</sub>		12 24.3 70°87	3°5/24.4	18	
11 17	6 42.38	+15 39.5	1.771	2.559	16.1	21.8	11 17	6 49.58	+30 43.8	1.409	2.210	18.9	20.2
11 27	6 37.43	+15 30.3	1.681	2.553	12.8	21.5	11 27	6 43.40	+31 9.2	1.360	2.239	14.7	20.0
12 7	6 29.67	+15 28.4	1.612	2.546	8.8	21.3	12 7	6 33.62	+31 29.0	1.331	2.268	10.0	19.8
12 17	6 19.74	+15 34.0	1.569	2.539	4.7	21.0	12 17	6 21.34	+31 37.7	1.326	2.297	5.3	19.7
12 27	6 8.71	+15 46.8	1.554	2.531	3.2	20.9	12 27	6 8.29	+31 31.8	1.349	2.326	3.7	19.6
1 6	5 57.92	+16 5.9	1.569	2.523	6.8	21.1	1 6	5 56.31	+31 12.0	1.399	2.354	7.5	19.9
1 16	5 48.63	+16 30.1	1.610	2.515	11.0	21.3	1 16	5 46.89	+30 42.3	1.476	2.382	11.7	20.2
1 26	5 41.86	+16 58.5	1.676	2.505	14.9	21.5	1 26	5 40.93	+30 8.0	1.575	2.409	15.4	20.5
<b>421734</b>	2014 <i>PK</i> <sub>40</sub>		12 24.3 43°76	0°8/24.4	18		<b>486405</b>	2013 <i>EY</i> <sub>83</sub>		12 24.3 170°10	2°9/24.7	18	
11 17	6 38.60	+20 39.5	1.941	2.737	14.6	21.2	11 17	6 39.02	+13 32.1	2.483	3.253	12.5	22.2
11 27	6 34.18	+20 45.6	1.863	2.743	11.3	21.0	11 27	6 33.90	+13 27.5	2.396	3.256	9.9	22.0
12 7	6 27.30	+20 55.0	1.808	2.748	7.5	20.8	12 7	6 26.86	+13 29.7	2.333	3.259	6.9	21.8
12 17	6 18.63	+21 6.7	1.779	2.754	3.3	20.6	12 17	6 18.40	+13 38.7	2.297	3.262	4.0	21.6
12 27	6 9.15	+21 19.2	1.778	2.760	1.4	20.4	12 27	6 9.30	+13 54.4	2.291	3.264	3.0	21.6
1 6	6 0.03	+21 31.6	1.807	2.766	5.5	20.7	1 6	6 0.42	+14 15.9	2.316	3.266	5.3	21.7
1 16	5 52.33	+21 43.6	1.863	2.772	9.5	21.0	1 16	5 52.60	+14 42.3	2.370	3.267	8.4	21.9
1 26	5 46.88	+21 55.5	1.944	2.779	12.9	21.2	1 26	5 46.51	+15 12.3	2.451	3.267	11.2	22.1
<b>457414</b>	2008 <i>TE</i> <sub>163</sub>		12 24.3 35°93	7°6/25.8	18		<b>305051</b>	2007 <i>UB</i> <sub>42</sub>		12 24.3 169°02	0°4/24.3	18	
11 17	6 36.21	+ 2 48.4	1.783	2.549	16.8	20.4	11 17	6 42.07	+25 1.5	1.918	2.711	14.9	21.1
11 27	6 32.15	+ 2 18.5	1.728	2.571	14.0	20.2	11 27	6 36.98	+24 57.6	1.834	2.712	11.6	20.9
12 7	6 25.83	+ 2 6.1	1.694	2.594	11.0	20.1	12 7	6 29.23	+24 52.9	1.773	2.713	7.7	20.7
12 17	6 17.92	+ 2 13.8	1.684	2.617	8.5	20.0	12 17	6 19.50	+24 45.5	1.739	2.714	3.4	20.4
12 27	6 9.44	+ 2 42.5	1.699	2.641	7.6	20.0	12 27	6 8.90	+24 34.2	1.733	2.715	1.3	20.2
1 6	6 1.46	+ 3 30.1	1.741	2.666	8.9	20.1	1 6	5 58.69	+24 19.2	1.757	2.716	5.7	20.5
1 16	5 54.90	+ 4 32.7	1.809	2.691	11.4	20.3	1 16	5 50.05	+24 1.9	1.808	2.716	9.8	20.8
1 26	5 50.48	+ 5 45.3	1.901	2.716	14.0	20.6	1 26	5 43.85	+23 44.4	1.885	2.716	13.4	21.0
<b>89577</b>	2001 <i>XW</i> <sub>120</sub>		12 24.3 200°46	1°4/24.4	18		<b>313442</b>	2002 <i>RM</i> <sub>143</sub>		12 24.3 43			

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12 24.3

12 24.4

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>283340</b>	1999 TY <sub>165</sub>		12 24.3	46°07'	0°2'/24.3	17	<b>134398</b>	1997 JW <sub>15</sub>		12 24.4	161°12'	3°2'/23.9	18
11 17	6 42.48	+23 39.3	1.386	2.200	18.5	20.4	11 17	6 44.41	+30 8.5	2.190	2.970	13.7	20.5
11 27	6 37.83	+23 27.7	1.331	2.221	14.3	20.2	11 27	6 38.74	+31 2.8	2.107	2.975	10.8	20.3
12 7	6 29.95	+23 16.7	1.297	2.242	9.4	19.9	12 7	6 30.42	+31 55.6	2.048	2.980	7.4	20.1
12 17	6 19.79	+23 4.6	1.287	2.263	4.0	19.7	12 17	6 20.07	+32 42.1	2.017	2.984	4.3	19.9
12 27	6 8.85	+22 50.8	1.303	2.285	1.5	19.6	12 27	6 8.75	+33 18.1	2.015	2.987	3.4	19.8
1 6	5 58.75	+22 35.7	1.346	2.308	6.7	20.0	1 6	5 57.69	+33 41.4	2.044	2.991	6.1	20.0
1 16	5 50.82	+22 21.0	1.415	2.331	11.4	20.3	1 16	5 48.07	+33 52.4	2.101	2.993	9.5	20.2
1 26	5 45.94	+22 8.5	1.507	2.354	15.3	20.6	1 26	5 40.84	+33 53.6	2.183	2.995	12.5	20.4
<b>251065</b>	2006 SW <sub>25</sub>		12 24.3	198°67'	3°4'/24.4	18	<b>124284</b>	2001 QQ <sub>42</sub>		12 24.4	56°14'	0°6'/24.4	18
11 17	6 44.63	+33 33.4	2.178	2.956	13.8	20.7	11 17	6 43.64	+21 6.3	1.318	2.132	19.3	19.8
11 27	6 38.88	+33 46.0	2.089	2.954	11.0	20.5	11 27	6 38.91	+21 16.2	1.264	2.153	14.9	19.6
12 7	6 30.45	+33 52.3	2.023	2.951	7.7	20.3	12 7	6 30.79	+21 30.8	1.230	2.174	9.8	19.4
12 17	6 20.03	+33 48.4	1.983	2.948	4.6	20.1	12 17	6 20.22	+21 47.6	1.219	2.196	4.3	19.1
12 27	6 8.73	+33 31.9	1.973	2.945	3.6	20.1	12 27	6 8.76	+22 4.1	1.235	2.218	1.6	19.0
1 6	5 57.82	+33 2.9	1.992	2.941	6.1	20.2	1 6	5 58.11	+22 18.9	1.278	2.240	7.0	19.4
1 16	5 48.49	+33 23.9	2.041	2.937	9.5	20.4	1 16	5 49.72	+22 31.8	1.346	2.262	11.8	19.7
1 26	5 41.61	+31 39.1	2.114	2.932	12.6	20.6	1 26	5 44.52	+22 43.8	1.437	2.284	15.9	20.0
<b>112109</b>	2002 JD <sub>39</sub>		12 24.3	125°89'	1°3'/24.3	18	<b>46418</b>	2002 JS <sub>12</sub>		12 24.4	162°44'	0°4'/24.3	18
11 17	6 46.48	+21 28.7	1.684	2.475	16.7	19.7	11 17	6 46.22	+22 33.7	1.890	2.675	15.4	19.5
11 27	6 40.45	+21 5.9	1.613	2.489	13.0	19.5	11 27	6 40.26	+23 1.7	1.809	2.682	12.0	19.3
12 7	6 31.50	+20 44.3	1.564	2.503	8.6	19.3	12 7	6 31.47	+23 32.8	1.750	2.688	7.9	19.0
12 17	6 20.45	+20 23.3	1.542	2.517	3.9	19.0	12 17	6 20.54	+24 4.1	1.718	2.694	3.5	18.8
12 27	6 8.61	+20 2.9	1.548	2.530	1.9	18.9	12 27	6 8.60	+24 32.4	1.716	2.698	1.3	18.6
1 6	5 57.39	+19 43.9	1.584	2.542	6.3	19.2	1 6	5 57.02	+24 55.7	1.744	2.702	5.9	18.9
1 16	5 48.06	+19 27.7	1.647	2.553	10.7	19.5	1 16	5 47.06	+25 13.8	1.801	2.705	10.1	19.2
1 26	5 41.50	+19 15.7	1.734	2.564	14.4	19.8	1 26	5 39.69	+25 27.7	1.882	2.707	13.7	19.4
<b>196412</b>	2003 GK <sub>54</sub>		12 24.3	195°56'	0°5'/24.3	18	<b>117723</b>	2005 GN <sub>11</sub>		12 24.4	283°22'	3°9'/24.7	18
11 17	6 43.46	+23 38.9	2.007	2.794	14.5	21.3	11 17	6 40.92	+14 11.1	1.419	2.224	18.6	20.1
11 27	6 38.06	+23 59.1	1.917	2.792	11.3	21.0	11 27	6 37.02	+14 2.9	1.333	2.214	14.9	19.8
12 7	6 29.99	+24 21.0	1.850	2.789	7.5	20.8	12 7	6 29.83	+14 5.7	1.267	2.204	10.5	19.5
12 17	6 19.88	+24 42.3	1.811	2.786	3.3	20.5	12 17	6 20.00	+14 20.4	1.225	2.194	5.9	19.2
12 27	6 8.77	+25 0.3	1.800	2.782	1.3	20.4	12 27	6 8.76	+14 46.8	1.208	2.184	4.1	19.1
1 6	5 57.92	+25 13.7	1.820	2.778	5.7	20.7	1 6	5 57.75	+15 23.0	1.218	2.175	8.0	19.3
1 16	5 48.52	+25 22.5	1.868	2.773	9.7	20.9	1 16	5 48.51	+16 6.5	1.254	2.165	12.9	19.5
1 26	5 41.51	+25 27.9	1.942	2.768	13.3	21.1	1 26	5 42.28	+16 54.6	1.311	2.156	17.3	19.8
<b>283028</b>	2007 VY <sub>321</sub>		12 24.3	69°47'	1°2'/24.5	18	<b>318027</b>	2004 EW <sub>15</sub>		12 24.4	303°60'	8°9'/24.6	17
11 17	6 45.21	+18 50.2	1.237	2.051	20.3	20.8	11 17	6 36.44	+ 2 42.8	1.762	2.529	17.0	21.2
11 27	6 40.37	+19 11.5	1.181	2.070	15.8	20.6	11 27	6 32.87	+ 1 44.3	1.668	2.509	14.5	21.0
12 7	6 31.89	+19 41.3	1.145	2.088	10.5	20.4	12 7	6 26.73	+ 1 0.3	1.593	2.490	11.8	20.8
12 17	6 20.73	+20 16.9	1.131	2.107	4.7	20.1	12 17	6 18.55	+ 0 36.1	1.542	2.471	9.6	20.6
12 27	6 8.51	+20 54.4	1.144	2.126	2.0	20.0	12 27	6 9.29	+ 0 35.7	1.516	2.452	9.0	20.6
1 6	5 57.09	+21 30.7	1.184	2.145	7.4	20.4	1 6	6 0.12	+ 1 0.2	1.516	2.433	10.6	20.6
1 16	5 48.04	+22 4.2	1.248	2.164	12.6	20.7	1 16	5 52.22	+ 1 47.6	1.541	2.415	13.4	20.7
1 26	5 42.44	+22 34.9	1.335	2.182	16.9	21.0	1 26	5 46.58	+ 2 53.4	1.587	2.397	16.5	20.9
<b>486336</b>	2013 CO <sub>159</sub>		12 24.3	302°88'	4°3'/24.7	17	<b>146787</b>	2001 YB <sub>9</sub>		12 24.4	74°13'	2°3'/24.2	18
11 17	6 37.93	+12 36.8	1.717	2.510	16.3	21.7	11 17	6 41.64	+28 36.1	1.940	2.733	14.7	19.9
11 27	6 34.11	+12 23.2	1.624	2.497	13.1	21.4	11 27	6 36.69	+29 1.7	1.866	2.743	11.5	19.8
12 7	6 27.58	+12 19.6	1.553	2.484	9.4	21.2	12 7	6 29.05	+29 25.1	1.815	2.752	7.8	19.5
12 17	6 18.91	+12 27.5	1.506	2.471	5.7	20.9	12 17	6 19.45	+29 42.9	1.790	2.762	3.9	19.3
12 27	6 9.12	+12 47.3	1.486	2.459	4.4	20.8	12 27	6 9.01	+29 52.2	1.794	2.772	2.6	19.3
1 6	5 59.49	+13 18.0	1.494	2.446	7.4	20.9	1 6	5 59.02	+29 52.2	1.827	2.782	5.9	19.5
1 16	5 51.26	+13 57.5	1.528	2.434	11.4	21.2	1 16	5 50.64	+29 44.2	1.887	2.792	9.7	19.7
1 26	5 45.45	+14 43.4	1.586	2.422	15.2	21.4	1 26	5 44.73	+29 30.8	1.972	2.801	13.0	20.0
<b>193706</b>	2001 FB <sub>75</sub>		12 24.3	189°67'	9°3'/23.1	18	<b>446526</b>	2014 LG <sub>13</sub>		12 24.4	233°10'	0°9'/24.3	18
11 17	6 53.93	+55 32.2	2.856	3.542	12.8	20.4	11 17	6 42.11	+24 52.4	2.047	2.836	14.2	21.4
11 27	6 46.88	+56 55.4	2.781	3.541	11.5	20.3	11 27	6 37.07	+25 10.9	1.951	2.827	11.1	21.2
12 7	6 36.25	+58 4.7	2.727	3.540	10.3	20.2	12 7	6 29.40	+25 30.2	1.878	2.817	7.4	21.0
12 17	6 22.73	+58 52.7	2.697	3.538	9.5	20.1	12 17	6 19.67	+25 47.8	1.832	2.807	3.3	20.7
12 27	6 7.72	+59 13.6	2.693	3.536	9.4	20.1	12 27	6 8.91	+26 1.3	1.815	2.797	1.5	20.5
1 6	5 53.03	+59 6.0	2.714	3.533	10.1	20.2	1 6	5 58.33	+26 9.3	1.828	2.786	5.6	20.8
1 16	5 40.36	+58 32.5	2.759	3.530	11.2	20.2	1 16	5 49.13	+26 12.2	1.869	2.774	9.7	21.0
1 26	5 30.98	+57 39.3	2.826	3.527	12.6	20.3	1 26	5 42.28	+26 11.6	1.935	2.763	13.2	21.2
<b>125504</b>	2001 WY <sub>34</sub>		12 24.4	297°78'	1°7'/24.5	18	<b>277504</b>	2005 WK <sub>151</sub>		12 24.4	133°34'	2°2'/24.3	18
11 17	6 40.01	+19 8.5	1.546	2.353	17.2	20.1	11 17	6 45.80	+28 30.3	1.860	2.648	15.5	21.1
11 27	6 36.14	+19 7.4	1.456	2.341	13.6	19.8	11 27	6 39.98	+28 50.2	1.785	2.659	12.1	20.9
12 7	6 29.14	+19 12.1	1.387	2.329	9.2	19.6	12 7	6 31.26	+29 7.6	1.733	2.669	8.1	20.7
12 17	6 19.65	+19 21.7	1.342	2.317	4.3	19.2	12 17	6 20.42	+29 18.6	1.707	2.679	4.0	20.5
12 27	6 8.86	+19 35.1	1.325	2.306	2.2	19.1	12 27	6 8.68	+29 20.6	1.710	2.689	2.5	20.4
1 6	5 58.28	+19 51.0	1.334	2.294	6.9	19.3	1 6	5 57.46	+29 13.0	1.743	2.698	6.2	20.6
1 16	5 49.37	+20 8.6	1.370	2.283	11.8	19.6	1 16	5 48.02	+28 57.5	1.803	2.706	10.1	20.9
1 26	5 43.31	+20 28.0	1.428	2.272	16.2	19.8	1 26	5 41.29	+28 37.5	1.888	2.714	13.6	21.1
<b>457976</b>	2009 VX <sub>104</sub>		12 24.4	67°40'	3°4'/24.6	17	<b>484399</b>	2007 XO <sub>9</sub>		12 24.4	354°05'	10°5'/23.9	17
11 17	6 43.55	+34 6.2	2.083										



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12 24.4

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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>102762</b>	1999 VX <sub>133</sub>	12 24.4 340°32		2°6/24.3 18			<b>73256</b>	2002 JN <sub>43</sub>	12 24.4 156°82		2°4/24.3 18		
11 17	6 38.62	+19 11.8	1.513	2.324	17.3	19.0	11 17	6 42.36	+17 16.9	2.346	3.118	13.1	20.7
11 27	6 34.94	+18 37.7	1.431	2.318	13.6	18.8	11 27	6 36.53	+16 44.9	2.263	3.127	10.3	20.5
12 7	6 28.23	+18 6.4	1.370	2.312	9.3	18.5	12 7	6 28.61	+16 15.8	2.204	3.135	7.0	20.3
12 17	6 19.21	+17 38.9	1.333	2.307	4.7	18.2	12 17	6 19.20	+15 50.3	2.173	3.142	3.7	20.1
12 27	6 9.09	+17 16.2	1.323	2.302	3.0	18.1	12 27	6 9.19	+15 29.1	2.172	3.148	2.7	20.1
1 6	5 59.36	+16 59.5	1.339	2.298	7.2	18.4	1 6	5 59.53	+15 12.9	2.203	3.154	5.4	20.3
1 16	5 51.37	+16 49.6	1.382	2.294	11.8	18.6	1 16	5 51.11	+15 2.2	2.263	3.159	8.7	20.5
1 26	5 46.16	+16 47.0	1.446	2.291	15.9	18.9	1 26	5 44.63	+14 57.1	2.349	3.163	11.6	20.7
<b>199402</b>	2006 BW <sub>274</sub>	12 24.4 124°64		4°1/24.3 17			<b>36296</b>	2000 HP <sub>49</sub>	12 24.4 59°78		1°4/24.4 18		
11 17	6 42.83	+36 59.4	2.665	3.430	11.9	21.0	11 17	6 43.64	+20 20.3	1.375	2.185	18.8	18.5
11 27	6 37.01	+37 28.1	2.589	3.442	9.5	20.9	11 27	6 38.74	+20 12.7	1.320	2.207	14.6	18.2
12 7	6 28.97	+37 49.8	2.537	3.453	7.0	20.7	12 7	6 30.59	+20 9.4	1.285	2.228	9.7	18.0
12 17	6 19.35	+38 0.9	2.512	3.465	4.8	20.6	12 17	6 20.15	+20 9.3	1.274	2.250	4.4	17.8
12 27	6 9.08	+37 58.9	2.517	3.476	4.2	20.6	12 27	6 8.88	+20 11.3	1.290	2.271	2.0	17.7
1 6	5 59.21	+37 43.6	2.551	3.487	5.8	20.7	1 6	5 58.42	+20 14.8	1.333	2.293	6.9	18.0
1 16	5 50.69	+37 17.0	2.615	3.497	8.3	20.9	1 16	5 50.11	+20 19.9	1.401	2.315	11.6	18.4
1 26	5 44.24	+36 42.4	2.705	3.507	10.6	21.1	1 26	5 44.87	+20 27.1	1.493	2.337	15.6	18.7
<b>462483</b>	2008 UY <sub>298</sub>	12 24.4 40°46		0°4/24.4 16			<b>173526</b>	2000 VX <sub>55</sub>	12 24.4 68°85		3°6/24.2 18		
11 17	6 38.49	+25 5.0	2.082	2.877	13.8	21.2	11 17	6 47.28	+29 2.1	1.278	2.091	19.8	19.4
11 27	6 33.92	+24 57.3	2.008	2.888	10.7	21.0	11 27	6 42.25	+29 46.1	1.222	2.109	15.5	19.2
12 7	6 27.05	+24 48.6	1.957	2.898	7.0	20.8	12 7	6 33.30	+30 27.8	1.185	2.126	10.5	19.0
12 17	6 18.54	+24 37.5	1.933	2.909	3.1	20.6	12 17	6 21.43	+31 0.5	1.172	2.144	5.5	18.7
12 27	6 9.38	+24 23.6	1.938	2.920	1.1	20.4	12 27	6 8.41	+31 18.7	1.185	2.162	3.9	18.7
1 6	6 0.66	+24 7.1	1.972	2.932	5.1	20.7	1 6	5 56.28	+31 20.9	1.224	2.180	8.1	19.0
1 16	5 53.34	+23 49.2	2.035	2.943	8.8	21.0	1 16	5 46.75	+31 10.0	1.288	2.198	12.8	19.3
1 26	5 48.17	+23 31.7	2.122	2.955	12.0	21.2	1 26	5 40.93	+30 51.2	1.374	2.216	16.8	19.6
<b>215094</b>	5043 T- <sub>2</sub>	12 24.4 87°07		5°2/24.7 18			<b>71667</b>	2000 EP <sub>150</sub>	12 24.4 276°00		0°1/24.4 18		
11 17	6 49.64	+37 32.6	1.883	2.656	15.8	19.9	11 17	6 37.95	+23 32.8	2.351	3.140	12.6	19.3
11 27	6 42.92	+37 58.8	1.824	2.682	12.7	19.7	11 27	6 33.47	+23 36.8	2.253	3.129	9.8	19.1
12 7	6 33.10	+38 14.7	1.787	2.706	9.2	19.5	12 7	6 26.82	+23 41.6	2.179	3.118	6.5	18.9
12 17	6 21.14	+38 14.9	1.776	2.731	6.2	19.4	12 17	6 18.52	+23 45.7	2.132	3.108	2.8	18.6
12 27	6 8.49	+37 56.5	1.793	2.755	5.3	19.4	12 27	6 9.42	+23 48.0	2.114	3.097	1.0	18.4
1 6	5 56.71	+37 20.4	1.840	2.779	7.4	19.6	1 6	6 0.50	+23 48.0	2.127	3.086	4.9	18.7
1 16	5 47.08	+36 31.0	1.913	2.802	10.4	19.8	1 16	5 52.70	+23 46.0	2.169	3.075	8.5	18.9
1 26	5 40.46	+35 34.5	2.012	2.825	13.4	20.0	1 26	5 46.82	+23 43.1	2.236	3.064	11.7	19.1
<b>352324</b>	2007 UN <sub>116</sub>	12 24.4 153°95		2°9/24.0 18			<b>235432</b>	2003 YF <sub>92</sub>	12 24.4 348°14		4°7/23.4 18		
11 17	6 44.48	+29 48.3	2.155	2.936	13.8	21.6	11 17	6 40.96	+32 28.6	2.023	2.813	14.3	19.8
11 27	6 38.76	+30 32.5	2.074	2.943	10.9	21.4	11 27	6 36.54	+33 47.0	1.938	2.809	11.4	19.6
12 7	6 30.41	+31 14.7	2.016	2.949	7.5	21.2	12 7	6 29.27	+35 4.1	1.877	2.806	8.2	19.4
12 17	6 20.07	+31 50.7	1.986	2.955	4.1	21.0	12 17	6 19.72	+36 13.5	1.843	2.803	5.4	19.2
12 27	6 8.81	+32 16.6	1.986	2.960	3.2	21.0	12 27	6 8.97	+37 9.5	1.837	2.801	4.9	19.2
1 6	5 57.88	+32 30.8	2.016	2.965	6.0	21.2	1 6	5 58.36	+37 48.6	1.860	2.799	7.3	19.3
1 16	5 48.42	+32 34.1	2.074	2.970	9.4	21.4	1 16	5 49.23	+38 10.7	1.910	2.797	10.5	19.5
1 26	5 41.37	+32 29.0	2.158	2.973	12.5	21.6	1 26	5 42.66	+38 18.5	1.984	2.796	13.6	19.7
<b>286785</b>	2002 JN <sub>87</sub>	12 24.4 153°24		0°3/24.3 18			<b>260351</b>	2004 TU <sub>94</sub>	12 24.4 30°80		2°0/24.4 17		
11 17	6 46.65	+23 49.6	1.896	2.681	15.3	22.3	11 17	6 40.92	+29 47.9	2.080	2.870	14.0	20.0
11 27	6 40.50	+23 58.5	1.818	2.691	11.9	22.1	11 27	6 35.99	+29 46.5	1.997	2.872	10.9	19.8
12 7	6 31.55	+24 8.1	1.762	2.700	7.9	21.8	12 7	6 28.54	+29 40.8	1.937	2.873	7.4	19.6
12 17	6 20.55	+24 16.0	1.733	2.708	3.4	21.6	12 17	6 19.25	+29 28.1	1.903	2.875	3.7	19.3
12 27	6 8.66	+24 20.2	1.734	2.716	1.3	21.4	12 27	6 9.19	+29 7.3	1.898	2.878	2.3	19.2
1 6	5 57.23	+24 20.2	1.764	2.722	5.8	21.8	1 6	5 59.55	+28 38.8	1.923	2.880	5.6	19.5
1 16	5 47.48	+24 16.6	1.824	2.728	10.0	22.0	1 16	5 51.41	+28 4.9	1.977	2.882	9.2	19.7
1 26	5 40.32	+24 11.5	1.908	2.733	13.5	22.3	1 26	5 45.60	+27 28.6	2.055	2.885	12.5	19.9
<b>367038</b>	2006 DD <sub>125</sub>	12 24.4 132°20		4°7/24.5 17			<b>88704</b>	2001 SF	12 24.4 103°93		0°1/24.4 18 R		
11 17	6 44.89	+40 31.0	2.840	3.591	11.6	21.8	11 17	6 45.85	+22 1.1	1.757	2.547	16.2	20.0
11 27	6 38.49	+40 55.1	2.764	3.604	9.4	21.6	11 27	6 39.89	+22 16.3	1.693	2.568	12.5	19.8
12 7	6 29.88	+41 10.2	2.712	3.616	7.2	21.5	12 7	6 31.13	+22 34.1	1.650	2.590	8.2	19.6
12 17	6 19.72	+41 12.7	2.687	3.629	5.3	21.4	12 17	6 20.37	+22 52.2	1.635	2.610	3.6	19.4
12 27	6 8.97	+41 0.2	2.692	3.640	4.8	21.4	12 27	6 8.83	+23 8.2	1.648	2.631	1.3	19.3
1 6	5 58.69	+40 33.0	2.727	3.652	6.1	21.5	1 6	5 57.89	+23 21.1	1.691	2.650	5.9	19.6
1 16	5 49.79	+39 53.4	2.791	3.663	8.2	21.6	1 16	5 48.76	+23 30.9	1.762	2.669	10.1	19.9
1 26	5 43.01	+39 5.4	2.881	3.673	10.3	21.8	1 26	5 42.30	+23 38.8	1.858	2.687	13.6	20.2
<b>356882</b>	2011 WJ <sub>132</sub>	12 24.4 129°22		1°5/24.1 18			<b>41319</b>	1999 XJ <sub>208</sub>	12 24.4 127°29		1°0/24.4 18		
11 17	6 43.57	+25 25.3	2.230	3.011	13.4	20.9	11 17	6 45.39	+27 30.2	2.211	2.989	13.6	18.7
11 27	6 37.82	+26 9.2	2.153	3.024	10.4	20.7	11 27	6 39.03	+27 20.9	2.137	3.006	10.6	18.5
12 7	6 29.65	+26 54.1	2.101	3.037	6.9	20.5	12 7	6 30.32	+27 8.3	2.086	3.022	7.0	18.3
12 17	6 19.71	+27 36.5	2.076	3.050	3.2	20.3	12 17	6 19.95	+26 50.7	2.063	3.037	3.2	18.1
12 27	6 8.97	+28 13.1	2.082	3.062	1.9	20.3	12 27	6 8.99	+26 27.3	2.070	3.051	1.5	18.0
1 6	5 58.55	+28 41.9	2.119	3.073	5.3	20.5	1 6	5 58.55	+25 58.8	2.109	3.065	5.1	18.3
1 16	5 49.51	+29 2.7	2.185	3.084	8.8	20.7	1 16	5 49.65	+25 27.4	2.177	3.079	8.7	18.5
1 26	5 42.66	+29 16.9	2.276	3.095	11.8	21.0	1 26	5 43.01	+24 55.8	2.270	3.091	11.8	18.7
<b>462918</b>	2011 AQ <sub>66</sub>	12 24.4 10°40		3°6/24.9 17			<b>321187</b>	2008 WM <sub>137</sub>	12 24.4 3°67		1°1/24.5 18		
11 17	6 36.94	+12 14.5	1.987	2.772	14.7	21.1	11 17	6 40.33	+28 53.9	2.181			

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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>520581</b>	2014 <i>NP</i> <sub>72</sub>	12 24.4 219°40		0°3/24.3 17			<b>270818</b>	2002 <i>SU</i> <sub>1</sub>	12 24.4 22°65		2°9/24.2 17		
11 17	6 40.60	+23 6.0	2.206	2.992	13.4	22.4	11 17	6 39.00	+30 11.2	1.915	2.714	14.7	20.1
11 27	6 35.66	+23 26.3	2.112	2.987	10.4	22.2	11 27	6 34.78	+30 38.2	1.842	2.720	11.5	19.9
12 7	6 28.35	+23 48.8	2.043	2.981	6.9	21.9	12 7	6 27.90	+31 1.9	1.790	2.728	7.9	19.7
12 17	6 19.22	+24 11.3	2.000	2.975	3.0	21.7	12 17	6 19.05	+31 18.6	1.765	2.736	4.3	19.5
12 27	6 9.20	+24 31.7	1.987	2.969	1.2	21.5	12 27	6 9.36	+31 25.7	1.768	2.744	3.1	19.4
1 6	5 59.37	+24 48.7	2.005	2.963	5.2	21.8	1 6	6 0.09	+31 22.2	1.799	2.753	6.1	19.7
1 16	5 50.78	+25 1.8	2.051	2.956	9.0	22.0	1 16	5 52.41	+31 9.7	1.857	2.762	9.8	19.9
1 26	5 44.29	+25 12.1	2.122	2.949	12.3	22.2	1 26	5 47.19	+30 51.0	1.940	2.772	13.0	20.1
<b>456683</b>	2007 <i>RP</i> <sub>151</sub>	12 24.4 173°47		1°1/24.4 18			<b>4564</b>	Clayton	12 24.4 155°21		6°0/24.7 18		
11 17	6 39.26	+27 47.2	2.964	3.738	10.6	21.5	11 17	6 40.22	+6 5.8	2.276	3.028	14.1	18.7
11 27	6 33.92	+27 46.3	2.873	3.740	8.2	21.3	11 27	6 34.93	+5 21.2	2.198	3.036	11.6	18.5
12 7	6 26.81	+27 43.0	2.807	3.742	5.5	21.2	12 7	6 27.61	+4 47.0	2.142	3.043	8.9	18.4
12 17	6 18.43	+27 35.9	2.771	3.744	2.6	21.0	12 17	6 18.84	+4 26.0	2.112	3.050	6.7	18.2
12 27	6 9.52	+27 24.1	2.765	3.745	1.4	20.9	12 27	6 9.44	+4 19.9	2.111	3.056	6.1	18.2
1 6	6 0.87	+27 7.8	2.790	3.746	4.1	21.1	1 6	6 0.34	+4 28.9	2.139	3.062	7.6	18.3
1 16	5 53.22	+26 47.9	2.846	3.747	7.0	21.3	1 16	5 52.41	+4 51.6	2.195	3.067	10.1	18.5
1 26	5 47.18	+26 26.1	2.929	3.747	9.5	21.4	1 26	5 46.32	+5 25.6	2.275	3.071	12.6	18.7
<b>8532</b>	1992 <i>YW</i> <sub>3</sub>	12 24.4 344°39		0°9/24.2 18			<b>133058</b>	2003 <i>ED</i> <sub>54</sub>	12 24.4 12°75		22°4/22.6 18		
11 17	6 36.98	+21 6.1	1.462	2.281	17.5	16.0	11 17	6 39.15	-10 4.7	0.985	1.751	27.5	18.4
11 27	6 34.13	+22 5.5	1.377	2.269	13.7	15.8	11 27	6 36.33	-13 36.5	0.943	1.751	25.4	18.3
12 7	6 28.05	+23 14.7	1.312	2.258	9.2	15.5	12 7	6 29.65	-16 34.6	0.915	1.753	23.6	18.1
12 17	6 19.32	+24 29.6	1.272	2.249	4.0	15.2	12 17	6 20.01	-18 41.4	0.903	1.755	22.6	18.1
12 27	6 9.14	+25 44.4	1.258	2.240	1.8	15.0	12 27	6 9.01	-19 43.7	0.907	1.758	22.5	18.1
1 6	5 59.08	+26 53.5	1.272	2.233	7.0	15.3	1 6	5 58.62	-19 38.5	0.926	1.762	23.4	18.2
1 16	5 50.72	+27 53.3	1.311	2.227	12.0	15.6	1 16	5 50.58	-18 32.5	0.960	1.766	25.0	18.3
1 26	5 45.34	+28 43.2	1.372	2.222	16.4	15.8	1 26	5 46.14	-16 39.4	1.006	1.771	26.8	18.5
<b>390071</b>	2012 <i>UU</i> <sub>113</sub>	12 24.4 352°03		3°4/24.2 18			<b>298035</b>	2002 <i>PN</i> <sub>161</sub>	12 24.4 91°34		1°3/24.5 18		
11 17	6 43.25	+29 59.4	1.524	2.330	17.5	20.8	11 17	6 41.87	+19 25.1	1.864	2.655	15.3	21.5
11 27	6 38.90	+30 32.3	1.446	2.329	13.8	20.5	11 27	6 36.70	+19 25.6	1.795	2.671	11.9	21.3
12 7	6 31.07	+31 2.4	1.389	2.328	9.5	20.3	12 7	6 29.00	+19 30.2	1.748	2.687	7.9	21.1
12 17	6 20.55	+31 24.5	1.356	2.327	5.1	20.0	12 17	6 19.48	+19 37.9	1.728	2.703	3.7	20.9
12 27	6 8.74	+31 34.0	1.350	2.327	3.7	19.9	12 27	6 9.23	+19 47.7	1.737	2.718	1.8	20.8
1 6	5 57.39	+31 29.4	1.371	2.326	7.5	20.2	1 6	5 59.46	+19 58.7	1.775	2.733	5.7	21.1
1 16	5 48.09	+31 12.9	1.418	2.326	12.0	20.4	1 16	5 51.26	+20 10.5	1.841	2.749	9.7	21.4
1 26	5 42.01	+30 48.9	1.487	2.326	15.9	20.7	1 26	5 45.43	+20 23.4	1.932	2.763	13.1	21.6
<b>12228</b>	1985 <i>TZ</i> <sub>3</sub>	12 24.4 152°16		1°8/24.4 18			<b>207220</b>	2005 <i>EY</i> <sub>96</sub>	12 24.4 282°63		2°6/24.3 16		
11 17	6 47.42	+28 7.3	1.827	2.614	15.8	18.5	11 17	6 40.34	+18 44.7	1.786	2.582	15.7	20.7
11 27	6 41.29	+28 14.8	1.749	2.622	12.3	18.2	11 27	6 35.98	+18 10.3	1.687	2.566	12.4	20.4
12 7	6 32.19	+28 19.2	1.693	2.630	8.3	18.0	12 7	6 28.86	+17 38.0	1.611	2.549	8.5	20.2
12 17	6 20.88	+28 17.3	1.664	2.637	3.9	17.8	12 17	6 19.56	+17 8.6	1.560	2.532	4.4	19.9
12 27	6 8.66	+28 6.8	1.664	2.644	2.2	17.7	12 27	6 9.15	+16 43.3	1.537	2.516	2.9	19.7
1 6	5 56.97	+27 47.9	1.693	2.650	6.2	17.9	1 6	5 58.94	+16 23.1	1.543	2.499	6.7	19.9
1 16	5 47.12	+27 22.7	1.751	2.655	10.3	18.2	1 16	5 50.17	+16 9.2	1.576	2.482	11.1	20.2
1 26	5 40.06	+26 54.8	1.833	2.659	13.9	18.4	1 26	5 43.87	+16 2.3	1.632	2.466	15.0	20.4
<b>400057</b>	2006 <i>SM</i> <sub>71</sub>	12 24.4 92°58		2°3/24.5 17			<b>105549</b>	2000 <i>RJ</i> <sub>45</sub>	12 24.4 105°89		6°5/24.6 18		
11 17	6 40.42	+17 8.3	1.947	2.735	14.9	21.7	11 17	6 47.77	+42 35.9	2.221	2.977	14.2	19.5
11 27	6 35.46	+16 55.7	1.875	2.748	11.6	21.5	11 27	6 41.50	+43 16.3	2.151	2.990	11.8	19.4
12 7	6 28.12	+16 48.3	1.826	2.761	7.9	21.3	12 7	6 32.28	+43 45.1	2.103	3.002	9.2	19.2
12 17	6 19.07	+16 46.1	1.803	2.774	4.0	21.1	12 17	6 20.92	+43 56.6	2.081	3.015	7.1	19.1
12 27	6 9.32	+16 48.8	1.808	2.787	2.6	21.0	12 27	6 8.73	+43 47.0	2.087	3.027	6.6	19.1
1 6	6 0.00	+16 56.1	1.843	2.799	5.8	21.2	1 6	5 57.16	+43 16.5	2.121	3.039	8.0	19.2
1 16	5 52.13	+17 7.4	1.906	2.811	9.6	21.5	1 16	5 47.50	+42 28.5	2.182	3.050	10.3	19.4
1 26	5 46.47	+17 22.3	1.994	2.824	12.8	21.7	1 26	5 40.63	+41 29.1	2.268	3.062	12.7	19.6
<b>398669</b>	2012 <i>UH</i> <sub>174</sub>	12 24.4 43°37		2°0/23.7 17			<b>154430</b>	2003 <i>BX</i> <sub>50</sub>	12 24.4 334°50		0°4/24.4 18		
11 17	6 51.74	+14 19.6	0.964	1.781	24.5	19.7	11 17	6 36.20	+22 17.4	1.166	2.002	19.9	19.8
11 27	6 47.35	+17 8.3	0.896	1.786	19.3	19.4	11 27	6 34.25	+22 18.8	1.083	1.985	15.7	19.5
12 7	6 37.94	+20 32.9	0.846	1.792	12.9	19.1	12 7	6 28.52	+22 24.1	1.019	1.968	10.6	19.2
12 17	6 24.03	+24 20.1	0.821	1.798	5.6	18.7	12 17	6 19.65	+22 31.6	0.976	1.953	4.7	18.8
12 27	6 7.42	+28 6.9	0.824	1.804	3.3	18.6	12 27	6 9.10	+22 39.3	0.957	1.940	1.7	18.6
1 6	5 50.89	+31 29.2	0.854	1.811	10.3	19.0	1 6	5 58.78	+22 45.7	0.963	1.927	8.0	18.9
1 16	5 37.26	+34 13.4	0.909	1.818	16.8	19.4	1 16	5 50.60	+22 51.0	0.991	1.916	13.9	19.2
1 26	5 28.61	+36 19.4	0.985	1.826	22.0	19.7	1 26	5 45.99	+22 56.4	1.039	1.907	19.0	19.5
<b>296372</b>	2009 <i>FH</i> <sub>42</sub>	12 24.4 58°79		0°7/24.5 18			<b>52515</b>	1996 <i>HL</i> <sub>12</sub>	12 24.4 245°12		0°4/24.4 18		
11 17	6 40.40	+20 20.3	1.776	2.574	15.7	21.2	11 17	6 43.14	+23 58.1	1.799	2.594	15.6	20.0
11 27	6 35.89	+20 36.5	1.699	2.579	12.2	20.9	11 27	6 38.26	+24 4.9	1.704	2.583	12.3	19.8
12 7	6 28.67	+20 57.6	1.643	2.584	8.1	20.7	12 7	6 30.43	+24 12.8	1.631	2.572	8.2	19.5
12 17	6 19.41	+21 21.7	1.613	2.589	3.6	20.4	12 17	6 20.27	+24 19.5	1.584	2.560	3.6	19.2
12 27	6 9.21	+21 46.5	1.612	2.594	1.4	20.3	12 27	6 8.91	+24 22.9	1.565	2.547	1.4	19.0
1 6	5 59.37	+22 10.4	1.639	2.599	5.9	20.6	1 6	5 57.76	+24 22.0	1.575	2.535	6.2	19.3
1 16	5 51.09	+22 32.6	1.694	2.605	10.2	20.9	1 16	5 48.19	+24 17.7	1.613	2.522	10.7	19.5
1 26	5 45.30	+22 53.1	1.773	2.610	13.8	21.1	1 26	5 41.25	+24 11.8	1.675	2.508	14.7	19.7
<b>14481</b>	1994 <i>PO</i> <sub>12</sub>	12 24.4 148°57		1°2/24.4 18 R			<b>196472</b>	2003 <i>JY</i> <sub>11</sub>	12 24.4 198°05		0°2/24.4 18		
11 17	6 46.09	+26 28.2	1.900	2.687									

EPHEMERIDES

12 24.4

12 24.4

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>134908</b>	2000 <i>YM</i> <sub>32</sub>		12 24.4	53°66	3:7/24.9	18	<b>354268</b>	2002 <i>QC</i> <sub>154</sub>		12 24.4	207°47	2:1/24.2	18
11 17	6 43.29	+13 36.9	1.177	1.990	21.2	18.9	11 17	6 43.65	+28 55.8	2.392	3.169	12.8	21.5
11 27	6 38.93	+13 49.6	1.125	2.010	16.7	18.7	11 27	6 37.97	+29 22.2	2.295	3.163	10.0	21.3
12 7	6 31.00	+14 17.0	1.091	2.030	11.5	18.4	12 7	6 29.88	+29 46.7	2.222	3.156	6.8	21.0
12 17	6 20.46	+14 58.3	1.080	2.051	6.1	18.2	12 17	6 19.94	+30 6.2	2.177	3.148	3.5	20.8
12 27	6 8.90	+15 50.3	1.094	2.072	3.9	18.1	12 27	6 9.09	+30 17.9	2.163	3.140	2.4	20.7
1 6	5 58.15	+16 48.4	1.134	2.093	8.0	18.4	1 6	5 58.43	+30 20.8	2.179	3.131	5.4	20.9
1 16	5 49.73	+17 48.7	1.199	2.115	12.9	18.8	1 16	5 49.03	+30 15.4	2.224	3.121	8.8	21.1
1 26	5 44.67	+18 48.0	1.285	2.136	17.2	19.1	1 26	5 41.76	+30 4.1	2.295	3.111	11.8	21.3
<b>164046</b>	2003 <i>UW</i> <sub>283</sub>		12 24.4	37°36	6:0/23.4	18	<b>156849</b>	2003 <i>CB</i> <sub>14</sub>		12 24.4	256°57	0:5/24.4	18
11 17	6 44.40	+31 53.3	1.435	2.243	18.3	18.2	11 17	6 42.33	+22 3.2	1.689	2.488	16.3	21.2
11 27	6 40.09	+33 34.2	1.376	2.257	14.5	18.0	11 27	6 37.75	+22 3.5	1.597	2.479	12.8	20.9
12 7	6 32.03	+35 13.1	1.338	2.271	10.4	17.8	12 7	6 30.16	+22 6.3	1.527	2.468	8.6	20.7
12 17	6 21.03	+36 40.6	1.325	2.287	6.9	17.6	12 17	6 20.18	+22 10.0	1.482	2.458	3.8	20.4
12 27	6 8.66	+37 47.8	1.338	2.303	6.3	17.6	12 27	6 8.99	+22 13.0	1.465	2.447	1.4	20.2
1 6	5 56.83	+38 30.4	1.378	2.319	9.1	17.8	1 6	5 58.04	+22 14.5	1.477	2.437	6.4	20.5
1 16	5 47.30	+38 49.7	1.443	2.337	12.9	18.1	1 16	5 48.71	+22 15.0	1.515	2.426	11.1	20.7
1 26	5 41.30	+38 51.0	1.530	2.354	16.3	18.4	1 26	5 42.12	+22 15.7	1.577	2.415	15.2	20.9
<b>268148</b>	2004 <i>TY</i> <sub>249</sub>		12 24.4	52°51	4:2/24.0	18	<b>185715</b>	1998 <i>SJ</i> <sub>11</sub>		12 24.4	99°58	1:4/24.5	18
11 17	6 42.59	+32 44.4	1.894	2.685	15.1	20.2	11 17	6 44.49	+18 38.6	1.605	2.400	17.2	20.5
11 27	6 37.62	+33 36.6	1.831	2.703	11.9	20.0	11 27	6 39.15	+18 51.3	1.538	2.416	13.4	20.3
12 7	6 29.80	+34 24.1	1.790	2.721	8.4	19.8	12 7	6 30.85	+19 10.5	1.493	2.432	9.0	20.1
12 17	6 19.89	+35 1.7	1.776	2.739	5.2	19.7	12 17	6 20.36	+19 34.4	1.473	2.448	4.1	19.9
12 27	6 9.11	+35 25.1	1.789	2.757	4.4	19.7	12 27	6 8.98	+20 0.6	1.482	2.463	1.9	19.7
1 6	5 58.86	+35 33.1	1.831	2.776	6.9	19.8	1 6	5 58.15	+20 27.3	1.519	2.478	6.4	20.1
1 16	5 50.36	+35 27.3	1.900	2.795	10.2	20.1	1 16	5 49.17	+20 53.4	1.583	2.493	10.8	20.4
1 26	5 44.54	+35 11.6	1.993	2.814	13.2	20.3	1 26	5 42.97	+21 18.7	1.672	2.507	14.6	20.6
<b>113726</b>	2002 <i>TJ</i> <sub>140</sub>		12 24.4	186°21	0:6/24.4	18	<b>10410</b>	Yangguanghua		12 24.4	139°88	2:6/24.2	18
11 17	6 41.60	+21 28.3	2.361	3.140	12.8	21.9	11 17	6 40.25	+31 6.4	2.722	3.497	11.4	18.1
11 27	6 36.16	+21 26.4	2.270	3.140	10.0	21.7	11 27	6 34.98	+31 36.6	2.640	3.505	9.0	17.9
12 7	6 28.54	+21 26.1	2.202	3.139	6.7	21.5	12 7	6 27.68	+32 3.8	2.582	3.512	6.2	17.8
12 17	6 19.30	+21 26.3	2.163	3.138	3.0	21.3	12 17	6 18.91	+32 24.9	2.552	3.519	3.5	17.6
12 27	6 9.32	+21 26.3	2.154	3.136	1.2	21.1	12 27	6 9.49	+32 37.8	2.553	3.526	2.7	17.6
1 6	5 59.59	+21 25.8	2.176	3.133	4.9	21.4	1 6	6 0.33	+32 41.6	2.584	3.532	4.9	17.7
1 16	5 51.06	+21 24.9	2.227	3.130	8.5	21.6	1 16	5 52.31	+32 37.0	2.645	3.539	7.7	17.9
1 26	5 44.49	+21 24.6	2.304	3.127	11.6	21.8	1 26	5 46.12	+32 26.2	2.732	3.545	10.2	18.1
<b>269269</b>	2008 <i>RV</i> <sub>70</sub>		12 24.4	135°32	0:5/24.4	18	<b>268011</b>	2004 <i>KX</i> <sub>5</sub>		12 24.4	222°16	0:1/24.4	18
11 17	6 44.42	+21 2.3	1.942	2.727	15.0	21.3	11 17	6 44.02	+22 44.0	1.949	2.736	14.9	21.9
11 27	6 38.67	+21 12.8	1.866	2.739	11.7	21.1	11 27	6 38.71	+22 59.1	1.852	2.727	11.7	21.6
12 7	6 30.33	+21 26.4	1.814	2.752	7.7	20.8	12 7	6 30.62	+23 16.7	1.778	2.717	7.8	21.4
12 17	6 20.09	+21 41.4	1.788	2.763	3.4	20.6	12 17	6 20.35	+23 34.6	1.731	2.707	3.4	21.1
12 27	6 9.05	+21 56.0	1.792	2.774	1.3	20.5	12 27	6 8.95	+23 50.4	1.713	2.696	1.2	20.9
1 6	5 58.43	+22 8.9	1.826	2.785	5.6	20.8	1 6	5 57.72	+24 2.7	1.725	2.684	5.8	21.2
1 16	5 49.37	+22 20.2	1.889	2.794	9.6	21.0	1 16	5 47.93	+24 11.4	1.766	2.671	10.1	21.4
1 26	5 42.72	+22 30.6	1.977	2.803	13.0	21.3	1 26	5 40.60	+24 17.8	1.831	2.658	13.9	21.6
<b>100832</b>	1998 <i>HS</i> <sub>10</sub>		12 24.4	182°29	1:5/24.3	18	<b>428559</b>	2008 <i>CP</i> <sub>115</sub>		12 24.4	56°55	3:0/24.8	18
11 17	6 46.34	+26 5.8	1.900	2.685	15.3	20.7	11 17	6 43.01	+14 55.3	1.237	2.050	20.4	20.8
11 27	6 40.52	+26 31.2	1.813	2.687	11.9	20.5	11 27	6 38.75	+15 12.9	1.177	2.063	16.0	20.6
12 7	6 31.79	+26 56.8	1.750	2.687	8.0	20.2	12 7	6 30.96	+15 43.8	1.136	2.077	11.0	20.3
12 17	6 20.81	+27 18.9	1.713	2.687	3.7	20.0	12 17	6 20.52	+16 26.6	1.118	2.091	5.6	20.1
12 27	6 8.77	+27 34.4	1.705	2.686	2.0	19.8	12 27	6 8.94	+17 18.0	1.126	2.106	3.2	20.0
1 6	5 57.05	+27 41.7	1.728	2.684	6.1	20.1	1 6	5 58.01	+18 13.8	1.160	2.120	7.7	20.3
1 16	5 46.97	+27 41.7	1.778	2.682	10.2	20.3	1 16	5 49.30	+19 10.3	1.219	2.135	12.7	20.6
1 26	5 39.54	+27 36.7	1.854	2.678	13.9	20.6	1 26	5 43.90	+20 5.2	1.300	2.150	17.1	20.9
<b>101764</b>	1999 <i>FK</i> <sub>49</sub>		12 24.4	197°93	4:2/24.1	18	<b>157708</b>	2006 <i>AO</i> <sub>56</sub>		12 24.4	126°69	0:2/24.4	18
11 17	6 41.27	+37 8.3	2.822	3.585	11.3	20.2	11 17	6 44.53	+23 1.3	1.882	2.671	15.3	21.3
11 27	6 35.92	+37 45.7	2.732	3.583	9.1	20.1	11 27	6 38.87	+23 14.3	1.809	2.684	11.9	21.1
12 7	6 28.39	+38 17.1	2.666	3.581	6.8	19.9	12 7	6 30.52	+23 29.1	1.758	2.697	7.8	20.8
12 17	6 19.24	+38 38.7	2.628	3.578	4.7	19.8	12 17	6 20.20	+23 43.2	1.733	2.709	3.4	20.6
12 27	6 9.33	+38 47.8	2.619	3.576	4.3	19.7	12 27	6 9.05	+23 54.7	1.738	2.721	1.2	20.4
1 6	5 59.66	+38 43.5	2.641	3.573	5.9	19.8	1 6	5 58.37	+24 2.5	1.773	2.732	5.7	20.8
1 16	5 51.15	+38 26.9	2.691	3.569	8.2	20.0	1 16	5 49.32	+24 7.1	1.836	2.743	9.8	21.0
1 26	5 44.59	+38 1.1	2.767	3.566	10.5	20.1	1 26	5 42.78	+24 9.8	1.924	2.753	13.3	21.3
<b>317528</b>	2002 <i>TP</i> <sub>236</sub>		12 24.4	94°98	0:5/24.4	18	<b>393770</b>	2005 <i>GE</i> <sub>138</sub>		12 24.4	133°27	0:6/24.4	18
11 17	6 39.48	+23 9.0	2.487	3.269	12.2	20.3	11 17	6 42.63	+24 27.5	2.250	3.032	13.3	22.0
11 27	6 34.25	+22 45.4	2.410	3.282	9.4	20.1	11 27	6 37.02	+24 43.4	2.173	3.044	10.3	21.9
12 7	6 27.09	+22 21.2	2.358	3.296	6.2	19.9	12 7	6 29.12	+24 59.6	2.119	3.056	6.8	21.7
12 17	6 18.59	+21 56.2	2.333	3.309	2.7	19.7	12 17	6 19.56	+25 14.1	2.093	3.068	3.0	21.4
12 27	6 9.60	+21 30.5	2.340	3.321	1.1	19.6	12 27	6 9.30	+25 25.0	2.097	3.079	1.2	21.3
1 6	6 0.99	+21 5.0	2.376	3.334	4.5	19.9	1 6	5 59.41	+25 31.3	2.132	3.089	5.0	21.6
1 16	5 53.57	+20 40.8	2.443	3.347	7.8	20.1	1 16	5 50.87	+25 33.7	2.196	3.099	8.5	21.9
1 26	5 47.98	+20 19.1	2.536	3.359	10.6	20.3	1 26	5 44.44	+25 33.4	2.285	3.109	11.6	22.1
<b>216319</b>	2007 <i>TY</i> <sub>286</sub>		12 24.4	86°79	5:8/23.5	18	<b>50369</b>	2000 <i>CK</i> <sub>83</sub>		12 24.4	185°02		

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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>44963</b>	1999 VZ <sub>88</sub>		12 24.4 117°47'	3°1'/24.5 18			<b>187142</b>	2005 QN <sub>148</sub>		12 24.4 146°43'	0°1'/24.4 18		
11 17	6 44.63	+16 54.1	1.631	2.422	17.1	20.5	11 17	6 44.84	+21 15.1	1.765	2.556	16.1	20.9
11 27	6 39.14	+16 26.5	1.561	2.436	13.5	20.3	11 27	6 39.41	+21 43.0	1.687	2.564	12.5	20.7
12 7	6 30.78	+16 4.5	1.513	2.449	9.2	20.1	12 7	6 31.09	+22 15.6	1.632	2.571	8.3	20.5
12 17	6 20.34	+15 48.6	1.491	2.461	4.9	19.8	12 17	6 20.56	+22 50.1	1.602	2.578	3.6	20.2
12 27	6 9.06	+15 39.5	1.496	2.473	3.3	19.8	12 27	6 9.00	+23 23.2	1.601	2.584	1.3	20.1
1 6	5 58.34	+15 37.1	1.531	2.485	6.9	20.0	1 6	5 57.82	+23 52.7	1.630	2.589	6.0	20.4
1 16	5 49.43	+15 41.4	1.592	2.496	11.1	20.3	1 16	5 48.31	+24 17.8	1.687	2.594	10.4	20.7
1 26	5 43.23	+15 51.9	1.676	2.507	14.8	20.5	1 26	5 41.47	+24 39.1	1.768	2.599	14.1	20.9
<b>8134</b>	Minin		12 24.4 69°60'	2°9'/24.5 18			<b>278502</b>	2008 AP <sub>1</sub>		12 24.4 68°35'	9°1'/27.6 18		
11 17	6 43.56	+17 10.9	1.484	2.285	18.1	17.7	11 17	6 48.64	- 1 21.4	1.050	1.826	25.6	19.9
11 27	6 38.44	+16 49.1	1.426	2.306	14.2	17.5	11 27	6 43.74	- 0 28.3	0.987	1.837	21.5	19.6
12 7	6 30.33	+16 33.8	1.389	2.328	9.6	17.3	12 7	6 34.70	+ 1 5.4	0.939	1.848	16.6	19.4
12 17	6 20.12	+16 25.3	1.377	2.349	4.9	17.1	12 17	6 22.34	+ 3 22.5	0.911	1.859	11.7	19.2
12 27	6 9.15	+16 23.6	1.393	2.371	3.2	17.0	12 27	6 8.36	+ 6 17.3	0.908	1.870	9.1	19.1
1 6	5 58.91	+16 28.2	1.435	2.392	7.0	17.3	1 6	5 54.93	+ 9 35.0	0.932	1.881	11.1	19.2
1 16	5 50.63	+16 38.5	1.504	2.414	11.3	17.6	1 16	5 44.05	+12 57.6	0.982	1.893	15.7	19.5
1 26	5 45.18	+16 53.9	1.597	2.435	15.1	17.9	1 26	5 37.12	+16 10.2	1.055	1.904	20.2	19.8
<b>231451</b>	2007 HL <sub>72</sub>		12 24.4 234°03'	1°9'/24.4 18			<b>308125</b>	2004 XX <sub>109</sub>		12 24.4 31°11'	3°8'/24.1 18		
11 17	6 42.39	+19 10.7	1.859	2.649	15.4	21.3	11 17	6 41.93	+28 54.0	1.288	2.109	19.3	19.1
11 27	6 37.45	+18 54.6	1.764	2.639	12.1	21.1	11 27	6 38.21	+29 45.7	1.231	2.122	15.1	18.9
12 7	6 29.77	+18 41.8	1.692	2.630	8.2	20.8	12 7	6 30.77	+30 36.0	1.192	2.135	10.3	18.7
12 17	6 19.99	+18 32.0	1.646	2.619	4.0	20.5	12 17	6 20.50	+31 18.4	1.177	2.149	5.5	18.5
12 27	6 9.14	+18 25.1	1.628	2.609	2.2	20.4	12 27	6 9.05	+31 47.0	1.188	2.164	4.1	18.4
1 6	5 58.52	+18 21.1	1.640	2.597	6.2	20.6	1 6	5 58.31	+31 59.6	1.224	2.180	8.0	18.7
1 16	5 49.35	+18 20.4	1.680	2.586	10.5	20.9	1 16	5 49.95	+31 58.2	1.285	2.197	12.6	19.0
1 26	5 42.63	+18 23.5	1.743	2.574	14.3	21.1	1 26	5 45.08	+31 47.0	1.367	2.214	16.6	19.3
<b>470041</b>	2006 SC <sub>97</sub>		12 24.4 101°39'	3°8'/24.2 18			<b>369936</b>	2013 GM <sub>27</sub>		12 24.4 108°68'	3°0'/24.7 18		
11 17	6 49.34	+30 54.6	1.555	2.349	17.7	21.9	11 17	6 39.15	+14 43.3	2.004	2.789	14.6	20.9
11 27	6 43.32	+31 36.1	1.493	2.368	13.9	21.7	11 27	6 34.56	+14 35.2	1.923	2.793	11.5	20.7
12 7	6 33.80	+32 13.4	1.452	2.387	9.6	21.5	12 7	6 27.63	+14 34.3	1.865	2.797	8.0	20.5
12 17	6 21.70	+32 40.4	1.437	2.405	5.4	21.3	12 17	6 18.99	+14 41.0	1.833	2.802	4.5	20.2
12 27	6 8.58	+32 52.3	1.449	2.423	4.1	21.3	12 27	6 9.57	+14 55.1	1.830	2.806	3.2	20.2
1 6	5 56.23	+32 48.3	1.489	2.440	7.5	21.5	1 6	6 0.46	+15 15.4	1.856	2.810	6.0	20.4
1 16	5 46.17	+32 31.1	1.556	2.457	11.6	21.8	1 16	5 52.66	+15 40.9	1.910	2.814	9.6	20.6
1 26	5 39.42	+32 6.0	1.646	2.473	15.2	22.1	1 26	5 46.97	+16 10.4	1.989	2.818	12.9	20.8
<b>439040</b>	2011 FQ <sub>81</sub>		12 24.4 182°34'	4°0'/24.7 18			<b>223096</b>	2002 UQ <sub>21</sub>		12 24.4 221°75'	3°2'/24.0 18		
11 17	6 42.15	+12 55.4	1.803	2.585	16.1	22.2	11 17	6 45.44	+28 33.7	1.664	2.461	16.6	20.1
11 27	6 37.15	+12 38.8	1.720	2.586	12.9	22.0	11 27	6 40.50	+29 24.3	1.579	2.456	13.1	19.8
12 7	6 29.49	+12 31.2	1.658	2.586	9.1	21.8	12 7	6 32.19	+30 15.3	1.514	2.452	9.0	19.6
12 17	6 19.83	+12 33.7	1.622	2.586	5.5	21.6	12 17	6 21.18	+31 1.0	1.476	2.447	4.8	19.3
12 27	6 9.21	+12 46.6	1.613	2.585	4.2	21.5	12 27	6 8.77	+31 35.7	1.465	2.441	3.6	19.2
1 6	5 58.90	+13 8.9	1.634	2.584	7.1	21.6	1 6	5 56.61	+31 56.5	1.483	2.436	7.3	19.4
1 16	5 50.06	+13 39.2	1.682	2.583	10.9	21.9	1 16	5 46.30	+32 3.8	1.527	2.430	11.6	19.7
1 26	5 43.63	+14 15.4	1.754	2.581	14.4	22.1	1 26	5 39.04	+32 0.9	1.595	2.424	15.5	19.9
<b>27388</b>	2000 ET <sub>86</sub>		12 24.4 141°51'	5°6'/24.7 18			<b>316349</b>	2010 RW <sub>152</sub>		12 24.4 226°17'	6°1'/23.9 17		
11 17	6 39.40	+ 7 24.1	2.246	3.004	14.0	18.8	11 17	6 45.20	+38 41.0	2.076	2.849	14.6	21.3
11 27	6 34.35	+ 6 43.0	2.169	3.013	11.5	18.7	11 27	6 39.93	+39 37.8	1.992	2.846	11.9	21.1
12 7	6 27.28	+ 6 11.7	2.114	3.022	8.7	18.5	12 7	6 31.58	+40 27.0	1.930	2.843	9.1	20.9
12 17	6 18.76	+ 5 52.9	2.086	3.030	6.3	18.4	12 17	6 20.83	+41 2.4	1.894	2.840	6.7	20.8
12 27	6 9.62	+ 5 47.9	2.086	3.037	5.7	18.4	12 27	6 8.91	+41 18.6	1.886	2.836	6.2	20.7
1 6	6 0.79	+ 5 56.9	2.116	3.045	7.3	18.5	1 6	5 57.30	+41 14.1	1.905	2.833	8.1	20.8
1 16	5 53.13	+ 6 18.5	2.173	3.051	9.9	18.6	1 16	5 47.42	+40 51.0	1.952	2.829	10.9	21.0
1 26	5 47.32	+ 6 50.6	2.255	3.058	12.5	18.8	1 26	5 40.34	+40 14.3	2.022	2.825	13.7	21.2
<b>12850</b>	Axelmunthe		12 24.4 131°98'	2°4'/24.3 18			<b>210480</b>	1996 EH <sub>7</sub>		12 24.4 152°42'	1°8'/24.3 18		
11 17	6 48.78	+28 59.2	1.790	2.575	16.1	18.2	11 17	6 43.25	+28 9.2	2.199	2.982	13.6	21.6
11 27	6 42.42	+29 21.6	1.719	2.591	12.6	18.0	11 27	6 37.70	+28 26.5	2.117	2.988	10.6	21.4
12 7	6 32.99	+29 40.9	1.670	2.605	8.5	17.8	12 7	6 29.69	+28 41.6	2.059	2.995	7.1	21.2
12 17	6 21.32	+29 52.9	1.647	2.619	4.3	17.6	12 17	6 19.88	+28 51.8	2.028	3.000	3.5	21.0
12 27	6 8.73	+29 54.5	1.654	2.632	2.7	17.5	12 27	6 9.27	+28 54.7	2.026	3.005	2.1	20.9
1 6	5 56.76	+29 45.1	1.690	2.644	6.4	17.7	1 6	5 59.04	+28 49.9	2.055	3.010	5.4	21.1
1 16	5 46.73	+29 27.0	1.754	2.656	10.4	18.0	1 16	5 50.22	+28 38.5	2.113	3.015	8.9	21.3
1 26	5 39.59	+29 4.0	1.842	2.667	14.0	18.3	1 26	5 43.66	+28 22.9	2.196	3.018	12.1	21.5
<b>239415</b>	2007 TK <sub>74</sub>		12 24.4 163°26'	2°5'/24.6 18			<b>509510</b>	2007 VP <sub>122</sub>		12 24.4 49°28'	1°2'/24.4 18		
11 17	6 40.98	+16 33.9	1.982	2.767	14.8	21.0	11 17	6 45.67	+22 37.8	2.049	1.878	22.1	21.1
11 27	6 36.02	+16 23.9	1.899	2.770	11.6	20.8	11 27	6 41.11	+22 10.6	1.003	1.900	17.2	20.9
12 7	6 28.63	+16 19.6	1.838	2.772	7.9	20.6	12 7	6 32.55	+21 45.2	0.975	1.922	11.3	20.7
12 17	6 19.43	+16 21.0	1.804	2.775	4.1	20.4	12 17	6 21.16	+21 20.8	0.969	1.946	5.0	20.4
12 27	6 9.40	+16 27.7	1.799	2.777	2.7	20.3	12 27	6 8.89	+20 57.3	0.988	1.970	2.1	20.3
1 6	5 59.69	+16 39.3	1.824	2.779	5.9	20.5	1 6	5 57.81	+20 36.1	1.032	1.994	8.0	20.7
1 16	5 51.35	+16 55.0	1.876	2.780	9.7	20.7	1 16	5 49.52	+20 19.2	1.099	2.019	13.4	21.1
1 26	5 45.22	+17 14.3	1.953	2.781	13.1	20.9	1 26	5 44.97	+20 8.1	1.187	2.044	17.9	21.5
<b>470292</b>	2007 EZ <sub>151</sub>		12 24.4 37°76'	0°5'/24.4 18			<b>272232</b>	2005 QJ <sub>101</sub>		12 24.4 291°79'	2°6'/24.5 18		
11 17	6 41.88	+22 34.3	1.196										

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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>145097</b>	2005 <i>GU</i> <sub>74</sub>		12 24.4 182°88	1.7°/24.3	18		<b>513587</b>	2011 <i>CD</i> <sub>14</sub>		12 24.4 226°57	3°0'/24.4	18	
11 17	6 46.38	+26 12.5	1.790	2.579	15.9	20.8	11 17	6 47.11	+30 53.2	1.806	2.593	15.9	21.9
11 27	6 40.78	+26 41.8	1.705	2.580	12.5	20.6	11 27	6 41.55	+31 8.8	1.712	2.584	12.6	21.7
12 7	6 32.11	+27 11.5	1.643	2.581	8.4	20.3	12 7	6 32.76	+31 19.8	1.640	2.574	8.7	21.4
12 17	6 21.05	+27 37.8	1.606	2.580	3.9	20.1	12 17	6 21.43	+31 21.9	1.594	2.564	4.7	21.2
12 27	6 8.84	+27 56.9	1.599	2.579	2.2	19.9	12 27	6 8.84	+31 11.5	1.577	2.553	3.3	21.0
1 6	5 56.97	+28 7.1	1.621	2.578	6.4	20.2	1 6	5 56.58	+30 48.2	1.588	2.542	6.8	21.2
1 16	5 46.83	+28 9.0	1.671	2.576	10.7	20.4	1 16	5 46.11	+30 14.6	1.627	2.530	11.1	21.5
1 26	5 39.49	+28 5.3	1.745	2.573	14.5	20.7	1 26	5 38.58	+29 35.3	1.690	2.517	14.9	21.7
<b>415374</b>	2013 <i>LT</i> <sub>12</sub>		12 24.4 127°99	1°4'/24.6	18		<b>64775</b>	2001 <i>XO</i> <sub>184</sub>		12 24.4 63°98	0°6'/24.5	18	
11 17	6 39.00	+17 56.8	2.708	3.480	11.5	22.2	11 17	6 44.15	+20 44.2	1.450	2.255	18.2	19.5
11 27	6 33.77	+17 59.3	2.630	3.495	9.0	22.0	11 27	6 39.13	+20 58.4	1.393	2.277	14.1	19.3
12 7	6 26.77	+18 5.5	2.576	3.509	6.0	21.9	12 7	6 30.96	+21 17.4	1.357	2.299	9.3	19.1
12 17	6 18.53	+18 14.7	2.551	3.523	2.9	21.7	12 17	6 20.52	+21 38.8	1.346	2.322	4.1	18.8
12 27	6 9.78	+18 26.4	2.557	3.536	1.6	21.6	12 27	6 9.22	+22 0.0	1.362	2.344	1.5	18.7
1 6	6 1.30	+18 39.8	2.594	3.549	4.4	21.8	1 6	5 58.65	+22 19.3	1.406	2.367	6.6	19.1
1 16	5 53.84	+18 54.6	2.660	3.562	7.3	22.0	1 16	5 50.15	+22 36.4	1.476	2.389	11.2	19.4
1 26	5 48.00	+19 10.4	2.754	3.574	10.0	22.2	1 26	5 44.62	+22 51.8	1.569	2.411	15.1	19.7
<b>11470</b>	Davidminton		12 24.4 52°35	4°0'/24.8	18		<b>27934</b>	1997 <i>HT</i> <sub>11</sub>		12 24.4 174°60	2°0'/24.3	18	
11 17	6 41.24	+13 52.7	1.451	2.252	18.4	17.4	11 17	6 46.47	+27 57.0	2.090	2.870	14.3	20.2
11 27	6 36.71	+13 35.9	1.395	2.273	14.5	17.2	11 27	6 40.42	+28 23.8	2.004	2.873	11.2	20.0
12 7	6 29.25	+13 29.6	1.360	2.295	10.1	17.0	12 7	6 31.66	+28 49.2	1.942	2.876	7.6	19.8
12 17	6 19.70	+13 34.5	1.349	2.316	5.8	16.8	12 17	6 20.84	+29 9.5	1.906	2.878	3.7	19.5
12 27	6 9.39	+13 50.3	1.364	2.339	4.2	16.8	12 27	6 9.07	+29 21.7	1.901	2.879	2.3	19.5
1 6	5 59.75	+14 15.3	1.406	2.361	7.4	17.0	1 6	5 57.63	+29 24.6	1.926	2.880	5.8	19.7
1 16	5 52.01	+14 47.4	1.475	2.383	11.5	17.3	1 16	5 47.71	+29 19.1	1.979	2.879	9.5	19.9
1 26	5 47.03	+15 24.3	1.566	2.406	15.2	17.6	1 26	5 40.26	+29 8.1	2.059	2.878	12.9	20.1
<b>27407</b>	2000 <i>ES</i> <sub>122</sub>		12 24.4 17°37	8°7'/25.1	18		<b>149217</b>	2002 <i>RS</i> <sub>21</sub>		12 24.4 21°86	6°8'/25.3	18	
11 17	6 37.67	+ 2 27.1	1.750	2.513	17.2	18.3	11 17	6 36.08	+10 29.4	0.948	1.785	23.3	19.0
11 27	6 33.66	+ 1 31.4	1.675	2.515	14.5	18.1	11 27	6 34.01	+10 3.0	0.902	1.797	18.8	18.8
12 7	6 27.18	+ 0 51.7	1.621	2.516	11.7	18.0	12 7	6 28.13	+ 9 56.1	0.871	1.811	13.6	18.6
12 17	6 18.85	+ 0 32.8	1.590	2.518	9.4	17.8	12 17	6 19.42	+10 11.8	0.861	1.826	8.7	18.4
12 27	6 9.67	+ 0 37.6	1.585	2.520	8.8	17.8	12 27	6 9.60	+10 50.0	0.872	1.844	6.9	18.3
1 6	6 0.82	+ 1 5.9	1.605	2.522	10.2	17.9	1 6	6 0.61	+11 46.4	0.906	1.862	10.0	18.6
1 16	5 53.36	+ 1 54.9	1.651	2.524	12.7	18.1	1 16	5 54.06	+12 54.9	0.961	1.883	14.7	18.9
1 26	5 48.16	+ 2 59.6	1.718	2.526	15.5	18.2	1 26	5 51.02	+14 9.0	1.036	1.905	19.0	19.2
<b>248024</b>	2004 <i>FG</i> <sub>74</sub>		12 24.4 73°85	1°4'/24.5	17		<b>432955</b>	2012 <i>HH</i> <sub>73</sub>		12 24.4 118°78	0°2'/24.4	18	
11 17	6 40.42	+19 47.8	1.853	2.648	15.3	20.8	11 17	6 47.29	+21 46.4	1.722	2.510	16.5	21.6
11 27	6 35.72	+19 39.2	1.778	2.657	11.9	20.6	11 27	6 41.20	+22 3.3	1.654	2.529	12.8	21.4
12 7	6 28.48	+19 34.0	1.726	2.665	7.9	20.4	12 7	6 32.19	+22 23.4	1.609	2.547	8.5	21.1
12 17	6 19.38	+19 31.7	1.700	2.674	3.7	20.1	12 17	6 21.05	+22 44.0	1.590	2.565	3.7	20.9
12 27	6 9.50	+19 31.7	1.702	2.683	1.8	20.0	12 27	6 9.04	+23 2.7	1.600	2.582	1.3	20.8
1 6	6 0.04	+19 33.6	1.734	2.692	5.8	20.3	1 6	5 57.62	+23 18.0	1.639	2.598	6.0	21.1
1 16	5 52.10	+19 37.5	1.792	2.701	9.8	20.6	1 16	5 48.04	+23 29.9	1.707	2.614	10.4	21.4
1 26	5 46.51	+19 43.7	1.876	2.710	13.3	20.8	1 26	5 41.22	+23 39.7	1.799	2.628	14.0	21.7
<b>339979</b>	2005 <i>UY</i> <sub>229</sub>		12 24.4 137°06	2°8'/24.1	18		<b>482078</b>	2010 <i>EY</i> <sub>42</sub>		12 24.4 316°89	18°0'/18.7	17	
11 17	6 46.08	+28 15.5	1.763	2.555	16.1	21.3	11 17	6 56.80	+58 4.5	1.480	2.210	21.3	20.5
11 27	6 40.59	+29 0.2	1.688	2.563	12.6	21.1	11 27	6 54.27	+60 51.8	1.410	2.190	19.8	20.3
12 7	6 31.99	+29 44.2	1.634	2.571	8.6	20.9	12 7	6 44.74	+63 22.1	1.357	2.171	18.6	20.2
12 17	6 21.01	+30 22.5	1.607	2.578	4.4	20.7	12 17	6 28.02	+65 17.4	1.323	2.153	18.1	20.1
12 27	6 8.94	+30 50.5	1.608	2.585	3.1	20.6	12 27	6 6.29	+66 20.3	1.308	2.134	18.3	20.1
1 6	5 57.30	+31 6.2	1.638	2.592	6.7	20.8	1 6	5 44.26	+66 23.1	1.311	2.117	19.5	20.1
1 16	5 47.48	+31 10.3	1.696	2.598	10.7	21.1	1 16	5 27.02	+65 31.2	1.331	2.100	21.1	20.2
1 26	5 40.53	+31 6.0	1.778	2.604	14.3	21.3	1 26	5 17.69	+63 59.6	1.366	2.085	23.0	20.3
<b>185174</b>	2006 <i>SG</i> <sub>284</sub>		12 24.4 56°01	1°7'/24.4	18		<b>434026</b>	2001 <i>SJ</i> <sub>143</sub>		12 24.4 114°70	1°0'/24.4	18	
11 17	6 42.13	+28 9.0	1.848	2.644	15.3	20.1	11 17	6 46.83	+25 52.1	1.818	2.606	15.8	21.8
11 27	6 37.30	+28 14.0	1.768	2.647	11.9	19.9	11 27	6 40.74	+25 59.7	1.750	2.624	12.3	21.6
12 7	6 29.67	+28 16.0	1.711	2.650	8.0	19.6	12 7	6 31.81	+26 6.1	1.704	2.642	8.1	21.4
12 17	6 19.96	+28 12.4	1.679	2.653	3.8	19.4	12 17	6 20.87	+26 8.6	1.685	2.659	3.6	21.2
12 27	6 9.34	+28 1.2	1.675	2.656	2.1	19.3	12 27	6 9.14	+26 5.4	1.695	2.676	1.6	21.1
1 6	5 59.18	+27 42.5	1.701	2.659	6.0	19.5	1 6	5 58.02	+25 56.2	1.734	2.692	5.9	21.4
1 16	5 50.67	+27 18.2	1.754	2.662	10.0	19.8	1 16	5 48.72	+25 42.6	1.802	2.708	10.0	21.7
1 26	5 44.74	+26 51.5	1.831	2.665	13.6	20.0	1 26	5 42.10	+25 27.3	1.894	2.723	13.5	21.9
<b>310558</b>	2001 <i>PL</i> <sub>65</sub>		12 24.4 50°28	0°3'/24.5	17		<b>477374</b>	2009 <i>UZ</i> <sub>132</sub>		12 24.4 3°87	7°1'/24.4	18	
11 17	6 43.60	+19 53.6	1.544	2.345	17.5	20.8	11 17	6 36.30	+12 25.5	1.122	1.949	21.1	20.3
11 27	6 38.43	+20 31.6	1.495	2.377	13.5	20.6	11 27	6 33.91	+11 16.1	1.057	1.947	17.1	20.1
12 7	6 30.32	+21 15.5	1.467	2.409	8.9	20.4	12 7	6 28.01	+10 17.2	1.011	1.947	12.5	19.8
12 17	6 20.18	+22 1.8	1.465	2.441	3.8	20.2	12 17	6 19.43	+ 9 34.2	0.985	1.948	8.4	19.6
12 27	6 9.31	+22 46.8	1.491	2.474	1.3	20.1	12 27	6 9.63	+ 9 11.5	0.983	1.951	7.3	19.5
1 6	5 59.18	+23 27.6	1.546	2.506	6.1	20.5	1 6	6 0.38	+ 9 10.4	1.005	1.955	10.4	19.7
1 16	5 50.99	+24 3.0	1.627	2.539	10.4	20.8	1 16	5 53.25	+ 9 29.5	1.048	1.960	14.8	20.0
1 26	5 45.58	+24 33.5	1.733	2.572	14.0	21.1	1 26	5 49.37	+10 4.6	1.111	1.967	19.0	20.3
<b>132663</b>	2002 <i>MD</i> <sub>2</sub>		12 24.4 119°58	1°1'/24.6	18		<b>312594</b>	2009 <i>KM</i> <sub>3</sub>		12 24.4 132°23	0°9		

EPHEMERIDES

12 24.4

12 24.5

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>37786</b>	Tokikonaruko 12 24.4 48°22' 1.6°/24.3 18						<b>283833</b>	2003 US <sub>18</sub> 12 24.4 68°08' 2.8°/24.1 18					
11 17	6 44.38	+24 8.2	1.149	1.974	20.9	18.8	11 17	6 48.02	+26 49.5	1.629	2.423	17.1	20.4
11 27	6 40.37	+24 47.7	1.092	1.987	16.2	18.6	11 27	6 41.98	+27 55.4	1.579	2.455	13.2	20.2
12 7	6 32.37	+25 31.1	1.054	2.001	10.8	18.3	12 7	6 32.79	+29 1.3	1.550	2.487	8.9	20.0
12 17	6 21.32	+26 12.9	1.038	2.015	4.9	18.0	12 17	6 21.34	+30 0.9	1.547	2.519	4.5	19.8
12 27	6 8.99	+26 47.6	1.048	2.029	2.3	17.9	12 27	6 9.06	+30 48.9	1.574	2.551	3.1	19.8
1 6	5 57.45	+27 12.1	1.083	2.044	7.9	18.3	1 6	5 57.50	+31 22.6	1.629	2.583	6.7	20.1
1 16	5 48.48	+27 26.8	1.142	2.060	13.2	18.6	1 16	5 48.03	+31 42.9	1.712	2.614	10.7	20.4
1 26	5 43.26	+27 34.5	1.222	2.076	17.7	18.9	1 26	5 41.56	+31 52.9	1.818	2.644	14.0	20.7
<b>318439</b>	2005 CL <sub>44</sub> 12 24.4 270°96' 3.2°/24.8 18						<b>409691</b>	2006 AH <sub>94</sub> 12 24.4 25°30' 0.5°/24.4 17					
11 17	6 39.77	+14 28.7	1.819	2.608	15.7	20.8	11 17	6 39.36	+24 40.9	1.948	2.745	14.5	21.4
11 27	6 35.49	+14 24.7	1.728	2.600	12.5	20.6	11 27	6 34.99	+24 46.4	1.868	2.748	11.3	21.2
12 7	6 28.57	+14 29.3	1.658	2.591	8.7	20.4	12 7	6 28.09	+24 51.9	1.811	2.752	7.5	20.9
12 17	6 19.59	+14 42.9	1.614	2.583	4.9	20.1	12 17	6 19.32	+24 55.6	1.780	2.755	3.3	20.7
12 27	6 9.55	+15 5.2	1.598	2.574	3.4	20.0	12 27	6 9.72	+24 56.1	1.777	2.759	1.3	20.5
1 6	5 59.71	+15 34.7	1.610	2.565	6.6	20.2	1 6	6 0.49	+24 52.9	1.804	2.764	5.5	20.8
1 16	5 51.23	+16 9.7	1.650	2.556	10.7	20.4	1 16	5 52.71	+24 46.7	1.858	2.768	9.4	21.1
1 26	5 45.09	+16 48.6	1.713	2.547	14.4	20.6	1 26	5 47.24	+24 39.0	1.937	2.773	12.9	21.3
<b>457248</b>	2008 QH 12 24.4 56°97' 10.3°/26.5 16						<b>89170</b>	2001 UR <sub>53</sub> 12 24.4 69°89' 2.2°/24.6 18					
11 17	6 57.42	+55 1.5	2.147	2.852	16.1	21.1	11 17	6 39.85	+17 41.4	1.892	2.684	15.1	19.5
11 27	6 49.74	+55 40.5	2.086	2.867	14.2	21.0	11 27	6 35.23	+17 28.4	1.818	2.694	11.8	19.3
12 7	6 38.04	+55 59.4	2.045	2.883	12.3	20.9	12 7	6 28.16	+17 20.4	1.767	2.704	8.0	19.1
12 17	6 23.56	+55 50.0	2.026	2.898	10.8	20.8	12 17	6 19.32	+17 17.3	1.742	2.714	4.0	18.8
12 27	6 8.30	+55 7.8	2.032	2.914	10.3	20.8	12 27	6 9.73	+17 18.9	1.745	2.724	2.5	18.8
1 6	5 54.36	+53 54.2	2.064	2.929	10.9	20.9	1 6	6 0.56	+17 24.8	1.778	2.735	5.9	19.0
1 16	5 43.38	+52 15.9	2.121	2.945	12.3	21.0	1 16	5 52.84	+17 34.5	1.837	2.745	9.7	19.2
1 26	5 36.26	+50 22.6	2.202	2.961	14.1	21.2	1 26	5 47.37	+17 47.8	1.922	2.755	13.1	19.5
<b>157935</b>	1999 VA <sub>209</sub> 12 24.4 288°29' 3.2°/24.4 17						<b>270250</b>	2001 UR <sub>30</sub> 12 24.4 146°01' 4.7°/24.0 18					
11 17	6 38.15	+15 43.5	2.174	2.957	13.7	20.8	11 17	6 46.88	+32 39.6	1.725	2.514	16.4	20.8
11 27	6 33.66	+15 7.2	2.086	2.955	10.8	20.6	11 27	6 41.54	+33 35.6	1.648	2.519	13.1	20.6
12 7	6 27.02	+14 35.0	2.021	2.953	7.5	20.4	12 7	6 32.84	+34 27.9	1.593	2.523	9.3	20.3
12 17	6 18.80	+14 8.3	1.983	2.950	4.3	20.2	12 17	6 21.52	+35 9.8	1.564	2.528	5.8	20.1
12 27	6 9.86	+13 48.1	1.975	2.948	3.3	20.2	12 27	6 8.95	+35 35.8	1.563	2.531	4.9	20.1
1 6	6 1.20	+13 35.3	1.995	2.946	6.0	20.3	1 6	5 56.80	+35 43.5	1.590	2.535	7.7	20.3
1 16	5 53.72	+13 30.0	2.044	2.943	9.3	20.5	1 16	5 46.62	+35 34.8	1.643	2.538	11.5	20.5
1 26	5 48.18	+13 32.0	2.117	2.941	12.4	20.7	1 26	5 39.54	+35 14.6	1.720	2.541	14.9	20.7
<b>519063</b>	2010 KX <sub>109</sub> 12 24.4 193°99' 2.5°/24.5 18						<b>386652</b>	2009 SN <sub>352</sub> 12 24.4 31°58' 2.2°/24.3 18					
11 17	6 41.81	+17 18.6	1.913	2.700	15.1	21.4	11 17	6 42.25	+25 41.2	1.250	2.072	19.6	20.8
11 27	6 36.84	+17 0.0	1.827	2.699	11.9	21.2	11 27	6 38.57	+26 22.2	1.187	2.080	15.3	20.5
12 7	6 29.31	+16 46.0	1.762	2.697	8.2	21.0	12 7	6 31.14	+27 5.3	1.144	2.090	10.3	20.3
12 17	6 19.85	+16 37.0	1.724	2.695	4.2	20.7	12 17	6 20.82	+27 45.2	1.124	2.099	4.8	20.0
12 27	6 9.50	+16 33.0	1.715	2.693	2.7	20.6	12 27	6 9.21	+28 16.5	1.129	2.110	2.7	19.9
1 6	5 59.44	+16 34.0	1.735	2.691	6.2	20.8	1 6	5 58.24	+28 36.4	1.161	2.121	7.7	20.2
1 16	5 50.80	+16 39.9	1.783	2.688	10.1	21.1	1 16	5 49.62	+28 45.7	1.217	2.133	12.7	20.5
1 26	5 44.48	+16 50.4	1.856	2.684	13.7	21.3	1 26	5 44.51	+28 47.4	1.294	2.146	17.0	20.8
<b>113212</b>	2002 RZ <sub>117</sub> 12 24.4 245°53' 0.8°/24.5 18						<b>324776</b>	2007 GE <sub>49</sub> 12 24.4 149°88' 3.1°/24.1 17					
11 17	6 40.17	+27 15.9	2.571	3.350	11.9	20.0	11 17	6 41.63	+32 8.0	2.677	3.449	11.7	20.9
11 27	6 35.06	+27 3.6	2.470	3.340	9.3	19.8	11 27	6 36.22	+32 49.2	2.594	3.456	9.2	20.8
12 7	6 27.88	+26 48.5	2.394	3.330	6.2	19.6	12 7	6 28.67	+33 27.1	2.535	3.462	6.5	20.6
12 17	6 19.16	+26 29.0	2.346	3.320	2.8	19.4	12 17	6 19.53	+33 58.2	2.504	3.468	3.9	20.5
12 27	6 9.74	+26 4.7	2.328	3.310	1.2	19.2	12 27	6 9.65	+34 19.7	2.504	3.473	3.2	20.4
1 6	6 0.56	+25 36.1	2.341	3.299	4.6	19.4	1 6	6 0.02	+34 30.5	2.534	3.479	5.3	20.6
1 16	5 52.49	+25 4.7	2.384	3.288	7.9	19.6	1 16	5 51.55	+34 31.1	2.594	3.483	8.0	20.7
1 26	5 46.28	+24 32.7	2.453	3.277	10.9	19.8	1 26	5 44.99	+34 23.6	2.679	3.488	10.5	20.9
<b>255113</b>	2005 UK <sub>99</sub> 12 24.4 4°94' 0.3°/24.4 17						<b>60447</b>	2000 CL <sub>90</sub> 12 24.4 52°91' 5.1°/25.2 18					
11 17	6 39.45	+22 22.4	1.921	2.718	14.7	20.7	11 17	6 39.76	+ 9 57.5	1.620	2.408	17.4	19.3
11 27	6 35.15	+22 48.5	1.838	2.718	11.5	20.5	11 27	6 35.43	+ 9 47.6	1.555	2.422	14.0	19.1
12 7	6 28.27	+23 18.0	1.777	2.718	7.6	20.3	12 7	6 28.42	+ 9 51.2	1.510	2.436	10.1	18.9
12 17	6 19.43	+23 48.7	1.743	2.719	3.3	20.0	12 17	6 19.47	+10 9.4	1.490	2.450	6.5	18.7
12 27	6 9.64	+24 17.8	1.737	2.719	1.2	19.8	12 27	6 9.69	+10 42.1	1.496	2.464	5.2	18.7
1 6	6 0.12	+24 43.4	1.760	2.720	5.6	20.2	1 6	6 0.39	+11 26.7	1.530	2.479	7.6	18.8
1 16	5 52.00	+25 4.9	1.811	2.721	9.7	20.4	1 16	5 52.70	+12 20.2	1.591	2.494	11.2	19.1
1 26	5 46.21	+25 22.7	1.887	2.722	13.2	20.6	1 26	5 47.49	+13 19.0	1.675	2.509	14.6	19.3
<b>156703</b>	2002 LF <sub>47</sub> 12 24.4 91°46' 8.8°/26.3 18						<b>312278</b>	2008 AE <sub>116</sub> 12 24.4 2°96' 0.1°/24.4 17					
11 17	6 37.77	- 6 6.7	2.510	3.207	14.2	19.7	11 17	6 40.20	+24 20.1	1.676	2.482	16.2	20.7
11 27	6 32.83	- 6 52.5	2.452	3.230	12.4	19.6	11 27	6 36.04	+24 11.1	1.597	2.481	12.6	20.4
12 7	6 26.18	- 7 21.0	2.415	3.253	10.6	19.5	12 7	6 28.99	+24 1.6	1.538	2.481	8.4	20.2
12 17	6 18.34	- 7 29.0	2.401	3.276	9.2	19.5	12 17	6 19.77	+23 50.3	1.505	2.481	3.7	19.9
12 27	6 10.07	- 7 14.8	2.414	3.298	8.8	19.5	12 27	6 9.58	+23 36.2	1.500	2.482	1.3	19.7
1 6	6 2.15	- 6 39.3	2.453	3.319	9.4	19.6	1 6	5 59.81	+23 19.6	1.522	2.483	6.1	20.1
1 16	5 55.27	- 5 45.2	2.518	3.341	10.7	19.7	1 16	5 51.73	+23 2.1	1.571	2.485	10.6	20.3
1 26	5 50.01	- 4 36.8	2.607	3.362	12.3	19.8	1 26	5 46.31	+22 45.5	1.644	2.487	14.5	20.6
<b>443168</b>	2014 DA <sub>7</sub> 12 24.4 173°23' 0.4°/24.4 18						<b>440035</b>	2002 PV <sub>139</sub> 12 24.5 82°45' 7.1°/24.8 18					
11 17	6 43.61	+22 35.5	1.898	2.688	15.1	21.4	11 17	6 52.45	+42 19.9	1.906	2.666	16.1	21.2
11 27	6 38.42	+23 5.0	1.814	2.690	11.8	21.2	11 27	6 45.46	+43 8.6	1.853	2.694	13.3	21.1
12 7	6 30.47	+23 37.9	1.752	2.692	7.9	20.9	12 7						

EPHEMERIDES

12 24.5

12 24.5

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>441033</b>	2007 <i>FD</i> <sub>13</sub>		12 24.5 233°10	1.5°/24.4	18		<b>348229</b>	2004 <i>RS</i> <sub>262</sub>		12 24.5 270°11	2.6°/24.4	18	
11 17	6 43.42	+20 11.8	1.940	2.726	15.0	22.0	11 17	6 43.89	+28 54.7	1.706	2.503	16.3	21.1
11 27	6 38.24	+19 53.8	1.842	2.715	11.8	21.8	11 27	6 39.31	+29 16.7	1.610	2.489	12.9	20.9
12 7	6 30.36	+19 37.8	1.766	2.703	8.0	21.6	12 7	6 31.47	+29 36.7	1.537	2.475	8.8	20.6
12 17	6 20.39	+19 23.4	1.716	2.690	3.8	21.3	12 17	6 21.02	+29 50.5	1.488	2.460	4.5	20.3
12 27	6 9.36	+19 10.4	1.696	2.676	1.9	21.1	12 27	6 9.18	+29 54.3	1.467	2.445	2.9	20.2
1 6	5 58.53	+18 59.3	1.705	2.662	6.0	21.4	1 6	5 57.55	+29 46.6	1.474	2.430	6.9	20.4
1 16	5 49.10	+18 50.6	1.742	2.648	10.3	21.6	1 16	5 47.64	+29 29.1	1.508	2.415	11.4	20.6
1 26	5 42.06	+18 45.5	1.805	2.633	14.0	21.8	1 26	5 40.68	+29 5.4	1.565	2.400	15.5	20.8
<b>398373</b>	2011 <i>SK</i> <sub>102</sub>		12 24.5 84°94	14°3/27.7	15		<b>364939</b>	2008 <i>FV</i> <sub>114</sub>		12 24.5 269°06	1°9/24.6	17	
11 17	6 41.97	-17 30.2	2.058	2.696	18.4	21.6	11 17	6 39.14	+17 52.8	2.015	2.805	14.4	21.9
11 27	6 36.43	-19 17.3	2.023	2.725	17.0	21.5	11 27	6 34.72	+17 47.9	1.927	2.802	11.3	21.7
12 7	6 28.69	-20 37.1	2.005	2.754	15.6	21.5	12 7	6 27.91	+17 48.0	1.862	2.798	7.7	21.4
12 17	6 19.47	-21 23.5	2.006	2.783	14.7	21.5	12 17	6 19.29	+17 52.6	1.822	2.795	3.8	21.2
12 27	6 9.74	-21 32.6	2.028	2.811	14.3	21.5	12 27	6 9.81	+18 1.4	1.812	2.792	2.2	21.1
1 6	6 0.53	-21 5.5	2.071	2.838	14.6	21.6	1 6	6 0.57	+18 13.5	1.831	2.788	5.7	21.3
1 16	5 52.74	-20 6.3	2.135	2.865	15.3	21.7	1 16	5 52.62	+18 28.4	1.878	2.785	9.5	21.5
1 26	5 47.05	-18 42.0	2.217	2.892	16.3	21.8	1 26	5 46.82	+18 45.8	1.949	2.782	13.0	21.7
<b>13050</b>	1990 <i>SY</i>		12 24.5 128°86	3°5/24.5	18		<b>237852</b>	2002 <i>GH</i> <sub>73</sub>		12 24.5 136°67	6°3/23.6	18	
11 17	6 46.65	+33 27.4	2.128	2.904	14.2	18.2	11 17	6 47.63	+36 37.8	1.854	2.634	15.8	20.1
11 27	6 40.48	+33 49.1	2.054	2.917	11.2	18.0	11 27	6 42.19	+37 57.9	1.779	2.639	12.8	19.9
12 7	6 31.63	+34 4.6	2.003	2.930	7.9	17.8	12 7	6 33.35	+39 12.5	1.726	2.643	9.6	19.7
12 17	6 20.83	+34 9.9	1.978	2.942	4.7	17.6	12 17	6 21.81	+40 13.6	1.698	2.648	7.0	19.6
12 27	6 9.26	+34 2.3	1.983	2.954	3.7	17.6	12 27	6 8.93	+40 54.4	1.699	2.652	6.5	19.6
1 6	5 58.22	+33 41.8	2.018	2.966	6.2	17.8	1 6	5 56.38	+41 12.0	1.728	2.656	8.6	19.7
1 16	5 48.86	+33 10.8	2.082	2.977	9.4	18.0	1 16	5 45.76	+41 8.2	1.782	2.660	11.7	19.9
1 26	5 42.02	+32 33.6	2.170	2.987	12.4	18.2	1 26	5 38.27	+40 48.4	1.860	2.664	14.7	20.1
<b>115406</b>	2003 <i>SK</i> <sub>294</sub>		12 24.5 52°13	5°0/24.9	18 R		<b>417854</b>	2007 <i>JM</i>		12 24.5 177°23	7°0/24.6	17	
11 17	6 42.20	+12 43.6	1.217	2.028	20.7	19.3	11 17	6 36.55	+0 51.2	2.641	3.372	12.8	21.9
11 27	6 38.10	+12 23.4	1.160	2.043	16.5	19.1	11 27	6 31.99	-0 4.1	2.559	3.373	10.9	21.8
12 7	6 30.56	+12 16.6	1.122	2.058	11.7	18.8	12 7	6 25.73	-0 47.9	2.499	3.374	8.9	21.6
12 17	6 20.48	+12 24.9	1.106	2.073	6.9	18.6	12 17	6 18.24	-1 17.0	2.464	3.374	7.5	21.5
12 27	6 9.39	+12 47.9	1.116	2.089	5.2	18.6	12 27	6 10.19	-1 29.1	2.458	3.374	7.1	21.5
1 6	5 59.02	+13 23.4	1.151	2.106	8.6	18.8	1 6	6 2.34	-1 23.8	2.479	3.374	8.1	21.6
1 16	5 50.83	+14 7.9	1.210	2.122	13.2	19.1	1 16	5 55.40	-1 2.1	2.527	3.374	9.8	21.7
1 26	5 45.86	+14 58.0	1.290	2.139	17.3	19.4	1 26	5 49.98	-0 26.7	2.600	3.374	11.8	21.8
<b>109838</b>	2001 <i>RN</i> <sub>124</sub>		12 24.5 245°02	0°9/24.5	18		<b>271478</b>	2004 <i>FD</i> <sub>24</sub>		12 24.5 250°20	2°4/24.5	18	
11 17	6 40.06	+20 24.2	1.960	2.753	14.6	19.8	11 17	6 42.84	+18 9.5	1.723	2.516	16.3	21.8
11 27	6 35.52	+20 27.2	1.874	2.751	11.4	19.6	11 27	6 38.15	+17 52.2	1.627	2.503	12.9	21.5
12 7	6 28.48	+20 33.6	1.810	2.749	7.6	19.3	12 7	6 30.52	+17 39.4	1.552	2.489	8.9	21.2
12 17	6 19.54	+20 42.6	1.773	2.748	3.5	19.1	12 17	6 20.56	+17 31.2	1.503	2.475	4.5	20.9
12 27	6 9.70	+20 52.7	1.764	2.746	1.4	18.9	12 27	6 9.37	+17 27.4	1.481	2.460	2.7	20.8
1 6	6 0.14	+21 3.1	1.785	2.745	5.6	19.2	1 6	5 58.34	+17 28.1	1.488	2.445	6.8	21.0
1 16	5 51.95	+21 13.6	1.834	2.743	9.6	19.4	1 16	5 48.84	+17 33.3	1.522	2.430	11.3	21.2
1 26	5 46.02	+21 24.5	1.907	2.741	13.1	19.7	1 26	5 41.95	+17 43.1	1.580	2.414	15.4	21.5
<b>208319</b>	2001 <i>MF</i> <sub>28</sub>		12 24.5 231°03	3°8/24.7	18		<b>117790</b>	2005 <i>GO</i> <sub>128</sub>		12 24.5 235°01	7°1/25.4	18	
11 17	6 39.90	+12 33.6	2.159	2.933	14.0	20.8	11 17	6 35.45	-2 52.4	2.931	3.640	12.1	20.9
11 27	6 35.15	+12 16.9	2.063	2.924	11.3	20.6	11 27	6 31.07	-3 24.6	2.836	3.630	10.5	20.7
12 7	6 28.13	+12 7.8	1.989	2.914	8.1	20.4	12 7	6 25.11	-3 43.6	2.763	3.620	8.8	20.6
12 17	6 19.38	+12 7.5	1.942	2.904	4.9	20.2	12 17	6 17.98	-3 46.9	2.715	3.609	7.5	20.5
12 27	6 9.76	+12 16.4	1.923	2.893	3.9	20.1	12 27	6 10.28	-3 32.6	2.694	3.598	7.1	20.5
1 6	6 0.29	+12 34.0	1.935	2.883	6.3	20.2	1 6	6 2.69	-3 0.8	2.701	3.586	7.9	20.5
1 16	5 51.96	+12 59.4	1.974	2.871	9.7	20.4	1 16	5 55.87	-2 13.2	2.736	3.574	9.4	20.6
1 26	5 45.60	+13 31.0	2.039	2.860	12.9	20.6	1 26	5 50.38	-1 12.7	2.795	3.562	11.2	20.7
<b>495069</b>	2011 <i>FX</i> <sub>76</sub>		12 24.5 279°95	0°6/24.5	18		<b>519425</b>	2011 <i>UN</i> <sub>414</sub>		12 24.5 219°97	3°8/24.3	18	
11 17	6 37.96	+21 12.0	2.322	3.110	12.8	22.1	11 17	6 41.00	+13 42.9	2.332	3.101	13.3	21.8
11 27	6 33.61	+21 15.0	2.223	3.098	10.0	21.9	11 27	6 35.77	+12 58.2	2.233	3.092	10.6	21.6
12 7	6 27.09	+21 20.5	2.147	3.085	6.7	21.7	12 7	6 28.42	+12 17.7	2.159	3.083	7.6	21.4
12 17	6 18.92	+21 27.3	2.098	3.073	3.0	21.5	12 17	6 19.48	+11 43.3	2.112	3.073	4.8	21.2
12 27	6 9.91	+21 34.6	2.079	3.061	1.2	21.3	12 27	6 9.77	+11 16.7	2.094	3.062	4.0	21.1
1 6	6 1.05	+21 41.6	2.090	3.049	4.9	21.5	1 6	6 0.26	+10 58.8	2.107	3.051	6.3	21.2
1 16	5 53.28	+21 48.3	2.129	3.036	8.6	21.7	1 16	5 51.84	+10 50.3	2.149	3.039	9.4	21.4
1 26	5 47.40	+21 55.0	2.194	3.024	11.8	21.9	1 26	5 45.30	+10 50.6	2.216	3.027	12.4	21.6
<b>436769</b>	2012 <i>JQ</i> <sub>1</sub>		12 24.5 237°31	0°8/24.5	18		<b>337262</b>	2000 <i>SS</i> <sub>200</sub>		12 24.5 94°50	4°0/24.3	18	
11 17	6 44.74	+20 57.1	1.610	2.407	17.1	22.7	11 17	6 46.49	+32 12.4	1.689	2.481	16.6	20.9
11 27	6 39.90	+20 59.9	1.517	2.396	13.5	22.5	11 27	6 41.07	+32 48.5	1.620	2.494	13.1	20.7
12 7	6 31.83	+21 6.7	1.445	2.385	9.1	22.2	12 7	6 32.40	+33 19.5	1.573	2.506	9.2	20.5
12 17	6 21.16	+21 15.9	1.398	2.374	4.1	21.9	12 17	6 21.30	+33 39.9	1.551	2.518	5.4	20.3
12 27	6 9.13	+21 25.5	1.380	2.362	1.6	21.7	12 27	6 9.18	+33 45.7	1.557	2.530	4.2	20.3
1 6	5 57.28	+21 34.4	1.389	2.349	6.8	22.0	1 6	5 57.68	+33 36.0	1.591	2.541	7.2	20.5
1 16	5 47.15	+21 42.5	1.426	2.336	11.7	22.2	1 16	5 48.20	+33 13.4	1.652	2.553	11.0	20.7
1 26	5 39.92	+21 50.9	1.485	2.323	16.0	22.5	1 26	5 41.78	+32 43.0	1.737	2.564	14.5	21.0
<b>191568</b>	2003 <i>WR</i> <sub>151</sub>		12 24.5 41°59	0°7/24.4	18		<b>224736</b>	2006 <i>DN</i> <sub>6</sub>		12 24.5 335°56	5°7/24.9</		

EPHEMERIDES

12 24.5

12 24.5

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>152612</b>	1996 <i>EW</i> <sub>8</sub>		12 24.5 248°38	1.1°/24.4	18		<b>71213</b>	1999 <i>XA</i> <sub>259</sub>		12 24.5 132°10	2.1°/24.5	18	
11 17	6 43.92	+25 13.4	1.770	2.565	15.9	21.0	11 17	6 42.22	+18 0.2	2.038	2.821	14.5	19.5
11 27	6 39.10	+25 30.1	1.675	2.553	12.5	20.8	11 27	6 36.90	+17 44.3	1.961	2.831	11.3	19.3
12 7	6 31.22	+25 47.6	1.601	2.541	8.4	20.5	12 7	6 29.23	+17 32.6	1.906	2.841	7.7	19.1
12 17	6 20.89	+26 3.0	1.553	2.528	3.8	20.2	12 17	6 19.86	+17 24.8	1.879	2.850	3.9	18.9
12 27	6 9.28	+26 13.3	1.533	2.515	1.7	20.0	12 27	6 9.76	+17 20.9	1.881	2.860	2.3	18.8
1 6	5 57.84	+26 17.1	1.542	2.501	6.3	20.3	1 6	6 0.06	+17 20.7	1.913	2.868	5.7	19.0
1 16	5 48.01	+26 14.8	1.579	2.487	10.9	20.6	1 16	5 51.75	+17 24.3	1.973	2.877	9.3	19.3
1 26	5 40.91	+26 8.9	1.639	2.473	14.9	20.8	1 26	5 45.62	+17 31.6	2.058	2.884	12.6	19.5
<b>218950</b>	2008 <i>DW</i> <sub>68</sub>		12 24.5 157°76	0°5/24.5	18		<b>302558</b>	2002 <i>OZ</i> <sub>34</sub>		12 24.5 73°61	3°3/25.0	18	
11 17	6 40.22	+21 1.2	2.577	3.354	12.0	21.8	11 17	6 41.38	+13 12.2	1.751	2.538	16.3	20.5
11 27	6 34.97	+21 7.4	2.491	3.360	9.3	21.6	11 27	6 36.56	+13 21.1	1.684	2.554	12.9	20.3
12 7	6 27.78	+21 15.8	2.430	3.366	6.2	21.4	12 7	6 29.15	+13 40.7	1.639	2.570	9.0	20.1
12 17	6 19.17	+21 25.2	2.397	3.372	2.7	21.2	12 17	6 19.85	+14 10.4	1.619	2.586	5.0	19.9
12 27	6 9.93	+21 34.6	2.395	3.377	1.0	21.1	12 27	6 9.76	+14 48.9	1.627	2.603	3.4	19.9
1 6	6 0.94	+21 43.4	2.423	3.381	4.4	21.4	1 6	6 0.12	+15 33.6	1.664	2.619	6.4	20.1
1 16	5 53.03	+21 51.4	2.482	3.385	7.7	21.6	1 16	5 52.04	+16 22.0	1.728	2.635	10.3	20.3
1 26	5 46.87	+21 59.1	2.567	3.389	10.5	21.8	1 26	5 46.35	+17 11.8	1.817	2.651	13.7	20.6
<b>92217</b>	2000 <i>AD</i> <sub>12</sub>		12 24.5 24°15	3°1/24.0	17		<b>142003</b>	2002 <i>PP</i> <sub>160</sub>		12 24.5 181°11	2°1/24.4	18	
11 17	6 40.37	+28 29.7	1.816	2.616	15.3	19.0	11 17	6 46.79	+28 11.1	1.695	2.488	16.5	21.0
11 27	6 36.18	+29 25.0	1.742	2.622	12.0	18.8	11 27	6 41.33	+28 25.4	1.613	2.489	13.0	20.8
12 7	6 29.14	+30 20.1	1.691	2.629	8.2	18.6	12 7	6 32.64	+28 37.3	1.552	2.490	8.8	20.5
12 17	6 19.92	+31 10.2	1.665	2.636	4.4	18.4	12 17	6 21.49	+28 42.9	1.516	2.490	4.3	20.3
12 27	6 9.66	+31 50.5	1.668	2.644	3.4	18.3	12 27	6 9.19	+28 39.1	1.509	2.489	2.5	20.1
1 6	5 59.75	+32 18.4	1.699	2.652	6.6	18.6	1 6	5 57.33	+28 25.6	1.531	2.488	6.6	20.4
1 16	5 51.46	+32 34.1	1.757	2.660	10.3	18.8	1 16	5 47.36	+28 4.2	1.580	2.487	11.0	20.7
1 26	5 45.77	+32 39.9	1.838	2.669	13.7	19.0	1 26	5 40.36	+27 38.9	1.653	2.485	14.9	20.9
<b>148509</b>	2001 <i>ON</i> <sub>58</sub>		12 24.5 113°88	0°8/24.5	18 R		<b>53797</b>	2000 <i>EL</i> <sub>111</sub>		12 24.5 122°05	1°6/24.7	18	
11 17	6 47.14	+25 35.2	1.796	2.584	15.9	20.3	11 17	6 42.05	+16 56.6	2.418	3.189	12.8	19.0
11 27	6 41.03	+25 37.4	1.728	2.602	12.4	20.1	11 27	6 36.37	+17 9.8	2.345	3.208	10.0	18.8
12 7	6 32.07	+25 38.5	1.682	2.621	8.2	19.9	12 7	6 28.69	+17 28.2	2.295	3.227	6.7	18.7
12 17	6 21.07	+25 35.9	1.663	2.638	3.6	19.7	12 17	6 19.57	+17 50.9	2.273	3.245	3.3	18.5
12 27	6 9.31	+25 28.1	1.673	2.655	1.4	19.5	12 27	6 9.86	+18 16.5	2.282	3.262	1.8	18.4
1 6	5 58.17	+25 15.1	1.713	2.671	5.9	19.9	1 6	6 0.49	+18 43.6	2.323	3.278	4.8	18.6
1 16	5 48.87	+24 58.6	1.780	2.687	10.0	20.1	1 16	5 52.29	+19 11.4	2.393	3.294	8.0	18.8
1 26	5 42.27	+24 41.3	1.873	2.702	13.5	20.4	1 26	5 45.96	+19 39.2	2.490	3.310	10.9	19.1
<b>223144</b>	2002 <i>WL</i> <sub>8</sub>		12 24.5 84°71	1°2/24.5	18		<b>15793</b>	1993 <i>TG</i> <sub>19</sub>		12 24.5 181°40	1°5/24.4	18 R	
11 17	6 47.38	+20 37.4	1.543	2.338	17.8	20.3	11 17	6 45.26	+26 31.4	2.078	2.860	14.3	19.6
11 27	6 41.35	+20 29.4	1.488	2.366	13.8	20.1	11 27	6 39.56	+26 55.8	1.990	2.861	11.1	19.4
12 7	6 32.30	+20 24.7	1.454	2.393	9.1	19.9	12 7	6 31.19	+27 19.8	1.926	2.862	7.5	19.1
12 17	6 21.15	+20 22.1	1.445	2.420	4.1	19.7	12 17	6 20.79	+27 40.2	1.888	2.862	3.5	18.9
12 27	6 9.31	+20 20.6	1.465	2.446	1.8	19.6	12 27	6 9.43	+27 54.3	1.881	2.861	1.9	18.8
1 6	5 58.26	+20 19.8	1.513	2.472	6.4	20.0	1 6	5 58.35	+28 0.6	1.904	2.860	5.6	19.0
1 16	5 49.28	+20 20.3	1.588	2.497	10.8	20.3	1 16	5 48.74	+28 0.0	1.955	2.858	9.5	19.3
1 26	5 43.20	+20 22.9	1.687	2.522	14.5	20.6	1 26	5 41.53	+27 54.5	2.032	2.855	12.9	19.5
<b>115671</b>	2003 <i>UT</i> <sub>144</sub>		12 24.5 268°68	0°9/24.5	18		<b>69597</b>	1998 <i>FQ</i> <sub>15</sub>		12 24.5 38°91	0°4/24.5	18 R	
11 17	6 39.85	+27 6.1	2.339	3.125	12.7	19.7	11 17	6 43.19	+23 29.5	1.126	1.954	21.0	18.3
11 27	6 35.03	+26 58.7	2.247	3.121	9.9	19.5	11 27	6 39.34	+23 13.4	1.071	1.967	16.3	18.1
12 7	6 27.98	+26 48.7	2.179	3.116	6.6	19.3	12 7	6 31.62	+22 58.1	1.033	1.981	10.8	17.8
12 17	6 19.31	+26 34.6	2.138	3.112	3.0	19.0	12 17	6 21.05	+22 42.3	1.018	1.995	4.7	17.5
12 27	6 9.89	+26 15.6	2.126	3.108	1.3	18.9	12 27	6 9.40	+22 25.1	1.028	2.011	1.7	17.4
1 6	6 0.77	+25 52.1	2.145	3.104	4.9	19.1	1 6	5 58.65	+22 7.2	1.063	2.027	7.7	17.8
1 16	5 52.88	+25 25.5	2.193	3.099	8.4	19.3	1 16	5 50.45	+21 50.7	1.122	2.043	13.1	18.2
1 26	5 47.00	+24 58.1	2.267	3.095	11.5	19.5	1 26	5 45.85	+21 37.7	1.202	2.060	17.6	18.5
<b>163284</b>	2002 <i>GZ</i> <sub>128</sub>		12 24.5 150°61	0°2/24.5	18		<b>51709</b>	2001 <i>KW</i> <sub>28</sub>		12 24.5 177°85	1°3/24.4	18	
11 17	6 43.09	+22 46.5	1.949	2.738	14.8	21.0	11 17	6 46.18	+26 19.8	1.847	2.635	15.6	19.7
11 27	6 37.85	+22 48.7	1.868	2.743	11.5	20.8	11 27	6 40.54	+26 31.9	1.763	2.637	12.2	19.5
12 7	6 30.00	+22 52.2	1.810	2.748	7.7	20.5	12 7	6 31.97	+26 43.0	1.701	2.639	8.2	19.2
12 17	6 20.23	+22 55.5	1.778	2.753	3.4	20.3	12 17	6 21.16	+26 50.1	1.665	2.640	3.8	19.0
12 27	6 9.60	+22 57.1	1.775	2.758	1.1	20.1	12 27	6 9.32	+26 50.8	1.658	2.640	1.8	18.8
1 6	5 59.35	+22 56.5	1.802	2.762	5.5	20.4	1 6	5 57.87	+26 44.3	1.681	2.639	6.0	19.1
1 16	5 50.60	+22 54.3	1.858	2.765	9.6	20.7	1 16	5 48.10	+26 32.0	1.732	2.638	10.3	19.4
1 26	5 44.23	+22 51.8	1.938	2.768	13.1	20.9	1 26	5 41.02	+26 16.7	1.808	2.637	14.0	19.6
<b>482745</b>	2013 <i>EX</i> <sub>126</sub>		12 24.5 262°77	0°2/24.5	18		<b>261602</b>	2005 <i>XS</i> <sub>67</sub>		12 24.5 359°93	1°2/24.4	17	
11 17	6 43.15	+25 37.2	2.153	2.937	13.8	21.4	11 17	6 40.07	+26 0.5	1.989	2.783	14.4	21.1
11 27	6 37.91	+25 17.2	2.044	2.917	10.8	21.2	11 27	6 35.63	+26 16.6	1.905	2.783	11.2	20.9
12 7	6 30.12	+24 54.3	1.959	2.897	7.3	20.9	12 7	6 28.62	+26 32.5	1.843	2.783	7.5	20.7
12 17	6 20.34	+24 27.3	1.901	2.876	3.2	20.6	12 17	6 19.67	+26 45.5	1.808	2.783	3.4	20.4
12 27	6 9.55	+23 55.7	1.872	2.855	1.1	20.4	12 27	6 9.83	+26 53.6	1.802	2.783	1.7	20.3
1 6	5 58.92	+23 20.2	1.874	2.833	5.4	20.7	1 6	6 0.30	+26 55.7	1.824	2.783	5.6	20.6
1 16	5 49.60	+22 43.2	1.905	2.811	9.5	20.9	1 16	5 52.19	+26 52.6	1.875	2.783	9.5	20.8
1 26	5 42.52	+22 7.2	1.962	2.788	13.1	21.1	1 26	5 46.41	+26 46.0	1.950	2.784	12.9	21.0
<b>134757</b>	2000 <i>CM</i> <sub>27</sub>		12 24.5 17°46	9°2/25.9	17		<b>402594</b>	2006 <i>SO</i> <sub>96</sub>		12 24.5 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>135819</b>	2002 <i>RQ</i> <sub>201</sub>		12 24.5 199°10	1.6/24.6	18		<b>517157</b>	2013 <i>LA</i> <sub>17</sub>		12 24.5 111°65	0°0/24.5	18	
11 17	6 41.67	+18 2.4	2.522	3.293	12.3	21.7	11 17	6 40.77	+23 8.7	2.739	3.512	11.4	22.6
11 27	6 36.21	+18 0.2	2.425	3.289	9.7	21.5	11 27	6 35.19	+23 15.1	2.667	3.534	8.8	22.5
12 7	6 28.69	+18 1.7	2.351	3.284	6.6	21.3	12 7	6 27.82	+23 22.1	2.620	3.556	5.8	22.3
12 17	6 19.65	+18 6.5	2.306	3.278	3.2	21.1	12 17	6 19.20	+23 28.2	2.602	3.577	2.5	22.1
12 27	6 9.85	+18 14.0	2.292	3.271	1.8	21.0	12 27	6 10.10	+23 32.7	2.615	3.597	0.8	22.0
1 6	6 0.23	+18 23.5	2.309	3.264	4.9	21.2	1 6	6 1.34	+23 35.1	2.659	3.617	4.1	22.3
1 16	5 51.65	+18 34.8	2.356	3.256	8.2	21.4	1 16	5 53.67	+23 35.6	2.733	3.636	7.1	22.5
1 26	5 44.86	+18 47.9	2.429	3.247	11.2	21.6	1 26	5 47.70	+23 35.1	2.835	3.655	9.7	22.7
<b>13993</b>	Clemenssimmmer		12 24.5 353°12	2°3/24.3	18		<b>286298</b>	2001 <i>WO</i> <sub>10</sub>		12 24.5 28°58	1°3/24.4	18	
11 17	6 42.97	+26 41.5	1.406	2.219	18.3	18.3	11 17	6 40.56	+24 55.9	1.769	2.570	15.6	20.6
11 27	6 39.01	+27 15.1	1.330	2.217	14.4	18.1	11 27	6 36.29	+25 26.3	1.692	2.574	12.2	20.4
12 7	6 31.48	+27 49.7	1.273	2.216	9.7	17.8	12 7	6 29.22	+25 58.3	1.638	2.579	8.1	20.2
12 17	6 21.10	+28 20.3	1.241	2.215	4.7	17.5	12 17	6 20.00	+26 28.7	1.609	2.584	3.7	19.9
12 27	6 9.34	+28 42.4	1.234	2.215	2.8	17.4	12 27	6 9.80	+26 54.2	1.608	2.589	1.8	19.8
1 6	5 57.99	+28 53.4	1.255	2.214	7.4	17.7	1 6	5 59.95	+27 12.9	1.635	2.595	6.0	20.1
1 16	5 48.73	+28 54.3	1.301	2.214	12.3	17.9	1 16	5 51.71	+27 24.8	1.690	2.600	10.2	20.4
1 26	5 42.78	+28 48.4	1.368	2.215	16.6	18.2	1 26	5 46.05	+27 31.5	1.769	2.607	13.8	20.6
<b>243268</b>	2008 <i>AV</i> <sub>34</sub>		12 24.5 126°75	1°5/24.7	18		<b>49497</b>	1999 <i>CM</i> <sub>3</sub>		12 24.5 335°61	4°1/24.2	18	
11 17	6 41.36	+17 38.5	2.199	2.978	13.7	20.8	11 17	6 41.01	+34 35.8	2.286	3.066	13.2	18.7
11 27	6 36.14	+17 51.5	2.121	2.990	10.7	20.6	11 27	6 36.27	+35 11.2	2.200	3.064	10.5	18.5
12 7	6 28.69	+18 10.0	2.066	3.001	7.2	20.4	12 7	6 29.02	+35 41.2	2.137	3.062	7.6	18.3
12 17	6 19.64	+18 32.8	2.039	3.012	3.4	20.2	12 17	6 19.88	+36 1.8	2.101	3.061	4.9	18.2
12 27	6 9.87	+18 58.5	2.042	3.022	1.8	20.1	12 27	6 9.84	+36 9.7	2.093	3.059	4.2	18.1
1 6	6 0.41	+19 25.6	2.075	3.033	5.1	20.3	1 6	6 0.09	+36 4.0	2.115	3.057	6.3	18.2
1 16	5 52.22	+19 53.2	2.138	3.042	8.7	20.6	1 16	5 51.72	+35 46.0	2.164	3.056	9.2	18.4
1 26	5 46.04	+20 20.6	2.226	3.052	11.8	20.8	1 26	5 45.62	+35 19.1	2.238	3.055	12.1	18.6
<b>518034</b>	2015 <i>XL</i> <sub>12</sub>		12 24.5 284°80	3°1/25.1	18		<b>184538</b>	2005 <i>QW</i> <sub>35</sub>		12 24.5 93°49	4°3/25.0	18	
11 17	6 40.72	+12 41.4	1.851	2.634	15.7	20.7	11 17	6 39.75	+10 24.7	2.094	2.866	14.5	20.2
11 27	6 36.17	+13 4.1	1.766	2.633	12.5	20.5	11 27	6 34.86	+10 9.7	2.024	2.881	11.6	20.0
12 7	6 29.04	+13 38.7	1.702	2.633	8.8	20.3	12 7	6 27.82	+10 4.6	1.976	2.897	8.4	19.9
12 17	6 19.91	+14 24.7	1.664	2.632	4.9	20.0	12 17	6 19.26	+10 10.3	1.955	2.912	5.4	19.7
12 27	6 9.78	+15 20.1	1.655	2.632	3.2	19.9	12 27	6 10.08	+10 27.1	1.962	2.928	4.4	19.7
1 6	5 59.85	+16 21.6	1.676	2.631	6.3	20.1	1 6	6 1.26	+10 53.7	1.998	2.943	6.5	19.8
1 16	5 51.29	+17 26.1	1.724	2.631	10.3	20.3	1 16	5 53.72	+11 28.6	2.063	2.958	9.5	20.1
1 26	5 45.04	+18 30.8	1.797	2.630	13.9	20.6	1 26	5 48.15	+12 9.3	2.152	2.972	12.4	20.3
<b>277321</b>	2005 <i>SK</i> <sub>218</sub>		12 24.5 65°36	0°4/24.4	18		<b>143779</b>	2003 <i>WN</i> <sub>67</sub>		12 24.5 104°41	1°6/24.4	18	
11 17	6 43.96	+22 23.0	1.440	2.248	18.2	20.3	11 17	6 45.44	+25 40.7	1.456	2.262	18.2	19.9
11 27	6 39.33	+22 51.8	1.375	2.261	14.2	20.1	11 27	6 40.68	+26 6.0	1.383	2.267	14.2	19.7
12 7	6 31.39	+23 25.0	1.331	2.274	9.4	19.8	12 7	6 32.43	+26 32.1	1.331	2.273	9.5	19.4
12 17	6 20.96	+23 59.1	1.311	2.287	4.1	19.6	12 17	6 21.49	+26 55.0	1.303	2.278	4.4	19.2
12 27	6 9.45	+24 30.1	1.318	2.301	1.5	19.4	12 27	6 9.32	+27 10.7	1.302	2.283	2.2	19.0
1 6	5 58.52	+24 55.8	1.353	2.314	6.7	19.8	1 6	5 57.66	+27 17.6	1.329	2.289	7.0	19.3
1 16	5 49.64	+25 15.6	1.414	2.328	11.5	20.1	1 16	5 48.11	+27 16.7	1.381	2.294	11.9	19.6
1 26	5 43.85	+25 30.9	1.498	2.342	15.6	20.4	1 26	5 41.78	+27 11.0	1.457	2.298	16.0	19.9
<b>180818</b>	2005 <i>FH</i> <sub>4</sub>		12 24.5 183°02	2°4/24.3	18		<b>288843</b>	2004 <i>RX</i> <sub>202</sub>		12 24.5 53°22	4°4/24.9	18	
11 17	6 47.26	+27 20.9	1.777	2.566	16.1	20.8	11 17	6 40.91	+13 17.2	1.484	2.284	18.2	21.0
11 27	6 41.66	+27 59.8	1.693	2.567	12.6	20.5	11 27	6 36.68	+12 57.1	1.418	2.294	14.5	20.8
12 7	6 32.90	+28 38.9	1.631	2.567	8.6	20.3	12 7	6 29.49	+12 47.5	1.371	2.304	10.2	20.6
12 17	6 21.66	+29 13.6	1.594	2.567	4.3	20.0	12 17	6 20.12	+12 49.8	1.348	2.315	6.0	20.3
12 27	6 9.20	+29 39.3	1.587	2.566	2.7	19.9	12 27	6 9.80	+13 4.1	1.352	2.326	4.5	20.3
1 6	5 57.05	+29 53.8	1.609	2.564	6.6	20.2	1 6	6 0.00	+13 29.0	1.383	2.337	7.6	20.5
1 16	5 46.66	+29 57.7	1.659	2.562	10.9	20.4	1 16	5 51.97	+14 2.6	1.439	2.348	11.8	20.8
1 26	5 39.15	+29 54.1	1.733	2.559	14.6	20.7	1 26	5 46.69	+14 42.1	1.519	2.359	15.6	21.0
<b>247600</b>	2002 <i>TT</i> <sub>198</sub>		12 24.5 70°58	3°8/24.3	18		<b>320053</b>	2007 <i>EG</i> <sub>9</sub>		12 24.5 143°28	4°6/24.9	18	
11 17	6 39.45	+14 8.0	2.270	3.045	13.4	19.6	11 17	6 37.81	+ 9 1.2	2.414	3.176	13.1	20.7
11 27	6 34.38	+13 12.4	2.201	3.063	10.6	19.4	11 27	6 33.17	+ 8 34.3	2.332	3.182	10.6	20.5
12 7	6 27.36	+12 21.5	2.156	3.081	7.5	19.3	12 7	6 26.64	+ 8 16.2	2.273	3.187	7.9	20.4
12 17	6 19.00	+11 37.5	2.139	3.100	4.7	19.1	12 17	6 18.75	+ 8 8.6	2.241	3.192	5.4	20.2
12 27	6 10.16	+11 2.1	2.151	3.118	4.0	19.1	12 27	6 10.26	+ 8 12.2	2.238	3.196	4.7	20.2
1 6	6 1.75	+10 36.6	2.193	3.136	6.1	19.3	1 6	6 2.01	+ 8 26.9	2.264	3.201	6.4	20.3
1 16	5 54.55	+10 21.2	2.264	3.155	8.9	19.5	1 16	5 54.80	+ 8 51.5	2.318	3.205	9.0	20.5
1 26	5 49.21	+10 15.4	2.359	3.173	11.6	19.7	1 26	5 49.29	+ 9 24.0	2.398	3.209	11.6	20.6
<b>448445</b>	2010 <i>BU</i> <sub>74</sub>		12 24.5 197°64	1°0/24.5	18		<b>266002</b>	2006 <i>DW</i> <sub>161</sub>		12 24.5 197°43	0°2/24.5	18	
11 17	6 44.84	+27 19.7	2.119	2.901	14.0	21.6	11 17	6 39.15	+23 22.0	2.627	3.407	11.7	21.6
11 27	6 39.12	+27 8.6	2.028	2.899	11.0	21.4	11 27	6 34.26	+23 31.3	2.534	3.405	9.1	21.4
12 7	6 30.83	+26 54.2	1.959	2.896	7.4	21.2	12 7	6 27.42	+23 41.4	2.465	3.402	6.0	21.2
12 17	6 20.64	+26 34.6	1.918	2.892	3.4	20.9	12 17	6 19.12	+23 50.9	2.424	3.400	2.6	21.0
12 27	6 9.59	+26 8.9	1.907	2.888	1.4	20.8	12 27	6 10.15	+23 58.8	2.414	3.397	0.9	20.8
1 6	5 58.90	+25 37.7	1.926	2.884	5.4	21.1	1 6	6 1.36	+24 4.2	2.435	3.393	4.4	21.1
1 16	5 49.68	+25 3.2	1.974	2.879	9.3	21.3	1 16	5 53.60	+24 7.3	2.485	3.390	7.6	21.3
1 26	5 42.80	+24 28.3	2.048	2.873	12.7	21.5	1 26	5 47.57	+24 9.0	2.562	3.386	10.5	21.5
<b>418766</b>	2008 <i>UU</i> <sub>239</sub>		12 24.5 86°90	0°6/24.5	18		<b>298462</b>	2003 <i>UJ</i> <sub>142</sub>		12 24.5 44°46	12°7/26.8		

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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>113133</b>	2002 <i>RV</i> <sub>86</sub>		12 24.5 108°74	3:7/24.4 18			<b>144557</b>	2004 <i>FW</i> <sub>8</sub>		12 24.5 15°00	8:4/25.4 18		
11 17	6 41.76	+34 44.0	2.469	3.243	12.5	19.8	11 17	6 37.35	+3 2.4	1.692	2.461	17.5	19.2
11 27	6 36.57	+35 12.8	2.389	3.249	9.9	19.6	11 27	6 33.61	+2 15.8	1.619	2.463	14.7	19.0
12 7	6 29.06	+35 36.0	2.332	3.256	7.1	19.4	12 7	6 27.35	+1 46.1	1.566	2.465	11.7	18.8
12 17	6 19.85	+35 49.8	2.302	3.262	4.6	19.3	12 17	6 19.19	+1 37.3	1.536	2.468	9.3	18.7
12 27	6 9.92	+35 51.8	2.302	3.268	3.8	19.2	12 27	6 10.17	+1 52.0	1.531	2.472	8.5	18.7
1 6	6 0.32	+35 41.3	2.331	3.274	5.8	19.4	1 6	6 1.48	+2 29.5	1.552	2.475	9.9	18.8
1 16	5 52.06	+35 20.0	2.389	3.280	8.6	19.6	1 16	5 54.21	+3 26.5	1.598	2.480	12.6	18.9
1 26	5 45.92	+34 51.1	2.472	3.286	11.2	19.7	1 26	5 49.23	+4 37.6	1.667	2.484	15.5	19.1
<b>268948</b>	2007 <i>DS</i> <sub>46</sub>		12 24.5 14°16	2:7/24.8 18			<b>460784</b>	2014 <i>WT</i> <sub>22</sub>		12 24.5 327°13	3:6/24.3 18		
11 17	6 41.21	+16 18.6	1.381	2.190	18.8	21.0	11 17	6 37.05	+15 43.2	2.015	2.805	14.3	20.8
11 27	6 37.39	+16 22.8	1.306	2.191	14.9	20.7	11 27	6 33.15	+14 55.9	1.922	2.794	11.4	20.6
12 7	6 30.26	+16 36.8	1.252	2.192	10.2	20.4	12 7	6 26.94	+14 12.0	1.852	2.784	8.1	20.3
12 17	6 20.58	+17 0.3	1.221	2.194	5.2	20.2	12 17	6 19.00	+13 33.7	1.807	2.774	4.8	20.1
12 27	6 9.66	+17 31.6	1.216	2.196	3.0	20.0	12 27	6 10.24	+13 2.7	1.792	2.764	3.8	20.0
1 6	5 59.13	+18 8.2	1.238	2.198	7.4	20.3	1 6	6 1.70	+12 40.5	1.804	2.755	6.5	20.2
1 16	5 50.50	+18 47.7	1.285	2.200	12.3	20.6	1 16	5 54.38	+12 27.7	1.845	2.746	10.1	20.4
1 26	5 44.90	+19 28.3	1.354	2.203	16.6	20.9	1 26	5 49.11	+12 24.3	1.909	2.737	13.4	20.6
<b>383123</b>	2005 <i>TW</i> <sub>23</sub>		12 24.5 71°39	1:5/24.5 18			<b>162855</b>	2001 <i>DU</i> <sub>50</sub>		12 24.5 305°57	6:5/23.9 17		
11 17	6 46.43	+27 34.1	1.455	2.259	18.2	20.6	11 17	6 44.27	+36 19.7	1.635	2.430	17.0	19.6
11 27	6 41.17	+27 29.2	1.392	2.275	14.2	20.4	11 27	6 40.21	+37 22.8	1.547	2.417	13.9	19.4
12 7	6 32.51	+27 20.9	1.350	2.291	9.5	20.2	12 7	6 32.47	+38 20.5	1.479	2.403	10.4	19.1
12 17	6 21.43	+27 6.3	1.333	2.308	4.4	19.9	12 17	6 21.70	+39 4.8	1.436	2.390	7.4	18.9
12 27	6 9.44	+26 43.9	1.342	2.324	2.0	19.8	12 27	6 9.29	+39 28.7	1.418	2.378	6.7	18.8
1 6	5 58.25	+26 14.7	1.380	2.340	6.7	20.2	1 6	5 57.08	+39 29.0	1.427	2.365	9.2	19.0
1 16	5 49.29	+25 41.8	1.443	2.356	11.4	20.5	1 16	5 46.87	+39 7.6	1.462	2.353	12.9	19.1
1 26	5 43.51	+25 9.1	1.530	2.372	15.4	20.7	1 26	5 40.05	+38 30.6	1.518	2.342	16.4	19.3
<b>110194</b>	2001 <i>SU</i> <sub>190</sub>		12 24.5 215°22	0:2/24.5 18			<b>368465</b>	2003 <i>SR</i> <sub>132</sub>		12 24.5 10°61	7:9/24.6 17		
11 17	6 38.22	+23 59.7	2.892	3.669	10.8	20.9	11 17	6 36.13	+2 39.9	2.081	2.836	15.1	20.9
11 27	6 33.39	+24 5.6	2.794	3.663	8.4	20.7	11 27	6 32.19	+1 34.3	2.004	2.837	12.7	20.7
12 7	6 26.78	+24 11.7	2.720	3.657	5.6	20.5	12 7	6 26.16	+0 41.6	1.949	2.838	10.3	20.6
12 17	6 18.84	+24 16.8	2.675	3.650	2.5	20.3	12 17	6 18.61	+0 6.0	1.918	2.839	8.5	20.5
12 27	6 10.27	+24 19.9	2.661	3.643	0.9	20.2	12 27	6 10.38	-0 9.6	1.913	2.841	8.0	20.4
1 6	6 1.86	+24 20.6	2.678	3.636	4.1	20.4	1 6	6 2.41	-0 4.3	1.936	2.844	9.2	20.5
1 16	5 54.36	+24 19.2	2.724	3.628	7.1	20.6	1 16	5 55.59	+0 20.3	1.983	2.846	11.4	20.7
1 26	5 48.42	+24 16.3	2.798	3.620	9.8	20.8	1 26	5 50.64	+1 0.8	2.054	2.849	13.8	20.8
<b>28826</b>	2000 <i>JQ</i> <sub>28</sub>		12 24.5 75°33	2:4/24.4 18			<b>495277</b>	2013 <i>RR</i> <sub>27</sub>		12 24.5 184°27	7:9/23.5 17		
11 17	6 42.98	+29 25.6	1.874	2.667	15.2	18.5	11 17	6 50.74	+52 31.3	3.121	3.819	11.6	21.7
11 27	6 38.03	+29 43.4	1.798	2.674	11.9	18.3	11 27	6 43.97	+53 41.4	3.042	3.819	10.2	21.6
12 7	6 30.28	+29 58.1	1.744	2.681	8.1	18.1	12 7	6 34.27	+54 39.4	2.986	3.819	8.9	21.5
12 17	6 20.46	+30 6.1	1.717	2.689	4.2	17.9	12 17	6 22.28	+55 19.4	2.954	3.818	8.1	21.4
12 27	6 9.74	+30 4.7	1.718	2.696	2.7	17.8	12 27	6 9.14	+55 37.0	2.950	3.817	7.9	21.4
1 6	5 59.48	+29 53.6	1.748	2.703	6.1	18.0	1 6	5 56.26	+55 30.9	2.972	3.815	8.6	21.5
1 16	5 50.90	+29 34.7	1.805	2.711	9.9	18.3	1 16	5 44.97	+55 3.1	3.020	3.813	9.8	21.5
1 26	5 44.91	+29 11.0	1.886	2.718	13.4	18.5	1 26	5 36.30	+54 18.4	3.091	3.811	11.2	21.7
<b>233619</b>	2007 <i>TZ</i> <sub>204</sub>		12 24.5 153°66	0:8/24.6 18			<b>411134</b>	2009 <i>WT</i> <sub>220</sub>		12 24.5 58°50	0:1/24.5 18		
11 17	6 42.55	+20 33.9	2.153	2.935	13.8	21.3	11 17	6 39.84	+22 27.9	2.022	2.815	14.2	21.0
11 27	6 37.18	+20 38.3	2.070	2.941	10.8	21.1	11 27	6 35.20	+22 38.5	1.951	2.829	11.0	20.8
12 7	6 29.49	+20 45.6	2.011	2.948	7.2	20.9	12 7	6 28.21	+22 51.1	1.903	2.843	7.3	20.6
12 17	6 20.07	+20 54.7	1.979	2.954	3.2	20.7	12 17	6 19.51	+23 4.0	1.882	2.857	3.2	20.4
12 27	6 9.87	+21 4.3	1.977	2.959	1.3	20.5	12 27	6 10.10	+23 15.6	1.889	2.872	1.1	20.2
1 6	6 0.00	+21 13.5	2.006	2.964	5.2	20.8	1 6	6 1.10	+23 25.0	1.926	2.886	5.2	20.6
1 16	5 51.44	+21 22.4	2.063	2.969	8.9	21.0	1 16	5 53.50	+23 32.4	1.991	2.901	8.9	20.8
1 26	5 45.01	+21 31.2	2.146	2.973	12.2	21.3	1 26	5 48.09	+23 38.3	2.081	2.916	12.2	21.0
<b>201367</b>	2002 <i>TY</i> <sub>267</sub>		12 24.5 47°23	6:3/24.3 17			<b>428633</b>	2008 <i>FQ</i> <sub>87</sub>		12 24.5 150°40	4:9/24.2 16		
11 17	6 43.94	+41 15.4	2.236	3.001	13.9	20.2	11 17	6 50.86	+35 44.7	2.058	2.826	14.9	22.7
11 27	6 38.78	+42 4.6	2.162	3.008	11.4	20.1	11 27	6 44.15	+36 33.2	1.982	2.837	11.9	22.5
12 7	6 30.79	+42 44.1	2.111	3.015	8.9	19.9	12 7	6 34.37	+37 15.0	1.929	2.848	8.7	22.3
12 17	6 20.69	+43 8.2	2.085	3.022	6.9	19.8	12 17	6 22.28	+37 44.1	1.903	2.858	5.8	22.1
12 27	6 9.66	+43 13.0	2.087	3.029	6.4	19.8	12 27	6 9.17	+37 55.9	1.905	2.867	5.1	22.1
1 6	5 59.08	+42 57.8	2.117	3.037	7.8	19.9	1 6	5 56.54	+37 49.3	1.938	2.875	7.2	22.3
1 16	5 50.19	+42 25.1	2.173	3.045	10.2	20.1	1 16	5 45.75	+37 26.8	1.998	2.882	10.3	22.5
1 26	5 43.90	+41 40.0	2.254	3.053	12.6	20.2	1 26	5 37.82	+36 53.4	2.084	2.888	13.3	22.7
<b>244816</b>	2003 <i>SY</i> <sub>332</sub>		12 24.5 174°80	5:5/24.8 18			<b>19916</b>	Donbass		12 24.5 129°65	4:2/24.8 18		
11 17	6 40.85	+7 34.0	2.256	3.011	14.1	22.7	11 17	6 45.30	+13 5.3	1.709	2.489	16.9	18.5
11 27	6 35.66	+6 57.3	2.171	3.014	11.5	22.5	11 27	6 39.66	+12 42.2	1.638	2.503	13.5	18.3
12 7	6 28.38	+6 30.3	2.109	3.016	8.7	22.3	12 7	6 31.27	+12 28.2	1.589	2.517	9.5	18.1
12 17	6 19.56	+6 15.5	2.073	3.018	6.3	22.2	12 17	6 20.88	+12 24.3	1.566	2.530	5.7	17.9
12 27	6 10.04	+6 14.2	2.066	3.019	5.6	22.1	12 27	6 9.65	+12 31.0	1.571	2.542	4.3	17.9
1 6	6 0.77	+6 26.6	2.089	3.019	7.2	22.2	1 6	5 58.92	+12 47.4	1.604	2.554	7.2	18.1
1 16	5 52.64	+6 51.3	2.139	3.019	9.9	22.4	1 16	5 49.87	+13 12.1	1.665	2.565	11.0	18.3
1 26	5 46.38	+7 26.1	2.215	3.018	12.6	22.6	1 26	5 43.37	+13 43.2	1.750	2.575	14.5	18.6
<b>175425</b>	2006 <i>PF</i> <sub>30</sub>		12 24.5 84°13	1:8/24.4 18			<b>356851</b>	2011 <i>WT</i> <sub>24</sub>		12 24.5 38°37	5:1/24.8 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>36464</b>	2000 <i>QT</i> <sub>14</sub>		12 24.5 139°97	1.4/24.6	18		<b>186408</b>	2002 <i>PD</i> <sub>126</sub>		12 24.5 50°24	0°0/24.5	18	
11 17	6 40.32	+18 35.2	2.199	2.982	13.5	19.7	11 17	6 46.42	+23 27.2	1.145	1.966	21.1	20.0
11 27	6 35.42	+18 39.5	2.117	2.988	10.6	19.5	11 27	6 41.57	+23 26.3	1.101	1.993	16.3	19.8
12 7	6 28.31	+18 48.2	2.058	2.993	7.1	19.3	12 7	6 32.92	+23 27.2	1.075	2.021	10.8	19.6
12 17	6 19.57	+19 0.4	2.026	2.999	3.4	19.0	12 17	6 21.63	+23 27.2	1.072	2.049	4.7	19.3
12 27	6 10.09	+19 15.2	2.023	3.004	1.7	18.9	12 27	6 9.51	+23 24.3	1.095	2.078	1.5	19.2
1 6	6 0.89	+19 31.6	2.051	3.009	5.1	19.2	1 6	5 58.51	+23 18.5	1.144	2.107	7.4	19.6
1 16	5 52.92	+19 49.0	2.107	3.013	8.7	19.4	1 16	5 50.15	+23 11.3	1.217	2.136	12.5	20.0
1 26	5 46.94	+20 7.1	2.189	3.018	11.9	19.6	1 26	5 45.34	+23 4.9	1.312	2.165	16.7	20.4
<b>336624</b>	2009 <i>VO</i> <sub>55</sub>		12 24.5 135°42	0°4/24.5	18		<b>219463</b>	2000 <i>YV</i> <sub>24</sub>		12 24.5 320°57	0°3/24.5	18	
11 17	6 46.33	+22 54.1	1.823	2.610	15.8	22.0	11 17	6 38.97	+21 39.9	2.029	2.822	14.2	20.2
11 27	6 40.45	+22 43.5	1.749	2.623	12.3	21.8	11 27	6 34.74	+21 50.4	1.940	2.818	11.0	20.0
12 7	6 31.79	+22 33.5	1.696	2.634	8.2	21.6	12 7	6 28.07	+22 3.8	1.874	2.813	7.4	19.7
12 17	6 21.11	+22 22.6	1.670	2.645	3.6	21.4	12 17	6 19.55	+22 18.7	1.834	2.809	3.3	19.5
12 27	6 9.61	+22 10.1	1.673	2.656	1.3	21.2	12 27	6 10.12	+22 33.4	1.823	2.805	1.1	19.3
1 6	5 58.63	+21 56.2	1.706	2.665	5.8	21.6	1 6	6 0.92	+22 46.9	1.841	2.801	5.3	19.6
1 16	5 49.36	+21 42.3	1.768	2.675	10.0	21.8	1 16	5 53.02	+22 58.7	1.887	2.798	9.3	19.8
1 26	5 42.69	+21 29.9	1.853	2.683	13.6	22.1	1 26	5 47.29	+23 9.4	1.958	2.794	12.8	20.0
<b>15877</b>	1996 <i>WZ</i> <sub>1</sub>		12 24.5 3°63	0°6/24.6	18		<b>172170</b>	2002 <i>OE</i> <sub>4</sub>		12 24.5 77°40	2°3/24.7	18	R
11 17	6 37.75	+19 39.8	2.102	2.894	13.8	16.8	11 17	6 46.91	+30 38.0	1.795	2.583	15.9	19.8
11 27	6 33.67	+20 7.2	2.017	2.894	10.7	16.6	11 27	6 40.90	+30 31.2	1.732	2.604	12.4	19.6
12 7	6 27.30	+20 39.9	1.955	2.894	7.2	16.4	12 7	6 32.03	+30 18.5	1.691	2.626	8.4	19.4
12 17	6 19.18	+21 16.2	1.919	2.894	3.2	16.1	12 17	6 21.17	+29 57.1	1.676	2.647	4.2	19.2
12 27	6 10.22	+21 53.9	1.913	2.895	1.1	16.0	12 27	6 9.65	+29 25.7	1.690	2.669	2.5	19.1
1 6	6 1.47	+22 30.8	1.937	2.897	5.1	16.3	1 6	5 58.90	+28 45.9	1.733	2.690	6.0	19.4
1 16	5 53.93	+23 5.5	1.988	2.898	8.9	16.5	1 16	5 50.09	+28 1.2	1.804	2.711	9.9	19.7
1 26	5 48.44	+23 37.6	2.065	2.900	12.2	16.7	1 26	5 44.03	+27 15.7	1.900	2.731	13.3	19.9
<b>444550</b>	2006 <i>SQ</i> <sub>299</sub>		12 24.5 29°01	3°9/24.3	17		<b>319414</b>	2006 <i>HV</i> <sub>35</sub>		12 24.5 122°62	0°0/24.5	18	
11 17	6 42.89	+31 40.3	1.735	2.533	16.0	21.5	11 17	6 43.42	+22 51.4	1.843	2.635	15.4	21.2
11 27	6 38.39	+32 18.8	1.660	2.536	12.7	21.3	11 27	6 38.29	+23 1.2	1.766	2.643	12.0	21.0
12 7	6 30.78	+32 53.4	1.605	2.539	8.9	21.1	12 7	6 30.44	+23 13.0	1.712	2.651	8.0	20.7
12 17	6 20.79	+33 19.0	1.576	2.543	5.2	20.8	12 17	6 20.57	+23 24.5	1.683	2.659	3.5	20.5
12 27	6 9.70	+33 31.4	1.574	2.547	4.1	20.8	12 27	6 9.81	+23 34.0	1.684	2.667	1.2	20.3
1 6	5 59.04	+33 29.2	1.601	2.552	7.1	21.0	1 6	5 59.46	+23 40.5	1.714	2.674	5.7	20.7
1 16	5 50.21	+33 14.2	1.653	2.556	10.9	21.2	1 16	5 50.71	+23 44.3	1.772	2.681	9.9	20.9
1 26	5 44.24	+32 50.6	1.729	2.561	14.4	21.4	1 26	5 44.45	+23 46.6	1.854	2.688	13.5	21.2
<b>223983</b>	2005 <i>AV</i> <sub>15</sub>		12 24.5 350°40	2°9/24.9	17		<b>138294</b>	2000 <i>GC</i> <sub>38</sub>		12 24.5 325°98	1°0/24.4	18	
11 17	6 34.75	+15 27.0	1.580	2.390	16.8	19.1	11 17	6 40.98	+25 2.5	1.770	2.571	15.6	20.0
11 27	6 32.06	+15 27.8	1.496	2.381	13.3	18.8	11 27	6 36.74	+25 20.2	1.685	2.567	12.2	19.8
12 7	6 26.61	+15 38.1	1.433	2.373	9.2	18.6	12 7	6 29.62	+25 38.9	1.622	2.563	8.2	19.6
12 17	6 18.99	+15 58.2	1.394	2.366	4.9	18.3	12 17	6 20.29	+25 55.8	1.584	2.559	3.7	19.3
12 27	6 10.29	+16 27.2	1.381	2.360	3.1	18.2	12 27	6 9.88	+26 8.2	1.574	2.556	1.6	19.1
1 6	6 1.81	+17 3.3	1.395	2.355	6.8	18.4	1 6	5 59.77	+26 14.8	1.593	2.553	6.1	19.4
1 16	5 54.82	+17 44.1	1.435	2.352	11.2	18.6	1 16	5 51.23	+26 16.0	1.639	2.550	10.4	19.7
1 26	5 50.34	+18 27.5	1.498	2.349	15.1	18.9	1 26	5 45.29	+26 13.8	1.708	2.547	14.2	19.9
<b>123924</b>	2001 <i>ET</i> <sub>1</sub>		12 24.5 266°70	1°1/24.7	18		<b>333516</b>	2005 <i>NV</i> <sub>82</sub>		12 24.5 192°39	3°1/24.4	18	
11 17	6 39.17	+18 19.8	2.408	3.188	12.6	20.0	11 17	6 48.48	+31 7.0	2.027	2.803	14.7	21.4
11 27	6 34.60	+18 39.9	2.301	3.170	9.9	19.8	11 27	6 42.33	+31 33.1	1.937	2.802	11.7	21.2
12 7	6 27.88	+19 5.5	2.217	3.153	6.7	19.5	12 7	6 33.22	+31 55.4	1.869	2.799	8.1	21.0
12 17	6 19.47	+19 35.6	2.161	3.135	3.2	19.3	12 17	6 21.85	+32 9.3	1.828	2.796	4.5	20.7
12 27	6 10.13	+20 8.6	2.135	3.117	1.4	19.1	12 27	6 9.39	+32 11.5	1.817	2.792	3.3	20.7
1 6	6 0.82	+20 42.6	2.140	3.098	4.9	19.3	1 6	5 57.25	+32 0.8	1.836	2.787	6.3	20.8
1 16	5 52.49	+21 16.6	2.174	3.080	8.5	19.5	1 16	5 46.75	+31 39.1	1.884	2.781	10.1	21.0
1 26	5 45.96	+21 49.6	2.234	3.061	11.7	19.7	1 26	5 38.93	+31 10.6	1.956	2.774	13.5	21.3
<b>515129</b>	2011 <i>FS</i> <sub>17</sub>		12 24.5 342°25	2°1/24.6	18		<b>75903</b>	2000 <i>CQ</i> <sub>49</sub>		12 24.5 5°61	4°8/24.9	18	R
11 17	6 42.09	+28 45.8	1.249	2.071	19.6	20.3	11 17	6 45.46	+36 3.5	1.648	2.441	17.0	18.9
11 27	6 38.78	+28 40.2	1.171	2.064	15.5	20.0	11 27	6 40.59	+36 9.9	1.570	2.441	13.6	18.7
12 7	6 31.58	+28 29.4	1.113	2.058	10.6	19.7	12 7	6 32.30	+36 5.8	1.512	2.441	9.8	18.5
12 17	6 21.29	+28 9.9	1.077	2.053	5.1	19.3	12 17	6 21.47	+35 46.4	1.479	2.442	6.2	18.3
12 27	6 9.54	+27 39.4	1.067	2.048	2.6	19.2	12 27	6 9.56	+35 8.5	1.473	2.443	4.9	18.2
1 6	5 58.33	+26 59.1	1.081	2.044	7.8	19.5	1 6	5 58.31	+34 13.7	1.494	2.444	7.6	18.4
1 16	5 49.48	+26 13.3	1.120	2.041	13.2	19.8	1 16	5 49.19	+33 6.7	1.542	2.446	11.4	18.6
1 26	5 44.24	+25 27.2	1.180	2.038	17.9	20.0	1 26	5 43.24	+31 54.6	1.613	2.448	15.1	18.8
<b>397483</b>	2007 <i>RB</i> <sub>20</sub>		12 24.5 98°51	7°3/26.1	18		<b>40924</b>	1999 <i>TB</i> <sub>174</sub>		12 24.5 296°78	4°7/24.6	18	
11 17	6 43.10	+ 0 53.9	2.080	2.813	15.8	21.3	11 17	6 37.64	+11 11.4	2.148	2.924	14.0	18.9
11 27	6 37.29	+ 0 33.1	2.021	2.840	13.2	21.2	11 27	6 33.39	+10 30.7	2.060	2.920	11.3	18.7
12 7	6 29.36	+ 0 28.9	1.983	2.868	10.4	21.0	12 7	6 27.02	+ 9 57.2	1.995	2.916	8.3	18.5
12 17	6 19.96	+ 0 43.8	1.971	2.894	8.2	21.0	12 17	6 19.06	+ 9 33.3	1.956	2.912	5.6	18.3
12 27	6 10.03	+ 1 18.1	1.987	2.920	7.3	21.0	12 27	6 10.35	+ 9 20.5	1.945	2.908	4.8	18.3
1 6	6 0.56	+ 2 9.9	2.031	2.946	8.4	21.1	1 6	6 1.88	+ 9 19.3	1.963	2.904	6.8	18.4
1 16	5 52.46	+ 3 15.4	2.102	2.970	10.6	21.2	1 16	5 54.54	+ 9 29.4	2.008	2.900	9.9	18.6
1 26	5 46.38	+ 4 30.0	2.199	2.994	13.0	21.5	1 26	5 49.10	+ 9 49.1	2.078	2.897	12.8	18.8
<b>460542</b>	2014 <i>TP</i> <sub>45</sub>		12 24.5 65°98	0°2/24.5	17		<b>227985</b>	2007 <i>JN</i> <sub>2</sub>		12 24.5 176°85			

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12 24.5

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>193298</b>	2000 <i>SG</i> <sub>264</sub>		12 24.5 94°20	4°0/24.3	18		<b>511783</b>	2015 <i>EU</i> <sub>20</sub>		12 24.5 205°20	1°5/24.5	18	
11 17	6 47.09	+31 44.6	1.709	2.500	16.5	20.5	11 17	6 47.12	+26 16.3	1.682	2.475	16.7	22.3
11 27	6 41.56	+32 26.9	1.643	2.515	13.0	20.3	11 27	6 41.75	+26 33.3	1.595	2.471	13.1	22.0
12 7	6 32.81	+33 4.8	1.598	2.530	9.1	20.1	12 7	6 33.12	+26 50.2	1.528	2.467	8.8	21.8
12 17	6 21.67	+33 32.7	1.579	2.545	5.3	20.0	12 17	6 21.93	+27 3.1	1.487	2.462	4.1	21.5
12 27	6 9.52	+33 46.1	1.587	2.560	4.2	19.9	12 27	6 9.45	+27 9.0	1.475	2.456	2.0	21.3
1 6	5 57.97	+33 44.1	1.624	2.574	7.1	20.1	1 6	5 57.29	+27 6.4	1.491	2.450	6.6	21.6
1 16	5 48.43	+33 28.8	1.688	2.588	10.9	20.4	1 16	5 46.94	+26 56.8	1.535	2.443	11.2	21.9
1 26	5 41.90	+33 4.9	1.776	2.602	14.3	20.6	1 26	5 39.56	+26 43.2	1.603	2.436	15.3	22.1
<b>457522</b>	2008 <i>WP</i> <sub>22</sub>		12 24.5 14°81	4°1/24.3	17		<b>503523</b>	2016 <i>FN</i> <sub>12</sub>		12 24.5 66°39	20°0/27.7	17	
11 17	6 37.81	+13 17.9	2.316	3.092	13.2	21.2	11 17	6 42.07	-13 52.9	1.166	1.890	26.2	20.8
11 27	6 33.31	+12 25.8	2.231	3.092	10.5	21.1	11 27	6 38.22	-16 12.9	1.124	1.899	24.1	20.7
12 7	6 26.84	+11 38.6	2.169	3.093	7.6	20.9	12 7	6 30.88	-17 56.1	1.095	1.909	22.1	20.6
12 17	6 18.94	+10 58.2	2.134	3.094	4.9	20.7	12 17	6 20.91	-18 49.8	1.081	1.919	20.6	20.5
12 27	6 10.41	+10 26.6	2.129	3.094	4.2	20.7	12 27	6 9.83	-18 45.8	1.084	1.929	20.0	20.5
1 6	6 2.16	+10 5.0	2.153	3.095	6.2	20.8	1 6	5 59.38	-17 44.6	1.105	1.940	20.5	20.6
1 16	5 55.01	+9 53.6	2.205	3.096	9.1	21.0	1 16	5 51.11	-15 54.3	1.143	1.950	21.7	20.7
1 26	5 49.63	+9 52.0	2.282	3.097	11.9	21.2	1 26	5 46.09	-13 28.4	1.197	1.960	23.4	20.9
<b>491345</b>	2011 <i>YY</i> <sub>30</sub>		12 24.5 357°76	12°7/30.3	18		<b>383017</b>	2005 <i>MW</i> <sub>42</sub>		12 24.5 93°56	1°3/24.6	18	
11 17	6 42.73	-12 43.2	1.633	2.323	20.9	20.1	11 17	6 46.62	+19 31.9	1.620	2.412	17.2	21.1
11 27	6 38.04	-12 27.7	1.551	2.320	18.8	19.9	11 27	6 40.83	+19 36.0	1.560	2.436	13.4	20.9
12 7	6 30.49	-11 36.9	1.485	2.317	16.3	19.8	12 7	6 32.11	+19 44.9	1.521	2.459	8.9	20.7
12 17	6 20.70	-10 4.6	1.439	2.316	14.1	19.6	12 17	6 21.31	+19 57.1	1.508	2.482	4.1	20.4
12 27	6 9.82	-7 49.1	1.418	2.315	12.8	19.5	12 27	6 9.72	+20 10.9	1.523	2.504	1.8	20.3
1 6	5 59.19	-4 56.0	1.423	2.316	13.1	19.6	1 6	5 58.80	+20 25.0	1.567	2.526	6.2	20.7
1 16	5 50.13	-1 36.4	1.456	2.317	14.9	19.7	1 16	5 49.77	+20 39.1	1.638	2.547	10.5	21.0
1 26	5 43.66	+1 55.8	1.515	2.319	17.4	19.8	1 26	5 43.52	+20 53.5	1.734	2.568	14.2	21.2
<b>322777</b>	2001 <i>KL</i> <sub>43</sub>		12 24.5 132°62	4°9/24.8	18 R		<b>17335</b>	2281 <i>T</i> <sub>-2</sub>		12 24.5 151°75	1°1/24.5	18 R	
11 17	6 37.11	+6 2.5	2.987	3.729	11.2	20.9	11 17	6 41.69	+25 57.2	2.055	2.845	14.1	18.7
11 27	6 32.22	+5 22.8	2.910	3.742	9.2	20.8	11 27	6 36.83	+26 8.1	1.971	2.847	11.0	18.5
12 7	6 25.85	+4 51.3	2.858	3.755	7.1	20.7	12 7	6 29.45	+26 18.3	1.910	2.848	7.4	18.3
12 17	6 18.44	+4 29.9	2.833	3.768	5.4	20.6	12 17	6 20.19	+26 25.5	1.875	2.850	3.4	18.1
12 27	6 10.60	+4 19.9	2.838	3.780	4.9	20.6	12 27	6 10.07	+26 27.9	1.870	2.851	1.5	17.9
1 6	6 3.00	+4 21.4	2.872	3.792	6.0	20.7	1 6	6 0.27	+26 24.9	1.894	2.853	5.4	18.2
1 16	5 56.25	+4 33.6	2.935	3.803	8.0	20.8	1 16	5 51.88	+26 17.2	1.946	2.854	9.2	18.4
1 26	5 50.86	+4 55.0	3.024	3.814	9.9	21.0	1 26	5 45.78	+26 6.8	2.024	2.855	12.6	18.7
<b>184632</b>	2005 <i>SO</i> <sub>9</sub>		12 24.5 132°21	3°3/24.7	18 R		<b>140557</b>	2001 <i>TE</i> <sub>204</sub>		12 24.5 356°95	0°1/24.5	18	
11 17	6 44.96	+14 53.5	1.953	2.728	15.3	21.2	11 17	6 40.67	+21 32.3	1.912	2.706	14.9	20.0
11 27	6 39.08	+14 31.6	1.880	2.744	12.1	21.0	11 27	6 36.22	+21 53.9	1.828	2.706	11.6	19.8
12 7	6 30.76	+14 16.1	1.830	2.759	8.4	20.8	12 7	6 29.16	+22 19.4	1.766	2.706	7.7	19.5
12 17	6 20.67	+14 7.7	1.807	2.774	4.7	20.6	12 17	6 20.10	+22 46.8	1.730	2.706	3.4	19.3
12 27	6 9.88	+14 6.7	1.813	2.787	3.4	20.6	12 27	6 10.08	+23 13.7	1.723	2.706	1.1	19.1
1 6	5 59.53	+14 12.6	1.849	2.800	6.3	20.8	1 6	6 0.32	+23 38.1	1.746	2.706	5.6	19.4
1 16	5 50.69	+14 24.9	1.914	2.813	9.9	21.0	1 16	5 51.96	+23 59.4	1.796	2.706	9.7	19.7
1 26	5 44.13	+14 42.7	2.003	2.824	13.1	21.2	1 26	5 45.95	+24 17.9	1.870	2.706	13.3	19.9
<b>418655</b>	2008 <i>TK</i> <sub>87</sub>		12 24.5 26°52	1°6/24.4	17		<b>24797</b>	1994 <i>PD</i> <sub>2</sub>		12 24.5 87°85	6°3/24.9	18	
11 17	6 39.01	+25 59.6	1.953	2.751	14.5	21.1	11 17	6 51.27	+40 19.3	1.867	2.634	16.2	18.2
11 27	6 34.87	+26 30.7	1.878	2.758	11.2	20.9	11 27	6 44.65	+40 52.6	1.806	2.655	13.2	18.1
12 7	6 28.19	+27 2.3	1.826	2.766	7.5	20.7	12 7	6 34.72	+41 13.8	1.767	2.677	9.9	17.9
12 17	6 19.62	+27 31.3	1.800	2.774	3.5	20.4	12 17	6 22.45	+41 16.7	1.753	2.698	7.2	17.8
12 27	6 10.20	+27 54.8	1.803	2.783	1.9	20.3	12 27	6 9.38	+40 57.6	1.767	2.719	6.4	17.8
1 6	6 1.13	+28 11.3	1.834	2.793	5.6	20.6	1 6	5 57.18	+40 17.3	1.809	2.740	8.1	17.9
1 16	5 53.51	+28 20.8	1.894	2.803	9.4	20.8	1 16	5 47.24	+39 20.7	1.878	2.760	10.9	18.2
1 26	5 48.20	+28 24.9	1.977	2.813	12.7	21.1	1 26	5 40.47	+38 15.0	1.971	2.780	13.8	18.4
<b>6260</b>	Kelsey		12 24.5 99°31	5°0/24.8	18		<b>2615</b>	Saito		12 24.5 134°37	1°2/24.5	18	
11 17	6 48.45	+37 32.6	2.003	2.775	15.1	16.7	11 17	6 40.05	+27 35.9	2.744	3.521	11.3	18.1
11 27	6 42.20	+37 56.5	1.936	2.792	12.1	16.5	11 27	6 34.86	+27 44.6	2.662	3.530	8.8	18.0
12 7	6 32.99	+38 10.9	1.890	2.808	8.9	16.3	12 7	6 27.79	+27 51.5	2.604	3.539	5.9	17.8
12 17	6 21.67	+38 10.8	1.870	2.825	6.0	16.2	12 17	6 19.36	+27 54.6	2.574	3.547	2.8	17.6
12 27	6 9.57	+37 53.0	1.879	2.841	5.1	16.2	12 27	6 10.36	+27 52.8	2.575	3.556	1.5	17.5
1 6	5 58.16	+37 18.3	1.917	2.856	7.1	16.3	1 6	6 1.65	+27 45.8	2.607	3.564	4.3	17.7
1 16	5 48.69	+36 30.4	1.982	2.872	10.1	16.5	1 16	5 54.02	+27 34.5	2.669	3.571	7.3	17.9
1 26	5 42.02	+35 34.8	2.073	2.887	13.0	16.7	1 26	5 48.11	+27 20.3	2.758	3.579	9.9	18.1
<b>180031</b>	2003 <i>AR</i> <sub>43</sub>		12 24.5 41°08	3°4/24.4	18		<b>497125</b>	2004 <i>NG</i> <sub>4</sub>		12 24.5 16°26	5°5/25.9	17	
11 17	6 42.90	+30 12.8	1.578	2.382	17.1	19.6	11 17	6 59.70	+40 24.9	0.974	1.782	25.0	19.9
11 27	6 38.49	+30 48.9	1.514	2.395	13.4	19.4	11 27	6 53.67	+39 22.5	0.904	1.783	20.4	19.6
12 7	6 30.86	+31 21.5	1.471	2.409	9.2	19.2	12 7	6 41.85	+37 50.8	0.851	1.784	14.8	19.3
12 17	6 20.84	+31 45.7	1.453	2.424	5.0	19.0	12 17	6 25.78	+35 41.3	0.819	1.786	8.7	19.0
12 27	6 9.83	+31 57.5	1.463	2.439	3.7	18.9	12 27	6 8.35	+32 54.7	0.811	1.788	5.6	18.9
1 6	5 59.43	+31 55.9	1.499	2.454	7.0	19.1	1 6	5 52.76	+29 44.8	0.830	1.790	9.9	19.1
1 16	5 51.03	+31 43.0	1.562	2.469	11.1	19.4	1 16	5 41.36	+26 33.1	0.873	1.793	16.0	19.4
1 26	5 45.62	+31 22.7	1.647	2.486	14.7	19.7	1 26	5 35.22	+23 38.5	0.937	1.796	21.4	19.8
<b>345769</b>	2007 <i>EF</i> <sub>118</sub>		12 24.5 136°41	4°6/24.1	18		<b>249852</b>	2001 <i>QV</i> <sub>46</sub>		12 24.5 106°46	4°6/24.7	18	

EPHEMERIDES

12 24.5

12 24.6

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>274187</b>	2008 GG <sub>119</sub>	12 24.5 228°36'		4.2°/24.6 18			<b>489432</b>	2006 WB <sub>33</sub>	12 24.5 341°87'		2.7°/24.6 17		
11 17	6 42.64	+14 42.4	1.615	2.408	17.2	21.8	11 17	6 35.52	+18 23.5	1.378	2.200	18.1	20.8
11 27	6 38.07	+14 7.5	1.531	2.404	13.8	21.5	11 27	6 33.19	+17 59.9	1.293	2.185	14.4	20.6
12 7	6 30.56	+13 39.4	1.467	2.399	9.7	21.3	12 7	6 27.68	+17 41.4	1.227	2.171	9.9	20.3
12 17	6 20.77	+13 20.0	1.428	2.394	5.7	21.0	12 17	6 19.65	+17 28.8	1.185	2.159	5.1	20.0
12 27	6 9.88	+13 10.5	1.416	2.389	4.4	20.9	12 27	6 10.31	+17 22.8	1.168	2.148	3.1	19.8
1 6	5 59.28	+13 11.4	1.431	2.384	7.6	21.1	1 6	6 1.23	+17 23.6	1.177	2.138	7.5	20.0
1 16	5 50.31	+13 22.3	1.474	2.378	11.9	21.3	1 16	5 53.87	+17 31.0	1.210	2.130	12.5	20.3
1 26	5 44.00	+13 41.8	1.539	2.372	15.8	21.6	1 26	5 49.41	+17 44.5	1.264	2.122	16.9	20.5
<b>487442</b>	2014 RT <sub>50</sub>	12 24.5 71°19'		3°8'/25.1 18			<b>156944</b>	2003 GM <sub>4</sub>	12 24.6 176°83'		0°2'/24.6 18		
11 17	6 38.56	+11 40.7	2.089	2.866	14.4	21.0	11 17	6 44.36	+22 37.4	2.068	2.850	14.3	21.5
11 27	6 34.14	+11 36.4	2.011	2.873	11.5	20.8	11 27	6 38.84	+22 41.9	1.981	2.853	11.2	21.3
12 7	6 27.53	+11 41.5	1.955	2.880	8.2	20.6	12 7	6 30.78	+22 48.0	1.917	2.854	7.4	21.0
12 17	6 19.32	+11 56.8	1.925	2.888	5.0	20.4	12 17	6 20.82	+22 53.8	1.880	2.856	3.3	20.8
12 27	6 10.40	+12 21.9	1.924	2.895	3.8	20.4	12 27	6 9.97	+22 57.9	1.874	2.856	1.1	20.6
1 6	6 1.75	+12 55.4	1.952	2.902	6.1	20.5	1 6	5 59.42	+22 59.7	1.897	2.856	5.4	20.9
1 16	5 54.32	+13 35.3	2.008	2.909	9.4	20.8	1 16	5 50.29	+22 59.6	1.949	2.855	9.3	21.1
1 26	5 48.85	+14 19.7	2.090	2.917	12.4	21.0	1 26	5 43.43	+22 58.8	2.027	2.854	12.8	21.4
<b>46957</b>	1998 SD <sub>129</sub>	12 24.5 210°73'		6°3'/24.8 18			<b>11149</b>	Tateshina	12 24.6 342°84'		0°9'/24.5 18		R
11 17	6 39.87	+ 5 29.6	2.289	3.039	14.0	19.4	11 17	6 42.03	+22 38.7	1.507	2.315	17.5	17.7
11 27	6 35.00	+ 4 44.7	2.197	3.033	11.7	19.2	11 27	6 37.90	+22 16.6	1.426	2.312	13.8	17.5
12 7	6 28.06	+ 4 10.1	2.127	3.026	9.1	19.1	12 7	6 30.59	+21 54.9	1.367	2.309	9.2	17.2
12 17	6 19.56	+ 3 49.0	2.084	3.020	7.0	18.9	12 17	6 20.84	+21 32.9	1.331	2.307	4.2	16.9
12 27	6 10.31	+ 3 43.4	2.069	3.012	6.4	18.9	12 27	6 9.96	+21 10.4	1.323	2.305	1.6	16.7
1 6	6 1.22	+ 3 53.7	2.082	3.004	7.8	18.9	1 6	5 59.51	+20 48.4	1.342	2.304	6.7	17.1
1 16	5 53.19	+ 4 18.7	2.123	2.996	10.3	19.1	1 16	5 50.91	+20 28.6	1.387	2.302	11.6	17.3
1 26	5 46.98	+ 4 56.0	2.189	2.987	13.0	19.2	1 26	5 45.23	+20 12.8	1.455	2.301	15.8	17.6
<b>233128</b>	2005 TY <sub>187</sub>	12 24.5 301°20'		3°8'/24.8 18			<b>331449</b>	2012 HM <sub>9</sub>	12 24.6 214°81'		3°4'/25.0 18		
11 17	6 39.90	+15 2.9	1.458	2.264	18.1	20.6	11 17	6 37.90	+11 33.0	2.469	3.237	12.7	21.2
11 27	6 36.51	+14 47.4	1.364	2.245	14.6	20.3	11 27	6 33.39	+11 29.0	2.377	3.233	10.1	21.0
12 7	6 29.91	+14 40.9	1.290	2.227	10.3	20.0	12 7	6 26.96	+11 33.2	2.307	3.230	7.3	20.8
12 17	6 20.65	+14 44.7	1.239	2.209	5.8	19.7	12 17	6 19.10	+11 46.2	2.265	3.226	4.5	20.6
12 27	6 9.91	+14 59.3	1.215	2.191	4.0	19.6	12 27	6 10.54	+12 7.8	2.252	3.222	3.5	20.5
1 6	5 59.24	+15 23.6	1.216	2.174	7.9	19.8	1 6	6 2.13	+12 37.1	2.270	3.218	5.6	20.7
1 16	5 50.20	+15 56.1	1.243	2.157	12.8	20.0	1 16	5 54.70	+13 12.7	2.316	3.213	8.5	20.8
1 26	5 44.05	+16 34.8	1.292	2.140	17.3	20.2	1 26	5 48.94	+13 52.8	2.389	3.209	11.3	21.0
<b>25623</b>	2000 AY <sub>47</sub>	12 24.5 59°10'		4°5'/25.4 18			<b>83494</b>	2001 SZ <sub>113</sub>	12 24.6 206°77'		0°2'/24.5 18		
11 17	6 44.29	+11 11.2	1.300	2.099	20.3	18.1	11 17	6 41.67	+24 15.5	2.117	2.904	13.9	19.7
11 27	6 39.55	+11 24.2	1.248	2.123	16.1	17.9	11 27	6 36.75	+24 14.6	2.027	2.902	10.8	19.5
12 7	6 31.54	+11 53.4	1.214	2.146	11.3	17.7	12 7	6 29.39	+24 13.6	1.961	2.899	7.2	19.3
12 17	6 21.15	+12 38.4	1.203	2.169	6.6	17.5	12 17	6 20.21	+24 11.0	1.921	2.897	3.2	19.0
12 27	6 9.84	+13 36.3	1.219	2.193	4.6	17.4	12 27	6 10.18	+24 5.6	1.911	2.894	1.1	18.9
1 6	5 59.26	+14 42.6	1.261	2.217	7.9	17.7	1 6	6 0.42	+23 57.2	1.931	2.891	5.2	19.2
1 16	5 50.79	+15 52.6	1.329	2.241	12.3	18.0	1 16	5 52.00	+23 46.7	1.980	2.888	9.1	19.4
1 26	5 45.40	+17 2.3	1.420	2.265	16.2	18.3	1 26	5 45.77	+23 35.5	2.053	2.884	12.5	19.6
<b>521311</b>	2015 KA <sub>170</sub>	12 24.5 218°41'		1°8'/24.5 18			<b>172679</b>	2003 YW <sub>137</sub>	12 24.6 1°80'		0°6'/24.6 18		
11 17	6 43.80	+20 14.2	1.630	2.427	16.9	21.9	11 17	6 41.91	+25 22.2	1.737	2.537	15.9	20.3
11 27	6 39.02	+19 50.7	1.545	2.424	13.3	21.6	11 27	6 37.44	+25 17.8	1.656	2.537	12.4	20.1
12 7	6 31.21	+19 29.7	1.482	2.421	9.0	21.4	12 7	6 30.09	+25 12.4	1.596	2.537	8.3	19.8
12 17	6 21.08	+19 10.8	1.444	2.418	4.3	21.1	12 17	6 20.58	+25 4.0	1.561	2.537	3.7	19.5
12 27	6 9.85	+18 54.3	1.433	2.414	2.2	20.9	12 27	6 10.07	+24 51.3	1.555	2.537	1.3	19.4
1 6	5 58.97	+18 40.6	1.451	2.410	6.7	21.2	1 6	5 59.96	+24 34.5	1.577	2.538	6.0	19.7
1 16	5 49.82	+18 30.8	1.496	2.406	11.3	21.5	1 16	5 51.52	+24 15.2	1.626	2.538	10.4	19.9
1 26	5 43.42	+18 25.8	1.564	2.402	15.3	21.7	1 26	5 45.72	+23 55.7	1.699	2.539	14.2	20.2
<b>413344</b>	2003 XM <sub>1</sub>	12 24.5 25°27'		6°3'/23.6 17			<b>274411</b>	2008 RF <sub>144</sub>	12 24.6 219°52'		3°1'/24.4 18		
11 17	6 43.70	+38 46.1	2.162	2.935	14.1	21.1	11 17	6 42.21	+33 25.8	2.714	3.483	11.6	20.9
11 27	6 38.85	+40 0.0	2.085	2.937	11.5	20.9	11 27	6 36.86	+33 50.3	2.616	3.476	9.2	20.7
12 7	6 31.09	+41 7.3	2.030	2.940	8.9	20.8	12 7	6 29.34	+34 10.4	2.543	3.468	6.5	20.5
12 17	6 21.04	+42 1.4	2.001	2.943	6.8	20.7	12 17	6 20.17	+34 22.8	2.497	3.459	4.0	20.3
12 27	6 9.85	+42 36.9	2.001	2.946	6.4	20.6	12 27	6 10.21	+34 25.1	2.481	3.451	3.2	20.3
1 6	5 58.92	+42 51.6	2.028	2.950	8.1	20.7	1 6	6 0.44	+34 16.6	2.496	3.442	5.3	20.4
1 16	5 49.57	+42 46.9	2.082	2.953	10.6	20.9	1 16	5 51.80	+33 58.4	2.540	3.432	8.1	20.6
1 26	5 42.85	+42 27.1	2.160	2.957	13.1	21.1	1 26	5 45.07	+33 33.1	2.611	3.422	10.7	20.7
<b>159195</b>	2005 UY <sub>215</sub>	12 24.5 336°63'		1°8'/24.7 18			<b>344932</b>	2004 TO <sub>174</sub>	12 24.6 84°61'		1°7'/24.7 16		
11 17	6 37.82	+19 11.7	1.243	2.069	19.5	19.8	11 17	6 45.06	+18 57.0	1.664	2.457	16.8	21.8
11 27	6 35.37	+19 9.9	1.161	2.057	15.4	19.5	11 27	6 39.56	+18 52.7	1.604	2.480	13.1	21.6
12 7	6 29.37	+19 15.2	1.099	2.045	10.5	19.2	12 7	6 31.26	+18 53.3	1.565	2.503	8.8	21.4
12 17	6 20.47	+19 27.0	1.059	2.035	5.0	18.9	12 17	6 20.99	+18 57.8	1.552	2.525	4.1	21.1
12 27	6 10.03	+19 44.1	1.043	2.025	2.3	18.7	12 27	6 9.98	+19 5.2	1.567	2.548	2.0	21.0
1 6	5 59.84	+20 4.6	1.053	2.017	7.7	19.0	1 6	5 59.60	+19 14.7	1.611	2.570	6.1	21.4
1 16	5 51.63	+20 27.4	1.086	2.009	13.2	19.3	1 16	5 51.03	+19 25.8	1.682	2.591	10.3	21.7
1 26	5 46.71	+20 51.7	1.140	2.003	18.1	19.5	1 26	5 45.09	+19 38.7	1.777	2.612	13.9	21.9
<b>119591</b>	2001 VD <sub>118</sub>	12 24.5 28°63'		1°2'/24.5 18			<b>227731</b>	2006 EY <sub>62</sub>	12 24.6 22°02'		0°1'/24.6 17		R
11 17	6 41.53	+25 15.2	1.206	2.032	20.0	18.9	11 17	6 39.18	+23 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>463294</b>	2012 <i>HS</i> <sub>47</sub>	12 24.6 143°21'		4°0'/23.9 17			<b>335330</b>	2005 <i>QG</i> <sub>176</sub>	12 24.6 142°73'		0°7'/24.6 18		
11 17	6 42.68	+32 25.6	2.182	2.964	13.7	20.7	11 17	6 45.83	+21 25.6	1.887	2.671	15.4	22.3
11 27	6 37.80	+33 23.0	2.097	2.964	10.9	20.5	11 27	6 40.07	+21 23.3	1.810	2.683	12.0	22.1
12 7	6 30.26	+34 17.7	2.036	2.964	7.7	20.4	12 7	6 31.62	+21 23.2	1.756	2.693	8.0	21.8
12 17	6 20.67	+35 4.7	2.002	2.965	4.9	20.2	12 17	6 21.20	+21 24.0	1.728	2.703	3.6	21.6
12 27	6 10.04	+35 39.6	1.998	2.965	4.2	20.1	12 27	6 9.93	+21 24.4	1.730	2.712	1.3	21.4
1 6	5 59.62	+36 0.2	2.022	2.965	6.5	20.3	1 6	5 59.10	+21 24.1	1.761	2.720	5.7	21.8
1 16	5 50.60	+36 6.8	2.074	2.965	9.6	20.5	1 16	5 49.88	+21 23.5	1.821	2.728	9.8	22.0
1 26	5 43.95	+36 2.5	2.151	2.965	12.6	20.7	1 26	5 43.13	+21 23.7	1.906	2.735	13.4	22.3
<b>395766</b>	2012 <i>VP</i> <sub>45</sub>	12 24.6 311°43'		6°2'/23.3 18			<b>366712</b>	2003 <i>WM</i> <sub>155</sub>	12 24.6 27°39'		0°2'/24.6 16		
11 17	6 45.73	+32 57.1	1.598	2.395	17.2	21.0	11 17	6 39.39	+19 23.6	1.790	2.589	15.6	20.0
11 27	6 41.43	+34 32.9	1.515	2.389	13.9	20.8	11 27	6 35.32	+20 13.0	1.719	2.600	12.1	19.8
12 7	6 33.44	+36 8.5	1.455	2.383	10.2	20.6	12 7	6 28.62	+21 9.8	1.670	2.611	8.0	19.6
12 17	6 22.32	+37 35.0	1.419	2.377	6.9	20.4	12 17	6 19.93	+22 10.8	1.648	2.624	3.5	19.3
12 27	6 9.45	+38 43.3	1.410	2.372	6.4	20.3	12 27	6 10.33	+23 12.1	1.654	2.637	1.1	19.2
1 6	5 56.68	+39 27.9	1.429	2.367	9.2	20.5	1 6	6 1.06	+24 9.9	1.689	2.650	5.6	19.5
1 16	5 45.86	+39 48.7	1.473	2.362	13.0	20.7	1 16	5 53.27	+25 2.1	1.752	2.664	9.8	19.8
1 26	5 38.43	+39 50.5	1.539	2.357	16.5	20.9	1 26	5 47.87	+25 47.9	1.839	2.679	13.3	20.0
<b>259944</b>	2004 <i>EC</i> <sub>60</sub>	12 24.6 254°20'		2°3'/24.5 18			<b>154952</b>	2004 <i>TX</i> <sub>99</sub>	12 24.6 92°34'		1°2'/24.7 18		
11 17	6 43.55	+30 6.4	2.225	3.006	13.5	21.1	11 17	6 40.64	+19 24.1	2.262	3.043	13.3	21.1
11 27	6 38.39	+30 18.6	2.120	2.989	10.7	20.9	11 27	6 35.54	+19 22.6	2.191	3.062	10.3	20.9
12 7	6 30.62	+30 27.5	2.039	2.972	7.4	20.6	12 7	6 28.35	+19 24.4	2.144	3.080	6.9	20.7
12 17	6 20.83	+30 29.7	1.985	2.955	3.9	20.4	12 17	6 19.68	+19 28.7	2.124	3.098	3.2	20.5
12 27	6 9.99	+30 22.9	1.960	2.938	2.6	20.3	12 27	6 10.43	+19 34.9	2.134	3.115	1.5	20.4
1 6	5 59.31	+30 6.5	1.965	2.920	5.7	20.4	1 6	6 1.57	+19 42.3	2.175	3.133	4.9	20.7
1 16	5 49.94	+29 41.9	1.999	2.901	9.3	20.6	1 16	5 53.95	+19 50.7	2.244	3.150	8.3	20.9
1 26	5 42.86	+29 12.2	2.059	2.882	12.7	20.8	1 26	5 48.27	+20 0.3	2.339	3.167	11.2	21.1
<b>453062</b>	2007 <i>TP</i> <sub>430</sub>	12 24.6 64°69'		9°1'/24.2 18			<b>490425</b>	2009 <i>SP</i> <sub>68</sub>	12 24.6 87°25'		1°7'/24.5 17		
11 17	6 50.17	+43 37.6	1.678	2.449	17.6	21.2	11 17	6 41.57	+28 19.7	2.134	2.922	13.7	22.2
11 27	6 44.89	+44 58.0	1.615	2.459	14.8	21.0	11 27	6 36.67	+28 28.7	2.053	2.927	10.7	22.0
12 7	6 35.57	+46 5.6	1.573	2.469	11.9	20.9	12 7	6 29.32	+28 35.2	1.995	2.932	7.2	21.8
12 17	6 23.13	+46 50.8	1.553	2.480	9.7	20.8	12 17	6 20.19	+28 36.5	1.964	2.937	3.5	21.5
12 27	6 9.26	+47 6.2	1.560	2.490	9.2	20.8	12 27	6 10.27	+28 31.0	1.962	2.941	2.0	21.4
1 6	5 56.09	+46 50.6	1.591	2.501	10.7	20.9	1 6	6 0.71	+28 18.4	1.989	2.946	5.3	21.7
1 16	5 45.46	+46 8.6	1.648	2.512	13.3	21.1	1 16	5 52.57	+28 0.2	2.045	2.951	8.9	21.9
1 26	5 38.59	+45 8.7	1.726	2.523	15.9	21.3	1 26	5 46.66	+27 38.7	2.126	2.956	12.1	22.1
<b>365016</b>	2008 <i>OK</i> <sub>20</sub>	12 24.6 70°92'		5°7'/25.3 18			<b>69986</b>	1998 <i>WW</i> <sub>24</sub>	12 24.6 51°04'		0°3'/24.8 17		
11 17	6 38.54	+ 6 15.9	2.216	2.974	14.2	21.0	11 17	6 16.14	+14 19.0	34.421	35.184	1.0	23.6
11 27	6 33.79	+ 5 43.3	2.154	2.997	11.6	20.9	11 27	6 15.34	+14 17.3	34.333	35.190	0.8	23.5
12 7	6 27.12	+ 5 22.4	2.115	3.020	8.8	20.7	12 7	6 14.44	+14 16.0	34.272	35.196	0.6	23.5
12 17	6 19.11	+ 5 15.1	2.101	3.043	6.5	20.6	12 17	6 13.46	+14 15.2	34.240	35.202	0.3	23.5
12 27	6 10.60	+ 5 22.4	2.116	3.065	5.8	20.6	12 27	6 12.46	+14 14.8	34.238	35.209	0.3	23.5
1 6	6 2.48	+ 5 43.5	2.159	3.088	7.2	20.7	1 6	6 11.47	+14 14.9	34.267	35.215	0.4	23.5
1 16	5 55.54	+ 6 16.5	2.230	3.111	9.5	20.9	1 16	6 10.52	+14 15.5	34.326	35.221	0.7	23.5
1 26	5 50.41	+ 6 58.6	2.325	3.133	12.0	21.1	1 26	6 9.67	+14 16.4	34.413	35.227	0.9	23.6
<b>454754</b>	2014 <i>VP</i> <sub>15</sub>	12 24.6 285°03'		5°6'/23.9 18			<b>328397</b>	2008 <i>RD</i> <sub>139</sub>	12 24.6 114°15'		2°2'/24.5 18		
11 17	6 38.28	+ 9 35.4	2.326	3.091	13.4	20.2	11 17	6 39.35	+17 27.9	2.493	3.269	12.3	20.7
11 27	6 33.81	+ 8 23.7	2.227	3.077	11.0	20.0	11 27	6 34.36	+16 57.6	2.414	3.280	9.7	20.5
12 7	6 27.31	+ 7 17.5	2.151	3.062	8.4	19.8	12 7	6 27.49	+16 30.3	2.359	3.290	6.6	20.3
12 17	6 19.29	+ 6 20.0	2.103	3.048	6.2	19.6	12 17	6 19.31	+16 6.4	2.331	3.301	3.5	20.2
12 27	6 10.51	+ 5 34.4	2.083	3.034	5.8	19.6	12 27	6 10.59	+15 46.8	2.334	3.311	2.4	20.1
1 6	6 1.88	+ 5 2.9	2.092	3.019	7.5	19.6	1 6	6 2.18	+15 31.9	2.368	3.321	5.0	20.3
1 16	5 54.28	+ 4 46.1	2.129	3.005	10.2	19.8	1 16	5 54.88	+15 22.1	2.430	3.330	8.0	20.5
1 26	5 48.43	+ 4 43.3	2.190	2.990	12.9	19.9	1 26	5 49.29	+15 17.4	2.519	3.340	10.8	20.7
<b>125678</b>	2001 <i>XZ</i> <sub>81</sub>	12 24.6 284°12'		0°8'/24.4 18			<b>410929</b>	2009 <i>SY</i> <sub>250</sub>	12 24.6 54°65'		1°0'/24.5 16		
11 17	6 42.81	+21 55.9	1.620	2.422	16.8	19.8	11 17	6 41.28	+25 58.0	1.932	2.727	14.7	21.2
11 27	6 38.67	+22 42.1	1.527	2.410	13.2	19.5	11 27	6 36.51	+26 5.7	1.865	2.743	11.4	21.0
12 7	6 31.31	+23 35.7	1.456	2.397	8.9	19.2	12 7	6 29.22	+26 12.5	1.820	2.759	7.6	20.8
12 17	6 21.30	+24 32.7	1.409	2.385	4.0	18.9	12 17	6 20.13	+26 16.2	1.801	2.776	3.4	20.6
12 27	6 9.81	+25 28.6	1.391	2.373	1.6	18.7	12 27	6 10.33	+26 15.0	1.811	2.793	1.5	20.5
1 6	5 58.37	+26 18.8	1.401	2.361	6.7	19.0	1 6	6 1.01	+26 8.9	1.850	2.810	5.4	20.8
1 16	5 48.52	+27 1.3	1.437	2.349	11.5	19.2	1 16	5 53.25	+25 58.8	1.917	2.827	9.2	21.1
1 26	5 41.54	+27 36.2	1.497	2.337	15.8	19.5	1 26	5 47.83	+25 46.7	2.009	2.844	12.5	21.3
<b>223858</b>	2004 <i>TK</i> <sub>273</sub>	12 24.6 140°93'		0°6'/24.5 18			<b>265566</b>	2005 <i>QD</i> <sub>49</sub>	12 24.6 168°38'		3°3'/24.8 18		
11 17	6 40.87	+25 0.3	2.614	3.391	11.8	21.3	11 17	6 44.53	+13 40.1	2.147	2.914	14.3	22.0
11 27	6 35.58	+25 7.1	2.532	3.401	9.1	21.1	11 27	6 38.73	+13 28.5	2.062	2.920	11.4	21.8
12 7	6 28.33	+25 13.6	2.474	3.410	6.1	20.9	12 7	6 30.61	+13 24.0	2.000	2.925	8.0	21.6
12 17	6 19.67	+25 18.1	2.444	3.419	2.7	20.7	12 17	6 20.76	+13 27.1	1.965	2.930	4.6	21.4
12 27	6 10.41	+25 19.4	2.445	3.427	1.0	20.6	12 27	6 10.12	+13 37.9	1.960	2.933	3.4	21.3
1 6	6 1.44	+25 17.2	2.477	3.435	4.4	20.8	1 6	5 59.76	+13 55.4	1.985	2.935	6.0	21.5
1 16	5 53.58	+25 12.1	2.539	3.443	7.5	21.0	1 16	5 50.68	+14 18.7	2.040	2.937	9.5	21.7
1 26	5 47.51	+25 5.1	2.627	3.450	10.3	21.2	1 26	5 43.70	+14 46.5	2.120	2.938	12.6	21.9
<b>243386</b>	2008 <i>YP</i> <sub>51</sub>	12 24.6 179°28'		1°1'/24.7 18			<b>76900</b>	2000 <i>YB</i> <sub>107</sub>	12 24.6 100°18'		1°8'/24.6 18		
11 17	6 36.9												

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>226244</b>	2002 <i>XU</i> <sub>48</sub>		12 24.6 328°33	1.9°/24.5	18		<b>131368</b>	2001 <i>KR</i> <sub>18</sub>		12 24.6 73°82	4.5°/24.8	18	
11 17	6 39.64	+21 20.8	1.268	2.091	19.3	19.6	11 17	6 38.39	+10 17.3	2.319	3.086	13.4	19.3
11 27	6 36.76	+20 47.6	1.184	2.078	15.3	19.3	11 27	6 33.65	+9 42.0	2.253	3.107	10.7	19.1
12 7	6 30.28	+20 15.3	1.119	2.065	10.4	19.0	12 7	6 27.03	+9 14.9	2.210	3.127	7.9	19.0
12 17	6 20.90	+19 44.3	1.077	2.053	4.9	18.6	12 17	6 19.12	+8 57.8	2.194	3.147	5.3	18.8
12 27	6 10.04	+19 15.3	1.060	2.042	2.5	18.4	12 27	6 10.72	+8 51.5	2.207	3.168	4.5	18.8
1 6	5 59.49	+18 50.0	1.069	2.031	7.8	18.7	1 6	6 2.68	+8 56.0	2.249	3.188	6.3	19.0
1 16	5 50.97	+18 30.4	1.101	2.022	13.3	19.0	1 16	5 55.77	+9 10.3	2.319	3.208	8.9	19.2
1 26	5 45.75	+18 18.0	1.154	2.013	18.2	19.3	1 26	5 50.63	+9 32.7	2.414	3.227	11.4	19.4
<b>369193</b>	2008 <i>TS</i> <sub>53</sub>		12 24.6 128°40	4.3°/24.9	18		<b>269126</b>	2007 <i>PP</i> <sub>43</sub>		12 24.6 201°78	1°5°/24.6	18	
11 17	6 37.64	+8 45.7	2.748	3.503	11.8	22.0	11 17	6 40.65	+28 43.8	2.569	3.347	11.9	20.7
11 27	6 32.84	+8 17.9	2.671	3.515	9.6	21.9	11 27	6 35.59	+28 43.4	2.477	3.346	9.3	20.5
12 7	6 26.41	+7 58.0	2.616	3.526	7.1	21.7	12 7	6 28.45	+28 39.9	2.409	3.344	6.3	20.3
12 17	6 18.83	+7 47.4	2.590	3.538	5.0	21.6	12 17	6 19.81	+28 31.6	2.369	3.342	3.1	20.1
12 27	6 10.76	+7 46.8	2.593	3.549	4.3	21.6	12 27	6 10.48	+28 17.2	2.359	3.339	1.7	20.0
1 6	6 2.94	+7 56.2	2.625	3.559	5.8	21.7	1 6	6 1.42	+27 56.9	2.380	3.337	4.6	20.2
1 16	5 56.04	+8 14.6	2.687	3.570	8.0	21.9	1 16	5 53.51	+27 32.0	2.431	3.334	7.8	20.4
1 26	5 50.63	+8 40.4	2.775	3.580	10.3	22.0	1 26	5 47.47	+27 4.8	2.507	3.331	10.7	20.6
<b>76679</b>	2000 <i>HV</i> <sub>63</sub>		12 24.6 133°91	1.3°/24.6	18		<b>20093</b>	1994 <i>PN</i> <sub>22</sub>		12 24.6 30°78	0.9°/24.5	18	
11 17	6 38.32	+19 14.4	2.753	3.528	11.3	19.8	11 17	6 40.36	+25 27.1	1.888	2.686	14.9	18.1
11 27	6 33.46	+19 3.8	2.670	3.537	8.8	19.7	11 27	6 36.02	+25 37.5	1.811	2.690	11.6	17.8
12 7	6 26.87	+18 55.6	2.611	3.545	5.9	19.5	12 7	6 29.06	+25 47.8	1.755	2.696	7.7	17.6
12 17	6 19.05	+18 49.5	2.581	3.554	2.9	19.3	12 17	6 20.15	+25 55.7	1.726	2.701	3.5	17.4
12 27	6 10.70	+18 45.4	2.581	3.561	1.5	19.2	12 27	6 10.37	+25 59.2	1.725	2.707	1.5	17.2
1 6	6 2.61	+18 43.1	2.612	3.569	4.3	19.4	1 6	6 0.97	+25 57.6	1.753	2.713	5.6	17.5
1 16	5 55.48	+18 42.7	2.673	3.576	7.2	19.6	1 16	5 53.08	+25 51.9	1.808	2.719	9.6	17.8
1 26	5 49.93	+18 44.5	2.761	3.583	9.9	19.8	1 26	5 47.59	+25 43.8	1.888	2.725	13.1	18.0
<b>444543</b>	2006 <i>SU</i> <sub>249</sub>		12 24.6 45°25	8.4°/24.9	18		<b>489431</b>	2006 <i>WE</i> <sub>32</sub>		12 24.6 113°11	0°0°/24.6	18	
11 17	6 38.83	+4 33.9	1.704	2.475	17.3	20.7	11 17	6 41.50	+21 38.9	2.001	2.791	14.5	21.5
11 27	6 34.70	+3 23.4	1.639	2.485	14.5	20.6	11 27	6 36.74	+22 2.4	1.920	2.795	11.3	21.3
12 7	6 28.08	+2 27.1	1.594	2.495	11.5	20.4	12 7	6 29.48	+22 29.6	1.861	2.800	7.5	21.1
12 17	6 19.67	+1 50.0	1.573	2.505	9.1	20.3	12 17	6 20.34	+22 58.2	1.829	2.805	3.3	20.9
12 27	6 10.50	+1 35.3	1.577	2.516	8.4	20.3	12 27	6 10.31	+23 25.9	1.827	2.809	1.1	20.7
1 6	6 1.76	+1 43.5	1.608	2.528	9.9	20.4	1 6	6 0.56	+23 50.8	1.854	2.814	5.3	21.0
1 16	5 54.49	+2 12.2	1.664	2.539	12.5	20.6	1 16	5 52.18	+24 12.2	1.909	2.818	9.3	21.3
1 26	5 49.51	+2 57.2	1.742	2.551	15.3	20.8	1 26	5 46.06	+24 30.7	1.990	2.822	12.7	21.5
<b>365766</b>	2010 <i>XK</i> <sub>14</sub>		12 24.6 63°88	0°6°/24.6	17		<b>451817</b>	2013 <i>HZ</i> <sub>88</sub>		12 24.6 217°19	0°1°/24.6	18	
11 17	6 41.18	+25 15.8	2.021	2.813	14.3	21.7	11 17	6 41.33	+23 8.4	2.067	2.856	14.1	21.9
11 27	6 36.47	+25 14.1	1.938	2.815	11.1	21.5	11 27	6 36.57	+23 7.5	1.978	2.854	11.0	21.6
12 7	6 29.26	+25 11.6	1.878	2.818	7.4	21.3	12 7	6 29.34	+23 7.6	1.912	2.851	7.3	21.4
12 17	6 20.21	+25 6.5	1.845	2.820	3.3	21.0	12 17	6 20.27	+23 7.1	1.873	2.848	3.3	21.2
12 27	6 10.33	+24 57.7	1.840	2.822	1.2	20.8	12 27	6 10.33	+23 5.0	1.863	2.846	1.1	21.0
1 6	6 0.80	+24 45.2	1.865	2.825	5.3	21.1	1 6	6 0.66	+23 0.9	1.883	2.843	5.3	21.3
1 16	5 52.70	+24 30.1	1.918	2.827	9.2	21.4	1 16	5 52.32	+22 55.4	1.931	2.839	9.2	21.5
1 26	5 46.88	+24 14.3	1.996	2.830	12.6	21.6	1 26	5 46.19	+22 49.7	2.004	2.836	12.7	21.7
<b>475220</b>	2005 <i>VG</i> <sub>87</sub>		12 24.6 99°12	0°4°/24.6	16		<b>60822</b>	2000 <i>HX</i> <sub>42</sub>		12 24.6 129°55	2°0°/24.7	17	
11 17	6 46.77	+21 58.0	1.704	2.494	16.6	22.4	11 17	6 37.83	+16 30.5	2.711	3.484	11.5	20.1
11 27	6 40.93	+22 2.6	1.641	2.516	12.9	22.2	11 27	6 33.11	+16 19.0	2.628	3.492	9.0	19.9
12 7	6 32.23	+22 9.7	1.599	2.538	8.5	22.0	12 7	6 26.66	+16 11.6	2.570	3.501	6.2	19.8
12 17	6 21.48	+22 17.1	1.584	2.559	3.8	21.8	12 17	6 18.98	+16 8.2	2.540	3.509	3.3	19.6
12 27	6 9.96	+22 23.3	1.597	2.580	1.2	21.7	12 27	6 10.77	+16 9.0	2.540	3.517	2.2	19.5
1 6	5 59.05	+22 27.4	1.640	2.600	5.9	22.0	1 6	6 2.80	+16 13.6	2.570	3.524	4.6	19.7
1 16	5 49.99	+22 30.0	1.710	2.619	10.2	22.3	1 16	5 55.79	+16 21.8	2.631	3.532	7.4	19.9
1 26	5 43.64	+22 32.3	1.805	2.638	13.8	22.6	1 26	5 50.33	+16 33.2	2.717	3.539	10.0	20.1
<b>64781</b>	2001 <i>XG</i> <sub>193</sub>		12 24.6 35°13	1°7°/24.6	18		<b>105002</b>	2000 <i>KN</i> <sub>5</sub>		12 24.6 221°05	6°2°/23.1	18	
11 17	6 41.34	+19 47.5	1.297	2.115	19.3	19.1	11 17	6 46.04	+11 4.0	2.208	2.963	14.3	19.0
11 27	6 37.58	+19 37.1	1.236	2.126	15.1	18.8	11 27	6 39.79	+9 11.9	2.113	2.958	11.7	18.8
12 7	6 30.45	+19 32.0	1.195	2.138	10.1	18.6	12 7	6 31.27	+7 21.9	2.044	2.952	8.9	18.6
12 17	6 20.82	+19 31.5	1.176	2.151	4.7	18.3	12 17	6 21.07	+5 38.8	2.004	2.946	6.7	18.5
12 27	6 10.16	+19 34.7	1.184	2.165	2.2	18.2	12 27	6 10.11	+4 7.9	1.994	2.940	6.4	18.4
1 6	6 0.16	+19 40.7	1.217	2.179	7.1	18.5	1 6	5 59.45	+2 53.4	2.016	2.933	8.4	18.5
1 16	5 52.27	+19 49.3	1.276	2.194	12.1	18.9	1 16	5 50.05	+1 57.7	2.066	2.926	11.1	18.7
1 26	5 47.49	+20 0.6	1.356	2.209	16.3	19.2	1 26	5 42.70	+1 20.8	2.141	2.919	13.9	18.9
<b>328811</b>	2009 <i>VP</i> <sub>68</sub>		12 24.6 46°52	0°5°/24.6	17		<b>15880</b>	1997 <i>AM</i> <sub>7</sub>		12 24.6 284°13	2°2°/24.5	18	
11 17	6 40.56	+25 24.9	1.966	2.761	14.5	20.8	11 17	6 44.47	+27 58.3	1.483	2.290	17.9	18.8
11 27	6 35.94	+25 19.1	1.894	2.772	11.3	20.6	11 27	6 40.29	+28 12.4	1.395	2.279	14.1	18.5
12 7	6 28.85	+25 12.2	1.844	2.783	7.5	20.4	12 7	6 32.55	+28 24.6	1.327	2.268	9.7	18.2
12 17	6 19.99	+25 2.6	1.820	2.795	3.3	20.2	12 17	6 21.92	+28 30.8	1.283	2.257	4.7	17.9
12 27	6 10.42	+24 49.5	1.825	2.807	1.2	20.0	12 27	6 9.81	+28 27.4	1.266	2.247	2.6	17.8
1 6	6 1.31	+24 33.2	1.860	2.820	5.3	20.3	1 6	5 57.99	+28 13.4	1.276	2.236	7.3	18.0
1 16	5 53.69	+24 14.9	1.922	2.832	9.1	20.6	1 16	5 48.15	+27 50.9	1.312	2.226	12.3	18.3
1 26	5 48.35	+23 56.7	2.009	2.845	12.5	20.8	1 26	5 41.57	+27 24.1	1.370	2.215	16.7	18.5
<b>301823</b>	2011 <i>PC</i> <sub>9</sub>		12 24.6 20°24	2°6°/24.6	17		<b>277379</b>	2005 <i>UU</i> <sub>40</sub>		12 24.6 105°32	0°9°/24.5		

EPHEMERIDES

12 24.6

12 24.6

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>453730</b>	2011 <i>BE</i> <sub>43</sub>		12 24.6	82°24	0°8/24.8	18	<b>383562</b>	2007 <i>EW</i> <sub>104</sub>		12 24.6	0°19	3°9/24.8	16
11 17	6 40.34	+18 4.9	2.226	3.007	13.5	20.4	11 17	6 33.09	+16 51.6	0.952	1.802	22.2	20.3
11 27	6 35.58	+18 42.8	2.143	3.014	10.5	20.2	11 27	6 32.30	+16 26.7	0.890	1.797	17.6	20.0
12 7	6 28.60	+19 27.3	2.084	3.020	7.0	20.0	12 7	6 27.61	+16 11.8	0.844	1.794	12.2	19.7
12 17	6 19.94	+20 16.5	2.053	3.027	3.2	19.8	12 17	6 19.82	+16 8.9	0.819	1.793	6.5	19.4
12 27	6 10.48	+21 7.5	2.051	3.033	1.2	19.6	12 27	6 10.54	+16 18.5	0.815	1.794	4.2	19.3
1 6	6 1.23	+21 57.9	2.080	3.040	4.9	19.9	1 6	6 1.79	+16 39.4	0.833	1.798	9.0	19.6
1 16	5 53.15	+22 45.7	2.139	3.046	8.5	20.2	1 16	5 55.39	+17 9.2	0.873	1.803	14.6	19.9
1 26	5 47.03	+23 30.0	2.223	3.052	11.7	20.4	1 26	5 52.64	+17 45.1	0.931	1.811	19.6	20.2
<b>274855</b>	2009 <i>RB</i> <sub>4</sub>		12 24.6	204°33	8°2/24.7	17	<b>247584</b>	2002 <i>TY</i> <sub>56</sub>		12 24.6	64°72	4°4/24.9	17
11 17	6 53.39	+7 57.1	1.357	2.127	21.0	21.8	11 17	6 37.21	+10 15.2	2.292	3.062	13.4	20.4
11 27	6 47.19	+6 58.4	1.270	2.122	17.4	21.6	11 27	6 32.93	+9 51.6	2.213	3.069	10.8	20.2
12 7	6 37.18	+6 12.6	1.201	2.115	13.3	21.3	12 7	6 26.70	+9 36.7	2.157	3.076	7.9	20.1
12 17	6 24.01	+5 44.9	1.156	2.105	9.5	21.1	12 17	6 19.07	+9 31.8	2.127	3.083	5.3	19.9
12 27	6 9.14	+5 39.7	1.137	2.094	8.3	21.0	12 27	6 10.81	+9 37.8	2.126	3.090	4.4	19.9
1 6	5 54.44	+5 57.8	1.145	2.081	11.2	21.1	1 6	6 2.82	+9 54.1	2.154	3.097	6.2	20.0
1 16	5 41.77	+6 37.1	1.179	2.066	15.6	21.3	1 16	5 55.90	+10 19.5	2.210	3.104	9.0	20.2
1 26	5 32.54	+7 32.8	1.234	2.049	20.0	21.5	1 26	5 50.75	+10 52.1	2.292	3.111	11.7	20.4
<b>60386</b>	2000 <i>AV</i> <sub>202</sub>		12 24.6	245°17	0°4/24.6	18	<b>43861</b>	1994 <i>CT</i> <sub>13</sub>		12 24.6	21°11	5°6/24.2	18
11 17	6 44.41	+26 19.2	2.197	2.977	13.6	18.9	11 17	6 45.40	+32 36.1	1.284	2.098	19.7	18.6
11 27	6 38.91	+25 55.6	2.093	2.963	10.7	18.6	11 27	6 41.60	+33 34.2	1.216	2.100	15.7	18.4
12 7	6 30.90	+25 28.5	2.012	2.948	7.2	18.4	12 7	6 33.68	+34 28.3	1.167	2.103	11.2	18.1
12 17	6 20.99	+24 56.7	1.959	2.934	3.2	18.1	12 17	6 22.48	+35 9.9	1.141	2.107	7.0	17.9
12 27	6 10.15	+24 19.6	1.936	2.918	1.1	17.9	12 27	6 9.70	+35 31.9	1.140	2.111	5.8	17.9
1 6	5 59.55	+23 38.6	1.944	2.903	5.3	18.2	1 6	5 57.51	+35 31.7	1.165	2.116	9.2	18.1
1 16	5 50.28	+22 56.0	1.981	2.886	9.2	18.4	1 16	5 47.84	+35 12.2	1.213	2.120	13.6	18.3
1 26	5 43.23	+22 14.8	2.044	2.870	12.7	18.6	1 26	5 42.02	+34 40.3	1.283	2.126	17.7	18.6
<b>487755</b>	2015 <i>RU</i> <sub>134</sub>		12 24.6	27°75	9°9/25.9	17	<b>170778</b>	2004 <i>CP</i> <sub>96</sub>		12 24.6	25°97	8°9/23.1	18
11 17	6 37.63	+1 4.1	1.512	2.283	19.2	21.3	11 17	6 44.95	+36 5.4	1.246	2.059	20.2	18.6
11 27	6 34.11	+0 5.1	1.450	2.291	16.3	21.1	11 27	6 41.60	+38 15.7	1.195	2.074	16.4	18.4
12 7	6 27.88	-0 33.8	1.407	2.301	13.2	20.9	12 7	6 33.88	+40 19.9	1.165	2.090	12.5	18.2
12 17	6 19.67	-0 47.3	1.386	2.311	10.8	20.8	12 17	6 22.62	+42 4.8	1.158	2.107	9.5	18.1
12 27	6 10.60	-0 32.3	1.389	2.322	9.9	20.8	12 27	6 9.67	+43 19.2	1.175	2.126	9.2	18.1
1 6	6 1.97	+0 10.1	1.416	2.333	11.2	20.9	1 6	5 57.36	+43 58.5	1.217	2.145	11.5	18.3
1 16	5 54.94	+0 15.3	1.468	2.345	13.7	21.1	1 16	5 47.82	+44 5.9	1.281	2.166	14.9	18.5
1 26	5 50.38	+2 36.7	1.540	2.358	16.5	21.3	1 26	5 42.44	+43 49.7	1.366	2.187	18.1	18.8
<b>482855</b>	2014 <i>DY</i> <sub>51</sub>		12 24.6	206°80	1°2/24.7	18	<b>361340</b>	2006 <i>UT</i> <sub>112</sub>		12 24.6	40°26	3°2/24.4	18
11 17	6 42.70	+19 32.5	1.802	2.594	15.7	21.6	11 17	6 43.01	+30 20.1	1.770	2.566	15.8	20.9
11 27	6 37.98	+19 36.7	1.716	2.592	12.4	21.4	11 27	6 38.46	+30 53.9	1.694	2.571	12.5	20.7
12 7	6 30.49	+19 45.6	1.651	2.590	8.3	21.1	12 7	6 30.90	+31 24.8	1.640	2.575	8.6	20.5
12 17	6 20.87	+19 58.2	1.613	2.587	3.9	20.9	12 17	6 21.07	+31 48.1	1.611	2.581	4.8	20.3
12 27	6 10.20	+20 12.9	1.603	2.584	1.7	20.7	12 27	6 10.18	+32 0.1	1.610	2.586	3.5	20.2
1 6	5 59.79	+20 28.6	1.622	2.581	6.0	21.0	1 6	5 59.72	+31 59.5	1.638	2.591	6.7	20.4
1 16	5 50.89	+20 44.6	1.668	2.578	10.3	21.2	1 16	5 51.00	+31 47.9	1.692	2.597	10.5	20.7
1 26	5 44.47	+21 1.1	1.739	2.575	14.1	21.5	1 26	5 45.05	+31 28.8	1.770	2.603	14.0	20.9
<b>444489</b>	2006 <i>QZ</i> <sub>186</sub>		12 24.6	119°87	5°6/24.6	18	<b>77438</b>	2001 <i>GP</i> <sub>10</sub>		12 24.6	139°14	1°0/24.5	18
11 17	6 47.75	+38 23.4	1.985	2.757	15.2	20.8	11 17	6 40.35	+26 20.6	2.961	3.732	10.7	20.5
11 27	6 42.01	+38 59.6	1.910	2.764	12.3	20.6	11 27	6 35.02	+26 37.1	2.879	3.744	8.3	20.3
12 7	6 33.16	+39 26.5	1.856	2.772	9.2	20.5	12 7	6 27.93	+26 52.7	2.822	3.756	5.5	20.2
12 17	6 22.00	+39 38.4	1.829	2.779	6.5	20.3	12 17	6 19.58	+27 5.7	2.794	3.767	2.6	20.0
12 27	6 9.86	+39 31.2	1.829	2.786	5.7	20.3	12 27	6 10.69	+27 14.6	2.797	3.778	1.3	19.9
1 6	5 58.27	+39 4.7	1.857	2.793	7.6	20.4	1 6	6 2.04	+27 18.9	2.832	3.788	4.0	20.1
1 16	5 48.58	+38 22.2	1.913	2.799	10.6	20.6	1 16	5 54.38	+27 19.0	2.897	3.798	6.8	20.3
1 26	5 41.77	+37 29.5	1.993	2.806	13.5	20.8	1 26	5 48.30	+27 15.9	2.989	3.807	9.3	20.5
<b>378183</b>	2006 <i>XK</i> <sub>7</sub>		12 24.6	37°18	2°1/24.3	18	<b>517248</b>	2014 <i>DK</i> <sub>35</sub>		12 24.6	255°24	0°5/24.6	18
11 17	6 44.53	+23 27.2	0.987	1.822	22.7	19.7	11 17	6 43.21	+21 10.2	1.822	2.614	15.6	22.3
11 27	6 40.95	+24 32.2	0.946	1.846	17.6	19.4	11 27	6 38.58	+21 20.2	1.723	2.600	12.3	22.1
12 7	6 33.08	+25 42.6	0.924	1.872	11.6	19.2	12 7	6 31.06	+21 34.1	1.646	2.585	8.3	21.8
12 17	6 22.06	+26 50.6	0.922	1.899	5.3	19.0	12 17	6 21.22	+21 50.3	1.594	2.570	3.7	21.5
12 27	6 9.88	+27 48.4	0.945	1.927	2.8	18.9	12 27	6 10.12	+22 6.8	1.572	2.554	1.3	21.3
1 6	5 58.77	+28 31.6	0.993	1.955	8.3	19.3	1 6	5 59.11	+22 22.0	1.578	2.538	6.1	21.6
1 16	5 50.56	+29 0.2	1.063	1.985	13.6	19.7	1 16	5 49.53	+22 35.5	1.611	2.521	10.6	21.8
1 26	5 46.33	+29 17.5	1.154	2.015	18.0	20.1	1 26	5 42.47	+22 48.0	1.669	2.505	14.6	22.0
<b>197124</b>	2003 <i>UQ</i> <sub>223</sub>		12 24.6	37°76	1°8/24.5	18	<b>207520</b>	2006 <i>JH</i> <sub>45</sub>		12 24.6	175°31	1°6/24.7	18
11 17	6 39.32	+20 10.4	2.013	2.805	14.3	19.7	11 17	6 42.24	+18 55.8	1.964	2.751	14.8	21.0
11 27	6 34.84	+19 37.1	1.938	2.814	11.2	19.5	11 27	6 37.33	+18 51.3	1.879	2.752	11.6	20.8
12 7	6 28.08	+19 5.4	1.885	2.823	7.5	19.3	12 7	6 29.90	+18 51.0	1.817	2.753	7.9	20.6
12 17	6 19.68	+18 35.7	1.859	2.832	3.7	19.1	12 17	6 20.58	+18 54.3	1.781	2.754	3.8	20.3
12 27	6 10.61	+18 8.9	1.862	2.842	2.1	19.0	12 27	6 10.37	+19 0.4	1.774	2.754	1.9	20.2
1 6	6 1.96	+17 45.8	1.894	2.852	5.5	19.2	1 6	6 0.45	+19 8.6	1.796	2.754	5.7	20.4
1 16	5 54.67	+17 27.5	1.954	2.862	9.2	19.5	1 16	5 51.91	+19 18.7	1.847	2.754	9.6	20.7
1 26	5 49.49	+17 14.6	2.039	2.872	12.4	19.7	1 26	5 45.64	+19 30.7	1.922	2.754	13.1	20.9
<b>444565</b>	2006 <i>TG</i> <sub>19</sub>		12 24.6	80°19	2°0/24.6	18	<b>73724</b>	1993 <i>FA</i> <sub>25</sub>		12 24.6	234°64		



2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>218425</b>	2004 <i>RV</i> <sub>159</sub>		12 24.6	36°88	4°1/24.5	18	<b>31310</b>	1998 <i>FP</i> <sub>118</sub>		12 24.6	309°34	1°3/24.6	17
11 17	6 39.33	+15 6.4	1.828	2.619	15.6	19.4	11 17	6 41.20	+27 3.8	1.969	2.763	14.5	18.8
11 27	6 35.01	+14 13.7	1.757	2.629	12.3	19.2	11 27	6 36.73	+27 9.3	1.880	2.758	11.4	18.6
12 7	6 28.27	+13 26.1	1.708	2.639	8.7	19.0	12 7	6 29.62	+27 13.0	1.814	2.753	7.7	18.3
12 17	6 19.81	+12 46.1	1.685	2.650	5.3	18.8	12 17	6 20.51	+27 12.5	1.773	2.748	3.6	18.1
12 27	6 10.65	+12 15.5	1.690	2.661	4.2	18.7	12 27	6 10.44	+27 6.1	1.762	2.743	1.7	17.9
1 6	6 1.94	+11 55.7	1.723	2.672	6.8	18.9	1 6	6 0.66	+26 53.5	1.779	2.738	5.6	18.2
1 16	5 54.67	+11 46.7	1.783	2.684	10.3	19.2	1 16	5 52.33	+26 36.0	1.824	2.734	9.6	18.4
1 26	5 49.63	+11 47.8	1.867	2.696	13.6	19.4	1 26	5 46.37	+26 15.9	1.894	2.730	13.1	18.6
<b>462457</b>	2008 <i>UQ</i> <sub>133</sub>		12 24.6	315°22	5°3/24.3	18	<b>108600</b>	2001 <i>MB</i> <sub>18</sub>		12 24.6	173°09	2°1/24.7	18
11 17	6 37.26	+ 9 40.5	2.303	3.072	13.4	20.9	11 17	6 41.58	+31 40.6	2.833	3.603	11.1	19.9
11 27	6 33.03	+ 8 41.7	2.214	3.067	11.0	20.7	11 27	6 36.14	+31 41.5	2.743	3.605	8.8	19.8
12 7	6 26.83	+ 7 49.6	2.149	3.062	8.3	20.6	12 7	6 28.76	+31 37.7	2.677	3.606	6.0	19.6
12 17	6 19.17	+ 7 7.2	2.109	3.057	6.0	20.4	12 17	6 19.99	+31 27.3	2.640	3.607	3.3	19.4
12 27	6 10.84	+ 6 36.8	2.098	3.052	5.4	20.4	12 27	6 10.63	+31 9.1	2.633	3.609	2.3	19.3
1 6	6 2.72	+ 6 19.8	2.116	3.048	7.1	20.5	1 6	6 1.56	+30 43.4	2.657	3.609	4.5	19.5
1 16	5 55.65	+ 6 16.2	2.162	3.044	9.7	20.6	1 16	5 53.59	+30 11.6	2.711	3.610	7.3	19.7
1 26	5 50.32	+ 6 24.6	2.231	3.039	12.4	20.8	1 26	5 47.40	+29 36.3	2.792	3.610	9.9	19.9
<b>289429</b>	2005 <i>ED</i> <sub>19</sub>		12 24.6	297°97	2°6/24.8	18	<b>213855</b>	2003 <i>SK</i> <sub>103</sub>		12 24.6	82°62	5°7/24.3	17
11 17	6 40.50	+16 52.1	1.763	2.557	15.9	20.8	11 17	6 44.76	+39 31.4	2.268	3.034	13.7	20.4
11 27	6 36.30	+16 40.2	1.677	2.553	12.6	20.6	11 27	6 39.45	+40 19.3	2.193	3.042	11.2	20.2
12 7	6 29.40	+16 34.5	1.613	2.549	8.7	20.4	12 7	6 31.38	+40 58.8	2.140	3.049	8.5	20.1
12 17	6 20.42	+16 35.2	1.574	2.545	4.5	20.1	12 17	6 21.26	+41 24.5	2.114	3.057	6.3	19.9
12 27	6 10.44	+16 41.9	1.563	2.541	2.8	20.0	12 27	6 10.22	+41 32.4	2.115	3.064	5.8	19.9
1 6	6 0.70	+16 54.2	1.580	2.537	6.4	20.2	1 6	5 59.58	+41 21.8	2.145	3.072	7.4	20.0
1 16	5 52.43	+17 11.1	1.624	2.533	10.6	20.4	1 16	5 50.55	+40 54.8	2.203	3.079	9.8	20.2
1 26	5 46.58	+17 32.1	1.692	2.530	14.3	20.7	1 26	5 44.04	+40 16.0	2.284	3.087	12.3	20.4
<b>458481</b>	2011 <i>BX</i> <sub>109</sub>		12 24.6	349°91	4°0/24.6	17	<b>350397</b>	2012 <i>VT</i> <sub>21</sub>		12 24.6	192°17	2°0/24.4	18
11 17	6 37.49	+13 47.1	1.953	2.741	14.8	21.4	11 17	6 45.87	+27 22.1	1.977	2.761	14.8	22.0
11 27	6 33.61	+13 10.2	1.869	2.738	11.8	21.2	11 27	6 40.41	+27 51.9	1.889	2.760	11.6	21.8
12 7	6 27.41	+12 39.7	1.806	2.736	8.5	21.0	12 7	6 32.13	+28 21.2	1.823	2.758	7.9	21.6
12 17	6 19.48	+12 17.4	1.770	2.733	5.2	20.8	12 17	6 21.65	+28 46.4	1.783	2.756	3.9	21.3
12 27	6 10.75	+12 4.7	1.761	2.731	4.2	20.7	12 27	6 10.09	+29 3.9	1.774	2.753	2.3	21.2
1 6	6 2.28	+12 2.0	1.780	2.730	6.7	20.8	1 6	5 58.78	+29 12.2	1.794	2.749	5.9	21.4
1 16	5 55.07	+12 8.9	1.827	2.729	10.1	21.0	1 16	5 48.99	+29 11.9	1.842	2.745	9.9	21.7
1 26	5 49.94	+12 24.4	1.898	2.728	13.3	21.2	1 26	5 41.74	+29 5.5	1.915	2.741	13.4	21.9
<b>369874</b>	2012 <i>KN</i> <sub>45</sub>		12 24.6	23°62	12°2/26.6	17	<b>514598</b>	2003 <i>OK</i> <sub>33</sub>		12 24.6	63°73	7°3/25.9	18
11 17	6 36.14	-12 26.5	2.189	2.866	16.5	20.6	11 17	6 41.82	+ 4 50.2	1.587	2.358	18.4	20.8
11 27	6 32.24	-13 38.5	2.123	2.869	15.0	20.5	11 27	6 37.14	+ 4 28.0	1.529	2.379	15.1	20.6
12 7	6 26.34	-14 28.4	2.075	2.873	13.6	20.4	12 7	6 29.77	+ 4 23.6	1.492	2.400	11.6	20.5
12 17	6 18.96	-14 50.9	2.048	2.877	12.5	20.3	12 17	6 20.51	+ 4 39.7	1.478	2.422	8.4	20.4
12 27	6 10.92	-14 42.4	2.043	2.881	12.2	20.3	12 27	6 10.49	+ 5 16.5	1.490	2.443	7.3	20.3
1 6	6 3.14	-14 3.0	2.061	2.886	12.6	20.3	1 6	6 1.02	+ 6 11.3	1.529	2.464	8.9	20.5
1 16	5 56.47	-12 55.7	2.102	2.890	13.7	20.4	1 16	5 53.22	+ 7 19.6	1.594	2.486	12.0	20.7
1 26	5 51.60	-11 26.2	2.163	2.896	15.1	20.5	1 26	5 47.91	+ 8 36.1	1.682	2.507	15.0	21.0
<b>298145</b>	2002 <i>SH</i> <sub>45</sub>		12 24.6	0°28	7°7/24.5	18	<b>479611</b>	2014 <i>DT</i> <sub>20</sub>		12 24.6	326°37	0°1/24.6	18
11 17	6 37.11	+ 8 56.3	1.466	2.264	18.4	19.6	11 17	6 39.64	+21 44.7	1.312	2.134	18.9	20.9
11 27	6 33.97	+ 7 43.0	1.393	2.262	15.1	19.3	11 27	6 36.84	+22 1.0	1.227	2.120	14.9	20.6
12 7	6 27.97	+ 6 40.8	1.340	2.261	11.6	19.1	12 7	6 30.47	+22 23.0	1.161	2.107	10.1	20.3
12 17	6 19.81	+ 5 55.0	1.310	2.260	8.6	18.9	12 17	6 21.15	+22 48.5	1.117	2.094	4.5	19.9
12 27	6 10.66	+ 5 29.6	1.306	2.261	7.8	18.9	12 27	6 10.23	+23 14.3	1.100	2.082	1.4	19.7
1 6	6 1.88	+ 5 26.2	1.326	2.262	9.9	19.0	1 6	5 59.47	+23 37.7	1.108	2.071	7.4	20.0
1 16	5 54.73	+ 5 43.5	1.370	2.265	13.3	19.2	1 16	5 50.64	+23 57.7	1.140	2.061	12.9	20.3
1 26	5 50.17	+ 6 17.8	1.436	2.268	16.7	19.5	1 26	5 45.11	+24 15.0	1.193	2.052	17.7	20.6
<b>8543</b>	Tsunemi		12 24.6	105°43	2°6/24.7	18	<b>438050</b>	2004 <i>PR</i> <sub>36</sub>		12 24.6	128°71	1°9/24.7	15
11 17	6 46.46	+17 58.0	1.565	2.357	17.7	17.9	11 17	6 45.23	+18 19.0	2.030	2.808	14.7	22.6
11 27	6 40.92	+17 37.2	1.499	2.375	13.9	17.7	11 27	6 39.35	+18 8.0	1.957	2.824	11.5	22.4
12 7	6 32.38	+17 21.6	1.455	2.391	9.4	17.4	12 7	6 31.06	+18 1.0	1.907	2.841	7.8	22.2
12 17	6 21.67	+17 11.3	1.436	2.408	4.8	17.2	12 17	6 21.05	+17 57.6	1.884	2.856	3.8	22.0
12 27	6 10.10	+17 6.3	1.445	2.424	2.8	17.1	12 27	6 10.33	+17 57.5	1.891	2.871	2.1	21.9
1 6	5 59.15	+17 6.3	1.482	2.439	6.8	17.4	1 6	6 0.06	+18 0.1	1.928	2.885	5.5	22.2
1 16	5 50.11	+17 11.2	1.546	2.454	11.1	17.7	1 16	5 51.26	+18 5.5	1.994	2.898	9.3	22.4
1 26	5 43.88	+17 21.0	1.634	2.469	14.9	18.0	1 26	5 44.69	+18 13.7	2.086	2.911	12.5	22.7
<b>216033</b>	2006 <i>AW</i> <sub>67</sub>		12 24.6	72°64	0°7/24.7	18	<b>520866</b>	2014 <i>WO</i> <sub>101</sub>		12 24.6	234°18	1°1/24.7	18
11 17	6 45.22	+20 31.7	1.507	2.308	17.9	20.3	11 17	6 38.65	+18 56.2	2.507	3.286	12.2	21.7
11 27	6 40.12	+20 45.4	1.448	2.329	13.9	20.1	11 27	6 34.11	+19 6.3	2.411	3.281	9.5	21.5
12 7	6 31.93	+21 4.0	1.409	2.350	9.2	19.9	12 7	6 27.58	+19 20.5	2.339	3.275	6.4	21.3
12 17	6 21.48	+21 25.2	1.396	2.371	4.1	19.7	12 17	6 19.56	+19 37.9	2.295	3.268	3.0	21.1
12 27	6 10.16	+21 46.5	1.409	2.392	1.4	19.5	12 27	6 10.78	+19 57.4	2.281	3.262	1.4	20.9
1 6	5 59.49	+22 6.1	1.451	2.413	6.4	19.9	1 6	6 2.15	+20 17.9	2.297	3.255	4.6	21.2
1 16	5 50.79	+22 23.7	1.520	2.433	10.9	20.2	1 16	5 54.50	+20 38.7	2.342	3.249	8.0	21.4
1 26	5 44.99	+22 39.9	1.612	2.454	14.8	20.5	1 26	5 48.57	+20 59.6	2.414	3.242	10.9	21.6
<b>273303</b>	2006 <i>SL</i> <sub>141</sub>		12 24.6	45°02	1°7/24.8	18	<b>3098</b>	van Sprang		12 24.6	119°95	0°3/24.6	18

EPHEMERIDES

12 24.6

12 24.6

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>212763</b>	2007 <i>TH</i> <sub>44</sub>		12 24.6 192°60	2°9/24.5	18		<b>279463</b>	2010 <i>SA</i> <sub>38</sub>		12 24.6 62°83	5°2/25.3	18	
11 17	6 45.73	+31 22.9	2.293	3.067	13.3	20.7	11 17	6 39.98	+9 27.1	1.829	2.606	16.1	20.5
11 27	6 39.98	+31 48.3	2.202	3.066	10.5	20.5	11 27	6 35.49	+9 5.0	1.763	2.622	13.0	20.3
12 7	6 31.66	+32 9.9	2.134	3.063	7.3	20.3	12 7	6 28.62	+8 54.7	1.719	2.638	9.5	20.1
12 17	6 21.40	+32 24.1	2.093	3.060	4.1	20.1	12 17	6 20.03	+8 57.8	1.699	2.655	6.4	20.0
12 27	6 10.21	+32 27.9	2.083	3.057	3.1	20.0	12 27	6 10.75	+9 14.9	1.707	2.671	5.3	19.9
1 6	5 59.29	+32 20.5	2.102	3.053	5.7	20.2	1 6	6 1.88	+9 44.5	1.743	2.687	7.3	20.1
1 16	5 49.75	+32 3.2	2.151	3.048	9.1	20.4	1 16	5 54.44	+10 24.3	1.806	2.704	10.5	20.3
1 26	5 42.50	+31 39.2	2.225	3.042	12.1	20.6	1 26	5 49.19	+11 11.4	1.894	2.720	13.5	20.5
<b>112271</b>	2002 <i>LQ</i> <sub>21</sub>		12 24.6 216°88	2°4/24.8	18		<b>124002</b>	2001 <i>FX</i> <sub>77</sub>		12 24.6 300°46	5°5/24.9	18	
11 17	6 46.33	+31 12.3	1.960	2.742	15.0	20.0	11 17	6 37.10	+8 2.5	2.187	2.954	14.1	19.5
11 27	6 40.74	+31 3.4	1.869	2.739	11.8	19.8	11 27	6 33.10	+7 29.0	2.096	2.947	11.5	19.3
12 7	6 32.29	+30 48.1	1.801	2.735	8.1	19.5	12 7	6 27.02	+7 5.3	2.028	2.940	8.8	19.1
12 17	6 21.69	+30 23.5	1.760	2.730	4.2	19.3	12 17	6 19.36	+6 53.9	1.985	2.932	6.3	18.9
12 27	6 10.14	+29 48.0	1.747	2.726	2.6	19.2	12 27	6 10.94	+6 56.4	1.969	2.925	5.5	18.9
1 6	5 59.01	+29 2.6	1.765	2.721	6.0	19.4	1 6	6 2.68	+7 12.5	1.983	2.918	7.2	18.9
1 16	5 49.57	+28 10.7	1.810	2.716	9.9	19.6	1 16	5 55.48	+7 41.2	2.023	2.911	10.0	19.1
1 26	5 42.74	+27 16.9	1.881	2.711	13.5	19.8	1 26	5 50.10	+8 20.0	2.088	2.904	12.8	19.3
<b>47805</b>	2000 <i>EY</i> <sub>60</sub>		12 24.6 89°91	8°7/24.6	17		<b>393390</b>	2000 <i>QZ</i> <sub>46</sub>		12 24.6 79°00	3°7/25.1	15	
11 17	6 50.82	+50 31.9	2.444	3.166	14.0	18.7	11 17	6 42.51	+11 54.0	2.087	2.856	14.6	21.7
11 27	6 44.52	+51 34.5	2.378	3.177	12.1	18.6	11 27	6 37.01	+11 45.6	2.030	2.887	11.6	21.5
12 7	6 34.92	+52 22.8	2.333	3.188	10.3	18.5	12 7	6 29.38	+11 46.2	1.995	2.918	8.2	21.4
12 17	6 22.87	+52 49.9	2.312	3.199	9.0	18.5	12 17	6 20.30	+11 56.2	1.987	2.948	5.0	21.3
12 27	6 9.77	+52 51.1	2.318	3.209	8.7	18.5	12 27	6 10.70	+12 15.1	2.008	2.978	3.8	21.2
1 6	5 57.26	+52 25.9	2.349	3.220	9.5	18.5	1 6	6 1.58	+12 41.5	2.059	3.007	6.0	21.4
1 16	5 46.80	+51 37.7	2.406	3.231	11.0	18.6	1 16	5 53.83	+13 13.9	2.138	3.036	9.0	21.7
1 26	5 39.40	+50 33.1	2.486	3.241	12.8	18.8	1 26	5 48.12	+13 50.4	2.243	3.064	11.9	21.9
<b>6711</b>	Holliman		12 24.6 286°32	9°0/24.5	18		<b>312938</b>	1994 <i>AY</i> <sub>6</sub>		12 24.6 353°70	1°0/24.7	18	
11 17	6 38.91	+2 52.2	1.793	2.553	17.0	17.6	11 17	6 39.06	+20 4.9	1.604	2.411	16.7	20.7
11 27	6 34.99	+1 40.4	1.704	2.541	14.4	17.4	11 27	6 35.54	+20 13.6	1.523	2.408	13.1	20.5
12 7	6 28.54	+0 41.9	1.635	2.528	11.8	17.2	12 7	6 29.10	+20 27.6	1.463	2.405	8.8	20.2
12 17	6 20.11	+0 2.2	1.590	2.515	9.6	17.0	12 17	6 20.41	+20 45.7	1.427	2.403	4.0	19.9
12 27	6 10.65	-0 14.2	1.571	2.503	9.1	17.0	12 27	6 10.61	+21 5.9	1.419	2.401	1.5	19.8
1 6	6 1.34	-0 5.8	1.578	2.490	10.6	17.0	1 6	6 1.10	+21 26.5	1.438	2.401	6.3	20.1
1 16	5 53.31	+0 26.0	1.609	2.478	13.3	17.2	1 16	5 53.20	+21 46.8	1.484	2.400	10.9	20.3
1 26	5 47.50	+1 17.0	1.662	2.465	16.2	17.3	1 26	5 47.93	+22 6.6	1.553	2.401	14.9	20.6
<b>161573</b>	2005 <i>CX</i> <sub>57</sub>		12 24.6 280°85	0°9/24.6	18		<b>307341</b>	2002 <i>RS</i> <sub>64</sub>		12 24.6 77°96	6°5/23.9	18	
11 17	6 39.78	+26 26.3	2.340	3.126	12.7	20.3	11 17	6 49.64	+37 29.2	1.847	2.622	16.0	20.1
11 27	6 35.25	+26 28.6	2.243	3.116	10.0	20.1	11 27	6 43.76	+38 51.7	1.789	2.644	13.0	19.9
12 7	6 28.48	+26 29.6	2.168	3.106	6.7	19.8	12 7	6 34.52	+40 6.6	1.753	2.667	9.8	19.8
12 17	6 20.00	+26 27.5	2.121	3.095	3.1	19.6	12 17	6 22.77	+41 5.8	1.744	2.690	7.2	19.7
12 27	6 10.70	+26 20.8	2.103	3.085	1.3	19.4	12 27	6 9.90	+41 43.1	1.762	2.712	6.6	19.7
1 6	6 1.59	+26 9.5	2.115	3.074	4.9	19.7	1 6	5 57.61	+41 56.7	1.808	2.734	8.5	19.9
1 16	5 53.64	+25 54.3	2.157	3.064	8.5	19.9	1 16	5 47.38	+41 49.2	1.880	2.756	11.3	20.1
1 26	5 47.66	+25 37.2	2.223	3.054	11.7	20.1	1 26	5 40.28	+41 26.5	1.976	2.777	14.0	20.3
<b>406927</b>	2009 <i>GE</i> <sub>1</sub>		12 24.6 241°47	5°2/24.4	18		<b>276266</b>	2002 <i>RQ</i> <sub>282</sub>		12 24.6 44°94	4°2/24.4	18	
11 17	6 40.52	+9 53.8	2.288	3.050	13.7	21.4	11 17	6 42.23	+34 51.3	2.287	3.065	13.2	21.0
11 27	6 35.69	+9 2.4	2.187	3.036	11.2	21.2	11 27	6 37.37	+35 28.7	2.205	3.067	10.6	20.8
12 7	6 28.71	+8 17.5	2.109	3.022	8.4	21.0	12 7	6 29.98	+36 0.6	2.145	3.069	7.7	20.6
12 17	6 20.11	+7 41.9	2.058	3.007	6.0	20.8	12 17	6 20.70	+36 22.8	2.112	3.071	5.0	20.5
12 27	6 10.67	+7 17.8	2.035	2.992	5.3	20.8	12 27	6 10.54	+36 32.0	2.108	3.073	4.3	20.4
1 6	6 1.35	+7 6.5	2.042	2.976	7.2	20.8	1 6	6 0.68	+36 27.1	2.133	3.075	6.3	20.6
1 16	5 53.07	+7 7.9	2.077	2.960	10.1	21.0	1 16	5 52.22	+36 9.8	2.186	3.078	9.2	20.8
1 26	5 46.63	+7 20.9	2.137	2.943	12.9	21.2	1 26	5 46.04	+35 43.3	2.264	3.080	12.0	20.9
<b>276795</b>	2004 <i>NT</i> <sub>30</sub>		12 24.6 166°70	2°9/24.9	18		<b>263456</b>	2008 <i>ER</i> <sub>15</sub>		12 24.6 327°88	8°4/23.9	17	
11 17	6 43.90	+14 16.3	2.098	2.869	14.5	21.8	11 17	6 45.41	+41 44.3	1.726	2.505	16.8	20.7
11 27	6 38.41	+14 16.9	2.013	2.874	11.5	21.6	11 27	6 41.31	+42 57.0	1.643	2.496	14.1	20.5
12 7	6 30.55	+14 25.1	1.951	2.879	8.0	21.4	12 7	6 33.45	+44 0.1	1.581	2.487	11.2	20.3
12 17	6 20.91	+14 41.0	1.916	2.883	4.4	21.2	12 17	6 22.51	+44 44.9	1.543	2.478	9.0	20.1
12 27	6 10.43	+15 3.7	1.910	2.886	3.0	21.1	12 27	6 9.94	+45 3.8	1.530	2.470	8.5	20.1
1 6	6 0.22	+15 32.0	1.935	2.889	5.8	21.3	1 6	5 57.69	+44 54.2	1.543	2.462	10.3	20.2
1 16	5 51.29	+16 4.3	1.989	2.891	9.4	21.5	1 16	5 47.56	+44 19.0	1.580	2.454	13.1	20.3
1 26	5 44.48	+16 39.4	2.069	2.892	12.7	21.7	1 26	5 40.92	+43 25.4	1.639	2.448	16.1	20.5
<b>483079</b>	2015 <i>LU</i> <sub>39</sub>		12 24.6 180°96	1°3/24.5	18		<b>175952</b>	2000 <i>GS</i> <sub>166</sub>		12 24.6 185°57	6°7/23.9	18	
11 17	6 45.72	+25 22.5	2.104	2.884	14.2	22.1	11 17	6 47.69	+40 4.4	2.117	2.882	14.6	20.4
11 27	6 40.08	+25 51.8	2.016	2.886	11.1	21.9	11 27	6 42.20	+41 12.5	2.036	2.882	12.0	20.3
12 7	6 31.80	+26 22.1	1.951	2.886	7.4	21.7	12 7	6 33.55	+42 12.7	1.977	2.882	9.4	20.1
12 17	6 21.52	+26 50.1	1.913	2.887	3.5	21.4	12 17	6 22.40	+42 58.1	1.943	2.881	7.2	20.0
12 27	6 10.24	+27 12.9	1.905	2.886	1.7	21.3	12 27	6 10.00	+43 23.0	1.938	2.880	6.8	19.9
1 6	5 59.20	+27 28.7	1.928	2.885	5.5	21.6	1 6	5 57.88	+43 25.2	1.960	2.879	8.4	20.0
1 16	5 49.56	+27 37.6	1.979	2.883	9.3	21.8	1 16	5 47.49	+43 6.7	2.009	2.878	11.0	20.2
1 26	5 42.26	+27 41.3	2.056	2.880	12.7	22.0	1 26	5 39.96	+42 33.0	2.082	2.877	13.6	20.4
<b>518553</b>	2007 <i>DD</i> <sub>28</sub>		12 24.6 274°50	1°5/24.5	18		<b>25877</b>	Katherinexue		12 24.6 262°85	0°3/24.6	18	
11 17	6 44												

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	
<b>440053</b>	2002 <i>QL</i> <sub>140</sub>		12 24.6	99°12	7°9/24.5	18	<b>270094</b>	2001 <i>QO</i> <sub>224</sub>		12 24.6	105°19	1°0/24.6	18	
11 17	6 49.97	+42 57.0	1.894	2.657	16.1	21.3	11 17	6 48.19	+25 32.0	1.750	2.538	16.3	20.9	
11 27	6 44.28	+43 58.6	1.824	2.665	13.4	21.1	11 27	6 42.14	+25 44.8	1.685	2.559	12.7	20.7	
12 7	6 35.03	+44 48.5	1.775	2.673	10.7	21.0	12 7	6 33.17	+25 57.1	1.643	2.580	8.4	20.5	
12 17	6 23.04	+45 18.7	1.750	2.681	8.5	20.8	12 17	6 22.10	+26 5.9	1.626	2.601	3.8	20.3	
12 27	6 9.84	+45 23.4	1.752	2.689	8.0	20.8	12 27	6 10.23	+26 8.8	1.639	2.621	1.5	20.2	
1 6	5 57.23	+45 1.7	1.781	2.696	9.4	20.9	1 6	5 58.98	+26 5.4	1.681	2.640	5.9	20.5	
1 16	5 46.82	+44 17.5	1.836	2.704	11.9	21.1	1 16	5 49.60	+25 56.9	1.751	2.658	10.1	20.8	
1 26	5 39.72	+43 18.1	1.914	2.711	14.6	21.3	1 26	5 42.98	+25 46.0	1.845	2.676	13.6	21.1	
<b>193714</b>	2001 <i>FA</i> <sub>90</sub>		12 24.6	144°06	0°7/24.6	17	<b>452463</b>	2003 <i>UY</i> <sub>287</sub>		12 24.6	31°12	8°2/24.4	18	
11 17	6 40.22	+25 1.2	2.374	3.158	12.6	21.3	11 17	6 40.00	+ 7 12.6	1.581	2.363	18.0	20.9	
11 27	6 35.46	+25 13.7	2.288	3.160	9.8	21.1	11 27	6 35.94	+ 5 47.2	1.512	2.368	14.9	20.7	
12 7	6 28.55	+25 26.3	2.226	3.163	6.6	20.9	12 7	6 29.16	+ 4 33.3	1.463	2.373	11.6	20.5	
12 17	6 20.04	+25 37.1	2.191	3.165	3.0	20.7	12 17	6 20.39	+ 3 36.6	1.438	2.379	9.0	20.4	
12 27	6 10.80	+25 44.6	2.186	3.168	1.2	20.6	12 27	6 10.74	+ 3 1.6	1.439	2.385	8.3	20.4	
1 6	6 1.80	+25 47.9	2.211	3.170	4.7	20.8	1 6	6 1.52	+ 2 49.9	1.466	2.392	10.2	20.5	
1 16	5 53.98	+25 47.5	2.265	3.172	8.2	21.1	1 16	5 53.89	+ 3 0.5	1.517	2.398	13.2	20.7	
1 26	5 48.09	+25 44.6	2.345	3.174	11.2	21.3	1 26	5 48.74	+ 3 29.4	1.590	2.406	16.2	20.9	
<b>307468</b>	2002 <i>WV</i> <sub>21</sub>		12 24.6	52°98	0°6/24.5	18	<b>457289</b>	2008 <i>RU</i> <sub>125</sub>		12 24.6	71°69	4°4/24.9	17	
11 17	6 42.31	+22 4.8	1.782	2.578	15.7	20.2	11 17	6 38.08	+11 5.1	2.243	3.015	13.6	21.2	
11 27	6 37.81	+22 48.4	1.704	2.583	12.3	20.0	11 27	6 33.68	+10 31.3	2.166	3.024	11.0	21.1	
12 7	6 30.50	+23 37.1	1.648	2.589	8.2	19.7	12 7	6 27.29	+10 5.4	2.113	3.033	8.0	20.9	
12 17	6 21.01	+24 27.4	1.619	2.594	3.6	19.5	12 17	6 19.47	+ 9 48.9	2.085	3.041	5.3	20.7	
12 27	6 10.48	+25 15.3	1.618	2.600	1.3	19.3	12 27	6 11.04	+ 9 43.0	2.087	3.050	4.5	20.7	
1 6	6 0.23	+25 57.8	1.646	2.606	5.9	19.6	1 6	6 2.90	+ 9 47.7	2.117	3.059	6.3	20.8	
1 16	5 51.53	+26 33.5	1.702	2.612	10.1	19.9	1 16	5 55.89	+10 2.1	2.175	3.068	9.2	21.0	
1 26	5 45.37	+27 2.6	1.782	2.619	13.8	20.1	1 26	5 50.69	+10 24.7	2.258	3.077	11.9	21.2	
<b>295623</b>	2008 <i>ST</i> <sub>224</sub>		12 24.6	219°13	3°7/24.7	18	<b>6498</b>	Ko		12 24.6	132°62	4°1/25.1	18	R
11 17	6 37.80	+11 57.1	2.664	3.428	11.9	21.4	11 17	6 45.13	+12 31.3	1.758	2.535	16.7	17.5	
11 27	6 33.25	+11 25.1	2.569	3.423	9.6	21.3	11 27	6 39.69	+12 19.2	1.685	2.548	13.3	17.3	
12 7	6 26.92	+10 58.8	2.498	3.417	6.9	21.1	12 7	6 31.55	+12 17.0	1.634	2.560	9.4	17.1	
12 17	6 19.29	+10 39.6	2.454	3.411	4.5	20.9	12 17	6 21.43	+12 25.5	1.608	2.571	5.6	16.9	
12 27	6 11.04	+10 28.6	2.440	3.405	3.8	20.9	12 27	6 10.43	+12 44.5	1.610	2.582	4.2	16.9	
1 6	6 2.95	+10 26.0	2.456	3.398	5.6	21.0	1 6	5 59.86	+13 12.6	1.641	2.592	6.9	17.1	
1 16	5 55.76	+10 31.7	2.501	3.391	8.2	21.1	1 16	5 50.86	+13 47.8	1.700	2.602	10.7	17.3	
1 26	5 50.11	+10 44.7	2.572	3.384	10.8	21.3	1 26	5 44.35	+14 27.9	1.784	2.611	14.2	17.5	
<b>349704</b>	2008 <i>XH</i> <sub>51</sub>		12 24.6	22°42	4°2/24.0	18	<b>294764</b>	2008 <i>CX</i> <sub>29</sub>		12 24.6	165°13	1°6/24.8	18	
11 17	6 40.49	+26 54.6	1.073	1.909	21.2	19.4	11 17	6 41.21	+17 44.3	2.267	3.044	13.3	21.6	
11 27	6 37.99	+28 16.6	1.023	1.923	16.6	19.2	11 27	6 36.24	+17 49.9	2.180	3.048	10.5	21.4	
12 7	6 31.36	+29 41.2	0.992	1.939	11.3	18.9	12 7	6 29.09	+18 0.5	2.117	3.051	7.1	21.2	
12 17	6 21.55	+30 59.4	0.983	1.956	6.1	18.7	12 17	6 20.31	+18 15.3	2.081	3.054	3.5	21.0	
12 27	6 10.35	+32 2.6	0.998	1.975	4.6	18.7	12 27	6 10.78	+18 33.3	2.076	3.056	1.8	20.8	
1 6	5 59.91	+32 45.7	1.038	1.996	8.8	19.0	1 6	6 1.47	+18 53.5	2.100	3.058	5.1	21.1	
1 16	5 52.09	+33 9.4	1.100	2.017	13.7	19.3	1 16	5 53.32	+19 15.0	2.154	3.059	8.6	21.3	
1 26	5 48.11	+33 17.8	1.182	2.040	17.9	19.6	1 26	5 47.12	+19 37.4	2.233	3.061	11.7	21.5	
<b>366330</b>	2013 <i>EE</i> <sub>93</sub>		12 24.6	279°06	7°8/25.3	18	<b>228883</b>	Cliffsimak		12 24.6	81°88	2°8/24.6	18	
11 17	6 38.80	+ 2 52.2	1.946	2.701	16.0	21.0	11 17	6 39.87	+16 28.1	2.189	2.969	13.7	20.1	
11 27	6 34.77	+ 2 12.7	1.851	2.686	13.5	20.8	11 27	6 35.11	+15 54.0	2.113	2.980	10.7	19.9	
12 7	6 28.35	+ 1 47.7	1.777	2.672	10.9	20.6	12 7	6 28.25	+15 23.9	2.060	2.991	7.4	19.7	
12 17	6 20.06	+ 1 41.4	1.727	2.657	8.6	20.4	12 17	6 19.90	+14 58.9	2.034	3.002	4.1	19.5	
12 27	6 10.78	+ 1 56.3	1.703	2.643	7.9	20.3	12 27	6 10.93	+14 39.8	2.037	3.012	3.0	19.4	
1 6	6 1.59	+ 2 32.3	1.707	2.628	9.3	20.4	1 6	6 2.32	+14 27.1	2.070	3.023	5.6	19.6	
1 16	5 53.55	+ 3 27.2	1.736	2.613	12.0	20.5	1 16	5 54.94	+14 21.2	2.132	3.033	8.9	19.9	
1 26	5 47.58	+ 4 36.5	1.789	2.599	14.9	20.7	1 26	5 49.49	+14 21.6	2.219	3.044	11.9	20.1	
<b>161183</b>	2002 <i>TV</i> <sub>122</sub>		12 24.6	163°94	4°8/24.8	18	<b>395219</b>	2010 <i>KN</i> <sub>9</sub>		12 24.6	185°72	5°8/24.3	18	
11 17	6 44.64	+39 16.3	2.505	3.266	12.7	20.1	11 17	6 42.19	+ 8 49.3	2.250	3.006	14.1	21.5	
11 27	6 39.05	+39 37.3	2.420	3.267	10.3	20.0	11 27	6 36.88	+ 7 45.0	2.162	3.006	11.5	21.3	
12 7	6 30.99	+39 49.5	2.358	3.269	7.8	19.8	12 7	6 29.45	+ 6 47.9	2.098	3.006	8.8	21.1	
12 17	6 21.13	+39 48.8	2.322	3.270	5.5	19.7	12 17	6 20.46	+ 6 1.2	2.061	3.005	6.4	21.0	
12 27	6 10.49	+39 32.7	2.315	3.271	4.9	19.6	12 27	6 10.76	+ 5 27.7	2.053	3.003	5.8	20.9	
1 6	6 0.26	+39 1.0	2.338	3.271	6.4	19.7	1 6	6 1.30	+ 5 8.8	2.074	3.001	7.6	21.0	
1 16	5 51.47	+38 16.4	2.389	3.272	8.9	19.9	1 16	5 53.00	+ 5 4.4	2.123	2.998	10.2	21.2	
1 26	5 44.95	+37 23.1	2.466	3.273	11.4	20.0	1 26	5 46.58	+ 5 13.1	2.197	2.995	12.9	21.4	
<b>91383</b>	1999 <i>JR</i> <sub>116</sub>		12 24.6	290°38	1°9/24.6	18	<b>270010</b>	2001 <i>DD</i> <sub>73</sub>		12 24.6	197°45	4°9/25.2	18	
11 17	6 41.97	+20 19.9	1.609	2.411	16.9	19.4	11 17	6 37.39	+ 4 39.7	3.082	3.816	11.1	21.4	
11 27	6 37.91	+19 52.9	1.516	2.397	13.4	19.2	11 27	6 32.67	+ 4 17.2	2.987	3.813	9.2	21.3	
12 7	6 30.79	+19 27.8	1.444	2.384	9.1	18.9	12 7	6 26.43	+ 4 3.9	2.916	3.809	7.2	21.2	
12 17	6 21.23	+19 4.6	1.396	2.370	4.4	18.6	12 17	6 19.08	+ 4 1.3	2.872	3.804	5.5	21.0	
12 27	6 10.42	+18 43.8	1.376	2.356	2.3	18.4	12 27	6 11.19	+ 4 10.4	2.857	3.799	4.9	21.0	
1 6	5 59.82	+18 26.1	1.383	2.343	6.8	18.7	1 6	6 3.42	+ 4 31.0	2.873	3.793	6.0	21.1	
1 16	5 50.84	+18 12.9	1.417	2.330	11.6	18.9	1 16	5 56.41	+ 5 1.9	2.917	3.787	7.9	21.2	
1 26	5 44.60	+18 5.1	1.474	2.316	15.8	19.1	1 26	5 50.69	+ 5 41.2	2.988	3.780	10.0	21.3	
<b>381350</b>	2008 <i>CV</i> <sub>159</sub>		12 24.6	241°64	4°3/24.6	18	<b>24776</b>	1993 <i>FR</i> <sub>43</sub>		12 24.6	6°92	3°8/24		

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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>126190</b>	2002 <i>AK</i> <sub>22</sub>	12 24.6 295°32		4.4/24.1 18			<b>233445</b>	2006 <i>HT</i> <sub>102</sub>	12 24.7 301°47		4.9/24.5 18		
11 17	6 43.97	+30 47.8	1.609	2.410	16.9	19.5	11 17	6 37.56	+11 17.8	2.150	2.926	14.0	20.4
11 27	6 40.08	+31 45.2	1.513	2.392	13.6	19.3	11 27	6 33.62	+10 29.4	2.049	2.909	11.4	20.2
12 7	6 32.66	+32 42.5	1.439	2.374	9.6	19.0	12 7	6 27.51	+9 47.2	1.971	2.891	8.5	20.0
12 17	6 22.26	+33 33.3	1.389	2.356	5.8	18.7	12 17	6 19.71	+9 13.9	1.918	2.874	5.8	19.8
12 27	6 10.14	+34 11.0	1.366	2.338	4.7	18.6	12 27	6 11.04	+8 51.6	1.894	2.856	5.0	19.7
1 6	5 58.02	+34 31.4	1.370	2.321	8.1	18.8	1 6	6 2.48	+8 41.6	1.899	2.839	7.1	19.8
1 16	5 47.68	+34 34.7	1.400	2.303	12.4	19.0	1 16	5 54.98	+8 43.8	1.930	2.822	10.2	19.9
1 26	5 40.53	+34 24.8	1.452	2.286	16.5	19.2	1 26	5 49.36	+8 57.2	1.986	2.805	13.3	20.1
<b>202086</b>	2004 <i>TZ</i>	12 24.6 51°58		3.2/24.4 18			<b>276279</b>	2002 <i>SH</i> <sub>72</sub>	12 24.7 54°04		2.5/24.8 17		
11 17	6 47.32	+27 47.2	1.316	2.126	19.5	19.9	11 17	6 38.36	+16 22.8	2.207	2.990	13.5	21.3
11 27	6 42.36	+28 38.4	1.269	2.154	15.2	19.7	11 27	6 34.02	+16 4.0	2.128	2.998	10.6	21.1
12 7	6 33.73	+29 28.4	1.241	2.182	10.2	19.5	12 7	6 27.59	+15 50.1	2.073	3.005	7.3	20.9
12 17	6 22.44	+30 10.9	1.238	2.210	5.2	19.3	12 17	6 19.66	+15 41.4	2.044	3.013	4.0	20.7
12 27	6 10.19	+30 40.3	1.261	2.239	3.5	19.3	12 27	6 11.08	+15 38.2	2.044	3.021	2.7	20.6
1 6	5 58.85	+30 54.9	1.310	2.268	7.5	19.6	1 6	6 2.80	+15 40.5	2.074	3.028	5.4	20.8
1 16	5 49.96	+30 56.7	1.386	2.297	11.9	19.9	1 16	5 55.69	+15 47.8	2.132	3.036	8.7	21.0
1 26	5 44.51	+30 49.9	1.483	2.326	15.8	20.2	1 26	5 50.46	+15 59.6	2.215	3.045	11.7	21.3
<b>333325</b>	2001 <i>QW</i> <sub>148</sub>	12 24.6 66°68		1.7/24.6 18			<b>344406</b>	2002 <i>AS</i> <sub>107</sub>	12 24.7 275°67		0.2/24.7 18		
11 17	6 47.93	+26 21.4	1.403	2.207	18.8	20.5	11 17	6 42.58	+22 1.3	1.710	2.508	16.2	21.2
11 27	6 42.54	+26 43.0	1.350	2.233	14.6	20.3	11 27	6 38.36	+22 10.8	1.614	2.494	12.8	21.0
12 7	6 33.70	+27 3.8	1.317	2.258	9.7	20.1	12 7	6 31.13	+22 23.7	1.539	2.480	8.6	20.7
12 17	6 22.40	+27 19.7	1.309	2.283	4.5	19.9	12 17	6 21.46	+22 38.3	1.490	2.465	3.9	20.4
12 27	6 10.21	+27 27.2	1.328	2.309	2.2	19.8	12 27	6 10.49	+22 52.2	1.469	2.451	1.2	20.2
1 6	5 58.88	+27 25.8	1.374	2.334	6.8	20.1	1 6	5 59.64	+23 4.1	1.476	2.437	6.3	20.5
1 16	5 49.85	+27 17.3	1.446	2.359	11.4	20.5	1 16	5 50.30	+23 13.6	1.509	2.422	11.0	20.7
1 26	5 44.08	+27 5.1	1.542	2.384	15.3	20.8	1 26	5 43.64	+23 21.8	1.567	2.408	15.1	20.9
<b>511879</b>	2015 <i>GP</i> <sub>38</sub>	12 24.6 111°10		2.5/24.9 18			<b>460703</b>	2014 <i>UK</i> <sub>214</sub>	12 24.7 48°14		4.2/25.4 18		
11 17	6 45.42	+15 51.4	1.624	2.412	17.3	21.1	11 17	6 38.47	+9 54.0	2.051	2.825	14.7	20.2
11 27	6 40.19	+16 0.2	1.554	2.426	13.6	20.9	11 27	6 34.22	+9 54.4	1.977	2.835	11.8	20.1
12 7	6 32.03	+16 17.8	1.505	2.440	9.3	20.6	12 7	6 27.79	+10 6.1	1.925	2.846	8.6	19.9
12 17	6 21.69	+16 43.5	1.482	2.453	4.8	20.4	12 17	6 19.78	+10 29.7	1.899	2.858	5.5	19.7
12 27	6 10.40	+17 15.3	1.487	2.466	2.7	20.3	12 27	6 11.07	+11 4.7	1.901	2.869	4.3	19.7
1 6	5 59.57	+17 50.9	1.520	2.478	6.5	20.6	1 6	6 2.65	+11 49.3	1.933	2.881	6.3	19.8
1 16	5 50.48	+18 28.4	1.581	2.490	10.8	20.9	1 16	5 55.44	+12 40.8	1.992	2.893	9.4	20.0
1 26	5 44.09	+19 6.5	1.666	2.502	14.6	21.1	1 26	5 50.20	+13 36.5	2.076	2.905	12.4	20.2
<b>463829</b>	2014 <i>TU</i> <sub>55</sub>	12 24.6 37°79		4.4/24.1 16			<b>495187</b>	2012 <i>VO</i> <sub>76</sub>	12 24.7 308°68		4.7/17.0 17		
11 17	6 42.39	+32 46.8	1.936	2.726	14.9	20.9	11 17	6 52.60	-19 24.7	0.344	1.186	47.8	21.0
11 27	6 37.88	+33 47.0	1.867	2.737	11.8	20.8	11 27	6 52.87	-38 55.8	0.353	1.152	54.0	21.1
12 7	6 30.54	+34 43.4	1.820	2.749	8.4	20.6	12 7	6 46.50	-54 40.2	0.394	1.117	60.5	21.5
12 17	6 21.06	+35 30.6	1.800	2.762	5.4	20.4	12 17	6 31.69	-65 50.0	0.449	1.084	65.2	21.8
12 27	6 10.59	+36 3.8	1.808	2.775	4.6	20.4	12 27	6 5.71	-73 28.2	0.507	1.051	68.2	22.1
1 6	6 0.50	+36 21.1	1.844	2.788	6.9	20.6	1 6	5 22.53	-78 44.6	0.559	1.022	70.1	22.3
1 16	5 52.04	+36 23.5	1.906	2.801	10.1	20.8	1 16	4 7.58	-82 16.8	0.598	0.995	71.3	22.5
1 26	5 46.17	+36 14.4	1.993	2.815	13.1	21.0	1 26	2 1.68	-83 59.0	0.623	0.974	72.4	22.5
<b>55026</b>	2001 <i>QG</i> <sub>41</sub>	12 24.6 41°84		1.3/24.6 18			<b>40194</b>	1998 <i>RG</i> <sub>78</sub>	12 24.7 178°59		3.2/24.9 18		
11 17	6 44.18	+25 57.8	1.271	2.089	19.6	18.9	11 17	6 38.53	+11 47.6	2.871	3.629	11.3	20.1
11 27	6 40.11	+26 6.1	1.211	2.102	15.3	18.7	11 27	6 33.68	+11 34.5	2.779	3.630	9.0	19.9
12 7	6 32.37	+26 13.8	1.171	2.115	10.2	18.4	12 7	6 27.18	+11 27.8	2.712	3.631	6.5	19.8
12 17	6 21.91	+26 17.4	1.154	2.130	4.7	18.2	12 17	6 19.47	+11 28.1	2.673	3.632	4.1	19.6
12 27	6 10.35	+26 14.3	1.162	2.144	1.9	18.0	12 27	6 11.20	+11 35.7	2.665	3.632	3.3	19.6
1 6	5 59.55	+26 4.1	1.197	2.160	7.2	18.4	1 6	6 3.10	+11 50.1	2.687	3.632	5.0	19.7
1 16	5 51.10	+25 49.1	1.257	2.175	12.2	18.7	1 16	5 55.84	+12 10.6	2.738	3.631	7.5	19.8
1 26	5 46.03	+25 32.4	1.338	2.192	16.5	19.0	1 26	5 50.03	+12 36.1	2.817	3.629	10.0	20.0
<b>482857</b>	2014 <i>DW</i> <sub>72</sub>	12 24.6 318°94		2.0/24.4 18			<b>54176</b>	2000 <i>HO</i> <sub>61</sub>	12 24.7 333°02		1.7/24.5 18		
11 17	6 41.78	+25 22.5	1.432	2.246	18.0	21.2	11 17	6 40.55	+24 23.7	1.277	2.101	19.2	18.6
11 27	6 38.40	+26 0.7	1.346	2.234	14.2	20.9	11 27	6 37.81	+25 2.5	1.196	2.090	15.2	18.3
12 7	6 31.51	+26 42.3	1.280	2.223	9.7	20.6	12 7	6 31.34	+25 46.4	1.133	2.079	10.3	18.0
12 17	6 21.72	+27 22.9	1.237	2.212	4.6	20.3	12 17	6 21.75	+26 30.8	1.093	2.069	4.8	17.7
12 27	6 10.34	+27 57.4	1.221	2.202	2.5	20.1	12 27	6 10.46	+27 10.3	1.079	2.060	2.3	17.5
1 6	5 59.13	+28 22.5	1.231	2.192	7.3	20.4	1 6	5 59.36	+27 41.0	1.090	2.052	7.7	17.8
1 16	5 49.79	+28 37.5	1.267	2.183	12.4	20.6	1 16	5 50.31	+28 1.8	1.125	2.045	13.2	18.1
1 26	5 43.68	+28 44.7	1.325	2.174	16.9	20.9	1 26	5 44.74	+28 14.6	1.181	2.039	17.9	18.3
<b>160670</b>	2000 <i>AB</i> <sub>215</sub>	12 24.7 108°39		0.5/24.6 18			<b>333795</b>	2011 <i>HE</i> <sub>10</sub>	12 24.7 221°03		2.6/24.9 18		
11 17	6 47.45	+23 21.5	1.606	2.400	17.3	19.7	11 17	6 37.41	+14 9.0	2.721	3.490	11.6	21.3
11 27	6 41.80	+23 3.9	1.537	2.415	13.5	19.5	11 27	6 32.99	+14 1.7	2.625	3.485	9.2	21.1
12 7	6 33.08	+22 46.4	1.490	2.429	9.0	19.3	12 7	6 26.82	+14 0.1	2.554	3.480	6.4	20.9
12 17	6 22.13	+22 27.6	1.468	2.443	4.0	19.0	12 17	6 19.35	+14 4.4	2.510	3.475	3.7	20.8
12 27	6 10.31	+22 7.0	1.474	2.457	1.3	18.9	12 27	6 11.24	+14 14.7	2.496	3.470	2.7	20.7
1 6	5 59.13	+21 45.5	1.509	2.470	6.3	19.2	1 6	6 3.28	+14 30.4	2.513	3.464	4.8	20.8
1 16	5 49.90	+21 24.8	1.572	2.483	10.8	19.5	1 16	5 56.19	+14 50.7	2.559	3.458	7.7	21.0
1 26	5 43.55	+21 7.0	1.658	2.495	14.6	19.8	1 26	5 50.60	+15 14.9	2.631	3.453	10.3	21.2
<b>450371</b>	2005 <i>EF</i> <sub>286</sub>	12 24.7 273°84		5.8/24.9 18			<b>64442</b>	2001 <i>VJ</i> <sub>24</sub>	12 24.7 210°14		2.1/24.6 18		
11 17	6 48.76	+43 40											

EPHEMERIDES

12 24.7

12 24.7

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>165130</b>	2000 <i>KP</i> <sub>54</sub>		12 24.7 211°89	5°8/25.2	18		<b>13027</b>	Geeraerts		12 24.7 299°24	1°5/24.7	18	
11 17	6 36.58	+ 3 25.2	2.739	3.478	12.2	20.9	11 17	6 41.24	+20 37.9	1.677	2.477	16.4	17.7
11 27	6 32.28	+ 2 52.4	2.649	3.474	10.2	20.8	11 27	6 37.25	+20 19.9	1.584	2.465	12.9	17.4
12 7	6 26.30	+ 2 30.2	2.581	3.470	8.1	20.6	12 7	6 30.34	+20 4.2	1.513	2.454	8.8	17.1
12 17	6 19.11	+ 2 20.8	2.540	3.466	6.4	20.5	12 17	6 21.12	+19 50.5	1.467	2.442	4.2	16.8
12 27	6 11.33	+ 2 25.7	2.527	3.462	5.9	20.5	12 27	6 10.72	+19 38.7	1.449	2.430	1.9	16.7
1 6	6 3.69	+ 2 44.7	2.542	3.458	6.9	20.5	1 6	6 0.53	+19 28.9	1.459	2.419	6.4	16.9
1 16	5 56.89	+ 3 16.7	2.586	3.453	8.9	20.7	1 16	5 51.89	+19 21.9	1.495	2.408	11.0	17.2
1 26	5 51.52	+ 3 59.1	2.655	3.448	11.1	20.8	1 26	5 45.87	+19 18.7	1.554	2.397	15.1	17.4
<b>90903</b>	1997 <i>EH</i> <sub>9</sub>		12 24.7 172°22	0°1/24.7	18		<b>305196</b>	2007 <i>VM</i> <sub>326</sub>		12 24.7 28°94	2°7/24.1	18	
11 17	6 40.60	+22 44.8	2.290	3.074	13.0	20.4	11 17	6 43.33	+24 28.6	1.464	2.273	17.9	20.0
11 27	6 35.86	+22 49.8	2.203	3.075	10.2	20.2	11 27	6 39.36	+25 51.9	1.396	2.282	14.0	19.8
12 7	6 28.90	+22 56.2	2.139	3.076	6.8	20.0	12 7	6 31.98	+27 21.2	1.349	2.291	9.4	19.6
12 17	6 20.32	+23 2.5	2.102	3.077	3.0	19.8	12 17	6 21.91	+28 49.8	1.327	2.301	4.7	19.3
12 27	6 10.96	+23 7.6	2.095	3.077	0.9	19.6	12 27	6 10.48	+30 9.8	1.333	2.312	3.2	19.3
1 6	6 1.85	+23 10.9	2.118	3.078	4.8	19.9	1 6	5 59.40	+31 15.7	1.366	2.323	7.3	19.5
1 16	5 53.93	+23 12.5	2.170	3.078	8.4	20.1	1 16	5 50.27	+32 5.4	1.426	2.335	11.8	19.8
1 26	5 47.97	+23 13.3	2.248	3.078	11.5	20.3	1 26	5 44.27	+32 40.8	1.508	2.347	15.7	20.1
<b>263449</b>	2008 <i>EY</i> <sub>1</sub>		12 24.7 299°57	0°9/24.7	17		<b>416101</b>	2002 <i>PO</i> <sub>40</sub>		12 24.7 100°56	3°5/24.7	17	
11 17	6 40.77	+21 8.0	1.946	2.739	14.7	21.6	11 17	6 44.72	+35 33.6	2.712	3.474	11.8	21.3
11 27	6 36.37	+21 0.0	1.859	2.736	11.5	21.3	11 27	6 38.70	+35 56.9	2.644	3.497	9.4	21.2
12 7	6 29.45	+20 54.4	1.794	2.733	7.7	21.1	12 7	6 30.56	+36 13.8	2.600	3.519	6.7	21.0
12 17	6 20.61	+20 50.2	1.755	2.730	3.6	20.8	12 17	6 20.97	+36 21.2	2.584	3.541	4.3	20.9
12 27	6 10.87	+20 46.8	1.745	2.727	1.4	20.7	12 27	6 10.82	+36 16.9	2.599	3.563	3.6	20.9
1 6	6 1.39	+20 43.9	1.764	2.724	5.5	21.0	1 6	6 1.11	+36 1.0	2.644	3.584	5.3	21.0
1 16	5 53.28	+20 42.0	1.810	2.721	9.6	21.2	1 16	5 52.71	+35 35.4	2.718	3.605	7.8	21.2
1 26	5 47.43	+20 41.7	1.882	2.718	13.2	21.4	1 26	5 46.31	+35 3.1	2.818	3.626	10.1	21.4
<b>177593</b>	2004 <i>GR</i> <sub>39</sub>		12 24.7 228°95	4°9/24.4	17		<b>349716</b>	2008 <i>YO</i> <sub>26</sub>		12 24.7 28°01	1°5/24.6	18	
11 17	6 46.07	+36 53.3	2.284	3.052	13.5	21.1	11 17	6 41.92	+22 55.8	1.241	2.063	19.7	19.5
11 27	6 40.59	+37 31.2	2.190	3.044	11.0	20.9	11 27	6 38.22	+22 12.7	1.183	2.076	15.4	19.3
12 7	6 32.34	+38 2.7	2.118	3.035	8.2	20.7	12 7	6 31.04	+21 29.3	1.144	2.090	10.3	19.1
12 17	6 21.94	+38 22.6	2.073	3.026	5.6	20.5	12 17	6 21.34	+20 46.2	1.129	2.104	4.7	18.8
12 27	6 10.45	+38 26.9	2.057	3.016	5.0	20.5	12 27	6 10.71	+20 4.8	1.138	2.120	2.0	18.7
1 6	5 59.20	+38 14.3	2.070	3.007	6.9	20.6	1 6	6 0.89	+19 27.4	1.174	2.137	7.2	19.0
1 16	5 49.42	+37 46.9	2.111	2.996	9.8	20.7	1 16	5 53.31	+18 56.5	1.235	2.155	12.3	19.4
1 26	5 42.10	+37 8.7	2.177	2.986	12.6	20.9	1 26	5 48.93	+18 33.7	1.317	2.174	16.5	19.7
<b>460639</b>	2014 <i>UE</i> <sub>113</sub>		12 24.7 48°73	1°7/24.6	17		<b>371478</b>	2006 <i>TB</i> <sub>33</sub>		12 24.7 16°75	5°1/24.7	18	
11 17	6 39.62	+19 59.1	2.203	2.989	13.4	21.4	11 17	6 41.59	+14 34.6	1.285	2.096	19.8	20.2
11 27	6 35.03	+19 28.4	2.121	2.994	10.5	21.2	11 27	6 37.98	+13 46.4	1.215	2.098	15.9	20.0
12 7	6 28.29	+18 59.3	2.063	2.999	7.1	21.0	12 7	6 30.99	+13 6.3	1.164	2.100	11.3	19.7
12 17	6 20.01	+18 32.0	2.031	3.004	3.5	20.8	12 17	6 21.41	+12 37.5	1.136	2.103	6.8	19.5
12 27	6 11.07	+18 7.2	2.029	3.009	1.9	20.7	12 27	6 10.66	+12 22.2	1.133	2.106	5.3	19.4
1 6	6 2.46	+17 45.7	2.057	3.014	5.2	20.9	1 6	6 0.39	+12 21.2	1.156	2.110	8.7	19.6
1 16	5 55.08	+17 28.4	2.113	3.020	8.7	21.1	1 16	5 52.12	+12 33.5	1.202	2.114	13.3	19.9
1 26	5 49.65	+17 15.9	2.195	3.025	11.8	21.3	1 26	5 46.95	+12 57.1	1.270	2.119	17.5	20.2
<b>215662</b>	2003 <i>UG</i> <sub>188</sub>		12 24.7 50°99	7°0/24.1	18		<b>340158</b>	2005 <i>YD</i> <sub>100</sub>		12 24.7 357°19	2°1/24.6	18	
11 17	6 47.54	+36 57.4	1.541	2.334	17.9	19.5	11 17	6 37.67	+26 33.4	1.105	1.944	20.6	20.4
11 27	6 42.80	+38 14.7	1.482	2.349	14.5	19.3	11 27	6 35.89	+26 51.7	1.036	1.938	16.2	20.1
12 7	6 34.29	+39 24.2	1.443	2.364	10.9	19.1	12 7	6 30.15	+27 9.9	0.985	1.934	11.0	19.8
12 17	6 22.88	+40 17.0	1.429	2.380	7.8	19.0	12 17	6 21.21	+27 23.9	0.956	1.932	5.2	19.5
12 27	6 10.19	+40 46.2	1.440	2.396	7.2	19.0	12 27	6 10.70	+27 29.7	0.949	1.931	2.6	19.3
1 6	5 58.15	+40 49.8	1.478	2.412	9.3	19.2	1 6	6 0.70	+27 26.0	0.967	1.932	8.0	19.6
1 16	5 48.45	+40 31.3	1.541	2.429	12.6	19.4	1 16	5 53.07	+27 14.3	1.008	1.934	13.6	19.9
1 26	5 42.25	+39 57.4	1.626	2.446	15.7	19.7	1 26	5 49.14	+26 58.2	1.068	1.938	18.4	20.2
<b>271317</b>	2003 <i>WG</i> <sub>5</sub>		12 24.7 16°57	2°4/24.6	17		<b>158843</b>	2004 <i>NG</i>		12 24.7 81°91	1°1/24.6	18	
11 17	6 39.43	+28 42.2	1.674	2.481	16.1	20.4	11 17	6 47.68	+25 36.9	1.609	2.403	17.2	20.0
11 27	6 35.81	+29 3.5	1.604	2.488	12.6	20.2	11 27	6 41.99	+25 50.2	1.550	2.427	13.4	19.9
12 7	6 29.27	+29 22.3	1.555	2.495	8.6	19.9	12 7	6 33.21	+26 3.1	1.512	2.451	8.9	19.6
12 17	6 20.56	+29 35.2	1.532	2.504	4.4	19.7	12 17	6 22.24	+26 12.2	1.500	2.475	4.0	19.4
12 27	6 10.91	+29 39.3	1.535	2.514	2.7	19.6	12 27	6 10.46	+26 15.2	1.516	2.498	1.6	19.3
1 6	6 1.72	+29 34.0	1.566	2.525	6.3	19.9	1 6	5 59.40	+26 11.7	1.561	2.521	6.2	19.7
1 16	5 54.26	+29 20.8	1.623	2.536	10.4	20.1	1 16	5 50.34	+26 3.0	1.633	2.544	10.5	20.0
1 26	5 49.47	+29 2.5	1.704	2.548	14.0	20.4	1 26	5 44.19	+25 51.8	1.729	2.566	14.2	20.2
<b>435035</b>	2006 <i>VF</i> <sub>152</sub>		12 24.7 54°44	5°7/24.7	18		<b>327708</b>	2006 <i>SW</i> <sub>54</sub>		12 24.7 106°82	3°5/25.1	18	
11 17	6 43.26	+13 31.9	1.307	2.112	19.9	21.0	11 17	6 46.25	+13 49.4	1.580	2.365	17.9	21.2
11 27	6 39.00	+12 32.5	1.246	2.124	15.9	20.8	11 27	6 40.85	+13 48.2	1.514	2.383	14.2	21.0
12 7	6 31.47	+11 42.3	1.204	2.136	11.4	20.6	12 7	6 32.50	+13 57.4	1.469	2.400	9.9	20.8
12 17	6 21.54	+11 4.6	1.184	2.148	7.2	20.4	12 17	6 21.97	+14 17.1	1.449	2.417	5.5	20.6
12 27	6 10.63	+10 42.5	1.191	2.160	5.9	20.3	12 27	6 10.54	+14 45.9	1.457	2.433	3.7	20.5
1 6	6 0.36	+10 36.7	1.223	2.173	8.9	20.5	1 6	5 59.64	+15 21.6	1.493	2.449	7.0	20.7
1 16	5 52.14	+10 46.1	1.280	2.186	13.1	20.8	1 16	5 50.53	+16 1.9	1.557	2.464	11.1	21.0
1 26	5 46.94	+11 8.3	1.358	2.199	17.0	21.1	1 26	5 44.17	+16 44.9	1.644	2.479	14.9	21.3
<b>403456</b>	2009 <i>SC</i> <sub>319</sub>		12 24.7 45°28	2°5/24.9	18		<b>353484</b>	2011 <i>SY</i> <sub>57</sub>		12 24.7 36°47	1°5/24.		

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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>265092</b>	2003 <i>SJ</i> <sub>277</sub>		12 24.7 129°15	2°5/24.7 18			<b>224021</b>	2005 <i>KT</i> <sub>2</sub>		12 24.7 91°90	1°9/24.8 18		
11 17	6 42.83	+31 34.6	2.518	3.292	12.3	20.5	11 17	6 48.44	+18 11.2	1.622	2.409	17.4	21.6
11 27	6 37.44	+31 46.1	2.436	3.300	9.6	20.4	11 27	6 42.33	+18 7.8	1.566	2.437	13.6	21.4
12 7	6 29.87	+31 53.2	2.379	3.308	6.7	20.2	12 7	6 33.33	+18 10.1	1.530	2.465	9.1	21.2
12 17	6 20.73	+31 53.3	2.349	3.316	3.7	20.0	12 17	6 22.30	+18 17.1	1.520	2.493	4.4	21.0
12 27	6 10.94	+31 44.6	2.349	3.324	2.6	19.9	12 27	6 10.55	+18 27.5	1.539	2.520	2.2	20.9
1 6	6 1.49	+31 27.0	2.380	3.332	5.0	20.1	1 6	5 59.51	+18 40.3	1.587	2.546	6.3	21.2
1 16	5 53.31	+31 2.3	2.440	3.339	8.0	20.3	1 16	5 50.38	+18 54.9	1.663	2.571	10.5	21.5
1 26	5 47.12	+30 32.9	2.526	3.346	10.7	20.5	1 26	5 44.00	+19 11.3	1.763	2.596	14.1	21.8
<b>319692</b>	2006 <i>TJ</i> <sub>105</sub>		12 24.7 160°97	0°9/24.6 18			<b>367021</b>	2006 <i>BW</i> <sub>134</sub>		12 24.7 197°21	3°2/24.7 17		
11 17	6 48.08	+24 35.8	1.893	2.675	15.5	21.9	11 17	6 43.18	+33 12.0	2.325	3.102	13.1	21.7
11 27	6 42.15	+24 56.4	1.812	2.683	12.1	21.7	11 27	6 38.05	+33 28.2	2.237	3.101	10.4	21.5
12 7	6 33.36	+25 18.0	1.753	2.689	8.1	21.4	12 7	6 30.48	+33 39.1	2.173	3.100	7.3	21.3
12 17	6 22.40	+25 37.6	1.721	2.695	3.7	21.2	12 17	6 21.09	+33 41.2	2.135	3.099	4.4	21.1
12 27	6 10.43	+25 52.2	1.718	2.700	1.4	21.0	12 27	6 10.88	+33 32.2	2.126	3.098	3.3	21.0
1 6	5 58.81	+26 0.7	1.745	2.704	5.8	21.3	1 6	6 0.98	+33 11.9	2.148	3.097	5.7	21.2
1 16	5 48.83	+26 3.4	1.801	2.707	10.0	21.6	1 16	5 52.45	+32 42.2	2.197	3.096	8.8	21.4
1 26	5 41.46	+26 2.3	1.882	2.710	13.6	21.8	1 26	5 46.12	+32 6.4	2.273	3.095	11.7	21.6
<b>462997</b>	2011 <i>FQ</i> <sub>75</sub>		12 24.7 272°20	0°0/24.6 18			<b>134382</b>	1996 <i>CX</i> <sub>5</sub>		12 24.7 268°27	4°4/24.8 17		
11 17	6 39.41	+23 9.3	2.369	3.154	12.6	21.9	11 17	6 46.58	+35 23.2	1.916	2.697	15.3	19.7
11 27	6 34.98	+23 13.2	2.271	3.144	9.9	21.7	11 27	6 41.43	+35 37.8	1.821	2.685	12.4	19.5
12 7	6 28.40	+23 18.1	2.196	3.134	6.6	21.5	12 7	6 33.14	+35 44.4	1.748	2.673	9.0	19.3
12 17	6 20.16	+23 22.8	2.148	3.123	3.0	21.2	12 17	6 22.40	+35 38.2	1.700	2.661	5.7	19.0
12 27	6 11.10	+23 26.1	2.130	3.113	0.9	21.1	12 27	6 10.47	+35 15.5	1.680	2.649	4.5	18.9
1 6	6 2.18	+23 27.4	2.142	3.102	4.7	21.3	1 6	5 58.87	+34 36.3	1.689	2.637	7.1	19.1
1 16	5 54.35	+23 26.9	2.183	3.092	8.3	21.5	1 16	5 49.03	+33 43.9	1.725	2.625	10.7	19.3
1 26	5 48.40	+23 25.5	2.250	3.081	11.5	21.7	1 26	5 42.02	+32 43.9	1.786	2.612	14.2	19.5
<b>280735</b>	2005 <i>JB</i> <sub>92</sub>		12 24.7 321°57	6°6/23.5 16			<b>493081</b>	2014 <i>SX</i> <sub>314</sub>		12 24.7 25°10	2°2/24.4 17		
11 17	6 38.48	+10 35.6	1.956	2.735	15.1	20.2	11 17	6 40.78	+27 47.0	2.044	2.836	14.1	21.3
11 27	6 34.58	+9 2.2	1.856	2.715	12.5	20.0	11 27	6 36.44	+28 22.9	1.964	2.839	11.1	21.1
12 7	6 28.29	+7 32.4	1.779	2.695	9.6	19.7	12 7	6 29.55	+28 58.4	1.906	2.843	7.5	20.9
12 17	6 20.17	+6 11.1	1.728	2.675	7.2	19.6	12 17	6 20.73	+29 29.8	1.875	2.847	3.8	20.7
12 27	6 11.09	+5 3.0	1.705	2.656	6.8	19.5	12 27	6 11.00	+29 54.0	1.873	2.851	2.5	20.6
1 6	6 2.15	+4 11.9	1.710	2.637	8.8	19.6	1 6	6 1.53	+30 9.3	1.899	2.856	5.7	20.8
1 16	5 54.39	+3 39.7	1.740	2.619	11.9	19.7	1 16	5 53.46	+30 16.0	1.954	2.860	9.3	21.1
1 26	5 48.69	+3 25.8	1.794	2.602	15.0	19.9	1 26	5 47.68	+30 15.8	2.033	2.865	12.5	21.3
<b>229010</b>	2003 <i>XJ</i> <sub>26</sub>		12 24.7 313°60	0°9/24.8 18			<b>420630</b>	2012 <i>HE</i> <sub>76</sub>		12 24.7 172°16	4°1/24.9 17		
11 17	6 38.50	+18 59.5	2.174	2.962	13.5	20.2	11 17	6 38.00	+9 12.3	2.904	3.655	11.3	22.5
11 27	6 34.47	+19 20.7	2.079	2.953	10.6	20.0	11 27	6 33.26	+8 43.5	2.815	3.658	9.2	22.4
12 7	6 28.17	+19 47.5	2.006	2.943	7.2	19.8	12 7	6 26.91	+8 21.7	2.751	3.661	6.8	22.2
12 17	6 20.10	+20 18.7	1.960	2.934	3.3	19.5	12 17	6 19.42	+8 8.3	2.714	3.663	4.8	22.1
12 27	6 11.11	+20 52.2	1.943	2.925	1.3	19.4	12 27	6 11.41	+8 4.2	2.707	3.664	4.1	22.1
1 6	6 2.23	+21 26.4	1.956	2.916	5.1	19.6	1 6	6 3.57	+8 9.5	2.731	3.665	5.5	22.1
1 16	5 54.46	+21 59.7	1.998	2.908	8.9	19.8	1 16	5 56.57	+8 23.4	2.783	3.666	7.8	22.3
1 26	5 48.65	+22 31.5	2.064	2.900	12.2	20.0	1 26	5 50.97	+8 44.8	2.862	3.667	10.1	22.5
<b>268761</b>	2006 <i>SN</i> <sub>5</sub>		12 24.7 21°39	3°8/24.5 18			<b>289763</b>	2005 <i>JC</i> <sub>76</sub>		12 24.7 152°41	2°2/24.5 18		
11 17	6 40.87	+28 12.8	0.970	1.813	22.5	19.7	11 17	6 48.23	+27 26.5	1.751	2.539	16.3	22.0
11 27	6 38.72	+28 58.0	0.919	1.822	17.6	19.4	11 27	6 42.61	+27 58.3	1.673	2.546	12.8	21.8
12 7	6 32.12	+29 42.3	0.885	1.833	12.0	19.2	12 7	6 33.86	+28 29.6	1.617	2.553	8.7	21.6
12 17	6 22.07	+30 18.4	0.872	1.846	6.3	18.9	12 17	6 22.70	+28 55.9	1.586	2.559	4.3	21.3
12 27	6 10.55	+30 39.9	0.881	1.860	4.2	18.8	12 27	6 10.42	+29 13.3	1.585	2.564	2.5	21.2
1 6	5 59.93	+30 44.6	0.914	1.876	8.9	19.2	1 6	5 58.54	+29 20.1	1.613	2.569	6.4	21.5
1 16	5 52.18	+30 35.1	0.969	1.893	14.3	19.5	1 16	5 48.48	+29 17.4	1.668	2.574	10.6	21.7
1 26	5 48.52	+30 16.9	1.043	1.911	18.9	19.9	1 26	5 41.29	+29 8.4	1.747	2.577	14.3	22.0
<b>159033</b>	2004 <i>TP</i> <sub>68</sub>		12 24.7 146°31	2°2/24.4 18			<b>139741</b>	2001 <i>QA</i> <sub>266</sub>		12 24.7 65°20	0°9/24.6 18		
11 17	6 46.18	+26 41.5	1.883	2.670	15.4	20.6	11 17	6 43.74	+23 35.7	1.878	2.669	15.2	19.5
11 27	6 40.83	+27 25.5	1.803	2.676	12.0	20.3	11 27	6 38.64	+22 54.1	1.797	2.673	11.9	19.3
12 7	6 32.58	+28 10.5	1.746	2.682	8.1	20.1	12 7	6 30.91	+22 10.4	1.739	2.677	8.0	19.1
12 17	6 22.10	+28 51.8	1.716	2.688	4.0	19.9	12 17	6 21.29	+21 24.8	1.707	2.682	3.6	18.8
12 27	6 10.55	+29 25.4	1.715	2.694	2.5	19.8	12 27	6 10.87	+20 38.4	1.704	2.686	1.5	18.7
1 6	5 59.30	+29 48.8	1.743	2.699	6.1	20.0	1 6	6 0.92	+19 53.1	1.731	2.691	5.7	19.0
1 16	5 49.66	+30 2.2	1.799	2.703	10.1	20.3	1 16	5 52.55	+19 11.5	1.786	2.695	9.8	19.3
1 26	5 42.63	+30 7.8	1.880	2.708	13.6	20.5	1 26	5 46.59	+18 35.7	1.866	2.700	13.4	19.5
<b>224679</b>	2006 <i>AL</i> <sub>67</sub>		12 24.7 148°31	0°3/24.7 17			<b>411956</b>	2012 <i>HG</i> <sub>28</sub>		12 24.7 94°61	2°2/25.2 17		
11 17	6 41.46	+25 11.1	2.227	3.012	13.3	20.3	11 17	6 39.72	+14 13.9	2.366	3.138	13.0	20.8
11 27	6 36.58	+24 58.4	2.140	3.013	10.4	20.1	11 27	6 35.02	+14 36.0	2.284	3.146	10.3	20.6
12 7	6 29.42	+24 44.3	2.076	3.014	6.9	19.9	12 7	6 28.31	+15 6.2	2.225	3.154	7.1	20.5
12 17	6 20.60	+24 27.5	2.040	3.015	3.1	19.7	12 17	6 20.11	+15 43.6	2.194	3.162	3.8	20.3
12 27	6 11.03	+24 7.7	2.033	3.016	1.0	19.5	12 27	6 11.21	+16 26.6	2.193	3.170	2.3	20.2
1 6	6 1.78	+23 45.2	2.057	3.017	4.9	19.8	1 6	6 2.52	+17 13.2	2.222	3.178	4.9	20.4
1 16	5 53.81	+23 21.4	2.109	3.017	8.6	20.0	1 16	5 54.90	+18 1.5	2.281	3.186	8.2	20.6
1 26	5 47.91	+22 58.3	2.187	3.018	11.8	20.2	1 26	5 49.05	+18 49.7	2.366	3.194	11.1	20.8
<b>314339</b>	2005 <i>TB</i> <sub>57</sub>		12 24.7 213°51	1°3/24.7 17			<b>231013</b>	2005 <i>EV</i> <sub>64</sub>		12 24.7 327°48	0		

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>482647</b>	2013 <i>AV</i> <sub>129</sub>		12 24.7 279°66	3°8/24.9	17		<b>348394</b>	2005 <i>GH</i> <sub>180</sub>		12 24.7 291°50	9°6/26.9	18	
11 17	6 46.58	+34 0.7	1.853	2.638	15.7	21.6	11 17	6 40.85	- 3 2.1	1.842	2.573	17.6	20.4
11 27	6 41.56	+34 4.6	1.752	2.620	12.6	21.4	11 27	6 36.68	- 3 16.8	1.743	2.554	15.3	20.2
12 7	6 33.32	+34 0.5	1.673	2.602	9.0	21.1	12 7	6 29.91	- 3 9.1	1.663	2.536	12.8	20.0
12 17	6 22.54	+33 44.0	1.618	2.584	5.3	20.8	12 17	6 21.02	- 2 34.3	1.605	2.517	10.5	19.8
12 27	6 10.47	+33 12.0	1.592	2.566	3.9	20.7	12 27	6 10.95	- 1 29.7	1.573	2.499	9.6	19.7
1 6	5 58.67	+32 24.6	1.595	2.548	6.9	20.9	1 6	6 0.86	+ 0 2.8	1.567	2.480	10.6	19.7
1 16	5 48.62	+31 25.5	1.625	2.529	11.0	21.1	1 16	5 51.96	+ 1 58.2	1.589	2.462	13.1	19.8
1 26	5 41.46	+30 20.6	1.680	2.511	14.7	21.2	1 26	5 45.27	+ 4 8.6	1.634	2.444	16.1	20.0
<b>452574</b>	2005 <i>ES</i> <sub>36</sub>		12 24.7 268°43	10°2/26.7	18		<b>97536</b>	2000 <i>DK</i> <sub>34</sub>		12 24.7 273°23	0°7/24.7	18	
11 17	6 37.16	-10 46.5	2.536	3.208	14.6	21.1	11 17	6 39.19	+21 11.5	2.332	3.117	12.8	20.3
11 27	6 32.95	-11 30.1	2.451	3.200	13.2	20.9	11 27	6 34.82	+21 10.8	2.237	3.109	10.0	20.1
12 7	6 26.90	-11 54.7	2.385	3.193	11.7	20.8	12 7	6 28.31	+21 12.3	2.164	3.101	6.7	19.8
12 17	6 19.49	-11 55.9	2.341	3.185	10.6	20.7	12 17	6 20.17	+21 15.0	2.119	3.093	3.1	19.6
12 27	6 11.41	-11 31.2	2.321	3.177	10.2	20.7	12 27	6 11.24	+21 18.3	2.103	3.086	1.1	19.4
1 6	6 3.47	-10 40.6	2.327	3.170	10.7	20.7	1 6	6 2.46	+21 21.5	2.118	3.078	4.8	19.7
1 16	5 56.43	- 9 26.6	2.357	3.162	11.9	20.8	1 16	5 54.78	+21 24.8	2.161	3.070	8.4	19.9
1 26	5 50.98	- 7 54.3	2.410	3.154	13.4	20.9	1 26	5 48.96	+21 28.5	2.230	3.062	11.6	20.1
<b>69109</b>	2003 <i>CM</i> <sub>8</sub>		12 24.7 318°62	2°0/24.8	18		<b>361393</b>	2006 <i>VQ</i> <sub>121</sub>		12 24.7 201°03	1°9/24.6	17	
11 17	6 40.65	+19 0.8	1.402	2.215	18.4	20.4	11 17	6 43.55	+28 27.5	2.112	2.896	14.0	21.7
11 27	6 37.39	+18 53.6	1.316	2.203	14.6	20.1	11 27	6 38.51	+28 40.5	2.023	2.895	11.0	21.5
12 7	6 30.80	+18 52.3	1.250	2.192	10.0	19.8	12 7	6 30.91	+28 51.2	1.958	2.893	7.5	21.3
12 17	6 21.50	+18 56.7	1.206	2.181	4.9	19.5	12 17	6 21.36	+28 56.7	1.919	2.891	3.7	21.1
12 27	6 10.78	+19 5.8	1.189	2.170	2.3	19.3	12 27	6 10.89	+28 54.8	1.909	2.888	2.1	21.0
1 6	6 0.26	+19 18.6	1.198	2.160	7.2	19.6	1 6	6 0.70	+28 44.9	1.929	2.886	5.5	21.2
1 16	5 51.51	+19 34.4	1.232	2.151	12.4	19.9	1 16	5 51.93	+28 28.3	1.977	2.883	9.2	21.4
1 26	5 45.80	+19 52.9	1.288	2.142	17.0	20.1	1 26	5 45.45	+28 7.6	2.051	2.880	12.5	21.6
<b>273059</b>	2006 <i>DF</i> <sub>178</sub>		12 24.7 305°70	3°6/25.0	18		<b>487621</b>	2015 <i>ML</i> <sub>98</sub>		12 24.7 52°99	6°4/26.1	17	
11 17	6 37.94	+13 6.8	2.088	2.869	14.2	20.8	11 17	6 43.15	+ 6 14.6	1.505	2.282	19.0	20.8
11 27	6 34.05	+12 54.6	1.992	2.858	11.4	20.6	11 27	6 38.34	+ 6 11.4	1.455	2.310	15.4	20.7
12 7	6 27.91	+12 50.3	1.919	2.846	8.1	20.4	12 7	6 30.76	+ 6 26.5	1.424	2.339	11.5	20.5
12 17	6 20.03	+12 55.0	1.871	2.835	4.9	20.1	12 17	6 21.22	+ 7 1.0	1.417	2.368	7.9	20.4
12 27	6 11.25	+13 8.9	1.852	2.825	3.7	20.0	12 27	6 10.99	+ 7 53.6	1.436	2.398	6.4	20.4
1 6	6 2.59	+13 31.2	1.862	2.814	6.2	20.2	1 6	6 1.39	+ 9 0.5	1.483	2.427	8.3	20.6
1 16	5 55.05	+14 0.8	1.899	2.803	9.6	20.4	1 16	5 53.58	+10 16.6	1.556	2.457	11.6	20.8
1 26	5 49.46	+14 35.9	1.961	2.793	12.9	20.6	1 26	5 48.38	+11 36.8	1.653	2.487	14.9	21.1
<b>220946</b>	2005 <i>JY</i> <sub>153</sub>		12 24.7 184°23	4°5/24.9	18		<b>404320</b>	2013 <i>FH</i> <sub>7</sub>		12 24.7 182°32	1°7/24.5	18	
11 17	6 44.05	+12 52.3	1.665	2.449	17.2	21.2	11 17	6 43.23	+27 13.6	2.334	3.113	13.0	21.5
11 27	6 39.24	+12 26.4	1.583	2.449	13.8	20.9	11 27	6 38.02	+27 39.6	2.245	3.114	10.2	21.3
12 7	6 31.57	+12 9.6	1.522	2.449	9.9	20.7	12 7	6 30.47	+28 4.9	2.179	3.114	6.9	21.1
12 17	6 21.70	+12 3.7	1.485	2.449	6.0	20.5	12 17	6 21.15	+28 26.7	2.141	3.114	3.4	20.8
12 27	6 10.76	+12 9.4	1.477	2.448	4.6	20.4	12 27	6 10.97	+28 42.5	2.133	3.113	1.9	20.7
1 6	6 0.13	+12 26.2	1.496	2.447	7.5	20.6	1 6	6 1.00	+28 51.0	2.156	3.112	5.1	21.0
1 16	5 51.06	+12 52.6	1.542	2.445	11.5	20.8	1 16	5 52.27	+28 52.6	2.207	3.110	8.5	21.2
1 26	5 44.58	+13 26.6	1.612	2.443	15.3	21.0	1 26	5 45.61	+28 49.0	2.285	3.109	11.6	21.4
<b>147645</b>	2004 <i>JG</i> <sub>24</sub>		12 24.7 207°27	0°8/24.7	17		<b>519129</b>	2010 <i>MT</i> <sub>63</sub>		12 24.7 137°19	0°9/24.7	18	
11 17	6 41.53	+20 47.1	2.370	3.148	12.8	21.3	11 17	6 43.88	+25 59.5	2.345	3.123	13.0	22.2
11 27	6 36.55	+20 43.4	2.275	3.144	10.0	21.1	11 27	6 38.31	+26 5.6	2.265	3.134	10.1	22.0
12 7	6 29.40	+20 41.8	2.204	3.139	6.7	20.9	12 7	6 30.51	+26 10.6	2.209	3.145	6.7	21.8
12 17	6 20.64	+20 41.5	2.160	3.134	3.1	20.7	12 17	6 21.10	+26 12.6	2.181	3.155	3.1	21.6
12 27	6 11.08	+20 41.9	2.147	3.128	1.2	20.5	12 27	6 11.00	+26 10.1	2.183	3.165	1.2	21.5
1 6	6 1.72	+20 42.5	2.164	3.122	4.8	20.8	1 6	6 1.25	+26 2.8	2.216	3.174	4.8	21.7
1 16	5 53.46	+20 43.4	2.210	3.116	8.4	21.0	1 16	5 52.80	+25 51.8	2.278	3.183	8.2	22.0
1 26	5 47.10	+20 45.3	2.282	3.109	11.5	21.2	1 26	5 46.38	+25 38.7	2.366	3.191	11.2	22.2
<b>382168</b>	2012 <i>HP</i> <sub>79</sub>		12 24.7 121°48	5°7/23.5	13 C		<b>347585</b>	2001 <i>FE</i> <sub>89</sub>		12 24.7 266°69	0°4/24.7	16	
11 17	6 47.35	+41 7.9	2.898	3.641	11.5	21.6	11 17	6 43.23	+24 3.9	1.961	2.750	14.7	22.0
11 27	6 41.17	+42 26.3	2.825	3.656	9.5	21.5	11 27	6 38.61	+24 10.9	1.857	2.732	11.6	21.7
12 7	6 32.56	+43 37.6	2.778	3.670	7.5	21.4	12 7	6 31.23	+24 18.9	1.774	2.713	7.9	21.5
12 17	6 22.08	+44 36.4	2.758	3.684	6.0	21.3	12 17	6 21.62	+24 25.9	1.718	2.693	3.6	21.2
12 27	6 10.65	+45 18.3	2.768	3.698	5.8	21.3	12 27	6 10.80	+24 29.8	1.691	2.673	1.2	20.9
1 6	5 59.40	+45 41.8	2.808	3.711	6.9	21.4	1 6	6 0.04	+24 29.8	1.693	2.653	5.7	21.2
1 16	5 49.39	+45 47.6	2.876	3.724	8.7	21.5	1 16	5 50.61	+24 26.2	1.723	2.633	10.1	21.4
1 26	5 41.51	+45 39.1	2.969	3.736	10.6	21.7	1 26	5 43.57	+24 20.6	1.778	2.612	13.9	21.6
<b>489632</b>	2007 <i>TE</i> <sub>367</sub>		12 24.7 5°39	25°1/19.4	17		<b>966</b>	Muschi		12 24.7 207°92	2°5/24.3	18 R	
11 17	7 0.08	+68 11.7	1.163	1.875	26.9	19.9	11 17	6 44.36	+27 53.4	2.277	3.055	13.3	14.9
11 27	7 4.36	+71 54.0	1.138	1.874	26.0	19.8	11 27	6 39.13	+28 45.4	2.184	3.051	10.4	14.7
12 7	6 57.81	+75 0.5	1.127	1.876	25.4	19.8	12 7	6 31.37	+29 38.2	2.114	3.047	7.2	14.5
12 17	6 37.19	+77 12.5	1.128	1.880	25.2	19.8	12 17	6 21.62	+30 27.6	2.072	3.042	3.8	14.3
12 27	6 5.55	+78 11.3	1.141	1.887	25.2	19.8	12 27	6 10.82	+31 9.5	2.060	3.036	2.7	14.2
1 6	5 35.10	+77 52.4	1.166	1.896	25.6	19.9	1 6	6 0.11	+31 41.4	2.079	3.031	5.6	14.4
1 16	5 17.50	+76 29.8	1.201	1.907	26.2	20.0	1 16	5 50.63	+32 2.6	2.126	3.025	9.1	14.6
1 26	5 15.14	+74 24.9	1.246	1.920	26.8	20.1	1 26	5 43.33	+32 15.0	2.200	3.018	12.2	14.8
<b>373291</b>	2012 <i>HO</i> <sub>54</sub>		12 24.7 192°54	2°4/24.5	18		<b>520807</b>	2014 <i>TD</i> <sub>63</sub>		12 24.7 36°66			

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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>80475</b>	2000 <i>AB</i> <sub>30</sub>		12 24.7 282°67	0°8/24.6	18		<b>44496</b>	1998 <i>XM</i> <sub>5</sub>		12 24.7 304°18	5°9/25.4	18	
11 17	6 43.76	+23 24.7	1.514	2.319	17.6	19.6	11 17	6 37.23	+5 42.7	2.214	2.973	14.2	18.2
11 27	6 39.78	+23 51.0	1.425	2.309	13.9	19.3	11 27	6 33.32	+5 19.1	2.121	2.964	11.8	18.0
12 7	6 32.41	+24 21.6	1.356	2.298	9.4	19.0	12 7	6 27.34	+5 7.6	2.051	2.955	9.1	17.8
12 17	6 22.27	+24 53.0	1.311	2.287	4.3	18.7	12 17	6 19.79	+5 10.4	2.005	2.947	6.8	17.7
12 27	6 10.61	+25 21.4	1.293	2.276	1.5	18.4	12 27	6 11.45	+5 29.0	1.988	2.938	6.0	17.6
1 6	5 59.09	+25 44.1	1.303	2.265	6.9	18.8	1 6	6 3.23	+6 2.6	1.998	2.930	7.4	17.7
1 16	5 49.33	+26 0.3	1.339	2.254	11.9	19.0	1 16	5 56.03	+6 49.2	2.036	2.922	10.0	17.8
1 26	5 42.64	+26 11.6	1.398	2.243	16.4	19.3	1 26	5 50.62	+7 45.8	2.099	2.914	12.8	18.0
<b>149623</b>	2004 <i>EU</i> <sub>36</sub>		12 24.7 203°60	2°3/24.6	18		<b>229719</b>	2007 <i>EN</i> <sub>210</sub>		12 24.7 304°19	3°1/24.5	18	
11 17	6 46.97	+28 9.9	1.798	2.586	15.9	21.0	11 17	6 43.68	+28 31.4	1.438	2.248	18.1	21.0
11 27	6 41.71	+28 33.3	1.710	2.583	12.5	20.8	11 27	6 40.10	+29 5.2	1.349	2.234	14.4	20.7
12 7	6 33.35	+28 55.4	1.644	2.580	8.6	20.5	12 7	6 32.85	+29 38.8	1.281	2.221	10.0	20.4
12 17	6 22.56	+29 12.0	1.603	2.576	4.3	20.3	12 17	6 22.55	+30 6.8	1.236	2.208	5.2	20.1
12 27	6 10.55	+29 19.6	1.592	2.571	2.5	20.1	12 27	6 10.59	+30 24.1	1.217	2.195	3.4	20.0
1 6	5 58.83	+29 16.8	1.609	2.566	6.4	20.4	1 6	5 58.79	+30 28.0	1.224	2.183	7.7	20.2
1 16	5 48.81	+29 5.1	1.654	2.561	10.6	20.6	1 16	5 48.96	+30 19.6	1.257	2.170	12.7	20.4
1 26	5 41.59	+28 47.7	1.723	2.555	14.4	20.8	1 26	5 42.49	+30 2.7	1.311	2.159	17.1	20.7
<b>69643</b>	1998 <i>FY</i> <sub>77</sub>		12 24.7 329°41	1°3/24.9	18		<b>397306</b>	2006 <i>SW</i> <sub>245</sub>		12 24.7 128°97	0°2/24.7	18	
11 17	6 41.52	+18 54.7	1.271	2.089	19.6	18.5	11 17	6 43.85	+23 35.9	2.179	2.960	13.7	22.0
11 27	6 38.42	+19 10.6	1.191	2.081	15.5	18.2	11 27	6 38.44	+23 43.6	2.101	2.972	10.7	21.9
12 7	6 31.69	+19 35.6	1.130	2.074	10.6	17.9	12 7	6 30.69	+23 52.0	2.047	2.983	7.1	21.7
12 17	6 21.98	+20 8.2	1.091	2.067	5.0	17.6	12 17	6 21.23	+23 59.4	2.020	2.995	3.2	21.4
12 27	6 10.70	+20 45.4	1.078	2.060	1.9	17.4	12 27	6 11.04	+24 4.3	2.023	3.005	1.0	21.3
1 6	5 59.64	+21 23.7	1.091	2.055	7.5	17.7	1 6	6 1.21	+24 6.1	2.056	3.016	4.9	21.6
1 16	5 50.56	+22 0.9	1.128	2.050	13.0	18.0	1 16	5 52.73	+24 5.3	2.118	3.026	8.6	21.8
1 26	5 44.83	+22 36.2	1.187	2.045	17.8	18.3	1 26	5 46.39	+24 3.0	2.207	3.035	11.8	22.0
<b>403383</b>	2009 <i>PO</i> <sub>19</sub>		12 24.7 64°48	0°5/24.7	16		<b>456086</b>	2006 <i>BK</i> <sub>88</sub>		12 24.7 229°42	2°8/25.1	18	
11 17	6 42.17	+24 6.8	1.979	2.769	14.6	21.5	11 17	6 39.01	+13 44.7	2.365	3.138	13.0	21.6
11 27	6 37.29	+24 17.2	1.912	2.788	11.3	21.3	11 27	6 34.58	+13 45.4	2.273	3.134	10.3	21.4
12 7	6 29.96	+24 28.2	1.868	2.807	7.5	21.1	12 7	6 28.11	+13 53.4	2.203	3.130	7.3	21.2
12 17	6 20.88	+24 37.9	1.850	2.825	3.3	20.9	12 17	6 20.12	+14 8.9	2.160	3.126	4.2	21.0
12 27	6 11.10	+24 44.6	1.862	2.844	1.1	20.8	12 27	6 11.36	+14 31.5	2.147	3.122	2.9	20.9
1 6	6 1.77	+24 47.6	1.903	2.863	5.2	21.1	1 6	6 2.75	+15 0.0	2.164	3.117	5.3	21.1
1 16	5 53.94	+24 47.3	1.972	2.882	9.0	21.4	1 16	5 55.15	+15 33.1	2.210	3.113	8.5	21.3
1 26	5 48.37	+24 45.3	2.066	2.901	12.2	21.6	1 26	5 49.31	+16 9.4	2.281	3.108	11.5	21.5
<b>408585</b>	2013 <i>LW</i> <sub>22</sub>		12 24.7 237°55	3°1/24.9	17		<b>298096</b>	2002 <i>RE</i> <sub>68</sub>		12 24.7 56°34	12°7/26.3	18	
11 17	6 39.86	+14 25.5	2.165	2.943	13.9	22.0	11 17	6 39.34	-7 42.0	1.763	2.479	18.8	20.2
11 27	6 35.41	+14 10.3	2.073	2.937	11.1	21.8	11 27	6 35.24	-9 7.9	1.705	2.490	16.7	20.0
12 7	6 28.75	+14 1.5	2.003	2.932	7.8	21.6	12 7	6 28.70	-10 10.7	1.664	2.500	14.7	19.9
12 17	6 20.40	+13 59.9	1.960	2.926	4.5	21.4	12 17	6 20.38	-10 43.8	1.644	2.511	13.2	19.8
12 27	6 11.23	+14 5.7	1.946	2.920	3.2	21.3	12 27	6 11.30	-10 42.8	1.646	2.521	12.7	19.8
1 6	6 2.22	+14 18.5	1.962	2.914	5.8	21.4	1 6	6 2.60	-10 8.0	1.672	2.532	13.3	19.9
1 16	5 54.36	+14 37.4	2.005	2.908	9.3	21.6	1 16	5 55.30	-9 3.4	1.721	2.543	14.8	20.0
1 26	5 48.43	+15 1.4	2.074	2.902	12.5	21.8	1 26	5 50.22	-7 35.9	1.790	2.555	16.7	20.2
<b>95964</b>	2004 <i>KL</i> <sub>6</sub>		12 24.7 103°70	2°6/24.9	18		<b>129259</b>	Tapolca		12 24.7 29°29	1°9/24.7	18	
11 17	6 45.53	+16 38.8	1.800	2.582	16.1	19.8	11 17	6 37.59	+18 19.3	2.504	3.285	12.1	19.9
11 27	6 39.95	+16 27.6	1.734	2.603	12.6	19.6	11 27	6 33.29	+17 53.6	2.419	3.287	9.5	19.7
12 7	6 31.75	+16 22.7	1.690	2.623	8.6	19.4	12 7	6 27.13	+17 30.5	2.357	3.290	6.5	19.5
12 17	6 21.68	+16 23.8	1.672	2.643	4.5	19.2	12 17	6 19.63	+17 10.3	2.323	3.294	3.4	19.3
12 27	6 10.88	+16 30.3	1.683	2.662	2.7	19.1	12 27	6 11.54	+16 53.6	2.319	3.297	2.1	19.3
1 6	6 0.59	+16 41.7	1.724	2.680	6.1	19.4	1 6	6 3.70	+16 40.8	2.345	3.300	4.8	19.5
1 16	5 51.92	+16 57.0	1.792	2.698	10.0	19.7	1 16	5 56.88	+16 32.2	2.399	3.304	7.9	19.7
1 26	5 45.69	+17 15.7	1.885	2.716	13.4	19.9	1 26	5 51.72	+16 28.1	2.480	3.308	10.7	19.8
<b>365358</b>	2009 <i>SH</i> <sub>332</sub>		12 24.7 131°91	1°9/24.7	18		<b>301898</b>	1998 <i>SP</i> <sub>34</sub>		12 24.7 102°86	6°3/24.5	18	
11 17	6 41.56	+18 5.2	2.647	3.416	11.9	21.1	11 17	6 52.57	+40 31.8	2.166	2.920	14.6	21.0
11 27	6 36.11	+17 39.3	2.568	3.430	9.3	20.9	11 27	6 45.64	+41 30.9	2.106	2.946	12.0	20.9
12 7	6 28.85	+17 15.9	2.513	3.444	6.3	20.8	12 7	6 35.67	+42 20.0	2.070	2.971	9.2	20.8
12 17	6 20.33	+16 55.3	2.487	3.457	3.3	20.6	12 17	6 23.48	+42 52.6	2.059	2.996	6.9	20.7
12 27	6 11.29	+16 37.9	2.492	3.469	2.1	20.5	12 27	6 10.42	+43 4.1	2.077	3.020	6.4	20.7
1 6	6 2.57	+16 24.1	2.528	3.482	4.6	20.7	1 6	5 57.98	+42 53.9	2.124	3.044	7.8	20.8
1 16	5 54.90	+16 14.3	2.593	3.493	7.6	20.9	1 16	5 47.50	+42 25.4	2.198	3.066	10.2	21.0
1 26	5 48.91	+16 8.8	2.686	3.505	10.2	21.1	1 26	5 39.88	+41 44.3	2.297	3.089	12.6	21.2
<b>148773</b>	2001 <i>UT</i> <sub>3</sub>		12 24.7 348°25	0°3/24.7	17		<b>137872</b>	2000 <i>AH</i> <sub>87</sub>		12 24.7 299°32	3°1/25.3	18	
11 17	6 36.15	+20 5.4	1.322	2.148	18.6	18.9	11 17	6 40.77	+13 24.4	1.756	2.544	16.2	19.9
11 27	6 34.19	+20 54.6	1.240	2.135	14.6	18.6	11 27	6 36.80	+13 40.9	1.663	2.533	13.0	19.7
12 7	6 28.87	+21 54.8	1.177	2.124	9.9	18.3	12 7	6 30.08	+14 9.2	1.591	2.523	9.1	19.4
12 17	6 20.75	+23 2.6	1.137	2.114	4.4	18.0	12 17	6 21.17	+14 49.2	1.544	2.512	5.1	19.2
12 27	6 11.09	+24 12.7	1.123	2.106	1.4	17.8	12 27	6 11.05	+15 39.4	1.525	2.502	3.2	19.0
1 6	6 1.55	+25 19.6	1.134	2.099	7.1	18.1	1 6	6 1.02	+16 36.6	1.535	2.492	6.5	19.2
1 16	5 53.78	+26 19.2	1.170	2.094	12.5	18.4	1 16	5 52.33	+17 37.8	1.571	2.482	10.8	19.4
1 26	5 49.13	+27 10.2	1.228	2.090	17.1	18.7	1 26	5 46.04	+18 40.1	1.633	2.473	14.7	19.7
<b>115937</b>	2003 <i>WG</i> <sub>26</sub>		12 24.7 13°17	8°5/25.9	18		<b>454463</b>	2014 <i>OY</i> <sub>52</sub>		12 24.7 113°76	1°8/24.9	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>351389</b>	2005 <i>EO</i> <sub>174</sub>	12 24.7 208°36		0°0/24.7 18			<b>251472</b>	2008 <i>DB</i> <sub>27</sub>	12 24.7 88°76		1°0/24.7 18		
11 17	6 43.46	+23 28.7	2.190	2.971	13.6	22.5	11 17	6 43.06	+26 24.2	1.968	2.758	14.7	20.6
11 27	6 38.30	+23 27.6	2.096	2.966	10.7	22.2	11 27	6 38.19	+26 25.0	1.889	2.764	11.5	20.4
12 7	6 30.73	+23 27.1	2.025	2.961	7.2	22.0	12 7	6 30.72	+26 24.3	1.831	2.769	7.7	20.2
12 17	6 21.33	+23 25.5	1.981	2.956	3.2	21.8	12 17	6 21.34	+26 19.8	1.800	2.775	3.5	19.9
12 27	6 11.04	+23 21.8	1.967	2.950	1.0	21.6	12 27	6 11.11	+26 10.3	1.798	2.780	1.4	19.8
1 6	6 0.97	+23 15.7	1.984	2.943	5.1	21.9	1 6	6 1.27	+25 55.6	1.825	2.785	5.4	20.1
1 16	5 52.17	+23 7.8	2.029	2.936	8.9	22.1	1 16	5 52.94	+25 37.1	1.881	2.791	9.4	20.3
1 26	5 45.49	+22 59.4	2.100	2.929	12.3	22.3	1 26	5 46.96	+25 17.3	1.961	2.796	12.8	20.5
<b>301615</b>	2010 <i>DS</i> <sub>48</sub>	12 24.7 202°89		2°4/24.3 18			<b>342029</b>	2008 <i>RH</i> <sub>103</sub>	12 24.7 132°95		1°6/24.8 18		
11 17	6 45.81	+27 10.6	2.134	2.913	14.0	20.9	11 17	6 44.90	+20 0.4	1.780	2.569	16.0	21.3
11 27	6 40.44	+28 5.3	2.041	2.910	11.0	20.7	11 27	6 39.72	+19 42.9	1.703	2.577	12.6	21.1
12 7	6 32.37	+29 1.5	1.972	2.906	7.5	20.4	12 7	6 31.79	+19 28.2	1.647	2.584	8.5	20.8
12 17	6 22.15	+29 54.8	1.931	2.901	3.9	20.2	12 17	6 21.83	+19 16.1	1.618	2.591	4.1	20.6
12 27	6 10.78	+30 40.7	1.919	2.896	2.7	20.1	12 27	6 10.98	+19 6.2	1.617	2.598	1.9	20.5
1 6	5 59.51	+31 16.1	1.938	2.891	5.9	20.3	1 6	6 0.54	+18 58.7	1.646	2.605	6.0	20.7
1 16	5 49.56	+31 40.4	1.986	2.885	9.6	20.5	1 16	5 51.72	+18 54.1	1.702	2.611	10.2	21.0
1 26	5 41.95	+31 55.4	2.059	2.878	12.9	20.7	1 26	5 45.42	+18 53.0	1.782	2.617	13.9	21.2
<b>151670</b>	2002 <i>YL</i> <sub>27</sub>	12 24.7 316°29		0°0/24.7 18			<b>404315</b>	2013 <i>EG</i> <sub>134</sub>	12 24.7 184°17		1°2/24.8 18		
11 17	6 41.05	+22 32.8	1.358	2.175	18.6	19.8	11 17	6 41.31	+19 22.0	2.086	2.871	14.1	22.1
11 27	6 38.03	+22 42.8	1.269	2.160	14.7	19.5	11 27	6 36.68	+19 25.7	1.999	2.871	11.1	21.9
12 7	6 31.46	+22 56.9	1.200	2.145	10.0	19.2	12 7	6 29.68	+19 33.7	1.935	2.871	7.5	21.7
12 17	6 21.95	+23 12.9	1.154	2.130	4.5	18.8	12 17	6 20.89	+19 44.9	1.898	2.871	3.5	21.4
12 27	6 10.82	+23 27.9	1.133	2.116	1.4	18.6	12 27	6 11.24	+19 58.2	1.889	2.871	1.5	21.3
1 6	5 59.82	+23 40.0	1.139	2.103	7.2	18.9	1 6	6 1.82	+20 12.6	1.911	2.870	5.2	21.5
1 16	5 50.70	+23 49.0	1.169	2.090	12.7	19.2	1 16	5 53.66	+20 27.6	1.960	2.870	9.1	21.8
1 26	5 44.81	+23 56.2	1.221	2.078	17.5	19.4	1 26	5 47.60	+20 43.2	2.036	2.869	12.5	22.0
<b>147563</b>	2004 <i>FA</i> <sub>33</sub>	12 24.7 176°82		3°4/24.7 18			<b>90448</b>	2004 <i>BB</i> <sub>114</sub>	12 24.7 213°15		0°6/24.8 18		
11 17	6 48.62	+31 40.7	1.770	2.555	16.2	20.1	11 17	6 46.15	+21 48.1	2.056	2.835	14.5	20.4
11 27	6 43.06	+32 1.5	1.687	2.557	12.9	19.8	11 27	6 40.60	+21 45.6	1.958	2.827	11.4	20.2
12 7	6 34.27	+32 17.3	1.626	2.558	9.0	19.6	12 7	6 32.41	+21 44.9	1.882	2.818	7.7	20.0
12 17	6 23.00	+32 23.5	1.591	2.559	5.1	19.4	12 17	6 22.16	+21 44.5	1.834	2.808	3.5	19.7
12 27	6 10.57	+32 16.3	1.584	2.559	3.6	19.3	12 27	6 10.86	+21 43.4	1.815	2.798	1.2	19.5
1 6	5 58.58	+31 55.3	1.606	2.559	6.8	19.5	1 6	5 59.73	+21 41.0	1.827	2.786	5.5	19.8
1 16	5 48.47	+31 23.1	1.655	2.558	10.8	19.7	1 16	5 49.95	+21 37.8	1.868	2.774	9.6	20.0
1 26	5 41.33	+30 44.7	1.728	2.557	14.5	19.9	1 26	5 42.47	+21 35.0	1.934	2.761	13.3	20.2
<b>185383</b>	2006 <i>WE</i> <sub>2</sub>	12 24.7 300°69		2°9/24.7 17			<b>373128</b>	2011 <i>HE</i> <sub>75</sub>	12 24.7 161°82		6°7/25.0 18		
11 17	6 40.00	+17 29.7	1.869	2.661	15.2	20.0	11 17	6 36.94	+0 25.3	2.845	3.568	12.2	21.1
11 27	6 36.01	+16 55.6	1.772	2.646	12.1	19.8	11 27	6 32.51	+0 27.3	2.763	3.571	10.3	20.9
12 7	6 29.43	+16 24.7	1.697	2.632	8.4	19.5	12 7	6 26.51	+0 8.9	2.704	3.574	8.5	20.8
12 17	6 20.83	+15 58.2	1.648	2.618	4.6	19.3	12 17	6 19.37	+0 36.5	2.671	3.577	7.1	20.7
12 27	6 11.20	+15 37.2	1.626	2.603	3.1	19.1	12 27	6 11.72	+0 48.1	2.666	3.580	6.7	20.7
1 6	6 1.73	+15 22.6	1.634	2.590	6.4	19.3	1 6	6 4.25	+0 43.3	2.689	3.582	7.6	20.8
1 16	5 53.58	+15 15.1	1.668	2.576	10.5	19.5	1 16	5 57.59	+0 23.2	2.738	3.584	9.2	20.9
1 26	5 47.69	+15 14.8	1.726	2.562	14.2	19.7	1 26	5 52.33	+0 50.1	2.813	3.586	11.0	21.0
<b>84251</b>	2002 <i>SG</i> <sub>37</sub>	12 24.7 353°93		1°0/24.8 18			<b>396243</b>	2014 <i>BL</i> <sub>38</sub>	12 24.7 272°80		1°2/24.8 18		
11 17	6 38.15	+20 16.6	1.405	2.223	18.1	18.9	11 17	6 42.94	+20 6.0	1.654	2.451	16.7	21.2
11 27	6 35.38	+20 23.5	1.327	2.218	14.2	18.6	11 27	6 38.76	+20 5.8	1.560	2.440	13.2	21.0
12 7	6 29.42	+20 36.3	1.269	2.213	9.6	18.4	12 7	6 31.55	+20 10.2	1.488	2.427	9.0	20.7
12 17	6 20.93	+20 53.6	1.234	2.210	4.4	18.1	12 17	6 21.90	+20 18.1	1.441	2.415	4.2	20.4
12 27	6 11.17	+21 13.4	1.225	2.207	1.6	17.9	12 27	6 10.94	+20 28.1	1.421	2.403	1.7	20.2
1 6	6 1.73	+21 34.0	1.242	2.206	6.8	18.2	1 6	6 0.12	+20 39.1	1.429	2.391	6.4	20.5
1 16	5 54.06	+21 54.2	1.285	2.206	11.8	18.5	1 16	5 50.86	+20 50.7	1.465	2.378	11.2	20.7
1 26	5 49.31	+22 14.1	1.349	2.207	16.1	18.7	1 26	5 44.30	+21 3.3	1.523	2.366	15.4	20.9
<b>295212</b>	2008 <i>FH</i> <sub>128</sub>	12 24.7 281°58		4°5/24.3 18			<b>32816</b>	1991 <i>PP</i> <sub>1</sub>	12 24.7 132°53		0°3/24.7 18		
11 17	6 46.08	+30 45.1	1.481	2.284	18.0	21.3	11 17	6 43.36	+23 59.6	2.430	3.206	12.6	20.4
11 27	6 42.07	+31 37.8	1.392	2.271	14.4	21.0	11 27	6 37.83	+24 5.9	2.352	3.219	9.8	20.2
12 7	6 34.25	+32 29.7	1.323	2.258	10.2	20.7	12 7	6 30.19	+24 12.5	2.297	3.232	6.5	20.0
12 17	6 23.25	+33 14.1	1.277	2.245	6.0	20.5	12 17	6 21.04	+24 17.6	2.271	3.245	2.9	19.8
12 27	6 10.45	+33 44.0	1.259	2.232	4.7	20.3	12 27	6 11.24	+24 20.2	2.274	3.257	0.9	19.7
1 6	5 57.77	+33 55.6	1.267	2.219	8.3	20.5	1 6	6 1.77	+24 19.7	2.309	3.268	4.5	20.0
1 16	5 47.10	+33 49.9	1.300	2.206	13.0	20.7	1 16	5 53.52	+24 16.7	2.374	3.279	7.9	20.2
1 26	5 39.90	+33 31.7	1.355	2.193	17.2	21.0	1 26	5 47.19	+24 12.2	2.465	3.290	10.8	20.4
<b>336112</b>	2008 <i>JL</i> <sub>35</sub>	12 24.7 186°22		4°5/24.2 18			<b>153843</b>	2001 <i>XF</i> <sub>32</sub>	12 24.7 145°91		0°0/24.7 18		
11 17	6 48.10	+14 50.7	2.069	2.833	14.9	20.8	11 17	6 46.35	+23 12.6	1.988	2.770	14.8	21.2
11 27	6 41.74	+13 34.7	1.978	2.833	11.9	20.6	11 27	6 40.64	+23 17.6	1.909	2.780	11.6	21.0
12 7	6 32.91	+12 20.6	1.911	2.833	8.6	20.4	12 7	6 32.31	+23 23.7	1.853	2.790	7.7	20.8
12 17	6 22.27	+11 11.5	1.872	2.831	5.5	20.2	12 17	6 22.05	+23 29.0	1.824	2.798	3.4	20.6
12 27	6 10.82	+10 10.6	1.863	2.829	4.7	20.1	12 27	6 10.94	+23 31.8	1.824	2.807	1.0	20.4
1 6	5 59.70	+9 20.8	1.886	2.826	7.1	20.3	1 6	6 0.22	+23 31.6	1.855	2.814	5.4	20.7
1 16	5 49.98	+8 44.0	1.937	2.822	10.5	20.5	1 16	5 51.01	+23 28.9	1.914	2.821	9.4	21.0
1 26	5 42.50	+8 20.3	2.013	2.817	13.7	20.7	1 26	5 44.19	+23 25.3	1.999	2.828	12.8	21.2
<b>85022</b>	2068 <i>P-L</i>	12 24.7 83°72		1°6/24.7 18			<b>249290</b>	2008 <i>TY</i> <sub>64</sub>	12 24.7 64°03		9°8/25.1 18		
11 17	6 43.80	+27 45.9											

EPHEMERIDES

12 24.7

12 24.7

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>30191</b>	Sivakumar		12 24.7 185°89	1.2°/24.7	18		<b>175714</b>	1996 VJ <sub>35</sub>		12 24.7 176°84	1.6°/24.7	18	
11 17	6 45.10	+21 16.3	1.750	2.541	16.2	18.9	11 17	6 48.94	+27 47.0	1.776	2.561	16.2	20.9
11 27	6 40.06	+20 57.1	1.666	2.541	12.7	18.7	11 27	6 43.17	+27 51.8	1.692	2.564	12.7	20.6
12 7	6 32.15	+20 39.4	1.603	2.541	8.6	18.4	12 7	6 34.30	+27 54.0	1.629	2.565	8.6	20.4
12 17	6 22.06	+20 22.7	1.566	2.540	4.0	18.2	12 17	6 23.05	+27 50.1	1.593	2.566	4.1	20.1
12 27	6 10.94	+20 6.8	1.558	2.539	1.7	18.0	12 27	6 10.70	+27 38.0	1.586	2.567	2.0	20.0
1 6	6 0.18	+19 52.0	1.578	2.538	6.1	18.3	1 6	5 58.78	+27 17.4	1.608	2.566	6.2	20.3
1 16	5 51.04	+19 39.4	1.626	2.536	10.5	18.5	1 16	5 48.66	+26 50.7	1.658	2.565	10.5	20.5
1 26	5 44.50	+19 30.3	1.698	2.534	14.4	18.8	1 26	5 41.37	+26 21.5	1.732	2.564	14.4	20.7
<b>409390</b>	2005 ET <sub>58</sub>		12 24.7 313°52	5°6/24.9	18		<b>228986</b>	2003 VP <sub>11</sub>		12 24.7 57°25	4°4/24.0	18	
11 17	6 36.79	+ 8 35.1	2.103	2.875	14.4	21.1	11 17	6 43.49	+15 20.6	2.106	2.880	14.4	19.6
11 27	6 33.18	+ 7 57.6	2.005	2.859	11.9	20.9	11 27	6 37.98	+13 51.5	2.031	2.892	11.4	19.4
12 7	6 27.39	+ 7 29.6	1.929	2.843	9.0	20.7	12 7	6 30.28	+12 24.7	1.981	2.905	8.2	19.3
12 17	6 19.92	+ 7 13.6	1.879	2.828	6.5	20.5	12 17	6 21.08	+11 3.5	1.958	2.917	5.3	19.1
12 27	6 11.56	+ 7 11.6	1.856	2.813	5.7	20.4	12 27	6 11.31	+ 9 51.7	1.966	2.930	4.6	19.1
1 6	6 3.30	+ 7 24.0	1.860	2.798	7.4	20.5	1 6	6 2.00	+ 8 52.2	2.004	2.943	6.8	19.3
1 16	5 56.09	+ 7 49.8	1.892	2.783	10.4	20.7	1 16	5 54.04	+ 8 6.8	2.070	2.956	9.9	19.5
1 26	5 50.75	+ 8 26.6	1.948	2.769	13.4	20.8	1 26	5 48.13	+ 7 35.5	2.161	2.970	12.7	19.7
<b>512599</b>	2016 TS <sub>5</sub>		12 24.7 333°59	21°2/22.9	18		<b>21672</b>	Laichunju		12 24.7 32°64	6°2/25.4	18	
11 17	6 34.09	-13 59.8	1.223	1.955	24.8	19.5	11 17	6 39.90	+10 7.0	1.334	2.137	19.7	17.9
11 27	6 32.59	-16 37.2	1.158	1.936	23.4	19.4	11 27	6 36.42	+ 9 34.6	1.276	2.150	15.9	17.7
12 7	6 27.82	-18 44.9	1.107	1.918	22.1	19.2	12 7	6 29.87	+ 9 16.7	1.236	2.164	11.6	17.4
12 17	6 20.35	-20 8.6	1.071	1.901	21.3	19.1	12 17	6 21.06	+ 9 16.2	1.219	2.179	7.7	17.3
12 27	6 11.40	-20 36.4	1.050	1.886	21.3	19.0	12 27	6 11.30	+ 9 33.9	1.228	2.195	6.3	17.2
1 6	6 2.55	-20 3.7	1.046	1.872	22.0	19.0	1 6	6 2.11	+10 8.1	1.261	2.211	8.7	17.4
1 16	5 55.38	-18 33.3	1.056	1.859	23.4	19.1	1 16	5 54.79	+10 55.1	1.320	2.228	12.6	17.7
1 26	5 51.20	-16 15.6	1.081	1.848	25.2	19.2	1 26	5 50.29	+11 50.6	1.400	2.246	16.3	18.0
<b>173481</b>	2000 SB <sub>73</sub>		12 24.7 72°95	2°7/24.6	18		<b>23707</b>	Chambliss		12 24.7 90°13	4°8/24.1	18	
11 17	6 50.88	+27 22.6	1.285	2.091	20.1	19.7	11 17	6 46.33	+36 37.7	2.471	3.234	12.8	18.2
11 27	6 45.34	+28 2.1	1.234	2.117	15.7	19.5	11 27	6 40.49	+37 42.1	2.406	3.256	10.3	18.0
12 7	6 35.95	+28 40.6	1.203	2.143	10.6	19.3	12 7	6 32.16	+38 40.4	2.365	3.278	7.6	17.9
12 17	6 23.74	+29 12.0	1.195	2.168	5.2	19.1	12 17	6 22.00	+39 27.5	2.351	3.299	5.4	17.8
12 27	6 10.50	+29 31.3	1.214	2.194	3.1	19.0	12 27	6 11.02	+39 59.5	2.367	3.320	4.9	17.8
1 6	5 58.20	+29 37.1	1.260	2.219	7.5	19.4	1 6	6 0.39	+40 14.8	2.413	3.341	6.5	17.9
1 16	5 48.49	+29 31.7	1.332	2.244	12.2	19.7	1 16	5 51.18	+40 14.9	2.487	3.362	8.9	18.1
1 26	5 42.39	+29 19.5	1.425	2.268	16.3	20.0	1 26	5 44.23	+40 2.9	2.586	3.382	11.2	18.3
<b>390665</b>	2002 RR <sub>210</sub>		12 24.7 77°60	6°6/25.3	18		<b>288195</b>	2003 XF <sub>31</sub>		12 24.7 332°06	2°1/24.7	18	
11 17	6 41.12	+ 6 45.6	1.820	2.588	16.5	20.8	11 17	6 42.05	+21 12.3	1.249	2.069	19.8	20.8
11 27	6 36.52	+ 6 1.7	1.754	2.602	13.5	20.7	11 27	6 38.85	+20 36.3	1.169	2.061	15.6	20.5
12 7	6 29.52	+ 5 30.9	1.709	2.617	10.3	20.5	12 7	6 31.98	+20 1.4	1.109	2.053	10.7	20.2
12 17	6 20.79	+ 5 16.1	1.688	2.632	7.6	20.4	12 17	6 22.19	+19 28.0	1.071	2.046	5.1	19.8
12 27	6 11.35	+ 5 19.0	1.695	2.646	6.7	20.4	12 27	6 10.94	+18 57.1	1.059	2.040	2.5	19.6
1 6	6 2.31	+ 5 39.0	1.729	2.661	8.3	20.5	1 6	6 0.08	+18 30.5	1.071	2.034	7.8	19.9
1 16	5 54.70	+ 6 14.0	1.789	2.676	11.2	20.7	1 16	5 51.32	+18 10.1	1.108	2.029	13.3	20.2
1 26	5 49.29	+ 7 0.2	1.873	2.690	14.0	20.9	1 26	5 45.91	+17 57.4	1.166	2.024	18.1	20.5
<b>422080</b>	2014 QR <sub>386</sub>		12 24.7 51°20	2°6/24.9	17		<b>393612</b>	2003 YU <sub>40</sub>		12 24.7 78°80	2°2/25.2	18	
11 17	6 43.59	+31 36.1	2.011	2.797	14.5	21.0	11 17	6 44.38	+14 34.5	1.803	2.584	16.2	20.7
11 27	6 38.57	+31 35.8	1.937	2.808	11.4	20.8	11 27	6 39.19	+15 5.8	1.738	2.605	12.7	20.5
12 7	6 30.93	+31 29.7	1.886	2.819	7.9	20.6	12 7	6 31.38	+15 47.4	1.694	2.626	8.7	20.3
12 17	6 21.42	+31 15.1	1.862	2.831	4.2	20.4	12 17	6 21.67	+16 37.4	1.676	2.646	4.4	20.1
12 27	6 11.17	+30 50.5	1.866	2.843	2.8	20.3	12 27	6 11.13	+17 32.9	1.687	2.667	2.4	20.0
1 6	6 1.44	+30 16.7	1.899	2.855	5.7	20.5	1 6	6 1.02	+18 30.6	1.728	2.687	5.8	20.3
1 16	5 53.32	+29 36.4	1.960	2.867	9.2	20.8	1 16	5 52.45	+19 27.7	1.798	2.707	9.8	20.6
1 26	5 47.61	+28 53.2	2.047	2.879	12.4	21.0	1 26	5 46.27	+20 22.3	1.893	2.727	13.2	20.8
<b>275405</b>	2011 BH <sub>46</sub>		12 24.7 331°39	1°4/24.7	18		<b>8553</b>	Bradsmith		12 24.7 157°88	2°2/24.6	18	
11 17	6 39.53	+21 44.4	1.161	1.992	20.3	20.4	11 17	6 48.42	+26 59.0	1.711	2.500	16.6	17.9
11 27	6 37.27	+21 24.0	1.080	1.977	16.1	20.1	11 27	6 42.94	+27 34.7	1.632	2.505	13.0	17.7
12 7	6 31.17	+21 5.6	1.017	1.964	11.0	19.8	12 7	6 34.25	+28 10.6	1.574	2.511	8.8	17.5
12 17	6 21.92	+20 49.0	0.975	1.951	5.1	19.4	12 17	6 23.08	+28 42.1	1.543	2.515	4.4	17.2
12 27	6 10.97	+20 33.9	0.957	1.940	2.0	19.2	12 27	6 10.70	+29 5.1	1.540	2.519	2.5	17.1
1 6	6 0.29	+20 20.6	0.964	1.929	8.0	19.5	1 6	5 58.70	+29 17.3	1.566	2.523	6.5	17.4
1 16	5 51.75	+20 10.6	0.994	1.920	13.9	19.8	1 16	5 48.52	+29 19.6	1.619	2.526	10.8	17.6
1 26	5 46.75	+20 5.4	1.044	1.911	19.0	20.1	1 26	5 41.25	+29 15.0	1.697	2.528	14.6	17.9
<b>108102</b>	2001 FN <sub>188</sub>		12 24.7 274°74	6°3/25.6	18		<b>315182</b>	2007 JP <sub>36</sub>		12 24.7 306°73	2°6/24.6	18	
11 17	6 40.41	+ 6 29.1	1.833	2.601	16.4	20.3	11 17	6 41.80	+29 37.5	2.011	2.801	14.4	20.9
11 27	6 36.31	+ 6 11.3	1.742	2.592	13.6	20.1	11 27	6 37.50	+30 3.3	1.919	2.793	11.4	20.6
12 7	6 29.65	+ 6 7.9	1.672	2.583	10.4	19.8	12 7	6 30.49	+30 27.0	1.849	2.784	7.8	20.4
12 17	6 20.98	+ 6 21.4	1.625	2.573	7.4	19.6	12 17	6 21.38	+30 44.8	1.806	2.776	4.2	20.2
12 27	6 11.27	+ 6 53.1	1.606	2.564	6.3	19.6	12 27	6 11.20	+30 53.8	1.791	2.768	2.9	20.1
1 6	6 1.68	+ 7 41.6	1.615	2.554	8.2	19.6	1 6	6 1.22	+30 52.6	1.805	2.760	6.0	20.3
1 16	5 53.34	+ 8 43.7	1.650	2.545	11.4	19.8	1 16	5 52.66	+30 42.1	1.846	2.753	9.7	20.5
1 26	5 47.23	+ 9 55.2	1.710	2.536	14.8	20.0	1 26	5 46.49	+30 25.1	1.913	2.745	13.2	20.7
<b>480141</b>	2015 FP <sub>168</sub>		12 24.7 332°51	4°4/24.3	18		<b>349691</b>	2008 WC <sub>136</sub>		12 24.7 55°27	2°2/24.8	18	
11 17	6 44.97	+29 36.7	1.276	2.092	19.7</								

EPHEMERIDES

12 24.7

12 24.8

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>337824</b>	2001 VG <sub>28</sub>		12 24.7	67°41'	2°8/24.5	18 R	<b>257832</b>	2000 HM <sub>54</sub>		12 24.8	295°13'	5°3/24.4	18
11 17	6 46.29	+27 10.6	1.496	2.299	17.9	20.4	11 17	6 40.55	+12 48.2	1.828	2.613	15.8	20.1
11 27	6 41.60	+27 59.9	1.431	2.312	14.0	20.2	11 27	6 36.62	+11 50.0	1.722	2.587	12.9	19.8
12 7	6 33.48	+28 49.7	1.386	2.325	9.5	20.0	12 7	6 30.02	+10 56.4	1.637	2.562	9.5	19.5
12 17	6 22.74	+29 34.6	1.366	2.339	4.8	19.7	12 17	6 21.27	+10 10.8	1.578	2.536	6.4	19.3
12 27	6 10.83	+30 9.2	1.374	2.353	3.1	19.7	12 27	6 11.32	+9 36.1	1.546	2.511	5.4	19.2
1 6	5 59.45	+30 30.8	1.409	2.366	7.1	19.9	1 6	6 1.38	+9 14.8	1.541	2.486	8.0	19.3
1 16	5 50.13	+30 40.1	1.470	2.380	11.5	20.2	1 16	5 52.68	+9 7.6	1.563	2.460	11.8	19.4
1 26	5 43.97	+30 40.4	1.554	2.394	15.3	20.5	1 26	5 46.25	+9 13.9	1.609	2.435	15.5	19.6
<b>447620</b>	2006 UR <sub>188</sub>		12 24.7	109°05'	2°8/24.7	18	<b>411048</b>	2009 VN <sub>21</sub>		12 24.8	106°79'	3°3/24.8	18
11 17	6 44.36	+16 21.1	2.270	3.039	13.6	21.6	11 17	6 39.99	+13 58.1	2.400	3.170	12.9	21.1
11 27	6 38.48	+15 45.7	2.202	3.062	10.7	21.4	11 27	6 35.16	+13 25.1	2.323	3.182	10.2	20.9
12 7	6 30.55	+15 14.2	2.157	3.084	7.4	21.3	12 7	6 28.42	+12 57.6	2.269	3.194	7.3	20.7
12 17	6 21.19	+14 47.5	2.140	3.106	4.1	21.1	12 17	6 20.32	+12 36.6	2.243	3.205	4.4	20.6
12 27	6 11.31	+14 26.6	2.153	3.127	2.9	21.0	12 27	6 11.65	+12 23.0	2.247	3.217	3.4	20.5
1 6	6 1.88	+14 11.9	2.197	3.148	5.4	21.2	1 6	6 3.29	+12 17.1	2.280	3.228	5.5	20.7
1 16	5 53.74	+14 3.6	2.270	3.168	8.6	21.5	1 16	5 56.02	+12 18.7	2.343	3.239	8.4	20.9
1 26	5 47.56	+14 1.7	2.369	3.187	11.4	21.7	1 26	5 50.49	+12 27.0	2.431	3.250	11.1	21.1
<b>228896</b>	2003 SF <sub>11</sub>		12 24.7	176°32'	2°1/25.1	18	<b>244338</b>	2002 JZ <sub>87</sub>		12 24.8	219°25'	0°7/24.8	18
11 17	6 57.77	+32 56.6	1.286	2.080	20.8	19.8	11 17	6 43.78	+21 42.1	2.036	2.820	14.5	21.4
11 27	6 51.08	+31 59.7	1.206	2.081	16.6	19.5	11 27	6 38.78	+21 35.6	1.941	2.813	11.3	21.2
12 7	6 40.00	+30 47.2	1.146	2.082	11.4	19.2	12 7	6 31.23	+21 30.8	1.870	2.807	7.6	20.9
12 17	6 25.65	+29 15.6	1.110	2.083	5.6	18.9	12 17	6 21.71	+21 26.6	1.825	2.799	3.5	20.7
12 27	6 10.02	+27 25.9	1.101	2.083	2.4	18.7	12 27	6 11.22	+21 22.2	1.810	2.792	1.2	20.5
1 6	5 55.43	+25 25.4	1.122	2.083	7.8	19.0	1 6	6 0.94	+21 17.3	1.824	2.784	5.4	20.8
1 16	5 43.78	+23 25.1	1.169	2.082	13.5	19.3	1 16	5 51.99	+21 12.5	1.867	2.775	9.5	21.0
1 26	5 36.22	+21 35.0	1.239	2.081	18.3	19.6	1 26	5 45.28	+21 8.7	1.935	2.767	13.1	21.2
<b>84272</b>	2002 TH <sub>10</sub>		12 24.8	66°30'	1°8/24.8	18	<b>187999</b>	2001 SY <sub>201</sub>		12 24.8	156°57'	0°8/24.8	18
11 17	6 43.03	+19 18.4	1.722	2.516	16.3	19.2	11 17	6 46.17	+20 48.5	1.998	2.777	14.8	22.0
11 27	6 38.25	+19 2.6	1.656	2.532	12.7	19.0	11 27	6 40.52	+20 49.5	1.916	2.785	11.6	21.8
12 7	6 30.79	+18 50.7	1.611	2.549	8.6	18.8	12 7	6 32.29	+20 53.4	1.857	2.792	7.8	21.6
12 17	6 21.41	+18 42.4	1.593	2.566	4.2	18.5	12 17	6 22.14	+20 58.8	1.825	2.799	3.6	21.4
12 27	6 11.26	+18 37.6	1.602	2.583	2.1	18.4	12 27	6 11.12	+21 4.4	1.823	2.805	1.3	21.2
1 6	6 1.62	+18 35.9	1.640	2.599	6.0	18.7	1 6	6 0.44	+21 9.5	1.850	2.810	5.4	21.5
1 16	5 53.63	+18 37.6	1.705	2.616	10.1	19.0	1 16	5 51.21	+21 14.2	1.907	2.814	9.4	21.8
1 26	5 48.12	+18 42.6	1.794	2.633	13.6	19.3	1 26	5 44.31	+21 19.3	1.989	2.818	12.9	22.0
<b>434312</b>	2004 FR <sub>159</sub>		12 24.8	199°71'	2°7/24.9	18	<b>202969</b>	1999 TP <sub>77</sub>		12 24.8	209°91'	1°5/24.7	18
11 17	6 44.53	+15 55.1	1.841	2.623	15.8	22.2	11 17	6 44.64	+26 44.1	2.020	2.805	14.5	21.1
11 27	6 39.53	+15 50.4	1.752	2.620	12.6	22.0	11 27	6 39.60	+27 3.9	1.930	2.802	11.4	20.9
12 7	6 31.80	+15 52.8	1.685	2.617	8.7	21.7	12 7	6 31.85	+27 23.2	1.861	2.798	7.7	20.6
12 17	6 21.97	+16 2.4	1.644	2.614	4.7	21.5	12 17	6 22.02	+27 39.0	1.820	2.793	3.7	20.4
12 27	6 11.07	+16 18.5	1.631	2.609	2.9	21.3	12 27	6 11.14	+27 48.7	1.807	2.788	1.9	20.2
1 6	6 0.38	+16 39.8	1.648	2.605	6.3	21.5	1 6	6 0.49	+27 50.9	1.825	2.783	5.6	20.5
1 16	5 51.11	+17 5.2	1.692	2.599	10.4	21.8	1 16	5 51.26	+27 46.4	1.870	2.777	9.6	20.7
1 26	5 44.25	+17 33.8	1.761	2.593	14.1	22.0	1 26	5 44.42	+27 37.3	1.941	2.771	13.1	20.9
<b>484530</b>	2008 EC <sub>167</sub>		12 24.8	326°58'	4°7/25.2	17	<b>409399</b>	2005 EE <sub>225</sub>		12 24.8	308°30'	3°8/25.9	16
11 17	6 37.50	+12 14.1	1.568	2.368	17.3	20.8	11 17	6 41.06	+8 32.0	2.157	2.918	14.5	20.3
11 27	6 34.62	+11 59.8	1.475	2.350	14.0	20.5	11 27	6 36.63	+9 11.7	2.049	2.900	11.8	20.1
12 7	6 28.87	+11 56.9	1.401	2.333	10.2	20.2	12 7	6 29.85	+10 7.0	1.962	2.881	8.6	19.8
12 17	6 20.78	+12 7.5	1.351	2.316	6.3	20.0	12 17	6 21.16	+11 18.0	1.903	2.863	5.3	19.6
12 27	6 11.40	+12 32.0	1.327	2.300	4.8	19.8	12 27	6 11.36	+12 42.6	1.873	2.845	3.8	19.5
1 6	6 2.09	+13 9.3	1.330	2.285	7.7	20.0	1 6	6 1.48	+14 17.1	1.874	2.827	6.1	19.6
1 16	5 54.19	+13 56.8	1.358	2.271	12.0	20.2	1 16	5 52.58	+15 56.6	1.905	2.809	9.6	19.8
1 26	5 48.84	+14 51.5	1.409	2.257	16.1	20.4	1 26	5 45.60	+17 36.8	1.963	2.792	13.0	20.0
<b>475510</b>	2006 SY <sub>337</sub>		12 24.8	120°73'	2°9/24.9	18	<b>139366</b>	2001 MP <sub>10</sub>		12 24.8	103°17'	1°0/24.7	18
11 17	6 47.34	+15 47.6	1.714	2.495	16.9	22.2	11 17	6 44.71	+25 7.2	2.075	2.858	14.2	20.6
11 27	6 41.59	+15 39.7	1.646	2.513	13.3	22.0	11 27	6 39.28	+25 27.0	2.004	2.875	11.1	20.4
12 7	6 33.03	+15 39.2	1.599	2.530	9.2	21.7	12 7	6 31.38	+25 47.2	1.956	2.892	7.4	20.2
12 17	6 22.44	+15 46.1	1.577	2.546	4.9	21.5	12 17	6 21.70	+26 4.9	1.935	2.909	3.4	20.0
12 27	6 10.99	+15 59.4	1.585	2.562	3.0	21.5	12 27	6 11.27	+26 18.1	1.944	2.926	1.4	19.9
1 6	6 0.04	+16 18.0	1.621	2.577	6.4	21.7	1 6	6 1.24	+26 25.6	1.983	2.942	5.2	20.2
1 16	5 50.80	+16 40.8	1.686	2.592	10.5	22.0	1 16	5 52.68	+26 28.0	2.050	2.958	8.9	20.4
1 26	5 44.15	+17 6.8	1.775	2.605	14.1	22.2	1 26	5 46.39	+26 26.9	2.143	2.973	12.1	20.6
<b>420141</b>	2011 FV <sub>82</sub>		12 24.8	235°75'	0°4/24.7	18	<b>104085</b>	2000 EF <sub>32</sub>		12 24.8	331°55'	1°7/24.9	18
11 17	6 39.80	+24 4.8	2.631	3.409	11.7	21.8	11 17	6 40.89	+18 8.0	1.718	2.515	16.2	19.8
11 27	6 35.17	+24 15.4	2.533	3.402	9.1	21.6	11 27	6 36.95	+18 14.1	1.632	2.511	12.8	19.5
12 7	6 28.55	+24 26.8	2.458	3.394	6.1	21.4	12 7	6 30.23	+18 26.8	1.569	2.507	8.7	19.3
12 17	6 20.43	+24 37.3	2.412	3.386	2.8	21.2	12 17	6 21.34	+18 45.3	1.530	2.503	4.2	19.0
12 27	6 11.57	+24 45.5	2.396	3.378	0.9	21.0	12 27	6 11.35	+19 8.2	1.519	2.500	2.0	18.8
1 6	6 2.85	+24 50.8	2.410	3.370	4.3	21.2	1 6	6 1.58	+19 33.8	1.536	2.497	6.1	19.1
1 16	5 55.10	+24 53.3	2.455	3.361	7.6	21.4	1 16	5 53.29	+20 0.7	1.580	2.494	10.5	19.3
1 26	5 49.06	+24 53.7	2.525	3.353	10.5	21.6	1 26	5 47.48	+20 28.2	1.648	2.491	14.4	19.6
<b>407150</b>	2009 TW <sub>38</sub>		12 24.8	51°01'	4°1/25.5	18	<b>15646</b>	4555 P-L		12 24.8	75°44'	1°6/24.9	18
11 17	6 40.44	+10 53.7	1.861	2.									

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>113375</b>	2002 SE <sub>8</sub>		12 24.8 266°59	7.7/24.9	18		<b>513362</b>	2008 CX <sub>203</sub>		12 24.8 354°95	2.9/24.9	18	
11 17	6 40.13	+ 3 38.9	2.046	2.797	15.4	19.6	11 17	6 40.69	+18 29.1	1.153	1.979	20.7	21.5
11 27	6 35.89	+ 2 44.8	1.947	2.779	13.1	19.4	11 27	6 37.98	+18 4.6	1.082	1.976	16.4	21.2
12 7	6 29.31	+ 2 2.5	1.868	2.761	10.5	19.2	12 7	6 31.52	+17 46.3	1.028	1.973	11.3	20.9
12 17	6 20.89	+ 1 36.5	1.814	2.742	8.4	19.1	12 17	6 22.09	+17 35.2	0.997	1.971	5.8	20.6
12 27	6 11.47	+ 1 30.0	1.786	2.723	7.8	19.0	12 27	6 11.20	+17 31.4	0.990	1.970	3.2	20.5
1 6	6 2.10	+ 1 43.9	1.786	2.704	9.2	19.0	1 6	6 0.74	+17 34.8	1.007	1.970	8.1	20.8
1 16	5 53.80	+ 2 17.1	1.812	2.684	11.9	19.2	1 16	5 52.46	+17 44.9	1.047	1.970	13.6	21.1
1 26	5 47.47	+ 3 6.3	1.862	2.664	14.7	19.3	1 26	5 47.62	+18 1.2	1.108	1.972	18.4	21.3
<b>70627</b>	1999 TU <sub>216</sub>		12 24.8 39°47	3.8/24.6	18		<b>170322</b>	2003 SG <sub>74</sub>		12 24.8 350°89	1.0/24.8	18	
11 17	6 44.73	+30 50.1	1.509	2.313	17.7	19.5	11 17	6 37.80	+22 32.6	1.248	2.077	19.3	19.1
11 27	6 40.48	+31 26.9	1.442	2.323	14.0	19.3	11 27	6 35.58	+22 13.1	1.171	2.068	15.2	18.9
12 7	6 32.79	+31 59.9	1.396	2.332	9.7	19.1	12 7	6 29.85	+21 54.8	1.114	2.061	10.3	18.6
12 17	6 22.50	+32 23.8	1.374	2.343	5.5	18.9	12 17	6 21.33	+21 37.1	1.078	2.055	4.7	18.2
12 27	6 11.05	+32 33.9	1.378	2.353	4.0	18.8	12 27	6 11.43	+21 19.9	1.067	2.050	1.6	18.0
1 6	6 0.16	+32 29.2	1.409	2.364	7.4	19.0	1 6	6 1.91	+21 3.7	1.082	2.047	7.3	18.4
1 16	5 51.35	+32 11.8	1.466	2.376	11.5	19.3	1 16	5 54.39	+20 50.0	1.120	2.045	12.7	18.7
1 26	5 45.71	+31 46.4	1.546	2.388	15.3	19.6	1 26	5 50.10	+20 40.2	1.179	2.044	17.4	18.9
<b>191209</b>	2002 QE <sub>32</sub>		12 24.8 65°71	6.4/24.8	17		<b>133151</b>	2003 QQ <sub>20</sub>		12 24.8 164°11	5.8/25.6	18	R
11 17	6 46.78	+41 55.0	2.232	2.991	14.1	19.4	11 17	6 42.35	+ 5 49.0	2.159	2.909	14.8	20.5
11 27	6 41.26	+42 38.9	2.164	3.005	11.6	19.3	11 27	6 37.29	+ 5 29.1	2.076	2.914	12.2	20.3
12 7	6 32.87	+43 12.1	2.119	3.019	9.1	19.1	12 7	6 30.03	+ 5 21.7	2.015	2.918	9.3	20.2
12 17	6 22.41	+43 29.3	2.099	3.033	7.0	19.0	12 17	6 21.15	+ 5 28.9	1.980	2.922	6.8	20.0
12 27	6 11.09	+43 26.6	2.106	3.048	6.4	19.0	12 27	6 11.51	+ 5 51.5	1.973	2.925	5.9	20.0
1 6	6 0.29	+43 3.8	2.142	3.062	7.8	19.1	1 6	6 2.09	+ 6 28.5	1.995	2.928	7.4	20.1
1 16	5 51.25	+42 24.0	2.205	3.077	10.0	19.3	1 16	5 53.83	+ 7 17.5	2.046	2.930	10.1	20.2
1 26	5 44.85	+41 32.4	2.292	3.091	12.4	19.5	1 26	5 47.50	+ 8 15.2	2.121	2.932	12.9	20.4
<b>412730</b>	2014 OR <sub>346</sub>		12 24.8 23°17	0.9/24.8	18		<b>249948</b>	2001 TT <sub>198</sub>		12 24.8 64°78	4.5/25.4	18	
11 17	6 41.93	+21 51.3	1.921	2.712	14.9	21.1	11 17	6 41.60	+10 41.5	1.799	2.577	16.3	20.7
11 27	6 37.39	+21 35.7	1.837	2.713	11.7	20.9	11 27	6 36.99	+10 31.6	1.735	2.596	13.0	20.5
12 7	6 30.29	+21 21.2	1.775	2.713	7.8	20.7	12 7	6 29.92	+10 33.3	1.692	2.615	9.4	20.4
12 17	6 21.28	+21 7.4	1.739	2.714	3.6	20.4	12 17	6 21.10	+10 47.4	1.675	2.634	5.9	20.2
12 27	6 11.40	+20 53.8	1.732	2.715	1.3	20.2	12 27	6 11.54	+11 13.6	1.685	2.654	4.6	20.2
1 6	6 1.83	+20 40.7	1.755	2.715	5.5	20.5	1 6	6 2.43	+11 50.1	1.724	2.673	6.8	20.3
1 16	5 53.69	+20 28.9	1.805	2.716	9.6	20.8	1 16	5 54.77	+12 34.3	1.790	2.692	10.2	20.6
1 26	5 47.84	+20 19.7	1.879	2.717	13.2	21.0	1 26	5 49.38	+13 23.4	1.880	2.712	13.4	20.8
<b>517269</b>	2014 FD <sub>18</sub>		12 24.8 233°68	3.1/24.7	18		<b>376995</b>	2002 PP <sub>138</sub>		12 24.8 106°33	2.4/24.8	18	
11 17	6 46.48	+30 42.2	1.842	2.629	15.6	21.8	11 17	6 49.56	+18 42.8	1.755	2.534	16.6	21.4
11 27	6 41.45	+31 3.8	1.751	2.622	12.4	21.5	11 27	6 43.09	+18 10.1	1.693	2.560	13.0	21.2
12 7	6 33.31	+31 21.9	1.681	2.615	8.6	21.3	12 7	6 33.90	+17 40.8	1.653	2.585	8.8	21.1
12 17	6 22.75	+31 31.9	1.638	2.607	4.7	21.1	12 17	6 22.82	+17 15.2	1.639	2.610	4.5	20.8
12 27	6 10.96	+31 30.4	1.623	2.599	3.3	20.9	12 27	6 11.08	+16 53.9	1.655	2.633	2.6	20.8
1 6	5 59.43	+31 16.4	1.636	2.591	6.6	21.1	1 6	6 0.00	+16 37.6	1.700	2.656	6.2	21.1
1 16	5 49.59	+30 51.8	1.677	2.582	10.6	21.4	1 16	5 50.73	+16 27.0	1.774	2.678	10.2	21.3
1 26	5 42.52	+30 20.7	1.742	2.573	14.3	21.6	1 26	5 44.07	+16 22.5	1.872	2.699	13.7	21.6
<b>330897</b>	2009 SV <sub>30</sub>		12 24.8 293°41	6.1/25.0	18		<b>379938</b>	2012 LW <sub>9</sub>		12 24.8 127°75	7.3/25.4	18	
11 17	6 41.92	+10 47.1	1.484	2.276	18.5	21.2	11 17	6 37.43	- 2 37.8	2.926	3.632	12.2	22.4
11 27	6 38.05	+10 5.0	1.403	2.271	15.1	21.0	11 27	6 32.85	- 3 32.6	2.854	3.644	10.5	22.3
12 7	6 31.12	+ 9 34.0	1.341	2.266	11.2	20.7	12 7	6 26.76	- 4 14.9	2.804	3.655	8.9	22.2
12 17	6 21.78	+ 9 17.4	1.303	2.261	7.5	20.5	12 17	6 19.60	- 4 41.8	2.779	3.666	7.7	22.1
12 27	6 11.24	+ 9 17.4	1.290	2.256	6.2	20.4	12 27	6 11.98	- 4 51.1	2.782	3.677	7.3	22.1
1 6	6 0.95	+ 9 34.1	1.304	2.251	8.8	20.5	1 6	6 4.57	- 4 42.8	2.812	3.688	8.0	22.1
1 16	5 52.32	+10 5.8	1.343	2.246	12.9	20.8	1 16	5 57.98	- 4 18.2	2.869	3.698	9.3	22.2
1 26	5 46.42	+10 49.1	1.404	2.242	16.8	21.0	1 26	5 52.75	- 3 39.9	2.950	3.708	10.9	22.4
<b>223831</b>	2004 TG <sub>129</sub>		12 24.8 54°39	4.5/25.3	18		<b>147800</b>	2005 SR <sub>25</sub>		12 24.8 155°77	0.2/24.8	18	
11 17	6 39.16	+10 42.7	2.013	2.789	14.9	20.3	11 17	6 41.96	+22 18.7	2.112	2.898	13.9	20.6
11 27	6 34.94	+10 22.5	1.938	2.797	12.0	20.1	11 27	6 37.24	+22 26.0	2.026	2.900	10.9	20.4
12 7	6 28.50	+10 12.2	1.885	2.806	8.7	19.9	12 7	6 30.14	+22 35.3	1.964	2.901	7.3	20.2
12 17	6 20.44	+10 13.1	1.857	2.815	5.7	19.7	12 17	6 21.24	+22 45.2	1.928	2.903	3.3	20.0
12 27	6 11.66	+10 25.6	1.858	2.824	4.6	19.7	12 27	6 11.50	+22 54.0	1.922	2.905	0.9	19.8
1 6	6 3.18	+10 48.9	1.887	2.833	6.6	19.8	1 6	6 2.01	+23 1.1	1.946	2.906	5.1	20.1
1 16	5 55.94	+11 21.3	1.943	2.843	9.7	20.0	1 16	5 53.81	+23 6.4	1.998	2.908	8.9	20.3
1 26	5 50.69	+12 0.5	2.024	2.852	12.7	20.3	1 26	5 47.73	+23 10.6	2.075	2.909	12.2	20.5
<b>236429</b>	2006 DJ <sub>119</sub>		12 24.8 353°97	5.0/24.3	18		<b>88582</b>	2001 QN <sub>259</sub>		12 24.8 72°20	3.2/24.8	18	
11 17	6 44.54	+31 45.9	1.453	2.259	18.2	20.3	11 17	6 45.50	+17 34.0	1.482	2.280	18.3	18.9
11 27	6 40.81	+32 43.8	1.376	2.257	14.5	20.1	11 27	6 40.51	+16 55.0	1.421	2.298	14.4	18.7
12 7	6 33.36	+33 39.4	1.320	2.255	10.3	19.8	12 7	6 32.48	+16 21.3	1.380	2.316	9.9	18.5
12 17	6 22.91	+34 25.5	1.288	2.254	6.3	19.6	12 17	6 22.28	+15 53.9	1.364	2.334	5.3	18.2
12 27	6 10.92	+34 55.4	1.282	2.253	5.2	19.5	12 27	6 11.24	+15 34.0	1.375	2.353	3.5	18.2
1 6	5 59.28	+35 5.9	1.302	2.253	8.4	19.7	1 6	6 0.87	+15 22.2	1.414	2.371	7.1	18.4
1 16	5 49.76	+34 58.6	1.347	2.253	12.6	20.0	1 16	5 52.42	+15 18.6	1.479	2.389	11.4	18.7
1 26	5 43.65	+34 38.6	1.413	2.253	16.6	20.2	1 26	5 46.81	+15 22.8	1.567	2.407	15.2	19.0
<b>242080</b>	2002 TW <sub>192</sub>		12 24.8 126°28	5.4/25.3	18		<b>259863</b>	2004 CQ <sub>103</sub>		12 24.8 290°55	2.4/24.8	17	
11 17	6 42.09	+ 7 33.8	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>130285</b>	2000 <i>EW</i> <sub>18</sub>		12 24.8 194°85	3°6/25.2	18		<b>274687</b>	2008 <i>UG</i> <sub>32</sub>		12 24.8 118°71	2°0/24.9	17	
11 17	6 38.41	+11 1.4	2.556	3.319	12.4	20.2	11 17	6 39.32	+16 46.2	2.638	3.409	11.8	21.9
11 27	6 33.99	+10 51.4	2.466	3.318	10.0	20.0	11 27	6 34.56	+16 33.9	2.557	3.420	9.3	21.7
12 7	6 27.73	+10 49.3	2.398	3.317	7.2	19.8	12 7	6 28.02	+16 25.6	2.501	3.431	6.4	21.6
12 17	6 20.11	+10 55.9	2.358	3.316	4.6	19.7	12 17	6 20.21	+16 21.3	2.473	3.442	3.4	21.4
12 27	6 11.84	+11 11.4	2.347	3.314	3.7	19.6	12 27	6 11.86	+16 21.1	2.474	3.452	2.1	21.3
1 6	6 3.71	+11 35.1	2.366	3.312	5.5	19.7	1 6	6 3.75	+16 24.7	2.507	3.462	4.6	21.5
1 16	5 56.52	+12 5.6	2.414	3.310	8.2	19.9	1 16	5 56.63	+16 31.8	2.569	3.472	7.5	21.7
1 26	5 50.91	+12 41.5	2.489	3.308	10.9	20.1	1 26	5 51.11	+16 42.0	2.657	3.481	10.2	21.9
<b>446764</b>	2015 <i>PO</i> <sub>34</sub>		12 24.8 145°01	2°5/24.7	18		<b>333321</b>	2001 <i>QX</i> <sub>3</sub>		12 24.8 193°07	6°1/25.9	18	
11 17	6 47.57	+29 40.1	2.105	2.881	14.3	21.8	11 17	6 37.44	- 2 58.1	3.489	4.182	10.6	22.1
11 27	6 41.67	+30 5.0	2.026	2.892	11.2	21.6	11 27	6 32.70	- 3 19.3	3.396	4.179	9.1	22.0
12 7	6 33.11	+30 27.1	1.970	2.902	7.7	21.4	12 7	6 26.62	- 3 29.0	3.325	4.176	7.6	21.9
12 17	6 22.57	+30 42.5	1.941	2.911	4.1	21.2	12 17	6 19.56	- 3 25.2	3.281	4.172	6.5	21.8
12 27	6 11.15	+30 48.5	1.942	2.920	2.7	21.2	12 27	6 12.04	- 3 6.9	3.265	4.168	6.1	21.7
1 6	6 0.11	+30 44.1	1.974	2.928	5.7	21.4	1 6	6 4.62	- 2 34.3	3.278	4.163	6.7	21.8
1 16	5 50.62	+30 30.9	2.033	2.935	9.2	21.6	1 16	5 57.84	- 1 48.9	3.320	4.157	8.0	21.9
1 26	5 43.56	+30 11.8	2.119	2.942	12.4	21.8	1 26	5 52.20	- 0 53.2	3.388	4.151	9.5	22.0
<b>420185</b>	2011 <i>GM</i> <sub>49</sub>		12 24.8 311°95	8°2/24.4	17		<b>52659</b>	1998 <i>BQ</i> <sub>6</sub>		12 24.8 58°74	1°9/25.0	18	
11 17	6 37.06	+ 2 32.1	2.117	2.868	15.0	20.9	11 17	6 40.92	+16 56.4	1.957	2.744	14.9	19.0
11 27	6 33.39	+ 1 19.5	2.024	2.853	12.8	20.7	11 27	6 36.57	+17 3.4	1.874	2.746	11.7	18.8
12 7	6 27.58	+ 0 18.3	1.953	2.839	10.5	20.5	12 7	6 29.77	+17 17.1	1.814	2.748	8.0	18.6
12 17	6 20.13	- 0 26.9	1.906	2.824	8.7	20.3	12 17	6 21.12	+17 36.8	1.779	2.751	4.0	18.3
12 27	6 11.84	- 0 52.1	1.885	2.810	8.3	20.3	12 27	6 11.59	+18 1.4	1.774	2.753	2.1	18.2
1 6	6 3.65	- 0 55.8	1.891	2.796	9.6	20.3	1 6	6 2.29	+18 29.1	1.797	2.756	5.6	18.4
1 16	5 56.49	- 0 38.5	1.922	2.783	11.8	20.5	1 16	5 54.30	+18 58.7	1.848	2.759	9.5	18.7
1 26	5 51.16	- 0 3.3	1.975	2.769	14.3	20.6	1 26	5 48.48	+19 29.3	1.925	2.761	12.9	18.9
<b>182648</b>	2001 <i>UJ</i> <sub>175</sub>		12 24.8 89°28	1°0/24.9	18		<b>518464</b>	2005 <i>JU</i> <sub>119</sub>		12 24.8 186°40	4°5/24.8	18	
11 17	6 42.43	+19 42.5	1.987	2.774	14.7	20.6	11 17	6 41.52	+ 9 58.7	2.550	3.303	12.7	23.0
11 27	6 37.61	+19 52.1	1.913	2.786	11.4	20.4	11 27	6 36.34	+ 9 19.0	2.459	3.303	10.3	22.8
12 7	6 30.36	+20 6.1	1.862	2.799	7.7	20.2	12 7	6 29.27	+ 8 46.1	2.391	3.302	7.6	22.6
12 17	6 21.33	+20 23.0	1.837	2.811	3.6	20.0	12 17	6 20.81	+ 8 22.0	2.351	3.300	5.3	22.5
12 27	6 11.52	+20 41.3	1.841	2.823	1.3	19.9	12 27	6 11.69	+ 8 8.0	2.340	3.298	4.6	22.4
1 6	6 2.05	+20 59.8	1.875	2.836	5.2	20.2	1 6	6 2.76	+ 8 4.6	2.360	3.296	6.2	22.5
1 16	5 53.98	+21 17.7	1.937	2.848	9.1	20.4	1 16	5 54.81	+ 8 11.4	2.409	3.292	8.8	22.7
1 26	5 48.11	+21 35.2	2.025	2.860	12.4	20.7	1 26	5 48.51	+ 8 27.3	2.483	3.288	11.4	22.9
<b>175059</b>	2004 <i>FV</i> <sub>149</sub>		12 24.8 273°83	2°0/24.9	17		<b>278157</b>	2007 <i>DM</i> <sub>33</sub>		12 24.8 11°44	2°6/25.0	18	
11 17	6 45.33	+30 7.6	1.902	2.689	15.2	20.0	11 17	6 41.98	+17 5.3	1.378	2.187	18.8	20.7
11 27	6 40.29	+29 55.8	1.812	2.684	12.0	19.8	11 27	6 38.38	+17 1.3	1.304	2.188	14.9	20.4
12 7	6 32.38	+29 38.3	1.743	2.679	8.2	19.5	12 7	6 31.49	+17 5.7	1.249	2.189	10.3	20.1
12 17	6 22.30	+29 12.4	1.701	2.673	4.1	19.3	12 17	6 22.03	+17 18.5	1.218	2.190	5.2	19.9
12 27	6 11.23	+28 37.0	1.688	2.668	2.2	19.1	12 27	6 11.33	+17 38.4	1.213	2.193	2.8	19.7
1 6	6 0.55	+27 53.1	1.704	2.663	5.9	19.3	1 6	6 0.99	+18 3.6	1.234	2.195	7.2	20.0
1 16	5 51.49	+27 3.8	1.748	2.657	10.0	19.6	1 16	5 52.53	+18 32.6	1.280	2.198	12.1	20.3
1 26	5 45.04	+26 13.3	1.817	2.652	13.6	19.8	1 26	5 47.06	+19 3.9	1.349	2.202	16.4	20.5
<b>490887</b>	2011 <i>BT</i> <sub>52</sub>		12 24.8 294°63	0°9/24.7	18		<b>192338</b>	1995 <i>MM</i> <sub>5</sub>		12 24.8 262°06	4°2/25.0	18	
11 17	6 40.65	+24 10.6	2.122	2.911	13.8	21.1	11 17	6 38.02	+10 43.3	2.395	3.162	13.0	20.6
11 27	6 36.53	+24 39.5	2.018	2.893	10.8	20.9	11 27	6 33.82	+10 14.8	2.305	3.159	10.5	20.4
12 7	6 29.90	+25 11.0	1.938	2.876	7.3	20.7	12 7	6 27.69	+ 9 53.8	2.238	3.156	7.7	20.2
12 17	6 21.26	+25 42.7	1.883	2.858	3.4	20.4	12 17	6 20.13	+ 9 42.1	2.198	3.153	5.2	20.0
12 27	6 11.50	+26 11.6	1.858	2.840	1.4	20.2	12 27	6 11.89	+ 9 40.4	2.186	3.150	4.3	20.0
1 6	6 1.76	+26 35.7	1.863	2.823	5.3	20.4	1 6	6 3.81	+ 9 48.9	2.204	3.146	6.1	20.1
1 16	5 53.18	+26 54.2	1.896	2.805	9.3	20.6	1 16	5 56.73	+10 6.8	2.250	3.143	8.9	20.2
1 26	5 46.73	+27 8.0	1.953	2.788	12.9	20.8	1 26	5 51.32	+10 32.5	2.321	3.140	11.6	20.4
<b>155636</b>	2000 <i>GP</i> <sub>10</sub>		12 24.8 246°61	0°7/24.8	18		<b>459327</b>	2012 <i>HK</i> <sub>19</sub>		12 24.8 196°23	2°7/24.3	18	
11 17	6 46.16	+24 35.9	1.910	2.695	15.2	22.0	11 17	6 42.99	+29 18.7	2.468	3.244	12.4	21.2
11 27	6 41.10	+24 46.1	1.805	2.678	12.0	21.7	11 27	6 37.99	+30 12.8	2.377	3.243	9.8	21.0
12 7	6 33.12	+24 57.3	1.724	2.661	8.2	21.5	12 7	6 30.67	+31 6.6	2.311	3.241	6.8	20.8
12 17	6 22.75	+25 6.8	1.668	2.642	3.7	21.2	12 17	6 21.55	+31 56.1	2.273	3.240	3.8	20.6
12 27	6 11.08	+25 12.2	1.641	2.624	1.3	20.9	12 27	6 11.48	+32 37.5	2.264	3.238	2.9	20.5
1 6	5 59.45	+25 12.3	1.644	2.604	5.9	21.2	1 6	6 1.53	+33 8.5	2.287	3.236	5.4	20.7
1 16	5 49.24	+25 7.7	1.675	2.584	10.4	21.4	1 16	5 52.69	+33 28.8	2.338	3.234	8.5	20.9
1 26	5 41.56	+25 0.3	1.731	2.563	14.3	21.6	1 26	5 45.85	+33 39.9	2.416	3.232	11.3	21.1
<b>77254</b>	2001 <i>FF</i> <sub>46</sub>		12 24.8 206°87	7°5/24.1	18		<b>400859</b>	2010 <i>ND</i> <sub>56</sub>		12 24.8 63°35	1°7/24.9	18	
11 17	6 49.67	+41 28.1	1.967	2.731	15.6	19.4	11 17	6 41.52	+19 13.8	1.894	2.684	15.1	21.2
11 27	6 44.32	+42 37.9	1.885	2.729	13.0	19.2	11 27	6 37.03	+18 58.9	1.817	2.692	11.9	21.0
12 7	6 35.47	+43 38.7	1.826	2.727	10.3	19.0	12 7	6 30.04	+18 47.5	1.763	2.700	8.0	20.8
12 17	6 23.84	+44 22.6	1.791	2.724	8.1	18.9	12 17	6 21.23	+18 39.5	1.735	2.708	3.9	20.5
12 27	6 10.78	+44 43.1	1.783	2.722	7.6	18.9	12 27	6 11.60	+18 34.8	1.735	2.716	2.0	20.4
1 6	5 58.02	+44 37.8	1.803	2.719	9.2	19.0	1 6	6 2.35	+18 33.0	1.764	2.724	5.6	20.7
1 16	5 47.20	+44 9.4	1.848	2.716	11.8	19.1	1 16	5 54.52	+18 34.4	1.821	2.732	9.6	20.9
1 26	5 39.55	+43 24.3	1.917	2.713	14.6	19.3	1 26	5 48.94	+18 39.0	1.903	2.740	13.0	21.1
<b>212059</b>	2005 <i>ER</i> <sub>31</sub>		12 24.8 146°48	5°8/25.5	18		<b>460203</b>	2014 <i>QM</i> <sub>149</sub>		12 24.8 134°59			

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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>486000</b>	2012 <i>LP</i> <sub>2</sub>		12 24.8 169°01	7°6/25.9 18			<b>221243</b>	2005 <i>UF</i> <sub>221</sub>		12 24.8 199°96	1°2/24.8 17		
11 17	6 37.04	- 7 38.1	3.326	3.997	11.4	22.3	11 17	6 42.74	+26 41.6	2.262	3.044	13.2	21.9
11 27	6 32.44	- 8 22.6	3.246	4.002	10.1	22.2	11 27	6 37.81	+26 50.5	2.171	3.042	10.4	21.7
12 7	6 26.47	- 8 53.6	3.188	4.005	8.8	22.1	12 7	6 30.53	+26 58.2	2.104	3.040	7.0	21.4
12 17	6 19.51	- 9 8.5	3.154	4.009	7.9	22.1	12 17	6 21.47	+27 2.4	2.065	3.038	3.3	21.2
12 27	6 12.11	- 9 5.5	3.147	4.011	7.6	22.1	12 27	6 11.57	+27 1.5	2.054	3.036	1.5	21.1
1 6	6 4.84	- 8 44.5	3.167	4.014	8.0	22.1	1 6	6 1.91	+26 55.0	2.074	3.033	5.0	21.3
1 16	5 58.28	- 8 6.9	3.213	4.015	9.1	22.2	1 16	5 53.51	+26 43.7	2.123	3.030	8.6	21.5
1 26	5 52.92	- 7 15.5	3.284	4.017	10.4	22.3	1 26	5 47.19	+26 29.6	2.198	3.027	11.8	21.7
<b>60937</b>	2000 <i>JQ</i> <sub>53</sub>		12 24.8 151°22	0°6/24.8 18			<b>60902</b>	2000 <i>JX</i> <sub>27</sub>		12 24.8 92°34	1°3/24.8 18		
11 17	6 43.80	+25 24.4	2.239	3.019	13.4	19.4	11 17	6 41.31	+27 34.8	2.479	3.259	12.3	19.2
11 27	6 38.52	+25 23.1	2.155	3.025	10.5	19.2	11 27	6 36.37	+27 42.2	2.401	3.270	9.6	19.0
12 7	6 30.91	+25 20.8	2.094	3.030	7.0	19.0	12 7	6 29.37	+27 47.7	2.346	3.281	6.4	18.8
12 17	6 21.59	+25 15.9	2.061	3.035	3.2	18.8	12 17	6 20.88	+27 49.3	2.319	3.292	3.1	18.6
12 27	6 11.52	+25 7.1	2.057	3.040	1.1	18.6	12 27	6 11.77	+27 45.8	2.322	3.303	1.5	18.5
1 6	6 1.77	+24 54.6	2.084	3.044	4.9	18.9	1 6	6 2.96	+27 36.8	2.356	3.314	4.5	18.8
1 16	5 53.33	+24 39.2	2.140	3.048	8.5	19.2	1 16	5 55.35	+27 23.3	2.418	3.324	7.7	19.0
1 26	5 46.99	+24 22.9	2.222	3.052	11.7	19.4	1 26	5 49.61	+27 7.1	2.507	3.335	10.6	19.2
<b>106858</b>	2000 <i>YT</i> <sub>23</sub>		12 24.8 61°85	1°4/24.9 18			<b>76554</b>	2000 <i>GK</i> <sub>93</sub>		12 24.8 297°96	1°4/24.6 18	R	
11 17	6 45.39	+17 50.0	1.300	2.108	19.8	19.2	11 17	6 40.82	+25 26.7	2.314	3.098	12.9	19.1
11 27	6 41.15	+18 18.9	1.236	2.120	15.6	18.9	11 27	6 36.37	+26 5.4	2.223	3.095	10.1	18.9
12 7	6 33.38	+18 58.2	1.191	2.132	10.5	18.7	12 7	6 29.63	+26 45.6	2.155	3.091	6.8	18.7
12 17	6 22.89	+19 45.2	1.169	2.144	4.9	18.4	12 17	6 21.12	+27 24.6	2.115	3.088	3.3	18.5
12 27	6 11.14	+20 35.9	1.174	2.156	1.8	18.2	12 27	6 11.70	+27 59.3	2.104	3.084	1.7	18.4
1 6	5 59.92	+21 26.0	1.206	2.169	7.1	18.6	1 6	6 2.40	+28 27.6	2.124	3.081	5.0	18.6
1 16	5 50.82	+22 12.8	1.263	2.182	12.2	18.9	1 16	5 54.24	+28 48.9	2.172	3.078	8.5	18.8
1 26	5 44.97	+22 55.5	1.343	2.195	16.6	19.2	1 26	5 48.05	+29 4.1	2.246	3.075	11.6	19.0
<b>57577</b>	2001 <i>TY</i> <sub>66</sub>		12 24.8 20°25	2°7/24.9 18			<b>144103</b>	2004 <i>BS</i> <sub>68</sub>		12 24.8 29°18	17°6/21.1 18		
11 17	6 40.48	+16 48.8	1.844	2.636	15.5	19.4	11 17	6 45.81	+ 1 19.3	1.018	1.810	25.2	18.1
11 27	6 36.34	+16 31.7	1.763	2.637	12.2	19.2	11 27	6 41.51	- 2 59.7	0.981	1.825	22.0	17.9
12 7	6 29.67	+16 20.1	1.704	2.639	8.4	18.9	12 7	6 33.50	- 6 56.7	0.964	1.842	19.3	17.8
12 17	6 21.11	+16 14.7	1.671	2.641	4.5	18.7	12 17	6 22.85	-10 12.3	0.968	1.860	17.8	17.8
12 27	6 11.65	+16 15.3	1.665	2.643	2.8	18.6	12 27	6 11.28	-12 31.0	0.993	1.880	17.9	17.9
1 6	6 2.49	+16 21.6	1.688	2.645	6.1	18.8	1 6	6 0.66	-13 48.1	1.038	1.900	19.4	18.1
1 16	5 54.72	+16 33.2	1.738	2.648	10.0	19.1	1 16	5 52.50	-14 8.5	1.101	1.922	21.5	18.3
1 26	5 49.21	+16 49.3	1.813	2.651	13.5	19.3	1 26	5 47.78	-13 43.7	1.179	1.945	23.6	18.5
<b>131361</b>	2001 <i>KN</i> <sub>5</sub>		12 24.8 179°89	4°7/24.0 17			<b>89840</b>	2002 <i>CV</i> <sub>37</sub>		12 24.8 115°58	0°5/24.9 18		
11 17	6 45.10	+38 28.5	2.909	3.662	11.3	20.6	11 17	6 41.44	+21 19.1	2.178	2.962	13.6	19.8
11 27	6 39.47	+39 26.0	2.822	3.663	9.2	20.5	11 27	6 36.76	+21 27.1	2.096	2.968	10.6	19.6
12 7	6 31.58	+40 18.0	2.758	3.664	7.0	20.3	12 7	6 29.80	+21 37.9	2.036	2.973	7.1	19.4
12 17	6 21.94	+40 59.8	2.723	3.664	5.2	20.2	12 17	6 21.16	+21 50.0	2.004	2.978	3.2	19.2
12 27	6 11.41	+41 27.8	2.717	3.664	4.8	20.2	12 27	6 11.73	+22 2.1	2.001	2.983	1.0	19.0
1 6	6 1.01	+41 40.5	2.741	3.663	6.2	20.3	1 6	6 2.56	+22 13.3	2.028	2.988	4.9	19.3
1 16	5 51.73	+41 38.5	2.794	3.662	8.3	20.4	1 16	5 54.63	+22 23.3	2.083	2.993	8.6	19.6
1 26	5 44.40	+41 24.8	2.873	3.661	10.4	20.6	1 26	5 48.73	+22 32.6	2.165	2.998	11.8	19.8
<b>180841</b>	2005 <i>GH</i> <sub>88</sub>		12 24.8 149°88	3°3/24.5 18			<b>346939</b>	2010 <i>AT</i> <sub>51</sub>		12 24.8 292°37	4°3/25.2 18		
11 17	6 49.63	+29 25.1	1.736	2.521	16.5	20.6	11 17	6 41.69	+13 10.7	1.576	2.369	17.6	21.1
11 27	6 43.98	+30 10.4	1.658	2.529	13.0	20.4	11 27	6 37.86	+12 55.1	1.488	2.361	14.1	20.8
12 7	6 35.07	+30 54.3	1.603	2.536	9.0	20.2	12 7	6 31.06	+12 49.9	1.421	2.352	10.1	20.6
12 17	6 23.61	+31 31.1	1.574	2.543	4.9	19.9	12 17	6 21.90	+12 56.4	1.378	2.344	6.0	20.3
12 27	6 10.94	+31 56.1	1.573	2.549	3.5	19.9	12 27	6 11.49	+13 14.9	1.361	2.335	4.4	20.2
1 6	5 58.66	+32 6.9	1.601	2.554	6.8	20.1	1 6	6 1.25	+13 44.4	1.372	2.327	7.5	20.4
1 16	5 48.26	+32 4.8	1.657	2.559	10.9	20.3	1 16	5 52.53	+14 22.6	1.409	2.319	11.8	20.6
1 26	5 40.83	+31 53.6	1.736	2.564	14.5	20.6	1 26	5 46.46	+15 7.1	1.469	2.311	15.9	20.8
<b>421786</b>	2014 <i>QQ</i> <sub>24</sub>		12 24.8 176°75	4°4/25.1 18			<b>324843</b>	2007 <i>KM</i>		12 24.8 167°39	3°6/24.9 17		
11 17	6 40.24	+10 2.5	2.416	3.176	13.1	22.3	11 17	6 39.81	+12 51.5	2.521	3.286	12.5	22.0
11 27	6 35.48	+9 33.0	2.329	3.177	10.6	22.1	11 27	6 35.07	+12 18.7	2.434	3.289	10.0	21.9
12 7	6 28.77	+9 11.5	2.265	3.179	7.9	21.9	12 7	6 28.46	+11 51.6	2.370	3.291	7.2	21.7
12 17	6 20.62	+8 59.5	2.227	3.179	5.3	21.8	12 17	6 20.50	+11 31.3	2.334	3.293	4.5	21.5
12 27	6 11.80	+8 58.0	2.219	3.180	4.5	21.7	12 27	6 11.92	+11 18.9	2.328	3.295	3.7	21.5
1 6	6 3.19	+9 7.0	2.240	3.180	6.2	21.8	1 6	6 3.56	+11 14.7	2.351	3.297	5.6	21.6
1 16	5 55.59	+9 25.6	2.290	3.180	8.9	22.0	1 16	5 56.19	+11 18.5	2.404	3.298	8.4	21.8
1 26	5 49.70	+9 52.3	2.365	3.179	11.6	22.2	1 26	5 50.46	+11 29.5	2.482	3.299	11.0	22.0
<b>435551</b>	2008 <i>QY</i> <sub>12</sub>		12 24.8 131°99	1°2/24.9 18			<b>4741</b>	Leskov		12 24.8 88°80	0°3/24.8 18		
11 17	6 46.45	+19 51.7	1.983	2.761	15.0	22.5	11 17	6 40.90	+23 53.9	2.481	3.260	12.3	17.7
11 27	6 40.68	+19 50.4	1.908	2.776	11.7	22.3	11 27	6 35.99	+24 3.4	2.407	3.277	9.5	17.5
12 7	6 32.40	+19 52.6	1.856	2.790	7.9	22.1	12 7	6 29.09	+24 13.5	2.357	3.293	6.3	17.3
12 17	6 22.27	+19 57.2	1.831	2.804	3.7	21.9	12 17	6 20.78	+24 22.6	2.334	3.308	2.8	17.1
12 27	6 11.35	+20 3.0	1.835	2.817	1.5	21.8	12 27	6 11.86	+24 29.4	2.342	3.324	0.9	17.0
1 6	6 0.85	+20 9.4	1.870	2.829	5.4	22.1	1 6	6 3.26	+24 33.4	2.380	3.340	4.3	17.3
1 16	5 51.83	+20 16.4	1.934	2.841	9.3	22.3	1 16	5 55.80	+24 34.7	2.447	3.355	7.6	17.5
1 26	5 45.13	+20 24.3	2.023	2.852	12.7	22.6	1 26	5 50.15	+24 34.4	2.541	3.370	10.4	17.7
<b>33030</b>	1997 <i>QB</i> <sub>2</sub>		12 24.8 53°98	6°3/24.9 18			<b>474930</b>	2005 <i>ST</i> <sub>256</sub>		12 24.8 94°41	0°4/24.8 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>308814</b>	2006 <i>QJ</i> <sub>126</sub>		12 24.8 136°49	2°1/24.5	18		<b>482854</b>	2014 <i>DN</i> <sub>51</sub>		12 24.8 311°10	3°9/25.1	18	
11 17	6 46.14	+27 15.4	2.272	3.047	13.4	21.2	11 17	6 40.91	+14 33.1	1.479	2.281	18.1	21.2
11 27	6 40.43	+28 0.4	2.193	3.059	10.5	21.0	11 27	6 37.53	+14 17.9	1.391	2.269	14.5	20.9
12 7	6 32.28	+28 45.5	2.138	3.071	7.1	20.8	12 7	6 31.01	+14 12.2	1.323	2.258	10.3	20.6
12 17	6 22.29	+29 26.7	2.111	3.082	3.6	20.6	12 17	6 21.97	+14 17.4	1.278	2.246	5.9	20.4
12 27	6 11.43	+30 0.6	2.115	3.093	2.3	20.5	12 27	6 11.57	+14 33.7	1.259	2.236	4.0	20.2
1 6	6 0.84	+30 25.3	2.149	3.103	5.3	20.8	1 6	6 1.31	+14 59.9	1.267	2.225	7.6	20.4
1 16	5 51.58	+30 40.6	2.212	3.112	8.7	21.0	1 16	5 52.65	+15 34.3	1.301	2.215	12.3	20.6
1 26	5 44.50	+30 48.5	2.301	3.121	11.7	21.2	1 26	5 46.79	+16 14.5	1.357	2.206	16.6	20.9
<b>513895</b>	2013 <i>TJ</i> <sub>129</sub>		12 24.8 54°47	4°4/25.3	18		<b>520496</b>	2014 <i>LA</i> <sub>11</sub>		12 24.8 177°12	5°7/25.1	18	
11 17	6 47.13	+13 51.2	1.139	1.949	21.9	20.6	11 17	6 41.58	+ 7 17.9	2.252	3.005	14.1	22.6
11 27	6 42.33	+13 35.2	1.097	1.978	17.3	20.4	11 27	6 36.67	+ 6 38.5	2.166	3.007	11.6	22.4
12 7	6 33.93	+13 32.6	1.072	2.008	12.0	20.2	12 7	6 29.67	+ 6 9.0	2.103	3.008	8.9	22.2
12 17	6 23.03	+13 43.7	1.070	2.039	6.8	20.0	12 17	6 21.13	+ 5 51.8	2.066	3.009	6.5	22.1
12 27	6 11.29	+14 7.3	1.093	2.069	4.6	20.0	12 27	6 11.85	+ 5 48.6	2.058	3.009	5.7	22.0
1 6	6 0.53	+14 40.6	1.142	2.100	8.2	20.3	1 6	6 2.78	+ 5 59.5	2.079	3.009	7.3	22.1
1 16	5 52.20	+15 20.5	1.215	2.131	12.8	20.6	1 16	5 54.81	+ 6 23.3	2.127	3.009	9.9	22.3
1 26	5 47.23	+16 4.0	1.310	2.161	16.9	21.0	1 26	5 48.67	+ 6 57.6	2.200	3.008	12.6	22.5
<b>515687</b>	2014 <i>PB</i> <sub>23</sub>		12 24.8 162°34	6°7/26.1	18		<b>191532</b>	2003 <i>UV</i> <sub>199</sub>		12 24.8 63°11	0°8/24.9	18	
11 17	6 40.57	- 0 33.7	2.700	3.413	13.0	22.6	11 17	6 41.57	+20 40.6	2.085	2.871	14.1	20.7
11 27	6 35.48	- 0 57.3	2.617	3.419	11.0	22.4	11 27	6 36.78	+20 43.4	2.019	2.892	10.9	20.5
12 7	6 28.66	- 1 7.5	2.556	3.425	9.0	22.3	12 7	6 29.75	+20 49.1	1.977	2.913	7.3	20.3
12 17	6 20.59	- 1 1.7	2.521	3.431	7.3	22.2	12 17	6 21.13	+20 56.7	1.961	2.935	3.3	20.1
12 27	6 11.93	+ 0 38.9	2.514	3.435	6.7	22.2	12 27	6 11.87	+21 4.9	1.974	2.956	1.2	20.0
1 6	6 3.46	+ 0 0.2	2.537	3.439	7.6	22.2	1 6	6 3.03	+21 13.1	2.017	2.977	4.9	20.3
1 16	5 55.90	+ 0 53.3	2.587	3.443	9.3	22.4	1 16	5 55.54	+21 21.1	2.088	2.999	8.5	20.6
1 26	5 49.85	+ 1 57.2	2.663	3.446	11.3	22.5	1 26	5 50.12	+21 29.3	2.185	3.020	11.7	20.8
<b>170673</b>	2003 <i>YG</i> <sub>174</sub>		12 24.8 212°99	0°1/24.8	18		<b>184724</b>	2005 <i>SU</i> <sub>166</sub>		12 24.8 120°50	1°0/24.9	18	
11 17	6 43.47	+22 2.4	2.083	2.867	14.2	20.7	11 17	6 47.75	+18 48.1	1.872	2.650	15.7	20.3
11 27	6 38.60	+22 16.3	1.991	2.862	11.1	20.5	11 27	6 41.88	+19 10.3	1.801	2.669	12.3	20.1
12 7	6 31.21	+22 33.0	1.921	2.857	7.5	20.2	12 7	6 33.33	+19 38.4	1.753	2.687	8.3	19.9
12 17	6 21.88	+22 50.8	1.878	2.852	3.4	20.0	12 17	6 22.80	+20 10.2	1.731	2.705	3.8	19.7
12 27	6 11.56	+23 7.6	1.864	2.847	1.0	19.8	12 27	6 11.40	+20 43.3	1.739	2.721	1.4	19.6
1 6	6 1.42	+23 22.1	1.880	2.841	5.2	20.1	1 6	6 0.43	+21 15.4	1.778	2.737	5.6	19.9
1 16	5 52.55	+23 34.0	1.925	2.834	9.2	20.3	1 16	5 51.04	+21 45.4	1.845	2.753	9.6	20.2
1 26	5 45.87	+23 44.0	1.995	2.828	12.7	20.5	1 26	5 44.11	+22 13.2	1.937	2.767	13.1	20.4
<b>3605</b>	Davy		12 24.8 332°67	0°6/24.8	18		<b>405971</b>	2006 <i>SZ</i> <sub>113</sub>		12 24.8 157°67	4°9/25.2	18	
11 17	6 44.05	+25 27.8	1.293	2.110	19.4	16.0	11 17	6 41.64	+ 8 35.3	2.352	3.106	13.6	22.0
11 27	6 40.53	+25 18.1	1.214	2.104	15.3	15.7	11 27	6 36.59	+ 8 3.7	2.270	3.113	11.1	21.8
12 7	6 33.25	+25 7.0	1.155	2.099	10.4	15.4	12 7	6 29.55	+ 7 41.1	2.210	3.119	8.3	21.7
12 17	6 22.99	+24 52.2	1.118	2.094	4.7	15.1	12 17	6 21.05	+ 7 29.4	2.177	3.125	5.8	21.5
12 27	6 11.25	+24 32.0	1.106	2.089	1.4	14.8	12 27	6 11.89	+ 7 29.7	2.173	3.130	5.0	21.5
1 6	5 59.93	+24 6.9	1.121	2.085	7.3	15.2	1 6	6 2.96	+ 7 42.0	2.199	3.134	6.6	21.6
1 16	5 50.77	+23 39.5	1.160	2.081	12.8	15.5	1 16	5 55.11	+ 8 4.9	2.253	3.138	9.2	21.8
1 26	5 45.05	+23 13.3	1.221	2.078	17.5	15.7	1 26	5 49.03	+ 8 36.6	2.332	3.142	11.9	21.9
<b>97768</b>	2000 <i>JP</i> <sub>69</sub>		12 24.8 223°75	0°7/24.9	18		<b>48220</b>	2001 <i>KX</i> <sub>40</sub>		12 24.8 249°31	2°3/25.2	18	
11 17	6 40.55	+18 47.4	2.806	3.575	11.3	19.3	11 17	6 39.65	+14 28.8	2.587	3.355	12.1	19.9
11 27	6 35.68	+19 15.7	2.704	3.567	8.8	19.1	11 27	6 35.14	+14 38.5	2.483	3.342	9.7	19.7
12 7	6 28.96	+19 48.8	2.625	3.558	6.0	18.9	12 7	6 28.68	+14 55.0	2.402	3.329	6.8	19.5
12 17	6 20.80	+20 25.3	2.576	3.549	2.8	18.7	12 17	6 20.72	+15 18.3	2.349	3.316	3.7	19.3
12 27	6 11.88	+21 3.5	2.557	3.539	1.0	18.5	12 27	6 11.96	+15 47.4	2.325	3.302	2.4	19.2
1 6	6 3.00	+21 41.6	2.571	3.530	4.1	18.8	1 6	6 3.25	+16 21.2	2.333	3.288	4.8	19.3
1 16	5 54.96	+22 18.4	2.614	3.520	7.3	19.0	1 16	5 55.41	+16 58.2	2.370	3.274	8.0	19.5
1 26	5 48.47	+22 53.2	2.686	3.509	10.1	19.1	1 26	5 49.17	+17 37.1	2.434	3.260	10.9	19.7
<b>408618</b>	2014 <i>KT</i> <sub>42</sub>		12 24.8 216°64	8°0/25.2	18		<b>484791</b>	2009 <i>DS</i>		12 24.8 323°54	1°2/25.0	18	
11 17	6 40.95	+ 2 30.5	2.052	2.797	15.6	20.7	11 17	6 41.40	+17 50.5	1.593	2.394	17.1	21.0
11 27	6 36.44	+ 1 34.3	1.965	2.792	13.2	20.6	11 27	6 37.79	+18 20.7	1.505	2.385	13.5	20.8
12 7	6 29.66	+ 0 51.5	1.900	2.787	10.7	20.4	12 7	6 31.14	+19 0.8	1.437	2.377	9.2	20.5
12 17	6 21.16	+ 0 26.0	1.859	2.782	8.6	20.3	12 17	6 22.03	+19 48.8	1.395	2.369	4.4	20.2
12 27	6 11.80	+ 0 20.9	1.845	2.776	8.0	20.2	12 27	6 11.59	+20 41.6	1.379	2.361	1.6	20.0
1 6	6 2.61	+ 0 36.8	1.858	2.770	9.3	20.3	1 6	6 1.24	+21 35.5	1.391	2.354	6.4	20.3
1 16	5 54.57	+ 1 11.9	1.897	2.764	11.7	20.4	1 16	5 52.42	+22 27.4	1.430	2.347	11.2	20.5
1 26	5 48.51	+ 2 2.7	1.960	2.757	14.3	20.6	1 26	5 46.30	+23 15.9	1.493	2.341	15.4	20.8
<b>189496</b>	2000 <i>AW</i> <sub>36</sub>		12 24.8 65°97	2°8/25.0	17		<b>302771</b>	2002 <i>VT</i> <sub>132</sub>		12 24.8 130°16	1°6/24.8	18	
11 17	6 44.78	+32 53.6	2.188	2.966	13.8	19.9	11 17	6 44.76	+20 2.7	2.255	3.029	13.5	21.2
11 27	6 39.46	+32 47.4	2.105	2.970	10.9	19.7	11 27	6 39.06	+19 35.3	2.177	3.043	10.6	21.0
12 7	6 31.63	+32 34.4	2.045	2.975	7.6	19.5	12 7	6 31.19	+19 9.3	2.123	3.056	7.1	20.8
12 17	6 21.99	+32 12.0	2.012	2.979	4.2	19.3	12 17	6 21.77	+18 45.0	2.097	3.069	3.5	20.6
12 27	6 11.60	+31 38.8	2.008	2.984	2.9	19.2	12 27	6 11.72	+18 22.7	2.101	3.081	1.8	20.5
1 6	6 1.66	+30 55.9	2.034	2.989	5.5	19.4	1 6	6 2.07	+18 2.9	2.136	3.093	5.0	20.7
1 16	5 53.22	+30 6.1	2.089	2.994	8.9	19.6	1 16	5 53.71	+17 46.7	2.201	3.105	8.5	21.0
1 26	5 47.09	+29 13.4	2.170	2.998	12.0	19.8	1 26	5 47.36	+17 34.7	2.291	3.115	11.6	21.2
<b>198728</b>	2005 <i>EG</i> <sub>21</sub>		12 24.8 92°57	3°8/25.3	17		<b>252078</b>	2000 <i>SM</i> <sub>291</sub>		12 24.8 99°76	1°2/24.9		

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12 24.8

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>457508</b>	2008 VC <sub>55</sub>		12 24.8	66°49'	0°9'/24.9	16	<b>390243</b>	2012 XK <sub>78</sub>		12 24.8	141°97'	0°4'/24.9	18
11 17	6 40.44	+21 14.0	2.248	3.032	13.2	21.8	11 17	6 45.87	+21 9.6	1.995	2.775	14.8	21.8
11 27	6 35.82	+21 3.9	2.173	3.045	10.3	21.7	11 27	6 40.39	+21 23.6	1.916	2.785	11.6	21.6
12 7	6 29.09	+20 55.5	2.121	3.058	6.9	21.5	12 7	6 32.35	+21 41.0	1.859	2.795	7.8	21.4
12 17	6 20.85	+20 48.3	2.096	3.070	3.2	21.3	12 17	6 22.39	+21 59.8	1.830	2.804	3.5	21.2
12 27	6 11.98	+20 41.8	2.101	3.083	1.2	21.1	12 27	6 11.55	+22 18.1	1.830	2.813	1.0	21.0
1 6	6 3.44	+20 36.0	2.136	3.096	4.7	21.4	1 6	6 1.04	+22 34.5	1.861	2.821	5.3	21.3
1 16	5 56.13	+20 31.3	2.200	3.109	8.2	21.6	1 16	5 51.98	+22 48.7	1.920	2.828	9.3	21.6
1 26	5 50.73	+20 28.2	2.289	3.122	11.3	21.9	1 26	5 45.23	+23 1.2	2.005	2.835	12.7	21.8
<b>167224</b>	2003 UD <sub>41</sub>		12 24.8	109°49'	5°0'/25.0	18	<b>184649</b>	2005 SQ <sub>29</sub>		12 24.8	148°73'	0°0'/24.8	18
11 17	6 43.93	+10 42.7	2.024	2.789	15.1	20.6	11 17	6 42.79	+23 36.5	2.223	3.005	13.5	20.9
11 27	6 38.53	+9 58.6	1.956	2.808	12.2	20.4	11 27	6 37.79	+23 34.3	2.138	3.009	10.5	20.7
12 7	6 30.88	+9 23.2	1.910	2.826	8.9	20.3	12 7	6 30.50	+23 32.5	2.077	3.014	7.0	20.5
12 17	6 21.64	+8 58.5	1.890	2.844	6.0	20.1	12 17	6 21.53	+23 29.7	2.043	3.018	3.2	20.3
12 27	6 11.77	+8 46.1	1.900	2.861	5.0	20.1	12 27	6 11.79	+23 24.9	2.039	3.021	0.9	20.1
1 6	6 2.31	+8 46.1	1.938	2.878	7.0	20.2	1 6	6 2.35	+23 18.0	2.065	3.025	4.8	20.4
1 16	5 54.21	+8 57.6	2.004	2.894	10.0	20.5	1 16	5 54.16	+23 9.5	2.119	3.028	8.5	20.6
1 26	5 48.20	+9 18.7	2.095	2.910	12.8	20.7	1 26	5 48.03	+23 0.8	2.200	3.031	11.7	20.8
<b>307315</b>	2002 QM <sub>93</sub>		12 24.8	50°87'	2°3'/24.7	17	<b>189817</b>	2002 NW <sub>30</sub>		12 24.8	51°16'	0°7'/24.9	17
11 17	6 46.68	+27 11.6	1.477	2.280	18.1	20.8	11 17	6 43.28	+27 21.3	2.064	2.851	14.2	19.3
11 27	6 41.71	+27 47.0	1.427	2.308	14.1	20.6	11 27	6 38.22	+26 56.6	1.990	2.863	11.1	19.1
12 7	6 33.47	+28 21.4	1.397	2.336	9.4	20.4	12 7	6 30.76	+26 28.3	1.938	2.875	7.4	18.9
12 17	6 22.88	+28 49.9	1.392	2.365	4.7	20.2	12 17	6 21.61	+25 55.4	1.914	2.888	3.4	18.6
12 27	6 11.44	+29 8.7	1.414	2.394	2.6	20.1	12 27	6 11.79	+25 17.8	1.918	2.901	1.1	18.5
1 6	6 0.77	+29 16.6	1.464	2.423	6.6	20.4	1 6	6 2.47	+24 36.9	1.953	2.914	5.0	18.8
1 16	5 52.23	+29 15.0	1.540	2.453	10.9	20.8	1 16	5 54.63	+23 55.2	2.016	2.927	8.8	19.1
1 26	5 46.75	+29 7.4	1.640	2.482	14.5	21.1	1 26	5 49.02	+23 15.2	2.105	2.940	12.0	19.3
<b>194600</b>	2001 XW <sub>127</sub>		12 24.8	51°82'	0°4'/24.9	18	<b>399048</b>	2013 KB <sub>4</sub>		12 24.8	209°78'	4°6'/24.9	18
11 17	6 45.52	+21 33.3	1.314	2.125	19.5	20.0	11 17	6 40.83	+11 30.7	2.094	2.865	14.5	21.3
11 27	6 41.07	+21 45.3	1.260	2.146	15.2	19.8	11 27	6 36.32	+10 54.9	2.006	2.863	11.7	21.1
12 7	6 33.19	+22 1.8	1.225	2.168	10.1	19.6	12 7	6 29.58	+10 26.7	1.941	2.861	8.6	20.9
12 17	6 22.81	+22 20.2	1.214	2.190	4.5	19.3	12 17	6 21.14	+10 8.0	1.901	2.858	5.6	20.7
12 27	6 11.45	+22 37.6	1.230	2.213	1.3	19.2	12 27	6 11.90	+10 0.3	1.890	2.856	4.6	20.7
1 6	6 0.85	+22 52.4	1.272	2.236	6.7	19.6	1 6	6 2.86	+10 3.8	1.908	2.853	6.7	20.8
1 16	5 52.44	+23 4.7	1.340	2.259	11.6	19.9	1 16	5 55.00	+10 17.8	1.954	2.849	9.9	21.0
1 26	5 47.21	+23 15.3	1.430	2.282	15.7	20.2	1 26	5 49.10	+10 40.8	2.024	2.846	13.0	21.2
<b>439104</b>	2011 SY <sub>66</sub>		12 24.8	89°15'	1°8'/24.9	17	<b>53925</b>	2000 GF <sub>38</sub>		12 24.8	2°45'	1°8'/24.9	18
11 17	6 46.66	+18 55.7	1.969	2.746	15.1	21.5	11 17	6 41.68	+18 47.4	1.846	2.637	15.4	20.0
11 27	6 40.65	+18 40.1	1.910	2.776	11.8	21.3	11 27	6 37.38	+18 39.9	1.762	2.637	12.1	19.8
12 7	6 32.25	+18 28.2	1.873	2.806	7.9	21.2	12 7	6 30.48	+18 36.8	1.700	2.637	8.3	19.5
12 17	6 22.22	+18 19.5	1.863	2.835	3.9	21.0	12 17	6 21.60	+18 37.9	1.664	2.637	4.1	19.3
12 27	6 11.62	+18 13.7	1.883	2.863	2.0	20.9	12 27	6 11.77	+18 42.6	1.657	2.637	2.0	19.1
1 6	6 1.60	+18 10.7	1.933	2.891	5.4	21.2	1 6	6 2.21	+18 50.1	1.677	2.637	5.8	19.4
1 16	5 53.13	+18 10.7	2.012	2.918	9.1	21.5	1 16	5 54.06	+19 0.2	1.726	2.638	9.9	19.6
1 26	5 46.94	+18 13.9	2.117	2.945	12.2	21.7	1 26	5 48.23	+19 12.7	1.799	2.638	13.6	19.9
<b>307497</b>	2002 XU <sub>108</sub>		12 24.8	83°70'	0°9'/24.8	18	<b>68419</b>	2001 QE <sub>256</sub>		12 24.8	2°67'	2°8'/25.1	18
11 17	6 45.96	+22 42.8	1.904	2.688	15.3	19.9	11 17	6 39.19	+16 5.0	1.569	2.373	17.2	18.7
11 27	6 40.30	+22 14.0	1.838	2.710	11.9	19.7	11 27	6 35.88	+16 2.7	1.492	2.372	13.6	18.4
12 7	6 32.12	+21 45.2	1.795	2.732	7.9	19.5	12 7	6 29.70	+16 9.0	1.434	2.372	9.4	18.2
12 17	6 22.19	+21 16.0	1.779	2.753	3.6	19.3	12 17	6 21.31	+16 24.0	1.401	2.372	5.0	17.9
12 27	6 11.63	+20 46.8	1.792	2.774	1.3	19.2	12 27	6 11.85	+16 46.7	1.395	2.374	2.9	17.8
1 6	6 1.65	+20 18.7	1.835	2.795	5.4	19.5	1 6	6 2.67	+17 15.5	1.415	2.376	6.6	18.0
1 16	5 53.29	+19 53.3	1.906	2.815	9.3	19.8	1 16	5 55.05	+17 48.6	1.462	2.378	11.0	18.3
1 26	5 47.31	+19 32.0	2.003	2.836	12.7	20.0	1 26	5 50.01	+18 24.2	1.532	2.382	14.9	18.5
<b>135806</b>	2002 RY <sub>121</sub>		12 24.8	23°71'	2°4'/24.4	18	<b>132935</b>	2002 TO <sub>14</sub>		12 24.8	126°30'	2°0'/25.0	17
11 17	6 43.70	+26 1.5	1.672	2.472	16.5	19.6	11 17	6 39.32	+16 27.4	2.645	3.416	11.8	20.3
11 27	6 39.52	+26 57.7	1.594	2.474	12.9	19.3	11 27	6 34.65	+16 20.9	2.563	3.425	9.3	20.1
12 7	6 32.23	+27 56.7	1.538	2.477	8.8	19.1	12 7	6 28.19	+16 18.8	2.504	3.433	6.4	20.0
12 17	6 22.49	+28 53.5	1.508	2.480	4.4	18.9	12 17	6 20.45	+16 21.1	2.473	3.442	3.4	19.8
12 27	6 11.49	+29 42.7	1.505	2.484	2.7	18.8	12 27	6 12.12	+16 27.5	2.472	3.450	2.1	19.7
1 6	6 0.76	+30 20.9	1.530	2.488	6.6	19.0	1 6	6 4.02	+16 37.5	2.502	3.458	4.5	19.9
1 16	5 51.70	+30 47.2	1.583	2.492	10.8	19.3	1 16	5 56.89	+16 50.7	2.562	3.466	7.5	20.1
1 26	5 45.44	+31 3.4	1.658	2.496	14.6	19.5	1 26	5 51.34	+17 6.5	2.648	3.473	10.2	20.3
<b>347175</b>	2011 FB <sub>143</sub>		12 24.8	190°13'	0°6'/24.8	18	<b>228457</b>	2001 QB <sub>275</sub>		12 24.8	153°43'	2°6'/24.6	18
11 17	6 46.57	+24 3.3	1.972	2.754	14.9	22.2	11 17	6 47.67	+27 44.7	1.746	2.536	16.3	20.8
11 27	6 41.17	+24 18.7	1.883	2.753	11.7	22.0	11 27	6 42.48	+28 28.6	1.667	2.540	12.8	20.6
12 7	6 33.03	+24 35.5	1.816	2.752	7.9	21.8	12 7	6 34.14	+29 12.8	1.609	2.545	8.8	20.4
12 17	6 22.76	+24 51.1	1.776	2.750	3.6	21.5	12 17	6 23.33	+29 52.2	1.578	2.549	4.5	20.1
12 27	6 11.43	+25 3.0	1.765	2.747	1.2	21.3	12 27	6 11.30	+30 22.1	1.574	2.552	2.9	20.0
1 6	6 0.34	+25 10.2	1.784	2.744	5.5	21.6	1 6	5 59.59	+30 40.1	1.600	2.556	6.5	20.3
1 16	5 50.70	+25 12.8	1.832	2.740	9.7	21.8	1 16	5 49.63	+30 46.7	1.653	2.559	10.7	20.5
1 26	5 43.49	+25 12.4	1.905	2.735	13.3	22.1	1 26	5 42.51	+30 44.8	1.730	2.561	14.4	20.7
<b>202056</b>	2004 RN <sub>227</sub>		12 24.8	165°15'	1°7'/24.9	18	<b>452663</b>	2005 VS <sub>23</sub>		12 24.8	143°74'	3°5'/24.5	18
11 17	6 45.30	+18 57.7	2.132	2.907									



EPHEMERIDES

12 24.8

12 24.9

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>452577</b>	2005 <i>EA</i> <sub>189</sub>		12 24.8 275°15	4.9°/24.7	17		<b>317683</b>	2003 <i>MS</i>		12 24.8 120°78	1.5°/24.8	18	
11 17	6 48.12	+40 40.3	2.908	3.651	11.5	21.4	11 17	6 52.91	+27 13.7	1.818	2.594	16.2	21.5
11 27	6 42.03	+41 1.7	2.784	3.618	9.5	21.2	11 27	6 45.98	+27 22.7	1.751	2.618	12.7	21.4
12 7	6 33.47	+41 14.9	2.684	3.585	7.4	21.1	12 7	6 36.08	+27 29.4	1.707	2.641	8.5	21.2
12 17	6 22.96	+41 15.6	2.611	3.551	5.5	20.9	12 17	6 24.06	+27 30.5	1.690	2.662	4.0	20.9
12 27	6 11.40	+41 0.4	2.568	3.516	4.9	20.8	12 27	6 11.22	+27 23.6	1.702	2.683	1.8	20.8
1 6	5 59.91	+40 28.4	2.555	3.481	6.3	20.8	1 6	5 59.05	+27 8.8	1.745	2.703	5.8	21.1
1 16	5 49.58	+39 41.3	2.571	3.446	8.7	20.9	1 16	5 48.81	+26 48.2	1.816	2.721	9.9	21.4
1 26	5 41.32	+38 43.2	2.615	3.409	11.2	21.0	1 26	5 41.39	+26 25.3	1.912	2.739	13.4	21.7
<b>223073</b>	2002 <i>TM</i> <sub>255</sub>		12 24.8 72°96	3°3/24.9	18		<b>85222</b>	1993 <i>FO</i> <sub>14</sub>		12 24.9 268°02	1°2/24.7	18	
11 17	6 46.17	+17 19.4	1.414	2.214	18.9	19.9	11 17	6 45.38	+24 35.6	1.664	2.460	16.7	20.6
11 27	6 41.26	+16 45.7	1.354	2.232	14.9	19.7	11 27	6 41.08	+25 2.4	1.565	2.443	13.2	20.3
12 7	6 33.16	+16 18.0	1.314	2.250	10.2	19.5	12 7	6 33.50	+25 32.3	1.487	2.426	9.0	20.0
12 17	6 22.78	+15 57.5	1.298	2.269	5.4	19.3	12 17	6 23.22	+26 1.7	1.434	2.409	4.2	19.7
12 27	6 11.51	+15 44.6	1.309	2.287	3.5	19.2	12 27	6 11.38	+26 26.7	1.409	2.391	1.7	19.5
1 6	6 0.91	+15 39.7	1.347	2.305	7.2	19.5	1 6	5 59.54	+26 44.8	1.413	2.373	6.6	19.7
1 16	5 52.33	+15 42.5	1.412	2.323	11.7	19.8	1 16	5 49.28	+26 55.5	1.443	2.355	11.4	20.0
1 26	5 46.69	+15 52.3	1.498	2.341	15.6	20.1	1 26	5 41.88	+27 0.6	1.496	2.337	15.8	20.2
<b>314795</b>	2006 <i>TN</i> <sub>42</sub>		12 24.8 12°29	6°8/24.5	18		<b>448337</b>	2009 <i>FA</i> <sub>24</sub>		12 24.9 278°04	6°7/24.4	17	
11 17	6 39.96	+10 15.4	1.646	2.433	17.2	20.1	11 17	6 47.82	+38 51.1	1.852	2.628	16.0	21.0
11 27	6 36.14	+8 58.0	1.572	2.435	14.0	19.9	11 27	6 42.97	+39 48.8	1.769	2.624	13.1	20.8
12 7	6 29.67	+7 49.0	1.519	2.438	10.6	19.7	12 7	6 34.69	+40 38.6	1.708	2.620	10.1	20.6
12 17	6 21.24	+6 53.2	1.490	2.441	7.7	19.6	12 17	6 23.68	+41 13.2	1.671	2.617	7.4	20.4
12 27	6 11.93	+6 14.3	1.488	2.444	6.9	19.5	12 27	6 11.28	+41 26.5	1.661	2.613	6.8	20.4
1 6	6 2.97	+5 54.5	1.512	2.448	9.0	19.6	1 6	5 59.20	+41 16.7	1.679	2.610	8.7	20.5
1 16	5 55.51	+5 53.3	1.561	2.453	12.2	19.8	1 16	5 49.03	+40 46.2	1.723	2.606	11.7	20.7
1 26	5 50.44	+6 8.4	1.633	2.458	15.4	20.1	1 26	5 41.97	+40 1.1	1.789	2.603	14.8	20.9
<b>480946</b>	2003 <i>SR</i> <sub>237</sub>		12 24.8 36°66	10°7/24.7	17		<b>484128</b>	2006 <i>SB</i> <sub>297</sub>		12 24.9 165°14	3°3/25.1	18	
11 17	6 50.96	+42 39.8	1.245	2.041	21.2	20.1	11 17	6 41.44	+14 37.4	1.981	2.761	14.9	21.9
11 27	6 46.75	+44 24.3	1.206	2.066	17.7	19.9	11 27	6 36.97	+14 19.2	1.896	2.762	11.9	21.7
12 7	6 37.74	+45 52.7	1.186	2.092	14.1	19.8	12 7	6 30.10	+14 7.9	1.834	2.763	8.4	21.5
12 17	6 25.05	+46 52.7	1.186	2.118	11.4	19.7	12 17	6 21.44	+14 4.2	1.798	2.764	4.8	21.3
12 27	6 10.91	+47 15.4	1.210	2.146	10.8	19.8	12 27	6 11.92	+14 8.4	1.790	2.764	3.4	21.2
1 6	5 57.93	+47 0.7	1.258	2.175	12.3	19.9	1 6	6 2.64	+14 20.1	1.811	2.765	6.1	21.4
1 16	5 48.20	+46 15.6	1.328	2.204	15.0	20.2	1 16	5 54.64	+14 38.3	1.860	2.765	9.7	21.6
1 26	5 42.91	+45 11.4	1.418	2.233	17.8	20.4	1 26	5 48.76	+15 1.8	1.934	2.766	13.1	21.8
<b>115377</b>	2003 <i>SA</i> <sub>270</sub>		12 24.8 121°63	2°3/24.5	17		<b>271648</b>	2004 <i>PC</i> <sub>109</sub>		12 24.9 109°34	0°4/24.9	16	
11 17	6 42.44	+28 33.7	2.380	3.159	12.7	19.6	11 17	6 46.88	+21 14.6	1.842	2.626	15.8	21.6
11 27	6 37.58	+29 13.3	2.297	3.164	10.0	19.5	11 27	6 41.28	+21 27.7	1.773	2.645	12.3	21.4
12 7	6 30.43	+29 51.9	2.237	3.169	6.8	19.3	12 7	6 32.98	+21 44.1	1.727	2.663	8.2	21.2
12 17	6 21.55	+30 26.3	2.204	3.174	3.6	19.1	12 17	6 22.70	+22 1.9	1.706	2.681	3.7	21.0
12 27	6 11.83	+30 53.3	2.202	3.179	2.5	19.0	12 27	6 11.59	+22 18.9	1.715	2.698	1.1	20.8
1 6	6 2.33	+31 11.5	2.230	3.183	5.2	19.2	1 6	6 0.95	+22 33.8	1.754	2.715	5.5	21.1
1 16	5 54.01	+31 20.8	2.286	3.188	8.4	19.4	1 16	5 51.92	+22 46.4	1.821	2.731	9.6	21.4
1 26	5 47.71	+31 23.1	2.369	3.192	11.3	19.6	1 26	5 45.39	+22 57.4	1.913	2.746	13.1	21.7
<b>101669</b>	1999 <i>CC</i> <sub>96</sub>		12 24.8 25°24	3°0/24.5	18		<b>413347</b>	2003 <i>XU</i> <sub>33</sub>		12 24.9 330°05	0°3/24.8	16	
11 17	6 42.90	+26 6.8	1.166	1.992	20.5	18.3	11 17	6 39.28	+23 28.2	2.020	2.815	14.2	21.1
11 27	6 39.91	+27 4.2	1.107	2.002	16.1	18.1	11 27	6 35.52	+23 39.3	1.928	2.806	11.1	20.9
12 7	6 32.97	+28 4.6	1.067	2.012	10.9	17.8	12 7	6 29.28	+23 52.2	1.857	2.796	7.5	20.6
12 17	6 22.93	+29 1.3	1.050	2.024	5.5	17.6	12 17	6 21.13	+24 5.0	1.813	2.788	3.4	20.3
12 27	6 11.46	+29 47.3	1.057	2.036	3.4	17.5	12 27	6 12.00	+24 16.1	1.797	2.779	1.0	20.1
1 6	6 0.59	+30 18.6	1.089	2.050	8.0	17.8	1 6	6 3.03	+24 24.3	1.810	2.772	5.2	20.4
1 16	5 52.13	+30 35.5	1.145	2.065	13.1	18.1	1 16	5 55.31	+24 29.6	1.851	2.764	9.3	20.7
1 26	5 47.34	+30 41.3	1.222	2.080	17.4	18.4	1 26	5 49.75	+24 32.8	1.916	2.757	12.8	20.9
<b>69527</b>	1997 <i>GU</i> <sub>10</sub>		12 24.8 350°30	3°0/24.9	18		<b>110615</b>	2001 <i>TQ</i> <sub>144</sub>		12 24.9 202°08	2°8/24.5	18	
11 17	6 36.71	+18 8.8	1.222	2.051	19.6	19.4	11 17	6 44.61	+29 3.5	2.139	2.921	13.9	19.9
11 27	6 34.81	+17 43.2	1.146	2.041	15.6	19.1	11 27	6 39.67	+29 50.3	2.050	2.919	11.0	19.7
12 7	6 29.46	+17 23.7	1.088	2.033	10.8	18.8	12 7	6 32.07	+30 36.6	1.985	2.917	7.6	19.5
12 17	6 21.37	+17 11.4	1.052	2.026	5.6	18.5	12 17	6 22.41	+31 18.1	1.946	2.915	4.2	19.2
12 27	6 11.87	+17 7.2	1.040	2.020	3.3	18.3	12 27	6 11.67	+31 50.8	1.937	2.912	3.0	19.2
1 6	6 2.69	+17 10.9	1.053	2.016	7.8	18.6	1 6	6 1.09	+32 12.4	1.957	2.909	5.9	19.3
1 16	5 55.43	+17 22.1	1.090	2.014	13.0	18.9	1 16	5 51.85	+32 23.0	2.006	2.906	9.4	19.6
1 26	5 51.30	+17 39.7	1.147	2.013	17.7	19.1	1 26	5 44.93	+32 24.7	2.080	2.903	12.6	19.8
<b>471248</b>	2011 <i>BG</i> <sub>89</sub>		12 24.8 49°92	2°9/24.9	18		<b>439548</b>	2014 <i>DP</i> <sub>18</sub>		12 24.9 319°05	2°0/24.9	18	
11 17	6 48.17	+30 23.1	1.255	2.067	20.2	20.8	11 17	6 41.53	+19 0.8	1.405	2.216	18.4	21.8
11 27	6 43.66	+30 24.1	1.194	2.080	15.9	20.5	11 27	6 38.28	+18 52.1	1.320	2.205	14.6	21.5
12 7	6 35.19	+30 18.8	1.153	2.093	10.9	20.3	12 7	6 31.69	+18 49.2	1.253	2.195	10.1	21.2
12 17	6 23.80	+30 2.8	1.134	2.107	5.6	20.0	12 17	6 22.40	+18 51.9	1.211	2.185	4.9	20.9
12 27	6 11.27	+29 33.6	1.141	2.121	3.2	19.9	12 27	6 11.67	+18 59.4	1.194	2.175	2.3	20.7
1 6	5 59.61	+28 52.8	1.174	2.135	7.5	20.2	1 6	6 1.13	+19 10.7	1.203	2.166	7.1	21.0
1 16	5 50.52	+28 5.1	1.232	2.150	12.5	20.6	1 16	5 52.36	+19 25.1	1.238	2.157	12.3	21.3
1 26	5 45.07	+27 16.3	1.313	2.165	16.8	20.9	1 26	5 46.59	+19 42.4	1.294	2.149	16.9	21.5
<b>133765</b>	2003 <i>WC</i> <sub>65</sub>		12 24.8 351°22	0°0/24.8	18		<b>179588</b>	2002 <i>LD</i> <sub>8</sub>		12 24.9			

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>420147</b>	2011 <i>FR</i> <sub>120</sub>		12 24.9 341°43	0°6/24.8	17		<b>116765</b>	2004 <i>ES</i> <sub>8</sub>		12 24.9 227°25	4°2/25.1	18	
11 17	6 40.22	+24 49.6	2.094	2.885	13.9	21.6	11 17	6 43.81	+13 30.6	1.678	2.463	17.0	20.3
11 27	6 36.11	+24 56.9	2.006	2.882	10.8	21.4	11 27	6 39.36	+13 6.2	1.591	2.458	13.7	20.0
12 7	6 29.60	+25 4.4	1.940	2.878	7.3	21.2	12 7	6 32.03	+12 50.4	1.525	2.453	9.8	19.8
12 17	6 21.25	+25 10.3	1.901	2.875	3.3	20.9	12 17	6 22.46	+12 44.7	1.483	2.447	5.9	19.6
12 27	6 12.03	+25 13.1	1.890	2.872	1.1	20.7	12 27	6 11.75	+12 49.9	1.469	2.441	4.4	19.5
1 6	6 3.03	+25 12.1	1.909	2.870	5.1	21.0	1 6	6 1.24	+13 5.5	1.482	2.435	7.3	19.6
1 16	5 55.29	+25 7.7	1.956	2.868	8.9	21.2	1 16	5 52.22	+13 30.3	1.523	2.429	11.4	19.8
1 26	5 49.68	+25 1.4	2.027	2.866	12.3	21.5	1 26	5 45.74	+14 2.5	1.587	2.422	15.3	20.1
<b>420197</b>	2011 <i>GC</i> <sub>69</sub>		12 24.9 302°32	3°2/24.6	16		<b>206636</b>	2003 <i>WX</i> <sub>171</sub>		12 24.9 62°73	5°1/26.1	18	
11 17	6 40.68	+17 13.3	2.120	2.902	14.0	20.9	11 17	6 44.48	+ 7 45.1	1.613	2.386	18.1	19.5
11 27	6 36.53	+16 25.4	2.003	2.872	11.2	20.7	11 27	6 39.58	+ 8 3.5	1.553	2.408	14.6	19.3
12 7	6 29.98	+15 38.6	1.910	2.841	7.9	20.4	12 7	6 31.94	+ 8 38.8	1.512	2.431	10.6	19.1
12 17	6 21.50	+14 54.4	1.842	2.810	4.5	20.2	12 17	6 22.30	+ 9 31.3	1.497	2.454	6.8	18.9
12 27	6 11.95	+14 14.6	1.804	2.778	3.3	20.0	12 27	6 11.83	+10 38.5	1.509	2.477	5.1	18.9
1 6	6 2.37	+13 41.2	1.795	2.747	6.3	20.1	1 6	6 1.84	+11 56.1	1.549	2.500	7.3	19.1
1 16	5 53.86	+13 15.7	1.814	2.716	10.1	20.3	1 16	5 53.51	+13 19.1	1.617	2.523	10.9	19.3
1 26	5 47.36	+12 59.0	1.857	2.685	13.7	20.5	1 26	5 47.71	+14 42.9	1.710	2.546	14.3	19.6
<b>377141</b>	2003 <i>OY</i> <sub>19</sub>		12 24.9 139°00	1°1/24.9	18		<b>385184</b>	4119 <i>T</i> <sub>-3</sub>		12 24.9 52°87	5°0/24.5	18	
11 17	6 48.90	+19 48.6	1.722	2.505	16.7	22.5	11 17	6 49.25	+30 36.8	1.235	2.047	20.5	20.4
11 27	6 43.11	+19 54.3	1.648	2.518	13.1	22.3	11 27	6 44.70	+31 45.0	1.185	2.069	16.1	20.2
12 7	6 34.36	+20 4.6	1.595	2.530	8.8	22.0	12 7	6 36.05	+32 50.3	1.154	2.091	11.3	20.0
12 17	6 23.41	+20 17.9	1.569	2.542	4.1	21.8	12 17	6 24.31	+33 43.9	1.147	2.114	6.6	19.8
12 27	6 11.47	+20 32.4	1.571	2.553	1.5	21.6	12 27	6 11.30	+34 18.6	1.164	2.137	5.2	19.8
1 6	5 59.97	+20 46.6	1.603	2.563	6.0	21.9	1 6	5 59.16	+34 32.1	1.208	2.161	8.6	20.1
1 16	5 50.19	+21 0.3	1.663	2.572	10.4	22.2	1 16	5 49.68	+34 27.1	1.276	2.185	13.0	20.4
1 26	5 43.12	+21 14.0	1.747	2.580	14.2	22.5	1 26	5 44.00	+34 9.8	1.366	2.209	16.8	20.7
<b>124469</b>	2001 <i>QA</i> <sub>330</sub>		12 24.9 175°59	1°5/24.7	18		<b>48554</b>	1993 <i>TL</i> <sub>32</sub>		12 24.9 74°48	0°6/24.9	18	
11 17	6 47.24	+25 37.1	1.860	2.646	15.6	20.6	11 17	6 43.04	+21 8.3	1.826	2.618	15.6	19.1
11 27	6 41.94	+26 8.7	1.776	2.648	12.2	20.4	11 27	6 38.47	+21 16.1	1.751	2.627	12.2	18.8
12 7	6 33.70	+26 41.5	1.713	2.649	8.3	20.2	12 7	6 31.23	+21 27.3	1.698	2.636	8.1	18.6
12 17	6 23.18	+27 11.9	1.677	2.650	3.9	19.9	12 17	6 22.01	+21 40.4	1.671	2.645	3.7	18.4
12 27	6 11.51	+27 36.2	1.670	2.651	1.9	19.8	12 27	6 11.90	+21 53.7	1.672	2.655	1.1	18.2
1 6	6 0.10	+27 52.4	1.693	2.651	5.9	20.0	1 6	6 2.15	+22 6.1	1.702	2.664	5.5	18.5
1 16	5 50.27	+28 0.7	1.743	2.651	10.1	20.3	1 16	5 53.91	+22 17.2	1.760	2.673	9.7	18.8
1 26	5 43.06	+28 3.0	1.818	2.650	13.8	20.5	1 26	5 48.07	+22 27.6	1.843	2.683	13.3	19.0
<b>274247</b>	2008 <i>OJ</i> <sub>11</sub>		12 24.9 204°50	0°4/24.9	18		<b>202151</b>	2004 <i>TL</i> <sub>337</sub>		12 24.9 119°98	0°3/24.9	16	
11 17	6 47.07	+24 47.0	1.934	2.717	15.1	21.3	11 17	6 46.84	+22 17.5	1.917	2.699	15.3	21.8
11 27	6 41.65	+24 44.4	1.842	2.713	11.9	21.1	11 27	6 41.19	+22 19.8	1.845	2.715	11.9	21.6
12 7	6 33.42	+24 41.3	1.772	2.708	8.0	20.9	12 7	6 32.92	+22 24.0	1.795	2.731	8.0	21.4
12 17	6 23.03	+24 35.7	1.728	2.703	3.7	20.6	12 17	6 22.72	+22 28.3	1.772	2.746	3.6	21.2
12 27	6 11.56	+24 26.0	1.714	2.697	1.1	20.4	12 27	6 11.73	+22 31.2	1.778	2.761	1.0	21.0
1 6	6 0.35	+24 12.1	1.730	2.690	5.6	20.7	1 6	6 1.17	+22 32.2	1.814	2.774	5.4	21.3
1 16	5 50.65	+23 55.2	1.774	2.683	9.9	20.9	1 16	5 52.19	+22 31.8	1.879	2.788	9.4	21.6
1 26	5 43.44	+23 37.7	1.843	2.675	13.6	21.1	1 26	5 45.63	+22 31.1	1.968	2.801	12.9	21.9
<b>412880</b>	2014 <i>QB</i> <sub>25</sub>		12 24.9 203°05	1°9/24.9	17		<b>14511</b>	Nickel		12 24.9 107°74	4°9/24.8	18	R
11 17	6 44.38	+29 20.5	2.325	3.101	13.1	21.6	11 17	6 50.23	+34 18.9	1.675	2.460	17.0	18.3
11 27	6 39.13	+29 25.2	2.232	3.098	10.3	21.4	11 27	6 44.69	+34 59.4	1.606	2.472	13.6	18.1
12 7	6 31.50	+29 26.6	2.163	3.095	7.0	21.1	12 7	6 35.70	+35 33.4	1.557	2.483	9.8	17.9
12 17	6 22.09	+29 22.1	2.121	3.092	3.6	20.9	12 17	6 24.10	+35 54.5	1.534	2.495	6.2	17.7
12 27	6 11.84	+29 10.1	2.109	3.088	2.0	20.8	12 27	6 11.35	+35 58.0	1.538	2.506	5.0	17.7
1 6	6 1.85	+28 50.5	2.127	3.084	5.1	21.0	1 6	5 59.19	+35 42.9	1.570	2.517	7.6	17.8
1 16	5 53.14	+28 24.8	2.174	3.079	8.5	21.2	1 16	5 49.14	+35 12.6	1.628	2.527	11.3	18.1
1 26	5 46.55	+27 55.6	2.248	3.075	11.7	21.4	1 26	5 42.28	+34 32.7	1.711	2.538	14.7	18.3
<b>171032</b>	2005 <i>ES</i> <sub>61</sub>		12 24.9 296°35	0°2/24.9	18		<b>448322</b>	2009 <i>DG</i> <sub>56</sub>		12 24.9 248°33	0°7/24.9	18	
11 17	6 42.64	+22 50.6	1.713	2.511	16.2	20.4	11 17	6 43.04	+20 37.3	2.021	2.805	14.5	22.1
11 27	6 38.63	+23 3.2	1.622	2.502	12.7	20.2	11 27	6 38.45	+20 44.0	1.922	2.794	11.4	21.9
12 7	6 31.65	+23 18.7	1.553	2.493	8.6	19.9	12 7	6 31.30	+20 54.3	1.847	2.783	7.7	21.6
12 17	6 22.32	+23 35.0	1.509	2.484	3.9	19.6	12 17	6 22.13	+21 7.0	1.798	2.772	3.6	21.3
12 27	6 11.75	+23 49.8	1.493	2.475	1.1	19.4	12 27	6 11.88	+21 20.7	1.778	2.760	1.2	21.1
1 6	6 1.35	+24 1.3	1.504	2.467	6.0	19.7	1 6	6 1.73	+21 34.1	1.787	2.748	5.4	21.4
1 16	5 52.47	+24 9.6	1.543	2.458	10.7	20.0	1 16	5 52.84	+21 46.8	1.825	2.735	9.6	21.6
1 26	5 46.22	+24 15.7	1.606	2.450	14.7	20.2	1 26	5 46.16	+21 59.1	1.888	2.723	13.2	21.8
<b>417872</b>	2007 <i>ND</i> <sub>1</sub>		12 24.9 194°13	2°4/25.4	18		<b>111519</b>	2001 <i>YJ</i> <sub>98</sub>		12 24.9 76°33	3°1/24.7	18	
11 17	6 40.47	+12 35.7	2.938	3.692	11.1	21.4	11 17	6 45.40	+30 51.0	1.938	2.724	15.0	19.3
11 27	6 35.48	+12 55.1	2.840	3.690	8.9	21.2	11 27	6 40.32	+31 21.4	1.868	2.738	11.8	19.2
12 7	6 28.79	+13 22.0	2.766	3.687	6.3	21.0	12 7	6 32.47	+31 48.1	1.821	2.753	8.2	19.0
12 17	6 20.82	+13 56.0	2.721	3.684	3.6	20.8	12 17	6 22.57	+32 7.0	1.799	2.767	4.6	18.8
12 27	6 12.19	+14 36.0	2.707	3.681	2.4	20.8	12 27	6 11.79	+32 14.8	1.806	2.781	3.3	18.7
1 6	6 3.65	+15 20.5	2.724	3.677	4.4	20.9	1 6	6 1.47	+32 10.9	1.842	2.795	6.1	18.9
1 16	5 55.89	+16 7.9	2.773	3.672	7.1	21.1	1 16	5 52.80	+31 56.8	1.906	2.810	9.6	19.2
1 26	5 49.56	+16 56.5	2.849	3.668	9.7	21.2	1 26	5 46.66	+31 35.9	1.994	2.824	12.8	19.4
<b>52372</b>	1993 <i>FE</i> <sub>50</sub>		12 24.9 4°83	3°7/25.0	18		<b>84564</b>	2002 <i>VT</i> <sub>8</sub>		12 24.9 272°61	4°7/24.7</		

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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>324367</b>	2006 QY <sub>139</sub>		12 24.9 160°89	2°3/24.9 18			<b>9898</b>	Yoshiro		12 24.9 35°87	2°6/25.2 18		
11 17	6 47.67	+18 14.7	1.739	2.521	16.6	21.6	11 17	6 43.13	+16 22.0	1.426	2.230	18.6	17.1
11 27	6 42.16	+17 55.3	1.658	2.528	13.1	21.4	11 27	6 39.25	+16 25.8	1.353	2.234	14.7	16.8
12 7	6 33.77	+17 40.3	1.600	2.533	9.0	21.1	12 7	6 32.17	+16 39.2	1.300	2.238	10.1	16.6
12 17	6 23.20	+17 29.6	1.567	2.538	4.6	20.9	12 17	6 22.59	+17 1.7	1.271	2.243	5.2	16.3
12 27	6 11.62	+17 23.1	1.563	2.542	2.5	20.8	12 27	6 11.82	+17 31.5	1.268	2.248	2.8	16.2
1 6	6 0.43	+17 20.7	1.588	2.546	6.3	21.0	1 6	6 1.41	+18 6.3	1.292	2.254	7.0	16.4
1 16	5 50.88	+17 22.7	1.641	2.549	10.6	21.3	1 16	5 52.82	+18 43.8	1.342	2.259	11.7	16.7
1 26	5 43.94	+17 29.0	1.718	2.551	14.4	21.5	1 26	5 47.15	+19 22.5	1.415	2.265	15.9	17.0
<b>248867</b>	2006 UP <sub>56</sub>		12 24.9 196°91	1°6/24.9 18			<b>310794</b>	2002 TO <sub>164</sub>		12 24.9 92°43	2°4/25.4 18		
11 17	6 43.61	+19 31.0	2.285	3.060	13.3	21.1	11 17	6 43.93	+13 53.8	1.925	2.701	15.4	20.3
11 27	6 38.41	+19 9.0	2.192	3.058	10.5	20.9	11 27	6 38.95	+14 22.3	1.851	2.715	12.2	20.1
12 7	6 30.97	+18 49.0	2.122	3.055	7.2	20.7	12 7	6 31.48	+15 1.2	1.799	2.729	8.4	19.9
12 17	6 21.87	+18 30.8	2.079	3.051	3.6	20.5	12 17	6 22.15	+15 49.1	1.773	2.742	4.5	19.7
12 27	6 11.98	+18 14.8	2.067	3.047	1.9	20.3	12 27	6 11.96	+16 43.7	1.777	2.755	2.5	19.6
1 6	6 2.31	+18 1.3	2.085	3.043	5.1	20.5	1 6	6 2.06	+17 41.7	1.810	2.768	5.7	19.9
1 16	5 53.81	+17 50.9	2.132	3.038	8.7	20.7	1 16	5 53.53	+18 40.2	1.872	2.781	9.5	20.1
1 26	5 47.26	+17 44.2	2.206	3.032	11.9	20.9	1 26	5 47.24	+19 37.3	1.960	2.794	12.8	20.3
<b>65542</b>	1143 T-1		12 24.9 120°97	1°2/24.9 18			<b>118591</b>	2000 GD <sub>76</sub>		12 24.9 254°67	3°2/24.6 18		
11 17	6 50.88	+26 15.7	1.533	2.326	18.0	18.8	11 17	6 46.49	+29 14.1	1.631	2.427	17.0	19.6
11 27	6 45.09	+26 21.5	1.464	2.340	14.1	18.6	11 27	6 42.01	+29 50.1	1.545	2.421	13.5	19.3
12 7	6 35.89	+26 26.1	1.416	2.354	9.5	18.3	12 7	6 34.14	+30 24.9	1.479	2.415	9.3	19.1
12 17	6 24.17	+26 26.1	1.393	2.367	4.4	18.1	12 17	6 23.56	+30 53.4	1.439	2.409	5.0	18.8
12 27	6 11.39	+26 18.9	1.398	2.380	1.7	17.9	12 27	6 11.55	+31 10.9	1.426	2.404	3.4	18.7
1 6	5 59.24	+26 4.4	1.432	2.392	6.5	18.3	1 6	5 59.77	+31 15.0	1.441	2.397	7.1	18.9
1 16	5 49.21	+25 44.9	1.492	2.404	11.2	18.6	1 16	5 49.82	+31 6.9	1.483	2.391	11.5	19.2
1 26	5 42.34	+25 23.7	1.576	2.415	15.2	18.8	1 26	5 42.91	+30 50.5	1.547	2.385	15.5	19.4
<b>5939</b>	Toshimayeda		12 24.9 34°99	4°7/25.1 18			<b>378067</b>	2006 UD <sub>6</sub>		12 24.9 19°38	6°3/24.1 18		
11 17	6 46.17	+35 12.4	1.628	2.421	17.1	17.1	11 17	6 42.02	+30 15.7	0.967	1.808	22.7	20.0
11 27	6 41.56	+35 30.6	1.559	2.430	13.7	16.9	11 27	6 40.22	+31 46.5	0.916	1.816	18.0	19.7
12 7	6 33.60	+35 40.0	1.511	2.439	9.9	16.7	12 7	6 33.77	+33 16.7	0.882	1.826	12.8	19.5
12 17	6 23.14	+35 35.5	1.487	2.449	6.2	16.5	12 17	6 23.55	+34 35.5	0.869	1.838	7.9	19.3
12 27	6 11.67	+35 13.8	1.490	2.460	4.8	16.4	12 27	6 11.57	+35 32.1	0.879	1.851	6.6	19.3
1 6	6 0.84	+34 35.7	1.520	2.471	7.4	16.6	1 6	6 0.34	+36 1.4	0.912	1.866	10.3	19.5
1 16	5 52.10	+33 45.0	1.577	2.483	11.1	16.9	1 16	5 52.06	+36 5.7	0.966	1.883	15.1	19.8
1 26	5 46.44	+32 48.0	1.657	2.495	14.6	17.1	1 26	5 48.13	+35 52.0	1.038	1.900	19.5	20.2
<b>483647</b>	2004 XN <sub>125</sub>		12 24.9 63°88	9°7/25.8 18			<b>458480</b>	2011 BE <sub>108</sub>		12 24.9 226°37	3°6/25.2 18		
11 17	6 57.06	+46 14.3	1.561	2.321	19.1	19.6	11 17	6 38.93	+11 9.0	2.695	3.454	11.9	22.4
11 27	6 50.67	+47 10.5	1.511	2.345	16.1	19.4	11 27	6 34.47	+10 54.7	2.596	3.446	9.6	22.2
12 7	6 39.89	+47 48.9	1.480	2.369	13.0	19.3	12 7	6 28.22	+10 47.5	2.521	3.438	7.0	22.0
12 17	6 25.96	+47 59.7	1.472	2.394	10.5	19.2	12 17	6 20.63	+10 48.3	2.473	3.429	4.5	21.8
12 27	6 10.95	+47 37.2	1.488	2.418	9.7	19.2	12 27	6 12.36	+10 57.7	2.454	3.420	3.6	21.8
1 6	5 57.20	+46 42.8	1.531	2.443	10.9	19.3	1 6	6 4.19	+11 15.1	2.466	3.411	5.4	21.9
1 16	5 46.51	+45 24.1	1.598	2.467	13.3	19.6	1 16	5 56.87	+11 39.6	2.507	3.402	8.0	22.0
1 26	5 39.90	+43 51.8	1.687	2.491	15.9	19.8	1 26	5 51.05	+12 10.0	2.574	3.392	10.7	22.2
<b>278939</b>	2008 UQ <sub>34</sub>		12 24.9 333°17	4°5/24.0 18			<b>390768</b>	2003 UY <sub>89</sub>		12 24.9 37°08	7°5/23.9 18		
11 17	6 43.24	+33 39.7	2.273	3.050	13.3	20.7	11 17	6 47.69	+34 59.3	1.305	2.113	19.8	19.8
11 27	6 38.67	+34 46.0	2.185	3.047	10.7	20.5	11 27	6 43.71	+36 41.1	1.256	2.132	15.9	19.6
12 7	6 31.49	+35 49.7	2.121	3.044	7.8	20.3	12 7	6 35.58	+38 16.7	1.226	2.153	11.8	19.4
12 17	6 22.24	+36 45.4	2.084	3.042	5.2	20.1	12 17	6 24.21	+39 35.2	1.220	2.175	8.4	19.3
12 27	6 11.88	+37 28.5	2.077	3.039	4.6	20.1	12 27	6 11.41	+40 27.7	1.239	2.197	7.7	19.3
1 6	6 1.63	+37 56.2	2.098	3.037	6.6	20.2	1 6	5 59.33	+40 50.8	1.283	2.220	10.1	19.5
1 16	5 52.66	+38 8.7	2.147	3.034	9.5	20.4	1 16	5 49.87	+40 48.0	1.351	2.244	13.6	19.8
1 26	5 45.95	+38 8.5	2.221	3.032	12.3	20.6	1 26	5 44.26	+40 26.7	1.440	2.268	16.9	20.1
<b>446212</b>	2013 GD <sub>41</sub>		12 24.9 342°11	8°1/23.9 17			<b>282537</b>	2004 RF <sub>277</sub>		12 24.9 185°21	2°3/25.1 18		
11 17	6 48.05	+41 11.0	1.827	2.599	16.3	20.8	11 17	6 44.52	+16 38.8	1.889	2.670	15.5	21.7
11 27	6 43.48	+42 32.4	1.749	2.597	13.6	20.6	11 27	6 39.60	+16 36.0	1.802	2.670	12.3	21.4
12 7	6 35.27	+43 45.4	1.692	2.595	10.8	20.4	12 7	6 32.04	+16 39.8	1.738	2.670	8.5	21.2
12 17	6 24.10	+44 41.1	1.660	2.593	8.6	20.3	12 17	6 22.46	+16 49.8	1.699	2.669	4.4	21.0
12 27	6 11.37	+45 12.4	1.654	2.592	8.2	20.2	12 27	6 11.87	+17 5.3	1.689	2.668	2.5	20.8
1 6	5 58.91	+45 16.2	1.674	2.590	9.8	20.3	1 6	6 1.51	+17 24.9	1.709	2.667	6.0	21.1
1 16	5 48.45	+44 55.0	1.719	2.589	12.5	20.5	1 16	5 52.54	+17 47.8	1.756	2.665	10.0	21.3
1 26	5 41.30	+44 15.2	1.787	2.588	15.3	20.7	1 26	5 45.89	+18 13.2	1.829	2.662	13.6	21.5
<b>262346</b>	2006 TL <sub>62</sub>		12 24.9 97°88	4°6/25.7 18			<b>91280</b>	1999 EO <sub>11</sub>		12 24.9 145°22	0°8/24.8 18		
11 17	6 42.99	+ 9 4.2	2.054	2.816	15.1	21.0	11 17	6 47.23	+24 58.1	2.003	2.783	14.8	20.8
11 27	6 37.90	+ 8 59.1	1.985	2.835	12.1	20.9	11 27	6 41.56	+25 11.6	1.923	2.793	11.6	20.6
12 7	6 30.59	+ 9 5.7	1.938	2.853	8.9	20.7	12 7	6 33.24	+25 25.4	1.867	2.802	7.8	20.3
12 17	6 21.68	+ 9 24.6	1.917	2.872	5.8	20.6	12 17	6 22.95	+25 36.8	1.837	2.811	3.6	20.1
12 27	6 12.09	+ 9 55.5	1.925	2.890	4.6	20.5	12 27	6 11.76	+25 43.7	1.837	2.819	1.3	19.9
1 6	6 2.85	+10 36.6	1.962	2.907	6.5	20.7	1 6	6 0.93	+25 45.1	1.867	2.827	5.3	20.3
1 16	5 54.89	+11 25.3	2.028	2.925	9.5	20.9	1 16	5 51.62	+25 41.9	1.926	2.834	9.3	20.5
1 26	5 48.97	+12 18.9	2.119	2.942	12.4	21.1	1 26	5 44.71	+25 35.8	2.011	2.840	12.7	20.7
<b>340161</b>	2005 YE <sub>114</sub>		12 24.9 59°70	2°1/24.8 18			<b>474252</b>	2001 SO <sub>196</sub>		12 24.9 60°61	1°8/24.9 16		
11 17	6 47.38	+26 58.5	1.406	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>305252</b>	2007 <i>XE</i> <sub>55</sub>		12 24.9 330°23	1.2°/24.9	18		<b>427889</b>	2005 <i>TV</i> <sub>9</sub>		12 24.9 84°22	6.2°/24.4	18	
11 17	6 42.11	+21 16.9	1.695	2.494	16.3	20.7	11 17	6 53.91	+35 28.0	1.596	2.377	17.9	20.3
11 27	6 38.09	+20 59.3	1.610	2.489	12.8	20.5	11 27	6 47.72	+36 43.4	1.543	2.404	14.4	20.2
12 7	6 31.22	+20 43.6	1.545	2.485	8.7	20.2	12 7	6 37.81	+37 51.8	1.510	2.430	10.5	20.0
12 17	6 22.14	+20 29.3	1.506	2.481	4.1	19.9	12 17	6 25.11	+38 44.3	1.502	2.456	7.2	19.9
12 27	6 11.99	+20 16.2	1.495	2.477	1.6	19.7	12 27	6 11.27	+39 14.5	1.522	2.482	6.3	19.9
1 6	6 2.12	+20 4.5	1.511	2.473	6.1	20.0	1 6	5 58.18	+39 20.5	1.570	2.507	8.6	20.1
1 16	5 53.81	+19 55.0	1.555	2.470	10.6	20.3	1 16	5 47.48	+39 5.9	1.644	2.532	11.9	20.3
1 26	5 48.05	+19 48.8	1.622	2.467	14.5	20.5	1 26	5 40.27	+38 37.4	1.740	2.556	15.0	20.6
<b>328680</b>	2009 <i>SE</i> <sub>327</sub>		12 24.9 101°09	1.5°/24.8	18		<b>91458</b>	1999 <i>RX</i> <sub>66</sub>		12 24.9 47°84	1°2°/24.8	18	
11 17	6 42.24	+20 36.4	2.243	3.023	13.4	20.2	11 17	6 42.41	+25 37.1	1.893	2.687	15.0	19.3
11 27	6 37.28	+20 7.0	2.163	3.031	10.5	20.0	11 27	6 38.01	+25 55.6	1.820	2.697	11.7	19.1
12 7	6 30.16	+19 38.7	2.106	3.040	7.1	19.9	12 7	6 30.96	+26 14.4	1.768	2.707	7.9	18.9
12 17	6 21.50	+19 11.6	2.076	3.049	3.4	19.6	12 17	6 21.97	+26 30.6	1.743	2.717	3.7	18.6
12 27	6 12.19	+18 46.3	2.077	3.057	1.7	19.5	12 27	6 12.09	+26 41.9	1.746	2.728	1.5	18.5
1 6	6 3.22	+18 23.6	2.107	3.066	5.0	19.8	1 6	6 2.59	+26 47.3	1.778	2.739	5.5	18.8
1 16	5 55.49	+18 4.4	2.167	3.074	8.5	20.0	1 16	5 54.59	+26 47.3	1.838	2.750	9.4	19.0
1 26	5 49.71	+17 49.4	2.252	3.082	11.5	20.2	1 26	5 48.98	+26 43.7	1.922	2.761	12.8	19.3
<b>264806</b>	2002 <i>PP</i> <sub>9</sub>		12 24.9 76°02	4.8°/25.4	18		<b>135140</b>	2001 <i>QJ</i> <sub>197</sub>		12 24.9 143°97	10.7°/26.5	18	
11 17	6 46.03	+12 34.0	1.413	2.205	19.3	20.9	11 17	7 4.95	+46 33.6	1.236	2.005	22.8	19.5
11 27	6 41.17	+12 11.1	1.355	2.225	15.4	20.7	11 27	6 58.27	+47 3.9	1.168	2.010	19.3	19.2
12 7	6 33.19	+12 0.0	1.316	2.245	11.0	20.5	12 7	6 45.81	+47 12.3	1.116	2.014	15.5	19.0
12 17	6 22.96	+12 2.0	1.301	2.265	6.6	20.3	12 17	6 28.90	+46 45.2	1.085	2.018	12.1	18.8
12 27	6 11.82	+12 17.3	1.313	2.285	4.9	20.3	12 27	6 10.29	+45 33.6	1.078	2.022	10.7	18.8
1 6	6 1.30	+12 44.0	1.351	2.305	7.8	20.5	1 6	5 53.28	+43 40.5	1.096	2.026	12.3	18.9
1 16	5 52.73	+13 19.8	1.416	2.325	11.9	20.8	1 16	5 40.37	+41 19.5	1.138	2.029	15.8	19.1
1 26	5 47.03	+14 1.7	1.503	2.344	15.7	21.1	1 26	5 32.80	+38 48.3	1.203	2.031	19.6	19.3
<b>403660</b>	2010 <i>TS</i> <sub>103</sub>		12 24.9 136°49	1°8°/24.7	18		<b>280740</b>	2005 <i>KC</i> <sub>4</sub>		12 24.9 322°56	6°4°/24.5	16	
11 17	6 44.06	+27 10.2	2.099	2.883	14.1	21.7	11 17	6 37.40	+ 9 32.3	1.924	2.703	15.3	20.5
11 27	6 39.14	+27 36.5	2.017	2.888	11.0	21.5	11 27	6 34.12	+ 8 26.4	1.822	2.680	12.7	20.3
12 7	6 31.67	+28 2.3	1.957	2.892	7.5	21.3	12 7	6 28.46	+ 7 27.2	1.742	2.657	9.7	20.1
12 17	6 22.28	+28 24.3	1.924	2.896	3.7	21.1	12 17	6 20.92	+ 6 38.9	1.687	2.635	7.2	19.9
12 27	6 11.97	+28 39.8	1.920	2.900	2.0	21.0	12 27	6 12.35	+ 6 5.0	1.659	2.614	6.5	19.8
1 6	6 1.94	+28 47.6	1.947	2.904	5.4	21.2	1 6	6 3.84	+ 5 47.7	1.658	2.593	8.4	19.8
1 16	5 53.28	+28 48.0	2.001	2.908	9.1	21.4	1 16	5 56.44	+ 5 47.4	1.683	2.572	11.6	20.0
1 26	5 46.89	+28 43.2	2.081	2.911	12.3	21.6	1 26	5 51.07	+ 6 2.5	1.731	2.553	14.8	20.2
<b>113707</b>	2002 <i>TM</i> <sub>129</sub>		12 24.9 308°41	0°9°/24.9	18		<b>367262</b>	2007 <i>TF</i> <sub>27</sub>		12 24.9 108°08	2°1°/24.8	18	
11 17	6 40.30	+21 54.3	2.298	3.082	13.0	19.6	11 17	6 51.68	+27 7.1	1.469	2.264	18.6	21.8
11 27	6 35.89	+21 33.5	2.206	3.077	10.2	19.4	11 27	6 45.91	+27 33.4	1.406	2.282	14.6	21.5
12 7	6 29.33	+21 13.2	2.137	3.073	6.9	19.2	12 7	6 36.56	+27 58.8	1.362	2.299	9.8	21.3
12 17	6 21.18	+20 53.1	2.095	3.069	3.2	19.0	12 17	6 24.55	+28 18.6	1.344	2.316	4.8	21.1
12 27	6 12.27	+20 33.2	2.083	3.065	1.2	18.8	12 27	6 11.43	+28 28.5	1.353	2.333	2.5	21.0
1 6	6 3.59	+20 14.0	2.100	3.060	4.8	19.0	1 6	5 58.98	+28 27.5	1.390	2.349	6.9	21.3
1 16	5 56.04	+19 56.5	2.147	3.056	8.4	19.3	1 16	5 48.79	+28 17.5	1.453	2.364	11.5	21.6
1 26	5 50.38	+19 41.7	2.219	3.052	11.6	19.5	1 26	5 41.91	+28 2.4	1.540	2.379	15.5	21.9
<b>460194</b>	2014 <i>QE</i> <sub>136</sub>		12 24.9 58°39	1°0°/24.9	18		<b>32568</b>	2001 <i>QD</i> <sub>71</sub>		12 24.9 129°06	2°6°/25.1	18	
11 17	6 41.18	+20 3.6	2.031	2.818	14.4	21.3	11 17	6 46.86	+15 59.8	2.015	2.786	15.0	19.9
11 27	6 36.80	+20 5.6	1.950	2.823	11.2	21.1	11 27	6 41.01	+15 50.5	1.943	2.804	11.8	19.7
12 7	6 30.05	+20 11.2	1.892	2.829	7.6	20.9	12 7	6 32.73	+15 47.2	1.892	2.821	8.2	19.5
12 17	6 21.53	+20 19.5	1.861	2.834	3.6	20.7	12 17	6 22.70	+15 49.8	1.869	2.837	4.4	19.3
12 27	6 12.19	+20 29.4	1.858	2.840	1.3	20.5	12 27	6 11.93	+15 57.9	1.875	2.853	2.7	19.2
1 6	6 3.13	+20 40.0	1.884	2.845	5.2	20.8	1 6	6 1.56	+16 10.6	1.912	2.868	5.7	19.5
1 16	5 55.36	+20 51.0	1.939	2.851	9.0	21.0	1 16	5 52.62	+16 27.3	1.978	2.881	9.3	19.7
1 26	5 49.71	+21 2.5	2.019	2.857	12.4	21.2	1 26	5 45.90	+16 47.1	2.069	2.894	12.6	19.9
<b>148614</b>	2001 <i>RR</i> <sub>113</sub>		12 24.9 201°33	1°2°/24.9	18		<b>329537</b>	2002 <i>TW</i> <sub>81</sub>		12 24.9 104°39	2°9°/24.6	17	
11 17	6 45.92	+19 31.8	1.991	2.770	14.9	21.2	11 17	6 44.04	+32 6.1	2.686	3.454	11.7	21.7
11 27	6 40.66	+19 33.5	1.898	2.766	11.8	21.0	11 27	6 38.55	+32 43.9	2.614	3.473	9.3	21.5
12 7	6 32.76	+19 39.4	1.828	2.762	8.0	20.8	12 7	6 30.97	+33 18.3	2.566	3.491	6.5	21.4
12 17	6 22.82	+19 48.3	1.784	2.757	3.8	20.5	12 17	6 21.89	+33 45.7	2.547	3.510	3.9	21.2
12 27	6 11.83	+19 59.0	1.769	2.751	1.5	20.3	12 27	6 12.14	+34 3.6	2.557	3.528	3.1	21.2
1 6	6 1.02	+20 10.5	1.785	2.744	5.6	20.6	1 6	6 2.69	+34 11.0	2.599	3.545	5.0	21.3
1 16	5 51.56	+20 22.5	1.829	2.737	9.7	20.8	1 16	5 54.42	+34 8.8	2.669	3.563	7.7	21.5
1 26	5 44.39	+20 35.1	1.899	2.730	13.3	21.0	1 26	5 48.04	+33 59.2	2.766	3.580	10.1	21.7
<b>10756</b>	1990 <i>SJ</i> <sub>2</sub>		12 24.9 37°73	1°1°/24.8	18		<b>154839</b>	2004 <i>RC</i> <sub>35</sub>		12 24.9 53°28	5°0°/24.7	17	
11 17	6 44.83	+22 51.9	1.088	1.916	21.6	16.6	11 17	6 45.53	+35 52.9	1.954	2.735	15.1	19.9
11 27	6 41.52	+23 31.1	1.033	1.929	16.9	16.4	11 27	6 40.69	+36 35.9	1.882	2.744	12.1	19.7
12 7	6 34.13	+24 16.3	0.996	1.942	11.3	16.1	12 7	6 32.90	+37 12.0	1.833	2.754	8.9	19.5
12 17	6 23.59	+25 2.4	0.981	1.957	5.1	15.8	12 17	6 22.89	+37 35.9	1.808	2.764	6.0	19.4
12 27	6 11.65	+25 43.5	0.990	1.972	1.8	15.7	12 27	6 11.88	+37 43.5	1.812	2.775	5.1	19.3
1 6	6 0.43	+26 15.8	1.024	1.988	7.7	16.1	1 6	6 1.32	+37 33.9	1.844	2.785	7.2	19.5
1 16	5 51.76	+26 38.8	1.082	2.005	13.2	16.5	1 16	5 52.48	+37 9.3	1.902	2.796	10.2	19.7
1 26	5 46.85	+26 54.5	1.160	2.022	17.9	16.8	1 26	5 46.32	+36 34.4	1.985	2.807	13.2	19.9
<b>328796</b>	2009 <i>VJ</i> <sub>17</sub>		12 24.9 33°85	2°9°/24.7	17		<b>26462</b>	Albertycui		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>54220</b>	2000 <i>HJ</i> <sub>100</sub>		12 24.9	69°99	1°6/24.7	18	<b>70113</b>	1999 <i>LY</i> <sub>9</sub>		12 24.9	95°57	4°9/25.2	18
11 17	6 44.52	+25 23.3	1.821	2.612	15.6	19.2	11 17	6 47.01	+12 52.7	1.483	2.270	18.8	19.6
11 27	6 39.77	+26 1.3	1.750	2.626	12.2	19.0	11 27	6 41.85	+12 19.3	1.421	2.288	15.0	19.4
12 7	6 32.23	+26 40.9	1.701	2.639	8.2	18.8	12 7	6 33.64	+11 56.3	1.379	2.306	10.7	19.2
12 17	6 22.58	+27 18.0	1.678	2.652	3.9	18.6	12 17	6 23.22	+11 45.3	1.361	2.324	6.6	19.0
12 27	6 11.97	+27 49.1	1.684	2.665	1.9	18.5	12 27	6 11.89	+11 47.2	1.370	2.341	5.0	18.9
1 6	6 1.74	+28 12.1	1.719	2.679	5.8	18.8	1 6	6 1.14	+12 1.3	1.406	2.358	7.8	19.2
1 16	5 53.11	+28 26.9	1.782	2.692	9.8	19.0	1 16	5 52.28	+12 25.8	1.469	2.374	11.8	19.4
1 26	5 47.02	+28 35.3	1.869	2.705	13.3	19.3	1 26	5 46.22	+12 58.2	1.554	2.390	15.5	19.7
<b>60591</b>	2000 <i>EV</i> <sub>141</sub>		12 24.9	308°87	0°3/24.9	18	<b>354466</b>	2004 <i>BF</i> <sub>154</sub>		12 24.9	109°23	2°9/24.9	18
11 17	6 42.19	+20 33.4	1.365	2.178	18.8	18.9	11 17	6 46.46	+31 34.2	1.901	2.685	15.3	21.1
11 27	6 39.36	+21 15.4	1.267	2.155	15.0	18.6	11 27	6 41.32	+31 43.3	1.821	2.690	12.1	20.9
12 7	6 32.92	+22 8.2	1.189	2.133	10.2	18.3	12 7	6 33.28	+31 47.0	1.762	2.694	8.4	20.7
12 17	6 23.29	+23 8.8	1.135	2.110	4.7	17.9	12 17	6 23.07	+31 41.8	1.730	2.698	4.6	20.4
12 27	6 11.70	+24 12.1	1.106	2.089	1.3	17.6	12 27	6 11.91	+31 25.2	1.726	2.703	3.1	20.4
1 6	5 59.89	+25 12.6	1.104	2.067	7.4	17.9	1 6	6 1.18	+30 57.3	1.751	2.707	6.1	20.6
1 16	5 49.75	+26 6.4	1.126	2.047	13.1	18.2	1 16	5 52.15	+30 20.9	1.804	2.711	9.9	20.8
1 26	5 42.88	+26 52.7	1.170	2.026	18.2	18.4	1 26	5 45.75	+29 40.0	1.882	2.715	13.3	21.0
<b>3179</b>	Beruti		12 24.9	356°43	1°1/24.9	18 R	<b>457393</b>	2008 <i>TB</i> <sub>68</sub>		12 24.9	50°40	3°3/24.5	17
11 17	6 38.78	+20 36.2	1.798	2.599	15.4	16.2	11 17	6 42.63	+31 12.6	2.247	3.028	13.3	21.4
11 27	6 35.34	+20 31.6	1.715	2.595	12.1	16.0	11 27	6 38.03	+31 58.2	2.167	3.034	10.5	21.3
12 7	6 29.31	+20 30.3	1.653	2.593	8.2	15.7	12 7	6 30.96	+32 41.2	2.110	3.040	7.4	21.1
12 17	6 21.29	+20 31.7	1.617	2.591	3.8	15.5	12 17	6 22.02	+33 17.7	2.080	3.045	4.4	20.9
12 27	6 12.32	+20 34.9	1.608	2.590	1.4	15.3	12 27	6 12.18	+33 44.1	2.079	3.051	3.4	20.8
1 6	6 3.59	+20 39.4	1.628	2.590	5.6	15.6	1 6	6 2.57	+33 58.7	2.108	3.057	5.8	21.0
1 16	5 56.27	+20 45.0	1.674	2.590	9.9	15.8	1 16	5 54.27	+34 1.9	2.165	3.063	8.9	21.2
1 26	5 51.25	+20 52.0	1.744	2.591	13.6	16.1	1 26	5 48.15	+33 56.2	2.246	3.069	11.9	21.4
<b>326617</b>	2002 <i>RA</i> <sub>127</sub>		12 24.9	48°16	6°9/25.2	18	<b>494034</b>	2016 <i>AN</i> <sub>192</sub>		12 24.9	61°62	2°4/25.4	18
11 17	6 40.39	+ 6 9.8	1.947	2.710	15.7	20.2	11 17	6 40.77	+14 22.6	2.097	2.875	14.3	20.8
11 27	6 35.87	+ 5 3.6	1.893	2.735	13.0	20.0	11 27	6 36.38	+14 38.8	2.019	2.884	11.3	20.6
12 7	6 29.21	+ 4 9.8	1.860	2.761	10.1	19.9	12 7	6 29.74	+15 3.6	1.963	2.893	7.8	20.4
12 17	6 21.08	+ 3 31.7	1.851	2.787	7.7	19.8	12 17	6 21.43	+15 36.4	1.933	2.902	4.2	20.2
12 27	6 12.41	+ 3 11.9	1.870	2.813	7.0	19.8	12 27	6 12.34	+16 15.6	1.933	2.911	2.5	20.1
1 6	6 4.20	+ 3 10.5	1.917	2.840	8.3	20.0	1 6	6 3.49	+16 59.2	1.962	2.920	5.3	20.3
1 16	5 57.32	+ 3 25.8	1.989	2.867	10.7	20.2	1 16	5 55.83	+17 45.1	2.020	2.929	8.9	20.6
1 26	5 52.43	+ 3 54.6	2.086	2.893	13.2	20.4	1 26	5 50.15	+18 31.4	2.103	2.938	12.1	20.8
<b>131392</b>	2001 <i>KS</i> <sub>55</sub>		12 24.9	185°72	4°0/25.1	18	<b>319591</b>	2006 <i>SU</i> <sub>162</sub>		12 24.9	161°83	2°9/25.1	16
11 17	6 38.86	+10 46.1	2.570	3.331	12.4	20.1	11 17	6 48.01	+15 10.3	2.199	2.960	14.2	23.0
11 27	6 34.44	+10 18.1	2.481	3.331	10.0	19.9	11 27	6 41.80	+14 54.6	2.115	2.970	11.3	22.8
12 7	6 28.22	+ 9 57.2	2.415	3.330	7.3	19.8	12 7	6 33.25	+14 44.5	2.054	2.978	7.9	22.6
12 17	6 20.67	+ 9 44.7	2.376	3.330	4.9	19.6	12 17	6 22.99	+14 40.4	2.020	2.986	4.4	22.4
12 27	6 12.49	+ 9 41.6	2.366	3.329	4.1	19.6	12 27	6 11.95	+14 42.1	2.017	2.992	3.0	22.3
1 6	6 4.48	+ 9 47.9	2.386	3.328	5.7	19.7	1 6	6 1.20	+14 49.4	2.045	2.998	5.7	22.5
1 16	5 57.40	+10 2.9	2.435	3.327	8.3	19.8	1 16	5 51.73	+15 1.6	2.103	3.002	9.1	22.7
1 26	5 51.88	+10 25.2	2.510	3.326	10.9	20.0	1 26	5 44.36	+15 18.2	2.187	3.005	12.3	22.9
<b>162032</b>	1995 <i>WJ</i> <sub>8</sub>		12 24.9	135°23	0°2/24.9	18	<b>514295</b>	2015 <i>TD</i> <sub>81</sub>		12 24.9	166°40	3°6/24.9	18
11 17	6 45.80	+24 8.9	2.034	2.816	14.5	20.7	11 17	6 42.90	+13 51.6	2.365	3.130	13.2	21.6
11 27	6 40.38	+24 8.2	1.955	2.826	11.4	20.5	11 27	6 37.69	+13 11.5	2.279	3.134	10.6	21.4
12 7	6 32.43	+24 7.5	1.899	2.835	7.6	20.3	12 7	6 30.44	+12 36.3	2.216	3.138	7.6	21.3
12 17	6 22.62	+24 5.2	1.870	2.844	3.4	20.1	12 17	6 21.70	+12 7.5	2.181	3.141	4.7	21.1
12 27	6 11.99	+24 0.0	1.870	2.853	0.9	19.9	12 27	6 12.29	+11 46.3	2.175	3.144	3.7	21.0
1 6	6 1.73	+23 51.6	1.901	2.861	5.2	20.2	1 6	6 3.13	+11 33.4	2.200	3.147	5.8	21.2
1 16	5 52.94	+23 41.0	1.960	2.869	9.1	20.5	1 16	5 55.08	+11 28.9	2.254	3.148	8.8	21.4
1 26	5 46.44	+23 29.9	2.044	2.876	12.5	20.7	1 26	5 48.83	+11 32.2	2.333	3.150	11.7	21.5
<b>157754</b>	2006 <i>DP</i> <sub>51</sub>		12 24.9	87°29	0°6/24.9	18	<b>212279</b>	2005 <i>KF</i> <sub>11</sub>		12 24.9	125°93	6°3/26.9	18
11 17	6 43.27	+24 36.1	2.288	3.067	13.2	20.9	11 17	6 44.89	+ 1 51.7	2.021	2.755	16.1	19.8
11 27	6 38.07	+24 46.5	2.218	3.088	10.2	20.7	11 27	6 39.65	+ 2 18.3	1.935	2.760	13.5	19.6
12 7	6 30.70	+24 57.1	2.172	3.108	6.8	20.6	12 7	6 31.99	+ 3 4.5	1.870	2.764	10.4	19.4
12 17	6 21.78	+25 6.0	2.154	3.128	3.1	20.4	12 17	6 22.50	+ 4 11.5	1.830	2.768	7.6	19.3
12 27	6 12.23	+25 11.6	2.165	3.148	1.0	20.2	12 27	6 12.07	+ 5 38.0	1.820	2.772	6.3	19.2
1 6	6 3.07	+25 13.4	2.207	3.167	4.6	20.5	1 6	6 1.82	+ 7 20.0	1.839	2.776	7.6	19.3
1 16	5 55.19	+25 11.9	2.278	3.186	8.0	20.8	1 16	5 52.78	+ 9 11.6	1.888	2.779	10.4	19.5
1 26	5 49.31	+25 8.4	2.375	3.205	11.0	21.0	1 26	5 45.84	+11 6.9	1.964	2.783	13.4	19.7
<b>403311</b>	2009 <i>CC</i> <sub>29</sub>		12 24.9	257°07	5°4/24.7	18	<b>438618</b>	2007 <i>XE</i> <sub>23</sub>		12 24.9	61°50	4°7/24.7	16
11 17	6 48.99	+37 40.7	2.089	2.856	14.7	22.2	11 17	6 45.16	+15 0.6	1.614	2.402	17.4	20.6
11 27	6 43.62	+38 15.9	1.986	2.839	12.0	22.0	11 27	6 40.05	+13 53.4	1.555	2.424	13.8	20.4
12 7	6 35.09	+38 43.8	1.906	2.821	9.0	21.8	12 7	6 32.22	+12 52.2	1.518	2.446	9.8	20.2
12 17	6 24.03	+38 58.4	1.851	2.803	6.3	21.6	12 17	6 22.51	+12 0.0	1.506	2.469	6.0	20.0
12 27	6 11.60	+38 54.9	1.825	2.784	5.5	21.5	12 27	6 12.12	+11 19.6	1.521	2.491	4.8	20.0
1 6	5 59.32	+38 31.8	1.827	2.765	7.5	21.6	1 6	6 2.36	+10 52.4	1.565	2.513	7.5	20.2
1 16	5 48.65	+37 51.4	1.857	2.745	10.7	21.7	1 16	5 54.35	+10 38.9	1.635	2.536	11.1	20.5
1 26	5 40.75	+36 59.0	1.911	2.725	13.9	21.9	1 26	5 48.88	+10 37.6	1.728	2.558	14.5	20.7
<b>475871</b>	2007 <i>CA</i> <sub>29</sub>		12 24.9	14°98	4°8/25.7	18	<b>50661</b>	2000 <i>EN</i> <sub>95</sub>		12 24.9	230°40	3°4/2	

EPHEMERIDES

12 24.9

12 24.9

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>226613</b>	2004 <i>DZ</i> <sub>29</sub>		12 24.9 212°22	0°2/24.9 18			<b>281039</b>	2006 <i>HX</i> <sub>36</sub>		12 24.9 184°01	5°4/24.4 18		
11 17	6 47.21	+23 4.5	1.984	2.764	14.9	21.4	11 17	6 46.86	+42 27.9	3.049	3.787	11.1	21.7
11 27	6 41.84	+23 17.3	1.888	2.757	11.8	21.2	11 27	6 40.96	+43 15.1	2.961	3.788	9.2	21.6
12 7	6 33.69	+23 32.3	1.814	2.749	7.9	20.9	12 7	6 32.76	+43 54.4	2.897	3.787	7.3	21.4
12 17	6 23.35	+23 47.2	1.766	2.741	3.6	20.7	12 17	6 22.83	+44 21.3	2.860	3.786	5.8	21.3
12 27	6 11.86	+23 59.6	1.749	2.731	1.0	20.4	12 27	6 12.04	+44 32.6	2.852	3.785	5.4	21.3
1 6	6 0.50	+24 8.3	1.761	2.721	5.5	20.8	1 6	6 1.45	+44 27.1	2.874	3.784	6.5	21.4
1 16	5 50.52	+24 13.3	1.802	2.710	9.8	21.0	1 16	5 52.05	+44 6.3	2.924	3.781	8.3	21.5
1 26	5 42.96	+24 15.9	1.868	2.699	13.5	21.2	1 26	5 44.65	+43 33.5	3.000	3.779	10.3	21.6
<b>358661</b>	2007 <i>WK</i> <sub>6</sub>		12 24.9 17°01	1°9/24.9 18			<b>421940</b>	2014 <i>QQ</i> <sub>251</sub>		12 24.9 95°01	2°3/25.3 18		
11 17	6 42.45	+28 30.5	1.328	2.146	18.9	20.1	11 17	6 41.48	+14 40.1	2.194	2.968	13.8	20.9
11 27	6 39.14	+28 25.5	1.262	2.152	14.9	19.9	11 27	6 36.82	+14 54.1	2.115	2.978	10.9	20.7
12 7	6 32.27	+28 16.3	1.216	2.159	10.1	19.6	12 7	6 29.99	+15 15.9	2.059	2.988	7.6	20.5
12 17	6 22.73	+27 59.8	1.193	2.167	4.9	19.4	12 17	6 21.56	+15 45.0	2.030	2.998	4.1	20.3
12 27	6 12.06	+27 34.4	1.195	2.176	2.2	19.2	12 27	6 12.39	+16 20.0	2.030	3.008	2.4	20.2
1 6	6 2.03	+27 1.1	1.223	2.187	6.9	19.6	1 6	6 3.45	+16 59.0	2.060	3.018	5.2	20.4
1 16	5 54.17	+26 23.3	1.277	2.198	11.8	19.9	1 16	5 55.67	+17 40.2	2.120	3.027	8.6	20.6
1 26	5 49.53	+25 45.2	1.352	2.210	16.1	20.1	1 26	5 49.81	+18 22.1	2.205	3.037	11.7	20.8
<b>70763</b>	1999 <i>VA</i> <sub>33</sub>		12 24.9 323°53	0°3/24.9 18			<b>349368</b>	2007 <i>VS</i> <sub>244</sub>		12 24.9 25°44	1°0/24.9 18		
11 17	6 39.90	+22 27.0	1.886	2.683	14.9	19.2	11 17	6 41.86	+23 58.4	1.326	2.144	18.9	20.3
11 27	6 36.27	+22 25.9	1.791	2.671	11.8	18.9	11 27	6 38.59	+24 22.2	1.264	2.155	14.8	20.1
12 7	6 30.01	+22 26.8	1.719	2.658	7.9	18.7	12 7	6 31.89	+24 48.7	1.223	2.167	9.9	19.9
12 17	6 21.69	+22 28.4	1.671	2.646	3.6	18.4	12 17	6 22.59	+25 14.6	1.204	2.180	4.5	19.6
12 27	6 12.31	+22 29.4	1.652	2.635	1.0	18.1	12 27	6 12.14	+25 36.2	1.211	2.194	1.5	19.4
1 6	6 3.06	+22 29.4	1.661	2.624	5.5	18.4	1 6	6 2.25	+25 51.4	1.245	2.208	6.7	19.8
1 16	5 55.14	+22 28.5	1.698	2.613	9.8	18.7	1 16	5 54.42	+26 0.6	1.303	2.224	11.6	20.1
1 26	5 49.52	+22 27.7	1.759	2.603	13.6	18.9	1 26	5 49.72	+26 5.4	1.384	2.241	15.8	20.4
<b>283862</b>	2003 <i>WB</i> <sub>73</sub>		12 24.9 47°51	1°7/24.9 18			<b>66965</b>	1999 <i>XL</i> <sub>49</sub>		12 24.9 98°52	1°8/24.9 18		
11 17	6 49.61	+27 31.2	1.328	2.133	19.6	19.8	11 17	6 41.88	+19 33.2	2.235	3.014	13.5	19.5
11 27	6 44.12	+27 35.4	1.286	2.169	15.2	19.7	11 27	6 37.06	+19 3.1	2.153	3.021	10.5	19.3
12 7	6 35.15	+27 36.7	1.265	2.205	10.1	19.5	12 7	6 30.10	+18 34.8	2.095	3.029	7.2	19.1
12 17	6 23.83	+27 31.7	1.268	2.242	4.8	19.3	12 17	6 21.59	+18 8.7	2.064	3.036	3.6	18.9
12 27	6 11.83	+27 18.4	1.297	2.279	2.1	19.2	12 27	6 12.41	+17 45.3	2.063	3.043	2.0	18.8
1 6	6 0.92	+26 57.7	1.354	2.315	6.6	19.6	1 6	6 3.55	+17 25.5	2.092	3.050	5.1	19.0
1 16	5 52.44	+26 32.5	1.436	2.352	11.2	19.9	1 16	5 55.90	+17 9.9	2.150	3.057	8.5	19.3
1 26	5 47.24	+26 6.6	1.542	2.389	15.0	20.3	1 26	5 50.18	+16 59.1	2.233	3.064	11.6	19.5
<b>514580</b>	2001 <i>PL</i> <sub>21</sub>		12 24.9 153°35	2°7/25.3 18			<b>216051</b>	2006 <i>OR</i> <sub>17</sub>		12 24.9 109°28	3°1/24.4 18		
11 17	6 42.84	+13 24.0	2.566	3.324	12.5	22.5	11 17	6 48.05	+28 57.9	2.034	2.812	14.7	20.6
11 27	6 37.51	+13 24.5	2.481	3.334	9.9	22.3	11 27	6 42.41	+30 1.2	1.963	2.829	11.5	20.4
12 7	6 30.27	+13 31.7	2.420	3.343	7.0	22.2	12 7	6 33.99	+31 4.0	1.914	2.844	8.0	20.2
12 17	6 21.63	+13 45.8	2.387	3.351	4.0	22.0	12 17	6 23.45	+32 1.0	1.893	2.860	4.5	20.1
12 27	6 12.35	+14 6.1	2.385	3.359	2.8	21.9	12 27	6 11.91	+32 47.2	1.901	2.875	3.3	20.0
1 6	6 3.28	+14 31.8	2.414	3.366	5.0	22.1	1 6	6 0.67	+33 20.0	1.939	2.889	6.1	20.2
1 16	5 55.21	+15 1.5	2.472	3.372	7.9	22.3	1 16	5 50.98	+33 39.6	2.006	2.904	9.6	20.5
1 26	5 48.82	+15 34.1	2.558	3.378	10.6	22.5	1 26	5 43.78	+33 48.4	2.098	2.918	12.7	20.7
<b>122958</b>	2000 <i>SX</i> <sub>207</sub>		12 24.9 259°49	4°1/25.3 18			<b>159421</b>	1999 <i>TN</i> <sub>10</sub>		12 24.9 98°45	2°3/25.1 18		
11 17	6 42.48	+12 42.7	1.738	2.521	16.6	19.5	11 17	6 46.66	+17 5.3	2.005	2.778	15.0	20.8
11 27	6 38.30	+12 29.8	1.649	2.515	13.3	19.3	11 27	6 40.78	+16 50.0	1.942	2.805	11.8	20.6
12 7	6 31.39	+12 26.9	1.582	2.509	9.6	19.0	12 7	6 32.53	+16 39.7	1.902	2.832	8.0	20.4
12 17	6 22.33	+12 35.2	1.539	2.503	5.8	18.8	12 17	6 22.65	+16 34.4	1.888	2.858	4.2	20.2
12 27	6 12.15	+12 54.8	1.524	2.497	4.2	18.7	12 27	6 12.16	+16 33.7	1.905	2.883	2.5	20.2
1 6	6 2.13	+13 24.6	1.537	2.491	7.0	18.8	1 6	6 2.18	+16 37.2	1.951	2.907	5.5	20.4
1 16	5 53.50	+14 2.5	1.577	2.485	11.0	19.1	1 16	5 53.67	+16 44.8	2.026	2.931	9.1	20.7
1 26	5 47.27	+14 46.2	1.641	2.478	14.8	19.3	1 26	5 47.38	+16 55.9	2.127	2.955	12.2	20.9
<b>150403</b>	2000 <i>EV</i> <sub>100</sub>		12 24.9 57°38	4°2/24.9 18			<b>72793</b>	2001 <i>FF</i> <sub>176</sub>		12 24.9 142°89	1°7/24.7 18		
11 17	6 49.76	+31 21.1	1.315	2.120	19.8	19.0	11 17	6 42.61	+27 2.3	2.448	3.225	12.5	19.4
11 27	6 44.83	+31 58.1	1.263	2.143	15.6	18.8	11 27	6 37.73	+27 37.9	2.362	3.230	9.8	19.2
12 7	6 36.03	+32 29.8	1.230	2.166	10.8	18.6	12 7	6 30.64	+28 13.5	2.300	3.234	6.6	19.1
12 17	6 24.39	+32 49.8	1.220	2.189	6.1	18.4	12 17	6 21.89	+28 46.1	2.266	3.238	3.3	18.9
12 27	6 11.66	+32 53.3	1.237	2.212	4.4	18.4	12 27	6 12.33	+29 13.0	2.263	3.242	1.9	18.8
1 6	5 59.85	+32 39.9	1.279	2.235	7.8	18.6	1 6	6 2.95	+29 32.7	2.289	3.245	4.8	19.0
1 16	5 50.58	+32 13.3	1.348	2.259	12.2	18.9	1 16	5 54.70	+29 44.9	2.345	3.249	8.1	19.2
1 26	5 44.89	+31 39.6	1.438	2.282	16.1	19.3	1 26	5 48.37	+29 51.1	2.427	3.252	11.0	19.4
<b>367439</b>	2008 <i>SP</i> <sub>179</sub>		12 24.9 111°67	6°4/25.9 18			<b>91889</b>	1999 <i>UQ</i> <sub>59</sub>		12 24.9 119°31	4°8/24.7 17		
11 17	6 39.62	- 0 10.8	2.898	3.611	12.2	22.2	11 17	6 45.97	+37 3.2	2.262	3.030	13.6	19.6
11 27	6 34.65	- 0 47.6	2.832	3.633	10.3	22.1	11 27	6 40.75	+37 40.9	2.181	3.035	11.0	19.4
12 7	6 28.16	- 1 12.3	2.787	3.654	8.4	22.0	12 7	6 32.85	+38 11.7	2.123	3.039	8.2	19.2
12 17	6 20.61	- 1 22.6	2.769	3.675	6.9	22.0	12 17	6 22.92	+38 30.7	2.092	3.044	5.7	19.1
12 27	6 12.64	- 1 17.3	2.780	3.696	6.4	21.9	12 27	6 12.07	+38 34.3	2.089	3.048	4.9	19.0
1 6	6 4.92	- 0 56.9	2.819	3.716	7.1	22.0	1 6	6 1.55	+38 21.7	2.115	3.052	6.7	19.2
1 16	5 58.08	- 0 23.0	2.886	3.735	8.7	22.2	1 16	5 52.53	+37 54.9	2.169	3.056	9.4	19.3
1 26	5 52.62	+ 0 21.7	2.978	3.754	10.4	22.3	1 26	5 45.93	+37 18.0	2.247	3.060	12.2	19.5
<b>74401</b>	1998 <i>YZ</i>		12 24.9 98°02	0°2/24.9 18			<b>149117</b>	2002 <i>CC</i> <sub>300</sub>		12 24.9 69°66	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>381028</b>	2006 <i>UB</i> <sub>259</sub>	12 24.9 244°29	4°3/24.6	18			<b>30554</b>	2001 <i>OP</i> <sub>57</sub>	12 24.9 67°17	4°3/25.4	18		
11 17	6 48.65	+31 11.4	1.587	2.380	17.5	21.6	11 17	6 44.63	+13 7.4	1.462	2.255	18.7	18.8
11 27	6 44.04	+31 59.1	1.499	2.372	14.0	21.4	11 27	6 40.15	+12 54.0	1.400	2.272	14.9	18.6
12 7	6 35.78	+32 45.1	1.432	2.364	9.9	21.1	12 7	6 32.64	+12 52.0	1.358	2.288	10.5	18.4
12 17	6 24.52	+33 22.7	1.389	2.355	5.9	20.8	12 17	6 22.89	+13 2.3	1.339	2.305	6.2	18.2
12 27	6 11.62	+33 45.7	1.373	2.346	4.5	20.7	12 27	6 12.19	+13 24.3	1.347	2.321	4.3	18.2
1 6	5 58.90	+33 51.3	1.385	2.337	7.8	20.9	1 6	6 2.02	+13 56.1	1.383	2.338	7.4	18.4
1 16	5 48.10	+33 40.6	1.423	2.328	12.2	21.1	1 16	5 53.68	+14 35.1	1.444	2.355	11.5	18.7
1 26	5 40.60	+33 18.6	1.484	2.318	16.2	21.4	1 26	5 48.11	+15 18.7	1.528	2.372	15.3	18.9
<b>79420</b>	1997 <i>MM</i> <sub>4</sub>	12 24.9 124°81	0°5/24.9	18			<b>259051</b>	2002 <i>TS</i> <sub>340</sub>	12 24.9 233°76	5°8/25.3	18		
11 17	6 47.48	+20 48.4	1.847	2.629	15.8	20.1	11 17	6 41.85	+ 6 35.0	2.333	3.081	13.9	22.4
11 27	6 41.93	+21 5.2	1.773	2.643	12.3	19.9	11 27	6 37.12	+ 6 0.5	2.231	3.068	11.5	22.2
12 7	6 33.62	+21 26.2	1.722	2.658	8.3	19.7	12 7	6 30.28	+ 5 35.9	2.152	3.054	8.9	22.0
12 17	6 23.27	+21 49.1	1.697	2.671	3.8	19.4	12 17	6 21.80	+ 5 23.8	2.099	3.039	6.6	21.8
12 27	6 12.00	+22 11.5	1.702	2.685	1.1	19.3	12 27	6 12.45	+ 5 25.9	2.074	3.024	5.8	21.7
1 6	6 1.14	+22 31.8	1.736	2.697	5.5	19.6	1 6	6 3.17	+ 5 42.4	2.079	3.009	7.3	21.8
1 16	5 51.86	+22 49.6	1.799	2.709	9.7	19.9	1 16	5 54.84	+ 6 12.2	2.111	2.993	10.0	21.9
1 26	5 45.07	+23 5.3	1.887	2.721	13.3	20.1	1 26	5 48.27	+ 6 52.9	2.169	2.976	12.7	22.1
<b>327510</b>	2006 <i>BO</i> <sub>17</sub>	12 24.9 214°53	2°0/24.9	18			<b>262799</b>	2006 <i>YD</i> <sub>50</sub>	12 24.9 334°23	0°8/25.0	17		
11 17	6 43.75	+30 8.9	2.369	3.145	12.9	21.0	11 17	6 41.37	+20 33.6	1.928	2.719	14.9	21.5
11 27	6 38.69	+30 11.7	2.277	3.143	10.2	20.8	11 27	6 37.26	+20 38.7	1.841	2.716	11.7	21.3
12 7	6 31.31	+30 10.6	2.208	3.140	7.0	20.6	12 7	6 30.61	+20 47.6	1.776	2.713	7.9	21.1
12 17	6 22.20	+30 3.1	2.167	3.137	3.7	20.4	12 17	6 21.99	+20 59.1	1.737	2.711	3.7	20.8
12 27	6 12.28	+29 47.7	2.155	3.133	2.2	20.3	12 27	6 12.41	+21 11.9	1.727	2.709	1.2	20.6
1 6	6 2.63	+29 24.4	2.173	3.130	5.0	20.5	1 6	6 3.03	+21 24.7	1.745	2.707	5.4	20.9
1 16	5 54.23	+28 54.9	2.221	3.126	8.4	20.7	1 16	5 54.98	+21 37.2	1.791	2.705	9.5	21.2
1 26	5 47.89	+28 21.9	2.295	3.123	11.4	20.9	1 26	5 49.17	+21 49.6	1.862	2.703	13.1	21.4
<b>93467</b>	2000 <i>TM</i> <sub>5</sub>	12 24.9 177°45	3°2/24.8	18			<b>53154</b>	1999 <i>BT</i> <sub>27</sub>	12 24.9 298°14	1°0/24.9	18		
11 17	6 47.56	+30 28.7	1.856	2.640	15.6	20.3	11 17	6 44.27	+21 47.9	1.519	2.322	17.7	19.5
11 27	6 42.41	+30 59.0	1.772	2.641	12.4	20.1	11 27	6 40.26	+21 35.5	1.434	2.316	14.0	19.2
12 7	6 34.20	+31 26.5	1.710	2.642	8.6	19.9	12 7	6 33.01	+21 25.3	1.370	2.310	9.5	18.9
12 17	6 23.63	+31 46.4	1.674	2.643	4.8	19.6	12 17	6 23.20	+21 16.2	1.330	2.304	4.4	18.6
12 27	6 11.90	+31 54.9	1.667	2.643	3.3	19.5	12 27	6 12.10	+21 7.5	1.316	2.299	1.5	18.4
1 6	6 0.49	+31 50.7	1.688	2.643	6.4	19.7	1 6	6 1.27	+20 58.9	1.330	2.293	6.6	18.7
1 16	5 50.76	+31 35.3	1.737	2.642	10.4	20.0	1 16	5 52.20	+20 51.4	1.370	2.288	11.5	19.0
1 26	5 43.76	+31 12.5	1.811	2.641	13.9	20.2	1 26	5 46.03	+20 46.3	1.433	2.282	15.9	19.2
<b>225468</b>	2000 <i>ET</i> <sub>177</sub>	12 24.9 79°04	1°6/24.9	18			<b>412253</b>	2013 <i>HX</i> <sub>51</sub>	12 24.9 169°50	4°5/24.6	17		
11 17	6 49.08	+26 32.3	1.495	2.293	18.2	20.3	11 17	6 46.75	+35 43.3	2.305	3.072	13.5	22.2
11 27	6 43.75	+26 47.9	1.435	2.313	14.2	20.1	11 27	6 41.36	+36 27.5	2.220	3.075	10.8	22.1
12 7	6 35.07	+27 2.6	1.395	2.334	9.5	19.9	12 7	6 33.30	+37 6.1	2.159	3.077	8.0	21.9
12 17	6 23.95	+27 12.4	1.380	2.354	4.5	19.7	12 17	6 23.20	+37 34.3	2.124	3.078	5.4	21.7
12 27	6 11.86	+27 14.6	1.393	2.374	2.0	19.5	12 27	6 12.11	+37 48.2	2.118	3.080	4.6	21.7
1 6	6 0.48	+27 8.5	1.434	2.394	6.5	19.9	1 6	6 1.27	+37 46.4	2.142	3.081	6.5	21.8
1 16	5 51.22	+26 56.0	1.501	2.414	11.0	20.2	1 16	5 51.86	+37 30.3	2.194	3.082	9.4	22.0
1 26	5 45.08	+26 40.4	1.591	2.434	14.9	20.5	1 26	5 44.81	+37 3.7	2.271	3.082	12.1	22.2
<b>305005</b>	2007 <i>TX</i> <sub>319</sub>	12 24.9 86°77	5°4/25.2	16			<b>101761</b>	1999 <i>FJ</i> <sub>37</sub>	12 24.9 308°22	0°7/24.9	18		
11 17	6 44.71	+10 26.2	1.873	2.641	16.1	21.2	11 17	6 39.83	+22 3.5	2.180	2.968	13.5	19.3
11 27	6 39.37	+ 9 36.6	1.812	2.665	13.0	21.1	11 27	6 35.85	+21 52.9	2.080	2.954	10.6	19.1
12 7	6 31.67	+ 8 56.5	1.773	2.689	9.5	20.9	12 7	6 29.58	+21 43.5	2.002	2.939	7.2	18.9
12 17	6 22.30	+ 8 28.5	1.760	2.712	6.5	20.8	12 17	6 21.52	+21 34.4	1.951	2.925	3.3	18.6
12 27	6 12.32	+ 8 14.3	1.774	2.735	5.5	20.8	12 27	6 12.54	+21 25.3	1.929	2.911	1.1	18.4
1 6	6 2.83	+ 8 14.0	1.818	2.758	7.4	20.9	1 6	6 3.69	+21 16.1	1.936	2.898	5.0	18.7
1 16	5 54.82	+ 8 26.3	1.888	2.780	10.4	21.2	1 16	5 55.97	+21 7.3	1.972	2.884	8.9	18.9
1 26	5 49.03	+ 8 49.1	1.983	2.801	13.3	21.4	1 26	5 50.22	+21 0.0	2.033	2.871	12.3	19.1
<b>248799</b>	2006 <i>SW</i> <sub>115</sub>	12 24.9 70°82	0°3/24.9	18			<b>395260</b>	2010 <i>QA</i> <sub>6</sub>	12 24.9 142°41	6°0/25.4	18		
11 17	6 40.09	+22 29.3	2.566	3.344	11.9	20.0	11 17	6 41.86	+ 5 45.2	2.336	3.081	13.9	21.8
11 27	6 35.55	+22 57.9	2.487	3.356	9.3	19.8	11 27	6 36.88	+ 5 3.6	2.259	3.091	11.5	21.6
12 7	6 29.07	+23 28.9	2.432	3.368	6.2	19.6	12 7	6 29.94	+ 4 32.5	2.203	3.101	8.9	21.5
12 17	6 21.17	+24 0.4	2.406	3.380	2.8	19.4	12 17	6 21.57	+ 4 14.7	2.174	3.109	6.7	21.4
12 27	6 12.61	+24 30.2	2.409	3.392	0.8	19.3	12 27	6 12.56	+ 4 11.6	2.173	3.118	6.0	21.3
1 6	6 4.27	+24 57.0	2.444	3.404	4.2	19.6	1 6	6 3.80	+ 4 23.3	2.201	3.126	7.3	21.4
1 16	5 56.94	+25 20.1	2.507	3.416	7.4	19.8	1 16	5 56.11	+ 4 48.3	2.257	3.133	9.6	21.6
1 26	5 51.32	+25 39.8	2.598	3.428	10.2	20.0	1 26	5 50.18	+ 5 24.3	2.338	3.140	12.1	21.8
<b>266651</b>	2008 <i>TY</i> <sub>4</sub>	12 24.9 143°37	1°5/25.0	17			<b>315754</b>	2008 <i>FG</i> <sub>38</sub>	12 24.9 328°36	1°3/24.8	17		
11 17	6 40.58	+18 11.9	2.810	3.578	11.3	21.8	11 17	6 42.59	+25 19.7	1.884	2.678	15.1	21.2
11 27	6 35.64	+18 2.2	2.726	3.587	8.8	21.7	11 27	6 38.43	+25 47.0	1.798	2.674	11.9	20.9
12 7	6 28.98	+17 55.3	2.666	3.596	6.0	21.5	12 7	6 31.52	+26 15.8	1.733	2.671	8.0	20.7
12 17	6 21.09	+17 51.3	2.634	3.604	3.1	21.3	12 17	6 22.46	+26 42.9	1.694	2.668	3.8	20.4
12 27	6 12.65	+17 49.9	2.633	3.613	1.6	21.2	12 27	6 12.30	+27 5.4	1.683	2.665	1.7	20.3
1 6	6 4.42	+17 50.8	2.663	3.620	4.2	21.4	1 6	6 2.35	+27 21.3	1.702	2.662	5.7	20.5
1 16	5 57.12	+17 54.1	2.724	3.628	7.1	21.6	1 16	5 53.81	+27 30.5	1.747	2.659	9.8	20.8
1 26	5 51.35	+17 59.7	2.811	3.635	9.7	21.8	1 26	5 47.71	+27 34.5	1.818	2.657	13.4	21.0
<b>305807</b>	2009 <i>DB</i> <sub>97</sub>	12 24.9 37°03	8°8/25.0	17			<b>49286</b>	1998 <i>UC</i> <sub>30</sub>	12 24.9 344°17	6			

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2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>131396</b>	2001 <i>KK</i> <sub>62</sub>		12 24.9 357°35	4.6°/25.2	17		<b>515266</b>	2012 <i>SJ</i> <sub>3</sub>		12 24.9 99°12	1.8°/24.9	18	
11 17	6 38.97	+11 16.7	2.120	2.894	14.3	19.3	11 17	6 49.31	+26 44.9	1.723	2.510	16.6	21.9
11 27	6 35.00	+10 42.3	2.035	2.893	11.5	19.2	11 27	6 43.60	+27 9.7	1.658	2.530	12.9	21.7
12 7	6 28.88	+10 15.8	1.973	2.893	8.5	19.0	12 7	6 34.87	+27 33.7	1.615	2.551	8.7	21.5
12 17	6 21.16	+9 59.1	1.936	2.892	5.6	18.8	12 17	6 23.91	+27 53.2	1.597	2.570	4.2	21.2
12 27	6 12.68	+9 53.6	1.927	2.892	4.6	18.7	12 27	6 12.04	+28 4.8	1.609	2.589	2.1	21.1
1 6	6 4.40	+9 59.3	1.947	2.892	6.6	18.9	1 6	6 0.73	+28 7.5	1.649	2.608	6.0	21.4
1 16	5 57.25	+10 15.5	1.994	2.892	9.6	19.0	1 16	5 51.29	+28 2.6	1.717	2.626	10.1	21.7
1 26	5 51.97	+10 40.3	2.066	2.893	12.6	19.2	1 26	5 44.65	+27 52.9	1.810	2.644	13.7	22.0
<b>47210</b>	1999 <i>TB</i> <sub>273</sub>		12 24.9 178°93	4.0°/24.8	18		<b>67288</b>	2000 <i>GN</i> <sub>42</sub>		12 24.9 86°88	5.7°/25.1	18	
11 17	6 50.59	+32 19.1	1.758	2.540	16.5	19.7	11 17	6 42.09	+9 27.9	1.921	2.690	15.7	19.1
11 27	6 45.04	+32 52.9	1.675	2.541	13.1	19.5	11 27	6 37.48	+8 37.4	1.849	2.701	12.8	18.9
12 7	6 36.13	+33 22.2	1.614	2.542	9.3	19.3	12 7	6 30.55	+7 56.6	1.799	2.713	9.6	18.8
12 17	6 24.59	+33 41.4	1.578	2.543	5.5	19.1	12 17	6 21.91	+7 28.2	1.774	2.724	6.7	18.6
12 27	6 11.78	+33 45.9	1.570	2.543	4.1	19.0	12 27	6 12.55	+7 14.4	1.777	2.735	5.8	18.6
1 6	5 59.33	+33 34.4	1.591	2.542	7.1	19.2	1 6	6 3.54	+7 15.4	1.808	2.746	7.6	18.7
1 16	5 48.78	+33 9.2	1.639	2.541	11.0	19.4	1 16	5 55.86	+7 30.2	1.866	2.756	10.6	18.9
1 26	5 41.26	+32 35.4	1.711	2.539	14.7	19.6	1 26	5 50.28	+7 56.3	1.948	2.767	13.5	19.1
<b>351090</b>	2003 <i>UV</i> <sub>174</sub>		12 24.9 60°98	2.4°/24.8	18		<b>490989</b>	2011 <i>FM</i> <sub>103</sub>		12 24.9 199°06	8.4°/26.3	18	
11 17	6 46.07	+27 16.1	1.600	2.398	17.1	21.0	11 17	6 38.07	-7 59.7	2.976	3.650	12.6	22.1
11 27	6 41.41	+27 52.2	1.535	2.414	13.4	20.8	11 27	6 33.66	-8 43.2	2.890	3.647	11.2	22.0
12 7	6 33.58	+28 28.0	1.491	2.429	9.1	20.6	12 7	6 27.69	-9 11.7	2.826	3.644	9.8	21.9
12 17	6 23.38	+28 58.9	1.473	2.445	4.6	20.4	12 17	6 20.57	-9 22.0	2.784	3.640	8.8	21.8
12 27	6 12.13	+29 20.8	1.481	2.461	2.6	20.3	12 27	6 12.89	-9 11.9	2.769	3.636	8.4	21.8
1 6	6 1.40	+29 32.0	1.518	2.477	6.4	20.6	1 6	6 5.33	-8 41.3	2.781	3.632	8.9	21.8
1 16	5 52.56	+29 33.4	1.582	2.493	10.7	20.9	1 16	5 58.52	-7 52.0	2.818	3.627	10.0	21.9
1 26	5 46.63	+29 28.0	1.669	2.509	14.4	21.1	1 26	5 53.04	-6 47.4	2.879	3.622	11.5	22.0
<b>296803</b>	2009 <i>VU</i> <sub>55</sub>		12 24.9 13°33	0°5°/24.9	17		<b>260083</b>	2004 <i>JR</i> <sub>36</sub>		12 24.9 193°47	2°0°/24.9	18	
11 17	6 40.55	+24 9.4	1.758	2.559	15.7	20.9	11 17	6 43.25	+18 40.6	2.380	3.152	13.0	21.1
11 27	6 36.87	+24 20.0	1.681	2.562	12.3	20.7	11 27	6 38.10	+18 8.6	2.287	3.151	10.2	20.9
12 7	6 30.45	+24 31.8	1.626	2.566	8.2	20.5	12 7	6 30.85	+17 38.3	2.218	3.149	7.0	20.7
12 17	6 21.95	+24 42.8	1.595	2.571	3.8	20.2	12 17	6 22.05	+17 10.4	2.176	3.146	3.7	20.5
12 27	6 12.49	+24 51.0	1.593	2.576	1.1	20.0	12 27	6 12.52	+16 45.5	2.165	3.143	2.2	20.4
1 6	6 3.36	+24 55.2	1.619	2.581	5.6	20.4	1 6	6 3.21	+16 24.4	2.184	3.140	5.1	20.6
1 16	5 55.75	+24 56.0	1.671	2.588	9.9	20.6	1 16	5 55.01	+16 7.9	2.233	3.136	8.4	20.8
1 26	5 50.59	+24 54.6	1.748	2.595	13.5	20.9	1 26	5 48.66	+15 56.6	2.308	3.132	11.5	21.0
<b>152127</b>	2004 <i>TL</i> <sub>25</sub>		12 24.9 232°82	2°8°/24.7	18		<b>233783</b>	2008 <i>TR</i> <sub>180</sub>		12 24.9 20°94	5°0°/26.0	17	
11 17	6 44.95	+32 1.4	2.700	3.465	11.7	20.8	11 17	6 38.97	+7 34.2	2.004	2.772	15.2	19.5
11 27	6 39.57	+32 26.6	2.594	3.451	9.4	20.6	11 27	6 35.12	+7 35.7	1.925	2.776	12.4	19.3
12 7	6 31.95	+32 48.5	2.512	3.437	6.6	20.4	12 7	6 29.03	+7 50.7	1.867	2.781	9.2	19.1
12 17	6 22.59	+33 3.8	2.458	3.422	3.9	20.2	12 17	6 21.27	+8 20.5	1.835	2.787	6.3	18.9
12 27	6 12.32	+33 10.0	2.434	3.407	2.9	20.1	12 27	6 12.72	+9 4.5	1.830	2.793	5.1	18.9
1 6	6 2.12	+33 5.9	2.441	3.390	5.1	20.2	1 6	6 4.38	+10 0.7	1.854	2.800	6.8	19.0
1 16	5 52.99	+32 52.4	2.478	3.374	8.1	20.4	1 16	5 57.20	+11 5.8	1.905	2.807	9.8	19.2
1 26	5 45.74	+32 31.8	2.541	3.357	10.8	20.5	1 26	5 51.99	+12 15.9	1.982	2.814	12.8	19.4
<b>291400</b>	2006 <i>CN</i> <sub>60</sub>		12 24.9 316°25	4°0°/24.3	18		<b>139204</b>	2001 <i>FQ</i> <sub>169</sub>		12 24.9 239°84	2°9°/25.4	18	
11 17	6 43.91	+31 51.9	2.092	2.875	14.1	20.4	11 17	6 43.50	+13 10.8	2.292	3.055	13.6	19.8
11 27	6 39.45	+32 50.6	2.004	2.871	11.3	20.2	11 27	6 38.60	+13 19.3	2.185	3.040	10.9	19.6
12 7	6 32.23	+33 47.7	1.939	2.867	8.1	20.0	12 7	6 31.41	+13 36.7	2.100	3.024	7.8	19.4
12 17	6 22.83	+34 37.9	1.900	2.863	5.0	19.8	12 17	6 22.42	+14 2.8	2.043	3.008	4.5	19.1
12 27	6 12.25	+35 16.3	1.891	2.859	4.2	19.7	12 27	6 12.41	+14 37.0	2.015	2.990	3.0	19.0
1 6	6 1.80	+35 40.3	1.910	2.856	6.6	19.9	1 6	6 2.38	+15 17.5	2.019	2.973	5.6	19.1
1 16	5 52.72	+35 50.0	1.956	2.852	9.9	20.1	1 16	5 53.34	+16 2.5	2.051	2.954	9.1	19.3
1 26	5 46.05	+35 48.0	2.028	2.849	13.0	20.3	1 26	5 46.16	+16 50.2	2.110	2.935	12.4	19.5
<b>415403</b>	2013 <i>PF</i> <sub>4</sub>		12 24.9 152°06	1°1°/24.9	18		<b>200182</b>	1999 <i>OT</i> <sub>3</sub>		12 24.9 64°08	2°4°/24.9	18	
11 17	6 41.02	+20 43.9	2.652	3.425	11.7	21.1	11 17	6 58.13	+21 19.9	1.045	1.853	23.6	21.0
11 27	6 36.14	+20 24.8	2.564	3.429	9.2	20.9	11 27	6 50.97	+20 30.2	1.011	1.894	18.3	20.9
12 7	6 29.41	+20 6.8	2.500	3.433	6.2	20.7	12 7	6 39.76	+19 43.8	0.996	1.936	12.2	20.7
12 17	6 21.34	+19 49.7	2.465	3.437	3.0	20.5	12 17	6 25.96	+19 1.2	1.004	1.977	5.8	20.4
12 27	6 12.68	+19 33.7	2.460	3.441	1.3	20.4	12 27	6 11.65	+18 23.6	1.037	2.018	2.8	20.4
1 6	6 4.25	+19 19.1	2.486	3.445	4.3	20.6	1 6	5 58.94	+17 53.1	1.097	2.058	7.9	20.8
1 16	5 56.82	+19 6.3	2.542	3.448	7.4	20.9	1 16	5 49.34	+17 31.5	1.182	2.097	13.1	21.2
1 26	5 51.03	+18 56.2	2.624	3.451	10.2	21.0	1 26	5 43.61	+17 19.3	1.288	2.136	17.3	21.6
<b>291943</b>	2006 <i>QB</i> <sub>36</sub>		12 24.9 74°76	3°5°/25.2	18		<b>170629</b>	2003 <i>YX</i> <sub>65</sub>		12 24.9 16°47	0°5°/24.9	18	
11 17	6 44.30	+14 43.5	1.820	2.600	16.0	20.8	11 17	6 40.36	+22 52.8	1.249	2.074	19.5	19.3
11 27	6 39.23	+14 18.6	1.758	2.624	12.7	20.7	11 27	6 37.60	+22 43.2	1.187	2.081	15.3	19.0
12 7	6 31.68	+14 1.0	1.719	2.647	8.9	20.5	12 7	6 31.36	+22 35.5	1.143	2.089	10.3	18.7
12 17	6 22.39	+13 51.5	1.705	2.671	5.1	20.3	12 17	6 22.48	+22 28.6	1.122	2.098	4.7	18.5
12 27	6 12.44	+13 50.4	1.720	2.694	3.6	20.3	12 27	6 12.45	+22 21.3	1.126	2.109	1.3	18.3
1 6	6 2.98	+13 57.3	1.763	2.717	6.3	20.5	1 6	6 3.00	+22 13.5	1.156	2.121	6.9	18.7
1 16	5 55.06	+14 11.2	1.835	2.740	9.8	20.7	1 16	5 55.64	+22 6.2	1.209	2.134	12.0	19.0
1 26	5 49.43	+14 30.9	1.930	2.763	13.1	21.0	1 26	5 51.44	+22 0.6	1.285	2.148	16.4	19.3
<b>416834</b>	2005 <i>JY</i> <sub>108</sub>		12 24.9 288°15	2°6°/24.2	17		<b>76467</b>	2000 <i>FP</i> <sub>48</sub>		12 24.9 282°18	4°		



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12 24.9

12 24.9

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>444906</b>	2007 YD <sub>53</sub>	12 24.9 18°45'		1.6°/25.1 17			<b>443429</b>	2014 HJ <sub>123</sub>	12 24.9 114°24'		2.0°/24.9 18		
11 17	6 43.92	+28 35.2	1.492	2.299	17.7	20.7	11 17	6 47.16	+28 49.5	1.930	2.714	15.2	21.2
11 27	6 39.98	+28 20.7	1.420	2.304	14.0	20.5	11 27	6 41.77	+29 0.4	1.855	2.725	11.9	21.0
12 7	6 32.75	+28 1.5	1.369	2.309	9.5	20.2	12 7	6 33.60	+29 8.2	1.802	2.736	8.1	20.8
12 17	6 23.06	+27 35.1	1.341	2.315	4.6	20.0	12 17	6 23.39	+29 9.9	1.775	2.746	4.1	20.6
12 27	6 12.33	+27 0.5	1.341	2.322	1.9	19.8	12 27	6 12.29	+29 3.2	1.777	2.757	2.2	20.5
1 6	6 2.16	+26 19.2	1.367	2.330	6.4	20.1	1 6	6 1.64	+28 47.9	1.809	2.767	5.7	20.8
1 16	5 53.98	+25 34.7	1.420	2.338	11.1	20.4	1 16	5 52.63	+28 25.8	1.869	2.777	9.5	21.0
1 26	5 48.78	+24 51.0	1.496	2.347	15.1	20.7	1 26	5 46.14	+28 0.1	1.954	2.786	12.9	21.2
<b>60516</b>	2000 EX <sub>16</sub>	12 24.9 282°04'		3.7°/24.8 18			<b>112380</b>	2002 NN <sub>27</sub>	12 24.9 98°94'		1.8°/25.1 16		
11 17	6 43.53	+33 54.3	2.323	3.098	13.1	19.3	11 17	6 50.67	+18 2.2	1.750	2.526	16.8	21.7
11 27	6 38.85	+34 20.3	2.229	3.090	10.5	19.1	11 27	6 44.26	+18 2.4	1.692	2.557	13.1	21.5
12 7	6 31.66	+34 41.3	2.157	3.082	7.6	18.9	12 7	6 35.09	+18 8.3	1.655	2.587	8.9	21.4
12 17	6 22.54	+34 53.6	2.113	3.074	4.7	18.7	12 17	6 23.99	+18 18.6	1.645	2.616	4.3	21.2
12 27	6 12.45	+34 54.1	2.097	3.066	3.8	18.6	12 27	6 12.18	+18 31.8	1.664	2.644	2.0	21.1
1 6	6 2.57	+34 41.9	2.110	3.058	5.9	18.7	1 6	6 1.00	+18 46.9	1.713	2.672	5.8	21.4
1 16	5 53.97	+34 18.5	2.152	3.050	9.0	18.9	1 16	5 51.60	+19 3.1	1.790	2.698	9.9	21.7
1 26	5 47.57	+33 47.1	2.219	3.042	11.9	19.1	1 26	5 44.81	+19 20.5	1.893	2.724	13.4	21.9
<b>159143</b>	2004 XY <sub>39</sub>	12 24.9 15°78'		0.2°/24.9 17			<b>358585</b>	2007 UG <sub>30</sub>	12 24.9 78°70'		1.7°/25.2 17		
11 17	6 40.95	+23 29.6	1.890	2.685	15.0	19.7	11 17	6 46.59	+17 57.0	1.771	2.555	16.3	21.5
11 27	6 37.00	+23 36.4	1.810	2.688	11.7	19.4	11 27	6 41.14	+18 3.8	1.713	2.582	12.7	21.3
12 7	6 30.47	+23 44.7	1.752	2.691	7.9	19.2	12 7	6 33.05	+18 16.7	1.676	2.610	8.6	21.1
12 17	6 21.99	+23 52.7	1.720	2.694	3.6	19.0	12 17	6 23.08	+18 34.3	1.665	2.637	4.2	20.9
12 27	6 12.60	+23 58.7	1.716	2.698	0.9	18.8	12 27	6 12.40	+18 55.0	1.682	2.663	1.9	20.8
1 6	6 3.51	+24 2.0	1.740	2.703	5.3	19.1	1 6	6 2.26	+19 17.2	1.730	2.690	5.6	21.1
1 16	5 55.82	+24 2.8	1.793	2.708	9.4	19.4	1 16	5 53.78	+19 40.0	1.805	2.716	9.6	21.4
1 26	5 50.44	+24 2.2	1.870	2.713	13.0	19.6	1 26	5 47.74	+20 3.0	1.905	2.741	13.1	21.7
<b>483095</b>	2015 MC <sub>80</sub>	12 24.9 247°65'		2.2°/25.1 18			<b>26881</b>	1994 PF <sub>11</sub>	12 24.9 242°61'		1.1°/24.9 18 R		
11 17	6 43.97	+17 52.1	1.673	2.465	16.7	21.6	11 17	6 46.44	+25 41.6	1.624	2.420	17.0	19.6
11 27	6 39.68	+17 43.3	1.587	2.462	13.3	21.3	11 27	6 41.91	+25 48.5	1.537	2.415	13.4	19.3
12 7	6 32.48	+17 40.3	1.522	2.458	9.1	21.1	12 7	6 34.14	+25 55.1	1.472	2.410	9.1	19.1
12 17	6 23.00	+17 43.1	1.482	2.454	4.7	20.8	12 17	6 23.81	+25 58.7	1.431	2.405	4.3	18.8
12 27	6 12.35	+17 50.9	1.469	2.449	2.4	20.6	12 27	6 12.18	+25 56.6	1.418	2.400	1.5	18.6
1 6	6 1.92	+18 2.9	1.485	2.445	6.4	20.9	1 6	6 0.82	+25 48.0	1.432	2.394	6.3	18.9
1 16	5 53.03	+18 18.5	1.528	2.441	10.9	21.1	1 16	5 51.21	+25 34.3	1.474	2.389	11.1	19.1
1 26	5 46.72	+18 37.1	1.594	2.437	14.8	21.4	1 26	5 44.51	+25 18.2	1.539	2.383	15.2	19.4
<b>447863</b>	2007 VG <sub>61</sub>	12 24.9 133°23'		2.0°/24.9 18			<b>12624</b>	Mariacunitia	12 24.9 88°04'		2.2°/25.2 18		
11 17	6 45.47	+18 52.3	2.179	2.952	14.0	21.8	11 17	6 46.90	+17 24.5	1.497	2.291	18.3	18.2
11 27	6 39.89	+18 21.6	2.100	2.964	11.0	21.7	11 27	6 42.00	+17 24.3	1.432	2.308	14.4	18.0
12 7	6 32.05	+17 53.2	2.045	2.976	7.5	21.5	12 7	6 33.96	+17 31.7	1.388	2.324	9.8	17.8
12 17	6 22.61	+17 27.5	2.018	2.988	3.8	21.3	12 17	6 23.61	+17 45.9	1.368	2.340	4.9	17.5
12 27	6 12.48	+17 5.1	2.020	2.999	2.2	21.2	12 27	6 12.26	+18 5.2	1.375	2.355	2.4	17.4
1 6	6 2.73	+16 46.6	2.053	3.009	5.3	21.4	1 6	6 1.43	+18 27.9	1.410	2.371	6.6	17.7
1 16	5 54.28	+16 32.8	2.115	3.019	8.8	21.6	1 16	5 52.49	+18 52.7	1.472	2.386	11.1	18.0
1 26	5 47.90	+16 24.1	2.203	3.029	11.9	21.8	1 26	5 46.40	+19 18.9	1.557	2.401	15.1	18.3
<b>223901</b>	2004 VM <sub>35</sub>	12 24.9 71°63'		0.3°/25.0 18			<b>919</b>	Isebill	12 24.9 57°48'		3.3°/24.9 18		
11 17	6 42.40	+21 43.7	2.090	2.875	14.1	21.1	11 17	6 42.27	+16 22.9	1.853	2.640	15.6	15.7
11 27	6 37.72	+21 52.6	2.018	2.890	11.0	20.9	11 27	6 37.84	+15 44.8	1.778	2.647	12.3	15.5
12 7	6 30.72	+22 4.1	1.968	2.905	7.3	20.7	12 7	6 30.92	+15 11.4	1.724	2.655	8.6	15.3
12 17	6 22.04	+22 16.6	1.946	2.920	3.3	20.5	12 17	6 22.17	+14 44.1	1.696	2.663	4.9	15.1
12 27	6 12.63	+22 28.6	1.952	2.935	0.9	20.3	12 27	6 12.63	+14 24.0	1.696	2.671	3.4	15.0
1 6	6 3.56	+22 39.1	1.988	2.950	4.9	20.7	1 6	6 3.44	+14 11.9	1.724	2.679	6.3	15.2
1 16	5 55.82	+22 48.1	2.053	2.965	8.6	20.9	1 16	5 55.68	+14 7.8	1.780	2.687	10.0	15.4
1 26	5 50.16	+22 56.1	2.143	2.980	11.8	21.1	1 26	5 50.15	+14 11.4	1.861	2.695	13.4	15.7
<b>426626</b>	2013 SR <sub>60</sub>	12 24.9 77°21'		4.3°/24.9 18			<b>270214</b>	2001 TO <sub>139</sub>	12 24.9 140°27'		3.2°/24.7 18		
11 17	6 51.97	+31 26.9	1.322	2.123	19.9	20.9	11 17	6 49.38	+29 32.4	1.820	2.602	16.0	20.7
11 27	6 46.73	+32 5.0	1.265	2.143	15.7	20.7	11 27	6 43.87	+30 15.9	1.743	2.611	12.6	20.5
12 7	6 37.49	+32 38.1	1.227	2.162	11.0	20.5	12 7	6 35.26	+30 57.7	1.688	2.620	8.7	20.3
12 17	6 25.26	+32 59.3	1.213	2.181	6.3	20.3	12 17	6 24.25	+31 32.7	1.660	2.628	4.8	20.1
12 27	6 11.82	+33 3.3	1.225	2.200	4.5	20.2	12 27	6 12.09	+31 56.4	1.660	2.636	3.3	20.0
1 6	5 59.24	+32 49.6	1.263	2.219	8.0	20.5	1 6	6 0.30	+32 6.8	1.689	2.643	6.5	20.2
1 16	5 49.25	+32 21.9	1.327	2.237	12.4	20.8	1 16	5 50.25	+32 4.9	1.746	2.649	10.4	20.5
1 26	5 42.96	+31 46.5	1.413	2.256	16.4	21.1	1 26	5 43.01	+31 54.2	1.827	2.655	13.9	20.7
<b>149650</b>	2004 FW <sub>44</sub>	12 24.9 227°85'		0.3°/25.0 18			<b>115104</b>	2003 SW <sub>25</sub>	12 24.9 44°61'		2.3°/25.2 18		
11 17	6 46.66	+21 36.5	1.922	2.704	15.3	21.4	11 17	6 44.94	+17 51.7	1.141	1.961	21.3	19.3
11 27	6 41.61	+21 48.8	1.823	2.693	12.1	21.2	11 27	6 41.30	+17 51.1	1.086	1.975	16.8	19.1
12 7	6 33.73	+22 4.8	1.746	2.681	8.2	20.9	12 7	6 33.91	+17 59.8	1.048	1.990	11.4	18.8
12 17	6 23.58	+22 22.3	1.695	2.669	3.8	20.6	12 17	6 23.69	+18 16.8	1.032	2.006	5.6	18.5
12 27	6 12.20	+22 39.3	1.674	2.657	1.0	20.4	12 27	6 12.26	+18 40.0	1.041	2.022	2.6	18.4
1 6	6 0.89	+22 54.1	1.682	2.643	5.7	20.7	1 6	6 1.52	+19 6.9	1.076	2.039	7.6	18.7
1 16	5 50.93	+23 6.4	1.719	2.629	10.1	20.9	1 16	5 53.12	+19 35.7	1.134	2.057	12.8	19.1
1 26	5 43.41	+23 17.0	1.781	2.615	13.9	21.1	1 26	5 48.15	+20 5.4	1.214	2.074	17.3	19.4
<b>486431</b>	2013 FN <sub>7</sub>	12 24.9 175°76'		9.4°/27.2 18			<b>321879</b>	2010 SW <sub>13</sub>	12 24.9 58°72'		2.1°/24.9 18		
11 17	6 41.47	- 6 12.2	2.273	2.970	15.5	21.4	11 17	6 49.14	+26 16.4	1.172	1.98		

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12 24.9

12 25.0

2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020/21	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>266886</b>	2009 VB <sub>112</sub>		12 24.9 120°61	3:4/25.5	18		<b>393405</b>	2000 YA <sub>76</sub>		12 24.9 36°70	3:1/24.7	17	
11 17	6 40.29	+11 47.7	2.329	3.096	13.4	20.4	11 17	6 45.59	+20 56.4	1.310	2.121	19.6	19.3
11 27	6 35.86	+11 47.4	2.245	3.100	10.7	20.2	11 27	6 41.21	+19 41.9	1.251	2.136	15.3	19.1
12 7	6 29.42	+11 55.7	2.183	3.104	7.7	20.0	12 7	6 33.49	+18 27.4	1.212	2.152	10.5	18.8
12 17	6 21.48	+12 13.2	2.147	3.108	4.7	19.8	12 17	6 23.39	+17 15.7	1.196	2.169	5.4	18.6
12 27	6 12.81	+12 39.5	2.141	3.112	3.4	19.8	12 27	6 12.42	+16 10.5	1.208	2.186	3.4	18.5
1 6	6 4.33	+13 13.1	2.165	3.116	5.5	19.9	1 6	6 2.24	+15 15.4	1.245	2.204	7.5	18.8
1 16	5 56.89	+13 52.5	2.218	3.120	8.5	20.1	1 16	5 54.21	+14 33.2	1.309	2.223	12.2	19.2
1 26	5 51.19	+14 35.7	2.296	3.124	11.4	20.3	1 26	5 49.24	+14 4.6	1.394	2.242	16.2	19.5
<b>336805</b>	2011 DV <sub>2</sub>		12 24.9 223°52	0°6/25.0	18		<b>216547</b>	2001 SS <sub>305</sub>		12 24.9 179°78	1°5/25.0	18	
11 17	6 46.11	+21 23.5	1.658	2.451	16.9	21.5	11 17	6 43.10	+19 25.3	2.233	3.010	13.5	20.9
11 27	6 41.52	+21 28.9	1.570	2.447	13.3	21.3	11 27	6 38.20	+19 10.7	2.144	3.011	10.6	20.7
12 7	6 33.82	+21 38.0	1.504	2.441	9.0	21.0	12 7	6 31.07	+18 58.7	2.079	3.012	7.3	20.5
12 17	6 23.67	+21 49.2	1.462	2.436	4.2	20.7	12 17	6 22.27	+18 49.2	2.040	3.012	3.6	20.3
12 27	6 12.24	+22 0.4	1.448	2.430	1.2	20.5	12 27	6 12.68	+18 42.0	2.031	3.012	1.7	20.1
1 6	6 1.02	+22 10.2	1.462	2.424	6.2	20.8	1 6	6 3.31	+18 37.0	2.052	3.011	5.0	20.4
1 16	5 51.42	+22 18.6	1.504	2.418	10.9	21.1	1 16	5 55.13	+18 34.6	2.103	3.010	8.6	20.6
1 26	5 44.56	+22 26.3	1.569	2.412	15.1	21.3	1 26	5 48.90	+18 34.9	2.179	3.009	11.8	20.8
<b>8280</b>	Petergruber		12 24.9 54°76	0°4/25.0	18		<b>267594</b>	2002 RC <sub>41</sub>		12 24.9 57°78	2°5/24.9	18	
11 17	6 42.83	+21 34.7	2.017	2.803	14.5	18.4	11 17	6 48.92	+27 36.9	1.271	2.081	20.1	19.9
11 27	6 38.01	+21 43.5	1.957	2.830	11.2	18.2	11 27	6 44.28	+28 2.6	1.217	2.101	15.7	19.7
12 7	6 30.86	+21 54.9	1.920	2.857	7.5	18.0	12 7	6 35.82	+28 26.8	1.181	2.122	10.6	19.5
12 17	6 22.10	+22 7.3	1.910	2.884	3.4	17.8	12 17	6 24.54	+28 44.5	1.170	2.143	5.3	19.2
12 27	6 12.70	+22 19.2	1.928	2.911	0.9	17.7	12 27	6 12.14	+28 51.3	1.184	2.164	2.8	19.1
1 6	6 3.77	+22 29.7	1.977	2.938	4.9	18.0	1 6	6 0.58	+28 46.6	1.224	2.185	7.3	19.5
1 16	5 56.25	+22 38.7	2.053	2.966	8.6	18.3	1 16	5 51.47	+28 32.7	1.290	2.207	12.1	19.8
1 26	5 50.87	+22 46.8	2.155	2.993	11.7	18.6	1 26	5 45.88	+28 14.0	1.378	2.228	16.3	20.1
<b>10274</b>	Larryevans		12 24.9 43°12	8°9/25.0	18		<b>123504</b>	2000 WE <sub>181</sub>		12 24.9 282°71	4°0/24.8	18	
11 17	6 51.40	+45 29.9	1.840	2.597	16.7	17.7	11 17	6 40.96	+14 10.7	2.115	2.891	14.2	19.7
11 27	6 46.19	+46 30.0	1.769	2.602	14.2	17.5	11 27	6 36.71	+13 23.5	2.017	2.879	11.4	19.5
12 7	6 37.17	+47 16.5	1.719	2.607	11.6	17.4	12 7	6 30.19	+12 40.7	1.942	2.867	8.3	19.3
12 17	6 25.20	+47 40.9	1.692	2.612	9.5	17.3	12 17	6 21.93	+12 4.3	1.893	2.855	5.2	19.1
12 27	6 11.89	+47 36.9	1.691	2.618	8.9	17.2	12 27	6 12.77	+11 36.3	1.873	2.843	4.1	19.0
1 6	5 59.20	+47 3.9	1.715	2.624	10.2	17.3	1 6	6 3.75	+11 17.8	1.882	2.830	6.5	19.1
1 16	5 48.83	+46 6.2	1.765	2.630	12.5	17.5	1 16	5 55.85	+11 9.5	1.919	2.818	9.8	19.3
1 26	5 41.95	+44 52.0	1.837	2.636	15.0	17.7	1 26	5 49.90	+11 10.8	1.980	2.806	13.1	19.5
<b>401048</b>	2011 UK		12 24.9 137°08	4°6/25.6	18		<b>461045</b>	2014 XO <sub>8</sub>		12 24.9 34°56	1°7/25.4	18	
11 17	6 43.34	+9 20.2	2.132	2.891	14.7	22.0	11 17	6 42.30	+14 49.5	1.753	2.541	16.3	19.6
11 27	6 38.32	+9 6.5	2.054	2.902	11.9	21.8	11 27	6 38.07	+15 39.8	1.686	2.558	12.8	19.4
12 7	6 31.09	+9 3.4	1.997	2.911	8.7	21.6	12 7	6 31.22	+16 41.6	1.642	2.576	8.7	19.2
12 17	6 22.25	+9 12.0	1.967	2.921	5.8	21.5	12 17	6 22.40	+17 52.3	1.623	2.595	4.3	19.0
12 27	6 12.65	+9 32.5	1.966	2.930	4.7	21.4	12 27	6 12.67	+19 7.9	1.633	2.614	1.8	18.9
1 6	6 3.31	+10 3.9	1.994	2.938	6.5	21.5	1 6	6 3.27	+20 23.7	1.672	2.634	5.6	19.2
1 16	5 55.17	+10 44.1	2.050	2.946	9.5	21.7	1 16	5 55.35	+21 36.2	1.739	2.654	9.7	19.5
1 26	5 48.99	+11 30.5	2.132	2.953	12.4	21.9	1 26	5 49.78	+22 43.2	1.832	2.675	13.2	19.7
<b>22460</b>	1997 AJ <sub>2</sub>		12 24.9 358°77	0°9/25.1	18		<b>204862</b>	2007 RC <sub>206</sub>		12 24.9 22°75	0°8/24.9	18	
11 17	6 43.48	+19 44.0	1.307	2.120	19.4	17.5	11 17	6 44.35	+24 43.5	1.652	2.450	16.7	20.3
11 27	6 40.15	+20 1.2	1.232	2.119	15.4	17.2	11 27	6 40.12	+24 53.9	1.572	2.452	13.1	20.1
12 7	6 33.26	+20 26.3	1.176	2.118	10.4	16.9	12 7	6 32.84	+25 5.2	1.513	2.453	8.8	19.8
12 17	6 23.51	+20 57.4	1.142	2.118	4.9	16.6	12 17	6 23.22	+25 14.8	1.480	2.455	4.1	19.6
12 27	6 12.30	+21 31.0	1.135	2.118	1.5	16.4	12 27	6 12.46	+25 20.3	1.474	2.456	1.3	19.4
1 6	6 1.39	+22 4.3	1.154	2.118	7.0	16.8	1 6	6 2.03	+25 20.6	1.496	2.458	6.0	19.7
1 16	5 52.45	+22 35.3	1.198	2.119	12.4	17.1	1 16	5 53.29	+25 16.5	1.545	2.461	10.6	20.0
1 26	5 46.74	+23 3.9	1.263	2.121	17.0	17.3	1 26	5 47.28	+25 9.9	1.618	2.463	14.5	20.2
<b>210589</b>	1999 XU <sub>40</sub>		12 24.9 24°43	0°4/24.9	18		<b>111982</b>	2002 GA <sub>95</sub>		12 24.9 151°26	1°6/24.9	18	
11 17	6 41.52	+23 54.3	1.040	1.876	21.7	19.0	11 17	6 50.24	+27 28.4	1.656	2.444	17.1	20.1
11 27	6 38.83	+23 34.2	0.996	1.896	16.9	18.8	11 27	6 44.69	+27 34.5	1.578	2.450	13.4	19.9
12 7	6 32.25	+23 14.9	0.969	1.918	11.3	18.5	12 7	6 35.87	+27 38.3	1.521	2.457	9.1	19.7
12 17	6 22.88	+22 55.3	0.964	1.941	5.1	18.3	12 17	6 24.57	+27 36.4	1.489	2.462	4.4	19.4
12 27	6 12.53	+22 35.0	0.983	1.966	1.3	18.1	12 27	6 12.13	+27 26.3	1.486	2.467	1.9	19.3
1 6	6 3.16	+22 15.0	1.026	1.993	7.3	18.6	1 6	6 0.17	+27 7.8	1.512	2.472	6.3	19.5
1 16	5 56.29	+21 57.0	1.093	2.020	12.6	19.0	1 16	5 50.12	+26 43.1	1.565	2.476	10.8	19.8
1 26	5 52.89	+21 42.9	1.180	2.049	17.1	19.3	1 26	5 43.04	+26 16.0	1.642	2.479	14.7	20.1
<b>141079</b>	2001 XS <sub>30</sub>		12 24.9 287°72	19°0/19.6	18		<b>515781</b>	2015 KF <sub>137</sub>		12 24.9 218°77	2°7/24.7	18	
11 17	7 37.78	+8 24.7	1.100	1.802	28.6	20.4	11 17	6 48.56	+27 57.2	1.747	2.534	16.3	22.5
11 27	7 30.00	+5 11.5	0.931	1.735	26.1	19.9	11 27	6 43.58	+28 36.6	1.656	2.528	13.0	22.3
12 7	7 13.97	+1 10.5	0.779	1.659	22.4	19.3	12 7	6 35.33	+29 16.4	1.587	2.521	8.9	22.0
12 17	6 46.55	-3 48.6	0.651	1.575	19.2	18.7	12 17	6 24.44	+29 51.7	1.544	2.514	4.7	21.7
12 27	6 5.09	-9 35.2	0.558	1.482	21.3	18.3	12 27	6 12.13	+30 17.8	1.529	2.507	2.9	21.6
1 6	5 10.72	-15 12.7	0.508	1.379	31.6	18.3	1 6	5 59.96	+30 31.9	1.542	2.499	6.6	21.8
1 16	4 11.36	-19 15.5	0.499	1.264	45.8	18.4	1 16	5 49.46	+30 34.4	1.583	2.490	11.0	22.1
1 26	3 17.23	-21 12.8	0.519	1.137	59.9	18.7	1 26	5 41.83	+30 28.5	1.649	2.482	14.9	22.3
<b>402314</b>	2005 TD <sub>123</sub>		12 24.9 15°33	1°1/24.9	17		<b>226267</b>	2003 AK <sub>54</sub>		12 25.0 344°76	2°4/24.9	18	
11 17	6 42.84	+25 45.6	1.902	2.694	15.0	2							