

EPHEMERIDES

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>255266</b>	2005 <i>VH</i> <sub>42</sub>		1 20.9	30°80	6°9/17.1	17	<b>364360</b>	2006 <i>US</i> <sub>269</sub>		1 21.0	116°85	6°6/24.0	18
12 13	8 36.67	+30 47.1	1.509	2.316	17.4	19.5	12 13	8 38.15	+2 39.2	2.012	2.726	16.6	20.9
12 23	8 33.89	+32 36.8	1.448	2.327	13.8	19.3	12 23	8 33.55	+1 45.6	1.931	2.738	14.1	20.7
1 2	8 27.63	+34 29.9	1.410	2.339	10.2	19.1	1 2	8 26.59	+1 7.9	1.870	2.750	11.1	20.5
1 12	8 18.60	+36 14.9	1.396	2.351	7.4	19.0	1 12	8 17.86	+0 48.7	1.834	2.761	8.3	20.4
1 22	8 8.07	+37 40.6	1.408	2.364	7.3	19.0	1 22	8 8.21	+0 48.5	1.824	2.773	6.7	20.3
2 1	7 57.69	+38 39.4	1.447	2.378	10.0	19.2	2 1	7 58.68	+1 6.0	1.843	2.784	7.4	20.4
2 11	7 49.13	+39 9.3	1.510	2.392	13.3	19.5	2 11	7 50.30	+1 37.7	1.889	2.794	9.8	20.6
2 21	7 43.56	+39 13.3	1.594	2.407	16.5	19.7	2 21	7 43.87	+2 18.7	1.960	2.804	12.6	20.7
<b>203064</b>	2000 <i>NH</i> <sub>20</sub>		1 20.9	79°27	0°9/21.3	17	<b>48803</b>	1997 <i>UN</i> <sub>10</sub>		1 21.0	14°48	4°3/23.2	18
12 13	8 45.69	+18 26.2	1.549	2.322	18.5	19.6	12 13	8 33.58	+7 36.6	2.139	2.879	15.0	18.6
12 23	8 39.96	+18 7.4	1.489	2.349	14.6	19.4	12 23	8 29.96	+7 8.5	2.048	2.880	12.4	18.4
1 2	8 31.10	+17 56.7	1.449	2.377	10.0	19.2	1 2	8 24.16	+6 53.5	1.978	2.881	9.3	18.2
1 12	8 20.00	+17 51.6	1.434	2.404	5.0	19.0	1 12	8 16.70	+6 52.2	1.933	2.882	6.3	18.0
1 22	8 7.96	+17 49.0	1.448	2.431	1.0	18.8	1 22	8 8.34	+7 3.9	1.916	2.884	4.4	17.9
2 1	7 56.47	+17 46.3	1.490	2.458	5.5	19.2	2 1	8 0.01	+7 26.8	1.928	2.886	5.6	18.0
2 11	7 46.89	+17 42.0	1.560	2.484	10.1	19.5	2 11	7 52.67	+7 57.6	1.968	2.887	8.6	18.2
2 21	7 40.08	+17 35.3	1.655	2.510	14.0	19.8	2 21	7 47.07	+8 32.5	2.033	2.889	11.7	18.4
<b>518782</b>	2010 <i>AB</i> <sub>141</sub>		1 20.9	86°04	1°1/21.7	18	<b>362356</b>	2010 <i>MN</i> <sub>97</sub>		1 21.0	87°45	3°5/19.4	17
12 13	8 34.11	+13 47.6	2.191	2.950	14.2	21.6	12 13	8 44.92	+28 3.1	1.968	2.740	15.1	20.8
12 23	8 30.33	+14 16.3	2.107	2.960	11.3	21.4	12 23	8 38.96	+28 47.2	1.912	2.773	11.9	20.6
1 2	8 24.38	+14 56.7	2.046	2.970	7.9	21.2	1 2	8 30.24	+29 32.1	1.878	2.805	8.2	20.5
1 12	8 16.78	+15 46.4	2.011	2.979	4.1	21.0	1 12	8 19.56	+30 11.6	1.872	2.836	4.8	20.3
1 22	8 8.31	+16 41.6	2.006	2.989	1.1	20.8	1 22	8 8.04	+30 40.1	1.894	2.867	3.7	20.3
2 1	7 59.90	+17 37.7	2.031	2.998	4.3	21.0	2 1	7 56.96	+30 54.2	1.947	2.897	6.3	20.5
2 11	7 52.51	+18 30.7	2.084	3.008	8.0	21.2	2 11	7 47.53	+30 53.7	2.028	2.926	9.6	20.8
2 21	7 46.88	+19 17.7	2.164	3.017	11.2	21.5	2 21	7 40.52	+30 40.5	2.134	2.955	12.6	21.0
<b>425514</b>	2010 <i>JF</i> <sub>116</sub>		1 20.9	224°26	4°8/23.7	17	<b>62469</b>	2000 <i>SD</i> <sub>215</sub>		1 21.0	355°40	0°6/20.7	18
12 13	8 33.96	+3 35.6	2.870	3.571	12.4	21.1	12 13	8 36.28	+19 53.9	1.873	2.653	15.5	19.9
12 23	8 29.68	+2 56.9	2.762	3.563	10.4	20.9	12 23	8 32.59	+20 14.5	1.785	2.652	12.2	19.7
1 2	8 23.69	+2 29.1	2.677	3.555	8.2	20.8	1 2	8 26.23	+20 43.4	1.720	2.652	8.4	19.5
1 12	8 16.39	+2 13.5	2.618	3.547	6.1	20.6	1 12	8 17.80	+21 17.0	1.680	2.652	4.1	19.2
1 22	8 8.35	+2 10.6	2.588	3.538	4.9	20.5	1 22	8 8.22	+21 50.8	1.668	2.652	0.8	19.0
2 1	8 0.27	+2 19.5	2.588	3.529	5.5	20.6	2 1	7 58.68	+22 20.4	1.685	2.651	5.2	19.3
2 11	7 52.87	+2 38.4	2.616	3.519	7.5	20.7	2 11	7 50.41	+22 42.9	1.730	2.652	9.4	19.5
2 21	7 46.75	+3 4.5	2.672	3.509	9.8	20.8	2 21	7 44.31	+22 56.8	1.799	2.652	13.2	19.8
<b>305081</b>	2007 <i>UT</i> <sub>119</sub>		1 20.9	306°15	3°4/22.3	18	<b>401003</b>	2011 <i>QG</i> <sub>40</sub>		1 21.0	129°34	2°4/22.2	18
12 13	8 35.32	+11 50.7	1.525	2.302	18.6	21.1	12 13	8 39.95	+11 50.6	1.843	2.596	16.7	22.2
12 23	8 32.47	+11 33.3	1.431	2.290	15.2	20.8	12 23	8 35.26	+11 58.8	1.764	2.610	13.4	22.0
1 2	8 26.56	+11 30.8	1.355	2.279	11.1	20.5	1 2	8 27.91	+12 21.1	1.706	2.624	9.6	21.8
1 12	8 18.11	+11 43.5	1.303	2.267	6.5	20.2	1 12	8 18.56	+12 55.8	1.673	2.637	5.3	21.6
1 22	8 8.14	+12 9.2	1.277	2.256	3.4	20.0	1 22	8 8.15	+13 39.2	1.669	2.649	2.4	21.4
2 1	7 58.03	+12 44.3	1.277	2.245	6.3	20.2	2 1	7 57.88	+14 26.9	1.694	2.661	5.2	21.6
2 11	7 49.28	+13 23.8	1.304	2.234	11.1	20.4	2 11	7 48.95	+15 14.3	1.748	2.672	9.2	21.9
2 21	7 43.04	+14 3.2	1.353	2.224	15.5	20.6	2 21	7 42.23	+15 58.0	1.827	2.682	12.9	22.1
<b>25341</b>	1999 <i>RT</i> <sub>38</sub>		1 20.9	61°79	3°2/19.8	18	<b>273387</b>	2006 <i>VN</i> <sub>49</sub>		1 21.0	253°19	2°4/20.1	18
12 13	8 41.76	+23 41.9	1.230	2.037	20.5	18.0	12 13	8 40.94	+23 1.2	1.445	2.240	18.6	20.8
12 23	8 38.08	+24 29.9	1.173	2.055	16.1	17.8	12 23	8 37.36	+23 33.6	1.357	2.233	14.8	20.5
1 2	8 30.51	+25 26.6	1.134	2.073	11.0	17.5	1 2	8 30.16	+24 14.9	1.289	2.225	10.2	20.2
1 12	8 19.96	+26 23.5	1.119	2.091	5.7	17.3	1 12	8 19.96	+24 59.2	1.244	2.216	5.2	19.9
1 22	8 7.96	+27 11.6	1.130	2.109	3.4	17.2	1 22	8 7.97	+25 39.0	1.227	2.208	2.6	19.7
2 1	7 56.43	+27 43.8	1.166	2.128	7.8	17.5	2 1	7 55.90	+26 7.6	1.236	2.199	7.2	20.0
2 11	7 47.17	+27 58.0	1.227	2.147	12.7	17.9	2 11	7 45.56	+26 21.7	1.271	2.190	12.3	20.3
2 21	7 41.27	+27 55.8	1.310	2.165	16.9	18.2	2 21	7 38.27	+26 21.4	1.328	2.182	16.9	20.5
<b>419108</b>	2009 <i>SN</i> <sub>183</sub>		1 20.9	85°21	3°2/22.5	18	<b>328544</b>	2009 <i>RO</i> <sub>35</sub>		1 21.0	75°94	5°0/23.9	18
12 13	8 37.17	+10 48.8	2.001	2.750	15.6	21.3	12 13	8 36.14	+4 46.9	1.979	2.708	16.4	21.0
12 23	8 32.77	+10 29.5	1.925	2.767	12.7	21.1	12 23	8 31.92	+4 31.1	1.909	2.732	13.6	20.9
1 2	8 26.03	+10 22.5	1.870	2.783	9.2	20.9	1 2	8 25.42	+4 32.4	1.860	2.755	10.3	20.7
1 12	8 17.56	+10 27.1	1.840	2.799	5.6	20.7	1 12	8 17.26	+4 51.1	1.835	2.778	7.1	20.6
1 22	8 8.23	+10 41.8	1.839	2.815	3.2	20.6	1 22	8 8.30	+5 25.5	1.838	2.802	5.1	20.5
2 1	7 59.10	+11 3.9	1.867	2.830	5.2	20.7	2 1	7 59.56	+6 12.3	1.869	2.824	6.0	20.6
2 11	7 51.16	+11 30.2	1.923	2.846	8.6	21.0	2 11	7 52.01	+7 6.6	1.929	2.847	8.8	20.8
2 21	7 45.19	+11 57.4	2.005	2.861	11.9	21.2	2 21	7 46.37	+8 3.5	2.014	2.870	11.8	21.0
<b>19081</b>	<i>Mravinskij</i>		1 20.9	78°26	8°6/25.7	18	<b>21566</b>	1998 <i>QM</i> <sub>103</sub>		1 21.0	154°55	0°7/20.6	18
12 13	8 35.28	-2 42.6	1.800	2.503	18.7	17.2	12 13	8 35.87	+20 15.7	2.264	3.034	13.5	19.0
12 23	8 31.61	-3 30.3	1.724	2.516	16.1	17.1	12 23	8 31.76	+20 42.8	2.175	3.036	10.6	18.8
1 2	8 25.42	-3 55.5	1.667	2.528	13.3	16.9	1 2	8 25.39	+21 16.7	2.109	3.039	7.2	18.6
1 12	8 17.34	-3 54.8	1.631	2.541	10.5	16.8	1 12	8 17.31	+21 54.2	2.069	3.041	3.5	18.3
1 22	8 8.25	-3 27.5	1.620	2.553	8.8	16.7	1 22	8 8.29	+22 31.1	2.060	3.043	0.9	18.1
2 1	7 59.29	-2 35.8	1.635	2.566	9.1	16.7	2 1	7 59.31	+23 3.7	2.080	3.045	4.6	18.4
2 11	7 51.55	-1 25.8	1.677	2.578	11.1	16.9	2 11	7 51.37	+23 29.5	2.130	3.047	8.2	18.6
2 21	7 45.88	-0 4.7	1.742	2.591	13.7	17.1	2 21	7 45.23	+23 47.1	2.205	3.048	11.4	18.8
<b>105424</b>	2000 <i>QD</i> <sub>173</sub>		1 20.9	190°11	4°4/24.4	18	<b>98863</b>	2001 <i>AR</i> <sub>46</sub>		1 21.0	322°08	18°3/9.4	18
12 13	8 31.94	+1 42.3	3.037	3.730	11.9								

EPHEMERIDES

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>45444</b>	2000 AD <sub>180</sub>		1 21.0	90°69	5°7/23.4	18	<b>369673</b>	2011 ST <sub>254</sub>		1 21.0	176°87	3°1/19.3	18
12 13	8 38.11	+ 6 19.8	1.769	2.509	17.7	18.5	12 13	8 42.33	+25 17.0	1.988	2.761	14.9	21.9
12 23	8 33.86	+ 5 34.9	1.691	2.521	14.7	18.3	12 23	8 37.37	+26 14.0	1.901	2.764	11.8	21.7
1 2	8 26.97	+ 5 5.9	1.633	2.533	11.2	18.1	1 2	8 29.54	+27 16.7	1.837	2.766	8.2	21.5
1 12	8 18.10	+ 4 54.2	1.599	2.544	7.8	17.9	1 12	8 19.45	+28 18.9	1.800	2.767	4.5	21.3
1 22	8 8.21	+ 4 59.9	1.592	2.556	5.7	17.8	1 22	8 8.07	+29 13.6	1.792	2.768	3.3	21.2
2 1	7 58.47	+ 5 20.8	1.613	2.567	6.9	17.9	2 1	7 56.70	+29 55.4	1.814	2.767	6.4	21.4
2 11	7 50.05	+ 5 52.8	1.661	2.578	10.1	18.1	2 11	7 46.65	+30 21.6	1.865	2.766	10.2	21.6
2 21	7 43.83	+ 6 31.2	1.733	2.589	13.4	18.3	2 21	7 38.94	+30 32.5	1.940	2.764	13.6	21.8
<b>378831</b>	2008 SA <sub>279</sub>		1 21.0	36°93	6°2/23.9	18	<b>420611</b>	2012 HK <sub>59</sub>		1 21.0	313°73	5°3/17.9	18
12 13	8 33.94	+ 3 54.8	1.973	2.703	16.4	20.7	12 13	8 36.06	+28 36.9	1.712	2.510	16.0	20.8
12 23	8 30.36	+ 3 7.8	1.891	2.710	13.8	20.5	12 23	8 33.20	+30 0.3	1.623	2.498	12.8	20.6
1 2	8 24.48	+ 2 36.6	1.829	2.718	10.8	20.4	1 2	8 27.17	+31 30.3	1.555	2.487	9.2	20.4
1 12	8 16.86	+ 2 23.2	1.791	2.726	7.9	20.2	1 12	8 18.48	+32 58.4	1.514	2.475	6.1	20.1
1 22	8 8.34	+ 2 27.9	1.780	2.735	6.2	20.1	1 22	8 8.16	+34 15.1	1.499	2.464	5.7	20.1
2 1	7 59.91	+ 2 49.1	1.796	2.743	7.0	20.2	2 1	7 57.66	+35 12.5	1.512	2.454	8.6	20.2
2 11	7 52.58	+ 3 23.2	1.840	2.752	9.6	20.4	2 11	7 48.56	+35 46.9	1.550	2.443	12.4	20.4
2 21	7 47.13	+ 4 5.2	1.908	2.762	12.5	20.6	2 21	7 42.09	+35 58.9	1.611	2.433	15.9	20.6
<b>37605</b>	1992 PN <sub>2</sub>		1 21.0	119°93	2°9/22.3	18	<b>105939</b>	2000 SY <sub>227</sub>		1 21.0	97°17	2°9/19.7	17
12 13	8 39.86	+11 57.7	1.815	2.570	16.8	18.8	12 13	8 44.02	+24 43.9	1.736	2.515	16.6	20.1
12 23	8 35.20	+11 44.4	1.736	2.583	13.6	18.6	12 23	8 38.69	+25 34.1	1.674	2.540	13.0	19.9
1 2	8 27.87	+11 43.8	1.678	2.595	9.8	18.4	1 2	8 30.33	+26 29.3	1.634	2.565	8.9	19.7
1 12	8 18.53	+11 55.1	1.646	2.607	5.6	18.2	1 12	8 19.73	+27 22.7	1.621	2.590	4.7	19.5
1 22	8 8.16	+12 15.9	1.641	2.619	2.9	18.1	1 22	8 8.06	+28 7.5	1.636	2.613	3.1	19.5
2 1	7 57.96	+12 43.1	1.665	2.630	5.4	18.2	2 1	7 56.77	+28 38.7	1.680	2.636	6.4	19.7
2 11	7 49.12	+13 12.8	1.718	2.641	9.4	18.5	2 11	7 47.19	+28 54.7	1.752	2.659	10.3	20.0
2 21	7 42.51	+13 42.0	1.795	2.651	13.0	18.8	2 21	7 40.25	+28 56.7	1.848	2.681	13.8	20.3
<b>228172</b>	2009 SK <sub>212</sub>		1 21.0	66°94	1°2/20.4	18	<b>518482</b>	2005 TZ <sub>42</sub>		1 21.0	122°09	3°3/22.8	18
12 13	8 39.83	+21 35.7	1.835	2.613	15.8	21.1	12 13	8 41.67	+ 8 34.8	1.902	2.638	16.8	22.0
12 23	8 35.09	+22 1.6	1.775	2.641	12.4	20.9	12 23	8 36.42	+ 8 46.5	1.827	2.660	13.6	21.8
1 2	8 27.68	+22 33.6	1.736	2.668	8.4	20.7	1 2	8 28.59	+ 9 14.5	1.774	2.682	9.9	21.6
1 12	8 18.36	+23 7.3	1.724	2.696	4.0	20.5	1 12	8 18.85	+ 9 57.4	1.746	2.703	6.0	21.4
1 22	8 8.19	+23 37.8	1.740	2.723	1.4	20.4	1 22	8 8.16	+10 51.7	1.746	2.722	3.3	21.3
2 1	7 58.38	+24 1.3	1.786	2.750	5.3	20.7	2 1	7 57.66	+11 52.6	1.777	2.741	5.3	21.5
2 11	7 50.08	+24 15.8	1.860	2.777	9.2	21.0	2 11	7 48.50	+12 54.7	1.838	2.759	9.0	21.7
2 21	7 44.08	+24 21.1	1.958	2.804	12.6	21.2	2 21	7 41.50	+13 53.6	1.924	2.776	12.5	22.0
<b>416064</b>	2002 JY <sub>107</sub>		1 21.0	311°42	7°2/16.4	17	<b>49618</b>	1999 FC <sub>44</sub>		1 21.0	16°20	5°2/18.7	18
12 13	8 36.18	+32 37.0	1.731	2.530	15.8	19.8	12 13	8 39.71	+33 45.7	2.045	2.827	14.3	18.6
12 23	8 33.61	+34 18.8	1.634	2.507	12.9	19.5	12 23	8 35.28	+34 21.5	1.966	2.829	11.5	18.4
1 2	8 27.68	+36 6.1	1.560	2.484	9.8	19.3	1 2	8 28.03	+34 54.5	1.910	2.831	8.5	18.2
1 12	8 18.85	+37 48.8	1.511	2.462	7.5	19.1	1 12	8 18.65	+35 18.5	1.879	2.834	5.9	18.1
1 22	8 8.09	+39 16.0	1.490	2.440	7.7	19.1	1 22	8 8.18	+35 28.0	1.876	2.836	5.4	18.1
2 1	7 56.92	+40 18.5	1.494	2.418	10.3	19.2	2 1	7 57.92	+35 20.0	1.902	2.839	7.5	18.2
2 11	7 47.12	+40 52.4	1.524	2.397	13.8	19.3	2 11	7 49.14	+34 54.5	1.954	2.843	10.4	18.4
2 21	7 40.10	+40 59.2	1.574	2.376	17.2	19.5	2 21	7 42.72	+34 14.6	2.031	2.846	13.3	18.6
<b>50698</b>	2000 EY <sub>128</sub>		1 21.0	99°68	3°0/22.9	18	<b>372653</b>	2009 WB <sub>42</sub>		1 21.0	120°01	1°1/20.4	18
12 13	8 33.25	+ 8 34.4	2.273	3.013	14.2	19.0	12 13	8 37.19	+21 30.4	2.222	2.992	13.7	21.6
12 23	8 29.57	+ 8 45.2	2.184	3.019	11.6	18.8	12 23	8 32.79	+21 58.9	2.139	3.001	10.7	21.4
1 2	8 23.83	+ 9 10.0	2.116	3.025	8.5	18.6	1 2	8 26.08	+22 33.3	2.080	3.011	7.3	21.2
1 12	8 16.54	+ 9 48.0	2.075	3.031	5.2	18.4	1 12	8 17.64	+23 9.9	2.048	3.020	3.5	21.0
1 22	8 8.39	+10 36.6	2.062	3.037	3.0	18.3	1 22	8 8.30	+23 44.4	2.046	3.028	1.3	20.8
2 1	8 0.28	+11 32.3	2.079	3.043	4.6	18.4	2 1	7 59.06	+24 13.1	2.074	3.037	4.7	21.1
2 11	7 53.10	+12 30.7	2.125	3.049	7.8	18.6	2 11	7 50.94	+24 33.8	2.130	3.045	8.3	21.3
2 21	7 47.57	+13 27.8	2.198	3.055	10.9	18.8	2 21	7 44.72	+24 45.8	2.213	3.053	11.5	21.6
<b>457119</b>	2008 FR <sub>27</sub>		1 21.0	310°24	4°2/23.4	18	<b>327543</b>	2006 BQ <sub>246</sub>		1 21.0	125°46	1°4/21.8	18
12 13	8 32.98	+ 6 35.0	1.726	2.480	17.6	21.2	12 13	8 35.84	+14 3.0	2.217	2.972	14.1	21.8
12 23	8 30.23	+ 6 46.3	1.629	2.471	14.6	20.9	12 23	8 31.66	+14 15.7	2.131	2.981	11.3	21.6
1 2	8 24.80	+ 7 18.2	1.552	2.462	10.9	20.7	1 2	8 25.28	+14 39.0	2.068	2.989	7.9	21.4
1 12	8 17.21	+ 8 10.9	1.499	2.454	7.0	20.4	1 12	8 17.25	+15 10.9	2.031	2.998	4.2	21.2
1 22	8 8.31	+ 9 21.7	1.472	2.446	4.3	20.3	1 22	8 8.34	+15 48.3	2.023	3.006	1.4	21.0
2 1	7 59.27	+10 45.2	1.473	2.438	6.0	20.3	2 1	7 59.51	+16 27.6	2.046	3.013	4.3	21.2
2 11	7 51.36	+12 13.9	1.501	2.430	10.0	20.6	2 11	7 51.72	+17 5.4	2.098	3.021	7.9	21.5
2 21	7 45.60	+13 41.0	1.555	2.423	14.0	20.8	2 21	7 45.70	+17 39.3	2.176	3.028	11.2	21.7
<b>227957</b>	2007 GR <sub>69</sub>		1 21.0	135°10	0°1/20.9	18	<b>152743</b>	1998 YK <sub>6</sub>		1 21.0	71°47	2°5/19.7	18
12 13	8 36.87	+18 47.3	2.144	2.912	14.2	21.2	12 13	8 38.36	+22 4.9	1.679	2.467	16.7	19.7
12 23	8 32.62	+19 4.7	2.058	2.917	11.2	21.0	12 23	8 34.46	+23 9.5	1.612	2.484	13.1	19.5
1 2	8 26.01	+19 29.7	1.994	2.923	7.7	20.8	1 2	8 27.61	+24 23.2	1.567	2.501	8.9	19.3
1 12	8 17.62	+19 59.4	1.957	2.928	3.7	20.5	1 12	8 18.49	+25 39.0	1.548	2.519	4.5	19.0
1 22	8 8.28	+20 30.1	1.949	2.933	0.5	20.3	1 22	8 8.21	+26 49.3	1.556	2.536	2.7	19.0
2 1	7 59.02	+20 58.2	1.971	2.937	4.6	20.6	2 1	7 58.12	+27 47.4	1.594	2.553	6.4	19.2
2 11	7 50.87	+21 21.1	2.022	2.942	8.4	20.9	2 11	7 49.58	+28 29.7	1.658	2.570	10.5	19.5
2 21	7 44.64	+21 37.3	2.098	2.946	11.7	21.1	2 21	7 43.54	+28 55.9	1.747	2.587	14.1	19.8
<b>242851</b>	2006 FJ <sub>12</sub>		1 21.0	194°68	0°6/21.5	17	<b>288447</b>	2004 EO <sub>55</sub>		1 21.0	327°06	5°9/23.9	18
12 13	8 29.75	+16 10.2	3.890	4.634	8.7	22.1	12 13	8 32.13	+				

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>296930</b>	2010 <i>CB</i> <sub>181</sub>		1 21.0 168°37'	2°1/20.2	18		<b>464965</b>	2005 <i>WT</i> <sub>155</sub>		1 21.0 31°21'	6°2/24.0	18	
12 13	8 43.62	+24 16.0	1.822	2.597	16.0	21.6	12 13	8 33.20	+5 6.4	1.374	2.142	20.7	20.9
12 23	8 38.49	+24 38.0	1.737	2.601	12.7	21.4	12 23	8 30.59	+4 38.6	1.316	2.162	17.1	20.7
1 2	8 30.33	+25 4.7	1.674	2.604	8.7	21.2	1 2	8 25.01	+4 33.5	1.275	2.183	13.0	20.5
1 12	8 19.83	+25 30.8	1.637	2.607	4.4	20.9	1 12	8 17.23	+4 52.6	1.256	2.205	8.9	20.3
1 22	8 8.07	+25 51.1	1.629	2.609	2.3	20.8	1 22	8 8.40	+5 33.6	1.261	2.228	6.3	20.2
2 1	7 56.44	+26 1.6	1.650	2.611	6.0	21.0	2 1	7 59.88	+6 31.4	1.292	2.252	7.5	20.4
2 11	7 46.33	+26 0.6	1.699	2.612	10.2	21.3	2 11	7 52.98	+7 38.6	1.348	2.276	10.9	20.6
2 21	7 38.76	+25 49.1	1.773	2.612	14.0	21.5	2 21	7 48.57	+8 47.9	1.427	2.302	14.6	20.9
<b>421503</b>	2014 <i>OV</i> <sub>85</sub>		1 21.0 183°62'	0°9/20.6	18		<b>76422</b>	2000 <i>FD</i> <sub>21</sub>		1 21.0 58°24'	3°8/23.4	18	
12 13	8 40.55	+20 0.1	2.163	2.925	14.2	22.8	12 13	8 34.55	+6 11.1	1.668	2.420	18.2	19.0
12 23	8 35.61	+20 34.2	2.069	2.926	11.3	22.6	12 23	8 31.37	+6 40.5	1.589	2.430	14.9	18.8
1 2	8 28.15	+21 16.2	1.998	2.926	7.7	22.4	1 2	8 25.48	+7 32.2	1.529	2.440	11.0	18.5
1 12	8 18.73	+22 2.2	1.955	2.926	3.7	22.1	1 12	8 17.50	+8 45.0	1.493	2.450	6.8	18.3
1 22	8 8.19	+22 47.5	1.941	2.924	1.1	21.9	1 22	8 8.36	+10 14.3	1.485	2.460	3.9	18.2
2 1	7 57.63	+23 27.5	1.958	2.922	4.9	22.2	2 1	7 59.29	+11 53.1	1.505	2.471	5.7	18.3
2 11	7 48.20	+23 59.2	2.005	2.919	8.8	22.4	2 11	7 51.52	+13 32.9	1.553	2.482	9.7	18.6
2 21	7 40.77	+24 21.3	2.077	2.915	12.3	22.6	2 21	7 45.97	+15 6.9	1.626	2.492	13.6	18.8
<b>520706</b>	2014 <i>QQ</i> <sub>466</sub>		1 21.0 342°12'	3°8/19.3	18		<b>80960</b>	2000 <i>DE</i> <sub>106</sub>		1 21.0 221°68'	2°6/19.6	18	
12 13	8 34.87	+25 15.6	1.457	2.265	17.8	20.9	12 13	8 39.33	+25 5.6	2.177	2.950	13.8	19.9
12 23	8 32.54	+26 7.7	1.374	2.257	14.1	20.7	12 23	8 34.84	+25 49.5	2.079	2.942	10.9	19.7
1 2	8 26.82	+27 7.8	1.312	2.250	9.8	20.4	1 2	8 27.76	+26 38.5	2.004	2.933	7.6	19.5
1 12	8 18.33	+28 8.8	1.274	2.244	5.5	20.1	1 12	8 18.61	+27 27.6	1.956	2.924	4.1	19.3
1 22	8 8.22	+29 2.1	1.261	2.238	4.0	20.0	1 22	8 8.25	+28 11.1	1.937	2.914	2.8	19.2
2 1	7 58.08	+29 40.6	1.275	2.233	7.8	20.2	2 1	7 57.80	+28 44.3	1.949	2.904	5.8	19.3
2 11	7 49.58	+30 0.7	1.313	2.229	12.4	20.5	2 11	7 48.45	+29 4.8	1.989	2.893	9.4	19.5
2 21	7 43.95	+30 2.8	1.374	2.225	16.5	20.7	2 21	7 41.16	+29 12.5	2.054	2.882	12.8	19.7
<b>407819</b>	2012 <i>AU</i> <sub>18</sub>		1 21.0 94°43'	1°2/21.7	18		<b>309472</b>	2007 <i>VE</i> <sub>91</sub>		1 21.0 95°28'	3°1/22.6	18	
12 13	8 36.68	+13 21.8	1.773	2.541	16.7	21.4	12 13	8 37.46	+9 53.9	1.707	2.465	17.6	21.5
12 23	8 32.92	+13 58.4	1.694	2.551	13.3	21.2	12 23	8 33.53	+10 0.9	1.631	2.478	14.3	21.3
1 2	8 26.46	+14 50.5	1.637	2.562	9.3	20.9	1 2	8 26.87	+10 24.8	1.575	2.491	10.3	21.1
1 12	8 17.94	+15 54.6	1.604	2.573	4.8	20.7	1 12	8 18.14	+11 4.2	1.543	2.504	6.1	20.9
1 22	8 8.29	+17 5.4	1.600	2.583	1.2	20.5	1 22	8 8.31	+11 55.6	1.539	2.517	3.1	20.8
2 1	7 58.73	+18 16.7	1.625	2.594	5.1	20.7	2 1	7 58.62	+12 53.9	1.563	2.530	5.5	20.9
2 11	7 50.47	+19 22.7	1.678	2.604	9.4	21.0	2 11	7 50.31	+13 53.5	1.615	2.542	9.6	21.2
2 21	7 44.43	+20 19.6	1.757	2.614	13.2	21.3	2 21	7 44.26	+14 49.6	1.692	2.554	13.4	21.5
<b>91474</b>	1999 <i>RO</i> <sub>95</sub>		1 21.0 133°97'	0°9/21.6	18		<b>377565</b>	2005 <i>JF</i> <sub>152</sub>		1 21.0 359°70'	5°4/18.4	18	
12 13	8 36.37	+15 0.1	2.483	3.232	12.9	20.5	12 13	8 38.10	+32 55.8	1.936	2.724	14.8	20.3
12 23	8 31.80	+15 18.9	2.397	3.245	10.3	20.3	12 23	8 34.27	+33 44.4	1.856	2.723	11.9	20.1
1 2	8 25.24	+15 46.6	2.336	3.257	7.1	20.1	1 2	8 27.51	+34 32.0	1.798	2.722	8.7	19.9
1 12	8 17.20	+16 21.2	2.301	3.269	3.7	19.9	1 12	8 18.49	+35 11.4	1.767	2.722	6.1	19.8
1 22	8 8.39	+16 59.5	2.297	3.280	0.9	19.7	1 22	8 8.27	+35 36.3	1.762	2.722	5.6	19.8
2 1	7 59.66	+17 38.3	2.324	3.291	3.9	20.0	2 1	7 58.17	+35 42.6	1.785	2.723	7.9	19.9
2 11	7 51.87	+18 14.6	2.381	3.301	7.3	20.2	2 11	7 49.54	+35 29.9	1.835	2.724	11.0	20.1
2 21	7 45.70	+18 46.4	2.464	3.311	10.3	20.4	2 21	7 43.35	+35 0.6	1.907	2.725	14.0	20.3
<b>62636</b>	2000 <i>SX</i> <sub>356</sub>		1 21.0 141°85'	4°1/18.9	18		<b>489063</b>	2005 <i>YQ</i> <sub>207</sub>		1 21.0 313°77'	1°8/21.6	18	
12 13	8 42.71	+27 39.4	1.814	2.595	15.9	19.9	12 13	8 39.69	+16 50.7	1.459	2.245	18.9	21.6
12 23	8 37.91	+28 40.3	1.738	2.605	12.6	19.7	12 23	8 36.03	+16 26.4	1.373	2.240	15.2	21.4
1 2	8 30.02	+29 45.0	1.684	2.613	8.8	19.5	1 2	8 29.03	+16 11.9	1.306	2.237	10.7	21.1
1 12	8 19.71	+30 46.2	1.657	2.621	5.3	19.3	1 12	8 19.35	+16 5.7	1.263	2.233	5.6	20.8
1 22	8 8.10	+31 36.2	1.658	2.629	4.4	19.3	1 22	8 8.17	+16 5.3	1.246	2.229	1.8	20.5
2 1	7 56.63	+32 9.5	1.688	2.636	7.3	19.5	2 1	7 57.03	+16 7.9	1.257	2.226	6.1	20.8
2 11	7 46.73	+32 24.2	1.745	2.642	11.0	19.7	2 11	7 47.52	+16 10.7	1.293	2.222	11.2	21.1
2 21	7 39.43	+32 22.1	1.826	2.648	14.3	19.9	2 21	7 40.82	+16 12.1	1.352	2.219	15.8	21.3
<b>454924</b>	2015 <i>TE</i> <sub>153</sub>		1 21.0 335°37'	4°8/22.9	18		<b>10674</b>	de Elía		1 21.0 140°35'	0°9/21.4	18	
12 13	8 34.82	+9 5.2	1.298	2.081	20.9	20.5	12 13	8 40.13	+16 17.1	1.852	2.617	16.2	19.2
12 23	8 32.51	+8 44.5	1.215	2.076	17.3	20.2	12 23	8 35.51	+16 24.7	1.769	2.625	12.9	19.0
1 2	8 26.82	+8 44.1	1.150	2.071	12.8	19.9	1 2	8 28.18	+16 42.7	1.708	2.634	8.9	18.8
1 12	8 18.36	+9 5.1	1.106	2.066	8.1	19.7	1 12	8 18.76	+17 8.3	1.672	2.642	4.5	18.5
1 22	8 8.24	+9 45.6	1.086	2.062	4.9	19.5	1 22	8 8.25	+17 38.0	1.666	2.649	1.0	18.3
2 1	7 58.05	+10 40.7	1.092	2.059	7.3	19.6	2 1	7 57.85	+18 7.7	1.688	2.656	5.0	18.6
2 11	7 49.48	+11 43.0	1.122	2.055	12.1	19.8	2 11	7 48.80	+18 34.1	1.739	2.662	9.3	18.8
2 21	7 43.75	+12 45.6	1.174	2.053	16.8	20.1	2 21	7 42.00	+18 55.3	1.815	2.668	13.1	19.1
<b>106937</b>	2000 <i>YV</i> <sub>66</sub>		1 21.0 306°84'	0°6/20.8	18		<b>10387</b>	Bepicolombo		1 21.0 136°85'	5°4/18.4	18	
12 13	8 36.77	+20 25.9	1.481	2.278	18.1	19.7	12 13	8 44.04	+34 50.7	2.231	3.000	13.7	18.4
12 23	8 34.01	+20 33.4	1.382	2.259	14.5	19.4	12 23	8 38.44	+35 37.2	2.156	3.010	11.0	18.2
1 2	8 27.88	+20 50.2	1.303	2.240	10.1	19.1	1 2	8 30.07	+36 20.4	2.105	3.020	8.2	18.1
1 12	8 18.91	+21 12.8	1.248	2.221	5.0	18.7	1 12	8 19.64	+36 53.7	2.080	3.029	5.9	18.0
1 22	8 8.18	+21 36.1	1.219	2.202	0.9	18.4	1 22	8 8.18	+37 11.6	2.084	3.038	5.5	18.0
2 1	7 57.21	+21 55.1	1.216	2.185	6.4	18.7	2 1	7 56.95	+37 10.9	2.118	3.046	7.4	18.1
2 11	7 47.73	+22 6.2	1.239	2.167	11.8	19.0	2 11	7 47.20	+36 52.0	2.179	3.055	10.1	18.3
2 21	7 41.03	+22 8.2	1.285	2.150	16.5	19.2	2 21	7 39.80	+36 17.9	2.264	3.062	12.7	18.5
<b>284503</b>	2007 <i>PD</i> <sub>26</sub>		1 21.0 93°64'	1°8/20.2	18		<b>148552</b>	2001 <i>QR</i> <sub>159</sub>		1 21.0 45°17'	2°3/20.1	18	R
12 13	8 42.30	+21 59.0	1.697	2.476	16.9	2							

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>55623</b>	2002 TZ <sub>158</sub>		1 21.0 246°14	5°5/24.3	18		<b>430829</b>	2005 JN <sub>49</sub>		1 21.0 120°45	4°1/18.3	18	
12 13	8 34.61	+ 2 44.3	1.939	2.664	16.9	19.3	12 13	8 36.89	+30 32.2	2.433	3.209	12.4	21.2
12 23	8 31.19	+ 2 44.2	1.837	2.656	14.2	19.0	12 23	8 32.65	+31 31.7	2.352	3.214	9.9	21.0
1 2	8 25.31	+ 3 4.7	1.756	2.647	11.1	18.8	1 2	8 26.08	+32 31.9	2.295	3.219	7.1	20.9
1 12	8 17.45	+ 3 47.0	1.698	2.638	7.8	18.6	1 12	8 17.74	+33 27.4	2.266	3.224	4.7	20.7
1 22	8 8.40	+ 4 49.6	1.667	2.630	5.6	18.5	1 22	8 8.43	+34 12.6	2.266	3.229	4.3	20.7
2 1	7 59.20	+ 6 8.7	1.665	2.621	6.6	18.5	2 1	7 59.17	+34 43.7	2.296	3.233	6.4	20.8
2 11	7 51.01	+ 7 37.6	1.691	2.611	9.7	18.7	2 11	7 50.99	+34 59.2	2.354	3.238	9.1	21.0
2 21	7 44.73	+ 9 9.6	1.742	2.602	13.2	18.8	2 21	7 44.69	+34 59.9	2.436	3.242	11.7	21.2
<b>66305</b>	1999 JD <sub>38</sub>		1 21.0 204°42	4°2/18.8	18		<b>83505</b>	2001 SF <sub>124</sub>		1 21.0 48°75	0°4/20.9	18	
12 13	8 43.54	+29 47.6	2.128	2.899	14.2	19.7	12 13	8 36.11	+20 22.9	2.054	2.830	14.5	19.3
12 23	8 38.32	+30 38.8	2.035	2.894	11.3	19.4	12 23	8 32.05	+20 30.1	1.979	2.843	11.4	19.2
1 2	8 30.23	+31 31.8	1.964	2.888	8.1	19.2	1 2	8 25.63	+20 43.2	1.926	2.857	7.7	19.0
1 12	8 19.86	+32 20.1	1.921	2.881	5.1	19.0	1 12	8 17.47	+20 59.4	1.899	2.871	3.7	18.7
1 22	8 8.17	+32 57.1	1.907	2.874	4.5	19.0	1 22	8 8.47	+21 15.4	1.902	2.885	0.6	18.5
2 1	7 56.44	+33 18.3	1.922	2.865	7.0	19.1	2 1	7 59.65	+21 28.0	1.933	2.900	4.6	18.8
2 11	7 46.01	+33 22.0	1.966	2.856	10.3	19.3	2 11	7 52.06	+21 35.6	1.993	2.915	8.4	19.1
2 21	7 37.90	+33 9.9	2.035	2.846	13.5	19.5	2 21	7 46.44	+21 37.3	2.078	2.930	11.7	19.3
<b>376166</b>	2011 BT <sub>130</sub>		1 21.0 141°55	0°8/21.4	18		<b>108260</b>	2001 HF <sub>51</sub>		1 21.0 261°18	1°4/20.4	18	
12 13	8 37.25	+16 46.4	2.215	2.974	14.0	21.8	12 13	8 39.24	+22 12.8	1.850	2.630	15.7	20.6
12 23	8 32.81	+16 51.2	2.127	2.981	11.1	21.6	12 23	8 35.23	+22 33.0	1.749	2.616	12.5	20.3
1 2	8 26.11	+17 4.0	2.062	2.987	7.7	21.4	1 2	8 28.30	+23 0.0	1.670	2.602	8.6	20.1
1 12	8 17.71	+17 22.8	2.023	2.992	3.9	21.2	1 12	8 19.01	+23 29.7	1.616	2.588	4.3	19.8
1 22	8 8.41	+17 44.8	2.014	2.998	0.8	20.9	1 22	8 8.28	+23 57.1	1.591	2.573	1.6	19.6
2 1	7 59.19	+18 6.9	2.036	3.003	4.3	21.2	2 1	7 57.43	+24 17.7	1.594	2.558	5.8	19.8
2 11	7 51.05	+18 26.6	2.086	3.008	8.1	21.5	2 11	7 47.84	+24 28.7	1.625	2.543	10.2	20.0
2 21	7 44.74	+18 42.3	2.162	3.012	11.4	21.7	2 21	7 40.58	+24 29.7	1.681	2.528	14.2	20.2
<b>440633</b>	2005 WC <sub>71</sub>		1 21.0 83°86	0°1/21.0	18		<b>167192</b>	2003 SU <sub>309</sub>		1 21.0 142°65	3°0/22.5	18	
12 13	8 46.87	+19 8.8	1.523	2.296	18.8	21.6	12 13	8 38.69	+10 39.9	1.934	2.682	16.2	21.7
12 23	8 40.98	+19 18.2	1.468	2.329	14.7	21.4	12 23	8 34.23	+10 35.0	1.849	2.691	13.1	21.6
1 2	8 31.88	+19 36.5	1.433	2.362	10.0	21.2	1 2	8 27.24	+10 43.7	1.785	2.699	9.5	21.3
1 12	8 20.48	+19 59.4	1.423	2.394	4.8	21.0	1 12	8 18.33	+11 5.2	1.747	2.707	5.6	21.1
1 22	8 8.14	+20 21.8	1.442	2.426	0.5	20.7	1 22	8 8.38	+11 37.1	1.737	2.714	3.0	21.0
2 1	7 56.39	+20 39.8	1.489	2.456	5.7	21.2	2 1	7 58.52	+12 15.8	1.756	2.721	5.2	21.1
2 11	7 46.61	+20 50.9	1.565	2.486	10.3	21.5	2 11	7 49.86	+12 57.1	1.804	2.727	9.0	21.4
2 21	7 39.69	+20 55.1	1.664	2.515	14.1	21.8	2 21	7 43.27	+13 37.5	1.877	2.733	12.6	21.6
<b>359141</b>	2009 BE <sub>92</sub>		1 21.0 23°64	1°4/21.6	18		<b>212893</b>	2007 VG <sub>293</sub>		1 21.0 80°17	3°0/23.0	18	
12 13	8 34.02	+14 51.5	1.187	1.994	21.1	20.4	12 13	8 32.76	+ 8 29.3	2.384	3.122	13.7	21.0
12 23	8 32.01	+15 3.8	1.123	2.003	16.9	20.2	12 23	8 29.10	+ 8 35.3	2.297	3.131	11.2	20.9
1 2	8 26.46	+15 33.9	1.076	2.012	11.8	19.9	1 2	8 23.49	+ 8 54.4	2.233	3.140	8.2	20.7
1 12	8 18.14	+16 18.5	1.051	2.022	6.0	19.6	1 12	8 16.43	+ 9 25.9	2.194	3.149	5.1	20.5
1 22	8 8.37	+17 11.7	1.051	2.034	1.4	19.3	1 22	8 8.60	+10 7.5	2.184	3.158	3.1	20.4
2 1	7 58.83	+18 6.1	1.075	2.047	6.4	19.7	2 1	8 0.82	+10 56.2	2.204	3.167	4.5	20.5
2 11	7 51.20	+18 55.3	1.124	2.060	11.8	20.0	2 11	7 53.94	+11 48.0	2.253	3.176	7.5	20.7
2 21	7 46.59	+19 35.1	1.195	2.074	16.5	20.4	2 21	7 48.60	+12 39.2	2.329	3.185	10.4	20.9
<b>236874</b>	2007 RT <sub>263</sub>		1 21.0 172°26	0°9/20.6	18		<b>41010</b>	1999 UN <sub>15</sub>		1 21.0 256°38	0°9/21.5	18	
12 13	8 41.01	+20 24.8	2.026	2.792	14.9	21.6	12 13	8 35.43	+16 12.4	2.081	2.847	14.6	19.2
12 23	8 36.13	+20 53.2	1.937	2.796	11.8	21.4	12 23	8 31.64	+16 21.5	1.988	2.846	11.6	19.0
1 2	8 28.60	+21 29.2	1.870	2.799	8.1	21.2	1 2	8 25.48	+16 40.1	1.918	2.844	8.1	18.8
1 12	8 19.01	+22 8.9	1.830	2.802	3.9	20.9	1 12	8 17.49	+17 6.2	1.874	2.843	4.1	18.5
1 22	8 8.28	+22 47.4	1.820	2.803	1.1	20.7	1 22	8 8.48	+17 36.4	1.858	2.842	0.9	18.3
2 1	7 57.60	+23 20.3	1.840	2.804	5.1	21.0	2 1	7 59.48	+18 7.3	1.872	2.840	4.6	18.5
2 11	7 48.15	+23 44.8	1.889	2.804	9.2	21.2	2 11	7 51.55	+18 35.8	1.914	2.838	8.5	18.8
2 21	7 40.86	+23 59.9	1.963	2.804	12.7	21.5	2 21	7 45.51	+18 59.5	1.982	2.837	12.0	19.0
<b>124243</b>	2001 PS <sub>61</sub>		1 21.0 102°56	1°3/20.6	18		<b>382406</b>	1996 AJ <sub>1</sub>		1 21.0 57°60	2°0/20.7	17	
12 13	8 43.29	+21 54.7	1.554	2.338	18.0	20.4	12 13	10 54.67	+ 8 33.5	0.503	1.171	56.2	21.4
12 23	8 38.52	+22 10.1	1.483	2.352	14.2	20.2	12 23	10 18.77	+12 50.5	0.495	1.296	41.8	21.2
1 2	8 30.48	+22 32.6	1.433	2.365	9.7	20.0	1 2	9 34.92	+17 18.6	0.505	1.409	26.5	21.0
1 12	8 19.95	+22 57.2	1.407	2.379	4.7	19.7	1 12	8 47.91	+21 5.6	0.547	1.513	11.6	20.8
1 22	8 8.19	+23 18.5	1.409	2.392	1.5	19.5	1 22	8 5.71	+23 33.5	0.626	1.609	2.5	20.8
2 1	7 56.74	+23 32.2	1.440	2.405	6.1	19.9	2 1	7 33.85	+24 48.1	0.738	1.696	11.6	21.7
2 11	7 47.09	+23 36.2	1.497	2.417	10.7	20.2	2 11	7 13.20	+25 16.9	0.876	1.777	18.6	22.4
2 21	7 40.24	+23 31.1	1.578	2.430	14.7	20.4	2 21	7 1.87	+25 22.7	1.034	1.851	23.3	23.0
<b>329820</b>	2004 RN <sub>152</sub>		1 21.0 108°19	3°5/22.9	18		<b>367773</b>	2010 XR <sub>3</sub>		1 21.0 100°74	1°0/21.6	18	
12 13	8 37.24	+ 9 11.4	2.215	2.951	14.7	21.6	12 13	8 37.70	+15 36.4	1.899	2.666	15.8	21.8
12 23	8 32.64	+ 8 52.0	2.135	2.967	12.0	21.4	12 23	8 33.52	+15 47.6	1.820	2.677	12.6	21.6
1 2	8 25.89	+ 8 44.7	2.077	2.983	8.8	21.3	1 2	8 26.79	+16 9.6	1.762	2.688	8.7	21.4
1 12	8 17.57	+ 8 49.3	2.044	2.998	5.6	21.1	1 12	8 18.12	+16 40.0	1.730	2.699	4.5	21.1
1 22	8 8.45	+ 9 4.5	2.041	3.013	3.5	21.0	1 22	8 8.45	+17 14.9	1.726	2.709	1.1	20.9
2 1	7 59.49	+ 9 27.9	2.067	3.028	5.0	21.1	2 1	7 58.91	+17 50.3	1.752	2.720	4.8	21.2
2 11	7 51.59	+ 9 56.4	2.123	3.042	8.1	21.3	2 11	7 50.65	+18 22.8	1.806	2.730	8.9	21.5
2 21	7 45.46	+10 26.9	2.204	3.056	11.1	21.5	2 21	7 44.50	+18 49.9	1.885	2.740	12.5	21.7
<b>83398</b>	2001 SF <sub>29</sub>		1 21.0 283°78	0°1/21.1	18		<b>36249</b>	1999 VT <sub>178</sub>		1 21.1 206°83	3°3/23.5	18	
12 13	8 34.01	+18 15.2	2.336	3.104	13.2	19.7	12 13	8 31.35	+ 6 21.3				

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>145137</b>	2005 <i>GW</i> <sub>162</sub>		1 21.1 283°12	3°5/23.3	18		<b>11563</b>	1993 <i>FO</i> <sub>36</sub>		1 21.1 179°70	3°6/23.3	18	
12 13	8 32.43	+ 6 48.9	2.349	3.082	14.0	19.8	12 13	8 34.88	+ 7 1.7	2.431	3.157	13.8	18.8
12 23	8 29.13	+ 6 59.3	2.234	3.063	11.6	19.6	12 23	8 30.79	+ 6 58.1	2.334	3.158	11.4	18.6
1 2	8 23.74	+ 7 25.1	2.141	3.044	8.7	19.4	1 2	8 24.70	+ 7 7.9	2.258	3.158	8.5	18.5
1 12	8 16.69	+ 8 6.1	2.073	3.025	5.7	19.1	1 12	8 17.09	+ 7 30.9	2.209	3.159	5.6	18.3
1 22	8 8.61	+ 9 0.7	2.034	3.006	3.6	19.0	1 22	8 8.63	+ 8 5.7	2.189	3.158	3.7	18.1
2 1	8 0.35	+10 5.4	2.024	2.987	4.9	19.0	2 1	8 0.15	+ 8 49.4	2.199	3.158	4.9	18.2
2 11	7 52.84	+11 15.6	2.044	2.967	8.1	19.2	2 11	7 52.53	+ 9 38.5	2.238	3.157	7.7	18.4
2 21	7 46.87	+12 26.4	2.091	2.948	11.4	19.4	2 21	7 46.47	+10 29.2	2.304	3.156	10.7	18.6
<b>368571</b>	2004 <i>KK</i>		1 21.1 209°27	3°2/22.7	16		<b>20808</b>	2000 <i>SR</i> <sub>243</sub>		1 21.1 262°10	4°9/18.1	18	
12 13	8 37.46	+ 9 56.8	2.408	3.140	13.7	21.8	12 13	8 37.85	+33 53.3	2.478	3.252	12.3	18.9
12 23	8 32.87	+ 9 37.8	2.303	3.134	11.3	21.6	12 23	8 33.52	+34 43.4	2.389	3.246	9.9	18.7
1 2	8 26.16	+ 9 29.3	2.221	3.127	8.3	21.4	1 2	8 26.77	+35 32.0	2.323	3.241	7.4	18.5
1 12	8 17.81	+ 9 31.2	2.165	3.120	5.2	21.2	1 12	8 18.16	+36 13.5	2.285	3.235	5.3	18.4
1 22	8 8.51	+ 9 42.6	2.139	3.112	3.2	21.0	1 22	8 8.52	+36 42.6	2.275	3.230	5.1	18.4
2 1	7 59.17	+10 1.6	2.143	3.104	4.8	21.1	2 1	7 58.90	+36 55.9	2.295	3.224	6.9	18.5
2 11	7 50.70	+10 25.5	2.177	3.095	8.0	21.3	2 11	7 50.38	+36 52.4	2.342	3.219	9.5	18.6
2 21	7 43.87	+10 51.7	2.237	3.086	11.1	21.5	2 21	7 43.80	+36 33.8	2.414	3.213	12.0	18.8
<b>194489</b>	2001 <i>WS</i> <sub>55</sub>		1 21.1 54°69	3°1/19.9	17		<b>417123</b>	2005 <i>UM</i> <sub>509</sub>		1 21.1 112°12	2°7/19.6	18	
12 13	8 41.76	+24 7.7	1.259	2.065	20.2	20.3	12 13	8 40.67	+25 44.4	2.161	2.932	13.9	22.0
12 23	8 37.98	+24 48.9	1.205	2.086	15.9	20.1	12 23	8 35.64	+26 27.5	2.088	2.951	10.9	21.8
1 2	8 30.42	+25 37.4	1.169	2.107	10.8	19.8	1 2	8 28.12	+27 13.9	2.039	2.968	7.5	21.7
1 12	8 20.02	+26 25.3	1.157	2.128	5.6	19.6	1 12	8 18.75	+27 58.2	2.018	2.985	4.1	21.5
1 22	8 8.29	+27 4.2	1.170	2.150	3.3	19.5	1 22	8 8.47	+28 35.4	2.026	3.002	2.9	21.4
2 1	7 57.08	+27 28.2	1.210	2.172	7.5	19.8	2 1	7 58.37	+29 1.5	2.064	3.018	5.6	21.6
2 11	7 48.10	+27 35.6	1.275	2.194	12.3	20.2	2 11	7 49.58	+29 15.0	2.131	3.034	9.0	21.9
2 21	7 42.39	+27 28.2	1.361	2.217	16.4	20.5	2 21	7 42.87	+29 16.5	2.223	3.049	12.0	22.1
<b>293111</b>	2006 <i>XH</i> <sub>26</sub>		1 21.1 38°47	4°8/23.2	18		<b>89553</b>	2001 <i>XE</i> <sub>98</sub>		1 21.1 65°92	2°5/20.1	17	
12 13	8 35.69	+ 8 20.4	1.344	2.120	20.7	20.1	12 13	8 43.21	+22 44.4	1.355	2.151	19.5	19.2
12 23	8 32.62	+ 7 59.0	1.288	2.143	16.8	19.9	12 23	8 38.76	+23 30.3	1.303	2.178	15.3	19.0
1 2	8 26.45	+ 7 58.0	1.250	2.167	12.4	19.7	1 2	8 30.76	+24 24.3	1.270	2.205	10.4	18.8
1 12	8 18.01	+ 8 17.4	1.234	2.191	7.8	19.5	1 12	8 20.14	+25 19.0	1.261	2.233	5.2	18.6
1 22	8 8.50	+ 8 54.3	1.242	2.216	4.9	19.4	1 22	8 8.33	+26 6.2	1.279	2.260	2.7	18.5
2 1	7 59.37	+ 9 43.4	1.277	2.242	6.8	19.6	2 1	7 57.06	+26 40.0	1.324	2.287	6.9	18.8
2 11	7 51.98	+10 38.2	1.337	2.268	10.8	19.9	2 11	7 47.90	+26 58.1	1.396	2.314	11.6	19.2
2 21	7 47.22	+11 32.5	1.421	2.295	14.7	20.2	2 21	7 41.83	+27 1.7	1.489	2.340	15.5	19.5
<b>234903</b>	2002 <i>TV</i> <sub>228</sub>		1 21.1 50°25	1°4/20.3	18		<b>243412</b>	2009 <i>BT</i> <sub>98</sub>		1 21.1 8°37	0°8/20.7	18	
12 13	8 35.26	+21 50.0	2.062	2.841	14.3	20.3	12 13	8 33.42	+20 13.2	1.881	2.668	15.2	20.6
12 23	8 31.54	+22 24.6	1.983	2.851	11.2	20.2	12 23	8 30.37	+20 35.6	1.798	2.669	12.0	20.4
1 2	8 25.41	+23 5.7	1.927	2.860	7.6	20.0	1 2	8 24.78	+21 6.0	1.737	2.671	8.2	20.2
1 12	8 17.46	+23 49.1	1.898	2.870	3.7	19.7	1 12	8 17.23	+21 40.7	1.702	2.674	4.0	20.0
1 22	8 8.56	+24 30.0	1.898	2.880	1.6	19.6	1 22	8 8.62	+22 15.4	1.694	2.677	1.0	19.7
2 1	7 59.78	+25 4.2	1.927	2.890	5.1	19.9	2 1	8 0.09	+22 45.9	1.714	2.681	5.1	20.0
2 11	7 52.17	+25 29.0	1.984	2.900	8.8	20.1	2 11	7 52.78	+23 8.9	1.763	2.686	9.2	20.3
2 21	7 46.54	+25 43.8	2.066	2.910	12.0	20.3	2 21	7 47.54	+23 23.4	1.835	2.691	12.8	20.5
<b>460716</b>	2014 <i>VP</i> <sub>3</sub>		1 21.1 56°67	4°4/22.6	18		<b>234451</b>	2001 <i>SN</i> <sub>150</sub>		1 21.1 242°52	9°5/13.9	17	
12 13	8 39.43	+10 53.1	1.692	2.449	17.8	20.5	12 13	8 51.45	+53 18.9	2.812	3.526	12.4	20.7
12 23	8 35.01	+10 0.6	1.619	2.464	14.5	20.3	12 23	8 44.95	+54 31.5	2.731	3.512	11.1	20.6
1 2	8 27.84	+ 9 20.2	1.567	2.479	10.6	20.1	1 2	8 35.00	+55 32.7	2.672	3.498	10.0	20.5
1 12	8 18.64	+ 8 52.9	1.539	2.495	6.7	19.9	1 12	8 22.30	+56 14.4	2.638	3.483	9.5	20.4
1 22	8 8.45	+ 8 38.7	1.538	2.510	4.4	19.8	1 22	8 8.09	+56 29.9	2.628	3.468	9.7	20.4
2 1	7 58.51	+ 8 36.1	1.565	2.526	6.3	20.0	2 1	7 53.99	+56 16.2	2.645	3.453	10.7	20.5
2 11	7 50.04	+ 8 42.3	1.620	2.542	9.9	20.2	2 11	7 41.66	+55 34.7	2.684	3.437	12.1	20.6
2 21	7 43.90	+ 8 54.1	1.698	2.558	13.5	20.5	2 21	7 32.24	+54 30.4	2.745	3.421	13.5	20.6
<b>265732</b>	2005 <i>US</i> <sub>446</sub>		1 21.1 32°04	1°7/20.4	18		<b>347604</b>	2001 <i>RX</i> <sub>49</sub>		1 21.1 70°22	3°1/19.8	18	
12 13	8 39.00	+23 51.8	1.759	2.545	16.1	20.5	12 13	8 41.44	+29 29.2	2.235	3.006	13.5	20.8
12 23	8 34.94	+24 2.4	1.679	2.549	12.7	20.3	12 23	8 36.07	+29 42.3	2.165	3.026	10.7	20.7
1 2	8 27.98	+24 17.4	1.619	2.553	8.7	20.1	1 2	8 28.28	+29 54.2	2.119	3.046	7.5	20.5
1 12	8 18.78	+24 32.4	1.585	2.557	4.4	19.8	1 12	8 18.76	+30 0.7	2.100	3.065	4.3	20.3
1 22	8 8.43	+24 42.9	1.579	2.561	1.9	19.7	1 22	8 8.49	+29 58.0	2.111	3.085	3.2	20.3
2 1	7 58.24	+24 45.6	1.601	2.565	5.8	19.9	2 1	7 58.55	+29 44.4	2.152	3.104	5.6	20.5
2 11	7 49.54	+24 39.0	1.651	2.570	10.0	20.2	2 11	7 49.98	+29 19.9	2.221	3.123	8.7	20.7
2 21	7 43.28	+24 23.8	1.724	2.575	13.7	20.4	2 21	7 43.51	+28 46.6	2.316	3.143	11.5	20.9
<b>455937</b>	2005 <i>UT</i> <sub>375</sub>		1 21.1 332°53	6°0/23.4	18		<b>226821</b>	2004 <i>RE</i> <sub>259</sub>		1 21.1 82°28	2°1/22.1	18	
12 13	8 35.93	+ 5 54.5	1.867	2.606	17.0	20.7	12 13	8 36.10	+13 1.3	1.983	2.743	15.4	21.0
12 23	8 32.24	+ 5 2.3	1.776	2.604	14.2	20.5	12 23	8 32.16	+12 59.4	1.901	2.752	12.4	20.8
1 2	8 26.02	+ 4 24.4	1.705	2.601	11.0	20.3	1 2	8 25.83	+13 9.2	1.840	2.761	8.8	20.6
1 12	8 17.82	+ 4 3.0	1.658	2.599	7.8	20.1	1 12	8 17.69	+13 29.3	1.805	2.770	4.9	20.4
1 22	8 8.52	+ 3 58.8	1.637	2.597	6.0	20.0	1 22	8 8.60	+13 57.1	1.798	2.779	2.1	20.2
2 1	7 59.22	+ 4 10.8	1.644	2.595	7.1	20.1	2 1	7 59.62	+14 29.1	1.820	2.788	4.8	20.4
2 11	7 51.05	+ 4 35.7	1.678	2.593	10.1	20.2	2 11	7 51.80	+15 1.8	1.871	2.797	8.6	20.7
2 21	7 44.91	+ 5 9.1	1.736	2.592	13.4	20.4	2 21	7 45.94	+15 32.3	1.947	2.805	12.1	20.9
<b>235538</b>	2004 <i>CY</i> <sub>101</sub>		1 21.1 330°05	5°4/23.2	18		<b>260506</b>	2005 <i>EL</i> <sub>45</sub>		1 21.1 294°75	0°2/21.0	18	
12 13	8 31.33	+ 7 18.2											

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>96089</b>	1127 <i>T</i> <sub>-2</sub>		1 21.1 218°36	2°5/19.9	18		<b>371143</b>	2005 <i>WF</i> <sub>172</sub>		1 21.1 350°64	1°8/21.8	18	
12 13	8 38.97	+25 32.3	2.022	2.801	14.5	20.2	12 13	8 33.76	+15 8.9	1.574	2.361	17.7	20.8
12 23	8 34.69	+25 59.9	1.933	2.799	11.5	20.0	12 23	8 31.14	+15 2.4	1.487	2.355	14.2	20.5
1 2	8 27.73	+26 31.2	1.866	2.797	7.9	19.7	1 2	8 25.61	+15 8.3	1.421	2.351	10.0	20.3
1 12	8 18.69	+27 1.3	1.826	2.795	4.2	19.5	1 12	8 17.77	+15 25.1	1.378	2.347	5.4	20.0
1 22	8 8.51	+27 25.2	1.814	2.793	2.7	19.4	1 22	8 8.62	+15 49.6	1.362	2.344	1.8	19.7
2 1	7 58.38	+27 39.2	1.832	2.790	5.8	19.6	2 1	7 59.47	+16 17.9	1.372	2.342	5.6	20.0
2 11	7 49.51	+27 41.5	1.878	2.788	9.5	19.8	2 11	7 51.71	+16 45.8	1.409	2.341	10.3	20.2
2 21	7 42.83	+27 32.8	1.948	2.785	13.0	20.0	2 21	7 46.34	+17 10.2	1.469	2.340	14.5	20.5
<b>8546</b>	Kenmotsu		1 21.1 342°81	1°9/21.7	18		<b>202900</b>	1995 <i>FL</i> <sub>20</sub>		1 21.1 150°05	0°3/20.9	18	
12 13	8 38.11	+15 50.0	1.517	2.300	18.4	17.3	12 13	8 40.96	+18 36.3	2.018	2.781	15.1	21.0
12 23	8 34.67	+15 33.4	1.432	2.297	14.8	17.0	12 23	8 36.04	+19 3.0	1.934	2.791	11.9	20.8
1 2	8 28.08	+15 27.9	1.366	2.295	10.4	16.7	1 2	8 28.54	+19 38.4	1.873	2.800	8.2	20.6
1 12	8 18.98	+15 32.1	1.325	2.293	5.6	16.5	1 12	8 19.05	+20 19.1	1.838	2.808	4.0	20.3
1 22	8 8.47	+15 43.3	1.309	2.292	1.9	16.2	1 22	8 8.50	+21 0.2	1.832	2.816	0.6	20.1
2 1	7 58.01	+15 58.1	1.321	2.290	5.9	16.5	2 1	7 58.04	+21 37.5	1.857	2.823	4.9	20.4
2 11	7 49.08	+16 12.9	1.360	2.289	10.8	16.7	2 11	7 48.84	+22 7.9	1.911	2.829	8.9	20.7
2 21	7 42.77	+16 25.5	1.421	2.289	15.1	17.0	2 21	7 41.76	+22 29.8	1.991	2.835	12.4	20.9
<b>30607</b>	2507 <i>P-L</i>		1 21.1 25°50	4°8/19.6	18		<b>132624</b>	2002 <i>LD</i> <sub>13</sub>		1 21.1 98°11	0°1/21.1	18	
12 13	8 40.64	+28 6.3	1.200	2.015	20.4	18.6	12 13	8 36.58	+16 35.8	2.525	3.278	12.7	19.1
12 23	8 37.68	+28 41.9	1.135	2.021	16.3	18.4	12 23	8 31.96	+17 17.5	2.452	3.302	10.0	19.0
1 2	8 30.61	+29 20.8	1.089	2.027	11.4	18.1	1 2	8 25.39	+18 7.6	2.402	3.327	6.8	18.8
1 12	8 20.31	+29 54.2	1.066	2.034	6.6	17.9	1 12	8 17.39	+19 3.0	2.380	3.350	3.3	18.6
1 22	8 8.34	+30 13.5	1.066	2.042	5.0	17.8	1 22	8 8.70	+19 59.6	2.390	3.374	0.3	18.4
2 1	7 56.75	+30 13.2	1.092	2.051	8.8	18.0	2 1	8 0.13	+20 53.4	2.430	3.396	3.9	18.7
2 11	7 47.49	+29 53.0	1.142	2.060	13.5	18.3	2 11	7 52.52	+21 41.3	2.501	3.419	7.1	19.0
2 21	7 41.77	+29 16.9	1.212	2.070	17.9	18.6	2 21	7 46.52	+22 21.4	2.599	3.441	10.0	19.2
<b>79523</b>	1998 <i>OC</i> <sub>1</sub>		1 21.1 162°95	3°1/22.6	18		<b>269074</b>	2007 <i>GW</i> <sub>62</sub>		1 21.1 162°53	0°0/21.1	18	
12 13	8 39.75	+10 10.9	1.768	2.519	17.3	21.1	12 13	8 36.92	+18 41.6	2.278	3.042	13.6	22.0
12 23	8 35.42	+10 15.8	1.681	2.524	14.1	20.8	12 23	8 32.62	+18 56.2	2.188	3.045	10.7	21.8
1 2	8 28.31	+10 36.9	1.614	2.529	10.2	20.6	1 2	8 26.07	+19 17.9	2.120	3.047	7.4	21.6
1 12	8 19.01	+11 13.2	1.572	2.533	6.0	20.4	1 12	8 17.83	+19 44.2	2.079	3.050	3.6	21.4
1 22	8 8.48	+12 1.3	1.558	2.536	3.1	20.2	1 22	8 8.66	+20 11.6	2.068	3.052	0.4	21.1
2 1	7 57.97	+12 56.6	1.573	2.539	5.6	20.4	2 1	7 59.54	+20 37.0	2.087	3.054	4.3	21.4
2 11	7 48.75	+13 53.7	1.616	2.541	9.7	20.6	2 11	7 51.45	+20 57.7	2.135	3.055	8.0	21.6
2 21	7 41.81	+14 47.9	1.684	2.542	13.6	20.8	2 21	7 45.15	+21 12.5	2.210	3.057	11.3	21.8
<b>401065</b>	2011 <i>US</i> <sub>53</sub>		1 21.1 124°39	3°2/19.6	18		<b>269037</b>	2007 <i>FN</i> <sub>31</sub>		1 21.1 99°34	2°9/19.6	18	
12 13	8 41.79	+25 53.2	1.751	2.534	16.3	21.8	12 13	8 38.58	+26 7.1	2.023	2.804	14.5	20.9
12 23	8 37.26	+26 36.9	1.674	2.543	12.8	21.6	12 23	8 34.34	+26 44.1	1.942	2.809	11.4	20.7
1 2	8 29.65	+27 25.2	1.620	2.551	8.9	21.4	1 2	8 27.46	+27 24.6	1.884	2.815	7.9	20.5
1 12	8 19.66	+28 11.7	1.591	2.560	4.9	21.2	1 12	8 18.56	+28 3.3	1.852	2.820	4.3	20.3
1 22	8 8.42	+28 49.6	1.591	2.567	3.4	21.1	1 22	8 8.60	+28 35.0	1.849	2.825	3.0	20.2
2 1	7 57.34	+29 14.0	1.619	2.575	6.7	21.3	2 1	7 58.75	+28 55.5	1.875	2.831	5.9	20.4
2 11	7 47.85	+29 23.1	1.674	2.582	10.7	21.6	2 11	7 50.19	+29 3.1	1.929	2.836	9.5	20.6
2 21	7 40.94	+29 18.0	1.753	2.589	14.3	21.8	2 21	7 43.81	+28 58.6	2.007	2.841	12.8	20.8
<b>39464</b>	Pöppelmann		1 21.1 87°67	0°4/21.2	18		<b>241370</b>	2008 <i>LW</i> <sub>8</sub>		1 21.1 103°44	14°3/27.7	18	
12 13	8 41.09	+17 22.4	1.663	2.437	17.4	19.4	12 13	8 55.77	- 9 8.2	1.241	1.911	27.1	20.4
12 23	8 36.46	+17 38.4	1.596	2.458	13.7	19.2	12 23	8 48.43	-10 51.9	1.197	1.952	23.8	20.3
1 2	8 28.92	+18 5.1	1.550	2.479	9.4	18.9	1 2	8 37.26	-12 0.4	1.166	1.992	20.1	20.1
1 12	8 19.22	+18 38.8	1.529	2.500	4.6	18.7	1 12	8 23.30	-12 25.1	1.153	2.030	16.8	20.0
1 22	8 8.47	+19 14.7	1.536	2.520	0.5	18.4	1 22	8 8.15	-12 2.5	1.163	2.065	14.6	20.0
2 1	7 58.03	+19 48.0	1.572	2.540	5.3	18.8	2 1	7 53.73	-10 56.5	1.197	2.098	14.5	20.1
2 11	7 49.18	+20 15.5	1.636	2.560	9.7	19.1	2 11	7 41.78	- 9 18.3	1.255	2.129	16.1	20.3
2 21	7 42.81	+20 35.6	1.724	2.579	13.5	19.4	2 21	7 33.33	- 7 22.4	1.334	2.158	18.6	20.5
<b>460708</b>	2014 <i>UN</i> <sub>217</sub>		1 21.1 101°63	1°6/21.8	18		<b>353236</b>	2010 <i>CL</i> <sub>65</sub>		1 21.1 332°06	2°8/20.1	18	
12 13	8 39.70	+14 50.6	2.063	2.818	15.1	21.6	12 13	8 36.13	+23 21.0	1.223	2.039	20.0	21.1
12 23	8 34.76	+14 46.4	1.989	2.838	12.0	21.4	12 23	8 34.24	+23 53.2	1.141	2.028	16.0	20.8
1 2	8 27.45	+14 51.7	1.937	2.858	8.4	21.2	1 2	8 28.48	+24 35.5	1.077	2.018	11.1	20.5
1 12	8 18.42	+15 4.8	1.911	2.877	4.5	21.0	1 12	8 19.47	+25 21.4	1.036	2.009	5.7	20.1
1 22	8 8.56	+15 23.0	1.914	2.896	1.6	20.8	1 22	8 8.50	+26 2.6	1.019	2.000	3.1	20.0
2 1	7 58.92	+15 43.3	1.948	2.915	4.5	21.1	2 1	7 57.44	+26 31.3	1.027	1.992	7.9	20.2
2 11	7 50.52	+16 3.2	2.010	2.933	8.3	21.3	2 11	7 48.30	+26 43.7	1.058	1.985	13.4	20.5
2 21	7 44.12	+16 20.6	2.099	2.950	11.6	21.6	2 21	7 42.48	+26 40.0	1.110	1.979	18.3	20.8
<b>273731</b>	2007 <i>EO</i> <sub>99</sub>		1 21.1 8°58	2°7/19.9	18		<b>378939</b>	2008 <i>UZ</i> <sub>139</sub>		1 21.1 282°25	4°7/23.4	17	
12 13	8 38.01	+25 21.8	1.728	2.519	16.1	21.3	12 13	8 34.15	+ 6 18.7	2.208	2.939	14.9	21.1
12 23	8 34.35	+25 47.8	1.647	2.520	12.8	21.0	12 23	8 30.51	+ 5 48.1	2.108	2.933	12.4	20.9
1 2	8 27.70	+26 18.0	1.587	2.521	8.8	20.8	1 2	8 24.70	+ 5 30.8	2.030	2.927	9.5	20.7
1 12	8 18.73	+26 47.3	1.552	2.522	4.7	20.6	1 12	8 17.21	+ 5 27.7	1.977	2.921	6.6	20.5
1 22	8 8.52	+27 10.0	1.544	2.523	2.9	20.5	1 22	8 8.76	+ 5 38.8	1.951	2.915	4.8	20.4
2 1	7 58.42	+27 21.8	1.565	2.525	6.3	20.7	2 1	8 0.27	+ 6 2.2	1.955	2.909	5.9	20.4
2 11	7 49.82	+27 21.0	1.612	2.527	10.5	20.9	2 11	7 52.69	+ 6 34.9	1.986	2.903	8.7	20.6
2 21	7 43.70	+27 8.5	1.683	2.530	14.2	21.2	2 21	7 46.79	+ 7 12.9	2.043	2.897	11.7	20.8
<b>357567</b>	2004 <i>TC</i> <sub>95</sub>		1 21.1 38°06	3°1/22.3	18		<b>39954</b>	1998 <i>FN</i> <sub>118</sub>		1 21.1 133°10	12°9/28.4	18	
12 13	8 36.72	+12 26.9	1.316	2.104	20.4								

EPHEMERIDES

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>186079</b>	2001 <i>SU</i> <sub>227</sub>		1 21.1	82°26	2°5/19.9	18	<b>401152</b>	2011 <i>VJ</i> <sub>16</sub>		1 21.1	131°32	2°6/19.8	18
12 13	8 40.21	+24 52.3	1.823	2.605	15.8	20.7	12 13	8 43.49	+24 47.2	2.012	2.782	14.9	22.3
12 23	8 35.77	+25 24.0	1.750	2.619	12.4	20.5	12 23	8 38.10	+25 32.3	1.937	2.798	11.7	22.1
1 2	8 28.49	+25 59.9	1.700	2.632	8.5	20.3	1 2	8 29.98	+26 21.9	1.886	2.814	8.1	21.9
1 12	8 19.07	+26 34.8	1.676	2.645	4.4	20.1	1 12	8 19.79	+27 10.3	1.861	2.829	4.3	21.7
1 22	8 8.58	+27 3.1	1.680	2.659	2.7	20.0	1 22	8 8.55	+27 51.6	1.866	2.844	2.8	21.6
2 1	7 58.33	+27 20.8	1.712	2.672	6.0	20.3	2 1	7 57.49	+28 21.4	1.901	2.857	5.8	21.8
2 11	7 49.57	+27 26.2	1.773	2.685	9.9	20.5	2 11	7 47.85	+28 37.9	1.965	2.870	9.5	22.1
2 21	7 43.22	+27 20.2	1.857	2.698	13.3	20.8	2 21	7 40.51	+28 41.7	2.054	2.882	12.7	22.3
<b>261706</b>	2005 <i>YW</i> <sub>272</sub>		1 21.1	37°18	2°0/20.4	18	<b>17581</b>	1994 <i>VE</i> <sub>1</sub>		1 21.1	97°19	1°1/21.6	18
12 13	8 39.67	+24 56.9	1.681	2.470	16.6	20.2	12 13	8 39.02	+15 22.8	1.853	2.617	16.2	18.1
12 23	8 35.55	+25 3.2	1.608	2.480	13.1	20.0	12 23	8 34.62	+15 35.3	1.778	2.634	12.9	17.9
1 2	8 28.43	+25 12.7	1.556	2.490	9.0	19.7	1 2	8 27.60	+15 59.0	1.725	2.650	8.9	17.7
1 12	8 19.06	+25 20.8	1.530	2.501	4.6	19.5	1 12	8 18.63	+16 31.3	1.698	2.666	4.6	17.5
1 22	8 8.59	+25 23.1	1.531	2.512	2.2	19.4	1 22	8 8.67	+17 8.2	1.699	2.682	1.1	17.3
2 1	7 58.42	+25 16.7	1.560	2.524	5.9	19.6	2 1	7 58.90	+17 45.4	1.729	2.698	4.8	17.6
2 11	7 49.87	+25 0.9	1.616	2.536	10.2	19.9	2 11	7 50.47	+18 19.4	1.788	2.713	9.0	17.8
2 21	7 43.86	+24 36.8	1.696	2.548	13.9	20.2	2 21	7 44.22	+18 47.7	1.872	2.728	12.6	18.1
<b>223575</b>	2004 <i>FZ</i> <sub>55</sub>		1 21.1	219°29	5°1/18.0	18	<b>463965</b>	2014 <i>VA</i> <sub>27</sub>		1 21.1	77°71	1°7/20.3	18
12 13	8 42.75	+33 45.0	2.432	3.198	12.7	21.7	12 13	8 38.00	+22 42.1	1.898	2.680	15.3	21.3
12 23	8 37.55	+34 41.9	2.335	3.188	10.3	21.5	12 23	8 33.98	+23 12.4	1.819	2.687	12.0	21.1
1 2	8 29.69	+35 38.1	2.262	3.177	7.7	21.3	1 2	8 27.28	+23 49.0	1.762	2.694	8.2	20.9
1 12	8 19.72	+36 27.1	2.217	3.166	5.5	21.2	1 12	8 18.52	+24 27.0	1.730	2.701	4.1	20.6
1 22	8 8.51	+37 2.8	2.201	3.154	5.3	21.1	1 22	8 8.68	+25 1.5	1.727	2.709	1.9	20.5
2 1	7 57.23	+37 21.1	2.214	3.141	7.2	21.2	2 1	7 58.97	+25 28.2	1.753	2.716	5.5	20.7
2 11	7 47.09	+37 20.8	2.256	3.128	10.0	21.4	2 11	7 50.58	+25 44.5	1.807	2.723	9.5	21.0
2 21	7 39.05	+37 3.8	2.322	3.114	12.6	21.5	2 21	7 44.41	+25 50.2	1.885	2.731	13.0	21.2
<b>217439</b>	2005 <i>SR</i> <sub>158</sub>		1 21.1	173°22	5°9/24.0	18	<b>491883</b>	2013 <i>BP</i> <sub>57</sub>		1 21.1	238°34	0°3/20.9	18
12 13	8 37.23	+ 2 49.7	2.299	3.005	15.0	21.2	12 13	8 38.39	+17 21.2	1.678	2.456	17.1	21.9
12 23	8 32.74	+ 2 7.7	2.204	3.007	12.7	21.1	12 23	8 34.84	+17 59.7	1.584	2.449	13.6	21.6
1 2	8 26.12	+ 1 39.9	2.131	3.009	10.0	20.9	1 2	8 28.26	+18 52.1	1.510	2.441	9.4	21.4
1 12	8 17.87	+ 1 28.3	2.083	3.011	7.4	20.7	1 12	8 19.19	+19 54.2	1.462	2.433	4.6	21.1
1 22	8 8.72	+ 1 33.1	2.062	3.012	5.9	20.6	1 22	8 8.61	+21 0.0	1.441	2.425	0.6	20.7
2 1	7 59.57	+ 1 53.3	2.071	3.013	6.6	20.7	2 1	7 57.86	+22 2.6	1.450	2.417	5.8	21.1
2 11	7 51.35	+ 2 25.7	2.108	3.013	8.9	20.8	2 11	7 48.42	+22 56.4	1.485	2.408	10.6	21.3
2 21	7 44.81	+ 3 6.2	2.170	3.013	11.6	21.0	2 21	7 41.44	+23 38.6	1.544	2.399	14.9	21.6
<b>61759</b>	2000 <i>QB</i> <sub>164</sub>		1 21.1	43°13	3°2/22.3	18	<b>62167</b>	2000 <i>SG</i> <sub>31</sub>		1 21.1	59°69	1°4/21.8	18
12 13	8 37.50	+12 33.7	1.790	2.552	16.8	18.9	12 13	8 36.20	+14 54.5	1.843	2.612	16.1	19.9
12 23	8 33.56	+12 2.1	1.706	2.557	13.6	18.7	12 23	8 32.52	+15 0.8	1.761	2.619	12.8	19.7
1 2	8 26.97	+11 41.8	1.643	2.562	9.8	18.5	1 2	8 26.26	+15 18.6	1.700	2.626	9.0	19.5
1 12	8 18.36	+11 32.5	1.605	2.567	5.8	18.2	1 12	8 18.03	+15 45.9	1.665	2.633	4.7	19.2
1 22	8 8.67	+11 33.1	1.595	2.572	3.2	18.1	1 22	8 8.74	+16 19.1	1.657	2.640	1.4	19.0
2 1	7 59.10	+11 41.5	1.612	2.578	5.6	18.2	2 1	7 59.55	+16 54.3	1.679	2.647	4.9	19.3
2 11	7 50.82	+11 54.8	1.658	2.583	9.5	18.5	2 11	7 51.61	+17 27.7	1.728	2.655	9.1	19.5
2 21	7 44.73	+12 10.2	1.727	2.589	13.2	18.7	2 21	7 45.78	+17 56.6	1.802	2.662	12.8	19.8
<b>229636</b>	2006 <i>FS</i> <sub>2</sub>		1 21.1	215°56	1°3/20.4	18	<b>473891</b>	2016 <i>EL</i> <sub>145</sub>		1 21.1	245°60	6°6/17.4	18
12 13	8 36.31	+21 59.2	2.146	2.921	13.9	20.9	12 13	8 41.83	+37 21.9	2.198	2.971	13.7	21.6
12 23	8 32.39	+22 26.5	2.056	2.921	11.0	20.7	12 23	8 37.19	+38 22.9	2.112	2.964	11.3	21.4
1 2	8 26.07	+22 59.8	1.989	2.921	7.5	20.5	1 2	8 29.63	+39 20.6	2.049	2.958	8.8	21.2
1 12	8 17.90	+23 35.4	1.949	2.920	3.7	20.2	1 12	8 19.75	+40 7.3	2.012	2.951	6.9	21.1
1 22	8 8.72	+24 9.0	1.938	2.920	1.5	20.1	1 22	8 8.57	+40 36.3	2.003	2.944	6.8	21.1
2 1	7 59.56	+24 36.5	1.957	2.920	4.9	20.3	2 1	7 57.43	+40 43.6	2.022	2.937	8.6	21.2
2 11	7 51.50	+24 55.6	2.003	2.920	8.7	20.5	2 11	7 47.68	+40 28.8	2.068	2.930	11.2	21.3
2 21	7 45.37	+25 5.5	2.076	2.919	12.0	20.7	2 21	7 40.34	+39 55.0	2.136	2.923	13.8	21.5
<b>422623</b>	2014 <i>UR</i> <sub>19</sub>		1 21.1	257°24	7°9/24.9	18	<b>339492</b>	2005 <i>GQ</i> <sub>21</sub>		1 21.1	116°86	34°7/21.0	17
12 13	8 34.80	- 0 58.7	1.983	2.688	17.1	21.2	12 13	8 59.26	-56 30.1	1.217	1.536	39.8	21.1
12 23	8 31.31	- 1 47.1	1.886	2.681	14.8	21.0	12 23	8 55.10	-59 42.4	1.220	1.563	39.0	21.2
1 2	8 25.42	- 2 17.0	1.808	2.675	12.1	20.9	1 2	8 44.39	-62 2.6	1.216	1.587	38.3	21.2
1 12	8 17.64	- 2 24.9	1.753	2.668	9.6	20.7	1 12	8 27.80	-63 19.9	1.206	1.610	37.5	21.2
1 22	8 8.74	- 2 9.4	1.724	2.661	8.0	20.6	1 22	8 7.74	-63 24.0	1.191	1.631	36.8	21.1
2 1	7 59.75	- 1 31.6	1.721	2.655	8.4	20.6	2 1	7 48.14	-62 8.1	1.173	1.650	36.1	21.1
2 11	7 51.74	- 0 35.8	1.745	2.648	10.6	20.7	2 11	7 32.88	-59 33.8	1.154	1.668	35.4	21.1
2 21	7 45.60	+ 0 31.9	1.793	2.641	13.4	20.9	2 21	7 24.02	-55 48.9	1.138	1.683	34.7	21.0
<b>129439</b>	1980 <i>PX</i> <sub>2</sub>		1 21.1	149°18	6°0/16.4	18	<b>322865</b>	2001 <i>UW</i> <sub>142</sub>		1 21.1	86°89	2°2/22.2	18
12 13	8 40.09	+37 30.7	2.675	3.439	11.7	20.0	12 13	8 37.62	+12 48.8	1.892	2.651	16.1	21.4
12 23	8 35.28	+38 55.8	2.600	3.446	9.6	19.9	12 23	8 33.44	+12 49.3	1.816	2.666	12.9	21.2
1 2	8 28.03	+40 18.0	2.550	3.452	7.5	19.8	1 2	8 26.77	+13 2.2	1.761	2.681	9.2	21.0
1 12	8 18.87	+41 30.6	2.528	3.459	6.2	19.7	1 12	8 18.23	+13 26.0	1.732	2.696	5.1	20.8
1 22	8 8.63	+42 27.5	2.535	3.464	6.3	19.7	1 22	8 8.75	+13 57.6	1.731	2.711	2.2	20.6
2 1	7 58.37	+43 4.7	2.571	3.470	7.8	19.8	2 1	7 59.42	+14 33.3	1.759	2.726	4.9	20.8
2 11	7 49.19	+43 21.5	2.634	3.475	9.8	19.9	2 11	7 51.37	+15 9.3	1.815	2.741	8.8	21.1
2 21	7 41.96	+43 19.7	2.721	3.480	11.8	20.1	2 21	7 45.39	+15 42.5	1.896	2.755	12.3	21.3
<b>242823</b>	2006 <i>BW</i> <sub>275</sub>		1 21.1	171°26	1°8/20.2	18	<b>304097</b>	2006 <i>HK</i> <sub>50</sub>		1 21.1	202°49	0°9/21.5	18
12 13	8 43.86	+											

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>312910</b>	2011 <i>UT</i> <sub>338</sub>		1 21.1 158°55	0°5/20.8	18		<b>240477</b>	2004 <i>BJ</i> <sub>75</sub>		1 21.1 347°87	1°0/20.6	18	
12 13	8 41.64	+18 56.2	2.091	2.851	14.7	21.9	12 13	8 31.02	+19 6.2	1.661	2.458	16.4	20.1
12 23	8 36.55	+19 27.7	2.005	2.860	11.7	21.7	12 23	8 29.04	+19 47.6	1.572	2.449	13.0	19.9
1 2	8 28.92	+20 7.8	1.941	2.868	8.0	21.5	1 2	8 24.27	+20 41.3	1.503	2.440	9.0	19.6
1 12	8 19.31	+20 52.6	1.904	2.875	3.9	21.3	1 12	8 17.24	+21 42.9	1.460	2.433	4.4	19.3
1 22	8 8.64	+21 37.5	1.897	2.881	0.7	21.0	1 22	8 8.89	+22 46.3	1.443	2.426	1.2	19.1
2 1	7 58.03	+22 17.8	1.921	2.886	4.8	21.3	2 1	8 0.45	+23 45.0	1.453	2.420	5.8	19.4
2 11	7 48.62	+22 50.6	1.975	2.891	8.8	21.6	2 11	7 53.27	+24 33.9	1.490	2.416	10.3	19.6
2 21	7 41.28	+23 14.4	2.054	2.895	12.3	21.8	2 21	7 48.37	+25 10.1	1.550	2.413	14.4	19.9
<b>73676</b>	1988 <i>CD</i> <sub>5</sub>		1 21.1 34°11	2°8/22.3	18		<b>362144</b>	2009 <i>DS</i> <sub>97</sub>		1 21.1 26°85	4°9/19.5	18	
12 13	8 35.73	+12 49.4	2.084	2.840	14.9	18.8	12 13	8 38.55	+27 47.5	1.153	1.975	20.7	20.1
12 23	8 31.79	+12 22.2	1.998	2.845	12.0	18.6	12 23	8 36.07	+28 31.0	1.098	1.987	16.4	19.9
1 2	8 25.57	+12 4.7	1.933	2.851	8.7	18.4	1 2	8 29.53	+29 18.3	1.060	1.999	11.5	19.6
1 12	8 17.64	+11 56.4	1.895	2.856	5.1	18.2	1 12	8 19.85	+30 0.2	1.045	2.013	6.7	19.4
1 22	8 8.82	+11 56.4	1.884	2.862	2.8	18.0	1 22	8 8.65	+30 27.7	1.053	2.029	5.1	19.4
2 1	8 0.09	+12 2.6	1.903	2.868	4.9	18.2	2 1	7 57.93	+30 35.1	1.087	2.045	8.8	19.6
2 11	7 52.45	+12 12.9	1.950	2.874	8.4	18.4	2 11	7 49.56	+30 22.0	1.143	2.062	13.5	19.9
2 21	7 46.67	+12 24.8	2.022	2.881	11.7	18.6	2 21	7 44.66	+29 52.1	1.220	2.080	17.6	20.2
<b>201848</b>	2003 <i>YR</i> <sub>90</sub>		1 21.1 35°67	2°1/19.8	18		<b>408239</b>	2013 <i>EH</i> <sub>105</sub>		1 21.1 284°06	1°4/20.5	18	
12 13	8 34.89	+22 0.4	1.965	2.749	14.7	20.0	12 13	8 38.45	+21 0.2	1.559	2.350	17.6	21.7
12 23	8 31.54	+23 0.0	1.885	2.754	11.6	19.8	12 23	8 35.27	+21 26.5	1.463	2.336	14.1	21.5
1 2	8 25.64	+24 8.0	1.827	2.760	7.9	19.6	1 2	8 28.80	+22 2.9	1.387	2.322	9.7	21.2
1 12	8 17.77	+25 19.0	1.796	2.767	4.0	19.3	1 12	8 19.57	+22 44.8	1.336	2.308	4.8	20.9
1 22	8 8.80	+26 26.5	1.793	2.773	2.3	19.2	1 22	8 8.66	+23 26.2	1.311	2.294	1.6	20.6
2 1	7 59.86	+27 24.8	1.820	2.780	5.7	19.5	2 1	7 57.55	+24 0.8	1.314	2.280	6.4	20.9
2 11	7 52.11	+28 10.1	1.875	2.787	9.4	19.7	2 11	7 47.88	+24 24.6	1.343	2.266	11.5	21.1
2 21	7 46.42	+28 41.3	1.954	2.794	12.8	19.9	2 21	7 40.91	+24 36.4	1.395	2.252	16.0	21.4
<b>310943</b>	2003 <i>TD</i> <sub>10</sub>		1 21.1 103°34	12°3/22.6	18		<b>166209</b>	2002 <i>EL</i> <sub>129</sub>		1 21.1 271°37	4°0/22.8	18	
12 13	8 49.80	+ 4 3.7	1.152	1.901	24.9	19.8	12 13	8 36.84	+ 9 54.1	1.664	2.425	17.9	20.6
12 23	8 44.62	+ 1 19.0	1.082	1.909	21.4	19.5	12 23	8 33.50	+ 9 36.1	1.568	2.416	14.7	20.3
1 2	8 35.32	- 1 11.6	1.031	1.917	17.5	19.3	1 2	8 27.28	+ 9 33.6	1.493	2.408	10.9	20.1
1 12	8 22.72	- 3 17.3	1.000	1.924	14.0	19.1	1 12	8 18.71	+ 9 46.9	1.441	2.399	6.8	19.8
1 22	8 8.32	- 4 48.5	0.994	1.932	12.3	19.1	1 22	8 8.75	+10 14.6	1.415	2.391	4.0	19.6
2 1	7 54.13	- 5 39.9	1.011	1.939	13.6	19.1	2 1	7 58.67	+10 53.2	1.417	2.382	6.2	19.7
2 11	7 42.18	- 5 53.9	1.051	1.946	16.7	19.3	2 11	7 49.84	+11 37.8	1.446	2.374	10.4	19.9
2 21	7 33.79	- 5 38.8	1.111	1.953	20.3	19.6	2 21	7 43.32	+12 23.7	1.499	2.365	14.6	20.2
<b>335978</b>	2007 <i>TG</i> <sub>226</sub>		1 21.1 27°95	0°0/21.1	18		<b>45950</b>	2001 <i>AL</i> <sub>25</sub>		1 21.1 32°73	7°7/26.4	18	
12 13	8 36.14	+19 52.8	1.849	2.630	15.6	19.8	12 13	8 34.84	- 5 44.9	1.020	1.770	27.5	18.2
12 23	8 32.43	+19 47.4	1.774	2.641	12.3	19.6	12 23	8 33.37	- 4 34.3	0.948	1.777	23.6	17.9
1 2	8 26.14	+19 48.4	1.720	2.652	8.4	19.4	1 2	8 27.99	- 2 28.6	0.889	1.784	18.6	17.7
1 12	8 17.95	+19 53.4	1.692	2.663	4.1	19.1	1 12	8 19.33	+ 0 35.8	0.849	1.792	13.1	17.4
1 22	8 8.80	+19 59.2	1.691	2.675	0.4	18.9	1 22	8 8.68	+ 4 30.6	0.833	1.801	8.4	17.2
2 1	7 59.87	+20 3.1	1.720	2.688	4.8	19.2	2 1	7 57.95	+ 8 54.2	0.843	1.810	8.8	17.2
2 11	7 52.27	+20 3.4	1.775	2.701	9.0	19.5	2 11	7 49.18	+13 17.8	0.881	1.820	13.6	17.5
2 21	7 46.82	+19 59.2	1.856	2.715	12.5	19.8	2 21	7 43.85	+17 16.9	0.942	1.831	18.9	17.8
<b>109393</b>	2001 <i>QT</i> <sub>173</sub>		1 21.1 180°69	4°1/23.7	18		<b>95843</b>	2003 <i>FZ</i> <sub>113</sub>		1 21.1 184°56	1°0/20.7	18	
12 13	8 33.44	+ 5 18.1	2.639	3.355	13.0	20.6	12 13	8 42.19	+21 14.9	1.845	2.617	16.0	20.2
12 23	8 29.54	+ 5 4.2	2.541	3.355	10.8	20.4	12 23	8 37.46	+21 32.3	1.755	2.618	12.7	20.0
1 2	8 23.83	+ 5 3.0	2.465	3.356	8.3	20.3	1 2	8 29.81	+21 56.7	1.688	2.617	8.7	19.7
1 12	8 16.75	+ 5 14.8	2.415	3.356	5.7	20.1	1 12	8 19.87	+22 24.1	1.646	2.617	4.3	19.5
1 22	8 8.92	+ 5 38.9	2.393	3.356	4.2	20.0	1 22	8 8.66	+22 49.6	1.632	2.616	1.2	19.2
2 1	8 1.08	+ 6 13.2	2.402	3.355	5.0	20.1	2 1	7 57.49	+23 9.1	1.649	2.614	5.5	19.5
2 11	7 54.01	+ 6 54.6	2.439	3.354	7.4	20.2	2 11	7 47.69	+23 20.1	1.693	2.612	9.9	19.8
2 21	7 48.32	+ 7 39.8	2.504	3.353	10.0	20.4	2 21	7 40.28	+23 22.3	1.763	2.609	13.7	20.0
<b>163063</b>	2001 <i>YM</i> <sub>108</sub>		1 21.1 268°82	3°1/22.2	18		<b>503063</b>	2015 <i>FA</i> <sub>196</sub>		1 21.1 309°64	0°6/20.9	18	
12 13	8 38.70	+12 59.6	1.610	2.380	18.0	20.1	12 13	8 36.58	+21 36.2	2.328	3.097	13.1	21.0
12 23	8 35.05	+12 34.7	1.517	2.373	14.7	19.8	12 23	8 32.39	+21 36.6	2.232	3.093	10.4	20.8
1 2	8 28.37	+12 22.2	1.444	2.366	10.6	19.5	1 2	8 25.98	+21 41.1	2.160	3.090	7.1	20.5
1 12	8 19.24	+12 22.0	1.395	2.359	6.2	19.3	1 12	8 17.88	+21 47.3	2.115	3.086	3.5	20.3
1 22	8 8.67	+12 32.2	1.373	2.352	3.1	19.1	1 22	8 8.86	+21 52.3	2.099	3.082	0.7	20.1
2 1	7 58.04	+12 50.1	1.378	2.345	6.0	19.2	2 1	7 59.90	+21 53.9	2.113	3.079	4.4	20.4
2 11	7 48.78	+13 12.0	1.410	2.338	10.6	19.5	2 11	7 51.94	+21 50.6	2.156	3.076	8.0	20.6
2 21	7 41.99	+13 34.6	1.465	2.330	14.9	19.7	2 21	7 45.77	+21 42.1	2.225	3.072	11.2	20.8
<b>98769</b>	2000 <i>YE</i> <sub>75</sub>		1 21.1 331°42	1°8/20.2	18		<b>161228</b>	2002 <i>XF</i> <sub>70</sub>		1 21.1 88°50	1°2/21.9	18	
12 13	8 34.36	+19 30.2	1.393	2.197	18.7	19.3	12 13	8 35.40	+13 51.9	2.421	3.171	13.2	20.0
12 23	8 32.32	+20 24.5	1.307	2.188	14.9	19.0	12 23	8 31.15	+14 15.0	2.345	3.192	10.5	19.8
1 2	8 26.92	+21 34.2	1.241	2.179	10.2	18.7	1 2	8 24.93	+14 48.1	2.292	3.213	7.3	19.7
1 12	8 18.69	+22 53.7	1.198	2.171	5.0	18.4	1 12	8 17.29	+15 28.9	2.267	3.234	3.8	19.5
1 22	8 8.72	+24 14.4	1.181	2.163	2.0	18.2	1 22	8 8.93	+16 14.2	2.272	3.254	1.2	19.3
2 1	7 58.59	+25 27.1	1.190	2.156	7.0	18.5	2 1	8 0.70	+17 0.3	2.307	3.274	3.9	19.5
2 11	7 50.01	+26 25.0	1.225	2.150	12.2	18.7	2 11	7 53.44	+17 44.0	2.372	3.294	7.2	19.8
2 21	7 44.27	+27 5.5	1.282	2.144	16.8	19.0	2 21	7 47.79	+18 22.9	2.464	3.314	10.1	20.0
<b>183967</b>	2004 <i>EQ</i> <sub>4</sub>		1 21.1 265°15	0°4/20.9	18		<b>114943</b>	2003 <i>QT</i> <sub>53</sub>		1 21.1 110°74	0°7/20.8	18	
12 13	8 34.												



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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>105051</b>	2000 <i>KW</i> <sub>53</sub>		1 21.1 286°97	4°9/23.8	18		<b>451023</b>	2008 <i>VN</i> <sub>39</sub>		1 21.1 50°77	2°1/21.8	18	
12 13	8 33.94	+ 5 8.6	1.822	2.564	17.2	20.2	12 13	8 40.71	+16 15.5	1.393	2.179	19.6	20.9
12 23	8 31.03	+ 5 9.5	1.716	2.548	14.4	19.9	12 23	8 36.86	+15 47.6	1.320	2.187	15.7	20.7
1 2	8 25.52	+ 5 30.5	1.630	2.533	11.0	19.7	1 2	8 29.64	+15 30.6	1.267	2.196	11.1	20.4
1 12	8 17.86	+ 6 12.6	1.568	2.517	7.4	19.4	1 12	8 19.84	+15 23.1	1.237	2.205	5.9	20.1
1 22	8 8.86	+ 7 14.3	1.532	2.502	5.0	19.2	1 22	8 8.70	+15 22.6	1.232	2.215	2.1	19.9
2 1	7 59.62	+ 8 31.3	1.525	2.486	6.3	19.3	2 1	7 57.81	+15 26.2	1.255	2.224	6.1	20.2
2 11	7 51.39	+ 9 56.9	1.545	2.471	10.0	19.5	2 11	7 48.73	+15 30.9	1.304	2.234	11.1	20.5
2 21	7 45.19	+11 24.2	1.589	2.456	13.9	19.7	2 21	7 42.51	+15 34.8	1.376	2.245	15.4	20.8
<b>498301</b>	2007 <i>VE</i> <sub>107</sub>		1 21.1 22°13	3°7/23.0	18		<b>499131</b>	2009 <i>PC</i> <sub>10</sub>		1 21.1 109°99	0°4/20.8	17	
12 13	8 33.78	+ 9 8.0	2.215	2.958	14.5	21.0	12 13	8 32.62	+21 15.6	3.927	4.677	8.5	22.8
12 23	8 30.17	+ 8 44.4	2.125	2.961	11.9	20.8	12 23	8 28.22	+21 27.5	3.847	4.697	6.7	22.7
1 2	8 24.45	+ 8 32.7	2.056	2.963	8.8	20.6	1 2	8 22.56	+21 41.9	3.792	4.717	4.5	22.6
1 12	8 17.13	+ 8 33.1	2.013	2.966	5.7	20.4	1 12	8 16.03	+21 57.3	3.767	4.737	2.2	22.4
1 22	8 8.95	+ 8 44.6	1.997	2.969	3.7	20.3	1 22	8 9.08	+22 11.8	3.773	4.757	0.5	22.3
2 1	8 0.81	+ 9 5.2	2.011	2.972	5.1	20.4	2 1	8 2.23	+22 23.9	3.812	4.776	2.7	22.5
2 11	7 53.62	+ 9 32.0	2.053	2.976	8.1	20.6	2 11	7 55.97	+22 32.7	3.882	4.795	5.0	22.7
2 21	7 48.12	+10 1.6	2.121	2.979	11.2	20.8	2 21	7 50.72	+22 37.6	3.980	4.813	7.0	22.8
<b>61090</b>	2000 <i>LN</i> <sub>23</sub>		1 21.1 128°42	12°0/28.7	18		<b>302388</b>	2002 <i>CL</i> <sub>75</sub>		1 21.1 289°99	0°7/21.5	18	
12 13	8 39.45	-13 36.4	2.043	2.658	19.0	19.2	12 13	8 36.43	+15 1.4	1.561	2.343	18.0	20.7
12 23	8 34.77	-14 54.5	1.970	2.675	17.2	19.1	12 23	8 33.47	+15 33.5	1.471	2.337	14.4	20.4
1 2	8 27.67	-15 47.5	1.913	2.691	15.2	19.0	1 2	8 27.43	+16 21.9	1.401	2.332	10.1	20.1
1 12	8 18.72	-16 9.9	1.875	2.705	13.4	18.9	1 12	8 18.87	+17 23.5	1.355	2.326	5.1	19.8
1 22	8 8.79	-15 58.7	1.861	2.720	12.2	18.9	1 22	8 8.78	+18 32.5	1.336	2.320	0.7	19.5
2 1	7 58.95	-15 14.4	1.870	2.733	12.1	18.9	2 1	7 58.57	+19 41.7	1.345	2.314	5.7	19.8
2 11	7 50.26	-14 2.0	1.904	2.746	12.9	19.0	2 11	7 49.73	+20 44.6	1.381	2.309	10.8	20.1
2 21	7 43.54	-12 29.2	1.961	2.758	14.5	19.1	2 21	7 43.41	+21 37.1	1.440	2.303	15.2	20.3
<b>70575</b>	1999 <i>TZ</i> <sub>161</sub>		1 21.1 337°23	0°9/20.7	18		<b>18934</b>	2000 <i>QY</i> <sub>36</sub>		1 21.1 67°61	1°0/21.7	18	
12 13	8 33.91	+19 6.9	1.365	2.171	18.9	18.3	12 13	8 34.90	+15 53.1	2.318	3.077	13.5	19.2
12 23	8 31.99	+19 37.7	1.279	2.161	15.1	18.0	12 23	8 30.92	+15 56.0	2.235	3.089	10.7	19.1
1 2	8 26.69	+20 22.3	1.213	2.151	10.4	17.7	1 2	8 24.88	+16 7.1	2.176	3.100	7.4	18.9
1 12	8 18.58	+21 16.1	1.170	2.143	5.1	17.4	1 12	8 17.31	+16 24.6	2.143	3.111	3.9	18.7
1 22	8 8.79	+22 12.4	1.151	2.135	1.2	17.1	1 22	8 8.96	+16 46.0	2.140	3.122	1.0	18.5
2 1	7 58.88	+23 3.6	1.160	2.128	6.6	17.5	2 1	8 0.72	+17 8.6	2.166	3.134	4.0	18.7
2 11	7 50.56	+23 44.3	1.192	2.122	11.9	17.7	2 11	7 53.48	+17 29.7	2.221	3.145	7.5	19.0
2 21	7 45.08	+24 11.7	1.247	2.117	16.6	18.0	2 21	7 47.92	+17 47.7	2.303	3.157	10.6	19.2
<b>209163</b>	2003 <i>UO</i> <sub>56</sub>		1 21.1 119°63	0°7/20.8	18		<b>397204</b>	2006 <i>BE</i> <sub>283</sub>		1 21.1 221°52	1°4/20.5	18	
12 13	8 41.75	+20 10.5	1.944	2.711	15.4	21.6	12 13	8 41.35	+21 30.2	1.924	2.696	15.4	22.2
12 23	8 36.73	+20 33.4	1.869	2.728	12.2	21.4	12 23	8 36.85	+22 0.1	1.825	2.687	12.3	22.0
1 2	8 29.05	+21 3.7	1.816	2.744	8.3	21.2	1 2	8 29.48	+22 37.8	1.748	2.678	8.5	21.7
1 12	8 19.39	+21 37.4	1.789	2.760	4.0	20.9	1 12	8 19.79	+23 19.1	1.696	2.667	4.2	21.5
1 22	8 8.74	+22 9.7	1.791	2.775	0.9	20.7	1 22	8 8.71	+23 58.5	1.674	2.657	1.6	21.2
2 1	7 58.28	+22 36.8	1.824	2.789	5.0	21.1	2 1	7 57.50	+24 31.0	1.682	2.645	5.6	21.5
2 11	7 49.20	+22 56.1	1.885	2.803	9.0	21.3	2 11	7 47.51	+24 53.5	1.717	2.633	9.9	21.7
2 21	7 42.34	+23 7.0	1.972	2.816	12.5	21.6	2 21	7 39.80	+25 5.1	1.778	2.620	13.8	21.9
<b>115030</b>	2003 <i>QS</i> <sub>103</sub>		1 21.1 88°71	2°1/20.1	18		<b>46573</b>	1992 <i>AJ</i> <sub>1</sub>		1 21.1 272°25	1°5/21.7	18	
12 13	8 40.62	+21 57.0	1.652	2.436	17.1	20.0	12 13	8 38.33	+16 2.1	1.805	2.575	16.4	17.7
12 23	8 36.39	+22 44.8	1.583	2.452	13.4	19.8	12 23	8 34.52	+15 50.3	1.705	2.564	13.2	17.5
1 2	8 29.12	+23 41.0	1.535	2.468	9.1	19.6	1 2	8 27.90	+15 47.9	1.627	2.552	9.3	17.2
1 12	8 19.52	+24 39.7	1.513	2.484	4.6	19.4	1 12	8 19.02	+15 53.7	1.573	2.541	5.0	16.9
1 22	8 8.72	+25 33.7	1.519	2.500	2.3	19.3	1 22	8 8.79	+16 5.1	1.546	2.529	1.5	16.7
2 1	7 58.14	+26 17.1	1.553	2.516	6.2	19.5	2 1	7 58.46	+16 19.0	1.549	2.517	5.3	16.9
2 11	7 49.17	+26 47.0	1.615	2.531	10.4	19.8	2 11	7 49.35	+16 32.7	1.579	2.505	9.8	17.1
2 21	7 42.78	+27 3.0	1.701	2.546	14.2	20.1	2 21	7 42.47	+16 44.0	1.634	2.494	13.9	17.3
<b>537</b>	<i>Pauly</i>		1 21.1 166°97	0°0/21.1	18		<b>221649</b>	2007 <i>BJ</i> <sub>74</sub>		1 21.1 138°90	2°3/20.1	18	
12 13	8 34.73	+17 41.1	3.006	3.755	10.9	14.6	12 13	8 40.12	+25 19.2	1.965	2.743	14.9	20.9
12 23	8 30.38	+18 11.1	2.910	3.760	8.6	14.5	12 23	8 35.66	+25 40.5	1.880	2.746	11.8	20.7
1 2	8 24.33	+18 47.7	2.840	3.764	5.9	14.3	1 2	8 28.47	+26 5.2	1.817	2.748	8.1	20.5
1 12	8 17.00	+19 28.6	2.798	3.768	2.9	14.1	1 12	8 19.19	+26 28.6	1.781	2.750	4.3	20.2
1 22	8 8.97	+20 10.7	2.787	3.771	0.3	13.9	1 22	8 8.79	+26 46.0	1.773	2.752	2.5	20.1
2 1	8 0.95	+20 51.1	2.808	3.773	3.4	14.2	2 1	7 58.50	+26 53.7	1.794	2.754	5.7	20.3
2 11	7 53.64	+21 27.5	2.859	3.776	6.4	14.4	2 11	7 49.55	+26 50.6	1.844	2.756	9.6	20.6
2 21	7 47.64	+21 58.1	2.938	3.777	9.0	14.5	2 21	7 42.86	+26 37.2	1.918	2.758	13.0	20.8
<b>239301</b>	2007 <i>PO</i> <sub>39</sub>		1 21.1 170°07	0°8/21.5	18		<b>282649</b>	2005 <i>UP</i> <sub>98</sub>		1 21.1 219°63	0°2/21.0	18	
12 13	8 39.88	+15 26.2	1.976	2.734	15.5	21.8	12 13	8 40.38	+18 4.7	1.700	2.475	17.0	21.9
12 23	8 35.36	+15 50.4	1.885	2.738	12.4	21.6	12 23	8 36.39	+18 31.2	1.605	2.469	13.6	21.7
1 2	8 28.23	+16 26.4	1.817	2.742	8.6	21.4	1 2	8 29.34	+19 9.4	1.532	2.462	9.4	21.4
1 12	8 19.07	+17 11.2	1.775	2.744	4.4	21.1	1 12	8 19.78	+19 55.7	1.484	2.455	4.6	21.1
1 22	8 8.77	+18 0.5	1.763	2.746	0.8	20.9	1 22	8 8.72	+20 44.6	1.463	2.447	0.6	20.8
2 1	7 58.46	+18 49.5	1.780	2.748	4.8	21.2	2 1	7 57.54	+21 30.2	1.472	2.439	5.7	21.1
2 11	7 49.34	+19 34.1	1.826	2.748	9.0	21.4	2 11	7 47.71	+22 8.1	1.508	2.431	10.5	21.4
2 21	7 42.31	+20 11.6	1.898	2.749	12.7	21.6	2 21	7 40.36	+22 36.0	1.568	2.422	14.7	21.6
<b>275068</b>	2009 <i>UL</i> <sub>134</sub>		1 21.1 65°64	1°4/21.8	18		<b>498534</b>	2008 <i>FD</i> <sub>108</sub>		1 21.1 237°96	5°5/18.2	17	
12 13	8 36.74	+15 22.3	1.916</										

EPHEMERIDES

1 21.1

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>136513</b>	2005 <i>NL</i> <sub>93</sub>		1 21.1 258°78	2°3/22.2	18		<b>93417</b>	2000 <i>SV</i> <sub>303</sub>		1 21.1 3°32	2°4/21.9	18	
12 13	8 36.34	+13 16.3	2.570	3.312	12.7	19.9	12 13	8 36.68	+16 3.4	1.538	2.323	18.1	18.3
12 23	8 32.00	+12 52.7	2.458	3.298	10.3	19.7	12 23	8 33.48	+15 24.1	1.456	2.323	14.6	18.1
1 2	8 25.65	+12 36.5	2.369	3.283	7.5	19.5	1 2	8 27.26	+14 53.5	1.394	2.323	10.3	17.8
1 12	8 17.75	+12 27.3	2.307	3.268	4.4	19.3	1 12	8 18.70	+14 31.5	1.356	2.323	5.7	17.5
1 22	8 8.94	+12 24.2	2.275	3.253	2.3	19.1	1 22	8 8.88	+14 16.8	1.344	2.325	2.4	17.3
2 1	8 0.04	+12 25.8	2.274	3.238	4.3	19.2	2 1	7 59.18	+14 7.6	1.359	2.328	5.8	17.6
2 11	7 51.95	+12 30.5	2.302	3.222	7.5	19.4	2 11	7 50.99	+14 2.0	1.401	2.331	10.4	17.8
2 21	7 45.36	+12 36.5	2.357	3.207	10.6	19.6	2 21	7 45.31	+13 57.9	1.465	2.336	14.6	18.1
<b>182766</b>	2001 <i>XX</i> <sub>202</sub>		1 21.1 58°83	2°5/22.4	18		<b>360779</b>	2005 <i>EP</i> <sub>183</sub>		1 21.1 330°34	1°1/21.9	16	
12 13	8 35.48	+11 25.5	1.814	2.576	16.6	20.4	12 13	8 30.61	+15 5.9	2.692	3.450	11.8	21.3
12 23	8 32.03	+11 32.7	1.731	2.582	13.4	20.2	12 23	8 27.45	+15 11.8	2.587	3.439	9.5	21.1
1 2	8 26.01	+11 54.7	1.668	2.588	9.6	20.0	1 2	8 22.50	+15 25.6	2.506	3.429	6.6	20.9
1 12	8 18.00	+12 30.1	1.630	2.594	5.5	19.8	1 12	8 16.20	+15 46.0	2.452	3.419	3.5	20.7
1 22	8 8.91	+13 15.7	1.620	2.600	2.5	19.6	1 22	8 9.12	+16 10.9	2.427	3.409	1.1	20.5
2 1	7 59.87	+14 6.9	1.638	2.606	5.1	19.8	2 1	8 2.00	+16 37.9	2.432	3.400	3.7	20.6
2 11	7 52.04	+14 58.8	1.684	2.612	9.2	20.0	2 11	7 55.60	+17 4.5	2.466	3.391	6.8	20.8
2 21	7 46.30	+15 47.3	1.755	2.618	12.9	20.3	2 21	7 50.56	+17 28.6	2.527	3.382	9.7	21.0
<b>107494</b>	2001 <i>DM</i> <sub>43</sub>		1 21.1 214°83	1°3/21.7	18		<b>277552</b>	2005 <i>YK</i> <sub>107</sub>		1 21.1 172°70	0°3/20.9	18	
12 13	8 39.86	+14 20.9	1.629	2.399	17.9	20.5	12 13	8 36.96	+19 0.0	2.133	2.901	14.2	21.7
12 23	8 36.05	+14 41.3	1.535	2.394	14.4	20.2	12 23	8 32.92	+19 21.5	2.042	2.902	11.3	21.5
1 2	8 29.15	+15 17.0	1.462	2.388	10.1	20.0	1 2	8 26.49	+19 51.0	1.974	2.903	7.7	21.2
1 12	8 19.70	+16 5.5	1.414	2.382	5.3	19.7	1 12	8 18.22	+20 25.4	1.933	2.904	3.8	21.0
1 22	8 8.73	+17 2.0	1.393	2.376	1.3	19.4	1 22	8 8.93	+21 0.7	1.921	2.904	0.5	20.7
2 1	7 57.63	+18 0.2	1.400	2.369	5.6	19.7	2 1	7 59.66	+21 33.0	1.938	2.905	4.6	21.1
2 11	7 47.88	+18 54.6	1.435	2.362	10.6	19.9	2 11	7 51.47	+21 59.5	1.984	2.905	8.5	21.3
2 21	7 40.64	+19 41.2	1.494	2.354	15.0	20.2	2 21	7 45.18	+22 18.5	2.056	2.905	11.9	21.5
<b>198967</b>	2005 <i>UT</i> <sub>445</sub>		1 21.1 156°01	1°8/20.3	18		<b>488968</b>	2005 <i>UY</i> <sub>286</sub>		1 21.1 61°28	1°0/21.5	18	
12 13	8 42.19	+21 30.2	1.747	2.523	16.6	21.0	12 13	8 38.82	+15 36.2	1.355	2.145	19.8	21.7
12 23	8 37.63	+22 13.2	1.665	2.530	13.1	20.8	12 23	8 35.56	+15 51.4	1.284	2.154	15.8	21.5
1 2	8 30.03	+23 5.1	1.605	2.536	9.0	20.6	1 2	8 28.90	+16 22.1	1.231	2.163	11.0	21.2
1 12	8 20.04	+24 0.4	1.570	2.541	4.5	20.3	1 12	8 19.57	+17 4.8	1.202	2.173	5.6	20.9
1 22	8 8.72	+24 52.4	1.564	2.546	2.0	20.1	1 22	8 8.80	+17 53.8	1.199	2.183	1.0	20.6
2 1	7 57.46	+25 35.3	1.588	2.550	6.0	20.4	2 1	7 58.21	+18 42.6	1.223	2.193	6.0	21.0
2 11	7 47.68	+26 5.7	1.639	2.554	10.4	20.7	2 11	7 49.40	+19 25.7	1.272	2.202	11.2	21.3
2 21	7 40.41	+26 23.0	1.714	2.556	14.2	20.9	2 21	7 43.46	+20 0.0	1.344	2.213	15.7	21.6
<b>337746</b>	2001 <i>UX</i> <sub>100</sub>		1 21.1 168°07	4°5/17.8	17		<b>484213</b>	2007 <i>CU</i> <sub>35</sub>		1 21.1 313°14	1°0/20.8	17	
12 13	8 39.87	+36 0.5	3.090	3.847	10.5	21.8	12 13	8 35.75	+20 40.5	1.200	2.015	20.5	21.3
12 23	8 34.62	+36 49.3	3.006	3.852	8.5	21.7	12 23	8 34.28	+20 48.2	1.102	1.988	16.6	21.0
1 2	8 27.33	+37 35.1	2.948	3.856	6.4	21.6	1 2	8 28.89	+21 7.3	1.021	1.962	11.6	20.6
1 12	8 18.51	+38 13.2	2.918	3.859	4.8	21.5	1 12	8 19.99	+21 34.0	0.963	1.936	5.8	20.2
1 22	8 8.88	+38 39.4	2.917	3.862	4.7	21.5	1 22	8 8.73	+22 2.3	0.928	1.911	1.2	19.8
2 1	7 59.32	+38 51.1	2.947	3.865	6.1	21.6	2 1	7 56.95	+22 25.3	0.917	1.887	7.5	20.1
2 11	7 50.70	+38 48.0	3.006	3.867	8.1	21.7	2 11	7 46.85	+22 38.1	0.930	1.864	13.9	20.4
2 21	7 43.71	+38 31.5	3.090	3.868	10.1	21.8	2 21	7 40.11	+22 39.1	0.962	1.842	19.6	20.6
<b>494068</b>	2016 <i>BU</i> <sub>67</sub>		1 21.1 143°43	4°3/18.5	18		<b>192977</b>	2000 <i>DM</i> <sub>39</sub>		1 21.1 230°29	2°2/20.4	18	
12 13	8 41.50	+28 23.5	2.081	2.856	14.3	21.6	12 13	8 44.34	+24 49.1	1.706	2.485	16.8	20.5
12 23	8 36.77	+29 38.5	2.003	2.865	11.3	21.4	12 23	8 39.62	+25 2.7	1.611	2.477	13.4	20.3
1 2	8 29.27	+30 56.9	1.949	2.874	8.0	21.2	1 2	8 31.61	+25 20.6	1.537	2.468	9.3	20.0
1 12	8 19.62	+32 11.7	1.922	2.883	5.1	21.0	1 12	8 20.92	+25 37.5	1.489	2.459	4.8	19.7
1 22	8 8.77	+33 15.4	1.925	2.891	4.5	21.0	1 22	8 8.68	+25 48.0	1.468	2.449	2.4	19.5
2 1	7 57.96	+34 2.6	1.957	2.898	7.0	21.2	2 1	7 56.40	+25 48.0	1.476	2.438	6.4	19.8
2 11	7 48.45	+34 31.2	2.017	2.905	10.2	21.4	2 11	7 45.68	+25 36.0	1.512	2.428	11.0	20.0
2 21	7 41.20	+34 42.0	2.102	2.912	13.2	21.6	2 21	7 37.67	+25 13.3	1.571	2.416	15.1	20.2
<b>6624</b>	1980 <i>SG</i>		1 21.1 91°86	4°4/19.3	18		<b>427687</b>	2004 <i>DB</i> <sub>55</sub>		1 21.1 82°57	2°3/20.1	18	
12 13	8 43.86	+28 53.2	1.685	2.471	16.7	17.3	12 13	8 38.80	+26 23.4	2.296	3.068	13.2	21.1
12 23	8 39.03	+29 42.3	1.619	2.487	13.2	17.1	12 23	8 34.14	+26 39.4	2.215	3.078	10.4	20.9
1 2	8 30.96	+30 33.2	1.575	2.504	9.3	16.9	1 2	8 27.16	+26 56.9	2.158	3.087	7.2	20.7
1 12	8 20.44	+31 18.1	1.557	2.521	5.7	16.7	1 12	8 18.48	+27 12.0	2.128	3.096	3.8	20.6
1 22	8 8.72	+31 50.1	1.566	2.537	4.6	16.7	1 22	8 8.95	+27 21.1	2.127	3.105	2.4	20.5
2 1	7 57.32	+32 4.6	1.604	2.553	7.5	16.9	2 1	7 59.58	+27 21.6	2.157	3.115	5.1	20.7
2 11	7 47.72	+32 1.0	1.668	2.569	11.1	17.2	2 11	7 51.39	+27 12.7	2.215	3.124	8.4	20.9
2 21	7 40.90	+31 41.9	1.755	2.584	14.5	17.4	2 21	7 45.12	+26 55.2	2.298	3.133	11.3	21.1
<b>15870</b>	Obürka		1 21.1 188°53	5°3/24.1	18		<b>18279</b>	4221 <i>T</i> <sub>3</sub>		1 21.1 324°48	5°1/23.7	18	
12 13	8 36.32	+ 3 14.3	2.372	3.080	14.6	19.5	12 13	8 32.40	+ 6 13.8	1.730	2.484	17.6	18.0
12 23	8 32.06	+ 2 49.5	2.274	3.079	12.3	19.4	12 23	8 29.91	+ 5 59.1	1.632	2.472	14.7	17.8
1 2	8 25.72	+ 2 39.4	2.196	3.078	9.6	19.2	1 2	8 24.80	+ 6 2.7	1.554	2.460	11.2	17.5
1 12	8 17.79	+ 2 45.1	2.143	3.076	6.9	19.0	1 12	8 17.55	+ 6 26.1	1.499	2.449	7.6	17.3
1 22	8 8.97	+ 3 6.5	2.119	3.074	5.3	18.9	1 22	8 9.02	+ 7 8.2	1.469	2.438	5.1	17.1
2 1	8 0.10	+ 3 41.7	2.124	3.071	6.1	18.9	2 1	8 0.34	+ 8 5.4	1.467	2.428	6.5	17.2
2 11	7 52.10	+ 4 27.0	2.157	3.068	8.5	19.1	2 11	7 52.76	+ 9 12.0	1.491	2.419	10.1	17.3
2 21	7 45.69	+ 5 18.3	2.218	3.064	11.2	19.3	2 21	7 47.27	+10 21.6	1.539	2.409	14.0	17.5
<b>507083</b>	2009 <i>BZ</i> <sub>161</sub>		1 21.1 151°03	0°4/20.9	17		<b>116886</b>	2004 <i>FQ</i> <sub>122</sub>		1 21.1 239°05	4°8/19.1	18	
12 13	8 36.73	+20 56.7	2.597	3.358									

EPHEMERIDES

1 21.1

1 21.2

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>453900</b>	2011 <i>UD</i> <sub>291</sub>		1 21.1 56°11	1.9°/20.3	18		<b>418881</b>	2008 <i>YN</i> <sub>65</sub>		1 21.1 35°67	3°6/20.1	18	
12 13	8 39.85	+21 23.9	1.398	2.195	19.0	20.9	12 13	8 43.58	+30 33.6	1.763	2.547	16.2	19.5
12 23	8 36.25	+22 4.9	1.336	2.213	14.9	20.7	12 23	8 38.44	+30 31.2	1.699	2.566	12.8	19.4
1 2	8 29.26	+22 55.8	1.295	2.231	10.1	20.5	1 2	8 30.30	+30 26.0	1.657	2.585	9.0	19.2
1 12	8 19.69	+23 50.0	1.278	2.250	5.0	20.2	1 12	8 20.03	+30 13.2	1.640	2.605	5.2	19.0
1 22	8 8.85	+24 40.0	1.287	2.269	2.1	20.1	1 22	8 8.86	+29 48.9	1.651	2.625	3.7	18.9
2 1	7 58.33	+25 19.5	1.323	2.288	6.6	20.4	2 1	7 58.21	+29 11.9	1.690	2.646	6.5	19.1
2 11	7 49.70	+25 45.2	1.385	2.307	11.3	20.7	2 11	7 49.36	+28 23.9	1.757	2.668	10.1	19.4
2 21	7 43.96	+25 57.1	1.469	2.326	15.3	21.0	2 21	7 43.13	+27 28.0	1.849	2.690	13.4	19.7
<b>359810</b>	2011 <i>UJ</i> <sub>263</sub>		1 21.1 129°37	1°2/20.6	18		<b>522353</b>	2016 <i>CR</i> <sub>298</sub>		1 21.1 358°67	1°4/20.4	18	
12 13	8 41.44	+21 5.9	1.875	2.647	15.8	21.9	12 13	8 35.59	+19 48.9	1.671	2.460	16.7	21.2
12 23	8 36.71	+21 35.8	1.796	2.659	12.4	21.7	12 23	8 32.63	+20 35.4	1.586	2.459	13.2	20.9
1 2	8 29.21	+22 13.2	1.740	2.670	8.5	21.5	1 2	8 26.75	+21 33.5	1.523	2.458	9.0	20.7
1 12	8 19.59	+22 53.5	1.710	2.681	4.2	21.3	1 12	8 18.53	+22 38.1	1.486	2.458	4.4	20.4
1 22	8 8.86	+23 31.5	1.709	2.691	1.4	21.1	1 22	8 8.98	+23 42.5	1.475	2.458	1.6	20.2
2 1	7 58.27	+24 2.6	1.737	2.701	5.4	21.4	2 1	7 59.40	+24 40.1	1.493	2.458	5.9	20.5
2 11	7 49.08	+24 24.1	1.794	2.711	9.5	21.7	2 11	7 51.17	+25 26.0	1.537	2.459	10.4	20.8
2 21	7 42.20	+24 35.5	1.875	2.719	13.1	21.9	2 21	7 45.34	+25 58.4	1.605	2.460	14.4	21.0
<b>281378</b>	2008 <i>OE</i> <sub>8</sub>		1 21.1 183°92	1°1/21.6	18		<b>113956</b>	2002 <i>UJ</i> <sub>3</sub>		1 21.1 72°36	4°0/23.6	18	
12 13	8 42.01	+15 57.4	1.782	2.545	16.8	22.3	12 13	8 36.66	+ 5 53.0	1.710	2.454	18.1	19.7
12 23	8 37.38	+16 2.5	1.691	2.546	13.5	22.0	12 23	8 32.98	+ 6 16.4	1.639	2.474	14.8	19.5
1 2	8 29.83	+16 18.7	1.621	2.546	9.4	21.8	1 2	8 26.66	+ 7 1.0	1.587	2.494	11.0	19.3
1 12	8 19.98	+16 43.5	1.577	2.545	4.9	21.5	1 12	8 18.35	+ 8 5.6	1.559	2.513	6.9	19.1
1 22	8 8.82	+17 13.3	1.561	2.544	1.1	21.3	1 22	8 9.01	+ 9 25.7	1.559	2.533	4.1	19.0
2 1	7 57.64	+17 43.8	1.574	2.542	5.3	21.5	2 1	7 59.83	+10 54.9	1.587	2.552	5.7	19.1
2 11	7 47.82	+18 11.3	1.616	2.540	9.8	21.8	2 11	7 51.98	+12 25.6	1.644	2.571	9.4	19.4
2 21	7 40.37	+18 33.7	1.682	2.536	13.9	22.0	2 21	7 46.32	+13 51.6	1.726	2.591	13.0	19.6
<b>358079</b>	2006 <i>JE</i> <sub>10</sub>		1 21.1 213°70	1°0/21.6	18		<b>375820</b>	2009 <i>UV</i> <sub>41</sub>		1 21.1 216°03	7°7/16.5	18	
12 13	8 39.99	+16 9.8	2.005	2.764	15.3	22.5	12 13	8 44.31	+40 31.7	2.207	2.973	13.9	21.4
12 23	8 35.53	+16 14.5	1.905	2.757	12.3	22.2	12 23	8 39.39	+41 48.1	2.126	2.968	11.6	21.2
1 2	8 28.45	+16 28.8	1.827	2.751	8.6	22.0	1 2	8 31.34	+42 59.6	2.067	2.963	9.4	21.1
1 12	8 19.28	+16 50.9	1.775	2.743	4.5	21.7	1 12	8 20.77	+43 57.5	2.035	2.958	7.9	21.0
1 22	8 8.89	+17 17.3	1.752	2.735	1.0	21.5	1 22	8 8.77	+44 34.3	2.030	2.953	8.0	21.0
2 1	7 58.43	+17 44.7	1.759	2.726	4.8	21.7	2 1	7 56.78	+44 45.6	2.052	2.947	9.6	21.0
2 11	7 49.08	+18 9.6	1.794	2.717	9.1	21.9	2 11	7 46.30	+44 31.4	2.100	2.941	11.9	21.2
2 21	7 41.80	+18 30.1	1.856	2.707	12.9	22.2	2 21	7 38.41	+43 55.5	2.170	2.934	14.3	21.3
<b>338219</b>	2002 <i>TH</i> <sub>9</sub>		1 21.1 78°47	1°8/21.9	18		<b>488751</b>	2004 <i>SX</i> <sub>31</sub>		1 21.2 132°68	3°3/19.2	18	
12 13	8 41.47	+12 54.7	1.366	2.144	20.3	20.8	12 13	8 41.92	+29 43.4	2.566	3.328	12.2	22.4
12 23	8 37.38	+13 19.0	1.305	2.167	16.2	20.6	12 23	8 36.38	+30 20.5	2.489	3.344	9.7	22.2
1 2	8 29.96	+14 1.4	1.264	2.190	11.4	20.4	1 2	8 28.61	+30 57.5	2.437	3.359	6.8	22.1
1 12	8 20.01	+14 58.3	1.245	2.213	6.0	20.2	1 12	8 19.18	+31 29.6	2.412	3.373	4.2	21.9
1 22	8 8.84	+16 3.3	1.253	2.236	1.8	20.0	1 22	8 8.94	+31 52.4	2.418	3.387	3.5	21.9
2 1	7 58.01	+17 9.1	1.289	2.259	5.9	20.3	2 1	7 58.87	+32 3.2	2.455	3.400	5.5	22.1
2 11	7 49.04	+18 9.3	1.351	2.281	10.8	20.6	2 11	7 49.95	+32 1.3	2.521	3.413	8.3	22.2
2 21	7 42.93	+18 59.9	1.437	2.303	15.1	20.9	2 21	7 42.89	+31 48.0	2.613	3.425	10.8	22.4
<b>64244</b>	2001 <i>TO</i> <sub>152</sub>		1 21.1 189°68	2°4/19.5	18		<b>419100</b>	2009 <i>SA</i> <sub>159</sub>		1 21.2 115°83	2°0/22.1	18	
12 13	8 36.14	+26 2.5	2.741	3.508	11.4	19.9	12 13	8 37.37	+13 42.8	2.078	2.833	15.0	22.2
12 23	8 31.84	+26 43.1	2.647	3.507	9.0	19.7	12 23	8 33.16	+13 34.7	1.992	2.840	12.0	22.0
1 2	8 25.55	+27 26.5	2.579	3.506	6.2	19.6	1 2	8 26.61	+13 36.8	1.927	2.847	8.5	21.8
1 12	8 17.72	+28 8.8	2.538	3.505	3.5	19.4	1 12	8 18.29	+13 47.9	1.889	2.853	4.7	21.6
1 22	8 9.05	+28 46.0	2.528	3.503	2.5	19.3	1 22	8 9.02	+14 5.8	1.879	2.860	2.0	21.4
2 1	8 0.37	+29 14.8	2.548	3.501	4.8	19.5	2 1	7 59.84	+14 27.7	1.899	2.866	4.6	21.6
2 11	7 52.56	+29 33.4	2.598	3.499	7.6	19.6	2 11	7 51.77	+14 50.6	1.947	2.872	8.4	21.8
2 21	7 46.29	+29 41.5	2.674	3.496	10.3	19.8	2 21	7 45.60	+15 12.2	2.022	2.878	11.8	22.0
<b>151560</b>	2002 <i>TW</i> <sub>82</sub>		1 21.1 155°01	0°2/21.3	18		<b>91366</b>	1999 <i>JT</i> <sub>84</sub>		1 21.2 229°93	1°7/19.9	17	
12 13	8 43.47	+17 49.2	1.802	2.566	16.6	21.4	12 13	8 38.47	+22 0.5	2.732	3.488	11.7	20.5
12 23	8 38.41	+18 3.0	1.719	2.575	13.2	21.2	12 23	8 33.82	+22 56.6	2.618	3.472	9.3	20.3
1 2	8 30.45	+18 26.5	1.656	2.583	9.1	21.0	1 2	8 27.04	+23 59.8	2.529	3.456	6.4	20.1
1 12	8 20.24	+18 56.4	1.620	2.590	4.5	20.7	1 12	8 18.55	+25 6.0	2.469	3.439	3.3	19.9
1 22	8 8.82	+19 28.2	1.613	2.597	0.4	20.4	1 22	8 8.99	+26 10.5	2.441	3.421	1.8	19.7
2 1	7 57.49	+19 57.6	1.635	2.602	5.2	20.8	2 1	7 59.22	+27 8.6	2.445	3.402	4.6	19.9
2 11	7 47.60	+20 21.3	1.685	2.607	9.7	21.0	2 11	7 50.16	+27 57.1	2.479	3.383	7.9	20.1
2 21	7 40.12	+20 38.0	1.761	2.611	13.5	21.3	2 21	7 42.63	+28 34.4	2.540	3.362	10.8	20.2
<b>301739</b>	2010 <i>GV</i> <sub>157</sub>		1 21.1 274°85	2°8/22.9	17		<b>248683</b>	2006 <i>KT</i> <sub>41</sub>		1 21.2 182°39	2°7/19.3	18	
12 13	8 33.60	+ 9 34.1	2.522	3.258	13.1	21.7	12 13	8 36.69	+25 46.9	2.561	3.330	12.1	20.6
12 23	8 30.01	+ 9 33.9	2.403	3.237	10.7	21.5	12 23	8 32.46	+26 41.2	2.469	3.331	9.5	20.4
1 2	8 24.42	+ 9 45.4	2.307	3.216	7.9	21.3	1 2	8 26.08	+27 39.5	2.403	3.331	6.6	20.2
1 12	8 17.24	+10 8.4	2.238	3.194	4.9	21.1	1 12	8 18.04	+28 37.2	2.364	3.330	3.7	20.0
1 22	8 9.09	+10 41.3	2.197	3.172	2.9	20.9	1 22	8 9.05	+29 29.3	2.356	3.330	2.8	20.0
2 1	8 0.77	+11 21.7	2.187	3.150	4.5	21.0	2 1	8 0.03	+30 11.6	2.378	3.329	5.2	20.1
2 11	7 53.14	+12 6.1	2.206	3.128	7.6	21.1	2 11	7 51.93	+30 41.9	2.429	3.328	8.2	20.3
2 21	7 46.97	+12 51.3	2.251	3.106	10.8	21.3	2 21	7 45.49	+30 59.8	2.506	3.327	11.0	20.5
<b>140458</b>	2001 <i>TF</i> <sub>127</sub>		1 21.1 204°90	4°1/23.7	18		<b>373876</b>	2003 <i>SH</i> <sub>124</sub>		1 21.2 88°07	0°8/20.7	18	
12 13	8 33.10	+ 5 37.											

EPHEMERIDES

1 21.2

1 21.2

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>138013</b>	2000 <i>CN</i> <sub>101</sub>		1 21.2 176°80	8°1/25.0	18		<b>299554</b>	2006 <i>DG</i> <sub>138</sub>		1 21.2 151°63	1°1/20.6	18	
12 13	8 53.48	— 3 1.9	1.941	2.594	18.9	19.1	12 13	8 41.06	+20 14.3	1.842	2.614	16.0	21.7
12 23	8 46.14	— 3 28.7	1.841	2.603	16.3	18.9	12 23	8 36.57	+20 48.7	1.758	2.621	12.6	21.5
1 2	8 35.77	— 3 33.1	1.760	2.609	13.3	18.7	1 2	8 29.25	+21 32.1	1.697	2.627	8.7	21.2
1 12	8 22.92	— 3 11.6	1.703	2.612	10.2	18.5	1 12	8 19.71	+22 19.9	1.662	2.633	4.2	21.0
1 22	8 8.61	— 2 23.4	1.675	2.613	8.2	18.4	1 22	8 8.96	+23 6.4	1.655	2.638	1.3	20.8
2 1	7 54.18	— 1 11.5	1.679	2.610	8.8	18.4	2 1	7 58.27	+23 46.4	1.678	2.643	5.4	21.1
2 11	7 41.05	+ 0 17.5	1.713	2.605	11.4	18.6	2 11	7 48.94	+24 16.7	1.729	2.647	9.7	21.3
2 21	7 30.33	+ 1 55.1	1.774	2.597	14.7	18.7	2 21	7 41.94	+24 36.1	1.805	2.651	13.4	21.6
<b>465898</b>	2010 <i>UN</i> <sub>80</sub>		1 21.2 25°92	10°2/25.1	16		<b>65563</b>	2238 <i>T</i> <sub>-2</sub>		1 21.2 17°37	4°3/19.2	18	
12 13	8 34.93	+ 0 54.0	1.309	2.061	22.3	20.7	12 13	8 37.82	+30 25.5	1.976	2.763	14.5	18.9
12 23	8 32.29	— 0 42.3	1.249	2.075	19.1	20.5	12 23	8 33.99	+31 1.8	1.898	2.767	11.6	18.7
1 2	8 26.52	— 1 55.2	1.206	2.090	15.6	20.4	1 2	8 27.43	+31 38.1	1.843	2.771	8.3	18.5
1 12	8 18.38	— 2 38.7	1.184	2.107	12.3	20.2	1 12	8 18.79	+32 8.6	1.813	2.775	5.2	18.3
1 22	8 9.05	— 2 50.0	1.183	2.125	10.3	20.2	1 22	8 9.06	+32 27.8	1.812	2.780	4.4	18.3
2 1	7 59.98	— 2 30.5	1.207	2.144	10.8	20.2	2 1	7 59.49	+32 32.1	1.838	2.786	6.8	18.5
2 11	7 52.59	— 1 46.4	1.253	2.164	13.2	20.4	2 11	7 51.31	+32 20.9	1.891	2.792	10.1	18.7
2 21	7 47.82	— 0 46.5	1.321	2.185	16.3	20.7	2 21	7 45.40	+31 56.1	1.969	2.798	13.2	18.9
<b>376129</b>	2011 <i>AD</i> <sub>46</sub>		1 21.2 284°23	0°0/21.1	17		<b>330429</b>	2007 <i>CJ</i> <sub>62</sub>		1 21.2 323°49	1°4/21.7	18	
12 13	8 38.12	+19 54.5	1.999	2.771	14.9	21.0	12 13	8 35.52	+16 6.5	1.676	2.457	17.0	20.8
12 23	8 34.19	+19 52.3	1.893	2.755	11.9	20.8	12 23	8 32.56	+16 1.1	1.581	2.447	13.7	20.5
1 2	8 27.63	+19 56.4	1.809	2.739	8.3	20.6	1 2	8 26.72	+16 6.7	1.507	2.436	9.6	20.3
1 12	8 18.95	+20 4.3	1.751	2.722	4.1	20.3	1 12	8 18.58	+16 21.4	1.457	2.426	5.1	20.0
1 22	8 9.00	+20 12.9	1.722	2.706	0.4	19.9	1 22	8 9.07	+16 42.3	1.434	2.417	1.4	19.7
2 1	7 58.93	+20 19.2	1.722	2.689	4.9	20.2	2 1	7 59.48	+17 5.7	1.439	2.408	5.4	19.9
2 11	7 49.96	+20 21.1	1.749	2.673	9.2	20.5	2 11	7 51.16	+17 28.0	1.470	2.400	10.1	20.2
2 21	7 43.06	+20 17.7	1.802	2.656	13.1	20.7	2 21	7 45.16	+17 46.4	1.525	2.392	14.3	20.4
<b>473746</b>	2016 <i>EO</i> <sub>9</sub>		1 21.2 203°53	2°0/20.1	16		<b>284121</b>	2005 <i>UC</i> <sub>201</sub>		1 21.2 288°13	5°2/22.9	18	
12 13	8 40.54	+25 40.4	2.492	3.255	12.5	22.6	12 13	8 37.16	+ 9 0.6	1.467	2.235	19.6	21.2
12 23	8 35.49	+26 0.2	2.394	3.251	9.9	22.4	12 23	8 34.31	+ 8 25.4	1.370	2.220	16.3	20.9
1 2	8 28.15	+26 22.3	2.319	3.246	6.9	22.2	1 2	8 28.24	+ 8 6.6	1.291	2.206	12.3	20.6
1 12	8 19.06	+26 42.8	2.272	3.240	3.6	22.0	1 12	8 19.46	+ 8 6.1	1.235	2.191	8.0	20.3
1 22	8 9.00	+26 58.0	2.255	3.234	2.2	21.9	1 22	8 8.99	+ 8 23.6	1.203	2.176	5.2	20.1
2 1	7 58.96	+27 5.1	2.270	3.228	4.9	22.0	2 1	7 58.25	+ 8 56.5	1.198	2.161	7.3	20.2
2 11	7 49.93	+27 2.7	2.314	3.221	8.2	22.2	2 11	7 48.85	+ 9 39.6	1.218	2.147	11.8	20.4
2 21	7 42.70	+26 51.4	2.384	3.213	11.2	22.4	2 21	7 42.06	+10 27.4	1.260	2.133	16.3	20.6
<b>31930</b>	2000 <i>GJ</i> <sub>81</sub>		1 21.2 214°37	6°2/24.4	18		<b>392824</b>	2012 <i>TD</i> <sub>300</sub>		1 21.2 192°43	2°4/20.2	18	
12 13	8 36.50	+ 1 45.7	2.248	2.952	15.3	20.3	12 13	8 41.47	+22 54.0	1.492	2.284	18.2	21.2
12 23	8 32.41	+ 1 10.7	2.146	2.946	13.1	20.1	12 23	8 37.74	+23 32.2	1.410	2.284	14.5	21.0
1 2	8 26.12	+ 0 51.3	2.064	2.940	10.4	19.9	1 2	8 30.54	+24 19.5	1.349	2.283	10.0	20.7
1 12	8 18.11	+ 0 49.5	2.007	2.933	7.8	19.7	1 12	8 20.52	+25 9.4	1.311	2.283	5.1	20.4
1 22	8 9.09	+ 1 5.7	1.977	2.925	6.2	19.6	1 22	8 8.90	+25 54.5	1.301	2.282	2.6	20.2
2 1	7 59.98	+ 1 38.7	1.975	2.918	6.9	19.6	2 1	7 57.29	+26 28.3	1.318	2.281	6.9	20.5
2 11	7 51.74	+ 2 24.8	2.002	2.909	9.2	19.7	2 11	7 47.39	+26 47.5	1.361	2.280	11.7	20.8
2 21	7 45.19	+ 3 19.1	2.054	2.900	12.0	19.9	2 21	7 40.39	+26 52.1	1.427	2.278	16.0	21.0
<b>203805</b>	2002 <i>TZ</i> <sub>120</sub>		1 21.2 22°61	7°2/24.1	18		<b>116059</b>	2003 <i>WG</i> <sub>110</sub>		1 21.2 121°13	0°2/21.1	18	
12 13	8 34.05	+ 4 43.0	1.575	2.327	19.1	19.1	12 13	8 37.39	+19 36.5	2.330	3.093	13.3	21.0
12 23	8 31.09	+ 3 33.6	1.509	2.342	16.0	18.9	12 23	8 32.98	+19 45.5	2.244	3.101	10.5	20.8
1 2	8 25.43	+ 2 42.2	1.462	2.358	12.5	18.7	1 2	8 26.39	+20 0.5	2.181	3.108	7.2	20.6
1 12	8 17.78	+ 2 11.9	1.437	2.375	9.2	18.6	1 12	8 18.18	+20 18.9	2.145	3.115	3.5	20.4
1 22	8 9.14	+ 2 3.6	1.437	2.393	7.3	18.5	1 22	8 9.13	+20 37.5	2.138	3.122	0.4	20.1
2 1	8 0.72	+ 2 15.7	1.464	2.412	8.1	18.6	2 1	8 0.17	+20 53.8	2.163	3.129	4.2	20.4
2 11	7 53.71	+ 2 43.9	1.515	2.433	10.8	18.8	2 11	7 52.24	+21 5.5	2.216	3.136	7.8	20.7
2 21	7 48.93	+ 3 22.4	1.589	2.454	14.0	19.1	2 21	7 46.07	+21 11.9	2.295	3.142	10.9	20.9
<b>104122</b>	2000 <i>EG</i> <sub>56</sub>		1 21.2 275°79	2°8/22.5	18		<b>286309</b>	2001 <i>WO</i> <sub>52</sub>		1 21.2 0°10	4°7/18.3	18	
12 13	8 35.91	+11 7.3	1.863	2.621	16.3	19.9	12 13	8 37.41	+32 6.9	2.319	3.098	12.9	20.6
12 23	8 32.61	+11 8.1	1.757	2.605	13.4	19.7	12 23	8 33.41	+33 2.1	2.236	3.098	10.3	20.5
1 2	8 26.66	+11 23.6	1.671	2.589	9.7	19.4	1 2	8 26.93	+33 57.3	2.176	3.098	7.6	20.3
1 12	8 18.54	+11 53.2	1.610	2.573	5.7	19.1	1 12	8 18.54	+34 46.3	2.143	3.098	5.2	20.1
1 22	8 9.05	+12 34.7	1.577	2.556	2.8	18.9	1 22	8 9.10	+35 23.7	2.138	3.098	4.9	20.1
2 1	7 59.35	+13 23.9	1.572	2.539	5.4	19.0	2 1	7 59.69	+35 45.5	2.163	3.098	6.9	20.2
2 11	7 50.68	+14 16.0	1.595	2.522	9.6	19.3	2 11	7 51.43	+35 50.5	2.214	3.098	9.6	20.4
2 21	7 44.06	+15 6.5	1.642	2.505	13.7	19.5	2 21	7 45.16	+35 40.0	2.290	3.098	12.3	20.6
<b>401605</b>	2013 <i>GV</i> <sub>26</sub>		1 21.2 54°60	3°9/19.3	18		<b>232361</b>	2002 <i>XC</i> <sub>70</sub>		1 21.2 8°94	1°1/20.5	18	
12 13	8 39.43	+25 15.0	1.490	2.289	17.9	20.5	12 13	8 31.95	+18 12.6	1.732	2.523	16.1	19.5
12 23	8 36.07	+26 18.8	1.420	2.297	14.2	20.3	12 23	8 29.62	+19 11.5	1.652	2.525	12.7	19.3
1 2	8 29.31	+27 30.1	1.370	2.305	9.8	20.0	1 2	8 24.61	+20 23.7	1.593	2.528	8.7	19.0
1 12	8 19.86	+28 40.9	1.345	2.314	5.5	19.8	1 12	8 17.49	+21 43.9	1.560	2.532	4.2	18.8
1 22	8 8.94	+29 42.1	1.347	2.323	4.2	19.8	1 22	8 9.19	+23 5.4	1.554	2.537	1.3	18.6
2 1	7 58.17	+30 26.7	1.376	2.332	7.7	20.0	2 1	8 0.89	+24 20.8	1.577	2.543	5.5	18.9
2 11	7 49.15	+30 51.7	1.430	2.341	11.9	20.2	2 11	7 53.83	+25 24.8	1.627	2.550	9.8	19.1
2 21	7 43.01	+30 58.1	1.507	2.350	15.8	20.5	2 21	7 48.94	+26 14.5	1.701	2.557	13.6	19.4
<b>343203</b>	2009 <i>VZ</i> <sub>71</sub>		1 21.2 104°85	2°6/20.2	17		<b>445032</b>	2008 <i>RT</i> <sub>14</sub>		1 21.2 87°16	0°6/21.4	18	
12 13	8 46												

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>522232</b>	2016 AV <sub>267</sub>		1 21.2 135°28	0°3/21.3	18		<b>440904</b>	2006 VA		1 21.2 175°51	0°5/21.4	18	
12 13	8 42.27	+19 50.7	2.213	2.969	14.1	21.4	12 13	8 45.72	+17 19.2	2.089	2.836	15.1	23.5
12 23	8 36.84	+19 35.1	2.126	2.979	11.2	21.2	12 23	8 39.85	+17 29.3	1.995	2.841	12.1	23.3
1 2	8 29.04	+19 23.9	2.063	2.988	7.7	21.0	1 2	8 31.32	+17 48.0	1.923	2.845	8.4	23.1
1 12	8 19.48	+19 15.3	2.027	2.997	3.8	20.8	1 12	8 20.71	+18 12.3	1.879	2.847	4.2	22.8
1 22	8 9.03	+19 7.0	2.021	3.005	0.4	20.5	1 22	8 8.95	+18 38.8	1.864	2.848	0.6	22.5
2 1	7 58.76	+18 57.3	2.046	3.013	4.4	20.8	2 1	7 57.21	+19 3.6	1.882	2.848	4.7	22.9
2 11	7 49.70	+18 45.2	2.100	3.020	8.1	21.1	2 11	7 46.69	+19 24.1	1.929	2.847	8.9	23.1
2 21	7 42.61	+18 30.6	2.181	3.027	11.4	21.3	2 21	7 38.33	+19 39.0	2.003	2.844	12.5	23.3
<b>295958</b>	2008 YK <sub>4</sub>		1 21.2 59°37	2°6/22.0	18		<b>243122</b>	2007 RK <sub>203</sub>		1 21.2 14°11	2°4/20.0	18	
12 13	8 40.47	+14 36.2	1.433	2.213	19.4	20.6	12 13	8 36.25	+25 11.0	1.938	2.724	14.8	20.2
12 23	8 36.57	+14 11.4	1.363	2.225	15.6	20.4	12 23	8 32.72	+25 37.1	1.856	2.727	11.7	20.0
1 2	8 29.43	+13 59.2	1.312	2.238	11.1	20.1	1 2	8 26.57	+26 7.1	1.797	2.730	8.0	19.8
1 12	8 19.84	+13 58.5	1.285	2.251	6.1	19.9	1 12	8 18.40	+26 36.3	1.764	2.734	4.3	19.6
1 22	8 9.00	+14 6.7	1.283	2.264	2.6	19.7	1 22	8 9.17	+26 59.9	1.759	2.738	2.6	19.5
2 1	7 58.43	+14 20.4	1.309	2.278	6.0	19.9	2 1	8 0.04	+27 14.1	1.782	2.743	5.7	19.7
2 11	7 49.60	+14 36.1	1.361	2.291	10.7	20.2	2 11	7 52.21	+27 17.2	1.833	2.748	9.5	19.9
2 21	7 43.50	+14 51.0	1.437	2.305	14.9	20.5	2 21	7 46.52	+27 9.6	1.908	2.753	12.9	20.2
<b>496172</b>	2011 BG <sub>109</sub>		1 21.2 196°55	1°7/22.1	16		<b>333384</b>	2002 QC <sub>151</sub>		1 21.2 96°12	3°6/20.1	18	
12 13	8 36.20	+13 41.5	2.241	2.994	14.1	22.5	12 13	8 46.25	+29 29.7	1.753	2.532	16.4	20.7
12 23	8 32.19	+13 45.2	2.145	2.993	11.3	22.3	12 23	8 40.82	+29 39.0	1.676	2.540	13.1	20.5
1 2	8 25.97	+13 59.3	2.072	2.991	8.0	22.1	1 2	8 32.19	+29 47.2	1.622	2.549	9.2	20.3
1 12	8 18.05	+14 22.2	2.024	2.989	4.4	21.9	1 12	8 21.15	+29 48.7	1.592	2.558	5.3	20.1
1 22	8 9.16	+14 51.5	2.006	2.987	1.7	21.7	1 22	8 8.94	+29 38.4	1.591	2.567	3.7	20.0
2 1	8 0.25	+15 24.0	2.018	2.985	4.3	21.9	2 1	7 57.08	+29 13.9	1.619	2.575	6.7	20.2
2 11	7 52.31	+15 56.6	2.059	2.983	8.0	22.1	2 11	7 47.00	+28 36.0	1.675	2.583	10.6	20.5
2 21	7 46.10	+16 26.5	2.126	2.980	11.3	22.3	2 21	7 39.68	+27 48.2	1.754	2.592	14.2	20.7
<b>40577</b>	1999 RQ <sub>134</sub>		1 21.2 94°94	0°3/21.0	18		<b>331428</b>	2012 GL <sub>5</sub>		1 21.2 277°45	1°3/21.8	18	
12 13	8 38.94	+20 19.3	2.035	2.805	14.7	19.6	12 13	8 36.50	+15 16.4	1.917	2.685	15.6	21.2
12 23	8 34.53	+20 23.1	1.952	2.813	11.7	19.4	12 23	8 33.03	+15 22.9	1.813	2.670	12.6	21.0
1 2	8 27.62	+20 33.0	1.891	2.820	8.0	19.2	1 2	8 26.93	+15 40.6	1.730	2.655	8.9	20.7
1 12	8 18.84	+20 45.9	1.857	2.828	3.9	19.0	1 12	8 18.69	+16 7.9	1.672	2.640	4.7	20.4
1 22	8 9.09	+20 58.7	1.852	2.836	0.5	18.7	1 22	8 9.15	+16 41.6	1.642	2.625	1.3	20.2
2 1	7 59.48	+21 8.2	1.876	2.843	4.7	19.0	2 1	7 59.43	+17 17.6	1.641	2.610	5.0	20.4
2 11	7 51.10	+21 12.8	1.929	2.851	8.6	19.3	2 11	7 50.77	+17 52.1	1.668	2.594	9.4	20.6
2 21	7 44.77	+21 11.7	2.007	2.858	12.1	19.5	2 21	7 44.16	+18 22.1	1.720	2.579	13.3	20.8
<b>449594</b>	2014 JK <sub>44</sub>		1 21.2 176°16	2°9/19.8	18		<b>75751</b>	2000 AR <sub>158</sub>		1 21.2 117°48	0°9/20.6	18	R
12 13	8 43.11	+24 48.3	1.836	2.613	15.9	22.1	12 13	8 36.94	+20 26.3	2.316	3.082	13.3	19.8
12 23	8 38.40	+25 36.1	1.751	2.615	12.6	21.9	12 23	8 32.70	+21 1.3	2.233	3.093	10.4	19.7
1 2	8 30.64	+26 30.0	1.687	2.617	8.7	21.6	1 2	8 26.27	+21 43.1	2.174	3.103	7.1	19.5
1 12	8 20.48	+27 23.9	1.650	2.618	4.7	21.4	1 12	8 18.18	+22 27.9	2.142	3.113	3.5	19.3
1 22	8 8.94	+28 10.8	1.641	2.619	3.1	21.3	1 22	8 9.21	+23 11.7	2.140	3.123	1.1	19.1
2 1	7 57.42	+28 45.1	1.662	2.619	6.5	21.5	2 1	8 0.31	+23 50.3	2.168	3.132	4.5	19.4
2 11	7 47.34	+29 4.4	1.711	2.618	10.5	21.7	2 11	7 52.43	+24 21.2	2.225	3.141	8.0	19.6
2 21	7 39.75	+29 9.0	1.783	2.617	14.2	21.9	2 21	7 46.33	+24 43.1	2.309	3.150	11.1	19.8
<b>325871</b>	2010 TA <sub>150</sub>		1 21.2 102°74	6°5/24.8	18		<b>450729</b>	2007 FU <sub>46</sub>		1 21.2 160°16	3°7/22.9	18	
12 13	8 38.02	+ 1 10.4	2.061	2.766	16.5	20.8	12 13	8 40.28	+ 9 19.2	1.792	2.538	17.3	21.9
12 23	8 33.55	+ 0 35.1	1.986	2.786	14.0	20.6	12 23	8 35.91	+ 9 9.7	1.705	2.544	14.2	21.7
1 2	8 26.81	+ 0 17.7	1.930	2.805	11.1	20.5	1 2	8 28.80	+ 9 15.6	1.638	2.549	10.4	21.5
1 12	8 18.40	+ 0 19.9	1.899	2.823	8.3	20.3	1 12	8 19.54	+ 9 36.8	1.596	2.553	6.4	21.2
1 22	8 9.14	+ 0 41.5	1.894	2.842	6.6	20.3	1 22	8 9.08	+10 11.2	1.582	2.557	3.7	21.1
2 1	8 0.03	+ 1 20.1	1.918	2.859	7.1	20.3	2 1	7 58.65	+10 54.7	1.596	2.560	5.8	21.2
2 11	7 52.05	+ 2 11.2	1.969	2.877	9.3	20.5	2 11	7 49.50	+11 42.7	1.639	2.563	9.7	21.4
2 21	7 45.92	+ 3 9.5	2.046	2.894	12.0	20.7	2 21	7 42.57	+12 30.7	1.706	2.565	13.5	21.7
<b>382190</b>	2012 KJ <sub>46</sub>		1 21.2 223°06	0°2/21.3	17		<b>269367</b>	2008 WL <sub>6</sub>		1 21.2 265°29	2°0/20.4	18	
12 13	8 36.99	+17 9.4	2.662	3.412	12.1	22.2	12 13	8 40.71	+22 43.6	1.587	2.375	17.5	21.1
12 23	8 32.57	+17 33.5	2.552	3.401	9.7	22.0	12 23	8 37.11	+23 11.1	1.491	2.363	14.0	20.8
1 2	8 26.14	+18 5.5	2.465	3.389	6.7	21.8	1 2	8 30.17	+23 46.8	1.416	2.350	9.7	20.5
1 12	8 18.12	+18 43.1	2.407	3.376	3.3	21.6	1 12	8 20.43	+24 25.7	1.366	2.337	4.9	20.2
1 22	8 9.16	+19 23.2	2.379	3.363	0.3	21.3	1 22	8 8.99	+25 1.2	1.343	2.324	2.2	20.0
2 1	8 0.09	+20 2.5	2.382	3.349	3.9	21.6	2 1	7 57.37	+25 27.5	1.347	2.311	6.6	20.3
2 11	7 51.77	+20 38.0	2.416	3.334	7.3	21.8	2 11	7 47.24	+25 41.2	1.378	2.298	11.5	20.5
2 21	7 44.94	+21 7.9	2.477	3.319	10.4	21.9	2 21	7 39.86	+25 42.1	1.432	2.284	15.9	20.7
<b>62260</b>	2000 SS <sub>85</sub>		1 21.2 63°62	0°8/20.8	18		<b>358107</b>	2006 KH <sub>106</sub>		1 21.2 303°68	3°4/22.3	17	
12 13	8 36.68	+19 28.8	1.897	2.675	15.4	18.8	12 13	8 36.67	+13 2.2	1.457	2.239	19.1	21.0
12 23	8 33.05	+20 1.9	1.814	2.680	12.2	18.6	12 23	8 34.04	+12 35.4	1.357	2.220	15.7	20.8
1 2	8 26.80	+20 44.4	1.753	2.684	8.3	18.3	1 2	8 28.15	+12 21.9	1.276	2.201	11.4	20.4
1 12	8 18.52	+21 32.1	1.717	2.689	4.1	18.1	1 12	8 19.49	+12 22.0	1.218	2.182	6.7	20.1
1 22	8 9.13	+22 20.0	1.710	2.693	1.0	17.9	1 22	8 9.07	+12 34.3	1.184	2.164	3.4	19.9
2 1	7 59.78	+23 3.0	1.732	2.698	5.1	18.2	2 1	7 58.36	+12 55.8	1.178	2.146	6.5	20.0
2 11	7 51.66	+23 37.6	1.782	2.703	9.3	18.4	2 11	7 49.01	+13 22.3	1.196	2.129	11.6	20.2
2 21	7 45.67	+24 2.2	1.856	2.708	12.9	18.7	2 21	7 42.31	+13 49.7	1.237	2.112	16.4	20.5
<b>315967</b>	2008 XJ <sub>15</sub>		1 21.2 106°23	12°1/23.7	18		<b>128483</b>	2004 PV <sub>8</sub>		1 21.2 83°57	1°9/20.4	18	
12 13	8 47.87	+ 1 25.4	1.238	1.973	24.2	20.4	12 13	8 44.10	+22 53.8	1.519			

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>462946</b>	2011 <i>CY</i> <sub>11</sub>		1 21.2	22°61'	0°6'/21.5	18	<b>19679</b>	Gretabetteo		1 21.2	306°35'	4°7'/19.2	18
12 13	8 36.31	+16 56.1	1.890	2.663	15.6	21.9	12 13	8 39.50	+27 55.9	1.533	2.333	17.5	17.6
12 23	8 32.74	+17 8.6	1.803	2.664	12.4	21.6	12 23	8 36.40	+28 47.3	1.446	2.323	14.0	17.3
1 2	8 26.60	+17 31.4	1.737	2.666	8.6	21.4	1 2	8 29.80	+29 44.0	1.379	2.313	9.9	17.1
1 12	8 18.45	+18 1.6	1.697	2.667	4.3	21.2	1 12	8 20.30	+30 38.1	1.337	2.303	6.0	16.8
1 22	8 9.19	+18 35.6	1.685	2.668	0.6	20.9	1 22	8 9.06	+31 21.0	1.321	2.294	4.9	16.7
2 1	7 59.96	+19 9.2	1.701	2.670	4.8	21.2	2 1	7 57.72	+31 46.0	1.331	2.284	8.2	16.9
2 11	7 51.92	+19 38.8	1.746	2.672	9.1	21.5	2 11	7 48.04	+31 50.6	1.367	2.276	12.6	17.1
2 21	7 45.97	+20 2.3	1.816	2.674	12.8	21.7	2 21	7 41.29	+31 36.5	1.425	2.267	16.6	17.3
<b>109912</b>	2001 <i>SU</i> <sub>25</sub>		1 21.2	74°54'	0°7'/20.8	18	<b>327285</b>	2005 <i>TT</i> <sub>42</sub>		1 21.2	70°08'	2°3'/20.1	18
12 13	8 36.98	+20 36.0	2.300	3.067	13.3	20.0	12 13	8 39.61	+24 5.6	1.785	2.569	16.0	20.9
12 23	8 32.62	+20 58.4	2.228	3.087	10.5	19.9	12 23	8 35.51	+24 39.1	1.712	2.581	12.6	20.7
1 2	8 26.12	+21 26.5	2.179	3.108	7.1	19.7	1 2	8 28.54	+25 17.9	1.661	2.593	8.6	20.5
1 12	8 18.06	+21 57.1	2.158	3.129	3.4	19.5	1 12	8 19.41	+25 56.7	1.635	2.606	4.5	20.2
1 22	8 9.24	+22 26.5	2.166	3.149	0.8	19.3	1 22	8 9.17	+26 29.8	1.638	2.618	2.5	20.1
2 1	8 0.60	+22 51.6	2.204	3.169	4.3	19.6	2 1	7 59.12	+26 52.8	1.669	2.630	5.9	20.4
2 11	7 53.06	+23 10.1	2.272	3.190	7.7	19.9	2 11	7 50.55	+27 3.5	1.728	2.643	9.9	20.6
2 21	7 47.30	+23 21.4	2.365	3.210	10.7	20.1	2 21	7 44.37	+27 2.6	1.811	2.655	13.5	20.9
<b>213245</b>	2001 <i>BD</i> <sub>29</sub>		1 21.2	12°02'	2°1'/22.3	18	<b>466899</b>	2015 <i>DR</i> <sub>173</sub>		1 21.2	62°67'	3°3'/19.1	18
12 13	8 28.54	+10 39.9	1.048	1.864	22.7	19.0	12 13	8 36.36	+26 40.0	2.217	2.997	13.4	20.8
12 23	8 28.29	+11 22.5	0.985	1.868	18.3	18.8	12 23	8 32.54	+27 38.0	2.139	3.005	10.5	20.6
1 2	8 24.42	+12 33.3	0.938	1.874	13.0	18.5	1 2	8 26.33	+28 39.6	2.084	3.014	7.3	20.4
1 12	8 17.66	+14 8.9	0.913	1.883	7.0	18.2	1 12	8 18.29	+29 39.4	2.057	3.023	4.3	20.3
1 22	8 9.27	+16 0.1	0.910	1.893	2.1	17.9	1 22	8 9.26	+30 31.7	2.059	3.031	3.4	20.2
2 1	8 1.00	+17 54.5	0.932	1.905	6.6	18.2	2 1	8 0.30	+31 11.9	2.090	3.040	5.9	20.4
2 11	7 54.62	+19 40.0	0.977	1.918	12.4	18.6	2 11	7 52.45	+31 37.8	2.149	3.049	9.1	20.6
2 21	7 51.32	+21 8.4	1.043	1.934	17.4	18.9	2 21	7 46.53	+31 49.6	2.233	3.058	12.0	20.8
<b>406869</b>	2009 <i>BU</i> <sub>170</sub>		1 21.2	305°81'	0°1'/21.1	18	<b>330711</b>	2008 <i>OM</i> <sub>14</sub>		1 21.2	180°71'	0°4'/21.4	18
12 13	8 37.44	+19 19.7	1.467	2.262	18.4	21.4	12 13	8 38.90	+18 27.4	2.234	2.994	13.9	21.2
12 23	8 34.74	+19 24.4	1.370	2.244	14.8	21.1	12 23	8 34.33	+18 23.8	2.141	2.995	11.1	21.0
1 2	8 28.67	+19 39.4	1.292	2.227	10.3	20.8	1 2	8 27.46	+18 26.5	2.070	2.995	7.7	20.8
1 12	8 19.76	+20 1.6	1.237	2.210	5.1	20.4	1 12	8 18.82	+18 33.5	2.026	2.995	3.8	20.6
1 22	8 9.08	+20 26.3	1.209	2.193	0.5	20.0	1 22	8 9.22	+18 42.2	2.011	2.995	0.5	20.3
2 1	7 58.16	+20 48.3	1.207	2.176	6.2	20.4	2 1	7 59.67	+18 50.1	2.027	2.994	4.3	20.6
2 11	7 48.69	+21 3.9	1.231	2.160	11.6	20.6	2 11	7 51.18	+18 55.4	2.072	2.994	8.1	20.8
2 21	7 42.00	+21 11.3	1.277	2.145	16.4	20.9	2 21	7 44.53	+18 57.1	2.143	2.993	11.5	21.0
<b>258546</b>	2002 <i>CQ</i> <sub>27</sub>		1 21.2	346°68'	3°3'/19.6	18	<b>494717</b>	2005 <i>SE</i> <sub>121</sub>		1 21.2	139°43'	0°7'/20.8	18
12 13	8 36.58	+25 24.3	1.681	2.477	16.3	20.1	12 13	8 40.23	+20 54.1	2.262	3.023	13.7	21.9
12 23	8 33.57	+26 11.8	1.597	2.473	12.9	19.8	12 23	8 35.30	+21 11.3	2.178	3.034	10.8	21.7
1 2	8 27.53	+27 5.6	1.535	2.469	9.0	19.6	1 2	8 28.06	+21 34.2	2.117	3.044	7.4	21.5
1 12	8 19.04	+27 59.4	1.497	2.466	5.0	19.4	1 12	8 19.08	+21 59.3	2.084	3.054	3.6	21.3
1 22	8 9.16	+28 46.2	1.487	2.463	3.6	19.3	1 22	8 9.20	+22 23.1	2.080	3.063	0.9	21.1
2 1	7 59.27	+29 20.0	1.504	2.461	6.9	19.5	2 1	7 59.43	+22 42.4	2.107	3.072	4.5	21.3
2 11	7 50.82	+29 37.9	1.547	2.459	11.0	19.7	2 11	7 50.79	+22 55.1	2.164	3.080	8.1	21.6
2 21	7 44.88	+29 40.3	1.613	2.458	14.8	19.9	2 21	7 44.05	+23 0.7	2.246	3.088	11.3	21.8
<b>236066</b>	2005 <i>JU</i> <sub>80</sub>		1 21.2	228°13'	7°6'/27.3	17	<b>290250</b>	2005 <i>SD</i> <sub>107</sub>		1 21.2	163°49'	0°9'/20.8	18
12 13	8 32.86	-10 5.7	3.095	3.711	13.0	21.9	12 13	8 42.47	+22 36.3	2.317	3.075	13.5	21.2
12 23	8 29.00	-10 34.8	2.983	3.700	11.6	21.7	12 23	8 37.02	+22 37.8	2.226	3.081	10.7	21.1
1 2	8 23.53	-10 47.0	2.891	3.688	10.1	21.6	1 2	8 29.22	+22 42.7	2.159	3.085	7.3	20.9
1 12	8 16.81	-10 39.6	2.822	3.675	8.7	21.5	1 12	8 19.65	+22 47.8	2.119	3.090	3.6	20.6
1 22	8 9.37	-10 11.6	2.778	3.662	7.7	21.4	1 22	8 9.16	+22 50.3	2.110	3.093	1.0	20.4
2 1	8 1.83	-9 23.6	2.761	3.649	7.7	21.4	2 1	7 58.78	+22 47.7	2.132	3.096	4.5	20.7
2 11	7 54.87	-8 18.5	2.773	3.635	8.7	21.4	2 11	7 49.55	+22 39.2	2.184	3.099	8.1	20.9
2 21	7 49.08	-7 0.7	2.810	3.621	10.2	21.5	2 21	7 42.25	+22 25.0	2.262	3.101	11.3	21.1
<b>175938</b>	2000 <i>EE</i> <sub>119</sub>		1 21.2	316°73'	9°5'/16.9	18	<b>455410</b>	2003 <i>FG</i> <sub>4</sub>		1 21.2	301°46'	1°4'/21.8	17
12 13	8 41.11	+38 12.1	1.477	2.278	18.0	20.2	12 13	8 35.88	+14 34.8	1.810	2.581	16.3	21.6
12 23	8 38.54	+39 30.6	1.388	2.256	15.1	19.9	12 23	8 33.03	+14 47.4	1.685	2.544	13.3	21.3
1 2	8 31.82	+40 46.9	1.319	2.234	12.1	19.7	1 2	8 27.32	+15 14.0	1.581	2.507	9.5	21.0
1 12	8 21.50	+41 49.3	1.273	2.213	9.9	19.5	1 12	8 19.11	+15 53.4	1.502	2.470	5.1	20.7
1 22	8 8.93	+42 25.7	1.251	2.193	9.9	19.4	1 22	8 9.18	+16 42.1	1.450	2.433	1.4	20.3
2 1	7 56.13	+42 28.2	1.254	2.173	12.3	19.5	2 1	7 58.69	+17 35.5	1.426	2.395	5.5	20.5
2 11	7 45.34	+41 56.2	1.278	2.154	15.8	19.7	2 11	7 49.08	+18 27.9	1.430	2.358	10.5	20.7
2 21	7 38.15	+40 55.7	1.323	2.136	19.3	19.8	2 21	7 41.59	+19 15.2	1.458	2.320	15.1	20.9
<b>274522</b>	2008 <i>SC</i> <sub>189</sub>		1 21.2	80°95'	2°4'/22.5	18	<b>350722</b>	2001 <i>XD</i> <sub>150</sub>		1 21.2	10°55'	2°0'/20.5	18
12 13	8 36.33	+11 55.6	2.096	2.847	15.0	21.1	12 13	8 32.42	+20 59.3	1.013	1.847	22.1	19.9
12 23	8 32.30	+11 52.5	2.016	2.861	12.1	20.9	12 23	8 31.72	+21 31.7	0.952	1.849	17.5	19.6
1 2	8 26.03	+12 1.1	1.959	2.875	8.6	20.7	1 2	8 26.97	+22 17.8	0.908	1.853	12.0	19.4
1 12	8 18.08	+12 20.4	1.927	2.889	5.0	20.5	1 12	8 18.97	+23 10.8	0.885	1.859	5.9	19.0
1 22	8 9.27	+12 47.8	1.924	2.903	2.4	20.4	1 22	8 9.21	+24 1.7	0.884	1.867	2.2	18.8
2 1	8 0.59	+13 20.2	1.950	2.917	4.6	20.6	2 1	7 59.68	+24 42.2	0.907	1.876	7.7	19.2
2 11	7 53.00	+13 54.2	2.005	2.930	8.1	20.8	2 11	7 52.36	+25 7.1	0.952	1.887	13.5	19.6
2 21	7 47.25	+14 26.8	2.086	2.944	11.4	21.0	2 21	7 48.49	+25 15.8	1.016	1.900	18.4	19.9
<b>242840</b>	2006 <i>DY</i> <sub>106</sub>		1 21.2	204°15'	2°5'/22.4	18	<b>64053</b>	2001 <i>SN</i> <sub>254</sub>		1 21.2	151°06'	6°4'/16.4	18
12 13	8 39.27	+11 44.6	1										

EPHEMERIDES

1 21.2

1 21.2

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>77347</b>	2001 <i>FB</i> <sub>109</sub>		1 21.2 201°74	1.7°/22.3	17		<b>309219</b>	2007 <i>PV</i> <sub>10</sub>		1 21.2 96°22	8°4/24.0	18	
12 13	8 35.38	+12 45.3	2.725	3.464	12.2	20.9	12 13	8 44.63	+1 46.8	1.784	2.490	18.7	20.1
12 23	8 31.18	+12 54.3	2.621	3.460	9.8	20.7	12 23	8 39.07	+0 10.8	1.712	2.510	16.0	19.9
1 2	8 25.12	+13 12.7	2.541	3.455	7.0	20.5	1 2	8 30.79	-1 8.8	1.661	2.530	12.9	19.8
1 12	8 17.64	+13 39.1	2.488	3.451	3.9	20.3	1 12	8 20.48	-2 7.5	1.633	2.549	10.0	19.6
1 22	8 9.35	+14 11.5	2.465	3.445	1.7	20.2	1 22	8 9.17	-2 42.5	1.632	2.568	8.5	19.6
2 1	8 1.02	+14 47.1	2.473	3.439	3.8	20.3	2 1	7 58.10	-2 53.5	1.659	2.587	9.1	19.7
2 11	7 53.43	+15 23.2	2.511	3.433	6.9	20.5	2 11	7 48.46	-2 43.8	1.712	2.605	11.4	19.9
2 21	7 47.23	+15 57.3	2.577	3.426	9.8	20.7	2 21	7 41.12	-2 18.8	1.790	2.623	14.1	20.1
<b>278422</b>	2007 <i>RT</i> <sub>208</sub>		1 21.2 180°79	3°1/23.3	18		<b>62245</b>	2000 <i>SQ</i> <sub>77</sub>		1 21.2 11°19	0°4/21.0	18	
12 13	8 33.99	+7 48.1	2.565	3.292	13.1	21.0	12 13	8 37.62	+19 49.8	1.871	2.648	15.6	20.0
12 23	8 30.16	+7 51.6	2.467	3.293	10.8	20.8	12 23	8 33.89	+20 4.2	1.784	2.649	12.4	19.8
1 2	8 24.46	+8 7.7	2.391	3.293	8.0	20.6	1 2	8 27.47	+20 26.5	1.718	2.649	8.5	19.6
1 12	8 17.32	+8 36.0	2.341	3.293	5.1	20.5	1 12	8 18.96	+20 53.5	1.678	2.649	4.2	19.3
1 22	8 9.39	+9 14.7	2.321	3.293	3.2	20.3	1 22	8 9.30	+21 20.8	1.666	2.650	0.6	19.0
2 1	8 1.43	+10 1.0	2.330	3.292	4.4	20.4	2 1	7 59.68	+21 44.6	1.683	2.651	5.1	19.4
2 11	7 54.25	+10 51.5	2.370	3.291	7.2	20.6	2 11	7 51.32	+22 1.9	1.728	2.651	9.3	19.6
2 21	7 48.51	+11 42.5	2.437	3.290	10.1	20.8	2 21	7 45.13	+22 11.6	1.798	2.652	13.1	19.9
<b>448143</b>	2008 <i>SJ</i> <sub>153</sub>		1 21.2 167°91	2°4/20.1	18		<b>110801</b>	2001 <i>UK</i> <sub>41</sub>		1 21.2 187°11	6°6/24.9	18	
12 13	8 44.59	+24 23.0	1.861	2.633	15.9	22.5	12 13	8 36.02	+0 28.1	2.163	2.865	15.9	20.7
12 23	8 39.47	+24 57.4	1.776	2.638	12.6	22.3	12 23	8 32.13	-0 5.5	2.068	2.865	13.6	20.5
1 2	8 31.35	+25 37.1	1.713	2.642	8.7	22.1	1 2	8 26.02	-0 21.7	1.993	2.864	10.9	20.4
1 12	8 20.86	+26 16.6	1.677	2.646	4.5	21.8	1 12	8 18.19	-0 18.4	1.942	2.863	8.3	20.2
1 22	8 9.09	+26 49.7	1.669	2.649	2.6	21.7	1 22	8 9.38	+0 4.8	1.917	2.862	6.7	20.1
2 1	7 57.39	+27 12.0	1.691	2.651	6.1	21.9	2 1	8 0.51	+0 46.0	1.921	2.861	7.2	20.1
2 11	7 47.16	+27 21.2	1.741	2.652	10.2	22.2	2 11	7 52.59	+1 41.1	1.952	2.859	9.4	20.3
2 21	7 39.40	+27 18.1	1.816	2.652	13.8	22.4	2 21	7 46.39	+2 44.7	2.009	2.857	12.2	20.4
<b>323534</b>	2004 <i>RP</i> <sub>190</sub>		1 21.2 165°65	5°3/24.4	18		<b>90239</b>	2003 <i>BF</i> <sub>47</sub>		1 21.2 322°39	2°7/19.5	18	
12 13	8 36.31	+2 18.7	2.579	3.276	13.7	21.4	12 13	8 36.39	+21 15.1	1.762	2.549	16.0	19.3
12 23	8 31.90	+1 50.5	2.484	3.281	11.6	21.3	12 23	8 33.35	+22 37.0	1.674	2.545	12.7	19.1
1 2	8 25.60	+1 36.1	2.410	3.285	9.2	21.1	1 2	8 27.41	+24 11.8	1.607	2.542	8.7	18.9
1 12	8 17.87	+1 36.8	2.362	3.289	6.8	21.0	1 12	8 19.08	+25 52.6	1.567	2.538	4.5	18.6
1 22	8 9.36	+1 52.4	2.342	3.292	5.3	20.9	1 22	8 9.29	+27 30.7	1.556	2.535	3.0	18.5
2 1	8 0.85	+2 21.4	2.352	3.295	5.9	20.9	2 1	7 59.34	+28 57.5	1.573	2.531	6.6	18.7
2 11	7 53.16	+3 0.6	2.391	3.297	8.0	21.0	2 11	7 50.62	+30 7.2	1.618	2.528	10.8	18.9
2 21	7 46.92	+3 46.4	2.456	3.299	10.4	21.2	2 21	7 44.24	+30 57.8	1.687	2.525	14.6	19.2
<b>12120</b>	1999 <i>NQ</i> <sub>41</sub>		1 21.2 95°94	3°5/19.9	18		<b>419983</b>	2011 <i>CV</i> <sub>19</sub>		1 21.2 18°92	0°5/20.9	18	
12 13	8 42.71	+25 16.7	1.361	2.161	19.3	18.2	12 13	8 35.84	+18 9.9	1.891	2.668	15.5	21.4
12 23	8 39.11	+25 56.2	1.285	2.162	15.3	18.0	12 23	8 32.49	+18 48.4	1.804	2.668	12.3	21.1
1 2	8 31.72	+26 42.8	1.228	2.164	10.7	17.7	1 2	8 26.53	+19 37.9	1.739	2.670	8.4	20.9
1 12	8 21.25	+27 28.8	1.195	2.165	5.8	17.4	1 12	8 18.52	+20 34.6	1.699	2.671	4.1	20.7
1 22	8 9.05	+28 5.8	1.188	2.167	3.7	17.3	1 22	8 9.35	+21 33.0	1.688	2.672	0.7	20.4
2 1	7 56.97	+28 27.2	1.208	2.168	7.8	17.5	2 1	8 0.16	+22 27.6	1.706	2.673	5.1	20.7
2 11	7 46.85	+28 30.8	1.252	2.170	12.7	17.8	2 11	7 52.15	+23 14.1	1.752	2.675	9.3	21.0
2 21	7 39.97	+28 18.3	1.319	2.171	17.0	18.1	2 21	7 46.22	+23 50.2	1.823	2.677	13.0	21.2
<b>495272</b>	2013 <i>QE</i> <sub>79</sub>		1 21.2 128°09	2°7/23.0	18		<b>451460</b>	2011 <i>TS</i> <sub>10</sub>		1 21.2 63°12	2°0/20.5	16	
12 13	8 36.55	+9 4.3	2.530	3.257	13.3	22.6	12 13	8 42.91	+22 53.2	1.414	2.207	19.0	21.2
12 23	8 32.08	+9 14.4	2.445	3.273	10.8	22.4	12 23	8 38.64	+23 19.7	1.355	2.229	14.9	21.0
1 2	8 25.70	+9 36.6	2.382	3.288	7.9	22.2	1 2	8 30.93	+23 53.3	1.316	2.251	10.2	20.8
1 12	8 17.91	+10 9.9	2.347	3.302	4.8	22.1	1 12	8 20.65	+24 27.9	1.302	2.273	5.1	20.6
1 22	8 9.38	+10 51.9	2.341	3.316	2.7	21.9	1 22	8 9.18	+24 56.9	1.313	2.295	2.2	20.4
2 1	8 0.92	+11 39.5	2.366	3.329	4.2	22.1	2 1	7 58.16	+25 15.5	1.353	2.318	6.5	20.8
2 11	7 53.34	+12 29.1	2.421	3.342	7.1	22.3	2 11	7 49.11	+25 21.7	1.418	2.340	11.1	21.1
2 21	7 47.29	+13 17.5	2.503	3.354	10.0	22.5	2 21	7 43.01	+25 16.5	1.507	2.362	15.1	21.4
<b>267438</b>	2002 <i>CY</i> <sub>189</sub>		1 21.2 38°27	1°5/22.1	18		<b>32546</b>	2001 <i>QE</i> <sub>14</sub>		1 21.2 46°87	0°0/21.2	18	
12 13	8 34.68	+12 32.9	1.620	2.395	17.7	20.2	12 13	8 35.75	+18 34.4	2.047	2.820	14.6	18.6
12 23	8 31.79	+13 5.7	1.546	2.407	14.2	20.0	12 23	8 32.01	+18 47.6	1.971	2.833	11.5	18.4
1 2	8 26.12	+13 55.5	1.492	2.419	10.0	19.7	1 2	8 25.93	+19 8.6	1.917	2.846	7.9	18.2
1 12	8 18.30	+14 59.3	1.463	2.431	5.3	19.5	1 12	8 18.11	+19 34.5	1.888	2.859	3.9	18.0
1 22	8 9.34	+16 11.6	1.461	2.444	1.5	19.3	1 22	8 9.40	+20 1.9	1.889	2.873	0.3	17.7
2 1	8 0.49	+17 25.7	1.488	2.458	5.2	19.5	2 1	8 0.84	+20 27.1	1.918	2.886	4.5	18.1
2 11	7 52.99	+18 35.1	1.541	2.472	9.7	19.8	2 11	7 53.43	+20 47.7	1.976	2.901	8.3	18.4
2 21	7 47.79	+19 35.5	1.619	2.486	13.6	20.1	2 21	7 47.95	+21 2.1	2.060	2.915	11.6	18.6
<b>82768</b>	2001 <i>QD</i> <sub>13</sub>		1 21.2 77°63	0°7/21.6	18		<b>258141</b>	2001 <i>RF</i> <sub>112</sub>		1 21.2 125°77	0°6/20.7	18	
12 13	8 36.08	+16 23.6	2.308	3.067	13.5	19.4	12 13	8 32.08	+21 19.0	3.717	4.470	8.9	21.4
12 23	8 31.92	+16 36.4	2.232	3.085	10.7	19.3	12 23	8 28.05	+21 38.2	3.629	4.482	7.0	21.3
1 2	8 25.68	+16 57.5	2.178	3.103	7.4	19.1	1 2	8 22.69	+22 0.4	3.567	4.493	4.7	21.1
1 12	8 17.91	+17 24.5	2.152	3.120	3.7	18.9	1 12	8 16.37	+22 23.9	3.533	4.503	2.3	21.0
1 22	8 9.39	+17 54.5	2.154	3.138	0.7	18.7	1 22	8 9.56	+22 46.4	3.531	4.514	0.7	20.8
2 1	8 1.01	+18 24.4	2.188	3.156	4.0	19.0	2 1	8 2.79	+23 6.3	3.560	4.524	2.9	21.0
2 11	7 53.66	+18 51.3	2.250	3.173	7.5	19.2	2 11	7 56.62	+23 22.2	3.621	4.534	5.3	21.2
2 21	7 48.01	+19 13.5	2.339	3.191	10.5	19.4	2 21	7 51.48	+23 33.3	3.709	4.544	7.4	21.4
<b>95012</b>	2002 <i>AT</i> <sub>1</sub>		1 21.2 357°87	1°3/21.7	18		<b>453579</b>	2010 <i>GR</i> <sub>140</sub>		1 21.2 208°44	2°9/19.9	18	
12 13	8 33.37	+15 43.4	1.176	1.987	21.0	19.							

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>371773</b>	2007 <i>HA</i> <sub>24</sub>		1 21.2	7 <sup>o</sup> 71	2 <sup>o</sup> 2/20.1	18	<b>323231</b>	2002 <i>TT</i> <sub>186</sub>		1 21.2	189 <sup>o</sup> 69	0 <sup>o</sup> 8/21.5	18
12 13	8 37.64	+23 44.2	1.990	2.771	14.7	21.1	12 13	8 43.66	+17 20.0	1.772	2.536	16.9	21.3
12 23	8 33.84	+24 20.0	1.904	2.771	11.6	20.9	12 23	8 38.82	+17 19.7	1.680	2.536	13.5	21.0
1 2	8 27.42	+25 1.5	1.839	2.771	8.0	20.7	1 2	8 30.99	+17 29.0	1.609	2.534	9.4	20.8
1 12	8 18.95	+25 44.0	1.801	2.771	4.1	20.5	1 12	8 20.77	+17 45.1	1.563	2.532	4.8	20.5
1 22	8 9.34	+26 22.2	1.791	2.771	2.3	20.3	1 22	8 9.20	+18 4.6	1.546	2.530	0.8	20.2
2 1	7 59.75	+26 51.6	1.811	2.771	5.6	20.6	2 1	7 57.62	+18 23.5	1.558	2.526	5.3	20.5
2 11	7 51.37	+27 9.6	1.858	2.772	9.4	20.8	2 11	7 47.41	+18 39.1	1.599	2.522	9.9	20.8
2 21	7 45.12	+27 16.0	1.930	2.772	12.9	21.0	2 21	7 39.64	+18 49.6	1.664	2.517	14.0	21.0
<b>13397</b>	1999 <i>RF</i> <sub>47</sub>		1 21.2	81 <sup>o</sup> 34	1 <sup>o</sup> 7/20.5	18	<b>113859</b>	2002 <i>TM</i> <sub>253</sub>		1 21.2	66 <sup>o</sup> 68	4 <sup>o</sup> 2/23.7	18
12 13	8 43.09	+22 9.3	1.626	2.407	17.4	18.7	12 13	8 34.37	+ 6 33.4	2.217	2.949	14.8	20.1
12 23	8 38.35	+22 39.3	1.563	2.430	13.7	18.5	12 23	8 30.69	+ 6 16.0	2.133	2.958	12.2	19.9
1 2	8 30.53	+23 16.4	1.521	2.453	9.3	18.3	1 2	8 24.94	+ 6 12.6	2.070	2.968	9.2	19.8
1 12	8 20.42	+23 55.0	1.504	2.475	4.6	18.1	1 12	8 17.62	+ 6 23.7	2.032	2.978	6.2	19.6
1 22	8 9.23	+24 29.2	1.516	2.498	1.8	17.9	1 22	8 9.49	+ 6 47.9	2.021	2.988	4.3	19.5
2 1	7 58.39	+24 54.2	1.556	2.520	5.9	18.2	2 1	8 1.42	+ 7 22.7	2.040	2.998	5.3	19.6
2 11	7 49.28	+25 8.0	1.623	2.542	10.2	18.5	2 11	7 54.31	+ 8 4.5	2.088	3.008	8.1	19.8
2 21	7 42.80	+25 10.9	1.714	2.563	13.9	18.8	2 21	7 48.87	+ 8 49.3	2.161	3.019	11.1	20.0
<b>210195</b>	2007 <i>PP</i> <sub>20</sub>		1 21.2	82 <sup>o</sup> 11	1 <sup>o</sup> 2/21.8	18	<b>412975</b>	5055 <i>T</i> <sub>-2</sub>		1 21.2	44 <sup>o</sup> 07	0 <sup>o</sup> 3/21.3	16
12 13	8 40.94	+14 34.3	1.614	2.383	18.0	20.7	12 13	8 42.59	+19 44.0	1.433	2.220	19.1	20.8
12 23	8 36.58	+14 52.7	1.548	2.406	14.3	20.5	12 23	8 38.01	+19 30.5	1.381	2.251	15.0	20.6
1 2	8 29.29	+15 25.0	1.503	2.429	10.0	20.3	1 2	8 30.24	+19 25.0	1.350	2.282	10.2	20.4
1 12	8 19.82	+16 7.7	1.483	2.451	5.2	20.0	1 12	8 20.22	+19 24.4	1.343	2.314	5.0	20.2
1 22	8 9.28	+16 56.0	1.491	2.474	1.2	19.8	1 22	8 9.29	+19 25.0	1.362	2.346	0.5	19.9
2 1	7 59.03	+17 44.3	1.527	2.496	5.2	20.1	2 1	7 58.95	+19 24.0	1.410	2.379	5.5	20.4
2 11	7 50.35	+18 28.0	1.590	2.517	9.7	20.4	2 11	7 50.54	+19 19.6	1.483	2.412	10.2	20.7
2 21	7 44.15	+19 4.4	1.679	2.539	13.6	20.7	2 21	7 44.90	+19 11.4	1.581	2.445	14.1	21.0
<b>455376</b>	2002 <i>UE</i> <sub>17</sub>		1 21.2	45 <sup>o</sup> 06	5 <sup>o</sup> 7/18.9	16	<b>462054</b>	2007 <i>EJ</i> <sub>22</sub>		1 21.2	75 <sup>o</sup> 74	2 <sup>o</sup> 7/20.2	18
12 13	8 45.70	+28 15.1	1.241	2.046	20.5	20.2	12 13	8 42.90	+27 3.3	1.850	2.629	15.7	21.1
12 23	8 41.15	+29 41.8	1.209	2.087	16.0	20.1	12 23	8 38.04	+27 13.3	1.772	2.638	12.4	20.9
1 2	8 32.70	+31 10.0	1.197	2.130	11.2	19.9	1 2	8 30.27	+27 24.5	1.717	2.647	8.6	20.7
1 12	8 21.47	+32 28.2	1.209	2.172	7.0	19.8	1 12	8 20.32	+27 32.1	1.688	2.656	4.7	20.5
1 22	8 9.16	+33 26.1	1.246	2.215	6.0	19.9	1 22	8 9.28	+27 31.6	1.687	2.665	2.8	20.4
2 1	7 57.70	+33 58.4	1.310	2.257	9.0	20.2	2 1	7 58.50	+27 20.2	1.715	2.674	6.0	20.6
2 11	7 48.72	+34 5.7	1.398	2.300	12.8	20.5	2 11	7 49.28	+26 57.7	1.771	2.684	9.8	20.8
2 21	7 43.14	+33 52.7	1.508	2.343	16.2	20.8	2 21	7 42.51	+26 26.1	1.851	2.693	13.3	21.1
<b>231095</b>	2005 <i>SK</i> <sub>22</sub>		1 21.2	148 <sup>o</sup> 86	2 <sup>o</sup> 4/20.1	18	<b>460611</b>	2014 <i>UE</i> <sub>66</sub>		1 21.2	46 <sup>o</sup> 55	2 <sup>o</sup> 8/22.4	18
12 13	8 44.81	+23 41.4	1.797	2.570	16.3	21.2	12 13	8 37.13	+12 38.1	1.836	2.597	16.4	21.3
12 23	8 39.70	+24 22.2	1.718	2.581	12.9	21.0	12 23	8 33.40	+12 20.0	1.751	2.602	13.3	21.1
1 2	8 31.54	+25 9.5	1.661	2.590	8.9	20.8	1 2	8 27.08	+12 13.6	1.688	2.606	9.6	20.8
1 12	8 21.00	+25 57.1	1.629	2.599	4.6	20.5	1 12	8 18.78	+12 18.5	1.649	2.611	5.6	20.6
1 22	8 9.18	+26 38.7	1.627	2.607	2.6	20.4	1 22	8 9.41	+12 32.6	1.637	2.616	2.8	20.5
2 1	7 57.48	+27 9.1	1.654	2.614	6.1	20.7	2 1	8 0.11	+12 53.2	1.654	2.621	5.2	20.6
2 11	7 47.32	+27 25.8	1.709	2.620	10.3	20.9	2 11	7 52.03	+13 17.0	1.699	2.626	9.2	20.9
2 21	7 39.70	+27 29.4	1.789	2.626	14.0	21.2	2 21	7 46.06	+13 40.7	1.769	2.632	12.8	21.1
<b>495857</b>	2003 <i>MT</i>		1 21.2	192 <sup>o</sup> 33	5 <sup>o</sup> 3/25.1	17	<b>76186</b>	2000 <i>EC</i> <sub>40</sub>		1 21.2	313 <sup>o</sup> 16	4 <sup>o</sup> 2/23.7	18
12 13	8 36.85	- 3 19.0	3.715	4.353	10.7	25.7	12 13	8 33.42	+ 6 18.3	2.186	2.920	14.9	19.4
12 23	8 31.73	- 3 56.3	3.604	4.350	9.3	25.6	12 23	8 30.12	+ 6 12.1	2.089	2.917	12.4	19.2
1 2	8 25.21	- 4 22.3	3.516	4.346	7.7	25.5	1 2	8 24.68	+ 6 21.1	2.013	2.913	9.4	19.0
1 12	8 17.64	- 4 35.7	3.454	4.342	6.3	25.4	1 12	8 17.57	+ 6 45.5	1.962	2.910	6.3	18.8
1 22	8 9.48	- 4 35.6	3.421	4.336	5.4	25.3	1 22	8 9.51	+ 7 24.0	1.939	2.907	4.2	18.6
2 1	8 1.26	- 4 22.7	3.420	4.330	5.6	25.3	2 1	8 1.40	+ 8 13.6	1.944	2.904	5.3	18.7
2 11	7 53.56	- 3 58.4	3.448	4.322	6.8	25.4	2 11	7 54.18	+ 9 9.9	1.978	2.901	8.3	18.9
2 21	7 46.87	- 3 25.5	3.504	4.314	8.4	25.5	2 21	7 48.62	+10 8.4	2.038	2.899	11.5	19.1
<b>284131</b>	2005 <i>UV</i> <sub>464</sub>		1 21.2	283 <sup>o</sup> 28	0 <sup>o</sup> 4/21.4	18	<b>19265</b>	1995 <i>SD</i> <sub>24</sub>		1 21.2	147 <sup>o</sup> 00	1 <sup>o</sup> 7/22.2	18
12 13	8 38.03	+16 33.0	1.452	2.240	18.8	21.0	12 13	8 36.79	+13 11.3	2.240	2.990	14.2	19.1
12 23	8 35.19	+16 53.3	1.359	2.229	15.2	20.7	12 23	8 32.67	+13 21.9	2.150	2.996	11.4	18.9
1 2	8 29.00	+17 28.4	1.286	2.218	10.6	20.4	1 2	8 26.35	+13 43.6	2.083	3.001	8.1	18.7
1 12	8 20.00	+18 15.5	1.236	2.208	5.4	20.1	1 12	8 18.36	+14 14.5	2.042	3.007	4.4	18.5
1 22	8 9.25	+19 8.9	1.213	2.197	0.6	19.7	1 22	8 9.45	+14 52.0	2.030	3.011	1.7	18.3
2 1	7 58.28	+20 1.8	1.216	2.186	6.1	20.1	2 1	8 0.57	+15 32.4	2.048	3.016	4.3	18.5
2 11	7 48.78	+20 48.4	1.245	2.175	11.5	20.4	2 11	7 52.67	+16 12.3	2.096	3.020	7.9	18.8
2 21	7 42.04	+21 25.1	1.297	2.164	16.3	20.6	2 21	7 46.51	+16 48.8	2.170	3.024	11.2	19.0
<b>495521</b>	2014 <i>VY</i> <sub>27</sub>		1 21.2	165 <sup>o</sup> 08	3 <sup>o</sup> 9/23.2	18	<b>457727</b>	2009 <i>FG</i> <sub>68</sub>		1 21.2	249 <sup>o</sup> 20	0 <sup>o</sup> 0/21.2	17
12 13	8 38.62	+ 8 6.9	2.293	3.019	14.5	21.9	12 13	8 38.67	+17 39.9	1.917	2.686	15.6	22.2
12 23	8 33.98	+ 7 41.7	2.200	3.024	12.0	21.7	12 23	8 34.86	+18 2.7	1.814	2.673	12.5	22.0
1 2	8 27.18	+ 7 28.4	2.128	3.028	9.0	21.6	1 2	8 28.30	+18 36.2	1.732	2.660	8.7	21.7
1 12	8 18.73	+ 7 27.5	2.083	3.032	5.9	21.4	1 12	8 19.51	+19 17.5	1.676	2.646	4.3	21.4
1 22	8 9.38	+ 7 38.1	2.066	3.035	4.0	21.3	1 22	8 9.35	+20 2.1	1.648	2.632	0.4	21.1
2 1	8 0.05	+ 7 58.4	2.079	3.037	5.2	21.3	2 1	7 58.99	+20 45.1	1.650	2.618	5.1	21.4
2 11	7 51.69	+ 8 25.3	2.122	3.039	8.2	21.5	2 11	7 49.73	+21 22.2	1.680	2.603	9.6	21.6
2 21	7 45.04	+ 8 55.8	2.191	3.041	11.2	21.7	2 21	7 42.60	+21 51.3	1.735	2.588	13.6	21.8
<b>51500</b>	2001 <i>FE</i> <sub>83</sub>												



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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>16823</b>	1997 <i>VE</i> <sub>6</sub>		1 21.2 108°21	0°5/21.5	18		<b>467989</b>	2012 <i>TU</i> <sub>42</sub>		1 21.2 126°82	3°4/23.3	18	
12 13	8 41.68	+17 14.7	1.672	2.444	17.4	19.4	12 13	8 34.81	+8 13.7	2.609	3.335	12.9	21.3
12 23	8 37.23	+17 24.6	1.597	2.458	13.8	19.2	12 23	8 30.73	+7 54.2	2.517	3.342	10.6	21.1
1 2	8 29.82	+17 45.2	1.543	2.471	9.6	18.9	1 2	8 24.82	+7 45.6	2.448	3.348	7.9	20.9
1 12	8 20.15	+18 13.2	1.513	2.483	4.8	18.7	1 12	8 17.56	+7 47.8	2.406	3.355	5.2	20.8
1 22	8 9.31	+18 44.2	1.512	2.496	0.6	18.4	1 22	8 9.57	+8 0.0	2.392	3.361	3.5	20.7
2 1	7 58.66	+19 13.8	1.539	2.508	5.3	18.8	2 1	8 1.62	+8 20.4	2.408	3.367	4.6	20.7
2 11	7 49.53	+19 38.4	1.594	2.520	9.8	19.1	2 11	7 54.48	+8 46.4	2.454	3.373	7.2	20.9
2 21	7 42.87	+19 56.4	1.674	2.531	13.8	19.3	2 21	7 48.78	+9 15.2	2.526	3.378	9.9	21.1
<b>218360</b>	2004 <i>GS</i> <sub>33</sub>		1 21.2 216°72	3°2/22.9	16		<b>60857</b>	2000 <i>HD</i> <sub>68</sub>		1 21.2 21°92	3°1/23.1	18	
12 13	8 37.34	+9 32.3	2.281	3.015	14.4	21.6	12 13	8 33.29	+8 0.5	1.474	2.246	19.3	18.9
12 23	8 33.15	+9 22.5	2.177	3.008	11.8	21.4	12 23	8 31.06	+8 38.4	1.397	2.251	15.8	18.6
1 2	8 26.75	+9 24.8	2.094	3.001	8.7	21.2	1 2	8 25.87	+9 40.5	1.338	2.258	11.5	18.4
1 12	8 18.60	+9 39.1	2.038	2.993	5.4	21.0	1 12	8 18.35	+11 4.7	1.302	2.265	6.7	18.2
1 22	8 9.44	+10 3.8	2.010	2.985	3.2	20.8	1 22	8 9.50	+12 45.1	1.293	2.273	3.1	18.0
2 1	8 0.19	+10 36.6	2.013	2.976	4.9	20.9	2 1	8 0.66	+14 32.8	1.311	2.281	5.7	18.1
2 11	7 51.83	+11 13.9	2.045	2.966	8.2	21.1	2 11	7 53.22	+16 18.5	1.356	2.290	10.4	18.4
2 21	7 45.15	+11 52.4	2.103	2.956	11.5	21.3	2 21	7 48.21	+17 54.6	1.425	2.300	14.6	18.7
<b>466221</b>	2012 <i>TW</i> <sub>29</sub>		1 21.2 156°42	1°2/20.5	17		<b>278932</b>	2008 <i>UE</i> <sub>13</sub>		1 21.2 131°47	0°4/21.4	18	
12 13	8 36.67	+22 49.6	2.825	3.585	11.3	22.4	12 13	8 37.04	+17 37.8	2.270	3.031	13.7	21.8
12 23	8 32.16	+23 12.5	2.734	3.590	8.9	22.3	12 23	8 32.87	+17 49.0	2.182	3.037	10.9	21.6
1 2	8 25.78	+23 39.1	2.668	3.596	6.1	22.1	1 2	8 26.50	+18 7.9	2.116	3.042	7.5	21.4
1 12	8 18.01	+24 6.3	2.631	3.600	3.0	21.9	1 12	8 18.45	+18 32.1	2.077	3.047	3.8	21.2
1 22	8 9.50	+24 31.1	2.623	3.605	1.3	21.8	1 22	8 9.51	+18 58.6	2.068	3.052	0.4	20.9
2 1	8 1.04	+24 50.8	2.647	3.609	4.0	22.0	2 1	8 0.62	+19 24.1	2.089	3.057	4.2	21.2
2 11	7 53.42	+25 3.9	2.701	3.613	6.9	22.2	2 11	7 52.74	+19 46.1	2.139	3.061	7.8	21.4
2 21	7 47.26	+25 9.9	2.782	3.617	9.6	22.3	2 21	7 46.62	+20 3.1	2.215	3.066	11.1	21.6
<b>9290</b>	1981 <i>TT</i>		1 21.2 128°39	2°6/22.4	18		<b>154655</b>	2004 <i>EZ</i> <sub>110</sub>		1 21.2 160°32	1°1/21.7	18	
12 13	8 42.31	+11 58.8	1.779	2.530	17.3	19.0	12 13	8 43.06	+15 37.8	1.907	2.662	16.1	21.2
12 23	8 37.47	+11 57.7	1.701	2.546	13.9	18.8	12 23	8 38.03	+15 47.0	1.820	2.670	12.9	21.0
1 2	8 29.87	+12 10.5	1.644	2.560	10.0	18.6	1 2	8 30.27	+16 6.9	1.755	2.677	9.0	20.8
1 12	8 20.15	+12 35.6	1.611	2.574	5.7	18.3	1 12	8 20.39	+16 35.1	1.716	2.683	4.7	20.5
1 22	8 9.34	+13 10.0	1.607	2.587	2.6	18.2	1 22	8 9.35	+17 7.8	1.705	2.689	1.1	20.3
2 1	7 58.67	+13 49.4	1.633	2.600	5.3	18.4	2 1	7 58.36	+17 40.9	1.725	2.693	4.9	20.6
2 11	7 49.40	+14 29.5	1.687	2.612	9.4	18.6	2 11	7 48.67	+18 11.0	1.774	2.697	9.2	20.8
2 21	7 42.42	+15 6.9	1.766	2.623	13.2	18.9	2 21	7 41.20	+18 35.8	1.848	2.699	12.9	21.1
<b>260915</b>	2005 <i>RD</i> <sub>19</sub>		1 21.2 24°08	1°9/20.4	18		<b>267087</b>	1999 <i>VJ</i> <sub>91</sub>		1 21.2 81°16	8°0/16.9	18	
12 13	8 38.63	+23 5.1	1.745	2.531	16.2	20.7	12 13	8 44.71	+40 24.9	2.030	2.800	14.8	20.0
12 23	8 34.96	+23 30.2	1.662	2.533	12.8	20.5	12 23	8 39.82	+41 44.2	1.969	2.815	12.3	19.9
1 2	8 28.37	+24 1.6	1.602	2.535	8.8	20.2	1 2	8 31.70	+42 57.0	1.932	2.830	9.8	19.7
1 12	8 19.50	+24 34.6	1.566	2.537	4.5	20.0	1 12	8 21.12	+43 54.2	1.920	2.844	8.2	19.7
1 22	8 9.39	+25 3.7	1.558	2.539	2.0	19.8	1 22	8 9.29	+44 28.6	1.934	2.858	8.2	19.7
2 1	7 59.35	+25 24.5	1.578	2.542	5.8	20.1	2 1	7 57.72	+44 36.3	1.976	2.873	9.8	19.8
2 11	7 50.73	+25 34.5	1.626	2.545	10.1	20.3	2 11	7 47.90	+44 18.5	2.042	2.887	12.0	20.0
2 21	7 44.52	+25 33.7	1.697	2.548	13.9	20.6	2 21	7 40.82	+43 39.8	2.131	2.901	14.3	20.2
<b>77625</b>	2001 <i>KS</i> <sub>43</sub>		1 21.2 178°85	1°2/20.4	18		<b>340721</b>	2006 <i>SB</i> <sub>85</sub>		1 21.2 306°36	5°1/18.3	17	
12 13	8 36.11	+20 44.0	2.486	3.251	12.5	19.9	12 13	8 38.80	+34 7.3	2.335	3.110	12.9	21.4
12 23	8 32.08	+21 30.2	2.393	3.251	9.9	19.7	12 23	8 34.64	+34 54.2	2.246	3.104	10.4	21.2
1 2	8 25.95	+22 23.5	2.323	3.252	6.7	19.5	1 2	8 27.93	+35 39.4	2.180	3.097	7.8	21.0
1 12	8 18.19	+23 20.2	2.282	3.252	3.3	19.3	1 12	8 19.23	+36 16.9	2.141	3.091	5.6	20.9
1 22	8 9.50	+24 15.7	2.270	3.252	1.3	19.1	1 22	8 9.44	+36 41.3	2.130	3.085	5.3	20.8
2 1	8 0.77	+25 5.8	2.290	3.252	4.4	19.4	2 1	7 59.66	+36 48.9	2.148	3.079	7.2	20.9
2 11	7 52.91	+25 47.3	2.339	3.252	7.8	19.6	2 11	7 51.06	+36 39.2	2.193	3.073	9.8	21.1
2 21	7 46.69	+26 19.0	2.414	3.251	10.8	19.8	2 21	7 44.51	+36 13.9	2.262	3.067	12.5	21.3
<b>3963</b>	Paradzhanov		1 21.2 59°97	0°4/21.0	18		<b>421230</b>	2013 <i>SZ</i> <sub>40</sub>		1 21.2 279°53	1°0/21.7	18	
12 13	8 40.23	+18 15.6	1.426	2.215	19.1	17.0	12 13	8 37.85	+16 53.0	1.949	2.716	15.4	21.1
12 23	8 36.48	+18 47.0	1.365	2.236	15.0	16.8	12 23	8 33.97	+16 47.6	1.854	2.712	12.3	20.8
1 2	8 29.48	+19 30.7	1.324	2.258	10.3	16.5	1 2	8 27.52	+16 50.9	1.782	2.708	8.6	20.6
1 12	8 20.01	+20 21.5	1.308	2.280	5.0	16.3	1 12	8 19.06	+17 0.9	1.735	2.704	4.5	20.3
1 22	8 9.36	+21 12.8	1.318	2.302	0.7	16.0	1 22	8 9.46	+17 15.0	1.717	2.700	1.0	20.1
2 1	7 59.03	+21 58.3	1.355	2.324	5.9	16.5	2 1	7 59.85	+17 30.1	1.727	2.696	4.8	20.3
2 11	7 50.51	+22 33.9	1.419	2.346	10.7	16.8	2 11	7 51.39	+17 43.7	1.766	2.692	9.0	20.6
2 21	7 44.76	+22 58.1	1.506	2.368	14.8	17.1	2 21	7 44.98	+17 53.9	1.830	2.688	12.7	20.8
<b>495958</b>	2007 <i>LV</i> <sub>12</sub>		1 21.2 175°37	5°8/25.0	16		<b>191040</b>	2002 <i>CU</i> <sub>25</sub>		1 21.2 133°96	16°4/17.3	18	
12 13	8 34.94	-0 3.1	2.605	3.292	13.8	22.4	12 13	9 9.63	+51 57.1	1.231	1.991	23.1	19.5
12 23	8 30.88	-0 28.6	2.507	3.294	11.8	22.2	12 23	9 3.38	+53 42.1	1.181	1.999	20.5	19.4
1 2	8 24.97	-0 38.8	2.431	3.295	9.5	22.0	1 2	8 49.98	+55 8.5	1.147	2.006	18.1	19.2
1 12	8 17.65	-0 32.4	2.379	3.296	7.3	21.9	1 12	8 30.64	+55 55.1	1.132	2.013	16.6	19.2
1 22	8 9.55	-0 9.3	2.355	3.297	5.9	21.8	1 22	8 8.52	+55 45.4	1.138	2.019	16.6	19.2
2 1	8 1.43	+0 28.9	2.361	3.297	6.3	21.8	2 1	7 47.89	+54 35.5	1.165	2.025	18.0	19.3
2 11	7 54.07	+1 18.7	2.395	3.297	8.1	22.0	2 11	7 32.30	+52 36.3	1.212	2.031	20.2	19.5
2 21	7 48.13	+2 16.0	2.455	3.297	10.5	22.1	2 21	7 23.15	+50 6.0	1.277	2.036	22.7	19.7
<b>104369</b>	2000 <i>FT</i> <sub>27</sub>		1 21.2 20°22	0°7/21.6	18		<b>165773</b>	2001 <i>QC</i> <sub>255</sub>		1 21.2 113°18	1°7/22.6	18	
12 13	8 35.68	+16 46.9	2.109	2.876	14.4	19.7	12 13						

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>486891</b>	2014 <i>KT</i> <sub>78</sub>		1 21.2 275°99	5°9/18.6	18		<b>280271</b>	2003 <i>AW</i> <sub>91</sub>		1 21.2 108°68	1°0/21.8	18	
12 13	8 41.88	+29 20.5	1.454	2.254	18.2	21.4	12 13	8 35.96	+15 49.1	2.467	3.220	12.9	21.6
12 23	8 38.61	+30 33.4	1.374	2.249	14.6	21.2	12 23	8 31.79	+15 54.4	2.381	3.230	10.3	21.4
1 2	8 31.55	+31 51.8	1.314	2.245	10.6	20.9	1 2	8 25.62	+16 7.6	2.318	3.240	7.2	21.2
1 12	8 21.35	+33 5.9	1.278	2.240	6.9	20.7	1 12	8 17.99	+16 26.9	2.282	3.249	3.7	21.0
1 22	8 9.26	+34 5.0	1.269	2.236	6.2	20.6	1 22	8 9.59	+16 49.8	2.276	3.259	1.0	20.8
2 1	7 57.10	+34 41.0	1.285	2.231	9.4	20.8	2 1	8 1.26	+17 13.7	2.300	3.268	3.8	21.0
2 11	7 46.79	+34 51.5	1.327	2.226	13.5	21.0	2 11	7 53.86	+17 36.1	2.354	3.277	7.2	21.3
2 21	7 39.68	+34 39.1	1.389	2.222	17.5	21.3	2 21	7 48.04	+17 55.2	2.434	3.286	10.2	21.5
<b>55278</b>	2001 <i>SP</i> <sub>17</sub>		1 21.2 240°83	0°7/20.8	18		<b>406031</b>	2006 <i>TA</i> <sub>89</sub>		1 21.2 109°21	7°4/17.6	17	
12 13	8 35.93	+20 46.7	2.574	3.337	12.2	20.0	12 13	8 47.73	+38 32.6	1.995	2.763	15.1	21.3
12 23	8 31.90	+21 9.2	2.470	3.328	9.7	19.8	12 23	8 42.11	+39 44.7	1.934	2.781	12.4	21.2
1 2	8 25.81	+21 37.4	2.390	3.318	6.6	19.6	1 2	8 33.22	+40 51.2	1.895	2.798	9.7	21.1
1 12	8 18.14	+22 8.5	2.338	3.309	3.3	19.4	1 12	8 21.85	+41 43.1	1.882	2.815	7.7	21.0
1 22	8 9.54	+22 39.2	2.316	3.299	0.9	19.2	1 22	8 9.27	+42 13.1	1.896	2.831	7.6	21.0
2 1	8 0.88	+23 6.2	2.324	3.289	4.1	19.4	2 1	7 57.02	+42 17.6	1.939	2.847	9.3	21.1
2 11	7 53.05	+23 27.3	2.362	3.279	7.5	19.6	2 11	7 46.57	+41 57.8	2.007	2.863	11.8	21.3
2 21	7 46.77	+23 41.2	2.426	3.268	10.6	19.8	2 21	7 38.93	+41 18.2	2.098	2.878	14.2	21.5
<b>447290</b>	2005 <i>WN</i> <sub>35</sub>		1 21.2 111°42	3°0/19.8	17		<b>363836</b>	2005 <i>QR</i> <sub>4</sub>		1 21.2 133°07	0°6/20.9	18	
12 13	8 45.44	+24 24.1	1.707	2.483	16.9	21.9	12 13	8 40.51	+20 27.9	2.278	3.037	13.7	22.2
12 23	8 40.26	+25 19.4	1.640	2.505	13.3	21.7	12 23	8 35.55	+20 48.2	2.196	3.051	10.8	22.0
1 2	8 31.93	+26 20.8	1.596	2.525	9.1	21.5	1 2	8 28.30	+21 14.5	2.137	3.064	7.4	21.8
1 12	8 21.22	+27 21.3	1.577	2.545	4.9	21.3	1 12	8 19.33	+21 43.5	2.106	3.076	3.6	21.6
1 22	8 9.30	+28 13.2	1.587	2.565	3.2	21.3	1 22	8 9.48	+22 11.3	2.105	3.088	0.8	21.4
2 1	7 57.65	+28 51.1	1.626	2.583	6.6	21.5	2 1	7 59.75	+22 34.7	2.134	3.099	4.4	21.7
2 11	7 47.69	+29 12.7	1.693	2.601	10.6	21.8	2 11	7 51.14	+22 51.6	2.193	3.110	8.0	21.9
2 21	7 40.41	+29 19.1	1.784	2.618	14.1	22.0	2 21	7 44.41	+23 1.2	2.279	3.120	11.2	22.2
<b>432192</b>	2009 <i>DW</i> <sub>44</sub>		1 21.2 313°21	2°9/23.1	17		<b>332973</b>	2011 <i>FG</i> <sub>3</sub>		1 21.2 182°12	3°8/23.9	18	
12 13	8 31.91	+ 8 35.6	2.122	2.871	14.9	20.8	12 13	8 34.91	+ 5 11.0	2.536	3.250	13.5	21.5
12 23	8 29.22	+ 8 58.2	2.010	2.851	12.2	20.5	12 23	8 30.97	+ 5 19.8	2.436	3.251	11.2	21.3
1 2	8 24.28	+ 9 37.6	1.918	2.831	9.0	20.3	1 2	8 25.10	+ 5 43.2	2.358	3.251	8.5	21.1
1 12	8 17.51	+10 33.3	1.852	2.811	5.5	20.0	1 12	8 17.77	+ 6 21.2	2.306	3.251	5.7	20.9
1 22	8 9.59	+11 42.4	1.814	2.792	2.9	19.8	1 22	8 9.61	+ 7 12.0	2.283	3.250	3.8	20.8
2 1	8 1.45	+13 0.5	1.806	2.773	4.8	19.9	2 1	8 1.39	+ 8 12.4	2.291	3.249	4.8	20.9
2 11	7 54.11	+14 21.7	1.826	2.754	8.5	20.1	2 11	7 53.96	+ 9 18.2	2.328	3.248	7.5	21.0
2 21	7 48.46	+15 40.6	1.872	2.736	12.2	20.3	2 21	7 47.97	+10 25.0	2.393	3.246	10.3	21.2
<b>106592</b>	2000 <i>WM</i> <sub>108</sub>		1 21.2 104°17	1°8/20.5	18		<b>184305</b>	2005 <i>ET</i> <sub>199</sub>		1 21.2 269°42	0°7/20.9	18	
12 13	8 44.21	+23 15.6	1.740	2.515	16.7	20.4	12 13	8 39.45	+20 11.9	1.785	2.563	16.2	21.3
12 23	8 39.15	+23 37.8	1.669	2.533	13.1	20.2	12 23	8 35.77	+20 27.6	1.683	2.548	13.0	21.0
1 2	8 31.08	+24 5.4	1.620	2.551	9.0	20.0	1 2	8 29.11	+20 52.0	1.601	2.532	9.0	20.7
1 12	8 20.77	+24 33.3	1.597	2.567	4.5	19.8	1 12	8 20.02	+21 21.6	1.545	2.516	4.5	20.4
1 22	8 9.35	+24 56.1	1.602	2.584	1.9	19.6	1 22	8 9.42	+21 51.6	1.517	2.500	0.9	20.1
2 1	7 58.21	+25 10.0	1.637	2.600	5.8	19.9	2 1	7 58.62	+22 17.4	1.517	2.484	5.6	20.4
2 11	7 48.71	+25 13.3	1.699	2.616	9.9	20.2	2 11	7 49.04	+22 35.5	1.545	2.468	10.3	20.7
2 21	7 41.76	+25 6.6	1.786	2.631	13.6	20.4	2 21	7 41.81	+22 44.9	1.597	2.451	14.4	20.9
<b>98103</b>	2000 <i>RX</i> <sub>86</sub>		1 21.2 33°70	0°0/21.3	18		<b>291200</b>	2006 <i>AO</i> <sub>73</sub>		1 21.2 291°27	1°5/21.9	18	
12 13	8 41.16	+20 15.6	1.400	2.193	19.2	19.3	12 13	8 36.50	+13 40.3	1.500	2.281	18.6	21.2
12 23	8 37.50	+20 3.7	1.325	2.198	15.3	19.1	12 23	8 33.88	+14 0.3	1.404	2.268	15.1	21.0
1 2	8 30.38	+19 59.5	1.270	2.204	10.6	18.8	1 2	8 28.09	+14 37.9	1.327	2.256	10.8	20.7
1 12	8 20.58	+19 59.8	1.238	2.209	5.2	18.5	1 12	8 19.61	+15 31.2	1.274	2.243	5.7	20.3
1 22	8 9.36	+20 0.9	1.232	2.216	0.4	18.2	1 22	8 9.45	+16 35.1	1.247	2.230	1.5	20.0
2 1	7 58.36	+19 59.2	1.253	2.223	6.0	18.6	2 1	7 59.02	+17 43.1	1.248	2.218	5.9	20.3
2 11	7 49.17	+19 52.9	1.300	2.230	11.1	18.9	2 11	7 49.93	+18 47.9	1.274	2.206	11.1	20.5
2 21	7 42.90	+19 41.7	1.370	2.237	15.6	19.2	2 21	7 43.42	+19 44.6	1.324	2.194	15.9	20.8
<b>196709</b>	2003 <i>SH</i> <sub>93</sub>		1 21.2 97°69	1°2/20.6	18		<b>364438</b>	2006 <i>WC</i> <sub>187</sub>		1 21.3 113°40	5°3/24.4	18	
12 13	8 38.91	+22 28.9	2.244	3.012	13.6	20.4	12 13	8 39.49	+ 2 59.0	2.253	2.956	15.3	21.8
12 23	8 34.34	+22 48.2	2.166	3.026	10.7	20.3	12 23	8 34.55	+ 2 34.8	2.177	2.979	12.8	21.6
1 2	8 27.47	+23 12.1	2.111	3.040	7.3	20.1	1 2	8 27.50	+ 2 26.4	2.121	3.002	10.0	21.5
1 12	8 18.91	+23 36.9	2.084	3.054	3.6	19.9	1 12	8 18.91	+ 2 34.6	2.091	3.023	7.2	21.3
1 22	8 9.50	+23 59.0	2.085	3.068	1.3	19.7	1 22	8 9.54	+ 2 58.8	2.089	3.044	5.4	21.3
2 1	8 0.25	+24 15.2	2.117	3.081	4.6	20.0	2 1	8 0.33	+ 3 36.3	2.117	3.064	6.1	21.3
2 11	7 52.14	+24 23.9	2.178	3.094	8.1	20.2	2 11	7 52.17	+ 4 23.2	2.173	3.084	8.4	21.5
2 21	7 45.92	+24 24.8	2.265	3.107	11.2	20.4	2 21	7 45.75	+ 5 14.9	2.256	3.102	11.1	21.7
<b>367823</b>	2011 <i>BD</i> <sub>6</sub>		1 21.2 75°66	0°5/20.9	18		<b>462616</b>	2009 <i>OB</i> <sub>25</sub>		1 21.3 89°84	4°0/19.5	18	
12 13	8 37.70	+18 27.7	1.866	2.640	15.7	21.1	12 13	8 44.99	+30 22.9	2.047	2.818	14.6	21.2
12 23	8 33.87	+19 3.4	1.790	2.654	12.4	20.9	12 23	8 39.36	+30 58.9	1.984	2.843	11.6	21.1
1 2	8 27.42	+19 49.2	1.737	2.667	8.5	20.7	1 2	8 30.99	+31 34.1	1.944	2.867	8.2	20.9
1 12	8 18.99	+20 40.9	1.709	2.680	4.1	20.5	1 12	8 20.65	+32 2.3	1.931	2.891	5.1	20.8
1 22	8 9.50	+21 33.3	1.710	2.693	0.7	20.2	1 22	8 9.40	+32 18.6	1.946	2.915	4.2	20.7
2 1	8 0.13	+22 21.2	1.740	2.706	5.0	20.6	2 1	7 58.53	+32 19.9	1.992	2.938	6.5	20.9
2 11	7 52.05	+23 0.7	1.798	2.720	9.1	20.9	2 11	7 49.21	+32 6.4	2.065	2.961	9.6	21.2
2 21	7 46.11	+23 30.3	1.880	2.733	12.7	21.1	2 21	7 42.25	+31 40.5	2.163	2.983	12.5	21.4
<b>478380</b>	2012 <i>AS</i> <sub>18</sub>		1 21.2 50°86	10°1/21.1	16		<b>124231</b>	2001 <i>PJ</i> <sub>25</sub>		1 21.3 78°77	4°1/19.4	18	
12 13	9 5.73	+41 34.3</											

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>467759</b>	2009 <i>UJ</i> <sub>135</sub>		1 21.3 140°46	5°6/17.9	18		<b>139372</b>	2001 <i>MD</i> <sub>17</sub>		1 21.3 190°69	1°9/20.1	18	
12 13	8 41.80	+33 56.3	2.194	2.968	13.7	21.4	12 13	8 40.43	+23 32.1	2.364	3.128	13.1	20.5
12 23	8 37.16	+35 5.5	2.118	2.975	11.1	21.2	12 23	8 35.67	+24 12.2	2.269	3.126	10.4	20.3
1 2	8 29.74	+36 13.6	2.065	2.981	8.3	21.0	1 2	8 28.54	+24 57.5	2.197	3.124	7.1	20.1
1 12	8 20.18	+37 13.4	2.039	2.987	6.1	20.9	1 12	8 19.56	+25 43.7	2.153	3.122	3.7	19.9
1 22	8 9.44	+37 58.0	2.041	2.992	5.9	20.9	1 22	8 9.52	+26 26.1	2.139	3.118	2.1	19.8
2 1	7 58.76	+38 23.3	2.072	2.998	7.8	21.0	2 1	7 59.43	+27 0.4	2.156	3.114	5.0	20.0
2 11	7 49.41	+38 28.2	2.130	3.003	10.5	21.2	2 11	7 50.35	+27 24.2	2.202	3.110	8.5	20.2
2 21	7 42.32	+38 15.0	2.212	3.007	13.1	21.4	2 21	7 43.11	+27 37.1	2.274	3.105	11.6	20.4
<b>318692</b>	2005 <i>QG</i> <sub>74</sub>		1 21.3 101°43	4°4/19.4	18		<b>88985</b>	2001 <i>TG</i> <sub>68</sub>		1 21.3 49°80	5°8/18.9	18	
12 13	8 44.51	+31 8.1	1.988	2.763	14.9	20.3	12 13	8 41.87	+29 5.5	1.353	2.158	19.1	18.8
12 23	8 39.21	+31 42.0	1.917	2.777	11.9	20.2	12 23	8 38.59	+30 14.5	1.288	2.167	15.2	18.6
1 2	8 31.04	+32 14.8	1.868	2.792	8.5	20.0	1 2	8 31.45	+31 27.5	1.243	2.175	10.9	18.3
1 12	8 20.74	+32 40.2	1.846	2.806	5.4	19.8	1 12	8 21.24	+32 34.5	1.221	2.184	6.9	18.1
1 22	8 9.40	+32 52.8	1.852	2.820	4.5	19.8	1 22	8 9.38	+33 25.4	1.225	2.194	6.0	18.1
2 1	7 58.35	+32 49.5	1.888	2.833	6.8	20.0	2 1	7 57.76	+33 52.9	1.255	2.203	9.2	18.3
2 11	7 48.87	+32 30.4	1.951	2.847	10.1	20.2	2 11	7 48.21	+33 56.0	1.309	2.213	13.3	18.6
2 21	7 41.83	+31 58.2	2.038	2.860	13.1	20.4	2 21	7 41.97	+33 38.0	1.384	2.223	17.1	18.8
<b>496600</b>	2015 <i>CK</i> <sub>56</sub>		1 21.3 324°56	5°0/24.3	15		<b>129504</b>	1995 <i>SU</i> <sub>8</sub>		1 21.3 143°40	0°7/21.6	18	
12 13	8 31.76	+ 4 5.0	2.074	2.806	15.7	21.5	12 13	8 40.99	+16 6.1	2.136	2.888	14.7	21.6
12 23	8 29.04	+ 3 57.4	1.971	2.794	13.2	21.3	12 23	8 36.08	+16 21.9	2.052	2.901	11.7	21.4
1 2	8 24.11	+ 4 7.5	1.889	2.783	10.2	21.1	1 2	8 28.76	+16 47.3	1.990	2.912	8.1	21.2
1 12	8 17.41	+ 4 36.2	1.831	2.773	7.2	20.9	1 12	8 19.62	+17 19.6	1.955	2.923	4.1	21.0
1 22	8 9.66	+ 5 22.5	1.799	2.763	5.1	20.7	1 22	8 9.52	+17 55.1	1.949	2.933	0.7	20.7
2 1	8 1.78	+ 6 23.4	1.796	2.753	6.0	20.7	2 1	7 59.50	+18 30.2	1.974	2.942	4.4	21.0
2 11	7 54.79	+ 7 33.8	1.820	2.744	8.9	20.9	2 11	7 50.63	+19 1.6	2.029	2.951	8.3	21.3
2 21	7 49.50	+ 8 48.0	1.870	2.735	12.2	21.1	2 21	7 43.71	+19 27.5	2.110	2.958	11.7	21.5
<b>178364</b>	1997 <i>AT</i> <sub>10</sub>		1 21.3 63°96	0°7/21.5	18		<b>322814</b>	2001 <i>SD</i> <sub>62</sub>		1 21.3 149°95	6°3/25.3	18	
12 13	8 40.86	+19 35.5	2.316	3.072	13.6	19.9	12 13	8 36.90	- 0 59.4	2.403	3.086	14.9	21.3
12 23	8 35.69	+19 4.0	2.229	3.080	10.8	19.8	12 23	8 32.55	- 1 22.3	2.313	3.095	12.8	21.1
1 2	8 28.31	+18 36.2	2.165	3.089	7.5	19.6	1 2	8 26.20	- 1 27.9	2.243	3.104	10.3	21.0
1 12	8 19.31	+18 10.6	2.129	3.098	3.8	19.4	1 12	8 18.32	- 1 14.6	2.198	3.112	7.9	20.8
1 22	8 9.52	+17 46.2	2.123	3.107	0.7	19.1	1 22	8 9.63	- 0 42.7	2.180	3.120	6.4	20.8
2 1	7 59.91	+17 22.0	2.149	3.116	4.1	19.4	2 1	8 0.95	+ 0 5.8	2.191	3.127	6.7	20.8
2 11	7 51.43	+16 57.6	2.203	3.125	7.7	19.6	2 11	7 53.15	+ 1 6.6	2.230	3.133	8.6	20.9
2 21	7 44.78	+16 32.8	2.285	3.134	10.9	19.9	2 21	7 46.92	+ 2 14.7	2.297	3.139	11.1	21.1
<b>289058</b>	2004 <i>TU</i> <sub>190</sub>		1 21.3 56°15	0°6/21.5	16		<b>2887</b>	Krinov		1 21.3 219°48	0°1/21.2	18	R
12 13	8 40.39	+16 50.1	1.333	2.124	20.0	21.3	12 13	8 40.79	+17 28.7	1.792	2.561	16.5	17.1
12 23	8 36.81	+17 3.1	1.272	2.144	15.9	21.0	12 23	8 36.73	+17 57.0	1.695	2.554	13.2	16.9
1 2	8 29.83	+17 29.8	1.231	2.163	11.0	20.8	1 2	8 29.73	+18 37.5	1.618	2.546	9.2	16.6
1 12	8 20.27	+18 6.1	1.212	2.183	5.5	20.6	1 12	8 20.32	+19 26.4	1.568	2.538	4.6	16.3
1 22	8 9.45	+18 46.2	1.220	2.203	0.7	20.3	1 22	8 9.45	+20 18.6	1.545	2.529	0.4	15.9
2 1	7 58.98	+19 24.4	1.254	2.224	5.9	20.7	2 1	7 58.42	+21 8.3	1.552	2.520	5.4	16.3
2 11	7 50.41	+19 56.1	1.314	2.245	11.0	21.0	2 11	7 48.61	+21 50.9	1.587	2.509	10.1	16.6
2 21	7 44.73	+20 19.2	1.397	2.265	15.3	21.3	2 21	7 41.14	+22 24.0	1.646	2.499	14.2	16.8
<b>110410</b>	2001 <i>TP</i> <sub>15</sub>		1 21.3 134°16	8°2/16.7	18		<b>214905</b>	2007 <i>TV</i> <sub>144</sub>		1 21.3 41°02	2°3/20.3	18	
12 13	8 48.03	+42 5.3	2.155	2.914	14.4	20.3	12 13	8 39.56	+23 2.6	1.448	2.246	18.4	20.1
12 23	8 42.42	+43 24.4	2.089	2.925	12.1	20.2	12 23	8 36.26	+23 36.3	1.377	2.253	14.6	19.9
1 2	8 33.52	+44 36.3	2.046	2.935	9.8	20.0	1 2	8 29.58	+24 18.1	1.325	2.261	10.0	19.6
1 12	8 22.07	+45 32.0	2.029	2.945	8.4	20.0	1 12	8 20.24	+25 1.9	1.297	2.269	5.1	19.4
1 22	8 9.30	+46 3.9	2.039	2.954	8.4	20.0	1 22	8 9.48	+25 40.6	1.296	2.277	2.5	19.2
2 1	7 56.74	+46 8.5	2.076	2.963	9.9	20.1	2 1	7 58.89	+26 8.4	1.321	2.285	6.7	19.5
2 11	7 45.93	+45 46.8	2.139	2.972	12.0	20.2	2 11	7 50.06	+26 22.4	1.373	2.294	11.4	19.8
2 21	7 37.91	+45 3.8	2.224	2.980	14.2	20.4	2 21	7 44.09	+26 23.0	1.447	2.304	15.5	20.1
<b>489616</b>	2007 <i>TJ</i> <sub>256</sub>		1 21.3 164°46	6°7/17.6	18		<b>492185</b>	2013 <i>QK</i> <sub>70</sub>		1 21.3 138°85	4°7/24.0	18	
12 13	8 47.01	+36 21.8	2.105	2.871	14.4	22.1	12 13	8 37.42	+ 4 17.5	2.571	3.275	13.6	21.6
12 23	8 41.52	+37 37.4	2.028	2.877	11.8	21.9	12 23	8 32.77	+ 3 47.0	2.483	3.287	11.4	21.5
1 2	8 32.89	+38 50.4	1.975	2.883	9.1	21.8	1 2	8 26.24	+ 3 29.2	2.416	3.298	8.8	21.3
1 12	8 21.79	+39 52.1	1.948	2.887	7.0	21.7	1 12	8 18.31	+ 3 25.0	2.375	3.309	6.3	21.2
1 22	8 9.32	+40 35.0	1.950	2.891	6.9	21.7	1 22	8 9.64	+ 3 34.1	2.364	3.319	4.8	21.1
2 1	7 56.92	+40 54.2	1.980	2.894	8.8	21.8	2 1	8 1.04	+ 3 55.0	2.382	3.329	5.5	21.1
2 11	7 46.07	+40 49.6	2.037	2.897	11.4	22.0	2 11	7 53.29	+ 4 24.8	2.429	3.338	7.7	21.3
2 21	7 37.82	+40 24.8	2.117	2.899	14.0	22.1	2 21	7 47.03	+ 5 0.2	2.503	3.347	10.2	21.5
<b>251227</b>	2006 <i>UT</i> <sub>234</sub>		1 21.3 22°21	6°9/22.9	18		<b>239435</b>	2007 <i>TB</i> <sub>163</sub>		1 21.3 80°09	2°1/22.5	18	
12 13	8 38.95	+ 9 56.4	1.270	2.050	21.5	19.0	12 13	8 35.33	+12 11.4	2.318	3.066	13.8	20.8
12 23	8 35.68	+ 8 16.2	1.207	2.062	17.7	18.8	12 23	8 31.39	+12 13.4	2.237	3.079	11.1	20.7
1 2	8 29.05	+ 6 49.8	1.162	2.076	13.5	18.6	1 2	8 25.41	+12 26.0	2.178	3.093	7.9	20.5
1 12	8 19.88	+ 5 41.6	1.139	2.090	9.3	18.4	1 12	8 17.94	+12 48.1	2.145	3.107	4.5	20.3
1 22	8 9.48	+ 4 54.5	1.141	2.107	7.0	18.3	1 22	8 9.68	+13 17.2	2.141	3.121	2.1	20.2
2 1	7 59.43	+ 4 28.8	1.168	2.124	8.6	18.5	2 1	8 1.52	+13 50.5	2.168	3.134	4.2	20.3
2 11	7 51.23	+ 4 21.8	1.219	2.143	12.3	18.7	2 11	7 54.33	+14 24.8	2.223	3.148	7.4	20.6
2 21	7 45.86	+ 4 28.4	1.291	2.163	16.1	19.0	2 21	7 48.77	+14 57.4	2.305	3.161	10.5	20.8
<b>501942</b>	2014 <i>XL</i> <sub>38</sub>		1 21.3 3°94	0°4/21.1	18		<b>179865</b>	2002 <i>TZ</i> <sub>274</sub>		1 21.3 33°51	0°1/21.2	18	
12 13	8 34.61	+18 33.2	1										

EPHEMERIDES

1 21.3

1 21.3

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>241593</b>	1998 KW <sub>42</sub>		1 21.3 326°95	0°4/21.5	18		<b>85572</b>	1998 BY <sub>28</sub>		1 21.3 262°35	1°8/20.5	18	
12 13	8 33.32	+15 43.4	2.329	3.091	13.3	20.7	12 13	8 40.60	+26 11.3	2.563	3.325	12.3	19.6
12 23	8 30.04	+16 17.8	2.232	3.087	10.6	20.5	12 23	8 35.63	+26 11.0	2.455	3.311	9.7	19.4
1 2	8 24.67	+17 2.8	2.158	3.083	7.4	20.3	1 2	8 28.42	+26 11.4	2.371	3.297	6.8	19.2
1 12	8 17.66	+17 55.8	2.111	3.080	3.7	20.0	1 12	8 19.49	+26 9.3	2.314	3.283	3.6	18.9
1 22	8 9.70	+18 52.9	2.093	3.077	0.4	19.7	1 22	8 9.60	+26 1.8	2.288	3.269	1.9	18.8
2 1	8 1.68	+19 49.7	2.105	3.073	4.1	20.0	2 1	7 59.69	+25 47.0	2.293	3.254	4.6	19.0
2 11	7 54.52	+20 42.4	2.146	3.070	7.7	20.2	2 11	7 50.75	+25 24.3	2.328	3.239	7.9	19.1
2 21	7 48.97	+21 28.0	2.214	3.067	11.0	20.4	2 21	7 43.55	+24 54.6	2.390	3.225	11.0	19.3
<b>131982</b>	2002 CQ <sub>73</sub>		1 21.3 353°17	0°1/21.3	18		<b>329643</b>	2003 ST <sub>174</sub>		1 21.3 92°92	1°0/21.8	18	
12 13	8 33.71	+16 42.5	1.227	2.036	20.4	19.9	12 13	8 37.72	+15 26.7	2.252	3.006	14.0	21.5
12 23	8 32.24	+17 10.0	1.149	2.031	16.4	19.6	12 23	8 33.31	+15 39.2	2.176	3.025	11.1	21.4
1 2	8 27.22	+17 55.0	1.089	2.027	11.4	19.3	1 2	8 26.75	+16 0.9	2.122	3.044	7.7	21.2
1 12	8 19.27	+18 53.3	1.051	2.024	5.7	19.0	1 12	8 18.61	+16 29.4	2.096	3.063	4.0	21.0
1 22	8 9.57	+19 58.2	1.038	2.022	0.4	18.6	1 22	8 9.69	+17 1.7	2.099	3.082	1.0	20.8
2 1	7 59.81	+21 1.0	1.050	2.021	6.5	19.0	2 1	8 0.91	+17 34.4	2.132	3.100	4.1	21.1
2 11	7 51.77	+21 54.8	1.086	2.021	12.2	19.3	2 11	7 53.20	+18 4.7	2.195	3.118	7.6	21.3
2 21	7 46.75	+22 35.6	1.143	2.022	17.1	19.6	2 21	7 47.24	+18 30.5	2.284	3.136	10.7	21.6
<b>49436</b>	1998 YX <sub>2</sub>		1 21.3 16°04	6°6/23.7	18		<b>159487</b>	2000 SD <sub>304</sub>		1 21.3 162°05	3°1/22.8	18	
12 13	8 35.41	+ 6 32.1	1.437	2.202	20.1	19.0	12 13	8 41.58	+10 17.9	2.209	2.940	14.9	20.2
12 23	8 32.73	+ 5 35.0	1.362	2.205	16.8	18.8	12 23	8 36.44	+10 5.6	2.118	2.948	12.1	20.0
1 2	8 27.03	+ 4 55.8	1.304	2.210	12.9	18.6	1 2	8 29.00	+10 5.0	2.048	2.955	8.9	19.8
1 12	8 18.97	+ 4 37.5	1.269	2.216	9.1	18.4	1 12	8 19.78	+10 15.6	2.005	2.961	5.4	19.6
1 22	8 9.62	+ 4 40.6	1.257	2.222	6.7	18.2	1 22	8 9.59	+10 35.7	1.991	2.966	3.1	19.5
2 1	8 0.35	+ 5 3.0	1.272	2.229	7.9	18.3	2 1	7 59.45	+11 2.8	2.008	2.971	4.9	19.6
2 11	7 52.57	+ 5 39.9	1.311	2.237	11.4	18.5	2 11	7 50.36	+11 33.5	2.055	2.975	8.3	19.8
2 21	7 47.28	+ 6 24.8	1.373	2.245	15.2	18.8	2 21	7 43.11	+12 5.0	2.128	2.977	11.5	20.0
<b>330807</b>	2008 UD <sub>361</sub>		1 21.3 350°71	5°8/23.1	18		<b>456589</b>	2007 DN <sub>60</sub>		1 21.3 274°39	5°3/19.0	18	
12 13	8 36.99	+ 7 48.7	1.858	2.603	16.8	19.5	12 13	8 43.77	+33 29.0	2.005	2.781	14.7	20.9
12 23	8 33.33	+ 6 38.6	1.767	2.599	14.1	19.3	12 23	8 39.11	+34 3.3	1.907	2.767	12.0	20.6
1 2	8 27.12	+ 5 39.9	1.695	2.595	10.8	19.1	1 2	8 31.37	+34 35.8	1.832	2.752	8.9	20.4
1 12	8 18.93	+ 4 55.0	1.648	2.592	7.7	18.9	1 12	8 21.14	+34 59.7	1.782	2.737	6.1	20.2
1 22	8 9.62	+ 4 25.6	1.628	2.590	5.8	18.8	1 22	8 9.48	+35 8.6	1.760	2.722	5.5	20.1
2 1	8 0.31	+ 4 11.8	1.636	2.588	7.0	18.9	2 1	7 57.78	+34 58.5	1.767	2.706	7.7	20.2
2 11	7 52.14	+ 4 11.5	1.670	2.587	10.1	19.0	2 11	7 47.51	+34 29.1	1.800	2.691	11.1	20.4
2 21	7 45.99	+ 4 21.5	1.729	2.586	13.4	19.2	2 21	7 39.75	+33 43.7	1.858	2.676	14.3	20.6
<b>306287</b>	2011 SX <sub>27</sub>		1 21.3 59°41	1°1/20.8	18		<b>469612</b>	2004 KP <sub>17</sub>		1 21.3 256°12	7°2/26.7	16	
12 13	8 41.35	+19 37.4	1.380	2.173	19.4	20.3	12 13	8 33.40	- 9 15.8	3.298	3.914	12.3	23.4
12 23	8 37.49	+20 13.9	1.323	2.196	15.3	20.1	12 23	8 29.48	- 9 48.9	3.172	3.890	11.0	23.2
1 2	8 30.26	+21 1.6	1.286	2.220	10.4	19.8	1 2	8 23.99	-10 6.7	3.066	3.865	9.6	23.1
1 12	8 20.49	+21 54.6	1.273	2.245	5.0	19.6	1 12	8 17.28	-10 6.9	2.984	3.839	8.2	23.0
1 22	8 9.51	+22 45.7	1.286	2.269	1.3	19.4	1 22	8 9.80	- 9 48.0	2.927	3.813	7.4	22.9
2 1	7 58.93	+23 28.5	1.326	2.294	6.2	19.8	2 1	8 2.15	- 9 10.3	2.899	3.787	7.4	22.8
2 11	7 50.26	+23 59.3	1.393	2.318	11.0	20.1	2 11	7 54.98	- 8 16.0	2.898	3.760	8.4	22.9
2 21	7 44.48	+24 17.4	1.483	2.343	15.0	20.4	2 21	7 48.88	- 7 8.7	2.924	3.732	9.9	22.9
<b>129296</b>	2005 SB <sub>117</sub>		1 21.3 38°53	12°5/15.2	18		<b>492925</b>	2014 RM <sub>34</sub>		1 21.3 194°21	3°6/19.4	18	
12 13	8 53.25	+51 19.5	1.822	2.571	17.0	19.9	12 13	8 42.07	+26 56.4	1.953	2.730	15.0	21.8
12 23	8 48.09	+52 53.4	1.764	2.573	15.1	19.7	12 23	8 37.62	+27 48.4	1.865	2.729	12.0	21.6
1 2	8 38.26	+54 12.9	1.725	2.576	13.5	19.6	1 2	8 30.25	+28 45.0	1.799	2.727	8.4	21.3
1 12	8 24.69	+55 5.5	1.709	2.578	12.6	19.6	1 12	8 20.56	+29 39.6	1.759	2.725	4.9	21.1
1 22	8 9.16	+55 21.4	1.716	2.581	12.8	19.6	1 22	8 9.53	+30 25.6	1.748	2.722	3.8	21.0
2 1	7 54.12	+54 56.9	1.746	2.584	14.0	19.7	2 1	7 58.47	+30 57.6	1.767	2.719	6.7	21.2
2 11	7 41.84	+53 55.9	1.797	2.588	15.8	19.8	2 11	7 48.72	+31 13.3	1.813	2.715	10.4	21.4
2 21	7 33.66	+52 27.1	1.868	2.591	17.6	19.9	2 21	7 41.32	+31 13.5	1.883	2.711	13.8	21.6
<b>304972</b>	2007 TF <sub>153</sub>		1 21.3 24°22	0°9/21.6	18 R		<b>202446</b>	2005 YQ <sub>91</sub>		1 21.3 210°49	0°6/21.6	18	
12 13	8 38.41	+17 49.6	1.346	2.142	19.6	19.9	12 13	8 39.68	+15 23.6	1.792	2.558	16.6	20.8
12 23	8 35.43	+17 38.9	1.273	2.147	15.7	19.6	12 23	8 35.81	+15 53.0	1.697	2.554	13.3	20.6
1 2	8 29.05	+17 39.1	1.220	2.154	10.9	19.4	1 2	8 29.07	+16 36.3	1.623	2.549	9.3	20.3
1 12	8 20.00	+17 47.8	1.190	2.161	5.6	19.1	1 12	8 20.02	+17 30.3	1.575	2.544	4.8	20.0
1 22	8 9.55	+18 0.9	1.185	2.169	1.0	18.8	1 22	8 9.57	+18 30.2	1.555	2.538	0.6	19.7
2 1	7 59.28	+18 14.5	1.206	2.177	6.0	19.2	2 1	7 58.99	+19 29.8	1.564	2.532	5.2	20.0
2 11	7 50.80	+18 25.2	1.253	2.186	11.1	19.5	2 11	7 49.62	+20 24.0	1.601	2.525	9.8	20.3
2 21	7 45.18	+18 31.2	1.322	2.196	15.6	19.8	2 21	7 42.51	+21 9.4	1.663	2.518	13.9	20.5
<b>336612</b>	2009 UL <sub>94</sub>		1 21.3 74°69	1°1/21.6	17		<b>95028</b>	2002 AY <sub>23</sub>		1 21.3 41°80	1°7/21.9	18	
12 13	8 45.24	+17 56.5	1.293	2.080	20.8	21.4	12 13	8 38.59	+15 15.2	1.294	2.087	20.4	19.4
12 23	8 40.74	+17 39.4	1.230	2.099	16.5	21.1	12 23	8 35.60	+15 12.3	1.228	2.099	16.4	19.1
1 2	8 32.58	+17 32.9	1.186	2.117	11.5	20.9	1 2	8 29.16	+15 24.3	1.180	2.111	11.5	18.9
1 12	8 21.66	+17 34.4	1.165	2.136	5.8	20.6	1 12	8 20.06	+15 48.8	1.155	2.124	6.0	18.6
1 22	8 9.43	+17 39.8	1.170	2.154	1.1	20.4	1 22	8 9.59	+16 21.1	1.155	2.138	1.7	18.4
2 1	7 57.64	+17 45.5	1.203	2.172	6.2	20.8	2 1	7 59.36	+16 55.9	1.181	2.152	6.0	18.7
2 11	7 47.94	+17 48.8	1.261	2.191	11.4	21.1	2 11	7 50.97	+17 28.1	1.233	2.166	11.2	19.0
2 21	7 41.40	+17 48.6	1.341	2.209	15.8	21.4	2 21	7 45.49	+17 54.6	1.306	2.181	15.7	19.3
<b>424375</b>	2007 VZ <sub>311</sub>		1 21.3 218°46	2°6/22.6	18		<b>146379</b>	2001 QS <sub>39</sub>		1 21.3 156°25	0°4/21.1	18	
12 13	8 35.69	+11 58.3	2.501	3.242	13.1	20.7	12 13	8 40.39	+19				

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>268546</b>	2006 <i>AD</i> <sub>73</sub>		1 21.3	92°75	0°0/21.3	18	<b>279408</b>	2010 <i>EO</i> <sub>121</sub>		1 21.3	214°73	0°7/21.7	17
12 13	8 37.40	+17 56.4	2.047	2.814	14.8	20.9	12 13	8 35.31	+16 12.1	2.521	3.276	12.6	21.8
12 23	8 33.44	+18 18.7	1.964	2.823	11.7	20.7	12 23	8 31.42	+16 26.4	2.422	3.272	10.1	21.6
1 2	8 27.07	+18 50.0	1.905	2.832	8.0	20.5	1 2	8 25.53	+16 48.9	2.346	3.269	7.0	21.4
1 12	8 18.87	+19 27.2	1.871	2.841	4.0	20.3	1 12	8 18.10	+17 17.7	2.297	3.265	3.6	21.2
1 22	8 9.68	+20 6.1	1.866	2.850	0.3	20.0	1 22	8 9.81	+17 50.0	2.278	3.261	0.7	21.0
2 1	8 0.57	+20 42.7	1.891	2.859	4.5	20.4	2 1	8 1.48	+18 22.7	2.289	3.257	3.8	21.2
2 11	7 52.61	+21 13.8	1.945	2.868	8.5	20.6	2 11	7 53.98	+18 53.0	2.330	3.253	7.3	21.4
2 21	7 46.59	+21 37.5	2.024	2.877	11.9	20.8	2 21	7 48.00	+19 19.0	2.398	3.249	10.4	21.6
<b>26168</b>	Kanaikiyotaka		1 21.3	206°61	2°4/22.2	18	<b>76608</b>	2000 <i>GK</i> <sub>163</sub>		1 21.3	5°80	3°3/22.8	18
12 13	8 41.95	+13 25.0	1.831	2.585	16.7	19.8	12 13	8 36.30	+11 14.6	2.112	2.861	14.9	18.3
12 23	8 37.45	+13 15.1	1.733	2.580	13.6	19.5	12 23	8 32.48	+10 45.0	2.020	2.861	12.2	18.1
1 2	8 30.12	+13 16.8	1.657	2.575	9.8	19.3	1 2	8 26.39	+10 25.8	1.950	2.861	8.9	17.9
1 12	8 20.51	+13 29.4	1.605	2.569	5.5	19.0	1 12	8 18.57	+10 17.1	1.904	2.862	5.5	17.7
1 22	8 9.55	+13 50.3	1.582	2.562	2.4	18.8	1 22	8 9.79	+10 18.2	1.887	2.862	3.3	17.6
2 1	7 58.49	+14 16.1	1.588	2.555	5.3	19.0	2 1	8 1.02	+10 27.3	1.900	2.863	5.0	17.7
2 11	7 48.66	+14 43.4	1.622	2.547	9.7	19.2	2 11	7 53.28	+10 41.8	1.940	2.864	8.4	17.9
2 21	7 41.08	+15 9.1	1.681	2.538	13.7	19.4	2 21	7 47.33	+10 59.0	2.006	2.865	11.7	18.1
<b>201389</b>	2002 <i>VB</i> <sub>19</sub>		1 21.3	10°10	0°6/20.9	18	<b>65565</b>	2300 <i>T</i> <sub>-2</sub>		1 21.3	85°74	4°5/23.9	18
12 13	8 34.24	+19 32.3	1.812	2.598	15.7	19.7	12 13	8 37.29	+ 5 50.9	2.000	2.730	16.2	20.3
12 23	8 31.36	+19 54.3	1.730	2.600	12.4	19.5	12 23	8 33.22	+ 5 40.3	1.925	2.749	13.4	20.1
1 2	8 25.87	+20 25.2	1.670	2.603	8.5	19.3	1 2	8 26.84	+ 5 46.2	1.870	2.768	10.1	19.9
1 12	8 18.35	+21 1.5	1.635	2.606	4.2	19.0	1 12	8 18.75	+ 6 8.6	1.840	2.787	6.8	19.8
1 22	8 9.73	+21 38.5	1.627	2.611	0.7	18.8	1 22	8 9.79	+ 6 45.7	1.838	2.805	4.6	19.7
2 1	8 1.16	+22 11.8	1.648	2.616	5.1	19.1	2 1	8 0.97	+ 7 33.9	1.865	2.823	5.7	19.8
2 11	7 53.83	+22 38.0	1.696	2.621	9.3	19.4	2 11	7 53.29	+ 8 28.6	1.920	2.841	8.6	20.0
2 21	7 48.62	+22 55.5	1.768	2.628	13.0	19.6	2 21	7 47.49	+ 9 25.0	2.001	2.859	11.8	20.2
<b>278164</b>	2007 <i>DZ</i> <sub>38</sub>		1 21.3	258°84	6°0/18.3	18	<b>450450</b>	2005 <i>UE</i> <sub>453</sub>		1 21.3	34°60	1°3/21.7	17
12 13	8 43.38	+35 17.4	2.096	2.870	14.3	20.6	12 13	8 39.18	+17 5.0	1.138	1.945	21.9	21.7
12 23	8 38.73	+36 5.9	2.003	2.859	11.6	20.4	12 23	8 36.51	+16 53.7	1.077	1.956	17.5	21.4
1 2	8 31.06	+36 52.1	1.933	2.848	8.8	20.2	1 2	8 30.02	+16 56.1	1.034	1.969	12.2	21.2
1 12	8 20.98	+37 28.6	1.889	2.837	6.5	20.0	1 12	8 20.58	+17 9.4	1.012	1.983	6.2	20.9
1 22	8 9.53	+37 48.9	1.873	2.826	6.2	20.0	1 22	8 9.65	+17 29.0	1.014	1.997	1.3	20.6
2 1	7 58.06	+37 48.7	1.885	2.814	8.2	20.1	2 1	7 59.08	+17 49.7	1.041	2.013	6.5	21.0
2 11	7 47.99	+37 27.6	1.924	2.803	11.1	20.2	2 11	7 50.61	+18 7.2	1.093	2.029	12.0	21.4
2 21	7 40.37	+36 48.7	1.987	2.791	14.0	20.4	2 21	7 45.39	+18 19.3	1.165	2.045	16.8	21.7
<b>234404</b>	2001 <i>RF</i> <sub>14</sub>		1 21.3	132°37	0°2/21.4	18	<b>323821</b>	2005 <i>SU</i> <sub>30</sub>		1 21.3	190°77	5°9/24.7	18
12 13	8 36.25	+17 33.7	2.807	3.557	11.6	21.7	12 13	8 36.76	+ 1 13.2	2.348	3.045	14.9	21.6
12 23	8 31.80	+17 51.0	2.721	3.569	9.2	21.5	12 23	8 32.63	+ 0 46.9	2.249	3.044	12.7	21.4
1 2	8 25.56	+18 14.6	2.658	3.581	6.3	21.4	1 2	8 26.41	+ 0 36.5	2.170	3.043	10.1	21.3
1 12	8 18.01	+18 42.5	2.624	3.593	3.1	21.2	1 12	8 18.58	+ 0 43.8	2.116	3.040	7.6	21.1
1 22	8 9.78	+19 11.9	2.620	3.604	0.3	20.9	1 22	8 9.81	+ 1 8.7	2.089	3.038	6.0	21.0
2 1	8 1.60	+19 40.1	2.647	3.614	3.5	21.2	2 1	8 0.98	+ 1 49.5	2.092	3.035	6.5	21.0
2 11	7 54.24	+20 5.0	2.705	3.625	6.5	21.5	2 11	7 53.00	+ 2 42.2	2.123	3.031	8.7	21.1
2 21	7 48.29	+20 25.3	2.790	3.634	9.3	21.6	2 21	7 46.61	+ 3 42.1	2.180	3.027	11.4	21.3
<b>399844</b>	2005 <i>UD</i> <sub>93</sub>		1 21.3	190°06	1°8/22.0	18	<b>47359</b>	1999 <i>XJ</i> <sub>69</sub>		1 21.3	49°37	0°1/21.4	18
12 13	8 42.85	+14 30.0	1.902	2.654	16.2	21.8	12 13	8 40.29	+17 54.8	1.218	2.019	21.0	19.0
12 23	8 38.02	+14 25.1	1.807	2.654	13.1	21.6	12 23	8 37.25	+18 7.0	1.154	2.031	16.7	18.7
1 2	8 30.42	+14 31.0	1.733	2.652	9.3	21.3	1 2	8 30.49	+18 33.1	1.108	2.043	11.6	18.5
1 12	8 20.63	+14 46.1	1.684	2.650	5.1	21.1	1 12	8 20.82	+19 8.6	1.084	2.056	5.7	18.2
1 22	8 9.57	+15 7.7	1.665	2.647	1.8	20.8	1 22	8 9.64	+19 47.2	1.085	2.069	0.4	17.8
2 1	7 58.47	+15 32.4	1.675	2.643	5.1	21.1	2 1	7 58.74	+20 22.5	1.112	2.083	6.4	18.3
2 11	7 48.60	+15 56.8	1.714	2.638	9.4	21.3	2 11	7 49.86	+20 50.0	1.164	2.097	11.9	18.7
2 21	7 40.93	+16 18.6	1.779	2.632	13.2	21.5	2 21	7 44.15	+21 7.8	1.238	2.111	16.5	19.0
<b>205021</b>	1997 <i>YS</i> <sub>12</sub>		1 21.3	3°61	0°7/21.0	18	<b>242186</b>	2003 <i>KO</i> <sub>9</sub>		1 21.3	241°02	2°6/22.3	18
12 13	8 35.00	+18 33.0	1.238	2.048	20.2	20.1	12 13	8 41.55	+13 43.3	1.845	2.600	16.6	21.0
12 23	8 33.23	+19 1.4	1.164	2.047	16.1	19.9	12 23	8 37.23	+13 20.6	1.740	2.588	13.5	20.7
1 2	8 27.88	+19 44.6	1.108	2.047	11.1	19.6	1 2	8 30.06	+13 8.0	1.657	2.575	9.8	20.5
1 12	8 19.61	+20 37.9	1.075	2.048	5.5	19.3	1 12	8 20.57	+13 5.2	1.598	2.561	5.6	20.2
1 22	8 9.66	+21 33.9	1.066	2.049	0.9	18.9	1 22	8 9.66	+13 10.5	1.567	2.547	2.6	20.0
2 1	7 59.75	+22 24.8	1.082	2.052	6.6	19.3	2 1	7 58.57	+13 21.6	1.566	2.533	5.5	20.1
2 11	7 51.63	+23 4.9	1.123	2.056	12.1	19.6	2 11	7 48.65	+13 35.7	1.592	2.517	9.8	20.4
2 21	7 46.54	+23 31.6	1.185	2.061	16.9	19.9	2 21	7 40.94	+13 50.1	1.644	2.502	13.9	20.6
<b>119686</b>	2001 <i>XY</i> <sub>116</sub>		1 21.3	91°82	3°6/19.2	18	<b>94413</b>	2001 <i>TN</i> <sub>20</sub>		1 21.3	176°12	2°9/20.1	18
12 13	8 41.95	+26 57.1	2.046	2.820	14.6	19.8	12 13	8 45.48	+26 17.4	1.814	2.589	16.1	19.9
12 23	8 37.10	+28 0.5	1.981	2.844	11.4	19.7	12 23	8 40.41	+26 43.7	1.728	2.591	12.8	19.7
1 2	8 29.60	+29 7.0	1.940	2.867	8.0	19.5	1 2	8 32.23	+27 13.3	1.664	2.593	8.9	19.5
1 12	8 20.12	+30 10.1	1.926	2.891	4.7	19.3	1 12	8 21.58	+27 40.5	1.626	2.594	4.9	19.2
1 22	8 9.66	+31 3.3	1.942	2.914	3.8	19.3	1 22	8 9.59	+27 59.4	1.616	2.594	3.1	19.1
2 1	7 59.40	+31 42.0	1.987	2.936	6.3	19.5	2 1	7 57.69	+28 5.8	1.636	2.594	6.4	19.3
2 11	7 50.52	+32 4.6	2.060	2.958	9.5	19.8	2 11	7 47.33	+27 58.5	1.683	2.594	10.5	19.6
2 21	7 43.86	+32 12.0	2.158	2.979	12.5	20.0	2 21	7 39.55	+27 39.2	1.755	2.592	14.2	19.8
<b>1994</b>	Shane		1 21.3	131°89	4°0/23.4	18	<b>207716</b>	Wangxichan		1 21.3	166°44	0°1/21.3	18
12 13	8 38.96	+ 7 36.9	2.342	3.063	14.4	17.3	12 13						

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>431479</b>	2007 <i>TJ</i> <sub>25</sub>		1 21.3	79°07'	5°7'/25.0	18	<b>447394</b>	2006 <i>BX</i> <sub>75</sub>		1 21.3	34°17'	1°0'/20.8	15
12 13	8 34.93	+ 1 8.0	2.360	3.061	14.8	21.7	12 13	8 36.65	+17 42.5	1.179	1.989	21.1	21.5
12 23	8 31.00	+ 0 42.9	2.282	3.080	12.5	21.6	12 23	8 34.55	+18 33.8	1.117	2.000	16.7	21.2
1 2	8 25.15	+ 0 34.0	2.225	3.098	9.9	21.4	1 2	8 28.75	+19 42.5	1.074	2.013	11.4	21.0
1 12	8 17.88	+ 0 42.5	2.193	3.116	7.4	21.3	1 12	8 20.03	+21 2.0	1.053	2.026	5.6	20.7
1 22	8 9.89	+ 1 7.8	2.187	3.135	5.8	21.2	1 22	8 9.73	+22 22.6	1.056	2.040	1.3	20.4
2 1	8 2.00	+ 1 47.6	2.210	3.153	6.2	21.3	2 1	7 59.65	+23 34.8	1.086	2.055	6.8	20.9
2 11	7 55.03	+ 2 38.1	2.262	3.171	8.2	21.5	2 11	7 51.53	+24 31.9	1.139	2.070	12.2	21.2
2 21	7 49.61	+ 3 34.6	2.340	3.189	10.6	21.6	2 21	7 46.55	+25 11.4	1.214	2.086	16.9	21.5
<b>185788</b>	1999 <i>VL</i> <sub>57</sub>		1 21.3	171°22'	2°4'/22.3	18	<b>333802</b>	2011 <i>HY</i> <sub>75</sub>		1 21.3	40°74'	3°0'/23.1	18
12 13	8 43.26	+13 1.3	1.810	2.561	17.0	21.1	12 13	8 34.11	+ 9 4.2	2.111	2.856	15.0	20.5
12 23	8 38.43	+12 52.6	1.721	2.566	13.8	20.9	12 23	8 30.80	+ 9 13.4	2.021	2.860	12.3	20.3
1 2	8 30.75	+12 56.3	1.652	2.569	9.9	20.7	1 2	8 25.28	+ 9 37.3	1.953	2.863	9.0	20.1
1 12	8 20.83	+13 11.1	1.609	2.572	5.6	20.4	1 12	8 18.06	+10 15.0	1.910	2.867	5.5	19.9
1 22	8 9.66	+13 34.5	1.593	2.574	2.4	20.2	1 22	8 9.90	+11 4.0	1.895	2.871	3.0	19.8
2 1	7 58.50	+14 2.8	1.608	2.575	5.3	20.4	2 1	8 1.72	+12 0.3	1.909	2.875	4.7	19.9
2 11	7 48.65	+14 32.3	1.651	2.575	9.6	20.7	2 11	7 54.52	+12 59.3	1.952	2.880	8.2	20.1
2 21	7 41.11	+15 0.0	1.719	2.575	13.5	20.9	2 21	7 49.05	+13 56.6	2.022	2.884	11.5	20.3
<b>132429</b>	2002 <i>GH</i> <sub>153</sub>		1 21.3	180°04'	3°0'/19.5	18	<b>369383</b>	2009 <i>US</i> <sub>152</sub>		1 21.3	76°44'	2°7'/19.8	18
12 13	8 42.16	+25 19.1	2.190	2.958	13.9	20.9	12 13	8 39.40	+24 11.8	1.930	2.709	15.1	21.0
12 23	8 37.34	+26 18.5	2.100	2.959	11.0	20.7	12 23	8 35.26	+25 4.3	1.860	2.727	11.9	20.8
1 2	8 29.91	+27 23.4	2.034	2.961	7.7	20.4	1 2	8 28.45	+26 2.4	1.813	2.744	8.1	20.7
1 12	8 20.40	+28 28.0	1.995	2.961	4.3	20.2	1 12	8 19.63	+27 0.2	1.793	2.762	4.4	20.5
1 22	8 9.69	+29 26.0	1.986	2.961	3.2	20.2	1 22	8 9.78	+27 51.7	1.801	2.779	2.8	20.4
2 1	7 58.92	+30 12.0	2.007	2.959	5.9	20.3	2 1	8 0.09	+28 31.8	1.839	2.796	5.9	20.6
2 11	7 49.27	+30 43.4	2.057	2.958	9.4	20.5	2 11	7 51.75	+28 58.0	1.904	2.813	9.5	20.9
2 21	7 41.69	+31 0.0	2.133	2.955	12.6	20.7	2 21	7 45.61	+29 10.6	1.994	2.830	12.7	21.1
<b>7313</b>	Pisano		1 21.3	238°92'	1°3'/21.9	18	<b>252041</b>	2000 <i>QP</i> <sub>175</sub>		1 21.3	167°12'	1°0'/21.8	18
12 13	8 38.46	+15 37.9	1.921	2.685	15.7	19.4	12 13	8 39.49	+16 28.3	2.290	3.042	13.8	21.1
12 23	8 34.59	+15 38.1	1.825	2.680	12.6	19.2	12 23	8 34.84	+16 25.8	2.197	3.045	11.0	20.9
1 2	8 28.10	+15 48.6	1.750	2.675	8.9	19.0	1 2	8 27.94	+16 31.0	2.127	3.049	7.7	20.7
1 12	8 19.53	+16 7.6	1.701	2.669	4.7	18.7	1 12	8 19.34	+16 42.1	2.084	3.051	4.0	20.5
1 22	8 9.76	+16 32.0	1.680	2.663	1.3	18.4	1 22	8 9.81	+16 56.6	2.070	3.054	1.0	20.3
2 1	7 59.92	+16 58.5	1.689	2.657	4.8	18.7	2 1	8 0.32	+17 12.0	2.088	3.055	4.2	20.5
2 11	7 51.22	+17 23.5	1.725	2.651	9.1	18.9	2 11	7 51.84	+17 26.0	2.134	3.057	7.9	20.7
2 21	7 44.59	+17 44.8	1.786	2.645	12.9	19.1	2 21	7 45.14	+17 37.0	2.207	3.058	11.1	20.9
<b>449098</b>	2012 <i>UN</i> <sub>89</sub>		1 21.3	17°20'	8°6'/17.8	17	<b>38337</b>	1999 <i>RP</i> <sub>136</sub>		1 21.3	49°79'	5°3'/19.5	18
12 13	8 38.57	+31 53.5	1.087	1.915	21.3	20.9	12 13	8 45.60	+33 56.6	1.811	2.591	16.0	17.9
12 23	8 37.10	+33 31.5	1.030	1.919	17.2	20.7	12 23	8 40.48	+34 18.3	1.740	2.601	12.8	17.7
1 2	8 31.11	+35 12.5	0.991	1.924	12.8	20.5	1 2	8 32.17	+34 36.0	1.690	2.611	9.4	17.5
1 12	8 21.39	+36 42.7	0.973	1.931	9.3	20.3	1 12	8 21.47	+34 42.8	1.666	2.622	6.3	17.4
1 22	8 9.61	+37 47.8	0.978	1.938	9.0	20.3	1 22	8 9.66	+34 33.3	1.669	2.632	5.4	17.4
2 1	7 58.08	+38 18.6	1.006	1.947	12.0	20.5	2 1	7 58.24	+34 5.1	1.700	2.644	7.7	17.5
2 11	7 49.08	+38 14.6	1.056	1.956	16.2	20.7	2 11	7 48.62	+33 19.8	1.758	2.655	10.9	17.7
2 21	7 44.01	+37 42.0	1.124	1.967	20.0	21.0	2 21	7 41.74	+32 21.6	1.841	2.666	14.1	18.0
<b>464967</b>	2005 <i>WU</i> <sub>188</sub>		1 21.3	37°49'	3°8'/19.4	18	<b>64599</b>	2001 <i>XD</i> <sub>19</sub>		1 21.3	195°38'	4°4'/19.2	18
12 13	8 37.92	+23 59.0	1.392	2.197	18.7	20.2	12 13	8 43.78	+28 22.8	1.819	2.598	15.9	19.1
12 23	8 34.99	+25 16.6	1.340	2.220	14.6	20.0	12 23	8 39.29	+29 18.8	1.732	2.597	12.7	18.9
1 2	8 28.70	+26 42.5	1.308	2.245	10.0	19.8	1 2	8 31.62	+30 18.7	1.668	2.595	9.0	18.7
1 12	8 19.85	+28 7.5	1.301	2.270	5.5	19.6	1 12	8 21.38	+31 15.1	1.629	2.592	5.5	18.5
1 22	8 9.75	+29 22.0	1.320	2.296	4.1	19.6	1 22	8 9.66	+32 0.3	1.619	2.589	4.6	18.4
2 1	7 59.99	+30 18.8	1.365	2.322	7.5	19.8	2 1	7 57.90	+32 28.6	1.637	2.586	7.4	18.6
2 11	7 52.09	+30 54.6	1.437	2.350	11.7	20.2	2 11	7 47.62	+32 37.9	1.683	2.582	11.2	18.8
2 21	7 47.03	+31 10.6	1.530	2.377	15.4	20.4	2 21	7 39.95	+32 29.8	1.752	2.577	14.7	19.0
<b>35573</b>	1998 <i>HH</i> <sub>9</sub>		1 21.3	41°14'	0°8'/21.8	18	<b>182989</b>	2002 <i>OE</i> <sub>13</sub>		1 21.3	84°30'	3°7'/23.4	17
12 13	8 35.42	+13 54.1	1.621	2.399	17.6	17.8	12 13	8 40.89	+ 7 42.3	1.851	2.587	17.2	21.0
12 23	8 32.47	+14 36.2	1.551	2.414	14.0	17.6	12 23	8 36.12	+ 7 48.4	1.787	2.618	14.0	20.8
1 2	8 26.72	+15 34.4	1.501	2.430	9.7	17.3	1 2	8 28.85	+ 8 11.5	1.743	2.649	10.2	20.7
1 12	8 18.84	+16 44.8	1.476	2.446	5.0	17.1	1 12	8 19.76	+ 8 50.3	1.725	2.679	6.4	20.5
1 22	8 9.82	+18 1.3	1.479	2.462	0.8	16.8	1 22	8 9.81	+ 9 41.4	1.734	2.708	3.7	20.4
2 1	8 0.94	+19 16.7	1.509	2.479	5.1	17.2	2 1	8 0.13	+10 40.1	1.773	2.737	5.3	20.6
2 11	7 53.44	+20 25.0	1.567	2.497	9.6	17.5	2 11	7 51.81	+11 41.1	1.841	2.765	8.8	20.8
2 21	7 48.24	+21 22.3	1.649	2.514	13.5	17.8	2 21	7 45.59	+12 39.7	1.935	2.793	12.1	21.1
<b>217973</b>	2001 <i>VA</i> <sub>31</sub>		1 21.3	124°02'	3°0'/19.6	18	<b>14996</b>	1997 <i>VY</i> <sub>2</sub>		1 21.3	107°03'	0°3'/21.2	18
12 13	8 41.77	+26 38.0	2.280	3.047	13.4	20.9	12 13	8 39.85	+18 34.9	1.975	2.742	15.3	18.9
12 23	8 36.74	+27 27.1	2.205	3.064	10.6	20.7	12 23	8 35.45	+18 59.5	1.898	2.756	12.1	18.7
1 2	8 29.27	+28 19.1	2.153	3.080	7.4	20.5	1 2	8 28.52	+19 32.9	1.843	2.770	8.3	18.5
1 12	8 19.98	+29 8.6	2.130	3.095	4.2	20.4	1 12	8 19.67	+20 11.5	1.814	2.784	4.1	18.3
1 22	8 9.75	+29 50.2	2.136	3.110	3.1	20.3	1 22	8 9.81	+20 50.8	1.814	2.798	0.4	18.0
2 1	7 59.64	+30 20.1	2.173	3.124	5.6	20.5	2 1	8 0.09	+21 26.5	1.844	2.811	4.7	18.4
2 11	7 50.73	+30 36.6	2.238	3.138	8.8	20.7	2 11	7 51.62	+21 55.6	1.902	2.824	8.7	18.6
2 21	7 43.81	+30 40.3	2.329	3.151	11.6	20.9	2 21	7 45.23	+22 16.5	1.986	2.836	12.2	18.9
<b>282791</b>	2006 <i>NA</i>		1 21.3	187°74'	5°9'/25.3	18	<b>56813</b>	2000 <i>PN</i> <sub>22</sub>		1 21.3	190°92'	1°3'/20.4	18
12 13	8 33.72	- 0 43.0	2.631	3.316									

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>171970</b>	2001 <i>TJ</i> <sub>118</sub>		1 21.3	15°75	9°3/24.7	18	<b>292064</b>	2006 <i>RS</i> <sub>12</sub>		1 21.3	187°27	3°2/22.9	18
12 13	8 36.34	- 1 17.3	1.915	2.618	17.7	18.9	12 13	8 39.68	+10 16.1	2.153	2.889	15.1	22.0
12 23	8 32.70	- 2 59.3	1.835	2.623	15.4	18.8	12 23	8 35.17	+10 2.7	2.056	2.889	12.3	21.8
1 2	8 26.66	- 4 24.9	1.774	2.629	12.9	18.6	1 2	8 28.30	+10 1.2	1.980	2.888	9.0	21.6
1 12	8 18.78	- 5 29.1	1.736	2.636	10.7	18.5	1 12	8 19.60	+10 11.5	1.930	2.887	5.6	21.4
1 22	8 9.89	- 6 8.5	1.724	2.643	9.4	18.4	1 22	8 9.86	+10 31.9	1.909	2.885	3.2	21.2
2 1	8 1.03	- 6 22.1	1.737	2.651	9.8	18.5	2 1	8 0.07	+11 0.0	1.918	2.882	5.0	21.3
2 11	7 53.28	- 6 12.5	1.775	2.660	11.5	18.6	2 11	7 51.29	+11 32.2	1.957	2.879	8.5	21.5
2 21	7 47.45	- 5 44.8	1.836	2.669	13.8	18.7	2 21	7 44.34	+12 5.5	2.021	2.875	11.9	21.7
<b>286645</b>	2002 <i>ED</i> <sub>59</sub>		1 21.3	247°57	2°2/20.5	18	<b>451432</b>	2011 <i>SV</i> <sub>3</sub>		1 21.3	77°23	4°0/23.1	17
12 13	8 42.81	+24 26.5	1.717	2.499	16.6	20.9	12 13	8 41.63	+ 9 11.7	1.560	2.314	19.2	21.5
12 23	8 38.59	+24 42.7	1.624	2.491	13.3	20.6	12 23	8 37.21	+ 8 58.6	1.497	2.340	15.6	21.3
1 2	8 31.19	+25 3.8	1.551	2.483	9.2	20.3	1 2	8 29.86	+ 9 3.0	1.454	2.366	11.4	21.1
1 12	8 21.20	+25 24.8	1.504	2.474	4.8	20.1	1 12	8 20.35	+ 9 24.2	1.434	2.391	7.0	20.9
1 22	8 9.70	+25 40.2	1.484	2.465	2.3	19.9	1 22	8 9.81	+ 9 59.2	1.441	2.416	4.0	20.8
2 1	7 58.16	+25 45.7	1.493	2.457	6.2	20.1	2 1	7 59.59	+10 43.5	1.476	2.441	6.0	21.0
2 11	7 48.08	+25 39.6	1.530	2.447	10.7	20.3	2 11	7 50.96	+11 31.7	1.538	2.465	9.9	21.2
2 21	7 40.61	+25 22.7	1.590	2.438	14.8	20.6	2 21	7 44.82	+12 18.9	1.625	2.489	13.7	21.5
<b>25331</b>	Berrevoets		1 21.3	173°39	0°7/21.8	18	<b>223757</b>	2004 <i>RA</i> <sub>230</sub>		1 21.3	200°64	0°9/21.8	18
12 13	8 38.27	+15 57.7	2.523	3.270	12.8	20.0	12 13	8 37.45	+16 6.9	2.162	2.921	14.3	21.7
12 23	8 33.71	+16 12.4	2.427	3.273	10.2	19.9	12 23	8 33.47	+16 13.2	2.067	2.920	11.5	21.5
1 2	8 27.10	+16 35.4	2.355	3.276	7.1	19.7	1 2	8 27.15	+16 28.7	1.995	2.918	8.0	21.3
1 12	8 18.93	+17 4.6	2.310	3.278	3.7	19.4	1 12	8 19.04	+16 51.3	1.949	2.917	4.2	21.0
1 22	8 9.90	+17 37.1	2.296	3.279	0.7	19.2	1 22	8 9.91	+17 18.1	1.931	2.915	0.9	20.8
2 1	8 0.85	+18 9.7	2.312	3.280	3.8	19.5	2 1	8 0.75	+17 45.8	1.944	2.913	4.3	21.1
2 11	7 52.69	+18 39.9	2.359	3.280	7.3	19.7	2 11	7 52.61	+18 11.3	1.986	2.911	8.2	21.3
2 21	7 46.11	+19 5.6	2.433	3.280	10.4	19.9	2 21	7 46.30	+18 32.7	2.053	2.908	11.7	21.5
<b>432053</b>	2008 <i>YY</i>		1 21.3	46°85	5°9/23.7	18	<b>289668</b>	2005 <i>GN</i> <sub>137</sub>		1 21.3	229°14	1°7/20.6	18 R
12 13	8 40.06	+ 6 25.4	1.800	2.535	17.6	20.5	12 13	8 42.97	+21 26.9	1.542	2.326	18.1	22.2
12 23	8 35.46	+ 5 19.3	1.738	2.563	14.6	20.4	12 23	8 39.13	+21 59.7	1.449	2.318	14.5	21.9
1 2	8 28.38	+ 4 28.3	1.697	2.592	11.2	20.2	1 2	8 31.83	+22 42.9	1.378	2.310	10.0	21.7
1 12	8 19.52	+ 3 54.3	1.681	2.621	7.9	20.1	1 12	8 21.65	+23 31.0	1.330	2.302	5.1	21.4
1 22	8 9.86	+ 3 37.9	1.691	2.650	6.0	20.0	1 22	8 9.70	+24 17.1	1.310	2.293	1.9	21.1
2 1	8 0.53	+ 3 37.8	1.730	2.680	6.9	20.1	2 1	7 57.58	+24 54.5	1.318	2.283	6.6	21.4
2 11	7 52.57	+ 3 50.6	1.795	2.709	9.6	20.4	2 11	7 47.00	+25 19.1	1.352	2.273	11.6	21.6
2 21	7 46.74	+ 4 12.1	1.885	2.739	12.6	20.6	2 21	7 39.25	+25 30.2	1.410	2.263	16.1	21.9
<b>293377</b>	2007 <i>EN</i> <sub>25</sub>		1 21.3	222°04	3°3/22.8	18	<b>224237</b>	2005 <i>SB</i> <sub>99</sub>		1 21.3	264°90	5°3/18.8	17
12 13	8 40.18	+10 29.7	1.802	2.552	17.1	21.4	12 13	8 44.51	+33 5.4	2.084	2.856	14.4	20.3
12 23	8 36.19	+10 22.0	1.702	2.544	14.0	21.2	12 23	8 39.75	+33 46.9	1.978	2.835	11.7	20.1
1 2	8 29.38	+10 29.1	1.623	2.536	10.3	20.9	1 2	8 31.93	+34 27.9	1.895	2.814	8.7	19.8
1 12	8 20.28	+10 50.7	1.568	2.527	6.2	20.7	1 12	8 21.59	+35 1.4	1.839	2.793	6.0	19.6
1 22	8 9.79	+11 24.7	1.540	2.518	3.3	20.5	1 22	8 9.71	+35 20.7	1.810	2.771	5.4	19.5
2 1	7 59.12	+12 7.3	1.542	2.508	5.6	20.6	2 1	7 57.66	+35 21.1	1.811	2.749	7.7	19.6
2 11	7 49.61	+12 53.8	1.571	2.497	9.9	20.8	2 11	7 46.90	+35 1.7	1.838	2.726	11.0	19.8
2 21	7 42.30	+13 39.8	1.625	2.486	13.9	21.0	2 21	7 38.57	+34 25.0	1.890	2.703	14.3	20.0
<b>304870</b>	2007 <i>RS</i> <sub>137</sub>		1 21.3	142°26	0°3/21.5	18	<b>372403</b>	2009 <i>RN</i> <sub>12</sub>		1 21.3	203°45	5°9/18.1	18
12 13	8 42.30	+17 40.1	1.985	2.744	15.4	22.1	12 13	8 44.48	+35 59.4	2.244	3.011	13.6	21.8
12 23	8 37.39	+17 53.9	1.902	2.755	12.3	21.9	12 23	8 39.39	+36 53.6	2.157	3.008	11.1	21.7
1 2	8 29.87	+18 16.7	1.841	2.766	8.5	21.7	1 2	8 31.43	+37 45.0	2.093	3.004	8.5	21.5
1 12	8 20.36	+18 45.3	1.807	2.776	4.2	21.5	1 12	8 21.22	+38 26.5	2.056	3.000	6.4	21.3
1 22	8 9.79	+19 15.9	1.801	2.785	0.4	21.2	1 22	8 9.75	+38 51.8	2.048	2.995	6.1	21.3
2 1	7 59.33	+19 44.5	1.826	2.794	4.7	21.5	2 1	7 58.32	+38 56.8	2.068	2.991	8.0	21.4
2 11	7 50.12	+20 8.3	1.880	2.802	8.8	21.8	2 11	7 48.25	+38 41.3	2.115	2.985	10.6	21.6
2 21	7 43.05	+20 25.7	1.960	2.809	12.4	22.0	2 21	7 40.51	+38 8.3	2.186	2.980	13.3	21.7
<b>124202</b>	2001 <i>OT</i> <sub>85</sub>		1 21.3	171°90	0°9/21.8	18	<b>234231</b>	2000 <i>SX</i> <sub>235</sub>		1 21.3	183°77	2°0/22.4	18
12 13	8 41.25	+14 47.1	1.824	2.584	16.6	20.3	12 13	8 40.81	+12 32.0	2.146	2.888	14.9	21.7
12 23	8 36.92	+15 13.6	1.735	2.587	13.3	20.0	12 23	8 36.11	+12 40.1	2.049	2.889	12.1	21.5
1 2	8 29.79	+15 53.7	1.667	2.590	9.3	19.8	1 2	8 28.99	+13 0.1	1.974	2.889	8.6	21.3
1 12	8 20.43	+16 44.3	1.624	2.592	4.8	19.5	1 12	8 19.96	+13 30.6	1.926	2.889	4.9	21.0
1 22	8 9.78	+17 40.7	1.610	2.594	0.9	19.2	1 22	8 9.85	+14 8.7	1.906	2.887	2.0	20.8
2 1	7 59.09	+18 37.3	1.626	2.595	5.0	19.5	2 1	7 59.67	+14 50.6	1.918	2.885	4.6	21.0
2 11	7 49.65	+19 29.1	1.671	2.595	9.5	19.8	2 11	7 50.53	+15 32.6	1.958	2.881	8.4	21.2
2 21	7 42.46	+20 13.0	1.740	2.595	13.4	20.1	2 21	7 43.27	+16 11.4	2.026	2.877	11.9	21.5
<b>503737</b>	2016 <i>LQ</i> <sub>24</sub>		1 21.3	54°38	1°4/22.2	18	<b>488459</b>	1995 <i>UN</i> <sub>55</sub>		1 21.3	162°45	7°2/17.7	18
12 13	8 34.04	+13 37.2	2.345	3.099	13.5	21.6	12 13	8 48.80	+38 34.5	2.088	2.851	14.7	22.5
12 23	8 30.53	+13 53.9	2.256	3.104	10.8	21.4	12 23	8 43.06	+39 40.0	2.012	2.856	12.1	22.3
1 2	8 24.99	+14 21.2	2.189	3.109	7.6	21.2	1 2	8 34.07	+40 40.7	1.959	2.862	9.5	22.2
1 12	8 17.91	+14 57.4	2.149	3.114	4.1	21.0	1 12	8 22.54	+41 27.8	1.933	2.866	7.5	22.1
1 22	8 9.98	+15 39.3	2.137	3.120	1.4	20.8	1 22	8 9.66	+41 54.1	1.934	2.870	7.4	22.1
2 1	8 2.06	+16 23.6	2.156	3.125	4.0	21.0	2 1	7 56.95	+41 55.5	1.963	2.873	9.1	22.2
2 11	7 55.04	+17 6.6	2.204	3.130	7.4	21.2	2 11	7 45.92	+41 32.6	2.019	2.876	11.6	22.3
2 21	7 49.60	+17 45.7	2.279	3.136	10.6	21.4	2 21	7 37.62	+40 50.0	2.098	2.878	14.2	22.5
<b>206860</b>	2004 <i>FJ</i> <sub>56</sub>		1 21.3	253°91	0°2/21.2	18	<b>61978</b>	2000 <i>RN</i> <sub>28</sub>		1 21.3	184°87	2°6/22.7	18
12 13	8 39.87	+17 25.3	1.559										

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>12976</b>	Kalinenkov		1 21.3 145°09	1.2/21.9	18		<b>398120</b>	2010 AM <sub>61</sub>		1 21.3 30°02	1.6/20.7	17	
12 13	8 41.04	+14 52.0	2.090	2.840	15.0	18.9	12 13	8 37.22	+19 36.0	1.085	1.903	21.9	21.1
12 23	8 36.24	+15 1.2	2.005	2.851	12.0	18.7	12 23	8 35.36	+20 17.1	1.025	1.913	17.4	20.9
1 2	8 29.02	+15 20.8	1.941	2.861	8.4	18.5	1 2	8 29.52	+21 13.4	0.983	1.924	11.9	20.6
1 12	8 19.93	+15 48.5	1.904	2.871	4.5	18.3	1 12	8 20.52	+22 18.0	0.962	1.936	5.9	20.3
1 22	8 9.86	+16 21.2	1.897	2.880	1.2	18.1	1 22	8 9.84	+23 21.6	0.966	1.949	1.8	20.1
2 1	7 59.85	+16 55.1	1.920	2.888	4.5	18.3	2 1	7 59.43	+24 15.0	0.994	1.963	7.3	20.5
2 11	7 50.99	+17 26.9	1.972	2.895	8.4	18.6	2 11	7 51.19	+24 52.8	1.045	1.978	12.9	20.8
2 21	7 44.10	+17 54.3	2.051	2.902	11.8	18.8	2 21	7 46.34	+25 13.9	1.117	1.993	17.7	21.2
<b>209905</b>	2005 NC <sub>2</sub>		1 21.3 162°16	0.4/21.6	17		<b>493201</b>	2014 UK <sub>40</sub>		1 21.3 145°46	0.0/21.3	18	
12 13	8 35.11	+17 20.5	2.894	3.644	11.3	21.7	12 13	8 39.16	+17 47.0	2.250	3.007	13.9	21.9
12 23	8 30.96	+17 34.2	2.799	3.648	8.9	21.5	12 23	8 34.67	+18 13.3	2.163	3.016	11.0	21.8
1 2	8 25.08	+17 54.3	2.729	3.651	6.2	21.4	1 2	8 27.90	+18 48.2	2.099	3.024	7.6	21.6
1 12	8 17.89	+18 18.7	2.686	3.654	3.1	21.2	1 12	8 19.39	+19 28.6	2.063	3.032	3.8	21.3
1 22	8 10.01	+18 45.1	2.673	3.657	0.4	20.9	1 22	8 9.93	+20 10.5	2.056	3.040	0.3	21.0
2 1	8 2.13	+19 11.0	2.692	3.660	3.4	21.2	2 1	8 0.51	+20 49.9	2.080	3.047	4.3	21.4
2 11	7 55.00	+19 34.2	2.741	3.662	6.4	21.4	2 11	7 52.14	+21 23.8	2.133	3.053	8.0	21.6
2 21	7 49.21	+19 53.4	2.818	3.664	9.1	21.6	2 21	7 45.58	+21 50.5	2.212	3.059	11.3	21.8
<b>496671</b>	2016 CY <sub>34</sub>		1 21.3 206°96	3.4/22.9	18		<b>83048</b>	2001 QF <sub>196</sub>		1 21.3 240°48	1.8/20.7	18	
12 13	8 38.23	+9 46.3	2.137	2.875	15.1	21.8	12 13	8 45.36	+25 45.0	2.035	2.801	14.9	19.9
12 23	8 34.08	+9 31.3	2.038	2.871	12.4	21.6	12 23	8 40.02	+25 37.5	1.934	2.792	11.9	19.7
1 2	8 27.60	+9 28.7	1.960	2.867	9.2	21.4	1 2	8 31.85	+25 30.9	1.856	2.783	8.3	19.4
1 12	8 19.29	+9 38.4	1.907	2.863	5.7	21.1	1 12	8 21.44	+25 21.3	1.804	2.773	4.3	19.2
1 22	8 9.91	+9 59.0	1.883	2.858	3.4	21.0	1 22	8 9.78	+25 5.2	1.782	2.763	1.9	19.0
2 1	8 0.46	+10 28.0	1.889	2.852	5.1	21.1	2 1	7 58.16	+24 40.5	1.790	2.753	5.4	19.2
2 11	7 51.99	+11 2.0	1.924	2.847	8.5	21.3	2 11	7 47.85	+24 7.2	1.827	2.743	9.4	19.4
2 21	7 45.32	+11 37.6	1.984	2.840	11.9	21.5	2 21	7 39.85	+23 27.0	1.890	2.732	13.1	19.6
<b>74079</b>	1998 NS		1 21.3 230°40	0.8/21.7	18		<b>249559</b>	3079 P-L		1 21.3 95°93	0.2/21.4	18	
12 13	8 42.79	+17 43.8	2.214	2.964	14.3	20.0	12 13	8 43.76	+18 14.7	2.070	2.824	15.0	21.3
12 23	8 37.75	+17 34.0	2.103	2.951	11.5	19.8	12 23	8 38.18	+18 24.0	2.003	2.854	11.9	21.1
1 2	8 30.18	+17 30.6	2.015	2.937	8.1	19.5	1 2	8 30.17	+18 40.7	1.959	2.883	8.1	20.9
1 12	8 20.60	+17 31.9	1.954	2.922	4.2	19.3	1 12	8 20.42	+19 1.7	1.942	2.911	4.0	20.7
1 22	8 9.81	+17 35.4	1.922	2.906	0.8	19.0	1 22	8 9.88	+19 23.6	1.955	2.939	0.3	20.5
2 1	7 58.89	+17 39.0	1.922	2.889	4.5	19.2	2 1	7 59.63	+19 43.1	1.999	2.966	4.4	20.9
2 11	7 48.96	+17 40.6	1.951	2.872	8.6	19.4	2 11	7 50.73	+19 58.1	2.072	2.992	8.2	21.1
2 21	7 40.95	+17 39.4	2.007	2.854	12.2	19.6	2 21	7 43.90	+20 7.8	2.171	3.018	11.4	21.4
<b>338302</b>	2002 UE <sub>74</sub>		1 21.3 134°16	1.9/22.6	16		<b>411247</b>	2010 RP <sub>75</sub>		1 21.3 97°80	2.0/20.3	18	
12 13	8 36.31	+12 15.6	2.801	3.535	12.0	22.7	12 13	8 42.84	+22 52.2	1.997	2.765	15.1	22.1
12 23	8 31.85	+12 17.1	2.713	3.547	9.6	22.5	12 23	8 37.76	+23 37.1	1.931	2.791	11.8	22.0
1 2	8 25.65	+12 27.3	2.648	3.560	6.9	22.4	1 2	8 30.07	+24 27.7	1.887	2.816	8.1	21.8
1 12	8 18.16	+12 45.1	2.611	3.571	4.0	22.2	1 12	8 20.45	+25 18.6	1.871	2.840	4.1	21.6
1 22	8 10.01	+13 8.7	2.604	3.583	1.9	22.1	1 22	8 9.88	+26 4.4	1.884	2.864	2.1	21.5
2 1	8 1.92	+13 35.9	2.628	3.594	3.6	22.2	2 1	7 59.54	+26 40.4	1.927	2.888	5.3	21.8
2 11	7 54.61	+14 4.1	2.682	3.604	6.5	22.4	2 11	7 50.60	+27 4.5	1.999	2.910	9.0	22.0
2 21	7 48.68	+14 31.3	2.764	3.614	9.2	22.6	2 21	7 43.84	+27 16.7	2.096	2.932	12.2	22.3
<b>1535</b>	Päijänne		1 21.3 173°41	1.3/22.2	18	R	<b>445954</b>	2013 AL <sub>86</sub>		1 21.3 40°41	0.1/21.3	18	
12 13	8 35.67	+14 32.5	3.027	3.765	11.1	17.4	12 13	8 42.43	+20 18.9	1.341	2.135	19.8	21.1
12 23	8 31.28	+14 31.6	2.929	3.768	8.9	17.2	12 23	8 38.74	+20 4.8	1.268	2.141	15.8	20.8
1 2	8 25.24	+14 37.6	2.854	3.770	6.3	17.0	1 2	8 31.46	+19 58.5	1.214	2.147	10.9	20.6
1 12	8 17.97	+14 49.2	2.807	3.771	3.4	16.9	1 12	8 21.37	+19 57.0	1.183	2.154	5.4	20.3
1 22	8 10.02	+15 4.8	2.791	3.773	1.3	16.7	1 22	8 9.81	+19 56.1	1.178	2.162	0.4	19.9
2 1	8 2.09	+15 22.5	2.807	3.774	3.3	16.9	2 1	7 58.47	+19 52.5	1.199	2.169	6.1	20.4
2 11	7 54.86	+15 40.3	2.853	3.774	6.2	17.0	2 11	7 49.06	+19 44.3	1.247	2.177	11.4	20.7
2 21	7 48.89	+15 56.8	2.927	3.774	8.8	17.2	2 21	7 42.68	+19 31.3	1.316	2.185	16.0	21.0
<b>413566</b>	2005 TH <sub>86</sub>		1 21.3 44°80	0.3/21.4	18		<b>463992</b>	2014 WK <sub>51</sub>		1 21.3 322°15	6.4/17.7	18	
12 13	8 38.09	+18 7.0	1.792	2.568	16.2	21.5	12 13	8 40.66	+33 34.5	1.892	2.678	15.2	21.6
12 23	8 34.44	+18 14.9	1.709	2.572	12.9	21.3	12 23	8 36.92	+34 51.7	1.812	2.676	12.3	21.4
1 2	8 28.05	+18 32.1	1.648	2.577	8.9	21.0	1 2	8 30.06	+36 9.3	1.755	2.674	9.2	21.2
1 12	8 19.55	+18 55.7	1.611	2.582	4.5	20.8	1 12	8 20.68	+37 18.7	1.723	2.672	6.8	21.0
1 22	8 9.91	+19 21.7	1.603	2.587	0.4	20.5	1 22	8 9.85	+38 11.7	1.719	2.671	6.6	21.0
2 1	8 0.34	+19 46.3	1.623	2.592	5.0	20.8	2 1	7 58.99	+38 42.4	1.742	2.669	8.8	21.1
2 11	7 52.08	+20 6.4	1.671	2.597	9.3	21.1	2 11	7 49.59	+38 49.4	1.790	2.668	11.9	21.3
2 21	7 46.04	+20 20.2	1.743	2.603	13.2	21.4	2 21	7 42.75	+38 35.3	1.862	2.666	14.8	21.5
<b>178136</b>	2006 TJ <sub>55</sub>		1 21.3 64°04	1.5/22.1	18		<b>351666</b>	2006 AE <sub>23</sub>		1 21.3 58°05	0.9/20.9	18	
12 13	8 37.26	+13 12.9	1.677	2.447	17.4	20.0	12 13	8 38.84	+17 42.1	1.385	2.178	19.3	21.3
12 23	8 33.87	+13 37.3	1.601	2.459	14.0	19.8	12 23	8 35.87	+18 34.3	1.314	2.187	15.3	21.0
1 2	8 27.71	+14 17.3	1.545	2.470	9.8	19.5	1 2	8 29.51	+19 42.3	1.262	2.196	10.5	20.8
1 12	8 19.40	+15 9.9	1.514	2.481	5.2	19.3	1 12	8 20.45	+21 0.2	1.234	2.206	5.2	20.5
1 22	8 9.93	+16 10.3	1.510	2.493	1.5	19.1	1 22	8 9.88	+22 19.5	1.232	2.216	1.1	20.2
2 1	8 0.54	+17 12.5	1.535	2.505	5.1	19.3	2 1	7 59.39	+23 31.6	1.258	2.226	6.3	20.6
2 11	7 52.50	+18 11.0	1.587	2.517	9.5	19.6	2 11	7 50.61	+24 30.2	1.310	2.236	11.4	20.9
2 21	7 46.74	+19 1.9	1.664	2.529	13.4	19.9	2 21	7 44.67	+25 13.0	1.384	2.247	15.8	21.2
<b>243474</b>	2009 SH <sub>264</sub>		1 21.3 97°94	2.9/23.1	18		<b>285337</b>	1999 GZ <sub>56</sub>		1 21.3 284°55	5.0/24.1	17	
12 13	8 38.42	+8 58.4	2.225	2.956	14.8	21.3	12 13	8 33.76	+4 23.4	2.383	3.102	14.2	21.0
1													



EPHEMERIDES

1 21.3

1 21.4

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>80900</b>	2000 <i>DQ</i> <sub>54</sub>		1 21.3 64°58	1.7°/20.7	18		<b>457108</b>	2008 <i>FR</i> <sub>6</sub>		1 21.3 294°62	1.1°/21.9	17	
12 13	8 41.36	+23 9.2	1.654	2.439	17.0	19.5	12 13	8 35.95	+14 39.0	1.757	2.530	16.6	21.7
12 23	8 37.27	+23 25.2	1.579	2.448	13.5	19.3	12 23	8 33.08	+14 59.6	1.655	2.515	13.4	21.5
1 2	8 30.12	+23 46.9	1.525	2.458	9.2	19.1	1 2	8 27.41	+15 34.6	1.573	2.500	9.5	21.2
1 12	8 20.61	+24 9.6	1.496	2.467	4.7	18.8	1 12	8 19.43	+16 21.8	1.516	2.485	5.0	20.9
1 22	8 9.88	+24 28.2	1.495	2.477	1.8	18.7	1 22	8 10.00	+17 17.1	1.487	2.470	1.1	20.6
2 1	7 59.36	+24 38.5	1.522	2.487	5.8	19.0	2 1	8 0.33	+18 14.8	1.486	2.455	5.2	20.8
2 11	7 50.42	+24 38.9	1.576	2.497	10.2	19.2	2 11	7 51.76	+19 9.6	1.512	2.441	9.9	21.1
2 21	7 44.05	+24 29.7	1.653	2.507	14.1	19.5	2 21	7 45.39	+19 57.3	1.562	2.427	14.2	21.3
<b>283501</b>	2001 <i>SW</i> <sub>263</sub>		1 21.3 143°50	10°9/26.1	18		<b>347941</b>	2003 <i>FQ</i> <sub>130</sub>		1 21.3 246°05	4°4/19.3	18	
12 13	8 42.97	- 7 19.6	1.982	2.633	18.6	21.2	12 13	8 42.45	+27 12.2	1.683	2.469	16.7	21.4
12 23	8 37.88	- 8 55.5	1.902	2.645	16.5	21.1	12 23	8 38.66	+28 11.3	1.590	2.459	13.4	21.1
1 2	8 30.23	-10 11.1	1.840	2.656	14.3	21.0	1 2	8 31.51	+29 16.8	1.519	2.449	9.5	20.9
1 12	8 20.61	-11 0.6	1.800	2.666	12.2	20.8	1 12	8 21.55	+30 21.1	1.473	2.438	5.7	20.6
1 22	8 9.88	-11 20.4	1.785	2.675	11.0	20.8	1 22	8 9.85	+31 15.7	1.454	2.426	4.6	20.5
2 1	7 59.17	-11 10.0	1.796	2.684	11.1	20.8	2 1	7 57.95	+31 53.4	1.463	2.415	7.8	20.7
2 11	7 49.62	-10 33.0	1.832	2.692	12.5	20.9	2 11	7 47.51	+32 11.0	1.499	2.403	12.0	20.9
2 21	7 42.11	- 9 35.9	1.891	2.699	14.5	21.1	2 21	7 39.81	+32 9.7	1.558	2.391	15.9	21.1
<b>164588</b>	2007 <i>PP</i>		1 21.3 102°30	1°2/21.9	17		<b>187903</b>	2000 <i>SN</i> <sub>341</sub>		1 21.3 93°48	4°5/24.2	18	
12 13	8 42.91	+14 5.8	1.869	2.621	16.5	21.4	12 13	8 36.83	+ 4 29.6	2.054	2.777	16.1	20.9
12 23	8 37.83	+14 28.6	1.800	2.648	13.1	21.3	12 23	8 32.91	+ 4 35.4	1.975	2.794	13.3	20.7
1 2	8 30.13	+15 4.0	1.753	2.674	9.2	21.1	1 2	8 26.72	+ 4 59.2	1.917	2.811	10.1	20.5
1 12	8 20.49	+15 48.8	1.733	2.699	4.8	20.9	1 12	8 18.84	+ 5 40.8	1.883	2.827	6.8	20.3
1 22	8 9.90	+16 38.5	1.741	2.724	1.2	20.7	1 22	8 10.08	+ 6 37.7	1.877	2.844	4.6	20.2
2 1	7 59.55	+17 28.2	1.779	2.747	4.7	21.0	2 1	8 1.40	+ 7 45.8	1.901	2.860	5.5	20.3
2 11	7 50.58	+18 13.6	1.846	2.770	8.8	21.2	2 11	7 53.79	+ 8 59.3	1.953	2.876	8.5	20.5
2 21	7 43.83	+18 52.3	1.940	2.793	12.3	21.5	2 21	7 48.00	+10 13.0	2.032	2.892	11.6	20.8
<b>50511</b>	2000 <i>DZ</i> <sub>101</sub>		1 21.3 174°37	3°2/23.4	18		<b>466051</b>	2011 <i>OG</i> <sub>49</sub>		1 21.3 173°49	4°2/18.6	17	
12 13	8 37.15	+ 7 21.7	2.073	2.807	15.6	19.0	12 13	8 41.44	+35 26.4	3.135	3.889	10.4	22.0
12 23	8 33.33	+ 7 45.1	1.978	2.808	12.8	18.8	12 23	8 36.01	+35 59.6	3.047	3.891	8.4	21.9
1 2	8 27.14	+ 8 26.1	1.904	2.810	9.5	18.6	1 2	8 28.59	+36 29.7	2.984	3.893	6.3	21.7
1 12	8 19.11	+ 9 23.5	1.856	2.811	5.9	18.4	1 12	8 19.69	+36 52.3	2.950	3.895	4.6	21.6
1 22	8 10.00	+10 34.2	1.836	2.812	3.3	18.2	1 22	8 10.02	+37 3.9	2.946	3.897	4.3	21.6
2 1	8 0.81	+11 53.1	1.846	2.812	4.9	18.3	2 1	8 0.44	+37 2.2	2.972	3.898	5.7	21.7
2 11	7 52.60	+13 14.3	1.886	2.812	8.5	18.5	2 11	7 51.80	+36 47.1	3.027	3.898	7.7	21.8
2 21	7 46.22	+14 32.4	1.952	2.811	12.0	18.7	2 21	7 44.76	+36 20.2	3.109	3.898	9.8	22.0
<b>6277</b>	<i>Siok</i>		1 21.3 131°92	2°2/20.5	18		<b>120333</b>	2004 <i>OY</i> <sub>11</sub>		1 21.3 259°73	2°6/19.9	17	
12 13	8 47.66	+24 26.8	1.731	2.502	16.9	18.1	12 13	8 41.91	+26 4.1	2.358	3.123	13.1	20.7
12 23	8 42.09	+24 48.4	1.656	2.517	13.4	17.9	12 23	8 37.24	+26 37.1	2.240	3.097	10.5	20.5
1 2	8 33.34	+25 14.5	1.603	2.531	9.2	17.7	1 2	8 30.00	+27 13.9	2.145	3.071	7.4	20.2
1 12	8 22.18	+25 39.5	1.575	2.544	4.8	17.4	1 12	8 20.65	+27 50.2	2.078	3.044	4.1	20.0
1 22	8 9.80	+25 57.8	1.576	2.557	2.3	17.3	1 22	8 9.95	+28 20.8	2.040	3.017	2.8	19.8
2 1	7 57.67	+26 5.4	1.607	2.569	6.0	17.6	2 1	7 58.97	+28 41.6	2.033	2.989	5.6	20.0
2 11	7 47.24	+26 1.2	1.665	2.580	10.3	17.8	2 11	7 48.90	+28 50.2	2.055	2.960	9.2	20.1
2 21	7 39.51	+25 46.5	1.749	2.590	14.0	18.1	2 21	7 40.72	+28 46.7	2.103	2.930	12.5	20.3
<b>247938</b>	2003 <i>XK</i> <sub>16</sub>		1 21.3 301°47	7°1/24.7	18		<b>194011</b>	2001 <i>SX</i> <sub>20</sub>		1 21.4 134°54	1°6/20.6	18	
12 13	8 34.53	+ 0 41.6	2.168	2.874	15.8	19.9	12 13	8 45.04	+21 52.4	1.939	2.703	15.6	21.2
12 23	8 31.19	- 0 10.4	2.067	2.864	13.6	19.7	12 23	8 39.69	+22 29.1	1.863	2.720	12.3	21.0
1 2	8 25.65	- 0 46.9	1.985	2.855	11.1	19.6	1 2	8 31.55	+23 12.6	1.808	2.736	8.4	20.8
1 12	8 18.37	- 1 5.0	1.927	2.845	8.6	19.4	1 12	8 21.29	+23 58.0	1.781	2.750	4.2	20.5
1 22	8 10.07	- 1 3.3	1.895	2.836	7.1	19.3	1 22	8 9.92	+24 39.6	1.783	2.764	1.7	20.4
2 1	8 1.65	- 0 42.4	1.890	2.826	7.6	19.3	2 1	7 58.70	+25 12.7	1.815	2.778	5.4	20.7
2 11	7 54.09	- 0 5.5	1.913	2.817	9.7	19.4	2 11	7 48.89	+25 34.8	1.876	2.790	9.3	20.9
2 21	7 48.19	+ 0 42.8	1.960	2.808	12.4	19.5	2 21	7 41.40	+25 45.7	1.963	2.801	12.8	21.2
<b>79125</b>	1990 <i>SZ</i> <sub>4</sub>		1 21.3 153°99	0°8/20.8	18		<b>286945</b>	2002 <i>PO</i> <sub>165</sub>		1 21.4 101°44	2°3/22.5	18	
12 13	8 36.72	+21 6.8	2.768	3.525	11.6	20.0	12 13	8 38.21	+11 42.1	1.787	2.546	16.9	21.3
12 23	8 32.36	+21 30.2	2.677	3.531	9.1	19.8	12 23	8 34.48	+11 55.0	1.706	2.555	13.7	21.1
1 2	8 26.12	+21 58.3	2.610	3.536	6.2	19.6	1 2	8 28.08	+12 23.2	1.645	2.564	9.8	20.9
1 12	8 18.48	+22 28.5	2.572	3.542	3.1	19.4	1 12	8 19.63	+13 4.8	1.609	2.573	5.5	20.6
1 22	8 10.08	+22 57.5	2.563	3.546	0.9	19.2	1 22	8 10.04	+13 56.0	1.601	2.581	2.3	20.4
2 1	8 1.70	+23 22.7	2.586	3.551	3.8	19.5	2 1	8 0.50	+14 51.8	1.621	2.590	5.0	20.6
2 11	7 54.16	+23 41.9	2.639	3.555	6.9	19.7	2 11	7 52.22	+15 47.0	1.670	2.599	9.2	20.9
2 21	7 48.07	+23 54.5	2.719	3.559	9.6	19.9	2 21	7 46.09	+16 37.6	1.744	2.607	13.0	21.1
<b>262972</b>	<i>Petermansfield</i>		1 21.3 17°33	1°7/20.6	18		<b>447136</b>	2004 <i>XN</i> <sub>131</sub>		1 21.4 7°84	10°0/16.9	18	
12 13	8 38.52	+22 31.9	1.780	2.564	16.0	21.1	12 13	8 35.34	+33 56.6	1.067	1.900	21.2	19.7
12 23	8 34.95	+22 56.4	1.696	2.565	12.7	20.8	12 23	8 34.83	+35 48.2	1.010	1.901	17.3	19.4
1 2	8 28.52	+23 27.7	1.634	2.567	8.7	20.6	1 2	8 29.77	+37 41.0	0.972	1.904	13.3	19.2
1 12	8 19.86	+24 1.1	1.598	2.569	4.4	20.4	1 12	8 20.93	+39 19.8	0.955	1.908	10.4	19.1
1 22	8 9.97	+24 31.5	1.588	2.570	1.8	20.2	1 22	8 9.94	+40 29.7	0.961	1.913	10.4	19.1
2 1	8 0.13	+24 54.4	1.608	2.573	5.6	20.4	2 1	7 59.14	+41 1.3	0.988	1.921	13.2	19.3
2 11	7 51.65	+25 7.2	1.654	2.575	9.9	20.7	2 11	7 50.87	+40 54.3	1.036	1.929	17.0	19.5
2 21	7 45.49	+25 9.5	1.725	2.578	13.6	20.9	2 21	7 46.56	+40 15.4	1.101	1.940	20.7	19.8
<b>349869</b>	2009 <i>DD</i> <sub>62</sub>		1 21.3 178°03	1°4/22.3	18		<b>435147</b>	2007 <i>HQ</i> <sub>62</sub>		1 21.4 303°43	19°8/28.8	18	
12 13	8 33.92	+13 21.1	2.621	3									

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>176611</b>	2002 <i>FC</i> <sub>29</sub>		1 21.4 188°03	0°4/21.2	18		<b>166906</b>	2003 <i>AA</i> <sub>81</sub>		1 21.4 337°52	10°4/14.3	18	
12 13	8 44.06	+17 45.5	1.914	2.672	16.0	21.1	12 13	8 42.38	+46 16.3	2.021	2.787	14.9	19.6
12 23	8 39.18	+18 22.9	1.819	2.672	12.8	20.9	12 23	8 38.93	+47 57.7	1.948	2.779	13.0	19.4
1 2	8 31.43	+19 12.0	1.746	2.671	8.8	20.6	1 2	8 31.86	+49 30.7	1.898	2.771	11.3	19.3
1 12	8 21.37	+20 8.5	1.699	2.669	4.4	20.4	1 12	8 21.79	+50 45.0	1.872	2.764	10.4	19.2
1 22	8 9.93	+21 6.8	1.682	2.665	0.5	20.1	1 22	8 9.94	+51 31.6	1.870	2.757	10.8	19.2
2 1	7 58.36	+22 1.2	1.695	2.661	5.2	20.4	2 1	7 58.03	+51 45.4	1.893	2.751	12.2	19.3
2 11	7 48.01	+22 47.1	1.737	2.656	9.6	20.7	2 11	7 47.87	+51 27.0	1.939	2.745	14.2	19.4
2 21	7 39.93	+23 22.4	1.805	2.649	13.5	20.9	2 21	7 40.76	+50 41.5	2.003	2.740	16.2	19.6
<b>15137</b>	2000 <i>EL</i> <sub>93</sub>		1 21.4 251°63	3°7/20.1	18		<b>313399</b>	2002 <i>PW</i> <sub>19</sub>		1 21.4 54°64	2°0/22.2	17	
12 13	8 45.91	+29 50.3	1.858	2.633	15.8	17.5	12 13	8 42.70	+14 33.9	1.424	2.200	19.7	20.5
12 23	8 40.85	+29 59.7	1.766	2.628	12.6	17.3	12 23	8 38.26	+14 27.6	1.372	2.232	15.7	20.3
1 2	8 32.63	+30 8.2	1.697	2.622	9.0	17.0	1 2	8 30.68	+14 35.0	1.339	2.265	10.9	20.1
1 12	8 21.94	+30 10.0	1.652	2.617	5.3	16.8	1 12	8 20.85	+14 53.7	1.331	2.298	5.8	19.9
1 22	8 9.90	+30 0.1	1.637	2.611	3.8	16.7	1 22	8 10.04	+15 19.6	1.348	2.330	2.0	19.7
2 1	7 57.97	+29 35.5	1.650	2.605	6.7	16.9	2 1	7 59.73	+15 48.1	1.394	2.363	5.5	20.0
2 11	7 47.61	+28 56.7	1.691	2.599	10.6	17.1	2 11	7 51.28	+16 15.1	1.466	2.396	10.1	20.4
2 21	7 39.86	+28 6.9	1.757	2.593	14.2	17.3	2 21	7 45.52	+16 38.1	1.561	2.429	14.0	20.7
<b>375413</b>	2008 <i>ST</i> <sub>283</sub>		1 21.4 81°85	2°4/20.2	18		<b>229511</b>	2005 <i>WX</i> <sub>97</sub>		1 21.4 204°80	1°3/20.7	18	
12 13	8 39.95	+26 4.3	2.119	2.893	14.1	21.5	12 13	8 38.49	+21 39.9	2.108	2.879	14.3	21.1
12 23	8 35.59	+26 25.1	2.035	2.898	11.1	21.3	12 23	8 34.52	+22 8.6	2.016	2.877	11.3	20.9
1 2	8 28.69	+26 48.3	1.973	2.902	7.7	21.1	1 2	8 28.05	+22 43.9	1.946	2.876	7.8	20.7
1 12	8 19.88	+27 9.5	1.938	2.907	4.2	20.9	1 12	8 19.64	+23 22.1	1.904	2.874	3.9	20.4
1 22	8 10.05	+27 24.6	1.933	2.911	2.5	20.8	1 22	8 10.13	+23 58.4	1.890	2.872	1.4	20.3
2 1	8 0.32	+27 30.3	1.956	2.915	5.4	21.0	2 1	8 0.59	+24 28.8	1.906	2.870	4.9	20.5
2 11	7 51.82	+27 25.3	2.008	2.920	8.9	21.2	2 11	7 52.14	+24 50.5	1.950	2.868	8.8	20.7
2 21	7 45.38	+27 10.6	2.085	2.924	12.2	21.5	2 21	7 45.66	+25 2.6	2.020	2.865	12.2	20.9
<b>44969</b>	1999 <i>VD</i> <sub>97</sub>		1 21.4 63°09	4°4/23.1	18		<b>257054</b>	2008 <i>FN</i> <sub>85</sub>		1 21.4 63°27	3°1/20.0	18	
12 13	8 43.51	+9 52.5	1.223	1.998	22.4	18.9	12 13	8 41.08	+25 52.3	1.703	2.490	16.5	20.6
12 23	8 39.37	+9 30.1	1.171	2.026	18.2	18.7	12 23	8 37.12	+26 27.7	1.628	2.498	13.1	20.4
1 2	8 31.70	+9 28.2	1.136	2.055	13.2	18.5	1 2	8 30.10	+27 7.4	1.575	2.507	9.1	20.2
1 12	8 21.42	+9 46.1	1.123	2.083	8.0	18.3	1 12	8 20.70	+27 45.4	1.547	2.515	5.0	20.0
1 22	8 9.95	+10 20.2	1.135	2.112	4.5	18.2	1 22	8 10.06	+28 15.5	1.547	2.524	3.3	19.9
2 1	7 59.00	+11 4.8	1.173	2.140	6.8	18.4	2 1	7 59.58	+28 32.9	1.574	2.533	6.5	20.1
2 11	7 50.11	+11 53.3	1.237	2.169	11.4	18.7	2 11	7 50.66	+28 36.0	1.629	2.542	10.5	20.4
2 21	7 44.26	+12 40.2	1.323	2.197	15.6	19.1	2 21	7 44.29	+28 26.0	1.707	2.551	14.2	20.6
<b>492571</b>	2014 <i>OW</i> <sub>165</sub>		1 21.4 228°06	2°2/20.3	17		<b>216762</b>	2005 <i>SU</i> <sub>134</sub>		1 21.4 124°12	4°5/24.2	18	
12 13	8 41.40	+22 12.3	1.827	2.603	16.0	23.1	12 13	8 38.06	+4 20.5	2.389	3.097	14.4	20.8
12 23	8 37.41	+22 59.4	1.730	2.594	12.7	22.8	12 23	8 33.53	+4 9.7	2.306	3.114	12.0	20.6
1 2	8 30.42	+23 55.8	1.654	2.585	8.8	22.6	1 2	8 27.00	+4 13.8	2.244	3.131	9.2	20.4
1 12	8 20.96	+24 56.1	1.605	2.575	4.5	22.3	1 12	8 18.98	+4 32.9	2.208	3.147	6.4	20.3
1 22	8 9.97	+25 53.6	1.584	2.565	2.3	22.1	1 22	8 10.19	+5 5.7	2.201	3.162	4.6	20.2
2 1	7 58.80	+26 41.9	1.593	2.554	6.1	22.3	2 1	8 1.48	+5 49.6	2.223	3.177	5.3	20.3
2 11	7 48.86	+27 17.0	1.629	2.543	10.5	22.6	2 11	7 53.70	+6 40.6	2.275	3.191	7.8	20.5
2 21	7 41.30	+27 37.8	1.689	2.531	14.4	22.8	2 21	7 47.51	+7 34.6	2.354	3.205	10.5	20.7
<b>199363</b>	2006 <i>BQ</i> <sub>189</sub>		1 21.4 164°52	2°0/20.2	18		<b>53376</b>	1999 <i>JJ</i> <sub>86</sub>		1 21.4 315°19	0°6/20.9	18	
12 13	8 39.04	+24 38.7	2.524	3.288	12.4	21.6	12 13	8 33.99	+18 17.3	2.051	2.827	14.5	18.3
12 23	8 34.47	+25 11.4	2.435	3.292	9.8	21.5	12 23	8 31.16	+18 58.5	1.948	2.812	11.5	18.1
1 2	8 27.74	+25 47.7	2.369	3.296	6.7	21.3	1 2	8 25.90	+19 50.7	1.867	2.797	8.0	17.9
1 12	8 19.37	+26 23.6	2.331	3.299	3.6	21.1	1 12	8 18.66	+20 50.7	1.812	2.783	3.9	17.6
1 22	8 10.10	+26 55.1	2.323	3.302	2.1	21.0	1 22	8 10.20	+21 53.4	1.785	2.769	0.8	17.3
2 1	8 0.86	+27 18.8	2.346	3.305	4.7	21.2	2 1	8 1.56	+22 53.4	1.788	2.755	4.9	17.6
2 11	7 52.58	+27 32.9	2.399	3.307	7.9	21.4	2 11	7 53.85	+23 45.9	1.819	2.742	9.0	17.8
2 21	7 46.00	+27 37.3	2.477	3.308	10.7	21.5	2 21	7 48.01	+24 28.2	1.875	2.729	12.7	18.0
<b>138451</b>	2000 <i>JR</i> <sub>9</sub>		1 21.4 216°48	5°5/25.4	17		<b>73016</b>	2002 <i>ES</i> <sub>58</sub>		1 21.4 190°60	1°4/22.1	18	
12 13	8 34.07	-1 37.1	3.115	3.782	12.1	21.5	12 13	8 41.10	+14 39.9	2.102	2.851	15.0	21.1
12 23	8 30.08	-1 58.9	3.004	3.774	10.4	21.3	12 23	8 36.48	+14 45.2	2.005	2.850	12.1	20.9
1 2	8 24.51	-2 7.3	2.913	3.764	8.5	21.2	1 2	8 29.37	+15 1.0	1.929	2.849	8.5	20.7
1 12	8 17.72	-2 0.7	2.848	3.754	6.7	21.0	1 12	8 20.30	+15 25.4	1.880	2.846	4.6	20.4
1 22	8 10.22	-1 39.0	2.811	3.744	5.5	21.0	1 22	8 10.10	+15 55.5	1.861	2.843	1.4	20.2
2 1	8 2.63	-1 3.4	2.804	3.733	5.8	21.0	2 1	7 59.85	+16 27.6	1.871	2.839	4.6	20.4
2 11	7 55.62	-0 16.4	2.826	3.722	7.3	21.0	2 11	7 50.65	+16 58.5	1.911	2.835	8.6	20.7
2 21	7 49.74	+0 38.4	2.875	3.710	9.3	21.2	2 21	7 43.40	+17 25.6	1.977	2.829	12.2	20.9
<b>269624</b>	2010 <i>VQ</i> <sub>180</sub>		1 21.4 159°35	0°8/20.7	17		<b>105602</b>	2000 <i>RL</i> <sub>93</sub>		1 21.4 358°58	9°8/28.1	18	
12 13	8 32.68	+22 4.8	3.595	4.351	9.2	21.4	12 13	8 33.80	-8 26.8	1.922	2.590	18.7	19.2
12 23	8 28.80	+22 27.7	3.501	4.354	7.2	21.2	12 23	8 30.92	-8 57.3	1.832	2.590	16.6	19.1
1 2	8 23.50	+22 53.7	3.431	4.357	4.9	21.1	1 2	8 25.64	-9 1.9	1.759	2.589	14.2	18.9
1 12	8 17.16	+23 20.8	3.390	4.360	2.4	20.9	1 12	8 18.48	-8 36.4	1.706	2.589	11.8	18.7
1 22	8 10.27	+23 46.6	3.381	4.363	0.9	20.8	1 22	8 10.23	-7 39.3	1.676	2.589	10.1	18.6
2 1	8 3.38	+24 9.1	3.403	4.366	3.1	21.0	2 1	8 1.90	-6 13.0	1.672	2.589	9.9	18.6
2 11	7 57.08	+24 26.9	3.455	4.368	5.5	21.1	2 11	7 54.58	-4 24.0	1.695	2.589	11.4	18.7
2 21	7 51.84	+24 39.2	3.535	4.371	7.7	21.3	2 21	7 49.12	-2 21.4	1.742	2.590	13.7	18.9
<b>26789</b>	5092 <i>T</i> <sub>-3</sub>		1 21.4 341°42	3°1/23.3	18		<b>414838</b>	2010 <i>UY</i> <sub>96</sub>		1 21.4 60°53	7°3/24.9	18	
12 13	8 33.38	+8 27.1	1.987	2.73									

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>186044</b>	2001 SZ <sub>1</sub>		1 21.4	86°14	6°9/25.5	18	<b>90137</b>	2002 XK <sub>112</sub>		1 21.4	324°92	5°4/18.2	18
12 13	8 37.71	- 0 13.5	1.946	2.650	17.4	20.1	12 13	8 36.80	+31 39.6	1.987	2.776	14.4	19.2
12 23	8 33.69	- 0 40.8	1.873	2.670	14.8	19.9	12 23	8 33.79	+32 45.2	1.894	2.762	11.6	19.0
1 2	8 27.33	- 0 47.7	1.819	2.690	11.8	19.8	1 2	8 27.93	+33 52.9	1.824	2.749	8.6	18.8
1 12	8 19.22	- 0 32.4	1.788	2.710	8.9	19.6	1 12	8 19.76	+34 55.4	1.780	2.736	6.0	18.6
1 22	8 10.21	+ 0 4.5	1.783	2.729	7.0	19.6	1 22	8 10.18	+35 45.5	1.763	2.723	5.7	18.6
2 1	8 1.33	+ 0 59.8	1.806	2.748	7.4	19.6	2 1	8 0.45	+36 17.4	1.774	2.711	8.0	18.7
2 11	7 53.61	+ 2 8.0	1.857	2.767	9.6	19.8	2 11	7 51.94	+36 29.0	1.812	2.700	11.2	18.8
2 21	7 47.80	+ 3 22.7	1.933	2.786	12.3	20.0	2 21	7 45.70	+36 21.5	1.872	2.689	14.3	19.0
<b>250603</b>	2005 EH <sub>158</sub>		1 21.4	214°34	3°9/19.7	18	<b>366755</b>	2004 RO <sub>7</sub>		1 21.4	131°53	1°8/22.7	18
12 13	8 43.78	+28 41.2	1.908	2.685	15.4	21.1	12 13	8 37.85	+10 46.8	2.616	3.345	12.8	21.9
12 23	8 39.17	+29 16.9	1.818	2.681	12.3	20.9	12 23	8 33.26	+11 12.1	2.530	3.361	10.3	21.7
1 2	8 31.53	+29 54.7	1.750	2.677	8.7	20.6	1 2	8 26.77	+11 49.0	2.467	3.377	7.4	21.5
1 12	8 21.48	+30 28.3	1.708	2.672	5.2	20.4	1 12	8 18.89	+12 35.5	2.432	3.393	4.2	21.4
1 22	8 10.05	+30 51.5	1.694	2.667	4.0	20.3	1 22	8 10.25	+13 28.8	2.427	3.407	1.9	21.2
2 1	7 58.62	+30 59.9	1.709	2.661	6.8	20.5	2 1	8 1.66	+14 25.2	2.454	3.421	3.8	21.4
2 11	7 48.61	+30 52.2	1.752	2.655	10.5	20.7	2 11	7 53.92	+15 21.0	2.512	3.434	6.8	21.6
2 21	7 41.06	+30 30.2	1.818	2.649	14.0	20.9	2 21	7 47.66	+16 13.2	2.597	3.447	9.7	21.8
<b>65853</b>	1997 EV <sub>38</sub>		1 21.4	311°99	0°0/21.4	18	<b>334130</b>	2001 RN <sub>39</sub>		1 21.4	166°78	5°0/24.0	18
12 13	8 37.26	+19 23.9	1.809	2.589	16.0	19.3	12 13	8 39.00	+ 4 25.6	2.385	3.091	14.5	21.9
12 23	8 34.05	+19 26.4	1.709	2.575	12.8	19.1	12 23	8 34.38	+ 3 53.3	2.290	3.096	12.2	21.7
1 2	8 28.05	+19 36.9	1.631	2.561	8.9	18.8	1 2	8 27.68	+ 3 34.5	2.217	3.100	9.5	21.5
1 12	8 19.78	+19 52.7	1.577	2.548	4.5	18.5	1 12	8 19.39	+ 3 30.1	2.170	3.104	6.8	21.3
1 22	8 10.17	+20 10.2	1.551	2.535	0.3	18.1	1 22	8 10.22	+ 3 40.2	2.150	3.107	5.1	21.2
2 1	8 0.42	+20 25.8	1.554	2.523	5.1	18.5	2 1	8 1.04	+ 4 3.2	2.161	3.110	5.9	21.3
2 11	7 51.85	+20 36.4	1.583	2.510	9.7	18.7	2 11	7 52.75	+ 4 35.9	2.200	3.112	8.3	21.5
2 21	7 45.50	+20 40.9	1.637	2.499	13.8	18.9	2 21	7 46.08	+ 5 14.8	2.266	3.113	11.0	21.6
<b>110454</b>	2001 TL <sub>42</sub>		1 21.4	57°85	5°7/19.1	18	<b>321801</b>	2010 PA <sub>67</sub>		1 21.4	117°53	7°0/18.1	18
12 13	8 44.19	+32 20.8	1.664	2.451	16.8	18.7	12 13	8 49.18	+38 43.3	2.098	2.860	14.6	20.4
12 23	8 39.67	+33 12.4	1.606	2.472	13.4	18.6	12 23	8 43.21	+39 42.7	2.033	2.876	12.0	20.3
1 2	8 31.84	+34 2.3	1.569	2.492	9.8	18.4	1 2	8 34.09	+40 36.2	1.991	2.893	9.4	20.1
1 12	8 21.53	+34 42.5	1.556	2.513	6.6	18.3	1 12	8 22.62	+41 15.6	1.974	2.908	7.4	20.0
1 22	8 10.07	+35 5.8	1.571	2.534	5.8	18.3	1 22	8 10.01	+41 34.3	1.986	2.923	7.1	20.0
2 1	7 59.01	+35 8.4	1.614	2.555	8.2	18.4	2 1	7 57.72	+41 29.1	2.026	2.938	8.8	20.2
2 11	7 49.82	+34 50.8	1.682	2.576	11.5	18.7	2 11	7 47.18	+41 1.4	2.093	2.952	11.2	20.3
2 21	7 43.46	+34 16.9	1.773	2.598	14.6	18.9	2 21	7 39.33	+40 15.5	2.183	2.966	13.6	20.5
<b>307849</b>	2003 YF <sub>144</sub>		1 21.4	344°98	2°5/20.3	18	<b>109566</b>	2001 QM <sub>265</sub>		1 21.4	133°62	1°2/20.9	18
12 13	8 38.29	+23 33.2	1.518	2.316	17.7	19.7	12 13	8 44.24	+23 33.1	2.041	2.806	14.9	20.3
12 23	8 35.43	+24 6.7	1.435	2.312	14.1	19.4	12 23	8 38.95	+23 29.8	1.957	2.814	11.8	20.1
1 2	8 29.29	+24 48.0	1.372	2.308	9.8	19.1	1 2	8 31.00	+23 29.4	1.894	2.822	8.1	19.9
1 12	8 20.48	+25 31.5	1.334	2.304	5.1	18.9	1 12	8 21.06	+23 28.6	1.859	2.829	4.1	19.7
1 22	8 10.12	+26 10.3	1.321	2.302	2.7	18.7	1 22	8 10.11	+23 24.0	1.853	2.836	1.2	19.5
2 1	7 59.75	+26 38.3	1.336	2.299	6.7	18.9	2 1	7 59.33	+23 13.4	1.877	2.843	4.9	19.8
2 11	7 50.94	+26 52.4	1.376	2.298	11.4	19.2	2 11	7 49.89	+22 56.1	1.931	2.849	8.8	20.0
2 21	7 44.85	+26 52.6	1.439	2.296	15.6	19.4	2 21	7 42.65	+22 33.0	2.010	2.855	12.3	20.2
<b>500334</b>	2012 SD <sub>39</sub>		1 21.4	127°88	3°6/19.4	18	<b>19891</b>	3326 T <sub>-2</sub>		1 21.4	135°85	1°5/20.5	18
12 13	8 40.34	+30 50.9	2.519	3.287	12.3	21.9	12 13	8 40.28	+22 26.1	2.322	3.084	13.4	20.2
12 23	8 35.57	+31 21.2	2.436	3.293	9.8	21.8	12 23	8 35.57	+22 58.2	2.239	3.096	10.5	20.1
1 2	8 28.53	+31 50.7	2.376	3.298	7.0	21.6	1 2	8 28.57	+23 35.5	2.179	3.107	7.2	19.9
1 12	8 19.79	+32 14.8	2.344	3.304	4.5	21.4	1 12	8 19.84	+24 14.0	2.148	3.117	3.6	19.7
1 22	8 10.18	+32 29.3	2.341	3.309	3.7	21.4	1 22	8 10.19	+24 49.5	2.146	3.127	1.6	19.5
2 1	8 0.68	+32 31.7	2.369	3.314	5.7	21.5	2 1	8 0.63	+25 18.2	2.175	3.137	4.6	19.8
2 11	7 52.27	+32 21.2	2.425	3.319	8.4	21.7	2 11	7 52.13	+25 38.1	2.233	3.146	8.1	20.0
2 21	7 45.69	+31 59.3	2.506	3.324	11.1	21.9	2 21	7 45.48	+25 48.6	2.317	3.154	11.2	20.2
<b>201880</b>	2004 AP <sub>2</sub>		1 21.4	143°23	1°2/21.9	18	<b>278424</b>	2007 RH <sub>217</sub>		1 21.4	153°89	2°8/23.4	18
12 13	8 38.05	+16 35.3	2.359	3.113	13.4	20.3	12 13	8 35.18	+ 8 25.1	2.719	3.443	12.5	21.6
12 23	8 33.72	+16 21.4	2.266	3.115	10.7	20.1	12 23	8 31.15	+ 8 28.5	2.625	3.449	10.2	21.4
1 2	8 27.25	+16 14.1	2.195	3.116	7.5	19.9	1 2	8 25.33	+ 8 43.4	2.553	3.454	7.6	21.3
1 12	8 19.17	+16 12.2	2.151	3.118	4.0	19.7	1 12	8 18.19	+ 9 9.2	2.507	3.460	4.8	21.1
1 22	8 10.22	+16 13.8	2.137	3.119	1.2	19.5	1 22	8 10.31	+ 9 44.1	2.492	3.464	2.9	21.0
2 1	8 1.32	+16 17.1	2.153	3.121	4.0	19.7	2 1	8 2.42	+10 25.6	2.507	3.469	4.1	21.1
2 11	7 53.37	+16 20.2	2.198	3.122	7.6	19.9	2 11	7 55.29	+11 10.5	2.552	3.473	6.8	21.2
2 21	7 47.11	+16 22.0	2.270	3.123	10.7	20.1	2 21	7 49.52	+11 55.7	2.624	3.477	9.5	21.4
<b>130855</b>	2000 UX <sub>73</sub>		1 21.4	105°15	4°3/19.4	18	<b>71499</b>	2000 CV <sub>20</sub>		1 21.4	45°35	0°5/21.6	18
12 13	8 44.28	+27 48.3	1.694	2.478	16.7	19.7	12 13	8 36.90	+17 23.7	1.967	2.737	15.2	19.8
12 23	8 39.73	+28 46.2	1.625	2.492	13.3	19.5	12 23	8 33.27	+17 32.5	1.884	2.744	12.1	19.6
1 2	8 31.94	+29 47.6	1.577	2.506	9.3	19.3	1 2	8 27.17	+17 50.3	1.824	2.751	8.4	19.4
1 12	8 21.65	+30 44.9	1.555	2.519	5.6	19.1	1 12	8 19.20	+18 14.6	1.789	2.759	4.2	19.1
1 22	8 10.06	+31 30.2	1.561	2.533	4.5	19.1	1 22	8 10.24	+18 41.9	1.782	2.766	0.5	18.9
2 1	7 58.66	+31 58.2	1.595	2.546	7.4	19.3	2 1	8 1.34	+19 8.6	1.805	2.774	4.5	19.2
2 11	7 48.95	+32 7.3	1.656	2.558	11.1	19.5	2 11	7 53.61	+19 31.6	1.856	2.782	8.6	19.5
2 21	7 41.95	+31 59.5	1.740	2.571	14.6	19.8	2 21	7 47.87	+19 49.2	1.932	2.791	12.1	19.7
<b>333133</b>	2011 WT <sub>117</sub>		1 21.4	116°82	2°2/20.2	18	<b>317578</b>	2002 VB <sub>145</sub>		1 21.4	57°13	0°2/21.3	18
12 13	8 42.96	+22 31.6	1.839	2.612	16.0	21.6	12 13	8 36.39	+				

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>80067</b>	1999 <i>JQ</i> <sub>93</sub>		1 21.4 293°76	4.4/23.9	17		<b>472528</b>	2015 <i>CD</i> <sub>54</sub>		1 21.4 0°61	8°3/26.6	18	
12 13	8 33.69	+ 5 55.4	2.309	3.037	14.4	19.9	12 13	8 30.83	- 3 8.9	1.832	2.541	18.2	20.3
12 23	8 30.52	+ 5 40.7	2.195	3.017	12.0	19.7	12 23	8 28.68	- 3 38.2	1.744	2.539	15.8	20.1
1 2	8 25.26	+ 5 40.0	2.102	2.997	9.3	19.5	1 2	8 24.16	- 3 43.9	1.674	2.538	13.1	19.9
1 12	8 18.30	+ 5 54.3	2.033	2.978	6.4	19.3	1 12	8 17.79	- 3 22.9	1.626	2.538	10.4	19.7
1 22	8 10.29	+ 6 22.9	1.992	2.958	4.5	19.1	1 22	8 10.35	- 2 34.6	1.601	2.538	8.5	19.6
2 1	8 2.09	+ 7 3.7	1.981	2.939	5.5	19.2	2 1	8 2.86	- 1 21.9	1.603	2.540	8.6	19.6
2 11	7 54.64	+ 7 53.2	1.997	2.919	8.4	19.3	2 11	7 56.39	+ 0 9.0	1.630	2.542	10.6	19.8
2 21	7 48.72	+ 8 46.9	2.040	2.900	11.5	19.5	2 21	7 51.78	+ 1 49.9	1.682	2.546	13.4	19.9
<b>220344</b>	2003 <i>GK</i> <sub>41</sub>		1 21.4 217°55	5°5/24.5	18		<b>452791</b>	2006 <i>GY</i> <sub>24</sub>		1 21.4 330°87	6°9/24.1	17	
12 13	8 35.70	+ 3 28.5	2.056	2.778	16.1	20.6	12 13	8 33.37	+ 5 36.0	1.317	2.089	21.2	21.6
12 23	8 32.23	+ 3 9.1	1.961	2.776	13.6	20.4	12 23	8 31.82	+ 4 56.0	1.227	2.077	17.9	21.4
1 2	8 26.46	+ 3 6.9	1.886	2.774	10.6	20.2	1 2	8 27.02	+ 4 37.4	1.155	2.064	13.9	21.1
1 12	8 18.88	+ 3 23.3	1.835	2.772	7.6	20.0	1 12	8 19.48	+ 4 43.9	1.104	2.053	9.8	20.8
1 22	8 10.26	+ 3 57.5	1.811	2.771	5.6	19.9	1 22	8 10.23	+ 5 16.0	1.075	2.043	7.0	20.6
2 1	8 1.57	+ 4 47.1	1.815	2.769	6.4	19.9	2 1	8 0.74	+ 6 10.6	1.071	2.033	8.3	20.7
2 11	7 53.84	+ 5 47.1	1.847	2.766	9.1	20.1	2 11	7 52.65	+ 7 20.6	1.091	2.024	12.4	20.9
2 21	7 47.89	+ 6 52.3	1.905	2.764	12.2	20.2	2 21	7 47.23	+ 8 37.3	1.132	2.016	16.9	21.1
<b>453574</b>	2010 <i>FB</i> <sub>29</sub>		1 21.4 232°07	4°8/23.6	18		<b>318094</b>	2004 <i>GP</i> <sub>77</sub>		1 21.4 257°17	0°3/21.6	18	
12 13	8 39.80	+ 6 45.4	1.890	2.623	17.0	21.4	12 13	8 37.34	+ 14 22.2	1.995	2.755	15.3	20.6
12 23	8 35.84	+ 6 25.0	1.785	2.611	14.2	21.1	12 23	8 33.91	+ 15 15.6	1.889	2.743	12.3	20.4
1 2	8 29.20	+ 6 20.5	1.699	2.599	10.8	20.9	1 2	8 27.89	+ 16 24.9	1.805	2.729	8.6	20.2
1 12	8 20.36	+ 6 33.0	1.639	2.587	7.3	20.7	1 12	8 19.74	+ 17 47.0	1.747	2.716	4.4	19.9
1 22	8 10.16	+ 7 2.0	1.605	2.573	4.9	20.5	1 22	8 10.23	+ 19 16.0	1.718	2.702	0.4	19.5
2 1	7 59.72	+ 7 44.7	1.600	2.560	6.3	20.5	2 1	8 0.43	+ 20 45.2	1.720	2.689	4.8	19.8
2 11	7 50.31	+ 8 36.4	1.623	2.545	9.9	20.7	2 11	7 51.57	+ 22 8.1	1.751	2.674	9.2	20.1
2 21	7 42.95	+ 9 32.0	1.671	2.530	13.7	20.9	2 21	7 44.66	+ 23 20.1	1.808	2.660	13.1	20.3
<b>136124</b>	2003 <i>QC</i> <sub>56</sub>		1 21.4 81°26	0°1/21.4	18		<b>118854</b>	2000 <i>ST</i> <sub>289</sub>		1 21.4 34°08	4°4/23.3	18	
12 13	8 42.08	+ 17 29.5	1.633	2.406	17.7	20.4	12 13	8 36.34	+ 9 2.6	1.659	2.419	18.0	19.6
12 23	8 37.69	+ 17 58.1	1.568	2.429	14.0	20.2	12 23	8 33.17	+ 8 35.1	1.583	2.428	14.8	19.3
1 2	8 30.35	+ 18 38.2	1.524	2.452	9.6	20.0	1 2	8 27.29	+ 8 23.2	1.526	2.437	11.0	19.1
1 12	8 20.79	+ 19 25.4	1.505	2.475	4.7	19.8	1 12	8 19.33	+ 8 27.6	1.492	2.447	7.0	18.9
1 22	8 10.15	+ 20 13.9	1.514	2.498	0.3	19.5	1 22	8 10.27	+ 8 46.8	1.485	2.457	4.4	18.8
2 1	7 59.77	+ 20 58.3	1.552	2.520	5.2	19.9	2 1	8 1.31	+ 9 17.6	1.505	2.468	6.1	18.9
2 11	7 50.97	+ 21 34.7	1.617	2.542	9.7	20.2	2 11	7 53.66	+ 9 55.6	1.551	2.480	9.8	19.2
2 21	7 44.66	+ 22 1.5	1.707	2.564	13.6	20.5	2 21	7 48.23	+ 10 35.9	1.622	2.492	13.4	19.4
<b>354880</b>	2006 <i>BO</i> <sub>77</sub>		1 21.4 315°47	1°9/20.5	17		<b>153985</b>	2002 <i>AT</i> <sub>132</sub>		1 21.4 35°22	0°5/21.1	18	
12 13	8 38.41	+ 20 19.2	1.459	2.254	18.4	21.6	12 13	8 37.30	+ 18 53.6	1.754	2.535	16.3	20.5
12 23	8 35.70	+ 21 10.4	1.374	2.249	14.7	21.4	12 23	8 34.00	+ 19 21.3	1.673	2.540	13.0	20.3
1 2	8 29.61	+ 22 15.1	1.309	2.244	10.1	21.1	1 2	8 27.92	+ 19 59.3	1.613	2.545	8.9	20.1
1 12	8 20.72	+ 23 27.4	1.268	2.240	5.1	20.8	1 12	8 19.68	+ 20 43.5	1.578	2.550	4.4	19.8
1 22	8 10.14	+ 24 39.0	1.254	2.236	2.1	20.6	1 22	8 10.24	+ 21 28.9	1.571	2.555	0.7	19.5
2 1	7 59.41	+ 25 41.7	1.267	2.232	6.7	20.9	2 1	8 0.85	+ 22 10.2	1.593	2.561	5.2	19.9
2 11	7 50.21	+ 26 29.7	1.305	2.228	11.7	21.1	2 11	7 52.75	+ 22 43.6	1.641	2.567	9.6	20.2
2 21	7 43.81	+ 27 1.1	1.366	2.225	16.2	21.4	2 21	7 46.91	+ 23 7.3	1.714	2.573	13.4	20.4
<b>206196</b>	2002 <i>UW</i> <sub>11</sub>		1 21.4 38°00	10°0/18.6	18		<b>4258</b>	Ryazanov		1 21.4 133°29	1°5/20.5	18	
12 13	8 53.58	+ 47 9.1	1.825	2.581	16.7	19.6	12 13	8 37.91	+ 22 42.7	2.322	3.091	13.2	17.1
12 23	8 47.29	+ 47 53.1	1.774	2.600	14.3	19.4	12 23	8 33.79	+ 23 14.3	2.235	3.096	10.4	17.0
1 2	8 37.06	+ 48 22.8	1.742	2.619	12.0	19.3	1 2	8 27.41	+ 23 51.1	2.172	3.100	7.1	16.8
1 12	8 24.04	+ 48 28.5	1.734	2.639	10.3	19.3	1 12	8 19.31	+ 24 29.2	2.135	3.105	3.6	16.6
1 22	8 9.95	+ 48 3.9	1.752	2.660	10.1	19.3	1 22	8 10.28	+ 25 4.5	2.128	3.109	1.7	16.4
2 1	7 56.74	+ 47 8.0	1.795	2.681	11.3	19.4	2 1	8 1.27	+ 25 33.2	2.151	3.114	4.7	16.6
2 11	7 46.09	+ 45 45.6	1.863	2.703	13.3	19.6	2 11	7 53.28	+ 25 53.2	2.203	3.118	8.1	16.9
2 21	7 38.91	+ 44 4.8	1.953	2.725	15.4	19.8	2 21	7 47.07	+ 26 3.7	2.281	3.122	11.2	17.1
<b>415121</b>	2012 <i>DG</i> <sub>19</sub>		1 21.4 278°57	4°9/24.0	18		<b>47119</b>	1999 <i>CM</i> <sub>81</sub>		1 21.4 30°10	7°1/25.6	18	R
12 13	8 35.45	+ 5 21.2	1.891	2.628	16.8	21.4	12 13	8 33.15	+ 0 23.2	1.763	2.488	18.3	17.8
12 23	8 32.33	+ 5 14.2	1.793	2.621	14.1	21.2	12 23	8 30.44	- 0 5.8	1.690	2.502	15.5	17.6
1 2	8 26.71	+ 5 25.5	1.714	2.613	10.8	20.9	1 2	8 25.29	- 0 13.1	1.636	2.517	12.4	17.4
1 12	8 19.09	+ 5 56.0	1.659	2.606	7.3	20.7	1 12	8 18.30	+ 0 3.6	1.605	2.532	9.3	17.3
1 22	8 10.25	+ 6 44.3	1.631	2.599	5.0	20.6	1 22	8 10.34	+ 0 43.5	1.598	2.548	7.3	17.2
2 1	8 1.28	+ 7 46.7	1.631	2.592	6.1	20.6	2 1	8 2.49	+ 1 43.1	1.618	2.564	7.7	17.2
2 11	7 53.31	+ 8 57.6	1.659	2.584	9.5	20.8	2 11	7 55.82	+ 2 56.3	1.664	2.582	10.0	17.4
2 21	7 47.27	+ 10 10.9	1.712	2.577	13.1	21.0	2 21	7 51.11	+ 4 16.0	1.734	2.599	12.9	17.6
<b>82794</b>	2001 <i>QN</i> <sub>25</sub>		1 21.4 186°10	1°2/20.6	18		<b>25015</b>	1998 <i>QN</i> <sub>2</sub>		1 21.4 168°77	2°0/22.2	18	
12 13	8 40.16	+ 21 16.0	2.367	3.127	13.2	20.5	12 13	8 44.00	+ 14 16.1	1.902	2.651	16.4	19.1
12 23	8 35.56	+ 21 53.0	2.271	3.127	10.5	20.3	12 23	8 38.96	+ 14 7.3	1.811	2.656	13.2	18.9
1 2	8 28.65	+ 22 36.7	2.199	3.126	7.2	20.1	1 2	8 31.19	+ 14 9.1	1.743	2.660	9.4	18.7
1 12	8 19.94	+ 23 23.2	2.155	3.125	3.6	19.9	1 12	8 21.27	+ 14 20.1	1.700	2.664	5.2	18.4
1 22	8 10.20	+ 24 8.0	2.141	3.123	1.4	19.7	1 22	8 10.15	+ 14 37.7	1.685	2.667	2.0	18.2
2 1	8 0.40	+ 24 46.9	2.157	3.120	4.6	19.9	2 1	7 59.06	+ 14 58.7	1.701	2.669	5.0	18.4
2 11	7 51.57	+ 25 17.2	2.204	3.117	8.2	20.2	2 11	7 49.24	+ 15 20.0	1.746	2.670	9.2	18.7
2 21	7 44.52	+ 25 37.9	2.276	3.113	11.3	20.4	2 21	7 41.63	+ 15 39.3	1.816	2.670	13.0	18.9
<b>461985</b>	2006 <i>VL</i> <sub>151</sub>		1 21.4 40°35	1°8/22.1	18		<b>495585</b>	2015 <i>AW</i> <sub>1</sub>		1 21.4 165°82	2		

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>320738</b>	2008 <i>EN</i> <sub>36</sub>		1 21.4	48°76	10°7/28.7	18	<b>489628</b>	2007 <i>TV</i> <sub>335</sub>		1 21.4	68°23	4°2/23.2	18
12 13	8 34.64	- 9 38.6	1.777	2.444	20.0	20.5	12 13	8 39.41	+ 9 26.0	1.536	2.297	19.1	21.3
12 23	8 31.73	-10 15.5	1.697	2.452	17.8	20.3	12 23	8 35.79	+ 9 5.3	1.463	2.310	15.7	21.1
1 2	8 26.28	-10 24.1	1.633	2.459	15.3	20.2	1 2	8 29.19	+ 9 1.6	1.410	2.324	11.5	20.9
1 12	8 18.85	- 9 59.7	1.589	2.467	12.9	20.0	1 12	8 20.32	+ 9 15.1	1.380	2.337	7.2	20.7
1 22	8 10.31	- 9 0.8	1.567	2.474	11.1	19.9	1 22	8 10.25	+ 9 43.5	1.376	2.351	4.3	20.5
2 1	8 1.78	- 7 30.1	1.570	2.482	10.8	19.9	2 1	8 0.34	+10 22.7	1.399	2.365	6.2	20.7
2 11	7 54.39	- 5 35.0	1.598	2.491	12.1	20.0	2 11	7 51.93	+11 7.4	1.449	2.379	10.2	20.9
2 21	7 49.03	- 3 25.8	1.651	2.499	14.4	20.2	2 21	7 45.98	+11 52.7	1.523	2.393	14.2	21.2
<b>397481</b>	2007 <i>QA</i> <sub>6</sub>		1 21.4	110°45	0°9/21.8	18	<b>48622</b>	1995 <i>OA</i> <sub>10</sub>		1 21.4	114°89	2°1/22.2	18
12 13	8 42.83	+15 35.8	1.871	2.628	16.3	22.3	12 13	8 45.47	+14 19.3	1.674	2.430	18.0	19.8
12 23	8 37.91	+15 50.9	1.798	2.649	13.0	22.2	12 23	8 40.27	+14 8.0	1.601	2.450	14.4	19.6
1 2	8 30.34	+16 17.1	1.747	2.669	9.0	22.0	1 2	8 32.10	+14 8.6	1.549	2.468	10.2	19.4
1 12	8 20.77	+16 51.4	1.721	2.689	4.7	21.7	1 12	8 21.70	+14 19.2	1.521	2.486	5.6	19.1
1 22	8 10.20	+17 29.6	1.724	2.708	0.9	21.5	1 22	8 10.17	+14 36.9	1.522	2.504	2.1	19.0
2 1	7 59.82	+18 7.5	1.758	2.726	4.7	21.8	2 1	7 58.89	+14 58.1	1.552	2.520	5.3	19.2
2 11	7 50.81	+18 41.3	1.820	2.744	8.9	22.1	2 11	7 49.18	+15 19.3	1.610	2.536	9.7	19.5
2 21	7 44.01	+19 8.9	1.907	2.761	12.5	22.4	2 21	7 41.97	+15 38.3	1.693	2.551	13.6	19.8
<b>26612</b>	Sunsetastro		1 21.4	97°84	7°2/25.8	18	<b>154662</b>	2004 <i>FO</i> <sub>46</sub>		1 21.4	267°23	0°4/21.6	18
12 13	8 38.25	- 1 15.6	1.965	2.662	17.5	18.6	12 13	8 41.33	+17 57.7	1.525	2.307	18.4	20.4
12 23	8 34.13	- 1 44.8	1.890	2.681	14.9	18.5	12 23	8 37.94	+18 0.4	1.427	2.292	14.8	20.1
1 2	8 27.67	- 1 53.1	1.834	2.699	12.1	18.3	1 2	8 31.18	+18 14.2	1.347	2.278	10.5	19.8
1 12	8 19.43	- 1 38.5	1.801	2.717	9.2	18.2	1 12	8 21.57	+18 36.4	1.292	2.263	5.3	19.5
1 22	8 10.29	- 1 1.4	1.793	2.735	7.4	18.1	1 22	8 10.17	+19 2.6	1.263	2.247	0.5	19.1
2 1	8 1.25	- 0 4.8	1.814	2.753	7.7	18.1	2 1	7 58.50	+19 27.9	1.262	2.232	5.9	19.4
2 11	7 53.36	+ 1 5.9	1.862	2.770	9.8	18.3	2 11	7 48.23	+19 48.3	1.287	2.216	11.3	19.7
2 21	7 47.37	+ 2 23.9	1.936	2.787	12.4	18.5	2 21	7 40.69	+20 1.7	1.336	2.201	16.1	19.9
<b>463315</b>	2012 <i>JG</i> <sub>34</sub>		1 21.4	317°86	3°1/22.5	16	<b>71924</b>	2000 <i>WE</i> <sub>56</sub>		1 21.4	37°24	2°4/20.5	18
12 13	8 36.17	+13 16.5	1.630	2.405	17.7	21.4	12 13	8 39.91	+23 1.0	1.416	2.215	18.7	18.8
12 23	8 33.48	+12 49.5	1.529	2.388	14.5	21.1	12 23	8 36.78	+23 34.1	1.346	2.222	14.8	18.6
1 2	8 27.85	+12 34.2	1.448	2.371	10.5	20.8	1 2	8 30.22	+24 15.4	1.295	2.231	10.2	18.4
1 12	8 19.80	+12 30.7	1.391	2.355	6.2	20.6	1 12	8 20.95	+24 58.8	1.268	2.239	5.2	18.1
1 22	8 10.25	+12 37.7	1.359	2.339	3.1	20.3	1 22	8 10.23	+25 37.2	1.267	2.248	2.5	17.9
2 1	8 0.49	+12 52.7	1.355	2.324	5.8	20.5	2 1	7 59.69	+26 4.6	1.293	2.257	6.7	18.2
2 11	7 51.93	+13 12.2	1.377	2.309	10.4	20.7	2 11	7 50.92	+26 18.2	1.344	2.267	11.5	18.5
2 21	7 45.70	+13 32.8	1.422	2.295	14.8	20.9	2 21	7 45.03	+26 18.2	1.418	2.277	15.6	18.8
<b>304879</b>	2007 <i>RE</i> <sub>161</sub>		1 21.4	164°15	0°5/21.1	18	<b>247535</b>	2002 <i>RQ</i> <sub>36</sub>		1 21.4	84°73	0°2/21.5	18
12 13	8 42.97	+19 37.1	2.048	2.808	15.0	22.4	12 13	8 43.07	+18 53.2	1.754	2.523	16.8	21.2
12 23	8 38.04	+19 58.6	1.960	2.814	11.9	22.2	12 23	8 38.27	+18 54.6	1.684	2.543	13.3	21.0
1 2	8 30.49	+20 27.9	1.894	2.820	8.2	22.0	1 2	8 30.66	+19 4.0	1.636	2.564	9.2	20.8
1 12	8 20.90	+21 1.3	1.854	2.824	4.1	21.8	1 12	8 20.96	+19 18.4	1.614	2.584	4.6	20.6
1 22	8 10.20	+21 34.6	1.844	2.828	0.6	21.5	1 22	8 10.24	+19 33.8	1.619	2.603	0.3	20.3
2 1	7 59.52	+22 3.5	1.865	2.831	4.8	21.8	2 1	7 59.81	+19 47.0	1.654	2.623	5.0	20.7
2 11	7 50.05	+22 25.4	1.915	2.834	8.8	22.1	2 11	7 50.89	+19 55.6	1.717	2.642	9.3	21.0
2 21	7 42.68	+22 39.2	1.990	2.836	12.4	22.3	2 21	7 44.35	+19 58.9	1.805	2.661	13.0	21.3
<b>283896</b>	2004 <i>CL</i> <sub>20</sub>		1 21.4	222°60	3°7/19.5	17	<b>119217</b>	2001 <i>QV</i> <sub>200</sub>		1 21.4	4°18	2°0/22.1	18
12 13	8 44.32	+33 21.1	2.859	3.612	11.3	20.7	12 13	8 38.94	+15 36.4	1.333	2.124	20.1	18.4
12 23	8 38.51	+33 36.4	2.757	3.603	9.1	20.5	12 23	8 36.14	+15 18.4	1.254	2.123	16.2	18.1
1 2	8 30.49	+33 48.9	2.680	3.594	6.7	20.3	1 2	8 29.89	+15 13.2	1.193	2.123	11.5	17.8
1 12	8 20.80	+33 54.2	2.631	3.585	4.4	20.2	1 12	8 20.85	+15 19.6	1.155	2.124	6.2	17.5
1 22	8 10.22	+33 48.8	2.612	3.575	3.8	20.1	1 22	8 10.24	+15 34.4	1.142	2.125	2.0	17.3
2 1	7 59.69	+33 30.5	2.624	3.565	5.5	20.2	2 1	7 59.66	+15 53.6	1.156	2.127	6.1	17.5
2 11	7 50.19	+32 59.6	2.667	3.554	8.0	20.3	2 11	7 50.78	+16 12.9	1.194	2.129	11.4	17.8
2 21	7 42.45	+32 17.8	2.736	3.543	10.5	20.5	2 21	7 44.77	+16 29.4	1.255	2.131	16.1	18.1
<b>271159</b>	2003 <i>SY</i> <sub>225</sub>		1 21.4	132°53	3°6/23.5	18	<b>456397</b>	2006 <i>UQ</i> <sub>183</sub>		1 21.4	72°21	5°8/18.4	16
12 13	8 36.06	+ 7 57.9	2.329	3.059	14.2	20.5	12 13	8 46.63	+30 57.3	1.719	2.499	16.7	21.3
12 23	8 32.16	+ 7 45.9	2.238	3.065	11.7	20.3	12 23	8 41.46	+32 27.7	1.671	2.534	13.2	21.1
1 2	8 26.21	+ 7 46.6	2.169	3.070	8.7	20.1	1 2	8 33.02	+33 58.1	1.646	2.568	9.6	21.0
1 12	8 18.71	+ 8 0.0	2.125	3.075	5.7	19.9	1 12	8 22.16	+35 18.7	1.648	2.602	6.6	20.9
1 22	8 10.35	+ 8 24.9	2.109	3.080	3.7	19.8	1 22	8 10.17	+36 20.9	1.677	2.635	6.1	20.9
2 1	8 2.00	+ 8 58.6	2.124	3.084	4.9	19.9	2 1	7 58.58	+36 59.5	1.734	2.668	8.4	21.1
2 11	7 54.55	+ 9 37.8	2.167	3.089	7.8	20.1	2 11	7 48.85	+37 14.3	1.818	2.701	11.4	21.4
2 21	7 48.69	+10 19.0	2.236	3.093	10.8	20.3	2 21	7 41.93	+37 8.7	1.925	2.733	14.3	21.6
<b>339472</b>	2005 <i>EG</i> <sub>258</sub>		1 21.4	180°16	5°8/25.6	18	<b>84882</b>	Table Mountain		1 21.4	70°85	8°0/18.2	18
12 13	8 34.24	- 1 42.0	2.834	3.508	13.1	21.6	12 13	8 50.81	+38 43.1	1.736	2.508	16.8	18.7
12 23	8 30.37	- 2 3.4	2.734	3.508	11.2	21.4	12 23	8 44.92	+39 57.0	1.691	2.540	13.8	18.6
1 2	8 24.81	- 2 9.8	2.655	3.509	9.2	21.3	1 2	8 35.44	+41 3.4	1.668	2.572	10.7	18.4
1 12	8 17.97	- 1 59.8	2.601	3.509	7.2	21.1	1 12	8 23.34	+41 52.3	1.670	2.604	8.5	18.4
1 22	8 10.40	- 1 33.3	2.575	3.509	5.9	21.0	1 22	8 10.10	+42 16.2	1.698	2.635	8.2	18.4
2 1	8 2.80	- 0 51.9	2.577	3.508	6.1	21.1	2 1	7 57.50	+42 12.0	1.754	2.666	9.9	18.6
2 11	7 55.87	+ 0 1.3	2.608	3.507	7.7	21.2	2 11	7 47.10	+41 42.3	1.835	2.696	12.4	18.8
2 21	7 50.20	+ 1 2.1	2.666	3.506	9.8	21.3	2 21	7 39.85	+40 53.1	1.938	2.726	14.9	19.0
<b>46286</b>	2001 <i>KR</i> <sub>37</sub>		1 21.4	96°87	4°3/23.9	18	<b>338934</b>	2004 <i>EU</i> <sub>48</sub>		1 21.4	306°83	1°2/21.8	18
12 13	8 35.32	+ 5 51.3	2.269										

EPHEMERIDES

1 21.4

1 21.4

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>35575</b>	1998 <i>HC</i> <sub>18</sub>		1 21.4 173°77	0°9/21.9 18			<b>494743</b>	2005 <i>VF</i> <sub>17</sub>		1 21.4 118°19	2°5/22.6 18		
12 13	8 38.74	+16 10.2	2.358	3.109	13.5	19.4	12 13	8 38.75	+12 36.5	2.004	2.755	15.6	21.1
12 23	8 34.33	+16 13.6	2.263	3.111	10.8	19.2	12 23	8 34.66	+12 24.4	1.917	2.762	12.6	20.9
1 2	8 27.75	+16 25.0	2.192	3.113	7.6	19.0	1 2	8 28.14	+12 23.4	1.852	2.768	9.1	20.7
1 12	8 19.51	+16 42.6	2.147	3.114	4.0	18.8	1 12	8 19.76	+12 32.9	1.812	2.773	5.2	20.4
1 22	8 10.35	+17 3.8	2.132	3.115	0.9	18.6	1 22	8 10.37	+12 50.7	1.800	2.779	2.5	20.3
2 1	8 1.19	+17 25.9	2.147	3.115	4.0	18.8	2 1	8 1.02	+13 14.0	1.818	2.785	4.8	20.4
2 11	7 52.98	+17 46.3	2.192	3.116	7.6	19.0	2 11	7 52.79	+13 39.5	1.864	2.790	8.5	20.7
2 21	7 46.46	+18 3.2	2.264	3.115	10.9	19.2	2 21	7 46.51	+14 4.6	1.935	2.795	12.0	20.9
<b>333402</b>	2002 <i>TW</i> <sub>291</sub>		1 21.4 83°21	1°4/22.1 18			<b>5205</b>	Serván		1 21.4 175°61	3°7/19.9 18		
12 13	8 38.44	+15 35.3	2.278	3.031	13.9	20.7	12 13	8 44.33	+27 12.3	1.654	2.438	17.0	17.6
12 23	8 34.00	+15 24.5	2.198	3.046	11.1	20.5	12 23	8 40.02	+27 46.6	1.571	2.439	13.6	17.4
1 2	8 27.43	+15 21.5	2.141	3.061	7.8	20.3	1 2	8 32.36	+28 24.5	1.510	2.440	9.6	17.2
1 12	8 19.29	+15 25.1	2.110	3.075	4.2	20.1	1 12	8 22.04	+28 59.4	1.474	2.440	5.5	16.9
1 22	8 10.37	+15 33.0	2.108	3.090	1.4	20.0	1 22	8 10.23	+29 24.3	1.465	2.440	3.8	16.8
2 1	8 1.58	+15 43.1	2.137	3.105	4.1	20.2	2 1	7 58.49	+29 34.2	1.484	2.441	7.1	17.0
2 11	7 53.83	+15 53.4	2.195	3.119	7.5	20.4	2 11	7 48.40	+29 27.9	1.529	2.440	11.3	17.3
2 21	7 47.83	+16 2.2	2.279	3.134	10.7	20.6	2 21	7 41.08	+29 7.2	1.599	2.440	15.1	17.5
<b>279976</b>	2001 <i>TQ</i> <sub>103</sub>		1 21.4 89°83	2°0/20.5 18			<b>5251</b>	Bradwood		1 21.4 137°19	8°8/25.7 18	R	
12 13	8 46.97	+21 15.4	1.646	2.417	17.6	21.9	12 13	8 43.62	- 4 40.0	2.239	2.892	16.6	18.7
12 23	8 41.52	+22 10.7	1.589	2.451	13.8	21.7	12 23	8 38.09	- 5 56.9	2.157	2.909	14.6	18.6
1 2	8 32.97	+23 14.6	1.554	2.483	9.4	21.6	1 2	8 30.29	- 6 56.1	2.096	2.925	12.3	18.5
1 12	8 22.12	+24 20.2	1.545	2.515	4.7	21.4	1 12	8 20.76	- 7 33.6	2.058	2.940	10.2	18.4
1 22	8 10.20	+25 20.0	1.564	2.545	2.1	21.2	1 22	8 10.32	- 7 47.2	2.047	2.954	8.9	18.3
2 1	7 58.66	+26 8.1	1.613	2.575	6.0	21.6	2 1	7 59.94	- 7 37.0	2.064	2.967	9.1	18.3
2 11	7 48.88	+26 41.5	1.690	2.604	10.1	21.9	2 11	7 50.62	- 7 6.3	2.108	2.979	10.6	18.5
2 21	7 41.79	+27 0.7	1.791	2.633	13.7	22.2	2 21	7 43.12	- 6 20.3	2.177	2.991	12.6	18.6
<b>60957</b>	2000 <i>JD</i> <sub>71</sub>		1 21.4 299°20	8°1/24.7 18	R		<b>195664</b>	2002 <i>OM</i>		1 21.4 89°97	3°4/23.3 18		
12 13	8 37.38	+ 0 55.7	1.816	2.532	18.1	19.3	12 13	8 38.31	+ 9 16.4	2.358	3.087	14.1	19.9
12 23	8 33.91	- 0 9.5	1.725	2.529	15.6	19.1	12 23	8 33.75	+ 8 53.9	2.281	3.108	11.5	19.8
1 2	8 27.84	- 0 57.3	1.652	2.526	12.7	18.9	1 2	8 27.19	+ 8 42.7	2.226	3.129	8.5	19.6
1 12	8 19.70	- 1 23.7	1.602	2.523	9.9	18.7	1 12	8 19.17	+ 8 42.5	2.198	3.149	5.4	19.4
1 22	8 10.34	- 1 26.7	1.577	2.519	8.2	18.6	1 22	8 10.43	+ 8 52.2	2.198	3.169	3.4	19.3
2 1	8 0.89	- 1 6.8	1.579	2.516	8.7	18.6	2 1	8 1.83	+ 9 9.8	2.228	3.189	4.7	19.5
2 11	7 52.54	- 0 27.8	1.607	2.513	11.1	18.7	2 11	7 54.23	+ 9 32.6	2.288	3.209	7.5	19.7
2 21	7 46.24	+ 0 24.3	1.658	2.511	14.1	18.9	2 21	7 48.25	+ 9 57.7	2.374	3.228	10.3	19.9
<b>259058</b>	2002 <i>TG</i> <sub>382</sub>		1 21.4 55°24	3°0/19.7 18			<b>252236</b>	2001 <i>PN</i> <sub>32</sub>		1 21.4 180°08	2°5/19.9 18		
12 13	8 38.92	+21 24.0	1.554	2.345	17.7	19.9	12 13	8 41.52	+25 10.0	2.303	3.069	13.4	21.4
12 23	8 35.71	+22 50.2	1.488	2.361	13.9	19.7	12 23	8 36.79	+25 53.5	2.212	3.070	10.6	21.2
1 2	8 29.34	+24 28.3	1.443	2.377	9.5	19.5	1 2	8 29.61	+26 41.5	2.144	3.071	7.4	21.0
1 12	8 20.49	+26 10.2	1.423	2.394	5.0	19.3	1 12	8 20.52	+27 28.9	2.104	3.071	4.0	20.8
1 22	8 10.29	+27 46.0	1.432	2.410	3.2	19.2	1 22	8 10.34	+28 10.7	2.094	3.071	2.7	20.7
2 1	8 0.18	+29 6.9	1.469	2.427	6.9	19.5	2 1	8 0.13	+28 42.6	2.114	3.070	5.4	20.9
2 11	7 51.65	+30 8.2	1.532	2.444	11.1	19.8	2 11	7 50.99	+29 2.3	2.163	3.068	8.7	21.1
2 21	7 45.73	+30 48.9	1.619	2.462	14.9	20.0	2 21	7 43.77	+29 9.9	2.238	3.066	11.8	21.3
<b>500319</b>	2012 <i>RV</i> <sub>31</sub>		1 21.4 163°23	4°9/25.3 18			<b>147669</b>	2004 <i>KG</i> <sub>15</sub>		1 21.4 108°69	6°2/17.5 18		
12 13	8 34.27	+ 0 19.8	2.770	3.456	13.1	21.7	12 13	8 43.43	+33 11.2	2.003	2.779	14.7	19.8
12 23	8 30.44	+ 0 20.0	2.672	3.460	11.1	21.5	12 23	8 38.92	+34 45.9	1.936	2.794	11.9	19.6
1 2	8 24.89	+ 0 35.9	2.595	3.463	8.8	21.4	1 2	8 31.39	+36 20.8	1.892	2.807	8.9	19.4
1 12	8 18.04	+ 1 7.9	2.543	3.466	6.5	21.2	1 12	8 21.50	+37 46.9	1.874	2.821	6.6	19.3
1 22	8 10.46	+ 1 55.2	2.520	3.469	5.0	21.1	1 22	8 10.28	+38 55.9	1.886	2.834	6.5	19.3
2 1	8 2.85	+ 2 55.2	2.527	3.472	5.4	21.2	2 1	7 59.12	+39 42.0	1.926	2.847	8.5	19.5
2 11	7 55.94	+ 4 4.0	2.563	3.474	7.3	21.3	2 11	7 49.40	+40 4.1	1.992	2.860	11.3	19.7
2 21	7 50.32	+ 5 17.2	2.627	3.476	9.6	21.4	2 21	7 42.15	+40 4.6	2.082	2.872	13.9	19.9
<b>148493</b>	2001 <i>KV</i> <sub>61</sub>		1 21.4 186°73	1°5/22.2 18			<b>91351</b>	1999 <i>JK</i> <sub>54</sub>		1 21.4 290°40	3°4/19.7 18		
12 13	8 39.17	+13 58.7	2.034	2.788	15.3	20.9	12 13	8 38.94	+25 59.4	1.850	2.635	15.4	19.3
12 23	8 35.08	+14 9.0	1.940	2.788	12.3	20.7	12 23	8 35.58	+26 45.8	1.753	2.622	12.3	19.0
1 2	8 28.51	+14 31.0	1.867	2.787	8.7	20.5	1 2	8 29.27	+27 38.2	1.679	2.610	8.7	18.8
1 12	8 19.99	+15 2.8	1.821	2.786	4.7	20.2	1 12	8 20.54	+28 30.6	1.629	2.597	4.9	18.5
1 22	8 10.34	+15 41.3	1.803	2.785	1.5	20.0	1 22	8 10.34	+29 16.2	1.608	2.584	3.6	18.4
2 1	8 0.64	+16 22.4	1.814	2.783	4.6	20.2	2 1	7 59.96	+29 49.2	1.615	2.571	6.7	18.6
2 11	7 52.01	+17 2.1	1.855	2.781	8.6	20.5	2 11	7 50.82	+30 6.7	1.649	2.559	10.7	18.8
2 21	7 45.32	+17 37.7	1.922	2.778	12.3	20.7	2 21	7 44.02	+30 8.8	1.706	2.546	14.4	19.0
<b>246868</b>	1366 <i>T-3</i>		1 21.4 87°52	3°6/19.5 18			<b>377116</b>	2002 <i>XF</i> <sub>48</sub>		1 21.4 73°64	8°1/15.1 18		
12 13	8 40.58	+30 47.9	2.464	3.232	12.5	20.6	12 13	8 43.61	+39 56.8	2.240	3.007	13.7	20.2
12 23	8 35.78	+31 17.0	2.387	3.244	10.0	20.5	12 23	8 39.12	+42 2.0	2.185	3.026	11.4	20.1
1 2	8 28.70	+31 45.3	2.335	3.257	7.1	20.3	1 2	8 31.60	+44 2.4	2.155	3.046	9.3	20.0
1 12	8 19.94	+32 7.9	2.310	3.269	4.5	20.2	1 12	8 21.64	+45 48.2	2.151	3.065	8.1	20.0
1 22	8 10.36	+32 20.8	2.314	3.282	3.7	20.2	1 22	8 10.27	+47 11.2	2.176	3.084	8.4	20.0
2 1	8 0.94	+32 21.6	2.348	3.294	5.7	20.3	2 1	7 58.86	+48 6.2	2.229	3.103	9.9	20.1
2 11	7 52.67	+32 9.7	2.410	3.306	8.4	20.5	2 11	7 48.85	+48 32.9	2.306	3.122	11.9	20.3
2 21	7 46.28	+31 46.6	2.499	3.318	11.0	20.7	2 21	7 41.31	+48 35.0	2.405	3.141	13.8	20.5
<b>238472</b>	2004 <i>RH</i> <sub>73</sub>		1 21.4 58°92	1°3/20.9 17			<b>113120</b>	2002 <i>RH</i> <sub>81</sub>		1 21.4 42°00	0°9/21.9 18		
12 13	8 42.65	+20 51.9	1.341	2.136	19.8	20.6							

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>65162</b>	2002 <i>CF</i> <sub>161</sub>		1 21.4 196°94	0°6/21.0	18		<b>64482</b>	2001 <i>VM</i> <sub>47</sub>		1 21.4 19°28	0°8/21.8	18	
12 13	8 38.01	+18 40.2	2.408	3.166	13.1	19.8	12 13	8 37.93	+16 51.7	1.770	2.545	16.5	19.6
12 23	8 33.87	+19 21.9	2.310	3.164	10.4	19.6	12 23	8 34.48	+16 54.6	1.685	2.546	13.2	19.3
1 2	8 27.54	+20 12.4	2.235	3.161	7.1	19.4	1 2	8 28.28	+17 7.7	1.620	2.548	9.2	19.1
1 12	8 19.48	+21 8.2	2.187	3.157	3.5	19.1	1 12	8 19.95	+17 28.7	1.581	2.550	4.7	18.8
1 22	8 10.41	+22 4.9	2.170	3.154	0.7	18.9	1 22	8 10.42	+17 54.0	1.569	2.552	0.8	18.5
2 1	8 1.25	+22 58.1	2.184	3.150	4.3	19.2	2 1	8 0.92	+18 19.7	1.585	2.555	4.9	18.9
2 11	7 52.95	+23 44.2	2.227	3.145	7.9	19.4	2 11	7 52.69	+18 42.4	1.629	2.557	9.4	19.1
2 21	7 46.32	+24 21.2	2.298	3.140	11.1	19.6	2 21	7 46.67	+19 0.1	1.697	2.560	13.3	19.4
<b>417236</b>	2005 <i>YS</i> <sub>88</sub>		1 21.4 267°84	0°5/21.6	18		<b>27484</b>	2000 <i>GN</i> <sub>94</sub>		1 21.4 140°69	3°0/23.6	18	
12 13	8 38.38	+18 2.5	2.063	2.828	14.7	21.7	12 13	8 34.83	+ 7 5.8	2.523	3.247	13.4	17.6
12 23	8 34.51	+18 3.1	1.965	2.822	11.8	21.4	12 23	8 31.11	+ 7 25.6	2.428	3.252	11.0	17.5
1 2	8 28.15	+18 11.5	1.889	2.815	8.2	21.2	1 2	8 25.48	+ 7 59.7	2.356	3.257	8.2	17.3
1 12	8 19.83	+18 25.5	1.838	2.808	4.2	20.9	1 12	8 18.41	+ 8 47.1	2.310	3.262	5.2	17.1
1 22	8 10.40	+18 42.0	1.817	2.801	0.5	20.6	1 22	8 10.52	+ 9 45.4	2.293	3.266	3.0	17.0
2 1	8 0.90	+18 58.1	1.825	2.794	4.5	20.9	2 1	8 2.61	+10 50.9	2.307	3.271	4.3	17.1
2 11	7 52.46	+19 11.1	1.861	2.787	8.6	21.2	2 11	7 55.48	+11 59.2	2.351	3.275	7.1	17.3
2 21	7 45.96	+19 19.6	1.923	2.780	12.3	21.4	2 21	7 49.80	+13 6.2	2.422	3.279	10.0	17.4
<b>222356</b>	2000 <i>WL</i> <sub>150</sub>		1 21.4 170°22	4°2/18.9	18		<b>281295</b>	2007 <i>RT</i> <sub>202</sub>		1 21.4 107°97	2°1/22.7	18	
12 13	8 41.86	+30 29.6	2.298	3.068	13.3	20.5	12 13	8 36.13	+12 4.3	2.450	3.191	13.3	21.1
12 23	8 37.17	+31 22.5	2.213	3.071	10.6	20.3	12 23	8 32.13	+12 4.8	2.363	3.201	10.7	21.0
1 2	8 29.93	+32 16.2	2.152	3.073	7.6	20.1	1 2	8 26.16	+12 15.6	2.298	3.211	7.7	20.8
1 12	8 20.69	+33 4.9	2.117	3.075	5.0	20.0	1 12	8 18.72	+12 35.4	2.260	3.221	4.4	20.6
1 22	8 10.35	+33 42.9	2.112	3.077	4.4	20.0	1 22	8 10.51	+13 2.2	2.252	3.231	2.1	20.5
2 1	8 0.02	+34 5.9	2.137	3.078	6.5	20.1	2 1	8 2.34	+13 33.2	2.274	3.241	4.0	20.6
2 11	7 50.85	+34 12.8	2.190	3.079	9.4	20.3	2 11	7 55.06	+14 5.6	2.325	3.250	7.2	20.8
2 21	7 43.73	+34 4.6	2.267	3.079	12.3	20.5	2 21	7 49.32	+14 36.7	2.403	3.259	10.1	21.0
<b>340588</b>	2006 <i>PJ</i> <sub>23</sub>		1 21.4 110°17	0°7/20.9	18		<b>462846</b>	2010 <i>UT</i> <sub>29</sub>		1 21.4 43°72	8°0/24.7	16	
12 13	8 38.63	+21 31.8	2.797	3.550	11.5	21.8	12 13	8 40.40	+ 3 35.7	1.415	2.160	21.2	20.8
12 23	8 33.79	+21 45.5	2.718	3.569	9.1	21.6	12 23	8 36.51	+ 2 19.6	1.362	2.188	17.8	20.6
1 2	8 27.12	+22 2.9	2.663	3.588	6.2	21.5	1 2	8 29.60	+ 1 24.8	1.326	2.216	14.0	20.4
1 12	8 19.12	+22 21.5	2.637	3.606	3.1	21.3	1 12	8 20.50	+ 0 54.8	1.311	2.245	10.3	20.3
1 22	8 10.47	+22 38.6	2.641	3.624	0.8	21.1	1 22	8 10.40	+ 0 50.5	1.321	2.274	8.1	20.3
2 1	8 1.94	+22 52.0	2.677	3.642	3.6	21.4	2 1	8 0.70	+ 1 9.5	1.357	2.304	8.8	20.4
2 11	7 54.31	+23 0.1	2.743	3.659	6.6	21.6	2 11	7 52.68	+ 1 46.1	1.418	2.334	11.6	20.6
2 21	7 48.17	+23 2.6	2.836	3.675	9.3	21.8	2 21	7 47.21	+ 2 33.3	1.502	2.365	14.7	20.9
<b>354060</b>	2001 <i>TJ</i> <sub>103</sub>		1 21.4 359°32	26°1/ 9.9	15		<b>444294</b>	2005 <i>UM</i> <sub>513</sub>		1 21.4 122°18	1°1/20.9	18	
12 13	8 49.25	+64 43.8	0.928	1.707	27.7	19.8	12 13	8 44.40	+20 44.0	1.613	2.390	17.7	21.8
12 23	8 53.13	+67 16.7	0.899	1.699	26.8	19.7	12 23	8 39.84	+21 6.5	1.537	2.401	14.1	21.5
1 2	8 46.78	+69 12.0	0.882	1.694	26.2	19.7	1 2	8 32.09	+21 37.7	1.483	2.413	9.7	21.3
1 12	8 30.72	+70 8.5	0.877	1.692	26.1	19.6	1 12	8 21.86	+22 12.8	1.453	2.424	4.8	21.0
1 22	8 9.73	+69 49.3	0.882	1.693	26.4	19.7	1 22	8 10.31	+22 46.1	1.451	2.434	1.2	20.8
2 1	7 51.26	+68 10.5	0.900	1.696	27.2	19.7	2 1	7 58.92	+23 12.4	1.477	2.444	5.7	21.1
2 11	7 40.58	+65 24.8	0.929	1.703	28.2	19.8	2 11	7 49.17	+23 29.0	1.531	2.454	10.4	21.4
2 21	7 38.42	+61 51.9	0.970	1.711	29.4	20.0	2 21	7 42.08	+23 35.5	1.609	2.463	14.4	21.7
<b>87893</b>	2000 <i>SL</i> <sub>293</sub>		1 21.4 106°81	0°7/21.1	18		<b>442655</b>	2012 <i>TY</i> <sub>159</sub>		1 21.4 97°51	4°1/23.2	17	
12 13	8 42.03	+21 49.3	2.097	2.862	14.5	19.2	12 13	8 40.43	+ 8 57.8	1.425	2.189	20.3	22.0
12 23	8 37.14	+21 51.6	2.017	2.874	11.5	19.0	12 23	8 36.96	+ 8 52.2	1.350	2.198	16.6	21.8
1 2	8 29.76	+21 58.3	1.959	2.886	7.9	18.8	1 2	8 30.27	+ 9 6.6	1.293	2.208	12.2	21.5
1 12	8 20.53	+22 6.5	1.928	2.898	3.9	18.6	1 12	8 21.02	+ 9 40.7	1.259	2.218	7.5	21.3
1 22	8 10.38	+22 12.8	1.926	2.910	0.8	18.4	1 22	8 10.37	+10 31.2	1.250	2.227	4.1	21.1
2 1	8 0.39	+22 14.6	1.955	2.921	4.6	18.7	2 1	7 59.78	+11 32.4	1.269	2.236	6.4	21.3
2 11	7 51.65	+22 10.7	2.012	2.932	8.4	18.9	2 11	7 50.78	+12 37.2	1.314	2.245	10.9	21.5
2 21	7 44.96	+22 0.9	2.095	2.943	11.8	19.2	2 21	7 44.45	+13 39.4	1.382	2.254	15.2	21.8
<b>489895</b>	2008 <i>JS</i> <sub>21</sub>		1 21.4 166°69	4°8/18.6	18		<b>467004</b>	2016 <i>CY</i> <sub>72</sub>		1 21.4 12°69	0°7/21.8	18	
12 13	8 45.23	+34 26.4	2.598	3.355	12.2	22.0	12 13	8 36.97	+15 29.1	1.867	2.636	15.9	21.7
12 23	8 39.52	+35 12.9	2.515	3.361	9.9	21.9	12 23	8 33.63	+15 54.0	1.778	2.636	12.8	21.5
1 2	8 31.37	+35 57.1	2.455	3.366	7.4	21.7	1 2	8 27.67	+16 31.5	1.710	2.637	8.9	21.3
1 12	8 21.34	+36 33.1	2.423	3.370	5.3	21.6	1 12	8 19.66	+17 18.8	1.668	2.637	4.6	21.0
1 22	8 10.33	+36 56.0	2.421	3.374	4.9	21.6	1 22	8 10.45	+18 11.4	1.654	2.637	0.7	20.7
2 1	7 59.40	+37 2.6	2.449	3.377	6.6	21.7	2 1	8 1.20	+19 4.1	1.668	2.638	4.8	21.0
2 11	7 49.64	+36 52.7	2.506	3.379	9.0	21.8	2 11	7 53.09	+19 52.3	1.711	2.638	9.1	21.3
2 21	7 41.86	+36 28.3	2.588	3.381	11.5	22.0	2 21	7 47.05	+20 33.0	1.778	2.639	12.9	21.5
<b>494745</b>	2005 <i>VE</i> <sub>84</sub>		1 21.4 121°22	1°3/20.8	18		<b>278408</b>	2007 <i>RC</i> <sub>22</sub>		1 21.4 109°41	1°7/22.5	18	
12 13	8 40.54	+21 57.6	2.082	2.851	14.5	22.4	12 13	8 35.73	+12 9.4	2.401	3.145	13.5	20.7
12 23	8 36.09	+22 21.6	2.001	2.861	11.5	22.2	12 23	8 31.89	+12 30.3	2.313	3.155	10.8	20.5
1 2	8 29.13	+22 51.6	1.942	2.870	7.9	22.0	1 2	8 26.05	+13 2.6	2.249	3.164	7.7	20.3
1 12	8 20.27	+23 23.4	1.909	2.879	3.9	21.8	1 12	8 18.70	+13 44.6	2.211	3.174	4.3	20.1
1 22	8 10.40	+23 52.7	1.906	2.888	1.4	21.6	1 22	8 10.52	+14 33.3	2.202	3.183	1.7	19.9
2 1	8 0.62	+24 15.7	1.932	2.897	4.9	21.9	2 1	8 2.36	+15 24.9	2.224	3.192	3.9	20.1
2 11	7 52.04	+24 30.2	1.987	2.905	8.7	22.1	2 11	7 55.09	+16 15.7	2.276	3.201	7.3	20.3
2 21	7 45.49	+24 35.9	2.068	2.913	12.0	22.3	2 21	7 49.38	+17 2.6	2.354	3.210	10.3	20.6
<b>408127</b>	2013 <i>CL</i> <sub>49</sub>		1 21.4 264°98	1°6/20.7	18		<b>125657</b>	2001 <i>XP</i> <sub>70</sub>		1 21.4 51°94	4°6/23.4	18	
12 13	8 40.71	+21 1											

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>8795</b>	Dudorov		1 21.4 113°52'	1.7°/20.5	18		<b>404196</b>	2013 CC <sub>126</sub>		1 21.4 312°79'	2°0'/20.6	18	
12 13	8 39.84	+25 28.9	2.683	3.443	11.8	18.0	12 13	8 37.84	+21 16.0	1.429	2.228	18.5	21.0
12 23	8 34.90	+25 42.1	2.602	3.457	9.3	17.9	12 23	8 35.47	+21 53.4	1.338	2.216	14.8	20.7
1 2	8 27.97	+25 57.0	2.544	3.470	6.4	17.7	1 2	8 29.66	+22 42.6	1.268	2.204	10.3	20.4
1 12	8 19.59	+26 10.2	2.515	3.483	3.4	17.5	1 12	8 20.95	+23 38.4	1.220	2.192	5.2	20.1
1 22	8 10.48	+26 18.9	2.516	3.495	1.8	17.4	1 22	8 10.42	+24 33.3	1.199	2.181	2.1	19.8
2 1	8 1.51	+26 20.9	2.548	3.508	4.2	17.6	2 1	7 59.65	+25 19.7	1.204	2.170	6.8	20.1
2 11	7 53.52	+26 15.3	2.610	3.520	7.2	17.8	2 11	7 50.41	+25 52.6	1.234	2.160	12.0	20.4
2 21	7 47.15	+26 2.5	2.698	3.532	9.9	18.0	2 21	7 44.01	+26 10.4	1.287	2.150	16.6	20.6
<b>374769</b>	2006 ST <sub>321</sub>		1 21.4 107°64'	0°8'/21.9	18		<b>246270</b>	2007 TR <sub>34</sub>		1 21.4 112°98'	9°0'/27.6	18	
12 13	8 41.06	+15 32.9	1.990	2.746	15.5	22.4	12 13	8 34.43	- 9 37.3	2.536	3.168	15.3	20.8
12 23	8 36.43	+15 50.5	1.914	2.765	12.3	22.3	12 23	8 30.80	-10 34.6	2.447	3.173	13.7	20.6
1 2	8 29.33	+16 18.7	1.861	2.783	8.6	22.1	1 2	8 25.29	-11 12.9	2.377	3.178	11.9	20.5
1 12	8 20.36	+16 54.8	1.834	2.801	4.4	21.8	1 12	8 18.35	-11 28.7	2.329	3.183	10.3	20.4
1 22	8 10.43	+17 34.8	1.836	2.819	0.8	21.6	1 22	8 10.61	-11 20.4	2.305	3.188	9.2	20.3
2 1	8 0.66	+18 14.4	1.867	2.836	4.5	21.9	2 1	8 2.84	-10 48.3	2.307	3.192	9.1	20.3
2 11	7 52.12	+18 50.1	1.928	2.853	8.4	22.2	2 11	7 55.85	- 9 55.7	2.335	3.197	10.1	20.4
2 21	7 45.62	+19 19.9	2.015	2.869	11.9	22.4	2 21	7 50.29	- 8 47.6	2.387	3.201	11.7	20.5
<b>331948</b>	2004 TB <sub>274</sub>		1 21.4 168°62'	4°1'/18.9	18		<b>426919</b>	2013 WH <sub>97</sub>		1 21.4 66°84'	5°4'/24.1	18	
12 13	8 41.51	+30 48.7	2.384	3.152	12.9	21.5	12 13	8 39.16	+ 4 48.6	2.203	2.917	15.4	21.0
12 23	8 36.81	+31 38.7	2.299	3.155	10.3	21.4	12 23	8 34.52	+ 3 57.4	2.133	2.943	12.8	20.8
1 2	8 29.63	+32 29.3	2.237	3.158	7.4	21.2	1 2	8 27.77	+ 3 19.9	2.084	2.968	9.9	20.7
1 12	8 20.56	+33 14.6	2.203	3.160	4.9	21.0	1 12	8 19.52	+ 2 57.6	2.060	2.994	7.2	20.6
1 22	8 10.42	+33 49.4	2.198	3.162	4.3	21.0	1 22	8 10.55	+ 2 50.7	2.064	3.019	5.5	20.5
2 1	8 0.31	+34 9.7	2.223	3.163	6.3	21.1	2 1	8 1.76	+ 2 57.9	2.098	3.044	6.2	20.6
2 11	7 51.33	+34 14.5	2.276	3.164	9.2	21.3	2 11	7 54.06	+ 3 16.2	2.159	3.069	8.5	20.8
2 21	7 44.31	+34 4.8	2.354	3.165	11.9	21.5	2 21	7 48.09	+ 3 42.0	2.246	3.094	11.1	21.0
<b>401515</b>	1999 RE <sub>89</sub>		1 21.4 156°80'	1°1'/22.1	18		<b>263560</b>	2008 FJ <sub>61</sub>		1 21.4 160°67'	1°5'/20.7	18	
12 13	8 38.04	+15 10.6	2.306	3.057	13.8	19.9	12 13	8 39.44	+21 36.7	1.890	2.667	15.5	21.0
12 23	8 33.84	+15 17.8	2.214	3.061	11.0	19.7	12 23	8 35.64	+22 10.7	1.803	2.668	12.3	20.7
1 2	8 27.47	+15 34.2	2.145	3.065	7.7	19.5	1 2	8 29.11	+22 52.5	1.738	2.669	8.5	20.5
1 12	8 19.44	+15 57.9	2.102	3.069	4.1	19.3	1 12	8 20.41	+23 37.7	1.699	2.669	4.3	20.3
1 22	8 10.50	+16 26.2	2.089	3.072	1.1	19.1	1 22	8 10.48	+24 20.7	1.688	2.670	1.7	20.1
2 1	8 1.56	+16 55.9	2.106	3.075	4.1	19.3	2 1	8 0.54	+24 56.6	1.706	2.671	5.4	20.3
2 11	7 53.57	+17 24.2	2.153	3.078	7.7	19.6	2 11	7 51.84	+25 22.2	1.752	2.671	9.5	20.6
2 21	7 47.29	+17 48.9	2.226	3.080	10.9	19.8	2 21	7 45.33	+25 36.6	1.823	2.672	13.2	20.8
<b>167069</b>	2003 RL <sub>1</sub>		1 21.4 29°63'	13°7'/30.8	18		<b>522405</b>	2016 CC <sub>310</sub>		1 21.4 30°39'	0°7'/21.2	18	
12 13	8 33.84	-13 25.0	1.495	2.160	23.3	19.4	12 13	8 39.70	+20 34.9	1.781	2.560	16.2	21.5
12 23	8 31.66	-14 24.1	1.423	2.167	21.1	19.3	12 23	8 35.95	+20 46.8	1.696	2.561	12.9	21.2
1 2	8 26.57	-14 48.9	1.365	2.174	18.7	19.1	1 2	8 29.35	+21 6.2	1.632	2.563	8.9	21.0
1 12	8 19.19	-14 32.4	1.324	2.182	16.2	19.0	1 12	8 20.54	+21 29.5	1.593	2.564	4.4	20.7
1 22	8 10.50	-13 31.2	1.302	2.191	14.3	18.9	1 22	8 10.49	+21 52.5	1.582	2.566	0.8	20.5
2 1	8 1.82	-11 47.4	1.302	2.200	13.7	18.9	2 1	8 0.48	+22 10.9	1.600	2.567	5.2	20.8
2 11	7 54.50	- 9 29.9	1.325	2.210	14.7	19.0	2 11	7 51.80	+22 22.3	1.645	2.569	9.6	21.1
2 21	7 49.54	- 6 52.1	1.371	2.220	16.7	19.1	2 21	7 45.43	+22 25.8	1.714	2.571	13.5	21.3
<b>494874</b>	2008 GU <sub>96</sub>		1 21.4 187°59'	1°0'/22.1	17		<b>377332</b>	2004 PW <sub>11</sub>		1 21.4 217°37'	0°9'/20.9	17	
12 13	8 38.79	+14 39.3	2.529	3.271	12.9	22.4	12 13	8 42.51	+22 41.4	2.549	3.302	12.6	22.2
12 23	8 34.29	+14 55.2	2.429	3.270	10.4	22.3	12 23	8 37.31	+22 47.1	2.442	3.292	10.0	22.0
1 2	8 27.72	+15 20.5	2.351	3.269	7.3	22.1	1 2	8 29.87	+22 56.2	2.358	3.282	6.9	21.8
1 12	8 19.56	+15 53.1	2.302	3.267	3.9	21.8	1 12	8 20.68	+23 5.8	2.302	3.272	3.5	21.5
1 22	8 10.49	+16 30.3	2.282	3.265	1.0	21.6	1 22	8 10.49	+23 12.8	2.277	3.260	1.0	21.3
2 1	8 1.36	+17 8.8	2.294	3.262	3.8	21.8	2 1	8 0.23	+23 14.9	2.284	3.248	4.2	21.5
2 11	7 53.07	+17 45.5	2.335	3.258	7.3	22.0	2 11	7 50.90	+23 10.6	2.320	3.235	7.7	21.7
2 21	7 46.33	+18 18.2	2.405	3.253	10.4	22.2	2 21	7 43.28	+23 0.0	2.384	3.222	10.9	21.9
<b>205244</b>	2000 QA <sub>189</sub>		1 21.4 116°33'	4°1'/19.6	18		<b>167859</b>	2005 EV <sub>12</sub>		1 21.4 359°28'	3°4'/20.3	18	
12 13	8 45.99	+28 12.9	1.754	2.532	16.5	20.0	12 13	8 36.62	+24 45.3	1.214	2.032	20.1	19.5
12 23	8 41.01	+29 2.0	1.683	2.547	13.1	19.8	12 23	8 34.96	+25 16.7	1.141	2.029	16.0	19.2
1 2	8 32.84	+29 53.8	1.635	2.561	9.2	19.6	1 2	8 29.47	+25 55.8	1.087	2.027	11.2	18.9
1 12	8 22.22	+30 40.8	1.612	2.576	5.5	19.4	1 12	8 20.86	+26 35.7	1.055	2.026	6.0	18.6
1 22	8 10.34	+31 16.0	1.617	2.589	4.3	19.4	1 22	8 10.47	+27 8.2	1.046	2.026	3.5	18.5
2 1	7 58.68	+31 34.5	1.651	2.602	7.1	19.6	2 1	8 0.15	+27 26.6	1.063	2.028	7.8	18.7
2 11	7 48.69	+31 35.4	1.712	2.615	10.8	19.8	2 11	7 51.78	+27 28.2	1.103	2.030	12.9	19.0
2 21	7 41.39	+31 20.9	1.797	2.627	14.2	20.1	2 21	7 46.64	+27 14.1	1.164	2.034	17.5	19.3
<b>54616</b>	2000 RZ <sub>97</sub>		1 21.4 272°71'	2°5'/20.5	18		<b>451912</b>	2014 KQ <sub>33</sub>		1 21.4 150°61'	2°7'/19.9	18	
12 13	8 45.32	+29 35.4	2.479	3.236	12.7	18.8	12 13	8 43.36	+22 42.3	1.789	2.564	16.3	21.8
12 23	8 39.47	+29 24.7	2.382	3.234	10.2	18.6	12 23	8 38.96	+23 47.9	1.708	2.572	12.9	21.6
1 2	8 31.25	+29 11.6	2.310	3.232	7.2	18.4	1 2	8 31.53	+25 2.9	1.650	2.579	8.9	21.3
1 12	8 21.27	+28 52.6	2.265	3.229	4.1	18.2	1 12	8 21.67	+26 20.3	1.617	2.586	4.7	21.1
1 22	8 10.41	+28 25.1	2.251	3.227	2.6	18.1	1 22	8 10.43	+27 32.4	1.614	2.592	2.9	21.0
2 1	7 59.70	+27 47.7	2.268	3.225	5.0	18.2	2 1	7 59.16	+28 32.0	1.640	2.598	6.4	21.2
2 11	7 50.18	+27 1.3	2.315	3.222	8.1	18.4	2 11	7 49.29	+29 15.3	1.693	2.603	10.5	21.5
2 21	7 42.62	+26 8.0	2.389	3.220	11.1	18.6	2 21	7 41.88	+29 41.9	1.771	2.607	14.1	21.7
<b>266792</b>	2009 SO <sub>274</sub>		1 21.4 98°94'	2°2'/22.6	18		<b>247513</b>	2002 PX <sub>132</sub>		1 21.4 95°81'	1°9'/22.5	18	
12 13	8 37.20	+12 10.8	1.987	2.742	15.6	20.8	12 13	8 41.48					



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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>489643</b>	2007 <i>TH</i> <sub>436</sub>		1 21.4 144°80	0°2/21.3	18		<b>325171</b>	2008 <i>FP</i> <sub>54</sub>		1 21.5 354°83	4°7/19.3	18	
12 13	8 42.52	+18 24.3	2.020	2.779	15.2	22.2	12 13	8 40.22	+28 45.7	1.648	2.442	16.7	20.5
12 23	8 37.72	+18 50.3	1.936	2.790	12.1	22.0	12 23	8 36.92	+29 37.0	1.568	2.440	13.3	20.3
1 2	8 30.33	+19 25.4	1.875	2.800	8.3	21.8	1 2	8 30.36	+30 31.8	1.509	2.439	9.5	20.1
1 12	8 20.95	+20 5.8	1.840	2.810	4.1	21.5	1 12	8 21.18	+31 22.5	1.474	2.438	5.9	19.8
1 22	8 10.48	+20 47.1	1.835	2.819	0.4	21.3	1 22	8 10.51	+32 1.5	1.466	2.437	4.9	19.8
2 1	8 0.08	+21 24.8	1.860	2.827	4.7	21.6	2 1	7 59.86	+32 23.0	1.486	2.437	7.8	19.9
2 11	7 50.89	+21 55.6	1.914	2.835	8.7	21.9	2 11	7 50.78	+32 25.2	1.531	2.437	11.6	20.2
2 21	7 43.79	+22 18.2	1.994	2.842	12.3	22.1	2 21	7 44.40	+32 9.9	1.599	2.438	15.3	20.4
<b>431143</b>	2006 <i>QB</i> <sub>65</sub>		1 21.4 136°30	1°2/22.3	18		<b>179832</b>	2002 <i>TB</i> <sub>179</sub>		1 21.5 59°27	5°0/19.9	18	
12 13	8 35.63	+14 5.7	2.655	3.400	12.3	21.7	12 13	8 47.86	+31 47.7	1.559	2.345	17.8	19.9
12 23	8 31.64	+14 17.2	2.564	3.406	9.9	21.5	12 23	8 42.73	+32 11.7	1.499	2.365	14.2	19.8
1 2	8 25.81	+14 37.4	2.496	3.413	7.0	21.4	1 2	8 34.08	+32 33.4	1.460	2.385	10.2	19.6
1 12	8 18.59	+15 4.8	2.454	3.419	3.8	21.2	1 12	8 22.83	+32 45.1	1.445	2.406	6.4	19.4
1 22	8 10.62	+15 37.0	2.443	3.425	1.2	21.0	1 22	8 10.43	+32 40.9	1.457	2.427	5.2	19.4
2 1	8 2.67	+16 11.1	2.463	3.431	3.6	21.2	2 1	7 58.57	+32 18.1	1.497	2.447	7.8	19.6
2 11	7 55.51	+16 44.3	2.513	3.437	6.7	21.4	2 11	7 48.79	+31 38.3	1.563	2.468	11.5	19.8
2 21	7 49.77	+17 14.7	2.589	3.442	9.6	21.6	2 21	7 42.06	+30 46.0	1.652	2.489	14.9	20.1
<b>165756</b>	2001 <i>QT</i> <sub>208</sub>		1 21.4 53°84	2°6/20.3	18		<b>375151</b>	2008 <i>CN</i> <sub>24</sub>		1 21.5 248°30	9°6/17.4	16	
12 13	8 40.46	+26 49.9	2.088	2.863	14.2	20.0	12 13	9 1.15	+48 25.1	2.242	2.968	14.8	22.0
12 23	8 36.03	+27 6.0	2.013	2.876	11.3	19.8	12 23	8 53.50	+49 15.4	2.147	2.951	12.9	21.9
1 2	8 29.08	+27 23.7	1.961	2.889	7.8	19.6	1 2	8 41.81	+49 54.3	2.073	2.933	11.1	21.7
1 12	8 20.26	+27 38.5	1.935	2.902	4.3	19.4	1 12	8 26.88	+50 11.3	2.024	2.914	9.8	21.6
1 22	8 10.53	+27 46.3	1.938	2.916	2.7	19.3	1 22	8 10.21	+49 58.0	2.002	2.896	9.8	21.6
2 1	8 1.00	+27 44.6	1.970	2.929	5.4	19.5	2 1	7 53.80	+49 10.4	2.007	2.876	11.1	21.6
2 11	7 52.76	+27 32.6	2.031	2.943	8.8	19.8	2 11	7 39.61	+47 51.5	2.039	2.856	13.1	21.7
2 21	7 46.61	+27 11.3	2.116	2.957	12.0	20.0	2 21	7 28.91	+46 8.9	2.094	2.836	15.4	21.8
<b>523745</b>	2014 <i>TD</i> <sub>86</sub>		1 21.4 159°44	0°0/21.1	18		<b>429377</b>	2010 <i>LP</i> <sub>24</sub>		1 21.5 168°89	4°4/18.6	18	
12 13	8 14.09	+21 30.2	42.579	43.332	0.8	21.9	12 13	8 39.53	+31 40.2	2.472	3.242	12.4	21.1
12 23	8 13.44	+21 32.5	42.480	43.332	0.7	21.8	12 23	8 35.25	+32 34.9	2.386	3.244	10.0	20.9
1 2	8 12.69	+21 35.0	42.406	43.332	0.4	21.8	1 2	8 28.59	+33 29.8	2.325	3.245	7.3	20.7
1 12	8 11.88	+21 37.7	42.362	43.332	0.2	21.8	1 12	8 20.11	+34 19.2	2.291	3.246	5.0	20.6
1 22	8 11.04	+21 40.3	42.349	43.333	0.0	21.7	1 22	8 10.61	+34 57.9	2.286	3.247	4.5	20.5
2 1	8 10.20	+21 42.9	42.366	43.333	0.3	21.8	2 1	8 1.10	+35 22.1	2.311	3.247	6.4	20.7
2 11	8 9.39	+21 45.3	42.414	43.333	0.5	21.8	2 11	7 52.63	+35 30.3	2.364	3.248	9.1	20.8
2 21	8 8.65	+21 47.3	42.491	43.333	0.7	21.8	2 21	7 46.03	+35 23.8	2.441	3.248	11.6	21.0
<b>495455</b>	2014 <i>TM</i> <sub>23</sub>		1 21.4 123°78	5°6/24.4	18		<b>104199</b>	2000 <i>EO</i> <sub>107</sub>		1 21.5 238°23	7°0/26.6	18	
12 13	8 37.85	+3 55.3	1.987	2.708	16.6	21.8	12 13	8 37.71	-4 45.0	2.276	2.941	16.1	20.3
12 23	8 33.99	+3 29.2	1.901	2.715	13.9	21.7	12 23	8 33.83	-4 37.5	2.161	2.928	14.1	20.1
1 2	8 27.74	+3 20.1	1.835	2.723	10.8	21.5	1 2	8 27.69	-4 6.8	2.065	2.914	11.6	19.9
1 12	8 19.66	+3 29.3	1.792	2.730	7.7	21.3	1 12	8 19.73	-3 10.6	1.992	2.899	9.1	19.7
1 22	8 10.57	+3 56.3	1.777	2.737	5.7	21.2	1 22	8 10.62	-1 48.9	1.947	2.884	7.3	19.6
2 1	8 1.49	+4 38.3	1.790	2.743	6.5	21.2	2 1	8 1.27	-0 5.0	1.930	2.868	7.4	19.6
2 11	7 53.48	+5 30.7	1.831	2.750	9.2	21.4	2 11	7 52.67	+1 54.5	1.944	2.852	9.4	19.6
2 21	7 47.35	+6 28.5	1.898	2.756	12.3	21.6	2 21	7 45.70	+4 1.6	1.985	2.835	12.2	19.8
<b>117044</b>	2004 <i>JX</i> <sub>27</sub>		1 21.4 280°72	3°1/22.7	18		<b>324377</b>	2006 <i>RZ</i> <sub>27</sub>		1 21.5 43°08	12°2/18.4	17	
12 13	8 38.60	+12 20.5	1.861	2.618	16.4	19.8	12 13	8 54.57	+45 27.7	1.309	2.092	20.8	19.5
12 23	8 34.99	+11 54.5	1.760	2.607	13.4	19.6	12 23	8 49.42	+46 53.4	1.278	2.123	17.6	19.4
1 2	8 28.71	+11 39.6	1.679	2.595	9.8	19.3	1 2	8 39.26	+48 2.9	1.266	2.155	14.6	19.3
1 12	8 20.27	+11 35.9	1.623	2.584	5.9	19.1	1 12	8 25.47	+48 42.2	1.275	2.188	12.6	19.3
1 22	8 10.53	+11 42.1	1.594	2.572	3.1	18.9	1 22	8 10.32	+48 42.1	1.307	2.221	12.3	19.4
2 1	8 0.64	+11 56.1	1.594	2.561	5.4	19.0	2 1	7 56.39	+48 1.5	1.362	2.254	13.7	19.5
2 11	7 51.85	+12 14.8	1.622	2.549	9.5	19.2	2 11	7 45.80	+46 47.5	1.440	2.288	16.0	19.8
2 21	7 45.13	+12 35.1	1.674	2.538	13.4	19.4	2 21	7 39.50	+45 11.2	1.537	2.322	18.3	20.0
<b>455248</b>	2001 <i>SV</i> <sub>325</sub>		1 21.5 141°14	3°8/19.7	18		<b>464654</b>	2001 <i>NC</i> <sub>13</sub>		1 21.5 165°75	10°1/29.7	18	
12 13	8 47.89	+31 50.8	2.425	3.180	13.1	22.2	12 13	8 37.84	-14 33.5	2.399	2.994	16.8	21.8
12 23	8 41.56	+32 15.4	2.345	3.194	10.4	22.0	12 23	8 33.66	-15 0.7	2.306	2.999	15.3	21.6
1 2	8 32.73	+32 37.8	2.290	3.207	7.5	21.9	1 2	8 27.37	-15 3.5	2.230	3.004	13.5	21.5
1 12	8 22.04	+32 53.0	2.262	3.219	4.8	21.7	1 12	8 19.47	-14 38.0	2.174	3.007	11.7	21.4
1 22	8 10.45	+32 56.6	2.264	3.230	3.9	21.7	1 22	8 10.65	-13 42.5	2.141	3.011	10.4	21.3
2 1	7 59.09	+32 46.2	2.297	3.241	5.9	21.8	2 1	8 1.79	-12 18.5	2.135	3.013	10.1	21.3
2 11	7 49.06	+32 22.1	2.360	3.251	8.8	22.0	2 11	7 53.80	-10 31.2	2.156	3.015	10.9	21.3
2 21	7 41.15	+31 46.7	2.449	3.261	11.5	22.2	2 21	7 47.42	-8 28.2	2.203	3.017	12.5	21.5
<b>198735</b>	2005 <i>EC</i> <sub>25</sub>		1 21.5 314°12	1°1/20.9	18		<b>189267</b>	2005 <i>QP</i> <sub>27</sub>		1 21.5 350°13	0°7/21.8	18	
12 13	8 35.57	+20 34.8	1.948	2.728	15.0	20.4	12 13	8 35.85	+15 36.0	1.655	2.435	17.2	20.2
12 23	8 32.67	+21 4.0	1.845	2.712	11.9	20.1	12 23	8 33.17	+16 0.6	1.568	2.432	13.8	20.0
1 2	8 27.16	+21 42.0	1.765	2.696	8.3	19.9	1 2	8 27.63	+16 39.3	1.501	2.430	9.7	19.7
1 12	8 19.52	+22 25.2	1.710	2.681	4.1	19.6	1 12	8 19.80	+17 29.1	1.458	2.428	5.0	19.5
1 22	8 10.58	+23 8.6	1.683	2.666	1.2	19.3	1 22	8 10.63	+18 25.2	1.442	2.426	0.7	19.1
2 1	8 1.46	+23 47.5	1.685	2.651	5.2	19.6	2 1	8 1.38	+19 21.4	1.454	2.425	5.2	19.5
2 11	7 53.37	+24 18.0	1.714	2.637	9.4	19.8	2 11	7 53.39	+20 12.6	1.493	2.424	9.9	19.7
2 21	7 47.30	+24 38.4	1.768	2.623	13.2	20.0	2 21	7 47.69	+20 55.1	1.556	2.424	14.0	20.0
<b>462034</b>	2007 <i>CA</i> <sub>16</sub>		1 21.5 340°60	6°7/19.9	18		<b>222450</b>	2001 <i>QM</i> <sub>210</sub>		1 21.5 148°72	0°7/22.2	18	
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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>18351</b>	1990 <i>QN</i> <sub>5</sub>		1 21.5	70°60	3°5/20.0	18	<b>180633</b>	2004 <i>FL</i> <sub>160</sub>		1 21.5	295°80	0°6/21.2	18
12 13	8 43.73	+28 31.1	1.878	2.655	15.5	17.6	12 13	8 39.03	+19 50.3	1.731	2.511	16.6	21.1
12 23	8 38.90	+28 57.4	1.810	2.674	12.3	17.5	12 23	8 35.65	+20 8.5	1.639	2.505	13.2	20.8
1 2	8 31.20	+29 24.5	1.765	2.692	8.6	17.3	1 2	8 29.34	+20 35.9	1.568	2.499	9.2	20.6
1 12	8 21.38	+29 46.5	1.745	2.710	5.0	17.1	1 12	8 20.67	+21 8.9	1.522	2.493	4.6	20.3
1 22	8 10.55	+29 58.5	1.754	2.729	3.6	17.0	1 22	8 10.61	+21 42.6	1.504	2.487	0.8	20.0
2 1	8 0.03	+29 57.2	1.792	2.747	6.3	17.2	2 1	8 0.46	+22 12.2	1.513	2.482	5.4	20.3
2 11	7 51.06	+29 42.4	1.857	2.765	9.8	17.5	2 11	7 51.60	+22 34.1	1.550	2.476	10.0	20.6
2 21	7 44.52	+29 16.1	1.947	2.783	13.0	17.7	2 21	7 45.09	+22 47.1	1.611	2.471	14.1	20.8
<b>261579</b>	2005 <i>XX</i> <sub>3</sub>		1 21.5	116°19	2°4/22.7	18	<b>100149</b>	1993 <i>TM</i> <sub>17</sub>		1 21.5	144°66	1°8/22.4	18
12 13	8 38.31	+12 15.3	2.056	2.806	15.3	20.8	12 13	8 39.08	+13 22.9	2.016	2.769	15.4	20.6
12 23	8 34.32	+12 9.2	1.969	2.812	12.4	20.7	12 23	8 35.02	+13 27.5	1.928	2.774	12.4	20.4
1 2	8 27.96	+12 14.7	1.904	2.819	8.9	20.5	1 2	8 28.51	+13 43.9	1.861	2.779	8.9	20.2
1 12	8 19.79	+12 30.9	1.864	2.826	5.2	20.2	1 12	8 20.11	+14 10.4	1.820	2.784	4.9	19.9
1 22	8 10.64	+12 55.4	1.853	2.832	2.4	20.1	1 22	8 10.65	+14 44.1	1.807	2.789	1.8	19.7
2 1	8 1.53	+13 25.2	1.871	2.839	4.6	20.2	2 1	8 1.20	+15 21.3	1.824	2.793	4.6	19.9
2 11	7 53.49	+13 56.9	1.918	2.845	8.3	20.5	2 11	7 52.85	+15 58.2	1.870	2.797	8.5	20.2
2 21	7 47.33	+14 27.4	1.991	2.851	11.8	20.7	2 21	7 46.44	+16 31.8	1.942	2.801	12.1	20.4
<b>76705</b>	2000 <i>HV</i> <sub>89</sub>		1 21.5	118°52	4°6/18.5	18	<b>123037</b>	2000 <i>SF</i> <sub>289</sub>		1 21.5	182°50	3°3/19.9	18
12 13	8 40.16	+32 30.1	2.456	3.226	12.5	19.6	12 13	8 46.47	+27 41.4	2.062	2.828	14.7	20.7
12 23	8 35.71	+33 26.4	2.378	3.234	10.0	19.5	12 23	8 41.08	+28 13.5	1.972	2.829	11.8	20.4
1 2	8 28.89	+34 22.0	2.323	3.241	7.4	19.3	1 2	8 32.81	+28 47.8	1.905	2.829	8.3	20.2
1 12	8 20.24	+35 11.2	2.297	3.249	5.1	19.2	1 12	8 22.30	+29 18.6	1.864	2.829	4.8	20.0
1 22	8 10.62	+35 48.7	2.299	3.256	4.8	19.2	1 22	8 10.53	+29 40.3	1.853	2.828	3.4	19.9
2 1	8 1.05	+36 10.8	2.330	3.263	6.6	19.3	2 1	7 58.79	+29 48.9	1.872	2.826	6.1	20.1
2 11	7 52.58	+36 16.5	2.390	3.270	9.1	19.5	2 11	7 48.40	+29 43.4	1.920	2.824	9.8	20.3
2 21	7 46.03	+36 7.2	2.474	3.277	11.6	19.7	2 21	7 40.33	+29 25.1	1.993	2.820	13.1	20.5
<b>177819</b>	2005 <i>MW</i> <sub>43</sub>		1 21.5	244°67	1°6/22.3	18	<b>292145</b>	2006 <i>RF</i> <sub>90</sub>		1 21.5	72°74	8°6/26.3	18
12 13	8 38.79	+14 11.9	1.982	2.739	15.5	21.1	12 13	8 36.63	- 2 48.2	1.774	2.476	19.0	21.4
12 23	8 35.02	+14 15.4	1.879	2.729	12.6	20.9	12 23	8 33.32	- 3 29.6	1.695	2.485	16.4	21.2
1 2	8 28.69	+14 30.3	1.799	2.719	9.0	20.7	1 2	8 27.46	- 3 48.0	1.634	2.495	13.5	21.0
1 12	8 20.28	+14 55.3	1.743	2.709	4.9	20.4	1 12	8 19.62	- 3 39.8	1.594	2.504	10.7	20.9
1 22	8 10.61	+15 27.4	1.716	2.698	1.6	20.1	1 22	8 10.68	- 3 4.3	1.578	2.514	8.8	20.8
2 1	8 0.80	+16 2.9	1.718	2.687	4.7	20.3	2 1	8 1.77	- 2 4.1	1.589	2.523	8.9	20.8
2 11	7 52.01	+16 37.9	1.749	2.676	9.0	20.6	2 11	7 54.03	- 0 45.5	1.626	2.533	11.0	21.0
2 21	7 45.20	+17 9.5	1.805	2.665	12.8	20.8	2 21	7 48.34	+ 0 43.6	1.687	2.543	13.7	21.2
<b>339627</b>	2005 <i>QG</i> <sub>7</sub>		1 21.5	54°10	3°1/20.6	17	<b>253161</b>	2002 <i>VL</i> <sub>123</sub>		1 21.5	66°13	2°2/22.4	18
12 13	8 45.22	+25 13.2	1.220	2.024	20.8	20.4	12 13	8 40.66	+13 35.3	1.638	2.404	17.9	21.1
12 23	8 41.42	+25 33.7	1.161	2.040	16.5	20.2	12 23	8 36.60	+13 30.5	1.571	2.425	14.4	20.9
1 2	8 33.64	+25 59.6	1.121	2.057	11.4	19.9	1 2	8 29.70	+13 38.9	1.524	2.446	10.2	20.7
1 12	8 22.80	+26 23.6	1.104	2.075	6.0	19.7	1 12	8 20.69	+13 58.8	1.502	2.467	5.6	20.5
1 22	8 10.48	+26 38.5	1.112	2.092	3.2	19.6	1 22	8 10.64	+14 26.7	1.507	2.489	2.2	20.3
2 1	7 58.64	+26 39.6	1.146	2.110	7.4	19.9	2 1	8 0.83	+14 58.4	1.541	2.510	5.2	20.6
2 11	7 49.10	+26 26.0	1.204	2.128	12.4	20.2	2 11	7 52.53	+15 30.0	1.602	2.532	9.4	20.9
2 21	7 42.97	+26 0.5	1.284	2.147	16.7	20.5	2 21	7 46.58	+15 58.3	1.687	2.553	13.2	21.1
<b>460827</b>	2014 <i>WB</i> <sub>64</sub>		1 21.5	273°75	5°3/18.5	18	<b>179934</b>	2002 <i>VV</i> <sub>80</sub>		1 21.5	85°73	4°0/23.5	18
12 13	8 40.82	+30 13.5	1.843	2.629	15.5	21.3	12 13	8 41.35	+ 8 13.7	1.878	2.614	17.0	20.8
12 23	8 37.27	+31 23.9	1.753	2.620	12.5	21.1	12 23	8 36.67	+ 7 57.2	1.810	2.640	13.9	20.6
1 2	8 30.61	+32 37.9	1.686	2.611	9.1	20.8	1 2	8 29.51	+ 7 55.9	1.762	2.666	10.3	20.4
1 12	8 21.36	+33 47.9	1.644	2.602	6.1	20.6	1 12	8 20.52	+ 8 9.5	1.740	2.692	6.5	20.2
1 22	8 10.55	+34 45.3	1.629	2.593	5.6	20.6	1 22	8 10.66	+ 8 36.1	1.745	2.717	4.1	20.2
2 1	7 59.57	+35 23.6	1.643	2.584	8.1	20.7	2 1	8 1.02	+ 9 12.3	1.780	2.742	5.5	20.3
2 11	7 49.93	+35 40.2	1.683	2.575	11.6	20.9	2 11	7 52.69	+ 9 53.6	1.842	2.766	8.8	20.5
2 21	7 42.81	+35 36.6	1.745	2.565	15.0	21.1	2 21	7 46.43	+10 36.0	1.931	2.790	12.1	20.8
<b>362097</b>	2009 <i>BN</i> <sub>185</sub>		1 21.5	2°30	0°2/21.5	18	<b>134418</b>	1998 <i>HP</i> <sub>130</sub>		1 21.5	227°62	2°7/22.8	18
12 13	8 36.74	+16 12.8	1.407	2.200	19.1	20.3	12 13	8 39.90	+11 7.4	2.089	2.830	15.3	20.9
12 23	8 34.40	+16 45.2	1.327	2.199	15.3	20.1	12 23	8 35.77	+11 6.8	1.982	2.819	12.5	20.7
1 2	8 28.77	+17 34.0	1.266	2.199	10.7	19.8	1 2	8 29.15	+11 19.2	1.896	2.808	9.2	20.4
1 12	8 20.48	+18 35.3	1.228	2.199	5.4	19.5	1 12	8 20.52	+11 43.8	1.836	2.796	5.4	20.2
1 22	8 10.61	+19 42.3	1.215	2.199	0.3	19.1	1 22	8 10.65	+12 18.5	1.804	2.783	2.7	20.0
2 1	8 0.68	+20 47.5	1.230	2.201	5.9	19.5	2 1	8 0.59	+12 59.8	1.803	2.769	4.9	20.1
2 11	7 52.27	+21 44.3	1.270	2.202	11.1	19.8	2 11	7 51.46	+13 43.8	1.830	2.755	8.8	20.3
2 21	7 46.57	+22 29.0	1.334	2.205	15.7	20.1	2 21	7 44.20	+14 26.6	1.883	2.740	12.5	20.5
<b>50710</b>	2000 <i>EQ</i> <sub>133</sub>		1 21.5	169°26	4°2/18.7	18	<b>36499</b>	2000 <i>QV</i> <sub>55</sub>		1 21.5	153°37	1°2/20.9	18
12 13	8 39.74	+31 6.3	2.491	3.261	12.4	19.4	12 13	8 43.93	+20 55.3	2.093	2.852	14.7	19.9
12 23	8 35.38	+32 2.1	2.406	3.263	9.9	19.2	12 23	8 38.82	+21 27.9	2.008	2.862	11.7	19.7
1 2	8 28.68	+32 58.4	2.344	3.264	7.2	19.0	1 2	8 31.12	+22 7.7	1.945	2.871	8.0	19.5
1 12	8 20.17	+33 49.8	2.310	3.266	4.8	18.9	1 12	8 21.42	+22 50.4	1.910	2.880	4.0	19.3
1 22	8 10.64	+34 30.8	2.305	3.267	4.4	18.9	1 22	8 10.61	+23 31.1	1.905	2.888	1.3	19.1
2 1	8 1.10	+34 57.7	2.330	3.268	6.3	19.0	2 1	7 59.85	+24 5.2	1.930	2.895	4.9	19.4
2 11	7 52.58	+35 9.0	2.383	3.269	9.0	19.2	2 11	7 50.31	+24 30.2	1.985	2.901	8.8	19.6
2 21	7 45.90	+35 5.7	2.461	3.269	11.5	19.3	2 21	7 42.85	+24 45.3	2.066	2.906	12.2	19.8
<b>210342</b>	2007 <i>TS</i> <sub>388</sub>		1 21.5	335°47	4°3/23.4	18	<b>198882</b>	2005 <i>SH</i> <sub>187</sub>		1 21.5	138°53	0°5/21.3	18
12 13	8 36.21												

EPHEMERIDES

1 21.5

1 21.5

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>59016</b>	1998 SX <sub>76</sub>		1 21.5	61°07'	2°1/22.3	18	<b>18927</b>	2000 PQ <sub>26</sub>		1 21.5	91°03'	5°3/23.9	18
12 13	8 44.34	+14 7.5	1.542	2.307	18.9	19.3	12 13	8 38.14	+5 48.3	2.003	2.731	16.3	18.3
12 23	8 39.42	+13 59.6	1.489	2.342	15.1	19.1	12 23	8 34.22	+5 8.0	1.917	2.737	13.6	18.1
1 2	8 31.54	+14 4.9	1.456	2.377	10.6	19.0	1 2	8 27.94	+4 42.1	1.851	2.744	10.5	17.9
1 12	8 21.53	+14 21.1	1.447	2.412	5.7	18.8	1 12	8 19.85	+4 32.3	1.810	2.751	7.4	17.7
1 22	8 10.62	+14 44.5	1.466	2.447	2.1	18.6	1 22	8 10.77	+4 38.3	1.796	2.757	5.4	17.6
2 1	8 0.19	+15 10.9	1.513	2.482	5.3	18.9	2 1	8 1.72	+4 58.5	1.810	2.764	6.3	17.7
2 11	7 51.50	+15 36.6	1.587	2.516	9.6	19.2	2 11	7 53.73	+5 29.3	1.852	2.770	9.1	17.9
2 21	7 45.36	+15 59.1	1.686	2.550	13.3	19.5	2 21	7 47.62	+6 6.6	1.919	2.776	12.2	18.1
<b>489056</b>	2005 YV <sub>122</sub>		1 21.5	25°06'	4°5/21.6	17	<b>863</b>	Benkoela		1 21.5	268°21'	0°7/20.9	18
12 13	8 52.42	+19 54.5	0.964	1.769	25.1	19.9	12 13	8 35.84	+16 51.4	2.460	3.216	12.9	14.3
12 23	8 47.94	+17 49.3	0.897	1.773	20.4	19.6	12 23	8 32.25	+18 1.9	2.360	3.214	10.2	14.1
1 2	8 38.62	+15 43.0	0.847	1.779	14.7	19.3	1 2	8 26.55	+19 24.1	2.285	3.211	7.0	13.9
1 12	8 25.48	+13 38.7	0.818	1.785	8.4	19.0	1 12	8 19.18	+20 54.1	2.238	3.208	3.5	13.6
1 22	8 10.40	+11 42.2	0.813	1.793	4.5	18.8	1 22	8 10.80	+22 26.3	2.222	3.205	0.8	13.4
2 1	7 55.87	+10 0.0	0.834	1.801	8.7	19.1	2 1	8 2.27	+23 54.9	2.238	3.202	4.3	13.7
2 11	7 44.20	+8 36.8	0.878	1.810	14.7	19.4	2 11	7 54.50	+25 14.9	2.284	3.200	7.8	13.9
2 21	7 36.72	+7 33.1	0.941	1.820	20.0	19.8	2 21	7 48.29	+26 23.3	2.357	3.197	10.9	14.1
<b>522320</b>	2016 BG <sub>102</sub>		1 21.5	22°95'	5°0/18.6	18	<b>451728</b>	2013 EP <sub>7</sub>		1 21.5	35°48'	1°4/22.0	18
12 13	8 37.11	+24 51.1	1.398	2.205	18.5	20.2	12 13	8 38.76	+15 42.7	1.225	2.024	21.1	20.8
12 23	8 34.96	+26 34.6	1.330	2.212	14.6	20.0	12 23	8 36.16	+15 41.6	1.162	2.036	16.9	20.6
1 2	8 29.32	+28 29.4	1.282	2.218	10.3	19.7	1 2	8 30.00	+15 55.7	1.117	2.049	11.8	20.3
1 12	8 20.82	+30 25.2	1.259	2.226	6.2	19.5	1 12	8 21.07	+16 22.4	1.094	2.064	6.2	20.0
1 22	8 10.65	+32 9.7	1.263	2.234	5.4	19.5	1 22	8 10.70	+16 56.5	1.095	2.078	1.4	19.8
2 1	8 0.45	+33 32.8	1.293	2.243	8.8	19.7	2 1	8 0.59	+17 32.2	1.122	2.094	6.1	20.1
2 11	7 51.95	+34 29.3	1.348	2.253	12.9	20.0	2 11	7 52.38	+18 4.3	1.174	2.110	11.4	20.5
2 21	7 46.39	+34 59.8	1.425	2.264	16.7	20.2	2 21	7 47.15	+18 29.8	1.248	2.127	16.0	20.8
<b>493062</b>	2014 SK <sub>282</sub>		1 21.5	123°64'	0°3/21.7	18	<b>520923</b>	2014 WV <sub>532</sub>		1 21.5	206°96'	1°3/20.6	18
12 13	8 40.91	+16 39.1	2.214	2.965	14.3	21.9	12 13	8 36.32	+20 40.1	2.323	3.091	13.2	21.0
12 23	8 36.16	+17 3.5	2.134	2.982	11.3	21.7	12 23	8 32.71	+21 25.7	2.231	3.091	10.4	20.8
1 2	8 29.12	+17 37.1	2.077	2.999	7.8	21.5	1 2	8 26.89	+22 19.0	2.162	3.091	7.2	20.6
1 12	8 20.36	+18 16.9	2.047	3.015	4.0	21.3	1 12	8 19.34	+23 16.2	2.120	3.090	3.6	20.3
1 22	8 10.69	+18 59.0	2.046	3.030	0.4	21.0	1 22	8 10.80	+24 12.5	2.108	3.090	1.4	20.2
2 1	8 1.12	+19 39.4	2.077	3.045	4.2	21.4	2 1	8 2.18	+25 3.3	2.126	3.089	4.6	20.4
2 11	7 52.65	+20 15.0	2.137	3.059	7.9	21.6	2 11	7 54.48	+25 45.1	2.173	3.089	8.1	20.6
2 21	7 46.02	+20 43.9	2.224	3.073	11.1	21.9	2 21	7 48.49	+26 16.5	2.245	3.088	11.3	20.8
<b>461042</b>	2014 WE <sub>503</sub>		1 21.5	84°82'	6°4/25.5	18	<b>140054</b>	2001 SV <sub>95</sub>		1 21.5	315°59'	4°3/24.2	18
12 13	8 37.56	+0 18.9	2.014	2.717	16.9	21.3	12 13	8 34.21	+5 29.4	2.323	3.047	14.4	20.2
12 23	8 33.62	-0 1.3	1.939	2.737	14.3	21.1	12 23	8 30.90	+5 19.8	2.225	3.044	12.0	20.0
1 2	8 27.42	-0 1.8	1.884	2.757	11.4	21.0	1 2	8 25.56	+5 24.8	2.148	3.042	9.2	19.8
1 12	8 19.52	+0 19.0	1.852	2.777	8.5	20.8	1 12	8 18.65	+5 44.9	2.097	3.040	6.3	19.6
1 22	8 10.74	+0 59.9	1.847	2.796	6.6	20.8	1 22	8 10.84	+6 19.0	2.073	3.038	4.4	19.5
2 1	8 2.08	+1 57.8	1.870	2.815	6.9	20.8	2 1	8 2.97	+7 4.4	2.078	3.036	5.2	19.5
2 11	7 54.51	+3 7.2	1.921	2.834	9.2	21.0	2 11	7 55.92	+7 57.1	2.112	3.034	7.9	19.7
2 21	7 48.78	+4 21.9	1.998	2.853	11.9	21.2	2 21	7 50.41	+8 53.0	2.172	3.033	10.9	19.9
<b>67874</b>	2000 WA <sub>36</sub>		1 21.5	143°12'	0°5/21.8	18	<b>250994</b>	2006 MR <sub>5</sub>		1 21.5	194°36'	0°0/21.5	18
12 13	8 40.94	+15 28.0	1.907	2.666	16.0	20.4	12 13	8 42.08	+18 38.7	2.173	2.928	14.4	21.9
12 23	8 36.70	+15 59.8	1.822	2.674	12.8	20.2	12 23	8 37.36	+18 52.1	2.075	2.926	11.5	21.7
1 2	8 29.79	+16 44.2	1.759	2.683	8.9	20.0	1 2	8 30.16	+19 13.3	2.000	2.924	8.0	21.5
1 12	8 20.82	+17 37.8	1.722	2.691	4.5	19.7	1 12	8 21.00	+19 39.3	1.951	2.920	4.0	21.2
1 22	8 10.68	+18 35.7	1.714	2.698	0.5	19.4	1 22	8 10.71	+20 6.6	1.932	2.916	0.2	20.9
2 1	8 0.55	+19 32.4	1.736	2.705	4.7	19.8	2 1	8 0.37	+20 31.7	1.944	2.911	4.5	21.3
2 11	7 51.63	+20 23.4	1.787	2.711	9.0	20.0	2 11	7 51.07	+20 51.7	1.984	2.906	8.4	21.5
2 21	7 44.83	+21 5.9	1.863	2.717	12.7	20.3	2 21	7 43.70	+21 5.3	2.052	2.900	12.0	21.7
<b>366924</b>	2005 UT <sub>296</sub>		1 21.5	147°54'	1°1/22.1	18	<b>335984</b>	2007 TK <sub>247</sub>		1 21.5	68°55'	1°3/22.1	18
12 13	8 39.45	+15 30.3	2.239	2.990	14.1	22.2	12 13	8 39.73	+16 34.2	2.189	2.944	14.3	20.4
12 23	8 35.05	+15 36.7	2.150	2.997	11.3	22.0	12 23	8 35.18	+16 15.5	2.111	2.960	11.4	20.2
1 2	8 28.41	+15 52.3	2.084	3.004	7.9	21.8	1 2	8 28.40	+16 3.9	2.055	2.976	8.0	20.0
1 12	8 20.04	+16 15.0	2.044	3.010	4.2	21.6	1 12	8 19.99	+15 58.0	2.026	2.992	4.3	19.8
1 22	8 10.74	+16 42.1	2.033	3.016	1.1	21.4	1 22	8 10.78	+15 56.0	2.026	3.009	1.3	19.6
2 1	8 1.47	+17 10.2	2.053	3.022	4.1	21.6	2 1	8 1.73	+15 56.0	2.056	3.025	4.2	19.8
2 11	7 53.20	+17 36.5	2.102	3.027	7.8	21.9	2 11	7 53.80	+15 56.3	2.116	3.041	7.7	20.1
2 21	7 46.72	+17 59.1	2.178	3.031	11.1	22.1	2 21	7 47.70	+15 55.7	2.201	3.057	10.9	20.3
<b>427447</b>	2001 RU <sub>62</sub>		1 21.5	68°70'	6°2/18.3	18	<b>294811</b>	2008 CF <sub>103</sub>		1 21.5	128°87'	4°6/24.4	18
12 13	8 44.82	+37 35.8	2.231	2.998	13.7	20.8	12 13	8 38.67	+4 5.9	2.209	2.920	15.4	21.4
12 23	8 39.56	+38 30.0	2.175	3.022	11.2	20.7	12 23	8 34.37	+4 1.3	2.124	2.934	12.8	21.2
1 2	8 31.56	+39 18.8	2.141	3.047	8.6	20.6	1 2	8 27.90	+4 13.3	2.060	2.948	9.8	21.1
1 12	8 21.57	+39 55.4	2.133	3.071	6.6	20.5	1 12	8 19.79	+4 42.0	2.021	2.961	6.8	20.9
1 22	8 10.66	+40 14.3	2.154	3.096	6.3	20.5	1 22	8 10.79	+5 25.9	2.010	2.973	4.7	20.8
2 1	8 0.09	+40 13.0	2.203	3.120	7.9	20.6	2 1	8 1.84	+6 21.6	2.029	2.985	5.5	20.9
2 11	7 51.04	+39 52.2	2.279	3.144	10.2	20.8	2 11	7 53.86	+7 24.4	2.077	2.996	8.2	21.0
2 21	7 44.32	+39 15.4	2.378	3.168	12.4	21.0	2 21	7 47.60	+8 29.4	2.152	3.007	11.2	21.2
<b>111164</b>	2001 VM <sub>113</sub>		1 21.5	220°81'	4°8/18.9	18	<b>264706</b>	2002 AC <sub>189</sub>		1 21.5	45°12'	1°9/22.3	18
12 13	8 41.18	+29 54.7	1.974	2.755	14.8	19.7	12 13	8 39.48	+15 4.9	1.573	2.348	18.2	20.0

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>334172</b>	2001 <i>SP</i> <sub>124</sub>		1 21.5	70°51	5°2/19.3	18	<b>456950</b>	2008 <i>AD</i> <sub>56</sub>		1 21.5	63°96	0°6/21.7	16
12 13	8 46.37	+35 43.2	2.251	3.014	13.7	20.7	12 13	8 42.17	+16 53.8	1.534	2.311	18.5	21.3
12 23	8 40.58	+36 12.1	2.188	3.038	11.1	20.6	12 23	8 38.00	+17 6.4	1.473	2.335	14.7	21.1
1 2	8 32.14	+36 36.1	2.149	3.061	8.2	20.5	1 2	8 30.79	+17 30.8	1.432	2.361	10.1	20.9
1 12	8 21.83	+36 49.4	2.137	3.084	5.9	20.4	1 12	8 21.31	+18 3.4	1.416	2.386	5.1	20.7
1 22	8 10.69	+36 47.6	2.153	3.107	5.3	20.4	1 22	8 10.75	+18 39.0	1.427	2.411	0.6	20.4
2 1	7 59.95	+36 28.7	2.198	3.131	7.0	20.5	2 1	8 0.52	+19 12.8	1.466	2.436	5.2	20.8
2 11	7 50.74	+35 53.8	2.272	3.153	9.5	20.7	2 11	7 51.96	+19 41.0	1.532	2.461	9.8	21.1
2 21	7 43.81	+35 6.4	2.370	3.176	12.0	20.9	2 21	7 45.97	+20 1.9	1.622	2.486	13.8	21.4
<b>111068</b>	2001 <i>VP</i> <sub>48</sub>		1 21.5	126°29	3°6/23.3	18	<b>128882</b>	2004 <i>SX</i> <sub>55</sub>		1 21.5	181°14	0°5/21.2	18
12 13	8 40.40	+ 9 1.6	2.303	3.028	14.5	19.3	12 13	8 42.68	+18 43.3	1.971	2.732	15.5	21.4
12 23	8 35.59	+ 8 37.5	2.219	3.043	11.9	19.2	12 23	8 38.12	+19 14.1	1.879	2.734	12.3	21.2
1 2	8 28.65	+ 8 24.8	2.156	3.057	8.8	19.0	1 2	8 30.85	+19 54.7	1.809	2.735	8.5	21.0
1 12	8 20.13	+ 8 23.6	2.120	3.071	5.7	18.8	1 12	8 21.42	+20 41.2	1.765	2.735	4.3	20.7
1 22	8 10.78	+ 8 32.8	2.113	3.084	3.6	18.7	1 22	8 10.74	+21 28.7	1.750	2.734	0.6	20.4
2 1	8 1.52	+ 8 50.6	2.136	3.097	4.9	18.8	2 1	7 59.98	+22 12.0	1.766	2.733	4.9	20.7
2 11	7 53.26	+ 9 14.0	2.189	3.109	7.8	19.0	2 11	7 50.40	+22 47.5	1.810	2.731	9.2	21.0
2 21	7 46.71	+ 9 40.2	2.268	3.121	10.8	19.2	2 21	7 42.96	+23 13.5	1.880	2.728	12.9	21.2
<b>77722</b>	2001 <i>OF</i> <sub>54</sub>		1 21.5	39°82	6°3/17.2	18	<b>305868</b>	2009 <i>EE</i> <sub>29</sub>		1 21.5	287°72	3°5/19.9	18
12 13	8 39.86	+35 39.4	2.237	3.013	13.4	18.3	12 13	8 40.97	+25 42.1	1.619	2.410	17.1	20.9
12 23	8 36.02	+37 2.7	2.160	3.015	10.9	18.2	12 23	8 37.65	+26 26.8	1.531	2.402	13.6	20.6
1 2	8 29.45	+38 24.6	2.107	3.018	8.4	18.0	1 2	8 31.03	+27 18.1	1.463	2.395	9.6	20.4
1 12	8 20.72	+39 37.4	2.081	3.021	6.6	17.9	1 12	8 21.69	+28 9.4	1.419	2.387	5.4	20.1
1 22	8 10.74	+40 34.1	2.083	3.024	6.6	17.9	1 22	8 10.72	+28 53.1	1.403	2.380	3.7	20.0
2 1	8 0.72	+41 9.9	2.113	3.027	8.3	18.0	2 1	7 59.62	+29 22.8	1.414	2.373	7.2	20.2
2 11	7 51.92	+41 23.4	2.169	3.030	10.8	18.2	2 11	7 50.01	+29 35.5	1.452	2.365	11.5	20.4
2 21	7 45.29	+41 16.8	2.248	3.033	13.2	18.3	2 21	7 43.09	+29 32.0	1.512	2.358	15.6	20.6
<b>261105</b>	2005 <i>SW</i> <sub>279</sub>		1 21.5	58°08	1°9/20.8	18	<b>357205</b>	2002 <i>GB</i> <sub>43</sub>		1 21.5	299°35	0°7/21.7	18
12 13	8 43.39	+24 31.1	1.693	2.474	16.8	20.7	12 13	8 40.85	+18 59.0	1.515	2.300	18.3	20.6
12 23	8 38.87	+24 36.7	1.624	2.490	13.3	20.5	12 23	8 37.69	+18 42.1	1.415	2.282	14.8	20.3
1 2	8 31.34	+24 45.8	1.576	2.506	9.2	20.3	1 2	8 31.16	+18 33.1	1.335	2.265	10.5	20.0
1 12	8 21.56	+24 53.9	1.553	2.523	4.7	20.1	1 12	8 21.82	+18 29.9	1.278	2.248	5.4	19.6
1 22	8 10.71	+24 56.6	1.558	2.540	2.0	19.9	1 22	8 10.71	+18 29.3	1.248	2.232	0.7	19.2
2 1	8 0.16	+24 51.0	1.592	2.557	5.6	20.2	2 1	7 59.36	+18 28.2	1.245	2.215	5.9	19.6
2 11	7 51.25	+24 36.4	1.653	2.574	9.9	20.5	2 11	7 49.42	+18 24.0	1.268	2.199	11.2	19.8
2 21	7 44.87	+24 13.8	1.738	2.591	13.5	20.7	2 21	7 42.18	+18 15.9	1.313	2.183	16.0	20.1
<b>33497</b>	1999 <i>GD</i> <sub>19</sub>		1 21.5	160°75	3°4/23.8	18	<b>334589</b>	2002 <i>TH</i> <sub>184</sub>		1 21.5	67°97	2°2/22.6	18
12 13	8 37.39	+ 6 41.6	2.341	3.063	14.4	18.8	12 13	8 37.84	+12 57.2	2.135	2.885	14.8	20.5
12 23	8 33.35	+ 6 55.3	2.247	3.068	11.8	18.6	12 23	8 33.78	+12 47.6	2.058	2.902	11.9	20.3
1 2	8 27.22	+ 7 24.2	2.174	3.073	8.8	18.4	1 2	8 27.50	+12 48.4	2.003	2.919	8.5	20.1
1 12	8 19.47	+ 8 7.7	2.127	3.077	5.7	18.2	1 12	8 19.60	+12 58.6	1.974	2.936	4.9	19.9
1 22	8 10.82	+ 9 3.4	2.109	3.081	3.5	18.1	1 22	8 10.86	+13 16.0	1.974	2.953	2.2	19.8
2 1	8 2.12	+10 7.5	2.121	3.084	4.7	18.2	2 1	8 2.26	+13 37.9	2.003	2.970	4.4	20.0
2 11	7 54.28	+11 15.4	2.163	3.087	7.7	18.4	2 11	7 54.74	+14 1.4	2.061	2.988	7.8	20.2
2 21	7 48.04	+12 22.4	2.233	3.089	10.8	18.6	2 21	7 49.01	+14 24.0	2.145	3.005	11.0	20.4
<b>204561</b>	2005 <i>EY</i> <sub>276</sub>		1 21.5	113°49	0°3/21.3	18	<b>428421</b>	2007 <i>TR</i> <sub>177</sub>		1 21.5	115°77	5°3/18.0	18
12 13	8 37.49	+19 23.6	2.427	3.187	12.9	20.9	12 13	8 40.72	+34 50.2	2.442	3.211	12.6	21.3
12 23	8 33.38	+19 41.5	2.341	3.195	10.2	20.7	12 23	8 36.31	+35 51.9	2.364	3.217	10.2	21.2
1 2	8 27.18	+20 5.9	2.277	3.203	7.0	20.5	1 2	8 29.43	+36 51.8	2.311	3.223	7.7	21.0
1 12	8 19.43	+20 34.0	2.241	3.211	3.5	20.3	1 12	8 20.64	+37 43.4	2.284	3.229	5.8	20.9
1 22	8 10.83	+21 2.5	2.235	3.218	0.4	20.1	1 22	8 10.81	+38 21.3	2.286	3.234	5.5	20.9
2 1	8 2.27	+21 28.3	2.259	3.226	4.0	20.4	2 1	8 1.02	+38 41.6	2.317	3.240	7.2	21.0
2 11	7 54.66	+21 49.0	2.312	3.233	7.4	20.6	2 11	7 52.38	+38 43.7	2.375	3.245	9.6	21.2
2 21	7 48.68	+22 3.5	2.392	3.240	10.5	20.8	2 21	7 45.72	+38 29.3	2.457	3.251	12.0	21.3
<b>241207</b>	2007 <i>TA</i> <sub>39</sub>		1 21.5	303°54	2°4/20.1	18	<b>458256</b>	2010 <i>TE</i> <sub>149</sub>		1 21.5	51°26	6°3/18.6	18
12 13	8 37.09	+25 4.7	2.233	3.009	13.4	20.4	12 13	8 42.56	+32 1.1	1.594	2.388	17.2	21.1
12 23	8 33.54	+25 41.0	2.137	3.001	10.6	20.2	12 23	8 38.90	+33 13.2	1.531	2.400	13.8	20.9
1 2	8 27.59	+26 21.8	2.063	2.993	7.4	20.0	1 2	8 31.79	+34 25.7	1.489	2.413	10.1	20.7
1 12	8 19.75	+27 2.7	2.016	2.985	4.0	19.8	1 12	8 21.97	+35 29.2	1.471	2.426	7.1	20.6
1 22	8 10.81	+27 39.0	1.999	2.977	2.6	19.6	1 22	8 10.74	+36 15.0	1.479	2.439	6.5	20.6
2 1	8 1.78	+28 6.4	2.010	2.969	5.3	19.8	2 1	7 59.73	+36 37.5	1.515	2.453	8.9	20.8
2 11	7 53.75	+28 22.6	2.050	2.961	8.8	20.0	2 11	7 50.53	+36 36.0	1.575	2.467	12.3	21.0
2 21	7 47.58	+28 27.3	2.115	2.954	12.0	20.2	2 21	7 44.24	+36 14.0	1.658	2.481	15.5	21.2
<b>215060</b>	2009 <i>DN</i> <sub>119</sub>		1 21.5	275°62	1°9/22.7	17	<b>309237</b>	2007 <i>RB</i> <sub>2</sub>		1 21.5	102°41	1°2/20.9	18
12 13	8 34.61	+12 28.8	2.526	3.270	12.9	21.0	12 13	8 44.76	+21 20.8	1.808	2.577	16.4	21.3
12 23	8 31.13	+12 33.2	2.419	3.259	10.4	20.8	12 23	8 39.73	+21 45.5	1.739	2.598	12.9	21.1
1 2	8 25.70	+12 47.7	2.334	3.249	7.5	20.6	1 2	8 31.85	+22 17.2	1.691	2.619	8.9	20.9
1 12	8 18.74	+13 11.4	2.276	3.238	4.3	20.4	1 12	8 21.84	+22 51.2	1.669	2.639	4.4	20.7
1 22	8 10.87	+13 42.1	2.247	3.227	1.9	20.2	1 22	8 10.76	+23 22.3	1.676	2.659	1.3	20.5
2 1	8 2.90	+14 17.2	2.248	3.216	3.9	20.4	2 1	7 59.93	+23 46.3	1.713	2.679	5.2	20.8
2 11	7 55.66	+14 53.5	2.278	3.205	7.2	20.5	2 11	7 50.61	+24 0.9	1.778	2.697	9.4	21.1
2 21	7 49.88	+15 28.4	2.336	3.194	10.3	20.7	2 21	7 43.68	+24 6.0	1.868	2.715	13.0	21.4
<b>126216</b>	2002 <i>AU</i> <sub>46</sub>		1 21.5	227°35	0°5/21.7	18	<b>32124</b>	2000 <i>LH</i> <sub>11</sub>		1 21.5	155°54	10°9/26.9	18
12 13	8 39.23</												

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>103905</b>	2000 <i>DA</i> <sub>58</sub>		1 21.5	81°44'	3°2/23.1	18	<b>401141</b>	2011 <i>UP</i> <sub>384</sub>		1 21.5	241°81'	0°1/21.5	18
12 13	8 39.03	+10 21.7	1.752	2.505	17.4	19.6	12 13	8 42.72	+19 32.6	1.759	2.530	16.7	21.4
12 23	8 35.28	+10 18.4	1.675	2.519	14.1	19.4	12 23	8 38.57	+19 28.5	1.662	2.522	13.4	21.2
1 2	8 28.85	+10 30.6	1.618	2.532	10.3	19.2	1 2	8 31.41	+19 31.9	1.587	2.515	9.4	20.9
1 12	8 20.39	+10 57.3	1.586	2.545	6.2	19.0	1 12	8 21.82	+19 39.8	1.537	2.507	4.7	20.6
1 22	8 10.84	+11 35.7	1.580	2.558	3.2	18.9	1 22	8 10.81	+19 48.8	1.515	2.499	0.2	20.3
2 1	8 1.38	+12 21.3	1.604	2.571	5.3	19.0	2 1	7 59.70	+19 55.5	1.522	2.491	5.2	20.6
2 11	7 53.21	+13 9.5	1.655	2.584	9.2	19.3	2 11	7 49.92	+19 57.5	1.556	2.482	9.9	20.9
2 21	7 47.22	+13 55.8	1.731	2.597	12.9	19.5	2 21	7 42.53	+19 54.0	1.615	2.473	14.1	21.1
<b>489602</b>	2007 <i>TT</i> <sub>175</sub>		1 21.5	341°90'	9°2/25.7	18	<b>314764</b>	2006 <i>SF</i> <sub>340</sub>		1 21.5	17°58'	2°1/22.5	16
12 13	8 32.69	- 2 22.1	1.896	2.602	17.8	20.2	12 13	8 34.60	+12 53.1	1.334	2.126	20.0	20.6
12 23	8 30.27	- 3 32.5	1.801	2.592	15.6	20.0	12 23	8 32.71	+13 4.3	1.262	2.132	16.1	20.3
1 2	8 25.47	- 4 24.5	1.724	2.582	13.1	19.8	1 2	8 27.61	+13 33.9	1.209	2.139	11.5	20.1
1 12	8 18.77	- 4 53.4	1.669	2.572	10.7	19.6	1 12	8 19.96	+14 19.8	1.179	2.146	6.3	19.8
1 22	8 10.92	- 4 56.6	1.637	2.564	9.3	19.5	1 22	8 10.91	+15 16.9	1.173	2.155	2.1	19.6
2 1	8 2.93	- 4 34.0	1.631	2.556	9.5	19.5	2 1	8 1.92	+16 18.4	1.193	2.165	5.8	19.8
2 11	7 55.88	- 3 49.0	1.650	2.549	11.4	19.6	2 11	7 54.51	+17 17.4	1.239	2.176	10.8	20.1
2 21	7 50.66	- 2 47.8	1.692	2.543	13.9	19.8	2 21	7 49.76	+18 9.0	1.307	2.188	15.3	20.4
<b>127706</b>	2003 <i>EE</i> <sub>28</sub>		1 21.5	263°85'	0°8/21.9	18	<b>119554</b>	2001 <i>VQ</i> <sub>36</sub>		1 21.5	134°41'	2°3/20.1	18
12 13	8 39.20	+15 15.3	1.574	2.351	18.1	20.2	12 13	8 41.99	+24 46.9	2.357	3.120	13.2	20.2
12 23	8 36.15	+15 38.8	1.481	2.343	14.6	19.9	12 23	8 37.08	+25 29.9	2.277	3.133	10.4	20.0
1 2	8 29.96	+16 17.7	1.407	2.335	10.3	19.6	1 2	8 29.83	+26 16.8	2.221	3.147	7.2	19.8
1 12	8 21.18	+17 9.3	1.358	2.327	5.4	19.3	1 12	8 20.82	+27 2.9	2.193	3.160	3.9	19.7
1 22	8 10.79	+18 8.4	1.335	2.319	0.8	19.0	1 22	8 10.88	+27 43.5	2.194	3.172	2.4	19.6
2 1	8 0.19	+19 8.3	1.340	2.310	5.6	19.3	2 1	8 1.00	+28 14.6	2.226	3.183	5.0	19.8
2 11	7 50.90	+20 3.1	1.372	2.302	10.6	19.6	2 11	7 52.22	+28 34.4	2.288	3.194	8.3	20.0
2 21	7 44.12	+20 48.7	1.428	2.294	15.1	19.8	2 21	7 45.31	+28 42.7	2.376	3.205	11.2	20.2
<b>522312</b>	2016 <i>BR</i> <sub>101</sub>		1 21.5	148°57'	3°5/19.7	18	<b>103887</b>	2000 <i>DO</i> <sub>52</sub>		1 21.5	249°72'	1°4/20.9	18
12 13	8 41.00	+28 15.3	2.116	2.891	14.1	21.1	12 13	8 41.19	+22 5.5	1.997	2.767	15.0	20.6
12 23	8 36.73	+28 53.5	2.030	2.893	11.2	20.9	12 23	8 37.11	+22 26.0	1.894	2.754	12.0	20.4
1 2	8 29.83	+29 33.6	1.968	2.894	7.9	20.7	1 2	8 30.29	+22 53.2	1.813	2.742	8.3	20.2
1 12	8 20.89	+30 10.3	1.932	2.896	4.7	20.5	1 12	8 21.25	+23 23.0	1.758	2.728	4.2	19.9
1 22	8 10.82	+30 38.3	1.925	2.897	3.6	20.5	1 22	8 10.86	+23 50.9	1.732	2.715	1.4	19.7
2 1	8 0.79	+30 53.5	1.947	2.899	6.1	20.6	2 1	8 0.30	+24 12.5	1.736	2.701	5.2	19.9
2 11	7 51.98	+30 54.6	1.997	2.900	9.5	20.8	2 11	7 50.85	+24 25.2	1.768	2.687	9.4	20.1
2 21	7 45.28	+30 42.6	2.072	2.902	12.6	21.0	2 21	7 43.52	+24 28.3	1.825	2.673	13.2	20.3
<b>420705</b>	2012 <i>LA</i> <sub>14</sub>		1 21.5	327°17'	3°6/19.2	18	<b>136842</b>	1997 <i>XN</i> <sub>9</sub>		1 21.5	12°16'	8°5/15.5	18
12 13	8 35.43	+22 35.0	1.611	2.408	16.9	20.4	12 13	8 41.61	+34 53.7	1.725	2.515	16.2	19.2
12 23	8 33.37	+24 2.9	1.518	2.395	13.4	20.2	12 23	8 38.55	+37 13.3	1.653	2.516	13.3	19.0
1 2	8 28.19	+25 44.8	1.447	2.382	9.4	19.9	1 2	8 31.96	+39 35.6	1.604	2.517	10.5	18.8
1 12	8 20.37	+27 33.5	1.401	2.370	5.2	19.6	1 12	8 22.34	+41 48.0	1.582	2.518	8.7	18.7
1 22	8 10.83	+29 18.8	1.383	2.359	3.9	19.5	1 22	8 10.79	+43 37.9	1.587	2.519	9.0	18.7
2 1	8 0.97	+30 50.7	1.392	2.348	7.5	19.7	2 1	7 58.96	+44 56.4	1.619	2.521	11.3	18.8
2 11	7 52.35	+32 2.4	1.428	2.338	12.0	19.9	2 11	7 48.65	+45 40.8	1.675	2.523	14.1	19.0
2 21	7 46.24	+32 51.6	1.486	2.329	16.0	20.2	2 21	7 41.28	+45 54.5	1.751	2.525	16.8	19.2
<b>214220</b>	2005 <i>EQ</i> <sub>94</sub>		1 21.5	294°59'	0°7/21.8	18	<b>78201</b>	2002 <i>NM</i> <sub>49</sub>		1 21.5	127°82'	0°3/21.3	18
12 13	8 38.58	+17 0.5	1.616	2.396	17.6	21.0	12 13	8 37.81	+19 14.0	2.238	3.002	13.8	20.0
12 23	8 35.63	+17 7.0	1.517	2.382	14.2	20.7	12 23	8 33.91	+19 33.4	2.148	3.005	10.9	19.8
1 2	8 29.60	+17 25.3	1.439	2.368	10.0	20.4	1 2	8 27.75	+20 0.3	2.081	3.008	7.5	19.6
1 12	8 21.01	+17 53.1	1.385	2.354	5.2	20.1	1 12	8 19.84	+20 31.5	2.041	3.011	3.8	19.4
1 22	8 10.82	+18 26.2	1.357	2.341	0.7	19.7	1 22	8 10.96	+21 3.4	2.029	3.013	0.4	19.1
2 1	8 0.41	+18 59.7	1.357	2.328	5.5	20.0	2 1	8 2.09	+21 32.6	2.048	3.016	4.3	19.4
2 11	7 51.26	+19 29.2	1.384	2.314	10.5	20.3	2 11	7 54.21	+21 56.2	2.096	3.019	8.0	19.7
2 21	7 44.56	+19 52.2	1.434	2.301	15.0	20.5	2 21	7 48.11	+22 12.9	2.170	3.021	11.3	19.9
<b>292862</b>	2006 <i>VM</i> <sub>1</sub>		1 21.5	169°80'	2°7/20.0	18	<b>241667</b>	2000 <i>OG</i> <sub>39</sub>		1 21.5	148°78'	4°1/23.8	18
12 13	8 44.10	+26 47.9	2.359	3.119	13.2	21.8	12 13	8 41.81	+ 6 41.9	2.162	2.880	15.5	21.8
12 23	8 38.82	+27 21.6	2.269	3.124	10.5	21.6	12 23	8 36.94	+ 6 33.5	2.075	2.892	12.8	21.6
1 2	8 31.09	+27 57.8	2.204	3.128	7.3	21.4	1 2	8 29.77	+ 6 39.9	2.008	2.903	9.7	21.5
1 12	8 21.47	+28 31.5	2.166	3.131	4.1	21.2	1 12	8 20.83	+ 7 1.1	1.967	2.914	6.3	21.3
1 22	8 10.82	+28 58.2	2.158	3.134	2.8	21.1	1 22	8 10.92	+ 7 35.5	1.955	2.924	4.1	21.2
2 1	8 0.19	+29 14.1	2.181	3.136	5.3	21.3	2 1	8 1.04	+ 8 19.9	1.973	2.932	5.3	21.2
2 11	7 50.69	+29 18.1	2.234	3.137	8.6	21.5	2 11	7 52.19	+ 9 10.0	2.020	2.940	8.4	21.4
2 21	7 43.14	+29 10.7	2.312	3.137	11.6	21.7	2 21	7 45.18	+10 1.6	2.094	2.947	11.5	21.7
<b>166199</b>	2002 <i>EY</i> <sub>111</sub>		1 21.5	224°19'	0°9/21.1	18	<b>368974</b>	2007 <i>CF</i> <sub>60</sub>		1 21.5	347°86'	7°8/25.9	18
12 13	8 42.15	+20 30.2	1.919	2.687	15.6	21.7	12 13	8 30.43	+ 0 12.5	1.437	2.186	20.8	20.1
12 23	8 37.93	+20 53.9	1.819	2.679	12.5	21.5	12 23	8 29.29	- 0 4.9	1.349	2.176	17.8	19.9
1 2	8 30.89	+21 26.0	1.742	2.670	8.7	21.2	1 2	8 25.27	+ 0 5.4	1.277	2.168	14.4	19.6
1 12	8 21.54	+22 2.6	1.690	2.661	4.3	21.0	1 12	8 18.87	+ 0 47.0	1.225	2.160	10.7	19.4
1 22	8 10.81	+22 38.7	1.668	2.651	1.0	20.7	1 22	8 11.00	+ 1 59.7	1.196	2.154	8.1	19.2
2 1	7 59.92	+23 9.7	1.674	2.641	5.2	21.0	2 1	8 2.95	+ 3 38.8	1.193	2.149	8.5	19.2
2 11	7 50.20	+23 32.1	1.709	2.630	9.6	21.2	2 11	7 56.12	+ 5 34.8	1.214	2.145	11.6	19.4
2 21	7 42.69	+23 45.0	1.769	2.619	13.5	21.4	2 21	7 51.63	+ 7 36.5	1.258	2.143	15.5	19.6
<b>28660</b>	<i>Derbes</i>		1 21.5	199°47'	1°5/22.3	18	<b>69023</b>	2002 <i>VY</i> <sub>63</sub>		1 21.5	32°17'	5°1/19.9	18
12 13	8 39.28	+1											

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>95124</b>	2002 <i>AK</i> <sub>141</sub>		1 21.5 113°57'	1°5'/22.2	18		<b>246581</b>	2008 <i>US</i> <sub>40</sub>		1 21.5 104°46'	1°0'/22.1	18	
12 13	8 42.83	+14 9.8	1.752	2.510	17.2	20.8	12 13	8 37.91	+15 50.5	2.269	3.024	13.9	21.3
12 23	8 38.31	+14 20.3	1.676	2.526	13.8	20.6	12 23	8 33.87	+15 53.8	2.182	3.032	11.1	21.1
1 2	8 30.98	+14 43.8	1.622	2.542	9.7	20.4	1 2	8 27.64	+16 5.6	2.118	3.039	7.8	20.9
1 12	8 21.51	+15 17.7	1.592	2.558	5.2	20.2	1 12	8 19.78	+16 24.1	2.080	3.047	4.1	20.7
1 22	8 10.90	+15 58.1	1.591	2.573	1.5	20.0	1 22	8 11.03	+16 46.7	2.071	3.054	1.0	20.5
2 1	8 0.44	+16 40.0	1.619	2.588	4.9	20.2	2 1	8 2.33	+17 10.5	2.093	3.062	4.0	20.7
2 11	7 51.37	+17 19.4	1.675	2.602	9.3	20.5	2 11	7 54.61	+17 32.7	2.143	3.069	7.6	20.9
2 21	7 44.61	+17 53.3	1.756	2.615	13.1	20.8	2 21	7 48.61	+17 51.6	2.220	3.076	10.9	21.2
<b>341490</b>	2007 <i>TV</i> <sub>380</sub>		1 21.5 102°03'	4°4'/18.8	18		<b>226715</b>	2004 <i>PW</i> <sub>15</sub>		1 21.5 121°66'	3°3'/19.9	18	
12 13	8 40.06	+31 38.9	2.413	3.184	12.7	20.8	12 13	8 43.73	+28 49.5	2.212	2.979	13.8	21.1
12 23	8 35.72	+32 33.2	2.336	3.193	10.1	20.6	12 23	8 38.66	+29 18.8	2.134	2.991	11.0	20.9
1 2	8 29.00	+33 27.3	2.282	3.202	7.4	20.5	1 2	8 31.03	+29 48.6	2.078	3.002	7.7	20.7
1 12	8 20.47	+34 15.5	2.256	3.211	5.0	20.3	1 12	8 21.48	+30 14.0	2.050	3.013	4.6	20.6
1 22	8 10.96	+34 52.7	2.259	3.219	4.5	20.3	1 22	8 10.96	+30 30.2	2.051	3.024	3.4	20.5
2 1	8 1.51	+35 15.0	2.291	3.228	6.4	20.4	2 1	8 0.59	+30 34.0	2.082	3.034	5.8	20.7
2 11	7 53.18	+35 21.4	2.351	3.236	9.1	20.6	2 11	7 51.51	+30 25.0	2.142	3.044	9.0	20.9
2 21	7 46.74	+35 13.2	2.436	3.245	11.6	20.8	2 21	7 44.52	+30 4.5	2.227	3.054	11.9	21.1
<b>327061</b>	2004 <i>TS</i> <sub>157</sub>		1 21.5 148°60'	5°4'/24.8	18		<b>27588</b>	Wegley		1 21.5 237°92'	1°8'/22.5	18	
12 13	8 37.81	+ 2 7.7	2.519	3.213	14.1	21.4	12 13	8 37.14	+13 16.3	2.045	2.800	15.2	19.4
12 23	8 33.48	+ 1 36.0	2.427	3.221	11.9	21.3	12 23	8 33.61	+13 23.5	1.951	2.799	12.2	19.2
1 2	8 27.22	+ 1 18.4	2.357	3.229	9.5	21.1	1 2	8 27.69	+13 42.6	1.880	2.799	8.7	19.0
1 12	8 19.51	+ 1 16.3	2.312	3.236	7.0	21.0	1 12	8 19.90	+14 12.2	1.833	2.798	4.9	18.8
1 22	8 11.01	+ 1 29.6	2.294	3.243	5.5	20.9	1 22	8 11.04	+14 49.3	1.815	2.797	1.8	18.6
2 1	8 2.51	+ 1 56.8	2.307	3.249	6.0	20.9	2 1	8 2.12	+15 30.2	1.827	2.796	4.5	18.7
2 11	7 54.83	+ 2 34.7	2.348	3.255	8.0	21.1	2 11	7 54.21	+16 10.9	1.867	2.795	8.4	19.0
2 21	7 48.63	+ 3 19.6	2.415	3.261	10.5	21.2	2 21	7 48.16	+16 48.1	1.932	2.794	12.0	19.2
<b>52262</b>	1983 <i>QV</i>		1 21.5 102°13'	2°0'/22.9	18		<b>82475</b>	2001 <i>OP</i> <sub>23</sub>		1 21.5 173°79'	2°9'/20.4	18	
12 13	8 36.02	+11 18.7	2.623	3.357	12.7	19.8	12 13	8 45.43	+27 56.0	2.065	2.832	14.6	19.7
12 23	8 31.98	+11 25.8	2.539	3.373	10.2	19.6	12 23	8 40.25	+28 9.4	1.976	2.834	11.7	19.5
1 2	8 26.13	+11 43.2	2.478	3.388	7.4	19.5	1 2	8 32.29	+28 23.5	1.910	2.835	8.2	19.2
1 12	8 18.94	+12 9.6	2.444	3.403	4.3	19.3	1 12	8 22.19	+28 33.4	1.871	2.836	4.6	19.0
1 22	8 11.04	+12 42.8	2.439	3.418	2.1	19.1	1 22	8 10.94	+28 34.7	1.860	2.837	3.0	18.9
2 1	8 3.21	+13 20.1	2.466	3.432	3.7	19.3	2 1	7 59.80	+28 24.5	1.880	2.837	5.8	19.1
2 11	7 56.19	+13 58.4	2.522	3.447	6.7	19.5	2 11	7 50.01	+28 2.5	1.928	2.837	9.4	19.3
2 21	7 50.59	+14 35.2	2.605	3.461	9.5	19.7	2 21	7 42.50	+27 30.4	2.001	2.837	12.7	19.5
<b>222707</b>	2002 <i>AE</i> <sub>80</sub>		1 21.5 229°21'	0°5'/21.3	18		<b>49230</b>	1998 <i>SL</i> <sub>140</sub>		1 21.5 119°92'	0°5'/21.8	18	
12 13	8 40.10	+20 19.0	2.080	2.846	14.6	20.9	12 13	8 42.88	+17 15.7	2.141	2.892	14.7	20.4
12 23	8 35.99	+20 27.8	1.984	2.842	11.6	20.7	12 23	8 37.81	+17 26.6	2.063	2.911	11.7	20.2
1 2	8 29.35	+20 43.1	1.911	2.838	8.1	20.4	1 2	8 30.36	+17 45.9	2.008	2.930	8.1	20.0
1 12	8 20.72	+21 1.9	1.863	2.833	4.0	20.2	1 12	8 21.13	+18 10.7	1.980	2.948	4.1	19.8
1 22	8 10.97	+21 20.7	1.845	2.829	0.5	19.9	1 22	8 11.00	+18 37.6	1.981	2.965	0.5	19.5
2 1	8 1.16	+21 36.1	1.856	2.824	4.6	20.2	2 1	8 1.01	+19 3.1	2.013	2.981	4.2	19.9
2 11	7 52.45	+21 45.8	1.896	2.819	8.7	20.4	2 11	7 52.20	+19 24.8	2.074	2.997	8.0	20.1
2 21	7 45.72	+21 48.9	1.961	2.814	12.2	20.6	2 21	7 45.35	+19 41.2	2.162	3.012	11.4	20.4
<b>284405</b>	2006 <i>UH</i> <sub>127</sub>		1 21.5 155°09'	1°8'/20.4	18		<b>135051</b>	2001 <i>OZ</i> <sub>55</sub>		1 21.5 92°96'	4°3'/24.1	18	
12 13	8 37.81	+25 1.7	2.830	3.591	11.2	21.7	12 13	8 35.63	+ 5 49.6	2.426	3.145	14.0	19.8
12 23	8 33.44	+25 27.8	2.740	3.595	8.9	21.6	12 23	8 31.87	+ 5 29.7	2.337	3.153	11.6	19.6
1 2	8 27.18	+25 56.4	2.674	3.599	6.1	21.4	1 2	8 26.19	+ 5 23.0	2.269	3.161	8.9	19.5
1 12	8 19.49	+26 24.4	2.636	3.603	3.3	21.2	1 12	8 19.04	+ 5 29.9	2.227	3.169	6.1	19.3
1 22	8 11.04	+26 48.4	2.628	3.607	1.9	21.1	1 22	8 11.11	+ 5 49.5	2.213	3.177	4.3	19.2
2 1	8 2.60	+27 5.7	2.651	3.610	4.2	21.3	2 1	8 3.19	+ 6 19.9	2.229	3.185	5.1	19.3
2 11	7 55.00	+27 14.9	2.704	3.613	7.0	21.5	2 11	7 56.12	+ 6 57.8	2.273	3.192	7.6	19.5
2 21	7 48.87	+27 15.8	2.784	3.616	9.7	21.6	2 21	7 50.55	+ 7 39.4	2.344	3.200	10.4	19.6
<b>48329</b>	2002 <i>NA</i> <sub>54</sub>		1 21.5 225°58'	1°9'/22.3	18		<b>110746</b>	2001 <i>UL</i> <sub>7</sub>		1 21.5 229°22'	4°0'/23.2	18	
12 13	8 41.87	+14 7.4	1.542	2.312	18.7	19.8	12 13	8 40.31	+ 9 30.5	2.166	2.897	15.1	19.9
12 23	8 38.30	+14 9.3	1.450	2.306	15.2	19.6	12 23	8 35.97	+ 8 54.5	2.061	2.889	12.5	19.7
1 2	8 31.50	+14 25.8	1.377	2.301	10.9	19.3	1 2	8 29.28	+ 8 29.1	1.978	2.881	9.4	19.5
1 12	8 22.02	+14 55.2	1.328	2.294	6.0	19.0	1 12	8 20.71	+ 8 15.1	1.921	2.872	6.1	19.3
1 22	8 10.90	+15 33.8	1.305	2.288	1.9	18.7	1 22	8 11.03	+ 8 12.3	1.892	2.863	4.0	19.1
2 1	7 59.60	+16 16.4	1.310	2.281	5.7	18.9	2 1	8 1.23	+ 8 19.4	1.893	2.853	5.4	19.2
2 11	7 49.70	+16 57.7	1.343	2.273	10.8	19.2	2 11	7 52.36	+ 8 34.0	1.922	2.843	8.7	19.4
2 21	7 42.40	+17 34.1	1.398	2.265	15.3	19.4	2 21	7 45.29	+ 8 53.1	1.978	2.833	12.0	19.6
<b>347509</b>	1999 <i>RA</i> <sub>104</sub>		1 21.5 170°41'	3°5'/23.4	18		<b>295713</b>	2008 <i>UT</i> <sub>29</sub>		1 21.5 342°03'	4°2'/23.2	18	
12 13	8 44.41	+ 8 22.1	2.209	2.925	15.3	23.3	12 13	8 36.69	+10 26.4	1.334	2.115	20.5	20.8
12 23	8 39.03	+ 8 16.6	2.113	2.932	12.6	23.1	12 23	8 34.56	+10 4.0	1.250	2.110	16.9	20.5
1 2	8 31.26	+ 8 24.6	2.039	2.938	9.3	22.9	1 2	8 29.09	+ 9 59.8	1.184	2.105	12.5	20.2
1 12	8 21.63	+ 8 45.8	1.991	2.943	5.9	22.7	1 12	8 20.88	+10 14.5	1.139	2.100	7.7	19.9
1 22	8 10.94	+ 9 18.5	1.973	2.946	3.5	22.6	1 22	8 11.02	+10 46.3	1.119	2.096	4.3	19.7
2 1	8 0.21	+ 9 59.3	1.986	2.948	5.0	22.7	2 1	8 1.02	+11 30.5	1.124	2.093	6.7	19.9
2 11	7 50.50	+10 44.6	2.029	2.948	8.4	22.9	2 11	7 52.53	+12 21.1	1.155	2.091	11.5	20.1
2 21	7 42.64	+11 30.3	2.099	2.948	11.7	23.1	2 21	7 46.78	+13 11.8	1.207	2.089	16.2	20.4
<b>394407</b>	2007 <i>GS</i> <sub>41</sub>		1 21.5 188°39'	2°8'/20.2	18		<b>13982</b>	Thunberg		1 21.5 108°00'	0°2'/21.7	18	
12 13	8 45.20	+25 11.1	1.956	2.725									

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>81161</b>	2000 <i>ES</i> <sub>156</sub>		1 21.5 277°08	1.2°/22.0	18		<b>249291</b>	2008 <i>TF</i> <sub>73</sub>		1 21.6 55°92	0.7°/21.2	18	
12 13	8 39.95	+16 39.5	1.835	2.602	16.2	19.7	12 13	8 38.78	+20 32.3	1.981	2.754	15.0	20.9
12 23	8 36.31	+16 30.6	1.732	2.589	13.1	19.4	12 23	8 34.91	+20 48.6	1.905	2.767	11.9	20.7
1 2	8 29.87	+16 30.7	1.651	2.575	9.3	19.2	1 2	8 28.55	+21 11.7	1.851	2.780	8.1	20.5
1 12	8 21.14	+16 38.5	1.594	2.562	5.0	18.9	1 12	8 20.31	+21 38.1	1.823	2.793	4.0	20.3
1 22	8 11.02	+16 51.1	1.565	2.548	1.2	18.6	1 22	8 11.11	+22 3.8	1.823	2.807	0.8	20.1
2 1	8 0.71	+17 5.4	1.564	2.534	5.0	18.8	2 1	8 2.03	+22 25.1	1.853	2.820	4.7	20.4
2 11	7 51.54	+17 18.6	1.592	2.520	9.6	19.0	2 11	7 54.17	+22 39.8	1.911	2.834	8.6	20.7
2 21	7 44.55	+17 28.6	1.644	2.507	13.7	19.3	2 21	7 48.33	+22 46.9	1.993	2.848	12.0	20.9
<b>118775</b>	2000 <i>RR</i> <sub>37</sub>		1 21.5 76°32	3.4°/23.1	18		<b>367191</b>	2007 <i>AL</i> <sub>10</sub>		1 21.6 335°49	0°3°/21.6	17	
12 13	8 42.89	+10 56.4	1.987	2.725	16.1	19.0	12 13	8 57.82	+26 43.2	0.993	1.795	24.7	19.5
12 23	8 37.76	+10 23.8	1.920	2.754	13.1	18.9	12 23	8 52.87	+25 8.9	0.914	1.790	20.1	19.2
1 2	8 30.26	+10 2.7	1.875	2.783	9.5	18.7	1 2	8 42.58	+23 24.7	0.851	1.786	14.3	18.8
1 12	8 21.04	+9 53.1	1.856	2.811	5.9	18.6	1 12	8 27.87	+21 27.3	0.810	1.782	7.3	18.4
1 22	8 11.04	+9 53.7	1.865	2.839	3.5	18.5	1 22	8 10.75	+19 17.3	0.794	1.778	0.5	17.9
2 1	8 1.31	+10 2.5	1.904	2.867	5.1	18.6	2 1	7 54.01	+17 1.8	0.804	1.775	8.0	18.4
2 11	7 52.87	+10 16.6	1.971	2.894	8.4	18.9	2 11	7 40.37	+14 51.0	0.839	1.773	15.0	18.8
2 21	7 46.45	+10 33.2	2.065	2.921	11.6	19.1	2 21	7 31.39	+12 53.5	0.894	1.771	21.0	19.1
<b>232845</b>	2004 <i>TH</i> <sub>135</sub>		1 21.5 122°58	0.7°/22.0	18		<b>76227</b>	2000 <i>EM</i> <sub>71</sub>		1 21.6 177°71	0.9°/21.0	18	
12 13	8 39.10	+15 23.7	2.376	3.124	13.5	21.6	12 13	8 38.81	+21 37.0	2.543	3.302	12.4	20.4
12 23	8 34.67	+15 44.8	2.293	3.138	10.8	21.5	12 23	8 34.47	+21 56.3	2.448	3.303	9.8	20.2
1 2	8 28.14	+16 15.4	2.233	3.153	7.5	21.3	1 2	8 28.04	+22 20.6	2.378	3.303	6.8	20.0
1 12	8 20.03	+16 52.8	2.200	3.167	3.9	21.1	1 12	8 20.02	+22 46.7	2.334	3.304	3.4	19.8
1 22	8 11.09	+17 33.7	2.197	3.181	0.7	20.8	1 22	8 11.12	+23 11.4	2.321	3.304	1.0	19.6
2 1	8 2.20	+18 14.6	2.225	3.194	3.9	21.1	2 1	8 2.21	+23 31.7	2.339	3.304	4.1	19.8
2 11	7 54.28	+18 52.3	2.283	3.207	7.4	21.4	2 11	7 54.20	+23 45.6	2.386	3.304	7.4	20.0
2 21	7 48.02	+19 24.7	2.367	3.219	10.5	21.6	2 21	7 47.79	+23 52.4	2.460	3.303	10.4	20.2
<b>367381</b>	2008 <i>HD</i> <sub>57</sub>		1 21.5 6°06	1.7°/20.5	18		<b>345804</b>	2007 <i>GH</i> <sub>44</sub>		1 21.6 344°77	1°0°/21.9	18	R
12 13	8 37.53	+19 6.8	1.757	2.538	16.3	20.4	12 13	8 35.10	+16 43.5	1.117	1.932	21.7	21.2
12 23	8 34.54	+20 15.9	1.671	2.538	13.0	20.2	12 23	8 34.07	+16 42.1	1.038	1.923	17.6	20.9
1 2	8 28.71	+21 38.6	1.606	2.538	8.9	20.0	1 2	8 29.21	+16 56.4	0.977	1.914	12.4	20.6
1 12	8 20.58	+23 9.2	1.567	2.538	4.5	19.7	1 12	8 21.12	+17 24.3	0.936	1.907	6.5	20.3
1 22	8 11.05	+24 39.8	1.557	2.539	1.9	19.5	1 22	8 11.06	+18 0.5	0.918	1.902	1.0	19.9
2 1	8 1.39	+26 2.5	1.576	2.540	5.8	19.8	2 1	8 0.84	+18 38.5	0.924	1.897	6.7	20.2
2 11	7 52.94	+27 11.3	1.622	2.541	10.2	20.0	2 11	7 52.44	+19 12.1	0.953	1.894	12.7	20.5
2 21	7 46.75	+28 3.7	1.692	2.542	14.0	20.3	2 21	7 47.29	+19 37.4	1.002	1.891	18.1	20.8
<b>304417</b>	2006 <i>TP</i> <sub>57</sub>		1 21.5 106°72	18°5°/31.2	18		<b>109747</b>	2001 <i>RH</i> <sub>68</sub>		1 21.6 87°19	6°4°/19.2	18	
12 13	8 42.35	-15 41.2	1.233	1.893	27.7	20.9	12 13	8 49.09	+36 24.5	1.865	2.636	15.9	19.0
12 23	8 39.18	-17 52.8	1.175	1.906	25.4	20.7	12 23	8 43.57	+37 4.6	1.798	2.650	12.9	18.8
1 2	8 32.34	-19 28.2	1.129	1.918	23.0	20.6	1 2	8 34.75	+37 39.6	1.752	2.664	9.8	18.7
1 12	8 22.51	-20 15.6	1.097	1.929	20.7	20.4	1 12	8 23.45	+38 1.6	1.732	2.678	7.1	18.6
1 22	8 10.96	-20 7.1	1.081	1.941	19.0	20.4	1 22	8 10.97	+38 4.1	1.739	2.691	6.5	18.5
2 1	7 59.42	-19 1.5	1.084	1.952	18.5	20.4	2 1	7 58.87	+37 44.3	1.774	2.705	8.4	18.7
2 11	7 49.67	-17 7.0	1.107	1.962	19.2	20.5	2 11	7 48.62	+37 3.7	1.836	2.718	11.3	18.9
2 21	7 43.01	-14 38.7	1.148	1.972	20.9	20.6	2 21	7 41.21	+36 7.2	1.921	2.731	14.2	19.1
<b>134030</b>	2004 <i>VT</i> <sub>90</sub>		1 21.5 24°10	7°4°/26.1	18		<b>415134</b>	2012 <i>DJ</i> <sub>46</sub>		1 21.6 354°26	1°5°/20.9	18	
12 13	8 33.99	- 1 2.2	1.795	2.510	18.3	19.6	12 13	8 37.66	+21 22.2	1.521	2.316	17.8	21.3
12 23	8 31.35	- 1 24.9	1.712	2.515	15.7	19.4	12 23	8 35.06	+21 45.5	1.438	2.313	14.2	21.0
1 2	8 26.25	- 1 24.8	1.647	2.521	12.7	19.2	1 2	8 29.27	+22 18.2	1.376	2.310	9.8	20.8
1 12	8 19.23	- 0 59.2	1.605	2.527	9.7	19.1	1 12	8 20.91	+22 55.4	1.337	2.308	5.0	20.5
1 22	8 11.13	- 0 8.6	1.587	2.534	7.7	19.0	1 22	8 11.08	+23 31.2	1.324	2.307	1.6	20.2
2 1	8 3.02	+ 1 3.5	1.596	2.541	7.9	19.0	2 1	8 1.21	+24 0.2	1.339	2.306	6.0	20.5
2 11	7 55.99	+ 2 30.6	1.631	2.549	10.2	19.1	2 11	7 52.84	+24 18.7	1.379	2.306	10.8	20.8
2 21	7 50.92	+ 4 4.8	1.691	2.557	13.2	19.3	2 21	7 47.06	+24 25.8	1.442	2.307	15.1	21.0
<b>8913</b>	1995 <i>YB</i> <sub>2</sub>		1 21.5 297°93	0°1°/21.5	18		<b>16908</b>	Groeselenberg		1 21.6 22°79	5°0°/23.8	18	
12 13	8 33.54	+19 22.2	3.057	3.813	10.6	18.6	12 13	8 32.97	+ 7 58.9	1.028	1.832	23.9	16.7
12 23	8 30.00	+19 32.6	2.949	3.801	8.4	18.4	12 23	8 32.09	+ 7 49.4	0.973	1.844	19.7	16.5
1 2	8 24.81	+19 48.0	2.866	3.790	5.8	18.2	1 2	8 27.52	+ 8 7.0	0.934	1.859	14.6	16.2
1 12	8 18.36	+20 6.5	2.810	3.779	2.9	18.0	1 12	8 20.07	+ 8 51.7	0.914	1.875	9.1	16.0
1 22	8 11.18	+20 25.9	2.784	3.768	0.2	17.8	1 22	8 11.12	+ 9 58.8	0.917	1.893	5.1	15.8
2 1	8 3.94	+20 44.0	2.790	3.758	3.3	18.0	2 1	8 2.42	+11 19.6	0.942	1.913	7.2	16.0
2 11	7 57.33	+20 58.9	2.825	3.747	6.2	18.2	2 11	7 55.67	+12 43.5	0.991	1.934	12.1	16.3
2 21	7 51.94	+21 9.6	2.887	3.736	8.9	18.4	2 21	7 51.98	+14 1.8	1.061	1.956	16.8	16.7
<b>104398</b>	2000 <i>FC</i> <sub>44</sub>		1 21.6 256°38	1.2°/20.9	18		<b>355961</b>	2008 <i>YP</i> <sub>155</sub>		1 21.6 233°37	0°6°/21.3	18	
12 13	8 39.80	+20 21.5	2.023	2.792	14.9	20.4	12 13	8 43.15	+20 48.4	1.806	2.577	16.3	21.2
12 23	8 36.07	+20 56.5	1.917	2.777	11.9	20.2	12 23	8 38.91	+20 53.3	1.710	2.570	13.1	21.0
1 2	8 29.67	+21 40.8	1.833	2.761	8.3	19.9	1 2	8 31.69	+21 5.2	1.634	2.562	9.1	20.7
1 12	8 21.05	+22 30.6	1.774	2.745	4.2	19.6	1 12	8 22.07	+21 20.6	1.584	2.554	4.6	20.4
1 22	8 11.05	+23 20.5	1.745	2.728	1.3	19.4	1 22	8 11.03	+21 35.3	1.562	2.546	0.7	20.1
2 1	8 0.79	+24 5.4	1.746	2.711	5.2	19.6	2 1	7 59.89	+21 45.6	1.570	2.538	5.3	20.4
2 11	7 51.53	+24 41.4	1.774	2.694	9.4	19.8	2 11	7 50.04	+21 49.0	1.605	2.529	9.9	20.7
2 21	7 44.29	+25 6.5	1.828	2.676	13.2	20.0	2 21	7 42.56	+21 45.2	1.664	2.519	13.9	20.9
<b>323177</b>	2003 <i>GH</i> <sub>35</sub>		1 21.6 203°59	3°5°/23.7	17		<b>363814</b>	2005 <i>ND</i> <sub>7</sub>		1 21.6 75°90	7°8°/16.8	17	
12 13	8 37.80	+ 7 13											

EPHEMERIDES

1 21.6

1 21.6

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>261457</b>	2005 VC <sub>68</sub>		1 21.6 163°66	1.7°/22.8	18		<b>61226</b>	2000 OR <sub>13</sub>		1 21.6 27°64	1°1/21.8	18	
12 13	8 34.27	+12 7.5	3.074	3.806	11.0	21.7	12 13	8 47.46	+20 19.1	1.822	2.582	16.6	17.6
12 23	8 30.45	+12 12.5	2.976	3.809	8.9	21.6	12 23	8 41.99	+19 26.8	1.731	2.584	13.3	17.3
1 2	8 25.04	+12 25.9	2.901	3.811	6.4	21.4	1 2	8 33.58	+18 36.8	1.662	2.585	9.4	17.1
1 12	8 18.46	+12 46.6	2.854	3.814	3.7	21.2	1 12	8 22.91	+17 48.0	1.619	2.587	4.9	16.8
1 22	8 11.22	+13 12.9	2.837	3.816	1.7	21.1	1 22	8 11.06	+16 59.9	1.605	2.589	1.1	16.6
2 1	8 3.97	+13 42.7	2.851	3.818	3.3	21.2	2 1	7 59.36	+16 12.4	1.622	2.590	5.0	16.8
2 11	7 57.35	+14 13.6	2.896	3.820	6.0	21.4	2 11	7 49.14	+15 26.3	1.668	2.592	9.5	17.1
2 21	7 51.92	+14 43.6	2.968	3.821	8.5	21.6	2 21	7 41.36	+14 42.4	1.739	2.595	13.4	17.3
<b>372112</b>	2008 SU <sub>132</sub>		1 21.6 45°51	2°3/22.7	18		<b>280231</b>	2002 VJ <sub>19</sub>		1 21.6 77°31	2°6/20.5	17	
12 13	8 37.32	+12 55.8	1.879	2.639	16.1	21.5	12 13	8 44.55	+22 45.4	1.360	2.153	19.6	20.8
12 23	8 33.78	+12 47.5	1.804	2.654	13.0	21.3	12 23	8 40.71	+23 27.8	1.296	2.169	15.5	20.6
1 2	8 27.78	+12 51.3	1.750	2.668	9.3	21.1	1 2	8 33.21	+24 19.4	1.252	2.186	10.7	20.4
1 12	8 19.94	+13 5.9	1.721	2.684	5.3	20.9	1 12	8 22.87	+25 12.9	1.232	2.202	5.5	20.1
1 22	8 11.15	+13 28.7	1.719	2.699	2.3	20.7	1 22	8 11.06	+26 0.2	1.237	2.218	2.7	20.0
2 1	8 2.48	+13 56.6	1.746	2.715	4.7	20.9	2 1	7 59.52	+26 34.6	1.270	2.235	6.9	20.3
2 11	7 55.01	+14 25.8	1.801	2.731	8.5	21.1	2 11	7 49.95	+26 53.1	1.329	2.251	11.7	20.6
2 21	7 49.53	+14 53.4	1.881	2.747	12.0	21.4	2 21	7 43.45	+26 56.6	1.410	2.267	15.9	20.9
<b>6270</b>	Kabukuri		1 21.6 62°69	1°4/22.0	18		<b>248833</b>	2006 SK <sub>366</sub>		1 21.6 69°23	2°8/20.4	18	
12 13	8 42.94	+17 5.1	1.465	2.245	19.1	17.6	12 13	8 43.99	+25 1.4	1.667	2.449	17.0	20.0
12 23	8 39.04	+16 46.2	1.391	2.254	15.3	17.3	12 23	8 39.49	+25 35.5	1.605	2.471	13.4	19.8
1 2	8 31.85	+16 37.5	1.337	2.264	10.8	17.1	1 2	8 31.92	+26 14.2	1.564	2.494	9.3	19.6
1 12	8 22.13	+16 37.1	1.306	2.274	5.7	16.8	1 12	8 22.07	+26 51.3	1.548	2.517	5.0	19.4
1 22	8 11.06	+16 41.9	1.301	2.284	1.4	16.6	1 22	8 11.11	+27 20.8	1.560	2.539	2.9	19.3
2 1	8 0.17	+16 48.6	1.324	2.295	5.6	16.9	2 1	8 0.47	+27 38.2	1.601	2.562	6.2	19.5
2 11	7 50.97	+16 54.4	1.374	2.305	10.5	17.2	2 11	7 51.50	+27 42.3	1.669	2.584	10.2	19.8
2 21	7 44.50	+16 57.5	1.447	2.316	14.8	17.5	2 21	7 45.12	+27 34.0	1.760	2.606	13.7	20.1
<b>44806</b>	1999 TW <sub>215</sub>		1 21.6 294°99	0°4/21.7	18		<b>279751</b>	1998 S7 <sub>8</sub>		1 21.6 102°70	2°6/20.5	18	
12 13	8 38.10	+16 44.6	1.612	2.393	17.6	18.9	12 13	8 46.54	+24 6.4	1.563	2.344	18.0	21.2
12 23	8 35.34	+17 2.5	1.513	2.378	14.2	18.6	12 23	8 41.81	+24 41.2	1.495	2.361	14.3	20.9
1 2	8 29.51	+17 33.9	1.435	2.364	10.0	18.3	1 2	8 33.72	+25 22.2	1.448	2.378	9.9	20.7
1 12	8 21.12	+18 15.8	1.380	2.350	5.1	18.0	1 12	8 23.05	+26 2.9	1.425	2.394	5.2	20.5
1 22	8 11.10	+19 3.6	1.352	2.336	0.4	17.6	1 22	8 11.06	+26 36.5	1.430	2.410	2.7	20.4
2 1	8 0.81	+19 51.3	1.352	2.322	5.5	17.9	2 1	7 59.33	+26 57.8	1.464	2.426	6.4	20.6
2 11	7 51.75	+20 33.8	1.378	2.308	10.6	18.2	2 11	7 49.40	+27 4.9	1.524	2.441	10.8	20.9
2 21	7 45.12	+21 7.8	1.428	2.295	15.1	18.4	2 21	7 42.29	+26 59.0	1.608	2.456	14.7	21.2
<b>307690</b>	2003 UD <sub>11</sub>		1 21.6 193°77	1°9/22.5	18		<b>361721</b>	2007 WS <sub>9</sub>		1 21.6 258°65	4°8/19.3	18	
12 13	8 42.24	+13 37.0	2.137	2.880	15.0	22.3	12 13	8 42.94	+28 50.7	1.683	2.470	16.7	21.2
12 23	8 37.56	+13 34.7	2.037	2.878	12.1	22.1	12 23	8 39.27	+29 46.0	1.596	2.464	13.4	20.9
1 2	8 30.42	+13 42.9	1.960	2.875	8.7	21.8	1 2	8 32.26	+30 45.4	1.530	2.458	9.6	20.7
1 12	8 21.33	+14 0.2	1.908	2.871	4.9	21.6	1 12	8 22.49	+31 41.3	1.489	2.452	6.0	20.5
1 22	8 11.10	+14 24.4	1.886	2.867	1.9	21.4	1 22	8 11.08	+32 25.3	1.476	2.446	5.0	20.4
2 1	8 0.79	+14 52.1	1.894	2.862	4.5	21.6	2 1	7 59.57	+32 51.1	1.490	2.440	7.9	20.6
2 11	7 51.49	+15 20.3	1.932	2.856	8.4	21.8	2 11	7 49.58	+32 56.6	1.530	2.433	11.8	20.8
2 21	7 44.09	+15 46.3	1.996	2.850	12.0	22.0	2 21	7 42.32	+32 43.5	1.593	2.427	15.5	21.0
<b>250166</b>	2002 TR <sub>76</sub>		1 21.6 45°23	0°8/21.9	18		<b>389144</b>	2009 BY <sub>3</sub>		1 21.6 52°45	3°3/23.1	18	
12 13	8 41.27	+17 32.2	1.411	2.197	19.4	20.0	12 13	8 37.60	+10 53.2	2.209	2.951	14.6	20.8
12 23	8 37.67	+17 25.9	1.350	2.217	15.4	19.8	12 23	8 33.66	+10 23.2	2.122	2.957	11.9	20.6
1 2	8 30.82	+17 30.7	1.308	2.238	10.7	19.6	1 2	8 27.56	+10 3.6	2.056	2.964	8.8	20.4
1 12	8 21.54	+17 43.7	1.289	2.259	5.5	19.4	1 12	8 19.83	+9 54.3	2.016	2.971	5.5	20.2
1 22	8 11.10	+18 0.7	1.297	2.281	0.9	19.1	1 22	8 11.22	+9 54.6	2.004	2.978	3.3	20.1
2 1	8 1.00	+18 17.5	1.332	2.303	5.5	19.5	2 1	8 2.66	+10 2.8	2.022	2.985	4.8	20.2
2 11	7 52.66	+18 31.1	1.393	2.325	10.3	19.8	2 11	7 55.07	+10 16.5	2.068	2.992	7.9	20.4
2 21	7 47.04	+18 39.6	1.477	2.348	14.4	20.1	2 21	7 49.20	+10 33.0	2.140	3.000	11.1	20.6
<b>84185</b>	2002 RM <sub>107</sub>		1 21.6 46°91	7°8/16.9	18		<b>376677</b>	2013 QF <sub>34</sub>		1 21.6 49°88	1°7/20.8	18	
12 13	8 42.41	+38 24.4	1.941	2.721	15.0	17.7	12 13	8 40.38	+23 35.2	1.943	2.719	15.1	21.7
12 23	8 38.48	+39 56.7	1.887	2.739	12.4	17.6	12 23	8 36.38	+23 50.5	1.860	2.724	12.0	21.4
1 2	8 31.39	+41 24.0	1.854	2.758	9.8	17.5	1 2	8 29.70	+24 10.4	1.799	2.729	8.3	21.2
1 12	8 21.87	+42 37.2	1.848	2.778	8.1	17.4	1 12	8 20.99	+24 30.8	1.765	2.734	4.3	21.0
1 22	8 11.09	+43 28.2	1.868	2.797	8.1	17.5	1 22	8 11.17	+24 47.4	1.758	2.740	1.8	20.8
2 1	8 0.50	+43 52.9	1.914	2.817	9.7	17.6	2 1	8 1.44	+24 56.7	1.781	2.746	5.2	21.1
2 11	7 51.53	+43 51.5	1.986	2.838	12.0	17.8	2 11	7 52.99	+24 57.0	1.831	2.751	9.1	21.3
2 21	7 45.19	+43 27.9	2.079	2.858	14.4	18.0	2 21	7 46.69	+24 48.5	1.907	2.757	12.6	21.6
<b>275708</b>	2000 WR <sub>27</sub>		1 21.6 268°97	1°3/20.9	18		<b>43621</b>	2002 CK <sub>117</sub>		1 21.6 186°30	5°5/17.9	18	
12 13	8 39.02	+21 33.9	1.990	2.764	14.9	20.8	12 13	8 41.50	+32 31.7	2.189	2.964	13.7	19.0
12 23	8 35.33	+22 1.4	1.899	2.762	11.8	20.6	12 23	8 37.42	+33 52.3	2.106	2.963	11.1	18.9
1 2	8 29.04	+22 36.1	1.830	2.760	8.2	20.4	1 2	8 30.58	+35 14.3	2.046	2.963	8.3	18.7
1 12	8 20.68	+23 13.9	1.787	2.758	4.1	20.1	1 12	8 21.52	+36 30.0	2.013	2.963	6.0	18.5
1 22	8 11.15	+23 50.2	1.773	2.756	1.4	19.9	1 22	8 11.15	+37 32.0	2.009	2.962	5.8	18.5
2 1	8 1.56	+24 20.4	1.788	2.754	5.1	20.2	2 1	8 0.67	+38 15.0	2.034	2.961	7.8	18.7
2 11	7 53.11	+24 41.6	1.831	2.751	9.1	20.4	2 11	7 51.36	+38 36.9	2.086	2.960	10.6	18.8
2 21	7 46.72	+24 53.0	1.899	2.749	12.7	20.6	2 21	7 44.23	+38 39.2	2.161	2.959	13.3	19.0
<b>288896</b>	2004 RQ <sub>304</sub>		1 21.6 341°70	0°2/21.5	18		<b>435242</b>	2007 SY <sub>22</sub>		1 21.6 59°61	3°8/24.0	18	
12 13	8 41.64	+20 20.6	1.387	2.180	19.3	20.4	12 13	8 35.12	+ 6 35.5	2.1			



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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>82078</b>	2001 <i>AH</i> <sub>46</sub>		1 21.6 351°54	19°3/17.3	18	R	<b>381579</b>	2008 <i>UG</i> <sub>199</sub>		1 21.6 353°40	20°0/17.9	18	
12 13	9 3.24	+53 37.3	1.015	1.799	25.5	17.2	12 13	8 29.20	- 1 19.9	1.039	1.815	25.5	18.0
12 23	9 0.47	+55 25.9	0.964	1.795	23.1	17.0	12 23	8 29.46	- 5 48.6	0.963	1.790	23.4	17.8
1 2	8 49.72	+56 53.4	0.927	1.792	20.9	16.8	1 2	8 26.15	-10 11.4	0.905	1.768	21.5	17.6
1 12	8 31.99	+57 36.2	0.907	1.790	19.5	16.7	1 12	8 19.73	-14 9.5	0.867	1.750	20.2	17.4
1 22	8 10.68	+57 14.9	0.904	1.789	19.5	16.7	1 22	8 11.25	-17 23.7	0.848	1.736	20.1	17.3
2 1	7 50.77	+55 43.3	0.919	1.788	20.8	16.8	2 1	8 2.37	-19 39.3	0.847	1.727	21.2	17.4
2 11	7 36.42	+53 13.5	0.952	1.788	23.1	17.0	2 11	7 55.00	-20 52.6	0.863	1.721	23.0	17.5
2 21	7 29.14	+50 6.7	1.000	1.789	25.7	17.1	2 21	7 50.70	-21 10.0	0.892	1.721	25.1	17.6
<b>424240</b>	2007 <i>RV</i> <sub>205</sub>		1 21.6 89°90	0°4/21.8	18		<b>462924</b>	2011 <i>BP</i> <sub>13</sub>		1 21.6 244°34	2°9/20.3	18	
12 13	8 37.88	+16 41.3	2.378	3.132	13.3	21.5	12 13	8 43.45	+27 42.5	2.236	3.002	13.7	21.4
12 23	8 33.72	+17 2.2	2.300	3.150	10.6	21.4	12 23	8 38.69	+28 0.6	2.134	2.991	11.0	21.2
1 2	8 27.51	+17 31.5	2.245	3.168	7.3	21.2	1 2	8 31.31	+28 20.1	2.054	2.979	7.7	21.0
1 12	8 19.77	+18 6.5	2.218	3.186	3.7	21.0	1 12	8 21.84	+28 36.3	2.002	2.967	4.4	20.8
1 22	8 11.24	+18 43.8	2.219	3.203	0.4	20.7	1 22	8 11.17	+28 44.9	1.978	2.954	2.9	20.6
2 1	8 2.81	+19 20.2	2.252	3.221	3.8	21.1	2 1	8 0.43	+28 42.5	1.985	2.942	5.6	20.8
2 11	7 55.35	+19 52.6	2.314	3.238	7.3	21.3	2 11	7 50.81	+28 28.3	2.020	2.928	9.1	21.0
2 21	7 49.52	+20 19.4	2.402	3.255	10.3	21.5	2 21	7 43.22	+28 3.2	2.081	2.915	12.4	21.2
<b>522534</b>	2016 <i>ET</i> <sub>237</sub>		1 21.6 210°39	2°4/23.4	17		<b>451512</b>	2011 <i>UD</i> <sub>340</sub>		1 21.6 173°68	3°7/20.0	18	
12 13	8 35.76	+ 9 14.3	3.200	3.915	11.0	23.2	12 13	8 46.50	+27 35.0	1.813	2.587	16.1	22.2
12 23	8 31.62	+ 9 18.2	3.087	3.907	9.0	23.0	12 23	8 41.65	+28 11.8	1.728	2.590	12.9	22.0
1 2	8 25.89	+ 9 31.6	2.998	3.899	6.6	22.8	1 2	8 33.62	+28 51.7	1.665	2.592	9.1	21.8
1 12	8 18.94	+ 9 53.9	2.937	3.890	4.1	22.7	1 12	8 23.08	+29 28.2	1.628	2.593	5.3	21.6
1 22	8 11.29	+10 23.8	2.906	3.880	2.4	22.5	1 22	8 11.13	+29 54.7	1.619	2.594	3.8	21.5
2 1	8 3.54	+10 59.1	2.907	3.870	3.5	22.6	2 1	7 59.23	+30 6.5	1.640	2.595	6.7	21.7
2 11	7 56.37	+11 37.4	2.938	3.859	6.0	22.7	2 11	7 48.84	+30 2.3	1.687	2.594	10.7	21.9
2 21	7 50.31	+12 16.3	2.998	3.848	8.5	22.9	2 21	7 41.04	+29 43.9	1.759	2.594	14.3	22.1
<b>379072</b>	2008 <i>WZ</i> <sub>113</sub>		1 21.6 353°85	3°2/23.1	18		<b>96172</b>	1981 <i>EN</i> <sub>34</sub>		1 21.6 225°34	3°0/22.7	18	
12 13	8 36.86	+11 7.3	2.112	2.859	15.0	20.7	12 13	8 41.65	+12 35.2	1.752	2.508	17.3	20.0
12 23	8 33.29	+10 43.2	2.018	2.858	12.3	20.5	12 23	8 37.70	+12 13.8	1.656	2.503	14.2	19.8
1 2	8 27.44	+10 30.0	1.946	2.857	9.0	20.3	1 2	8 30.88	+12 4.5	1.581	2.497	10.3	19.5
1 12	8 19.84	+10 27.8	1.899	2.856	5.6	20.1	1 12	8 21.73	+12 7.0	1.530	2.491	6.1	19.3
1 22	8 11.25	+10 35.4	1.880	2.855	3.2	20.0	1 22	8 11.20	+12 19.5	1.506	2.485	3.0	19.1
2 1	8 2.62	+10 50.8	1.890	2.855	4.9	20.1	2 1	8 0.55	+12 39.3	1.511	2.478	5.5	19.2
2 11	7 54.98	+11 11.1	1.928	2.855	8.3	20.3	2 11	7 51.11	+13 2.8	1.543	2.472	9.8	19.4
2 21	7 49.10	+11 33.6	1.992	2.855	11.6	20.5	2 21	7 43.94	+13 26.8	1.600	2.464	13.9	19.7
<b>495329</b>	2014 <i>KJ</i> <sub>55</sub>		1 21.6 243°03	0°6/21.8	18		<b>368764</b>	2005 <i>VC</i> <sub>101</sub>		1 21.6 184°20	0°4/21.4	18	
12 13	8 42.74	+17 11.4	1.671	2.441	17.5	22.2	12 13	8 40.30	+19 35.8	2.108	2.871	14.5	21.8
12 23	8 38.93	+17 18.9	1.571	2.429	14.1	21.9	12 23	8 36.13	+19 51.3	2.015	2.872	11.6	21.6
1 2	8 31.97	+17 37.7	1.490	2.416	10.0	21.6	1 2	8 29.49	+20 14.2	1.945	2.871	8.0	21.4
1 12	8 22.37	+18 5.3	1.434	2.403	5.2	21.3	1 12	8 20.92	+20 41.5	1.901	2.871	4.0	21.2
1 22	8 11.12	+18 37.4	1.406	2.390	0.6	20.9	1 22	8 11.25	+21 9.2	1.887	2.870	0.5	20.9
2 1	7 59.61	+19 9.1	1.406	2.376	5.5	21.3	2 1	8 1.55	+21 33.6	1.902	2.870	4.5	21.2
2 11	7 49.36	+19 36.3	1.433	2.361	10.5	21.5	2 11	7 52.92	+21 52.3	1.946	2.868	8.5	21.4
2 21	7 41.59	+19 56.7	1.485	2.346	15.0	21.7	2 21	7 46.24	+22 3.8	2.015	2.867	12.0	21.6
<b>466745</b>	2015 <i>AU</i> <sub>33</sub>		1 21.6 273°10	0°3/21.7	18		<b>223830</b>	2004 <i>TW</i> <sub>125</sub>		1 21.6 91°24	2°2/20.3	18	
12 13	8 37.64	+17 28.5	2.143	2.906	14.3	21.8	12 13	8 39.30	+23 11.1	2.010	2.786	14.7	20.0
12 23	8 33.96	+17 41.7	2.050	2.905	11.4	21.6	12 23	8 35.52	+23 58.1	1.928	2.792	11.6	19.8
1 2	8 27.95	+18 3.7	1.979	2.904	8.0	21.4	1 2	8 29.16	+24 51.8	1.869	2.798	8.0	19.6
1 12	8 20.11	+18 31.9	1.935	2.904	4.1	21.1	1 12	8 20.77	+25 47.1	1.836	2.805	4.2	19.3
1 22	8 11.23	+19 2.9	1.919	2.903	0.3	20.8	1 22	8 11.26	+26 38.2	1.831	2.811	2.4	19.2
2 1	8 2.32	+19 33.2	1.933	2.902	4.3	21.1	2 1	8 1.75	+27 20.0	1.857	2.817	5.5	19.4
2 11	7 54.42	+19 59.7	1.976	2.902	8.2	21.4	2 11	7 53.42	+27 49.6	1.910	2.824	9.2	19.7
2 21	7 48.33	+20 20.4	2.044	2.901	11.6	21.6	2 21	7 47.15	+28 6.4	1.988	2.830	12.6	19.9
<b>166625</b>	2002 <i>SM</i> <sub>20</sub>		1 21.6 188°45	2°3/20.1	18		<b>459762</b>	2013 <i>QJ</i> <sub>57</sub>		1 21.6 125°34	0°9/21.1	18	
12 13	8 39.90	+26 29.8	2.801	3.559	11.4	21.4	12 13	8 39.23	+20 9.2	2.208	2.972	13.9	21.5
12 23	8 35.23	+27 1.2	2.705	3.558	9.0	21.2	12 23	8 35.13	+20 41.7	2.123	2.980	11.0	21.3
1 2	8 28.55	+27 34.8	2.633	3.557	6.3	21.0	1 2	8 28.69	+21 21.6	2.061	2.988	7.6	21.1
1 12	8 20.32	+28 6.7	2.590	3.555	3.5	20.9	1 12	8 20.48	+22 5.2	2.026	2.996	3.8	20.9
1 22	8 11.23	+28 33.4	2.577	3.553	2.4	20.8	1 22	8 11.28	+22 48.1	2.020	3.004	1.0	20.7
2 1	8 2.11	+28 51.8	2.595	3.550	4.6	20.9	2 1	8 2.09	+23 26.2	2.045	3.011	4.5	20.9
2 11	7 53.84	+29 0.4	2.643	3.547	7.4	21.1	2 11	7 53.95	+23 56.5	2.098	3.018	8.2	21.2
2 21	7 47.11	+28 59.3	2.718	3.544	10.1	21.3	2 21	7 47.65	+24 17.8	2.178	3.025	11.4	21.4
<b>163612</b>	2002 <i>TW</i> <sub>276</sub>		1 21.6 60°72	2°6/20.3	18		<b>283166</b>	2009 <i>DZ</i> <sub>15</sub>		1 21.6 317°13	4°0/24.5	18	
12 13	8 40.29	+26 7.8	2.079	2.854	14.3	20.0	12 13	8 33.95	+ 4 38.1	2.398	3.116	14.1	20.5
12 23	8 36.07	+26 37.1	2.007	2.870	11.3	19.8	12 23	8 30.76	+ 4 48.8	2.298	3.114	11.8	20.3
1 2	8 29.34	+27 9.1	1.958	2.886	7.8	19.6	1 2	8 25.61	+ 5 15.5	2.219	3.111	9.0	20.1
1 12	8 20.74	+27 39.0	1.936	2.903	4.3	19.4	1 12	8 18.92	+ 5 58.3	2.165	3.109	6.1	19.9
1 22	8 11.21	+28 2.2	1.942	2.919	2.7	19.4	1 22	8 11.35	+ 6 55.4	2.140	3.106	4.1	19.8
2 1	8 1.86	+28 15.4	1.977	2.936	5.4	19.6	2 1	8 3.69	+ 8 3.3	2.144	3.104	4.9	19.8
2 11	7 53.77	+28 17.1	2.041	2.953	8.8	19.8	2 11	7 56.79	+ 9 17.2	2.177	3.102	7.6	20.0
2 21	7 47.74	+28 8.2	2.130	2.969	11.9	20.0	2 21	7 51.36	+10 32.2	2.238	3.100	10.6	20.2
<b>452407</b>	2002 <i>SW</i>		1 21.6 39°25	6°7/21.8	16		<b>291264</b>	2006 <i>BB</i> <sub>81</sub>		1 21.6 134°92	1°2/20.9	18	
12 13	9 17.53	+39											

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>144671</b>	2004 <i>FE</i> <sub>130</sub>		1 21.6 321°72	7°8/16.1	18		<b>34395</b>	2000 <i>RS</i> <sub>73</sub>		1 21.6 334°18	7°5/25.6	18	
12 13	8 41.48	+40 21.2	2.263	3.033	13.5	19.6	12 13	8 33.96	+0 18.5	1.746	2.470	18.5	18.4
12 23	8 37.67	+41 49.2	2.185	3.028	11.3	19.4	12 23	8 31.61	-0 12.9	1.651	2.462	15.9	18.2
1 2	8 30.92	+43 13.1	2.129	3.024	9.2	19.3	1 2	8 26.67	-0 22.6	1.575	2.454	12.8	18.0
1 12	8 21.78	+44 24.7	2.099	3.019	7.9	19.2	1 12	8 19.66	-0 7.6	1.521	2.448	9.8	17.8
1 22	8 11.22	+45 16.5	2.097	3.015	8.0	19.2	1 22	8 11.37	+0 32.8	1.491	2.441	7.7	17.7
2 1	8 0.56	+45 43.6	2.121	3.011	9.6	19.3	2 1	8 2.92	+1 35.9	1.487	2.435	8.1	17.7
2 11	7 51.18	+45 45.3	2.170	3.008	11.7	19.4	2 11	7 55.51	+2 55.8	1.509	2.430	10.7	17.8
2 21	7 44.16	+45 24.7	2.241	3.004	13.9	19.5	2 21	7 50.11	+4 24.7	1.556	2.425	14.0	18.0
<b>221330</b>	2005 <i>VO</i> <sub>124</sub>		1 21.6 265°34	0°0/21.6	18		<b>467570</b>	2007 <i>TU</i> <sub>332</sub>		1 21.6 144°07	3°7/23.8	18	
12 13	8 39.16	+18 33.0	1.953	2.721	15.3	21.2	12 13	8 36.49	+7 23.5	2.599	3.318	13.1	21.9
12 23	8 35.45	+18 44.7	1.861	2.720	12.2	21.0	12 23	8 32.49	+7 2.8	2.505	3.323	10.9	21.8
1 2	8 29.13	+19 4.9	1.792	2.719	8.5	20.7	1 2	8 26.65	+6 53.4	2.433	3.328	8.2	21.6
1 12	8 20.79	+19 30.9	1.749	2.718	4.3	20.5	1 12	8 19.41	+6 55.5	2.387	3.332	5.5	21.4
1 22	8 11.28	+19 58.8	1.733	2.717	0.2	20.1	1 22	8 11.39	+7 8.3	2.369	3.336	3.7	21.3
2 1	8 1.73	+20 24.8	1.747	2.716	4.7	20.5	2 1	8 3.37	+7 30.2	2.382	3.340	4.7	21.4
2 11	7 53.33	+20 45.8	1.789	2.715	8.9	20.7	2 11	7 56.13	+7 58.4	2.424	3.344	7.2	21.6
2 21	7 46.96	+21 0.3	1.856	2.714	12.6	21.0	2 21	7 50.30	+8 30.0	2.493	3.347	9.9	21.7
<b>399419</b>	2001 <i>VL</i> <sub>104</sub>		1 21.6 74°41	0°3/21.7	18		<b>403676</b>	2010 <i>UZ</i> <sub>26</sub>		1 21.6 54°64	1°4/22.2	18	
12 13	8 44.44	+17 54.6	1.856	2.616	16.3	21.2	12 13	8 40.20	+15 20.7	1.599	2.373	18.0	21.1
12 23	8 39.26	+18 4.1	1.797	2.650	12.9	21.0	12 23	8 36.53	+15 21.4	1.531	2.391	14.4	20.9
1 2	8 31.46	+18 22.3	1.759	2.683	8.9	20.9	1 2	8 29.95	+15 34.5	1.484	2.409	10.1	20.7
1 12	8 21.77	+18 45.7	1.747	2.716	4.5	20.7	1 12	8 21.19	+15 57.4	1.460	2.428	5.4	20.5
1 22	8 11.25	+19 10.4	1.764	2.748	0.3	20.4	1 22	8 11.32	+16 26.3	1.464	2.447	1.4	20.3
2 1	8 1.08	+19 32.9	1.811	2.780	4.6	20.8	2 1	8 1.66	+16 56.9	1.496	2.466	5.1	20.6
2 11	7 52.37	+19 50.5	1.887	2.811	8.6	21.1	2 11	7 53.51	+17 25.2	1.554	2.485	9.5	20.9
2 21	7 45.91	+20 2.3	1.988	2.842	12.0	21.4	2 21	7 47.75	+17 48.6	1.637	2.505	13.4	21.1
<b>47861</b>	2000 <i>EY</i> <sub>169</sub>		1 21.6 117°48	0°8/21.1	18		<b>74972</b>	1999 <i>TT</i> <sub>218</sub>		1 21.6 241°61	4°0/19.8	18	
12 13	8 38.05	+19 19.1	2.465	3.223	12.8	18.5	12 13	8 43.46	+27 53.1	1.788	2.570	16.1	19.5
12 23	8 33.92	+20 1.6	2.381	3.235	10.1	18.3	12 23	8 39.46	+28 36.6	1.698	2.563	12.9	19.3
1 2	8 27.72	+20 51.7	2.321	3.247	6.9	18.1	1 2	8 32.29	+29 24.1	1.629	2.556	9.2	19.0
1 12	8 19.95	+21 45.7	2.289	3.259	3.4	17.9	1 12	8 22.54	+30 8.7	1.585	2.549	5.5	18.8
1 22	8 11.32	+22 39.4	2.287	3.270	0.8	17.7	1 22	8 11.26	+30 43.5	1.569	2.542	4.2	18.7
2 1	8 2.71	+23 28.7	2.316	3.282	4.1	18.0	2 1	7 59.87	+31 3.0	1.581	2.535	7.1	18.8
2 11	7 55.00	+24 10.4	2.375	3.293	7.4	18.2	2 11	7 49.90	+31 5.0	1.620	2.527	11.0	19.0
2 21	7 48.91	+24 43.1	2.460	3.303	10.4	18.4	2 21	7 42.48	+30 51.1	1.683	2.519	14.7	19.3
<b>99300</b>	2001 <i>RV</i> <sub>52</sub>		1 21.6 101°96	0°3/21.3	17		<b>262627</b>	2006 <i>WF</i> <sub>16</sub>		1 21.6 129°81	1°5/22.3	18	
12 13	8 33.35	+19 24.9	3.188	3.942	10.2	19.8	12 13	8 41.67	+15 22.3	1.995	2.749	15.5	20.6
12 23	8 29.77	+19 48.9	3.093	3.945	8.1	19.6	12 23	8 37.19	+15 14.3	1.910	2.757	12.5	20.5
1 2	8 24.64	+20 18.1	3.023	3.948	5.6	19.4	1 2	8 30.20	+15 15.7	1.846	2.766	8.8	20.2
1 12	8 18.34	+20 50.2	2.981	3.950	2.8	19.2	1 12	8 21.28	+15 24.9	1.808	2.774	4.8	20.0
1 22	8 11.40	+21 22.9	2.969	3.953	0.4	19.0	1 22	8 11.32	+15 39.3	1.799	2.781	1.5	19.8
2 1	8 4.44	+21 53.5	2.988	3.955	3.1	19.3	2 1	8 1.42	+15 56.0	1.820	2.789	4.5	20.0
2 11	7 58.12	+22 20.0	3.038	3.958	5.9	19.5	2 11	7 52.70	+16 12.4	1.869	2.796	8.5	20.3
2 21	7 52.95	+22 41.2	3.115	3.960	8.4	19.6	2 21	7 46.00	+16 26.5	1.944	2.802	12.1	20.5
<b>338910</b>	2004 <i>DW</i> <sub>38</sub>		1 21.6 84°40	4°0/20.4	18		<b>459816</b>	2013 <i>SB</i> <sub>34</sub>		1 21.6 153°08	1°8/22.6	18	
12 13	8 48.75	+27 43.3	1.364	2.156	19.7	20.8	12 13	8 37.70	+12 50.6	2.194	2.942	14.5	21.3
12 23	8 44.17	+28 7.4	1.298	2.169	15.7	20.6	12 23	8 33.91	+12 58.4	2.101	2.944	11.7	21.1
1 2	8 35.70	+28 34.1	1.251	2.182	11.0	20.4	1 2	8 27.88	+13 17.7	2.031	2.947	8.4	20.9
1 12	8 24.19	+28 55.7	1.228	2.195	6.2	20.1	1 12	8 20.12	+13 46.9	1.986	2.949	4.7	20.6
1 22	8 11.16	+29 4.8	1.231	2.208	4.1	20.0	1 22	8 11.38	+14 23.4	1.971	2.952	1.8	20.4
2 1	7 58.51	+28 57.0	1.261	2.221	7.6	20.3	2 1	8 2.60	+15 3.7	1.985	2.954	4.2	20.6
2 11	7 48.04	+28 32.7	1.317	2.234	12.2	20.6	2 11	7 54.78	+15 44.0	2.028	2.956	7.9	20.8
2 21	7 40.90	+27 55.3	1.395	2.246	16.3	20.9	2 21	7 48.68	+16 21.3	2.098	2.957	11.3	21.1
<b>26149</b>	1994 <i>PU</i> <sub>37</sub>		1 21.6 60°34	1°3/22.2	18		<b>89587</b>	2001 <i>XN</i> <sub>139</sub>		1 21.6 151°25	0°7/21.9	18	
12 13	8 40.12	+14 51.4	1.554	2.329	18.4	18.9	12 13	8 40.50	+16 20.6	2.382	3.128	13.5	20.6
12 23	8 36.59	+15 3.8	1.485	2.346	14.7	18.7	12 23	8 35.88	+16 32.1	2.292	3.137	10.8	20.5
1 2	8 30.07	+15 30.0	1.437	2.363	10.3	18.5	1 2	8 29.10	+16 51.9	2.225	3.145	7.5	20.3
1 12	8 21.27	+16 7.3	1.412	2.380	5.4	18.3	1 12	8 20.68	+17 17.7	2.186	3.153	3.9	20.1
1 22	8 11.28	+16 50.9	1.415	2.398	1.3	18.0	1 22	8 11.36	+17 46.6	2.176	3.159	0.7	19.8
2 1	8 1.48	+17 35.3	1.445	2.416	5.2	18.3	2 1	8 2.06	+18 15.5	2.197	3.166	3.9	20.1
2 11	7 53.20	+18 15.9	1.502	2.433	9.8	18.7	2 11	7 53.72	+18 41.6	2.248	3.172	7.5	20.3
2 21	7 47.39	+18 49.7	1.583	2.451	13.8	18.9	2 21	7 47.07	+19 3.1	2.326	3.177	10.6	20.5
<b>359119</b>	2009 <i>BD</i> <sub>49</sub>		1 21.6 55°61	0°1/21.6	17		<b>116280</b>	2003 <i>YH</i> <sub>47</sub>		1 21.6 310°19	0°8/22.1	18	
12 13	8 41.63	+15 57.0	1.313	2.101	20.5	20.7	12 13	8 34.94	+17 21.3	2.932	3.682	11.1	19.7
12 23	8 38.22	+16 37.7	1.257	2.127	16.2	20.5	12 23	8 31.20	+17 10.9	2.823	3.670	8.9	19.5
1 2	8 31.38	+17 34.7	1.221	2.152	11.2	20.3	1 2	8 25.73	+17 5.5	2.737	3.658	6.3	19.3
1 12	8 21.96	+18 42.3	1.208	2.179	5.6	20.1	1 12	8 18.96	+17 4.0	2.679	3.646	3.3	19.1
1 22	8 11.26	+19 52.7	1.221	2.205	0.2	19.7	1 22	8 11.44	+17 5.0	2.651	3.635	0.8	18.9
2 1	8 0.90	+20 58.0	1.261	2.232	5.8	20.2	2 1	8 3.86	+17 6.8	2.654	3.623	3.3	19.0
2 11	7 52.42	+21 52.3	1.328	2.259	10.8	20.6	2 11	7 56.95	+17 8.1	2.687	3.612	6.3	19.2
2 21	7 46.82	+22 33.1	1.417	2.285	15.1	20.9	2 21	7 51.31	+17 7.8	2.747	3.601	9.1	19.4
<b>228260</b>	1999 <i>RM</i> <sub>59</sub>		1 21.6 111°31	2°0/22.9	18		<b>381690</b>	2009 <i>CN</i> <sub>32</sub>		1 21.6 273°80	0°2/21.5	17	
12 13	8 38.84	+11 13.4	2.366										

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>417292</b>	2006 <i>BP</i> <sub>57</sub>		1 21.6 327°95	2°0/20.8	18		<b>157244</b>	2004 <i>RT</i> <sub>108</sub>		1 21.6 30°31	0°8/21.9	18	
12 13	8 40.96	+24 52.5	1.869	2.648	15.5	21.3	12 13	8 39.53	+17 21.1	1.913	2.679	15.7	20.4
12 23	8 37.13	+25 1.6	1.777	2.643	12.4	21.1	12 23	8 35.74	+17 16.7	1.824	2.681	12.6	20.2
1 2	8 30.45	+25 14.2	1.708	2.638	8.6	20.9	1 2	8 29.35	+17 20.8	1.757	2.682	8.8	20.0
1 12	8 21.52	+25 26.1	1.664	2.633	4.5	20.6	1 12	8 20.94	+17 31.4	1.716	2.684	4.6	19.7
1 22	8 11.33	+25 32.8	1.647	2.628	2.1	20.4	1 22	8 11.40	+17 45.6	1.702	2.686	0.8	19.4
2 1	8 1.14	+25 31.0	1.660	2.624	5.5	20.6	2 1	8 1.87	+18 0.2	1.718	2.688	4.6	19.7
2 11	7 52.25	+25 19.4	1.700	2.620	9.7	20.9	2 11	7 53.52	+18 12.6	1.761	2.689	8.8	20.0
2 21	7 45.64	+24 58.7	1.764	2.616	13.4	21.1	2 21	7 47.24	+18 21.2	1.830	2.691	12.5	20.2
<b>97963</b>	2000 <i>QO</i> <sub>141</sub>		1 21.6 117°83	1°6/22.5	18		<b>207629</b>	2006 <i>SS</i> <sub>144</sub>		1 21.6 216°85	0°4/21.4	18	
12 13	8 41.35	+12 56.8	1.753	2.511	17.2	20.2	12 13	8 37.14	+20 1.0	2.573	3.332	12.3	20.8
12 23	8 37.32	+13 18.6	1.674	2.523	13.9	20.0	12 23	8 33.20	+20 14.9	2.476	3.330	9.8	20.6
1 2	8 30.50	+13 55.5	1.615	2.535	9.8	19.8	1 2	8 27.26	+20 34.5	2.402	3.328	6.7	20.4
1 12	8 21.52	+14 44.7	1.582	2.547	5.4	19.6	1 12	8 19.79	+20 57.3	2.356	3.325	3.4	20.2
1 22	8 11.34	+15 41.8	1.576	2.558	1.6	19.3	1 22	8 11.45	+21 20.3	2.339	3.323	0.4	19.9
2 1	8 1.21	+16 41.0	1.599	2.569	4.9	19.6	2 1	8 3.08	+21 40.7	2.353	3.321	3.8	20.2
2 11	7 52.38	+17 37.1	1.651	2.579	9.3	19.9	2 11	7 55.55	+21 56.3	2.397	3.318	7.2	20.4
2 21	7 45.80	+18 26.4	1.728	2.590	13.2	20.1	2 21	7 49.53	+22 6.2	2.467	3.315	10.2	20.6
<b>56524</b>	2000 <i>HT</i> <sub>27</sub>		1 21.6 224°27	0°9/21.2	18		<b>278287</b>	2007 <i>GZ</i> <sub>38</sub>		1 21.6 206°92	3°3/23.6	17	
12 13	8 43.82	+20 33.6	1.836	2.604	16.2	20.5	12 13	8 37.59	+ 8 3.2	2.591	3.310	13.2	22.2
12 23	8 39.53	+20 53.9	1.737	2.595	13.0	20.2	12 23	8 33.49	+ 7 56.1	2.485	3.305	10.9	22.1
1 2	8 32.25	+21 22.7	1.658	2.586	9.1	20.0	1 2	8 27.44	+ 8 0.7	2.401	3.299	8.2	21.9
1 12	8 22.53	+21 56.1	1.606	2.576	4.6	19.7	1 12	8 19.89	+ 8 17.0	2.344	3.293	5.3	21.7
1 22	8 11.30	+22 29.0	1.582	2.565	1.0	19.4	1 22	8 11.45	+ 8 43.7	2.316	3.287	3.3	21.5
2 1	7 59.89	+22 56.4	1.587	2.554	5.4	19.7	2 1	8 2.91	+ 9 18.6	2.318	3.279	4.5	21.6
2 11	7 49.70	+23 15.3	1.620	2.542	10.0	19.9	2 11	7 55.10	+ 9 58.4	2.350	3.272	7.3	21.8
2 21	7 41.85	+23 24.5	1.678	2.529	14.0	20.1	2 21	7 48.73	+10 40.1	2.409	3.264	10.2	21.9
<b>414836</b>	2010 <i>UE</i> <sub>80</sub>		1 21.6 169°75	7°9/17.3	18		<b>139377</b>	2001 <i>MW</i> <sub>20</sub>		1 21.6 112°06	3°2/20.3	18	
12 13	8 47.90	+39 49.6	2.056	2.821	14.8	21.4	12 13	8 45.12	+27 42.9	1.899	2.672	15.5	19.8
12 23	8 42.93	+41 5.0	1.981	2.823	12.3	21.3	12 23	8 40.28	+28 6.5	1.820	2.681	12.4	19.6
1 2	8 34.64	+42 15.6	1.928	2.825	9.9	21.1	1 2	8 32.51	+28 31.7	1.764	2.690	8.7	19.4
1 12	8 23.69	+43 12.0	1.900	2.827	8.2	21.0	1 12	8 22.51	+28 53.0	1.734	2.699	4.9	19.2
1 22	8 11.26	+43 46.4	1.900	2.828	8.1	21.0	1 22	8 11.35	+29 5.1	1.732	2.708	3.3	19.1
2 1	7 58.89	+43 54.3	1.927	2.829	9.7	21.1	2 1	8 0.35	+29 4.7	1.759	2.716	6.1	19.3
2 11	7 48.15	+43 35.9	1.979	2.830	12.1	21.3	2 11	7 50.84	+28 50.9	1.815	2.725	9.8	19.5
2 21	7 40.15	+42 55.7	2.054	2.830	14.6	21.4	2 21	7 43.75	+28 25.8	1.894	2.733	13.2	19.7
<b>491064</b>	2011 <i>QU</i> <sub>75</sub>		1 21.6 97°20	0°3/21.7	16		<b>193777</b>	2001 <i>OG</i> <sub>15</sub>		1 21.6 166°59	2°9/20.1	18	
12 13	8 45.41	+17 33.4	1.706	2.469	17.4	22.7	12 13	8 45.79	+24 32.6	1.934	2.701	15.5	21.5
12 23	8 40.44	+17 47.3	1.638	2.493	13.8	22.5	12 23	8 40.88	+25 24.7	1.848	2.707	12.3	21.3
1 2	8 32.55	+18 11.5	1.592	2.517	9.6	22.3	1 2	8 33.04	+26 23.2	1.786	2.712	8.6	21.1
1 12	8 22.48	+18 42.3	1.571	2.540	4.8	22.1	1 12	8 22.86	+27 21.9	1.749	2.716	4.7	20.9
1 22	8 11.32	+19 14.9	1.578	2.562	0.3	21.8	1 22	8 11.33	+28 13.9	1.742	2.720	3.0	20.8
2 1	8 0.44	+19 44.9	1.615	2.584	5.0	22.2	2 1	7 59.77	+28 53.7	1.765	2.722	6.1	21.0
2 11	7 51.11	+20 9.2	1.680	2.605	9.4	22.5	2 11	7 49.54	+29 18.4	1.816	2.724	10.0	21.2
2 21	7 44.23	+20 26.2	1.770	2.626	13.2	22.8	2 21	7 41.67	+29 28.3	1.893	2.725	13.5	21.4
<b>323803</b>	2005 <i>QC</i> <sub>161</sub>		1 21.6 123°55	4°7/24.7	18		<b>238495</b>	2004 <i>RH</i> <sub>338</sub>		1 21.6 270°22	1°9/20.8	18	
12 13	8 38.01	+ 3 39.1	2.142	2.856	15.8	21.0	12 13	8 41.77	+22 11.7	1.564	2.351	17.8	20.6
12 23	8 34.11	+ 3 43.4	2.056	2.867	13.2	20.8	12 23	8 38.41	+22 41.5	1.476	2.346	14.2	20.3
1 2	8 27.99	+ 4 5.6	1.989	2.878	10.1	20.6	1 2	8 31.74	+23 20.4	1.409	2.341	9.9	20.0
1 12	8 20.18	+ 4 45.8	1.948	2.888	7.0	20.5	1 12	8 22.35	+24 3.0	1.366	2.337	5.1	19.7
1 22	8 11.42	+ 5 42.2	1.934	2.898	4.8	20.4	1 22	8 11.35	+24 42.7	1.350	2.332	2.0	19.5
2 1	8 2.66	+ 6 50.7	1.950	2.908	5.5	20.4	2 1	8 0.24	+25 13.6	1.362	2.327	6.3	19.8
2 11	7 54.87	+ 8 5.9	1.995	2.918	8.3	20.6	2 11	7 50.62	+25 32.1	1.399	2.323	11.1	20.0
2 21	7 48.81	+ 9 22.4	2.067	2.927	11.4	20.8	2 21	7 43.68	+25 37.7	1.460	2.318	15.4	20.3
<b>6086</b>	Vrchlicky		1 21.6 68°79	4°2/19.4	18		<b>465451</b>	2008 <i>SZ</i> <sub>41</sub>		1 21.6 173°13	3°7/23.9	16	
12 13	8 41.99	+27 39.0	1.792	2.575	15.9	16.5	12 13	8 36.74	+ 6 41.9	2.362	3.084	14.2	22.1
12 23	8 38.00	+28 43.3	1.726	2.593	12.6	16.3	12 23	8 32.97	+ 6 40.0	2.265	3.086	11.8	21.9
1 2	8 31.03	+29 51.2	1.683	2.611	8.9	16.1	1 2	8 27.16	+ 6 52.2	2.190	3.087	8.9	21.8
1 12	8 21.79	+30 55.3	1.665	2.629	5.4	15.9	1 12	8 19.76	+ 7 18.3	2.140	3.088	5.9	21.6
1 22	8 11.36	+31 48.2	1.676	2.646	4.4	15.9	1 22	8 11.46	+ 7 57.0	2.119	3.089	3.8	21.4
2 1	8 1.09	+32 24.5	1.715	2.664	7.0	16.1	2 1	8 3.10	+ 8 45.1	2.128	3.089	4.8	21.5
2 11	7 52.32	+32 42.4	1.780	2.682	10.5	16.4	2 11	7 55.57	+ 9 38.8	2.166	3.089	7.7	21.7
2 21	7 46.01	+32 43.3	1.870	2.700	13.7	16.6	2 21	7 49.59	+10 33.9	2.231	3.089	10.7	21.9
<b>91314</b>	1999 <i>GB</i> <sub>8</sub>		1 21.6 300°43	0°2/21.7	18		<b>506214</b>	2016 <i>JE</i> <sub>13</sub>		1 21.6 192°71	8°4/28.2	17	
12 13	8 40.70	+18 55.2	1.475	2.262	18.6	19.4	12 13	8 35.31	-12 46.8	3.147	3.736	13.2	22.4
12 23	8 37.73	+18 53.3	1.382	2.251	15.0	19.1	12 23	8 31.35	-13 41.0	3.047	3.734	12.0	22.3
1 2	8 31.39	+19 1.4	1.308	2.239	10.6	18.8	1 2	8 25.79	-14 18.7	2.966	3.732	10.6	22.2
1 12	8 22.23	+19 16.6	1.258	2.228	5.4	18.5	1 12	8 19.00	-14 36.8	2.907	3.729	9.4	22.1
1 22	8 11.33	+19 34.7	1.233	2.217	0.3	18.1	1 22	8 11.50	-14 33.7	2.873	3.726	8.6	22.0
2 1	8 0.24	+19 51.0	1.236	2.207	5.9	18.4	2 1	8 3.92	-14 9.3	2.865	3.723	8.5	22.0
2 11	7 50.62	+20 2.2	1.264	2.196	11.2	18.7	2 11	7 56.92	-13 25.7	2.882	3.719	9.2	22.1
2 21	7 43.73	+20 6.5	1.316	2.186	15.9	19.0	2 21	7 51.07	-12 26.8	2.925	3.714	10.4	22.1
<b>3183</b>	Franzkaiser		1 21.6 118°67	0°1/21.7	18		<b>93106</b>	2000 <i>ST</i> <sub>47</sub>		1 21.6 171°39	5°9/25.4	18	
12 13	8 37.15	+17 51.9	2.657	3.									

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>102896</b>	1999 <i>XD</i> <sub>10</sub>		1 21.6 129°67	1°0/22.0	18		<b>10321</b>	Rampo		1 21.6 137°77	3°5/19.9	18	R
12 13	8 48.18	+17 3.7	1.862	2.611	16.6	19.9	12 13	8 44.50	+25 42.3	1.700	2.481	16.8	18.3
12 23	8 42.42	+16 56.4	1.784	2.630	13.3	19.7	12 23	8 40.26	+26 34.5	1.622	2.488	13.4	18.1
1 2	8 33.84	+16 57.8	1.728	2.648	9.3	19.5	1 2	8 32.82	+27 32.7	1.566	2.495	9.4	17.9
1 12	8 23.13	+17 5.3	1.698	2.665	4.9	19.3	1 12	8 22.82	+28 29.8	1.535	2.501	5.3	17.7
1 22	8 11.34	+17 15.8	1.697	2.680	1.0	19.0	1 22	8 11.38	+29 18.4	1.531	2.507	3.7	17.6
2 1	7 59.75	+17 26.3	1.727	2.695	4.8	19.3	2 1	7 59.99	+29 52.3	1.556	2.513	6.8	17.8
2 11	7 49.62	+17 34.6	1.786	2.709	9.0	19.6	2 11	7 50.14	+30 9.0	1.609	2.518	10.9	18.0
2 21	7 41.85	+17 39.3	1.870	2.723	12.8	19.9	2 21	7 42.92	+30 9.6	1.684	2.523	14.6	18.3
<b>117144</b>	2004 <i>PF</i> <sub>90</sub>		1 21.6 112°81	3°1/23.3	18		<b>510929</b>	2013 <i>EX</i> <sub>51</sub>		1 21.6 262°66	1°8/23.1	17	
12 13	8 42.85	+9 32.8	1.839	2.578	17.2	20.4	12 13	8 32.10	+10 52.6	3.436	4.162	10.1	22.0
12 23	8 38.22	+9 38.1	1.764	2.599	14.0	20.2	12 23	8 28.73	+11 1.0	3.322	4.150	8.2	21.9
1 2	8 30.96	+9 59.3	1.710	2.619	10.2	20.0	1 2	8 23.94	+11 17.7	3.232	4.138	6.0	21.7
1 12	8 21.70	+10 35.0	1.681	2.638	6.1	19.8	1 12	8 18.07	+11 42.1	3.169	4.126	3.6	21.5
1 22	8 11.40	+11 22.0	1.679	2.656	3.2	19.7	1 22	8 11.58	+12 12.5	3.137	4.114	1.8	21.4
2 1	8 1.22	+12 15.6	1.708	2.674	5.1	19.8	2 1	8 5.00	+12 47.1	3.135	4.102	3.1	21.5
2 11	7 52.34	+13 10.7	1.765	2.691	8.9	20.1	2 11	7 58.91	+13 23.7	3.165	4.089	5.5	21.6
2 21	7 45.61	+14 3.1	1.847	2.708	12.5	20.3	2 21	7 53.82	+13 59.9	3.222	4.077	7.9	21.7
<b>116916</b>	2004 <i>GD</i> <sub>15</sub>		1 21.6 219°73	9°1/13.0	18		<b>144405</b>	2004 <i>EP</i> <sub>7</sub>		1 21.6 153°57	2°8/23.6	18	
12 13	8 49.61	+52 35.6	2.965	3.681	11.7	20.4	12 13	8 35.25	+8 44.5	2.622	3.349	12.9	20.3
12 23	8 44.14	+54 6.6	2.892	3.673	10.5	20.3	12 23	8 31.59	+8 49.3	2.526	3.352	10.5	20.1
1 2	8 35.47	+55 27.8	2.842	3.666	9.5	20.2	1 2	8 26.10	+9 6.0	2.451	3.354	7.8	19.9
1 12	8 24.18	+56 31.5	2.817	3.658	9.1	20.2	1 12	8 19.21	+9 33.9	2.404	3.357	4.9	19.7
1 22	8 11.28	+57 11.3	2.818	3.650	9.4	20.2	1 22	8 11.53	+10 11.2	2.385	3.359	2.8	19.6
2 1	7 58.23	+57 23.8	2.843	3.641	10.3	20.2	2 1	8 3.82	+10 55.2	2.397	3.362	4.1	19.7
2 11	7 46.56	+57 9.5	2.892	3.632	11.6	20.3	2 11	7 56.85	+11 42.4	2.439	3.364	6.9	19.9
2 21	7 37.45	+56 32.4	2.960	3.623	12.9	20.4	2 21	7 51.26	+12 29.6	2.508	3.366	9.7	20.1
<b>190121</b>	2004 <i>WJ</i> <sub>8</sub>		1 21.6 95°14	0°1/21.7	18		<b>223814</b>	2004 <i>TR</i> <sub>93</sub>		1 21.6 32°89	0°2/21.7	18	
12 13	8 38.59	+17 57.6	2.080	2.844	14.7	20.9	12 13	8 38.47	+18 6.1	1.866	2.638	15.8	20.7
12 23	8 34.79	+18 14.3	1.993	2.849	11.7	20.7	12 23	8 34.99	+18 15.4	1.781	2.642	12.6	20.5
1 2	8 28.59	+18 39.7	1.928	2.854	8.1	20.5	1 2	8 28.89	+18 33.9	1.719	2.646	8.8	20.3
1 12	8 20.53	+19 11.0	1.890	2.859	4.1	20.2	1 12	8 20.74	+18 58.7	1.681	2.650	4.5	20.0
1 22	8 11.45	+19 44.4	1.880	2.864	0.2	19.9	1 22	8 11.47	+19 26.1	1.671	2.655	0.2	19.7
2 1	8 2.37	+20 16.1	1.900	2.869	4.4	20.3	2 1	8 2.22	+19 52.0	1.690	2.660	4.7	20.1
2 11	7 54.37	+20 43.0	1.948	2.874	8.3	20.5	2 11	7 54.18	+20 13.4	1.737	2.665	8.9	20.3
2 21	7 48.26	+21 3.4	2.022	2.879	11.8	20.7	2 21	7 48.23	+20 28.5	1.808	2.670	12.7	20.6
<b>23542</b>	1993 <i>TN</i> <sub>30</sub>		1 21.6 166°44	0°4/21.3	18		<b>289688</b>	2005 <i>GC</i> <sub>165</sub>		1 21.6 319°08	4°3/23.9	18	
12 13	8 38.64	+19 20.1	2.685	3.436	12.0	20.0	12 13	8 35.77	+7 4.3	2.233	2.963	14.8	20.8
12 23	8 34.26	+19 46.8	2.591	3.441	9.5	19.8	12 23	8 32.38	+6 40.8	2.135	2.960	12.3	20.6
1 2	8 27.93	+20 20.0	2.521	3.444	6.6	19.6	1 2	8 26.85	+6 30.5	2.059	2.956	9.3	20.4
1 12	8 20.12	+20 56.7	2.479	3.448	3.3	19.4	1 12	8 19.66	+6 34.0	2.007	2.953	6.3	20.3
1 22	8 11.47	+21 33.6	2.467	3.451	0.5	19.1	1 22	8 11.52	+6 50.7	1.983	2.950	4.3	20.1
2 1	8 2.79	+22 7.6	2.487	3.453	3.7	19.4	2 1	8 3.30	+7 18.5	1.988	2.947	5.3	20.2
2 11	7 54.93	+22 36.2	2.537	3.455	7.0	19.6	2 11	7 55.95	+7 54.1	2.021	2.944	8.2	20.3
2 21	7 48.55	+22 58.0	2.614	3.457	9.8	19.8	2 21	7 50.21	+8 33.8	2.080	2.941	11.3	20.5
<b>234851</b>	2002 <i>RG</i> <sub>215</sub>		1 21.6 96°14	7°9/17.3	18		<b>415816</b>	2001 <i>QT</i> <sub>71</sub>		1 21.6 144°26	3°9/24.1	18	
12 13	8 46.92	+42 35.6	2.253	3.011	13.9	19.8	12 13	8 39.11	+5 42.6	2.297	3.011	14.8	22.3
12 23	8 41.85	+43 38.5	2.183	3.017	11.7	19.6	12 23	8 34.84	+5 46.5	2.207	3.022	12.2	22.2
1 2	8 33.68	+44 34.0	2.134	3.022	9.6	19.5	1 2	8 28.44	+6 5.8	2.139	3.032	9.3	22.0
1 12	8 23.14	+45 14.0	2.111	3.027	8.1	19.4	1 12	8 20.42	+6 40.4	2.096	3.041	6.1	21.8
1 22	8 11.35	+45 32.2	2.115	3.033	8.1	19.4	1 22	8 11.49	+7 28.0	2.082	3.050	4.0	21.7
2 1	7 59.75	+45 25.2	2.146	3.038	9.4	19.5	2 1	8 2.56	+8 25.5	2.098	3.058	5.0	21.8
2 11	7 49.73	+44 54.0	2.203	3.043	11.5	19.6	2 11	7 54.54	+9 28.0	2.144	3.066	7.8	21.9
2 21	7 42.28	+44 3.0	2.282	3.048	13.6	19.8	2 21	7 48.16	+10 31.3	2.216	3.073	10.9	22.1
<b>450741</b>	2007 <i>HV</i> <sub>23</sub>		1 21.6 209°34	3°5/19.9	18		<b>80088</b>	1999 <i>KW</i> <sub>14</sub>		1 21.6 283°67	5°1/17.6	18	
12 13	8 45.19	+26 16.7	1.888	2.660	15.7	22.3	12 13	8 38.65	+31 17.5	2.369	3.144	12.8	19.0
12 23	8 40.69	+27 7.8	1.794	2.655	12.5	22.0	12 23	8 35.12	+32 46.4	2.273	3.132	10.3	18.8
1 2	8 33.11	+28 4.6	1.722	2.649	8.8	21.8	1 2	8 29.06	+34 18.7	2.202	3.121	7.7	18.6
1 12	8 23.01	+29 0.6	1.676	2.642	5.1	21.6	1 12	8 20.93	+35 47.4	2.159	3.109	5.5	18.5
1 22	8 11.36	+29 48.6	1.659	2.634	3.7	21.5	1 22	8 11.47	+37 5.3	2.144	3.098	5.4	18.5
2 1	7 59.56	+30 22.6	1.671	2.626	6.7	21.6	2 1	8 1.74	+38 6.4	2.159	3.087	7.4	18.6
2 11	7 49.05	+30 39.9	1.711	2.617	10.6	21.8	2 11	7 52.93	+38 47.7	2.202	3.075	10.1	18.7
2 21	7 40.98	+30 41.0	1.776	2.607	14.3	22.0	2 21	7 46.00	+39 9.3	2.268	3.064	12.8	18.9
<b>281327</b>	2007 <i>TL</i> <sub>198</sub>		1 21.6 129°47	0°4/21.9	18		<b>207565</b>	2006 <i>PM</i> <sub>1</sub>		1 21.6 197°21	0°2/21.5	18	
12 13	8 38.00	+17 32.6	2.559	3.311	12.6	21.6	12 13	8 41.96	+21 29.1	2.870	3.614	11.5	20.4
12 23	8 33.79	+17 41.6	2.470	3.319	10.0	21.4	12 23	8 36.69	+21 16.6	2.766	3.612	9.1	20.2
1 2	8 27.61	+17 57.4	2.405	3.326	6.9	21.2	1 2	8 29.51	+21 6.7	2.687	3.609	6.3	20.0
1 12	8 19.95	+18 17.9	2.366	3.334	3.5	21.0	1 12	8 20.89	+20 57.3	2.637	3.605	3.2	19.8
1 22	8 11.50	+18 40.5	2.357	3.341	0.4	20.8	1 22	8 11.49	+20 46.9	2.618	3.602	0.3	19.5
2 1	8 3.07	+19 2.5	2.380	3.348	3.6	21.1	2 1	8 2.10	+20 33.9	2.631	3.598	3.5	19.8
2 11	7 55.52	+19 21.6	2.432	3.355	7.0	21.3	2 11	7 53.55	+20 17.6	2.674	3.593	6.7	20.0
2 21	7 49.50	+19 36.5	2.511	3.362	9.9	21.5	2 21	7 46.49	+19 58.2	2.746	3.588	9.5	20.2
<b>369102</b>	2008 <i>HW</i> <sub>2</sub>		1 21.6 249°40	1°3/20.9	17		<b>492795</b>	2014 <i>QK</i> <sub>241</sub>		1 21.6 210°93	0°6/21.3	17	
12 13	8 40.54	+21 24.9	2.122	2.888	14.3								

EPHEMERIDES

1 21.6

1 21.6

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>325701</b>	2009 <i>UG</i> <sub>52</sub>		1 21.6 176°88	5°5/18.4	18		<b>219397</b>	2000 <i>SP</i> <sub>175</sub>		1 21.6 135°24	0°8/21.2	18	
12 13	8 43.56	+33 50.3	2.217	2.986	13.7	20.7	12 13	8 42.77	+21 51.1	2.369	3.124	13.3	21.0
12 23	8 39.01	+34 52.2	2.134	2.988	11.1	20.5	12 23	8 37.70	+22 1.3	2.285	3.136	10.5	20.8
1 2	8 31.69	+35 53.2	2.074	2.988	8.3	20.3	1 2	8 30.38	+22 15.9	2.224	3.148	7.3	20.7
1 12	8 22.18	+36 46.4	2.041	2.989	6.0	20.2	1 12	8 21.38	+22 31.8	2.190	3.159	3.6	20.4
1 22	8 11.43	+37 25.2	2.036	2.989	5.7	20.2	1 22	8 11.50	+22 45.6	2.187	3.170	0.9	20.2
2 1	8 0.67	+37 45.2	2.060	2.989	7.6	20.3	2 1	8 1.72	+22 54.8	2.214	3.180	4.2	20.5
2 11	7 51.16	+37 45.5	2.112	2.989	10.3	20.5	2 11	7 53.01	+22 57.8	2.271	3.190	7.7	20.7
2 21	7 43.87	+37 28.1	2.187	2.988	13.0	20.6	2 21	7 46.12	+22 54.5	2.355	3.199	10.8	21.0
<b>94407</b>	2001 <i>TC</i> <sub>6</sub>		1 21.6 317°10	1°0/22.1	18		<b>154189</b>	2002 <i>GE</i> <sub>124</sub>		1 21.6 236°96	1°9/22.8	18	
12 13	8 38.67	+15 4.4	1.429	2.213	19.2	19.8	12 13	8 38.36	+12 19.2	2.633	3.366	12.7	21.3
12 23	8 36.14	+15 23.4	1.342	2.208	15.6	19.5	12 23	8 34.20	+12 23.0	2.517	3.351	10.3	21.1
1 2	8 30.30	+15 58.9	1.274	2.203	11.0	19.2	1 2	8 28.03	+12 36.6	2.424	3.335	7.5	20.9
1 12	8 21.71	+16 48.1	1.229	2.198	5.8	18.9	1 12	8 20.27	+12 59.1	2.358	3.318	4.3	20.7
1 22	8 11.45	+17 45.7	1.210	2.193	1.0	18.6	1 22	8 11.54	+13 28.5	2.321	3.301	1.9	20.5
2 1	8 1.01	+18 44.8	1.218	2.189	5.8	18.9	2 1	8 2.63	+14 2.2	2.316	3.283	3.9	20.6
2 11	7 52.02	+19 38.8	1.251	2.185	11.1	19.2	2 11	7 54.40	+14 37.3	2.341	3.265	7.2	20.7
2 21	7 45.72	+20 23.6	1.308	2.181	15.8	19.4	2 21	7 47.60	+15 11.2	2.393	3.246	10.3	20.9
<b>303322</b>	2004 <i>TV</i> <sub>94</sub>		1 21.6 41°11	5°5/19.6	18		<b>182232</b>	2001 <i>DJ</i> <sub>4</sub>		1 21.6 90°18	6°6/19.1	18	
12 13	8 43.71	+29 19.6	1.329	2.132	19.5	20.5	12 13	8 47.30	+31 4.8	1.349	2.147	19.5	19.6
12 23	8 40.51	+30 11.9	1.265	2.142	15.6	20.3	12 23	8 43.52	+32 12.3	1.283	2.155	15.7	19.4
1 2	8 33.40	+31 7.0	1.220	2.152	11.1	20.1	1 2	8 35.63	+33 22.1	1.235	2.162	11.5	19.1
1 12	8 23.21	+31 55.6	1.198	2.162	7.0	19.9	1 12	8 24.42	+34 23.4	1.211	2.170	7.7	19.0
1 22	8 11.40	+32 28.6	1.202	2.173	5.7	19.8	1 22	8 11.38	+35 5.4	1.213	2.178	6.8	18.9
2 1	7 59.84	+32 39.9	1.231	2.184	8.7	20.0	2 1	7 58.53	+35 21.1	1.241	2.186	9.7	19.1
2 11	7 50.38	+32 28.8	1.285	2.196	13.0	20.3	2 11	7 47.88	+35 10.3	1.292	2.193	13.7	19.4
2 21	7 44.22	+31 59.2	1.361	2.208	16.9	20.6	2 21	7 40.72	+34 37.7	1.365	2.201	17.6	19.6
<b>14418</b>	1991 <i>RU</i> <sub>16</sub>		1 21.6 116°92	4°3/19.8	18		<b>210611</b>	2000 <i>BH</i> <sub>20</sub>		1 21.6 39°98	0°5/21.4	18	
12 13	8 46.94	+27 39.9	1.611	2.393	17.5	19.3	12 13	8 41.62	+20 41.0	1.484	2.272	18.5	20.7
12 23	8 42.34	+28 32.4	1.540	2.405	14.0	19.1	12 23	8 38.12	+20 41.8	1.411	2.281	14.7	20.5
1 2	8 34.30	+29 28.7	1.490	2.418	9.9	18.9	1 2	8 31.35	+20 50.6	1.359	2.291	10.2	20.2
1 12	8 23.56	+30 21.1	1.465	2.430	5.9	18.7	1 12	8 22.08	+21 3.6	1.331	2.302	5.1	20.0
1 22	8 11.39	+31 1.4	1.468	2.441	4.5	18.7	1 22	8 11.48	+21 16.3	1.329	2.313	0.6	19.7
2 1	7 59.38	+31 24.1	1.499	2.452	7.5	18.9	2 1	8 1.07	+21 24.7	1.354	2.324	5.6	20.0
2 11	7 49.16	+31 27.6	1.557	2.463	11.4	19.1	2 11	7 52.33	+21 26.4	1.406	2.336	10.5	20.3
2 21	7 41.80	+31 14.3	1.637	2.473	15.1	19.4	2 21	7 46.29	+21 21.1	1.481	2.348	14.7	20.6
<b>505916</b>	2015 <i>EC</i> <sub>34</sub>		1 21.6 251°40	0°4/21.9	17		<b>45757</b>	2000 <i>KH</i> <sub>29</sub>		1 21.6 124°64	0°9/21.2	18	
12 13	8 36.61	+17 1.1	2.557	3.310	12.5	21.9	12 13	8 41.17	+20 44.4	1.979	2.747	15.2	19.5
12 23	8 32.86	+17 14.7	2.452	3.301	10.0	21.7	12 23	8 37.01	+21 6.8	1.895	2.754	12.0	19.3
1 2	8 27.11	+17 36.0	2.369	3.291	7.0	21.5	1 2	8 30.22	+21 36.5	1.833	2.761	8.3	19.1
1 12	8 19.78	+18 3.1	2.314	3.282	3.6	21.2	1 12	8 21.42	+22 9.6	1.797	2.767	4.2	18.9
1 22	8 11.53	+18 33.2	2.288	3.272	0.4	21.0	1 22	8 11.51	+22 41.6	1.790	2.774	1.0	18.6
2 1	8 3.18	+19 3.2	2.293	3.262	3.7	21.2	2 1	8 1.64	+23 8.4	1.813	2.780	4.8	18.9
2 11	7 55.59	+19 30.5	2.327	3.252	7.2	21.4	2 11	7 52.97	+23 27.3	1.864	2.786	8.9	19.2
2 21	7 49.49	+19 53.2	2.388	3.241	10.3	21.6	2 21	7 46.39	+23 37.5	1.940	2.791	12.4	19.4
<b>463926</b>	2014 <i>UY</i> <sub>162</sub>		1 21.6 59°57	3°3/20.1	18		<b>100486</b>	1996 <i>VH</i> <sub>1</sub>		1 21.6 118°82	3°1/23.4	18	
12 13	8 41.86	+26 31.9	1.761	2.545	16.2	21.7	12 13	8 36.51	+ 9 51.9	2.412	3.146	13.7	20.2
12 23	8 37.93	+27 10.4	1.689	2.557	12.8	21.5	12 23	8 32.76	+ 9 35.6	2.317	3.148	11.2	20.0
1 2	8 31.02	+27 52.6	1.639	2.569	9.0	21.3	1 2	8 27.00	+ 9 30.2	2.244	3.149	8.3	19.8
1 12	8 21.84	+28 32.3	1.614	2.581	5.1	21.1	1 12	8 19.72	+ 9 35.4	2.197	3.151	5.2	19.6
1 22	8 11.46	+29 3.5	1.617	2.594	3.5	21.0	1 22	8 11.58	+ 9 50.2	2.179	3.153	3.1	19.5
2 1	8 1.24	+29 21.5	1.649	2.606	6.4	21.3	2 1	8 3.42	+10 12.4	2.190	3.154	4.5	19.6
2 11	7 52.52	+29 24.9	1.707	2.619	10.2	21.5	2 11	7 56.10	+10 39.3	2.231	3.156	7.4	19.8
2 21	7 46.25	+29 14.8	1.789	2.632	13.7	21.8	2 21	7 50.30	+11 7.9	2.298	3.157	10.4	20.0
<b>421979</b>	2014 <i>QP</i> <sub>297</sub>		1 21.6 115°60	0°1/21.7	18		<b>373706</b>	2002 <i>RY</i> <sub>241</sub>		1 21.6 98°03	0°7/22.0	18	
12 13	8 43.29	+17 18.1	2.274	3.020	14.1	22.9	12 13	8 39.13	+17 0.8	2.323	3.076	13.6	21.7
12 23	8 38.08	+17 43.3	2.199	3.044	11.1	22.7	12 23	8 34.85	+17 3.7	2.240	3.089	10.8	21.5
1 2	8 30.61	+18 17.0	2.147	3.068	7.7	22.5	1 2	8 28.43	+17 14.0	2.180	3.102	7.6	21.3
1 12	8 21.47	+18 55.8	2.123	3.091	3.9	22.3	1 12	8 20.41	+17 29.9	2.147	3.115	3.9	21.1
1 22	8 11.48	+19 35.8	2.128	3.112	0.2	22.1	1 22	8 11.56	+17 48.5	2.143	3.127	0.7	20.9
2 1	8 1.63	+20 13.2	2.166	3.134	4.0	22.4	2 1	8 2.80	+18 7.1	2.170	3.139	3.9	21.1
2 11	7 52.90	+20 45.3	2.233	3.154	7.7	22.7	2 11	7 55.03	+18 23.6	2.226	3.151	7.4	21.4
2 21	7 46.01	+21 10.5	2.327	3.173	10.8	22.9	2 21	7 48.96	+18 36.3	2.309	3.163	10.6	21.6
<b>94571</b>	2001 <i>VP</i> <sub>42</sub>		1 21.6 341°65	2°2/22.3	18		<b>505174</b>	2012 <i>TC</i> <sub>32</sub>		1 21.6 162°08	4°1/24.4	17	
12 13	8 37.34	+16 19.9	1.215	2.018	21.0	18.6	12 13	8 35.68	+ 4 56.5	2.763	3.469	12.7	22.0
12 23	8 35.62	+15 49.3	1.131	2.008	17.0	18.3	12 23	8 31.81	+ 4 40.0	2.666	3.472	10.6	21.8
1 2	8 30.23	+15 30.5	1.066	1.999	12.2	18.0	1 2	8 26.19	+ 4 35.7	2.590	3.475	8.2	21.6
1 12	8 21.77	+15 22.7	1.021	1.990	6.7	17.6	1 12	8 19.27	+ 4 43.9	2.541	3.478	5.7	21.5
1 22	8 11.46	+15 23.8	1.001	1.983	2.2	17.3	1 22	8 11.61	+ 5 4.0	2.520	3.481	4.2	21.4
2 1	8 1.01	+15 30.3	1.005	1.977	6.5	17.6	2 1	8 3.92	+ 5 34.3	2.529	3.483	4.8	21.4
2 11	7 52.26	+15 38.6	1.033	1.972	12.2	17.9	2 11	7 56.93	+ 6 12.0	2.568	3.485	7.0	21.6
2 21	7 46.56	+15 45.7	1.082	1.969	17.3	18.2	2 21	7 51.25	+ 6 53.6	2.634	3.487	9.5	21.7
<b>146477</b>	2001 <i>RG</i> <sub>103</sub>		1 21.6 46°02	3°4/20.2	18		<b>324636</b>	2007 <i>BA</i> <sub>41</sub>		1 21.6 118°52	0°5/21.9	18	
12 13	8 41.25												

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1 21.6

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>216338</b>	2007 <i>WD</i> <sub>21</sub>		1 21.6	57°09	1°5/22.5	18	<b>422819</b>	2002 <i>BH</i> <sub>20</sub>		1 21.6	129°60	2°7/21.4	16
12 13	8 38.21	+13 9.3	1.745	2.510	17.0	20.7	12 13	9 0.55	+28 47.6	1.144	1.932	22.9	20.6
12 23	8 35.02	+13 32.0	1.658	2.512	13.8	20.5	12 23	8 54.44	+28 9.2	1.070	1.937	18.6	20.3
1 2	8 29.08	+14 10.0	1.591	2.514	9.8	20.2	1 2	8 43.37	+27 26.8	1.013	1.943	13.1	20.0
1 12	8 20.95	+15 1.1	1.549	2.515	5.3	20.0	1 12	8 28.34	+26 33.3	0.979	1.948	7.0	19.7
1 22	8 11.55	+16 0.7	1.535	2.517	1.5	19.7	1 22	8 11.33	+25 24.1	0.971	1.953	2.8	19.5
2 1	8 2.06	+17 3.1	1.549	2.519	4.9	20.0	2 1	7 54.89	+23 59.7	0.990	1.957	7.7	19.8
2 11	7 53.77	+18 2.7	1.591	2.521	9.4	20.2	2 11	7 41.44	+22 26.4	1.036	1.962	13.7	20.1
2 21	7 47.66	+18 55.4	1.657	2.523	13.4	20.5	2 21	7 32.32	+20 51.9	1.103	1.966	18.9	20.4
<b>282824</b>	2006 <i>SY</i> <sub>219</sub>		1 21.6	100°23	3°0/23.6	18	<b>46300</b>	2001 <i>MW</i> <sub>27</sub>		1 21.6	59°32	0°1/21.7	18
12 13	8 35.26	+ 8 41.7	2.500	3.230	13.4	20.8	12 13	8 37.80	+17 45.7	2.094	2.859	14.6	18.9
12 23	8 31.70	+ 8 41.7	2.408	3.235	10.9	20.6	12 23	8 34.08	+18 6.1	2.017	2.874	11.5	18.7
1 2	8 26.23	+ 8 53.8	2.337	3.240	8.1	20.5	1 2	8 28.05	+18 35.2	1.963	2.889	8.0	18.5
1 12	8 19.32	+ 9 17.6	2.292	3.245	5.1	20.3	1 12	8 20.29	+19 10.0	1.935	2.905	4.0	18.3
1 22	8 11.62	+ 9 51.3	2.276	3.250	3.0	20.2	1 22	8 11.63	+19 46.7	1.936	2.920	0.1	18.0
2 1	8 3.89	+10 32.2	2.291	3.255	4.2	20.2	2 1	8 3.06	+20 21.4	1.967	2.936	4.2	18.4
2 11	7 56.95	+11 16.7	2.334	3.259	7.1	20.4	2 11	7 55.58	+20 51.0	2.026	2.952	8.0	18.6
2 21	7 51.46	+12 1.7	2.404	3.264	10.0	20.6	2 21	7 49.95	+21 13.9	2.111	2.968	11.3	18.9
<b>283146</b>	2008 <i>YW</i> <sub>121</sub>		1 21.6	259°21	0°0/21.7	17	<b>480036</b>	2015 <i>BT</i> <sub>156</sub>		1 21.7	274°94	6°1/18.2	16
12 13	8 36.31	+17 6.8	2.510	3.265	12.7	21.3	12 13	8 48.97	+40 3.3	2.714	3.459	12.1	22.0
12 23	8 32.75	+17 37.1	2.402	3.253	10.1	21.1	12 23	8 43.11	+40 39.7	2.599	3.430	10.1	21.8
1 2	8 27.12	+18 16.6	2.317	3.241	7.1	20.9	1 2	8 34.50	+41 11.0	2.507	3.401	8.0	21.6
1 12	8 19.86	+19 2.7	2.259	3.228	3.6	20.7	1 12	8 23.68	+41 30.7	2.442	3.371	6.5	21.5
1 22	8 11.60	+19 51.8	2.232	3.216	0.1	20.3	1 22	8 11.52	+41 33.2	2.406	3.340	6.2	21.4
2 1	8 3.18	+20 40.0	2.235	3.203	3.9	20.6	2 1	7 59.22	+41 15.2	2.400	3.309	7.7	21.4
2 11	7 55.51	+21 23.9	2.267	3.190	7.4	20.8	2 11	7 48.03	+40 36.6	2.422	3.278	10.0	21.5
2 21	7 49.33	+22 1.2	2.326	3.177	10.6	21.0	2 21	7 38.95	+39 40.4	2.469	3.246	12.4	21.7
<b>337928</b>	2001 <i>XQ</i> <sub>257</sub>		1 21.6	79°02	5°4/24.6	18	<b>414268</b>	2008 <i>HP</i>		1 21.7	316°22	7°6/18.1	18
12 13	8 38.10	+ 3 33.8	2.416	3.119	14.4	20.3	12 13	8 43.35	+35 36.5	1.654	2.444	16.8	21.0
12 23	8 33.83	+ 2 47.6	2.336	3.137	12.1	20.2	12 23	8 40.09	+36 45.5	1.570	2.434	13.8	20.8
1 2	8 27.62	+ 2 14.7	2.277	3.154	9.5	20.0	1 2	8 33.19	+37 53.4	1.508	2.424	10.7	20.6
1 12	8 19.98	+ 1 56.6	2.244	3.171	7.0	19.9	1 12	8 23.26	+38 50.4	1.469	2.415	8.2	20.4
1 22	8 11.60	+ 1 53.4	2.238	3.188	5.5	19.8	1 22	8 11.53	+39 27.0	1.456	2.406	7.9	20.4
2 1	8 3.31	+ 2 4.1	2.261	3.205	6.0	19.9	2 1	7 59.71	+39 36.9	1.470	2.398	10.1	20.5
2 11	7 55.91	+ 2 25.9	2.313	3.222	8.1	20.0	2 11	7 49.59	+39 19.3	1.507	2.390	13.4	20.7
2 21	7 50.06	+ 2 55.2	2.391	3.239	10.5	20.2	2 21	7 42.49	+38 38.4	1.567	2.382	16.7	20.8
<b>212155</b>	2005 <i>FY</i> <sub>3</sub>		1 21.6	253°41	0°7/22.0	18	<b>334244</b>	2001 <i>TX</i> <sub>117</sub>		1 21.7	39°92	0°7/21.5	18
12 13	8 38.96	+14 23.1	1.861	2.623	16.2	20.5	12 13	8 44.49	+23 39.7	1.928	2.696	15.5	20.0
12 23	8 35.66	+14 59.5	1.758	2.612	13.1	20.3	12 23	8 39.43	+23 12.0	1.855	2.713	12.3	19.8
1 2	8 29.62	+15 51.2	1.677	2.600	9.3	20.0	1 2	8 31.72	+22 46.2	1.804	2.731	8.5	19.6
1 12	8 21.30	+16 55.6	1.620	2.588	4.9	19.7	1 12	8 22.10	+22 19.7	1.779	2.749	4.2	19.4
1 22	8 11.55	+18 7.5	1.592	2.576	0.7	19.4	1 22	8 11.59	+21 50.6	1.784	2.768	0.7	19.2
2 1	8 1.52	+19 20.7	1.594	2.564	4.9	19.7	2 1	8 1.41	+21 17.9	1.818	2.786	4.6	19.5
2 11	7 52.51	+20 29.1	1.624	2.551	9.5	19.9	2 11	7 52.68	+20 41.8	1.881	2.806	8.6	19.8
2 21	7 45.58	+21 28.3	1.679	2.538	13.6	20.1	2 21	7 46.18	+20 3.4	1.970	2.825	12.1	20.1
<b>165686</b>	2001 <i>OY</i> <sub>75</sub>		1 21.6	117°45	0°5/21.3	18	<b>295600</b>	2008 <i>SR</i> <sub>173</sub>		1 21.7	221°65	3°1/22.9	18
12 13	8 38.59	+19 40.1	2.805	3.555	11.6	21.0	12 13	8 42.22	+11 24.8	1.783	2.532	17.3	21.8
12 23	8 34.07	+20 10.4	2.724	3.573	9.1	20.9	12 23	8 38.25	+11 12.6	1.683	2.525	14.2	21.5
1 2	8 27.71	+20 46.3	2.668	3.591	6.3	20.7	1 2	8 31.41	+11 14.1	1.604	2.517	10.4	21.3
1 12	8 20.02	+21 25.1	2.640	3.609	3.1	20.5	1 12	8 22.22	+11 29.0	1.549	2.508	6.2	21.0
1 22	8 11.62	+22 3.3	2.642	3.626	0.6	20.3	1 22	8 11.59	+11 55.3	1.521	2.499	3.1	20.8
2 1	8 3.28	+22 38.0	2.676	3.642	3.5	20.6	2 1	8 0.75	+12 29.6	1.522	2.490	5.5	20.9
2 11	7 55.76	+23 6.9	2.741	3.658	6.6	20.8	2 11	7 51.07	+13 7.5	1.551	2.480	9.8	21.2
2 21	7 49.68	+23 29.0	2.833	3.674	9.2	21.0	2 21	7 43.60	+13 45.0	1.605	2.469	13.9	21.4
<b>414471</b>	2009 <i>OP</i> <sub>2</sub>		1 21.6	106°82	0°4/21.8	18	<b>219356</b>	2000 <i>RV</i> <sub>44</sub>		1 21.7	88°90	2°0/20.8	18
12 13	8 46.37	+19 47.2	2.161	2.910	14.6	20.9	12 13	8 44.63	+24 41.9	2.040	2.806	14.9	20.3
12 23	8 40.58	+19 28.2	2.083	2.930	11.6	20.7	12 23	8 39.49	+25 0.0	1.971	2.829	11.7	20.1
1 2	8 32.36	+19 13.9	2.028	2.949	8.1	20.5	1 2	8 31.76	+25 21.4	1.924	2.851	8.1	20.0
1 12	8 22.37	+19 2.2	2.000	2.968	4.1	20.3	1 12	8 22.14	+25 41.5	1.905	2.873	4.2	19.8
1 22	8 11.54	+18 50.9	2.002	2.986	0.4	20.1	1 22	8 11.61	+25 56.0	1.914	2.894	2.1	19.7
2 1	8 0.94	+18 38.5	2.036	3.004	4.2	20.4	2 1	8 1.33	+26 2.1	1.953	2.916	5.1	19.9
2 11	7 51.62	+18 24.1	2.099	3.022	8.0	20.7	2 11	7 52.42	+25 58.5	2.021	2.936	8.7	20.2
2 21	7 44.34	+18 7.6	2.189	3.039	11.3	20.9	2 21	7 45.68	+25 46.2	2.115	2.957	11.9	20.4
<b>176174</b>	2001 <i>KV</i> <sub>67</sub>		1 21.6	169°23	2°4/23.3	18	<b>288573</b>	2004 <i>HX</i> <sub>40</sub>		1 21.7	270°92	7°3/26.1	17
12 13	8 39.60	+ 9 12.5	2.572	3.292	13.3	20.7	12 13	8 34.70	- 3 41.2	2.553	3.221	14.5	21.4
12 23	8 35.08	+ 9 33.1	2.474	3.297	10.8	20.5	12 23	8 31.33	- 4 25.4	2.448	3.212	12.7	21.2
1 2	8 28.56	+10 6.4	2.399	3.302	7.9	20.4	1 2	8 26.07	- 4 53.4	2.362	3.203	10.6	21.1
1 12	8 20.52	+10 51.3	2.350	3.306	4.8	20.2	1 12	8 19.33	- 5 2.6	2.300	3.194	8.7	20.9
1 22	8 11.60	+11 45.1	2.332	3.309	2.4	20.0	1 22	8 11.71	- 4 51.8	2.264	3.185	7.4	20.8
2 1	8 2.62	+12 44.2	2.345	3.311	4.0	20.1	2 1	8 3.95	- 4 21.4	2.256	3.175	7.6	20.8
2 11	7 54.43	+13 44.4	2.389	3.313	7.1	20.3	2 11	7 56.89	- 3 34.5	2.274	3.166	9.0	20.9
2 21	7 47.72	+14 42.4	2.461	3.314	10.1	20.5	2 21	7 51.19	- 2 35.5	2.319	3.157	11.1	21.0
<b>319600</b>	2006 <i>SW</i> <sub>192</sub>		1 21.6	3°23	1°0/22.3	18	<b>489638</b>	2007 <i>TY</i> <sub>417</sub>		1 21.7	65°18	6°3/26.1	17
12 13	8 35.49	+14 59.7											

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1 21.7

1 21.7

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>79817</b>	1998 VA <sub>44</sub>		1 21.7 214°47'	0°2/21.5	18		<b>317051</b>	2001 SH <sub>60</sub>		1 21.7 146°76'	1°5/20.4	18	
12 13	8 40.37	+18 31.8	2.162	2.921	14.3	19.9	12 13	8 35.22	+25 55.0	3.882	4.634	8.6	21.5
12 23	8 36.29	+18 55.0	2.062	2.916	11.4	19.7	12 23	8 31.00	+26 12.7	3.791	4.641	6.8	21.3
1 2	8 29.77	+19 27.0	1.985	2.910	8.0	19.5	1 2	8 25.41	+26 31.4	3.725	4.648	4.7	21.2
1 12	8 21.29	+20 4.8	1.934	2.904	4.0	19.2	1 12	8 18.84	+26 49.0	3.689	4.655	2.5	21.0
1 22	8 11.65	+20 44.2	1.913	2.897	0.3	18.9	1 22	8 11.76	+27 3.4	3.683	4.661	1.5	21.0
2 1	8 1.88	+21 21.0	1.922	2.890	4.4	19.2	2 1	8 4.69	+27 12.9	3.710	4.668	3.2	21.1
2 11	7 53.10	+21 52.0	1.959	2.882	8.4	19.4	2 11	7 58.21	+27 16.5	3.767	4.674	5.3	21.3
2 21	7 46.17	+22 15.4	2.023	2.874	12.0	19.6	2 21	7 52.76	+27 14.2	3.852	4.680	7.3	21.4
<b>416925</b>	2005 SN <sub>60</sub>		1 21.7 97°59'	2°6/20.5	18		<b>18801</b>	Noelleoas		1 21.7 192°55'	0°3/21.8	18	
12 13	8 43.45	+25 38.4	1.933	2.706	15.3	21.3	12 13	8 41.53	+16 5.0	1.956	2.714	15.7	18.7
12 23	8 38.91	+26 3.5	1.856	2.718	12.1	21.1	12 23	8 37.45	+16 35.4	1.861	2.713	12.6	18.5
1 2	8 31.59	+26 32.0	1.801	2.729	8.4	20.9	1 2	8 30.71	+17 18.1	1.788	2.711	8.8	18.2
1 12	8 22.15	+26 58.9	1.772	2.740	4.6	20.7	1 12	8 21.82	+18 9.8	1.740	2.708	4.5	18.0
1 22	8 11.62	+27 19.0	1.772	2.751	2.6	20.6	1 22	8 11.64	+19 5.8	1.721	2.705	0.3	17.6
2 1	8 1.23	+27 28.7	1.801	2.762	5.6	20.8	2 1	8 1.34	+20 0.8	1.733	2.702	4.7	18.0
2 11	7 52.22	+27 26.7	1.858	2.772	9.4	21.1	2 11	7 52.12	+20 50.1	1.773	2.698	9.0	18.2
2 21	7 45.49	+27 14.0	1.940	2.783	12.8	21.3	2 21	7 44.96	+21 30.9	1.839	2.693	12.8	18.4
<b>169123</b>	2001 PD <sub>25</sub>		1 21.7 72°56'	2°2/22.9	18		<b>325160</b>	2008 FM <sub>22</sub>		1 21.7 50°68'	2°8/20.3	18	
12 13	8 37.77	+12 5.1	2.276	3.019	14.2	20.3	12 13	8 40.40	+23 50.4	1.680	2.467	16.7	20.7
12 23	8 33.76	+12 3.9	2.200	3.039	11.4	20.1	12 23	8 37.01	+24 37.2	1.605	2.474	13.2	20.5
1 2	8 27.68	+12 13.6	2.146	3.058	8.2	20.0	1 2	8 30.59	+25 31.2	1.550	2.482	9.2	20.2
1 12	8 20.07	+12 32.8	2.118	3.078	4.7	19.8	1 12	8 21.78	+26 26.5	1.521	2.490	4.9	20.0
1 22	8 11.70	+12 59.3	2.119	3.098	2.2	19.6	1 22	8 11.65	+27 15.9	1.519	2.498	2.9	19.9
2 1	8 3.43	+13 30.1	2.150	3.117	4.1	19.8	2 1	8 1.57	+27 53.7	1.545	2.506	6.3	20.1
2 11	7 56.15	+14 2.1	2.210	3.137	7.4	20.0	2 11	7 52.94	+28 16.9	1.598	2.515	10.4	20.4
2 21	7 50.53	+14 32.6	2.296	3.156	10.4	20.3	2 21	7 46.78	+28 25.4	1.674	2.523	14.2	20.6
<b>505720</b>	2015 AF <sub>232</sub>		1 21.7 164°81'	0°4/21.9	17		<b>56738</b>	2000 NV <sub>20</sub>		1 21.7 20°32'	2°4/23.1	18	
12 13	8 39.70	+18 35.5	2.665	3.412	12.2	21.9	12 13	8 36.99	+10 27.2	1.876	2.629	16.4	19.3
12 23	8 35.09	+18 31.3	2.569	3.415	9.7	21.8	12 23	8 33.88	+10 49.4	1.785	2.630	13.4	19.1
1 2	8 28.53	+18 32.3	2.497	3.418	6.8	21.6	1 2	8 28.22	+11 28.2	1.715	2.630	9.7	18.9
1 12	8 20.51	+18 36.7	2.453	3.421	3.5	21.4	1 12	8 20.55	+12 22.1	1.669	2.631	5.6	18.7
1 22	8 11.68	+18 42.3	2.439	3.423	0.4	21.1	1 22	8 11.70	+13 27.2	1.651	2.632	2.4	18.5
2 1	8 2.88	+18 47.4	2.457	3.425	3.6	21.4	2 1	8 2.74	+14 38.2	1.663	2.632	4.8	18.6
2 11	7 54.93	+18 50.2	2.504	3.427	6.8	21.6	2 11	7 54.84	+15 49.0	1.702	2.633	8.9	18.9
2 21	7 48.48	+18 49.9	2.579	3.429	9.8	21.8	2 21	7 48.92	+16 54.8	1.768	2.634	12.7	19.1
<b>256932</b>	2008 EC <sub>29</sub>		1 21.7 13°76'	9°8/17.4	18		<b>459285</b>	2012 GX <sub>4</sub>		1 21.7 305°72'	3°1/22.9	17	
12 13	8 44.21	+39 24.3	1.476	2.270	18.3	20.3	12 13	8 37.36	+12 15.4	1.696	2.462	17.4	21.2
12 23	8 41.24	+40 49.9	1.412	2.273	15.2	20.1	12 23	8 34.67	+11 57.2	1.591	2.443	14.3	21.0
1 2	8 34.18	+42 10.1	1.368	2.276	12.3	19.9	1 2	8 29.11	+11 52.1	1.505	2.424	10.5	20.7
1 12	8 23.79	+43 12.7	1.347	2.280	10.1	19.8	1 12	8 21.16	+12 0.1	1.443	2.405	6.3	20.4
1 22	8 11.56	+43 47.1	1.350	2.285	10.0	19.8	1 22	8 11.68	+12 19.8	1.408	2.387	3.1	20.1
2 1	7 59.53	+43 47.6	1.378	2.291	12.0	19.9	2 1	8 1.89	+12 48.0	1.400	2.369	5.6	20.3
2 11	7 49.69	+43 15.6	1.428	2.297	14.9	20.1	2 11	7 53.18	+13 20.7	1.418	2.351	10.1	20.5
2 21	7 43.33	+42 17.6	1.499	2.303	17.8	20.3	2 21	7 46.68	+13 53.7	1.461	2.333	14.5	20.7
<b>212904</b>	2007 XB <sub>4</sub>		1 21.7 10°08'	4°9/18.7	18		<b>70664</b>	1999 TE <sub>286</sub>		1 21.7 173°30'	0°7/21.4	18	
12 13	8 38.33	+30 43.8	2.047	2.830	14.2	19.9	12 13	8 44.32	+21 5.9	1.927	2.692	15.7	20.6
12 23	8 35.06	+31 49.6	1.967	2.832	11.4	19.7	12 23	8 39.64	+21 12.5	1.837	2.694	12.5	20.4
1 2	8 29.09	+32 57.2	1.910	2.833	8.3	19.5	1 2	8 32.17	+21 25.2	1.769	2.696	8.7	20.2
1 12	8 20.98	+33 59.7	1.879	2.836	5.6	19.4	1 12	8 22.51	+21 40.6	1.727	2.697	4.4	19.9
1 22	8 11.66	+34 50.5	1.876	2.838	5.1	19.4	1 22	8 11.64	+21 54.8	1.714	2.698	0.7	19.7
2 1	8 2.32	+35 24.3	1.901	2.841	7.3	19.5	2 1	8 0.78	+22 4.3	1.731	2.698	4.9	20.0
2 11	7 54.18	+35 39.4	1.953	2.844	10.3	19.7	2 11	7 51.19	+22 7.1	1.776	2.698	9.2	20.2
2 21	7 48.19	+35 36.8	2.029	2.848	13.2	19.9	2 21	7 43.84	+22 2.8	1.846	2.698	12.9	20.4
<b>465224</b>	2007 RT <sub>131</sub>		1 21.7 156°75'	0°4/21.9	17		<b>172386</b>	2003 AO <sub>35</sub>		1 21.7 337°43'	4°9/23.7	18	
12 13	8 37.80	+16 41.9	2.831	3.574	11.6	22.6	12 13	8 37.56	+ 7 47.0	2.136	2.868	15.3	19.3
12 23	8 33.49	+16 58.8	2.737	3.581	9.3	22.5	12 23	8 33.93	+ 6 54.1	2.038	2.862	12.7	19.1
1 2	8 27.38	+17 22.7	2.667	3.587	6.5	22.3	1 2	8 28.04	+ 6 12.1	1.961	2.857	9.8	18.9
1 12	8 19.92	+17 51.6	2.625	3.593	3.3	22.1	1 12	8 20.39	+ 5 42.6	1.909	2.853	6.8	18.7
1 22	8 11.71	+18 22.9	2.614	3.598	0.4	21.9	1 22	8 11.72	+ 5 26.4	1.885	2.848	5.0	18.6
2 1	8 3.50	+18 53.7	2.634	3.603	3.3	22.1	2 1	8 2.98	+ 5 22.9	1.889	2.844	6.0	18.6
2 11	7 56.03	+19 21.9	2.684	3.607	6.4	22.3	2 11	7 55.16	+ 5 30.0	1.921	2.840	8.8	18.8
2 21	7 49.93	+19 45.6	2.762	3.611	9.2	22.5	2 21	7 49.07	+ 5 44.7	1.978	2.837	11.9	19.0
<b>458953</b>	2011 UH <sub>381</sub>		1 21.7 177°18'	2°0/22.6	18		<b>262025</b>	2006 QH <sub>111</sub>		1 21.7 138°59'	3°3/23.8	18	
12 13	8 41.83	+13 17.1	1.838	2.591	16.7	22.1	12 13	8 39.03	+ 7 9.5	1.979	2.711	16.3	20.7
12 23	8 37.75	+13 19.6	1.746	2.593	13.5	21.9	12 23	8 35.27	+ 7 33.6	1.890	2.719	13.4	20.5
1 2	8 30.93	+13 35.0	1.676	2.594	9.7	21.6	1 2	8 29.06	+ 8 16.0	1.821	2.726	9.9	20.3
1 12	8 21.92	+14 1.8	1.631	2.595	5.4	21.4	1 12	8 20.93	+ 9 15.7	1.778	2.732	6.2	20.1
1 22	8 11.64	+14 36.8	1.613	2.595	2.0	21.1	1 22	8 11.70	+10 29.0	1.763	2.739	3.4	19.9
2 1	8 1.29	+15 15.9	1.625	2.595	4.9	21.3	2 1	8 2.41	+11 50.6	1.778	2.744	4.9	20.1
2 11	7 52.13	+15 54.8	1.666	2.594	9.2	21.6	2 11	7 54.15	+13 14.1	1.822	2.750	8.6	20.3
2 21	7 45.13	+16 30.2	1.731	2.593	13.1	21.8	2 21	7 47.79	+14 33.9	1.892	2.755	12.1	20.5
<b>521100</b>	2015 DD <sub>244</sub>		1 21.7 284°13'	1°3/20.8	18		<b>317409</b>	2002 PM <sub>159</sub>		1 21.7 80°35'	0°5/21.4	16	
12 13	8 36.72	+20 57.6	2.331	3.098	13.2	21.2	12 13	8 44.44	+18 13.6	1.779			

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>36115</b>	1999 <i>RH</i> <sub>133</sub>		1 21.7 198°03	2°4/22.8	18		<b>335872</b>	2007 <i>RY</i> <sub>114</sub>		1 21.7 57°73	0°6/21.4	18	
12 13	8 39.86	+12 39.4	2.353	3.091	13.9	19.1	12 13	8 39.38	+20 44.4	2.105	2.873	14.4	20.9
12 23	8 35.53	+12 23.5	2.253	3.088	11.3	18.9	12 23	8 35.35	+20 54.0	2.028	2.887	11.4	20.7
1 2	8 29.03	+12 16.8	2.175	3.086	8.2	18.7	1 2	8 28.96	+21 9.5	1.973	2.901	7.8	20.5
1 12	8 20.85	+12 18.8	2.123	3.083	4.8	18.5	1 12	8 20.80	+21 27.8	1.945	2.915	3.9	20.3
1 22	8 11.71	+12 27.9	2.101	3.080	2.4	18.3	1 22	8 11.74	+21 45.4	1.946	2.930	0.6	20.1
2 1	8 2.51	+12 42.2	2.109	3.076	4.3	18.4	2 1	8 2.81	+21 59.3	1.976	2.944	4.4	20.4
2 11	7 54.20	+12 59.2	2.147	3.072	7.7	18.6	2 11	7 55.03	+22 7.5	2.035	2.959	8.1	20.7
2 21	7 47.53	+13 16.7	2.211	3.068	10.9	18.8	2 21	7 49.15	+22 9.3	2.119	2.974	11.4	20.9
<b>373674</b>	2002 <i>QE</i> <sub>115</sub>		1 21.7 40°75	2°3/20.8	18		<b>299353</b>	2005 <i>SR</i> <sub>235</sub>		1 21.7 56°48	6°4/25.9	18	
12 13	8 41.76	+25 9.8	1.714	2.498	16.5	20.5	12 13	8 34.33	- 1 46.7	2.617	3.296	13.9	20.4
12 23	8 37.73	+25 25.2	1.652	2.520	13.0	20.4	12 23	8 30.88	- 2 26.4	2.527	3.303	12.0	20.2
1 2	8 30.80	+25 44.0	1.611	2.542	9.0	20.2	1 2	8 25.65	- 2 50.8	2.458	3.309	9.9	20.1
1 12	8 21.74	+26 1.3	1.596	2.565	4.7	20.0	1 12	8 19.10	- 2 57.9	2.412	3.316	7.9	20.0
1 22	8 11.69	+26 12.4	1.608	2.588	2.4	19.9	1 22	8 11.81	- 2 47.2	2.393	3.323	6.6	19.9
2 1	8 1.96	+26 14.0	1.648	2.612	5.7	20.1	2 1	8 4.50	- 2 19.9	2.402	3.330	6.7	19.9
2 11	7 53.80	+26 5.3	1.716	2.636	9.6	20.4	2 11	7 57.93	- 1 39.0	2.439	3.337	8.2	20.0
2 21	7 48.06	+25 47.3	1.808	2.661	13.1	20.7	2 21	7 52.69	- 0 48.5	2.501	3.344	10.3	20.2
<b>123287</b>	2000 <i>UK</i> <sub>99</sub>		1 21.7 79°03	1°8/20.8	18		<b>259812</b>	2004 <i>BC</i> <sub>108</sub>		1 21.7 4°16	1°7/20.8	18	
12 13	8 42.11	+23 40.5	1.934	2.707	15.3	20.4	12 13	8 33.04	+17 47.8	1.221	2.034	20.3	19.4
12 23	8 37.79	+24 1.4	1.859	2.721	12.1	20.2	12 23	8 32.23	+18 55.1	1.148	2.033	16.2	19.1
1 2	8 30.79	+24 26.9	1.806	2.734	8.3	20.0	1 2	8 27.92	+20 22.0	1.094	2.033	11.2	18.8
1 12	8 21.76	+24 52.6	1.778	2.747	4.3	19.8	1 12	8 20.70	+22 1.8	1.062	2.035	5.6	18.5
1 22	8 11.69	+25 14.0	1.779	2.761	1.9	19.7	1 22	8 11.74	+23 44.1	1.055	2.038	1.9	18.3
2 1	8 1.76	+25 27.3	1.810	2.774	5.2	19.9	2 1	8 2.69	+25 17.6	1.074	2.042	6.9	18.6
2 11	7 53.17	+25 31.0	1.869	2.787	9.1	20.2	2 11	7 55.29	+26 33.7	1.117	2.048	12.3	18.9
2 21	7 46.77	+25 25.2	1.952	2.800	12.5	20.4	2 21	7 50.83	+27 28.6	1.181	2.055	17.0	19.2
<b>57154</b>	2001 <i>QL</i> <sub>7</sub>		1 21.7 71°79	1°1/22.1	18		<b>406332</b>	2007 <i>RU</i> <sub>33</sub>		1 21.7 217°04	4°9/24.3	17	
12 13	8 45.18	+14 53.1	1.397	2.171	20.1	19.1	12 13	8 41.02	+ 4 36.8	2.231	2.939	15.4	22.3
12 23	8 40.81	+15 12.4	1.341	2.200	16.0	18.9	12 23	8 36.69	+ 4 21.1	2.121	2.929	12.9	22.1
1 2	8 33.13	+15 47.0	1.304	2.230	11.2	18.7	1 2	8 30.02	+ 4 20.8	2.032	2.918	10.0	21.9
1 12	8 22.97	+16 32.9	1.291	2.259	5.8	18.5	1 12	8 21.47	+ 4 36.8	1.968	2.907	7.0	21.7
1 22	8 11.65	+17 23.9	1.304	2.288	1.1	18.2	1 22	8 11.74	+ 5 8.8	1.932	2.894	5.0	21.6
2 1	8 0.71	+18 13.8	1.345	2.316	5.5	18.6	2 1	8 1.79	+ 5 54.2	1.925	2.881	5.9	21.6
2 11	7 51.62	+18 57.5	1.413	2.344	10.3	19.0	2 11	7 52.67	+ 6 49.0	1.948	2.866	8.8	21.7
2 21	7 45.34	+19 32.3	1.505	2.372	14.5	19.3	2 21	7 45.25	+ 7 48.4	1.998	2.851	12.0	21.9
<b>162706</b>	2000 <i>UY</i> <sub>68</sub>		1 21.7 51°77	1°4/22.1	18		<b>386130</b>	2007 <i>TO</i> <sub>10</sub>		1 21.7 94°47	6°6/26.5	18	
12 13	8 42.11	+16 54.1	1.443	2.224	19.3	19.3	12 13	8 36.16	- 3 1.1	2.524	3.194	14.6	21.6
12 23	8 38.82	+16 38.1	1.370	2.234	15.5	19.1	12 23	8 32.32	- 3 28.6	2.443	3.211	12.6	21.4
1 2	8 31.93	+16 32.9	1.317	2.244	10.9	18.8	1 2	8 26.63	- 3 38.7	2.381	3.228	10.3	21.3
1 12	8 22.47	+16 36.6	1.286	2.255	5.8	18.6	1 12	8 19.59	- 3 29.8	2.344	3.245	8.2	21.2
1 22	8 11.67	+16 45.8	1.282	2.266	1.4	18.3	1 22	8 11.82	- 3 2.0	2.332	3.261	6.8	21.1
2 1	8 1.03	+16 56.9	1.306	2.277	5.5	18.6	2 1	8 4.10	- 2 17.0	2.349	3.277	6.8	21.1
2 11	7 52.06	+17 6.7	1.355	2.288	10.5	18.9	2 11	7 57.19	- 1 18.8	2.395	3.293	8.3	21.3
2 21	7 45.81	+17 13.3	1.428	2.299	14.8	19.2	2 21	7 51.70	- 0 12.4	2.466	3.309	10.4	21.4
<b>238906</b>	2005 <i>YA</i> <sub>193</sub>		1 21.7 225°35	0°1/21.6	18		<b>29414</b>	1996 <i>XF</i> <sub>1</sub>		1 21.7 80°43	1°5/20.7	18	
12 13	8 44.47	+19 45.1	1.792	2.558	16.6	21.1	12 13	8 38.75	+22 20.4	2.348	3.113	13.2	18.9
12 23	8 40.12	+19 46.1	1.694	2.551	13.3	20.9	12 23	8 34.66	+22 57.6	2.273	3.131	10.3	18.7
1 2	8 32.75	+19 54.7	1.617	2.543	9.3	20.6	1 2	8 28.40	+23 40.1	2.221	3.148	7.1	18.5
1 12	8 22.94	+20 7.9	1.565	2.535	4.8	20.3	1 12	8 20.52	+24 24.0	2.196	3.165	3.6	18.4
1 22	8 11.65	+20 21.7	1.542	2.526	0.2	19.9	1 22	8 11.80	+25 4.9	2.201	3.182	1.6	18.2
2 1	8 0.23	+20 32.4	1.548	2.517	5.2	20.3	2 1	8 3.16	+25 39.1	2.236	3.199	4.5	18.5
2 11	7 50.10	+20 37.5	1.582	2.507	9.9	20.5	2 11	7 55.53	+26 4.3	2.300	3.215	7.8	18.7
2 21	7 42.34	+20 36.3	1.640	2.497	14.0	20.8	2 21	7 49.64	+26 19.8	2.390	3.232	10.7	18.9
<b>227755</b>	2006 <i>JY</i> <sub>8</sub>		1 21.7 247°31	0°1/21.6	17		<b>321850</b>	2010 <i>RZ</i> <sub>123</sub>		1 21.7 21°11	12°0/29.6	18	
12 13	8 33.71	+19 8.5	3.470	4.218	9.6	21.5	12 13	8 31.79	- 8 16.4	1.293	2.009	24.2	19.8
12 23	8 30.04	+19 19.6	3.363	4.211	7.6	21.3	12 23	8 30.61	- 9 2.4	1.231	2.021	21.4	19.6
1 2	8 24.90	+19 35.2	3.281	4.203	5.3	21.1	1 2	8 26.37	- 9 12.8	1.182	2.034	18.3	19.4
1 12	8 18.66	+19 53.6	3.227	4.196	2.7	20.9	1 12	8 19.75	- 8 41.5	1.151	2.048	15.1	19.3
1 22	8 11.81	+20 12.7	3.204	4.188	0.1	20.7	1 22	8 11.82	- 7 27.4	1.140	2.064	12.7	19.2
2 1	8 4.90	+20 30.9	3.212	4.180	2.9	20.9	2 1	8 3.97	- 5 35.4	1.152	2.082	12.1	19.2
2 11	7 58.54	+20 46.3	3.251	4.172	5.5	21.1	2 11	7 57.61	- 3 17.0	1.187	2.100	13.6	19.4
2 21	7 53.24	+20 57.9	3.317	4.164	7.9	21.3	2 21	7 53.74	- 0 46.4	1.244	2.120	16.2	19.6
<b>120820</b>	1998 <i>HL</i> <sub>89</sub>		1 21.7 336°30	8°2/25.7	18		<b>243228</b>	2007 <i>VQ</i> <sub>88</sub>		1 21.7 34°82	4°0/23.7	18	
12 13	8 35.61	- 0 51.8	1.842	2.552	18.1	19.3	12 13	8 37.37	+ 8 14.0	2.264	2.994	14.6	20.1
12 23	8 32.81	- 1 44.4	1.750	2.547	15.7	19.1	12 23	8 33.62	+ 7 42.9	2.170	2.995	12.1	19.9
1 2	8 27.52	- 2 17.3	1.676	2.543	12.9	18.9	1 2	8 27.75	+ 7 23.4	2.097	2.996	9.1	19.7
1 12	8 20.23	- 2 27.0	1.623	2.539	10.2	18.7	1 12	8 20.24	+ 7 16.2	2.049	2.997	6.1	19.5
1 22	8 11.76	- 2 11.6	1.596	2.535	8.4	18.6	1 22	8 11.82	+ 7 20.8	2.030	2.998	4.1	19.4
2 1	8 3.14	- 1 32.4	1.594	2.531	8.7	18.6	2 1	8 3.36	+ 7 35.7	2.040	2.999	5.2	19.5
2 11	7 55.54	- 0 33.9	1.618	2.528	10.9	18.7	2 11	7 55.80	+ 7 58.1	2.078	3.001	8.0	19.6
2 21	7 49.86	+ 0 37.0	1.666	2.525	13.7	18.9	2 21	7 49.86	+ 8 24.9	2.143	3.002	11.1	19.8
<b>235013</b>	2003 <i>EM</i> <sub>4</sub>		1 21.7 320°04	2°1/21.1	18		<b>23465</b>	1989 <i>UA</i> <sub>1</sub>		1 21.7 91°10	3°5/20.4	18	
12 13	8 42.88	+24											



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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>287563</b>	2003 <i>FS</i> <sub>19</sub>		1 21.7 242°39	0°6/21.3	18		<b>155268</b>	2005 <i>WE</i> <sub>108</sub>		1 21.7 112°12	2°9/23.1	18	
12 13	8 38.85	+18 11.6	2.112	2.875	14.5	20.7	12 13	8 38.95	+11 17.7	2.003	2.750	15.7	20.6
12 23	8 35.27	+18 54.1	2.010	2.866	11.6	20.5	12 23	8 35.19	+11 3.9	1.913	2.753	12.8	20.4
1 2	8 29.20	+19 47.5	1.931	2.857	8.1	20.3	1 2	8 29.01	+11 2.2	1.845	2.756	9.4	20.2
1 12	8 21.11	+20 48.3	1.878	2.848	4.1	20.0	1 12	8 20.94	+11 12.2	1.801	2.760	5.7	19.9
1 22	8 11.79	+21 51.3	1.855	2.838	0.7	19.7	1 22	8 11.82	+11 32.2	1.785	2.763	3.0	19.8
2 1	8 2.26	+22 51.0	1.861	2.828	4.7	20.0	2 1	8 2.68	+11 59.2	1.799	2.766	4.9	19.9
2 11	7 53.66	+23 42.9	1.897	2.818	8.7	20.2	2 11	7 54.59	+12 29.8	1.841	2.769	8.5	20.1
2 21	7 46.93	+24 24.5	1.958	2.808	12.4	20.4	2 21	7 48.40	+13 0.7	1.908	2.772	12.0	20.3
<b>336716</b>	2010 <i>CP</i> <sub>137</sub>		1 21.7 270°19	0°4/21.9	18		<b>375290</b>	2008 <i>LB</i> <sub>13</sub>		1 21.7 212°83	2°6/20.0	18	
12 13	8 37.36	+16 57.1	2.240	2.999	13.9	21.1	12 13	8 40.83	+24 23.2	2.304	3.069	13.4	21.5
12 23	8 33.81	+17 12.3	2.141	2.994	11.1	20.9	12 23	8 36.69	+25 18.5	2.206	3.063	10.6	21.3
1 2	8 28.00	+17 36.4	2.065	2.989	7.8	20.7	1 2	8 30.10	+26 20.0	2.131	3.057	7.4	21.1
1 12	8 20.43	+18 7.2	2.015	2.984	4.0	20.5	1 12	8 21.55	+27 22.8	2.084	3.050	4.1	20.9
1 22	8 11.82	+18 41.4	1.995	2.979	0.4	20.2	1 22	8 11.81	+28 20.9	2.066	3.043	2.7	20.8
2 1	8 3.11	+19 15.4	2.004	2.973	4.1	20.4	2 1	8 1.90	+29 9.4	2.080	3.036	5.4	20.9
2 11	7 55.31	+19 46.0	2.042	2.968	7.9	20.7	2 11	7 52.93	+29 45.1	2.122	3.028	8.8	21.1
2 21	7 49.23	+20 11.1	2.106	2.963	11.3	20.9	2 21	7 45.80	+30 7.1	2.189	3.019	12.0	21.3
<b>354112</b>	2002 <i>AS</i> <sub>17</sub>		1 21.7 58°77	1°4/21.9	17		<b>89395</b>	2001 <i>VM</i> <sub>118</sub>		1 21.7 140°58	2°2/20.4	18	
12 13	8 59.48	+21 34.6	1.297	2.065	21.7	19.6	12 13	8 42.11	+24 11.5	2.246	3.010	13.7	19.6
12 23	8 51.91	+20 18.2	1.245	2.100	17.3	19.4	12 23	8 37.54	+24 51.2	2.162	3.019	10.8	19.5
1 2	8 40.54	+19 5.1	1.212	2.136	12.0	19.2	1 2	8 30.55	+25 35.7	2.102	3.028	7.5	19.3
1 12	8 26.54	+17 54.3	1.204	2.172	6.2	19.0	1 12	8 21.69	+26 20.2	2.069	3.037	4.0	19.1
1 22	8 11.64	+16 46.2	1.224	2.207	1.4	18.7	1 22	8 11.81	+26 59.9	2.066	3.045	2.3	19.0
2 1	7 57.74	+15 42.4	1.273	2.242	6.0	19.2	2 1	8 1.96	+27 30.6	2.093	3.053	5.1	19.2
2 11	7 46.44	+14 44.5	1.350	2.277	11.1	19.5	2 11	7 53.21	+27 50.1	2.149	3.060	8.5	19.4
2 21	7 38.61	+13 53.7	1.452	2.312	15.3	19.9	2 21	7 46.37	+27 58.3	2.231	3.067	11.6	19.6
<b>16286</b>	4057 <i>P-L</i>		1 21.7 35°02	1°9/20.8	18 R		<b>280664</b>	2005 <i>ES</i> <sub>63</sub>		1 21.7 196°68	4°2/19.2	17	
12 13	8 40.79	+24 15.1	1.987	2.762	14.9	18.5	12 13	8 43.94	+33 58.3	2.842	3.597	11.4	20.7
12 23	8 36.84	+24 33.0	1.901	2.764	11.8	18.3	12 23	8 38.63	+34 30.3	2.749	3.594	9.2	20.6
1 2	8 30.23	+24 55.2	1.837	2.766	8.2	18.1	1 2	8 31.12	+35 0.0	2.679	3.591	6.8	20.4
1 12	8 21.57	+25 17.3	1.799	2.768	4.3	17.9	1 12	8 21.92	+35 22.7	2.637	3.587	4.8	20.3
1 22	8 11.78	+25 35.0	1.790	2.771	2.0	17.7	1 22	8 11.81	+35 34.4	2.625	3.583	4.3	20.2
2 1	8 2.03	+25 44.7	1.809	2.773	5.2	17.9	2 1	8 1.71	+35 32.4	2.644	3.578	5.8	20.3
2 11	7 53.51	+25 44.7	1.857	2.776	9.1	18.2	2 11	7 52.60	+35 16.3	2.692	3.573	8.2	20.5
2 21	7 47.10	+25 35.2	1.930	2.779	12.6	18.4	2 21	7 45.21	+34 47.7	2.766	3.568	10.6	20.6
<b>453859</b>	2011 <i>UJ</i> <sub>62</sub>		1 21.7 157°20	3°6/23.5	18		<b>121065</b>	1999 <i>CX</i> <sub>132</sub>		1 21.7 246°94	0°6/21.5	18	
12 13	8 43.24	+ 9 1.8	2.104	2.830	15.7	22.9	12 13	8 43.56	+20 7.6	1.756	2.527	16.7	21.1
12 23	8 38.38	+ 8 46.6	2.014	2.839	12.9	22.7	12 23	8 39.60	+20 18.9	1.655	2.515	13.4	20.9
1 2	8 31.11	+ 8 44.5	1.945	2.847	9.6	22.5	1 2	8 32.56	+20 38.8	1.574	2.502	9.4	20.6
1 12	8 21.96	+ 8 55.4	1.902	2.854	6.1	22.3	1 12	8 22.96	+21 3.7	1.518	2.488	4.8	20.3
1 22	8 11.78	+ 9 17.7	1.888	2.861	3.6	22.2	1 22	8 11.77	+21 29.0	1.490	2.474	0.6	20.0
2 1	8 1.60	+ 9 48.6	1.903	2.866	5.1	22.3	2 1	8 0.34	+21 50.1	1.491	2.460	5.4	20.3
2 11	7 52.47	+10 24.6	1.948	2.871	8.5	22.5	2 11	7 50.14	+22 3.8	1.520	2.445	10.2	20.5
2 21	7 45.25	+11 2.0	2.020	2.875	11.8	22.7	2 21	7 42.35	+22 9.1	1.573	2.430	14.5	20.7
<b>464823</b>	2004 <i>TL</i> <sub>194</sub>		1 21.7 31°54	0°1/21.7	18		<b>79646</b>	1998 <i>SB</i> <sub>13</sub>		1 21.7 181°48	1°6/22.6	18	
12 13	8 39.23	+19 1.8	1.489	2.279	18.4	20.9	12 13	8 43.26	+12 58.6	1.969	2.714	16.0	20.4
12 23	8 36.11	+19 2.0	1.426	2.296	14.6	20.7	12 23	8 38.76	+13 16.7	1.874	2.715	13.0	20.2
1 2	8 29.92	+19 11.7	1.382	2.314	10.1	20.5	1 2	8 31.61	+13 48.4	1.800	2.716	9.3	20.0
1 12	8 21.43	+19 27.6	1.362	2.333	5.1	20.2	1 12	8 22.33	+14 31.7	1.752	2.716	5.1	19.7
1 22	8 11.80	+19 45.3	1.369	2.353	0.2	19.9	1 22	8 11.80	+15 22.6	1.733	2.715	1.6	19.5
2 1	8 2.43	+20 0.9	1.403	2.374	5.2	20.3	2 1	8 1.14	+16 16.4	1.745	2.714	4.7	19.7
2 11	7 54.68	+20 11.5	1.463	2.395	9.9	20.7	2 11	7 51.58	+17 8.4	1.785	2.711	8.9	19.9
2 21	7 49.45	+20 15.9	1.546	2.417	13.9	21.0	2 21	7 44.07	+17 55.0	1.851	2.708	12.7	20.2
<b>171009</b>	2005 <i>EL</i> <sub>31</sub>		1 21.7 270°03	2°5/22.8	18		<b>327027</b>	2004 <i>RM</i> <sub>238</sub>		1 21.7 126°87	0°9/21.2	18	
12 13	8 39.45	+12 39.3	1.713	2.475	17.4	20.4	12 13	8 41.35	+21 24.6	2.178	2.941	14.1	21.8
12 23	8 36.17	+12 34.5	1.619	2.470	14.2	20.1	12 23	8 36.93	+21 41.9	2.093	2.949	11.2	21.6
1 2	8 30.05	+12 43.5	1.545	2.464	10.3	19.9	1 2	8 30.11	+22 5.0	2.031	2.958	7.7	21.4
1 12	8 21.61	+13 5.6	1.495	2.459	5.9	19.6	1 12	8 21.47	+22 30.2	1.996	2.966	3.9	21.2
1 22	8 11.79	+13 37.9	1.472	2.453	2.5	19.4	1 22	8 11.83	+22 53.9	1.990	2.973	1.0	21.0
2 1	8 1.81	+14 16.4	1.478	2.447	5.3	19.5	2 1	8 2.25	+23 12.7	2.014	2.981	4.5	21.3
2 11	7 53.03	+14 56.5	1.510	2.442	9.7	19.8	2 11	7 53.78	+23 24.3	2.067	2.988	8.2	21.5
2 21	7 46.48	+15 34.2	1.567	2.436	13.9	20.0	2 21	7 47.21	+23 28.3	2.146	2.995	11.5	21.7
<b>90633</b>	3040 <i>T-2</i>		1 21.7 157°93	2°7/23.4	18		<b>390872</b>	2004 <i>TL</i> <sub>130</sub>		1 21.7 152°75	2°4/23.1	18	
12 13	8 38.77	+ 9 18.0	2.484	3.209	13.6	20.7	12 13	8 43.20	+10 24.8	2.203	2.930	15.0	22.6
12 23	8 34.52	+ 9 26.0	2.390	3.216	11.1	20.5	12 23	8 38.25	+10 36.5	2.114	2.942	12.2	22.4
1 2	8 28.26	+ 9 46.4	2.319	3.222	8.1	20.3	1 2	8 30.98	+11 1.4	2.046	2.953	8.9	22.2
1 12	8 20.48	+10 18.2	2.273	3.228	5.0	20.1	1 12	8 21.90	+11 38.3	2.005	2.963	5.2	22.0
1 22	8 11.83	+10 59.2	2.257	3.233	2.7	20.0	1 22	8 11.82	+12 24.0	1.994	2.972	2.5	21.8
2 1	8 3.16	+11 46.3	2.273	3.238	4.1	20.1	2 1	8 1.74	+13 14.8	2.013	2.980	4.4	22.0
2 11	7 55.31	+12 35.8	2.318	3.242	7.2	20.3	2 11	7 52.68	+14 6.3	2.063	2.987	8.0	22.2
2 21	7 48.97	+13 24.3	2.390	3.246	10.2	20.5	2 21	7 45.43	+14 55.0	2.140	2.993	11.3	22.4
<b>447435</b>	2006 <i>DH</i> <sub>163</sub>		1 21.7 27°53	2°9/20.9	17		<b>239366</b>	2007 <i>RG</i> <sub>222</sub>		1 21.7 127°42	0°6/21.3	18	
12 13	8 42.54	+25 23.4											

EPHEMERIDES

1 21.7

1 21.7

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>1636</b>	Porter		1 21.7	57°00	2°8/22.9	18	<b>212651</b>	2006 UK <sub>103</sub>		1 21.7	193°29	1°8/22.9	17
12 13	8 40.74	+11 55.5	1.286	2.067	21.2	15.4	12 13	8 35.97	+12 33.5	2.821	3.556	11.9	21.0
12 23	8 37.84	+11 57.7	1.219	2.080	17.2	15.1	12 23	8 32.13	+12 35.2	2.720	3.555	9.6	20.9
1 2	8 31.47	+12 19.2	1.170	2.094	12.3	14.9	1 2	8 26.55	+12 45.8	2.642	3.554	6.9	20.7
1 12	8 22.38	+12 58.1	1.143	2.107	7.0	14.6	1 12	8 19.63	+13 4.0	2.592	3.552	4.0	20.5
1 22	8 11.82	+13 49.7	1.140	2.122	2.8	14.4	1 22	8 11.95	+13 28.3	2.571	3.550	1.8	20.3
2 1	8 1.40	+14 47.4	1.165	2.136	6.0	14.7	2 1	8 4.23	+13 56.2	2.580	3.548	3.5	20.4
2 11	7 52.74	+15 44.0	1.214	2.150	11.1	15.0	2 11	7 57.19	+14 25.3	2.620	3.546	6.4	20.6
2 21	7 46.95	+16 34.6	1.287	2.165	15.6	15.3	2 21	7 51.45	+14 53.5	2.688	3.544	9.2	20.8
<b>237497</b>	2000 QR <sub>81</sub>		1 21.7	165°13	2°9/23.2	18	<b>79220</b>	1994 PO <sub>1</sub>		1 21.7	187°75	7°1/14.9	18
12 13	8 41.43	+10 26.0	1.858	2.602	16.9	21.3	12 13	8 45.09	+45 12.8	3.122	3.859	10.8	19.9
12 23	8 37.40	+10 27.2	1.768	2.606	13.8	21.1	12 23	8 40.00	+46 42.1	3.045	3.858	9.3	19.8
1 2	8 30.70	+10 43.3	1.699	2.610	10.1	20.9	1 2	8 32.40	+48 5.5	2.993	3.857	7.9	19.7
1 12	8 21.89	+11 13.6	1.654	2.613	6.0	20.7	1 12	8 22.74	+49 16.2	2.968	3.855	7.2	19.6
1 22	8 11.85	+11 55.3	1.637	2.615	3.0	20.5	1 22	8 11.85	+50 8.7	2.971	3.853	7.4	19.6
2 1	8 1.74	+12 44.2	1.649	2.617	5.1	20.6	2 1	8 0.79	+50 39.4	3.002	3.851	8.4	19.7
2 11	7 52.78	+13 35.3	1.690	2.619	9.1	20.8	2 11	7 50.69	+50 47.9	3.058	3.848	9.9	19.8
2 21	7 45.92	+14 24.4	1.756	2.620	12.9	21.1	2 21	7 42.50	+50 36.6	3.138	3.844	11.4	19.9
<b>453339</b>	2008 YF <sub>71</sub>		1 21.7	294°94	3°2/20.0	18	<b>322847</b>	2001 TU <sub>187</sub>		1 21.7	122°20	4°7/24.3	18
12 13	8 39.13	+22 23.6	1.534	2.328	17.7	20.8	12 13	8 41.13	+ 5 13.4	2.335	3.041	14.8	21.3
12 23	8 36.81	+23 29.9	1.434	2.308	14.3	20.5	12 23	8 36.36	+ 4 46.1	2.252	3.059	12.3	21.1
1 2	8 31.12	+24 50.2	1.355	2.289	10.0	20.2	1 2	8 29.52	+ 4 32.4	2.191	3.077	9.5	21.0
1 12	8 22.47	+26 17.9	1.300	2.269	5.4	19.9	1 12	8 21.12	+ 4 33.1	2.156	3.094	6.6	20.8
1 22	8 11.82	+27 43.8	1.271	2.250	3.4	19.7	1 22	8 11.91	+ 4 47.4	2.149	3.110	4.7	20.7
2 1	8 0.68	+28 58.2	1.270	2.231	7.4	19.9	2 1	8 2.78	+ 5 13.4	2.172	3.125	5.5	20.8
2 11	7 50.80	+29 54.3	1.295	2.212	12.3	20.1	2 11	7 54.61	+ 5 47.7	2.225	3.140	8.0	21.0
2 21	7 43.63	+30 29.9	1.342	2.193	16.8	20.3	2 21	7 48.09	+ 6 26.7	2.304	3.155	10.7	21.2
<b>136396</b>	2004 XZ <sub>113</sub>		1 21.7	239°23	2°9/20.3	18	<b>29494</b>	1997 WL <sub>7</sub>		1 21.7	11°82	1°9/22.5	18
12 13	8 42.17	+23 48.3	1.654	2.438	17.0	20.2	12 13	8 38.79	+15 0.3	1.633	2.407	17.7	17.7
12 23	8 38.71	+24 35.7	1.567	2.435	13.6	20.0	12 23	8 35.71	+14 48.6	1.550	2.408	14.3	17.5
1 2	8 32.03	+25 31.6	1.500	2.431	9.5	19.7	1 2	8 29.73	+14 48.7	1.486	2.410	10.2	17.2
1 12	8 22.72	+26 29.6	1.459	2.428	5.1	19.5	1 12	8 21.46	+14 59.0	1.446	2.412	5.6	17.0
1 22	8 11.82	+27 22.3	1.445	2.424	3.0	19.3	1 22	8 11.90	+15 17.0	1.433	2.415	1.9	16.7
2 1	8 0.79	+28 3.2	1.459	2.420	6.6	19.5	2 1	8 2.34	+15 38.8	1.447	2.418	5.2	16.9
2 11	7 51.17	+28 28.4	1.499	2.416	11.0	19.8	2 11	7 54.10	+16 1.0	1.488	2.421	9.7	17.2
2 21	7 44.14	+28 37.9	1.563	2.412	15.0	20.0	2 21	7 48.19	+16 20.5	1.554	2.425	13.8	17.5
<b>349219</b>	2007 SV <sub>11</sub>		1 21.7	145°54	4°0/22.6	18	<b>153434</b>	2001 QK <sub>222</sub>		1 21.7	258°13	3°7/23.1	18
12 13	9 6.74	+12 59.4	1.757	2.458	19.1	22.3	12 13	8 41.91	+10 56.0	1.671	2.425	18.1	20.2
12 23	8 57.26	+11 55.7	1.669	2.481	15.7	22.1	12 23	8 38.41	+10 34.3	1.565	2.408	15.0	19.9
1 2	8 44.29	+10 59.7	1.604	2.502	11.5	21.9	1 2	8 31.85	+10 26.7	1.478	2.391	11.1	19.6
1 12	8 28.64	+10 11.9	1.567	2.521	7.0	21.7	1 12	8 22.70	+10 33.8	1.415	2.373	6.9	19.3
1 22	8 11.66	+ 9 32.8	1.563	2.537	4.0	21.6	1 22	8 11.86	+10 54.1	1.378	2.355	3.8	19.1
2 1	7 55.02	+ 9 2.5	1.592	2.551	6.4	21.7	2 1	8 0.66	+11 24.8	1.370	2.337	6.0	19.2
2 11	7 40.34	+ 8 40.4	1.654	2.563	10.7	22.0	2 11	7 50.57	+12 1.4	1.388	2.318	10.6	19.4
2 21	7 28.71	+ 8 25.1	1.742	2.573	14.6	22.3	2 21	7 42.82	+12 39.5	1.431	2.299	15.0	19.6
<b>89257</b>	2001 UF <sub>184</sub>		1 21.7	336°85	1°0/21.2	18	<b>468673</b>	2009 BT <sub>175</sub>		1 21.7	19°90	1°2/22.5	17
12 13	8 36.56	+21 4.4	2.089	2.864	14.3	19.8	12 13	8 35.43	+13 37.4	2.334	3.085	13.6	21.6
12 23	8 33.44	+21 26.9	1.994	2.857	11.3	19.6	12 23	8 32.15	+13 59.8	2.240	3.086	10.9	21.4
1 2	8 27.90	+21 56.4	1.922	2.851	7.9	19.4	1 2	8 26.80	+14 33.5	2.169	3.088	7.8	21.2
1 12	8 20.46	+22 29.6	1.875	2.845	4.0	19.1	1 12	8 19.84	+15 16.3	2.124	3.089	4.2	21.0
1 22	8 11.90	+23 2.2	1.857	2.840	1.1	18.9	1 22	8 11.97	+16 5.3	2.108	3.090	1.2	20.7
2 1	8 3.27	+23 30.2	1.868	2.835	4.7	19.1	2 1	8 4.04	+16 56.4	2.122	3.092	3.9	20.9
2 11	7 55.63	+23 50.8	1.907	2.830	8.6	19.3	2 11	7 56.94	+17 45.7	2.166	3.094	7.4	21.2
2 21	7 49.87	+24 2.9	1.971	2.826	12.1	19.6	2 21	7 51.42	+18 30.4	2.235	3.096	10.6	21.4
<b>284416</b>	2006 UC <sub>309</sub>		1 21.7	173°28	2°6/23.5	17	<b>432158</b>	2009 BO <sub>147</sub>		1 21.7	258°51	3°1/20.2	18
12 13	8 36.02	+ 9 35.8	2.734	3.459	12.4	21.9	12 13	8 42.67	+29 53.2	2.508	3.271	12.5	20.8
12 23	8 32.20	+ 9 35.3	2.635	3.461	10.1	21.8	12 23	8 37.83	+30 4.9	2.413	3.267	10.0	20.6
1 2	8 26.61	+ 9 45.3	2.559	3.462	7.5	21.6	1 2	8 30.69	+30 15.8	2.341	3.262	7.1	20.4
1 12	8 19.65	+10 5.3	2.509	3.463	4.7	21.4	1 12	8 21.78	+30 21.7	2.296	3.258	4.3	20.3
1 22	8 11.94	+10 33.7	2.489	3.464	2.6	21.3	1 22	8 11.92	+30 19.1	2.281	3.254	3.1	20.2
2 1	8 4.17	+11 8.3	2.500	3.465	3.9	21.3	2 1	8 2.10	+30 5.8	2.296	3.249	5.2	20.3
2 11	7 57.12	+11 46.0	2.540	3.465	6.7	21.5	2 11	7 53.33	+29 41.3	2.341	3.245	8.2	20.5
2 21	7 51.39	+12 24.0	2.608	3.465	9.4	21.7	2 21	7 46.38	+29 7.2	2.411	3.240	11.1	20.7
<b>295193</b>	2008 FE <sub>102</sub>		1 21.7	244°08	0°3/21.5	17	<b>277849</b>	2006 HR <sub>104</sub>		1 21.7	289°29	4°2/18.8	18
12 13	8 39.75	+18 10.8	2.147	2.907	14.4	20.9	12 13	8 38.77	+26 52.4	2.077	2.856	14.2	20.6
12 23	8 35.96	+18 39.7	2.041	2.895	11.5	20.7	12 23	8 35.61	+28 14.9	1.976	2.841	11.4	20.3
1 2	8 29.69	+19 18.4	1.957	2.882	8.1	20.4	1 2	8 29.73	+29 45.0	1.898	2.825	8.1	20.1
1 12	8 21.41	+20 3.9	1.900	2.869	4.1	20.2	1 12	8 21.56	+31 16.0	1.847	2.809	5.1	19.9
1 22	8 11.88	+20 51.7	1.872	2.856	0.4	19.8	1 22	8 11.91	+32 39.9	1.826	2.794	4.5	19.8
2 1	8 2.14	+21 37.3	1.874	2.843	4.5	20.1	2 1	8 1.92	+33 49.5	1.833	2.778	7.1	20.0
2 11	7 53.30	+22 16.8	1.905	2.828	8.6	20.3	2 11	7 52.89	+34 40.4	1.868	2.763	10.5	20.1
2 21	7 46.32	+22 47.9	1.962	2.814	12.3	20.5	2 21	7 45.91	+35 11.8	1.927	2.747	13.8	20.3
<b>233743</b>	2008 SO <sub>290</sub>		1 21.7	61°93	3°4/20.1	18	<b>43678</b>	2002 HP		1 21.7	211°93	0°8/21.3	18
12 13	8 42.42	+28 48.9	2.074	2.848	14.4	20.5	12 13	8 42.58	+19 41.7	2.144			

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>309347</b>	2007 <i>TU</i> <sub>44</sub>		1 21.7 123°42	3°0/23.3	18		<b>335851</b>	2007 <i>QZ</i> <sub>11</sub>		1 21.7 150°06	0°5/21.5	18	
12 13	8 41.30	+10 15.5	1.827	2.573	17.1	21.7	12 13	8 42.12	+21 48.9	2.475	3.228	12.9	20.7
12 23	8 37.26	+10 15.1	1.745	2.584	13.9	21.5	12 23	8 37.24	+21 43.2	2.382	3.233	10.2	20.5
1 2	8 30.57	+10 29.9	1.683	2.594	10.2	21.3	1 2	8 30.19	+21 41.0	2.314	3.237	7.1	20.3
1 12	8 21.82	+10 58.9	1.646	2.604	6.1	21.0	1 12	8 21.52	+21 39.8	2.272	3.241	3.6	20.1
1 22	8 11.92	+11 39.3	1.636	2.614	3.1	20.9	1 22	8 11.99	+21 37.2	2.261	3.245	0.5	19.8
2 1	8 2.05	+12 26.9	1.656	2.623	5.1	21.0	2 1	8 2.52	+21 31.2	2.281	3.248	3.9	20.1
2 11	7 53.40	+13 16.7	1.703	2.632	9.0	21.3	2 11	7 54.03	+21 20.9	2.331	3.251	7.4	20.3
2 21	7 46.85	+14 4.5	1.776	2.641	12.7	21.5	2 21	7 47.25	+21 6.2	2.407	3.254	10.4	20.5
<b>211207</b>	2002 <i>OV</i> <sub>27</sub>		1 21.7 226°24	1°2/22.3	18		<b>115871</b>	2003 <i>UA</i> <sub>279</sub>		1 21.7 351°18	6°5/24.6	18	
12 13	8 41.09	+15 34.8	1.905	2.664	16.0	21.8	12 13	8 36.37	+3 49.4	1.945	2.671	16.8	19.6
12 23	8 37.23	+15 39.2	1.807	2.658	12.9	21.6	12 23	8 33.29	+2 56.2	1.852	2.667	14.2	19.4
1 2	8 30.68	+15 54.6	1.730	2.652	9.2	21.3	1 2	8 27.82	+2 18.3	1.780	2.665	11.3	19.2
1 12	8 21.95	+16 18.8	1.678	2.645	4.9	21.1	1 12	8 20.47	+1 58.1	1.730	2.662	8.4	19.0
1 22	8 11.92	+16 48.7	1.655	2.638	1.2	20.8	1 22	8 12.02	+1 56.7	1.707	2.661	6.5	18.9
2 1	8 1.74	+17 20.3	1.661	2.631	4.7	21.0	2 1	8 3.49	+2 13.2	1.711	2.659	7.2	18.9
2 11	7 52.66	+17 50.0	1.695	2.623	9.1	21.3	2 11	7 55.95	+2 44.1	1.742	2.658	9.7	19.1
2 21	7 45.67	+18 15.1	1.754	2.615	13.0	21.5	2 21	7 50.24	+3 24.6	1.797	2.658	12.8	19.2
<b>372922</b>	2011 <i>BM</i> <sub>17</sub>		1 21.7 95°65	0°1/21.8	18		<b>335232</b>	2005 <i>GT</i> <sub>138</sub>		1 21.7 130°27	4°5/18.8	18	
12 13	8 38.77	+16 46.8	1.982	2.747	15.3	21.2	12 13	8 41.69	+32 59.1	2.594	3.358	12.1	21.0
12 23	8 35.19	+17 18.7	1.897	2.753	12.2	21.0	12 23	8 37.10	+33 52.3	2.516	3.367	9.7	20.9
1 2	8 29.11	+18 1.7	1.833	2.759	8.5	20.8	1 2	8 30.21	+34 44.6	2.461	3.375	7.2	20.7
1 12	8 21.08	+18 52.5	1.795	2.764	4.3	20.6	1 12	8 21.58	+35 30.3	2.433	3.384	5.1	20.6
1 22	8 11.95	+19 46.5	1.786	2.770	0.1	20.2	1 22	8 12.00	+36 4.6	2.435	3.391	4.6	20.6
2 1	8 2.78	+20 38.5	1.807	2.776	4.5	20.6	2 1	8 2.45	+36 24.0	2.467	3.399	6.3	20.7
2 11	7 54.71	+21 24.3	1.856	2.782	8.6	20.9	2 11	7 53.94	+36 27.7	2.527	3.407	8.7	20.9
2 21	7 48.59	+22 1.6	1.930	2.788	12.2	21.1	2 21	7 47.24	+36 16.9	2.612	3.414	11.1	21.0
<b>46952</b>	1998 <i>SQ</i> <sub>119</sub>		1 21.7 119°35	1°3/21.1	18		<b>262699</b>	2006 <i>WP</i> <sub>198</sub>		1 21.7 289°24	3°0/23.0	18	
12 13	8 43.36	+21 20.6	1.995	2.760	15.2	20.2	12 13	8 38.58	+11 59.2	1.819	2.577	16.7	20.6
12 23	8 38.74	+21 51.4	1.917	2.774	12.0	20.1	12 23	8 35.45	+11 43.6	1.714	2.561	13.7	20.4
1 2	8 31.50	+22 29.2	1.862	2.788	8.3	19.9	1 2	8 29.60	+11 40.7	1.630	2.546	10.1	20.1
1 12	8 22.25	+23 9.6	1.833	2.802	4.2	19.6	1 12	8 21.50	+11 50.4	1.569	2.530	6.0	19.9
1 22	8 11.93	+23 47.6	1.833	2.815	1.4	19.5	1 22	8 12.00	+12 11.0	1.536	2.515	3.0	19.6
2 1	8 1.70	+24 18.7	1.863	2.828	4.9	19.7	2 1	8 2.24	+12 39.6	1.531	2.499	5.3	19.8
2 11	7 52.73	+24 40.5	1.922	2.841	8.8	20.0	2 11	7 53.50	+13 12.1	1.553	2.484	9.6	20.0
2 21	7 45.88	+24 52.3	2.006	2.852	12.3	20.2	2 21	7 46.84	+13 45.0	1.600	2.469	13.6	20.2
<b>357175</b>	2002 <i>EC</i> <sub>17</sub>		1 21.7 260°13	1°1/22.2	17		<b>365458</b>	2010 <i>NC</i> <sub>87</sub>		1 21.7 306°18	4°2/23.9	18	
12 13	8 41.17	+15 29.6	1.803	2.565	16.6	22.2	12 13	8 37.18	+7 22.2	1.712	2.461	17.9	20.5
12 23	8 37.64	+15 37.6	1.695	2.549	13.5	22.0	12 23	8 34.39	+7 19.9	1.618	2.456	14.9	20.2
1 2	8 31.21	+15 57.8	1.609	2.532	9.6	21.7	1 2	8 28.87	+7 36.4	1.543	2.450	11.2	20.0
1 12	8 22.35	+16 28.4	1.547	2.514	5.2	21.4	1 12	8 21.12	+8 12.1	1.492	2.445	7.2	19.7
1 22	8 11.92	+17 5.6	1.513	2.496	1.1	21.0	1 22	8 12.01	+9 4.9	1.466	2.440	4.3	19.6
2 1	8 1.17	+17 45.0	1.507	2.478	5.1	21.3	2 1	8 2.73	+10 10.3	1.469	2.435	5.9	19.6
2 11	7 51.47	+18 22.0	1.530	2.459	9.8	21.5	2 11	7 54.55	+11 21.8	1.499	2.430	9.8	19.8
2 21	7 43.97	+18 53.5	1.577	2.440	14.1	21.7	2 21	7 48.50	+12 33.2	1.553	2.426	13.8	20.1
<b>373779</b>	2002 <i>TH</i> <sub>336</sub>		1 21.7 17°48	6°6/18.1	18		<b>204790</b>	2006 <i>QN</i> <sub>10</sub>		1 21.7 346°88	0°2/21.6	18	
12 13	8 41.88	+35 59.7	2.012	2.790	14.6	20.4	12 13	8 36.26	+17 20.2	2.298	3.059	13.5	20.2
12 23	8 38.14	+37 5.8	1.936	2.793	11.9	20.2	12 23	8 32.94	+18 0.0	2.204	3.058	10.8	20.0
1 2	8 31.41	+38 9.6	1.883	2.795	9.2	20.0	1 2	8 27.44	+18 49.9	2.132	3.058	7.5	19.8
1 12	8 22.33	+39 2.9	1.856	2.798	7.1	19.9	1 12	8 20.24	+19 46.5	2.088	3.057	3.8	19.6
1 22	8 11.93	+39 38.8	1.855	2.801	6.8	19.9	1 22	8 12.04	+20 45.7	2.073	3.057	0.3	19.3
2 1	8 1.58	+39 52.8	1.882	2.805	8.6	20.0	2 1	8 3.75	+21 42.6	2.088	3.056	4.1	19.6
2 11	7 52.64	+39 44.3	1.935	2.808	11.3	20.2	2 11	7 56.32	+22 33.5	2.132	3.056	7.8	19.8
2 21	7 46.13	+39 16.3	2.010	2.812	14.0	20.4	2 21	7 50.53	+23 15.7	2.202	3.055	11.1	20.0
<b>53020</b>	1998 <i>VH</i> <sub>33</sub>		1 21.7 154°40	1°5/21.0	18		<b>278784</b>	2008 <i>SM</i> <sub>184</sub>		1 21.7 211°68	3°7/19.5	18	
12 13	8 45.51	+21 8.8	1.874	2.638	16.1	19.8	12 13	8 40.03	+28 33.8	2.244	3.018	13.4	20.4
12 23	8 40.75	+21 45.5	1.790	2.646	12.8	19.6	12 23	8 36.15	+29 23.5	2.157	3.018	10.7	20.2
1 2	8 33.09	+22 30.5	1.728	2.654	8.8	19.4	1 2	8 29.78	+30 15.7	2.093	3.017	7.6	20.0
1 12	8 23.14	+23 18.9	1.692	2.661	4.5	19.2	1 12	8 21.45	+31 4.9	2.055	3.017	4.7	19.9
1 22	8 11.91	+24 4.9	1.685	2.668	1.5	19.0	1 22	8 12.01	+31 45.6	2.046	3.016	3.8	19.8
2 1	8 0.69	+24 43.2	1.709	2.673	5.3	19.2	2 1	8 2.51	+32 13.3	2.067	3.016	6.1	19.9
2 11	7 50.79	+25 10.4	1.760	2.678	9.6	19.5	2 11	7 54.09	+32 26.3	2.116	3.015	9.2	20.1
2 21	7 43.22	+25 26.1	1.837	2.683	13.3	19.7	2 21	7 47.61	+32 24.9	2.189	3.015	12.2	20.3
<b>405151</b>	2002 <i>SH</i> <sub>64</sub>		1 21.7 110°90	5°4/19.3	18		<b>261531</b>	2005 <i>WM</i> <sub>99</sub>		1 21.7 101°51	2°5/20.3	18	
12 13	8 48.90	+33 10.2	1.958	2.726	15.3	21.7	12 13	8 40.26	+23 43.1	1.972	2.748	15.0	20.6
12 23	8 43.40	+33 59.3	1.890	2.743	12.3	21.5	12 23	8 36.55	+24 32.3	1.889	2.752	11.9	20.4
1 2	8 34.84	+34 46.5	1.845	2.761	9.1	21.3	1 2	8 30.17	+25 28.3	1.828	2.757	8.2	20.2
1 12	8 23.95	+35 24.3	1.825	2.778	6.3	21.2	1 12	8 21.69	+26 25.6	1.793	2.761	4.4	20.0
1 22	8 11.90	+35 46.2	1.835	2.794	5.5	21.2	1 22	8 12.00	+27 18.1	1.786	2.765	2.6	19.9
2 1	8 0.11	+35 48.5	1.873	2.810	7.6	21.4	2 1	8 2.28	+28 0.4	1.809	2.769	5.7	20.1
2 11	7 49.96	+35 31.6	1.938	2.825	10.6	21.6	2 11	7 53.75	+28 29.7	1.860	2.773	9.4	20.3
2 21	7 42.38	+34 58.7	2.028	2.840	13.5	21.8	2 21	7 47.32	+28 45.2	1.936	2.777	12.8	20.5
<b>163744</b>	2003 <i>MY</i> <sub>3</sub>		1 21.7 194°36	0°9/21.3	18		<b>145020</b>	2005 <i>EA</i> <sub>253</sub>		1 21.7 260°73	0°5/21.9	18	
12 13	8 44.20	+20 33.											

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>317426</b>	2002 QT <sub>15</sub>		1 21.7 111°80	11°9/19.9	17		<b>170991</b>	2005 CX <sub>66</sub>		1 21.7 267°46	1°4/21.1	18	
12 13	9 6.38	+44 2.1	1.210	1.985	22.6	20.2	12 13	8 41.69	+21 26.7	1.750	2.527	16.5	20.5
12 23	9 0.09	+44 50.7	1.148	1.992	19.2	20.0	12 23	8 38.22	+21 51.1	1.650	2.514	13.3	20.3
1 2	8 47.87	+45 26.0	1.102	1.998	15.7	19.8	1 2	8 31.69	+22 24.2	1.572	2.502	9.3	20.0
1 12	8 30.92	+45 31.1	1.077	2.005	12.7	19.6	1 12	8 22.65	+23 1.7	1.518	2.489	4.7	19.7
1 22	8 11.75	+44 52.9	1.075	2.011	11.9	19.6	1 22	8 12.02	+23 38.0	1.493	2.475	1.5	19.4
2 1	7 53.64	+43 28.5	1.098	2.017	13.8	19.7	2 1	8 1.16	+24 7.9	1.495	2.462	5.7	19.7
2 11	7 39.40	+41 27.2	1.145	2.022	17.0	19.9	2 11	7 51.53	+24 27.6	1.525	2.449	10.3	19.9
2 21	7 30.38	+39 4.6	1.212	2.028	20.5	20.2	2 21	7 44.27	+24 36.3	1.579	2.435	14.5	20.1
<b>110416</b>	Cardille		1 21.7 83°52	0°3/21.9	18		<b>63065</b>	2000 WS <sub>121</sub>		1 21.7 163°97	0°8/22.3	18	
12 13	8 37.54	+16 17.4	2.429	3.181	13.1	19.6	12 13	8 38.76	+14 3.7	2.364	3.109	13.6	20.1
12 23	8 33.62	+16 49.0	2.350	3.199	10.4	19.4	12 23	8 34.77	+14 36.7	2.270	3.112	11.0	19.9
1 2	8 27.69	+17 29.6	2.295	3.217	7.2	19.3	1 2	8 28.64	+15 21.1	2.198	3.116	7.7	19.7
1 12	8 20.27	+18 16.3	2.267	3.235	3.7	19.1	1 12	8 20.84	+16 14.4	2.153	3.119	4.1	19.5
1 22	8 12.05	+19 5.4	2.268	3.252	0.3	18.8	1 22	8 12.08	+17 12.9	2.139	3.122	0.9	19.3
2 1	8 3.89	+19 53.1	2.301	3.270	3.7	19.1	2 1	8 3.24	+18 12.1	2.155	3.124	3.9	19.5
2 11	7 56.63	+20 36.2	2.363	3.287	7.1	19.4	2 11	7 55.26	+19 8.0	2.201	3.126	7.5	19.7
2 21	7 50.95	+21 12.4	2.451	3.304	10.1	19.6	2 21	7 48.90	+19 57.6	2.274	3.128	10.7	19.9
<b>472490</b>	2015 CB <sub>10</sub>		1 21.7 194°35	2°5/23.6	17		<b>406224</b>	2007 BV <sub>31</sub>		1 21.7 16°92	1°9/22.7	18	
12 13	8 35.94	+ 8 59.8	2.796	3.518	12.2	21.8	12 13	8 30.23	+11 49.0	1.007	1.827	23.2	19.8
12 23	8 32.16	+ 9 9.2	2.693	3.516	10.0	21.6	12 23	8 30.24	+12 22.5	0.956	1.841	18.6	19.6
1 2	8 26.63	+ 9 29.9	2.612	3.514	7.4	21.5	1 2	8 26.59	+13 21.3	0.922	1.858	13.2	19.3
1 12	8 19.74	+10 1.3	2.558	3.512	4.6	21.3	1 12	8 20.09	+14 41.3	0.908	1.877	7.1	19.1
1 22	8 12.07	+10 41.4	2.534	3.509	2.6	21.1	1 22	8 12.10	+16 13.6	0.916	1.899	1.9	18.8
2 1	8 4.32	+11 27.6	2.541	3.506	3.8	21.2	2 1	8 4.35	+17 47.1	0.948	1.923	6.2	19.2
2 11	7 57.23	+12 16.5	2.578	3.503	6.6	21.4	2 11	7 58.53	+19 11.5	1.004	1.949	11.7	19.6
2 21	7 51.43	+13 5.1	2.643	3.499	9.3	21.5	2 21	7 55.68	+20 20.4	1.080	1.976	16.5	19.9
<b>323893</b>	2005 SL <sub>278</sub>		1 21.7 79°28	7°2/25.6	18		<b>282663</b>	2005 UE <sub>405</sub>		1 21.7 159°52	1°6/22.5	18	
12 13	8 37.67	+ 0 20.6	1.933	2.641	17.4	21.3	12 13	8 44.41	+14 4.7	1.890	2.638	16.5	22.2
12 23	8 34.26	- 0 19.2	1.848	2.647	14.9	21.1	12 23	8 39.75	+14 11.8	1.802	2.646	13.3	22.0
1 2	8 28.45	- 0 40.0	1.781	2.653	12.0	20.9	1 2	8 32.35	+14 31.2	1.735	2.652	9.5	21.7
1 12	8 20.78	- 0 39.1	1.738	2.659	9.2	20.7	1 12	8 22.80	+15 0.7	1.694	2.658	5.2	21.5
1 22	8 12.04	- 0 16.0	1.720	2.665	7.3	20.6	1 22	8 12.03	+15 36.8	1.681	2.663	1.6	21.3
2 1	8 3.27	+ 0 27.1	1.729	2.671	7.7	20.7	2 1	8 1.24	+16 15.2	1.698	2.668	4.7	21.5
2 11	7 55.54	+ 1 25.4	1.765	2.677	9.9	20.8	2 11	7 51.67	+16 51.9	1.745	2.671	9.0	21.7
2 21	7 49.68	+ 2 32.8	1.825	2.683	12.8	21.0	2 21	7 44.26	+17 24.2	1.816	2.674	12.8	22.0
<b>500205</b>	2012 HZ <sub>26</sub>		1 21.7 252°22	4°7/24.5	17		<b>11247</b>	Wilburwright		1 21.7 118°71	0°9/22.4	18	
12 13	8 38.04	+ 4 21.8	2.310	3.020	14.8	22.1	12 13	8 37.02	+14 46.2	2.768	3.509	11.9	19.1
12 23	8 34.38	+ 4 13.6	2.193	3.002	12.5	21.9	12 23	8 32.97	+15 1.4	2.681	3.521	9.5	18.9
1 2	8 28.52	+ 4 21.1	2.097	2.984	9.7	21.7	1 2	8 27.13	+15 24.8	2.617	3.534	6.7	18.7
1 12	8 20.86	+ 4 45.2	2.026	2.965	6.8	21.5	1 12	8 19.98	+15 54.6	2.581	3.546	3.6	18.6
1 22	8 12.04	+ 5 25.4	1.982	2.945	4.8	21.3	1 22	8 12.11	+16 28.2	2.575	3.557	1.0	18.4
2 1	8 2.97	+ 6 19.1	1.969	2.925	5.6	21.4	2 1	8 4.27	+17 2.8	2.600	3.569	3.3	18.6
2 11	7 54.60	+ 7 22.1	1.984	2.905	8.5	21.5	2 11	7 57.19	+17 35.9	2.655	3.580	6.4	18.8
2 21	7 47.80	+ 8 29.4	2.026	2.884	11.7	21.6	2 21	7 51.47	+18 5.4	2.738	3.591	9.1	19.0
<b>301308</b>	2009 BB <sub>140</sub>		1 21.7 37°26	0°7/21.5	16		<b>231089</b>	2005 RZ <sub>10</sub>		1 21.7 161°21	1°7/22.1	18	
12 13	8 42.63	+20 55.8	1.182	1.987	21.3	20.4	12 13	8 45.33	+15 13.7	1.722	2.479	17.5	21.2
12 23	8 39.64	+20 55.5	1.125	2.004	16.9	20.2	12 23	8 40.77	+15 5.9	1.635	2.484	14.2	20.9
1 2	8 32.83	+21 4.5	1.086	2.022	11.7	19.9	1 2	8 33.21	+15 9.2	1.569	2.489	10.1	20.7
1 12	8 23.12	+21 18.4	1.070	2.042	5.9	19.7	1 12	8 23.29	+15 21.9	1.528	2.493	5.5	20.4
1 22	8 11.98	+21 31.5	1.078	2.062	0.8	19.4	1 22	8 12.02	+15 40.8	1.514	2.497	1.7	20.2
2 1	8 1.27	+21 39.1	1.112	2.083	6.3	19.8	2 1	8 0.75	+16 2.3	1.530	2.500	5.1	20.4
2 11	7 52.68	+21 38.9	1.170	2.104	11.6	20.2	2 11	7 50.86	+16 23.0	1.574	2.502	9.7	20.7
2 21	7 47.27	+21 30.8	1.250	2.126	16.1	20.5	2 21	7 43.37	+16 40.5	1.643	2.504	13.8	21.0
<b>296662</b>	2009 SH <sub>153</sub>		1 21.7 89°26	1°7/20.9	18		<b>462911</b>	2010 YC <sub>4</sub>		1 21.7 314°26	3°2/20.6	17	
12 13	8 42.83	+23 29.9	1.942	2.713	15.3	21.6	12 13	8 41.17	+26 46.6	1.665	2.455	16.7	20.6
12 23	8 38.44	+23 48.5	1.864	2.725	12.1	21.4	12 23	8 38.17	+27 1.3	1.561	2.432	13.5	20.3
1 2	8 31.35	+24 11.8	1.809	2.737	8.4	21.2	1 2	8 31.88	+27 19.3	1.478	2.409	9.6	20.0
1 12	8 22.22	+24 35.5	1.780	2.749	4.3	20.9	1 12	8 22.83	+27 35.2	1.419	2.387	5.4	19.7
1 22	8 12.02	+24 55.2	1.779	2.761	1.8	20.8	1 22	8 12.03	+27 43.1	1.387	2.365	3.2	19.5
2 1	8 1.94	+25 7.1	1.808	2.772	5.1	21.0	2 1	8 0.96	+27 38.4	1.382	2.344	6.7	19.7
2 11	7 53.20	+25 9.7	1.865	2.784	9.0	21.3	2 11	7 51.22	+27 19.4	1.403	2.324	11.3	19.9
2 21	7 46.63	+25 3.1	1.947	2.795	12.5	21.5	2 21	7 44.09	+26 47.5	1.447	2.304	15.6	20.1
<b>166951</b>	2003 KB <sub>4</sub>		1 21.7 228°50	0°4/21.9	18		<b>316522</b>	2010 VP <sub>193</sub>		1 21.7 123°89	0°1/21.8	17	
12 13	8 44.06	+17 55.0	1.985	2.741	15.5	21.6	12 13	8 33.99	+18 12.7	3.343	4.090	9.9	21.6
12 23	8 39.61	+18 0.4	1.879	2.729	12.5	21.4	12 23	8 30.33	+18 30.0	3.248	4.095	7.9	21.5
1 2	8 32.38	+18 14.6	1.795	2.717	8.8	21.1	1 2	8 25.20	+18 52.5	3.178	4.100	5.4	21.3
1 12	8 22.89	+18 35.1	1.736	2.704	4.6	20.9	1 12	8 18.97	+19 18.3	3.136	4.104	2.8	21.1
1 22	8 12.00	+18 58.2	1.706	2.690	0.4	20.5	1 22	8 12.15	+19 45.4	3.125	4.109	0.1	20.9
2 1	8 0.88	+19 20.2	1.707	2.676	4.7	20.8	2 1	8 5.31	+20 11.6	3.145	4.114	2.9	21.2
2 11	7 50.83	+19 38.1	1.736	2.661	9.2	21.0	2 11	7 59.07	+20 34.9	3.196	4.119	5.5	21.3
2 21	7 42.88	+19 50.3	1.791	2.645	13.1	21.2	2 21	7 53.93	+20 54.1	3.275	4.123	7.9	21.5
<b>413558</b>	2005 ST <sub>266</sub>		1 21.7 59°94	1°4/22.4	18		<b>474535</b>	2003 WK <sub>12</sub>		1 21.7 330°46	20°7/25.9	18	
12 13	8 40.11	+15 22.2	1.767	2.533	16.8	21.2	12 13	8 41.93	-10 33.9	1.119	1.822		

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>89032</b>	2001 <i>TH</i> <sub>106</sub>		1 21.7 48°84	2°9/22.8	18		<b>52201</b>	3098 <i>T</i> <sub>-3</sub>		1 21.8 54°09	2°8/23.1	18	
12 13	8 41.37	+13 21.4	1.363	2.142	20.3	18.4	12 13	8 39.83	+11 32.1	1.550	2.316	18.8	19.4
12 23	8 38.22	+13 2.1	1.292	2.152	16.5	18.2	12 23	8 36.50	+11 31.1	1.482	2.334	15.2	19.2
1 2	8 31.73	+12 57.9	1.239	2.162	11.8	18.0	1 2	8 30.24	+11 46.5	1.433	2.352	11.0	19.0
1 12	8 22.60	+13 7.8	1.209	2.173	6.8	17.7	1 12	8 21.76	+12 16.7	1.408	2.371	6.4	18.8
1 22	8 12.06	+13 29.0	1.204	2.184	2.9	17.5	1 22	8 12.12	+12 58.0	1.410	2.390	2.9	18.6
2 1	8 1.64	+13 56.9	1.225	2.196	5.9	17.7	2 1	8 2.64	+13 45.3	1.439	2.409	5.3	18.8
2 11	7 52.89	+14 26.9	1.273	2.208	10.8	18.0	2 11	7 54.63	+14 33.3	1.495	2.428	9.6	19.1
2 21	7 46.90	+14 55.0	1.343	2.220	15.2	18.3	2 21	7 49.00	+15 17.7	1.575	2.447	13.6	19.4
<b>334098</b>	2001 <i>QR</i> <sub>202</sub>		1 21.7 171°35	1°1/22.6	18		<b>459210</b>	2012 <i>DU</i> <sub>80</sub>		1 21.8 248°51	0°6/22.1	18	
12 13	8 36.85	+12 43.8	2.710	3.446	12.3	21.1	12 13	8 39.33	+15 34.1	2.057	2.815	15.0	22.1
12 23	8 32.98	+13 17.5	2.611	3.448	9.9	20.9	12 23	8 35.76	+15 57.7	1.952	2.803	12.1	21.9
1 2	8 27.26	+14 2.0	2.536	3.450	7.0	20.7	1 2	8 29.67	+16 33.1	1.869	2.792	8.6	21.7
1 12	8 20.11	+14 55.4	2.488	3.452	3.8	20.5	1 12	8 21.54	+17 18.0	1.812	2.780	4.5	21.4
1 22	8 12.13	+15 54.4	2.471	3.453	1.1	20.3	1 22	8 12.12	+18 8.4	1.783	2.767	0.6	21.1
2 1	8 4.07	+16 55.2	2.485	3.454	3.4	20.5	2 1	8 2.48	+18 59.5	1.785	2.755	4.5	21.4
2 11	7 56.72	+17 54.2	2.530	3.455	6.6	20.7	2 11	7 53.78	+19 46.9	1.815	2.742	8.7	21.6
2 21	7 50.72	+18 48.3	2.602	3.455	9.6	20.9	2 21	7 46.95	+20 27.6	1.870	2.729	12.5	21.8
<b>133397</b>	2003 <i>SC</i> <sub>164</sub>		1 21.7 93°83	2°1/20.6	18		<b>466210</b>	2012 <i>QL</i> <sub>46</sub>		1 21.8 163°13	4°4/24.6	18	
12 13	8 40.25	+24 20.0	2.163	2.933	14.0	20.4	12 13	8 36.35	+4 21.2	2.485	3.194	13.9	21.9
12 23	8 36.25	+24 49.8	2.078	2.938	11.1	20.2	12 23	8 32.70	+4 12.3	2.388	3.196	11.7	21.7
1 2	8 29.80	+25 23.9	2.015	2.943	7.7	20.0	1 2	8 27.12	+4 17.8	2.312	3.198	9.0	21.6
1 12	8 21.47	+25 58.2	1.980	2.948	4.1	19.8	1 12	8 20.07	+4 38.2	2.262	3.200	6.3	21.4
1 22	8 12.09	+26 28.0	1.973	2.953	2.2	19.7	1 22	8 12.17	+5 12.3	2.240	3.202	4.5	21.3
2 1	8 2.74	+26 49.5	1.996	2.958	5.1	19.9	2 1	8 4.21	+5 57.9	2.248	3.203	5.1	21.3
2 11	7 54.49	+27 0.7	2.048	2.963	8.6	20.1	2 11	7 57.01	+6 51.0	2.284	3.205	7.5	21.5
2 21	7 48.17	+27 1.5	2.124	2.967	11.8	20.3	2 21	7 51.26	+7 47.7	2.348	3.206	10.3	21.6
<b>42626</b>	1998 <i>FU</i> <sub>31</sub>		1 21.7 318°68	0°3/21.6	18		<b>259120</b>	2002 <i>XM</i> <sub>26</sub>		1 21.8 3°11	9°7/22.3	18	R
12 13	8 39.23	+19 12.6	1.437	2.229	18.8	19.5	12 13	8 48.92	+11 22.8	1.010	1.797	25.3	19.3
12 23	8 36.83	+19 21.4	1.345	2.217	15.1	19.2	12 23	8 45.43	+8 43.6	0.938	1.796	21.3	19.0
1 2	8 31.06	+19 41.2	1.273	2.205	10.6	18.9	1 2	8 37.48	+6 9.6	0.882	1.795	16.6	18.7
1 12	8 22.44	+20 8.8	1.223	2.194	5.4	18.6	1 12	8 25.82	+3 49.6	0.847	1.796	12.1	18.4
1 22	8 12.06	+20 39.1	1.200	2.184	0.4	18.2	1 22	8 12.02	+1 53.5	0.835	1.797	9.8	18.3
2 1	8 1.45	+21 6.5	1.203	2.173	5.9	18.6	2 1	7 58.26	+0 29.1	0.847	1.799	11.8	18.4
2 11	7 52.30	+21 26.8	1.231	2.164	11.3	18.8	2 11	7 46.80	+0 22.2	0.881	1.802	16.2	18.7
2 21	7 45.88	+21 38.0	1.282	2.155	16.1	19.1	2 21	7 39.14	+0 45.2	0.934	1.805	20.7	19.0
<b>249372</b>	2009 <i>BX</i> <sub>1</sub>		1 21.7 343°20	2°7/22.5	18		<b>464082</b>	2014 <i>WH</i> <sub>302</sub>		1 21.8 107°95	10°0/25.8	18	
12 13	8 42.83	+15 43.5	2.050	2.800	15.3	19.8	12 13	8 41.94	+4 31.5	2.018	2.686	17.9	21.0
12 23	8 38.27	+14 44.2	1.951	2.795	12.4	19.6	12 23	8 37.55	+6 11.4	1.934	2.693	15.8	20.8
1 2	8 31.20	+13 49.7	1.875	2.790	9.0	19.4	1 2	8 30.71	+7 33.7	1.870	2.700	13.5	20.7
1 12	8 22.19	+13 0.3	1.824	2.785	5.3	19.2	1 12	8 21.97	+8 33.0	1.828	2.707	11.4	20.6
1 22	8 12.08	+12 16.4	1.803	2.781	2.7	19.0	1 22	8 12.13	+9 5.9	1.811	2.714	10.1	20.5
2 1	8 1.97	+11 38.2	1.812	2.778	4.9	19.1	2 1	8 2.24	+9 11.2	1.820	2.721	10.3	20.5
2 11	7 52.97	+11 5.5	1.849	2.775	8.7	19.3	2 11	7 53.39	+8 51.8	1.855	2.727	11.8	20.6
2 21	7 45.94	+10 37.6	1.913	2.772	12.2	19.6	2 21	7 46.45	+8 13.0	1.913	2.734	13.9	20.8
<b>194217</b>	2001 <i>TW</i> <sub>133</sub>		1 21.7 145°82	1°1/21.1	18		<b>459961</b>	2014 <i>NY</i> <sub>59</sub>		1 21.8 65°02	0°2/21.8	16	
12 13	8 44.74	+19 32.3	1.898	2.660	16.0	20.8	12 13	8 43.57	+15 16.5	1.693	2.456	17.6	21.3
12 23	8 40.09	+20 17.4	1.816	2.671	12.7	20.6	12 23	8 39.06	+16 5.8	1.638	2.492	13.9	21.1
1 2	8 32.64	+21 12.6	1.755	2.681	8.8	20.4	1 2	8 31.76	+17 8.5	1.605	2.529	9.6	21.0
1 12	8 22.97	+22 13.0	1.722	2.691	4.4	20.1	1 12	8 22.42	+18 19.6	1.596	2.565	4.8	20.8
1 22	8 12.06	+23 12.3	1.717	2.700	1.2	19.9	1 22	8 12.12	+19 32.5	1.617	2.601	0.2	20.5
2 1	8 1.14	+24 4.9	1.742	2.708	5.1	20.2	2 1	8 2.12	+20 40.6	1.667	2.636	4.8	20.9
2 11	7 51.49	+24 46.7	1.796	2.715	9.3	20.5	2 11	7 53.63	+21 39.1	1.745	2.671	9.0	21.3
2 21	7 44.08	+25 16.4	1.876	2.722	13.0	20.7	2 21	7 47.48	+22 25.8	1.849	2.706	12.7	21.5
<b>263596</b>	2008 <i>FC</i> <sub>121</sub>		1 21.7 356°18	0°7/22.1	18		<b>207331</b>	2005 <i>GH</i> <sub>157</sub>		1 21.8 202°27	1°8/20.8	18	
12 13	8 34.68	+15 17.0	1.371	2.167	19.4	20.0	12 13	8 43.44	+22 56.2	2.104	2.868	14.5	21.1
12 23	8 33.18	+15 43.1	1.289	2.162	15.6	19.8	12 23	8 38.97	+23 27.1	2.008	2.864	11.6	20.9
1 2	8 28.45	+16 26.5	1.227	2.159	11.0	19.5	1 2	8 31.84	+24 4.2	1.934	2.860	8.1	20.7
1 12	8 21.07	+17 24.0	1.187	2.157	5.7	19.2	1 12	8 22.60	+24 43.0	1.887	2.855	4.2	20.4
1 22	8 12.11	+18 29.8	1.172	2.156	0.7	18.8	1 22	8 12.11	+25 18.6	1.869	2.850	1.9	20.3
2 1	8 3.01	+19 36.1	1.183	2.156	5.7	19.2	2 1	8 1.51	+25 46.4	1.881	2.844	5.1	20.5
2 11	7 55.37	+20 36.0	1.220	2.156	11.0	19.5	2 11	7 52.00	+26 3.8	1.922	2.837	9.0	20.7
2 21	7 50.35	+21 24.9	1.279	2.158	15.6	19.8	2 21	7 44.54	+26 10.4	1.988	2.830	12.5	20.9
<b>416567</b>	2004 <i>EB</i>		1 21.7 285°56	7°0/15.4	15		<b>453066</b>	2007 <i>UX</i> <sub>27</sub>		1 21.8 52°23	1°1/22.2	18	
12 13	8 51.66	+44 50.8	3.238	3.962	10.7	23.3	12 13	8 41.02	+15 11.6	1.386	2.169	19.8	21.4
12 23	8 45.48	+46 2.7	3.108	3.915	9.2	23.1	12 23	8 37.84	+15 26.5	1.322	2.187	15.8	21.2
1 2	8 36.50	+47 10.5	3.003	3.868	7.9	23.0	1 2	8 31.38	+15 56.7	1.278	2.206	11.1	20.9
1 12	8 25.10	+48 7.2	2.926	3.819	7.1	22.9	1 12	8 22.40	+16 38.6	1.257	2.225	5.8	20.7
1 22	8 12.02	+48 46.2	2.877	3.769	7.2	22.8	1 22	8 12.14	+17 26.8	1.262	2.245	1.1	20.4
2 1	7 58.40	+49 2.9	2.858	3.718	8.4	22.8	2 1	8 2.09	+18 14.9	1.294	2.265	5.5	20.8
2 11	7 45.55	+48 56.0	2.866	3.666	10.2	22.9	2 11	7 53.74	+18 57.6	1.352	2.286	10.4	21.1
2 21	7 34.59	+48 27.4	2.898	3.613	12.1	22.9	2 21	7 48.09	+19 31.9	1.433	2.306	14.7	21.4
<b>269976</b>	2000 <i>TV</i> <sub>14</sub>		1 21.8 71°05	0°9/22.2	18		<b>203871</b>	2002 <i>XS</i> <sub>27</sub>		1 21.8 61°77	5°2/18.5	18	
12 13	8 41.03	+16 10.2	1.862										

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1 21.8

1 21.8

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>189297</b>	2005 <i>UG</i> <sub>457</sub>		1 21.8 147°84	1.8	22.8	18	<b>59353</b>	1999 <i>CE</i> <sub>151</sub>		1 21.8 102°48	3.5	20.5	18
12 13	8 38.59	+12 37.3	2.012	2.764	15.5	20.7	12 13	8 47.48	+26 48.1	1.608	2.388	17.6	19.0
12 23	8 35.04	+12 51.7	1.921	2.766	12.5	20.5	12 23	8 42.84	+27 18.0	1.536	2.401	14.0	18.8
1 2	8 29.07	+13 19.3	1.851	2.768	9.0	20.3	1 2	8 34.82	+27 51.3	1.485	2.413	9.8	18.6
1 12	8 21.18	+13 58.4	1.806	2.770	5.0	20.0	1 12	8 24.18	+28 21.4	1.459	2.425	5.5	18.4
1 22	8 12.18	+14 45.7	1.790	2.772	1.8	19.8	1 22	8 12.17	+28 41.6	1.460	2.437	3.5	18.3
2 1	8 3.11	+15 36.7	1.804	2.773	4.4	20.0	2 1	8 0.37	+28 47.5	1.489	2.449	6.7	18.5
2 11	7 55.06	+16 26.9	1.845	2.775	8.4	20.2	2 11	7 50.33	+28 38.1	1.545	2.460	10.9	18.8
2 21	7 48.88	+17 12.9	1.913	2.776	12.0	20.5	2 21	7 43.11	+28 15.7	1.625	2.471	14.7	19.0
<b>161982</b>	6159 <i>P-L</i>		1 21.8 144°79	0.7	21.4	18	<b>127712</b>	2003 <i>EN</i> <sub>33</sub>		1 21.8 212°22	2.9	23.2	18
12 13	8 45.91	+20 25.3	2.045	2.801	15.2	21.2	12 13	8 42.05	+10 26.7	1.979	2.717	16.2	20.1
12 23	8 40.73	+20 42.6	1.962	2.813	12.1	21.0	12 23	8 37.95	+10 28.3	1.876	2.710	13.3	19.9
1 2	8 32.91	+21 6.8	1.901	2.824	8.3	20.8	1 2	8 31.23	+10 44.2	1.794	2.703	9.8	19.7
1 12	8 23.07	+21 34.0	1.866	2.835	4.2	20.6	1 12	8 22.38	+11 13.9	1.737	2.695	5.9	19.4
1 22	8 12.14	+22 0.1	1.861	2.845	0.7	20.3	1 22	8 12.22	+11 54.9	1.708	2.686	2.9	19.2
2 1	8 1.27	+22 21.3	1.887	2.854	4.6	20.7	2 1	8 1.84	+12 43.3	1.709	2.676	5.0	19.3
2 11	7 51.66	+22 35.3	1.942	2.862	8.6	20.9	2 11	7 52.46	+13 34.4	1.739	2.666	9.0	19.5
2 21	7 44.17	+22 41.4	2.023	2.870	12.1	21.1	2 21	7 45.05	+14 24.1	1.795	2.655	12.8	19.7
<b>78794</b>	2002 <i>WP</i> <sub>15</sub>		1 21.8 291°88	6.5	16.6	18	<b>171865</b>	2001 <i>QQ</i> <sub>72</sub>		1 21.8 88°75	3.8	23.9	18
12 13	8 40.56	+34 41.3	2.262	3.036	13.3	18.9	12 13	8 40.14	+7 59.0	2.517	3.232	13.6	20.1
12 23	8 37.06	+36 25.1	2.174	3.028	10.9	18.7	12 23	8 35.45	+7 26.3	2.439	3.254	11.2	20.0
1 2	8 30.79	+38 10.5	2.111	3.021	8.5	18.5	1 2	8 28.87	+7 4.4	2.384	3.277	8.4	19.8
1 12	8 22.21	+39 49.2	2.075	3.013	6.7	18.4	1 12	8 20.91	+6 53.7	2.355	3.299	5.6	19.7
1 22	8 12.15	+41 12.7	2.067	3.006	6.8	18.4	1 22	8 12.27	+6 53.6	2.355	3.321	3.8	19.6
2 1	8 1.79	+42 14.6	2.089	2.998	8.7	18.5	2 1	8 3.74	+7 2.5	2.385	3.343	4.7	19.7
2 11	7 52.46	+42 52.5	2.136	2.991	11.2	18.6	2 11	7 56.12	+7 18.2	2.445	3.364	7.2	19.9
2 21	7 45.24	+43 7.3	2.206	2.983	13.7	18.8	2 21	7 50.03	+7 38.0	2.532	3.385	9.8	20.1
<b>256184</b>	2006 <i>VC</i> <sub>75</sub>		1 21.8 89°77	1.8	22.6	18	<b>113656</b>	2002 <i>TY</i> <sub>83</sub>		1 21.8 353°83	9.9	28.9	18
12 13	8 41.94	+14 5.9	1.866	2.621	16.4	20.4	12 13	8 32.90	-8 59.4	1.929	2.596	18.6	19.3
12 23	8 37.68	+14 4.2	1.791	2.638	13.2	20.2	12 23	8 30.69	-9 29.7	1.838	2.592	16.6	19.1
1 2	8 30.83	+14 14.0	1.737	2.655	9.4	20.0	1 2	8 26.16	-9 33.7	1.762	2.589	14.3	18.9
1 12	8 22.01	+14 33.5	1.708	2.672	5.2	19.8	1 12	8 19.77	-9 7.2	1.707	2.586	12.0	18.7
1 22	8 12.17	+14 59.7	1.707	2.689	1.8	19.6	1 22	8 12.29	-8 8.7	1.674	2.584	10.3	18.6
2 1	8 2.47	+15 28.8	1.736	2.706	4.6	19.9	2 1	8 4.68	-6 40.2	1.667	2.583	10.0	18.6
2 11	7 54.03	+15 57.4	1.793	2.722	8.6	20.1	2 11	7 57.99	-4 48.2	1.685	2.582	11.3	18.7
2 21	7 47.70	+16 22.8	1.875	2.738	12.2	20.4	2 21	7 53.09	-2 41.8	1.728	2.583	13.5	18.8
<b>359060</b>	2008 <i>YQ</i> <sub>55</sub>		1 21.8 334°87	1.9	20.8	18	<b>341173</b>	2007 <i>RX</i>		1 21.8 75°06	0.1	21.8	18
12 13	8 39.26	+20 14.5	1.476	2.268	18.4	21.0	12 13	8 39.62	+19 5.0	2.218	2.978	14.0	20.8
12 23	8 36.78	+21 6.2	1.391	2.264	14.7	20.7	12 23	8 35.59	+19 6.7	2.130	2.984	11.1	20.6
1 2	8 30.98	+22 11.5	1.327	2.260	10.2	20.4	1 2	8 29.29	+19 14.9	2.065	2.989	7.7	20.4
1 12	8 22.42	+23 24.6	1.286	2.257	5.2	20.1	1 12	8 21.24	+19 27.1	2.026	2.995	3.9	20.2
1 22	8 12.16	+24 37.2	1.272	2.254	2.1	19.9	1 22	8 12.26	+19 40.5	2.016	3.000	0.1	19.8
2 1	8 1.72	+25 41.1	1.285	2.251	6.5	20.2	2 1	8 3.30	+19 52.5	2.036	3.006	4.1	20.2
2 11	7 52.74	+26 30.5	1.324	2.249	11.4	20.5	2 11	7 55.37	+20 0.8	2.085	3.011	7.8	20.4
2 21	7 46.45	+27 3.2	1.385	2.247	15.8	20.7	2 21	7 49.23	+20 4.5	2.160	3.017	11.1	20.7
<b>80952</b>	2000 <i>DF</i> <sub>98</sub>		1 21.8 3°19	5.2	19.6	18	<b>24942</b>	1997 <i>JA</i> <sub>15</sub>		1 21.8 112°88	2.6	20.3	18
12 13	8 44.30	+30 44.1	1.653	2.441	16.9	19.4	12 13	8 44.38	+24 26.5	2.015	2.782	15.0	19.3
12 23	8 40.56	+31 27.3	1.574	2.440	13.6	19.2	12 23	8 39.65	+25 15.2	1.942	2.800	11.8	19.1
1 2	8 33.41	+32 11.6	1.515	2.440	9.9	19.0	1 2	8 32.24	+26 9.2	1.892	2.818	8.2	18.9
1 12	8 23.54	+32 49.3	1.480	2.440	6.4	18.8	1 12	8 22.78	+27 2.6	1.868	2.835	4.5	18.7
1 22	8 12.14	+33 12.8	1.473	2.441	5.3	18.7	1 22	8 12.23	+27 49.7	1.874	2.851	2.7	18.6
2 1	8 0.79	+33 17.2	1.492	2.441	7.9	18.9	2 1	8 1.79	+28 25.5	1.909	2.867	5.6	18.8
2 11	7 51.09	+33 1.6	1.538	2.442	11.7	19.1	2 11	7 52.65	+28 47.8	1.973	2.883	9.2	19.1
2 21	7 44.18	+32 29.0	1.606	2.443	15.3	19.3	2 21	7 45.68	+28 56.9	2.062	2.898	12.4	19.3
<b>467546</b>	2007 <i>TJ</i> <sub>51</sub>		1 21.8 214°84	4.3	18.8	18	<b>310947</b>	2003 <i>UH</i> <sub>2</sub>		1 21.8 77°40	2.3	20.9	18
12 13	8 42.03	+33 4.5	2.758	3.518	11.5	21.7	12 13	8 44.69	+23 52.2	1.603	2.385	17.6	21.4
12 23	8 37.39	+33 52.7	2.663	3.511	9.3	21.6	12 23	8 40.55	+24 16.5	1.532	2.398	14.0	21.2
1 2	8 30.51	+34 40.2	2.591	3.505	6.9	21.4	1 2	8 33.20	+24 46.5	1.481	2.411	9.7	21.0
1 12	8 21.87	+35 21.9	2.547	3.497	4.9	21.3	1 12	8 23.36	+25 16.9	1.456	2.425	5.1	20.8
1 22	8 12.21	+35 53.0	2.533	3.489	4.5	21.2	1 22	8 12.23	+25 41.6	1.457	2.438	2.3	20.6
2 1	8 2.46	+36 10.1	2.549	3.481	6.1	21.3	2 1	8 1.29	+25 56.1	1.487	2.451	6.0	20.9
2 11	7 53.62	+36 12.0	2.593	3.473	8.5	21.5	2 11	7 51.99	+25 58.5	1.543	2.465	10.4	21.2
2 21	7 46.48	+35 59.8	2.663	3.464	11.0	21.6	2 21	7 45.35	+25 49.5	1.624	2.478	14.3	21.4
<b>138883</b>	2000 <i>YL</i> <sub>29</sub>		1 21.8 183°94	15.4	29.1	16	<b>243062</b>	2007 <i>ER</i> <sub>192</sub>		1 21.8 105°96	0.3	21.6	18
12 13	8 52.54	-14 4.8	1.430	2.059	25.5	20.2	12 13	8 40.43	+18 57.8	2.058	2.821	14.8	21.8
12 23	8 47.46	-15 20.8	1.344	2.063	23.3	20.0	12 23	8 36.44	+19 17.8	1.974	2.830	11.8	21.7
1 2	8 38.58	-16 3.7	1.270	2.065	20.6	19.8	1 2	8 30.00	+19 46.0	1.912	2.838	8.2	21.4
1 12	8 26.41	-16 2.8	1.213	2.064	17.9	19.6	1 12	8 21.65	+20 19.1	1.877	2.846	4.1	21.2
1 22	8 12.10	-15 10.6	1.177	2.061	15.9	19.5	1 22	8 12.27	+20 53.1	1.870	2.854	0.4	20.9
2 1	7 57.36	-13 26.4	1.163	2.056	15.5	19.4	2 1	8 2.92	+21 23.9	1.893	2.862	4.4	21.3
2 11	7 44.15	-10 59.1	1.174	2.048	17.0	19.5	2 11	7 54.67	+21 48.8	1.945	2.870	8.4	21.5
2 21	7 33.96	-8 4.5	1.208	2.038	19.8	19.6	2 21	7 48.37	+22 6.2	2.023	2.878	11.8	21.7
<b>13624</b>	Abeosamu		1 21.8 15°83	2.3	22.5	18	<b>210510</b>	1998 <i>NR</i>		1 21.8 194°08	1.6	20.7	18
12 13	8 40.65	+15 17.2	1.241	2.034	21.2	17.7							

EPHEMERIDES

1 21.8

1 21.8

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>340604</b>	2006 <i>QW</i> <sub>44</sub>		1 21.8 149° 97'	3° 9'/24.8	18		<b>276719</b>	2004 <i>CL</i> <sub>15</sub>		1 21.8 77° 23'	1° 9'/23.1	18	
12 13	8 35.63	+ 4 3.3	2.673	3.377	13.1	21.3	12 13	8 37.48	+11 7.7	2.278	3.018	14.2	20.4
12 23	8 32.02	+ 4 10.4	2.576	3.382	11.0	21.2	12 23	8 33.74	+11 30.4	2.199	3.036	11.5	20.2
1 2	8 26.62	+ 4 31.9	2.500	3.386	8.4	21.0	1 2	8 27.92	+12 5.8	2.142	3.055	8.2	20.1
1 12	8 19.86	+ 5 7.8	2.451	3.389	5.8	20.9	1 12	8 20.55	+12 52.0	2.112	3.073	4.7	19.9
1 22	8 12.32	+ 5 56.6	2.430	3.393	4.0	20.7	1 22	8 12.35	+13 45.8	2.111	3.091	2.0	19.7
2 1	8 4.73	+ 6 55.4	2.439	3.396	4.6	20.8	2 1	8 4.20	+14 42.9	2.140	3.109	3.9	19.9
2 11	7 57.84	+ 8 0.2	2.478	3.399	7.0	20.9	2 11	7 56.99	+15 39.2	2.198	3.127	7.3	20.1
2 21	7 52.27	+ 9 6.9	2.545	3.402	9.6	21.1	2 21	7 51.40	+16 31.4	2.284	3.145	10.4	20.3
<b>126155</b>	2001 <i>YJ</i> <sub>140</sub>		1 21.8 17° 20'	0° 1'/21.4	08 C		<b>275045</b>	2009 <i>UC</i> <sub>76</sub>		1 21.8 46° 91'	2° 5'/22.9	18	
12 13	8 16.80	+21 48.7	28.076	28.825	1.3	22.0	12 13	8 38.82	+12 40.3	1.803	2.563	16.8	21.5
12 23	8 15.89	+21 51.6	27.980	28.829	1.0	22.0	12 23	8 35.43	+12 31.4	1.723	2.572	13.6	21.3
1 2	8 14.83	+21 54.8	27.910	28.834	0.7	21.9	1 2	8 29.43	+12 35.3	1.664	2.581	9.8	21.1
1 12	8 13.68	+21 58.2	27.869	28.838	0.3	21.9	1 12	8 21.43	+12 50.8	1.629	2.591	5.7	20.9
1 22	8 12.47	+22 1.6	27.859	28.842	0.1	21.9	1 22	8 12.33	+13 15.5	1.621	2.601	2.5	20.7
2 1	8 11.27	+22 4.8	27.880	28.847	0.4	21.9	2 1	8 3.29	+13 45.9	1.642	2.611	4.9	20.9
2 11	8 10.12	+22 7.7	27.931	28.851	0.7	22.0	2 11	7 55.44	+14 18.0	1.690	2.622	8.9	21.1
2 21	8 9.06	+22 10.1	28.012	28.855	1.0	22.0	2 21	7 49.67	+14 48.4	1.763	2.632	12.6	21.4
<b>452798</b>	2006 <i>HU</i> <sub>111</sub>		1 21.8 224° 30'	1° 6'/20.9	18		<b>212733</b>	2007 <i>RV</i> <sub>194</sub>		1 21.8 340° 58'	5° 6'/19.7	18	
12 13	8 42.45	+20 45.7	1.937	2.704	15.5	21.7	12 13	8 43.45	+30 14.5	1.440	2.238	18.5	19.9
12 23	8 38.55	+21 33.0	1.838	2.696	12.4	21.5	12 23	8 40.48	+30 58.6	1.360	2.233	14.9	19.6
1 2	8 31.83	+22 30.6	1.760	2.687	8.6	21.3	1 2	8 33.75	+31 44.9	1.300	2.229	10.8	19.4
1 12	8 22.77	+23 33.6	1.709	2.678	4.4	21.0	1 12	8 23.92	+32 25.0	1.263	2.225	7.0	19.2
1 22	8 12.25	+24 35.7	1.686	2.668	1.7	20.8	1 22	8 12.28	+32 50.2	1.251	2.221	5.7	19.1
2 1	8 1.49	+25 30.9	1.693	2.657	5.5	21.0	2 1	8 0.62	+32 54.3	1.266	2.218	8.6	19.2
2 11	7 51.80	+26 14.5	1.729	2.646	9.7	21.2	2 11	7 50.79	+32 36.3	1.305	2.216	12.8	19.5
2 21	7 44.26	+26 44.9	1.789	2.635	13.6	21.4	2 21	7 44.08	+31 59.7	1.366	2.214	16.9	19.7
<b>237298</b>	2008 <i>YM</i> <sub>29</sub>		1 21.8 359° 06'	0° 0'/21.8	18		<b>464903</b>	2005 <i>SW</i> <sub>120</sub>		1 21.8 341° 00'	7° 7'/18.7	18	
12 13	8 36.95	+17 52.5	2.166	2.930	14.1	20.2	12 13	8 44.08	+36 4.2	1.577	2.369	17.4	20.7
12 23	8 33.65	+18 13.0	2.073	2.930	11.3	20.0	12 23	8 40.92	+36 59.5	1.497	2.361	14.3	20.5
1 2	8 28.07	+18 42.5	2.004	2.929	7.9	19.8	1 2	8 34.00	+37 51.9	1.438	2.355	11.0	20.2
1 12	8 20.71	+19 18.1	1.960	2.929	4.0	19.6	1 12	8 24.02	+38 31.9	1.401	2.349	8.3	20.1
1 22	8 12.32	+19 56.1	1.945	2.929	0.1	19.2	1 22	8 12.28	+38 50.4	1.391	2.343	7.8	20.0
2 1	8 3.88	+20 32.7	1.960	2.929	4.2	19.6	2 1	8 0.55	+38 42.0	1.406	2.339	10.0	20.1
2 11	7 56.38	+21 4.5	2.003	2.930	8.0	19.8	2 11	7 50.68	+38 7.1	1.445	2.335	13.4	20.3
2 21	7 50.64	+21 29.5	2.072	2.930	11.4	20.0	2 21	7 43.93	+37 10.5	1.506	2.331	16.7	20.5
<b>33435</b>	1999 <i>FD</i> <sub>4</sub>		1 21.8 189° 07'	0° 3'/21.9	18		<b>407285</b>	2010 <i>GO</i> <sub>125</sub>		1 21.8 258° 13'	0° 7'/22.1	17	
12 13	8 41.26	+17 30.5	2.392	3.140	13.4	20.1	12 13	8 42.65	+16 34.9	1.808	2.571	16.6	22.6
12 23	8 36.80	+17 42.5	2.293	3.139	10.7	19.9	12 23	8 38.96	+16 44.7	1.698	2.552	13.5	22.4
1 2	8 30.12	+18 2.4	2.217	3.138	7.5	19.7	1 2	8 32.30	+17 6.0	1.608	2.532	9.6	22.1
1 12	8 21.71	+18 27.5	2.168	3.136	3.9	19.4	1 12	8 23.13	+17 36.6	1.544	2.512	5.1	21.8
1 22	8 12.31	+18 55.0	2.149	3.133	0.3	19.1	1 22	8 12.30	+18 12.5	1.507	2.491	0.7	21.4
2 1	8 2.83	+19 21.7	2.161	3.130	3.9	19.4	2 1	8 1.09	+18 49.1	1.499	2.469	5.1	21.7
2 11	7 54.25	+19 44.8	2.203	3.127	7.6	19.6	2 11	7 50.92	+19 22.0	1.519	2.447	10.0	21.9
2 21	7 47.34	+20 2.7	2.272	3.123	10.8	19.8	2 21	7 42.97	+19 48.5	1.564	2.425	14.3	22.1
<b>240464</b>	2003 <i>YP</i> <sub>151</sub>		1 21.8 342° 03'	9° 8'/15.6	18		<b>493130</b>	2014 <i>TG</i> <sub>40</sub>		1 21.8 129° 71'	0° 6'/22.1	18	
12 13	8 36.18	+37 29.3	1.547	2.353	17.1	19.6	12 13	8 41.70	+16 12.2	2.134	2.886	14.7	22.0
12 23	8 35.08	+39 23.1	1.466	2.335	14.3	19.4	12 23	8 37.30	+16 28.6	2.050	2.898	11.8	21.8
1 2	8 30.31	+41 17.6	1.406	2.319	11.6	19.2	1 2	8 30.52	+16 54.8	1.989	2.909	8.2	21.6
1 12	8 22.34	+43 0.8	1.369	2.303	9.9	19.0	1 12	8 21.92	+17 27.9	1.953	2.920	4.3	21.4
1 22	8 12.28	+44 20.5	1.357	2.289	10.2	19.0	1 22	8 12.34	+18 4.5	1.947	2.931	0.6	21.1
2 1	8 1.87	+45 7.5	1.369	2.277	12.5	19.1	2 1	8 2.78	+18 40.6	1.972	2.941	4.2	21.4
2 11	7 53.07	+45 19.4	1.403	2.266	15.5	19.3	2 11	7 54.30	+19 13.0	2.025	2.951	8.0	21.6
2 21	7 47.39	+44 59.5	1.456	2.256	18.5	19.4	2 21	7 47.69	+19 39.7	2.105	2.960	11.4	21.9
<b>458483</b>	2011 <i>BK</i> <sub>114</sub>		1 21.8 231° 73'	0° 7'/21.3	17		<b>47729</b>	2000 <i>DR</i> <sub>45</sub>		1 21.8 87° 34'	4° 0'/24.4	18	
12 13	8 39.40	+17 59.1	2.314	3.069	13.6	21.3	12 13	8 37.18	+ 5 41.3	2.245	2.966	14.9	19.9
12 23	8 35.60	+18 49.6	2.208	3.059	10.9	21.1	12 23	8 33.54	+ 5 43.2	2.161	2.979	12.4	19.8
1 2	8 29.49	+19 51.0	2.125	3.049	7.6	20.9	1 2	8 27.81	+ 6 0.7	2.099	2.993	9.4	19.6
1 12	8 21.49	+20 59.6	2.070	3.039	3.8	20.6	1 12	8 20.52	+ 6 33.5	2.061	3.007	6.2	19.4
1 22	8 12.32	+22 10.3	2.044	3.028	0.7	20.4	1 22	8 12.37	+ 7 19.7	2.052	3.020	4.1	19.3
2 1	8 2.91	+23 17.8	2.050	3.016	4.4	20.6	2 1	8 4.24	+ 8 15.8	2.072	3.033	4.9	19.4
2 11	7 54.31	+24 17.6	2.085	3.004	8.2	20.9	2 11	7 57.01	+ 9 17.2	2.121	3.047	7.7	19.6
2 21	7 47.39	+25 6.9	2.147	2.992	11.6	21.0	2 21	7 51.41	+10 19.4	2.197	3.060	10.7	19.8
<b>238500</b>	2004 <i>SM</i> <sub>33</sub>		1 21.8 137° 76'	1° 7'/20.9	18		<b>117589</b>	2005 <i>EL</i> <sub>48</sub>		1 21.8 198° 02'	2° 3'/23.0	18	
12 13	8 46.34	+22 7.5	2.011	2.770	15.3	21.7	12 13	8 40.72	+11 34.1	2.010	2.754	15.8	21.1
12 23	8 41.19	+22 44.1	1.932	2.785	12.1	21.5	12 23	8 36.82	+11 41.1	1.913	2.752	12.9	20.9
1 2	8 33.33	+23 27.4	1.875	2.800	8.4	21.3	1 2	8 30.40	+12 1.7	1.836	2.749	9.3	20.6
1 12	8 23.37	+24 12.4	1.845	2.813	4.3	21.1	1 12	8 21.97	+12 34.8	1.785	2.746	5.4	20.4
1 22	8 12.28	+24 53.7	1.844	2.826	1.7	20.9	1 22	8 12.34	+13 17.4	1.763	2.743	2.4	20.2
2 1	8 1.26	+25 26.6	1.874	2.838	5.1	21.2	2 1	8 2.57	+14 5.6	1.770	2.739	4.7	20.3
2 11	7 51.54	+25 48.7	1.933	2.848	9.0	21.4	2 11	7 53.80	+14 54.8	1.806	2.734	8.6	20.6
2 21	7 44.01	+25 59.6	2.018	2.859	12.4	21.6	2 21	7 46.94	+15 41.3	1.867	2.729	12.3	20.8
<b>456478</b>	2006 <i>WA</i> <sub>72</sub>		1 21.8 341° 39'	1° 9'/22.5	16		<b>49806</b>	1999 <i>XL</i> <sub>38</sub>		1 21.8 334° 54'	6° 2'/19		

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>16944</b>	Wangler		1 21.8 173°57'	4.7/19.4	18		<b>344529</b>	2002 TG <sub>159</sub>		1 21.8 91°71'	2.4/20.2	18	
12 13	8 47.73	+31 29.6	2.129	2.893	14.4	19.5	12 13	8 39.84	+24 10.2	2.336	3.102	13.2	20.7
12 23	8 42.51	+32 17.4	2.044	2.896	11.6	19.3	12 23	8 35.77	+25 5.3	2.260	3.118	10.4	20.5
1 2	8 34.38	+33 5.3	1.981	2.899	8.5	19.1	1 2	8 29.43	+26 5.5	2.207	3.134	7.2	20.3
1 12	8 23.98	+33 46.7	1.945	2.900	5.6	18.9	1 12	8 21.38	+27 5.7	2.182	3.149	3.9	20.1
1 22	8 12.31	+34 15.2	1.938	2.902	4.8	18.9	1 22	8 12.40	+28 0.8	2.187	3.164	2.5	20.1
2 1	8 0.64	+34 26.7	1.961	2.902	7.0	19.0	2 1	8 3.44	+28 46.3	2.222	3.179	5.0	20.3
2 11	7 50.31	+34 20.2	2.012	2.902	10.1	19.2	2 11	7 55.50	+29 19.6	2.286	3.194	8.2	20.5
2 21	7 42.30	+33 57.9	2.087	2.902	13.1	19.4	2 21	7 49.33	+29 40.3	2.376	3.209	11.1	20.7
<b>64441</b>	2001 VS <sub>23</sub>		1 21.8 296°16'	1.9/20.9	18		<b>256076</b>	2006 UF <sub>190</sub>		1 21.8 49°73'	8°0/19.1	18	
12 13	8 40.41	+22 54.3	1.813	2.593	15.9	19.6	12 13	8 50.07	+38 26.1	1.619	2.398	17.6	20.8
12 23	8 37.15	+23 18.0	1.714	2.579	12.8	19.4	12 23	8 45.39	+39 15.4	1.553	2.407	14.5	20.6
1 2	8 30.97	+23 48.7	1.636	2.566	8.9	19.1	1 2	8 36.85	+39 58.2	1.507	2.416	11.3	20.4
1 12	8 22.40	+24 22.0	1.584	2.553	4.7	18.8	1 12	8 25.33	+40 24.7	1.485	2.425	8.7	20.3
1 22	8 12.34	+24 52.6	1.559	2.540	1.9	18.6	1 22	8 12.32	+40 26.9	1.489	2.435	8.2	20.3
2 1	8 2.08	+25 15.5	1.562	2.528	5.6	18.8	2 1	7 59.68	+40 1.1	1.519	2.445	10.0	20.4
2 11	7 53.01	+25 27.8	1.593	2.515	10.0	19.1	2 11	7 49.19	+39 9.6	1.574	2.455	13.0	20.6
2 21	7 46.21	+25 28.8	1.647	2.503	14.0	19.3	2 21	7 41.96	+37 59.0	1.652	2.465	16.0	20.8
<b>23189</b>	2000 PT <sub>23</sub>		1 21.8 115°53'	0°5/21.5	18		<b>132155</b>	2002 CO <sub>310</sub>		1 21.8 234°28'	3°1/23.1	18	
12 13	8 38.32	+19 58.4	2.678	3.431	12.0	19.3	12 13	8 42.83	+11 50.8	1.923	2.667	16.4	20.3
12 23	8 34.17	+20 21.1	2.592	3.443	9.5	19.2	12 23	8 38.71	+11 28.8	1.818	2.656	13.5	20.1
1 2	8 28.11	+20 49.5	2.531	3.454	6.5	19.0	1 2	8 31.87	+11 18.3	1.734	2.644	9.9	19.9
1 12	8 20.64	+21 20.8	2.497	3.466	3.3	18.8	1 12	8 22.81	+11 19.1	1.674	2.632	6.0	19.6
1 22	8 12.39	+21 51.8	2.493	3.477	0.6	18.6	1 22	8 12.37	+11 30.1	1.642	2.620	3.1	19.4
2 1	8 4.18	+22 19.7	2.520	3.487	3.6	18.9	2 1	8 1.71	+11 48.7	1.640	2.607	5.3	19.5
2 11	7 56.79	+22 42.2	2.577	3.498	6.8	19.1	2 11	7 52.07	+12 11.7	1.666	2.593	9.3	19.7
2 21	7 50.88	+22 58.2	2.661	3.508	9.6	19.3	2 21	7 44.49	+12 36.1	1.717	2.579	13.2	19.9
<b>138325</b>	2000 GO <sub>82</sub>		1 21.8 42°88'	13°4/1.3	16		<b>258119</b>	2001 QR <sub>280</sub>		1 21.8 83°85'	0°5/21.5	18	
12 13	9 21.93	-18 46.2	1.272	1.825	31.0	20.0	12 13	8 43.03	+16 53.2	1.937	2.695	15.8	20.9
12 23	9 7.85	-18 57.9	1.264	1.932	26.7	19.9	12 23	8 38.51	+17 51.8	1.872	2.724	12.5	20.7
1 2	8 50.40	-18 22.9	1.268	2.034	22.1	19.9	1 2	8 31.41	+19 1.9	1.829	2.753	8.6	20.5
1 12	8 31.18	-16 57.4	1.293	2.132	17.8	19.9	1 12	8 22.39	+20 18.5	1.812	2.781	4.3	20.3
1 22	8 12.20	-14 47.0	1.344	2.225	14.6	20.0	1 22	8 12.38	+21 35.2	1.825	2.809	0.6	20.1
2 1	7 55.37	-12 5.4	1.425	2.315	13.4	20.2	2 1	8 2.52	+22 45.8	1.869	2.837	4.6	20.4
2 11	7 42.00	-9 10.6	1.535	2.400	14.2	20.4	2 11	7 53.93	+23 45.9	1.942	2.864	8.6	20.7
2 21	7 32.57	-6 18.4	1.673	2.483	16.0	20.8	2 21	7 47.44	+24 33.4	2.041	2.890	12.0	21.0
<b>170064</b>	2002 VA <sub>93</sub>		1 21.8 338°59'	4°0/19.1	18		<b>522475</b>	2016 DH <sub>34</sub>		1 21.8 225°97'	1°0/21.4	16	
12 13	8 38.52	+27 49.0	2.166	2.944	13.7	19.8	12 13	8 42.47	+22 9.6	1.979	2.747	15.2	22.0
12 23	8 35.21	+28 57.4	2.078	2.942	10.9	19.6	12 23	8 38.32	+22 16.4	1.886	2.745	12.1	21.8
1 2	8 29.36	+30 10.2	2.014	2.939	7.8	19.4	1 2	8 31.48	+22 28.4	1.816	2.743	8.4	21.6
1 12	8 21.47	+31 21.4	1.976	2.937	4.9	19.2	1 12	8 22.53	+22 42.2	1.772	2.741	4.3	21.3
1 22	8 12.37	+32 24.3	1.967	2.935	4.2	19.2	1 22	8 12.38	+22 54.0	1.756	2.739	1.1	21.1
2 1	8 3.14	+33 13.3	1.987	2.933	6.5	19.3	2 1	8 2.20	+23 0.5	1.770	2.737	4.9	21.3
2 11	7 54.94	+33 45.6	2.034	2.931	9.6	19.5	2 11	7 53.21	+22 59.7	1.811	2.735	9.0	21.6
2 21	7 48.70	+34 1.2	2.106	2.930	12.6	19.7	2 21	7 46.34	+22 51.6	1.879	2.732	12.6	21.8
<b>99656</b>	2002 HD <sub>9</sub>		1 21.8 235°96'	1°0/21.3	18		<b>405946</b>	2006 RL <sub>76</sub>		1 21.8 141°78'	1°9/20.9	18	
12 13	8 40.99	+18 49.3	1.749	2.523	16.7	19.8	12 13	8 44.21	+23 19.5	2.066	2.830	14.8	23.1
12 23	8 37.64	+19 32.7	1.656	2.517	13.3	19.6	12 23	8 39.52	+23 49.7	1.983	2.839	11.7	22.9
1 2	8 31.33	+20 28.6	1.583	2.512	9.3	19.3	1 2	8 32.20	+24 25.3	1.922	2.848	8.1	22.7
1 12	8 22.59	+21 32.5	1.536	2.506	4.7	19.0	1 12	8 22.84	+25 1.7	1.888	2.857	4.2	22.4
1 22	8 12.35	+22 18.1	1.516	2.500	1.1	18.8	1 22	8 12.38	+25 33.8	1.884	2.865	1.9	22.3
2 1	8 1.89	+23 38.4	1.526	2.494	5.5	19.0	2 1	8 1.95	+25 57.7	1.909	2.872	5.1	22.5
2 11	7 52.63	+24 28.5	1.563	2.487	10.1	19.3	2 11	7 52.74	+26 11.1	1.963	2.879	8.9	22.8
2 21	7 45.67	+25 5.8	1.625	2.481	14.2	19.5	2 21	7 45.63	+26 14.0	2.043	2.886	12.2	23.0
<b>92447</b>	2000 KR <sub>7</sub>		1 21.8 144°59'	2°2/20.6	18		<b>212723</b>	Klitschko		1 21.8 70°64'	2°1/22.7	18	
12 13	8 45.59	+22 42.6	1.931	2.695	15.6	20.4	12 13	8 42.14	+13 29.2	1.535	2.303	18.9	20.7
12 23	8 40.84	+23 32.3	1.850	2.707	12.4	20.2	12 23	8 38.46	+13 28.0	1.465	2.319	15.2	20.5
1 2	8 33.25	+24 29.6	1.791	2.717	8.6	20.0	1 2	8 31.75	+13 41.4	1.414	2.336	10.8	20.3
1 12	8 23.42	+25 28.6	1.759	2.727	4.5	19.8	1 12	8 22.68	+14 7.4	1.387	2.352	6.0	20.0
1 22	8 12.34	+26 22.9	1.757	2.737	2.3	19.7	1 22	8 12.38	+14 42.3	1.386	2.368	2.2	19.8
2 1	8 1.27	+27 7.1	1.784	2.745	5.6	19.9	2 1	8 2.23	+15 21.2	1.414	2.384	5.3	20.1
2 11	7 51.50	+27 37.8	1.840	2.753	9.5	20.2	2 11	7 53.60	+15 59.2	1.468	2.401	9.8	20.4
2 21	7 44.00	+27 55.0	1.921	2.760	13.0	20.4	2 21	7 47.46	+16 32.8	1.546	2.417	13.9	20.7
<b>277051</b>	2005 EU <sub>31</sub>		1 21.8 78°84'	3°5/24.1	18		<b>381237</b>	2007 TJ <sub>37</sub>		1 21.8 50°02'	5°0/19.2	18	
12 13	8 36.59	+7 3.4	2.210	2.939	14.9	21.3	12 13	8 42.22	+32 42.0	2.100	2.876	14.2	20.5
12 23	8 33.18	+7 8.8	2.122	2.947	12.3	21.1	12 23	8 38.11	+33 29.1	2.027	2.886	11.4	20.3
1 2	8 27.65	+7 29.4	2.055	2.955	9.2	20.9	1 2	8 31.28	+34 14.9	1.977	2.896	8.4	20.2
1 12	8 20.48	+8 4.8	2.013	2.963	6.0	20.7	1 12	8 22.38	+34 53.2	1.953	2.906	5.8	20.0
1 22	8 12.41	+8 52.8	1.999	2.971	3.6	20.6	1 22	8 12.39	+35 18.3	1.956	2.917	5.1	20.0
2 1	8 4.31	+9 49.7	2.015	2.979	4.7	20.7	2 1	8 2.52	+35 26.4	1.988	2.927	7.1	20.1
2 11	7 57.10	+10 50.9	2.060	2.987	7.8	20.9	2 11	7 53.98	+35 17.0	2.048	2.938	9.9	20.3
2 21	7 51.53	+11 51.9	2.131	2.995	10.9	21.1	2 21	7 47.64	+34 52.3	2.131	2.949	12.7	20.5
<b>161681</b>	2006 GK <sub>24</sub>		1 21.8 111°70'	1°0/21.3	18		<b>16250</b>	Delbó		1 21.8 80°69'	2°3/22.9	18	
12 13	8 45.16	+20 23.1	1.856	2.620	16.2	20.3	12 13	8 42.06	+11 31.9	1.491	2.256	19.5	18.5



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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>309391</b>	2007 <i>TO</i> <sub>185</sub>		1 21.8 174°18	0°2/21.7	18		<b>116911</b>	2004 <i>GY</i> <sub>10</sub>		1 21.8 260°59	3°1/19.4	17	
12 13	8 43.76	+18 10.1	2.136	2.888	14.7	22.4	12 13	8 38.60	+26 11.7	2.620	3.385	11.9	20.0
12 23	8 39.09	+18 35.9	2.042	2.891	11.7	22.2	12 23	8 34.88	+27 17.5	2.514	3.371	9.5	19.8
1 2	8 31.90	+19 10.9	1.972	2.894	8.2	22.0	1 2	8 28.98	+28 28.8	2.431	3.355	6.7	19.6
1 12	8 22.72	+19 51.6	1.928	2.896	4.2	21.7	1 12	8 21.28	+29 40.5	2.377	3.340	4.0	19.4
1 22	8 12.39	+20 33.8	1.913	2.897	0.2	21.4	1 22	8 12.46	+30 47.2	2.353	3.325	3.2	19.3
2 1	8 1.98	+21 13.0	1.930	2.898	4.4	21.7	2 1	8 3.39	+31 44.0	2.360	3.309	5.4	19.4
2 11	7 52.63	+21 45.9	1.975	2.898	8.4	22.0	2 11	7 55.04	+32 27.5	2.396	3.293	8.4	19.6
2 21	7 45.23	+22 10.9	2.047	2.896	11.9	22.2	2 21	7 48.26	+32 56.8	2.457	3.277	11.2	19.7
<b>522351</b>	2016 <i>CG</i> <sub>298</sub>		1 21.8 137°34	2°7/20.4	18		<b>491961</b>	2013 <i>DB</i> <sub>2</sub>		1 21.8 208°16	7°3/19.5	18	
12 13	8 42.83	+25 46.3	2.079	2.849	14.5	21.6	12 13	8 58.14	+39 44.1	1.961	2.711	15.9	22.0
12 23	8 38.51	+26 19.8	1.995	2.855	11.5	21.4	12 23	8 51.34	+40 15.7	1.871	2.706	13.3	21.8
1 2	8 31.55	+26 57.1	1.934	2.860	8.0	21.2	1 2	8 40.82	+40 40.0	1.803	2.701	10.4	21.6
1 12	8 22.54	+27 33.1	1.898	2.865	4.5	21.0	1 12	8 27.37	+40 47.9	1.760	2.695	8.0	21.4
1 22	8 12.41	+28 2.8	1.892	2.870	2.8	20.9	1 22	8 12.35	+40 31.8	1.745	2.689	7.4	21.4
2 1	8 2.29	+28 21.9	1.915	2.874	5.5	21.1	2 1	7 57.56	+39 48.5	1.760	2.682	9.1	21.5
2 11	7 53.38	+28 28.8	1.967	2.878	9.1	21.3	2 11	7 44.74	+38 40.6	1.802	2.675	12.0	21.6
2 21	7 46.56	+28 23.8	2.044	2.883	12.4	21.5	2 21	7 35.07	+37 14.5	1.868	2.667	15.0	21.8
<b>266899</b>	2009 <i>WA</i> <sub>106</sub>		1 21.8 193°81	0°5/21.5	18		<b>169315</b>	2001 <i>TH</i> <sub>111</sub>		1 21.8 29°13	2°0/20.8	18	
12 13	8 39.47	+18 48.5	2.225	2.984	14.0	20.7	12 13	8 39.05	+24 10.8	2.001	2.779	14.7	19.4
12 23	8 35.65	+19 18.1	2.130	2.983	11.1	20.5	12 23	8 35.53	+24 32.0	1.923	2.787	11.6	19.3
1 2	8 29.49	+19 56.5	2.057	2.982	7.7	20.3	1 2	8 29.47	+24 57.6	1.867	2.796	8.1	19.1
1 12	8 21.50	+20 40.1	2.012	2.981	3.9	20.1	1 12	8 21.48	+25 23.2	1.836	2.805	4.2	18.8
1 22	8 12.43	+21 25.0	1.995	2.979	0.5	19.8	1 22	8 12.47	+25 44.6	1.834	2.815	2.0	18.7
2 1	8 3.27	+22 6.7	2.009	2.977	4.3	20.1	2 1	8 3.54	+25 58.2	1.861	2.825	5.1	18.9
2 11	7 55.05	+22 42.0	2.052	2.975	8.1	20.3	2 11	7 55.80	+26 2.2	1.915	2.835	8.8	19.2
2 21	7 48.60	+23 9.0	2.121	2.973	11.5	20.5	2 21	7 50.08	+25 56.7	1.994	2.846	12.1	19.4
<b>363178</b>	2001 <i>TH</i> <sub>136</sub>		1 21.8 91°23	7°3/24.9	17		<b>397128</b>	2005 <i>WF</i> <sub>42</sub>		1 21.8 70°99	5°9/24.5	18	
12 13	8 43.54	+ 3 15.2	1.579	2.305	20.1	21.5	12 13	8 39.94	+ 5 3.7	1.916	2.640	17.0	20.9
12 23	8 39.39	+ 2 20.5	1.508	2.323	16.9	21.3	12 23	8 36.14	+ 4 13.1	1.831	2.648	14.3	20.7
1 2	8 32.30	+ 1 45.6	1.456	2.341	13.3	21.1	1 2	8 29.87	+ 3 37.5	1.767	2.655	11.2	20.6
1 12	8 22.95	+ 1 33.6	1.425	2.358	9.7	21.0	1 12	8 21.70	+ 3 19.0	1.727	2.663	8.0	20.4
1 22	8 12.41	+ 1 44.7	1.420	2.375	7.4	20.9	1 22	8 12.47	+ 3 18.0	1.713	2.671	6.0	20.3
2 1	8 2.00	+ 2 16.5	1.442	2.392	8.1	21.0	2 1	8 3.24	+ 3 33.3	1.727	2.678	6.8	20.3
2 11	7 53.03	+ 3 3.7	1.490	2.408	11.0	21.2	2 11	7 55.12	+ 4 1.3	1.768	2.686	9.5	20.5
2 21	7 46.47	+ 3 59.5	1.562	2.425	14.3	21.4	2 21	7 48.92	+ 4 37.5	1.834	2.694	12.6	20.7
<b>129712</b>	1998 <i>TH</i> <sub>3</sub>		1 21.8 91°75	6°5/18.7	18		<b>371234</b>	2006 <i>BE</i> <sub>87</sub>		1 21.8 38°52	1°3/21.2	18	
12 13	8 51.15	+35 24.9	1.941	2.706	15.6	20.4	12 13	8 39.17	+20 43.9	1.834	2.612	15.9	21.3
12 23	8 45.33	+36 37.3	1.888	2.736	12.6	20.2	12 23	8 35.89	+21 16.5	1.753	2.617	12.6	21.1
1 2	8 36.31	+37 46.1	1.856	2.765	9.5	20.1	1 2	8 29.90	+21 57.8	1.694	2.624	8.7	20.8
1 12	8 24.92	+38 42.5	1.852	2.794	7.1	20.0	1 12	8 21.78	+22 43.3	1.660	2.630	4.4	20.6
1 22	8 12.38	+39 19.0	1.875	2.822	6.7	20.0	1 22	8 12.47	+23 27.8	1.654	2.636	1.3	20.4
2 1	8 0.19	+39 32.0	1.927	2.849	8.4	20.2	2 1	8 3.16	+24 6.1	1.676	2.643	5.1	20.7
2 11	7 49.78	+39 22.2	2.005	2.876	11.1	20.4	2 11	7 55.08	+24 34.8	1.726	2.650	9.3	20.9
2 21	7 42.09	+38 53.7	2.107	2.902	13.7	20.6	2 21	7 49.16	+24 52.6	1.801	2.658	13.0	21.2
<b>433322</b>	2013 <i>QE</i> <sub>36</sub>		1 21.8 176°94	16°6/30.9	18		<b>31771</b>	Kirstenwright		1 21.8 173°37	3°7/24.2	18	
12 13	8 41.38	-15 28.5	1.393	2.039	25.5	21.5	12 13	8 36.22	+ 6 24.8	2.689	3.403	12.9	20.0
12 23	8 38.54	-17 5.6	1.317	2.041	23.4	21.4	12 23	8 32.51	+ 6 12.6	2.591	3.404	10.7	19.8
1 2	8 32.32	-18 9.2	1.253	2.042	21.2	21.2	1 2	8 27.01	+ 6 12.3	2.514	3.405	8.2	19.6
1 12	8 23.25	-18 28.8	1.205	2.043	18.9	21.0	1 12	8 20.15	+ 6 24.1	2.463	3.405	5.5	19.5
1 22	8 12.40	-17 57.2	1.174	2.043	17.2	20.9	1 22	8 12.51	+ 6 47.1	2.440	3.406	3.8	19.4
2 1	8 1.31	-16 32.9	1.164	2.042	16.6	20.9	2 1	8 4.81	+ 7 19.3	2.448	3.406	4.5	19.4
2 11	7 51.63	-14 23.3	1.175	2.042	17.5	20.9	2 11	7 57.81	+ 7 57.7	2.485	3.407	7.0	19.6
2 21	7 44.69	-11 42.1	1.206	2.040	19.5	21.0	2 21	7 52.14	+ 8 39.2	2.550	3.407	9.6	19.7
<b>134823</b>	2000 <i>GR</i> <sub>119</sub>		1 21.8 67°20	1°2/21.3	18		<b>114190</b>	2002 <i>VP</i> <sub>84</sub>		1 21.8 73°33	0°3/21.6	18	
12 13	8 44.61	+21 12.4	1.640	2.416	17.5	19.5	12 13	8 40.26	+14 58.8	2.328	3.073	13.8	18.7
12 23	8 40.21	+21 35.7	1.579	2.442	13.8	19.3	12 23	8 35.94	+16 13.9	2.257	3.101	10.9	18.5
1 2	8 32.79	+22 6.6	1.539	2.468	9.5	19.1	1 2	8 29.48	+17 40.9	2.209	3.130	7.5	18.3
1 12	8 23.14	+22 40.2	1.523	2.493	4.8	18.9	1 12	8 21.42	+19 15.1	2.189	3.157	3.8	18.2
1 22	8 12.42	+23 11.2	1.536	2.519	1.3	18.7	1 22	8 12.49	+20 50.6	2.201	3.185	0.3	17.9
2 1	8 1.99	+23 34.9	1.577	2.544	5.3	19.1	2 1	8 3.61	+22 21.3	2.245	3.212	4.0	18.3
2 11	7 53.19	+23 49.0	1.645	2.570	9.6	19.4	2 11	7 55.69	+23 42.4	2.320	3.239	7.5	18.5
2 21	7 46.89	+23 53.4	1.738	2.595	13.4	19.6	2 21	7 49.46	+24 51.1	2.422	3.266	10.5	18.8
<b>15699</b>	Lyytinen		1 21.8 84°48	2°7/20.7	18		<b>78689</b>	2002 <i>TL</i> <sub>157</sub>		1 21.8 174°31	2°8/19.8	18	
12 13	8 47.30	+23 46.2	1.569	2.347	18.1	18.3	12 13	8 39.71	+26 4.5	2.566	3.329	12.2	19.6
12 23	8 42.60	+24 28.9	1.508	2.372	14.3	18.1	12 23	8 35.63	+26 58.4	2.475	3.331	9.7	19.4
1 2	8 34.60	+25 18.2	1.468	2.397	9.9	17.9	1 2	8 29.38	+27 56.4	2.408	3.332	6.8	19.2
1 12	8 24.12	+26 7.2	1.452	2.421	5.2	17.7	1 12	8 21.43	+28 53.5	2.369	3.333	3.9	19.1
1 22	8 12.40	+26 49.0	1.465	2.445	2.8	17.6	1 22	8 12.50	+29 45.1	2.360	3.334	2.9	19.0
2 1	8 1.00	+27 17.9	1.506	2.468	6.3	17.8	2 1	8 3.48	+30 26.7	2.382	3.334	5.1	19.1
2 11	7 51.37	+27 32.0	1.574	2.491	10.5	18.1	2 11	7 55.32	+30 56.0	2.433	3.335	8.1	19.3
2 21	7 44.51	+27 32.3	1.666	2.514	14.3	18.4	2 21	7 48.80	+31 12.7	2.509	3.334	10.8	19.5
<b>467052</b>	2016 <i>DN</i> <sub>6</sub>		1 21.8 228°36	5°0/19.5	18		<b>79490</b>	1998 <i>FC</i> <sub>42</sub>		1 21.8 213°16	5°5/26.6	18	
12 13	8 46.14	+32 59.4	2.074										

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>232516</b>	2003 QW <sub>104</sub>		1 21.8	95°57	5°3/19.2	18	<b>98076</b>	2000 RY <sub>63</sub>		1 21.8	7°08	4°9/23.8	18
12 13	8 49.37	+30 47.0	1.856	2.626	16.0	20.3	12 13	8 38.00	+ 9 11.6	1.354	2.128	20.7	18.7
12 23	8 43.97	+31 59.7	1.798	2.654	12.7	20.1	12 23	8 35.78	+ 8 40.6	1.275	2.128	17.1	18.5
1 2	8 35.43	+33 12.9	1.763	2.682	9.2	20.0	1 2	8 30.30	+ 8 28.0	1.214	2.129	12.8	18.2
1 12	8 24.53	+34 18.0	1.754	2.709	6.2	19.9	1 12	8 22.19	+ 8 35.2	1.174	2.130	8.3	18.0
1 22	8 12.44	+35 7.5	1.773	2.735	5.4	19.9	1 22	8 12.52	+ 9 0.9	1.158	2.132	5.0	17.8
2 1	8 0.63	+35 36.3	1.822	2.761	7.6	20.1	2 1	8 2.78	+ 9 41.0	1.168	2.135	6.8	17.9
2 11	7 50.50	+35 44.0	1.898	2.786	10.7	20.3	2 11	7 54.54	+10 29.6	1.203	2.139	11.2	18.1
2 21	7 43.00	+35 33.5	1.997	2.810	13.7	20.5	2 21	7 48.92	+11 20.4	1.260	2.143	15.6	18.4
<b>14937</b>	Thirsk		1 21.8	178°85	1°1/22.4	18	<b>148891</b>	2001 WZ <sub>30</sub>		1 21.8	103°99	0°6/21.5	18
12 13	8 41.06	+14 52.6	2.302	3.046	14.0	20.5	12 13	8 42.23	+18 51.2	2.073	2.832	14.9	20.7
12 23	8 36.74	+15 3.6	2.205	3.047	11.3	20.3	12 23	8 37.82	+19 25.0	1.997	2.850	11.8	20.5
1 2	8 30.16	+15 24.4	2.131	3.048	8.0	20.1	1 2	8 30.96	+20 7.5	1.944	2.869	8.1	20.3
1 12	8 21.84	+15 53.1	2.084	3.049	4.3	19.9	1 12	8 22.24	+20 54.7	1.918	2.887	4.1	20.1
1 22	8 12.49	+16 26.7	2.066	3.049	1.1	19.7	1 22	8 12.54	+21 41.9	1.920	2.904	0.6	19.8
2 1	8 3.08	+17 1.8	2.079	3.048	4.0	19.9	2 1	8 2.92	+22 24.6	1.953	2.921	4.4	20.2
2 11	7 54.58	+17 35.1	2.121	3.047	7.7	20.1	2 11	7 54.46	+22 59.5	2.016	2.938	8.3	20.4
2 21	7 47.79	+18 4.3	2.190	3.046	11.0	20.3	2 21	7 47.96	+23 25.2	2.104	2.954	11.6	20.7
<b>298372</b>	2003 RW <sub>17</sub>		1 21.8	68°10	2°2/20.9	18	<b>288650</b>	2004 PV <sub>46</sub>		1 21.8	128°19	1°0/22.3	18
12 13	8 44.69	+22 41.0	1.508	2.293	18.4	20.6	12 13	8 45.25	+15 12.0	1.914	2.663	16.3	22.4
12 23	8 40.68	+23 17.0	1.446	2.314	14.5	20.4	12 23	8 40.37	+15 25.7	1.835	2.680	13.0	22.2
1 2	8 33.38	+24 0.9	1.403	2.334	10.0	20.2	1 2	8 32.82	+15 50.7	1.778	2.696	9.2	22.0
1 12	8 23.56	+24 46.4	1.386	2.355	5.2	20.0	1 12	8 23.22	+16 24.3	1.746	2.712	4.9	21.8
1 22	8 12.46	+25 26.5	1.395	2.376	2.3	19.9	1 22	8 12.52	+17 2.5	1.743	2.727	1.0	21.5
2 1	8 1.63	+25 55.8	1.432	2.397	6.1	20.2	2 1	8 1.91	+17 40.9	1.771	2.741	4.5	21.8
2 11	7 52.55	+26 11.7	1.496	2.418	10.6	20.5	2 11	7 52.57	+18 15.8	1.828	2.754	8.7	22.1
2 21	7 46.21	+26 14.6	1.583	2.438	14.5	20.7	2 21	7 45.38	+18 45.0	1.910	2.766	12.3	22.4
<b>145455</b>	2005 SU <sub>3</sub>		1 21.8	201°94	5°1/18.8	18	<b>240930</b>	2006 FN <sub>22</sub>		1 21.8	121°29	2°2/23.0	18
12 13	8 44.59	+32 28.0	2.242	3.009	13.7	20.1	12 13	8 44.06	+11 55.6	2.002	2.740	16.0	21.4
12 23	8 40.06	+33 29.4	2.152	3.005	11.0	19.9	12 23	8 39.24	+12 0.0	1.924	2.759	12.9	21.2
1 2	8 32.77	+34 31.5	2.086	3.002	8.2	19.8	1 2	8 31.93	+12 17.1	1.866	2.778	9.3	21.0
1 12	8 23.28	+35 27.3	2.047	2.998	5.8	19.6	1 12	8 22.73	+12 45.4	1.835	2.796	5.4	20.8
1 22	8 12.47	+36 10.2	2.036	2.993	5.3	19.6	1 22	8 12.54	+13 21.7	1.833	2.813	2.3	20.6
2 1	8 1.56	+36 35.6	2.055	2.988	7.3	19.7	2 1	8 2.43	+14 2.1	1.861	2.829	4.5	20.8
2 11	7 51.81	+36 41.8	2.101	2.983	10.1	19.8	2 11	7 53.51	+14 42.8	1.918	2.845	8.3	21.1
2 21	7 44.20	+36 30.4	2.171	2.977	12.9	20.0	2 21	7 46.60	+15 20.5	2.001	2.860	11.8	21.3
<b>343816</b>	2011 HO <sub>11</sub>		1 21.8	176°41	0°5/21.5	17	<b>145701</b>	4269 T <sub>-3</sub>		1 21.8	82°47	7°9/26.7	18
12 13	8 38.54	+19 46.2	2.994	3.740	11.0	22.3	12 13	8 39.00	- 2 40.6	1.839	2.533	18.6	20.2
12 23	8 34.23	+20 12.1	2.896	3.742	8.7	22.2	12 23	8 35.47	- 3 10.0	1.763	2.549	16.1	20.0
1 2	8 28.15	+20 43.5	2.822	3.744	6.0	22.0	1 2	8 29.44	- 3 16.3	1.706	2.565	13.1	19.9
1 12	8 20.72	+21 17.8	2.776	3.745	3.0	21.8	1 12	8 21.52	- 2 56.8	1.670	2.581	10.2	19.7
1 22	8 12.53	+21 52.2	2.762	3.746	0.5	21.6	1 22	8 12.56	- 2 11.6	1.659	2.597	8.2	19.6
2 1	8 4.29	+22 23.7	2.779	3.746	3.4	21.8	2 1	8 3.64	- 1 4.1	1.675	2.613	8.3	19.7
2 11	7 56.74	+22 50.2	2.827	3.745	6.3	22.0	2 11	7 55.87	+ 0 19.4	1.718	2.629	10.2	19.8
2 21	7 50.50	+23 10.6	2.902	3.745	9.0	22.2	2 21	7 50.06	+ 1 51.1	1.786	2.644	13.0	20.0
<b>212968</b>	2009 BH <sub>104</sub>		1 21.8	257°40	0°1/21.9	18	<b>224499</b>	2005 WZ <sub>21</sub>		1 21.8	125°92	2°5/20.4	18
12 13	8 42.47	+18 19.7	1.814	2.581	16.4	21.2	12 13	8 43.02	+25 7.5	2.231	2.995	13.8	21.1
12 23	8 38.77	+18 27.2	1.710	2.567	13.2	21.0	12 23	8 38.43	+25 49.2	2.152	3.008	10.9	20.9
1 2	8 32.14	+18 44.2	1.627	2.552	9.3	20.7	1 2	8 31.39	+26 35.0	2.095	3.020	7.6	20.8
1 12	8 23.08	+19 8.0	1.569	2.538	4.8	20.4	1 12	8 22.47	+27 19.9	2.066	3.032	4.2	20.6
1 22	8 12.49	+19 34.7	1.539	2.523	0.2	20.0	1 22	8 12.54	+27 59.0	2.066	3.044	2.6	20.5
2 1	8 1.62	+20 0.0	1.537	2.507	5.0	20.4	2 1	8 2.66	+28 28.0	2.097	3.055	5.2	20.7
2 11	7 51.89	+20 20.2	1.564	2.492	9.8	20.6	2 11	7 53.90	+28 45.0	2.156	3.065	8.6	20.9
2 21	7 44.39	+20 33.7	1.615	2.476	14.0	20.8	2 21	7 47.09	+28 50.2	2.241	3.075	11.6	21.1
<b>207506</b>	2006 JU <sub>4</sub>		1 21.8	210°96	1°0/22.3	18	<b>30909</b>	1993 FZ <sub>49</sub>		1 21.8	216°70	1°2/21.3	18
12 13	8 42.26	+15 14.5	2.001	2.753	15.6	21.6	12 13	8 45.10	+21 7.2	1.813	2.580	16.4	20.1
12 23	8 38.17	+15 26.7	1.901	2.748	12.6	21.3	12 23	8 40.84	+21 27.8	1.716	2.574	13.2	19.9
1 2	8 31.46	+15 50.2	1.822	2.742	8.9	21.1	1 2	8 33.56	+21 56.5	1.640	2.567	9.2	19.6
1 12	8 22.62	+16 22.9	1.769	2.735	4.8	20.8	1 12	8 23.79	+22 29.2	1.590	2.559	4.7	19.4
1 22	8 12.50	+17 1.2	1.744	2.728	1.0	20.5	1 22	8 12.52	+23 0.7	1.568	2.551	1.2	19.1
2 1	8 2.20	+17 40.9	1.750	2.720	4.5	20.8	2 1	8 1.07	+23 26.0	1.575	2.542	5.4	19.4
2 11	7 52.93	+18 18.1	1.784	2.712	8.8	21.0	2 11	7 50.86	+23 42.0	1.611	2.533	9.9	19.6
2 21	7 45.65	+18 49.9	1.845	2.703	12.6	21.2	2 21	7 43.03	+23 48.0	1.671	2.523	14.0	19.8
<b>401015</b>	2011 SB <sub>9</sub>		1 21.8	197°41	1°8/22.7	18	<b>101449</b>	1998 VQ <sub>55</sub>		1 21.8	68°34	6°3/24.3	18
12 13	8 42.60	+13 7.5	1.899	2.648	16.4	22.0	12 13	8 45.47	+ 6 29.0	1.368	2.117	21.6	19.2
12 23	8 38.53	+13 16.0	1.802	2.646	13.3	21.8	12 23	8 41.19	+ 5 39.7	1.310	2.144	17.9	19.0
1 2	8 31.76	+13 37.7	1.726	2.643	9.6	21.5	1 2	8 33.65	+ 5 10.8	1.270	2.171	13.6	18.8
1 12	8 22.79	+14 11.2	1.676	2.639	5.4	21.3	1 12	8 23.67	+ 5 4.1	1.252	2.199	9.3	18.6
1 22	8 12.51	+14 52.9	1.653	2.635	1.9	21.0	1 22	8 12.53	+ 5 18.5	1.259	2.226	6.4	18.5
2 1	8 2.06	+15 38.6	1.661	2.631	4.8	21.2	2 1	8 1.72	+ 5 50.5	1.293	2.252	7.5	18.7
2 11	7 52.71	+16 23.6	1.697	2.625	9.1	21.5	2 11	7 52.70	+ 6 34.0	1.352	2.279	11.1	18.9
2 21	7 45.44	+17 4.4	1.758	2.619	13.0	21.7	2 21	7 46.41	+ 7 22.5	1.435	2.305	14.8	19.2
<b>6425</b>	1994 WZ <sub>3</sub>		1 21.8	122°24	7°3/26.2	18 R	<b>399528</b>	2003 CE <sub>15</sub>		1 21.8	284°23	0°9/21.4	18
12 13	8 40.89	- 2 1.5	2.177	2.854	16.5	17.2	12 13	8 40.87	+18 20.5	1.552			

EPHEMERIDES

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1 21.9

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>72965</b>	2002 <i>CR</i> <sub>133</sub>		1 21.8 230°72	2°8/23.6	18		<b>187901</b>	2000 <i>SB</i> <sub>317</sub>		1 21.8 179°80	2°1/22.8	18	
12 13	8 38.21	+ 9 3.0	2.469	3.194	13.6	20.8	12 13	8 42.43	+13 43.9	2.387	3.122	13.8	20.8
12 23	8 34.42	+ 9 7.2	2.359	3.184	11.2	20.6	12 23	8 37.69	+13 24.0	2.289	3.123	11.2	20.6
1 2	8 28.56	+ 9 24.2	2.270	3.173	8.3	20.4	1 2	8 30.76	+13 12.3	2.213	3.124	8.1	20.4
1 12	8 21.07	+ 9 53.2	2.208	3.162	5.2	20.2	1 12	8 22.15	+13 7.9	2.164	3.124	4.7	20.2
1 22	8 12.57	+10 32.7	2.175	3.150	2.9	20.0	1 22	8 12.59	+13 9.6	2.145	3.124	2.1	20.0
2 1	8 3.90	+11 19.5	2.172	3.138	4.3	20.0	2 1	8 3.00	+13 15.5	2.156	3.123	4.1	20.1
2 11	7 55.95	+12 10.1	2.199	3.125	7.5	20.2	2 11	7 54.31	+13 23.6	2.197	3.122	7.5	20.3
2 21	7 49.47	+13 0.7	2.253	3.112	10.6	20.4	2 21	7 47.29	+13 32.2	2.266	3.121	10.7	20.5
<b>148051</b>	1998 <i>SF</i> <sub>118</sub>		1 21.8 105°54	3°2/23.4	18		<b>339851</b>	2005 <i>TX</i> <sub>33</sub>		1 21.8 339°88	6°1/19.5	18	
12 13	8 41.36	+10 13.5	1.879	2.622	16.7	20.7	12 13	8 44.51	+29 47.5	1.335	2.138	19.4	20.4
12 23	8 37.33	+10 3.2	1.799	2.635	13.7	20.5	12 23	8 41.73	+30 48.4	1.259	2.135	15.7	20.1
1 2	8 30.74	+10 7.1	1.738	2.647	10.0	20.3	1 2	8 34.92	+31 53.8	1.202	2.132	11.5	19.8
1 12	8 22.19	+10 24.5	1.703	2.659	6.1	20.1	1 12	8 24.74	+32 53.7	1.168	2.130	7.5	19.6
1 22	8 12.56	+10 53.2	1.695	2.671	3.3	19.9	1 22	8 12.55	+33 37.5	1.159	2.128	6.3	19.5
2 1	8 2.97	+11 29.7	1.716	2.683	5.1	20.0	2 1	8 0.30	+33 57.5	1.176	2.126	9.4	19.7
2 11	7 54.57	+12 9.7	1.765	2.694	8.8	20.3	2 11	7 50.02	+33 51.9	1.216	2.125	13.7	20.0
2 21	7 48.20	+12 49.5	1.840	2.705	12.3	20.5	2 21	7 43.11	+33 24.2	1.278	2.124	17.9	20.2
<b>388646</b>	2007 <i>TT</i> <sub>177</sub>		1 21.8 67°61	1°8/20.8	18		<b>335996</b>	2007 <i>TR</i> <sub>354</sub>		1 21.8 111°63	3°7/24.1	18	
12 13	8 39.86	+23 13.9	2.218	2.986	13.7	21.1	12 13	8 37.33	+ 7 17.7	2.508	3.227	13.6	20.7
12 23	8 35.85	+23 47.2	2.144	3.003	10.8	20.9	12 23	8 33.51	+ 7 0.1	2.417	3.235	11.2	20.6
1 2	8 29.53	+24 25.4	2.094	3.021	7.5	20.7	1 2	8 27.78	+ 6 54.4	2.348	3.243	8.5	20.4
1 12	8 21.50	+25 4.2	2.070	3.039	3.9	20.6	1 12	8 20.61	+ 7 0.8	2.305	3.250	5.7	20.2
1 22	8 12.57	+25 39.2	2.076	3.057	1.8	20.4	1 22	8 12.65	+ 7 18.4	2.290	3.257	3.8	20.1
2 1	8 3.75	+26 6.8	2.111	3.074	4.7	20.7	2 1	8 4.67	+ 7 45.1	2.305	3.265	4.7	20.2
2 11	7 56.01	+26 24.8	2.175	3.092	8.1	20.9	2 11	7 57.50	+ 8 18.1	2.349	3.272	7.2	20.4
2 21	7 50.12	+26 32.9	2.265	3.110	11.1	21.1	2 21	7 51.77	+ 8 54.0	2.420	3.278	10.0	20.5
<b>248568</b>	2006 <i>AH</i> <sub>45</sub>		1 21.8 62°04	0°5/22.2	18		<b>158246</b>	2001 <i>TV</i> <sub>60</sub>		1 21.8 65°22	5°2/23.9	18	
12 13	8 38.17	+15 0.2	1.956	2.718	15.5	20.6	12 13	8 41.67	+ 8 6.9	1.426	2.185	20.5	19.7
12 23	8 34.91	+15 35.4	1.869	2.722	12.5	20.4	12 23	8 38.37	+ 7 34.7	1.354	2.197	16.9	19.5
1 2	8 29.16	+16 23.8	1.803	2.726	8.7	20.2	1 2	8 31.89	+ 7 21.3	1.300	2.209	12.7	19.2
1 12	8 21.43	+17 22.2	1.763	2.731	4.6	19.9	1 12	8 22.93	+ 7 27.7	1.269	2.221	8.3	19.0
1 22	8 12.57	+18 25.8	1.751	2.735	0.5	19.6	1 22	8 12.61	+ 7 52.5	1.262	2.234	5.3	18.9
2 1	8 3.63	+19 29.2	1.769	2.739	4.4	19.9	2 1	8 2.37	+ 8 31.8	1.282	2.247	6.8	19.0
2 11	7 55.75	+20 27.2	1.815	2.744	8.6	20.2	2 11	7 53.67	+ 9 19.6	1.328	2.259	10.8	19.3
2 21	7 49.79	+21 16.7	1.887	2.748	12.2	20.4	2 21	7 47.57	+10 9.9	1.397	2.272	14.8	19.5
<b>262645</b>	2006 <i>WC</i> <sub>52</sub>		1 21.8 206°17	1°9/20.8	18		<b>337900</b>	2001 <i>XP</i> <sub>69</sub>		1 21.8 54°32	11°3/29.3	18	
12 13	8 42.73	+23 5.4	2.165	2.928	14.2	21.6	12 13	8 37.47	-13 53.4	2.343	2.947	17.0	20.3
12 23	8 38.43	+23 38.7	2.068	2.924	11.3	21.4	12 23	8 33.83	-15 26.4	2.269	2.960	15.5	20.2
1 2	8 31.58	+24 18.1	1.993	2.919	7.9	21.2	1 2	8 28.12	-16 38.2	2.211	2.972	13.9	20.1
1 12	8 22.68	+24 59.2	1.946	2.914	4.1	20.9	1 12	8 20.82	-17 23.8	2.173	2.985	12.5	20.0
1 22	8 12.57	+25 37.0	1.928	2.909	1.9	20.8	1 22	8 12.64	-17 40.2	2.158	2.999	11.5	20.0
2 1	8 2.33	+26 7.1	1.940	2.903	5.0	21.0	2 1	8 4.44	-17 26.8	2.166	3.012	11.4	20.0
2 11	7 53.13	+26 26.8	1.981	2.896	8.8	21.2	2 11	7 57.10	-16 46.7	2.198	3.026	12.0	20.0
2 21	7 45.89	+26 35.6	2.047	2.889	12.2	21.4	2 21	7 51.34	-15 45.5	2.252	3.039	13.1	20.1
<b>356558</b>	2011 <i>SR</i> <sub>201</sub>		1 21.8 41°79	4°1/23.7	18		<b>90564</b>	Markjarnyk		1 21.8 320°40	11°1/26.6	18	
12 13	8 39.24	+ 9 1.4	1.432	2.197	20.1	20.9	12 13	8 35.90	- 8 37.2	2.148	2.799	17.3	18.8
12 23	8 36.55	+ 8 51.4	1.355	2.204	16.5	20.7	12 23	8 33.00	-10 11.4	2.046	2.784	15.7	18.6
1 2	8 30.71	+ 9 1.0	1.296	2.210	12.3	20.4	1 2	8 27.83	-11 27.8	1.962	2.768	13.9	18.5
1 12	8 22.36	+ 9 30.2	1.259	2.217	7.7	20.2	1 12	8 20.82	-12 20.6	1.899	2.754	12.2	18.3
1 22	8 12.57	+10 16.2	1.248	2.224	4.2	20.0	1 22	8 12.64	-12 45.7	1.859	2.739	11.2	18.2
2 1	8 2.77	+11 13.8	1.263	2.232	6.2	20.1	2 1	8 4.21	-12 41.1	1.843	2.725	11.2	18.2
2 11	7 54.42	+12 16.0	1.304	2.240	10.6	20.4	2 11	7 56.54	-12 9.0	1.851	2.712	12.4	18.2
2 21	7 48.61	+13 16.6	1.369	2.248	14.9	20.7	2 21	7 50.51	-11 14.4	1.881	2.698	14.2	18.3
<b>499067</b>	2009 <i>DC</i> <sub>133</sub>		1 21.8 257°24	1°5/21.2	17		<b>89027</b>	2001 <i>TN</i> <sub>102</sub>		1 21.8 12°93	8°3/25.6	18	
12 13	8 42.93	+21 56.6	1.825	2.598	16.1	22.2	12 13	8 38.33	- 2 20.5	2.266	2.944	15.9	18.9
12 23	8 39.20	+22 19.9	1.723	2.585	12.9	21.9	12 23	8 34.57	- 3 42.5	2.175	2.945	13.9	18.7
1 2	8 32.49	+22 51.0	1.643	2.571	9.1	21.6	1 2	8 28.68	- 4 49.5	2.104	2.947	11.7	18.6
1 12	8 23.30	+23 25.6	1.588	2.557	4.7	21.3	1 12	8 21.14	- 5 37.4	2.056	2.949	9.6	18.4
1 22	8 12.56	+23 58.4	1.560	2.543	1.6	21.1	1 22	8 12.64	- 6 3.9	2.034	2.951	8.4	18.4
2 1	8 1.56	+24 24.5	1.562	2.529	5.5	21.3	2 1	8 4.07	- 6 8.4	2.039	2.953	8.6	18.4
2 11	7 51.74	+24 40.4	1.591	2.514	10.1	21.6	2 11	7 56.35	- 5 53.1	2.071	2.955	10.1	18.5
2 21	7 44.22	+24 45.5	1.645	2.499	14.1	21.8	2 21	7 50.23	- 5 22.2	2.126	2.958	12.2	18.6
<b>179813</b>	2002 <i>TB</i> <sub>79</sub>		1 21.8 62°80	0°5/21.6	18		<b>295816</b>	2008 <i>UV</i> <sub>331</sub>		1 21.9 309°71	5°6/23.3	18	
12 13	8 41.01	+17 50.2	1.612	2.389	17.7	20.2	12 13	8 42.20	+10 28.4	1.502	2.263	19.5	20.0
12 23	8 37.60	+18 27.7	1.542	2.405	14.1	19.9	12 23	8 38.98	+ 9 19.1	1.407	2.252	16.3	19.8
1 2	8 31.20	+19 17.5	1.493	2.422	9.7	19.7	1 2	8 32.54	+ 8 20.7	1.331	2.241	12.4	19.5
1 12	8 22.51	+20 15.1	1.468	2.438	4.9	19.5	1 12	8 23.41	+ 7 35.9	1.277	2.230	8.3	19.2
1 22	8 12.58	+21 13.9	1.471	2.455	0.5	19.2	1 22	8 12.62	+ 7 6.3	1.250	2.220	5.6	19.1
2 1	8 2.75	+22 7.9	1.502	2.472	5.2	19.6	2 1	8 1.60	+ 6 52.1	1.248	2.210	7.4	19.1
2 11	7 54.38	+22 52.2	1.560	2.488	9.8	19.9	2 11	7 51.91	+ 6 51.2	1.273	2.201	11.5	19.3
2 21	7 48.42	+23 25.0	1.643	2.505	13.7	20.2	2 21	7 44.77	+ 7 0.0	1.320	2.191	15.8	19.6
<b>422930</b>	2002 <i>TQ</i> <sub>243</sub>		1 21.8 65°96	0°4/21.6	18		<b>202759</b>	2007 <i>RL</i> <sub>57</sub>		1 21.9 269°70	1°5/22.6	17	
12 13	8 39.71	+											

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>349105</b>	2007 <i>GQ</i> <sub>8</sub>		1 21.9 182°15	3°0/20.4	18		<b>458367</b>	2010 <i>VB</i> <sub>220</sub>		1 21.9 49°16	3°3/22.9	18	
12 13	8 46.99	+25 28.0	1.933	2.699	15.6	22.3	12 13	8 45.40	+14 24.6	1.518	2.283	19.2	20.8
12 23	8 42.18	+26 9.5	1.844	2.701	12.4	22.1	12 23	8 40.95	+13 30.7	1.453	2.304	15.5	20.6
1 2	8 34.39	+26 56.2	1.776	2.701	8.7	21.9	1 2	8 33.42	+12 47.1	1.407	2.325	11.2	20.4
1 12	8 24.21	+27 42.2	1.735	2.701	4.9	21.7	1 12	8 23.60	+12 14.3	1.386	2.347	6.6	20.2
1 22	8 12.63	+28 21.1	1.723	2.700	3.1	21.5	1 22	8 12.69	+11 51.5	1.391	2.369	3.3	20.0
2 1	8 0.96	+28 47.9	1.740	2.698	6.1	21.7	2 1	8 2.10	+11 37.5	1.424	2.392	5.7	20.2
2 11	7 50.61	+29 0.0	1.786	2.696	10.0	22.0	2 11	7 53.18	+11 30.0	1.484	2.415	10.0	20.5
2 21	7 42.61	+28 58.2	1.857	2.693	13.6	22.2	2 21	7 46.83	+11 26.7	1.568	2.438	13.8	20.8
<b>82558</b>	2001 <i>OM</i> <sub>76</sub>		1 21.9 78°91	2°5/20.6	18		<b>452446</b>	2003 <i>SC</i> <sub>118</sub>		1 21.9 97°89	3°0/23.1	18	
12 13	8 42.25	+26 23.6	2.275	3.041	13.5	20.3	12 13	8 43.29	+12 1.7	1.735	2.486	17.6	20.7
12 23	8 37.70	+26 48.4	2.201	3.058	10.7	20.1	12 23	8 39.09	+11 44.1	1.657	2.500	14.3	20.5
1 2	8 30.81	+27 15.2	2.150	3.075	7.4	19.9	1 2	8 32.10	+11 39.6	1.600	2.514	10.4	20.3
1 12	8 22.18	+27 39.8	2.127	3.093	4.1	19.8	1 12	8 22.98	+11 47.6	1.568	2.528	6.2	20.1
1 22	8 12.67	+27 58.0	2.132	3.110	2.5	19.7	1 22	8 12.70	+12 5.8	1.563	2.541	3.0	19.9
2 1	8 3.31	+28 7.0	2.168	3.127	5.0	19.9	2 1	8 2.53	+12 30.9	1.586	2.554	5.2	20.1
2 11	7 55.10	+28 5.6	2.232	3.144	8.2	20.1	2 11	7 53.69	+12 59.0	1.637	2.567	9.2	20.3
2 21	7 48.79	+27 54.4	2.323	3.161	11.1	20.3	2 21	7 47.10	+13 26.8	1.714	2.580	13.0	20.6
<b>171640</b>	2000 <i>EZ</i> <sub>125</sub>		1 21.9 350°57	4°1/24.0	18		<b>153034</b>	2000 <i>PY</i> <sub>17</sub>		1 21.9 118°89	2°0/20.9	18	
12 13	8 32.84	+7 40.3	1.326	2.106	20.7	19.2	12 13	8 45.00	+24 46.0	2.169	2.930	14.2	20.8
12 23	8 31.89	+7 50.2	1.241	2.098	17.2	18.9	12 23	8 40.00	+25 4.0	2.089	2.944	11.3	20.6
1 2	8 27.79	+8 24.9	1.173	2.092	12.9	18.6	1 2	8 32.49	+25 25.1	2.033	2.957	7.8	20.5
1 12	8 21.06	+9 24.9	1.127	2.086	8.1	18.3	1 12	8 23.09	+25 45.3	2.003	2.970	4.2	20.2
1 22	8 12.69	+10 46.5	1.105	2.082	4.3	18.1	1 22	8 12.70	+26 0.2	2.003	2.983	2.0	20.1
2 1	8 4.10	+12 22.2	1.108	2.079	6.2	18.2	2 1	8 2.45	+26 7.0	2.033	2.995	4.9	20.3
2 11	7 56.84	+14 1.9	1.136	2.078	11.1	18.5	2 11	7 53.41	+26 4.3	2.092	3.007	8.4	20.6
2 21	7 52.15	+15 36.5	1.187	2.077	15.8	18.7	2 21	7 46.41	+25 52.7	2.177	3.019	11.6	20.8
<b>152604</b>	1995 <i>VJ</i> <sub>16</sub>		1 21.9 145°10	1°7/22.8	18		<b>223711</b>	2004 <i>RL</i> <sub>71</sub>		1 21.9 175°63	0°7/21.4	18	
12 13	8 40.44	+13 27.0	2.413	3.151	13.6	20.6	12 13	8 40.55	+19 46.5	2.262	3.021	13.8	20.6
12 23	8 36.08	+13 26.7	2.323	3.159	11.0	20.4	12 23	8 36.51	+20 15.7	2.169	3.022	11.0	20.4
1 2	8 29.63	+13 35.9	2.255	3.167	7.9	20.2	1 2	8 30.15	+20 52.7	2.099	3.023	7.6	20.2
1 12	8 21.60	+13 53.3	2.213	3.175	4.4	20.0	1 12	8 21.97	+21 33.9	2.055	3.024	3.9	19.9
1 22	8 12.70	+14 16.5	2.201	3.182	1.7	19.8	1 22	8 12.73	+22 15.2	2.041	3.025	0.8	19.7
2 1	8 3.79	+14 43.0	2.220	3.189	3.9	20.0	2 1	8 3.42	+22 52.5	2.058	3.025	4.3	20.0
2 11	7 55.78	+15 9.9	2.269	3.195	7.2	20.2	2 11	7 55.06	+23 22.7	2.103	3.025	8.0	20.2
2 21	7 49.36	+15 34.9	2.344	3.201	10.3	20.4	2 21	7 48.48	+23 44.4	2.175	3.024	11.3	20.4
<b>422585</b>	2014 <i>TL</i> <sub>59</sub>		1 21.9 199°59	2°8/20.4	18		<b>210911</b>	2001 <i>SJ</i> <sub>242</sub>		1 21.9 34°11	2°4/23.2	18	
12 13	8 44.41	+26 13.6	2.223	2.985	13.9	21.1	12 13	8 36.64	+11 54.3	1.946	2.702	15.8	20.5
12 23	8 39.76	+26 48.9	2.127	2.982	11.1	20.9	12 23	8 33.56	+11 53.6	1.868	2.714	12.8	20.3
1 2	8 32.51	+27 27.9	2.055	2.979	7.8	20.7	1 2	8 28.13	+12 5.8	1.812	2.728	9.2	20.1
1 12	8 23.19	+28 5.4	2.009	2.974	4.4	20.5	1 12	8 20.92	+12 29.7	1.781	2.742	5.4	19.9
1 22	8 12.67	+28 36.5	1.993	2.969	2.9	20.4	1 22	8 12.76	+13 2.6	1.777	2.756	2.4	19.7
2 1	8 2.06	+28 56.9	2.007	2.964	5.5	20.5	2 1	8 4.65	+13 40.9	1.801	2.771	4.5	19.9
2 11	7 52.52	+29 4.8	2.050	2.958	9.0	20.7	2 11	7 57.62	+14 20.4	1.854	2.786	8.2	20.1
2 21	7 44.99	+29 0.4	2.119	2.952	12.2	20.9	2 21	7 52.45	+14 57.9	1.932	2.802	11.6	20.4
<b>427445</b>	2001 <i>QA</i> <sub>110</sub>		1 21.9 132°81	4°6/19.1	18		<b>469071</b>	2015 <i>BD</i> <sub>65</sub>		1 21.9 239°65	1°5/20.9	18	
12 13	8 45.29	+35 32.8	2.816	3.568	11.5	21.5	12 13	8 38.24	+20 52.8	2.336	3.099	13.3	21.5
12 23	8 39.83	+36 10.1	2.739	3.580	9.3	21.4	12 23	8 34.72	+21 42.0	2.239	3.096	10.5	21.3
1 2	8 32.15	+36 44.2	2.685	3.592	7.0	21.2	1 2	8 28.95	+22 39.3	2.165	3.092	7.3	21.1
1 12	8 22.84	+37 9.9	2.660	3.604	5.1	21.1	1 12	8 21.39	+23 40.7	2.119	3.088	3.8	20.8
1 22	8 12.68	+37 23.2	2.664	3.615	4.7	21.1	1 22	8 12.75	+24 41.3	2.103	3.084	1.5	20.7
2 1	8 2.65	+37 21.7	2.698	3.625	6.1	21.2	2 1	8 3.97	+25 36.0	2.117	3.080	4.6	20.9
2 11	7 53.69	+37 5.3	2.761	3.636	8.3	21.4	2 11	7 56.05	+26 21.3	2.159	3.076	8.1	21.1
2 21	7 46.52	+36 35.9	2.850	3.645	10.5	21.5	2 21	7 49.81	+26 55.4	2.228	3.072	11.3	21.3
<b>428971</b>	2008 <i>YS</i> <sub>150</sub>		1 21.9 194°97	0°5/22.2	17		<b>325456</b>	2009 <i>QT</i> <sub>27</sub>		1 21.9 123°55	2°2/23.3	18	
12 13	8 37.88	+16 43.6	2.544	3.293	12.7	21.9	12 13	8 41.20	+10 40.2	2.478	3.202	13.6	22.1
12 23	8 34.08	+16 58.5	2.446	3.292	10.1	21.7	12 23	8 36.53	+10 49.3	2.395	3.221	11.0	21.9
1 2	8 28.28	+17 21.4	2.371	3.291	7.1	21.5	1 2	8 29.87	+11 9.8	2.334	3.240	8.0	21.8
1 12	8 20.94	+17 50.1	2.323	3.290	3.7	21.3	1 12	8 21.71	+11 40.3	2.301	3.258	4.7	21.6
1 22	8 12.72	+18 21.9	2.305	3.288	0.5	21.0	1 22	8 12.76	+12 18.2	2.297	3.276	2.3	21.4
2 1	8 4.42	+18 53.5	2.317	3.287	3.6	21.3	2 1	8 3.86	+13 0.6	2.325	3.292	3.9	21.6
2 11	7 56.91	+19 22.4	2.359	3.285	7.0	21.5	2 11	7 55.87	+13 43.9	2.383	3.308	7.0	21.8
2 21	7 50.90	+19 46.6	2.428	3.283	10.1	21.7	2 21	7 49.43	+14 25.2	2.468	3.324	9.9	22.0
<b>242219</b>	2003 <i>RZ</i> <sub>22</sub>		1 21.9 110°94	1°0/21.4	18		<b>154070</b>	2002 <i>CK</i> <sub>198</sub>		1 21.9 134°05	1°6/21.1	18	
12 13	8 45.30	+20 22.4	1.872	2.635	16.1	21.7	12 13	8 43.06	+23 24.3	2.188	2.951	14.1	20.8
12 23	8 40.57	+20 52.7	1.799	2.654	12.8	21.5	12 23	8 38.52	+23 41.8	2.102	2.958	11.2	20.6
1 2	8 33.05	+21 31.2	1.747	2.673	8.8	21.3	1 2	8 31.52	+24 3.5	2.040	2.965	7.8	20.4
1 12	8 23.42	+22 13.2	1.722	2.691	4.4	21.1	1 12	8 22.65	+24 25.8	2.003	2.972	4.0	20.1
1 22	8 12.68	+22 53.5	1.725	2.708	1.1	20.9	1 22	8 12.75	+24 44.5	1.997	2.978	1.6	20.0
2 1	8 2.07	+23 27.4	1.758	2.725	4.9	21.2	2 1	8 2.90	+24 56.5	2.020	2.985	4.7	20.2
2 11	7 52.82	+23 51.9	1.819	2.741	9.1	21.5	2 11	7 54.17	+24 59.9	2.072	2.991	8.3	20.4
2 21	7 45.83	+24 6.4	1.906	2.757	12.6	21.8	2 21	7 47.38	+24 54.9	2.150	2.996	11.6	20.7
<b>395321</b>	2011 <i>OW</i> <sub>33</sub>		1 21.9 246°93	1°1/21.4	18		<b>234056</b>	1999 <i>FZ</i> <sub>19</sub>		1 21.9 162°90	2°6/23.5	18	
12 13	8 44.42	+20 41.5											

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>32952</b>	1996 FA <sub>16</sub>		1 21.9	51°32'	5°3'/19.9	18	<b>302924</b>	2003 SA <sub>211</sub>		1 21.9	59°29'	3°4'/23.2	18
12 13	8 45.59	+28 47.0	1.339	2.139	19.5	18.4	12 13	8 41.90	+11 57.7	1.540	2.304	19.0	20.2
12 23	8 42.26	+29 38.5	1.275	2.149	15.6	18.1	12 23	8 38.43	+11 32.0	1.463	2.312	15.5	20.0
1 2	8 35.03	+30 33.6	1.230	2.160	11.2	17.9	1 2	8 31.92	+11 20.4	1.405	2.321	11.3	19.8
1 12	8 24.70	+31 23.1	1.208	2.172	6.9	17.7	1 12	8 23.02	+11 22.9	1.370	2.330	6.8	19.5
1 22	8 12.72	+31 57.6	1.212	2.184	5.4	17.7	1 22	8 12.80	+11 37.5	1.361	2.339	3.5	19.4
2 1	8 0.96	+32 11.2	1.241	2.196	8.5	17.9	2 1	8 2.64	+12 0.9	1.380	2.349	5.7	19.5
2 11	7 51.26	+32 2.8	1.295	2.208	12.7	18.1	2 11	7 53.92	+12 28.7	1.425	2.358	10.1	19.8
2 21	7 44.82	+31 36.0	1.371	2.220	16.7	18.4	2 21	7 47.66	+12 57.0	1.495	2.368	14.2	20.0
<b>207392</b>	2005 WO <sub>54</sub>		1 21.9	303°54'	16°5'/9.9	17	<b>819</b>	Barnardiana		1 21.9	204°21'	1°7'/21.2	18 R
12 13	8 46.86	+41 39.0	1.107	1.919	22.0	19.6	12 13	8 47.39	+22 48.9	1.732	2.501	17.0	16.0
12 23	8 46.58	+45 32.7	1.047	1.910	19.2	19.4	12 23	8 42.87	+23 8.1	1.639	2.497	13.6	15.7
1 2	8 40.64	+49 29.7	1.008	1.901	17.1	19.2	1 2	8 35.12	+23 34.0	1.566	2.493	9.5	15.5
1 12	8 28.91	+53 4.4	0.990	1.892	16.5	19.1	1 12	8 24.74	+24 1.9	1.519	2.488	5.0	15.2
1 22	8 12.65	+55 50.7	0.995	1.883	17.9	19.2	1 22	8 12.78	+24 26.0	1.500	2.483	1.8	15.0
2 1	7 54.99	+57 31.6	1.020	1.875	20.5	19.3	2 1	8 0.69	+24 41.6	1.511	2.476	5.8	15.2
2 11	7 40.07	+58 6.4	1.062	1.867	23.4	19.5	2 11	7 50.00	+24 46.2	1.548	2.470	10.4	15.5
2 21	7 30.96	+57 47.2	1.117	1.859	26.2	19.7	2 21	7 41.88	+24 39.9	1.611	2.462	14.5	15.7
<b>31707</b>	1999 JH <sub>49</sub>		1 21.9	177°51'	2°0'/20.5	18	<b>39963</b>	1998 FQ <sub>132</sub>		1 21.9	20°47'	1°6'/22.4	18
12 13	8 39.14	+25 0.4	2.760	3.519	11.5	19.6	12 13	8 38.74	+16 19.4	1.170	1.974	21.6	18.3
12 23	8 35.01	+25 36.2	2.667	3.520	9.1	19.5	12 23	8 36.87	+16 6.2	1.105	1.981	17.4	18.0
1 2	8 28.90	+26 15.4	2.597	3.521	6.4	19.3	1 2	8 31.32	+16 7.3	1.057	1.990	12.3	17.7
1 12	8 21.27	+26 54.4	2.556	3.522	3.5	19.1	1 12	8 22.86	+16 20.6	1.030	1.999	6.6	17.5
1 22	8 12.78	+27 29.3	2.544	3.522	2.1	19.0	1 22	8 12.80	+16 41.8	1.027	2.010	1.6	17.2
2 1	8 4.24	+27 56.9	2.564	3.522	4.4	19.2	2 1	8 2.89	+17 5.9	1.049	2.022	6.0	17.5
2 11	7 56.49	+28 15.2	2.613	3.522	7.3	19.3	2 11	7 54.85	+17 28.1	1.095	2.035	11.5	17.8
2 21	7 50.23	+28 23.9	2.688	3.521	9.9	19.5	2 21	7 49.84	+17 45.1	1.162	2.049	16.3	18.2
<b>374061</b>	2004 RY <sub>5</sub>		1 21.9	168°44'	6°7'/18.1	18	<b>492008</b>	2013 FE <sub>13</sub>		1 21.9	340°82'	1°7'/21.0	18
12 13	8 49.03	+39 34.2	2.391	3.144	13.3	21.6	12 13	8 39.31	+19 33.7	1.462	2.253	18.6	21.1
12 23	8 43.55	+40 31.9	2.311	3.147	11.0	21.4	12 23	8 36.99	+20 24.9	1.377	2.249	14.8	20.9
1 2	8 35.19	+41 24.5	2.255	3.150	8.8	21.3	1 2	8 31.34	+21 30.6	1.313	2.246	10.3	20.6
1 12	8 24.58	+42 4.7	2.225	3.153	7.1	21.2	1 12	8 22.92	+22 45.1	1.272	2.243	5.3	20.3
1 22	8 12.74	+42 26.4	2.224	3.155	6.9	21.1	1 22	8 12.80	+24 0.2	1.258	2.240	1.8	20.1
2 1	8 0.98	+42 25.9	2.251	3.157	8.3	21.2	2 1	8 2.48	+25 7.6	1.271	2.238	6.3	20.4
2 11	7 50.59	+42 3.7	2.304	3.158	10.5	21.4	2 11	7 53.60	+26 0.9	1.309	2.236	11.3	20.6
2 21	7 42.53	+41 23.1	2.382	3.159	12.8	21.5	2 21	7 47.40	+26 37.7	1.371	2.235	15.8	20.9
<b>60223</b>	1999 VD <sub>118</sub>		1 21.9	37°19'	1°4'/21.2	18	<b>318795</b>	2005 SM <sub>136</sub>		1 21.9	192°71'	0°5'/22.2	17
12 13	8 39.83	+21 31.3	1.900	2.675	15.5	19.7	12 13	8 41.51	+16 23.1	2.435	3.178	13.3	22.2
12 23	8 36.41	+21 59.8	1.816	2.679	12.3	19.5	12 23	8 37.09	+16 39.5	2.333	3.176	10.7	22.0
1 2	8 30.31	+22 35.8	1.754	2.683	8.5	19.2	1 2	8 30.48	+17 4.6	2.255	3.173	7.5	21.8
1 12	8 22.13	+23 15.0	1.718	2.688	4.4	19.0	1 12	8 22.15	+17 36.1	2.204	3.170	4.0	21.6
1 22	8 12.78	+23 52.5	1.710	2.693	1.5	18.8	1 22	8 12.82	+18 10.9	2.183	3.167	0.5	21.3
2 1	8 3.40	+24 23.6	1.731	2.697	5.0	19.1	2 1	8 3.38	+18 45.6	2.193	3.162	3.8	21.6
2 11	7 55.22	+24 45.3	1.779	2.702	9.1	19.3	2 11	7 54.78	+19 17.2	2.233	3.157	7.5	21.8
2 21	7 49.15	+24 56.8	1.852	2.708	12.7	19.6	2 21	7 47.81	+19 43.6	2.300	3.151	10.7	22.0
<b>6412</b>	Kaifu		1 21.9	303°85'	4°9'/19.9	18	<b>502559</b>	2015 BL <sub>483</sub>		1 21.9	226°61'	0°7'/22.3	18
12 13	8 44.78	+28 47.8	1.523	2.314	18.0	17.3	12 13	8 38.52	+16 19.8	2.308	3.061	13.7	21.9
12 23	8 41.43	+29 32.0	1.440	2.310	14.5	17.0	12 23	8 34.84	+16 28.6	2.211	3.059	11.0	21.7
1 2	8 34.46	+30 19.9	1.376	2.305	10.4	16.8	1 2	8 28.97	+16 46.1	2.137	3.058	7.7	21.5
1 12	8 24.50	+31 3.7	1.337	2.300	6.4	16.5	1 12	8 21.39	+17 10.3	2.089	3.056	4.1	21.3
1 22	8 12.76	+31 35.0	1.323	2.296	5.0	16.4	1 22	8 12.84	+17 38.3	2.070	3.054	0.7	21.0
2 1	8 0.94	+31 47.6	1.337	2.291	8.0	16.6	2 1	8 4.21	+18 6.9	2.081	3.051	3.9	21.3
2 11	7 50.80	+31 39.8	1.376	2.287	12.3	16.8	2 11	7 56.45	+18 33.3	2.122	3.049	7.6	21.5
2 21	7 43.63	+31 14.1	1.437	2.283	16.3	17.1	2 21	7 50.35	+18 55.4	2.188	3.047	10.9	21.7
<b>222250</b>	2000 QO <sub>28</sub>		1 21.9	126°12'	4°5'/19.7	18	<b>58337</b>	1994 WV		1 21.9	86°29'	0°9'/21.5	18
12 13	8 47.74	+32 33.4	2.304	3.063	13.6	20.9	12 13	8 48.08	+20 4.1	1.565	2.336	18.4	19.5
12 23	8 42.20	+33 10.6	2.229	3.077	10.9	20.8	12 23	8 43.15	+20 27.7	1.504	2.363	14.6	19.3
1 2	8 34.04	+33 46.1	2.177	3.091	8.0	20.6	1 2	8 35.03	+21 0.4	1.463	2.390	10.1	19.1
1 12	8 23.91	+34 14.0	2.152	3.105	5.3	20.5	1 12	8 24.50	+21 37.3	1.447	2.416	5.1	18.8
1 22	8 12.78	+34 29.2	2.156	3.118	4.6	20.4	1 22	8 12.80	+22 12.3	1.459	2.442	0.9	18.6
2 1	8 1.82	+34 28.9	2.190	3.131	6.4	20.6	2 1	8 1.44	+22 40.5	1.499	2.468	5.4	19.0
2 11	7 52.17	+34 12.8	2.253	3.143	9.2	20.8	2 11	7 51.81	+22 59.1	1.567	2.493	10.0	19.3
2 21	7 44.66	+33 43.2	2.341	3.154	11.9	21.0	2 21	7 44.88	+23 7.8	1.660	2.517	13.9	19.6
<b>184269</b>	2004 XO <sub>11</sub>		1 21.9	331°35'	1°1'/22.3	18	<b>236302</b>	2006 AA <sub>98</sub>		1 21.9	212°94'	0°2'/22.1	18
12 13	8 38.09	+15 41.6	1.402	2.191	19.4	20.2	12 13	8 38.96	+15 35.3	2.404	3.152	13.4	21.1
12 23	8 36.06	+15 48.8	1.313	2.182	15.7	19.9	12 23	8 35.18	+16 15.5	2.301	3.146	10.7	20.9
1 2	8 30.73	+16 11.0	1.243	2.173	11.2	19.7	1 2	8 29.24	+17 6.9	2.221	3.141	7.5	20.7
1 12	8 22.62	+16 45.9	1.196	2.165	6.0	19.3	1 12	8 21.57	+18 6.6	2.168	3.135	3.9	20.4
1 22	8 12.79	+17 29.1	1.174	2.158	1.1	19.0	1 22	8 12.84	+19 10.5	2.145	3.129	0.2	20.1
2 1	8 2.73	+18 14.5	1.178	2.151	5.7	19.3	2 1	8 3.94	+20 13.8	2.153	3.123	3.9	20.4
2 11	7 54.09	+18 56.4	1.208	2.145	11.1	19.6	2 11	7 55.82	+21 12.4	2.191	3.116	7.6	20.6
2 21	7 48.11	+19 30.7	1.260	2.139	15.8	19.8	2 21	7 49.28	+22 3.2	2.257	3.109	10.9	20.8
<b>35957</b>	1999 LZ <sub>3</sub>		1 21.9	204°79'	1°2'/22.5	18	<b>300291</b>	2007 PN <sub>3</sub>		1 21.9	94°31'	0°7'/21.6	17
12 13	8 41.98	+13 59.7	1.964	2.715	15.9	19.8	12 13	8 45.16	+18 54.6	1.702	2.470	1	

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>219420</b>	2000 SC <sub>319</sub>		1 21.9 34°64	0°2/21.9 18			<b>372507</b>	2009 SO <sub>282</sub>		1 21.9 56°45	2°3/20.7 18		
12 13	8 44.67	+21 6.2	1.532	2.313	18.3	19.4	12 13	8 40.72	+23 8.6	1.862	2.639	15.7	21.1
12 23	8 40.56	+20 34.8	1.464	2.328	14.6	19.2	12 23	8 37.23	+23 49.6	1.781	2.645	12.4	20.9
1 2	8 33.28	+20 8.5	1.415	2.344	10.2	19.0	1 2	8 30.97	+24 37.6	1.722	2.651	8.6	20.7
1 12	8 23.63	+19 45.0	1.391	2.361	5.2	18.7	1 12	8 22.53	+25 27.4	1.689	2.657	4.6	20.5
1 22	8 12.83	+19 22.1	1.394	2.378	0.2	18.4	1 22	8 12.87	+26 13.1	1.684	2.664	2.3	20.3
2 1	8 2.33	+18 58.1	1.424	2.396	5.2	18.8	2 1	8 3.20	+26 49.5	1.707	2.670	5.6	20.5
2 11	7 53.52	+18 32.4	1.482	2.414	9.8	19.1	2 11	7 54.77	+27 13.6	1.758	2.677	9.5	20.8
2 21	7 47.34	+18 5.3	1.564	2.433	13.9	19.4	2 21	7 48.55	+27 24.9	1.834	2.683	13.1	21.0
<b>344018</b>	2012 DN <sub>57</sub>		1 21.9 91°35	4°4/24.4 18			<b>138485</b>	2000 KY <sub>9</sub>		1 21.9 27°13	11°1/26.3 18		
12 13	8 39.85	+ 6 11.0	1.890	2.620	17.1	21.1	12 13	8 39.34	- 3 12.1	1.592	2.296	20.7	19.4
12 23	8 36.17	+ 6 5.2	1.810	2.634	14.1	20.9	12 23	8 36.31	- 4 55.4	1.517	2.302	18.2	19.3
1 2	8 30.01	+ 6 16.8	1.750	2.648	10.7	20.7	1 2	8 30.43	- 6 17.7	1.459	2.309	15.4	19.1
1 12	8 21.96	+ 6 46.0	1.714	2.662	7.1	20.5	1 12	8 22.30	- 7 12.4	1.421	2.317	12.9	18.9
1 22	8 12.85	+ 7 30.7	1.706	2.675	4.5	20.4	1 22	8 12.88	- 7 35.4	1.407	2.325	11.3	18.9
2 1	8 3.78	+ 8 26.8	1.726	2.689	5.6	20.5	2 1	8 3.42	- 7 26.0	1.416	2.333	11.4	18.9
2 11	7 55.82	+ 9 29.0	1.774	2.702	8.8	20.7	2 11	7 55.23	- 6 48.6	1.450	2.342	13.1	19.0
2 21	7 49.82	+10 31.8	1.848	2.715	12.2	20.9	2 21	7 49.29	- 5 50.5	1.505	2.351	15.6	19.2
<b>183383</b>	2002 XM <sub>54</sub>		1 21.9 30°92	5°6/24.8 18			<b>163362</b>	2002 OZ <sub>14</sub>		1 21.9 98°46	2°2/22.9 18 R		
12 13	8 37.10	+ 4 15.7	2.102	2.822	15.9	19.8	12 13	8 41.51	+13 56.9	2.285	3.026	14.2	19.7
12 23	8 33.78	+ 3 33.9	2.015	2.828	13.3	19.7	12 23	8 37.03	+13 29.5	2.197	3.035	11.5	19.5
1 2	8 28.25	+ 3 6.9	1.949	2.834	10.5	19.5	1 2	8 30.37	+13 10.0	2.132	3.044	8.3	19.3
1 12	8 21.03	+ 2 56.5	1.906	2.840	7.6	19.3	1 12	8 22.07	+12 58.0	2.092	3.053	4.8	19.1
1 22	8 12.87	+ 3 2.7	1.890	2.846	5.8	19.2	1 22	8 12.88	+12 52.3	2.082	3.061	2.3	19.0
2 1	8 4.69	+ 3 24.1	1.903	2.853	6.3	19.3	2 1	8 3.75	+12 51.4	2.103	3.070	4.2	19.1
2 11	7 57.44	+ 3 57.2	1.942	2.861	8.8	19.4	2 11	7 55.60	+12 53.4	2.152	3.079	7.6	19.4
2 21	7 51.89	+ 4 37.7	2.007	2.868	11.6	19.6	2 21	7 49.17	+12 56.6	2.228	3.087	10.7	19.6
<b>336044</b>	2007 WB <sub>3</sub>		1 21.9 104°65	0°2/21.9 18			<b>83823</b>	2001 UP <sub>9</sub>		1 21.9 174°90	3°9/18.9 18		
12 13	8 40.48	+19 1.1	2.470	3.221	12.9	21.1	12 13	8 40.81	+31 24.0	2.851	3.610	11.2	19.5
12 23	8 36.10	+18 59.6	2.383	3.231	10.3	20.9	12 23	8 36.44	+32 19.3	2.762	3.612	9.0	19.3
1 2	8 29.66	+19 3.6	2.319	3.241	7.2	20.7	1 2	8 29.98	+33 15.1	2.698	3.614	6.6	19.1
1 12	8 21.67	+19 11.1	2.282	3.250	3.7	20.5	1 12	8 21.90	+34 6.3	2.662	3.615	4.5	19.0
1 22	8 12.87	+19 19.7	2.276	3.260	0.2	20.2	1 22	8 12.89	+34 48.4	2.656	3.616	4.0	19.0
2 1	8 4.12	+19 27.1	2.299	3.269	3.7	20.5	2 1	8 3.81	+35 17.9	2.680	3.616	5.7	19.1
2 11	7 56.29	+19 31.7	2.353	3.278	7.1	20.8	2 11	7 55.57	+35 33.2	2.733	3.616	8.0	19.2
2 21	7 50.09	+19 32.5	2.433	3.287	10.1	21.0	2 21	7 48.89	+35 34.9	2.812	3.616	10.4	19.4
<b>135227</b>	2001 RX <sub>121</sub>		1 21.9 90°86	0°1/21.9 18			<b>94122</b>	2000 YJ <sub>108</sub>		1 21.9 29°10	1°0/21.5 18		
12 13	8 38.34	+17 26.2	2.384	3.139	13.3	20.2	12 13	8 40.16	+21 12.4	1.593	2.379	17.5	19.9
12 23	8 34.55	+17 47.6	2.299	3.149	10.6	20.1	12 23	8 37.08	+21 24.4	1.520	2.389	13.9	19.7
1 2	8 28.66	+18 17.2	2.237	3.159	7.3	19.9	1 2	8 30.98	+21 44.1	1.469	2.400	9.6	19.5
1 12	8 21.20	+18 52.3	2.201	3.169	3.8	19.7	1 12	8 22.55	+22 7.5	1.441	2.412	4.9	19.2
1 22	8 12.87	+19 29.5	2.195	3.179	0.1	19.4	1 22	8 12.89	+22 29.6	1.440	2.424	1.1	19.0
2 1	8 4.55	+20 5.3	2.220	3.189	3.8	19.7	2 1	8 3.35	+22 46.3	1.467	2.437	5.3	19.3
2 11	7 57.14	+20 36.9	2.273	3.199	7.3	19.9	2 11	7 55.29	+22 54.9	1.521	2.450	9.8	19.6
2 21	7 51.32	+21 2.3	2.354	3.209	10.4	20.2	2 21	7 49.68	+22 54.8	1.598	2.464	13.8	19.9
<b>241060</b>	2006 SM <sub>141</sub>		1 21.9 128°98	6°3/26.9 18			<b>378451</b>	2007 RY <sub>312</sub>		1 21.9 96°89	2°5/20.4 18		
12 13	8 35.14	- 3 41.6	2.641	3.306	14.1	20.5	12 13	8 42.05	+26 19.0	2.403	3.166	13.0	21.5
12 23	8 31.80	- 3 52.7	2.544	3.309	12.2	20.4	12 23	8 37.50	+26 51.4	2.328	3.183	10.2	21.3
1 2	8 26.67	- 3 46.1	2.467	3.311	10.1	20.2	1 2	8 30.70	+27 26.2	2.275	3.199	7.1	21.1
1 12	8 20.17	- 3 20.0	2.413	3.314	8.0	20.1	1 12	8 22.23	+27 59.0	2.250	3.216	4.0	21.0
1 22	8 12.89	- 2 34.9	2.386	3.317	6.5	20.0	1 22	8 12.89	+28 25.6	2.255	3.231	2.6	20.9
2 1	8 5.54	- 1 32.6	2.388	3.319	6.5	20.0	2 1	8 3.65	+28 42.8	2.290	3.247	4.9	21.1
2 11	7 58.88	- 0 17.5	2.418	3.322	8.0	20.1	2 11	7 55.47	+28 49.2	2.354	3.263	8.0	21.3
2 21	7 53.53	+ 1 5.2	2.475	3.324	10.1	20.2	2 21	7 49.09	+28 45.3	2.444	3.278	10.8	21.5
<b>205851</b>	2002 EH <sub>57</sub>		1 21.9 358°38	4°3/23.8 18			<b>69742</b>	1998 KD <sub>44</sub>		1 21.9 251°08	3°0/23.1 18		
12 13	8 38.53	+ 8 49.3	1.460	2.225	19.8	20.3	12 13	8 41.77	+12 31.5	1.771	2.525	17.2	18.9
12 23	8 36.09	+ 8 37.1	1.376	2.224	16.4	20.0	12 23	8 38.17	+12 10.2	1.674	2.518	14.1	18.6
1 2	8 30.55	+ 8 44.3	1.310	2.223	12.2	19.8	1 2	8 31.73	+12 0.9	1.597	2.512	10.3	18.4
1 12	8 22.46	+ 9 11.3	1.266	2.223	7.7	19.5	1 12	8 23.01	+12 3.5	1.545	2.505	6.2	18.1
1 22	8 12.86	+ 9 55.9	1.247	2.223	4.4	19.3	1 22	8 12.89	+12 16.3	1.520	2.498	3.0	17.9
2 1	8 3.12	+10 53.1	1.255	2.223	6.2	19.4	2 1	8 2.61	+12 36.5	1.523	2.492	5.3	18.0
2 11	7 54.73	+11 56.2	1.288	2.224	10.6	19.7	2 11	7 53.47	+13 0.5	1.554	2.484	9.6	18.3
2 21	7 48.81	+12 58.7	1.345	2.225	15.0	19.9	2 21	7 46.52	+13 25.0	1.609	2.477	13.6	18.5
<b>460123</b>	2014 PH <sub>36</sub>		1 21.9 54°81	0°8/21.6 18			<b>388051</b>	2005 SJ <sub>278</sub>		1 21.9 169°52	2°7/23.2 18		
12 13	8 42.29	+19 50.5	1.540	2.322	18.2	21.6	12 13	8 44.33	+10 56.0	1.886	2.625	16.8	22.9
12 23	8 38.80	+20 11.5	1.471	2.338	14.4	21.4	12 23	8 39.91	+11 0.5	1.795	2.630	13.7	22.7
1 2	8 32.19	+20 42.4	1.423	2.354	10.0	21.2	1 2	8 32.77	+11 19.6	1.724	2.634	10.0	22.4
1 12	8 23.16	+21 18.5	1.399	2.370	5.0	20.9	1 12	8 23.47	+11 52.4	1.678	2.637	5.9	22.2
1 22	8 12.86	+21 54.4	1.402	2.386	0.8	20.7	1 22	8 12.89	+12 35.6	1.661	2.640	2.7	22.0
2 1	8 2.73	+22 24.7	1.433	2.402	5.4	21.0	2 1	8 2.22	+13 25.0	1.673	2.641	4.9	22.1
2 11	7 54.17	+22 46.1	1.490	2.419	10.1	21.3	2 11	7 52.69	+14 15.7	1.714	2.642	9.0	22.4
2 21	7 48.17	+22 57.6	1.571	2.436	14.1	21.6	2 21	7 45.26	+15 3.7	1.781	2.642	12.9	22.6
<b>3166</b>	Klondike		1 21.9 299°03	3°3/20.4 18			<b>198870</b>	2005 RS <sub>27</sub>		1 21.9 73°84	3°6/20.8 18		
12 13	8 41.21	+23 17.6	1.377	2.176	19.1	15.6	12 13	8 49.20	+26 55.8	1.37			

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>274926</b>	2009 <i>SU</i> <sub>168</sub>		1 21.9 87°39	0°1/21.9	18		<b>156459</b>	2002 <i>BQ</i> <sub>27</sub>		1 21.9 108°20	3°8/19.8	18	
12 13	8 44.77	+19 38.1	2.061	2.817	15.1	21.4	12 13	8 48.25	+25 44.1	1.861	2.628	16.1	19.7
12 23	8 39.77	+19 40.9	1.990	2.841	11.9	21.2	12 23	8 43.14	+27 1.9	1.796	2.653	12.7	19.5
1 2	8 32.31	+19 50.1	1.942	2.865	8.3	21.0	1 2	8 35.03	+28 25.3	1.754	2.678	8.9	19.4
1 12	8 23.05	+20 2.7	1.920	2.889	4.2	20.8	1 12	8 24.60	+29 46.4	1.738	2.701	5.2	19.2
1 22	8 12.91	+20 15.4	1.928	2.912	0.1	20.5	1 22	8 12.92	+30 56.9	1.752	2.724	4.0	19.2
2 1	8 2.97	+20 25.5	1.966	2.935	4.2	20.9	2 1	8 1.37	+31 50.7	1.795	2.746	6.7	19.4
2 11	7 54.31	+20 31.0	2.033	2.957	8.1	21.2	2 11	7 51.31	+32 25.2	1.867	2.767	10.2	19.6
2 21	7 47.67	+20 31.3	2.126	2.979	11.4	21.4	2 21	7 43.72	+32 41.5	1.963	2.788	13.4	19.9
<b>313837</b>	2004 <i>CP</i> <sub>100</sub>		1 21.9 2°24	0°2/21.9	18		<b>498926</b>	2009 <i>BW</i> <sub>27</sub>		1 21.9 174°66	0°3/21.7	17	
12 13	8 35.73	+15 59.2	1.339	2.137	19.7	20.1	12 13	8 38.07	+18 32.5	2.658	3.409	12.1	21.8
12 23	8 34.26	+16 30.4	1.261	2.135	15.8	19.8	12 23	8 34.21	+19 0.2	2.562	3.410	9.7	21.6
1 2	8 29.49	+17 18.8	1.201	2.135	11.1	19.5	1 2	8 28.41	+19 35.1	2.489	3.411	6.7	21.4
1 12	8 22.01	+18 20.8	1.164	2.135	5.7	19.2	1 12	8 21.11	+20 14.5	2.444	3.412	3.4	21.2
1 22	8 12.91	+19 29.5	1.152	2.136	0.2	18.8	1 22	8 12.96	+20 55.0	2.429	3.413	0.3	21.0
2 1	8 3.70	+20 37.1	1.167	2.139	5.7	19.2	2 1	8 4.74	+21 33.4	2.445	3.413	3.6	21.2
2 11	7 55.98	+20 36.3	1.206	2.143	11.1	19.6	2 11	7 57.27	+22 6.7	2.491	3.413	6.9	21.5
2 21	7 50.95	+22 23.0	1.267	2.147	15.7	19.8	2 21	7 51.25	+22 33.5	2.564	3.413	9.8	21.6
<b>369863</b>	2012 <i>KK</i> <sub>15</sub>		1 21.9 138°71	2°9/23.5	18		<b>426800</b>	2013 <i>TH</i> <sub>134</sub>		1 21.9 79°49	5°4/25.4	18	
12 13	8 39.09	+10 21.5	2.150	2.888	15.0	22.0	12 13	8 36.99	+ 2 12.9	2.212	2.919	15.5	21.2
12 23	8 35.38	+10 14.7	2.058	2.891	12.3	21.8	12 23	8 33.59	+ 1 58.1	2.125	2.928	13.1	21.0
1 2	8 29.40	+10 20.4	1.987	2.894	9.0	21.6	1 2	8 28.09	+ 2 0.4	2.058	2.937	10.3	20.9
1 12	8 21.66	+10 38.0	1.941	2.898	5.6	21.4	1 12	8 20.98	+ 2 20.9	2.015	2.946	7.5	20.7
1 22	8 12.92	+11 5.8	1.924	2.901	3.0	21.2	1 22	8 12.98	+ 2 58.6	1.999	2.954	5.6	20.6
2 1	8 4.13	+11 40.7	1.937	2.903	4.6	21.3	2 1	8 4.94	+ 3 50.8	2.012	2.963	6.0	20.6
2 11	7 56.27	+12 19.1	1.978	2.906	8.0	21.6	2 11	7 57.79	+ 4 53.0	2.053	2.972	8.3	20.8
2 21	7 50.15	+12 57.4	2.045	2.909	11.3	21.8	2 21	7 52.24	+ 5 59.8	2.120	2.981	11.1	21.0
<b>285304</b>	1998 <i>VR</i> <sub>3</sub>		1 21.9 45°04	1°9/21.2	17		<b>351582</b>	2005 <i>UC</i> <sub>364</sub>		1 21.9 206°02	3°4/20.2	18	
12 13	8 43.40	+21 16.3	1.162	1.967	21.6	20.8	12 13	8 45.17	+24 33.1	1.662	2.441	17.2	21.5
12 23	8 40.62	+21 47.5	1.106	1.985	17.1	20.6	12 23	8 41.41	+25 29.6	1.574	2.438	13.7	21.3
1 2	8 33.93	+22 30.1	1.068	2.004	11.8	20.4	1 2	8 34.33	+26 34.8	1.506	2.435	9.7	21.1
1 12	8 24.19	+23 17.3	1.053	2.024	6.0	20.1	1 12	8 24.49	+27 41.7	1.464	2.431	5.4	20.8
1 22	8 12.90	+24 0.7	1.062	2.045	2.0	19.9	1 22	8 12.94	+28 42.0	1.450	2.427	3.6	20.7
2 1	8 1.95	+24 33.4	1.097	2.066	6.8	20.3	2 1	8 1.20	+29 28.3	1.464	2.422	6.9	20.9
2 11	7 53.14	+24 51.9	1.156	2.087	12.0	20.6	2 11	7 50.86	+29 56.8	1.504	2.417	11.3	21.1
2 21	7 47.60	+24 56.3	1.236	2.109	16.6	21.0	2 21	7 43.18	+30 7.6	1.569	2.412	15.3	21.3
<b>212294</b>	2005 <i>MP</i> <sub>36</sub>		1 21.9 212°04	0°7/21.4	17		<b>96394</b>	1998 <i>DC</i> <sub>12</sub>		1 21.9 75°72	0°9/21.5	18	
12 13	8 38.95	+21 21.0	2.868	3.619	11.3	21.7	12 13	8 44.94	+19 27.6	1.550	2.327	18.3	19.5
12 23	8 34.77	+21 36.2	2.765	3.614	9.0	21.5	12 23	8 40.82	+19 57.7	1.486	2.349	14.5	19.3
1 2	8 28.72	+21 55.8	2.686	3.609	6.2	21.3	1 2	8 33.55	+20 38.3	1.443	2.371	10.0	19.1
1 12	8 21.24	+22 17.4	2.635	3.603	3.2	21.1	1 12	8 23.86	+21 24.2	1.424	2.394	5.1	18.9
1 22	8 12.93	+22 38.1	2.614	3.597	0.7	20.9	1 22	8 12.95	+22 9.2	1.432	2.416	0.9	18.6
2 1	8 4.55	+22 55.4	2.624	3.591	3.6	21.1	2 1	8 2.27	+22 47.6	1.469	2.437	5.4	19.0
2 11	7 56.89	+23 7.5	2.665	3.585	6.6	21.3	2 11	7 53.23	+23 15.8	1.532	2.459	10.0	19.3
2 21	7 50.61	+23 13.6	2.733	3.578	9.4	21.5	2 21	7 46.80	+23 33.0	1.620	2.481	14.0	19.6
<b>38289</b>	1999 <i>RM</i> <sub>70</sub>		1 21.9 232°92	1°9/22.9	18		<b>274936</b>	2009 <i>SS</i> <sub>206</sub>		1 21.9 124°29	1°4/21.2	18	
12 13	8 39.85	+13 29.9	2.217	2.962	14.4	20.1	12 13	8 43.25	+22 34.2	2.142	2.904	14.4	21.4
12 23	8 36.02	+13 25.2	2.115	2.955	11.7	19.9	12 23	8 38.75	+22 53.3	2.058	2.913	11.4	21.2
1 2	8 29.90	+13 30.7	2.034	2.949	8.5	19.7	1 2	8 31.76	+23 17.4	1.998	2.923	7.9	21.0
1 12	8 21.95	+13 45.3	1.980	2.942	4.8	19.4	1 12	8 22.88	+23 42.8	1.964	2.932	4.1	20.8
1 22	8 12.93	+14 6.8	1.954	2.934	1.9	19.2	1 22	8 12.97	+24 5.3	1.959	2.941	1.4	20.6
2 1	8 3.76	+14 32.6	1.958	2.927	4.2	19.4	2 1	8 3.11	+24 21.5	1.984	2.950	4.6	20.8
2 11	7 55.49	+14 59.4	1.991	2.919	7.9	19.6	2 11	7 54.39	+24 29.5	2.038	2.958	8.3	21.1
2 21	7 48.92	+15 24.8	2.050	2.911	11.4	19.8	2 21	7 47.64	+24 29.1	2.118	2.966	11.7	21.3
<b>146500</b>	2001 <i>SM</i> <sub>37</sub>		1 21.9 109°14	0°8/21.5	18		<b>502980</b>	2015 <i>FJ</i> <sub>59</sub>		1 21.9 237°11	4°4/24.4	17	
12 13	8 42.43	+19 59.8	1.984	2.748	15.3	20.6	12 13	8 37.53	+ 5 44.7	2.503	3.215	13.8	21.6
12 23	8 38.26	+20 26.4	1.904	2.760	12.1	20.4	12 23	8 33.84	+ 5 16.0	2.400	3.211	11.5	21.4
1 2	8 31.50	+21 1.0	1.846	2.772	8.4	20.2	1 2	8 28.20	+ 4 59.5	2.319	3.206	8.9	21.3
1 12	8 22.76	+21 39.7	1.815	2.784	4.3	20.0	1 12	8 21.04	+ 4 55.9	2.263	3.201	6.3	21.1
1 22	8 12.92	+22 17.9	1.812	2.795	0.8	19.8	1 22	8 12.98	+ 5 5.2	2.235	3.196	4.5	21.0
2 1	8 3.13	+22 51.1	1.838	2.806	4.6	20.1	2 1	8 4.83	+ 5 25.9	2.236	3.191	5.2	21.0
2 11	7 54.53	+23 16.4	1.893	2.817	8.6	20.3	2 11	7 57.41	+ 5 55.2	2.266	3.185	7.7	21.1
2 21	7 47.99	+23 32.6	1.974	2.827	12.1	20.6	2 21	7 51.42	+ 6 29.9	2.323	3.180	10.4	21.3
<b>25860</b>	2000 <i>FY</i> <sub>11</sub>		1 21.9 139°56	4°3/19.1	18		<b>256159</b>	2006 <i>VF</i> <sub>50</sub>		1 21.9 82°46	1°3/21.3	18	
12 13	8 42.15	+30 58.8	2.448	3.214	12.7	18.3	12 13	8 42.86	+21 21.4	1.786	2.560	16.4	20.5
12 23	8 37.83	+31 55.6	2.366	3.220	10.2	18.2	12 23	8 38.93	+21 46.5	1.710	2.571	13.0	20.3
1 2	8 31.11	+32 53.2	2.308	3.226	7.4	18.0	1 2	8 32.15	+22 19.2	1.655	2.583	9.0	20.1
1 12	8 22.54	+33 45.8	2.277	3.232	5.0	17.9	1 12	8 23.17	+22 55.0	1.625	2.594	4.6	19.8
1 22	8 12.93	+34 28.0	2.275	3.237	4.4	17.8	1 22	8 12.99	+23 28.8	1.623	2.606	1.3	19.6
2 1	8 3.29	+34 55.7	2.303	3.243	6.2	17.9	2 1	8 2.89	+23 55.8	1.650	2.617	5.2	19.9
2 11	7 54.69	+35 7.5	2.360	3.248	8.9	18.1	2 11	7 54.14	+24 13.4	1.705	2.628	9.4	20.2
2 21	7 47.94	+35 4.4	2.441	3.252	11.5	18.3	2 21	7 47.69	+24 21.0	1.784	2.640	13.1	20.4
<b>466863</b>	2015 <i>BL</i> <sub>367</sub>		1 21.9 9°30	4°4/20.0	18		<b>433475</b>	2013 <i>VY</i> <sub>20</sub>		1 21.9 11°07	5°5/24.3	17	
12 13	8 44.00	+31 3											

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1 21.9

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>194350</b>	2001 <i>UW</i> <sub>157</sub>		1 21.9 82°17'	1.1°/22.4	18		<b>406004</b>	2006 <i>SS</i> <sub>365</sub>		1 21.9 131°75'	5.8°/18.9	18	
12 13	8 46.72	+15 35.0	1.525	2.290	19.1	20.9	12 13	8 47.07	+33 13.2	2.005	2.775	15.0	22.1
12 23	8 42.13	+15 42.6	1.463	2.316	15.2	20.7	12 23	8 42.36	+34 18.0	1.931	2.785	12.1	21.9
1 2	8 34.38	+16 3.2	1.420	2.343	10.7	20.5	1 2	8 34.61	+35 22.4	1.879	2.794	9.0	21.7
1 12	8 24.27	+16 33.6	1.402	2.369	5.6	20.3	1 12	8 24.48	+36 18.4	1.853	2.803	6.4	21.6
1 22	8 12.99	+17 8.9	1.411	2.394	1.1	20.0	1 22	8 13.03	+36 58.7	1.856	2.811	5.9	21.6
2 1	8 2.00	+17 44.1	1.448	2.419	5.1	20.3	2 1	8 1.63	+37 18.7	1.887	2.819	7.9	21.7
2 11	7 52.70	+18 15.2	1.513	2.444	9.8	20.7	2 11	7 51.67	+37 17.4	1.945	2.827	10.8	21.9
2 21	7 46.03	+18 39.7	1.603	2.468	13.8	21.0	2 21	7 44.17	+36 57.7	2.026	2.835	13.7	22.1
<b>381944</b>	2010 <i>DN</i> <sub>6</sub>		1 21.9 241°27'	1.3°/22.7	18		<b>61150</b>	2000 <i>NV</i> <sub>11</sub>		1 21.9 110°58'	2.1°/23.1	18	
12 13	8 37.88	+14 15.4	2.306	3.055	13.8	21.5	12 13	8 43.10	+11 22.1	1.686	2.438	18.0	19.7
12 23	8 34.35	+14 23.2	2.210	3.054	11.2	21.3	12 23	8 39.17	+11 43.3	1.609	2.453	14.6	19.5
1 2	8 28.68	+14 41.0	2.135	3.053	8.0	21.1	1 2	8 32.38	+12 21.4	1.552	2.467	10.5	19.3
1 12	8 21.33	+15 7.2	2.087	3.052	4.4	20.9	1 12	8 23.33	+13 14.2	1.519	2.482	6.0	19.1
1 22	8 13.01	+15 39.3	2.068	3.050	1.4	20.7	1 22	8 13.04	+14 16.9	1.514	2.495	2.2	18.8
2 1	8 4.62	+16 13.9	2.079	3.049	3.9	20.9	2 1	8 2.77	+15 23.5	1.538	2.509	4.9	19.0
2 11	7 57.08	+16 47.9	2.119	3.048	7.5	21.1	2 11	7 53.84	+16 28.0	1.590	2.521	9.3	19.3
2 21	7 51.15	+17 18.6	2.185	3.047	10.8	21.3	2 21	7 47.20	+17 25.7	1.667	2.534	13.3	19.6
<b>92484</b>	2000 <i>LV</i> <sub>21</sub>		1 21.9 138°00'	2.6°/23.3	18		<b>416871</b>	2005 <i>OJ</i> <sub>17</sub>		1 21.9 62°75'	0.8°/22.2	18	
12 13	8 44.77	+10 45.6	2.130	2.858	15.5	20.8	12 13	8 46.41	+18 48.2	1.687	2.452	17.5	20.8
12 23	8 39.78	+10 45.5	2.046	2.874	12.6	20.6	12 23	8 41.58	+18 25.1	1.621	2.475	14.0	20.6
1 2	8 32.40	+10 58.1	1.984	2.889	9.2	20.4	1 2	8 33.83	+18 9.3	1.575	2.499	9.7	20.4
1 12	8 23.19	+11 22.2	1.947	2.904	5.5	20.2	1 12	8 23.94	+17 58.5	1.554	2.522	5.1	20.2
1 22	8 13.00	+11 55.2	1.940	2.917	2.7	20.0	1 22	8 13.04	+17 50.2	1.562	2.545	0.8	19.9
2 1	8 2.84	+12 33.8	1.963	2.930	4.5	20.2	2 1	8 2.45	+17 42.2	1.598	2.569	4.8	20.3
2 11	7 53.77	+13 14.1	2.016	2.942	8.0	20.4	2 11	7 53.43	+17 33.1	1.662	2.592	9.1	20.6
2 21	7 46.58	+13 52.9	2.096	2.953	11.4	20.7	2 21	7 46.84	+17 22.1	1.752	2.615	12.9	20.9
<b>232721</b>	2004 <i>CC</i> <sub>6</sub>		1 21.9 58°55'	1.3°/21.3	18		<b>327335</b>	2005 <i>UW</i> <sub>141</sub>		1 21.9 57°56'	8.4°/16.9	16	
12 13	8 41.82	+23 25.8	2.193	2.958	14.0	20.4	12 13	8 45.10	+36 7.7	1.706	2.490	16.6	20.2
12 23	8 37.56	+23 29.8	2.107	2.964	11.1	20.2	12 23	8 41.56	+38 4.3	1.649	2.507	13.6	20.1
1 2	8 30.91	+23 37.3	2.045	2.970	7.7	20.0	1 2	8 34.49	+39 59.1	1.615	2.524	10.7	19.9
1 12	8 22.44	+23 45.1	2.008	2.977	4.0	19.7	1 12	8 24.57	+41 40.4	1.607	2.541	8.7	19.8
1 22	8 13.01	+23 49.9	2.001	2.984	1.3	19.6	1 22	8 13.03	+42 57.9	1.624	2.559	8.7	19.9
2 1	8 3.64	+23 49.1	2.024	2.991	4.5	19.8	2 1	8 1.54	+43 44.9	1.668	2.577	10.6	20.0
2 11	7 55.39	+23 41.4	2.076	2.998	8.1	20.0	2 11	7 51.79	+44 1.2	1.737	2.594	13.2	20.2
2 21	7 49.03	+23 27.2	2.153	3.005	11.4	20.3	2 21	7 44.96	+43 50.8	1.827	2.612	15.8	20.5
<b>149752</b>	2004 <i>OE</i> <sub>10</sub>		1 21.9 216°58'	2.9°/20.7	18		<b>503022</b>	2015 <i>FJ</i> <sub>121</sub>		1 21.9 305°11'	4.0°/19.7	17	
12 13	8 46.81	+28 8.8	2.199	2.959	14.1	20.6	12 13	8 41.01	+30 1.8	2.224	2.997	13.6	21.0
12 23	8 41.72	+28 20.5	2.101	2.954	11.3	20.4	12 23	8 37.26	+30 42.0	2.131	2.990	10.9	20.8
1 2	8 33.95	+28 32.7	2.027	2.949	8.0	20.1	1 2	8 30.95	+31 23.5	2.060	2.983	7.9	20.6
1 12	8 24.07	+28 40.9	1.979	2.943	4.6	19.9	1 12	8 22.59	+32 0.8	2.016	2.975	5.0	20.4
1 22	8 13.01	+28 40.7	1.960	2.937	2.9	19.8	1 22	8 13.05	+32 28.5	2.000	2.968	4.1	20.3
2 1	8 1.92	+28 29.4	1.972	2.930	5.5	20.0	2 1	8 3.42	+32 42.6	2.013	2.961	6.3	20.5
2 11	7 52.02	+28 6.4	2.013	2.923	9.0	20.2	2 11	7 54.86	+32 41.6	2.054	2.954	9.4	20.6
2 21	7 44.23	+27 33.2	2.080	2.916	12.3	20.3	2 21	7 48.28	+32 26.4	2.120	2.948	12.4	20.8
<b>319493</b>	2006 <i>QH</i> <sub>45</sub>		1 21.9 67°88'	0.2°/21.8	18		<b>45341</b>	2000 <i>AX</i> <sub>86</sub>		1 21.9 246°72'	1.2°/22.7	18	
12 13	8 45.17	+19 38.0	1.616	2.389	17.9	21.4	12 13	8 37.96	+13 53.7	2.225	2.975	14.2	19.5
12 23	8 40.82	+19 42.9	1.551	2.411	14.2	21.2	12 23	8 34.56	+14 11.2	2.127	2.972	11.5	19.3
1 2	8 33.44	+19 56.2	1.507	2.434	9.8	21.0	1 2	8 28.92	+14 40.1	2.051	2.969	8.2	19.1
1 12	8 23.78	+20 14.2	1.487	2.456	5.0	20.7	1 12	8 21.52	+15 18.6	2.001	2.966	4.5	18.9
1 22	8 13.01	+20 32.5	1.494	2.478	0.3	20.4	1 22	8 13.07	+16 3.4	1.980	2.963	1.3	18.6
2 1	8 2.50	+20 47.2	1.530	2.500	5.0	20.8	2 1	8 4.50	+16 50.7	1.989	2.960	4.0	18.8
2 11	7 53.60	+20 55.8	1.594	2.522	9.5	21.1	2 11	7 56.81	+17 36.5	2.027	2.956	7.8	19.0
2 21	7 47.20	+20 57.8	1.682	2.544	13.4	21.4	2 21	7 50.77	+18 17.7	2.091	2.953	11.2	19.2
<b>30326</b>	Maxpine		1 21.9 335°75'	0.8°/21.7	18		<b>28704</b>	2000 <i>GU</i> <sub>91</sub>		1 21.9 334°52'	8.9°/26.6	18	
12 13	8 40.26	+20 24.4	1.249	2.053	20.5	19.0	12 13	8 33.06	- 1 15.4	1.457	2.193	21.1	18.0
12 23	8 38.35	+20 30.1	1.166	2.044	16.5	18.7	12 23	8 31.89	- 1 48.2	1.363	2.178	18.4	17.7
1 2	8 32.67	+20 46.6	1.101	2.036	11.6	18.4	1 2	8 27.80	- 1 54.2	1.285	2.165	15.1	17.5
1 12	8 23.82	+21 9.9	1.058	2.029	6.0	18.0	1 12	8 21.23	- 1 28.4	1.226	2.152	11.7	17.2
1 22	8 13.01	+21 34.2	1.038	2.022	0.8	17.6	1 22	8 13.07	- 0 29.1	1.190	2.140	9.2	17.0
2 1	8 2.00	+21 53.6	1.045	2.017	6.4	18.0	2 1	8 4.57	+ 1 0.7	1.179	2.130	9.3	17.0
2 11	7 52.72	+22 4.0	1.075	2.011	12.2	18.3	2 11	7 57.19	+ 2 52.6	1.192	2.120	12.1	17.1
2 21	7 46.54	+22 4.4	1.127	2.007	17.2	18.6	2 21	7 52.12	+ 4 55.3	1.228	2.111	15.8	17.3
<b>307950</b>	2004 <i>FF</i> <sub>142</sub>		1 21.9 210°53'	5.4°/18.8	18		<b>165838</b>	2001 <i>RA</i> <sub>143</sub>		1 21.9 226°05'	8.6°/27.9	18	
12 13	8 47.19	+34 30.6	2.345	3.104	13.3	21.5	12 13	8 36.04	- 8 43.3	2.580	3.213	15.0	20.1
12 23	8 42.17	+35 24.7	2.251	3.098	10.9	21.3	12 23	8 32.66	- 9 30.8	2.481	3.210	13.4	20.0
1 2	8 34.38	+36 17.6	2.181	3.091	8.2	21.1	1 2	8 27.40	-10 0.0	2.401	3.207	11.6	19.8
1 12	8 24.35	+37 2.6	2.138	3.083	6.0	21.0	1 12	8 20.68	-10 7.3	2.342	3.203	9.9	19.7
1 22	8 13.01	+37 33.4	2.123	3.075	5.6	20.9	1 22	8 13.08	- 9 51.3	2.308	3.200	8.8	19.6
2 1	8 1.56	+37 45.7	2.138	3.067	7.4	21.0	2 1	8 5.36	- 9 12.2	2.300	3.196	8.7	19.6
2 11	7 51.27	+37 38.5	2.181	3.057	10.1	21.2	2 11	7 58.34	- 8 13.5	2.319	3.192	9.7	19.7
2 21	7 43.14	+37 14.1	2.248	3.048	12.8	21.3	2 21	7 52.67	- 7 0.0	2.363	3.189	11.4	19.8
<b>370372</b>	2002 <i>TQ</i> <sub>42</sub>		1 21.9 59°17'	9.0°/17.0	18		<b>10560</b>	Michinari		1 21.9 125°37'	1.2°/21.4	18	
12 13	8 48.65	+43 55.4											



EPHEMERIDES

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>285575</b>	2000 <i>QU</i> <sub>20</sub>		1 21.9 61°47'	1.7°/21.3	17		<b>134848</b>	2000 <i>KE</i> <sub>54</sub>		1 21.9 219°42'	4.2°/25.1	18	
12 13	8 47.98	+22 7.4	1.365	2.151	19.9	20.7	12 13	8 36.64	+2 52.6	3.000	3.688	12.2	21.0
12 23	8 43.53	+22 28.2	1.312	2.180	15.7	20.5	12 23	8 32.85	+2 46.8	2.887	3.679	10.3	20.8
1 2	8 35.53	+22 56.9	1.278	2.209	10.8	20.3	1 2	8 27.39	+2 53.9	2.796	3.670	8.1	20.6
1 12	8 24.91	+23 27.5	1.268	2.238	5.5	20.1	1 12	8 20.64	+3 14.4	2.730	3.660	5.8	20.5
1 22	8 13.06	+23 53.6	1.285	2.267	1.7	19.9	1 22	8 13.11	+3 47.6	2.694	3.649	4.3	20.3
2 1	8 1.69	+24 10.3	1.329	2.296	6.0	20.3	2 1	8 5.45	+4 31.7	2.688	3.639	4.7	20.4
2 11	7 52.35	+24 15.7	1.399	2.325	10.8	20.6	2 11	7 58.35	+5 23.8	2.712	3.627	6.7	20.5
2 21	7 46.00	+24 10.5	1.492	2.354	14.8	21.0	2 21	7 52.41	+6 20.2	2.764	3.616	9.1	20.6
<b>426965</b>	2013 <i>YS</i> <sub>70</sub>		1 21.9 124°48'	2°8'/20.1	18		<b>166827</b>	2002 <i>VJ</i> <sub>101</sub>		1 21.9 58°38'	2°3'/23.2	18	
12 13	8 40.04	+26 22.0	2.437	3.203	12.7	21.5	12 13	8 38.34	+12 0.5	2.134	2.880	14.9	20.1
12 23	8 36.10	+27 9.5	2.351	3.208	10.1	21.3	12 23	8 34.74	+11 56.8	2.054	2.894	12.1	19.9
1 2	8 29.91	+28 0.5	2.289	3.213	7.1	21.2	1 2	8 28.94	+12 4.6	1.996	2.908	8.7	19.7
1 12	8 21.99	+28 50.3	2.254	3.218	4.1	21.0	1 12	8 21.47	+12 22.9	1.963	2.923	5.1	19.5
1 22	8 13.08	+29 34.0	2.249	3.223	2.9	20.9	1 22	8 13.11	+12 49.4	1.958	2.937	2.4	19.4
2 1	8 4.14	+30 7.6	2.273	3.228	5.2	21.1	2 1	8 4.81	+13 20.9	1.983	2.952	4.2	19.5
2 11	7 56.14	+30 28.9	2.327	3.232	8.2	21.3	2 11	7 57.50	+13 54.0	2.037	2.967	7.7	19.8
2 21	7 49.85	+30 37.8	2.406	3.236	11.0	21.4	2 21	7 51.92	+14 25.8	2.116	2.982	10.9	20.0
<b>83773</b>	2001 <i>TN</i> <sub>171</sub>		1 21.9 180°75'	4°3'/18.7	18		<b>63746</b>	2001 <i>QF</i> <sub>263</sub>		1 21.9 63°26'	3°1'/23.4	18	
12 13	8 40.06	+30 13.7	2.493	3.261	12.4	19.3	12 13	8 42.03	+10 12.3	1.367	2.136	20.8	18.7
12 23	8 36.27	+31 26.5	2.405	3.261	9.9	19.1	12 23	8 38.85	+10 22.6	1.303	2.155	16.9	18.4
1 2	8 30.15	+32 41.7	2.342	3.261	7.2	18.9	1 2	8 32.40	+10 53.3	1.257	2.175	12.2	18.2
1 12	8 22.17	+33 53.3	2.307	3.261	4.9	18.8	1 12	8 23.42	+11 42.7	1.234	2.195	7.2	18.0
1 22	8 13.08	+34 55.3	2.301	3.261	4.5	18.8	1 22	8 13.10	+12 45.6	1.236	2.216	3.2	17.8
2 1	8 3.86	+35 42.9	2.325	3.261	6.4	18.9	2 1	8 2.94	+13 54.9	1.265	2.236	5.7	18.0
2 11	7 55.55	+36 13.7	2.377	3.261	9.0	19.1	2 11	7 54.43	+15 3.2	1.320	2.256	10.4	18.3
2 21	7 48.99	+36 28.0	2.453	3.260	11.6	19.2	2 21	7 48.60	+16 5.0	1.399	2.276	14.7	18.6
<b>332670</b>	2009 <i>AR</i> <sub>23</sub>		1 21.9 61°48'	0°2'/21.9	16		<b>165489</b>	2001 <i>BQ</i> <sub>23</sub>		1 21.9 53°03'	0°2'/21.9	18	
12 13	8 46.09	+19 22.5	1.379	2.162	19.9	21.9	12 13	8 42.70	+17 30.4	1.361	2.148	19.9	20.1
12 23	8 42.05	+19 25.5	1.318	2.184	15.8	21.7	12 23	8 39.46	+17 57.3	1.301	2.169	15.8	19.9
1 2	8 34.56	+19 38.6	1.277	2.207	11.0	21.4	1 2	8 32.85	+18 37.9	1.260	2.191	11.0	19.7
1 12	8 24.45	+19 57.6	1.259	2.229	5.6	21.2	1 12	8 23.64	+19 27.3	1.242	2.212	5.6	19.4
1 22	8 13.07	+20 17.3	1.268	2.252	0.2	20.8	1 22	8 13.10	+20 18.8	1.251	2.235	0.2	19.1
2 1	8 2.03	+20 33.3	1.304	2.275	5.6	21.3	2 1	8 2.81	+21 5.8	1.286	2.257	5.6	19.6
2 11	7 52.87	+20 42.8	1.366	2.298	10.5	21.7	2 11	7 54.29	+21 43.6	1.347	2.280	10.6	19.9
2 21	7 46.58	+20 45.0	1.452	2.321	14.8	22.0	2 21	7 48.55	+22 10.1	1.432	2.303	14.8	20.2
<b>251630</b>	2010 <i>JK</i> <sub>130</sub>		1 21.9 193°98'	3°4'/20.2	18		<b>139799</b>	2001 <i>RL</i> <sub>11</sub>		1 21.9 154°24'	2°7'/19.4	18	
12 13	8 47.27	+28 12.3	2.300	3.057	13.6	21.3	12 13	8 37.15	+31 54.9	4.042	4.793	8.3	20.3
12 23	8 42.06	+28 49.9	2.204	3.055	10.9	21.1	12 23	8 32.86	+32 27.2	3.954	4.800	6.6	20.2
1 2	8 34.21	+29 29.7	2.132	3.052	7.8	20.9	1 2	8 27.17	+32 58.4	3.892	4.806	4.8	20.1
1 12	8 24.25	+30 6.3	2.086	3.048	4.7	20.7	1 12	8 20.43	+33 25.9	3.859	4.812	3.2	20.0
1 22	8 13.08	+30 34.3	2.071	3.043	3.4	20.6	1 22	8 13.13	+33 47.0	3.856	4.817	2.8	19.9
2 1	8 1.81	+30 49.7	2.086	3.038	5.8	20.8	2 1	8 5.83	+34 0.0	3.885	4.823	4.0	20.0
2 11	7 51.65	+30 51.1	2.130	3.031	9.1	21.0	2 11	7 59.10	+34 4.0	3.943	4.828	5.7	20.2
2 21	7 43.52	+30 39.3	2.200	3.024	12.2	21.1	2 21	7 53.43	+33 59.2	4.029	4.833	7.5	20.3
<b>246883</b>	1996 <i>BF</i> <sub>12</sub>		1 21.9 154°02'	3°3'/20.3	18		<b>247731</b>	2003 <i>HN</i> <sub>6</sub>		1 21.9 198°82'	1°8'/21.1	18	
12 13	8 46.83	+28 14.8	2.183	2.944	14.1	21.0	12 13	8 44.99	+22 0.7	1.915	2.680	15.7	21.8
12 23	8 41.70	+28 48.3	2.099	2.952	11.3	20.9	12 23	8 40.71	+22 37.0	1.820	2.677	12.6	21.6
1 2	8 33.91	+29 23.5	2.037	2.959	8.0	20.7	1 2	8 33.55	+23 21.3	1.748	2.674	8.8	21.3
1 12	8 24.06	+29 54.8	2.003	2.965	4.8	20.5	1 12	8 24.04	+24 9.0	1.701	2.670	4.6	21.1
1 22	8 13.08	+30 17.3	1.998	2.971	3.4	20.4	1 22	8 13.10	+24 54.0	1.684	2.665	1.8	20.9
2 1	8 2.15	+30 27.1	2.023	2.977	5.8	20.6	2 1	8 2.01	+25 31.1	1.696	2.660	5.4	21.1
2 11	7 52.46	+30 23.1	2.077	2.981	9.1	20.8	2 11	7 52.10	+25 56.8	1.736	2.654	9.6	21.3
2 21	7 44.89	+30 6.8	2.157	2.986	12.2	21.0	2 21	7 44.42	+26 10.4	1.801	2.648	13.4	21.6
<b>51023</b>	2000 <i>GT</i> <sub>109</sub>		1 21.9 357°40'	12°3'/16.0	18		<b>485104</b>	2010 <i>GN</i> <sub>119</sub>		1 21.9 234°87'	3°2'/23.3	17	
12 13	8 43.22	+42 9.7	1.322	2.125	19.6	18.5	12 13	8 43.16	+10 56.9	1.953	2.692	16.3	22.8
12 23	8 41.71	+44 2.3	1.260	2.121	16.8	18.3	12 23	8 39.13	+10 42.8	1.845	2.679	13.5	22.5
1 2	8 35.58	+45 48.2	1.217	2.118	14.1	18.2	1 2	8 32.42	+10 41.5	1.757	2.665	10.0	22.3
1 12	8 25.50	+47 12.7	1.195	2.116	12.5	18.1	1 12	8 23.47	+10 52.8	1.694	2.651	6.1	22.0
1 22	8 13.07	+48 2.2	1.196	2.115	12.7	18.1	1 22	8 13.11	+11 15.3	1.659	2.636	3.2	21.8
2 1	8 0.64	+48 9.2	1.219	2.116	14.6	18.2	2 1	8 2.46	+11 45.9	1.654	2.621	5.2	21.9
2 11	7 50.65	+47 35.3	1.262	2.117	17.3	18.3	2 11	7 52.76	+12 21.0	1.677	2.605	9.2	22.1
2 21	7 44.64	+46 28.4	1.323	2.120	20.1	18.5	2 21	7 45.06	+12 56.8	1.725	2.588	13.1	22.3
<b>452506</b>	2004 <i>RS</i> <sub>178</sub>		1 21.9 105°27'	3°2'/23.5	17		<b>77666</b>	2001 <i>LK</i> <sub>17</sub>		1 21.9 116°32'	3°0'/23.7	18	
12 13	8 45.42	+10 14.3	1.780	2.518	17.7	22.3	12 13	8 38.99	+9 57.4	2.489	3.215	13.5	19.5
12 23	8 40.69	+10 5.8	1.707	2.541	14.4	22.1	12 23	8 34.93	+9 39.6	2.399	3.224	11.0	19.3
1 2	8 33.22	+10 12.3	1.655	2.563	10.5	21.9	1 2	8 28.91	+9 32.2	2.331	3.233	8.2	19.2
1 12	8 23.69	+10 32.7	1.628	2.584	6.4	21.7	1 12	8 21.42	+9 34.9	2.289	3.241	5.2	19.0
1 22	8 13.09	+11 4.3	1.628	2.605	3.3	21.6	1 22	8 13.13	+9 46.7	2.276	3.250	3.1	18.9
2 1	8 2.64	+11 43.3	1.658	2.625	5.2	21.7	2 1	8 4.83	+10 5.5	2.294	3.258	4.3	18.9
2 11	7 53.54	+12 25.0	1.716	2.644	9.0	22.0	2 11	7 57.37	+10 28.8	2.341	3.266	7.1	19.1
2 21	7 46.67	+13 5.5	1.800	2.663	12.6	22.3	2 21	7 51.40	+10 53.9	2.415	3.274	10.0	19.3
<b>498346</b>	2007 <i>VC</i> <sub>277</sub>		1 21.9 166°92'	2°7'/23.5	17		<b>154088</b>	2002 <i>CE</i> <sub>248</sub>		1 21.9 261°37'	3°3'/23.9	18	
12 13	8 38.72	+10 27.5</											

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>125973</b>	2001 YA <sub>17</sub>		1 21.9	95°28	0°6/22.2	17	<b>367884</b>	2011 UM <sub>189</sub>		1 21.9	140°41	19°9/30.5	18
12 13	8 46.50	+16 58.7	1.629	2.393	18.1	20.8	12 13	8 42.69	-15 59.3	1.247	1.903	27.6	20.5
12 23	8 41.90	+17 5.2	1.560	2.414	14.5	20.6	12 23	8 40.15	-18 38.4	1.182	1.905	25.7	20.3
1 2	8 34.24	+17 22.6	1.511	2.434	10.1	20.4	1 2	8 33.91	-20 45.4	1.128	1.907	23.6	20.2
1 12	8 24.28	+17 47.9	1.487	2.455	5.3	20.1	1 12	8 24.53	-22 7.0	1.089	1.909	21.7	20.0
1 22	8 13.12	+18 16.4	1.491	2.474	0.6	19.9	1 22	8 13.15	-22 33.0	1.066	1.911	20.3	20.0
2 1	8 2.16	+18 43.7	1.523	2.494	5.0	20.2	2 1	8 1.45	-21 58.7	1.060	1.913	19.9	19.9
2 11	7 52.77	+19 6.5	1.583	2.512	9.5	20.5	2 11	7 51.34	-20 29.4	1.072	1.915	20.7	20.0
2 21	7 45.88	+19 23.0	1.668	2.531	13.5	20.8	2 21	7 44.24	-18 18.1	1.101	1.916	22.2	20.1
<b>243130</b>	2007 RQ <sub>279</sub>		1 21.9	78°03	1°6/23.2	18	<b>117563</b>	2005 EK <sub>25</sub>		1 21.9	271°94	1°9/21.0	18
12 13	8 38.62	+ 9 56.2	2.287	3.020	14.4	20.1	12 13	8 42.05	+21 59.6	1.741	2.519	16.6	20.1
12 23	8 34.85	+10 46.2	2.206	3.039	11.6	19.9	12 23	8 38.82	+22 34.4	1.642	2.506	13.3	19.8
1 2	8 28.97	+11 51.3	2.148	3.058	8.3	19.8	1 2	8 32.52	+23 18.6	1.564	2.493	9.3	19.6
1 12	8 21.49	+13 8.8	2.116	3.077	4.7	19.6	1 12	8 23.65	+24 7.3	1.511	2.480	4.9	19.3
1 22	8 13.14	+14 33.9	2.115	3.096	1.7	19.4	1 22	8 13.16	+24 54.2	1.485	2.466	2.0	19.1
2 1	8 4.78	+16 1.3	2.144	3.115	3.8	19.6	2 1	8 2.36	+25 33.3	1.487	2.453	5.9	19.3
2 11	7 57.32	+17 25.4	2.205	3.133	7.3	19.8	2 11	7 52.76	+26 0.4	1.517	2.439	10.5	19.5
2 21	7 51.48	+18 42.0	2.292	3.152	10.4	20.1	2 21	7 45.53	+26 14.4	1.570	2.426	14.6	19.7
<b>97764</b>	2000 JO <sub>22</sub>		1 21.9	175°47	5°2/24.7	18	<b>7398</b>	Walsh		1 21.9	327°48	2°4/22.7	18
12 13	8 41.14	+ 3 55.6	2.381	3.080	14.7	20.6	12 13	8 43.40	+15 16.0	1.356	2.137	20.3	17.5
12 23	8 36.77	+ 3 22.1	2.283	3.082	12.4	20.5	12 23	8 40.38	+14 50.3	1.272	2.134	16.5	17.3
1 2	8 30.30	+ 3 2.2	2.206	3.084	9.7	20.3	1 2	8 33.83	+14 37.0	1.206	2.131	11.9	17.0
1 12	8 22.19	+ 2 57.3	2.155	3.086	7.0	20.1	1 12	8 24.37	+14 35.2	1.163	2.129	6.7	16.7
1 22	8 13.14	+ 3 7.3	2.131	3.087	5.3	20.0	1 22	8 13.15	+14 42.5	1.145	2.127	2.4	16.4
2 1	8 4.00	+ 3 30.9	2.137	3.087	5.9	20.1	2 1	8 1.82	+14 55.2	1.153	2.125	6.0	16.6
2 11	7 55.69	+ 4 4.9	2.172	3.087	8.2	20.2	2 11	7 52.09	+15 9.6	1.187	2.123	11.3	16.9
2 21	7 48.95	+ 4 45.5	2.234	3.086	11.0	20.4	2 21	7 45.22	+15 22.7	1.243	2.121	16.1	17.2
<b>179843</b>	2002 TN <sub>225</sub>		1 21.9	95°45	2°7/20.6	18	<b>10455</b>	Donnison		1 21.9	144°68	0°9/22.4	18
12 13	8 45.23	+24 29.0	1.875	2.645	15.8	20.8	12 13	8 44.22	+14 43.3	2.037	2.782	15.5	18.9
12 23	8 40.70	+25 13.8	1.805	2.665	12.5	20.7	12 23	8 39.63	+15 8.0	1.952	2.794	12.5	18.7
1 2	8 33.33	+26 3.9	1.758	2.684	8.7	20.5	1 2	8 32.49	+15 44.6	1.888	2.806	8.8	18.5
1 12	8 23.79	+26 53.4	1.737	2.703	4.7	20.3	1 12	8 23.39	+16 30.4	1.851	2.816	4.7	18.3
1 22	8 13.13	+27 36.3	1.744	2.722	2.8	20.2	1 22	8 13.16	+17 21.0	1.842	2.826	0.9	18.0
2 1	8 2.60	+28 7.5	1.781	2.741	5.7	20.4	2 1	8 2.92	+18 11.6	1.865	2.835	4.3	18.3
2 11	7 53.49	+28 25.1	1.845	2.759	9.5	20.7	2 11	7 53.79	+18 58.2	1.916	2.843	8.3	18.6
2 21	7 46.68	+28 29.4	1.935	2.776	12.9	20.9	2 21	7 46.64	+19 37.9	1.995	2.850	11.9	18.8
<b>100725</b>	1998 BO <sub>43</sub>		1 21.9	15°48	5°1/20.7	18	<b>146089</b>	2000 KY <sub>5</sub>		1 21.9	226°50	6°1/18.1	18
12 13	8 46.26	+31 53.5	1.425	2.220	18.8	18.3	12 13	8 44.01	+32 5.0	1.990	2.765	14.9	19.9
12 23	8 42.64	+32 1.3	1.354	2.225	15.2	18.0	12 23	8 40.26	+33 32.7	1.902	2.760	12.1	19.7
1 2	8 35.25	+32 6.3	1.303	2.231	11.0	17.8	1 2	8 33.46	+35 3.5	1.838	2.755	9.0	19.5
1 12	8 24.93	+32 1.3	1.275	2.238	6.9	17.6	1 12	8 24.11	+36 28.8	1.800	2.750	6.6	19.4
1 22	8 13.12	+31 40.2	1.273	2.246	5.1	17.5	1 22	8 13.17	+37 39.7	1.791	2.744	6.3	19.3
2 1	8 1.64	+31 0.4	1.298	2.254	7.9	17.7	2 1	8 1.99	+38 29.6	1.809	2.739	8.4	19.5
2 11	7 52.19	+30 4.0	1.347	2.264	12.0	17.9	2 11	7 52.02	+38 55.7	1.855	2.733	11.5	19.6
2 21	7 45.88	+28 55.7	1.420	2.275	15.9	18.2	2 21	7 44.44	+38 59.6	1.923	2.726	14.5	19.8
<b>205394</b>	2001 DY <sub>54</sub>		1 21.9	277°03	1°1/21.5	18	<b>110235</b>	2001 SP <sub>230</sub>		1 21.9	149°03	3°8/24.5	18
12 13	8 42.60	+21 3.7	1.724	2.500	16.8	21.4	12 13	8 36.94	+ 5 46.2	2.638	3.348	13.2	20.3
12 23	8 39.25	+21 19.0	1.622	2.485	13.5	21.1	12 23	8 33.26	+ 5 36.6	2.541	3.352	11.0	20.1
1 2	8 32.80	+21 42.6	1.542	2.470	9.5	20.8	1 2	8 27.76	+ 5 39.7	2.467	3.355	8.4	20.0
1 12	8 23.78	+22 10.9	1.486	2.455	4.9	20.5	1 12	8 20.87	+ 5 55.7	2.418	3.359	5.7	19.8
1 22	8 13.13	+22 38.7	1.457	2.440	1.1	20.2	1 22	8 13.19	+ 6 23.4	2.398	3.363	3.9	19.7
2 1	8 2.19	+23 1.1	1.457	2.425	5.5	20.5	2 1	8 5.46	+ 7 0.9	2.408	3.366	4.6	19.7
2 11	7 52.46	+23 14.8	1.483	2.410	10.3	20.7	2 11	7 58.45	+ 7 44.7	2.447	3.369	7.0	19.9
2 21	7 45.12	+23 18.7	1.534	2.395	14.6	20.9	2 21	7 52.78	+ 8 31.5	2.513	3.372	9.7	20.1
<b>56372</b>	2000 EX <sub>19</sub>		1 21.9	209°13	2°0/20.9	18	<b>231897</b>	2000 WM <sub>138</sub>		1 21.9	35°18	5°6/19.3	18
12 13	8 45.40	+22 2.0	1.967	2.730	15.4	19.8	12 13	8 41.68	+29 26.4	1.515	2.312	17.7	19.7
12 23	8 41.06	+22 47.7	1.868	2.723	12.4	19.6	12 23	8 38.79	+30 37.0	1.455	2.328	14.2	19.6
1 2	8 33.83	+23 42.2	1.791	2.716	8.6	19.3	1 2	8 32.48	+31 50.5	1.417	2.345	10.2	19.4
1 12	8 24.22	+24 40.5	1.741	2.709	4.6	19.1	1 12	8 23.53	+32 57.7	1.402	2.362	6.7	19.2
1 22	8 13.14	+25 36.3	1.719	2.700	2.1	18.9	1 22	8 13.17	+33 50.0	1.413	2.380	5.7	19.2
2 1	8 1.80	+26 23.5	1.728	2.691	5.5	19.1	2 1	8 3.00	+34 21.3	1.451	2.399	8.3	19.4
2 11	7 51.57	+26 58.3	1.765	2.681	9.7	19.3	2 11	7 54.57	+34 29.9	1.515	2.418	11.9	19.6
2 21	7 43.52	+27 19.6	1.827	2.670	13.5	19.5	2 21	7 48.93	+34 18.7	1.600	2.438	15.3	19.9
<b>415078</b>	2012 BN <sub>88</sub>		1 21.9	14°29	2°4/20.9	18	<b>400549</b>	2008 UF <sub>308</sub>		1 21.9	282°95	16°3/23.8	18
12 13	8 42.34	+23 40.7	1.663	2.446	17.0	21.2	12 13	8 43.66	-12 12.4	1.740	2.374	21.4	20.9
12 23	8 39.00	+24 12.6	1.580	2.447	13.6	21.0	12 23	8 40.32	-14 45.8	1.629	2.344	19.9	20.7
1 2	8 32.53	+24 51.5	1.517	2.448	9.5	20.8	1 2	8 33.86	-17 3.3	1.535	2.313	18.4	20.5
1 12	8 23.56	+25 32.0	1.480	2.448	5.1	20.5	1 12	8 24.56	-18 54.6	1.461	2.282	17.0	20.3
1 22	8 13.14	+26 7.8	1.469	2.450	2.5	20.4	1 22	8 13.17	-20 9.9	1.406	2.251	16.3	20.2
2 1	8 2.67	+26 33.5	1.486	2.451	6.0	20.6	2 1	8 0.92	-20 41.7	1.374	2.219	16.7	20.1
2 11	7 53.61	+26 46.2	1.531	2.452	10.4	20.8	2 11	7 49.37	-20 28.9	1.362	2.186	18.1	20.1
2 21	7 47.05	+26 45.9	1.598	2.454	14.4	21.1	2 21	7 39.95	-19 36.8	1.369	2.153	20.2	20.2
<b>351212</b>	2004 LM <sub>10</sub>		1 21.9	203°45	8°2/28.2	17	<b>456867</b>	2007 VP <sub>15</sub>		1 21.9	355°10	0°7/21.7	18
12 13	8 37.03	-13 4.6	3.359	3.936	12.6	22.2	12 13	8 38.12	+19 2.1	1.338	2.13		

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>285112</b>	1995 <i>MU</i> <sub>6</sub>		1 21.9 174°24	2°0/23.3	17		<b>119161</b>	2001 <i>QB</i> <sub>24</sub>		1 21.9 118°15	1°3/22.7	18	
12 13	8 40.45	+11 10.3	2.665	3.388	12.8	22.6	12 13	8 42.41	+14 4.5	2.169	2.912	14.8	21.1
12 23	8 36.04	+11 19.8	2.565	3.391	10.4	22.5	12 23	8 37.95	+14 18.8	2.088	2.929	11.9	21.0
1 2	8 29.70	+11 39.8	2.488	3.394	7.6	22.3	1 2	8 31.19	+14 44.0	2.029	2.945	8.4	20.8
1 12	8 21.88	+12 9.3	2.438	3.396	4.5	22.1	1 12	8 22.68	+15 17.8	1.997	2.961	4.6	20.6
1 22	8 13.20	+12 45.9	2.419	3.397	2.1	21.9	1 22	8 13.22	+15 56.9	1.994	2.976	1.3	20.3
2 1	8 4.44	+13 26.8	2.430	3.398	3.7	22.0	2 1	8 3.82	+16 37.5	2.021	2.991	4.0	20.6
2 11	7 56.42	+14 8.9	2.472	3.398	6.8	22.2	2 11	7 55.46	+17 16.1	2.078	3.006	7.7	20.8
2 21	7 49.82	+14 49.3	2.543	3.397	9.7	22.4	2 21	7 48.92	+17 50.0	2.162	3.019	11.0	21.1
<b>232749</b>	2004 <i>JY</i> <sub>20</sub>		1 21.9 298°56	0°4/22.2	18		<b>63367</b>	2001 <i>HS</i> <sub>6</sub>		1 21.9 161°51	2°7/20.3	18	
12 13	8 37.59	+17 18.4	2.294	3.052	13.6	20.9	12 13	8 44.71	+25 28.6	2.331	3.089	13.4	20.9
12 23	8 34.30	+17 30.5	2.189	3.041	10.9	20.7	12 23	8 39.92	+26 17.7	2.243	3.096	10.7	20.7
1 2	8 28.79	+17 51.0	2.107	3.030	7.7	20.5	1 2	8 32.67	+27 11.2	2.179	3.102	7.5	20.5
1 12	8 21.52	+18 17.9	2.051	3.019	4.0	20.2	1 12	8 23.49	+28 4.0	2.143	3.108	4.2	20.3
1 22	8 13.19	+18 48.1	2.024	3.008	0.4	19.9	1 22	8 13.22	+28 50.6	2.137	3.113	2.8	20.2
2 1	8 4.71	+19 18.2	2.027	2.998	3.9	20.2	2 1	8 2.90	+29 26.6	2.161	3.117	5.3	20.4
2 11	7 57.05	+19 45.2	2.059	2.987	7.7	20.4	2 11	7 53.61	+29 49.6	2.215	3.120	8.6	20.6
2 21	7 51.03	+20 7.0	2.117	2.977	11.2	20.6	2 21	7 46.21	+29 59.8	2.295	3.123	11.6	20.8
<b>302894</b>	2003 <i>QM</i>		1 21.9 80°22	0°6/21.7	18		<b>238789</b>	2005 <i>KA</i> <sub>9</sub>		1 21.9 255°44	0°3/22.1	17	
12 13	8 46.65	+20 29.4	1.606	2.378	18.0	20.7	12 13	8 38.15	+17 7.2	2.535	3.286	12.7	21.3
12 23	8 42.10	+20 37.4	1.539	2.399	14.3	20.5	12 23	8 34.52	+17 26.3	2.427	3.274	10.2	21.1
1 2	8 34.44	+20 53.3	1.492	2.419	9.9	20.3	1 2	8 28.84	+17 53.7	2.341	3.262	7.2	20.8
1 12	8 24.41	+21 12.9	1.471	2.440	5.0	20.1	1 12	8 21.53	+18 27.1	2.282	3.249	3.7	20.6
1 22	8 13.20	+21 31.6	1.476	2.460	0.6	19.8	1 22	8 13.23	+19 3.6	2.253	3.237	0.3	20.3
2 1	8 2.24	+21 45.2	1.511	2.480	5.2	20.2	2 1	8 4.76	+19 39.8	2.255	3.224	3.7	20.6
2 11	7 52.92	+21 51.6	1.573	2.500	9.7	20.5	2 11	7 57.02	+20 12.6	2.286	3.212	7.2	20.8
2 21	7 46.18	+21 50.4	1.659	2.519	13.7	20.8	2 21	7 50.75	+20 40.1	2.344	3.199	10.2	20.9
<b>366175</b>	2012 <i>FP</i> <sub>83</sub>		1 21.9 20°78	5°6/26.5	18		<b>409879</b>	2006 <i>SB</i> <sub>296</sub>		1 21.9 108°58	0°6/22.3	18	
12 13	8 38.10	- 4 18.7	1.394	2.109	22.7	19.2	12 13	8 44.53	+16 41.0	2.023	2.773	15.5	22.8
12 23	8 35.93	- 2 47.2	1.310	2.118	19.4	19.0	12 23	8 39.77	+16 52.3	1.948	2.794	12.3	22.6
1 2	8 30.61	- 0 31.8	1.243	2.128	15.2	18.8	1 2	8 32.50	+17 12.9	1.894	2.814	8.6	22.4
1 12	8 22.70	+ 2 27.7	1.199	2.139	10.4	18.5	1 12	8 23.35	+17 40.1	1.866	2.833	4.5	22.2
1 22	8 13.21	+ 6 2.7	1.183	2.151	6.3	18.3	1 22	8 13.23	+18 10.2	1.868	2.852	0.6	21.9
2 1	8 3.54	+ 9 56.7	1.196	2.164	6.6	18.4	2 1	8 3.22	+18 39.4	1.900	2.870	4.2	22.3
2 11	7 55.25	+13 49.0	1.241	2.178	10.7	18.6	2 11	7 54.41	+19 4.8	1.961	2.888	8.2	22.5
2 21	7 49.48	+17 22.3	1.313	2.194	15.2	18.9	2 21	7 47.63	+19 24.6	2.048	2.905	11.6	22.8
<b>122582</b>	2000 <i>RG</i> <sub>25</sub>		1 21.9 48°99	0°0/21.9	18		<b>11356</b>	Chuckjones		1 21.9 62°28	4°8/18.9	18	
12 13	8 45.67	+21 17.5	1.850	2.615	16.2	19.5	12 13	8 41.33	+30 5.5	2.093	2.870	14.2	17.7
12 23	8 41.07	+20 53.7	1.764	2.619	13.0	19.3	12 23	8 37.64	+31 16.4	2.020	2.881	11.3	17.5
1 2	8 33.63	+20 33.9	1.698	2.623	9.1	19.1	1 2	8 31.28	+32 29.4	1.970	2.892	8.2	17.4
1 12	8 24.01	+20 15.8	1.659	2.627	4.7	18.8	1 12	8 22.84	+33 37.5	1.946	2.903	5.5	17.2
1 22	8 13.21	+19 57.0	1.647	2.631	0.0	18.4	1 22	8 13.23	+34 33.9	1.951	2.914	4.9	17.2
2 1	8 2.49	+19 35.8	1.666	2.636	4.7	18.8	2 1	8 3.61	+35 13.5	1.985	2.925	7.0	17.3
2 11	7 53.12	+19 11.7	1.712	2.640	9.1	19.1	2 11	7 55.19	+35 34.5	2.046	2.937	9.9	17.5
2 21	7 46.05	+18 44.9	1.784	2.645	12.9	19.3	2 21	7 48.88	+35 37.9	2.131	2.948	12.7	17.7
<b>423139</b>	2004 <i>CK</i> <sub>109</sub>		1 21.9 292°65	4°0/20.6	17		<b>265853</b>	2005 <i>YC</i> <sub>120</sub>		1 21.9 12°18	1°3/22.6	18	
12 13	8 49.79	+33 0.3	2.280	3.036	13.8	21.1	12 13	8 40.16	+15 30.0	1.974	2.732	15.5	21.0
12 23	8 44.20	+32 58.7	2.171	3.018	11.2	20.9	12 23	8 36.59	+15 26.9	1.882	2.732	12.5	20.8
1 2	8 35.78	+32 53.3	2.084	2.999	8.2	20.7	1 2	8 30.50	+15 33.7	1.812	2.732	8.9	20.6
1 12	8 25.13	+32 38.7	2.024	2.981	5.3	20.4	1 12	8 22.43	+15 48.8	1.767	2.733	4.9	20.3
1 22	8 13.21	+32 10.8	1.994	2.963	4.0	20.3	1 22	8 13.23	+16 9.5	1.750	2.733	1.3	20.1
2 1	8 1.25	+31 27.5	1.994	2.945	6.1	20.4	2 1	8 3.96	+16 32.5	1.763	2.733	4.4	20.3
2 11	7 50.55	+30 29.7	2.024	2.927	9.4	20.6	2 11	7 55.76	+16 54.6	1.803	2.734	8.5	20.5
2 21	7 42.08	+29 20.8	2.080	2.909	12.6	20.8	2 21	7 49.50	+17 13.5	1.869	2.735	12.1	20.8
<b>154022</b>	2002 <i>CX</i> <sub>28</sub>		1 21.9 51°42	5°6/20.2	18		<b>35765</b>	1999 <i>HR</i> <sub>8</sub>		1 21.9 227°45	0°3/22.1	18	
12 13	8 49.66	+33 6.9	1.594	2.375	17.7	19.5	12 13	8 44.30	+17 37.6	1.978	2.733	15.6	19.8
12 23	8 44.74	+33 36.9	1.538	2.399	14.2	19.3	12 23	8 40.09	+17 48.1	1.873	2.722	12.6	19.6
1 2	8 36.33	+34 3.8	1.502	2.423	10.4	19.2	1 2	8 33.12	+18 8.1	1.789	2.711	8.9	19.3
1 12	8 25.35	+34 19.7	1.491	2.447	6.9	19.0	1 12	8 23.88	+18 35.0	1.732	2.699	4.7	19.1
1 22	8 13.21	+34 18.3	1.506	2.472	5.7	19.0	1 22	8 13.23	+19 5.0	1.702	2.686	0.3	18.7
2 1	8 1.57	+33 57.1	1.550	2.497	7.9	19.2	2 1	8 2.34	+19 34.1	1.703	2.673	4.6	19.0
2 11	7 51.95	+33 17.5	1.619	2.522	11.3	19.5	2 11	7 52.47	+19 58.7	1.733	2.659	9.1	19.2
2 21	7 45.30	+32 24.3	1.712	2.547	14.6	19.7	2 21	7 44.67	+20 16.9	1.788	2.645	13.0	19.4
<b>301108</b>	2008 <i>VE</i> <sub>71</sub>		1 21.9 207°16	2°9/20.5	18		<b>395338</b>	2011 <i>QQ</i> <sub>33</sub>		1 21.9 97°45	0°9/21.5	18	
12 13	8 45.96	+24 44.3	1.839	2.610	16.1	21.6	12 13	8 45.79	+19 29.1	1.678	2.447	17.5	21.7
12 23	8 41.74	+25 27.5	1.746	2.606	12.9	21.3	12 23	8 41.39	+20 2.8	1.609	2.467	13.9	21.5
1 2	8 34.43	+26 17.4	1.674	2.601	9.1	21.1	1 2	8 33.96	+20 46.6	1.561	2.487	9.6	21.3
1 12	8 24.59	+27 8.0	1.629	2.595	5.0	20.9	1 12	8 24.21	+21 35.4	1.537	2.507	4.9	21.0
1 22	8 13.21	+27 52.6	1.611	2.589	3.0	20.7	1 22	8 13.24	+22 23.3	1.542	2.526	1.0	20.8
2 1	8 1.65	+28 25.3	1.623	2.583	6.2	20.9	2 1	8 2.42	+23 4.6	1.576	2.544	5.2	21.1
2 11	7 51.36	+28 43.1	1.662	2.576	10.4	21.1	2 11	7 53.11	+23 35.8	1.638	2.563	9.6	21.4
2 21	7 43.48	+28 46.2	1.726	2.568	14.2	21.3	2 21	7 46.26	+23 55.8	1.724	2.580	13.5	21.7
<b>337074</b>	1998 <i>HU</i> <sub>108</sub>		1 21.9 271°25	3°2/19.7	16		<b>484285</b>	2007 <i>PK</i> <sub>18</sub>		1 21.9 178°55	1°9/23.2	18	
12 13	8 45.32	+27 41.0	2.706	3.456									

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>25325</b>	1999 <i>JS</i> <sub>5</sub>		1 21.9 322°51	19°0/23.9	18		<b>417262</b>	2005 <i>YG</i> <sub>271</sub>		1 21.9 49°83	1°2/22.4	18	
12 13	8 44.99	- 5 52.4	1.125	1.844	27.0	17.7	12 13	8 42.72	+17 16.9	1.759	2.525	16.9	21.1
12 23	8 42.41	- 9 22.6	1.052	1.837	24.6	17.5	12 23	8 38.76	+16 58.0	1.684	2.539	13.5	20.9
1 2	8 35.83	-12 34.8	0.994	1.830	22.1	17.3	1 2	8 32.04	+16 47.5	1.629	2.552	9.5	20.7
1 12	8 25.71	-15 13.6	0.954	1.824	20.0	17.1	1 12	8 23.22	+16 43.6	1.599	2.566	5.1	20.5
1 22	8 13.24	-17 4.4	0.933	1.818	19.0	17.0	1 22	8 13.32	+16 44.0	1.597	2.580	1.2	20.2
2 1	8 0.26	-17 57.7	0.931	1.812	19.5	17.0	2 1	8 3.56	+16 46.1	1.624	2.595	4.6	20.5
2 11	7 48.91	-17 54.7	0.947	1.808	21.2	17.1	2 11	7 55.15	+16 47.6	1.678	2.610	8.9	20.8
2 21	7 40.84	-17 5.3	0.979	1.803	23.7	17.2	2 21	7 48.97	+16 47.2	1.757	2.624	12.7	21.1
<b>313523</b>	2002 <i>XR</i> <sub>26</sub>		1 21.9 45°59	0°6/21.8	18		<b>144080</b>	2004 <i>BL</i> <sub>50</sub>		1 21.9 315°88	0°8/22.3	18	
12 13	8 48.16	+23 7.3	1.475	2.255	18.9	19.7	12 13	8 41.34	+16 52.5	1.707	2.477	17.2	20.5
12 23	8 43.56	+22 38.8	1.407	2.272	15.1	19.5	12 23	8 38.05	+16 54.8	1.617	2.474	13.8	20.3
1 2	8 35.56	+22 13.8	1.360	2.289	10.5	19.2	1 2	8 31.84	+17 7.9	1.547	2.472	9.8	20.1
1 12	8 25.02	+21 49.2	1.336	2.306	5.4	19.0	1 12	8 23.28	+17 29.4	1.502	2.469	5.2	19.8
1 22	8 13.25	+21 22.0	1.340	2.324	0.6	18.7	1 22	8 13.33	+17 55.7	1.483	2.467	0.8	19.4
2 1	8 1.86	+20 50.8	1.372	2.342	5.4	19.1	2 1	8 3.26	+18 22.5	1.493	2.465	4.9	19.7
2 11	7 52.34	+20 15.8	1.431	2.361	10.3	19.4	2 11	7 54.44	+18 46.1	1.531	2.463	9.6	20.0
2 21	7 45.66	+19 38.3	1.513	2.380	14.4	19.7	2 21	7 47.90	+19 4.2	1.592	2.461	13.7	20.3
<b>186196</b>	2001 <i>VU</i> <sub>96</sub>		1 21.9 43°74	2°9/23.7	18		<b>115144</b>	2003 <i>SQ</i> <sub>64</sub>		1 21.9 88°68	0°4/22.2	18	
12 13	8 38.08	+ 8 44.0	1.576	2.335	18.8	19.5	12 13	8 44.91	+17 0.8	1.702	2.465	17.5	20.2
12 23	8 35.39	+ 9 13.3	1.505	2.351	15.3	19.3	12 23	8 40.58	+17 14.9	1.632	2.486	13.9	20.0
1 2	8 29.88	+10 3.4	1.454	2.368	11.2	19.1	1 2	8 33.34	+17 39.9	1.583	2.506	9.7	19.8
1 12	8 22.17	+11 12.2	1.426	2.386	6.6	18.9	1 12	8 23.91	+18 12.5	1.559	2.527	5.0	19.6
1 22	8 13.27	+12 34.4	1.424	2.404	3.0	18.7	1 22	8 13.33	+18 47.9	1.562	2.546	0.4	19.3
2 1	8 4.41	+14 2.7	1.451	2.422	5.1	18.9	2 1	8 2.92	+19 21.7	1.595	2.566	4.8	19.7
2 11	7 56.88	+15 29.3	1.505	2.441	9.4	19.1	2 11	7 53.95	+19 50.0	1.656	2.585	9.2	20.0
2 21	7 51.60	+16 48.3	1.584	2.460	13.3	19.4	2 21	7 47.35	+20 11.2	1.742	2.604	13.0	20.2
<b>24896</b>	1997 <i>AT</i> <sub>14</sub>		1 21.9 199°98	0°0/21.9	18		<b>419473</b>	2010 <i>DS</i> <sub>5</sub>		1 21.9 52°23	0°8/22.5	18	
12 13	8 44.82	+17 33.1	1.679	2.445	17.6	19.5	12 13	8 38.03	+14 22.7	2.023	2.780	15.2	20.9
12 23	8 40.95	+17 52.6	1.587	2.443	14.1	19.2	12 23	8 34.83	+14 52.3	1.938	2.788	12.2	20.7
1 2	8 33.95	+18 24.1	1.515	2.440	10.0	19.0	1 2	8 29.25	+15 34.6	1.875	2.796	8.6	20.5
1 12	8 24.40	+19 4.2	1.468	2.437	5.2	18.7	1 12	8 21.82	+16 26.8	1.838	2.805	4.6	20.3
1 22	8 13.29	+19 47.7	1.449	2.433	0.0	18.3	1 22	8 13.34	+17 24.6	1.829	2.813	0.9	20.0
2 1	8 1.99	+20 29.1	1.458	2.429	5.2	18.7	2 1	8 4.82	+18 23.1	1.850	2.822	4.2	20.3
2 11	7 51.99	+21 3.7	1.495	2.424	10.1	18.9	2 11	7 57.30	+19 17.6	1.900	2.830	8.1	20.5
2 21	7 44.43	+21 29.5	1.557	2.418	14.4	19.2	2 21	7 51.63	+20 4.9	1.975	2.839	11.7	20.8
<b>244616</b>	2003 <i>AR</i> <sub>62</sub>		1 21.9 51°55	3°6/22.9	18		<b>116598</b>	2004 <i>BN</i> <sub>105</sub>		1 21.9 37°38	1°6/23.0	18	
12 13	8 47.98	+13 37.9	2.036	2.770	15.9	19.9	12 13	8 36.78	+11 48.3	2.045	2.796	15.3	19.2
12 23	8 42.26	+12 24.1	1.960	2.790	12.9	19.7	12 23	8 33.80	+12 20.0	1.959	2.804	12.3	19.0
1 2	8 34.08	+11 17.1	1.906	2.811	9.5	19.6	1 2	8 28.52	+13 6.5	1.894	2.811	8.8	18.8
1 12	8 24.12	+10 18.0	1.878	2.833	5.9	19.4	1 12	8 21.44	+14 5.3	1.856	2.819	5.0	18.6
1 22	8 13.30	+ 9 27.8	1.881	2.854	3.6	19.3	1 22	8 13.34	+15 12.4	1.845	2.827	1.6	18.4
2 1	8 2.73	+ 8 46.8	1.914	2.876	5.2	19.4	2 1	8 5.18	+16 22.6	1.864	2.835	4.1	18.6
2 11	7 53.46	+ 8 14.7	1.977	2.898	8.5	19.7	2 11	7 57.97	+17 30.4	1.912	2.844	8.0	18.8
2 21	7 46.23	+ 7 50.1	2.066	2.920	11.7	19.9	2 21	7 52.53	+18 32.0	1.986	2.853	11.5	19.1
<b>56840</b>	2000 <i>QW</i> <sub>41</sub>		1 21.9 271°10	3°5/20.6	18		<b>132129</b>	2002 <i>CB</i> <sub>243</sub>		1 21.9 268°76	2°3/22.9	18	
12 13	8 45.98	+28 36.6	1.975	2.745	15.1	19.6	12 13	8 42.75	+14 10.7	1.750	2.508	17.2	20.2
12 23	8 41.66	+28 55.5	1.872	2.730	12.2	19.4	12 23	8 39.28	+13 55.1	1.642	2.491	14.1	20.0
1 2	8 34.33	+29 15.8	1.791	2.714	8.8	19.1	1 2	8 32.85	+13 50.7	1.554	2.473	10.3	19.7
1 12	8 24.56	+29 31.9	1.735	2.699	5.2	18.9	1 12	8 23.91	+13 57.0	1.491	2.454	5.9	19.4
1 22	8 13.30	+29 38.6	1.708	2.683	3.6	18.7	1 22	8 13.34	+14 11.8	1.454	2.436	2.3	19.1
2 1	8 1.87	+29 31.9	1.710	2.667	6.3	18.9	2 1	8 2.41	+14 32.0	1.447	2.417	5.2	19.3
2 11	7 51.67	+29 10.8	1.740	2.651	10.1	19.1	2 11	7 52.55	+14 54.0	1.466	2.398	10.0	19.5
2 21	7 43.80	+28 36.9	1.795	2.635	13.8	19.3	2 21	7 44.92	+15 14.8	1.510	2.378	14.3	19.7
<b>518421</b>	1995 <i>QT</i> <sub>16</sub>		1 21.9 176°66	4°5/25.5	18		<b>102276</b>	1999 <i>TJ</i> <sub>53</sub>		1 21.9 211°87	3°3/23.4	18	
12 13	8 36.52	+ 1 49.0	2.779	3.467	13.0	21.6	12 13	8 44.75	+10 58.3	1.750	2.494	17.8	21.0
12 23	8 32.89	+ 1 50.7	2.677	3.469	11.0	21.4	12 23	8 40.71	+10 44.3	1.651	2.488	14.6	20.8
1 2	8 27.51	+ 2 7.3	2.597	3.470	8.7	21.3	1 2	8 33.72	+10 44.6	1.571	2.481	10.8	20.5
1 12	8 20.80	+ 2 39.2	2.542	3.470	6.3	21.1	1 12	8 24.29	+10 59.0	1.516	2.474	6.6	20.3
1 22	8 13.32	+ 3 25.4	2.516	3.471	4.6	21.0	1 22	8 13.35	+11 25.6	1.489	2.466	3.4	20.1
2 1	8 5.75	+ 4 23.3	2.519	3.471	5.0	21.0	2 1	8 2.15	+12 0.8	1.490	2.458	5.5	20.2
2 11	7 58.82	+ 5 29.2	2.553	3.470	7.0	21.2	2 11	7 52.11	+12 40.2	1.519	2.448	9.8	20.4
2 21	7 53.14	+ 6 38.7	2.614	3.470	9.4	21.3	2 21	7 44.32	+13 19.5	1.573	2.438	14.0	20.6
<b>334573</b>	2002 <i>TC</i> <sub>102</sub>		1 21.9 161°96	2°6/20.3	18		<b>367539</b>	2009 <i>RA</i> <sub>22</sub>		1 21.9 162°26	1°5/22.7	18	
12 13	8 42.93	+28 4.5	2.814	3.568	11.5	22.0	12 13	8 42.49	+14 58.2	2.225	2.968	14.4	21.7
12 23	8 38.04	+28 32.2	2.724	3.573	9.1	21.9	12 23	8 38.09	+14 53.1	2.131	2.972	11.7	21.5
1 2	8 31.11	+29 0.8	2.658	3.578	6.5	21.7	1 2	8 31.38	+14 57.0	2.061	2.976	8.3	21.3
1 12	8 22.64	+29 26.4	2.621	3.583	3.8	21.5	1 12	8 22.88	+15 8.4	2.016	2.979	4.6	21.1
1 22	8 13.32	+29 45.5	2.613	3.587	2.7	21.4	1 22	8 13.36	+15 24.9	2.000	2.983	1.5	20.9
2 1	8 4.01	+29 55.5	2.637	3.591	4.6	21.6	2 1	8 3.81	+15 43.8	2.015	2.985	4.1	21.1
2 11	7 55.59	+29 55.1	2.691	3.594	7.3	21.8	2 11	7 55.23	+16 2.5	2.060	2.987	7.8	21.3
2 21	7 48.73	+29 44.9	2.771	3.597	9.9	21.9	2 21	7 48.43	+16 19.0	2.131	2.989	11.2	21.5
<b>458259</b>	2010 <i>TK</i> <sub>164</sub>		1 21.9 82°25	7°0/26.2	16		<b>170525</b>	2003 <i>WQ</i> <sub>85</sub>		1 21.9 324°13	0°4/21.9	18	
12 13	8 42.17												

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>245898</b>	2006 <i>QB</i> <sub>83</sub>		1 21.9 157°49	1.4°/21.3	18		<b>383737</b>	2007 <i>VW</i> <sub>14</sub>		1 21.9 64°51	3°6'/19.7	18	
12 13	8 41.22	+23 44.1	2.448	3.208	12.8	20.5	12 13	8 40.05	+27 46.2	2.279	3.051	13.3	20.7
12 23	8 36.97	+23 54.2	2.355	3.209	10.2	20.3	12 23	8 36.37	+28 43.3	2.199	3.059	10.6	20.5
1 2	8 30.53	+24 7.7	2.285	3.210	7.1	20.1	1 2	8 30.30	+29 43.6	2.142	3.066	7.5	20.3
1 12	8 22.41	+24 21.2	2.243	3.210	3.7	19.9	1 12	8 22.37	+30 41.4	2.113	3.074	4.6	20.2
1 22	8 13.36	+24 31.7	2.229	3.211	1.4	19.8	1 22	8 13.39	+31 31.2	2.112	3.082	3.7	20.1
2 1	8 4.31	+24 36.5	2.247	3.212	4.2	20.0	2 1	8 4.38	+32 8.5	2.141	3.090	5.9	20.3
2 11	7 56.19	+24 34.2	2.293	3.213	7.6	20.2	2 11	7 56.40	+32 31.0	2.198	3.098	8.9	20.5
2 21	7 49.76	+24 24.8	2.366	3.213	10.6	20.4	2 21	7 50.28	+32 39.1	2.280	3.107	11.7	20.7
<b>122722</b>	2000 <i>SA</i> <sub>40</sub>		1 21.9 86°76	0°2'/22.1	18		<b>280752</b>	2005 <i>QP</i> <sub>21</sub>		1 21.9 150°58	0°1'/21.9	18	
12 13	8 40.75	+16 36.2	1.966	2.726	15.5	20.0	12 13	8 44.30	+16 42.6	1.603	2.372	18.2	20.9
12 23	8 37.02	+17 4.9	1.887	2.739	12.4	19.8	12 23	8 40.60	+17 16.5	1.520	2.377	14.6	20.7
1 2	8 30.78	+17 44.5	1.829	2.752	8.6	19.6	1 2	8 33.75	+18 4.5	1.456	2.382	10.2	20.5
1 12	8 22.60	+18 31.8	1.797	2.765	4.5	19.4	1 12	8 24.33	+19 2.7	1.418	2.387	5.3	20.2
1 22	8 13.36	+19 22.1	1.794	2.778	0.2	19.0	1 22	8 13.40	+20 4.7	1.407	2.391	0.1	19.8
2 1	8 4.14	+20 10.6	1.821	2.791	4.3	19.4	2 1	8 2.36	+21 3.7	1.424	2.394	5.3	20.2
2 11	7 56.04	+20 53.2	1.876	2.804	8.4	19.7	2 11	7 52.71	+21 54.3	1.469	2.398	10.2	20.5
2 21	7 49.91	+21 27.6	1.956	2.816	11.9	19.9	2 21	7 45.58	+22 33.5	1.538	2.400	14.5	20.8
<b>427623</b>	2003 <i>UZ</i> <sub>45</sub>		1 21.9 119°37	4°8'/19.3	18		<b>447352</b>	2005 <i>YM</i> <sub>227</sub>		1 21.9 344°07	0°1'/22.1	18	
12 13	8 43.88	+32 21.6	2.215	2.984	13.7	21.7	12 13	8 37.61	+15 25.8	1.286	2.082	20.4	20.5
12 23	8 39.58	+33 10.1	2.133	2.988	11.1	21.5	12 23	8 36.12	+16 4.2	1.203	2.076	16.5	20.2
1 2	8 32.61	+33 58.2	2.074	2.992	8.2	21.3	1 2	8 31.15	+17 2.4	1.139	2.071	11.7	19.9
1 12	8 23.56	+34 39.6	2.042	2.995	5.6	21.2	1 12	8 23.21	+18 16.6	1.096	2.067	6.1	19.6
1 22	8 13.36	+35 8.6	2.039	2.999	4.9	21.1	1 22	8 13.40	+19 39.4	1.079	2.063	0.1	19.1
2 1	8 3.17	+35 21.2	2.064	3.003	6.9	21.3	2 1	8 3.32	+21 1.2	1.088	2.060	6.0	19.5
2 11	7 54.19	+35 16.5	2.117	3.006	9.7	21.5	2 11	7 54.75	+22 13.5	1.121	2.058	11.7	19.8
2 21	7 47.31	+34 56.3	2.194	3.010	12.5	21.6	2 21	7 49.04	+23 11.2	1.176	2.056	16.7	20.1
<b>291562</b>	2006 <i>FV</i> <sub>18</sub>		1 21.9 33°41	5°2'/20.1	18		<b>247294</b>	2001 <i>SA</i> <sub>305</sub>		1 21.9 19°40	6°4'/18.8	18	
12 13	8 44.97	+29 0.2	1.358	2.158	19.3	20.4	12 13	8 44.45	+37 3.4	2.122	2.893	14.2	20.1
12 23	8 41.93	+29 47.0	1.290	2.164	15.5	20.2	12 23	8 40.30	+37 52.6	2.045	2.895	11.7	20.0
1 2	8 35.04	+30 37.2	1.240	2.171	11.1	19.9	1 2	8 33.24	+38 37.8	1.990	2.898	9.0	19.8
1 12	8 25.06	+31 21.9	1.214	2.178	6.9	19.7	1 12	8 23.93	+39 12.0	1.961	2.902	6.9	19.7
1 22	8 13.36	+31 52.2	1.213	2.185	5.4	19.7	1 22	8 13.40	+39 29.1	1.959	2.905	6.5	19.7
2 1	8 1.79	+32 2.0	1.238	2.193	8.4	19.8	2 1	8 2.95	+39 25.3	1.985	2.909	8.2	19.8
2 11	7 52.19	+31 50.4	1.288	2.202	12.7	20.1	2 11	7 53.89	+39 1.0	2.037	2.913	10.7	19.9
2 21	7 45.79	+31 20.6	1.359	2.211	16.7	20.4	2 21	7 47.18	+38 19.3	2.113	2.917	13.3	20.1
<b>169171</b>	2001 <i>QW</i> <sub>231</sub>		1 21.9 240°62	2°6'/23.4	18		<b>502804</b>	2015 <i>DD</i> <sub>111</sub>		1 21.9 158°12	4°7'/18.9	17	
12 13	8 38.74	+11 21.0	2.495	3.227	13.3	20.6	12 13	8 42.09	+32 1.3	2.454	3.220	12.6	21.6
12 23	8 34.93	+11 6.1	2.389	3.220	10.9	20.4	12 23	8 37.96	+33 3.0	2.370	3.223	10.2	21.5
1 2	8 29.10	+11 0.8	2.306	3.213	8.0	20.2	1 2	8 31.41	+34 5.2	2.309	3.225	7.5	21.3
1 12	8 21.70	+11 4.9	2.250	3.206	4.9	20.0	1 12	8 22.95	+35 2.0	2.276	3.227	5.3	21.2
1 22	8 13.37	+11 17.0	2.222	3.198	2.6	19.8	1 22	8 13.40	+35 47.5	2.271	3.229	4.8	21.1
2 1	8 4.92	+11 35.2	2.224	3.191	4.1	19.9	2 1	8 3.78	+36 17.6	2.297	3.231	6.6	21.3
2 11	7 57.23	+11 57.1	2.256	3.183	7.2	20.1	2 11	7 55.16	+36 30.8	2.350	3.233	9.2	21.4
2 21	7 51.00	+12 20.1	2.315	3.176	10.3	20.3	2 21	7 48.39	+36 28.0	2.427	3.234	11.7	21.6
<b>484291</b>	2007 <i>RJ</i> <sub>52</sub>		1 21.9 176°46	0°4'/22.2	18		<b>134437</b>	1998 <i>RR</i> <sub>62</sub>		1 21.9 106°17	2°5'/23.5	18	
12 13	8 45.73	+17 34.5	2.174	2.919	14.7	22.5	12 13	8 43.99	+10 23.1	2.136	2.864	15.4	21.2
12 23	8 40.78	+17 40.8	2.078	2.922	11.8	22.3	12 23	8 39.14	+10 32.3	2.062	2.890	12.5	21.0
1 2	8 33.33	+17 55.1	2.005	2.924	8.3	22.1	1 2	8 32.00	+10 54.7	2.009	2.915	9.1	20.8
1 12	8 23.91	+18 15.0	1.959	2.925	4.3	21.9	1 12	8 23.14	+11 28.8	1.983	2.940	5.4	20.7
1 22	8 13.37	+18 37.2	1.942	2.926	0.4	21.6	1 22	8 13.41	+12 11.5	1.986	2.964	2.6	20.5
2 1	8 2.75	+18 58.3	1.956	2.926	4.2	21.9	2 1	8 3.79	+12 59.0	2.019	2.987	4.3	20.7
2 11	7 53.19	+19 15.9	2.000	2.925	8.2	22.1	2 11	7 55.27	+13 47.0	2.083	3.010	7.7	20.9
2 21	7 45.54	+19 28.3	2.071	2.923	11.7	22.3	2 21	7 48.60	+14 32.2	2.173	3.032	11.0	21.2
<b>157370</b>	2004 <i>TH</i> <sub>128</sub>		1 21.9 79°10	0°4'/22.2	18		<b>435283</b>	2007 <i>TC</i> <sub>347</sub>		1 21.9 358°43	12°5'/30.9	18	
12 13	8 40.16	+16 29.3	1.987	2.747	15.4	20.7	12 13	8 35.21	-16 50.8	2.229	2.821	18.0	20.6
12 23	8 36.54	+16 52.5	1.906	2.758	12.3	20.5	12 23	8 32.50	-18 10.9	2.143	2.820	16.7	20.5
1 2	8 30.44	+17 26.4	1.846	2.769	8.6	20.3	1 2	8 27.61	-19 7.4	2.072	2.819	15.2	20.4
1 12	8 22.44	+18 8.0	1.813	2.780	4.5	20.1	1 12	8 21.02	-19 34.7	2.020	2.818	13.8	20.3
1 22	8 13.38	+18 52.9	1.808	2.792	0.4	19.8	1 22	8 13.41	-19 29.2	1.988	2.818	12.8	20.2
2 1	8 4.32	+19 36.8	1.832	2.803	4.3	20.1	2 1	8 5.66	-18 50.0	1.978	2.818	12.5	20.2
2 11	7 56.37	+20 15.7	1.885	2.814	8.3	20.4	2 11	7 58.73	-17 40.4	1.990	2.819	13.0	20.2
2 21	7 50.34	+20 47.4	1.963	2.824	11.8	20.6	2 21	7 53.40	-16 7.0	2.025	2.820	14.1	20.3
<b>184080</b>	2004 <i>GC</i> <sub>30</sub>		1 21.9 231°85	3°1'/23.6	18		<b>461370</b>	2000 <i>SF</i> <sub>64</sub>		1 21.9 60°53	5°6'/25.2	18	
12 13	8 40.50	+ 9 51.5	2.147	2.880	15.2	21.4	12 13	8 41.03	+ 3 35.1	1.762	2.485	18.4	21.2
12 23	8 36.75	+ 9 43.2	2.041	2.871	12.5	21.2	12 23	8 37.19	+ 3 19.3	1.700	2.515	15.3	21.0
1 2	8 30.63	+ 9 47.7	1.956	2.862	9.3	21.0	1 2	8 30.82	+ 3 23.6	1.656	2.545	11.8	20.8
1 12	8 22.59	+10 4.9	1.897	2.852	5.8	20.7	1 12	8 22.58	+ 3 48.4	1.636	2.574	8.2	20.7
1 22	8 13.39	+10 33.3	1.866	2.842	3.2	20.5	1 22	8 13.41	+ 4 31.8	1.642	2.604	5.8	20.6
2 1	8 3.98	+11 9.9	1.865	2.831	4.8	20.6	2 1	8 4.43	+ 5 29.5	1.676	2.634	6.3	20.7
2 11	7 55.43	+11 51.0	1.892	2.820	8.3	20.8	2 11	7 56.73	+ 6 35.4	1.738	2.663	9.1	20.9
2 21	7 48.62	+12 32.8	1.946	2.809	11.8	21.0	2 21	7 51.09	+ 7 43.5	1.825	2.693	12.3	21.2
<b>462362</b>	2008 <i>RS</i> <sub>127</sub>		1 21.9 205°35	2°6'/20.5	17		<b>273068</b>	2006 <i>DD</i> <sub>197</sub>		1 21.9 337°60	8°4'/26.5	18	
12 13	8 43.83												

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>461602</b>	2004 <i>TG</i> <sub>166</sub>		1 21.9	48°44	2°0/21.1	18	<b>364182</b>	2006 <i>OF</i> <sub>21</sub>		1 22.0	118°25	2°6/20.7	18
12 13	8 42.59	+23 59.6	1.800	2.578	16.1	21.0	12 23	8 41.71	+26 5.7	2.030	2.883	11.6	21.4
12 23	8 38.83	+24 19.1	1.724	2.588	12.8	20.8	1 2	8 33.95	+26 43.7	1.979	2.902	8.1	21.3
1 2	8 32.21	+24 43.5	1.670	2.598	8.9	20.6	1 12	8 24.21	+27 19.9	1.955	2.920	4.5	21.1
1 12	8 23.40	+25 8.2	1.640	2.609	4.7	20.4	1 22	8 13.44	+27 49.4	1.960	2.938	2.6	21.0
1 22	8 13.42	+25 28.2	1.639	2.620	2.1	20.2	2 1	8 2.81	+28 8.2	1.995	2.954	5.3	21.2
2 1	8 3.53	+25 39.7	1.666	2.631	5.4	20.4	2 11	7 53.46	+28 14.9	2.060	2.971	8.8	21.4
2 11	7 55.02	+25 40.8	1.720	2.643	9.4	20.7	2 21	7 46.24	+28 10.2	2.150	2.986	11.9	21.7
2 21	7 48.81	+25 31.9	1.799	2.654	13.1	21.0	3 2	7 41.65	+27 56.0	2.261	3.001	14.5	21.9
<b>230499</b>	2002 <i>TH</i> <sub>274</sub>		1 22.0	59°74	1°1/22.3	17	<b>469023</b>	2015 <i>AK</i> <sub>243</sub>		1 22.0	0°01	2°3/20.5	18
12 23	8 42.22	+17 9.3	1.182	2.049	17.1	20.0	12 23	8 35.00	+23 7.4	1.948	2.811	11.6	20.9
1 2	8 35.05	+17 8.3	1.136	2.065	12.1	19.8	1 2	8 29.56	+24 15.3	1.881	2.810	8.0	20.7
1 12	8 24.99	+17 16.8	1.113	2.082	6.4	19.5	1 12	8 22.10	+25 26.8	1.841	2.810	4.3	20.5
1 22	8 13.42	+17 30.6	1.115	2.099	1.1	19.2	1 22	8 13.44	+26 35.7	1.830	2.810	2.3	20.3
2 1	8 2.12	+17 45.1	1.143	2.116	5.8	19.6	2 1	8 4.64	+27 36.1	1.848	2.810	5.4	20.5
2 11	7 52.79	+17 56.7	1.197	2.133	11.2	19.9	2 11	7 56.83	+28 23.8	1.894	2.810	9.1	20.7
2 21	7 46.54	+18 3.6	1.273	2.150	15.8	20.2	2 21	7 50.95	+28 57.2	1.965	2.811	12.5	21.0
3 2	7 43.90	+18 4.9	1.367	2.168	19.5	20.5	3 2	7 47.61	+29 16.8	2.057	2.812	15.3	21.2
<b>443887</b>	2001 <i>VU</i> <sub>5</sub>		1 22.0	70°49	4°8/20.0	17	<b>147331</b>	2003 <i>BR</i> <sub>38</sub>		1 22.0	218°29	0°4/22.2	18
12 23	8 45.20	+27 56.3	1.310	2.179	15.7	21.0	12 23	8 38.99	+18 12.4	2.225	3.070	11.1	20.2
1 2	8 36.98	+29 10.2	1.281	2.209	11.0	20.8	1 2	8 32.08	+18 17.8	2.143	3.062	7.8	19.9
1 12	8 25.89	+30 19.1	1.275	2.240	6.5	20.7	1 12	8 23.32	+18 27.8	2.087	3.053	4.1	19.7
1 22	8 13.42	+31 13.2	1.297	2.270	4.9	20.7	1 22	8 13.45	+18 39.6	2.061	3.044	0.4	19.4
2 1	8 1.41	+31 46.3	1.345	2.300	7.9	20.9	2 1	8 3.45	+18 50.8	2.065	3.035	4.0	19.7
2 11	7 51.54	+31 57.2	1.419	2.329	12.0	21.2	2 11	7 54.35	+18 59.0	2.100	3.025	7.8	19.9
2 21	7 44.88	+31 49.1	1.516	2.358	15.7	21.5	2 21	7 46.99	+19 3.2	2.161	3.014	11.2	20.1
3 2	7 41.85	+31 26.5	1.631	2.387	18.7	21.8	3 2	7 41.95	+19 2.9	2.245	3.003	14.1	20.2
<b>246649</b>	2008 <i>YN</i> <sub>21</sub>		1 22.0	117°17	0°4/22.2	18	<b>48500</b>	1993 <i>DU</i> <sub>2</sub>		1 22.0	332°27	1°7/21.2	18
12 23	8 40.88	+17 40.8	1.688	2.540	13.6	21.0	12 23	8 36.46	+23 46.3	1.950	2.812	11.6	18.6
1 2	8 33.61	+18 1.0	1.631	2.554	9.5	20.8	1 2	8 30.55	+24 6.1	1.877	2.805	8.1	18.4
1 12	8 24.12	+18 28.2	1.599	2.567	4.9	20.6	1 12	8 22.59	+24 27.0	1.829	2.798	4.3	18.1
1 22	8 13.42	+18 58.0	1.595	2.579	0.4	20.3	1 22	8 13.45	+24 44.8	1.810	2.792	1.7	17.9
2 1	8 2.80	+19 26.1	1.621	2.592	4.7	20.6	2 1	8 4.21	+24 56.0	1.819	2.785	4.9	18.1
2 11	7 53.54	+19 49.3	1.675	2.603	9.2	20.9	2 11	7 56.03	+24 58.5	1.857	2.780	8.8	18.4
2 21	7 46.60	+20 5.9	1.754	2.615	13.0	21.2	2 21	7 49.82	+24 52.0	1.919	2.774	12.4	18.6
3 2	7 42.53	+20 15.3	1.854	2.626	16.2	21.4	3 2	7 46.18	+24 37.3	2.003	2.769	15.3	18.8
<b>228208</b>	1995 <i>MR</i> <sub>2</sub>		1 22.0	79°89	3°7/23.3	18	<b>394403</b>	2007 <i>GT</i> <sub>22</sub>		1 22.0	142°47	3°8/23.8	18
12 23	8 41.56	+11 43.7	1.313	2.164	16.8	20.2	12 23	8 39.81	+ 8 42.6	1.716	2.546	14.5	21.7
1 2	8 34.43	+11 25.2	1.260	2.177	12.3	19.9	1 2	8 32.87	+ 8 45.5	1.652	2.556	10.8	21.5
1 12	8 24.65	+11 21.6	1.230	2.190	7.4	19.7	1 12	8 23.77	+ 9 3.9	1.611	2.565	6.8	21.3
1 22	8 13.42	+11 30.9	1.225	2.203	3.7	19.5	1 22	8 13.46	+ 9 35.8	1.599	2.573	3.9	21.1
2 1	8 2.32	+11 49.7	1.247	2.216	6.1	19.7	2 1	8 3.12	+10 17.5	1.615	2.580	5.5	21.2
2 11	7 52.91	+12 13.6	1.295	2.228	10.8	20.0	2 11	7 53.98	+11 4.2	1.659	2.588	9.2	21.5
2 21	7 46.27	+12 38.6	1.366	2.241	15.1	20.3	2 21	7 47.01	+11 51.3	1.729	2.594	13.0	21.7
3 2	7 42.98	+13 1.3	1.457	2.254	18.7	20.5	3 2	7 42.77	+12 35.2	1.820	2.600	16.2	21.9
<b>16101</b>	Notskas		1 22.0	160°38	1°2/21.3	18	<b>386166</b>	2007 <i>TA</i> <sub>449</sub>		1 22.0	182°90	3°3/23.8	17
12 23	8 36.96	+21 57.4	2.147	3.002	11.0	18.7	12 23	8 35.01	+ 8 43.9	2.528	3.348	10.7	21.0
1 2	8 30.69	+22 30.9	2.079	3.004	7.6	18.5	1 2	8 29.07	+ 8 29.5	2.451	3.348	8.1	20.8
1 12	8 22.58	+23 7.1	2.037	3.006	3.9	18.3	1 12	8 21.68	+ 8 25.1	2.399	3.348	5.3	20.7
1 22	8 13.43	+23 41.9	2.025	3.008	1.2	18.1	1 22	8 13.46	+ 8 30.1	2.377	3.348	3.3	20.5
2 1	8 4.21	+24 11.2	2.043	3.009	4.4	18.3	2 1	8 5.19	+ 8 43.0	2.385	3.347	4.3	20.6
2 11	7 55.98	+24 32.6	2.090	3.011	8.1	18.6	2 11	7 57.65	+ 9 1.4	2.423	3.346	7.0	20.8
2 21	7 49.54	+24 45.0	2.162	3.012	11.4	18.8	2 21	7 51.51	+ 9 23.0	2.488	3.346	9.8	20.9
3 2	7 45.46	+24 48.7	2.257	3.013	14.1	19.0	3 2	7 47.24	+ 9 45.3	2.577	3.344	12.3	21.1
<b>51287</b>	2000 <i>KH</i> <sub>16</sub>		1 22.0	62°60	3°6/19.9	18	<b>418326</b>	2008 <i>FO</i> <sub>128</sub>		1 22.0	244°08	3°4/20.1	18
12 23	8 37.28	+28 45.2	2.078	2.938	11.1	19.0	12 23	8 39.15	+27 24.5	1.967	2.826	11.6	21.3
1 2	8 30.98	+29 36.2	2.023	2.947	7.9	18.8	1 2	8 32.55	+28 19.2	1.892	2.817	8.3	21.1
1 12	8 22.74	+30 24.3	1.994	2.957	4.8	18.7	1 12	8 23.70	+29 13.2	1.844	2.808	4.9	20.9
1 22	8 13.43	+31 3.9	1.995	2.966	3.7	18.6	1 22	8 13.47	+30 0.3	1.824	2.798	3.5	20.8
2 1	8 4.13	+31 30.8	2.024	2.976	5.9	18.8	2 1	8 3.02	+30 35.0	1.833	2.788	6.2	20.9
2 11	7 55.97	+31 43.1	2.081	2.985	9.1	19.0	2 11	7 53.64	+30 54.5	1.871	2.778	9.8	21.1
2 21	7 49.79	+31 41.5	2.163	2.995	12.1	19.2	2 21	7 46.36	+30 58.9	1.933	2.767	13.2	21.3
3 2	7 46.13	+31 28.1	2.266	3.005	14.5	19.4	3 2	7 41.87	+30 50.0	2.016	2.757	16.1	21.5
<b>416559</b>	2004 <i>CN</i> <sub>55</sub>		1 22.0	317°67	4°1/20.1	18	<b>99444</b>	2002 <i>CS</i> <sub>17</sub>		1 22.0	139°77	1°7/21.3	18
12 23	8 40.21	+32 14.9	2.201	3.054	10.8	20.7	12 23	8 43.19	+23 32.1	1.716	2.573	13.2	20.0
1 2	8 32.97	+32 33.1	2.133	3.051	7.9	20.5	1 2	8 35.29	+23 52.4	1.657	2.582	9.2	19.8
1 12	8 23.74	+32 44.6	2.092	3.049	5.1	20.4	1 12	8 25.02	+24 13.3	1.623	2.591	4.8	19.5
1 22	8 13.43	+32 45.0	2.080	3.047	4.1	20.3	1 22	8 13.47	+24 29.9	1.617	2.599	1.7	19.3
2 1	8 3.15	+32 31.5	2.097	3.045	6.1	20.4	2 1	8 2.00	+24 38.3	1.641	2.607	5.4	19.6
2 11	7 54.07	+32 4.0	2.143	3.043	9.1	20.6	2 11	7 51.98	+24 36.6	1.693	2.614	9.6	19.9
2 21	7 47.02	+31 24.4	2.214	3.041	12.0	20.8	2 21	7 44.43	+24 25.6	1.770	2.621	13.4	20.1
3 2	7 42.56	+30 35.9	2.307	3.040	14.5	20.9	3 2	7 39.89	+24 6.9	1.868	2.627	16.5	20.3
<b>174794</b>	2003 <i>WM</i> <sub>139</sub>		1 22.0	19°96	3°1/23.4	18	<b>53769</b>	2000 <i>EU</i> <sub>85</sub>		1 22.0	219°40	2°4/20.9	18
12 23	8 35.73	+11 19.4	1.914	2.754	12.8	19.2	1						