

EPHEMERIDES

4 12.9

4 13.0

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	
<b>471832</b>	2012 <i>XD</i> <sub>62</sub>	4 12.9 212°89 0°1/13.1 17						<b>289273</b>	2004 <i>XV</i> <sub>147</sub>	4 13.0 186°25 2°6/10.8 18				
3 12	13 45.49	-12 23.4	2.438	3.284	10.6	21.8	3 12	13 52.18	-4 14.3	1.855	2.719	12.6	21.2	
3 22	13 40.75	-11 36.6	2.355	3.280	7.7	21.6	3 22	13 45.88	-3 26.8	1.784	2.719	9.0	20.9	
4 1	13 34.56	-10 39.0	2.298	3.275	4.3	21.4	4 1	13 37.57	-2 33.4	1.738	2.718	5.1	20.7	
4 11	13 27.52	-9 34.4	2.269	3.271	0.8	21.1	4 11	13 28.09	-1 39.9	1.720	2.717	2.6	20.5	
4 21	13 20.32	-8 27.4	2.270	3.266	2.9	21.2	4 21	13 18.41	-0 52.3	1.730	2.715	5.3	20.7	
5 1	13 13.69	-7 23.4	2.300	3.261	6.4	21.5	5 1	13 9.56	-0 16.2	1.768	2.712	9.2	20.9	
5 11	13 8.24	-6 27.3	2.357	3.255	9.5	21.7	5 11	13 2.41	+0 4.6	1.830	2.709	12.8	21.1	
5 21	13 4.41	-5 42.6	2.436	3.250	12.3	21.8	5 21	12 57.47	+0 8.7	1.913	2.705	15.9	21.3	
<b>522784</b>	2016 <i>NT</i> <sub>77</sub>	4 13.0 194°35 0°8/12.0 17						<b>381483</b>	2008 <i>SW</i> <sub>67</sub>	4 13.0 246°69 1°7/11.6 18				
3 12	13 45.19	-9 18.3	2.512	3.366	10.0	22.2	3 12	13 51.81	-4 30.8	2.152	3.009	11.3	20.8	
3 22	13 40.46	-8 27.1	2.434	3.365	7.2	22.0	3 22	13 45.53	-4 16.6	2.064	2.995	8.1	20.5	
4 1	13 34.37	-7 27.5	2.383	3.363	3.9	21.8	4 1	13 37.39	-3 58.3	2.001	2.981	4.6	20.3	
4 11	13 27.48	-6 23.8	2.360	3.361	0.9	21.5	4 11	13 28.07	-3 39.3	1.967	2.966	1.8	20.0	
4 21	13 20.47	-5 20.6	2.367	3.359	3.2	21.7	4 21	13 18.43	-3 23.6	1.962	2.951	4.2	20.2	
5 1	13 14.01	-4 22.9	2.402	3.357	6.5	21.9	5 1	13 9.40	-3 14.8	1.986	2.936	8.0	20.4	
5 11	13 8.70	-3 34.8	2.465	3.354	9.6	22.1	5 11	13 1.79	-3 16.0	2.035	2.920	11.5	20.6	
5 21	13 4.92	-2 59.1	2.550	3.351	12.1	22.3	5 21	12 56.16	-3 28.6	2.107	2.904	14.5	20.7	
<b>44795</b>	1999 <i>TU</i> <sub>180</sub>	4 13.0 280°44 2°5/11.0 18						<b>407920</b>	2012 <i>CJ</i> <sub>15</sub>	4 13.0 108°12 2°5/10.8 18				
3 12	13 49.50	-5 39.9	1.577	2.450	13.9	19.0	3 12	13 50.38	-5 36.0	1.685	2.554	13.3	21.2	
3 22	13 44.45	-4 51.6	1.489	2.429	10.0	18.7	3 22	13 44.56	-4 34.5	1.632	2.570	9.4	21.0	
4 1	13 37.01	-3 53.5	1.426	2.408	5.6	18.4	4 1	13 36.78	-3 25.8	1.603	2.585	5.2	20.8	
4 11	13 27.98	-2 51.8	1.388	2.387	2.5	18.2	4 11	13 27.94	-2 16.9	1.602	2.600	2.5	20.7	
4 21	13 18.45	-1 54.0	1.377	2.365	5.7	18.3	4 21	13 19.09	-1 14.9	1.628	2.615	5.3	20.9	
5 1	13 9.66	-1 7.6	1.391	2.344	10.5	18.5	5 1	13 11.24	-0 26.1	1.681	2.629	9.3	21.1	
5 11	13 2.69	-0 38.6	1.429	2.322	14.9	18.7	5 11	13 5.20	+0 5.4	1.758	2.643	13.0	21.4	
5 21	12 58.24	-0 29.6	1.486	2.300	18.7	18.9	5 21	13 1.41	+0 18.5	1.856	2.656	16.0	21.6	
<b>213604</b>	2002 <i>PU</i> <sub>86</sub>	4 13.0 300°88 3°3/15.1 17						<b>65065</b>	2002 <i>AL</i> <sub>184</sub>	4 13.0 210°35 2°4/15.5 18				
3 12	13 50.17	-17 11.9	1.449	2.298	16.3	20.1	3 12	13 48.57	-17 54.7	2.591	3.409	10.9	19.9	
3 22	13 45.39	-17 24.2	1.352	2.272	12.6	19.8	3 22	13 42.98	-18 0.7	2.503	3.406	8.3	19.7	
4 1	13 37.78	-17 18.2	1.277	2.246	8.2	19.5	4 1	13 35.85	-17 55.2	2.441	3.402	5.4	19.5	
4 11	13 28.16	-16 54.1	1.225	2.220	4.0	19.1	4 11	13 27.80	-17 39.1	2.406	3.398	2.8	19.4	
4 21	13 17.73	-16 15.1	1.198	2.195	4.7	19.1	4 21	13 19.52	-17 14.9	2.401	3.394	3.0	19.4	
5 1	13 7.99	-15 27.7	1.197	2.169	9.4	19.3	5 1	13 11.78	-16 45.9	2.424	3.390	5.8	19.5	
5 11	13 0.28	-14 40.7	1.218	2.144	14.4	19.5	5 11	13 5.23	-16 16.5	2.475	3.386	8.7	19.7	
5 21	12 55.50	-14 2.1	1.259	2.119	18.8	19.7	5 21	13 0.35	-15 50.5	2.550	3.381	11.3	19.9	
<b>108880</b>	2001 <i>OC</i> <sub>106</sub>	4 13.0 178°96 4°8/16.9 18						<b>267201</b>	2000 <i>SZ</i> <sub>92</sub>	4 13.0 140°67 2°0/15.1 17				
3 12	13 53.87	-23 13.2	2.101	2.898	13.8	19.8	3 12	13 47.12	-18 45.7	1.930	2.762	13.5	20.3	
3 22	13 47.17	-23 43.6	2.017	2.899	11.0	19.6	3 22	13 42.23	-17 54.5	1.854	2.766	10.2	20.1	
4 1	13 38.35	-23 56.9	1.957	2.900	8.0	19.4	4 1	13 35.51	-16 44.2	1.802	2.770	6.4	19.9	
4 11	13 28.20	-23 52.5	1.923	2.901	5.4	19.3	4 11	13 27.74	-15 18.9	1.777	2.774	2.6	19.6	
4 21	13 17.72	-23 31.8	1.918	2.901	5.1	19.3	4 21	13 19.83	-13 44.9	1.781	2.778	3.2	19.7	
5 1	13 7.98	-22 59.0	1.940	2.900	7.4	19.4	5 1	13 12.72	-12 10.3	1.813	2.782	7.1	19.9	
5 11	12 59.90	-22 20.3	1.988	2.899	10.4	19.6	5 11	13 7.20	-10 42.9	1.871	2.785	10.8	20.2	
5 21	12 54.08	-21 41.7	2.060	2.898	13.4	19.8	5 21	13 3.72	-9 28.7	1.951	2.788	14.0	20.4	
<b>92368</b>	2000 <i>HC</i> <sub>47</sub>	4 13.0 279°69 0°3/13.2 16						<b>507912</b>	2014 <i>WQ</i> <sub>135</sub>	4 13.0 273°96 1°4/14.1 17				
3 12	13 51.34	-11 32.9	1.449	2.312	15.5	20.1	3 12	13 48.66	-15 11.5	1.585	2.437	14.9	21.6	
3 22	13 46.08	-11 15.0	1.359	2.291	11.4	19.8	3 22	13 43.85	-14 40.5	1.500	2.425	11.1	21.3	
4 1	13 38.08	-10 42.2	1.290	2.270	6.6	19.4	4 1	13 36.67	-13 51.1	1.437	2.412	6.7	21.0	
4 11	13 28.20	-9 57.8	1.247	2.248	1.3	19.0	4 11	13 27.97	-12 46.7	1.400	2.400	2.1	20.7	
4 21	13 17.67	-9 7.9	1.229	2.226	4.4	19.2	4 21	13 18.86	-11 33.8	1.390	2.387	3.8	20.8	
5 1	13 7.90	-8 20.1	1.238	2.204	9.9	19.4	5 1	13 10.56	-10 20.6	1.406	2.375	8.7	21.0	
5 11	13 0.18	-7 42.3	1.269	2.182	14.9	19.6	5 11	13 4.13	-9 15.7	1.445	2.362	13.2	21.2	
5 21	12 55.30	-7 19.7	1.319	2.160	19.2	19.8	5 21	13 0.22	-8 25.3	1.506	2.349	17.1	21.4	
<b>105959</b>	2000 <i>SX</i> <sub>255</sub>	4 13.0 293°66 1°7/11.8 17						<b>417470</b>	2006 <i>QK</i> <sub>146</sub>	4 13.0 151°31 2°9/15.7 16				
3 12	13 50.56	-6 53.9	1.386	2.262	15.2	19.6	3 12	13 53.25	-19 4.5	2.143	2.957	13.0	22.6	
3 22	13 45.41	-6 25.3	1.309	2.249	11.0	19.3	3 22	13 46.50	-19 6.7	2.068	2.968	9.9	22.4	
4 1	13 37.62	-5 46.6	1.254	2.237	6.2	19.0	4 1	13 37.87	-18 53.8	2.018	2.977	6.5	22.2	
4 11	13 28.11	-5 3.4	1.223	2.224	1.8	18.7	4 11	13 28.15	-18 27.0	1.995	2.986	3.5	22.0	
4 21	13 18.13	-4 22.5	1.219	2.212	5.4	18.9	4 21	13 18.25	-17 49.5	2.001	2.994	3.6	22.0	
5 1	13 9.07	-3 51.3	1.239	2.200	10.6	19.1	5 1	13 9.16	-17 6.2	2.036	3.001	6.7	22.2	
5 11	13 2.12	-3 35.5	1.281	2.188	15.3	19.4	5 11	13 1.66	-16 23.1	2.098	3.008	10.0	22.4	
5 21	12 57.97	-3 37.8	1.342	2.176	19.4	19.6	5 21	12 56.28	-15 45.0	2.183	3.013	13.0	22.7	
<b>14532</b>	1997 <i>QM</i>	4 13.0 337°74 5°0/7.9 18						<b>333875</b>	1997 <i>SP</i> <sub>23</sub>	4 13.0 202°44 0°3/13.3 17				
3 12	13 45.91	-0 59.9	1.628	2.511	12.9	18.0	3 12	13 49.70	-11 58.5	2.094	2.940	12.0	22.8	
3 22	13 41.54	+0 50.5	1.567	2.510	9.3	17.8	3 22	13 44.01	-11 29.6	2.012	2.937	8.8	22.6	
4 1	13 35.17	+2 46.3	1.531	2.510	6.0	17.6	4 1	13 36.51	-10 49.5	1.956	2.933	5.0	22.3	
4 11	13 27.66	+4 37.4	1.523	2.509	5.2	17.5	4 11	13 27.93	-10 1.5	1.927	2.928	1.0	22.0	
4 21	13 19.99	+6 13.8	1.541	2.509	7.9	17.7	4 21	13 19.11	-9 10.4	1.927	2.923	3.2	22.2	
5 1	13 13.19	+7 27.7	1.585	2.508	11.6	17.9	5 1	13 10.98	-8 21.7	1.955	2.917	7.2	22.4	
5 11	13 8.08	+8 15.1	1.651	2.508	15.1	18.1	5 11	13 4.32	-7 40.6	2.010	2.911	10.8	22.6	
5 21	13 5.17	+8 35.8	1.735	2.508	18.0	18.3	5 21	12 59.63	-7 10.6	2.087	2.904	13.9	22.8	
<b>129254</b>	2005 <i>QU</i> <sub>66</sub>	4 13.0 237°62 1°5/14.5 18						<b>349412</b>	2007 <i>YC</i> <sub>49</sub>	4 13.0 82°09 6°1/6.3 17				
3 12	13 49.43	-14 39.5	2.664	3.492	10.3	20.3	3 12	13 46.84	+8 43.9	2.219	3.089	10.5	20.4	
3 22	13 43.57	-14 45.9	2.570	3.481	7.7	20.1	3 22	13 41.72	+9 46.8	2.168	3.094	8.1	20.3	

EPHEMERIDES

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	
<b>228370</b>	2000 <i>WJ</i> <sub>27</sub>	4 13.0 239°51 5°8/ 7.6 17						<b>467422</b>	2005 <i>UL</i> <sub>189</sub>	4 13.0 201°09 1°1/12.1 17				
3 12	13 48.60	+ 5 19.7	1.881	2.755	11.9	20.0	3 12	13 51.04	- 7 6.8	2.021	2.878	12.0	21.8	
3 22	13 43.26	+ 6 21.8	1.820	2.754	8.9	19.8	3 22	13 45.00	- 6 45.1	1.943	2.875	8.6	21.6	
4 1	13 36.08	+ 7 20.7	1.785	2.753	6.4	19.6	4 1	13 37.09	- 6 16.5	1.892	2.872	4.8	21.4	
4 11	13 27.85	+ 8 9.6	1.776	2.752	6.0	19.6	4 11	13 28.06	- 5 44.9	1.868	2.869	1.2	21.1	
4 21	13 19.49	+ 8 42.5	1.795	2.750	8.0	19.7	4 21	13 18.80	- 5 14.7	1.872	2.865	3.9	21.3	
5 1	13 11.94	+ 8 55.4	1.838	2.749	11.0	19.9	5 1	13 10.27	- 4 50.4	1.905	2.861	7.9	21.5	
5 11	13 5.96	+ 8 47.3	1.904	2.748	14.0	20.1	5 11	13 3.27	- 4 35.9	1.964	2.856	11.5	21.7	
5 21	13 2.02	+ 8 19.4	1.990	2.746	16.5	20.3	5 21	12 58.32	- 4 33.3	2.044	2.851	14.5	21.9	
<b>88822</b>	2001 <i>SK</i> <sub>155</sub>	4 13.0 185°67 0°5/13.4 18						<b>312651</b>	2010 <i>JG</i> <sub>124</sub>	4 13.0 76°26 23°8/25.3 18				
3 12	13 51.15	-13 27.8	1.712	2.562	14.1	20.6	3 12	14 2.72	+39 11.2	1.039	1.842	24.4	19.6	
3 22	13 45.35	-12 44.6	1.637	2.562	10.3	20.4	3 22	13 54.67	+41 12.4	1.030	1.848	23.9	19.6	
4 1	13 37.37	-11 45.6	1.585	2.562	6.0	20.1	4 1	13 42.73	+42 21.2	1.036	1.853	24.0	19.6	
4 11	13 28.09	-10 35.4	1.560	2.561	1.3	19.8	4 11	13 28.96	+42 25.4	1.055	1.858	24.7	19.7	
4 21	13 18.57	- 9 20.8	1.563	2.560	3.7	20.0	4 21	13 15.71	+41 23.2	1.087	1.864	25.9	19.8	
5 1	13 9.94	- 8 9.5	1.593	2.557	8.3	20.2	5 1	13 5.00	+39 21.2	1.131	1.869	27.3	19.9	
5 11	13 3.14	- 7 8.8	1.649	2.554	12.5	20.5	5 11	12 58.00	+36 32.2	1.185	1.875	28.7	20.1	
5 21	12 58.71	- 6 23.5	1.725	2.551	16.0	20.7	5 21	12 54.95	+33 10.5	1.250	1.880	29.9	20.3	
<b>159947</b>	2005 <i>YE</i> <sub>56</sub>	4 13.0 357°09 17°4/28.1 18						<b>114313</b>	2002 <i>XD</i> <sub>53</sub>	4 13.0 175°25 4°2/ 8.4 18				
3 12	13 49.13	-43 45.5	1.042	1.792	27.6	18.9	3 12	13 47.74	+ 3 28.5	2.401	3.268	9.9	20.0	
3 22	13 46.04	-45 9.5	0.977	1.790	25.1	18.7	3 22	13 42.32	+ 4 16.7	2.337	3.270	7.3	19.8	
4 1	13 38.70	-45 45.0	0.923	1.789	22.4	18.5	4 1	13 35.45	+ 5 3.4	2.300	3.271	5.0	19.7	
4 11	13 28.39	-45 21.1	0.883	1.788	19.8	18.3	4 11	13 27.77	+ 5 43.7	2.291	3.271	4.3	19.7	
4 21	13 17.27	-43 53.3	0.859	1.787	17.9	18.2	4 21	13 19.99	+ 6 13.2	2.310	3.272	6.1	19.8	
5 1	13 7.87	-41 28.0	0.853	1.788	17.5	18.1	5 1	13 12.84	+ 6 28.7	2.357	3.272	8.7	19.9	
5 11	13 2.16	-38 24.1	0.865	1.789	18.9	18.2	5 11	13 6.93	+ 6 28.6	2.428	3.272	11.3	20.1	
5 21	13 0.94	-35 4.7	0.895	1.791	21.4	18.4	5 21	13 2.67	+ 6 13.3	2.520	3.272	13.6	20.3	
<b>462566</b>	2009 <i>DC</i> <sub>59</sub>	4 13.0 296°64 3°7/10.1 17						<b>26231</b>	1998 <i>QQ</i> <sub>7</sub>	4 13.0 322°47 2°1/14.2 18				
3 12	13 48.36	- 3 40.4	1.404	2.287	14.6	21.0	3 12	13 49.63	-13 46.7	1.107	1.982	18.3	17.4	
3 22	13 43.78	- 2 38.3	1.328	2.273	10.5	20.7	3 22	13 45.41	-13 57.2	1.031	1.967	13.8	17.0	
4 1	13 36.69	- 1 27.5	1.275	2.258	6.1	20.4	4 1	13 37.96	-13 49.4	0.974	1.953	8.4	16.7	
4 11	13 28.00	- 0 16.1	1.247	2.244	3.7	20.2	4 11	13 28.28	-13 25.4	0.940	1.939	2.9	16.3	
4 21	13 18.89	+ 0 46.8	1.245	2.230	7.0	20.3	4 21	13 17.87	-12 50.2	0.928	1.927	4.8	16.4	
5 1	13 10.67	+ 1 32.9	1.267	2.216	11.7	20.6	5 1	13 8.50	-12 12.2	0.939	1.915	10.8	16.7	
5 11	13 4.44	+ 1 56.9	1.311	2.202	16.1	20.8	5 11	13 1.71	-11 40.8	0.971	1.903	16.4	16.9	
5 21	13 0.87	+ 1 57.2	1.372	2.188	19.9	21.0	5 21	12 58.34	-11 22.8	1.019	1.893	21.2	17.2	
<b>486718</b>	2014 <i>BP</i> <sub>57</sub>	4 13.0 251°03 15°8/21.3 18						<b>386602</b>	2009 <i>FZ</i> <sub>76</sub>	4 13.0 66°52 0°8/12.3 17				
3 12	14 1.27	-38 17.5	1.285	2.030	23.5	21.1	3 12	13 46.97	- 8 32.2	2.127	2.986	11.4	21.5	
3 22	13 54.78	-40 33.2	1.208	2.023	21.1	20.9	3 22	13 41.91	- 8 2.2	2.063	2.995	8.1	21.3	
4 1	13 43.81	-42 17.7	1.147	2.016	18.6	20.7	4 1	13 35.27	- 7 24.6	2.024	3.005	4.5	21.1	
4 11	13 29.33	-43 18.8	1.105	2.009	16.7	20.5	4 11	13 27.74	- 6 43.5	2.014	3.015	0.9	20.9	
4 21	13 13.33	-43 29.1	1.082	2.002	15.8	20.4	4 21	13 20.13	- 6 3.4	2.031	3.025	3.5	21.1	
5 1	12 58.41	-42 49.6	1.080	1.994	16.6	20.5	5 1	13 13.24	- 5 28.8	2.077	3.035	7.1	21.3	
5 11	12 46.92	-41 32.6	1.097	1.986	18.7	20.5	5 11	13 7.73	- 5 3.7	2.148	3.045	10.4	21.5	
5 21	12 40.14	-39 54.9	1.131	1.978	21.3	20.7	5 21	13 4.04	- 4 50.2	2.241	3.055	13.2	21.7	
<b>83736</b>	2001 <i>TS</i> <sub>124</sub>	4 13.0 71°89 4°7/18.1 18						<b>202092</b>	Algirdas	4 13.0 248°47 2°3/14.9 18				
3 12	13 47.34	-25 28.9	2.197	2.991	13.4	19.8	3 12	13 52.61	-16 29.7	2.249	3.072	12.2	21.9	
3 22	13 42.36	-25 29.7	2.116	2.994	10.8	19.6	3 22	13 46.24	-16 40.9	2.147	3.054	9.3	21.7	
4 1	13 35.60	-25 11.2	2.058	2.997	7.9	19.4	4 1	13 37.89	-16 40.1	2.070	3.035	5.9	21.5	
4 11	13 27.79	-24 34.1	2.026	3.001	5.4	19.3	4 11	13 28.23	-16 28.1	2.021	3.015	2.8	21.2	
4 21	13 19.78	-23 41.3	2.021	3.004	4.8	19.2	4 21	13 18.11	-16 6.9	2.001	2.995	3.4	21.2	
5 1	13 12.48	-22 38.0	2.044	3.008	6.8	19.4	5 1	13 8.52	-15 40.4	2.010	2.975	6.8	21.4	
5 11	13 6.65	-21 30.9	2.093	3.012	9.6	19.5	5 11	13 0.32	-15 13.7	2.046	2.953	10.3	21.6	
5 21	13 2.78	-20 26.5	2.165	3.015	12.3	19.7	5 21	12 54.14	-14 51.1	2.105	2.932	13.5	21.7	
<b>464918</b>	2005 <i>TJ</i> <sub>143</sub>	4 13.0 252°55 2°3/11.3 17						<b>110349</b>	2001 <i>ST</i> <sub>313</sub>	4 13.0 236°11 4°0/ 8.8 18				
3 12	13 51.58	- 3 51.0	1.768	2.635	12.9	21.3	3 12	13 48.16	+ 2 43.0	2.368	3.235	10.1	19.5	
3 22	13 45.61	- 3 30.0	1.693	2.630	9.3	21.1	3 22	13 42.69	+ 3 24.7	2.295	3.227	7.4	19.3	
4 1	13 37.52	- 3 4.5	1.643	2.624	5.2	20.8	4 1	13 35.71	+ 4 5.7	2.247	3.220	4.9	19.1	
4 11	13 28.13	- 2 39.2	1.619	2.618	2.3	20.6	4 11	13 27.83	+ 4 41.0	2.228	3.211	4.1	19.0	
4 21	13 18.47	- 2 19.1	1.624	2.612	5.1	20.8	4 21	13 19.78	+ 5 6.4	2.237	3.203	5.9	19.1	
5 1	13 9.63	- 2 8.7	1.655	2.606	9.2	21.0	5 1	13 12.32	+ 5 18.5	2.273	3.194	8.7	19.3	
5 11	13 2.51	- 2 11.2	1.711	2.600	13.0	21.2	5 11	13 6.11	+ 5 15.6	2.335	3.186	11.4	19.5	
5 21	12 57.70	- 2 27.8	1.787	2.594	16.3	21.4	5 21	13 1.59	+ 4 57.6	2.417	3.177	13.9	19.6	
<b>41317</b>	1999 <i>XO</i> <sub>191</sub>	4 13.0 185°44 1°8/11.2 18						<b>472985</b>	2015 <i>HB</i> <sub>13</sub>	4 13.0 317°46 5°4/ 8.2 17				
3 12	13 49.98	- 4 9.3	2.472	3.328	10.1	19.4	3 12	13 48.79	+ 5 11.3	1.960	2.833	11.6	21.2	
3 22	13 43.92	- 3 43.6	2.397	3.328	7.2	19.2	3 22	13 43.38	+ 5 54.1	1.894	2.827	8.6	21.0	
4 1	13 36.35	- 3 14.3	2.348	3.328	4.0	19.0	4 1	13 36.18	+ 6 33.8	1.852	2.821	6.1	20.9	
4 11	13 27.92	- 2 45.0	2.328	3.326	1.8	18.9	4 11	13 27.91	+ 7 4.1	1.838	2.816	5.5	20.8	
4 21	13 19.34	- 2 19.3	2.338	3.325	3.9	19.0	4 21	13 19.48	+ 7 20.1	1.850	2.811	7.4	20.9	
5 1	13 11.36	- 2 0.8	2.377	3.323	7.1	19.2	5 1	13 11.79	+ 7 18.6	1.888	2.805	10.4	21.1	
5 11	13 4.64	- 1 52.1	2.443	3.320	10.1	19.4	5 11	13 5.62	+ 6 58.4	1.950	2.800	13.4	21.3	
5 21	12 59.59	- 1 54.5	2.531	3.317	12.6	19.6	5 21	13 1.45	+ 6 20.8	2.031	2.796	16.0	21.4	
<b>179753</b>	2002 <i>RJ</i> <sub>205</sub>	4 13.0 94°58 1°7/11.6 18						<b>31017</b>	1996 <i>EH</i> <sub>2</sub>	4 13.0 4°52 4°0/15.7 18 R				
3 12	13 49.41	- 7 49.1	1.629	2.498	13.8	20.9	3 12	13 46.67	-19 4.5	1.089	1.953	19.3	17.1	
3 22	13 43.98	- 6 52.8	1.573	2.511	9.8	20.7	3 22							

EPHEMERIDES

4 13.0

4 13.0

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>153648</b>	2001 <i>TE</i> <sub>101</sub>		4 13.0 161°52	1.8/11.5	17		<b>138833</b>	2000 <i>UE</i> <sub>91</sub>		4 13.0 350°46	3.2/15.5	18	
3 12	13 52.41	- 4 37.5	2.123	2.980	11.5	19.9	3 12	13 51.74	-17 48.8	2.157	2.979	12.6	19.3
3 22	13 45.83	- 4 18.3	2.054	2.985	8.2	19.7	3 22	13 45.58	-18 23.0	2.074	2.978	9.7	19.1
4 1	13 37.49	- 3 54.8	2.010	2.990	4.6	19.5	4 1	13 37.49	-18 45.1	2.016	2.976	6.5	18.9
4 11	13 28.15	- 3 30.9	1.995	2.994	1.8	19.3	4 11	13 28.19	-18 55.1	1.985	2.975	3.6	18.7
4 21	13 18.67	- 3 10.7	2.009	2.998	4.2	19.5	4 21	13 18.57	-18 54.4	1.983	2.975	3.8	18.7
5 1	13 9.95	- 2 57.9	2.052	3.001	7.8	19.7	5 1	13 9.62	-18 46.2	2.009	2.974	6.8	18.9
5 11	13 2.75	- 2 55.2	2.121	3.004	11.1	19.9	5 11	13 2.16	-18 35.0	2.061	2.973	10.0	19.1
5 21	12 57.52	- 3 4.1	2.212	3.006	14.0	20.1	5 21	12 56.75	-18 25.2	2.136	2.973	13.0	19.3
<b>75721</b>	2000 <i>AS</i> <sub>127</sub>		4 13.0 57°53	4.0/ 9.7	18		<b>248628</b>	2006 <i>FJ</i> <sub>11</sub>		4 13.0 296°40	2.4/11.4	17	
3 12	13 48.28	- 2 30.0	1.498	2.379	13.9	18.6	3 12	13 50.07	- 5 57.1	1.360	2.239	15.3	20.6
3 22	13 43.35	- 1 19.3	1.442	2.386	9.9	18.3	3 22	13 45.25	- 5 20.6	1.276	2.218	11.1	20.2
4 1	13 36.26	- 0 3.5	1.411	2.392	5.9	18.1	4 1	13 37.68	- 4 33.7	1.214	2.197	6.2	19.9
4 11	13 27.94	+ 1 9.0	1.405	2.399	4.0	18.0	4 11	13 28.26	- 3 42.7	1.177	2.177	2.4	19.6
4 21	13 19.52	+ 2 10.0	1.426	2.406	6.9	18.2	4 21	13 18.23	- 2 55.3	1.165	2.156	6.0	19.8
5 1	13 12.12	+ 2 52.7	1.471	2.413	10.9	18.4	5 1	13 9.02	- 2 19.6	1.177	2.135	11.3	20.0
5 11	13 6.62	+ 3 13.8	1.539	2.420	14.7	18.7	5 11	13 1.90	- 2 1.6	1.211	2.115	16.2	20.2
5 21	13 3.51	+ 3 12.9	1.625	2.427	17.9	18.9	5 21	12 57.65	- 2 4.2	1.263	2.095	20.4	20.4
<b>136724</b>	1995 <i>UK</i> <sub>33</sub>		4 13.0 145°39	2.4/10.2	18		<b>268519</b>	2005 <i>YR</i> <sub>199</sub>		4 13.0 247°62	2.9/10.4	18	
3 12	13 47.86	- 1 13.7	2.862	3.721	8.8	20.9	3 12	13 47.87	- 3 43.2	1.825	2.698	12.3	20.4
3 22	13 42.19	- 0 42.8	2.799	3.730	6.3	20.8	3 22	13 42.83	- 2 50.7	1.758	2.698	8.8	20.2
4 1	13 35.31	- 0 10.6	2.762	3.740	3.7	20.6	4 1	13 35.91	- 1 52.7	1.716	2.697	5.0	19.9
4 11	13 27.78	+ 0 19.3	2.756	3.749	2.4	20.5	4 11	13 27.91	- 0 55.3	1.701	2.697	2.9	19.8
4 21	13 20.19	+ 0 43.7	2.779	3.757	4.1	20.7	4 21	13 19.73	- 0 4.9	1.713	2.697	5.5	20.0
5 1	13 13.16	+ 0 59.8	2.831	3.766	6.6	20.8	5 1	13 12.35	+ 0 32.9	1.752	2.697	9.2	20.2
5 11	13 7.19	+ 1 5.8	2.910	3.773	9.1	21.0	5 11	13 6.56	+ 0 54.5	1.814	2.696	12.8	20.4
5 21	13 2.64	+ 1 1.0	3.012	3.780	11.2	21.2	5 21	13 2.84	+ 0 58.7	1.897	2.696	15.8	20.6
<b>249172</b>	2008 <i>CE</i> <sub>40</sub>		4 13.0 306°68	9.6/23.0	18		<b>306707</b>	2000 <i>WW</i> <sub>11</sub>		4 13.0 138°96	1.6/11.6	18	
3 12	13 52.33	-39 33.9	2.377	3.068	15.2	20.1	3 12	13 52.50	- 6 51.9	1.834	2.694	12.9	21.8
3 22	13 46.36	-40 38.7	2.288	3.064	13.5	19.9	3 22	13 46.04	- 6 9.0	1.774	2.707	9.2	21.6
4 1	13 38.10	-41 20.5	2.218	3.061	11.8	19.8	4 1	13 37.66	- 5 18.5	1.738	2.719	5.0	21.4
4 11	13 28.31	-41 35.6	2.170	3.057	10.4	19.7	4 11	13 28.20	- 4 25.7	1.730	2.730	1.7	21.2
4 21	13 18.00	-41 23.1	2.146	3.054	9.7	19.6	4 21	13 18.67	- 3 36.5	1.751	2.741	4.5	21.4
5 1	13 8.35	-40 45.2	2.147	3.050	10.0	19.6	5 1	13 10.08	- 2 56.5	1.799	2.751	8.5	21.7
5 11	13 0.40	-39 47.9	2.171	3.047	11.2	19.7	5 11	13 3.23	- 2 29.8	1.872	2.760	12.2	21.9
5 21	12 54.82	-38 39.1	2.217	3.044	12.9	19.8	5 21	12 58.59	- 2 18.2	1.967	2.769	15.2	22.1
<b>89387</b>	2001 <i>VA</i> <sub>106</sub>		4 13.0 253°52	0.4/13.4	18		<b>65512</b>	4246 <i>P-L</i>		4 13.0 84°24	0.1/13.1	18	
3 12	13 49.38	-12 15.4	1.945	2.794	12.7	20.2	3 12	13 45.94	-11 42.8	2.313	3.162	10.9	19.5
3 22	13 44.04	-11 47.1	1.853	2.779	9.3	20.0	3 22	13 41.09	-11 5.8	2.248	3.174	7.9	19.3
4 1	13 36.69	-11 6.0	1.786	2.764	5.4	19.7	4 1	13 34.79	-10 19.2	2.208	3.186	4.4	19.1
4 11	13 28.05	-10 15.7	1.746	2.748	1.1	19.4	4 11	13 27.70	- 9 26.8	2.196	3.198	0.8	18.9
4 21	13 19.05	- 9 21.0	1.735	2.731	3.4	19.5	4 21	13 20.55	- 8 33.0	2.214	3.210	2.9	19.1
5 1	13 10.69	- 8 28.1	1.751	2.715	7.8	19.7	5 1	13 14.05	- 7 42.8	2.259	3.221	6.4	19.3
5 11	13 3.87	- 7 43.0	1.793	2.697	11.7	19.9	5 11	13 8.84	- 7 0.6	2.332	3.233	9.5	19.5
5 21	12 59.16	- 7 10.1	1.856	2.680	15.1	20.1	5 21	13 5.28	- 6 29.2	2.426	3.245	12.2	19.7
<b>436738</b>	2011 <i>UN</i> <sub>405</sub>		4 13.0 265°85	1.1/11.7	18		<b>87336</b>	2000 <i>QA</i> <sub>22</sub>		4 13.0 199°49	4.3/ 8.1	18	
3 12	13 44.24	- 9 27.2	2.325	3.183	10.6	21.1	3 12	13 45.52	+ 1 59.7	2.257	3.130	10.2	19.6
3 22	13 39.96	- 8 20.1	2.244	3.176	7.5	20.9	3 22	13 40.85	+ 3 7.6	2.193	3.129	7.5	19.4
4 1	13 34.21	- 7 2.9	2.188	3.169	4.1	20.7	4 1	13 34.70	+ 4 15.9	2.155	3.129	5.0	19.3
4 11	13 27.61	- 5 40.7	2.161	3.162	1.1	20.4	4 11	13 27.70	+ 5 18.5	2.146	3.128	4.4	19.2
4 21	13 20.83	- 4 19.2	2.164	3.155	3.6	20.6	4 21	13 20.60	+ 6 10.0	2.164	3.127	6.3	19.3
5 1	13 14.62	- 3 4.7	2.195	3.148	7.1	20.8	5 1	13 14.11	+ 6 46.1	2.209	3.127	9.1	19.5
5 11	13 9.61	- 2 2.0	2.252	3.141	10.4	21.0	5 11	13 8.89	+ 7 4.6	2.279	3.126	11.8	19.7
5 21	13 6.22	- 1 14.4	2.331	3.133	13.1	21.2	5 21	13 5.33	+ 7 5.3	2.368	3.125	14.2	19.9
<b>329788</b>	2004 <i>PA</i> <sub>26</sub>		4 13.0 238°52	2.8/10.1	18		<b>172402</b>	2003 <i>BJ</i> <sub>51</sub>		4 13.0 26°56	2.7/15.5	18	R
3 12	13 48.45	- 3 12.0	2.197	3.061	10.8	21.5	3 12	13 46.82	-17 51.4	1.793	2.633	14.0	19.3
3 22	13 43.10	- 2 14.0	2.112	3.047	7.8	21.3	3 22	13 42.18	-17 47.5	1.727	2.642	10.6	19.1
4 1	13 36.04	- 1 10.6	2.052	3.032	4.5	21.1	4 1	13 35.59	-17 27.2	1.684	2.651	6.8	18.9
4 11	13 27.93	- 0 7.3	2.021	3.016	2.8	20.9	4 11	13 27.88	-16 52.7	1.666	2.661	3.3	18.7
4 21	13 19.56	+ 0 50.3	2.020	3.000	5.2	21.0	4 21	13 20.01	-16 8.5	1.676	2.672	3.6	18.7
5 1	13 11.76	+ 1 36.8	2.046	2.983	8.6	21.2	5 1	13 13.00	-15 20.4	1.711	2.683	7.2	18.9
5 11	13 5.29	+ 2 8.4	2.097	2.966	11.9	21.4	5 11	13 7.65	-14 35.0	1.772	2.694	10.8	19.2
5 21	13 0.65	+ 2 23.3	2.169	2.948	14.7	21.6	5 21	13 4.45	-13 57.4	1.855	2.706	14.0	19.4
<b>197838</b>	2004 <i>PF</i> <sub>99</sub>		4 13.0 206°73	0.1/13.1	18		<b>87540</b>	2000 <i>QB</i> <sub>207</sub>		4 13.0 241°36	0.6/12.5	18	
3 12	13 50.57	-10 31.2	2.442	3.284	10.7	21.2	3 12	13 48.64	- 9 41.7	1.946	2.803	12.3	20.0
3 22	13 44.46	-10 14.9	2.355	3.278	7.8	21.0	3 22	13 43.42	- 9 5.4	1.864	2.795	8.9	19.8
4 1	13 36.75	- 9 50.3	2.294	3.271	4.4	20.8	4 1	13 36.30	- 8 18.7	1.806	2.786	5.0	19.5
4 11	13 28.05	- 9 20.1	2.263	3.264	0.8	20.5	4 11	13 28.01	- 7 25.7	1.776	2.778	0.9	19.2
4 21	13 19.12	- 8 47.9	2.261	3.256	2.9	20.6	4 21	13 19.45	- 6 32.0	1.774	2.768	3.8	19.4
5 1	13 10.76	- 8 17.7	2.288	3.247	6.5	20.8	5 1	13 11.58	- 5 43.5	1.800	2.759	7.9	19.6
5 11	13 3.68	- 7 53.2	2.343	3.238	9.7	21.0	5 11	13 5.23	- 5 5.4	1.851	2.749	11.7	19.8
5 21	12 58.34	- 7 37.4	2.421	3.228	12.5	21.2	5 21	13 0.93	- 4 41.0	1.923	2.740	15.0	20.0
<b>209550</b>	2004 <i>VH</i> <sub>56</sub>		4 13.0 220°54	2.1/14.8	17		<b>495852</b>	2002 <i>TF</i> <sub>166</sub>		4 13.0 240			

EPHEMERIDES

4 13.0

4 13.1

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>440537</b>	2005 <i>UK</i> <sub>158</sub>		4 13.0 74°07'	8°7'/21.3 18			<b>273829</b>	2007 <i>GQ</i> <sub>22</sub>		4 13.1 237°22'	0°7'/12.4 17		
3 12	13 49.13	-34 42.4	1.068	1.866	24.2	20.3	3 12	13 48.92	-8 51.5	2.054	2.911	11.8	21.6
3 22	13 45.06	-33 50.4	1.003	1.876	20.2	20.1	3 22	13 43.54	-8 20.1	1.971	2.902	8.5	21.4
4 1	13 37.62	-32 5.7	0.955	1.885	15.6	19.8	4 1	13 36.35	-7 39.7	1.913	2.893	4.7	21.1
4 11	13 28.24	-29 28.3	0.926	1.895	11.1	19.6	4 11	13 28.04	-6 54.4	1.883	2.884	0.9	20.8
4 21	13 18.75	-26 8.8	0.920	1.905	8.7	19.5	4 21	13 19.48	-6 8.9	1.881	2.875	3.7	21.0
5 1	13 10.97	-22 27.9	0.939	1.914	10.8	19.7	5 1	13 11.56	-5 28.5	1.907	2.865	7.7	21.2
5 11	13 6.15	-18 50.9	0.981	1.924	15.2	19.9	5 11	13 5.08	-4 57.9	1.958	2.855	11.3	21.4
5 21	13 4.78	-15 37.9	1.045	1.934	19.6	20.2	5 21	13 0.57	-4 40.0	2.032	2.844	14.4	21.6
<b>261046</b>	2005 <i>ST</i> <sub>156</sub>		4 13.1 318°33'	0°7'/12.5 17			<b>296163</b>	2009 <i>BJ</i> <sub>127</sub>		4 13.1 160°32'	3°8'/8.8 17		
3 12	13 48.33	-7 41.9	2.062	2.922	11.7	20.1	3 12	13 45.97	+0 17.0	2.193	3.065	10.5	20.9
3 22	13 43.13	-7 34.6	1.979	2.911	8.4	19.9	3 22	13 41.21	+1 23.8	2.129	3.066	7.6	20.7
4 1	13 36.12	-7 20.9	1.921	2.901	4.7	19.6	4 1	13 34.93	+2 32.4	2.091	3.068	4.8	20.5
4 11	13 27.98	-7 7.3	1.890	2.891	0.9	19.3	4 11	13 27.79	+3 36.5	2.082	3.068	3.9	20.5
4 21	13 19.57	-6 46.7	1.887	2.881	3.6	19.5	4 21	13 20.54	+4 30.7	2.100	3.069	6.0	20.6
5 1	13 11.78	-6 33.9	1.912	2.872	7.5	19.7	5 1	13 13.94	+5 10.3	2.145	3.070	8.9	20.8
5 11	13 5.40	-6 28.8	1.962	2.862	11.1	19.9	5 11	13 8.63	+5 32.8	2.215	3.071	11.8	21.0
5 21	13 0.97	-6 33.8	2.034	2.854	14.2	20.1	5 21	13 5.05	+5 37.6	2.305	3.072	14.3	21.2
<b>293807</b>	2007 <i>RD</i> <sub>159</sub>		4 13.1 82°87'	1°6'/11.8 18			<b>16769</b>	1996 <i>UN</i> <sub>1</sub>		4 13.1 252°38'	6°0'/19.0 18		
3 12	13 52.02	-7 30.9	1.437	2.308	15.1	20.7	3 12	13 49.07	-28 37.4	2.006	2.786	15.0	18.5
3 22	13 46.05	-6 50.3	1.386	2.324	10.7	20.5	3 22	13 43.97	-28 36.8	1.910	2.775	12.3	18.3
4 1	13 37.78	-6 0.1	1.359	2.341	5.9	20.3	4 1	13 36.74	-28 12.4	1.835	2.763	9.5	18.0
4 11	13 28.26	-5 6.9	1.357	2.358	1.7	20.0	4 11	13 28.14	-27 23.5	1.784	2.751	6.9	17.9
4 21	13 18.72	-4 17.7	1.381	2.374	5.0	20.3	4 21	13 19.15	-26 12.6	1.760	2.738	6.1	17.8
5 1	13 10.38	-3 39.2	1.432	2.390	9.7	20.6	5 1	13 10.88	-24 45.6	1.763	2.725	7.8	17.9
5 11	13 4.16	-3 16.2	1.505	2.406	13.8	20.9	5 11	13 4.27	-23 11.4	1.792	2.712	10.8	18.0
5 21	13 0.51	-3 10.4	1.598	2.422	17.2	21.1	5 21	12 59.94	-21 38.7	1.844	2.699	14.0	18.2
<b>131553</b>	2001 <i>VN</i> <sub>29</sub>		4 13.1 92°70'	4°3'/10.1 18			<b>522385</b>	2016 <i>CK</i> <sub>305</sub>		4 13.1 247°64'	7°2'/6.0 17		
3 12	13 54.61	-0 21.6	1.439	2.314	14.8	20.2	3 12	13 48.78	+7 51.5	1.775	2.651	12.4	21.3
3 22	13 47.83	+0 23.0	1.394	2.333	10.6	20.0	3 22	13 43.59	+9 16.3	1.714	2.645	9.6	21.1
4 1	13 38.73	+1 8.7	1.372	2.351	6.4	19.8	4 1	13 36.41	+10 36.7	1.678	2.638	7.5	21.0
4 11	13 28.41	+1 48.1	1.377	2.369	4.4	19.8	4 11	13 28.07	+11 43.7	1.668	2.631	7.5	21.0
4 21	13 18.16	+2 14.7	1.408	2.387	7.0	20.0	4 21	13 19.53	+12 30.3	1.683	2.624	9.6	21.1
5 1	13 9.19	+2 24.0	1.464	2.405	11.0	20.2	5 1	13 11.82	+12 51.8	1.724	2.617	12.6	21.2
5 11	13 2.41	+2 14.5	1.543	2.422	14.8	20.5	5 11	13 5.76	+12 47.5	1.785	2.610	15.5	21.4
5 21	12 58.26	+1 47.0	1.641	2.439	17.9	20.7	5 21	13 1.87	+12 19.1	1.864	2.602	18.1	21.6
<b>315509</b>	2008 <i>AS</i> <sub>34</sub>		4 13.1 110°83'	1°9'/14.6 16			<b>334801</b>	2003 <i>SF</i> <sub>210</sub>		4 13.1 203°85'	1°3'/14.3 17		
3 12	13 51.67	-15 46.0	1.677	2.520	14.7	21.4	3 12	13 48.75	-14 48.1	2.244	3.080	11.7	21.4
3 22	13 45.74	-15 33.6	1.611	2.530	11.0	21.1	3 22	13 43.31	-14 30.5	2.161	3.077	8.7	21.2
4 1	13 37.62	-15 5.1	1.569	2.541	6.7	20.9	4 1	13 36.18	-14 0.8	2.102	3.074	5.3	21.0
4 11	13 28.24	-14 23.5	1.553	2.551	2.6	20.7	4 11	13 28.03	-13 21.4	2.071	3.070	1.8	20.7
4 21	13 18.72	-13 33.9	1.564	2.561	3.6	20.8	4 21	13 19.66	-12 36.3	2.069	3.066	2.9	20.8
5 1	13 10.18	-12 43.0	1.602	2.571	7.8	21.0	5 1	13 11.92	-11 50.2	2.096	3.062	6.5	21.0
5 11	13 3.54	-11 57.6	1.665	2.580	11.8	21.3	5 11	13 5.55	-11 8.4	2.149	3.057	9.9	21.2
5 21	12 59.32	-11 22.7	1.749	2.589	15.3	21.5	5 21	13 1.02	-10 34.8	2.225	3.052	12.9	21.4
<b>32890</b>	Schwob		4 13.1 24°82'	33°1'/12.0 18			<b>333442</b>	2003 <i>TN</i> <sub>8</sub>		4 13.1 215°38'	5°1'/18.5 18		
3 12	14 0.36	+55 23.5	0.832	1.581	33.1	17.5	3 12	13 50.60	-27 33.1	2.573	3.340	12.4	21.0
3 22	13 53.84	+57 5.5	0.851	1.589	33.5	17.6	3 22	13 44.67	-27 47.6	2.475	3.332	10.1	20.8
4 1	13 42.29	+57 33.5	0.876	1.598	34.0	17.6	4 1	13 36.98	-27 44.5	2.400	3.324	7.7	20.7
4 11	13 28.91	+56 42.6	0.906	1.609	34.4	17.7	4 11	13 28.18	-27 23.5	2.352	3.315	5.7	20.5
4 21	13 16.92	+54 36.9	0.939	1.622	34.8	17.9	4 21	13 19.06	-26 45.9	2.332	3.305	5.2	20.5
5 1	13 8.52	+51 26.2	0.978	1.636	35.1	18.0	5 1	13 10.50	-25 55.5	2.340	3.295	6.6	20.5
5 11	13 4.53	+47 25.0	1.023	1.652	35.4	18.1	5 11	13 3.26	-24 57.8	2.375	3.284	9.0	20.7
5 21	13 4.68	+42 47.6	1.074	1.669	35.6	18.2	5 21	12 57.87	-23 59.0	2.435	3.272	11.5	20.8
<b>380617</b>	2004 <i>TT</i> <sub>220</sub>		4 13.1 195°95'	1°1'/13.9 17			<b>171546</b>	1999 <i>RA</i> <sub>154</sub>		4 13.1 182°30'	0°8'/13.8 18		
3 12	13 52.38	-12 41.2	2.174	3.011	12.0	20.8	3 12	13 50.66	-14 3.5	1.892	2.736	13.3	20.3
3 22	13 45.95	-12 47.8	2.091	3.010	8.8	20.6	3 22	13 44.89	-13 29.4	1.815	2.737	9.8	20.1
4 1	13 37.68	-12 44.7	2.034	3.008	5.3	20.4	4 1	13 37.13	-12 41.0	1.762	2.737	5.7	19.9
4 11	13 28.27	-12 33.7	2.005	3.005	1.6	20.1	4 11	13 28.20	-11 41.8	1.736	2.737	1.5	19.6
4 21	13 18.59	-12 17.7	2.006	3.002	3.0	20.2	4 21	13 19.05	-10 37.5	1.739	2.736	3.3	19.7
5 1	13 9.59	-12 0.5	2.035	2.999	6.8	20.4	5 1	13 10.70	-9 34.8	1.770	2.735	7.6	20.0
5 11	13 2.06	-11 46.2	2.091	2.996	10.3	20.6	5 11	13 4.01	-8 40.0	1.826	2.733	11.4	20.2
5 21	12 56.54	-11 38.2	2.170	2.992	13.3	20.8	5 21	12 59.49	-7 57.8	1.905	2.730	14.8	20.4
<b>344420</b>	2002 <i>CG</i> <sub>68</sub>		4 13.1 68°10'	2°6'/15.5 17			<b>436739</b>	2011 <i>UK</i> <sub>406</sub>		4 13.1 217°97'	5°9'/4.9 18		
3 12	13 51.74	-17 39.8	2.231	3.052	12.3	21.2	3 12	13 45.75	+10 52.9	2.704	3.566	9.1	20.9
3 22	13 45.27	-17 55.8	2.175	3.079	9.3	21.0	3 22	13 40.87	+12 5.7	2.642	3.559	7.3	20.8
4 1	13 37.15	-17 58.9	2.144	3.106	6.0	20.9	4 1	13 34.68	+13 13.2	2.607	3.553	6.1	20.7
4 11	13 28.16	-17 50.4	2.140	3.132	3.1	20.7	4 11	13 27.76	+14 9.6	2.600	3.546	6.2	20.7
4 21	13 19.13	-17 33.0	2.165	3.159	3.3	20.8	4 21	13 20.72	+14 50.7	2.620	3.539	7.7	20.8
5 1	13 10.94	-17 10.6	2.219	3.185	6.2	21.0	5 1	13 14.20	+15 13.5	2.666	3.531	9.7	20.9
5 11	13 4.26	-16 47.8	2.300	3.211	9.2	21.3	5 11	13 8.75	+15 17.3	2.736	3.523	11.7	21.0
5 21	12 59.52	-16 28.5	2.404	3.237	11.8	21.5	5 21	13 4.76	+15 2.9	2.824	3.515	13.5	21.2
<b>15307</b>	1992 <i>XK</i>		4 13.1 152°96'	0°6'/13.6 18			<b>306092</b>	2010 <i>HZ</i> <sub>40</sub>		4 13.1 229°13'	2°0'/10.6 17		
3 12													

EPHEMERIDES

4 13.1

4 13.1

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>315986</b>	2009 <i>DU</i> <sub>5</sub>		4 13.1 51°17'	1.2°/13.9	18		<b>197601</b>	2004 <i>JE</i> <sub>3</sub>		4 13.1 332°05'	1.7°/14.3	18	
3 12	13 49.84	-14 24.4	1.273	2.138	17.1	20.5	3 12	13 48.15	-15 29.8	1.176	2.045	17.9	20.5
3 22	13 44.83	-13 56.9	1.219	2.151	12.5	20.2	3 22	13 44.08	-15 3.6	1.105	2.038	13.4	20.2
4 1	13 37.26	-13 10.4	1.187	2.165	7.4	20.0	4 1	13 37.10	-14 14.4	1.055	2.032	8.1	19.9
4 11	13 28.23	-12 10.2	1.178	2.179	2.1	19.7	4 11	13 28.26	-13 6.4	1.027	2.027	2.6	19.6
4 21	13 19.11	-11 4.2	1.195	2.193	4.1	19.9	4 21	13 18.98	-11 47.9	1.023	2.022	4.5	19.7
5 1	13 11.25	-10 1.5	1.236	2.208	9.3	20.2	5 1	13 10.81	-10 29.8	1.043	2.017	10.2	20.0
5 11	13 5.68	-9 10.3	1.301	2.223	13.9	20.5	5 11	13 5.05	-9 23.0	1.084	2.013	15.4	20.2
5 21	13 2.90	-8 35.7	1.384	2.238	17.7	20.8	5 21	13 2.37	-8 34.7	1.144	2.010	19.9	20.5
<b>120058</b>	2003 <i>BZ</i> <sub>83</sub>		4 13.1 356°30'	0.2°/13.2	17		<b>163269</b>	2002 <i>GX</i> <sub>84</sub>		4 13.1 289°79'	3°0'/9.8	18	
3 12	13 47.46	-11 46.2	1.449	2.317	15.2	19.5	3 12	13 46.00	-5 28.8	1.904	2.775	11.9	19.4
3 22	13 43.05	-11 20.7	1.379	2.315	11.1	19.2	3 22	13 41.71	-3 57.4	1.806	2.745	8.6	19.2
4 1	13 36.28	-10 40.5	1.332	2.313	6.3	18.9	4 1	13 35.48	-2 13.9	1.734	2.716	4.9	18.9
4 11	13 28.07	-9 50.3	1.310	2.312	1.2	18.6	4 11	13 27.97	-0 25.5	1.690	2.686	3.1	18.7
4 21	13 19.59	-8 56.7	1.314	2.311	4.1	18.8	4 21	13 20.04	+1 18.9	1.674	2.655	5.9	18.8
5 1	13 12.06	-8 7.3	1.342	2.311	9.0	19.1	5 1	13 12.65	+2 50.7	1.686	2.625	10.0	19.0
5 11	13 6.49	-7 29.0	1.394	2.311	13.5	19.3	5 11	13 6.68	+4 3.0	1.722	2.594	13.8	19.1
5 21	13 3.46	-7 6.0	1.465	2.313	17.3	19.6	5 21	13 2.73	+4 52.4	1.778	2.563	17.2	19.3
<b>168891</b>	2000 <i>WO</i> <sub>122</sub>		4 13.1 218°40'	2.8°/15.5	16		<b>412378</b>	2013 <i>PA</i> <sub>26</sub>		4 13.1 162°60'	7.3°/20.2	17	
3 12	13 51.17	-18 55.9	1.804	2.633	14.5	20.6	3 12	13 49.92	-31 12.0	1.892	2.665	16.1	20.3
3 22	13 45.50	-18 39.5	1.718	2.626	11.1	20.4	3 22	13 44.67	-31 28.0	1.815	2.666	13.5	20.1
4 1	13 37.61	-18 4.3	1.654	2.619	7.2	20.1	4 1	13 37.16	-31 18.2	1.752	2.667	10.7	19.9
4 11	13 28.31	-17 12.1	1.617	2.611	3.5	19.9	4 11	13 28.25	-30 41.4	1.714	2.667	8.3	19.8
4 21	13 18.66	-16 7.5	1.607	2.603	3.8	19.9	4 21	13 19.04	-29 39.7	1.700	2.668	7.3	19.7
5 1	13 9.80	-14 57.5	1.625	2.594	7.7	20.1	5 1	13 10.69	-28 19.0	1.713	2.668	8.6	19.8
5 11	13 2.70	-13 50.1	1.668	2.584	11.7	20.3	5 11	13 4.18	-26 48.5	1.751	2.669	11.2	19.9
5 21	12 57.98	-12 52.1	1.733	2.575	15.3	20.5	5 21	13 0.11	-25 17.4	1.811	2.669	14.0	20.1
<b>224281</b>	2005 <i>TT</i> <sub>62</sub>		4 13.1 169°08'	0.9°/12.3	17		<b>123206</b>	2000 <i>UA</i> <sub>28</sub>		4 13.1 317°46'	3.8°/15.8	17	
3 12	13 48.26	-9 34.4	1.812	2.673	12.9	20.9	3 12	13 46.82	-19 3.5	1.438	2.286	16.4	19.3
3 22	13 43.19	-8 47.0	1.741	2.674	9.3	20.7	3 22	13 43.03	-19 7.7	1.341	2.259	12.8	19.0
4 1	13 36.18	-7 48.5	1.694	2.675	5.1	20.4	4 1	13 36.56	-18 50.5	1.265	2.232	8.6	18.6
4 11	13 28.05	-6 44.1	1.674	2.676	1.0	20.1	4 11	13 28.21	-18 12.2	1.212	2.205	4.6	18.3
4 21	13 19.74	-5 40.3	1.682	2.676	4.0	20.3	4 21	13 19.12	-17 16.4	1.184	2.180	4.8	18.3
5 1	13 12.22	-4 43.7	1.718	2.677	8.3	20.6	5 1	13 10.71	-16 10.6	1.180	2.154	9.2	18.4
5 11	13 6.34	-3 59.8	1.778	2.677	12.1	20.8	5 11	13 4.29	-15 4.6	1.199	2.130	14.0	18.6
5 21	13 2.58	-3 31.7	1.859	2.677	15.3	21.0	5 21	13 0.69	-14 7.4	1.237	2.107	18.5	18.8
<b>138658</b>	2000 <i>RA</i> <sub>84</sub>		4 13.1 318°76'	3.1°/9.7	17		<b>466319</b>	2013 <i>QJ</i> <sub>74</sub>		4 13.1 257°85'	3.0°/15.6	17	
3 12	13 44.77	-3 14.1	1.994	2.869	11.3	19.5	3 12	13 50.72	-18 53.5	1.879	2.706	14.0	21.9
3 22	13 40.55	-2 5.7	1.921	2.861	8.1	19.3	3 22	13 45.24	-18 45.9	1.781	2.688	10.8	21.7
4 1	13 34.67	-0 51.7	1.874	2.854	4.7	19.0	4 1	13 37.54	-18 20.4	1.706	2.669	7.1	21.4
4 11	13 27.79	+0 21.6	1.853	2.848	3.1	18.9	4 11	13 28.35	-17 38.4	1.657	2.650	3.6	21.2
4 21	13 20.72	+1 27.6	1.861	2.841	5.6	19.1	4 21	13 18.67	-16 43.4	1.636	2.631	3.9	21.1
5 1	13 14.30	+2 20.5	1.896	2.835	9.0	19.3	5 1	13 9.64	-15 41.5	1.642	2.611	7.7	21.3
5 11	13 9.26	+2 56.2	1.954	2.829	12.3	19.5	5 11	13 2.25	-14 40.3	1.674	2.590	11.7	21.5
5 21	13 6.06	+3 13.2	2.033	2.823	15.2	19.6	5 21	12 57.17	-13 46.5	1.728	2.570	15.3	21.7
<b>67842</b>	2000 <i>VY</i> <sub>61</sub>		4 13.1 278°49'	13.2°/18.6	18		<b>110558</b>	2001 <i>TX</i> <sub>106</sub>		4 13.1 195°24'	3.1°/16.4	18	
3 12	14 3.66	-36 16.7	1.688	2.414	19.3	19.2	3 12	13 49.04	-21 42.3	2.212	3.021	12.8	19.5
3 22	13 56.12	-38 31.3	1.585	2.391	17.3	19.0	3 22	13 43.61	-21 16.2	2.125	3.019	10.0	19.3
4 1	13 44.56	-40 24.9	1.503	2.368	15.2	18.8	4 1	13 36.40	-20 31.9	2.061	3.017	6.7	19.1
4 11	13 29.69	-41 47.2	1.442	2.344	13.7	18.6	4 11	13 28.13	-19 31.3	2.025	3.013	3.8	18.9
4 21	13 12.96	-42 30.4	1.405	2.319	13.3	18.5	4 21	13 19.64	-18 18.4	2.017	3.010	3.6	18.9
5 1	12 56.51	-42 32.7	1.392	2.295	14.4	18.5	5 1	13 11.84	-16 59.6	2.037	3.005	6.5	19.0
5 11	12 42.48	-42 1.1	1.401	2.270	16.6	18.6	5 11	13 5.49	-15 41.7	2.085	3.000	9.8	19.2
5 21	12 32.35	-41 7.8	1.429	2.245	19.2	18.7	5 21	13 1.07	-14 31.0	2.157	2.995	12.8	19.4
<b>148668</b>	2001 <i>SH</i> <sub>161</sub>		4 13.1 256°41'	0.6°/13.6	18		<b>95334</b>	2002 <i>CD</i> <sub>118</sub>		4 13.1 18°35'	0.9°/13.8	18	
3 12	13 50.55	-12 34.8	1.952	2.799	12.8	20.4	3 12	13 49.60	-12 46.3	1.776	2.628	13.6	19.3
3 22	13 44.96	-12 15.2	1.857	2.781	9.4	20.2	3 22	13 44.26	-12 35.8	1.703	2.629	10.0	19.1
4 1	13 37.29	-11 43.3	1.786	2.762	5.5	19.9	4 1	13 36.86	-12 12.8	1.653	2.630	5.9	18.9
4 11	13 28.27	-11 1.7	1.743	2.743	1.3	19.6	4 11	13 28.21	-11 40.5	1.630	2.630	1.6	18.6
4 21	13 18.83	-10 14.9	1.727	2.724	3.4	19.7	4 21	13 19.33	-11 3.4	1.634	2.631	3.4	18.7
5 1	13 9.99	-9 28.7	1.740	2.704	7.7	19.9	5 1	13 11.27	-10 27.0	1.665	2.632	7.7	19.0
5 11	13 2.69	-8 49.0	1.778	2.684	11.7	20.1	5 11	13 4.92	-9 57.0	1.721	2.633	11.7	19.2
5 21	12 57.55	-8 20.2	1.838	2.663	15.2	20.3	5 21	13 0.80	-9 37.3	1.798	2.634	15.0	19.4
<b>92904</b>	2000 <i>RO</i> <sub>6</sub>		4 13.1 156°52'	1.5°/11.4	17		<b>119470</b>	2001 <i>UN</i> <sub>13</sub>		4 13.1 145°44'	1.6°/11.7	18	
3 12	13 47.38	-8 22.9	2.192	3.050	11.1	19.9	3 12	13 49.77	-6 42.0	1.788	2.654	12.9	19.1
3 22	13 42.23	-7 11.7	2.123	3.056	7.9	19.7	3 22	13 44.29	-6 7.6	1.720	2.656	9.2	18.9
4 1	13 35.51	-5 51.4	2.081	3.062	4.3	19.5	4 1	13 36.82	-5 25.5	1.676	2.657	5.1	18.7
4 11	13 27.93	-4 27.7	2.067	3.067	1.5	19.3	4 11	13 28.20	-4 40.8	1.659	2.659	1.6	18.4
4 21	13 20.25	-3 6.9	2.083	3.072	4.0	19.5	4 21	13 19.40	-3 59.1	1.669	2.661	4.5	18.6
5 1	13 13.26	-1 55.1	2.127	3.076	7.6	19.7	5 1	13 11.43	-3 25.9	1.707	2.662	8.6	18.9
5 11	13 7.63	-0 57.1	2.197	3.080	10.8	19.9	5 11	13 5.14	-3 5.5	1.769	2.664	12.4	19.1
5 21	13 3.76	-0 15.4	2.290	3.083	13.6	20.1	5 21	13 1.03	-2 59.8	1.851	2.665	15.6	19.3
<b>36096</b>	1999 <i>RU</i> <sub>110</sub>		4 13.1 321°46'	5.3°/18.0	18		<b>414798</b>	2010 <i>RB</i> <sub>176</sub>		4 13.1 300°34'	3.8°/15.5		

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>347154</b>	2011 <i>EE</i> <sub>14</sub>		4 13.1 329°69	0°8/13.8	16		<b>114813</b>	2003 <i>OB</i> <sub>7</sub>		4 13.1 205°92	0°5/13.6	17	
3 12	13 43.86	-14 17.4	1.470	2.336	15.1	20.4	3 12	13 50.93	-13 29.6	2.034	2.875	12.6	20.6
3 22	13 40.60	-13 36.7	1.384	2.317	11.2	20.1	3 22	13 45.06	-12 48.5	1.948	2.869	9.2	20.4
4 1	13 35.02	-12 36.3	1.320	2.299	6.6	19.8	4 1	13 37.28	-11 53.6	1.887	2.862	5.4	20.1
4 11	13 27.93	-11 20.8	1.281	2.282	1.7	19.4	4 11	13 28.33	-10 48.7	1.854	2.855	1.2	19.8
4 21	13 20.40	-9 57.5	1.267	2.265	3.9	19.6	4 21	13 19.11	-9 39.1	1.850	2.847	3.3	19.9
5 1	13 13.64	-8 35.9	1.279	2.250	9.1	19.8	5 1	13 10.59	-8 31.5	1.875	2.838	7.4	20.2
5 11	13 8.71	-7 25.3	1.313	2.235	13.8	20.0	5 11	13 3.61	-7 32.2	1.926	2.828	11.2	20.4
5 21	13 6.27	-6 32.2	1.367	2.222	17.9	20.2	5 21	12 58.69	-6 45.7	2.000	2.817	14.5	20.6
<b>83423</b>	2001 <i>SA</i> <sub>44</sub>		4 13.1 264°20	0°3/13.3	18		<b>133078</b>	2003 <i>JU</i> <sub>13</sub>		4 13.1 171°05	11°3/3.2	18	
3 12	13 50.05	-10 23.0	2.186	3.034	11.5	19.1	3 12	13 58.53	+23 2.1	1.916	2.744	13.8	19.7
3 22	13 44.30	-10 23.0	2.103	3.029	8.4	18.9	3 22	13 50.39	+24 10.7	1.875	2.748	12.2	19.6
4 1	13 36.80	-10 15.1	2.046	3.024	4.8	18.7	4 1	13 40.14	+24 59.6	1.857	2.752	11.3	19.5
4 11	13 28.21	-10 1.5	2.017	3.019	1.0	18.4	4 11	13 28.80	+25 20.9	1.864	2.754	11.7	19.6
4 21	13 19.38	-9 45.4	2.017	3.014	3.0	18.5	4 21	13 17.49	+25 10.6	1.896	2.756	13.0	19.7
5 1	13 11.17	-9 30.6	2.046	3.009	6.9	18.8	5 1	13 7.34	+24 28.6	1.950	2.758	14.9	19.8
5 11	13 4.36	-9 20.6	2.100	3.003	10.3	19.0	5 11	12 59.20	+23 18.6	2.024	2.758	16.9	19.9
5 21	12 59.45	-9 18.5	2.177	2.998	13.3	19.1	5 21	12 53.50	+21 46.3	2.115	2.758	18.6	20.1
<b>154591</b>	2003 <i>MF</i> <sub>5</sub>		4 13.1 288°23	6°9/5.9	18		<b>176564</b>	2002 <i>AX</i> <sub>158</sub>		4 13.1 55°58	2°0/10.9	18	
3 12	13 46.76	+ 6 10.9	1.799	2.678	12.1	19.6	3 12	13 45.42	- 5 27.3	2.158	3.025	10.9	20.0
3 22	13 42.24	+ 7 46.0	1.725	2.660	9.3	19.4	3 22	13 40.84	- 4 35.0	2.097	3.034	7.7	19.8
4 1	13 35.76	+ 9 20.1	1.677	2.641	7.2	19.3	4 1	13 34.77	- 3 37.0	2.062	3.044	4.3	19.6
4 11	13 28.04	+10 43.8	1.655	2.622	7.2	19.2	4 11	13 27.87	- 2 38.5	2.055	3.053	2.0	19.4
4 21	13 20.02	+11 49.1	1.659	2.604	9.5	19.3	4 21	13 20.89	- 1 44.8	2.076	3.062	4.3	19.6
5 1	13 12.67	+12 29.9	1.688	2.585	12.6	19.4	5 1	13 14.60	- 1 0.9	2.124	3.072	7.7	19.8
5 11	13 6.88	+12 43.9	1.738	2.566	15.7	19.6	5 11	13 9.62	- 0 30.1	2.198	3.082	10.8	20.0
5 21	13 3.20	+12 32.1	1.805	2.547	18.5	19.8	5 21	13 6.36	- 0 14.0	2.293	3.092	13.4	20.2
<b>317877</b>	2003 <i>UQ</i> <sub>93</sub>		4 13.1 227°90	0°9/13.9	16		<b>330993</b>	2009 <i>UF</i> <sub>28</sub>		4 13.1 204°52	0°4/12.7	18	
3 12	13 51.95	-13 30.9	1.863	2.707	13.4	21.9	3 12	13 49.00	-10 23.3	2.201	3.050	11.4	21.9
3 22	13 46.01	-13 12.0	1.775	2.696	9.9	21.6	3 22	13 43.51	- 9 43.2	2.119	3.046	8.2	21.7
4 1	13 37.91	-12 39.4	1.711	2.686	5.9	21.4	4 1	13 36.34	- 8 53.0	2.062	3.041	4.6	21.5
4 11	13 28.43	-11 56.0	1.674	2.674	1.6	21.1	4 11	13 28.16	- 7 56.8	2.034	3.035	0.8	21.2
4 21	13 18.58	-11 6.5	1.665	2.662	3.4	21.2	4 21	13 19.77	- 6 59.5	2.035	3.029	3.3	21.4
5 1	13 9.44	-10 17.0	1.684	2.649	7.9	21.4	5 1	13 12.01	- 6 6.5	2.065	3.023	7.2	21.6
5 11	13 1.97	- 9 33.8	1.729	2.636	11.9	21.6	5 11	13 5.62	- 5 22.7	2.120	3.016	10.6	21.8
5 21	12 56.79	- 9 1.7	1.795	2.622	15.5	21.8	5 21	13 1.07	- 4 51.3	2.199	3.008	13.6	22.0
<b>505837</b>	2015 <i>CE</i> <sub>11</sub>		4 13.1 355°19	3°8/15.9	17		<b>405198</b>	2003 <i>DU</i> <sub>21</sub>		4 13.1 63°19	7°6/17.5	18	
3 12	13 50.05	-19 2.4	1.710	2.543	14.9	20.5	3 12	14 9.16	-25 13.3	1.593	2.375	18.2	20.2
3 22	13 44.80	-19 25.0	1.632	2.541	11.6	20.3	3 22	13 58.53	-26 54.9	1.549	2.415	14.6	20.1
4 1	13 37.28	-19 30.8	1.578	2.539	7.8	20.1	4 1	13 44.92	-28 12.5	1.528	2.456	11.0	20.0
4 11	13 28.32	-19 20.1	1.548	2.538	4.4	19.9	4 11	13 29.65	-29 1.5	1.534	2.496	8.2	19.9
4 21	13 19.02	-18 55.8	1.544	2.537	4.5	19.9	4 21	13 14.37	-29 21.5	1.568	2.536	7.8	20.0
5 1	13 10.53	-18 22.9	1.567	2.537	7.9	20.1	5 1	13 0.72	-29 17.7	1.630	2.575	9.8	20.2
5 11	13 3.88	-17 48.2	1.615	2.537	11.7	20.3	5 11	12 49.91	-28 58.9	1.717	2.614	12.6	20.4
5 21	12 59.66	-17 17.9	1.683	2.538	15.1	20.5	5 21	12 42.47	-28 34.4	1.826	2.652	15.3	20.7
<b>417634</b>	2006 <i>GX</i> <sub>1</sub>		4 13.1 170°14	2°2/10.4	15	C	<b>295694</b>	2008 <i>TW</i> <sub>161</sub>		4 13.1 249°62	2°0/11.5	17	
3 12	13 52.96	- 1 32.0	3.048	3.893	8.7	24.5	3 12	13 52.47	- 6 46.6	1.587	2.454	14.2	21.7
3 22	13 45.82	- 0 57.6	2.975	3.901	6.2	24.3	3 22	13 46.70	- 6 0.4	1.501	2.437	10.2	21.4
4 1	13 37.42	- 0 21.7	2.931	3.907	3.7	24.1	4 1	13 38.45	- 5 3.5	1.438	2.419	5.8	21.1
4 11	13 28.32	+ 0 12.5	2.919	3.912	2.3	24.0	4 11	13 28.56	- 4 1.6	1.401	2.401	2.1	20.8
4 21	13 19.15	+ 0 41.6	2.938	3.916	3.9	24.2	4 21	13 18.17	- 3 2.2	1.392	2.382	5.4	20.9
5 1	13 10.53	+ 1 2.8	2.988	3.918	6.5	24.3	5 1	13 8.56	- 2 12.8	1.409	2.363	10.2	21.2
5 11	13 3.00	+ 1 14.1	3.067	3.920	8.9	24.5	5 11	13 0.83	- 1 39.7	1.450	2.343	14.7	21.4
5 21	12 56.95	+ 1 14.8	3.169	3.920	11.0	24.7	5 21	12 55.70	- 1 25.7	1.510	2.322	18.6	21.6
<b>410780</b>	2009 <i>FT</i> <sub>26</sub>		4 13.1 26°09	11°1/15.9	18		<b>477594</b>	2010 <i>JW</i> <sub>142</sub>		4 13.1 208°43	3°3/17.0	18	
3 12	14 8.19	-22 20.6	1.049	1.877	22.6	19.5	3 12	13 47.41	-22 26.0	2.770	3.566	10.8	21.8
3 22	13 59.54	-25 29.3	0.996	1.889	18.5	19.2	3 22	13 42.20	-22 27.4	2.679	3.563	8.5	21.6
4 1	13 46.35	-28 17.9	0.963	1.903	14.4	19.0	4 1	13 35.55	-22 15.0	2.612	3.559	6.0	21.4
4 11	13 30.00	-30 32.9	0.954	1.919	11.5	18.9	4 11	13 28.03	-21 49.5	2.573	3.555	3.8	21.3
4 21	13 12.73	-32 5.2	0.969	1.936	11.5	19.0	4 21	13 20.30	-21 13.3	2.563	3.550	3.6	21.2
5 1	12 57.19	-32 55.9	1.007	1.954	14.1	19.2	5 1	13 13.07	-20 29.8	2.581	3.545	5.6	21.4
5 11	12 45.44	-33 15.7	1.066	1.973	17.6	19.4	5 11	13 6.97	-19 43.8	2.627	3.540	8.1	21.5
5 21	12 38.45	-33 18.2	1.142	1.993	20.9	19.7	5 21	13 2.43	-18 59.7	2.698	3.535	10.6	21.7
<b>179457</b>	2002 <i>AR</i> <sub>173</sub>		4 13.1 112°53	3°5/16.9	18		<b>316919</b>	2000 <i>WK</i> <sub>22</sub>		4 13.1 165°92	4°0/8.9	18	
3 12	13 47.72	-22 15.7	2.452	3.255	11.9	20.7	3 12	13 51.12	+ 3 17.1	2.492	3.351	9.9	21.2
3 22	13 42.51	-22 16.9	2.373	3.261	9.3	20.6	3 22	13 44.74	+ 3 59.0	2.429	3.357	7.3	21.0
4 1	13 35.73	-22 2.9	2.318	3.267	6.5	20.4	4 1	13 36.90	+ 4 39.4	2.393	3.363	4.8	20.8
4 11	13 28.04	-21 34.6	2.290	3.273	4.1	20.2	4 11	13 28.26	+ 5 13.6	2.386	3.367	4.1	20.8
4 21	13 20.18	-20 54.8	2.290	3.279	3.8	20.2	4 21	13 19.55	+ 5 37.6	2.408	3.371	5.8	20.9
5 1	13 12.94	-20 7.8	2.319	3.284	6.0	20.4	5 1	13 11.49	+ 5 48.5	2.459	3.375	8.4	21.1
5 11	13 7.00	-19 18.8	2.374	3.290	8.7	20.6	5 11	13 4.71	+ 5 45.1	2.535	3.377	10.9	21.2
5 21	13 2.80	-18 32.7	2.453	3.295	11.3	20.7	5 21	12 59.62	+ 5 27.5	2.632	3.379	13.2	21.4
<b>358987</b>	2008 <i>SW</i> <sub>165</sub>		4 13.1 116°43	0°8/13.6	18		<b>425107</b>	2009 <i>SF</i> <sub>119</sub>					

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>241090</b>	Nemet		4 13.1 214°91	4.7/ 7.2 18			<b>434952</b>	2006 UC <sub>38</sub>		4 13.1 269°85	1°0/14.3 17		
3 12	13 47.02	+ 6 23.2	2.687	3.551	9.1	20.9	3 12	13 45.53	-15 21.8	2.274	3.113	11.5	20.8
3 22	13 41.82	+ 7 19.7	2.618	3.544	6.9	20.8	3 22	13 41.05	-14 42.8	2.187	3.105	8.5	20.5
4 1	13 35.29	+ 8 13.5	2.575	3.537	5.1	20.6	4 1	13 35.00	-13 50.2	2.125	3.097	5.1	20.3
4 11	13 27.99	+ 8 59.5	2.561	3.530	4.9	20.6	4 11	13 28.00	-12 47.2	2.090	3.089	1.6	20.1
4 21	13 20.56	+ 9 33.6	2.576	3.522	6.4	20.7	4 21	13 20.78	-11 38.7	2.084	3.082	2.8	20.1
5 1	13 13.65	+ 9 52.8	2.618	3.514	8.7	20.8	5 1	13 14.15	-10 30.3	2.107	3.074	6.4	20.3
5 11	13 7.83	+ 9 55.8	2.684	3.505	11.0	21.0	5 11	13 8.78	- 9 27.8	2.156	3.066	9.8	20.5
5 21	13 3.49	+ 9 42.9	2.770	3.496	13.0	21.1	5 21	13 5.14	- 8 35.8	2.228	3.058	12.8	20.7
<b>249237</b>	2008 HJ <sub>10</sub>		4 13.1 284°66	0°1/13.2 18			<b>42032</b>	2000 YV <sub>89</sub>		4 13.1 224°23	0°5/13.5 16		
3 12	13 39.62	-11 33.4	4.334	5.174	6.4	20.2	3 12	13 51.19	-12 51.7	1.858	2.705	13.3	20.3
3 22	13 36.20	-10 59.2	4.243	5.165	4.6	20.1	3 22	13 45.47	-12 20.3	1.772	2.696	9.8	20.0
4 1	13 32.02	-10 19.5	4.179	5.156	2.6	19.9	4 1	13 37.64	-11 35.1	1.709	2.686	5.7	19.8
4 11	13 27.42	- 9 36.3	4.145	5.146	0.5	19.7	4 11	13 28.48	-10 39.6	1.674	2.676	1.3	19.4
4 21	13 22.73	- 8 52.0	4.142	5.137	1.7	19.9	4 21	13 18.98	- 9 39.3	1.668	2.664	3.5	19.6
5 1	13 18.31	- 8 8.9	4.168	5.128	3.8	20.0	5 1	13 10.21	- 8 40.9	1.689	2.653	7.9	19.8
5 11	13 14.48	- 7 29.5	4.223	5.119	5.7	20.1	5 11	13 3.09	- 7 50.7	1.735	2.641	12.0	20.0
5 21	13 11.50	- 6 55.8	4.303	5.110	7.5	20.3	5 21	12 58.21	- 7 13.5	1.803	2.628	15.5	20.2
<b>133303</b>	2003 SR <sub>45</sub>		4 13.1 204°86	2°7/10.4 18			<b>505750</b>	2015 BM <sub>90</sub>		4 13.1 252°55	1°9/14.8 17		
3 12	13 48.02	- 3 9.5	2.134	3.000	11.0	20.4	3 12	13 48.88	-16 15.4	1.921	2.759	13.3	21.1
3 22	13 42.81	- 2 19.6	2.061	2.998	7.9	20.2	3 22	13 43.74	-16 0.5	1.837	2.754	10.0	20.9
4 1	13 35.96	- 1 25.4	2.015	2.995	4.6	20.0	4 1	13 36.63	-15 30.4	1.778	2.748	6.2	20.6
4 11	13 28.13	- 0 32.1	1.996	2.992	2.7	19.9	4 11	13 28.30	-14 47.6	1.745	2.742	2.5	20.4
4 21	13 20.14	+ 0 14.9	2.007	2.989	5.0	20.0	4 21	13 19.68	-13 56.4	1.739	2.736	3.3	20.4
5 1	13 12.81	+ 0 51.0	2.044	2.985	8.4	20.2	5 1	13 11.77	-13 2.8	1.761	2.730	7.2	20.6
5 11	13 6.85	+ 1 12.7	2.107	2.981	11.6	20.4	5 11	13 5.43	-12 13.2	1.809	2.724	11.0	20.9
5 21	13 2.72	+ 1 18.9	2.190	2.977	14.3	20.6	5 21	13 1.23	-11 32.7	1.878	2.718	14.4	21.1
<b>361126</b>	2006 GR <sub>15</sub>		4 13.1 64°75	1°9/11.9 18			<b>462175</b>	2007 TR <sub>319</sub>		4 13.1 164°92	1°1/12.1 16		
3 12	13 53.60	- 5 56.9	1.317	2.192	15.9	20.6	3 12	13 52.10	- 8 15.7	1.915	2.771	12.6	22.4
3 22	13 47.50	- 5 37.6	1.263	2.203	11.4	20.3	3 22	13 45.88	- 7 37.3	1.846	2.776	9.0	22.2
4 1	13 38.80	- 5 10.7	1.232	2.214	6.3	20.1	4 1	13 37.74	- 6 50.0	1.801	2.781	5.0	21.9
4 11	13 28.64	- 4 41.8	1.225	2.226	2.0	19.8	4 11	13 28.48	- 5 58.5	1.784	2.785	1.2	21.7
4 21	13 18.36	- 4 17.3	1.245	2.237	5.3	20.1	4 21	13 19.07	- 5 8.5	1.796	2.789	4.0	21.9
5 1	13 9.36	- 4 2.9	1.289	2.249	10.3	20.4	5 1	13 10.49	- 4 25.5	1.836	2.792	8.1	22.1
5 11	13 2.66	- 4 2.7	1.356	2.261	14.7	20.7	5 11	13 3.55	- 3 54.2	1.902	2.794	11.8	22.3
5 21	12 58.79	- 4 17.9	1.441	2.273	18.3	20.9	5 21	12 58.76	- 3 37.0	1.989	2.795	14.9	22.6
<b>431818</b>	2008 RL <sub>68</sub>		4 13.1 213°16	1°4/14.3 18			<b>290280</b>	2005 SU <sub>149</sub>		4 13.1 296°43	1°5/11.9 17		
3 12	13 52.76	-13 42.4	2.341	3.172	11.5	21.1	3 12	13 47.19	- 8 55.6	1.585	2.456	13.9	20.9
3 22	13 46.24	-13 50.5	2.252	3.165	8.5	20.9	3 22	13 42.90	- 8 0.2	1.498	2.436	10.1	20.7
4 1	13 37.93	-13 49.0	2.188	3.158	5.2	20.6	4 1	13 36.33	- 6 50.8	1.434	2.416	5.6	20.3
4 11	13 28.50	-13 39.1	2.152	3.151	1.9	20.4	4 11	13 28.27	- 5 33.4	1.395	2.396	1.5	20.0
4 21	13 18.76	-13 23.4	2.146	3.143	2.9	20.4	4 21	13 19.76	- 4 16.0	1.384	2.377	4.9	20.2
5 1	13 9.61	-13 5.4	2.170	3.134	6.4	20.7	5 1	13 11.96	- 3 7.3	1.398	2.357	9.8	20.4
5 11	13 1.82	-12 49.2	2.221	3.125	9.8	20.8	5 11	13 5.92	- 2 14.4	1.435	2.338	14.2	20.6
5 21	12 55.93	-12 38.3	2.296	3.116	12.7	21.0	5 21	13 2.28	- 1 41.6	1.492	2.318	18.1	20.8
<b>321706</b>	2010 GA <sub>3</sub>		4 13.1 275°92	6°1/25.6 18			<b>179385</b>	2001 YO <sub>18</sub>		4 13.1 151°68	0°9/11.9 17		
3 12	13 45.25	-43 39.9	4.528	5.149	9.2	20.2	3 12	13 46.63	- 7 36.6	2.792	3.643	9.2	21.8
3 22	13 40.44	-44 8.1	4.431	5.148	8.3	20.1	3 22	13 41.47	- 7 1.6	2.721	3.650	6.6	21.6
4 1	13 34.51	-44 21.7	4.355	5.147	7.4	20.0	4 1	13 35.09	- 6 20.9	2.677	3.657	3.6	21.4
4 11	13 27.88	-44 19.8	4.301	5.145	6.6	19.9	4 11	13 28.02	- 5 38.0	2.663	3.663	1.0	21.2
4 21	13 21.08	-44 2.6	4.272	5.144	6.1	19.9	4 21	13 20.86	- 4 56.5	2.678	3.669	3.0	21.4
5 1	13 14.63	-43 31.6	4.269	5.143	6.1	19.9	5 1	13 14.23	- 4 20.0	2.723	3.675	6.0	21.6
5 11	13 9.03	-42 49.3	4.291	5.141	6.6	19.9	5 11	13 8.66	- 3 51.5	2.794	3.680	8.7	21.8
5 21	13 4.63	-41 59.4	4.337	5.140	7.5	20.0	5 21	13 4.50	- 3 33.1	2.889	3.685	11.0	21.9
<b>135044</b>	2001 OM <sub>30</sub>		4 13.1 133°23	0°4/13.5 18			<b>489038</b>	2005 XU <sub>59</sub>		4 13.1 211°07	0°1/13.2 17		
3 12	13 50.43	-11 7.2	2.362	3.204	11.0	19.9	3 12	13 49.72	-11 26.4	2.247	3.091	11.4	22.7
3 22	13 44.40	-11 3.4	2.290	3.212	8.0	19.7	3 22	13 44.07	-10 55.6	2.161	3.085	8.3	22.5
4 1	13 36.80	-10 51.4	2.244	3.220	4.6	19.5	4 1	13 36.71	-10 14.5	2.101	3.078	4.7	22.3
4 11	13 28.29	-10 33.7	2.226	3.227	1.0	19.2	4 11	13 28.32	- 9 26.4	2.069	3.070	0.9	22.0
4 21	13 19.65	-10 13.4	2.238	3.234	2.8	19.4	4 21	13 19.70	- 8 35.7	2.066	3.062	3.1	22.1
5 1	13 11.67	- 9 54.0	2.278	3.241	6.3	19.6	5 1	13 11.68	- 7 47.7	2.092	3.053	6.9	22.3
5 11	13 5.02	- 9 39.1	2.346	3.247	9.5	19.8	5 11	13 5.01	- 7 7.0	2.145	3.043	10.4	22.5
5 21	13 0.14	- 9 31.4	2.436	3.253	12.2	20.0	5 21	13 0.18	- 6 37.2	2.220	3.033	13.3	22.7
<b>245561</b>	2005 UP <sub>81</sub>		4 13.1 225°53	0°5/13.8 17			<b>360273</b>	2000 SU <sub>260</sub>		4 13.1 237°69	1°1/12.2 16		
3 12	13 45.06	-13 56.9	2.564	3.403	10.3	20.7	3 12	13 51.63	- 8 56.6	1.851	2.708	12.9	22.1
3 22	13 40.53	-13 13.5	2.479	3.399	7.6	20.5	3 22	13 45.83	- 8 13.0	1.762	2.692	9.4	21.8
4 1	13 34.63	-12 18.9	2.419	3.394	4.4	20.3	4 1	13 37.88	- 7 18.0	1.696	2.677	5.2	21.5
4 11	13 27.92	-11 16.4	2.388	3.389	1.1	20.0	4 11	13 28.56	- 6 16.5	1.659	2.660	1.2	21.2
4 21	13 21.04	-10 10.2	2.387	3.383	2.6	20.1	4 21	13 18.83	- 5 14.6	1.649	2.642	4.3	21.4
5 1	13 14.69	- 9 5.5	2.414	3.378	5.9	20.3	5 1	13 9.78	- 4 19.1	1.668	2.624	8.7	21.6
5 11	13 9.46	- 8 7.1	2.469	3.372	9.0	20.5	5 11	13 2.36	- 3 35.9	1.712	2.605	12.8	21.8
5 21	13 5.76	- 7 18.7	2.547	3.367	11.6	20.7	5 21	12 57.19	- 3 8.5	1.776	2.585	16.3	22.0
<b>290832</b>	2005 WJ <sub>1</sub>		4 13.1 238°28	8°8/24.8 18			<b>309982</b>	2009 HX <sub>73</sub>		4 13.1 253°91	9°7/30.2 18		
3 12	13 53.27	-44 41.3	3.162	3.787	12.8	21.0	3 12	13 50.72	+27 9.3	2.689	3.		

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>24117</b>	1999 VQ <sub>26</sub>		4 13.1 253°48	1°0/12.3	18								
3 12	13 51.24	- 8 44.1	1.801	2.660	13.1	19.3							
3 22	13 45.62	- 8 10.6	1.711	2.643	9.5	19.0							
4 1	13 37.81	- 7 26.4	1.645	2.625	5.3	18.7							
4 11	13 28.56	- 6 35.9	1.606	2.607	1.1	18.4							
4 21	13 18.87	- 5 45.0	1.595	2.589	4.2	18.6							
5 1	13 9.86	- 4 59.9	1.611	2.570	8.8	18.8							
5 11	13 2.50	- 4 26.3	1.652	2.550	12.9	19.0							
5 21	12 57.44	- 4 7.8	1.714	2.530	16.5	19.2							
<b>335554</b>	2006 BO <sub>142</sub>		4 13.1 289°37	6°8/18.4	18								
3 12	13 51.75	-27 9.5	1.885	2.673	15.5	20.4							
3 22	13 46.19	-27 52.9	1.793	2.662	12.8	20.1							
4 1	13 38.22	-28 15.6	1.723	2.651	9.9	19.9							
4 11	13 28.65	-28 15.5	1.677	2.641	7.5	19.8							
4 21	13 18.52	-27 53.0	1.657	2.630	6.9	19.7							
5 1	13 9.08	-27 12.3	1.663	2.620	8.7	19.8							
5 11	13 1.43	-26 20.5	1.693	2.609	11.6	19.9							
5 21	12 56.27	-25 25.7	1.746	2.599	14.7	20.1							
<b>126804</b>	2002 EA <sub>30</sub>		4 13.1 348°47	1°6/11.9	17								
3 12	13 46.86	- 7 9.5	1.423	2.303	14.7	19.2							
3 22	13 42.72	- 6 39.3	1.353	2.296	10.5	18.9							
4 1	13 36.22	- 5 59.2	1.306	2.290	5.9	18.6							
4 11	13 28.27	- 5 15.1	1.284	2.284	1.7	18.4							
4 21	13 20.01	- 4 33.6	1.286	2.280	5.0	18.6							
5 1	13 12.66	- 4 1.7	1.314	2.277	9.9	18.8							
5 11	13 7.23	- 3 44.6	1.364	2.274	14.3	19.1							
5 21	13 4.34	- 3 44.8	1.432	2.272	18.0	19.3							
<b>40465</b>	1999 RQ <sub>44</sub>		4 13.1 165°41	2°0/11.0	18								
3 12	13 47.06	- 6 42.2	2.042	2.906	11.6	19.1							
3 22	13 42.19	- 5 36.3	1.972	2.908	8.2	18.9							
4 1	13 35.64	- 4 22.3	1.928	2.910	4.5	18.6							
4 11	13 28.15	- 3 6.0	1.912	2.911	2.0	18.5							
4 21	13 20.51	- 1 54.0	1.925	2.913	4.5	18.6							
5 1	13 13.58	- 0 52.2	1.966	2.914	8.2	18.9							
5 11	13 8.07	- 0 5.4	2.032	2.915	11.6	19.1							
5 21	13 4.41	+ 0 24.5	2.119	2.916	14.4	19.3							
<b>521129</b>	2015 DM <sub>248</sub>		4 13.1 37°77	5°7/ 7.5	17								
3 12	13 47.95	+ 6 45.5	2.057	2.929	11.1	20.6							
3 22	13 42.75	+ 7 38.1	2.003	2.933	8.4	20.4							
4 1	13 35.92	+ 8 26.1	1.974	2.938	6.2	20.3							
4 11	13 28.19	+ 9 3.3	1.971	2.942	5.9	20.3							
4 21	13 20.38	+ 9 25.1	1.996	2.947	7.7	20.4							
5 1	13 13.33	+ 9 28.5	2.046	2.952	10.3	20.6							
5 11	13 7.72	+ 9 12.9	2.119	2.957	12.9	20.7							
5 21	13 3.95	+ 8 39.6	2.212	2.962	15.3	20.9							
<b>69463</b>	1996 VZ <sub>1</sub>		4 13.1 179°70	0°1/13.0	18								
3 12	13 52.36	-10 47.5	2.045	2.890	12.3	20.7							
3 22	13 46.04	-10 17.9	1.968	2.893	8.9	20.5							
4 1	13 37.85	- 9 37.9	1.916	2.894	5.0	20.2							
4 11	13 28.55	- 8 51.2	1.893	2.894	0.9	19.9							
4 21	13 19.04	- 8 2.7	1.899	2.894	3.4	20.1							
5 1	13 10.29	- 7 17.9	1.933	2.893	7.4	20.4							
5 11	13 3.10	- 6 41.6	1.994	2.891	11.1	20.6							
5 21	12 57.98	- 6 17.1	2.077	2.888	14.2	20.8							
<b>263336</b>	2008 CC <sub>83</sub>		4 13.1 147°99	0°3/13.4	16								
3 12	13 52.26	-11 47.6	1.989	2.834	12.7	21.6							
3 22	13 45.95	-11 23.8	1.920	2.843	9.2	21.4							
4 1	13 37.77	-10 49.1	1.876	2.852	5.3	21.2							
4 11	13 28.53	-10 6.9	1.860	2.861	1.1	20.9							
4 21	13 19.15	- 9 22.0	1.872	2.869	3.3	21.1							
5 1	13 10.60	- 8 39.7	1.914	2.876	7.3	21.3							
5 11	13 3.66	- 8 5.1	1.981	2.882	10.9	21.6							
5 21	12 58.83	- 7 41.5	2.070	2.888	14.0	21.8							
<b>153066</b>	2000 QT <sub>187</sub>		4 13.1 214°03	1°8/14.6	18								
3 12	13 51.67	-14 55.8	1.991	2.827	13.0	20.4							
3 22	13 45.71	-14 57.1	1.908	2.823	9.7	20.2							
4 1	13 37.75	-14 45.9	1.849	2.819	6.0	20.0							
4 11	13 28.54	-14 23.9	1.817	2.815	2.3	19.7							
4 21	13 19.02	-13 54.4	1.813	2.810	3.3	19.8							
5 1	13 10.21	-13 22.1	1.838	2.805	7.1	20.0							
5 11	13 2.98	-12 52.6	1.888	2.799	10.9	20.2							
5 21	12 57.90	-12 30.0	1.961	2.794	14.1	20.4							
<b>348858</b>	2006 SW <sub>128</sub>		4 13.1 147°58	5°7/20.2	18								
3 12	13 49.78	-31 17.0	2.776	3.518	12.1	21.8							
3 22	13 44.00	-31 35.7	2.692	3.525	10.2	21.6							
4 1	13 36.64	-31 36.4	2.631	3.532	8.1	21.5							
4 11	13 28.33	-31 18.3	2.595	3.539	6.4	21.4							
4 21	13 19.83	-30 43.1	2.587	3.545	5.7	21.4							
5 1	13 11.93	-29 54.0	2.606	3.551	6.6	21.4							
5 11	13 5.31	-28 56.4	2.653	3.557	8.4	21.6							
5 21	13 0.44	-27 55.9	2.724	3.562	10.5	21.7							
<b>66518</b>	1999 RK <sub>99</sub>		4 13.1 217°43	0°4/13.5	17								
3 12	13 50.76	-13 14.1	2.084	2.925	12.3	20.2							
3 22	13 44.98	-12 31.4	1.994	2.915	9.0	19.9							
4 1	13 37.31	-11 35.1	1.929	2.904	5.2	19.7							
4 11	13 28.46	-10 28.9	1.892	2.893	1.1	19.4							
4 21	13 19.32	- 9 18.2	1.884	2.881	3.2	19.5							
5 1	13 10.83	- 8 9.5	1.906	2.868	7.4	19.7							
5 11	13 3.82	- 7 9.1	1.953	2.854	11.1	19.9							
5 21	12 58.82	- 6 21.5	2.024	2.839	14.4	20.1							
<b>384156</b>	2009 AF <sub>25</sub>		4 13.1 103°65	2°5/15.9	17								
3 12	13 48.90	-19 21.9	2.398	3.213	11.7	21.7							
3 22	13 43.28	-19 6.2	2.332	3.233	8.9	21.6							
4 1	13 36.17	-18 36.4	2.292	3.252	5.8	21.4							
4 11	13 28.23	-17 54.6	2.278	3.270	3.0	21.3							
4 21	13 20.25	-17 4.6	2.294	3.288	3.1	21.3							
5 1	13 12.98	-16 11.1	2.339	3.306	5.8	21.5							
5 11	13 7.05	-15 19.3	2.411	3.324	8.8	21.7							
5 21	13 2.88	-14 33.7	2.507	3.341									



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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>215457</b>	2002 <i>PQ</i> <sub>139</sub>		4 13.1 220°08	6°8/	5.7	17	<b>73020</b>	2002 <i>EE</i> <sub>68</sub>		4 13.1 283°02	0°2/12.9	18	
3 12	13 50.54	+ 8 52.6	2.107	2.972	11.2	21.0	3 12	13 50.24	-11 12.9	1.547	2.409	14.7	19.7
3 22	13 44.73	+10 19.4	2.039	2.961	8.8	20.8	3 22	13 45.33	-10 38.3	1.451	2.384	10.8	19.4
4 1	13 37.13	+11 41.9	1.997	2.950	7.0	20.7	4 1	13 37.87	- 9 48.1	1.378	2.358	6.2	19.0
4 11	13 28.45	+12 52.3	1.982	2.939	7.1	20.7	4 11	13 28.65	- 8 46.5	1.331	2.333	1.1	18.6
4 21	13 19.55	+13 44.2	1.995	2.926	9.0	20.7	4 21	13 18.80	- 7 40.1	1.310	2.307	4.3	18.8
5 1	13 11.33	+14 13.3	2.034	2.913	11.6	20.9	5 1	13 9.61	- 6 37.4	1.316	2.280	9.6	19.0
5 11	13 4.55	+14 18.5	2.095	2.899	14.3	21.0	5 11	13 2.28	- 5 46.3	1.344	2.254	14.5	19.2
5 21	12 59.72	+14 1.1	2.175	2.884	16.6	21.2	5 21	12 57.58	- 5 12.3	1.392	2.227	18.7	19.4
<b>350154</b>	2011 <i>SJ</i> <sub>136</sub>		4 13.1 174°64	1°0/14.4	18		<b>23806</b>	1998 <i>QD</i> <sub>40</sub>		4 13.1 277°95	1°9/14.8	18	R
3 12	13 46.95	-14 32.7	2.872	3.701	9.6	21.8	3 12	13 48.58	-16 7.2	1.950	2.789	13.1	18.8
3 22	13 41.77	-14 13.4	2.790	3.703	7.1	21.6	3 22	13 43.52	-15 54.8	1.869	2.785	9.8	18.6
4 1	13 35.31	-13 44.7	2.734	3.705	4.3	21.4	4 1	13 36.54	-15 27.9	1.811	2.782	6.1	18.4
4 11	13 28.12	-13 8.8	2.707	3.706	1.4	21.2	4 11	13 28.38	-14 48.8	1.781	2.778	2.5	18.1
4 21	13 20.79	-12 28.7	2.710	3.707	2.3	21.3	4 21	13 19.95	-14 1.7	1.777	2.774	3.2	18.2
5 1	13 13.96	-11 48.1	2.743	3.708	5.2	21.5	5 1	13 12.24	-13 12.2	1.802	2.771	7.1	18.4
5 11	13 8.18	-11 10.7	2.804	3.708	8.0	21.6	5 11	13 6.07	-12 26.5	1.852	2.767	10.8	18.6
5 21	13 3.82	-10 39.8	2.888	3.708	10.4	21.8	5 21	13 1.97	-11 49.3	1.924	2.764	14.1	18.8
<b>140462</b>	2001 <i>TF</i> <sub>128</sub>		4 13.1 118°75	2°6/10.2	18		<b>2012</b>	Guo Shou-Jing		4 13.1 270°18	2°0/14.7	18	
3 12	13 46.27	- 3 18.9	2.287	3.154	10.4	20.1	3 12	13 50.86	-16 4.6	1.611	2.456	15.1	17.2
3 22	13 41.44	- 2 21.7	2.224	3.160	7.4	19.9	3 22	13 45.69	-15 49.0	1.518	2.438	11.4	16.9
4 1	13 35.17	- 1 20.6	2.186	3.166	4.3	19.7	4 1	13 38.03	-15 15.2	1.447	2.419	7.1	16.6
4 11	13 28.09	- 0 20.7	2.177	3.172	2.6	19.6	4 11	13 28.68	-14 25.3	1.402	2.400	2.7	16.3
4 21	13 20.92	+ 0 32.9	2.197	3.178	4.7	19.7	4 21	13 18.77	-13 24.5	1.383	2.380	3.9	16.3
5 1	13 14.39	+ 1 15.5	2.245	3.184	7.8	19.9	5 1	13 9.58	-12 20.1	1.391	2.361	8.6	16.6
5 11	13 9.11	+ 1 44.1	2.317	3.189	10.8	20.1	5 11	13 2.25	-11 20.6	1.423	2.341	13.2	16.8
5 21	13 5.49	+ 1 57.5	2.411	3.195	13.3	20.3	5 21	12 57.52	-10 32.9	1.475	2.321	17.3	17.0
<b>292663</b>	2006 <i>UC</i> <sub>62</sub>		4 13.1 22°78	3°2/16.9	17		<b>267405</b>	2002 <i>AH</i> <sub>101</sub>		4 13.1 121°82	2°0/14.9	17	
3 12	13 45.57	-22 55.5	2.240	3.048	12.7	20.5	3 12	13 50.78	-16 10.5	1.903	2.739	13.5	21.0
3 22	13 41.14	-22 20.1	2.156	3.049	9.9	20.3	3 22	13 45.06	-16 3.4	1.831	2.746	10.1	20.8
4 1	13 35.09	-21 25.8	2.096	3.049	6.8	20.1	4 1	13 37.37	-15 41.8	1.784	2.753	6.3	20.5
4 11	13 28.08	-20 14.6	2.063	3.050	4.0	20.0	4 11	13 28.52	-15 8.0	1.762	2.759	2.6	20.3
4 21	13 20.92	-18 51.3	2.058	3.051	3.6	19.9	4 21	13 19.49	-14 26.2	1.769	2.766	3.3	20.4
5 1	13 14.43	-17 22.2	2.081	3.051	6.2	20.1	5 1	13 11.27	-13 41.8	1.803	2.772	7.1	20.6
5 11	13 9.29	-15 54.6	2.132	3.052	9.4	20.3	5 11	13 4.72	-13 0.9	1.863	2.778	10.8	20.8
5 21	13 5.95	-14 34.6	2.206	3.053	12.3	20.5	5 21	13 0.33	-12 28.2	1.946	2.784	14.0	21.1
<b>181722</b>	1995 <i>CU</i>		4 13.1 76°97	1°9/11.7	18		<b>462199</b>	2007 <i>VX</i> <sub>27</sub>		4 13.1 78°75	3°1/10.9	18	
3 12	13 53.15	- 5 45.0	1.617	2.483	14.0	20.0	3 12	13 53.81	- 3 11.5	1.474	2.347	14.7	21.5
3 22	13 46.68	- 5 15.6	1.572	2.507	9.9	19.8	3 22	13 47.32	- 2 33.2	1.430	2.368	10.4	21.3
4 1	13 38.18	- 4 40.1	1.550	2.531	5.5	19.6	4 1	13 38.60	- 1 51.0	1.409	2.390	5.9	21.1
4 11	13 28.62	- 4 3.8	1.555	2.555	1.9	19.4	4 11	13 28.73	- 1 11.3	1.414	2.411	3.1	21.0
4 21	13 19.11	- 3 32.3	1.587	2.578	4.8	19.7	4 21	13 18.92	- 0 40.5	1.446	2.432	5.9	21.2
5 1	13 10.74	- 3 10.6	1.647	2.601	8.9	20.0	5 1	13 10.34	- 0 23.5	1.504	2.453	10.1	21.5
5 11	13 4.32	- 3 2.0	1.730	2.624	12.6	20.2	5 11	13 3.87	- 0 22.9	1.585	2.474	13.9	21.8
5 21	13 0.26	- 3 7.5	1.834	2.647	15.7	20.5	5 21	12 59.93	- 0 38.9	1.685	2.494	17.1	22.0
<b>393302</b>	2013 <i>YA</i> <sub>88</sub>		4 13.1 119°80	14°0/24.9	18		<b>35951</b>	1999 <i>KE</i> <sub>14</sub>		4 13.1 341°96	3°8/11.0	18	
3 12	14 1.01	-41 36.9	1.408	2.123	23.0	20.6	3 12	13 53.57	- 1 9.5	1.249	2.132	16.0	17.3
3 22	13 53.89	-42 54.5	1.345	2.138	20.5	20.4	3 22	13 47.86	- 0 57.0	1.184	2.127	11.7	17.0
4 1	13 42.94	-43 33.3	1.298	2.153	17.8	20.3	4 1	13 39.28	- 0 42.8	1.140	2.122	6.9	16.7
4 11	13 29.53	-43 25.9	1.270	2.167	15.5	20.1	4 11	13 28.90	- 0 33.3	1.121	2.118	3.8	16.5
4 21	13 15.64	-42 30.6	1.261	2.180	14.1	20.1	4 21	13 18.15	- 0 34.3	1.126	2.114	6.9	16.7
5 1	13 3.42	-40 54.1	1.275	2.193	14.3	20.1	5 1	13 8.54	- 0 50.4	1.156	2.111	11.8	17.0
5 11	12 54.47	-38 51.1	1.309	2.205	15.8	20.3	5 11	13 1.31	- 1 23.7	1.207	2.108	16.4	17.2
5 21	12 49.53	-36 37.9	1.364	2.216	18.1	20.4	5 21	12 57.12	- 2 13.6	1.275	2.106	20.3	17.5
<b>427922</b>	2005 <i>UV</i> <sub>500</sub>		4 13.1 157°31	3°1/ 9.8	17		<b>308341</b>	2005 <i>QM</i> <sub>5</sub>		4 13.1 203°83	3°0/17.0	16	
3 12	13 49.21	- 2 1.5	2.184	3.049	10.9	21.8	3 12	13 47.73	-22 27.7	3.060	3.851	10.0	22.2
3 22	13 43.60	- 1 0.0	2.121	3.056	7.8	21.6	3 22	13 42.38	-22 24.2	2.965	3.846	7.9	22.0
4 1	13 36.40	+ 0 4.7	2.084	3.062	4.6	21.4	4 1	13 35.71	-22 7.9	2.895	3.840	5.6	21.9
4 11	13 28.32	+ 1 6.9	2.076	3.068	3.2	21.3	4 11	13 28.23	-21 39.6	2.853	3.834	3.5	21.7
4 21	13 20.14	+ 2 1.1	2.096	3.073	5.3	21.5	4 21	13 20.57	-21 1.4	2.840	3.828	3.2	21.7
5 1	13 12.67	+ 2 42.7	2.145	3.078	8.5	21.7	5 1	13 13.35	-20 16.7	2.857	3.821	5.1	21.8
5 11	13 6.59	+ 3 8.6	2.218	3.082	11.5	21.9	5 11	13 7.15	-19 29.6	2.902	3.813	7.5	22.0
5 21	13 2.31	+ 3 18.0	2.313	3.086	14.1	22.1	5 21	13 2.39	-18 44.3	2.972	3.805	9.8	22.1
<b>102490</b>	1999 <i>TD</i> <sub>264</sub>		4 13.1 319°15	0°3/12.9	17		<b>462612</b>	2009 <i>LM</i>		4 13.1 303°28	1°2/14.1	17	
3 12	13 46.37	- 9 56.0	2.236	3.090	11.1	19.7	3 12	13 47.77	-14 59.9	1.510	2.367	15.3	21.3
3 22	13 41.67	- 9 31.8	2.156	3.085	8.0	19.5	3 22	13 43.42	-14 25.2	1.429	2.357	11.4	21.0
4 1	13 35.39	- 8 58.9	2.101	3.080	4.5	19.2	4 1	13 36.69	-13 31.3	1.370	2.346	6.8	20.7
4 11	13 28.15	- 8 20.9	2.073	3.075	0.8	19.0	4 11	13 28.44	-12 22.5	1.336	2.336	2.0	20.4
4 21	13 20.71	- 7 41.9	2.075	3.070	3.1	19.1	4 21	13 19.79	-11 5.4	1.327	2.326	3.8	20.5
5 1	13 13.86	- 7 6.3	2.104	3.065	6.8	19.4	5 1	13 11.99	- 9 49.1	1.345	2.316	8.8	20.8
5 11	13 8.28	- 6 38.4	2.159	3.061	10.1	19.6	5 11	13 6.08	- 8 42.3	1.387	2.306	13.4	21.0
5 21	13 4.45	- 6 20.9	2.236	3.057	13.0	19.7	5 21	13 2.72	- 7 51.3	1.448	2.297	17.4	21.2
<b>110326</b>	2001 <i>SN</i> <sub>286</sub>		4 13.1 228°21	2°1/10.9	18		<b>270324</b>	2001 <i>XV</i> <sub>96</sub>		4 13.1 222°26	2°7/		

EPHEMERIDES

4 13.1

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>302463</b>	2002 <i>EB</i> <sub>128</sub>		4 13.1 104°17'	4°0'	8.3	17	<b>464013</b>	2014 <i>WH</i> <sub>109</sub>		4 13.1 213°49'	2°3'	11.1	16
3 12	13 45.19	+ 1 36.2	2.385	3.257	9.8	20.5	3 12	13 50.04	- 6 6.0	1.800	2.665	12.8	21.9
3 22	13 40.65	+ 2 44.6	2.325	3.261	7.1	20.3	3 22	13 44.63	- 5 6.9	1.724	2.660	9.1	21.6
4 1	13 34.74	+ 3 53.4	2.291	3.264	4.7	20.2	4 1	13 37.20	- 3 58.8	1.673	2.655	5.1	21.4
4 11	13 28.06	+ 4 56.9	2.285	3.268	4.1	20.1	4 11	13 28.54	- 2 48.2	1.650	2.649	2.3	21.2
4 21	13 21.29	+ 5 50.0	2.308	3.272	5.9	20.3	4 21	13 19.63	- 1 42.0	1.655	2.642	5.1	21.3
5 1	13 15.12	+ 6 28.6	2.358	3.275	8.6	20.4	5 1	13 11.50	- 0 47.0	1.686	2.635	9.2	21.6
5 11	13 10.13	+ 6 50.7	2.432	3.279	11.2	20.6	5 11	13 5.01	- 0 8.2	1.742	2.628	13.0	21.8
5 21	13 6.70	+ 6 55.7	2.527	3.283	13.4	20.8	5 21	13 0.71	+ 0 12.1	1.819	2.620	16.3	22.0
<b>301031</b>	2008 <i>SA</i> <sub>243</sub>		4 13.1 110°91'	1°7'	11.9	18	<b>315408</b>	2007 <i>VJ</i> <sub>193</sub>		4 13.1 112°28'	3°4'	16.1	18
3 12	13 53.39	- 6 58.2	1.415	2.286	15.3	20.9	3 12	13 50.83	- 20 14.5	1.652	2.481	15.5	20.6
3 22	13 47.34	- 6 26.7	1.356	2.293	11.0	20.6	3 22	13 45.38	- 20 1.1	1.582	2.488	12.0	20.4
4 1	13 38.79	- 5 46.0	1.319	2.301	6.1	20.4	4 1	13 37.67	- 19 27.0	1.534	2.496	7.9	20.2
4 11	13 28.80	- 5 1.9	1.308	2.308	1.8	20.1	4 11	13 28.63	- 18 34.2	1.511	2.503	4.2	20.0
4 21	13 18.65	- 4 21.4	1.323	2.316	5.1	20.4	4 21	13 19.38	- 17 28.0	1.515	2.510	4.2	20.0
5 1	13 9.64	- 3 50.9	1.364	2.323	10.0	20.6	5 1	13 11.10	- 16 16.0	1.546	2.517	7.8	20.2
5 11	13 2.79	- 3 35.3	1.427	2.329	14.3	20.9	5 11	13 4.75	- 15 6.9	1.601	2.523	11.8	20.4
5 21	12 58.66	- 3 36.4	1.510	2.336	17.9	21.2	5 21	13 0.86	- 14 7.5	1.678	2.530	15.3	20.7
<b>136560</b>	1109 <i>T</i> <sub>-3</sub>		4 13.1 73°02'	4°4'	16.6	18	<b>437118</b>	2012 <i>UD</i> <sub>134</sub>		4 13.1 64°91'	5°9'	18.9	17
3 12	13 50.82	- 21 34.5	1.516	2.345	16.7	19.9	3 12	13 50.09	- 27 35.6	2.111	2.891	14.3	20.4
3 22	13 45.59	- 21 33.9	1.446	2.351	13.0	19.7	3 22	13 44.57	- 28 0.0	2.039	2.903	11.7	20.3
4 1	13 37.87	- 21 10.3	1.398	2.356	8.9	19.5	4 1	13 37.12	- 28 4.0	1.989	2.915	8.9	20.1
4 11	13 28.65	- 20 25.0	1.373	2.362	5.2	19.3	4 11	13 28.53	- 27 47.2	1.963	2.927	6.6	20.0
4 21	13 19.17	- 19 22.9	1.374	2.368	4.9	19.3	4 21	13 19.73	- 27 11.8	1.965	2.939	5.9	20.0
5 1	13 10.72	- 18 11.8	1.402	2.373	8.4	19.5	5 1	13 11.72	- 26 22.4	1.993	2.951	7.4	20.1
5 11	13 4.36	- 17 1.5	1.453	2.379	12.4	19.7	5 11	13 5.33	- 25 25.8	2.047	2.963	9.9	20.3
5 21	13 0.68	- 15 59.7	1.525	2.385	16.1	20.0	5 21	13 1.07	- 24 28.8	2.124	2.975	12.5	20.4
<b>138107</b>	2000 <i>DL</i> <sub>96</sub>		4 13.1 118°18'	3°7'	16.5	18	<b>121134</b>	1999 <i>JT</i> <sub>16</sub>		4 13.1 47°04'	2°1'	11.6	18
3 12	13 53.23	- 21 17.2	1.902	2.715	14.5	20.4	3 12	13 50.95	- 5 20.8	1.457	2.333	14.7	19.8
3 22	13 46.81	- 21 17.1	1.836	2.731	11.2	20.2	3 22	13 45.41	- 4 54.1	1.407	2.347	10.4	19.6
4 1	13 38.34	- 20 58.4	1.793	2.747	7.6	20.0	4 1	13 37.63	- 4 20.9	1.379	2.362	5.8	19.3
4 11	13 28.72	- 20 22.4	1.776	2.763	4.4	19.8	4 11	13 28.61	- 3 47.2	1.377	2.377	2.2	19.1
4 21	13 18.97	- 19 33.1	1.786	2.778	4.2	19.9	4 21	13 19.54	- 3 18.8	1.401	2.393	5.2	19.4
5 1	13 10.17	- 18 36.5	1.825	2.792	7.2	20.1	5 1	13 11.60	- 3 1.1	1.451	2.409	9.6	19.6
5 11	13 3.17	- 17 39.7	1.890	2.806	10.6	20.3	5 11	13 5.67	- 2 57.6	1.523	2.425	13.6	19.9
5 21	12 58.45	- 16 48.9	1.978	2.820	13.7	20.5	5 21	13 2.25	- 3 9.5	1.616	2.441	16.9	20.2
<b>144512</b>	2004 <i>EQ</i> <sub>75</sub>		4 13.1 235°07'	0°5'	13.6	18	<b>263766</b>	2008 <i>KZ</i> <sub>15</sub>		4 13.2 270°55'	8°7'	4.6	17
3 12	13 51.32	- 10 48.5	2.480	3.319	10.6	20.1	3 12	13 49.50	+ 11 55.4	1.752	2.623	12.8	20.5
3 22	13 45.17	- 10 54.1	2.390	3.310	7.8	19.9	3 22	13 44.28	+ 13 23.5	1.692	2.613	10.4	20.3
4 1	13 37.37	- 10 52.4	2.326	3.301	4.5	19.7	4 1	13 37.01	+ 14 43.3	1.656	2.603	8.8	20.2
4 11	13 28.56	- 10 45.4	2.291	3.292	1.1	19.4	4 11	13 28.51	+ 15 45.4	1.646	2.593	9.1	20.2
4 21	13 19.47	- 10 35.4	2.286	3.283	2.7	19.6	4 21	13 19.79	+ 16 22.8	1.661	2.583	11.1	20.3
5 1	13 10.91	- 10 25.5	2.311	3.273	6.2	19.8	5 1	13 11.89	+ 16 31.7	1.699	2.572	13.8	20.4
5 11	13 3.59	- 10 19.1	2.363	3.263	9.5	20.0	5 11	13 5.70	+ 16 12.1	1.757	2.562	16.5	20.6
5 21	12 58.00	- 10 18.8	2.438	3.253	12.2	20.1	5 21	13 1.73	+ 15 27.0	1.831	2.552	18.9	20.7
<b>435396</b>	2007 <i>YE</i> <sub>42</sub>		4 13.1 145°55'	4°0'	8.4	17	<b>323041</b>	2002 <i>RF</i> <sub>35</sub>		4 13.2 187°61'	6°6'	18.4	17
3 12	13 46.66	+ 2 44.8	2.502	3.370	9.6	21.7	3 12	13 55.35	- 27 21.2	1.963	2.742	15.3	21.6
3 22	13 41.63	+ 3 42.5	2.442	3.375	7.0	21.5	3 22	13 48.68	- 28 2.8	1.878	2.741	12.6	21.4
4 1	13 35.27	+ 4 39.5	2.409	3.380	4.7	21.4	4 1	13 39.62	- 28 23.7	1.815	2.741	9.7	21.2
4 11	13 28.17	+ 5 30.5	2.404	3.385	4.1	21.3	4 11	13 29.01	- 28 22.0	1.777	2.740	7.3	21.1
4 21	13 20.98	+ 6 11.2	2.428	3.390	5.8	21.4	4 21	13 17.95	- 27 58.3	1.766	2.738	6.7	21.0
5 1	13 14.39	+ 6 38.2	2.480	3.395	8.3	21.6	5 1	13 7.67	- 27 16.9	1.782	2.736	8.4	21.1
5 11	13 8.97	+ 6 49.7	2.556	3.399	10.8	21.8	5 11	12 59.23	- 26 25.2	1.823	2.733	11.2	21.3
5 21	13 5.08	+ 6 45.6	2.653	3.403	13.0	21.9	5 21	12 53.30	- 25 31.0	1.887	2.730	14.2	21.5
<b>298836</b>	2004 <i>RQ</i> <sub>179</sub>		4 13.1 169°10'	1°7'	14.6	18	<b>292174</b>	2006 <i>SM</i> <sub>15</sub>		4 13.2 266°76'	2°6'	15.1	17
3 12	13 51.13	- 16 41.7	1.649	2.490	15.0	20.9	3 12	13 52.10	- 16 57.9	1.739	2.575	14.6	21.2
3 22	13 45.58	- 16 3.9	1.575	2.493	11.2	20.7	3 22	13 46.52	- 16 58.1	1.642	2.555	11.1	20.9
4 1	13 37.78	- 15 6.9	1.524	2.496	6.8	20.4	4 1	13 38.51	- 16 41.8	1.567	2.535	7.2	20.6
4 11	13 28.64	- 13 54.8	1.499	2.498	2.5	20.1	4 11	13 28.83	- 16 10.0	1.519	2.515	3.3	20.3
4 21	13 19.27	- 12 34.2	1.502	2.499	3.6	20.2	4 21	13 18.57	- 15 26.4	1.497	2.494	3.9	20.3
5 1	13 10.84	- 11 13.5	1.532	2.500	8.1	20.5	5 1	13 8.96	- 14 36.8	1.503	2.472	8.2	20.5
5 11	13 4.30	- 10 1.2	1.586	2.501	12.3	20.7	5 11	13 1.11	- 13 48.8	1.534	2.451	12.5	20.7
5 21	13 0.21	- 9 3.2	1.662	2.501	16.0	21.0	5 21	12 55.75	- 13 8.7	1.585	2.429	16.4	20.9
<b>183309</b>	2002 <i>VQ</i>		4 13.1 289°91'	0°5'	12.3	18	<b>47377</b>	1999 <i>XY</i> <sub>94</sub>		4 13.2 255°19'	8°5'	4.7	18
3 12	13 41.21	- 7 34.0	4.203	5.052	6.4	20.8	3 12	13 51.02	+ 11 43.9	1.824	2.691	12.6	18.8
3 22	13 37.39	- 7 14.7	4.119	5.047	4.6	20.7	3 22	13 45.40	+ 13 12.9	1.755	2.675	10.2	18.6
4 1	13 32.78	- 6 51.9	4.062	5.042	2.5	20.5	4 1	13 37.68	+ 14 34.8	1.711	2.657	8.6	18.5
4 11	13 27.72	- 6 27.6	4.035	5.036	0.6	20.3	4 11	13 28.66	+ 15 40.2	1.693	2.640	8.9	18.5
4 21	13 22.58	- 6 3.7	4.038	5.031	2.0	20.5	4 21	13 19.32	+ 16 22.0	1.700	2.621	10.9	18.5
5 1	13 17.71	- 5 42.3	4.071	5.026	4.1	20.6	5 1	13 10.73	+ 16 35.6	1.731	2.603	13.7	18.7
5 11	13 13.48	- 5 25.4	4.132	5.021	6.0	20.8	5 11	13 3.81	+ 16 20.8	1.783	2.584	16.5	18.8
5 21	13 10.12	- 5 14.2	4.218	5.016	7.8	20.9	5 21	12 59.13	+ 15 40.1	1.852	2.564	19.0	19.0
<b>385416</b>	2003 <i>AF</i> <sub>85</sub>		4 13.1 71°68'</										

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4 13.2

4 13.2

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>63289</b>	2001 <i>DJ</i> <sub>81</sub>		4 13.2 28°05'	5°1/9.3	18		<b>93671</b>	2000 <i>UQ</i> <sub>112</sub>		4 13.2 218°02'	0°6/13.7	18	
3 12	13 50.16	+ 0 34.2	1.449	2.332	14.3	19.0	3 12	13 49.61	-13 2.5	2.345	3.184	11.2	21.3
3 22	13 44.97	+ 1 35.3	1.392	2.334	10.4	18.7	3 22	13 44.02	-12 34.9	2.255	3.175	8.2	21.0
4 1	13 37.46	+ 2 38.1	1.358	2.336	6.6	18.5	4 1	13 36.78	-11 56.2	2.191	3.165	4.8	20.8
4 11	13 28.61	+ 3 34.0	1.349	2.338	5.2	18.4	4 11	13 28.51	-11 9.3	2.154	3.155	1.2	20.5
4 21	13 19.58	+ 4 15.4	1.365	2.340	7.8	18.6	4 21	13 19.98	-10 18.3	2.148	3.144	2.8	20.6
5 1	13 11.59	+ 4 36.5	1.406	2.343	11.8	18.8	5 1	13 12.03	- 9 28.2	2.170	3.133	6.5	20.9
5 11	13 5.58	+ 4 35.1	1.469	2.345	15.5	19.0	5 11	13 5.35	- 8 43.8	2.219	3.121	9.9	21.0
5 21	13 2.10	+ 4 11.9	1.550	2.348	18.8	19.3	5 21	13 0.46	- 8 9.0	2.292	3.109	12.9	21.2
<b>51234</b>	2000 <i>JZ</i> <sub>31</sub>		4 13.2 160°42'	0°3/12.8	18		<b>16847</b>	Sanpolaomosciano		4 13.2 147°37'	5°5/19.4	18	R
3 12	13 49.96	- 8 53.7	2.386	3.234	10.7	19.0	3 12	13 50.80	-29 17.7	2.216	2.983	14.1	17.9
3 22	13 44.13	- 8 41.8	2.311	3.237	7.7	18.8	3 22	13 45.00	-29 8.3	2.136	2.992	11.6	17.7
4 1	13 36.75	- 8 23.1	2.262	3.241	4.3	18.6	4 1	13 37.34	-28 36.5	2.078	3.001	8.8	17.6
4 11	13 28.47	- 8 0.6	2.242	3.243	0.8	18.3	4 11	13 28.60	-27 42.6	2.046	3.009	6.4	17.4
4 21	13 20.04	- 7 37.6	2.251	3.246	3.0	18.5	4 21	13 19.71	-26 29.7	2.041	3.017	5.6	17.4
5 1	13 12.22	- 7 17.6	2.289	3.248	6.5	18.8	5 1	13 11.63	-25 3.9	2.064	3.024	7.1	17.5
5 11	13 5.70	- 7 4.0	2.354	3.251	9.6	19.0	5 11	13 5.13	-23 33.1	2.114	3.030	9.6	17.7
5 21	13 0.90	- 6 59.1	2.442	3.252	12.4	19.1	5 21	13 0.71	-22 4.9	2.188	3.036	12.3	17.8
<b>374972</b>	2007 <i>DA</i> <sub>50</sub>		4 13.2 10°35'	2°4/14.8	17		<b>28017</b>	1997 <i>YV</i> <sub>13</sub>		4 13.2 152°27'	1°7/15.2	18	
3 12	13 48.88	-15 38.9	1.398	2.256	16.2	20.2	3 12	13 50.67	-17 40.8	2.694	3.508	10.7	19.1
3 22	13 44.30	-15 42.1	1.332	2.257	12.2	19.9	3 22	13 44.48	-17 15.6	2.619	3.520	8.0	18.9
4 1	13 37.20	-15 27.7	1.286	2.260	7.6	19.7	4 1	13 36.89	-16 38.1	2.569	3.532	5.0	18.7
4 11	13 28.58	-14 58.3	1.265	2.263	3.1	19.4	4 11	13 28.51	-15 50.6	2.548	3.543	2.2	18.5
4 21	13 19.65	-14 18.7	1.269	2.266	4.0	19.5	4 21	13 20.05	-14 56.5	2.557	3.553	2.6	18.6
5 1	13 11.75	-13 36.1	1.297	2.271	8.7	19.7	5 1	13 12.21	-14 0.5	2.597	3.562	5.5	18.8
5 11	13 5.93	-12 58.2	1.349	2.276	13.1	20.0	5 11	13 5.60	-13 7.2	2.665	3.570	8.3	19.0
5 21	13 2.80	-12 30.7	1.421	2.282	17.0	20.3	5 21	13 0.61	-12 20.6	2.758	3.578	10.9	19.2
<b>87646</b>	2000 <i>RB</i> <sub>78</sub>		4 13.2 230°88'	3°5/17.2	18		<b>496721</b>	2016 <i>GY</i> <sub>18</sub>		4 13.2 102°78'	1°0/13.9	16	
3 12	13 47.21	-23 3.6	2.545	3.343	11.6	19.7	3 12	13 52.95	-13 23.8	1.697	2.544	14.4	22.3
3 22	13 42.26	-22 54.2	2.452	3.337	9.2	19.5	3 22	13 46.69	-13 6.6	1.638	2.561	10.5	22.1
4 1	13 35.76	-22 28.9	2.383	3.330	6.5	19.3	4 1	13 38.32	-12 35.9	1.602	2.577	6.2	21.9
4 11	13 28.30	-21 48.6	2.340	3.322	4.1	19.1	4 11	13 28.77	-11 55.1	1.593	2.593	1.7	21.6
4 21	13 20.62	-20 56.3	2.326	3.315	3.7	19.1	4 21	13 19.15	-11 9.7	1.612	2.609	3.5	21.8
5 1	13 13.47	-19 56.3	2.341	3.307	5.9	19.2	5 1	13 10.55	-10 25.8	1.658	2.624	7.8	22.0
5 11	13 7.54	-18 54.2	2.383	3.299	8.7	19.4	5 11	13 3.85	- 9 49.3	1.729	2.639	11.7	22.3
5 21	13 3.29	-17 55.3	2.449	3.291	11.4	19.5	5 21	12 59.51	- 9 24.1	1.821	2.654	15.0	22.6
<b>190385</b>	1999 <i>RP</i> <sub>202</sub>		4 13.2 125°88'	1°6/15.0	17		<b>462307</b>	2008 <i>GR</i> <sub>84</sub>		4 13.2 161°53'	2°4/10.8	16	
3 12	13 48.97	-17 21.4	2.404	3.227	11.5	20.6	3 12	13 49.95	- 4 47.6	2.024	2.887	11.7	21.2
3 22	13 43.35	-16 45.4	2.336	3.244	8.6	20.4	3 22	13 44.30	- 3 50.1	1.958	2.893	8.3	21.0
4 1	13 36.27	-15 56.1	2.293	3.260	5.3	20.2	4 1	13 36.91	- 2 46.7	1.917	2.898	4.7	20.8
4 11	13 28.38	-14 56.3	2.279	3.276	2.1	20.0	4 11	13 28.53	- 1 43.0	1.905	2.902	2.4	20.7
4 21	13 20.44	-13 50.5	2.294	3.291	2.7	20.1	4 21	13 20.03	- 0 45.0	1.921	2.906	4.9	20.8
5 1	13 13.20	-12 44.2	2.339	3.305	5.9	20.3	5 1	13 12.28	+ 0 1.9	1.965	2.909	8.5	21.1
5 11	13 7.29	-11 42.8	2.411	3.319	9.0	20.5	5 11	13 6.03	+ 0 33.8	2.034	2.912	11.8	21.3
5 21	13 3.10	-10 50.3	2.507	3.333	11.6	20.7	5 21	13 1.73	+ 0 49.2	2.125	2.914	14.6	21.5
<b>141332</b>	2001 <i>YB</i> <sub>153</sub>		4 13.2 112°11'	2°0/11.3	18		<b>55681</b>	1143 <i>T</i> <sub>-2</sub>		4 13.2 157°90'	1°6/14.4	18	
3 12	13 50.60	- 2 46.3	2.420	3.277	10.2	20.2	3 12	13 54.63	-15 21.7	1.663	2.503	15.0	20.3
3 22	13 44.50	- 2 34.4	2.354	3.285	7.3	20.0	3 22	13 48.09	-15 4.0	1.592	2.510	11.1	20.1
4 1	13 36.92	- 2 20.6	2.314	3.293	4.2	19.8	4 1	13 39.22	-14 30.0	1.545	2.517	6.8	19.9
4 11	13 28.51	- 2 8.0	2.304	3.301	2.0	19.6	4 11	13 28.96	-13 42.7	1.524	2.523	2.4	19.6
4 21	13 20.00	- 1 59.8	2.322	3.309	4.0	19.8	4 21	13 18.49	-12 47.5	1.530	2.528	3.6	19.7
5 1	13 12.15	- 1 58.8	2.370	3.316	7.1	20.0	5 1	13 9.01	-11 51.4	1.565	2.532	8.1	20.0
5 11	13 5.59	- 2 6.8	2.444	3.324	10.0	20.2	5 11	13 1.51	-11 1.8	1.624	2.536	12.3	20.2
5 21	13 0.73	- 2 24.7	2.541	3.331	12.5	20.4	5 21	12 56.55	-10 23.7	1.705	2.539	15.9	20.4
<b>126803</b>	2002 <i>EV</i> <sub>29</sub>		4 13.2 321°23'	0°5/12.8	17		<b>253123</b>	2002 <i>VG</i> <sub>9</sub>		4 13.2 100°58'	0°1/13.2	18	R
3 12	13 48.36	- 9 43.5	1.652	2.518	13.8	20.1	3 12	13 55.09	-10 12.8	1.832	2.680	13.4	20.8
3 22	13 43.65	- 9 19.6	1.574	2.509	10.0	19.8	3 22	13 48.03	-10 6.3	1.777	2.702	9.7	20.6
4 1	13 36.76	- 8 44.4	1.519	2.500	5.6	19.6	4 1	13 39.00	- 9 50.5	1.746	2.723	5.5	20.4
4 11	13 28.52	- 8 2.5	1.490	2.492	1.0	19.2	4 11	13 28.90	- 9 28.6	1.743	2.744	1.0	20.2
4 21	13 19.93	- 7 19.2	1.488	2.484	4.0	19.4	4 21	13 18.78	- 9 4.8	1.769	2.765	3.4	20.4
5 1	13 12.13	- 6 40.9	1.511	2.476	8.6	19.7	5 1	13 9.69	- 8 43.7	1.823	2.785	7.6	20.7
5 11	13 6.05	- 6 13.2	1.559	2.469	12.8	19.9	5 11	13 2.42	- 8 29.5	1.902	2.804	11.3	20.9
5 21	13 2.31	- 5 59.6	1.627	2.462	16.4	20.1	5 21	12 57.43	- 8 24.9	2.004	2.823	14.3	21.2
<b>278228</b>	2007 <i>EN</i> <sub>98</sub>		4 13.2 7°18'	0°3/12.9	17		<b>325787</b>	2010 <i>PS</i> <sub>58</sub>		4 13.2 171°40'	2°9/9.9	17	
3 12	13 48.46	- 9 57.0	1.402	2.275	15.3	20.6	3 12	13 50.74	- 2 29.4	2.314	3.173	10.6	22.4
3 22	13 43.92	- 9 40.1	1.338	2.275	11.1	20.3	3 22	13 44.68	- 1 26.8	2.246	3.178	7.5	22.2
4 1	13 36.96	- 9 10.9	1.295	2.277	6.3	20.0	4 1	13 37.06	- 0 20.3	2.205	3.183	4.5	22.0
4 11	13 28.55	- 8 34.3	1.277	2.279	1.1	19.7	4 11	13 28.56	+ 0 44.3	2.193	3.186	2.9	21.9
4 21	13 19.88	- 7 56.3	1.285	2.282	4.2	19.9	4 21	13 19.95	+ 1 41.9	2.211	3.189	5.0	22.1
5 1	13 12.21	- 7 23.7	1.317	2.285	9.2	20.2	5 1	13 12.01	+ 2 27.5	2.258	3.190	8.2	22.3
5 11	13 6.56	- 7 2.3	1.372	2.289	13.7	20.5	5 11	13 5.42	+ 2 58.3	2.330	3.191	11.1	22.4
5 21	13 3.50	- 6 55.4	1.447	2.294	17.5	20.7	5 21	13 0.59	+ 3 13.0	2.424	3.191	13.7	22.6
<b>369712</b>	2012 <i>DR</i> <sub>40</sub>		4 13.2 298°18'	2°7/15.2	17		<b>151086</b>	2001 <i>VE</i> <sub>84</sub>		4 13.2 104°43'	3°1/10.		

EPHEMERIDES

4 13.2

4 13.2

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>67359</b>	2000 <i>KU</i> <sub>37</sub>		4 13.2 185°29	1°5/11.5	18		<b>99418</b>	2002 <i>AR</i> <sub>151</sub>		4 13.2 341°00	8°4/ 3.1	17	
3 12	13 47.20	- 6 25.1	2.337	3.196	10.5	20.3	3 12	13 45.27	+14 0.6	2.032	2.900	11.4	19.1
3 22	13 42.19	- 5 42.1	2.263	3.196	7.5	20.1	3 22	13 41.02	+15 33.9	1.980	2.895	9.5	18.9
4 1	13 35.69	- 4 52.9	2.215	3.196	4.1	19.9	4 1	13 35.12	+16 57.6	1.954	2.890	8.5	18.8
4 11	13 28.32	- 4 1.8	2.196	3.195	1.5	19.7	4 11	13 28.27	+18 3.8	1.954	2.886	8.9	18.9
4 21	13 20.80	- 3 13.5	2.205	3.195	3.8	19.9	4 21	13 21.28	+18 46.7	1.978	2.881	10.6	18.9
5 1	13 13.88	- 2 32.5	2.243	3.194	7.2	20.1	5 1	13 14.98	+19 3.1	2.026	2.878	12.8	19.1
5 11	13 8.20	- 2 2.4	2.307	3.193	10.3	20.3	5 11	13 10.08	+18 53.1	2.093	2.874	15.0	19.2
5 21	13 4.19	- 1 45.3	2.393	3.191	12.9	20.5	5 21	13 7.02	+18 19.3	2.177	2.871	17.0	19.4
<b>58551</b>	1997 <i>GP</i> <sub>28</sub>		4 13.2 358°04	5°6/ 6.7	18		<b>9462</b>	1998 <i>HC</i> <sub>37</sub>		4 13.2 265°21	0°9/13.9	18	
3 12	13 45.53	+ 6 14.4	2.181	3.055	10.5	20.1	3 12	13 51.50	-13 27.8	1.744	2.592	14.0	18.3
3 22	13 41.05	+ 7 27.1	2.122	3.054	8.0	19.9	3 22	13 46.05	-13 7.3	1.648	2.571	10.4	18.0
4 1	13 35.06	+ 8 36.7	2.090	3.054	6.0	19.8	4 1	13 38.26	-12 31.9	1.575	2.550	6.2	17.7
4 11	13 28.21	+ 9 36.6	2.085	3.053	5.8	19.8	4 11	13 28.88	-11 44.4	1.528	2.528	1.7	17.3
4 21	13 21.25	+10 21.3	2.107	3.053	7.6	19.9	4 21	13 18.96	-10 49.8	1.508	2.506	3.6	17.4
5 1	13 14.92	+10 47.2	2.154	3.053	10.2	20.0	5 1	13 9.67	- 9 54.9	1.516	2.483	8.4	17.7
5 11	13 9.89	+10 52.9	2.225	3.054	12.7	20.2	5 11	13 2.10	- 9 6.8	1.549	2.460	12.8	17.9
5 21	13 6.56	+10 39.1	2.314	3.054	14.9	20.4	5 21	12 56.94	- 8 31.0	1.603	2.436	16.7	18.0
<b>226362</b>	2003 <i>HY</i> <sub>27</sub>		4 13.2 13°99	3°1/16.1	17		<b>307053</b>	2001 <i>YY</i> <sub>69</sub>		4 13.2 186°85	2°5/15.8	17	
3 12	13 45.39	-20 41.3	1.450	2.294	16.6	19.5	3 12	13 50.97	-19 12.6	2.422	3.234	11.8	21.5
3 22	13 41.71	-20 0.3	1.381	2.296	12.7	19.3	3 22	13 44.99	-19 1.7	2.336	3.234	9.0	21.3
4 1	13 35.72	-18 53.9	1.333	2.300	8.3	19.0	4 1	13 37.34	-18 36.6	2.274	3.233	5.9	21.1
4 11	13 28.36	-17 25.9	1.309	2.304	4.1	18.8	4 11	13 28.68	-17 58.8	2.240	3.231	3.1	20.9
4 21	13 20.78	-15 44.1	1.311	2.308	4.1	18.8	4 21	13 19.81	-17 11.4	2.235	3.229	3.2	20.9
5 1	13 14.20	-13 59.2	1.338	2.314	8.2	19.0	5 1	13 11.55	-16 19.2	2.260	3.226	6.1	21.1
5 11	13 9.57	-12 22.0	1.390	2.320	12.6	19.3	5 11	13 4.62	-15 27.7	2.312	3.222	9.2	21.3
5 21	13 7.42	-11 0.5	1.462	2.326	16.4	19.5	5 21	12 59.51	-14 41.4	2.388	3.218	12.0	21.5
<b>311566</b>	2006 <i>DK</i> <sub>150</sub>		4 13.2 287°86	2°9/15.2	17		<b>272772</b>	2005 <i>YG</i> <sub>186</sub>		4 13.2 92°89	4°8/18.2	18	
3 12	13 51.17	-17 5.2	1.429	2.277	16.5	20.7	3 12	13 49.35	-25 46.7	1.931	2.728	14.8	20.3
3 22	13 46.24	-17 6.8	1.340	2.260	12.6	20.5	3 22	13 44.11	-25 31.6	1.861	2.741	11.9	20.2
4 1	13 38.53	-16 49.0	1.273	2.243	8.1	20.1	4 1	13 36.91	-24 53.8	1.812	2.754	8.6	20.0
4 11	13 28.92	-16 12.8	1.229	2.226	3.7	19.8	4 11	13 28.60	-23 55.0	1.789	2.767	5.7	19.8
4 21	13 18.64	-15 22.5	1.211	2.208	4.4	19.8	4 21	13 20.17	-22 39.3	1.793	2.780	4.9	19.8
5 1	13 9.17	-14 25.8	1.219	2.191	9.2	20.0	5 1	13 12.63	-21 14.0	1.825	2.792	7.1	20.0
5 11	13 1.80	-13 31.7	1.249	2.174	14.1	20.3	5 11	13 6.80	-19 47.5	1.882	2.805	10.3	20.2
5 21	12 57.33	-12 48.0	1.299	2.157	18.4	20.5	5 21	13 3.14	-18 27.2	1.963	2.817	13.3	20.4
<b>257070</b>	2008 <i>FV</i> <sub>113</sub>		4 13.2 93°68	1°1/12.0	18		<b>198961</b>	2005 <i>UC</i> <sub>430</sub>		4 13.2 31°58	3°0/15.4	18	
3 12	13 47.65	-11 16.6	1.671	2.533	13.8	20.4	3 12	13 49.02	-18 20.5	1.157	2.017	18.7	20.2
3 22	13 42.90	- 9 47.8	1.610	2.544	9.8	20.2	3 22	13 44.76	-17 58.8	1.097	2.022	14.2	19.9
4 1	13 36.21	- 8 4.1	1.574	2.555	5.4	20.0	4 1	13 37.63	-17 11.2	1.056	2.029	9.0	19.7
4 11	13 28.43	- 6 13.5	1.564	2.565	1.2	19.7	4 11	13 28.76	-16 1.7	1.038	2.035	4.0	19.4
4 21	13 20.58	- 4 25.3	1.583	2.576	4.4	19.9	4 21	13 19.63	-14 38.5	1.044	2.043	4.5	19.4
5 1	13 13.65	- 2 48.6	1.629	2.586	8.8	20.2	5 1	13 11.79	-13 13.0	1.074	2.051	9.6	19.7
5 11	13 8.44	- 1 30.4	1.700	2.596	12.7	20.5	5 11	13 6.41	-11 56.9	1.126	2.059	14.6	20.0
5 21	13 5.41	- 0 34.2	1.792	2.606	16.0	20.7	5 21	13 4.07	-10 58.0	1.197	2.068	18.9	20.3
<b>13423</b>	Bobwoolley		4 13.2 186°46	2°0/15.2	18		<b>10780</b>	Apollinaire		4 13.2 342°64	5°5/ 9.0	18	
3 12	13 49.13	-17 13.3	2.126	2.955	12.5	17.8	3 12	13 45.97	+ 0 24.9	1.278	2.173	14.9	17.5
3 22	13 43.81	-16 57.5	2.045	2.955	9.5	17.6	3 22	13 42.35	+ 1 27.4	1.213	2.161	10.9	17.3
4 1	13 36.71	-16 27.1	1.988	2.955	6.0	17.4	4 1	13 36.22	+ 2 33.1	1.169	2.150	7.0	17.0
4 11	13 28.53	-15 44.5	1.958	2.954	2.6	17.2	4 11	13 28.52	+ 3 32.4	1.150	2.140	5.6	16.9
4 21	13 20.14	-14 53.6	1.957	2.953	3.1	17.2	4 21	13 20.46	+ 4 16.3	1.154	2.131	8.5	17.0
5 1	13 12.43	-13 59.8	1.984	2.952	6.6	17.4	5 1	13 13.37	+ 4 37.7	1.180	2.123	12.9	17.3
5 11	13 6.16	-13 9.0	2.037	2.951	10.1	17.6	5 11	13 8.32	+ 4 33.4	1.227	2.117	17.0	17.5
5 21	13 1.84	-12 26.1	2.113	2.949	13.1	17.8	5 21	13 5.94	+ 4 4.0	1.291	2.112	20.7	17.7
<b>303808</b>	2005 <i>SR</i> <sub>60</sub>		4 13.2 151°33	1°9/14.7	18		<b>370468</b>	2003 <i>EX</i> <sub>46</sub>		4 13.2 251°79	2°4/15.1	17	
3 12	13 55.87	-14 24.2	2.602	3.419	10.9	20.7	3 12	13 51.88	-16 34.9	1.966	2.797	13.3	20.7
3 22	13 48.39	-15 0.7	2.518	3.423	8.2	20.5	3 22	13 46.10	-16 39.3	1.873	2.784	10.1	20.4
4 1	13 39.22	-15 29.0	2.461	3.426	5.1	20.4	4 1	13 38.18	-16 29.6	1.803	2.770	6.5	20.2
4 11	13 29.00	-15 49.3	2.433	3.428	2.3	20.2	4 11	13 28.88	-16 7.1	1.761	2.756	3.0	19.9
4 21	13 18.53	-16 2.7	2.437	3.431	2.9	20.2	4 21	13 19.14	-15 34.7	1.746	2.742	3.5	19.9
5 1	13 8.64	-16 11.3	2.472	3.434	5.9	20.4	5 1	13 10.03	-14 57.4	1.759	2.727	7.3	20.1
5 11	13 0.05	-16 18.1	2.535	3.436	8.9	20.6	5 11	13 2.49	-14 21.1	1.798	2.713	11.2	20.3
5 21	12 53.28	-16 26.0	2.623	3.438	11.5	20.8	5 21	12 57.17	-13 51.1	1.860	2.697	14.6	20.5
<b>124489</b>	2001 <i>RB</i> <sub>36</sub>		4 13.2 260°84	1°7/14.4	17		<b>264653</b>	2001 <i>XE</i> <sub>60</sub>		4 13.2 84°47	10°3/ 4.1	18	
3 12	13 52.01	-15 34.2	1.555	2.402	15.4	20.0	3 12	13 53.60	+18 51.3	1.794	2.644	13.5	20.1
3 22	13 46.66	-15 12.7	1.462	2.384	11.6	19.7	3 22	13 46.90	+20 6.6	1.769	2.665	11.5	20.0
4 1	13 38.70	-14 32.4	1.391	2.365	7.2	19.4	4 1	13 38.32	+21 4.2	1.768	2.686	10.4	19.9
4 11	13 28.96	-13 35.8	1.346	2.345	2.5	19.1	4 11	13 28.84	+21 36.5	1.791	2.706	10.7	20.0
4 21	13 18.61	-12 28.4	1.327	2.325	3.9	19.1	4 21	13 19.52	+21 39.7	1.839	2.726	12.1	20.1
5 1	13 9.00	-11 18.4	1.335	2.304	9.0	19.3	5 1	13 11.35	+21 13.7	1.909	2.746	14.1	20.3
5 11	13 1.34	-10 14.9	1.366	2.283	13.8	19.6	5 11	13 5.05	+20 21.5	1.999	2.766	16.1	20.5
5 21	12 56.39	- 9 24.7	1.418	2.262	18.0	19.8	5 21	13 0.99	+19 8.2	2.106	2.785	17.8	20.7
<b>233252</b>	2005 <i>YS</i> <sub>123</sub>		4 13.2 224°69	6°5/ 6.2	17		<b>2247</b>	Hiroshima		4 13.2 163°84	1°0/14.0	18	

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>206235</b>	2002 <i>WO</i> <sub>5</sub>		4 13.2 195°94	5°3/ 5.8	18		<b>208343</b>	2001 <i>QZ</i> <sub>239</sub>		4 13.2 251°37	3°3/16.3	17	
3 12	13 46.56	+ 7 42.3	2.663	3.528	9.2	20.5	3 12	13 49.78	-20 11.8	2.251	3.065	12.5	20.7
3 22	13 41.61	+ 9 4.6	2.601	3.525	7.1	20.3	3 22	13 44.35	-20 22.3	2.162	3.059	9.7	20.5
4 1	13 35.35	+10 23.6	2.566	3.522	5.6	20.2	4 1	13 37.10	-20 18.2	2.097	3.052	6.6	20.3
4 11	13 28.34	+11 33.6	2.560	3.518	5.6	20.2	4 11	13 28.72	-20 0.1	2.058	3.045	3.9	20.1
4 21	13 21.21	+12 29.6	2.582	3.514	7.2	20.3	4 21	13 20.02	-19 30.4	2.047	3.039	3.8	20.1
5 1	13 14.61	+13 8.1	2.631	3.510	9.3	20.4	5 1	13 11.91	-18 53.1	2.065	3.032	6.5	20.3
5 11	13 9.09	+13 27.7	2.704	3.505	11.5	20.6	5 11	13 5.19	-18 13.9	2.109	3.025	9.7	20.5
5 21	13 5.04	+13 28.9	2.796	3.499	13.4	20.7	5 21	13 0.39	-17 37.6	2.176	3.018	12.6	20.6
<b>33167</b>	1998 <i>EJ</i> <sub>9</sub>		4 13.2 105°65	11°5/31.1	18		<b>265686</b>	2005 <i>UX</i> <sub>98</sub>		4 13.2 114°49	1°5/11.7	18	
3 12	13 50.16	+22 13.6	1.853	2.698	13.4	18.2	3 12	13 49.25	- 7 42.5	1.882	2.744	12.5	20.6
3 22	13 44.59	+24 6.5	1.828	2.709	12.0	18.1	3 22	13 43.92	- 6 50.4	1.820	2.754	8.9	20.4
4 1	13 37.12	+25 39.7	1.826	2.719	11.5	18.1	4 1	13 36.79	- 5 49.7	1.783	2.764	4.9	20.2
4 11	13 28.66	+26 44.5	1.848	2.729	12.2	18.1	4 11	13 28.65	- 4 46.1	1.774	2.774	1.6	20.0
4 21	13 20.21	+27 16.3	1.892	2.739	13.7	18.3	4 21	13 20.41	- 3 45.6	1.793	2.784	4.3	20.2
5 1	13 12.75	+27 14.0	1.958	2.749	15.5	18.4	5 1	13 13.01	- 2 54.4	1.839	2.793	8.2	20.4
5 11	13 7.03	+26 40.6	2.040	2.758	17.2	18.6	5 11	13 7.18	- 2 16.9	1.910	2.802	11.7	20.7
5 21	13 3.47	+25 41.3	2.137	2.768	18.7	18.7	5 21	13 3.38	- 1 55.3	2.002	2.810	14.7	20.9
<b>497926</b>	2006 <i>VL</i> <sub>121</sub>		4 13.2 153°29	2°8/17.3	18		<b>475800</b>	2006 <i>XJ</i> <sub>62</sub>		4 13.2 223°93	5°0/19.8	18	
3 12	13 46.99	-23 12.7	3.152	3.939	9.9	21.8	3 12	13 48.69	-30 20.8	3.062	3.806	11.1	22.3
3 22	13 41.79	-22 50.5	3.070	3.948	7.7	21.7	3 22	13 43.27	-30 28.4	2.958	3.795	9.3	22.2
4 1	13 35.41	-22 14.9	3.012	3.957	5.4	21.5	4 1	13 36.39	-30 19.4	2.878	3.784	7.3	22.0
4 11	13 28.36	-21 27.3	2.983	3.965	3.3	21.4	4 11	13 28.59	-29 53.6	2.823	3.772	5.6	21.9
4 21	13 21.23	-20 30.7	2.984	3.973	3.0	21.4	4 21	13 20.53	-29 12.3	2.796	3.760	5.0	21.8
5 1	13 14.60	-19 28.7	3.015	3.980	4.8	21.5	5 1	13 12.93	-28 18.5	2.798	3.747	6.0	21.9
5 11	13 8.98	-18 26.0	3.074	3.986	7.1	21.7	5 11	13 6.41	-27 17.0	2.828	3.734	7.9	22.0
5 21	13 4.73	-17 26.7	3.159	3.992	9.3	21.8	5 21	13 1.45	-26 13.0	2.883	3.720	10.0	22.1
<b>312897</b>	2011 <i>UH</i> <sub>285</sub>		4 13.2 238°50	4°5/ 7.4	17		<b>57127</b>	2001 <i>OV</i> <sub>106</sub>		4 13.2 161°46	4°7/16.8	18	
3 12	13 46.35	+ 4 25.7	2.584	3.451	9.3	21.8	3 12	13 54.49	-22 10.8	1.637	2.453	16.3	19.4
3 22	13 41.54	+ 5 33.5	2.509	3.440	7.0	21.6	3 22	13 48.25	-22 21.3	1.561	2.457	12.8	19.2
4 1	13 35.36	+ 6 40.4	2.461	3.428	5.0	21.5	4 1	13 39.49	-22 10.1	1.508	2.461	8.9	19.0
4 11	13 28.36	+ 7 41.0	2.442	3.416	4.7	21.4	4 11	13 29.18	-21 37.6	1.479	2.465	5.5	18.8
4 21	13 21.19	+ 8 30.4	2.451	3.403	6.4	21.5	4 21	13 18.53	-20 47.3	1.477	2.468	5.1	18.7
5 1	13 14.51	+ 9 4.8	2.488	3.391	8.8	21.6	5 1	13 8.86	-19 46.0	1.502	2.470	8.3	18.9
5 11	13 8.92	+ 9 22.3	2.548	3.378	11.3	21.8	5 11	13 1.26	-18 42.5	1.551	2.472	12.2	19.1
5 21	13 4.83	+ 9 22.5	2.629	3.364	13.4	21.9	5 21	12 56.36	-17 44.9	1.622	2.474	15.7	19.4
<b>195452</b>	2002 <i>GQ</i> <sub>90</sub>		4 13.2 249°93	1°4/11.9	18		<b>372634</b>	2009 <i>VV</i> <sub>79</sub>		4 13.2 192°46	4°8/ 7.2	17	
3 12	13 50.17	- 6 35.0	1.923	2.785	12.3	20.1	3 12	13 48.89	+ 4 45.9	2.495	3.358	9.7	21.9
3 22	13 44.69	- 6 10.5	1.846	2.780	8.8	19.8	3 22	13 43.36	+ 6 3.8	2.428	3.356	7.3	21.7
4 1	13 37.29	- 5 39.0	1.795	2.775	4.9	19.6	4 1	13 36.39	+ 7 20.6	2.389	3.353	5.3	21.6
4 11	13 28.73	- 5 5.0	1.770	2.771	1.5	19.3	4 11	13 28.58	+ 8 29.9	2.378	3.350	5.0	21.5
4 21	13 19.91	- 4 33.1	1.774	2.766	4.1	19.5	4 21	13 20.64	+ 9 26.7	2.397	3.345	6.7	21.6
5 1	13 11.82	- 4 8.3	1.805	2.761	8.2	19.8	5 1	13 13.28	+10 6.9	2.443	3.340	9.2	21.8
5 11	13 5.27	- 3 54.3	1.861	2.756	11.8	20.0	5 11	13 7.11	+10 28.6	2.514	3.334	11.7	21.9
5 21	13 0.79	- 3 53.3	1.938	2.751	15.0	20.2	5 21	13 2.55	+10 32.0	2.605	3.328	13.8	22.1
<b>341731</b>	2007 <i>VR</i> <sub>332</sub>		4 13.2 137°75	0°3/13.5	17		<b>428771</b>	2008 <i>SE</i> <sub>194</sub>		4 13.2 133°58	2°8/10.5	17	
3 12	13 47.67	-12 12.2	2.493	3.335	10.5	21.7	3 12	13 48.44	- 3 18.6	2.037	2.904	11.4	21.2
3 22	13 42.47	-11 41.4	2.422	3.343	7.6	21.5	3 22	13 43.26	- 2 27.2	1.972	2.909	8.2	21.0
4 1	13 35.86	-11 1.2	2.376	3.352	4.4	21.3	4 1	13 36.41	- 1 31.5	1.933	2.913	4.7	20.8
4 11	13 28.45	-10 14.9	2.359	3.360	0.9	21.0	4 11	13 28.60	- 0 37.0	1.922	2.917	2.8	20.6
4 21	13 20.94	- 9 26.5	2.371	3.367	2.6	21.2	4 21	13 20.67	+ 0 10.7	1.939	2.921	5.1	20.8
5 1	13 14.04	- 8 40.3	2.412	3.375	6.0	21.4	5 1	13 13.46	+ 0 46.9	1.983	2.925	8.5	21.0
5 11	13 8.34	- 8 0.5	2.480	3.382	9.0	21.6	5 11	13 7.69	+ 1 8.2	2.052	2.929	11.7	21.2
5 21	13 4.24	- 7 30.1	2.572	3.388	11.6	21.8	5 21	13 3.79	+ 1 13.6	2.141	2.933	14.5	21.4
<b>229094</b>	2004 <i>QT</i> <sub>4</sub>		4 13.2 174°61	1°9/11.1	17		<b>302341</b>	2002 <i>AT</i> <sub>138</sub>		4 13.2 20°95	3°1/10.1	17	
3 12	13 49.43	- 4 44.8	2.489	3.344	10.0	21.6	3 12	13 46.21	- 2 16.2	2.023	2.896	11.3	20.4
3 22	13 43.72	- 4 1.1	2.416	3.347	7.1	21.4	3 22	13 41.68	- 1 26.3	1.960	2.899	8.0	20.2
4 1	13 36.56	- 3 12.8	2.370	3.350	4.0	21.2	4 1	13 35.52	- 0 33.0	1.923	2.903	4.7	20.0
4 11	13 28.59	- 2 24.0	2.354	3.352	1.9	21.0	4 11	13 28.44	+ 0 18.0	1.912	2.907	3.1	19.9
4 21	13 20.48	- 1 39.3	2.367	3.353	4.0	21.2	4 21	13 21.24	+ 1 1.3	1.930	2.911	5.3	20.1
5 1	13 12.97	- 1 2.7	2.410	3.354	7.1	21.4	5 1	13 14.73	+ 1 32.4	1.974	2.915	8.6	20.3
5 11	13 6.68	- 0 37.2	2.478	3.353	10.0	21.5	5 11	13 9.61	+ 1 48.3	2.042	2.920	11.7	20.5
5 21	13 2.02	- 0 24.5	2.569	3.353	12.5	21.7	5 21	13 6.31	+ 1 48.2	2.131	2.925	14.4	20.7
<b>463106</b>	2011 <i>UU</i> <sub>96</sub>		4 13.2 110°57	0°4/13.5	18		<b>329296</b>	2000 <i>QF</i> <sub>199</sub>		4 13.2 202°23	2°0/10.9	18	
3 12	13 53.52	-12 25.6	1.616	2.467	14.7	22.6	3 12	13 49.02	- 5 21.8	2.305	3.163	10.6	21.5
3 22	13 47.20	-11 55.8	1.558	2.485	10.7	22.4	3 22	13 43.59	- 4 26.8	2.226	3.159	7.6	21.3
4 1	13 38.69	-11 12.3	1.524	2.501	6.1	22.2	4 1	13 36.59	- 3 25.4	2.174	3.154	4.3	21.1
4 11	13 28.97	-10 19.7	1.516	2.517	1.3	21.9	4 11	13 28.65	- 2 22.8	2.150	3.148	2.0	20.9
4 21	13 19.19	- 9 24.2	1.536	2.533	3.7	22.1	4 21	13 20.52	- 1 24.0	2.156	3.142	4.3	21.0
5 1	13 10.49	- 8 32.8	1.583	2.548	8.3	22.4	5 1	13 12.98	- 0 34.3	2.191	3.135	7.7	21.2
5 11	13 3.77	- 7 51.5	1.655	2.563	12.3	22.7	5 11	13 6.73	+ 0 2.5	2.251	3.128	10.9	21.4
5 21	12 59.50	- 7 24.2	1.748	2.577	15.7	22.9	5 21	13 2.21	+ 0 24.5	2.334	3.120	13.6	21.6
<b>366283</b>	2013 <i>AR</i> <sub>105</sub>		4 13.2 195°65	4°2/17.6	18		<b>67126</b>	2000 <i>AS</i> <sub>133</sub>					

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>192523</b>	1998 <i>RT</i> <sub>80</sub>		4 13.2 236°99	0.7/13.8	17		<b>121448</b>	1999 <i>TR</i> <sub>191</sub>		4 13.2 271°68	2.5/15.7	18	
3 12	13 53.75	-12 58.2	1.682	2.530	14.4	21.0	3 12	13 49.26	-18 13.7	2.577	3.393	11.0	19.9
3 22	13 47.74	-12 37.5	1.592	2.516	10.7	20.7	3 22	13 43.88	-18 19.6	2.471	3.372	8.5	19.7
4 1	13 39.27	-12 2.0	1.526	2.502	6.3	20.4	4 1	13 36.85	-18 13.7	2.390	3.350	5.6	19.5
4 11	13 29.20	-11 14.9	1.486	2.487	1.6	20.0	4 11	13 28.75	-17 56.6	2.337	3.329	3.0	19.3
4 21	13 18.62	-10 21.5	1.474	2.471	3.7	20.2	4 21	13 20.27	-17 30.6	2.313	3.307	3.1	19.2
5 1	13 8.78	-9 28.7	1.489	2.455	8.6	20.4	5 1	13 12.21	-16 59.0	2.318	3.285	5.9	19.4
5 11	13 0.79	-8 43.6	1.529	2.437	13.1	20.6	5 11	13 5.30	-16 26.3	2.350	3.262	9.0	19.5
5 21	12 55.34	-8 11.5	1.589	2.419	17.0	20.8	5 21	13 0.05	-15 56.6	2.407	3.240	11.8	19.7
<b>227589</b>	2006 <i>AA</i> <sub>20</sub>		4 13.2 153°66	6.9/6.1	16		<b>70620</b>	1999 <i>TF</i> <sub>213</sub>		4 13.2 51°81	2.4/14.8	18	
3 12	13 51.20	+11 7.0	2.210	3.069	11.0	20.4	3 12	13 53.07	-15 17.0	1.445	2.296	16.2	18.7
3 22	13 45.09	+12 12.1	2.160	3.077	8.7	20.3	3 22	13 47.34	-15 27.7	1.379	2.301	12.2	18.4
4 1	13 37.38	+13 9.6	2.136	3.083	7.1	20.2	4 1	13 39.03	-15 22.2	1.335	2.307	7.6	18.2
4 11	13 28.80	+13 52.9	2.139	3.090	7.1	20.2	4 11	13 29.15	-15 2.2	1.316	2.314	3.1	17.9
4 21	13 20.17	+14 17.6	2.169	3.095	8.6	20.3	4 21	13 18.99	-14 32.2	1.323	2.320	4.0	18.0
5 1	13 12.31	+14 21.1	2.225	3.101	10.9	20.5	5 1	13 9.90	-13 58.6	1.355	2.326	8.6	18.3
5 11	13 5.89	+14 3.7	2.304	3.105	13.2	20.6	5 11	13 2.97	-13 28.4	1.411	2.333	13.0	18.6
5 21	13 1.32	+13 27.3	2.402	3.109	15.2	20.8	5 21	12 58.80	-13 7.2	1.487	2.340	16.8	18.8
<b>299919</b>	2006 <i>TZ</i>		4 13.2 224°08	0.0/13.2	17		<b>137610</b>	1999 <i>VB</i> <sub>183</sub>		4 13.2 56°59	0.7/13.7	18	
3 12	13 46.01	-12 2.3	2.459	3.304	10.5	20.8	3 12	13 50.74	-13 9.9	1.372	2.234	16.2	20.2
3 22	13 41.40	-11 17.3	2.375	3.299	7.6	20.6	3 22	13 45.51	-12 40.6	1.320	2.251	11.8	20.0
4 1	13 35.34	-10 22.0	2.317	3.294	4.3	20.4	4 1	13 37.88	-11 55.2	1.290	2.268	6.8	19.7
4 11	13 28.44	-9 19.8	2.288	3.289	0.8	20.1	4 11	13 28.92	-10 58.7	1.285	2.286	1.6	19.4
4 21	13 21.36	-8 15.6	2.288	3.284	2.8	20.3	4 21	13 19.90	-9 58.6	1.305	2.303	3.9	19.7
5 1	13 14.81	-7 14.4	2.317	3.278	6.3	20.5	5 1	13 12.08	-9 3.0	1.351	2.321	8.9	20.0
5 11	13 9.43	-6 21.0	2.372	3.272	9.4	20.7	5 11	13 6.40	-8 19.0	1.421	2.339	13.2	20.3
5 21	13 5.63	-5 38.8	2.451	3.266	12.2	20.8	5 21	13 3.34	-7 50.6	1.510	2.357	16.9	20.6
<b>32499</b>	2000 <i>YS</i> <sub>11</sub>		4 13.2 260°41	2.9/7.4	18		<b>374221</b>	2005 <i>ED</i> <sub>324</sub>		4 13.2 338°19	0.8/13.7	17	
3 12	13 41.65	+ 6 46.3	4.615	5.474	5.7	18.0	3 12	13 50.07	-11 27.2	1.239	2.113	16.8	20.7
3 22	13 37.71	+ 7 15.6	4.539	5.463	4.3	17.9	3 22	13 45.61	-11 31.4	1.166	2.103	12.5	20.4
4 1	13 33.06	+ 7 42.6	4.491	5.452	3.2	17.8	4 1	13 38.28	-11 21.5	1.114	2.094	7.3	20.1
4 11	13 28.01	+ 8 5.1	4.473	5.441	3.0	17.7	4 11	13 29.05	-11 0.6	1.085	2.086	1.8	19.7
4 21	13 22.87	+ 8 21.1	4.484	5.430	3.9	17.8	4 21	13 19.29	-10 33.9	1.080	2.079	4.4	19.8
5 1	13 18.00	+ 8 29.1	4.523	5.418	5.3	17.9	5 1	13 10.54	-10 8.5	1.099	2.072	10.0	20.1
5 11	13 13.69	+ 8 28.3	4.588	5.407	6.8	18.0	5 11	13 4.07	-9 51.5	1.140	2.067	15.0	20.4
5 21	13 10.19	+ 8 18.3	4.676	5.396	8.1	18.1	5 21	13 0.64	-9 47.5	1.199	2.062	19.4	20.6
<b>147804</b>	2005 <i>SJ</i> <sub>55</sub>		4 13.2 328°20	0.5/12.7	17		<b>391749</b>	2008 <i>DZ</i> <sub>42</sub>		4 13.2 321°20	4.3/17.0	17	
3 12	13 47.74	- 8 43.9	2.174	3.031	11.3	19.7	3 12	13 49.24	-22 8.6	2.108	2.917	13.3	20.7
3 22	13 42.62	- 8 25.9	2.096	3.026	8.1	19.5	3 22	13 44.15	-22 32.0	2.018	2.909	10.6	20.5
4 1	13 36.16	- 8 0.5	2.042	3.022	4.5	19.2	4 1	13 37.11	-22 39.3	1.952	2.901	7.6	20.3
4 11	13 28.59	- 7 30.8	2.016	3.018	0.9	19.0	4 11	13 28.81	-22 30.3	1.911	2.893	4.9	20.1
4 21	13 20.82	- 7 1.0	2.019	3.014	3.3	19.1	4 21	13 20.14	-22 6.8	1.898	2.885	4.6	20.1
5 1	13 13.64	- 6 35.2	2.049	3.010	7.0	19.4	5 1	13 12.07	-21 33.0	1.911	2.877	7.0	20.2
5 11	13 7.80	- 6 17.2	2.105	3.006	10.4	19.6	5 11	13 5.47	-20 54.5	1.951	2.870	10.1	20.4
5 21	13 3.75	- 6 9.6	2.183	3.003	13.3	19.8	5 21	13 0.93	-20 17.1	2.013	2.863	13.1	20.6
<b>102613</b>	1999 <i>VQ</i> <sub>20</sub>		4 13.2 230°92	3.4/15.9	17		<b>210594</b>	1999 <i>XY</i> <sub>123</sub>		4 13.2 238°84	1.5/11.9	18	
3 12	13 54.83	-19 11.7	1.999	2.814	13.7	19.6	3 12	13 54.60	- 5 54.7	2.032	2.885	12.1	20.8
3 22	13 48.31	-19 27.0	1.903	2.802	10.7	19.4	3 22	13 47.99	- 5 34.3	1.939	2.868	8.8	20.5
4 1	13 39.53	-19 26.9	1.830	2.788	7.2	19.2	4 1	13 39.28	- 5 7.8	1.871	2.850	5.0	20.3
4 11	13 29.25	-19 11.4	1.784	2.774	4.0	18.9	4 11	13 29.22	- 4 38.7	1.831	2.831	1.6	20.0
4 21	13 18.46	-18 42.9	1.767	2.760	4.1	18.9	4 21	13 18.72	- 4 11.7	1.821	2.812	4.2	20.1
5 1	13 8.30	-18 5.8	1.778	2.744	7.4	19.1	5 1	13 8.83	- 3 51.3	1.839	2.791	8.3	20.3
5 11	12 59.78	-17 26.4	1.816	2.728	11.2	19.3	5 11	13 0.46	- 3 41.3	1.883	2.770	12.1	20.5
5 21	12 53.56	-16 50.7	1.876	2.711	14.5	19.4	5 21	12 54.23	- 3 43.9	1.949	2.748	15.4	20.7
<b>106023</b>	2000 <i>SN</i> <sub>296</sub>		4 13.2 166°54	4.4/18.4	18		<b>425174</b>	2009 <i>UN</i> <sub>19</sub>		4 13.2 92°37	8.5/4.4	18	
3 12	13 48.65	-25 59.1	2.640	3.418	11.8	20.8	3 12	13 50.75	+14 6.7	1.957	2.818	12.1	21.1
3 22	13 43.33	-26 5.9	2.553	3.420	9.5	20.6	3 22	13 44.80	+15 38.3	1.931	2.842	9.9	21.0
4 1	13 36.45	-25 56.5	2.491	3.422	7.1	20.5	4 1	13 37.20	+16 57.6	1.930	2.864	8.6	21.0
4 11	13 28.65	-25 31.0	2.455	3.424	5.0	20.3	4 11	13 28.78	+17 56.8	1.954	2.887	8.9	21.1
4 21	13 20.64	-24 51.6	2.447	3.426	4.5	20.3	4 21	13 20.45	+18 31.2	2.005	2.909	10.4	21.2
5 1	13 13.20	-24 2.1	2.467	3.428	6.0	20.4	5 1	13 13.07	+18 39.1	2.079	2.930	12.5	21.4
5 11	13 6.99	-23 7.8	2.515	3.429	8.4	20.6	5 11	13 7.31	+18 21.9	2.174	2.951	14.6	21.6
5 21	13 2.48	-22 13.8	2.587	3.430	10.8	20.7	5 21	13 3.53	+17 43.0	2.286	2.972	16.4	21.7
<b>278715</b>	2008 <i>SR</i> <sub>39</sub>		4 13.2 218°91	1.2/12.0	18		<b>500655</b>	2012 <i>VL</i> <sub>18</sub>		4 13.2 127°84	0.6/12.5	17	
3 12	13 48.56	- 7 58.4	2.132	2.989	11.4	21.1	3 12	13 46.94	- 9 23.0	2.515	3.365	10.1	21.9
3 22	13 43.40	- 7 15.7	2.052	2.984	8.2	20.9	3 22	13 41.94	- 8 40.5	2.447	3.375	7.2	21.7
4 1	13 36.55	- 6 24.6	1.998	2.978	4.5	20.7	4 1	13 35.60	- 7 50.4	2.406	3.385	4.0	21.5
4 11	13 28.67	- 5 29.6	1.972	2.973	1.3	20.4	4 11	13 28.50	- 6 56.6	2.393	3.395	0.8	21.3
4 21	13 20.58	- 4 35.9	1.974	2.966	3.8	20.6	4 21	13 21.32	- 6 3.4	2.410	3.404	3.0	21.5
5 1	13 13.11	- 3 49.0	2.005	2.960	7.6	20.8	5 1	13 14.74	- 5 15.3	2.456	3.413	6.3	21.7
5 11	13 7.02	- 3 13.1	2.061	2.953	11.0	21.0	5 11	13 9.33	- 4 36.0	2.529	3.422	9.2	21.9
5 21	13 2.78	- 2 50.9	2.139	2.946	14.0	21.2	5 21	13 5.46	- 4 8.0	2.625	3.430	11.7	22.1
<b>441059</b>	2007 <i>PF</i> <sub>33</sub>		4 13.2 199°58	13.9/21.0	18		<b>162846</b>	2001 <i>DK</i> <sub>28</sub>		4 13.2 120°09	0.9/12.4		

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>119311</b>	2001 <i>SL</i> <sub>66</sub>		4 13.2 226°31	0°3/12.9	17		<b>227350</b>	2005 <i>UJ</i> <sub>81</sub>		4 13.2 228°54	2°2/15.5	17	
3 12	13 51.38	- 9 56.8	2.318	3.162	11.1	21.6	3 12	13 49.63	-18 37.0	2.135	2.958	12.7	21.5
3 22	13 45.42	- 9 29.2	2.225	3.149	8.1	21.4	3 22	13 44.33	-18 9.9	2.042	2.948	9.7	21.2
4 1	13 37.73	- 8 52.7	2.158	3.135	4.6	21.1	4 1	13 37.18	-17 26.1	1.973	2.937	6.3	21.0
4 11	13 28.94	- 8 10.4	2.119	3.121	0.8	20.8	4 11	13 28.86	-16 27.7	1.931	2.926	2.9	20.8
4 21	13 19.84	- 7 26.5	2.111	3.105	3.2	21.0	4 21	13 20.23	-15 19.3	1.918	2.914	3.2	20.8
5 1	13 11.28	- 6 45.7	2.131	3.089	7.0	21.2	5 1	13 12.23	-14 6.8	1.933	2.902	6.7	20.9
5 11	13 4.03	- 6 12.4	2.178	3.072	10.4	21.4	5 11	13 5.66	-12 57.3	1.975	2.889	10.3	21.1
5 21	12 58.60	- 5 49.9	2.248	3.055	13.4	21.6	5 21	13 1.07	-11 56.3	2.040	2.876	13.5	21.3
<b>98036</b>	2000 <i>RG</i> <sub>19</sub>		4 13.2 190°59	2°3/16.1	18		<b>500619</b>	2012 <i>UH</i> <sub>149</sub>		4 13.2 56°45	0°4/13.6	17	
3 12	13 46.92	-19 43.8	2.592	3.405	11.0	20.0	3 12	13 51.06	-10 46.7	1.995	2.844	12.4	21.0
3 22	13 42.04	-19 21.5	2.505	3.404	8.5	19.8	3 22	13 45.17	-10 47.4	1.937	2.862	9.0	20.8
4 1	13 35.73	-18 45.2	2.444	3.403	5.6	19.6	4 1	13 37.51	-10 39.2	1.904	2.881	5.2	20.6
4 11	13 28.56	-17 56.9	2.410	3.402	2.9	19.5	4 11	13 28.90	-10 24.9	1.898	2.899	1.1	20.4
4 21	13 21.21	-16 59.9	2.405	3.400	2.9	19.5	4 21	13 20.21	-10 8.0	1.921	2.918	3.1	20.6
5 1	13 14.42	-15 58.9	2.430	3.398	5.6	19.6	5 1	13 12.37	- 9 52.5	1.972	2.937	6.9	20.8
5 11	13 8.79	-14 59.2	2.482	3.396	8.5	19.8	5 11	13 6.09	- 9 42.3	2.049	2.956	10.3	21.1
5 21	13 4.75	-14 5.3	2.558	3.394	11.1	20.0	5 21	13 1.81	- 9 39.8	2.147	2.975	13.2	21.3
<b>217977</b>	2001 <i>VK</i> <sub>51</sub>		4 13.2 157°80	1°7/15.2	16		<b>423594</b>	2005 <i>VC</i> <sub>136</sub>		4 13.2 76°84	3°2/10.6	17	
3 12	13 51.09	-17 14.6	2.528	3.346	11.1	21.9	3 12	13 50.96	- 2 26.3	1.713	2.585	13.0	21.4
3 22	13 44.98	-16 52.3	2.451	3.356	8.4	21.8	3 22	13 45.29	- 1 45.7	1.658	2.596	9.3	21.2
4 1	13 37.35	-16 17.4	2.400	3.364	5.3	21.6	4 1	13 37.66	- 1 1.9	1.628	2.608	5.4	21.0
4 11	13 28.86	-15 32.0	2.376	3.372	2.3	21.4	4 11	13 28.93	- 0 20.8	1.624	2.619	3.2	20.9
4 21	13 20.24	-14 40.0	2.383	3.380	2.7	21.4	4 21	13 20.13	+ 0 11.8	1.647	2.631	5.7	21.0
5 1	13 12.27	-13 45.8	2.420	3.386	5.8	21.6	5 1	13 12.28	+ 0 31.5	1.697	2.643	9.4	21.3
5 11	13 5.59	-12 54.6	2.485	3.391	8.8	21.8	5 11	13 6.17	+ 0 35.3	1.770	2.654	12.9	21.5
5 21	13 0.61	-12 10.4	2.574	3.396	11.4	22.0	5 21	13 2.27	+ 0 23.0	1.864	2.666	15.9	21.7
<b>262835</b>	2007 <i>BE</i> <sub>2</sub>		4 13.2 134°80	2°7/10.5	18		<b>61511</b>	2000 <i>QG</i> <sub>55</sub>		4 13.2 336°65	5°5/16.9	18	
3 12	13 51.12	- 3 9.6	2.146	3.007	11.2	21.2	3 12	13 54.43	-21 58.6	1.677	2.493	16.0	18.4
3 22	13 45.06	- 2 17.6	2.088	3.021	8.0	21.1	3 22	13 48.37	-22 49.8	1.597	2.490	12.7	18.1
4 1	13 37.40	- 1 22.0	2.056	3.035	4.6	20.9	4 1	13 39.72	-23 23.0	1.538	2.487	9.2	17.9
4 11	13 28.86	- 0 28.0	2.053	3.048	2.7	20.8	4 11	13 29.37	-23 36.4	1.505	2.485	6.2	17.7
4 21	13 20.28	+ 0 19.1	2.079	3.061	4.9	20.9	4 21	13 18.50	-23 30.9	1.497	2.483	5.9	17.7
5 1	13 12.47	+ 0 54.8	2.133	3.073	8.2	21.2	5 1	13 8.45	-23 10.5	1.516	2.481	8.6	17.9
5 11	13 6.11	+ 1 16.4	2.213	3.084	11.2	21.4	5 11	13 0.39	-22 42.3	1.559	2.479	12.2	18.1
5 21	13 1.62	+ 1 22.8	2.314	3.095	13.8	21.6	5 21	12 55.02	-22 13.3	1.624	2.477	15.6	18.3
<b>423479</b>	2005 <i>SJ</i> <sub>293</sub>		4 13.2 135°25	3°9/16.8	16		<b>498785</b>	2008 <i>UF</i> <sub>158</sub>		4 13.2 214°21	3°2/ 9.9	17	
3 12	13 53.90	-21 47.5	2.140	2.943	13.4	22.0	3 12	13 51.39	+ 0 34.5	2.482	3.340	10.0	21.9
3 22	13 47.30	-22 1.9	2.067	2.955	10.5	21.8	3 22	13 45.24	+ 1 6.6	2.402	3.332	7.2	21.7
4 1	13 38.79	-21 59.9	2.017	2.967	7.3	21.6	4 1	13 37.55	+ 1 39.2	2.349	3.323	4.5	21.6
4 11	13 29.13	-21 41.7	1.994	2.978	4.5	21.5	4 11	13 28.93	+ 2 8.1	2.325	3.314	3.2	21.5
4 21	13 19.29	-21 10.0	2.000	2.988	4.3	21.5	4 21	13 20.10	+ 2 29.5	2.330	3.305	5.1	21.6
5 1	13 10.23	-20 29.4	2.034	2.998	6.8	21.6	5 1	13 11.83	+ 2 40.2	2.364	3.295	8.0	21.7
5 11	13 2.79	-19 45.9	2.094	3.008	9.9	21.8	5 11	13 4.80	+ 2 38.1	2.424	3.284	10.8	21.9
5 21	12 57.47	-19 5.2	2.178	3.017	12.7	22.0	5 21	12 59.45	+ 2 22.9	2.507	3.273	13.3	22.0
<b>341175</b>	2007 <i>RP</i> <sub>8</sub>		4 13.2 79°80	1°1/12.0	17		<b>238837</b>	2005 <i>UH</i> <sub>2</sub>		4 13.2 174°22	0°6/12.8	18	
3 12	13 46.52	- 9 23.0	1.991	2.852	12.0	20.6	3 12	13 54.19	- 9 55.1	1.693	2.547	14.0	21.7
3 22	13 41.99	- 8 21.7	1.922	2.855	8.5	20.4	3 22	13 47.82	- 9 20.2	1.621	2.550	10.2	21.4
4 1	13 35.76	- 7 10.0	1.878	2.859	4.7	20.2	4 1	13 39.20	- 8 33.7	1.574	2.553	5.7	21.2
4 11	13 28.57	- 5 53.4	1.861	2.862	1.2	19.9	4 11	13 29.24	- 7 40.3	1.553	2.555	1.1	20.9
4 21	13 21.24	- 4 38.4	1.873	2.866	3.9	20.1	4 21	13 19.05	- 6 46.3	1.561	2.556	4.1	21.1
5 1	13 14.63	- 3 31.5	1.913	2.869	7.8	20.3	5 1	13 9.78	- 5 58.2	1.596	2.556	8.7	21.3
5 11	13 9.44	- 2 37.9	1.978	2.873	11.3	20.6	5 11	13 2.38	- 5 21.9	1.656	2.556	12.8	21.6
5 21	13 6.11	- 2 0.6	2.064	2.876	14.2	20.8	5 21	12 57.42	- 5 0.5	1.736	2.554	16.3	21.8
<b>410418</b>	2008 <i>AW</i> <sub>34</sub>		4 13.2 107°73	2°1/11.5	18		<b>266778</b>	2009 <i>SV</i> <sub>213</sub>		4 13.2 94°51	0°2/13.4	17	
3 12	13 52.36	- 5 59.0	1.714	2.578	13.4	21.5	3 12	13 51.66	-11 12.1	1.843	2.694	13.2	21.3
3 22	13 46.26	- 5 13.1	1.660	2.595	9.5	21.3	3 22	13 45.74	-10 54.5	1.782	2.708	9.6	21.1
4 1	13 38.18	- 4 20.2	1.630	2.611	5.3	21.1	4 1	13 37.91	-10 26.3	1.745	2.722	5.5	20.9
4 11	13 29.01	- 3 26.3	1.628	2.627	2.1	20.9	4 11	13 28.99	- 9 51.1	1.735	2.736	1.1	20.6
4 21	13 19.81	- 2 37.7	1.653	2.642	4.8	21.1	4 21	13 19.97	- 9 13.7	1.753	2.750	3.3	20.8
5 1	13 11.60	- 2 0.0	1.705	2.657	8.9	21.4	5 1	13 11.85	- 8 39.4	1.799	2.763	7.5	21.1
5 11	13 5.20	- 1 37.1	1.782	2.672	12.6	21.6	5 11	13 5.42	- 8 12.9	1.870	2.777	11.2	21.4
5 21	13 1.06	- 1 30.4	1.879	2.686	15.6	21.9	5 21	13 1.15	- 7 57.4	1.963	2.790	14.3	21.6
<b>302128</b>	2001 <i>QG</i> <sub>186</sub>		4 13.2 306°91	12°0/24.3	18		<b>34122</b>	2000 <i>PQ</i> <sub>29</sub>		4 13.2 267°86	7°0/ 7.5	17	
3 12	13 47.94	-39 9.6	0.999	1.782	26.5	19.7	3 12	13 52.63	+ 5 22.8	1.574	2.450	13.7	18.9
3 22	13 45.09	-38 54.6	0.924	1.777	23.2	19.4	3 22	13 47.01	+ 6 37.2	1.496	2.430	10.5	18.7
4 1	13 38.38	-37 41.3	0.862	1.773	19.1	19.1	4 1	13 38.93	+ 7 50.5	1.441	2.409	7.7	18.5
4 11	13 29.13	-35 22.1	0.816	1.768	15.0	18.8	4 11	13 29.23	+ 8 53.4	1.412	2.387	7.2	18.4
4 21	13 19.32	-32 0.0	0.790	1.763	12.2	18.7	4 21	13 19.05	+ 9 37.1	1.409	2.366	9.7	18.4
5 1	13 11.16	-27 52.4	0.787	1.759	12.9	18.7	5 1	13 9.64	+ 9 55.7	1.430	2.343	13.4	18.6
5 11	13 6.26	-23 29.2	0.806	1.755	16.7	18.8	5 11	13 2.12	+ 9 46.9	1.472	2.321	17.1	18.8
5 21	13 5.31	-19 19.9	0.845	1.751	21.4	19.1	5 21	12 57.15	+ 9 12.2	1.532	2.298	20.3	18.9
<b>96943</b>	1999 <i>TE</i> <sub>157</sub>		4 13.2 359°07	0°6/12.7	18		<b>505316</b>	2012 <i>XQ</i> <sub>109</sub>					

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>162814</b>	2001 BT <sub>19</sub>		4 13.2 146°15	2°9/10.7	18		<b>185632</b>	2008 CS <sub>183</sub>		4 13.2 142°00	0°7/13.9	17	
3 12	13 53.06	- 3 1.9	1.913	2.775	12.3	20.4	3 12	13 49.49	-12 4.8	2.469	3.308	10.7	20.4
3 22	13 46.66	- 2 13.1	1.853	2.786	8.8	20.2	3 22	13 43.91	-12 1.7	2.392	3.311	7.8	20.2
4 1	13 38.39	- 1 20.3	1.818	2.797	5.1	20.0	4 1	13 36.81	-11 50.3	2.340	3.315	4.6	20.0
4 11	13 29.09	- 0 29.2	1.811	2.806	2.9	19.8	4 11	13 28.82	-11 32.6	2.317	3.318	1.2	19.8
4 21	13 19.70	+ 0 14.4	1.833	2.815	5.3	20.0	4 21	13 20.66	-11 11.5	2.324	3.321	2.6	19.9
5 1	13 11.17	+ 0 45.7	1.882	2.823	8.9	20.2	5 1	13 13.08	-10 50.5	2.359	3.323	6.0	20.1
5 11	13 4.30	+ 1 1.7	1.956	2.831	12.3	20.5	5 11	13 6.74	-10 33.3	2.421	3.326	9.1	20.3
5 21	12 59.55	+ 1 1.5	2.051	2.837	15.2	20.7	5 21	13 2.06	-10 22.6	2.507	3.329	11.7	20.5
<b>246530</b>	2008 GC <sub>106</sub>		4 13.2 258°24	0°8/11.5	18		<b>201971</b>	2004 PA <sub>19</sub>		4 13.2 162°66	0°3/12.9	18	
3 12	13 39.85	- 7 9.1	4.546	5.397	5.9	20.5	3 12	13 53.59	-10 37.5	1.866	2.714	13.2	21.3
3 22	13 36.49	- 6 21.2	4.461	5.390	4.2	20.4	3 22	13 47.19	-10 1.9	1.795	2.721	9.5	21.1
4 1	13 32.43	- 5 29.6	4.403	5.383	2.3	20.2	4 1	13 38.78	- 9 15.2	1.750	2.728	5.4	20.8
4 11	13 27.98	- 4 36.6	4.376	5.376	0.8	20.1	4 11	13 29.19	- 8 21.5	1.731	2.733	1.0	20.5
4 21	13 23.45	- 3 44.7	4.380	5.369	2.1	20.2	4 21	13 19.43	- 7 26.7	1.742	2.737	3.6	20.7
5 1	13 19.17	- 2 56.3	4.414	5.362	4.0	20.3	5 1	13 10.54	- 6 36.9	1.781	2.741	7.9	21.0
5 11	13 15.45	- 2 13.6	4.476	5.355	5.8	20.5	5 11	13 3.36	- 5 57.4	1.845	2.744	11.8	21.2
5 21	13 12.53	- 1 38.3	4.563	5.348	7.4	20.6	5 21	12 58.40	- 5 31.5	1.932	2.746	15.0	21.5
<b>301410</b>	2009 DC <sub>42</sub>		4 13.2 69°59	3°8/15.9	18		<b>461371</b>	2000 SN <sub>171</sub>		4 13.2 260°27	1°3/14.2	17	
3 12	13 55.63	-19 10.3	1.361	2.199	17.8	20.5	3 12	13 56.14	-13 38.9	1.914	2.749	13.5	21.9
3 22	13 49.10	-19 19.4	1.313	2.224	13.5	20.3	3 22	13 49.49	-13 37.8	1.805	2.721	10.2	21.6
4 1	13 39.95	-19 6.8	1.286	2.250	8.9	20.1	4 1	13 40.40	-13 24.0	1.720	2.692	6.2	21.3
4 11	13 29.38	-18 34.6	1.283	2.275	4.6	19.9	4 11	13 29.56	-12 59.2	1.662	2.661	2.0	21.0
4 21	13 18.81	-17 48.0	1.306	2.301	4.7	20.0	4 21	13 17.99	-12 26.3	1.633	2.630	3.5	21.0
5 1	13 9.64	-16 55.3	1.355	2.326	8.6	20.3	5 1	13 6.90	-11 50.6	1.633	2.597	8.1	21.2
5 11	13 2.87	-16 5.1	1.427	2.351	12.8	20.6	5 11	12 57.42	-11 18.1	1.659	2.564	12.5	21.4
5 21	12 59.00	-15 24.2	1.520	2.376	16.3	20.9	5 21	12 50.32	-10 54.1	1.707	2.530	16.3	21.6
<b>437675</b>	2014 CX <sub>16</sub>		4 13.2 334°99	4°2/17.2	17		<b>248429</b>	2005 SS <sub>280</sub>		4 13.2 184°49	5°0/19.9	18	
3 12	13 47.97	-22 39.8	2.038	2.849	13.7	20.7	3 12	13 47.97	-30 15.1	2.919	3.667	11.5	21.5
3 22	13 43.26	-22 47.3	1.953	2.844	10.8	20.5	3 22	13 42.81	-30 17.0	2.827	3.667	9.5	21.3
4 1	13 36.62	-22 36.7	1.890	2.840	7.7	20.3	4 1	13 36.19	-30 1.5	2.758	3.667	7.5	21.2
4 11	13 28.79	-22 8.6	1.853	2.836	4.9	20.1	4 11	13 28.71	-29 28.6	2.715	3.666	5.7	21.0
4 21	13 20.65	-21 25.9	1.843	2.832	4.5	20.1	4 21	13 21.04	-28 40.2	2.699	3.665	5.0	21.0
5 1	13 13.17	-20 33.4	1.860	2.828	7.0	20.2	5 1	13 13.90	-27 39.9	2.712	3.664	6.0	21.1
5 11	13 7.20	-19 38.0	1.902	2.824	10.2	20.4	5 11	13 7.91	-26 32.9	2.753	3.663	7.9	21.2
5 21	13 3.28	-18 45.8	1.967	2.821	13.2	20.6	5 21	13 3.51	-25 24.5	2.818	3.661	10.0	21.3
<b>505535</b>	2013 YQ <sub>54</sub>		4 13.2 232°01	4°6/18.1	18		<b>177601</b>	2004 GN <sub>73</sub>		4 13.2 12°63	1°9/11.8	17	
3 12	13 50.16	-25 40.9	2.289	3.075	13.2	21.9	3 12	13 49.00	- 7 21.2	1.461	2.336	14.7	20.3
3 22	13 44.73	-25 37.1	2.191	3.064	10.6	21.7	3 22	13 44.31	- 6 34.4	1.397	2.337	10.5	20.0
4 1	13 37.44	-25 13.8	2.115	3.052	7.8	21.5	4 1	13 37.31	- 5 37.1	1.355	2.338	5.8	19.8
4 11	13 28.95	-24 31.4	2.065	3.040	5.3	21.3	4 11	13 28.94	- 4 35.9	1.339	2.339	1.9	19.5
4 21	13 20.11	-23 32.4	2.043	3.027	4.7	21.3	4 21	13 20.34	- 3 38.4	1.349	2.341	5.1	19.7
5 1	13 11.87	-22 21.7	2.050	3.014	6.8	21.4	5 1	13 12.70	- 2 52.1	1.384	2.343	9.8	20.0
5 11	13 5.05	-21 6.3	2.083	3.000	9.7	21.5	5 11	13 7.00	- 2 22.4	1.442	2.346	14.1	20.2
5 21	13 0.20	-19 53.1	2.140	2.986	12.6	21.7	5 21	13 3.78	- 2 11.7	1.519	2.349	17.7	20.5
<b>185176</b>	2006 SX <sub>291</sub>		4 13.2 137°12	5°3/ 5.5	18		<b>245946</b>	2006 SF <sub>16</sub>		4 13.2 183°43	1°6/15.0	18	
3 12	13 45.85	+ 8 8.4	2.757	3.621	8.9	21.1	3 12	13 49.26	-16 0.9	2.688	3.510	10.4	21.2
3 22	13 41.07	+ 9 36.1	2.709	3.632	6.9	21.0	3 22	13 43.69	-15 56.6	2.603	3.511	7.8	21.1
4 1	13 35.10	+10 59.7	2.688	3.642	5.5	20.9	4 1	13 36.68	-15 41.8	2.544	3.511	4.9	20.9
4 11	13 28.48	+12 13.5	2.697	3.652	5.6	20.9	4 11	13 28.81	-15 18.3	2.514	3.510	2.1	20.7
4 21	13 21.81	+13 12.8	2.734	3.661	7.0	21.0	4 21	13 20.75	-14 48.6	2.513	3.509	2.6	20.7
5 1	13 15.67	+13 54.5	2.797	3.670	9.0	21.2	5 1	13 13.21	-14 16.4	2.542	3.508	5.5	20.9
5 11	13 10.59	+14 17.6	2.884	3.678	11.0	21.3	5 11	13 6.82	-13 45.6	2.598	3.506	8.4	21.1
5 21	13 6.91	+14 22.7	2.991	3.687	12.7	21.5	5 21	13 1.99	-13 19.6	2.678	3.505	10.9	21.2
<b>284219</b>	2006 CQ <sub>36</sub>		4 13.2 263°88	0°8/14.7	18		<b>301055</b>	2008 US <sub>26</sub>		4 13.3 57°74	0°5/12.9	18	
3 12	13 41.51	-14 24.7	4.450	5.275	6.6	20.7	3 12	13 51.44	-10 42.2	1.256	2.128	16.7	21.0
3 22	13 37.70	-14 13.9	4.363	5.273	4.8	20.5	3 22	13 46.30	-10 6.9	1.200	2.137	12.1	20.8
4 1	13 33.13	-13 57.3	4.302	5.271	2.9	20.4	4 1	13 38.51	- 9 16.6	1.165	2.146	6.8	20.5
4 11	13 28.12	-13 36.3	4.271	5.269	1.1	20.2	4 11	13 29.16	- 8 17.4	1.154	2.155	1.2	20.2
4 21	13 23.02	-13 12.6	4.270	5.267	1.5	20.3	4 21	13 19.65	- 7 17.5	1.168	2.165	4.6	20.4
5 1	13 18.19	-12 48.2	4.299	5.264	3.5	20.4	5 1	13 11.36	- 6 25.6	1.207	2.174	10.0	20.7
5 11	13 13.96	-12 25.1	4.356	5.262	5.3	20.5	5 11	13 5.37	- 5 48.7	1.268	2.184	14.7	21.0
5 21	13 10.58	-12 5.3	4.439	5.260	7.0	20.7	5 21	13 2.23	- 5 30.3	1.348	2.194	18.6	21.3
<b>234102</b>	1999 UK <sub>42</sub>		4 13.2 136°80	1°8/15.3	18		<b>235252</b>	2003 SN <sub>321</sub>		4 13.3 223°65	3°3/16.5	18	
3 12	13 51.34	-17 3.6	2.671	3.486	10.7	21.9	3 12	13 50.90	-20 53.9	2.393	3.198	12.1	21.4
3 22	13 45.07	-16 54.1	2.599	3.502	8.0	21.8	3 22	13 45.15	-20 59.6	2.299	3.190	9.4	21.3
4 1	13 37.39	-16 33.3	2.554	3.517	5.1	21.6	4 1	13 37.65	-20 50.6	2.228	3.181	6.5	21.0
4 11	13 28.91	-16 3.1	2.537	3.532	2.3	21.4	4 11	13 29.02	-20 27.6	2.185	3.171	3.9	20.9
4 21	13 20.35	-15 26.3	2.551	3.546	2.6	21.5	4 21	13 20.06	-19 52.8	2.171	3.161	3.7	20.8
5 1	13 12.41	-14 46.9	2.594	3.559	5.4	21.7	5 1	13 11.66	-19 10.3	2.185	3.151	6.3	21.0
5 11	13 5.71	-14 9.1	2.665	3.572	8.3	21.9	5 11	13 4.58	-18 25.5	2.226	3.140	9.3	21.1
5 21	13 0.65	-13 36.5	2.761	3.584	10.8	22.1	5 21	12 59.35	-17 43.5	2.291	3.129	12.2	21.3
<b>292096</b>	2006 RV <sub>44</sub>		4 13.2 179°81	1°3/11.6	18		<b>200581</b>	2001 QG <sub>140</sub>		4 13.3 206°48	3°7/16.5	18	
3 12	13 46.00	- 7 47.3											



EPHEMERIDES

4 13.3

4 13.3

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>231518</b>	2008 <i>SJ</i> <sub>33</sub>		4 13.3 197°28	0°8/12.5 17			<b>206858</b>	2004 <i>FF</i> <sub>53</sub>		4 13.3 56°39	0°1/13.4 17		
3 12	13 49.19	- 9 8.2	2.200	3.052	11.3	21.9	3 12	13 47.60	-11 37.5	2.061	2.912	12.0	20.7
3 22	13 43.85	- 8 29.1	2.121	3.050	8.1	21.7	3 22	13 42.78	-11 7.3	1.990	2.916	8.7	20.5
4 1	13 36.85	- 7 41.3	2.068	3.047	4.5	21.5	4 1	13 36.27	-10 26.5	1.943	2.921	5.0	20.3
4 11	13 28.86	- 6 48.7	2.043	3.044	1.0	21.2	4 11	13 28.78	- 9 38.8	1.924	2.925	1.0	20.0
4 21	13 20.67	- 5 56.3	2.047	3.041	3.4	21.4	4 21	13 21.14	- 8 49.0	1.933	2.930	3.1	20.2
5 1	13 13.12	- 5 9.2	2.080	3.037	7.2	21.6	5 1	13 14.19	- 8 2.6	1.970	2.935	7.0	20.4
5 11	13 6.91	- 4 31.9	2.138	3.033	10.6	21.8	5 11	13 8.65	- 7 24.2	2.033	2.939	10.4	20.6
5 21	13 2.52	- 4 7.2	2.219	3.028	13.5	22.0	5 21	13 4.98	- 6 57.3	2.117	2.944	13.4	20.9
<b>308053</b>	2004 <i>TD</i> <sub>51</sub>		4 13.3 150°28	0°8/13.9 18			<b>106214</b>	2000 <i>UZ</i> <sub>34</sub>		4 13.3 173°05	1°1/14.5 18		
3 12	13 53.75	-13 6.9	1.740	2.585	14.1	21.8	3 12	13 46.85	-14 59.4	2.392	3.228	11.1	19.7
3 22	13 47.46	-12 45.3	1.671	2.593	10.4	21.5	3 22	13 42.09	-14 34.3	2.312	3.228	8.2	19.5
4 1	13 39.00	-12 10.0	1.625	2.600	6.1	21.3	4 1	13 35.84	-13 57.6	2.257	3.228	5.0	19.3
4 11	13 29.26	-11 24.8	1.607	2.607	1.6	21.0	4 11	13 28.70	-13 11.9	2.230	3.229	1.7	19.1
4 21	13 19.34	-10 34.8	1.616	2.613	3.5	21.2	4 21	13 21.39	-12 21.2	2.231	3.229	2.6	19.2
5 1	13 10.34	- 9 46.5	1.653	2.619	7.9	21.4	5 1	13 14.66	-11 30.2	2.262	3.229	6.0	19.4
5 11	13 3.19	- 9 6.1	1.716	2.624	11.9	21.7	5 11	13 9.15	-10 43.8	2.319	3.229	9.2	19.6
5 21	12 58.41	- 8 37.7	1.799	2.628	15.3	21.9	5 21	13 5.30	-10 5.7	2.399	3.229	11.9	19.8
<b>20002</b>	Tillysmith		4 13.3 279°45	8°3/23.2 18			<b>209951</b>	2006 <i>FD</i> <sub>28</sub>		4 13.3 181°64	0°7/12.7 18		
3 12	13 49.27	-38 30.1	2.521	3.219	14.2	18.9	3 12	13 54.27	- 8 45.3	1.732	2.587	13.7	20.8
3 22	13 44.24	-38 58.1	2.418	3.206	12.6	18.7	3 22	13 47.90	- 8 25.5	1.658	2.588	9.9	20.6
4 1	13 37.24	-39 3.0	2.334	3.192	10.8	18.5	4 1	13 39.31	- 7 56.2	1.609	2.589	5.6	20.3
4 11	13 28.96	-38 42.5	2.274	3.178	9.2	18.4	4 11	13 29.37	- 7 21.7	1.587	2.589	1.1	20.0
4 21	13 20.27	-37 56.7	2.237	3.164	8.4	18.3	4 21	13 19.16	- 6 46.8	1.593	2.588	4.0	20.2
5 1	13 12.17	-36 48.7	2.227	3.150	8.7	18.3	5 1	13 9.83	- 6 17.3	1.626	2.587	8.5	20.5
5 11	13 5.54	-35 24.8	2.241	3.136	10.1	18.4	5 11	13 2.32	- 5 57.8	1.685	2.585	12.6	20.7
5 21	13 0.98	-33 52.5	2.279	3.122	12.1	18.5	5 21	12 57.20	- 5 51.3	1.764	2.583	16.0	21.0
<b>252974</b>	2002 <i>PE</i> <sub>182</sub>		4 13.3 161°54	2°2/15.1 16			<b>82530</b>	2001 <i>OW</i> <sub>60</sub>		4 13.3 225°32	3°7/ 9.8 18		
3 12	13 53.07	-16 42.8	1.897	2.728	13.8	21.3	3 12	13 50.61	- 1 0.8	1.983	2.850	11.7	19.8
3 22	13 46.92	-16 37.5	1.822	2.733	10.4	21.0	3 22	13 45.05	- 0 4.2	1.906	2.841	8.5	19.6
4 1	13 38.69	-16 17.2	1.770	2.737	6.5	20.8	4 1	13 37.63	+ 0 55.9	1.855	2.832	5.2	19.3
4 11	13 29.21	-15 43.8	1.744	2.741	2.9	20.6	4 11	13 29.06	+ 1 53.2	1.831	2.823	3.7	19.2
4 21	13 19.50	-15 1.3	1.747	2.744	3.4	20.6	4 21	13 20.23	+ 2 41.8	1.836	2.813	6.0	19.3
5 1	13 10.60	-14 15.3	1.779	2.747	7.2	20.9	5 1	13 12.08	+ 3 16.3	1.868	2.802	9.5	19.5
5 11	13 3.41	-13 32.2	1.835	2.749	11.0	21.1	5 11	13 5.42	+ 3 33.5	1.924	2.791	12.8	19.7
5 21	12 58.46	-12 56.9	1.914	2.751	14.3	21.3	5 21	13 0.77	+ 3 32.7	2.001	2.779	15.8	19.9
<b>40843</b>	1999 <i>TD</i> <sub>99</sub>		4 13.3 302°43	5°7/ 8.8 17			<b>426342</b>	2013 <i>GG</i> <sub>12</sub>		4 13.3 283°35	3°6/14.7 18		
3 12	13 49.30	+ 0 35.1	1.373	2.259	14.7	18.7	3 12	14 3.20	-14 15.4	1.539	2.372	16.3	20.5
3 22	13 44.91	+ 1 46.3	1.292	2.236	10.8	18.4	3 22	13 55.42	-15 27.1	1.434	2.346	12.6	20.2
4 1	13 37.90	+ 3 2.5	1.234	2.212	7.1	18.1	4 1	13 44.23	-16 31.1	1.354	2.320	8.2	19.9
4 11	13 29.11	+ 4 14.3	1.201	2.189	5.8	18.0	4 11	13 30.42	-17 24.7	1.299	2.293	4.2	19.5
4 21	13 19.75	+ 5 11.6	1.192	2.166	8.8	18.1	4 21	13 15.34	-18 6.1	1.273	2.267	5.1	19.5
5 1	13 11.18	+ 5 46.3	1.207	2.144	13.2	18.2	5 1	13 0.74	-18 36.5	1.275	2.240	9.9	19.7
5 11	13 4.61	+ 5 53.9	1.242	2.122	17.6	18.4	5 11	12 48.28	-19 0.1	1.302	2.212	14.8	19.9
5 21	13 0.77	+ 5 34.4	1.294	2.100	21.4	18.6	5 21	12 39.07	-19 22.6	1.350	2.185	19.2	20.1
<b>39034</b>	2000 <i>UE</i> <sub>78</sub>		4 13.3 33°02	1°4/14.7 18			<b>413200</b>	2003 <i>AS</i> <sub>77</sub>		4 13.3 77°16	6°5/18.1 18		
3 12	13 46.49	-15 42.1	2.134	2.973	12.1	18.7	3 12	13 57.25	-25 27.3	1.690	2.485	16.7	20.1
3 22	13 41.96	-15 18.6	2.061	2.978	9.0	18.5	3 22	13 50.23	-26 19.3	1.629	2.505	13.5	19.9
4 1	13 35.79	-14 41.7	2.012	2.983	5.5	18.3	4 1	13 40.69	-26 49.1	1.590	2.525	10.1	19.8
4 11	13 28.67	-13 54.6	1.990	2.988	2.0	18.1	4 11	13 29.64	-26 55.1	1.576	2.545	7.3	19.6
4 21	13 21.40	-13 1.5	1.996	2.994	2.8	18.2	4 21	13 18.37	-26 38.8	1.587	2.565	6.7	19.7
5 1	13 14.79	-12 7.9	2.030	2.999	6.4	18.4	5 1	13 8.21	-26 5.3	1.625	2.584	8.7	19.8
5 11	13 9.55	-11 19.2	2.090	3.005	9.8	18.6	5 11	13 0.21	-25 22.9	1.688	2.603	11.7	20.0
5 21	13 6.11	-10 39.6	2.173	3.011	12.7	18.8	5 21	12 54.97	-24 39.5	1.773	2.623	14.7	20.3
<b>499816</b>	2011 <i>DP</i> <sub>7</sub>		4 13.3 141°41	4°7/17.5 17			<b>497852</b>	2006 <i>UC</i> <sub>96</sub>		4 13.3 255°32	1°5/11.9 17		
3 12	13 53.46	-23 52.3	2.104	2.899	13.9	22.3	3 12	13 51.37	- 7 26.4	1.827	2.687	12.9	22.0
3 22	13 47.13	-24 11.9	2.028	2.907	11.1	22.1	3 22	13 45.88	- 6 46.1	1.737	2.670	9.3	21.8
4 1	13 38.79	-24 13.4	1.974	2.915	8.0	22.0	4 1	13 38.25	- 5 56.0	1.671	2.651	5.2	21.5
4 11	13 29.24	-23 56.7	1.946	2.923	5.4	21.8	4 11	13 29.21	- 5 1.0	1.632	2.633	1.6	21.2
4 21	13 19.45	-23 24.2	1.946	2.930	4.9	21.8	4 21	13 19.73	- 4 7.2	1.622	2.613	4.5	21.3
5 1	13 10.42	-22 40.4	1.975	2.937	7.1	21.9	5 1	13 10.90	- 3 21.0	1.638	2.594	8.9	21.5
5 11	13 3.04	-21 51.7	2.029	2.944	10.1	22.1	5 11	13 3.66	- 2 47.8	1.680	2.573	13.0	21.7
5 21	12 57.83	-21 4.6	2.107	2.950	12.9	22.3	5 21	12 58.67	- 2 30.7	1.741	2.553	16.5	21.9
<b>502569</b>	2015 <i>BC</i> <sub>498</sub>		4 13.3 112°39	3°3/10.1 17			<b>521149</b>	2015 <i>FM</i> <sub>406</sub>		4 13.3 59°63	1°6/11.5 17		
3 12	13 49.32	- 2 6.4	1.918	2.788	11.9	21.8	3 12	13 45.98	- 7 50.8	2.106	2.969	11.3	21.5
3 22	13 44.01	- 1 9.8	1.859	2.796	8.5	21.6	3 22	13 41.57	- 6 46.0	2.036	2.970	8.1	21.3
4 1	13 36.94	- 0 9.9	1.825	2.804	5.1	21.4	4 1	13 35.58	- 5 32.4	1.990	2.972	4.5	21.1
4 11	13 28.89	+ 0 47.3	1.819	2.812	3.4	21.3	4 11	13 28.67	- 4 15.6	1.973	2.973	1.6	20.8
4 21	13 20.74	+ 1 35.7	1.840	2.820	5.6	21.4	4 21	13 21.62	- 3 1.7	1.985	2.975	4.1	21.0
5 1	13 13.39	+ 2 10.4	1.889	2.827	9.1	21.6	5 1	13 15.22	- 1 56.8	2.024	2.976	7.7	21.2
5 11	13 7.57	+ 2 28.5	1.961	2.835	12.3	21.9	5 11	13 10.15	- 1 5.7	2.089	2.978	11.0	21.5
5 21	13 3.73	+ 2 29.4	2.054	2.842	15.1	22.1	5 21	13 6.83	- 0 30.8	2.175	2.979	13.9	21.7
<b>136258</b>	2003 <i>YQ</i> <sub>43</sub>		4 13.3 169°35	1°0/12.3 18			<b>301508</b>	2009 <i>EC</i> <sub>30</sub>		4 13.3 149°05	1°		

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>375014</b>	2007 <i>GD</i> <sub>28</sub>		4 13.3 296°52	3°3/10.7	17		<b>252938</b>	2002 <i>PQ</i> <sub>15</sub>		4 13.3 218°93	4°0/ 9.5	17	
3 12	13 51.41	- 1 31.2	1.735	2.606	12.9	20.6	3 12	13 50.51	- 1 9.7	1.826	2.697	12.4	21.1
3 22	13 45.88	- 1 3.7	1.659	2.597	9.3	20.4	3 22	13 45.11	- 0 0.9	1.754	2.691	9.0	20.9
4 1	13 38.20	- 0 33.4	1.608	2.587	5.6	20.1	4 1	13 37.72	+ 1 12.2	1.706	2.684	5.5	20.7
4 11	13 29.20	- 0 5.9	1.583	2.578	3.3	20.0	4 11	13 29.13	+ 2 22.4	1.686	2.677	4.1	20.5
4 21	13 19.87	+ 0 13.4	1.585	2.569	5.8	20.1	4 21	13 20.28	+ 3 22.5	1.694	2.669	6.5	20.7
5 1	13 11.31	+ 0 20.2	1.613	2.560	9.8	20.3	5 1	13 12.18	+ 4 6.4	1.728	2.661	10.2	20.9
5 11	13 4.46	+ 0 11.6	1.665	2.551	13.5	20.5	5 11	13 5.69	+ 4 30.7	1.786	2.652	13.7	21.1
5 21	12 59.88	- 0 12.9	1.738	2.542	16.8	20.7	5 21	13 1.34	+ 4 34.4	1.863	2.643	16.7	21.3
<b>422704</b>	2000 <i>SH</i> <sub>42</sub>		4 13.3 175°02	2°6/15.6	17		<b>249957</b>	2001 <i>UG</i> <sub>11</sub>		4 13.3 57°43	8°8/ 4.2	18	
3 12	13 53.27	-17 51.2	2.293	3.109	12.2	21.6	3 12	13 51.82	+ 6 6.9	1.423	2.304	14.6	18.9
3 22	13 46.84	-18 0.3	2.210	3.111	9.3	21.4	3 22	13 45.82	+ 9 21.5	1.417	2.349	11.0	18.8
4 1	13 38.60	-17 56.6	2.152	3.113	6.1	21.2	4 1	13 37.87	+12 23.1	1.438	2.394	8.9	18.8
4 11	13 29.26	-17 40.9	2.122	3.115	3.1	21.0	4 11	13 29.09	+14 57.2	1.487	2.439	9.4	18.9
4 21	13 19.67	-17 15.7	2.122	3.116	3.3	21.0	4 21	13 20.64	+16 54.2	1.561	2.483	11.7	19.2
5 1	13 10.73	-16 45.2	2.150	3.116	6.3	21.2	5 1	13 13.54	+18 10.9	1.660	2.527	14.4	19.4
5 11	13 3.22	-16 14.1	2.205	3.116	9.6	21.4	5 11	13 8.47	+18 49.7	1.778	2.570	16.9	19.7
5 21	12 57.65	-15 47.1	2.284	3.115	12.4	21.6	5 21	13 5.72	+18 56.0	1.912	2.612	18.8	20.0
<b>281491</b>	2008 <i>ST</i> <sub>274</sub>		4 13.3 78°20	0°1/13.2	17		<b>457671</b>	2009 <i>DN</i> <sub>49</sub>		4 13.3 326°25	2°0/11.9	17	
3 12	13 48.40	-11 33.0	1.877	2.732	12.8	20.7	3 12	13 46.95	- 7 56.5	1.208	2.094	16.3	20.5
3 22	13 43.50	-10 55.6	1.807	2.736	9.3	20.5	3 22	13 43.45	- 7 10.2	1.132	2.077	11.8	20.2
4 1	13 36.75	-10 6.2	1.761	2.739	5.3	20.3	4 1	13 37.18	- 6 9.3	1.077	2.061	6.6	19.8
4 11	13 28.91	- 9 9.4	1.742	2.743	1.0	19.9	4 11	13 29.07	- 5 0.9	1.045	2.046	2.0	19.5
4 21	13 20.90	- 8 10.7	1.750	2.747	3.4	20.1	4 21	13 20.41	- 3 54.3	1.038	2.032	5.8	19.7
5 1	13 13.65	- 7 16.5	1.787	2.751	7.6	20.4	5 1	13 12.68	- 2 59.6	1.053	2.019	11.4	19.9
5 11	13 7.96	- 6 32.2	1.848	2.755	11.3	20.6	5 11	13 7.12	- 2 24.4	1.090	2.006	16.5	20.2
5 21	13 4.31	- 6 1.3	1.930	2.758	14.5	20.8	5 21	13 4.49	- 2 12.6	1.143	1.995	20.9	20.4
<b>135615</b>	2002 <i>JC</i> <sub>32</sub>		4 13.3 281°74	0°4/12.9	18		<b>33854</b>	2000 <i>HH</i> <sub>53</sub>		4 13.3 245°66	3°2/10.1	18	
3 12	13 50.53	-10 52.3	1.591	2.452	14.4	20.6	3 12	13 50.52	+ 0 24.9	2.397	3.258	10.2	18.5
3 22	13 45.66	-10 14.7	1.495	2.427	10.6	20.3	3 22	13 44.76	+ 0 53.7	2.315	3.246	7.4	18.3
4 1	13 38.31	- 9 22.0	1.423	2.402	6.1	19.9	4 1	13 37.41	+ 1 23.1	2.258	3.234	4.6	18.1
4 11	13 29.26	- 8 18.6	1.376	2.377	1.1	19.5	4 11	13 29.08	+ 1 49.0	2.231	3.221	3.2	18.0
4 21	13 19.59	- 7 11.2	1.355	2.352	4.3	19.7	4 21	13 20.52	+ 2 7.4	2.232	3.208	5.1	18.1
5 1	13 10.57	- 6 7.9	1.362	2.326	9.4	19.9	5 1	13 12.49	+ 2 15.0	2.261	3.195	8.1	18.3
5 11	13 3.34	- 5 16.6	1.391	2.300	14.2	20.1	5 11	13 5.70	+ 2 9.8	2.317	3.181	11.0	18.4
5 21	12 58.65	- 4 42.5	1.441	2.274	18.3	20.3	5 21	13 0.62	+ 1 51.3	2.393	3.168	13.6	18.6
<b>285672</b>	2000 <i>SD</i> <sub>126</sub>		4 13.3 259°44	1°6/11.6	18		<b>264575</b>	2001 <i>TE</i> <sub>104</sub>		4 13.3 122°25	1°6/11.7	18	
3 12	13 47.90	- 8 39.2	1.994	2.854	12.0	20.8	3 12	13 51.78	- 6 15.3	2.127	2.982	11.5	21.4
3 22	13 43.20	- 7 26.6	1.903	2.837	8.6	20.6	3 22	13 45.62	- 5 36.1	2.069	3.000	8.2	21.2
4 1	13 36.64	- 6 1.8	1.838	2.819	4.8	20.3	4 1	13 37.82	- 4 51.0	2.037	3.017	4.6	21.0
4 11	13 28.91	- 4 30.6	1.800	2.800	1.6	20.0	4 11	13 29.15	- 4 4.7	2.034	3.033	1.6	20.9
4 21	13 20.85	- 3 0.2	1.792	2.782	4.4	20.2	4 21	13 20.43	- 3 22.0	2.059	3.049	4.0	21.1
5 1	13 13.38	- 1 38.3	1.811	2.763	8.5	20.4	5 1	13 12.52	- 2 47.4	2.114	3.064	7.5	21.3
5 11	13 7.32	- 0 31.2	1.856	2.743	12.3	20.6	5 11	13 6.08	- 2 24.3	2.194	3.079	10.7	21.5
5 21	13 3.21	+ 0 17.4	1.922	2.723	15.5	20.7	5 21	13 1.53	- 2 14.3	2.296	3.093	13.4	21.7
<b>173848</b>	2001 <i>TC</i> <sub>134</sub>		4 13.3 150°54	4°5/ 8.2	18		<b>221798</b>	2008 <i>CC</i> <sub>7</sub>		4 13.3 284°84	3°3/15.6	18	
3 12	13 50.31	+ 6 44.1	2.778	3.634	9.1	20.9	3 12	13 52.59	-17 56.7	1.680	2.514	15.1	20.3
3 22	13 44.26	+ 7 20.5	2.719	3.642	6.8	20.8	3 22	13 47.23	-18 9.0	1.578	2.489	11.7	20.0
4 1	13 36.94	+ 7 53.0	2.689	3.650	5.0	20.7	4 1	13 39.29	-18 4.5	1.499	2.463	7.8	19.7
4 11	13 28.94	+ 8 17.5	2.687	3.657	4.5	20.7	4 11	13 29.52	-17 43.3	1.444	2.438	4.0	19.4
4 21	13 20.88	+ 8 30.8	2.714	3.664	5.9	20.8	4 21	13 19.00	-17 8.0	1.416	2.412	4.3	19.3
5 1	13 13.41	+ 8 30.8	2.769	3.671	8.1	20.9	5 1	13 9.05	-16 24.2	1.415	2.385	8.5	19.5
5 11	13 7.08	+ 8 16.9	2.850	3.677	10.3	21.1	5 11	13 0.90	-15 39.3	1.438	2.359	12.9	19.7
5 21	13 2.23	+ 7 49.8	2.952	3.683	12.2	21.2	5 21	12 55.35	-15 0.5	1.482	2.333	17.0	19.9
<b>29920</b>	1999 <i>JB</i> <sub>26</sub>		4 13.3 262°12	1°0/14.4	18		<b>422788</b>	2001 <i>WA</i> <sub>17</sub>		4 13.3 182°19	1°5/12.0	16	
3 12	13 46.28	-15 18.4	2.252	3.090	11.6	18.5	3 12	13 54.00	- 5 19.1	2.138	2.991	11.6	22.0
3 22	13 41.81	-14 37.0	2.166	3.084	8.6	18.3	3 22	13 47.37	- 5 4.6	2.063	2.992	8.3	21.8
4 1	13 35.75	-13 41.9	2.106	3.078	5.2	18.1	4 1	13 38.92	- 4 45.5	2.013	2.992	4.7	21.6
4 11	13 28.73	-12 36.4	2.073	3.072	1.6	17.8	4 11	13 29.38	- 4 25.2	1.992	2.992	1.6	21.4
4 21	13 21.51	-11 25.5	2.068	3.066	2.7	17.9	4 21	13 19.64	- 4 7.6	2.000	2.991	3.9	21.5
5 1	13 14.86	-10 15.1	2.093	3.060	6.4	18.1	5 1	13 10.60	- 3 56.4	2.037	2.990	7.6	21.8
5 11	13 9.49	- 9 11.0	2.143	3.054	9.8	18.3	5 11	13 3.05	- 3 54.5	2.101	2.988	11.1	22.0
5 21	13 5.86	- 8 17.7	2.217	3.047	12.8	18.5	5 21	12 57.49	- 4 3.5	2.186	2.986	14.0	22.2
<b>182279</b>	2001 <i>KC</i> <sub>22</sub>		4 13.3 293°99	1°6/12.0	17		<b>494880</b>	2008 <i>SQ</i> <sub>7</sub>		4 13.3 68°99	11°9/ 4.9	17	C
3 12	13 49.76	- 7 38.5	1.534	2.405	14.3	20.4	3 12	14 6.22	-19 43.1	0.255	1.188	36.2	18.8
3 22	13 45.06	- 7 0.2	1.449	2.387	10.4	20.2	3 22	13 56.39	- 8 16.5	0.264	1.234	22.7	18.5
4 1	13 37.93	- 6 10.7	1.386	2.368	5.9	19.8	4 1	13 43.05	+ 2 7.8	0.290	1.280	12.9	18.5
4 11	13 29.19	- 5 15.3	1.349	2.350	1.7	19.5	4 11	13 29.84	+ 9 56.5	0.337	1.326	13.8	18.9
4 21	13 19.94	- 4 21.2	1.338	2.332	5.0	19.7	4 21	13 19.40	+14 51.0	0.399	1.370	20.3	19.6
5 1	13 11.43	- 3 35.7	1.353	2.313	9.9	19.9	5 1	13 13.16	+17 21.3	0.475	1.413	26.0	20.2
5 11	13 4.75	- 3 5.1	1.391	2.295	14.4	20.1	5 11	13 11.32	+18 9.0	0.561	1.453	30.4	20.8
5 21	13 0.61	- 2 52.9	1.448	2.277	18.4	20.3	5 21	13 13.33	+17 48.6	0.655	1.492	33.5	21.2
<b>466357</b>	2013 <i>RQ</i> <sub>60</sub>		4 13.3 190°62	1°1/14.2	17		<b>211674</b>	2003 <i>WS</i> <sub>32</sub>		4			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>508431</b>	2016 <i>JL</i> <sub>40</sub>		4 13.3 301°18	1°6/11.4	17		<b>496827</b>	1995 <i>SE</i> <sub>72</sub>		4 13.3 124°27	0°6/12.5	17	
3 12	13 45.60	-12 13.7	1.709	2.571	13.5	20.5	3 12	13 46.81	-9 39.9	2.741	3.587	9.5	23.3
3 22	13 41.75	-10 9.0	1.623	2.558	9.7	20.2	3 22	13 41.84	-8 49.8	2.676	3.602	6.8	23.1
4 1	13 35.90	-7 43.1	1.564	2.546	5.4	19.9	4 1	13 35.64	-7 52.5	2.638	3.616	3.8	22.9
4 11	13 28.83	-5 5.0	1.533	2.533	1.6	19.7	4 11	13 28.79	-6 51.7	2.629	3.631	0.8	22.7
4 21	13 21.47	-2 26.7	1.531	2.521	5.0	19.9	4 21	13 21.89	-5 51.8	2.651	3.644	2.8	22.9
5 1	13 14.85	-0 0.7	1.558	2.510	9.6	20.1	5 1	13 15.55	-4 57.1	2.702	3.658	5.8	23.1
5 11	13 9.82	+2 3.0	1.610	2.498	13.8	20.3	5 11	13 10.28	-4 11.1	2.781	3.670	8.6	23.3
5 21	13 6.94	+3 39.0	1.683	2.486	17.3	20.5	5 21	13 6.43	-3 36.2	2.883	3.683	10.9	23.5
<b>433348</b>	2013 <i>RA</i> <sub>68</sub>		4 13.3 178°48	0°4/13.7	17		<b>471881</b>	2013 <i>AZ</i> <sub>98</sub>		4 13.3 175°70	3°3/17.1	17	
3 12	13 49.02	-13 10.9	2.265	3.106	11.5	21.8	3 12	13 49.10	-22 5.1	2.683	3.480	11.1	22.0
3 22	13 43.74	-12 31.5	2.187	3.107	8.4	21.6	3 22	13 43.71	-22 8.8	2.597	3.482	8.8	21.9
4 1	13 36.84	-11 40.4	2.133	3.108	4.9	21.4	4 1	13 36.82	-21 58.7	2.536	3.483	6.1	21.7
4 11	13 28.99	-10 41.2	2.108	3.109	1.1	21.1	4 11	13 29.04	-21 35.5	2.501	3.483	3.9	21.6
4 21	13 20.97	-9 38.8	2.112	3.109	2.8	21.3	4 21	13 21.05	-21 1.4	2.496	3.484	3.5	21.5
5 1	13 13.59	-8 35.2	2.145	3.108	6.5	21.5	5 1	13 13.59	-20 20.2	2.519	3.484	5.6	21.7
5 11	13 7.53	-7 45.7	2.204	3.108	9.9	21.7	5 11	13 7.30	-19 36.5	2.570	3.484	8.2	21.8
5 21	13 3.26	-7 4.0	2.287	3.106	12.8	21.9	5 21	13 2.64	-18 54.9	2.645	3.484	10.7	22.0
<b>55952</b>	1998 <i>HR</i> <sub>61</sub>		4 13.3 29°06	0°4/12.9	18		<b>443693</b>	2015 <i>KF</i> <sub>64</sub>		4 13.3 3°49	3°1/10.4	17	
3 12	13 47.85	-9 41.2	1.878	2.738	12.6	19.0	3 12	13 46.37	-3 27.5	1.779	2.655	12.4	20.6
3 22	13 43.09	-9 18.7	1.814	2.746	9.1	18.8	3 22	13 42.13	-2 31.1	1.714	2.655	8.8	20.4
4 1	13 36.53	-8 46.8	1.774	2.753	5.1	18.6	4 1	13 36.05	-1 29.3	1.674	2.655	5.2	20.2
4 11	13 28.93	-8 9.7	1.760	2.762	0.9	18.3	4 11	13 28.89	-0 28.6	1.660	2.656	3.1	20.0
4 21	13 21.19	-7 32.2	1.774	2.770	3.4	18.5	4 21	13 21.56	+0 24.4	1.673	2.657	5.6	20.2
5 1	13 14.22	-6 59.4	1.815	2.779	7.5	18.8	5 1	13 14.98	+1 4.1	1.712	2.659	9.3	20.4
5 11	13 8.79	-6 35.7	1.881	2.789	11.1	19.0	5 11	13 9.94	+1 26.6	1.775	2.661	12.8	20.6
5 21	13 5.34	-6 23.8	1.969	2.799	14.2	19.2	5 21	13 6.91	+1 30.8	1.857	2.663	15.8	20.8
<b>163356</b>	2002 <i>NJ</i> <sub>59</sub>		4 13.3 225°57	6°6/ 5.1	18		<b>289269</b>	2004 <i>XL</i> <sub>142</sub>		4 13.3 77°02	2°1/15.2	17	
3 12	13 47.99	+10 13.2	2.338	3.202	10.3	20.2	3 12	13 49.85	-16 52.9	1.885	2.721	13.6	20.3
3 22	13 42.95	+11 36.3	2.275	3.194	8.2	20.1	3 22	13 44.62	-16 41.3	1.815	2.729	10.3	20.1
4 1	13 36.38	+12 54.1	2.238	3.186	6.8	20.0	4 1	13 37.46	-16 14.4	1.768	2.737	6.5	19.9
4 11	13 28.91	+13 59.7	2.228	3.177	6.9	20.0	4 11	13 29.16	-15 34.6	1.748	2.744	2.8	19.7
4 21	13 21.26	+14 47.8	2.246	3.168	8.6	20.0	4 21	13 20.68	-14 46.4	1.755	2.752	3.3	19.7
5 1	13 14.20	+15 14.8	2.289	3.159	10.8	20.2	5 1	13 13.01	-13 55.7	1.790	2.760	7.0	20.0
5 11	13 8.39	+15 19.7	2.354	3.150	13.1	20.3	5 11	13 6.96	-13 8.7	1.850	2.768	10.7	20.2
5 21	13 4.26	+15 3.8	2.438	3.140	15.2	20.5	5 21	13 3.03	-12 30.3	1.932	2.776	13.9	20.4
<b>497298</b>	2005 <i>SJ</i> <sub>231</sub>		4 13.3 239°08	0°1/13.4	17		<b>340311</b>	2006 <i>DY</i> <sub>4</sub>		4 13.3 301°50	5°5/ 7.5	17 R	
3 12	13 51.82	-10 59.5	2.100	2.945	12.1	22.5	3 12	13 46.20	+1 28.7	1.754	2.635	12.3	20.6
3 22	13 46.01	-10 39.1	2.007	2.931	8.8	22.2	3 22	13 42.14	+3 5.6	1.680	2.620	9.0	20.3
4 1	13 38.27	-10 8.3	1.939	2.916	5.1	22.0	4 1	13 36.14	+4 46.2	1.632	2.606	6.2	20.1
4 11	13 29.29	-9 30.4	1.899	2.900	1.0	21.7	4 11	13 28.93	+6 21.3	1.611	2.592	5.7	20.1
4 21	13 19.94	-8 49.3	1.888	2.884	3.2	21.8	4 21	13 21.42	+7 42.1	1.616	2.578	8.2	20.2
5 1	13 11.17	-8 10.4	1.906	2.868	7.3	22.0	5 1	13 14.60	+8 41.5	1.647	2.565	11.6	20.3
5 11	13 3.83	-7 38.4	1.949	2.851	11.1	22.2	5 11	13 9.32	+9 15.9	1.699	2.551	15.0	20.5
5 21	12 58.50	-7 17.1	2.015	2.833	14.3	22.4	5 21	13 6.11	+9 24.9	1.770	2.538	17.9	20.7
<b>157073</b>	2003 <i>UL</i> <sub>56</sub>		4 13.3 261°20	4°7/ 7.3	18		<b>88126</b>	2000 <i>WW</i> <sub>145</sub>		4 13.3 231°85	6°1/ 6.9	18	
3 12	13 47.41	+7 36.8	2.837	3.698	8.8	20.0	3 12	13 49.99	+10 18.9	2.400	3.259	10.2	19.6
3 22	13 42.33	+8 20.4	2.760	3.683	6.7	19.8	3 22	13 44.31	+11 3.4	2.337	3.256	8.0	19.5
4 1	13 35.96	+9 0.4	2.710	3.669	5.1	19.7	4 1	13 37.14	+11 41.3	2.300	3.252	6.4	19.4
4 11	13 28.83	+9 32.4	2.688	3.655	4.9	19.7	4 11	13 29.10	+12 7.4	2.291	3.248	6.2	19.3
4 21	13 21.53	+9 52.9	2.695	3.640	6.3	19.7	4 21	13 20.94	+12 17.7	2.309	3.245	7.7	19.4
5 1	13 14.68	+9 59.2	2.729	3.625	8.4	19.9	5 1	13 13.41	+12 10.1	2.354	3.241	9.9	19.6
5 11	13 8.84	+9 50.3	2.788	3.610	10.6	20.0	5 11	13 7.15	+11 44.4	2.422	3.237	12.2	19.7
5 21	13 4.40	+9 26.6	2.867	3.594	12.6	20.1	5 21	13 2.59	+11 2.0	2.510	3.233	14.3	19.9
<b>471486</b>	2011 <i>UM</i> <sub>406</sub>		4 13.3 265°42	4°8/18.4	18		<b>206240</b>	2002 <i>WC</i> <sub>27</sub>		4 13.3 4°88	0°3/13.6	17 R	
3 12	13 48.56	-26 5.0	2.410	3.193	12.7	20.8	3 12	13 48.37	-11 46.2	2.015	2.866	12.3	20.5
3 22	13 43.58	-26 13.4	2.314	3.184	10.3	20.6	3 22	13 43.46	-11 25.3	1.940	2.866	8.9	20.3
4 1	13 36.86	-26 4.1	2.241	3.174	7.7	20.4	4 1	13 36.78	-10 53.8	1.889	2.866	5.2	20.1
4 11	13 29.04	-25 36.9	2.193	3.164	5.5	20.3	4 11	13 29.04	-10 14.9	1.865	2.866	1.1	19.8
4 21	13 20.89	-24 53.9	2.173	3.154	4.9	20.2	4 21	13 21.09	-9 33.1	1.869	2.867	3.1	20.0
5 1	13 13.28	-23 59.2	2.181	3.143	6.6	20.3	5 1	13 13.82	-8 53.6	1.901	2.867	7.0	20.2
5 11	13 6.99	-22 58.8	2.216	3.133	9.2	20.4	5 11	13 8.00	-8 21.2	1.959	2.868	10.6	20.4
5 21	13 2.53	-21 58.5	2.274	3.123	11.9	20.6	5 21	13 4.11	-7 59.3	2.038	2.869	13.7	20.6
<b>133491</b>	2003 <i>SZ</i> <sub>272</sub>		4 13.3 272°73	3°4/15.8	18		<b>97901</b>	2000 <i>QT</i> <sub>75</sub>		4 13.3 214°42	3°4/15.9	16	
3 12	13 52.66	-18 42.8	1.628	2.461	15.6	19.6	3 12	13 54.31	-19 14.3	1.778	2.601	14.9	20.5
3 22	13 47.31	-18 48.0	1.531	2.441	12.1	19.3	3 22	13 48.18	-19 19.9	1.692	2.595	11.5	20.2
4 1	13 39.34	-18 34.4	1.456	2.420	8.0	19.0	4 1	13 39.68	-19 7.7	1.628	2.589	7.7	20.0
4 11	13 29.55	-18 2.4	1.406	2.399	4.2	18.7	4 11	13 29.63	-18 38.3	1.590	2.582	4.1	19.7
4 21	13 19.09	-17 15.2	1.382	2.378	4.4	18.7	4 21	13 19.13	-17 55.2	1.580	2.574	4.2	19.7
5 1	13 9.28	-16 19.3	1.385	2.356	8.5	18.9	5 1	13 9.42	-17 4.2	1.597	2.566	7.8	19.9
5 11	13 1.35	-15 22.9	1.412	2.334	13.0	19.1	5 11	13 1.53	-16 12.8	1.640	2.557	11.8	20.1
5 21	12 56.10	-14 33.9	1.460	2.312	17.1	19.2	5 21	12 56.13	-15 27.7	1.704	2.548	15.4	20.3
<b>206399</b>	2003 <i>SN</i> <sub>49</sub>		4 13.3 207°72	1°1/14.4	17		<b>403810</b>	2011 <i>UL</i> <sub>114</sub>		4 13.3 160°58	2°6/11.3	18	
3 12	13 49.1												

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>28352</b>	1999 <i>FF</i> <sub>31</sub>		4 13.3 102°88	2°8/10.1	18		<b>21334</b>	1997 <i>BO</i> <sub>2</sub>		4 13.3 7°73	1°6/14.3	18	
3 12	13 46.59	- 3 31.4	2.199	3.066	10.7	17.3	3 12	13 51.14	-12 45.7	1.213	2.082	17.4	18.1
3 22	13 41.95	- 2 22.2	2.137	3.074	7.6	17.1	3 22	13 46.44	-12 59.1	1.149	2.083	12.9	17.9
4 1	13 35.82	- 1 8.4	2.102	3.081	4.4	16.9	4 1	13 38.87	-12 57.2	1.106	2.084	7.8	17.6
4 11	13 28.85	+ 0 4.1	2.095	3.089	2.8	16.8	4 11	13 29.51	-12 42.6	1.087	2.087	2.5	17.2
4 21	13 21.79	+ 1 9.4	2.116	3.096	5.0	17.0	4 21	13 19.76	-12 20.1	1.091	2.090	4.2	17.4
5 1	13 15.39	+ 2 2.5	2.165	3.103	8.1	17.2	5 1	13 11.16	-11 56.7	1.120	2.094	9.6	17.7
5 11	13 10.27	+ 2 39.9	2.239	3.111	11.1	17.4	5 11	13 4.93	-11 39.3	1.170	2.099	14.5	18.0
5 21	13 6.84	+ 3 0.5	2.335	3.118	13.7	17.6	5 21	13 1.72	-11 33.0	1.239	2.105	18.6	18.2
<b>453237</b>	2008 <i>QP</i> <sub>13</sub>		4 13.3 168°04	2°0/14.9	18		<b>50043</b>	2000 <i>AC</i> <sub>59</sub>		4 13.3 304°01	0°1/13.3	18	
3 12	13 55.65	-16 4.0	1.770	2.602	14.5	21.9	3 12	13 50.39	-10 35.7	1.487	2.352	15.0	18.5
3 22	13 48.97	-15 55.4	1.695	2.607	10.9	21.7	3 22	13 45.64	-10 18.2	1.403	2.337	11.0	18.2
4 1	13 40.02	-15 31.1	1.643	2.612	6.8	21.5	4 1	13 38.37	- 9 47.7	1.342	2.322	6.4	17.9
4 11	13 29.68	-14 53.2	1.618	2.615	2.7	21.2	4 11	13 29.43	- 9 8.0	1.306	2.307	1.2	17.5
4 21	13 19.07	-14 6.3	1.621	2.618	3.5	21.3	4 21	13 19.96	- 8 24.9	1.295	2.292	4.1	17.6
5 1	13 9.36	-13 16.7	1.652	2.620	7.7	21.5	5 1	13 11.28	- 7 45.5	1.310	2.278	9.3	17.9
5 11	13 1.53	-12 31.1	1.709	2.621	11.8	21.8	5 11	13 4.52	- 7 16.3	1.348	2.264	14.0	18.1
5 21	12 56.16	-11 54.9	1.788	2.622	15.2	22.0	5 21	13 0.39	- 7 1.9	1.406	2.251	18.0	18.3
<b>385192</b>	1997 <i>TR</i> <sub>12</sub>		4 13.3 215°20	0°5/13.9	17		<b>454501</b>	2014 <i>OF</i> <sub>178</sub>		4 13.3 135°68	1°2/14.3	18	
3 12	13 48.56	-12 58.7	2.537	3.374	10.5	22.0	3 12	13 55.40	-13 57.9	1.886	2.722	13.6	22.1
3 22	13 43.35	-12 32.4	2.448	3.367	7.7	21.8	3 22	13 48.55	-13 45.0	1.820	2.737	10.0	21.9
4 1	13 36.64	-11 56.1	2.386	3.360	4.5	21.6	4 1	13 39.66	-13 19.0	1.779	2.751	6.0	21.7
4 11	13 29.03	-11 12.5	2.352	3.352	1.2	21.4	4 11	13 29.63	-12 43.0	1.765	2.764	1.9	21.5
4 21	13 21.21	-10 25.2	2.347	3.344	2.6	21.5	4 21	13 19.46	-12 1.4	1.780	2.777	3.2	21.6
5 1	13 13.89	- 9 38.8	2.372	3.336	6.0	21.7	5 1	13 10.22	-11 19.8	1.823	2.789	7.3	21.9
5 11	13 7.74	- 8 57.5	2.423	3.327	9.1	21.8	5 11	13 2.75	-10 43.8	1.892	2.800	11.1	22.1
5 21	13 3.19	- 8 24.9	2.499	3.317	11.9	22.0	5 21	12 57.55	-10 17.5	1.984	2.810	14.2	22.3
<b>36733</b>	2000 <i>RY</i> <sub>51</sub>		4 13.3 227°28	0°1/13.2	18		<b>373984</b>	2003 <i>YE</i> <sub>163</sub>		4 13.3 68°70	6°7/ 7.8	18	
3 12	13 46.64	-11 4.1	2.751	3.593	9.6	19.6	3 12	13 54.49	+10 12.9	1.972	2.831	12.1	20.5
3 22	13 41.86	-10 28.7	2.662	3.585	7.0	19.4	3 22	13 47.47	+10 55.6	1.943	2.863	9.3	20.3
4 1	13 35.76	- 9 44.9	2.599	3.576	4.0	19.2	4 1	13 38.82	+11 29.2	1.941	2.894	7.2	20.3
4 11	13 28.86	- 8 55.7	2.565	3.566	0.7	18.9	4 11	13 29.43	+11 47.9	1.965	2.926	6.8	20.3
4 21	13 21.77	- 8 4.8	2.561	3.557	2.6	19.1	4 21	13 20.22	+11 48.4	2.016	2.957	8.3	20.5
5 1	13 15.14	- 7 16.4	2.586	3.546	5.8	19.3	5 1	13 12.06	+11 29.4	2.094	2.987	10.7	20.7
5 11	13 9.53	- 6 34.5	2.639	3.536	8.7	19.4	5 11	13 5.60	+10 52.3	2.195	3.018	13.1	20.9
5 21	13 5.36	- 6 1.9	2.715	3.525	11.2	19.6	5 21	13 1.17	+ 9 59.6	2.315	3.048	15.1	21.1
<b>400579</b>	2008 <i>YG</i> <sub>55</sub>		4 13.3 105°77	4°4/16.6	18		<b>337864</b>	2001 <i>WT</i> <sub>2</sub>		4 13.3 65°72	0°4/13.8	17	
3 12	13 53.65	-21 8.5	1.498	2.325	17.0	21.0	3 12	13 49.20	-12 18.6	2.074	2.921	12.1	21.0
3 22	13 47.89	-21 17.8	1.429	2.332	13.2	20.8	3 22	13 43.87	-11 55.9	2.018	2.942	8.8	20.9
4 1	13 39.54	-21 4.9	1.381	2.339	9.1	20.6	4 1	13 36.92	-11 22.9	1.987	2.963	5.1	20.7
4 11	13 29.60	-20 30.6	1.358	2.346	5.3	20.4	4 11	13 29.09	-10 43.1	1.983	2.984	1.2	20.4
4 21	13 19.36	-19 39.1	1.360	2.353	5.0	20.3	4 21	13 21.23	-10 0.9	2.008	3.006	2.9	20.6
5 1	13 10.19	-18 37.9	1.388	2.360	8.5	20.6	5 1	13 14.16	- 9 21.2	2.061	3.027	6.6	20.9
5 11	13 3.18	-17 36.3	1.441	2.366	12.6	20.8	5 11	13 8.56	- 8 48.6	2.140	3.048	9.9	21.1
5 21	12 58.95	-16 42.1	1.514	2.372	16.3	21.1	5 21	13 4.81	- 8 25.8	2.241	3.069	12.7	21.3
<b>134624</b>	1999 <i>TZ</i> <sub>272</sub>		4 13.3 248°54	1°7/14.6	17		<b>40828</b>	1999 <i>TM</i> <sub>03</sub>		4 13.3 259°52	3°7/ 9.4	18	
3 12	13 53.73	-14 29.9	1.759	2.600	14.2	20.1	3 12	13 47.20	- 2 30.0	1.946	2.818	11.7	19.0
3 22	13 47.80	-14 31.4	1.669	2.587	10.7	19.9	3 22	13 42.69	- 1 7.1	1.870	2.809	8.4	18.8
4 1	13 39.49	-14 19.1	1.603	2.574	6.6	19.6	4 1	13 36.40	+ 0 22.1	1.821	2.800	5.1	18.6
4 11	13 29.62	-13 54.7	1.563	2.561	2.4	19.3	4 11	13 29.02	+ 1 50.1	1.799	2.790	3.7	18.5
4 21	13 19.24	-13 21.9	1.550	2.547	3.6	19.3	4 21	13 21.40	+ 3 9.5	1.805	2.780	6.2	18.6
5 1	13 9.57	-12 46.2	1.565	2.533	8.0	19.6	5 1	13 14.43	+ 4 13.6	1.837	2.770	9.7	18.8
5 11	13 1.65	-12 13.9	1.605	2.519	12.3	19.8	5 11	13 8.89	+ 4 57.9	1.894	2.760	13.0	19.0
5 21	12 56.18	-11 50.1	1.666	2.504	16.0	20.0	5 21	13 5.26	+ 5 21.2	1.971	2.750	15.9	19.1
<b>281611</b>	2008 <i>UQ</i> <sub>210</sub>		4 13.3 189°32	0°9/14.3	17		<b>439499</b>	2014 <i>AK</i> <sub>28</sub>		4 13.3 44°55	4°6/17.8	17	
3 12	13 48.93	-14 27.9	2.180	3.018	11.9	22.0	3 12	13 48.74	-24 2.9	2.006	2.810	14.1	20.7
3 22	13 43.79	-13 59.0	2.099	3.017	8.8	21.8	3 22	13 43.85	-24 7.8	1.933	2.818	11.2	20.5
4 1	13 36.96	-13 17.4	2.044	3.016	5.3	21.6	4 1	13 37.06	-23 53.2	1.881	2.826	8.1	20.3
4 11	13 29.11	-12 26.2	2.016	3.015	1.6	21.3	4 11	13 29.15	-23 20.0	1.855	2.835	5.3	20.1
4 21	13 21.06	-11 30.0	2.016	3.014	2.8	21.4	4 21	13 21.03	-22 31.4	1.856	2.843	4.7	20.1
5 1	13 13.65	-10 34.2	2.046	3.012	6.6	21.6	5 1	13 13.68	-21 32.8	1.884	2.852	6.9	20.3
5 11	13 7.61	- 9 44.3	2.101	3.010	10.0	21.9	5 11	13 7.90	-20 31.3	1.938	2.861	10.0	20.5
5 21	13 3.41	- 9 4.3	2.180	3.008	13.0	22.0	5 21	13 4.19	-19 33.3	2.015	2.870	12.9	20.7
<b>405522</b>	2005 <i>EM</i> <sub>53</sub>		4 13.3 114°04	2°4/11.1	18		<b>58245</b>	1993 <i>OS</i> <sub>7</sub>		4 13.3 254°95	4°9/ 9.3	17	
3 12	13 51.78	- 6 17.9	1.708	2.573	13.4	21.6	3 12	13 51.86	- 0 1.1	1.593	2.468	13.6	19.0
3 22	13 45.96	- 5 9.2	1.654	2.590	9.5	21.4	3 22	13 46.48	+ 1 8.0	1.515	2.453	10.0	18.7
4 1	13 38.17	- 3 52.5	1.626	2.606	5.3	21.2	4 1	13 38.75	+ 2 21.3	1.461	2.438	6.4	18.4
4 11	13 29.32	- 2 35.0	1.624	2.622	2.4	21.0	4 11	13 29.50	+ 3 30.7	1.434	2.423	5.0	18.3
4 21	13 20.45	- 1 24.1	1.651	2.638	5.2	21.2	4 21	13 19.84	+ 4 27.8	1.433	2.407	7.7	18.4
5 1	13 12.55	- 0 26.6	1.704	2.653	9.2	21.5	5 1	13 10.97	+ 5 5.6	1.458	2.391	11.7	18.6
5 11	13 6.43	+ 0 13.3	1.782	2.667	12.8	21.7	5 11	13 3.91	+ 5 20.3	1.505	2.375	15.6	18.8
5 21	13 2.53	+ 0 34.0	1.880	2.681	15.8	22.0	5 21	12 59.33	+ 5 11.7	1.570	2.358	19.0	19.0
<b>419863</b>	2011 <i>AW</i> <sub>15</sub>		4 13.3 122°85	4°9/ 9.5	18		<b>312058</b>	2007 <i>ST</i> <sub>5</sub>		4 13.3 149°40			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>497545</b>	2006 CD <sub>67</sub>		4 13.3 16°62	4.8/17.0	17		<b>497468</b>	2005 YA <sub>141</sub>		4 13.3 125°55	1.3/14.5	17	
3 12	13 51.78	-21 55.3	1.732	2.550	15.4	20.9	3 12	13 50.88	-14 44.2	1.971	2.810	13.0	21.8
3 22	13 46.39	-22 23.0	1.655	2.551	12.2	20.7	3 22	13 45.31	-14 26.8	1.900	2.818	9.6	21.6
4 1	13 38.67	-22 31.7	1.601	2.553	8.7	20.4	4 1	13 37.88	-13 56.1	1.853	2.825	5.8	21.4
4 11	13 29.50	-22 21.2	1.572	2.555	5.6	20.3	4 11	13 29.35	-13 15.1	1.834	2.833	2.0	21.1
4 21	13 19.96	-21 53.8	1.568	2.557	5.1	20.2	4 21	13 20.64	-12 28.3	1.842	2.840	3.0	21.2
5 1	13 11.25	-21 14.6	1.591	2.560	7.9	20.4	5 1	13 12.72	-11 41.1	1.879	2.847	6.9	21.5
5 11	13 4.39	-20 31.0	1.639	2.562	11.5	20.6	5 11	13 6.36	-10 59.2	1.941	2.853	10.6	21.7
5 21	13 0.00	-19 49.9	1.708	2.565	14.8	20.8	5 21	13 2.06	-10 26.9	2.025	2.859	13.7	21.9
<b>93148</b>	2000 SC <sub>80</sub>		4 13.3 30°15	0°2/13.2	18		<b>24083</b>	1999 TM <sub>283</sub>		4 13.3 306°24	5°2/10.1	18	
3 12	13 51.08	- 9 49.4	1.644	2.505	14.0	19.3	3 12	13 51.89	- 0 47.0	1.145	2.035	16.6	18.5
3 22	13 45.74	- 9 35.9	1.576	2.508	10.2	19.0	3 22	13 47.27	+ 0 2.9	1.072	2.018	12.2	18.2
4 1	13 38.23	- 9 12.2	1.532	2.511	5.8	18.8	4 1	13 39.55	+ 0 58.1	1.020	2.002	7.6	17.9
4 11	13 29.40	- 8 41.9	1.513	2.515	1.1	18.5	4 11	13 29.74	+ 1 49.0	0.991	1.985	5.3	17.7
4 21	13 20.35	- 8 10.3	1.522	2.518	3.8	18.7	4 21	13 19.27	+ 2 25.8	0.986	1.969	8.5	17.8
5 1	13 12.17	- 7 42.7	1.556	2.522	8.3	18.9	5 1	13 9.81	+ 2 40.7	1.003	1.954	13.7	18.0
5 11	13 5.80	- 7 24.3	1.615	2.526	12.4	19.2	5 11	13 2.76	+ 2 29.4	1.039	1.939	18.6	18.3
5 21	13 1.79	- 7 18.1	1.695	2.531	15.9	19.4	5 21	12 58.93	+ 1 52.4	1.092	1.924	22.9	18.5
<b>494265</b>	2016 QL <sub>55</sub>		4 13.3 230°41	3°1/16.9	17		<b>283527</b>	2001 TG <sub>131</sub>		4 13.3 220°05	2°6/10.0	18	
3 12	13 47.77	-21 51.5	2.547	3.350	11.5	21.7	3 12	13 47.49	- 1 49.9	2.844	3.702	8.8	21.8
3 22	13 42.88	-21 40.4	2.454	3.343	9.0	21.5	3 22	13 42.43	- 0 58.7	2.760	3.692	6.3	21.6
4 1	13 36.44	-21 14.0	2.386	3.337	6.2	21.3	4 1	13 36.10	- 0 4.7	2.704	3.681	3.8	21.4
4 11	13 29.06	-20 33.6	2.344	3.330	3.7	21.1	4 11	13 29.01	+ 0 48.1	2.678	3.670	2.6	21.3
4 21	13 21.44	-19 42.2	2.332	3.323	3.4	21.1	4 21	13 21.73	+ 1 35.5	2.681	3.658	4.3	21.4
5 1	13 14.35	-18 44.1	2.348	3.315	5.8	21.2	5 1	13 14.90	+ 2 13.7	2.713	3.646	7.0	21.6
5 11	13 8.44	-17 44.8	2.391	3.308	8.6	21.4	5 11	13 9.05	+ 2 40.1	2.772	3.633	9.5	21.7
5 21	13 4.19	-16 49.4	2.458	3.300	11.3	21.5	5 21	13 4.60	+ 2 53.5	2.853	3.620	11.8	21.9
<b>88925</b>	2001 TC <sub>18</sub>		4 13.3 246°77	0°8/12.6	18		<b>366967</b>	2005 WU <sub>90</sub>		4 13.3 170°61	1°9/15.5	16	
3 12	13 51.29	- 8 39.7	1.966	2.820	12.4	20.1	3 12	13 51.23	-17 52.2	2.565	3.379	11.1	22.7
3 22	13 45.75	- 8 11.1	1.878	2.807	9.0	19.8	3 22	13 45.24	-17 32.7	2.483	3.384	8.4	22.5
4 1	13 38.22	- 7 33.3	1.814	2.794	5.1	19.5	4 1	13 37.73	-17 0.4	2.426	3.388	5.4	22.3
4 11	13 29.42	- 6 50.2	1.778	2.779	1.1	19.2	4 11	13 29.32	-16 17.2	2.397	3.392	2.5	22.1
4 21	13 20.25	- 6 6.8	1.771	2.765	3.8	19.4	4 21	13 20.75	-15 26.6	2.399	3.395	2.7	22.1
5 1	13 11.71	- 5 28.5	1.791	2.750	8.0	19.6	5 1	13 12.77	-14 33.0	2.430	3.397	5.7	22.3
5 11	13 4.67	- 5 0.1	1.836	2.735	11.8	19.8	5 11	13 6.05	-13 41.5	2.489	3.398	8.7	22.5
5 21	12 59.72	- 4 44.9	1.904	2.719	15.1	20.0	5 21	13 1.02	-12 56.4	2.573	3.398	11.4	22.7
<b>118093</b>	1163 T <sub>-3</sub>		4 13.3 95°36	3°7/17.1	18		<b>211107</b>	2002 EU <sub>151</sub>		4 13.3 75°48	1°4/14.3	18	
3 12	13 52.36	-21 58.0	2.517	3.312	11.8	19.5	3 12	13 55.99	-13 29.1	1.390	2.244	16.6	20.6
3 22	13 46.09	-22 22.1	2.446	3.328	9.3	19.4	3 22	13 49.43	-13 28.7	1.340	2.265	12.2	20.3
4 1	13 38.21	-22 32.3	2.400	3.345	6.6	19.2	4 1	13 40.32	-13 13.1	1.311	2.286	7.3	20.1
4 11	13 29.39	-22 28.8	2.381	3.361	4.3	19.1	4 11	13 29.81	-12 45.5	1.308	2.307	2.3	19.9
4 21	13 20.42	-22 13.4	2.391	3.376	3.9	19.1	4 21	13 19.26	-12 11.3	1.331	2.329	3.8	20.0
5 1	13 12.10	-21 49.4	2.430	3.392	6.0	19.2	5 1	13 10.00	-11 37.3	1.379	2.350	8.7	20.3
5 11	13 5.12	-21 21.6	2.496	3.407	8.5	19.4	5 11	13 3.05	-11 10.1	1.452	2.370	13.0	20.6
5 21	12 59.94	-20 54.2	2.586	3.423	11.0	19.6	5 21	12 58.89	-10 53.9	1.545	2.391	16.6	20.9
<b>507062</b>	2008 WY <sub>34</sub>		4 13.3 222°69	0°2/13.1	17		<b>158455</b>	2002 CS <sub>135</sub>		4 13.3 117°58	0°5/13.8	17	
3 12	13 48.65	-11 12.4	2.216	3.064	11.4	22.4	3 12	13 50.41	-12 40.4	1.903	2.751	13.0	20.8
3 22	13 43.60	-10 31.7	2.132	3.057	8.3	22.1	3 22	13 45.00	-12 13.3	1.834	2.758	9.5	20.5
4 1	13 36.88	- 9 40.1	2.072	3.050	4.7	21.9	4 1	13 37.71	-11 34.0	1.790	2.766	5.5	20.3
4 11	13 29.15	- 8 41.7	2.041	3.042	0.9	21.6	4 11	13 29.32	-10 46.2	1.772	2.773	1.3	20.0
4 21	13 21.18	- 7 41.4	2.039	3.034	3.1	21.8	4 21	13 20.77	- 9 55.0	1.783	2.780	3.2	20.2
5 1	13 13.80	- 6 44.7	2.065	3.026	6.9	22.0	5 1	13 13.01	- 9 6.2	1.821	2.787	7.3	20.5
5 11	13 7.73	- 5 56.8	2.117	3.018	10.4	22.2	5 11	13 6.85	- 8 25.5	1.885	2.794	11.0	20.7
5 21	13 3.46	- 5 21.0	2.192	3.009	13.4	22.4	5 21	13 2.77	- 7 56.3	1.970	2.800	14.2	20.9
<b>234216</b>	2000 SX <sub>104</sub>		4 13.3 245°73	1°7/11.0	18		<b>327422</b>	2005 WU <sub>15</sub>		4 13.3 247°50	1°0/14.3	18	
3 12	13 45.83	- 7 36.2	2.577	3.433	9.8	20.6	3 12	13 51.04	-14 35.2	2.191	3.025	12.0	22.0
3 22	13 41.38	- 6 14.8	2.488	3.420	6.9	20.4	3 22	13 45.50	-14 8.3	2.090	3.006	9.0	21.8
4 1	13 35.55	- 4 44.5	2.426	3.406	3.9	20.1	4 1	13 38.07	-13 27.9	2.013	2.985	5.4	21.5
4 11	13 28.89	- 3 10.3	2.394	3.393	1.7	20.0	4 11	13 29.42	-12 36.6	1.965	2.964	1.7	21.2
4 21	13 22.03	- 1 38.4	2.392	3.379	3.9	20.1	4 21	13 20.36	-11 38.7	1.945	2.943	2.9	21.3
5 1	13 15.64	- 0 14.5	2.420	3.364	7.1	20.3	5 1	13 11.82	-10 39.6	1.955	2.920	6.9	21.5
5 11	13 10.32	+ 0 56.5	2.475	3.350	10.1	20.4	5 11	13 4.63	- 9 45.5	1.991	2.897	10.6	21.7
5 21	13 6.48	+ 1 51.7	2.552	3.335	12.6	20.6	5 21	12 59.38	- 9 1.2	2.050	2.874	13.9	21.8
<b>473847</b>	2016 EX <sub>129</sub>		4 13.3 60°18	2°4/14.9	16		<b>377194</b>	2003 WP <sub>12</sub>		4 13.3 243°70	12°6/ 8.0	17	
3 12	13 53.40	-15 35.1	1.493	2.340	16.0	21.6	3 12	14 9.41	+16 47.8	1.176	2.029	19.0	21.3
3 22	13 47.64	-15 44.4	1.428	2.348	12.0	21.4	3 22	14 0.07	+17 28.5	1.110	2.018	15.8	21.0
4 1	13 39.39	-15 37.5	1.386	2.357	7.5	21.1	4 1	13 46.85	+17 47.8	1.065	2.006	13.3	20.8
4 11	13 29.65	-15 16.4	1.368	2.366	3.2	20.9	4 11	13 31.14	+17 32.7	1.043	1.993	12.7	20.7
4 21	13 19.65	-14 45.2	1.377	2.374	3.9	20.9	4 21	13 14.90	+16 35.9	1.045	1.979	14.8	20.8
5 1	13 10.69	-14 10.4	1.412	2.383	8.3	21.2	5 1	13 0.24	+14 57.7	1.070	1.965	18.3	21.0
5 11	13 3.83	-13 38.9	1.470	2.392	12.6	21.5	5 11	12 48.80	+12 45.7	1.115	1.951	22.2	21.2
5 21	12 59.65	-13 16.0	1.549	2.401	16.3	21.7	5 21	12 41.31	+10 10.3	1.177	1.936	25.6	21.4
<b>157512</b>	2005 SX <sub>93</sub>		4 13.3 52°95	0°7/12.9	18		<b>289530</b>	2005 EY <sub>199</sub>		4 13.3 147°64	1°0/12.6	18	
3 12	13 56.06												

EPHEMERIDES

4 13.3

4 13.4

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>195531</b>	2002 <i>JY</i> <sub>29</sub>		4 13.3 327°10		3°9/10.4 18		<b>186901</b>	2004 <i>LS</i> <sub>6</sub>		4 13.3 270°74		0°1/13.3 17	
3 12	13 50.89	- 0 10.1	1.677	2.551	13.1	19.4	3 12	13 51.48	-10 54.0	1.877	2.729	13.0	20.6
3 22	13 45.61	+ 0 20.4	1.606	2.544	9.5	19.2	3 22	13 46.10	-10 32.8	1.781	2.707	9.6	20.3
4 1	13 38.19	+ 0 52.2	1.558	2.537	5.9	18.9	4 1	13 38.56	-10 0.0	1.708	2.685	5.5	20.1
4 11	13 29.44	+ 1 19.4	1.537	2.530	3.9	18.8	4 11	13 29.57	- 9 18.9	1.662	2.663	1.1	19.7
4 21	13 20.40	+ 1 36.7	1.543	2.524	6.3	18.9	4 21	13 20.08	- 8 34.3	1.644	2.640	3.6	19.8
5 1	13 12.17	+ 1 39.5	1.574	2.518	10.2	19.1	5 1	13 11.15	- 7 51.9	1.653	2.617	8.1	20.0
5 11	13 5.66	+ 1 25.5	1.628	2.512	13.9	19.4	5 11	13 3.78	- 7 17.7	1.688	2.594	12.2	20.2
5 21	13 1.46	+ 0 54.8	1.702	2.507	17.1	19.6	5 21	12 58.61	- 6 55.6	1.744	2.571	15.9	20.4
<b>102605</b>	1999 <i>VH</i> <sub>9</sub>		4 13.3 156°03		1°0/12.4 18 R		<b>353273</b>	2010 <i>FM</i> <sub>24</sub>		4 13.3 350°11		4°1/10.7 16	
3 12	13 53.52	- 7 57.1	1.977	2.829	12.4	20.0	3 12	13 47.81	- 3 55.9	1.029	1.927	17.4	20.5
3 22	13 47.16	- 7 28.1	1.908	2.837	8.9	19.8	3 22	13 44.33	- 3 0.3	0.969	1.920	12.6	20.2
4 1	13 38.91	- 6 51.3	1.865	2.844	5.0	19.5	4 1	13 37.83	- 1 55.1	0.930	1.915	7.3	19.9
4 11	13 29.56	- 6 10.8	1.849	2.850	1.2	19.3	4 11	13 29.44	- 0 50.4	0.913	1.910	4.2	19.7
4 21	13 20.06	- 5 31.6	1.863	2.856	3.8	19.5	4 21	13 20.63	+ 0 3.2	0.918	1.907	7.7	19.9
5 1	13 11.37	- 4 58.5	1.905	2.861	7.8	19.7	5 1	13 13.02	+ 0 36.2	0.945	1.905	13.1	20.1
5 11	13 4.27	- 4 35.7	1.972	2.866	11.4	20.0	5 11	13 7.90	+ 0 43.6	0.991	1.904	18.1	20.4
5 21	12 59.27	- 4 25.6	2.061	2.869	14.4	20.2	5 21	13 5.91	+ 0 24.8	1.053	1.904	22.3	20.7
<b>210065</b>	2006 <i>QF</i> <sub>3</sub>		4 13.3 310°69		4°2/15.6 17		<b>304129</b>	2006 <i>KY</i> <sub>36</sub>		4 13.3 50°45		4°5/10.6 18	
3 12	13 51.92	-17 33.6	1.318	2.169	17.5	20.2	3 12	13 53.79	- 1 13.3	1.167	2.053	16.7	20.3
3 22	13 47.49	-18 7.3	1.218	2.138	13.7	19.9	3 22	13 48.01	- 0 30.5	1.128	2.072	12.0	20.1
4 1	13 39.89	-18 23.5	1.139	2.107	9.2	19.5	4 1	13 39.56	+ 0 14.3	1.110	2.091	7.2	19.9
4 11	13 29.88	-18 21.0	1.083	2.076	5.0	19.2	4 11	13 29.71	+ 0 52.7	1.117	2.112	4.5	19.8
4 21	13 18.74	-18 1.2	1.051	2.046	5.3	19.1	4 21	13 19.92	+ 1 17.3	1.148	2.132	7.4	20.0
5 1	13 8.15	-17 29.3	1.042	2.017	10.1	19.3	5 1	13 11.58	+ 1 23.1	1.202	2.153	11.9	20.3
5 11	12 59.73	-16 54.1	1.056	1.988	15.4	19.5	5 11	13 5.69	+ 1 8.4	1.278	2.174	16.0	20.6
5 21	12 54.56	-16 24.4	1.088	1.960	20.3	19.7	5 21	13 2.67	+ 0 34.4	1.371	2.196	19.5	20.9
<b>177953</b>	2006 <i>MQ</i> <sub>6</sub>		4 13.3 248°74		1°2/12.1 18		<b>69159</b>	Ivanking		4 13.3 319°48		10°8/ 3.5 18	
3 12	13 51.69	- 8 45.4	2.053	2.905	12.0	21.2	3 12	13 49.02	+14 10.2	1.455	2.332	14.6	19.1
3 22	13 46.06	- 7 52.5	1.954	2.882	8.7	20.9	3 22	13 44.68	+15 43.9	1.388	2.309	12.2	18.9
4 1	13 38.44	- 6 48.2	1.880	2.859	4.9	20.7	4 1	13 37.86	+17 6.9	1.344	2.286	10.9	18.7
4 11	13 29.51	- 5 37.4	1.835	2.835	1.3	20.4	4 11	13 29.44	+18 7.4	1.323	2.264	11.4	18.7
4 21	13 20.14	- 4 26.1	1.818	2.810	4.1	20.5	4 21	13 20.59	+18 36.5	1.325	2.243	13.6	18.7
5 1	13 11.31	- 3 21.0	1.831	2.784	8.3	20.7	5 1	13 12.59	+18 29.5	1.347	2.222	16.6	18.9
5 11	13 3.90	- 2 28.0	1.869	2.757	12.1	20.9	5 11	13 6.52	+17 46.9	1.388	2.202	19.7	19.0
5 21	12 58.52	- 1 50.9	1.929	2.730	15.5	21.1	5 21	13 3.06	+16 33.2	1.443	2.183	22.4	19.2
<b>151168</b>	2001 <i>XC</i> <sub>154</sub>		4 13.3 117°95		1°8/11.8 18		<b>312101</b>	2007 <i>TX</i> <sub>133</sub>		4 13.4 105°22		0°5/12.9 18	
3 12	13 50.30	- 6 35.7	1.828	2.692	12.7	20.1	3 12	13 52.83	-10 28.0	1.637	2.494	14.3	21.6
3 22	13 44.95	- 5 53.1	1.763	2.698	9.1	19.9	3 22	13 46.89	- 9 48.4	1.580	2.510	10.3	21.4
4 1	13 37.69	- 5 2.9	1.723	2.704	5.1	19.7	4 1	13 38.82	- 8 56.9	1.547	2.526	5.8	21.1
4 11	13 29.34	- 4 10.5	1.709	2.709	1.8	19.5	4 11	13 29.59	- 7 58.9	1.540	2.541	1.1	20.8
4 21	13 20.83	- 3 21.8	1.724	2.715	4.5	19.6	4 21	13 20.27	- 7 1.0	1.561	2.556	3.9	21.1
5 1	13 13.14	- 2 42.3	1.765	2.720	8.4	19.9	5 1	13 11.99	- 6 9.9	1.609	2.571	8.4	21.4
5 11	13 7.06	- 2 16.3	1.831	2.725	12.1	20.1	5 11	13 5.58	- 5 31.2	1.681	2.585	12.4	21.6
5 21	13 3.08	- 2 5.8	1.918	2.730	15.2	20.3	5 21	13 1.54	- 5 7.9	1.774	2.599	15.7	21.9
<b>375234</b>	2008 <i>FX</i> <sub>103</sub>		4 13.3 305°22		4°3/10.1 17		<b>277651</b>	2006 <i>BW</i> <sub>130</sub>		4 13.4 228°66		3°0/10.3 17	
3 12	13 50.75	- 0 30.7	1.532	2.411	13.9	20.9	3 12	13 48.20	- 3 35.2	1.991	2.859	11.6	20.7
3 22	13 45.79	+ 0 12.2	1.455	2.395	10.1	20.7	3 22	13 43.38	- 2 31.3	1.919	2.855	8.3	20.5
4 1	13 38.42	+ 0 58.2	1.401	2.380	6.3	20.4	4 1	13 36.82	- 1 21.6	1.872	2.851	4.9	20.3
4 11	13 29.52	+ 1 40.3	1.372	2.365	4.4	20.2	4 11	13 29.21	- 0 12.3	1.852	2.847	3.0	20.1
4 21	13 20.18	+ 2 11.5	1.369	2.350	7.0	20.4	4 21	13 21.40	+ 0 50.1	1.861	2.843	5.3	20.3
5 1	13 11.63	+ 2 26.0	1.391	2.335	11.2	20.6	5 1	13 14.26	+ 1 39.9	1.897	2.838	8.9	20.5
5 11	13 4.94	+ 2 20.4	1.435	2.321	15.3	20.8	5 11	13 8.54	+ 2 13.2	1.957	2.834	12.2	20.7
5 21	13 0.74	+ 1 54.6	1.498	2.307	18.8	21.0	5 21	13 4.72	+ 2 28.4	2.038	2.829	15.1	20.8
<b>431486</b>	2007 <i>TD</i> <sub>48</sub>		4 13.3 253°57		1°3/14.7 18		<b>190290</b>	1994 <i>SZ</i>		4 13.4 208°91		1°1/12.1 18	
3 12	13 47.83	-15 39.9	2.156	2.993	12.1	20.9	3 12	13 47.87	- 9 19.5	2.268	3.121	11.0	20.6
3 22	13 43.11	-15 10.0	2.070	2.986	9.0	20.7	3 22	13 43.00	- 8 17.9	2.187	3.117	7.9	20.4
4 1	13 36.66	-14 26.1	2.008	2.979	5.5	20.4	4 1	13 36.55	- 7 6.5	2.132	3.112	4.4	20.2
4 11	13 29.16	-13 31.2	1.973	2.972	2.0	20.2	4 11	13 29.16	- 5 50.0	2.106	3.106	1.2	19.9
4 21	13 21.41	-12 29.7	1.967	2.965	2.8	20.2	4 21	13 21.58	- 4 34.3	2.109	3.101	3.6	20.1
5 1	13 14.26	-11 27.5	1.989	2.957	6.6	20.4	5 1	13 14.59	- 3 25.2	2.140	3.095	7.2	20.3
5 11	13 8.46	-10 30.5	2.037	2.950	10.1	20.6	5 11	13 8.86	- 2 27.9	2.198	3.088	10.5	20.5
5 21	13 4.51	- 9 43.2	2.108	2.943	13.2	20.8	5 21	13 4.85	- 1 45.4	2.278	3.081	13.4	20.7
<b>224421</b>	2005 <i>UD</i> <sub>397</sub>		4 13.3 226°93		6°9/ 6.7 17		<b>337680</b>	2001 <i>TR</i> <sub>209</sub>		4 13.4 127°72		0°2/13.6 17	
3 12	13 50.42	+ 7 53.8	1.875	2.745	12.1	20.0	3 12	13 48.89	-11 36.6	2.429	3.271	10.7	21.8
3 22	13 45.05	+ 9 8.6	1.813	2.741	9.4	19.8	3 22	13 43.59	-11 14.9	2.357	3.279	7.8	21.6
4 1	13 37.77	+10 18.6	1.777	2.736	7.3	19.7	4 1	13 36.82	-10 44.3	2.312	3.287	4.5	21.4
4 11	13 29.37	+11 16.0	1.767	2.732	7.1	19.6	4 11	13 29.21	-10 7.8	2.294	3.295	1.0	21.1
4 21	13 20.79	+11 54.2	1.784	2.727	9.1	19.7	4 21	13 21.47	- 9 29.3	2.306	3.303	2.7	21.3
5 1	13 12.97	+12 9.4	1.825	2.721	11.9	19.9	5 1	13 14.34	- 8 52.8	2.347	3.310	6.1	21.5
5 11	13 6.74	+12 0.8	1.889	2.716	14.7	20.1	5 11	13 8.45	- 8 22.2	2.415	3.318	9.2	21.7
5 21	13 2.58	+11 30.0	1.970	2.710	17.2	20.2	5 21	13 4.21	- 8 0.4	2.505	3.325	11.8	21.9
<b>362457</b>	2010 <i>RN</i> <sub>127</sub>		4 13.3 267°60		1°5/12.2 17		<b>607</b>	Jenny		4 13.4 351°91			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>108685</b>	2001 <i>OH</i> <sub>8</sub>		4 13.4 226°21	1.4/14.5	17		<b>434827</b>	2006 <i>SP</i> <sub>25</sub>		4 13.4 213°60	3.7/17.3	18	
3 12	13 52.96	-15 38.1	1.731	2.570	14.5	20.1	3 12	13 50.23	-22 36.3	2.498	3.294	11.9	21.3
3 22	13 47.27	-15 6.0	1.642	2.560	10.9	19.8	3 22	13 44.75	-22 45.6	2.407	3.290	9.4	21.1
4 1	13 39.25	-14 16.0	1.576	2.549	6.6	19.5	4 1	13 37.61	-22 40.1	2.340	3.285	6.7	20.9
4 11	13 29.73	-13 11.5	1.537	2.537	2.2	19.2	4 11	13 29.42	-22 20.0	2.300	3.280	4.3	20.8
4 21	13 19.77	-11 58.2	1.526	2.524	3.5	19.3	4 21	13 20.95	-21 47.5	2.288	3.275	3.9	20.7
5 1	13 10.57	-10 43.8	1.543	2.511	8.1	19.5	5 1	13 13.02	-21 6.4	2.305	3.270	6.1	20.9
5 11	13 3.15	-9 36.6	1.584	2.497	12.5	19.7	5 11	13 6.35	-20 21.7	2.349	3.264	8.8	21.0
5 21	12 58.16	-8 42.7	1.647	2.482	16.3	19.9	5 21	13 1.45	-19 38.6	2.417	3.258	11.5	21.2
<b>435610</b>	2008 <i>SA</i> <sub>70</sub>		4 13.4 250°90	3.9/16.6	18		<b>315419</b>	2007 <i>VW</i> <sub>244</sub>		4 13.4 70°45	0.4/13.7	18	
3 12	13 54.32	-21 4.7	2.270	3.071	12.8	21.6	3 12	13 52.74	-12 11.4	1.432	2.292	15.8	21.2
3 22	13 48.00	-21 27.4	2.164	3.052	10.1	21.4	3 22	13 47.10	-11 48.6	1.377	2.307	11.5	21.0
4 1	13 39.61	-21 35.7	2.083	3.032	7.1	21.1	4 1	13 39.07	-11 11.3	1.345	2.323	6.6	20.8
4 11	13 29.81	-21 29.0	2.028	3.012	4.4	20.9	4 11	13 29.70	-10 24.4	1.338	2.339	1.5	20.5
4 21	13 19.47	-21 8.6	2.002	2.991	4.2	20.9	4 21	13 20.22	-9 34.2	1.357	2.354	3.8	20.7
5 1	13 9.61	-20 38.1	2.005	2.969	6.9	21.0	5 1	13 11.89	-8 48.3	1.401	2.370	8.7	21.0
5 11	13 1.14	-20 2.9	2.035	2.947	10.2	21.1	5 11	13 5.66	-8 12.9	1.470	2.386	13.1	21.3
5 21	12 54.72	-19 28.5	2.088	2.924	13.3	21.3	5 21	13 2.04	-7 51.8	1.558	2.401	16.7	21.6
<b>184823</b>	2005 <i>TX</i> <sub>170</sub>		4 13.4 1°97	0.3/13.1	17		<b>2800</b>	<i>Ovidius</i>		4 13.4 294°87	1.5/11.8	18	
3 12	13 48.72	-9 13.7	2.248	3.100	11.1	20.2	3 12	13 47.39	-6 29.4	2.190	3.051	11.0	17.5
3 22	13 43.62	-9 1.6	2.172	3.100	8.0	20.0	3 22	13 42.79	-5 53.9	2.103	3.037	7.9	17.3
4 1	13 36.92	-8 42.2	2.121	3.100	4.5	19.8	4 1	13 36.53	-5 11.5	2.041	3.022	4.4	17.0
4 11	13 29.26	-8 18.5	2.099	3.100	0.8	19.5	4 11	13 29.22	-4 26.4	2.007	3.007	1.6	16.8
4 21	13 21.40	-7 54.0	2.104	3.100	3.0	19.7	4 21	13 21.63	-3 43.4	2.001	2.992	3.9	16.9
5 1	13 14.14	-7 32.6	2.138	3.101	6.6	19.9	5 1	13 14.57	-3 7.2	2.023	2.978	7.5	17.1
5 11	13 8.18	-7 17.9	2.198	3.101	9.9	20.1	5 11	13 8.78	-2 42.0	2.070	2.963	10.9	17.3
5 21	13 3.98	-7 12.3	2.280	3.102	12.8	20.3	5 21	13 4.74	-2 29.9	2.139	2.949	13.9	17.5
<b>198290</b>	2004 <i>TW</i> <sub>301</sub>		4 13.4 209°20	2°0/15.3	18		<b>367293</b>	2007 <i>VQ</i> <sub>46</sub>		4 13.4 61°08	3°6/16.1	18	
3 12	13 53.04	-16 41.1	2.624	3.439	10.9	21.8	3 12	13 51.57	-19 43.4	1.424	2.263	17.0	20.6
3 22	13 46.66	-16 44.1	2.529	3.431	8.3	21.6	3 22	13 46.47	-19 36.4	1.360	2.272	13.1	20.4
4 1	13 38.64	-16 36.2	2.460	3.423	5.3	21.4	4 1	13 38.83	-19 7.0	1.317	2.282	8.7	20.2
4 11	13 29.60	-16 18.4	2.419	3.414	2.5	21.2	4 11	13 29.67	-18 17.5	1.299	2.292	4.5	20.0
4 21	13 20.26	-15 53.0	2.409	3.404	2.8	21.2	4 21	13 20.29	-17 13.6	1.305	2.301	4.4	20.0
5 1	13 11.41	-15 23.6	2.428	3.394	5.8	21.3	5 1	13 12.00	-16 3.7	1.338	2.311	8.4	20.2
5 11	13 3.77	-14 54.3	2.476	3.382	8.8	21.5	5 11	13 5.87	-14 57.5	1.394	2.322	12.7	20.5
5 21	12 57.84	-14 29.0	2.548	3.371	11.5	21.7	5 21	13 2.46	-14 2.2	1.470	2.332	16.5	20.8
<b>37572</b>	1989 <i>UC</i> <sub>5</sub>		4 13.4 195°75	0.3/13.9	18		<b>336899</b>	2011 <i>GO</i> <sub>82</sub>		4 13.4 258°94	3°6/9.9	17	
3 12	13 40.33	-12 24.8	5.140	5.971	5.6	21.1	3 12	13 49.40	-1 14.6	1.910	2.781	11.9	21.0
3 22	13 36.91	-11 59.7	5.053	5.969	4.1	21.0	3 22	13 44.34	-0 22.2	1.839	2.775	8.6	20.8
4 1	13 32.86	-11 30.0	4.994	5.967	2.4	20.8	4 1	13 37.43	+0 33.4	1.792	2.770	5.3	20.6
4 11	13 28.46	-10 57.2	4.964	5.965	0.6	20.7	4 11	13 29.40	+1 26.1	1.773	2.765	3.6	20.5
4 21	13 23.98	-10 23.0	4.965	5.962	1.3	20.7	4 21	13 21.14	+2 10.0	1.781	2.759	5.9	20.6
5 1	13 19.74	-9 49.4	4.997	5.960	3.1	20.9	5 1	13 13.58	+2 40.0	1.816	2.754	9.4	20.8
5 11	13 15.99	-9 18.2	5.057	5.957	4.8	21.0	5 11	13 7.52	+2 52.9	1.874	2.748	12.8	21.0
5 21	13 12.96	-8 50.9	5.143	5.955	6.3	21.1	5 21	13 3.47	+2 48.2	1.953	2.743	15.7	21.2
<b>198716</b>	2005 <i>CR</i> <sub>58</sub>		4 13.4 173°58	4°8/19.2	17		<b>287591</b>	2003 <i>FS</i> <sub>108</sub>		4 13.4 348°80	3°4/10.9	17	
3 12	13 52.34	-28 38.2	2.928	3.679	11.4	21.7	3 12	13 43.85	-6 40.2	0.968	1.870	17.8	19.6
3 22	13 46.07	-28 50.4	2.838	3.683	9.4	21.5	3 22	13 41.61	-5 30.3	0.907	1.860	12.8	19.3
4 1	13 38.26	-28 46.4	2.771	3.686	7.2	21.4	4 1	13 36.38	-4 4.1	0.866	1.852	7.3	19.0
4 11	13 29.52	-28 25.9	2.732	3.688	5.4	21.3	4 11	13 29.24	-2 32.7	0.846	1.845	3.4	18.7
4 21	13 20.56	-27 50.3	2.721	3.690	4.8	21.2	4 21	13 21.63	-1 9.1	0.848	1.840	7.4	18.9
5 1	13 12.14	-27 3.0	2.740	3.691	6.0	21.3	5 1	13 15.19	-0 5.7	0.871	1.836	13.1	19.2
5 11	13 4.93	-26 9.0	2.786	3.692	8.0	21.4	5 11	13 11.19	+0 29.4	0.912	1.833	18.4	19.5
5 21	12 59.37	-25 13.3	2.857	3.691	10.1	21.6	5 21	13 10.30	+0 34.3	0.969	1.833	22.8	19.7
<b>255814</b>	2006 <i>SD</i> <sub>50</sub>		4 13.4 70°06	0.3/13.6	18		<b>28133</b>	<i>Kylebardwell</i>		4 13.4 326°13	1°7/14.4	18	
3 12	13 55.32	-10 46.4	1.527	2.383	15.2	20.3	3 12	13 50.64	-13 39.7	1.143	2.015	18.1	17.4
3 22	13 48.75	-10 42.7	1.478	2.406	11.0	20.1	3 22	13 46.49	-13 42.2	1.069	2.003	13.6	17.0
4 1	13 39.90	-10 27.7	1.451	2.429	6.3	19.9	4 1	13 39.22	-13 26.3	1.014	1.992	8.3	16.7
4 11	13 29.82	-10 5.0	1.451	2.452	1.3	19.6	4 11	13 29.82	-12 54.6	0.981	1.981	2.7	16.3
4 21	13 19.73	-9 39.7	1.478	2.475	3.7	19.9	4 21	13 19.75	-12 12.9	0.972	1.971	4.5	16.4
5 1	13 10.82	-9 17.1	1.531	2.498	8.3	20.2	5 1	13 10.69	-11 29.7	0.986	1.961	10.3	16.7
5 11	13 4.00	-9 2.2	1.609	2.521	12.4	20.5	5 11	13 4.10	-10 54.3	1.020	1.953	15.8	17.0
5 21	12 59.74	-8 58.1	1.707	2.543	15.7	20.7	5 21	13 0.77	-10 33.2	1.073	1.945	20.5	17.2
<b>157602</b>	2005 <i>WC</i> <sub>6</sub>		4 13.4 42°41	0.2/13.2	18		<b>270482</b>	2002 <i>ER</i> <sub>56</sub>		4 13.4 43°17	3°0/15.8	17	
3 12	13 46.83	-13 56.4	1.653	2.510	14.2	19.6	3 12	13 50.38	-18 11.0	1.561	2.401	15.7	20.2
3 22	13 42.67	-12 36.8	1.585	2.514	10.3	19.4	3 22	13 45.39	-18 8.6	1.499	2.413	12.0	20.0
4 1	13 36.51	-10 59.1	1.540	2.519	5.9	19.1	4 1	13 38.13	-17 47.4	1.459	2.425	7.7	19.8
4 11	13 29.19	-9 10.2	1.522	2.524	1.1	18.8	4 11	13 29.54	-17 9.8	1.443	2.438	3.8	19.6
4 21	13 21.70	-7 19.2	1.532	2.528	3.8	19.0	4 21	13 20.77	-16 20.8	1.454	2.451	3.9	19.6
5 1	13 15.08	-5 35.9	1.569	2.533	8.4	19.3	5 1	13 13.00	-15 27.3	1.491	2.464	7.8	19.9
5 11	13 10.15	-4 8.5	1.631	2.539	12.5	19.5	5 11	13 7.16	-14 37.1	1.552	2.477	11.8	20.1
5 21	13 7.40	-3 1.8	1.713	2.544	15.9	19.8	5 21	13 3.78	-13 56.0	1.634	2.491	15.3	20.4
<b>436757</b>	2011 <i>YT</i> <sub>74</sub>		4 13.4 42°55	23°3/20.2	18		<b>281031</b>	2006 <i>GS</i> <sub>45</sub>		4 13.4 49°06	1°1/12.5	17	
3 12	13 53.31	+34											

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>249090</b>	2007 VM <sub>62</sub>		4 13.4 272°21		0°1/13.3 17		<b>219752</b>	2001 YK <sub>13</sub>		4 13.4 152°88		0°1/13.4 17	
3 12	13 53.05	-10 57.4	1.626	2.482	14.4	20.9	3 12	13 51.22	-11 33.5	2.257	3.098	11.5	22.1
3 22	13 47.62	-10 34.6	1.529	2.458	10.7	20.6	3 22	13 45.38	-11 0.6	2.185	3.107	8.3	21.9
4 1	13 39.64	-9 58.4	1.456	2.434	6.2	20.3	4 1	13 37.92	-10 17.7	2.139	3.115	4.8	21.7
4 11	13 29.90	-9 12.1	1.408	2.409	1.2	19.9	4 11	13 29.52	-9 28.5	2.122	3.123	0.9	21.5
4 21	13 19.49	-8 21.5	1.387	2.384	4.0	20.1	4 21	13 21.00	-8 37.4	2.134	3.130	2.9	21.6
5 1	13 9.71	-7 33.4	1.393	2.358	9.2	20.3	5 1	13 13.16	-7 49.5	2.175	3.136	6.6	21.9
5 11	13 1.72	-6 55.0	1.423	2.332	13.9	20.5	5 11	13 6.70	-7 9.3	2.242	3.142	9.9	22.1
5 21	12 56.31	-6 31.1	1.473	2.306	18.0	20.7	5 21	13 2.05	-6 39.9	2.333	3.147	12.7	22.3
<b>284415</b>	2006 UZ <sub>232</sub>		4 13.4 227°37		1°8/15.3 17		<b>12513</b>	Niven		4 13.4 209°38		0°1/13.3 18	
3 12	13 49.94	-16 29.9	2.593	3.415	10.8	21.0	3 12	13 55.03	-11 4.3	1.668	2.519	14.4	18.7
3 22	13 44.45	-16 29.1	2.501	3.406	8.2	20.8	3 22	13 48.79	-10 36.5	1.587	2.513	10.5	18.5
4 1	13 37.42	-16 17.3	2.433	3.398	5.2	20.6	4 1	13 40.16	-9 55.7	1.529	2.507	6.1	18.2
4 11	13 29.42	-15 55.9	2.394	3.389	2.4	20.4	4 11	13 30.00	-9 6.0	1.498	2.500	1.2	17.8
4 21	13 21.14	-15 27.4	2.384	3.380	2.7	20.4	4 21	13 19.43	-8 13.0	1.495	2.492	3.9	18.0
5 1	13 13.36	-14 55.5	2.404	3.371	5.7	20.6	5 1	13 9.70	-7 23.9	1.519	2.483	8.7	18.3
5 11	13 6.73	-14 24.3	2.451	3.361	8.7	20.8	5 11	13 1.85	-6 44.9	1.568	2.473	13.1	18.5
5 21	13 1.74	-13 57.7	2.521	3.351	11.4	20.9	5 21	12 56.51	-6 20.2	1.638	2.463	16.8	18.7
<b>210128</b>	2006 RC <sub>68</sub>		4 13.4 103°18		2°9/16.2 18		<b>372469</b>	2009 SE <sub>160</sub>		4 13.4 105°65		1°7/14.9 17	
3 12	13 51.06	-19 10.5	2.294	3.108	12.2	20.5	3 12	13 51.03	-15 52.3	1.871	2.708	13.6	22.1
3 22	13 45.35	-19 21.9	2.218	3.116	9.4	20.3	3 22	13 45.56	-15 34.6	1.802	2.718	10.2	21.9
4 1	13 37.94	-19 19.8	2.166	3.124	6.3	20.1	4 1	13 38.13	-15 2.0	1.757	2.727	6.3	21.7
4 11	13 29.51	-19 5.0	2.142	3.131	3.5	20.0	4 11	13 29.57	-14 17.5	1.739	2.737	2.4	21.5
4 21	13 20.88	-18 40.1	2.146	3.139	3.4	20.0	4 21	13 20.85	-13 25.9	1.748	2.746	3.2	21.5
5 1	13 12.90	-18 9.1	2.179	3.146	6.2	20.2	5 1	13 12.95	-12 33.2	1.786	2.755	7.1	21.8
5 11	13 6.31	-17 36.9	2.238	3.154	9.2	20.4	5 11	13 6.70	-11 45.7	1.848	2.764	10.8	22.0
5 21	13 1.59	-17 7.9	2.321	3.161	12.0	20.6	5 21	13 2.60	-11 8.0	1.933	2.773	14.0	22.2
<b>522918</b>	2016 PV <sub>108</sub>		4 13.4 220°58		0°8/14.2 18		<b>379657</b>	2011 EN <sub>42</sub>		4 13.4 245°65		4°1/ 9.3 17	
3 12	13 49.67	-12 50.8	2.690	3.523	10.1	21.6	3 12	13 48.57	-0 44.9	1.910	2.783	11.8	21.1
3 22	13 44.17	-12 45.3	2.600	3.516	7.5	21.4	3 22	13 43.77	+0 27.1	1.839	2.776	8.6	20.9
4 1	13 37.22	-12 31.4	2.537	3.509	4.4	21.2	4 1	13 37.13	+1 42.8	1.793	2.770	5.4	20.7
4 11	13 29.38	-12 10.9	2.502	3.502	1.3	21.0	4 11	13 29.39	+2 55.3	1.774	2.763	4.2	20.6
4 21	13 21.30	-11 46.5	2.497	3.494	2.4	21.1	4 21	13 21.41	+3 57.4	1.783	2.757	6.5	20.8
5 1	13 13.70	-11 21.6	2.522	3.486	5.6	21.3	5 1	13 14.13	+4 43.6	1.819	2.750	9.9	20.9
5 11	13 7.20	-10 59.8	2.573	3.478	8.6	21.4	5 11	13 8.32	+5 10.2	1.878	2.743	13.2	21.1
5 21	13 2.24	-10 43.9	2.649	3.470	11.2	21.6	5 21	13 4.49	+5 16.6	1.956	2.736	16.0	21.3
<b>337765</b>	2001 UZ <sub>138</sub>		4 13.4 76°88		1°9/11.7 17		<b>389706</b>	2011 QB <sub>98</sub>		4 13.4 243°85		0°2/13.6 17	
3 12	13 53.14	-3 19.9	2.192	3.047	11.2	20.6	3 12	13 49.98	-10 50.2	2.294	3.139	11.2	20.9
3 22	13 46.65	-3 11.7	2.137	3.068	8.0	20.4	3 22	13 44.60	-10 38.5	2.208	3.131	8.2	20.7
4 1	13 38.55	-3 1.1	2.109	3.088	4.5	20.3	4 1	13 37.55	-10 18.2	2.148	3.124	4.7	20.4
4 11	13 29.61	-2 51.5	2.110	3.108	2.0	20.1	4 11	13 29.47	-9 52.0	2.116	3.117	1.0	20.1
4 21	13 20.65	-2 46.0	2.140	3.128	4.0	20.3	4 21	13 21.13	-9 23.3	2.112	3.109	2.9	20.3
5 1	13 12.48	-2 47.5	2.198	3.148	7.3	20.5	5 1	13 13.34	-8 56.2	2.138	3.101	6.5	20.5
5 11	13 5.78	-2 58.0	2.282	3.168	10.4	20.8	5 11	13 6.84	-8 34.7	2.189	3.094	9.9	20.7
5 21	13 0.95	-3 18.1	2.389	3.187	13.0	21.0	5 21	13 2.11	-8 21.8	2.264	3.086	12.8	20.9
<b>271850</b>	2004 TE <sub>243</sub>		4 13.4 184°72		6°9/ 5.4 17		<b>258917</b>	2002 RH <sub>20</sub>		4 13.4 223°01		1°8/11.7 17	
3 12	13 50.42	+11 39.2	2.309	3.168	10.6	20.7	3 12	13 52.05	-6 16.3	2.033	2.890	11.9	21.8
3 22	13 44.76	+12 53.7	2.254	3.168	8.5	20.6	3 22	13 46.27	-5 34.0	1.949	2.880	8.6	21.5
4 1	13 37.54	+14 0.9	2.224	3.168	7.1	20.5	4 1	13 38.57	-4 44.0	1.890	2.869	4.9	21.3
4 11	13 29.43	+14 54.3	2.222	3.167	7.2	20.5	4 11	13 29.68	-3 51.3	1.858	2.858	1.8	21.1
4 21	13 21.20	+15 29.0	2.247	3.166	8.8	20.6	4 21	13 20.47	-3 1.3	1.856	2.846	4.4	21.2
5 1	13 13.64	+15 42.3	2.297	3.164	10.9	20.7	5 1	13 11.90	-2 19.5	1.882	2.833	8.3	21.4
5 11	13 7.41	+15 33.8	2.370	3.162	13.2	20.8	5 11	13 4.80	-1 50.2	1.933	2.820	11.9	21.6
5 21	13 2.93	+15 5.3	2.461	3.159	15.1	21.0	5 21	12 59.72	-1 35.9	2.006	2.806	15.0	21.8
<b>190104</b>	2004 TU <sub>287</sub>		4 13.4 222°32		2°5/10.9 18		<b>62105</b>	2000 RN <sub>96</sub>		4 13.4 279°05		8°1/19.6 18	
3 12	13 52.61	-2 8.7	2.471	3.324	10.2	20.5	3 12	13 53.62	-30 36.5	1.907	2.672	16.1	18.8
3 22	13 46.36	-1 41.3	2.384	3.313	7.4	20.3	3 22	13 48.10	-31 25.0	1.804	2.652	13.7	18.6
4 1	13 38.50	-1 11.3	2.324	3.301	4.3	20.1	4 1	13 39.98	-31 51.2	1.721	2.632	11.1	18.4
4 11	13 29.64	-0 42.6	2.293	3.289	2.5	20.0	4 11	13 30.01	-31 51.6	1.662	2.611	8.9	18.2
4 21	13 20.52	-0 19.1	2.292	3.275	4.4	20.1	4 21	13 19.28	-31 25.5	1.628	2.590	8.1	18.1
5 1	13 11.92	-0 4.3	2.321	3.261	7.5	20.2	5 1	13 9.12	-30 36.2	1.620	2.570	9.5	18.1
5 11	13 4.56	-0 0.6	2.375	3.247	10.6	20.4	5 11	13 0.74	-29 31.3	1.636	2.548	12.2	18.2
5 21	12 58.90	-0 9.0	2.453	3.231	13.2	20.6	5 21	12 54.98	-28 19.9	1.674	2.527	15.2	18.4
<b>89939</b>	2002 FV <sub>7</sub>		4 13.4 15°19		2°4/10.4 18		<b>474278</b>	2001 UT <sub>17</sub>		4 13.4 150°69		13°3/ 7.7 16	
3 12	13 44.61	-6 26.2	2.162	3.028	10.9	18.9	3 12	14 16.52	+22 16.1	1.404	2.223	18.3	22.1
3 22	13 40.69	-4 55.7	2.093	3.030	7.7	18.7	3 22	14 4.22	+23 1.1	1.361	2.237	15.7	22.0
4 1	13 35.28	-3 16.7	2.050	3.032	4.4	18.5	4 1	13 48.71	+23 19.3	1.340	2.249	13.7	21.9
4 11	13 29.01	-1 36.1	2.037	3.033	2.4	18.3	4 11	13 31.59	+23 0.1	1.344	2.260	13.4	21.9
4 21	13 22.60	-0 1.0	2.052	3.036	4.7	18.5	4 21	13 14.79	+22 0.0	1.374	2.270	14.8	22.0
5 1	13 16.81	+1 22.0	2.095	3.038	8.1	18.7	5 1	13 0.07	+20 22.6	1.429	2.278	17.3	22.2
5 11	13 12.26	+2 28.0	2.164	3.040	11.2	18.9	5 11	12 48.59	+18 16.6	1.506	2.285	19.9	22.4
5 21	13 9.37	+3 14.9	2.254	3.043	13.9	19.1	5 21	12 40.79	+15 52.2	1.601	2.291	22.3	22.6
<b>450998</b>	2008 TV <sub>91</sub>		4 13.4 175°93		2°7/11.3 18		<b>302020</b>	2000 SN <sub>96</sub>		4 13.4 253°18		4°1/17.8 17	
3 12	13 54.16	-4 45.4	1.602	2.469	14.1	21.3	3 12	13 49.47	-24				



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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>338832</b>	2003 <i>WK</i> <sub>107</sub>		4 13.4 262°66	0°7/12.7	17		<b>36082</b>	1999 <i>RQ</i> <sub>77</sub>		4 13.4 85°39	5°0/18.2	18	
3 12	13 49.82	- 9 9.3	2.190	3.041	11.4	21.7	3 12	13 51.46	-25 23.4	2.392	3.175	12.8	19.3
3 22	13 44.64	- 8 36.7	2.093	3.021	8.3	21.5	3 22	13 45.79	-25 54.6	2.307	3.175	10.4	19.1
4 1	13 37.66	- 7 54.9	2.022	3.001	4.7	21.2	4 1	13 38.30	-26 9.6	2.245	3.176	7.8	18.9
4 11	13 29.53	- 7 7.5	1.979	2.980	1.0	20.9	4 11	13 29.69	-26 7.7	2.209	3.177	5.6	18.8
4 21	13 21.02	- 6 19.1	1.965	2.959	3.4	21.1	4 21	13 20.75	-25 50.2	2.201	3.178	5.1	18.7
5 1	13 13.01	- 5 34.9	1.979	2.938	7.4	21.3	5 1	13 12.40	-25 20.4	2.220	3.179	6.7	18.8
5 11	13 6.31	- 4 59.8	2.019	2.916	11.0	21.4	5 11	13 5.43	-24 43.5	2.266	3.180	9.2	19.0
5 21	13 1.45	- 4 36.9	2.081	2.894	14.1	21.6	5 21	13 0.36	-24 5.1	2.336	3.180	11.7	19.2
<b>110955</b>	2001 <i>UV</i> <sub>164</sub>		4 13.4 113°31	3°2/10.9	18		<b>249073</b>	2007 <i>UV</i> <sub>85</sub>		4 13.4 184°70	3°3/10.1	17	
3 12	13 55.18	- 0 54.6	1.951	2.810	12.2	20.2	3 12	13 50.68	+ 0 29.1	2.333	3.195	10.4	21.1
3 22	13 48.29	- 0 29.7	1.896	2.827	8.8	20.0	3 22	13 44.97	+ 1 0.4	2.263	3.195	7.5	20.9
4 1	13 39.58	- 0 3.8	1.867	2.843	5.2	19.9	4 1	13 37.72	+ 1 32.2	2.219	3.194	4.7	20.8
4 11	13 29.86	+ 0 18.4	1.865	2.859	3.2	19.8	4 11	13 29.56	+ 1 59.9	2.204	3.194	3.3	20.7
4 21	13 20.12	+ 0 32.7	1.893	2.875	5.3	19.9	4 21	13 21.25	+ 2 19.6	2.217	3.193	5.1	20.8
5 1	13 11.28	+ 0 35.8	1.948	2.890	8.7	20.1	5 1	13 13.55	+ 2 28.2	2.259	3.192	8.1	21.0
5 11	13 4.11	+ 0 25.8	2.029	2.904	11.9	20.4	5 11	13 7.14	+ 2 23.7	2.325	3.191	10.9	21.1
5 21	12 59.05	+ 0 2.8	2.131	2.918	14.7	20.6	5 21	13 2.45	+ 2 5.9	2.414	3.190	13.4	21.3
<b>353035</b>	2009 <i>CG</i> <sub>32</sub>		4 13.4 188°07	3°4/16.8	18		<b>196236</b>	2003 <i>CV</i> <sub>2</sub>		4 13.4 65°62	3°7/16.1	18	
3 12	13 50.98	-21 12.2	2.454	3.256	11.9	21.4	3 12	13 52.71	-19 30.3	1.297	2.141	18.1	20.0
3 22	13 45.31	-21 23.9	2.367	3.256	9.3	21.3	3 22	13 47.55	-19 25.9	1.235	2.150	13.9	19.7
4 1	13 37.97	-21 21.5	2.305	3.255	6.5	21.1	4 1	13 39.60	-18 57.6	1.192	2.158	9.2	19.5
4 11	13 29.58	-21 5.4	2.270	3.254	4.0	20.9	4 11	13 29.96	-18 7.7	1.173	2.167	4.7	19.2
4 21	13 20.93	-20 37.9	2.263	3.253	3.7	20.9	4 21	13 20.05	-17 2.2	1.179	2.176	4.6	19.2
5 1	13 12.85	-20 2.7	2.286	3.251	6.0	21.0	5 1	13 11.34	-15 50.4	1.210	2.185	9.0	19.5
5 11	13 6.06	-19 24.7	2.335	3.250	8.9	21.2	5 11	13 4.98	-14 42.9	1.264	2.194	13.6	19.8
5 21	13 1.06	-18 48.7	2.408	3.248	11.6	21.4	5 21	13 1.58	-13 47.5	1.337	2.203	17.6	20.1
<b>437469</b>	2013 <i>YJ</i> <sub>40</sub>		4 13.4 82°70	3°6/17.2	17		<b>284642</b>	2007 <i>VU</i> <sub>325</sub>		4 13.4 190°72	1°0/12.4	18	
3 12	13 48.78	-22 18.7	2.153	2.961	13.1	21.1	3 12	13 50.75	- 6 43.3	2.447	3.297	10.4	20.6
3 22	13 43.86	-22 11.8	2.074	2.965	10.3	20.9	3 22	13 45.02	- 6 27.5	2.368	3.296	7.5	20.4
4 1	13 37.17	-21 47.4	2.018	2.969	7.2	20.7	4 1	13 37.76	- 6 6.5	2.316	3.295	4.2	20.2
4 11	13 29.42	-21 6.7	1.988	2.973	4.4	20.5	4 11	13 29.59	- 5 43.4	2.293	3.293	1.1	20.0
4 21	13 21.47	-20 13.1	1.986	2.977	3.9	20.5	4 21	13 21.22	- 5 21.6	2.299	3.292	3.3	20.1
5 1	13 14.19	-19 12.1	2.012	2.981	6.4	20.7	5 1	13 13.43	- 5 4.5	2.334	3.290	6.6	20.3
5 11	13 8.35	-18 10.1	2.063	2.985	9.6	20.9	5 11	13 6.85	- 4 55.1	2.396	3.287	9.7	20.5
5 21	13 4.44	-17 12.9	2.139	2.989	12.5	21.1	5 21	13 1.95	- 4 55.2	2.480	3.285	12.4	20.7
<b>423431</b>	2005 <i>QW</i> <sub>56</sub>		4 13.4 157°91	2°3/10.9	15		<b>409206</b>	2003 <i>WF</i> <sub>28</sub>		4 13.4 152°53	0°2/13.6	16	
3 12	13 51.31	- 3 44.4	2.417	3.272	10.3	22.7	3 12	13 53.23	-11 59.9	1.923	2.767	13.0	22.3
3 22	13 45.32	- 2 55.7	2.351	3.281	7.4	22.5	3 22	13 47.11	-11 31.1	1.853	2.775	9.5	22.1
4 1	13 37.85	- 2 3.0	2.311	3.289	4.3	22.2	4 1	13 39.04	-10 50.5	1.807	2.783	5.5	21.9
4 11	13 29.55	- 1 11.0	2.301	3.297	2.3	22.2	4 11	13 29.84	-10 2.0	1.789	2.790	1.2	21.6
4 21	13 21.15	- 0 24.3	2.320	3.304	4.3	22.3	4 21	13 20.47	- 9 10.7	1.799	2.796	3.2	21.7
5 1	13 13.39	+ 0 12.9	2.369	3.310	7.4	22.5	5 1	13 11.92	- 8 22.4	1.838	2.802	7.4	22.0
5 11	13 6.91	+ 0 37.7	2.444	3.315	10.3	22.7	5 11	13 5.00	- 7 42.6	1.903	2.807	11.2	22.2
5 21	13 2.11	+ 0 48.9	2.541	3.319	12.8	22.9	5 21	13 0.23	- 7 14.7	1.990	2.812	14.3	22.4
<b>210974</b>	2001 <i>VZ</i> <sub>60</sub>		4 13.4 65°63	1°0/12.6	18		<b>419837</b>	2010 <i>XW</i> <sub>79</sub>		4 13.4 116°72	1°4/14.8	18	
3 12	13 53.81	- 6 12.8	2.091	2.943	11.8	20.2	3 12	13 51.87	-16 7.2	2.017	2.848	13.0	21.8
3 22	13 47.22	- 6 14.3	2.037	2.966	8.5	20.0	3 22	13 46.00	-15 36.9	1.953	2.866	9.7	21.6
4 1	13 38.94	- 6 11.0	2.010	2.988	4.7	19.8	4 1	13 38.34	-14 52.1	1.913	2.883	5.9	21.4
4 11	13 29.77	- 6 6.0	2.010	3.011	1.2	19.6	4 11	13 29.69	-13 56.2	1.901	2.899	2.2	21.2
4 21	13 20.58	- 6 2.3	2.040	3.034	3.4	19.8	4 21	13 20.96	-12 54.4	1.918	2.915	2.9	21.2
5 1	13 12.23	- 6 2.9	2.098	3.056	7.1	20.1	5 1	13 13.07	-11 52.7	1.963	2.931	6.7	21.5
5 11	13 5.44	- 6 10.4	2.183	3.079	10.3	20.3	5 11	13 6.76	-10 57.1	2.034	2.946	10.2	21.7
5 21	13 0.60	- 6 26.1	2.290	3.102	13.0	20.5	5 21	13 2.47	-10 12.1	2.129	2.960	13.2	22.0
<b>284448</b>	2007 <i>EE</i> <sub>153</sub>		4 13.4 21°06	3°8/10.9	18		<b>143875</b>	2003 <i>YR</i> <sub>24</sub>		4 13.4 99°46	1°9/11.8	18	
3 12	13 50.66	- 4 16.9	1.079	1.971	17.3	20.8	3 12	13 51.40	- 7 8.0	1.614	2.481	14.0	20.6
3 22	13 46.24	- 3 21.9	1.027	1.974	12.4	20.5	3 22	13 45.98	- 6 16.5	1.555	2.491	10.0	20.4
4 1	13 38.89	- 2 18.2	0.994	1.978	7.2	20.2	4 1	13 38.45	- 5 15.8	1.521	2.502	5.6	20.2
4 11	13 29.81	- 1 15.3	0.985	1.983	3.8	20.0	4 11	13 29.72	- 4 12.5	1.512	2.512	2.0	19.9
4 21	13 20.47	- 0 23.3	0.999	1.988	7.2	20.2	4 21	13 20.87	- 3 13.6	1.531	2.522	4.8	20.1
5 1	13 12.43	+ 0 9.4	1.036	1.994	12.4	20.5	5 1	13 12.99	- 2 25.8	1.576	2.532	9.1	20.4
5 11	13 6.88	+ 0 18.3	1.092	2.001	17.2	20.8	5 11	13 6.93	- 1 53.9	1.645	2.542	13.1	20.7
5 21	13 4.38	+ 0 3.2	1.166	2.008	21.1	21.1	5 21	13 3.19	- 1 39.8	1.735	2.552	16.3	20.9
<b>53541</b>	2000 <i>AK</i> <sub>252</sub>		4 13.4 260°34	7°8/ 5.7	17		<b>25293</b>	1998 <i>WS</i> <sub>16</sub>		4 13.4 260°68	0°9/12.6	18	
3 12	13 51.18	+ 8 53.4	1.778	2.649	12.7	19.6	3 12	13 49.42	- 8 22.6	2.043	2.900	11.9	18.2
3 22	13 45.89	+10 24.2	1.706	2.631	10.0	19.4	3 22	13 44.35	- 7 54.1	1.965	2.895	8.6	18.0
4 1	13 38.48	+11 50.8	1.658	2.614	8.1	19.3	4 1	13 37.49	- 7 17.5	1.911	2.891	4.8	17.7
4 11	13 29.73	+13 4.0	1.637	2.596	8.2	19.2	4 11	13 29.55	- 6 36.6	1.885	2.886	1.1	17.4
4 21	13 20.61	+13 55.7	1.642	2.577	10.3	19.3	4 21	13 21.36	- 5 56.2	1.887	2.881	3.6	17.6
5 1	13 12.21	+14 20.7	1.671	2.558	13.3	19.4	5 1	13 13.81	- 5 21.3	1.917	2.877	7.5	17.8
5 11	13 5.45	+14 17.7	1.721	2.539	16.3	19.6	5 11	13 7.67	- 4 56.0	1.972	2.872	11.1	18.1
5 21	13 0.93	+13 48.5	1.788	2.520	19.0	19.7	5 21	13 3.46	- 4 43.2	2.049	2.867	14.1	18.2
<b>291899</b>	2006 <i>QS</i> <sub>4</sub>		4 13.4 165°27	1°2/12.2	15		<b>313781</b>	2003 <i>YG</i> <sub>45</sub>		4 13.4 116°			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>230084</b>	2000 <i>WG</i> <sub>91</sub>		4 13.4 212°60	2°7/10.8	18		<b>227612</b>	2006 <i>AO</i> <sub>96</sub>		4 13.4 51°74	2°6/15.7	17	
3 12	13 51.74	- 2 12.2	2.224	3.083	10.9	20.8	3 12	13 49.89	-17 59.6	1.735	2.571	14.6	19.9
3 22	13 45.88	- 1 37.2	2.146	3.077	7.9	20.6	3 22	13 44.94	-17 47.7	1.666	2.578	11.1	19.7
4 1	13 38.31	- 0 59.2	2.093	3.071	4.7	20.3	4 1	13 37.91	-17 18.2	1.619	2.586	7.1	19.4
4 11	13 29.71	- 0 22.7	2.069	3.064	2.7	20.2	4 11	13 29.65	-16 33.7	1.598	2.593	3.3	19.2
4 21	13 20.88	+ 0 7.8	2.074	3.056	4.8	20.3	4 21	13 21.17	-15 39.0	1.604	2.601	3.5	19.2
5 1	13 12.66	+ 0 28.1	2.107	3.049	8.1	20.5	5 1	13 13.55	-14 40.8	1.637	2.609	7.3	19.5
5 11	13 5.78	+ 0 35.6	2.166	3.040	11.3	20.7	5 11	13 7.67	-13 46.2	1.694	2.617	11.2	19.7
5 21	13 0.74	+ 0 29.2	2.246	3.031	14.1	20.9	5 21	13 4.06	-13 1.0	1.774	2.625	14.6	20.0
<b>412878</b>	2014 <i>QA</i> <sub>24</sub>		4 13.4 130°25	2°6/15.7	16		<b>224443</b>	2005 <i>UT</i> <sub>492</sub>		4 13.4 271°59	6°8/19.6	17	
3 12	13 53.87	-18 39.2	1.862	2.685	14.3	22.7	3 12	13 50.86	-29 29.2	1.862	2.640	16.0	20.3
3 22	13 47.65	-18 23.2	1.794	2.699	10.9	22.5	3 22	13 45.99	-29 38.1	1.762	2.623	13.4	20.1
4 1	13 39.37	-17 49.7	1.750	2.713	7.0	22.3	4 1	13 38.72	-29 21.7	1.682	2.606	10.4	19.9
4 11	13 29.91	-17 1.3	1.732	2.726	3.3	22.1	4 11	13 29.85	-28 38.1	1.626	2.588	7.8	19.7
4 21	13 20.31	-16 2.7	1.742	2.738	3.5	22.1	4 21	13 20.43	-27 29.1	1.595	2.571	6.8	19.6
5 1	13 11.62	-15 0.4	1.781	2.750	7.1	22.4	5 1	13 11.68	-26 0.6	1.591	2.553	8.5	19.6
5 11	13 4.70	-14 1.5	1.845	2.761	10.8	22.6	5 11	13 4.71	-24 21.9	1.612	2.535	11.6	19.8
5 21	13 0.05	-13 11.7	1.932	2.771	14.0	22.8	5 21	13 0.20	-22 43.2	1.655	2.517	14.9	19.9
<b>230891</b>	2004 <i>SL</i> <sub>32</sub>		4 13.4 108°96	0°9/12.5	18		<b>462667</b>	2009 <i>TJ</i> <sub>6</sub>		4 13.4 139°01	1°7/15.4	17	
3 12	13 53.01	- 7 38.4	2.294	3.141	11.1	20.8	3 12	13 48.23	-19 41.1	1.940	2.766	13.7	21.3
3 22	13 46.53	- 7 14.1	2.239	3.165	7.9	20.6	3 22	13 43.54	-18 26.3	1.862	2.770	10.3	21.1
4 1	13 38.53	- 6 43.8	2.210	3.188	4.4	20.4	4 1	13 37.03	-16 50.3	1.807	2.774	6.5	20.9
4 11	13 29.73	- 6 11.0	2.210	3.211	1.1	20.2	4 11	13 29.47	-14 58.0	1.781	2.778	2.6	20.7
4 21	13 20.91	- 5 39.7	2.239	3.232	3.3	20.4	4 21	13 21.76	-12 56.9	1.783	2.781	3.0	20.7
5 1	13 12.87	- 5 13.7	2.298	3.253	6.7	20.7	5 1	13 14.83	-10 56.4	1.815	2.785	7.0	20.9
5 11	13 6.23	- 4 56.3	2.383	3.274	9.8	20.9	5 11	13 9.45	- 9 5.5	1.874	2.788	10.8	21.2
5 21	13 1.39	- 4 49.1	2.492	3.294	12.4	21.1	5 21	13 6.08	- 7 30.8	1.956	2.791	14.1	21.4
<b>51877</b>	2001 <i>PO</i> <sub>46</sub>		4 13.4 189°13	4°3/ 7.9	18		<b>87486</b>	2000 <i>QQ</i> <sub>153</sub>		4 13.4 333°39	8°9/19.4	17	
3 12	13 49.09	+ 5 39.0	2.818	3.677	8.9	19.8	3 12	13 52.19	-28 56.1	1.513	2.307	18.4	18.9
3 22	13 43.62	+ 6 28.5	2.751	3.676	6.7	19.6	3 22	13 47.45	-30 1.4	1.429	2.297	15.5	18.6
4 1	13 36.88	+ 7 15.5	2.711	3.674	4.8	19.5	4 1	13 39.79	-30 41.9	1.365	2.288	12.4	18.4
4 11	13 29.42	+ 7 55.6	2.700	3.672	4.4	19.5	4 11	13 30.09	-30 53.7	1.322	2.279	9.8	18.2
4 21	13 21.83	+ 8 24.9	2.718	3.669	5.9	19.6	4 21	13 19.66	-30 35.8	1.303	2.271	8.9	18.2
5 1	13 14.75	+ 8 40.8	2.764	3.666	8.1	19.7	5 1	13 10.04	-29 52.5	1.307	2.264	10.5	18.2
5 11	13 8.72	+ 8 42.0	2.835	3.662	10.3	19.8	5 11	13 2.61	-28 53.0	1.334	2.257	13.6	18.4
5 21	13 4.12	+ 8 28.6	2.927	3.658	12.3	20.0	5 21	12 58.22	-27 47.8	1.381	2.251	16.9	18.6
<b>431985</b>	2008 <i>UG</i> <sub>208</sub>		4 13.4 143°10	0°4/13.8	17		<b>284643</b>	2007 <i>VD</i> <sub>326</sub>		4 13.4 117°34	2°7/16.1	17	
3 12	13 50.73	-11 47.0	2.102	2.947	12.1	21.9	3 12	13 50.74	-18 57.6	2.312	3.127	12.1	21.2
3 22	13 45.22	-11 30.5	2.029	2.951	8.8	21.7	3 22	13 45.16	-19 1.4	2.236	3.135	9.3	21.0
4 1	13 37.95	-11 4.0	1.980	2.955	5.1	21.5	4 1	13 37.90	-18 51.6	2.184	3.143	6.2	20.9
4 11	13 29.64	-10 30.4	1.958	2.959	1.2	21.2	4 11	13 29.65	-18 29.3	2.160	3.151	3.3	20.7
4 21	13 21.14	- 9 53.8	1.965	2.963	2.9	21.3	4 21	13 21.21	-17 57.5	2.164	3.158	3.3	20.7
5 1	13 13.33	- 9 18.9	2.001	2.966	6.8	21.6	5 1	13 13.42	-17 20.4	2.197	3.165	6.1	20.9
5 11	13 6.95	- 8 50.4	2.062	2.969	10.3	21.8	5 11	13 7.00	-16 43.0	2.257	3.172	9.1	21.1
5 21	13 2.50	- 8 31.3	2.146	2.972	13.3	22.0	5 21	13 2.40	-16 9.7	2.340	3.179	11.9	21.3
<b>470145</b>	2006 <i>UE</i> <sub>73</sub>		4 13.4 149°14	1°6/15.1	16		<b>198698</b>	2005 <i>CU</i> <sub>24</sub>		4 13.4 37°33	3°4/17.0	17	
3 12	13 50.02	-15 32.8	2.527	3.353	10.9	21.8	3 12	13 47.11	-22 41.2	1.816	2.635	14.8	19.9
3 22	13 44.50	-15 30.3	2.448	3.358	8.2	21.6	3 22	13 42.89	-22 1.5	1.742	2.641	11.5	19.7
4 1	13 37.47	-15 17.2	2.395	3.362	5.1	21.5	4 1	13 36.73	-20 59.1	1.691	2.647	7.8	19.5
4 11	13 29.54	-14 55.4	2.369	3.366	2.1	21.3	4 11	13 29.43	-19 37.0	1.665	2.654	4.4	19.3
4 21	13 21.44	-14 27.5	2.373	3.370	2.6	21.3	4 21	13 21.96	-18 1.3	1.666	2.661	3.8	19.3
5 1	13 13.90	-13 57.3	2.406	3.374	5.7	21.5	5 1	13 15.31	-16 20.3	1.694	2.668	7.0	19.5
5 11	13 7.57	-13 28.9	2.466	3.377	8.7	21.7	5 11	13 10.30	-14 43.4	1.748	2.675	10.7	19.7
5 21	13 2.89	-13 5.7	2.550	3.380	11.3	21.9	5 21	13 7.41	-13 17.6	1.826	2.682	14.0	19.9
<b>130420</b>	2000 <i>PB</i> <sub>10</sub>		4 13.4 236°91	2°3/11.7	16		<b>83783</b>	2001 <i>TU</i> <sub>201</sub>		4 13.4 68°65	5°1/ 7.8	17	
3 12	13 54.29	- 5 11.3	1.753	2.614	13.3	20.2	3 12	13 47.26	+ 3 39.1	2.096	2.969	10.9	19.2
3 22	13 48.23	- 4 36.5	1.668	2.601	9.6	19.9	3 22	13 42.62	+ 4 53.8	2.042	2.976	8.1	19.0
4 1	13 39.88	- 3 54.4	1.608	2.588	5.5	19.6	4 1	13 36.42	+ 6 7.0	2.015	2.984	5.7	18.9
4 11	13 30.06	- 3 10.4	1.575	2.574	2.3	19.4	4 11	13 29.36	+ 7 12.0	2.014	2.991	5.2	18.8
4 21	13 19.80	- 2 30.3	1.570	2.559	5.0	19.5	4 21	13 22.21	+ 8 3.1	2.042	2.999	7.1	19.0
5 1	13 10.26	- 1 59.9	1.592	2.544	9.4	19.8	5 1	13 15.74	+ 8 36.2	2.095	3.007	9.8	19.1
5 11	13 2.45	- 1 43.8	1.638	2.528	13.5	20.0	5 11	13 10.63	+ 8 49.5	2.171	3.014	12.5	19.3
5 21	12 57.01	- 1 44.0	1.705	2.512	17.0	20.2	5 21	13 7.26	+ 8 43.6	2.267	3.022	14.8	19.5
<b>177454</b>	2004 <i>DC</i> <sub>19</sub>		4 13.4 130°54	2°2/11.7	18		<b>150974</b>	2001 <i>TP</i> <sub>196</sub>		4 13.4 122°42	7°5/ 5.9	18	
3 12	13 54.06	- 4 49.7	1.801	2.662	13.0	20.4	3 12	13 53.01	+12 13.4	2.073	2.931	11.7	20.2
3 22	13 47.73	- 4 19.4	1.739	2.672	9.3	20.2	3 22	13 46.67	+13 25.3	2.034	2.947	9.3	20.1
4 1	13 39.40	- 3 43.7	1.702	2.682	5.3	19.9	4 1	13 38.66	+14 27.6	2.020	2.963	7.8	20.0
4 11	13 29.93	- 3 7.7	1.693	2.691	2.2	19.7	4 11	13 29.79	+15 13.4	2.033	2.978	7.8	20.1
4 21	13 20.32	- 2 36.6	1.711	2.700	4.7	19.9	4 21	13 20.93	+15 38.1	2.072	2.992	9.3	20.2
5 1	13 11.62	- 2 15.0	1.757	2.709	8.7	20.2	5 1	13 12.95	+15 39.7	2.137	3.006	11.5	20.3
5 11	13 4.65	- 2 6.4	1.828	2.717	12.3	20.4	5 11	13 6.53	+15 18.9	2.224	3.020	13.8	20.5
5 21	12 59.91	- 2 11.9	1.919	2.725	15.4	20.6	5 21	13 2.06	+14 38.4	2.329	3.033	15.7	20.7
<b>361082</b>	2006 <i>BU</i> <sub>96</sub>		4 13.4 87°14	4°5/16.5	18		<b>376757</b>	1999 <i>VP</i> <sub>123</sub>					

EPHEMERIDES

4 13.4

4 13.4

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$		
<b>214458</b>	2005 <i>SS</i> <sub>99</sub>	4 13.4 319°98 3°8/15.7 16						<b>371009</b>	2005 <i>TC</i> <sub>172</sub>	4 13.4 227°90 1°7/14.9 17					
3 12	13 52.54	-17 26.1	1.751	2.584	14.6	19.9	3 12	13 53.11	-15 35.4	2.194	3.020	12.3	22.1		
3 22	13 47.42	-18 9.5	1.641	2.550	11.4	19.6	3 22	13 47.10	-15 30.3	2.099	3.009	9.3	21.9		
4 1	13 39.73	-18 40.6	1.553	2.516	7.8	19.3	4 1	13 39.16	-15 12.6	2.029	2.996	5.8	21.7		
4 11	13 30.11	-18 58.4	1.491	2.482	4.4	19.0	4 11	13 29.98	-14 44.0	1.986	2.984	2.3	21.4		
4 21	13 19.60	-19 3.3	1.455	2.449	4.6	19.0	4 21	13 20.41	-14 7.7	1.973	2.970	3.0	21.4		
5 1	13 9.45	-18 58.2	1.446	2.416	8.4	19.1	5 1	13 11.41	-13 28.2	1.989	2.956	6.7	21.7		
5 11	13 0.93	-18 48.5	1.462	2.384	12.6	19.3	5 11	13 3.82	-12 50.9	2.031	2.941	10.3	21.8		
5 21	12 54.93	-18 40.0	1.498	2.353	16.6	19.4	5 21	12 58.21	-12 20.3	2.097	2.926	13.5	22.0		
<b>523785</b>	2015 <i>CM</i> <sub>3</sub>	4 13.4 36°25 1°6/20.4 18						<b>438167</b>	2005 <i>TM</i> <sub>16</sub>	4 13.4 181°59 0°2/13.7 17					
3 12	13 36.60	-28 47.6	9.906	10.639	3.7	23.3	3 12	13 47.42	-12 3.0	2.826	3.663	9.5	22.3		
3 22	13 34.12	-28 46.9	9.836	10.666	3.1	23.2	3 22	13 42.51	-11 34.8	2.744	3.664	6.9	22.1		
4 1	13 31.32	-28 41.5	9.791	10.693	2.4	23.2	4 1	13 36.33	-10 58.3	2.689	3.664	4.0	21.9		
4 11	13 28.35	-28 31.7	9.774	10.720	1.9	23.1	4 11	13 29.40	-10 16.2	2.663	3.664	0.9	21.7		
4 21	13 25.35	-28 18.0	9.786	10.746	1.6	23.1	4 21	13 22.32	-9 31.9	2.666	3.663	2.3	21.8		
5 1	13 22.48	-28 1.4	9.826	10.773	1.9	23.2	5 1	13 15.71	-8 49.2	2.699	3.662	5.4	22.0		
5 11	13 19.88	-27 42.7	9.895	10.800	2.5	23.2	5 11	13 10.13	-8 11.7	2.760	3.661	8.2	22.2		
5 21	13 17.67	-27 22.9	9.990	10.827	3.1	23.3	5 21	13 5.95	-7 42.4	2.844	3.660	10.7	22.4		
<b>348799</b>	2006 <i>QT</i> <sub>33</sub>	4 13.4 184°13 2°7/16.6 18						<b>220711</b>	2004 <i>SJ</i> <sub>12</sub>	4 13.4 177°46 5°5/ 7.7 18					
3 12	13 49.45	-20 36.0	2.755	3.557	10.8	21.8	3 12	13 52.05	+ 7 28.7	2.382	3.240	10.3	20.8		
3 22	13 44.07	-20 32.7	2.667	3.557	8.3	21.7	3 22	13 45.94	+ 8 22.0	2.320	3.242	7.9	20.6		
4 1	13 37.24	-20 16.4	2.604	3.556	5.7	21.5	4 1	13 38.30	+ 9 10.8	2.285	3.244	5.9	20.5		
4 11	13 29.55	-19 48.3	2.569	3.556	3.3	21.3	4 11	13 29.79	+ 9 49.8	2.278	3.245	5.6	20.5		
4 21	13 21.65	-19 10.7	2.563	3.555	3.1	21.3	4 21	13 21.16	+10 14.6	2.300	3.245	7.2	20.6		
5 1	13 14.26	-18 27.5	2.587	3.553	5.4	21.5	5 1	13 13.18	+10 22.2	2.348	3.245	9.6	20.7		
5 11	13 7.99	-17 43.1	2.638	3.552	8.1	21.6	5 11	13 6.51	+10 12.1	2.421	3.244	12.0	20.9		
5 21	13 3.28	-17 1.8	2.713	3.549	10.6	21.8	5 21	13 1.58	+ 9 45.2	2.514	3.243	14.1	21.1		
<b>288039</b>	2003 <i>UE</i> <sub>262</sub>	4 13.4 169°10 0°2/13.6 16						<b>397037</b>	2005 <i>UN</i> <sub>53</sub>	4 13.4 221°22 0°9/12.7 17					
3 12	13 52.69	-12 20.4	2.048	2.889	12.5	22.1	3 12	13 53.08	-10 32.6	1.670	2.526	14.2	22.1		
3 22	13 46.67	-11 44.9	1.973	2.894	9.1	21.9	3 22	13 47.45	-9 38.3	1.587	2.517	10.3	21.9		
4 1	13 38.81	-10 57.5	1.922	2.898	5.3	21.7	4 1	13 39.50	-8 29.5	1.528	2.507	5.8	21.6		
4 11	13 29.86	-10 2.1	1.900	2.901	1.1	21.4	4 11	13 30.06	-7 11.7	1.495	2.497	1.2	21.2		
4 21	13 20.72	-9 3.7	1.907	2.904	3.1	21.5	4 21	13 20.23	-5 52.5	1.491	2.485	4.3	21.4		
5 1	13 12.32	-8 8.3	1.943	2.906	7.2	21.8	5 1	13 11.19	-4 40.0	1.513	2.473	9.1	21.7		
5 11	13 5.44	-7 21.3	2.005	2.907	10.8	22.0	5 11	13 3.94	-3 41.6	1.560	2.461	13.4	21.9		
5 21	13 0.60	-6 46.4	2.089	2.908	13.9	22.2	5 21	12 59.12	-3 1.6	1.628	2.447	17.1	22.1		
<b>405006</b>	2000 <i>UH</i> <sub>70</sub>	4 13.4 162°84 1°8/15.1 18						<b>421117</b>	2013 <i>QW</i> <sub>75</sub>	4 13.4 213°80 0°3/13.2 17					
3 12	13 53.20	-17 10.0	1.947	2.774	13.6	21.9	3 12	13 50.89	-10 50.5	1.849	2.702	13.1	21.5		
3 22	13 47.16	-16 41.9	1.871	2.781	10.2	21.7	3 22	13 45.62	-10 16.1	1.771	2.699	9.5	21.2		
4 1	13 39.13	-15 57.4	1.819	2.786	6.4	21.5	4 1	13 38.34	-9 29.9	1.717	2.695	5.4	21.0		
4 11	13 29.93	-14 59.5	1.795	2.792	2.6	21.3	4 11	13 29.82	-8 36.3	1.690	2.691	1.0	20.6		
4 21	13 20.52	-13 53.3	1.798	2.796	3.2	21.3	4 21	13 21.03	-7 40.8	1.691	2.687	3.5	20.8		
5 1	13 11.92	-12 45.4	1.831	2.799	7.0	21.6	5 1	13 12.97	-6 49.7	1.719	2.683	7.9	21.1		
5 11	13 4.97	-11 42.7	1.890	2.802	10.8	21.8	5 11	13 6.50	-6 8.7	1.773	2.678	11.8	21.3		
5 21	13 0.19	-10 50.6	1.971	2.804	14.0	22.0	5 21	13 2.19	-5 41.3	1.848	2.673	15.1	21.5		
<b>301849</b>	1994 <i>SC</i> <sub>7</sub>	4 13.4 118°93 0°6/13.8 18						<b>149319</b>	2002 <i>VB</i>	4 13.4 184°61 3°1/16.4 18					
3 12	13 55.47	-12 7.4	1.533	2.385	15.4	21.3	3 12	13 52.45	-20 21.4	2.094	2.906	13.3	20.4		
3 22	13 49.12	-11 53.7	1.470	2.396	11.3	21.0	3 22	13 46.63	-20 10.3	2.010	2.906	10.3	20.2		
4 1	13 40.36	-11 26.5	1.431	2.407	6.6	20.8	4 1	13 38.87	-19 42.0	1.949	2.906	6.9	20.0		
4 11	13 30.18	-10 49.6	1.417	2.418	1.6	20.5	4 11	13 29.93	-18 58.2	1.915	2.905	3.8	19.8		
4 21	13 19.80	-10 8.5	1.430	2.428	3.7	20.7	4 21	13 20.72	-18 2.4	1.910	2.904	3.6	19.8		
5 1	13 10.50	-9 29.8	1.470	2.438	8.5	21.0	5 1	13 12.20	-17 0.3	1.933	2.902	6.7	19.9		
5 11	13 3.28	-8 59.6	1.535	2.447	12.8	21.2	5 11	13 5.22	-15 58.8	1.983	2.899	10.2	20.2		
5 21	12 58.67	-8 41.8	1.620	2.456	16.4	21.5	5 21	13 0.31	-15 3.6	2.056	2.896	13.3	20.3		
<b>68158</b>	2001 <i>BV</i> <sub>14</sub>	4 13.4 225°01 6°0/19.3 18						<b>96066</b>	4799 <i>P-L</i>	4 13.4 148°42 2°2/15.3 18					
3 12	13 53.15	-28 57.6	2.361	3.122	13.5	19.0	3 12	13 54.93	-15 58.2	2.136	2.960	12.7	20.4		
3 22	13 47.20	-29 25.7	2.264	3.113	11.3	18.8	3 22	13 48.33	-16 14.1	2.060	2.966	9.6	20.2		
4 1	13 39.25	-29 34.9	2.189	3.104	8.8	18.7	4 1	13 39.80	-16 18.0	2.007	2.972	6.1	20.0		
4 11	13 29.98	-29 23.9	2.139	3.095	6.7	18.5	4 11	13 30.11	-16 11.1	1.983	2.978	2.8	19.7		
4 21	13 20.28	-28 53.3	2.117	3.085	6.1	18.4	4 21	13 20.17	-15 55.6	1.988	2.983	3.2	19.8		
5 1	13 11.14	-28 6.8	2.122	3.074	7.4	18.5	5 1	13 10.94	-15 35.6	2.021	2.988	6.6	20.0		
5 11	13 3.45	-27 10.4	2.153	3.063	9.8	18.6	5 11	13 3.26	-15 15.8	2.082	2.993	10.0	20.2		
5 21	12 57.81	-26 10.9	2.209	3.052	12.4	18.8	5 21	12 57.64	-15 0.1	2.165	2.997	13.0	20.4		
<b>414127</b>	2007 <i>VR</i> <sub>9</sub>	4 13.4 240°17 1°9/15.2 16						<b>382768</b>	2003 <i>SJ</i> <sub>6</sub>	4 13.4 188°80 0°5/12.9 18					
3 12	13 52.09	-17 46.0	1.881	2.710	13.9	22.3	3 12	13 50.98	- 8 45.2	2.779	3.619	9.6	21.8		
3 22	13 46.65	-17 11.2	1.784	2.694	10.6	22.1	3 22	13 45.08	- 8 22.5	2.696	3.618	6.9	21.7		
4 1	13 39.02	-16 17.4	1.710	2.678	6.7	21.8	4 1	13 37.81	- 7 53.6	2.640	3.617	3.9	21.5		
4 11	13 29.95	-15 7.2	1.663	2.660	2.8	21.5	4 11	13 29.72	- 7 21.1	2.613	3.614	0.8	21.2		
4 21	13 20.42	-13 45.8	1.645	2.642	3.3	21.5	4 21	13 21.44	- 6 48.5	2.617	3.611	2.7	21.4		
5 1	13 11.54	-12 20.9	1.654	2.623	7.6	21.7	5 1	13 13.67	- 6 19.1	2.650	3.607	5.9	21.6		
5 11	13 4.29	-11 0.8	1.690	2.604	11.8	21.9	5 11	13 6.99	- 5 56.1	2.712	3.603	8.7	21.7		
5 21	12 59.29	- 9 52.3	1.747	2.583	15.4	22.1	5 21	13 1.80	- 5 41.7	2.797	3.597	11.2	21.9		
<b>122659</b>	2000 <i>RM</i> <sub>97</sub>	4 13.4 203°37 3°0/16.8 18						<b>436341</b>	2010 <i>HW</i> <sub>104</sub>	4 13.4 256°29 19°6/30.4 16					
3 12	13 50.24	-22 1.6	2.379	3.181	12.3	19.9	3 12	14 3.20	+29 30.0	1.096	1.932	21.3	20.9		
3 22	13 44.86	-21 33.6	2.287	3.176	9.6	19.7	3 22	13 55.75	+31 23.8	1.059					

EPHEMERIDES

4 13.4

4 13.5

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>86894</b>	2000 <i>HJ</i> <sub>34</sub>		4 13.4 243°42		2°0/15.1 17		<b>358026</b>	2006 <i>EU</i> <sub>62</sub>		4 13.4	3°25	0°1/13.4 15	
3 12	13 52.95	-17 12.9	1.746	2.579	14.6	19.4	3 12	13 46.81	-13 9.6	1.138	2.017	17.6	20.1
3 22	13 47.45	-16 44.7	1.650	2.563	11.1	19.1	3 22	13 43.52	-12 13.5	1.076	2.015	12.9	19.8
4 1	13 39.58	-15 57.3	1.578	2.547	7.0	18.8	4 1	13 37.47	-10 55.5	1.034	2.015	7.4	19.5
4 11	13 30.12	-14 53.1	1.532	2.529	2.8	18.5	4 11	13 29.71	-9 22.9	1.014	2.016	1.5	19.1
4 21	13 20.14	-13 37.5	1.513	2.511	3.5	18.5	4 21	13 21.62	-7 46.6	1.019	2.017	4.6	19.4
5 1	13 10.85	-12 18.2	1.522	2.492	8.1	18.8	5 1	13 14.65	-6 18.9	1.047	2.020	10.4	19.7
5 11	13 3.30	-11 3.9	1.556	2.472	12.5	19.0	5 11	13 9.97	-5 9.9	1.097	2.023	15.5	20.0
5 21	12 58.19	-10 1.6	1.612	2.452	16.3	19.2	5 21	13 8.17	-4 25.0	1.164	2.027	19.8	20.3
<b>62248</b>	2000 <i>SQ</i> <sub>79</sub>		4 13.4 46°59		0°6/12.9 18		<b>348855</b>	2006 <i>SG</i> <sub>98</sub>		4 13.4 124°61		0°2/13.2 17	
3 12	13 51.92	-7 33.4	2.102	2.955	11.7	18.7	3 12	13 47.14	-11 21.5	2.507	3.352	10.4	21.5
3 22	13 46.08	-7 34.9	2.034	2.962	8.5	18.5	3 22	13 42.40	-10 34.1	2.437	3.361	7.5	21.3
4 1	13 38.48	-7 30.6	1.990	2.969	4.8	18.3	4 1	13 36.30	-9 37.6	2.393	3.370	4.2	21.1
4 11	13 29.86	-7 23.3	1.974	2.976	1.0	18.0	4 11	13 29.44	-8 35.7	2.377	3.378	0.8	20.9
4 21	13 21.07	-7 16.1	1.988	2.983	3.3	18.2	4 21	13 22.47	-7 33.1	2.391	3.387	2.7	21.0
5 1	13 12.99	-7 12.4	2.029	2.990	7.0	18.4	5 1	13 16.08	-6 34.6	2.434	3.395	6.1	21.3
5 11	13 6.36	-7 15.1	2.096	2.998	10.4	18.7	5 11	13 10.84	-5 44.5	2.504	3.403	9.1	21.5
5 21	13 1.66	-7 26.1	2.186	3.006	13.3	18.9	5 21	13 7.13	-5 5.8	2.597	3.410	11.6	21.6
<b>16222</b>	Donnanderson		4 13.4 259°88		1°4/12.4 18		<b>415656</b>	2014 <i>QF</i> <sub>410</sub>		4 13.4 130°86		2°2/11.4 18	
3 12	13 52.53	-8 34.1	1.357	2.228	15.8	19.3	3 12	13 52.64	-6 24.0	1.819	2.679	12.9	22.0
3 22	13 47.36	-7 55.0	1.288	2.226	11.5	19.0	3 22	13 46.70	-5 22.9	1.760	2.693	9.2	21.8
4 1	13 39.56	-7 7.1	1.242	2.223	6.5	18.7	4 1	13 38.86	-4 14.0	1.727	2.707	5.2	21.6
4 11	13 30.11	-6 4.8	1.220	2.221	1.6	18.4	4 11	13 29.95	-3 3.7	1.721	2.720	2.2	21.4
4 21	13 20.30	-5 7.8	1.223	2.218	5.0	18.6	4 21	13 20.97	-1 58.8	1.744	2.732	4.8	21.6
5 1	13 11.49	-4 20.4	1.252	2.215	10.2	18.9	5 1	13 12.88	-1 5.5	1.794	2.744	8.7	21.9
5 11	13 4.83	-3 48.9	1.303	2.213	14.9	19.1	5 11	13 6.47	-0 28.1	1.869	2.755	12.3	22.1
5 21	13 0.94	-3 36.5	1.374	2.210	18.8	19.4	5 21	13 2.21	-0 8.3	1.965	2.765	15.3	22.3
<b>433965</b>	1999 <i>SD</i> <sub>10</sub>		4 13.4 306°41		3°0/10.6 15		<b>241683</b>	2000 <i>RP</i> <sub>79</sub>		4 13.4 203°86		1°1/11.9 18	
3 12	13 51.86	-2 52.3	2.208	3.067	11.0	22.0	3 12	13 46.58	-8 40.6	2.851	3.699	9.2	21.2
3 22	13 46.44	-2 3.4	2.081	3.013	8.1	21.8	3 22	13 41.92	-7 37.5	2.767	3.694	6.5	21.0
4 1	13 38.99	-1 7.6	1.980	2.958	4.9	21.5	4 1	13 36.02	-6 26.8	2.710	3.689	3.6	20.8
4 11	13 30.03	-0 9.8	1.908	2.902	3.0	21.2	4 11	13 29.40	-5 12.5	2.683	3.683	1.1	20.6
4 21	13 20.34	+0 44.3	1.864	2.846	5.4	21.3	4 21	13 22.62	-3 59.3	2.686	3.677	3.1	20.8
5 1	13 10.86	+1 28.8	1.849	2.788	9.2	21.4	5 1	13 16.30	-2 51.8	2.720	3.671	6.1	21.0
5 11	13 2.52	+1 58.6	1.859	2.730	13.0	21.5	5 11	13 10.96	-1 54.1	2.781	3.664	8.8	21.1
5 21	12 56.05	+2 11.1	1.890	2.670	16.5	21.6	5 21	13 6.97	-1 8.7	2.865	3.656	11.2	21.3
<b>57929</b>	2002 <i>GB</i> <sub>86</sub>		4 13.4 249°06		4°0/10.2 18		<b>66763</b>	1999 <i>TZ</i> <sub>189</sub>		4 13.5 246°89		4°6/17.8 18	
3 12	13 53.32	-0 58.5	1.700	2.569	13.2	19.8	3 12	13 50.84	-24 12.1	2.087	2.885	13.9	19.5
3 22	13 47.59	-0 9.9	1.620	2.556	9.7	19.5	3 22	13 45.63	-24 18.1	1.995	2.877	11.1	19.3
4 1	13 39.58	+0 42.5	1.564	2.542	5.9	19.3	4 1	13 38.42	-24 5.1	1.925	2.868	8.1	19.1
4 11	13 30.12	+1 32.0	1.535	2.528	4.0	19.1	4 11	13 29.91	-23 33.1	1.891	2.859	5.4	18.9
4 21	13 20.25	+2 11.8	1.534	2.513	6.6	19.2	4 21	13 21.02	-22 44.6	1.864	2.850	4.8	18.8
5 1	13 11.12	+2 36.2	1.559	2.499	10.5	19.4	5 1	13 12.76	-21 44.7	1.875	2.841	7.1	19.0
5 11	13 3.74	+2 41.8	1.606	2.483	14.4	19.6	5 11	13 6.01	-20 40.4	1.911	2.832	10.2	19.1
5 21	12 58.72	+2 27.8	1.674	2.468	17.8	19.8	5 21	13 1.37	-19 38.5	1.971	2.823	13.3	19.3
<b>351580</b>	2005 <i>UY</i> <sub>352</sub>		4 13.4 206°89		3°4/15.8 18		<b>150797</b>	2001 <i>RW</i> <sub>57</sub>		4 13.5 90°89		2°4/15.2 18	
3 12	13 55.82	-18 31.9	1.586	2.416	16.0	20.9	3 12	13 56.96	-15 52.9	1.819	2.648	14.3	19.7
3 22	13 49.68	-18 39.0	1.505	2.413	12.4	20.6	3 22	13 49.89	-16 9.6	1.761	2.670	10.8	19.5
4 1	13 40.89	-18 27.3	1.445	2.409	8.2	20.4	4 1	13 40.71	-16 12.4	1.726	2.692	6.8	19.3
4 11	13 30.39	-17 57.6	1.411	2.404	4.2	20.1	4 11	13 30.33	-16 2.8	1.718	2.714	3.0	19.2
4 21	13 19.41	-17 13.5	1.403	2.399	4.3	20.1	4 21	13 19.86	-15 43.9	1.739	2.735	3.5	19.2
5 1	13 9.30	-16 21.8	1.422	2.393	8.4	20.3	5 1	13 10.39	-15 20.7	1.788	2.756	7.2	19.5
5 11	13 1.24	-15 30.7	1.466	2.387	12.7	20.6	5 11	13 2.80	-14 58.4	1.862	2.776	10.8	19.7
5 21	12 55.93	-14 47.3	1.531	2.380	16.6	20.8	5 21	12 57.57	-14 41.7	1.959	2.796	14.0	20.0
<b>193697</b>	2001 <i>FV</i> <sub>42</sub>		4 13.4 17°09		3°1/15.3 17		<b>269368</b>	2008 <i>WL</i> <sub>49</sub>		4 13.5 177°16		1°0/11.7 18	
3 12	13 55.18	-15 27.9	1.620	2.460	15.3	19.3	3 12	13 43.92	-6 1.7	3.823	4.673	7.0	21.5
3 22	13 49.06	-16 13.6	1.549	2.464	11.6	19.1	3 22	13 39.73	-5 27.5	3.746	4.674	5.0	21.3
4 1	13 40.46	-16 46.6	1.501	2.468	7.5	18.9	4 1	13 34.68	-4 49.8	3.696	4.675	2.8	21.2
4 11	13 30.29	-17 6.6	1.478	2.473	3.7	18.7	4 11	13 29.13	-4 11.1	3.676	4.675	1.0	21.0
4 21	13 19.74	-17 15.0	1.482	2.478	4.1	18.7	4 21	13 23.49	-3 34.2	3.687	4.676	2.5	21.2
5 1	13 10.09	-17 15.8	1.513	2.484	8.0	18.9	5 1	13 18.17	-3 1.5	3.727	4.676	4.7	21.3
5 11	13 2.41	-17 14.0	1.569	2.490	12.0	19.2	5 11	13 13.57	-2 35.1	3.795	4.676	6.7	21.5
5 21	12 57.34	-17 14.8	1.645	2.497	15.5	19.4	5 21	13 9.94	-2 16.6	3.888	4.676	8.5	21.6
<b>507564</b>	2013 <i>AZ</i> <sub>61</sub>		4 13.4 173°07		3°3/16.9 17		<b>310465</b>	2000 <i>ST</i> <sub>9</sub>		4 13.5 250°05		6°8/19.9 18	
3 12	13 49.81	-21 9.2	2.473	3.277	11.8	21.8	3 12	13 55.92	-32 22.2	2.786	3.510	12.5	21.1
3 22	13 44.51	-21 17.6	2.388	3.277	9.2	21.6	3 22	13 49.20	-33 16.1	2.676	3.492	10.7	20.9
4 1	13 37.60	-21 11.9	2.327	3.278	6.4	21.4	4 1	13 40.47	-33 53.5	2.589	3.475	8.9	20.8
4 11	13 29.70	-20 52.8	2.294	3.278	3.9	21.2	4 11	13 30.34	-34 11.9	2.528	3.456	7.3	20.6
4 21	13 21.56	-20 22.8	2.289	3.279	3.6	21.2	4 21	13 19.63	-34 10.3	2.494	3.438	6.8	20.6
5 1	13 13.97	-19 45.4	2.312	3.279	5.9	21.4	5 1	13 9.28	-33 50.6	2.489	3.419	7.6	20.6
5 11	13 7.64	-19 5.8	2.362	3.279	8.7	21.5	5 11	13 0.19	-33 17.1	2.510	3.400	9.4	20.7
5 21	13 3.05	-18 28.4	2.436	3.279	11.4	21.7	5 21	12 53.00	-32 35.5	2.555	3.380	11.5	20.8
<b>423516</b>	2005 <i>UP</i> <sub>60</sub>		4 13.4 94°40		0°8/12.7 18		<b>122658</b>	2000 <i>RA</i> <sub>94</sub>		4 13.5 261°33		1°9/15.1 17	
3 12	13 52.84	-8 40.8											

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>385424</b>	2003 <i>DU</i> <sub>6</sub>		4 13.5 48°72	0°5/13.8	17		<b>427776</b>	2004 <i>YE</i> <sub>36</sub>		4 13.5 324°59	7°7/ 7.1	17	
3 12	13 52.01	-10 53.7	1.922	2.771	12.8	20.3	3 12	13 52.48	+11 6.5	1.821	2.686	12.7	19.8
3 22	13 46.23	-10 57.9	1.863	2.788	9.3	20.1	3 22	13 46.75	+11 53.2	1.759	2.679	10.1	19.6
4 1	13 38.60	-10 53.0	1.828	2.805	5.4	19.9	4 1	13 38.99	+12 31.0	1.720	2.673	8.1	19.5
4 11	13 29.93	-10 41.7	1.821	2.822	1.3	19.6	4 11	13 30.05	+12 52.7	1.708	2.666	7.9	19.4
4 21	13 21.15	-10 27.3	1.841	2.839	3.0	19.8	4 21	13 20.90	+12 53.2	1.721	2.660	9.6	19.5
5 1	13 13.21	-10 13.9	1.889	2.856	7.0	20.1	5 1	13 12.57	+12 30.1	1.759	2.654	12.3	19.7
5 11	13 6.87	-10 5.5	1.963	2.874	10.5	20.3	5 11	13 5.92	+11 44.1	1.819	2.649	15.1	19.8
5 21	13 2.59	-10 4.8	2.059	2.892	13.5	20.6	5 21	13 1.45	+10 38.1	1.897	2.643	17.6	20.0
<b>469082</b>	2015 <i>BB</i> <sub>278</sub>		4 13.5 123°95	2°8/10.8	17		<b>136595</b>	1993 <i>FH</i> <sub>29</sub>		4 13.5 43°52	5°4/17.6	18	
3 12	13 49.19	- 4 15.2	1.883	2.751	12.2	21.5	3 12	13 54.46	-23 18.2	1.912	2.713	14.8	19.3
3 22	13 44.27	- 3 16.3	1.817	2.754	8.7	21.3	3 22	13 48.30	-24 7.8	1.844	2.726	11.9	19.1
4 1	13 37.53	- 2 11.4	1.777	2.757	5.0	21.1	4 1	13 39.95	-24 39.8	1.798	2.739	8.7	19.0
4 11	13 29.73	- 1 6.7	1.763	2.760	2.8	20.9	4 11	13 30.25	-24 52.9	1.778	2.752	6.0	18.8
4 21	13 21.76	- 0 8.8	1.778	2.762	5.2	21.1	4 21	13 20.26	-24 48.3	1.784	2.766	5.6	18.8
5 1	13 14.54	+ 0 36.8	1.819	2.765	8.9	21.3	5 1	13 11.11	-24 30.0	1.818	2.780	7.6	19.0
5 11	13 8.83	+ 1 6.0	1.885	2.768	12.3	21.5	5 11	13 3.72	-24 4.0	1.877	2.795	10.6	19.2
5 21	13 5.12	+ 1 17.6	1.971	2.770	15.3	21.7	5 21	12 58.69	-23 36.5	1.959	2.809	13.4	19.4
<b>174594</b>	2003 <i>QH</i> <sub>56</sub>		4 13.5 199°37	0°5/13.9	18		<b>470045</b>	2006 <i>SX</i> <sub>130</sub>		4 13.5 164°84	0°5/14.1	18	
3 12	13 54.59	-12 20.7	2.102	2.938	12.4	21.1	3 12	13 47.90	-13 30.2	2.701	3.535	10.4	22.2
3 22	13 48.16	-12 3.2	2.016	2.934	9.1	20.9	3 22	13 42.93	-12 57.7	2.622	3.539	7.0	22.1
4 1	13 39.79	-11 34.6	1.956	2.929	5.4	20.6	4 1	13 36.63	-12 15.6	2.569	3.542	4.3	21.9
4 11	13 30.20	-10 57.7	1.923	2.924	1.3	20.3	4 11	13 29.57	-11 26.5	2.545	3.545	1.2	21.6
4 21	13 20.29	-10 16.6	1.920	2.917	3.0	20.4	4 21	13 22.36	-10 34.3	2.551	3.548	2.3	21.7
5 1	13 11.05	- 9 36.3	1.946	2.910	7.1	20.7	5 1	13 15.67	- 9 43.3	2.586	3.551	5.5	22.0
5 11	13 3.32	- 9 2.0	1.999	2.902	10.8	20.9	5 11	13 10.07	- 8 57.6	2.649	3.553	8.4	22.1
5 21	12 57.64	- 8 37.4	2.074	2.893	14.0	21.1	5 21	13 5.95	- 8 20.3	2.735	3.555	10.9	22.3
<b>242049</b>	2002 <i>RR</i> <sub>144</sub>		4 13.5 181°07	0°4/13.9	17		<b>483747</b>	2005 <i>UG</i> <sub>80</sub>		4 13.5 125°12	0°4/14.1	18	
3 12	13 47.95	-13 32.0	2.119	2.963	12.0	20.5	3 12	13 46.69	-13 30.2	3.265	4.093	8.6	21.7
3 22	13 43.29	-12 49.6	2.041	2.964	8.8	20.3	3 22	13 41.81	-12 52.0	3.197	4.111	6.3	21.6
4 1	13 36.95	-11 54.5	1.988	2.964	5.1	20.1	4 1	13 35.89	-12 6.0	3.156	4.128	3.7	21.4
4 11	13 29.62	-10 50.5	1.963	2.964	1.3	19.8	4 11	13 29.41	-11 14.6	3.144	4.144	1.0	21.2
4 21	13 22.09	- 9 42.8	1.966	2.964	2.9	19.9	4 21	13 22.88	-10 21.2	3.163	4.160	2.0	21.3
5 1	13 15.21	- 8 37.6	1.997	2.963	6.7	20.2	5 1	13 16.82	- 9 29.3	3.213	4.176	4.6	21.5
5 11	13 9.69	- 7 40.6	2.055	2.963	10.3	20.4	5 11	13 11.67	- 8 42.4	3.291	4.191	7.1	21.7
5 21	13 5.99	- 6 55.7	2.135	2.963	13.3	20.6	5 21	13 7.74	- 8 2.8	3.394	4.206	9.2	21.9
<b>203478</b>	2002 <i>AT</i> <sub>38</sub>		4 13.5 66°24	1°1/12.6	18		<b>386603</b>	2009 <i>FG</i> <sub>77</sub>		4 13.5 45°27	0°7/14.2	17	
3 12	13 51.74	- 9 48.2	1.319	2.190	16.2	20.4	3 12	13 47.61	-13 51.5	2.039	2.884	12.4	21.1
3 22	13 46.64	- 8 58.6	1.265	2.202	11.6	20.1	3 22	13 43.08	-13 18.1	1.968	2.890	9.1	20.9
4 1	13 39.05	- 7 55.2	1.234	2.215	6.5	19.9	4 1	13 36.85	-12 32.0	1.922	2.896	5.4	20.7
4 11	13 30.04	- 6 45.2	1.227	2.228	1.4	19.6	4 11	13 29.63	-11 36.9	1.902	2.903	1.5	20.4
4 21	13 20.91	- 5 37.2	1.246	2.241	4.7	19.8	4 21	13 22.25	-10 37.9	1.911	2.909	2.9	20.5
5 1	13 12.95	- 4 39.8	1.290	2.254	9.8	20.2	5 1	13 15.57	- 9 40.8	1.948	2.916	6.7	20.8
5 11	13 7.16	- 3 59.4	1.356	2.267	14.3	20.4	5 11	13 10.29	- 8 51.1	2.010	2.923	10.2	21.0
5 21	13 4.06	- 3 38.7	1.442	2.281	18.0	20.7	5 21	13 6.88	- 8 12.6	2.095	2.930	13.3	21.2
<b>82069</b>	2000 <i>YW</i> <sub>12</sub>		4 13.5 176°90	16°9/27.8	18		<b>374412</b>	2005 <i>WY</i> <sub>48</sub>		4 13.5 195°40	1°4/12.0	17	
3 12	13 55.48	+24 35.0	1.205	2.060	18.5	19.6	3 12	13 51.71	- 6 35.6	2.369	3.219	10.7	22.3
3 22	13 49.75	+27 31.9	1.181	2.062	17.2	19.5	3 22	13 45.85	- 6 0.2	2.289	3.216	7.7	22.1
4 1	13 40.97	+29 58.7	1.177	2.063	17.1	19.5	4 1	13 38.38	- 5 18.6	2.234	3.213	4.3	21.9
4 11	13 30.44	+31 39.8	1.193	2.064	18.2	19.6	4 11	13 29.94	- 4 34.7	2.209	3.209	1.5	21.6
4 21	13 19.77	+32 26.8	1.228	2.064	20.2	19.7	4 21	13 21.30	- 3 52.8	2.213	3.204	3.6	21.8
5 1	13 10.58	+32 19.7	1.279	2.063	22.4	19.9	5 1	13 13.23	- 3 17.3	2.247	3.198	7.1	22.0
5 11	13 4.03	+31 25.1	1.342	2.063	24.6	20.1	5 11	13 6.43	- 2 51.8	2.307	3.192	10.3	22.2
5 21	13 0.67	+29 52.9	1.416	2.061	26.4	20.2	5 21	13 1.37	- 2 38.4	2.389	3.185	13.0	22.4
<b>226035</b>	2002 <i>FR</i> <sub>29</sub>		4 13.5 68°90	3°4/10.7	18		<b>33646</b>	1999 <i>JX</i> <sub>82</sub>		4 13.5 278°21	7°6/ 5.5	18	
3 12	13 51.62	- 2 19.2	1.683	2.554	13.2	20.2	3 12	13 48.71	+ 7 59.1	1.758	2.634	12.5	17.9
3 22	13 46.03	- 1 31.9	1.635	2.572	9.5	20.0	3 22	13 44.13	+ 9 40.2	1.695	2.625	9.8	17.7
4 1	13 38.50	- 0 41.6	1.611	2.590	5.6	19.9	4 1	13 37.56	+11 17.6	1.658	2.615	7.9	17.5
4 11	13 29.93	+ 0 5.4	1.614	2.609	3.4	19.8	4 11	13 29.79	+12 41.6	1.646	2.606	8.0	17.5
4 21	13 21.32	+ 0 43.1	1.644	2.627	5.8	19.9	4 21	13 21.76	+13 44.1	1.660	2.596	10.1	17.6
5 1	13 13.70	+ 1 6.6	1.700	2.645	9.4	20.2	5 1	13 14.47	+14 19.9	1.698	2.586	13.0	17.8
5 11	13 7.83	+ 1 13.6	1.779	2.663	12.9	20.4	5 11	13 8.77	+14 27.5	1.756	2.577	15.9	17.9
5 21	13 4.15	+ 1 3.6	1.879	2.681	15.8	20.7	5 21	13 5.20	+14 8.8	1.832	2.567	18.5	18.1
<b>467744</b>	2009 <i>SS</i> <sub>64</sub>		4 13.5 197°01	0°6/12.9	17		<b>245501</b>	2005 <i>QC</i> <sub>157</sub>		4 13.5 281°26	0°7/12.6	17	
3 12	13 50.77	-10 10.7	1.855	2.710	13.0	21.9	3 12	13 46.83	-10 28.6	2.362	3.212	10.7	20.7
3 22	13 45.53	- 9 33.5	1.780	2.709	9.4	21.6	3 22	13 42.48	- 9 29.2	2.260	3.187	7.8	20.4
4 1	13 38.32	- 8 45.1	1.729	2.708	5.3	21.4	4 1	13 36.55	- 8 18.3	2.183	3.162	4.4	20.2
4 11	13 29.92	- 7 50.2	1.705	2.706	1.0	21.1	4 11	13 29.60	- 7 0.2	2.136	3.137	1.0	19.9
4 21	13 21.26	- 6 54.4	1.709	2.704	3.6	21.3	4 21	13 22.31	- 5 40.2	2.118	3.112	3.3	20.0
5 1	13 13.35	- 6 4.0	1.740	2.702	7.9	21.5	5 1	13 15.47	- 4 24.5	2.128	3.086	7.0	20.2
5 11	13 7.02	- 5 24.3	1.796	2.700	11.8	21.7	5 11	13 9.76	- 3 18.8	2.165	3.060	10.4	20.4
5 21	13 2.81	- 4 58.7	1.874	2.697	15.0	22.0	5 21	13 5.70	- 2 27.0	2.225	3.034	13.5	20.5
<b>102064</b>	1999 <i>RW</i> <sub>134</sub>		4 13.5 209°54	1°0/14.8	18		<b>60226</b>	1999 <i>VF</i> <sub>126</sub>					

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>356931</b>	2012 <i>SM</i> <sub>13</sub>		4 13.5 162°07		0°3/13.8 17		<b>152759</b>	1999 <i>JD</i> <sub>45</sub>		4 13.5 315°62		3°1/11.5 17	
3 12	13 49.46	-12 21.7	2.228	3.071	11.5	21.7	3 12	13 51.40	-3 14.4	1.448	2.326	14.6	19.6
3 22	13 44.31	-11 54.5	2.152	3.074	8.4	21.5	3 22	13 46.76	-2 52.8	1.357	2.297	10.7	19.2
4 1	13 37.53	-11 16.7	2.101	3.076	4.9	21.3	4 1	13 39.45	-2 25.6	1.288	2.269	6.3	18.9
4 11	13 29.78	-10 31.7	2.077	3.078	1.1	21.0	4 11	13 30.27	-1 58.8	1.243	2.241	3.1	18.6
4 21	13 21.85	-9 43.7	2.083	3.080	2.8	21.1	4 21	13 20.35	-1 38.6	1.224	2.214	6.1	18.7
5 1	13 14.54	-8 57.7	2.117	3.082	6.5	21.4	5 1	13 11.07	-1 31.1	1.230	2.187	11.0	18.9
5 11	13 8.56	-8 18.5	2.177	3.083	9.9	21.6	5 11	13 3.68	-1 40.6	1.258	2.162	15.7	19.1
5 21	13 4.36	-7 49.3	2.260	3.084	12.8	21.8	5 21	12 59.01	-2 8.8	1.304	2.136	19.9	19.3
<b>471386</b>	2011 <i>SG</i> <sub>125</sub>		4 13.5 169°81		0°4/12.9 17		<b>330324</b>	2006 <i>US</i> <sub>120</sub>		4 13.5 288°18		1°8/12.1 17	
3 12	13 47.85	-9 13.9	3.006	3.848	8.9	22.6	3 12	13 51.20	-7 16.4	1.547	2.416	14.3	21.6
3 22	13 42.77	-8 44.9	2.928	3.851	6.4	22.5	3 22	13 46.40	-6 37.8	1.459	2.395	10.4	21.3
4 1	13 36.52	-8 9.9	2.877	3.854	3.6	22.3	4 1	13 39.13	-5 48.1	1.393	2.375	5.9	21.0
4 11	13 29.57	-7 31.4	2.856	3.857	0.7	22.0	4 11	13 30.19	-4 52.8	1.354	2.354	1.9	20.6
4 21	13 22.51	-6 52.9	2.865	3.859	2.5	22.2	4 21	13 20.67	-3 59.0	1.340	2.333	5.0	20.8
5 1	13 15.90	-6 17.6	2.903	3.861	5.4	22.4	5 1	13 11.85	-3 14.1	1.353	2.312	9.9	21.0
5 11	13 10.25	-5 48.5	2.970	3.863	8.0	22.6	5 11	13 4.84	-2 44.4	1.388	2.292	14.5	21.2
5 21	13 5.93	-5 27.9	3.060	3.864	10.3	22.7	5 21	13 0.37	-2 33.2	1.443	2.271	18.5	21.4
<b>426903</b>	2013 <i>WZ</i> <sub>72</sub>		4 13.5 268°58		1°0/14.3 17		<b>219563</b>	2001 <i>SX</i> <sub>31</sub>		4 13.5 182°03		1°3/12.0 17	
3 12	13 52.21	-13 38.9	1.962	2.802	13.0	21.5	3 12	13 50.88	-7 35.1	2.355	3.205	10.8	22.6
3 22	13 46.77	-13 24.9	1.860	2.779	9.7	21.2	3 22	13 45.24	-6 45.1	2.278	3.206	7.7	22.4
4 1	13 39.20	-12 57.9	1.783	2.756	5.9	20.9	4 1	13 38.04	-5 47.7	2.228	3.207	4.3	22.2
4 11	13 30.17	-12 20.2	1.732	2.732	1.8	20.6	4 11	13 29.91	-4 47.2	2.206	3.207	1.4	21.9
4 21	13 20.61	-11 35.7	1.710	2.708	3.2	20.6	4 21	13 21.61	-3 48.7	2.215	3.206	3.6	22.1
5 1	13 11.57	-10 49.9	1.715	2.683	7.5	20.9	5 1	13 13.92	-2 57.2	2.252	3.204	7.1	22.3
5 11	13 4.01	-10 9.0	1.747	2.658	11.6	21.0	5 11	13 7.50	-2 16.6	2.316	3.201	10.2	22.5
5 21	12 58.61	-9 37.8	1.800	2.632	15.2	21.2	5 21	13 2.79	-1 49.5	2.403	3.198	13.0	22.7
<b>70496</b>	1999 <i>TQ</i> <sub>72</sub>		4 13.5 155°64		1°0/12.4 18		<b>330545</b>	2008 <i>AH</i> <sub>65</sub>		4 13.5 105°07		0°1/13.4 18	
3 12	13 49.72	-8 27.1	2.152	3.006	11.5	20.3	3 12	13 52.46	-11 48.3	1.689	2.542	14.2	21.9
3 22	13 44.51	-7 46.2	2.080	3.010	8.2	20.1	3 22	13 46.78	-11 8.7	1.629	2.556	10.3	21.7
4 1	13 37.64	-6 57.0	2.034	3.013	4.6	19.8	4 1	13 39.02	-10 16.1	1.593	2.571	5.9	21.4
4 11	13 29.81	-6 4.1	2.016	3.017	1.2	19.6	4 11	13 30.11	-9 15.5	1.584	2.585	1.2	21.1
4 21	13 21.82	-5 12.4	2.027	3.020	3.5	19.8	4 21	13 21.09	-8 13.4	1.602	2.599	3.6	21.3
5 1	13 14.49	-4 27.0	2.066	3.023	7.2	20.0	5 1	13 13.03	-7 16.7	1.648	2.612	8.0	21.6
5 11	13 8.52	-3 52.2	2.131	3.026	10.6	20.2	5 11	13 6.77	-6 31.4	1.718	2.626	12.0	21.9
5 21	13 4.37	-3 30.4	2.218	3.028	13.4	20.4	5 21	13 2.80	-6 0.8	1.809	2.638	15.3	22.1
<b>508500</b>	2016 <i>QB</i> <sub>5</sub>		4 13.5 213°98		3°6/17.3 17		<b>377346</b>	2004 <i>RB</i> <sub>13</sub>		4 13.5 254°35		1°0/14.3 17	
3 12	13 49.76	-22 29.1	2.528	3.324	11.8	21.8	3 12	13 52.87	-13 0.1	2.007	2.847	12.8	21.1
3 22	13 44.53	-22 33.6	2.437	3.321	9.3	21.7	3 22	13 47.14	-12 57.0	1.914	2.833	9.5	20.9
4 1	13 37.68	-22 23.2	2.371	3.317	6.6	21.5	4 1	13 39.35	-12 42.6	1.845	2.818	5.7	20.6
4 11	13 29.83	-21 58.6	2.332	3.313	4.2	21.3	4 11	13 30.22	-12 19.2	1.804	2.804	1.8	20.3
4 21	13 21.71	-21 22.0	2.320	3.309	3.8	21.3	4 21	13 20.65	-11 50.0	1.791	2.789	3.1	20.4
5 1	13 14.13	-20 37.3	2.338	3.304	5.9	21.4	5 1	13 11.66	-11 19.8	1.806	2.774	7.2	20.6
5 11	13 7.76	-19 49.7	2.383	3.300	8.7	21.6	5 11	13 4.16	-10 53.7	1.847	2.758	11.1	20.8
5 21	13 3.11	-19 4.1	2.451	3.295	11.3	21.7	5 21	12 58.78	-10 35.9	1.911	2.742	14.5	21.0
<b>227793</b>	2006 <i>YS</i> <sub>8</sub>		4 13.5 308°55		4°4/16.4 18		<b>306300</b>	2011 <i>SG</i> <sub>58</sub>		4 13.5 197°92		2°1/15.6 17	
3 12	13 50.74	-20 0.5	1.511	2.347	16.4	19.4	3 12	13 51.04	-16 55.3	2.532	3.351	11.1	20.6
3 22	13 46.40	-20 19.7	1.411	2.319	13.0	19.1	3 22	13 45.39	-17 2.6	2.446	3.349	8.4	20.4
4 1	13 39.32	-20 19.0	1.331	2.292	9.0	18.8	4 1	13 38.17	-16 59.0	2.385	3.348	5.4	20.3
4 11	13 30.24	-19 57.8	1.275	2.265	5.3	18.5	4 11	13 29.96	-16 45.4	2.352	3.346	2.7	20.1
4 21	13 20.31	-19 18.2	1.244	2.238	5.1	18.4	4 21	13 21.50	-16 24.1	2.348	3.343	2.8	20.1
5 1	13 10.96	-18 26.0	1.238	2.211	9.0	18.6	5 1	13 13.57	-15 58.7	2.373	3.341	5.7	20.3
5 11	13 3.51	-17 30.2	1.255	2.185	13.6	18.8	5 11	13 6.85	-15 33.2	2.426	3.338	8.7	20.4
5 21	12 58.88	-16 39.4	1.292	2.160	17.9	19.0	5 21	13 1.81	-15 11.5	2.502	3.336	11.4	20.6
<b>160403</b>	2004 <i>RE</i> <sub>194</sub>		4 13.5 249°46		4°6/16.8 16		<b>69103</b>	2003 <i>BG</i> <sub>80</sub>		4 13.5 332°54		5°2/17.1 18	
3 12	13 54.36	-21 20.4	1.596	2.418	16.4	20.4	3 12	13 54.05	-22 6.5	1.985	2.790	14.2	18.6
3 22	13 48.79	-21 34.2	1.507	2.407	12.9	20.2	3 22	13 48.18	-23 1.8	1.895	2.781	11.4	18.4
4 1	13 40.54	-21 27.0	1.440	2.395	9.0	19.9	4 1	13 40.05	-23 42.2	1.829	2.773	8.3	18.2
4 11	13 30.46	-20 58.5	1.396	2.383	5.4	19.7	4 11	13 30.38	-24 6.1	1.788	2.765	5.7	18.0
4 21	13 19.78	-20 11.6	1.379	2.371	5.1	19.6	4 21	13 20.17	-24 13.4	1.775	2.758	5.4	18.0
5 1	13 9.87	-19 12.5	1.388	2.358	8.6	19.8	5 1	13 10.54	-24 7.1	1.788	2.751	7.7	18.1
5 11	13 1.95	-18 10.4	1.421	2.345	12.8	20.0	5 11	13 2.53	-23 52.3	1.827	2.744	10.9	18.3
5 21	12 56.79	-17 13.7	1.475	2.332	16.7	20.2	5 21	12 56.83	-23 34.9	1.889	2.738	13.9	18.5
<b>280405</b>	2003 <i>WP</i> <sub>13</sub>		4 13.5 263°01		1°3/14.8 17		<b>410217</b>	2007 <i>RB</i> <sub>295</sub>		4 13.5 99°81		0°5/13.9 18	
3 12	13 49.42	-15 13.7	2.045	2.883	12.6	20.8	3 12	13 53.48	-13 10.5	1.583	2.433	15.0	22.0
3 22	13 44.54	-14 53.1	1.958	2.874	9.5	20.6	3 22	13 47.63	-12 36.5	1.525	2.450	11.0	21.7
4 1	13 37.79	-14 18.5	1.895	2.866	5.8	20.3	4 1	13 39.56	-11 47.7	1.490	2.466	6.4	21.5
4 11	13 29.88	-13 32.9	1.858	2.857	2.1	20.1	4 11	13 30.25	-10 48.9	1.481	2.482	1.5	21.2
4 21	13 21.65	-12 40.3	1.850	2.848	2.9	20.1	4 21	13 20.84	-9 46.6	1.500	2.498	3.5	21.4
5 1	13 14.03	-11 46.5	1.870	2.839	6.8	20.3	5 1	13 12.47	-8 48.3	1.545	2.513	8.2	21.7
5 11	13 7.83	-10 57.5	1.915	2.830	10.5	20.5	5 11	13 6.06	-8 0.6	1.615	2.528	12.3	22.0
5 21	13 3.61	-10 17.9	1.983	2.821	13.8	20.7	5 21	13 2.09	-7 27.4	1.706	2.542	15.7	22.2
<b>188886</b>	2006 <i>WL</i> <sub>81</sub>		4 13.5 37°95		0°9/14.2 18		<b>261024</b>	2005 <i>SN</i> <sub>127</sub>		4 13.5 249°70		0°6/14.1 17	

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>493278</b>	2014 <i>UB</i> <sub>153</sub>		4 13.5 84°70	2°0/11.8 18			<b>491640</b>	2012 <i>TR</i> <sub>194</sub>		4 13.5 107°19	1°1/12.2 17		
3 12	13 53.04	- 6 8.3	1.704	2.567	13.5	21.8	3 12	13 49.77	- 6 54.2	2.614	3.463	9.8	22.6
3 22	13 47.07	- 5 26.0	1.655	2.589	9.6	21.6	3 22	13 44.22	- 6 23.2	2.556	3.483	7.0	22.5
4 1	13 39.13	- 4 37.0	1.630	2.611	5.4	21.4	4 1	13 37.37	- 5 47.2	2.524	3.503	3.9	22.3
4 11	13 30.16	- 3 47.0	1.632	2.632	2.0	21.2	4 11	13 29.83	- 5 9.7	2.522	3.522	1.2	22.1
4 21	13 21.17	- 3 2.1	1.662	2.653	4.6	21.4	4 21	13 22.24	- 4 34.3	2.549	3.541	3.1	22.3
5 1	13 13.19	- 2 27.8	1.719	2.673	8.6	21.7	5 1	13 15.27	- 4 4.5	2.606	3.559	6.1	22.5
5 11	13 7.00	- 2 7.6	1.800	2.694	12.3	22.0	5 11	13 9.45	- 3 43.2	2.689	3.577	8.9	22.7
5 21	13 3.03	- 2 2.9	1.902	2.714	15.3	22.2	5 21	13 5.16	- 3 32.1	2.796	3.594	11.2	22.9
<b>469147</b>	2015 <i>FK</i> <sub>301</sub>		4 13.5 336°90	4°4/ 9.6 17			<b>43235</b>	2000 <i>AX</i> <sub>197</sub>		4 13.5 226°51	5°1/18.9 18		
3 12	13 50.63	+ 2 31.0	2.025	2.894	11.5	20.5	3 12	13 49.95	-27 14.3	2.241	3.020	13.6	18.7
3 22	13 45.26	+ 3 7.3	1.958	2.891	8.4	20.3	3 22	13 44.93	-27 12.5	2.149	3.015	11.1	18.5
4 1	13 38.14	+ 3 42.6	1.917	2.890	5.5	20.2	4 1	13 38.05	-26 50.3	2.079	3.010	8.4	18.4
4 11	13 29.98	+ 4 11.4	1.902	2.888	4.4	20.1	4 11	13 30.00	-26 7.8	2.035	3.004	5.9	18.2
4 21	13 21.63	+ 4 29.0	1.915	2.886	6.3	20.2	4 21	13 21.65	-25 7.5	2.018	2.999	5.1	18.1
5 1	13 13.98	+ 4 32.0	1.955	2.885	9.4	20.4	5 1	13 13.92	-23 54.6	2.029	2.993	6.8	18.2
5 11	13 7.77	+ 4 18.8	2.018	2.883	12.4	20.6	5 11	13 7.63	-22 36.3	2.067	2.987	9.6	18.4
5 21	13 3.49	+ 3 49.9	2.103	2.882	15.1	20.7	5 21	13 3.32	-21 19.5	2.128	2.981	12.4	18.6
<b>119279</b>	2001 <i>RV</i> <sub>91</sub>		4 13.5 225°27	1°8/14.9 17			<b>141421</b>	2002 <i>BB</i> <sub>29</sub>		4 13.5 170°54	5°7/ 5.6 18		
3 12	13 54.00	-15 4.8	1.967	2.799	13.3	20.9	3 12	13 49.25	+12 47.2	3.009	3.859	8.7	20.6
3 22	13 47.98	-15 8.5	1.879	2.792	10.0	20.6	3 22	13 43.77	+13 41.4	2.955	3.862	7.0	20.5
4 1	13 39.84	-14 59.4	1.816	2.785	6.2	20.4	4 1	13 37.10	+14 28.8	2.928	3.865	5.9	20.4
4 11	13 30.35	-14 39.1	1.779	2.777	2.5	20.1	4 11	13 29.78	+15 5.0	2.929	3.868	5.9	20.4
4 21	13 20.46	-14 10.7	1.771	2.768	3.2	20.2	4 21	13 22.38	+15 26.6	2.957	3.870	7.1	20.5
5 1	13 11.22	-13 39.1	1.791	2.760	7.2	20.4	5 1	13 15.50	+15 31.8	3.013	3.872	8.8	20.6
5 11	13 3.57	-13 9.6	1.837	2.751	11.0	20.6	5 11	13 9.63	+15 20.5	3.092	3.873	10.6	20.8
5 21	12 58.10	-12 47.0	1.905	2.741	14.4	20.8	5 21	13 5.12	+14 53.6	3.191	3.874	12.2	20.9
<b>293038</b>	2006 <i>WF</i> <sub>89</sub>		4 13.5 227°99	3°1/10.1 17			<b>162785</b>	2000 <i>YA</i> <sub>17</sub>		4 13.5 170°90	10°3/ 1.4 18		
3 12	13 49.19	+ 0 12.3	2.534	3.395	9.7	20.8	3 12	13 55.10	+21 42.2	2.173	3.003	12.3	20.4
3 22	13 43.96	+ 0 47.4	2.458	3.390	7.0	20.6	3 22	13 48.38	+23 22.2	2.135	3.009	10.8	20.3
4 1	13 37.31	+ 1 23.4	2.409	3.384	4.4	20.4	4 1	13 39.86	+24 46.1	2.122	3.013	10.3	20.3
4 11	13 29.81	+ 1 56.1	2.388	3.378	3.1	20.3	4 11	13 30.34	+25 46.0	2.135	3.017	10.8	20.3
4 21	13 22.13	+ 2 21.6	2.396	3.372	4.9	20.4	4 21	13 20.75	+26 17.3	2.172	3.020	12.1	20.4
5 1	13 14.97	+ 2 36.6	2.433	3.366	7.6	20.6	5 1	13 12.00	+26 18.5	2.232	3.021	13.9	20.5
5 11	13 8.94	+ 2 39.1	2.495	3.359	10.3	20.8	5 11	13 4.87	+25 51.6	2.311	3.022	15.6	20.7
5 21	13 4.46	+ 2 28.5	2.578	3.353	12.7	20.9	5 21	12 59.77	+25 0.7	2.406	3.022	17.1	20.8
<b>308170</b>	2005 <i>BC</i> <sub>30</sub>		4 13.5 56°10	0°8/14.1 16			<b>205553</b>	2001 <i>SN</i> <sub>229</sub>		4 13.5 236°30	1°2/12.2 17		
3 12	13 51.99	-13 21.8	1.378	2.238	16.3	21.4	3 12	13 48.80	- 7 19.8	2.448	3.301	10.3	20.8
3 22	13 46.92	-12 58.2	1.317	2.246	12.0	21.2	3 22	13 43.80	- 6 44.3	2.362	3.291	7.4	20.6
4 1	13 39.33	-12 17.9	1.277	2.254	7.1	20.9	4 1	13 37.29	- 6 2.1	2.302	3.281	4.2	20.4
4 11	13 30.24	-11 25.5	1.262	2.263	1.9	20.6	4 11	13 29.84	- 5 16.9	2.271	3.271	1.3	20.1
4 21	13 20.92	-10 27.9	1.273	2.271	3.8	20.8	4 21	13 22.16	- 4 33.0	2.269	3.261	3.4	20.3
5 1	13 12.69	- 9 33.3	1.309	2.280	8.9	21.1	5 1	13 14.99	- 3 54.6	2.296	3.250	6.8	20.5
5 11	13 6.58	- 8 49.0	1.368	2.289	13.5	21.4	5 11	13 8.96	- 3 25.6	2.348	3.239	9.9	20.6
5 21	13 3.16	- 8 20.0	1.447	2.298	17.3	21.6	5 21	13 4.55	- 3 8.2	2.424	3.228	12.6	20.8
<b>222700</b>	2002 <i>AR</i> <sub>47</sub>		4 13.5 194°10	6°9/ 5.4 17			<b>352025</b>	2006 <i>VJ</i> <sub>36</sub>		4 13.5 180°67	3°6/ 9.0 18		
3 12	13 50.89	+11 0.3	2.284	3.143	10.7	20.9	3 12	13 49.95	+ 4 3.2	3.070	3.924	8.4	21.9
3 22	13 45.30	+12 22.5	2.226	3.141	8.5	20.7	3 22	13 44.26	+ 4 38.8	3.001	3.926	6.2	21.7
4 1	13 38.10	+13 38.4	2.194	3.138	7.1	20.6	4 1	13 37.39	+ 5 12.6	2.959	3.926	4.2	21.6
4 11	13 29.98	+14 40.8	2.189	3.135	7.2	20.6	4 11	13 29.85	+ 5 41.0	2.947	3.926	3.6	21.6
4 21	13 21.70	+15 24.5	2.211	3.131	8.8	20.7	4 21	13 22.20	+ 6 0.9	2.965	3.926	5.0	21.6
5 1	13 14.06	+15 46.2	2.259	3.127	11.1	20.8	5 1	13 15.02	+ 6 10.1	3.012	3.925	7.1	21.8
5 11	13 7.75	+15 45.3	2.329	3.121	13.3	21.0	5 11	13 8.82	+ 6 7.1	3.084	3.923	9.3	21.9
5 21	13 3.21	+15 23.6	2.418	3.116	15.4	21.1	5 21	13 3.95	+ 5 52.1	3.180	3.921	11.2	22.1
<b>4731</b>	Monicagrady		4 13.5 121°70	2°1/16.2 18			<b>232499</b>	2003 <i>QP</i> <sub>7</sub>		4 13.5 202°71	3°3/16.9 17		
3 12	13 49.44	-19 11.4	2.846	3.653	10.3	19.5	3 12	13 51.86	-21 21.4	2.408	3.209	12.1	21.1
3 22	13 43.98	-18 54.3	2.776	3.671	7.9	19.4	3 22	13 46.14	-21 24.2	2.318	3.206	9.5	20.9
4 1	13 37.24	-18 25.3	2.731	3.688	5.1	19.2	4 1	13 38.68	-21 12.0	2.251	3.201	6.6	20.7
4 11	13 29.79	-17 46.1	2.714	3.705	2.6	19.1	4 11	13 30.14	-20 45.5	2.211	3.196	4.0	20.5
4 21	13 22.27	-16 59.8	2.727	3.722	2.6	19.1	4 21	13 21.29	-20 7.2	2.201	3.191	3.7	20.5
5 1	13 15.30	-16 10.5	2.770	3.737	5.0	19.3	5 1	13 13.01	-19 21.2	2.219	3.185	6.1	20.6
5 11	13 9.45	-15 22.3	2.841	3.753	7.6	19.5	5 11	13 6.04	-18 33.0	2.264	3.179	9.1	20.8
5 21	13 5.08	-14 39.0	2.936	3.768	10.0	19.7	5 21	13 0.90	-17 47.8	2.333	3.172	11.9	21.0
<b>224498</b>	2005 <i>WA</i> <sub>21</sub>		4 13.5 193°60	1°7/15.1 17			<b>10476</b>	Los Molinos		4 13.5 305°06	5°9/17.8 18		
3 12	13 51.63	-16 10.7	2.096	2.926	12.7	21.2	3 12	13 48.96	-24 26.6	1.363	2.190	18.3	17.9
3 22	13 46.08	-15 54.2	2.013	2.925	9.5	21.0	3 22	13 45.44	-24 27.1	1.260	2.160	14.9	17.6
4 1	13 38.67	-15 23.7	1.955	2.923	5.9	20.8	4 1	13 38.96	-23 58.3	1.177	2.130	10.9	17.3
4 11	13 30.11	-14 41.6	1.923	2.920	2.4	20.5	4 11	13 30.29	-22 58.2	1.115	2.100	7.1	17.0
4 21	13 21.28	-13 51.9	1.920	2.918	3.0	20.5	4 21	13 20.67	-21 29.3	1.077	2.070	6.2	16.8
5 1	13 13.11	-13 0.0	1.946	2.915	6.7	20.8	5 1	13 11.69	-19 40.4	1.064	2.040	9.8	16.9
5 11	13 6.41	-12 11.8	1.998	2.911	10.3	21.0	5 11	13 4.83	-17 44.9	1.073	2.011	14.7	17.1
5 21	13 1.70	-11 31.9	2.072	2.907	13.4	21.2	5 21	13 1.07	-15 56.3	1.101	1.982	19.5	17.3
<b>98121</b>	2000 <i>SB</i> <sub>6</sub>		4 13.5 156°98	11°5/ 1.1 18			<b>324406</b>	2006 <i>SP</i> <sub>185</sub>		4 13.5 178°91	1°7/14.9 17		

EPHEMERIDES

4 13.5

4 13.5

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>306997</b>	2001 <i>WS</i> <sub>56</sub>		4 13.5 230°54	0°6/12.9	17		<b>17655</b>	1996 <i>VL</i> <sub>3</sub>		4 13.5 183°44	0°9/14.4	18	
3 12	13 52.30	- 9 19.3	2.070	2.919	12.1	21.6	3 12	13 50.71	-14 16.9	2.082	2.920	12.4	18.8
3 22	13 46.61	- 8 53.4	1.982	2.908	8.8	21.4	3 22	13 45.40	-13 49.0	2.002	2.920	9.2	18.5
4 1	13 39.02	- 8 18.3	1.919	2.897	5.0	21.1	4 1	13 38.28	-13 8.1	1.947	2.920	5.5	18.3
4 11	13 30.22	- 7 37.6	1.884	2.886	1.0	20.8	4 11	13 30.07	-12 17.5	1.920	2.920	1.7	18.1
4 21	13 21.07	- 6 56.0	1.878	2.874	3.4	21.0	4 21	13 21.63	-11 21.6	1.921	2.919	2.9	18.1
5 1	13 12.52	- 6 18.4	1.901	2.861	7.5	21.2	5 1	13 13.86	-10 26.3	1.950	2.918	6.8	18.4
5 11	13 5.41	- 5 49.7	1.949	2.848	11.2	21.4	5 11	13 7.54	- 9 37.2	2.006	2.916	10.4	18.6
5 21	13 0.30	- 5 32.8	2.019	2.835	14.4	21.6	5 21	13 3.15	- 8 58.4	2.084	2.915	13.5	18.8
<b>56818</b>	2000 <i>QV</i> <sub>3</sub>		4 13.5 240°87	2°8/16.3	18		<b>334883</b>	2003 <i>UN</i> <sub>316</sub>		4 13.5 136°45	0°7/14.3	17	
3 12	13 50.46	-19 10.4	2.421	3.234	11.7	19.3	3 12	13 49.77	-13 49.5	2.233	3.071	11.7	21.8
3 22	13 45.12	-19 16.7	2.330	3.228	9.1	19.1	3 22	13 44.55	-13 21.4	2.160	3.078	8.6	21.6
4 1	13 38.10	-19 10.0	2.264	3.221	6.1	18.9	4 1	13 37.72	-12 41.7	2.112	3.085	5.1	21.4
4 11	13 30.03	-18 51.0	2.225	3.214	3.4	18.7	4 11	13 29.95	-11 53.6	2.091	3.091	1.5	21.1
4 21	13 21.64	-18 22.1	2.214	3.207	3.3	18.7	4 21	13 22.02	-11 1.5	2.100	3.097	2.7	21.3
5 1	13 13.78	-17 47.2	2.232	3.200	6.0	18.8	5 1	13 14.75	-10 10.6	2.137	3.103	6.3	21.5
5 11	13 7.17	-17 11.0	2.277	3.193	9.0	19.0	5 11	13 8.81	- 9 25.7	2.200	3.109	9.7	21.7
5 21	13 2.33	-16 38.1	2.345	3.185	11.8	19.2	5 21	13 4.66	- 8 50.5	2.287	3.115	12.5	21.9
<b>109931</b>	2001 <i>SZ</i> <sub>35</sub>		4 13.5 134°87	1°7/12.1	18		<b>55502</b>	2001 <i>UK</i> <sub>93</sub>		4 13.5 80°41	5°6/7.3	18	
3 12	13 50.71	- 7 22.2	1.741	2.605	13.2	19.9	3 12	13 48.40	+ 6 24.7	2.172	3.041	10.8	19.0
3 22	13 45.59	- 6 37.4	1.672	2.607	9.5	19.6	3 22	13 43.51	+ 7 32.2	2.120	3.048	8.2	18.8
4 1	13 38.44	- 5 43.7	1.628	2.609	5.3	19.4	4 1	13 37.09	+ 8 35.8	2.093	3.055	6.1	18.7
4 11	13 30.09	- 4 46.4	1.610	2.611	1.7	19.1	4 11	13 29.82	+ 9 29.3	2.093	3.062	5.8	18.7
4 21	13 21.52	- 3 52.1	1.620	2.612	4.5	19.3	4 21	13 22.45	+10 7.5	2.121	3.069	7.5	18.8
5 1	13 13.76	- 3 6.9	1.657	2.614	8.7	19.6	5 1	13 15.77	+10 27.1	2.174	3.076	10.0	19.0
5 11	13 7.66	- 2 35.8	1.718	2.616	12.5	19.8	5 11	13 10.40	+10 27.1	2.251	3.083	12.5	19.1
5 21	13 3.75	- 2 21.0	1.799	2.617	15.8	20.0	5 21	13 6.76	+10 8.5	2.347	3.089	14.7	19.3
<b>208645</b>	2002 <i>ET</i> <sub>110</sub>		4 13.5 347°57	4°4/10.6	18		<b>108771</b>	2001 <i>OC</i> <sub>52</sub>		4 13.5 157°20	1°3/12.2	18	
3 12	13 51.74	- 1 44.6	1.289	2.173	15.6	19.6	3 12	13 51.08	- 5 56.5	2.439	3.290	10.4	19.8
3 22	13 46.91	- 0 57.8	1.226	2.169	11.3	19.3	3 22	13 45.36	- 5 36.6	2.367	3.295	7.4	19.6
4 1	13 39.43	- 0 6.5	1.186	2.167	6.8	19.1	4 1	13 38.14	- 5 12.0	2.320	3.299	4.2	19.4
4 11	13 30.32	+ 0 41.1	1.169	2.164	4.4	18.9	4 11	13 30.04	- 4 46.0	2.303	3.303	1.4	19.2
4 21	13 20.86	+ 1 17.1	1.178	2.162	7.2	19.1	4 21	13 21.79	- 4 22.2	2.315	3.306	3.4	19.3
5 1	13 12.46	+ 1 34.8	1.210	2.161	11.8	19.3	5 1	13 14.13	- 4 4.0	2.356	3.309	6.7	19.6
5 11	13 6.23	+ 1 30.8	1.263	2.160	16.2	19.6	5 11	13 7.71	- 3 54.3	2.423	3.312	9.7	19.8
5 21	13 2.78	+ 1 5.3	1.334	2.159	19.9	19.8	5 21	13 2.94	- 3 54.6	2.513	3.315	12.3	19.9
<b>155535</b>	1999 <i>TR</i> <sub>177</sub>		4 13.5 255°18	0°3/13.1	18		<b>353919</b>	2012 <i>XQ</i> <sub>144</sub>		4 13.5 152°18	5°1/20.5	18	
3 12	13 50.24	-10 51.9	2.338	3.181	11.1	20.9	3 12	13 50.16	-30 59.5	3.027	3.765	11.3	21.9
3 22	13 45.02	-10 10.9	2.235	3.159	8.1	20.7	3 22	13 44.65	-31 5.6	2.941	3.773	9.5	21.8
4 1	13 38.09	- 9 19.1	2.159	3.136	4.6	20.5	4 1	13 37.73	-30 54.8	2.878	3.781	7.5	21.6
4 11	13 30.04	- 8 20.1	2.111	3.112	0.9	20.1	4 11	13 29.97	-30 27.1	2.841	3.788	5.8	21.5
4 21	13 21.61	- 7 18.4	2.092	3.087	3.1	20.3	4 21	13 22.03	-29 43.9	2.832	3.794	5.1	21.5
5 1	13 13.63	- 6 19.7	2.102	3.062	6.9	20.5	5 1	13 14.64	-28 48.7	2.852	3.801	5.9	21.5
5 11	13 6.87	- 5 29.1	2.139	3.037	10.4	20.6	5 11	13 8.38	-27 46.5	2.899	3.807	7.6	21.7
5 21	13 1.85	- 4 50.3	2.199	3.010	13.5	20.8	5 21	13 3.68	-26 42.3	2.971	3.812	9.6	21.8
<b>342856</b>	2008 <i>YM</i> <sub>15</sub>		4 13.5 34°46	0°7/12.9	17		<b>474890</b>	2005 <i>SJ</i> <sub>173</sub>		4 13.5 224°32	0°1/13.4	18	
3 12	13 48.56	- 9 40.1	1.961	2.818	12.3	21.1	3 12	13 46.78	-11 53.2	2.734	3.574	9.7	22.0
3 22	13 43.86	- 9 4.1	1.890	2.821	8.9	20.9	3 22	13 42.23	-11 5.6	2.645	3.566	7.1	21.8
4 1	13 37.39	- 8 18.4	1.844	2.823	5.0	20.7	4 1	13 36.36	-10 8.5	2.582	3.558	4.1	21.6
4 11	13 29.88	- 7 27.4	1.825	2.826	1.0	20.4	4 11	13 29.69	- 9 5.2	2.549	3.550	0.8	21.3
4 21	13 20.17	- 6 36.3	1.834	2.830	3.5	20.6	4 21	13 22.84	- 8 0.0	2.545	3.541	2.5	21.4
5 1	13 15.17	- 5 50.9	1.871	2.833	7.4	20.9	5 1	13 16.44	- 6 57.5	2.571	3.532	5.8	21.6
5 11	13 9.62	- 5 15.7	1.932	2.836	11.0	21.1	5 11	13 11.06	- 6 2.2	2.624	3.523	8.7	21.8
5 21	13 5.99	- 4 53.7	2.015	2.840	14.1	21.3	5 21	13 7.11	- 5 17.2	2.701	3.513	11.3	22.0
<b>474096</b>	2016 <i>LR</i> <sub>6</sub>		4 13.5 284°90	2°2/11.3	17		<b>10498</b>	Bobgent		4 13.5 274°51	3°5/10.4	18	
3 12	13 48.80	- 7 32.2	1.911	2.774	12.3	21.7	3 12	13 51.36	- 4 46.2	1.600	2.471	13.8	18.4
3 22	13 44.33	- 6 16.2	1.809	2.744	8.9	21.4	3 22	13 46.53	- 3 28.8	1.507	2.445	10.0	18.1
4 1	13 37.85	- 4 47.0	1.733	2.713	5.1	21.1	4 1	13 39.27	- 1 59.5	1.438	2.418	5.9	17.8
4 11	13 30.01	- 3 10.9	1.683	2.682	2.2	20.8	4 11	13 30.35	- 0 26.1	1.395	2.391	3.5	17.6
4 21	13 21.67	- 1 35.6	1.663	2.651	5.0	20.9	4 21	13 20.80	+ 1 2.2	1.379	2.363	6.5	17.7
5 1	13 13.82	- 0 9.6	1.670	2.619	9.3	21.1	5 1	13 11.87	+ 2 15.9	1.389	2.334	11.2	17.8
5 11	13 7.38	+ 1 0.2	1.701	2.587	13.3	21.3	5 11	13 4.67	+ 3 7.9	1.422	2.305	15.6	18.0
5 21	13 2.98	+ 1 49.6	1.754	2.555	16.8	21.5	5 21	12 59.94	+ 3 35.3	1.474	2.275	19.4	18.2
<b>436677</b>	2011 <i>SG</i> <sub>120</sub>		4 13.5 152°85	2°5/10.4	17		<b>497839</b>	2006 <i>UH</i> <sub>53</sub>		4 13.5 83°49	2°7/16.9	17	
3 12	13 47.00	- 3 15.2	2.555	3.416	9.6	21.6	3 12	13 47.84	-22 2.5	2.378	3.183	12.1	21.5
3 22	13 42.36	- 2 16.3	2.487	3.420	6.9	21.5	3 22	13 43.07	-21 18.8	2.309	3.202	9.4	21.4
4 1	13 36.39	- 1 13.6	2.446	3.424	4.0	21.3	4 1	13 36.83	-20 18.2	2.265	3.220	6.3	21.2
4 11	13 29.67	- 0 11.9	2.433	3.428	2.5	21.2	4 11	13 29.79	-19 3.5	2.249	3.238	3.4	21.0
4 21	13 22.83	+ 0 44.1	2.450	3.431	4.3	21.3	4 21	13 22.70	-17 39.5	2.261	3.256	3.0	21.0
5 1	13 16.53	+ 1 30.1	2.496	3.434	7.2	21.5	5 1	13 16.29	-16 12.5	2.303	3.273	5.6	21.2
5 11	13 11.32	+ 2 3.1	2.567	3.437	9.9	21.7	5 11	13 11.18	-14 48.9	2.372	3.291	8.6	21.5
5 21	13 7.58	+ 2 21.9	2.660	3.440	12.2	21.8	5 21	13 7.75	-13 33.8	2.466	3.308	11.3	21.7
<b>109830</b>	2001 <i>RZ</i> <sub>118</sub>		4 13.5 188°84	0°6/14.1	18		<b>159533</b>	2001 <i>HH</i> <sub>31</sub>		4 13.5 231°26	9°9/7.8		



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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>517636</b>	2015 <i>AB</i> <sub>20</sub>		4 13.5 88°70	9°7/ 4.7 18			<b>364751</b>	2007 <i>VC</i> <sub>307</sub>		4 13.5 264°68	3°2/11.2 17		
3 12	13 52.42	+14 26.2	1.668	2.533	13.7	20.6	3 12	13 53.93	- 3 14.3	1.587	2.456	14.0	20.4
3 22	13 46.79	+15 54.3	1.628	2.541	11.3	20.5	3 22	13 48.31	- 2 38.8	1.506	2.442	10.2	20.1
4 1	13 39.09	+17 9.4	1.611	2.548	9.8	20.4	4 1	13 40.25	- 1 57.6	1.449	2.429	6.0	19.8
4 11	13 30.27	+18 2.2	1.620	2.556	10.1	20.4	4 11	13 30.60	- 1 16.7	1.418	2.414	3.2	19.6
4 21	13 21.39	+18 26.9	1.652	2.564	11.8	20.6	4 21	13 20.47	- 0 42.8	1.413	2.400	5.9	19.7
5 1	13 13.52	+18 21.2	1.707	2.571	14.2	20.7	5 1	13 11.11	- 0 21.7	1.435	2.386	10.3	19.9
5 11	13 7.47	+17 46.9	1.782	2.579	16.7	20.9	5 11	13 3.60	- 0 17.5	1.479	2.371	14.6	20.1
5 21	13 3.72	+16 48.3	1.874	2.586	18.8	21.1	5 21	12 58.61	- 0 31.5	1.544	2.356	18.2	20.3
<b>164288</b>	2004 <i>XA</i> <sub>93</sub>		4 13.5 145°60	0°5/13.9 18			<b>152775</b>	1999 <i>RV</i> <sub>149</sub>		4 13.5 230°56	1°6/15.5 18		
3 12	13 54.93	-12 34.9	1.814	2.657	13.8	21.2	3 12	13 48.74	-17 3.0	3.108	3.921	9.4	21.2
3 22	13 48.58	-12 10.2	1.746	2.667	10.1	21.0	3 22	13 43.60	-16 49.4	3.007	3.908	7.1	21.0
4 1	13 40.15	-11 32.9	1.702	2.677	5.9	20.8	4 1	13 37.17	-16 25.7	2.931	3.894	4.5	20.8
4 11	13 30.50	-10 46.6	1.686	2.686	1.4	20.5	4 11	13 29.94	-15 53.3	2.884	3.879	2.1	20.6
4 21	13 20.67	- 9 56.6	1.697	2.695	3.3	20.6	4 21	13 22.46	-15 14.7	2.868	3.864	2.3	20.6
5 1	13 11.73	- 9 8.9	1.737	2.702	7.6	20.9	5 1	13 15.36	-14 33.2	2.881	3.848	4.9	20.7
5 11	13 4.55	- 8 29.4	1.802	2.709	11.5	21.1	5 11	13 9.19	-13 52.6	2.923	3.832	7.5	20.9
5 21	12 59.64	- 8 1.9	1.889	2.716	14.8	21.4	5 21	13 4.36	-13 16.3	2.989	3.815	9.9	21.0
<b>419980</b>	2011 <i>CX</i> <sub>14</sub>		4 13.5 170°72	1°3/14.8 17			<b>405526</b>	2005 <i>EY</i> <sub>104</sub>		4 13.5 173°38	2°2/15.4 16		
3 12	13 52.38	-15 16.8	2.271	3.098	11.9	22.6	3 12	13 54.77	-17 7.7	1.901	2.727	13.9	22.3
3 22	13 46.48	-14 55.1	2.191	3.102	8.9	22.4	3 22	13 48.55	-16 58.4	1.822	2.730	10.6	22.1
4 1	13 38.87	-14 20.9	2.137	3.106	5.4	22.2	4 1	13 40.21	-16 33.4	1.767	2.733	6.7	21.8
4 11	13 30.24	-13 36.8	2.110	3.109	1.9	21.9	4 11	13 30.57	-15 54.7	1.739	2.735	3.0	21.6
4 21	13 21.41	-12 46.8	2.113	3.111	2.7	22.0	4 21	13 20.64	-15 6.4	1.739	2.736	3.3	21.6
5 1	13 13.24	-11 56.0	2.146	3.112	6.3	22.2	5 1	13 11.49	-14 14.4	1.767	2.737	7.2	21.8
5 11	13 6.44	-11 9.4	2.205	3.113	9.7	22.4	5 11	13 4.05	-13 25.4	1.822	2.737	11.0	22.1
5 21	13 1.50	-10 31.4	2.287	3.114	12.6	22.6	5 21	12 58.87	-12 44.6	1.899	2.736	14.3	22.3
<b>424027</b>	2006 <i>XG</i> <sub>62</sub>		4 13.5 41°16	20°3/16.7 17			<b>270526</b>	2002 <i>GC</i> <sub>69</sub>		4 13.5 64°68	1°0/12.7 17		
3 12	13 54.13	+44 3.3	1.484	2.240	20.4	20.1	3 12	13 51.97	- 7 47.5	1.779	2.639	13.2	20.5
3 22	13 48.59	+46 19.9	1.502	2.256	20.4	20.2	3 22	13 46.48	- 7 27.8	1.713	2.645	9.5	20.3
4 1	13 40.21	+47 50.2	1.536	2.273	20.8	20.2	4 1	13 38.99	- 7 0.2	1.671	2.651	5.4	20.1
4 11	13 30.47	+48 28.1	1.582	2.290	21.5	20.3	4 11	13 30.31	- 6 28.9	1.656	2.657	1.3	19.8
4 21	13 20.99	+48 13.6	1.642	2.308	22.3	20.5	4 21	13 21.44	- 5 58.8	1.668	2.663	3.9	20.0
5 1	13 13.21	+47 11.5	1.711	2.326	23.1	20.6	5 1	13 13.38	- 5 34.8	1.708	2.669	8.1	20.3
5 11	13 8.07	+45 30.1	1.790	2.345	23.8	20.7	5 11	13 7.00	- 5 21.1	1.772	2.676	11.9	20.5
5 21	13 5.86	+43 18.3	1.876	2.364	24.3	20.9	5 21	13 2.80	- 5 19.8	1.857	2.682	15.1	20.7
<b>513023</b>	2017 <i>VT</i> <sub>2</sub>		4 13.5 262°80	6°4/ 7.6 17			<b>305357</b>	2008 <i>BA</i> <sub>28</sub>		4 13.5 249°14	4°0/ 8.9 17		
3 12	13 52.54	+ 7 9.9	1.957	2.822	11.9	21.4	3 12	13 47.74	+ 1 35.6	2.366	3.233	10.1	20.7
3 22	13 46.89	+ 8 10.2	1.878	2.805	9.2	21.2	3 22	13 43.07	+ 2 35.2	2.293	3.226	7.4	20.5
4 1	13 39.25	+ 9 6.9	1.825	2.787	7.0	21.0	4 1	13 36.92	+ 3 35.7	2.247	3.220	4.9	20.3
4 11	13 30.35	+ 9 52.9	1.799	2.768	6.6	21.0	4 11	13 29.89	+ 4 31.4	2.229	3.213	4.1	20.2
4 21	13 21.10	+10 22.1	1.800	2.749	8.5	21.1	4 21	13 22.67	+ 5 17.5	2.239	3.206	5.9	20.3
5 1	13 12.49	+10 30.2	1.826	2.730	11.4	21.2	5 1	13 15.99	+ 5 49.7	2.277	3.199	8.6	20.5
5 11	13 5.39	+10 16.0	1.875	2.711	14.5	21.3	5 11	13 10.48	+ 6 5.7	2.338	3.192	11.3	20.7
5 21	13 0.36	+ 9 40.6	1.944	2.691	17.2	21.5	5 21	13 6.58	+ 6 5.1	2.421	3.185	13.7	20.8
<b>374077</b>	2004 <i>RD</i> <sub>149</sub>		4 13.5 125°39	5°3/ 7.4 17			<b>454115</b>	2013 <i>CH</i> <sub>84</sub>		4 13.5 31°03	3°5/11.1 16		
3 12	13 47.75	+ 0 22.7	1.861	2.737	11.9	20.7	3 12	13 51.05	- 4 50.3	1.174	2.060	16.6	21.1
3 22	13 43.32	+ 2 27.5	1.803	2.741	8.7	20.5	3 22	13 46.52	- 3 52.7	1.120	2.065	11.9	20.8
4 1	13 37.11	+ 4 35.8	1.771	2.744	5.9	20.3	4 1	13 39.26	- 2 46.2	1.088	2.071	6.9	20.6
4 11	13 29.89	+ 6 37.7	1.768	2.748	5.5	20.3	4 11	13 30.39	- 1 39.8	1.080	2.078	3.5	20.4
4 21	13 22.52	+ 8 24.1	1.793	2.752	7.8	20.4	4 21	13 21.30	- 0 43.1	1.096	2.085	6.7	20.6
5 1	13 15.89	+ 9 47.6	1.845	2.755	11.0	20.6	5 1	13 13.42	- 0 4.2	1.135	2.093	11.7	20.9
5 11	13 10.74	+10 45.0	1.919	2.758	14.0	20.8	5 11	13 7.84	+ 0 12.1	1.195	2.101	16.2	21.2
5 21	13 7.53	+11 16.0	2.012	2.761	16.6	21.0	5 21	13 5.14	+ 0 5.2	1.273	2.109	20.0	21.4
<b>457502</b>	2008 <i>VV</i> <sub>22</sub>		4 13.5 210°14	2°9/11.2 18			<b>363253</b>	2002 <i>CS</i> <sub>119</sub>		4 13.5 177°66	0°9/14.6 17		
3 12	13 54.96	- 4 3.1	1.726	2.588	13.4	21.6	3 12	13 51.44	-14 41.3	2.554	3.380	10.8	21.8
3 22	13 48.82	- 3 14.9	1.649	2.582	9.7	21.4	3 22	13 45.66	-14 12.1	2.471	3.382	8.0	21.6
4 1	13 40.42	- 2 20.1	1.597	2.576	5.7	21.1	4 1	13 38.37	-13 31.8	2.414	3.384	4.8	21.4
4 11	13 30.61	- 1 24.8	1.571	2.568	2.9	20.9	4 11	13 30.18	-12 42.9	2.386	3.386	1.5	21.1
4 21	13 20.45	- 0 35.8	1.574	2.560	5.5	21.1	4 21	13 21.82	-11 49.4	2.388	3.386	2.5	21.2
5 1	13 11.09	+ 0 0.9	1.604	2.551	9.7	21.3	5 1	13 14.03	-10 55.9	2.420	3.386	5.8	21.4
5 11	13 3.50	+ 0 20.9	1.658	2.541	13.7	21.5	5 11	13 7.44	-10 7.0	2.480	3.384	8.9	21.6
5 21	12 58.27	+ 0 22.7	1.732	2.531	17.1	21.7	5 21	13 2.51	- 9 26.5	2.563	3.382	11.6	21.8
<b>63641</b>	2001 <i>QE</i> <sub>97</sub>		4 13.5 304°78	4°3/17.5 18			<b>206163</b>	2002 <i>TW</i> <sub>215</sub>		4 13.5 219°96	4°5/ 7.4 18		
3 12	13 50.75	-22 46.8	2.136	2.939	13.4	18.4	3 12	13 48.66	+ 5 4.7	2.780	3.640	9.0	21.1
3 22	13 45.59	-23 2.1	2.049	2.936	10.7	18.2	3 22	13 43.56	+ 6 15.3	2.704	3.629	6.8	21.0
4 1	13 38.51	-23 0.6	1.986	2.932	7.6	18.0	4 1	13 37.15	+ 7 24.8	2.655	3.618	4.9	20.8
4 11	13 30.22	-22 42.2	1.949	2.929	5.0	17.8	4 11	13 29.94	+ 8 28.0	2.636	3.606	4.7	20.8
4 21	13 21.59	-22 9.3	1.939	2.926	4.5	17.8	4 21	13 22.54	+ 9 20.2	2.645	3.593	6.2	20.9
5 1	13 13.58	-21 26.3	1.956	2.924	6.8	17.9	5 1	13 15.58	+ 9 57.7	2.683	3.580	8.5	21.0
5 11	13 7.03	-20 39.1	2.000	2.921	9.8	18.1	5 11	13 9.65	+10 18.7	2.745	3.566	10.8	21.1
5 21	13 2.49	-19 53.8	2.066	2.918	12.8	18.3	5 21	13 5.13	+10 23.0	2.828	3.551	12.8	21.3
<b>474738</b>	2005 <i>NE</i> <sub>35</sub>		4 13.5 218°40	1°1/12.2 16			<b>186571</b>	2003 <i>AM</i> <sub>7</sub>					

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>472180</b>	2014 <i>DT</i> <sub>97</sub>		4 13.5 330°98	6°5/18.7	17		<b>62015</b>	2000 <i>RN</i> <sub>42</sub>		4 13.5 244°32	3°4/17.4	18	
3 12	13 53.87	-27 9.4	2.110	2.887	14.4	20.2	3 12	13 48.60	-22 24.8	2.384	3.187	12.2	19.0
3 22	13 48.08	-28 6.1	2.021	2.881	12.0	20.0	3 22	13 43.84	-22 16.4	2.296	3.183	9.6	18.9
4 1	13 40.08	-28 45.1	1.954	2.875	9.3	19.9	4 1	13 37.45	-21 51.7	2.231	3.180	6.7	18.7
4 11	13 30.59	-29 4.0	1.912	2.870	7.2	19.7	4 11	13 30.04	-21 11.9	2.192	3.176	4.1	18.5
4 21	13 20.57	-29 2.8	1.896	2.865	6.6	19.7	4 21	13 22.39	-20 20.0	2.182	3.173	3.7	18.4
5 1	13 11.14	-28 44.3	1.907	2.860	8.1	19.7	5 1	13 15.29	-19 20.7	2.200	3.169	6.0	18.6
5 11	13 3.28	-28 14.1	1.944	2.855	10.6	19.9	5 11	13 9.46	-18 19.8	2.244	3.165	8.9	18.8
5 21	12 57.67	-27 38.8	2.003	2.851	13.3	20.1	5 21	13 5.38	-17 22.7	2.313	3.161	11.7	18.9
<b>219876</b>	2002 <i>DK</i> <sub>7</sub>		4 13.5 139°65	4°1/10.0	18		<b>508509</b>	2016 <i>QE</i> <sub>35</sub>		4 13.5 245°75	0°5/14.0	17	
3 12	13 54.56	+ 2 10.4	2.119	2.978	11.4	20.0	3 12	13 48.29	-12 40.6	2.375	3.216	11.0	21.8
3 22	13 47.99	+ 2 43.3	2.059	2.988	8.3	19.8	3 22	13 43.53	-12 15.8	2.291	3.212	8.1	21.6
4 1	13 39.71	+ 3 14.9	2.025	2.997	5.4	19.7	4 1	13 37.23	-11 40.9	2.233	3.208	4.7	21.4
4 11	13 30.46	+ 3 40.4	2.020	3.006	4.1	19.6	4 11	13 30.00	-10 58.6	2.203	3.203	1.2	21.1
4 21	13 21.12	+ 3 55.4	2.043	3.015	5.9	19.7	4 21	13 22.54	-10 13.1	2.201	3.199	2.6	21.2
5 1	13 12.57	+ 3 57.0	2.094	3.023	8.9	19.9	5 1	13 15.62	- 9 28.7	2.229	3.195	6.1	21.4
5 11	13 5.51	+ 3 44.0	2.170	3.030	11.8	20.1	5 11	13 9.90	- 8 50.1	2.282	3.190	9.4	21.6
5 21	13 0.40	+ 3 16.7	2.267	3.038	14.4	20.3	5 21	13 5.84	- 8 20.5	2.359	3.186	12.2	21.8
<b>229050</b>	2004 <i>FK</i> <sub>57</sub>		4 13.5 79°59	1°6/15.6	18		<b>503382</b>	2016 <i>CC</i> <sub>79</sub>		4 13.5 314°82	6°1/ 8.9	17	
3 12	13 47.10	-16 34.8	3.044	3.863	9.4	20.7	3 12	13 50.47	+ 1 25.6	1.347	2.233	14.9	21.1
3 22	13 42.35	-16 30.3	2.968	3.872	7.1	20.5	3 22	13 45.98	+ 2 38.8	1.280	2.222	11.0	20.9
4 1	13 36.41	-16 16.4	2.917	3.881	4.5	20.4	4 1	13 38.99	+ 3 54.6	1.236	2.212	7.4	20.6
4 11	13 29.79	-15 54.8	2.896	3.890	2.1	20.2	4 11	13 30.39	+ 5 3.1	1.215	2.202	6.2	20.5
4 21	13 23.05	-15 27.7	2.903	3.900	2.2	20.2	4 21	13 21.39	+ 5 54.7	1.220	2.192	8.9	20.6
5 1	13 16.76	-14 58.3	2.940	3.909	4.7	20.4	5 1	13 13.31	+ 6 22.4	1.248	2.183	13.0	20.8
5 11	13 11.43	-14 29.9	3.005	3.918	7.2	20.6	5 11	13 7.26	+ 6 23.1	1.296	2.175	17.1	21.1
5 21	13 7.42	-14 5.4	3.094	3.927	9.5	20.7	5 21	13 3.87	+ 5 57.7	1.362	2.166	20.6	21.3
<b>427403</b>	1998 <i>RN</i> <sub>8</sub>		4 13.5 55°44	1°7/14.7	17		<b>235450</b>	2003 <i>YB</i> <sub>147</sub>		4 13.5 184°21	1°1/14.5	17	
3 12	13 55.38	-13 15.9	1.857	2.696	13.7	20.2	3 12	13 53.19	-13 7.5	2.291	3.124	11.6	20.5
3 22	13 48.99	-13 41.9	1.787	2.703	10.2	20.0	3 22	13 47.13	-13 12.0	2.209	3.124	8.6	20.3
4 1	13 40.47	-13 57.4	1.740	2.711	6.3	19.8	4 1	13 39.32	-13 6.9	2.153	3.124	5.2	20.1
4 11	13 30.65	-14 3.5	1.721	2.719	2.4	19.5	4 11	13 30.43	-12 54.1	2.124	3.123	1.7	19.8
4 21	13 20.56	-14 2.5	1.730	2.727	3.3	19.6	4 21	13 21.28	-12 36.2	2.125	3.123	2.7	19.9
5 1	13 11.28	-13 58.2	1.766	2.735	7.2	19.8	5 1	13 12.73	-12 17.0	2.155	3.122	6.3	20.1
5 11	13 3.74	-13 54.9	1.829	2.744	11.0	20.1	5 11	13 5.54	-12 0.5	2.212	3.120	9.6	20.3
5 21	12 58.48	-13 56.2	1.913	2.752	14.2	20.3	5 21	13 0.21	-11 49.9	2.292	3.119	12.5	20.5
<b>209571</b>	2004 <i>XM</i> <sub>50</sub>		4 13.5 120°08	2°0/15.2	18		<b>32376</b>	2000 <i>QP</i> <sub>169</sub>		4 13.5 309°45	8°2/19.4	18	
3 12	13 54.54	-16 42.5	1.660	2.496	15.2	20.8	3 12	13 54.74	-29 1.1	1.717	2.498	17.1	17.6
3 22	13 48.48	-16 22.1	1.596	2.510	11.4	20.6	3 22	13 49.23	-30 3.2	1.630	2.489	14.4	17.4
4 1	13 40.18	-15 44.2	1.554	2.523	7.1	20.4	4 1	13 40.99	-30 42.9	1.563	2.481	11.5	17.1
4 11	13 30.59	-14 52.1	1.539	2.536	2.8	20.2	4 11	13 30.84	-30 56.5	1.518	2.473	9.0	17.0
4 21	13 20.82	-13 51.4	1.551	2.549	3.4	20.2	4 21	13 19.99	-30 43.3	1.499	2.465	8.3	16.9
5 1	13 12.06	-12 49.3	1.590	2.561	7.7	20.5	5 1	13 9.87	-30 6.8	1.504	2.458	9.8	17.0
5 11	13 5.22	-11 53.4	1.654	2.572	11.7	20.8	5 11	13 1.73	-29 15.1	1.534	2.450	12.6	17.1
5 21	13 0.82	-11 9.0	1.741	2.583	15.2	21.0	5 21	12 56.39	-28 17.5	1.584	2.443	15.6	17.3
<b>269555</b>	2009 <i>WF</i> <sub>27</sub>		4 13.5 264°00	1°1/14.5	17		<b>99861</b>	Tscharnuter		4 13.5 125°87	1°7/11.9	18	
3 12	13 50.76	-14 6.8	1.832	2.677	13.6	21.1	3 12	13 49.79	- 6 23.6	2.082	2.941	11.6	19.8
3 22	13 45.76	-13 46.5	1.749	2.670	10.1	20.9	3 22	13 44.69	- 5 43.7	2.013	2.945	8.3	19.6
4 1	13 38.69	-13 12.0	1.689	2.663	6.1	20.6	4 1	13 37.90	- 4 57.3	1.970	2.949	4.7	19.4
4 11	13 30.31	-12 26.4	1.656	2.655	1.9	20.3	4 11	13 30.13	- 4 9.0	1.954	2.953	1.7	19.2
4 21	13 21.57	-11 34.6	1.650	2.648	3.2	20.4	4 21	13 22.20	- 3 23.9	1.967	2.957	4.0	19.4
5 1	13 13.52	-10 42.6	1.671	2.641	7.5	20.7	5 1	13 14.94	- 2 46.8	2.007	2.961	7.6	19.6
5 11	13 7.08	- 9 56.9	1.718	2.633	11.5	20.9	5 11	13 9.08	- 2 21.5	2.073	2.965	11.0	19.8
5 21	13 2.81	- 9 22.3	1.786	2.626	15.0	21.1	5 21	13 5.06	- 2 10.0	2.161	2.969	13.8	20.0
<b>315493</b>	Zimin		4 13.5 99°73	0°5/13.9	18		<b>138700</b>	2000 <i>SD</i> <sub>79</sub>		4 13.5 284°03	0°3/13.3	18	
3 12	13 54.98	-11 23.0	1.605	2.457	14.8	20.3	3 12	13 51.20	- 9 1.9	2.218	3.067	11.4	19.9
3 22	13 48.89	-11 18.2	1.540	2.465	10.8	20.1	3 22	13 45.80	- 8 56.5	2.127	3.053	8.3	19.6
4 1	13 40.47	-11 1.6	1.498	2.474	6.3	19.8	4 1	13 38.63	- 8 44.1	2.061	3.038	4.8	19.4
4 11	13 30.66	-10 36.5	1.482	2.483	1.5	19.5	4 11	13 30.31	- 8 27.1	2.023	3.024	1.0	19.1
4 21	13 20.63	-10 7.7	1.493	2.491	3.5	19.7	4 21	13 21.63	- 8 8.8	2.013	3.010	3.1	19.2
5 1	13 11.56	- 9 40.6	1.531	2.499	8.2	20.0	5 1	13 13.47	- 7 53.1	2.032	2.995	6.9	19.4
5 11	13 4.43	- 9 20.8	1.594	2.507	12.4	20.2	5 11	13 6.61	- 7 43.7	2.077	2.981	10.4	19.6
5 21	12 59.81	- 9 11.8	1.677	2.515	15.9	20.5	5 21	13 1.59	- 7 43.0	2.145	2.967	13.5	19.8
<b>135064</b>	2001 <i>PC</i> <sub>13</sub>		4 13.5 188°03	3°1/ 9.9	18		<b>304347</b>	2006 <i>SV</i> <sub>274</sub>		4 13.5 245°51	2°0/15.8	17	
3 12	13 50.00	+ 0 49.0	2.780	3.637	9.1	20.9	3 12	13 47.74	-18 22.4	2.431	3.252	11.4	21.1
3 22	13 44.48	+ 1 27.7	2.707	3.636	6.6	20.8	3 22	13 43.16	-17 55.8	2.341	3.245	8.7	20.9
4 1	13 37.65	+ 2 6.9	2.662	3.635	4.2	20.6	4 1	13 37.03	-17 15.0	2.276	3.239	5.6	20.7
4 11	13 30.07	+ 2 42.4	2.645	3.633	3.1	20.5	4 11	13 29.96	-16 22.2	2.238	3.232	2.6	20.5
4 21	13 22.34	+ 3 10.8	2.658	3.631	4.7	20.6	4 21	13 22.66	-15 21.2	2.229	3.226	2.7	20.5
5 1	13 15.11	+ 3 29.0	2.700	3.628	7.2	20.8	5 1	13 15.88	-14 17.1	2.249	3.219	5.8	20.7
5 11	13 8.93	+ 3 35.2	2.768	3.625	9.7	20.9	5 11	13 10.30	-13 15.4	2.295	3.212	9.0	20.8
5 21	13 4.20	+ 3 28.7	2.859	3.621	11.9	21.1	5 21	13 6.36	-12 21.0	2.366	3.205	11.8	21.0
<b>114378</b>	2002 <i>XE</i> <sub>108</sub>		4 13.5 251°22	0°9/14.5	17		<b>89375</b>	2001 <i>VB</i> <sub>91</sub>		4 13.5 173°98	3°2/ 9.6	18	

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>387124</b>	2012 <i>TC</i> <sub>184</sub>		4 13.6 16 <sup>o</sup> 78	2 <sup>o</sup> 7/15.4	17		<b>477782</b>	2011 <i>BY</i> <sub>40</sub>		4 13.6 101 <sup>o</sup> 58	0 <sup>o</sup> 1/13.4	18	
3 12	13 53.92	-15 48.4	1.834	2.668	14.0	20.2	3 12	13 45.33	-10 29.4	3.331	4.171	8.2	21.9
3 22	13 48.06	-16 18.8	1.758	2.670	10.7	20.0	3 22	13 40.96	-10 0.0	3.263	4.184	5.9	21.7
4 1	13 40.02	-16 36.7	1.706	2.672	6.9	19.8	4 1	13 35.60	-9 24.7	3.221	4.197	3.3	21.6
4 11	13 30.60	-16 42.6	1.681	2.675	3.3	19.6	4 11	13 29.68	-8 45.9	3.209	4.210	0.7	21.4
4 21	13 20.84	-16 38.6	1.683	2.679	3.6	19.6	4 21	13 23.69	-8 6.6	3.227	4.223	2.1	21.5
5 1	13 11.84	-16 28.6	1.712	2.682	7.3	19.8	5 1	13 18.12	-7 29.8	3.275	4.236	4.7	21.7
5 11	13 4.55	-16 17.6	1.767	2.686	11.0	20.1	5 11	13 13.39	-6 58.3	3.350	4.248	7.0	21.9
5 21	12 59.56	-16 10.1	1.843	2.690	14.3	20.3	5 21	13 9.80	-6 33.9	3.450	4.261	9.1	22.0
<b>29797</b>	1999 <i>CC</i> <sub>78</sub>		4 13.6 253 <sup>o</sup> 27	3 <sup>o</sup> 3/ 9.9	18		<b>39419</b>	1244 <i>T</i> <sub>-2</sub>		4 13.6 96 <sup>o</sup> 75	1 <sup>o</sup> 8/11.7	18	
3 12	13 49.23	- 4 12.3	1.950	2.817	11.9	18.1	3 12	13 48.55	- 8 52.7	1.862	2.724	12.6	19.2
3 22	13 44.53	- 2 45.2	1.865	2.801	8.6	17.9	3 22	13 43.91	- 7 29.6	1.800	2.733	9.0	19.0
4 1	13 37.95	- 1 9.1	1.806	2.785	5.1	17.6	4 1	13 37.50	- 5 55.4	1.763	2.743	5.0	18.7
4 11	13 30.18	+ 0 28.6	1.774	2.768	3.3	17.5	4 11	13 30.09	- 4 17.3	1.753	2.753	1.8	18.5
4 21	13 22.06	+ 1 59.9	1.772	2.751	5.8	17.6	4 21	13 22.56	- 2 43.3	1.772	2.762	4.4	18.7
5 1	13 14.55	+ 3 17.2	1.796	2.734	9.6	17.8	5 1	13 15.81	- 1 20.8	1.819	2.772	8.4	19.0
5 11	13 8.44	+ 4 15.2	1.845	2.716	13.1	18.0	5 11	13 10.59	- 0 15.5	1.891	2.781	11.9	19.2
5 21	13 4.31	+ 4 51.5	1.915	2.697	16.2	18.1	5 21	13 7.32	+ 0 30.0	1.984	2.790	14.9	19.4
<b>419759</b>	2010 <i>VS</i> <sub>110</sub>		4 13.6 203 <sup>o</sup> 40	2 <sup>o</sup> 8/10.9	15		<b>519941</b>	2013 <i>RR</i> <sub>106</sub>		4 13.6 147 <sup>o</sup> 81	0 <sup>o</sup> 9/14.5	17	
3 12	13 53.04	- 3 22.2	2.047	2.906	11.8	22.2	3 12	13 49.67	-14 48.8	2.046	2.884	12.6	21.6
3 22	13 47.13	- 2 34.4	1.970	2.902	8.5	22.0	3 22	13 44.71	-14 13.0	1.970	2.888	9.3	21.4
4 1	13 39.36	- 1 41.6	1.918	2.896	5.0	21.7	4 1	13 37.98	-13 23.4	1.919	2.891	5.6	21.2
4 11	13 30.46	- 0 49.2	1.895	2.891	2.8	21.6	4 11	13 30.20	-12 23.5	1.895	2.894	1.7	20.9
4 21	13 21.30	- 0 2.8	1.900	2.884	5.0	21.7	4 21	13 22.22	-11 18.5	1.899	2.897	2.8	21.0
5 1	13 12.80	+ 0 32.5	1.934	2.877	8.6	21.9	5 1	13 14.94	-10 14.5	1.932	2.900	6.7	21.2
5 11	13 5.77	+ 0 53.1	1.992	2.869	12.0	22.1	5 11	13 9.10	- 9 17.6	1.990	2.903	10.3	21.5
5 21	13 0.73	+ 0 57.8	2.071	2.860	15.0	22.3	5 21	13 5.18	- 8 32.1	2.072	2.905	13.4	21.7
<b>6530</b>	Adry		4 13.6 287 <sup>o</sup> 01	6 <sup>o</sup> 2/ 8.7	18		<b>426990</b>	2014 <i>DS</i> <sub>7</sub>		4 13.6 217 <sup>o</sup> 37	5 <sup>o</sup> 0/ 7.9	18	
3 12	13 53.81	+ 6 4.4	1.783	2.651	12.8	17.0	3 12	13 48.82	+ 4 34.9	2.290	3.157	10.4	20.9
3 22	13 48.02	+ 6 46.3	1.705	2.634	9.7	16.8	3 22	13 43.90	+ 5 38.5	2.224	3.153	7.8	20.7
4 1	13 40.02	+ 7 24.5	1.650	2.616	7.0	16.6	4 1	13 37.44	+ 6 40.5	2.184	3.150	5.6	20.5
4 11	13 30.62	+ 7 51.8	1.622	2.599	6.3	16.5	4 11	13 30.09	+ 7 34.9	2.171	3.146	5.1	20.5
4 21	13 20.82	+ 8 2.5	1.620	2.581	8.3	16.6	4 21	13 22.56	+ 8 16.7	2.187	3.142	6.8	20.6
5 1	13 11.73	+ 7 52.8	1.644	2.563	11.5	16.7	5 1	13 15.62	+ 8 41.9	2.229	3.138	9.4	20.7
5 11	13 4.30	+ 7 21.7	1.691	2.546	14.9	16.9	5 11	13 9.92	+ 8 48.8	2.295	3.134	12.0	20.9
5 21	12 59.15	+ 6 30.7	1.757	2.528	17.9	17.1	5 21	13 5.90	+ 8 37.9	2.381	3.130	14.3	21.1
<b>173947</b>	2001 <i>WZ</i> <sub>76</sub>		4 13.6 274 <sup>o</sup> 31	0 <sup>o</sup> 4/13.9	18		<b>210856</b>	2001 <i>RN</i> <sub>30</sub>		4 13.6 224 <sup>o</sup> 82	0 <sup>o</sup> 3/13.2	17	
3 12	13 48.70	-12 25.4	2.240	3.083	11.5	20.5	3 12	13 49.41	- 9 59.4	2.631	3.474	10.0	21.4
3 22	13 43.98	-11 59.8	2.149	3.071	8.4	20.3	3 22	13 44.25	- 9 30.7	2.541	3.464	7.3	21.2
4 1	13 37.57	-11 23.4	2.083	3.058	5.0	20.0	4 1	13 37.64	- 8 54.3	2.477	3.454	4.1	20.9
4 11	13 30.10	-10 39.0	2.044	3.045	1.2	19.7	4 11	13 30.14	- 8 13.0	2.442	3.443	0.8	20.7
4 21	13 22.33	- 9 50.9	2.034	3.032	2.8	19.8	4 21	13 22.40	- 7 30.5	2.437	3.433	2.7	20.8
5 1	13 15.07	- 9 4.0	2.053	3.019	6.6	20.1	5 1	13 15.12	- 6 50.9	2.461	3.421	6.0	21.0
5 11	13 9.08	- 8 23.4	2.097	3.006	10.1	20.2	5 11	13 8.93	- 6 18.0	2.512	3.409	9.1	21.2
5 21	13 4.85	- 7 52.7	2.164	2.993	13.1	20.4	5 21	13 4.27	- 5 54.4	2.587	3.397	11.7	21.3
<b>349056</b>	2006 <i>WR</i> <sub>83</sub>		4 13.6 154 <sup>o</sup> 81	0 <sup>o</sup> 1/13.7	18		<b>176583</b>	2002 <i>CY</i> <sub>87</sub>		4 13.6 123 <sup>o</sup> 83	2 <sup>o</sup> 2/10.8	18	
3 12	13 47.79	-12 0.7	2.676	3.515	10.0	21.7	3 12	13 47.96	- 3 30.6	2.644	3.502	9.4	20.8
3 22	13 42.97	-11 25.2	2.600	3.520	7.2	21.5	3 22	13 43.04	- 2 42.3	2.582	3.514	6.7	20.6
4 1	13 36.83	-10 41.0	2.549	3.524	4.2	21.3	4 1	13 36.85	- 1 50.8	2.546	3.525	3.9	20.4
4 11	13 29.93	- 9 51.0	2.528	3.529	0.9	21.1	4 11	13 29.96	- 1 0.3	2.540	3.535	2.2	20.3
4 21	13 22.89	- 8 59.1	2.536	3.533	2.4	21.2	4 21	13 22.98	- 0 14.8	2.563	3.546	4.0	20.5
5 1	13 16.37	- 8 9.6	2.573	3.536	5.6	21.4	5 1	13 16.55	+ 0 21.8	2.614	3.556	6.7	20.6
5 11	13 10.93	- 7 26.5	2.638	3.540	8.5	21.6	5 11	13 11.21	+ 0 46.9	2.692	3.566	9.4	20.8
5 21	13 6.95	- 6 52.6	2.726	3.543	11.0	21.8	5 21	13 7.31	+ 0 59.4	2.792	3.575	11.6	21.0
<b>215988</b>	2005 <i>ST</i> <sub>70</sub>		4 13.6 181 <sup>o</sup> 62	1 <sup>o</sup> 4/15.3	17		<b>32437</b>	2000 <i>RR</i> <sub>97</sub>		4 13.6 284 <sup>o</sup> 49	4 <sup>o</sup> 6/22.9	18	
3 12	13 47.28	-17 0.1	2.605	3.429	10.7	20.6	3 12	13 44.04	-36 11.3	4.455	5.144	8.6	18.6
3 22	13 42.69	-16 26.4	2.522	3.429	8.0	20.4	3 22	13 40.06	-36 14.4	4.349	5.135	7.4	18.5
4 1	13 36.71	-15 40.2	2.463	3.430	5.0	20.3	4 1	13 35.13	-36 4.4	4.265	5.125	6.2	18.4
4 11	13 29.91	-14 44.0	2.433	3.429	2.0	20.0	4 11	13 29.62	-35 41.0	4.206	5.116	5.2	18.3
4 21	13 22.94	-13 41.8	2.432	3.429	2.4	20.1	4 21	13 23.96	-35 5.1	4.174	5.106	4.7	18.2
5 1	13 16.49	-12 38.4	2.460	3.429	5.4	20.3	5 1	13 18.60	-34 18.6	4.170	5.097	4.9	18.3
5 11	13 11.15	-11 38.8	2.515	3.428	8.4	20.5	5 11	13 13.97	-33 24.5	4.193	5.088	5.8	18.3
5 21	13 7.33	-10 47.0	2.595	3.427	11.1	20.6	5 21	13 10.37	-32 26.1	4.242	5.078	7.0	18.4
<b>92587</b>	2000 <i>PH</i> <sub>9</sub>		4 13.6 300 <sup>o</sup> 72	7 <sup>o</sup> 8/ 7.7	18		<b>11413</b>	Catanach		4 13.6 165 <sup>o</sup> 68	0 <sup>o</sup> 3/13.3	18	
3 12	13 54.42	+ 8 13.3	1.595	2.465	13.9	19.0	3 12	13 55.01	-10 14.1	1.784	2.634	13.7	18.5
3 22	13 48.85	+ 9 7.0	1.507	2.435	10.9	18.7	3 22	13 48.78	- 9 48.8	1.712	2.638	10.0	18.3
4 1	13 40.72	+ 9 55.7	1.443	2.405	8.4	18.5	4 1	13 40.40	- 9 12.7	1.665	2.642	5.7	18.1
4 11	13 30.81	+10 30.6	1.404	2.374	7.9	18.4	4 11	13 30.73	- 8 29.9	1.644	2.646	1.1	17.8
4 21	13 20.26	+10 44.0	1.391	2.344	10.1	18.4	4 21	13 20.81	- 7 45.7	1.652	2.649	3.6	17.9
5 1	13 10.36	+10 30.9	1.401	2.313	13.7	18.5	5 1	13 11.74	- 7 5.8	1.688	2.651	8.0	18.2
5 11	13 2.27	+ 9 50.4	1.433	2.283	17.4	18.7	5 11	13 4.43	- 6 35.6	1.748	2.652	12.0	18.5
5 21	12 56.77	+ 8 44.7	1.482	2.253	20.7	18.8	5 21	12 59.42	- 6 18.2	1.831	2.653	15.4	1

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>425671</b>	2010 <i>XX</i> <sub>79</sub>		4 13.6	64°19	14.7/	3.4 17	<b>44590</b>	1999 <i>LC</i> <sub>16</sub>		4 13.6	32°72	5°6/18.8	18
3 12	13 58.40	-52 3.6	1.803	2.413	21.7	20.3	3 12	13 48.39	-29 46.2	1.020	1.847	23.1	18.3
3 22	13 52.37	-53 8.5	1.743	2.434	20.1	20.2	3 22	13 45.29	-28 15.0	0.951	1.849	18.7	18.0
4 1	13 42.89	-53 35.7	1.696	2.455	18.3	20.1	4 1	13 38.88	-25 50.3	0.898	1.852	13.3	17.7
4 11	13 31.27	-53 19.1	1.664	2.476	16.7	20.1	4 11	13 30.47	-22 35.7	0.868	1.855	7.8	17.4
4 21	13 19.33	-52 17.3	1.650	2.497	15.3	20.0	4 21	13 21.75	-18 46.5	0.861	1.858	5.8	17.3
5 1	13 8.97	-50 34.9	1.657	2.518	14.7	20.0	5 1	13 14.49	-14 47.8	0.880	1.861	10.2	17.5
5 11	13 1.57	-48 22.5	1.684	2.539	14.9	20.1	5 11	13 9.99	-11 6.2	0.922	1.865	15.9	17.8
5 21	12 57.75	-45 53.5	1.732	2.560	15.9	20.2	5 21	13 8.81	-8 0.2	0.985	1.869	20.9	18.2
<b>142749</b>	2002 <i>TS</i> <sub>296</sub>		4 13.6	65°08	4.2/11.2	18	<b>522621</b>	2016 <i>FH</i> <sub>66</sub>		4 13.6	331°53	1°7/12.8	17
3 12	14 0.08	+ 1 18.2	1.474	2.340	15.1	19.6	3 12	13 57.29	- 3 51.4	1.355	2.225	15.8	20.4
3 22	13 52.39	+ 1 23.9	1.431	2.364	10.9	19.4	3 22	13 51.27	- 4 21.9	1.274	2.210	11.7	20.1
4 1	13 42.36	+ 1 27.6	1.413	2.389	6.7	19.2	4 1	13 42.26	- 4 51.2	1.216	2.196	6.8	19.7
4 11	13 31.11	+ 1 24.3	1.420	2.413	4.2	19.2	4 11	13 31.21	- 5 22.1	1.182	2.183	2.0	19.4
4 21	13 19.95	+ 1 10.0	1.455	2.438	6.4	19.3	4 21	13 19.45	- 5 57.1	1.175	2.170	4.9	19.5
5 1	13 10.12	+ 0 42.7	1.517	2.462	10.3	19.6	5 1	13 8.55	- 6 38.9	1.193	2.158	10.3	19.8
5 11	13 2.54	+ 0 1.9	1.602	2.487	14.0	19.9	5 11	12 59.87	- 7 29.2	1.234	2.148	15.2	20.1
5 21	12 57.64	- 0 50.9	1.707	2.511	17.1	20.2	5 21	12 54.24	- 8 28.8	1.294	2.138	19.4	20.3
<b>188055</b>	2001 <i>VA</i> <sub>92</sub>		4 13.6	136°68	4.7/	8.6 18	<b>281003</b>	2006 <i>DJ</i> <sub>171</sub>		4 13.6	347°74	4°3/	9.8 17
3 12	13 51.91	+ 3 8.5	2.216	3.078	10.8	20.6	3 12	13 46.66	- 2 11.1	1.475	2.360	13.9	20.2
3 22	13 46.04	+ 4 15.7	2.163	3.092	8.0	20.5	3 22	13 43.06	- 0 59.2	1.409	2.353	10.1	20.0
4 1	13 38.62	+ 5 21.5	2.137	3.106	5.5	20.4	4 1	13 37.26	+ 0 18.8	1.367	2.347	6.2	19.7
4 11	13 30.35	+ 6 19.9	2.139	3.118	4.7	20.3	4 11	13 30.12	+ 1 34.4	1.349	2.342	4.4	19.6
4 21	13 22.01	+ 7 5.6	2.170	3.130	6.5	20.5	4 21	13 22.68	+ 2 38.7	1.357	2.337	7.1	19.7
5 1	13 14.41	+ 7 34.9	2.228	3.142	9.2	20.6	5 1	13 16.06	+ 3 24.5	1.389	2.334	11.2	19.9
5 11	13 8.19	+ 7 46.2	2.311	3.152	11.9	20.8	5 11	13 11.21	+ 3 47.3	1.443	2.331	15.1	20.2
5 21	13 3.75	+ 7 39.9	2.413	3.162	14.2	21.0	5 21	13 8.68	+ 3 46.5	1.515	2.329	18.4	20.4
<b>338730</b>	2003 <i>UQ</i> <sub>113</sub>		4 13.6	260°32	4°0/	9.9 17	<b>496504</b>	2014 <i>UR</i> <sub>85</sub>		4 13.6	238°82	1°2/12.6	17
3 12	13 53.59	+ 2 3.5	2.198	3.058	11.0	21.2	3 12	13 53.36	- 8 15.3	1.732	2.590	13.6	21.9
3 22	13 47.56	+ 2 35.8	2.109	3.038	8.2	21.0	3 22	13 47.78	- 7 43.2	1.650	2.580	9.9	21.7
4 1	13 39.68	+ 3 8.0	2.046	3.018	5.3	20.8	4 1	13 39.96	- 7 1.0	1.591	2.570	5.6	21.4
4 11	13 30.61	+ 3 35.0	2.011	2.998	4.1	20.7	4 11	13 30.69	- 6 13.4	1.558	2.559	1.4	21.1
4 21	13 21.17	+ 3 52.3	2.004	2.977	6.0	20.7	4 21	13 21.01	- 5 26.2	1.554	2.548	4.2	21.3
5 1	13 12.27	+ 3 56.2	2.026	2.955	9.1	20.9	5 1	13 12.05	- 4 45.7	1.576	2.537	8.8	21.5
5 11	13 4.70	+ 3 44.7	2.072	2.934	12.3	21.1	5 11	13 4.80	- 4 17.3	1.623	2.525	12.9	21.7
5 21	12 59.03	+ 3 17.7	2.140	2.912	15.1	21.2	5 21	12 59.89	- 4 4.0	1.691	2.512	16.5	21.9
<b>504634</b>	2008 <i>WA</i> <sub>44</sub>		4 13.6	209°18	0°8/14.5	17	<b>65906</b>	1998 <i>EZ</i> <sub>5</sub>		4 13.6	115°92	1°9/12.0	18
3 12	13 50.31	-14 21.8	2.513	3.342	10.8	22.9	3 12	13 54.51	- 6 52.2	1.707	2.566	13.7	19.1
3 22	13 44.97	-13 54.3	2.423	3.336	8.0	22.7	3 22	13 48.31	- 6 5.9	1.651	2.583	9.8	18.9
4 1	13 38.09	-13 15.6	2.358	3.329	4.8	22.5	4 1	13 40.06	- 5 11.6	1.620	2.600	5.5	18.7
4 11	13 30.26	-12 28.2	2.322	3.322	1.5	22.2	4 11	13 30.67	- 4 15.2	1.616	2.616	1.9	18.5
4 21	13 22.19	-11 36.0	2.316	3.314	2.5	22.3	4 21	13 21.22	- 3 23.1	1.640	2.631	4.6	18.7
5 1	13 14.63	-10 43.7	2.339	3.305	5.9	22.5	5 1	13 12.74	- 2 41.2	1.691	2.646	8.7	18.9
5 11	13 8.25	- 9 55.9	2.389	3.296	9.1	22.7	5 11	13 6.08	- 2 13.9	1.766	2.660	12.5	19.2
5 21	13 3.51	- 9 16.5	2.464	3.286	11.9	22.9	5 21	13 1.70	- 2 2.8	1.863	2.673	15.6	19.4
<b>376458</b>	2012 <i>HD</i> <sub>71</sub>		4 13.6	288°44	1°0/12.8	17	<b>478297</b>	2011 <i>WS</i> <sub>23</sub>		4 13.6	249°97	3°3/	9.8 16
3 12	13 51.76	- 8 24.5	1.667	2.529	13.8	21.3	3 12	13 49.62	+ 1 4.6	2.723	3.582	9.2	22.3
3 22	13 46.70	- 8 0.8	1.584	2.517	10.1	21.1	3 22	13 44.37	+ 1 43.1	2.636	3.565	6.7	22.1
4 1	13 39.36	- 7 27.2	1.526	2.505	5.7	20.8	4 1	13 37.72	+ 2 22.3	2.575	3.548	4.3	21.9
4 11	13 30.56	- 6 48.1	1.493	2.494	1.3	20.4	4 11	13 30.21	+ 2 58.1	2.543	3.530	3.3	21.8
4 21	13 21.32	- 6 9.0	1.487	2.482	4.1	20.6	4 21	13 22.45	+ 3 26.7	2.541	3.513	4.9	21.9
5 1	13 12.80	- 5 35.9	1.507	2.471	8.8	20.9	5 1	13 15.12	+ 3 44.7	2.567	3.494	7.5	22.0
5 11	13 6.00	- 5 14.1	1.552	2.459	13.0	21.1	5 11	13 8.82	+ 3 50.1	2.619	3.476	10.2	22.1
5 21	13 1.57	- 5 6.8	1.617	2.448	16.7	21.3	5 21	13 3.98	+ 3 42.1	2.693	3.457	12.5	22.3
<b>304719</b>	2006 <i>XT</i> <sub>14</sub>		4 13.6	241°42	2°5/10.7	17	<b>309769</b>	2008 <i>YL</i> <sub>68</sub>		4 13.6	170°85	4°0/10.2	18
3 12	13 48.39	- 2 32.6	2.477	3.337	9.9	21.3	3 12	13 52.74	- 2 13.7	1.643	2.514	13.5	20.7
3 22	13 43.54	- 1 50.7	2.398	3.330	7.1	21.1	3 22	13 47.22	- 1 4.5	1.580	2.516	9.8	20.4
4 1	13 37.25	- 0 1 5.6	2.345	3.323	4.2	20.9	4 1	13 39.55	+ 0 9.8	1.540	2.518	5.9	20.2
4 11	13 30.09	- 0 21.6	2.322	3.316	2.5	20.8	4 11	13 30.60	+ 1 21.4	1.527	2.520	4.0	20.1
4 21	13 22.72	+ 0 17.0	2.327	3.309	4.4	20.9	4 21	13 21.43	+ 2 22.6	1.542	2.521	6.5	20.2
5 1	13 15.86	+ 0 46.3	2.360	3.301	7.4	21.1	5 1	13 13.14	+ 3 6.9	1.582	2.522	10.4	20.5
5 11	13 10.13	+ 1 3.5	2.418	3.293	10.3	21.3	5 11	13 6.64	+ 3 30.6	1.646	2.522	14.1	20.7
5 21	13 5.95	+ 1 7.3	2.499	3.285	12.8	21.4	5 21	13 2.46	+ 3 33.1	1.729	2.522	17.3	20.9
<b>214484</b>	2005 <i>TW</i> <sub>190</sub>		4 13.6	239°44	1°7/11.4	18	<b>144532</b>	2004 <i>EX</i> <sub>82</sub>		4 13.6	264°18	1°4/12.3	17
3 12	13 46.47	- 6 32.6	2.571	3.428	9.7	20.6	3 12	13 52.82	- 5 2.8	2.440	3.290	10.4	19.9
3 22	13 42.13	- 5 31.7	2.489	3.420	7.0	20.4	3 22	13 46.88	- 4 54.3	2.345	3.272	7.6	19.7
4 1	13 36.43	- 4 23.9	2.433	3.413	3.9	20.2	4 1	13 39.26	- 4 42.0	2.275	3.253	4.3	19.4
4 11	13 29.91	- 3 13.9	2.407	3.405	1.7	20.0	4 11	13 30.55	- 4 28.7	2.235	3.234	1.5	19.2
4 21	13 23.22	- 2 6.6	2.410	3.398	3.7	20.1	4 21	13 21.49	- 4 17.7	2.224	3.215	3.5	19.3
5 1	13 16.99	- 1 7.0	2.442	3.390	6.8	20.3	5 1	13 12.88	- 4 12.0	2.242	3.196	7.0	19.5
5 11	13 11.82	- 0 19.0	2.500	3.382	9.7	20.5	5 11	13 5.47	- 4 14.3	2.287	3.176	10.2	19.7
5 21	13 8.12	+ 0 15.2	2.580	3.373	12.2	20.6	5 21	12 59.76	- 4 26.4	2.355	3.156	13.0	19.8
<b>100750</b>	1998 <i>EX</i> <sub>8</sub>		4 13.6	43°50	2°3/12.2	18	<b>36489</b>	2000 <i>QC</i> <sub>45</sub>					

EPHEMERIDES

4 13.6

4 13.6

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>468180</b>	2014 <i>YJ</i> <sub>38</sub>		4 13.6 30°75	6°0/ 8.7 16			<b>36424</b>	Satokokumasaki		4 13.6 121°94	2°7/11.4 18		
3 12	13 52.12	+ 4 42.8	1.665	2.539	13.2	20.7	3 12	13 54.04	- 5 7.1	1.562	2.429	14.3	18.8
3 22	13 46.72	+ 5 37.2	1.608	2.541	9.9	20.5	3 22	13 48.20	- 4 15.2	1.504	2.440	10.3	18.6
4 1	13 39.24	+ 6 28.5	1.574	2.543	7.0	20.3	4 1	13 40.12	- 3 16.0	1.469	2.450	5.9	18.3
4 11	13 30.54	+ 7 9.2	1.567	2.546	6.1	20.3	4 11	13 30.75	- 2 16.5	1.461	2.459	2.7	18.2
4 21	13 21.67	+ 7 33.0	1.585	2.548	8.2	20.4	4 21	13 21.24	- 1 23.8	1.480	2.468	5.5	18.4
5 1	13 13.69	+ 7 36.2	1.629	2.551	11.4	20.6	5 1	13 12.72	- 0 44.3	1.525	2.477	9.7	18.6
5 11	13 7.47	+ 7 17.9	1.695	2.554	14.7	20.8	5 11	13 6.13	- 0 22.2	1.594	2.486	13.7	18.9
5 21	13 3.50	+ 6 39.5	1.779	2.557	17.5	21.0	5 21	13 1.98	- 0 18.7	1.682	2.494	17.0	19.1
<b>258036</b>	2001 <i>JD</i> <sub>11</sub>		4 13.6 316°61	1°0/12.8 17			<b>196733</b>	2003 <i>SA</i> <sub>122</sub>		4 13.6 141°32	2°9/16.6 17		
3 12	13 48.42	-10 18.5	1.376	2.249	15.5	20.2	3 12	13 51.82	-20 19.1	2.365	3.172	12.2	21.1
3 22	13 44.68	- 9 30.5	1.296	2.234	11.4	19.9	3 22	13 46.13	-20 12.8	2.288	3.181	9.4	20.9
4 1	13 38.39	- 8 26.2	1.237	2.218	6.5	19.6	4 1	13 38.79	-19 51.6	2.236	3.191	6.3	20.8
4 11	13 30.42	- 7 11.6	1.202	2.204	1.4	19.2	4 11	13 30.48	-19 17.2	2.211	3.199	3.5	20.6
4 21	13 21.93	- 5 55.1	1.193	2.190	4.7	19.4	4 21	13 21.99	-18 32.5	2.214	3.207	3.3	20.6
5 1	13 14.24	- 4 46.4	1.209	2.176	10.0	19.6	5 1	13 14.15	-17 42.3	2.247	3.215	5.9	20.8
5 11	13 8.50	- 3 53.8	1.247	2.163	14.9	19.9	5 11	13 7.65	-16 52.0	2.306	3.222	8.9	21.0
5 21	13 5.41	- 3 21.9	1.303	2.151	19.0	20.1	5 21	13 2.97	-16 6.4	2.390	3.229	11.7	21.1
<b>62350</b>	2000 <i>SA</i> <sub>143</sub>		4 13.6 300°62	1°7/14.9 18			<b>260982</b>	2005 <i>SS</i> <sub>63</sub>		4 13.6 258°27	0°3/13.3 16		
3 12	13 50.81	-15 25.2	1.755	2.598	14.2	19.4	3 12	13 47.42	-10 59.2	2.468	3.314	10.5	21.2
3 22	13 45.93	-15 11.8	1.675	2.594	10.6	19.2	3 22	13 42.94	-10 18.0	2.379	3.303	7.6	21.0
4 1	13 38.90	-14 43.0	1.618	2.589	6.6	18.9	4 1	13 36.98	- 9 27.1	2.315	3.292	4.3	20.8
4 11	13 30.50	-14 1.4	1.586	2.584	2.5	18.6	4 11	13 30.11	- 8 30.2	2.280	3.281	0.9	20.5
4 21	13 21.75	-13 11.8	1.581	2.580	3.3	18.7	4 21	13 23.00	- 7 31.5	2.274	3.270	2.8	20.7
5 1	13 13.74	-12 20.3	1.603	2.575	7.5	18.9	5 1	13 16.38	- 6 36.1	2.297	3.259	6.3	20.9
5 11	13 7.40	-11 33.9	1.651	2.571	11.6	19.1	5 11	13 10.87	- 5 48.6	2.346	3.247	9.5	21.0
5 21	13 3.32	-10 57.6	1.719	2.567	15.1	19.4	5 21	13 6.92	- 5 12.1	2.419	3.236	12.3	21.2
<b>359427</b>	2010 <i>LD</i> <sub>82</sub>		4 13.6 269°97	7°0/21.0 18			<b>211450</b>	2003 <i>BZ</i> <sub>11</sub>		4 13.6 25°22	0°5/13.1 17		
3 12	13 52.54	-33 55.2	2.691	3.413	12.9	21.2	3 12	13 48.89	- 9 34.5	1.921	2.779	12.5	19.7
3 22	13 46.96	-34 32.2	2.579	3.391	11.2	21.0	3 22	13 44.23	- 9 9.5	1.854	2.784	9.0	19.5
4 1	13 39.46	-34 50.6	2.488	3.369	9.3	20.8	4 1	13 37.78	- 8 35.2	1.810	2.789	5.1	19.2
4 11	13 30.64	-34 48.2	2.421	3.347	7.7	20.7	4 11	13 30.28	- 7 55.8	1.794	2.795	1.0	19.0
4 21	13 21.29	-34 24.8	2.381	3.324	7.0	20.6	4 21	13 22.58	- 7 16.1	1.805	2.801	3.3	19.1
5 1	13 12.33	-33 42.5	2.367	3.302	7.7	20.6	5 1	13 15.61	- 6 41.2	1.843	2.808	7.3	19.4
5 11	13 4.63	-32 46.6	2.380	3.278	9.5	20.7	5 11	13 10.11	- 6 15.6	1.906	2.814	10.9	19.6
5 21	12 58.82	-31 43.2	2.416	3.255	11.6	20.8	5 21	13 6.56	- 6 1.9	1.991	2.822	14.0	19.8
<b>17173</b>	<i>Evgenyamosov</i>		4 13.6 94°87	0°4/13.9 18			<b>351916</b>	2006 <i>SB</i> <sub>377</sub>		4 13.6 120°69	3°8/ 9.0 17		
3 12	13 54.19	-12 28.8	1.579	2.431	15.0	18.3	3 12	13 47.82	+ 1 0.2	2.382	3.249	10.0	21.4
3 22	13 48.29	-12 1.5	1.522	2.447	11.0	18.0	3 22	13 43.11	+ 2 5.4	2.322	3.256	7.3	21.2
4 1	13 40.15	-11 20.3	1.487	2.464	6.4	17.8	4 1	13 37.01	+ 3 11.2	2.289	3.262	4.8	21.1
4 11	13 30.74	-10 29.9	1.479	2.480	1.5	17.5	4 11	13 30.11	+ 4 12.3	2.284	3.268	3.9	21.0
4 21	13 21.22	- 9 36.3	1.498	2.496	3.5	17.7	4 21	13 23.10	+ 5 3.5	2.307	3.275	5.7	21.1
5 1	13 12.74	- 8 46.5	1.543	2.511	8.2	18.0	5 1	13 16.68	+ 5 40.8	2.358	3.281	8.3	21.3
5 11	13 6.22	- 8 6.7	1.613	2.526	12.3	18.3	5 11	13 11.44	+ 6 2.0	2.433	3.287	11.0	21.5
5 21	13 2.14	- 7 40.7	1.704	2.541	15.7	18.5	5 21	13 7.77	+ 6 6.7	2.529	3.292	13.2	21.7
<b>434871</b>	2006 <i>SK</i> <sub>316</sub>		4 13.6 256°68	0°9/12.6 16			<b>101759</b>	1999 <i>FA</i> <sub>30</sub>		4 13.6 57°11	0°2/13.5 18		
3 12	13 49.59	- 8 4.9	2.422	3.272	10.5	22.1	3 12	13 57.59	- 8 4.5	1.587	2.443	14.7	17.9
3 22	13 44.55	- 7 34.6	2.329	3.256	7.6	21.8	3 22	13 50.85	- 8 23.9	1.524	2.452	10.7	17.6
4 1	13 37.93	- 6 57.1	2.261	3.240	4.3	21.6	4 1	13 41.70	- 8 36.1	1.484	2.462	6.2	17.4
4 11	13 30.30	- 6 15.6	2.223	3.223	1.1	21.3	4 11	13 31.11	- 8 43.7	1.471	2.473	1.3	17.1
4 21	13 22.38	- 5 34.4	2.213	3.207	3.2	21.5	4 21	13 20.29	- 8 49.6	1.486	2.483	3.7	17.3
5 1	13 14.91	- 4 57.8	2.232	3.190	6.7	21.7	5 1	13 10.48	- 8 57.6	1.527	2.494	8.4	17.6
5 11	13 8.60	- 4 29.7	2.277	3.172	10.0	21.8	5 11	13 2.69	- 9 11.1	1.594	2.504	12.5	17.9
5 21	13 3.94	- 4 12.7	2.346	3.155	12.8	22.0	5 21	12 57.49	- 9 32.6	1.681	2.515	16.0	18.1
<b>260080</b>	2004 <i>JS</i> <sub>26</sub>		4 13.6 1°04	18°9/ 5.0 18			<b>173251</b>	1999 <i>RD</i> <sub>73</sub>		4 13.6 208°90	0°5/14.1 16		
3 12	14 10.66	+35 39.6	1.328	2.115	20.9	19.8	3 12	13 53.47	-13 11.3	2.095	2.931	12.4	21.7
3 22	14 0.64	+36 10.1	1.290	2.112	19.6	19.7	3 22	13 47.57	-12 41.1	2.007	2.924	9.2	21.5
4 1	13 47.23	+35 59.6	1.269	2.111	18.9	19.6	4 1	13 39.74	-11 58.2	1.944	2.917	5.4	21.2
4 11	13 32.17	+34 57.5	1.267	2.111	19.0	19.6	4 11	13 30.71	-11 6.0	1.908	2.909	1.4	20.9
4 21	13 17.48	+33 1.4	1.285	2.112	19.9	19.7	4 21	13 21.35	-10 9.0	1.902	2.899	3.0	21.0
5 1	13 9.45	+30 17.2	1.322	2.114	21.5	19.8	5 1	13 12.62	- 9 13.2	1.924	2.889	7.1	21.2
5 11	12 55.74	+26 57.0	1.377	2.118	23.2	19.9	5 11	13 5.34	- 8 24.1	1.973	2.879	10.8	21.5
5 21	12 50.21	+23 14.5	1.450	2.122	24.9	20.1	5 21	13 0.08	- 7 46.2	2.045	2.867	14.0	21.6
<b>302291</b>	2001 <i>YS</i> <sub>31</sub>		4 13.6 207°51	2°6/11.4 17			<b>162790</b>	2000 <i>YJ</i> <sub>35</sub>		4 13.6 150°29	3°3/10.6 18		
3 12	13 55.08	- 4 30.0	1.814	2.674	13.0	21.9	3 12	13 54.30	- 2 22.6	1.942	2.802	12.2	20.7
3 22	13 48.89	- 3 45.6	1.736	2.668	9.4	21.7	3 22	13 48.03	- 1 27.3	1.881	2.813	8.8	20.5
4 1	13 40.55	- 2 54.7	1.683	2.662	5.5	21.4	4 1	13 39.91	- 0 28.3	1.845	2.823	5.3	20.3
4 11	13 30.86	- 2 2.9	1.657	2.655	2.6	21.2	4 11	13 30.73	+ 0 28.3	1.838	2.832	3.3	20.2
4 21	13 20.83	- 1 16.4	1.660	2.647	5.1	21.3	4 21	13 21.43	+ 1 16.6	1.859	2.840	5.5	20.4
5 1	13 11.56	- 0 40.9	1.690	2.638	9.2	21.6	5 1	13 12.95	+ 1 51.6	1.908	2.847	9.0	20.6
5 11	13 3.97	- 0 20.6	1.744	2.629	13.1	21.8	5 11	13 6.07	+ 2 10.3	1.981	2.854	12.3	20.8
5 21	12 58.65	- 0 17.3	1.819	2.619	16.4	22.0	5 21	13 1.25	+ 2 12.0	2.076	2.859	15.1	21.0
<b>303467</b>	2005 <i>CV</i> <sub>42</sub>		4 13.6 99°92	1°0/12.8 18			<b>258017</b>	2001 <i>FM</i> <sub>126</sub>		4 13.6 41°30			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>143533</b>	2003 <i>ER</i> <sub>20</sub>		4 13.6 111°59	3°6/16.8	18		<b>149401</b>	2003 <i>AH</i> <sub>50</sub>		4 13.6 329°70	7°1/7.9	18	
3 12	13 57.89	-20 53.8	2.188	2.986	13.3	20.3	3 12	13 51.74	+ 6 5.0	1.529	2.408	13.9	19.4
3 22	13 50.54	-21 10.6	2.124	3.011	10.3	20.2	3 22	13 46.72	+ 7 9.8	1.468	2.402	10.6	19.2
4 1	13 41.32	-21 11.8	2.085	3.035	7.1	20.0	4 1	13 39.40	+ 8 10.7	1.431	2.397	7.8	19.0
4 11	13 31.03	-20 58.0	2.073	3.058	4.2	19.9	4 11	13 30.69	+ 8 58.6	1.418	2.393	7.3	19.0
4 21	13 20.63	-20 31.7	2.091	3.081	3.9	19.9	4 21	13 21.71	+ 9 26.5	1.430	2.388	9.4	19.1
5 1	13 11.09	-19 57.3	2.137	3.102	6.5	20.1	5 1	13 13.64	+ 9 29.8	1.467	2.384	12.8	19.3
5 11	13 3.20	-19 20.5	2.211	3.123	9.5	20.3	5 11	13 7.43	+ 9 7.6	1.524	2.381	16.1	19.5
5 21	12 57.42	-18 46.4	2.309	3.144	12.2	20.5	5 21	13 3.65	+ 8 22.3	1.599	2.377	19.1	19.7
<b>166393</b>	2002 <i>NM</i> <sub>14</sub>		4 13.6 279°35	5°5/7.5	17		<b>260047</b>	2004 <i>GB</i> <sub>73</sub>		4 13.6 53°48	6°2/9.5	18	
3 12	13 49.66	+ 4 10.2	2.101	2.970	11.1	21.0	3 12	13 56.76	+ 6 1.7	1.617	2.485	13.9	19.7
3 22	13 44.87	+ 5 30.1	2.012	2.943	8.4	20.7	3 22	13 50.18	+ 6 30.6	1.558	2.487	10.5	19.5
4 1	13 38.25	+ 6 51.1	1.948	2.915	6.1	20.5	4 1	13 41.30	+ 6 53.9	1.522	2.490	7.4	19.3
4 11	13 30.43	+ 8 6.0	1.913	2.887	5.7	20.5	4 11	13 31.08	+ 7 4.9	1.513	2.492	6.2	19.3
4 21	13 22.21	+ 9 7.8	1.904	2.859	7.8	20.5	4 21	13 20.68	+ 6 58.7	1.529	2.495	8.2	19.4
5 1	13 14.47	+ 9 50.7	1.922	2.830	10.8	20.7	5 1	13 11.28	+ 6 32.8	1.572	2.497	11.5	19.6
5 11	13 8.02	+ 10 11.8	1.964	2.801	13.8	20.8	5 11	13 3.82	+ 5 47.4	1.637	2.500	14.9	19.8
5 21	13 3.43	+ 10 10.6	2.024	2.771	16.6	20.9	5 21	12 58.85	+ 4 44.9	1.722	2.503	17.8	20.0
<b>160904</b>	2001 <i>TR</i> <sub>102</sub>		4 13.6 87°68	0°2/13.4	18		<b>157955</b>	2000 <i>DE</i> <sub>21</sub>		4 13.6 109°19	0°1/13.6	18	
3 12	13 52.39	-11 56.4	1.823	2.671	13.5	21.1	3 12	13 54.30	-11 52.6	1.378	2.239	16.3	20.0
3 22	13 46.67	-11 7.2	1.771	2.696	9.7	20.9	3 22	13 48.77	-11 21.3	1.316	2.246	11.9	19.8
4 1	13 39.10	-10 6.1	1.744	2.721	5.5	20.7	4 1	13 40.64	-10 34.5	1.275	2.253	6.9	19.5
4 11	13 30.57	-8 58.2	1.745	2.746	1.1	20.5	4 11	13 30.96	-9 37.5	1.259	2.260	1.5	19.2
4 21	13 22.03	-7 50.1	1.773	2.770	3.3	20.7	4 21	13 21.02	-8 37.4	1.269	2.267	4.0	19.4
5 1	13 14.43	-6 48.3	1.830	2.793	7.5	21.0	5 1	13 12.17	-7 42.6	1.305	2.274	9.2	19.7
5 11	13 8.51	-5 58.2	1.912	2.817	11.1	21.2	5 11	13 5.50	-7 0.4	1.364	2.280	13.9	20.0
5 21	13 4.68	-5 22.8	2.016	2.839	14.1	21.5	5 21	13 1.58	-6 34.8	1.443	2.287	17.7	20.2
<b>496944</b>	2001 <i>WX</i> <sub>80</sub>		4 13.6 131°55	4°5/8.7	18		<b>162480</b>	2000 <i>OL</i> <sub>36</sub>		4 13.6 226°98	3°3/10.7	17	
3 12	13 51.11	+ 5 30.1	2.564	3.422	9.7	21.5	3 12	13 52.35	- 4 24.8	1.675	2.543	13.5	20.5
3 22	13 45.36	+ 6 9.3	2.507	3.432	7.3	21.3	3 22	13 47.09	- 3 14.7	1.599	2.535	9.7	20.3
4 1	13 38.25	+ 6 45.2	2.477	3.441	5.1	21.2	4 1	13 39.62	- 1 56.0	1.547	2.526	5.7	20.0
4 11	13 30.39	+ 7 13.5	2.475	3.450	4.5	21.2	4 11	13 30.75	+ 0 36.1	1.521	2.517	3.3	19.8
4 21	13 22.46	+ 7 30.4	2.502	3.459	6.0	21.3	4 21	13 21.54	+ 0 36.8	1.524	2.508	6.0	20.0
5 1	13 15.14	+ 7 33.7	2.557	3.467	8.3	21.4	5 1	13 13.08	+ 1 35.1	1.552	2.497	10.2	20.2
5 11	13 9.01	+ 7 22.4	2.636	3.475	10.7	21.6	5 11	13 6.35	+ 2 13.8	1.604	2.487	14.1	20.4
5 21	13 4.44	+ 6 57.2	2.737	3.483	12.7	21.7	5 21	13 1.93	+ 2 30.9	1.676	2.476	17.5	20.6
<b>238780</b>	2005 <i>JD</i> <sub>145</sub>		4 13.6 238°55	4°1/9.3	17		<b>521305</b>	2015 <i>KM</i> <sub>169</sub>		4 13.6 215°39	4°4/8.1	17	
3 12	13 50.74	+ 2 49.5	2.378	3.240	10.2	20.7	3 12	13 48.83	+ 5 28.4	2.727	3.588	9.1	21.7
3 22	13 45.33	+ 3 30.4	2.302	3.232	7.6	20.5	3 22	13 43.77	+ 6 17.8	2.657	3.582	6.9	21.5
4 1	13 38.36	+ 4 10.6	2.252	3.223	5.1	20.3	4 1	13 37.40	+ 7 5.0	2.613	3.577	5.0	21.4
4 11	13 30.44	+ 4 45.1	2.230	3.214	4.1	20.3	4 11	13 30.26	+ 7 45.2	2.598	3.571	4.5	21.3
4 21	13 22.31	+ 5 9.7	2.237	3.204	5.8	20.3	4 21	13 22.96	+ 8 14.6	2.611	3.565	6.0	21.4
5 1	13 14.72	+ 5 21.0	2.271	3.195	8.6	20.5	5 1	13 16.14	+ 8 30.2	2.652	3.558	8.2	21.5
5 11	13 8.34	+ 5 17.3	2.330	3.185	11.3	20.7	5 11	13 10.37	+ 8 30.8	2.718	3.552	10.5	21.7
5 21	13 3.64	+ 4 58.4	2.411	3.175	13.8	20.8	5 21	13 6.03	+ 8 16.4	2.805	3.545	12.6	21.8
<b>340421</b>	2006 <i>FY</i> <sub>18</sub>		4 13.6 351°55	0°7/14.1	17		<b>423509</b>	2005 <i>UK</i> <sub>17</sub>		4 13.6 124°59	0°4/13.2	17	
3 12	13 53.00	-11 7.7	1.680	2.533	14.2	20.3	3 12	13 51.33	-11 11.6	2.103	2.949	12.0	22.0
3 22	13 47.59	-11 18.6	1.604	2.531	10.5	20.1	3 22	13 45.81	-10 22.1	2.039	2.963	8.7	21.8
4 1	13 39.91	-11 19.5	1.552	2.528	6.2	19.8	4 1	13 38.62	-9 22.1	2.001	2.978	4.9	21.6
4 11	13 30.80	-11 12.5	1.526	2.526	1.7	19.5	4 11	13 30.51	-8 16.2	1.991	2.992	1.0	21.3
4 21	13 21.31	-11 1.1	1.526	2.525	3.4	19.7	4 21	13 22.31	-7 9.9	2.009	3.005	3.2	21.5
5 1	13 12.60	-10 50.0	1.554	2.524	7.9	19.9	5 1	13 14.85	-6 9.1	2.057	3.018	7.0	21.8
5 11	13 5.66	-10 43.6	1.606	2.523	12.0	20.2	5 11	13 8.84	-5 18.9	2.131	3.030	10.4	22.0
5 21	13 1.11	-10 45.7	1.678	2.523	15.6	20.4	5 21	13 4.69	-4 42.1	2.227	3.042	13.2	22.2
<b>74346</b>	1998 <i>VH</i> <sub>47</sub>		4 13.6 186°95	1°1/12.5	18		<b>500538</b>	2012 <i>UN</i> <sub>21</sub>		4 13.6 174°15	1°8/11.8	17	
3 12	13 50.39	- 7 36.8	2.315	3.166	10.9	20.6	3 12	13 51.53	- 4 32.1	2.374	3.228	10.5	22.3
3 22	13 45.10	- 7 4.0	2.238	3.166	7.8	20.4	3 22	13 45.88	- 4 8.2	2.300	3.230	7.6	22.1
4 1	13 38.23	- 6 24.3	2.186	3.165	4.4	20.2	4 1	13 38.66	- 3 40.5	2.253	3.231	4.3	21.9
4 11	13 30.42	- 5 41.6	2.164	3.164	1.2	20.0	4 11	13 30.53	- 3 12.4	2.234	3.232	1.8	21.7
4 21	13 22.40	- 5 0.2	2.170	3.163	3.4	20.1	4 21	13 22.22	- 2 47.8	2.244	3.233	3.8	21.9
5 1	13 14.97	- 4 24.5	2.205	3.161	6.9	20.3	5 1	13 14.50	- 2 30.3	2.283	3.233	7.0	22.1
5 11	13 8.80	- 3 58.2	2.266	3.159	10.1	20.5	5 11	13 8.03	- 2 22.5	2.347	3.233	10.1	22.3
5 21	13 4.34	- 3 43.6	2.349	3.157	12.9	20.7	5 21	13 3.25	- 2 25.9	2.435	3.233	12.7	22.4
<b>477587</b>	2010 <i>JT</i> <sub>86</sub>		4 13.6 238°07	0°5/12.9	18		<b>196540</b>	Weinbaum		4 13.6 219°42	0°2/13.9	18	
3 12	13 51.27	- 7 39.3	3.629	4.462	7.7	21.9	3 12	13 49.90	-12 58.9	2.564	3.398	10.5	21.8
3 22	13 45.33	- 7 27.9	3.523	4.442	5.6	21.7	3 22	13 44.71	-12 16.0	2.471	3.388	7.7	21.6
4 1	13 38.24	- 7 12.3	3.445	4.421	3.2	21.5	4 1	13 38.02	-11 22.2	2.403	3.377	4.5	21.3
4 11	13 30.43	- 6 54.4	3.398	4.399	0.7	21.3	4 11	13 30.41	-10 20.6	2.365	3.365	1.1	21.1
4 21	13 22.38	- 6 36.4	3.383	4.377	2.2	21.4	4 21	13 22.54	- 9 15.5	2.356	3.353	2.6	21.2
5 1	13 14.61	- 6 20.6	3.399	4.354	4.8	21.6	5 1	13 15.16	- 8 12.1	2.377	3.340	6.0	21.4
5 11	13 7.63	- 6 9.3	3.445	4.330	7.2	21.7	5 11	13 8.90	- 7 15.3	2.426	3.327	9.2	21.5
5 21	13 1.79	- 6 4.1	3.515	4.306	9.3	21.8	5 21	13 4.23	- 6 28.7	2.498	3.313	12.0	21.7
<b>114924</b>	2003 <i>QL</i> <sub>41</sub>		4 13.6 232°13	4°1/16.9	16	</							

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>22685</b>	Dominguez		4 13.6 300°81	1°6/15.1	18		<b>300878</b>	2008 AX <sub>78</sub>		4 13.6 166°20	4°8/19.1	18	
3 12	13 50.51	-15 24.6	1.891	2.730	13.4	18.3	3 12	13 50.29	-26 58.0	2.512	3.285	12.5	21.3
3 22	13 45.63	-15 14.1	1.808	2.725	10.1	18.1	3 22	13 45.14	-27 5.2	2.425	3.286	10.2	21.2
4 1	13 38.74	-14 49.4	1.749	2.719	6.3	17.9	4 1	13 38.33	-26 54.8	2.361	3.288	7.7	21.0
4 11	13 30.58	-14 12.9	1.715	2.713	2.4	17.6	4 11	13 30.50	-26 26.8	2.323	3.289	5.5	20.9
4 21	13 22.08	-13 28.6	1.710	2.708	3.1	17.6	4 21	13 22.43	-25 43.5	2.313	3.291	4.8	20.8
5 1	13 14.24	-12 42.3	1.731	2.702	7.1	17.9	5 1	13 14.92	-24 48.8	2.331	3.292	6.3	20.9
5 11	13 7.95	-12 0.0	1.778	2.697	11.0	18.1	5 11	13 8.70	-23 48.5	2.375	3.293	8.7	21.1
5 21	13 3.78	-11 26.6	1.847	2.692	14.3	18.3	5 21	13 4.25	-22 48.3	2.444	3.293	11.1	21.2
<b>312025</b>	2007 RN <sub>95</sub>		4 13.6 186°33	0°2/13.4	16		<b>406553</b>	2007 YV <sub>4</sub>		4 13.6 157°41	0°3/13.9	18	
3 12	13 55.98	- 9 53.7	1.772	2.621	13.8	21.4	3 12	13 55.02	-12 5.0	2.017	2.855	12.8	22.1
3 22	13 49.63	- 9 40.0	1.696	2.621	10.1	21.2	3 22	13 48.63	-11 40.8	1.945	2.864	9.3	21.8
4 1	13 41.04	- 9 16.3	1.644	2.621	5.8	20.9	4 1	13 40.34	-11 5.4	1.897	2.872	5.4	21.6
4 11	13 31.07	- 8 46.0	1.619	2.620	1.2	20.6	4 11	13 30.92	-10 22.2	1.878	2.879	1.3	21.3
4 21	13 20.76	- 8 13.7	1.622	2.618	3.6	20.8	4 21	13 21.31	- 9 35.9	1.888	2.885	3.0	21.5
5 1	13 11.27	- 7 44.9	1.652	2.616	8.1	21.0	5 1	13 12.46	- 8 51.8	1.926	2.890	7.1	21.8
5 11	13 3.54	- 7 24.5	1.708	2.614	12.2	21.3	5 11	13 5.21	- 8 15.1	1.991	2.895	10.8	22.0
5 21	12 58.17	- 7 15.7	1.786	2.611	15.6	21.5	5 21	13 0.03	- 7 49.3	2.078	2.899	13.9	22.2
<b>102269</b>	1999 TH <sub>44</sub>		4 13.6 45°83	1°8/14.9	18		<b>260675</b>	2005 JO <sub>44</sub>		4 13.6 312°66	2°7/11.8	17	
3 12	13 52.43	-15 17.7	1.402	2.255	16.5	19.4	3 12	13 51.67	- 4 54.5	1.380	2.257	15.2	20.0
3 22	13 47.44	-15 7.0	1.338	2.262	12.3	19.1	3 22	13 47.11	- 4 23.8	1.300	2.240	11.1	19.7
4 1	13 39.90	-14 38.4	1.296	2.269	7.6	18.9	4 1	13 39.89	- 3 45.2	1.242	2.224	6.4	19.4
4 11	13 30.83	-13 55.2	1.278	2.277	2.8	18.6	4 11	13 30.89	- 3 4.6	1.209	2.208	2.7	19.1
4 21	13 21.48	-13 3.4	1.286	2.285	3.7	18.7	4 21	13 21.30	- 2 29.1	1.201	2.192	5.8	19.3
5 1	13 13.18	-12 10.7	1.320	2.294	8.5	19.0	5 1	13 12.51	- 2 5.8	1.217	2.177	10.8	19.5
5 11	13 6.98	-11 25.1	1.377	2.302	13.0	19.3	5 11	13 5.73	- 1 59.8	1.255	2.163	15.5	19.7
5 21	13 3.47	-10 52.1	1.454	2.311	16.9	19.5	5 21	13 1.68	- 2 12.9	1.312	2.149	19.5	19.9
<b>223179</b>	2003 AO <sub>5</sub>		4 13.6 11°07	4°0/10.5	17		<b>267351</b>	2001 WM <sub>55</sub>		4 13.6 197°44	0°9/14.5	17	
3 12	13 47.61	- 3 36.7	1.251	2.140	15.6	19.3	3 12	13 51.89	-14 26.2	2.187	3.020	12.1	21.9
3 22	13 44.01	- 2 30.5	1.196	2.143	11.2	19.0	3 22	13 46.36	-13 57.8	2.102	3.017	9.0	21.7
4 1	13 37.95	- 1 16.9	1.163	2.146	6.6	18.8	4 1	13 39.06	-13 16.7	2.043	3.014	5.4	21.5
4 11	13 30.42	- 0 5.2	1.155	2.151	4.1	18.6	4 11	13 30.67	-12 25.8	2.011	3.010	1.7	21.2
4 21	13 22.66	+ 0 55.1	1.170	2.156	7.0	18.8	4 21	13 22.01	-11 29.4	2.008	3.006	2.8	21.3
5 1	13 15.94	+ 1 36.1	1.209	2.163	11.5	19.1	5 1	13 13.96	-10 33.2	2.034	3.001	6.6	21.5
5 11	13 11.27	+ 1 53.6	1.269	2.170	15.8	19.4	5 11	13 7.30	- 9 42.7	2.086	2.995	10.1	21.7
5 21	13 9.19	+ 1 47.2	1.346	2.179	19.3	19.6	5 21	13 2.52	- 9 2.0	2.162	2.989	13.2	21.9
<b>38088</b>	1999 JS <sub>1</sub>		4 13.6 272°44	0°6/13.1	17		<b>42815</b>	1999 LH <sub>32</sub>		4 13.6 148°05	0°8/14.4	18	
3 12	13 50.46	-12 14.5	1.562	2.421	14.8	18.8	3 12	13 54.34	-13 57.8	1.933	2.769	13.3	19.9
3 22	13 46.02	-11 9.3	1.471	2.402	10.9	18.5	3 22	13 48.21	-13 29.8	1.863	2.779	9.8	19.7
4 1	13 39.17	- 9 45.1	1.403	2.382	6.3	18.2	4 1	13 40.12	-12 48.3	1.817	2.789	5.9	19.5
4 11	13 30.71	- 8 7.5	1.361	2.363	1.3	17.8	4 11	13 30.88	-11 57.0	1.798	2.798	1.7	19.2
4 21	13 21.71	- 6 25.3	1.346	2.343	4.3	18.0	4 21	13 21.47	-11 0.9	1.808	2.806	3.0	19.3
5 1	13 13.41	- 4 48.8	1.358	2.322	9.4	18.2	5 1	13 12.87	-10 6.0	1.847	2.813	7.1	19.6
5 11	13 6.89	- 3 27.4	1.394	2.302	14.2	18.4	5 11	13 5.91	- 9 18.4	1.911	2.820	10.9	19.8
5 21	13 2.86	- 2 27.1	1.449	2.281	18.2	18.6	5 21	13 1.09	- 8 42.2	1.998	2.826	14.1	20.1
<b>192969</b>	2000 DH <sub>10</sub>		4 13.6 180°33	4°0/10.3	18		<b>177382</b>	2004 BW <sub>62</sub>		4 13.6 352°37	0°3/13.8	17	
3 12	13 53.33	- 3 5.8	1.545	2.416	14.2	20.9	3 12	13 50.44	-11 6.5	1.243	2.116	16.8	19.6
3 22	13 47.84	- 1 49.4	1.480	2.417	10.2	20.6	3 22	13 46.34	-11 0.6	1.174	2.111	12.4	19.3
4 1	13 40.05	- 0 26.0	1.439	2.418	6.2	20.4	4 1	13 39.46	-10 40.5	1.127	2.107	7.3	19.0
4 11	13 30.86	+ 0 55.8	1.425	2.418	4.0	20.3	4 11	13 30.79	-10 10.0	1.102	2.103	1.7	18.6
4 21	13 21.42	+ 2 7.3	1.437	2.418	6.7	20.4	4 21	13 21.66	- 9 35.3	1.102	2.101	4.1	18.8
5 1	13 12.90	+ 3 0.8	1.475	2.417	10.9	20.6	5 1	13 13.51	- 9 3.7	1.125	2.099	9.7	19.1
5 11	13 6.28	+ 3 32.1	1.536	2.416	14.8	20.9	5 11	13 7.58	- 8 42.2	1.171	2.099	14.6	19.4
5 21	13 2.12	+ 3 40.3	1.616	2.414	18.2	21.1	5 21	13 4.54	- 8 35.2	1.235	2.099	18.8	19.6
<b>505617</b>	2014 ER <sub>47</sub>		4 13.6 13°28	0°7/13.0	17		<b>275112</b>	2009 VP <sub>47</sub>		4 13.6 283°85	1°5/12.3	17	
3 12	13 51.59	- 7 39.2	2.085	2.938	11.8	20.9	3 12	13 50.42	- 8 7.9	1.742	2.605	13.3	20.9
3 22	13 46.14	- 7 35.3	2.011	2.939	8.5	20.6	3 22	13 45.77	- 7 23.1	1.652	2.586	9.7	20.6
4 1	13 38.91	- 7 25.4	1.962	2.941	4.9	20.4	4 1	13 38.94	- 6 27.2	1.586	2.567	5.5	20.3
4 11	13 30.61	- 7 12.3	1.941	2.942	1.1	20.1	4 11	13 30.68	- 5 25.2	1.547	2.548	1.6	20.0
4 21	13 22.09	- 6 59.5	1.949	2.944	3.3	20.3	4 21	13 21.95	- 4 23.8	1.535	2.528	4.4	20.1
5 1	13 14.21	- 6 50.6	1.984	2.946	7.1	20.6	5 1	13 13.83	- 3 30.0	1.549	2.509	8.9	20.4
5 11	13 7.76	- 6 48.8	2.045	2.949	10.5	20.8	5 11	13 7.30	- 2 49.9	1.588	2.490	13.1	20.6
5 21	13 3.21	- 6 56.1	2.128	2.951	13.5	21.0	5 21	13 3.01	- 2 27.0	1.647	2.470	16.8	20.7
<b>61704</b>	2000 QN <sub>134</sub>		4 13.6 216°71	1°4/12.3	18		<b>507040</b>	2008 UP <sub>209</sub>		4 13.6 273°74	0°7/14.2	17	
3 12	13 51.60	- 7 20.5	2.187	3.039	11.4	20.5	3 12	13 51.02	-13 7.9	1.978	2.822	12.8	21.8
3 22	13 46.13	- 6 40.8	2.104	3.032	8.2	20.3	3 22	13 46.03	-12 46.7	1.882	2.803	9.5	21.5
4 1	13 38.91	- 5 53.6	2.045	3.024	4.7	20.1	4 1	13 39.03	-12 12.7	1.810	2.784	5.7	21.3
4 11	13 30.62	- 5 2.8	2.015	3.016	1.5	19.8	4 11	13 30.69	-11 28.6	1.764	2.764	1.6	20.9
4 21	13 22.05	- 4 13.7	2.015	3.007	3.8	20.0	4 21	13 21.90	-10 38.9	1.747	2.745	3.1	21.0
5 1	13 14.06	- 3 31.1	2.042	2.997	7.5	20.2	5 1	13 13.65	- 9 49.4	1.757	2.725	7.3	21.2
5 11	13 7.40	- 2 59.4	2.096	2.987	10.9	20.4	5 11	13 6.83	- 9 5.9	1.793	2.705	11.3	21.4
5 21	13 2.59	- 2 41.0	2.172	2.976	13.9	20.5	5 21	13 2.07	- 8 33.1	1.850	2.685	14.8	21.6
<b>172886</b>	2005 EU <sub>281</sub>		4 13.6 7°61	7°0/ 9.4	18		<b>346020</b>	2007 TD <sub>298</sub>		4 13.6 98°17	0°8/14.4	17	
3 12	13 52.03	+ 3 56.3	1.152	2.043									

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4 13.6

4 13.7

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>393294</b>	2013 <i>YO</i> <sub>58</sub>		4 13.6 306°72	6°4/ 7.0	17		<b>18257</b>	4209 <i>T</i> <sub>-2</sub>		4 13.6 339°19	1°1/12.7	18	
3 12	13 49.04	+ 6 53.3	1.976	2.847	11.6	20.5	3 12	13 49.93	- 7 16.0	1.949	2.809	12.2	18.5
3 22	13 44.36	+ 8 7.7	1.914	2.843	8.9	20.3	3 22	13 45.11	- 6 58.3	1.872	2.804	8.8	18.3
4 1	13 37.92	+ 9 18.5	1.877	2.838	6.8	20.1	4 1	13 38.42	- 6 33.7	1.819	2.799	5.0	18.1
4 11	13 30.44	+10 18.2	1.867	2.834	6.6	20.1	4 11	13 30.58	- 6 6.0	1.793	2.794	1.3	17.8
4 21	13 22.76	+11 0.9	1.883	2.830	8.4	20.2	4 21	13 22.46	- 5 39.5	1.795	2.790	3.7	17.9
5 1	13 15.76	+11 22.3	1.925	2.826	11.1	20.4	5 1	13 14.98	- 5 18.7	1.824	2.786	7.7	18.2
5 11	13 10.18	+11 21.2	1.989	2.822	13.8	20.5	5 11	13 8.96	- 5 7.5	1.878	2.782	11.3	18.4
5 21	13 6.50	+10 58.8	2.071	2.818	16.3	20.7	5 21	13 4.90	- 5 8.1	1.954	2.779	14.4	18.6
<b>151713</b>	2003 <i>BK</i> <sub>40</sub>		4 13.6 259°46	9°0/ 4.5	17		<b>419667</b>	2010 <i>TT</i> <sub>141</sub>		4 13.6 208°68	2°6/16.0	17	
3 12	13 50.96	+12 17.2	1.740	2.608	13.0	19.7	3 12	13 52.63	-19 2.8	1.890	2.713	14.1	21.9
3 22	13 45.98	+13 55.8	1.684	2.602	10.6	19.6	3 22	13 47.23	-18 42.2	1.804	2.709	10.9	21.6
4 1	13 38.93	+15 25.7	1.653	2.596	9.2	19.5	4 1	13 39.72	-18 3.3	1.741	2.704	7.1	21.4
4 11	13 30.66	+16 37.1	1.647	2.590	9.4	19.5	4 11	13 30.87	-17 8.2	1.705	2.699	3.4	21.1
4 21	13 22.16	+17 22.8	1.666	2.584	11.3	19.6	4 21	13 21.67	-16 1.5	1.696	2.693	3.4	21.1
5 1	13 14.47	+17 38.7	1.708	2.577	14.0	19.7	5 1	13 13.18	-14 49.9	1.715	2.687	7.2	21.3
5 11	13 8.44	+17 25.0	1.770	2.571	16.6	19.9	5 11	13 6.32	-13 41.0	1.761	2.680	11.0	21.6
5 21	13 4.61	+16 44.8	1.848	2.564	18.9	20.0	5 21	13 1.69	-12 41.3	1.828	2.673	14.5	21.8
<b>140670</b>	2001 <i>UY</i> <sub>48</sub>		4 13.6 185°35	4°3/ 8.7	18		<b>367855</b>	2011 <i>CG</i> <sub>36</sub>		4 13.6 131°31	1°0/14.6	18	
3 12	13 49.72	+ 4 4.8	2.543	3.404	9.7	20.0	3 12	13 54.13	-14 20.3	2.242	3.070	12.0	21.8
3 22	13 44.49	+ 4 53.9	2.476	3.404	7.2	19.9	3 22	13 47.80	-14 1.3	2.175	3.087	8.9	21.6
4 1	13 37.86	+ 5 41.4	2.436	3.403	5.0	19.7	4 1	13 39.80	-13 30.9	2.133	3.103	5.3	21.4
4 11	13 30.42	+ 6 22.4	2.425	3.403	4.4	19.7	4 11	13 30.85	-12 51.7	2.120	3.119	1.7	21.2
4 21	13 22.85	+ 6 52.7	2.442	3.402	5.9	19.8	4 21	13 21.80	-12 7.8	2.136	3.134	2.7	21.3
5 1	13 15.81	+ 7 9.2	2.487	3.400	8.4	19.9	5 1	13 13.48	-11 23.9	2.181	3.148	6.2	21.6
5 11	13 9.92	+ 7 10.6	2.556	3.399	10.8	20.1	5 11	13 6.60	-10 45.0	2.254	3.161	9.5	21.8
5 21	13 5.57	+ 6 56.8	2.647	3.397	13.0	20.2	5 21	13 1.61	-10 14.5	2.350	3.174	12.4	22.0
<b>461931</b>	2006 <i>SY</i> <sub>161</sub>		4 13.6 280°02	1°2/12.6	17		<b>389738</b>	2011 <i>SB</i> <sub>111</sub>		4 13.6 264°10	4°5/18.2	17	
3 12	13 50.59	- 9 34.5	1.577	2.441	14.4	21.7	3 12	13 50.48	-24 37.8	2.285	3.076	13.0	20.9
3 22	13 46.06	- 8 43.1	1.492	2.426	10.5	21.5	3 22	13 45.49	-24 46.5	2.191	3.067	10.5	20.7
4 1	13 39.18	- 7 37.6	1.431	2.411	6.0	21.2	4 1	13 38.66	-24 37.7	2.120	3.059	7.7	20.5
4 11	13 30.76	- 6 23.6	1.395	2.396	1.5	20.8	4 11	13 30.65	-24 11.3	2.075	3.050	5.2	20.3
4 21	13 21.86	- 5 8.9	1.385	2.380	4.5	21.0	4 21	13 22.28	-23 29.5	2.057	3.041	4.6	20.3
5 1	13 13.68	- 4 1.9	1.402	2.365	9.4	21.2	5 1	13 14.45	-22 36.7	2.066	3.032	6.6	20.4
5 11	13 7.26	- 3 10.0	1.443	2.349	13.9	21.4	5 11	13 7.98	-21 38.9	2.102	3.023	9.4	20.5
5 21	13 3.27	- 2 37.2	1.503	2.334	17.8	21.7	5 21	13 3.42	-20 42.2	2.162	3.014	12.3	20.7
<b>289414</b>	2005 <i>CM</i> <sub>75</sub>		4 13.6 3°44	0°5/13.4	17		<b>215984</b>	2005 <i>SO</i> <sub>37</sub>		4 13.6 306°88	0°8/14.4	17	
3 12	13 50.63	- 9 30.3	1.134	2.015	17.5	20.2	3 12	13 50.82	-12 19.2	2.263	3.103	11.5	19.9
3 22	13 46.60	- 9 20.3	1.073	2.014	12.8	19.9	3 22	13 45.58	-12 18.6	2.180	3.099	8.5	19.7
4 1	13 39.65	- 8 57.1	1.032	2.014	7.4	19.6	4 1	13 38.63	-12 8.9	2.122	3.095	5.1	19.5
4 11	13 30.86	- 8 25.6	1.013	2.015	1.5	19.2	4 11	13 30.64	-11 52.0	2.091	3.091	1.5	19.3
4 21	13 21.66	- 7 52.6	1.018	2.017	4.6	19.5	4 21	13 22.37	-11 31.1	2.089	3.087	2.7	19.3
5 1	13 13.59	- 7 26.0	1.046	2.020	10.3	19.8	5 1	13 14.65	-11 10.0	2.115	3.083	6.3	19.6
5 11	13 7.89	- 7 12.2	1.096	2.024	15.4	20.1	5 11	13 8.23	-10 52.6	2.168	3.080	9.7	19.8
5 21	13 5.22	- 7 14.6	1.163	2.029	19.6	20.4	5 21	13 3.59	-10 42.1	2.244	3.076	12.6	19.9
<b>283555</b>	2001 <i>UV</i> <sub>230</sub>		4 13.6 162°99	2°5/10.3	17		<b>299357</b>	2005 <i>SB</i> <sub>252</sub>		4 13.6 129°07	3°2/16.9	18	
3 12	13 48.26	- 2 4.5	2.891	3.747	8.8	22.4	3 12	13 52.74	-20 40.4	2.634	3.432	11.3	21.1
3 22	13 43.29	- 1 10.3	2.822	3.752	6.3	22.2	3 22	13 46.78	-21 0.6	2.554	3.440	8.8	20.9
4 1	13 37.12	- 0 13.6	2.782	3.758	3.8	22.1	4 1	13 39.25	-21 8.3	2.499	3.447	6.1	20.8
4 11	13 30.27	+ 0 41.4	2.770	3.763	2.5	22.0	4 11	13 30.77	-21 3.8	2.471	3.455	3.8	20.6
4 21	13 23.32	+ 1 30.7	2.789	3.767	4.1	22.1	4 21	13 22.06	-20 48.9	2.472	3.462	3.5	20.6
5 1	13 16.84	+ 2 10.8	2.837	3.771	6.6	22.2	5 1	13 13.89	-20 26.6	2.503	3.468	5.6	20.7
5 11	13 11.35	+ 2 39.1	2.911	3.774	9.1	22.4	5 11	13 6.95	-20 1.1	2.561	3.475	8.3	20.9
5 21	13 7.20	+ 2 54.6	3.008	3.777	11.2	22.6	5 21	13 1.69	-19 36.5	2.644	3.481	10.7	21.1
<b>320626</b>	2008 <i>CN</i> <sub>45</sub>		4 13.6 52°28	2°0/12.2	17		<b>3476</b>	Dongguan		4 13.6 109°99	3°7/10.0	18	
3 12	13 52.77	- 6 21.7	1.430	2.302	15.1	21.1	3 12	13 53.82	+ 3 25.3	2.565	3.418	9.9	17.2
3 22	13 47.50	- 5 48.1	1.375	2.313	10.9	20.9	3 22	13 47.32	+ 3 45.5	2.509	3.434	7.2	17.0
4 1	13 39.87	- 5 6.2	1.343	2.324	6.1	20.6	4 1	13 39.42	+ 4 3.3	2.480	3.449	4.8	16.9
4 11	13 30.87	- 4 22.3	1.335	2.335	2.1	20.4	4 11	13 30.79	+ 4 15.1	2.480	3.465	3.7	16.8
4 21	13 21.72	- 3 43.0	1.354	2.347	5.0	20.6	4 21	13 22.11	+ 4 17.9	2.510	3.479	5.2	16.9
5 1	13 13.62	- 3 14.5	1.398	2.359	9.6	20.9	5 1	13 14.09	+ 4 9.6	2.569	3.494	7.7	17.1
5 11	13 7.55	- 3 1.2	1.465	2.371	13.8	21.2	5 11	13 7.32	+ 3 49.6	2.654	3.508	10.1	17.3
5 21	13 4.00	- 3 4.6	1.552	2.383	17.3	21.5	5 21	13 2.18	+ 3 18.2	2.761	3.522	12.3	17.5
<b>107117</b>	2001 <i>AC</i> <sub>39</sub>		4 13.6 142°91	0°7/13.0	18		<b>359999</b>	2012 <i>XX</i> <sub>10</sub>		4 13.6 98°91	1°0/12.5	17	
3 12	13 53.92	-10 3.9	1.866	2.716	13.2	20.1	3 12	13 49.62	- 7 51.4	2.406	3.257	10.5	22.2
3 22	13 47.92	- 9 22.9	1.800	2.726	9.5	19.9	3 22	13 44.44	- 7 16.3	2.345	3.273	7.5	22.1
4 1	13 39.97	- 8 31.2	1.759	2.736	5.4	19.7	4 1	13 37.84	- 6 34.9	2.310	3.289	4.2	21.9
4 11	13 30.89	- 7 33.6	1.745	2.746	1.1	19.4	4 11	13 30.46	- 5 51.0	2.303	3.304	1.2	21.7
4 21	13 21.65	- 6 36.0	1.759	2.755	3.6	19.6	4 21	13 23.00	- 5 8.8	2.326	3.319	3.2	21.9
5 1	13 13.25	- 5 44.6	1.802	2.763	7.8	19.8	5 1	13 16.17	- 4 32.5	2.377	3.334	6.4	22.1
5 11	13 6.51	- 5 4.4	1.870	2.771	11.5	20.1	5 11	13 10.56	- 4 5.3	2.455	3.349	9.4	22.3
5 21	13 1.91	- 4 38.6	1.960	2.777	14.7	20.3	5 21	13 6.55	- 3 49.3	2.556	3.364	11.9	22.5
<b>304067</b>	2006 <i>FT</i> <sub>34</sub>		4 13.6 6°24	0°6/13.9	18		<b>405106</b>	2002 <i>CE</i> <sub>60</sub>		4 13.7 65°14	4°6/16.8	18</	



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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>175290</b>	2005 <i>LK</i> <sub>21</sub>		4 13.7 357°64		0°1/13.7 17		<b>466426</b>	2013 <i>TG</i> <sub>32</sub>		4 13.7 234°76		1°6/12.0 17	
3 12	13 49.17	-11 34.4	1.222	2.097	16.9	20.2	3 12	13 52.36	-6 33.5	2.235	3.086	11.2	22.5
3 22	13 45.42	-11 9.4	1.156	2.094	12.4	20.0	3 22	13 46.75	-5 51.8	2.143	3.071	8.1	22.3
4 1	13 38.95	-10 27.8	1.111	2.092	7.2	19.7	4 1	13 39.37	-5 2.7	2.077	3.055	4.6	22.0
4 11	13 30.76	-9 35.1	1.089	2.090	1.6	19.3	4 11	13 30.85	-4 10.5	2.039	3.039	1.7	21.8
4 21	13 22.16	-8 38.7	1.091	2.090	4.2	19.5	4 21	13 21.99	-3 20.2	2.031	3.022	3.9	21.9
5 1	13 14.58	-7 47.6	1.117	2.090	9.8	19.8	5 1	13 13.64	-2 36.9	2.052	3.004	7.6	22.1
5 11	13 9.20	-7 9.7	1.165	2.092	14.7	20.1	5 11	13 6.58	-2 4.9	2.098	2.985	11.1	22.3
5 21	13 6.64	-6 49.6	1.231	2.094	18.9	20.3	5 21	13 1.36	-1 46.7	2.167	2.966	14.1	22.4
<b>286190</b>	2001 <i>UH</i> <sub>61</sub>		4 13.7 253°72		1°4/14.6 16		<b>406458</b>	2007 <i>TS</i> <sub>435</sub>		4 13.7 196°66		0°7/14.3 16	
3 12	13 54.79	-14 8.7	1.502	2.351	15.8	21.4	3 12	13 54.36	-13 33.6	1.973	2.809	13.1	22.3
3 22	13 49.33	-14 0.7	1.418	2.341	11.9	21.1	3 22	13 48.37	-13 7.9	1.889	2.807	9.7	22.1
4 1	13 41.19	-13 36.5	1.356	2.330	7.3	20.8	4 1	13 40.35	-12 29.0	1.830	2.803	5.8	21.8
4 11	13 31.27	-12 58.7	1.319	2.319	2.4	20.5	4 11	13 31.07	-11 40.0	1.799	2.799	1.6	21.5
4 21	13 20.76	-12 12.2	1.309	2.307	3.7	20.5	4 21	13 21.46	-10 45.8	1.796	2.794	3.0	21.6
5 1	13 11.06	-11 24.1	1.324	2.296	8.8	20.8	5 1	13 12.55	-9 52.3	1.822	2.788	7.2	21.9
5 11	13 3.36	-10 42.2	1.363	2.284	13.5	21.0	5 11	13 5.21	-9 5.5	1.874	2.782	11.1	22.1
5 21	12 58.40	-10 12.4	1.423	2.272	17.6	21.3	5 21	13 0.00	-8 29.8	1.948	2.775	14.4	22.3
<b>308414</b>	2005 <i>SY</i> <sub>108</sub>		4 13.7 231°25		0°1/13.5 17		<b>191732</b>	2004 <i>RD</i> <sub>310</sub>		4 13.7 186°17		0°9/14.6 18	
3 12	13 47.70	-11 28.0	2.902	3.739	9.3	21.5	3 12	13 50.95	-14 40.4	2.342	3.172	11.5	20.7
3 22	13 43.03	-10 46.1	2.807	3.727	6.8	21.3	3 22	13 45.60	-14 10.4	2.259	3.172	8.5	20.5
4 1	13 37.07	-9 55.5	2.740	3.715	3.9	21.1	4 1	13 38.63	-13 28.3	2.201	3.172	5.2	20.2
4 11	13 30.34	-8 59.2	2.701	3.702	0.8	20.8	4 11	13 30.69	-12 37.0	2.171	3.170	1.6	20.0
4 21	13 23.39	-8 0.9	2.693	3.689	2.4	21.0	4 21	13 22.52	-11 40.6	2.171	3.169	2.6	20.1
5 1	13 16.84	-7 5.0	2.714	3.675	5.5	21.1	5 1	13 14.93	-10 44.3	2.199	3.167	6.1	20.3
5 11	13 11.24	-6 15.5	2.763	3.661	8.3	21.3	5 11	13 8.62	-9 53.4	2.255	3.164	9.5	20.5
5 21	13 7.00	-5 35.2	2.836	3.646	10.8	21.5	5 21	13 4.06	-9 11.6	2.334	3.161	12.3	20.7
<b>10329</b>	1991 <i>GJ</i> <sub>1</sub>		4 13.7 54°78		2°2/12.4 18		<b>310905</b>	2003 <i>SO</i> <sub>42</sub>		4 13.7 223°13		5°8/18.8 16	
3 12	13 57.83	-3 38.1	1.506	2.371	14.9	17.0	3 12	13 56.05	-27 17.0	2.065	2.839	14.8	21.5
3 22	13 51.08	-3 43.6	1.450	2.384	10.8	16.8	3 22	13 49.86	-27 33.3	1.966	2.828	12.2	21.3
4 1	13 41.92	-3 45.9	1.418	2.397	6.2	16.5	4 1	13 41.37	-27 28.6	1.889	2.816	9.3	21.0
4 11	13 31.37	-3 49.0	1.412	2.411	2.3	16.3	4 11	13 31.32	-27 1.4	1.836	2.803	6.7	20.9
4 21	13 20.67	-3 56.6	1.432	2.425	4.8	16.5	4 21	13 20.73	-26 13.0	1.811	2.789	5.9	20.8
5 1	13 11.08	-4 12.1	1.480	2.439	9.3	16.8	5 1	13 10.76	-25 8.5	1.814	2.775	7.8	20.9
5 11	13 3.60	-4 37.7	1.551	2.454	13.3	17.1	5 11	13 2.45	-23 55.3	1.843	2.760	10.8	21.0
5 21	12 58.75	-5 14.0	1.643	2.468	16.7	17.3	5 21	12 56.47	-22 41.8	1.896	2.743	13.9	21.2
<b>173629</b>	2001 <i>FC</i> <sub>69</sub>		4 13.7 337°85		1°4/12.7 18		<b>125079</b>	2001 <i>UY</i> <sub>8</sub>		4 13.7 55°28		0°6/13.3 18	
3 12	13 51.94	-7 38.6	1.372	2.245	15.6	19.7	3 12	13 58.30	-7 53.5	1.211	2.081	17.4	19.7
3 22	13 47.23	-7 14.9	1.301	2.239	11.3	19.4	3 22	13 51.89	-8 2.9	1.159	2.095	12.7	19.5
4 1	13 39.94	-6 40.8	1.253	2.234	6.5	19.1	4 1	13 42.57	-8 3.0	1.129	2.109	7.2	19.2
4 11	13 30.99	-6 1.7	1.228	2.229	1.7	18.8	4 11	13 31.54	-7 57.7	1.123	2.124	1.5	18.9
4 21	13 21.61	-5 24.3	1.230	2.225	4.8	19.0	4 21	13 20.33	-7 51.8	1.142	2.139	4.5	19.1
5 1	13 13.16	-4 55.3	1.256	2.221	9.9	19.3	5 1	13 10.48	-7 50.6	1.185	2.154	9.9	19.5
5 11	13 6.75	-4 40.4	1.304	2.218	14.5	19.5	5 11	13 3.17	-7 58.5	1.252	2.170	14.6	19.8
5 21	13 3.05	-4 42.3	1.371	2.215	18.4	19.8	5 21	12 58.95	-8 18.1	1.337	2.186	18.5	20.1
<b>500069</b>	2011 <i>UC</i> <sub>406</sub>		4 13.7 176°66		2°3/10.7 17		<b>62420</b>	2000 <i>SH</i> <sub>184</sub>		4 13.7 244°41		2°3/11.6 18	
3 12	13 48.38	-2 14.5	2.964	3.819	8.6	22.6	3 12	13 52.05	-4 39.3	1.899	2.761	12.4	20.0
3 22	13 43.39	-1 32.7	2.891	3.821	6.2	22.4	3 22	13 46.71	-4 2.7	1.821	2.754	8.9	19.8
4 1	13 37.21	-0 48.6	2.846	3.822	3.7	22.2	4 1	13 39.41	-3 20.2	1.767	2.747	5.2	19.6
4 11	13 30.36	-0 5.9	2.830	3.823	2.3	22.1	4 11	13 30.87	-2 36.8	1.741	2.739	2.4	19.4
4 21	13 23.37	+0 32.0	2.844	3.824	3.8	22.2	4 21	13 22.02	-1 58.0	1.743	2.731	4.7	19.5
5 1	13 16.84	+1 1.7	2.886	3.824	6.4	22.4	5 1	13 13.85	-1 29.0	1.771	2.723	8.6	19.7
5 11	13 11.26	+1 21.1	2.956	3.824	8.8	22.6	5 11	13 7.20	-1 13.5	1.825	2.715	12.3	19.9
5 21	13 6.99	+1 29.0	3.048	3.823	10.9	22.7	5 21	13 2.62	-1 13.3	1.899	2.707	15.5	20.1
<b>469266</b>	2016 <i>JY</i> <sub>30</sub>		4 13.7 335°20		0°5/14.1 17		<b>86252</b>	1999 <i>TG</i> <sub>186</sub>		4 13.7 299°18		6°4/19.5 18	
3 12	13 46.61	-15 49.0	1.497	2.354	15.4	20.6	3 12	13 52.03	-28 54.7	2.293	3.058	13.8	19.0
3 22	13 43.21	-14 35.8	1.419	2.346	11.4	20.3	3 22	13 46.81	-29 34.6	2.194	3.044	11.5	18.8
4 1	13 37.54	-12 59.8	1.363	2.339	6.8	20.0	4 1	13 39.56	-29 56.3	2.116	3.031	9.1	18.6
4 11	13 30.47	-11 7.1	1.332	2.333	1.7	19.7	4 11	13 30.93	-29 57.9	2.064	3.017	7.1	18.5
4 21	13 23.05	-9 7.4	1.328	2.327	3.7	19.8	4 21	13 21.79	-29 39.7	2.038	3.004	6.4	18.4
5 1	13 16.46	-7 12.1	1.351	2.322	8.7	20.1	5 1	13 13.13	-29 4.6	2.038	2.991	7.6	18.5
5 11	13 11.65	-5 31.8	1.397	2.317	13.3	20.3	5 11	13 5.88	-28 18.4	2.064	2.977	10.0	18.6
5 21	13 9.22	-4 13.2	1.464	2.313	17.2	20.6	5 21	13 0.68	-27 27.5	2.114	2.964	12.6	18.7
<b>375280</b>	2008 <i>HA</i> <sub>68</sub>		4 13.7 234°69		4°4/ 8.3 18		<b>276838</b>	2004 <i>RP</i> <sub>13</sub>		4 13.7 294°66		5°1/ 8.4 17	
3 12	13 50.79	+1 58.4	2.392	3.254	10.2	21.4	3 12	13 47.83	-0 54.2	1.674	2.553	12.9	20.6
3 22	13 45.49	+3 20.2	2.308	3.237	7.5	21.2	3 22	13 43.92	+0 50.4	1.595	2.535	9.4	20.4
4 1	13 38.59	+4 44.3	2.250	3.219	5.2	21.0	4 1	13 37.92	+2 42.6	1.540	2.517	6.2	20.1
4 11	13 30.68	+6 4.3	2.221	3.201	4.6	21.0	4 11	13 30.57	+4 32.8	1.512	2.499	5.2	20.0
4 21	13 22.47	+7 14.0	2.222	3.182	6.4	21.0	4 21	13 22.83	+6 11.0	1.512	2.481	7.9	20.1
5 1	13 14.74	+8 8.1	2.251	3.162	9.3	21.2	5 1	13 15.73	+7 28.4	1.536	2.463	11.7	20.3
5 11	13 8.19	+8 43.7	2.304	3.141	12.1	21.3	5 11	13 10.21	+8 19.9	1.583	2.445	15.4	20.5
5 21	13 3.30	+8 59.8	2.378	3.119	14.5	21.5	5 21	13 6.86	+8 44.1	1.648	2.427	18.6	20.7
<b>52945</b>	1998 <i>SQ</i> <sub>142</sub>		4 13.7 64°46		3°4/11.3 18		<b>328307</b>	2008 <i>HT</i> <sub>17</sub>		4 13.7 273°97		7°2/ 7.4 17	
3 12	13 53.96	-4 43.6											

EPHEMERIDES

4 13.7

4 13.7

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>391016</b>	2005 <i>SF</i> <sub>195</sub>		4 13.7 256°26	1°3/12.0	18		<b>389709</b>	2011 <i>RJ</i> <sub>9</sub>		4 13.7 218°58	4°2/17.8	17	
3 12	13 47.28	- 8 43.5	2.552	3.403	10.0	21.1	3 12	13 53.78	-23 36.9	2.629	3.412	11.7	21.0
3 22	13 42.89	- 7 35.6	2.459	3.387	7.2	20.9	3 22	13 47.72	-24 5.8	2.534	3.406	9.4	20.8
4 1	13 37.07	- 6 18.2	2.392	3.371	4.1	20.7	4 1	13 39.93	-24 20.8	2.463	3.400	6.9	20.6
4 11	13 30.37	- 4 56.0	2.354	3.354	1.3	20.5	4 11	13 31.02	-24 21.5	2.420	3.393	4.8	20.5
4 21	13 23.42	- 3 34.4	2.346	3.337	3.4	20.6	4 21	13 21.74	-24 8.8	2.405	3.386	4.3	20.4
5 1	13 16.90	- 2 19.1	2.368	3.320	6.8	20.8	5 1	13 12.92	-23 45.6	2.419	3.379	6.1	20.5
5 11	13 11.45	- 1 14.8	2.416	3.302	9.8	21.0	5 11	13 5.33	-23 16.3	2.460	3.372	8.6	20.7
5 21	13 7.49	- 0 24.8	2.487	3.284	12.5	21.1	5 21	12 59.48	-22 45.8	2.526	3.364	11.2	20.8
<b>523547</b>	2017 <i>VH</i> <sub>11</sub>		4 13.7 113°04	1°7/11.9	17		<b>335803</b>	2007 <i>HK</i> <sub>59</sub>		4 13.7 302°30	0°8/14.4	17	
3 12	13 51.50	- 4 48.3	2.357	3.211	10.6	21.5	3 12	13 47.64	-15 44.0	1.692	2.541	14.3	20.9
3 22	13 45.85	- 4 25.2	2.293	3.222	7.6	21.3	3 22	13 43.88	-14 45.8	1.599	2.522	10.7	20.6
4 1	13 38.70	- 3 58.2	2.254	3.233	4.3	21.1	4 1	13 37.97	-13 27.0	1.528	2.502	6.5	20.3
4 11	13 30.70	- 3 30.8	2.244	3.243	1.7	20.9	4 11	13 30.62	-11 52.0	1.483	2.483	1.9	20.0
4 21	13 22.58	- 3 7.0	2.263	3.253	3.7	21.1	4 21	13 22.83	-10 8.1	1.465	2.464	3.4	20.0
5 1	13 15.10	- 2 50.0	2.311	3.263	6.9	21.3	5 1	13 15.67	- 8 24.9	1.475	2.445	8.2	20.3
5 11	13 8.89	- 2 42.5	2.385	3.273	9.9	21.5	5 11	13 10.11	- 6 52.0	1.509	2.427	12.6	20.5
5 21	13 4.36	- 2 45.8	2.482	3.282	12.5	21.7	5 21	13 6.81	- 5 36.4	1.564	2.408	16.5	20.7
<b>36366</b>	2000 <i>OA</i> <sub>10</sub>		4 13.7 297°83	2°5/15.4	18		<b>135471</b>	2001 <i>WL</i> <sub>12</sub>		4 13.7 128°75	2°1/11.7	17	
3 12	13 52.00	-16 30.0	1.342	2.195	17.1	19.0	3 12	13 51.39	- 6 11.1	1.942	2.802	12.3	20.0
3 22	13 47.67	-16 25.3	1.253	2.175	13.1	18.6	3 22	13 46.06	- 5 16.0	1.879	2.811	8.8	19.8
4 1	13 40.45	-16 0.2	1.185	2.156	8.4	18.3	4 1	13 38.94	- 4 13.7	1.841	2.820	5.0	19.6
4 11	13 31.17	-15 16.2	1.140	2.138	3.6	18.0	4 11	13 30.80	- 3 10.0	1.831	2.829	2.1	19.4
4 21	13 21.13	-14 18.2	1.120	2.119	4.2	18.0	4 21	13 22.52	- 2 10.9	1.849	2.838	4.5	19.6
5 1	13 11.83	-13 14.6	1.125	2.100	9.4	18.2	5 1	13 15.00	- 1 22.2	1.894	2.846	8.2	19.8
5 11	13 4.67	-12 15.5	1.152	2.082	14.6	18.4	5 11	13 8.99	- 0 47.9	1.965	2.854	11.6	20.1
5 21	13 0.48	-11 28.8	1.198	2.065	19.1	18.6	5 21	13 4.95	- 0 29.9	2.057	2.861	14.6	20.3
<b>221328</b>	2005 <i>VV</i> <sub>117</sub>		4 13.7 189°29	5°5/ 7.4	17		<b>354846</b>	2005 <i>YU</i> <sub>130</sub>		4 13.7 57°50	2°8/15.6	18	
3 12	13 50.24	+ 4 0.9	2.081	2.949	11.2	20.6	3 12	13 54.00	-17 11.1	1.283	2.133	17.9	20.9
3 22	13 45.17	+ 5 32.4	2.018	2.949	8.4	20.5	3 22	13 48.85	-17 7.6	1.222	2.143	13.6	20.7
4 1	13 38.41	+ 7 3.4	1.982	2.947	6.1	20.3	4 1	13 40.91	-16 43.0	1.182	2.152	8.6	20.4
4 11	13 30.65	+ 8 26.2	1.973	2.946	5.7	20.3	4 11	13 31.26	-16 0.0	1.165	2.162	3.8	20.2
4 21	13 22.71	+ 9 34.1	1.992	2.944	7.6	20.4	4 21	13 21.32	-15 4.7	1.173	2.172	4.1	20.2
5 1	13 15.42	+10 21.9	2.038	2.941	10.4	20.6	5 1	13 12.55	-14 5.8	1.206	2.182	8.9	20.5
5 11	13 9.51	+10 47.5	2.106	2.938	13.2	20.7	5 11	13 6.11	-13 12.4	1.262	2.192	13.6	20.8
5 21	13 5.43	+10 51.3	2.194	2.935	15.6	20.9	5 21	13 2.61	-12 31.5	1.337	2.202	17.6	21.1
<b>305853</b>	2009 <i>EV</i> <sub>9</sub>		4 13.7 135°32	0°1/13.6	18		<b>6980</b>	Kyusakamoto		4 13.7 258°17	1°7/12.1	18	R
3 12	13 53.96	-11 54.7	1.700	2.550	14.2	21.4	3 12	13 50.27	- 6 23.0	2.020	2.880	11.9	16.9
3 22	13 48.16	-11 12.5	1.635	2.560	10.4	21.2	3 22	13 45.32	- 5 45.5	1.943	2.876	8.5	16.7
4 1	13 40.22	-10 16.8	1.594	2.570	6.0	20.9	4 1	13 38.58	- 5 0.9	1.891	2.871	4.9	16.5
4 11	13 31.04	- 9 12.6	1.579	2.580	1.2	20.6	4 11	13 30.75	- 4 14.0	1.867	2.866	1.8	16.3
4 21	13 21.68	- 8 6.4	1.592	2.589	3.6	20.8	4 21	13 22.65	- 3 29.8	1.870	2.862	4.1	16.4
5 1	13 13.25	- 7 5.6	1.633	2.597	8.1	21.1	5 1	13 15.19	- 2 53.6	1.902	2.857	7.9	16.6
5 11	13 6.61	- 6 16.3	1.698	2.605	12.1	21.4	5 11	13 9.13	- 2 29.3	1.958	2.852	11.4	16.8
5 21	13 2.29	- 5 42.3	1.785	2.613	15.5	21.6	5 21	13 4.98	- 2 19.2	2.035	2.848	14.4	17.0
<b>255688</b>	2006 <i>QJ</i> <sub>59</sub>		4 13.7 281°65	1°1/12.8	17		<b>171223</b>	2005 <i>JY</i> <sub>132</sub>		4 13.7 236°26	4°6/ 8.8	18	
3 12	13 51.98	- 9 13.8	1.556	2.419	14.6	21.0	3 12	13 49.58	+ 3 10.1	2.215	3.082	10.7	20.1
3 22	13 47.22	- 8 35.3	1.467	2.400	10.7	20.7	3 22	13 44.65	+ 4 7.1	2.147	3.079	7.9	20.0
4 1	13 39.97	- 7 43.6	1.400	2.380	6.1	20.4	4 1	13 38.12	+ 5 3.4	2.105	3.075	5.4	19.8
4 11	13 31.05	- 6 43.8	1.359	2.361	1.5	20.0	4 11	13 30.64	+ 5 53.2	2.090	3.071	4.7	19.7
4 21	13 21.55	- 5 42.7	1.345	2.341	4.5	20.2	4 21	13 22.98	+ 6 31.3	2.104	3.067	6.5	19.8
5 1	13 12.71	- 4 48.3	1.357	2.321	9.5	20.4	5 1	13 15.91	+ 6 53.9	2.144	3.063	9.2	20.0
5 11	13 5.68	- 4 7.5	1.392	2.301	14.2	20.6	5 11	13 10.11	+ 6 59.1	2.208	3.059	12.0	20.2
5 21	13 1.18	- 3 44.7	1.447	2.281	18.2	20.8	5 21	13 6.04	+ 6 46.8	2.292	3.054	14.5	20.3
<b>472303</b>	2014 <i>WK</i> <sub>493</sub>		4 13.7 96°33	7°1/21.1	17		<b>127667</b>	2003 <i>DH</i> <sub>20</sub>		4 13.7 267°66	7°8/19.4	18	
3 12	13 52.32	-31 50.5	1.917	2.677	16.2	20.9	3 12	13 57.10	-30 8.7	2.018	2.776	15.6	18.9
3 22	13 47.11	-31 57.9	1.841	2.686	13.6	20.8	3 22	13 50.99	-31 4.0	1.910	2.754	13.3	18.7
4 1	13 39.70	-31 39.1	1.786	2.696	10.8	20.6	4 1	13 42.27	-31 39.2	1.824	2.732	10.7	18.5
4 11	13 30.95	-30 53.2	1.753	2.705	8.2	20.5	4 11	13 31.62	-31 50.4	1.762	2.709	8.6	18.3
4 21	13 21.96	-29 43.0	1.747	2.715	7.1	20.4	4 21	13 20.12	-31 36.5	1.725	2.686	7.8	18.2
5 1	13 13.85	-28 14.9	1.766	2.724	8.2	20.5	5 1	13 9.07	-30 59.9	1.715	2.662	9.2	18.2
5 11	13 7.54	-26 38.1	1.811	2.733	10.7	20.6	5 11	12 59.70	-30 7.3	1.730	2.639	11.9	18.3
5 21	13 3.59	-25 1.8	1.880	2.742	13.4	20.8	5 21	12 52.87	-29 7.2	1.768	2.614	14.8	18.5
<b>35446</b>	Stáňa		4 13.7 336°90	6°9/ 9.3	18		<b>375939</b>	2009 <i>WH</i> <sub>88</sub>		4 13.7 271°99	0°8/12.9	17	
3 12	13 47.82	+ 1 39.1	1.027	1.929	17.0	17.4	3 12	13 50.47	- 9 39.0	1.817	2.674	13.1	21.6
3 22	13 44.93	+ 2 36.6	0.959	1.909	12.7	17.1	3 22	13 45.63	- 8 59.6	1.743	2.673	9.5	21.4
4 1	13 38.95	+ 3 36.4	0.911	1.891	8.6	16.8	4 1	13 38.82	- 8 9.3	1.693	2.672	5.4	21.1
4 11	13 30.87	+ 4 27.2	0.884	1.873	7.0	16.6	4 11	13 30.81	- 7 12.9	1.669	2.671	1.2	20.8
4 21	13 22.11	+ 4 58.3	0.878	1.858	10.0	16.7	4 21	13 22.54	- 6 16.4	1.674	2.669	3.7	21.0
5 1	13 14.33	+ 5 1.3	0.893	1.844	14.9	16.9	5 1	13 14.99	- 5 26.2	1.705	2.668	8.0	21.3
5 11	13 8.96	+ 4 33.3	0.926	1.832	19.7	17.1	5 11	13 9.01	- 4 47.4	1.761	2.667	11.8	21.5
5 21	13 6.78	+ 3 36.1	0.974	1.822	24.0	17.4	5 21	13 5.13	- 4 23.5	1.839	2.666	15.1	21.7
<b>331358</b>	2012 <i>CZ</i> <sub>53</sub>		4 13.7 73°08	2°7/11.6	18		<b>87244</b>	2000 <i>OT</i> <sub>46</sub>		4 13.7 240°09	4°0/ 9.		

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>159346</b>	2006 <i>SM</i> <sub>212</sub>		4 13.7 342°07		3°1/16.1 18		<b>497103</b>	2004 <i>BO</i> <sub>160</sub>		4 13.7 189°59		1°5/11.8 18	
3 12	13 52.84	-17 52.0	2.025	2.848	13.3	19.8	3 12	13 48.89	-6 8.8	2.839	3.689	9.1	21.9
3 22	13 47.36	-18 18.4	1.941	2.845	10.3	19.6	3 22	13 43.87	-5 22.2	2.760	3.687	6.5	21.7
4 1	13 39.86	-18 31.6	1.881	2.841	6.9	19.4	4 1	13 37.58	-4 30.3	2.707	3.685	3.7	21.5
4 11	13 31.05	-18 32.0	1.847	2.838	3.7	19.1	4 11	13 30.55	-3 36.8	2.684	3.683	1.5	21.4
4 21	13 21.87	-18 21.5	1.841	2.836	3.7	19.1	4 21	13 23.36	-2 45.8	2.692	3.680	3.3	21.5
5 1	13 13.30	-18 3.9	1.863	2.833	6.8	19.3	5 1	13 16.63	-2 1.2	2.728	3.677	6.2	21.7
5 11	13 6.24	-17 44.0	1.911	2.831	10.3	19.5	5 11	13 10.89	-1 26.1	2.792	3.673	8.8	21.9
5 21	13 1.28	-17 26.8	1.981	2.829	13.4	19.7	5 21	13 6.54	-1 2.5	2.879	3.668	11.2	22.0
<b>474902</b>	2005 <i>SM</i> <sub>188</sub>		4 13.7 306°49		0°4/14.1 17		<b>23694</b>	1997 <i>KZ</i> <sub>3</sub>		4 13.7 259°14		2°0/ 9.9 18	
3 12	13 51.89	-10 52.3	2.255	3.097	11.5	21.1	3 12	13 42.94	+ 0 36.7	4.418	5.275	6.0	18.7
3 22	13 46.42	-10 56.8	2.170	3.091	8.4	20.9	3 22	13 39.24	+ 1 5.2	4.343	5.272	4.3	18.6
4 1	13 39.20	-10 53.5	2.111	3.085	5.0	20.7	4 1	13 34.81	+ 1 33.7	4.296	5.269	2.7	18.5
4 11	13 30.90	-10 44.5	2.079	3.080	1.3	20.4	4 11	13 29.95	+ 2 0.2	4.279	5.267	2.0	18.4
4 21	13 22.30	-10 32.4	2.077	3.075	2.7	20.5	4 21	13 25.01	+ 2 22.5	4.291	5.264	3.0	18.5
5 1	13 14.25	-10 20.7	2.103	3.069	6.4	20.7	5 1	13 20.32	+ 2 38.7	4.333	5.261	4.7	18.6
5 11	13 7.49	-10 13.1	2.155	3.064	9.8	20.9	5 11	13 16.21	+ 2 47.7	4.401	5.258	6.4	18.7
5 21	13 2.56	-10 12.2	2.230	3.059	12.8	21.1	5 21	13 12.93	+ 2 48.7	4.494	5.256	7.9	18.8
<b>458974</b>	2011 <i>WG</i> <sub>56</sub>		4 13.7 67°18		2°0/12.3 18		<b>465076</b>	2006 <i>SG</i> <sub>365</sub>		4 13.7 236°64		1°8/15.2 17	
3 12	13 56.12	-6 26.5	1.347	2.216	16.0	21.4	3 12	13 54.37	-16 10.4	2.054	2.880	13.0	22.5
3 22	13 49.91	-5 53.6	1.304	2.240	11.5	21.2	3 22	13 48.51	-15 57.8	1.956	2.865	9.9	22.3
4 1	13 41.25	-5 12.7	1.284	2.265	6.4	21.0	4 1	13 40.57	-15 30.7	1.882	2.849	6.3	22.0
4 11	13 31.31	-4 30.3	1.289	2.289	2.2	20.8	4 11	13 31.24	-14 51.0	1.835	2.832	2.6	21.8
4 21	13 21.39	-3 53.2	1.321	2.314	5.0	21.0	4 21	13 21.44	-14 2.2	1.817	2.814	3.1	21.8
5 1	13 12.77	-3 27.3	1.378	2.338	9.7	21.4	5 1	13 12.19	-13 10.0	1.827	2.796	7.0	22.0
5 11	13 6.38	-3 16.7	1.457	2.363	13.9	21.7	5 11	13 4.41	-12 20.4	1.864	2.777	10.9	22.2
5 21	13 2.67	-3 22.4	1.557	2.387	17.3	22.0	5 21	12 58.75	-11 39.0	1.924	2.757	14.3	22.3
<b>303236</b>	2004 <i>PJ</i> <sub>40</sub>		4 13.7 200°45		2°3/15.5 17		<b>424664</b>	2008 <i>RA</i> <sub>43</sub>		4 13.7 152°53		0°4/13.3 17	
3 12	13 56.89	-16 53.5	1.941	2.763	13.8	21.5	3 12	13 51.58	-10 3.9	2.090	2.938	12.0	21.7
3 22	13 50.36	-16 51.1	1.853	2.759	10.5	21.3	3 22	13 46.20	-9 37.2	2.016	2.942	8.7	21.5
4 1	13 41.62	-16 33.8	1.790	2.754	6.8	21.1	4 1	13 39.07	-9 1.3	1.968	2.945	5.0	21.2
4 11	13 31.44	-16 2.8	1.753	2.748	3.0	20.8	4 11	13 30.89	-8 20.0	1.947	2.949	1.0	21.0
4 21	13 20.85	-15 21.8	1.745	2.742	3.4	20.8	4 21	13 22.50	-7 37.6	1.955	2.952	3.1	21.1
5 1	13 10.96	-14 36.1	1.766	2.734	7.2	21.0	5 1	13 14.79	-6 59.2	1.991	2.955	7.0	21.4
5 11	13 2.73	-13 52.2	1.812	2.726	11.1	21.3	5 11	13 8.49	-6 29.3	2.053	2.957	10.5	21.6
5 21	12 56.80	-13 15.4	1.882	2.717	14.5	21.5	5 21	13 4.08	-6 10.6	2.138	2.959	13.5	21.8
<b>377417</b>	2004 <i>TX</i> <sub>116</sub>		4 13.7 124°91		1°7/15.6 17		<b>74733</b>	1999 <i>RV</i> <sub>178</sub>		4 13.7 222°69		0°7/13.1 16	
3 12	13 50.88	-18 14.5	2.269	3.089	12.2	21.6	3 12	13 54.39	-9 23.4	2.019	2.866	12.4	20.9
3 22	13 45.52	-17 30.5	2.199	3.104	9.2	21.4	3 22	13 48.43	-8 52.3	1.930	2.855	9.1	20.6
4 1	13 38.58	-16 31.4	2.154	3.118	5.8	21.2	4 1	13 40.47	-8 11.2	1.866	2.843	5.2	20.4
4 11	13 30.75	-15 20.5	2.137	3.133	2.4	21.0	4 11	13 31.22	-7 24.2	1.830	2.831	1.1	20.0
4 21	13 22.82	-14 2.7	2.149	3.146	2.6	21.0	4 21	13 21.58	-6 36.1	1.823	2.818	3.5	20.2
5 1	13 15.60	-12 44.4	2.190	3.159	6.0	21.3	5 1	13 12.55	-5 52.4	1.844	2.804	7.7	20.4
5 11	13 9.74	-11 31.5	2.259	3.172	9.2	21.5	5 11	13 5.00	-5 18.4	1.891	2.790	11.5	20.6
5 21	13 5.67	-10 29.0	2.351	3.184	12.1	21.7	5 21	12 59.53	-4 57.2	1.961	2.775	14.8	20.8
<b>346178</b>	2007 <i>WZ</i> <sub>17</sub>		4 13.7 240°24		2°7/10.7 17		<b>497570</b>	2006 <i>DK</i> <sub>176</sub>		4 13.7 254°18		0°4/13.4 17	
3 12	13 50.32	-2 7.6	2.456	3.314	10.1	21.5	3 12	13 51.41	-10 0.5	1.931	2.783	12.7	21.8
3 22	13 45.13	-1 25.0	2.370	3.301	7.3	21.3	3 22	13 46.27	-9 37.6	1.853	2.780	9.2	21.6
4 1	13 38.41	-0 39.1	2.311	3.288	4.4	21.1	4 1	13 39.20	-9 4.8	1.799	2.777	5.3	21.3
4 11	13 30.74	+ 0 5.7	2.280	3.274	2.7	21.0	4 11	13 30.93	-8 26.0	1.772	2.773	1.1	21.0
4 21	13 22.80	+ 0 44.8	2.279	3.260	4.6	21.1	4 21	13 22.38	-7 45.8	1.773	2.770	3.3	21.2
5 1	13 15.34	+ 1 14.2	2.306	3.246	7.6	21.2	5 1	13 14.49	-7 9.4	1.802	2.766	7.5	21.4
5 11	13 9.03	+ 1 31.0	2.359	3.231	10.6	21.4	5 11	13 8.10	-6 41.8	1.855	2.763	11.2	21.6
5 21	13 4.32	+ 1 34.0	2.433	3.216	13.2	21.5	5 21	13 3.76	-6 26.0	1.931	2.759	14.5	21.8
<b>292271</b>	2006 <i>SN</i> <sub>111</sub>		4 13.7 194°75		3°6/17.9 18		<b>129826</b>	1999 <i>NM</i> <sub>56</sub>		4 13.7 186°37		4°4/18.9 18	
3 12	13 50.37	-23 45.3	2.710	3.496	11.3	21.6	3 12	13 51.97	-26 47.5	2.533	3.303	12.4	20.0
3 22	13 45.15	-23 43.3	2.619	3.494	9.0	21.4	3 22	13 46.42	-26 40.1	2.441	3.303	10.1	19.8
4 1	13 38.41	-23 26.3	2.551	3.492	6.5	21.2	4 1	13 39.18	-26 14.4	2.373	3.302	7.5	19.6
4 11	13 30.73	-22 55.0	2.511	3.489	4.2	21.1	4 11	13 30.92	-25 30.8	2.331	3.301	5.2	19.5
4 21	13 22.82	-22 11.7	2.499	3.486	3.7	21.1	4 21	13 22.41	-24 31.9	2.318	3.299	4.5	19.4
5 1	13 15.40	-21 20.3	2.517	3.483	5.6	21.2	5 1	13 14.48	-23 22.2	2.333	3.296	6.1	19.5
5 11	13 9.13	-20 25.7	2.562	3.479	8.1	21.3	5 11	13 7.86	-22 8.2	2.376	3.293	8.7	19.7
5 21	13 4.46	-19 33.0	2.631	3.475	10.6	21.5	5 21	13 3.01	-20 55.7	2.444	3.289	11.3	19.8
<b>21250</b>	Kamikouchi		4 13.7 174°73		4°5/ 9.4 18		<b>425079</b>	2009 <i>RX</i> <sub>70</sub>		4 13.7 101°63		0°5/13.2 15	
3 12	13 53.12	+ 3 21.8	2.206	3.067	11.0	19.5	3 12	13 52.61	-10 30.3	1.992	2.839	12.5	22.3
3 22	13 47.17	+ 4 4.4	2.141	3.069	8.1	19.4	3 22	13 46.87	-9 50.2	1.935	2.860	9.0	22.1
4 1	13 39.56	+ 4 45.5	2.101	3.070	5.5	19.2	4 1	13 39.38	-9 0.1	1.903	2.880	5.1	21.9
4 11	13 30.97	+ 5 19.6	2.089	3.072	4.5	19.1	4 11	13 30.95	-8 4.8	1.899	2.900	1.1	21.7
4 21	13 22.23	+ 5 42.4	2.106	3.072	6.2	19.2	4 21	13 22.46	-7 9.6	1.923	2.919	3.2	21.9
5 1	13 14.15	+ 5 50.6	2.151	3.073	9.1	19.4	5 1	13 14.80	-6 20.1	1.976	2.938	7.1	22.1
5 11	13 7.45	+ 5 42.6	2.219	3.073	11.9	19.6	5 11	13 8.67	-5 40.8	2.055	2.957	10.6	22.4
5 21	13 2.57	+ 5 19.1	2.309	3.072	14.3	19.8	5 21	13 4.51	-5 14.5	2.156	2.975	13.5	22.6
<b>246792</b>	2009 <i>DD</i> <sub>106</sub>		4 13.7 98°26		3°1/10.4 18		<b>262205</b>	2006 <i>SV</i> <sub>205</sub>		4 13.7 247°17		1°9/12.0 17	
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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>77502</b>	2001 <i>HJ</i> <sub>44</sub>		4 13.7 296°48	2°5/11.9	18		<b>195519</b>	2002 <i>JN</i> <sub>7</sub>		4 13.7 6°62	2°6/11.2	17	
3 12	13 52.82	- 5 7.7	1.519	2.389	14.4	19.5	3 12	13 47.99	- 6 23.3	1.644	2.516	13.4	19.8
3 22	13 47.78	- 4 35.7	1.442	2.379	10.5	19.2	3 22	13 43.97	- 5 10.9	1.578	2.517	9.6	19.5
4 1	13 40.29	- 3 56.2	1.388	2.368	6.1	19.0	4 1	13 37.93	- 3 48.7	1.536	2.517	5.5	19.3
4 11	13 31.22	- 3 15.0	1.359	2.358	2.5	18.7	4 11	13 30.69	- 2 24.2	1.520	2.518	2.6	19.1
4 21	13 21.69	- 2 38.5	1.357	2.348	5.3	18.9	4 21	13 23.22	- 1 5.6	1.531	2.520	5.3	19.3
5 1	13 12.96	- 2 13.0	1.380	2.338	10.0	19.1	5 1	13 16.54	- 0 0.5	1.569	2.521	9.5	19.5
5 11	13 6.10	- 2 3.2	1.426	2.328	14.3	19.3	5 11	13 11.49	+ 0 45.7	1.629	2.523	13.3	19.7
5 21	13 1.77	- 2 10.9	1.491	2.319	18.0	19.5	5 21	13 8.58	+ 1 10.8	1.709	2.526	16.6	20.0
<b>501161</b>	2013 <i>TH</i> <sub>79</sub>		4 13.7 197°85	1°1/14.8	17		<b>468769</b>	2011 <i>PP</i> <sub>14</sub>		4 13.7 280°25	4°5/ 8.8	17	
3 12	13 53.00	-14 35.2	2.403	3.229	11.4	23.3	3 12	13 49.12	+ 1 23.5	2.090	2.959	11.1	21.1
3 22	13 47.14	-14 17.0	2.314	3.225	8.5	23.1	3 22	13 44.55	+ 2 32.5	2.006	2.940	8.2	20.9
4 1	13 39.61	-13 47.4	2.252	3.221	5.2	22.9	4 1	13 38.22	+ 3 43.9	1.948	2.920	5.5	20.7
4 11	13 31.04	-13 8.7	2.217	3.216	1.8	22.7	4 11	13 30.77	+ 4 51.2	1.917	2.901	4.6	20.6
4 21	13 22.20	-12 24.5	2.212	3.210	2.6	22.7	4 21	13 22.97	+ 5 47.8	1.914	2.881	6.7	20.7
5 1	13 13.90	-11 39.3	2.237	3.204	6.1	23.0	5 1	13 15.71	+ 6 28.5	1.938	2.862	9.8	20.9
5 11	13 6.89	-10 57.9	2.289	3.197	9.4	23.1	5 11	13 9.73	+ 6 49.9	1.985	2.842	12.9	21.0
5 21	13 1.63	-10 24.2	2.365	3.189	12.3	23.3	5 21	13 5.58	+ 6 51.4	2.052	2.822	15.7	21.2
<b>82086</b>	2001 <i>CE</i> <sub>32</sub>		4 13.7 229°98	13°1/ 7.9	18		<b>217892</b>	2001 <i>RR</i> <sub>119</sub>		4 13.7 189°17	0°4/13.3	17	
3 12	14 9.88	+18 24.0	1.218	2.065	18.8	19.2	3 12	13 53.42	- 9 41.6	2.347	3.187	11.1	21.8
3 22	14 0.71	+19 6.7	1.159	2.059	15.9	19.0	3 22	13 47.42	- 9 14.4	2.265	3.187	8.1	21.6
4 1	13 47.90	+19 26.5	1.120	2.053	13.6	18.8	4 1	13 39.76	- 8 38.8	2.209	3.185	4.6	21.3
4 11	13 32.85	+19 11.1	1.105	2.046	13.2	18.7	4 11	13 31.08	- 7 58.2	2.181	3.182	1.0	21.1
4 21	13 17.46	+18 14.1	1.113	2.038	14.9	18.8	4 21	13 22.17	- 7 16.7	2.184	3.179	3.0	21.2
5 1	13 3.67	+16 36.5	1.143	2.030	18.1	19.0	5 1	13 13.84	- 6 38.8	2.215	3.175	6.6	21.4
5 11	12 52.96	+14 25.9	1.195	2.022	21.5	19.2	5 11	13 6.80	- 6 8.5	2.274	3.171	9.9	21.6
5 21	12 45.99	+11 52.5	1.262	2.013	24.6	19.4	5 21	13 1.55	- 5 48.6	2.356	3.165	12.8	21.8
<b>383779</b>	2007 <i>VP</i> <sub>318</sub>		4 13.7 344°11	2°6/11.5	17		<b>497303</b>	2005 <i>SD</i> <sub>269</sub>		4 13.7 141°96	0°9/12.8	17	
3 12	13 50.27	- 3 39.4	1.834	2.703	12.5	20.6	3 12	13 51.60	- 9 38.7	2.038	2.888	12.2	22.5
3 22	13 45.49	- 3 10.6	1.762	2.698	9.0	20.4	3 22	13 46.21	- 8 50.4	1.969	2.896	8.8	22.3
4 1	13 38.77	- 2 37.3	1.714	2.694	5.2	20.2	4 1	13 39.08	- 7 52.4	1.927	2.905	5.0	22.1
4 11	13 30.87	- 2 4.5	1.692	2.690	2.6	20.0	4 11	13 30.93	- 6 49.4	1.911	2.912	1.2	21.8
4 21	13 22.69	- 1 37.4	1.698	2.686	4.9	20.1	4 21	13 22.63	- 5 47.0	1.925	2.920	3.5	22.0
5 1	13 15.20	- 1 20.5	1.730	2.683	8.7	20.3	5 1	13 15.05	- 4 51.3	1.967	2.927	7.4	22.2
5 11	13 9.24	- 1 17.1	1.786	2.681	12.3	20.5	5 11	13 8.93	- 4 6.9	2.035	2.933	10.9	22.5
5 21	13 5.34	- 1 28.4	1.863	2.679	15.4	20.7	5 21	13 4.73	- 3 36.8	2.125	2.939	13.8	22.7
<b>89470</b>	2001 <i>XB</i> <sub>22</sub>		4 13.7 140°21	1°6/12.6	18		<b>312563</b>	2009 <i>HO</i> <sub>2</sub>		4 13.7 3°91	3°2/11.3	17	
3 12	13 56.98	- 6 41.6	1.627	2.485	14.3	19.0	3 12	13 52.77	- 4 2.1	1.441	2.316	14.8	20.4
3 22	13 50.48	- 6 18.8	1.563	2.493	10.4	18.8	3 22	13 47.70	- 3 15.2	1.377	2.316	10.7	20.2
4 1	13 41.67	- 5 48.4	1.522	2.501	5.9	18.6	4 1	13 40.20	- 2 21.5	1.335	2.316	6.3	19.9
4 11	13 31.49	- 5 15.2	1.508	2.509	1.8	18.3	4 11	13 31.20	- 1 28.0	1.319	2.316	3.2	19.7
4 21	13 21.08	- 4 44.6	1.522	2.516	4.4	18.5	4 21	13 21.91	- 0 42.4	1.328	2.316	6.0	19.9
5 1	13 11.64	- 4 22.0	1.563	2.522	8.9	18.8	5 1	13 13.56	- 0 11.3	1.363	2.317	10.5	20.2
5 11	13 4.14	- 4 11.5	1.628	2.528	13.0	19.0	5 11	13 7.19	+ 0 1.1	1.420	2.317	14.7	20.4
5 21	12 59.12	- 4 15.2	1.714	2.534	16.4	19.3	5 21	13 3.38	- 0 6.2	1.496	2.318	18.2	20.6
<b>320341</b>	2007 <i>TC</i> <sub>152</sub>		4 13.7 152°67	0°1/13.6	18		<b>297775</b>	2001 <i>XD</i> <sub>195</sub>		4 13.7 140°10	5°3/ 6.4	18	
3 12	13 48.66	-12 33.7	2.264	3.107	11.4	20.9	3 12	13 48.82	+ 9 17.7	2.852	3.708	8.9	21.3
3 22	13 43.99	-11 40.2	2.188	3.110	8.3	20.7	3 22	13 43.75	+10 24.1	2.802	3.719	6.9	21.2
4 1	13 37.76	-10 35.1	2.138	3.114	4.8	20.5	4 1	13 37.49	+11 25.5	2.780	3.729	5.5	21.1
4 11	13 30.63	- 9 22.6	2.116	3.117	1.0	20.3	4 11	13 30.58	+12 17.0	2.786	3.739	5.5	21.1
4 21	13 23.34	- 8 8.1	2.123	3.120	2.8	20.4	4 21	13 23.60	+12 54.9	2.820	3.749	6.8	21.2
5 1	13 16.64	- 6 57.7	2.159	3.123	6.5	20.6	5 1	13 17.14	+13 16.6	2.881	3.758	8.6	21.4
5 11	13 11.21	- 5 56.5	2.222	3.125	9.8	20.8	5 11	13 11.71	+13 21.4	2.966	3.767	10.6	21.5
5 21	13 7.47	- 5 8.3	2.307	3.128	12.7	21.0	5 21	13 7.65	+13 10.1	3.071	3.775	12.3	21.7
<b>85169</b>	1989 <i>SN</i> <sub>2</sub>		4 13.7 133°65	2°3/10.5	18		<b>308001</b>	2004 <i>RS</i> <sub>102</sub>		4 13.7 268°23	0°5/14.1	16	
3 12	13 47.85	- 3 20.1	2.857	3.713	8.9	20.2	3 12	13 53.96	-13 22.3	1.596	2.445	15.0	21.7
3 22	13 43.05	- 2 15.8	2.796	3.726	6.3	20.1	3 22	13 48.80	-12 50.5	1.497	2.421	11.3	21.4
4 1	13 37.08	- 1 8.2	2.762	3.739	3.7	19.9	4 1	13 41.04	-12 1.4	1.420	2.396	6.8	21.1
4 11	13 30.47	- 0 1.9	2.757	3.751	2.3	19.8	4 11	13 31.44	-10 58.3	1.370	2.370	1.7	20.7
4 21	13 23.79	+ 0 58.9	2.783	3.762	4.0	20.0	4 21	13 21.13	- 9 47.1	1.346	2.344	3.7	20.7
5 1	13 17.60	+ 1 50.2	2.838	3.774	6.5	20.1	5 1	13 11.40	- 8 36.4	1.349	2.318	9.0	21.0
5 11	13 12.41	+ 2 29.3	2.919	3.785	9.0	20.3	5 11	13 3.48	- 7 34.6	1.376	2.290	13.9	21.2
5 21	13 8.56	+ 2 54.9	3.024	3.795	11.1	20.5	5 21	12 58.16	- 6 48.2	1.424	2.263	18.1	21.4
<b>10930</b>	Jinyong		4 13.7 214°59	2°6/10.5	18		<b>208947</b>	2002 <i>VQ</i> <sub>122</sub>		4 13.7 96°04	2°1/15.8	17	
3 12	13 48.02	- 3 24.6	2.480	3.340	9.9	18.3	3 12	13 53.29	-16 56.7	2.352	3.171	11.9	21.1
3 22	13 43.43	- 2 23.1	2.404	3.336	7.1	18.1	3 22	13 47.25	-16 58.6	2.288	3.191	8.9	20.9
4 1	13 37.42	- 1 17.1	2.354	3.331	4.2	17.9	4 1	13 39.60	-16 48.4	2.249	3.211	5.7	20.8
4 11	13 30.57	- 0 11.4	2.332	3.326	2.6	17.8	4 11	13 31.05	-16 27.9	2.237	3.231	2.7	20.6
4 21	13 23.53	+ 0 48.7	2.340	3.321	4.5	17.9	4 21	13 22.39	-16 0.0	2.255	3.251	2.8	20.6
5 1	13 16.99	+ 1 38.7	2.377	3.316	7.4	18.1	5 1	13 14.43	-15 28.7	2.301	3.270	5.8	20.8
5 11	13 11.57	+ 2 15.2	2.439	3.310	10.3	18.3	5 11	13 7.84	-14 58.4	2.375	3.289	8.8	21.1
5 21	13 7.66	+ 2 36.5	2.523	3.304	12.8	18.5	5 21	13 3.04	-14 33.1	2.472	3.308	11.5	21.3
<b>349410</b>	2007 <i>YD</i> <sub>42</sub>		4 13.7 68°08	0°8/12.9	17		<b>102947</b>	1999 <i>XS</i> <sub>53</sub>		4 13.7 135°31			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>253203</b>	2002 <i>XO</i> <sub>74</sub>		4 13.7 92°42	5°3/18.3	18		<b>122255</b>	2000 <i>OB</i> <sub>41</sub>		4 13.7 147°07	0°3/14.0	18	
3 12	13 54.50	-24 54.8	1.749	2.549	16.1	20.2	3 12	13 51.24	-13 43.3	2.473	3.303	10.9	20.0
3 22	13 48.75	-25 6.6	1.682	2.563	12.9	20.0	3 22	13 45.70	-12 50.7	2.401	3.316	8.0	19.9
4 1	13 40.72	-24 56.0	1.636	2.577	9.4	19.8	4 1	13 38.70	-11 46.8	2.355	3.328	4.7	19.7
4 11	13 31.32	-24 23.1	1.614	2.591	6.3	19.7	4 11	13 30.88	-10 35.4	2.338	3.338	1.1	19.4
4 21	13 21.68	-23 31.5	1.619	2.605	5.4	19.7	4 21	13 22.95	-9 21.5	2.351	3.349	2.5	19.6
5 1	13 12.99	-22 27.5	1.651	2.619	7.7	19.8	5 1	13 15.65	-8 10.5	2.395	3.358	6.0	19.8
5 11	13 6.20	-21 19.7	1.707	2.632	11.0	20.0	5 11	13 9.59	-7 7.5	2.466	3.367	9.1	20.0
5 21	13 1.87	-20 15.9	1.787	2.645	14.2	20.3	5 21	13 5.17	-6 16.0	2.561	3.375	11.7	20.2
<b>472471</b>	2015 <i>BL</i> <sub>459</sub>		4 13.7 204°28	3°2/10.5	17		<b>38593</b>	1999 <i>XF</i> <sub>166</sub>		4 13.7 280°93	4°9/19.2	18	R
3 12	13 50.35	- 2 45.5	1.966	2.832	11.8	21.4	3 12	13 49.92	-27 40.9	2.559	3.328	12.4	18.9
3 22	13 45.41	- 1 45.4	1.895	2.830	8.5	21.2	3 22	13 45.14	-27 41.6	2.444	3.302	10.2	18.7
4 1	13 38.68	- 0 40.5	1.850	2.829	5.1	21.0	4 1	13 38.61	-27 23.8	2.351	3.275	7.8	18.5
4 11	13 30.87	+ 0 23.0	1.833	2.827	3.2	20.9	4 11	13 30.90	-26 47.3	2.284	3.249	5.7	18.3
4 21	13 22.84	+ 1 18.8	1.843	2.824	5.5	21.0	4 21	13 22.76	-25 53.5	2.244	3.222	4.9	18.2
5 1	13 15.49	+ 2 1.6	1.881	2.822	8.9	21.2	5 1	13 15.01	-24 46.4	2.232	3.194	6.4	18.3
5 11	13 9.57	+ 2 27.6	1.942	2.820	12.3	21.4	5 11	13 8.44	-23 31.9	2.248	3.167	9.0	18.4
5 21	13 5.57	+ 2 35.8	2.025	2.817	15.2	21.6	5 21	13 3.63	-22 16.5	2.288	3.139	11.7	18.5
<b>340441</b>	2006 <i>GU</i> <sub>21</sub>		4 13.7 264°96	1°9/12.0	17		<b>129210</b>	2005 <i>NZ</i> <sub>64</sub>		4 13.7 279°33	4°3/18.2	18	
3 12	13 51.16	- 5 38.2	2.007	2.867	11.9	21.0	3 12	13 49.79	-24 22.8	2.273	3.067	13.0	20.0
3 22	13 46.06	- 5 5.9	1.927	2.859	8.6	20.8	3 22	13 45.04	-24 23.8	2.184	3.062	10.4	19.8
4 1	13 39.10	- 4 27.4	1.871	2.850	4.9	20.6	4 1	13 38.51	-24 7.0	2.117	3.058	7.6	19.6
4 11	13 30.98	- 3 47.0	1.843	2.842	1.9	20.3	4 11	13 30.87	-23 32.9	2.076	3.054	5.0	19.4
4 21	13 22.55	- 3 9.8	1.843	2.834	4.2	20.5	4 21	13 22.91	-22 43.9	2.063	3.049	4.4	19.4
5 1	13 14.74	- 2 40.7	1.870	2.825	8.0	20.7	5 1	13 15.53	-21 44.9	2.077	3.045	6.4	19.5
5 11	13 8.35	- 2 23.5	1.923	2.817	11.6	20.9	5 11	13 9.49	-20 42.2	2.118	3.040	9.3	19.7
5 21	13 3.90	- 2 20.1	1.996	2.808	14.7	21.1	5 21	13 5.33	-19 41.8	2.182	3.036	12.1	19.8
<b>426666</b>	2013 <i>TO</i> <sub>7</sub>		4 13.7 169°03	4°8/17.8	17		<b>256624</b>	2007 <i>VB</i> <sub>193</sub>		4 13.7 16°98	3°0/11.8	18	
3 12	13 55.75	-23 41.4	2.072	2.865	14.1	21.1	3 12	13 49.90	- 5 19.8	1.143	2.032	16.8	18.8
3 22	13 49.52	-24 9.1	1.990	2.867	11.3	20.9	3 22	13 45.97	- 4 39.1	1.091	2.037	12.1	18.6
4 1	13 41.16	-24 19.3	1.930	2.870	8.3	20.7	4 1	13 39.32	- 3 49.7	1.060	2.043	6.9	18.3
4 11	13 31.44	-24 11.2	1.895	2.871	5.6	20.5	4 11	13 31.05	- 2 59.5	1.052	2.051	3.0	18.1
4 21	13 21.33	-23 46.6	1.889	2.873	5.0	20.5	4 21	13 22.53	- 2 17.0	1.067	2.059	6.1	18.3
5 1	13 11.92	-23 9.6	1.910	2.874	7.2	20.6	5 1	13 15.19	- 1 49.8	1.106	2.069	11.2	18.6
5 11	13 4.12	-22 26.5	1.958	2.875	10.2	20.8	5 11	13 10.12	- 1 42.5	1.165	2.080	15.8	18.9
5 21	12 58.54	-21 43.7	2.028	2.875	13.2	21.0	5 21	13 7.88	- 1 55.8	1.242	2.092	19.6	19.2
<b>102305</b>	1999 <i>TG</i> <sub>92</sub>		4 13.7 160°00	2°4/11.8	18		<b>269525</b>	2009 <i>VB</i> <sub>27</sub>		4 13.7 89°77	0°5/14.5	17	
3 12	13 55.42	- 4 25.3	1.806	2.665	13.1	19.8	3 12	13 46.83	-13 8.0	3.216	4.046	8.7	22.1
3 22	13 49.20	- 3 53.3	1.739	2.670	9.4	19.6	3 22	13 42.26	-12 46.7	3.149	4.063	6.4	21.9
4 1	13 40.90	- 3 16.0	1.696	2.674	5.4	19.3	4 1	13 36.64	-12 18.1	3.108	4.080	3.8	21.8
4 11	13 31.36	- 2 38.6	1.680	2.678	2.4	19.1	4 11	13 30.43	-11 44.4	3.097	4.097	1.1	21.6
4 21	13 21.61	- 2 6.4	1.693	2.682	4.8	19.3	4 21	13 24.15	-11 8.4	3.115	4.113	1.9	21.7
5 1	13 12.68	- 1 44.2	1.733	2.685	8.8	19.5	5 1	13 18.31	-10 33.0	3.163	4.129	4.5	21.9
5 11	13 5.46	- 1 35.5	1.797	2.687	12.5	19.8	5 11	13 13.36	-10 1.4	3.239	4.145	7.0	22.1
5 21	13 0.48	- 1 41.6	1.883	2.689	15.6	20.0	5 21	13 9.61	- 9 35.9	3.339	4.161	9.1	22.2
<b>225598</b>	2000 <i>XN</i> <sub>21</sub>		4 13.7 118°08	3°6/10.7	18		<b>279778</b>	1999 <i>TD</i> <sub>196</sub>		4 13.7 100°50	5°4/20.5	18	
3 12	13 55.54	+ 0 50.4	2.132	2.989	11.4	20.5	3 12	13 51.34	-30 54.9	2.148	2.907	14.8	20.2
3 22	13 48.89	+ 1 17.6	2.076	3.004	8.3	20.4	3 22	13 46.09	-30 15.6	2.073	2.923	12.1	20.0
4 1	13 40.54	+ 1 44.4	2.046	3.019	5.2	20.2	4 1	13 39.03	-29 10.8	2.019	2.939	9.2	19.9
4 11	13 31.27	+ 2 6.2	2.044	3.034	3.6	20.1	4 11	13 30.96	-27 42.0	1.991	2.955	6.5	19.7
4 21	13 21.93	+ 2 19.2	2.071	3.048	5.4	20.2	4 21	13 22.81	-25 54.0	1.991	2.970	5.4	19.7
5 1	13 13.38	+ 2 20.3	2.127	3.062	8.4	20.4	5 1	13 15.53	-23 54.6	2.020	2.985	6.7	19.8
5 11	13 6.34	+ 2 8.1	2.207	3.075	11.4	20.7	5 11	13 9.83	-21 53.0	2.076	3.000	9.4	20.0
5 21	13 1.22	+ 1 42.9	2.310	3.088	13.9	20.9	5 21	13 6.16	-19 57.8	2.158	3.015	12.1	20.2
<b>157610</b>	2005 <i>WW</i> <sub>46</sub>		4 13.7 69°68	1°0/14.5	17		<b>12345</b>	1993 <i>FT</i> <sub>8</sub>		4 13.7 128°98	1°9/12.0	18	
3 12	13 51.47	-13 59.1	1.752	2.598	14.0	20.9	3 12	13 53.93	- 6 25.9	1.837	2.695	13.0	18.7
3 22	13 46.47	-13 36.7	1.680	2.602	10.4	20.7	3 22	13 48.02	- 5 40.4	1.776	2.707	9.3	18.5
4 1	13 39.39	-13 0.0	1.632	2.605	6.2	20.4	4 1	13 40.17	- 4 47.5	1.740	2.719	5.3	18.3
4 11	13 31.05	-12 12.5	1.609	2.609	1.9	20.1	4 11	13 31.21	- 3 52.8	1.731	2.730	2.0	18.1
4 21	13 22.45	-11 19.4	1.614	2.613	3.1	20.2	4 21	13 22.13	- 3 2.3	1.751	2.741	4.4	18.3
5 1	13 14.65	-10 27.4	1.646	2.617	7.5	20.5	5 1	13 13.90	- 2 21.6	1.798	2.752	8.4	18.6
5 11	13 8.52	- 9 42.5	1.703	2.621	11.5	20.8	5 11	13 7.32	- 1 54.7	1.870	2.762	12.0	18.8
5 21	13 4.61	- 9 9.5	1.782	2.625	14.9	21.0	5 21	13 2.88	- 1 43.4	1.963	2.771	15.0	19.0
<b>17418</b>	1988 <i>RT</i> <sub>12</sub>		4 13.7 245°46	0°2/13.4	18		<b>519634</b>	2012 <i>US</i> <sub>182</sub>		4 13.7 162°27	3°3/10.3	17	
3 12	13 42.11	-10 2.2	4.822	5.658	5.9	19.8	3 12	13 51.72	+ 0 48.0	2.427	3.285	10.2	22.3
3 22	13 38.66	- 9 35.9	4.729	5.649	4.2	19.7	3 22	13 46.08	+ 1 20.5	2.359	3.288	7.4	22.1
4 1	13 34.52	- 9 5.5	4.664	5.640	2.4	19.6	4 1	13 38.95	+ 1 53.0	2.318	3.291	4.7	21.9
4 11	13 29.97	- 8 32.5	4.629	5.630	0.5	19.4	4 11	13 30.95	+ 2 21.5	2.305	3.294	3.4	21.8
4 21	13 25.32	- 7 59.0	4.625	5.621	1.5	19.5	4 21	13 22.80	+ 2 41.9	2.321	3.296	5.0	21.9
5 1	13 20.90	- 7 26.9	4.651	5.611	3.4	19.6	5 1	13 15.25	+ 2 51.3	2.365	3.298	7.8	22.1
5 11	13 16.99	- 6 58.2	4.705	5.602	5.2	19.7	5 11	13 8.91	+ 2 47.9	2.435	3.300	10.5	22.3
5 21	13 13.83	- 6 34.3	4.785	5.592	6.8	19.8	5 21	13 4.22	+ 2 31.4	2.527	3.301	12.9	22.5
<b>502630</b>	2015 <i>CF</i> <sub>30</sub>		4 13.7 279°97	0°5/14.1	17		<b>467064</b>	2016 <i>DD</i> <sub>15</sub>		4 13.7 316°			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>411616</b>	2011 <i>SK</i> <sub>142</sub>		4 13.7 66°29'	0°9'/13.0	18		<b>243279</b>	2008 <i>CT</i> <sub>68</sub>		4 13.7 333°13'	6°4'/7.4	17	
3 12	13 50.98	-11 48.4	1.343	2.210	16.2	20.9	3 12	13 48.11	+ 6 12.9	1.863	2.739	11.9	19.8
3 22	13 46.50	-10 39.8	1.282	2.217	11.8	20.7	3 22	13 43.95	+ 7 20.0	1.795	2.727	9.1	19.6
4 1	13 39.54	- 9 13.5	1.243	2.224	6.7	20.4	4 1	13 37.93	+ 8 24.1	1.752	2.716	6.9	19.4
4 11	13 31.11	- 7 37.2	1.229	2.231	1.4	20.1	4 11	13 30.78	+ 9 17.8	1.734	2.706	6.5	19.4
4 21	13 22.45	- 6 0.9	1.242	2.238	4.5	20.3	4 21	13 23.35	+ 9 54.6	1.743	2.696	8.4	19.4
5 1	13 14.85	- 4 35.2	1.279	2.245	9.7	20.6	5 1	13 16.58	+10 10.3	1.776	2.686	11.3	19.6
5 11	13 9.32	- 3 28.4	1.340	2.253	14.3	20.9	5 11	13 11.26	+10 3.1	1.831	2.677	14.3	19.8
5 21	13 6.40	- 2 44.3	1.419	2.260	18.1	21.2	5 21	13 7.90	+ 9 34.3	1.904	2.669	16.9	19.9
<b>163069</b>	2002 <i>AD</i> <sub>6</sub>		4 13.7 23°37'	3°1'/15.9	18		<b>421239</b>	2013 <i>SZ</i> <sub>45</sub>		4 13.7 27°06'	6°8'/19.2	17	
3 12	13 51.99	-17 58.6	1.261	2.113	18.0	19.5	3 12	13 53.12	-27 2.5	1.602	2.400	17.4	20.5
3 22	13 47.56	-17 53.6	1.196	2.116	13.8	19.2	3 22	13 48.14	-27 32.5	1.527	2.403	14.3	20.3
4 1	13 40.31	-17 26.0	1.151	2.120	8.9	18.9	4 1	13 40.59	-27 37.6	1.472	2.406	10.9	20.1
4 11	13 31.30	-16 38.4	1.129	2.125	4.2	18.7	4 11	13 31.38	-27 16.4	1.440	2.409	7.9	20.0
4 21	13 21.90	-15 36.9	1.131	2.130	4.3	18.7	4 21	13 21.74	-26 31.0	1.433	2.413	6.9	19.9
5 1	13 13.60	-14 30.6	1.158	2.135	9.0	19.0	5 1	13 12.99	-25 27.7	1.451	2.417	8.8	20.0
5 11	13 7.59	-13 29.6	1.207	2.141	13.8	19.3	5 11	13 6.27	-24 15.9	1.493	2.421	12.0	20.2
5 21	13 4.51	-12 41.4	1.276	2.147	17.9	19.5	5 21	13 2.25	-23 4.9	1.556	2.425	15.4	20.4
<b>409069</b>	2003 <i>ST</i> <sub>237</sub>		4 13.7 212°42'	0°2'/13.9	16		<b>64132</b>	2001 <i>TO</i> <sub>27</sub>		4 13.7 293°75'	3°2'/16.9	17	
3 12	13 54.79	-12 0.1	2.040	2.878	12.6	22.3	3 12	13 49.03	-22 8.0	1.689	2.512	15.5	19.1
3 22	13 48.75	-11 35.3	1.951	2.871	9.3	22.1	3 22	13 44.95	-21 22.9	1.601	2.503	12.1	18.8
4 1	13 40.70	-10 59.0	1.888	2.862	5.5	21.8	4 1	13 38.66	-20 12.5	1.536	2.495	8.2	18.6
4 11	13 31.37	-10 14.3	1.852	2.853	1.3	21.5	4 11	13 30.96	-18 39.7	1.495	2.487	4.3	18.3
4 21	13 21.67	- 9 25.7	1.845	2.843	3.1	21.6	4 21	13 22.89	-16 50.7	1.482	2.479	3.8	18.3
5 1	13 12.60	- 8 38.7	1.867	2.832	7.3	21.8	5 1	13 15.58	-14 55.3	1.496	2.471	7.6	18.5
5 11	13 5.02	- 7 59.0	1.915	2.820	11.1	22.1	5 11	13 9.99	-13 4.3	1.535	2.463	11.8	18.7
5 21	12 59.52	- 7 30.3	1.986	2.808	14.4	22.2	5 21	13 6.73	-11 26.6	1.596	2.455	15.5	18.9
<b>458875</b>	2011 <i>UG</i> <sub>139</sub>		4 13.7 201°65'	1°4'/14.9	16		<b>259643</b>	2003 <i>WB</i> <sub>74</sub>		4 13.7 73°76'	0°7'/14.2	18	
3 12	13 54.33	-16 5.8	1.825	2.658	14.1	22.7	3 12	13 54.90	-12 49.7	1.484	2.336	15.7	20.5
3 22	13 48.60	-15 34.6	1.741	2.654	10.6	22.5	3 22	13 49.09	-12 31.8	1.430	2.355	11.6	20.2
4 1	13 40.68	-14 46.4	1.680	2.650	6.6	22.2	4 1	13 40.92	-11 59.6	1.398	2.374	6.8	20.0
4 11	13 31.37	-13 44.3	1.646	2.645	2.4	22.0	4 11	13 31.42	-11 17.2	1.392	2.392	1.8	19.7
4 21	13 21.70	-12 33.8	1.640	2.639	3.2	22.0	4 21	13 21.80	-10 30.6	1.413	2.411	3.5	19.9
5 1	13 12.77	-11 22.2	1.663	2.632	7.5	22.2	5 1	13 13.30	- 9 46.8	1.459	2.430	8.3	20.2
5 11	13 5.53	-10 17.0	1.711	2.625	11.6	22.5	5 11	13 6.85	- 9 12.0	1.530	2.448	12.5	20.5
5 21	13 0.58	- 9 23.9	1.781	2.617	15.2	22.7	5 21	13 2.96	- 8 50.2	1.622	2.466	16.0	20.8
<b>1380</b>	<i>Volodia</i>		4 13.7 326°11'	2°6'/15.9	18		<b>297018</b>	2010 <i>GM</i> <sub>11</sub>		4 13.7 277°08'	0°9'/14.4	17	
3 12	13 51.76	-16 52.8	2.088	2.915	12.8	16.5	3 12	13 53.29	-13 36.8	1.538	2.389	15.4	21.0
3 22	13 46.58	-17 10.2	2.001	2.908	9.8	16.3	3 22	13 48.38	-13 16.3	1.444	2.369	11.5	20.7
4 1	13 39.46	-17 15.2	1.938	2.901	6.4	16.0	4 1	13 40.84	-12 39.1	1.373	2.348	7.0	20.4
4 11	13 31.11	-17 8.6	1.901	2.894	3.2	15.8	4 11	13 31.48	-11 48.2	1.327	2.327	2.0	20.0
4 21	13 22.36	-16 52.5	1.892	2.888	3.3	15.8	4 21	13 21.43	-10 49.0	1.307	2.306	3.7	20.0
5 1	13 14.19	-16 31.0	1.911	2.882	6.6	16.0	5 1	13 12.04	- 9 49.5	1.313	2.284	8.9	20.3
5 11	13 7.44	-16 8.8	1.955	2.876	10.1	16.2	5 11	13 4.51	- 8 57.7	1.343	2.263	13.8	20.5
5 21	13 2.68	-15 50.4	2.023	2.870	13.2	16.4	5 21	12 59.63	- 8 20.0	1.393	2.241	18.0	20.7
<b>264691</b>	2002 <i>AZ</i> <sub>36</sub>		4 13.7 95°29'	8°2'/6.1	18		<b>138073</b>	2000 <i>DJ</i> <sub>56</sub>		4 13.7 340°73'	2°0'/12.1	17	
3 12	13 53.10	+11 35.0	1.816	2.680	12.8	20.3	3 12	13 45.62	- 7 28.2	1.385	2.268	14.8	19.3
3 22	13 47.36	+12 53.4	1.776	2.693	10.2	20.2	3 22	13 42.77	- 6 43.4	1.306	2.249	10.8	19.0
4 1	13 39.75	+14 2.1	1.760	2.706	8.4	20.1	4 1	13 37.54	- 5 46.3	1.249	2.232	6.2	18.7
4 11	13 31.13	+14 52.9	1.771	2.720	8.4	20.1	4 11	13 30.74	- 4 43.4	1.216	2.217	2.1	18.4
4 21	13 22.47	+15 20.4	1.806	2.733	10.1	20.2	4 21	13 23.46	- 3 42.8	1.208	2.202	5.2	18.6
5 1	13 14.74	+15 22.1	1.867	2.745	12.5	20.4	5 1	13 16.91	- 2 52.9	1.224	2.189	10.1	18.8
5 11	13 8.68	+14 58.9	1.948	2.758	15.0	20.6	5 11	13 12.17	- 2 20.3	1.261	2.177	14.7	19.0
5 21	13 4.73	+14 14.0	2.047	2.770	17.1	20.8	5 21	13 9.92	- 2 8.5	1.317	2.167	18.7	19.2
<b>139805</b>	2001 <i>RT</i> <sub>16</sub>		4 13.7 331°34'	1°1'/12.7	18		<b>199922</b>	2007 <i>GX</i> <sub>31</sub>		4 13.7 318°22'	8°9'/19.9	17	
3 12	13 48.64	- 8 32.4	1.918	2.778	12.4	19.4	3 12	13 52.78	-29 52.3	1.618	2.401	17.8	19.6
3 22	13 44.30	- 7 53.3	1.840	2.773	8.9	19.1	3 22	13 48.26	-30 52.9	1.524	2.384	15.2	19.3
4 1	13 38.12	- 7 4.8	1.787	2.767	5.1	18.9	4 1	13 40.92	-31 29.6	1.450	2.367	12.3	19.1
4 11	13 30.81	- 6 11.6	1.761	2.762	1.3	18.6	4 11	13 31.52	-31 38.2	1.397	2.350	9.8	18.9
4 21	13 23.22	- 5 19.2	1.763	2.757	3.8	18.8	4 21	13 21.28	-31 17.5	1.368	2.334	8.9	18.8
5 1	13 16.27	- 4 33.4	1.791	2.753	7.8	19.0	5 1	13 11.67	-30 31.0	1.363	2.319	10.3	18.9
5 11	13 10.75	- 3 59.2	1.845	2.748	11.5	19.2	5 11	13 4.06	-29 27.4	1.381	2.304	13.2	19.0
5 21	13 7.18	- 3 39.4	1.919	2.745	14.7	19.4	5 21	12 59.35	-28 16.8	1.419	2.290	16.5	19.1
<b>181216</b>	2005 <i>SY</i> <sub>252</sub>		4 13.7 163°98'	1°2'/12.3	18		<b>214777</b>	2006 <i>UQ</i> <sub>75</sub>		4 13.7 172°82'	1°1'/12.5	18	
3 12	13 49.82	- 6 9.1	2.681	3.531	9.6	20.8	3 12	13 49.47	- 7 30.5	2.331	3.184	10.7	21.5
3 22	13 44.64	- 5 44.7	2.606	3.533	6.9	20.6	3 22	13 44.58	- 6 57.1	2.256	3.185	7.7	21.3
4 1	13 38.11	- 5 15.6	2.558	3.536	3.9	20.4	4 1	13 38.16	- 6 17.1	2.207	3.185	4.4	21.1
4 11	13 30.79	- 4 45.2	2.538	3.538	1.3	20.2	4 11	13 30.82	- 5 34.3	2.185	3.186	1.3	20.9
4 21	13 23.32	- 4 16.7	2.549	3.540	3.1	20.4	4 21	13 23.30	- 4 52.9	2.193	3.186	3.3	21.0
5 1	13 16.35	- 3 53.5	2.588	3.542	6.1	20.6	5 1	13 16.34	- 4 17.4	2.229	3.186	6.8	21.3
5 11	13 10.45	- 3 38.4	2.654	3.544	8.9	20.8	5 11	13 10.59	- 3 51.4	2.291	3.187	9.9	21.5
5 21	13 6.02	- 3 32.9	2.743	3.545	11.4	20.9	5 21	13 6.50	- 3 36.9	2.375	3.187	12.6	21.6
<b>154327</b>	2002 <i>VP</i> <sub>65</sub>		4 13.7 36°95'	2°9'/15.4	18		<b>212300</b>	2005 <i>NB</i> <sub>41</sub>					

EPHEMERIDES

4 13.7

4 13.7

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>320892</b>	2008 <i>GP</i> <sub>58</sub>		4 13.7 202°98	0°4/12.9	18		<b>108249</b>	2001 <i>HY</i> <sub>45</sub>		4 13.7 299°62	5°0/10.5	18	
3 12	13 42.64	- 8 16.0	4.688	5.529	6.0	21.2	3 12	13 53.62	- 1 15.1	1.216	2.100	16.3	19.8
3 22	13 39.05	- 7 53.8	4.604	5.527	4.3	21.1	3 22	13 48.91	- 0 21.3	1.144	2.087	12.0	19.5
4 1	13 34.77	- 7 28.1	4.549	5.526	2.4	21.0	4 1	13 41.24	+ 0 38.0	1.094	2.074	7.5	19.2
4 11	13 30.08	- 7 0.7	4.523	5.524	0.6	20.8	4 11	13 31.60	+ 1 33.9	1.068	2.062	5.0	19.0
4 21	13 25.30	- 6 33.5	4.528	5.522	1.7	20.9	4 21	13 21.37	+ 2 16.8	1.066	2.049	8.0	19.2
5 1	13 20.75	- 6 8.4	4.563	5.520	3.6	21.0	5 1	13 12.10	+ 2 38.9	1.087	2.037	12.9	19.4
5 11	13 16.75	- 5 47.2	4.625	5.518	5.4	21.2	5 11	13 5.10	+ 2 36.0	1.128	2.025	17.6	19.6
5 21	13 13.53	- 5 31.2	4.713	5.516	6.9	21.3	5 21	13 1.13	+ 2 8.2	1.186	2.014	21.7	19.8
<b>114658</b>	2003 <i>FP</i> <sub>6</sub>		4 13.7 284°90	0°1/13.6	18		<b>98336</b>	2000 <i>SS</i> <sub>295</sub>		4 13.7 143°03	3°3/16.6	18	
3 12	13 49.26	-10 40.2	2.269	3.116	11.2	19.8	3 12	13 53.95	-20 32.2	1.703	2.524	15.5	19.4
3 22	13 44.60	-10 15.9	2.177	3.102	8.2	19.6	3 22	13 48.42	-20 16.0	1.629	2.531	12.0	19.2
4 1	13 38.27	- 9 42.2	2.111	3.088	4.8	19.4	4 1	13 40.61	-19 39.0	1.578	2.537	8.0	19.0
4 11	13 30.87	- 9 2.4	2.072	3.073	1.0	19.1	4 11	13 31.42	-18 43.4	1.552	2.543	4.3	18.8
4 21	13 23.16	- 8 20.4	2.062	3.059	2.9	19.2	4 21	13 21.94	-17 34.0	1.553	2.548	3.9	18.7
5 1	13 15.93	- 7 40.9	2.080	3.045	6.6	19.4	5 1	13 13.35	-16 18.6	1.581	2.553	7.5	19.0
5 11	13 9.93	- 7 8.4	2.124	3.031	10.1	19.6	5 11	13 6.62	-15 5.7	1.634	2.558	11.5	19.2
5 21	13 5.64	- 6 46.1	2.191	3.016	13.1	19.8	5 21	13 2.31	-14 2.4	1.710	2.562	15.0	19.4
<b>434865</b>	2006 <i>SO</i> <sub>269</sub>		4 13.7 181°81	0°2/14.0	18		<b>217991</b>	2001 <i>WN</i> <sub>55</sub>		4 13.7 69°42	1°2/15.4	18	
3 12	13 48.04	-13 20.8	2.867	3.698	9.6	21.3	3 12	13 46.21	-16 23.2	2.962	3.784	9.5	20.3
3 22	13 43.32	-12 31.3	2.783	3.699	7.0	21.1	3 22	13 41.96	-15 55.8	2.891	3.798	7.1	20.1
4 1	13 37.36	-11 32.0	2.726	3.699	4.1	20.9	4 1	13 36.55	-15 18.3	2.845	3.811	4.4	20.0
4 11	13 30.66	-10 26.0	2.698	3.699	1.0	20.6	4 11	13 30.50	-14 33.1	2.828	3.825	1.8	19.8
4 21	13 23.82	- 9 17.5	2.701	3.698	2.2	20.8	4 21	13 24.36	-13 43.4	2.840	3.838	2.1	19.8
5 1	13 17.43	- 8 11.0	2.734	3.697	5.3	21.0	5 1	13 18.68	-12 53.1	2.882	3.851	4.7	20.0
5 11	13 12.04	- 7 11.0	2.794	3.696	8.1	21.1	5 11	13 13.96	-12 5.9	2.951	3.865	7.3	20.2
5 21	13 8.02	- 6 20.6	2.879	3.694	10.6	21.3	5 21	13 10.54	-11 25.1	3.045	3.878	9.6	20.4
<b>428749</b>	2008 <i>SD</i> <sub>19</sub>		4 13.7 143°99	3°5/17.3	17		<b>28437</b>	1999 <i>YJ</i> <sub>16</sub>		4 13.7 315°79	4°9/16.7	18	
3 12	13 53.66	-21 47.4	2.313	3.111	12.7	22.0	3 12	13 52.41	-19 57.5	1.206	2.054	19.0	17.6
3 22	13 47.72	-21 52.4	2.235	3.121	9.9	21.9	3 22	13 48.38	-20 22.9	1.124	2.039	15.0	17.3
4 1	13 40.02	-21 41.6	2.181	3.129	6.9	21.7	4 1	13 41.15	-20 25.0	1.061	2.025	10.4	17.0
4 11	13 31.25	-21 16.0	2.154	3.137	4.2	21.5	4 11	13 31.63	-20 2.9	1.020	2.011	6.0	16.7
4 21	13 22.26	-20 38.2	2.155	3.145	3.8	21.5	4 21	13 21.25	-19 19.3	1.002	1.998	5.6	16.7
5 1	13 13.93	-19 52.6	2.185	3.152	6.1	21.7	5 1	13 11.75	-18 22.1	1.008	1.985	9.9	16.8
5 11	13 7.00	-19 4.9	2.242	3.159	9.1	21.9	5 11	13 4.64	-17 22.2	1.034	1.973	15.0	17.1
5 21	13 1.98	-18 20.2	2.322	3.165	11.9	22.1	5 21	13 0.84	-16 29.7	1.079	1.962	19.6	17.3
<b>282492</b>	2004 <i>PE</i> <sub>11</sub>		4 13.7 258°21	7°0/ 4.2	17		<b>379384</b>	2009 <i>XC</i> <sub>15</sub>		4 13.7 197°41	2°9/16.4	17	
3 12	13 47.42	+12 3.9	2.432	3.294	10.0	20.4	3 12	13 51.90	-19 22.1	2.027	2.846	13.5	21.6
3 22	13 43.07	+13 35.6	2.375	3.289	8.2	20.2	3 22	13 46.71	-19 15.9	1.944	2.845	10.4	21.4
4 1	13 37.28	+15 0.8	2.344	3.283	7.1	20.2	4 1	13 39.56	-18 53.4	1.885	2.844	6.9	21.2
4 11	13 30.65	+16 12.8	2.341	3.278	7.3	20.2	4 11	13 31.20	-18 16.1	1.851	2.843	3.7	21.0
4 21	13 23.85	+17 6.3	2.364	3.273	8.8	20.2	4 21	13 22.53	-17 27.5	1.846	2.841	3.5	20.9
5 1	13 17.58	+17 37.9	2.412	3.268	10.9	20.4	5 1	13 14.52	-16 33.1	1.868	2.839	6.7	21.1
5 11	13 12.46	+17 46.9	2.481	3.262	12.9	20.5	5 11	13 8.01	-15 39.4	1.916	2.838	10.2	21.3
5 21	13 8.89	+17 34.6	2.569	3.257	14.7	20.6	5 21	13 3.56	-14 52.0	1.988	2.836	13.4	21.5
<b>233950</b>	2009 <i>WO</i> <sub>252</sub>		4 13.7 89°09	1°0/12.3	18		<b>129447</b>	1981 <i>EP</i> <sub>33</sub>		4 13.7 351°02	0°2/13.9	18	
3 12	13 46.14	- 7 0.7	3.177	4.026	8.3	21.4	3 12	13 49.89	-13 46.4	1.320	2.185	16.6	19.9
3 22	13 41.79	- 6 26.7	3.112	4.039	5.9	21.3	3 22	13 45.92	-12 54.8	1.250	2.182	12.3	19.6
4 1	13 36.41	- 5 48.2	3.074	4.052	3.3	21.1	4 1	13 39.36	-11 42.7	1.202	2.181	7.2	19.3
4 11	13 30.45	- 5 8.4	3.066	4.066	1.1	20.9	4 11	13 31.18	-10 16.3	1.178	2.179	1.7	19.0
4 21	13 24.42	- 4 30.3	3.087	4.079	2.6	21.1	4 21	13 22.62	- 8 44.8	1.179	2.178	4.0	19.1
5 1	13 18.82	- 3 56.9	3.138	4.092	5.2	21.3	5 1	13 15.03	- 7 18.8	1.206	2.178	9.4	19.4
5 11	13 14.08	- 3 30.8	3.215	4.105	7.6	21.4	5 11	13 9.52	- 6 8.0	1.255	2.177	14.3	19.7
5 21	13 10.52	- 3 13.5	3.317	4.118	9.6	21.6	5 21	13 6.70	- 5 17.9	1.323	2.177	18.4	19.9
<b>507803</b>	2014 <i>BR</i> <sub>65</sub>		4 13.7 240°83	3°8/17.5	17		<b>384251</b>	2009 <i>DT</i> <sub>141</sub>		4 13.7 36°71	3°8/17.2	17	
3 12	13 51.42	-22 30.9	2.300	3.099	12.7	21.5	3 12	13 51.41	-21 11.9	2.030	2.842	13.7	21.2
3 22	13 46.24	-22 37.9	2.208	3.093	10.1	21.3	3 22	13 46.35	-21 23.4	1.953	2.846	10.7	21.0
4 1	13 39.25	-22 28.7	2.140	3.086	7.2	21.1	4 1	13 39.35	-21 18.3	1.898	2.850	7.5	20.8
4 11	13 31.11	-22 3.9	2.098	3.080	4.5	20.9	4 11	13 31.15	-20 57.2	1.870	2.855	4.5	20.6
4 21	13 22.62	-21 25.7	2.084	3.073	4.0	20.9	4 21	13 22.67	-20 23.0	1.868	2.860	4.1	20.6
5 1	13 14.68	-20 38.5	2.098	3.066	6.3	21.0	5 1	13 14.87	-19 40.4	1.894	2.864	6.7	20.8
5 11	13 8.07	-19 47.8	2.139	3.059	9.3	21.2	5 11	13 8.59	-18 55.5	1.946	2.869	9.9	21.0
5 21	13 3.34	-18 59.5	2.203	3.052	12.2	21.4	5 21	13 4.35	-18 14.1	2.020	2.875	12.9	21.2
<b>288365</b>	2004 <i>CH</i> <sub>13</sub>		4 13.7 18°53	4°3/17.6	18		<b>173996</b>	2001 <i>XT</i> <sub>205</sub>		4 13.7 116°38	0°1/13.6	18	
3 12	13 52.44	-22 22.2	2.066	2.870	13.8	20.4	3 12	13 48.93	-11 28.8	2.452	3.294	10.6	20.3
3 22	13 47.12	-22 43.8	1.985	2.871	10.9	20.2	3 22	13 44.10	-10 50.1	2.382	3.304	7.7	20.1
4 1	13 39.81	-22 48.8	1.926	2.872	7.8	20.0	4 1	13 37.86	-10 2.3	2.338	3.314	4.4	19.9
4 11	13 31.24	-22 37.0	1.893	2.873	5.1	19.8	4 11	13 30.81	- 9 8.9	2.322	3.323	0.9	19.7
4 21	13 22.32	-22 10.5	1.887	2.875	4.5	19.8	4 21	13 23.63	- 8 14.2	2.335	3.332	2.6	19.8
5 1	13 14.06	-21 33.7	1.908	2.876	6.9	19.9	5 1	13 17.02	- 7 23.1	2.378	3.341	6.0	20.1
5 11	13 7.31	-20 52.4	1.955	2.877	10.0	20.1	5 11	13 11.59	- 6 39.6	2.447	3.350	9.1	20.3
5 21	13 2.64	-20 12.7	2.026	2.879	12.9	20.3	5 21	13 7.74	- 6 6.6	2.540	3.359	11.7	20.5
<b>177149</b>	2003 <i>QR</i> <sub>95</sub>		4 13.7 185°43	1°3/12.6	18		<b>344823</b>	2004 <i>EN</i> <sub>11</sub>		4 13			

EPHEMERIDES

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>267190</b>	2000 QO <sub>200</sub>		4 13.7 205°58	1°1/12.6	18		<b>162066</b>	1997 MU <sub>8</sub>		4 13.8 178°53	2°0/15.9	18	
3 12	13 51.66	- 8 20.8	2.340	3.187	10.9	21.6	3 12	13 51.05	-17 59.7	2.436	3.252	11.6	20.8
3 22	13 46.22	- 7 37.4	2.256	3.182	7.9	21.4	3 22	13 45.77	-17 44.7	2.352	3.254	8.8	20.6
4 1	13 39.16	- 6 45.7	2.198	3.175	4.5	21.2	4 1	13 38.91	-17 16.4	2.293	3.254	5.7	20.4
4 11	13 31.11	- 5 50.0	2.168	3.169	1.2	21.0	4 11	13 31.07	-16 36.9	2.261	3.255	2.7	20.2
4 21	13 22.80	- 4 55.0	2.168	3.161	3.4	21.1	4 21	13 23.01	-15 49.3	2.258	3.255	2.7	20.2
5 1	13 15.04	- 4 5 8	2.197	3.153	6.9	21.3	5 1	13 15.51	-14 58.3	2.285	3.255	5.7	20.4
5 11	13 8.52	- 3 26.5	2.253	3.145	10.2	21.5	5 11	13 9.24	-14 8.9	2.338	3.254	8.9	20.6
5 21	13 3.72	- 3 0 0	2.331	3.135	13.1	21.7	5 21	13 4.68	-13 25.7	2.416	3.253	11.6	20.8
<b>160699</b>	2000 ON <sub>14</sub>		4 13.7 290°24	5°1/ 9.7	16		<b>467757</b>	2009 UJ <sub>68</sub>		4 13.8 124°82	3°7/10.9	17	
3 12	13 51.14	- 1 40.2	1.365	2.247	15.0	19.7	3 12	13 56.67	+ 0 53.6	1.958	2.816	12.2	21.5
3 22	13 46.82	- 0 18.9	1.292	2.234	11.0	19.4	3 22	13 49.94	+ 1 14.3	1.897	2.825	8.9	21.3
4 1	13 39.91	+ 1 10.1	1.241	2.220	6.9	19.1	4 1	13 41.31	+ 1 34.5	1.861	2.835	5.6	21.2
4 11	13 31.32	+ 2 37.0	1.215	2.206	5.1	19.0	4 11	13 31.59	+ 1 49.4	1.853	2.843	3.7	21.1
4 21	13 22.24	+ 3 51.4	1.214	2.193	8.0	19.1	4 21	13 21.73	+ 1 55.1	1.873	2.852	5.6	21.2
5 1	13 13.99	+ 4 44.3	1.238	2.180	12.5	19.3	5 1	13 12.71	+ 1 48.4	1.921	2.860	8.9	21.4
5 11	13 7.73	+ 5 10.6	1.282	2.166	16.8	19.5	5 11	13 5.31	+ 1 28.2	1.994	2.868	12.2	21.6
5 21	13 4.13	+ 5 9.6	1.344	2.153	20.6	19.7	5 21	13 0.02	+ 0 54.6	2.089	2.876	14.9	21.8
<b>203547</b>	2002 CY <sub>72</sub>		4 13.7 104°22	0°9/14.5	18		<b>190042</b>	2004 RW <sub>112</sub>		4 13.8 296°69	8°8/21.4	18	
3 12	13 56.25	-13 34.9	1.556	2.402	15.5	21.3	3 12	13 52.15	-33 10.7	1.796	2.553	17.3	19.7
3 22	13 50.06	-13 16.1	1.497	2.418	11.4	21.1	3 22	13 47.61	-33 46.8	1.698	2.537	14.9	19.5
4 1	13 41.52	-12 42.4	1.460	2.434	6.8	20.9	4 1	13 40.46	-33 56.5	1.619	2.520	12.3	19.3
4 11	13 31.62	-11 57.7	1.450	2.450	2.0	20.6	4 11	13 31.48	-33 36.2	1.562	2.504	9.9	19.1
4 21	13 21.58	-11 7.8	1.467	2.465	3.4	20.7	4 21	13 21.83	-32 45.5	1.528	2.488	8.8	19.0
5 1	13 12.59	-10 19.7	1.510	2.480	8.1	21.0	5 1	13 12.83	-31 29.1	1.520	2.471	9.8	19.0
5 11	13 5.64	- 9 39.8	1.579	2.495	12.3	21.3	5 11	13 5.70	-29 55.9	1.535	2.455	12.3	19.1
5 21	13 1.22	- 9 12.5	1.668	2.509	15.8	21.6	5 21	13 1.24	-28 16.6	1.572	2.440	15.3	19.3
<b>120428</b>	2128 T- <sub>3</sub>		4 13.7 270°93	0°7/14.6	18		<b>495883</b>	2004 RN <sub>221</sub>		4 13.8 182°12	5°4/20.4	17	
3 12	13 48.00	-14 25.0	2.381	3.217	11.1	19.9	3 12	13 53.29	-30 45.0	2.692	3.433	12.5	22.5
3 22	13 43.63	-13 48.2	2.289	3.205	8.3	19.7	3 22	13 47.42	-30 44.5	2.599	3.434	10.4	22.3
4 1	13 37.70	-12 59.0	2.222	3.194	5.0	19.5	4 1	13 39.87	-30 24.8	2.528	3.435	8.2	22.2
4 11	13 30.80	-12 0.6	2.183	3.183	1.5	19.2	4 11	13 31.29	-29 45.5	2.483	3.434	6.2	22.0
4 21	13 23.63	-10 57.3	2.173	3.171	2.5	19.3	4 21	13 22.47	-28 48.4	2.466	3.433	5.4	22.0
5 1	13 16.95	- 9 54.4	2.192	3.160	6.1	19.5	5 1	13 14.22	-27 37.8	2.478	3.432	6.4	22.0
5 11	13 11.43	- 8 57.2	2.237	3.148	9.4	19.7	5 11	13 7.28	-26 19.8	2.517	3.429	8.5	22.2
5 21	13 7.55	- 8 9.9	2.305	3.136	12.3	19.8	5 21	13 2.12	-25 0.8	2.582	3.426	10.8	22.3
<b>159449</b>	2000 AD <sub>224</sub>		4 13.7 211°21	2°3/16.1	18		<b>456704</b>	2007 RY <sub>244</sub>		4 13.8 206°50	2°1/11.9	16	
3 12	13 51.11	-18 24.9	2.155	2.976	12.7	19.9	3 12	13 52.92	- 7 8.0	1.721	2.582	13.5	22.4
3 22	13 46.03	-18 11.0	2.069	2.973	9.7	19.7	3 22	13 47.62	- 6 7.7	1.645	2.578	9.8	22.2
4 1	13 39.14	-17 41.8	2.008	2.970	6.3	19.5	4 1	13 40.16	- 4 57.0	1.594	2.574	5.6	21.9
4 11	13 31.12	-16 59.4	1.973	2.966	3.1	19.2	4 11	13 31.38	- 3 42.4	1.570	2.569	2.2	21.7
4 21	13 22.81	-16 7.4	1.966	2.963	3.1	19.2	4 21	13 22.27	- 2 31.3	1.574	2.564	4.9	21.8
5 1	13 15.10	-15 11.1	1.988	2.959	6.3	19.4	5 1	13 13.94	- 1 31.0	1.605	2.559	9.2	22.1
5 11	13 8.78	-14 16.6	2.036	2.955	9.8	19.6	5 11	13 7.29	- 0 47.1	1.660	2.553	13.2	22.3
5 21	13 4.38	-13 29.0	2.107	2.951	12.9	19.8	5 21	13 2.90	- 0 22.3	1.735	2.546	16.6	22.5
<b>341252</b>	2007 RP <sub>212</sub>		4 13.7 285°34	2°5/15.7	18		<b>152762</b>	1999 LS <sub>2</sub>		4 13.8 301°00	2°8/10.9	18	
3 12	13 53.87	-16 21.2	1.994	2.821	13.3	20.4	3 12	13 47.98	- 6 47.9	1.648	2.520	13.4	19.7
3 22	13 48.25	-16 39.8	1.905	2.813	10.2	20.2	3 22	13 44.18	- 5 22.8	1.564	2.503	9.7	19.4
4 1	13 40.53	-16 46.0	1.841	2.805	6.6	20.0	4 1	13 38.27	- 3 44.6	1.505	2.486	5.6	19.1
4 11	13 31.45	-16 40.3	1.803	2.797	3.2	19.7	4 11	13 30.98	- 2 1.2	1.472	2.470	2.8	18.9
4 21	13 21.93	-16 25.1	1.793	2.789	3.4	19.7	4 21	13 23.28	- 0 21.9	1.467	2.454	5.7	19.0
5 1	13 13.00	-16 4.3	1.811	2.782	6.9	19.9	5 1	13 16.23	+ 1 3.9	1.487	2.438	10.1	19.2
5 11	13 5.59	-15 43.1	1.855	2.774	10.6	20.1	5 11	13 10.78	+ 2 9.2	1.531	2.422	14.2	19.5
5 21	13 0.32	-15 26.1	1.921	2.766	13.9	20.3	5 21	13 7.54	+ 2 50.6	1.594	2.406	17.7	19.6
<b>338923</b>	2004 EK <sub>13</sub>		4 13.7 22°09	1°5/12.4	17		<b>32106</b>	2000 KD <sub>58</sub>		4 13.8 298°26	4°9/ 9.7	18	
3 12	13 50.06	- 6 46.1	1.844	2.707	12.6	20.0	3 12	13 51.12	- 0 2.6	1.570	2.447	13.7	19.4
3 22	13 45.34	- 6 17.4	1.778	2.711	9.1	19.8	3 22	13 46.60	+ 1 0.2	1.488	2.427	10.1	19.1
4 1	13 38.74	- 5 41.6	1.736	2.716	5.2	19.6	4 1	13 39.74	+ 2 7.2	1.431	2.407	6.5	18.9
4 11	13 31.03	- 5 3.4	1.720	2.720	1.6	19.4	4 11	13 31.32	+ 3 10.6	1.398	2.388	5.0	18.7
4 21	13 23.11	- 4 27.9	1.732	2.726	4.0	19.5	4 21	13 22.39	+ 4 2.3	1.392	2.368	7.5	18.8
5 1	13 15.93	- 4 0.0	1.771	2.731	8.0	19.8	5 1	13 14.15	+ 4 35.1	1.411	2.349	11.5	19.0
5 11	13 10.28	- 3 43.7	1.834	2.737	11.6	20.0	5 11	13 7.64	+ 4 45.3	1.451	2.330	15.5	19.2
5 21	13 6.64	- 3 41.0	1.919	2.743	14.7	20.2	5 21	13 3.54	+ 4 32.1	1.510	2.312	19.0	19.4
<b>68120</b>	2001 AT <sub>10</sub>		4 13.8 201°09	1°6/12.3	16		<b>192695</b>	1999 TB <sub>48</sub>		4 13.8 269°61	0°5/13.3	17	
3 12	13 53.38	- 7 53.0	1.923	2.777	12.6	20.1	3 12	13 52.15	- 9 41.3	2.017	2.866	12.3	20.9
3 22	13 47.77	- 7 1.5	1.844	2.773	9.1	19.9	3 22	13 46.97	- 9 16.3	1.921	2.847	9.0	20.7
4 1	13 40.17	- 6 0.3	1.790	2.769	5.2	19.6	4 1	13 39.81	- 8 41.4	1.849	2.827	5.2	20.4
4 11	13 31.36	- 4 54.7	1.764	2.764	1.7	19.4	4 11	13 31.33	- 8 0.1	1.805	2.807	1.1	20.1
4 21	13 22.24	- 3 51.0	1.767	2.759	4.2	19.5	4 21	13 22.39	- 7 17.0	1.790	2.786	3.4	20.2
5 1	13 13.82	- 2 55.5	1.797	2.752	8.3	19.7	5 1	13 13.96	- 6 37.5	1.802	2.765	7.6	20.4
5 11	13 6.94	- 2 13.4	1.852	2.745	12.0	20.0	5 11	13 6.93	- 6 6.5	1.840	2.744	11.5	20.6
5 21	13 2.14	- 1 47.5	1.929	2.738	15.2	20.2	5 21	13 1.91	- 5 47.8	1.899	2.723	14.9	20.8
<b>40961</b>	1999 TV <sub>247</sub>		4 13.8 191°67	1°9/11.8	18		<b>301609</b>	2010 CX <sub>217</sub>		4 13.8 257°86	4°2/ 8.6	18	
3 12	13 50.83	- 5 43.7											



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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>232771</b>	2004 <i>PV</i> <sub>56</sub>	4 13.8 196°93		6°5/21.0 17			<b>425701</b>	2011 <i>BK</i> <sub>5</sub>	4 13.8 175°95		4°4/ 9.2 15		
3 12	13 55.47	-33 2.6	2.665	3.389	13.0	22.2	3 12	13 52.56	+ 1 42.1	2.181	3.042	11.0	22.4
3 22	13 49.16	-33 26.5	2.568	3.385	11.1	22.1	3 22	13 46.90	+ 2 48.5	2.115	3.045	8.1	22.2
4 1	13 40.98	-33 31.0	2.492	3.381	9.0	21.9	4 1	13 39.57	+ 3 55.6	2.076	3.047	5.4	22.0
4 11	13 31.58	-33 14.3	2.442	3.376	7.2	21.8	4 11	13 31.28	+ 4 57.1	2.065	3.048	4.4	22.0
4 21	13 21.80	-32 37.3	2.418	3.370	6.5	21.7	4 21	13 22.81	+ 5 47.3	2.083	3.049	6.3	22.1
5 1	13 12.57	-31 43.1	2.423	3.364	7.2	21.8	5 1	13 14.99	+ 6 21.8	2.128	3.049	9.2	22.3
5 11	13 4.70	-30 37.5	2.454	3.356	9.1	21.9	5 11	13 8.54	+ 6 38.4	2.198	3.049	12.1	22.5
5 21	12 58.76	-29 27.2	2.510	3.348	11.2	22.0	5 21	13 3.90	+ 6 37.0	2.288	3.048	14.6	22.6
<b>429639</b>	2011 <i>FB</i> <sub>134</sub>	4 13.8 105°73		0°6/13.2 17			<b>519421</b>	2011 <i>UQ</i> <sub>339</sub>	4 13.8 248°84		1°5/15.6 17		
3 12	13 51.89	-10 15.1	1.893	2.745	12.9	21.9	3 12	13 48.50	-17 27.1	2.500	3.321	11.1	21.8
3 22	13 46.59	-9 34.8	1.829	2.756	9.3	21.7	3 22	13 43.97	-16 52.6	2.404	3.310	8.4	21.6
4 1	13 39.44	-8 44.0	1.790	2.768	5.3	21.5	4 1	13 37.93	-16 4.4	2.334	3.299	5.3	21.4
4 11	13 31.22	-7 47.6	1.778	2.779	1.1	21.2	4 11	13 30.93	-15 4.7	2.292	3.288	2.3	21.1
4 21	13 22.85	-6 51.1	1.794	2.790	3.4	21.4	4 21	13 23.67	-13 57.7	2.278	3.276	2.5	21.1
5 1	13 15.28	-6 0.5	1.838	2.801	7.5	21.7	5 1	13 16.89	-12 48.4	2.294	3.265	5.7	21.3
5 11	13 9.26	-5 20.9	1.907	2.812	11.1	21.9	5 11	13 11.24	-11 42.6	2.337	3.253	8.9	21.5
5 21	13 5.28	-4 55.1	1.998	2.822	14.2	22.2	5 21	13 7.18	-10 44.8	2.405	3.240	11.7	21.7
<b>9119</b>	Georgpueurbach	4 13.8 225°94		0°3/14.1 18			<b>82011</b>	2000 <i>RW</i> <sub>68</sub>	4 13.8 73°11		0°6/12.9 18		
3 12	13 49.63	-12 25.6	2.450	3.288	10.8	19.0	3 12	13 47.18	- 8 15.6	3.010	3.855	8.8	19.3
3 22	13 44.75	-11 59.9	2.364	3.282	7.9	18.8	3 22	13 42.63	- 7 51.3	2.945	3.870	6.3	19.2
4 1	13 38.34	-11 24.3	2.303	3.277	4.7	18.6	4 1	13 36.97	- 7 22.0	2.906	3.884	3.6	19.0
4 11	13 30.99	-10 41.8	2.270	3.271	1.2	18.3	4 11	13 30.70	- 6 50.3	2.897	3.898	0.9	18.8
4 21	13 23.39	- 9 56.1	2.266	3.264	2.5	18.4	4 21	13 24.33	- 6 19.3	2.917	3.912	2.4	19.0
5 1	13 16.30	- 9 11.7	2.292	3.258	6.0	18.6	5 1	13 18.43	- 5 52.0	2.967	3.926	5.2	19.2
5 11	13 10.36	- 8 32.9	2.344	3.251	9.2	18.8	5 11	13 13.46	- 5 30.9	3.044	3.940	7.7	19.3
5 21	13 6.04	- 8 3.2	2.419	3.244	12.0	19.0	5 21	13 9.74	- 5 18.0	3.144	3.954	9.9	19.5
<b>101583</b>	1999 <i>BF</i> <sub>10</sub>	4 13.8 60°10		4°4/10.0 18			<b>241905</b>	2001 <i>XW</i> <sub>259</sub>	4 13.8 94°43		3°1/11.3 18		
3 12	13 51.13	- 1 27.6	1.552	2.428	13.9	18.6	3 12	13 54.21	- 5 16.2	1.428	2.299	15.2	20.5
3 22	13 46.31	- 0 16.6	1.499	2.438	10.0	18.4	3 22	13 48.66	- 4 9.8	1.376	2.314	10.9	20.3
4 1	13 39.36	+ 0 58.0	1.470	2.448	6.2	18.2	4 1	13 40.76	- 2 55.4	1.349	2.329	6.3	20.1
4 11	13 31.21	+ 2 7.9	1.467	2.458	4.4	18.1	4 11	13 31.54	- 1 41.2	1.347	2.344	3.1	19.9
4 21	13 22.93	+ 3 5.4	1.490	2.469	6.8	18.2	4 21	13 22.23	- 0 35.8	1.371	2.359	5.9	20.1
5 1	13 15.58	+ 3 44.2	1.539	2.479	10.6	18.5	5 1	13 14.02	+ 0 13.5	1.421	2.373	10.3	20.4
5 11	13 10.03	+ 4 1.6	1.610	2.490	14.2	18.7	5 11	13 7.85	+ 0 42.3	1.493	2.387	14.3	20.7
5 21	13 6.75	+ 3 57.4	1.700	2.501	17.3	19.0	5 21	13 4.21	+ 0 49.9	1.585	2.401	17.7	20.9
<b>184725</b>	2005 <i>SE</i> <sub>170</sub>	4 13.8 236°53		3°7/17.9 16			<b>5638</b>	Deikoon	4 13.8 321°27		2°0/10.1 18		
3 12	13 50.61	-23 27.3	2.626	3.415	11.6	21.0	3 12	13 42.57	- 1 4.9	3.990	4.849	6.5	17.4
3 22	13 45.52	-23 31.7	2.530	3.407	9.2	20.8	3 22	13 39.16	- 0 23.4	3.912	4.843	4.7	17.3
4 1	13 38.82	-23 21.3	2.457	3.398	6.7	20.6	4 1	13 34.95	+ 0 19.5	3.861	4.837	2.9	17.2
4 11	13 31.11	-22 56.3	2.411	3.389	4.4	20.4	4 11	13 30.26	+ 1 0.9	3.840	4.831	2.0	17.1
4 21	13 23.09	-22 18.8	2.393	3.379	3.8	20.4	4 21	13 25.46	+ 1 38.2	3.849	4.825	3.2	17.2
5 1	13 15.53	-21 32.5	2.404	3.370	5.8	20.5	5 1	13 20.93	+ 2 9.1	3.886	4.819	5.0	17.3
5 11	13 9.13	-20 42.5	2.442	3.360	8.4	20.7	5 11	13 17.03	+ 2 31.8	3.950	4.813	6.9	17.4
5 21	13 4.37	-19 53.6	2.504	3.350	11.0	20.8	5 21	13 14.01	+ 2 45.2	4.038	4.807	8.6	17.5
<b>276998</b>	2004 <i>XE</i> <sub>52</sub>	4 13.8 155°79		6°2/ 7.1 18			<b>473226</b>	2015 <i>KG</i> <sub>145</sub>	4 13.8 336°70		2°0/12.1 17		
3 12	13 52.33	+ 8 55.8	2.267	3.126	10.8	20.1	3 12	13 52.07	- 4 9.2	1.982	2.843	12.0	20.7
3 22	13 46.64	+ 9 59.6	2.213	3.132	8.4	20.0	3 22	13 46.78	- 3 54.6	1.907	2.839	8.7	20.5
4 1	13 39.37	+10 57.7	2.185	3.138	6.6	19.9	4 1	13 39.62	- 3 36.2	1.856	2.835	5.0	20.2
4 11	13 31.21	+11 44.0	2.184	3.143	6.3	19.9	4 11	13 31.31	- 3 17.8	1.833	2.832	2.1	20.0
4 21	13 22.94	+12 13.9	2.210	3.148	7.9	20.0	4 21	13 22.72	- 3 3.4	1.837	2.828	4.2	20.2
5 1	13 15.35	+12 24.4	2.263	3.152	10.2	20.1	5 1	13 14.78	- 2 57.0	1.869	2.825	8.0	20.4
5 11	13 9.09	+12 15.1	2.339	3.156	12.6	20.3	5 11	13 8.30	- 3 1.3	1.926	2.822	11.5	20.6
5 21	13 4.59	+11 47.5	2.435	3.159	14.6	20.5	5 21	13 3.78	- 3 17.6	2.005	2.819	14.5	20.8
<b>171051</b>	2005 <i>EJ</i> <sub>109</sub>	4 13.8 57°21		2°0/15.5 18			<b>345565</b>	2006 <i>RC</i> <sub>80</sub>	4 13.8 142°27		1°1/12.5 17		
3 12	13 51.22	-17 56.9	1.360	2.209	17.2	19.6	3 12	13 49.27	- 7 44.8	2.681	3.528	9.7	21.9
3 22	13 46.72	-17 13.2	1.302	2.222	12.9	19.4	3 22	13 44.27	- 7 4.3	2.611	3.537	6.9	21.7
4 1	13 39.74	-16 6.4	1.264	2.235	8.1	19.1	4 1	13 37.97	- 6 17.8	2.568	3.546	3.9	21.6
4 11	13 31.31	-14 41.7	1.251	2.249	3.2	18.9	4 11	13 30.93	- 5 28.8	2.554	3.554	1.2	21.4
4 21	13 22.71	-13 7.7	1.263	2.263	3.6	18.9	4 21	13 23.76	- 4 41.5	2.569	3.562	3.0	21.5
5 1	13 15.22	-11 34.9	1.301	2.277	8.4	19.2	5 1	13 17.12	- 3 59.6	2.614	3.569	6.0	21.7
5 11	13 9.83	-10 13.4	1.363	2.291	13.0	19.5	5 11	13 11.55	- 3 26.6	2.686	3.576	8.8	21.9
5 21	13 7.06	- 9 9.5	1.445	2.305	16.8	19.8	5 21	13 7.43	- 3 4.5	2.781	3.583	11.2	22.1
<b>161276</b>	2003 <i>FD</i> <sub>107</sub>	4 13.8 26°56		2°5/11.4 18			<b>116507</b>	2004 <i>BL</i> <sub>26</sub>	4 13.8 53°82		1°3/12.5 18		
3 12	13 45.83	-10 17.4	1.288	2.168	15.9	18.8	3 12	13 49.80	- 7 41.5	2.013	2.872	12.0	19.8
3 22	13 42.79	- 8 19.7	1.236	2.178	11.3	18.5	3 22	13 45.06	- 7 1.9	1.944	2.875	8.6	19.6
4 1	13 37.45	- 6 4.5	1.206	2.190	6.3	18.3	4 1	13 38.58	- 6 14.5	1.899	2.878	4.9	19.4
4 11	13 30.81	- 3 43.5	1.202	2.202	2.5	18.1	4 11	13 31.07	- 5 23.8	1.881	2.881	1.5	19.2
4 21	13 24.04	- 1 30.4	1.225	2.215	5.9	18.3	4 21	13 23.37	- 4 35.1	1.892	2.885	3.7	19.3
5 1	13 18.28	+ 0 22.6	1.272	2.230	10.7	18.6	5 1	13 16.33	- 3 53.7	1.930	2.888	7.5	19.6
5 11	13 14.45	+ 1 47.7	1.342	2.245	15.0	18.9	5 11	13 10.70	- 3 23.7	1.993	2.892	11.0	19.8
5 21	13 13.00	+ 2 42.4	1.430	2.261	18.5	19.2	5 21	13 6.93	- 3 7.6	2.077	2.895	14.0	20.0
<b>199468</b>	2006 <i>DF</i> <sub>60</sub>	4 13.8 177°99		0°8/12.9 17			<b>276291</b>	2002 <i>TL</i> <sub>59</sub>	4 13.8 194°23		2°0/15.7 18		R
3 12	13 50.14	- 9 55.0	2.130	2.980									

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>213364</b>	2001 <i>TF</i> <sub>142</sub>		4 13.8	71°67'	1°5'/12.6	18	<b>423784</b>	2006 <i>FN</i> <sub>1</sub>		4 13.8	26°12'	0°3'/13.5	17
3 12	13 55.78	- 4 45.2	2.132	2.983	11.7	20.3	3 12	13 49.95	-10 56.2	1.548	2.411	14.6	20.8
3 22	13 49.11	- 4 43.0	2.080	3.006	8.4	20.2	3 22	13 45.58	-10 25.0	1.486	2.418	10.7	20.6
4 1	13 40.77	- 4 37.3	2.053	3.030	4.8	20.0	4 1	13 39.03	- 9 41.0	1.446	2.425	6.1	20.3
4 11	13 31.53	- 4 31.3	2.054	3.054	1.6	19.8	4 11	13 31.20	- 8 49.3	1.432	2.434	1.3	20.0
4 21	13 22.26	- 4 28.0	2.085	3.077	3.6	20.0	4 21	13 23.14	- 7 56.2	1.444	2.442	3.7	20.2
5 1	13 13.81	- 4 30.2	2.145	3.101	7.1	20.2	5 1	13 15.98	- 7 8.8	1.482	2.451	8.3	20.5
5 11	13 6.87	- 4 40.2	2.231	3.124	10.2	20.5	5 11	13 10.60	- 6 33.0	1.544	2.461	12.5	20.7
5 21	13 1.86	- 4 59.0	2.340	3.147	12.9	20.7	5 21	13 7.54	- 6 12.1	1.626	2.471	16.0	21.0
<b>471052</b>	2009 <i>UR</i> <sub>101</sub>		4 13.8	139°89'	3°2'/10.9	17	<b>469774</b>	2005 <i>QB</i> <sub>81</sub>		4 13.8	150°94'	3°3'/9.4	17
3 12	13 54.14	- 1 10.5	2.026	2.885	11.8	21.4	3 12	13 47.55	- 0 45.4	2.637	3.499	9.3	22.2
3 22	13 48.12	- 0 36.5	1.962	2.893	8.6	21.2	3 22	13 43.06	+ 0 28.8	2.573	3.505	6.7	22.1
4 1	13 40.31	- 0 0 7	1.924	2.900	5.2	21.0	4 1	13 37.29	+ 1 45.3	2.535	3.509	4.3	21.9
4 11	13 31.45	+ 0 31.9	1.913	2.906	3.2	20.8	4 11	13 30.80	+ 2 58.8	2.527	3.514	3.3	21.9
4 21	13 22.44	+ 0 56.7	1.931	2.913	5.2	21.0	4 21	13 24.18	+ 4 4.2	2.548	3.518	5.0	22.0
5 1	13 14.17	+ 1 9.9	1.977	2.919	8.5	21.2	5 1	13 18.06	+ 4 57.4	2.597	3.522	7.6	22.2
5 11	13 7.41	+ 1 9.1	2.047	2.924	11.7	21.4	5 11	13 12.99	+ 5 35.5	2.672	3.526	10.1	22.3
5 21	13 2.61	+ 0 54.1	2.139	2.930	14.5	21.6	5 21	13 9.33	+ 5 57.7	2.768	3.529	12.2	22.5
<b>505792</b>	2015 <i>BJ</i> <sub>303</sub>		4 13.8	12°97'	0°1'/13.7	17	<b>320533</b>	2007 <i>YY</i> <sub>63</sub>		4 13.8	154°29'	1°6'/15.2	16
3 12	13 53.84	- 9 22.4	1.892	2.743	13.0	20.7	3 12	13 54.16	-16 11.0	1.939	2.768	13.6	21.5
3 22	13 48.16	- 9 24.3	1.818	2.743	9.5	20.5	3 22	13 48.34	-15 47.4	1.865	2.776	10.2	21.3
4 1	13 40.46	- 9 18.3	1.767	2.744	5.5	20.3	4 1	13 40.53	-15 8.7	1.814	2.782	6.3	21.1
4 11	13 31.51	- 9 7.0	1.744	2.745	1.2	20.0	4 11	13 31.53	-14 17.6	1.791	2.788	2.4	20.9
4 21	13 22.26	- 8 53.9	1.749	2.746	3.2	20.1	4 21	13 22.30	-13 19.2	1.796	2.794	3.0	20.9
5 1	13 13.72	- 8 43.1	1.781	2.747	7.4	20.4	5 1	13 13.84	-12 19.6	1.829	2.799	6.9	21.2
5 11	13 6.77	- 8 38.5	1.839	2.749	11.2	20.6	5 11	13 6.99	-11 25.2	1.889	2.803	10.7	21.4
5 21	13 1.95	- 8 42.7	1.918	2.750	14.4	20.8	5 21	13 2.28	-10 41.0	1.971	2.807	13.9	21.6
<b>232803</b>	2004 <i>RX</i> <sub>216</sub>		4 13.8	189°90'	3°2'/17.3	17	<b>211459</b>	2003 <i>BZ</i> <sub>74</sub>		4 13.8	26°32'	9°9'/4.6	17
3 12	13 52.56	-22 6.6	2.487	3.281	12.0	21.8	3 12	13 51.21	+16 50.8	1.756	2.616	13.3	19.4
3 22	13 46.93	-21 56.7	2.397	3.280	9.4	21.6	3 22	13 46.16	+18 2.3	1.720	2.625	11.3	19.3
4 1	13 39.64	-21 31.1	2.330	3.278	6.6	21.4	4 1	13 39.20	+18 58.8	1.707	2.635	10.0	19.2
4 11	13 31.32	-20 50.8	2.292	3.276	3.9	21.2	4 11	13 31.21	+19 32.3	1.719	2.645	10.2	19.2
4 21	13 22.74	-19 58.8	2.282	3.273	3.5	21.2	4 21	13 23.18	+19 38.3	1.754	2.657	11.7	19.4
5 1	13 14.71	-18 59.7	2.301	3.269	5.8	21.3	5 1	13 16.09	+19 15.6	1.811	2.668	13.8	19.5
5 11	13 7.95	-17 59.1	2.348	3.265	8.8	21.5	5 11	13 10.69	+18 26.4	1.888	2.681	16.0	19.7
5 21	13 2.94	-17 2.4	2.420	3.260	11.5	21.7	5 21	13 7.40	+17 15.0	1.983	2.694	17.9	19.9
<b>177871</b>	2005 <i>QQ</i> <sub>48</sub>		4 13.8	306°49'	1°0'/14.6	17	<b>353917</b>	2012 <i>XP</i> <sub>135</sub>		4 13.8	276°13'	4°3'/18.8	18
3 12	13 52.47	-12 30.3	2.131	2.970	12.1	19.7	3 12	13 49.00	-26 6.7	2.250	3.037	13.3	20.3
3 22	13 47.10	-12 39.1	2.043	2.961	9.0	19.5	3 22	13 44.54	-25 47.1	2.162	3.035	10.8	20.2
4 1	13 39.85	-12 38.6	1.979	2.952	5.5	19.3	4 1	13 38.32	-25 7.2	2.096	3.033	7.9	20.0
4 11	13 31.39	-12 30.4	1.943	2.942	1.8	19.0	4 11	13 31.05	-24 7.9	2.056	3.031	5.3	19.8
4 21	13 22.55	-12 17.4	1.935	2.934	2.8	19.1	4 21	13 23.52	-22 52.7	2.043	3.029	4.4	19.7
5 1	13 14.25	-12 3.1	1.956	2.925	6.6	19.3	5 1	13 16.60	-21 27.5	2.058	3.028	6.3	19.9
5 11	13 7.32	-11 51.7	2.002	2.916	10.2	19.5	5 11	13 11.05	-19 59.6	2.101	3.026	9.2	20.0
5 21	13 2.32	-11 46.5	2.071	2.908	13.3	19.7	5 21	13 7.36	-18 36.0	2.167	3.024	12.1	20.2
<b>22182</b>	2000 <i>YR</i> <sub>9</sub>		4 13.8	88°02'	3°8'/16.8	18	<b>500939</b>	2013 <i>PR</i> <sub>69</sub>		4 13.8	271°92'	4°7'/17.4	17
3 12	13 54.04	-20 44.8	1.520	2.348	16.7	18.6	3 12	13 53.69	-22 38.1	1.760	2.571	15.5	21.4
3 22	13 48.72	-20 37.9	1.454	2.358	13.0	18.3	3 22	13 48.60	-22 47.1	1.660	2.551	12.4	21.2
4 1	13 40.92	-20 8.7	1.409	2.369	8.8	18.1	4 1	13 41.03	-22 35.5	1.581	2.531	8.9	20.9
4 11	13 31.62	-19 19.2	1.389	2.379	4.8	17.9	4 11	13 31.71	-22 2.6	1.527	2.511	5.6	20.7
4 21	13 22.05	-18 14.5	1.394	2.389	4.3	17.9	4 21	13 21.71	-21 10.7	1.499	2.490	5.0	20.6
5 1	13 13.50	-17 2.8	1.426	2.400	8.0	18.1	5 1	13 12.30	-20 5.8	1.498	2.469	8.0	20.7
5 11	13 7.00	-15 53.4	1.482	2.410	12.1	18.4	5 11	13 4.62	-18 56.3	1.522	2.448	12.0	20.9
5 21	13 3.13	-14 53.6	1.559	2.420	15.7	18.6	5 21	12 59.45	-17 50.7	1.568	2.427	15.8	21.1
<b>331538</b>	2000 <i>SO</i> <sub>340</sub>		4 13.8	242°66'	2°2'/11.6	17	<b>274077</b>	2007 <i>YK</i> <sub>34</sub>		4 13.8	231°94'	4°5'/9.3	18
3 12	13 51.68	- 5 27.5	2.093	2.950	11.6	21.5	3 12	13 51.25	+ 3 34.1	2.257	3.120	10.6	20.4
3 22	13 46.50	- 4 37.3	2.005	2.936	8.4	21.2	3 22	13 45.96	+ 4 17.4	2.188	3.116	7.9	20.2
4 1	13 39.49	- 3 39.8	1.943	2.922	4.9	21.0	4 1	13 39.06	+ 4 59.2	2.144	3.113	5.4	20.1
4 11	13 31.31	- 2 40.1	1.909	2.907	2.2	20.8	4 11	13 31.20	+ 5 34.3	2.128	3.110	4.5	20.0
4 21	13 22.78	- 1 43.9	1.904	2.892	4.5	20.9	4 21	13 23.15	+ 5 58.2	2.141	3.106	6.2	20.1
5 1	13 14.80	- 0 56.9	1.927	2.876	8.2	21.1	5 1	13 15.70	+ 6 7.6	2.180	3.102	9.0	20.3
5 11	13 8.17	- 0 23.4	1.974	2.860	11.7	21.3	5 11	13 9.52	+ 6 0.8	2.244	3.098	11.7	20.4
5 21	13 3.42	- 0 5.8	2.044	2.843	14.8	21.4	5 21	13 5.07	+ 5 38.2	2.329	3.094	14.2	20.6
<b>173118</b>	1981 <i>EB</i> <sub>4</sub>		4 13.8	355°93'	4°5'/18.1	18	<b>87969</b>	2000 <i>TV</i> <sub>37</sub>		4 13.8	108°88'	5°3'/8.1	18
3 12	13 50.32	-23 34.1	2.057	2.859	13.9	19.9	3 12	13 52.58	+ 4 45.0	2.139	3.002	11.2	19.6
3 22	13 45.66	-23 47.4	1.974	2.858	11.1	19.7	3 22	13 46.79	+ 6 1.7	2.097	3.024	8.3	19.5
4 1	13 39.05	-23 42.7	1.913	2.857	8.0	19.6	4 1	13 39.43	+ 7 15.3	2.082	3.046	6.0	19.4
4 11	13 31.21	-23 20.1	1.877	2.856	5.3	19.4	4 11	13 31.26	+ 8 19.1	2.094	3.067	5.5	19.4
4 21	13 23.04	-22 42.1	1.868	2.855	4.7	19.3	4 21	13 23.08	+ 9 7.6	2.135	3.087	7.2	19.5
5 1	13 15.49	-21 53.3	1.886	2.855	6.8	19.5	5 1	13 15.69	+ 9 37.5	2.202	3.107	9.7	19.7
5 11	13 9.43	-21 0.2	1.930	2.855	9.9	19.6	5 11	13 9.72	+ 9 47.6	2.293	3.127	12.2	19.9
5 21	13 5.40	-20 9.2	1.997	2.855	12.9	19.8	5 21	13 5.55	+ 9 38.9	2.404	3.145	14.4	20.1
<b>103850</b>	2000 <i>DS</i> <sub>35</sub>		4 13.8	69°70'	0°5'/14.3	18	<b>230868</b>	2004 <i>RT</i> <sub>193</sub>		4 13.8</			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>168994</b>	2001 CZ <sub>47</sub>		4 13.8 21°29'	3°4/11.6	18		<b>471868</b>	2013 AA <sub>36</sub>		4 13.8 153°59'	8°5/26.0	18	
3 12	13 52.18	- 3 57.5	1.207	2.091	16.4	18.9	3 12	13 55.33	-43 49.7	3.033	3.665	13.2	22.2
3 22	13 47.63	- 3 18.8	1.152	2.096	11.9	18.6	3 22	13 49.10	-44 30.5	2.946	3.672	11.9	22.1
4 1	13 40.39	- 2 33.4	1.119	2.101	6.9	18.4	4 1	13 40.98	-44 50.1	2.877	3.678	10.5	22.0
4 11	13 31.53	- 1 49.2	1.110	2.108	3.4	18.2	4 11	13 31.67	-44 46.0	2.831	3.684	9.3	21.9
4 21	13 22.40	- 1 13.9	1.125	2.115	6.3	18.4	4 21	13 22.02	-44 17.9	2.808	3.690	8.6	21.9
5 1	13 14.43	- 0 54.4	1.163	2.123	11.2	18.7	5 1	13 12.98	-43 28.1	2.811	3.695	8.6	21.9
5 11	13 8.70	- 0 54.4	1.223	2.132	15.7	18.9	5 11	13 5.36	-42 21.7	2.838	3.700	9.3	21.9
5 21	13 5.79	- 1 14.4	1.301	2.142	19.4	19.2	5 21	12 59.70	-41 4.8	2.889	3.705	10.5	22.0
<b>516680</b>	2008 SK <sub>312</sub>		4 13.8 161°80'	2°5/16.1	17		<b>371157</b>	2005 XK <sub>75</sub>		4 13.8 159°05'	1°8/11.9	17	
3 12	13 52.01	-18 13.4	2.010	2.834	13.4	21.2	3 12	13 53.28	- 5 6.9	2.442	3.290	10.5	22.1
3 22	13 46.81	-18 5.0	1.930	2.835	10.2	20.9	3 22	13 47.28	- 4 30.3	2.372	3.298	7.5	21.9
4 1	13 39.68	-17 41.0	1.874	2.837	6.7	20.7	4 1	13 39.77	- 3 49.0	2.329	3.306	4.3	21.7
4 11	13 31.36	-17 3.4	1.844	2.838	3.3	20.5	4 11	13 31.38	- 3 7.1	2.315	3.313	1.8	21.5
4 21	13 22.76	-16 15.8	1.842	2.839	3.2	20.5	4 21	13 22.85	- 2 28.8	2.330	3.319	3.7	21.7
5 1	13 14.83	-15 23.7	1.868	2.840	6.6	20.7	5 1	13 14.92	- 1 57.9	2.375	3.324	6.9	21.9
5 11	13 8.40	-14 33.4	1.920	2.841	10.2	20.9	5 11	13 8.25	- 1 37.5	2.447	3.329	9.9	22.1
5 21	13 4.02	-13 50.2	1.995	2.842	13.4	21.1	5 21	13 3.25	- 1 29.1	2.541	3.333	12.4	22.3
<b>262301</b>	2006 SC <sub>413</sub>		4 13.8 249°55'	6°4/ 8.2	18		<b>222685</b>	2001 YF <sub>115</sub>		4 13.8 206°81'	0°7/14.5	18	
3 12	13 55.81	+ 6 38.3	1.879	2.741	12.5	20.9	3 12	13 53.74	-13 26.0	2.560	3.386	10.8	21.7
3 22	13 49.70	+ 7 36.1	1.799	2.724	9.6	20.7	3 22	13 47.73	-13 7.3	2.467	3.379	8.0	21.5
4 1	13 41.43	+ 8 30.8	1.744	2.706	7.2	20.5	4 1	13 40.11	-12 38.6	2.400	3.371	4.8	21.3
4 11	13 31.77	+ 9 14.8	1.716	2.687	6.6	20.4	4 11	13 31.48	-12 2.0	2.362	3.362	1.5	21.0
4 21	13 21.68	+ 9 41.9	1.715	2.669	8.5	20.5	4 21	13 22.56	-11 20.9	2.354	3.352	2.4	21.1
5 1	13 12.26	+ 9 47.5	1.740	2.649	11.6	20.6	5 1	13 14.12	-10 39.6	2.376	3.341	5.9	21.3
5 11	13 4.43	+ 9 30.4	1.788	2.629	14.8	20.8	5 11	13 6.87	-10 2.3	2.426	3.330	9.1	21.4
5 21	12 58.82	+ 8 51.8	1.855	2.608	17.7	20.9	5 21	13 1.29	- 9 32.5	2.500	3.318	11.9	21.6
<b>389264</b>	2009 FN <sub>66</sub>		4 13.8 302°78'	0°8/13.0	17		<b>523532</b>	2017 PY <sub>5</sub>		4 13.8 167°00'	1°2/12.6	17	
3 12	13 48.82	- 9 6.6	2.135	2.990	11.5	21.3	3 12	13 51.53	- 8 9.2	2.087	2.939	11.8	22.2
3 22	13 44.41	- 8 34.3	2.048	2.977	8.4	21.1	3 22	13 46.29	- 7 27.8	2.014	2.942	8.5	21.9
4 1	13 38.28	- 7 53.1	1.986	2.965	4.8	20.9	4 1	13 39.31	- 6 38.2	1.966	2.945	4.8	21.7
4 11	13 31.06	- 7 6.7	1.951	2.952	1.1	20.6	4 11	13 31.30	- 5 44.8	1.946	2.947	1.4	21.5
4 21	13 23.53	- 6 19.9	1.944	2.940	3.3	20.7	4 21	13 23.07	- 4 52.8	1.955	2.948	3.6	21.6
5 1	13 16.52	- 5 37.8	1.965	2.928	7.1	20.9	5 1	13 15.50	- 4 7.6	1.992	2.950	7.4	21.9
5 11	13 10.79	- 5 5.0	2.012	2.916	10.7	21.1	5 11	13 9.33	- 3 33.4	2.054	2.951	10.8	22.1
5 21	13 6.84	- 4 44.4	2.080	2.904	13.7	21.3	5 21	13 5.02	- 3 12.9	2.139	2.952	13.8	22.3
<b>68706</b>	2002 CX <sub>234</sub>		4 13.8 296°12'	0°6/12.9	18		<b>496141</b>	2010 RY <sub>109</sub>		4 13.8 261°87'	2°8/15.9	17	
3 12	13 46.80	-11 23.2	2.380	3.228	10.7	19.5	3 12	13 56.31	-17 53.0	1.854	2.676	14.4	22.3
3 22	13 42.86	-10 16.6	2.276	3.202	7.8	19.3	3 22	13 50.44	-17 57.1	1.747	2.651	11.2	22.0
4 1	13 37.37	- 8 57.4	2.199	3.176	4.5	19.0	4 1	13 42.09	-17 45.1	1.664	2.626	7.4	21.7
4 11	13 30.86	- 7 29.8	2.149	3.150	1.0	18.7	4 11	13 31.99	-17 17.3	1.606	2.600	3.7	21.5
4 21	13 24.03	- 5 59.6	2.129	3.124	3.1	18.8	4 21	13 21.14	-16 36.5	1.577	2.573	3.8	21.4
5 1	13 17.60	- 4 33.3	2.138	3.098	6.8	19.0	5 1	13 10.76	-15 48.0	1.575	2.546	7.8	21.6
5 11	13 12.27	- 3 17.0	2.174	3.072	10.3	19.2	5 11	13 2.01	-14 59.0	1.599	2.518	12.0	21.8
5 21	13 8.53	- 2 14.9	2.233	3.046	13.3	19.3	5 21	12 55.67	-14 16.1	1.645	2.489	15.9	21.9
<b>506484</b>	2003 SL <sub>276</sub>		4 13.8 213°66'	0°7/14.5	17		<b>16146</b>	1999 XW <sub>170</sub>		4 13.8 273°83'	4°0/17.3	18	
3 12	13 52.09	-13 20.9	2.499	3.328	10.9	23.3	3 12	13 52.18	-21 55.6	2.045	2.852	13.8	18.0
3 22	13 46.56	-13 3.6	2.408	3.321	8.1	23.1	3 22	13 47.14	-22 4.3	1.948	2.838	10.9	17.8
4 1	13 39.44	-12 36.2	2.342	3.313	4.9	22.9	4 1	13 40.02	-21 55.5	1.873	2.823	7.7	17.6
4 11	13 31.31	-12 1.1	2.305	3.305	1.5	22.6	4 11	13 31.50	-21 29.5	1.824	2.808	4.8	17.4
4 21	13 22.91	-11 21.6	2.298	3.296	2.5	22.7	4 21	13 22.50	-20 48.5	1.802	2.793	4.3	17.3
5 1	13 14.99	-10 41.9	2.320	3.286	5.9	22.9	5 1	13 14.04	-19 57.3	1.808	2.778	7.0	17.4
5 11	13 8.25	-10 6.4	2.369	3.276	9.1	23.1	5 11	13 7.05	-19 2.7	1.839	2.763	10.4	17.6
5 21	13 3.17	- 9 38.5	2.442	3.266	12.0	23.2	5 21	13 2.17	-18 11.0	1.894	2.747	13.7	17.8
<b>499557</b>	2010 RG <sub>146</sub>		4 13.8 244°13'	1°6/14.9	17		<b>303314</b>	2004 TA <sub>56</sub>		4 13.8 139°37'	0°5/13.3	18	
3 12	13 55.95	-14 26.1	1.766	2.603	14.3	21.6	3 12	13 55.33	-10 42.8	1.815	2.661	13.6	21.5
3 22	13 50.05	-14 28.5	1.676	2.591	10.8	21.4	3 22	13 49.19	-10 0.2	1.750	2.674	9.9	21.3
4 1	13 41.77	-14 17.3	1.609	2.579	6.7	21.1	4 1	13 41.02	- 9 6.0	1.710	2.686	5.6	21.1
4 11	13 31.87	-13 54.2	1.569	2.567	2.5	20.8	4 11	13 31.68	- 8 5.2	1.697	2.698	1.2	20.8
4 21	13 21.43	-13 22.8	1.556	2.554	3.3	20.8	4 21	13 22.18	- 7 3.9	1.712	2.709	3.5	21.0
5 1	13 11.64	-12 48.4	1.570	2.541	7.8	21.1	5 1	13 13.57	- 6 8.5	1.756	2.719	7.8	21.3
5 11	13 3.58	-12 17.3	1.610	2.527	12.1	21.3	5 11	13 6.67	- 5 24.7	1.825	2.728	11.7	21.5
5 21	12 57.95	-11 54.4	1.672	2.513	15.8	21.5	5 21	13 1.98	- 4 55.5	1.916	2.736	14.9	21.7
<b>384088</b>	2008 VV <sub>69</sub>		4 13.8 71°05'	0°2/13.6	17		<b>29876</b>	1999 GR <sub>16</sub>		4 13.8 137°23'	1°6/11.9	18	
3 12	13 51.68	-10 34.7	1.929	2.779	12.7	21.3	3 12	13 48.44	- 7 35.8	2.208	3.064	11.1	17.9
3 22	13 46.45	-10 11.7	1.866	2.792	9.3	21.1	3 22	13 43.97	- 6 34.2	2.136	3.067	8.0	17.7
4 1	13 39.40	- 9 38.9	1.827	2.804	5.3	20.9	4 1	13 37.94	- 5 24.5	2.090	3.069	4.5	17.5
4 11	13 31.29	- 9 0.2	1.815	2.817	1.1	20.6	4 11	13 31.00	- 4 11.9	2.072	3.071	1.7	17.3
4 21	13 23.04	- 8 20.2	1.832	2.829	3.1	20.8	4 21	13 23.89	- 3 2.0	2.083	3.074	3.8	17.5
5 1	13 15.55	- 7 44.1	1.876	2.842	7.1	21.1	5 1	13 17.37	- 2 0.7	2.122	3.076	7.3	17.7
5 11	13 9.59	- 7 16.4	1.945	2.854	10.7	21.3	5 11	13 12.10	- 1 12.4	2.187	3.078	10.5	17.9
5 21	13 5.62	- 6 59.9	2.036	2.867	13.8	21.5	5 21	13 8.52	- 0 39.3	2.274	3.080	13.3	18.1
<b>16353</b>	1974 WB		4 13.8 136°35'	4°3/18.7	18 R		<b>22608</b>	1998 JP <sub>1</sub>		4 13.8 287°02'	1°7/12.6	18	
3 12	13 53.01	-25 57.6	2.306										

EPHEMERIDES

4 13.8

4 13.8

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>169064</b>	2001 <i>FM</i> <sub>146</sub>		4 13.8 310°90	4.9/17.5	17		<b>497867</b>	2006 <i>UV</i> <sub>166</sub>		4 13.8 180°19	2.7/11.2	17	
3 12	13 52.01	-22 15.3	1.488	2.314	17.1	19.8	3 12	13 52.93	-1 1.3	2.456	3.311	10.2	21.8
3 22	13 47.60	-22 25.1	1.404	2.305	13.6	19.5	3 22	13 47.08	-0 42.7	2.383	3.311	7.4	21.6
4 1	13 40.52	-22 11.5	1.341	2.296	9.6	19.3	4 1	13 39.71	-0 23.0	2.336	3.311	4.5	21.4
4 11	13 31.64	-21 34.5	1.300	2.287	5.9	19.0	4 11	13 31.43	-0 5.9	2.318	3.312	2.7	21.3
4 21	13 22.18	-20 37.5	1.285	2.278	5.2	19.0	4 21	13 22.97	+0 5.3	2.329	3.311	4.3	21.4
5 1	13 13.52	-19 27.8	1.295	2.270	8.6	19.1	5 1	13 15.07	+0 7.7	2.369	3.311	7.3	21.6
5 11	13 6.88	-18 15.4	1.329	2.262	12.8	19.3	5 11	13 8.38	-0 0.5	2.434	3.311	10.2	21.8
5 21	13 2.98	-17 9.3	1.383	2.254	16.8	19.6	5 21	13 3.35	-0 19.9	2.523	3.310	12.6	22.0
<b>56981</b>	2000 <i>SQ</i> <sub>182</sub>		4 13.8 243°03	6.3/6.7	18		<b>434868</b>	2006 <i>SR</i> <sub>287</sub>		4 13.8 188°93	2.9/17.2	17	
3 12	13 50.76	+10 16.0	2.414	3.272	10.2	19.1	3 12	13 49.88	-21 34.8	2.534	3.335	11.6	21.1
3 22	13 45.55	+11 13.2	2.348	3.265	8.1	19.0	3 22	13 44.98	-21 17.4	2.446	3.334	9.1	21.0
4 1	13 38.83	+12 4.6	2.308	3.258	6.5	18.9	4 1	13 38.55	-20 44.7	2.382	3.333	6.2	20.8
4 11	13 31.21	+12 44.4	2.296	3.250	6.4	18.9	4 11	13 31.18	-19 58.3	2.345	3.332	3.6	20.6
4 21	13 23.39	+13 8.1	2.310	3.242	7.9	18.9	4 21	13 23.59	-19 1.3	2.337	3.331	3.2	20.6
5 1	13 16.14	+13 13.1	2.351	3.234	10.1	19.1	5 1	13 16.52	-17 58.5	2.359	3.329	5.6	20.7
5 11	13 10.09	+12 58.6	2.414	3.226	12.4	19.2	5 11	13 10.65	-16 55.4	2.407	3.327	8.5	20.9
5 21	13 5.67	+12 26.0	2.498	3.218	14.4	19.3	5 21	13 6.41	-15 57.0	2.480	3.325	11.2	21.1
<b>287680</b>	2003 <i>QG</i> <sub>14</sub>		4 13.8 282°27	3.7/9.6	17		<b>66947</b>	1999 <i>XZ</i> <sub>1</sub>		4 13.8 180°34	0.3/13.4	18	
3 12	13 48.31	-4 4.8	1.879	2.749	12.1	20.2	3 12	13 50.26	-11 26.3	2.392	3.233	10.9	19.2
3 22	13 44.25	-2 22.8	1.793	2.730	8.8	19.9	3 22	13 45.22	-10 36.5	2.313	3.234	7.9	19.0
4 1	13 38.30	-0 30.6	1.733	2.712	5.3	19.7	4 1	13 38.67	-9 36.4	2.259	3.235	4.6	18.8
4 11	13 31.12	+1 23.5	1.702	2.694	3.8	19.6	4 11	13 31.21	-8 30.0	2.234	3.235	1.0	18.5
4 21	13 23.57	+3 10.6	1.698	2.675	6.3	19.7	4 21	13 23.55	-7 22.3	2.239	3.235	2.8	18.7
5 1	13 16.59	+4 41.8	1.722	2.657	10.1	19.9	5 1	13 16.46	-6 18.7	2.273	3.234	6.4	18.9
5 11	13 11.02	+5 51.4	1.769	2.638	13.7	20.0	5 11	13 10.58	-5 24.0	2.333	3.233	9.6	19.1
5 21	13 7.41	+6 36.6	1.837	2.619	16.8	20.2	5 21	13 6.34	-4 41.5	2.417	3.231	12.4	19.3
<b>349887</b>	2009 <i>DP</i> <sub>125</sub>		4 13.8 78°25	1.4/15.1	18		<b>512350</b>	2016 <i>NK</i> <sub>7</sub>		4 13.8 254°83	2.4/16.5	16	
3 12	13 52.51	-14 10.8	2.227	3.059	12.0	20.8	3 12	13 49.88	-19 48.5	2.517	3.326	11.4	22.3
3 22	13 47.00	-14 16.3	2.148	3.061	8.9	20.6	3 22	13 45.09	-19 27.8	2.414	3.309	8.9	22.1
4 1	13 39.75	-14 11.3	2.093	3.062	5.5	20.4	4 1	13 38.68	-18 52.4	2.335	3.292	5.9	21.9
4 11	13 31.42	-13 57.7	2.066	3.064	2.1	20.2	4 11	13 31.23	-18 3.7	2.284	3.275	3.1	21.7
4 21	13 22.83	-13 38.1	2.068	3.066	2.7	20.2	4 21	13 23.45	-17 4.9	2.262	3.257	2.9	21.6
5 1	13 14.83	-13 16.4	2.098	3.067	6.2	20.4	5 1	13 16.11	-16 0.8	2.268	3.239	5.7	21.8
5 11	13 8.17	-12 56.9	2.154	3.069	9.5	20.6	5 11	13 9.91	-14 57.1	2.303	3.221	8.9	22.0
5 21	13 3.37	-12 43.0	2.234	3.071	12.5	20.8	5 21	13 5.36	-13 58.9	2.361	3.202	11.8	22.1
<b>221122</b>	2005 <i>SA</i> <sub>222</sub>		4 13.8 186°87	5.8/7.2	17		<b>521079</b>	2015 <i>DM</i> <sub>240</sub>		4 13.8 154°35	0.5/14.2	17	
3 12	13 51.73	+5 58.8	2.199	3.062	10.9	21.1	3 12	13 53.47	-11 53.9	2.069	2.910	12.4	21.7
3 22	13 46.35	+7 23.7	2.136	3.061	8.3	21.0	3 22	13 47.77	-11 43.7	1.994	2.913	9.1	21.5
4 1	13 39.32	+8 46.3	2.100	3.061	6.3	20.8	4 1	13 40.23	-11 23.4	1.943	2.917	5.4	21.3
4 11	13 31.32	+9 59.5	2.092	3.059	6.0	20.8	4 11	13 31.57	-10 55.8	1.919	2.920	1.4	21.0
4 21	13 23.15	+10 57.1	2.113	3.057	7.7	20.9	4 21	13 22.65	-10 24.7	1.924	2.922	2.8	21.1
5 1	13 15.60	+11 34.8	2.159	3.054	10.3	21.1	5 1	13 14.41	-9 54.6	1.958	2.925	6.8	21.4
5 11	13 9.38	+11 51.1	2.229	3.051	12.9	21.2	5 11	13 7.63	-9 30.1	2.017	2.927	10.3	21.6
5 21	13 4.94	+11 46.5	2.318	3.047	15.2	21.4	5 21	13 2.81	-9 14.5	2.099	2.929	13.4	21.8
<b>179635</b>	2002 <i>PY</i> <sub>95</sub>		4 13.8 221°40	3.0/16.3	17		<b>59451</b>	1999 <i>GX</i> <sub>33</sub>		4 13.8 300°71	1.8/12.7	17	
3 12	13 54.62	-19 13.0	1.952	2.769	14.0	21.1	3 12	13 55.89	-5 4.3	1.637	2.499	14.0	18.8
3 22	13 48.91	-19 9.3	1.861	2.761	10.8	20.8	3 22	13 50.29	-5 2.2	1.540	2.472	10.4	18.5
4 1	13 41.04	-18 48.7	1.793	2.752	7.2	20.6	4 1	13 42.09	-4 55.1	1.466	2.445	6.1	18.1
4 11	13 31.75	-18 12.3	1.752	2.743	3.8	20.4	4 11	13 32.06	-4 46.7	1.418	2.418	2.0	17.8
4 21	13 22.01	-17 23.4	1.738	2.734	3.6	20.3	4 21	13 21.26	-4 41.4	1.397	2.391	4.7	17.9
5 1	13 12.92	-16 27.8	1.753	2.723	7.1	20.5	5 1	13 11.00	-4 43.7	1.403	2.364	9.5	18.1
5 11	13 5.42	-15 32.3	1.793	2.713	10.9	20.7	5 11	13 2.46	-4 57.4	1.432	2.337	14.1	18.3
5 21	13 0.13	-14 43.2	1.856	2.701	14.3	20.9	5 21	12 56.46	-5 24.6	1.482	2.311	18.1	18.5
<b>292951</b>	2006 <i>VB</i> <sub>105</sub>		4 13.8 336°97	3.2/17.4	17		<b>407897</b>	2012 <i>BG</i> <sub>127</sub>		4 13.8 100°77	1.9/12.4	18	
3 12	13 48.55	-22 8.2	2.213	3.021	12.8	20.5	3 12	13 54.91	-6 53.0	1.604	2.466	14.3	21.3
3 22	13 44.22	-21 47.5	2.127	3.019	10.1	20.3	3 22	13 49.06	-6 13.2	1.548	2.480	10.3	21.1
4 1	13 38.18	-21 9.0	2.065	3.017	7.0	20.1	4 1	13 41.02	-5 25.0	1.515	2.494	5.8	20.8
4 11	13 31.10	-20 14.3	2.028	3.015	4.1	19.9	4 11	13 31.74	-4 34.4	1.508	2.508	2.0	20.6
4 21	13 23.77	-19 7.4	2.020	3.013	3.5	19.9	4 21	13 22.32	-3 47.9	1.529	2.522	4.6	20.8
5 1	13 17.03	-17 54.0	2.040	3.012	6.1	20.0	5 1	13 13.89	-3 11.3	1.576	2.535	8.9	21.1
5 11	13 11.61	-16 40.7	2.086	3.011	9.3	20.2	5 11	13 7.34	-2 49.2	1.648	2.548	12.8	21.4
5 21	13 8.01	-15 33.5	2.156	3.009	12.3	20.4	5 21	13 3.15	-2 43.2	1.740	2.560	16.1	21.6
<b>54713</b>	2001 <i>HK</i> <sub>37</sub>		4 13.8 308°91	5.6/10.1	17		<b>426962</b>	2013 <i>YL</i> <sub>57</sub>		4 13.8 16°99	2.3/15.7	17	
3 12	13 54.09	+1 52.9	1.408	2.287	14.9	18.6	3 12	13 51.66	-16 26.7	1.816	2.652	14.0	20.1
3 22	13 49.12	+2 31.5	1.327	2.265	11.1	18.3	3 22	13 46.74	-16 32.2	1.742	2.654	10.7	19.9
4 1	13 41.43	+3 10.5	1.268	2.244	7.4	18.0	4 1	13 39.75	-16 23.2	1.691	2.657	6.8	19.7
4 11	13 31.89	+3 42.2	1.234	2.223	5.6	17.8	4 11	13 31.48	-16 1.4	1.665	2.661	3.1	19.4
4 21	13 21.69	+3 59.2	1.224	2.202	8.1	17.9	4 21	13 22.90	-15 30.4	1.667	2.665	3.3	19.5
5 1	13 12.25	+3 55.6	1.239	2.182	12.4	18.1	5 1	13 15.06	-14 55.3	1.696	2.669	7.0	19.7
5 11	13 4.78	+3 29.1	1.275	2.162	16.7	18.3	5 11	13 8.84	-14 22.1	1.749	2.673	10.8	19.9
5 21	13 0.06	+2 40.5	1.329	2.143	20.5	18.5	5 21	13 4.81	-13 55.6	1.825	2.678	14.1	20.1
<b>456021</b>	2005 <i>YY</i> <sub>84</sub>		4 13.8 197°63	2.0/12.1	17		<b>506567</b>	2005 <i>UC</i> <sub>51</sub>		4 13.8 216°30	1.3/15.2	17	

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>419429</b>	2010 <i>BW</i> <sub>62</sub>	4 13.8 130°90 4°6/ 8.5 16					<b>296810</b>	2009 <i>VA</i> <sub>93</sub>	4 13.8 90°37 0°9/12.5 17				
3 12	13 51.79	+ 2 54.3	2.326	3.187	10.5	21.7	3 12	13 47.22	- 6 56.8	3.166	4.013	8.4	21.3
3 22	13 46.21	+ 4 13.1	2.275	3.203	7.7	21.6	3 22	13 42.67	- 6 29.5	3.101	4.027	6.0	21.2
4 1	13 39.17	+ 5 30.9	2.252	3.219	5.3	21.4	4 1	13 37.07	- 5 58.0	3.064	4.041	3.4	21.0
4 11	13 31.33	+ 6 41.5	2.257	3.234	4.7	21.4	4 11	13 30.89	- 5 25.0	3.055	4.055	1.0	20.8
4 21	13 23.43	+ 7 39.4	2.291	3.249	6.4	21.5	4 21	13 24.62	- 4 53.6	3.076	4.069	2.5	21.0
5 1	13 16.20	+ 8 20.6	2.353	3.263	9.0	21.7	5 1	13 18.79	- 4 26.5	3.127	4.083	5.1	21.2
5 11	13 10.26	+ 8 43.5	2.439	3.276	11.5	21.9	5 11	13 13.83	- 4 6.2	3.205	4.096	7.5	21.3
5 21	13 5.99	+ 8 48.2	2.546	3.289	13.6	22.1	5 21	13 10.08	- 3 54.2	3.307	4.110	9.6	21.5
<b>498750</b>	2008 <i>UP</i> <sub>2</sub>	4 13.8 226°22 4°1/10.3 18					<b>299988</b>	2006 <i>UT</i> <sub>13</sub>	4 13.8 149°14 0°8/12.9 17				
3 12	13 58.31	+ 3 58.7	2.454	3.300	10.5	21.7	3 12	13 49.48	- 8 40.3	2.662	3.507	9.8	22.0
3 22	13 51.07	+ 4 16.4	2.368	3.288	7.8	21.5	3 22	13 44.51	- 8 5.7	2.588	3.513	7.1	21.8
4 1	13 42.09	+ 4 31.5	2.309	3.276	5.3	21.3	4 1	13 38.22	- 7 24.6	2.542	3.519	4.0	21.6
4 11	13 32.01	+ 4 39.9	2.280	3.263	4.1	21.2	4 11	13 31.15	- 6 40.2	2.524	3.524	1.0	21.4
4 21	13 21.64	+ 4 38.3	2.281	3.249	5.6	21.3	4 21	13 23.95	- 5 56.4	2.535	3.530	2.8	21.6
5 1	13 11.81	+ 4 24.2	2.311	3.235	8.4	21.5	5 1	13 17.25	- 5 17.1	2.576	3.535	5.9	21.8
5 11	13 3.29	+ 3 56.8	2.368	3.220	11.3	21.6	5 11	13 11.63	- 4 45.8	2.644	3.539	8.8	22.0
5 21	12 56.58	+ 3 16.4	2.448	3.204	13.8	21.8	5 21	13 7.46	- 4 24.5	2.735	3.544	11.2	22.1
<b>96041</b>	2004 <i>PR</i> <sub>90</sub>	4 13.8 205°14 2°8/11.3 18					<b>297403</b>	2000 <i>QD</i> <sub>206</sub>	4 13.8 173°60 1°7/11.5 18				
3 12	13 53.91	- 5 21.4	1.749	2.611	13.3	20.1	3 12	13 48.30	- 5 26.7	2.970	3.820	8.8	21.3
3 22	13 48.39	- 4 16.1	1.674	2.607	9.6	19.8	3 22	13 43.55	- 4 33.2	2.895	3.823	6.3	21.1
4 1	13 40.72	- 3 2.1	1.623	2.602	5.6	19.6	4 1	13 37.63	- 3 35.0	2.848	3.825	3.6	20.9
4 11	13 31.72	- 1 46.1	1.599	2.596	2.8	19.4	4 11	13 31.02	- 2 36.0	2.830	3.827	1.7	20.8
4 21	13 22.39	- 0 35.7	1.604	2.590	5.4	19.5	4 21	13 24.29	- 1 40.2	2.842	3.829	3.3	20.9
5 1	13 13.81	+ 0 21.9	1.635	2.583	9.5	19.8	5 1	13 17.99	- 0 51.4	2.884	3.830	6.0	21.1
5 11	13 6.90	+ 1 1.6	1.691	2.576	13.4	20.0	5 11	13 12.63	- 0 12.6	2.953	3.830	8.5	21.3
5 21	13 2.25	+ 1 21.5	1.766	2.568	16.7	20.2	5 21	13 8.56	+ 0 14.4	3.045	3.830	10.7	21.4
<b>353610</b>	2011 <i>UM</i> <sub>14</sub>	4 13.8 179°65 2°3/16.6 17					<b>165559</b>	2001 <i>DL</i> <sub>48</sub>	4 13.8 78°35 1°4/12.8 18				
3 12	13 49.08	-19 47.6	2.684	3.492	10.9	20.7	3 12	13 56.37	- 7 21.7	1.466	2.329	15.3	19.8
3 22	13 44.32	-19 27.9	2.598	3.492	8.4	20.6	3 22	13 50.27	- 6 58.6	1.413	2.346	11.1	19.6
4 1	13 38.15	-18 54.8	2.536	3.493	5.6	20.4	4 1	13 41.79	- 6 26.9	1.384	2.363	6.3	19.4
4 11	13 31.12	-18 10.2	2.502	3.493	2.9	20.2	4 11	13 31.96	- 5 51.9	1.379	2.380	1.7	19.1
4 21	13 23.90	-17 17.1	2.497	3.493	2.7	20.2	4 21	13 22.01	- 5 19.4	1.402	2.397	4.4	19.3
5 1	13 17.18	-16 19.9	2.522	3.492	5.2	20.4	5 1	13 13.18	- 4 55.4	1.451	2.414	9.1	19.6
5 11	13 11.55	-15 23.5	2.574	3.492	8.1	20.5	5 11	13 6.42	- 4 44.0	1.523	2.430	13.2	19.9
5 21	13 7.44	-14 32.2	2.650	3.491	10.6	20.7	5 21	13 2.24	- 4 47.2	1.616	2.447	16.7	20.2
<b>21712</b>	Obaid	4 13.8 80°93 1°5/12.7 18					<b>90408</b>	2003 <i>YG</i> <sub>79</sub>	4 13.8 87°72 2°8/11.2 18				
3 12	13 55.29	- 7 53.4	1.514	2.376	15.0	18.4	3 12	13 51.72	- 2 41.9	2.077	2.938	11.5	20.0
3 22	13 49.38	- 7 17.0	1.463	2.396	10.8	18.2	3 22	13 46.35	- 2 1.0	2.020	2.952	8.3	19.9
4 1	13 41.22	- 6 31.3	1.436	2.415	6.1	18.0	4 1	13 39.34	- 1 17.2	1.988	2.966	4.9	19.7
4 11	13 31.81	- 5 42.1	1.434	2.435	1.7	17.7	4 11	13 31.40	- 0 35.4	1.985	2.980	2.8	19.6
4 21	13 22.32	- 4 56.1	1.459	2.454	4.4	18.0	4 21	13 23.37	- 0 0.5	2.009	2.994	4.8	19.7
5 1	13 13.92	- 4 19.4	1.511	2.473	8.9	18.3	5 1	13 16.07	+ 0 23.6	2.062	3.007	8.0	19.9
5 11	13 7.51	- 3 56.7	1.587	2.492	12.9	18.5	5 11	13 10.18	+ 0 34.1	2.139	3.020	11.1	20.1
5 21	13 3.56	- 3 49.9	1.683	2.510	16.3	18.8	5 21	13 6.12	+ 0 30.4	2.237	3.034	13.8	20.3
<b>33754</b>	1999 <i>RH</i> <sub>47</sub>	4 13.8 207°71 4°6/ 7.9 18					<b>438134</b>	2005 <i>RE</i> <sub>4</sub>	4 13.8 198°67 2°3/16.5 17				
3 12	13 48.47	+ 4 47.2	2.652	3.514	9.3	19.0	3 12	13 48.77	-19 37.7	2.454	3.267	11.6	21.4
3 22	13 43.81	+ 5 53.8	2.584	3.511	7.0	18.8	3 22	13 44.22	-19 12.3	2.368	3.267	8.9	21.2
4 1	13 37.82	+ 6 59.0	2.543	3.507	5.1	18.7	4 1	13 38.15	-18 32.1	2.307	3.266	5.9	21.1
4 11	13 31.06	+ 7 57.6	2.530	3.502	4.7	18.6	4 11	13 31.16	-17 39.3	2.273	3.265	3.0	20.9
4 21	13 24.13	+ 8 44.8	2.546	3.498	6.2	18.7	4 21	13 23.95	-16 37.7	2.267	3.264	2.8	20.8
5 1	13 17.68	+ 9 17.3	2.589	3.493	8.5	18.9	5 1	13 17.27	-15 32.1	2.291	3.262	5.6	21.0
5 11	13 12.26	+ 9 33.2	2.657	3.488	10.8	19.0	5 11	13 11.78	-14 28.4	2.341	3.261	8.7	21.2
5 21	13 8.29	+ 9 32.5	2.745	3.483	12.9	19.2	5 21	13 7.92	-13 31.2	2.416	3.260	11.4	21.4
<b>411259</b>	2010 <i>RQ</i> <sub>122</sub>	4 13.8 66°02 1°6/15.2 18					<b>334736</b>	2003 <i>OJ</i> <sub>20</sub>	4 13.8 236°60 5°5/19.9 18				
3 12	13 51.22	-17 1.1	1.494	2.340	16.0	21.5	3 12	13 56.07	-30 31.1	2.967	3.698	11.6	22.1
3 22	13 46.67	-16 15.8	1.428	2.348	12.0	21.3	3 22	13 49.61	-30 55.4	2.851	3.678	9.8	21.9
4 1	13 39.79	-15 9.7	1.384	2.356	7.4	21.0	4 1	13 41.37	-31 3.4	2.758	3.658	7.8	21.8
4 11	13 31.52	-13 47.5	1.366	2.364	2.7	20.7	4 11	13 31.92	-30 53.7	2.691	3.636	6.1	21.6
4 21	13 23.02	-12 17.0	1.373	2.373	3.4	20.8	4 21	13 21.99	-30 26.5	2.653	3.613	5.5	21.6
5 1	13 15.49	-10 48.0	1.407	2.381	8.1	21.1	5 1	13 12.41	-29 44.4	2.645	3.590	6.5	21.6
5 11	13 9.88	- 9 29.6	1.466	2.390	12.5	21.4	5 11	13 3.96	-28 52.1	2.664	3.566	8.5	21.7
5 21	13 6.73	- 8 27.8	1.545	2.399	16.2	21.6	5 21	12 57.21	-27 55.0	2.708	3.541	10.7	21.8
<b>178152</b>	2006 <i>TA</i> <sub>96</sub>	4 13.8 197°99 2°8/16.9 18					<b>386140</b>	2007 <i>TC</i> <sub>115</sub>	4 13.8 104°91 4°3/ 9.5 18				
3 12	13 51.39	-20 27.5	2.711	3.511	11.0	21.4	3 12	13 54.07	+ 4 53.1	2.487	3.342	10.1	20.8
3 22	13 46.04	-20 27.7	2.620	3.508	8.5	21.2	3 22	13 47.73	+ 5 26.6	2.439	3.362	7.5	20.7
4 1	13 39.18	-20 15.1	2.554	3.505	5.9	21.0	4 1	13 40.01	+ 5 56.8	2.417	3.382	5.2	20.6
4 11	13 31.38	-19 50.6	2.515	3.502	3.4	20.9	4 11	13 31.55	+ 6 19.4	2.424	3.402	4.4	20.6
4 21	13 23.33	-19 16.3	2.506	3.498	3.1	20.8	4 21	13 23.08	+ 6 31.1	2.460	3.422	5.8	20.7
5 1	13 15.74	-18 36.1	2.526	3.494	5.4	21.0	5 1	13 15.30	+ 6 29.6	2.524	3.440	8.2	20.9
5 11	13 9.27	-17 54.3	2.573	3.490	8.1	21.1	5 11	13 8.79	+ 6 14.4	2.614	3.459	10.6	21.1
5 21	13 4.38	-17 15.2	2.645	3.485	10.7	21.3	5 21	13 3.93	+ 5 46.1	2.725	3.477	12.6	21.2
<b>207453</b>	2006 <i>FH</i> <sub>37</sub>	4 13.8 351°48 1°4/13.0 18					<b>195251</b>	2002 <i>EL</i> <sub>46</sub>	4 13.8 353°04 0°5/14.2 17				
3 12	13 56.46	- 6 40.5	1.298	2.169	16.4	19.7	3 12	13 49.63	-13 30.2	1.664	2.517	14.3	20.3
3 22	13 50.88	- 6 38.9	1.231	2.167	12.0	19.5	3 22	13 45.40	-12				

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>240120</b>	2002 <i>EE</i> <sub>127</sub>	4 13.8 223°69		12°9/ 1.2 18			<b>308360</b>	2005 <i>QY</i> <sub>148</sub>	4 13.8 212°56		7°4/20.9 17		
3 12	13 53.86	+11 16.1	1.153	2.038	16.9	20.2	3 12	13 55.76	-32 15.4	2.162	2.905	15.1	21.4
3 22	13 49.23	+14 39.8	1.106	2.032	14.1	20.0	3 22	13 49.87	-32 45.3	2.068	2.899	12.9	21.2
4 1	13 41.57	+17 56.5	1.082	2.025	12.9	19.9	4 1	13 41.72	-32 52.7	1.994	2.893	10.4	21.1
4 11	13 31.99	+20 45.2	1.082	2.017	14.0	19.9	4 11	13 32.05	-32 35.3	1.944	2.886	8.3	20.9
4 21	13 21.94	+22 49.6	1.104	2.008	17.0	20.0	4 21	13 21.89	-31 53.6	1.920	2.879	7.4	20.8
5 1	13 13.04	+24 1.6	1.146	1.999	20.4	20.2	5 1	13 12.36	-30 51.5	1.923	2.871	8.3	20.9
5 11	13 6.54	+24 22.3	1.203	1.989	23.6	20.4	5 11	13 4.47	-29 36.6	1.951	2.862	10.6	21.0
5 21	13 3.13	+23 58.7	1.272	1.979	26.4	20.6	5 21	12 58.89	-28 17.0	2.003	2.854	13.2	21.2
<b>204599</b>	2005 <i>GA</i> <sub>158</sub>	4 13.8 87°86		1°5/12.4 18			<b>331334</b>	2012 <i>BA</i> <sub>23</sub>	4 13.8 20°86		1°4/14.8 18		
3 12	13 51.01	- 6 47.4	2.052	2.909	11.8	20.3	3 12	13 51.90	-13 54.0	1.230	2.095	17.5	20.2
3 22	13 45.95	- 6 12.8	1.985	2.916	8.5	20.1	3 22	13 47.61	-13 46.6	1.169	2.100	13.1	19.9
4 1	13 39.17	- 5 31.5	1.943	2.922	4.8	19.9	4 1	13 40.55	-13 21.3	1.130	2.106	7.9	19.6
4 11	13 31.40	- 4 47.9	1.929	2.929	1.6	19.7	4 11	13 31.78	-12 42.0	1.113	2.113	2.6	19.3
4 21	13 23.45	- 4 7.1	1.943	2.935	3.8	19.8	4 21	13 22.67	-11 55.1	1.121	2.120	3.8	19.4
5 1	13 16.17	- 3 33.6	1.984	2.942	7.5	20.1	5 1	13 14.66	-11 8.8	1.152	2.129	9.1	19.8
5 11	13 10.30	- 3 11.3	2.051	2.948	10.8	20.3	5 11	13 8.91	-10 31.3	1.206	2.138	14.0	20.1
5 21	13 6.29	- 3 2.1	2.140	2.955	13.7	20.5	5 21	13 6.03	-10 7.7	1.279	2.148	18.1	20.3
<b>501067</b>	2013 <i>SY</i> <sub>37</sub>	4 13.8 130°60		2°3/11.8 17			<b>79211</b>	1994 <i>CB</i> <sub>18</sub>	4 13.8 347°50		5°3/ 8.2 18		
3 12	13 52.00	- 5 30.9	1.826	2.688	12.8	21.6	3 12	13 48.90	+ 3 25.2	1.989	2.861	11.5	19.1
3 22	13 46.86	- 4 44.8	1.758	2.691	9.2	21.4	3 22	13 44.50	+ 4 41.6	1.927	2.860	8.5	18.9
4 1	13 39.78	- 3 51.8	1.715	2.695	5.3	21.2	4 1	13 38.39	+ 5 57.4	1.890	2.859	6.0	18.7
4 11	13 31.54	- 2 57.6	1.699	2.698	2.3	21.0	4 11	13 31.27	+ 7 5.5	1.880	2.858	5.4	18.7
4 21	13 23.08	- 2 8.2	1.711	2.701	4.7	21.1	4 21	13 23.95	+ 7 59.4	1.898	2.857	7.4	18.8
5 1	13 15.38	- 1 29.3	1.750	2.703	8.6	21.4	5 1	13 17.28	+ 8 34.5	1.941	2.856	10.2	19.0
5 11	13 9.24	- 1 4.8	1.813	2.706	12.2	21.6	5 11	13 11.99	+ 8 48.6	2.007	2.856	13.1	19.2
5 21	13 5.19	- 0 56.7	1.897	2.709	15.3	21.8	5 21	13 8.53	+ 8 42.1	2.092	2.855	15.6	19.3
<b>85406</b>	1996 <i>TL</i> <sub>45</sub>	4 13.8 30°61		3°3/10.7 18			<b>367173</b>	2006 <i>XN</i> <sub>16</sub>	4 13.8 185°47		2°0/15.6 17		
3 12	13 49.33	- 2 26.4	1.863	2.734	12.2	19.2	3 12	13 54.19	-16 52.8	2.074	2.897	13.0	21.7
3 22	13 44.85	- 1 33.4	1.803	2.740	8.8	19.0	3 22	13 48.43	-16 40.9	1.991	2.897	9.9	21.4
4 1	13 38.57	- 0 36.7	1.768	2.746	5.3	18.8	4 1	13 40.72	-16 14.5	1.932	2.897	6.3	21.2
4 11	13 31.27	+ 0 17.6	1.759	2.753	3.3	18.7	4 11	13 31.81	-15 35.7	1.900	2.896	2.7	21.0
4 21	13 23.79	+ 1 3.6	1.778	2.760	5.5	18.8	4 21	13 22.58	-14 48.4	1.897	2.894	3.0	21.0
5 1	13 17.05	+ 1 36.2	1.822	2.767	8.9	19.0	5 1	13 14.01	-13 57.8	1.922	2.892	6.6	21.2
5 11	13 11.78	+ 1 52.4	1.891	2.775	12.2	19.2	5 11	13 6.94	-13 9.9	1.974	2.890	10.2	21.4
5 21	13 8.45	+ 1 51.4	1.980	2.783	15.1	19.4	5 21	13 1.90	-12 29.7	2.049	2.887	13.4	21.6
<b>244171</b>	2001 <i>XA</i> <sub>89</sub>	4 13.8 2°06		5°2/19.7 18			<b>236805</b>	2007 <i>QP</i> <sub>10</sub>	4 13.8 193°33		0°3/14.2 18		
3 12	13 48.74	-27 59.8	2.086	2.868	14.4	19.8	3 12	13 50.90	-12 31.3	2.261	3.100	11.5	21.2
3 22	13 44.55	-27 43.9	2.001	2.868	11.8	19.6	3 22	13 45.85	-12 3.6	2.180	3.099	8.5	21.0
4 1	13 38.48	-27 5.1	1.937	2.868	8.9	19.4	4 1	13 39.15	-11 25.3	2.123	3.097	5.0	20.8
4 11	13 31.26	-26 4.0	1.898	2.868	6.2	19.3	4 11	13 31.44	-10 39.5	2.095	3.096	1.3	20.5
4 21	13 23.78	-24 44.2	1.885	2.868	5.2	19.2	4 21	13 23.50	- 9 50.4	2.096	3.094	2.6	20.6
5 1	13 16.97	-23 12.1	1.900	2.869	6.8	19.3	5 1	13 16.12	- 9 3.0	2.125	3.092	6.4	20.9
5 11	13 11.64	-21 35.9	1.942	2.870	9.7	19.5	5 11	13 10.02	- 8 22.1	2.181	3.090	9.7	21.1
5 21	13 8.30	-20 3.5	2.007	2.871	12.6	19.7	5 21	13 5.68	- 7 51.2	2.260	3.087	12.7	21.3
<b>102173</b>	1999 <i>RQ</i> <sub>233</sub>	4 13.8 147°04		3°4/11.1 18			<b>38372</b>	1999 <i>RK</i> <sub>168</sub>	4 13.8 227°81		0°8/14.6 18		
3 12	13 55.40	- 2 11.8	1.810	2.671	12.9	20.2	3 12	13 52.99	-13 15.5	2.255	3.088	11.8	19.4
3 22	13 49.29	- 1 26.5	1.747	2.679	9.4	20.0	3 22	13 47.47	-13 0.8	2.163	3.078	8.8	19.2
4 1	13 41.16	- 0 37.7	1.709	2.686	5.6	19.8	4 1	13 40.15	-12 35.1	2.097	3.068	5.3	19.0
4 11	13 31.86	+ 0 8.6	1.699	2.693	3.4	19.6	4 11	13 31.70	-12 1.0	2.058	3.058	1.6	18.7
4 21	13 22.37	+ 0 46.5	1.717	2.700	5.6	19.8	4 21	13 22.89	-11 22.0	2.048	3.047	2.7	18.8
5 1	13 13.73	+ 1 11.2	1.762	2.706	9.2	20.0	5 1	13 14.61	-10 42.7	2.068	3.035	6.4	19.0
5 11	13 6.77	+ 1 19.7	1.831	2.711	12.8	20.2	5 11	13 7.63	-10 7.9	2.114	3.024	9.9	19.2
5 21	13 2.00	+ 1 11.6	1.920	2.716	15.8	20.4	5 21	13 2.49	- 9 41.4	2.183	3.011	13.0	19.4
<b>66576</b>	1999 <i>RY</i> <sub>152</sub>	4 13.8 207°38		3°1/16.5 18			<b>92844</b>	2000 <i>QB</i> <sub>195</sub>	4 13.8 73°11		4°6/10.4 18		
3 12	13 54.93	-19 40.7	1.904	2.721	14.3	19.4	3 12	13 53.85	- 1 49.9	1.345	2.223	15.4	18.9
3 22	13 49.20	-19 34.4	1.817	2.716	11.1	19.2	3 22	13 48.61	- 0 40.1	1.296	2.236	11.2	18.7
4 1	13 41.27	-19 10.4	1.752	2.711	7.4	18.9	4 1	13 40.92	+ 0 33.8	1.270	2.249	6.8	18.5
4 11	13 31.92	-18 29.8	1.714	2.705	3.9	18.7	4 11	13 31.85	+ 1 42.8	1.269	2.262	4.6	18.4
4 21	13 22.16	-17 36.3	1.703	2.699	3.7	18.7	4 21	13 22.66	+ 2 38.0	1.293	2.274	7.3	18.6
5 1	13 13.08	-16 35.9	1.721	2.692	7.1	18.9	5 1	13 14.59	+ 3 12.9	1.342	2.287	11.4	18.8
5 11	13 5.65	-15 35.9	1.764	2.685	11.0	19.1	5 11	13 8.63	+ 3 24.5	1.413	2.300	15.4	19.1
5 21	13 0.49	-14 42.7	1.830	2.677	14.4	19.3	5 21	13 5.26	+ 3 13.4	1.502	2.313	18.7	19.4
<b>28047</b>	1998 <i>HU</i> <sub>90</sub>	4 13.8 263°52		3°4/11.3 17			<b>91678</b>	1999 <i>TB</i> <sub>117</sub>	4 13.8 269°99		2°2/15.9 17		
3 12	13 55.39	- 4 11.1	1.462	2.332	15.0	19.0	3 12	13 52.48	-16 49.0	2.424	3.243	11.5	19.5
3 22	13 50.07	- 3 18.2	1.376	2.312	11.0	18.7	3 22	13 47.04	-17 2.3	2.332	3.235	8.8	19.3
4 1	13 42.04	- 2 16.2	1.313	2.293	6.5	18.4	4 1	13 39.89	-17 4.5	2.265	3.227	5.8	19.1
4 11	13 32.15	- 1 12.1	1.276	2.273	3.5	18.1	4 11	13 31.65	-16 56.6	2.225	3.218	2.9	18.9
4 21	13 21.59	- 0 14.4	1.264	2.252	6.4	18.3	4 21	13 23.05	-16 40.5	2.214	3.210	2.9	18.9
5 1	13 11.74	+ 0 28.9	1.279	2.231	11.2	18.5	5 1	13 14.93	-16 19.6	2.232	3.202	5.9	19.0
5 11	13 3.84	+ 0 51.9	1.315	2.209	15.9	18.7	5 11	13 8.03	-15 58.1	2.277	3.194	9.0	19.2
5 21	12 58.67	+ 0 52.5	1.370	2.187	19.9	18.9	5 21	13 2.87	-15 39.9	2.346	3.185	11.9	19.4
<b>283563</b>	2001 <i>VA</i> <sub>63</sub>	4 13.8 169°54		0°2/13.7 18			<b>46749</b>	1998					

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>341362</b>	2007 <i>TD</i> <sub>78</sub>		4 13.8 122°51'	1.6°/15.7	17		<b>108697</b>	2001 <i>ON</i> <sub>13</sub>		4 13.9 179°72'	2.7°/10.8	18	
3 12	13 49.74	-17 36.7	2.335	3.157	11.8	20.8	3 12	13 52.80	-2 27.7	2.548	3.399	10.0	21.2
3 22	13 44.93	-17 0.2	2.260	3.166	8.9	20.6	3 22	13 46.99	-1 33.7	2.474	3.401	7.2	21.1
4 1	13 38.58	-16 9.6	2.210	3.175	5.6	20.4	4 1	13 39.73	-0 36.4	2.427	3.403	4.3	20.9
4 11	13 31.33	-15 7.8	2.187	3.183	2.4	20.2	4 11	13 31.60	+0 19.7	2.410	3.403	2.7	20.8
4 21	13 23.92	-13 59.4	2.193	3.191	2.5	20.2	4 21	13 23.30	+1 9.7	2.423	3.403	4.5	20.9
5 1	13 17.12	-12 49.8	2.228	3.199	5.8	20.4	5 1	13 15.55	+1 49.6	2.465	3.402	7.4	21.1
5 11	13 11.59	-11 44.9	2.290	3.207	9.0	20.6	5 11	13 8.96	+2 16.5	2.534	3.400	10.2	21.2
5 21	13 7.75	-10 49.1	2.376	3.214	11.8	20.8	5 21	13 3.96	+2 29.3	2.625	3.397	12.6	21.4
<b>335210</b>	2005 <i>EO</i> <sub>182</sub>		4 13.8 61°88'	2.4°/15.9	17		<b>502193</b>	2015 <i>BQ</i> <sub>69</sub>		4 13.9 88°14'	3.8°/10.1	17	
3 12	13 53.24	-17 29.2	1.835	2.664	14.2	20.6	3 12	13 50.78	-2 24.8	1.820	2.689	12.5	21.4
3 22	13 47.75	-17 26.8	1.776	2.685	10.8	20.4	3 22	13 45.89	-1 6.4	1.767	2.702	9.0	21.2
4 1	13 40.29	-17 8.8	1.741	2.705	6.9	20.2	4 1	13 39.19	+0 16.0	1.738	2.716	5.5	21.0
4 11	13 31.71	-16 37.6	1.731	2.726	3.3	20.0	4 11	13 31.48	+1 35.1	1.738	2.729	3.8	20.9
4 21	13 23.00	-15 57.2	1.749	2.747	3.3	20.0	4 21	13 23.66	+2 43.7	1.764	2.742	6.0	21.1
5 1	13 15.17	-15 13.4	1.795	2.767	6.8	20.3	5 1	13 16.65	+3 35.8	1.818	2.756	9.4	21.3
5 11	13 9.03	-14 32.2	1.866	2.788	10.3	20.5	5 11	13 11.20	+4 8.3	1.895	2.768	12.7	21.6
5 21	13 5.04	-13 58.5	1.959	2.809	13.5	20.8	5 21	13 7.73	+4 20.5	1.992	2.781	15.5	21.8
<b>289418</b>	2005 <i>DP</i> <sub>3</sub>		4 13.8 135°76'	0.6°/13.2	17		<b>41763</b>	2000 <i>VA</i> <sub>35</sub>		4 13.9 242°44'	1.4°/15.1	17	
3 12	13 50.70	-9 48.2	2.116	2.966	11.8	21.7	3 12	13 53.31	-16 12.0	1.747	2.584	14.5	19.5
3 22	13 45.75	-9 11.3	2.044	2.970	8.6	21.5	3 22	13 48.20	-15 38.7	1.656	2.571	11.0	19.2
4 1	13 39.10	-8 25.1	1.996	2.974	4.9	21.3	4 1	13 40.81	-14 47.1	1.588	2.558	6.8	19.0
4 11	13 31.45	-7 33.8	1.976	2.977	1.1	21.0	4 11	13 31.90	-13 40.4	1.546	2.545	2.5	18.6
4 21	13 23.60	-6 42.3	1.985	2.981	3.2	21.2	4 21	13 22.50	-12 24.1	1.532	2.531	3.2	18.7
5 1	13 16.39	-5 55.9	2.022	2.984	7.0	21.4	5 1	13 13.78	-11 6.2	1.545	2.517	7.8	18.9
5 11	13 10.54	-5 19.0	2.084	2.987	10.4	21.6	5 11	13 6.74	-9 54.8	1.584	2.502	12.2	19.1
5 21	13 6.50	-4 54.5	2.169	2.990	13.3	21.8	5 21	13 2.04	-8 56.5	1.644	2.486	15.9	19.3
<b>241610</b>	1999 <i>SZ</i> <sub>13</sub>		4 13.8 207°88'	1.9°/15.7	16		<b>38701</b>	2000 <i>QB</i> <sub>66</sub>		4 13.9 43°35'	3.7°/9.3	18 R	
3 12	13 55.34	-17 6.5	2.175	2.993	12.7	21.8	3 12	13 47.46	+2 46.7	2.700	3.564	9.1	17.5
3 22	13 49.26	-16 52.2	2.083	2.986	9.7	21.6	3 22	13 43.03	+3 29.6	2.644	3.573	6.7	17.4
4 1	13 41.24	-16 23.4	2.015	2.979	6.2	21.4	4 1	13 37.39	+4 11.4	2.613	3.583	4.5	17.3
4 11	13 31.96	-15 42.1	1.975	2.970	2.7	21.1	4 11	13 31.07	+4 47.8	2.611	3.593	3.7	17.2
4 21	13 22.30	-14 51.7	1.963	2.961	2.9	21.1	4 21	13 24.66	+5 15.2	2.638	3.604	5.1	17.3
5 1	13 13.23	-13 57.6	1.981	2.951	6.5	21.3	5 1	13 18.75	+5 30.8	2.692	3.614	7.4	17.5
5 11	13 5.60	-13 5.8	2.026	2.939	10.1	21.5	5 11	13 13.87	+5 33.2	2.771	3.625	9.7	17.6
5 21	12 59.96	-12 21.3	2.095	2.927	13.3	21.7	5 21	13 10.35	+5 22.3	2.871	3.636	11.8	17.8
<b>224304</b>	2005 <i>TL</i> <sub>192</sub>		4 13.9 139°33'	1.3°/12.4	17		<b>233175</b>	2005 <i>VJ</i> <sub>78</sub>		4 13.9 221°09'	1.7°/15.5	17 R	
3 12	13 51.18	-9 27.5	2.096	2.946	11.9	21.8	3 12	13 53.39	-16 20.2	2.156	2.981	12.6	20.6
3 22	13 46.04	-8 16.8	2.029	2.956	8.5	21.6	3 22	13 47.86	-16 5.7	2.065	2.973	9.5	20.4
4 1	13 39.23	-6 55.8	1.988	2.966	4.8	21.4	4 1	13 40.44	-15 37.4	1.998	2.964	6.0	20.1
4 11	13 31.48	-5 30.4	1.975	2.975	1.4	21.1	4 11	13 31.80	-14 57.4	1.958	2.955	2.5	19.9
4 21	13 23.59	-4 7.1	1.992	2.984	3.7	21.3	4 21	13 22.79	-14 9.1	1.947	2.945	2.8	19.9
5 1	13 16.40	-2 52.5	2.037	2.993	7.4	21.6	5 1	13 14.34	-13 18.0	1.964	2.934	6.5	20.1
5 11	13 10.60	-1 51.7	2.108	3.000	10.8	21.8	5 11	13 7.29	-12 29.7	2.008	2.923	10.1	20.3
5 21	13 6.62	-1 7.5	2.202	3.008	13.7	22.0	5 21	13 2.19	-11 49.2	2.076	2.912	13.3	20.5
<b>385867</b>	2006 <i>RW</i> <sub>29</sub>		4 13.9 226°63'	1.7°/11.8	17		<b>9992</b>	1981 <i>ER</i> <sub>41</sub>		4 13.9 331°66'	9.0°/18.5	18	
3 12	13 48.84	-6 55.4	2.306	3.162	10.7	21.5	3 12	14 1.06	-28 59.4	1.886	2.649	16.4	19.0
3 22	13 44.32	-5 56.9	2.227	3.157	7.7	21.3	3 22	13 54.40	-30 50.2	1.789	2.634	14.0	18.8
4 1	13 38.26	-4 50.8	2.173	3.152	4.4	21.1	4 1	13 44.78	-32 24.6	1.715	2.620	11.5	18.6
4 11	13 31.27	-3 42.0	2.148	3.147	1.8	20.9	4 11	13 32.88	-33 36.8	1.665	2.606	9.5	18.4
4 21	13 24.06	-2 35.9	2.152	3.142	3.9	21.0	4 21	13 19.88	-34 22.6	1.642	2.593	9.1	18.4
5 1	13 17.38	-1 37.9	2.184	3.136	7.2	21.2	5 1	13 7.24	-34 42.2	1.645	2.580	10.4	18.4
5 11	13 11.88	-0 52.3	2.242	3.130	10.4	21.4	5 11	12 56.43	-34 40.6	1.672	2.568	12.9	18.5
5 21	13 8.02	-0 21.5	2.323	3.124	13.2	21.6	5 21	12 48.44	-34 25.6	1.720	2.557	15.6	18.7
<b>522315</b>	2016 <i>BX</i> <sub>101</sub>		4 13.9 31°79'	2.3°/15.4	17		<b>266387</b>	2007 <i>EN</i> <sub>131</sub>		4 13.9 96°34'	1.4°/12.6	17	
3 12	13 55.54	-15 19.5	1.515	2.358	16.0	21.7	3 12	13 51.19	-8 44.1	1.779	2.638	13.2	21.2
3 22	13 49.99	-15 33.0	1.443	2.360	12.1	21.5	3 22	13 46.34	-7 51.4	1.713	2.645	9.5	21.0
4 1	13 41.88	-15 31.1	1.393	2.362	7.6	21.2	4 1	13 39.53	-6 48.3	1.672	2.651	5.4	20.8
4 11	13 32.12	-15 15.3	1.368	2.365	3.3	21.0	4 11	13 31.58	-5 40.7	1.657	2.657	1.6	20.5
4 21	13 21.95	-14 49.4	1.369	2.367	3.7	21.0	4 21	13 23.42	-4 35.1	1.670	2.664	4.1	20.7
5 1	13 12.68	-14 19.1	1.396	2.370	8.2	21.3	5 1	13 16.05	-3 38.3	1.710	2.670	8.2	21.0
5 11	13 5.42	-13 51.2	1.447	2.372	12.6	21.5	5 11	13 10.27	-2 55.5	1.774	2.676	12.0	21.2
5 21	13 0.83	-13 31.3	1.519	2.375	16.3	21.8	5 21	13 6.59	-2 29.4	1.860	2.682	15.2	21.4
<b>366230</b>	2012 <i>UZ</i> <sub>85</sub>		4 13.9 83°72'	0.7°/13.2	17		<b>246672</b>	2008 <i>YZ</i> <sub>132</sub>		4 13.9 272°93'	2.2°/15.9	18	
3 12	13 52.30	-8 7.1	2.202	3.051	11.4	21.2	3 12	13 51.47	-17 11.9	2.109	2.935	12.7	20.8
3 22	13 46.81	-7 53.8	2.134	3.060	8.3	21.0	3 22	13 46.49	-17 7.9	2.024	2.931	9.7	20.6
4 1	13 39.68	-7 34.0	2.092	3.069	4.7	20.8	4 1	13 39.64	-16 49.9	1.962	2.926	6.3	20.4
4 11	13 31.59	-7 10.9	2.077	3.078	1.1	20.6	4 11	13 31.62	-16 19.8	1.927	2.921	2.9	20.2
4 21	13 23.32	-6 48.1	2.091	3.087	3.1	20.8	4 21	13 23.27	-15 40.8	1.919	2.917	3.0	20.1
5 1	13 15.71	-6 29.5	2.134	3.096	6.7	21.0	5 1	13 15.50	-14 57.7	1.940	2.912	6.4	20.4
5 11	13 9.44	-6 18.4	2.202	3.105	10.0	21.2	5 11	13 9.13	-14 16.1	1.987	2.907	9.9	20.6
5 21	13 4.97	-6 16.8	2.294	3.114	12.8	21.4	5 21	13 4.69	-13 40.7	2.057	2.903	13.1	20.7
<b>102898</b>	1999 <i>XD</i> <sub>11</sub>		4 13.9 231°46'	0.9°/14.5	18		<b>282794</b>	2006 <i>OF</i> <sub>14</sub>		4 13.9 135°84'	5.4°/6.4	17	

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>346255</b>	2008 <i>EN</i> <sub>29</sub>		4 13.9 241°27	0°7/12.6	18		<b>25031</b>	1998 <i>QM</i> <sub>30</sub>		4 13.9 232°07	1°9/15.4	18	
3 12	13 45.44	- 5 50.2	4.907	5.748	5.7	21.1	3 12	13 55.11	-15 54.9	1.913	2.743	13.7	19.1
3 22	13 41.18	- 5 43.1	4.817	5.740	4.1	21.0	3 22	13 49.38	-15 50.4	1.823	2.733	10.4	18.9
4 1	13 36.22	- 5 33.9	4.755	5.731	2.3	20.8	4 1	13 41.46	-15 31.5	1.755	2.722	6.6	18.6
4 11	13 30.82	- 5 24.0	4.723	5.723	0.7	20.7	4 11	13 32.09	-15 0.0	1.715	2.712	2.7	18.3
4 21	13 25.31	- 5 14.9	4.722	5.715	1.8	20.8	4 21	13 22.25	-14 19.3	1.702	2.700	3.2	18.3
5 1	13 20.03	- 5 8.2	4.752	5.706	3.6	20.9	5 1	13 13.03	-13 35.0	1.718	2.688	7.2	18.5
5 11	13 15.26	- 5 5.0	4.811	5.698	5.3	21.0	5 11	13 5.39	-12 53.3	1.759	2.676	11.2	18.8
5 21	13 11.26	- 5 6.6	4.895	5.689	6.8	21.1	5 21	12 59.98	-12 19.5	1.822	2.663	14.7	19.0
<b>14855</b>	1989 <i>SP</i> <sub>9</sub>		4 13.9 130°96	0°9/12.9	18		<b>313370</b>	2002 <i>JW</i> <sub>67</sub>		4 13.9 47°05	20°5/ 9.8	18	
3 12	13 50.52	- 9 27.2	2.092	2.944	11.8	18.3	3 12	14 16.91	+30 20.9	0.890	1.722	25.4	19.5
3 22	13 45.62	- 8 38.1	2.023	2.950	8.6	18.1	3 22	14 6.28	+30 53.5	0.862	1.732	22.9	19.4
4 1	13 39.04	- 7 39.6	1.978	2.956	4.9	17.8	4 1	13 51.27	+30 38.5	0.849	1.744	21.1	19.3
4 11	13 31.47	- 6 36.3	1.961	2.962	1.2	17.6	4 11	13 34.18	+29 22.2	0.853	1.756	20.5	19.3
4 21	13 23.73	- 5 33.9	1.973	2.968	3.4	17.8	4 21	13 17.70	+27 3.5	0.876	1.769	21.4	19.4
5 1	13 16.65	- 4 38.0	2.013	2.973	7.2	18.0	5 1	13 4.15	+23 53.1	0.918	1.782	23.4	19.6
5 11	13 10.93	- 3 53.3	2.079	2.978	10.6	18.2	5 11	12 54.84	+20 9.0	0.977	1.795	25.8	19.8
5 21	13 7.04	- 3 22.8	2.166	2.983	13.5	18.4	5 21	12 49.97	+16 9.1	1.052	1.809	28.2	20.0
<b>388292</b>	2006 <i>SO</i> <sub>81</sub>		4 13.9 61°72	1°4/12.3	17		<b>78992</b>	2003 <i>UC</i> <sub>188</sub>		4 13.9 267°86	0°9/14.7	18	
3 12	13 48.10	- 8 54.3	2.091	2.948	11.6	20.7	3 12	13 51.48	-13 44.4	2.001	2.841	12.8	19.6
3 22	13 43.82	- 7 46.9	2.029	2.959	8.3	20.5	3 22	13 46.55	-13 27.6	1.918	2.837	9.5	19.4
4 1	13 37.97	- 6 30.3	1.991	2.971	4.7	20.3	4 1	13 39.71	-12 58.4	1.860	2.832	5.8	19.2
4 11	13 31.23	- 5 10.1	1.982	2.982	1.5	20.1	4 11	13 31.68	-12 19.6	1.828	2.827	1.8	18.9
4 21	13 24.37	- 3 52.6	2.001	2.993	3.7	20.2	4 21	13 23.32	-11 35.4	1.824	2.823	2.8	19.0
5 1	13 18.16	- 2 44.0	2.048	3.005	7.3	20.5	5 1	13 15.59	-10 51.1	1.848	2.818	6.8	19.2
5 11	13 13.27	- 1 49.1	2.121	3.016	10.6	20.7	5 11	13 9.29	-10 12.2	1.898	2.814	10.6	19.4
5 21	13 10.10	- 1 10.3	2.215	3.028	13.4	20.9	5 21	13 4.98	- 9 42.9	1.970	2.809	13.8	19.6
<b>307066</b>	2002 <i>AS</i> <sub>8</sub>		4 13.9 2°85	6°0/ 9.4	18		<b>336826</b>	2011 <i>EJ</i> <sub>54</sub>		4 13.9 343°73	3°0/11.2	17	
3 12	13 51.91	+ 0 37.1	1.258	2.145	15.7	20.3	3 12	13 49.83	- 4 33.1	1.628	2.501	13.5	20.4
3 22	13 47.51	+ 1 53.7	1.201	2.144	11.6	20.1	3 22	13 45.58	- 3 36.4	1.559	2.497	9.8	20.2
4 1	13 40.47	+ 3 13.0	1.167	2.144	7.6	19.8	4 1	13 39.23	- 2 32.3	1.513	2.494	5.7	19.9
4 11	13 31.83	+ 4 24.6	1.156	2.144	6.1	19.7	4 11	13 31.57	- 1 27.6	1.494	2.491	3.0	19.8
4 21	13 22.88	+ 5 18.7	1.169	2.145	8.8	19.9	4 21	13 23.61	- 0 29.7	1.501	2.488	5.6	19.9
5 1	13 14.98	+ 5 48.2	1.206	2.146	13.0	20.1	5 1	13 16.42	+ 0 14.7	1.533	2.485	9.7	20.1
5 11	13 9.21	+ 5 50.2	1.263	2.147	17.0	20.4	5 11	13 10.88	+ 0 41.1	1.589	2.484	13.5	20.4
5 21	13 6.17	+ 5 26.2	1.337	2.149	20.5	20.6	5 21	13 7.56	+ 0 47.8	1.664	2.482	16.9	20.6
<b>239870</b>	2000 <i>HD</i> <sub>29</sub>		4 13.9 129°89	1°4/12.9	18		<b>306830</b>	2001 <i>RV</i> <sub>50</sub>		4 13.9 221°81	3°0/16.6	17	
3 12	13 57.97	- 7 38.5	1.599	2.454	14.7	21.3	3 12	13 54.98	-19 42.9	2.225	3.032	12.8	22.4
3 22	13 51.41	- 7 11.8	1.538	2.466	10.6	21.1	3 22	13 49.07	-19 43.8	2.128	3.022	10.0	22.2
4 1	13 42.52	- 6 36.3	1.500	2.478	6.1	20.8	4 1	13 41.20	-19 29.6	2.056	3.011	6.8	22.0
4 11	13 32.27	- 5 57.0	1.489	2.490	1.7	20.6	4 11	13 32.03	-19 1.0	2.010	3.000	3.7	21.8
4 21	13 21.82	- 5 19.7	1.506	2.500	4.2	20.8	4 21	13 22.44	-18 20.7	1.993	2.988	3.5	21.7
5 1	13 12.39	- 4 50.1	1.549	2.510	8.8	21.0	5 1	13 13.38	-17 33.2	2.006	2.975	6.5	21.9
5 11	13 4.92	- 4 32.8	1.617	2.520	12.9	21.3	5 11	13 5.72	-16 44.5	2.044	2.961	9.9	22.1
5 21	12 59.96	- 4 30.1	1.706	2.529	16.3	21.6	5 21	13 0.04	-16 0.0	2.107	2.947	13.0	22.2
<b>17142</b>	1999 <i>QJ</i> <sub>95</sub>		4 13.9 200°63	4°5/ 8.9	18		<b>58681</b>	1998 <i>AJ</i> <sub>7</sub>		4 13.9 147°96	1°6/15.4	18	
3 12	13 52.32	+ 3 10.3	2.406	3.264	10.2	18.6	3 12	13 53.90	-16 12.2	2.160	2.984	12.6	19.7
3 22	13 46.77	+ 4 12.3	2.333	3.260	7.6	18.5	3 22	13 48.10	-15 56.1	2.085	2.992	9.4	19.5
4 1	13 39.67	+ 5 13.9	2.288	3.255	5.3	18.3	4 1	13 40.51	-15 26.7	2.034	3.000	5.9	19.3
4 11	13 31.63	+ 6 9.6	2.270	3.249	4.5	18.2	4 11	13 31.85	-14 46.4	2.011	3.008	2.4	19.1
4 21	13 23.38	+ 6 54.3	2.282	3.243	6.2	18.3	4 21	13 22.99	-13 59.0	2.017	3.015	2.7	19.1
5 1	13 15.68	+ 7 24.0	2.322	3.236	8.9	18.5	5 1	13 14.81	-13 9.8	2.052	3.022	6.3	19.3
5 11	13 9.20	+ 7 36.8	2.386	3.229	11.5	18.6	5 11	13 8.07	-12 24.2	2.113	3.028	9.7	19.6
5 21	13 4.37	+ 7 32.5	2.471	3.220	13.9	18.8	5 21	13 3.26	-11 46.5	2.198	3.033	12.7	19.8
<b>210747</b>	2000 <i>UD</i> <sub>112</sub>		4 13.9 213°87	0°8/13.1	17		<b>142294</b>	2002 <i>RY</i> <sub>142</sub>		4 13.9 85°81	4°1/16.9	18	
3 12	13 52.00	- 7 29.9	2.728	3.570	9.7	20.9	3 12	13 55.72	-20 25.4	1.618	2.440	16.1	19.9
3 22	13 46.44	- 7 16.6	2.641	3.564	7.0	20.7	3 22	13 50.01	-20 40.6	1.550	2.450	12.6	19.6
4 1	13 39.45	- 6 58.2	2.581	3.557	4.0	20.5	4 1	13 41.85	-20 36.2	1.503	2.459	8.6	19.4
4 11	13 31.59	- 6 37.3	2.550	3.551	1.0	20.2	4 11	13 32.18	-20 13.1	1.481	2.469	5.0	19.2
4 21	13 23.49	- 6 16.7	2.549	3.544	2.7	20.4	4 21	13 22.19	-19 34.5	1.485	2.478	4.5	19.2
5 1	13 15.84	- 5 59.7	2.578	3.537	5.9	20.6	5 1	13 13.13	-18 46.7	1.515	2.488	7.8	19.4
5 11	13 9.24	- 5 48.9	2.634	3.529	8.8	20.7	5 11	13 6.04	-17 57.7	1.571	2.497	11.7	19.7
5 21	13 4.14	- 5 46.4	2.714	3.521	11.3	20.9	5 21	13 1.52	-17 14.2	1.648	2.506	15.1	19.9
<b>289244</b>	2004 <i>XX</i> <sub>78</sub>		4 13.9 187°75	0°6/14.4	17		<b>165327</b>	2000 <i>UQ</i> <sub>91</sub>		4 13.9 221°34	1°0/14.7	16	
3 12	13 55.34	-13 37.8	1.946	2.781	13.3	21.7	3 12	13 55.62	-13 56.2	1.792	2.630	14.1	21.4
3 22	13 49.36	-13 6.8	1.864	2.781	9.9	21.5	3 22	13 49.83	-13 40.2	1.705	2.622	10.6	21.1
4 1	13 41.33	-12 22.3	1.807	2.780	5.9	21.3	4 1	13 41.75	-13 10.1	1.642	2.614	6.4	20.9
4 11	13 32.03	-11 27.5	1.778	2.778	1.6	21.0	4 11	13 32.18	-12 28.4	1.605	2.605	2.0	20.5
4 21	13 22.42	-10 27.6	1.777	2.775	3.0	21.1	4 21	13 22.14	-11 39.9	1.597	2.595	3.2	20.6
5 1	13 13.51	- 9 28.9	1.805	2.772	7.3	21.3	5 1	13 12.79	-10 50.7	1.616	2.585	7.7	20.9
5 11	13 6.20	- 8 37.7	1.859	2.768	11.1	21.5	5 11	13 5.14	-10 7.4	1.660	2.575	11.9	21.1
5 21	13 1.03	- 7 58.4	1.935	2.763	14.5	21.8	5 21	12 59.83	- 9 35.1	1.726	2.563	15.5	21.3
<b>217273</b>	2004 <i>BZ</i> <sub>22</sub>		4 13.9 322°77	12°1/20.2	18		<b>57666</b>	2001 <i>UW</i> <sub>24</sub>					



EPHEMERIDES

4 13.9

4 13.9

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>513096</b>	2017 <i>WF</i> <sub>23</sub>		4 13.9 226°64	5°4/ 7.8 17			<b>90163</b>	2003 <i>AS</i> <sub>5</sub>		4 13.9 357°74	8°7/21.1 18		
3 12	13 50.16	+ 6 26.2	2.333	3.196	10.3	21.2	3 12	13 48.35	-30 24.8	1.540	2.331	18.3	18.2
3 22	13 45.25	+ 7 26.5	2.268	3.193	7.9	21.1	3 22	13 45.09	-31 14.4	1.462	2.325	15.5	18.0
4 1	13 38.81	+ 8 23.6	2.229	3.190	5.9	20.9	4 1	13 39.24	-31 37.0	1.403	2.322	12.5	17.8
4 11	13 31.47	+ 9 11.7	2.218	3.187	5.5	20.9	4 11	13 31.65	-31 29.8	1.365	2.319	9.9	17.6
4 21	13 23.95	+ 9 46.1	2.234	3.183	7.1	21.0	4 21	13 23.52	-30 53.5	1.350	2.318	8.7	17.6
5 1	13 16.99	+10 3.4	2.276	3.179	9.5	21.1	5 1	13 16.18	-29 53.3	1.358	2.318	9.8	17.6
5 11	13 11.25	+10 2.2	2.342	3.176	12.0	21.3	5 11	13 10.84	-28 38.6	1.389	2.320	12.5	17.8
5 21	13 7.15	+ 9 43.2	2.429	3.172	14.2	21.4	5 21	13 8.19	-27 19.8	1.440	2.323	15.5	18.0
<b>360534</b>	2003 <i>SG</i> <sub>112</sub>		4 13.9 265°84	0°3/13.6 17			<b>245886</b>	2006 <i>QF</i> <sub>52</sub>		4 13.9 241°15	1°3/15.1 18		
3 12	13 53.58	-11 27.9	1.671	2.523	14.3	21.8	3 12	13 53.13	-14 4.3	2.388	3.216	11.4	20.6
3 22	13 48.57	-10 50.4	1.577	2.503	10.6	21.6	3 22	13 47.56	-14 5.8	2.296	3.207	8.5	20.4
4 1	13 41.14	- 9 58.1	1.505	2.482	6.2	21.2	4 1	13 40.26	-13 57.4	2.228	3.197	5.3	20.2
4 11	13 32.07	- 8 55.1	1.460	2.461	1.4	20.9	4 11	13 31.85	-13 40.6	2.188	3.186	2.0	20.0
4 21	13 22.39	- 7 47.7	1.442	2.440	3.8	21.0	4 21	13 23.09	-13 18.0	2.178	3.176	2.6	20.0
5 1	13 13.31	- 6 43.8	1.451	2.418	8.7	21.2	5 1	13 14.80	-12 53.5	2.196	3.165	6.0	20.2
5 11	13 5.93	- 5 50.7	1.485	2.395	13.3	21.4	5 11	13 7.75	-12 31.0	2.242	3.154	9.3	20.4
5 21	13 0.97	- 5 13.6	1.539	2.372	17.3	21.6	5 21	13 2.45	-12 14.2	2.311	3.143	12.3	20.5
<b>205935</b>	2002 <i>JW</i> <sub>33</sub>		4 13.9 303°31	4°8/10.1 17			<b>106676</b>	2000 <i>WO</i> <sub>152</sub>		4 13.9 187°93	5°6/22.3 18		
3 12	13 53.77	+ 1 31.0	1.736	2.605	13.0	19.9	3 12	13 50.84	-34 43.2	3.020	3.731	11.9	20.0
3 22	13 48.66	+ 2 10.3	1.639	2.573	9.7	19.7	3 22	13 45.68	-34 29.7	2.922	3.730	10.1	19.8
4 1	13 41.20	+ 2 51.1	1.567	2.541	6.4	19.4	4 1	13 39.05	-33 56.4	2.846	3.729	8.2	19.7
4 11	13 32.09	+ 3 26.7	1.520	2.509	4.8	19.2	4 11	13 31.55	-33 3.1	2.795	3.727	6.5	19.6
4 21	13 22.31	+ 3 50.9	1.500	2.476	7.1	19.3	4 21	13 23.86	-31 51.8	2.771	3.725	5.6	19.5
5 1	13 13.03	+ 3 58.0	1.506	2.444	11.0	19.4	5 1	13 16.71	-30 26.3	2.777	3.723	6.2	19.6
5 11	13 5.31	+ 3 45.2	1.535	2.412	14.9	19.6	5 11	13 10.72	-28 52.6	2.810	3.720	7.8	19.6
5 21	12 59.91	+ 3 11.9	1.583	2.380	18.5	19.7	5 21	13 6.32	-27 16.7	2.870	3.717	9.7	19.8
<b>85189</b>	1991 <i>RL</i> <sub>2</sub>		4 13.9 219°50	3°9/17.8 18			<b>222759</b>	2002 <i>CQ</i> <sub>44</sub>		4 13.9 127°49	0°9/14.7 17		
3 12	13 55.53	-23 24.1	2.580	3.361	12.0	20.0	3 12	13 53.08	-14 5.1	1.975	2.812	13.0	21.3
3 22	13 49.31	-23 37.7	2.478	3.350	9.6	19.8	3 22	13 47.62	-13 41.8	1.904	2.821	9.7	21.1
4 1	13 41.29	-23 36.5	2.400	3.338	6.9	19.6	4 1	13 40.29	-13 5.7	1.857	2.829	5.8	20.9
4 11	13 32.07	-23 20.2	2.349	3.326	4.6	19.5	4 11	13 31.84	-12 20.0	1.838	2.837	1.8	20.6
4 21	13 22.44	-22 50.3	2.327	3.312	4.1	19.4	4 21	13 23.19	-11 29.3	1.847	2.845	2.8	20.7
5 1	13 13.26	-22 10.2	2.335	3.298	6.1	19.5	5 1	13 15.26	-10 39.3	1.883	2.853	6.8	21.0
5 11	13 5.32	-21 25.2	2.370	3.284	8.9	19.7	5 11	13 8.87	- 9 55.6	1.946	2.860	10.5	21.2
5 21	12 59.17	-20 40.4	2.430	3.268	11.6	19.8	5 21	13 4.50	- 9 22.3	2.031	2.867	13.6	21.4
<b>285390</b>	1999 <i>TG</i> <sub>211</sub>		4 13.9 240°67	0°3/14.1 17			<b>336407</b>	2008 <i>UL</i> <sub>163</sub>		4 13.9 281°15	2°7/16.5 18		
3 12	13 56.24	-11 48.2	2.006	2.843	12.9	21.4	3 12	13 50.31	-19 55.8	1.919	2.741	14.0	20.7
3 22	13 50.17	-11 31.5	1.908	2.826	9.6	21.2	3 22	13 45.93	-19 30.0	1.823	2.726	10.8	20.5
4 1	13 41.93	-11 3.6	1.834	2.807	5.7	20.9	4 1	13 39.49	-18 44.6	1.749	2.710	7.2	20.2
4 11	13 32.24	-10 27.0	1.788	2.788	1.4	20.6	4 11	13 31.70	-17 41.7	1.702	2.695	3.7	20.0
4 21	13 22.02	- 9 45.8	1.770	2.768	3.1	20.7	4 21	13 23.46	-16 25.7	1.682	2.679	3.4	19.9
5 1	13 12.32	- 9 5.4	1.782	2.747	7.5	20.9	5 1	13 15.81	-15 3.7	1.689	2.663	7.0	20.1
5 11	13 4.11	- 8 31.3	1.819	2.726	11.5	21.1	5 11	13 9.66	-13 43.6	1.723	2.648	10.9	20.3
5 21	12 58.04	- 8 7.7	1.879	2.703	15.0	21.3	5 21	13 5.61	-12 32.6	1.779	2.632	14.5	20.5
<b>322410</b>	2011 <i>SJ</i> <sub>57</sub>		4 13.9 24°55	2°8/12.2 18			<b>17407</b>	Teige		4 13.9 168°35	0°6/13.3 18		
3 12	13 56.86	- 3 51.5	1.341	2.212	15.9	20.2	3 12	13 54.26	- 8 39.9	2.523	3.361	10.5	19.2
3 22	13 51.08	- 3 36.4	1.277	2.214	11.6	20.0	3 22	13 48.12	- 8 18.3	2.446	3.366	7.6	19.0
4 1	13 42.58	- 3 16.3	1.236	2.216	6.8	19.7	4 1	13 40.45	- 7 50.1	2.395	3.371	4.4	18.8
4 11	13 32.37	- 2 56.9	1.220	2.218	2.9	19.5	4 11	13 31.87	- 7 18.3	2.374	3.375	1.0	18.6
4 21	13 21.81	- 2 43.8	1.229	2.221	5.6	19.6	4 21	13 23.11	- 6 46.3	2.383	3.378	2.8	18.7
5 1	13 12.31	- 2 42.4	1.263	2.224	10.4	19.9	5 1	13 14.90	- 6 18.0	2.421	3.381	6.2	18.9
5 11	13 5.01	- 2 55.8	1.320	2.226	14.9	20.2	5 11	13 7.92	- 5 56.8	2.487	3.382	9.3	19.1
5 21	13 0.55	- 3 24.9	1.395	2.230	18.7	20.4	5 21	13 2.59	- 5 44.9	2.577	3.384	11.9	19.3
<b>281265</b>	2007 <i>QR</i> <sub>1</sub>		4 13.9 270°42	4°9/ 8.9 17			<b>248721</b>	2006 <i>QK</i> <sub>18</sub>		4 13.9 286°84	4°6/17.4 18		
3 12	13 51.32	+ 2 38.9	2.102	2.967	11.2	20.8	3 12	13 56.03	-21 53.9	2.115	2.914	13.7	19.9
3 22	13 46.38	+ 3 42.1	2.017	2.948	8.4	20.6	3 22	13 50.03	-22 37.3	2.023	2.906	10.9	19.7
4 1	13 39.63	+ 4 46.3	1.957	2.927	5.8	20.4	4 1	13 41.87	-23 6.0	1.955	2.899	7.9	19.5
4 11	13 31.70	+ 5 45.1	1.926	2.907	4.9	20.3	4 11	13 32.25	-23 19.0	1.912	2.891	5.3	19.3
4 21	13 23.40	+ 6 32.5	1.921	2.886	6.9	20.3	4 21	13 22.10	-23 16.9	1.898	2.883	4.8	19.3
5 1	13 15.62	+ 7 3.3	1.944	2.865	9.9	20.5	5 1	13 12.49	-23 2.6	1.911	2.876	7.1	19.4
5 11	13 9.14	+ 7 14.9	1.990	2.843	13.0	20.6	5 11	13 4.38	-22 41.2	1.951	2.868	10.2	19.6
5 21	13 4.51	+ 7 6.8	2.056	2.822	15.8	20.8	5 21	12 58.42	-22 18.4	2.013	2.861	13.2	19.8
<b>231576</b>	2008 <i>UX</i> <sub>68</sub>		4 13.9 94°04	2°9/10.9 17			<b>421977</b>	2014 <i>QJ</i> <sub>297</sub>		4 13.9 196°95	1°1/14.8 16		
3 12	13 50.04	- 4 12.6	1.918	2.784	12.1	20.1	3 12	13 57.77	-13 44.8	1.999	2.829	13.2	21.3
3 22	13 45.42	- 3 8.2	1.852	2.787	8.7	19.9	3 22	13 51.18	-13 37.7	1.913	2.826	9.9	21.1
4 1	13 39.01	- 1 57.7	1.811	2.790	5.1	19.6	4 1	13 42.45	-13 18.5	1.852	2.822	6.0	20.9
4 11	13 31.54	- 0 47.5	1.797	2.793	2.9	19.5	4 11	13 32.36	-12 49.4	1.818	2.817	2.0	20.6
4 21	13 23.87	+ 0 15.9	1.811	2.795	5.2	19.7	4 21	13 21.88	-12 13.8	1.813	2.811	3.0	20.6
5 1	13 16.90	+ 1 6.5	1.852	2.798	8.7	19.9	5 1	13 12.07	-11 37.0	1.837	2.805	7.1	20.9
5 11	13 11.37	+ 1 40.5	1.917	2.801	12.1	20.1	5 11	13 3.84	-11 4.3	1.888	2.797	11.0	21.1
5 21	13 7.76	+ 1 56.2	2.004	2.804	15.0	20.3	5 21	12 57.81	-10 40.1	1.961	2.789	14.3	21.3
<b>286799</b>	2002 <i>JO</i> <sub>132</sub>		4 13.9 352°87	1°3/14.9 17			<b>206837</b>	2004 <i>ER</i> <sub>68</sub>		4 13.9			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	
<b>336489</b>	2008 WY <sub>2</sub>	4 13.9 201°31' 2.7°/17.0 18						<b>426984</b>	2014 BB <sub>11</sub>	4 13.9 351°20' 1.4°/12.5 17				
3 12	13 51.24	-21 15.8	2.427	3.229	12.0	22.0	3 12	13 50.15	-7 25.4	2.083	2.939	11.7	20.9	
3 22	13 46.14	-20 47.8	2.335	3.225	9.4	21.8	3 22	13 45.45	-6 48.4	2.009	2.939	8.4	20.7	
4 1	13 39.41	-20 3.4	2.268	3.221	6.3	21.6	4 1	13 39.04	-6 4.0	1.960	2.938	4.8	20.5	
4 11	13 31.66	-19 4.4	2.228	3.217	3.5	21.4	4 11	13 31.60	-5 16.5	1.938	2.938	1.5	20.3	
4 21	13 23.66	-17 54.5	2.217	3.211	3.1	21.4	4 21	13 23.93	-4 30.8	1.945	2.938	3.7	20.4	
5 1	13 16.20	-16 39.1	2.235	3.206	5.8	21.5	5 1	13 16.87	-3 52.1	1.979	2.938	7.4	20.7	
5 11	13 9.99	-15 24.6	2.281	3.200	8.9	21.7	5 11	13 11.15	-3 24.3	2.038	2.937	10.8	20.9	
5 21	13 5.51	-14 16.5	2.351	3.193	11.8	21.9	5 21	13 7.25	-3 9.9	2.120	2.937	13.7	21.1	
<b>471417</b>	2011 TV <sub>15</sub>	4 13.9 198°95' 3°6'/17.8 17						<b>352056</b>	2006 VX <sub>173</sub>	4 13.9 209°15' 2°3'/16.4 17				
3 12	13 52.16	-22 43.1	2.611	3.401	11.6	21.8	3 12	13 51.81	-18 31.6	2.750	3.557	10.6	21.5	
3 22	13 46.77	-22 53.4	2.521	3.399	9.2	21.6	3 22	13 46.42	-18 31.7	2.657	3.552	8.2	21.3	
4 1	13 39.77	-22 49.4	2.454	3.397	6.6	21.4	4 1	13 39.53	-18 20.3	2.589	3.546	5.4	21.2	
4 11	13 31.75	-22 31.5	2.415	3.394	4.3	21.2	4 11	13 31.72	-17 58.5	2.549	3.540	2.9	21.0	
4 21	13 23.43	-22 1.7	2.404	3.391	3.8	21.2	4 21	13 23.63	-17 28.4	2.539	3.534	2.7	21.0	
5 1	13 15.61	-21 23.5	2.422	3.388	5.7	21.3	5 1	13 15.98	-16 53.7	2.558	3.527	5.3	21.1	
5 11	13 8.96	-20 41.5	2.467	3.385	8.4	21.5	5 11	13 9.41	-16 18.3	2.605	3.520	8.1	21.3	
5 21	13 3.99	-20 0.7	2.536	3.381	10.9	21.7	5 21	13 4.38	-15 46.3	2.677	3.513	10.7	21.4	
<b>72104</b>	2000 YU <sub>52</sub>	4 13.9 10°45' 2°4'/12.3 18						<b>472862</b>	2015 FY <sub>295</sub>	4 13.9 314°61' 2°3'/11.3 17				
3 12	13 50.62	-6 25.4	1.111	1.998	17.3	18.7	3 12	13 48.11	-6 7.8	2.049	2.912	11.6	20.9	
3 22	13 46.86	-5 51.8	1.055	2.000	12.5	18.5	3 22	13 44.01	-4 57.4	1.974	2.908	8.3	20.7	
4 1	13 40.26	-5 7.8	1.019	2.003	7.2	18.2	4 1	13 38.23	-3 38.7	1.925	2.904	4.8	20.4	
4 11	13 31.89	-4 20.8	1.007	2.007	2.6	17.9	4 11	13 31.44	-2 17.9	1.903	2.900	2.3	20.3	
4 21	13 23.18	-3 39.2	1.017	2.012	5.7	18.1	4 21	13 24.41	-1 1.6	1.909	2.897	4.6	20.4	
5 1	13 15.61	-3 11.1	1.051	2.019	11.0	18.4	5 1	13 17.98	+0 3.9	1.944	2.893	8.2	20.6	
5 11	13 10.37	-3 1.7	1.105	2.026	15.9	18.7	5 11	13 12.85	+0 53.8	2.002	2.889	11.5	20.8	
5 21	13 8.05	-3 12.6	1.177	2.035	20.0	19.0	5 21	13 9.49	+1 25.8	2.083	2.886	14.4	21.0	
<b>310309</b>	2011 UT <sub>112</sub>	4 13.9 264°79' 2°4'/16.8 17						<b>415998</b>	2002 AT <sub>108</sub>	4 13.9 115°30' 3°6'/17.6 18				
3 12	13 48.44	-20 47.1	2.469	3.277	11.7	20.8	3 12	13 55.48	-22 29.8	2.220	3.014	13.3	21.6	
3 22	13 44.13	-20 11.2	2.371	3.266	9.0	20.6	3 22	13 49.22	-22 27.6	2.153	3.035	10.4	21.4	
4 1	13 38.26	-19 18.9	2.298	3.254	6.1	20.3	4 1	13 41.17	-22 8.3	2.109	3.055	7.2	21.3	
4 11	13 31.41	-18 12.3	2.252	3.242	3.2	20.1	4 11	13 32.09	-21 33.2	2.092	3.075	4.4	21.1	
4 21	13 24.29	-16 55.2	2.234	3.231	2.8	20.1	4 21	13 22.88	-20 45.6	2.104	3.094	3.8	21.1	
5 1	13 17.66	-15 33.4	2.246	3.219	5.6	20.2	5 1	13 14.44	-19 50.5	2.144	3.112	6.2	21.3	
5 11	13 12.18	-14 13.1	2.286	3.207	8.8	20.4	5 11	13 7.52	-18 54.2	2.212	3.130	9.2	21.5	
5 21	13 8.33	-12 59.8	2.350	3.195	11.7	20.6	5 21	13 2.58	-18 2.1	2.303	3.147	11.9	21.7	
<b>474975</b>	2005 TC <sub>80</sub>	4 13.9 145°06' 3°4'/17.4 18						<b>59803</b>	1999 QH <sub>2</sub>	4 13.9 250°04' 0°2'/14.1 18				
3 12	13 52.75	-21 21.3	2.570	3.366	11.6	21.7	3 12	13 49.88	-11 54.4	2.809	3.642	9.7	20.8	
3 22	13 47.18	-21 38.7	2.486	3.369	9.1	21.5	3 22	13 45.00	-11 28.6	2.708	3.625	7.2	20.6	
4 1	13 40.00	-21 42.9	2.426	3.372	6.4	21.4	4 1	13 38.72	-10 54.1	2.634	3.607	4.2	20.4	
4 11	13 31.81	-21 34.2	2.393	3.375	4.0	21.2	4 11	13 31.56	-10 13.5	2.588	3.589	1.0	20.1	
4 21	13 23.35	-21 14.4	2.389	3.378	3.6	21.2	4 21	13 24.10	-9 30.0	2.572	3.570	2.3	20.2	
5 1	13 15.40	-20 46.7	2.414	3.381	5.7	21.3	5 1	13 17.01	-8 47.5	2.586	3.551	5.5	20.4	
5 11	13 8.67	-20 15.7	2.466	3.384	8.4	21.5	5 11	13 10.90	-8 9.8	2.627	3.531	8.5	20.5	
5 21	13 3.63	-19 45.6	2.543	3.386	10.9	21.7	5 21	13 6.20	-7 40.1	2.693	3.511	11.1	20.7	
<b>390264</b>	2012 XO <sub>135</sub>	4 13.9 143°45' 0°6'/14.6 17						<b>19565</b>	1999 KF <sub>4</sub>	4 13.9 299°39' 7°5'/22.4 18				
3 12	13 49.91	-13 40.0	2.608	3.439	10.4	21.6	3 12	13 50.50	-35 13.3	2.236	2.966	15.1	17.5	
3 22	13 44.96	-13 8.7	2.533	3.447	7.7	21.5	3 22	13 46.18	-35 9.8	2.116	2.935	13.1	17.3	
4 1	13 38.62	-12 27.4	2.483	3.454	4.6	21.3	4 1	13 39.73	-34 39.8	2.015	2.905	10.8	17.1	
4 11	13 31.48	-11 39.1	2.461	3.461	1.3	21.0	4 11	13 31.83	-33 41.2	1.937	2.874	8.7	16.9	
4 21	13 24.19	-10 47.5	2.469	3.468	2.3	21.1	4 21	13 23.38	-32 14.4	1.885	2.843	7.5	16.8	
5 1	13 17.42	-9 57.0	2.507	3.474	5.5	21.3	5 1	13 15.42	-30 24.2	1.860	2.812	8.2	16.8	
5 11	13 11.77	-9 11.8	2.572	3.480	8.5	21.5	5 11	13 8.95	-28 19.0	1.861	2.781	10.5	16.8	
5 21	13 7.64	-8 35.2	2.661	3.486	11.0	21.7	5 21	13 4.63	-26 8.8	1.887	2.750	13.3	16.9	
<b>127912</b>	2003 GY <sub>28</sub>	4 13.9 289°78' 3°6'/11.1 18						<b>299002</b>	2004 XN <sub>87</sub>	4 13.9 75°38' 2°4'/12.2 18				
3 12	13 52.35	-4 37.7	1.371	2.248	15.3	19.8	3 12	13 56.40	-6 11.5	1.380	2.248	15.8	21.0	
3 22	13 47.81	-4 39.4	1.302	2.242	11.1	19.5	3 22	13 50.40	-5 27.2	1.335	2.270	11.3	20.8	
4 1	13 40.72	-2 11.4	1.256	2.237	6.6	19.2	4 1	13 41.99	-4 34.8	1.313	2.293	6.4	20.6	
4 11	13 32.01	-0 52.2	1.235	2.231	3.6	19.0	4 11	13 32.28	-3 41.5	1.316	2.315	2.5	20.4	
4 21	13 22.89	+0 18.7	1.239	2.226	6.6	19.2	4 21	13 22.54	-2 54.5	1.345	2.337	5.2	20.6	
5 1	13 14.68	+1 12.5	1.268	2.221	11.2	19.4	5 1	13 14.02	-2 20.4	1.400	2.359	9.8	20.9	
5 11	13 8.47	+1 43.7	1.319	2.216	15.6	19.7	5 11	13 7.65	-2 3.2	1.478	2.381	13.9	21.2	
5 21	13 4.89	+1 50.8	1.388	2.210	19.4	19.9	5 21	13 3.89	-2 3.9	1.576	2.402	17.3	21.5	
<b>459596</b>	2013 HK <sub>13</sub>	4 13.9 321°52' 5°3'/10.3 17						<b>504390</b>	2007 VB <sub>205</sub>	4 13.9 193°08' 0°8'/12.9 18				
3 12	13 50.26	-1 31.3	1.166	2.057	16.3	20.6	3 12	13 51.39	-8 14.1	2.627	3.470	10.0	22.5	
3 22	13 46.81	-0 31.3	1.089	2.035	12.1	20.3	3 22	13 46.06	-7 45.6	2.545	3.468	7.2	22.4	
4 1	13 40.42	+0 36.3	1.034	2.015	7.6	19.9	4 1	13 39.31	-7 10.6	2.489	3.466	4.1	22.2	
4 11	13 32.00	+1 41.8	1.001	1.995	5.3	19.7	4 11	13 31.69	-6 32.3	2.462	3.463	1.1	21.9	
4 21	13 22.84	+2 34.6	0.991	1.976	8.3	19.8	4 21	13 23.85	-5 54.4	2.465	3.460	2.9	22.1	
5 1	13 14.52	+3 5.4	1.004	1.957	13.4	20.0	5 1	13 16.51	-5 20.8	2.498	3.456	6.1	22.3	
5 11	13 8.38	+3 8.9	1.036	1.940	18.3	20.3	5 11	13 10.25	-4 54.8	2.557	3.452	9.0	22.4	
5 21	13 5.26	+2 44.6	1.084	1.924	22.6	20.5	5 21	13 5.52	-4 38.6	2.640	3.447	11.6	22.6	
<b>350622</b>	2001 SN <sub>212</sub>	4 13.9 240°79' 2°0'/11.6 17						<b>127609</b>	2003 BW <sub>31</sub>	4 13.9 313°76' 4°5'/16.5 18				
3 12	13 49.19	-5 54.4	2.443	3.298	10.2	21.8	3 12	13 56.99	-18 35.0	1.571	2.399	16.2	19.2	
3 22	13 44.59	-4 56.2	2.357	3.287	7.4	21.6	3 22	13 51.40	-19 26.8	1.482	2.386	12.8	18.9	
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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>439441</b>	2013 <i>UV</i> <sub>1</sub>	4 13.9 109°50 19.4/ 4.4 17											
3 12	14 11.72	+31 34.3	1.147	1.960	21.9	20.6	<b>214445</b>	2005 <i>RS</i> <sub>18</sub>	4 13.9 326°68 0°9/13.1 17				
3 22	14 2.09	+32 52.6	1.122	1.970	20.3	20.5	3 12	13 48.60	- 9 17.6	1.888	2.748	12.6	20.0
4 1	13 48.84	+33 30.4	1.115	1.979	19.4	20.5	3 22	13 44.60	- 8 42.3	1.804	2.735	9.2	19.8
4 11	13 33.80	+33 15.3	1.126	1.989	19.6	20.5	4 1	13 38.71	- 7 56.5	1.744	2.723	5.3	19.5
4 21	13 19.11	+32 3.9	1.155	1.998	20.8	20.6	4 11	13 31.60	- 7 4.9	1.710	2.711	1.3	19.2
5 1	13 6.70	+30 1.5	1.202	2.007	22.5	20.8	4 21	13 24.13	- 6 12.7	1.704	2.700	3.6	19.4
5 11	12 57.75	+27 20.1	1.265	2.015	24.5	21.0	5 1	13 17.25	- 5 26.1	1.724	2.689	7.7	19.6
5 21	12 52.63	+24 13.2	1.342	2.023	26.3	21.2	5 11	13 11.77	- 4 50.3	1.769	2.679	11.6	19.8
							5 21	13 8.26	- 4 28.5	1.836	2.669	14.9	20.0
<b>468810</b>	2012 <i>LB</i> <sub>4</sub>	4 13.9 289°99 8°6/23.2 18											
3 12	13 52.84	-37 36.0	1.927	2.649	17.4	20.7	<b>252873</b>	2002 <i>JF</i> <sub>32</sub>	4 13.9 295°27 2°1/12.5 17				
3 22	13 48.25	-37 17.0	1.806	2.619	15.2	20.4	3 12	13 53.73	- 6 31.5	1.442	2.311	15.1	20.7
4 1	13 41.10	-36 23.8	1.702	2.588	12.7	20.2	3 22	13 48.99	- 6 1.7	1.356	2.292	11.1	20.4
4 11	13 32.17	-34 52.3	1.621	2.556	10.2	19.9	4 1	13 41.58	- 5 22.0	1.291	2.272	6.5	20.0
4 21	13 22.58	-32 43.0	1.565	2.524	8.7	19.8	4 11	13 32.31	- 4 37.8	1.252	2.252	2.2	19.7
5 1	13 13.66	-30 2.3	1.536	2.492	9.3	19.7	4 21	13 22.37	- 3 55.9	1.238	2.232	5.1	19.8
5 11	13 6.58	-27 2.8	1.535	2.460	12.0	19.8	5 1	13 13.11	- 3 23.5	1.250	2.213	10.2	20.1
5 21	13 2.11	-23 59.1	1.558	2.427	15.3	19.9	5 11	13 5.77	- 3 6.7	1.284	2.194	15.0	20.3
							5 21	13 1.12	- 3 8.4	1.337	2.175	19.2	20.5
<b>435248</b>	2007 <i>TQ</i> <sub>36</sub>	4 13.9 279°30 2°8/15.9 17											
3 12	13 55.87	-16 54.7	2.034	2.855	13.3	20.6	<b>267430</b>	2002 <i>CH</i> <sub>73</sub>	4 13.9 108°58 1°1/14.9 18				
3 22	13 50.02	-17 20.5	1.933	2.836	10.3	20.4	3 12	13 54.31	-14 29.0	1.998	2.832	13.1	21.2
4 1	13 41.96	-17 34.3	1.856	2.818	6.8	20.1	3 22	13 48.48	-14 12.2	1.934	2.848	9.7	21.0
4 11	13 32.36	-17 35.9	1.806	2.799	3.5	19.9	4 1	13 40.80	-13 42.8	1.893	2.863	5.9	20.8
4 21	13 22.15	-17 27.0	1.784	2.780	3.6	19.8	4 11	13 32.05	-13 3.7	1.880	2.879	2.0	20.6
5 1	13 12.40	-17 11.1	1.790	2.760	7.0	20.0	4 21	13 23.16	-12 19.3	1.895	2.894	2.8	20.7
5 11	13 4.12	-16 53.0	1.823	2.741	10.8	20.2	5 1	13 15.04	-11 34.9	1.938	2.908	6.6	21.0
5 21	12 58.00	-16 37.8	1.878	2.722	14.2	20.3	5 11	13 8.48	-10 55.9	2.008	2.922	10.2	21.2
							5 21	13 3.95	-10 26.0	2.101	2.936	13.2	21.4
<b>365443</b>	Holiday	4 13.9 282°52 0°3/13.7 17											
3 12	13 56.04	- 9 49.2	1.567	2.422	14.9	20.9	<b>263860</b>	2009 <i>CD</i> <sub>11</sub>	4 13.9 339°85 0°8/13.3 17				
3 22	13 50.66	- 9 38.5	1.468	2.396	11.1	20.6	3 12	13 49.65	-11 29.8	1.255	2.128	16.7	20.5
4 1	13 42.58	- 9 16.2	1.393	2.370	6.6	20.3	3 22	13 46.09	-10 35.9	1.185	2.122	12.3	20.2
4 11	13 32.54	- 8 45.6	1.342	2.343	1.5	19.9	4 1	13 39.85	- 9 23.3	1.136	2.116	7.1	19.9
4 21	13 21.67	- 8 11.6	1.319	2.316	4.0	20.0	4 11	13 31.89	- 7 58.8	1.110	2.111	1.6	19.6
5 1	13 11.34	- 7 40.5	1.321	2.289	9.3	20.2	4 21	13 23.48	- 6 32.1	1.109	2.107	4.5	19.7
5 11	13 2.81	- 7 18.7	1.348	2.261	14.2	20.4	5 1	13 16.00	- 5 14.0	1.133	2.103	10.1	20.0
5 21	12 56.95	- 7 10.7	1.394	2.234	18.4	20.6	5 11	13 10.61	- 4 13.7	1.178	2.100	15.1	20.3
							5 21	13 7.99	- 3 35.9	1.241	2.097	19.3	20.6
<b>243343</b>	2008 <i>UY</i> <sub>117</sub>	4 13.9 47°79 1°5/15.2 17											
3 12	13 52.91	-14 34.2	1.756	2.598	14.2	21.1	<b>381573</b>	2008 <i>UY</i> <sub>123</sub>	4 13.9 240°24 3°9/10.3 17				
3 22	13 47.71	-14 32.0	1.692	2.610	10.6	20.9	3 12	13 51.74	- 0 22.9	1.954	2.820	11.9	21.2
4 1	13 40.45	-14 16.4	1.651	2.622	6.5	20.7	3 22	13 46.71	+ 0 28.7	1.884	2.817	8.7	21.0
4 11	13 31.97	-13 49.7	1.635	2.634	2.4	20.4	4 1	13 39.83	+ 1 22.6	1.839	2.814	5.5	20.8
4 21	13 23.26	-13 16.4	1.647	2.646	3.1	20.5	4 11	13 31.85	+ 2 12.7	1.821	2.811	3.9	20.7
5 1	13 15.38	-12 41.7	1.686	2.659	7.1	20.8	4 21	13 23.61	+ 2 53.4	1.831	2.808	5.9	20.8
5 11	13 9.20	-12 11.3	1.750	2.672	11.0	21.0	5 1	13 16.04	+ 3 19.7	1.868	2.805	9.2	21.0
5 21	13 5.23	-11 49.5	1.836	2.685	14.3	21.3	5 11	13 9.91	+ 3 29.1	1.928	2.802	12.5	21.2
							5 21	13 5.73	+ 3 21.0	2.009	2.799	15.3	21.4
<b>430222</b>	2013 <i>VC</i> <sub>11</sub>	4 13.9 124°39 2°9/10.9 17											
3 12	13 52.03	- 2 47.5	2.195	3.054	11.1	21.2	<b>70513</b>	1999 <i>TC</i> <sub>104</sub>	4 13.9 235°57 2°3/15.7 18				
3 22	13 46.62	- 1 55.4	2.136	3.066	8.0	21.0	3 12	13 55.87	-16 30.2	1.808	2.637	14.4	18.9
4 1	13 39.64	- 0 59.9	2.102	3.079	4.8	20.9	3 22	13 50.13	-16 30.6	1.718	2.627	11.0	18.7
4 11	13 31.77	- 0 6.2	2.096	3.090	2.9	20.8	4 1	13 42.04	-16 15.8	1.651	2.617	7.1	18.4
4 21	13 23.78	+ 0 40.5	2.119	3.102	4.8	20.9	4 11	13 32.40	-15 47.0	1.610	2.606	3.1	18.1
5 1	13 16.47	+ 1 15.8	2.171	3.113	7.9	21.1	4 21	13 22.23	-15 7.8	1.597	2.595	3.4	18.1
5 11	13 10.50	+ 1 37.0	2.247	3.123	10.9	21.3	5 1	13 12.70	-14 23.8	1.611	2.583	7.5	18.3
5 21	13 6.27	+ 1 43.2	2.345	3.133	13.5	21.5	5 11	13 4.87	-13 41.6	1.651	2.571	11.6	18.5
							5 21	12 59.40	-13 7.1	1.713	2.558	15.3	18.8
<b>36415</b>	2000 <i>OL</i> <sub>50</sub>	4 13.9 289°59 3°0/11.5 18											
3 12	13 53.33	- 3 36.7	1.754	2.619	13.1	19.1	<b>64073</b>	2001 <i>SV</i> <sub>277</sub>	4 13.9 80°15 2°2/15.6 18				
3 22	13 48.33	- 2 57.4	1.658	2.592	9.6	18.8	3 12	13 56.64	-15 13.8	2.221	3.042	12.4	18.7
4 1	13 41.04	- 2 11.6	1.586	2.564	5.7	18.5	3 22	13 50.21	-15 44.7	2.140	3.045	9.4	18.5
4 11	13 32.16	- 1 24.8	1.540	2.537	3.0	18.3	4 1	13 41.88	-16 5.5	2.084	3.048	6.0	18.3
4 21	13 22.67	- 0 43.3	1.522	2.509	5.5	18.4	4 11	13 32.34	-16 16.6	2.056	3.050	2.8	18.1
5 1	13 13.69	- 0 13.4	1.530	2.482	9.8	18.5	4 21	13 22.46	-16 19.7	2.057	3.053	3.0	18.1
5 11	13 6.26	+ 0 0.5	1.562	2.454	13.9	18.7	5 1	13 13.18	-16 17.6	2.087	3.056	6.3	18.3
5 21	13 1.11	- 0 3.9	1.614	2.426	17.6	18.9	5 11	13 5.33	-16 14.1	2.144	3.059	9.6	18.5
							5 21	12 59.45	-16 12.9	2.225	3.061	12.5	18.7
<b>255591</b>	2006 <i>OB</i> <sub>6</sub>	4 13.9 239°77 1°6/15.3 18											
3 12	13 55.68	-16 0.5	2.157	2.978	12.7	21.8	<b>41488</b>	Sindbad	4 13.9 82°61 2°6/10.2 18				
3 22	13 49.71	-15 43.5	2.052	2.959	9.6	21.5	3 12	13 46.51	- 1 4.0	3.062	3.921	8.3	18.4
4 1	13 41.70	-15 12.4	1.973	2.939	6.1	21.3	3 22	13 42.31	- 0 14.0	3.004	3.934	5.9	18.2
4 11	13 32.30	-14 28.9	1.921	2.918	2.4	21.0	4 1	13 37.04	+ 0 37.2	2.973	3.947	3.7	18.1
4 21	13 22.38	-13 36.7	1.898	2.896	2.9	21.0	4 11	13 31.19	+ 1 26.0	2.970	3.961	2.6	18.0
5 1	13 12.94	-12 41.1	1.904	2.873	6.8	21.2	4 21	13 25.27	+ 2 8.7	2.998	3.974	4.0	18.1
5 11	13 4.89	-11 48.4	1.937	2.849	10.6	21.4	5 1	13 19.77	+ 2 42.4	3.054	3.987	6.2	18.3
5 21	12 58.86	-11 3.8	1.994	2.824	14.0	21.6	5 11	13 15.17	+ 3 5.0	3.136	4.000	8.5	18.5
							5 21	13 11.75	+ 3 15.6	3.24			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>470455</b>	2007 YE <sub>58</sub>		4 13.9 12°06'	3°4/17.2	17		<b>90079</b>	2002 VN <sub>105</sub>		4 13.9 100°38'	1°2/14.9	18	
3 12	13 51.18	-20 49.6	2.172	2.982	13.0	21.0	3 12	13 54.75	-14 20.1	1.735	2.576	14.4	20.1
3 22	13 46.31	-20 54.8	2.090	2.983	10.2	20.8	3 22	13 49.08	-14 3.8	1.671	2.588	10.7	19.9
4 1	13 39.63	-20 44.4	2.031	2.984	7.0	20.6	4 1	13 41.27	-13 33.2	1.629	2.601	6.5	19.6
4 11	13 31.82	-20 19.3	1.998	2.985	4.1	20.5	4 11	13 32.21	-12 51.8	1.614	2.613	2.2	19.4
4 21	13 23.71	-19 42.2	1.993	2.986	3.7	20.4	4 21	13 22.95	-12 4.3	1.627	2.626	3.1	19.5
5 1	13 16.20	-18 57.6	2.016	2.987	6.3	20.6	5 1	13 14.56	-11 17.2	1.667	2.638	7.4	19.7
5 11	13 10.07	-18 11.5	2.065	2.988	9.4	20.8	5 11	13 7.95	-10 36.6	1.732	2.649	11.3	20.0
5 21	13 5.84	-17 28.9	2.137	2.990	12.4	21.0	5 21	13 3.61	-10 6.7	1.819	2.661	14.7	20.2
<b>182374</b>	2001 QY <sub>182</sub>		4 13.9 187°09'	3°0/10.9	18		<b>356777</b>	2011 UD <sub>283</sub>		4 13.9 286°23'	2°8/11.1	16	
3 12	13 54.21	- 1 40.9	2.289	3.143	10.9	20.8	3 12	13 50.09	- 2 29.8	2.277	3.138	10.6	20.9
3 22	13 48.26	- 0 55.9	2.215	3.143	7.9	20.6	3 22	13 45.40	- 1 50.3	2.191	3.123	7.7	20.7
4 1	13 40.65	- 0 8.2	2.167	3.142	4.8	20.4	4 1	13 39.08	- 1 7.1	2.131	3.108	4.7	20.5
4 11	13 32.05	+ 0 37.5	2.147	3.140	3.0	20.3	4 11	13 31.72	- 0 24.8	2.098	3.092	2.8	20.4
4 21	13 23.22	+ 1 16.4	2.157	3.138	4.9	20.4	4 21	13 24.05	+ 0 11.9	2.093	3.077	4.7	20.4
5 1	13 14.99	+ 1 44.2	2.196	3.135	8.0	20.6	5 1	13 16.86	+ 0 38.8	2.117	3.061	7.9	20.6
5 11	13 8.07	+ 1 58.4	2.260	3.131	11.0	20.7	5 11	13 10.86	+ 0 52.6	2.165	3.046	11.0	20.8
5 21	13 2.92	+ 1 57.9	2.346	3.126	13.7	20.9	5 21	13 6.53	+ 0 52.0	2.235	3.031	13.8	20.9
<b>83412</b>	2001 SW <sub>38</sub>		4 13.9 182°75'	1°1/12.7	18		<b>140493</b>	2001 TL <sub>151</sub>		4 13.9 277°77'	3°4/10.1	18	
3 12	13 50.54	- 7 38.8	2.486	3.334	10.3	20.5	3 12	13 48.71	- 1 59.5	2.158	3.024	10.9	19.6
3 22	13 45.52	- 7 5.3	2.408	3.334	7.4	20.3	3 22	13 44.41	- 0 50.5	2.083	3.017	7.9	19.4
4 1	13 39.03	- 6 25.4	2.357	3.334	4.2	20.1	4 1	13 38.49	+ 0 22.9	2.033	3.009	4.9	19.1
4 11	13 31.67	- 5 42.6	2.334	3.334	1.2	19.8	4 11	13 31.58	+ 1 34.6	2.011	3.002	3.5	19.0
4 21	13 24.12	- 5 1.0	2.340	3.334	3.1	20.0	4 21	13 24.42	+ 2 38.7	2.017	2.994	5.5	19.1
5 1	13 17.07	- 4 24.8	2.375	3.333	6.4	20.2	5 1	13 17.81	+ 3 29.5	2.051	2.987	8.6	19.3
5 11	13 11.17	- 3 57.3	2.437	3.332	9.4	20.4	5 11	13 12.44	+ 4 3.6	2.109	2.980	11.7	19.5
5 21	13 6.84	- 3 40.9	2.522	3.330	12.1	20.5	5 21	13 8.78	+ 4 19.6	2.187	2.972	14.4	19.7
<b>272826</b>	2006 AD <sub>93</sub>		4 13.9 327°55'	0°9/14.7	17		<b>507811</b>	2014 DG <sub>30</sub>		4 13.9 278°52'	4°2/18.1	17	
3 12	13 51.94	-13 15.0	1.679	2.529	14.4	20.8	3 12	13 51.77	-23 35.6	2.249	3.044	13.1	21.2
3 22	13 47.27	-13 3.7	1.599	2.522	10.7	20.5	3 22	13 46.76	-23 46.5	2.162	3.041	10.5	21.1
4 1	13 40.36	-12 38.7	1.543	2.517	6.5	20.2	4 1	13 39.93	-23 40.6	2.097	3.039	7.6	20.9
4 11	13 32.02	-12 3.1	1.511	2.511	2.0	19.9	4 11	13 31.92	-23 18.1	2.058	3.037	5.0	20.7
4 21	13 23.26	-11 21.5	1.507	2.506	3.2	20.0	4 21	13 23.58	-22 41.1	2.047	3.034	4.4	20.7
5 1	13 15.22	-10 40.0	1.529	2.501	7.8	20.3	5 1	13 15.81	-21 54.0	2.064	3.032	6.4	20.8
5 11	13 8.88	- 9 5.1	1.575	2.497	12.0	20.5	5 11	13 9.39	-21 2.7	2.107	3.030	9.3	20.9
5 21	13 4.84	- 9 41.1	1.643	2.492	15.6	20.7	5 21	13 4.89	-20 12.9	2.173	3.027	12.2	21.1
<b>106871</b>	2000 YP <sub>32</sub>		4 13.9 210°19'	11°3/30.9	17		<b>501183</b>	2013 TP <sub>106</sub>		4 13.9 155°27'	0°3/13.6	17	
3 12	13 56.21	+23 37.3	2.084	2.909	12.9	20.2	3 12	13 51.53	-11 21.6	2.064	2.909	12.2	21.7
3 22	13 49.98	+25 26.9	2.037	2.901	11.7	20.1	3 22	13 46.49	-10 37.7	1.990	2.913	8.9	21.5
4 1	13 41.75	+26 59.6	2.015	2.893	11.3	20.0	4 1	13 39.70	- 9 42.7	1.941	2.917	5.1	21.3
4 11	13 32.31	+28 6.6	2.017	2.884	11.9	20.0	4 11	13 31.86	- 8 40.7	1.920	2.921	1.1	21.0
4 21	13 22.63	+28 42.2	2.042	2.875	13.3	20.1	4 21	13 23.80	- 7 37.3	1.927	2.924	3.1	21.2
5 1	13 13.72	+28 44.4	2.089	2.864	15.1	20.2	5 1	13 16.41	- 6 38.5	1.963	2.927	7.0	21.4
5 11	13 6.42	+28 15.3	2.153	2.852	16.9	20.3	5 11	13 10.42	- 5 49.5	2.024	2.930	10.5	21.6
5 21	13 1.26	+27 19.2	2.233	2.840	18.5	20.5	5 21	13 6.31	- 5 13.6	2.108	2.932	13.6	21.8
<b>496027</b>	2008 RH <sub>131</sub>		4 13.9 178°02'	0°5/13.3	17		<b>191850</b>	2004 VV <sub>54</sub>		4 13.9 255°08'	0°2/14.1	18	
3 12	13 51.45	-10 3.2	2.541	3.381	10.4	22.6	3 12	13 53.75	-11 42.5	2.297	3.133	11.5	21.1
3 22	13 46.15	- 9 24.9	2.461	3.382	7.6	22.4	3 22	13 48.19	-11 19.7	2.192	3.110	8.5	20.9
4 1	13 39.39	- 8 38.4	2.408	3.384	4.3	22.2	4 1	13 40.79	-10 46.4	2.113	3.086	5.1	20.6
4 11	13 31.76	- 7 47.1	2.384	3.385	1.0	22.0	4 11	13 32.14	-10 5.4	2.061	3.062	1.2	20.3
4 21	13 23.94	- 6 55.3	2.389	3.385	2.7	22.1	4 21	13 23.03	- 9 20.6	2.039	3.037	2.8	20.4
5 1	13 16.64	- 6 7.3	2.424	3.385	6.1	22.3	5 1	13 14.33	- 8 36.6	2.046	3.011	6.7	20.6
5 11	13 10.49	- 5 27.3	2.486	3.384	9.2	22.5	5 11	13 8.86	- 7 58.6	2.080	2.985	10.3	20.7
5 21	13 5.91	- 4 57.9	2.572	3.382	11.8	22.7	5 21	13 1.21	- 7 30.2	2.137	2.957	13.5	20.9
<b>165291</b>	2000 SB <sub>365</sub>		4 13.9 246°44'	0°3/14.1	16		<b>104578</b>	2000 GV <sub>80</sub>		4 13.9 120°80'	0°5/14.4	17	
3 12	13 56.86	-11 22.5	1.702	2.548	14.4	21.4	3 12	13 53.78	-11 47.9	2.182	3.020	12.0	20.1
3 22	13 50.97	-11 12.3	1.611	2.533	10.7	21.1	3 22	13 48.06	-11 44.9	2.108	3.026	8.8	19.9
4 1	13 42.61	-10 50.1	1.544	2.519	6.4	20.8	4 1	13 40.60	-11 32.8	2.059	3.032	5.2	19.7
4 11	13 32.57	-10 18.9	1.503	2.504	1.6	20.5	4 11	13 32.07	-11 13.9	2.038	3.038	1.5	19.5
4 21	13 21.93	- 9 42.9	1.490	2.488	3.5	20.6	4 21	13 23.31	-10 51.5	2.045	3.043	2.6	19.6
5 1	13 11.94	- 9 8.2	1.504	2.472	8.3	20.8	5 1	13 15.19	-10 29.6	2.081	3.049	6.4	19.8
5 11	13 3.71	- 8 40.8	1.543	2.455	12.8	21.0	5 11	13 8.46	-10 12.1	2.143	3.054	9.8	20.0
5 21	12 57.95	- 8 25.0	1.602	2.438	16.6	21.2	5 21	13 3.59	-10 2.1	2.229	3.059	12.7	20.2
<b>256460</b>	2007 DL		4 13.9 59°84'	8°5/ 5.0	18		<b>143562</b>	2003 EZ <sub>45</sub>		4 13.9 66°05'	3°6/17.0	18	
3 12	13 54.08	+ 5 22.3	1.468	2.344	14.5	19.5	3 12	13 58.44	-21 1.2	1.620	2.435	16.4	19.3
3 22	13 48.35	+ 8 32.0	1.457	2.387	11.0	19.4	3 22	13 51.63	-20 54.4	1.579	2.475	12.6	19.1
4 1	13 40.63	+11 31.4	1.473	2.429	8.7	19.4	4 1	13 42.62	-20 26.8	1.559	2.515	8.4	18.9
4 11	13 32.00	+14 5.9	1.516	2.471	9.0	19.5	4 11	13 32.50	-19 41.1	1.565	2.554	4.6	18.8
4 21	13 23.59	+16 5.7	1.587	2.513	11.2	19.7	4 21	13 22.48	-18 42.8	1.599	2.593	4.1	18.9
5 1	13 16.41	+17 26.6	1.681	2.554	13.9	20.0	5 1	13 13.69	-17 39.3	1.659	2.631	7.3	19.1
5 11	13 11.18	+18 10.1	1.796	2.595	16.5	20.2	5 11	13 6.99	-16 38.8	1.745	2.669	10.9	19.4
5 21	13 8.21	+18 21.2	1.927	2.635	18.5	20.5	5 21	13 2.78	-15 47.0	1.854	2.706	14.0	19.7
<b>36589</b>	2000 QS <sub>129</sub>		4 13.9 285°08'	2°0/12.7	18		<b>216253</b>	2006 VW <sub>111</sub>		4 13.9 258°88'	1°3/12.7	17	
3 12	13 57.52	- 5 41											

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>58662</b>	1997 XJ <sub>2</sub>		4 13.9 167°09	0°5/14.4	18		<b>91492</b>	1999 RY <sub>132</sub>		4 13.9 142°93	0°6/13.3	18	R
3 12	13 53.71	-12 56.5	2.125	2.961	12.3	19.8	3 12	13 51.25	-10 54.5	2.251	3.094	11.4	19.5
3 22	13 48.07	-12 31.8	2.048	2.965	9.1	19.6	3 22	13 46.13	-10 0.5	2.181	3.104	8.3	19.3
4 1	13 40.62	-11 55.8	1.996	2.969	5.4	19.4	4 1	13 39.43	-8 56.3	2.136	3.112	4.7	19.1
4 11	13 32.09	-11 11.4	1.971	2.972	1.5	19.1	4 11	13 31.83	-7 46.5	2.120	3.121	1.1	18.9
4 21	13 23.31	-10 23.2	1.976	2.974	2.7	19.2	4 21	13 24.07	-6 36.4	2.133	3.128	3.0	19.0
5 1	13 15.19	-9 36.3	2.009	2.976	6.6	19.5	5 1	13 16.95	-5 31.9	2.175	3.136	6.6	19.3
5 11	13 8.48	-8 55.9	2.068	2.978	10.2	19.7	5 11	13 11.12	-4 37.6	2.243	3.143	9.9	19.5
5 21	13 3.70	-8 25.6	2.151	2.979	13.2	19.9	5 21	13 7.01	-3 56.8	2.335	3.149	12.7	19.7
<b>361567</b>	2007 RF <sub>92</sub>		4 13.9 243°99	1°7/12.4	16		<b>175752</b>	1998 RL <sub>47</sub>		4 13.9 242°77	2°1/15.7	18	
3 12	13 53.01	-8 52.1	1.649	2.508	14.1	21.6	3 12	13 53.47	-17 10.7	1.765	2.598	14.6	20.1
3 22	13 48.09	-7 49.4	1.565	2.497	10.3	21.3	3 22	13 48.39	-16 54.9	1.679	2.590	11.1	19.9
4 1	13 40.89	-6 33.2	1.505	2.485	5.9	21.0	4 1	13 41.06	-16 21.8	1.615	2.582	7.1	19.6
4 11	13 32.19	-5 9.8	1.472	2.472	1.9	20.7	4 11	13 32.25	-15 33.5	1.577	2.574	3.1	19.4
4 21	13 23.03	-3 47.1	1.466	2.460	4.6	20.9	4 21	13 23.00	-14 34.7	1.567	2.565	3.3	19.3
5 1	13 14.58	-2 33.8	1.487	2.446	9.3	21.1	5 1	13 14.43	-13 32.1	1.583	2.556	7.5	19.6
5 11	13 7.84	-1 36.9	1.532	2.433	13.6	21.3	5 11	13 7.54	-12 33.2	1.625	2.547	11.6	19.8
5 21	13 3.45	-1 0.1	1.598	2.418	17.3	21.5	5 21	13 2.97	-11 44.3	1.689	2.538	15.3	20.0
<b>346609</b>	2008 WD <sub>64</sub>		4 13.9 228°79	1°0/14.9	17		<b>72380</b>	2001 CF <sub>10</sub>		4 13.9 239°36	2°8/11.1	18	
3 12	13 51.82	-14 34.0	2.228	3.060	12.0	21.8	3 12	13 51.68	-3 20.0	2.087	2.947	11.5	19.8
3 22	13 46.73	-14 10.9	2.139	3.052	8.9	21.6	3 22	13 46.66	-2 30.7	2.007	2.939	8.3	19.6
4 1	13 39.89	-13 35.5	2.074	3.044	5.5	21.3	4 1	13 39.87	-1 36.4	1.953	2.930	5.0	19.4
4 11	13 31.93	-12 50.3	2.036	3.035	1.8	21.1	4 11	13 31.97	-0 42.5	1.926	2.921	2.8	19.2
4 21	13 23.66	-11 59.2	2.028	3.026	2.6	21.1	4 21	13 23.77	+0 5.7	1.928	2.912	4.9	19.4
5 1	13 15.92	-11 7.6	2.048	3.017	6.3	21.3	5 1	13 16.14	+0 42.8	1.957	2.903	8.4	19.6
5 11	13 9.47	-10 20.7	2.094	3.008	9.9	21.5	5 11	13 9.86	+1 5.5	2.012	2.893	11.7	19.7
5 21	13 4.84	-9 42.8	2.164	2.998	12.9	21.7	5 21	13 5.43	+1 12.0	2.087	2.884	14.6	19.9
<b>156421</b>	2002 AA <sub>87</sub>		4 13.9 346°29	4°1/10.4	18		<b>319489</b>	2006 QZ <sub>28</sub>		4 13.9 218°61	2°5/15.9	17	
3 12	13 47.51	-3 49.5	1.377	2.262	14.7	18.9	3 12	13 56.31	-17 7.9	1.889	2.713	14.1	21.5
3 22	13 44.29	-2 32.1	1.310	2.254	10.6	18.6	3 22	13 50.38	-17 11.3	1.801	2.706	10.8	21.2
4 1	13 38.73	-1 5.6	1.266	2.247	6.4	18.4	4 1	13 42.20	-16 59.6	1.736	2.699	7.0	21.0
4 11	13 31.69	+0 20.9	1.246	2.241	4.1	18.2	4 11	13 32.53	-16 34.1	1.697	2.692	3.3	20.7
4 21	13 24.28	+1 37.4	1.251	2.235	6.9	18.3	4 21	13 22.39	-15 57.9	1.686	2.684	3.4	20.7
5 1	13 17.69	+2 35.1	1.280	2.231	11.3	18.6	5 1	13 12.90	-15 16.3	1.704	2.675	7.2	20.9
5 11	13 12.94	+3 8.7	1.331	2.227	15.5	18.8	5 11	13 5.05	-14 35.6	1.747	2.666	11.1	21.1
5 21	13 10.60	+3 16.8	1.399	2.225	19.1	19.0	5 21	12 59.49	-14 1.4	1.812	2.656	14.6	21.3
<b>466628</b>	2014 WF <sub>14</sub>		4 13.9 138°03	1°0/14.9	16		<b>217065</b>	2001 SO <sub>30</sub>		4 13.9 92°82	1°6/12.5	18	
3 12	13 54.72	-14 37.0	1.931	2.765	13.4	22.2	3 12	13 53.66	-8 1.4	1.839	2.694	13.1	20.7
3 22	13 48.90	-14 10.9	1.861	2.775	10.0	22.0	3 22	13 48.03	-7 6.5	1.787	2.716	9.4	20.6
4 1	13 41.13	-13 30.9	1.815	2.786	6.1	21.8	4 1	13 40.56	-6 3.2	1.760	2.738	5.3	20.4
4 11	13 32.21	-12 40.5	1.796	2.795	2.0	21.5	4 11	13 32.10	-4 57.3	1.760	2.760	1.7	20.1
4 21	13 23.08	-11 44.6	1.806	2.805	2.9	21.6	4 21	13 23.58	-3 55.2	1.789	2.782	4.0	20.4
5 1	13 14.74	-10 49.4	1.844	2.813	6.9	21.9	5 1	13 15.95	-3 2.9	1.846	2.803	7.9	20.6
5 11	13 8.00	-10 0.7	1.908	2.821	10.7	22.1	5 11	13 9.95	-2 24.6	1.927	2.824	11.5	20.9
5 21	13 3.36	-9 22.9	1.994	2.829	13.9	22.4	5 21	13 5.99	-2 2.4	2.030	2.844	14.4	21.1
<b>310511</b>	2000 WG <sub>147</sub>		4 13.9 164°01	3°2/10.8	18		<b>426741</b>	2013 TJ <sub>80</sub>		4 13.9 128°38	1°6/12.5	17	
3 12	13 54.82	-3 3.1	2.018	2.875	12.0	21.5	3 12	13 52.82	-6 50.2	1.939	2.795	12.4	21.6
3 22	13 48.85	-0 57.3	1.952	2.882	8.7	21.3	3 22	13 47.51	-6 13.3	1.871	2.801	9.0	21.4
4 1	13 41.05	+0 46.6	1.912	2.888	5.2	21.1	4 1	13 40.34	-5 29.1	1.828	2.806	5.1	21.2
4 11	13 32.19	+0 22.7	1.900	2.893	3.2	21.0	4 11	13 32.07	-4 42.4	1.812	2.812	1.7	21.0
4 21	13 23.15	+1 24.1	1.917	2.898	5.3	21.2	4 21	13 23.59	-3 58.5	1.824	2.817	4.0	21.1
5 1	13 14.84	+2 12.3	1.962	2.901	8.8	21.4	5 1	13 15.83	-3 22.7	1.864	2.822	7.8	21.4
5 11	13 8.03	+2 43.6	2.032	2.904	12.0	21.6	5 11	13 9.56	-2 58.8	1.929	2.827	11.4	21.6
5 21	13 3.19	+2 57.1	2.124	2.906	14.8	21.8	5 21	13 5.29	-2 49.0	2.016	2.831	14.4	21.8
<b>295728</b>	2008 UQ <sub>60</sub>		4 13.9 161°18	3°1/16.4	18		<b>498483</b>	2008 CH <sub>101</sub>		4 13.9 241°90	0°4/14.2	17	
3 12	13 53.76	-19 45.6	1.438	2.274	17.1	20.7	3 12	13 55.92	-11 51.8	1.881	2.722	13.4	21.6
3 22	13 48.92	-19 21.5	1.365	2.275	13.2	20.4	3 22	13 50.11	-11 36.5	1.788	2.708	10.0	21.4
4 1	13 41.46	-18 33.6	1.312	2.276	8.7	20.2	4 1	13 42.06	-11 9.5	1.719	2.692	6.0	21.1
4 11	13 32.33	-17 24.4	1.283	2.277	4.2	19.9	4 11	13 32.51	-10 33.5	1.676	2.677	1.5	20.8
4 21	13 22.79	-16 0.5	1.280	2.278	4.0	19.9	4 21	13 22.44	-9 52.8	1.662	2.660	3.2	20.8
5 1	13 14.21	-14 31.5	1.302	2.278	8.4	20.1	5 1	13 12.95	-9 13.0	1.676	2.643	7.7	21.1
5 11	13 7.71	-13 7.8	1.349	2.279	12.9	20.4	5 11	13 5.03	-8 39.9	1.716	2.626	11.8	21.3
5 21	13 3.93	-11 57.8	1.417	2.279	17.0	20.6	5 21	12 59.35	-8 17.8	1.777	2.608	15.4	21.5
<b>491688</b>	2012 UN <sub>47</sub>		4 13.9 173°03	2°1/11.9	17		<b>434070</b>	2001 XM <sub>5</sub>		4 13.9 190°77	2°9/17.7	18	
3 12	13 52.82	-3 38.6	2.433	3.285	10.4	22.1	3 12	13 49.90	-22 53.6	2.790	3.580	11.0	21.3
3 22	13 47.19	-3 14.0	2.359	3.287	7.5	21.9	3 22	13 45.06	-22 26.7	2.698	3.579	8.6	21.1
4 1	13 40.03	-2 46.1	2.312	3.289	4.4	21.7	4 1	13 38.81	-21 44.5	2.631	3.577	6.0	20.9
4 11	13 31.96	-2 18.7	2.293	3.290	2.1	21.5	4 11	13 31.72	-20 48.6	2.591	3.575	3.6	20.8
4 21	13 23.69	-1 55.4	2.303	3.291	3.9	21.7	4 21	13 24.42	-19 42.3	2.580	3.572	3.0	20.7
5 1	13 15.99	-1 39.7	2.342	3.291	7.0	21.9	5 1	13 17.61	-18 30.0	2.599	3.569	5.1	20.9
5 11	13 9.48	-1 34.0	2.407	3.292	9.9	22.0	5 11	13 11.87	-17 17.3	2.647	3.566	7.8	21.0
5 21	13 4.63	-1 39.5	2.496	3.292	12.5	22.2	5 21	13 7.64	-16 8.9	2.719	3.562	10.3	21.2
<b>503590</b>	2016 GZ <sub>64</sub>		4 13.9 161°08	2°0/12.1	17		<b>501205</b>	2013 TT <sub>136</sub>		4 13.9 245°52	1°0/13.2	17	
3 12	13 53.53	-6 8.1	1.881	2.739	12.7	21.3	3 12	13 58.29	-6				

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4 13.9

4 13.9

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>432388</b>	2009 WQ <sub>242</sub>	4 13.9 182°19'		1°0/13.1 17			<b>188056</b>	2001 VU <sub>104</sub>	4 13.9 298°08'		1°9/12.6 17		
3 12	13 54.32	- 7 54.2	2.066	2.915	12.1	21.8	3 12	13 54.58	- 5 45.4	1.604	2.468	14.2	19.4
3 22	13 48.57	- 7 33.1	1.990	2.915	8.8	21.6	3 22	13 49.46	- 5 29.4	1.513	2.446	10.4	19.1
4 1	13 40.97	- 7 4.7	1.938	2.916	5.0	21.4	4 1	13 41.85	- 5 6.4	1.446	2.425	6.1	18.8
4 11	13 32.23	- 6 32.7	1.915	2.915	1.3	21.1	4 11	13 32.50	- 4 40.7	1.404	2.404	2.1	18.5
4 21	13 23.22	- 6 1.3	1.920	2.915	3.4	21.3	4 21	13 22.51	- 4 17.7	1.389	2.383	4.7	18.6
5 1	13 14.86	- 5 35.0	1.953	2.914	7.3	21.5	5 1	13 13.11	- 4 2.8	1.400	2.362	9.5	18.8
5 11	13 7.94	- 5 17.7	2.012	2.913	10.8	21.7	5 11	13 5.46	- 4 0.8	1.434	2.341	13.9	19.0
5 21	13 2.97	- 5 11.8	2.094	2.911	13.9	21.9	5 21	13 0.30	- 4 13.9	1.488	2.320	17.9	19.2
<b>396546</b>	1996 VZ <sub>24</sub>	4 13.9 202°63'		0°9/13.3 18			<b>345578</b>	2006 SZ <sub>15</sub>	4 13.9 141°80'		1°8/16.0 17		
3 12	13 57.46	- 9 18.9	1.596	2.448	14.8	22.1	3 12	13 51.89	-17 20.2	2.705	3.517	10.6	21.2
3 22	13 51.40	- 8 47.6	1.518	2.445	10.9	21.8	3 22	13 46.46	-17 13.9	2.627	3.526	8.1	21.0
4 1	13 42.85	- 8 4.6	1.463	2.441	6.3	21.5	4 1	13 39.61	-16 56.5	2.574	3.535	5.2	20.8
4 11	13 32.69	- 7 14.6	1.435	2.436	1.5	21.2	4 11	13 31.91	-16 29.6	2.549	3.543	2.5	20.7
4 21	13 22.10	- 6 23.8	1.435	2.431	4.1	21.4	4 21	13 24.03	-15 55.9	2.554	3.551	2.5	20.7
5 1	13 12.33	- 5 39.4	1.461	2.425	9.0	21.7	5 1	13 16.67	-15 19.1	2.588	3.558	5.2	20.9
5 11	13 4.47	- 5 7.2	1.512	2.418	13.4	21.9	5 11	13 10.44	-14 43.2	2.650	3.565	8.0	21.0
5 21	12 59.18	- 4 50.7	1.583	2.410	17.2	22.1	5 21	13 5.74	-14 12.0	2.737	3.572	10.5	21.2
<b>132293</b>	2002 FS <sub>33</sub>	4 13.9 318°18'		2°2/15.7 17			<b>307442</b>	2002 UZ <sub>28</sub>	4 13.9 195°41'		3°8/10.3 17		
3 12	13 51.82	-17 27.0	1.413	2.260	16.7	20.1	3 12	13 54.21	- 0 34.9	2.017	2.878	11.8	20.9
3 22	13 47.58	-16 59.7	1.336	2.255	12.7	19.8	3 22	13 48.51	+ 0 20.5	1.945	2.876	8.6	20.7
4 1	13 40.74	-16 10.3	1.281	2.251	8.1	19.6	4 1	13 40.94	+ 1 18.5	1.899	2.873	5.4	20.5
4 11	13 32.22	-15 2.2	1.249	2.247	3.3	19.3	4 11	13 32.24	+ 2 13.1	1.880	2.870	3.8	20.4
4 21	13 23.23	-13 42.1	1.243	2.243	3.6	19.3	4 21	13 23.28	+ 2 58.6	1.889	2.866	5.8	20.5
5 1	13 15.12	-12 19.5	1.263	2.239	8.5	19.5	5 1	13 14.98	+ 3 29.9	1.926	2.861	9.2	20.7
5 11	13 9.02	-11 4.4	1.306	2.235	13.3	19.8	5 11	13 8.14	+ 3 44.3	1.988	2.856	12.4	20.9
5 21	13 5.59	-10 4.3	1.369	2.232	17.4	20.0	5 21	13 3.27	+ 3 41.1	2.070	2.851	15.2	21.1
<b>296881</b>	2010 AM <sub>40</sub>	4 13.9 173°06'		13°5/ 1.9 17			<b>276456</b>	2003 FF <sub>109</sub>	4 13.9 29°55'		3°3/11.4 18		
3 12	14 2.86	-54 6.2	2.399	2.950	17.9	20.3	3 12	13 50.31	- 4 56.0	1.332	2.213	15.4	19.9
3 22	13 56.06	-55 25.8	2.315	2.952	16.9	20.2	3 22	13 46.22	- 3 55.6	1.282	2.224	11.1	19.7
4 1	13 45.93	-56 16.8	2.246	2.954	15.7	20.1	4 1	13 39.78	- 2 47.3	1.253	2.235	6.4	19.4
4 11	13 33.46	-56 33.2	2.192	2.955	14.7	20.0	4 11	13 31.97	- 1 39.6	1.250	2.247	3.3	19.3
4 21	13 20.15	-56 11.6	2.157	2.956	13.9	19.9	4 21	13 23.99	- 0 41.0	1.271	2.260	6.0	19.5
5 1	13 7.79	-55 13.2	2.142	2.956	13.6	19.9	5 1	13 17.04	+ 0 1.2	1.317	2.274	10.5	19.7
5 11	12 57.90	-53 44.4	2.148	2.956	13.8	19.9	5 11	13 12.07	+ 0 22.7	1.384	2.288	14.6	20.0
5 21	12 51.37	-51 54.6	2.173	2.956	14.5	20.0	5 21	13 9.57	+ 0 22.7	1.471	2.303	18.0	20.3
<b>99574</b>	2002 FQ <sub>22</sub>	4 13.9 185°22'		6°7/ 5.9 18			<b>96356</b>	1997 VH <sub>8</sub>	4 13.9 245°36'		1°4/12.9 18		
3 12	13 51.40	+ 9 26.3	2.263	3.123	10.7	19.5	3 12	13 56.40	- 7 44.3	1.675	2.530	14.1	19.8
3 22	13 46.27	+10 54.2	2.205	3.123	8.5	19.4	3 22	13 50.65	- 7 16.9	1.588	2.516	10.4	19.6
4 1	13 39.55	+12 17.1	2.174	3.123	6.9	19.3	4 1	13 42.46	- 6 39.8	1.524	2.502	6.0	19.3
4 11	13 31.89	+13 27.7	2.170	3.122	6.9	19.3	4 11	13 32.64	- 5 57.6	1.487	2.488	1.7	19.0
4 21	13 24.06	+14 20.4	2.193	3.120	8.5	19.4	4 21	13 22.27	- 5 15.8	1.477	2.472	4.3	19.1
5 1	13 16.83	+14 51.4	2.242	3.119	10.8	19.5	5 1	13 12.57	- 4 40.9	1.495	2.456	9.0	19.3
5 11	13 10.88	+14 59.9	2.314	3.116	13.1	19.7	5 11	13 4.62	- 4 18.3	1.537	2.440	13.4	19.5
5 21	13 6.65	+14 47.1	2.404	3.114	15.2	19.8	5 21	12 59.13	- 4 10.9	1.599	2.423	17.2	19.7
<b>20396</b>	1998 MF <sub>32</sub>	4 13.9 106°73'		5°6/ 8.8 18			<b>190029</b>	2004 QE <sub>17</sub>	4 13.9 262°50'		16°0/27.7 17		
3 12	13 52.33	+ 4 21.3	1.898	2.767	12.1	17.6	3 12	14 9.92	-55 7.6	2.276	2.815	19.0	20.1
3 22	13 47.18	+ 5 20.7	1.837	2.768	9.1	17.4	3 22	14 2.47	-57 18.5	2.180	2.799	18.2	20.0
4 1	13 40.16	+ 6 18.0	1.801	2.769	6.4	17.3	4 1	13 50.53	-59 3.4	2.099	2.783	17.3	19.8
4 11	13 32.04	+ 7 6.3	1.792	2.770	5.6	17.2	4 11	13 34.75	-60 13.1	2.034	2.766	16.6	19.7
4 21	13 23.72	+ 7 39.7	1.809	2.771	7.5	17.3	4 21	13 16.78	-60 40.5	1.987	2.750	16.1	19.7
5 1	13 16.13	+ 7 54.4	1.852	2.772	10.5	17.5	5 1	12 59.09	-60 23.4	1.958	2.732	16.0	19.6
5 11	13 10.04	+ 7 48.8	1.919	2.773	13.4	17.7	5 11	12 44.20	-59 27.3	1.948	2.715	16.4	19.6
5 21	13 5.95	+ 7 23.8	2.004	2.773	16.0	17.9	5 21	12 33.74	-58 2.2	1.954	2.698	17.2	19.6
<b>227453</b>	2005 WR <sub>74</sub>	4 13.9 129°30'		8°3/ 5.4 18			<b>162888</b>	2001 FJ <sub>106</sub>	4 13.9 313°00'		9°3/ 2.2 17		
3 12	13 52.25	+11 26.4	1.842	2.707	12.6	19.7	3 12	13 47.61	+10 54.4	1.738	2.614	12.6	19.3
3 22	13 47.14	+12 59.3	1.794	2.711	10.1	19.6	3 22	13 44.04	+13 27.5	1.680	2.601	10.4	19.2
4 1	13 40.13	+14 23.7	1.771	2.715	8.5	19.5	4 1	13 38.49	+15 55.7	1.648	2.589	9.3	19.1
4 11	13 32.03	+15 30.9	1.773	2.719	8.6	19.5	4 11	13 31.70	+18 6.7	1.642	2.577	10.0	19.1
4 21	13 23.77	+16 14.4	1.801	2.723	10.4	19.6	4 21	13 24.58	+19 50.3	1.661	2.565	12.2	19.2
5 1	13 16.31	+16 30.8	1.853	2.726	12.8	19.8	5 1	13 18.11	+21 0.2	1.703	2.554	14.9	19.3
5 11	13 10.43	+16 20.4	1.925	2.730	15.3	19.9	5 11	13 13.15	+21 35.0	1.764	2.543	17.5	19.5
5 21	13 6.61	+15 45.8	2.015	2.733	17.5	20.1	5 21	13 10.24	+21 37.0	1.840	2.532	19.7	19.6
<b>105774</b>	2000 SX <sub>111</sub>	4 13.9 162°38'		0°2/13.7 18 R			<b>417480</b>	2006 RK <sub>41</sub>	4 13.9 190°26'		0°2/13.8 16		
3 12	13 50.07	-10 32.3	2.899	3.735	9.4	20.6	3 12	13 54.34	-11 24.2	2.072	2.913	12.4	22.6
3 22	13 45.03	-10 4.3	2.822	3.740	6.8	20.4	3 22	13 48.63	-10 49.1	1.991	2.912	9.1	22.4
4 1	13 38.73	- 9 29.2	2.770	3.745	3.9	20.2	4 1	13 41.04	-10 2.8	1.935	2.910	5.3	22.2
4 11	13 31.70	- 8 49.9	2.748	3.749	0.9	20.0	4 11	13 32.29	- 9 9.2	1.907	2.908	1.2	21.9
4 21	13 24.52	- 8 9.4	2.756	3.753	2.3	20.1	4 21	13 23.25	- 8 13.2	1.907	2.905	3.0	22.0
5 1	13 17.79	- 7 31.5	2.794	3.756	5.3	20.3	5 1	13 14.85	- 7 20.5	1.937	2.901	7.1	22.3
5 11	13 12.05	- 6 59.4	2.859	3.760	8.0	20.5	5 11	13 7.89	- 6 36.5	1.992	2.896	10.7	22.5
5 21	13 7.67	- 6 35.5	2.949	3.762	10.4	20.7	5 21	13 2.90	- 6 4.7	2.070	2.891	13.9	22.7
<b>299281</b>	2005 ON <sub>16</sub>	4 13.9 293°57'		1°3/12.7 17			<b>501016</b>	2013 RO <sub>46</sub>	4 13.9 224°87'		1°3/15.1 17		
3 12	13 49.55	- 8 8.1	2.119	2.974	11.6	20.8	3						

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>71865</b>	2000 VE <sub>27</sub>		4 13.9 79°22	5°3/10.1	18		<b>132383</b>	2002 GQ <sub>83</sub>		4 13.9 217°01	3°0/11.2	16	
3 12	13 55.17	+ 0 54.9	1.444	2.319	14.8	18.8	3 12	13 55.43	- 3 6.3	2.052	2.907	11.9	20.3
3 22	13 49.67	+ 1 51.6	1.389	2.326	10.9	18.5	3 22	13 49.48	- 2 16.5	1.968	2.897	8.7	20.1
4 1	13 41.77	+ 2 49.1	1.358	2.333	7.0	18.3	4 1	13 41.58	- 1 21.7	1.910	2.887	5.2	19.8
4 11	13 32.46	+ 3 39.2	1.351	2.339	5.3	18.2	4 11	13 32.45	- 0 27.1	1.881	2.876	3.0	19.7
4 21	13 22.94	+ 4 14.5	1.370	2.346	7.6	18.4	4 21	13 22.97	+ 0 21.5	1.880	2.864	5.1	19.8
5 1	13 14.44	+ 4 29.7	1.414	2.353	11.5	18.6	5 1	13 14.08	+ 0 58.6	1.907	2.851	8.7	20.0
5 11	13 7.94	+ 4 22.9	1.480	2.360	15.2	18.9	5 11	13 6.63	+ 1 20.7	1.960	2.837	12.2	20.2
5 21	13 3.99	+ 3 55.1	1.564	2.367	18.4	19.1	5 21	13 1.17	+ 1 26.3	2.034	2.823	15.2	20.3
<b>229226</b>	2004 XT <sub>17</sub>		4 13.9 204°68	2°7/16.5	17		<b>55793</b>	1993 SS <sub>4</sub>		4 13.9 156°07	0°4/14.4	18	
3 12	13 52.16	-19 9.1	2.012	2.832	13.5	20.5	3 12	13 54.50	-12 41.7	2.238	3.070	11.9	20.5
3 22	13 47.18	-18 57.7	1.929	2.831	10.4	20.2	3 22	13 48.57	-12 15.4	2.163	3.079	8.8	20.3
4 1	13 40.26	-18 29.8	1.869	2.829	6.9	20.0	4 1	13 40.93	-11 38.4	2.114	3.087	5.2	20.1
4 11	13 32.12	-17 47.2	1.836	2.828	3.5	19.8	4 11	13 32.28	-10 53.9	2.093	3.094	1.4	19.8
4 21	13 23.66	-16 53.7	1.830	2.826	3.3	19.8	4 21	13 23.43	-10 6.1	2.102	3.100	2.6	20.0
5 1	13 15.84	-15 54.9	1.852	2.825	6.6	20.0	5 1	13 15.23	- 9 20.0	2.140	3.106	6.4	20.2
5 11	13 9.51	-14 57.5	1.900	2.823	10.2	20.2	5 11	13 8.42	- 8 40.2	2.204	3.111	9.8	20.4
5 21	13 5.20	-14 7.2	1.971	2.821	13.4	20.4	5 21	13 3.44	- 8 10.2	2.292	3.115	12.7	20.6
<b>177157</b>	2003 SF <sub>33</sub>		4 13.9 195°48	1°4/12.6	16		<b>288913</b>	2004 ST		4 13.9 302°06	2°2/12.7	17	
3 12	13 54.75	- 8 0.2	1.944	2.794	12.7	21.8	3 12	13 57.20	- 4 10.0	1.627	2.488	14.2	20.1
3 22	13 49.02	- 7 14.6	1.865	2.792	9.2	21.6	3 22	13 51.52	- 4 8.9	1.527	2.458	10.5	19.8
4 1	13 41.31	- 6 19.7	1.811	2.789	5.3	21.4	4 1	13 43.18	- 4 3.7	1.450	2.428	6.2	19.5
4 11	13 32.36	- 5 20.3	1.785	2.785	1.6	21.1	4 11	13 32.90	- 3 58.5	1.399	2.398	2.3	19.2
4 21	13 23.11	- 4 22.5	1.788	2.781	4.0	21.2	4 21	13 21.78	- 3 57.5	1.375	2.368	4.9	19.3
5 1	13 14.53	- 3 32.2	1.819	2.776	8.0	21.5	5 1	13 11.13	- 4 5.3	1.378	2.339	9.7	19.5
5 11	13 7.49	- 2 54.4	1.875	2.770	11.8	21.7	5 11	13 2.21	- 4 25.2	1.405	2.309	14.4	19.7
5 21	13 2.51	- 2 31.8	1.953	2.764	15.0	21.9	5 21	12 55.86	- 4 59.1	1.452	2.280	18.4	19.8
<b>38085</b>	1999 HO <sub>12</sub>		4 13.9 345°65	1°5/13.7	18		<b>122870</b>	2000 SW <sub>137</sub>		4 13.9 179°38	1°3/15.3	17	
3 12	14 10.83	- 1 8.1	1.160	2.020	18.7	18.3	3 12	13 52.88	-15 54.1	2.308	3.131	11.9	21.5
3 22	14 2.29	- 2 35.0	1.083	2.012	14.0	18.0	3 22	13 47.44	-15 28.5	2.225	3.133	8.9	21.3
4 1	13 49.78	- 4 10.2	1.028	2.006	8.3	17.6	4 1	13 40.30	-14 50.0	2.167	3.134	5.5	21.1
4 11	13 34.44	- 5 53.3	0.999	2.000	2.3	17.3	4 11	13 32.14	-14 1.1	2.136	3.134	2.1	20.9
4 21	13 18.11	- 7 41.5	0.998	1.995	5.1	17.4	4 21	13 23.74	-13 5.9	2.136	3.134	2.5	20.9
5 1	13 9.32	- 9 31.2	1.024	1.991	11.3	17.7	5 1	13 15.91	-12 9.5	2.164	3.133	6.0	21.1
5 11	12 50.80	-11 20.3	1.074	1.989	16.8	18.0	5 11	13 9.39	-11 17.4	2.219	3.132	9.4	21.3
5 21	12 42.61	-13 7.8	1.143	1.987	21.4	18.3	5 21	13 4.66	-10 33.7	2.298	3.130	12.3	21.5
<b>75104</b>	1999 VQ <sub>49</sub>		4 13.9 310°38	2°7/12.5	18		<b>267255</b>	2001 QN <sub>37</sub>		4 13.9 164°62	4°1/18.6	16	
3 12	13 55.99	- 4 15.6	1.303	2.177	16.1	18.1	3 12	13 55.81	-25 21.7	2.580	3.350	12.2	21.7
3 22	13 51.21	- 4 8.0	1.206	2.144	12.0	17.8	3 22	13 49.49	-25 23.6	2.494	3.358	9.9	21.6
4 1	13 43.28	- 3 54.6	1.131	2.111	7.2	17.4	4 1	13 41.47	-25 8.8	2.433	3.365	7.2	21.4
4 11	13 32.95	- 3 40.5	1.079	2.079	2.8	17.0	4 11	13 32.42	-24 37.6	2.398	3.370	4.9	21.3
4 21	13 21.49	- 3 31.6	1.052	2.046	5.8	17.1	4 21	13 23.12	-23 52.3	2.392	3.375	4.2	21.2
5 1	13 10.53	- 3 34.1	1.050	2.014	11.5	17.3	5 1	13 14.41	-22 57.0	2.416	3.380	5.9	21.3
5 11	13 1.62	- 3 52.9	1.068	1.983	16.9	17.5	5 11	13 7.03	-21 57.4	2.468	3.383	8.5	21.5
5 21	12 55.81	- 4 30.1	1.105	1.952	21.7	17.7	5 21	13 1.45	-20 59.1	2.545	3.385	11.0	21.7
<b>198994</b>	2005 WL <sub>18</sub>		4 13.9 193°37	0°1/13.9	18		<b>511704</b>	2015 CW <sub>25</sub>		4 13.9 99°82	2°9/16.4	17	
3 12	13 56.79	-11 51.0	1.791	2.633	14.0	22.1	3 12	13 55.14	-18 23.4	2.002	2.820	13.6	21.5
3 22	13 50.70	-11 17.3	1.710	2.631	10.3	21.8	3 22	13 49.31	-18 36.6	1.929	2.829	10.5	21.4
4 1	13 42.37	-10 30.5	1.654	2.629	6.0	21.6	4 1	13 41.48	-18 35.3	1.879	2.838	7.0	21.2
4 11	13 32.63	- 9 34.4	1.624	2.625	1.4	21.2	4 11	13 32.43	-18 20.3	1.856	2.847	3.7	21.0
4 21	13 22.51	- 8 34.9	1.623	2.621	3.4	21.4	4 21	13 23.10	-17 54.6	1.860	2.856	3.5	21.0
5 1	13 13.15	- 7 38.8	1.650	2.616	7.9	21.6	5 1	13 14.49	-17 22.5	1.893	2.864	6.6	21.2
5 11	13 5.50	- 6 52.4	1.703	2.610	12.1	21.9	5 11	13 7.46	-16 49.7	1.952	2.873	10.0	21.4
5 21	13 0.18	- 6 19.8	1.777	2.603	15.6	22.1	5 21	13 2.54	-16 21.3	2.034	2.881	13.1	21.6
<b>59341</b>	1999 CY <sub>116</sub>		4 13.9 174°82	5°3/ 7.9	17		<b>299900</b>	2006 SJ <sub>373</sub>		4 13.9 251°31	1°9/11.9	17	
3 12	13 52.00	+ 3 27.2	2.130	2.994	11.2	20.1	3 12	13 49.72	- 5 51.5	2.230	3.088	11.0	21.0
3 22	13 46.79	+ 4 58.5	2.068	2.997	8.3	19.9	3 22	13 45.15	- 5 3.6	2.153	3.084	7.9	20.8
4 1	13 39.90	+ 6 29.5	2.033	2.999	6.0	19.8	4 1	13 38.99	- 4 9.4	2.101	3.080	4.6	20.6
4 11	13 32.03	+ 7 53.0	2.026	3.000	5.5	19.8	4 11	13 31.85	- 3 13.4	2.077	3.076	2.0	20.4
4 21	13 23.97	+ 9 2.1	2.047	3.001	7.3	19.9	4 21	13 24.47	- 2 20.8	2.082	3.072	4.0	20.5
5 1	13 16.56	+ 9 52.0	2.095	3.002	10.1	20.0	5 1	13 17.64	- 1 36.5	2.115	3.068	7.4	20.7
5 11	13 10.50	+10 20.3	2.167	3.002	12.8	20.2	5 11	13 12.04	- 1 4.5	2.173	3.063	10.6	20.9
5 21	13 6.24	+10 27.2	2.258	3.001	15.2	20.4	5 21	13 8.12	- 0 46.8	2.253	3.059	13.4	21.1
<b>232858</b>	2004 TC <sub>223</sub>		4 13.9 180°87	5°4/ 7.4	17		<b>210446</b>	2009 BH <sub>64</sub>		4 13.9 90°85	1°2/13.2	18	
3 12	13 51.80	+ 6 41.4	2.478	3.336	10.0	21.1	3 12	13 58.26	- 7 54.0	1.457	2.317	15.6	20.9
3 22	13 46.45	+ 7 56.5	2.416	3.337	7.7	21.0	3 22	13 51.88	- 7 33.7	1.404	2.334	11.3	20.7
4 1	13 39.63	+ 9 8.7	2.381	3.338	5.8	20.9	4 1	13 43.03	- 7 4.3	1.373	2.351	6.5	20.4
4 11	13 31.97	+10 11.9	2.374	3.338	5.6	20.8	4 11	13 32.78	- 6 30.6	1.367	2.368	1.7	20.2
4 21	13 24.14	+11 1.1	2.395	3.338	7.1	20.9	4 21	13 22.39	- 5 58.7	1.389	2.385	4.2	20.4
5 1	13 16.86	+11 32.7	2.444	3.337	9.4	21.1	5 1	13 13.12	- 5 34.3	1.437	2.401	9.0	20.7
5 11	13 10.76	+11 45.3	2.516	3.335	11.7	21.2	5 11	13 5.98	- 5 22.0	1.508	2.417	13.2	21.0
5 21	13 6.24	+11 39.5	2.609	3.332	13.8	21.4	5 21	13 1.48	- 5 23.8	1.600	2.433	16.8	21.2
<b>169466</b>	2002 CE <sub>70</sub>		4 13.9 187°79	2°5/16.0	18		<b>496947</b>	2001 XQ <sub>52</sub>		4 13.9 172°75	0°1/13.8	18	
3 12	13 57.53	-17 48.0	1.89										

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>227572</b>	2005 <i>YT</i> <sub>217</sub>		4 13.9 119°43	1.3°/15.2	17		<b>468418</b>	1999 <i>CE</i> <sub>23</sub>		4 13.9 5°96	9°8/19.9	17	
3 12	13 53.55	-15 9.5	1.973	2.806	13.2	21.2	3 12	13 52.90	-27 31.8	1.194	2.012	20.9	19.2
3 22	13 48.09	-14 49.5	1.903	2.816	9.9	21.0	3 22	13 49.12	-28 59.3	1.129	2.012	17.6	19.0
4 1	13 40.73	-14 15.8	1.857	2.826	6.1	20.8	4 1	13 42.04	-29 59.5	1.081	2.014	14.0	18.8
4 11	13 32.25	-13 31.5	1.837	2.836	2.2	20.5	4 11	13 32.68	-30 27.0	1.054	2.017	10.9	18.6
4 21	13 23.57	-12 41.0	1.846	2.845	2.8	20.6	4 21	13 22.58	-30 20.9	1.048	2.022	9.8	18.6
5 1	13 15.63	-11 50.2	1.883	2.854	6.7	20.9	5 1	13 13.54	-29 46.2	1.064	2.028	11.5	18.7
5 11	13 9.22	-11 4.7	1.946	2.863	10.3	21.1	5 11	13 7.08	-28 53.8	1.101	2.036	14.6	18.9
5 21	13 4.84	-10 28.8	2.032	2.872	13.4	21.3	5 21	13 4.03	-27 55.3	1.156	2.045	18.1	19.1
<b>243090</b>	2007 <i>QA</i> <sub>3</sub>		4 13.9 275°02	6°0/ 9.4	17		<b>283746</b>	2003 <i>BJ</i> <sub>16</sub>		4 13.9 117°04	5°7/ 7.0	17	
3 12	13 55.38	+ 2 4.6	1.498	2.372	14.4	21.0	3 12	13 50.25	+ 8 0.8	2.436	3.296	10.1	20.4
3 22	13 50.15	+ 3 9.1	1.416	2.351	10.9	20.7	3 22	13 45.31	+ 9 13.2	2.387	3.307	7.8	20.2
4 1	13 42.31	+ 4 16.0	1.358	2.330	7.4	20.4	4 1	13 38.97	+10 20.9	2.364	3.318	6.1	20.1
4 11	13 32.69	+ 5 16.4	1.324	2.309	6.0	20.3	4 11	13 31.86	+11 18.0	2.369	3.329	5.9	20.1
4 21	13 22.44	+ 6 1.7	1.316	2.288	8.5	20.4	4 21	13 24.66	+12 0.0	2.401	3.339	7.3	20.3
5 1	13 12.90	+ 6 24.9	1.333	2.266	12.6	20.5	5 1	13 18.05	+12 23.7	2.460	3.349	9.5	20.4
5 11	13 5.23	+ 6 22.7	1.372	2.244	16.7	20.7	5 11	13 12.62	+12 28.4	2.543	3.359	11.7	20.6
5 21	13 0.18	+ 5 55.5	1.428	2.222	20.3	20.9	5 21	13 8.75	+12 15.1	2.645	3.368	13.6	20.7
<b>495934</b>	2006 <i>HR</i> <sub>82</sub>		4 13.9 313°91	3°1/12.2	17		<b>59851</b>	1999 <i>RO</i> <sub>80</sub>		4 13.9 304°33	1°9/11.9	18	
3 12	13 55.35	- 3 36.5	1.283	2.160	16.1	21.3	3 12	13 47.87	- 7 39.5	2.065	2.926	11.6	19.2
3 22	13 50.47	- 3 19.6	1.205	2.144	11.9	21.0	3 22	13 44.04	- 6 34.3	1.974	2.906	8.4	19.0
4 1	13 42.64	- 2 57.2	1.149	2.129	7.1	20.7	4 1	13 38.48	- 5 18.6	1.907	2.887	4.8	18.7
4 11	13 32.78	- 2 35.2	1.116	2.114	3.2	20.4	4 11	13 31.79	- 3 58.0	1.868	2.868	1.9	18.5
4 21	13 22.23	- 2 20.1	1.108	2.100	6.0	20.5	4 21	13 24.74	- 2 38.9	1.858	2.849	4.2	18.6
5 1	13 12.51	- 2 18.0	1.124	2.086	11.2	20.7	5 1	13 18.18	- 1 28.1	1.875	2.830	8.0	18.8
5 11	13 4.96	- 2 33.0	1.162	2.073	16.1	21.0	5 11	13 12.88	- 0 31.2	1.917	2.811	11.6	19.0
5 21	13 0.39	- 3 6.1	1.218	2.061	20.4	21.2	5 21	13 9.35	+ 0 8.3	1.980	2.793	14.8	19.1
<b>213863</b>	2003 <i>SZ</i> <sub>148</sub>		4 13.9 235°58	0°2/14.1	17		<b>50922</b>	2000 <i>GM</i> <sub>59</sub>		4 13.9 72°02	1°0/13.0	18	
3 12	13 56.96	-10 57.3	1.754	2.599	14.1	20.3	3 12	13 51.58	- 8 9.9	2.030	2.884	12.1	18.5
3 22	13 50.99	-10 49.5	1.667	2.589	10.4	20.0	3 22	13 46.61	- 7 40.3	1.960	2.888	8.7	18.3
4 1	13 42.66	-10 30.7	1.604	2.579	6.2	19.8	4 1	13 39.88	- 7 2.8	1.914	2.892	5.0	18.0
4 11	13 32.75	-10 3.9	1.567	2.568	1.5	19.4	4 11	13 32.10	- 6 21.6	1.896	2.896	1.3	17.8
4 21	13 22.33	- 9 33.2	1.559	2.557	3.3	19.5	4 21	13 24.09	- 5 41.5	1.905	2.900	3.4	17.9
5 1	13 12.58	- 9 4.1	1.578	2.545	8.0	19.8	5 1	13 16.75	- 5 7.3	1.943	2.905	7.3	18.2
5 11	13 4.54	- 8 41.9	1.621	2.533	12.3	20.0	5 11	13 10.80	- 4 43.1	2.006	2.909	10.7	18.4
5 21	12 58.89	- 8 30.7	1.687	2.521	16.0	20.2	5 21	13 6.73	- 4 31.3	2.090	2.913	13.7	18.6
<b>185235</b>	2006 <i>TA</i> <sub>115</sub>		4 13.9 72°75	4°2/ 8.9	17		<b>279928</b>	2001 <i>SR</i> <sub>13</sub>		4 13.9 187°06	2°4/11.8	17	
3 12	13 48.80	+ 0 47.7	2.216	3.083	10.6	20.0	3 12	13 54.68	- 6 52.0	1.711	2.570	13.7	21.5
3 22	13 44.33	+ 2 12.2	2.168	3.101	7.8	19.9	3 22	13 49.18	- 5 43.6	1.639	2.570	9.9	21.3
4 1	13 38.41	+ 3 37.3	2.146	3.118	5.1	19.8	4 1	13 41.50	- 4 25.0	1.591	2.570	5.7	21.0
4 11	13 31.70	+ 4 56.4	2.153	3.136	4.3	19.7	4 11	13 32.50	- 3 2.8	1.570	2.568	2.4	20.8
4 21	13 24.92	+ 6 3.6	2.188	3.153	6.1	19.9	4 21	13 23.18	- 1 45.1	1.577	2.566	5.0	21.0
5 1	13 18.79	+ 6 54.3	2.250	3.170	8.8	20.1	5 1	13 14.66	- 0 39.6	1.611	2.564	9.3	21.2
5 11	13 13.90	+ 7 26.3	2.336	3.188	11.4	20.3	5 11	13 7.85	+ 0 8.3	1.670	2.560	13.2	21.4
5 21	13 10.63	+ 7 39.5	2.443	3.205	13.7	20.5	5 21	13 3.31	+ 0 35.9	1.749	2.556	16.6	21.6
<b>382315</b>	2013 <i>RO</i> <sub>85</sub>		4 13.9 127°24	1°7/15.7	17		<b>369978</b>	1997 <i>SW</i> <sub>3</sub>		4 13.9 115°16	3°0/16.0	17	
3 12	13 53.06	-17 3.2	2.144	2.967	12.7	21.5	3 12	13 59.12	-16 39.2	1.786	2.610	14.8	20.7
3 22	13 47.62	-16 41.3	2.073	2.979	9.6	21.3	3 22	13 52.51	-17 13.6	1.711	2.615	11.3	20.5
4 1	13 40.42	-16 5.2	2.025	2.990	6.1	21.1	4 1	13 43.51	-17 34.6	1.658	2.620	7.5	20.2
4 11	13 32.19	-15 17.5	2.004	3.001	2.6	20.9	4 11	13 32.98	-17 42.2	1.632	2.625	3.8	20.0
4 21	13 23.78	-14 22.5	2.013	3.011	2.7	20.9	4 21	13 22.03	-17 38.2	1.634	2.630	3.8	20.0
5 1	13 16.06	-13 25.7	2.050	3.021	6.2	21.1	5 1	13 11.87	-17 26.5	1.664	2.635	7.4	20.2
5 11	13 9.77	-12 32.8	2.113	3.030	9.6	21.4	5 11	13 3.55	-17 12.6	1.719	2.639	11.2	20.5
5 21	13 5.37	-11 48.4	2.200	3.039	12.6	21.6	5 21	12 57.69	-17 1.7	1.797	2.644	14.6	20.7
<b>195624</b>	2002 <i>LZ</i> <sub>50</sub>		4 13.9 214°42	4°1/ 9.3	18		<b>409222</b>	2003 <i>XH</i> <sub>32</sub>		4 13.9 207°90	0°9/14.8	16	
3 12	13 51.20	+ 1 10.6	2.346	3.207	10.4	20.2	3 12	13 54.32	-14 34.3	1.912	2.747	13.5	21.8
3 22	13 46.16	+ 2 16.4	2.271	3.200	7.6	20.1	3 22	13 48.86	-14 2.3	1.826	2.742	10.1	21.5
4 1	13 39.56	+ 3 23.6	2.222	3.193	5.1	19.9	4 1	13 41.33	-13 15.5	1.765	2.736	6.1	21.3
4 11	13 32.00	+ 4 26.7	2.202	3.186	4.1	19.8	4 11	13 32.48	-12 17.0	1.731	2.730	1.9	21.0
4 21	13 24.21	+ 5 20.0	2.210	3.178	5.9	19.9	4 21	13 23.25	-11 12.2	1.725	2.724	2.9	21.1
5 1	13 16.94	+ 5 59.2	2.247	3.170	8.7	20.1	5 1	13 14.69	-10 7.7	1.747	2.716	7.2	21.3
5 11	13 10.87	+ 6 21.6	2.307	3.161	11.5	20.2	5 11	13 7.70	- 9 10.1	1.795	2.709	11.2	21.5
5 21	13 6.44	+ 6 26.5	2.389	3.152	13.9	20.4	5 21	13 2.84	- 8 24.6	1.866	2.700	14.7	21.7
<b>193845</b>	2001 <i>QL</i> <sub>100</sub>		4 13.9 247°52	3°2/11.5	17		<b>71015</b>	1999 <i>XM</i> <sub>55</sub>		4 13.9 57°11	1°6/12.6	17	
3 12	13 56.60	- 3 51.0	1.621	2.484	14.1	21.1	3 12	13 52.46	- 6 42.6	1.881	2.740	12.7	19.1
3 22	13 50.88	- 3 3.0	1.535	2.468	10.3	20.9	3 22	13 47.38	- 6 12.2	1.812	2.742	9.2	18.9
4 1	13 42.67	- 2 7.6	1.473	2.451	6.2	20.6	4 1	13 40.39	- 5 34.6	1.766	2.745	5.2	18.7
4 11	13 32.78	- 1 11.1	1.437	2.434	3.3	20.3	4 11	13 32.24	- 4 54.5	1.748	2.748	1.7	18.4
4 21	13 22.32	- 0 20.7	1.429	2.415	5.9	20.5	4 21	13 23.85	- 4 17.1	1.758	2.751	4.0	18.6
5 1	13 12.53	+ 0 16.5	1.446	2.397	10.3	20.7	5 1	13 16.17	- 3 47.3	1.794	2.754	7.9	18.8
5 11	13 4.52	+ 0 35.7	1.488	2.377	14.6	20.9	5 11	13 10.00	- 3 29.1	1.856	2.757	11.6	19.1
5 21	12 59.02	+ 0 35.0	1.549	2.357	18.3	21.1	5 21	13 5.86	- 3 24.7	1.939	2.760	14.7	19.3
<b>147958</b>	1993 <i>TN</i> <sub>25</sub>		4 13.9 190°71	1°3/12.8	17		<b>399866</b>	2005 <i>UR</i> <sub>424</sub>					



EPHEMERIDES

4 13.9

4 14.0

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>31464</b>	Liscinsky		4 13.9 189°71	3°0/16.3	18		<b>509321</b>	2006 <i>WV</i> <sub>104</sub>		4 13.9 7°01	2°2/16.5	17	
3 12	13 58.58	-18 24.6	1.841	2.658	14.7	19.0	3 12	13 49.28	-19 8.3	2.283	3.101	12.2	21.5
3 22	13 52.12	-18 31.2	1.757	2.657	11.4	18.7	3 22	13 44.91	-18 43.8	2.200	3.101	9.3	21.3
4 1	13 43.31	-18 21.5	1.696	2.656	7.5	18.5	4 1	13 38.91	-18 4.1	2.141	3.102	6.1	21.1
4 11	13 32.96	-17 56.2	1.662	2.654	3.8	18.3	4 11	13 31.92	-17 11.4	2.109	3.102	3.0	20.9
4 21	13 22.16	-17 18.4	1.655	2.651	3.7	18.3	4 21	13 24.70	-16 9.7	2.105	3.102	2.8	20.9
5 1	13 12.10	-16 33.7	1.677	2.647	7.3	18.5	5 1	13 18.03	-15 4.4	2.129	3.103	5.8	21.1
5 11	13 3.80	-15 48.9	1.724	2.643	11.3	18.7	5 11	13 12.62	-14 1.4	2.181	3.103	9.1	21.3
5 21	12 57.92	-15 10.1	1.794	2.638	14.8	18.9	5 21	13 8.93	-13 5.8	2.255	3.104	12.0	21.4
<b>6755</b>	Solov'yankenko		4 13.9 138°36	3°0/16.5	18		<b>114203</b>	2002 <i>VH</i> <sub>101</sub>		4 13.9 222°35	2°3/11.8	17	
3 12	13 54.23	-19 10.4	1.686	2.513	15.4	17.2	3 12	13 54.32	-4 58.7	2.099	2.952	11.7	20.8
3 22	13 49.01	-19 0.8	1.611	2.516	11.9	17.0	3 22	13 48.69	-4 12.8	2.013	2.942	8.5	20.5
4 1	13 41.49	-18 32.0	1.558	2.519	7.9	16.7	4 1	13 41.18	-3 20.5	1.954	2.931	5.0	20.3
4 11	13 32.53	-17 45.9	1.530	2.522	4.0	16.5	4 11	13 32.47	-2 26.6	1.922	2.919	2.3	20.1
4 21	13 23.21	-16 47.2	1.528	2.525	3.7	16.5	4 21	13 23.42	-1 36.7	1.919	2.907	4.5	20.2
5 1	13 14.71	-15 42.9	1.554	2.528	7.5	16.7	5 1	13 14.92	-0 56.0	1.945	2.894	8.1	20.4
5 11	13 8.03	-14 41.0	1.605	2.531	11.5	16.9	5 11	13 7.81	-0 28.6	1.996	2.881	11.6	20.6
5 21	13 3.75	-13 48.1	1.677	2.533	15.1	17.2	5 21	13 2.62	-0 16.6	2.069	2.867	14.7	20.8
<b>281093</b>	2006 <i>UR</i> <sub>109</sub>		4 13.9 95°69	3°2/17.5	17		<b>254046</b>	2004 <i>GF</i> <sub>29</sub>		4 13.9 46°39	0°2/13.9	18	
3 12	13 50.68	-21 43.9	2.259	3.064	12.7	20.6	3 12	13 59.16	-8 20.6	1.445	2.303	15.8	20.4
3 22	13 45.94	-21 31.1	2.179	3.069	9.9	20.4	3 22	13 52.74	-8 41.5	1.384	2.313	11.6	20.1
4 1	13 39.50	-21 1.7	2.123	3.074	6.9	20.2	4 1	13 43.70	-8 54.5	1.346	2.323	6.8	19.9
4 11	13 32.04	-20 17.3	2.093	3.080	4.0	20.0	4 11	13 33.07	-9 2.1	1.333	2.334	1.6	19.6
4 21	13 24.35	-19 21.2	2.091	3.085	3.5	20.0	4 21	13 22.13	-9 7.7	1.347	2.345	3.7	19.7
5 1	13 17.26	-18 18.9	2.118	3.090	6.0	20.1	5 1	13 12.25	-9 15.2	1.387	2.356	8.7	20.1
5 11	13 11.51	-17 16.3	2.171	3.095	9.0	20.3	5 11	13 4.53	-9 28.5	1.451	2.368	13.1	20.3
5 21	13 7.56	-16 18.9	2.248	3.100	11.9	20.5	5 21	12 59.56	-9 50.1	1.535	2.380	16.8	20.6
<b>477431</b>	2009 <i>WH</i> <sub>123</sub>		4 13.9 104°72	1°0/12.6	18		<b>144954</b>	2005 <i>EH</i> <sub>44</sub>		4 13.9 291°58	1°0/14.7	17	
3 12	13 47.70	-6 34.3	3.295	4.140	8.1	22.0	3 12	13 54.00	-13 13.0	1.512	2.364	15.5	20.1
3 22	13 43.21	-6 7.0	3.227	4.152	5.8	21.9	3 22	13 49.31	-13 2.9	1.419	2.343	11.7	19.8
4 1	13 37.69	-5 35.7	3.187	4.164	3.3	21.7	4 1	13 41.96	-12 37.5	1.347	2.322	7.2	19.5
4 11	13 31.59	-5 3.3	3.176	4.176	1.1	21.6	4 11	13 32.73	-11 59.2	1.301	2.301	2.2	19.1
4 21	13 25.40	-4 32.5	3.195	4.187	2.5	21.7	4 21	13 22.75	-11 13.1	1.280	2.280	3.6	19.2
5 1	13 19.61	-4 6.0	3.243	4.198	5.0	21.9	5 1	13 13.39	-10 26.0	1.286	2.259	8.8	19.4
5 11	13 14.66	-3 46.2	3.319	4.210	7.3	22.1	5 11	13 5.88	-9 45.8	1.315	2.238	13.7	19.6
5 21	13 10.85	-3 34.5	3.419	4.221	9.3	22.2	5 21	13 1.03	-9 18.3	1.363	2.217	18.0	19.8
<b>191118</b>	2002 <i>EE</i> <sub>03</sub>		4 13.9 330°43	0°3/13.7	17		<b>177168</b>	2003 <i>SX</i> <sub>138</sub>		4 14.0 170°83	3°0/16.4	18	
3 12	13 49.86	-10 0.2	2.083	2.934	11.9	20.3	3 12	13 57.01	-18 45.1	1.842	2.660	14.6	20.3
3 22	13 45.45	-9 38.5	2.000	2.927	8.7	20.0	3 22	13 50.93	-18 49.8	1.763	2.663	11.3	20.1
4 1	13 39.28	-9 7.7	1.943	2.920	5.1	19.8	4 1	13 42.59	-18 37.7	1.706	2.666	7.5	19.8
4 11	13 32.01	-8 31.3	1.912	2.913	1.1	19.5	4 11	13 32.82	-18 10.1	1.676	2.668	3.9	19.6
4 21	13 24.43	-7 53.5	1.909	2.906	3.0	19.6	4 21	13 22.66	-17 30.3	1.674	2.669	3.7	19.6
5 1	13 17.40	-7 19.0	1.934	2.900	6.9	19.9	5 1	13 13.27	-16 43.7	1.699	2.670	7.2	19.8
5 11	13 11.68	-6 52.5	1.984	2.894	10.5	20.1	5 11	13 5.61	-15 57.4	1.750	2.671	11.0	20.0
5 21	13 7.79	-6 36.8	2.056	2.889	13.6	20.3	5 21	13 0.29	-15 17.1	1.823	2.671	14.4	20.3
<b>241243</b>	2007 <i>TE</i> <sub>208</sub>		4 13.9 11°23	1°6/12.5	17		<b>503251</b>	2015 <i>KX</i> <sub>17</sub>		4 14.0 55°38	3°5/10.1	17	
3 12	13 50.66	-7 4.2	1.964	2.823	12.2	20.9	3 12	13 48.64	-1 42.9	2.175	3.041	10.9	20.7
3 22	13 46.03	-6 24.7	1.892	2.823	8.8	20.6	3 22	13 44.36	-0 33.2	2.112	3.046	7.8	20.5
4 1	13 39.60	-5 37.6	1.845	2.824	5.0	20.4	4 1	13 38.55	+0 39.8	2.075	3.051	4.9	20.3
4 11	13 32.08	-4 47.7	1.825	2.824	1.7	20.2	4 11	13 31.84	+1 50.0	2.066	3.057	3.5	20.2
4 21	13 24.31	-4 0.3	1.832	2.825	3.9	20.3	4 21	13 24.98	+2 51.7	2.085	3.062	5.4	20.4
5 1	13 17.20	-3 20.7	1.868	2.826	7.7	20.6	5 1	13 18.71	+3 39.8	2.132	3.067	8.4	20.6
5 11	13 11.50	-2 53.3	1.928	2.828	11.3	20.8	5 11	13 13.68	+4 11.2	2.203	3.073	11.3	20.8
5 21	13 7.70	-2 40.1	2.009	2.829	14.3	21.0	5 21	13 10.31	+4 25.1	2.295	3.079	13.8	20.9
<b>18285</b>	Vladplatonov		4 13.9 18°92	2°1/12.8	18	R	<b>486749</b>	2014 <i>FU</i> <sub>10</sub>		4 14.0 332°46	12°4/31.8	18	
3 12	13 56.99	-3 59.3	1.482	2.349	15.0	16.3	3 12	13 48.96	+7 51.8	1.064	1.962	16.9	20.2
3 22	13 51.11	-4 5.7	1.419	2.353	10.9	16.1	3 22	13 45.91	+11 52.9	1.021	1.959	13.7	20.0
4 1	13 42.73	-4 8.6	1.378	2.357	6.3	15.8	4 1	13 39.97	+15 50.7	1.004	1.956	12.4	19.9
4 11	13 32.83	-4 12.0	1.363	2.362	2.3	15.6	4 11	13 32.23	+19 20.6	1.010	1.953	13.9	20.0
4 21	13 22.60	-4 19.7	1.374	2.368	4.7	15.8	4 21	13 24.10	+22 3.1	1.039	1.951	17.1	20.1
5 1	13 13.34	-4 35.3	1.411	2.374	9.3	16.0	5 1	13 17.09	+23 48.5	1.088	1.949	20.7	20.4
5 11	13 6.08	-5 1.3	1.472	2.381	13.5	16.3	5 11	13 12.39	+24 37.4	1.151	1.947	24.0	20.6
5 21	13 1.44	-5 38.5	1.553	2.389	17.1	16.6	5 21	13 10.60	+24 37.2	1.226	1.946	26.6	20.8
<b>266299</b>	2007 <i>BK</i> <sub>78</sub>		4 13.9 118°85	1°8/15.7	17		<b>402198</b>	2004 <i>TK</i> <sub>277</sub>		4 14.0 145°26	1°9/12.6	18	
3 12	13 54.30	-16 48.3	1.932	2.759	13.7	21.5	3 12	13 58.16	-5 47.7	1.632	2.489	14.3	21.7
3 22	13 48.70	-16 30.0	1.863	2.771	10.3	21.3	3 22	13 51.77	-5 24.9	1.566	2.496	10.4	21.4
4 1	13 41.14	-15 56.6	1.817	2.783	6.5	21.1	4 1	13 43.05	-4 55.3	1.524	2.502	6.0	21.2
4 11	13 32.43	-15 10.7	1.798	2.795	2.7	20.9	4 11	13 32.92	-4 24.0	1.508	2.508	2.1	20.9
4 21	13 23.52	-14 16.9	1.807	2.806	2.9	20.9	4 21	13 22.51	-3 56.2	1.520	2.513	4.5	21.1
5 1	13 15.39	-13 21.2	1.845	2.817	6.7	21.2	5 1	13 13.02	-3 37.3	1.560	2.518	9.0	21.4
5 11	13 8.86	-12 29.8	1.908	2.827	10.4	21.4	5 11	13 5.43	-3 30.9	1.623	2.523	13.0	21.6
5 21	13 4.42	-11 47.7	1.994	2.837	13.5	21.6	5 21	13 0.30	-3 38.9	1.707	2.527	16.4	21.9
<b>81260</b>	2000 <i>FJ</i> <sub>41</sub>		4 13.9 277°93	2°7/11.7	18		<b>468977</b>	2015 <i>AP</i> <sub>101</sub>		4 14.0 82°00	4°4/10.1	18	
3 12	13 52.75	-5 1.7	1.697										