

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										

EPHEMERIDES

4 14.0

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>375812</b>	2009 <i>UA</i> <sub>2</sub>		4 14.0 229°44	3°2/17.8	17		<b>350440</b>	2012 <i>WW</i> <sub>7</sub>		4 14.0 191°54	3°2/17.6	18	
3 12	13 52.23	-24 48.4	2.123	2.915	13.9	21.4	3 12	13 51.61	-22 1.9	2.542	3.337	11.7	21.1
3 22	13 47.25	-23 41.5	2.023	2.905	11.0	21.1	3 22	13 46.53	-21 55.3	2.453	3.336	9.2	20.9
4 1	13 40.36	-22 9.8	1.947	2.895	7.6	20.9	4 1	13 39.86	-21 33.8	2.387	3.335	6.5	20.7
4 11	13 32.29	-20 15.8	1.898	2.885	4.3	20.7	4 11	13 32.20	-20 58.3	2.349	3.333	3.9	20.5
4 21	13 23.92	-18 5.5	1.879	2.874	3.4	20.6	4 21	13 24.28	-20 11.6	2.340	3.331	3.4	20.5
5 1	13 16.20	-15 48.0	1.890	2.862	6.5	20.8	5 1	13 16.86	-19 17.9	2.359	3.329	5.6	20.6
5 11	13 9.95	-13 33.4	1.929	2.851	10.1	21.0	5 11	13 10.64	-18 22.5	2.406	3.326	8.4	20.8
5 21	13 5.68	-11 30.4	1.994	2.838	13.5	21.1	5 21	13 6.07	-17 30.4	2.477	3.323	11.1	21.0
<b>93553</b>	2000 <i>UT</i> <sub>25</sub>		4 14.0 100°16	3°4/10.9	18		<b>373274</b>	2012 <i>HN</i> <sub>28</sub>		4 14.0 216°24	6°9/6.7	17	
3 12	13 52.86	- 2 11.2	1.883	2.747	12.4	19.7	3 12	13 53.20	+ 8 46.6	2.077	2.937	11.5	20.9
3 22	13 47.59	- 1 18.5	1.825	2.758	8.9	19.5	3 22	13 47.83	+10 5.4	2.011	2.931	9.1	20.8
4 1	13 40.47	- 0 22.3	1.791	2.768	5.4	19.3	4 1	13 40.66	+11 19.6	1.972	2.925	7.2	20.6
4 11	13 32.31	+ 0 31.1	1.785	2.779	3.4	19.2	4 11	13 32.39	+12 21.5	1.959	2.917	7.1	20.6
4 21	13 23.99	+ 1 15.8	1.807	2.789	5.5	19.4	4 21	13 23.87	+13 5.3	1.974	2.910	8.8	20.7
5 1	13 16.45	+ 1 47.2	1.855	2.799	8.9	19.6	5 1	13 15.99	+13 26.8	2.014	2.902	11.3	20.8
5 11	13 10.44	+ 2 2.1	1.928	2.808	12.2	19.8	5 11	13 9.50	+13 25.0	2.076	2.893	13.9	21.0
5 21	13 6.42	+ 2 0.1	2.021	2.818	15.0	20.0	5 21	13 4.92	+13 1.4	2.157	2.884	16.2	21.1
<b>469943</b>	2006 <i>BS</i> <sub>73</sub>		4 14.0 199°87	3°6/10.6	17		<b>34655</b>	2000 <i>WS</i> <sub>151</sub>		4 14.0 177°42	7°6/3.5	18	
3 12	13 52.52	- 1 7.3	1.983	2.847	11.9	21.0	3 12	13 49.84	+16 11.1	2.598	3.444	10.0	18.8
3 22	13 47.37	- 0 15.5	1.913	2.845	8.6	20.8	3 22	13 45.06	+17 33.7	2.549	3.445	8.4	18.7
4 1	13 40.39	+ 0 39.2	1.868	2.844	5.4	20.6	4 1	13 38.91	+18 46.9	2.527	3.446	7.6	18.6
4 11	13 32.30	+ 1 30.9	1.851	2.842	3.6	20.5	4 11	13 31.96	+19 44.5	2.531	3.446	7.9	18.7
4 21	13 23.97	+ 2 13.9	1.861	2.840	5.6	20.6	4 21	13 24.87	+20 22.3	2.561	3.446	9.2	18.7
5 1	13 16.30	+ 2 43.4	1.899	2.838	9.0	20.8	5 1	13 18.33	+20 38.1	2.615	3.446	10.9	18.9
5 11	13 10.05	+ 2 56.4	1.960	2.836	12.3	21.0	5 11	13 12.90	+20 31.8	2.691	3.446	12.6	19.0
5 21	13 5.74	+ 2 52.3	2.043	2.834	15.1	21.1	5 21	13 8.98	+20 5.4	2.784	3.446	14.2	19.1
<b>297910</b>	2002 <i>CJ</i> <sub>310</sub>		4 14.0 76°28	3°9/18.2	17		<b>377793</b>	2006 <i>AY</i> <sub>23</sub>		4 14.0 119°96	3°2/17.6	18	
3 12	13 52.31	-23 22.5	2.350	3.142	12.7	20.9	3 12	13 55.86	-22 12.0	2.477	3.265	12.2	22.0
3 22	13 47.07	-23 31.1	2.278	3.156	10.1	20.7	3 22	13 49.47	-22 6.8	2.408	3.288	9.5	21.8
4 1	13 40.15	-23 23.6	2.229	3.171	7.2	20.6	4 1	13 41.47	-21 46.2	2.365	3.310	6.6	21.7
4 11	13 32.24	-23 0.7	2.207	3.185	4.7	20.4	4 11	13 32.56	-21 11.6	2.348	3.332	4.0	21.5
4 21	13 24.13	-22 24.9	2.212	3.199	4.0	20.4	4 21	13 23.53	-20 25.9	2.361	3.352	3.4	21.5
5 1	13 16.66	-21 40.4	2.246	3.214	6.0	20.6	5 1	13 15.20	-19 33.7	2.404	3.372	5.6	21.7
5 11	13 10.52	-20 52.9	2.306	3.228	8.7	20.8	5 11	13 8.24	-18 40.4	2.475	3.391	8.4	21.9
5 21	13 6.19	-20 7.3	2.391	3.242	11.3	20.9	5 21	13 3.08	-17 50.9	2.570	3.409	11.0	22.1
<b>417890</b>	2007 <i>RD</i> <sub>27</sub>		4 14.0 274°55	0°4/14.3	14 C		<b>112459</b>	2002 <i>OG</i> <sub>11</sub>		4 14.0 272°63	2°7/11.1	17	
3 12	13 54.50	-13 10.6	1.570	2.420	15.2	22.4	3 12	13 50.63	- 4 35.1	2.103	2.963	11.4	20.3
3 22	13 49.65	-12 37.3	1.471	2.395	11.4	22.1	3 22	13 46.08	- 3 32.2	2.011	2.943	8.3	20.0
4 1	13 42.16	-11 46.5	1.394	2.369	6.9	21.8	4 1	13 39.73	- 2 21.6	1.944	2.922	4.9	19.8
4 11	13 32.81	-10 41.5	1.342	2.343	1.8	21.4	4 11	13 32.20	- 1 9.1	1.904	2.900	2.7	19.6
4 21	13 22.68	- 9 28.6	1.317	2.316	3.7	21.5	4 21	13 24.27	- 0 0.9	1.894	2.879	4.9	19.7
5 1	13 13.11	- 8 16.4	1.319	2.289	9.0	21.7	5 1	13 16.81	+ 0 56.8	1.911	2.857	8.5	19.9
5 11	13 5.31	- 7 13.6	1.345	2.262	14.0	21.9	5 11	13 10.62	+ 1 39.2	1.952	2.834	12.0	20.0
5 21	13 0.12	- 6 26.8	1.390	2.234	18.3	22.1	5 21	13 6.25	+ 2 3.8	2.015	2.812	15.1	20.2
<b>313704</b>	2003 <i>UG</i> <sub>28</sub>		4 14.0 96°00	2°4/15.9	18		<b>322597</b>	2012 <i>BZ</i> <sub>22</sub>		4 14.0 33°26	2°8/12.0	18	
3 12	13 57.18	-17 26.8	1.673	2.502	15.4	21.7	3 12	13 52.64	- 5 48.5	1.264	2.143	16.2	20.4
3 22	13 50.97	-17 17.2	1.615	2.523	11.7	21.5	3 22	13 48.17	- 5 1.2	1.211	2.151	11.7	20.2
4 1	13 42.53	-16 50.3	1.579	2.543	7.4	21.3	4 1	13 41.10	- 4 4.8	1.179	2.160	6.7	19.9
4 11	13 32.80	-16 8.7	1.569	2.564	3.3	21.0	4 11	13 32.51	- 3 7.0	1.171	2.170	2.9	19.7
4 21	13 22.93	-15 17.6	1.586	2.584	3.4	21.1	4 21	13 23.68	- 2 16.3	1.188	2.180	5.7	19.9
5 1	13 14.07	-14 23.6	1.631	2.603	7.3	21.4	5 1	13 15.94	- 1 40.1	1.229	2.191	10.5	20.2
5 11	13 7.13	-13 33.8	1.701	2.622	11.2	21.6	5 11	13 10.34	- 1 23.1	1.292	2.202	14.9	20.5
5 21	13 2.62	-12 53.5	1.793	2.641	14.6	21.9	5 21	13 7.42	- 1 26.5	1.373	2.213	18.6	20.8
<b>334302</b>	2001 <i>VU</i> <sub>57</sub>		4 14.0 133°57	0°5/13.6	16		<b>374344</b>	2005 <i>UN</i> <sub>92</sub>		4 14.0 247°23	1°5/15.3	17	
3 12	13 56.72	- 8 46.0	2.066	2.909	12.3	21.3	3 12	13 54.10	-15 20.0	1.941	2.773	13.4	21.7
3 22	13 50.31	- 8 34.0	1.999	2.921	9.0	21.1	3 22	13 48.80	-15 9.0	1.850	2.762	10.2	21.5
4 1	13 42.05	- 8 14.7	1.956	2.932	5.2	20.9	4 1	13 41.40	-14 43.9	1.782	2.750	6.4	21.2
4 11	13 32.69	- 7 51.1	1.942	2.942	1.2	20.7	4 11	13 32.60	-14 6.8	1.740	2.738	2.5	21.0
4 21	13 23.15	- 7 27.0	1.956	2.953	3.1	20.8	4 21	13 23.35	-13 21.6	1.727	2.726	3.0	21.0
5 1	13 14.35	- 7 6.7	2.000	2.962	7.0	21.1	5 1	13 14.67	-12 34.0	1.741	2.713	7.1	21.2
5 11	13 7.06	- 6 53.8	2.069	2.972	10.5	21.3	5 11	13 7.50	-11 49.9	1.782	2.700	11.0	21.4
5 21	13 1.79	- 6 50.7	2.161	2.980	13.5	21.5	5 21	13 2.46	-11 14.6	1.844	2.686	14.5	21.6
<b>142054</b>	2002 <i>QB</i> <sub>22</sub>		4 14.0 260°38	2°6/11.9	17		<b>142385</b>	2002 <i>SZ</i> <sub>8</sub>		4 14.0 244°81	0°1/13.9	18	
3 12	13 53.45	- 5 40.5	1.679	2.543	13.6	20.8	3 12	13 54.25	-11 46.2	1.977	2.819	12.8	21.3
3 22	13 48.49	- 4 48.9	1.596	2.530	9.9	20.6	3 22	13 48.88	-11 10.9	1.881	2.802	9.5	21.0
4 1	13 41.27	- 3 48.2	1.537	2.516	5.8	20.3	4 1	13 41.44	-10 23.0	1.810	2.785	5.6	20.8
4 11	13 32.57	- 2 44.5	1.505	2.503	2.6	20.1	4 11	13 32.62	- 9 25.9	1.766	2.767	1.3	20.4
4 21	13 23.39	- 1 45.0	1.499	2.489	5.2	20.2	4 21	13 23.32	- 8 24.8	1.750	2.748	3.2	20.5
5 1	13 14.89	- 0 56.8	1.520	2.475	9.5	20.4	5 1	13 14.55	- 7 26.2	1.763	2.728	7.5	20.8
5 11	13 8.04	- 0 25.2	1.565	2.460	13.7	20.6	5 11	13 7.23	- 6 36.1	1.801	2.708	11.6	20.9
5 21	13 3.50	- 0 12.7	1.629	2.446	17.2	20.8	5 21	13 1.99	- 5 59.1	1.862	2.688	15.0	21.1
<b>247673</b>	2002 <i>YS</i> <sub>14</sub>		4 14.0 117°20	9°2/1.9	17		<b>281649</b>	2008 <i>UF</i> <sub>342</sub>		4 14.			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>325407</b>	2009 <i>HC</i> <sub>92</sub>		4 14.0 258°09	2°7/11.9	17		<b>250452</b>	2003 <i>YU</i> <sub>142</sub>		4 14.0 197°46	4°1/17.4	17	
3 12	13 55.51	- 4 10.3	1.691	2.554	13.6	21.2	3 12	13 58.05	-21 57.4	2.093	2.888	13.9	21.3
3 22	13 50.00	- 3 36.8	1.609	2.541	10.0	20.9	3 22	13 51.63	-22 14.3	2.003	2.885	11.0	21.1
4 1	13 42.17	- 2 57.0	1.550	2.528	5.9	20.6	4 1	13 43.04	-22 14.5	1.936	2.882	7.8	20.9
4 11	13 32.80	- 2 16.6	1.517	2.515	2.8	20.4	4 11	13 33.03	-21 57.7	1.895	2.877	4.9	20.7
4 21	13 22.95	- 1 41.4	1.512	2.501	5.2	20.5	4 21	13 22.55	-21 25.9	1.883	2.872	4.3	20.6
5 1	13 13.77	- 1 17.2	1.533	2.488	9.5	20.7	5 1	13 12.69	-20 43.6	1.899	2.867	6.9	20.8
5 11	13 6.29	- 1 8.1	1.579	2.474	13.6	20.9	5 11	13 4.40	-19 57.1	1.942	2.860	10.2	21.0
5 21	13 1.17	- 1 16.0	1.644	2.459	17.1	21.1	5 21	12 58.31	-19 12.6	2.008	2.853	13.4	21.2
<b>317967</b>	2003 <i>YH</i> <sub>54</sub>		4 14.0 158°13	3°8/10.7	16		<b>176493</b>	2001 <i>XD</i> <sub>237</sub>		4 14.0 201°74	3°2/18.2	18	
3 12	13 55.82	- 1 0.0	1.877	2.737	12.6	21.5	3 12	13 51.20	-23 47.0	2.951	3.730	10.6	20.8
3 22	13 49.80	- 0 8.8	1.813	2.743	9.2	21.3	3 22	13 46.08	-23 37.7	2.854	3.726	8.5	20.6
4 1	13 41.82	+ 0 45.0	1.774	2.749	5.7	21.1	4 1	13 39.56	-23 14.3	2.782	3.721	6.1	20.5
4 11	13 32.67	+ 1 35.2	1.763	2.754	3.8	21.0	4 11	13 32.17	-22 37.5	2.738	3.716	3.9	20.3
4 21	13 23.33	+ 2 15.8	1.780	2.759	5.9	21.1	4 21	13 24.54	-21 49.5	2.722	3.710	3.4	20.2
5 1	13 14.77	+ 2 42.1	1.824	2.763	9.3	21.3	5 1	13 17.34	-20 54.2	2.736	3.703	5.1	20.4
5 11	13 7.81	+ 2 51.4	1.892	2.766	12.7	21.5	5 11	13 11.16	-19 56.1	2.779	3.697	7.5	20.5
5 21	13 2.97	+ 2 43.4	1.981	2.769	15.6	21.7	5 21	13 6.44	-18 59.9	2.846	3.689	9.9	20.6
<b>315370</b>	2007 <i>VT</i> <sub>9</sub>		4 14.0 121°04	3°2/11.6	18		<b>102141</b>	1999 <i>RT</i> <sub>184</sub>		4 14.0 143°62	2°9/11.5	18	
3 12	13 56.36	- 3 11.9	1.612	2.476	14.1	20.8	3 12	13 55.38	- 3 59.9	1.792	2.652	13.1	19.5
3 22	13 50.45	- 2 32.6	1.551	2.484	10.2	20.6	3 22	13 49.56	- 3 9.5	1.729	2.660	9.5	19.2
4 1	13 42.29	- 1 48.8	1.514	2.492	6.1	20.4	4 1	13 41.72	- 2 13.7	1.690	2.668	5.6	19.0
4 11	13 32.80	- 1 6.5	1.504	2.500	3.2	20.2	4 11	13 32.69	- 1 18.5	1.679	2.676	2.9	18.9
4 21	13 23.08	- 0 32.0	1.520	2.507	5.5	20.4	4 21	13 23.47	- 0 30.1	1.696	2.682	5.2	19.0
5 1	13 14.30	- 0 10.6	1.563	2.514	9.6	20.6	5 1	13 15.06	+ 0 5.8	1.740	2.689	9.0	19.3
5 11	13 7.36	- 0 5.4	1.629	2.521	13.4	20.8	5 11	13 8.32	+ 0 25.8	1.808	2.695	12.6	19.5
5 21	13 2.82	- 0 17.2	1.716	2.528	16.7	21.1	5 21	13 3.75	+ 0 28.6	1.897	2.700	15.6	19.7
<b>210107</b>	Pistoletto		4 14.0 26°75	4°8/18.5	17		<b>56583</b>	2000 <i>JH</i> <sub>28</sub>		4 14.0 260°82	1°7/12.8	18	
3 12	13 53.70	-24 19.5	2.137	2.928	13.8	20.8	3 12	13 57.30	- 5 29.9	1.882	2.734	12.9	18.9
3 22	13 48.40	-24 44.1	2.053	2.928	11.1	20.6	3 22	13 51.20	- 5 20.4	1.791	2.718	9.5	18.7
4 1	13 41.11	-24 51.3	1.992	2.929	8.2	20.4	4 1	13 42.86	- 5 5.6	1.724	2.701	5.5	18.4
4 11	13 32.54	-24 40.6	1.956	2.930	5.6	20.2	4 11	13 33.01	- 4 49.0	1.684	2.684	1.9	18.1
4 21	13 23.59	-24 13.8	1.947	2.931	4.9	20.2	4 21	13 22.63	- 4 34.8	1.673	2.667	4.1	18.2
5 1	13 15.25	-23 34.8	1.966	2.932	6.9	20.3	5 1	13 12.81	- 4 27.2	1.690	2.649	8.4	18.4
5 11	13 8.39	-22 49.8	2.011	2.933	9.7	20.5	5 11	13 4.56	- 4 29.9	1.732	2.631	12.4	18.6
5 21	13 3.57	-22 4.9	2.079	2.934	12.6	20.7	5 21	12 58.53	- 4 44.7	1.795	2.612	15.9	18.8
<b>426638</b>	2013 <i>SJ</i> <sub>70</sub>		4 14.0 201°48	0°1/13.9	17		<b>153610</b>	2001 <i>SR</i> <sub>338</sub>		4 14.0 83°79	0°8/13.3	18	
3 12	13 54.21	-10 50.7	2.021	2.864	12.6	22.5	3 12	13 52.84	-10 56.9	1.721	2.574	13.9	21.0
3 22	13 48.68	-10 28.9	1.940	2.861	9.2	22.2	3 22	13 47.70	- 9 56.8	1.666	2.594	10.1	20.8
4 1	13 41.22	- 9 57.0	1.883	2.858	5.4	22.0	4 1	13 40.61	- 8 44.6	1.635	2.613	5.7	20.6
4 11	13 32.56	- 9 18.3	1.854	2.855	1.3	21.7	4 11	13 32.42	- 7 26.2	1.631	2.632	1.3	20.3
4 21	13 23.58	- 8 37.3	1.854	2.851	3.0	21.8	4 21	13 24.15	- 6 9.1	1.655	2.651	3.6	20.6
5 1	13 15.22	- 7 59.0	1.881	2.847	7.1	22.1	5 1	13 16.77	- 5 0.5	1.707	2.670	7.9	20.9
5 11	13 8.32	- 7 28.3	1.935	2.843	10.8	22.3	5 11	13 11.08	- 4 6.2	1.783	2.689	11.7	21.1
5 21	13 3.42	- 7 8.6	2.011	2.838	14.0	22.5	5 21	13 7.53	- 3 29.1	1.880	2.707	14.9	21.4
<b>520808</b>	2014 <i>TF</i> <sub>64</sub>		4 14.0 274°92	12°0/23.7	18		<b>507556</b>	2012 <i>YV</i> <sub>9</sub>		4 14.0 134°57	5°6/20.9	17	
3 12	14 18.85	-47 2.5	1.285	1.953	26.9	23.3	3 12	13 52.50	-31 3.0	2.716	3.456	12.4	22.4
3 22	14 10.16	-45 44.1	1.136	1.911	24.5	22.9	3 22	13 47.20	-31 18.1	2.631	3.463	10.4	22.3
4 1	13 55.55	-43 4.7	0.999	1.867	20.9	22.5	4 1	13 40.28	-31 15.0	2.569	3.470	8.3	22.1
4 11	13 36.24	-38 31.8	0.884	1.820	16.2	22.0	4 11	13 32.37	-30 53.2	2.532	3.477	6.4	22.0
4 21	13 23.41	-31 42.4	0.799	1.771	12.3	21.6	4 21	13 24.21	-30 14.2	2.522	3.484	5.6	22.0
5 1	12 54.85	-22 50.0	0.752	1.720	14.1	21.5	5 1	13 16.59	-29 21.4	2.539	3.490	6.4	22.0
5 11	12 39.13	-13 0.7	0.746	1.667	21.5	21.6	5 11	13 10.21	-28 20.3	2.584	3.497	8.3	22.2
5 21	12 28.97	- 3 40.9	0.777	1.611	29.7	21.9	5 21	13 5.54	-27 16.6	2.654	3.503	10.4	22.3
<b>217035</b>	2001 <i>PT</i> <sub>62</sub>		4 14.0 139°24	2°7/11.1	18	R	<b>333433</b>	2003 <i>SD</i> <sub>55</sub>		4 14.0 167°38	2°5/16.7	17	
3 12	13 54.14	- 3 0.7	2.358	3.209	10.7	21.4	3 12	13 52.75	-19 34.2	2.350	3.158	12.2	20.7
3 22	13 48.19	- 2 7.3	2.297	3.225	7.7	21.2	3 22	13 47.43	-19 21.2	2.267	3.162	9.4	20.5
4 1	13 40.72	- 1 10.6	2.264	3.239	4.6	21.0	4 1	13 40.43	-18 53.5	2.208	3.165	6.3	20.3
4 11	13 32.41	- 0 15.5	2.259	3.253	2.7	20.9	4 11	13 32.41	-18 12.9	2.176	3.167	3.3	20.1
4 21	13 24.00	+ 0 33.2	2.284	3.266	4.5	21.1	4 21	13 24.13	-17 22.5	2.174	3.169	3.0	20.1
5 1	13 16.24	+ 1 11.2	2.338	3.279	7.5	21.3	5 1	13 16.43	-16 27.4	2.200	3.171	5.8	20.3
5 11	13 9.78	+ 1 35.9	2.418	3.290	10.4	21.5	5 11	13 10.03	-15 32.9	2.253	3.173	9.0	20.5
5 21	13 5.01	+ 1 46.1	2.521	3.301	12.8	21.7	5 21	13 5.41	-14 44.2	2.330	3.174	11.8	20.7
<b>403272</b>	2009 <i>AJ</i> <sub>10</sub>		4 14.0 127°46	0°1/13.9	18		<b>153934</b>	2001 <i>YD</i> <sub>74</sub>		4 14.0 105°91	0°8/13.3	18	
3 12	13 56.27	-12 4.6	1.648	2.495	14.7	22.1	3 12	13 54.01	- 9 3.0	1.855	2.706	13.1	20.4
3 22	13 50.36	-11 26.1	1.585	2.508	10.8	21.9	3 22	13 48.55	- 8 34.1	1.789	2.716	9.5	20.2
4 1	13 42.23	-10 33.9	1.545	2.520	6.3	21.6	4 1	13 41.14	- 7 56.1	1.748	2.725	5.5	19.9
4 11	13 32.79	- 9 32.9	1.531	2.532	1.5	21.3	4 11	13 32.57	- 7 13.3	1.734	2.735	1.3	19.7
4 21	13 23.15	- 8 29.6	1.546	2.544	3.4	21.5	4 21	13 23.80	- 6 30.8	1.748	2.744	3.5	19.8
5 1	13 14.45	- 7 31.2	1.587	2.554	8.0	21.8	5 1	13 15.81	- 5 54.2	1.789	2.753	7.6	20.1
5 11	13 7.61	- 6 44.1	1.654	2.564	12.2	22.1	5 11	13 9.41	- 5 27.9	1.856	2.762	11.3	20.3
5 21	13 3.15	- 6 12.1	1.741	2.574	15.6	22.3	5 21	13 5.10	- 5 14.5	1.944	2.770	14.5	20.6
<b>62975</b>	2000 <i>VB</i> <sub>52</sub>		4 14.0 295°46	3°1/16.4	17		<b>217933</b>	2001 <i>TX</i> <sub>69</sub>		4 14			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>90348</b>	2003 GA <sub>36</sub>		4 14.0 306°37	8°6/3.5	18		<b>372566</b>	2009 UU <sub>39</sub>		4 14.0 195°58	0°8/14.9	17	
3 12	13 49.50	+14 17.6	2.078	2.938	11.5	19.3	3 12	13 53.21	-14 15.6	2.146	2.979	12.3	21.6
3 22	13 45.27	+15 49.6	2.012	2.920	9.7	19.2	3 22	13 47.90	-13 49.2	2.063	2.977	9.2	21.4
4 1	13 39.26	+17 13.4	1.970	2.902	8.7	19.1	4 1	13 40.77	-13 10.3	2.004	2.974	5.6	21.1
4 11	13 32.15	+18 20.7	1.954	2.884	9.0	19.1	4 11	13 32.52	-12 21.7	1.972	2.971	1.8	20.9
4 21	13 24.72	+19 5.3	1.963	2.866	10.7	19.1	4 21	13 23.97	-11 27.7	1.969	2.968	2.6	20.9
5 1	13 17.85	+19 23.2	1.995	2.849	12.9	19.2	5 1	13 16.01	-10 33.9	1.995	2.965	6.5	21.2
5 11	13 12.30	+19 14.0	2.048	2.831	15.2	19.4	5 11	13 9.43	-9 45.8	2.048	2.960	10.1	21.4
5 21	13 8.58	+18 39.8	2.117	2.814	17.3	19.5	5 21	13 4.73	-9 7.5	2.123	2.956	13.2	21.6
<b>375941</b>	2009 WE <sub>102</sub>		4 14.0 321°23	3°0/12.5	17		<b>309811</b>	2009 BY <sub>91</sub>		4 14.0 136°85	3°6/10.9	18	
3 12	13 56.77	-2 17.8	1.363	2.236	15.6	19.5	3 12	13 55.71	-2 58.9	1.681	2.544	13.6	21.5
3 22	13 51.62	-2 23.4	1.275	2.212	11.6	19.2	3 22	13 49.89	-1 54.4	1.622	2.555	9.9	21.3
4 1	13 43.49	-2 27.5	1.208	2.188	7.0	18.8	4 1	13 41.95	-0 44.9	1.588	2.565	5.9	21.1
4 11	13 33.24	-2 34.8	1.166	2.165	3.1	18.5	4 11	13 32.78	+0 22.5	1.580	2.574	3.6	21.0
4 21	13 22.12	-2 50.0	1.149	2.142	5.7	18.6	4 21	13 23.44	+1 20.4	1.601	2.583	5.9	21.2
5 1	13 11.64	-3 17.1	1.157	2.120	10.9	18.8	5 1	13 15.00	+2 2.7	1.648	2.592	9.8	21.4
5 11	13 3.20	-3 58.7	1.188	2.100	15.8	19.0	5 11	13 8.32	+2 25.9	1.718	2.600	13.4	21.6
5 21	12 57.70	-4 55.1	1.237	2.080	20.1	19.3	5 21	13 3.92	+2 29.4	1.809	2.607	16.5	21.9
<b>377740</b>	2005 XY <sub>36</sub>		4 14.0 179°77	1°4/15.3	17		<b>287481</b>	2003 AV <sub>85</sub>		4 14.0 119°61	0°5/14.5	18	
3 12	13 53.80	-15 7.7	2.013	2.844	13.1	21.6	3 12	13 54.04	-13 48.0	1.960	2.797	13.1	20.7
3 22	13 48.42	-14 54.1	1.933	2.845	9.8	21.3	3 22	13 48.46	-13 7.1	1.895	2.812	9.7	20.5
4 1	13 41.11	-14 27.2	1.877	2.845	6.1	21.1	4 1	13 41.04	-12 12.9	1.855	2.827	5.7	20.3
4 11	13 32.59	-13 49.4	1.847	2.845	2.3	20.9	4 11	13 32.56	-11 9.6	1.842	2.842	1.6	20.0
4 21	13 23.75	-13 4.8	1.847	2.845	2.8	20.9	4 21	13 23.94	-10 3.0	1.857	2.856	2.8	20.1
5 1	13 15.57	-12 18.8	1.874	2.845	6.7	21.1	5 1	13 16.11	-8 59.3	1.901	2.869	6.9	20.4
5 11	13 8.87	-11 37.0	1.927	2.844	10.4	21.4	5 11	13 9.82	-8 4.4	1.972	2.883	10.5	20.6
5 21	13 4.19	-11 3.9	2.003	2.843	13.6	21.6	5 21	13 5.55	-7 22.3	2.064	2.895	13.6	20.9
<b>88870</b>	2001 SF <sub>260</sub>		4 14.0 78°55	0°6/14.6	18		<b>491167</b>	2011 TF <sub>5</sub>		4 14.0 217°67	3°5/18.8	17	
3 12	13 52.17	-12 43.4	2.159	2.998	12.0	19.7	3 12	13 50.49	-25 32.5	2.955	3.727	10.8	21.8
3 22	13 47.01	-12 27.9	2.092	3.010	8.9	19.5	3 22	13 45.61	-25 15.1	2.854	3.718	8.7	21.6
4 1	13 40.16	-12 2.2	2.049	3.021	5.3	19.3	4 1	13 39.32	-24 42.2	2.776	3.709	6.4	21.5
4 11	13 32.34	-11 29.0	2.033	3.033	1.5	19.1	4 11	13 32.17	-23 54.4	2.726	3.700	4.3	21.3
4 21	13 24.34	-10 52.3	2.046	3.045	2.6	19.1	4 21	13 24.77	-22 54.3	2.705	3.691	3.6	21.2
5 1	13 17.00	-10 16.7	2.088	3.057	6.2	19.4	5 1	13 17.79	-21 45.8	2.714	3.680	5.2	21.3
5 11	13 11.03	-9 46.7	2.155	3.069	9.6	19.6	5 11	13 11.84	-20 34.1	2.751	3.670	7.5	21.5
5 21	13 6.86	-9 25.3	2.246	3.081	12.5	19.8	5 21	13 7.34	-19 24.3	2.813	3.659	9.9	21.6
<b>510573</b>	2012 QN <sub>52</sub>		4 14.0 255°15	0°5/13.1	18		<b>24331</b>	Alyshaowen		4 14.0 81°90	4°7/10.5	18	
3 12	13 43.16	-8 47.0	4.552	5.391	6.1	21.3	3 12	13 55.04	-0 4.6	1.530	2.402	14.3	18.0
3 22	13 39.83	-8 12.9	4.465	5.387	4.4	21.2	3 22	13 49.56	+0 49.5	1.476	2.411	10.4	17.8
4 1	13 35.77	-7 34.8	4.406	5.382	2.5	21.0	4 1	13 41.82	+1 45.3	1.444	2.420	6.6	17.6
4 11	13 31.30	-6 54.6	4.376	5.377	0.6	20.9	4 11	13 32.76	+2 35.2	1.439	2.429	4.7	17.5
4 21	13 26.72	-6 14.5	4.378	5.372	1.7	21.0	4 21	13 23.51	+3 12.2	1.459	2.438	6.9	17.7
5 1	13 22.37	-5 36.8	4.409	5.367	3.7	21.1	5 1	13 15.23	+3 31.3	1.505	2.447	10.7	17.9
5 11	13 18.56	-5 3.5	4.468	5.363	5.5	21.2	5 11	13 8.84	+3 30.0	1.574	2.456	14.4	18.1
5 21	13 15.53	-4 36.3	4.553	5.358	7.1	21.4	5 21	13 4.86	+3 9.0	1.662	2.465	17.5	18.4
<b>206953</b>	2004 RV <sub>310</sub>		4 14.0 168°42	0°6/14.5	18		<b>417663</b>	2006 YJ <sub>36</sub>		4 14.0 50°31	3°1/11.8	18	
3 12	13 57.80	-12 28.3	1.735	2.576	14.4	21.2	3 12	13 54.92	-3 45.5	1.405	2.278	15.3	21.1
3 22	13 51.56	-12 15.1	1.661	2.580	10.7	20.9	3 22	13 49.51	-3 8.5	1.360	2.297	11.0	20.9
4 1	13 43.03	-11 49.3	1.610	2.583	6.4	20.7	4 1	13 41.77	-2 26.8	1.337	2.317	6.4	20.6
4 11	13 33.06	-11 14.0	1.585	2.586	1.8	20.4	4 11	13 32.74	-1 46.9	1.340	2.337	3.2	20.5
4 21	13 22.74	-10 33.8	1.589	2.588	3.2	20.5	4 21	13 23.63	-1 15.4	1.368	2.357	5.6	20.7
5 1	13 13.24	-9 54.8	1.620	2.589	7.7	20.8	5 1	13 15.64	-0 57.7	1.421	2.378	9.9	21.0
5 11	13 5.54	-9 22.6	1.677	2.590	11.9	21.0	5 11	13 9.68	-0 56.5	1.498	2.399	13.8	21.3
5 21	13 0.23	-9 1.6	1.755	2.590	15.4	21.2	5 21	13 6.22	-1 12.4	1.593	2.420	17.1	21.5
<b>406331</b>	2007 RM <sub>14</sub>		4 14.0 216°06	0°7/14.6	14 C		<b>438382</b>	2006 TV <sub>123</sub>		4 14.0 256°19	0°1/13.9	17	
3 12	13 57.16	-13 2.7	1.949	2.783	13.3	22.8	3 12	13 52.80	-9 53.2	2.305	3.147	11.2	21.4
3 22	13 51.02	-12 46.1	1.859	2.774	10.0	22.6	3 22	13 47.49	-9 45.8	2.221	3.142	8.3	21.2
4 1	13 42.72	-12 17.0	1.793	2.765	6.0	22.3	4 1	13 40.51	-9 31.0	2.163	3.138	4.8	21.0
4 11	13 33.00	-11 38.1	1.755	2.755	1.8	22.0	4 11	13 32.47	-9 11.2	2.132	3.133	1.1	20.7
4 21	13 22.82	-10 53.5	1.745	2.744	3.0	22.1	4 21	13 24.13	-8 49.6	2.130	3.128	2.7	20.8
5 1	13 13.25	-10 9.0	1.764	2.732	7.3	22.3	5 1	13 16.31	-8 30.1	2.157	3.123	6.3	21.0
5 11	13 5.24	-9 30.3	1.809	2.719	11.3	22.6	5 11	13 9.73	-8 16.2	2.211	3.118	9.7	21.2
5 21	12 59.43	-9 1.9	1.876	2.705	14.8	22.8	5 21	13 4.90	-8 10.6	2.287	3.114	12.6	21.4
<b>244037</b>	2001 SG <sub>258</sub>		4 14.0 81°07	3°7/9.5	17		<b>24044</b>	Caballo		4 14.0 163°54	0°1/14.0	18	
3 12	13 48.80	-2 44.6	2.116	2.981	11.1	20.5	3 12	13 57.37	-10 34.9	1.865	2.707	13.5	19.4
3 22	13 44.52	-1 3.9	2.058	2.992	8.0	20.3	3 22	13 51.09	-10 20.9	1.791	2.712	9.9	19.2
4 1	13 38.70	+0 41.6	2.027	3.003	5.0	20.1	4 1	13 42.69	-9 56.7	1.742	2.717	5.8	18.9
4 11	13 32.00	+2 24.4	2.025	3.014	3.7	20.1	4 11	13 32.99	-9 25.7	1.720	2.720	1.4	18.6
4 21	13 25.18	+3 57.0	2.051	3.025	5.7	20.2	4 21	13 22.98	-8 52.3	1.726	2.724	3.2	18.8
5 1	13 18.99	+5 13.4	2.106	3.036	8.8	20.4	5 1	13 13.75	-8 21.6	1.760	2.726	7.5	19.0
5 11	13 14.09	+6 9.8	2.185	3.046	11.7	20.6	5 11	13 6.18	-7 58.4	1.820	2.728	11.4	19.3
5 21	13 10.86	+6 45.2	2.284	3.057	14.2	20.8	5 21	13 0.83	-7 46.1	1.902	2.730	14.7	19.5
<b>150513</b>	2000 RL <sub>17</sub>		4 14.0 297°02	8°6/20.2	18		<b>390298</b>	2013 AV <sub>48</sub>		4 14.0 110°30	9°6/2.3	18	
3 12	13 55.70	-30 21.5	1.741	2.512	17.3	19.5	3 12	13 53.82	+23 38.2	2.442	3.26		

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4 14.0

4 14.1

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>460720</b>	2014 <i>VM</i> <sub>5</sub>		4 14.0 235°68	3°7/10.9	16		<b>278629</b>	2008 <i>QH</i> <sub>43</sub>		4 14.1 200°70	2°1/16.0	17	
3 12	13 55.90	- 2 14.9	1.750	2.613	13.3	21.8	3 12	13 54.09	-17 5.5	2.107	2.928	12.9	21.6
3 22	13 50.24	- 1 21.0	1.669	2.600	9.7	21.5	3 22	13 48.64	-17 2.3	2.022	2.926	9.9	21.4
4 1	13 42.32	- 0 21.7	1.611	2.588	6.0	21.3	4 1	13 41.27	-16 45.3	1.961	2.924	6.4	21.2
4 11	13 32.93	+ 0 36.5	1.581	2.574	3.7	21.1	4 11	13 32.68	-16 16.1	1.927	2.922	3.0	21.0
4 21	13 23.08	+ 1 26.5	1.578	2.560	6.0	21.2	4 21	13 23.75	-15 37.9	1.921	2.919	3.0	20.9
5 1	13 13.89	+ 2 2.2	1.601	2.545	10.0	21.4	5 1	13 15.42	-14 55.6	1.944	2.916	6.4	21.2
5 11	13 6.36	+ 2 19.6	1.649	2.530	13.9	21.6	5 11	13 8.52	-14 14.8	1.993	2.912	10.0	21.4
5 21	13 1.12	+ 2 17.3	1.717	2.514	17.3	21.8	5 21	13 3.59	-13 40.2	2.065	2.909	13.1	21.6
<b>499228</b>	2009 <i>UL</i> <sub>103</sub>		4 14.0 219°17	0°3/13.7	17		<b>488548</b>	2001 <i>TR</i> <sub>70</sub>		4 14.1 230°96	0°6/13.4	18	
3 12	13 54.32	-10 23.4	2.453	3.288	10.9	23.0	3 12	13 54.25	- 7 43.7	2.941	3.775	9.3	22.6
3 22	13 48.56	- 9 54.3	2.359	3.277	8.0	22.8	3 22	13 48.28	- 7 32.9	2.842	3.760	6.8	22.5
4 1	13 41.12	- 9 16.2	2.291	3.265	4.7	22.6	4 1	13 40.89	- 7 17.0	2.770	3.745	3.9	22.2
4 11	13 32.67	- 8 32.3	2.251	3.252	1.1	22.3	4 11	13 32.58	- 6 58.4	2.728	3.729	1.0	22.0
4 21	13 23.79	- 7 46.6	2.242	3.238	2.7	22.4	4 21	13 23.98	- 6 39.7	2.717	3.712	2.5	22.1
5 1	13 15.42	- 7 3.4	2.262	3.224	6.4	22.6	5 1	13 15.73	- 6 23.8	2.736	3.695	5.6	22.3
5 11	13 8.23	- 6 27.3	2.309	3.209	9.7	22.8	5 11	13 8.45	- 6 13.4	2.783	3.677	8.5	22.4
5 21	13 2.74	- 6 1.2	2.380	3.193	12.6	23.0	5 21	13 2.59	- 6 10.5	2.855	3.658	10.9	22.6
<b>521116</b>	2015 <i>DN</i> <sub>246</sub>		4 14.0 172°43	1°1/15.2	17		<b>431632</b>	2007 <i>WK</i> <sub>50</sub>		4 14.1 85°56	7°0/ 7.4	17	
3 12	13 52.04	-15 26.6	2.117	2.948	12.5	22.0	3 12	13 54.20	+11 31.2	2.158	3.013	11.4	20.6
3 22	13 47.05	-14 57.7	2.037	2.950	9.4	21.8	3 22	13 48.44	+12 18.7	2.105	3.017	9.1	20.4
4 1	13 40.28	-14 15.1	1.982	2.951	5.8	21.6	4 1	13 40.99	+12 57.8	2.076	3.022	7.4	20.3
4 11	13 32.42	-13 21.8	1.953	2.952	2.1	21.3	4 11	13 32.59	+13 22.8	2.074	3.026	7.1	20.3
4 21	13 24.30	-12 22.5	1.954	2.953	2.6	21.4	4 21	13 24.06	+13 29.3	2.098	3.031	8.5	20.4
5 1	13 16.79	-11 22.7	1.982	2.953	6.4	21.6	5 1	13 16.25	+13 15.5	2.148	3.035	10.7	20.5
5 11	13 10.67	-10 28.5	2.037	2.953	9.9	21.8	5 11	13 9.85	+12 41.6	2.221	3.040	13.1	20.7
5 21	13 6.43	- 9 44.1	2.115	2.953	13.0	22.0	5 21	13 5.30	+11 50.0	2.314	3.044	15.2	20.9
<b>64837</b>	2001 <i>YE</i> <sub>2</sub>		4 14.0 323°82	1°8/12.8	18		<b>32640</b>	2531 <i>P-L</i>		4 14.1 203°82	1°1/12.8	18	
3 12	13 54.90	- 5 37.1	1.549	2.415	14.5	19.1	3 12	13 52.84	- 8 55.5	2.263	3.108	11.3	19.4
3 22	13 49.74	- 5 27.4	1.472	2.406	10.6	18.8	3 22	13 47.54	- 8 3.4	2.179	3.103	8.2	19.2
4 1	13 42.12	- 5 11.5	1.418	2.397	6.2	18.5	4 1	13 40.55	- 7 2.0	2.121	3.097	4.7	19.0
4 11	13 32.90	- 4 53.7	1.389	2.389	2.1	18.2	4 11	13 32.51	- 5 55.7	2.091	3.091	1.4	18.7
4 21	13 23.18	- 4 39.0	1.386	2.381	4.5	18.4	4 21	13 24.20	- 4 49.9	2.091	3.084	3.4	18.9
5 1	13 14.22	- 4 32.3	1.410	2.374	9.2	18.6	5 1	13 16.44	- 3 50.3	2.119	3.077	7.1	19.1
5 11	13 7.10	- 4 37.5	1.457	2.367	13.6	18.9	5 11	13 9.94	- 3 1.6	2.175	3.068	10.4	19.3
5 21	13 2.48	- 4 56.6	1.524	2.360	17.3	19.1	5 21	13 5.20	- 2 26.8	2.252	3.059	13.4	19.5
<b>18614</b>	1998 <i>DN</i> <sub>2</sub>		4 14.0 260°71	6°2/17.4	18		<b>501282</b>	2013 <i>WM</i> <sub>46</sub>		4 14.1 201°91	2°7/11.2	18	
3 12	14 4.97	-23 16.3	1.980	2.761	15.1	18.4	3 12	13 53.82	- 2 20.9	2.390	3.242	10.5	22.0
3 22	13 57.21	-24 39.4	1.882	2.750	12.3	18.2	3 22	13 48.14	- 1 38.7	2.311	3.238	7.6	21.8
4 1	13 46.65	-25 48.7	1.807	2.739	9.3	18.0	4 1	13 40.85	- 0 53.2	2.258	3.233	4.6	21.6
4 11	13 34.03	-26 40.3	1.759	2.727	6.8	17.8	4 11	13 32.58	- 0 9.0	2.233	3.227	2.7	21.5
4 21	13 20.49	-27 12.1	1.740	2.716	6.4	17.8	4 21	13 24.06	+ 0 29.4	2.238	3.221	4.5	21.6
5 1	13 7.40	-27 24.9	1.750	2.704	8.5	17.9	5 1	13 16.07	+ 0 58.0	2.272	3.214	7.6	21.8
5 11	12 56.05	-27 24.0	1.786	2.692	11.7	18.0	5 11	13 9.29	+ 1 13.9	2.332	3.206	10.6	21.9
5 21	12 47.33	-27 15.7	1.846	2.680	14.8	18.2	5 21	13 4.19	+ 1 16.0	2.414	3.198	13.2	22.1
<b>64290</b>	Yaushingtung		4 14.0 80°18	1°2/12.8	18		<b>147389</b>	2003 <i>EV</i> <sub>57</sub>		4 14.1 326°84	9°7/ 3.6	18	
3 12	13 50.29	- 8 12.6	2.237	3.088	11.2	19.9	3 12	13 50.70	+16 27.6	1.901	2.759	12.6	18.5
3 22	13 45.55	- 7 27.5	2.175	3.102	8.0	19.7	3 22	13 46.26	+17 49.7	1.843	2.746	10.7	18.4
4 1	13 39.29	- 6 35.2	2.139	3.117	4.6	19.5	4 1	13 39.90	+19 0.1	1.808	2.733	9.7	18.3
4 11	13 32.17	- 5 39.9	2.131	3.131	1.4	19.3	4 11	13 32.37	+19 50.3	1.797	2.721	10.1	18.3
4 21	13 24.93	- 4 46.8	2.151	3.145	3.3	19.5	4 21	13 24.56	+20 14.3	1.810	2.709	11.7	18.4
5 1	13 18.32	- 4 0.5	2.200	3.159	6.7	19.7	5 1	13 17.42	+20 9.1	1.846	2.698	13.9	18.5
5 11	13 12.97	- 3 24.9	2.275	3.173	9.9	19.9	5 11	13 11.77	+19 35.5	1.902	2.687	16.1	18.6
5 21	13 9.29	- 3 2.2	2.372	3.187	12.5	20.1	5 21	13 8.13	+18 36.7	1.974	2.677	18.2	18.8
<b>343376</b>	2010 <i>CD</i> <sub>122</sub>		4 14.0 338°88	2°2/12.2	17		<b>258849</b>	2002 <i>PE</i> <sub>95</sub>		4 14.1 209°40	1°5/15.3	17	
3 12	13 49.29	- 6 34.8	1.583	2.455	13.9	19.7	3 12	13 57.01	-14 56.6	2.146	2.970	12.7	21.5
3 22	13 45.55	- 5 51.6	1.507	2.444	10.1	19.5	3 22	13 50.78	-14 52.0	2.055	2.963	9.6	21.3
4 1	13 39.63	- 4 59.0	1.454	2.434	5.8	19.2	4 1	13 42.55	-14 35.3	1.989	2.955	6.0	21.0
4 11	13 32.30	- 4 2.9	1.426	2.425	2.2	18.9	4 11	13 33.02	-14 8.1	1.950	2.947	2.3	20.8
4 21	13 24.57	- 3 10.2	1.424	2.417	4.8	19.1	4 21	13 23.07	-13 33.6	1.940	2.938	2.8	20.8
5 1	13 17.53	- 2 27.8	1.447	2.409	9.2	19.3	5 1	13 13.68	-12 56.5	1.959	2.929	6.6	21.0
5 11	13 12.14	- 2 1.0	1.494	2.402	13.4	19.6	5 11	13 5.73	-12 22.1	2.005	2.918	10.3	21.2
5 21	13 9.01	- 1 52.5	1.560	2.396	17.0	19.8	5 21	12 59.81	-11 54.6	2.075	2.907	13.5	21.4
<b>162780</b>	2000 <i>XJ</i> <sub>38</sub>		4 14.1 144°58	9°3/23.6	18		<b>215645</b>	2003 <i>UN</i> <sub>42</sub>		4 14.1 96°92	0°7/13.5	18	
3 12	14 4.21	-39 11.9	2.326	3.003	15.8	20.6	3 12	13 55.02	-10 30.8	1.572	2.427	14.9	21.4
3 22	13 56.30	-40 9.4	2.248	3.018	13.9	20.5	3 22	13 49.56	- 9 50.9	1.512	2.440	10.8	21.2
4 1	13 45.86	-40 42.2	2.189	3.032	11.9	20.3	4 1	13 41.85	- 8 58.7	1.476	2.453	6.2	21.0
4 11	13 33.78	-40 46.5	2.153	3.046	10.2	20.2	4 11	13 32.82	- 7 59.4	1.465	2.466	1.4	20.7
4 21	13 21.24	-40 21.6	2.143	3.058	9.3	20.2	4 21	13 23.61	- 7 0.0	1.482	2.479	3.8	20.9
5 1	13 9.52	-39 30.8	2.159	3.069	9.6	20.2	5 1	13 15.35	- 6 7.5	1.525	2.491	8.4	21.2
5 11	12 59.73	-38 21.3	2.200	3.079	10.9	20.3	5 11	13 8.97	- 5 27.9	1.593	2.504	12.5	21.4
5 21	12 52.54	-37 2.1	2.264	3.089	12.7	20.5	5 21	13 4.99	- 5 4.3	1.681	2.516	16.0	21.7
<b>349349</b>	2007 <i>VG</i> <sub>119</sub>		4 14.1 20°85	14°1/29.5	18		<b>2156</b>	Kate		4 14.1 183°21	0°4/14.4	18	R

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4 14.1

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>113452</b>	2002 <i>SF</i> <sub>47</sub>		4 14.1 311°88	0°9/14.7	17		<b>437072</b>	2012 <i>UZ</i> <sub>56</sub>		4 14.1 23°42	2°1/16.1	17	
3 12	13 51.19	-13 47.4	1.368	2.229	16.4	19.8	3 12	13 49.99	-17 48.2	1.903	2.734	13.7	20.8
3 22	13 47.49	-13 25.0	1.279	2.208	12.3	19.5	3 22	13 45.75	-17 26.6	1.829	2.738	10.4	20.6
4 1	13 41.07	-12 43.9	1.212	2.188	7.5	19.2	4 1	13 39.62	-16 48.5	1.778	2.743	6.7	20.3
4 11	13 32.73	-11 47.5	1.168	2.168	2.3	18.8	4 11	13 32.33	-15 56.7	1.752	2.748	3.0	20.1
4 21	13 23.66	-10 42.1	1.148	2.148	3.7	18.8	4 21	13 24.79	-14 56.1	1.755	2.753	3.0	20.1
5 1	13 15.26	-9 36.7	1.154	2.129	9.3	19.1	5 1	13 17.93	-13 52.8	1.784	2.759	6.6	20.4
5 11	13 8.81	-8 40.6	1.182	2.111	14.4	19.3	5 11	13 12.56	-12 53.7	1.839	2.765	10.3	20.6
5 21	13 5.14	-8 0.5	1.229	2.093	18.9	19.5	5 21	13 9.19	-12 4.0	1.916	2.771	13.5	20.8
<b>213196</b>	2000 <i>SU</i> <sub>343</sub>		4 14.1 213°13	0°3/14.4	18		<b>259293</b>	2003 <i>EB</i> <sub>38</sub>		4 14.1 90°21	0°5/14.5	18	
3 12	13 49.60	-13 22.2	2.603	3.435	10.4	21.0	3 12	13 53.39	-15 4.0	1.812	2.650	14.0	20.2
3 22	13 45.02	-12 41.6	2.515	3.431	7.7	20.8	3 22	13 48.06	-14 1.9	1.756	2.674	10.3	20.0
4 1	13 39.02	-11 50.5	2.454	3.426	4.6	20.6	4 1	13 40.84	-12 44.2	1.724	2.697	6.1	19.8
4 11	13 32.15	-10 51.9	2.420	3.421	1.2	20.4	4 11	13 32.59	-11 16.5	1.719	2.719	1.7	19.6
4 21	13 25.06	-9 49.9	2.417	3.415	2.3	20.4	4 21	13 24.29	-9 46.0	1.743	2.742	2.9	19.7
5 1	13 18.43	-8 49.5	2.442	3.409	5.6	20.7	5 1	13 16.88	-8 20.6	1.795	2.763	7.1	20.0
5 11	13 12.86	-7 55.2	2.495	3.403	8.7	20.8	5 11	13 11.12	-7 7.1	1.872	2.785	10.9	20.3
5 21	13 8.79	-7 10.5	2.572	3.397	11.4	21.0	5 21	13 7.44	-6 9.8	1.973	2.806	14.0	20.5
<b>54373</b>	2000 <i>KZ</i> <sub>53</sub>		4 14.1 51°37	9°6/5.4	18		<b>15642</b>	2679 <i>P-L</i>		4 14.1 227°21	1°6/12.7	17	
3 12	13 52.50	+11 17.2	1.489	2.364	14.4	18.5	3 12	13 55.40	-8 19.6	1.772	2.625	13.6	20.1
3 22	13 47.76	+13 2.6	1.450	2.372	11.7	18.4	3 22	13 49.90	-7 28.4	1.686	2.614	9.9	19.9
4 1	13 40.79	+14 37.5	1.434	2.381	9.8	18.3	4 1	13 42.17	-6 25.7	1.625	2.603	5.7	19.6
4 11	13 32.57	+15 50.9	1.442	2.391	10.0	18.3	4 11	13 32.97	-5 17.0	1.590	2.590	1.8	19.3
4 21	13 24.22	+16 35.4	1.474	2.400	11.9	18.5	4 21	13 23.32	-4 9.1	1.584	2.578	4.3	19.4
5 1	13 16.87	+16 47.4	1.528	2.410	14.6	18.7	5 1	13 14.32	-3 9.4	1.605	2.564	8.8	19.7
5 11	13 11.40	+16 28.0	1.602	2.420	17.3	18.9	5 11	13 6.96	-2 23.9	1.652	2.550	12.9	19.9
5 21	13 8.28	+15 41.6	1.692	2.430	19.7	19.1	5 21	13 1.87	-1 55.9	1.718	2.535	16.5	20.1
<b>69626</b>	1998 <i>FM</i> <sub>59</sub>		4 14.1 52°18	2°7/12.1	18		<b>141286</b>	2001 <i>YF</i> <sub>67</sub>		4 14.1 92°86	1°3/12.8	18	
3 12	13 54.38	-5 38.4	1.330	2.204	15.9	18.8	3 12	13 51.86	-6 44.8	2.360	3.210	10.7	20.0
3 22	13 49.39	-4 53.6	1.275	2.214	11.5	18.6	3 22	13 46.64	-6 17.8	2.296	3.223	7.7	19.8
4 1	13 41.86	-4 0.4	1.243	2.224	6.6	18.3	4 1	13 39.94	-5 45.3	2.259	3.236	4.4	19.6
4 11	13 32.84	-3 6.1	1.235	2.234	2.8	18.1	4 11	13 32.39	-5 11.1	2.249	3.249	1.4	19.4
4 21	13 23.60	-2 18.6	1.253	2.245	5.5	18.3	4 21	13 24.70	-4 39.0	2.268	3.262	3.2	19.6
5 1	13 15.43	-1 44.8	1.296	2.256	10.2	18.6	5 1	13 17.62	-4 12.8	2.316	3.274	6.5	19.8
5 11	13 9.37	-1 29.1	1.360	2.267	14.5	18.9	5 11	13 11.77	-3 55.6	2.391	3.287	9.5	20.0
5 21	13 5.95	-1 32.9	1.444	2.279	18.2	19.1	5 21	13 7.55	-3 49.2	2.488	3.299	12.1	20.2
<b>466094</b>	2012 <i>BV</i> <sub>131</sub>		4 14.1 46°68	8°4/20.9	18		<b>319933</b>	2006 <i>YQ</i> <sub>42</sub>		4 14.1 84°02	0°6/14.5	18	
3 12	13 54.73	-30 9.8	1.378	2.170	20.0	20.6	3 12	13 56.23	-12 10.9	1.690	2.536	14.5	20.6
3 22	13 50.02	-30 41.9	1.318	2.184	16.7	20.4	3 22	13 50.34	-12 1.1	1.630	2.551	10.7	20.4
4 1	13 42.41	-30 42.7	1.275	2.199	13.0	20.2	4 1	13 42.29	-11 39.3	1.593	2.567	6.3	20.1
4 11	13 33.00	-30 10.3	1.253	2.214	9.8	20.1	4 11	13 32.96	-11 8.9	1.582	2.582	1.8	19.9
4 21	13 23.23	-29 7.7	1.255	2.229	8.4	20.0	4 21	13 23.45	-10 34.4	1.599	2.598	3.1	20.0
5 1	13 14.63	-27 43.1	1.280	2.245	9.8	20.1	5 1	13 14.85	-10 1.7	1.643	2.613	7.5	20.3
5 11	13 8.40	-26 8.6	1.329	2.262	12.8	20.3	5 11	13 8.07	-9 35.9	1.712	2.628	11.5	20.6
5 21	13 5.16	-24 36.1	1.398	2.278	16.1	20.6	5 21	13 3.61	-9 20.7	1.802	2.643	14.8	20.8
<b>129298</b>	2005 <i>SW</i> <sub>131</sub>		4 14.1 247°37	0°2/14.3	18		<b>142441</b>	2002 <i>SQ</i> <sub>55</sub>		4 14.1 219°28	2°4/12.1	17	
3 12	13 50.64	-12 1.7	2.666	3.500	10.1	20.6	3 12	13 55.93	-4 32.1	1.907	2.763	12.6	20.4
3 22	13 45.80	-11 38.4	2.571	3.487	7.5	20.4	3 22	13 50.09	-3 59.5	1.827	2.756	9.2	20.1
4 1	13 39.51	-11 6.2	2.501	3.473	4.5	20.2	4 1	13 42.19	-3 21.3	1.771	2.749	5.4	19.9
4 11	13 32.29	-10 27.7	2.459	3.459	1.2	19.9	4 11	13 32.96	-2 42.3	1.743	2.741	2.4	19.7
4 21	13 24.78	-9 46.2	2.447	3.445	2.3	20.0	4 21	13 23.36	-2 7.6	1.743	2.733	4.6	19.8
5 1	13 17.67	-9 5.6	2.464	3.431	5.6	20.2	5 1	13 14.42	-1 42.4	1.771	2.724	8.5	20.0
5 11	13 11.58	-8 30.0	2.509	3.416	8.7	20.4	5 11	13 7.01	-1 30.4	1.824	2.715	12.3	20.2
5 21	13 6.99	-8 2.5	2.577	3.401	11.4	20.5	5 21	13 1.73	-1 33.2	1.898	2.705	15.5	20.4
<b>122240</b>	2000 <i>OF</i> <sub>14</sub>		4 14.1 197°60	1°2/15.3	18		<b>352016</b>	2006 <i>VB</i> <sub>8</sub>		4 14.1 151°29	7°2/5.8	18	
3 12	13 53.87	-15 25.6	2.296	3.120	11.9	20.5	3 12	13 55.84	+17 53.3	2.790	3.619	9.9	21.4
3 22	13 48.33	-15 4.2	2.208	3.117	9.0	20.3	3 22	13 49.29	+18 33.6	2.740	3.625	8.3	21.3
4 1	13 41.04	-14 30.1	2.146	3.113	5.6	20.1	4 1	13 41.38	+19 2.9	2.717	3.631	7.4	21.2
4 11	13 32.66	-13 45.8	2.111	3.109	2.1	19.8	4 11	13 32.72	+19 16.7	2.720	3.637	7.4	21.2
4 21	13 23.98	-12 55.2	2.105	3.104	2.5	19.9	4 21	13 24.00	+19 12.3	2.751	3.642	8.4	21.3
5 1	13 15.85	-12 3.2	2.129	3.098	6.1	20.1	5 1	13 15.91	+18 48.7	2.808	3.647	10.0	21.4
5 11	13 9.01	-11 15.1	2.179	3.092	9.5	20.3	5 11	13 9.03	+18 6.7	2.888	3.652	11.7	21.5
5 21	13 3.99	-10 35.2	2.254	3.086	12.5	20.5	5 21	13 3.72	+17 8.8	2.988	3.657	13.2	21.7
<b>429848</b>	2012 <i>QA</i> <sub>46</sub>		4 14.1 150°07	1°3/15.4	17		<b>27814</b>	1993 <i>RR</i>		4 14.1 150°50	1°2/15.3	18	
3 12	13 52.21	-15 40.2	2.146	2.975	12.4	21.3	3 12	13 56.09	-15 2.4	2.545	3.361	11.1	21.3
3 22	13 47.16	-15 17.1	2.068	2.979	9.3	21.1	3 22	13 49.68	-14 48.4	2.469	3.373	8.3	21.1
4 1	13 40.36	-14 40.7	2.014	2.982	5.8	20.9	4 1	13 41.71	-14 23.7	2.420	3.385	5.1	20.9
4 11	13 32.50	-13 53.8	1.988	2.986	2.2	20.6	4 11	13 32.82	-13 50.4	2.399	3.396	1.9	20.7
4 21	13 24.39	-13 0.5	1.990	2.989	2.6	20.7	4 21	13 23.76	-13 11.8	2.408	3.407	2.3	20.7
5 1	13 16.90	-12 6.4	2.021	2.992	6.2	20.9	5 1	13 15.30	-12 32.0	2.448	3.416	5.6	21.0
5 11	13 10.78	-11 16.8	2.077	2.994	9.7	21.1	5 11	13 8.10	-11 55.2	2.516	3.424	8.6	21.2
5 21	13 6.51	-10 36.3	2.157	2.997	12.8	21.3	5 21	13 2.60	-11 25.1	2.608	3.432	11.3	21.4
<b>112731</b>	2002 <i>PW</i> <sub>125</sub>		4 14.1 313°10	1°4/13.1	17		<b>264584</b>	2001 <i>TD</i> <sub>164</sub>		4 14.1 144°00	0°1/14.1	17	
3 12	13 52.63												

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>286441</b>	2002 AG <sub>43</sub>		4 14.1 131°51'	4.4/ 8.9	18		<b>150294</b>	1999 TN <sub>179</sub>		4 14.1 264°91'	1.5/15.7	16	
3 12	13 50.57	+ 3 42.7	2.490	3.350	9.9	20.7	3 12	13 50.18	-16 26.2	2.538	3.360	11.0	20.6
3 22	13 45.66	+ 4 38.6	2.430	3.357	7.3	20.6	3 22	13 45.60	-16 6.8	2.440	3.346	8.3	20.4
4 1	13 39.36	+ 5 33.1	2.397	3.363	5.1	20.5	4 1	13 39.48	-15 35.3	2.367	3.332	5.3	20.2
4 11	13 32.27	+ 6 21.0	2.391	3.369	4.4	20.4	4 11	13 32.36	-14 53.6	2.321	3.318	2.2	20.0
4 21	13 25.04	+ 6 57.9	2.415	3.375	5.9	20.5	4 21	13 24.92	-14 5.0	2.305	3.303	2.4	20.0
5 1	13 18.36	+ 7 20.5	2.465	3.381	8.3	20.7	5 1	13 17.90	-13 14.0	2.317	3.289	5.6	20.2
5 11	13 12.81	+ 7 27.4	2.540	3.386	10.8	20.9	5 11	13 11.97	-12 25.3	2.357	3.274	8.7	20.3
5 21	13 8.78	+ 7 18.6	2.636	3.392	12.9	21.0	5 21	13 7.62	-11 43.2	2.421	3.259	11.6	20.5
<b>318405</b>	2004 XF <sub>185</sub>		4 14.1 241°92'	3.1/ 7.9	18		<b>418060</b>	2007 VD <sub>168</sub>		4 14.1 242°19'	2.0/12.4	16	
3 12	13 44.50	+ 6 52.7	4.546	5.399	5.9	20.4	3 12	13 57.14	- 5 48.1	1.908	2.759	12.8	22.4
3 22	13 40.81	+ 7 26.6	4.476	5.396	4.5	20.3	3 22	13 51.14	- 5 13.2	1.814	2.741	9.4	22.1
4 1	13 36.39	+ 7 58.2	4.434	5.392	3.4	20.2	4 1	13 42.92	- 4 30.9	1.746	2.723	5.5	21.8
4 11	13 31.55	+ 8 25.2	4.422	5.388	3.1	20.2	4 11	13 33.22	- 3 45.6	1.705	2.703	2.1	21.6
4 21	13 26.62	+ 8 45.4	4.438	5.384	4.0	20.3	4 21	13 22.98	- 3 2.8	1.692	2.683	4.5	21.7
5 1	13 21.94	+ 8 57.4	4.483	5.380	5.4	20.4	5 1	13 13.28	- 2 28.4	1.708	2.662	8.7	21.9
5 11	13 17.81	+ 9 0.1	4.554	5.376	6.8	20.5	5 11	13 5.11	- 2 6.8	1.748	2.640	12.7	22.1
5 21	13 14.47	+ 8 53.4	4.647	5.373	8.1	20.6	5 21	12 59.13	- 2 0.6	1.810	2.618	16.1	22.3
<b>224468</b>	2005 VE <sub>55</sub>		4 14.1 91°48'	0.6/13.5	18		<b>519340</b>	2011 GW <sub>89</sub>		4 14.1 64°75'	2.1/12.4	17	
3 12	13 51.72	-11 36.2	1.776	2.628	13.6	20.7	3 12	13 53.83	- 5 16.4	1.795	2.655	13.1	21.0
3 22	13 47.01	-10 39.7	1.710	2.637	9.9	20.5	3 22	13 48.55	- 4 47.3	1.729	2.661	9.5	20.7
4 1	13 40.35	- 9 30.1	1.668	2.645	5.7	20.3	4 1	13 41.27	- 4 12.4	1.687	2.666	5.5	20.5
4 11	13 32.53	- 8 12.8	1.653	2.654	1.3	20.0	4 11	13 32.78	- 3 36.5	1.672	2.671	2.2	20.3
4 21	13 24.52	- 6 54.8	1.666	2.663	3.4	20.2	4 21	13 24.05	- 3 4.9	1.685	2.677	4.4	20.5
5 1	13 17.29	- 5 43.7	1.706	2.671	7.7	20.4	5 1	13 16.09	- 2 42.4	1.724	2.682	8.4	20.7
5 11	13 11.65	- 4 45.5	1.771	2.680	11.6	20.7	5 11	13 9.73	- 2 32.5	1.788	2.688	12.0	20.9
5 21	13 8.09	- 4 3.9	1.857	2.688	14.9	20.9	5 21	13 5.50	- 2 36.9	1.873	2.693	15.2	21.2
<b>300060</b>	2006 UO <sub>187</sub>		4 14.1 194°50'	3.0/18.3	18		<b>379451</b>	2010 CV <sub>100</sub>		4 14.1 133°44'	1.3/12.7	17	
3 12	13 51.52	-24 0.6	3.336	4.108	9.7	23.3	3 12	13 53.13	- 7 29.6	2.377	3.223	10.8	22.3
3 22	13 46.23	-23 51.7	3.238	4.105	7.7	23.2	3 22	13 47.57	- 6 50.2	2.312	3.236	7.8	22.1
4 1	13 39.69	-23 30.1	3.165	4.101	5.6	23.0	4 1	13 40.50	- 6 4.4	2.272	3.249	4.5	21.9
4 11	13 32.38	-22 56.4	3.120	4.096	3.6	22.9	4 11	13 32.58	- 5 16.3	2.262	3.261	1.4	21.7
4 21	13 24.85	-22 12.7	3.105	4.091	3.1	22.8	4 21	13 24.52	- 4 30.1	2.280	3.273	3.3	21.9
5 1	13 17.71	-21 22.2	3.120	4.085	4.6	22.9	5 1	13 17.08	- 3 50.4	2.328	3.285	6.6	22.1
5 11	13 11.48	-20 28.8	3.163	4.079	6.8	23.1	5 11	13 10.89	- 3 20.6	2.403	3.296	9.6	22.3
5 21	13 6.56	-19 36.6	3.233	4.072	9.0	23.2	5 21	13 6.36	- 3 2.6	2.500	3.306	12.2	22.5
<b>190410</b>	1999 TX <sub>253</sub>		4 14.1 316°42'	0.1/14.2	17		<b>134689</b>	1999 XO <sub>61</sub>		4 14.1 187°86'	0.2/13.9	16	
3 12	13 51.22	-12 43.4	1.841	2.689	13.4	20.2	3 12	13 54.91	-11 25.9	2.094	2.933	12.3	21.1
3 22	13 46.71	-12 3.1	1.764	2.688	9.9	20.0	3 22	13 49.19	-10 47.4	2.013	2.932	9.1	20.9
4 1	13 40.23	-11 9.2	1.711	2.686	5.8	19.8	4 1	13 41.61	- 9 57.5	1.957	2.931	5.3	20.6
4 11	13 32.53	-10 5.8	1.684	2.685	1.4	19.5	4 11	13 32.87	- 9 0.3	1.928	2.929	1.2	20.3
4 21	13 24.53	- 8 59.0	1.685	2.684	3.1	19.6	4 21	13 23.85	- 8 0.8	1.929	2.927	3.0	20.5
5 1	13 17.20	- 7 55.5	1.714	2.683	7.4	19.8	5 1	13 15.45	- 7 4.9	1.959	2.923	7.0	20.7
5 11	13 11.40	- 7 1.8	1.767	2.682	11.3	20.1	5 11	13 8.48	- 6 18.0	2.015	2.919	10.7	20.9
5 21	13 7.65	- 6 21.9	1.842	2.681	14.7	20.3	5 21	13 3.46	- 5 43.5	2.094	2.914	13.8	21.1
<b>88782</b>	2001 SF <sub>106</sub>		4 14.1 117°22'	2.6/16.3	18		<b>329964</b>	2005 QZ <sub>165</sub>		4 14.1 119°26'	1.5/12.9	18	
3 12	13 55.84	-18 59.0	1.538	2.369	16.4	19.6	3 12	13 57.33	- 5 51.6	1.955	2.805	12.6	21.1
3 22	13 50.38	-18 33.8	1.472	2.380	12.6	19.4	3 22	13 50.90	- 5 36.6	1.892	2.818	9.1	20.9
4 1	13 42.46	-17 47.4	1.427	2.391	8.2	19.1	4 1	13 42.55	- 5 16.3	1.853	2.830	5.3	20.7
4 11	13 33.06	-16 42.7	1.407	2.401	3.8	18.9	4 11	13 33.08	- 4 54.5	1.843	2.842	1.7	20.5
4 21	13 23.40	-15 26.1	1.413	2.411	3.6	18.9	4 21	13 23.43	- 4 35.3	1.861	2.854	3.8	20.7
5 1	13 14.73	-14 6.2	1.447	2.421	7.8	19.2	5 1	13 14.58	- 4 22.7	1.907	2.865	7.6	20.9
5 11	13 8.06	-12 52.4	1.505	2.431	12.1	19.4	5 11	13 7.32	- 4 19.7	1.979	2.876	11.1	21.2
5 21	13 3.96	-11 51.3	1.584	2.440	15.8	19.7	5 21	13 2.15	- 4 28.0	2.073	2.887	14.1	21.4
<b>423520</b>	2005 UX <sub>73</sub>		4 14.1 133°14'	3.2/11.3	16		<b>26908</b>	Lebesgue		4 14.1 59°98'	0.3/13.9	18	
3 12	13 56.85	- 0 44.1	2.094	2.948	11.7	21.6	3 12	13 53.17	-11 23.1	1.554	2.411	14.9	19.7
3 22	13 50.41	- 0 15.2	2.033	2.960	8.5	21.4	3 22	13 48.36	-10 47.5	1.489	2.418	11.0	19.5
4 1	13 42.20	+ 0 14.9	1.997	2.971	5.2	21.2	4 1	13 41.27	- 9 58.3	1.447	2.425	6.4	19.2
4 11	13 32.98	+ 0 41.4	1.989	2.982	3.2	21.1	4 11	13 32.81	- 9 0.6	1.431	2.432	1.5	18.9
4 21	13 23.61	+ 1 0.2	2.011	2.992	5.0	21.2	4 21	13 24.08	- 8 1.0	1.441	2.439	3.6	19.1
5 1	13 14.99	+ 1 7.8	2.060	3.002	8.2	21.4	5 1	13 16.23	- 7 7.0	1.477	2.446	8.3	19.4
5 11	13 7.85	+ 1 2.4	2.135	3.012	11.4	21.6	5 11	13 10.21	- 6 24.8	1.537	2.453	12.6	19.6
5 21	13 2.66	+ 0 43.5	2.232	3.021	14.0	21.8	5 21	13 6.57	- 5 58.2	1.618	2.461	16.1	19.9
<b>33012</b>	Eddieirizarry		4 14.1 13°48'	0.4/14.5	18		<b>507185</b>	2010 PT <sub>43</sub>		4 14.1 102°75'	3.4/10.5	17	
3 12	13 50.52	-12 15.7	2.026	2.871	12.4	18.8	3 12	13 52.66	+ 2 21.4	2.695	3.549	9.4	21.2
3 22	13 46.03	-11 58.0	1.951	2.873	9.2	18.6	3 22	13 47.11	+ 2 41.1	2.627	3.552	7.0	21.1
4 1	13 39.77	-11 29.5	1.901	2.876	5.5	18.3	4 1	13 40.22	+ 2 59.5	2.585	3.555	4.5	20.9
4 11	13 32.42	-10 53.4	1.878	2.878	1.5	18.1	4 11	13 32.53	+ 3 13.0	2.572	3.558	3.4	20.8
4 21	13 24.81	-10 13.9	1.882	2.881	2.7	18.2	4 21	13 24.69	+ 3 18.7	2.588	3.562	4.7	20.9
5 1	13 17.83	- 9 36.1	1.914	2.885	6.6	18.4	5 1	13 17.37	+ 3 14.3	2.633	3.565	7.2	21.1
5 11	13 12.22	- 9 4.6	1.972	2.888	10.2	18.6	5 11	13 11.12	+ 2 58.7	2.704	3.568	9.7	21.3
5 21	13 8.48	- 8 43.0	2.052	2.892	13.3	18.8	5 21	13 6.36	+ 2 31.8	2.798	3.571	11.9	21.4
<b>365192</b>	2009 FL <sub>34</sub>		4 14.1 326°29'	4.2/10.7	17		<b>313782</b>	2003 YQ <sub>46</sub>		4 14.1 102°43'	0.5/13.		

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>297827</b>	2002 AE <sub>158</sub>		4 14.1 155°02	5°5/20.8	18		<b>511127</b>	2013 WD <sub>92</sub>		4 14.1 261°32	6°0/20.2	17	
3 12	13 52.89	-30 40.9	2.741	3.483	12.3	20.8	3 12	13 53.40	-29 27.5	2.075	2.842	15.0	21.7
3 22	13 47.57	-30 57.3	2.654	3.487	10.3	20.7	3 22	13 48.53	-29 25.1	1.969	2.824	12.5	21.5
4 1	13 40.62	-30 55.9	2.588	3.491	8.2	20.6	4 1	13 41.47	-28 58.9	1.884	2.805	9.7	21.3
4 11	13 32.65	-30 36.2	2.548	3.495	6.3	20.4	4 11	13 32.93	-28 7.7	1.824	2.786	7.1	21.1
4 21	13 24.41	-29 59.4	2.535	3.499	5.5	20.4	4 21	13 23.85	-26 53.4	1.790	2.767	6.0	20.9
5 1	13 16.69	-29 9.0	2.551	3.502	6.4	20.4	5 1	13 15.31	-25 21.5	1.783	2.747	7.6	21.0
5 11	13 10.18	-28 10.2	2.593	3.505	8.2	20.6	5 11	13 8.32	-23 40.7	1.803	2.727	10.5	21.1
5 21	13 5.37	-27 8.7	2.660	3.508	10.4	20.7	5 21	13 3.52	-22 0.0	1.846	2.707	13.7	21.3
<b>345664</b>	2006 TK <sub>128</sub>		4 14.1 192°93	3°0/10.2	18		<b>498646</b>	2008 SG <sub>48</sub>		4 14.1 134°16	0°2/14.3	17	
3 12	13 50.88	+ 0 32.1	3.015	3.867	8.6	22.0	3 12	13 52.35	-12 26.9	2.069	2.910	12.4	21.7
3 22	13 45.75	+ 1 17.7	2.939	3.865	6.3	21.9	3 22	13 47.31	-11 52.5	1.996	2.916	9.1	21.5
4 1	13 39.41	+ 2 4.2	2.891	3.862	4.0	21.7	4 1	13 40.51	-11 6.5	1.948	2.922	5.4	21.3
4 11	13 32.35	+ 2 47.6	2.871	3.858	3.0	21.6	4 11	13 32.65	-10 12.8	1.927	2.927	1.3	21.0
4 21	13 25.12	+ 3 24.5	2.882	3.854	4.4	21.7	4 21	13 24.56	- 9 16.3	1.934	2.933	2.8	21.2
5 1	13 18.30	+ 3 51.6	2.922	3.850	6.7	21.9	5 1	13 17.14	- 8 22.6	1.970	2.938	6.7	21.4
5 11	13 12.40	+ 4 7.0	2.988	3.845	9.1	22.0	5 11	13 11.11	- 7 37.0	2.032	2.943	10.2	21.6
5 21	13 7.81	+ 4 10.0	3.077	3.839	11.1	22.2	5 21	13 6.96	- 7 3.2	2.117	2.948	13.3	21.8
<b>380603</b>	2004 TO <sub>47</sub>		4 14.1 265°22	0°1/14.1	17		<b>155478</b>	1998 SY <sub>162</sub>		4 14.1 224°85	0°1/14.2	18	
3 12	13 51.70	-12 24.9	1.941	2.786	12.9	21.4	3 12	13 57.53	-11 36.5	1.677	2.522	14.6	20.7
3 22	13 47.10	-11 43.6	1.850	2.772	9.6	21.2	3 22	13 51.67	-11 15.0	1.591	2.513	10.9	20.4
4 1	13 40.53	-10 48.7	1.783	2.758	5.7	20.9	4 1	13 43.34	-10 40.5	1.529	2.503	6.5	20.1
4 11	13 32.66	- 9 44.0	1.743	2.744	1.4	20.6	4 11	13 33.38	- 9 56.2	1.492	2.493	1.6	19.8
4 21	13 24.38	- 8 35.4	1.731	2.729	3.1	20.7	4 21	13 22.88	- 9 7.6	1.484	2.482	3.4	19.9
5 1	13 16.65	- 7 29.4	1.747	2.715	7.4	20.9	5 1	13 13.08	- 8 21.3	1.502	2.470	8.3	20.1
5 11	13 10.36	- 6 32.5	1.789	2.700	11.4	21.1	5 11	13 5.07	- 7 43.8	1.546	2.458	12.8	20.4
5 21	13 6.07	- 5 49.4	1.852	2.685	14.8	21.3	5 21	12 59.54	- 7 19.5	1.610	2.445	16.6	20.6
<b>4366</b>	Venikagan		4 14.1 62°12	0°2/13.9	18		<b>315259</b>	2007 TO <sub>18</sub>		4 14.1 239°28	4°0/10.6	16	
3 12	13 51.51	-10 32.4	2.120	2.966	11.9	17.0	3 12	13 55.23	- 1 47.5	1.772	2.636	13.1	20.8
3 22	13 46.59	-10 8.2	2.055	2.979	8.7	16.8	3 22	13 49.80	- 0 43.6	1.690	2.622	9.6	20.6
4 1	13 40.03	- 9 35.1	2.016	2.992	5.0	16.6	4 1	13 42.17	+ 0 26.0	1.632	2.608	6.0	20.3
4 11	13 32.51	- 8 56.6	2.004	3.005	1.2	16.4	4 11	13 33.09	+ 1 34.1	1.601	2.593	4.0	20.2
4 21	13 24.83	- 8 17.0	2.020	3.018	2.8	16.5	4 21	13 23.55	+ 2 33.4	1.598	2.578	6.3	20.3
5 1	13 17.81	- 7 41.1	2.065	3.031	6.5	16.8	5 1	13 14.65	+ 3 17.2	1.622	2.562	10.2	20.4
5 11	13 12.15	- 7 12.9	2.135	3.045	9.9	17.0	5 11	13 7.35	+ 3 41.3	1.669	2.545	14.0	20.6
5 21	13 8.28	- 6 55.2	2.228	3.058	12.7	17.2	5 21	13 2.29	+ 3 44.6	1.736	2.528	17.3	20.8
<b>490430</b>	2009 SB <sub>81</sub>		4 14.1 196°89	1°1/15.1	17		<b>57272</b>	2001 QE <sub>137</sub>		4 14.1 82°92	5°4/19.0	18	
3 12	13 54.66	-14 34.3	2.055	2.886	12.9	22.4	3 12	14 0.74	-26 20.1	2.399	3.160	13.3	19.7
3 22	13 49.12	-14 17.3	1.971	2.884	9.6	22.2	3 22	13 53.34	-27 12.3	2.333	3.185	10.9	19.5
4 1	13 41.63	-13 47.5	1.912	2.881	5.9	22.0	4 1	13 44.00	-27 47.7	2.291	3.210	8.3	19.4
4 11	13 32.92	-13 7.3	1.879	2.878	2.1	21.7	4 11	13 33.49	-28 5.0	2.275	3.235	6.1	19.3
4 21	13 23.87	-12 20.9	1.876	2.875	2.7	21.7	4 21	13 22.73	-28 4.8	2.288	3.259	5.5	19.3
5 1	13 15.44	-11 33.6	1.900	2.871	6.7	22.0	5 1	13 12.68	-27 50.1	2.330	3.283	6.8	19.4
5 11	13 8.46	-10 50.9	1.951	2.866	10.4	22.2	5 11	13 4.18	-27 26.1	2.400	3.307	9.0	19.6
5 21	13 3.49	-10 17.4	2.025	2.861	13.6	22.4	5 21	12 57.75	-26 58.3	2.493	3.330	11.3	19.8
<b>387251</b>	2012 UU <sub>87</sub>		4 14.1 326°21	2°3/12.1	18		<b>211913</b>	2004 RZ <sub>207</sub>		4 14.1 235°04	2°2/12.1	18	
3 12	13 53.61	- 3 22.6	2.049	2.907	11.8	20.3	3 12	13 52.14	-14 14.5	1.192	2.058	17.9	20.1
3 22	13 48.26	- 3 4.5	1.974	2.904	8.6	20.1	3 22	13 48.26	-11 44.2	1.118	2.053	13.1	19.8
4 1	13 41.09	- 2 43.1	1.923	2.901	5.1	19.9	4 1	13 41.52	- 8 41.1	1.067	2.048	7.4	19.4
4 11	13 32.78	- 2 22.5	1.900	2.898	2.4	19.7	4 11	13 32.95	- 5 18.5	1.042	2.043	2.3	19.1
4 21	13 24.19	- 2 6.6	1.906	2.895	4.3	19.8	4 21	13 23.93	- 1 55.4	1.045	2.037	6.2	19.3
5 1	13 16.22	- 1 59.4	1.939	2.893	7.9	20.0	5 1	13 15.95	+ 1 7.6	1.074	2.032	12.1	19.6
5 11	13 9.64	- 2 3.3	1.997	2.890	11.3	20.2	5 11	13 10.22	+ 3 35.7	1.126	2.026	17.4	19.9
5 21	13 4.97	- 2 19.6	2.077	2.888	14.2	20.4	5 21	13 7.39	+ 5 22.7	1.195	2.020	21.8	20.2
<b>353796</b>	2012 RR <sub>6</sub>		4 14.1 251°78	1°4/16.9	18		<b>276530</b>	2003 SU <sub>11</sub>		4 14.1 232°08	0°6/13.5	18	
3 12	13 43.95	-19 17.2	4.602	5.400	6.8	20.5	3 12	13 52.30	-10 3.1	2.354	3.195	11.1	21.6
3 22	13 40.49	-18 53.3	4.504	5.393	5.2	20.4	3 22	13 47.21	- 9 25.2	2.262	3.184	8.1	21.4
4 1	13 36.27	-18 21.5	4.432	5.386	3.5	20.2	4 1	13 40.46	- 8 37.9	2.196	3.171	4.7	21.1
4 11	13 31.60	-17 43.3	4.389	5.379	1.8	20.1	4 11	13 32.66	- 7 44.8	2.158	3.159	1.1	20.8
4 21	13 26.81	-17 0.4	4.376	5.372	1.6	20.1	4 21	13 24.53	- 6 50.4	2.149	3.145	2.9	21.0
5 1	13 22.26	-16 15.2	4.394	5.365	3.2	20.2	5 1	13 16.87	- 5 59.7	2.169	3.131	6.6	21.2
5 11	13 18.27	-15 30.1	4.440	5.357	5.0	20.3	5 11	13 10.40	- 5 17.4	2.216	3.117	10.0	21.3
5 21	13 15.09	-14 47.6	4.513	5.350	6.6	20.4	5 21	13 5.62	- 4 46.7	2.286	3.102	12.9	21.5
<b>301416</b>	2009 DR <sub>49</sub>		4 14.1 224°85	2°5/11.2	17		<b>431031</b>	2006 AY <sub>56</sub>		4 14.1 128°23	1°4/15.6	15	
3 12	13 49.16	- 4 47.1	2.274	3.134	10.7	21.0	3 12	13 54.90	-16 16.9	2.347	3.165	11.9	22.8
3 22	13 44.86	- 3 41.2	2.200	3.132	7.7	20.8	3 22	13 48.94	-15 56.2	2.279	3.183	8.9	22.6
4 1	13 39.03	- 2 29.2	2.153	3.131	4.5	20.6	4 1	13 41.36	-15 23.0	2.235	3.200	5.6	22.4
4 11	13 32.28	- 1 16.7	2.133	3.129	2.5	20.5	4 11	13 32.85	-14 39.9	2.219	3.216	2.3	22.2
4 21	13 25.33	- 0 9.2	2.143	3.127	4.4	20.6	4 21	13 24.20	-13 50.8	2.233	3.231	2.5	22.3
5 1	13 18.91	+ 0 47.8	2.180	3.126	7.6	20.8	5 1	13 16.22	-13 0.4	2.276	3.246	5.8	22.5
5 11	13 13.66	+ 1 30.4	2.243	3.124	10.7	21.0	5 11	13 9.58	-12 13.8	2.347	3.260	8.9	22.7
5 21	13 10.04	+ 1 56.8	2.327	3.122	13.3	21.2	5 21	13 4.73	-11 34.8	2.442	3.274	11.7	22.9
<b>15004</b>	Vallerani		4 14.1 151°70	3°9/ 9.9	18		<b>171567</b>	1999 TF <sub>284</sub>		4 14.1 141°64	3°9/10.9	18	
3 12	13 53.03	+ 2 19.4	2.409	3.265									

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>416946</b>	2005 <i>SU</i> <sub>146</sub>		4 14.1 249°48	0°2/14.3	17		<b>184980</b>	2006 <i>BM</i> <sub>213</sub>		4 14.1 275°12	6°4/29.5	18	
3 12	13 56.76	-10 31.4	1.831	2.675	13.6	21.0	3 12	13 45.76	+27 26.8	4.468	5.263	7.0	19.7
3 22	13 50.92	-10 32.1	1.746	2.667	10.1	20.8	3 22	13 41.84	+28 20.6	4.426	5.256	6.6	19.6
4 1	13 42.83	-10 23.4	1.685	2.659	6.0	20.5	4 1	13 37.08	+29 4.4	4.408	5.248	6.4	19.6
4 11	13 33.26	-10 7.8	1.650	2.651	1.5	20.2	4 11	13 31.84	+29 35.3	4.415	5.241	6.8	19.6
4 21	13 23.22	-9 48.7	1.644	2.642	3.1	20.3	4 21	13 26.50	+29 51.4	4.446	5.233	7.4	19.7
5 1	13 13.81	-9 30.9	1.665	2.633	7.6	20.6	5 1	13 21.47	+29 51.7	4.500	5.226	8.3	19.7
5 11	13 6.03	-9 19.0	1.711	2.624	11.7	20.8	5 11	13 17.08	+29 36.5	4.573	5.218	9.1	19.8
5 21	13 0.52	-9 16.3	1.780	2.615	15.2	21.0	5 21	13 13.62	+29 7.1	4.663	5.211	9.9	19.9
<b>172384</b>	2003 <i>AF</i> <sub>21</sub>		4 14.1 74°76	4°1/10.2	18		<b>193887</b>	2001 <i>QO</i> <sub>203</sub>		4 14.1 271°90	4°1/18.2	18	
3 12	13 52.76	+1 56.0	2.141	3.003	11.2	19.8	3 12	13 51.98	-23 33.2	2.150	2.947	13.5	20.2
3 22	13 47.49	+2 34.9	2.078	3.008	8.2	19.7	3 22	13 47.24	-23 34.0	2.061	2.943	10.8	20.0
4 1	13 40.57	+3 13.1	2.041	3.013	5.4	19.5	4 1	13 40.60	-23 16.6	1.994	2.938	7.8	19.8
4 11	13 32.68	+3 45.6	2.032	3.018	4.1	19.4	4 11	13 32.74	-22 41.7	1.953	2.933	5.0	19.6
4 21	13 24.61	+4 7.7	2.050	3.023	5.8	19.5	4 21	13 24.51	-21 51.8	1.939	2.928	4.3	19.6
5 1	13 17.20	+4 16.3	2.096	3.028	8.7	19.7	5 1	13 16.85	-20 52.0	1.953	2.924	6.5	19.7
5 11	13 11.12	+4 9.5	2.166	3.033	11.6	19.9	5 11	13 10.58	-19 48.9	1.993	2.919	9.6	19.9
5 21	13 6.84	+3 47.7	2.257	3.038	14.1	20.1	5 21	13 6.28	-18 48.8	2.057	2.914	12.6	20.0
<b>87667</b>	2000 <i>RP</i> <sub>98</sub>		4 14.1 107°89	5°3/19.7	18		<b>303809</b>	2005 <i>SW</i> <sub>64</sub>		4 14.1 213°93	2°8/17.2	17	
3 12	13 52.94	-27 45.5	1.918	2.700	15.5	19.2	3 12	13 52.27	-20 16.2	2.656	3.456	11.2	21.1
3 22	13 48.06	-27 32.3	1.840	2.707	12.6	19.0	3 22	13 47.10	-20 20.0	2.564	3.452	8.7	20.9
4 1	13 41.07	-26 54.8	1.783	2.714	9.4	18.8	4 1	13 40.38	-20 11.0	2.497	3.448	6.0	20.7
4 11	13 32.82	-25 53.7	1.750	2.722	6.5	18.7	4 11	13 32.68	-19 50.1	2.457	3.444	3.5	20.6
4 21	13 24.29	-24 32.9	1.745	2.729	5.4	18.6	4 21	13 24.68	-19 19.5	2.446	3.439	3.1	20.5
5 1	13 16.55	-22 59.3	1.766	2.735	7.2	18.7	5 1	13 17.12	-18 42.5	2.464	3.434	5.4	20.7
5 11	13 10.49	-21 22.2	1.814	2.742	10.2	18.9	5 11	13 10.69	-18 3.8	2.509	3.428	8.2	20.8
5 21	13 6.62	-19 50.0	1.885	2.749	13.3	19.1	5 21	13 5.83	-17 27.6	2.579	3.423	10.8	21.0
<b>119446</b>	2001 <i>TT</i> <sub>154</sub>		4 14.1 281°84	5°4/9.9	18		<b>292239</b>	2006 <i>SN</i> <sub>70</sub>		4 14.1 98°12	0°5/13.6	17	
3 12	13 55.03	+2 39.5	1.680	2.548	13.4	19.8	3 12	13 51.20	-9 55.7	2.430	3.273	10.7	21.2
3 22	13 49.74	+3 27.9	1.603	2.535	10.0	19.6	3 22	13 46.20	-9 22.7	2.366	3.288	7.8	21.0
4 1	13 42.16	+4 16.1	1.550	2.521	6.8	19.4	4 1	13 39.76	-8 41.9	2.327	3.303	4.5	20.8
4 11	13 33.11	+4 57.0	1.523	2.508	5.4	19.3	4 11	13 32.50	-7 57.0	2.317	3.318	1.0	20.6
4 21	13 23.60	+5 24.0	1.522	2.494	7.5	19.3	4 21	13 25.13	-7 12.0	2.336	3.332	2.7	20.7
5 1	13 14.79	+5 32.2	1.547	2.481	11.1	19.5	5 1	13 18.34	-6 31.2	2.383	3.346	6.0	21.0
5 11	13 7.67	+5 19.2	1.595	2.467	14.8	19.7	5 11	13 12.73	-5 58.3	2.458	3.361	9.0	21.2
5 21	13 2.87	+4 45.8	1.662	2.453	18.0	19.9	5 21	13 8.71	-5 35.8	2.555	3.374	11.6	21.4
<b>517695</b>	2015 <i>DT</i> <sub>232</sub>		4 14.1 344°18	4°9/9.5	17		<b>46313</b>	2001 <i>QO</i> <sub>25</sub>		4 14.1 218°45	0°2/14.4	18	
3 12	13 50.11	+1 58.8	1.867	2.739	12.1	20.3	3 12	13 53.91	-11 0.3	2.467	3.301	10.9	18.6
3 22	13 45.85	+2 56.1	1.800	2.734	9.0	20.1	3 22	13 48.32	-10 54.8	2.379	3.295	8.0	18.4
4 1	13 39.74	+3 53.8	1.757	2.729	6.0	19.9	4 1	13 41.10	-10 41.4	2.317	3.290	4.8	18.2
4 11	13 32.50	+4 45.2	1.740	2.725	4.9	19.8	4 11	13 32.86	-10 22.5	2.283	3.283	1.2	18.0
4 21	13 24.99	+5 24.2	1.750	2.721	6.9	19.9	4 21	13 24.31	-10 0.9	2.279	3.277	2.4	18.0
5 1	13 18.12	+5 46.1	1.786	2.717	10.0	20.1	5 1	13 16.24	-9 40.1	2.304	3.270	5.9	18.3
5 11	13 12.69	+5 48.5	1.845	2.714	13.2	20.3	5 11	13 9.34	-9 23.6	2.356	3.263	9.2	18.4
5 21	13 9.19	+5 31.7	1.923	2.712	16.0	20.5	5 21	13 4.11	-9 14.3	2.431	3.256	12.0	18.6
<b>8424</b>	Toshitsumita		4 14.1 213°90	1°5/12.7	18		<b>13170</b>	1995 <i>YX</i>		4 14.1 212°70	1°7/12.5	17	
3 12	13 54.60	-8 8.8	1.987	2.836	12.5	18.3	3 12	13 55.19	-6 42.8	2.061	2.910	12.1	19.1
3 22	13 49.12	-7 20.4	1.903	2.829	9.1	18.1	3 22	13 49.49	-6 2.0	1.977	2.903	8.8	18.9
4 1	13 41.67	-6 22.2	1.844	2.821	5.2	17.8	4 1	13 41.89	-5 13.5	1.918	2.895	5.1	18.6
4 11	13 32.98	-5 19.2	1.813	2.813	1.6	17.5	4 11	13 33.06	-4 21.9	1.888	2.887	1.8	18.4
4 21	13 23.92	-4 17.3	1.810	2.803	3.9	17.7	4 21	13 23.88	-3 32.4	1.886	2.878	4.0	18.5
5 1	13 15.48	-3 22.7	1.836	2.793	7.9	17.9	5 1	13 15.30	-2 50.6	1.913	2.868	7.8	18.8
5 11	13 8.49	-2 40.6	1.887	2.783	11.7	18.1	5 11	13 8.12	-2 20.8	1.965	2.857	11.4	19.0
5 21	13 3.52	-2 13.9	1.960	2.772	14.9	18.3	5 21	13 2.91	-2 5.3	2.039	2.846	14.6	19.1
<b>234369</b>	2001 <i>OX</i> <sub>85</sub>		4 14.1 312°50	5°0/10.3	17		<b>388009</b>	2005 <i>QC</i> <sub>187</sub>		4 14.1 169°83	0°2/13.8	17	
3 12	13 51.13	-3 21.9	1.193	2.080	16.4	20.0	3 12	13 50.05	-10 58.0	2.681	3.518	10.0	22.0
3 22	13 47.57	-1 55.5	1.123	2.067	12.0	19.7	3 22	13 45.34	-10 22.5	2.601	3.521	7.3	21.8
4 1	13 41.18	-0 17.7	1.074	2.055	7.4	19.4	4 1	13 39.27	-9 38.8	2.548	3.522	4.2	21.6
4 11	13 32.91	+1 20.4	1.049	2.043	5.0	19.2	4 11	13 32.41	-8 50.0	2.523	3.524	1.0	21.4
4 21	13 24.07	+2 46.8	1.048	2.031	8.1	19.3	4 21	13 25.36	-8 0.0	2.528	3.526	2.4	21.5
5 1	13 16.12	+3 50.5	1.070	2.020	13.1	19.5	5 1	13 18.77	-7 12.9	2.563	3.527	5.6	21.7
5 11	13 10.31	+4 25.0	1.112	2.010	17.8	19.8	5 11	13 13.23	-6 32.6	2.624	3.528	8.5	21.9
5 21	13 7.37	+4 29.1	1.170	2.000	21.8	20.0	5 21	13 9.13	-6 1.9	2.710	3.528	11.0	22.1
<b>504642</b>	2008 <i>WD</i> <sub>128</sub>		4 14.1 226°46	2°2/11.9	17		<b>504725</b>	2009 <i>US</i> <sub>127</sub>		4 14.1 253°99	0°3/14.4	17	
3 12	13 52.84	-4 33.9	2.113	2.969	11.6	21.9	3 12	13 56.46	-11 42.3	2.119	2.953	12.4	22.9
3 22	13 47.69	-3 57.7	2.035	2.965	8.4	21.7	3 22	13 50.59	-11 30.4	2.015	2.931	9.2	22.7
4 1	13 40.77	-3 16.4	1.983	2.960	4.9	21.5	4 1	13 42.65	-11 8.2	1.937	2.909	5.6	22.4
4 11	13 32.76	-2 34.5	1.958	2.955	2.3	21.3	4 11	13 33.29	-10 37.9	1.886	2.886	1.5	22.1
4 21	13 24.46	-1 56.8	1.961	2.950	4.3	21.4	4 21	13 23.36	-10 3.2	1.864	2.862	2.9	22.1
5 1	13 16.74	-1 28.0	1.993	2.945	7.8	21.6	5 1	13 13.87	-9 28.8	1.871	2.838	7.1	22.3
5 11	13 10.35	-1 11.5	2.049	2.940	11.1	21.8	5 11	13 5.73	-8 59.8	1.904	2.812	11.0	22.5
5 21	13 5.81	-1 8.9	2.128	2.934	14.1	22.0	5 21	12 59.60	-8 40.0	1.960	2.786	14.4	22.7
<b>130750</b>	2000 <i>SV</i> <sub>267</sub>		4 14.1 250°20	1°9/12.6	17		<b>214757</b>	2006 <i>TD</i> <sub>89</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>304576</b>	2006 VY <sub>36</sub>		4 14.1 118°77'	3°3/18.1	18		<b>456840</b>	2007 UC <sub>22</sub>		4 14.1 320°37'	3°1/12.3	17	
3 12	13 50.22	-23 18.3	2.397	3.192	12.4	20.2	3 12	13 56.38	-3 34.2	1.336	2.209	15.9	20.8
3 22	13 45.70	-22 54.6	2.314	3.196	9.8	20.0	3 22	13 51.23	-3 15.2	1.264	2.201	11.7	20.5
4 1	13 39.58	-22 13.5	2.254	3.200	6.9	19.8	4 1	13 43.28	-2 51.0	1.213	2.193	6.9	20.2
4 11	13 32.50	-21 16.7	2.220	3.204	4.2	19.6	4 11	13 33.48	-2 27.5	1.187	2.185	3.2	20.0
4 21	13 25.20	-20 7.9	2.215	3.207	3.4	19.6	4 21	13 23.12	-2 11.0	1.186	2.178	5.8	20.1
5 1	13 18.47	-18 52.5	2.239	3.211	5.7	19.7	5 1	13 13.65	-2 7.0	1.210	2.171	10.7	20.4
5 11	13 12.99	-17 36.7	2.290	3.214	8.6	19.9	5 11	13 6.30	-2 19.5	1.256	2.165	15.3	20.6
5 21	13 9.19	-16 26.2	2.365	3.218	11.3	20.1	5 21	13 1.79	-2 49.2	1.320	2.159	19.3	20.9
<b>138420</b>	2000 HA <sub>57</sub>		4 14.1 23°67'	6°6/10.6	18		<b>6578</b>	Zapesotskij		4 14.1 180°37'	1°7/12.5	18	
3 12	13 59.01	+ 5 41.7	1.344	2.217	15.8	18.5	3 12	13 54.95	- 7 17.0	2.025	2.875	12.3	19.1
3 22	13 52.84	+ 6 0.0	1.291	2.223	12.0	18.3	3 22	13 49.28	- 6 28.7	1.950	2.876	8.9	18.8
4 1	13 43.99	+ 6 11.6	1.260	2.229	8.3	18.1	4 1	13 41.74	- 5 32.2	1.900	2.877	5.1	18.6
4 11	13 33.57	+ 6 9.3	1.253	2.236	6.6	18.0	4 11	13 33.05	- 4 32.5	1.878	2.878	1.8	18.4
4 21	13 22.93	+ 5 48.3	1.271	2.244	8.6	18.2	4 21	13 24.10	- 3 35.1	1.885	2.877	4.0	18.5
5 1	13 13.45	+ 5 6.6	1.313	2.252	12.2	18.4	5 1	13 15.82	- 2 46.0	1.920	2.876	7.8	18.8
5 11	13 6.20	+ 4 5.3	1.378	2.261	16.0	18.6	5 11	13 8.99	- 2 9.6	1.981	2.874	11.3	19.0
5 21	13 1.74	+ 2 47.5	1.461	2.270	19.2	18.9	5 21	13 4.13	- 1 48.2	2.064	2.872	14.4	19.2
<b>355253</b>	2007 HL <sub>85</sub>		4 14.1 286°50'	5°0/10.7	17		<b>415682</b>	2014 RX <sub>24</sub>		4 14.1 255°25'	1°7/15.4	16	
3 12	13 55.50	- 0 57.7	1.333	2.210	15.6	20.7	3 12	13 55.36	-15 43.8	1.540	2.381	15.8	21.7
3 22	13 50.65	- 0 3.5	1.256	2.195	11.6	20.4	3 22	13 50.35	-15 26.2	1.453	2.370	12.1	21.4
4 1	13 42.98	+ 0 55.8	1.202	2.180	7.3	20.1	4 1	13 42.74	-14 50.2	1.388	2.358	7.6	21.1
4 11	13 33.40	+ 1 51.8	1.172	2.165	5.0	19.9	4 11	13 33.36	-13 58.5	1.348	2.346	2.9	20.8
4 21	13 23.18	+ 2 35.7	1.167	2.150	7.7	20.0	4 21	13 23.36	-12 56.3	1.335	2.334	3.4	20.8
5 1	13 13.78	+ 2 59.7	1.186	2.135	12.3	20.3	5 1	13 14.09	-11 51.5	1.348	2.322	8.4	21.1
5 11	13 6.45	+ 3 0.0	1.227	2.120	16.8	20.5	5 11	13 6.70	-10 52.8	1.384	2.309	13.1	21.3
5 21	13 1.95	+ 2 36.1	1.284	2.105	20.8	20.7	5 21	13 1.95	-10 6.7	1.442	2.296	17.2	21.5
<b>367177</b>	2006 XG <sub>27</sub>		4 14.1 211°44'	2°7/16.6	17		<b>180175</b>	2003 HK <sub>45</sub>		4 14.1 15°51'	1°5/12.8	17	
3 12	13 54.88	-19 28.0	2.051	2.864	13.5	21.3	3 12	13 51.53	- 6 28.2	1.949	2.808	12.3	20.1
3 22	13 49.41	-19 14.8	1.961	2.859	10.5	21.1	3 22	13 46.83	- 6 7.4	1.880	2.811	8.9	19.9
4 1	13 41.91	-18 44.7	1.894	2.852	7.0	20.9	4 1	13 40.32	- 5 40.4	1.836	2.814	5.1	19.7
4 11	13 33.10	-17 59.3	1.854	2.845	3.6	20.7	4 11	13 32.71	- 5 11.4	1.818	2.818	1.7	19.5
4 21	13 23.88	-17 2.2	1.841	2.838	3.3	20.6	4 21	13 24.87	- 4 44.7	1.829	2.823	3.7	19.6
5 1	13 15.27	-15 59.1	1.857	2.830	6.6	20.8	5 1	13 17.68	- 4 24.8	1.866	2.828	7.5	19.9
5 11	13 8.14	-14 57.0	1.900	2.821	10.3	21.0	5 11	13 11.91	- 4 15.1	1.928	2.833	11.0	20.1
5 21	13 3.08	-14 1.8	1.966	2.812	13.6	21.2	5 21	13 8.06	- 4 17.4	2.012	2.839	14.0	20.3
<b>434566</b>	2005 TU <sub>188</sub>		4 14.1 240°79'	0°9/13.1	16		<b>119561</b>	2001 VO <sub>48</sub>		4 14.1 239°61'	0°7/14.9	18	
3 12	13 50.52	- 8 12.0	2.720	3.564	9.7	22.1	3 12	13 54.21	-14 10.1	2.276	3.104	11.9	20.5
3 22	13 45.74	- 7 39.5	2.629	3.552	7.0	21.9	3 22	13 48.78	-13 41.0	2.175	3.087	8.9	20.2
4 1	13 39.56	- 7 0.4	2.563	3.539	4.1	21.7	4 1	13 41.51	-12 59.2	2.099	3.069	5.4	20.0
4 11	13 32.51	- 6 17.9	2.526	3.527	1.1	21.4	4 11	13 33.03	-12 7.3	2.050	3.050	1.7	19.7
4 21	13 25.19	- 5 35.6	2.519	3.514	2.8	21.5	4 21	13 24.12	-11 9.5	2.032	3.030	2.6	19.7
5 1	13 18.27	- 4 57.4	2.541	3.500	5.9	21.7	5 1	13 15.65	-10 11.1	2.042	3.010	6.5	19.9
5 11	13 12.35	- 4 26.9	2.591	3.487	8.9	21.9	5 11	13 8.45	- 9 17.9	2.079	2.989	10.1	20.1
5 21	13 7.85	- 4 6.4	2.663	3.473	11.5	22.0	5 21	13 3.07	- 8 34.2	2.140	2.967	13.3	20.3
<b>344368</b>	2001 XF <sub>125</sub>		4 14.1 130°32'	0°8/13.1	18		<b>160085</b>	2000 LJ <sub>6</sub>		4 14.1 262°19'	1°6/15.8	18	
3 12	13 51.38	- 8 24.6	2.636	3.478	10.0	21.6	3 12	13 54.33	-20 1.1	1.785	2.604	15.0	19.8
3 22	13 46.26	- 7 51.5	2.567	3.490	7.2	21.4	3 22	13 49.42	-18 43.5	1.674	2.579	11.6	19.5
4 1	13 39.79	- 7 12.2	2.525	3.501	4.1	21.2	4 1	13 42.14	-16 58.5	1.588	2.552	7.4	19.2
4 11	13 32.55	- 6 30.0	2.511	3.511	1.1	21.0	4 11	13 33.22	-14 49.3	1.528	2.525	2.9	18.8
4 21	13 25.17	- 5 48.6	2.527	3.522	2.7	21.1	4 21	13 23.68	-12 23.7	1.497	2.497	3.2	18.8
5 1	13 18.32	- 5 11.9	2.572	3.532	5.9	21.4	5 1	13 14.69	- 9 53.4	1.496	2.468	8.0	19.0
5 11	13 12.55	- 4 43.1	2.645	3.541	8.7	21.6	5 11	13 7.34	- 9 31.0	1.522	2.438	12.7	19.2
5 21	13 8.27	- 4 24.4	2.740	3.551	11.2	21.7	5 21	13 2.34	- 5 26.7	1.572	2.407	16.9	19.4
<b>90003</b>	2002 TP <sub>143</sub>		4 14.1 176°41'	3°7/10.8	18		<b>31144</b>	1997 TM <sub>26</sub>		4 14.1 126°70'	1°6/12.9	18	
3 12	13 55.22	- 1 3.6	1.940	2.799	12.3	20.1	3 12	13 57.76	- 7 21.0	1.569	2.426	14.8	18.1
3 22	13 49.50	- 0 11.5	1.871	2.801	9.0	19.9	3 22	13 51.71	- 6 51.3	1.506	2.435	10.8	17.9
4 1	13 41.87	+ 0 43.5	1.828	2.803	5.6	19.7	4 1	13 43.28	- 6 12.8	1.466	2.445	6.2	17.7
4 11	13 33.07	+ 1 35.2	1.813	2.804	3.7	19.6	4 11	13 33.44	- 5 30.7	1.453	2.453	1.9	17.4
4 21	13 24.03	+ 2 17.8	1.825	2.804	5.7	19.7	4 21	13 23.34	- 4 51.1	1.467	2.462	4.3	17.6
5 1	13 15.70	+ 2 46.5	1.865	2.804	9.1	19.9	5 1	13 14.20	- 4 20.0	1.508	2.470	8.9	17.9
5 11	13 8.88	+ 2 58.4	1.929	2.804	12.5	20.1	5 11	13 6.98	- 4 2.0	1.572	2.477	13.0	18.1
5 21	13 4.09	+ 2 53.0	2.014	2.803	15.4	20.3	5 21	13 2.26	- 3 59.3	1.657	2.484	16.5	18.4
<b>34131</b>	2000 QY <sub>3</sub>		4 14.1 314°37'	3°8/11.1	18		<b>458784</b>	2011 SQ <sub>125</sub>		4 14.1 144°89'	0°7/13.6	18	
3 12	13 52.28	- 4 43.8	1.335	2.213	15.5	18.6	3 12	13 57.95	- 9 41.3	1.723	2.571	14.2	22.2
3 22	13 48.13	- 3 31.9	1.267	2.207	11.3	18.3	3 22	13 51.69	- 9 13.3	1.656	2.580	10.4	22.0
4 1	13 41.40	- 2 9.5	1.221	2.201	6.7	18.1	4 1	13 43.23	- 8 34.9	1.613	2.589	6.0	21.8
4 11	13 33.00	- 0 45.8	1.199	2.195	3.8	17.9	4 11	13 33.43	- 7 50.4	1.597	2.598	1.4	21.5
4 21	13 24.17	+ 0 29.4	1.202	2.190	6.7	18.0	4 21	13 23.37	- 7 5.3	1.609	2.606	3.6	21.7
5 1	13 16.21	+ 1 26.9	1.230	2.184	11.4	18.2	5 1	13 14.19	- 6 25.7	1.648	2.613	8.1	21.9
5 11	13 10.25	+ 2 0.9	1.280	2.179	15.8	18.5	5 11	13 6.81	- 5 56.7	1.713	2.619	12.1	22.2
5 21	13 6.93	+ 2 9.6	1.347	2.174	19.6	18.7	5 21	13 1.77	- 5 41.3	1.799	2.625	15.5	22.4
<b>411752</b>	2012 BS <sub>108</sub>		4 14.1 144°06'	0°3/14.3	16		<b>201782</b>	2003 WR <sub>107</sub>		4 14.1 124°68'			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>508261</b>	2015 <i>HP</i> <sub>114</sub>		4 14.1 192°21	2°6/10.9	18		<b>56727</b>	2000 <i>NU</i> <sub>13</sub>		4 14.1 137°45	5°3/7.6	18	
3 12	13 50.14	- 3 38.7	2.500	3.356	10.0	21.4	3 12	13 49.92	+ 5 35.9	2.378	3.242	10.2	19.2
3 22	13 45.49	- 2 34.8	2.425	3.354	7.2	21.2	3 22	13 45.35	+ 6 54.7	2.321	3.246	7.7	19.0
4 1	13 39.42	- 1 26.2	2.376	3.353	4.3	21.0	4 1	13 39.35	+ 8 11.3	2.290	3.251	5.8	18.9
4 11	13 32.50	- 0 17.9	2.357	3.351	2.6	20.9	4 11	13 32.50	+ 9 19.2	2.287	3.255	5.4	18.9
4 21	13 25.39	+ 0 44.9	2.367	3.349	4.4	21.0	4 21	13 25.51	+10 13.2	2.312	3.259	7.0	19.0
5 1	13 18.76	+ 1 37.6	2.405	3.346	7.3	21.2	5 1	13 19.07	+10 49.5	2.363	3.263	9.4	19.2
5 11	13 13.22	+ 2 16.8	2.469	3.343	10.1	21.3	5 11	13 13.78	+11 6.5	2.438	3.266	11.7	19.3
5 21	13 9.19	+ 2 40.7	2.556	3.340	12.6	21.5	5 21	13 10.05	+11 4.6	2.533	3.270	13.8	19.5
<b>241810</b>	2001 <i>RJ</i> <sub>40</sub>		4 14.1 167°94	2°3/16.9	17		<b>93414</b>	2000 <i>SC</i> <sub>301</sub>		4 14.1 201°97	2°2/15.9	18	
3 12	13 51.14	-20 3.7	2.530	3.336	11.5	20.9	3 12	13 56.28	-16 17.5	2.010	2.834	13.4	20.4
3 22	13 46.29	-19 39.3	2.445	3.338	8.9	20.8	3 22	13 50.45	-16 26.8	1.926	2.832	10.2	20.1
4 1	13 39.92	-19 0.5	2.385	3.341	5.9	20.6	4 1	13 42.56	-16 23.1	1.866	2.830	6.6	19.9
4 11	13 32.63	-18 9.1	2.352	3.343	3.1	20.4	4 11	13 33.33	-16 7.6	1.832	2.827	3.0	19.7
4 21	13 25.12	-17 8.6	2.348	3.345	2.7	20.4	4 21	13 23.69	-15 42.9	1.827	2.825	3.1	19.7
5 1	13 18.14	-16 4.1	2.374	3.346	5.4	20.5	5 1	13 14.67	-15 13.7	1.850	2.822	6.7	19.9
5 11	13 12.32	-15 0.8	2.427	3.347	8.4	20.7	5 11	13 7.18	-14 45.0	1.899	2.818	10.4	20.1
5 21	13 8.11	-14 3.6	2.505	3.348	11.1	20.9	5 21	13 1.80	-14 21.8	1.971	2.815	13.6	20.3
<b>388341</b>	2006 <i>TN</i> <sub>52</sub>		4 14.1 179°12	2°7/11.3	18		<b>70801</b>	1999 <i>VF</i> <sub>61</sub>		4 14.1 189°54	0°9/13.3	18	
3 12	13 52.38	- 1 22.9	2.551	3.405	9.9	21.0	3 12	13 56.12	- 8 50.0	2.067	2.910	12.3	20.0
3 22	13 47.07	- 0 52.5	2.478	3.405	7.2	20.9	3 22	13 50.17	- 8 16.9	1.987	2.909	9.0	19.8
4 1	13 40.33	- 0 20.4	2.431	3.406	4.4	20.7	4 1	13 42.30	- 7 34.9	1.932	2.908	5.2	19.6
4 11	13 32.73	+ 0 9.6	2.413	3.406	2.7	20.6	4 11	13 33.25	- 6 48.1	1.905	2.905	1.3	19.3
4 21	13 24.93	+ 0 33.6	2.424	3.406	4.3	20.7	4 21	13 23.89	- 6 1.3	1.907	2.902	3.4	19.4
5 1	13 17.64	+ 0 48.7	2.464	3.406	7.1	20.8	5 1	13 15.16	- 5 19.8	1.938	2.899	7.3	19.7
5 11	13 11.47	+ 0 52.5	2.529	3.405	9.8	21.0	5 11	13 7.88	- 4 48.2	1.995	2.894	11.0	19.9
5 21	13 6.83	+ 0 44.3	2.618	3.405	12.2	21.2	5 21	13 2.58	- 4 29.3	2.074	2.889	14.1	20.1
<b>341494</b>	2007 <i>TA</i> <sub>385</sub>		4 14.1 267°13	5°9/8.2	18		<b>213437</b>	2001 <i>YU</i> <sub>12</sub>		4 14.1 255°49	1°6/12.9	16	
3 12	13 52.31	+ 6 54.4	2.139	3.001	11.2	20.4	3 12	13 56.05	- 7 50.4	1.503	2.364	15.1	20.5
3 22	13 47.26	+ 7 51.3	2.074	2.998	8.6	20.3	3 22	13 50.82	- 7 17.3	1.422	2.354	11.1	20.2
4 1	13 40.53	+ 8 44.2	2.035	2.995	6.5	20.1	4 1	13 43.01	- 6 33.2	1.364	2.343	6.5	19.9
4 11	13 32.79	+ 9 27.1	2.023	2.992	6.0	20.1	4 11	13 33.47	- 5 43.4	1.332	2.333	1.9	19.6
4 21	13 24.82	+ 9 54.7	2.038	2.989	7.6	20.2	4 21	13 23.37	- 4 54.6	1.326	2.322	4.6	19.7
5 1	13 17.47	+10 3.8	2.079	2.986	10.1	20.3	5 1	13 14.04	- 4 14.2	1.347	2.310	9.6	20.0
5 11	13 11.45	+ 9 53.3	2.144	2.983	12.8	20.5	5 11	13 6.60	- 3 48.0	1.390	2.299	14.1	20.2
5 21	13 7.22	+ 9 24.3	2.228	2.980	15.1	20.6	5 21	13 1.78	- 3 39.3	1.453	2.287	18.1	20.4
<b>99127</b>	2001 <i>FR</i> <sub>87</sub>		4 14.1 137°84	2°2/12.0	18		<b>419559</b>	2010 <i>QA</i> <sub>1</sub>		4 14.1 207°99	1°3/12.9	15	
3 12	13 53.47	- 4 29.2	2.166	3.020	11.4	19.7	3 12	13 55.35	- 8 29.2	2.046	2.892	12.3	22.5
3 22	13 48.05	- 3 53.3	2.099	3.027	8.2	19.5	3 22	13 49.66	- 7 44.5	1.962	2.886	9.0	22.3
4 1	13 40.96	- 3 12.8	2.057	3.034	4.8	19.3	4 1	13 42.04	- 6 50.2	1.902	2.879	5.2	22.0
4 11	13 32.89	- 2 32.2	2.042	3.040	2.2	19.1	4 11	13 33.20	- 5 51.0	1.871	2.871	1.5	21.8
4 21	13 24.62	- 1 56.1	2.057	3.046	4.1	19.3	4 21	13 24.00	- 4 52.3	1.869	2.863	3.7	21.9
5 1	13 16.99	- 1 28.9	2.100	3.052	7.5	19.5	5 1	13 15.39	- 4 0.1	1.895	2.853	7.7	22.1
5 11	13 10.70	- 1 13.5	2.168	3.057	10.7	19.7	5 11	13 8.22	- 3 19.5	1.947	2.843	11.4	22.3
5 21	13 6.20	- 1 11.3	2.259	3.062	13.4	19.9	5 21	13 3.04	- 2 53.3	2.021	2.832	14.5	22.5
<b>501057</b>	2013 <i>SQ</i> <sub>15</sub>		4 14.1 166°22	0°2/14.3	17		<b>353244</b>	2010 <i>CF</i> <sub>146</sub>		4 14.1 351°51	5°0/16.9	18	
3 12	13 54.39	-11 56.2	2.128	2.966	12.2	22.3	3 12	13 53.98	-18 58.0	1.082	1.938	20.1	20.2
3 22	13 48.84	-11 33.0	2.051	2.969	9.0	22.1	3 22	13 50.20	-19 37.3	1.013	1.932	15.8	19.9
4 1	13 41.48	-10 59.4	1.999	2.972	5.3	21.9	4 1	13 43.03	-19 53.9	0.962	1.927	10.9	19.6
4 11	13 33.02	-10 18.5	1.975	2.975	1.4	21.6	4 11	13 33.53	-19 46.8	0.932	1.924	6.2	19.4
4 21	13 24.31	- 9 34.6	1.979	2.978	2.7	21.7	4 21	13 23.24	-19 18.8	0.925	1.922	5.6	19.3
5 1	13 16.22	- 8 52.7	2.012	2.980	6.6	22.0	5 1	13 13.99	-18 37.3	0.940	1.920	10.0	19.5
5 11	13 9.53	- 8 17.5	2.072	2.981	10.1	22.2	5 11	13 7.33	-17 53.0	0.976	1.920	15.1	19.8
5 21	13 4.73	- 7 52.6	2.154	2.982	13.2	22.4	5 21	13 4.12	-17 15.5	1.030	1.920	19.7	20.1
<b>431996</b>	2008 <i>UQ</i> <sub>278</sub>		4 14.1 239°94	1°3/13.1	17		<b>250357</b>	2003 <i>SN</i> <sub>255</sub>		4 14.1 218°53	0°9/14.9	17	
3 12	13 54.11	- 7 7.6	2.016	2.868	12.2	21.7	3 12	13 54.34	-14 16.5	1.604	2.449	15.1	20.5
3 22	13 48.76	- 6 46.5	1.936	2.863	8.9	21.5	3 22	13 49.38	-13 48.8	1.527	2.447	11.3	20.3
4 1	13 41.50	- 6 18.6	1.881	2.858	5.2	21.3	4 1	13 42.06	-13 4.6	1.472	2.445	6.9	20.0
4 11	13 33.05	- 5 47.6	1.853	2.853	1.5	21.0	4 11	13 33.22	-12 7.8	1.443	2.443	2.1	19.7
4 21	13 24.26	- 5 17.8	1.853	2.848	3.6	21.2	4 21	13 23.97	-11 4.2	1.441	2.440	3.2	19.8
5 1	13 16.07	- 4 54.0	1.881	2.843	7.5	21.4	5 1	13 15.50	-10 1.5	1.465	2.438	8.0	20.0
5 11	13 9.30	- 4 39.8	1.935	2.837	11.1	21.6	5 11	13 8.84	- 9 7.4	1.514	2.435	12.4	20.3
5 21	13 4.50	- 4 37.6	2.011	2.832	14.3	21.8	5 21	13 4.62	- 8 27.0	1.584	2.432	16.2	20.5
<b>216715</b>	2005 <i>EN</i> <sub>31</sub>		4 14.1 17°42	0°2/14.2	18		<b>62848</b>	2000 <i>US</i> <sub>71</sub>		4 14.1 238°19	2°5/17.0	18	
3 12	13 51.84	-11 36.7	1.119	1.995	18.1	20.1	3 12	13 50.29	-20 18.1	2.504	3.311	11.6	19.1
3 22	13 48.11	-11 18.7	1.063	2.000	13.3	19.8	3 22	13 45.76	-19 57.1	2.412	3.305	9.0	18.9
4 1	13 41.49	-10 44.1	1.027	2.006	7.9	19.5	4 1	13 39.68	-19 21.3	2.344	3.299	6.1	18.7
4 11	13 33.07	- 9 58.3	1.013	2.014	2.0	19.2	4 11	13 32.62	-18 32.4	2.303	3.293	3.3	18.5
4 21	13 24.28	- 9 8.9	1.022	2.022	4.1	19.3	4 21	13 25.28	-17 33.8	2.291	3.286	2.8	18.5
5 1	13 16.62	- 8 24.7	1.055	2.032	9.7	19.7	5 1	13 18.43	-16 30.1	2.307	3.280	5.5	18.6
5 11	13 11.30	- 7 53.6	1.109	2.042	14.8	20.0	5 11	13 12.71	-15 27.1	2.351	3.273	8.5	18.8
5 21	13 8.93	- 7 39.6	1.182	2.054	19.0	20.3	5 21	13 8.61	-14 29.5	2.419	3.267	11.3	19.0
<b>74831</b>	1999 <i>TU</i> <sub>25</sub>		4 14.1 228°23	0°2/14.3	17		<b>410286</b>	2007 <i>TB</i> <sub>213</sub>					

EPHEMERIDES

4 14.1

4 14.2

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	
<b>462807</b>	2010 RZ <sub>50</sub>	4 14.1 291°66 0°6/14.6 17						<b>139989</b>	2001 SJ <sub>33</sub>	4 14.2 263°63 1°5/12.4 17				
3 12	13 55.74	-12 15.7	1.483	2.336	15.7	21.4	3 12	13 50.13	-7 55.4	2.299	3.151	10.9	20.6	
3 22	13 50.96	-12 7.0	1.383	2.308	11.9	21.0	3 22	13 45.73	-6 58.3	2.208	3.136	7.9	20.4	
4 1	13 43.34	-11 43.6	1.304	2.279	7.3	20.7	4 1	13 39.72	-5 52.1	2.142	3.120	4.6	20.1	
4 11	13 33.62	-11 7.9	1.250	2.250	2.1	20.3	4 11	13 32.67	-4 41.5	2.105	3.104	1.6	19.9	
4 21	13 22.95	-10 24.8	1.222	2.221	3.7	20.3	4 21	13 25.30	-3 32.0	2.096	3.088	3.6	20.0	
5 1	13 12.77	-9 41.3	1.219	2.192	9.2	20.6	5 1	13 18.37	-2 29.3	2.117	3.072	7.2	20.2	
5 11	13 4.43	-9 5.1	1.240	2.163	14.4	20.8	5 11	13 12.61	-1 38.3	2.163	3.056	10.5	20.4	
5 21	12 58.86	-8 42.3	1.280	2.133	19.0	20.9	5 21	13 8.49	-1 1.9	2.231	3.039	13.4	20.5	
<b>149410</b>	2003 AZ <sub>61</sub>	4 14.1 105°92 0°6/13.6 18						<b>75936</b>	2000 CZ <sub>75</sub>	4 14.2 318°18 0°1/14.2 18				
3 12	13 56.29	-9 17.2	1.815	2.663	13.5	20.3	3 12	13 48.38	-13 57.8	1.724	2.576	13.9	18.1	
3 22	13 50.36	-8 55.3	1.753	2.677	9.8	20.1	3 22	13 44.96	-12 56.8	1.635	2.560	10.4	17.9	
4 1	13 42.41	-8 24.4	1.715	2.691	5.7	19.9	4 1	13 39.48	-11 37.5	1.569	2.545	6.2	17.6	
4 11	13 33.27	-7 48.4	1.704	2.704	1.3	19.6	4 11	13 32.64	-10 5.0	1.529	2.529	1.5	17.2	
4 21	13 23.96	-7 12.2	1.721	2.718	3.4	19.8	4 21	13 25.37	-8 26.7	1.516	2.515	3.3	17.3	
5 1	13 15.47	-6 41.0	1.765	2.731	7.6	20.1	5 1	13 18.69	-6 51.7	1.530	2.500	8.0	17.6	
5 11	13 8.67	-6 19.4	1.836	2.743	11.3	20.3	5 11	13 13.53	-5 28.6	1.569	2.486	12.3	17.8	
5 21	13 4.04	-6 9.8	1.927	2.755	14.5	20.5	5 21	13 10.48	-4 23.2	1.629	2.473	16.0	18.0	
<b>337740</b>	2001 UP <sub>83</sub>	4 14.2 140°05 3°4/10.6 18						<b>212625</b>	2006 TZ <sub>26</sub>	4 14.2 196°93 0°4/13.8 18				
3 12	13 54.27	+1 56.2	2.680	3.530	9.6	21.0	3 12	13 52.26	-9 34.4	2.485	3.326	10.6	21.3	
3 22	13 48.32	+2 23.0	2.616	3.540	7.0	20.9	3 22	13 47.11	-9 15.8	2.404	3.324	7.7	21.1	
4 1	13 41.01	+2 48.8	2.579	3.549	4.6	20.7	4 1	13 40.44	-8 50.0	2.348	3.323	4.5	20.9	
4 11	13 32.93	+3 10.0	2.572	3.558	3.4	20.6	4 11	13 32.84	-8 19.8	2.320	3.321	1.1	20.6	
4 21	13 24.72	+3 23.4	2.593	3.566	4.7	20.7	4 21	13 24.99	-7 48.7	2.322	3.319	2.6	20.7	
5 1	13 17.06	+3 26.3	2.644	3.574	7.2	20.9	5 1	13 17.63	-7 20.5	2.352	3.317	6.0	20.9	
5 11	13 10.53	+3 17.6	2.721	3.582	9.7	21.1	5 11	13 11.41	-6 58.6	2.410	3.314	9.1	21.1	
5 21	13 5.51	+2 57.3	2.821	3.589	11.9	21.2	5 21	13 6.79	-6 45.6	2.491	3.311	11.8	21.3	
<b>51986</b>	2001 SA <sub>172</sub>	4 14.2 123°16 0°8/13.4 18						<b>512332</b>	2016 LW <sub>29</sub>	4 14.2 208°79 3°2/11.0 17				
3 12	13 53.83	-7 45.8	2.343	3.187	11.0	18.8	3 12	13 52.10	-3 3.7	1.997	2.859	11.9	21.5	
3 22	13 48.26	-7 33.0	2.271	3.194	8.0	18.6	3 22	13 47.27	-2 5.9	1.925	2.857	8.6	21.3	
4 1	13 41.09	-7 14.4	2.224	3.200	4.6	18.4	4 1	13 40.63	-1 3.1	1.878	2.855	5.2	21.1	
4 11	13 32.97	-6 52.9	2.206	3.207	1.2	18.1	4 11	13 32.89	-0 1.2	1.859	2.853	3.2	20.9	
4 21	13 24.64	-6 31.8	2.217	3.213	2.9	18.3	4 21	13 24.89	+0 53.6	1.867	2.850	5.2	21.1	
5 1	13 16.90	-6 14.8	2.257	3.219	6.4	18.5	5 1	13 17.51	+1 35.9	1.903	2.848	8.6	21.3	
5 11	13 10.41	-6 4.9	2.323	3.225	9.5	18.7	5 11	13 11.53	+2 2.2	1.963	2.845	12.0	21.5	
5 21	13 5.62	-6 4.1	2.413	3.230	12.3	18.9	5 21	13 7.42	+2 11.0	2.045	2.842	14.9	21.6	
<b>380107</b>	2013 TD <sub>30</sub>	4 14.2 82°17 0°1/14.1 17						<b>500231</b>	2012 JW <sub>2</sub>	4 14.2 290°17 4°9/10.7 17				
3 12	13 51.37	-12 51.0	1.888	2.734	13.2	20.5	3 12	13 57.39	+2 27.2	1.676	2.540	13.6	20.9	
3 22	13 46.78	-12 1.5	1.820	2.742	9.7	20.3	3 22	13 51.47	+2 54.5	1.604	2.534	10.2	20.7	
4 1	13 40.33	-10 58.5	1.776	2.751	5.7	20.1	4 1	13 43.24	+3 20.3	1.555	2.527	6.7	20.5	
4 11	13 32.79	-9 47.0	1.758	2.759	1.4	19.8	4 11	13 33.55	+3 38.6	1.533	2.521	4.9	20.4	
4 21	13 25.04	-8 33.2	1.769	2.768	3.0	20.0	4 21	13 23.47	+3 44.0	1.538	2.514	6.9	20.5	
5 1	13 18.02	-7 23.9	1.808	2.776	7.1	20.2	5 1	13 14.17	+3 32.8	1.569	2.508	10.5	20.6	
5 11	13 12.48	-6 25.3	1.872	2.784	10.9	20.5	5 11	13 6.63	+3 3.7	1.623	2.502	14.2	20.8	
5 21	13 8.92	-5 41.2	1.958	2.793	14.1	20.7	5 21	13 1.47	+2 17.5	1.697	2.496	17.4	21.0	
<b>42690</b>	1998 KY <sub>5</sub>	4 14.2 168°30 0°3/13.9 18						<b>100122</b>	Alpes Maritimes	4 14.2 223°10 1°3/12.5 18				
3 12	13 57.71	-10 7.5	1.913	2.754	13.2	19.6	3 12	13 49.72	-6 59.0	2.804	3.650	9.3	20.4	
3 22	13 51.45	-9 50.5	1.838	2.758	9.7	19.4	3 22	13 45.14	-6 15.2	2.717	3.642	6.7	20.2	
4 1	13 43.10	-9 24.0	1.787	2.762	5.7	19.1	4 1	13 39.24	-5 25.4	2.657	3.634	3.9	20.0	
4 11	13 33.48	-8 51.1	1.764	2.765	1.3	18.8	4 11	13 32.55	-4 33.3	2.627	3.626	1.4	19.8	
4 21	13 23.54	-8 16.5	1.770	2.767	3.1	19.0	4 21	13 25.64	-3 42.7	2.626	3.617	3.0	19.9	
5 1	13 14.34	-7 45.1	1.803	2.769	7.4	19.2	5 1	13 19.12	-2 57.7	2.654	3.608	6.0	20.1	
5 11	13 6.75	-7 21.6	1.863	2.770	11.2	19.5	5 11	13 13.56	-2 21.7	2.709	3.599	8.8	20.2	
5 21	13 1.34	-7 9.2	1.945	2.771	14.5	19.7	5 21	13 9.36	-1 56.8	2.788	3.589	11.2	20.4	
<b>433163</b>	2012 TF <sub>259</sub>	4 14.2 191°96 1°2/13.0 17						<b>428029</b>	2006 BX <sub>280</sub>	4 14.2 65°52 1°7/12.8 17				
3 12	13 53.91	-6 44.2	2.319	3.166	11.0	21.9	3 12	13 54.45	-6 40.4	1.720	2.580	13.6	21.1	
3 22	13 48.38	-6 25.1	2.240	3.165	8.0	21.7	3 22	13 49.07	-6 10.1	1.664	2.595	9.8	20.9	
4 1	13 41.20	-6 0.5	2.187	3.163	4.6	21.5	4 1	13 41.69	-5 32.8	1.632	2.610	5.6	20.7	
4 11	13 33.01	-5 33.6	2.162	3.162	1.4	21.3	4 11	13 33.14	-4 53.4	1.626	2.626	1.9	20.5	
4 21	13 24.56	-5 8.1	2.166	3.160	3.2	21.4	4 21	13 24.45	-4 17.4	1.648	2.642	4.1	20.7	
5 1	13 16.65	-4 47.9	2.199	3.158	6.7	21.6	5 1	13 16.62	-3 49.9	1.696	2.657	8.2	20.9	
5 11	13 9.99	-4 36.0	2.259	3.156	10.0	21.8	5 11	13 10.48	-3 34.7	1.769	2.673	11.9	21.2	
5 21	13 5.06	-4 34.6	2.341	3.153	12.7	22.0	5 21	13 6.50	-3 33.7	1.863	2.689	15.0	21.4	
<b>407834</b>	2012 BL <sub>24</sub>	4 14.2 69°13 1°2/13.2 18						<b>497148</b>	2004 RO <sub>95</sub>	4 14.2 249°45 0°9/13.4 17				
3 12	13 54.23	-9 33.5	1.457	2.320	15.4	20.6	3 12	13 55.35	-10 54.6	1.718	2.567	14.1	22.7	
3 22	13 49.24	-8 47.6	1.401	2.333	11.2	20.4	3 22	13 50.16	-10 1.1	1.623	2.548	10.4	22.4	
4 1	13 41.90	-7 49.4	1.366	2.345	6.4	20.1	4 1	13 42.61	-8 52.2	1.552	2.529	6.1	22.1	
4 11	13 33.19	-6 45.2	1.357	2.358	1.7	19.8	4 11	13 33.44	-7 33.0	1.508	2.508	1.5	21.8	
4 21	13 24.27	-5 42.6	1.375	2.371	4.2	20.0	4 21	13 23.67	-6 10.6	1.491	2.488	3.9	21.9	
5 1	13 16.35	-4 49.3	1.418	2.384	8.9	20.3	5 1	13 14.48	-4 53.4	1.502	2.466	8.8	22.1	
5 11	13 10.37	-4 11.1	1.485	2.397	13.2	20.6	5 11	13 6.94	-3 49.3	1.538	2.443	13.3	22.3	
5 21	13 6.86	-3 50.8	1.572	2.410	16.7	20.9	5 21	13 1.76	-3 3.3	1.595	2.420	17.1	22.5	
<b>277496</b>	2005 WD <sub>118</sub>	4 14.2 238°19 1°5/15.7 18						<b>431827</b>	2008 RU <sub>131</sub>	4 14.2 140°68 0°1/14.1 17				
3 12	13 55.16	-16 27.8	2.373	3.189	11.8	22.4	3 12	13 54.26	-10 47.2	2.471	3.305	10.9	22.5	
3 22	13 49.48	-16 9.0	2.268	3.171	9.0	22.2	3 22	13 48.48	-10 24.0	2.400	3.317	7.9	22.4	
4 1	13 41.97	-15 37.0	2.188	3.152	5.7	22.0	4 1	13 41						

EPHEMERIDES

4 14.2

4 14.2

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>113205</b>	2002 <i>RB</i> <sub>113</sub>	4 14.2 224°63		2°4/16.3 17			<b>383137</b>	2005 <i>UL</i> <sub>55</sub>	4 14.2 181°36		1°1/15.3 17		
3 12	13 54.57	-18 41.7	1.930	2.749	14.0	20.2	3 12	13 54.38	-15 21.3	2.446	3.266	11.4	23.0
3 22	13 49.34	-18 20.9	1.839	2.741	10.8	20.0	3 22	13 48.70	-14 55.0	2.361	3.267	8.6	22.8
4 1	13 42.00	-17 42.2	1.771	2.733	7.1	19.7	4 1	13 41.41	-14 16.8	2.301	3.268	5.3	22.6
4 11	13 33.26	-16 47.8	1.730	2.724	3.4	19.5	4 11	13 33.11	-13 29.2	2.270	3.268	1.9	22.4
4 21	13 24.09	-15 41.9	1.716	2.714	3.2	19.5	4 21	13 24.57	-12 35.9	2.268	3.267	2.3	22.4
5 1	13 15.53	-14 31.0	1.731	2.704	6.9	19.7	5 1	13 16.56	-11 41.7	2.296	3.266	5.8	22.6
5 11	13 8.52	-13 22.8	1.771	2.693	10.8	19.9	5 11	13 9.79	-10 51.7	2.352	3.263	9.0	22.8
5 21	13 3.67	-12 23.5	1.835	2.682	14.3	20.1	5 21	13 4.72	-10 9.9	2.432	3.260	11.9	23.0
<b>168475</b>	1999 <i>RN</i> <sub>24</sub>	4 14.2 193°76		0°1/14.2 16			<b>157802</b>	1995 <i>SV</i> <sub>40</sub>	4 14.2 284°52		1°9/12.4 17		
3 12	13 56.15	-11 39.0	1.994	2.832	12.9	21.3	3 12	13 51.67	-7 27.0	1.811	2.671	13.0	20.5
3 22	13 50.31	-11 11.5	1.912	2.831	9.5	21.1	3 22	13 47.28	-6 35.5	1.724	2.655	9.5	20.2
4 1	13 42.47	-10 32.7	1.854	2.828	5.6	20.9	4 1	13 40.82	-5 33.6	1.661	2.640	5.5	20.0
4 11	13 33.36	-9 45.9	1.824	2.825	1.4	20.5	4 11	13 33.01	-4 26.8	1.625	2.625	2.0	19.7
4 21	13 23.91	-8 56.0	1.823	2.821	3.0	20.7	4 21	13 24.75	-3 21.8	1.616	2.609	4.4	19.8
5 1	13 15.10	-8 8.7	1.850	2.816	7.2	20.9	5 1	13 17.07	-2 25.5	1.635	2.594	8.6	20.0
5 11	13 7.79	-7 29.3	1.903	2.811	11.0	21.1	5 11	13 10.87	-1 43.5	1.677	2.578	12.6	20.2
5 21	13 2.56	-7 1.5	1.979	2.805	14.3	21.3	5 21	13 6.76	-1 19.1	1.741	2.563	16.1	20.4
<b>83705</b>	2001 <i>TL</i> <sub>77</sub>	4 14.2 215°12		0°4/13.6 18			<b>353903</b>	2012 <i>XN</i> <sub>58</sub>	4 14.2 207°5		2°1/16.5 18		
3 12	13 49.93	-11 13.0	2.547	3.387	10.4	20.1	3 12	13 50.21	-18 49.1	2.145	2.966	12.7	20.4
3 22	13 45.41	-10 21.3	2.461	3.381	7.6	19.9	3 22	13 45.90	-18 22.1	2.064	2.967	9.8	20.2
4 1	13 39.45	-9 19.8	2.401	3.376	4.4	19.7	4 1	13 39.85	-17 39.2	2.007	2.968	6.4	20.0
4 11	13 32.61	-8 12.3	2.369	3.370	1.0	19.5	4 11	13 32.74	-16 42.7	1.976	2.970	3.1	19.8
4 21	13 25.54	-7 3.4	2.367	3.364	2.6	19.6	4 21	13 25.38	-15 37.2	1.973	2.971	2.8	19.7
5 1	13 18.93	-5 58.2	2.395	3.357	6.0	19.8	5 1	13 18.60	-14 28.4	1.998	2.972	6.1	19.9
5 11	13 13.39	-5 1.6	2.449	3.351	9.1	20.0	5 11	13 13.15	-13 22.8	2.050	2.974	9.5	20.2
5 21	13 9.36	-4 16.7	2.527	3.344	11.8	20.2	5 21	13 9.51	-12 25.6	2.125	2.976	12.5	20.3
<b>304753</b>	2006 <i>YO</i> <sub>47</sub>	4 14.2 222°56		3°8/10.0 18			<b>430569</b>	2002 <i>PA</i> <sub>183</sub>	4 14.2 182°85		3°8/ 9.8 17		
3 12	13 52.21	+ 2 9.9	2.525	3.382	9.9	20.9	3 12	13 51.03	- 0 14.0	2.303	3.164	10.5	21.6
3 22	13 47.03	+ 2 48.8	2.450	3.377	7.3	20.7	3 22	13 46.27	+ 0 55.0	2.235	3.165	7.7	21.4
4 1	13 40.38	+ 3 27.4	2.402	3.371	4.9	20.6	4 1	13 39.97	+ 2 6.5	2.192	3.165	5.0	21.2
4 11	13 32.84	+ 4 1.1	2.381	3.366	3.8	20.5	4 11	13 32.76	+ 3 14.4	2.178	3.165	3.8	21.1
4 21	13 25.08	+ 4 26.0	2.390	3.360	5.3	20.6	4 21	13 25.35	+ 4 13.3	2.192	3.164	5.6	21.3
5 1	13 17.81	+ 4 38.9	2.427	3.354	7.9	20.7	5 1	13 18.48	+ 4 58.4	2.234	3.163	8.4	21.4
5 11	13 11.65	+ 4 38.0	2.488	3.348	10.5	20.9	5 11	13 12.80	+ 5 27.0	2.301	3.162	11.2	21.6
5 21	13 7.03	+ 4 23.1	2.572	3.342	12.9	21.0	5 21	13 8.76	+ 5 38.1	2.389	3.160	13.7	21.8
<b>473175</b>	2015 <i>KU</i> <sub>52</sub>	4 14.2 35°04		4°8/ 9.2 17			<b>64628</b>	2001 <i>XJ</i> <sub>44</sub>	4 14.2 5°76		2°2/12.3 18		
3 12	13 51.47	+ 4 6.8	2.240	3.103	10.7	21.0	3 12	13 53.48	- 3 35.1	2.051	2.908	11.8	19.4
3 22	13 46.59	+ 4 56.8	2.176	3.104	8.0	20.8	3 22	13 48.24	- 3 20.7	1.979	2.909	8.6	19.2
4 1	13 40.15	+ 5 44.9	2.139	3.105	5.6	20.7	4 1	13 41.20	- 3 3.2	1.932	2.909	5.0	19.0
4 11	13 32.78	+ 6 25.6	2.128	3.107	4.8	20.6	4 11	13 33.07	- 2 46.3	1.912	2.910	2.3	18.8
4 21	13 25.23	+ 6 54.3	2.146	3.108	6.4	20.7	4 21	13 24.68	- 2 33.9	1.921	2.911	4.1	18.9
5 1	13 18.26	+ 7 7.5	2.190	3.110	9.0	20.9	5 1	13 16.92	- 2 29.6	1.957	2.912	7.7	19.1
5 11	13 12.54	+ 7 3.9	2.258	3.111	11.7	21.0	5 11	13 10.54	- 2 35.8	2.018	2.914	11.0	19.3
5 21	13 8.51	+ 6 43.7	2.347	3.113	14.1	21.2	5 21	13 6.05	- 2 53.7	2.101	2.916	13.9	19.5
<b>351784</b>	2006 <i>HZ</i> <sub>11</sub>	4 14.2 196°63		3°4/10.8 18			<b>340416</b>	2006 <i>FZ</i> <sub>12</sub>	4 14.2 313°13		1°2/13.2 17		
3 12	13 53.15	- 0 53.1	2.145	3.004	11.3	21.0	3 12	13 53.04	- 7 35.0	1.719	2.579	13.6	20.6
3 22	13 47.92	- 0 8.9	2.073	3.003	8.2	20.8	3 22	13 48.40	- 7 17.0	1.633	2.564	10.0	20.4
4 1	13 40.98	+ 0 37.6	2.027	3.002	5.1	20.6	4 1	13 41.54	- 6 50.5	1.571	2.549	5.8	20.1
4 11	13 33.00	+ 1 21.1	2.009	3.000	3.4	20.5	4 11	13 33.20	- 6 19.7	1.534	2.535	1.6	19.8
4 21	13 24.78	+ 1 56.7	2.019	2.998	5.2	20.6	4 21	13 24.35	- 5 49.6	1.525	2.521	3.9	19.9
5 1	13 17.15	+ 2 20.1	2.056	2.996	8.4	20.8	5 1	13 16.10	- 5 25.5	1.542	2.507	8.4	20.1
5 11	13 10.85	+ 2 28.7	2.118	2.994	11.5	21.0	5 11	13 9.44	- 5 12.2	1.583	2.494	12.6	20.3
5 21	13 6.35	+ 2 21.9	2.202	2.991	14.2	21.2	5 21	13 5.02	- 5 12.6	1.644	2.481	16.2	20.5
<b>37991</b>	1998 <i>KZ</i> <sub>5</sub>	4 14.2 258°84		0°1/14.1 18			<b>427098</b>	2014 <i>UW</i> <sub>53</sub>	4 14.2 187°85		0°7/14.8 16		
3 12	13 50.36	-11 23.5	2.810	3.644	9.7	19.8	3 12	13 56.32	-13 36.6	2.080	2.910	12.7	22.6
3 22	13 45.70	-10 52.6	2.707	3.624	7.1	19.6	3 22	13 50.38	-13 11.7	1.997	2.910	9.5	22.3
4 1	13 39.64	-10 13.1	2.631	3.604	4.2	19.4	4 1	13 42.50	-12 34.4	1.938	2.909	5.7	22.1
4 11	13 32.68	-9 27.7	2.583	3.584	1.0	19.1	4 11	13 33.40	-11 47.6	1.907	2.907	1.7	21.8
4 21	13 25.42	-8 39.7	2.565	3.563	2.3	19.2	4 21	13 23.98	-10 55.8	1.906	2.904	2.7	21.9
5 1	13 18.49	-7 53.3	2.577	3.542	5.5	19.3	5 1	13 15.18	-10 4.4	1.933	2.901	6.7	22.1
5 11	13 12.51	-7 12.4	2.616	3.520	8.5	19.5	5 11	13 7.85	-9 19.2	1.986	2.897	10.5	22.4
5 21	13 7.93	-6 40.1	2.679	3.498	11.1	19.7	5 21	13 2.52	-8 44.2	2.063	2.892	13.7	22.6
<b>465647</b>	2009 <i>QM</i> <sub>9</sub>	4 14.2 291°33		0°3/14.4 17			<b>307532</b>	2003 <i>BO</i> <sub>50</sub>	4 14.2 152°99		4°8/ 8.2 17		
3 12	13 53.33	-12 27.1	1.589	2.441	14.9	22.2	3 12	13 50.96	+ 5 24.7	2.581	3.439	9.6	21.1
3 22	13 48.87	-12 2.7	1.497	2.423	11.1	21.9	3 22	13 46.04	+ 6 30.4	2.522	3.445	7.3	20.9
4 1	13 41.94	-11 23.2	1.428	2.404	6.7	21.6	4 1	13 39.76	+ 7 33.9	2.489	3.450	5.4	20.8
4 11	13 33.31	-10 32.1	1.384	2.385	1.8	21.2	4 11	13 32.71	+ 8 29.6	2.485	3.456	4.9	20.8
4 21	13 24.04	-9 35.0	1.367	2.366	3.4	21.3	4 21	13 25.51	+ 9 13.1	2.510	3.461	6.3	20.9
5 1	13 15.38	-8 39.4	1.375	2.347	8.5	21.5	5 1	13 18.84	+ 9 41.1	2.562	3.465	8.6	21.0
5 11	13 8.43	-7 52.8	1.408	2.328	13.2	21.7	5 11	13 13.26	+ 9 52.2	2.638	3.469	10.9	21.2
5 21	13 3.96	-7 20.5	1.460	2.310	17.3	22.0	5 21	13 9.16	+ 9 46.6	2.735	3.473	12.9	21.3
<b>161372</b>	2003 <i>SM</i> <sub>247</sub>	4 14.2 280°97		0°6/13.6 17			<b>131675</b>	2001 <i>XG</i> <sub>184</sub>	4 14.2 191°86		0°9/14.9 18		
3 12	13 52.68	- 9 39.1	1.921	2.									

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4 14.2

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>73417</b>	2002 <i>LX</i> <sub>35</sub>		4 14.2 230°15	2°3/11.8	18		<b>240023</b>	2001 <i>UJ</i> <sub>20</sub>		4 14.2 202°42	2°3/12.4	17	
3 12	13 51.60	- 5 33.5	2.100	2.958	11.6	19.6	3 12	13 57.55	- 5 46.5	1.700	2.556	13.9	21.9
3 22	13 46.88	- 4 39.4	2.022	2.952	8.4	19.4	3 22	13 51.62	- 5 6.5	1.624	2.553	10.1	21.6
4 1	13 40.43	- 3 38.3	1.969	2.947	4.9	19.1	4 1	13 43.38	- 4 18.5	1.571	2.549	5.9	21.4
4 11	13 32.90	- 2 35.5	1.944	2.941	2.3	18.9	4 11	13 33.67	- 3 28.3	1.546	2.544	2.4	21.1
4 21	13 25.08	- 1 36.7	1.947	2.935	4.3	19.1	4 21	13 23.56	- 2 41.9	1.548	2.539	4.8	21.3
5 1	13 17.83	- 0 47.5	1.978	2.929	7.9	19.3	5 1	13 14.20	- 2 5.7	1.577	2.533	9.1	21.5
5 11	13 11.88	- 0 12.1	2.034	2.923	11.3	19.5	5 11	13 6.60	- 1 44.3	1.631	2.527	13.2	21.7
5 21	13 7.74	+ 0 7.4	2.112	2.917	14.2	19.7	5 21	13 1.36	- 1 39.7	1.705	2.520	16.7	22.0
<b>308377</b>	2005 <i>RM</i> <sub>30</sub>		4 14.2 221°55	5°5/19.3	17 R		<b>471374</b>	2011 <i>SN</i> <sub>84</sub>		4 14.2 184°32	2°0/11.9	18	
3 12	13 56.95	-27 8.9	2.224	2.992	14.0	21.4	3 12	13 53.82	- 2 23.3	2.896	3.741	9.1	21.5
3 22	13 51.06	-27 30.7	2.125	2.983	11.6	21.2	3 22	13 48.04	- 2 7.4	2.817	3.741	6.6	21.3
4 1	13 43.03	-27 33.4	2.049	2.973	8.8	21.0	4 1	13 40.93	- 1 49.7	2.766	3.740	3.9	21.1
4 11	13 33.57	-27 15.8	1.998	2.963	6.4	20.9	4 11	13 33.03	- 1 33.3	2.744	3.740	2.0	21.0
4 21	13 23.58	-26 39.1	1.975	2.952	5.6	20.8	4 21	13 24.94	- 1 20.9	2.752	3.738	3.5	21.1
5 1	13 14.12	-25 47.3	1.979	2.940	7.2	20.9	5 1	13 17.30	- 1 15.0	2.791	3.737	6.1	21.3
5 11	13 6.13	-24 46.8	2.010	2.928	10.0	21.0	5 11	13 10.66	- 1 17.5	2.856	3.735	8.7	21.4
5 21	13 0.26	-23 44.7	2.065	2.916	12.8	21.2	5 21	13 5.42	- 1 29.3	2.945	3.733	11.0	21.6
<b>221321</b>	2005 <i>VD</i> <sub>86</sub>		4 14.2 194°01	0°7/13.4	17		<b>11602</b>	Miryang		4 14.2 22°20	7°5/20.1	18	
3 12	13 53.17	-10 11.7	2.150	2.993	11.9	21.3	3 12	13 54.63	-27 53.2	1.549	2.343	18.0	17.6
3 22	13 48.00	- 9 26.1	2.069	2.991	8.7	21.1	3 22	13 49.97	-28 38.3	1.478	2.348	15.0	17.4
4 1	13 41.07	- 8 30.2	2.013	2.989	5.0	20.8	4 1	13 42.62	-28 58.2	1.426	2.354	11.6	17.2
4 11	13 33.06	- 7 28.3	1.986	2.986	1.2	20.5	4 11	13 33.51	-28 50.7	1.397	2.360	8.7	17.1
4 21	13 24.77	- 6 25.8	1.987	2.983	3.1	20.7	4 21	13 23.90	-28 17.1	1.391	2.367	7.6	17.0
5 1	13 17.06	- 5 28.2	2.017	2.980	7.0	20.9	5 1	13 15.18	-27 23.1	1.410	2.375	9.1	17.1
5 11	13 10.69	- 4 40.9	2.074	2.975	10.5	21.1	5 11	13 8.52	-26 18.0	1.453	2.383	12.2	17.3
5 21	13 6.15	- 4 6.8	2.153	2.971	13.5	21.3	5 21	13 4.61	-25 11.5	1.517	2.392	15.4	17.5
<b>494210</b>	2016 <i>HO</i> <sub>15</sub>		4 14.2 271°25	1°0/13.3	17		<b>498816</b>	2008 <i>UL</i> <sub>347</sub>		4 14.2 144°96	1°6/12.6	17	
3 12	13 55.05	- 8 18.7	1.860	2.712	13.1	21.9	3 12	13 52.03	- 7 21.3	2.107	2.960	11.7	22.0
3 22	13 49.81	- 7 54.8	1.765	2.692	9.7	21.6	3 22	13 47.14	- 6 33.1	2.036	2.964	8.5	21.8
4 1	13 42.36	- 7 21.7	1.694	2.672	5.6	21.3	4 1	13 40.55	- 5 37.1	1.991	2.968	4.9	21.6
4 11	13 33.42	- 6 43.1	1.650	2.651	1.5	21.0	4 11	13 32.95	- 4 38.4	1.973	2.972	1.7	21.4
4 21	13 23.92	- 6 4.0	1.634	2.630	3.7	21.1	4 21	13 25.14	- 3 42.1	1.983	2.976	3.7	21.5
5 1	13 14.93	- 5 30.1	1.645	2.609	8.2	21.3	5 1	13 17.94	- 2 53.8	2.022	2.979	7.4	21.7
5 11	13 7.43	- 5 6.3	1.682	2.587	12.3	21.5	5 11	13 12.08	- 2 17.7	2.086	2.982	10.7	21.9
5 21	13 2.11	- 4 56.1	1.739	2.566	15.9	21.7	5 21	13 8.02	- 1 55.9	2.173	2.985	13.6	22.1
<b>434466</b>	2005 <i>QO</i> <sub>57</sub>		4 14.2 264°74	1°4/15.7	16		<b>308173</b>	2005 <i>CN</i> <sub>8</sub>		4 14.2 54°33	1°4/15.2	18	
3 12	13 51.49	-16 0.9	2.505	3.327	11.1	22.0	3 12	13 55.57	-14 34.3	1.306	2.160	17.4	20.7
3 22	13 46.73	-15 43.2	2.402	3.308	8.4	21.8	3 22	13 50.53	-14 20.0	1.251	2.175	13.0	20.4
4 1	13 40.34	-15 13.6	2.324	3.290	5.3	21.6	4 1	13 42.82	-13 47.7	1.217	2.190	7.9	20.2
4 11	13 32.90	-14 33.8	2.274	3.271	2.2	21.3	4 11	13 33.53	-13 1.7	1.207	2.206	2.7	19.9
4 21	13 25.07	-13 47.0	2.253	3.251	2.4	21.3	4 21	13 24.00	-12 8.3	1.222	2.222	3.5	20.0
5 1	13 17.64	-12 57.7	2.261	3.232	5.7	21.5	5 1	13 15.61	-11 16.0	1.262	2.238	8.6	20.3
5 11	13 11.30	-12 10.7	2.296	3.212	9.0	21.6	5 11	13 9.43	-10 32.5	1.326	2.254	13.2	20.6
5 21	13 6.58	-11 30.4	2.354	3.192	11.9	21.8	5 21	13 6.01	-10 3.0	1.409	2.271	17.1	20.9
<b>228320</b>	2000 <i>QO</i> <sub>105</sub>		4 14.2 238°80	2°9/11.0	18		<b>415336</b>	2013 <i>HP</i> <sub>77</sub>		4 14.2 249°70	0°8/14.8	17	
3 12	13 53.98	- 2 32.7	2.406	3.258	10.5	21.3	3 12	13 57.76	-12 45.5	1.760	2.599	14.3	22.1
3 22	13 48.52	- 1 40.0	2.313	3.240	7.7	21.1	3 22	13 51.98	-12 37.3	1.665	2.583	10.8	21.8
4 1	13 41.38	- 0 42.6	2.246	3.221	4.7	20.9	4 1	13 43.74	-12 16.2	1.594	2.566	6.6	21.6
4 11	13 33.16	+ 0 14.4	2.208	3.201	2.9	20.7	4 11	13 33.81	-11 44.6	1.548	2.548	2.0	21.2
4 21	13 24.57	+ 1 6.1	2.199	3.180	4.7	20.8	4 21	13 23.24	-11 6.6	1.531	2.530	3.2	21.3
5 1	13 16.41	+ 1 47.6	2.220	3.159	7.9	21.0	5 1	13 13.22	-10 27.9	1.541	2.511	7.9	21.5
5 11	13 9.39	+ 2 15.4	2.266	3.137	11.0	21.1	5 11	13 4.88	- 9 54.8	1.576	2.491	12.4	21.7
5 21	13 4.05	+ 2 27.8	2.334	3.114	13.7	21.3	5 21	12 58.94	- 9 32.2	1.633	2.472	16.2	21.9
<b>55175</b>	2001 <i>QN</i> <sub>261</sub>		4 14.2 154°62	3°5/17.5	18		<b>239683</b>	2008 <i>YA</i> <sub>64</sub>		4 14.2 63°14	2°3/11.9	17	
3 12	13 55.73	-21 40.0	2.126	2.926	13.6	19.4	3 12	13 51.06	- 5 18.0	2.019	2.880	11.8	20.3
3 22	13 49.97	-21 37.3	2.046	2.933	10.7	19.2	3 22	13 46.48	- 4 26.7	1.953	2.885	8.5	20.1
4 1	13 42.26	-21 17.4	1.990	2.939	7.4	19.0	4 1	13 40.19	- 3 29.2	1.911	2.889	5.0	19.9
4 11	13 33.37	-20 41.4	1.960	2.945	4.4	18.8	4 11	13 32.88	- 2 30.9	1.897	2.894	2.3	19.8
4 21	13 24.17	-19 52.5	1.958	2.950	3.7	18.8	4 21	13 25.37	- 1 37.5	1.911	2.900	4.4	19.9
5 1	13 15.66	-18 55.8	1.984	2.955	6.4	18.9	5 1	13 18.50	- 0 54.3	1.952	2.905	7.9	20.1
5 11	13 8.64	-17 57.8	2.038	2.960	9.6	19.1	5 11	13 12.98	- 0 25.1	2.018	2.910	11.2	20.3
5 21	13 3.65	-17 4.5	2.114	2.963	12.6	19.3	5 21	13 9.29	- 0 11.5	2.105	2.915	14.1	20.5
<b>368160</b>	1999 <i>HW</i> <sub>2</sub>		4 14.2 331°36	9°2/ 2.6	17		<b>133554</b>	2003 <i>UN</i> <sub>5</sub>		4 14.2 232°59	0°5/14.7	17	
3 12	13 40.83	- 1 54.8	1.094	2.000	15.8	18.7	3 12	13 56.06	-13 58.8	2.129	2.958	12.6	20.4
3 22	13 40.42	+ 2 15.9	1.001	1.955	11.9	18.3	3 22	13 50.33	-13 20.0	2.028	2.941	9.4	20.2
4 1	13 37.35	+ 7 4.9	0.935	1.910	9.3	18.0	4 1	13 42.60	-12 27.1	1.952	2.923	5.7	19.9
4 11	13 32.28	+12 8.4	0.896	1.867	10.9	17.9	4 11	13 33.52	-11 23.1	1.904	2.904	1.6	19.6
4 21	13 26.31	+16 55.8	0.883	1.825	15.8	18.0	4 21	13 23.97	-10 12.9	1.886	2.884	2.8	19.7
5 1	13 20.86	+20 58.3	0.893	1.785	21.4	18.2	5 1	13 14.91	- 9 2.9	1.896	2.863	7.0	19.9
5 11	13 17.37	+23 59.5	0.920	1.747	26.4	18.3	5 11	13 7.22	- 7 59.7	1.934	2.842	10.8	20.1
5 21	13 16.80	+25 56.3	0.959	1.712	30.6	18.5	5 21	13 1.51	- 7 8.2	1.995	2.819	14.2	20.3
<b>125683</b>	2001 <i>XF</i> <sub>84</sub>		4 14.2 193°65	1°7/12.4	18		<b>58552</b>	1997 <i>GH</i> <sub>32</sub>		4 14.2 11			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>237527</b>	2000 <i>SK</i> <sub>269</sub>		4 14.2 209°68	2°1/11.8	18		<b>295166</b>	2008 <i>FS</i> <sub>67</sub>		4 14.2 41°92	1°9/12.7	18	
3 12	13 53.42	- 4 51.4	2.494	3.342	10.3	21.7	3 12	13 52.61	- 8 13.6	1.352	2.223	15.8	20.2
3 22	13 48.00	- 4 2.1	2.409	3.334	7.5	21.5	3 22	13 48.23	- 7 21.3	1.299	2.236	11.4	19.9
4 1	13 41.04	- 3 7.4	2.350	3.326	4.4	21.3	4 1	13 41.44	- 6 17.6	1.269	2.250	6.5	19.7
4 11	13 33.11	- 2 11.6	2.320	3.317	2.1	21.1	4 11	13 33.25	- 5 9.7	1.264	2.264	2.1	19.4
4 21	13 24.91	- 1 19.4	2.321	3.308	3.9	21.2	4 21	13 24.87	- 4 6.1	1.284	2.279	4.8	19.6
5 1	13 17.18	- 0 35.4	2.350	3.297	7.1	21.4	5 1	13 17.52	- 3 14.6	1.329	2.294	9.5	19.9
5 11	13 10.58	- 0 3.0	2.406	3.286	10.1	21.5	5 11	13 12.16	- 2 40.9	1.397	2.310	13.8	20.2
5 21	13 5.58	+ 0 15.8	2.484	3.274	12.7	21.7	5 21	13 9.31	- 2 27.0	1.484	2.325	17.4	20.5
<b>472825</b>	2015 <i>FH</i> <sub>175</sub>		4 14.2 236°83	4°9/ 8.8	17		<b>55468</b>	2001 <i>TE</i> <sub>195</sub>		4 14.2 111°32	4°4/10.6	18	
3 12	13 51.23	+ 3 41.2	2.249	3.112	10.7	21.2	3 12	13 56.73	+ 1 24.3	1.853	2.714	12.7	19.0
3 22	13 46.51	+ 4 45.8	2.179	3.107	8.0	21.0	3 22	13 50.66	+ 2 6.4	1.798	2.726	9.3	18.8
4 1	13 40.19	+ 5 49.7	2.136	3.102	5.7	20.9	4 1	13 42.65	+ 2 48.0	1.767	2.739	6.1	18.6
4 11	13 32.91	+ 6 46.8	2.119	3.097	5.0	20.8	4 11	13 33.53	+ 3 23.2	1.763	2.750	4.4	18.5
4 21	13 25.38	+ 7 31.8	2.131	3.091	6.6	20.9	4 21	13 24.27	+ 3 46.9	1.787	2.762	6.3	18.7
5 1	13 18.40	+ 8 0.6	2.170	3.086	9.3	21.0	5 1	13 15.84	+ 3 55.3	1.838	2.773	9.5	18.9
5 11	13 12.64	+ 8 10.9	2.232	3.080	12.0	21.2	5 11	13 9.04	+ 3 46.8	1.913	2.784	12.7	19.1
5 21	13 8.55	+ 8 3.1	2.315	3.074	14.4	21.4	5 21	13 4.35	+ 3 22.0	2.008	2.795	15.4	19.3
<b>497826</b>	2006 <i>UU</i>		4 14.2 121°08	0°5/13.6	17		<b>102803</b>	1999 <i>VA</i> <sub>169</sub>		4 14.2 267°61	1°8/12.9	17	
3 12	13 53.48	- 8 38.2	2.724	3.561	9.9	22.2	3 12	13 58.59	- 7 11.5	1.482	2.341	15.4	20.2
3 22	13 47.82	- 8 22.3	2.657	3.576	7.2	22.0	3 22	13 53.04	- 6 42.8	1.387	2.317	11.4	19.9
4 1	13 40.81	- 8 0.8	2.616	3.591	4.1	21.8	4 1	13 44.63	- 6 3.2	1.315	2.293	6.7	19.6
4 11	13 33.04	- 7 36.1	2.604	3.605	1.0	21.6	4 11	13 34.14	- 5 17.7	1.268	2.269	2.2	19.2
4 21	13 25.14	- 7 11.5	2.623	3.619	2.5	21.8	4 21	13 22.77	- 4 32.8	1.248	2.243	4.9	19.3
5 1	13 17.77	- 6 50.0	2.671	3.633	5.5	22.0	5 1	13 11.98	- 3 56.1	1.254	2.217	10.2	19.6
5 11	13 11.50	- 6 34.5	2.747	3.646	8.3	22.2	5 11	13 3.10	- 3 34.0	1.283	2.190	15.2	19.8
5 21	13 6.71	- 6 26.9	2.846	3.659	10.7	22.4	5 21	12 57.01	- 3 30.1	1.332	2.163	19.6	20.0
<b>107377</b>	2001 <i>CL</i> <sub>36</sub>		4 14.2 35°62	5°0/10.7	18		<b>286399</b>	2001 <i>YZ</i> <sub>53</sub>		4 14.2 119°24	0°8/13.3	18	
3 12	13 55.36	+ 0 9.7	1.394	2.270	15.2	19.2	3 12	13 51.81	- 8 37.5	2.597	3.439	10.1	21.3
3 22	13 50.25	+ 0 59.7	1.337	2.274	11.1	19.0	3 22	13 46.69	- 8 6.5	2.530	3.452	7.3	21.1
4 1	13 42.64	+ 1 51.4	1.302	2.278	7.1	18.8	4 1	13 40.20	- 7 29.1	2.489	3.465	4.2	21.0
4 11	13 33.53	+ 2 36.7	1.292	2.283	5.0	18.7	4 11	13 32.92	- 6 48.7	2.477	3.478	1.1	20.7
4 21	13 24.13	+ 3 8.2	1.308	2.288	7.3	18.8	4 21	13 25.52	- 6 8.9	2.494	3.490	2.7	20.9
5 1	13 15.73	+ 3 20.6	1.348	2.293	11.4	19.1	5 1	13 18.65	- 5 33.7	2.541	3.502	5.8	21.1
5 11	13 9.34	+ 3 11.5	1.409	2.299	15.3	19.3	5 11	13 12.88	- 5 6.2	2.614	3.513	8.7	21.3
5 21	13 5.53	+ 2 41.7	1.490	2.304	18.7	19.5	5 21	13 8.62	- 4 48.5	2.711	3.524	11.2	21.5
<b>279861</b>	2001 <i>FU</i> <sub>7</sub>		4 14.2 294°34	1°6/12.8	17		<b>347525</b>	1999 <i>TG</i> <sub>217</sub>		4 14.2 272°84	2°4/11.8	18	
3 12	13 52.45	- 7 10.7	1.909	2.766	12.6	21.6	3 12	13 55.83	- 1 37.7	2.816	3.659	9.4	21.3
3 22	13 47.69	- 6 34.2	1.833	2.763	9.1	21.3	3 22	13 49.77	- 1 19.6	2.705	3.627	6.9	21.1
4 1	13 41.00	- 5 49.7	1.781	2.759	5.3	21.1	4 1	13 42.14	- 0 59.6	2.622	3.595	4.2	20.9
4 11	13 33.13	- 5 1.9	1.756	2.756	1.8	20.8	4 11	13 33.45	- 0 40.9	2.568	3.562	2.4	20.7
4 21	13 24.93	- 4 16.2	1.759	2.753	3.9	21.0	4 21	13 24.32	- 0 26.7	2.544	3.528	3.9	20.7
5 1	13 17.37	- 3 38.1	1.790	2.750	7.9	21.2	5 1	13 15.48	- 0 20.0	2.551	3.494	6.8	20.9
5 11	13 11.26	- 3 12.1	1.845	2.747	11.6	21.4	5 11	13 7.59	- 0 23.0	2.585	3.459	9.7	21.0
5 21	13 7.14	- 3 0.5	1.921	2.744	14.7	21.6	5 21	13 1.17	- 0 36.9	2.643	3.424	12.3	21.1
<b>209170</b>	2003 <i>UU</i> <sub>100</sub>		4 14.2 252°91	0°1/14.2	17		<b>102675</b>	1999 <i>VM</i> <sub>66</sub>		4 14.2 245°31	0°1/14.1	17	
3 12	13 54.90	-12 10.2	1.744	2.590	14.1	20.6	3 12	13 54.81	-12 0.9	1.816	2.660	13.7	20.5
3 22	13 49.83	-11 34.4	1.652	2.575	10.5	20.3	3 22	13 49.68	-11 24.6	1.725	2.647	10.2	20.3
4 1	13 42.46	-10 44.0	1.584	2.559	6.2	20.0	4 1	13 42.33	-10 34.6	1.658	2.632	6.0	20.0
4 11	13 33.52	- 9 42.9	1.541	2.542	1.5	19.7	4 11	13 33.52	- 9 34.6	1.617	2.618	1.5	19.6
4 21	13 24.03	- 8 37.0	1.527	2.525	3.4	19.8	4 21	13 24.20	- 8 30.4	1.604	2.603	3.3	19.7
5 1	13 15.14	- 7 33.7	1.539	2.508	8.1	20.0	5 1	13 15.47	- 7 28.9	1.619	2.587	7.9	20.0
5 11	13 7.87	- 6 40.2	1.577	2.490	12.5	20.2	5 11	13 8.31	- 6 36.9	1.659	2.571	12.1	20.2
5 21	13 2.90	- 6 1.3	1.635	2.471	16.3	20.4	5 21	13 3.36	- 5 59.1	1.721	2.554	15.8	20.4
<b>73632</b>	4432 <i>T</i> <sub>3</sub>		4 14.2 189°58	2°4/11.8	18		<b>98003</b>	2000 <i>QH</i> <sub>199</sub>		4 14.2 174°89	0°2/14.4	18	
3 12	13 55.44	- 5 9.1	2.102	2.953	11.8	20.5	3 12	13 58.02	-11 47.3	1.815	2.655	13.9	19.9
3 22	13 49.68	- 4 14.3	2.025	2.952	8.6	20.3	3 22	13 51.88	-11 29.3	1.739	2.657	10.3	19.7
4 1	13 42.10	- 3 12.9	1.974	2.950	5.0	20.0	4 1	13 43.53	-10 59.5	1.686	2.660	6.1	19.4
4 11	13 33.39	- 2 10.2	1.951	2.948	2.4	19.9	4 11	13 33.79	-10 21.3	1.661	2.661	1.6	19.1
4 21	13 24.40	- 1 12.0	1.957	2.945	4.5	20.0	4 21	13 23.70	- 9 39.3	1.663	2.662	3.1	19.2
5 1	13 16.03	- 0 23.9	1.992	2.941	8.0	20.2	5 1	13 14.36	- 8 59.3	1.694	2.662	7.5	19.5
5 11	13 9.06	+ 0 10.1	2.052	2.936	11.5	20.4	5 11	13 6.72	- 8 26.9	1.750	2.662	11.6	19.7
5 21	13 4.00	+ 0 28.0	2.135	2.930	14.4	20.6	5 21	13 1.36	- 8 5.8	1.828	2.661	15.0	20.0
<b>312191</b>	2007 <i>VU</i> <sub>95</sub>		4 14.2 73°80	1°6/15.4	18		<b>435199</b>	2007 <i>RR</i> <sub>132</sub>		4 14.2 305°35	8°2/21.5	18	
3 12	13 56.37	-15 40.2	1.461	2.305	16.5	21.1	3 12	13 54.50	-32 29.9	1.968	2.719	16.2	20.6
3 22	13 50.86	-15 18.9	1.407	2.325	12.3	20.9	3 22	13 49.72	-33 15.3	1.873	2.707	13.9	20.4
4 1	13 42.92	-14 39.8	1.374	2.344	7.6	20.7	4 1	13 42.50	-33 37.7	1.797	2.695	11.4	20.2
4 11	13 33.58	-13 46.9	1.366	2.364	2.8	20.4	4 11	13 33.59	-33 33.8	1.745	2.684	9.2	20.1
4 21	13 24.09	-12 46.6	1.385	2.384	3.3	20.5	4 21	13 24.02	-33 3.5	1.716	2.673	8.2	20.0
5 1	13 15.68	-11 47.0	1.430	2.404	7.9	20.8	5 1	13 15.02	-32 10.0	1.713	2.662	9.1	20.0
5 11	13 9.33	-10 55.5	1.499	2.424	12.2	21.1	5 11	13 7.70	-31 0.9	1.734	2.651	11.3	20.1
5 21	13 5.54	-10 17.3	1.589	2.443	15.8	21.4	5 21	13 2.80	-29 44.8	1.778	2.641	14.0	20.3
<b>73111</b>	2002 <i>GK</i> <sub>40</sub>		4 14.2 235°77	0°7/14.8	17		<b>498435</b>	2008 <i>AC</i> <sub>94</sub>		4 14.2			

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4 14.2

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>255841</b>	2006 <i>SM</i> <sub>110</sub>	4 14.2 256°44		3°7/11.2 18			<b>181292</b>	2006 <i>PR</i> <sub>10</sub>	4 14.2 193°62		0°6/14.8 16 R		
3 12	13 57.22	- 1 21.6	1.859	2.717	12.8	20.8	3 12	13 55.56	-13 41.7	2.075	2.907	12.7	21.5
3 22	13 51.41	- 0 39.9	1.768	2.697	9.5	20.5	3 22	13 49.90	-13 11.0	1.991	2.905	9.5	21.2
4 1	13 43.36	+ 0 5.7	1.701	2.676	5.9	20.3	4 1	13 42.32	-12 27.3	1.931	2.902	5.7	21.0
4 11	13 33.79	+ 0 49.5	1.661	2.654	3.7	20.1	4 11	13 33.52	-11 33.9	1.899	2.899	1.7	20.7
4 21	13 23.65	+ 1 25.5	1.649	2.632	5.9	20.2	4 21	13 24.39	-10 35.6	1.896	2.895	2.7	20.8
5 1	13 14.05	+ 1 48.2	1.665	2.609	9.7	20.3	5 1	13 15.87	- 9 38.2	1.922	2.890	6.8	21.0
5 11	13 5.99	+ 1 54.0	1.705	2.585	13.5	20.5	5 11	13 8.79	- 8 47.5	1.974	2.885	10.5	21.2
5 21	13 0.13	+ 1 41.7	1.765	2.561	16.9	20.7	5 21	13 3.69	- 8 7.8	2.049	2.879	13.7	21.4
<b>511912</b>	2015 <i>HR</i> <sub>87</sub>	4 14.2 243°69		3°1/11.1 17			<b>511050</b>	2013 <i>RK</i> <sub>95</sub>	4 14.2 213°25		4°7/18.6 17		
3 12	13 52.90	- 0 55.9	2.325	3.182	10.6	21.2	3 12	13 57.99	-25 0.0	2.365	3.139	13.1	22.7
3 22	13 47.72	- 0 21.1	2.246	3.175	7.8	21.0	3 22	13 51.74	-25 23.4	2.267	3.131	10.7	22.5
4 1	13 40.94	+ 0 15.6	2.193	3.167	4.8	20.8	4 1	13 43.46	-25 30.3	2.191	3.122	8.0	22.3
4 11	13 33.14	+ 0 49.7	2.168	3.160	3.1	20.7	4 11	13 33.83	-25 19.9	2.143	3.113	5.5	22.2
4 21	13 25.08	+ 1 17.0	2.171	3.152	4.8	20.8	4 21	13 23.70	-24 53.2	2.122	3.103	4.8	22.1
5 1	13 17.52	+ 1 33.8	2.202	3.144	7.8	21.0	5 1	13 14.05	-24 13.7	2.130	3.093	6.6	22.2
5 11	13 11.16	+ 1 37.6	2.259	3.136	10.8	21.1	5 11	13 5.78	-23 27.1	2.166	3.082	9.4	22.3
5 21	13 6.47	+ 1 27.7	2.338	3.128	13.4	21.3	5 21	12 59.50	-22 39.3	2.225	3.070	12.2	22.5
<b>518771</b>	2009 <i>WL</i> <sub>1</sub>	4 14.2 146°95		16°1/ 5.1 18			<b>263868</b>	2009 <i>DN</i> <sub>40</sub>	4 14.2 138°83		13°7/31.5 18		
3 12	14 19.00	+29 47.5	1.492	2.279	18.9	22.1	3 12	13 55.65	+13 45.5	1.177	2.056	17.2	20.5
3 22	14 7.22	+31 11.3	1.465	2.297	17.2	22.0	3 22	13 50.82	+17 21.9	1.148	2.064	14.6	20.4
4 1	13 52.31	+32 2.3	1.459	2.314	16.2	22.0	4 1	13 43.12	+20 42.2	1.142	2.071	13.7	20.4
4 11	13 35.86	+32 9.5	1.475	2.328	16.3	22.1	4 11	13 33.72	+23 26.6	1.159	2.078	14.8	20.4
4 21	13 19.74	+31 29.0	1.514	2.342	17.4	22.2	4 21	13 24.09	+25 21.8	1.199	2.085	17.3	20.6
5 1	13 5.65	+30 4.6	1.574	2.353	19.1	22.3	5 1	13 15.71	+26 23.3	1.258	2.091	20.1	20.8
5 11	12 54.71	+28 5.4	1.652	2.362	20.9	22.5	5 11	13 9.69	+26 34.9	1.331	2.096	22.8	21.0
5 21	12 47.32	+25 42.3	1.747	2.370	22.6	22.7	5 21	13 6.59	+26 4.8	1.417	2.101	25.0	21.2
<b>30528</b>	2001 <i>NT</i> <sub>17</sub>	4 14.2 275°66		0°7/13.8 18			<b>97849</b>	2000 <i>QJ</i> <sub>4</sub>	4 14.2 159°71		0°8/14.9 18		
3 12	13 56.66	- 9 44.6	1.347	2.209	16.4	19.3	3 12	13 57.55	-14 1.4	1.958	2.788	13.4	20.4
3 22	13 51.57	- 9 24.0	1.273	2.204	12.2	19.0	3 22	13 51.37	-13 36.6	1.884	2.796	10.0	20.2
4 1	13 43.66	- 8 50.4	1.220	2.198	7.1	18.7	4 1	13 43.17	-12 58.5	1.833	2.803	6.1	19.9
4 11	13 33.88	- 8 8.5	1.192	2.193	1.7	18.3	4 11	13 33.73	-12 10.4	1.810	2.809	1.9	19.7
4 21	13 23.53	- 7 24.7	1.190	2.188	4.2	18.5	4 21	13 24.02	-11 17.0	1.816	2.815	2.8	19.7
5 1	13 14.08	- 6 46.6	1.212	2.182	9.6	18.7	5 1	13 15.05	-10 24.3	1.850	2.819	6.9	20.0
5 11	13 6.75	- 6 21.0	1.258	2.177	14.5	19.0	5 11	13 7.68	- 9 38.0	1.911	2.823	10.7	20.2
5 21	13 2.26	- 6 11.8	1.322	2.172	18.7	19.2	5 21	13 2.44	- 9 2.5	1.995	2.826	14.0	20.5
<b>111023</b>	2001 <i>VQ</i> <sub>12</sub>	4 14.2 199°83		5°4/19.1 18			<b>41764</b>	2000 <i>VO</i> <sub>35</sub>	4 14.2 3°00		0°4/13.9 18		
3 12	13 55.62	-26 12.2	2.015	2.797	14.8	19.8	3 12	13 50.92	-11 23.7	1.149	2.025	17.7	17.9
3 22	13 50.21	-26 26.4	1.928	2.796	12.1	19.6	3 22	13 47.57	-10 50.4	1.086	2.024	13.0	17.6
4 1	13 42.62	-26 20.1	1.862	2.793	9.1	19.4	4 1	13 41.37	- 9 59.7	1.043	2.023	7.7	17.3
4 11	13 33.60	-25 52.7	1.820	2.791	6.3	19.2	4 11	13 33.34	- 8 57.5	1.023	2.024	1.8	16.9
4 21	13 24.13	-25 6.2	1.806	2.788	5.4	19.2	4 21	13 24.85	- 7 52.6	1.026	2.026	4.2	17.1
5 1	13 15.31	-24 5.5	1.819	2.785	7.3	19.3	5 1	13 17.37	- 6 54.8	1.053	2.028	10.0	17.4
5 11	13 8.09	-22 58.2	1.858	2.782	10.3	19.4	5 11	13 12.13	- 6 12.6	1.101	2.032	15.1	17.7
5 21	13 3.08	-21 51.8	1.920	2.778	13.3	19.6	5 21	13 9.78	- 5 50.4	1.168	2.037	19.4	18.0
<b>144411</b>	2004 <i>EW</i> <sub>9</sub>	4 14.2 327°39		23°2/ 8.0 17 A			<b>377357</b>	2004 <i>RK</i> <sub>73</sub>	4 14.2 204°91		2°1/16.1 18		
3 12	13 47.26	-30 53.3	0.771	1.618	26.9	18.3	3 12	13 56.61	-16 32.7	2.263	3.079	12.3	21.5
3 22	13 48.29	-34 4.6	0.645	1.542	25.2	17.7	3 22	13 50.63	-16 38.5	2.173	3.074	9.4	21.2
4 1	13 44.75	-37 31.2	0.533	1.465	23.6	17.2	4 1	13 42.76	-16 32.2	2.108	3.070	6.1	21.0
4 11	13 35.20	-41 13.3	0.435	1.387	23.3	16.6	4 11	13 33.66	-16 14.8	2.070	3.064	2.8	20.8
4 21	13 17.48	-45 8.2	0.349	1.308	25.6	16.1	4 21	13 24.18	-15 49.1	2.061	3.059	2.8	20.8
5 1	12 48.50	-49 8.7	0.275	1.231	31.9	15.6	5 1	13 15.22	-15 18.8	2.082	3.052	6.1	21.0
5 11	12 2.32	-53 6.4	0.212	1.156	42.7	15.2	5 11	13 7.61	-14 49.0	2.129	3.046	9.5	21.2
5 21	10 42.85	-56 17.9	0.157	1.085	58.7	14.9	5 21	13 1.90	-14 23.8	2.200	3.039	12.6	21.4
<b>196477</b>	2003 <i>JB</i> <sub>18</sub>	4 14.2 248°72		0°1/14.2 17			<b>499278</b>	2009 <i>VS</i> <sub>68</sub>	4 14.2 115°39		1°5/15.6 17		
3 12	13 51.36	-13 32.4	1.974	2.816	12.9	21.0	3 12	13 54.27	-15 49.8	1.995	2.824	13.3	21.9
3 22	13 46.94	-12 31.0	1.886	2.806	9.5	20.7	3 22	13 48.94	-15 30.4	1.924	2.834	10.0	21.7
4 1	13 40.62	-11 14.1	1.822	2.797	5.6	20.5	4 1	13 41.73	-14 57.0	1.877	2.844	6.2	21.5
4 11	13 33.09	- 9 46.4	1.786	2.787	1.4	20.2	4 11	13 33.39	-14 12.4	1.857	2.854	2.4	21.3
4 21	13 25.21	- 8 14.3	1.778	2.776	3.0	20.3	4 21	13 24.82	-13 21.1	1.865	2.864	2.7	21.3
5 1	13 17.91	- 6 45.8	1.799	2.766	7.3	20.5	5 1	13 16.96	-12 28.6	1.901	2.873	6.5	21.6
5 11	13 12.01	- 5 28.0	1.845	2.755	11.2	20.7	5 11	13 10.60	-11 41.0	1.963	2.882	10.1	21.8
5 21	13 8.04	- 4 25.9	1.914	2.744	14.5	20.9	5 21	13 6.24	-11 2.6	2.048	2.891	13.2	22.0
<b>87672</b>	2000 <i>RN</i> <sub>100</sub>	4 14.2 267°85		7°2/21.9 18			<b>221982</b>	1996 <i>GW</i> <sub>4</sub>	4 14.2 70°81		1°1/12.8 17		
3 12	13 54.44	-34 1.0	2.517	3.240	13.7	19.7	3 12	13 48.89	- 6 46.9	2.985	3.831	8.8	20.4
3 22	13 49.25	-34 33.5	2.409	3.222	11.9	19.6	3 22	13 44.46	- 6 19.4	2.919	3.844	6.4	20.2
4 1	13 42.06	-34 46.0	2.322	3.205	9.8	19.4	4 1	13 38.89	- 5 47.5	2.881	3.857	3.6	20.1
4 11	13 33.48	-34 36.3	2.259	3.187	8.1	19.3	4 11	13 32.67	- 5 14.2	2.871	3.870	1.2	19.9
4 21	13 24.35	-34 4.2	2.221	3.169	7.2	19.2	4 21	13 26.35	- 4 42.6	2.890	3.884	2.6	20.0
5 1	13 15.64	-33 12.4	2.211	3.151	7.9	19.2	5 1	13 20.46	- 4 15.8	2.939	3.897	5.3	20.2
5 11	13 8.24	-32 6.7	2.226	3.133	9.7	19.2	5 11	13 15.48	- 3 56.2	3.015	3.910	7.8	20.4
5 21	13 2.81	-30 53.9	2.265	3.114	11.9	19.4	5 21	13 11.75	- 3 45.3	3.115	3.923	10.0	20.6
<b>40598</b>	1999 <i>RM</i> <sub>149</sub>	4 14.2 234°44		0°9/14.9 17			<b>149844</b>	2005 <i>PC</i> <sub>18</sub>	4 14.2 186°51		0°5/13.8 18		
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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>11782</b>	Nikolajivanov 4 14.2 181°05' 0°1/14.2 18						<b>501582</b>	2014 <i>PN</i> <sub>21</sub> 4 14.2 287°19' 4°6/10.8 17					
3 12	13 56.53	-11 24.7	2.013	2.851	12.8	18.8	3 12	13 54.32	-3 16.8	1.343	2.219	15.6	21.7
3 22	13 50.64	-10 58.2	1.934	2.852	9.5	18.6	3 22	13 50.05	-2 4.1	1.256	2.195	11.5	21.4
4 1	13 42.77	-10 20.8	1.879	2.853	5.6	18.4	4 1	13 42.95	-0 40.3	1.191	2.170	7.1	21.1
4 11	13 33.67	-9 36.0	1.852	2.853	1.4	18.1	4 11	13 33.83	+0 45.7	1.150	2.145	4.6	20.9
4 21	13 24.26	-8 48.4	1.854	2.852	2.9	18.2	4 21	13 23.90	+2 3.5	1.135	2.119	7.5	20.9
5 1	13 15.50	-8 3.5	1.884	2.850	7.1	18.5	5 1	13 14.60	+3 2.6	1.144	2.094	12.5	21.1
5 11	13 8.24	-7 26.6	1.940	2.848	10.8	18.7	5 11	13 7.26	+3 36.1	1.174	2.068	17.3	21.3
5 21	13 3.02	-7 1.0	2.019	2.845	14.0	18.9	5 21	13 2.73	+3 41.8	1.221	2.043	21.6	21.5
<b>375019</b>	2007 <i>GA</i> <sub>41</sub> 4 14.2 16°70' 1°8/12.9 17						<b>417134</b>	2005 <i>VX</i> <sub>43</sub> 4 14.2 132°29' 1°0/13.4 16					
3 12	13 57.61	-4 57.1	1.783	2.638	13.4	20.5	3 12	13 56.85	-7 56.2	2.028	2.873	12.4	22.3
3 22	13 51.60	-4 53.5	1.710	2.638	9.8	20.3	3 22	13 50.74	-7 36.0	1.961	2.884	9.1	22.1
4 1	13 43.41	-4 45.3	1.662	2.639	5.7	20.1	4 1	13 42.76	-7 8.7	1.919	2.895	5.2	21.9
4 11	13 33.84	-4 36.4	1.640	2.639	2.0	19.8	4 11	13 33.68	-6 37.9	1.904	2.905	1.4	21.6
4 21	13 23.93	-4 30.7	1.646	2.640	4.1	20.0	4 21	13 24.39	-6 8.0	1.919	2.915	3.3	21.8
5 1	13 14.75	-4 31.8	1.679	2.640	8.2	20.2	5 1	13 15.83	-5 43.2	1.962	2.924	7.2	22.0
5 11	13 7.26	-4 42.7	1.738	2.641	12.1	20.4	5 11	13 8.78	-5 27.5	2.031	2.933	10.7	22.3
5 21	13 2.02	-5 4.9	1.818	2.642	15.4	20.7	5 21	13 3.72	-5 22.9	2.123	2.942	13.7	22.5
<b>163715</b>	2003 <i>HQ</i> <sub>2</sub> 4 14.2 282°25' 2°6/12.6 17						<b>27439</b>	Kamimura 4 14.2 116°20' 2°0/12.5 18					
3 12	13 57.73	-5 6.6	1.489	2.352	15.1	19.8	3 12	13 54.46	-6 50.6	1.740	2.598	13.5	19.1
3 22	13 52.42	-4 40.1	1.395	2.327	11.2	19.5	3 22	13 49.25	-6 1.8	1.675	2.606	9.8	18.8
4 1	13 44.30	-4 5.5	1.323	2.301	6.7	19.1	4 1	13 41.98	-5 4.6	1.635	2.614	5.7	18.6
4 11	13 34.15	-3 28.2	1.277	2.275	2.7	18.8	4 11	13 33.50	-4 4.9	1.622	2.621	2.1	18.4
4 21	13 23.14	-2 54.5	1.257	2.249	5.4	18.9	4 21	13 24.78	-3 9.1	1.637	2.629	4.4	18.6
5 1	13 12.69	-2 31.4	1.262	2.223	10.4	19.1	5 1	13 16.86	-2 23.4	1.678	2.636	8.5	18.8
5 11	13 4.09	-2 24.1	1.291	2.196	15.3	19.3	5 11	13 10.59	-1 52.5	1.744	2.643	12.3	19.1
5 21	12 58.23	-2 35.3	1.339	2.169	19.6	19.5	5 21	13 6.48	-1 38.4	1.830	2.650	15.5	19.3
<b>470120</b>	2006 <i>TB</i> <sub>126</sub> 4 14.2 97°51' 0°4/13.9 17						<b>497710</b>	2006 <i>SA</i> <sub>106</sub> 4 14.2 237°38' 0°1/14.2 17					
3 12	13 53.47	-9 11.7	2.352	3.194	11.1	21.1	3 12	13 55.78	-11 27.7	1.951	2.791	13.0	22.5
3 22	13 48.11	-9 1.6	2.279	3.200	8.1	20.9	3 22	13 50.30	-10 58.6	1.858	2.777	9.7	22.3
4 1	13 41.16	-8 44.7	2.232	3.207	4.7	20.7	4 1	13 42.71	-10 17.5	1.789	2.763	5.7	22.0
4 11	13 33.27	-8 23.8	2.213	3.214	1.1	20.4	4 11	13 33.72	-9 27.9	1.748	2.748	1.4	21.7
4 21	13 25.16	-8 2.1	2.223	3.220	2.6	20.6	4 21	13 24.24	-8 34.7	1.735	2.733	3.1	21.8
5 1	13 17.61	-7 43.2	2.261	3.226	6.1	20.8	5 1	13 15.30	-7 43.9	1.750	2.717	7.5	22.0
5 11	13 11.30	-7 30.4	2.326	3.233	9.3	21.0	5 11	13 7.84	-7 1.3	1.791	2.700	11.5	22.2
5 21	13 6.67	-7 26.0	2.415	3.239	12.1	21.2	5 21	13 2.49	-6 31.2	1.854	2.683	15.0	22.4
<b>225563</b>	2000 <i>TL</i> <sub>2</sub> 4 14.2 144°50' 0°5/13.6 17						<b>172535</b>	2003 <i>UV</i> <sub>21</sub> 4 14.2 244°63' 5°1/18.7 18					
3 12	13 53.97	-10 13.8	2.401	3.238	11.0	21.3	3 12	13 56.85	-25 22.3	1.944	2.730	15.1	20.5
3 22	13 48.40	-9 34.1	2.331	3.250	8.0	21.2	3 22	13 51.36	-25 25.9	1.840	2.713	12.3	20.2
4 1	13 41.29	-8 45.8	2.287	3.261	4.6	21.0	4 1	13 43.48	-25 8.0	1.758	2.695	9.1	20.0
4 11	13 33.29	-7 52.8	2.271	3.272	1.1	20.7	4 11	13 33.94	-24 27.5	1.701	2.677	6.1	19.8
4 21	13 25.13	-6 59.5	2.285	3.282	2.7	20.9	4 21	13 23.75	-23 26.5	1.671	2.657	5.2	19.7
5 1	13 17.57	-6 10.6	2.329	3.291	6.2	21.1	5 1	13 14.09	-22 10.7	1.668	2.637	7.5	19.8
5 11	13 11.26	-5 30.2	2.400	3.300	9.3	21.3	5 11	13 6.05	-20 48.4	1.692	2.617	11.1	19.9
5 21	13 6.60	-5 1.0	2.494	3.308	12.0	21.5	5 21	13 0.35	-19 28.3	1.739	2.595	14.6	20.1
<b>482800</b>	2013 <i>RU</i> <sub>16</sub> 4 14.2 41°16' 11°1/ 3.5 18						<b>337881</b>	2001 <i>WS</i> <sub>71</sub> 4 14.2 2°81' 5°5/ 9.6 18					
3 12	13 49.10	+0 25.5	0.850	1.758	19.0	20.3	3 12	13 55.83	+6 49.8	2.092	2.950	11.6	20.2
3 22	13 46.65	+4 50.0	0.812	1.763	14.2	20.1	3 22	13 49.96	+7 17.9	2.028	2.949	8.9	20.0
4 1	13 40.93	+9 23.1	0.796	1.768	11.3	19.9	4 1	13 42.30	+7 41.0	1.988	2.949	6.4	19.8
4 11	13 33.26	+13 33.6	0.805	1.773	12.3	20.0	4 11	13 33.58	+7 53.8	1.975	2.950	5.6	19.8
4 21	13 25.26	+16 54.6	0.835	1.779	16.3	20.2	4 21	13 24.64	+7 52.3	1.990	2.950	7.1	19.9
5 1	13 18.63	+19 11.6	0.886	1.786	20.8	20.5	5 1	13 16.38	+7 34.3	2.032	2.950	9.7	20.0
5 11	13 14.61	+20 24.3	0.951	1.792	24.7	20.8	5 11	13 9.56	+6 59.4	2.098	2.951	12.5	20.2
5 21	13 13.73	+20 41.1	1.028	1.799	27.9	21.1	5 21	13 4.64	+6 9.1	2.185	2.952	15.0	20.4
<b>247902</b>	2003 <i>UJ</i> <sub>281</sub> 4 14.2 150°33' 1°7/12.5 18						<b>135555</b>	2002 <i>ER</i> <sub>69</sub> 4 14.2 298°60' 1°0/13.5 17					
3 12	13 54.41	-5 8.7	2.523	3.368	10.3	21.8	3 12	13 51.97	-11 9.0	1.404	2.268	15.8	19.6
3 22	13 48.65	-4 41.1	2.453	3.377	7.4	21.6	3 22	13 48.12	-10 13.9	1.321	2.254	11.7	19.3
4 1	13 41.42	-4 9.3	2.409	3.385	4.3	21.4	4 1	13 41.68	-9 1.0	1.260	2.240	6.8	19.0
4 11	13 33.33	-3 36.8	2.394	3.393	1.8	21.3	4 11	13 33.50	-7 36.4	1.224	2.225	1.7	18.6
4 21	13 25.06	-3 7.4	2.409	3.400	3.4	21.4	4 21	13 24.73	-6 8.8	1.214	2.212	4.3	18.7
5 1	13 17.35	-2 44.5	2.453	3.406	6.5	21.6	5 1	13 16.68	-4 48.5	1.229	2.198	9.7	19.0
5 11	13 10.82	-2 30.9	2.524	3.413	9.4	21.8	5 11	13 10.53	-3 44.3	1.267	2.185	14.6	19.2
5 21	13 5.87	-2 28.1	2.619	3.418	11.9	22.0	5 21	13 6.99	-3 1.6	1.324	2.171	18.8	19.5
<b>212298</b>	2005 <i>NN</i> <sub>30</sub> 4 14.2 216°89' 1°3/12.8 17						<b>512983</b>	2017 <i>UV</i> <sub>14</sub> 4 14.2 209°09' 2°7/11.0 17					
3 12	13 51.32	-7 6.0	2.507	3.355	10.3	21.4	3 12	13 52.15	-3 2.1	2.488	3.341	10.1	22.3
3 22	13 46.52	-6 30.2	2.425	3.350	7.4	21.2	3 22	13 47.13	-2 2.4	2.407	3.334	7.4	22.1
4 1	13 40.24	-5 48.2	2.369	3.346	4.3	21.0	4 1	13 40.61	-0 58.3	2.352	3.327	4.5	21.9
4 11	13 33.05	-5 3.7	2.341	3.341	1.4	20.8	4 11	13 33.17	+0 5.3	2.327	3.320	2.7	21.7
4 21	13 25.62	-4 20.7	2.342	3.335	3.2	20.9	4 21	13 25.47	+1 3.4	2.331	3.312	4.5	21.8
5 1	13 18.65	-3 43.4	2.373	3.330	6.4	21.1	5 1	13 18.25	+1 51.3	2.364	3.304	7.5	22.0
5 11	13 12.77	-3 15.3	2.429	3.324	9.4	21.3	5 11	13 12.14	+2 25.7	2.423	3.295	10.3	22.2
5 21	13 8.43	-2 58.5	2.509	3.318	12.1	21.4	5 21	13 7.58	+2 44.9	2.504	3.285	12.9	22.3
<b>246776</b>	2009 <i>DK</i> <sub>11</sub> 4 14.2 158°12' 4°0/ 9.5 17						<b>498406</b>	2007 <i>YF</i> <sub>50</sub> 4 14.2 95°65' 3°9/18.8 17					
3 12	13 51.14	+1 23.8	2.416	3.276	10.1	20.7	3 12	13 54.12	-24 37.0	2.544	3.322	12.2	22.2
3 22	13 46.34	+2 30.0	2.352	3.280	7.5	20.6	3 22	13 48.53	-24 38.2	2.476	3.344	9.7	22.0
4 1	13 40.10	+3 36.9	2.314	3.284	5.0	20.4	4 1	13 41.38	-24 23.5	2.431			

EPHEMERIDES

4 14.2

4 14.3

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>231750</b>	1999 <i>TE</i> <sub>158</sub>		4 14.2 174°55	1°7/15.6	18		<b>439812</b>	2015 <i>KE</i> <sub>18</sub>		4 14.2 310°69	12°0/29.8	17	
3 12	13 59.23	-16 8.9	1.720	2.548	15.1	21.6	3 12	13 53.36	+26 24.0	2.072	2.892	13.2	20.3
3 22	13 52.97	-15 52.8	1.642	2.551	11.4	21.4	3 22	13 48.39	+27 54.6	2.025	2.879	12.2	20.2
4 1	13 44.30	-15 20.1	1.588	2.554	7.2	21.2	4 1	13 41.48	+29 6.3	2.000	2.866	12.0	20.1
4 11	13 34.12	-14 33.3	1.559	2.556	2.9	20.9	4 11	13 33.40	+29 51.2	1.998	2.853	12.6	20.1
4 21	13 23.53	-13 37.2	1.558	2.557	3.2	20.9	4 21	13 25.07	+30 4.3	2.017	2.840	13.8	20.2
5 1	13 13.76	-12 38.8	1.585	2.557	7.6	21.2	5 1	13 17.45	+29 44.3	2.057	2.828	15.5	20.3
5 11	13 5.83	-11 45.4	1.638	2.557	11.8	21.4	5 11	13 11.35	+28 53.1	2.113	2.816	17.1	20.4
5 21	13 0.37	-11 2.7	1.713	2.555	15.4	21.7	5 21	13 7.28	+27 35.4	2.184	2.804	18.6	20.5
<b>34490</b>	2000 <i>SO</i> <sub>137</sub>		4 14.2 221°94	1°0/15.5	18		<b>206194</b>	2002 <i>UN</i> <sub>7</sub>		4 14.2 217°37	2°9/10.6	18	
3 12	13 50.94	-15 37.9	2.743	3.563	10.3	19.5	3 12	13 51.49	- 1 52.0	2.621	3.475	9.7	20.9
3 22	13 46.21	-15 10.2	2.649	3.555	7.8	19.3	3 22	13 46.60	- 0 53.7	2.539	3.467	7.0	20.7
4 1	13 40.06	-14 31.3	2.581	3.547	4.8	19.1	4 1	13 40.29	+ 0 8.1	2.484	3.458	4.4	20.6
4 11	13 33.04	-13 43.7	2.541	3.538	1.8	18.9	4 11	13 33.10	+ 1 8.6	2.457	3.448	2.9	20.4
4 21	13 25.75	-12 50.6	2.530	3.529	2.1	18.9	4 21	13 25.67	+ 2 3.1	2.460	3.438	4.6	20.5
5 1	13 18.87	-11 56.4	2.549	3.520	5.2	19.1	5 1	13 18.67	+ 2 47.3	2.492	3.428	7.3	20.7
5 11	13 13.01	-11 5.5	2.596	3.510	8.2	19.3	5 11	13 12.71	+ 3 18.1	2.550	3.417	10.1	20.9
5 21	13 8.59	-10 21.7	2.667	3.500	10.8	19.4	5 21	13 8.21	+ 3 34.2	2.630	3.405	12.5	21.0
<b>58713</b>	1998 <i>DS</i>		4 14.2 315°25	2°6/12.5	17		<b>237107</b>	2008 <i>TU</i> <sub>103</sub>		4 14.2 327°25	0°9/13.8	15	
3 12	13 53.92	- 5 45.7	1.298	2.174	16.1	19.1	3 12	13 55.37	- 8 30.7	1.111	1.989	18.1	20.8
3 22	13 49.73	- 5 13.7	1.220	2.158	11.8	18.8	3 22	13 51.21	- 8 28.2	1.038	1.976	13.4	20.4
4 1	13 42.73	- 4 32.0	1.163	2.143	7.0	18.5	4 1	13 43.79	- 8 14.0	0.984	1.964	7.9	20.1
4 11	13 33.78	- 3 46.9	1.129	2.129	2.8	18.2	4 11	13 34.08	- 7 52.4	0.952	1.953	2.0	19.7
4 21	13 24.15	- 3 6.0	1.121	2.114	5.5	18.3	4 21	13 23.56	- 7 29.6	0.944	1.943	4.7	19.8
5 1	13 15.29	- 2 37.1	1.136	2.101	10.8	18.6	5 1	13 13.95	- 7 13.1	0.959	1.934	10.8	20.1
5 11	13 8.49	- 2 25.9	1.173	2.088	15.7	18.8	5 11	13 6.76	- 7 9.3	0.995	1.925	16.3	20.4
5 21	13 4.52	- 2 34.9	1.228	2.075	20.0	19.0	5 21	13 2.85	- 7 21.9	1.047	1.917	21.0	20.6
<b>168600</b>	2000 <i>AA</i> <sub>69</sub>		4 14.2 103°65	4°3/10.7	18		<b>427942</b>	2005 <i>WB</i> <sub>61</sub>		4 14.2 91°67	3°4/17.4	17	
3 12	13 56.78	- 0 36.3	1.717	2.580	13.4	20.1	3 12	13 54.40	-21 0.4	1.843	2.657	14.8	21.1
3 22	13 50.80	+ 0 22.6	1.667	2.598	9.8	19.9	3 22	13 49.26	-20 50.0	1.773	2.668	11.5	20.9
4 1	13 42.81	+ 1 23.2	1.642	2.616	6.1	19.7	4 1	13 42.03	-20 20.6	1.725	2.679	7.9	20.7
4 11	13 33.70	+ 2 18.4	1.644	2.634	4.3	19.7	4 11	13 33.54	-19 33.9	1.702	2.691	4.4	20.5
4 21	13 24.49	+ 3 2.0	1.673	2.651	6.3	19.8	4 21	13 24.80	-18 34.2	1.707	2.702	3.7	20.5
5 1	13 16.21	+ 3 29.2	1.729	2.668	9.8	20.1	5 1	13 16.85	-17 28.2	1.739	2.713	6.8	20.7
5 11	13 9.68	+ 3 37.5	1.809	2.685	13.1	20.3	5 11	13 10.56	-16 23.2	1.797	2.724	10.4	20.9
5 21	13 5.34	+ 3 27.4	1.909	2.701	16.0	20.5	5 21	13 6.46	-15 25.6	1.878	2.735	13.6	21.1
<b>358985</b>	2008 <i>SB</i> <sub>140</sub>		4 14.2 73°86	0°3/14.1	18		<b>410274</b>	2007 <i>TX</i> <sub>160</sub>		4 14.3 220°05	1°1/13.3	16	
3 12	13 55.29	-12 39.4	1.289	2.149	17.2	20.6	3 12	13 56.93	- 8 52.3	1.883	2.729	13.2	22.4
3 22	13 50.37	-11 48.3	1.234	2.164	12.6	20.4	3 22	13 51.15	- 8 17.2	1.796	2.720	9.7	22.2
4 1	13 42.82	-10 39.4	1.201	2.179	7.4	20.1	4 1	13 43.22	- 7 32.0	1.734	2.711	5.6	21.9
4 11	13 33.73	- 9 19.7	1.193	2.193	1.8	19.8	4 11	13 33.87	- 6 40.8	1.699	2.700	1.5	21.6
4 21	13 24.43	- 7 58.3	1.209	2.208	3.9	20.0	4 21	13 24.07	- 5 49.3	1.693	2.689	3.7	21.7
5 1	13 16.27	- 6 45.0	1.252	2.223	9.2	20.3	5 1	13 14.88	- 5 3.5	1.715	2.677	8.0	22.0
5 11	13 10.29	- 5 47.8	1.317	2.238	13.9	20.6	5 11	13 7.25	- 4 28.7	1.762	2.664	12.0	22.2
5 21	13 7.04	- 5 10.8	1.402	2.252	17.8	20.9	5 21	13 1.80	- 4 8.3	1.831	2.651	15.5	22.4
<b>379295</b>	2009 <i>VR</i> <sub>61</sub>		4 14.2 266°58	3°2/17.3	17		<b>361121</b>	1999 <i>RB</i> <sub>129</sub>		4 14.3 244°90	6°6/4.9	18	
3 12	13 52.97	-21 24.1	1.921	2.733	14.4	21.5	3 12	13 49.29	+ 9 48.5	2.468	3.328	10.0	18.3
3 22	13 48.40	-20 59.0	1.820	2.715	11.3	21.3	3 22	13 45.08	+11 31.1	2.405	3.321	8.0	18.2
4 1	13 41.67	-20 13.0	1.742	2.697	7.8	21.0	4 1	13 39.43	+13 9.7	2.369	3.314	6.7	18.1
4 11	13 33.49	-19 7.5	1.689	2.679	4.2	20.8	4 11	13 32.89	+14 37.1	2.361	3.306	6.9	18.1
4 21	13 24.78	-17 46.7	1.664	2.661	3.6	20.7	4 21	13 26.14	+15 47.3	2.381	3.299	8.4	18.2
5 1	13 16.61	-16 17.7	1.667	2.642	7.0	20.8	5 1	13 19.84	+16 36.3	2.426	3.291	10.5	18.3
5 11	13 9.94	-14 49.0	1.696	2.623	10.9	21.0	5 11	13 14.64	+17 2.6	2.494	3.283	12.6	18.4
5 21	13 5.44	-13 28.6	1.747	2.603	14.6	21.2	5 21	13 10.93	+17 7.0	2.580	3.275	14.5	18.6
<b>285721</b>	2000 <i>SA</i> <sub>306</sub>		4 14.2 248°45	3°2/17.5	17		<b>367326</b>	2008 <i>AH</i> <sub>96</sub>		4 14.3 181°77	0°5/13.8	17	
3 12	13 53.56	-21 50.2	2.145	2.948	13.4	21.1	3 12	13 57.03	- 9 44.6	1.941	2.783	13.0	21.5
3 22	13 48.62	-21 29.1	2.043	2.932	10.6	20.9	3 22	13 51.08	- 9 20.4	1.863	2.784	9.6	21.3
4 1	13 41.71	-20 49.2	1.964	2.916	7.3	20.6	4 1	13 43.09	- 8 46.5	1.810	2.785	5.6	21.1
4 11	13 33.48	-19 51.5	1.911	2.899	4.2	20.4	4 11	13 33.83	- 8 6.7	1.784	2.785	1.3	20.8
4 21	13 24.80	-18 39.8	1.887	2.881	3.5	20.3	4 21	13 24.23	- 7 25.7	1.787	2.784	3.2	20.9
5 1	13 16.61	-17 19.8	1.891	2.864	6.4	20.5	5 1	13 15.32	- 6 48.9	1.818	2.783	7.4	21.2
5 11	13 9.79	-15 59.2	1.921	2.845	10.0	20.6	5 11	13 7.95	- 6 21.0	1.875	2.781	11.2	21.4
5 21	13 4.95	-14 44.8	1.976	2.827	13.3	20.8	5 21	13 2.70	- 6 5.1	1.954	2.778	14.5	21.6
<b>470318</b>	2007 <i>PM</i> <sub>23</sub>		4 14.2 245°46	1°3/12.7	16		<b>505582</b>	2014 <i>BN</i> <sub>48</sub>		4 14.3 284°42	3°2/17.3	17	
3 12	13 52.09	- 8 5.6	2.520	3.363	10.3	22.1	3 12	13 53.42	-20 20.4	2.275	3.081	12.6	21.0
3 22	13 47.18	- 7 11.7	2.421	3.344	7.5	21.9	3 22	13 48.37	-20 32.2	2.186	3.076	9.9	20.8
4 1	13 40.70	- 6 9.2	2.348	3.325	4.4	21.6	4 1	13 41.49	-20 29.6	2.120	3.072	6.9	20.6
4 11	13 33.21	- 5 2.2	2.305	3.304	1.5	21.4	4 11	13 33.44	-20 13.4	2.081	3.067	4.0	20.4
4 21	13 25.38	- 3 55.6	2.291	3.284	3.3	21.5	4 21	13 25.02	-19 45.6	2.070	3.063	3.5	20.3
5 1	13 17.94	- 2 54.7	2.307	3.262	6.7	21.7	5 1	13 17.10	-19 10.1	2.087	3.058	6.1	20.5
5 11	13 11.56	- 2 4.0	2.350	3.240	9.9	21.9	5 11	13 10.48	-18 32.3	2.131	3.054	9.2	20.7
5 21	13 6.74	- 1 26.4	2.416	3.217	12.7	22.0	5 21	13 5.70	-17 56.9	2.198	3.050	12.1	20.9
<b>321848</b>	2010 <i>RP</i> <sub>116</sub>		4 14.2 78°67	2°2/12.5	18		<b>83732</b>	2001 <i>TC</i> <sub>118</sub>					

EPHEMERIDES

4 14.3

4 14.3

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>157841</b>	1998 <i>HY</i> <sub>53</sub>		4 14.3 342°42	1°9/12.3	18		<b>157501</b>	2005 <i>SD</i> <sub>24</sub>		4 14.3 92°18	3°6/11.6	18	
3 12	13 48.94	-10 13.1	1.597	2.462	14.2	19.6	3 12	13 55.68	-5 11.4	1.304	2.177	16.2	20.1
3 22	13 45.49	-8 40.1	1.524	2.458	10.3	19.3	3 22	13 50.67	-4 0.3	1.248	2.186	11.7	19.9
4 1	13 39.94	-6 50.7	1.473	2.454	5.9	19.1	4 1	13 43.05	-2 39.8	1.215	2.195	6.9	19.6
4 11	13 33.08	-4 53.2	1.450	2.450	2.0	18.8	4 11	13 33.87	-1 19.0	1.207	2.204	3.6	19.5
4 21	13 25.88	-2 57.6	1.454	2.447	4.7	19.0	4 21	13 24.43	-0 7.6	1.224	2.213	6.3	19.7
5 1	13 19.41	-1 14.2	1.484	2.444	9.2	19.2	5 1	13 16.07	+0 45.8	1.266	2.221	11.0	19.9
5 11	13 14.55	+0 8.9	1.538	2.441	13.4	19.4	5 11	13 9.83	+1 16.3	1.330	2.230	15.3	20.2
5 21	13 11.85	+1 7.8	1.613	2.439	16.9	19.7	5 21	13 6.30	+1 23.0	1.412	2.238	19.0	20.5
<b>302335</b>	2002 <i>AW</i> <sub>104</sub>		4 14.3 163°70	2°8/16.6	18		<b>157131</b>	2004 <i>NG</i> <sub>25</sub>		4 14.3 216°12	0°8/13.4	18	
3 12	13 58.09	-18 54.9	1.795	2.612	15.0	21.8	3 12	13 54.88	-8 34.2	2.435	3.274	10.8	20.5
3 22	13 52.09	-18 47.2	1.717	2.617	11.6	21.6	3 22	13 49.24	-8 6.6	2.344	3.265	7.9	20.3
4 1	13 43.79	-18 21.6	1.662	2.622	7.7	21.3	4 1	13 41.95	-7 31.7	2.280	3.255	4.6	20.1
4 11	13 34.05	-17 39.7	1.633	2.626	3.8	21.1	4 11	13 33.60	-6 52.6	2.244	3.245	1.2	19.8
4 21	13 23.93	-16 45.7	1.632	2.629	3.5	21.1	4 21	13 24.93	-6 13.3	2.238	3.234	2.9	19.9
5 1	13 14.61	-15 46.1	1.659	2.632	7.2	21.3	5 1	13 16.72	-5 38.0	2.262	3.222	6.5	20.1
5 11	13 7.05	-14 48.2	1.712	2.634	11.1	21.6	5 11	13 9.68	-5 10.6	2.312	3.210	9.7	20.3
5 21	13 1.86	-13 58.5	1.787	2.636	14.6	21.8	5 21	13 4.32	-4 53.8	2.386	3.197	12.6	20.5
<b>116825</b>	2004 <i>FG</i> <sub>15</sub>		4 14.3 355°51	0°1/14.2	17		<b>55194</b>	2001 <i>RP</i> <sub>11</sub>		4 14.3 130°95	0°3/13.9	18	
3 12	13 48.01	-13 38.4	1.752	2.605	13.7	19.3	3 12	13 52.51	-10 6.3	2.453	3.292	10.7	20.2
3 22	13 44.68	-12 36.4	1.676	2.602	10.1	19.0	3 22	13 47.39	-9 40.7	2.380	3.300	7.8	20.0
4 1	13 39.41	-11 17.9	1.623	2.599	6.0	18.8	4 1	13 40.78	-9 7.4	2.333	3.308	4.6	19.8
4 11	13 32.95	-9 48.4	1.597	2.598	1.5	18.5	4 11	13 33.29	-8 29.5	2.315	3.315	1.1	19.6
4 21	13 26.18	-8 15.4	1.597	2.596	3.1	18.6	4 21	13 25.61	-7 50.7	2.325	3.323	2.5	19.7
5 1	13 20.08	-6 47.3	1.625	2.596	7.6	18.9	5 1	13 18.47	-7 15.2	2.365	3.330	5.9	19.9
5 11	13 15.45	-5 31.7	1.678	2.596	11.6	19.1	5 11	13 12.50	-6 46.6	2.432	3.337	9.0	20.2
5 21	13 12.82	-4 33.4	1.752	2.596	15.0	19.3	5 21	13 8.13	-6 27.5	2.522	3.343	11.7	20.3
<b>472656</b>	2015 <i>DY</i> <sub>218</sub>		4 14.3 317°25	4°8/18.4	17		<b>286419</b>	2001 <i>YQ</i> <sub>149</sub>		4 14.3 149°10	4°7/20.2	18	
3 12	13 53.25	-23 41.4	1.902	2.704	14.9	20.6	3 12	13 53.74	-28 32.0	2.859	3.609	11.6	21.7
3 22	13 48.64	-23 56.6	1.813	2.697	12.0	20.4	3 22	13 48.30	-28 42.0	2.773	3.617	9.6	21.5
4 1	13 41.84	-23 52.5	1.746	2.690	8.7	20.2	4 1	13 41.34	-28 35.7	2.711	3.625	7.4	21.4
4 11	13 33.58	-23 28.7	1.704	2.683	5.8	20.0	4 11	13 33.44	-28 13.1	2.675	3.632	5.5	21.3
4 21	13 24.84	-22 47.6	1.688	2.677	4.9	19.9	4 21	13 25.30	-27 35.8	2.667	3.638	4.7	21.2
5 1	13 16.70	-21 54.1	1.699	2.671	7.2	20.0	5 1	13 17.66	-26 47.1	2.687	3.645	5.7	21.3
5 11	13 10.13	-20 55.6	1.735	2.665	10.6	20.2	5 11	13 11.16	-25 52.0	2.735	3.651	7.7	21.4
5 21	13 5.77	-19 59.1	1.794	2.659	13.8	20.4	5 21	13 6.26	-24 55.5	2.808	3.656	9.9	21.6
<b>40561</b>	1999 <i>RR</i> <sub>118</sub>		4 14.3 254°80	0°1/14.3	17		<b>431952</b>	2008 <i>UD</i> <sub>61</sub>		4 14.3 189°80	1°1/15.3	17	
3 12	13 54.07	-13 9.6	1.683	2.530	14.5	19.6	3 12	13 53.86	-14 36.7	2.251	3.079	12.0	22.1
3 22	13 49.35	-12 24.9	1.594	2.517	10.8	19.3	3 22	13 48.61	-14 20.1	2.168	3.078	9.0	21.9
4 1	13 42.30	-11 23.5	1.528	2.503	6.5	19.0	4 1	13 41.61	-13 51.7	2.109	3.077	5.6	21.7
4 11	13 33.71	-10 9.9	1.488	2.489	1.7	18.7	4 11	13 33.52	-13 13.9	2.077	3.076	2.0	21.5
4 21	13 24.59	-8 50.6	1.476	2.475	3.3	18.7	4 21	13 25.14	-12 30.5	2.075	3.074	2.4	21.5
5 1	13 16.10	-7 34.0	1.490	2.460	8.2	19.0	5 1	13 17.30	-11 46.2	2.101	3.072	6.1	21.7
5 11	13 9.28	-6 28.1	1.529	2.445	12.7	19.2	5 11	13 10.76	-11 6.0	2.154	3.070	9.5	21.9
5 21	13 4.79	-5 38.4	1.590	2.430	16.5	19.4	5 21	13 6.01	-10 33.8	2.230	3.067	12.5	22.1
<b>381516</b>	2008 <i>SR</i> <sub>180</sub>		4 14.3 199°07	0°5/13.7	18		<b>164497</b>	2006 <i>GR</i> <sub>27</sub>		4 14.3 231°28	1°2/12.9	18	
3 12	13 51.87	-11 25.6	2.357	3.196	11.1	21.6	3 12	13 52.10	-8 27.4	2.239	3.087	11.3	20.8
3 22	13 47.04	-10 28.7	2.273	3.193	8.2	21.4	3 22	13 47.31	-7 41.8	2.154	3.079	8.2	20.6
4 1	13 40.63	-9 20.8	2.214	3.189	4.7	21.2	4 1	13 40.85	-6 47.5	2.094	3.071	4.8	20.3
4 11	13 33.25	-8 6.1	2.184	3.185	1.1	20.9	4 11	13 33.34	-5 48.8	2.062	3.062	1.4	20.1
4 21	13 25.61	-6 50.0	2.184	3.181	2.8	21.0	4 21	13 25.51	-4 50.7	2.059	3.053	3.4	20.2
5 1	13 18.49	-5 38.3	2.213	3.176	6.4	21.2	5 1	13 18.19	-3 58.6	2.085	3.044	7.0	20.4
5 11	13 12.56	-4 36.3	2.269	3.170	9.8	21.4	5 11	13 12.10	-3 17.1	2.136	3.035	10.4	20.6
5 21	13 8.28	-3 47.5	2.349	3.165	12.6	21.6	5 21	13 7.72	-2 49.0	2.210	3.025	13.3	20.8
<b>318001</b>	2004 <i>CP</i> <sub>24</sub>		4 14.3 177°28	14°1/20.1	18		<b>150792</b>	2001 <i>RT</i> <sub>34</sub>		4 14.3 145°79	1°7/15.9	18	
3 12	14 12.58	-33 9.3	1.248	2.008	23.3	20.6	3 12	13 54.84	-17 8.2	2.038	2.860	13.3	20.7
3 22	14 4.98	-35 39.5	1.175	2.010	20.4	20.4	3 22	13 49.41	-16 40.5	1.963	2.869	10.1	20.5
4 1	13 52.63	-37 43.5	1.120	2.011	17.4	20.2	4 1	13 42.10	-15 57.5	1.912	2.877	6.4	20.3
4 11	13 36.51	-39 8.5	1.086	2.011	14.9	20.0	4 11	13 33.64	-15 2.0	1.888	2.884	2.7	20.1
4 21	13 18.63	-39 45.7	1.073	2.012	14.1	20.0	4 21	13 24.94	-13 58.7	1.892	2.891	2.7	20.1
5 1	13 1.70	-39 35.5	1.083	2.011	15.3	20.0	5 1	13 16.93	-12 53.8	1.925	2.897	6.4	20.3
5 11	12 48.15	-38 49.8	1.113	2.010	17.9	20.2	5 11	13 10.42	-11 53.6	1.984	2.903	10.0	20.6
5 21	12 39.35	-37 44.9	1.162	2.009	20.9	20.4	5 21	13 5.88	-11 3.2	2.067	2.909	13.2	20.8
<b>82144</b>	2001 <i>FG</i> <sub>135</sub>		4 14.3 6°47	2°6/11.8	18		<b>297705</b>	2001 <i>VN</i> <sub>82</sub>		4 14.3 208°69	0°6/15.0	17	
3 12	13 50.52	-16 5.0	1.014	1.887	19.8	18.6	3 12	13 50.80	-14 34.6	2.491	3.319	11.0	21.4
3 22	13 47.55	-12 58.2	0.949	1.887	14.4	18.3	3 22	13 46.23	-13 56.7	2.404	3.316	8.2	21.2
4 1	13 41.50	-9 9.8	0.905	1.887	8.1	17.9	4 1	13 40.16	-13 7.1	2.343	3.312	5.0	21.0
4 11	13 33.52	-4 57.8	0.887	1.887	2.6	17.6	4 11	13 33.16	-12 8.7	2.309	3.308	1.6	20.7
4 21	13 25.13	-0 48.2	0.896	1.888	7.1	17.9	4 21	13 25.91	-11 5.9	2.305	3.304	2.2	20.8
5 1	13 17.95	+2 52.2	0.930	1.888	13.5	18.2	5 1	13 19.14	-10 3.5	2.330	3.300	5.7	21.0
5 11	13 13.21	+5 45.9	0.986	1.889	19.1	18.5	5 11	13 13.49	-9 6.8	2.382	3.295	8.8	21.2
5 21	13 11.52	+7 47.5	1.059	1.890	23.6	18.8	5 21	13 9.39	-8 19.5	2.459	3.290	11.6	21.4
<b>162633</b>	2000 <i>SQ</i> <sub>151</sub>		4 14.3 132°86	0°3/14.1	18		<b>352085</b>	2006 <i>WZ</i> <sub>199</sub>		4 14.3 93°84	6°0/8.2	18	

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>197445</b>	2003 YG <sub>103</sub>		4 14.3 195°41'	14.3°/23.2	18		<b>481001</b>	2004 FX <sub>97</sub>		4 14.3 90°98'	0.1°/14.3	17	
3 12	14 8.13	-39 10.8	1.419	2.139	22.7	20.3	3 12	14 16.75	-5 40.0	1.052	1.904	20.8	20.6
3 22	14 1.34	-40 59.1	1.339	2.137	20.3	20.1	3 22	14 6.89	-6 55.2	0.997	1.922	15.4	20.4
4 1	13 50.26	-42 15.9	1.276	2.135	17.8	19.9	4 1	13 52.94	-8 7.4	0.964	1.939	9.1	20.1
4 11	13 35.90	-42 50.8	1.231	2.132	15.5	19.7	4 11	13 36.44	-9 15.5	0.956	1.956	2.3	19.7
4 21	13 20.11	-42 37.7	1.207	2.128	14.4	19.7	4 21	13 19.52	-10 18.6	0.974	1.973	4.6	19.9
5 1	13 5.29	-41 38.8	1.205	2.123	14.9	19.7	5 1	13 4.45	-11 17.3	1.019	1.989	10.9	20.3
5 11	12 53.56	-40 5.9	1.223	2.118	16.8	19.8	5 11	12 52.88	-12 14.3	1.087	2.005	16.4	20.7
5 21	12 46.11	-38 15.1	1.261	2.111	19.4	19.9	5 21	12 45.49	-13 12.4	1.174	2.021	20.8	21.0
<b>381176</b>	2007 JG <sub>14</sub>		4 14.3 49°54'	1.7°/12.5	17		<b>194970</b>	Márai		4 14.3 322°72'	1°5°/13.1	17	
3 12	13 50.98	-9 3.3	1.800	2.659	13.1	21.0	3 12	13 51.69	-8 27.9	1.565	2.430	14.4	20.2
3 22	13 46.76	-7 50.7	1.730	2.660	9.5	20.7	3 22	13 47.68	-7 48.9	1.485	2.419	10.6	19.9
4 1	13 40.60	-6 26.3	1.683	2.662	5.5	20.5	4 1	13 41.37	-6 58.2	1.428	2.407	6.1	19.7
4 11	13 33.28	-4 56.6	1.664	2.663	1.9	20.3	4 11	13 33.54	-6 1.5	1.396	2.396	1.8	19.3
4 21	13 25.70	-3 29.3	1.672	2.665	4.2	20.4	4 21	13 25.23	-5 5.4	1.390	2.386	4.2	19.5
5 1	13 18.80	-2 12.1	1.708	2.667	8.3	20.7	5 1	13 17.59	-4 17.2	1.410	2.376	9.0	19.7
5 11	13 13.41	-1 11.2	1.768	2.669	12.1	20.9	5 11	13 11.65	-3 43.1	1.453	2.367	13.3	20.0
5 21	13 10.02	-0 29.5	1.850	2.671	15.3	21.1	5 21	13 8.04	-3 26.6	1.516	2.358	17.1	20.2
<b>297823</b>	2002 AU <sub>143</sub>		4 14.3 166°94'	3.2°/17.9	18		<b>63678</b>	2001 QL <sub>140</sub>		4 14.3 241°13'	3.0°/17.7	18	
3 12	13 51.98	-22 23.3	2.573	3.366	11.7	20.7	3 12	13 51.79	-21 49.9	2.434	3.233	12.1	18.9
3 22	13 47.11	-22 17.2	2.487	3.368	9.2	20.5	3 22	13 47.12	-21 35.0	2.338	3.224	9.5	18.7
4 1	13 40.68	-21 56.1	2.424	3.369	6.5	20.4	4 1	13 40.77	-21 4.2	2.266	3.215	6.6	18.5
4 11	13 33.29	-21 21.3	2.388	3.371	4.0	20.2	4 11	13 33.36	-20 18.5	2.221	3.206	3.9	18.3
4 21	13 25.65	-20 35.2	2.381	3.372	3.4	20.2	4 21	13 25.62	-19 21.1	2.204	3.197	3.3	18.3
5 1	13 18.50	-19 42.1	2.403	3.373	5.4	20.3	5 1	13 18.34	-18 16.7	2.215	3.188	5.7	18.4
5 11	13 12.51	-18 47.2	2.452	3.374	8.2	20.5	5 11	13 12.26	-17 11.3	2.254	3.178	8.7	18.6
5 21	13 8.14	-17 55.3	2.525	3.375	10.8	20.6	5 21	13 7.88	-16 10.3	2.317	3.168	11.6	18.7
<b>117968</b>	9564 P-L		4 14.3 169°00'	1.2°/13.2	18		<b>178701</b>	2000 SY <sub>93</sub>		4 14.3 171°07'	4.9°/19.7	18	
3 12	13 57.49	-8 17.5	2.006	2.849	12.6	20.9	3 12	13 55.16	-27 29.8	2.710	3.467	12.1	20.6
3 22	13 51.33	-7 42.4	1.932	2.854	9.2	20.7	3 22	13 49.48	-27 55.1	2.620	3.469	9.9	20.4
4 1	13 43.23	-6 58.9	1.883	2.859	5.3	20.5	4 1	13 42.13	-28 4.6	2.554	3.471	7.6	20.3
4 11	13 33.94	-6 11.1	1.862	2.862	1.5	20.2	4 11	13 33.70	-27 57.7	2.513	3.472	5.7	20.2
4 21	13 24.39	-5 24.3	1.870	2.865	3.5	20.4	4 21	13 24.94	-27 35.4	2.501	3.474	4.9	20.1
5 1	13 15.52	-4 43.7	1.907	2.867	7.5	20.6	5 1	13 16.64	-27 0.7	2.517	3.475	6.1	20.2
5 11	13 8.18	-4 13.8	1.970	2.868	11.1	20.9	5 11	13 9.54	-26 18.3	2.561	3.475	8.2	20.3
5 21	13 2.88	-3 57.2	2.055	2.869	14.2	21.1	5 21	13 4.14	-25 33.5	2.629	3.476	10.5	20.5
<b>382782</b>	2003 SN <sub>267</sub>		4 14.3 195°22'	0.4°/14.6	17		<b>388816</b>	2008 CB <sub>30</sub>		4 14.3 151°61'	2.7°/11.2	17	
3 12	13 53.58	-12 30.4	2.203	3.039	11.9	21.9	3 12	13 51.25	-2 22.9	2.476	3.332	10.1	21.3
3 22	13 48.42	-12 7.5	2.121	3.037	8.8	21.6	3 22	13 46.47	-1 36.6	2.407	3.335	7.3	21.2
4 1	13 41.52	-11 34.0	2.064	3.036	5.3	21.4	4 1	13 40.27	-0 47.4	2.363	3.339	4.4	21.0
4 11	13 33.52	-10 52.9	2.034	3.034	1.5	21.1	4 11	13 33.22	+0 0.2	2.348	3.342	2.7	20.9
4 21	13 25.23	-10 8.1	2.033	3.031	2.5	21.2	4 21	13 25.98	+0 41.9	2.362	3.344	4.3	21.0
5 1	13 17.49	-9 24.6	2.060	3.029	6.3	21.5	5 1	13 19.26	+1 13.8	2.404	3.347	7.2	21.2
5 11	13 11.06	-8 47.2	2.114	3.026	9.8	21.7	5 11	13 13.64	+1 33.2	2.472	3.350	10.0	21.3
5 21	13 6.43	-8 19.4	2.191	3.023	12.9	21.9	5 21	13 9.55	+1 38.9	2.562	3.352	12.4	21.5
<b>87799</b>	2000 SP <sub>130</sub>		4 14.3 167°02'	3.2°/17.9	18		<b>330066</b>	2005 VX <sub>25</sub>		4 14.3 268°25'	2.0°/15.9	17	
3 12	13 53.90	-22 48.7	2.262	3.057	13.0	19.7	3 12	13 56.03	-16 18.0	1.932	2.758	13.7	21.5
3 22	13 48.66	-22 23.2	2.178	3.061	10.3	19.5	3 22	13 50.74	-16 12.5	1.828	2.735	10.6	21.3
4 1	13 41.65	-21 39.4	2.117	3.064	7.1	19.3	4 1	13 43.18	-15 52.2	1.746	2.711	6.8	21.0
4 11	13 33.56	-20 39.0	2.082	3.067	4.2	19.1	4 11	13 34.03	-15 18.4	1.691	2.687	3.0	20.7
4 21	13 25.20	-19 26.0	2.077	3.070	3.4	19.1	4 21	13 24.21	-14 34.4	1.664	2.663	3.1	20.6
5 1	13 17.47	-18 6.2	2.100	3.072	6.0	19.2	5 1	13 14.83	-13 45.6	1.665	2.637	7.2	20.8
5 11	13 11.10	-16 46.7	2.151	3.074	9.1	19.4	5 11	13 6.91	-12 58.5	1.691	2.612	11.3	21.0
5 21	13 6.60	-15 33.5	2.226	3.075	12.1	19.6	5 21	13 1.19	-12 19.0	1.740	2.586	15.1	21.2
<b>480342</b>	2015 KE <sub>8</sub>		4 14.3 287°40'	3.9°/9.9	17		<b>320536</b>	2007 YA <sub>67</sub>		4 14.3 340°03'	4.3°/11.1	17	
3 12	13 50.12	-0 1.9	2.243	3.107	10.7	21.4	3 12	13 53.90	-2 0.3	1.410	2.286	15.0	20.5
3 22	13 45.81	+1 3.7	2.173	3.105	7.8	21.2	3 22	13 49.39	-1 7.4	1.344	2.282	11.0	20.2
4 1	13 39.94	+2 11.6	2.129	3.102	5.1	21.0	4 1	13 42.38	-0 9.5	1.300	2.278	6.8	20.0
4 11	13 33.12	+3 15.9	2.112	3.099	3.9	20.9	4 11	13 33.80	+0 45.7	1.281	2.275	4.3	19.8
4 21	13 26.08	+4 11.1	2.124	3.096	5.6	21.0	4 21	13 24.80	+1 30.1	1.287	2.272	6.7	19.9
5 1	13 19.57	+4 52.3	2.162	3.094	8.5	21.2	5 1	13 16.66	+1 57.1	1.318	2.269	11.0	20.2
5 11	13 14.24	+5 16.8	2.225	3.091	11.4	21.4	5 11	13 10.44	+2 2.9	1.371	2.267	15.2	20.4
5 21	13 10.55	+5 23.9	2.310	3.088	13.9	21.6	5 21	13 6.76	+1 47.1	1.442	2.266	18.8	20.6
<b>139199</b>	2001 FV <sub>163</sub>		4 14.3 352°14'	1.9°/12.9	17		<b>405072</b>	2001 UT <sub>8</sub>		4 14.3 263°23'	0.6°/14.7	14	C
3 12	13 50.87	-8 39.5	1.246	2.124	16.5	19.7	3 12	13 59.79	-12 6.7	1.649	2.490	15.0	21.9
3 22	13 47.44	-7 48.2	1.179	2.119	12.0	19.4	3 22	13 53.89	-12 2.7	1.548	2.466	11.4	21.6
4 1	13 41.35	-6 42.6	1.134	2.115	7.0	19.1	4 1	13 45.24	-11 45.9	1.469	2.441	7.0	21.3
4 11	13 33.53	-5 29.8	1.112	2.112	2.2	18.8	4 11	13 34.58	-11 18.5	1.416	2.415	2.0	20.9
4 21	13 25.25	-4 19.3	1.114	2.110	5.1	19.0	4 21	13 23.04	-10 44.4	1.390	2.389	3.4	20.9
5 1	13 17.88	-3 20.6	1.141	2.109	10.3	19.3	5 1	13 11.98	-10 9.5	1.392	2.362	8.6	21.2
5 11	13 12.57	-2 40.9	1.188	2.108	15.1	19.5	5 11	13 2.66	-9 40.4	1.418	2.334	13.4	21.4
5 21	13 9.95	-2 23.6	1.255	2.109	19.2	19.8	5 21	12 55.97	-9 22.5	1.466	2.306	17.7	21.6
<b>54632</b>	2000 SD <sub>130</sub>		4 14.3 252°53'	3.2°/20.8	18		<b>55748</b>	1990 VV <sub>11</sub>		4 14.3 125°79'	0.5°/13.6	18	
3 12	13 45.75	-29 11.5	4.700	5.435	7.6	19.8	3 12</						

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4 14.3

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>237261</b>	2008 <i>WN</i> <sub>94</sub>		4 14.3 236°51	2°1/12.2	17		<b>388823</b>	2008 <i>CM</i> <sub>106</sub>		4 14.3 299°41	2°1/16.1	16	
3 12	13 52.93	- 5 30.1	2.133	2.987	11.5	21.4	3 12	13 54.00	-16 10.4	2.171	2.995	12.5	20.9
3 22	13 48.00	- 4 46.3	2.051	2.979	8.4	21.2	3 22	13 49.02	-16 22.4	2.069	2.975	9.6	20.7
4 1	13 41.32	- 3 56.1	1.994	2.972	4.9	21.0	4 1	13 42.07	-16 22.7	1.991	2.954	6.3	20.4
4 11	13 33.52	- 3 4.2	1.965	2.963	2.2	20.8	4 11	13 33.78	-16 12.2	1.939	2.934	3.0	20.2
4 21	13 25.40	- 2 15.7	1.965	2.955	4.1	20.9	4 21	13 24.95	-15 53.0	1.916	2.914	2.9	20.1
5 1	13 17.81	- 1 35.8	1.993	2.946	7.7	21.1	5 1	13 16.51	-15 28.8	1.920	2.893	6.4	20.3
5 11	13 11.51	- 1 8.4	2.046	2.938	11.1	21.3	5 11	13 9.35	-15 4.5	1.951	2.873	10.0	20.5
5 21	13 7.03	- 0 55.7	2.120	2.928	14.1	21.5	5 21	13 4.09	-14 44.5	2.005	2.853	13.3	20.7
<b>274834</b>	2009 <i>QR</i> <sub>9</sub>		4 14.3 202°71	2°1/11.7	18		<b>438837</b>	2009 <i>BK</i> <sub>106</sub>		4 14.3 56°08	3°3/11.0	17	
3 12	13 53.99	- 4 37.0	2.739	3.582	9.6	22.0	3 12	13 51.36	- 2 44.0	1.960	2.824	11.9	21.1
3 22	13 48.41	- 3 42.8	2.653	3.576	7.0	21.8	3 22	13 46.82	- 1 45.4	1.904	2.837	8.6	21.0
4 1	13 41.41	- 2 43.4	2.594	3.569	4.1	21.6	4 1	13 40.57	- 0 43.1	1.872	2.849	5.2	20.8
4 11	13 33.52	- 1 43.1	2.565	3.561	2.1	21.4	4 11	13 33.35	+ 0 17.0	1.868	2.862	3.3	20.7
4 21	13 25.39	- 0 46.5	2.566	3.551	3.8	21.6	4 21	13 25.97	+ 1 8.8	1.892	2.874	5.2	20.8
5 1	13 17.70	+ 0 2.2	2.597	3.541	6.7	21.7	5 1	13 19.29	+ 1 47.4	1.942	2.887	8.5	21.0
5 11	13 11.03	+ 0 39.7	2.656	3.530	9.5	21.9	5 11	13 14.01	+ 2 9.9	2.017	2.900	11.6	21.2
5 21	13 5.84	+ 1 4.0	2.738	3.519	11.9	22.0	5 21	13 10.55	+ 2 15.3	2.113	2.913	14.3	21.5
<b>151787</b>	2003 <i>FS</i> <sub>18</sub>		4 14.3 332°52	1°5/13.1	17		<b>152297</b>	2005 <i>TH</i> <sub>49</sub>		4 14.3 268°51	2°8/ 8.8	18	
3 12	13 49.81	- 9 26.8	1.409	2.280	15.3	19.8	3 12	13 44.83	+ 4 12.3	4.330	5.184	6.1	20.3
3 22	13 46.52	- 8 35.6	1.331	2.267	11.2	19.5	3 22	13 41.37	+ 4 54.5	4.256	5.179	4.6	20.2
4 1	13 40.78	- 7 29.7	1.275	2.255	6.5	19.2	4 1	13 37.15	+ 5 35.6	4.211	5.175	3.2	20.1
4 11	13 33.43	- 6 15.2	1.243	2.244	1.9	18.9	4 11	13 32.47	+ 6 13.1	4.195	5.170	2.9	20.1
4 21	13 25.55	- 5 0.6	1.237	2.233	4.5	19.0	4 21	13 27.69	+ 6 44.5	4.208	5.165	3.8	20.1
5 1	13 18.40	- 3 55.1	1.255	2.223	9.6	19.3	5 1	13 23.15	+ 7 7.8	4.250	5.160	5.3	20.2
5 11	13 13.06	- 3 6.3	1.296	2.214	14.3	19.5	5 11	13 19.17	+ 7 21.9	4.318	5.155	6.9	20.3
5 21	13 10.20	- 2 38.3	1.355	2.206	18.3	19.7	5 21	13 16.00	+ 7 26.1	4.408	5.150	8.3	20.5
<b>241939</b>	2002 <i>CB</i> <sub>122</sub>		4 14.3 136°08	6°4/ 6.9	18		<b>188018</b>	2001 <i>TC</i> <sub>204</sub>		4 14.3 153°51	2°5/11.8	17	
3 12	13 53.46	+ 7 40.0	2.176	3.035	11.1	21.1	3 12	13 54.65	- 4 31.6	2.143	2.996	11.6	21.3
3 22	13 48.18	+ 9 13.8	2.128	3.047	8.6	20.9	3 22	13 49.13	- 3 37.4	2.076	3.004	8.4	21.2
4 1	13 41.29	+10 43.0	2.106	3.059	6.8	20.9	4 1	13 41.91	- 2 37.9	2.035	3.011	4.9	21.0
4 11	13 33.49	+12 0.3	2.112	3.070	6.6	20.9	4 11	13 33.69	- 1 38.3	2.022	3.018	2.5	20.8
4 21	13 25.57	+12 59.6	2.145	3.081	8.2	21.0	4 21	13 25.28	- 0 44.2	2.038	3.024	4.4	20.9
5 1	13 18.31	+13 37.2	2.205	3.091	10.6	21.1	5 1	13 17.51	- 0 0.6	2.082	3.030	7.8	21.2
5 11	13 12.39	+13 52.0	2.287	3.100	12.9	21.3	5 11	13 11.09	+ 0 29.1	2.152	3.035	11.0	21.4
5 21	13 8.23	+13 45.5	2.389	3.109	15.0	21.5	5 21	13 6.50	+ 0 43.2	2.244	3.040	13.7	21.6
<b>503366</b>	2016 <i>CK</i> <sub>13</sub>		4 14.3 338°26	1°0/14.9	17		<b>297569</b>	2001 <i>RH</i> <sub>94</sub>		4 14.3 197°74	1°0/13.4	17	
3 12	13 51.12	-13 57.6	1.204	2.072	17.7	20.5	3 12	13 56.13	-10 36.5	1.788	2.634	13.8	21.4
3 22	13 47.89	-13 37.8	1.130	2.061	13.3	20.2	3 22	13 50.66	- 9 38.5	1.708	2.632	10.1	21.1
4 1	13 41.78	-12 57.9	1.075	2.051	8.2	19.9	4 1	13 43.02	- 8 27.0	1.652	2.628	5.9	20.9
4 11	13 33.72	-12 2.1	1.043	2.043	2.6	19.5	4 11	13 34.01	- 7 7.5	1.623	2.624	1.5	20.5
4 21	13 25.01	-10 57.6	1.034	2.035	3.7	19.6	4 21	13 24.62	- 5 47.0	1.623	2.619	3.7	20.7
5 1	13 17.16	- 9 54.0	1.049	2.028	9.5	19.9	5 1	13 15.93	- 4 33.4	1.651	2.613	8.2	20.9
5 11	13 11.47	- 9 1.1	1.086	2.022	14.7	20.1	5 11	13 8.88	- 3 33.4	1.704	2.607	12.3	21.2
5 21	13 8.70	- 8 25.4	1.141	2.017	19.3	20.4	5 21	13 4.05	- 2 51.0	1.778	2.599	15.8	21.4
<b>61771</b>	2000 <i>QJ</i> <sub>170</sub>		4 14.3 287°43	1°3/15.2	18		<b>133396</b>	2003 <i>SK</i> <sub>163</sub>		4 14.3 265°63	0°7/13.7	17	
3 12	13 54.67	-14 43.0	1.431	2.281	16.4	19.5	3 12	13 54.37	- 8 50.5	2.019	2.866	12.4	20.1
3 22	13 50.30	-14 24.6	1.341	2.263	12.4	19.3	3 22	13 49.24	- 8 31.2	1.931	2.855	9.1	19.8
4 1	13 43.16	-13 47.6	1.272	2.245	7.8	18.9	4 1	13 42.16	- 8 3.5	1.868	2.844	5.3	19.6
4 11	13 34.08	-12 54.7	1.228	2.227	2.7	18.6	4 11	13 33.80	- 7 30.8	1.832	2.832	1.4	19.3
4 21	13 24.24	-11 51.7	1.209	2.209	3.5	18.6	4 21	13 25.02	- 6 57.3	1.824	2.821	3.2	19.4
5 1	13 15.05	-10 46.9	1.215	2.191	8.9	18.8	5 1	13 16.77	- 6 28.0	1.844	2.809	7.3	19.6
5 11	13 7.80	- 9 49.4	1.245	2.173	13.9	19.1	5 11	13 9.91	- 6 7.2	1.889	2.797	11.1	19.8
5 21	13 3.30	- 9 6.2	1.294	2.155	18.4	19.3	5 21	13 5.01	- 5 57.8	1.957	2.785	14.3	20.0
<b>147414</b>	2003 <i>FQ</i> <sub>89</sub>		4 14.3 217°29	1°5/16.0	17		<b>111678</b>	2002 <i>BQ</i> <sub>21</sub>		4 14.3 124°80	13°1/ 3.7	18	
3 12	13 50.79	-17 2.6	2.557	3.375	11.0	20.0	3 12	14 3.73	+25 16.7	1.718	2.535	15.5	19.0
3 22	13 46.25	-16 35.5	2.468	3.371	8.4	19.8	3 22	13 55.99	+26 36.0	1.689	2.549	13.9	19.0
4 1	13 40.21	-15 55.9	2.403	3.367	5.3	19.6	4 1	13 45.94	+27 31.5	1.683	2.563	13.1	18.9
4 11	13 33.26	-15 5.9	2.367	3.363	2.3	19.4	4 11	13 34.68	+27 54.7	1.699	2.575	13.4	19.0
4 21	13 26.04	-14 9.3	2.360	3.358	2.3	19.4	4 21	13 23.46	+27 41.7	1.738	2.588	14.6	19.1
5 1	13 19.29	-13 10.7	2.382	3.354	5.4	19.6	5 1	13 13.50	+26 53.2	1.798	2.599	16.3	19.2
5 11	13 13.63	-12 15.0	2.431	3.349	8.4	19.7	5 11	13 5.69	+25 34.0	1.877	2.610	18.1	19.4
5 21	13 9.51	-11 26.5	2.504	3.344	11.2	19.9	5 21	13 0.45	+23 51.0	1.972	2.621	19.7	19.6
<b>301205</b>	2009 <i>AC</i> <sub>30</sub>		4 14.3 158°91	0°8/14.9	18		<b>58700</b>	1998 <i>BQ</i> <sub>42</sub>		4 14.3 34°48	1°8/13.0	18	
3 12	13 57.11	-14 18.1	1.668	2.507	15.0	21.7	3 12	13 53.45	- 8 34.4	1.174	2.051	17.3	18.5
3 22	13 51.47	-13 49.1	1.595	2.512	11.2	21.5	3 22	13 49.30	- 7 48.7	1.122	2.061	12.6	18.3
4 1	13 43.51	-13 4.4	1.545	2.517	6.8	21.3	4 1	13 42.40	- 6 49.8	1.091	2.072	7.3	18.0
4 11	13 34.11	-12 7.7	1.521	2.521	2.1	21.0	4 11	13 33.85	- 5 45.5	1.083	2.084	2.2	17.7
4 21	13 24.36	-11 4.8	1.525	2.525	3.1	21.0	4 21	13 25.04	- 4 44.8	1.100	2.096	5.0	17.9
5 1	13 15.44	-10 3.2	1.556	2.528	7.7	21.3	5 1	13 17.36	- 3 56.5	1.140	2.109	10.2	18.3
5 11	13 8.33	- 9 9.9	1.612	2.530	12.0	21.6	5 11	13 11.93	- 3 26.7	1.202	2.123	14.9	18.6
5 21	13 3.62	- 8 29.9	1.690	2.532	15.6	21.8	5 21	13 9.28	- 3 17.8	1.282	2.137	18.9	18.9
<b>74645</b>	1999 <i>RW</i> <sub>67</sub>		4 14.3 171°40	0°5/14.8	16		<b>39690</b>	1996 <i>RJ</i> <sub>26</sub>					

EPHEMERIDES

4 14.3

4 14.3

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>399346</b>	2000 <i>SK</i> <sub>96</sub>		4 14.3 142°53	2°2/16.5	18		<b>73264</b>	2002 <i>JU</i> <sub>47</sub>		4 14.3 341°65	4°5/18.3	18	
3 12	13 56.88	-19 20.0	1.931	2.744	14.2	21.5	3 12	13 52.36	-23 20.0	1.748	2.559	15.6	19.3
3 22	13 51.01	-18 44.7	1.858	2.757	10.9	21.3	3 22	13 48.13	-23 18.7	1.665	2.555	12.5	19.1
4 1	13 43.11	-17 50.9	1.809	2.769	7.1	21.1	4 1	13 41.65	-22 55.6	1.603	2.552	8.9	18.9
4 11	13 34.01	-16 41.7	1.786	2.780	3.3	20.9	4 11	13 33.71	-22 11.4	1.566	2.549	5.6	18.7
4 21	13 24.69	-15 22.6	1.793	2.791	3.0	20.9	4 21	13 25.32	-21 9.6	1.554	2.546	4.6	18.6
5 1	13 16.18	-14 0.8	1.828	2.801	6.6	21.1	5 1	13 17.62	-19 56.9	1.569	2.544	7.3	18.7
5 11	13 9.30	-12 43.9	1.889	2.810	10.4	21.4	5 11	13 11.60	-18 41.9	1.609	2.542	11.0	18.9
5 21	13 4.57	-11 37.9	1.974	2.818	13.6	21.6	5 21	13 7.88	-17 32.4	1.671	2.540	14.5	19.2
<b>75190</b>	1999 <i>VD</i> <sub>169</sub>		4 14.3 200°87	0°2/14.1	18		<b>344289</b>	2001 <i>TX</i> <sub>254</sub>		4 14.3 235°71	2°8/11.6	17	
3 12	13 56.59	-11 4.1	2.035	2.873	12.7	20.4	3 12	13 54.13	-1 30.5	2.317	3.170	10.8	20.9
3 22	13 50.81	-10 35.9	1.950	2.869	9.4	20.2	3 22	13 48.76	-1 3.2	2.238	3.165	7.9	20.7
4 1	13 43.05	-9 56.8	1.891	2.864	5.5	19.9	4 1	13 41.74	-0 34.0	2.185	3.159	4.8	20.5
4 11	13 34.02	-9 10.5	1.859	2.859	1.4	19.6	4 11	13 33.70	-0 6.8	2.160	3.153	2.9	20.4
4 21	13 24.62	-8 21.6	1.855	2.853	3.0	19.7	4 21	13 25.38	+ 0 14.2	2.164	3.147	4.5	20.5
5 1	13 15.83	-7 35.7	1.881	2.847	7.1	20.0	5 1	13 17.58	+ 0 25.6	2.196	3.141	7.6	20.6
5 11	13 8.48	-6 57.9	1.933	2.840	10.9	20.2	5 11	13 10.99	+ 0 25.0	2.253	3.135	10.6	20.8
5 21	13 3.16	-6 31.8	2.007	2.832	14.1	20.4	5 21	13 6.10	+ 0 11.7	2.333	3.129	13.3	21.0
<b>219820</b>	2002 <i>BD</i> <sub>26</sub>		4 14.3 159°27	6°8/20.6	15		<b>299290</b>	2005 <i>PQ</i> <sub>14</sub>		4 14.3 289°07	2°1/16.2	17	
3 12	14 5.78	-32 8.8	2.658	3.369	13.3	21.3	3 12	13 53.43	-16 38.2	2.203	3.025	12.4	20.7
3 22	13 57.49	-33 10.6	2.569	3.378	11.3	21.2	3 22	13 48.53	-16 42.1	2.106	3.011	9.5	20.4
4 1	13 47.00	-33 54.5	2.504	3.386	9.3	21.1	4 1	13 41.76	-16 33.5	2.034	2.996	6.2	20.2
4 11	13 35.04	-34 17.5	2.465	3.393	7.5	21.0	4 11	13 33.74	-16 13.7	1.988	2.982	2.9	20.0
4 21	13 22.54	-34 18.9	2.456	3.400	6.8	20.9	4 21	13 25.26	-15 45.3	1.970	2.968	2.8	19.9
5 1	13 10.58	-34 0.7	2.475	3.406	7.6	21.0	5 1	13 17.23	-15 12.3	1.980	2.953	6.2	20.1
5 11	13 0.12	-33 28.2	2.522	3.411	9.4	21.1	5 11	13 10.46	-14 39.8	2.017	2.939	9.7	20.3
5 21	12 51.80	-32 47.6	2.594	3.415	11.4	21.2	5 21	13 5.56	-14 12.3	2.077	2.925	12.9	20.5
<b>320644</b>	2008 <i>CK</i> <sub>113</sub>		4 14.3 311°03	5°5/19.3	16		<b>450722</b>	2007 <i>EZ</i> <sub>13</sub>		4 14.3 125°49	1°4/13.2	18	
3 12	13 55.41	-26 22.0	2.293	3.066	13.5	21.0	3 12	13 56.18	-10 1.3	1.409	2.269	16.0	21.4
3 22	13 50.02	-27 0.2	2.202	3.062	11.1	20.8	3 22	13 51.03	-9 1.0	1.346	2.277	11.7	21.1
4 1	13 42.64	-27 21.5	2.134	3.058	8.5	20.7	4 1	13 43.34	-7 46.0	1.306	2.284	6.7	20.9
4 11	13 33.93	-27 24.8	2.092	3.055	6.3	20.5	4 11	13 34.13	-6 23.6	1.291	2.291	1.9	20.6
4 21	13 24.76	-27 10.7	2.076	3.051	5.5	20.5	4 21	13 24.61	-5 2.7	1.303	2.298	4.5	20.8
5 1	13 16.08	-26 42.3	2.088	3.048	6.9	20.5	5 1	13 16.08	-3 52.4	1.340	2.305	9.5	21.1
5 11	13 8.77	-26 4.9	2.126	3.044	9.5	20.7	5 11	13 9.58	-2 59.9	1.401	2.311	14.0	21.3
5 21	13 3.44	-25 24.5	2.187	3.041	12.1	20.8	5 21	13 5.69	-2 28.4	1.481	2.317	17.7	21.6
<b>96275</b>	1995 <i>UG</i> <sub>66</sub>		4 14.3 338°02	1°0/15.1	17		<b>205647</b>	2001 <i>XQ</i> <sub>91</sub>		4 14.3 222°97	1°3/15.4	17	
3 12	13 53.08	-13 22.8	1.595	2.445	15.0	19.9	3 12	13 57.42	-15 27.7	1.810	2.640	14.4	21.8
3 22	13 48.74	-13 15.2	1.516	2.438	11.2	19.6	3 22	13 51.77	-15 3.3	1.719	2.630	10.9	21.6
4 1	13 42.04	-12 53.5	1.459	2.432	6.9	19.4	4 1	13 43.80	-14 22.6	1.651	2.619	6.8	21.3
4 11	13 33.80	-12 20.6	1.427	2.426	2.3	19.1	4 11	13 34.28	-13 28.2	1.610	2.608	2.5	21.0
4 21	13 25.07	-11 41.1	1.421	2.421	3.1	19.1	4 21	13 24.23	-12 25.2	1.596	2.596	3.0	21.0
5 1	13 17.05	-11 1.4	1.441	2.416	7.8	19.4	5 1	13 14.79	-11 20.4	1.611	2.583	7.5	21.2
5 11	13 10.75	-10 27.9	1.485	2.412	12.2	19.6	5 11	13 7.01	-10 21.3	1.651	2.569	11.8	21.5
5 21	13 6.84	-10 5.5	1.550	2.408	16.0	19.8	5 21	13 1.54	-9 33.6	1.714	2.554	15.5	21.7
<b>22485</b>	Unterman		4 14.3 53°33	0°9/13.6	18		<b>191735</b>	2004 <i>RN</i> <sub>325</sub>		4 14.3 183°53	1°3/15.5	17	
3 12	13 54.05	- 8 40.7	1.881	2.733	13.0	19.0	3 12	13 57.50	-14 9.2	2.435	3.253	11.5	20.7
3 22	13 49.00	- 8 17.2	1.809	2.735	9.5	18.8	3 22	13 51.22	-14 13.8	2.349	3.254	8.7	20.5
4 1	13 41.99	- 7 45.0	1.760	2.737	5.5	18.6	4 1	13 43.21	-14 8.6	2.288	3.254	5.4	20.3
4 11	13 33.76	- 7 8.2	1.738	2.739	1.4	18.3	4 11	13 34.09	-13 55.3	2.256	3.253	2.1	20.1
4 21	13 25.23	- 6 31.7	1.744	2.741	3.4	18.4	4 21	13 24.65	-13 36.1	2.254	3.252	2.4	20.1
5 1	13 17.37	- 6 0.4	1.778	2.743	7.5	18.7	5 1	13 15.72	-13 14.6	2.281	3.250	5.8	20.3
5 11	13 11.02	- 5 38.9	1.836	2.745	11.2	18.9	5 11	13 8.06	-12 54.8	2.336	3.248	9.0	20.5
5 21	13 6.71	- 5 29.7	1.917	2.748	14.5	19.1	5 21	13 2.17	-12 40.1	2.415	3.245	11.9	20.7
<b>375936</b>	2009 <i>WG</i> <sub>84</sub>		4 14.3 200°46	2°2/16.1	17		<b>331509</b>	1999 <i>YA</i>		4 14.3 172°72	22°6/16.1	18	
3 12	13 55.03	-16 50.7	1.884	2.711	14.0	21.7	3 12	14 21.66	+50 44.1	1.550	2.224	22.7	22.0
3 22	13 49.85	-16 47.1	1.803	2.710	10.7	21.5	3 22	14 10.58	+53 16.2	1.559	2.233	22.7	22.0
4 1	13 42.56	-16 28.5	1.745	2.709	6.9	21.3	4 1	13 55.04	+54 58.9	1.581	2.239	23.1	22.0
4 11	13 33.92	-15 56.8	1.713	2.709	3.1	21.0	4 11	13 37.02	+55 42.2	1.616	2.243	23.7	22.1
4 21	13 24.88	-15 15.6	1.709	2.708	3.0	21.0	4 21	13 19.18	+55 24.2	1.662	2.245	24.5	22.2
5 1	13 16.51	-14 30.3	1.733	2.707	6.8	21.3	5 1	13 9.94	+54 10.4	1.717	2.245	25.2	22.3
5 11	13 9.70	-13 47.4	1.782	2.706	10.7	21.5	5 11	12 52.83	+52 11.4	1.779	2.244	25.9	22.4
5 21	13 5.05	-13 11.9	1.853	2.704	14.0	21.7	5 21	12 46.21	+49 38.8	1.846	2.240	26.5	22.5
<b>303938</b>	2005 <i>VS</i> <sub>131</sub>		4 14.3 258°03	4°0/10.0	17		<b>108046</b>	2001 <i>FD</i> <sub>156</sub>		4 14.3 25°31	1°2/13.4	17	
3 12	13 52.48	+ 2 26.9	2.469	3.326	10.1	21.3	3 12	13 53.22	- 9 30.6	1.285	2.155	16.5	19.7
3 22	13 47.47	+ 3 7.2	2.390	3.316	7.5	21.1	3 22	13 49.06	- 8 51.4	1.225	2.161	12.1	19.4
4 1	13 40.95	+ 3 47.1	2.337	3.306	5.0	21.0	4 1	13 42.28	- 7 58.6	1.187	2.166	7.0	19.2
4 11	13 33.49	+ 4 22.0	2.312	3.296	4.0	20.9	4 11	13 33.88	- 6 58.7	1.172	2.173	1.8	18.9
4 21	13 25.76	+ 4 47.7	2.316	3.286	5.5	21.0	4 21	13 25.14	- 5 59.8	1.183	2.180	4.4	19.0
5 1	13 18.49	+ 5 0.8	2.348	3.275	8.1	21.1	5 1	13 17.40	- 5 10.2	1.218	2.188	9.6	19.4
5 11	13 12.33	+ 4 59.5	2.404	3.265	10.8	21.3	5 11	13 11.75	- 4 36.5	1.275	2.196	14.2	19.6
5 21	13 7.74	+ 4 43.5	2.482	3.254	13.2	21.4	5 21	13 8.76	- 4 21.9	1.351	2.205	18.1	19.9
<b>182944</b>	2002 <i>GA</i> <sub>100</sub>		4 14.3 92°70	0°9/15.0	18		<b>385469</b>	2003 <i>UE</i> <sub>130</sub>		4 14.3 138°81	4°7/19.9		

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>126508</b>	2002 CQ <sub>67</sub>		4 14.3 163°65	0°4/14.7	18		<b>63674</b>	2001 QO <sub>136</sub>		4 14.3 65°27	6°6/19.6	17	
3 12	13 54.98	-12 48.3	2.214	3.046	12.0	20.9	3 12	13 57.52	-26 41.8	1.685	2.474	17.0	19.1
3 22	13 49.44	-12 22.3	2.136	3.050	8.9	20.7	3 22	13 52.06	-27 20.4	1.612	2.482	14.0	18.9
4 1	13 42.17	-11 45.3	2.084	3.055	5.3	20.5	4 1	13 44.04	-27 36.1	1.560	2.490	10.6	18.7
4 11	13 33.82	-11 0.6	2.059	3.059	1.5	20.2	4 11	13 34.36	-27 27.3	1.531	2.498	7.7	18.6
4 21	13 25.23	-10 12.2	2.063	3.062	2.5	20.3	4 21	13 24.21	-26 55.4	1.527	2.506	6.7	18.5
5 1	13 17.24	-9 25.4	2.097	3.065	6.3	20.5	5 1	13 14.91	-26 5.7	1.550	2.515	8.4	18.6
5 11	13 10.58	-8 44.8	2.157	3.068	9.7	20.7	5 11	13 7.56	-25 6.8	1.596	2.523	11.5	18.8
5 21	13 5.76	-8 14.1	2.240	3.070	12.7	20.9	5 21	13 2.82	-24 7.2	1.665	2.532	14.6	19.0
<b>6200</b>	Hachinohe		4 14.3 208°26	2°7/12.2	18 R		<b>232617</b>	2003 UY <sub>148</sub>		4 14.3 160°92	2°3/11.5	17	
3 12	13 59.45	-3 51.6	1.819	2.671	13.3	17.6	3 12	13 52.23	-4 12.2	2.593	3.443	9.9	21.5
3 22	13 53.10	-3 18.1	1.738	2.665	9.8	17.4	3 22	13 47.17	-3 14.4	2.523	3.449	7.1	21.3
4 1	13 44.50	-2 39.3	1.683	2.659	5.8	17.1	4 1	13 40.72	-2 12.3	2.479	3.455	4.2	21.1
4 11	13 34.45	-2 0.3	1.655	2.651	2.8	16.9	4 11	13 33.46	-1 10.3	2.465	3.460	2.3	21.0
4 21	13 23.96	-1 26.7	1.655	2.643	4.9	17.0	4 21	13 26.04	-0 13.1	2.481	3.465	4.0	21.1
5 1	13 14.16	-1 3.7	1.683	2.635	9.0	17.2	5 1	13 19.12	+0 34.9	2.525	3.469	6.8	21.3
5 11	13 6.02	-0 55.0	1.735	2.625	12.9	17.4	5 11	13 13.29	+1 10.5	2.596	3.473	9.6	21.5
5 21	13 0.15	-1 1.9	1.809	2.615	16.2	17.6	5 21	13 8.94	+1 32.3	2.690	3.476	12.0	21.7
<b>31311</b>	1998 FX <sub>118</sub>		4 14.3 114°36	1°9/16.2	18		<b>313780</b>	2003 YY <sub>30</sub>		4 14.3 116°31	6°6/20.7	18	
3 12	13 53.62	-16 46.8	2.396	3.214	11.7	19.0	3 12	13 57.43	-30 0.2	1.820	2.587	16.8	21.2
3 22	13 48.37	-16 44.6	2.319	3.221	8.9	18.9	3 22	13 51.77	-30 7.6	1.748	2.600	13.9	21.0
4 1	13 41.51	-16 30.7	2.266	3.228	5.7	18.7	4 1	13 43.74	-29 48.9	1.695	2.613	10.7	20.8
4 11	13 33.66	-16 6.6	2.241	3.235	2.7	18.5	4 11	13 34.26	-29 3.6	1.666	2.626	7.9	20.7
4 21	13 25.57	-15 35.3	2.244	3.242	2.5	18.5	4 21	13 24.47	-27 54.5	1.663	2.639	6.6	20.6
5 1	13 18.03	-15 0.7	2.277	3.249	5.6	18.7	5 1	13 15.59	-26 28.6	1.687	2.651	8.0	20.7
5 11	13 11.72	-14 27.3	2.336	3.256	8.7	18.9	5 11	13 8.60	-24 55.3	1.737	2.662	10.8	20.9
5 21	13 7.11	-13 59.0	2.419	3.262	11.4	19.1	5 21	13 4.07	-23 24.0	1.809	2.673	13.8	21.1
<b>178278</b>	2136 T-3		4 14.3 248°13	0°6/14.9	17		<b>309771</b>	2008 YU <sub>80</sub>		4 14.3 253°28	3°7/16.9	16	
3 12	13 55.41	-14 13.4	1.884	2.719	13.7	21.3	3 12	13 57.57	-19 31.5	1.559	2.384	16.5	20.6
3 22	13 50.26	-13 37.7	1.786	2.701	10.3	21.1	3 22	13 52.33	-19 42.4	1.471	2.374	13.0	20.4
4 1	13 42.91	-12 46.2	1.712	2.684	6.3	20.8	4 1	13 44.35	-19 33.7	1.405	2.364	8.9	20.1
4 11	13 34.08	-11 42.3	1.665	2.665	1.9	20.5	4 11	13 34.49	-19 5.8	1.363	2.354	4.8	19.8
4 21	13 24.69	-10 31.2	1.646	2.646	2.9	20.5	4 21	13 23.93	-18 21.5	1.347	2.343	4.3	19.8
5 1	13 15.82	-9 20.1	1.656	2.626	7.5	20.7	5 1	13 14.07	-17 27.4	1.357	2.333	8.2	20.0
5 11	13 8.47	-8 16.4	1.690	2.605	11.7	20.9	5 11	13 6.14	-16 32.1	1.392	2.322	12.6	20.2
5 21	13 3.28	-7 25.5	1.747	2.584	15.4	21.1	5 21	13 0.93	-15 43.3	1.447	2.310	16.6	20.4
<b>287160</b>	2002 RD <sub>238</sub>		4 14.3 209°49	1°3/12.9	17		<b>410239</b>	2007 TJ <sub>34</sub>		4 14.3 216°39	0°3/14.1	14 C	
3 12	13 52.62	-7 37.3	2.198	3.048	11.4	21.1	3 12	13 57.63	-10 55.5	1.984	2.822	13.0	22.7
3 22	13 47.75	-6 59.1	2.120	3.046	8.3	20.9	3 22	13 51.71	-10 27.4	1.895	2.813	9.6	22.5
4 1	13 41.20	-6 13.3	2.066	3.043	4.8	20.7	4 1	13 43.68	-9 48.1	1.829	2.803	5.7	22.2
4 11	13 33.60	-5 24.2	2.040	3.040	1.5	20.5	4 11	13 34.27	-9 1.1	1.792	2.792	1.4	21.9
4 21	13 25.72	-4 36.6	2.043	3.037	3.4	20.6	4 21	13 24.41	-8 11.2	1.783	2.781	3.1	22.0
5 1	13 18.39	-3 55.3	2.074	3.034	7.0	20.8	5 1	13 15.12	-7 24.3	1.803	2.769	7.4	22.2
5 11	13 12.32	-3 24.5	2.131	3.030	10.4	21.0	5 11	13 7.32	-6 45.7	1.849	2.756	11.3	22.4
5 21	13 7.99	-3 6.6	2.210	3.027	13.3	21.2	5 21	13 1.63	-6 19.3	1.918	2.742	14.7	22.6
<b>470473</b>	2008 AB <sub>97</sub>		4 14.3 151°21	3°2/17.6	17		<b>286343</b>	2001 XH <sub>82</sub>		4 14.3 182°40	1°4/12.9	17	
3 12	13 54.13	-20 57.8	2.438	3.236	12.1	21.4	3 12	13 55.91	-6 49.4	2.225	3.070	11.5	22.1
3 22	13 48.83	-21 9.2	2.353	3.238	9.5	21.2	3 22	13 50.11	-6 19.1	2.147	3.071	8.4	21.9
4 1	13 41.83	-21 6.7	2.292	3.240	6.6	21.1	4 1	13 42.58	-5 42.5	2.095	3.071	4.9	21.7
4 11	13 33.76	-20 51.0	2.258	3.243	4.0	20.9	4 11	13 33.96	-5 3.3	2.071	3.071	1.6	21.4
4 21	13 25.38	-20 24.0	2.253	3.244	3.5	20.9	4 21	13 25.07	-4 25.9	2.076	3.070	3.5	21.6
5 1	13 17.52	-19 49.6	2.276	3.246	5.7	21.0	5 1	13 16.77	-3 54.8	2.111	3.068	7.0	21.8
5 11	13 10.89	-19 12.5	2.326	3.248	8.6	21.2	5 11	13 9.78	-3 33.6	2.171	3.066	10.4	22.0
5 21	13 6.00	-18 37.5	2.400	3.250	11.3	21.4	5 21	13 4.61	-3 24.4	2.254	3.064	13.3	22.2
<b>292307</b>	2006 SS <sub>152</sub>		4 14.3 189°40	0°5/13.7	17		<b>224415</b>	2005 UB <sub>349</sub>		4 14.3 153°36	10°4/22.9	18 R	
3 12	13 51.88	-9 34.9	2.944	3.778	9.3	22.0	3 12	14 3.28	-37 38.9	2.026	2.727	17.2	20.1
3 22	13 46.84	-9 5.5	2.859	3.777	6.8	21.9	3 22	13 56.51	-39 3.7	1.943	2.731	15.2	20.0
4 1	13 40.52	-8 29.4	2.801	3.775	3.9	21.7	4 1	13 46.85	-40 4.3	1.879	2.734	13.1	19.8
4 11	13 33.41	-7 49.5	2.772	3.773	1.0	21.4	4 11	13 35.14	-40 35.3	1.838	2.737	11.3	19.7
4 21	13 26.11	-7 9.0	2.773	3.770	2.3	21.6	4 21	13 22.63	-40 34.5	1.821	2.739	10.5	19.7
5 1	13 19.20	-6 31.5	2.805	3.767	5.3	21.8	5 1	13 10.77	-40 3.9	1.828	2.742	10.9	19.7
5 11	13 13.24	-6 0.2	2.864	3.763	8.0	21.9	5 11	13 0.91	-39 10.7	1.859	2.744	12.3	19.8
5 21	13 8.62	-5 37.4	2.947	3.759	10.4	22.1	5 21	12 53.90	-38 4.3	1.912	2.746	14.4	19.9
<b>57873</b>	2001 YF <sub>98</sub>		4 14.3 20°21	4°8/11.2	18		<b>259173</b>	2003 AO <sub>1</sub>		4 14.3 91°14	5°2/9.5	18	
3 12	13 56.26	+3 2.5	1.656	2.524	13.6	17.6	3 12	13 55.11	+1 22.3	1.743	2.609	13.1	20.3
3 22	13 50.68	+3 13.3	1.602	2.533	10.1	17.4	3 22	13 49.66	+2 43.6	1.699	2.630	9.6	20.1
4 1	13 42.98	+3 20.9	1.571	2.543	6.6	17.2	4 1	13 42.29	+4 4.8	1.680	2.651	6.4	19.9
4 11	13 34.04	+3 20.1	1.565	2.553	4.8	17.1	4 11	13 33.87	+5 17.7	1.688	2.671	5.2	19.9
4 21	13 24.93	+3 7.0	1.587	2.565	6.5	17.2	4 21	13 25.39	+6 15.5	1.723	2.691	7.2	20.1
5 1	13 16.70	+2 39.3	1.634	2.578	9.9	17.5	5 1	13 17.80	+6 53.1	1.785	2.711	10.3	20.3
5 11	13 10.23	+1 56.6	1.705	2.591	13.2	17.7	5 11	13 11.87	+7 8.7	1.869	2.730	13.4	20.5
5 21	13 6.01	+1 0.4	1.796	2.605	16.2	17.9	5 21	13 8.03	+7 3.3	1.973	2.749	16.0	20.7
<b>123600</b>	2000 YL <sub>5</sub>		4 14.3 217°79	19°1/28.9	18		<b>68000</b>	2000 XM <sub>32</sub>		4 14.3 200°59	1°0/15.2	18	
3 12	14 6.64	+31 45.6	1.272	2.083	20.3	19.6	3 12	13 58.45	-13 53.0	1.9			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>379245</b>	2009 SZ <sub>354</sub>		4 14.3 260°78	1.7/12.9	17		<b>414159</b>	2007 YC <sub>3</sub>		4 14.3 212°92	1.3/13.2	15	
3 12	13 56.86	- 6 19.7	2.068	2.915	12.1	22.1	3 12	13 56.90	- 8 19.9	1.917	2.763	13.0	22.3
3 22	13 51.19	- 5 50.9	1.966	2.891	9.0	21.9	3 22	13 51.19	- 7 42.0	1.832	2.756	9.5	22.0
4 1	13 43.43	- 5 14.8	1.890	2.866	5.3	21.6	4 1	13 43.39	- 6 54.6	1.773	2.749	5.5	21.8
4 11	13 34.25	- 4 35.5	1.841	2.841	1.9	21.3	4 11	13 34.24	- 6 2.1	1.740	2.741	1.6	21.5
4 21	13 24.49	- 3 57.6	1.822	2.814	3.9	21.4	4 21	13 24.67	- 5 10.0	1.737	2.732	3.7	21.6
5 1	13 15.15	- 3 26.2	1.830	2.788	8.0	21.6	5 1	13 15.71	- 4 24.4	1.761	2.722	7.9	21.9
5 11	13 7.15	- 3 5.8	1.865	2.760	11.8	21.8	5 11	13 8.27	- 3 50.3	1.811	2.712	11.8	22.1
5 21	13 1.14	- 2 59.0	1.921	2.732	15.2	21.9	5 21	13 2.95	- 3 30.8	1.883	2.701	15.2	22.3
<b>289607</b>	2005 GA <sub>21</sub>		4 14.3 15°25	2°2/15.8	18		<b>90983</b>	1997 XU <sub>5</sub>		4 14.3 157°04	0°6/13.8	18	
3 12	13 56.77	-15 23.2	1.468	2.311	16.4	20.3	3 12	13 57.37	-10 50.1	1.984	2.823	12.9	20.7
3 22	13 51.64	-15 30.8	1.395	2.312	12.5	20.1	3 22	13 51.32	-10 5.6	1.913	2.832	9.5	20.5
4 1	13 43.86	-15 22.2	1.344	2.313	7.9	19.8	4 1	13 43.34	- 9 9.9	1.866	2.841	5.5	20.3
4 11	13 34.36	-14 59.3	1.317	2.314	3.3	19.5	4 11	13 34.19	- 8 7.6	1.848	2.848	1.3	20.0
4 21	13 24.36	-14 26.1	1.316	2.315	3.5	19.6	4 21	13 24.82	- 7 4.4	1.858	2.855	3.2	20.1
5 1	13 15.21	-13 49.0	1.341	2.317	8.1	19.8	5 1	13 16.17	- 6 6.4	1.897	2.861	7.3	20.4
5 11	13 8.07	-13 15.3	1.389	2.319	12.7	20.1	5 11	13 9.06	- 5 19.1	1.963	2.866	10.9	20.6
5 21	13 3.62	-12 50.8	1.459	2.321	16.6	20.3	5 21	13 4.01	- 4 45.6	2.051	2.870	14.1	20.9
<b>503724</b>	2016 JP <sub>36</sub>		4 14.3 340°48	4°7/11.6	17		<b>39208</b>	2000 XY <sub>22</sub>		4 14.3 16°05	2°5/12.2	18	
3 12	13 58.17	+ 1 18.8	1.426	2.297	15.2	19.9	3 12	13 55.77	- 1 38.8	2.238	3.090	11.2	19.0
3 22	13 52.64	+ 1 30.6	1.356	2.290	11.3	19.7	3 22	13 50.00	- 1 31.4	2.165	3.091	8.1	18.8
4 1	13 44.43	+ 1 41.0	1.308	2.283	7.3	19.4	4 1	13 42.51	- 1 22.9	2.118	3.093	4.9	18.6
4 11	13 34.50	+ 1 43.9	1.285	2.277	4.7	19.2	4 11	13 33.99	- 1 16.6	2.098	3.094	2.6	18.4
4 21	13 24.07	+ 1 34.3	1.288	2.272	6.8	19.3	4 21	13 25.22	- 1 15.8	2.108	3.095	4.2	18.5
5 1	13 14.52	+ 1 8.5	1.316	2.267	11.0	19.6	5 1	13 17.03	- 1 23.3	2.146	3.097	7.4	18.7
5 11	13 6.97	+ 0 25.5	1.366	2.263	15.1	19.8	5 11	13 10.15	- 1 40.7	2.209	3.098	10.5	18.9
5 21	13 2.13	- 0 33.6	1.436	2.260	18.8	20.0	5 21	13 5.05	- 2 8.7	2.296	3.100	13.2	19.1
<b>506396</b>	2017 SV		4 14.3 216°26	2°7/11.6	17		<b>333663</b>	2008 SZ <sub>240</sub>		4 14.3 220°74	1°5/12.9	17	
3 12	13 53.06	- 3 41.6	2.123	2.980	11.5	21.6	3 12	13 53.64	- 7 22.7	2.070	2.921	12.0	21.2
3 22	13 48.13	- 2 52.5	2.047	2.976	8.3	21.4	3 22	13 48.63	- 6 44.1	1.990	2.916	8.7	21.0
4 1	13 41.46	- 1 58.5	1.996	2.972	5.0	21.2	4 1	13 41.80	- 5 57.7	1.934	2.911	5.1	20.8
4 11	13 33.71	- 1 4.6	1.972	2.968	2.7	21.0	4 11	13 33.83	- 5 7.8	1.907	2.906	1.7	20.5
4 21	13 25.67	- 0 16.2	1.977	2.963	4.6	21.1	4 21	13 25.53	- 4 19.6	1.907	2.901	3.7	20.7
5 1	13 18.19	+ 0 21.6	2.010	2.958	8.0	21.3	5 1	13 17.79	- 3 38.3	1.936	2.895	7.4	20.9
5 11	13 12.02	+ 0 45.3	2.068	2.953	11.3	21.5	5 11	13 11.41	- 3 8.3	1.990	2.890	11.0	21.1
5 21	13 7.64	+ 0 53.5	2.148	2.948	14.1	21.7	5 21	13 6.90	- 2 52.0	2.066	2.884	14.0	21.3
<b>141084</b>	2001 XJ <sub>35</sub>		4 14.3 114°20	3°3/17.8	18		<b>508662</b>	2017 UM <sub>8</sub>		4 14.3 123°44	3°8/18.3	18	
3 12	13 54.16	-21 40.9	2.448	3.243	12.2	20.0	3 12	13 54.00	-22 52.7	2.342	3.134	12.7	21.2
3 22	13 48.81	-21 48.2	2.370	3.252	9.6	19.9	3 22	13 48.82	-23 2.1	2.260	3.139	10.1	21.0
4 1	13 41.80	-21 41.1	2.316	3.262	6.7	19.7	4 1	13 41.89	-22 55.8	2.201	3.143	7.3	20.8
4 11	13 33.79	-21 20.2	2.288	3.271	4.1	19.5	4 11	13 33.84	-22 34.2	2.168	3.147	4.6	20.7
4 21	13 25.52	-20 48.0	2.289	3.279	3.5	19.5	4 21	13 25.50	-21 59.5	2.163	3.151	3.9	20.6
5 1	13 17.80	-20 8.4	2.318	3.288	5.6	19.7	5 1	13 17.70	-21 15.9	2.186	3.156	6.0	20.8
5 11	13 11.35	-19 26.3	2.374	3.297	8.4	19.9	5 11	13 11.21	-20 28.8	2.236	3.159	8.8	20.9
5 21	13 6.62	-18 46.5	2.455	3.305	11.1	20.0	5 21	13 6.54	-19 43.6	2.310	3.163	11.6	21.1
<b>245660</b>	2005 YB <sub>279</sub>		4 14.3 17°73	7°9/ 8.7	16		<b>404259</b>	2013 EO <sub>37</sub>		4 14.3 354°68	4°3/10.9	16	
3 12	13 55.06	+ 7 48.4	1.427	2.303	14.9	19.7	3 12	13 53.73	- 3 42.9	1.333	2.210	15.6	21.2
3 22	13 50.12	+ 8 43.7	1.378	2.307	11.6	19.5	3 22	13 49.42	- 2 24.5	1.270	2.209	11.4	20.9
4 1	13 42.79	+ 9 31.5	1.350	2.312	8.8	19.4	4 1	13 42.54	- 0 57.3	1.230	2.209	6.9	20.7
4 11	13 34.05	+10 3.3	1.346	2.318	8.0	19.3	4 11	13 34.04	+ 0 29.0	1.214	2.208	4.3	20.5
4 21	13 25.08	+10 12.4	1.367	2.324	9.9	19.5	4 21	13 25.16	+ 1 44.4	1.224	2.208	7.0	20.7
5 1	13 17.11	+ 9 55.9	1.411	2.331	13.0	19.6	5 1	13 17.20	+ 2 40.1	1.257	2.208	11.5	20.9
5 11	13 11.09	+ 9 14.3	1.476	2.339	16.2	19.9	5 11	13 11.24	+ 3 10.9	1.313	2.208	15.8	21.2
5 21	13 7.55	+ 8 11.0	1.559	2.348	19.1	20.1	5 21	13 7.90	+ 3 16.1	1.387	2.208	19.4	21.4
<b>55097</b>	2001 QT <sub>132</sub>		4 14.3 205°43	3°2/10.5	18 R		<b>60795</b>	2000 HO <sub>8</sub>		4 14.3 1°48	0°2/14.2	16	
3 12	13 50.85	- 1 53.1	2.452	3.310	10.1	19.0	3 12	13 52.96	-12 4.3	1.159	2.031	17.9	19.5
3 22	13 46.30	- 0 47.4	2.377	3.306	7.4	18.8	3 22	13 49.25	-11 29.0	1.094	2.029	13.3	19.2
4 1	13 40.30	+ 0 22.0	2.329	3.303	4.6	18.6	4 1	13 42.62	-10 35.0	1.050	2.029	7.9	18.9
4 11	13 33.41	+ 1 29.7	2.309	3.299	3.2	18.5	4 11	13 34.09	- 9 28.2	1.028	2.029	2.0	18.5
4 21	13 26.30	+ 2 30.5	2.318	3.296	4.9	18.6	4 21	13 25.05	- 8 17.6	1.030	2.029	4.1	18.7
5 1	13 19.67	+ 3 19.6	2.356	3.291	7.7	18.8	5 1	13 17.03	- 7 13.4	1.055	2.031	9.9	19.0
5 11	13 14.13	+ 3 54.0	2.418	3.287	10.5	19.0	5 11	13 11.28	- 6 24.5	1.103	2.033	15.1	19.3
5 21	13 10.11	+ 4 12.4	2.503	3.282	12.9	19.1	5 21	13 8.47	- 5 56.0	1.168	2.035	19.5	19.6
<b>304371</b>	2006 SO <sub>373</sub>		4 14.3 94°54	3°5/10.0	17		<b>98308</b>	2000 SY <sub>251</sub>		4 14.4 113°38	3°2/11.8	18	
3 12	13 49.67	- 2 35.9	2.202	3.065	10.9	20.5	3 12	13 57.07	- 4 9.2	1.578	2.441	14.4	19.8
3 22	13 45.55	- 1 7.5	2.135	3.068	7.9	20.3	3 22	13 51.41	- 3 15.7	1.521	2.453	10.5	19.6
4 1	13 39.89	+ 0 25.9	2.095	3.070	4.9	20.2	4 1	13 43.49	- 2 16.0	1.487	2.464	6.2	19.4
4 11	13 33.31	+ 1 57.5	2.083	3.073	3.5	20.1	4 11	13 34.25	- 1 17.2	1.479	2.476	3.2	19.2
4 21	13 26.53	+ 3 20.6	2.099	3.075	5.4	20.2	4 21	13 24.80	- 0 26.4	1.499	2.487	5.5	19.4
5 1	13 20.30	+ 4 29.3	2.144	3.077	8.5	20.4	5 1	13 16.28	+ 0 10.3	1.545	2.497	9.6	19.7
5 11	13 15.26	+ 5 19.9	2.213	3.080	11.4	20.6	5 11	13 9.62	+ 0 29.1	1.614	2.507	13.5	19.9
5 21	13 11.86	+ 5 50.9	2.303	3.082	13.9	20.8	5 21	13 5.32	+ 0 29.1	1.704	2.517	16.7	20.2
<b>391322</b>	2006 TJ <sub>87</sub>		4 14.3 128°33	1°4/15.9	17		<b>506898</b>	2008 CS <sub>67</sub>		4 14.4 21°46	3°3/17.2	17	
3 12	13 51.46	-16 36.5											

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>105400</b>	2000 <i>QJ</i> <sub>144</sub>		4 14.4 147°45	2°0/11.8 18			<b>502930</b>	2015 <i>EP</i> <sub>33</sub>		4 14.4 107°66	2°6/11.9 17		
3 12	13 51.54	- 3 48.9	2.885	3.732	9.1	20.5	3 12	13 53.87	- 4 9.4	1.959	2.818	12.2	21.5
3 22	13 46.56	- 3 6.6	2.816	3.741	6.5	20.3	3 22	13 48.78	- 3 25.5	1.894	2.824	8.9	21.3
4 1	13 40.36	- 2 21.1	2.775	3.750	3.9	20.1	4 1	13 41.86	- 2 36.7	1.853	2.830	5.3	21.1
4 11	13 33.44	- 1 36.0	2.763	3.758	2.0	20.0	4 11	13 33.86	- 1 48.1	1.840	2.837	2.6	21.0
4 21	13 26.39	- 0 55.0	2.780	3.766	3.5	20.1	4 21	13 25.63	- 1 5.4	1.855	2.843	4.6	21.1
5 1	13 19.79	- 0 21.6	2.827	3.773	6.1	20.3	5 1	13 18.09	- 0 33.2	1.897	2.849	8.1	21.3
5 11	13 14.15	+ 0 1.9	2.901	3.780	8.6	20.5	5 11	13 11.99	- 0 15.1	1.964	2.855	11.5	21.6
5 21	13 9.86	+ 0 14.0	2.998	3.787	10.8	20.7	5 21	13 7.81	- 0 12.4	2.052	2.861	14.4	21.8
<b>508374</b>	2016 <i>EG</i> <sub>217</sub>		4 14.4 279°35	2°9/16.9 17			<b>193550</b>	2000 <i>YM</i> <sub>125</sub>		4 14.4 156°56	3°0/17.4 17		
3 12	13 53.77	-19 24.2	1.810	2.633	14.7	21.5	3 12	13 57.27	-20 25.5	2.442	3.236	12.2	20.7
3 22	13 49.23	-19 12.8	1.714	2.616	11.5	21.3	3 22	13 51.11	-20 35.2	2.359	3.244	9.5	20.5
4 1	13 42.42	-18 42.7	1.639	2.599	7.7	21.0	4 1	13 43.21	-20 31.1	2.302	3.251	6.6	20.4
4 11	13 34.05	-17 54.9	1.590	2.582	4.0	20.7	4 11	13 34.21	-20 13.8	2.271	3.257	3.8	20.2
4 21	13 25.10	-16 53.4	1.567	2.565	3.5	20.7	4 21	13 24.93	-19 45.7	2.270	3.263	3.3	20.2
5 1	13 16.69	-15 44.7	1.572	2.548	7.2	20.8	5 1	13 16.20	-19 10.4	2.299	3.268	5.7	20.3
5 11	13 9.84	-14 36.6	1.602	2.530	11.3	21.0	5 11	13 8.78	-18 33.0	2.354	3.273	8.7	20.5
5 21	13 5.26	-13 36.5	1.654	2.513	15.1	21.2	5 21	13 3.18	-17 58.0	2.435	3.277	11.4	20.7
<b>245254</b>	2004 <i>YE</i> <sub>33</sub>		4 14.4 169°61	2°3/12.2 18			<b>72642</b>	2001 <i>FC</i> <sub>40</sub>		4 14.4 181°98	0°9/15.2 18		
3 12	13 56.65	- 6 22.2	1.929	2.780	12.7	21.2	3 12	13 53.93	-13 53.6	2.044	2.879	12.8	19.7
3 22	13 50.85	- 5 21.7	1.858	2.785	9.2	21.0	3 22	13 48.90	-13 37.2	1.965	2.879	9.6	19.5
4 1	13 43.10	- 4 13.1	1.812	2.789	5.4	20.8	4 1	13 42.00	-13 8.8	1.909	2.879	5.9	19.3
4 11	13 34.17	- 3 2.1	1.794	2.792	2.3	20.6	4 11	13 33.92	-12 30.9	1.880	2.879	2.0	19.0
4 21	13 24.97	- 1 55.5	1.805	2.795	4.5	20.7	4 21	13 25.51	-11 47.7	1.879	2.879	2.6	19.0
5 1	13 16.49	- 0 59.4	1.844	2.797	8.3	20.9	5 1	13 17.71	-11 4.3	1.907	2.879	6.5	19.3
5 11	13 9.54	- 0 18.6	1.909	2.798	11.9	21.2	5 11	13 11.31	-10 26.1	1.960	2.878	10.2	19.5
5 21	13 4.64	+ 0 4.9	1.995	2.798	15.0	21.4	5 21	13 6.84	- 9 57.1	2.036	2.878	13.3	19.7
<b>502655</b>	2015 <i>CE</i> <sub>45</sub>		4 14.4 117°65	2°6/11.7 17			<b>161725</b>	2006 <i>RK</i> <sub>48</sub>		4 14.4 184°05	0°4/14.8 18		
3 12	13 53.10	- 4 41.5	2.041	2.898	11.9	21.4	3 12	13 54.72	-13 57.7	1.890	2.727	13.6	21.1
3 22	13 48.11	- 3 41.6	1.978	2.908	8.6	21.2	3 22	13 49.59	-13 15.5	1.810	2.727	10.1	20.9
4 1	13 41.42	- 2 36.0	1.941	2.918	5.1	21.0	4 1	13 42.45	-12 18.7	1.755	2.727	6.1	20.7
4 11	13 33.73	- 1 30.6	1.932	2.928	2.6	20.8	4 11	13 34.04	-11 11.1	1.727	2.726	1.7	20.4
4 21	13 25.86	- 0 31.2	1.951	2.937	4.6	21.0	4 21	13 25.30	- 9 58.6	1.726	2.726	2.8	20.5
5 1	13 18.66	+ 0 16.8	1.998	2.947	8.0	21.2	5 1	13 17.23	- 8 48.4	1.754	2.724	7.2	20.7
5 11	13 12.84	+ 0 49.7	2.070	2.956	11.2	21.4	5 11	13 10.70	- 7 47.0	1.808	2.722	11.1	21.0
5 21	13 8.85	+ 1 6.0	2.163	2.964	14.0	21.6	5 21	13 6.25	- 6 59.1	1.884	2.720	14.5	21.2
<b>182873</b>	2002 <i>CD</i> <sub>222</sub>		4 14.4 255°45	2°4/11.6 18			<b>258860</b>	2002 <i>PO</i> <sub>154</sub>		4 14.4 217°06	0°9/15.2 17		
3 12	13 51.02	- 3 41.2	2.538	3.392	9.9	20.6	3 12	13 56.45	-14 18.5	2.076	2.904	12.9	21.5
3 22	13 46.47	- 2 53.9	2.451	3.379	7.2	20.4	3 22	13 50.82	-13 56.3	1.985	2.896	9.7	21.2
4 1	13 40.45	- 2 2.0	2.390	3.366	4.3	20.2	4 1	13 43.19	-13 21.0	1.918	2.886	6.0	21.0
4 11	13 33.50	- 1 9.9	2.357	3.352	2.4	20.1	4 11	13 34.24	-12 35.2	1.878	2.877	2.0	20.7
4 21	13 26.27	- 0 22.0	2.353	3.338	4.1	20.1	4 21	13 24.87	-11 43.1	1.867	2.866	2.6	20.7
5 1	13 19.44	+ 0 17.3	2.378	3.324	7.1	20.3	5 1	13 16.04	-10 50.2	1.885	2.855	6.7	21.0
5 11	13 13.65	+ 0 44.7	2.429	3.310	10.0	20.5	5 11	13 8.63	-10 2.5	1.929	2.843	10.5	21.2
5 21	13 9.35	+ 0 58.5	2.502	3.296	12.6	20.6	5 21	13 3.22	- 9 24.5	1.996	2.830	13.9	21.4
<b>369991</b>	1999 <i>AB</i> <sub>16</sub>		4 14.4 27°37	1°9/15.7 18			<b>466836</b>	2015 <i>BV</i> <sub>224</sub>		4 14.4 172°54	0°4/14.0 17		
3 12	13 53.36	-15 30.0	1.285	2.141	17.5	20.4	3 12	13 56.02	-10 25.3	2.089	2.929	12.3	22.4
3 22	13 49.24	-15 23.9	1.227	2.151	13.2	20.2	3 22	13 50.34	- 9 57.1	2.012	2.932	9.1	22.2
4 1	13 42.45	-14 59.0	1.190	2.162	8.3	19.9	4 1	13 42.80	- 9 19.2	1.960	2.934	5.3	21.9
4 11	13 34.04	-14 18.7	1.176	2.174	3.3	19.7	4 11	13 34.12	- 8 35.3	1.935	2.936	1.3	21.7
4 21	13 25.29	-13 29.1	1.187	2.187	3.5	19.7	4 21	13 25.15	- 7 49.9	1.940	2.937	2.9	21.8
5 1	13 17.59	-12 38.4	1.223	2.201	8.4	20.0	5 1	13 16.81	- 7 8.1	1.973	2.938	6.9	22.0
5 11	13 12.02	-11 54.6	1.281	2.216	13.0	20.3	5 11	13 9.88	- 6 34.6	2.032	2.939	10.5	22.2
5 21	13 9.16	-11 23.6	1.359	2.231	17.0	20.6	5 21	13 4.89	- 6 12.6	2.114	2.938	13.5	22.4
<b>348840</b>	2006 <i>SK</i> <sub>7</sub>		4 14.4 218°17	2°4/11.9 17			<b>501331</b>	2013 <i>XW</i> <sub>10</sub>		4 14.4 210°32	1°3/13.2 17		
3 12	13 53.79	- 2 51.3	2.416	3.268	10.5	21.3	3 12	13 55.45	- 6 59.6	1.986	2.836	12.4	21.8
3 22	13 48.50	- 2 22.4	2.337	3.263	7.6	21.1	3 22	13 50.02	- 6 39.8	1.909	2.834	9.1	21.6
4 1	13 41.64	- 1 50.6	2.283	3.258	4.6	20.9	4 1	13 42.67	- 6 13.3	1.856	2.833	5.3	21.3
4 11	13 33.80	- 1 19.7	2.258	3.253	2.4	20.7	4 11	13 34.10	- 5 44.0	1.831	2.831	1.6	21.1
4 21	13 25.70	- 0 53.5	2.261	3.248	4.1	20.8	4 21	13 25.20	- 5 16.1	1.834	2.829	3.5	21.2
5 1	13 18.09	- 0 35.9	2.293	3.242	7.1	21.0	5 1	13 16.91	- 4 54.2	1.864	2.827	7.5	21.4
5 11	13 11.63	- 0 29.2	2.352	3.236	10.1	21.2	5 11	13 10.07	- 4 42.0	1.921	2.824	11.1	21.7
5 21	13 6.80	- 0 34.7	2.433	3.230	12.8	21.3	5 21	13 5.22	- 4 41.7	1.999	2.822	14.3	21.9
<b>7993</b>	Johnbridges		4 14.4 195°58	0°4/13.9 18			<b>499676</b>	2010 <i>VF</i> <sub>203</sub>		4 14.4 210°90	3°1/16.9 17		
3 12	13 53.20	-10 8.5	2.476	3.313	10.7	17.7	3 12	13 57.17	-19 44.0	1.948	2.759	14.2	22.6
3 22	13 48.06	- 9 42.5	2.392	3.311	7.9	17.6	3 22	13 51.53	-19 41.6	1.859	2.754	11.1	22.3
4 1	13 41.38	- 9 8.5	2.335	3.309	4.6	17.3	4 1	13 43.68	-19 22.2	1.792	2.748	7.5	22.1
4 11	13 33.74	- 8 29.5	2.305	3.306	1.1	17.1	4 11	13 34.38	-18 46.6	1.751	2.741	4.1	21.9
4 21	13 25.83	- 7 49.3	2.306	3.303	2.5	17.2	4 21	13 24.60	-17 58.0	1.738	2.734	3.5	21.8
5 1	13 18.41	- 7 12.0	2.335	3.300	6.0	17.4	5 1	13 15.43	-17 2.1	1.753	2.726	6.9	22.0
5 11	13 12.13	- 6 41.6	2.391	3.296	9.2	17.6	5 11	13 7.84	-16 5.7	1.795	2.718	10.6	22.2
5 21	13 7.44	- 6 20.7	2.471	3.292	11.9	17.8	5 21	13 2.45	-15 15.3	1.859	2.709	14.0	22.4
<b>135034</b>	2001 <i>MM</i> <sub>30</sub>		4 14.4 124°95	4°2/19.2 18			<b>214447</b>	2005 <i>SA</i> <sub>9</sub>		4 14.4 2			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$		
<b>401910</b>	2001 <i>UJ</i> <sub>71</sub>	4 14.4 224°27' 0°6'/13.9 17						<b>8154</b>	Stahl	4 14.4 348°78' 0°6'/13.9 18					
3 12	13 58.63	-10 8.5	1.863	2.704	13.5	22.3	3 12	13 53.15	-9 53.2	1.134	2.011	17.8	17.6		
3 22	13 52.63	-9 39.2	1.772	2.692	10.0	22.0	3 22	13 49.54	-9 37.0	1.067	2.005	13.2	17.3		
4 1	13 44.36	-8 58.6	1.705	2.680	5.9	21.8	4 1	13 42.91	-9 6.3	1.019	1.999	7.8	17.0		
4 11	13 34.57	-8 10.5	1.666	2.666	1.5	21.4	4 11	13 34.25	-8 26.2	0.994	1.995	1.9	16.6		
4 21	13 24.24	-7 20.1	1.655	2.652	3.4	21.5	4 21	13 24.98	-7 43.9	0.992	1.991	4.3	16.8		
5 1	13 14.50	-6 33.6	1.672	2.637	7.9	21.8	5 1	13 16.66	-7 8.0	1.013	1.988	10.2	17.1		
5 11	13 6.35	-5 56.7	1.715	2.621	12.1	22.0	5 11	13 10.64	-6 46.0	1.055	1.987	15.5	17.4		
5 21	13 0.45	-5 33.2	1.780	2.604	15.7	22.2	5 21	13 7.66	-6 41.7	1.115	1.986	19.9	17.6		
<b>408274</b>	2013 <i>FJ</i> <sub>21</sub>	4 14.4 225°50' 2°1'/15.4 16						<b>173479</b>	2000 <i>SB</i> <sub>52</sub>	4 14.4 4°35' 0°5'/13.8 18					
3 12	14 7.87	-12 25.9	1.694	2.518	15.4	20.6	3 12	13 50.26	-11 14.9	2.235	3.079	11.5	19.9		
3 22	13 59.82	-13 19.0	1.604	2.511	11.8	20.3	3 22	13 46.06	-10 24.0	2.157	3.079	8.4	19.7		
4 1	13 48.83	-14 4.0	1.537	2.504	7.5	20.1	4 1	13 40.26	-9 22.3	2.104	3.079	4.9	19.5		
4 11	13 35.76	-14 40.0	1.499	2.495	3.0	19.8	4 11	13 33.50	-8 14.2	2.078	3.079	1.2	19.2		
4 21	13 21.86	-15 7.2	1.489	2.487	3.6	19.8	4 21	13 26.49	-7 5.0	2.082	3.079	2.8	19.3		
5 1	13 8.62	-15 27.8	1.509	2.478	8.2	20.0	5 1	13 20.02	-6 0.4	2.114	3.079	6.5	19.6		
5 11	12 57.37	-15 45.8	1.555	2.468	12.6	20.3	5 11	13 14.76	-5 5.6	2.172	3.079	9.8	19.8		
5 21	12 48.97	-16 5.4	1.623	2.458	16.5	20.5	5 21	13 11.15	-4 23.8	2.253	3.080	12.7	20.0		
<b>201665</b>	2003 <i>UK</i> <sub>23</sub>	4 14.4 135°13' 0°7'/15.0 17						<b>269995</b>	2000 <i>WV</i> <sub>79</sub>	4 14.4 176°46' 1°8'/16.4 17					
3 12	13 53.52	-13 43.6	2.191	3.023	12.1	20.6	3 12	13 54.60	-17 57.4	2.436	3.246	11.7	21.9		
3 22	13 48.44	-13 18.7	2.116	3.029	9.0	20.4	3 22	13 49.15	-17 36.0	2.351	3.248	9.0	21.7		
4 1	13 41.65	-12 42.2	2.065	3.035	5.5	20.2	4 1	13 42.06	-17 1.2	2.290	3.250	5.8	21.5		
4 11	13 33.83	-11 57.3	2.042	3.041	1.7	20.0	4 11	13 33.96	-16 14.8	2.258	3.252	2.7	21.3		
4 21	13 25.77	-11 8.1	2.048	3.047	2.4	20.0	4 21	13 25.59	-15 20.4	2.254	3.252	2.5	21.3		
5 1	13 18.30	-10 19.8	2.082	3.053	6.2	20.3	5 1	13 17.76	-14 23.0	2.280	3.252	5.6	21.5		
5 11	13 12.16	-9 37.3	2.143	3.058	9.6	20.5	5 11	13 11.15	-13 27.8	2.334	3.252	8.8	21.7		
5 21	13 7.81	-9 4.2	2.227	3.063	12.5	20.7	5 21	13 6.26	-12 39.4	2.412	3.251	11.6	21.9		
<b>437967</b>	2003 <i>FP</i> <sub>133</sub>	4 14.4 37°78' 3°7'/10.6 17						<b>116972</b>	2004 <i>HZ</i> <sub>16</sub>	4 14.4 313°21' 0°1'/14.3 17					
3 12	13 51.85	+0 2.6	2.196	3.057	11.0	20.6	3 12	13 51.52	-11 15.2	2.000	2.847	12.5	19.9		
3 22	13 47.16	+0 49.2	2.129	3.059	8.0	20.4	3 22	13 47.24	-10 48.7	1.914	2.837	9.2	19.7		
4 1	13 40.87	+1 37.2	2.088	3.062	5.1	20.3	4 1	13 41.10	-10 11.3	1.851	2.827	5.5	19.4		
4 11	13 33.63	+2 21.3	2.075	3.064	3.7	20.2	4 11	13 33.74	-9 26.4	1.816	2.816	1.4	19.1		
4 21	13 26.17	+2 56.6	2.090	3.067	5.3	20.3	4 21	13 26.00	-8 38.7	1.808	2.807	2.9	19.2		
5 1	13 19.29	+3 19.2	2.132	3.069	8.3	20.5	5 1	13 18.78	-7 53.8	1.827	2.797	7.0	19.5		
5 11	13 13.65	+3 26.8	2.198	3.072	11.2	20.6	5 11	13 12.90	-7 16.8	1.872	2.788	10.7	19.7		
5 21	13 9.71	+3 18.9	2.286	3.075	13.7	20.8	5 21	13 8.92	-6 51.4	1.939	2.779	14.0	19.9		
<b>259581</b>	2003 <i>UF</i> <sub>211</sub>	4 14.4 184°83' 0°5'/14.9 16						<b>500737</b>	2012 <i>XY</i> <sub>128</sub>	4 14.4 140°46' 0°2'/14.6 17					
3 12	13 56.87	-13 27.6	2.044	2.875	12.9	22.1	3 12	13 52.20	-12 23.0	2.677	3.507	10.2	22.5		
3 22	13 51.06	-12 59.3	1.962	2.875	9.6	21.9	3 22	13 47.18	-11 50.4	2.603	3.517	7.5	22.4		
4 1	13 43.28	-12 18.4	1.904	2.875	5.8	21.7	4 1	13 40.80	-11 9.0	2.555	3.527	4.5	22.2		
4 11	13 34.26	-11 27.9	1.874	2.874	1.7	21.4	4 11	13 33.62	-10 21.6	2.536	3.536	1.2	21.9		
4 21	13 24.91	-10 32.7	1.873	2.872	2.7	21.4	4 21	13 26.28	-9 32.1	2.546	3.545	2.1	22.0		
5 1	13 16.19	-9 38.5	1.901	2.870	6.8	21.7	5 1	13 19.43	-8 44.5	2.586	3.553	5.3	22.3		
5 11	13 8.94	-8 51.1	1.955	2.867	10.5	21.9	5 11	13 13.66	-8 2.9	2.653	3.561	8.3	22.5		
5 21	13 3.72	-8 14.5	2.032	2.863	13.8	22.1	5 21	13 9.35	-7 30.1	2.745	3.569	10.8	22.6		
<b>303234</b>	2004 <i>PA</i> <sub>34</sub>	4 14.4 255°35' 2°0'/15.8 16						<b>465406</b>	2008 <i>HR</i> <sub>67</sub>	4 14.4 314°17' 0°4'/14.1 17					
3 12	13 57.91	-16 2.5	1.621	2.455	15.6	21.7	3 12	13 53.46	-10 20.5	1.452	2.315	15.5	21.3		
3 22	13 52.56	-15 55.1	1.526	2.438	12.0	21.4	3 22	13 49.43	-10 4.3	1.363	2.294	11.6	21.0		
4 1	13 44.55	-15 30.6	1.453	2.420	7.7	21.1	4 1	13 42.76	-9 34.9	1.295	2.273	6.9	20.7		
4 11	13 34.66	-14 50.4	1.405	2.402	3.2	20.8	4 11	13 34.24	-8 56.4	1.252	2.253	1.7	20.3		
4 21	13 24.03	-13 58.9	1.384	2.383	3.4	20.7	4 21	13 24.97	-8 14.2	1.234	2.233	3.8	20.4		
5 1	13 13.97	-13 2.7	1.390	2.364	8.1	21.0	5 1	13 16.31	-7 35.6	1.242	2.214	9.1	20.6		
5 11	13 5.71	-12 10.0	1.420	2.344	12.8	21.2	5 11	13 9.47	-7 7.5	1.272	2.196	14.0	20.8		
5 21	13 0.06	-11 27.5	1.472	2.324	17.0	21.4	5 21	13 5.24	-6 54.5	1.322	2.178	18.3	21.0		
<b>380607</b>	Sharma	4 14.4 262°11' 1°2'/15.3 17						<b>302217</b>	2001 <i>UA</i> <sub>207</sub>	4 14.4 237°57' 4°7'/10.5 17					
3 12	13 57.45	-13 19.4	1.974	2.806	13.3	21.1	3 12	13 58.65	+0 14.6	1.759	2.618	13.4	21.4		
3 22	13 51.75	-13 27.0	1.879	2.791	10.0	20.8	3 22	13 52.72	+1 12.0	1.675	2.603	9.9	21.1		
4 1	13 43.86	-13 23.8	1.807	2.776	6.3	20.6	4 1	13 44.46	+2 12.8	1.615	2.587	6.5	20.9		
4 11	13 34.46	-13 11.3	1.763	2.761	2.3	20.3	4 11	13 34.64	+3 9.9	1.582	2.570	4.7	20.8		
4 21	13 24.49	-12 52.3	1.746	2.745	2.8	20.3	4 21	13 24.27	+3 56.1	1.577	2.553	6.8	20.8		
5 1	13 15.02	-12 31.0	1.758	2.730	7.0	20.5	5 1	13 14.52	+4 25.3	1.598	2.534	10.6	21.0		
5 11	13 7.00	-12 12.3	1.796	2.714	11.0	20.7	5 11	13 6.41	+4 34.1	1.643	2.515	14.4	21.2		
5 21	13 1.13	-12 0.4	1.856	2.697	14.5	20.9	5 21	13 0.62	+4 22.0	1.708	2.495	17.7	21.4		
<b>87498</b>	2000 <i>QX</i> <sub>166</sub>	4 14.4 285°56' 8°6'/20.5 18						<b>361553</b>	2007 <i>QM</i> <sub>10</sub>	4 14.4 219°74' 1°6'/15.6 16					
3 12	13 58.89	-30 43.9	1.826	2.586	16.9	19.5	3 12	13 57.60	-15 36.1	1.755	2.586	14.7	21.9		
3 22	13 53.42	-31 49.9	1.730	2.572	14.5	19.3	3 22	13 52.02	-15 22.4	1.668	2.579	11.2	21.7		
4 1	13 45.16	-32 34.5	1.653	2.558	11.8	19.0	4 1	13 44.07	-14 52.9	1.604	2.571	7.1	21.4		
4 11	13 34.86	-32 53.1	1.600	2.544	9.5	18.9	4 11	13 34.54	-14 9.9	1.566	2.563	2.7	21.1		
4 21	13 23.65	-32 44.2	1.571	2.530	8.6	18.8	4 21	13 24.48	-13 17.7	1.555	2.555	3.0	21.1		
5 1	13 12.94	-32 10.2	1.567	2.516	9.8	18.8	5 1	13 15.08	-12 23.0	1.572	2.545	7.5	21.4		
5 11	13 4.05	-31 18.4	1.588	2.502	12.3	18.9	5 11	13 7.38	-11 32.8	1.615	2.536	11.8	21.6		
5 21	12 57.88	-30 17.8	1.630	2.489	15.3	19.1	5 21	13 2.06	-10 52.8	1.679	2.525	15.5	21.8		
<b>94404</b>	2001 <i>SO</i> <sub>287</sub>	4 14.4 264°32' 4°1'/11.0 17						<b>269490</b>	2009 <i>UH</i> <sub>23</sub>	4 14.4 143°53' 0°6'/13.7 17					
3 12	13 55.77	-3 28.8	1.531	2.398	14.5	20.4	3 12	13 54.84	-9 57.6	2.225	3.065	11.7	21.7		
3 22	13 50.94	-2 18.1	1.445	2.379	10.7	20.2	3 22	13 49.33	-9 19.6	2.155	3.075	8.5	21.5		

EPHEMERIDES

4 14.4

4 14.4

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>505083</b>	2011 <i>UF</i> <sub>167</sub>		4 14.4 174°94	3°3/18.2	18		<b>507903</b>	2014 <i>UE</i> <sub>119</sub>		4 14.4 273°76	0°8/14.9	17	
3 12	13 52.60	-22 43.9	2.651	3.439	11.5	21.8	3 12	13 56.55	-13 45.0	1.579	2.423	15.4	21.6
3 22	13 47.66	-22 40.0	2.562	3.440	9.1	21.6	3 22	13 51.67	-13 22.2	1.480	2.399	11.7	21.3
4 1	13 41.18	-22 21.6	2.498	3.441	6.5	21.5	4 1	13 44.11	-12 42.5	1.402	2.375	7.2	20.9
4 11	13 33.75	-21 49.4	2.461	3.442	4.0	21.3	4 11	13 34.63	-11 48.7	1.350	2.350	2.2	20.6
4 21	13 26.05	-21 6.1	2.452	3.442	3.4	21.3	4 21	13 24.33	-10 46.0	1.325	2.324	3.4	20.6
5 1	13 18.82	-20 15.3	2.473	3.443	5.3	21.4	5 1	13 14.54	-9 42.4	1.326	2.298	8.6	20.8
5 11	13 12.72	-19 22.3	2.520	3.443	8.0	21.6	5 11	13 6.49	-8 46.2	1.351	2.272	13.6	21.0
5 21	13 8.20	-18 31.7	2.593	3.443	10.6	21.7	5 21	13 1.05	-8 3.9	1.396	2.245	17.9	21.2
<b>507477</b>	2012 <i>TV</i> <sub>261</sub>		4 14.4 244°69	1°1/13.3	17		<b>111962</b>	2002 <i>GP</i> <sub>75</sub>		4 14.4 275°54	2°3/16.1	17	
3 12	13 53.39	-7 57.4	2.142	2.991	11.7	22.0	3 12	13 55.26	-17 21.6	1.591	2.426	15.8	19.8
3 22	13 48.46	-7 27.2	2.059	2.985	8.6	21.8	3 22	13 50.66	-17 6.7	1.496	2.407	12.2	19.5
4 1	13 41.75	-6 49.3	2.001	2.978	5.0	21.6	4 1	13 43.47	-16 32.3	1.422	2.388	7.9	19.2
4 11	13 33.91	-6 7.6	1.971	2.971	1.5	21.3	4 11	13 34.45	-15 40.2	1.373	2.369	3.5	18.9
4 21	13 25.74	-5 26.6	1.969	2.964	3.3	21.5	4 21	13 24.72	-14 34.9	1.351	2.350	3.4	18.8
5 1	13 18.09	-4 51.2	1.995	2.957	7.1	21.7	5 1	13 15.56	-13 24.1	1.355	2.331	8.1	19.1
5 11	13 11.74	-4 25.3	2.047	2.950	10.6	21.9	5 11	13 8.18	-12 16.8	1.383	2.311	12.8	19.3
5 21	13 7.20	-4 11.8	2.121	2.943	13.6	22.1	5 21	13 3.36	-11 20.7	1.432	2.292	17.0	19.5
<b>504651</b>	2008 <i>YS</i> <sub>122</sub>		4 14.4 104°33	3°0/17.4	17		<b>251870</b>	1999 <i>VB</i> <sub>18</sub>		4 14.4 219°02	0°2/14.5	17	
3 12	13 53.07	-20 45.0	2.140	2.949	13.2	21.3	3 12	13 58.32	-11 17.9	1.869	2.708	13.6	21.7
3 22	13 48.26	-20 34.6	2.061	2.953	10.3	21.1	3 22	13 52.39	-11 7.4	1.783	2.701	10.1	21.5
4 1	13 41.63	-20 7.6	2.005	2.958	7.0	20.9	4 1	13 44.24	-10 46.2	1.720	2.693	6.1	21.2
4 11	13 33.87	-19 25.7	1.975	2.963	3.9	20.7	4 11	13 34.61	-10 17.1	1.685	2.685	1.6	20.9
4 21	13 25.83	-18 32.3	1.972	2.967	3.3	20.7	4 21	13 24.49	-9 44.0	1.678	2.677	3.0	21.0
5 1	13 18.40	-17 32.8	1.998	2.972	6.1	20.8	5 1	13 14.99	-9 12.3	1.699	2.667	7.4	21.2
5 11	13 12.35	-16 33.5	2.050	2.976	9.4	21.0	5 11	13 7.08	-8 47.1	1.745	2.658	11.5	21.4
5 21	13 8.19	-15 39.9	2.126	2.981	12.4	21.2	5 21	13 1.40	-8 32.3	1.814	2.648	15.0	21.6
<b>504585</b>	2008 <i>TN</i> <sub>188</sub>		4 14.4 186°93	0°9/15.3	17		<b>379253</b>	2009 <i>TG</i> <sub>38</sub>		4 14.4 178°41	6°0/8.6	17	
3 12	13 55.47	-13 48.4	2.597	3.418	10.8	22.9	3 12	13 58.26	+8 54.7	2.326	3.173	11.0	21.2
3 22	13 49.70	-13 37.7	2.510	3.417	8.1	22.7	3 22	13 51.75	+9 39.3	2.262	3.175	8.6	21.1
4 1	13 42.37	-13 17.5	2.449	3.416	5.0	22.5	4 1	13 43.57	+10 18.3	2.224	3.176	6.6	20.9
4 11	13 34.06	-12 49.7	2.416	3.414	1.7	22.3	4 11	13 34.38	+10 46.1	2.214	3.177	6.0	20.9
4 21	13 25.46	-12 17.2	2.413	3.412	2.2	22.3	4 21	13 25.01	+10 58.5	2.233	3.177	7.4	21.0
5 1	13 17.34	-11 43.9	2.440	3.409	5.5	22.5	5 1	13 16.27	+10 53.1	2.278	3.176	9.7	21.1
5 11	13 10.36	-11 13.7	2.495	3.406	8.6	22.5	5 11	13 8.88	+10 29.5	2.348	3.175	12.2	21.3
5 21	13 4.99	-10 49.8	2.574	3.402	11.3	22.9	5 21	13 3.29	+9 49.2	2.439	3.174	14.4	21.5
<b>43043</b>	1999 <i>VN</i> <sub>49</sub>		4 14.4 270°74	2°2/16.5	18 R		<b>248936</b>	2006 <i>WH</i> <sub>57</sub>		4 14.4 45°28	1°5/15.9	17	
3 12	13 52.81	-18 13.3	1.947	2.771	13.7	19.4	3 12	13 51.71	-16 22.5	2.119	2.948	12.6	20.6
3 22	13 48.28	-17 52.7	1.861	2.766	10.6	19.2	3 22	13 47.23	-16 2.4	2.044	2.953	9.5	20.4
4 1	13 41.74	-17 15.2	1.798	2.761	6.9	19.0	4 1	13 41.02	-15 28.7	1.993	2.959	6.0	20.2
4 11	13 33.92	-16 23.1	1.761	2.755	3.2	18.7	4 11	13 33.75	-14 44.0	1.968	2.965	2.5	20.0
4 21	13 25.72	-15 20.8	1.751	2.750	2.9	18.7	4 21	13 26.23	-13 52.4	1.971	2.971	2.5	20.0
5 1	13 18.11	-14 14.5	1.769	2.744	6.6	18.9	5 1	13 19.30	-12 59.3	2.003	2.977	6.0	20.3
5 11	13 11.96	-13 11.3	1.813	2.739	10.4	19.1	5 11	13 13.71	-12 10.1	2.060	2.983	9.5	20.5
5 21	13 7.84	-12 16.9	1.880	2.734	13.8	19.3	5 21	13 9.93	-11 29.4	2.141	2.990	12.5	20.7
<b>274259</b>	2008 <i>OZ</i> <sub>23</sub>		4 14.4 260°71	5°9/7.7	17		<b>18745</b>	San Pedro		4 14.4 152°87	4°6/9.4	18 R	
3 12	13 51.93	+3 25.6	1.977	2.844	11.7	20.5	3 12	13 52.83	-0 17.0	1.969	2.833	11.9	17.8
3 22	13 47.53	+5 7.2	1.899	2.829	8.9	20.3	3 22	13 48.04	+1 17.0	1.907	2.838	8.7	17.6
4 1	13 41.27	+6 50.8	1.848	2.813	6.5	20.1	4 1	13 41.48	+2 54.4	1.871	2.843	5.8	17.4
4 11	13 33.80	+8 28.0	1.824	2.798	6.1	20.0	4 11	13 33.86	+4 27.2	1.863	2.848	4.6	17.3
4 21	13 25.96	+9 50.5	1.828	2.782	8.1	20.1	4 21	13 26.03	+5 47.8	1.883	2.852	6.6	17.5
5 1	13 18.64	+10 52.0	1.858	2.765	11.1	20.2	5 1	13 18.87	+6 50.2	1.930	2.855	9.7	17.6
5 11	13 12.65	+11 28.9	1.911	2.749	14.1	20.4	5 11	13 13.10	+7 31.0	2.001	2.859	12.8	17.8
5 21	13 8.56	+11 41.1	1.982	2.732	16.8	20.6	5 21	13 9.20	+7 49.8	2.092	2.862	15.4	18.0
<b>147193</b>	2002 <i>VE</i> <sub>89</sub>		4 14.4 290°04	0°8/14.9	18		<b>242542</b>	2005 <i>CR</i> <sub>64</sub>		4 14.4 33°58	1°8/16.1	17	
3 12	13 56.61	-12 15.9	1.588	2.435	15.1	19.6	3 12	13 52.23	-17 7.1	1.840	2.672	14.1	20.4
3 22	13 51.53	-12 16.2	1.501	2.423	11.4	19.3	3 22	13 47.86	-16 43.8	1.766	2.676	10.7	20.1
4 1	13 43.91	-12 4.0	1.437	2.410	7.0	19.0	4 1	13 41.49	-16 4.0	1.714	2.681	6.8	19.9
4 11	13 34.53	-11 41.6	1.398	2.398	2.2	18.7	4 11	13 33.89	-15 10.8	1.689	2.685	2.9	19.7
4 21	13 24.50	-11 13.0	1.385	2.385	3.2	18.7	4 21	13 25.98	-14 9.0	1.690	2.690	2.8	19.7
5 1	13 15.12	-10 44.2	1.399	2.373	8.2	19.0	5 1	13 18.77	-13 5.2	1.719	2.695	6.7	19.9
5 11	13 7.52	-10 21.1	1.437	2.360	12.8	19.2	5 11	13 13.08	-12 6.4	1.774	2.700	10.5	20.2
5 21	13 2.46	-10 8.5	1.496	2.348	16.7	19.4	5 21	13 9.46	-11 17.9	1.850	2.706	13.9	20.4
<b>148641</b>	2001 <i>SB</i> <sub>45</sub>		4 14.4 128°26	2°3/12.3	18		<b>437906</b>	2001 <i>XF</i> <sub>220</sub>		4 14.4 182°44	3°3/18.6	18	
3 12	13 55.06	-5 43.0	1.921	2.776	12.6	20.2	3 12	13 52.31	-24 11.0	2.851	3.628	11.0	22.2
3 22	13 49.68	-4 53.3	1.858	2.786	9.1	20.0	3 22	13 47.37	-23 55.2	2.759	3.629	8.8	22.0
4 1	13 42.43	-3 56.9	1.819	2.796	5.3	19.8	4 1	13 40.99	-23 24.3	2.691	3.629	6.3	21.8
4 11	13 34.08	-2 59.4	1.807	2.805	2.3	19.6	4 11	13 33.74	-22 39.5	2.651	3.629	4.0	21.7
4 21	13 25.52	-2 6.7	1.824	2.814	4.4	19.7	4 21	13 26.26	-21 43.2	2.639	3.628	3.3	21.6
5 1	13 17.69	-1 24.2	1.868	2.823	8.1	20.0	5 1	13 19.23	-20 39.6	2.657	3.627	5.1	21.7
5 11	13 11.36	-0 56.0	1.938	2.831	11.6	20.2	5 11	13 13.25	-19 33.8	2.703	3.625	7.6	21.9
5 21	13 7.02	-0 43.5	2.029	2.839	14.5	20.4	5 21	13 8.76	-18 30.6	2.775	3.623	10.0	22.1
<b>473961</b>	2016 <i>EL</i> <sub>186</sub>		4 14.4 292°38	0°7/14.9	17		<b>370612</b>	2003 <i>YR</i> <sub>3</sub>		4 14.4 139°99	14°9/27.1	18	</

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>91263</b>	1999 <i>CD</i> <sub>104</sub>		4 14.4 107°37'	1°9/12.9	18		<b>14135</b>	Cynthialang		4 14.4 223°50'	0°9/13.6	17	
3 12	13 57.21	- 8 8.4	1.510	2.369	15.2	19.8	3 12	13 56.59	- 9 2.7	2.031	2.874	12.5	19.7
3 22	13 51.64	- 7 13.5	1.454	2.384	11.0	19.6	3 22	13 50.97	- 8 32.2	1.942	2.864	9.2	19.4
4 1	13 43.73	- 6 7.7	1.420	2.398	6.4	19.3	4 1	13 43.34	- 7 52.3	1.879	2.854	5.4	19.2
4 11	13 34.46	- 4 58.0	1.412	2.412	2.1	19.1	4 11	13 34.41	- 7 6.9	1.842	2.843	1.4	18.9
4 21	13 24.98	- 3 52.1	1.432	2.426	4.5	19.3	4 21	13 25.05	- 6 20.8	1.835	2.831	3.3	19.0
5 1	13 16.49	- 2 57.6	1.477	2.439	9.1	19.6	5 1	13 16.24	- 5 39.4	1.856	2.819	7.4	19.2
5 11	13 9.94	- 2 19.8	1.547	2.452	13.2	19.9	5 11	13 8.83	- 5 7.6	1.903	2.806	11.2	19.4
5 21	13 5.84	- 2 0.9	1.637	2.464	16.7	20.1	5 21	13 3.44	- 4 48.6	1.972	2.793	14.5	19.6
<b>520167</b>	2014 <i>CQ</i> <sub>26</sub>		4 14.4 31°46'	4°1/18.5	17		<b>419623</b>	2010 <i>SR</i> <sub>14</sub>		4 14.4 100°59'	1°2/13.4	18	
3 12	13 52.60	-23 24.8	2.110	2.908	13.7	21.1	3 12	13 56.26	- 9 10.3	1.709	2.561	14.0	22.1
3 22	13 48.02	-23 28.0	2.030	2.911	11.0	20.9	3 22	13 50.72	- 8 24.6	1.652	2.578	10.2	21.9
4 1	13 41.56	-23 13.2	1.972	2.915	7.9	20.8	4 1	13 43.12	- 7 28.7	1.618	2.594	5.9	21.7
4 11	13 33.92	-22 41.2	1.939	2.919	5.0	20.6	4 11	13 34.31	- 6 28.0	1.610	2.611	1.6	21.4
4 21	13 25.95	-21 54.6	1.933	2.923	4.2	20.5	4 21	13 25.35	- 5 29.1	1.631	2.626	3.8	21.6
5 1	13 18.59	-20 58.6	1.955	2.927	6.4	20.7	5 1	13 17.25	- 4 38.4	1.678	2.642	8.0	21.9
5 11	13 12.64	-19 59.6	2.003	2.932	9.4	20.9	5 11	13 10.88	- 4 0.9	1.751	2.657	11.9	22.2
5 21	13 8.63	-19 3.7	2.075	2.936	12.3	21.1	5 21	13 6.72	- 3 39.4	1.845	2.672	15.1	22.4
<b>150948</b>	2001 <i>TR</i> <sub>117</sub>		4 14.4 222°12'	5°3/9.6	18		<b>427781</b>	2005 <i>CJ</i> <sub>32</sub>		4 14.4 349°35'	1°1/13.6	16	
3 12	13 57.69	+ 5 9.5	2.155	3.008	11.5	19.3	3 12	13 50.95	- 8 39.1	1.449	2.318	15.1	21.0
3 22	13 51.57	+ 5 52.7	2.078	2.999	8.7	19.1	3 22	13 47.41	- 8 18.3	1.374	2.310	11.1	20.7
4 1	13 43.59	+ 6 33.3	2.027	2.990	6.2	18.9	4 1	13 41.47	- 7 46.7	1.322	2.302	6.5	20.4
4 11	13 34.44	+ 7 5.6	2.004	2.980	5.3	18.8	4 11	13 33.96	- 7 9.1	1.294	2.295	1.7	20.1
4 21	13 24.95	+ 7 24.7	2.009	2.970	6.9	18.9	4 21	13 25.96	- 6 31.5	1.292	2.290	4.0	20.2
5 1	13 16.05	+ 7 27.2	2.041	2.959	9.7	19.0	5 1	13 18.70	- 6 0.5	1.314	2.285	8.9	20.5
5 11	13 8.52	+ 7 11.8	2.098	2.948	12.6	19.2	5 11	13 13.21	- 5 41.8	1.359	2.282	13.4	20.7
5 21	13 2.90	+ 6 39.2	2.176	2.936	15.2	19.4	5 21	13 10.15	- 5 38.6	1.424	2.280	17.2	21.0
<b>95677</b>	2002 <i>GJ</i> <sub>177</sub>		4 14.4 90°41'	5°3/10.8	18		<b>210688</b>	2000 <i>SZ</i> <sub>26</sub>		4 14.4 159°21'	1°0/13.0	18	
3 12	14 1.25	+ 2 8.2	1.525	2.387	14.8	19.7	3 12	13 50.45	-10 45.1	2.687	3.525	10.0	20.4
3 22	13 54.37	+ 2 55.1	1.483	2.412	11.0	19.6	3 22	13 45.95	- 9 23.8	2.609	3.529	7.2	20.2
4 1	13 45.20	+ 3 40.1	1.465	2.436	7.2	19.4	4 1	13 40.13	- 7 52.6	2.558	3.533	4.1	20.1
4 11	13 34.81	+ 4 15.9	1.473	2.459	5.3	19.3	4 11	13 33.55	- 6 16.5	2.537	3.537	1.2	19.8
4 21	13 24.40	+ 4 36.7	1.507	2.482	7.3	19.5	4 21	13 26.81	- 4 41.0	2.547	3.541	2.9	20.0
5 1	13 15.14	+ 4 38.9	1.568	2.504	10.8	19.7	5 1	13 20.54	- 3 11.8	2.587	3.544	6.0	20.2
5 11	13 7.94	+ 4 21.6	1.652	2.526	14.2	20.0	5 11	13 15.29	- 1 53.9	2.656	3.547	8.9	20.4
5 21	13 3.24	+ 3 46.6	1.755	2.548	17.1	20.3	5 21	13 11.44	- 0 50.4	2.748	3.549	11.4	20.5
<b>245686</b>	2006 <i>BR</i> <sub>116</sub>		4 14.4 345°05'	1°3/13.6	17		<b>316031</b>	2009 <i>FN</i> <sub>48</sub>		4 14.4 314°87'	4°4/11.5	17	
3 12	13 50.16	- 9 52.7	1.049	1.934	18.2	19.7	3 12	13 54.02	- 2 24.0	1.273	2.153	16.0	20.2
3 22	13 47.54	- 9 17.1	0.981	1.924	13.5	19.4	3 22	13 50.15	- 1 41.0	1.190	2.130	11.9	19.8
4 1	13 41.85	- 8 24.0	0.933	1.915	7.9	19.0	4 1	13 43.36	- 0 51.0	1.127	2.107	7.4	19.5
4 11	13 34.08	- 7 20.1	0.906	1.907	2.1	18.6	4 11	13 34.51	- 0 1.9	1.089	2.084	4.4	19.3
4 21	13 25.64	- 6 15.1	0.902	1.901	4.9	18.8	4 21	13 24.82	+ 0 37.8	1.074	2.062	7.1	19.3
5 1	13 18.15	- 5 19.6	0.920	1.895	10.9	19.1	5 1	13 15.80	+ 1 0.0	1.083	2.041	12.1	19.5
5 11	13 12.98	- 4 42.7	0.958	1.892	16.4	19.4	5 11	13 8.79	+ 0 59.4	1.112	2.020	17.0	19.8
5 21	13 10.91	- 4 28.8	1.012	1.889	21.1	19.6	5 21	13 4.67	+ 0 34.8	1.159	2.001	21.3	20.0
<b>277718</b>	2006 <i>DR</i> <sub>43</sub>		4 14.4 224°13'	3°8/17.9	18		<b>208198</b>	2000 <i>RV</i> <sub>12</sub>		4 14.4 246°38'	0°0/14.4	17	
3 12	13 57.27	-22 10.0	2.358	3.147	12.7	21.5	3 12	13 50.98	-12 37.1	2.541	3.374	10.6	20.4
3 22	13 51.41	-22 26.9	2.259	3.137	10.2	21.3	3 22	13 46.54	-11 51.5	2.446	3.362	7.8	20.2
4 1	13 43.59	-22 28.8	2.184	3.127	7.3	21.1	4 1	13 40.59	-10 54.9	2.376	3.349	4.7	20.0
4 11	13 34.47	-22 15.7	2.136	3.116	4.6	20.9	4 11	13 33.70	- 9 50.8	2.335	3.336	1.2	19.7
4 21	13 24.87	-21 49.0	2.116	3.105	4.0	20.9	4 21	13 26.50	- 8 43.5	2.324	3.322	2.4	19.8
5 1	13 15.72	-21 12.3	2.125	3.094	6.2	21.0	5 1	13 19.71	- 7 38.2	2.342	3.308	5.8	20.0
5 11	13 7.88	-20 31.1	2.162	3.082	9.3	21.1	5 11	13 13.98	- 6 39.8	2.387	3.294	9.1	20.2
5 21	13 1.93	-19 50.6	2.222	3.069	12.2	21.3	5 21	13 9.76	- 5 52.2	2.455	3.280	11.9	20.4
<b>116377</b>	2003 <i>YL</i> <sub>113</sub>		4 14.4 166°06'	3°5/11.5	18		<b>341828</b>	2008 <i>BK</i> <sub>2</sub>		4 14.4 108°92'	2°1/16.7	17	
3 12	13 57.60	- 1 37.0	1.857	2.714	12.9	20.5	3 12	13 54.79	-17 52.0	2.602	3.409	11.2	21.4
3 22	13 51.66	- 0 55.4	1.789	2.717	9.4	20.3	3 22	13 49.16	-17 51.9	2.531	3.425	8.5	21.3
4 1	13 43.69	- 0 10.8	1.746	2.721	5.8	20.0	4 1	13 42.04	-17 40.3	2.485	3.442	5.6	21.1
4 11	13 34.47	+ 0 31.0	1.730	2.723	3.5	19.9	4 11	13 34.05	-17 18.7	2.466	3.458	2.8	20.9
4 21	13 24.97	+ 1 4.4	1.743	2.726	5.5	20.0	4 21	13 25.88	-16 49.5	2.477	3.474	2.5	20.9
5 1	13 16.22	+ 1 24.8	1.782	2.728	9.1	20.2	5 1	13 18.26	-16 16.6	2.518	3.490	5.2	21.1
5 11	13 9.06	+ 1 29.3	1.846	2.729	12.6	20.5	5 11	13 11.82	-15 43.9	2.586	3.505	8.0	21.3
5 21	13 4.03	+ 1 17.5	1.931	2.730	15.6	20.7	5 21	13 6.99	-15 15.2	2.679	3.520	10.5	21.5
<b>314145</b>	2005 <i>ET</i> <sub>212</sub>		4 14.4 81°80'	1°3/13.4	18		<b>481208</b>	2005 <i>VY</i>		4 14.4 115°36'	9°2/22.8	18	
3 12	13 55.16	- 9 30.0	1.494	2.354	15.3	21.4	3 12	13 57.56	-35 19.6	1.200	1.974	23.4	20.7
3 22	13 50.25	- 8 41.7	1.433	2.363	11.1	21.1	3 22	13 53.02	-34 55.0	1.131	1.983	19.8	20.4
4 1	13 42.98	- 7 41.0	1.394	2.372	6.4	20.9	4 1	13 45.03	-33 44.5	1.077	1.992	15.7	20.2
4 11	13 34.30	- 6 34.1	1.381	2.381	1.8	20.6	4 11	13 34.88	-31 45.6	1.042	2.001	11.6	20.0
4 21	13 25.34	- 5 28.7	1.394	2.390	4.1	20.8	4 21	13 24.33	-29 4.4	1.031	2.009	9.2	19.9
5 1	13 17.30	- 4 32.4	1.433	2.399	8.9	21.1	5 1	13 15.21	-25 56.1	1.045	2.017	10.4	20.0
5 11	13 11.14	- 3 51.3	1.496	2.408	13.1	21.4	5 11	13 8.89	-22 42.0	1.082	2.025	14.1	20.2
5 21	13 7.41	- 3 28.5	1.579	2.417	16.7	21.6	5 21	13 5.98	-19 41.3	1.142	2.032	18.2	20.5
<b>264597</b>	2001 <i>UY</i> <sub>28</sub>		4 14.4 124°13'	1°3/13.2	18		<b>522450</b>	2016 <i>CV</i> <sub>319</sub>		4 14.			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>92439</b>	2000 <i>KD</i>		4 14.4 255°12	0°2/14.6	17		<b>415936</b>	2001 <i>WP</i> <sub>5</sub>		4 14.4 123°53	5°6/9.1	18	
3 12	13 55.20	-13 43.3	1.594	2.440	15.2	19.9	3 12	13 58.44	+ 6 57.5	2.229	3.078	11.3	21.6
3 22	13 50.51	-12 55.7	1.503	2.425	11.4	19.6	3 22	13 51.82	+ 7 48.4	2.181	3.098	8.6	21.4
4 1	13 43.34	-11 49.6	1.436	2.410	6.9	19.3	4 1	13 43.58	+ 8 34.5	2.159	3.117	6.3	21.3
4 11	13 34.47	-10 29.3	1.393	2.394	1.9	18.9	4 11	13 34.45	+ 9 10.0	2.166	3.135	5.6	21.3
4 21	13 25.00	-9 2.1	1.378	2.377	3.4	19.0	4 21	13 25.26	+ 9 30.7	2.201	3.152	7.1	21.4
5 1	13 16.16	-7 37.1	1.390	2.361	8.5	19.3	5 1	13 16.82	+ 9 34.2	2.263	3.169	9.5	21.6
5 11	13 9.07	-6 23.4	1.426	2.344	13.3	19.5	5 11	13 9.82	+ 9 19.9	2.350	3.185	11.9	21.8
5 21	13 4.46	-5 27.2	1.483	2.326	17.3	19.7	5 21	13 4.65	+ 8 49.4	2.457	3.200	14.1	22.0
<b>67593</b>	2000 <i>SK</i> <sub>138</sub>		4 14.4 5°46	6°5/20.1	18		<b>38250</b>	Tartois		4 14.4 243°92	0°9/13.3	17	
3 12	13 51.56	-27 30.4	1.504	2.306	18.1	18.4	3 12	13 51.61	- 8 16.5	2.708	3.550	9.8	20.2
3 22	13 48.01	-27 36.6	1.428	2.306	14.9	18.2	3 22	13 46.91	- 7 42.9	2.615	3.537	7.1	20.0
4 1	13 41.88	-27 14.5	1.371	2.307	11.3	18.0	4 1	13 40.79	- 7 2.5	2.548	3.523	4.2	19.7
4 11	13 34.08	-26 23.7	1.336	2.308	7.9	17.8	4 11	13 33.77	- 6 18.5	2.510	3.510	1.2	19.5
4 21	13 25.81	-25 7.8	1.325	2.310	6.5	17.7	4 21	13 26.46	- 5 34.6	2.501	3.496	2.7	19.6
5 1	13 18.38	-23 34.9	1.339	2.313	8.4	17.8	5 1	13 19.53	- 4 54.9	2.522	3.482	5.9	19.8
5 11	13 12.90	-21 56.1	1.377	2.317	11.9	18.0	5 11	13 13.58	- 4 22.9	2.569	3.467	8.9	20.0
5 21	13 10.03	-20 22.0	1.437	2.321	15.5	18.3	5 21	13 9.05	- 4 1.1	2.641	3.453	11.5	20.1
<b>464855</b>	2005 <i>GJ</i> <sub>40</sub>		4 14.4 321°76	0°9/13.8	17		<b>502342</b>	2015 <i>BJ</i> <sub>193</sub>		4 14.4 271°38	3°7/11.2	17	
3 12	13 52.48	-10 10.2	1.328	2.197	16.2	21.1	3 12	13 54.18	- 1 47.6	1.824	2.688	12.7	21.2
3 22	13 48.83	- 9 36.6	1.248	2.183	12.0	20.8	3 22	13 49.25	- 0 58.5	1.755	2.687	9.3	21.0
4 1	13 42.47	- 8 47.9	1.189	2.169	7.1	20.5	4 1	13 42.33	- 0 5.8	1.710	2.685	5.8	20.8
4 11	13 34.27	- 7 49.3	1.154	2.155	1.8	20.1	4 11	13 34.18	+ 0 44.4	1.691	2.684	3.7	20.6
4 21	13 25.41	- 6 48.3	1.144	2.143	4.2	20.2	4 21	13 25.72	+ 1 26.1	1.700	2.683	5.6	20.7
5 1	13 17.28	- 5 53.8	1.159	2.131	9.7	20.5	5 1	13 17.93	+ 1 54.0	1.735	2.681	9.2	21.0
5 11	13 11.12	- 5 13.8	1.195	2.119	14.7	20.7	5 11	13 11.67	+ 2 5.0	1.795	2.680	12.7	21.2
5 21	13 7.67	- 4 52.8	1.250	2.109	19.0	21.0	5 21	13 7.46	+ 1 58.2	1.874	2.679	15.8	21.4
<b>418058</b>	2007 <i>VC</i> <sub>162</sub>		4 14.4 249°52	0°8/13.8	17		<b>391320</b>	2006 <i>TS</i> <sub>83</sub>		4 14.4 84°81	1°4/15.7	17	
3 12	13 58.51	- 8 51.4	1.736	2.583	14.1	22.0	3 12	13 55.03	-14 33.3	2.276	3.101	12.0	21.2
3 22	13 52.78	- 8 33.1	1.644	2.568	10.4	21.7	3 22	13 49.60	-14 39.6	2.198	3.105	9.0	21.0
4 1	13 44.63	- 8 4.9	1.577	2.552	6.2	21.4	4 1	13 42.44	-14 35.6	2.144	3.110	5.7	20.8
4 11	13 34.81	- 7 30.4	1.535	2.536	1.6	21.1	4 11	13 34.20	-14 22.8	2.118	3.115	2.3	20.6
4 21	13 24.36	- 6 54.7	1.522	2.519	3.6	21.2	4 21	13 25.68	-14 3.9	2.121	3.119	2.5	20.6
5 1	13 14.49	- 6 23.5	1.536	2.502	8.4	21.4	5 1	13 17.70	-13 42.6	2.152	3.124	5.8	20.8
5 11	13 6.27	- 6 2.1	1.575	2.484	12.8	21.6	5 11	13 11.02	-13 22.9	2.210	3.129	9.1	21.0
5 21	13 0.44	- 5 54.1	1.634	2.465	16.6	21.8	5 21	13 6.13	-13 8.5	2.292	3.134	12.0	21.2
<b>89982</b>	2002 <i>TU</i> <sub>35</sub>		4 14.4 287°77	1°2/13.5	18		<b>345857</b>	2007 <i>PJ</i> <sub>26</sub>		4 14.4 292°26	3°6/17.1	16	
3 12	13 55.23	- 8 39.8	1.574	2.433	14.7	20.0	3 12	13 56.55	-19 35.9	1.942	2.755	14.2	21.4
3 22	13 50.58	- 8 10.3	1.483	2.413	10.9	19.8	3 22	13 51.44	-19 55.3	1.829	2.724	11.3	21.2
4 1	13 43.42	- 7 29.3	1.416	2.393	6.4	19.4	4 1	13 43.95	-19 59.4	1.739	2.693	7.8	20.9
4 11	13 34.51	- 6 41.2	1.373	2.374	1.8	19.1	4 11	13 34.69	-19 47.9	1.674	2.662	4.5	20.6
4 21	13 24.93	- 5 52.4	1.357	2.354	4.1	19.2	4 21	13 24.59	-19 21.9	1.637	2.631	4.0	20.5
5 1	13 15.92	- 5 9.8	1.368	2.334	9.1	19.4	5 1	13 14.81	-18 45.7	1.626	2.599	7.3	20.7
5 11	13 8.63	- 4 39.9	1.401	2.315	13.7	19.6	5 11	13 6.45	-18 5.3	1.642	2.568	11.3	20.8
5 21	13 3.82	- 4 26.5	1.455	2.295	17.8	19.8	5 21	13 0.33	-17 27.3	1.680	2.536	15.0	21.0
<b>60731</b>	2000 <i>GQ</i> <sub>79</sub>		4 14.4 254°40	0°6/14.9	17		<b>465075</b>	2006 <i>SA</i> <sub>357</sub>		4 14.4 187°60	1°7/12.8	16	
3 12	13 55.73	-14 35.9	1.654	2.495	15.0	19.8	3 12	13 56.30	- 6 52.5	2.118	2.964	11.9	22.1
3 22	13 50.88	-13 51.1	1.559	2.477	11.3	19.5	3 22	13 50.59	- 6 10.5	2.039	2.963	8.7	21.9
4 1	13 43.56	-12 47.4	1.486	2.459	6.9	19.2	4 1	13 43.05	- 5 21.1	1.986	2.962	5.1	21.7
4 11	13 34.54	-11 28.5	1.440	2.440	2.1	18.9	4 11	13 34.36	- 4 28.8	1.961	2.961	1.8	21.4
4 21	13 24.88	-10 1.2	1.421	2.420	3.2	18.9	4 21	13 25.38	- 3 38.9	1.966	2.958	3.8	21.6
5 1	13 15.80	- 8 34.3	1.429	2.400	8.3	19.2	5 1	13 16.99	- 2 56.4	1.999	2.955	7.5	21.8
5 11	13 8.43	- 7 16.9	1.461	2.379	13.0	19.4	5 11	13 9.98	- 2 25.7	2.057	2.951	10.9	22.0
5 21	13 3.48	- 6 15.8	1.515	2.358	17.1	19.6	5 21	13 4.87	- 2 8.9	2.138	2.947	13.9	22.2
<b>13021</b>	1988 <i>RY</i> <sub>5</sub>		4 14.4 219°41	0°3/14.1	18		<b>437714</b>	2014 <i>DE</i> <sub>99</sub>		4 14.4 254°69	1°0/15.4	17	
3 12	13 53.04	-10 54.6	2.210	3.050	11.7	18.2	3 12	13 52.47	-14 33.8	2.236	3.066	12.0	21.4
3 22	13 48.20	-10 20.7	2.126	3.046	8.6	17.9	3 22	13 47.81	-14 12.4	2.148	3.060	9.0	21.2
4 1	13 41.63	- 9 36.7	2.067	3.041	5.1	17.7	4 1	13 41.43	-13 38.9	2.085	3.054	5.6	21.0
4 11	13 33.99	- 8 46.3	2.035	3.036	1.3	17.4	4 11	13 33.95	-12 55.8	2.049	3.048	2.0	20.7
4 21	13 26.03	- 7 54.0	2.033	3.031	2.7	17.5	4 21	13 26.14	-12 7.1	2.042	3.041	2.4	20.7
5 1	13 18.59	- 7 5.0	2.059	3.025	6.6	17.8	5 1	13 18.83	-11 17.8	2.063	3.035	6.1	21.0
5 11	13 12.40	- 6 24.2	2.111	3.019	10.0	18.0	5 11	13 12.75	-10 33.1	2.110	3.028	9.5	21.2
5 21	13 7.98	- 5 54.8	2.186	3.013	13.0	18.2	5 21	13 8.43	- 9 57.0	2.181	3.022	12.6	21.3
<b>18506</b>	1996 <i>PY</i> <sub>6</sub>		4 14.4 274°66	2°1/13.4	18		<b>470685</b>	2008 <i>ST</i> <sub>287</sub>		4 14.4 256°55	1°6/15.9	17	
3 12	14 7.02	- 3 8.1	1.617	2.463	15.0	18.1	3 12	13 53.90	-16 19.6	2.088	2.913	12.9	22.0
3 22	13 59.46	- 3 29.9	1.517	2.439	11.3	17.8	3 22	13 49.07	-15 59.5	1.992	2.899	9.8	21.7
4 1	13 48.85	- 3 51.2	1.440	2.414	6.8	17.5	4 1	13 42.28	-15 24.8	1.919	2.885	6.3	21.5
4 11	13 35.97	- 4 14.9	1.390	2.389	2.5	17.2	4 11	13 34.19	-14 37.7	1.874	2.870	2.6	21.2
4 21	13 22.06	- 4 43.7	1.369	2.364	4.6	17.3	4 21	13 25.65	-13 42.2	1.856	2.855	2.7	21.2
5 1	13 8.64	- 5 20.1	1.377	2.338	9.7	17.5	5 1	13 17.60	-12 43.7	1.867	2.840	6.5	21.4
5 11	12 57.13	- 6 6.0	1.411	2.312	14.5	17.7	5 11	13 10.88	-11 48.7	1.904	2.825	10.3	21.6
5 21	12 48.48	- 7 2.1	1.466	2.285	18.7	17.9	5 21	13 6.11	-11 2.3	1.964	2.809	13.6	21.8
<b>87388</b>	2000 <i>QL</i> <sub>66</sub>		4 14.4 232°99	6°0/6.8	18		<b>312522</b>	2009 <i>DQ</i> <sub>48</sub>		4 14.4 236°54	3°4/11.5		

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>93870</b>	2000 WW <sub>120</sub>		4 14.4 94°07'	4.5/10.3	18		<b>196162</b>	2002 VW <sub>41</sub>		4 14.4 220°99'	0.9/13.7	18	
3 12	13 58.21	+ 2 55.6	2.131	2.984	11.6	20.0	3 12	13 59.20	- 9 28.8	1.645	2.493	14.7	21.7
3 22	13 51.64	+ 3 40.6	2.090	3.013	8.6	19.9	3 22	13 53.34	- 8 58.1	1.561	2.485	10.9	21.4
4 1	13 43.46	+ 4 23.5	2.074	3.041	5.7	19.8	4 1	13 44.98	- 8 15.7	1.499	2.475	6.4	21.1
4 11	13 34.42	+ 4 58.7	2.086	3.069	4.5	19.7	4 11	13 34.94	- 7 25.8	1.465	2.465	1.7	20.8
4 21	13 25.39	+ 5 22.2	2.128	3.096	6.0	19.9	4 21	13 24.33	- 6 34.6	1.457	2.454	3.8	20.9
5 1	13 17.18	+ 5 31.0	2.197	3.123	8.7	20.1	5 1	13 14.42	- 5 48.8	1.478	2.443	8.7	21.2
5 11	13 10.46	+ 5 24.2	2.291	3.149	11.4	20.3	5 11	13 6.29	- 5 14.8	1.522	2.431	13.2	21.4
5 21	13 5.61	+ 5 2.6	2.406	3.174	13.7	20.5	5 21	13 0.67	- 4 56.2	1.588	2.418	17.0	21.6
<b>287807</b>	2003 SU <sub>172</sub>		4 14.4 153°65'	0.1/14.4	18		<b>119370</b>	2001 SL <sub>286</sub>		4 14.4 198°38'	4.5/9.4	17	
3 12	13 57.79	-11 42.0	2.070	2.903	12.7	21.9	3 12	13 53.70	+ 0 37.8	2.126	2.986	11.3	20.6
3 22	13 51.66	-11 10.4	1.998	2.914	9.3	21.7	3 22	13 48.67	+ 2 0.7	2.055	2.983	8.4	20.4
4 1	13 43.65	-10 27.9	1.950	2.923	5.5	21.5	4 1	13 41.92	+ 3 26.3	2.010	2.980	5.6	20.2
4 11	13 34.51	- 9 38.3	1.931	2.931	1.4	21.3	4 11	13 34.09	+ 4 47.6	1.993	2.976	4.6	20.2
4 21	13 25.14	- 8 46.2	1.941	2.939	2.8	21.4	4 21	13 26.00	+ 5 57.8	2.004	2.972	6.4	20.3
5 1	13 16.46	- 7 57.3	1.980	2.946	6.8	21.6	5 1	13 18.48	+ 6 51.5	2.043	2.966	9.4	20.4
5 11	13 9.27	- 7 16.6	2.045	2.952	10.4	21.9	5 11	13 12.26	+ 7 25.4	2.106	2.961	12.4	20.6
5 21	13 4.06	- 6 47.4	2.133	2.957	13.4	22.1	5 21	13 7.83	+ 7 38.9	2.190	2.955	15.0	20.8
<b>171909</b>	2001 SK <sub>44</sub>		4 14.4 134°65'	1.7/12.6	18		<b>188546</b>	2004 SQ <sub>29</sub>		4 14.4 310°53'	3.3/17.4	18	
3 12	13 53.42	- 5 18.0	2.455	3.303	10.4	20.2	3 12	13 56.31	-19 59.7	2.474	3.272	12.0	19.7
3 22	13 48.21	- 4 46.6	2.386	3.311	7.6	20.0	3 22	13 50.58	-20 31.0	2.385	3.270	9.4	19.5
4 1	13 41.52	- 4 10.7	2.342	3.318	4.4	19.8	4 1	13 43.08	-20 50.4	2.320	3.268	6.6	19.3
4 11	13 33.95	- 3 34.1	2.327	3.326	1.8	19.7	4 11	13 34.42	-20 57.6	2.283	3.266	4.0	19.1
4 21	13 26.21	- 3 0.6	2.342	3.333	3.4	19.8	4 21	13 25.36	-20 53.8	2.274	3.265	3.6	19.1
5 1	13 19.00	- 2 34.1	2.385	3.339	6.6	20.0	5 1	13 16.75	-20 41.7	2.294	3.263	5.8	19.2
5 11	13 12.94	- 2 17.4	2.454	3.346	9.5	20.2	5 11	13 9.36	-20 25.3	2.341	3.261	8.7	19.4
5 21	13 8.47	- 2 12.0	2.547	3.352	12.0	20.4	5 21	13 3.73	-20 8.9	2.413	3.259	11.4	19.6
<b>374467</b>	2005 XO <sub>82</sub>		4 14.4 235°47'	1.7/16.1	17		<b>409068</b>	2003 SY <sub>226</sub>		4 14.4 148°90'	2.4/16.3	16	
3 12	13 55.44	-16 52.4	2.193	3.011	12.6	22.1	3 12	13 58.79	-17 11.5	1.767	2.591	14.9	22.1
3 22	13 50.13	-16 33.4	2.095	2.998	9.6	21.9	3 22	13 52.82	-17 11.7	1.693	2.597	11.4	21.9
4 1	13 42.88	-15 59.9	2.020	2.983	6.2	21.7	4 1	13 44.54	-16 55.9	1.641	2.603	7.4	21.7
4 11	13 34.36	-15 14.0	1.973	2.968	2.7	21.4	4 11	13 34.80	-16 25.8	1.614	2.609	3.5	21.5
4 21	13 25.38	-14 19.3	1.954	2.953	2.6	21.4	4 21	13 24.68	-15 45.2	1.616	2.614	3.3	21.5
5 1	13 16.86	-13 21.0	1.964	2.937	6.3	21.6	5 1	13 15.34	-14 59.9	1.645	2.619	7.2	21.7
5 11	13 9.67	-12 25.3	2.001	2.920	10.0	21.8	5 11	13 7.77	-14 16.6	1.700	2.623	11.1	21.9
5 21	13 4.37	-11 37.4	2.062	2.903	13.2	22.0	5 21	13 2.57	-13 40.9	1.777	2.627	14.6	22.2
<b>458961</b>	2011 VT <sub>12</sub>		4 14.4 138°02'	1.8/12.8	18		<b>33206</b>	1998 FB <sub>60</sub>		4 14.4 124°75'	1.2/15.4	18	
3 12	13 57.89	- 7 21.3	1.800	2.650	13.5	22.2	3 12	13 58.94	-13 39.5	2.080	2.905	12.9	19.1
3 22	13 51.89	- 6 32.2	1.737	2.663	9.8	22.0	3 22	13 52.54	-13 46.3	2.008	2.917	9.7	18.9
4 1	13 43.83	- 5 34.6	1.699	2.675	5.7	21.7	4 1	13 44.21	-13 42.4	1.961	2.928	6.0	18.7
4 11	13 34.57	- 4 34.0	1.687	2.687	2.0	21.5	4 11	13 34.70	-13 29.6	1.942	2.940	2.2	18.4
4 21	13 25.09	- 3 36.8	1.705	2.697	4.1	21.7	4 21	13 24.91	-13 10.9	1.952	2.951	2.6	18.5
5 1	13 16.44	- 2 49.1	1.749	2.707	8.2	22.0	5 1	13 15.82	-12 50.3	1.990	2.961	6.4	18.7
5 11	13 9.47	- 2 15.4	1.820	2.717	12.0	22.2	5 11	13 8.25	-12 32.2	2.055	2.971	9.9	19.0
5 21	13 4.68	- 1 58.0	1.911	2.725	15.1	22.4	5 21	13 2.71	-12 20.2	2.144	2.981	12.9	19.2
<b>504420</b>	2007 YK <sub>73</sub>		4 14.4 150°50'	6.6/6.4	17		<b>146080</b>	2000 HV <sub>3</sub>		4 14.4 238°62'	0.5/14.0	18	
3 12	13 51.99	+10 48.9	2.416	3.271	10.3	21.3	3 12	13 56.23	- 9 55.9	1.881	2.727	13.2	20.3
3 22	13 47.20	+12 1.7	2.362	3.274	8.3	21.2	3 22	13 50.88	- 9 34.0	1.796	2.718	9.8	20.1
4 1	13 40.94	+13 8.2	2.333	3.277	6.8	21.1	4 1	13 43.40	- 9 1.9	1.734	2.709	5.8	19.8
4 11	13 33.82	+14 2.3	2.332	3.279	6.8	21.1	4 11	13 34.52	- 8 23.2	1.699	2.699	1.5	19.5
4 21	13 26.53	+14 39.3	2.357	3.282	8.1	21.2	4 21	13 25.19	- 7 42.6	1.691	2.689	3.2	19.6
5 1	13 19.79	+14 56.3	2.408	3.284	10.2	21.3	5 1	13 16.43	- 7 5.7	1.712	2.679	7.6	19.9
5 11	13 14.22	+14 52.8	2.482	3.286	12.3	21.5	5 11	13 9.20	- 6 37.6	1.758	2.669	11.6	20.1
5 21	13 10.22	+14 30.1	2.575	3.288	14.2	21.6	5 21	13 4.09	- 6 21.7	1.826	2.658	15.0	20.3
<b>392994</b>	2012 XM <sub>104</sub>		4 14.4 172°51'	2.6/11.1	18		<b>421118</b>	2013 QF <sub>76</sub>		4 14.4 144°50'	1.9/15.9	17	
3 12	13 51.66	- 1 44.0	2.849	3.699	9.1	21.8	3 12	13 55.12	-16 24.5	1.725	2.558	14.8	21.1
3 22	13 46.78	- 0 59.2	2.776	3.702	6.6	21.7	3 22	13 50.19	-16 10.4	1.648	2.559	11.3	20.9
4 1	13 40.63	+ 0 12.2	2.730	3.704	4.1	21.5	4 1	13 43.02	-15 40.0	1.593	2.560	7.2	20.7
4 11	13 33.74	+ 0 33.0	2.714	3.706	2.6	21.4	4 11	13 34.42	-14 55.6	1.564	2.560	3.0	20.4
4 21	13 26.67	+ 1 12.7	2.727	3.707	4.0	21.5	4 21	13 25.42	-14 2.1	1.562	2.561	3.0	20.4
5 1	13 20.04	+ 1 43.5	2.769	3.708	6.5	21.7	5 1	13 17.14	-13 6.0	1.587	2.562	7.2	20.7
5 11	13 14.37	+ 2 3.1	2.837	3.709	9.0	21.8	5 11	13 10.55	-12 14.4	1.637	2.562	11.3	20.9
5 21	13 10.03	+ 2 10.4	2.929	3.709	11.2	22.0	5 21	13 6.24	-11 32.9	1.708	2.563	14.9	21.1
<b>275666</b>	2000 OJ <sub>36</sub>		4 14.4 255°18'	1.9/16.2	18		<b>244739</b>	2003 SY <sub>27</sub>		4 14.4 247°65'	0.1/14.5	16	
3 12	13 54.46	-17 38.0	2.068	2.888	13.2	20.8	3 12	13 56.81	-12 48.9	2.008	2.841	13.0	21.8
3 22	13 49.55	-17 13.0	1.966	2.870	10.1	20.6	3 22	13 51.34	-12 7.9	1.904	2.820	9.7	21.6
4 1	13 42.62	-16 31.7	1.889	2.852	6.6	20.4	4 1	13 43.72	-11 12.5	1.825	2.797	5.9	21.3
4 11	13 34.31	-15 35.9	1.837	2.833	2.9	20.1	4 11	13 34.63	-10 6.1	1.773	2.773	1.6	21.0
4 21	13 25.50	-14 29.9	1.814	2.813	2.8	20.0	4 21	13 24.95	- 8 54.2	1.750	2.749	3.0	21.0
5 1	13 17.16	-13 19.7	1.820	2.793	6.6	20.2	5 1	13 15.72	- 7 43.6	1.756	2.723	7.4	21.2
5 11	13 10.18	-12 12.3	1.852	2.773	10.5	20.4	5 11	13 7.89	- 6 41.0	1.788	2.697	11.5	21.4
5 21	13 5.19	-11 13.8	1.907	2.752	14.0	20.6	5 21	13 2.13	- 5 51.8	1.843	2.669	15.2	21.6
<b>415265</b>	2012 RB <sub>5</sub>		4 14.4 1°33'	1.3/16.5	18		<b>306899</b>	2001 TJ <sub>161</sub>		4 14.4 284°03'	2.6/16.6	17	
3 12	13 48.80	-16 31.											

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4 14.4

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>139994</b>	2001 <i>SQ</i> <sub>36</sub>	4 14.4 71°89'		0°1/14.5 18			<b>176405</b>	2001 <i>UW</i> <sub>174</sub>	4 14.4 102°17'		4°9/ 9.5 18		
3 12	13 54.15	-11 15.5	2.127	2.966	12.1	19.7	3 12	13 56.38	+ 6 51.0	2.485	3.334	10.3	20.4
3 22	13 48.91	-10 55.9	2.067	2.985	8.9	19.6	3 22	13 50.24	+ 7 25.0	2.435	3.352	7.8	20.2
4 1	13 41.99	-10 27.0	2.031	3.004	5.3	19.4	4 1	13 42.66	+ 7 54.5	2.411	3.370	5.7	20.1
4 11	13 34.12	- 9 52.3	2.023	3.023	1.4	19.1	4 11	13 34.30	+ 8 14.9	2.416	3.387	5.0	20.1
4 21	13 26.10	- 9 15.7	2.043	3.042	2.5	19.2	4 21	13 25.87	+ 8 23.0	2.449	3.404	6.2	20.2
5 1	13 18.77	- 8 41.9	2.092	3.061	6.3	19.5	5 1	13 18.09	+ 8 16.8	2.510	3.421	8.4	20.4
5 11	13 12.81	- 8 14.9	2.167	3.080	9.6	19.8	5 11	13 11.55	+ 7 55.8	2.597	3.437	10.7	20.5
5 21	13 8.66	- 7 57.5	2.265	3.099	12.4	20.0	5 21	13 6.64	+ 7 21.1	2.705	3.454	12.8	20.7
<b>144016</b>	2004 <i>BC</i> <sub>8</sub>	4 14.4 280°73'		4°0/11.4 17			<b>206252</b>	2002 <i>XM</i> <sub>60</sub>	4 14.4 89°50'		0°4/14.9 17		
3 12	13 56.03	- 1 55.2	1.580	2.447	14.2	20.4	3 12	13 52.97	-13 4.4	2.181	3.016	12.0	20.4
3 22	13 51.03	- 1 10.9	1.502	2.436	10.5	20.2	3 22	13 48.10	-12 37.4	2.111	3.027	8.9	20.2
4 1	13 43.62	- 0 22.0	1.448	2.425	6.5	19.9	4 1	13 41.56	-11 59.5	2.066	3.038	5.4	20.0
4 11	13 34.61	+ 0 24.9	1.419	2.413	4.0	19.7	4 11	13 34.05	-11 14.0	2.049	3.049	1.6	19.8
4 21	13 25.09	+ 1 2.8	1.417	2.402	6.2	19.8	4 21	13 26.33	-10 25.1	2.060	3.059	2.4	19.9
5 1	13 16.27	+ 1 25.7	1.440	2.390	10.4	20.0	5 1	13 19.22	- 9 38.0	2.100	3.070	6.1	20.1
5 11	13 9.19	+ 1 29.8	1.486	2.379	14.4	20.3	5 11	13 13.42	- 8 57.4	2.165	3.081	9.5	20.3
5 21	13 4.54	+ 1 14.1	1.552	2.368	18.0	20.5	5 21	13 9.38	- 8 26.7	2.254	3.091	12.4	20.6
<b>38334</b>	1999 <i>RK</i> <sub>133</sub>	4 14.4 246°89'		1°7/12.2 18			<b>313674</b>	2003 <i>SV</i> <sub>226</sub>	4 14.4 192°11'		0°8/13.7 16		
3 12	13 49.96	- 7 30.2	2.539	3.388	10.1	19.5	3 12	13 56.81	- 9 53.3	1.974	2.816	12.9	22.1
3 22	13 45.77	- 6 21.9	2.452	3.378	7.3	19.3	3 22	13 51.15	- 9 13.8	1.893	2.814	9.4	21.9
4 1	13 40.16	- 5 5.4	2.391	3.368	4.3	19.1	4 1	13 43.49	- 8 23.7	1.837	2.812	5.5	21.6
4 11	13 33.67	- 4 45.4	2.359	3.358	1.8	18.9	4 11	13 34.57	- 7 27.3	1.809	2.809	1.4	21.3
4 21	13 26.91	- 2 27.4	2.357	3.347	3.5	19.0	4 21	13 25.30	- 6 30.2	1.809	2.806	3.3	21.5
5 1	13 20.58	- 1 16.8	2.385	3.337	6.7	19.2	5 1	13 16.66	- 5 38.2	1.838	2.802	7.4	21.7
5 11	13 15.27	- 0 18.0	2.438	3.326	9.7	19.4	5 11	13 9.50	- 4 56.7	1.893	2.797	11.2	21.9
5 21	13 11.41	+ 0 26.1	2.515	3.315	12.3	19.5	5 21	13 4.39	- 4 29.0	1.970	2.791	14.5	22.1
<b>199422</b>	2006 <i>DZ</i> <sub>1</sub>	4 14.4 199°13'		4°3/ 9.9 17			<b>152467</b>	2005 <i>VC</i> <sub>114</sub>	4 14.4 308°46'		0°8/15.1 17		
3 12	13 53.04	+ 0 3.4	2.049	2.912	11.6	20.7	3 12	13 52.93	-13 51.9	1.582	2.432	15.1	20.3
3 22	13 48.24	+ 1 13.5	1.980	2.910	8.5	20.5	3 22	13 48.90	-13 29.9	1.494	2.416	11.4	20.0
4 1	13 41.69	+ 2 26.2	1.936	2.908	5.6	20.3	4 1	13 42.45	-12 51.7	1.427	2.400	7.0	19.7
4 11	13 34.07	+ 3 34.9	1.920	2.906	4.3	20.2	4 11	13 34.35	-12 0.4	1.385	2.385	2.2	19.4
4 21	13 26.18	+ 4 33.2	1.931	2.904	6.1	20.3	4 21	13 25.65	-11 1.6	1.370	2.370	3.1	19.4
5 1	13 18.88	+ 5 16.0	1.970	2.901	9.2	20.5	5 1	13 17.54	-10 2.8	1.380	2.355	8.1	19.6
5 11	13 12.92	+ 5 40.2	2.033	2.899	12.3	20.7	5 11	13 11.14	- 9 11.5	1.414	2.340	12.7	19.8
5 21	13 8.78	+ 5 45.2	2.116	2.895	15.0	20.9	5 21	13 7.14	- 8 33.8	1.469	2.326	16.7	20.1
<b>61407</b>	2000 <i>QK</i> <sub>10</sub>	4 14.4 260°07'		1°2/13.4 18			<b>470466</b>	2008 <i>AL</i> <sub>56</sub>	4 14.4 208°15'		2°9/17.5 17		
3 12	13 54.42	- 8 58.6	1.948	2.797	12.7	20.1	3 12	13 52.75	-20 32.6	2.360	3.164	12.3	21.5
3 22	13 49.54	- 8 17.8	1.855	2.780	9.4	19.9	3 22	13 48.01	-20 26.7	2.273	3.163	9.6	21.3
4 1	13 42.63	- 7 26.3	1.787	2.763	5.5	19.6	4 1	13 41.57	-20 6.0	2.210	3.162	6.6	21.1
4 11	13 34.35	- 6 28.6	1.745	2.745	1.6	19.3	4 11	13 34.07	-19 31.7	2.173	3.161	3.7	20.9
4 21	13 25.59	- 5 30.3	1.732	2.728	3.6	19.4	4 21	13 26.26	-18 46.7	2.165	3.160	3.1	20.9
5 1	13 17.33	- 4 37.6	1.746	2.709	7.8	19.6	5 1	13 18.95	-17 55.6	2.185	3.158	5.7	21.1
5 11	13 10.47	- 3 56.2	1.786	2.691	11.8	19.8	5 11	13 12.87	-17 3.6	2.232	3.157	8.8	21.2
5 21	13 5.62	- 3 29.5	1.848	2.672	15.2	20.0	5 21	13 8.52	-16 16.0	2.303	3.156	11.6	21.4
<b>311177</b>	2004 <i>TL</i> <sub>347</sub>	4 14.4 148°61'		2°8/16.9 18			<b>303426</b>	2005 <i>AJ</i> <sub>6</sub>	4 14.4 79°97'		0°1/14.5 18		
3 12	13 58.10	-19 37.0	1.768	2.583	15.3	21.4	3 12	13 57.00	-12 39.3	1.444	2.295	16.2	21.0
3 22	13 52.31	-19 21.1	1.694	2.592	11.8	21.2	3 22	13 51.65	-12 3.7	1.388	2.312	11.9	20.8
4 1	13 44.24	-18 46.1	1.642	2.600	7.8	21.0	4 1	13 43.87	-11 12.9	1.355	2.330	7.1	20.5
4 11	13 34.75	-17 53.9	1.615	2.607	4.0	20.8	4 11	13 34.66	-10 12.0	1.346	2.347	1.9	20.2
4 21	13 24.93	-16 49.4	1.617	2.614	3.4	20.8	4 21	13 25.25	- 9 8.4	1.364	2.364	3.4	20.4
5 1	13 15.92	-15 39.5	1.646	2.620	7.1	21.0	5 1	13 16.88	- 8 9.9	1.409	2.381	8.3	20.7
5 11	13 8.69	-14 32.4	1.701	2.626	11.0	21.2	5 11	13 10.52	- 7 23.5	1.477	2.397	12.7	21.0
5 21	13 3.82	-13 34.4	1.779	2.631	14.5	21.5	5 21	13 6.71	- 6 53.1	1.566	2.414	16.3	21.3
<b>485911</b>	2012 <i>GA</i> <sub>6</sub>	4 14.4 79°29'		4°9/15.6 17			<b>430235</b>	2013 <i>VZ</i> <sub>21</sub>	4 14.4 248°16'		7°8/21.4 17		
3 12	14 17.09	-12 54.7	1.023	1.865	22.0	20.7	3 12	13 57.45	-32 12.2	2.036	2.781	15.9	20.7
3 22	14 8.05	-14 58.4	0.961	1.875	17.0	20.4	3 22	13 52.11	-32 49.4	1.938	2.770	13.6	20.5
4 1	13 54.42	-16 53.8	0.919	1.884	11.3	20.1	4 1	13 44.33	-33 3.8	1.861	2.759	11.1	20.3
4 11	13 37.53	-18 33.3	0.901	1.894	5.9	19.8	4 11	13 34.85	-32 52.4	1.806	2.748	8.8	20.2
4 21	13 19.60	-19 51.2	0.909	1.903	6.2	19.9	4 21	13 24.71	-32 15.1	1.777	2.737	7.8	20.1
5 1	13 3.20	-20 47.2	0.942	1.913	11.5	20.2	5 1	13 15.12	-31 15.6	1.774	2.725	8.7	20.1
5 11	12 50.41	-21 27.7	0.998	1.923	16.9	20.5	5 11	13 7.19	-30 1.4	1.796	2.713	11.0	20.2
5 21	12 42.20	-22 0.9	1.072	1.932	21.4	20.8	5 21	13 1.64	-28 41.3	1.841	2.701	13.8	20.4
<b>468206</b>	2015 <i>BV</i> <sub>42</sub>	4 14.4 94°36'		0°9/15.1 17			<b>378251</b>	2007 <i>DN</i> <sub>10</sub>	4 14.4 295°59'		4°2/21.4 18		
3 12	13 56.88	-12 57.4	1.786	2.625	14.1	22.0	3 12	13 51.16	-31 33.9	4.310	5.023	8.5	21.3
3 22	13 51.33	-12 52.0	1.716	2.633	10.5	21.7	3 22	13 46.32	-32 4.0	4.208	5.018	7.2	21.2
4 1	13 43.62	-12 34.6	1.669	2.641	6.4	21.5	4 1	13 40.39	-32 23.0	4.130	5.013	5.9	21.0
4 11	13 34.59	-12 7.9	1.649	2.648	2.1	21.2	4 11	13 33.75	-32 30.3	4.078	5.008	4.8	21.0
4 21	13 25.24	-11 36.0	1.656	2.656	2.8	21.3	4 21	13 26.86	-32 26.2	4.055	5.003	4.2	20.9
5 1	13 16.66	-11 4.1	1.691	2.664	7.1	21.6	5 1	13 20.20	-32 12.2	4.060	4.998	4.7	20.9
5 11	13 9.74	-10 37.6	1.751	2.671	11.1	21.8	5 11	13 14.22	-31 50.7	4.093	4.993	5.8	21.0
5 21	13 5.05	-10 20.5	1.834	2.679	14.4	22.1	5 21	13 9.29	-31 24.6	4.152	4.988	7.2	21.1
<b>188035</b>	2001 <i>UJ</i> <sub>136</sub>	4 14.4 190°65'		1°2/13.2 17			<b>329590</b>						

EPHEMERIDES

4 14.4

4 14.5

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>208682</b>	2002 <i>GT</i> <sub>105</sub>		4 14.4	11°00	7°0/ 8.9	18	<b>155048</b>	2005 <i>RH</i> <sub>24</sub>		4 14.5	125°62	1°7/15.9	18
3 12	13 54.50	+ 3 15.6	1.365	2.245	15.2	19.8	3 12	13 58.54	-15 28.2	2.126	2.946	12.9	19.8
3 22	13 50.01	+ 4 41.8	1.309	2.245	11.5	19.5	3 22	13 52.24	-15 29.2	2.056	2.960	9.7	19.7
4 1	13 43.01	+ 6 7.9	1.276	2.246	8.1	19.4	4 1	13 44.06	-15 18.0	2.010	2.974	6.2	19.5
4 11	13 34.47	+ 7 23.0	1.267	2.247	7.1	19.3	4 11	13 34.74	-14 56.6	1.991	2.988	2.6	19.3
4 21	13 25.59	+ 8 17.8	1.282	2.248	9.4	19.4	4 21	13 25.19	-14 28.0	2.002	3.001	2.6	19.3
5 1	13 17.64	+ 8 46.0	1.321	2.249	13.1	19.6	5 1	13 16.33	-13 56.6	2.041	3.013	6.2	19.5
5 11	13 11.67	+ 8 45.5	1.381	2.251	16.7	19.9	5 11	13 8.96	-13 27.5	2.108	3.025	9.6	19.8
5 21	13 8.24	+ 8 18.3	1.458	2.253	19.9	20.1	5 21	13 3.58	-13 4.4	2.197	3.036	12.6	20.0
<b>239972</b>	2001 <i>QF</i> <sub>157</sub>		4 14.4	247°76	1°7/13.0	17	<b>135141</b>	2001 <i>QH</i> <sub>201</sub>		4 14.5	116°36	3°8/18.2	18
3 12	13 56.37	- 9 12.2	1.660	2.513	14.3	20.9	3 12	13 54.71	-22 22.5	2.271	3.066	13.0	19.5
3 22	13 51.33	- 8 11.3	1.569	2.496	10.6	20.6	3 22	13 49.53	-22 32.8	2.190	3.071	10.3	19.3
4 1	13 43.86	- 6 55.9	1.501	2.478	6.2	20.3	4 1	13 42.52	-22 27.3	2.131	3.075	7.3	19.1
4 11	13 34.74	- 5 32.1	1.460	2.460	2.0	20.0	4 11	13 34.37	-22 6.5	2.098	3.079	4.6	19.0
4 21	13 25.00	- 4 7.5	1.446	2.441	4.4	20.1	4 21	13 25.90	-21 32.6	2.094	3.084	3.9	18.9
5 1	13 15.86	- 2 51.2	1.460	2.421	9.2	20.4	5 1	13 17.98	-20 49.9	2.117	3.088	6.1	19.1
5 11	13 8.38	- 1 50.7	1.498	2.400	13.7	20.6	5 11	13 11.41	-20 3.9	2.167	3.092	9.0	19.2
5 21	13 3.30	- 1 10.2	1.556	2.379	17.6	20.8	5 21	13 6.69	-19 20.0	2.241	3.096	11.8	19.4
<b>17308</b>	6079 <i>P-L</i>		4 14.4	98°69	4°5/18.8	18	<b>252924</b>	2002 <i>NZ</i> <sub>46</sub>		4 14.5	297°87	4°0/17.1	17
3 12	13 58.78	-24 32.1	2.555	3.325	12.4	18.3	3 12	13 57.52	-19 10.3	1.515	2.343	16.8	20.4
3 22	13 52.30	-25 9.9	2.480	3.341	10.0	18.1	3 22	13 52.51	-19 35.2	1.431	2.334	13.2	20.2
4 1	13 44.06	-25 33.1	2.429	3.357	7.4	18.0	4 1	13 44.73	-19 41.9	1.367	2.326	9.1	19.9
4 11	13 34.73	-25 40.9	2.405	3.373	5.2	17.9	4 11	13 35.02	-19 29.9	1.328	2.318	5.1	19.7
4 21	13 25.11	-25 34.3	2.409	3.388	4.6	17.9	4 21	13 24.60	-19 1.7	1.314	2.310	4.5	19.6
5 1	13 16.05	-25 16.2	2.443	3.404	6.0	18.0	5 1	13 14.88	-18 22.7	1.326	2.302	8.2	19.8
5 11	13 8.31	-24 51.1	2.504	3.419	8.4	18.1	5 11	13 7.11	-17 41.1	1.361	2.294	12.6	20.0
5 21	13 2.39	-24 23.9	2.590	3.434	10.8	18.3	5 21	13 2.10	-17 4.2	1.418	2.286	16.6	20.2
<b>89259</b>	2001 <i>UR</i> <sub>203</sub>		4 14.4	49°74	0°4/14.8	18	<b>95989</b>	2004 <i>NT</i> <sub>4</sub>		4 14.5	326°83	6°4/19.8	17
3 12	13 53.23	-12 21.8	2.002	2.843	12.7	19.8	3 12	13 53.86	-26 57.6	1.643	2.439	17.1	19.4
3 22	13 48.44	-12 5.2	1.934	2.853	9.4	19.6	3 22	13 49.69	-27 14.7	1.558	2.432	14.1	19.2
4 1	13 41.83	-11 37.9	1.891	2.864	5.7	19.4	4 1	13 42.97	-27 7.0	1.492	2.426	10.7	19.0
4 11	13 34.15	-11 3.0	1.874	2.874	1.6	19.2	4 11	13 34.54	-26 33.1	1.449	2.420	7.6	18.8
4 21	13 26.23	-10 24.8	1.886	2.885	2.6	19.3	4 21	13 25.53	-25 35.4	1.431	2.414	6.4	18.7
5 1	13 18.98	- 9 48.3	1.925	2.896	6.5	19.5	5 1	13 17.21	-24 20.0	1.438	2.409	8.3	18.8
5 11	13 13.14	- 9 18.1	1.989	2.908	10.0	19.8	5 11	13 10.74	-22 56.5	1.470	2.404	11.7	19.0
5 21	13 9.19	- 8 57.5	2.077	2.919	13.1	20.0	5 21	13 6.82	-21 34.8	1.523	2.400	15.2	19.2
<b>403801</b>	2011 <i>UG</i> <sub>47</sub>		4 14.4	254°19	1°3/15.3	16	<b>309692</b>	2008 <i>FE</i> <sub>19</sub>		4 14.5	199°29	2°1/16.7	16
3 12	13 59.75	-13 16.1	1.548	2.390	15.8	21.2	3 12	13 54.18	-17 43.7	2.721	3.527	10.8	21.8
3 22	13 54.07	-13 20.4	1.459	2.377	12.0	20.9	3 22	13 48.86	-17 49.2	2.631	3.525	8.3	21.6
4 1	13 45.62	-13 11.0	1.392	2.363	7.5	20.6	4 1	13 42.03	-17 43.9	2.566	3.523	5.5	21.4
4 11	13 35.23	-12 49.7	1.351	2.349	2.6	20.3	4 11	13 34.24	-17 28.8	2.529	3.521	2.8	21.2
4 21	13 24.09	-12 20.4	1.336	2.335	3.3	20.3	4 21	13 26.15	-17 6.1	2.521	3.518	2.5	21.2
5 1	13 13.58	-11 48.8	1.347	2.321	8.4	20.6	5 1	13 18.47	-16 38.9	2.543	3.515	5.1	21.4
5 11	13 4.98	-11 21.8	1.383	2.306	13.2	20.8	5 11	13 11.86	-16 11.0	2.593	3.512	8.0	21.6
5 21	12 59.09	-11 4.8	1.440	2.291	17.3	21.0	5 21	13 6.78	-15 46.2	2.667	3.508	10.6	21.7
<b>337593</b>	2001 <i>SB</i> <sub>353</sub>		4 14.4	127°90	1°1/15.5	17	<b>102178</b>	1999 <i>RD</i> <sub>237</sub>		4 14.5	184°85	2°1/12.7	18
3 12	13 55.42	-13 55.0	2.434	3.257	11.3	21.1	3 12	13 58.05	- 5 31.6	1.901	2.751	12.9	20.3
3 22	13 49.80	-13 55.0	2.358	3.265	8.5	20.9	3 22	13 52.10	- 4 57.9	1.826	2.752	9.4	20.0
4 1	13 42.56	-13 45.5	2.306	3.273	5.3	20.7	4 1	13 44.09	- 4 17.8	1.775	2.752	5.6	19.8
4 11	13 34.34	-13 28.1	2.283	3.281	2.0	20.5	4 11	13 34.79	- 3 36.1	1.752	2.751	2.2	19.6
4 21	13 25.88	-13 5.8	2.289	3.289	2.3	20.5	4 21	13 25.14	- 2 58.0	1.758	2.749	4.2	19.7
5 1	13 17.96	-12 42.0	2.325	3.296	5.6	20.8	5 1	13 16.17	- 2 28.8	1.791	2.747	8.2	19.9
5 11	13 11.25	-12 20.6	2.387	3.303	8.7	21.0	5 11	13 8.76	- 2 12.1	1.849	2.745	11.9	20.1
5 21	13 6.24	-12 4.9	2.474	3.310	11.4	21.2	5 21	13 3.47	- 2 10.0	1.930	2.742	15.1	20.4
<b>326458</b>	2001 <i>XN</i> <sub>36</sub>		4 14.4	211°56	0°4/14.0	18	<b>392921</b>	2012 <i>VQ</i> <sub>91</sub>		4 14.5	136°62	4°1/10.2	18
3 12	13 57.65	- 9 24.1	2.403	3.235	11.2	21.3	3 12	13 54.12	+ 2 57.1	2.443	3.297	10.2	21.4
3 22	13 51.53	- 9 7.7	2.311	3.227	8.2	21.1	3 22	13 48.75	+ 3 37.1	2.380	3.304	7.6	21.2
4 1	13 43.66	- 8 43.7	2.245	3.218	4.9	20.9	4 1	13 41.90	+ 4 15.9	2.342	3.310	5.2	21.1
4 11	13 34.65	- 8 14.9	2.208	3.208	1.2	20.6	4 11	13 34.19	+ 4 48.7	2.333	3.316	4.1	21.0
4 21	13 25.28	- 7 44.7	2.201	3.198	2.7	20.7	4 21	13 26.30	+ 5 11.7	2.353	3.321	5.5	21.1
5 1	13 16.36	- 7 17.2	2.223	3.187	6.3	20.9	5 1	13 18.97	+ 5 21.7	2.401	3.327	8.1	21.3
5 11	13 8.67	- 6 56.1	2.273	3.175	9.7	21.1	5 11	13 12.82	+ 5 17.5	2.473	3.332	10.6	21.5
5 21	13 2.73	- 6 44.2	2.346	3.162	12.6	21.3	5 21	13 8.25	+ 4 59.0	2.568	3.337	12.9	21.6
<b>494484</b>	2016 <i>WX</i> <sub>32</sub>		4 14.4	263°02	5°9/ 7.4	16	<b>38319</b>	1999 <i>RG</i> <sub>117</sub>		4 14.5	230°90	3°7/10.2	18
3 12	13 56.73	+12 5.1	2.866	3.703	9.4	22.6	3 12	13 52.55	- 1 58.4	2.160	3.019	11.2	19.5
3 22	13 50.64	+12 45.5	2.776	3.678	7.6	22.4	3 22	13 47.91	- 0 37.8	2.080	3.010	8.2	19.3
4 1	13 43.05	+13 19.8	2.713	3.652	6.2	22.3	4 1	13 41.56	+ 0 48.2	2.026	3.000	5.2	19.0
4 11	13 34.49	+13 43.2	2.679	3.626	6.0	22.2	4 11	13 34.13	+ 2 13.0	2.000	2.990	3.7	18.9
4 21	13 25.60	+13 52.0	2.673	3.599	7.2	22.2	4 21	13 26.37	+ 3 29.8	2.003	2.979	5.7	19.0
5 1	13 17.08	+13 43.8	2.695	3.571	9.2	22.3	5 1	13 19.13	+ 4 32.6	2.034	2.968	8.8	19.2
5 11	13 9.57	+13 18.1	2.741	3.543	11.3	22.4	5 11	13 13.12	+ 5 17.2	2.090	2.956	12.0	19.4
5 21	13 3.54	+12 36.0	2.809	3.515	13.3	22.5	5 21	13 8.86	+ 5 42.2	2.166	2.945	14.7	19.5
<b>145849</b>	1999 <i>CE</i> <sub>43</sub>		4 14.4	47°59	2°2/12.9	18	<b>512985</b>	2017 <i>UT</i> <sub>27</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>367146</b>	2006 <i>UE</i> <sub>49</sub>		4 14.5 329°03	2°8/16.7	17		<b>91597</b>	1999 <i>TB</i> <sub>13</sub>		4 14.5 216°23	3°5/18.2	18	
3 12	13 52.94	-18 52.8	1.425	2.265	17.0	20.3	3 12	13 55.33	-22 57.6	2.492	3.277	12.2	19.8
3 22	13 49.11	-18 33.4	1.345	2.258	13.2	20.1	3 22	13 49.93	-22 54.8	2.393	3.269	9.7	19.6
4 1	13 42.66	-17 51.3	1.287	2.252	8.7	19.8	4 1	13 42.78	-22 36.2	2.318	3.260	7.0	19.4
4 11	13 34.47	-16 48.7	1.251	2.246	4.2	19.5	4 11	13 34.48	-22 2.3	2.270	3.251	4.4	19.2
4 21	13 25.73	-15 31.5	1.242	2.241	3.7	19.5	4 21	13 25.79	-21 15.4	2.251	3.241	3.6	19.2
5 1	13 17.76	-14 8.9	1.257	2.236	8.2	19.7	5 1	13 17.55	-20 19.7	2.260	3.230	5.8	19.3
5 11	13 11.74	-12 51.2	1.296	2.231	12.9	20.0	5 11	13 10.53	-19 20.9	2.297	3.219	8.7	19.4
5 21	13 8.36	-11 46.4	1.355	2.227	17.0	20.2	5 21	13 5.25	-18 24.5	2.359	3.208	11.5	19.6
<b>386254</b>	2008 <i>CG</i> <sub>73</sub>		4 14.5 6°04	6°9/19.3	18		<b>228211</b>	1995 <i>VR</i> <sub>5</sub>		4 14.5 149°70	3°1/11.5	17	
3 12	13 57.33	-25 47.1	1.781	2.571	16.2	19.7	3 12	13 55.95	-1 31.4	2.247	3.099	11.1	21.1
3 22	13 52.12	-26 58.0	1.703	2.572	13.4	19.5	3 22	13 50.21	-0 53.0	2.181	3.107	8.1	20.9
4 1	13 44.38	-27 50.2	1.646	2.574	10.4	19.3	4 1	13 42.83	-0 12.4	2.140	3.114	5.0	20.7
4 11	13 34.93	-28 20.9	1.613	2.576	7.8	19.1	4 11	13 34.46	+0 25.6	2.128	3.121	3.1	20.6
4 21	13 24.85	-28 29.6	1.606	2.580	7.0	19.1	4 21	13 25.89	+0 56.7	2.145	3.127	4.7	20.7
5 1	13 15.42	-28 19.0	1.624	2.584	8.6	19.2	5 1	13 17.94	+1 17.0	2.190	3.133	7.8	20.9
5 11	13 7.76	-27 55.5	1.666	2.589	11.3	19.4	5 11	13 11.30	+1 24.2	2.260	3.138	10.8	21.1
5 21	13 2.62	-27 26.3	1.730	2.595	14.3	19.6	5 21	13 6.41	+1 17.5	2.353	3.143	13.4	21.3
<b>153613</b>	2001 <i>TK</i> <sub>1</sub>		4 14.5 169°58	0°9/13.6	17		<b>135366</b>	2001 <i>TF</i> <sub>124</sub>		4 14.5 126°19	5°3/19.9	18	
3 12	13 54.88	-9 36.0	1.986	2.832	12.6	21.3	3 12	13 55.42	-27 23.4	2.370	3.136	13.3	20.1
3 22	13 49.70	-8 54.7	1.911	2.834	9.2	21.1	3 22	13 50.08	-27 45.9	2.286	3.141	11.0	20.0
4 1	13 42.64	-8 3.5	1.861	2.836	5.4	20.9	4 1	13 42.88	-27 50.6	2.225	3.145	8.4	19.8
4 11	13 34.41	-7 6.8	1.838	2.838	1.4	20.6	4 11	13 34.50	-27 36.7	2.188	3.150	6.1	19.7
4 21	13 25.90	-6 10.0	1.843	2.840	3.3	20.7	4 21	13 25.77	-27 5.8	2.179	3.154	5.3	19.6
5 1	13 18.02	-5 19.0	1.877	2.841	7.3	21.0	5 1	13 17.58	-26 21.6	2.197	3.159	6.6	19.7
5 11	13 11.58	-4 38.8	1.936	2.841	11.0	21.2	5 11	13 10.75	-25 29.8	2.243	3.163	8.9	19.9
5 21	13 7.09	-4 12.5	2.017	2.842	14.1	21.4	5 21	13 5.80	-24 36.5	2.312	3.167	11.5	20.0
<b>162079</b>	1997 <i>WE</i> <sub>35</sub>		4 14.5 97°33	5°3/9.3	18		<b>214207</b>	2005 <i>EW</i> <sub>64</sub>		4 14.5 39°65	0°6/14.1	18	
3 12	13 56.04	+6 33.8	2.274	3.127	11.0	19.8	3 12	13 55.99	-10 9.4	1.273	2.139	17.0	20.3
3 22	13 50.14	+7 18.1	2.226	3.145	8.3	19.7	3 22	13 51.27	-9 48.6	1.217	2.149	12.5	20.0
4 1	13 42.69	+7 58.0	2.204	3.163	6.1	19.6	4 1	13 43.85	-9 14.6	1.181	2.160	7.3	19.8
4 11	13 34.39	+8 28.0	2.210	3.181	5.4	19.6	4 11	13 34.77	-8 32.7	1.170	2.171	1.8	19.4
4 21	13 26.01	+8 44.4	2.244	3.198	6.7	19.7	4 21	13 25.36	-7 49.7	1.183	2.182	3.9	19.6
5 1	13 18.34	+8 44.7	2.304	3.215	9.1	19.9	5 1	13 17.02	-7 13.0	1.221	2.194	9.2	20.0
5 11	13 11.99	+8 28.3	2.390	3.232	11.5	20.0	5 11	13 10.86	-6 48.9	1.282	2.207	13.9	20.3
5 21	13 7.38	+7 56.7	2.496	3.248	13.7	20.2	5 21	13 7.45	-6 40.7	1.362	2.219	17.8	20.5
<b>195108</b>	2002 <i>CN</i> <sub>135</sub>		4 14.5 309°52	0°7/15.1	17		<b>344854</b>	2004 <i>GS</i> <sub>84</sub>		4 14.5 49°68	4°0/11.0	18	
3 12	13 53.52	-13 56.2	1.766	2.608	14.1	20.1	3 12	13 54.85	+1 2.6	2.024	2.884	11.8	20.1
3 22	13 49.01	-13 29.2	1.686	2.605	10.6	19.9	3 22	13 49.56	+1 34.4	1.962	2.891	8.7	20.0
4 1	13 42.38	-12 47.5	1.629	2.601	6.5	19.6	4 1	13 42.49	+2 6.0	1.925	2.898	5.6	19.8
4 11	13 34.37	-11 54.7	1.599	2.598	2.0	19.3	4 11	13 34.38	+2 32.3	1.916	2.905	4.0	19.7
4 21	13 25.97	-10 56.1	1.595	2.595	2.8	19.4	4 21	13 26.07	+2 49.0	1.934	2.912	5.6	19.8
5 1	13 18.23	-9 58.4	1.619	2.592	7.3	19.6	5 1	13 18.43	+2 52.6	1.979	2.919	8.7	20.0
5 11	13 12.06	-9 8.2	1.667	2.589	11.4	19.9	5 11	13 12.20	+2 41.6	2.049	2.926	11.7	20.2
5 21	13 8.05	-8 30.4	1.737	2.586	14.9	20.1	5 21	13 7.84	+2 15.9	2.140	2.934	14.4	20.4
<b>302334</b>	2002 <i>AT</i> <sub>104</sub>		4 14.5 128°03	4°1/11.2	18		<b>149807</b>	2005 <i>LY</i> <sub>32</sub>		4 14.5 232°32	3°6/11.4	17	
3 12	13 58.12	-1 50.9	1.632	2.494	14.1	21.3	3 12	13 56.94	-1 47.0	1.871	2.729	12.7	20.8
3 22	13 52.26	-0 49.7	1.575	2.506	10.3	21.1	3 22	13 51.41	-1 1.3	1.790	2.719	9.4	20.6
4 1	13 44.18	+0 15.3	1.543	2.518	6.4	20.9	4 1	13 43.76	-0 11.6	1.735	2.709	5.8	20.3
4 11	13 34.81	+1 16.6	1.537	2.529	4.1	20.8	4 11	13 34.75	+0 36.2	1.706	2.699	3.6	20.2
4 21	13 25.24	+2 7.2	1.558	2.539	6.2	21.0	4 21	13 25.32	+1 16.2	1.705	2.688	5.6	20.3
5 1	13 16.57	+2 41.3	1.605	2.549	10.0	21.2	5 1	13 16.49	+1 43.0	1.731	2.676	9.3	20.4
5 11	13 9.71	+2 55.8	1.676	2.559	13.6	21.4	5 11	13 9.17	+1 53.2	1.782	2.664	12.9	20.6
5 21	13 5.18	+2 50.5	1.767	2.568	16.7	21.7	5 21	13 3.98	+1 45.8	1.853	2.652	16.1	20.8
<b>17993</b>	Kluesing		4 14.5 59°06	1°3/13.5	18		<b>295642</b>	2008 <i>SW</i> <sub>264</sub>		4 14.5 336°79	1°7/15.5	18	
3 12	13 55.22	-9 53.8	1.332	2.197	16.4	18.5	3 12	13 55.12	-14 3.7	1.130	1.995	18.7	20.6
3 22	13 50.61	-9 5.0	1.273	2.205	12.0	18.3	3 22	13 51.29	-14 8.8	1.058	1.987	14.3	20.3
4 1	13 43.41	-8 2.0	1.235	2.214	7.0	18.0	4 1	13 44.24	-13 55.4	1.005	1.979	9.0	20.0
4 11	13 34.64	-6 51.8	1.222	2.223	1.9	17.7	4 11	13 34.96	-13 25.8	0.974	1.973	3.3	19.6
4 21	13 25.56	-5 42.7	1.235	2.232	4.3	17.9	4 21	13 24.90	-12 45.6	0.966	1.966	3.9	19.7
5 1	13 17.48	-4 43.6	1.273	2.241	9.4	18.2	5 1	13 15.77	-12 3.0	0.981	1.961	9.7	20.0
5 11	13 11.47	-4 1.2	1.333	2.251	14.0	18.5	5 11	13 9.02	-11 27.3	1.018	1.957	15.2	20.2
5 21	13 8.09	-3 38.8	1.413	2.260	17.8	18.8	5 21	13 5.49	-11 5.3	1.072	1.953	19.9	20.5
<b>490487</b>	2009 <i>TM</i> <sub>1</sub>		4 14.5 189°94	1°5/16.1	17		<b>217925</b>	2001 <i>TO</i> <sub>3</sub>		4 14.5 166°42	0°3/14.7	17	
3 12	13 56.41	-16 41.5	2.627	3.435	11.1	22.6	3 12	13 56.28	-12 17.0	2.056	2.890	12.7	21.2
3 22	13 50.51	-16 27.0	2.536	3.434	8.4	22.4	3 22	13 50.71	-11 54.7	1.979	2.894	9.4	21.0
4 1	13 43.02	-16 0.8	2.471	3.432	5.4	22.2	4 1	13 43.24	-11 21.5	1.926	2.897	5.7	20.8
4 11	13 34.52	-15 24.7	2.434	3.429	2.4	22.0	4 11	13 34.60	-10 40.3	1.900	2.900	1.6	20.5
4 21	13 25.73	-14 41.7	2.426	3.425	2.3	22.0	4 21	13 25.65	-9 55.6	1.904	2.903	2.6	20.6
5 1	13 17.40	-13 55.9	2.449	3.420	5.4	22.2	5 1	13 17.33	-9 12.6	1.935	2.905	6.7	20.9
5 11	13 10.21	-13 11.8	2.501	3.415	8.4	22.3	5 11	13 10.45	-8 36.3	1.993	2.906	10.3	21.1
5 21	13 4.65	-12 33.5	2.577	3.408	11.2	22.5	5 21	13 5.53	-8 10.3	2.074	2.907	13.5	21.3
<b>227640</b>	2006 <i>BT</i> <sub>98</sub>		4 14.5 41°37	0°1/14.5	18		<b>377036</b>	2002 <i>SA</i> <sub>35</sub>		4 14.5 128°91	6°9/16.9	17	
3 12	13 52.97	-12 42											

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>360569</b>	2003 <i>UP</i> <sub>93</sub>		4 14.5 245°67	0°8/15.2	17		<b>55767</b>	1992 <i>EW</i> <sub>10</sub>		4 14.5 28°15	7°2/20.7	18	
3 12	13 55.19	-14 56.2	1.715	2.553	14.6	21.3	3 12	13 58.62	-30 17.6	2.200	2.949	14.7	19.0
3 22	13 50.41	-14 16.7	1.625	2.542	11.1	21.1	3 22	13 52.76	-31 18.6	2.116	2.951	12.5	18.8
4 1	13 43.31	-13 19.7	1.559	2.530	6.8	20.8	4 1	13 44.66	-32 0.6	2.053	2.954	10.1	18.7
4 11	13 34.66	-12 8.7	1.518	2.518	2.2	20.5	4 11	13 35.03	-32 21.0	2.015	2.957	8.0	18.5
4 21	13 25.49	-10 49.8	1.505	2.505	3.0	20.5	4 21	13 24.86	-32 19.3	2.002	2.960	7.2	18.5
5 1	13 16.94	-9 31.2	1.520	2.492	7.8	20.7	5 1	13 15.22	-31 58.0	2.017	2.963	8.1	18.6
5 11	13 10.03	-8 21.0	1.559	2.479	12.2	21.0	5 11	13 7.13	-31 23.0	2.056	2.966	10.2	18.7
5 21	13 5.44	-7 25.4	1.620	2.465	16.0	21.2	5 21	13 1.25	-30 40.8	2.119	2.969	12.6	18.8
<b>285996</b>	2001 <i>SH</i> <sub>68</sub>		4 14.5 190°67	0°5/13.8	18		<b>264593</b>	2001 <i>TW</i> <sub>236</sub>		4 14.5 118°86	2°2/12.4	18	
3 12	13 51.13	-11 5.4	2.558	3.395	10.4	21.0	3 12	13 57.79	-4 33.1	2.193	3.038	11.6	21.2
3 22	13 46.64	-10 12.3	2.475	3.394	7.6	20.8	3 22	13 51.50	-3 55.3	2.136	3.060	8.4	21.1
4 1	13 40.72	-9 9.6	2.419	3.393	4.4	20.6	4 1	13 43.55	-3 13.3	2.105	3.080	4.9	20.9
4 11	13 33.93	-8 1.2	2.391	3.391	1.1	20.3	4 11	13 34.67	-2 31.5	2.103	3.100	2.3	20.7
4 21	13 26.92	-6 51.8	2.393	3.389	2.6	20.4	4 21	13 25.69	-1 54.6	2.130	3.119	4.0	20.9
5 1	13 20.37	-5 46.5	2.424	3.387	5.9	20.6	5 1	13 17.43	-1 26.7	2.186	3.138	7.3	21.1
5 11	13 14.89	-4 49.9	2.482	3.385	9.0	20.8	5 11	13 10.59	-1 10.4	2.269	3.155	10.4	21.3
5 21	13 10.88	-4 5.1	2.564	3.382	11.6	21.0	5 21	13 5.57	-1 7.1	2.373	3.172	13.0	21.5
<b>411468</b>	2010 <i>XL</i> <sub>41</sub>		4 14.5 73°30	4°1/11.1	18		<b>419730</b>	2010 <i>VF</i> <sub>36</sub>		4 14.5 71°78	7°1/21.3	18	
3 12	13 55.19	-2 1.9	1.593	2.462	14.0	20.6	3 12	13 55.14	-30 38.3	1.648	2.422	17.9	20.3
3 22	13 50.14	-1 1.1	1.540	2.474	10.2	20.4	3 22	13 50.56	-30 42.3	1.572	2.428	15.0	20.1
4 1	13 42.96	+0 3.6	1.510	2.486	6.3	20.2	4 1	13 43.45	-30 17.3	1.514	2.434	11.7	19.9
4 11	13 34.52	+1 4.5	1.506	2.499	4.1	20.0	4 11	13 34.71	-29 22.3	1.480	2.440	8.6	19.8
4 21	13 25.89	+1 54.7	1.529	2.511	6.2	20.2	4 21	13 25.56	-28 0.4	1.470	2.446	7.1	19.7
5 1	13 18.15	+2 28.2	1.577	2.524	9.9	20.4	5 1	13 17.30	-26 19.4	1.485	2.453	8.5	19.8
5 11	13 12.15	+2 42.2	1.649	2.536	13.5	20.7	5 11	13 11.00	-24 30.4	1.526	2.459	11.5	20.0
5 21	13 8.41	+2 36.4	1.740	2.548	16.6	20.9	5 21	13 7.28	-22 44.2	1.589	2.465	14.7	20.2
<b>211861</b>	2004 <i>GK</i> <sub>25</sub>		4 14.5 92°93	0°1/14.5	17		<b>24079</b>	1999 <i>TH</i> <sub>246</sub>		4 14.5 315°45	4°6/10.3	18	
3 12	13 53.41	-12 2.6	2.315	3.150	11.5	21.1	3 12	13 53.18	+0 14.2	1.789	2.657	12.7	18.7
3 22	13 48.31	-11 30.7	2.253	3.169	8.4	20.9	3 22	13 48.66	+1 13.0	1.718	2.651	9.4	18.5
4 1	13 41.67	-10 49.4	2.215	3.187	5.0	20.8	4 1	13 42.14	+2 14.2	1.672	2.646	6.1	18.3
4 11	13 34.17	-10 2.0	2.205	3.206	1.3	20.5	4 11	13 34.35	+3 10.8	1.652	2.640	4.6	18.2
4 21	13 26.53	-9 12.8	2.225	3.224	2.4	20.6	4 21	13 26.22	+3 56.3	1.659	2.635	6.6	18.3
5 1	13 19.50	-8 26.5	2.273	3.241	5.9	20.9	5 1	13 18.74	+4 25.2	1.692	2.630	10.0	18.5
5 11	13 13.73	-7 47.4	2.348	3.259	9.1	21.1	5 11	13 12.76	+4 34.6	1.748	2.626	13.4	18.7
5 21	13 9.63	-7 18.4	2.447	3.276	11.8	21.3	5 21	13 8.83	+4 24.1	1.824	2.621	16.4	18.9
<b>455251</b>	2001 <i>TD</i> <sub>26</sub>		4 14.5 176°80	2°1/16.3	16		<b>144486</b>	2004 <i>EC</i> <sub>63</sub>		4 14.5 70°39	1°5/15.9	18	
3 12	13 57.71	-18 23.2	1.828	2.646	14.7	22.1	3 12	13 53.25	-15 56.5	2.134	2.961	12.6	20.2
3 22	13 52.04	-17 52.2	1.747	2.649	11.3	21.9	3 22	13 48.49	-15 42.9	2.056	2.964	9.5	20.0
4 1	13 44.15	-17 2.5	1.689	2.651	7.3	21.7	4 1	13 41.94	-15 16.4	2.001	2.967	6.0	19.7
4 11	13 34.86	-15 56.9	1.657	2.652	3.2	21.4	4 11	13 34.29	-14 39.1	1.974	2.970	2.5	19.5
4 21	13 25.20	-14 40.6	1.654	2.653	3.0	21.4	4 21	13 26.35	-13 54.9	1.974	2.973	2.5	19.5
5 1	13 16.27	-13 21.2	1.679	2.652	7.0	21.7	5 1	13 18.98	-13 8.8	2.003	2.977	6.1	19.8
5 11	13 9.03	-12 6.7	1.730	2.651	11.1	21.9	5 11	13 12.95	-12 26.1	2.057	2.980	9.5	20.0
5 21	13 4.06	-11 3.6	1.803	2.650	14.6	22.1	5 21	13 8.75	-11 51.0	2.135	2.983	12.6	20.2
<b>503767</b>	2016 <i>PC</i> <sub>68</sub>		4 14.5 106°16	2°8/10.9	17		<b>376602</b>	2013 <i>PH</i> <sub>33</sub>		4 14.5 69°85	1°3/15.7	17	
3 12	13 50.16	-3 59.6	2.376	3.233	10.4	20.8	3 12	13 54.23	-15 46.3	1.698	2.536	14.8	20.8
3 22	13 45.95	-2 42.4	2.309	3.239	7.5	20.6	3 22	13 49.54	-15 18.8	1.628	2.543	11.1	20.6
4 1	13 40.31	-1 20.1	2.269	3.245	4.5	20.4	4 1	13 42.68	-14 34.8	1.581	2.550	6.9	20.3
4 11	13 33.83	+0 1.6	2.258	3.251	2.8	20.3	4 11	13 34.50	-13 37.8	1.559	2.557	2.6	20.1
4 21	13 27.17	+1 16.8	2.276	3.257	4.6	20.4	4 21	13 26.00	-12 33.5	1.564	2.564	2.9	20.1
5 1	13 21.02	+2 20.5	2.322	3.263	7.5	20.6	5 1	13 18.28	-11 29.2	1.596	2.571	7.2	20.4
5 11	13 16.00	+3 8.8	2.393	3.268	10.3	20.8	5 11	13 12.24	-10 31.9	1.653	2.578	11.3	20.6
5 21	13 12.49	+3 40.2	2.487	3.274	12.8	21.0	5 21	13 8.44	-9 47.0	1.732	2.585	14.8	20.9
<b>486698</b>	2013 <i>XO</i> <sub>4</sub>		4 14.5 258°25	13°9/30.1	18		<b>501901</b>	2014 <i>WE</i> <sub>443</sub>		4 14.5 89°17	3°1/17.1	18	
3 12	13 53.07	+10 10.9	1.072	1.963	17.5	20.5	3 12	13 56.38	-19 31.3	1.694	2.516	15.6	20.6
3 22	13 49.72	+14 38.0	1.026	1.954	14.7	20.3	3 22	13 51.18	-19 27.6	1.624	2.525	12.1	20.4
4 1	13 43.24	+19 1.6	1.005	1.945	13.9	20.3	4 1	13 43.69	-19 5.1	1.576	2.535	8.1	20.2
4 11	13 34.69	+22 54.5	1.009	1.936	15.7	20.3	4 11	13 34.77	-18 25.5	1.553	2.544	4.3	20.0
4 21	13 25.51	+25 55.6	1.035	1.926	18.9	20.5	4 21	13 25.51	-17 33.1	1.556	2.553	3.6	19.9
5 1	13 17.35	+27 54.0	1.080	1.916	22.5	20.7	5 1	13 17.07	-16 34.5	1.587	2.562	7.1	20.2
5 11	13 11.54	+28 51.1	1.139	1.906	25.7	20.9	5 11	13 10.41	-15 37.5	1.642	2.571	11.1	20.4
5 21	13 8.84	+28 55.1	1.207	1.896	28.4	21.1	5 21	13 6.12	-14 48.3	1.720	2.580	14.5	20.7
<b>269551</b>	2009 <i>WU</i> <sub>8</sub>		4 14.5 167°57	6°5/21.1	18		<b>160141</b>	2001 <i>DW</i> <sub>8</sub>		4 14.5 318°88	17°0/20.2	18	
3 12	13 55.19	-30 34.5	1.997	2.757	15.7	20.3	3 12	14 8.46	-34 16.3	1.068	1.845	25.5	19.6
3 22	13 50.27	-30 40.2	1.912	2.759	13.1	20.1	3 22	14 3.00	-37 18.6	0.997	1.837	22.8	19.4
4 1	13 43.14	-30 21.5	1.846	2.760	10.3	19.9	4 1	13 52.41	-39 55.5	0.941	1.830	20.0	19.2
4 11	13 34.61	-29 37.5	1.804	2.761	7.7	19.7	4 11	13 37.43	-41 51.1	0.904	1.824	17.8	19.0
4 21	13 25.67	-28 30.4	1.789	2.762	6.5	19.7	4 21	13 20.05	-42 53.0	0.886	1.818	17.0	18.9
5 1	13 17.43	-27 6.0	1.800	2.762	7.6	19.7	5 1	13 3.31	-42 58.3	0.887	1.812	18.1	19.0
5 11	13 10.82	-25 32.9	1.837	2.763	10.3	19.9	5 11	12 50.16	-42 18.2	0.905	1.807	20.5	19.1
5 21	13 6.45	-23 59.9	1.897	2.763	13.1	20.1	5 21	12 42.35	-41 10.9	0.939	1.802	23.5	19.3
<b>15098</b>	2000 <i>AY</i> <sub>2</sub>		4 14.5 121°38	1°8/12.9	18		<b>435318</b>	2007 <i>UJ</i> <sub>122</sub>		4 14.5 247°51	1°8/12.7		

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>100732</b>	Blankavalois		4 14.5 65°89	2°2/13.1	18		<b>173795</b>	2001 SH <sub>141</sub>		4 14.5 137°60	0°0/14.5	18	
3 12	14 0.46	- 3 44.8	1.661	2.516	14.2	19.1	3 12	13 53.01	-11 44.3	2.663	3.494	10.3	21.1
3 22	13 54.02	- 3 44.8	1.600	2.528	10.4	18.9	3 22	13 47.93	-11 15.3	2.590	3.504	7.6	20.9
4 1	13 45.29	- 3 41.4	1.563	2.539	6.1	18.7	4 1	13 41.48	-10 37.9	2.542	3.514	4.5	20.7
4 11	13 35.20	- 3 38.8	1.553	2.551	2.4	18.5	4 11	13 34.21	- 9 55.0	2.523	3.524	1.2	20.5
4 21	13 24.85	- 3 40.6	1.570	2.563	4.4	18.6	4 21	13 26.77	- 9 10.4	2.534	3.533	2.2	20.6
5 1	13 15.41	- 3 50.2	1.614	2.575	8.5	18.9	5 1	13 19.82	- 8 27.9	2.575	3.542	5.4	20.8
5 11	13 7.82	- 4 10.0	1.684	2.587	12.4	19.1	5 11	13 13.95	- 7 51.3	2.643	3.550	8.3	21.0
5 21	13 2.62	- 4 40.8	1.774	2.599	15.7	19.4	5 21	13 9.54	- 7 23.3	2.735	3.558	10.8	21.2
<b>305998</b>	2009 KH <sub>17</sub>		4 14.5 307°54	4°2/10.1	17		<b>504023</b>	2005 QP <sub>130</sub>		4 14.5 209°27	3°5/10.2	18	
3 12	13 52.70	+ 2 21.7	2.281	3.141	10.7	20.8	3 12	13 51.16	+ 0 2.2	2.578	3.434	9.7	22.0
3 22	13 47.91	+ 3 6.9	2.212	3.139	7.9	20.6	3 22	13 46.66	+ 1 1.9	2.504	3.431	7.1	21.8
4 1	13 41.55	+ 3 51.7	2.167	3.136	5.4	20.4	4 1	13 40.77	+ 2 3.5	2.456	3.428	4.6	21.6
4 11	13 34.22	+ 4 30.9	2.151	3.134	4.2	20.3	4 11	13 34.04	+ 3 1.9	2.437	3.424	3.5	21.5
4 21	13 26.65	+ 5 0.0	2.162	3.132	5.8	20.4	4 21	13 27.08	+ 3 52.6	2.447	3.420	5.0	21.6
5 1	13 19.61	+ 5 15.3	2.200	3.130	8.5	20.6	5 1	13 20.57	+ 4 31.4	2.485	3.416	7.6	21.8
5 11	13 13.76	+ 5 15.1	2.263	3.128	11.3	20.7	5 11	13 15.09	+ 4 55.8	2.549	3.412	10.2	22.0
5 21	13 9.57	+ 4 59.1	2.348	3.126	13.7	20.9	5 21	13 11.05	+ 5 4.8	2.634	3.407	12.5	22.1
<b>362020</b>	2008 YR <sub>18</sub>		4 14.5 347°36	5°4/18.2	18		<b>433480</b>	2013 WO <sub>4</sub>		4 14.5 160°04	2°0/12.7	17	
3 12	13 56.23	-22 19.9	1.339	2.165	18.6	20.6	3 12	13 55.72	- 5 12.8	2.121	2.971	11.8	21.6
3 22	13 51.84	-22 43.3	1.263	2.163	14.9	20.3	3 22	13 50.23	- 4 43.2	2.049	2.975	8.6	21.4
4 1	13 44.47	-22 42.5	1.207	2.160	10.7	20.1	4 1	13 42.97	- 4 8.5	2.002	2.978	5.0	21.2
4 11	13 35.07	-22 16.9	1.173	2.158	6.7	19.8	4 11	13 34.63	- 3 32.8	1.982	2.981	2.1	21.0
4 21	13 25.01	-21 29.2	1.164	2.157	5.6	19.8	4 21	13 26.02	- 3 0.7	1.992	2.983	3.9	21.1
5 1	13 15.81	-20 27.0	1.179	2.155	8.9	19.9	5 1	13 18.01	- 2 36.4	2.029	2.985	7.4	21.3
5 11	13 8.83	-19 20.7	1.216	2.155	13.2	20.2	5 11	13 11.36	- 2 23.2	2.092	2.987	10.7	21.6
5 21	13 4.84	-18 20.0	1.274	2.154	17.3	20.4	5 21	13 6.56	- 2 22.7	2.177	2.989	13.6	21.8
<b>277731</b>	2006 DO <sub>80</sub>		4 14.5 180°64	1°2/13.2	17		<b>249671</b>	1999 VT <sub>132</sub>		4 14.5 261°35	1°3/15.5	17	
3 12	13 53.71	- 8 36.6	2.249	3.094	11.4	21.4	3 12	13 56.60	-14 49.4	1.671	2.509	15.0	21.0
3 22	13 48.70	- 7 50.1	2.172	3.095	8.3	21.2	3 22	13 51.62	-14 34.3	1.580	2.495	11.4	20.8
4 1	13 42.03	- 6 55.2	2.119	3.095	4.8	21.0	4 1	13 44.17	-14 3.2	1.510	2.480	7.2	20.5
4 11	13 34.35	- 5 56.2	2.095	3.095	1.5	20.8	4 11	13 35.02	-13 18.6	1.467	2.465	2.6	20.2
4 21	13 26.41	- 4 58.1	2.100	3.095	3.2	20.9	4 21	13 25.23	-12 25.1	1.450	2.450	3.1	20.2
5 1	13 19.01	- 4 6.2	2.134	3.094	6.8	21.1	5 1	13 16.02	-11 29.5	1.460	2.434	7.8	20.4
5 11	13 12.85	- 3 24.9	2.194	3.093	10.1	21.3	5 11	13 8.51	-10 39.3	1.495	2.418	12.3	20.6
5 21	13 8.42	- 2 56.9	2.276	3.091	13.0	21.5	5 21	13 3.43	-10 0.5	1.551	2.402	16.3	20.8
<b>36343</b>	2000 NZ <sub>15</sub>		4 14.5 77°26	13°7/29.7	18		<b>215793</b>	2004 MD <sub>7</sub>		4 14.5 293°31	7°7/5.1	18	
3 12	13 56.51	+27 19.8	1.773	2.594	15.0	17.9	3 12	13 52.06	+12 34.4	2.234	3.090	11.0	20.0
3 22	13 50.96	+29 34.5	1.769	2.618	13.9	17.9	3 22	13 47.64	+13 55.2	2.160	3.069	9.1	19.8
4 1	13 43.35	+31 22.5	1.787	2.642	13.7	18.0	4 1	13 41.50	+15 9.6	2.111	3.049	7.8	19.7
4 11	13 34.65	+32 35.1	1.827	2.665	14.3	18.0	4 11	13 34.27	+16 10.3	2.089	3.028	8.0	19.7
4 21	13 25.97	+33 8.8	1.887	2.689	15.5	18.2	4 21	13 26.68	+16 51.5	2.092	3.007	9.5	19.7
5 1	13 18.35	+33 4.0	1.966	2.712	16.9	18.3	5 1	13 19.55	+17 9.3	2.120	2.986	11.7	19.8
5 11	13 12.56	+32 25.3	2.061	2.735	18.2	18.5	5 11	13 13.63	+17 2.6	2.169	2.966	14.1	19.9
5 21	13 9.02	+31 19.1	2.168	2.758	19.4	18.7	5 21	13 9.42	+16 33.0	2.236	2.945	16.2	20.1
<b>176490</b>	2001 XC <sub>232</sub>		4 14.5 58°28	1°2/13.3	17		<b>32707</b>	3089 T <sub>-2</sub>		4 14.5 12°40	1°5/13.1	18	
3 12	13 53.44	- 7 24.8	2.096	2.947	11.9	20.3	3 12	13 52.20	- 7 14.3	1.960	2.816	12.3	18.4
3 22	13 48.52	- 6 59.1	2.032	2.958	8.6	20.1	3 22	13 47.81	- 6 40.6	1.889	2.818	9.0	18.2
4 1	13 41.92	- 6 26.7	1.993	2.969	5.0	19.9	4 1	13 41.60	- 5 59.4	1.842	2.820	5.2	18.0
4 11	13 34.32	- 5 51.8	1.981	2.981	1.5	19.7	4 11	13 34.29	- 5 15.2	1.822	2.822	1.7	17.8
4 21	13 26.52	- 5 18.6	1.997	2.993	3.3	19.8	4 21	13 26.70	- 4 33.2	1.830	2.824	3.6	17.9
5 1	13 19.36	- 4 51.4	2.042	3.004	6.9	20.1	5 1	13 19.71	- 3 58.5	1.865	2.827	7.4	18.1
5 11	13 13.54	- 4 33.8	2.111	3.016	10.2	20.3	5 11	13 14.10	- 3 35.0	1.924	2.830	11.0	18.4
5 21	13 9.51	- 4 27.8	2.204	3.028	13.0	20.5	5 21	13 10.36	- 3 25.1	2.006	2.834	14.0	18.6
<b>240357</b>	2003 SY <sub>39</sub>		4 14.5 165°57	1°5/16.1	17		<b>431849</b>	2008 SV <sub>60</sub>		4 14.5 190°82	3°2/17.8	17	
3 12	13 54.73	-16 26.6	2.357	3.174	11.9	21.0	3 12	13 57.37	-21 21.4	2.603	3.390	11.7	22.2
3 22	13 49.44	-16 11.0	2.275	3.178	9.0	20.8	3 22	13 51.37	-21 31.0	2.511	3.389	9.3	22.1
4 1	13 42.48	-15 42.9	2.218	3.181	5.7	20.6	4 1	13 43.66	-21 27.0	2.442	3.387	6.5	21.9
4 11	13 34.48	-15 4.5	2.188	3.184	2.4	20.4	4 11	13 34.84	-21 9.9	2.401	3.384	3.9	21.7
4 21	13 26.21	-14 19.2	2.188	3.186	2.4	20.4	4 21	13 25.67	-20 41.5	2.390	3.380	3.4	21.7
5 1	13 18.47	-13 31.6	2.216	3.189	5.7	20.6	5 1	13 16.95	-20 5.2	2.407	3.376	5.6	21.8
5 11	13 11.98	-12 46.7	2.272	3.190	8.9	20.8	5 11	13 9.42	-19 25.8	2.453	3.372	8.4	22.0
5 21	13 7.22	-12 8.8	2.351	3.192	11.8	21.0	5 21	13 3.61	-18 47.9	2.524	3.367	11.0	22.1
<b>346192</b>	2007 XY <sub>18</sub>		4 14.5 85°87	0°9/13.7	17		<b>27293</b>	2000 AX <sub>136</sub>		4 14.5 32°46	3°7/17.1	18	
3 12	13 55.73	- 7 47.4	2.197	3.041	11.7	20.9	3 12	13 57.78	-19 8.0	1.586	2.411	16.3	17.3
3 22	13 50.11	- 7 34.5	2.133	3.055	8.5	20.8	3 22	13 52.52	-19 29.5	1.511	2.413	12.7	17.1
4 1	13 42.82	- 7 15.4	2.094	3.069	4.9	20.6	4 1	13 44.68	-19 33.0	1.457	2.415	8.7	16.8
4 11	13 34.55	- 6 53.4	2.083	3.084	1.4	20.3	4 11	13 35.15	-19 18.9	1.427	2.417	4.8	16.6
4 21	13 26.10	- 6 32.1	2.101	3.098	2.9	20.5	4 21	13 25.11	-18 49.9	1.424	2.419	4.2	16.6
5 1	13 18.30	- 6 15.1	2.148	3.112	6.5	20.7	5 1	13 15.84	-18 11.7	1.446	2.422	7.7	16.8
5 11	13 11.84	- 6 5.6	2.220	3.126	9.8	20.9	5 11	13 8.49	-17 31.8	1.493	2.424	11.8	17.0
5 21	13 7.16	- 6 5.6	2.316	3.139	12.5	21.2	5 21	13 3.72	-16 56.8	1.562	2.427	15.5	17.2
<b>241372</b>	2008 QP <sub>31</sub>		4 14.5 202°33	0°5/15.1	18		<b>113019</b>	2002 RW <sub>42</sub>		4 14.5 298°19	2°8/12.4	18	
3 12	13 53.73	-14 26.6	2.586										

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>429116</b>	2009 SZ <sub>224</sub>		4 14.5 122°31'	1.3°/13.3	18		<b>388035</b>	2005 SL <sub>128</sub>		4 14.5 256°49'	0.9°/15.4	18	
3 12	13 57.00	- 7 22.7	2.074	2.919	12.2	22.1	3 12	13 56.24	-12 52.7	2.678	3.498	10.5	21.0
3 22	13 51.13	- 6 55.3	2.010	2.933	8.9	22.0	3 22	13 50.54	-12 58.1	2.574	3.480	7.9	20.8
4 1	13 43.48	- 6 21.1	1.971	2.946	5.2	21.7	4 1	13 43.21	-12 55.6	2.495	3.462	4.9	20.6
4 11	13 34.77	- 5 44.2	1.959	2.959	1.6	21.5	4 11	13 34.78	-12 46.5	2.445	3.443	1.7	20.3
4 21	13 25.88	- 5 9.1	1.977	2.972	3.4	21.7	4 21	13 25.91	-12 32.9	2.425	3.424	2.1	20.3
5 1	13 17.68	- 4 40.2	2.023	2.984	7.1	21.9	5 1	13 17.38	-12 17.7	2.434	3.404	5.4	20.5
5 11	13 10.92	- 4 21.3	2.094	2.995	10.5	22.2	5 11	13 9.87	-12 4.4	2.472	3.384	8.6	20.7
5 21	13 6.07	- 4 14.2	2.189	3.006	13.4	22.4	5 21	13 3.92	-11 55.8	2.534	3.364	11.4	20.9
<b>299498</b>	2006 BH <sub>227</sub>		4 14.5 76°51'	0.8°/13.9	18		<b>407692</b>	2011 UV <sub>91</sub>		4 14.5 68°43'	1.8°/15.8	18	
3 12	13 58.00	-10 28.0	1.339	2.198	16.7	21.7	3 12	13 59.85	-15 31.8	1.352	2.195	17.6	21.6
3 22	13 52.61	- 9 50.8	1.286	2.215	12.2	21.5	3 22	13 53.94	-15 24.5	1.303	2.220	13.2	21.4
4 1	13 44.61	- 8 59.9	1.255	2.232	7.1	21.3	4 1	13 45.39	-14 59.1	1.275	2.244	8.2	21.2
4 11	13 35.09	- 8 1.5	1.248	2.249	1.8	21.0	4 11	13 35.32	-14 19.3	1.271	2.269	3.2	20.9
4 21	13 25.36	- 7 3.2	1.268	2.266	3.9	21.2	4 21	13 25.10	-13 30.9	1.293	2.293	3.3	21.0
5 1	13 16.75	- 6 13.0	1.313	2.283	9.0	21.5	5 1	13 16.08	-12 41.8	1.341	2.317	8.1	21.3
5 11	13 10.28	- 5 37.1	1.381	2.300	13.5	21.8	5 11	13 9.31	-11 59.6	1.413	2.341	12.5	21.6
5 21	13 6.50	- 5 18.8	1.469	2.316	17.3	22.1	5 21	13 5.30	-11 29.4	1.505	2.365	16.3	21.9
<b>392704</b>	2012 AE <sub>1</sub>		4 14.5 207°50'	1.3°/15.2	16		<b>341235</b>	2007 RP <sub>169</sub>		4 14.5 169°82'	0.9°/13.6	17	
3 12	14 16.27	-14 0.6	1.396	2.214	18.5	22.4	3 12	13 54.16	- 8 28.2	2.392	3.234	10.9	21.5
3 22	14 6.94	-13 55.1	1.302	2.206	14.2	22.1	3 22	13 48.97	- 7 58.8	2.315	3.236	8.0	21.3
4 1	13 53.74	-13 31.8	1.229	2.196	8.9	21.8	4 1	13 42.21	- 7 22.3	2.264	3.238	4.6	21.1
4 11	13 37.67	-12 51.6	1.184	2.182	3.0	21.4	4 11	13 34.49	- 6 42.1	2.240	3.240	1.3	20.9
4 21	13 20.40	-11 59.0	1.167	2.166	4.0	21.4	4 21	13 26.52	- 6 2.4	2.246	3.242	2.9	21.0
5 1	13 3.97	-11 2.4	1.180	2.147	10.2	21.7	5 1	13 19.06	- 5 27.4	2.281	3.243	6.3	21.2
5 11	12 50.18	-10 11.8	1.219	2.125	15.9	21.9	5 11	13 12.79	- 5 0.6	2.342	3.244	9.5	21.4
5 21	12 40.09	- 9 34.8	1.278	2.100	20.8	22.2	5 21	13 8.15	- 4 44.6	2.427	3.245	12.2	21.6
<b>211982</b>	2005 AE <sub>38</sub>		4 14.5 44°64'	0.8°/13.9	18		<b>155718</b>	2000 QT <sub>210</sub>		4 14.5 238°26'	2.9°/11.4	18	
3 12	13 54.38	-11 10.0	1.274	2.140	17.0	20.4	3 12	13 53.64	- 4 30.3	2.147	3.001	11.5	20.4
3 22	13 50.12	-10 22.9	1.218	2.151	12.4	20.1	3 22	13 48.84	- 3 18.7	2.059	2.987	8.4	20.2
4 1	13 43.23	- 9 19.9	1.183	2.162	7.3	19.9	4 1	13 42.26	- 1 59.5	1.998	2.973	5.1	20.0
4 11	13 34.75	- 8 7.8	1.173	2.173	1.8	19.6	4 11	13 34.53	- 0 38.7	1.964	2.959	2.9	19.8
4 21	13 25.98	- 6 55.5	1.187	2.186	4.1	19.7	4 21	13 26.42	+ 0 37.1	1.960	2.944	4.9	19.9
5 1	13 18.26	- 5 52.2	1.226	2.198	9.3	20.1	5 1	13 18.79	+ 1 41.6	1.984	2.928	8.3	20.1
5 11	13 12.64	- 5 5.3	1.288	2.211	14.0	20.4	5 11	13 12.41	+ 2 30.2	2.033	2.912	11.7	20.3
5 21	13 9.69	- 4 38.3	1.369	2.224	17.9	20.6	5 21	13 7.81	+ 3 0.4	2.104	2.896	14.7	20.4
<b>505481</b>	2013 VB <sub>15</sub>		4 14.5 239°17'	1.2°/15.8	17		<b>290011</b>	2005 QO <sub>8</sub>		4 14.5 234°88'	5.8°/ 6.4	17	
3 12	13 53.77	-17 6.0	2.117	2.939	12.8	22.0	3 12	13 50.48	+ 7 7.6	2.511	3.371	9.8	21.0
3 22	13 49.03	-16 17.9	2.020	2.926	9.8	21.8	3 22	13 46.26	+ 8 45.2	2.444	3.363	7.7	20.8
4 1	13 42.41	-15 12.8	1.947	2.913	6.2	21.5	4 1	13 40.61	+10 20.8	2.403	3.356	6.1	20.7
4 11	13 34.54	-13 53.7	1.902	2.899	2.3	21.3	4 11	13 34.08	+11 47.6	2.391	3.349	6.0	20.7
4 21	13 26.27	-12 26.1	1.885	2.885	2.5	21.3	4 21	13 27.30	+12 59.8	2.407	3.341	7.5	20.8
5 1	13 18.50	-10 56.8	1.898	2.870	6.5	21.5	5 1	13 20.96	+13 52.9	2.450	3.333	9.7	20.9
5 11	13 12.06	- 9 33.5	1.937	2.855	10.3	21.7	5 11	13 15.67	+14 24.9	2.516	3.325	12.0	21.0
5 21	13 7.51	- 8 21.9	2.000	2.839	13.6	21.9	5 21	13 11.85	+14 36.0	2.601	3.316	14.0	21.2
<b>358965</b>	2008 RU <sub>9</sub>		4 14.5 37°80'	3.1°/16.5	18		<b>273942</b>	2007 JS <sub>23</sub>		4 14.5 170°83'	4.3°/10.9	18	
3 12	13 57.01	-17 26.7	1.187	2.038	19.0	20.9	3 12	13 57.14	+ 1 36.3	1.988	2.846	12.1	19.9
3 22	13 52.45	-17 32.4	1.125	2.044	14.6	20.6	3 22	13 51.39	+ 2 11.2	1.920	2.847	9.0	19.7
4 1	13 44.82	-17 16.1	1.083	2.051	9.6	20.4	4 1	13 43.73	+ 2 45.7	1.877	2.848	5.9	19.5
4 11	13 35.22	-16 39.9	1.063	2.058	4.5	20.1	4 11	13 34.91	+ 3 14.5	1.861	2.849	4.3	19.4
4 21	13 25.11	-15 49.1	1.066	2.066	4.1	20.1	4 21	13 25.81	+ 3 32.8	1.873	2.849	6.0	19.5
5 1	13 16.10	-14 52.8	1.094	2.074	9.0	20.4	5 1	13 17.38	+ 3 37.0	1.913	2.850	9.1	19.7
5 11	13 9.50	-14 0.8	1.144	2.083	13.9	20.7	5 11	13 10.42	+ 3 25.3	1.976	2.850	12.3	19.9
5 21	13 5.99	-13 20.6	1.214	2.092	18.2	21.0	5 21	13 5.44	+ 2 58.1	2.061	2.850	15.0	20.1
<b>302176</b>	2001 TG <sub>95</sub>		4 14.5 253°76'	0.8°/15.2	17		<b>343839</b>	2011 HM <sub>31</sub>		4 14.5 273°38'	2.2°/12.6	17	
3 12	13 56.12	-15 17.8	1.602	2.441	15.4	20.6	3 12	13 55.08	- 5 3.8	1.991	2.845	12.2	21.3
3 22	13 51.37	-14 35.6	1.508	2.425	11.7	20.3	3 22	13 50.09	- 4 31.6	1.901	2.829	9.0	21.1
4 1	13 44.08	-13 33.6	1.438	2.409	7.3	20.0	4 1	13 43.10	- 3 53.2	1.835	2.812	5.4	20.8
4 11	13 35.04	-12 15.3	1.392	2.391	2.4	19.7	4 11	13 34.78	- 3 13.1	1.797	2.795	2.3	20.6
4 21	13 25.35	-10 47.5	1.374	2.374	3.2	19.7	4 21	13 25.99	- 2 36.4	1.787	2.778	4.3	20.7
5 1	13 16.26	- 9 19.4	1.382	2.356	8.3	19.9	5 1	13 17.69	- 2 8.1	1.804	2.761	8.1	20.9
5 11	13 8.93	- 8 0.3	1.416	2.337	13.1	20.2	5 11	13 10.74	- 1 52.3	1.846	2.743	11.8	21.0
5 21	13 4.09	- 6 57.3	1.470	2.318	17.2	20.4	5 21	13 5.76	- 1 51.0	1.910	2.726	15.1	21.2
<b>182079</b>	2000 HD <sub>1</sub>		4 14.5 276°76'	0.1°/14.6	18		<b>391347</b>	2006 UH <sub>177</sub>		4 14.5 210°77'	2.1°/11.9	18	
3 12	13 55.39	-12 14.9	1.837	2.679	13.7	21.2	3 12	13 51.39	- 5 14.9	2.624	3.473	9.8	21.7
3 22	13 50.60	-11 46.9	1.735	2.655	10.3	21.0	3 22	13 46.86	- 4 16.8	2.542	3.468	7.1	21.6
4 1	13 43.55	-11 5.3	1.657	2.630	6.2	20.7	4 1	13 40.95	- 3 13.1	2.487	3.463	4.2	21.4
4 11	13 34.90	-10 13.1	1.605	2.605	1.7	20.3	4 11	13 34.17	- 2 8.1	2.461	3.457	2.1	21.2
4 21	13 25.59	- 9 15.5	1.580	2.580	3.1	20.4	4 21	13 27.16	- 1 6.7	2.464	3.451	3.7	21.3
5 1	13 16.72	- 8 18.9	1.584	2.554	7.7	20.6	5 1	13 20.57	- 0 13.4	2.496	3.445	6.7	21.5
5 11	13 9.32	- 7 30.2	1.612	2.528	12.1	20.8	5 11	13 14.99	+ 0 28.1	2.555	3.438	9.5	21.6
5 21	13 4.11	- 6 54.5	1.662	2.502	15.9	21.0	5 21	13 10.84	+ 0 56.0	2.637	3.431	12.0	21.8
<b>372534</b>	2009 TS <sub>1</sub>		4 14.5 180°98'	0.2°/14.8	17		<b>497370</b>	2005 UL <sub>319</sub>		4 14.5 129°46'	1.0°/15.4	17	
3 12	13												

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4 14.5

4 14.5

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>6754</b>	Burdenko		4 14.5 138°60	0°8/13.8	18		<b>199622</b>	2006 FR <sub>45</sub>		4 14.5 336°32	1°2/13.8	18	
3 12	13 56.98	-10 13.7	1.934	2.776	13.1	18.1	3 12	13 58.05	-6 9.7	1.565	2.423	14.7	19.1
3 22	13 51.28	-9 31.0	1.867	2.788	9.6	17.9	3 22	13 52.74	-6 23.1	1.485	2.414	10.9	18.9
4 1	13 43.66	-8 37.8	1.824	2.799	5.6	17.7	4 1	13 44.89	-6 31.4	1.427	2.404	6.5	18.6
4 11	13 34.89	-7 38.8	1.809	2.810	1.4	17.4	4 11	13 35.32	-6 37.6	1.395	2.396	1.9	18.2
4 21	13 25.90	-6 39.6	1.823	2.820	3.2	17.6	4 21	13 25.16	-6 45.2	1.390	2.388	3.8	18.4
5 1	13 17.64	-5 46.3	1.864	2.829	7.3	17.8	5 1	13 15.67	-6 57.9	1.411	2.381	8.6	18.6
5 11	13 10.92	-5 3.9	1.932	2.838	11.0	18.1	5 11	13 8.00	-7 18.9	1.457	2.374	13.0	18.9
5 21	13 6.23	-4 35.5	2.022	2.846	14.1	18.3	5 21	13 2.85	-7 50.0	1.522	2.368	16.8	19.1
<b>56216</b>	1999 HJ <sub>2</sub>		4 14.5 306°64	3°8/11.9	18		<b>75503</b>	1999 XX <sub>186</sub>		4 14.5 155°59	3°9/17.9	18	
3 12	13 56.98	-1 12.7	1.584	2.450	14.2	18.6	3 12	13 58.75	-21 46.7	1.927	2.728	14.8	19.7
3 22	13 51.93	-0 48.6	1.501	2.434	10.5	18.3	3 22	13 52.86	-21 54.3	1.848	2.734	11.7	19.5
4 1	13 44.39	-0 21.8	1.441	2.417	6.6	18.0	4 1	13 44.76	-21 43.8	1.791	2.739	8.2	19.3
4 11	13 35.16	+0 1.9	1.406	2.401	3.9	17.8	4 11	13 35.25	-21 15.4	1.760	2.744	4.9	19.1
4 21	13 25.31	+0 16.6	1.398	2.385	6.0	17.9	4 21	13 25.34	-20 32.2	1.756	2.749	4.1	19.1
5 1	13 16.09	+0 17.5	1.415	2.369	10.2	18.1	5 1	13 16.13	-19 39.6	1.781	2.753	6.9	19.3
5 11	13 8.61	+0 1.4	1.455	2.354	14.3	18.3	5 11	13 8.58	-18 44.5	1.831	2.757	10.3	19.5
5 21	13 3.57	-0 32.1	1.516	2.339	18.0	18.5	5 21	13 3.29	-17 53.5	1.905	2.760	13.6	19.7
<b>275502</b>	1995 SG <sub>8</sub>		4 14.5 128°97	2°4/16.8	17		<b>502933</b>	2015 EG <sub>37</sub>		4 14.5 188°57	0°9/15.4	17	
3 12	13 57.73	-18 10.2	2.266	3.073	12.6	21.6	3 12	13 56.32	-13 33.6	2.133	2.962	12.5	21.4
3 22	13 51.69	-18 11.5	2.193	3.087	9.7	21.4	3 22	13 50.84	-13 25.3	2.050	2.961	9.4	21.2
4 1	13 43.86	-17 59.4	2.143	3.100	6.4	21.2	4 1	13 43.47	-13 5.9	1.992	2.961	5.8	21.0
4 11	13 34.95	-17 35.3	2.122	3.113	3.2	21.0	4 11	13 34.90	-12 37.8	1.961	2.960	2.0	20.8
4 21	13 25.79	-17 2.2	2.129	3.126	2.9	21.0	4 21	13 25.98	-12 4.3	1.959	2.958	2.5	20.8
5 1	13 17.27	-16 24.2	2.165	3.137	5.8	21.2	5 1	13 17.62	-11 30.1	1.985	2.957	6.3	21.0
5 11	13 10.14	-15 46.7	2.229	3.149	9.0	21.4	5 11	13 10.63	-11 0.0	2.038	2.955	9.9	21.2
5 21	13 4.89	-15 13.9	2.316	3.159	11.9	21.6	5 21	13 5.55	-10 37.8	2.114	2.952	13.0	21.4
<b>304659</b>	2006 WR <sub>33</sub>		4 14.5 291°44	4°7/9.8	17		<b>29705</b>	Cialucy		4 14.5 103°46	1°5/15.8	18	
3 12	13 53.72	+3 57.6	2.240	3.099	10.9	20.8	3 12	13 57.18	-15 5.4	1.814	2.646	14.3	18.2
3 22	13 48.75	+4 40.9	2.169	3.094	8.2	20.6	3 22	13 51.64	-14 56.7	1.746	2.657	10.8	18.0
4 1	13 42.13	+5 22.6	2.124	3.090	5.7	20.4	4 1	13 43.99	-14 34.1	1.700	2.667	6.7	17.8
4 11	13 34.50	+5 57.2	2.106	3.085	4.8	20.4	4 11	13 35.03	-14 0.0	1.681	2.678	2.6	17.5
4 21	13 26.62	+6 20.3	2.115	3.081	6.3	20.5	4 21	13 25.78	-13 18.9	1.689	2.688	2.8	17.6
5 1	13 19.26	+6 28.4	2.152	3.076	8.9	20.6	5 1	13 17.30	-12 36.3	1.725	2.699	6.9	17.9
5 11	13 13.14	+6 20.1	2.213	3.072	11.7	20.8	5 11	13 10.48	-11 58.2	1.786	2.709	10.7	18.1
5 21	13 8.73	+5 55.6	2.295	3.068	14.2	20.9	5 21	13 5.85	-11 29.1	1.870	2.718	14.1	18.3
<b>19400</b>	Emileclaus		4 14.5 57°97	2°4/12.9	18		<b>431559</b>	2007 UP <sub>38</sub>		4 14.5 242°12	5°5/19.0	17	
3 12	13 57.71	-6 47.8	1.260	2.130	16.9	18.3	3 12	13 59.69	-25 40.6	2.291	3.060	13.6	21.4
3 22	13 52.42	-6 4.4	1.216	2.151	12.2	18.1	3 22	13 53.55	-26 26.6	2.192	3.051	11.2	21.2
4 1	13 44.51	-5 11.7	1.194	2.173	7.1	17.9	4 1	13 45.25	-26 56.7	2.117	3.041	8.6	21.0
4 11	13 35.13	-4 17.1	1.195	2.195	2.6	17.7	4 11	13 35.43	-27 9.2	2.067	3.031	6.3	20.9
4 21	13 25.63	-3 28.5	1.222	2.217	5.1	17.9	4 21	13 24.99	-27 4.1	2.045	3.021	5.5	20.8
5 1	13 17.33	-2 53.1	1.274	2.239	9.9	18.2	5 1	13 14.97	-26 43.9	2.051	3.011	7.1	20.9
5 11	13 11.25	-2 35.3	1.348	2.261	14.2	18.5	5 11	13 6.33	-26 13.7	2.084	3.000	9.8	21.0
5 21	13 7.88	-2 36.3	1.442	2.284	17.8	18.8	5 21	12 59.76	-25 39.4	2.141	2.989	12.5	21.2
<b>508367</b>	2016 EO <sub>200</sub>		4 14.5 267°55	0°2/14.7	17		<b>504482</b>	2008 FP <sub>31</sub>		4 14.5 71°20	1°0/13.5	17	
3 12	13 52.51	-14 31.1	1.926	2.764	13.3	21.4	3 12	13 51.59	-9 14.9	2.258	3.105	11.3	21.6
3 22	13 48.29	-13 28.4	1.831	2.749	9.9	21.2	3 22	13 47.14	-8 30.4	2.192	3.116	8.2	21.4
4 1	13 42.07	-12 8.2	1.760	2.733	6.0	20.9	4 1	13 41.16	-7 37.6	2.152	3.128	4.7	21.2
4 11	13 34.54	-10 35.0	1.716	2.716	1.7	20.6	4 11	13 34.27	-6 41.0	2.139	3.139	1.3	21.0
4 21	13 26.55	-8 55.6	1.701	2.700	2.9	20.6	4 21	13 27.22	-5 45.4	2.155	3.151	3.0	21.2
5 1	13 19.08	-7 18.2	1.714	2.683	7.3	20.8	5 1	13 20.73	-4 55.6	2.199	3.163	6.4	21.4
5 11	13 13.01	-5 51.1	1.752	2.666	11.4	21.1	5 11	13 15.46	-4 16.0	2.270	3.174	9.6	21.6
5 21	13 8.94	-4 40.0	1.814	2.649	15.0	21.2	5 21	13 11.81	-3 48.8	2.363	3.186	12.3	21.8
<b>203603</b>	2002 EJ <sub>2</sub>		4 14.5 76°70	0°1/14.5	18		<b>317466</b>	2002 RK <sub>137</sub>		4 14.5 305°35	5°0/18.3	17	
3 12	13 56.66	-12 2.6	1.421	2.276	16.2	20.7	3 12	13 54.73	-22 41.2	1.488	2.308	17.4	20.3
3 22	13 51.68	-11 31.4	1.358	2.284	12.0	20.5	3 22	13 50.68	-22 53.3	1.398	2.294	14.0	20.0
4 1	13 44.16	-10 45.2	1.317	2.293	7.1	20.2	4 1	13 43.86	-22 42.0	1.329	2.280	10.1	19.8
4 11	13 35.08	-9 48.9	1.301	2.301	1.9	19.9	4 11	13 35.11	-22 6.6	1.282	2.267	6.3	19.5
4 21	13 25.65	-8 49.4	1.311	2.310	3.5	20.0	4 21	13 25.59	-21 10.0	1.260	2.253	5.2	19.4
5 1	13 17.18	-7 54.9	1.346	2.319	8.6	20.4	5 1	13 16.73	-19 59.0	1.263	2.240	8.4	19.5
5 11	13 10.71	-7 12.2	1.405	2.327	13.1	20.6	5 11	13 9.79	-18 43.7	1.290	2.228	12.7	19.7
5 21	13 6.82	-6 45.6	1.485	2.336	16.9	20.9	5 21	13 5.60	-17 33.8	1.338	2.216	16.8	20.0
<b>367165</b>	2006 VC <sub>139</sub>		4 14.5 133°38	0°7/15.2	16		<b>390466</b>	2013 YX <sub>116</sub>		4 14.5 347°15	6°7/8.7	17	
3 12	13 56.64	-14 4.7	2.085	2.913	12.8	22.0	3 12	13 50.32	+4 42.5	1.558	2.438	13.6	19.7
3 22	13 50.96	-13 35.1	2.016	2.927	9.5	21.8	3 22	13 46.91	+5 49.2	1.492	2.427	10.4	19.5
4 1	13 43.45	-12 53.1	1.970	2.939	5.8	21.6	4 1	13 41.33	+6 54.2	1.449	2.416	7.6	19.3
4 11	13 34.86	-12 1.9	1.953	2.952	1.8	21.3	4 11	13 34.37	+7 48.8	1.430	2.407	6.8	19.2
4 21	13 26.06	-11 6.4	1.964	2.963	2.5	21.4	4 21	13 27.02	+8 25.3	1.436	2.399	8.8	19.3
5 1	13 17.94	-10 12.0	2.004	2.974	6.4	21.7	5 1	13 20.35	+8 38.6	1.466	2.393	12.1	19.5
5 11	13 11.28	-9 24.3	2.070	2.985	9.9	21.9	5 11	13 15.29	+8 26.7	1.516	2.387	15.5	19.6
5 21	13 6.54	-8 47.1	2.160	2.995	12.9	22.1	5 21	13 12.42	+7 50.9	1.585	2.383	18.5	19.8
<b>91540</b>	1999 RH <sub>205</sub>		4 14.5 187°08	5°1/20.3	18		<b>136364</b>	2004 DV <sub>72</sub>		4 14.5 242°13	5°3/8.5	18	
3 12	13 57.17	-28 56.7	2.671	3.417	12.5	20.3	3 12	13 52.03	+4 4.1	2.174			

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4 14.5

4 14.6

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>346776</b>	2009 <i>BX</i> <sub>99</sub>		4 14.5 96°06	1.5/16.1	17		<b>224325</b>	2005 <i>UJ</i> <sub>46</sub>		4 14.6 123°80	0.9/13.8	17	R
3 12	13 56.05	-16 4.9	2.374	3.190	11.8	21.4	3 12	13 55.04	-9 43.6	1.819	2.669	13.4	21.0
3 22	13 50.30	-15 54.0	2.312	3.214	8.9	21.3	3 22	13 50.09	-9 7.2	1.748	2.673	9.9	20.8
4 1	13 42.98	-15 31.5	2.274	3.237	5.6	21.1	4 1	13 43.10	-8 20.3	1.700	2.676	5.8	20.6
4 11	13 34.75	-14 59.7	2.264	3.260	2.4	20.9	4 11	13 34.86	-7 27.5	1.680	2.680	1.5	20.3
4 21	13 26.40	-14 21.9	2.283	3.282	2.3	20.9	4 21	13 26.31	-6 34.4	1.686	2.684	3.3	20.4
5 1	13 18.68	-13 42.3	2.332	3.304	5.5	21.2	5 1	13 18.46	-5 47.3	1.721	2.687	7.6	20.7
5 11	13 12.27	-13 5.6	2.407	3.325	8.5	21.4	5 11	13 12.15	-5 11.2	1.780	2.690	11.5	20.9
5 21	13 7.58	-12 35.3	2.507	3.347	11.2	21.6	5 21	13 7.93	-4 49.3	1.861	2.693	14.8	21.1
<b>303914</b>	2005 <i>UJ</i> <sub>72</sub>		4 14.5 196°18	3.6/18.6	18		<b>74916</b>	1999 <i>TM</i> <sub>143</sub>		4 14.6 103°82	2.1/16.4	18	
3 12	13 53.90	-23 28.7	2.733	3.513	11.4	21.0	3 12	13 56.29	-17 56.7	1.630	2.460	15.7	19.5
3 22	13 48.82	-23 36.9	2.641	3.512	9.1	20.8	3 22	13 51.23	-17 30.3	1.562	2.470	12.0	19.3
4 1	13 42.20	-23 31.1	2.573	3.510	6.6	20.7	4 1	13 43.86	-16 44.6	1.515	2.480	7.7	19.0
4 11	13 34.58	-23 11.6	2.532	3.508	4.3	20.5	4 11	13 35.07	-15 43.0	1.494	2.490	3.4	18.8
4 21	13 26.65	-22 40.2	2.519	3.506	3.7	20.5	4 21	13 25.98	-14 31.2	1.500	2.499	3.1	18.8
5 1	13 19.15	-22 0.2	2.535	3.504	5.4	20.6	5 1	13 17.73	-13 17.3	1.533	2.509	7.3	19.1
5 11	13 12.73	-21 16.3	2.579	3.501	7.9	20.7	5 11	13 11.31	-12 9.5	1.591	2.518	11.5	19.3
5 21	13 7.87	-20 33.0	2.647	3.498	10.3	20.9	5 21	13 7.26	-11 13.8	1.670	2.527	15.1	19.6
<b>299720</b>	2006 <i>RL</i> <sub>19</sub>		4 14.5 212°41	2.0/16.9	18		<b>60086</b>	1999 <i>TC</i> <sub>152</sub>		4 14.6 274°06	2.5/12.4	17	
3 12	13 53.96	-18 32.9	2.910	3.710	10.3	21.9	3 12	13 54.24	-7 15.8	1.575	2.438	14.4	19.5
3 22	13 48.75	-18 24.5	2.812	3.703	7.9	21.7	3 22	13 49.92	-6 12.2	1.493	2.425	10.6	19.3
4 1	13 42.12	-18 4.8	2.740	3.695	5.3	21.6	4 1	13 43.23	-4 56.2	1.433	2.412	6.2	19.0
4 11	13 34.57	-17 35.0	2.695	3.686	2.7	21.4	4 11	13 34.95	-3 34.7	1.400	2.398	2.6	18.7
4 21	13 26.71	-16 57.4	2.681	3.677	2.4	21.3	4 21	13 26.13	-2 16.0	1.393	2.385	5.1	18.8
5 1	13 19.22	-16 15.6	2.696	3.667	4.9	21.5	5 1	13 17.95	-1 8.8	1.412	2.371	9.7	19.1
5 11	13 12.72	-15 33.7	2.739	3.657	7.6	21.6	5 11	13 11.47	-0 19.8	1.455	2.358	14.0	19.3
5 21	13 7.64	-14 55.3	2.807	3.647	10.1	21.8	5 21	13 7.34	+0 7.7	1.517	2.344	17.8	19.5
<b>211198</b>	2002 <i>LL</i> <sub>54</sub>		4 14.5 316°04	0.1/14.5	17		<b>162067</b>	1997 <i>NH</i> <sub>2</sub>		4 14.6 184°01	2.1/12.1	18	
3 12	13 55.14	-10 42.5	1.315	2.180	16.7	20.0	3 12	13 52.29	-6 13.4	2.388	3.238	10.6	21.1
3 22	13 51.13	-10 35.1	1.230	2.161	12.5	19.7	3 22	13 47.65	-5 8.1	2.312	3.238	7.7	20.9
4 1	13 44.22	-10 14.2	1.166	2.143	7.6	19.3	4 1	13 41.50	-3 55.9	2.262	3.238	4.5	20.7
4 11	13 35.24	-9 43.0	1.125	2.126	2.0	18.9	4 11	13 34.43	-2 41.7	2.240	3.237	2.1	20.5
4 21	13 25.42	-9 7.3	1.109	2.109	3.8	19.0	4 21	13 27.12	-1 31.2	2.248	3.236	3.9	20.7
5 1	13 16.26	-8 34.2	1.118	2.093	9.5	19.3	5 1	13 20.31	-0 29.7	2.285	3.235	7.1	20.9
5 11	13 9.12	-8 11.2	1.148	2.078	14.7	19.5	5 11	13 14.64	+0 18.9	2.348	3.233	10.1	21.1
5 21	13 4.85	-8 3.0	1.197	2.063	19.2	19.7	5 21	13 10.53	+0 52.1	2.433	3.231	12.7	21.2
<b>11653</b>	1997 <i>CA</i> <sub>20</sub>		4 14.5 84°20	3.9/10.0	18		<b>49655</b>	1999 <i>JY</i> <sub>87</sub>		4 14.6 116°04	4.8/9.5	18	
3 12	13 51.33	+0 21.8	2.286	3.147	10.6	17.9	3 12	13 54.16	+4 23.2	2.273	3.130	10.8	18.9
3 22	13 46.95	+1 26.8	2.222	3.151	7.8	17.7	3 22	13 49.00	+5 13.1	2.213	3.137	8.1	18.8
4 1	13 41.06	+2 33.2	2.184	3.156	5.1	17.5	4 1	13 42.28	+6 0.8	2.179	3.143	5.7	18.6
4 11	13 34.28	+3 35.4	2.174	3.160	3.9	17.4	4 11	13 34.63	+6 40.8	2.172	3.149	4.9	18.6
4 21	13 27.30	+4 28.1	2.193	3.164	5.6	17.6	4 21	13 26.80	+7 8.6	2.193	3.155	6.3	18.7
5 1	13 20.86	+5 6.8	2.238	3.169	8.3	17.7	5 1	13 19.57	+7 21.1	2.242	3.161	8.9	18.9
5 11	13 15.58	+5 29.1	2.308	3.173	11.1	17.9	5 11	13 13.57	+7 16.8	2.314	3.167	11.5	19.0
5 21	13 11.89	+5 34.4	2.400	3.178	13.5	18.1	5 21	13 9.26	+6 56.3	2.408	3.173	13.8	19.2
<b>281842</b>	2010 <i>AL</i> <sub>81</sub>		4 14.6 338°80	4.0/18.2	17		<b>319073</b>	2005 <i>WC</i> <sub>57</sub>		4 14.6 133°47	14.9/8.2	18	
3 12	13 54.43	-22 32.2	1.957	2.761	14.5	20.4	3 12	14 14.85	+22 20.2	1.204	2.036	20.0	19.9
3 22	13 49.73	-22 32.9	1.874	2.760	11.5	20.2	3 22	14 5.32	+23 14.9	1.163	2.045	17.3	19.8
4 1	13 42.94	-22 14.7	1.812	2.760	8.1	20.0	4 1	13 52.28	+23 41.5	1.142	2.053	15.4	19.7
4 11	13 34.82	-21 38.3	1.776	2.759	5.0	19.8	4 11	13 37.28	+23 28.0	1.142	2.061	15.0	19.7
4 21	13 26.30	-20 47.0	1.766	2.759	4.1	19.7	4 21	13 22.25	+22 29.3	1.165	2.069	16.3	19.8
5 1	13 18.39	-19 46.1	1.784	2.758	6.7	19.9	5 1	13 9.07	+20 48.1	1.210	2.076	18.7	20.0
5 11	13 12.00	-18 43.0	1.828	2.758	10.1	20.1	5 11	12 59.05	+18 33.6	1.274	2.082	21.5	20.2
5 21	13 7.71	-17 44.3	1.895	2.758	13.3	20.3	5 21	12 52.68	+15 57.0	1.355	2.088	24.0	20.4
<b>422587</b>	2014 <i>TG</i> <sub>62</sub>		4 14.6 134°91	2.2/16.5	14	C	<b>266334</b>	2007 <i>DB</i> <sub>47</sub>		4 14.6 118°40	0.1/14.6	18	
3 12	13 59.08	-17 41.1	2.055	2.867	13.5	22.6	3 12	13 56.57	-12 38.0	2.124	2.955	12.5	21.5
3 22	13 52.84	-17 32.6	1.984	2.882	10.4	22.4	3 22	13 50.83	-11 55.3	2.061	2.975	9.2	21.4
4 1	13 44.64	-17 9.3	1.936	2.896	6.7	22.2	4 1	13 43.36	-11 1.3	2.023	2.995	5.4	21.2
4 11	13 35.25	-16 33.2	1.916	2.909	3.2	22.0	4 11	13 34.92	-10 0.2	2.013	3.014	1.4	20.9
4 21	13 25.61	-15 48.1	1.924	2.922	2.9	22.0	4 21	13 26.33	-8 57.1	2.033	3.032	2.6	21.0
5 1	13 16.70	-14 59.2	1.961	2.934	6.3	22.3	5 1	13 18.46	-7 57.8	2.082	3.049	6.4	21.3
5 11	13 9.34	-14 12.5	2.025	2.945	9.8	22.5	5 11	13 12.02	-7 7.4	2.157	3.066	9.8	21.5
5 21	13 4.04	-13 32.9	2.112	2.955	12.9	22.7	5 21	13 7.44	-6 29.2	2.256	3.082	12.7	21.8
<b>204280</b>	2004 <i>HJ</i> <sub>34</sub>		4 14.6 267°44	4.6/11.1	17		<b>480799</b>	2016 <i>PN</i> <sub>57</sub>		4 14.6 247°73	7.5/4.3	18	
3 12	13 57.47	-2 8.2	1.474	2.342	15.0	20.3	3 12	13 52.34	+14 57.8	2.553	3.398	10.2	20.8
3 22	13 52.54	-1 4.6	1.389	2.322	11.1	20.0	3 22	13 47.67	+16 19.6	2.489	3.387	8.5	20.7
4 1	13 44.91	+0 6.6	1.326	2.302	7.0	19.7	4 1	13 41.52	+17 33.4	2.452	3.376	7.6	20.6
4 11	13 35.42	+1 17.3	1.289	2.282	4.6	19.5	4 11	13 34.45	+18 32.9	2.441	3.364	7.8	20.6
4 21	13 25.20	+2 18.6	1.279	2.262	7.1	19.6	4 21	13 27.13	+19 13.4	2.456	3.352	9.1	20.7
5 1	13 15.61	+3 2.1	1.293	2.240	11.6	19.8	5 1	13 20.26	+19 31.8	2.497	3.340	10.9	20.8
5 11	13 7.86	+3 22.6	1.329	2.219	16.0	20.0	5 11	13 14.48	+19 27.6	2.558	3.328	12.9	20.9
5 21	13 2.74	+3 18.6	1.384	2.197	19.9	20.2	5 21	13 10.22	+19 2.5	2.638	3.315	14.6	21.0
<b>57446</b>	2001 <i>SM</i> <sub>56</sub>		4 14.6 146°10	2.0/12.0	18		<b>383225</b>	2006 <i>AM</i> <sub>79</sub>		4 14.6 243°73	17.9/26.1	18	

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>168229</b>	2006 <i>KH</i> <sub>35</sub>		4 14.6 189°57	0°4/14.9	18		<b>491093</b>	2011 <i>SJ</i> <sub>21</sub>		4 14.6 181°69	3°4/19.5	18	
3 12	13 57.56	-13 28.9	1.958	2.789	13.4	21.0	3 12	13 53.10	-26 6.2	3.324	4.082	10.0	23.0
3 22	13 51.91	-12 56.5	1.875	2.789	10.0	20.7	3 22	13 48.01	-25 57.7	3.229	4.083	8.1	22.9
4 1	13 44.21	-12 10.7	1.817	2.787	6.1	20.5	4 1	13 41.65	-25 35.6	3.158	4.083	6.0	22.7
4 11	13 35.20	-11 14.9	1.785	2.785	1.8	20.2	4 11	13 34.51	-25 0.5	3.114	4.083	4.1	22.6
4 21	13 25.81	-10 14.2	1.783	2.782	2.7	20.3	4 21	13 27.15	-24 14.1	3.100	4.082	3.4	22.5
5 1	13 17.05	-9 14.8	1.809	2.779	7.0	20.5	5 1	13 20.17	-23 19.8	3.115	4.080	4.7	22.6
5 11	13 9.80	-8 23.0	1.861	2.774	10.9	20.7	5 11	13 14.11	-22 21.7	3.159	4.079	6.7	22.8
5 21	13 4.64	-7 43.1	1.936	2.769	14.2	21.0	5 21	13 9.36	-21 23.9	3.230	4.076	8.8	22.9
<b>285789</b>	2000 <i>WR</i> <sub>95</sub>		4 14.6 80°62	3°3/17.3	18		<b>418986</b>	2009 <i>KJ</i> <sub>9</sub>		4 14.6 287°53	3°3/8.7	18	
3 12	13 56.12	-20 20.5	1.501	2.328	17.0	20.2	3 12	13 48.69	+ 7 37.8	4.272	5.118	6.4	20.6
3 22	13 51.37	-20 5.8	1.431	2.335	13.2	20.0	3 22	13 44.49	+ 8 1.9	4.193	5.107	4.9	20.5
4 1	13 44.08	-19 28.7	1.382	2.342	8.9	19.8	4 1	13 39.45	+ 8 23.2	4.142	5.096	3.7	20.4
4 11	13 35.18	-18 31.2	1.357	2.349	4.7	19.5	4 11	13 33.92	+ 8 39.2	4.120	5.085	3.4	20.3
4 21	13 25.90	-17 18.9	1.358	2.356	3.9	19.5	4 21	13 28.24	+ 8 48.0	4.127	5.074	4.2	20.4
5 1	13 17.50	-16 0.4	1.385	2.363	7.7	19.7	5 1	13 22.81	+ 8 47.9	4.163	5.063	5.6	20.5
5 11	13 11.08	-14 45.2	1.437	2.370	12.0	20.0	5 11	13 17.98	+ 8 38.2	4.224	5.052	7.2	20.6
5 21	13 7.23	-13 41.0	1.510	2.377	15.8	20.2	5 21	13 14.01	+ 8 18.8	4.309	5.041	8.6	20.7
<b>56919</b>	2000 <i>QF</i> <sub>251</sub>		4 14.6 223°50	4°0/10.3	18		<b>145731</b>	1995 <i>AU</i>		4 14.6 145°72	3°4/11.1	18	
3 12	13 54.24	+ 2 32.1	2.476	3.330	10.2	19.7	3 12	13 56.44	- 1 50.3	2.163	3.015	11.5	20.0
3 22	13 49.05	+ 3 12.1	2.401	3.324	7.6	19.6	3 22	13 50.74	- 0 50.7	2.100	3.026	8.4	19.8
4 1	13 42.34	+ 3 51.5	2.351	3.319	5.1	19.4	4 1	13 43.34	+ 0 11.9	2.064	3.037	5.2	19.6
4 11	13 34.69	+ 4 25.7	2.330	3.313	4.0	19.3	4 11	13 34.96	+ 1 11.9	2.056	3.047	3.4	19.5
4 21	13 26.78	+ 4 50.6	2.337	3.307	5.4	19.4	4 21	13 26.41	+ 2 3.7	2.077	3.057	5.1	19.6
5 1	13 19.34	+ 5 2.9	2.372	3.300	8.0	19.5	5 1	13 18.50	+ 2 42.7	2.126	3.066	8.2	19.8
5 11	13 13.02	+ 5 0.9	2.433	3.294	10.7	19.7	5 11	13 11.95	+ 3 6.0	2.201	3.074	11.2	20.0
5 21	13 8.27	+ 4 44.4	2.515	3.287	13.1	19.9	5 21	13 7.21	+ 3 12.9	2.297	3.081	13.8	20.2
<b>318012</b>	2004 <i>CN</i> <sub>110</sub>		4 14.6 338°38	18°2/20.1	18		<b>303334</b>	2004 <i>TU</i> <sub>142</sub>		4 14.6 202°66	0°1/14.6	17	
3 12	14 11.12	-34 51.3	1.031	1.805	26.4	19.8	3 12	13 58.13	-12 10.2	1.674	2.517	14.7	21.5
3 22	14 5.42	-38 15.1	0.964	1.801	23.7	19.6	3 22	13 52.66	-11 42.6	1.594	2.514	11.0	21.3
4 1	13 54.25	-41 13.5	0.913	1.797	21.0	19.4	4 1	13 44.81	-11 1.1	1.537	2.511	6.6	21.0
4 11	13 38.32	-43 28.6	0.880	1.793	18.9	19.3	4 11	13 35.42	-10 9.6	1.507	2.507	1.8	20.7
4 21	13 19.74	-44 45.8	0.866	1.790	18.2	19.2	4 21	13 25.54	- 9 13.9	1.503	2.503	3.2	20.8
5 1	13 1.80	-45 1.8	0.870	1.788	19.2	19.2	5 1	13 16.38	- 8 20.9	1.527	2.498	7.9	21.1
5 11	12 47.73	-44 28.2	0.891	1.786	21.4	19.4	5 11	13 8.96	- 7 37.1	1.576	2.493	12.3	21.3
5 21	12 39.40	-43 24.3	0.928	1.785	24.2	19.5	5 21	13 3.94	- 7 7.2	1.646	2.487	16.0	21.5
<b>499323</b>	2009 <i>WB</i> <sub>144</sub>		4 14.6 239°91	4°7/19.2	18		<b>296510</b>	2009 <i>KL</i> <sub>11</sub>		4 14.6 70°22	0°7/15.4	17	
3 12	13 56.36	-25 42.4	2.190	2.968	13.9	21.8	3 12	13 51.27	-15 4.4	2.296	3.125	11.7	20.9
3 22	13 51.15	-25 42.6	2.087	2.954	11.4	21.6	3 22	13 47.02	-14 25.2	2.217	3.129	8.8	20.7
4 1	13 43.85	-25 23.1	2.006	2.939	8.4	21.3	4 1	13 41.19	-13 33.3	2.163	3.132	5.4	20.5
4 11	13 35.14	-24 43.5	1.951	2.924	5.7	21.1	4 11	13 34.40	-12 32.1	2.137	3.136	1.8	20.3
4 21	13 25.91	-23 46.0	1.923	2.908	4.8	21.0	4 21	13 27.38	-11 26.1	2.139	3.139	2.2	20.3
5 1	13 17.14	-22 35.4	1.923	2.892	6.7	21.1	5 1	13 20.87	-10 20.9	2.170	3.143	5.8	20.5
5 11	13 9.77	-21 18.9	1.950	2.875	9.8	21.3	5 11	13 15.56	- 9 21.9	2.228	3.146	9.1	20.7
5 21	13 4.44	-20 4.0	2.001	2.858	12.9	21.4	5 21	13 11.89	- 8 33.1	2.309	3.150	12.0	20.9
<b>323093</b>	2002 <i>VM</i> <sub>42</sub>		4 14.6 198°77	0°1/14.5	17		<b>521204</b>	2015 <i>FX</i> <sub>413</sub>		4 14.6 266°28	3°9/10.1	18	
3 12	13 56.35	-12 0.3	2.110	2.944	12.4	22.0	3 12	13 51.29	- 0 0.1	2.295	3.156	10.6	21.5
3 22	13 50.91	-11 24.3	2.025	2.941	9.2	21.8	3 22	13 47.02	+ 1 6.0	2.221	3.151	7.8	21.3
4 1	13 43.57	-10 36.6	1.965	2.937	5.5	21.6	4 1	13 41.20	+ 2 14.6	2.173	3.145	5.1	21.1
4 11	13 35.04	- 9 41.0	1.932	2.933	1.5	21.3	4 11	13 34.41	+ 3 19.8	2.153	3.139	3.9	21.0
4 21	13 26.15	- 8 42.3	1.929	2.928	2.7	21.3	4 21	13 27.36	+ 4 16.2	2.161	3.133	5.6	21.1
5 1	13 17.81	- 7 46.2	1.954	2.922	6.7	21.6	5 1	13 20.79	+ 4 58.9	2.196	3.128	8.4	21.3
5 11	13 10.85	- 6 58.2	2.006	2.915	10.4	21.8	5 11	13 15.36	+ 5 25.1	2.256	3.122	11.2	21.4
5 21	13 5.80	- 6 22.2	2.081	2.908	13.6	22.0	5 21	13 11.52	+ 5 33.9	2.337	3.116	13.8	21.6
<b>342663</b>	2008 <i>VB</i> <sub>12</sub>		4 14.6 190°50	0°2/14.3	18		<b>259036</b>	2002 <i>TZ</i> <sub>238</sub>		4 14.6 214°73	4°3/10.9	17	
3 12	13 53.51	-11 49.2	2.501	3.333	10.8	21.6	3 12	13 57.39	+ 0 15.7	1.868	2.727	12.7	20.8
3 22	13 48.54	-11 4.2	2.416	3.331	8.0	21.4	3 22	13 51.82	+ 1 6.2	1.794	2.722	9.4	20.6
4 1	13 42.05	-10 9.1	2.357	3.330	4.7	21.2	4 1	13 44.18	+ 1 58.7	1.744	2.716	6.1	20.4
4 11	13 34.62	- 9 7.4	2.327	3.327	1.2	20.9	4 11	13 35.23	+ 2 46.8	1.722	2.710	4.3	20.2
4 21	13 26.93	- 8 3.7	2.326	3.324	2.4	21.0	4 21	13 25.90	+ 3 24.6	1.727	2.704	6.2	20.3
5 1	13 19.72	- 7 3.0	2.355	3.321	5.9	21.2	5 1	13 17.22	+ 3 47.1	1.759	2.697	9.7	20.5
5 11	13 13.62	- 6 10.1	2.412	3.317	9.1	21.4	5 11	13 10.06	+ 3 51.4	1.815	2.690	13.1	20.7
5 21	13 9.09	- 5 28.2	2.492	3.312	11.8	21.6	5 21	13 5.01	+ 3 37.4	1.891	2.682	16.1	20.9
<b>86728</b>	2000 <i>GV</i> <sub>35</sub>		4 14.6 304°44	1°0/15.2	18		<b>463125</b>	2011 <i>UL</i> <sub>394</sub>		4 14.6 183°34	2°3/12.6	17	
3 12	13 57.42	-12 27.3	1.273	2.132	17.5	18.5	3 12	13 57.76	- 6 29.6	1.802	2.653	13.4	22.7
3 22	13 52.99	-12 32.9	1.189	2.115	13.3	18.2	3 22	13 52.14	- 5 35.1	1.728	2.654	9.8	22.4
4 1	13 45.45	-12 23.6	1.125	2.099	8.2	17.8	4 1	13 44.38	- 4 31.7	1.678	2.654	5.8	22.2
4 11	13 35.66	-12 1.6	1.084	2.083	2.7	17.5	4 11	13 35.28	- 3 25.5	1.656	2.654	2.4	22.0
4 21	13 24.95	-11 31.6	1.067	2.068	3.7	17.5	4 21	13 25.83	- 2 23.2	1.662	2.653	4.5	22.1
5 1	13 14.92	-11 0.5	1.075	2.052	9.5	17.7	5 1	13 17.09	- 1 31.2	1.695	2.651	8.6	22.4
5 11	13 7.04	-10 36.1	1.105	2.038	14.9	18.0	5 11	13 9.95	- 0 54.7	1.753	2.648	12.5	22.6
5 21	13 2.23	-10 24.2	1.154	2.024	19.5	18.2	5 21	13 5.00	- 0 35.8	1.833	2.645	15.8	22.8
<b>383943</b>	2008 <i>SR</i> <sub>260</sub>		4 14.6 227°69	4°0/18.9	18		<b>219795</b>	2002 <i>AK</i> <sub>121</sub>		4 14			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>87739</b>	2000 <i>SQ</i> <sub>62</sub>		4 14.6 239°35	1.3°/13.3	17		<b>471149</b>	2010 <i>FB</i> <sub>49</sub>		4 14.6 219°88	0.3°/11.5	16	
3 12	13 53.19	- 9 47.6	1.897	2.748	12.9	19.9	3 12	13 35.60	- 1 42.2	25.372	26.220	1.2	21.6
3 22	13 48.75	- 8 47.3	1.816	2.742	9.5	19.7	3 22	13 34.62	- 1 33.1	25.292	26.217	0.8	21.5
4 1	13 42.37	- 7 34.9	1.760	2.737	5.5	19.5	4 1	13 33.53	- 1 23.9	25.240	26.213	0.5	21.5
4 11	13 34.75	- 6 15.9	1.731	2.731	1.6	19.2	4 11	13 32.37	- 1 14.8	25.217	26.210	0.3	21.5
4 21	13 26.77	- 4 56.9	1.730	2.725	3.7	19.3	4 21	13 31.20	- 1 6.3	25.224	26.207	0.5	21.5
5 1	13 19.38	- 3 45.3	1.756	2.719	7.8	19.5	5 1	13 30.06	- 0 58.5	25.261	26.203	0.8	21.5
5 11	13 13.42	- 2 47.2	1.808	2.713	11.6	19.8	5 11	13 29.00	- 0 51.7	25.325	26.200	1.1	21.6
5 21	13 9.43	- 2 6.1	1.881	2.706	14.9	20.0	5 21	13 28.04	- 0 46.1	25.415	26.197	1.4	21.6
<b>496037</b>	2008 <i>US</i> <sub>135</sub>		4 14.6 256°01	0.6°/15.0	17		<b>87670</b>	2000 <i>RH</i> <sub>99</sub>		4 14.6 309°34	4.4°/18.5	18	
3 12	13 57.59	-14 8.6	1.591	2.432	15.5	22.4	3 12	13 52.15	-23 43.7	1.615	2.429	16.5	19.1
3 22	13 52.61	-13 32.3	1.495	2.413	11.7	22.1	3 22	13 48.61	-23 27.3	1.520	2.412	13.3	18.8
4 1	13 45.00	-12 37.6	1.421	2.393	7.2	21.8	4 1	13 42.62	-22 45.3	1.446	2.396	9.5	18.5
4 11	13 35.53	-11 28.0	1.373	2.373	2.2	21.4	4 11	13 34.92	-21 38.2	1.395	2.380	5.8	18.3
4 21	13 25.31	-10 9.8	1.352	2.351	3.3	21.4	4 21	13 26.60	-20 10.3	1.370	2.364	4.6	18.2
5 1	13 15.64	- 8 51.5	1.357	2.330	8.5	21.7	5 1	13 18.87	-18 29.7	1.370	2.349	7.7	18.3
5 11	13 7.74	- 7 42.3	1.387	2.307	13.4	21.9	5 11	13 12.88	-16 47.3	1.396	2.334	11.9	18.5
5 21	13 2.39	- 6 48.9	1.438	2.284	17.6	22.1	5 21	13 9.34	-15 13.0	1.443	2.319	15.9	18.7
<b>470169</b>	2006 <i>UK</i> <sub>196</sub>		4 14.6 173°23	0.4°/14.9	17		<b>507667</b>	2013 <i>RZ</i> <sub>41</sub>		4 14.6 113°59	3.5°/16.7	17	
3 12	13 52.59	-13 1.4	2.687	3.514	10.3	22.7	3 12	14 4.73	-17 2.8	1.855	2.665	14.9	20.9
3 22	13 47.79	-12 33.3	2.604	3.516	7.6	22.6	3 22	13 57.49	-17 58.4	1.775	2.669	11.6	20.7
4 1	13 41.58	-11 55.8	2.547	3.517	4.6	22.4	4 1	13 47.73	-18 42.1	1.718	2.674	7.8	20.5
4 11	13 34.52	-11 11.8	2.519	3.519	1.4	22.1	4 11	13 36.27	-19 12.5	1.689	2.678	4.4	20.3
4 21	13 27.24	-10 24.6	2.520	3.520	2.0	22.2	4 21	13 24.25	-19 30.0	1.688	2.682	4.0	20.2
5 1	13 20.39	- 9 38.5	2.551	3.520	5.3	22.4	5 1	13 12.90	-19 37.1	1.716	2.686	7.3	20.5
5 11	13 14.58	- 8 57.4	2.609	3.521	8.2	22.6	5 11	13 3.35	-19 38.5	1.771	2.690	11.0	20.7
5 21	13 10.22	- 8 24.4	2.691	3.521	10.8	22.8	5 21	12 56.30	-19 39.4	1.848	2.694	14.3	20.9
<b>250421</b>	2003 <i>WE</i> <sub>37</sub>		4 14.6 248°26	2.3°/16.2	17		<b>223652</b>	2004 <i>OQ</i> <sub>14</sub>		4 14.6 178°57	2.3°/12.3	17	
3 12	13 59.49	-16 10.2	1.732	2.559	15.0	21.0	3 12	13 55.44	- 4 55.8	2.193	3.043	11.5	20.9
3 22	13 53.83	-16 21.1	1.641	2.548	11.6	20.7	3 22	13 50.11	- 4 9.1	2.119	3.044	8.3	20.7
4 1	13 45.65	-16 17.4	1.572	2.536	7.6	20.4	4 1	13 43.07	- 3 16.7	2.070	3.045	5.0	20.5
4 11	13 35.72	-15 59.9	1.528	2.523	3.5	20.2	4 11	13 34.98	- 2 23.6	2.049	3.046	2.4	20.3
4 21	13 25.10	-15 31.5	1.512	2.511	3.3	20.1	4 21	13 26.62	- 1 34.8	2.057	3.046	4.1	20.5
5 1	13 15.05	-14 57.3	1.523	2.498	7.5	20.3	5 1	13 18.82	- 0 55.1	2.094	3.046	7.5	20.7
5 11	13 6.71	-14 23.9	1.559	2.484	11.8	20.6	5 11	13 12.31	- 0 28.2	2.156	3.045	10.8	20.9
5 21	13 0.83	-13 57.0	1.618	2.471	15.7	20.8	5 21	13 7.57	- 0 15.9	2.240	3.043	13.6	21.1
<b>303897</b>	2005 <i>TH</i> <sub>111</sub>		4 14.6 253°67	1.4°/16.1	16		<b>123358</b>	2000 <i>WO</i> <sub>19</sub>		4 14.6 170°92	2.8°/17.7	17	
3 12	13 53.32	-15 46.3	2.518	3.337	11.1	21.7	3 12	13 56.72	-21 7.8	2.672	3.460	11.4	21.7
3 22	13 48.53	-15 36.2	2.423	3.327	8.5	21.5	3 22	13 50.89	-21 0.8	2.585	3.465	9.0	21.6
4 1	13 42.14	-15 14.9	2.352	3.316	5.4	21.3	4 1	13 43.49	-20 39.9	2.522	3.469	6.2	21.4
4 11	13 34.71	-14 44.3	2.309	3.305	2.3	21.1	4 11	13 35.09	-20 6.3	2.487	3.472	3.6	21.2
4 21	13 26.93	-14 7.2	2.295	3.294	2.2	21.0	4 21	13 26.43	-19 22.5	2.481	3.475	3.0	21.2
5 1	13 19.55	-13 27.6	2.310	3.283	5.4	21.2	5 1	13 18.25	-18 32.5	2.506	3.477	5.2	21.3
5 11	13 13.25	-12 49.9	2.352	3.272	8.6	21.4	5 11	13 11.24	-17 41.3	2.558	3.478	8.0	21.5
5 21	13 8.55	-12 18.1	2.419	3.261	11.5	21.6	5 21	13 5.85	-16 53.4	2.636	3.478	10.6	21.7
<b>261864</b>	2006 <i>FF</i> <sub>7</sub>		4 14.6 297°68	1.2°/13.7	17		<b>105561</b>	2000 <i>RB</i> <sub>56</sub>		4 14.6 145°12	3.7°/18.8	18	
3 12	13 53.46	-10 46.9	1.378	2.242	16.0	20.5	3 12	13 53.94	-23 50.9	2.523	3.306	12.2	20.1
3 22	13 49.79	- 9 53.3	1.290	2.222	11.9	20.2	3 22	13 49.00	-23 53.5	2.437	3.309	9.7	20.0
4 1	13 43.41	- 8 41.6	1.224	2.203	7.1	19.9	4 1	13 42.42	-23 40.4	2.375	3.313	7.1	19.8
4 11	13 35.14	- 7 17.8	1.182	2.183	1.9	19.5	4 11	13 34.82	-23 12.3	2.340	3.316	4.6	19.6
4 21	13 26.12	- 5 50.5	1.166	2.164	4.4	19.6	4 21	13 26.92	-22 31.5	2.332	3.320	3.8	19.6
5 1	13 17.74	- 4 30.1	1.175	2.145	9.9	19.8	5 1	13 19.52	-21 41.9	2.353	3.323	5.6	19.7
5 11	13 11.24	- 3 26.2	1.206	2.126	15.0	20.1	5 11	13 13.30	-20 48.9	2.401	3.326	8.2	19.9
5 21	13 7.41	- 2 44.4	1.256	2.107	19.4	20.3	5 21	13 8.76	-19 57.5	2.474	3.328	10.8	20.1
<b>482266</b>	2011 <i>QK</i> <sub>99</sub>		4 14.6 277°68	0.3°/13.9	17		<b>66802</b>	1999 <i>TJ</i> <sub>270</sub>		4 14.6 285°51	3.3°/17.8	18	
3 12	13 45.45	-10 0.9	4.442	5.274	6.4	21.5	3 12	13 53.63	-21 34.9	1.915	2.725	14.5	18.5
3 22	13 42.17	- 9 23.5	4.347	5.263	4.7	21.4	3 22	13 49.21	-21 17.5	1.830	2.723	11.4	18.3
4 1	13 38.12	- 8 41.3	4.279	5.252	2.7	21.2	4 1	13 42.73	-20 40.5	1.767	2.720	7.9	18.1
4 11	13 33.61	- 7 56.2	4.241	5.241	0.7	21.1	4 11	13 34.92	-19 45.4	1.730	2.718	4.4	17.9
4 21	13 28.95	- 7 10.5	4.233	5.230	1.6	21.1	4 21	13 26.72	-18 36.3	1.720	2.716	3.6	17.8
5 1	13 24.51	- 6 26.8	4.256	5.219	3.6	21.3	5 1	13 19.14	-17 19.9	1.737	2.713	6.6	18.0
5 11	13 20.60	- 5 47.3	4.307	5.208	5.5	21.4	5 11	13 13.06	-16 4.0	1.780	2.711	10.2	18.2
5 21	13 17.48	- 5 13.8	4.384	5.197	7.2	21.5	5 21	13 9.07	-14 55.5	1.846	2.708	13.6	18.4
<b>424110</b>	2007 <i>EF</i> <sub>91</sub>		4 14.6 255°72	0.7°/15.2	17		<b>272926</b>	2006 <i>BT</i> <sub>207</sub>		4 14.6 65°17	3.2°/11.6	18	
3 12	13 55.96	-13 21.3	1.945	2.780	13.3	21.4	3 12	13 53.68	- 5 6.1	1.688	2.552	13.6	20.1
3 22	13 50.90	-13 6.6	1.854	2.769	10.0	21.2	3 22	13 49.05	- 3 49.5	1.638	2.571	9.8	19.9
4 1	13 43.75	-12 39.4	1.786	2.757	6.2	20.9	4 1	13 42.48	- 2 26.2	1.613	2.590	5.8	19.7
4 11	13 35.19	-12 2.4	1.745	2.744	2.0	20.6	4 11	13 34.81	- 1 3.9	1.614	2.610	3.2	19.5
4 21	13 26.13	-11 19.5	1.732	2.732	2.7	20.7	4 21	13 27.01	+ 0 9.7	1.643	2.629	5.3	19.7
5 1	13 17.59	-10 36.2	1.747	2.719	6.9	20.9	5 1	13 20.05	+ 1 8.1	1.698	2.649	9.0	20.0
5 11	13 10.49	- 9 58.2	1.787	2.706	10.9	21.1	5 11	13 14.70	+ 1 47.2	1.777	2.668	12.5	20.2
5 21	13 5.45	- 9 30.1	1.850	2.693	14.4	21.3	5 21	13 11.40	+ 2 5.9	1.876	2.687	15.5	20.5
<b>112779</b>	2002 <i>PK</i> <sub>160</sub>		4 14.6 146°88	1.0°/13.6	18		<b>2</b>						

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>260864</b>	2005 <i>QD</i> <sub>93</sub>		4 14.6 74°88	0°8/13.9	18		<b>196882</b>	2003 <i>SX</i> <sub>309</sub>		4 14.6 314°59	1°5/13.3	18	
3 12	13 58.22	- 9 4.9	1.649	2.499	14.5	20.7	3 12	13 54.81	- 7 7.7	1.881	2.735	12.9	19.9
3 22	13 52.46	- 8 42.1	1.595	2.520	10.6	20.5	3 22	13 49.97	- 6 38.8	1.805	2.732	9.4	19.7
4 1	13 44.54	- 8 9.9	1.565	2.541	6.2	20.3	4 1	13 43.14	- 6 2.4	1.753	2.730	5.5	19.4
4 11	13 35.37	- 7 32.9	1.560	2.561	1.6	20.0	4 11	13 35.05	- 5 22.8	1.728	2.727	1.8	19.2
4 21	13 26.05	- 6 56.3	1.584	2.581	3.4	20.2	4 21	13 26.61	- 4 45.0	1.730	2.725	3.7	19.3
5 1	13 17.65	- 6 25.7	1.634	2.602	7.8	20.5	5 1	13 18.77	- 4 14.2	1.760	2.723	7.7	19.6
5 11	13 11.05	- 6 5.7	1.709	2.622	11.7	20.8	5 11	13 12.40	- 3 54.7	1.814	2.721	11.5	19.8
5 21	13 6.74	- 5 58.5	1.805	2.641	15.0	21.0	5 21	13 8.05	- 3 48.9	1.890	2.719	14.7	20.0
<b>433836</b>	2015 <i>BO</i> <sub>248</sub>		4 14.6 227°37	7°0/ 7.1	17		<b>148091</b>	1999 <i>CC</i> <sub>153</sub>		4 14.6 292°83	1°4/15.7	17	
3 12	13 54.38	+ 7 55.5	1.981	2.843	12.0	20.9	3 12	13 55.74	-14 37.6	1.667	2.507	14.9	19.9
3 22	13 49.54	+ 9 24.1	1.917	2.837	9.4	20.7	3 22	13 51.09	-14 31.0	1.579	2.495	11.4	19.7
4 1	13 42.82	+10 49.1	1.877	2.830	7.4	20.6	4 1	13 44.04	-14 9.5	1.513	2.482	7.2	19.4
4 11	13 34.94	+12 2.3	1.864	2.824	7.2	20.5	4 11	13 35.34	-13 35.4	1.472	2.470	2.7	19.1
4 21	13 26.74	+12 56.8	1.878	2.817	8.9	20.6	4 21	13 26.05	-12 52.8	1.458	2.459	3.0	19.1
5 1	13 19.15	+13 28.1	1.917	2.809	11.6	20.8	5 1	13 17.34	-12 7.9	1.471	2.447	7.6	19.3
5 11	13 12.94	+13 34.5	1.978	2.802	14.2	20.9	5 11	13 10.30	-11 27.6	1.508	2.435	12.0	19.6
5 21	13 8.65	+13 17.6	2.057	2.794	16.6	21.1	5 21	13 5.64	-10 57.4	1.567	2.424	15.9	19.8
<b>110191</b>	2001 <i>SA</i> <sub>187</sub>		4 14.6 142°32	0°7/15.2	18		<b>409956</b>	2006 <i>UX</i> <sub>251</sub>		4 14.6 70°70	0°2/14.7	18	
3 12	13 58.93	-13 3.7	2.301	3.123	12.0	20.7	3 12	14 0.50	-11 23.8	1.563	2.407	15.5	21.5
3 22	13 52.59	-12 53.2	2.229	3.137	8.9	20.5	3 22	13 54.15	-11 10.1	1.516	2.436	11.4	21.3
4 1	13 44.50	-12 32.7	2.181	3.149	5.4	20.3	4 1	13 45.52	-10 44.6	1.492	2.465	6.8	21.1
4 11	13 35.37	-12 4.6	2.162	3.161	1.8	20.1	4 11	13 35.65	-10 11.3	1.494	2.494	1.8	20.9
4 21	13 26.01	-11 32.3	2.173	3.172	2.3	20.2	4 21	13 25.69	- 9 35.6	1.524	2.523	3.1	21.0
5 1	13 17.27	-10 59.9	2.213	3.183	5.9	20.4	5 1	13 16.83	- 9 3.3	1.580	2.552	7.6	21.4
5 11	13 9.90	-10 31.8	2.281	3.192	9.2	20.6	5 11	13 9.94	- 8 39.6	1.662	2.580	11.7	21.7
5 21	13 4.36	-10 11.2	2.372	3.201	12.1	20.8	5 21	13 5.49	- 8 27.4	1.765	2.608	15.0	21.9
<b>71286</b>	2000 <i>AX</i> <sub>51</sub>		4 14.6 110°97	1°6/15.8	18		<b>62486</b>	2000 <i>SC</i> <sub>222</sub>		4 14.6 227°32	5°3/ 9.1	18	
3 12	13 59.43	-14 45.2	1.665	2.499	15.2	19.0	3 12	13 54.43	+ 3 11.4	2.033	2.895	11.7	19.7
3 22	13 53.57	-14 45.5	1.597	2.509	11.5	18.8	3 22	13 49.55	+ 4 24.5	1.962	2.888	8.8	19.5
4 1	13 45.34	-14 31.4	1.551	2.518	7.2	18.6	4 1	13 42.84	+ 5 37.9	1.915	2.881	6.2	19.3
4 11	13 35.63	-14 5.3	1.530	2.528	2.8	18.3	4 11	13 34.97	+ 6 44.5	1.896	2.874	5.4	19.2
4 21	13 25.56	-13 31.3	1.537	2.537	3.0	18.4	4 21	13 26.79	+ 7 37.9	1.905	2.866	7.1	19.3
5 1	13 16.32	-12 55.1	1.572	2.546	7.3	18.6	5 1	13 19.16	+ 8 13.1	1.939	2.859	10.1	19.5
5 11	13 8.92	-12 22.9	1.631	2.555	11.5	18.9	5 11	13 12.89	+ 8 27.5	1.998	2.850	13.0	19.6
5 21	13 3.95	-11 59.6	1.712	2.563	15.0	19.1	5 21	13 8.47	+ 8 21.4	2.076	2.842	15.7	19.8
<b>495847</b>	2002 <i>PA</i> <sub>180</sub>		4 14.6 271°25	2°0/16.1	17		<b>282660</b>	2005 <i>UR</i> <sub>353</sub>		4 14.6 327°10	3°4/16.4	18	
3 12	13 57.53	-16 15.8	1.752	2.581	14.8	22.2	3 12	13 55.84	-15 52.7	1.329	2.178	17.4	18.6
3 22	13 52.48	-16 9.1	1.650	2.558	11.4	21.9	3 22	13 51.91	-16 32.0	1.238	2.156	13.6	18.3
4 1	13 44.93	-15 46.2	1.570	2.535	7.4	21.6	4 1	13 44.93	-16 56.9	1.168	2.135	9.1	18.0
4 11	13 35.59	-15 8.4	1.515	2.511	3.2	21.3	4 11	13 35.68	-17 6.5	1.120	2.115	4.6	17.7
4 21	13 25.48	-14 19.3	1.488	2.487	3.1	21.3	4 21	13 25.39	-17 2.4	1.097	2.095	4.3	17.6
5 1	13 15.81	-13 25.1	1.488	2.462	7.6	21.5	5 1	13 15.63	-16 49.1	1.098	2.077	9.0	17.8
5 11	13 7.73	-12 33.4	1.512	2.437	12.1	21.7	5 11	13 7.88	-16 33.6	1.121	2.060	14.1	18.0
5 21	13 2.04	-11 50.5	1.559	2.412	16.2	21.8	5 21	13 3.15	-16 22.9	1.163	2.044	18.6	18.2
<b>497732</b>	2006 <i>SS</i> <sub>182</sub>		4 14.6 249°79	0°2/14.7	17		<b>67371</b>	2000 <i>NM</i> <sub>5</sub>		4 14.6 216°07	4°7/ 9.9	17	
3 12	13 56.81	-12 24.9	1.852	2.690	13.7	22.9	3 12	13 57.29	+ 0 34.5	1.999	2.855	12.1	19.7
3 22	13 51.67	-11 56.2	1.757	2.675	10.3	22.6	3 22	13 51.72	+ 1 52.2	1.920	2.846	9.0	19.5
4 1	13 44.29	-11 14.0	1.686	2.658	6.2	22.3	4 1	13 44.17	+ 3 13.3	1.866	2.836	6.0	19.3
4 11	13 35.39	-10 21.6	1.642	2.642	1.7	22.0	4 11	13 35.35	+ 4 30.5	1.841	2.825	4.7	19.2
4 21	13 25.91	- 9 24.1	1.625	2.624	3.0	22.1	4 21	13 26.12	+ 5 36.7	1.843	2.813	6.7	19.3
5 1	13 16.95	- 8 28.1	1.637	2.607	7.5	22.3	5 1	13 17.46	+ 6 26.0	1.873	2.800	9.9	19.4
5 11	13 9.50	- 7 40.0	1.673	2.589	11.8	22.5	5 11	13 10.21	+ 6 54.7	1.928	2.786	13.2	19.6
5 21	13 4.23	- 7 4.7	1.732	2.570	15.5	22.7	5 21	13 4.94	+ 7 2.4	2.002	2.771	16.1	19.8
<b>321247</b>	2009 <i>BF</i> <sub>139</sub>		4 14.6 326°52	1°1/13.6	17		<b>289463</b>	2005 <i>EJ</i> <sub>66</sub>		4 14.6 346°52	11°3/ 2.9	17	
3 12	13 52.58	- 8 50.3	1.959	2.812	12.5	21.2	3 12	13 49.73	+14 41.2	1.468	2.343	14.6	19.2
3 22	13 48.29	- 8 14.5	1.880	2.806	9.2	21.0	3 22	13 46.69	+16 39.0	1.417	2.332	12.4	19.0
4 1	13 42.12	- 7 29.3	1.825	2.802	5.4	20.8	4 1	13 41.37	+18 24.9	1.388	2.323	11.3	18.9
4 11	13 34.77	- 6 39.2	1.797	2.797	1.5	20.5	4 11	13 34.60	+19 47.0	1.383	2.314	11.9	18.9
4 21	13 27.07	- 5 49.4	1.796	2.792	3.3	20.6	4 21	13 27.46	+20 36.4	1.399	2.306	13.8	19.0
5 1	13 19.93	- 5 5.4	1.823	2.788	7.3	20.9	5 1	13 21.08	+20 48.6	1.435	2.300	16.4	19.2
5 11	13 14.14	- 4 32.1	1.874	2.784	11.0	21.1	5 11	13 16.43	+20 24.5	1.490	2.295	19.0	19.3
5 21	13 10.25	- 4 12.5	1.948	2.780	14.2	21.3	5 21	13 14.07	+19 28.4	1.559	2.291	21.3	19.5
<b>90800</b>	1994 <i>UD</i> <sub>9</sub>		4 14.6 349°96	2°6/16.2	18		<b>401865</b>	2000 <i>TT</i> <sub>1</sub>		4 14.6 200°43	1°9/15.9	16	
3 12	13 55.90	-15 57.1	1.188	2.044	18.6	19.4	3 12	14 1.51	-15 6.5	1.850	2.672	14.4	21.9
3 22	13 51.90	-16 8.1	1.117	2.039	14.3	19.1	3 22	13 55.11	-15 15.9	1.764	2.669	11.0	21.7
4 1	13 44.80	-15 59.5	1.065	2.036	9.3	18.8	4 1	13 46.33	-15 12.4	1.701	2.666	7.0	21.4
4 11	13 35.57	-15 32.7	1.036	2.033	4.1	18.5	4 11	13 35.96	-14 57.0	1.665	2.661	3.0	21.1
4 21	13 25.64	-14 52.7	1.031	2.031	3.9	18.5	4 21	13 25.04	-14 32.6	1.657	2.656	3.0	21.1
5 1	13 16.62	-14 7.3	1.049	2.029	9.1	18.8	5 1	13 14.75	-14 4.1	1.678	2.650	7.1	21.4
5 11	13 9.92	-13 25.9	1.089	2.029	14.3	19.0	5 11	13 6.14	-13 37.1	1.724	2.644	11.2	21.6
5 21	13 6.32	-12 55.8	1.147	2.029	18.8	19.3	5 21	12 59.88	-13 16.5	1.794	2.637	14.8	21.8
<b>459554</b>	2013 <i>GZ</i> <sub>6</sub>												

EPHEMERIDES

4 14.6

4 14.6

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	
<b>498764</b>	2008 <i>UJ</i> <sub>40</sub>	4 14.6 205°23 0°2/14.4 17						<b>218037</b>	2002 <i>AU</i> <sub>133</sub>	4 14.6 182°08 9°5/ 1.9 17				
3 12	13 55.66	-10 32.6	2.165	3.003	12.0	21.9	3 12	13 57.62	+22 47.4	2.522	3.338	11.2	20.6	
3 22	13 50.41	-10 14.2	2.083	3.001	8.9	21.7	3 22	13 51.57	+24 15.9	2.479	3.339	10.0	20.5	
4 1	13 43.34	-9 46.8	2.025	2.998	5.3	21.5	4 1	13 43.89	+25 30.1	2.461	3.339	9.5	20.5	
4 11	13 35.12	-9 13.4	1.995	2.995	1.4	21.2	4 11	13 35.26	+26 23.4	2.468	3.339	9.9	20.5	
4 21	13 26.56	-8 38.0	1.993	2.992	2.6	21.3	4 21	13 26.44	+26 51.7	2.500	3.338	11.0	20.6	
5 1	13 18.53	-8 5.0	2.020	2.988	6.5	21.5	5 1	13 18.24	+26 53.3	2.554	3.336	12.5	20.7	
5 11	13 11.80	-7 38.9	2.073	2.985	10.0	21.7	5 11	13 11.34	+26 29.5	2.629	3.334	14.0	20.8	
5 21	13 6.91	-7 22.6	2.149	2.980	13.1	21.9	5 21	13 6.17	+25 43.5	2.720	3.330	15.4	20.9	
<b>287833</b>	2003 <i>SF</i> <sub>203</sub>	4 14.6 245°46 0°2/14.8 16						<b>392102</b>	2009 <i>DR</i> <sub>138</sub>	4 14.6 263°30 2°1/16.5 16				
3 12	13 57.08	-12 53.2	1.798	2.636	14.1	21.9	3 12	13 56.74	-16 28.3	2.403	3.215	11.8	21.2	
3 22	13 51.93	-12 19.5	1.704	2.621	10.6	21.6	3 22	13 51.23	-16 42.9	2.303	3.201	9.1	20.9	
4 1	13 44.49	-11 31.1	1.633	2.606	6.4	21.3	4 1	13 43.89	-16 46.8	2.228	3.187	6.0	20.7	
4 11	13 35.48	-10 31.5	1.589	2.589	1.8	21.0	4 11	13 35.31	-16 40.7	2.180	3.173	2.9	20.5	
4 21	13 25.88	-9 26.2	1.573	2.572	3.0	21.0	4 21	13 26.26	-16 26.4	2.161	3.159	2.7	20.5	
5 1	13 16.82	-8 22.3	1.584	2.555	7.7	21.3	5 1	13 17.58	-16 7.1	2.171	3.144	5.8	20.6	
5 11	13 9.31	-7 27.0	1.621	2.537	12.1	21.5	5 11	13 10.08	-15 47.0	2.209	3.129	9.1	20.8	
5 21	13 4.06	-6 45.3	1.680	2.518	15.8	21.7	5 21	13 4.33	-15 30.0	2.270	3.114	12.1	21.0	
<b>360361</b>	2002 <i>AQ</i> <sub>4</sub>	4 14.6 72°97 17°0/31.9 18						<b>235337</b>	2003 <i>UY</i> <sub>215</sub>	4 14.6 64°39 3°8/11.9 17				
3 12	14 4.12	+30 41.1	1.397	2.210	18.8	20.3	3 12	13 59.29	+0 43.2	1.871	2.726	12.8	19.9	
3 22	13 56.85	+32 53.2	1.407	2.245	17.5	20.3	3 22	13 53.10	+0 57.3	1.810	2.736	9.5	19.7	
4 1	13 47.00	+34 27.8	1.436	2.280	17.0	20.4	4 1	13 44.92	+1 10.7	1.774	2.746	6.0	19.5	
4 11	13 35.99	+35 16.0	1.484	2.314	17.4	20.5	4 11	13 35.55	+1 18.9	1.765	2.757	3.8	19.4	
4 21	13 25.32	+35 16.2	1.550	2.348	18.4	20.7	4 21	13 25.96	+1 18.0	1.784	2.767	5.4	19.5	
5 1	13 16.30	+34 32.2	1.633	2.381	19.7	20.8	5 1	13 17.16	+1 5.1	1.831	2.777	8.8	19.7	
5 11	13 9.80	+33 11.9	1.731	2.414	21.0	21.0	5 11	13 9.97	+0 39.1	1.902	2.788	12.1	20.0	
5 21	13 6.10	+31 24.8	1.841	2.446	22.0	21.2	5 21	13 4.89	+0 0.2	1.995	2.799	15.0	20.2	
<b>428848</b>	2008 <i>US</i> <sub>58</sub>	4 14.6 125°42 0°3/14.9 17						<b>200863</b>	2001 <i>YT</i> <sub>72</sub>	4 14.6 60°40 2°7/12.7 18				
3 12	13 54.03	-13 10.9	2.000	2.837	12.9	21.7	3 12	13 57.33	-5 47.1	1.360	2.228	16.0	19.8	
3 22	13 49.29	-12 37.2	1.925	2.841	9.6	21.5	3 22	13 52.36	-5 4.7	1.298	2.233	11.7	19.5	
4 1	13 42.69	-11 51.0	1.873	2.845	5.8	21.3	4 1	13 44.77	-4 13.5	1.259	2.238	6.9	19.3	
4 11	13 34.95	-10 55.9	1.849	2.849	1.7	21.0	4 11	13 35.55	-3 20.5	1.245	2.243	2.9	19.0	
4 21	13 26.91	-9 57.1	1.853	2.852	2.6	21.1	4 21	13 25.95	-2 33.2	1.256	2.249	5.3	19.2	
5 1	13 19.49	-9 0.4	1.885	2.856	6.6	21.4	5 1	13 17.30	-1 58.9	1.292	2.254	10.0	19.5	
5 11	13 13.48	-8 11.5	1.942	2.859	10.3	21.6	5 11	13 10.70	-1 42.3	1.350	2.260	14.4	19.7	
5 21	13 9.37	-7 34.4	2.023	2.862	13.5	21.8	5 21	13 6.75	-1 45.0	1.428	2.265	18.2	20.0	
<b>186027</b>	2001 <i>QN</i> <sub>245</sub>	4 14.6 224°57 1°9/12.6 18						<b>439558</b>	2014 <i>DM</i> <sub>56</sub>	4 14.6 248°40 3°6/10.3 18				
3 12	13 54.98	-7 19.7	2.230	3.075	11.5	21.6	3 12	13 51.13	-0 35.2	2.392	3.251	10.3	21.4	
3 22	13 49.89	-6 18.1	2.140	3.064	8.4	21.4	3 22	13 46.90	+0 31.4	2.318	3.247	7.5	21.2	
4 1	13 43.04	-5 7.5	2.076	3.051	4.9	21.1	4 1	13 41.18	+1 40.8	2.270	3.242	4.9	21.0	
4 11	13 35.06	-3 52.7	2.040	3.039	2.0	20.9	4 11	13 34.55	+2 47.4	2.251	3.238	3.6	21.0	
4 21	13 26.70	-2 39.8	2.034	3.025	3.9	21.0	4 21	13 27.68	+3 45.9	2.260	3.234	5.2	21.1	
5 1	13 18.81	-1 34.8	2.057	3.011	7.5	21.2	5 1	13 21.26	+4 31.6	2.296	3.229	8.0	21.2	
5 11	13 12.15	-0 42.7	2.106	2.996	10.9	21.4	5 11	13 15.94	+5 1.6	2.358	3.225	10.8	21.4	
5 21	13 7.24	-0 6.4	2.177	2.980	13.9	21.6	5 21	13 12.14	+5 14.8	2.441	3.220	13.2	21.5	
<b>510564</b>	2012 <i>PL</i> <sub>24</sub>	4 14.6 185°97 0°0/14.6 18						<b>21314</b>	1996 <i>XG</i> <sub>15</sub>	4 14.6 22°95 2°8/16.6 18				
3 12	13 45.69	-11 20.8	4.659	5.486	6.3	21.5	3 12	13 54.63	-17 36.1	1.265	2.114	18.2	18.4	
3 22	13 42.33	-10 53.6	4.573	5.485	4.6	21.4	3 22	13 50.68	-17 31.7	1.201	2.119	14.0	18.1	
4 1	13 38.24	-10 21.6	4.514	5.485	2.7	21.3	4 1	13 43.92	-17 5.6	1.157	2.125	9.1	17.9	
4 11	13 33.72	-9 46.6	4.485	5.485	0.7	21.1	4 11	13 35.35	-16 20.3	1.136	2.132	4.2	17.6	
4 21	13 29.09	-9 10.7	4.486	5.485	1.3	21.1	4 21	13 26.32	-15 21.9	1.139	2.139	3.7	17.6	
5 1	13 24.67	-8 35.8	4.517	5.484	3.3	21.3	5 1	13 18.27	-14 19.2	1.167	2.147	8.4	17.9	
5 11	13 20.78	-8 4.0	4.577	5.484	5.1	21.4	5 11	13 12.39	-13 21.8	1.217	2.156	13.2	18.2	
5 21	13 17.64	-7 37.0	4.663	5.483	6.7	21.5	5 21	13 9.33	-12 36.8	1.287	2.165	17.3	18.4	
<b>411732</b>	2012 <i>BE</i> <sub>54</sub>	4 14.6 102°43 2°3/12.8 18						<b>277453</b>	2005 <i>UY</i> <sub>508</sub>	4 14.6 85°34 1°3/13.5 17				
3 12	13 57.71	-6 22.1	1.658	2.514	14.2	21.5	3 12	13 56.21	-7 52.5	1.753	2.606	13.7	21.1	
3 22	13 52.13	-5 35.1	1.601	2.529	10.3	21.3	3 22	13 51.10	-7 25.0	1.682	2.609	10.0	20.9	
4 1	13 44.39	-4 40.5	1.567	2.544	6.0	21.1	4 1	13 43.86	-6 48.8	1.636	2.612	5.9	20.6	
4 11	13 35.40	-3 44.1	1.560	2.559	2.4	20.9	4 11	13 35.30	-6 8.7	1.615	2.615	1.8	20.3	
4 21	13 26.20	-2 52.6	1.581	2.573	4.5	21.0	4 21	13 26.40	-5 29.8	1.622	2.619	3.7	20.5	
5 1	13 17.88	-2 12.0	1.628	2.587	8.6	21.3	5 1	13 18.22	-4 57.9	1.657	2.622	7.9	20.8	
5 11	13 11.32	-1 46.7	1.700	2.601	12.5	21.6	5 11	13 11.65	-4 37.3	1.715	2.625	11.9	21.0	
5 21	13 7.01	-1 38.2	1.792	2.614	15.7	21.8	5 21	13 7.24	-4 30.6	1.795	2.628	15.2	21.2	
<b>131245</b>	Bakich	4 14.6 194°50 0°6/14.0 18						<b>208419</b>	2001 <i>SX</i> <sub>311</sub>	4 14.6 131°06 5°1/19.6 17				
3 12	13 53.76	-10 33.4	2.181	3.022	11.8	20.3	3 12	13 58.83	-26 37.8	2.518	3.278	12.8	20.5	
3 22	13 48.98	-9 52.0	2.100	3.021	8.7	20.1	3 22	13 52.70	-27 15.0	2.435	3.286	10.5	20.4	
4 1	13 42.47	-9 0.5	2.045	3.019	5.1	19.9	4 1	13 44.72	-27 36.3	2.375	3.294	8.0	20.2	
4 11	13 34.89	-8 2.9	2.017	3.017	1.3	19.6	4 11	13 35.53	-27 40.7	2.342	3.302	5.9	20.1	
4 21	13 27.02	-7 4.2	2.018	3.015	2.8	19.7	4 21	13 25.97	-27 28.8	2.336	3.310	5.1	20.1	
5 1	13 19.68	-6 9.9	2.047	3.013	6.6	20.0	5 1	13 16.92	-27 3.7	2.359	3.317	6.4	20.2	
5 11	13 13.60	-5 24.8	2.103	3.011	10.1	20.2	5 11	13 9.18	-26 30.1	2.408	3.324	8.7	20.3	
5 21	13 9.28	-4 52.3	2.181	3.008	13.1	20.4	5 21	13 3.30	-25 53.4	2.483	3.330	11.0	20.5	
<b>93939</b>	2000 <i>WO</i> <sub>171</sub>	4 14.6 282°93 9°1/ 6.3 18						<b>51526</b>	2001 <i>FF</i> <sub>123</sub>	4 14.6 321°18 1°5/13.5 17				
3 12	13 56.81	+13 11.8	1.793	2.649	13.3	19.0	3 12	13 52.02	-9 47.7	1.322	2.192	16.2	19.8	
3 22	13 51.57	+14 25.1	1.728	2.637	11.0	18.8	3 22	13 48.78	-8 57.8	1.241	2.176	12.0	19.5	

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>148767</b>	2001 <i>TJ</i> <sub>229</sub>		4 14.6	79°45	3°1/12.6	18	<b>227357</b>	2005 <i>UN</i> <sub>125</sub>		4 14.6	10°42	1°8/16.2	17
3 12	14 0.92	- 2 4.6	1.665	2.521	14.1	19.4	3 12	13 53.51	-16 58.2	1.599	2.437	15.5	20.4
3 22	13 54.47	- 1 51.4	1.609	2.536	10.4	19.2	3 22	13 49.39	-16 31.8	1.524	2.438	11.8	20.2
4 1	13 45.79	- 1 36.2	1.576	2.551	6.3	19.0	4 1	13 42.98	-15 46.5	1.471	2.439	7.6	19.9
4 11	13 35.80	- 1 23.7	1.570	2.566	3.2	18.8	4 11	13 35.10	-14 45.8	1.443	2.440	3.1	19.6
4 21	13 25.60	- 1 18.2	1.591	2.580	5.0	19.0	4 21	13 26.81	-13 35.4	1.442	2.442	3.0	19.6
5 1	13 16.33	- 1 23.4	1.639	2.595	8.9	19.2	5 1	13 19.26	-12 23.4	1.467	2.444	7.4	19.9
5 11	13 8.89	- 1 41.3	1.712	2.609	12.6	19.5	5 11	13 13.44	-11 17.8	1.516	2.446	11.7	20.2
5 21	13 3.82	- 2 12.0	1.806	2.623	15.8	19.7	5 21	13 9.94	-10 25.0	1.586	2.449	15.4	20.4
<b>473142</b>	2015 <i>KH</i> <sub>6</sub>		4 14.6	230°68	3°2/10.8	17	<b>338473</b>	2003 <i>FG</i> <sub>112</sub>		4 14.6	93°76	3°3/18.1	17
3 12	13 51.80	- 1 34.0	2.385	3.242	10.4	21.2	3 12	13 57.38	-21 33.2	2.488	3.276	12.2	21.0
3 22	13 47.39	- 0 35.2	2.310	3.239	7.6	21.0	3 22	13 51.44	-21 48.6	2.419	3.297	9.6	20.8
4 1	13 41.48	+ 0 26.9	2.261	3.235	4.8	20.8	4 1	13 43.86	-21 50.0	2.374	3.317	6.7	20.7
4 11	13 34.65	+ 1 27.0	2.241	3.231	3.2	20.7	4 11	13 35.29	-21 38.2	2.356	3.337	4.1	20.6
4 21	13 27.56	+ 2 20.0	2.249	3.227	4.9	20.8	4 21	13 26.52	-21 15.1	2.367	3.357	3.5	20.5
5 1	13 20.94	+ 3 1.4	2.284	3.223	7.7	21.0	5 1	13 18.34	-20 44.3	2.407	3.377	5.5	20.7
5 11	13 15.42	+ 3 28.3	2.345	3.219	10.6	21.2	5 11	13 11.46	-20 10.6	2.475	3.396	8.2	20.9
5 21	13 11.45	+ 3 39.4	2.428	3.215	13.1	21.3	5 21	13 6.31	-19 38.3	2.567	3.415	10.7	21.1
<b>498765</b>	2008 <i>UZ</i> <sub>51</sub>		4 14.6	314°16	14°7/10.7	17	<b>155030</b>	2005 <i>QF</i> <sub>84</sub>		4 14.6	145°29	0°3/14.3	18
3 12	14 17.90	+19 47.6	1.007	1.853	22.0	20.8	3 12	13 52.01	-10 41.9	3.174	4.002	8.8	21.9
3 22	14 8.61	+20 7.1	0.950	1.849	18.7	20.6	3 22	13 47.18	-10 8.6	3.099	4.013	6.5	21.8
4 1	13 54.90	+19 56.8	0.912	1.845	15.9	20.4	4 1	13 41.21	-9 28.7	3.051	4.023	3.8	21.6
4 11	13 38.34	+19 2.7	0.894	1.841	14.7	20.3	4 11	13 34.57	-8 44.8	3.033	4.033	1.0	21.4
4 21	13 21.24	+17 19.2	0.899	1.838	16.1	20.4	4 21	13 27.79	-8 0.2	3.044	4.042	2.0	21.5
5 1	13 6.00	+14 50.4	0.927	1.835	19.3	20.5	5 1	13 21.41	-7 18.1	3.087	4.051	4.7	21.7
5 11	12 54.41	+11 48.9	0.974	1.832	23.0	20.8	5 11	13 15.90	-6 41.7	3.157	4.060	7.2	21.9
5 21	12 47.16	+8 29.2	1.038	1.829	26.5	21.0	5 21	13 11.61	-6 13.2	3.252	4.068	9.4	22.0
<b>430804</b>	2005 <i>AD</i> <sub>13</sub>		4 14.6	238°30	5°5/ 8.8	16	<b>522484</b>	2016 <i>ER</i> <sub>227</sub>		4 14.6	350°16	2°4/12.2	17
3 12	14 5.76	+ 5 2.6	2.422	3.254	11.1	23.1	3 12	13 51.45	- 8 34.3	1.632	2.495	14.0	21.1
3 22	13 57.85	+ 6 26.3	2.319	3.227	8.6	22.9	3 22	13 47.75	- 7 6.3	1.560	2.493	10.2	20.9
4 1	13 47.87	+ 7 51.3	2.244	3.199	6.3	22.7	4 1	13 41.94	- 5 24.7	1.513	2.492	5.9	20.6
4 11	13 36.43	+ 9 10.4	2.199	3.168	5.6	22.6	4 11	13 34.82	- 3 37.6	1.492	2.490	2.5	20.4
4 21	13 24.37	+10 16.8	2.187	3.134	7.3	22.6	4 21	13 27.36	- 1 54.2	1.498	2.489	4.9	20.6
5 1	13 12.67	+11 4.8	2.205	3.099	10.2	22.7	5 1	13 20.59	- 0 24.0	1.531	2.489	9.2	20.8
5 11	13 2.22	+11 31.6	2.249	3.061	13.1	22.9	5 11	13 15.40	+ 0 46.2	1.587	2.488	13.2	21.1
5 21	12 53.69	+11 36.9	2.315	3.022	15.8	23.0	5 21	13 12.34	+ 1 33.1	1.664	2.488	16.6	21.3
<b>434893</b>	2006 <i>SG</i> <sub>402</sub>		4 14.6	201°47	1°6/13.1	17	<b>73661</b>	1981 <i>EW</i> <sub>25</sub>		4 14.6	73°49	4°5/17.6	18
3 12	13 55.11	- 5 28.0	2.321	3.168	11.0	21.2	3 12	14 3.94	-19 59.1	1.545	2.359	17.2	19.5
3 22	13 49.86	- 5 9.4	2.244	3.167	8.0	21.0	3 22	13 57.05	-20 40.8	1.489	2.383	13.5	19.3
4 1	13 42.97	- 4 46.3	2.191	3.166	4.7	20.8	4 1	13 47.49	-21 3.9	1.454	2.406	9.3	19.1
4 11	13 35.06	- 4 22.1	2.167	3.165	1.8	20.6	4 11	13 36.31	-21 7.7	1.444	2.430	5.5	19.0
4 21	13 26.86	- 4 0.4	2.171	3.164	3.4	20.7	4 21	13 24.83	-20 54.4	1.461	2.454	4.8	19.0
5 1	13 19.17	- 3 44.8	2.204	3.163	6.7	20.9	5 1	13 14.44	-20 29.4	1.504	2.477	7.8	19.2
5 11	13 12.68	- 3 38.2	2.263	3.162	9.9	21.1	5 11	13 6.23	-20 0.1	1.573	2.500	11.6	19.5
5 21	13 7.88	- 3 42.3	2.346	3.161	12.7	21.3	5 21	13 0.80	-19 33.2	1.663	2.523	15.0	19.7
<b>436726</b>	2011 <i>UD</i> <sub>170</sub>		4 14.6	301°25	3°1/17.9	17	<b>476764</b>	2008 <i>UY</i> <sub>99</sub>		4 14.6	165°08	0°3/15.2	18
3 12	13 52.48	-21 22.0	2.178	2.983	13.1	20.7	3 12	13 48.89	-13 5.1	4.188	5.005	7.1	22.7
3 22	13 48.23	-21 11.4	2.085	2.975	10.3	20.5	3 22	13 44.72	-12 41.8	4.104	5.010	5.2	22.6
4 1	13 42.14	-20 43.7	2.016	2.967	7.2	20.3	4 1	13 39.69	-12 12.7	4.047	5.014	3.2	22.5
4 11	13 34.86	-20 0.4	1.972	2.959	4.2	20.1	4 11	13 34.17	-11 39.3	4.019	5.018	1.0	22.3
4 21	13 27.18	-19 4.5	1.956	2.951	3.4	20.0	4 21	13 28.51	-11 3.9	4.022	5.022	1.3	22.3
5 1	13 19.99	-18 1.2	1.968	2.943	6.0	20.2	5 1	13 23.12	-10 28.8	4.056	5.025	3.5	22.5
5 11	13 14.09	-16 57.0	2.006	2.936	9.3	20.4	5 11	13 18.35	-9 56.4	4.119	5.028	5.5	22.6
5 21	13 10.02	-15 57.9	2.068	2.928	12.5	20.6	5 21	13 14.49	-9 28.6	4.207	5.031	7.3	22.8
<b>328770</b>	2009 <i>UX</i> <sub>107</sub>		4 14.6	91°56	0°6/13.8	18	<b>120051</b>	2003 <i>BO</i> <sub>66</sub>		4 14.6	278°09	2°5/12.5	17
3 12	13 50.66	- 8 43.1	3.256	4.092	8.5	21.5	3 12	13 54.62	- 5 58.5	1.714	2.574	13.6	19.5
3 22	13 46.14	- 8 18.8	3.191	4.109	6.1	21.4	3 22	13 50.01	- 5 6.9	1.641	2.572	9.9	19.3
4 1	13 40.56	- 7 49.5	3.152	4.126	3.6	21.2	4 1	13 43.27	- 4 7.0	1.592	2.570	5.9	19.0
4 11	13 34.38	- 7 17.8	3.142	4.143	1.0	21.0	4 11	13 35.18	- 3 4.8	1.570	2.568	2.6	18.8
4 21	13 28.08	- 6 46.4	3.163	4.159	2.0	21.1	4 21	13 26.72	- 2 7.0	1.574	2.565	4.7	18.9
5 1	13 22.18	- 6 18.2	3.213	4.176	4.6	21.3	5 1	13 18.94	- 1 20.3	1.605	2.563	8.8	19.2
5 11	13 17.11	- 5 55.6	3.291	4.192	7.0	21.5	5 11	13 12.75	- 0 49.5	1.660	2.561	12.7	19.4
5 21	13 13.20	- 5 40.4	3.393	4.208	9.1	21.7	5 21	13 8.70	- 0 36.8	1.736	2.559	16.1	19.6
<b>423628</b>	2005 <i>WZ</i> <sub>176</sub>		4 14.6	185°79	6°4/ 7.2	17	<b>242945</b>	2006 <i>RB</i> <sub>36</sub>		4 14.6	241°17	5°0/ 8.8	17
3 12	13 56.15	+ 9 55.9	2.423	3.271	10.5	21.7	3 12	13 52.63	+ 4 12.1	2.326	3.186	10.5	20.3
3 22	13 50.51	+11 7.1	2.361	3.271	8.4	21.5	3 22	13 48.06	+ 5 20.1	2.254	3.179	8.0	20.1
4 1	13 43.30	+12 12.9	2.326	3.271	6.7	21.4	4 1	13 41.91	+ 6 27.3	2.208	3.171	5.7	20.0
4 11	13 35.14	+13 7.1	2.318	3.269	6.5	21.4	4 11	13 34.79	+ 7 27.7	2.190	3.164	5.1	19.9
4 21	13 26.75	+13 44.8	2.337	3.267	7.9	21.5	4 21	13 27.40	+ 8 15.9	2.199	3.157	6.6	20.0
5 1	13 18.92	+14 2.8	2.384	3.265	10.1	21.6	5 1	13 20.49	+ 8 47.7	2.235	3.149	9.2	20.2
5 11	13 12.29	+14 0.4	2.454	3.261	12.3	21.8	5 11	13 14.73	+ 9 1.0	2.296	3.141	11.8	20.3
5 21	13 7.32	+13 38.9	2.543	3.257	14.3	21.9	5 21	13 10.57	+ 8 55.8	2.377	3.133	14.2	20.5
<b>376292</b>	2011 <i>FY</i> <sub>97</sub>		4 14.6	175°83	0°8/15.4	17	<b>19867</b>	4061 <i>P-L</i>		4 14.6			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>142027</b>	2002 <i>QM</i> <sub>5</sub>		4 14.6 283°07		1°1/15.5 17		<b>255752</b>	2006 <i>RR</i> <sub>20</sub>		4 14.6 245°00		1°3/13.5 18	
3 12	13 55.35	-15 16.2	1.635	2.475	15.2	20.6	3 12	13 56.93	-8 47.6	1.926	2.771	13.0	21.4
3 22	13 51.01	-14 46.7	1.534	2.451	11.6	20.3	3 22	13 51.70	-8 4.0	1.832	2.755	9.6	21.1
4 1	13 44.16	-13 58.5	1.455	2.426	7.3	20.0	4 1	13 44.34	-7 9.7	1.762	2.737	5.7	20.9
4 11	13 35.50	-12 54.5	1.402	2.401	2.6	19.6	4 11	13 35.53	-6 9.0	1.720	2.720	1.7	20.6
4 21	13 26.07	-11 40.0	1.375	2.375	3.1	19.6	4 21	13 26.19	-5 7.7	1.705	2.701	3.7	20.7
5 1	13 17.12	-10 23.3	1.375	2.350	8.1	19.8	5 1	13 17.33	-4 12.5	1.719	2.682	8.0	20.9
5 11	13 9.80	-9 13.1	1.399	2.324	12.9	20.0	5 11	13 9.91	-3 29.1	1.759	2.662	12.0	21.1
5 21	13 4.93	-8 16.7	1.444	2.298	17.1	20.2	5 21	13 4.57	-3 1.0	1.820	2.641	15.5	21.3
<b>139149</b>	2001 <i>FQ</i> <sub>94</sub>		4 14.6 289°95		4°5/16.3 17		<b>410223</b>	2007 <i>RB</i> <sub>321</sub>		4 14.6 179°02		2°0/12.8 17	
3 12	14 9.69	-15 56.2	1.584	2.399	16.8	19.5	3 12	13 56.89	-7 54.1	1.891	2.739	13.1	22.1
3 22	14 2.14	-17 24.9	1.482	2.379	13.3	19.2	3 22	13 51.49	-6 49.2	1.816	2.741	9.5	21.9
4 1	13 51.16	-18 46.3	1.404	2.360	9.2	18.9	4 1	13 44.08	-5 34.1	1.766	2.743	5.6	21.7
4 11	13 37.50	-19 56.2	1.352	2.340	5.3	18.6	4 11	13 35.43	-4 14.6	1.744	2.743	2.1	21.4
4 21	13 22.46	-20 51.7	1.328	2.321	5.2	18.6	4 21	13 26.45	-2 58.0	1.751	2.743	4.2	21.6
5 1	13 7.74	-21 32.3	1.333	2.301	9.2	18.7	5 1	13 18.15	-1 51.1	1.786	2.742	8.2	21.8
5 11	12 55.01	-22 2.0	1.364	2.282	13.7	19.0	5 11	13 11.36	-0 59.5	1.846	2.741	11.9	22.0
5 21	12 45.43	-22 26.3	1.417	2.262	17.9	19.2	5 21	13 6.63	-0 25.9	1.927	2.738	15.1	22.3
<b>259584</b>	2003 <i>UH</i> <sub>218</sub>		4 14.6 128°89		2°1/12.9 18		<b>214743</b>	2006 <i>TP</i> <sub>51</sub>		4 14.6 44°36		0°8/15.6 18	
3 12	13 58.07	-6 33.8	1.798	2.649	13.5	20.7	3 12	13 51.34	-15 41.0	2.281	3.109	11.9	20.3
3 22	13 52.32	-5 47.7	1.736	2.662	9.8	20.5	3 22	13 47.19	-14 57.5	2.200	3.110	8.9	20.1
4 1	13 44.52	-4 54.0	1.697	2.674	5.8	20.2	4 1	13 41.44	-14 0.4	2.143	3.111	5.5	19.9
4 11	13 35.51	-3 58.2	1.686	2.685	2.2	20.0	4 11	13 34.71	-12 53.2	2.114	3.112	1.9	19.6
4 21	13 26.26	-3 6.4	1.704	2.696	4.2	20.2	4 21	13 27.72	-11 40.6	2.113	3.113	2.2	19.6
5 1	13 17.81	-2 24.5	1.748	2.707	8.2	20.4	5 1	13 21.24	-10 28.5	2.141	3.114	5.8	19.9
5 11	13 11.00	-1 56.7	1.818	2.717	11.9	20.7	5 11	13 15.96	-9 22.8	2.196	3.115	9.2	20.1
5 21	13 6.34	-1 44.8	1.909	2.726	15.1	20.9	5 21	13 12.32	-8 27.6	2.274	3.116	12.1	20.3
<b>18493</b>	Demoleon		4 14.6 270°84		0°7/15.9 18		<b>268432</b>	2005 <i>VN</i> <sub>25</sub>		4 14.6 83°60		2°1/16.5 18	
3 12	13 45.71	-15 35.9	4.541	5.352	6.7	18.1	3 12	13 57.11	-17 31.2	1.791	2.615	14.7	21.1
3 22	13 42.41	-15 5.6	4.445	5.345	5.0	18.0	3 22	13 51.70	-17 17.5	1.729	2.633	11.2	20.9
4 1	13 38.34	-14 28.7	4.375	5.339	3.1	17.9	4 1	13 44.20	-16 47.5	1.689	2.652	7.2	20.7
4 11	13 33.81	-13 46.7	4.335	5.332	1.2	17.7	4 11	13 35.45	-16 3.7	1.675	2.670	3.3	20.5
4 21	13 29.16	-13 1.6	4.325	5.325	1.2	17.7	4 21	13 26.49	-15 11.0	1.689	2.688	2.9	20.5
5 1	13 24.71	-12 16.0	4.346	5.318	3.2	17.8	5 1	13 18.35	-14 15.6	1.730	2.706	6.7	20.8
5 11	13 20.81	-11 32.1	4.396	5.311	5.1	18.0	5 11	13 11.90	-13 24.2	1.797	2.723	10.4	21.0
5 21	13 17.70	-10 52.3	4.471	5.304	6.8	18.1	5 21	13 7.64	-12 41.9	1.887	2.741	13.7	21.3
<b>281108</b>	2006 <i>YC</i> <sub>2</sub>		4 14.6 189°07		0°6/15.1 18		<b>175184</b>	2005 <i>EJ</i> <sub>177</sub>		4 14.6 227°93		0°1/14.7 17	
3 12	13 59.61	-13 48.4	1.531	2.372	16.0	21.7	3 12	13 57.74	-11 40.8	1.904	2.741	13.4	21.2
3 22	13 54.02	-13 18.4	1.454	2.372	12.0	21.4	3 22	13 52.30	-11 16.5	1.814	2.732	10.0	20.9
4 1	13 45.83	-12 31.5	1.399	2.371	7.3	21.1	4 1	13 44.69	-10 40.2	1.749	2.721	6.0	20.7
4 11	13 35.92	-11 31.7	1.370	2.370	2.3	20.8	4 11	13 35.64	-9 55.3	1.711	2.711	1.7	20.3
4 21	13 25.50	-10 25.3	1.367	2.367	3.2	20.9	4 21	13 26.08	-9 6.5	1.700	2.700	2.9	20.4
5 1	13 15.90	-9 20.6	1.392	2.365	8.3	21.2	5 1	13 17.08	-8 19.7	1.718	2.688	7.3	20.7
5 11	13 8.23	-8 25.4	1.441	2.361	12.9	21.4	5 11	13 9.58	-7 40.7	1.762	2.675	11.4	20.9
5 21	13 3.19	-7 45.2	1.510	2.357	16.9	21.7	5 21	13 4.22	-7 13.7	1.828	2.663	14.9	21.1
<b>522441</b>	2016 <i>CW</i> <sub>318</sub>		4 14.6 22°87		3°6/12.7 16		<b>468949</b>	2015 <i>AL</i> <sub>20</sub>		4 14.6 218°91		6°7/ 7.9 16	
3 12	14 0.73	-0 57.6	1.375	2.242	15.9	21.2	3 12	13 58.09	+7 33.1	2.020	2.874	12.1	21.3
3 22	13 54.86	-0 57.2	1.314	2.247	11.7	21.0	3 22	13 52.33	+8 48.8	1.947	2.865	9.5	21.2
4 1	13 46.29	-0 56.3	1.276	2.252	7.2	20.7	4 1	13 44.59	+10 1.2	1.900	2.854	7.3	21.0
4 11	13 36.03	-1 0.0	1.262	2.258	3.8	20.5	4 11	13 35.59	+11 2.7	1.880	2.844	6.9	21.0
4 21	13 25.39	-1 12.7	1.275	2.265	5.7	20.7	4 21	13 26.21	+11 46.7	1.888	2.832	8.5	21.0
5 1	13 15.75	-1 37.7	1.313	2.273	10.2	20.9	5 1	13 17.42	+12 8.8	1.921	2.820	11.3	21.2
5 11	13 8.24	-2 16.4	1.373	2.281	14.4	21.2	5 11	13 10.07	+12 7.4	1.978	2.806	14.1	21.3
5 21	13 3.48	-3 8.3	1.454	2.289	18.0	21.4	5 21	13 4.71	+11 43.8	2.053	2.793	16.6	21.5
<b>255714</b>	2006 <i>QS</i> <sub>114</sub>		4 14.6 219°84		2°4/16.8 17		<b>371051</b>	2005 <i>UG</i> <sub>202</sub>		4 14.7 176°23		1°3/13.5 17	
3 12	13 56.64	-18 42.1	1.843	2.662	14.6	20.7	3 12	13 56.39	-7 56.8	1.966	2.813	12.7	21.8
3 22	13 51.57	-18 21.6	1.755	2.656	11.3	20.4	3 22	13 51.09	-7 23.9	1.890	2.814	9.3	21.5
4 1	13 44.27	-17 42.8	1.689	2.650	7.5	20.2	4 1	13 43.85	-6 42.8	1.839	2.815	5.4	21.3
4 11	13 35.50	-16 47.6	1.649	2.643	3.6	19.9	4 11	13 35.39	-5 57.8	1.816	2.816	1.7	21.1
4 21	13 26.24	-15 40.5	1.636	2.635	3.1	19.9	4 21	13 26.60	-5 14.0	1.820	2.816	3.5	21.2
5 1	13 17.60	-14 28.4	1.652	2.627	6.9	20.1	5 1	13 18.44	-4 36.6	1.853	2.816	7.4	21.4
5 11	13 10.54	-13 19.2	1.693	2.619	11.0	20.3	5 11	13 11.72	-4 10.0	1.911	2.816	11.1	21.6
5 21	13 5.71	-12 19.3	1.757	2.610	14.6	20.5	5 21	13 6.98	-3 56.7	1.991	2.815	14.3	21.9
<b>104191</b>	2000 <i>EN</i> <sub>101</sub>		4 14.6 156°67		0°4/15.0 18		<b>272681</b>	2005 <i>XN</i> <sub>36</sub>		4 14.7 84°81		6°1/ 9.6 18	
3 12	13 54.66	-12 47.2	2.273	3.104	11.8	20.5	3 12	13 57.47	+5 24.6	1.794	2.655	13.0	20.5
3 22	13 49.60	-12 24.2	2.194	3.108	8.8	20.3	3 22	13 51.84	+6 17.9	1.743	2.667	9.9	20.3
4 1	13 42.86	-11 50.8	2.141	3.111	5.3	20.1	4 1	13 44.22	+7 7.3	1.716	2.679	7.1	20.1
4 11	13 35.08	-11 9.8	2.115	3.114	1.6	19.8	4 11	13 35.46	+7 45.8	1.715	2.690	6.1	20.1
4 21	13 27.03	-10 25.3	2.118	3.117	2.3	19.9	4 21	13 26.53	+8 7.8	1.741	2.702	7.7	20.2
5 1	13 19.51	-9 42.0	2.149	3.120	6.0	20.1	5 1	13 18.42	+8 10.2	1.793	2.714	10.6	20.4
5 11	13 13.25	-9 4.5	2.208	3.122	9.4	20.3	5 11	13 11.94	+7 52.2	1.867	2.725	13.6	20.6
5 21	13 8.71	-8 36.2	2.289	3.124	12.3	20.5	5 21	13 7.57	+7 15.5	1.962	2.737	16.2	20.8
<b>300741</b>	2007 <i>VJ</i> <sub>165</sub>		4 14.6 24°37		1°4/16.0 18		<b>153930</b>	2001 <i>YG</i> <sub>66</sub>		4 14.7 77°85		3°7/18.6 18	
3 12	13 52.51												

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>93633</b>	2000 <i>UF</i> <sub>79</sub>		4 14.7 183°98		1°0/13.7 18		<b>13818</b>	Ullery		4 14.7 225°51		1°0/13.6 18	
3 12	13 56.11	- 8 23.1	2.219	3.060	11.7	20.4	3 12	13 53.90	- 9 43.7	2.164	3.007	11.8	19.1
3 22	13 50.70	- 7 52.4	2.140	3.061	8.5	20.2	3 22	13 49.19	- 8 53.7	2.078	3.000	8.7	18.9
4 1	13 43.55	- 7 14.1	2.086	3.061	5.0	19.9	4 1	13 42.71	- 7 53.3	2.017	2.992	5.1	18.6
4 11	13 35.31	- 6 31.8	2.060	3.060	1.5	19.7	4 11	13 35.12	- 6 47.0	1.984	2.984	1.5	18.4
4 21	13 26.77	- 5 49.9	2.063	3.059	3.1	19.8	4 21	13 27.17	- 5 40.3	1.980	2.976	3.2	18.5
5 1	13 18.77	- 5 13.2	2.095	3.058	6.7	20.0	5 1	13 19.72	- 4 39.1	2.004	2.967	7.0	18.7
5 11	13 12.05	- 4 45.6	2.153	3.056	10.1	20.2	5 11	13 13.53	- 3 48.6	2.055	2.958	10.5	18.9
5 21	13 7.12	- 4 29.6	2.234	3.053	13.1	20.4	5 21	13 9.11	- 3 12.1	2.128	2.949	13.6	19.1
<b>436316</b>	2010 <i>FG</i> <sub>28</sub>		4 14.7 234°11		2°0/12.9 17		<b>382006</b>	2010 <i>UF</i> <sub>52</sub>		4 14.7 9°26		8°7/22.7 18	
3 12	13 57.19	- 4 21.1	2.223	3.069	11.4	21.3	3 12	13 52.93	-34 40.8	1.084	1.877	24.2	20.3
3 22	13 51.54	- 4 5 8	2.139	3.063	8.4	21.1	3 22	13 50.24	-34 0.9	1.010	1.877	20.6	20.0
4 1	13 44.09	- 3 46.6	2.081	3.056	5.0	20.8	4 1	13 44.04	-32 29.4	0.951	1.877	16.1	19.7
4 11	13 35.48	- 3 27.1	2.051	3.049	2.1	20.6	4 11	13 35.55	-30 3.9	0.911	1.878	11.6	19.5
4 21	13 26.50	- 3 10.9	2.050	3.042	3.7	20.7	4 21	13 26.47	-26 51.3	0.894	1.879	8.7	19.3
5 1	13 18.04	- 3 1 8	2.077	3.034	7.2	20.9	5 1	13 18.67	-23 10.2	0.901	1.881	10.3	19.4
5 11	13 10.84	- 3 2 3	2.131	3.027	10.5	21.1	5 11	13 13.59	-19 25.9	0.931	1.883	14.6	19.6
5 21	13 5.45	- 3 14.1	2.207	3.019	13.4	21.3	5 21	13 11.90	-16 1.2	0.982	1.885	19.4	19.9
<b>18793</b>	1999 <i>JW</i> <sub>60</sub>		4 14.7 231°67		3°8/ 9.6 18		<b>290946</b>	2005 <i>WE</i> <sub>158</sub>		4 14.7 147°46		5°3/20.5 18	
3 12	13 53.75	+ 3 48.1	3.015	3.862	8.7	19.0	3 12	13 57.49	-28 45.5	2.338	3.093	13.8	21.4
3 22	13 48.62	+ 4 34.2	2.929	3.848	6.6	18.9	3 22	13 51.82	-28 48.8	2.255	3.102	11.4	21.2
4 1	13 42.19	+ 5 19.6	2.870	3.833	4.6	18.7	4 1	13 44.26	-28 32.1	2.194	3.111	8.7	21.1
4 11	13 34.94	+ 6 0.2	2.840	3.817	3.9	18.6	4 11	13 35.53	-27 55.0	2.159	3.120	6.3	20.9
4 21	13 27.43	+ 6 32.2	2.840	3.801	5.1	18.7	4 21	13 26.49	-26 59.9	2.152	3.128	5.3	20.9
5 1	13 20.26	+ 6 52.8	2.868	3.784	7.3	18.8	5 1	13 18.08	-25 51.5	2.172	3.135	6.5	21.0
5 11	13 13.98	+ 7 0.0	2.922	3.767	9.6	18.9	5 11	13 11.10	-24 36.5	2.220	3.142	9.0	21.1
5 21	13 8.98	+ 6 53.5	2.999	3.749	11.6	19.1	5 21	13 6.06	-23 22.0	2.292	3.148	11.5	21.3
<b>430789</b>	2004 <i>TK</i> <sub>292</sub>		4 14.7 111°65		0°4/14.3 15		<b>299883</b>	2006 <i>SL</i> <sub>332</sub>		4 14.7 232°14		0°1/14.8 17	
3 12	13 59.21	- 9 8.5	2.103	2.939	12.4	21.6	3 12	13 55.68	-10 46.4	2.383	3.215	11.2	21.4
3 22	13 52.95	- 9 1 7	2.038	2.955	9.1	21.4	3 22	13 50.36	-10 42.2	2.297	3.211	8.3	21.2
4 1	13 44.85	- 8 47.6	1.997	2.970	5.4	21.2	4 1	13 43.37	-10 30.2	2.236	3.207	5.0	21.0
4 11	13 35.66	- 8 29.0	1.985	2.985	1.4	21.0	4 11	13 35.29	-10 12.8	2.203	3.203	1.4	20.7
4 21	13 26.26	- 8 9.5	2.001	2.999	2.7	21.1	4 21	13 26.88	- 9 52.7	2.199	3.198	2.3	20.8
5 1	13 17.55	- 7 52.9	2.047	3.014	6.5	21.3	5 1	13 18.92	- 9 33.7	2.224	3.194	5.9	21.0
5 11	13 10.31	- 7 42.7	2.119	3.027	10.0	21.6	5 11	13 12.14	- 9 19.2	2.276	3.189	9.2	21.2
5 21	13 5.01	- 7 41.3	2.214	3.041	12.9	21.8	5 21	13 7.05	- 9 12.0	2.352	3.184	12.1	21.4
<b>357502</b>	2004 <i>PW</i> <sub>85</sub>		4 14.7 210°98		1°3/13.5 16		<b>403258</b>	2008 <i>YH</i> <sub>78</sub>		4 14.7 143°77		1°5/13.4 18	
3 12	13 57.88	- 9 29.0	1.881	2.724	13.3	22.2	3 12	13 58.33	- 8 53.9	1.722	2.570	14.1	22.3
3 22	13 52.37	- 8 34.9	1.795	2.717	9.8	22.0	3 22	13 52.67	- 8 2 7	1.655	2.580	10.3	22.1
4 1	13 44.72	- 7 28.8	1.734	2.709	5.8	21.7	4 1	13 44.83	- 7 0.7	1.613	2.589	6.0	21.9
4 11	13 35.67	- 6 15.9	1.701	2.701	1.7	21.4	4 11	13 35.69	- 5 53.6	1.598	2.598	1.9	21.6
4 21	13 26.18	- 5 2 7	1.696	2.691	3.7	21.5	4 21	13 26.26	- 4 48.4	1.610	2.606	3.9	21.8
5 1	13 17.28	- 3 56.4	1.719	2.681	8.0	21.8	5 1	13 17.64	- 3 51.8	1.650	2.613	8.2	22.0
5 11	13 9.90	- 3 3 0	1.768	2.669	12.0	22.0	5 11	13 10.73	- 3 9.3	1.715	2.620	12.2	22.3
5 21	13 4.66	- 2 26.4	1.839	2.657	15.5	22.2	5 21	13 6.07	- 2 43.8	1.802	2.626	15.5	22.5
<b>316439</b>	2010 <i>UT</i> <sub>11</sub>		4 14.7 335°23		3°1/12.9 17		<b>299346</b>	2005 <i>SG</i> <sub>177</sub>		4 14.7 304°00		3°4/16.5 14 C	
3 12	13 59.24	- 3 5 2	1.411	2.277	15.6	19.8	3 12	13 57.23	-16 36.7	1.178	2.030	19.0	20.8
3 22	13 53.90	- 2 54.4	1.339	2.272	11.5	19.5	3 22	13 53.51	-16 59.7	1.081	2.002	14.9	20.4
4 1	13 45.86	- 2 39.8	1.290	2.267	7.0	19.2	4 1	13 46.30	-17 3.5	1.004	1.973	10.0	20.0
4 11	13 36.01	- 2 26.8	1.265	2.263	3.2	19.0	4 11	13 36.31	-16 47.4	0.948	1.944	4.9	19.6
4 21	13 25.61	- 2 20.6	1.266	2.259	5.3	19.1	4 21	13 24.89	-16 13.6	0.916	1.915	4.5	19.5
5 1	13 16.03	- 2 25.9	1.293	2.255	10.0	19.4	5 1	13 13.88	-15 28.8	0.906	1.887	10.1	19.7
5 11	13 8.46	- 2 45.8	1.342	2.252	14.5	19.6	5 11	13 5.08	-14 43.3	0.918	1.860	16.1	19.9
5 21	13 3.59	- 3 21.0	1.411	2.249	18.3	19.9	5 21	12 59.73	-14 6.9	0.947	1.833	21.4	20.1
<b>112901</b>	2002 <i>QK</i> <sub>51</sub>		4 14.7 202°85		1°0/15.5 17		<b>121727</b>	1999 <i>XQ</i> <sub>155</sub>		4 14.7 52°51		0°7/13.9 17	
3 12	13 55.69	-15 17.2	1.725	2.561	14.7	20.5	3 12	13 53.62	-10 23.3	1.889	2.738	13.1	19.5
3 22	13 50.91	-14 42.7	1.646	2.560	11.1	20.3	3 22	13 49.13	- 9 42.9	1.816	2.740	9.6	19.3
4 1	13 43.90	-13 51.3	1.589	2.558	6.9	20.1	4 1	13 42.72	- 8 51.5	1.768	2.743	5.6	19.1
4 11	13 35.45	-12 46.7	1.558	2.556	2.4	19.8	4 11	13 35.12	- 7 53.7	1.746	2.746	1.5	18.8
4 21	13 26.58	-11 34.9	1.554	2.554	2.8	19.8	4 21	13 27.22	- 6 55.2	1.752	2.749	3.1	18.9
5 1	13 18.40	-10 23.3	1.577	2.552	7.4	20.1	5 1	13 19.96	- 6 2 2	1.785	2.752	7.3	19.2
5 11	13 11.86	- 9 19.7	1.626	2.549	11.6	20.3	5 11	13 14.14	- 5 19.9	1.843	2.756	11.0	19.4
5 21	13 7.57	- 8 29.4	1.697	2.546	15.2	20.5	5 21	13 10.28	- 4 51.7	1.923	2.759	14.2	19.6
<b>431893</b>	2008 <i>SH</i> <sub>280</sub>		4 14.7 189°17		1°4/13.3 18		<b>57391</b>	2001 <i>RB</i> <sub>77</sub>		4 14.7 155°74		0°9/13.5 18	
3 12	13 55.57	- 7 10.5	2.412	3.253	10.8	22.0	3 12	13 51.84	- 9 59.0	2.699	3.535	10.0	19.4
3 22	13 50.19	- 6 36.3	2.331	3.252	7.9	21.8	3 22	13 47.29	- 8 58.8	2.622	3.541	7.2	19.3
4 1	13 43.21	- 5 55.8	2.276	3.250	4.6	21.5	4 1	13 41.41	- 7 50.2	2.573	3.547	4.2	19.1
4 11	13 35.23	- 5 12.5	2.249	3.248	1.6	21.3	4 11	13 34.74	- 6 37.4	2.552	3.552	1.2	18.9
4 21	13 26.98	- 4 30.6	2.252	3.246	3.1	21.4	4 21	13 27.89	- 5 25.0	2.562	3.557	2.7	19.0
5 1	13 19.21	- 3 54.6	2.284	3.243	6.5	21.6	5 1	13 21.50	- 4 18.0	2.601	3.561	5.8	19.2
5 11	13 12.61	- 3 27.9	2.343	3.239	9.7	21.8	5 11	13 16.11	- 3 20.5	2.668	3.565	8.6	19.4
5 21	13 7.65	- 3 12.8	2.425	3.235	12.4	22.0	5 21	13 12.12	- 2 35.2	2.759	3.569	11.1	19.6
<b>349886</b>	2009 <i>DA</i> <sub>125</sub>		4 14.7 127°01		1°0/13.6 17		<b>427178</b>	2014 <i>UJ</i> <sub>216</sub>					

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4 14.7

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>264220</b>	2010 <i>RX</i> <sub>69</sub>		4 14.7 250°64	1°5/13.5	17		<b>267341</b>	2001 <i>VC</i> <sub>93</sub>		4 14.7 96°94	1°0/13.6	18	
3 12	13 57.55	- 8 20.0	1.796	2.645	13.6	21.4	3 12	13 55.59	-11 0.6	1.948	2.790	13.0	20.8
3 22	13 52.33	- 7 41.5	1.704	2.628	10.1	21.1	3 22	13 50.33	- 9 48.2	1.892	2.813	9.4	20.7
4 1	13 44.82	- 6 52.3	1.635	2.611	6.0	20.8	4 1	13 43.29	- 8 24.5	1.862	2.837	5.5	20.5
4 11	13 35.75	- 5 57.0	1.594	2.594	1.9	20.5	4 11	13 35.27	- 6 55.6	1.859	2.860	1.5	20.2
4 21	13 26.09	- 5 1.7	1.580	2.576	3.9	20.6	4 21	13 27.15	- 5 28.5	1.886	2.882	3.3	20.4
5 1	13 16.95	- 4 12.9	1.594	2.557	8.4	20.8	5 1	13 19.80	- 4 10.2	1.941	2.904	7.2	20.7
5 11	13 9.35	- 3 36.5	1.632	2.538	12.6	21.0	5 11	13 13.95	- 3 6.3	2.023	2.925	10.7	20.9
5 21	13 3.97	- 3 15.9	1.692	2.518	16.3	21.2	5 21	13 10.02	- 2 19.4	2.127	2.946	13.6	21.2
<b>45098</b>	1999 <i>XK</i> <sub>66</sub>		4 14.7 288°47	3°1/17.1	17		<b>4405</b>	Otava		4 14.7 235°50	3°2/10.5	18	
3 12	13 55.30	-19 31.7	1.577	2.404	16.2	19.5	3 12	13 51.84	- 0 18.5	2.715	3.568	9.4	17.2
3 22	13 51.14	-19 21.0	1.478	2.383	12.8	19.2	3 22	13 47.35	+ 0 37.3	2.632	3.558	6.9	17.0
4 1	13 44.36	-18 48.8	1.400	2.361	8.7	18.9	4 1	13 41.51	+ 1 35.2	2.577	3.548	4.5	16.8
4 11	13 35.67	-17 55.8	1.346	2.339	4.5	18.6	4 11	13 34.82	+ 2 30.8	2.550	3.538	3.2	16.7
4 21	13 26.18	-16 46.1	1.318	2.317	3.8	18.5	4 21	13 27.87	+ 3 19.6	2.553	3.527	4.7	16.8
5 1	13 17.21	-15 27.4	1.316	2.295	8.0	18.7	5 1	13 21.30	+ 3 57.6	2.583	3.516	7.2	16.9
5 11	13 9.99	-14 9.3	1.339	2.273	12.7	18.9	5 11	13 15.69	+ 4 22.3	2.640	3.505	9.8	17.1
5 21	13 5.34	-13 0.8	1.382	2.251	17.0	19.1	5 21	13 11.45	+ 4 32.4	2.719	3.494	12.1	17.2
<b>31717</b>	1999 <i>JA</i> <sub>58</sub>		4 14.7 352°14	3°5/11.5	18		<b>378829</b>	2008 <i>SV</i> <sub>276</sub>		4 14.7 170°67	1°0/15.6	17	
3 12	13 55.24	- 0 11.7	2.106	2.963	11.6	17.6	3 12	13 56.81	-13 45.7	2.022	2.852	13.1	21.8
3 22	13 50.12	+ 0 18.2	2.035	2.962	8.5	17.4	3 22	13 51.47	-13 41.1	1.942	2.853	9.8	21.6
4 1	13 43.24	+ 0 49.3	1.989	2.962	5.4	17.2	4 1	13 44.15	-13 25.0	1.886	2.854	6.1	21.3
4 11	13 35.27	+ 1 16.6	1.970	2.961	3.5	17.1	4 11	13 35.57	-12 59.6	1.857	2.855	2.2	21.1
4 21	13 27.01	+ 1 35.8	1.979	2.961	5.1	17.2	4 21	13 26.61	-12 28.4	1.856	2.856	2.5	21.1
5 1	13 19.34	+ 1 43.4	2.016	2.960	8.2	17.4	5 1	13 18.25	-11 56.1	1.883	2.856	6.4	21.3
5 11	13 12.98	+ 1 37.2	2.077	2.960	11.4	17.5	5 11	13 11.31	-11 27.7	1.936	2.856	10.2	21.6
5 21	13 8.43	+ 1 16.8	2.160	2.960	14.1	17.7	5 21	13 6.37	-11 7.1	2.012	2.856	13.4	21.8
<b>81657</b>	2000 <i>HD</i> <sub>87</sub>		4 14.7 321°35	9°1/ 8.1	17		<b>141832</b>	2002 <i>OY</i> <sub>7</sub>		4 14.7 162°01	4°2/17.9	18	
3 12	13 59.58	+11 50.8	1.571	2.431	14.6	19.0	3 12	14 1.23	-22 7.2	1.627	2.433	16.8	20.8
3 22	13 53.84	+12 44.8	1.510	2.425	11.8	18.8	3 22	13 55.24	-22 7.9	1.550	2.439	13.3	20.6
4 1	13 45.66	+13 28.4	1.472	2.420	9.6	18.7	4 1	13 46.61	-21 46.5	1.494	2.444	9.3	20.3
4 11	13 35.95	+13 52.7	1.459	2.415	9.2	18.6	4 11	13 36.26	-21 3.5	1.463	2.449	5.5	20.1
4 21	13 25.87	+13 51.7	1.470	2.410	10.8	18.7	4 21	13 25.43	-20 2.9	1.459	2.453	4.5	20.1
5 1	13 16.65	+13 22.5	1.505	2.406	13.6	18.9	5 1	13 15.45	-18 51.8	1.481	2.456	7.7	20.3
5 11	13 9.32	+12 26.5	1.561	2.401	16.6	19.1	5 11	13 7.45	-17 39.5	1.529	2.458	11.7	20.5
5 21	13 4.48	+11 7.7	1.635	2.397	19.4	19.2	5 21	13 2.11	-16 34.3	1.599	2.460	15.4	20.7
<b>281617</b>	2008 <i>UY</i> <sub>237</sub>		4 14.7 210°11	2°5/17.1	17		<b>374507</b>	2005 <i>YY</i> <sub>195</sub>		4 14.7 83°02	11°0/26.8	17	
3 12	13 54.64	-19 1.7	2.021	2.837	13.6	21.1	3 12	13 58.81	-42 25.5	1.988	2.664	18.2	20.3
3 22	13 49.92	-18 50.3	1.938	2.836	10.5	20.9	3 22	13 53.65	-43 15.7	1.908	2.670	16.4	20.1
4 1	13 43.23	-18 22.6	1.877	2.836	7.0	20.7	4 1	13 45.76	-43 36.6	1.843	2.675	14.3	20.0
4 11	13 35.29	-17 40.5	1.843	2.835	3.6	20.4	4 11	13 36.06	-43 23.8	1.799	2.680	12.5	19.9
4 21	13 26.97	-16 47.6	1.836	2.834	3.0	20.4	4 21	13 25.77	-42 36.4	1.776	2.686	11.3	19.8
5 1	13 19.23	-15 49.6	1.857	2.833	6.3	20.6	5 1	13 16.30	-41 17.9	1.777	2.691	11.2	19.8
5 11	13 12.92	-14 52.9	1.905	2.832	9.9	20.8	5 11	13 8.85	-39 37.0	1.802	2.696	12.2	19.9
5 21	13 8.58	-14 3.2	1.975	2.831	13.1	21.0	5 21	13 4.13	-37 44.2	1.848	2.701	14.0	20.0
<b>365130</b>	Birnfeld		4 14.7 302°82	3°6/11.7	17		<b>344367</b>	2001 <i>XZ</i> <sub>123</sub>		4 14.7 128°97	0°8/13.8	17	
3 12	13 53.39	- 5 32.8	1.374	2.248	15.5	21.0	3 12	13 53.55	- 8 58.1	2.624	3.461	10.2	21.9
3 22	13 49.72	- 4 19.0	1.295	2.232	11.4	20.7	3 22	13 48.56	- 8 24.6	2.554	3.472	7.4	21.8
4 1	13 43.46	- 2 52.6	1.238	2.217	6.9	20.4	4 1	13 42.19	- 7 44.4	2.509	3.483	4.3	21.6
4 11	13 35.41	- 1 22.1	1.206	2.202	3.7	20.2	4 11	13 35.00	- 7 0.8	2.494	3.494	1.2	21.4
4 21	13 26.74	+ 0 2.3	1.199	2.188	6.3	20.3	4 21	13 27.65	- 6 17.7	2.508	3.504	2.5	21.5
5 1	13 18.75	+ 1 10.7	1.217	2.173	11.1	20.5	5 1	13 20.78	- 5 38.9	2.552	3.514	5.7	21.7
5 11	13 12.62	+ 1 55.8	1.256	2.159	15.8	20.7	5 11	13 14.99	- 5 7.8	2.622	3.524	8.6	21.9
5 21	13 9.07	+ 2 14.8	1.314	2.146	19.7	20.9	5 21	13 10.66	- 4 46.8	2.716	3.533	11.1	22.1
<b>496977</b>	2002 <i>QT</i> <sub>107</sub>		4 14.7 267°64	2°7/16.8	17		<b>219840</b>	2002 <i>CJ</i> <sub>130</sub>		4 14.7 111°40	1°1/13.6	18	
3 12	13 57.88	-18 20.1	1.801	2.621	14.9	22.2	3 12	13 56.46	- 9 11.2	2.157	2.996	12.0	21.0
3 22	13 52.79	-18 16.8	1.697	2.598	11.6	21.9	3 22	13 50.85	- 8 23.2	2.098	3.018	8.7	20.8
4 1	13 45.24	-17 56.1	1.615	2.575	7.8	21.6	4 1	13 43.58	- 7 26.9	2.064	3.039	5.1	20.6
4 11	13 35.92	-17 18.7	1.559	2.552	3.9	21.4	4 11	13 35.38	- 6 26.8	2.059	3.059	1.5	20.4
4 21	13 25.81	-16 27.7	1.529	2.528	3.4	21.3	4 21	13 27.04	- 5 28.3	2.083	3.079	3.1	20.5
5 1	13 16.14	-15 29.1	1.528	2.503	7.4	21.4	5 1	13 19.41	- 4 36.6	2.136	3.098	6.7	20.8
5 11	13 8.04	-14 30.4	1.551	2.478	11.7	21.6	5 11	13 13.14	- 3 55.8	2.215	3.116	10.0	21.0
5 21	13 2.29	-13 38.9	1.597	2.453	15.7	21.8	5 21	13 8.68	- 3 28.4	2.318	3.134	12.7	21.3
<b>499428</b>	2010 <i>CE</i> <sub>164</sub>		4 14.7 130°71	3°6/11.1	17		<b>425790</b>	2011 <i>CU</i> <sub>79</sub>		4 14.7 83°64	7°3/21.4	17	
3 12	13 54.23	- 1 43.0	2.020	2.879	11.9	21.3	3 12	13 58.41	-30 31.2	1.827	2.589	16.9	20.8
3 22	13 49.41	- 0 45.8	1.954	2.883	8.7	21.1	3 22	13 53.07	-31 3.5	1.754	2.600	14.2	20.6
4 1	13 42.82	+ 0 14.6	1.913	2.887	5.4	21.0	4 1	13 45.27	-31 11.1	1.700	2.611	11.2	20.4
4 11	13 35.16	+ 1 12.5	1.899	2.891	3.6	20.8	4 11	13 35.90	-30 52.3	1.669	2.622	8.6	20.3
4 21	13 27.25	+ 2 2.0	1.913	2.894	5.4	21.0	4 21	13 26.10	-30 8.5	1.664	2.632	7.3	20.2
5 1	13 19.95	+ 2 38.2	1.955	2.897	8.6	21.2	5 1	13 17.09	-29 5.1	1.684	2.643	8.4	20.3
5 11	13 14.01	+ 2 57.9	2.021	2.901	11.8	21.4	5 11	13 9.93	-27 50.5	1.729	2.654	10.9	20.5
5 21	13 9.91	+ 3 0.4	2.108	2.904	14.5	21.6	5 21	13 5.24	-26 33.8	1.798	2.664	13.7	20.7
<b>467861</b>	2011 <i>AK</i> <sub>6</sub>		4 14.7 89°98	2°3/12.8	18		<b>203414</b>	2001 <i>XJ</i> <sub>192</sub>		4 14.7 151°61			

EPHEMERIDES

4 14.7

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>210037</b>	2006 OY <sub>8</sub>	4 14.7 286°93		0°6/15.1 17			<b>331534</b>	2000 SC <sub>254</sub>	4 14.7 264°83		2°4/12.3 17		
3 12	13 57.27	-12 42.9	1.537	2.384	15.6	20.8	3 12	13 55.35	-5 49.2	2.054	2.905	12.1	21.3
3 22	13 52.63	-12 31.0	1.441	2.362	11.8	20.5	3 22	13 50.51	-4 53.7	1.956	2.882	8.9	21.1
4 1	13 45.29	-12 4.4	1.366	2.339	7.3	20.2	4 1	13 43.68	-3 49.5	1.882	2.858	5.3	20.8
4 11	13 35.99	-11 25.6	1.316	2.316	2.3	19.8	4 11	13 35.50	-2 41.6	1.836	2.833	2.5	20.6
4 21	13 25.84	-10 39.5	1.293	2.293	3.2	19.8	4 21	13 26.79	-1 36.3	1.818	2.808	4.4	20.6
5 1	13 16.18	-9 52.9	1.295	2.270	8.6	20.0	5 1	13 18.48	-0 40.0	1.829	2.782	8.3	20.8
5 11	13 8.28	-9 13.5	1.321	2.247	13.5	20.2	5 11	13 11.45	+0 2.3	1.865	2.756	12.0	21.0
5 21	13 2.99	-8 47.0	1.368	2.224	17.8	20.4	5 21	13 6.32	+0 27.4	1.922	2.729	15.3	21.1
<b>334260</b>	2001 TJ <sub>254</sub>	4 14.7 242°33		1°6/11.5 18			<b>264566</b>	2001 TG <sub>32</sub>	4 14.7 186°49		2°6/17.2 17 R		
3 12	13 46.12	-2 6.9	4.682	5.529	5.9	21.0	3 12	13 57.89	-19 12.6	2.244	3.047	12.8	21.4
3 22	13 42.71	-1 34.6	4.598	5.522	4.3	20.9	3 22	13 52.17	-19 9.7	2.156	3.047	10.0	21.2
4 1	13 38.58	-1 0.8	4.542	5.515	2.6	20.8	4 1	13 44.56	-18 52.2	2.092	3.046	6.7	21.0
4 11	13 34.02	+0 27.9	4.515	5.508	1.6	20.7	4 11	13 35.72	-18 21.3	2.055	3.045	3.6	20.8
4 21	13 29.33	+0 2.2	4.519	5.501	2.5	20.7	4 21	13 26.49	-17 39.8	2.047	3.043	3.0	20.8
5 1	13 24.85	+0 27.6	4.552	5.494	4.1	20.9	5 1	13 17.80	-16 52.3	2.067	3.041	6.0	21.0
5 11	13 20.87	+0 46.7	4.613	5.487	5.8	21.0	5 11	13 10.46	-16 4.6	2.115	3.037	9.3	21.2
5 21	13 17.63	+0 58.4	4.698	5.479	7.3	21.1	5 21	13 5.03	-15 21.6	2.187	3.034	12.4	21.3
<b>303306</b>	2004 TU <sub>21</sub>	4 14.7 291°32		0°9/15.4 16			<b>341118</b>	2007 LZ <sub>14</sub>	4 14.7 307°41		0°7/14.0 17		
3 12	13 55.10	-14 47.3	1.366	2.218	16.9	21.0	3 12	13 51.03	-12 50.9	1.663	2.516	14.3	20.6
3 22	13 51.17	-14 15.5	1.280	2.203	12.8	20.7	3 22	13 47.70	-11 41.1	1.569	2.495	10.7	20.3
4 1	13 44.43	-13 23.2	1.216	2.189	8.0	20.4	4 1	13 42.16	-10 12.2	1.498	2.474	6.4	20.0
4 11	13 35.75	-12 14.0	1.175	2.174	2.6	20.0	4 11	13 35.11	-8 29.7	1.452	2.453	1.7	19.7
4 21	13 26.31	-10 54.8	1.159	2.160	3.4	20.0	4 21	13 27.49	-6 41.9	1.434	2.432	3.6	19.8
5 1	13 17.56	-9 35.6	1.169	2.146	8.9	20.3	5 1	13 20.39	-4 58.8	1.443	2.412	8.5	20.0
5 11	13 10.78	-8 26.3	1.201	2.132	14.1	20.5	5 11	13 14.82	-3 29.8	1.476	2.392	13.0	20.2
5 21	13 6.76	-7 34.3	1.253	2.118	18.6	20.8	5 21	13 11.43	-2 21.0	1.530	2.373	16.9	20.4
<b>36483</b>	2000 QM <sub>32</sub>	4 14.7 137°54		2°1/12.3 18			<b>345644</b>	2006 SB <sub>385</sub>	4 14.7 138°12		4°8/ 9.5 17		
3 12	13 53.89	-3 51.3	2.621	3.467	9.9	20.0	3 12	13 54.09	+4 46.6	2.393	3.248	10.4	21.1
3 22	13 48.80	-3 15.6	2.552	3.476	7.2	19.9	3 22	13 49.07	+5 36.8	2.330	3.252	7.9	21.0
4 1	13 42.34	-2 36.7	2.510	3.484	4.3	19.7	4 1	13 42.55	+6 24.7	2.293	3.256	5.6	20.8
4 11	13 35.06	-1 58.1	2.496	3.492	2.2	19.6	4 11	13 35.14	+7 5.1	2.284	3.259	4.8	20.8
4 21	13 27.60	-1 23.8	2.512	3.500	3.6	19.7	4 21	13 27.53	+7 33.7	2.303	3.263	6.2	20.9
5 1	13 20.62	-0 57.2	2.557	3.507	6.4	19.9	5 1	13 20.45	+7 47.3	2.349	3.266	8.6	21.0
5 11	13 14.71	-0 40.8	2.629	3.515	9.1	20.0	5 11	13 14.54	+7 44.5	2.420	3.269	11.1	21.2
5 21	13 10.27	-0 35.9	2.723	3.521	11.5	20.2	5 21	13 10.21	+7 25.7	2.512	3.272	13.4	21.3
<b>381426</b>	2008 OM <sub>10</sub>	4 14.7 242°14		5°6/20.3 18			<b>32967</b>	1996 PG <sub>7</sub>	4 14.7 83°52		8°2/ 6.4 18		
3 12	13 57.90	-29 1.1	2.434	3.184	13.4	21.2	3 12	13 54.36	+8 41.4	1.707	2.575	13.3	18.5
3 22	13 52.35	-29 16.2	2.324	3.167	11.2	21.0	3 22	13 49.71	+10 32.5	1.664	2.586	10.5	18.3
4 1	13 44.78	-29 12.2	2.236	3.148	8.8	20.8	4 1	13 43.08	+12 17.1	1.646	2.597	8.5	18.2
4 11	13 35.80	-28 48.0	2.173	3.129	6.6	20.7	4 11	13 35.29	+13 45.3	1.654	2.608	8.4	18.3
4 21	13 26.24	-28 4.3	2.137	3.110	5.6	20.6	4 21	13 27.32	+14 49.3	1.687	2.620	10.2	18.4
5 1	13 17.07	-27 4.7	2.130	3.090	6.9	20.6	5 1	13 20.16	+15 24.8	1.744	2.631	12.8	18.6
5 11	13 9.19	-25 55.3	2.150	3.069	9.3	20.7	5 11	13 14.61	+15 31.4	1.822	2.642	15.5	18.8
5 21	13 3.24	-24 43.0	2.194	3.047	12.1	20.9	5 21	13 11.13	+15 11.7	1.917	2.653	17.7	19.0
<b>41798</b>	2000 WV <sub>18</sub>	4 14.7 247°72		3°1/17.2 17			<b>56904</b>	2000 QP <sub>171</sub>	4 14.7 14°41		4°1/10.7 18		
3 12	13 57.06	-20 0.8	1.711	2.529	15.6	19.3	3 12	13 50.47	-5 21.8	1.440	2.316	14.7	18.0
3 22	13 52.19	-19 46.8	1.618	2.517	12.2	19.1	3 22	13 47.25	-3 33.8	1.380	2.319	10.7	17.8
4 1	13 44.86	-19 12.1	1.547	2.505	8.3	18.8	4 1	13 41.80	-1 34.7	1.343	2.322	6.5	17.6
4 11	13 35.84	-18 18.2	1.500	2.492	4.3	18.5	4 11	13 34.97	+0 24.9	1.332	2.326	4.1	17.4
4 21	13 26.18	-17 9.0	1.481	2.478	3.6	18.5	4 21	13 27.83	+2 13.9	1.347	2.330	6.7	17.6
5 1	13 17.12	-15 51.9	1.488	2.465	7.4	18.7	5 1	13 21.49	+3 42.1	1.387	2.335	10.9	17.8
5 11	13 9.76	-14 35.9	1.521	2.451	11.7	18.9	5 11	13 16.86	+4 43.7	1.450	2.341	14.8	18.1
5 21	13 4.81	-13 28.7	1.576	2.436	15.6	19.1	5 21	13 14.47	+5 17.2	1.531	2.347	18.2	18.3
<b>256139</b>	2006 VJ <sub>19</sub>	4 14.7 311°68		0°5/14.3 17			<b>438445</b>	2006 WF <sub>188</sub>	4 14.7 181°86		3°1/18.7 17		
3 12	13 54.22	-9 29.3	2.063	2.908	12.2	20.1	3 12	13 53.15	-23 32.0	2.790	3.570	11.2	21.7
3 22	13 49.58	-9 15.8	1.976	2.898	9.1	19.9	3 22	13 48.39	-23 17.2	2.699	3.571	8.9	21.5
4 1	13 43.06	-8 54.0	1.913	2.888	5.4	19.7	4 1	13 42.17	-22 47.6	2.631	3.571	6.4	21.4
4 11	13 35.31	-8 26.9	1.877	2.877	1.4	19.4	4 11	13 35.05	-22 4.2	2.591	3.571	4.0	21.2
4 21	13 27.13	-7 58.4	1.869	2.868	2.8	19.4	4 21	13 27.67	-21 9.6	2.580	3.570	3.2	21.1
5 1	13 19.44	-7 32.9	1.889	2.858	6.8	19.7	5 1	13 20.73	-20 8.0	2.598	3.570	5.0	21.3
5 11	13 13.06	-7 14.8	1.934	2.849	10.5	19.9	5 11	13 14.83	-19 4.4	2.644	3.568	7.6	21.4
5 21	13 8.53	-7 6.9	2.002	2.839	13.7	20.1	5 21	13 10.42	-18 3.6	2.715	3.567	10.1	21.6
<b>522471</b>	2016 CW <sub>322</sub>	4 14.7 32°68		8°1/19.5 18			<b>431142</b>	2006 QU <sub>58</sub>	4 14.7 296°70		1°9/13.2 16		
3 12	14 1.68	-25 35.2	1.364	2.168	19.6	19.3	3 12	13 56.32	-5 42.3	1.955	2.807	12.5	20.9
3 22	13 56.13	-26 58.4	1.302	2.180	16.1	19.1	3 22	13 51.39	-5 21.8	1.852	2.778	9.3	20.7
4 1	13 47.40	-27 58.0	1.260	2.193	12.4	18.9	4 1	13 44.32	-4 54.8	1.772	2.748	5.6	20.4
4 11	13 36.55	-28 30.0	1.240	2.206	9.2	18.8	4 11	13 35.72	-4 25.2	1.720	2.719	2.1	20.1
4 21	13 25.04	-28 33.6	1.244	2.221	8.1	18.8	4 21	13 26.45	-3 57.7	1.696	2.690	4.0	20.2
5 1	13 14.56	-28 13.4	1.272	2.236	9.9	18.9	5 1	13 17.54	-3 37.2	1.699	2.660	8.1	20.3
5 11	13 6.49	-27 38.5	1.322	2.252	13.2	19.1	5 11	13 9.96	-3 27.9	1.727	2.631	12.1	20.5
5 21	13 1.60	-26 58.5	1.393	2.268	16.5	19.4	5 21	13 4.41	-3 32.3	1.776	2.601	15.7	20.7
<b>33932</b>	2000 LZ <sub>28</sub>	4 14.7 181°60		2°2/11.9 18			<b>212641</b>	2006 UP <sub>28</sub>	4 14.7 138°02		0°1/14.6 17		
3 12	13 52.86	-3 31.5	2.844	3.690	9.2	19.6	3 12	13 56.16	-10 6.5	2.486	3.318	10.9	20.8

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>269381</b>	2009 <i>PG</i> <sub>20</sub>		4 14.7 143°44'	4°0'/10.3 17			<b>120173</b>	2003 <i>JA</i> <sub>10</sub>		4 14.7 259°41'	3°9'/10.6 18		
3 12	13 54.43	- 1 45.0	2.009	2.868	11.9	21.2	3 12	13 55.59	+ 2 58.8	2.607	3.456	9.9	20.1
3 22	13 49.56	- 0 17.3	1.947	2.876	8.7	21.0	3 22	13 50.21	+ 3 29.0	2.520	3.441	7.4	19.9
4 1	13 42.93	+ 1 14.6	1.910	2.883	5.6	20.9	4 1	13 43.30	+ 3 58.2	2.459	3.425	5.0	19.7
4 11	13 35.26	+ 2 43.5	1.902	2.890	4.1	20.8	4 11	13 35.40	+ 4 22.2	2.427	3.409	3.9	19.6
4 21	13 27.37	+ 4 2.0	1.922	2.897	5.9	20.9	4 21	13 27.18	+ 4 37.5	2.423	3.394	5.2	19.7
5 1	13 20.13	+ 5 4.3	1.970	2.903	9.1	21.1	5 1	13 19.35	+ 4 40.9	2.448	3.377	7.8	19.8
5 11	13 14.25	+ 5 46.6	2.042	2.909	12.2	21.3	5 11	13 12.57	+ 4 31.0	2.499	3.361	10.4	20.0
5 21	13 10.21	+ 6 8.2	2.135	2.914	14.9	21.5	5 21	13 7.31	+ 4 7.4	2.572	3.344	12.8	20.1
<b>187724</b>	2008 <i>FC</i> <sub>38</sub>		4 14.7 309°44'	1°2'/12.7 18			<b>173247</b>	1999 <i>RQ</i> <sub>46</sub>		4 14.7 265°30'	5°4'/18.5 18		
3 12	13 47.72	- 4 37.0	4.027	4.870	6.8	20.0	3 12	14 0.26	-23 52.4	1.792	2.585	16.0	20.0
3 22	13 44.00	- 4 16.2	3.939	4.861	4.9	19.8	3 22	13 54.80	-24 20.4	1.685	2.563	13.0	19.7
4 1	13 39.41	- 3 53.1	3.877	4.852	2.9	19.7	4 1	13 46.63	-24 29.0	1.600	2.540	9.7	19.5
4 11	13 34.28	- 3 29.6	3.845	4.843	1.3	19.5	4 11	13 36.43	-24 16.2	1.539	2.516	6.5	19.2
4 21	13 29.00	- 3 8.0	3.844	4.834	2.3	19.6	4 21	13 25.30	-23 42.5	1.504	2.492	5.6	19.1
5 1	13 23.94	- 2 50.4	3.871	4.825	4.3	19.7	5 1	13 14.55	-22 52.1	1.497	2.467	8.1	19.2
5 11	13 19.49	- 2 38.5	3.926	4.816	6.3	19.9	5 11	13 5.47	-21 52.8	1.514	2.441	11.9	19.4
5 21	13 15.92	- 2 33.5	4.006	4.808	8.1	20.0	5 21	12 58.95	-20 53.2	1.554	2.416	15.7	19.5
<b>210657</b>	2000 <i>OL</i> <sub>34</sub>		4 14.7 235°36'	0°1'/14.9 16			<b>391758</b>	2008 <i>EP</i> <sub>55</sub>		4 14.7 73°36'	4°5'/9.7 17		
3 12	13 52.59	-13 5.3	2.709	3.535	10.2	20.9	3 12	13 52.27	+ 2 9.5	2.266	3.127	10.7	21.2
3 22	13 48.00	-12 24.3	2.611	3.522	7.6	20.7	3 22	13 47.84	+ 3 13.2	2.203	3.130	8.0	21.1
4 1	13 41.97	-11 32.8	2.539	3.509	4.6	20.4	4 1	13 41.88	+ 4 16.9	2.165	3.133	5.5	20.9
4 11	13 35.01	-10 33.9	2.496	3.496	1.3	20.2	4 11	13 35.00	+ 5 14.9	2.155	3.137	4.5	20.8
4 21	13 27.75	- 9 31.5	2.482	3.482	2.1	20.2	4 21	13 27.90	+ 6 1.9	2.174	3.140	6.0	20.9
5 1	13 20.85	- 8 30.2	2.499	3.467	5.4	20.4	5 1	13 21.34	+ 6 33.9	2.219	3.144	8.7	21.1
5 11	13 14.94	- 7 34.6	2.543	3.452	8.5	20.6	5 11	13 15.95	+ 6 48.6	2.288	3.147	11.4	21.3
5 21	13 10.45	- 6 48.5	2.611	3.437	11.2	20.8	5 21	13 12.17	+ 6 45.9	2.378	3.151	13.7	21.5
<b>72021</b>	Yisunji		4 14.7 125°34'	4°0'/11.6 18			<b>173794</b>	2001 <i>SB</i> <sub>138</sub>		4 14.7 180°27'	0°2'/14.9 18		
3 12	13 59.44	- 1 30.8	1.676	2.535	13.9	19.8	3 12	13 53.86	-12 19.2	2.856	3.680	9.8	22.0
3 22	13 53.50	- 0 42.1	1.618	2.546	10.2	19.6	3 22	13 48.80	-11 54.0	2.771	3.681	7.3	21.9
4 1	13 45.37	+ 0 9.5	1.583	2.557	6.4	19.4	4 1	13 42.39	-11 20.5	2.712	3.682	4.4	21.7
4 11	13 35.94	+ 0 57.5	1.575	2.568	4.0	19.3	4 11	13 35.14	-10 41.2	2.682	3.682	1.3	21.5
4 21	13 26.26	+ 1 35.5	1.595	2.578	5.9	19.4	4 21	13 27.67	- 9 59.2	2.682	3.681	1.9	21.5
5 1	13 17.45	+ 1 58.5	1.641	2.587	9.6	19.7	5 1	13 20.60	- 9 18.4	2.712	3.681	5.0	21.7
5 11	13 10.39	+ 2 3.7	1.711	2.596	13.2	19.9	5 11	13 14.51	- 8 42.2	2.770	3.679	7.9	21.9
5 21	13 5.63	+ 1 51.0	1.801	2.605	16.3	20.1	5 21	13 9.80	- 8 13.6	2.852	3.678	10.4	22.1
<b>207954</b>	1994 <i>RU</i> <sub>21</sub>		4 14.7 250°77'	4°0'/10.8 17			<b>45694</b>	2000 <i>EC</i> <sub>150</sub>		4 14.7 203°14'	8°1'/24.1 18		
3 12	13 55.11	- 2 46.4	1.858	2.718	12.7	20.9	3 12	14 0.70	-38 31.7	2.495	3.176	14.8	19.0
3 22	13 50.42	- 1 27.2	1.773	2.703	9.4	20.6	3 22	13 54.49	-38 50.2	2.392	3.170	13.0	18.9
4 1	13 43.66	- 0 0.5	1.712	2.687	5.9	20.4	4 1	13 46.08	-38 44.8	2.309	3.164	11.0	18.7
4 11	13 35.52	+ 1 26.5	1.679	2.671	4.0	20.2	4 11	13 36.21	-38 12.7	2.249	3.156	9.2	18.6
4 21	13 26.89	+ 2 45.7	1.674	2.654	6.1	20.3	4 21	13 25.83	-37 14.0	2.215	3.148	8.1	18.5
5 1	13 18.80	+ 3 49.8	1.696	2.637	9.8	20.5	5 1	13 16.04	-35 52.2	2.207	3.138	8.4	18.5
5 11	13 12.13	+ 4 33.8	1.742	2.619	13.5	20.7	5 11	13 7.80	-34 14.4	2.227	3.128	9.9	18.6
5 21	13 7.51	+ 4 55.7	1.808	2.601	16.7	20.9	5 21	13 1.73	-32 29.1	2.271	3.117	12.0	18.7
<b>333682</b>	2008 <i>TK</i> <sub>181</sub>		4 14.7 190°63'	4°0'/10.2 17			<b>122442</b>	2000 <i>QU</i> <sub>131</sub>		4 14.7 156°19'	1°0'/15.7 18		
3 12	13 54.56	+ 0 49.0	2.309	3.164	10.7	20.9	3 12	13 59.46	-13 48.7	2.468	3.283	11.5	20.9
3 22	13 49.53	+ 1 50.8	2.238	3.163	8.0	20.7	3 22	13 53.07	-13 48.6	2.388	3.291	8.6	20.8
4 1	13 42.89	+ 2 54.1	2.192	3.162	5.3	20.5	4 1	13 44.99	-13 38.9	2.335	3.299	5.4	20.6
4 11	13 35.26	+ 3 53.3	2.175	3.160	4.1	20.5	4 11	13 35.87	-13 21.4	2.309	3.307	2.0	20.4
4 21	13 27.38	+ 4 42.9	2.186	3.157	5.6	20.5	4 21	13 26.47	-12 58.7	2.314	3.314	2.2	20.4
5 1	13 20.01	+ 5 18.7	2.225	3.154	8.4	20.7	5 1	13 17.61	-12 34.5	2.349	3.320	5.6	20.6
5 11	13 13.84	+ 5 38.0	2.289	3.151	11.2	20.9	5 11	13 10.00	-12 12.6	2.412	3.325	8.7	20.8
5 21	13 9.32	+ 5 40.4	2.375	3.148	13.7	21.1	5 21	13 4.14	-11 56.2	2.499	3.330	11.5	21.0
<b>323717</b>	2005 <i>JG</i> <sub>34</sub>		4 14.7 87°68'	6°1'/9.8 18			<b>191641</b>	2004 <i>PL</i> <sub>24</sub>		4 14.7 320°41'	10°3'/20.2 17		
3 12	13 57.17	+ 2 58.7	1.562	2.431	14.2	20.6	3 12	13 57.39	-29 33.9	1.443	2.230	19.5	20.2
3 22	13 51.98	+ 4 7.1	1.508	2.438	10.7	20.4	3 22	13 53.53	-31 2.9	1.342	2.203	16.8	19.9
4 1	13 44.53	+ 5 14.4	1.477	2.446	7.4	20.2	4 1	13 46.33	-32 10.4	1.260	2.176	13.9	19.7
4 11	13 35.73	+ 6 12.2	1.472	2.454	6.1	20.2	4 11	13 36.47	-32 49.9	1.199	2.150	11.3	19.5
4 21	13 26.67	+ 6 53.1	1.493	2.461	8.1	20.3	4 21	13 25.16	-32 56.9	1.160	2.125	10.3	19.3
5 1	13 18.49	+ 7 12.2	1.539	2.469	11.4	20.5	5 1	13 14.15	-32 32.4	1.144	2.100	11.7	19.3
5 11	13 12.11	+ 7 7.9	1.607	2.476	14.8	20.7	5 11	13 5.18	-31 44.0	1.149	2.076	14.9	19.4
5 21	13 8.05	+ 6 41.6	1.693	2.484	17.7	20.9	5 21	12 59.51	-30 42.7	1.173	2.054	18.5	19.6
<b>466641</b>	2014 <i>WM</i> <sub>48</sub>		4 14.7 245°27'	3°9'/11.6 17			<b>22254</b>	Vladbarmin		4 14.7 227°85'	1°4'/13.5 17		
3 12	13 57.88	- 1 49.6	1.690	2.551	13.7	21.4	3 12	13 58.80	- 7 55.6	2.019	2.861	12.6	19.3
3 22	13 52.60	- 1 2.5	1.612	2.542	10.2	21.1	3 22	13 53.04	- 7 18.7	1.927	2.848	9.3	19.0
4 1	13 45.01	- 0 11.0	1.558	2.533	6.4	20.9	4 1	13 45.21	- 6 32.8	1.859	2.834	5.5	18.8
4 11	13 35.90	+ 0 38.5	1.530	2.523	3.9	20.7	4 11	13 35.98	- 5 42.0	1.819	2.819	1.8	18.5
4 21	13 26.30	+ 1 19.3	1.529	2.513	6.0	20.8	4 21	13 26.24	- 4 51.6	1.808	2.803	3.6	18.6
5 1	13 17.35	+ 1 45.6	1.555	2.503	9.9	21.0	5 1	13 17.00	- 4 7.3	1.826	2.787	7.7	18.8
5 11	13 10.06	+ 1 53.6	1.604	2.493	13.8	21.2	5 11	13 9.16	- 3 34.0	1.870	2.770	11.6	19.0
5 21	13 5.05	+ 1 42.6	1.673	2.482	17.2	21.4	5 21	13 3.36	- 3 14.8	1.935	2.751	14.9	19.2
<b>350105</b>	2011 <i>OY</i> <sub>48</sub>		4 14.7 217°89'	2°6'/11.5 17			<b>192917</b>	1999 <i>YA</i> <sub>4</sub>		4 14.7 172°18'			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>120881</b>	1998 <i>RG</i> <sub>45</sub>		4 14.7 300°43	2°3/12.5	18		<b>330072</b>	2005 <i>VK</i> <sub>75</sub>		4 14.7 287°27	2°6/12.9	18	
3 12	13 52.05	- 7 23.3	1.815	2.675	13.0	19.1	3 12	13 58.56	- 3 52.8	1.696	2.553	13.9	20.1
3 22	13 48.20	- 6 16.6	1.731	2.662	9.5	18.8	3 22	13 53.21	- 3 36.0	1.611	2.539	10.3	19.8
4 1	13 42.35	- 4 58.9	1.671	2.649	5.6	18.6	4 1	13 45.46	- 3 14.4	1.549	2.525	6.2	19.5
4 11	13 35.19	- 3 36.2	1.637	2.636	2.4	18.3	4 11	13 36.09	- 2 52.9	1.513	2.511	2.8	19.3
4 21	13 27.59	- 2 16.1	1.632	2.623	4.5	18.5	4 21	13 26.13	- 2 36.3	1.505	2.497	4.7	19.4
5 1	13 20.53	- 1 6.1	1.653	2.611	8.6	18.7	5 1	13 16.76	- 2 29.5	1.523	2.483	9.0	19.6
5 11	13 14.88	- 0 12.3	1.698	2.598	12.5	18.9	5 11	13 9.02	- 2 35.8	1.566	2.469	13.2	19.8
5 21	13 11.22	+ 0 22.0	1.764	2.586	15.9	19.1	5 21	13 3.61	- 2 56.9	1.629	2.456	16.8	20.0
<b>436657</b>	2011 <i>RG</i> <sub>17</sub>		4 14.7 255°32	0°5/14.1	17		<b>383918</b>	2008 <i>ST</i> <sub>131</sub>		4 14.7 187°06	0°7/15.4	17	
3 12	13 52.15	-11 13.5	2.299	3.139	11.3	21.8	3 12	13 56.25	-13 16.7	2.182	3.011	12.3	21.4
3 22	13 47.89	-10 23.5	2.211	3.130	8.4	21.6	3 22	13 50.97	-13 3.6	2.100	3.011	9.2	21.2
4 1	13 42.00	- 9 22.6	2.147	3.121	4.9	21.3	4 1	13 43.87	-12 39.6	2.041	3.010	5.7	21.0
4 11	13 35.07	- 8 14.8	2.111	3.111	1.3	21.1	4 11	13 35.61	-12 7.3	2.011	3.009	1.9	20.7
4 21	13 27.81	- 7 5.1	2.104	3.102	2.7	21.2	4 21	13 27.00	-11 30.2	2.008	3.008	2.3	20.8
5 1	13 21.00	- 5 59.3	2.126	3.092	6.4	21.4	5 1	13 18.93	-10 53.1	2.035	3.007	6.2	21.0
5 11	13 15.34	- 5 2.7	2.174	3.082	9.8	21.6	5 11	13 12.17	-10 20.5	2.088	3.005	9.7	21.2
5 21	13 11.31	- 4 18.8	2.246	3.072	12.8	21.7	5 21	13 7.24	- 9 56.3	2.164	3.003	12.7	21.4
<b>140848</b>	2001 <i>UJ</i> <sub>210</sub>		4 14.7 212°16	7°4/24.1	18		<b>9131</b>	1998 <i>JV</i>		4 14.7 264°03	0°5/15.1	18	R
3 12	13 58.47	-38 53.8	3.038	3.705	12.6	21.4	3 12	13 57.18	-13 21.8	1.770	2.608	14.3	18.3
3 22	13 52.59	-39 28.7	2.934	3.697	11.2	21.3	3 22	13 52.25	-12 54.4	1.671	2.588	10.8	18.1
4 1	13 44.85	-39 44.7	2.850	3.689	9.6	21.1	4 1	13 44.95	-12 12.0	1.595	2.567	6.7	17.8
4 11	13 35.87	-39 39.4	2.789	3.680	8.2	21.0	4 11	13 35.98	-11 17.4	1.545	2.545	2.0	17.4
4 21	13 26.42	-39 12.6	2.754	3.671	7.4	21.0	4 21	13 26.32	-10 15.9	1.523	2.523	2.9	17.4
5 1	13 17.36	-38 26.2	2.746	3.661	7.6	21.0	5 1	13 17.13	- 9 14.4	1.528	2.501	7.8	17.7
5 11	13 9.49	-37 24.8	2.764	3.651	8.7	21.0	5 11	13 9.49	- 8 20.2	1.558	2.478	12.2	17.9
5 21	13 3.40	-36 14.4	2.806	3.640	10.3	21.1	5 21	13 4.13	- 7 39.0	1.610	2.454	16.2	18.1
<b>214461</b>	2005 <i>SN</i> <sub>130</sub>		4 14.7 178°89	3°4/11.1	18		<b>361711</b>	2007 <i>VA</i> <sub>295</sub>		4 14.7 145°32	2°9/12.4	18	
3 12	13 54.78	+ 1 0.7	2.551	3.402	10.0	20.2	3 12	13 59.45	- 3 50.0	1.759	2.613	13.6	21.0
3 22	13 49.55	+ 1 30.8	2.479	3.402	7.4	20.1	3 22	13 53.52	- 3 9.7	1.694	2.621	10.0	20.8
4 1	13 42.86	+ 2 0.9	2.433	3.403	4.8	19.9	4 1	13 45.43	- 2 24.3	1.653	2.628	6.0	20.6
4 11	13 35.29	+ 2 26.9	2.415	3.403	3.4	19.8	4 11	13 36.03	- 1 39.6	1.639	2.635	3.0	20.4
4 21	13 27.48	+ 2 45.4	2.426	3.403	4.7	19.9	4 21	13 26.35	- 1 1.2	1.653	2.641	4.9	20.5
5 1	13 20.16	+ 2 53.3	2.466	3.403	7.3	20.1	5 1	13 17.44	- 0 34.6	1.694	2.647	8.8	20.8
5 11	13 13.92	+ 2 49.0	2.531	3.402	10.0	20.2	5 11	13 10.21	- 0 23.0	1.759	2.653	12.5	21.0
5 21	13 9.20	+ 2 32.0	2.619	3.402	12.3	20.4	5 21	13 5.21	- 0 27.7	1.846	2.658	15.7	21.2
<b>232534</b>	2003 <i>SC</i> <sub>61</sub>		4 14.7 221°78	2°1/12.5	18		<b>505090</b>	2011 <i>UC</i> <sub>397</sub>		4 14.7 176°52	2°1/12.5	18	
3 12	13 54.82	- 5 21.6	2.365	3.212	10.8	21.1	3 12	13 55.83	- 2 51.9	2.703	3.546	9.7	21.3
3 22	13 49.78	- 4 35.9	2.279	3.203	7.9	20.9	3 22	13 50.27	- 2 34.2	2.626	3.548	7.1	21.2
4 1	13 43.10	- 3 44.2	2.219	3.194	4.7	20.7	4 1	13 43.29	- 2 14.3	2.575	3.549	4.3	21.0
4 11	13 35.38	- 2 50.9	2.187	3.184	2.2	20.5	4 11	13 35.43	- 1 55.4	2.554	3.549	2.1	20.8
4 21	13 27.32	- 2 0.7	2.184	3.174	3.8	20.6	4 21	13 27.35	- 1 40.4	2.562	3.550	3.5	20.9
5 1	13 19.71	- 1 18.5	2.210	3.163	7.1	20.7	5 1	13 19.71	- 1 32.3	2.599	3.550	6.3	21.1
5 11	13 13.25	- 0 48.0	2.263	3.152	10.3	20.9	5 11	13 13.12	- 1 33.1	2.663	3.550	9.0	21.3
5 21	13 8.43	- 0 31.1	2.337	3.140	13.1	21.1	5 21	13 8.00	- 1 43.7	2.751	3.549	11.4	21.5
<b>266337</b>	2007 <i>DD</i> <sub>60</sub>		4 14.7 44°50	4°5/10.5	18		<b>365592</b>	2010 <i>TJ</i> <sub>156</sub>		4 14.7 295°70	3°1/12.3	17	
3 12	13 52.60	- 3 11.2	1.510	2.383	14.3	20.0	3 12	13 54.61	- 6 19.0	1.425	2.294	15.3	21.0
3 22	13 48.68	- 1 35.7	1.457	2.394	10.4	19.8	3 22	13 50.77	- 5 16.3	1.334	2.269	11.4	20.7
4 1	13 42.59	+ 0 6.3	1.427	2.404	6.5	19.6	4 1	13 44.25	- 4 0.2	1.265	2.244	6.8	20.4
4 11	13 35.23	+ 1 45.3	1.424	2.415	4.5	19.5	4 11	13 35.82	- 2 37.7	1.221	2.219	3.2	20.1
4 21	13 27.64	+ 3 11.6	1.447	2.427	6.8	19.6	4 21	13 26.59	- 1 18.3	1.203	2.194	5.8	20.2
5 1	13 20.89	+ 4 17.4	1.495	2.439	10.6	19.9	5 1	13 17.89	- 0 11.6	1.210	2.170	10.8	20.4
5 11	13 15.84	+ 4 58.6	1.565	2.451	14.3	20.1	5 11	13 10.98	+ 0 34.4	1.239	2.145	15.7	20.6
5 21	13 13.00	+ 5 14.7	1.655	2.463	17.4	20.4	5 21	13 6.68	+ 0 55.9	1.286	2.121	19.9	20.8
<b>280786</b>	2005 <i>SJ</i> <sub>175</sub>		4 14.7 256°65	1°8/16.7	16		<b>496918</b>	2001 <i>TV</i> <sub>2</sub>		4 14.7 167°46	0°1/14.5	18	
3 12	13 53.81	-17 28.8	2.581	3.391	11.2	21.2	3 12	13 52.74	-12 4.2	2.816	3.644	9.9	22.1
3 22	13 49.06	-17 19.1	2.480	3.377	8.6	21.0	3 22	13 47.98	-11 20.3	2.735	3.648	7.3	21.9
4 1	13 42.70	-16 57.3	2.403	3.362	5.7	20.8	4 1	13 41.92	-10 27.5	2.681	3.652	4.3	21.7
4 11	13 35.29	-16 24.8	2.354	3.347	2.7	20.6	4 11	13 35.06	- 9 29.0	2.655	3.655	1.2	21.5
4 21	13 27.48	-15 44.4	2.334	3.332	2.4	20.5	4 21	13 28.00	- 8 28.8	2.659	3.658	2.1	21.6
5 1	13 20.03	-15 0.1	2.343	3.317	5.3	20.7	5 1	13 21.37	- 7 31.1	2.694	3.660	5.2	21.8
5 11	13 13.64	-14 16.4	2.379	3.301	8.4	20.9	5 11	13 15.72	- 6 40.1	2.756	3.662	8.1	22.0
5 21	13 8.82	-13 37.6	2.440	3.285	11.3	21.0	5 21	13 11.43	- 5 58.7	2.843	3.664	10.5	22.2
<b>127671</b>	2003 <i>ET</i> <sub>3</sub>		4 14.7 284°09	0°5/15.3	17		<b>213624</b>	2002 <i>QW</i> <sub>55</sub>		4 14.7 284°52	0°9/14.1	17	
3 12	13 53.41	-13 7.5	2.242	3.075	11.8	20.1	3 12	13 55.90	-10 15.6	1.579	2.433	14.9	21.2
3 22	13 48.89	-12 48.6	2.153	3.067	8.9	19.9	3 22	13 51.50	- 9 40.1	1.486	2.413	11.1	20.9
4 1	13 42.64	-12 18.8	2.088	3.058	5.4	19.7	4 1	13 44.58	- 8 50.7	1.416	2.393	6.6	20.6
4 11	13 35.27	-11 40.9	2.051	3.050	1.7	19.4	4 11	13 35.90	- 7 51.9	1.372	2.372	1.8	20.2
4 21	13 27.53	-10 58.5	2.042	3.042	2.3	19.4	4 21	13 26.50	- 6 50.0	1.354	2.352	3.7	20.3
5 1	13 20.24	-10 16.4	2.061	3.034	6.1	19.7	5 1	13 17.63	- 5 53.1	1.362	2.331	8.8	20.5
5 11	13 14.15	- 9 39.3	2.107	3.025	9.5	19.9	5 11	13 10.44	- 5 8.3	1.394	2.311	13.5	20.7
5 21	13 9.79	- 9 11.1	2.176	3.017	12.6	20.0	5 21	13 5.71	- 4 40.5	1.445	2.290	17.6	20.9
<b>10097</b>	1991 <i>RV</i> <sub>16</sub>		4 14.7 158°72	0°3/14.9	18		<b>272847</b>	2006 <i>BP</i> <sub>31</sub> </					

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>343477</b>	2010 <i>EM</i> <sub>79</sub>		4 14.7 190°78	0°8/13.9	17		<b>435032</b>	2006 <i>VV</i> <sub>125</sub>		4 14.7 122°33	3°8/19.4	18	
3 12	13 55.08	- 8 57.0	2.287	3.127	11.4	21.7	3 12	13 53.17	-25 26.4	2.502	3.278	12.4	21.0
3 22	13 50.00	- 8 27.9	2.206	3.126	8.4	21.5	3 22	13 48.58	-25 9.3	2.418	3.285	10.0	20.8
4 1	13 43.25	- 7 50.9	2.151	3.125	4.9	21.3	4 1	13 42.39	-24 34.6	2.357	3.291	7.3	20.7
4 11	13 35.45	- 7 9.6	2.123	3.124	1.4	21.0	4 11	13 35.23	-23 43.4	2.322	3.297	4.8	20.5
4 21	13 27.34	- 6 28.2	2.125	3.122	2.8	21.1	4 21	13 27.82	-22 38.7	2.315	3.303	3.8	20.5
5 1	13 19.74	- 5 51.2	2.155	3.120	6.4	21.3	5 1	13 20.94	-21 25.6	2.337	3.309	5.5	20.6
5 11	13 13.36	- 5 22.6	2.212	3.118	9.8	21.5	5 11	13 15.25	-20 10.0	2.387	3.314	8.1	20.8
5 21	13 8.68	- 5 5.0	2.292	3.115	12.7	21.7	5 21	13 11.21	-18 57.7	2.461	3.320	10.8	20.9
<b>382931</b>	2004 <i>TD</i> <sub>79</sub>		4 14.7 252°31	4°1/18.9	18		<b>502926</b>	2015 <i>EX</i> <sub>29</sub>		4 14.7 210°10	0°2/14.6	17	
3 12	13 55.60	-24 48.2	2.180	2.964	13.8	20.6	3 12	13 56.12	-10 57.6	2.093	2.931	12.4	21.6
3 22	13 50.77	-24 35.4	2.074	2.947	11.2	20.4	3 22	13 50.96	-10 35.1	2.010	2.928	9.2	21.4
4 1	13 43.91	-24 2.5	1.991	2.930	8.1	20.2	4 1	13 43.92	-10 2.6	1.951	2.924	5.5	21.1
4 11	13 35.68	-23 9.7	1.934	2.912	5.2	20.0	4 11	13 35.68	- 9 23.4	1.920	2.920	1.5	20.8
4 21	13 26.91	-21 59.7	1.904	2.894	4.2	19.9	4 21	13 27.06	- 8 41.8	1.917	2.916	2.7	20.9
5 1	13 18.60	-20 38.0	1.902	2.875	6.4	20.0	5 1	13 18.98	- 8 2.8	1.942	2.911	6.7	21.2
5 11	13 11.63	-19 12.2	1.928	2.856	9.7	20.1	5 11	13 12.25	- 7 31.0	1.994	2.907	10.3	21.4
5 21	13 6.65	-17 49.9	1.977	2.836	13.0	20.3	5 21	13 7.39	- 7 9.9	2.068	2.902	13.5	21.6
<b>315283</b>	2007 <i>TM</i> <sub>119</sub>		4 14.7 144°11	2°3/16.8	16		<b>105806</b>	2000 <i>ST</i> <sub>135</sub>		4 14.7 231°11	4°2/18.9	18	
3 12	13 59.91	-18 16.7	1.993	2.804	14.0	22.0	3 12	13 55.81	-24 11.3	2.480	3.259	12.5	20.0
3 22	13 53.76	-18 4.6	1.919	2.816	10.7	21.8	3 22	13 50.66	-24 29.0	2.386	3.254	10.1	19.8
4 1	13 45.56	-17 36.6	1.869	2.828	7.0	21.6	4 1	13 43.74	-24 31.4	2.316	3.250	7.4	19.6
4 11	13 36.09	-16 54.7	1.845	2.838	3.4	21.4	4 11	13 35.64	-24 18.4	2.271	3.245	5.0	19.5
4 21	13 26.32	-16 3.0	1.850	2.848	2.9	21.4	4 21	13 27.12	-23 51.3	2.255	3.240	4.2	19.4
5 1	13 17.28	-15 7.1	1.884	2.858	6.4	21.6	5 1	13 19.04	-23 13.6	2.267	3.234	5.9	19.5
5 11	13 9.83	-14 13.5	1.944	2.866	10.0	21.9	5 11	13 12.16	-22 30.4	2.305	3.229	8.6	19.6
5 21	13 4.50	-13 27.5	2.028	2.874	13.2	22.1	5 21	13 7.03	-21 46.8	2.369	3.224	11.2	19.8
<b>5210</b>	Saint-Saëns		4 14.7 115°65	0°6/15.2	18		<b>196767</b>	2003 <i>SQ</i> <sub>164</sub>		4 14.7 188°11	0°9/13.8	18	
3 12	13 58.96	-13 8.3	1.761	2.597	14.4	18.2	3 12	13 56.09	- 8 20.3	2.443	3.280	10.9	20.9
3 22	13 53.19	-12 47.6	1.695	2.610	10.8	18.0	3 22	13 50.66	- 7 55.7	2.361	3.279	8.0	20.7
4 1	13 45.26	-12 13.8	1.653	2.624	6.5	17.8	4 1	13 43.62	- 7 24.2	2.304	3.278	4.7	20.5
4 11	13 36.01	-11 30.4	1.637	2.637	2.0	17.5	4 11	13 35.58	- 6 49.2	2.276	3.276	1.4	20.2
4 21	13 26.49	-10 42.6	1.649	2.649	2.7	17.6	4 21	13 27.25	- 6 14.3	2.278	3.274	2.8	20.4
5 1	13 17.78	- 9 56.4	1.689	2.662	7.1	17.9	5 1	13 19.40	- 5 43.7	2.309	3.272	6.2	20.6
5 11	13 10.78	- 9 17.7	1.755	2.673	11.1	18.1	5 11	13 12.70	- 5 20.7	2.367	3.269	9.4	20.8
5 21	13 6.03	- 8 50.5	1.842	2.685	14.5	18.4	5 21	13 7.64	- 5 7.8	2.448	3.265	12.1	20.9
<b>63091</b>	2000 <i>WZ</i> <sub>141</sub>		4 14.7 357°83	4°2/ 9.5	18		<b>397564</b>	2007 <i>UJ</i> <sub>9</sub>		4 14.7 194°62	2°7/12.2	18	
3 12	13 50.68	- 0 12.4	2.238	3.101	10.7	19.2	3 12	13 55.95	- 7 0.1	1.712	2.568	13.8	21.1
3 22	13 46.76	+ 1 17.4	2.171	3.101	7.9	19.0	3 22	13 51.11	- 5 42.8	1.638	2.567	10.1	20.9
4 1	13 41.31	+ 2 50.4	2.129	3.101	5.3	18.8	4 1	13 44.11	- 4 14.5	1.588	2.565	6.0	20.6
4 11	13 34.92	+ 4 19.7	2.116	3.100	4.3	18.8	4 11	13 35.74	- 2 42.3	1.566	2.563	2.7	20.4
4 21	13 28.29	+ 5 38.7	2.132	3.100	6.0	18.9	4 21	13 27.00	- 1 14.8	1.571	2.561	5.0	20.5
5 1	13 22.16	+ 6 41.9	2.175	3.100	8.8	19.0	5 1	13 18.94	+ 0 0.0	1.603	2.557	9.2	20.8
5 11	13 17.18	+ 7 26.1	2.242	3.100	11.6	19.2	5 11	13 12.50	+ 0 56.1	1.660	2.554	13.1	21.0
5 21	13 13.78	+ 7 50.2	2.330	3.101	14.0	19.4	5 21	13 8.23	+ 1 30.6	1.737	2.550	16.5	21.2
<b>22112</b>	Staceyraw		4 14.7 159°43	1°6/16.2	18		<b>294418</b>	2007 <i>VC</i> <sub>217</sub>		4 14.7 131°46	0°3/15.1	17	
3 12	13 58.17	-17 6.6	1.903	2.724	14.1	19.1	3 12	13 54.63	-12 51.2	2.768	3.590	10.2	22.0
3 22	13 52.59	-16 37.6	1.826	2.730	10.8	18.9	3 22	13 49.35	-12 25.8	2.696	3.604	7.5	21.9
4 1	13 44.91	-15 52.0	1.773	2.736	6.9	18.6	4 1	13 42.73	-11 51.9	2.650	3.619	4.5	21.7
4 11	13 35.93	-14 52.8	1.745	2.742	2.8	18.4	4 11	13 35.32	-11 11.9	2.633	3.632	1.4	21.5
4 21	13 26.61	-13 45.1	1.746	2.746	2.7	18.4	4 21	13 27.74	-10 29.4	2.646	3.645	1.9	21.6
5 1	13 18.00	-12 35.7	1.776	2.750	6.7	18.6	5 1	13 20.65	- 9 47.9	2.689	3.658	5.0	21.8
5 11	13 10.97	-11 31.5	1.832	2.754	10.6	18.9	5 11	13 14.61	- 9 11.3	2.760	3.670	7.9	22.0
5 21	13 6.08	-10 38.1	1.911	2.756	13.9	19.1	5 21	13 10.00	- 8 42.3	2.855	3.682	10.3	22.2
<b>60234</b>	1999 <i>VK</i> <sub>157</sub>		4 14.7 257°28	2°2/16.7	18		<b>311166</b>	2004 <i>TX</i> <sub>181</sub>		4 14.7 263°77	0°6/14.3	16	
3 12	13 55.33	-22 52.2	1.223	2.055	19.7	19.3	3 12	13 59.82	- 9 52.4	1.584	2.432	15.2	21.8
3 22	13 51.69	-21 14.5	1.134	2.043	15.4	19.0	3 22	13 54.48	- 9 33.3	1.489	2.412	11.4	21.5
4 1	13 44.94	-18 54.9	1.065	2.030	10.2	18.6	4 1	13 46.44	- 9 2.3	1.417	2.392	6.9	21.2
4 11	13 36.03	-15 57.8	1.020	2.017	4.3	18.3	4 11	13 36.47	- 8 22.8	1.370	2.371	1.9	20.8
4 21	13 26.39	-12 36.1	1.002	2.003	3.6	18.2	4 21	13 25.68	- 7 40.2	1.351	2.349	3.6	20.9
5 1	13 17.63	- 9 10.1	1.010	1.989	9.7	18.5	5 1	13 15.40	- 7 1.2	1.358	2.327	8.8	21.1
5 11	13 11.15	- 6 1.0	1.043	1.974	15.6	18.7	5 11	13 6.88	- 6 32.4	1.389	2.305	13.6	21.3
5 21	13 7.74	- 3 23.8	1.096	1.960	20.8	19.0	5 21	13 0.94	- 6 18.2	1.441	2.282	17.8	21.5
<b>501338</b>	2013 <i>YK</i>		4 14.7 154°98	5°6/ 8.4	17		<b>326956</b>	2004 <i>GY</i> <sub>11</sub>		4 14.7 352°44	22°2/ 2.7	18	
3 12	13 54.98	+ 5 29.2	2.245	3.101	11.0	21.8	3 12	14 12.79	+34 0.2	1.021	1.834	24.1	19.8
3 22	13 49.85	+ 6 46.1	2.187	3.108	8.4	21.6	3 22	14 4.86	+35 28.1	0.990	1.832	22.8	19.7
4 1	13 43.11	+ 8 0.6	2.155	3.114	6.2	21.5	4 1	13 52.68	+36 11.7	0.974	1.830	22.3	19.6
4 11	13 35.41	+ 9 6.1	2.150	3.119	5.7	21.5	4 11	13 38.09	+35 55.6	0.974	1.829	22.6	19.6
4 21	13 27.52	+ 9 57.1	2.174	3.124	7.2	21.6	4 21	13 23.40	+34 34.0	0.989	1.829	23.7	19.7
5 1	13 20.21	+10 29.6	2.224	3.129	9.6	21.7	5 1	13 10.87	+32 11.3	1.020	1.828	25.4	19.8
5 11	13 14.16	+10 42.0	2.298	3.133	12.2	21.9	5 11	13 1.96	+29 0.6	1.065	1.829	27.4	20.0
5 21	13 9.79	+10 35.0	2.392	3.137	14.4	22.1	5 21	12 57.15	+25 17.7	1.123	1.829	29.3	20.1
<b>462170</b>	2007 <i>TC</i> <sub>268</sub>		4 14.7 151°38	0°3/14.5	18		<b>31391</b>	1998 <i>YA</i> <sub>5</sub>		4 14.7 354°04</			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>408782</b>	1999 VO <sub>65</sub>		4 14.7 186°04	1°9/13.1	16		<b>331156</b>	2010 XL <sub>40</sub>		4 14.7 80°26	3°0/12.2	18	
3 12	13 59.61	- 5 40.6	2.060	2.903	12.3	22.2	3 12	13 57.79	- 4 23.4	1.668	2.526	14.0	20.7
3 22	13 53.50	- 5 10.3	1.982	2.904	9.1	22.0	3 22	13 52.23	- 3 28.3	1.620	2.550	10.1	20.5
4 1	13 45.42	- 4 34.0	1.929	2.903	5.4	21.8	4 1	13 44.62	- 2 27.8	1.597	2.573	6.0	20.3
4 11	13 36.11	- 3 56.0	1.903	2.902	2.1	21.6	4 11	13 35.86	- 1 28.7	1.600	2.596	3.1	20.2
4 21	13 26.44	- 3 21.0	1.907	2.900	3.9	21.7	4 21	13 27.00	- 0 37.6	1.630	2.619	5.1	20.4
5 1	13 17.37	- 2 53.7	1.940	2.897	7.6	21.9	5 1	13 19.05	- 0 0.0	1.688	2.641	8.9	20.6
5 11	13 9.75	- 2 37.7	1.998	2.894	11.2	22.1	5 11	13 12.84	+ 0 20.7	1.769	2.663	12.4	20.9
5 21	13 4.10	- 2 34.9	2.079	2.889	14.2	22.3	5 21	13 8.81	+ 0 23.8	1.871	2.685	15.4	21.2
<b>432437</b>	2010 BN <sub>91</sub>		4 14.7 267°43	0°9/14.0	17		<b>471791</b>	2012 VR <sub>34</sub>		4 14.7 75°31	2°7/17.9	17	
3 12	13 57.19	- 7 39.1	2.237	3.077	11.6	20.8	3 12	13 52.41	-22 18.2	2.188	2.989	13.2	20.6
3 22	13 51.73	- 7 32.2	2.143	3.063	8.6	20.6	3 22	13 48.15	-21 33.4	2.110	2.998	10.3	20.5
4 1	13 44.42	- 7 19.3	2.074	3.048	5.1	20.3	4 1	13 42.19	-20 29.7	2.055	3.007	7.0	20.3
4 11	13 35.86	- 7 3.0	2.033	3.033	1.5	20.0	4 11	13 35.21	-19 9.8	2.028	3.016	3.8	20.1
4 21	13 26.83	- 6 46.8	2.021	3.018	2.9	20.1	4 21	13 28.02	-17 38.8	2.028	3.025	2.9	20.0
5 1	13 18.23	- 6 34.1	2.037	3.003	6.7	20.3	5 1	13 21.43	-16 3.6	2.058	3.034	5.7	20.2
5 11	13 10.85	- 6 28.6	2.081	2.987	10.2	20.5	5 11	13 16.16	-14 31.5	2.115	3.043	9.0	20.4
5 21	13 5.28	- 6 32.4	2.147	2.972	13.3	20.7	5 21	13 12.65	-13 8.7	2.196	3.052	12.0	20.7
<b>458969</b>	2011 WR <sub>18</sub>		4 14.7 98°00	1°7/13.6	18		<b>165492</b>	2001 BL <sub>31</sub>		4 14.7 85°24	1°2/15.7	18	R
3 12	14 1.18	- 7 9.4	1.516	2.370	15.4	21.8	3 12	13 58.81	-14 47.7	1.532	2.371	16.0	19.8
3 22	13 55.02	- 6 44.1	1.460	2.387	11.3	21.6	3 22	13 53.35	-14 29.7	1.472	2.387	12.0	19.6
4 1	13 46.42	- 6 10.4	1.427	2.403	6.6	21.4	4 1	13 45.48	-13 55.5	1.434	2.403	7.5	19.3
4 11	13 36.38	- 5 33.7	1.419	2.419	2.1	21.1	4 11	13 36.14	-13 8.8	1.421	2.419	2.7	19.1
4 21	13 26.10	- 4 59.7	1.439	2.435	4.1	21.3	4 21	13 26.52	-12 15.3	1.434	2.435	2.9	19.1
5 1	13 16.82	- 4 34.1	1.485	2.450	8.7	21.6	5 1	13 17.85	-11 22.3	1.474	2.450	7.6	19.4
5 11	13 9.52	- 4 21.4	1.556	2.465	12.9	21.9	5 11	13 11.11	-10 36.7	1.539	2.465	11.9	19.7
5 21	13 4.76	- 4 23.4	1.647	2.480	16.3	22.1	5 21	13 6.86	-10 3.5	1.625	2.480	15.5	20.0
<b>153923</b>	2001 YW <sub>41</sub>		4 14.7 72°86	7°2/ 9.4	18		<b>297947</b>	2002 FN <sub>20</sub>		4 14.7 89°02	6°2/10.3	18	
3 12	13 59.77	+ 8 23.8	1.694	2.553	13.8	19.7	3 12	14 1.10	+ 3 10.5	1.498	2.362	15.0	20.0
3 22	13 53.74	+ 9 10.4	1.644	2.563	10.7	19.5	3 22	13 54.78	+ 4 16.3	1.458	2.386	11.2	19.8
4 1	13 45.56	+ 9 49.7	1.617	2.574	8.1	19.4	4 1	13 46.16	+ 5 19.4	1.441	2.409	7.7	19.7
4 11	13 36.13	+10 14.4	1.617	2.585	7.3	19.3	4 11	13 36.29	+ 6 11.2	1.451	2.432	6.2	19.6
4 21	13 26.52	+10 19.5	1.642	2.595	8.8	19.4	4 21	13 26.35	+ 6 45.1	1.486	2.455	8.0	19.8
5 1	13 17.82	+10 2.3	1.692	2.606	11.6	19.6	5 1	13 17.52	+ 6 57.0	1.547	2.477	11.4	20.0
5 11	13 10.89	+ 9 23.4	1.765	2.617	14.5	19.8	5 11	13 10.69	+ 6 46.3	1.630	2.498	14.7	20.3
5 21	13 6.23	+ 8 25.7	1.858	2.628	17.1	20.0	5 21	13 6.32	+ 6 15.0	1.732	2.519	17.5	20.5
<b>239848</b>	1999 TC <sub>221</sub>		4 14.7 265°54	3°3/18.8	17		<b>199395</b>	2006 BE <sub>265</sub>		4 14.7 241°59	5°0/ 8.9	18	
3 12	13 52.99	-24 4.1	2.653	3.434	11.7	20.3	3 12	13 54.03	+ 2 27.2	2.236	3.094	10.9	20.8
3 22	13 48.53	-23 43.3	2.542	3.414	9.4	20.1	3 22	13 49.34	+ 3 50.4	2.155	3.080	8.2	20.6
4 1	13 42.45	-23 5.6	2.454	3.393	6.8	19.9	4 1	13 42.95	+ 5 15.6	2.100	3.065	5.8	20.4
4 11	13 35.31	-22 12.0	2.393	3.372	4.3	19.7	4 11	13 35.46	+ 6 35.9	2.073	3.051	5.0	20.3
4 21	13 27.77	-21 5.0	2.360	3.351	3.4	19.6	4 21	13 27.60	+ 7 44.7	2.075	3.035	6.8	20.4
5 1	13 20.58	-19 49.2	2.357	3.330	5.4	19.7	5 1	13 20.19	+ 8 36.6	2.104	3.019	9.6	20.5
5 11	13 14.45	-18 30.5	2.382	3.308	8.2	19.9	5 11	13 13.96	+ 9 8.4	2.157	3.003	12.4	20.7
5 21	13 9.88	-17 14.7	2.432	3.286	11.0	20.0	5 21	13 9.43	+ 9 19.6	2.230	2.987	15.0	20.8
<b>438233</b>	2005 UH <sub>518</sub>		4 14.7 281°63	3°5/10.4	16		<b>498637</b>	2008 RJ <sub>146</sub>		4 14.7 159°11	2°6/17.7	17	
3 12	13 51.37	- 2 15.2	2.366	3.223	10.4	21.3	3 12	13 54.59	-21 19.3	2.238	3.039	13.0	21.7
3 22	13 47.36	- 0 55.3	2.272	3.201	7.7	21.1	3 22	13 49.76	-20 47.6	2.155	3.043	10.1	21.5
4 1	13 41.76	+ 0 30.8	2.205	3.179	4.9	20.8	4 1	13 43.18	-19 58.4	2.095	3.047	6.9	21.3
4 11	13 35.12	+ 1 56.9	2.167	3.156	3.5	20.7	4 11	13 35.51	-18 53.8	2.062	3.051	3.7	21.1
4 21	13 28.10	+ 3 16.8	2.157	3.134	5.3	20.8	4 21	13 27.55	-17 38.1	2.057	3.054	2.9	21.1
5 1	13 21.44	+ 4 24.6	2.176	3.111	8.3	20.9	5 1	13 20.18	-16 17.4	2.081	3.057	5.8	21.3
5 11	13 15.83	+ 5 15.9	2.220	3.088	11.3	21.1	5 11	13 14.11	-14 58.5	2.133	3.059	9.0	21.5
5 21	13 11.77	+ 5 48.7	2.285	3.065	14.0	21.2	5 21	13 9.86	-13 47.2	2.209	3.061	12.0	21.7
<b>265694</b>	2005 UX <sub>127</sub>		4 14.7 18°59	3°4/18.0	18		<b>127217</b>	2002 HS <sub>17</sub>		4 14.7 65°00	6°6/ 9.6	18	
3 12	13 52.01	-22 45.6	1.527	2.349	16.9	19.9	3 12	14 0.81	+ 6 17.2	1.676	2.534	13.9	19.7
3 22	13 48.55	-22 3.0	1.453	2.352	13.3	19.6	3 22	13 54.18	+ 7 20.3	1.651	2.573	10.5	19.6
4 1	13 42.72	-20 53.7	1.399	2.356	9.1	19.4	4 1	13 45.62	+ 8 16.6	1.650	2.610	7.7	19.5
4 11	13 35.39	-19 20.8	1.370	2.360	5.0	19.2	4 11	13 36.11	+ 8 58.9	1.676	2.648	6.7	19.5
4 21	13 27.69	-17 31.5	1.367	2.365	3.7	19.1	4 21	13 26.72	+ 9 22.1	1.729	2.685	8.2	19.7
5 1	13 20.81	-15 36.2	1.390	2.370	7.4	19.3	5 1	13 18.43	+ 9 23.7	1.807	2.722	10.9	19.9
5 11	13 15.72	-13 46.4	1.437	2.376	11.6	19.6	5 11	13 11.98	+ 9 4.5	1.908	2.758	13.6	20.2
5 21	13 13.01	-12 10.9	1.507	2.382	15.5	19.8	5 21	13 7.74	+ 8 27.0	2.028	2.794	16.0	20.4
<b>455202</b>	2001 DN <sub>36</sub>		4 14.7 17°50	4°0/11.8	18		<b>70383</b>	1999 RK <sub>218</sub>		4 14.7 74°37	2°0/16.4	18	
3 12	13 52.49	- 4 51.9	1.142	2.027	17.0	20.1	3 12	13 57.94	-17 40.0	1.481	2.315	16.8	18.7
3 22	13 49.24	- 3 43.1	1.089	2.032	12.4	19.9	3 22	13 52.74	-17 12.7	1.425	2.336	12.7	18.5
4 1	13 43.25	- 2 24.5	1.057	2.038	7.5	19.6	4 1	13 45.11	-16 25.5	1.391	2.357	8.1	18.2
4 11	13 35.55	- 1 6.2	1.048	2.045	4.1	19.4	4 11	13 36.04	-15 22.4	1.381	2.377	3.5	18.0
4 21	13 27.48	+ 0 1.4	1.063	2.053	6.7	19.6	4 21	13 26.76	-14 9.9	1.398	2.398	3.1	18.0
5 1	13 20.43	+ 0 49.3	1.100	2.062	11.5	19.9	5 1	13 18.51	-12 56.7	1.441	2.418	7.5	18.4
5 11	13 15.33	+ 1 12.2	1.159	2.072	16.0	20.2	5 11	13 12.24	-11 51.3	1.508	2.438	11.8	18.6
5 21	13 13.54	+ 1 9.6	1.234	2.083	19.8	20.4	5 21	13 8.49	-10 59.4	1.597	2.458	15.4	18.9
<b>343873</b>	2011 HB <sub>75</sub>		4 14.7 274°59	2°2/12.5	17		<b>270593</b>	2002 LO <sub>49</sub>		4 14.7 30°40	7°2/ 9.1	17	
3 12	13 53.70												

EPHEMERIDES

4 14.8

4 14.8

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>31402</b>	Negishi		4 14.8 325°44	13°2/23.9	18		<b>165289</b>	2000 SA <sub>356</sub>		4 14.8 134°05	5°6/9.6	18	
3 12	13 57.64	-37 51.2	1.507	2.243	20.9	16.4	3 12	13 57.94	+ 1 55.3	1.758	2.619	13.3	20.4
3 22	13 53.82	-39 28.8	1.417	2.227	18.8	16.2	3 22	13 52.37	+ 3 22.6	1.705	2.632	9.9	20.2
4 1	13 46.58	-40 38.5	1.343	2.212	16.5	15.9	4 1	13 44.76	+ 4 50.3	1.676	2.644	6.8	20.0
4 11	13 36.66	-41 12.3	1.288	2.197	14.4	15.8	4 11	13 35.96	+ 6 10.0	1.675	2.655	5.6	20.0
4 21	13 25.45	-41 5.3	1.253	2.182	13.3	15.7	4 21	13 26.96	+ 7 14.1	1.701	2.666	7.5	20.1
5 1	13 14.78	-40 18.6	1.240	2.169	13.6	15.6	5 1	13 18.78	+ 7 57.0	1.753	2.676	10.7	20.3
5 11	13 6.40	-39 0.7	1.247	2.156	15.4	15.7	5 11	13 12.23	+ 8 16.5	1.828	2.686	13.8	20.5
5 21	13 1.47	-37 24.1	1.273	2.144	17.9	15.8	5 21	13 7.82	+ 8 13.4	1.923	2.695	16.6	20.8
<b>117206</b>	2004 RC <sub>193</sub>		4 14.8 166°83	0°5/14.2	17		<b>374071</b>	2004 RS <sub>124</sub>		4 14.8 104°89	1°8/12.9	17	
3 12	13 54.45	-11 54.2	2.320	3.153	11.5	20.7	3 12	13 55.16	- 7 55.0	2.016	2.864	12.4	21.3
3 22	13 49.51	-10 56.5	2.241	3.157	8.5	20.5	3 22	13 50.12	- 6 52.6	1.956	2.881	9.0	21.2
4 1	13 42.97	- 9 47.5	2.189	3.161	5.0	20.3	4 1	13 43.34	- 5 41.8	1.921	2.897	5.2	21.0
4 11	13 35.46	- 8 31.7	2.164	3.165	1.3	20.1	4 11	13 35.56	- 4 28.4	1.915	2.914	1.9	20.8
4 21	13 27.70	- 7 14.5	2.170	3.167	2.6	20.2	4 21	13 27.62	- 3 18.5	1.937	2.930	3.8	20.9
5 1	13 20.47	- 6 1.8	2.204	3.170	6.3	20.4	5 1	13 20.37	- 2 18.2	1.987	2.945	7.4	21.2
5 11	13 14.46	- 4 58.9	2.266	3.171	9.6	20.6	5 11	13 14.52	- 1 31.9	2.063	2.960	10.8	21.4
5 21	13 10.11	- 4 9.3	2.352	3.173	12.4	20.8	5 21	13 10.51	- 1 1.8	2.161	2.975	13.6	21.6
<b>155305</b>	2005 YU <sub>73</sub>		4 14.8 109°44	1°1/16.1	18		<b>154527</b>	2003 FO <sub>109</sub>		4 14.8 348°18	11°2/9.0	17	
3 12	13 52.80	-15 18.3	2.612	3.432	10.8	20.4	3 12	14 3.36	+15 58.1	1.338	2.194	16.9	19.2
3 22	13 48.21	-15 3.8	2.531	3.436	8.1	20.3	3 22	13 57.14	+16 25.4	1.278	2.186	14.1	19.0
4 1	13 42.17	-14 39.0	2.474	3.439	5.1	20.1	4 1	13 47.96	+16 34.4	1.239	2.178	11.9	18.9
4 11	13 35.24	-14 5.8	2.446	3.442	2.1	19.9	4 11	13 36.91	+16 15.6	1.222	2.172	11.2	18.8
4 21	13 28.05	-13 27.4	2.446	3.446	2.0	19.9	4 21	13 25.42	+15 23.8	1.229	2.167	12.7	18.9
5 1	13 21.31	-12 47.7	2.475	3.449	5.1	20.1	5 1	13 15.01	+13 58.7	1.258	2.163	15.5	19.0
5 11	13 15.63	-12 10.8	2.532	3.452	8.1	20.3	5 11	13 6.91	+12 5.1	1.308	2.160	18.6	19.2
5 21	13 11.43	-11 40.1	2.613	3.455	10.7	20.5	5 21	13 1.78	+ 9 50.3	1.377	2.158	21.5	19.4
<b>32698</b>	1104 T-2		4 14.8 119°03	0°5/15.1	18		<b>521085</b>	2015 DQ <sub>241</sub>		4 14.8 271°59	6°6/8.6	17	
3 12	14 0.55	-12 37.3	1.567	2.408	15.7	18.9	3 12	13 57.35	+ 9 0.9	2.119	2.972	11.7	21.4
3 22	13 54.65	-12 21.3	1.502	2.420	11.7	18.7	3 22	13 51.86	+ 9 49.2	2.043	2.958	9.2	21.2
4 1	13 46.29	-11 51.5	1.459	2.431	7.1	18.5	4 1	13 44.50	+10 32.1	1.992	2.944	7.2	21.1
4 11	13 36.40	-11 11.6	1.442	2.442	2.1	18.2	4 11	13 35.93	+11 3.2	1.967	2.930	6.7	21.0
4 21	13 26.17	-10 27.0	1.452	2.452	3.0	18.3	4 21	13 26.98	+11 17.5	1.970	2.916	8.1	21.1
5 1	13 16.84	- 9 44.3	1.489	2.462	7.8	18.6	5 1	13 18.57	+11 11.8	1.998	2.901	10.7	21.2
5 11	13 9.44	- 9 9.8	1.551	2.472	12.2	18.8	5 11	13 11.49	+10 45.3	2.050	2.887	13.4	21.3
5 21	13 4.56	- 8 47.7	1.634	2.481	15.8	19.1	5 21	13 6.30	+ 9 59.6	2.122	2.872	15.8	21.5
<b>168853</b>	2000 UV <sub>76</sub>		4 14.8 88°64	1°2/13.9	18		<b>459632</b>	2013 JD <sub>11</sub>		4 14.8 336°29	4°2/12.2	17	
3 12	14 0.40	- 8 34.2	1.499	2.352	15.6	20.3	3 12	13 57.02	- 2 25.6	1.251	2.128	16.5	20.4
3 22	13 54.48	- 8 9.3	1.443	2.369	11.4	20.1	3 22	13 52.65	- 1 50.4	1.183	2.120	12.2	20.1
4 1	13 46.13	- 7 34.5	1.410	2.386	6.7	19.8	4 1	13 45.41	- 1 10.1	1.135	2.114	7.6	19.8
4 11	13 36.34	- 6 54.9	1.403	2.403	1.9	19.6	4 11	13 36.25	- 0 32.1	1.112	2.107	4.2	19.6
4 21	13 26.31	- 6 16.4	1.422	2.420	3.8	19.7	4 21	13 26.47	- 0 4.0	1.112	2.102	6.6	19.7
5 1	13 17.28	- 5 45.2	1.468	2.436	8.5	20.1	5 1	13 17.56	+ 0 7.3	1.137	2.097	11.3	20.0
5 11	13 10.24	- 5 26.1	1.538	2.452	12.7	20.3	5 11	13 10.77	- 0 1.8	1.182	2.093	16.0	20.2
5 21	13 5.71	- 5 21.6	1.629	2.468	16.2	20.6	5 21	13 6.82	- 0 31.7	1.246	2.089	20.0	20.5
<b>381575</b>	2008 UN <sub>149</sub>		4 14.8 156°60	0°5/14.2	17		<b>333736</b>	2009 WX <sub>40</sub>		4 14.8 312°25	6°4/20.5	18	
3 12	13 54.21	-11 2.3	2.130	2.970	12.1	21.8	3 12	13 53.33	-28 6.1	1.658	2.448	17.2	19.9
3 22	13 49.48	-10 17.6	2.054	2.973	8.9	21.6	3 22	13 49.76	-28 10.4	1.562	2.432	14.3	19.6
4 1	13 43.02	- 9 22.3	2.002	2.976	5.3	21.4	4 1	13 43.65	-27 47.8	1.486	2.417	11.0	19.4
4 11	13 35.48	- 8 20.4	1.979	2.979	1.4	21.1	4 11	13 35.77	-26 56.8	1.432	2.402	7.8	19.1
4 21	13 27.67	- 7 17.4	1.983	2.981	2.8	21.3	4 21	13 27.21	-25 39.8	1.403	2.387	6.4	19.0
5 1	13 20.43	- 6 19.0	2.017	2.984	6.6	21.5	5 1	13 19.24	-24 3.4	1.400	2.373	8.2	19.1
5 11	13 14.48	- 5 30.2	2.076	2.986	10.1	21.7	5 11	13 13.03	-22 18.3	1.421	2.359	11.7	19.2
5 21	13 10.31	- 4 54.4	2.159	2.988	13.1	21.9	5 21	13 9.33	-20 35.3	1.464	2.346	15.4	19.4
<b>84629</b>	2002 VD <sub>49</sub>		4 14.8 154°66	0°3/14.5	18		<b>291422</b>	2006 DN <sub>14</sub>		4 14.8 31°90	4°1/11.9	18	
3 12	13 53.24	-11 47.2	2.352	3.187	11.3	20.2	3 12	13 55.76	- 4 8.3	1.174	2.054	17.1	19.8
3 22	13 48.63	-11 4.1	2.274	3.191	8.3	20.0	3 22	13 51.62	- 3 9.2	1.121	2.061	12.5	19.6
4 1	13 42.45	-10 10.8	2.222	3.194	4.9	19.8	4 1	13 44.68	- 2 2.1	1.089	2.068	7.6	19.3
4 11	13 35.32	- 9 11.1	2.197	3.197	1.3	19.5	4 11	13 36.01	- 0 56.2	1.080	2.077	4.1	19.1
4 21	13 27.95	- 8 9.5	2.202	3.200	2.4	19.6	4 21	13 26.97	- 0 1.1	1.096	2.085	6.6	19.3
5 1	13 21.08	- 7 11.4	2.235	3.203	6.0	19.8	5 1	13 19.00	+ 0 35.4	1.134	2.095	11.4	19.6
5 11	13 15.38	- 6 21.5	2.296	3.206	9.3	20.1	5 11	13 13.24	+ 0 48.7	1.194	2.105	15.9	19.9
5 21	13 11.28	- 5 42.9	2.379	3.208	12.1	20.2	5 21	13 10.27	+ 0 38.4	1.272	2.115	19.7	20.1
<b>38181</b>	1999 JG <sub>124</sub>		4 14.8 353°92	20°2/16.1	18		<b>277025</b>	2005 BD <sub>4</sub>		4 14.8 168°04	1°7/13.1	17	
3 12	13 34.71	+22 44.0	0.776	1.684	20.3	16.1	3 12	13 54.43	- 7 19.9	2.163	3.011	11.7	20.9
3 22	13 37.05	+27 50.5	0.758	1.670	20.5	16.0	3 22	13 49.62	- 6 32.3	2.088	3.013	8.5	20.7
4 1	13 36.39	+32 17.2	0.759	1.659	22.3	16.1	4 1	13 43.10	- 5 37.1	2.039	3.015	5.0	20.5
4 11	13 33.75	+35 37.2	0.776	1.651	25.0	16.2	4 11	13 35.54	- 4 39.0	2.017	3.016	1.8	20.2
4 21	13 30.56	+37 38.1	0.807	1.646	27.8	16.4	4 21	13 27.70	- 3 43.1	2.024	3.018	3.5	20.4
5 1	13 28.35	+38 19.0	0.848	1.643	30.4	16.5	5 1	13 20.41	- 2 54.8	2.060	3.019	7.1	20.6
5 11	13 28.34	+37 49.0	0.896	1.645	32.4	16.7	5 11	13 14.38	- 2 18.3	2.121	3.019	10.4	20.8
5 21	13 31.09	+36 20.4	0.949	1.649	34.0	16.9	5 21	13 10.10	- 1 55.9	2.204	3.020	13.3	21.0
<b>176527</b>	2001 YE <sub>124</sub>		4 14.8 154°70	4°1/19.6	18		<b>180176</b>	2003 HP <sub>54</sub>		4 14.8 306°59	0°6/14.2	17	
3 12	13 54.78												

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>299762</b>	2006 <i>SR</i> <sub>8</sub>	4 14.8 131°09		4.3/19.5 17			<b>504512</b>	2008 <i>QO</i> <sub>21</sub>	4 14.8 259°12		4.9/19.1 17		
3 12	13 58.97	-25 54.5	2.891	3.646	11.4	21.5	3 12	13 57.45	-24 55.9	2.109	2.891	14.3	21.8
3 22	13 52.71	-26 23.2	2.809	3.659	9.3	21.4	3 22	13 52.34	-25 9.7	2.004	2.874	11.6	21.6
4 1	13 44.87	-26 37.8	2.751	3.671	7.0	21.2	4 1	13 45.03	-25 4.9	1.922	2.856	8.7	21.4
4 11	13 36.03	-26 37.9	2.721	3.684	5.0	21.1	4 11	13 36.17	-24 40.5	1.864	2.838	5.9	21.2
4 21	13 26.90	-26 24.5	2.719	3.695	4.3	21.1	4 21	13 26.67	-23 58.1	1.834	2.819	4.9	21.1
5 1	13 18.23	-26 0.2	2.747	3.707	5.5	21.2	5 1	13 17.59	-23 1.9	1.831	2.801	6.9	21.2
5 11	13 10.69	-25 29.2	2.803	3.718	7.6	21.3	5 11	13 9.92	-21 58.6	1.854	2.781	10.1	21.3
5 21	13 4.76	-24 55.9	2.884	3.728	9.8	21.5	5 21	13 4.34	-20 55.6	1.901	2.762	13.4	21.5
<b>148625</b>	2001 <i>RD</i> <sub>133</sub>	4 14.8 190°81		3.4/11.2 17			<b>241187</b>	2007 <i>RF</i> <sub>287</sub>	4 14.8 96°62		1.6/13.2 18		
3 12	13 55.97	-2 18.7	2.172	3.025	11.4	21.2	3 12	13 54.68	-6 55.1	2.051	2.902	12.1	20.3
3 22	13 50.75	-1 14.6	2.098	3.024	8.4	21.0	3 22	13 49.90	-6 19.9	1.979	2.904	8.8	20.1
4 1	13 43.78	-0 6.0	2.049	3.022	5.2	20.8	4 1	13 43.32	-5 37.7	1.930	2.906	5.2	19.9
4 11	13 35.74	+1 1.1	2.028	3.019	3.4	20.7	4 11	13 35.63	-4 53.0	1.910	2.909	1.9	19.7
4 21	13 27.40	+2 0.8	2.036	3.016	5.1	20.8	4 21	13 27.65	-4 10.6	1.917	2.911	3.6	19.8
5 1	13 19.60	+2 48.0	2.072	3.013	8.3	21.0	5 1	13 20.25	-3 35.4	1.952	2.913	7.2	20.0
5 11	13 13.09	+3 19.0	2.134	3.009	11.4	21.1	5 11	13 14.18	-3 11.3	2.012	2.916	10.7	20.2
5 21	13 8.34	+3 32.7	2.217	3.004	14.2	21.3	5 21	13 9.95	-3 0.6	2.095	2.918	13.7	20.4
<b>355796</b>	2008 <i>SM</i> <sub>125</sub>	4 14.8 196°83		0.3/14.9 17			<b>368669</b>	2005 <i>LL</i> <sub>23</sub>	4 14.8 227°70		5.3/20.0 17		
3 12	13 58.29	-13 39.8	1.617	2.458	15.3	21.2	3 12	13 58.61	-27 45.1	2.251	3.012	14.1	22.2
3 22	13 53.09	-12 58.1	1.538	2.456	11.5	21.0	3 22	13 53.06	-27 52.3	2.147	3.000	11.7	22.0
4 1	13 45.47	-11 59.7	1.481	2.453	7.0	20.7	4 1	13 45.38	-27 39.4	2.065	2.987	8.9	21.8
4 11	13 36.25	-10 48.8	1.451	2.451	2.0	20.4	4 11	13 36.25	-27 5.4	2.008	2.973	6.4	21.6
4 21	13 26.55	-9 32.4	1.447	2.447	3.1	20.5	4 21	13 26.57	-26 11.8	1.979	2.958	5.3	21.5
5 1	13 17.58	-8 18.7	1.471	2.443	8.0	20.7	5 1	13 17.34	-25 3.0	1.978	2.943	6.9	21.5
5 11	13 10.40	-7 15.6	1.520	2.439	12.5	21.0	5 11	13 9.52	-23 46.1	2.004	2.927	9.7	21.7
5 21	13 5.65	-6 28.5	1.590	2.434	16.3	21.2	5 21	13 3.75	-22 28.6	2.054	2.910	12.7	21.8
<b>290592</b>	2005 <i>UC</i> <sub>167</sub>	4 14.8 50°30		0.8/15.5 17			<b>500234</b>	2012 <i>JK</i> <sub>13</sub>	4 14.8 226°01		0.4/14.3 18		
3 12	13 54.54	-15 14.5	1.509	2.354	15.9	20.8	3 12	13 54.82	-11 59.3	2.049	2.887	12.6	21.5
3 22	13 50.23	-14 32.5	1.451	2.371	11.9	20.6	3 22	13 50.11	-11 7.4	1.961	2.880	9.3	21.3
4 1	13 43.64	-13 32.8	1.416	2.388	7.3	20.4	4 1	13 43.52	-10 2.6	1.898	2.871	5.6	21.0
4 11	13 35.70	-12 20.4	1.406	2.405	2.4	20.1	4 11	13 35.71	-8 49.0	1.863	2.863	1.5	20.7
4 21	13 27.53	-11 2.8	1.422	2.422	2.9	20.2	4 21	13 27.51	-7 32.7	1.856	2.854	2.9	20.8
5 1	13 20.27	-9 48.6	1.464	2.440	7.6	20.5	5 1	13 19.83	-6 20.2	1.877	2.845	7.0	21.1
5 11	13 14.83	-8 45.3	1.531	2.458	11.8	20.8	5 11	13 13.48	-5 17.9	1.925	2.835	10.8	21.3
5 21	13 11.72	-7 58.0	1.619	2.477	15.4	21.1	5 21	13 9.02	-4 30.0	1.995	2.825	14.0	21.5
<b>211534</b>	2003 <i>RX</i> <sub>2</sub>	4 14.8 198°51		2.0/16.3 16			<b>500897</b>	2013 <i>LV</i> <sub>27</sub>	4 14.8 298°74		0.5/14.5 17		
3 12	14 0.22	-16 11.1	1.806	2.629	14.7	21.6	3 12	13 55.62	-11 9.8	1.411	2.270	16.1	21.9
3 22	13 54.40	-16 11.6	1.722	2.627	11.3	21.4	3 22	13 51.61	-10 40.6	1.323	2.251	12.1	21.6
4 1	13 46.22	-15 57.3	1.660	2.624	7.3	21.1	4 1	13 44.86	-9 55.8	1.256	2.233	7.3	21.3
4 11	13 36.47	-15 29.8	1.625	2.621	3.2	20.9	4 11	13 36.17	-8 59.7	1.214	2.214	2.0	20.9
4 21	13 26.19	-14 52.4	1.618	2.617	3.0	20.8	4 21	13 26.69	-7 59.0	1.196	2.196	3.7	20.9
5 1	13 16.55	-14 10.7	1.638	2.613	7.1	21.1	5 1	13 17.81	-7 2.1	1.204	2.178	9.2	21.2
5 11	13 8.58	-13 31.2	1.684	2.608	11.2	21.3	5 11	13 10.78	-6 17.3	1.235	2.160	14.3	21.4
5 21	13 2.95	-12 59.3	1.752	2.602	14.8	21.5	5 21	13 6.44	-5 49.9	1.285	2.143	18.6	21.7
<b>363295</b>	2002 <i>JO</i> <sub>120</sub>	4 14.8 7°73		9.5/7.5 18			<b>64252</b>	2001 <i>TL</i> <sub>168</sub>	4 14.8 178°59		4.1/18.2 18		
3 12	13 53.81	+6 51.3	1.177	2.064	16.5	19.5	3 12	14 0.93	-22 21.8	1.842	2.639	15.5	19.7
3 22	13 50.20	+8 33.8	1.129	2.064	12.9	19.3	3 22	13 54.94	-22 26.0	1.758	2.641	12.3	19.5
4 1	13 43.85	+10 11.1	1.102	2.066	10.1	19.1	4 1	13 46.55	-22 10.5	1.696	2.643	8.7	19.3
4 11	13 35.80	+11 30.2	1.098	2.068	9.7	19.1	4 11	13 36.58	-21 35.4	1.660	2.643	5.3	19.0
4 21	13 27.37	+12 20.4	1.116	2.070	11.9	19.2	4 21	13 26.10	-20 43.7	1.651	2.643	4.3	19.0
5 1	13 19.96	+12 35.9	1.156	2.074	15.4	19.4	5 1	13 16.32	-19 41.4	1.669	2.643	7.1	19.1
5 11	13 14.68	+12 16.4	1.214	2.079	18.9	19.7	5 11	13 8.28	-18 36.4	1.714	2.641	10.8	19.4
5 21	13 12.11	+11 26.2	1.288	2.084	22.0	19.9	5 21	13 2.63	-17 36.2	1.782	2.639	14.3	19.6
<b>467130</b>	2016 <i>ER</i> <sub>75</sub>	4 14.8 56°27		1.1/13.9 16			<b>1245</b>	Calvinia	4 14.8 207°65		1.1/13.6 18 A		
3 12	13 56.71	-10 7.4	1.333	2.195	16.6	21.4	3 12	13 54.18	-8 37.7	2.273	3.116	11.3	14.9
3 22	13 52.01	-9 22.9	1.281	2.211	12.2	21.2	3 22	13 49.43	-7 59.2	2.191	3.113	8.3	14.6
4 1	13 44.77	-8 24.9	1.250	2.228	7.1	20.9	4 1	13 43.01	-7 12.5	2.135	3.110	4.9	14.4
4 11	13 36.03	-7 20.0	1.244	2.245	2.0	20.7	4 11	13 35.56	-6 21.6	2.107	3.107	1.5	14.2
4 21	13 27.04	-6 16.3	1.264	2.262	4.0	20.8	4 21	13 27.80	-5 31.2	2.107	3.103	3.0	14.3
5 1	13 19.10	-5 22.2	1.308	2.279	9.0	21.2	5 1	13 20.52	-4 46.1	2.136	3.100	6.6	14.5
5 11	13 13.21	-4 43.7	1.376	2.296	13.4	21.5	5 11	13 14.44	-4 10.7	2.192	3.096	9.9	14.7
5 21	13 9.90	-4 23.9	1.464	2.314	17.2	21.8	5 21	13 10.04	-3 47.5	2.270	3.091	12.8	14.9
<b>388846</b>	2008 <i>EN</i> <sub>110</sub>	4 14.8 62°97		4.1/18.8 17			<b>422810</b>	2001 <i>YZ</i> <sub>115</sub>	4 14.8 145°99		0.5/14.3 18		
3 12	13 55.82	-23 20.5	2.291	3.078	13.1	21.2	3 12	13 58.17	-9 50.8	2.383	3.213	11.3	22.2
3 22	13 50.76	-23 39.0	2.209	3.083	10.5	21.0	3 22	13 52.18	-9 25.5	2.311	3.226	8.3	22.0
4 1	13 43.86	-23 41.6	2.150	3.088	7.6	20.9	4 1	13 44.56	-8 52.4	2.265	3.237	4.9	21.8
4 11	13 35.79	-23 28.5	2.116	3.093	5.0	20.7	4 11	13 35.97	-8 14.7	2.248	3.248	1.3	21.6
4 21	13 27.35	-23 1.4	2.110	3.098	4.2	20.7	4 21	13 27.16	-7 36.2	2.260	3.258	2.5	21.7
5 1	13 19.44	-22 24.2	2.133	3.103	6.1	20.8	5 1	13 18.93	-7 1.1	2.302	3.268	6.0	22.0
5 11	13 12.84	-21 42.3	2.181	3.108	8.9	21.0	5 11	13 11.97	-6 33.3	2.372	3.276	9.2	22.2
5 21	13 8.09	-21 1.0	2.254	3.113	11.6	21.1	5 21	13 6.71	-6 15.3	2.465	3.284	12.0	22.4
<b>15803</b>	1994 <i>CW</i>	4 14.8 186°06		4.6/9.4 18			<b>422011</b>	2014 <i>QH</i> <sub>329</sub>	4 14.8 154°78		2.2/12.9 16		
3 12	13 55.00	+1 19.4	2.216	3.072	11.1	18.4	3 12	1					

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>198314</b>	2004 <i>TN</i> <sub>336</sub>		4 14.8 264°06	1°0/13.9	17		<b>165288</b>	2000 <i>SN</i> <sub>355</sub>		4 14.8 176°46	4°1/11.5	18	
3 12	13 55.76	- 9 0.6	1.947	2.793	12.8	20.8	3 12	13 59.83	- 0 56.6	1.771	2.627	13.4	20.6
3 22	13 50.94	- 8 30.9	1.859	2.782	9.5	20.6	3 22	13 53.93	- 0 7.3	1.702	2.629	9.9	20.4
4 1	13 44.09	- 7 51.6	1.794	2.769	5.6	20.3	4 1	13 45.83	+ 0 44.8	1.658	2.631	6.3	20.2
4 11	13 35.89	- 7 6.8	1.757	2.757	1.6	20.0	4 11	13 36.38	+ 1 33.4	1.641	2.632	4.1	20.0
4 21	13 27.23	- 6 21.2	1.748	2.745	3.3	20.1	4 21	13 26.57	+ 2 12.3	1.651	2.632	6.0	20.2
5 1	13 19.06	- 5 40.6	1.766	2.732	7.4	20.4	5 1	13 17.50	+ 2 36.2	1.688	2.632	9.6	20.4
5 11	13 12.29	- 5 9.8	1.809	2.720	11.3	20.6	5 11	13 10.08	+ 2 42.2	1.750	2.631	13.2	20.6
5 21	13 7.51	- 4 52.3	1.875	2.707	14.7	20.8	5 21	13 4.88	+ 2 30.1	1.832	2.630	16.3	20.8
<b>471381</b>	2011 <i>SC</i> <sub>116</sub>		4 14.8 201°99	2°0/12.0	17		<b>257653</b>	1999 <i>UV</i> <sub>31</sub>		4 14.8 156°26	0°1/14.8	16	
3 12	13 51.96	- 5 35.6	2.905	3.749	9.1	21.9	3 12	13 58.36	- 12 12.2	1.950	2.783	13.3	22.4
3 22	13 47.47	- 4 29.8	2.822	3.744	6.6	21.7	3 22	13 52.70	- 11 39.2	1.876	2.791	9.9	22.2
4 1	13 41.72	- 3 18.3	2.765	3.740	3.9	21.5	4 1	13 45.05	- 10 54.2	1.826	2.797	5.9	22.0
4 11	13 35.19	- 2 5.5	2.738	3.734	2.0	21.4	4 11	13 36.16	- 10 0.9	1.803	2.803	1.7	21.7
4 21	13 28.44	- 0 55.7	2.742	3.728	3.4	21.5	4 21	13 26.97	- 9 4.7	1.809	2.809	2.7	21.8
5 1	13 22.06	+ 0 6.4	2.775	3.722	6.1	21.6	5 1	13 18.44	- 8 11.5	1.844	2.813	6.9	22.1
5 11	13 16.58	+ 0 57.4	2.836	3.715	8.8	21.8	5 11	13 11.43	- 7 26.8	1.905	2.818	10.7	22.3
5 21	13 12.38	+ 1 35.2	2.920	3.708	11.1	22.0	5 21	13 6.48	- 6 54.5	1.988	2.821	13.9	22.5
<b>463810</b>	2014 <i>SG</i> <sub>343</sub>		4 14.8 122°95	1°3/15.9	18		<b>292256</b>	2006 <i>SM</i> <sub>93</sub>		4 14.8 160°67	0°1/14.9	17	
3 12	13 57.13	- 15 56.6	1.662	2.496	15.3	21.2	3 12	13 53.81	- 11 50.8	2.761	3.588	10.0	22.7
3 22	13 52.12	- 15 25.8	1.591	2.503	11.5	21.0	3 22	13 48.88	- 11 24.3	2.682	3.593	7.4	22.6
4 1	13 44.82	- 14 37.8	1.542	2.510	7.2	20.8	4 1	13 42.58	- 10 49.6	2.628	3.598	4.5	22.4
4 11	13 36.09	- 13 36.1	1.519	2.517	2.7	20.5	4 11	13 35.46	- 10 9.4	2.602	3.602	1.3	22.1
4 21	13 27.00	- 12 26.7	1.523	2.523	2.8	20.5	4 21	13 28.11	- 9 27.0	2.607	3.606	2.0	22.2
5 1	13 18.70	- 11 17.2	1.554	2.530	7.3	20.8	5 1	13 21.20	- 8 46.3	2.641	3.609	5.2	22.4
5 11	13 12.14	- 10 15.4	1.611	2.536	11.5	21.1	5 11	13 15.29	- 8 10.9	2.702	3.612	8.0	22.6
5 21	13 7.91	- 9 26.6	1.689	2.541	15.1	21.3	5 21	13 10.79	- 7 43.6	2.789	3.615	10.6	22.8
<b>191736</b>	2004 <i>RV</i> <sub>325</sub>		4 14.8 200°05	3°6/18.2	18		<b>50316</b>	2000 <i>CY</i> <sub>47</sub>		4 14.8 279°67	3°3/11.2	18	
3 12	13 58.08	- 21 53.2	2.252	3.044	13.2	20.7	3 12	13 52.50	- 3 56.0	2.008	2.868	11.9	19.0
3 22	13 52.50	- 22 4.3	2.161	3.041	10.5	20.6	3 22	13 48.34	- 2 39.1	1.937	2.868	8.7	18.8
4 1	13 44.97	- 21 59.8	2.093	3.038	7.4	20.4	4 1	13 42.43	- 1 15.8	1.892	2.868	5.3	18.6
4 11	13 36.14	- 21 40.0	2.052	3.034	4.6	20.2	4 11	13 35.43	+ 0 7.4	1.874	2.867	3.3	18.5
4 21	13 26.86	- 21 6.7	2.039	3.030	3.8	20.1	4 21	13 28.15	+ 1 23.5	1.884	2.867	5.2	18.6
5 1	13 18.09	- 20 24.1	2.054	3.026	6.1	20.2	5 1	13 21.43	+ 2 26.2	1.921	2.866	8.5	18.8
5 11	13 10.66	- 19 38.0	2.096	3.021	9.3	20.4	5 11	13 16.02	+ 3 11.1	1.983	2.866	11.8	19.0
5 21	13 5.16	- 18 53.8	2.163	3.016	12.2	20.6	5 21	13 12.39	+ 3 36.7	2.066	2.865	14.7	19.2
<b>317953</b>	2003 <i>WT</i> <sub>150</sub>		4 14.8 151°52	0°7/14.1	18		<b>17409</b>	1988 <i>BA</i> <sub>4</sub>		4 14.8 71°21	4°3/18.1	18	
3 12	13 57.87	- 10 56.9	2.029	2.865	12.8	22.2	3 12	13 57.64	- 21 46.5	1.439	2.261	17.8	18.1
3 22	13 52.22	- 10 8.5	1.958	2.875	9.4	22.0	3 22	13 52.96	- 21 46.0	1.368	2.266	14.1	17.9
4 1	13 44.69	- 9 9.0	1.911	2.884	5.5	21.8	4 1	13 45.55	- 21 21.6	1.316	2.271	9.8	17.6
4 11	13 36.03	- 8 2.9	1.893	2.893	1.5	21.5	4 11	13 36.35	- 20 34.3	1.288	2.276	5.7	17.4
4 21	13 27.11	- 6 56.1	1.903	2.901	3.0	21.6	4 21	13 26.65	- 19 28.7	1.285	2.281	4.5	17.3
5 1	13 18.87	- 5 54.7	1.942	2.908	7.0	21.9	5 1	13 17.84	- 18 13.0	1.308	2.286	8.0	17.5
5 11	13 12.08	- 5 4.0	2.008	2.914	10.6	22.1	5 11	13 11.08	- 16 57.6	1.354	2.291	12.3	17.8
5 21	13 7.24	- 4 27.4	2.096	2.919	13.7	22.3	5 21	13 7.06	- 15 51.1	1.422	2.296	16.2	18.0
<b>508695</b>	2017 <i>UK</i> <sub>19</sub>		4 14.8 232°06	0°7/14.1	17		<b>334239</b>	2001 <i>TN</i> <sub>95</sub>		4 14.8 113°84	1°3/16.1	18	
3 12	13 57.77	- 9 28.5	2.264	3.098	11.7	23.4	3 12	13 57.83	- 16 22.5	2.141	2.958	12.9	22.2
3 22	13 52.19	- 9 1.6	2.168	3.084	8.7	23.2	3 22	13 52.07	- 15 52.1	2.077	2.979	9.7	22.0
4 1	13 44.76	- 8 25.9	2.097	3.069	5.2	23.0	4 1	13 44.54	- 15 7.9	2.036	3.000	6.1	21.8
4 11	13 36.09	- 7 44.7	2.054	3.054	1.4	22.7	4 11	13 36.00	- 14 13.1	2.024	3.020	2.4	21.6
4 21	13 26.96	- 7 2.1	2.040	3.038	2.8	22.8	4 21	13 27.29	- 13 12.3	2.040	3.040	2.3	21.6
5 1	13 18.25	- 6 22.9	2.056	3.021	6.7	23.0	5 1	13 19.29	- 12 11.3	2.085	3.058	5.9	21.9
5 11	13 10.76	- 5 51.6	2.098	3.003	10.3	23.2	5 11	13 12.72	- 11 15.7	2.158	3.077	9.3	22.1
5 21	13 5.08	- 5 31.3	2.164	2.985	13.4	23.3	5 21	13 8.04	- 10 29.7	2.254	3.094	12.3	22.4
<b>227445</b>	2005 <i>WR</i> <sub>45</sub>		4 14.8 28°89	1°1/13.9	17		<b>296435</b>	2009 <i>HH</i> <sub>48</sub>		4 14.8 247°01	4°5/ 9.6	17	
3 12	13 56.31	- 8 47.0	1.713	2.565	14.0	20.6	3 12	13 53.10	+ 3 11.7	2.386	3.243	10.4	20.9
3 22	13 51.45	- 8 20.7	1.641	2.566	10.3	20.4	3 22	13 48.55	+ 4 8.6	2.314	3.239	7.8	20.7
4 1	13 44.41	- 7 44.7	1.592	2.568	6.1	20.1	4 1	13 42.46	+ 5 5.0	2.269	3.234	5.4	20.6
4 11	13 35.99	- 7 3.5	1.569	2.569	1.7	19.8	4 11	13 35.44	+ 5 55.5	2.251	3.230	4.6	20.5
4 21	13 27.18	- 6 22.5	1.573	2.571	3.5	20.0	4 21	13 28.15	+ 6 35.3	2.261	3.225	6.0	20.6
5 1	13 19.06	- 5 47.5	1.604	2.572	7.9	20.2	5 1	13 21.34	+ 7 0.5	2.299	3.221	8.6	20.7
5 11	13 12.57	- 5 23.5	1.660	2.574	11.9	20.5	5 11	13 15.64	+ 7 9.1	2.361	3.216	11.2	20.9
5 21	13 8.27	- 5 13.3	1.737	2.576	15.4	20.7	5 21	13 11.49	+ 7 1.0	2.444	3.211	13.5	21.1
<b>365848</b>	2011 <i>UD</i> <sub>94</sub>		4 14.8 151°59	0°8/15.4	18		<b>431843</b>	2008 <i>SB</i> <sub>53</sub>		4 14.8 127°59	0°5/14.3	17	
3 12	14 0.03	- 14 13.6	1.911	2.737	13.9	22.3	3 12	13 55.49	- 10 41.5	2.268	3.104	11.6	22.4
3 22	13 53.97	- 13 47.1	1.838	2.747	10.4	22.1	3 22	13 50.30	- 10 4.0	2.199	3.116	8.5	22.3
4 1	13 45.81	- 13 6.9	1.788	2.756	6.4	21.9	4 1	13 43.50	- 9 17.3	2.155	3.128	5.0	22.1
4 11	13 36.36	- 12 16.4	1.766	2.765	2.1	21.6	4 11	13 35.72	- 8 25.2	2.139	3.139	1.3	21.8
4 21	13 26.60	- 11 20.4	1.773	2.773	2.6	21.6	4 21	13 27.74	- 7 32.4	2.152	3.150	2.6	21.9
5 1	13 17.58	- 10 25.1	1.808	2.780	6.8	21.9	5 1	13 20.35	- 6 43.8	2.194	3.161	6.2	22.2
5 11	13 10.16	- 9 36.6	1.870	2.786	10.7	22.2	5 11	13 14.21	- 6 3.7	2.263	3.171	9.5	22.4
5 21	13 4.89	- 8 59.2	1.954	2.791	14.0	22.4	5 21	13 9.78	- 5 34.9	2.355	3.181	12.3	22.6
<b>378261</b>	2007 <i>DD</i> <sub>78</sub>		4 14.8 52°31	7°4/21.4	18								

EPHEMERIDES

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>275389</b>	2011 <i>BL</i> <sub>3</sub>		4 14.8	8 <sup>o</sup> 15	1 <sup>o</sup> 9/16.2	17	<b>118717</b>	2000 <i>QK</i> <sub>48</sub>		4 14.8	115 <sup>o</sup> 17	0 <sup>o</sup> 5/14.3	18
3 12	13 54.74	-15 25.0	1.381	2.232	16.8	20.6	3 12	13 56.19	-10 46.9	1.885	2.728	13.3	19.7
3 22	13 50.82	-15 24.7	1.312	2.232	12.8	20.4	3 22	13 51.15	-10 10.7	1.816	2.736	9.8	19.5
4 1	13 44.28	-15 7.0	1.264	2.234	8.2	20.1	4 1	13 44.15	-9 23.6	1.771	2.745	5.8	19.3
4 11	13 36.02	-14 34.4	1.239	2.237	3.4	19.8	4 11	13 35.95	-8 29.8	1.752	2.753	1.6	19.0
4 21	13 27.25	-13 51.9	1.239	2.240	3.2	19.8	4 21	13 27.47	-7 34.9	1.762	2.760	3.0	19.1
5 1	13 19.30	-13 6.7	1.265	2.244	8.0	20.1	5 1	13 19.66	-6 44.8	1.799	2.768	7.1	19.4
5 11	13 13.31	-12 26.6	1.313	2.249	12.6	20.4	5 11	13 13.37	-6 4.8	1.862	2.775	10.9	19.6
5 21	13 9.95	-11 57.5	1.381	2.255	16.6	20.7	5 21	13 9.08	-5 38.2	1.947	2.782	14.1	19.9
<b>93353</b>	2000 <i>SF</i> <sub>253</sub>		4 14.8	115 <sup>o</sup> 46	1 <sup>o</sup> 2/13.7	17	<b>275309</b>	2010 <i>SU</i> <sub>28</sub>		4 14.8	246 <sup>o</sup> 98	0 <sup>o</sup> 3/15.0	17
3 12	13 55.91	-8 52.7	1.855	2.704	13.2	20.1	3 12	13 58.36	-12 31.2	1.827	2.664	14.0	21.5
3 22	13 50.98	-8 14.0	1.785	2.710	9.7	19.9	3 22	13 53.11	-12 7.7	1.733	2.649	10.5	21.3
4 1	13 44.06	-7 25.8	1.740	2.715	5.7	19.6	4 1	13 45.55	-11 30.9	1.662	2.633	6.4	21.0
4 11	13 35.91	-6 32.7	1.720	2.720	1.7	19.4	4 11	13 36.41	-10 43.8	1.617	2.617	1.9	20.7
4 21	13 27.46	-5 40.5	1.729	2.726	3.4	19.5	4 21	13 26.64	-9 51.3	1.600	2.600	2.9	20.7
5 1	13 19.67	-4 55.0	1.765	2.731	7.5	19.8	5 1	13 17.39	-8 59.6	1.611	2.583	7.5	20.9
5 11	13 13.40	-4 21.1	1.826	2.735	11.3	20.0	5 11	13 9.66	-8 15.3	1.647	2.565	11.8	21.1
5 21	13 9.15	-4 1.6	1.909	2.740	14.5	20.2	5 21	13 4.15	-7 43.2	1.706	2.546	15.5	21.3
<b>346176</b>	2007 <i>WA</i> <sub>2</sub>		4 14.8	167 <sup>o</sup> 47	3 <sup>o</sup> 6/11.2	17	<b>333436</b>	2003 <i>SE</i> <sub>167</sub>		4 14.8	217 <sup>o</sup> 14	2 <sup>o</sup> 0/17.0	18
3 12	13 56.23	+ 1 0.3	2.373	3.224	10.6	21.4	3 12	13 55.50	-18 47.3	2.526	3.329	11.6	21.1
3 22	13 50.81	+ 1 34.4	2.303	3.226	7.9	21.2	3 22	13 50.40	-18 28.7	2.429	3.321	9.0	20.9
4 1	13 43.79	+ 2 8.7	2.258	3.228	5.1	21.0	4 1	13 43.65	-17 56.5	2.356	3.312	6.0	20.7
4 11	13 35.82	+ 2 38.6	2.242	3.230	3.6	20.9	4 11	13 35.83	-17 12.1	2.310	3.302	3.0	20.5
4 21	13 27.60	+ 3 0.2	2.255	3.231	5.0	21.0	4 21	13 27.64	-16 18.7	2.294	3.292	2.5	20.5
5 1	13 19.91	+ 3 10.2	2.295	3.232	7.8	21.2	5 1	13 19.86	-15 20.9	2.308	3.282	5.4	20.6
5 11	13 13.41	+ 3 6.8	2.361	3.233	10.6	21.4	5 11	13 13.21	-14 23.9	2.349	3.270	8.5	20.8
5 21	13 8.55	+ 2 49.8	2.450	3.234	13.0	21.6	5 21	13 8.19	-13 32.6	2.414	3.259	11.4	21.0
<b>112646</b>	2002 <i>PJ</i> <sub>83</sub>		4 14.8	245 <sup>o</sup> 78	0 <sup>o</sup> 6/15.3	18	<b>416125</b>	2002 <i>QC</i> <sub>75</sub>		4 14.8	159 <sup>o</sup> 16	0 <sup>o</sup> 6/14.3	16
3 12	13 58.47	-13 8.3	1.899	2.732	13.7	20.4	3 12	13 58.95	-9 59.4	2.060	2.896	12.6	22.4
3 22	13 53.12	-12 50.5	1.804	2.717	10.3	20.1	3 22	13 53.06	-9 31.5	1.986	2.903	9.3	22.2
4 1	13 45.52	-12 19.7	1.731	2.701	6.4	19.8	4 1	13 45.25	-8 54.2	1.936	2.909	5.5	22.0
4 11	13 36.37	-11 38.5	1.685	2.685	2.0	19.5	4 11	13 36.27	-8 11.4	1.914	2.915	1.5	21.7
4 21	13 26.62	-10 51.3	1.668	2.668	2.7	19.5	4 21	13 26.98	-7 27.5	1.922	2.920	2.9	21.8
5 1	13 17.35	-10 3.7	1.678	2.650	7.2	19.8	5 1	13 18.34	-6 47.7	1.958	2.924	6.8	22.1
5 11	13 9.57	-9 22.1	1.714	2.632	11.4	20.0	5 11	13 11.13	-6 16.5	2.020	2.928	10.4	22.3
5 21	13 3.94	-8 51.1	1.773	2.614	15.0	20.2	5 21	13 5.89	-5 57.0	2.106	2.931	13.5	22.5
<b>502651</b>	2015 <i>CK</i> <sub>43</sub>		4 14.8	268 <sup>o</sup> 56	6 <sup>o</sup> 2/19.6	18	<b>382915</b>	2004 <i>RJ</i> <sub>200</sub>		4 14.8	221 <sup>o</sup> 13	1 <sup>o</sup> 4/16.1	17
3 12	13 59.56	-26 50.2	2.032	2.804	15.1	21.1	3 12	13 59.55	-14 40.3	2.308	3.123	12.1	21.3
3 22	13 54.12	-27 30.6	1.927	2.786	12.5	20.9	3 22	13 53.54	-14 46.9	2.213	3.115	9.3	21.1
4 1	13 46.25	-27 52.5	1.844	2.767	9.7	20.7	4 1	13 45.61	-14 43.1	2.142	3.105	5.9	20.9
4 11	13 36.61	-27 53.6	1.786	2.749	7.2	20.5	4 11	13 36.40	-14 30.1	2.099	3.096	2.4	20.6
4 21	13 26.17	-27 33.6	1.754	2.730	6.2	20.4	4 21	13 26.71	-14 10.3	2.086	3.085	2.4	20.6
5 1	13 16.12	-26 55.6	1.749	2.711	7.9	20.4	5 1	13 17.46	-13 47.3	2.102	3.074	6.0	20.8
5 11	13 7.56	-26 6.1	1.769	2.692	10.8	20.6	5 11	13 9.47	-13 25.4	2.146	3.063	9.4	21.0
5 21	13 1.30	-25 12.5	1.812	2.672	13.9	20.7	5 21	13 3.33	-13 8.6	2.213	3.051	12.5	21.2
<b>129723</b>	1998 <i>VU</i> <sub>19</sub>		4 14.8	248 <sup>o</sup> 22	0 <sup>o</sup> 3/15.2	18	<b>419691</b>	2010 <i>UP</i> <sub>31</sub>		4 14.8	254 <sup>o</sup> 65	2 <sup>o</sup> 9/12.2	17
3 12	13 53.63	-15 18.4	2.387	3.210	11.6	20.1	3 12	13 57.66	-5 4.5	1.832	2.685	13.2	21.7
3 22	13 49.09	-14 14.3	2.284	3.193	8.7	19.9	3 22	13 52.55	-4 7.4	1.738	2.665	9.7	21.5
4 1	13 42.89	-12 54.9	2.207	3.175	5.3	19.7	4 1	13 45.21	-3 1.3	1.669	2.644	5.9	21.2
4 11	13 35.60	-11 24.0	2.158	3.158	1.6	19.4	4 11	13 36.32	-1 52.2	1.627	2.623	3.0	21.0
4 21	13 27.92	-9 47.0	2.140	3.139	2.3	19.4	4 21	13 26.82	-0 47.0	1.612	2.601	5.1	21.0
5 1	13 20.66	-8 10.8	2.151	3.121	6.1	19.6	5 1	13 17.80	+ 0 7.1	1.625	2.578	9.2	21.2
5 11	13 14.52	-6 42.0	2.190	3.101	9.6	19.8	5 11	13 10.24	+ 0 44.6	1.663	2.555	13.2	21.4
5 21	13 10.02	-5 25.8	2.254	3.082	12.7	20.0	5 21	13 4.84	+ 1 3.0	1.721	2.531	16.7	21.6
<b>242160</b>	2003 <i>FO</i> <sub>36</sub>		4 14.8	308 <sup>o</sup> 65	2 <sup>o</sup> 9/11.3	18	<b>326104</b>	2011 <i>CQ</i> <sub>32</sub>		4 14.8	190 <sup>o</sup> 25	1 <sup>o</sup> 5/16.8	18
3 12	13 50.37	-5 41.1	2.111	2.970	11.5	19.8	3 12	13 51.30	-17 19.2	3.192	3.998	9.3	21.4
3 22	13 46.79	-4 11.3	2.028	2.959	8.3	19.6	3 22	13 46.98	-17 7.8	3.103	3.997	7.1	21.3
4 1	13 41.54	-2 32.1	1.971	2.947	5.0	19.3	4 1	13 41.46	-16 46.9	3.039	3.997	4.7	21.1
4 11	13 35.23	-0 50.3	1.941	2.936	2.9	19.2	4 11	13 35.20	-16 17.9	3.003	3.996	2.2	21.0
4 21	13 28.57	+ 0 46.6	1.941	2.925	4.9	19.3	4 21	13 28.72	-15 43.3	2.997	3.996	1.9	20.9
5 1	13 22.38	+ 2 11.4	1.968	2.915	8.3	19.5	5 1	13 22.57	-15 5.9	3.021	3.995	4.3	21.1
5 11	13 17.37	+ 3 18.8	2.021	2.904	11.6	19.7	5 11	13 17.26	-14 29.4	3.073	3.994	6.8	21.3
5 21	13 14.03	+ 4 6.0	2.095	2.894	14.5	19.8	5 21	13 13.17	-13 56.7	3.150	3.993	9.0	21.4
<b>248421</b>	2005 <i>SK</i> <sub>215</sub>		4 14.8	205 <sup>o</sup> 55	1 <sup>o</sup> 7/17.1	18	<b>356461</b>	2011 <i>QK</i> <sub>2</sub>		4 14.8	251 <sup>o</sup> 25	3 <sup>o</sup> 9/17.4	17
3 12	13 52.12	-19 15.9	2.797	3.599	10.6	21.0	3 12	14 0.45	-19 44.4	1.531	2.352	17.0	21.4
3 22	13 47.72	-18 36.8	2.703	3.596	8.2	20.8	3 22	13 55.21	-19 58.0	1.440	2.339	13.4	21.1
4 1	13 41.95	-17 44.2	2.635	3.592	5.4	20.6	4 1	13 47.09	-19 51.9	1.370	2.327	9.3	20.8
4 11	13 35.32	-16 40.3	2.595	3.588	2.6	20.4	4 11	13 36.90	-19 25.8	1.324	2.313	5.2	20.6
4 21	13 28.44	-15 28.8	2.584	3.583	2.1	20.4	4 21	13 25.86	-18 42.3	1.303	2.300	4.3	20.5
5 1	13 21.97	-14 14.4	2.604	3.578	4.8	20.6	5 1	13 15.43	-17 47.7	1.309	2.286	8.2	20.7
5 11	13 16.49	-13 2.4	2.652	3.573	7.7	20.7	5 11	13 6.94	-16 50.9	1.339	2.271	12.8	20.9
5 21	13 12.41	-11 57.1	2.725	3.568	10.3	20.9	5 21	13 1.24	-16 0.2	1.390	2.257	17.0	

EPHEMERIDES

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>17390</b>	1981 <i>EZ</i> <sub>37</sub>	4 14.8 159°46'		0°8/13.9 18			<b>297417</b>	2000 <i>SD</i> <sub>42</sub>	4 14.8 163°17'		1°6/12.7 18		
3 12	13 52.55	- 9 55.7	2.442	3.282	10.8	19.4	3 12	13 52.67	- 6 7.6	2.918	3.759	9.2	21.4
3 22	13 48.14	- 9 9.7	2.364	3.284	7.9	19.2	3 22	13 47.98	- 5 19.6	2.842	3.764	6.7	21.2
4 1	13 42.25	- 8 15.1	2.312	3.286	4.6	19.0	4 1	13 42.06	- 4 26.6	2.794	3.768	3.9	21.1
4 11	13 35.44	- 7 15.8	2.287	3.288	1.3	18.8	4 11	13 35.39	- 3 32.4	2.775	3.773	1.7	20.9
4 21	13 28.39	- 6 16.3	2.292	3.289	2.7	18.9	4 21	13 28.54	- 2 40.7	2.786	3.777	3.0	21.0
5 1	13 21.81	- 5 21.6	2.326	3.291	6.0	19.1	5 1	13 22.10	- 1 55.4	2.827	3.780	5.7	21.2
5 11	13 16.33	- 4 35.9	2.387	3.292	9.2	19.3	5 11	13 16.57	- 1 19.5	2.895	3.783	8.3	21.4
5 21	13 12.37	- 4 2.0	2.471	3.293	11.9	19.5	5 21	13 12.34	- 0 54.9	2.986	3.785	10.6	21.5
<b>500710</b>	2012 <i>WX</i> <sub>33</sub>	4 14.8 100°43'		0°2/14.6 17			<b>516386</b>	2018 <i>DX</i>	4 14.8 226°45'		4°7/24.3 18		
3 12	13 53.88	-11 11.8	2.477	3.310	10.8	22.1	3 12	13 50.39	-37 13.1	4.658	5.326	8.5	20.9
3 22	13 49.03	-10 40.5	2.409	3.325	8.0	22.0	3 22	13 46.17	-37 30.9	4.556	5.323	7.4	20.8
4 1	13 42.72	-10 0.8	2.367	3.339	4.7	21.8	4 1	13 40.95	-37 36.5	4.477	5.320	6.3	20.7
4 11	13 35.56	- 9 15.9	2.353	3.354	1.3	21.6	4 11	13 35.09	-37 29.2	4.422	5.318	5.3	20.6
4 21	13 28.22	- 8 29.8	2.369	3.368	2.2	21.7	4 21	13 29.01	-37 9.5	4.394	5.315	4.8	20.5
5 1	13 21.41	- 7 46.7	2.413	3.382	5.6	21.9	5 1	13 23.17	-36 38.9	4.393	5.312	4.9	20.6
5 11	13 15.74	- 7 10.6	2.485	3.395	8.6	22.1	5 11	13 18.00	-35 59.9	4.419	5.309	5.6	20.6
5 21	13 11.60	- 6 44.1	2.580	3.409	11.2	22.3	5 21	13 13.82	-35 15.6	4.470	5.307	6.7	20.7
<b>46839</b>	1998 <i>QB</i> <sub>14</sub>	4 14.8 171°85'		1°1/13.7 16			<b>434856</b>	2006 <i>ST</i> <sub>204</sub>	4 14.8 214°56'		0°5/15.4 17		
3 12	13 57.16	- 9 27.7	2.203	3.040	11.9	20.2	3 12	13 55.16	-12 56.5	2.571	3.395	10.8	21.9
3 22	13 51.65	- 8 37.4	2.126	3.044	8.7	20.0	3 22	13 50.09	-12 42.6	2.481	3.389	8.1	21.7
4 1	13 44.39	- 7 37.5	2.074	3.048	5.1	19.8	4 1	13 43.45	-12 19.6	2.416	3.384	5.0	21.5
4 11	13 36.04	- 6 32.7	2.051	3.051	1.5	19.6	4 11	13 35.81	-11 49.6	2.379	3.378	1.6	21.2
4 21	13 27.42	- 5 28.2	2.057	3.053	3.1	19.7	4 21	13 27.85	-11 15.6	2.372	3.371	2.0	21.3
5 1	13 19.38	- 4 29.7	2.092	3.054	6.8	19.9	5 1	13 20.29	-10 41.6	2.394	3.365	5.4	21.5
5 11	13 12.64	- 3 42.0	2.154	3.054	10.2	20.1	5 11	13 13.81	-10 11.4	2.443	3.358	8.6	21.7
5 21	13 7.70	- 3 8.1	2.239	3.054	13.2	20.3	5 21	13 8.87	- 9 48.3	2.516	3.351	11.3	21.8
<b>290727</b>	2005 <i>UO</i> <sub>443</sub>	4 14.8 134°26'		2°1/16.7 15			<b>235324</b>	2003 <i>UM</i> <sub>185</sub>	4 14.8 123°26'		1°2/13.8 18		
3 12	13 59.73	-17 12.8	2.207	3.015	12.9	21.9	3 12	13 59.04	- 6 36.7	2.251	3.089	11.6	20.3
3 22	13 53.57	-17 13.6	2.133	3.029	9.8	21.7	3 22	13 52.95	- 6 27.7	2.181	3.100	8.5	20.1
4 1	13 45.54	-17 1.4	2.083	3.042	6.4	21.5	4 1	13 45.13	- 6 13.5	2.138	3.111	5.0	19.9
4 11	13 36.37	-16 37.6	2.061	3.054	3.1	21.3	4 11	13 36.27	- 5 57.4	2.122	3.122	1.6	19.7
4 21	13 26.91	-16 5.4	2.067	3.065	2.7	21.3	4 21	13 27.17	- 5 42.6	2.136	3.132	3.0	19.8
5 1	13 18.09	-15 28.9	2.103	3.077	5.9	21.5	5 1	13 18.67	- 5 32.4	2.179	3.142	6.5	20.1
5 11	13 10.69	-14 53.5	2.166	3.087	9.2	21.7	5 11	13 11.51	- 5 29.8	2.249	3.151	9.8	20.3
5 21	13 5.22	-14 23.3	2.253	3.097	12.1	21.9	5 21	13 6.15	- 5 36.3	2.342	3.161	12.6	20.5
<b>317564</b>	2002 <i>VG</i> <sub>72</sub>	4 14.8 259°41'		1°2/13.8 17			<b>184926</b>	2005 <i>UA</i> <sub>518</sub>	4 14.8 291°31'		4°4/10.0 18		
3 12	13 56.96	- 9 4.8	1.816	2.664	13.5	20.8	3 12	13 52.77	+ 1 38.7	2.249	3.109	10.8	20.4
3 22	13 52.06	- 8 25.6	1.723	2.647	10.1	20.5	3 22	13 48.50	+ 2 37.1	2.167	3.094	8.1	20.2
4 1	13 44.93	- 7 35.0	1.654	2.629	6.0	20.3	4 1	13 42.57	+ 3 36.8	2.111	3.080	5.5	20.0
4 11	13 36.26	- 6 37.6	1.611	2.611	1.8	19.9	4 11	13 35.58	+ 4 32.2	2.082	3.065	4.4	19.9
4 21	13 27.01	- 5 39.1	1.596	2.593	3.6	20.0	4 21	13 28.23	+ 5 17.8	2.081	3.051	6.0	20.0
5 1	13 18.25	- 4 46.5	1.609	2.574	8.1	20.3	5 1	13 21.31	+ 5 49.0	2.106	3.036	8.8	20.1
5 11	13 10.98	- 4 5.6	1.646	2.555	12.3	20.5	5 11	13 15.53	+ 6 3.0	2.156	3.021	11.7	20.3
5 21	13 5.87	- 3 40.3	1.705	2.536	16.0	20.6	5 21	13 11.40	+ 5 59.4	2.227	3.007	14.3	20.4
<b>495640</b>	2015 <i>XV</i> <sub>210</sub>	4 14.8 283°54'		1°6/15.9 17			<b>222493</b>	2001 <i>SC</i> <sub>249</sub>	4 14.8 336°94'		1°1/14.3 17		
3 12	13 58.24	-15 26.9	1.295	2.144	17.8	21.8	3 12	14 2.18	- 5 55.4	1.441	2.298	15.9	19.3
3 22	13 53.68	-15 13.1	1.221	2.140	13.6	21.6	3 22	13 56.38	- 6 22.0	1.363	2.290	11.9	19.0
4 1	13 46.17	-14 39.4	1.167	2.137	8.6	21.3	4 1	13 47.73	- 6 44.6	1.306	2.282	7.1	18.7
4 11	13 36.64	-13 48.7	1.136	2.134	3.3	20.9	4 11	13 37.10	- 7 5.6	1.275	2.276	2.1	18.4
4 21	13 26.44	-12 47.1	1.130	2.130	3.4	20.9	4 21	13 25.76	- 7 27.8	1.271	2.269	3.8	18.5
5 1	13 17.10	-11 43.7	1.149	2.127	8.8	21.2	5 1	13 15.15	- 7 54.1	1.292	2.264	9.0	18.7
5 11	13 9.93	-10 48.0	1.191	2.124	13.9	21.5	5 11	13 6.55	- 8 27.4	1.338	2.259	13.7	19.0
5 21	13 5.70	-10 6.9	1.252	2.121	18.3	21.8	5 21	13 0.75	- 9 9.3	1.404	2.255	17.7	19.2
<b>356287</b>	2010 <i>DG</i> <sub>43</sub>	4 14.8 311°47'		3°3/16.7 14 C			<b>173881</b>	2001 <i>UY</i> <sub>45</sub>	4 14.8 81°38'		2°0/12.8 18		
3 12	13 58.21	-17 1.9	1.251	2.097	18.5	20.9	3 12	13 55.11	- 5 17.9	2.250	3.098	11.2	20.3
3 22	13 53.95	-17 21.2	1.170	2.086	14.4	20.7	3 22	13 49.98	- 4 40.7	2.194	3.118	8.2	20.1
4 1	13 46.52	-17 21.1	1.109	2.075	9.6	20.3	4 1	13 43.31	- 3 58.9	2.162	3.138	4.8	20.0
4 11	13 36.79	-17 2.0	1.070	2.064	4.7	20.0	4 11	13 35.75	- 3 16.9	2.159	3.157	2.1	19.8
4 21	13 26.14	-16 27.1	1.055	2.054	4.2	20.0	4 21	13 28.05	- 2 38.9	2.185	3.176	3.6	20.0
5 1	13 16.23	-15 43.5	1.064	2.045	9.1	20.2	5 1	13 20.97	- 2 9.1	2.239	3.195	6.8	20.2
5 11	13 8.55	-15 0.6	1.096	2.035	14.3	20.4	5 11	13 15.15	- 1 50.3	2.319	3.214	9.8	20.4
5 21	13 4.00	-14 26.6	1.146	2.027	18.9	20.7	5 21	13 11.00	- 1 44.0	2.421	3.233	12.4	20.6
<b>167585</b>	2004 <i>BY</i> <sub>92</sub>	4 14.8 32°41'		2°0/12.8 17			<b>36220</b>	1999 <i>TW</i> <sub>231</sub>	4 14.8 253°50'		0°4/14.5 18		
3 12	13 51.66	- 8 27.9	1.776	2.635	13.2	19.6	3 12	13 56.84	- 8 50.2	2.509	3.342	10.7	19.0
3 22	13 47.90	- 7 16.9	1.713	2.643	9.6	19.4	3 22	13 51.36	- 8 49.5	2.418	3.334	7.9	18.8
4 1	13 42.25	- 5 55.3	1.674	2.652	5.6	19.2	4 1	13 44.24	- 8 42.8	2.353	3.325	4.7	18.6
4 11	13 35.46	- 4 29.8	1.661	2.661	2.1	19.0	4 11	13 36.05	- 8 32.5	2.315	3.316	1.3	18.3
4 21	13 28.43	- 3 7.9	1.676	2.670	4.1	19.1	4 21	13 27.49	- 8 21.1	2.308	3.306	2.4	18.4
5 1	13 22.08	- 1 56.9	1.718	2.679	8.1	19.4	5 1	13 19.33	- 8 11.7	2.330	3.297	5.8	18.6
5 11	13 17.17	- 1 2.4	1.785	2.689	11.8	19.6	5 11	13 12.26	- 8 7.2	2.379	3.288	9.0	18.8
5 21	13 14.20	- 0 26.9	1.872	2.700	14.9	19.8	5 21	13 6.81	- 8 10.0	2.452	3.278	11.8	18.9
<b>460363</b>	2014 <i>RK</i> <sub>61</sub>	4 14.8 198°26'		4°0/11.6 18			<b>96810</b>	1999 <i>RZ</i> <sub>156</sub>	4 14.8 203°36'		0°3/15.1 18		
3 12	13 59.60												

EPHEMERIDES

4 14.8

4 14.8

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>172738</b>	2004 <i>CF</i> <sub>12</sub>	4 14.8 358°24		5°3/ 9.4 17			<b>367946</b>	2012 <i>DP</i> <sub>24</sub>	4 14.8 208°48		3°4/11.5 17		
3 12	13 52.91	+ 2 52.6	1.936	2.802	12.0	19.5	3 12	13 56.68	- 2 59.4	1.980	2.834	12.3	20.9
3 22	13 48.72	+ 4 3.9	1.872	2.801	9.0	19.3	3 22	13 51.54	- 1 57.1	1.902	2.829	9.0	20.7
4 1	13 42.73	+ 5 15.1	1.833	2.801	6.3	19.1	4 1	13 44.46	- 0 49.3	1.850	2.824	5.6	20.4
4 11	13 35.63	+ 6 19.0	1.821	2.800	5.4	19.1	4 11	13 36.15	+ 0 17.9	1.825	2.818	3.4	20.3
4 21	13 28.24	+ 7 9.4	1.835	2.800	7.1	19.2	4 21	13 27.47	+ 1 18.0	1.828	2.812	5.3	20.4
5 1	13 21.45	+ 7 41.3	1.876	2.800	10.0	19.3	5 1	13 19.35	+ 2 5.2	1.860	2.805	8.8	20.6
5 11	13 16.01	+ 7 52.4	1.939	2.801	13.0	19.5	5 11	13 12.63	+ 2 35.5	1.915	2.797	12.2	20.8
5 21	13 12.41	+ 7 43.0	2.022	2.801	15.6	19.7	5 21	13 7.85	+ 2 47.3	1.992	2.789	15.2	21.0
<b>5856</b>	1994 <i>AL</i> <sub>2</sub>	4 14.8 160°68		8°2/ 6.5 18			<b>3845</b>	Neyachenko	4 14.8 99°16		0°7/13.9 18 R		
3 12	13 57.60	+12 41.5	2.018	2.868	12.3	17.6	3 12	13 52.14	- 9 43.5	2.716	3.552	9.9	17.5
3 22	13 52.06	+14 1.4	1.967	2.873	10.0	17.5	3 22	13 47.67	- 9 2.9	2.648	3.566	7.2	17.3
4 1	13 44.66	+15 12.3	1.940	2.876	8.5	17.4	4 1	13 41.91	- 8 15.2	2.606	3.579	4.2	17.1
4 11	13 36.16	+16 6.7	1.939	2.880	8.4	17.4	4 11	13 35.40	- 7 23.9	2.592	3.593	1.2	16.9
4 21	13 27.43	+16 38.9	1.964	2.883	9.8	17.5	4 21	13 28.73	- 6 32.9	2.609	3.606	2.4	17.0
5 1	13 19.40	+16 45.9	2.014	2.885	12.0	17.6	5 1	13 22.52	- 5 46.1	2.654	3.619	5.4	17.3
5 11	13 12.84	+16 28.0	2.086	2.888	14.4	17.8	5 11	13 17.31	- 5 7.3	2.727	3.632	8.2	17.5
5 21	13 8.21	+15 47.8	2.175	2.890	16.4	18.0	5 21	13 13.46	- 4 38.5	2.824	3.644	10.6	17.6
<b>438655</b>	2008 <i>DC</i> <sub>51</sub>	4 14.8 79°53		2°8/18.1 17			<b>255598</b>	Paullauterbur	4 14.8 267°95		3°9/11.4 17		
3 12	13 52.94	-21 39.4	2.331	3.131	12.5	21.3	3 12	13 56.32	- 3 35.1	1.675	2.537	13.8	21.3
3 22	13 48.57	-21 14.0	2.253	3.140	9.8	21.1	3 22	13 51.75	- 2 23.5	1.586	2.517	10.2	21.1
4 1	13 42.56	-20 32.1	2.198	3.148	6.7	20.9	4 1	13 44.84	- 1 2.9	1.521	2.497	6.3	20.8
4 11	13 35.57	-19 35.7	2.170	3.157	3.8	20.7	4 11	13 36.32	+ 0 19.5	1.483	2.476	3.9	20.6
4 21	13 28.35	-18 28.8	2.170	3.165	3.0	20.7	4 21	13 27.17	+ 1 35.1	1.471	2.455	6.2	20.7
5 1	13 21.66	-17 16.7	2.198	3.174	5.4	20.9	5 1	13 18.54	+ 2 35.7	1.486	2.434	10.3	20.9
5 11	13 16.21	-16 5.7	2.254	3.183	8.5	21.1	5 11	13 11.47	+ 3 15.7	1.524	2.412	14.4	21.0
5 21	13 12.44	-15 1.0	2.334	3.191	11.3	21.3	5 21	13 6.67	+ 3 32.6	1.582	2.390	18.0	21.2
<b>62499</b>	2000 <i>SK</i> <sub>229</sub>	4 14.8 122°32		0°6/14.3 18			<b>213043</b>	1998 <i>KB</i> <sub>17</sub>	4 14.8 278°47		0°5/14.3 17		
3 12	13 57.44	-11 53.6	1.619	2.465	15.0	19.8	3 12	13 56.30	- 8 35.6	2.285	3.124	11.4	20.3
3 22	13 52.35	-11 0.5	1.553	2.475	11.1	19.6	3 22	13 51.09	- 8 29.7	2.199	3.118	8.5	20.1
4 1	13 45.01	- 9 52.7	1.510	2.485	6.6	19.4	4 1	13 44.15	- 8 17.3	2.139	3.112	5.0	19.8
4 11	13 36.28	- 8 36.2	1.494	2.494	1.7	19.1	4 11	13 36.07	- 8 1.1	2.107	3.107	1.4	19.6
4 21	13 27.24	- 7 18.2	1.505	2.503	3.3	19.2	4 21	13 27.63	- 7 44.3	2.103	3.101	2.6	19.7
5 1	13 19.04	- 6 6.9	1.542	2.512	8.0	19.5	5 1	13 19.65	- 7 30.3	2.128	3.096	6.3	19.9
5 11	13 12.59	- 5 9.2	1.605	2.520	12.2	19.8	5 11	13 12.88	- 7 22.5	2.180	3.090	9.7	20.1
5 21	13 8.46	- 4 29.0	1.689	2.528	15.8	20.0	5 21	13 7.83	- 7 23.2	2.255	3.085	12.6	20.3
<b>261536</b>	2005 <i>WW</i> <sub>115</sub>	4 14.8 122°18		7°0/ 7.6 18			<b>351975</b>	2006 <i>UR</i> <sub>59</sub>	4 14.8 201°51		1°8/16.9 18		
3 12	13 55.36	+ 6 58.9	1.885	2.747	12.4	20.3	3 12	13 54.94	-17 57.3	2.940	3.740	10.2	22.3
3 22	13 50.49	+ 8 32.1	1.833	2.755	9.7	20.2	3 22	13 49.79	-17 48.1	2.845	3.736	7.9	22.1
4 1	13 43.76	+10 1.3	1.807	2.762	7.5	20.0	4 1	13 43.25	-17 28.1	2.775	3.731	5.2	21.9
4 11	13 35.91	+11 18.0	1.807	2.770	7.1	20.0	4 11	13 35.80	-16 58.6	2.734	3.726	2.6	21.7
4 21	13 27.84	+12 15.3	1.834	2.777	8.8	20.1	4 21	13 28.07	-16 22.0	2.722	3.720	2.2	21.7
5 1	13 20.47	+12 48.7	1.885	2.784	11.4	20.3	5 1	13 20.69	-15 41.7	2.740	3.713	4.7	21.8
5 11	13 14.58	+12 57.1	1.959	2.790	14.1	20.5	5 11	13 14.27	-15 1.6	2.787	3.707	7.4	22.0
5 21	13 10.63	+12 42.2	2.052	2.797	16.5	20.7	5 21	13 9.25	-14 25.4	2.859	3.699	9.9	22.2
<b>250949</b>	2006 <i>BT</i> <sub>55</sub>	4 14.8 119°34		13°7/22.9 18			<b>191831</b>	2004 <i>VO</i> <sub>3</sub>	4 14.8 273°10		1°4/13.6 17		
3 12	14 12.93	-36 9.9	1.310	2.049	23.4	21.0	3 12	13 56.53	- 7 53.0	1.944	2.792	12.8	20.5
3 22	14 5.60	-38 13.1	1.246	2.062	20.5	20.9	3 22	13 51.65	- 7 22.2	1.848	2.772	9.5	20.3
4 1	13 53.89	-39 44.5	1.199	2.075	17.5	20.7	4 1	13 44.68	- 6 42.4	1.776	2.752	5.6	20.0
4 11	13 38.96	-40 33.8	1.172	2.088	15.0	20.6	4 11	13 36.27	- 5 57.6	1.731	2.731	1.8	19.7
4 21	13 22.80	-40 35.7	1.166	2.099	13.7	20.5	4 21	13 27.28	- 5 12.9	1.715	2.711	3.6	19.8
5 1	13 7.85	-39 53.6	1.182	2.110	14.3	20.6	5 1	13 18.72	- 4 34.0	1.725	2.690	7.8	20.0
5 11	12 56.18	-38 40.4	1.220	2.121	16.3	20.7	5 11	13 11.53	- 4 5.9	1.761	2.668	11.8	20.2
5 21	12 48.85	-37 12.1	1.276	2.131	18.9	20.9	5 21	13 6.36	- 3 51.8	1.819	2.647	15.2	20.4
<b>88770</b>	2001 <i>ST</i> <sub>72</sub>	4 14.8 268°30		4°6/11.3 17			<b>150876</b>	2001 <i>SA</i> <sub>220</sub>	4 14.8 229°77		0°1/14.7 18		
3 12	13 58.40	- 1 54.2	1.525	2.390	14.7	19.6	3 12	13 47.54	-10 30.2	4.612	5.438	6.3	20.9
3 22	13 53.52	- 0 51.1	1.438	2.370	11.0	19.3	3 22	13 43.94	-10 13.4	4.522	5.434	4.7	20.8
4 1	13 46.01	+ 0 19.2	1.374	2.349	7.0	19.1	4 1	13 39.58	- 9 52.4	4.459	5.430	2.8	20.6
4 11	13 36.64	+ 1 28.9	1.336	2.328	4.6	18.9	4 11	13 34.75	- 9 28.8	4.426	5.426	0.8	20.4
4 21	13 26.54	+ 2 29.2	1.324	2.306	6.9	18.9	4 21	13 29.78	- 9 4.2	4.423	5.422	1.3	20.5
5 1	13 17.00	+ 3 12.2	1.337	2.284	11.3	19.1	5 1	13 25.02	- 8 40.6	4.450	5.418	3.3	20.6
5 11	13 9.22	+ 3 32.6	1.373	2.262	15.6	19.3	5 11	13 20.79	- 8 19.9	4.506	5.414	5.1	20.8
5 21	13 3.97	+ 3 29.0	1.427	2.239	19.5	19.5	5 21	13 17.32	- 8 3.5	4.588	5.410	6.8	20.9
<b>498656</b>	2008 <i>SC</i> <sub>107</sub>	4 14.8 208°91		0°1/14.9 18			<b>455748</b>	2005 <i>JO</i> <sub>112</sub>	4 14.8 290°97		15°0/23.5 18		
3 12	13 59.21	-10 40.1	2.713	3.533	10.4	22.9	3 12	13 56.47	+26 58.2	1.672	2.497	15.6	20.3
3 22	13 53.00	-10 34.7	2.617	3.526	7.7	22.7	3 22	13 52.23	+29 54.1	1.613	2.464	15.0	20.1
4 1	13 45.19	-10 22.3	2.548	3.517	4.7	22.5	4 1	13 45.33	+32 32.1	1.577	2.430	15.3	20.1
4 11	13 36.34	-10 4.9	2.508	3.508	1.3	22.2	4 11	13 36.50	+34 37.9	1.563	2.395	16.6	20.1
4 21	13 27.11	- 9 44.9	2.499	3.498	2.1	22.3	4 21	13 26.87	+36 1.4	1.569	2.360	18.6	20.1
5 1	13 18.28	- 9 25.6	2.520	3.488	5.5	22.5	5 1	13 17.75	+36 37.6	1.592	2.324	20.7	20.2
5 11	13 10.50	- 9 10.2	2.570	3.476	8.6	22.6	5 11	13 10.39	+36 27.9	1.627	2.288	22.8	20.2
5 21	13 4.28	- 9 1.3	2.644	3.464	11.3	22.8	5 21	13 5.61	+35 37.7	1.672	2.252	24.7	20.3
<b>41052</b>	1999 <i>VJ</i> <sub>16</sub>	4 14.8 224°26		1°8/16.7 18			<b>435898</b>	2009 <i>AT</i> <sub>44</sub>	4 14.8 132°87		4°8/ 9		

EPHEMERIDES

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>504043</b>	2005 <i>VJ</i> <sub>18</sub>		4 14.8 262°31	0°8/15.6	17		<b>90275</b>	2003 <i>DM</i>		4 14.8 323°08	2°6/12.2	17	
3 12	13 56.63	-15 0.2	2.025	2.852	13.2	23.1	3 12	13 52.43	-4 51.3	2.018	2.877	11.9	19.4
3 22	13 51.75	-14 26.7	1.919	2.828	10.0	22.8	3 22	13 48.42	-4 0.4	1.939	2.869	8.7	19.2
4 1	13 44.77	-13 37.6	1.837	2.804	6.3	22.5	4 1	13 42.62	-3 3.0	1.885	2.862	5.2	19.0
4 11	13 36.31	-12 35.8	1.781	2.780	2.2	22.2	4 11	13 35.68	-2 4.4	1.858	2.854	2.6	18.8
4 21	13 27.24	-11 25.9	1.754	2.754	2.5	22.2	4 21	13 28.39	-1 10.5	1.858	2.847	4.4	18.9
5 1	13 18.56	-10 14.4	1.756	2.729	6.9	22.4	5 1	13 21.60	-0 26.7	1.886	2.840	8.0	19.1
5 11	13 11.21	-9 8.4	1.784	2.702	11.0	22.6	5 11	13 16.08	+0 2.8	1.938	2.834	11.4	19.3
5 21	13 5.86	-8 13.6	1.834	2.675	14.6	22.8	5 21	13 12.35	+0 16.0	2.011	2.828	14.4	19.5
<b>490559</b>	2009 <i>WR</i> <sub>20</sub>		4 14.8 200°55	1°4/13.3	17		<b>29910</b>	Segre		4 14.8 171°07	4°1/10.2	18	
3 12	13 57.76	-6 34.4	2.706	3.539	10.0	22.9	3 12	13 54.73	+2 56.8	2.555	3.407	10.0	19.0
3 22	13 51.89	-6 2.3	2.617	3.534	7.4	22.7	3 22	13 49.67	+3 44.3	2.487	3.409	7.5	18.9
4 1	13 44.51	-5 24.7	2.555	3.528	4.4	22.5	4 1	13 43.17	+4 31.0	2.445	3.411	5.1	18.7
4 11	13 36.17	-4 44.8	2.522	3.521	1.6	22.2	4 11	13 35.81	+5 12.1	2.432	3.412	4.1	18.7
4 21	13 27.53	-4 6.4	2.520	3.513	3.0	22.3	4 21	13 28.22	+5 43.6	2.447	3.414	5.5	18.8
5 1	13 19.29	-3 33.3	2.547	3.504	6.1	22.5	5 1	13 21.12	+6 2.1	2.490	3.415	7.9	18.9
5 11	13 12.10	-3 8.6	2.603	3.494	9.0	22.7	5 11	13 15.09	+6 6.0	2.559	3.415	10.4	19.1
5 21	13 6.42	-2 54.5	2.682	3.484	11.6	22.9	5 21	13 10.56	+5 55.1	2.649	3.416	12.6	19.2
<b>50348</b>	2000 <i>CF</i> <sub>69</sub>		4 14.8 223°18	1°6/13.4	17		<b>141573</b>	2002 <i>GC</i> <sub>132</sub>		4 14.8 103°76	0°4/15.2	17	
3 12	13 57.58	-7 50.1	2.067	2.910	12.3	20.4	3 12	13 57.66	-12 8.0	1.930	2.766	13.4	20.3
3 22	13 52.23	-7 6.0	1.979	2.900	9.1	20.2	3 22	13 52.29	-11 56.5	1.859	2.774	10.0	20.1
4 1	13 44.92	-6 12.9	1.914	2.889	5.4	20.0	4 1	13 44.93	-11 34.3	1.811	2.782	6.0	19.9
4 11	13 36.32	-5 15.3	1.878	2.878	1.9	19.7	4 11	13 36.32	-11 4.2	1.790	2.790	1.8	19.6
4 21	13 27.28	-4 18.6	1.871	2.865	3.6	19.8	4 21	13 27.40	-10 30.3	1.798	2.798	2.5	19.7
5 1	13 18.73	-3 28.6	1.892	2.852	7.5	20.0	5 1	13 19.14	-9 57.6	1.833	2.805	6.7	20.0
5 11	13 11.52	-2 50.2	1.939	2.839	11.2	20.2	5 11	13 12.38	-9 31.0	1.894	2.813	10.4	20.2
5 21	13 6.24	-2 26.4	2.008	2.824	14.4	20.4	5 21	13 7.66	-9 13.8	1.977	2.820	13.6	20.4
<b>459307</b>	2012 <i>GZ</i> <sub>27</sub>		4 14.8 336°16	6°9/10.5	17		<b>270279</b>	2001 <i>VT</i> <sub>7</sub>		4 14.8 161°92	0°5/15.3	17	
3 12	14 1.68	+6 51.7	1.560	2.420	14.7	20.4	3 12	13 56.68	-13 50.9	2.050	2.879	12.9	21.4
3 22	13 55.64	+7 21.2	1.494	2.417	11.4	20.2	3 22	13 51.50	-13 19.0	1.972	2.883	9.7	21.2
4 1	13 47.08	+7 44.4	1.452	2.414	8.3	20.0	4 1	13 44.43	-12 34.2	1.918	2.887	5.9	21.0
4 11	13 36.93	+7 54.0	1.434	2.411	6.9	19.9	4 11	13 36.18	-11 40.0	1.892	2.891	1.9	20.7
4 21	13 26.37	+7 44.7	1.443	2.408	8.6	20.0	4 21	13 27.62	-10 41.1	1.894	2.894	2.4	20.8
5 1	13 16.65	+7 13.7	1.476	2.406	11.8	20.2	5 1	13 19.65	-9 43.5	1.924	2.897	6.4	21.0
5 11	13 8.83	+6 21.3	1.533	2.404	15.3	20.4	5 11	13 13.09	-8 52.8	1.982	2.899	10.1	21.2
5 21	13 3.54	+5 10.3	1.609	2.402	18.4	20.6	5 21	13 8.45	-8 13.3	2.062	2.901	13.3	21.5
<b>28264</b>	1999 <i>CJ</i> <sub>5</sub>		4 14.8 132°73	0°6/15.4	18		<b>102324</b>	1999 <i>TZ</i> <sub>106</sub>		4 14.8 235°69	5°4/21.5	18	
3 12	13 57.47	-12 16.9	2.367	3.192	11.5	18.6	3 12	13 54.62	-30 54.3	2.748	3.484	12.4	19.8
3 22	13 51.83	-12 14.1	2.290	3.200	8.6	18.4	3 22	13 49.86	-30 59.7	2.645	3.475	10.4	19.7
4 1	13 44.53	-12 2.6	2.239	3.208	5.3	18.2	4 1	13 43.43	-30 46.8	2.564	3.466	8.3	19.5
4 11	13 36.18	-11 44.4	2.216	3.215	1.7	18.0	4 11	13 35.91	-30 15.0	2.509	3.457	6.3	19.4
4 21	13 27.56	-11 22.5	2.222	3.222	2.2	18.0	4 21	13 28.01	-29 25.6	2.480	3.447	5.4	19.3
5 1	13 19.47	-11 0.5	2.257	3.228	5.7	18.3	5 1	13 20.51	-28 22.1	2.480	3.437	6.2	19.3
5 11	13 12.61	-10 42.2	2.319	3.235	8.9	18.5	5 11	13 14.14	-27 9.9	2.506	3.427	8.1	19.4
5 21	13 7.47	-10 30.5	2.406	3.241	11.7	18.7	5 21	13 9.40	-25 55.2	2.558	3.416	10.4	19.6
<b>349475</b>	2008 <i>DA</i> <sub>9</sub>		4 14.8 288°06	4°3/19.2	17		<b>15092</b>	Beegees		4 14.8 84°70	2°6/17.1	18	
3 12	13 55.53	-24 18.6	2.334	3.116	13.0	20.8	3 12	13 57.10	-17 56.4	2.183	2.994	12.9	16.9
3 22	13 50.68	-24 35.3	2.243	3.113	10.6	20.6	3 22	13 51.81	-18 9.1	2.101	2.997	10.0	16.7
4 1	13 43.98	-24 35.7	2.175	3.110	7.8	20.4	4 1	13 44.64	-18 8.7	2.043	3.000	6.7	16.5
4 11	13 36.06	-24 19.6	2.133	3.106	5.3	20.2	4 11	13 36.25	-17 56.4	2.012	3.003	3.5	16.3
4 21	13 27.72	-23 48.9	2.118	3.103	4.4	20.2	4 21	13 27.49	-17 34.3	2.009	3.006	3.0	16.3
5 1	13 19.83	-23 7.1	2.130	3.100	6.1	20.3	5 1	13 19.25	-17 6.4	2.034	3.009	5.9	16.5
5 11	13 13.21	-22 19.8	2.170	3.097	8.9	20.4	5 11	13 12.36	-16 37.6	2.086	3.011	9.2	16.7
5 21	13 8.41	-21 32.6	2.233	3.093	11.6	20.6	5 21	13 7.35	-16 12.4	2.161	3.014	12.2	16.9
<b>200678</b>	2001 <i>TB</i> <sub>179</sub>		4 14.8 311°26	3°0/18.0	17		<b>388765</b>	2007 <i>XC</i> <sub>54</sub>		4 14.8 57°06	3°0/17.9	17	
3 12	13 52.24	-21 49.2	2.032	2.840	13.8	19.5	3 12	13 55.11	-20 39.3	2.035	2.843	13.8	20.9
3 22	13 48.43	-21 19.4	1.939	2.830	10.9	19.3	3 22	13 50.32	-20 31.0	1.971	2.863	10.7	20.7
4 1	13 42.70	-20 29.8	1.868	2.821	7.5	19.1	4 1	13 43.68	-20 6.0	1.931	2.883	7.3	20.6
4 11	13 35.70	-19 22.2	1.823	2.812	4.2	18.8	4 11	13 35.96	-19 26.3	1.916	2.904	4.1	20.4
4 21	13 28.30	-18 1.0	1.806	2.803	3.2	18.7	4 21	13 28.04	-18 35.5	1.929	2.925	3.2	20.4
5 1	13 21.41	-16 32.9	1.817	2.794	6.2	18.9	5 1	13 20.81	-17 39.3	1.969	2.945	5.9	20.6
5 11	13 15.87	-15 5.8	1.853	2.786	9.8	19.1	5 11	13 15.03	-16 44.0	2.036	2.966	9.2	20.8
5 21	13 12.24	-13 46.6	1.914	2.778	13.1	19.3	5 21	13 11.16	-15 54.7	2.126	2.987	12.1	21.0
<b>286989</b>	2002 <i>QS</i> <sub>51</sub>		4 14.8 217°02	2°8/11.8	18		<b>163307</b>	2002 <i>JU</i> <sub>45</sub>		4 14.8 179°51	1°7/16.4	18	
3 12	13 53.98	-3 49.0	2.194	3.048	11.3	20.9	3 12	13 57.62	-17 36.3	1.832	2.654	14.6	19.9
3 22	13 49.39	-2 52.1	2.117	3.044	8.3	20.7	3 22	13 52.47	-17 1.3	1.751	2.655	11.1	19.6
4 1	13 43.12	-1 49.8	2.066	3.041	5.0	20.5	4 1	13 45.14	-16 8.3	1.693	2.656	7.2	19.4
4 11	13 35.80	-0 47.5	2.042	3.037	2.8	20.4	4 11	13 36.41	-15 0.3	1.660	2.656	3.0	19.1
4 21	13 28.18	+0 9.3	2.047	3.033	4.5	20.5	4 21	13 27.29	-13 42.7	1.656	2.656	2.7	19.1
5 1	13 21.05	+0 55.3	2.080	3.028	7.8	20.6	5 1	13 18.83	-12 23.1	1.680	2.656	6.9	19.4
5 11	13 15.14	+1 27.0	2.138	3.024	11.0	20.8	5 11	13 11.98	-11 9.3	1.730	2.654	10.9	19.6
5 21	13 10.92	+1 42.5	2.218	3.019	13.7	21.0	5 21	13 7.31	-10 7.4	1.803	2.653	14.4	19.8
<b>56272</b>	1999 <i>JS</i> <sub>103</sub>		4 14.8 252°89	5°1/ 9.1	18		<b>131585</b>	2001 <i>WW</i> <sub>7</sub>		4 14.8 102°11	3°3/12.3	18	
3 12	13 55.34	+6 11.7	2.504										

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4 14.8

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>382896</b>	2004 <i>QM</i> <sub>17</sub>		4 14.8 250°34	14.1°/29.1	18		<b>325103</b>	2008 <i>EQ</i> <sub>11</sub>		4 14.9 246°20	1°5/13.7	17	
3 12	14 9.01	-53 2.5	2.409	2.961	17.8	21.2	3 12	13 59.21	-6 58.2	1.874	2.720	13.2	20.4
3 22	14 2.30	-54 41.3	2.306	2.944	16.9	21.1	3 22	13 53.68	-6 36.3	1.785	2.707	9.8	20.2
4 1	13 51.90	-55 54.8	2.217	2.927	15.9	20.9	4 1	13 45.93	-6 6.9	1.720	2.694	5.9	19.9
4 11	13 38.54	-56 35.5	2.146	2.909	14.9	20.8	4 11	13 36.68	-5 33.8	1.682	2.681	2.0	19.6
4 21	13 23.62	-56 38.1	2.094	2.891	14.3	20.7	4 21	13 26.88	-5 1.9	1.672	2.667	3.7	19.7
5 1	13 9.08	-56 1.4	2.061	2.872	14.1	20.7	5 1	13 17.60	-4 36.3	1.689	2.653	8.0	19.9
5 11	12 56.79	-54 50.3	2.049	2.853	14.5	20.7	5 11	13 9.81	-4 21.5	1.733	2.639	12.0	20.1
5 21	12 47.99	-53 13.8	2.056	2.833	15.4	20.7	5 21	13 4.17	-4 19.9	1.797	2.624	15.5	20.3
<b>374360</b>	2005 <i>UN</i> <sub>212</sub>		4 14.8 298°82	6°2/21.9	17		<b>471465</b>	2011 <i>UM</i> <sub>285</sub>		4 14.9 250°14	1°8/13.2	16	
3 12	13 54.57	-33 7.6	1.779	2.534	17.5	20.3	3 12	13 56.36	-4 26.7	2.484	3.327	10.5	21.9
3 22	13 50.52	-32 11.1	1.681	2.526	14.7	20.1	3 22	13 51.01	-4 13.7	2.399	3.321	7.7	21.7
4 1	13 44.09	-30 39.4	1.603	2.519	11.4	19.8	4 1	13 44.08	-3 57.3	2.340	3.314	4.6	21.4
4 11	13 36.13	-28 32.3	1.549	2.512	8.1	19.6	4 11	13 36.12	-3 40.5	2.309	3.307	1.9	21.2
4 21	13 27.76	-25 55.2	1.522	2.505	6.2	19.5	4 21	13 27.83	-3 26.7	2.308	3.300	3.3	21.3
5 1	13 20.17	-22 58.9	1.524	2.498	7.6	19.5	5 1	13 19.97	-3 18.9	2.335	3.293	6.5	21.5
5 11	13 14.36	-19 58.1	1.553	2.491	10.9	19.7	5 11	13 13.22	-3 19.6	2.389	3.286	9.5	21.7
5 21	13 10.93	-17 6.6	1.609	2.484	14.6	19.9	5 21	13 8.05	-3 30.2	2.467	3.279	12.2	21.9
<b>307481</b>	2002 <i>XG</i> <sub>38</sub>		4 14.9 114°40	0°5/14.5	18		<b>506553</b>	2005 <i>QV</i> <sub>138</sub>		4 14.9 203°66	2°9/11.1	18	
3 12	14 2.02	-9 2.6	1.935	2.771	13.3	20.1	3 12	13 52.15	-2 24.9	2.602	3.454	9.8	21.8
3 22	13 55.38	-8 56.8	1.872	2.788	9.8	19.9	3 22	13 47.82	-1 22.1	2.526	3.452	7.1	21.6
4 1	13 46.71	-8 43.1	1.833	2.805	5.8	19.7	4 1	13 42.11	-0 15.4	2.476	3.449	4.5	21.4
4 11	13 36.83	-8 24.7	1.822	2.822	1.6	19.5	4 11	13 35.55	+0 50.0	2.455	3.446	2.9	21.3
4 21	13 26.71	-8 5.2	1.839	2.838	2.9	19.6	4 21	13 28.75	+1 49.5	2.463	3.443	4.4	21.4
5 1	13 17.37	-7 49.0	1.885	2.853	6.9	19.9	5 1	13 22.37	+2 38.6	2.500	3.440	7.1	21.6
5 11	13 9.64	-7 39.7	1.958	2.868	10.6	20.1	5 11	13 16.98	+3 14.1	2.562	3.436	9.8	21.8
5 21	13 4.06	-7 39.8	2.053	2.882	13.7	20.3	5 21	13 13.00	+3 34.7	2.647	3.432	12.2	21.9
<b>52612</b>	1997 <i>UH</i> <sub>5</sub>		4 14.9 13°33	10°0/22.8	18		<b>486694</b>	2013 <i>WZ</i>		4 14.9 112°28	15°1/9.1	17	
3 12	13 57.07	-33 1.8	1.489	2.256	19.9	18.0	3 12	14 16.51	+21 57.2	1.143	1.977	20.7	21.0
3 22	13 52.97	-34 2.8	1.415	2.258	17.1	17.8	3 22	14 7.10	+22 45.5	1.103	1.987	17.8	20.8
4 1	13 45.87	-34 34.7	1.360	2.261	14.1	17.6	4 1	13 54.03	+23 5.0	1.081	1.997	15.7	20.7
4 11	13 36.70	-34 33.1	1.324	2.265	11.4	17.5	4 11	13 38.89	+22 43.6	1.082	2.006	15.1	20.7
4 21	13 26.81	-33 57.7	1.311	2.270	10.0	17.4	4 21	13 23.71	+21 36.2	1.104	2.015	16.4	20.8
5 1	13 17.75	-32 53.4	1.321	2.275	10.7	17.5	5 1	13 10.42	+19 46.3	1.148	2.024	18.8	21.0
5 11	13 10.89	-31 30.7	1.353	2.281	13.0	17.6	5 11	13 0.38	+17 23.5	1.211	2.032	21.6	21.2
5 21	13 7.01	-30 1.2	1.406	2.288	15.9	17.8	5 21	12 54.09	+14 39.7	1.292	2.040	24.3	21.4
<b>414082</b>	2007 <i>TN</i> <sub>123</sub>		4 14.9 192°18	1°0/14.0	14 C		<b>10487</b>	Danpeterson		4 14.9 271°05	15°8/28.2	18	
3 12	13 59.08	-9 34.7	1.955	2.794	13.1	23.1	3 12	14 2.48	+29 41.3	1.618	2.426	16.8	16.6
3 22	13 53.39	-8 56.4	1.874	2.793	9.7	22.8	3 22	13 56.54	+31 36.4	1.570	2.408	15.9	16.5
4 1	13 45.64	-8 7.7	1.817	2.791	5.7	22.6	4 1	13 47.79	+33 6.3	1.542	2.390	15.8	16.4
4 11	13 36.56	-7 13.0	1.788	2.788	1.6	22.3	4 11	13 37.22	+33 59.3	1.534	2.372	16.6	16.4
4 21	13 27.08	-6 17.6	1.787	2.784	3.2	22.4	4 21	13 26.14	+34 8.2	1.546	2.353	18.1	16.4
5 1	13 18.21	-5 27.7	1.815	2.780	7.4	22.7	5 1	13 15.99	+33 31.3	1.574	2.334	19.9	16.5
5 11	13 10.82	-4 48.3	1.869	2.775	11.3	22.9	5 11	13 7.96	+32 12.8	1.618	2.315	21.8	16.6
5 21	13 5.48	-4 22.7	1.945	2.769	14.6	23.1	5 21	13 2.71	+30 19.9	1.674	2.296	23.5	16.7
<b>420234</b>	2011 <i>HJ</i> <sub>60</sub>		4 14.9 29°16	2°5/12.6	18		<b>164235</b>	2004 <i>TQ</i> <sub>15</sub>		4 14.9 189°94	0°1/14.9	18	
3 12	13 49.95	-12 8.8	1.053	1.933	18.6	19.8	3 12	14 1.85	-11 9.9	1.799	2.634	14.2	20.5
3 22	13 47.32	-9 55.8	1.024	1.965	13.3	19.6	3 22	13 55.65	-11 0.9	1.718	2.633	10.6	20.3
4 1	13 42.10	-7 25.0	1.016	1.998	7.5	19.4	4 1	13 47.11	-10 41.0	1.661	2.632	6.5	20.0
4 11	13 35.52	-4 51.2	1.032	2.032	2.7	19.2	4 11	13 37.02	-10 13.1	1.630	2.630	1.9	19.7
4 21	13 28.91	-2 30.4	1.073	2.068	5.5	19.5	4 21	13 26.44	-9 41.5	1.628	2.627	2.9	19.8
5 1	13 23.54	-0 35.2	1.138	2.105	10.6	19.9	5 1	13 16.52	-9 11.4	1.654	2.624	7.4	20.0
5 11	13 20.26	+0 47.3	1.225	2.142	15.0	20.2	5 11	13 8.28	-8 48.1	1.705	2.620	11.6	20.3
5 21	13 19.43	+1 36.8	1.330	2.181	18.5	20.6	5 21	13 2.35	-8 35.2	1.779	2.616	15.2	20.5
<b>436638</b>	2011 <i>QP</i> <sub>17</sub>		4 14.9 253°23	1°7/16.6	17		<b>439140</b>	2011 <i>UP</i> <sub>3</sub>		4 14.9 212°56	0°2/14.7	18	
3 12	13 55.69	-16 32.1	2.402	3.217	11.8	21.7	3 12	13 55.58	-10 13.1	2.907	3.733	9.6	22.0
3 22	13 50.71	-16 28.8	2.305	3.205	9.0	21.4	3 22	13 50.27	-10 0.5	2.815	3.726	7.1	21.8
4 1	13 43.99	-16 13.6	2.232	3.192	5.9	21.2	4 1	13 43.58	-9 41.3	2.748	3.719	4.3	21.6
4 11	13 36.11	-15 48.0	2.186	3.180	2.7	21.0	4 11	13 35.99	-9 17.8	2.711	3.711	1.2	21.4
4 21	13 27.79	-15 14.6	2.168	3.167	2.4	21.0	4 21	13 28.11	-8 52.7	2.704	3.703	2.0	21.4
5 1	13 19.86	-14 37.5	2.180	3.155	5.6	21.1	5 1	13 20.57	-8 29.0	2.727	3.694	5.1	21.6
5 11	13 13.08	-14 1.3	2.219	3.141	8.9	21.3	5 11	13 13.98	-8 9.8	2.778	3.685	8.0	21.8
5 21	13 7.99	-13 30.2	2.282	3.128	11.9	21.5	5 21	13 8.75	-7 57.4	2.854	3.676	10.5	22.0
<b>331109</b>	2010 <i>NR</i> <sub>69</sub>		4 14.9 277°57	3°2/16.7	17		<b>365156</b>	2009 <i>DW</i> <sub>101</sub>		4 14.9 69°50	3°5/12.6	18	
3 12	14 2.63	-16 50.6	1.652	2.474	15.9	20.6	3 12	14 0.53	-3 42.8	1.355	2.221	16.2	21.2
3 22	13 56.90	-17 23.1	1.547	2.449	12.5	20.3	3 22	13 54.82	-3 2.8	1.308	2.240	11.8	21.0
4 1	13 48.28	-17 42.0	1.464	2.424	8.4	20.0	4 1	13 46.56	-2 17.6	1.283	2.260	7.1	20.7
4 11	13 37.45	-17 46.6	1.407	2.399	4.4	19.7	4 11	13 36.82	-1 34.4	1.283	2.279	3.6	20.6
4 21	13 25.53	-17 37.8	1.376	2.373	3.9	19.6	4 21	13 26.91	-1 0.0	1.308	2.299	5.6	20.7
5 1	13 13.94	-17 19.4	1.372	2.347	8.1	19.8	5 1	13 18.10	-0 40.3	1.359	2.318	10.0	21.0
5 11	13 4.07	-16 57.7	1.393	2.321	12.8	20.0	5 11	13 11.41	-0 38.2	1.433	2.338	14.1	21.3
5 21	12 56.89	-16 39.2	1.436	2.294	17.0	20.2	5 21	13 7.35	-0 54.1	1.526	2.357	17.5	21.6
<b>500776</b>	2013 <i>CV</i> <sub>192</sub>		4 14.9 349°39	3°0/12.9	17		<b>399664</b>	2004 <i>RC</i> <sub>236</sub>		4 14.9 234°29	0°4/15.2	17	
3 12													

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>2423</b>	lbarruri		4 14.9 244°68	2°2/16.7	18	A	<b>430198</b>	2013 TU <sub>131</sub>		4 14.9 132°18	3°3/11.9	17	
3 12	14 0.44	-17 58.8	1.816	2.632	14.9	17.5	3 12	13 57.20	-1 49.2	1.985	2.840	12.3	21.0
3 22	13 54.90	-17 41.5	1.712	2.612	11.6	17.3	3 22	13 51.87	-1 9.6	1.918	2.845	9.0	20.8
4 1	13 46.85	-17 5.8	1.631	2.592	7.7	17.0	4 1	13 44.66	-0 27.2	1.876	2.850	5.6	20.6
4 11	13 37.01	-16 13.1	1.576	2.570	3.5	16.7	4 11	13 36.31	+0 12.7	1.862	2.855	3.3	20.5
4 21	13 26.41	-15 7.2	1.548	2.548	3.1	16.6	4 21	13 27.69	+0 45.0	1.875	2.859	5.0	20.6
5 1	13 16.25	-13 55.0	1.549	2.524	7.4	16.8	5 1	13 19.70	+1 5.4	1.916	2.864	8.4	20.8
5 11	13 7.69	-12 44.8	1.576	2.500	11.8	17.0	5 11	13 13.14	+1 11.2	1.981	2.868	11.6	21.0
5 21	13 1.50	-11 43.9	1.625	2.474	15.8	17.2	5 21	13 8.50	+1 1.8	2.068	2.872	14.5	21.2
<b>224500</b>	2005 WB <sub>24</sub>		4 14.9 201°67	0°1/14.9	17		<b>435412</b>	2008 AR <sub>85</sub>		4 14.9 79°67	3°0/11.7	17	
3 12	13 57.60	-11 57.4	2.172	3.003	12.3	21.1	3 12	13 54.23	-2 7.8	2.250	3.104	11.0	21.4
3 22	13 52.17	-11 34.9	2.086	2.999	9.2	20.9	3 22	13 49.43	-1 20.1	2.192	3.118	8.0	21.2
4 1	13 44.88	-11 2.0	2.025	2.995	5.5	20.7	4 1	13 43.08	-0 29.8	2.159	3.133	5.0	21.1
4 11	13 36.38	-10 21.6	1.991	2.991	1.6	20.4	4 11	13 35.85	+0 18.0	2.155	3.147	3.0	21.0
4 21	13 27.50	-9 37.7	1.986	2.986	2.4	20.4	4 21	13 28.45	+0 58.7	2.179	3.162	4.6	21.1
5 1	13 19.12	-8 55.3	2.010	2.980	6.4	20.7	5 1	13 21.63	+1 28.4	2.231	3.176	7.5	21.3
5 11	13 12.05	-8 19.3	2.061	2.974	10.0	20.9	5 11	13 16.03	+1 44.4	2.308	3.190	10.4	21.5
5 21	13 6.84	-7 53.3	2.134	2.967	13.1	21.1	5 21	13 12.07	+1 45.9	2.407	3.205	12.9	21.7
<b>173082</b>	2006 UT <sub>265</sub>		4 14.9 279°23	2°2/16.9	18	R	<b>466165</b>	2012 JH <sub>10</sub>		4 14.9 354°03	0°7/15.4	17	
3 12	13 55.62	-17 44.1	2.280	3.092	12.4	20.1	3 12	13 53.30	-14 25.8	1.423	2.276	16.3	20.7
3 22	13 50.85	-17 42.1	2.173	3.071	9.6	19.9	3 22	13 49.78	-13 52.1	1.349	2.273	12.3	20.5
4 1	13 44.19	-17 26.8	2.091	3.049	6.4	19.6	4 1	13 43.77	-12 59.8	1.297	2.270	7.6	20.2
4 11	13 36.22	-16 59.3	2.035	3.028	3.2	19.4	4 11	13 36.12	-11 53.4	1.269	2.268	2.5	19.9
4 21	13 27.70	-16 22.0	2.008	3.006	2.7	19.3	4 21	13 27.97	-10 40.0	1.266	2.267	3.1	19.9
5 1	13 19.53	-15 39.3	2.009	2.984	5.9	19.5	5 1	13 20.57	-9 28.5	1.289	2.266	8.2	20.2
5 11	13 12.53	-14 56.4	2.036	2.961	9.5	19.6	5 11	13 15.00	-8 27.6	1.335	2.266	12.9	20.5
5 21	13 7.33	-14 18.3	2.088	2.939	12.7	19.8	5 21	13 11.92	-7 43.0	1.401	2.267	16.9	20.7
<b>17559</b>	1994 AR <sub>1</sub>		4 14.9 71°34	6°8/20.7	18		<b>185135</b>	2006 SP <sub>120</sub>		4 14.9 162°71	3°9/10.1	18	
3 12	13 58.39	-28 27.8	1.474	2.264	19.0	17.6	3 12	13 53.46	+1 34.5	2.600	3.452	9.8	20.9
3 22	13 53.59	-28 36.7	1.409	2.278	15.6	17.4	3 22	13 48.75	+2 33.7	2.533	3.456	7.2	20.7
4 1	13 46.02	-28 16.3	1.363	2.292	11.9	17.2	4 1	13 42.66	+3 33.3	2.492	3.460	4.9	20.6
4 11	13 36.73	-27 26.2	1.338	2.307	8.4	17.0	4 11	13 35.74	+4 28.3	2.480	3.463	3.9	20.5
4 21	13 27.02	-26 10.1	1.338	2.321	6.8	17.0	4 21	13 28.61	+5 14.4	2.497	3.465	5.2	20.6
5 1	13 18.34	-24 36.6	1.364	2.336	8.5	17.1	5 1	13 21.95	+5 47.7	2.542	3.468	7.7	20.8
5 11	13 11.80	-22 57.4	1.414	2.350	11.9	17.3	5 11	13 16.32	+6 6.2	2.612	3.470	10.2	20.9
5 21	13 8.03	-21 23.3	1.485	2.365	15.3	17.6	5 21	13 12.12	+6 9.3	2.704	3.472	12.4	21.1
<b>336210</b>	2008 SB <sub>44</sub>		4 14.9 288°95	0°2/14.7	17		<b>504238</b>	2006 UR <sub>244</sub>		4 14.9 178°07	0°1/14.7	17	
3 12	13 54.35	-12 14.3	1.824	2.668	13.6	21.2	3 12	13 54.03	-11 16.7	2.838	3.665	9.8	22.8
3 22	13 50.19	-11 36.7	1.730	2.651	10.2	21.0	3 22	13 49.12	-10 48.5	2.755	3.667	7.2	22.7
4 1	13 43.90	-10 45.0	1.660	2.634	6.2	20.7	4 1	13 42.88	-10 12.5	2.697	3.668	4.3	22.5
4 11	13 36.15	-9 43.2	1.616	2.617	1.7	20.3	4 11	13 35.81	-9 31.4	2.668	3.668	1.2	22.2
4 21	13 27.84	-8 36.7	1.600	2.599	2.9	20.4	4 21	13 28.50	-8 48.6	2.670	3.669	2.0	22.3
5 1	13 20.03	-7 32.8	1.611	2.582	7.5	20.6	5 1	13 21.59	-8 7.7	2.701	3.668	5.1	22.5
5 11	13 13.64	-6 38.1	1.646	2.565	11.7	20.8	5 11	13 15.65	-7 32.3	2.760	3.668	8.0	22.7
5 21	13 9.34	-5 57.6	1.704	2.548	15.4	21.0	5 21	13 11.07	-7 5.1	2.843	3.667	10.4	22.9
<b>464648</b>	2000 TR <sub>28</sub>		4 14.9 261°57	7°5/8.7	17		<b>34023</b>	2000 OH <sub>24</sub>		4 14.9 272°63	1°9/16.4	18	
3 12	14 6.00	+12 48.7	2.218	3.048	12.1	21.5	3 12	13 58.54	-16 14.3	1.978	2.799	13.7	19.4
3 22	13 58.45	+13 24.5	2.126	3.022	9.9	21.3	3 22	13 53.35	-16 11.7	1.870	2.773	10.6	19.1
4 1	13 48.72	+13 51.6	2.059	2.996	8.0	21.1	4 1	13 45.88	-15 55.0	1.784	2.747	6.9	18.9
4 11	13 37.50	+14 3.6	2.019	2.968	7.5	21.0	4 11	13 36.76	-15 25.2	1.724	2.720	3.1	18.6
4 21	13 25.72	+13 55.6	2.008	2.940	8.9	21.1	4 21	13 26.89	-14 45.3	1.693	2.692	2.8	18.5
5 1	13 14.42	+13 24.9	2.025	2.911	11.3	21.2	5 1	13 17.36	-14 0.2	1.690	2.665	6.9	18.7
5 11	13 4.55	+12 31.9	2.067	2.882	14.0	21.3	5 11	13 9.20	-13 16.2	1.712	2.636	11.0	18.9
5 21	12 56.76	+11 19.3	2.129	2.852	16.5	21.4	5 21	13 3.16	-12 39.0	1.758	2.608	14.8	19.0
<b>412687</b>	2014 OW <sub>234</sub>		4 14.9 176°87	0°9/15.6	16		<b>328954</b>	2010 VR <sub>120</sub>		4 14.9 50°60	5°0/11.5	18	
3 12	14 0.98	-13 48.5	1.962	2.786	13.6	22.3	3 12	13 58.87	+0 39.3	1.449	2.318	15.1	20.2
3 22	13 54.82	-13 33.9	1.881	2.789	10.3	22.1	3 22	13 53.54	+1 20.2	1.399	2.331	11.2	20.0
4 1	13 46.53	-13 6.8	1.824	2.791	6.4	21.8	4 1	13 45.80	+2 1.2	1.371	2.344	7.2	19.8
4 11	13 36.86	-12 29.6	1.794	2.792	2.2	21.6	4 11	13 36.65	+2 35.2	1.368	2.358	5.0	19.7
4 21	13 26.79	-11 46.6	1.793	2.793	2.5	21.6	4 21	13 27.27	+2 55.8	1.391	2.373	6.9	19.8
5 1	13 17.34	-11 3.0	1.820	2.793	6.7	21.8	5 1	13 18.87	+2 58.8	1.439	2.387	10.6	20.1
5 11	13 9.45	-10 24.5	1.875	2.791	10.6	22.1	5 11	13 12.40	+2 42.5	1.510	2.402	14.3	20.3
5 21	13 3.71	-9 55.6	1.952	2.790	14.0	22.3	5 21	13 8.40	+2 7.9	1.600	2.417	17.5	20.6
<b>514308</b>	2015 XG <sub>386</sub>		4 14.9 213°50	3°3/7.2	18		<b>212530</b>	2006 RR <sub>74</sub>		4 14.9 49°44	0°2/14.7	17	
3 12	13 46.28	+7 58.2	4.795	5.643	5.7	21.2	3 12	13 54.55	-10 57.5	2.017	2.859	12.6	20.7
3 22	13 43.03	+8 54.9	4.727	5.639	4.4	21.1	3 22	13 49.93	-10 34.1	1.949	2.869	9.3	20.5
4 1	13 39.07	+9 49.5	4.688	5.636	3.5	21.0	4 1	13 43.51	-10 1.0	1.905	2.878	5.6	20.2
4 11	13 34.70	+10 39.3	4.677	5.633	3.4	21.0	4 11	13 36.01	-9 21.7	1.888	2.888	1.5	20.0
4 21	13 30.21	+11 21.8	4.696	5.629	4.2	21.1	4 21	13 28.24	-8 40.7	1.899	2.898	2.6	20.1
5 1	13 25.92	+11 55.1	4.744	5.625	5.4	21.2	5 1	13 21.08	-8 3.0	1.937	2.908	6.5	20.3
5 11	13 22.12	+12 18.3	4.816	5.622	6.7	21.3	5 11	13 15.29	-7 33.1	2.002	2.919	10.0	20.6
5 21	13 19.04	+12 30.8	4.911	5.618	7.9	21.4	5 21	13 11.34	-7 14.0	2.088	2.929	13.1	20.8
<b>497607</b>	2006 OK <sub>4</sub>		4 14.9 135°62	2°0/17.4	17		<b>146144</b>	2000 SY <sub>60</sub>		4 14.9 213°37	1°1/13.5	18	
3 12	13 56.50	-18 47.7	3.107	3.898	9.9	22.5	3 12	1					

EPHEMERIDES

4 14.9

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>215804</b>	2004 <i>QG</i> <sub>8</sub>		4 14.9 279°78	1°9/13.1	17		<b>501494</b>	2014 <i>DV</i> <sub>1</sub>		4 14.9 64°15	4°4/10.1	17	R
3 12	13 57.27	- 3 55.7	2.441	3.284	10.7	20.1	3 12	13 53.51	+ 0 34.4	2.051	2.913	11.6	21.0
3 22	13 51.84	- 3 44.2	2.342	3.263	7.9	19.9	3 22	13 49.00	+ 1 48.8	2.004	2.932	8.5	20.8
4 1	13 44.69	- 3 29.5	2.268	3.242	4.8	19.6	4 1	13 42.88	+ 3 3.9	1.982	2.952	5.7	20.7
4 11	13 36.38	- 3 14.8	2.223	3.221	2.1	19.4	4 11	13 35.84	+ 4 13.0	1.987	2.971	4.4	20.6
4 21	13 27.61	- 3 3.2	2.208	3.199	3.5	19.5	4 21	13 28.67	+ 5 10.2	2.020	2.991	6.1	20.8
5 1	13 19.18	- 2 58.1	2.221	3.178	6.8	19.7	5 1	13 22.16	+ 5 51.0	2.080	3.011	8.9	21.0
5 11	13 11.84	- 3 2.0	2.261	3.156	10.0	19.8	5 11	13 16.96	+ 6 13.2	2.164	3.030	11.6	21.2
5 21	13 6.13	- 3 16.5	2.324	3.134	12.9	20.0	5 21	13 13.49	+ 6 16.7	2.269	3.050	14.1	21.4
<b>387254</b>	2012 <i>UD</i> <sub>88</sub>		4 14.9 149°13	0°2/15.1	17		<b>311596</b>	2006 <i>KY</i> <sub>40</sub>		4 14.9 83°01	3°8/12.4	18	
3 12	13 54.45	-12 26.3	2.384	3.214	11.3	21.5	3 12	14 0.79	- 2 8.4	1.436	2.300	15.5	21.2
3 22	13 49.66	-11 59.5	2.305	3.218	8.4	21.3	3 22	13 55.10	- 1 35.4	1.378	2.308	11.4	21.0
4 1	13 43.30	-11 22.8	2.252	3.222	5.1	21.1	4 1	13 46.84	- 0 58.8	1.341	2.317	7.1	20.8
4 11	13 35.95	-10 39.4	2.226	3.225	1.5	20.9	4 11	13 37.01	- 0 25.3	1.330	2.325	3.9	20.6
4 21	13 28.34	- 9 53.0	2.229	3.229	2.2	20.9	4 21	13 26.83	- 0 1.3	1.345	2.333	5.9	20.7
5 1	13 21.22	- 9 8.2	2.261	3.232	5.7	21.2	5 1	13 17.59	+ 0 8.1	1.385	2.341	10.1	21.0
5 11	13 15.26	- 8 29.5	2.320	3.235	9.0	21.4	5 11	13 10.37	+ 0 0.1	1.448	2.349	14.2	21.3
5 21	13 10.91	- 8 0.0	2.402	3.237	11.8	21.6	5 21	13 5.74	- 0 25.4	1.531	2.357	17.7	21.5
<b>100299</b>	1995 <i>FR</i> <sub>7</sub>		4 14.9 187°96	2°7/12.0	17		<b>465296</b>	2007 <i>TE</i> <sub>359</sub>		4 14.9 129°54	0°3/14.7	18	
3 12	13 57.01	- 3 30.6	2.351	3.197	10.9	20.5	3 12	14 2.31	- 9 57.1	1.700	2.540	14.7	21.5
3 22	13 51.54	- 2 39.4	2.274	3.196	8.0	20.3	3 22	13 55.97	- 9 50.5	1.632	2.550	10.9	21.3
4 1	13 44.42	- 1 43.6	2.222	3.195	4.9	20.1	4 1	13 47.29	- 9 34.3	1.588	2.560	6.5	21.0
4 11	13 36.28	- 0 48.2	2.199	3.193	2.7	19.9	4 11	13 37.13	- 9 11.5	1.570	2.570	1.8	20.8
4 21	13 27.84	+ 0 2.0	2.205	3.190	4.3	20.0	4 21	13 26.62	- 8 46.6	1.580	2.579	3.0	20.9
5 1	13 19.91	+ 0 42.3	2.240	3.187	7.4	20.2	5 1	13 16.92	- 8 24.6	1.617	2.588	7.6	21.2
5 11	13 13.17	+ 1 9.4	2.302	3.183	10.5	20.4	5 11	13 9.03	- 8 10.2	1.680	2.596	11.7	21.4
5 21	13 8.10	+ 1 21.9	2.386	3.178	13.1	20.6	5 21	13 3.53	- 8 6.4	1.765	2.604	15.2	21.7
<b>206187</b>	2002 <i>TB</i> <sub>361</sub>		4 14.9 145°59	0°6/14.3	17		<b>471897</b>	2013 <i>BC</i> <sub>8</sub>		4 14.9 145°61	5°3/21.0	18	
3 12	13 55.64	- 9 44.0	2.311	3.148	11.4	21.5	3 12	13 56.93	-29 29.4	2.729	3.471	12.3	21.9
3 22	13 50.56	- 9 17.7	2.236	3.153	8.4	21.3	3 22	13 51.54	-29 52.5	2.642	3.477	10.3	21.8
4 1	13 43.84	- 8 43.5	2.185	3.158	5.0	21.1	4 1	13 44.48	-29 58.9	2.577	3.482	8.1	21.6
4 11	13 36.12	- 8 4.5	2.163	3.163	1.4	20.9	4 11	13 36.33	-29 47.8	2.538	3.487	6.1	21.5
4 21	13 28.13	- 7 24.8	2.170	3.168	2.6	21.0	4 21	13 27.83	-29 20.2	2.526	3.493	5.3	21.5
5 1	13 20.66	- 6 48.8	2.205	3.172	6.1	21.2	5 1	13 19.79	-28 39.3	2.542	3.497	6.1	21.5
5 11	13 14.41	- 6 20.5	2.267	3.176	9.4	21.4	5 11	13 12.93	-27 49.9	2.585	3.502	8.1	21.7
5 21	13 9.82	- 6 2.4	2.353	3.180	12.2	21.6	5 21	13 7.74	-26 57.4	2.653	3.506	10.2	21.8
<b>328298</b>	2008 <i>GN</i> <sub>136</sub>		4 14.9 264°08	2°8/11.9	17		<b>112639</b>	2002 <i>PT</i> <sub>81</sub>		4 14.9 171°47	0°4/14.5	18	
3 12	13 54.24	- 6 53.5	1.834	2.691	13.0	21.2	3 12	13 58.01	-11 17.0	2.088	2.922	12.6	20.7
3 22	13 50.04	- 5 29.0	1.746	2.675	9.6	21.0	3 22	13 52.49	-10 37.9	2.010	2.926	9.3	20.5
4 1	13 43.79	- 4 52.2	1.682	2.659	5.7	20.7	4 1	13 45.08	- 9 47.8	1.957	2.929	5.6	20.2
4 11	13 36.15	- 2 10.2	1.646	2.642	2.8	20.5	4 11	13 36.50	- 8 50.8	1.932	2.932	1.5	20.0
4 21	13 28.03	- 0 31.4	1.637	2.626	5.0	20.6	4 21	13 27.60	- 7 51.8	1.935	2.934	2.7	20.1
5 1	13 20.40	+ 0 55.5	1.656	2.609	9.1	20.8	5 1	13 19.30	- 6 56.7	1.967	2.935	6.7	20.3
5 11	13 14.19	+ 2 3.9	1.700	2.591	13.0	21.0	5 11	13 12.39	- 6 10.7	2.026	2.935	10.3	20.5
5 21	13 10.00	+ 2 50.3	1.765	2.574	16.4	21.2	5 21	13 7.38	- 5 37.2	2.108	2.935	13.5	20.7
<b>334778</b>	2003 <i>SM</i> <sub>134</sub>		4 14.9 144°55	6°7/21.5	17		<b>299311</b>	2005 <i>QF</i> <sub>72</sub>		4 14.9 204°41	0°6/14.1	18	
3 12	14 0.64	-31 24.2	2.363	3.097	14.2	21.1	3 12	13 53.48	- 9 30.4	2.905	3.737	9.5	22.0
3 22	13 54.58	-32 4.3	2.279	3.104	12.1	21.0	3 22	13 48.74	- 8 58.2	2.817	3.732	7.0	21.8
4 1	13 46.43	-32 24.8	2.217	3.111	9.7	20.8	4 1	13 42.68	- 8 19.1	2.755	3.727	4.1	21.6
4 11	13 36.89	-32 23.7	2.178	3.118	7.6	20.7	4 11	13 35.81	- 7 36.1	2.722	3.722	1.2	21.4
4 21	13 26.89	-32 1.4	2.167	3.125	6.7	20.7	4 21	13 28.68	- 6 52.5	2.719	3.716	2.2	21.5
5 1	13 17.44	-31 21.2	2.182	3.131	7.5	20.7	5 1	13 21.91	- 6 12.1	2.746	3.710	5.3	21.7
5 11	13 9.46	-30 28.9	2.225	3.136	9.4	20.8	5 11	13 16.05	- 5 38.1	2.800	3.704	8.0	21.8
5 21	13 3.55	-29 31.3	2.291	3.142	11.7	21.0	5 21	13 11.51	- 5 13.1	2.879	3.697	10.5	22.0
<b>302054</b>	2000 <i>UU</i> <sub>1</sub>		4 14.9 239°79	1°6/13.1	17		<b>7257</b>	Yoshiya		4 14.9 123°57	2°0/16.6	18	
3 12	13 56.20	- 5 1.1	2.784	3.622	9.7	21.1	3 12	13 58.81	-17 24.5	1.660	2.486	15.6	17.4
3 22	13 50.83	- 4 40.0	2.688	3.607	7.1	20.9	3 22	13 53.51	-17 4.1	1.589	2.496	11.9	17.2
4 1	13 43.99	- 4 14.9	2.618	3.591	4.2	20.6	4 1	13 45.87	-16 25.6	1.541	2.505	7.7	17.0
4 11	13 36.18	- 3 48.8	2.577	3.575	1.7	20.4	4 11	13 36.75	-15 31.8	1.518	2.514	3.4	16.7
4 21	13 28.02	- 3 24.8	2.567	3.559	3.1	20.5	4 21	13 27.26	-14 28.2	1.522	2.522	2.9	16.7
5 1	13 20.20	- 3 6.3	2.586	3.542	6.0	20.7	5 1	13 18.58	-13 21.9	1.554	2.530	7.2	17.0
5 11	13 13.34	- 2 55.9	2.632	3.525	8.9	20.8	5 11	13 11.69	-12 21.0	1.610	2.538	11.3	17.3
5 21	13 7.89	- 2 55.3	2.703	3.507	11.5	21.0	5 21	13 7.18	-11 31.2	1.689	2.545	14.9	17.5
<b>135071</b>	2001 <i>PF</i> <sub>32</sub>		4 14.9 176°42	4°6/ 9.9	18		<b>3630</b>	Lubomír		4 14.9 289°54	3°5/17.6	18	
3 12	13 55.26	+ 3 45.9	2.396	3.249	10.5	20.5	3 12	13 57.38	-19 43.9	1.944	2.755	14.3	17.2
3 22	13 50.20	+ 4 37.5	2.328	3.250	7.9	20.4	3 22	13 52.56	-19 59.8	1.840	2.733	11.3	16.9
4 1	13 43.59	+ 5 27.8	2.287	3.251	5.5	20.2	4 1	13 45.45	-20 0.1	1.758	2.711	7.9	16.6
4 11	13 36.05	+ 6 11.6	2.273	3.251	4.6	20.1	4 11	13 36.70	-19 44.8	1.702	2.690	4.5	16.4
4 21	13 28.28	+ 6 44.3	2.288	3.252	6.0	20.2	4 21	13 27.21	-19 15.6	1.673	2.668	3.8	16.3
5 1	13 21.01	+ 7 2.5	2.331	3.252	8.5	20.4	5 1	13 18.10	-18 36.7	1.671	2.646	6.9	16.4
5 11	13 14.89	+ 7 4.4	2.398	3.252	11.1	20.5	5 11	13 10.41	-17 54.6	1.695	2.624	10.7	16.6
5 21	13 10.36	+ 6 50.3	2.486	3.251	13.4	20.7	5 21	13 4.89	-17 15.4	1.741	2.603	14.3	16.8
<b>379986</b>	2012 <i>TM</i> <sub>241</sub>		4 14.9 284°23	0°2/14.5</									

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4 14.9

4 14.9

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>411739</b>	2012 <i>BG</i> <sub>70</sub>		4 14.9 72°73	0°7/14.4	18		<b>139472</b>	2001 <i>ON</i> <sub>96</sub>		4 14.9 279°95	1°5/16.4	17	
3 12	13 58.98	- 9 57.7	1.478	2.331	15.8	21.1	3 12	13 55.71	-16 45.3	2.392	3.206	11.8	21.3
3 22	13 53.70	- 9 32.0	1.420	2.345	11.6	20.9	3 22	13 50.93	-16 22.6	2.273	3.173	9.1	21.1
4 1	13 45.98	- 8 54.5	1.384	2.359	6.9	20.7	4 1	13 44.30	-15 45.9	2.178	3.140	5.9	20.8
4 11	13 36.77	- 8 10.3	1.373	2.373	1.9	20.4	4 11	13 36.36	-14 56.9	2.110	3.106	2.6	20.6
4 21	13 27.27	- 7 25.6	1.388	2.387	3.5	20.5	4 21	13 27.83	-13 58.8	2.072	3.072	2.3	20.5
5 1	13 18.69	- 6 47.0	1.430	2.401	8.3	20.9	5 1	13 19.56	-12 56.6	2.062	3.036	5.9	20.7
5 11	13 12.06	- 6 20.1	1.496	2.415	12.6	21.1	5 11	13 12.36	-11 56.1	2.080	3.001	9.5	20.8
5 21	13 7.91	- 6 8.0	1.582	2.429	16.2	21.4	5 21	13 6.86	-11 2.5	2.123	2.965	12.8	21.0
<b>295974</b>	2008 <i>YL</i> <sub>35</sub>		4 14.9 302°41	17°6/24.6	17		<b>120290</b>	2004 <i>HB</i> <sub>62</sub>		4 14.9 301°13	3°9/12.0	18	
3 12	13 57.95	+29 36.4	1.375	2.201	18.3	20.0	3 12	13 57.23	- 1 56.3	1.582	2.447	14.3	19.5
3 22	13 53.63	+32 5.9	1.333	2.182	17.6	19.9	3 22	13 52.58	- 1 18.4	1.500	2.431	10.6	19.3
4 1	13 46.28	+34 7.6	1.311	2.163	17.8	19.9	4 1	13 45.49	- 0 36.0	1.440	2.416	6.7	19.0
4 11	13 36.92	+35 27.1	1.307	2.144	18.9	19.9	4 11	13 36.72	+ 0 4.5	1.406	2.400	4.0	18.8
4 21	13 26.96	+35 56.1	1.320	2.125	20.7	20.0	4 21	13 27.33	+ 0 36.5	1.398	2.385	6.0	18.9
5 1	13 17.96	+35 32.1	1.348	2.107	22.7	20.0	5 1	13 18.53	+ 0 54.1	1.416	2.370	10.1	19.1
5 11	13 11.20	+34 19.9	1.388	2.089	24.6	20.2	5 11	13 11.40	+ 0 53.5	1.457	2.356	14.3	19.3
5 21	13 7.40	+32 27.5	1.439	2.072	26.4	20.3	5 21	13 6.67	+ 0 33.7	1.517	2.341	17.9	19.5
<b>403313</b>	2009 <i>CS</i> <sub>29</sub>		4 14.9 139°93	0°9/14.1	18		<b>313709</b>	2003 <i>UU</i> <sub>74</sub>		4 14.9 196°82	2°8/17.4	16	
3 12	14 0.64	- 9 30.6	1.812	2.653	13.9	22.5	3 12	13 58.14	-19 52.4	1.805	2.618	15.1	21.4
3 22	13 54.57	- 8 55.7	1.746	2.665	10.2	22.3	3 22	13 53.03	-19 34.3	1.720	2.616	11.8	21.2
4 1	13 46.37	- 8 10.8	1.703	2.677	6.0	22.1	4 1	13 45.63	-18 56.8	1.657	2.614	7.9	20.9
4 11	13 36.87	- 7 20.2	1.688	2.688	1.7	21.8	4 11	13 36.73	-18 1.7	1.620	2.611	4.1	20.7
4 21	13 27.10	- 6 29.8	1.701	2.698	3.3	21.9	4 21	13 27.34	-16 53.4	1.610	2.608	3.3	20.6
5 1	13 18.10	- 5 45.4	1.742	2.708	7.6	22.2	5 1	13 18.60	-15 38.8	1.628	2.605	6.9	20.9
5 11	13 10.76	- 5 12.1	1.808	2.716	11.4	22.5	5 11	13 11.50	-14 26.3	1.672	2.601	10.9	21.1
5 21	13 5.62	- 4 52.7	1.897	2.725	14.7	22.7	5 21	13 6.67	-13 22.7	1.738	2.596	14.5	21.3
<b>172229</b>	2002 <i>RT</i> <sub>113</sub>		4 14.9 202°75	0°2/15.1	18		<b>307006</b>	2001 <i>XQ</i> <sub>1</sub>		4 14.9 156°49	4°9/19.7	18	
3 12	13 55.66	-12 6.4	2.296	3.127	11.7	20.8	3 12	14 6.44	-27 16.4	2.861	3.595	12.0	20.6
3 22	13 50.68	-11 44.2	2.212	3.125	8.7	20.6	3 22	13 58.47	-27 58.1	2.772	3.606	9.9	20.4
4 1	13 43.99	-11 12.1	2.152	3.122	5.3	20.4	4 1	13 48.62	-28 24.9	2.707	3.616	7.6	20.3
4 11	13 36.21	-10 32.9	2.119	3.119	1.6	20.1	4 11	13 37.55	-28 35.4	2.671	3.626	5.6	20.2
4 21	13 28.09	- 9 50.5	2.116	3.116	2.3	20.2	4 21	13 26.06	-28 29.7	2.665	3.634	4.9	20.1
5 1	13 20.45	- 9 9.5	2.142	3.112	6.0	20.4	5 1	13 15.05	-28 10.2	2.690	3.642	6.1	20.2
5 11	13 14.01	- 8 34.3	2.194	3.108	9.4	20.6	5 11	13 5.31	-27 41.3	2.744	3.649	8.1	20.4
5 21	13 9.28	- 8 8.4	2.269	3.104	12.4	20.8	5 21	12 57.40	-27 8.0	2.824	3.655	10.3	20.5
<b>72626</b>	2001 <i>FR</i> <sub>27</sub>		4 14.9 107°99	1°2/16.0	18		<b>208587</b>	2002 <i>CQ</i> <sub>114</sub>		4 14.9 343°34	2°6/13.3	17	
3 12	13 56.37	-15 3.4	2.030	2.857	13.1	19.2	3 12	13 55.95	- 6 11.7	1.198	2.074	17.1	19.4
3 22	13 51.36	-14 50.2	1.954	2.863	9.9	19.0	3 22	13 52.16	- 5 42.2	1.129	2.067	12.7	19.1
4 1	13 44.45	-14 24.1	1.902	2.869	6.3	18.8	4 1	13 45.44	- 5 2.5	1.081	2.061	7.6	18.8
4 11	13 36.34	-13 47.6	1.877	2.874	2.4	18.5	4 11	13 36.73	- 4 19.4	1.056	2.055	2.9	18.5
4 21	13 27.90	-13 4.7	1.880	2.880	2.4	18.5	4 21	13 27.36	- 3 40.5	1.054	2.050	5.3	18.6
5 1	13 20.07	-12 20.7	1.911	2.886	6.2	18.8	5 1	13 18.85	- 3 13.8	1.076	2.046	10.6	18.9
5 11	13 13.64	-11 40.7	1.968	2.891	9.8	19.0	5 11	13 12.47	- 3 4.9	1.120	2.043	15.6	19.1
5 21	13 9.15	-11 9.2	2.048	2.896	13.0	19.2	5 21	13 8.99	- 3 16.0	1.181	2.041	19.8	19.4
<b>34138</b>	Frasso Sabino		4 14.9 249°65	1°9/12.8	18		<b>377360</b>	2004 <i>RK</i> <sub>86</sub>		4 14.9 202°53	1°9/16.9	17	
3 12	13 54.42	- 8 49.0	2.042	2.889	12.3	19.0	3 12	13 57.14	-18 16.5	2.467	3.271	11.8	22.2
3 22	13 50.00	- 7 29.6	1.950	2.875	9.0	18.8	3 22	13 51.74	-17 59.3	2.373	3.266	9.1	22.0
4 1	13 43.70	- 5 57.7	1.883	2.859	5.3	18.5	4 1	13 44.64	-17 28.6	2.304	3.260	6.0	21.8
4 11	13 36.15	- 4 19.1	1.845	2.843	2.1	18.2	4 11	13 36.42	-16 46.0	2.262	3.254	2.9	21.5
4 21	13 28.16	- 2 41.3	1.835	2.827	4.0	18.3	4 21	13 27.84	-15 54.6	2.249	3.247	2.4	21.5
5 1	13 20.64	- 1 12.0	1.854	2.811	8.0	18.5	5 1	13 19.70	-14 59.2	2.266	3.240	5.5	21.7
5 11	13 14.40	+ 0 2.2	1.899	2.793	11.7	18.7	5 11	13 12.73	-14 4.9	2.310	3.231	8.7	21.9
5 21	13 10.01	+ 0 57.5	1.966	2.776	14.9	18.9	5 21	13 7.46	-13 16.6	2.380	3.223	11.6	22.0
<b>376385</b>	2012 <i>DU</i> <sub>43</sub>		4 14.9 36°40	4°0/15.5	18		<b>461678</b>	2005 <i>JU</i> <sub>129</sub>		4 14.9 258°17	1°0/14.0	17	
3 12	14 20.00	- 9 1.1	0.905	1.758	23.3	19.4	3 12	13 57.49	- 9 46.2	1.869	2.713	13.4	21.5
3 22	14 11.41	-11 23.3	0.843	1.764	17.9	19.1	3 22	13 52.55	- 9 5.8	1.772	2.693	10.0	21.2
4 1	13 57.75	-13 45.7	0.800	1.770	11.6	18.8	4 1	13 45.38	- 8 13.5	1.699	2.673	6.0	21.0
4 11	13 40.35	-15 59.9	0.781	1.777	5.2	18.4	4 11	13 36.69	- 7 13.4	1.653	2.653	1.7	20.6
4 21	13 21.58	-17 56.7	0.787	1.785	5.8	18.5	4 21	13 27.38	- 6 11.4	1.635	2.632	3.4	20.7
5 1	13 4.32	-19 31.6	0.818	1.793	12.0	18.9	5 1	13 18.52	- 5 14.1	1.644	2.610	7.9	20.9
5 11	12 50.95	-20 47.9	0.870	1.802	18.0	19.2	5 11	13 11.10	- 4 27.9	1.679	2.588	12.1	21.1
5 21	12 42.55	-21 52.6	0.941	1.811	22.9	19.5	5 21	13 5.79	- 3 56.9	1.736	2.566	15.8	21.3
<b>34519</b>	2000 <i>SJ</i> <sub>186</sub>		4 14.9 30°14	0°1/14.8	18		<b>199234</b>	2006 <i>AC</i> <sub>70</sub>		4 14.9 86°53	1°4/13.9	18	
3 12	13 53.77	-11 22.5	1.973	2.817	12.8	18.5	3 12	13 58.88	- 9 38.0	1.372	2.230	16.5	20.8
3 22	13 49.44	-10 58.1	1.903	2.823	9.5	18.3	3 22	13 53.80	- 8 52.8	1.314	2.242	12.1	20.6
4 1	13 43.29	-10 23.4	1.857	2.830	5.7	18.1	4 1	13 46.12	- 7 54.4	1.277	2.254	7.1	20.3
4 11	13 36.02	- 9 41.8	1.837	2.838	1.6	17.8	4 11	13 36.86	- 6 49.4	1.266	2.266	2.1	20.0
4 21	13 28.45	- 8 58.1	1.845	2.845	2.6	17.9	4 21	13 27.27	- 5 45.7	1.281	2.278	4.1	20.2
5 1	13 21.49	- 8 17.5	1.881	2.853	6.6	18.1	5 1	13 18.67	- 4 51.5	1.321	2.290	9.1	20.5
5 11	13 15.89	- 7 44.7	1.942	2.861	10.2	18.4	5 11	13 12.12	- 4 13.2	1.384	2.302	13.6	20.8
5 21	13 12.16	- 7 23.0	2.025	2.870	13.3	18.6	5 21	13 8.19	- 3 53.6	1.468	2.313	17.4	21.1
<b>379400</b>	2010 <i>AG</i> <sub>8</sub>		4 14.9 67°27	3°4/12.0	17		<b>155426</b>	1997 <i>GU</i> <sub>13</sub>					

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$		
<b>179419</b>	2002 AC <sub>30</sub>	4 14.9 85°07' 2.5/12.1 18						<b>47065</b>	1998 XC <sub>55</sub>	4 14.9 180°85' 1.5/13.5 18					
3 12	13 53.32	- 4 16.0	2.332	3.184	10.8	20.5	3 12	13 55.40	- 7 19.1	2.086	2.934	12.0	18.8		
3 22	13 48.78	- 3 22.9	2.271	3.197	7.8	20.4	3 22	13 50.59	- 6 46.5	2.010	2.934	8.8	18.6		
4 1	13 42.75	- 2 25.5	2.236	3.210	4.7	20.2	4 1	13 43.99	- 6 6.6	1.959	2.934	5.2	18.3		
4 11	13 35.86	- 1 28.6	2.228	3.223	2.5	20.1	4 11	13 36.26	- 5 23.8	1.934	2.934	1.8	18.1		
4 21	13 28.80	- 0 37.1	2.249	3.236	4.0	20.2	4 21	13 28.21	- 4 42.6	1.939	2.934	3.4	18.2		
5 1	13 22.27	+ 0 4.6	2.299	3.249	7.0	20.4	5 1	13 20.70	- 4 7.9	1.971	2.934	7.1	18.4		
5 11	13 16.90	+ 0 33.4	2.374	3.262	9.9	20.6	5 11	13 14.50	- 3 43.7	2.028	2.934	10.5	18.6		
5 21	13 13.10	+ 0 47.9	2.472	3.275	12.4	20.8	5 21	13 10.10	- 3 32.3	2.108	2.933	13.5	18.8		
<b>501813</b>	2014 WH <sub>56</sub>	4 14.9 51°76' 1.9/16.4 18						<b>507508</b>	2012 VY <sub>12</sub>	4 14.9 269°33' 1.4/13.7 17					
3 12	13 57.14	-11 18.9	1.491	2.330	16.4	20.7	3 12	13 56.51	- 7 26.6	2.131	2.976	11.9	22.2		
3 22	13 52.43	-16 6.8	1.430	2.344	12.5	20.5	3 22	13 51.55	- 6 59.6	2.035	2.957	8.8	22.0		
4 1	13 45.28	-15 37.0	1.390	2.357	8.0	20.2	4 1	13 44.68	- 6 24.9	1.963	2.937	5.3	21.7		
4 11	13 36.62	-14 52.6	1.375	2.372	3.3	20.0	4 11	13 36.50	- 5 46.4	1.918	2.918	1.7	21.5		
4 21	13 27.63	-13 59.0	1.386	2.386	3.0	20.0	4 21	13 27.80	- 5 8.3	1.902	2.898	3.3	21.5		
5 1	13 19.54	-13 3.8	1.423	2.401	7.5	20.3	5 1	13 19.51	- 4 35.7	1.915	2.878	7.2	21.7		
5 11	13 13.36	-12 14.5	1.484	2.416	11.8	20.6	5 11	13 12.45	- 4 12.7	1.953	2.858	10.9	21.9		
5 21	13 9.65	-11 36.6	1.566	2.431	15.5	20.9	5 21	13 7.23	- 4 2.2	2.013	2.837	14.1	22.1		
<b>102568</b>	1999 UG <sub>35</sub>	4 14.9 156°04' 0.2/14.8 16						<b>216876</b>	2008 EL <sub>54</sub>	4 14.9 298°33' 1.4/12.2 18					
3 12	13 58.87	-11 54.0	2.029	2.861	13.0	21.0	3 12	13 46.98	- 4 27.7	4.134	4.978	6.6	20.2		
3 22	13 53.15	-11 18.3	1.955	2.869	9.6	20.8	3 22	13 43.71	- 3 47.4	4.042	4.965	4.8	20.0		
4 1	13 45.50	-10 31.3	1.906	2.877	5.8	20.6	4 1	13 39.61	- 3 4.1	3.978	4.952	2.9	19.9		
4 11	13 36.67	- 9 36.6	1.884	2.884	1.6	20.3	4 11	13 34.99	- 2 20.5	3.944	4.939	1.5	19.7		
4 21	13 27.54	- 8 39.5	1.891	2.890	2.6	20.4	4 21	13 30.20	- 1 38.9	3.939	4.927	2.4	19.8		
5 1	13 19.06	- 7 45.7	1.926	2.895	6.7	20.6	5 1	13 25.63	- 1 2.0	3.964	4.914	4.4	19.9		
5 11	13 12.03	- 7 0.5	1.989	2.900	10.4	20.9	5 11	13 21.62	- 0 31.8	4.017	4.901	6.3	20.1		
5 21	13 6.98	- 6 27.6	2.074	2.904	13.5	21.1	5 21	13 18.43	- 0 9.7	4.094	4.888	8.0	20.2		
<b>19297</b>	1996 RS <sub>24</sub>	4 14.9 287°48' 2.8/12.6 18						<b>429084</b>	Dietrichrex	4 14.9 148°24' 3.1/17.4 17					
3 12	13 55.29	- 7 14.7	1.449	2.314	15.3	18.5	3 12	14 1.93	-18 46.0	2.070	2.873	13.8	21.5		
3 22	13 51.33	- 6 8.8	1.367	2.300	11.3	18.2	3 22	13 55.57	-19 11.5	1.990	2.879	10.8	21.3		
4 1	13 44.82	- 4 49.2	1.308	2.286	6.8	17.9	4 1	13 47.07	-19 23.2	1.933	2.885	7.4	21.1		
4 11	13 36.55	- 3 23.5	1.273	2.272	2.9	17.6	4 11	13 37.17	-19 21.4	1.903	2.891	4.1	20.9		
4 21	13 27.65	- 2 0.7	1.265	2.257	5.3	17.7	4 21	13 26.82	-19 7.7	1.901	2.896	3.5	20.8		
5 1	13 19.38	- 0 50.6	1.282	2.243	10.2	17.9	5 1	13 17.08	-18 45.9	1.928	2.901	6.4	21.0		
5 11	13 12.89	- 0 0.4	1.321	2.229	14.8	18.2	5 11	13 8.87	-18 21.2	1.982	2.906	9.8	21.2		
5 21	13 8.92	+ 0 26.2	1.380	2.216	18.8	18.4	5 21	13 2.78	-17 58.6	2.060	2.910	12.9	21.4		
<b>381163</b>	2007 HF <sub>40</sub>	4 14.9 250°55' 1.5/13.5 18						<b>124553</b>	2001 RW <sub>134</sub>	4 14.9 140°42' 4.2/11.7 18					
3 12	13 59.69	- 5 59.4	2.329	3.166	11.3	21.5	3 12	13 59.36	- 2 42.3	1.515	2.378	14.9	20.2		
3 22	13 53.77	- 5 41.6	2.227	3.145	8.4	21.3	3 22	13 53.99	- 1 38.8	1.454	2.384	11.0	20.0		
4 1	13 45.96	- 5 18.4	2.150	3.123	5.0	21.1	4 1	13 46.20	- 0 29.7	1.415	2.390	6.8	19.8		
4 11	13 36.84	- 4 52.9	2.102	3.101	1.8	20.8	4 11	13 36.91	+ 0 37.2	1.403	2.396	4.2	19.6		
4 21	13 27.20	- 4 28.9	2.084	3.078	3.3	20.9	4 21	13 27.28	+ 1 33.8	1.417	2.401	6.3	19.7		
5 1	13 17.91	- 4 10.3	2.095	3.054	7.0	21.0	5 1	13 18.50	+ 2 13.3	1.457	2.406	10.3	20.0		
5 11	13 9.79	- 4 0.5	2.133	3.030	10.5	21.2	5 11	13 11.60	+ 2 31.9	1.520	2.411	14.3	20.2		
5 21	13 3.44	- 4 1.8	2.194	3.005	13.5	21.4	5 21	13 7.14	+ 2 29.1	1.602	2.415	17.6	20.5		
<b>427252</b>	2014 WR <sub>96</sub>	4 14.9 312°04' 1.8/13.4 17						<b>467497</b>	2006 VW <sub>122</sub>	4 14.9 88°78' 1.2/15.9 17					
3 12	13 54.33	- 9 32.2	1.461	2.323	15.4	21.1	3 12	13 58.24	-14 54.8	1.675	2.510	15.1	21.7		
3 22	13 50.52	- 8 29.0	1.385	2.316	11.4	20.8	3 22	13 53.05	-14 39.1	1.608	2.521	11.4	21.4		
4 1	13 44.26	- 7 10.6	1.331	2.309	6.7	20.5	4 1	13 45.60	-14 8.3	1.564	2.532	7.1	21.2		
4 11	13 36.38	- 5 43.9	1.303	2.303	2.2	20.2	4 11	13 36.74	-13 25.6	1.545	2.543	2.7	21.0		
4 21	13 27.97	- 4 18.0	1.300	2.296	4.4	20.4	4 21	13 27.54	-12 35.9	1.553	2.554	2.7	21.0		
5 1	13 20.28	- 3 2.2	1.323	2.290	9.4	20.6	5 1	13 19.14	-11 45.8	1.588	2.564	7.1	21.3		
5 11	13 14.35	- 2 4.2	1.370	2.284	13.9	20.9	5 11	13 12.47	-11 1.8	1.649	2.575	11.2	21.5		
5 21	13 10.86	- 1 28.2	1.436	2.279	17.8	21.1	5 21	13 8.11	-10 28.7	1.731	2.585	14.7	21.8		
<b>10598</b>	Markrees	4 14.9 225°42' 0.1/14.8 18						<b>148687</b>	2001 SO <sub>244</sub>	4 14.9 267°17' 3.4/11.9 18					
3 12	13 56.56	-11 55.0	2.112	2.946	12.4	19.2	3 12	13 56.89	- 3 18.8	1.795	2.653	13.2	20.5		
3 22	13 51.54	-11 22.8	2.023	2.938	9.3	19.0	3 22	13 52.10	- 2 27.8	1.709	2.638	9.8	20.2		
4 1	13 44.62	-10 39.2	1.958	2.929	5.6	18.7	4 1	13 45.11	- 1 30.4	1.646	2.622	6.0	19.9		
4 11	13 36.45	- 9 47.5	1.920	2.920	1.6	18.4	4 11	13 36.64	- 0 32.6	1.611	2.605	3.4	19.7		
4 21	13 27.86	- 8 52.4	1.911	2.910	2.6	18.5	4 21	13 27.62	+ 0 18.8	1.602	2.588	5.4	19.8		
5 1	13 19.75	- 7 59.6	1.930	2.900	6.6	18.7	5 1	13 19.12	+ 0 57.6	1.620	2.572	9.3	20.0		
5 11	13 12.95	- 7 14.4	1.976	2.890	10.3	18.9	5 11	13 12.10	+ 1 19.3	1.662	2.555	13.2	20.2		
5 21	13 8.01	- 6 40.7	2.045	2.879	13.6	19.1	5 21	13 7.20	+ 1 22.1	1.725	2.537	16.6	20.4		
<b>42451</b>	3727 T- <sub>3</sub>	4 14.9 158°47' 1.2/16.1 18						<b>161779</b>	2006 UN <sub>50</sub>	4 14.9 341°94' 2.5/17.5 17					
3 12	13 57.60	-14 17.2	2.690	3.503	10.7	19.5	3 12	13 53.59	-19 28.0	2.093	2.907	13.3	20.3		
3 22	13 51.89	-14 25.2	2.606	3.507	8.1	19.4	3 22	13 49.40	-19 13.7	2.008	2.905	10.3	20.1		
4 1	13 44.65	-14 24.6	2.547	3.510	5.1	19.2	4 1	13 43.35	-18 43.3	1.946	2.902	7.0	19.9		
4 11	13 36.43	-14 16.6	2.517	3.514	2.1	19.0	4 11	13 36.11	-17 58.4	1.909	2.900	3.6	19.7		
4 21	13 27.92	-14 3.4	2.517	3.517	2.0	19.0	4 21	13 28.49	-17 2.9	1.900	2.898	2.9	19.6		
5 1	13 19.84	-13 47.8	2.547	3.520	5.0	19.2	5 1	13 21.38	-16 2.2	1.920	2.897	6.0	19.8		
5 11	13 12.83	-13 33.2	2.605	3.522	8.0	19.4	5 11	13 15.60	-15 2.7	1.965	2.895	9.4	20.0		
5 21	13 7.37	-13 22.6	2.687	3.524	10.6	19.6	5 21	13 11.67	-14 9.8	2.033	2.894	12.6	20.2		
<b>458799</b>	2011 SU <sub>189</sub>	4 14.9 150°44' 1.3/13.7 18						<b>126025</b>	2001 YG <sub>63</sub>	4 14.9 179°53' 2.8/12.4 18					
3 12	13 58.99	- 9 59.1	1.814	2.656	13.8	22.6	3 12	13 57.46	- 3 43.5	1.998	2.850	12.3	20.0		
3 22	13 53.39	- 8 59.0	1.745	2.666	10.1	22.4									

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$		
<b>114724</b>	2003 <i>GK</i> <sub>36</sub>	4 14.9 115°23 7°5/ 7.3 18 R						<b>252982</b>	2002 <i>QB</i> <sub>63</sub>	4 14.9 168°96 0°6/15.4 16					
3 12	13 57.60	+ 9 41.4	1.966	2.820	12.4	19.6	3 12	13 58.62	-13 44.8	2.040	2.866	13.1	22.4		
3 22	13 52.11	+11 9.7	1.923	2.836	9.8	19.4	3 22	13 53.05	-13 16.9	1.961	2.870	9.8	22.2		
4 1	13 44.80	+12 30.8	1.906	2.852	7.9	19.3	4 1	13 45.52	-12 36.3	1.906	2.874	6.0	22.0		
4 11	13 36.48	+13 36.9	1.915	2.867	7.6	19.3	4 11	13 36.75	-11 46.2	1.878	2.877	2.0	21.7		
4 21	13 28.00	+14 22.0	1.950	2.882	9.1	19.5	4 21	13 27.64	-10 51.2	1.879	2.880	2.4	21.7		
5 1	13 20.29	+14 42.8	2.011	2.896	11.5	19.6	5 1	13 19.14	- 9 57.1	1.909	2.881	6.5	22.0		
5 11	13 14.06	+14 39.3	2.094	2.909	13.9	19.8	5 11	13 12.08	- 9 9.6	1.966	2.882	10.2	22.2		
5 21	13 9.75	+14 13.8	2.195	2.923	16.0	20.0	5 21	13 6.99	- 8 32.7	2.045	2.883	13.4	22.4		
<b>294357</b>	2007 <i>VM</i> <sub>98</sub>	4 14.9 276°52 2°7/16.9 17						<b>434814</b>	2006 <i>RT</i> <sub>91</sub>	4 14.9 183°46 1°9/16.7 17					
3 12	13 57.94	-18 0.7	1.548	2.378	16.4	20.8	3 12	13 58.46	-16 17.4	2.559	3.366	11.3	21.4		
3 22	13 53.44	-17 55.0	1.453	2.360	12.8	20.5	3 22	13 52.67	-16 31.4	2.471	3.366	8.7	21.2		
4 1	13 46.21	-17 29.7	1.380	2.342	8.5	20.2	4 1	13 45.21	-16 35.3	2.408	3.366	5.7	21.0		
4 11	13 37.02	-16 45.7	1.330	2.324	4.1	19.9	4 11	13 36.67	-16 29.9	2.373	3.366	2.8	20.8		
4 21	13 27.00	-15 47.2	1.306	2.306	3.5	19.8	4 21	13 27.76	-16 17.2	2.367	3.365	2.4	20.8		
5 1	13 17.52	-14 41.3	1.309	2.287	8.0	20.0	5 1	13 19.28	-16 0.2	2.391	3.364	5.3	21.0		
5 11	13 9.82	-13 37.2	1.335	2.268	12.8	20.3	5 11	13 11.94	-15 42.6	2.443	3.363	8.3	21.2		
5 21	13 4.75	-12 42.7	1.383	2.250	17.0	20.5	5 21	13 6.25	-15 27.9	2.519	3.362	11.1	21.3		
<b>48249</b>	2001 <i>SY</i> <sub>345</sub>	4 14.9 194°68 1°8/11.7 18						<b>344384</b>	2001 <i>XT</i> <sub>231</sub>	4 14.9 76°26 4°2/10.9 18					
3 12	13 47.81	- 1 34.7	4.333	5.179	6.3	19.3	3 12	13 56.50	+ 2 24.7	2.216	3.070	11.2	20.6		
3 22	13 44.24	- 1 5.0	4.256	5.179	4.6	19.2	3 22	13 51.21	+ 2 59.1	2.155	3.078	8.3	20.4		
4 1	13 39.90	- 0 34.2	4.206	5.178	2.9	19.1	4 1	13 44.28	+ 3 32.4	2.119	3.086	5.6	20.2		
4 11	13 35.09	- 0 4.6	4.186	5.178	1.8	19.0	4 11	13 36.38	+ 3 59.7	2.110	3.095	4.2	20.2		
4 21	13 30.15	+ 0 21.7	4.196	5.178	2.6	19.1	4 21	13 28.27	+ 4 16.9	2.130	3.103	5.6	20.3		
5 1	13 25.44	+ 0 42.8	4.236	5.178	4.4	19.2	5 1	13 20.76	+ 4 20.8	2.177	3.111	8.3	20.4		
5 11	13 21.28	+ 0 57.0	4.302	5.177	6.1	19.3	5 11	13 14.51	+ 4 10.2	2.249	3.120	11.1	20.6		
5 21	13 17.93	+ 1 3.5	4.393	5.177	7.7	19.4	5 21	13 9.98	+ 3 45.3	2.342	3.128	13.5	20.8		
<b>205012</b>	1997 <i>LX</i> <sub>10</sub>	4 14.9 299°05 2°7/16.9 17						<b>72951</b>	2002 <i>CC</i> <sub>52</sub>	4 14.9 305°37 1°8/13.6 18					
3 12	13 54.95	-18 38.1	1.308	2.151	18.0	20.0	3 12	13 54.94	- 9 0.1	1.328	2.195	16.3	19.4		
3 22	13 51.66	-18 16.4	1.212	2.127	14.1	19.7	3 22	13 51.47	- 8 14.7	1.238	2.171	12.2	19.1		
4 1	13 45.37	-17 29.0	1.136	2.103	9.4	19.3	4 1	13 45.16	- 7 13.4	1.168	2.147	7.3	18.7		
4 11	13 36.84	-16 17.1	1.083	2.079	4.4	18.9	4 11	13 36.79	- 6 2.0	1.123	2.123	2.4	18.4		
4 21	13 27.30	-14 46.3	1.054	2.055	3.7	18.8	4 21	13 27.51	- 4 49.1	1.103	2.100	4.7	18.4		
5 1	13 18.29	-13 6.9	1.050	2.031	9.0	19.0	5 1	13 18.77	- 3 44.4	1.106	2.077	10.3	18.7		
5 11	13 11.27	-11 31.8	1.068	2.008	14.5	19.3	5 11	13 11.90	- 2 57.0	1.132	2.054	15.6	18.9		
5 21	13 7.20	-10 11.7	1.105	1.985	19.5	19.5	5 21	13 7.81	- 2 31.8	1.176	2.032	20.1	19.1		
<b>195327</b>	2002 <i>EY</i> <sub>127</sub>	4 14.9 294°66 2°4/12.8 17						<b>263896</b>	2009 <i>FU</i> <sub>18</sub>	4 14.9 4°58 0°5/14.7 17					
3 12	13 55.18	- 6 1.1	1.780	2.638	13.3	20.5	3 12	13 56.79	- 8 36.5	1.058	1.936	18.7	19.5		
3 22	13 50.77	- 5 14.1	1.702	2.631	9.8	20.3	3 22	13 53.08	- 8 48.8	0.997	1.935	14.0	19.2		
4 1	13 44.27	- 4 19.0	1.648	2.625	5.8	20.0	4 1	13 46.14	- 8 50.4	0.956	1.935	8.4	18.9		
4 11	13 36.41	- 3 21.3	1.621	2.619	2.5	19.8	4 11	13 37.03	- 8 45.1	0.936	1.937	2.4	18.6		
4 21	13 28.12	- 2 27.3	1.620	2.612	4.4	19.9	4 21	13 27.26	- 8 38.1	0.939	1.940	4.0	18.7		
5 1	13 20.42	- 1 43.4	1.646	2.606	8.5	20.1	5 1	13 18.51	- 8 35.5	0.965	1.945	9.9	19.0		
5 11	13 14.20	- 1 14.4	1.697	2.600	12.3	20.4	5 11	13 12.19	- 8 42.9	1.012	1.951	15.3	19.3		
5 21	13 10.06	- 1 2.5	1.768	2.594	15.7	20.6	5 21	13 9.05	- 9 3.5	1.076	1.958	19.7	19.6		
<b>142321</b>	2002 <i>RO</i> <sub>171</sub>	4 14.9 135°83 0°2/14.8 18						<b>470910</b>	2009 <i>DH</i> <sub>48</sub>	4 14.9 33°54 1°7/16.2 17					
3 12	14 0.75	-10 24.3	1.876	2.713	13.7	19.8	3 12	13 58.30	-14 12.8	1.827	2.659	14.2	20.7		
3 22	13 54.68	-10 11.2	1.806	2.723	10.1	19.6	3 22	13 53.01	-14 31.9	1.758	2.668	10.7	20.5		
4 1	13 46.51	- 9 48.5	1.760	2.732	6.1	19.4	4 1	13 45.58	-14 39.4	1.711	2.678	6.8	20.3		
4 11	13 37.02	- 9 19.4	1.741	2.741	1.7	19.1	4 11	13 36.79	-14 36.7	1.691	2.688	2.9	20.1		
4 21	13 27.21	- 8 48.2	1.750	2.750	2.8	19.2	4 21	13 27.64	-14 26.5	1.699	2.698	2.7	20.1		
5 1	13 18.12	- 8 19.8	1.788	2.758	7.1	19.5	5 1	13 19.17	-14 13.0	1.733	2.709	6.6	20.4		
5 11	13 10.63	- 7 58.8	1.852	2.766	10.9	19.7	5 11	13 12.30	-14 0.7	1.793	2.721	10.4	20.6		
5 21	13 5.30	- 7 48.2	1.938	2.773	14.2	20.0	5 21	13 7.59	-13 53.8	1.876	2.733	13.7	20.8		
<b>397028</b>	2005 <i>UO</i> <sub>10</sub>	4 14.9 204°62 2°5/12.8 18						<b>436314</b>	2010 <i>FW</i> <sub>16</sub>	4 14.9 303°75 1°0/15.7 17					
3 12	14 0.84	- 5 53.1	1.791	2.638	13.7	21.8	3 12	13 55.55	-13 37.6	1.926	2.761	13.4	21.3		
3 22	13 54.96	- 5 2.6	1.709	2.633	10.1	21.5	3 22	13 51.08	-13 30.4	1.833	2.747	10.2	21.1		
4 1	13 46.80	- 4 3.5	1.652	2.627	6.1	21.3	4 1	13 44.52	-13 11.1	1.764	2.733	6.4	20.8		
4 11	13 37.14	- 3 1.6	1.623	2.620	2.7	21.0	4 11	13 36.53	-12 41.8	1.721	2.719	2.3	20.5		
4 21	13 26.99	- 2 3.6	1.621	2.612	4.6	21.1	4 21	13 28.00	-12 6.2	1.705	2.706	2.5	20.5		
5 1	13 17.48	- 1 16.0	1.647	2.604	8.8	21.4	5 1	13 19.93	-11 29.4	1.717	2.692	6.7	20.7		
5 11	13 9.57	- 0 43.8	1.699	2.594	12.8	21.6	5 11	13 13.25	-10 56.8	1.754	2.679	10.7	20.9		
5 21	13 3.92	- 0 29.4	1.771	2.583	16.2	21.8	5 21	13 8.59	-10 33.1	1.813	2.666	14.2	21.1		
<b>468931</b>	2014 <i>YM</i> <sub>38</sub>	4 14.9 7°35 6°2/10.3 17						<b>343363</b>	2010 <i>CK</i> <sub>82</sub>	4 14.9 265°53 0°6/15.5 17					
3 12	13 56.81	+ 3 42.4	1.519	2.389	14.4	20.8	3 12	13 55.38	-13 17.5	2.065	2.898	12.7	21.3		
3 22	13 52.14	+ 4 33.6	1.459	2.390	10.9	20.6	3 22	13 50.73	-12 57.8	1.980	2.893	9.6	21.1		
4 1	13 45.13	+ 5 22.8	1.422	2.391	7.7	20.4	4 1	13 44.19	-12 26.3	1.918	2.888	5.9	20.9		
4 11	13 36.65	+ 6 1.9	1.410	2.392	6.2	20.3	4 11	13 36.41	-11 45.7	1.884	2.883	1.9	20.6		
4 21	13 27.82	+ 6 24.3	1.423	2.394	8.1	20.4	4 21	13 28.23	-11 0.4	1.877	2.877	2.4	20.6		
5 1	13 19.79	+ 6 25.6	1.461	2.397	11.5	20.6	5 1	13 20.56	-10 15.4	1.899	2.872	6.4	20.9		
5 11	13 13.54	+ 6 4.4	1.521	2.400	15.0	20.8	5 11	13 14.20	- 9 36.0	1.946	2.867	10.1	21.1		
5 21	13 9.64	+ 5 22.3	1.599	2.403	18.0	21.1	5 21	13 9.72	- 9 6.4	2.016	2.862	13.3	21.3		
<b>118163</b>	1979 <i>MJ</i> <sub>8</sub>	4 14.9 169°93 0°8/15.8 18						<b>430767</b>	2004 <i>RY</i> <sub>243</sub>	4 14.9 154°42 0°1/15.0 17					
3 12	13 57.13	-14 52.8	2.509	3.325	11.3	21.0	3 12	13 57.49	-11 56.0	2.357	3.184	11.5	22.3		
3 22	13 51.63	-14 21.7	2.426	3.330	8.5	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>318562</b>	2005 GA <sub>116</sub>		4 14.9 290°36	1.7°/13.7	17		<b>503727</b>	2016 KO <sub>2</sub>		4 14.9 329°85	0°5/14.5	17	
3 12	13 57.53	- 7 50.0	1.536	2.394	15.0	21.3	3 12	13 52.12	-12 30.7	1.466	2.325	15.6	20.5
3 22	13 53.03	- 7 20.8	1.446	2.374	11.2	21.0	3 22	13 49.00	-11 39.2	1.384	2.312	11.6	20.2
4 1	13 45.93	- 6 40.7	1.379	2.355	6.7	20.7	4 1	13 43.46	-10 29.7	1.324	2.301	7.0	19.9
4 11	13 37.00	- 5 54.6	1.336	2.336	2.2	20.3	4 11	13 36.28	- 9 7.6	1.289	2.290	1.9	19.6
4 21	13 27.31	- 5 8.8	1.320	2.317	4.2	20.4	4 21	13 28.53	- 7 40.9	1.280	2.279	3.5	19.7
5 1	13 18.16	- 4 30.3	1.330	2.298	9.2	20.6	5 1	13 21.41	- 6 19.4	1.296	2.270	8.6	19.9
5 11	13 10.72	- 4 5.4	1.363	2.279	13.9	20.9	5 11	13 16.01	- 5 11.8	1.335	2.261	13.3	20.2
5 21	13 5.79	- 3 57.5	1.416	2.260	18.0	21.1	5 21	13 12.99	- 4 23.8	1.394	2.252	17.4	20.4
<b>166200</b>	2002 ES <sub>118</sub>		4 14.9 18°40	0°7/14.5	18		<b>166704</b>	2002 TJ <sub>179</sub>		4 14.9 141°83	5°9/21.9	17	
3 12	13 57.99	- 8 52.0	1.111	1.984	18.4	19.6	3 12	13 57.33	-31 46.8	2.586	3.316	13.2	20.4
3 22	13 53.77	- 8 51.8	1.054	1.989	13.7	19.3	3 22	13 51.99	-32 0.2	2.501	3.325	11.1	20.3
4 1	13 46.45	- 8 39.9	1.017	1.995	8.2	19.0	4 1	13 44.86	-31 54.2	2.437	3.333	8.9	20.2
4 11	13 37.12	- 8 20.9	1.001	2.002	2.3	18.7	4 11	13 36.62	-31 28.1	2.398	3.341	6.9	20.0
4 21	13 27.26	- 8 0.8	1.010	2.010	4.0	18.8	4 21	13 28.05	-30 43.2	2.386	3.348	5.9	20.0
5 1	13 18.47	- 7 46.4	1.042	2.019	9.7	19.1	5 1	13 20.01	-29 43.3	2.401	3.355	6.6	20.0
5 11	13 12.07	- 7 43.5	1.095	2.029	14.8	19.5	5 11	13 13.26	-28 34.2	2.444	3.361	8.4	20.2
5 21	13 8.72	- 7 55.0	1.166	2.039	19.1	19.8	5 21	13 8.30	-27 22.4	2.511	3.368	10.6	20.3
<b>331353</b>	2012 CN <sub>40</sub>		4 14.9 82°46	0°2/15.1	18		<b>30633</b>	6120 P-L		4 14.9 225°94	0°7/14.2	18	
3 12	13 59.42	-12 15.2	1.550	2.394	15.6	21.6	3 12	13 56.78	-10 34.7	2.247	3.081	11.8	20.6
3 22	13 54.01	-11 53.0	1.490	2.410	11.6	21.4	3 22	13 51.66	- 9 50.0	2.153	3.069	8.7	20.4
4 1	13 46.23	-11 17.4	1.453	2.426	7.0	21.2	4 1	13 44.73	- 8 54.6	2.084	3.057	5.2	20.2
4 11	13 37.00	-10 32.5	1.441	2.441	2.1	20.9	4 11	13 36.60	- 7 52.3	2.044	3.044	1.5	19.9
4 21	13 27.49	- 9 44.2	1.456	2.456	3.0	21.0	4 21	13 28.06	- 6 48.2	2.032	3.030	2.8	19.9
5 1	13 18.89	- 8 59.1	1.498	2.472	7.7	21.3	5 1	13 19.95	- 5 47.9	2.050	3.016	6.7	20.2
5 11	13 12.16	- 8 23.5	1.564	2.487	12.0	21.6	5 11	13 13.06	- 4 56.7	2.095	3.000	10.2	20.3
5 21	13 7.86	- 8 1.0	1.652	2.502	15.5	21.8	5 21	13 7.93	- 4 18.3	2.163	2.985	13.3	20.5
<b>292513</b>	2006 TU <sub>27</sub>		4 14.9 175°98	0°4/14.5	18		<b>259554</b>	2003 UE <sub>145</sub>		4 14.9 250°63	0°9/14.3	17	
3 12	13 54.79	-10 50.0	2.666	3.497	10.2	21.5	3 12	13 59.58	- 9 29.7	1.815	2.657	13.8	21.2
3 22	13 49.84	- 9 40.6	2.584	3.499	7.5	21.3	3 22	13 54.21	- 9 2.4	1.719	2.640	10.3	20.9
4 1	13 43.47	- 9 9.0	2.528	3.500	4.5	21.1	4 1	13 46.51	- 8 24.3	1.648	2.622	6.2	20.7
4 11	13 36.20	- 8 32.8	2.500	3.501	1.2	20.9	4 11	13 37.17	- 7 39.1	1.603	2.603	1.8	20.3
4 21	13 28.67	- 7 55.6	2.503	3.501	2.2	21.0	4 21	13 27.17	- 6 52.0	1.586	2.584	3.3	20.4
5 1	13 21.57	- 7 21.1	2.534	3.501	5.4	21.2	5 1	13 17.65	- 6 9.1	1.597	2.565	8.0	20.6
5 11	13 15.49	- 6 52.7	2.593	3.501	8.4	21.4	5 11	13 9.64	- 5 36.2	1.633	2.545	12.3	20.8
5 21	13 10.87	- 6 33.1	2.676	3.501	11.0	21.5	5 21	13 3.87	- 5 17.2	1.691	2.524	16.0	21.0
<b>89712</b>	2001 YV <sub>111</sub>		4 14.9 172°66	0°2/14.7	18		<b>380561</b>	2004 QQ <sub>5</sub>		4 14.9 279°32	0°8/15.6	17	
3 12	14 1.82	-10 44.6	1.878	2.711	13.8	20.4	3 12	13 57.19	-13 35.5	1.853	2.687	13.9	21.6
3 22	13 55.57	-10 25.1	1.800	2.715	10.3	20.2	3 22	13 52.47	-13 21.0	1.753	2.666	10.6	21.3
4 1	13 47.13	- 9 55.0	1.747	2.718	6.2	20.0	4 1	13 45.48	-12 52.9	1.676	2.645	6.6	21.0
4 11	13 37.28	- 9 17.8	1.721	2.721	1.7	19.7	4 11	13 36.88	-12 13.8	1.625	2.624	2.3	20.7
4 21	13 27.02	- 8 38.0	1.723	2.722	2.9	19.8	4 21	13 27.60	-11 27.6	1.601	2.602	2.7	20.7
5 1	13 17.44	- 8 1.1	1.754	2.723	7.2	20.0	5 1	13 18.74	-10 40.3	1.605	2.580	7.2	20.9
5 11	13 9.47	- 7 32.2	1.811	2.723	11.2	20.3	5 11	13 11.32	- 9 58.2	1.635	2.558	11.5	21.1
5 21	13 3.70	- 7 14.8	1.890	2.722	14.6	20.5	5 21	13 6.07	- 9 26.4	1.686	2.536	15.3	21.3
<b>353453</b>	2011 RC <sub>4</sub>		4 14.9 290°59	3°4/12.5	17		<b>172596</b>	2003 WA <sub>21</sub>		4 14.9 213°34	3°1/17.5	18	
3 12	13 55.66	- 6 20.7	1.231	2.106	16.8	20.6	3 12	13 59.53	-19 49.8	1.875	2.684	14.8	20.5
3 22	13 52.15	- 5 19.2	1.147	2.085	12.5	20.2	3 22	13 54.12	-19 47.7	1.786	2.679	11.6	20.3
4 1	13 45.65	- 4 3.0	1.084	2.064	7.6	19.9	4 1	13 46.40	-19 27.9	1.718	2.673	7.9	20.1
4 11	13 36.98	- 2 40.0	1.044	2.042	3.5	19.6	4 11	13 37.12	-18 51.2	1.677	2.666	4.3	19.8
4 21	13 27.39	- 1 20.8	1.029	2.022	6.2	19.7	4 21	13 27.28	-18 1.0	1.662	2.659	3.5	19.8
5 1	13 18.42	- 0 16.4	1.037	2.001	11.7	19.9	5 1	13 18.01	-17 3.0	1.676	2.652	6.8	19.9
5 11	13 11.48	+ 0 24.8	1.066	1.981	16.9	20.1	5 11	13 10.33	-16 4.5	1.716	2.644	10.7	20.2
5 21	13 7.46	+ 0 39.1	1.112	1.961	21.5	20.3	5 21	13 4.90	-15 12.1	1.778	2.635	14.3	20.4
<b>405199</b>	2003 DW <sub>21</sub>		4 14.9 73°47	4°7/17.9	16		<b>501066</b>	2013 SZ <sub>32</sub>		4 14.9 166°47	3°8/17.8	17	
3 12	14 14.51	-20 51.7	1.817	2.597	16.3	20.6	3 12	14 2.24	-20 9.6	2.019	2.817	14.3	22.3
3 22	14 4.78	-21 55.2	1.769	2.641	12.8	20.5	3 22	13 55.97	-20 42.0	1.935	2.820	11.3	22.1
4 1	13 52.50	-22 41.1	1.744	2.684	9.0	20.4	4 1	13 47.44	-20 59.8	1.874	2.822	7.9	21.9
4 11	13 38.76	-23 7.5	1.747	2.726	5.7	20.2	4 11	13 37.41	-21 2.4	1.840	2.824	4.8	21.7
4 21	13 24.90	-23 15.1	1.780	2.767	4.9	20.3	4 21	13 26.85	-20 51.2	1.833	2.826	4.0	21.6
5 1	13 12.25	-23 8.2	1.843	2.807	7.3	20.5	5 1	13 16.87	-20 29.8	1.855	2.827	6.7	21.8
5 11	13 1.84	-22 53.0	1.933	2.847	10.5	20.8	5 11	13 8.44	-20 3.7	1.904	2.828	10.1	22.0
5 21	12 54.21	-22 36.2	2.047	2.886	13.4	21.0	5 21	13 2.23	-19 38.4	1.976	2.829	13.2	22.2
<b>292274</b>	2006 SX <sub>119</sub>		4 14.9 162°88	3°1/12.4	17		<b>144849</b>	2004 KG <sub>3</sub>		4 14.9 267°40	3°3/11.8	17	
3 12	13 59.81	- 2 55.3	1.878	2.729	13.0	21.0	3 12	13 55.82	- 0 40.1	2.284	3.136	11.0	20.0
3 22	13 54.00	- 2 17.8	1.808	2.733	9.6	20.8	3 22	13 50.82	- 0 8.5	2.206	3.130	8.1	19.8
4 1	13 46.14	- 1 36.3	1.763	2.737	5.9	20.6	4 1	13 44.15	+ 0 24.6	2.153	3.125	5.1	19.6
4 11	13 36.99	- 0 56.1	1.745	2.740	3.2	20.4	4 11	13 36.43	+ 0 54.9	2.128	3.119	3.3	19.4
4 21	13 27.51	- 0 22.6	1.755	2.743	4.9	20.5	4 21	13 28.39	+ 1 18.2	2.132	3.114	4.7	19.5
5 1	13 18.71	- 0 0.6	1.793	2.745	8.5	20.7	5 1	13 20.82	+ 1 30.8	2.163	3.108	7.7	19.7
5 11	13 11.45	+ 0 6.8	1.856	2.747	12.1	21.0	5 11	13 14.43	+ 1 30.4	2.220	3.103	10.7	19.9
5 21	13 6.29	- 0 1.2	1.940	2.749	15.2	21.2	5 21	13 9.72	+ 1 16.3	2.299	3.097	13.4	20.0
<b>3971</b>	Voronikhin		4 14.9 209°83	5°3/21.0	18		<b>138774</b>	2000 SJ <sub>320</sub>		4 14.9 238°00	1°8/12.9	18	
3 12	13 57.15	-29 40.5	2.599										

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>160508</b>	4319 $T_{-3}$		4 14.9 257°85	2°9/12.9 18			<b>146645</b>	2001 $US_{79}$		4 14.9 69°19	1°0/14.2 18		
3 12	14 1.59	- 4 14.8	1.594	2.448	14.7	20.3	3 12	13 57.69	- 9 1.0	1.665	2.516	14.4	19.9
3 22	13 55.96	- 3 47.0	1.505	2.432	11.0	20.0	3 22	13 52.68	- 8 34.6	1.599	2.523	10.6	19.7
4 1	13 47.68	- 3 12.8	1.439	2.415	6.7	19.7	4 1	13 45.45	- 7 58.4	1.556	2.531	6.3	19.5
4 11	13 37.53	- 2 37.5	1.400	2.397	3.1	19.4	4 11	13 36.84	- 7 16.8	1.539	2.539	1.8	19.2
4 21	13 26.63	- 2 7.1	1.387	2.379	5.1	19.5	4 21	13 27.89	- 6 35.5	1.549	2.547	3.4	19.3
5 1	13 16.29	- 1 47.7	1.401	2.360	9.7	19.7	5 1	13 19.69	- 6 0.4	1.586	2.555	7.9	19.6
5 11	13 7.70	- 1 43.7	1.438	2.341	14.2	19.9	5 11	13 13.18	- 5 36.3	1.647	2.563	11.9	19.8
5 21	13 1.65	- 1 57.0	1.496	2.322	18.1	20.1	5 21	13 8.91	- 5 26.2	1.730	2.571	15.3	20.1
<b>423551</b>	2005 $UY_{309}$		4 14.9 184°72	3°8/11.9 17			<b>141495</b>	2002 $EZ_{11}$		4 14.9 251°85	1°4/14.4 16		
3 12	13 59.55	- 0 25.2	1.872	2.726	12.9	21.1	3 12	14 41.71	-13 23.2	1.124	1.915	23.6	21.1
3 22	13 53.85	+ 0 5.5	1.801	2.726	9.6	20.9	3 22	14 30.15	-12 19.3	0.988	1.878	18.9	20.6
4 1	13 46.08	+ 0 37.7	1.754	2.726	6.1	20.7	4 1	14 11.39	-10 37.1	0.872	1.834	12.3	20.1
4 11	13 37.00	+ 1 5.9	1.734	2.726	3.8	20.5	4 11	13 45.31	- 8 11.9	0.785	1.784	3.7	19.4
4 21	13 27.55	+ 1 25.3	1.742	2.725	5.5	20.6	4 21	13 13.67	- 5 10.5	0.731	1.726	7.2	19.3
5 1	13 18.76	+ 1 31.8	1.777	2.725	8.9	20.8	5 1	12 40.53	- 1 57.7	0.713	1.661	18.1	19.6
5 11	13 11.50	+ 1 23.1	1.837	2.724	12.4	21.0	5 11	12 10.60	+ 0 53.9	0.726	1.587	28.4	19.9
5 21	13 6.34	+ 0 59.0	1.918	2.723	15.4	21.2	5 21	11 46.84	+ 3 3.8	0.759	1.505	37.3	20.1
<b>403777</b>	2011 $PD$		4 14.9 299°14	2°5/16.5 17			<b>10575</b>	1994 $YV_1$		4 14.9 73°33	4°6/11.9 18		
3 12	13 57.73	-16 17.4	1.238	2.088	18.4	21.4	3 12	14 0.34	- 0 58.9	1.392	2.259	15.7	17.4
3 22	13 53.86	-16 20.0	1.152	2.071	14.3	21.1	3 22	13 54.96	- 0 16.5	1.332	2.264	11.7	17.2
4 1	13 46.79	-16 2.1	1.085	2.053	9.4	20.8	4 1	13 46.95	+ 0 28.7	1.294	2.269	7.4	17.0
4 11	13 37.35	-15 24.8	1.040	2.036	4.1	20.4	4 11	13 37.29	+ 1 9.2	1.281	2.274	4.6	16.8
4 21	13 26.87	-14 32.6	1.019	2.019	3.7	20.3	4 21	13 27.23	+ 1 38.0	1.294	2.279	6.7	17.0
5 1	13 17.02	-13 33.9	1.022	2.003	9.2	20.6	5 1	13 18.10	+ 1 49.5	1.332	2.284	10.8	17.2
5 11	13 9.33	-12 38.9	1.047	1.986	14.8	20.8	5 11	13 10.99	+ 1 41.0	1.392	2.289	14.9	17.4
5 21	13 4.77	-11 56.3	1.091	1.971	19.6	21.0	5 21	13 6.53	+ 1 12.8	1.471	2.294	18.4	17.7
<b>74294</b>	1998 $SG_{140}$		4 14.9 254°44	1°3/16.4 18			<b>469299</b>	1997 $KZ_1$		4 14.9 88°57	9°6/ 6.2 18		
3 12	13 54.18	-17 24.4	2.193	3.011	12.6	19.7	3 12	13 57.33	+11 54.7	1.600	2.463	14.3	20.9
3 22	13 49.84	-16 41.5	2.096	2.999	9.6	19.5	3 22	13 52.39	+13 36.1	1.556	2.469	11.6	20.7
4 1	13 43.68	-15 42.2	2.022	2.985	6.2	19.3	4 1	13 45.24	+15 7.5	1.535	2.476	9.9	20.6
4 11	13 36.32	-14 29.5	1.976	2.972	2.5	19.0	4 11	13 36.76	+16 18.7	1.538	2.483	9.8	20.6
4 21	13 28.55	-13 8.2	1.958	2.958	2.3	19.0	4 21	13 28.04	+17 2.3	1.566	2.489	11.5	20.8
5 1	13 21.22	-11 44.6	1.969	2.944	6.0	19.2	5 1	13 20.17	+17 14.5	1.617	2.496	14.1	20.9
5 11	13 15.12	-10 25.9	2.007	2.930	9.7	19.4	5 11	13 14.06	+16 56.2	1.687	2.502	16.7	21.1
5 21	13 10.80	- 9 17.6	2.069	2.916	13.0	19.6	5 21	13 10.22	+16 11.1	1.775	2.509	19.0	21.3
<b>500272</b>	2012 $MC_3$		4 14.9 7°51	1°7/13.1 17			<b>473262</b>	2015 $MN_{31}$		4 14.9 234°00	4°8/ 9.5 17		
3 12	13 53.33	-11 57.5	1.737	2.586	14.0	21.2	3 12	13 54.99	+ 4 58.9	2.511	3.363	10.1	21.2
3 22	13 49.41	-10 9.5	1.661	2.586	10.2	20.9	3 22	13 50.09	+ 5 50.5	2.436	3.355	7.7	21.0
4 1	13 43.47	- 8 3.6	1.610	2.586	6.0	20.7	4 1	13 43.67	+ 6 40.3	2.387	3.347	5.6	20.9
4 11	13 36.25	- 5 48.1	1.586	2.586	1.9	20.4	4 11	13 36.31	+ 7 23.2	2.365	3.339	4.8	20.8
4 21	13 28.70	- 3 33.3	1.592	2.586	4.1	20.5	4 21	13 28.67	+ 7 54.7	2.372	3.330	6.2	20.9
5 1	13 21.82	- 1 29.9	1.626	2.586	8.5	20.8	5 1	13 21.45	+ 8 11.6	2.406	3.321	8.5	21.0
5 11	13 16.44	+ 0 13.5	1.685	2.586	12.5	21.0	5 11	13 15.30	+ 8 12.0	2.465	3.312	11.0	21.1
5 21	13 13.10	+ 1 32.3	1.766	2.587	15.9	21.3	5 21	13 10.67	+ 7 56.2	2.545	3.303	13.3	21.3
<b>42527</b>	1994 $TO_2$		4 14.9 223°69	0°5/14.5 18			<b>65798</b>	1995 $YR_6$		4 14.9 39°76	2°4/13.3 18		
3 12	13 58.31	- 9 7.2	2.303	3.137	11.5	18.7	3 12	13 57.29	- 6 35.4	1.327	2.195	16.3	18.9
3 22	13 52.73	- 8 54.2	2.213	3.129	8.6	18.5	3 22	13 52.75	- 5 58.3	1.272	2.205	11.9	18.7
4 1	13 45.36	- 8 33.9	2.148	3.120	5.1	18.3	4 1	13 45.62	- 5 12.0	1.238	2.216	7.1	18.4
4 11	13 36.80	- 8 9.0	2.111	3.111	1.4	18.0	4 11	13 36.90	- 4 23.2	1.228	2.227	2.7	18.2
4 21	13 27.83	- 7 42.9	2.103	3.102	2.6	18.1	4 21	13 27.84	- 3 39.2	1.244	2.239	4.8	18.3
5 1	13 19.29	- 7 19.7	2.125	3.092	6.3	18.3	5 1	13 19.75	- 3 7.0	1.284	2.251	9.6	18.6
5 11	13 11.97	- 7 3.0	2.173	3.081	9.8	18.5	5 11	13 13.67	- 2 51.3	1.347	2.264	13.9	18.9
5 21	13 6.41	- 6 55.6	2.245	3.071	12.8	18.6	5 21	13 10.20	- 2 53.9	1.429	2.276	17.7	19.2
<b>353862</b>	2012 $VV_{97}$		4 14.9 166°74	6°3/ 7.8 18			<b>54952</b>	2001 $PL_6$		4 14.9 117°29	1°9/13.4 18		
3 12	13 56.93	+11 22.4	2.549	3.391	10.3	20.7	3 12	13 57.85	- 7 4.7	1.796	2.647	13.5	19.1
3 22	13 51.39	+12 13.9	2.490	3.394	8.2	20.6	3 22	13 52.63	- 6 24.7	1.730	2.655	9.9	18.9
4 1	13 44.38	+12 58.6	2.456	3.397	6.7	20.5	4 1	13 45.35	- 5 36.5	1.688	2.663	5.9	18.6
4 11	13 36.48	+13 31.4	2.451	3.399	6.4	20.5	4 11	13 36.81	- 4 45.6	1.672	2.671	2.1	18.4
4 21	13 28.39	+13 48.3	2.473	3.401	7.6	20.6	4 21	13 27.97	- 3 57.6	1.684	2.679	3.9	18.5
5 1	13 20.83	+13 47.0	2.521	3.403	9.5	20.7	5 1	13 19.84	- 3 18.3	1.724	2.686	7.9	18.8
5 11	13 14.41	+13 27.4	2.593	3.405	11.6	20.8	5 11	13 13.28	- 2 52.1	1.788	2.694	11.7	19.0
5 21	13 9.55	+12 50.9	2.686	3.406	13.5	21.0	5 21	13 8.82	- 2 41.1	1.874	2.701	14.9	19.3
<b>85557</b>	1997 $YY_{16}$		4 14.9 157°98	1°7/16.3 18			<b>312673</b>	2010 $MD_{11}$		4 14.9 261°38	3°7/19.6 17		
3 12	14 1.87	-15 50.5	1.804	2.625	14.8	19.3	3 12	13 53.25	-25 39.4	2.633	3.405	12.0	21.0
3 22	13 55.75	-15 45.3	1.728	2.632	11.3	19.1	3 22	13 48.97	-25 16.6	2.527	3.392	9.7	20.8
4 1	13 47.30	-15 25.2	1.674	2.638	7.2	18.9	4 1	13 43.10	-24 36.0	2.445	3.378	7.1	20.6
4 11	13 37.37	-14 52.4	1.647	2.643	3.0	18.6	4 11	13 36.18	-23 38.4	2.389	3.364	4.7	20.4
4 21	13 27.02	-14 10.8	1.649	2.648	2.8	18.6	4 21	13 28.89	-22 26.6	2.361	3.350	3.7	20.3
5 1	13 17.38	-13 26.2	1.678	2.653	6.9	18.9	5 1	13 22.00	-21 5.2	2.363	3.336	5.4	20.4
5 11	13 9.45	-12 44.9	1.733	2.656	11.0	19.1	5 11	13 16.19	-19 40.5	2.392	3.321	8.1	20.6
5 21	13 3.86	-12 12.2	1.811	2.659	14.5	19.3	5 21	13 11.94	-18 18.5	2.447	3.306	10.8	20.7
<b>267708</b>	2003 $AV_{56}$		4 14.9 104°33	2°7/12.6 18			<b>53336</b>	1999 $JP_{42}$		4 14.9 301°85	2°4/17.5 18		
3 12	13 59.85	- 4 17.4	1.972	2.819	12.7	21.0	3 12	13 52.51	-20 13.3	2.073	2.886	13.4	17.9
3 22	13 53.75	- 3 30.2	1.920	2.844	9.2	20.8	3 22	13 48.77	-19 39.0	1.974	2.870	10.5	17.6
4 1	13 45.83	- 2 38.6	1.894	2.868	5.5	20.6	4 1	13 43.13	-18 45.8	1.897	2.854	7.1	17.4
4 11	13 36.89	- 1 48.0	1.895	2.891	2.7	20.5	4 11	13 36.22	-17 35.9	1.846	2.838	3.6	17.1
4 21	13 27.84	- 1 3.6	1.925	2.914	4.4	20.6	4 21	13 28.84	-16 13.6	1.823	2.822	2.8	17.0
5 1	13 19.57	- 0 30.3	1.983	2.936	7.8	20.9	5 1	13 21.90	-14 45.6	1.828	2.806	6.1	17.2
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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>185683</b>	1996 <i>ML</i> <sub>1</sub>		4 14.9 260°07	6°7/ 9.1 17			<b>496143</b>	2010 <i>RC</i> <sub>165</sub>		4 14.9 186°87	0°8/15.7 16		
3 12	13 57.46	+ 5 29.6	1.754	2.617	13.2	20.4	3 12	13 59.81	-14 7.1	2.187	3.007	12.6	22.7
3 22	13 52.50	+ 6 38.5	1.684	2.609	10.2	20.2	3 22	13 53.92	-13 47.2	2.101	3.007	9.5	22.5
4 1	13 45.38	+ 7 45.3	1.639	2.600	7.6	20.0	4 1	13 46.12	-13 15.3	2.040	3.006	5.9	22.3
4 11	13 36.85	+ 8 41.9	1.619	2.592	6.7	19.9	4 11	13 37.08	-12 34.0	2.006	3.004	2.1	22.0
4 21	13 27.91	+ 9 21.1	1.626	2.584	8.5	20.0	4 21	13 27.65	-11 47.1	2.002	3.002	2.3	22.1
5 1	13 19.60	+ 9 38.1	1.657	2.575	11.5	20.2	5 1	13 18.75	-10 59.6	2.026	2.998	6.2	22.3
5 11	13 12.85	+ 9 31.2	1.711	2.567	14.7	20.3	5 11	13 11.21	-10 16.9	2.078	2.994	9.8	22.5
5 21	13 8.26	+ 9 1.4	1.784	2.558	17.6	20.5	5 21	13 5.57	-9 43.0	2.154	2.989	12.9	22.7
<b>150779</b>	2001 <i>QO</i> <sub>268</sub>		4 14.9 206°22	5°6/20.8 18			<b>136168</b>	2003 <i>UC</i> <sub>98</sub>		4 14.9 136°20	3°5/11.9 18		
3 12	13 58.70	-29 8.1	2.235	2.989	14.4	20.1	3 12	13 58.16	- 3 39.1	1.766	2.623	13.5	20.4
3 22	13 53.33	-29 13.0	2.138	2.984	12.0	19.9	3 22	13 52.86	- 2 34.1	1.704	2.632	9.8	20.2
4 1	13 45.86	-28 56.7	2.063	2.979	9.3	19.8	4 1	13 45.50	- 1 23.3	1.666	2.641	6.0	20.0
4 11	13 37.00	-28 18.4	2.013	2.972	6.8	19.6	4 11	13 36.89	- 0 13.6	1.655	2.649	3.5	19.8
4 21	13 27.66	-27 19.7	1.989	2.966	5.6	19.5	4 21	13 27.99	+ 0 47.9	1.672	2.657	5.4	20.0
5 1	13 18.83	-26 5.4	1.994	2.958	6.9	19.6	5 1	13 19.85	+ 1 35.1	1.715	2.664	9.1	20.2
5 11	13 11.45	-24 42.8	2.026	2.951	9.5	19.7	5 11	13 13.30	+ 2 4.0	1.783	2.671	12.7	20.4
5 21	13 6.11	-23 19.7	2.082	2.942	12.4	19.9	5 21	13 8.86	+ 2 13.7	1.872	2.678	15.7	20.7
<b>39489</b>	1981 <i>EU</i> <sub>6</sub>		4 14.9 281°53	3°6/17.8 18			<b>371999</b>	2008 <i>HU</i> <sub>19</sub>		4 14.9 333°60	6°2/ 9.6 17		
3 12	13 57.98	-21 22.2	1.656	2.469	16.2	19.0	3 12	13 55.38	+ 2 17.9	1.564	2.435	14.1	20.2
3 22	13 53.57	-21 9.0	1.544	2.438	13.0	18.7	3 22	13 51.13	+ 3 36.5	1.500	2.432	10.6	20.0
4 1	13 46.44	-20 32.7	1.453	2.407	9.1	18.4	4 1	13 44.62	+ 4 56.3	1.459	2.429	7.4	19.8
4 11	13 37.28	-19 32.9	1.387	2.376	5.1	18.1	4 11	13 36.66	+ 6 8.3	1.444	2.426	6.2	19.7
4 21	13 27.12	-18 13.0	1.346	2.344	4.0	18.0	4 21	13 28.30	+ 7 4.1	1.454	2.423	8.2	19.8
5 1	13 17.31	-16 40.2	1.333	2.311	7.9	18.1	5 1	13 20.66	+ 7 37.4	1.489	2.420	11.6	20.0
5 11	13 9.15	-15 5.0	1.344	2.278	12.7	18.3	5 11	13 14.69	+ 7 45.5	1.546	2.418	15.1	20.2
5 21	13 3.54	-13 37.6	1.377	2.244	17.1	18.5	5 21	13 10.98	+ 7 29.2	1.621	2.416	18.2	20.4
<b>463568</b>	2013 <i>RN</i> <sub>79</sub>		4 14.9 117°14	2°5/12.5 17			<b>354345</b>	2003 <i>FB</i> <sub>101</sub>		4 14.9 356°46	1°9/15.9 18		
3 12	13 54.34	- 7 38.2	1.745	2.602	13.5	21.3	3 12	13 58.42	-13 22.2	1.112	1.975	19.1	20.4
3 22	13 50.15	- 6 19.1	1.674	2.604	9.9	21.0	3 22	13 54.40	-13 46.2	1.044	1.972	14.6	20.1
4 1	13 43.92	- 4 48.9	1.628	2.605	5.8	20.8	4 1	13 47.08	-13 54.3	0.996	1.969	9.3	19.8
4 11	13 36.43	- 3 14.6	1.608	2.606	2.6	20.6	4 11	13 37.46	-13 48.0	0.969	1.967	3.6	19.4
4 21	13 28.59	- 1 44.7	1.617	2.608	4.6	20.7	4 21	13 27.04	-13 31.4	0.966	1.967	3.7	19.4
5 1	13 21.41	+ 0 27.0	1.652	2.609	8.7	21.0	5 1	13 17.56	-13 11.0	0.985	1.967	9.4	19.8
5 11	13 15.74	+ 0 32.4	1.712	2.610	12.5	21.2	5 11	13 10.48	-12 54.8	1.026	1.968	14.7	20.1
5 21	13 12.12	+ 1 10.7	1.792	2.612	15.8	21.4	5 21	13 6.67	-12 48.7	1.086	1.970	19.3	20.3
<b>117240</b>	Zhytomyr		4 14.9 238°09	4°3/10.5 18			<b>33550</b>	Blackburn		4 14.9 205°33	2°4/12.9 18		
3 12	13 56.29	+ 0 32.9	2.164	3.018	11.4	20.7	3 12	13 57.49	- 5 5.5	1.961	2.812	12.6	18.6
3 22	13 51.33	+ 1 36.9	2.081	3.005	8.5	20.5	3 22	13 52.33	- 4 27.3	1.884	2.809	9.2	18.3
4 1	13 44.56	+ 2 43.6	2.023	2.992	5.7	20.3	4 1	13 45.20	- 3 43.1	1.832	2.807	5.5	18.1
4 11	13 36.62	+ 3 46.8	1.993	2.979	4.3	20.2	4 11	13 36.82	- 2 57.7	1.806	2.804	2.5	17.9
4 21	13 28.27	+ 4 40.6	1.992	2.964	6.0	20.2	4 21	13 28.06	- 2 16.3	1.809	2.800	4.2	18.0
5 1	13 20.38	+ 5 19.7	2.018	2.950	9.0	20.4	5 1	13 19.87	- 1 44.2	1.840	2.797	7.9	18.2
5 11	13 13.73	+ 5 41.2	2.069	2.935	12.1	20.5	5 11	13 13.09	- 1 25.2	1.895	2.793	11.5	18.4
5 21	13 8.84	+ 5 43.9	2.140	2.919	14.9	20.7	5 21	13 8.27	- 1 21.1	1.972	2.789	14.6	18.6
<b>127947</b>	2003 <i>HE</i> <sub>8</sub>		4 14.9 261°44	0°1/15.1 17			<b>303670</b>	2005 <i>MU</i> <sub>37</sub>		4 14.9 230°59	0°9/16.0 17		
3 12	13 56.97	-12 0.2	1.923	2.761	13.3	20.5	3 12	13 54.45	-14 54.8	2.579	3.398	10.9	22.0
3 22	13 52.13	-11 39.2	1.832	2.749	10.0	20.3	3 22	13 49.78	-14 33.9	2.486	3.390	8.3	21.8
4 1	13 45.19	-11 6.4	1.765	2.737	6.1	20.0	4 1	13 43.56	-14 2.3	2.417	3.382	5.2	21.6
4 11	13 36.83	-10 24.9	1.724	2.724	1.8	19.7	4 11	13 36.34	-13 22.0	2.376	3.374	2.0	21.4
4 21	13 27.94	- 9 39.2	1.711	2.711	2.7	19.7	4 21	13 28.78	-12 36.3	2.365	3.365	2.0	21.3
5 1	13 19.53	- 8 54.8	1.726	2.699	7.0	20.0	5 1	13 21.60	-11 49.4	2.383	3.356	5.3	21.5
5 11	13 12.54	- 8 17.5	1.767	2.686	11.0	20.2	5 11	13 15.47	-11 6.0	2.428	3.347	8.4	21.7
5 21	13 7.59	- 7 51.3	1.830	2.673	14.6	20.4	5 21	13 10.86	-10 29.5	2.497	3.338	11.2	21.9
<b>126397</b>	2002 <i>BY</i> <sub>4</sub>		4 14.9 186°08	6°6/ 8.8 18			<b>190401</b>	1999 <i>TL</i> <sub>145</sub>		4 14.9 162°30	0°3/15.3 18		
3 12	13 59.77	+ 9 2.9	2.136	2.983	11.8	20.2	3 12	13 57.45	-12 22.3	2.157	2.987	12.4	20.5
3 22	13 53.78	+ 9 55.5	2.072	2.983	9.3	20.1	3 22	13 52.16	-12 5.0	2.078	2.991	9.2	20.3
4 1	13 45.95	+10 42.2	2.033	2.983	7.2	19.9	4 1	13 45.04	-11 37.4	2.024	2.994	5.6	20.1
4 11	13 36.99	+11 16.9	2.021	2.982	6.6	19.9	4 11	13 36.77	-11 2.2	1.997	2.996	1.7	19.8
4 21	13 27.76	+11 34.5	2.036	2.980	8.0	20.0	4 21	13 28.16	-10 23.4	1.999	2.999	2.3	19.8
5 1	13 19.15	+11 32.3	2.078	2.978	10.4	20.1	5 1	13 20.10	- 9 45.7	2.029	3.001	6.2	20.1
5 11	13 11.94	+11 9.7	2.144	2.976	13.0	20.3	5 11	13 13.36	- 9 13.6	2.086	3.003	9.7	20.3
5 21	13 6.61	+10 28.5	2.230	2.974	15.3	20.5	5 21	13 8.46	- 8 50.7	2.166	3.004	12.8	20.5
<b>399441</b>	2002 <i>AR</i> <sub>208</sub>		4 14.9 244°35	4°3/18.5 17			<b>419657</b>	2010 <i>TZ</i> <sub>84</sub>		4 14.9 267°49	0°3/14.7 17		
3 12	14 0.77	-23 8.5	1.876	2.669	15.4	21.5	3 12	13 59.46	-10 15.3	1.588	2.435	15.1	21.3
3 22	13 55.29	-23 9.7	1.771	2.651	12.4	21.3	3 22	13 54.36	-10 3.4	1.505	2.427	11.3	21.0
4 1	13 47.29	-22 50.4	1.688	2.631	8.9	21.0	4 1	13 46.70	- 9 40.3	1.444	2.418	6.9	20.7
4 11	13 37.48	-22 9.8	1.629	2.611	5.5	20.8	4 11	13 37.31	- 9 9.2	1.409	2.409	1.9	20.4
4 21	13 26.89	-21 10.3	1.598	2.590	4.5	20.7	4 21	13 27.29	- 8 35.2	1.401	2.401	3.2	20.5
5 1	13 16.74	-19 57.6	1.594	2.568	7.3	20.8	5 1	13 17.89	- 8 4.3	1.419	2.392	8.2	20.7
5 11	13 8.18	-18 40.1	1.617	2.546	11.2	21.0	5 11	13 10.25	- 7 42.3	1.462	2.383	12.7	21.0
5 21	13 2.00	-17 26.3	1.663	2.522	15.0	21.1	5 21	13 5.09	- 7 33.1	1.525	2.374	16.7	21.2
<b>286866</b>	2002 <i>OR</i> <sub>7</sub>		4 14.9 233°35	8°2/ 6.0 17			<b>35288</b>	1996 <i>TL</i> <sub>19</sub>		4 14.9 253°57	0		

EPHEMERIDES

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>299283</b>	2005 <i>OD</i> <sub>18</sub>		4 14.9 238°23	1.6/13.1	17		<b>133148</b>	2003 <i>QF</i> <sub>19</sub>		4 14.9 225°73	3.5/11.7	16	
3 12	13 52.96	- 7 14.8	2.462	3.307	10.5	20.6	3 12	13 58.51	- 3 6.8	1.912	2.765	12.7	20.9
3 22	13 48.67	- 6 23.1	2.377	3.300	7.7	20.4	3 22	13 53.22	- 2 2.9	1.828	2.754	9.4	20.6
4 1	13 42.88	- 5 24.1	2.319	3.294	4.6	20.2	4 1	13 45.83	- 0 52.5	1.769	2.742	5.9	20.4
4 11	13 36.15	- 4 22.2	2.288	3.287	1.8	20.0	4 11	13 37.05	+ 0 18.1	1.737	2.730	3.6	20.2
4 21	13 29.11	- 3 22.1	2.287	3.280	3.3	20.1	4 21	13 27.79	+ 1 21.8	1.733	2.717	5.5	20.3
5 1	13 22.48	- 2 28.7	2.315	3.273	6.5	20.3	5 1	13 19.06	+ 2 12.3	1.757	2.703	9.2	20.5
5 11	13 16.91	- 1 46.1	2.369	3.265	9.6	20.5	5 11	13 11.77	+ 2 45.1	1.806	2.689	12.8	20.7
5 21	13 12.83	- 1 16.8	2.445	3.258	12.3	20.6	5 21	13 6.52	+ 2 58.3	1.876	2.673	16.0	20.9
<b>374143</b>	2004 <i>TJ</i> <sub>191</sub>		4 14.9 190°82	0°1/14.9	17		<b>30965</b>	1994 <i>XW</i>		4 14.9 161°27	3°9/11.7	18	
3 12	13 57.52	-11 14.3	2.092	2.926	12.5	21.7	3 12	14 1.07	- 1 34.7	1.796	2.648	13.4	18.9
3 22	13 52.29	-10 53.6	2.010	2.925	9.3	21.5	3 22	13 55.03	- 0 41.4	1.730	2.655	9.9	18.7
4 1	13 45.16	-10 22.9	1.953	2.924	5.6	21.2	4 1	13 46.84	+ 0 15.4	1.688	2.661	6.3	18.4
4 11	13 38.10	- 9 45.4	1.923	2.923	1.6	21.0	4 11	13 37.32	+ 1 9.2	1.674	2.666	3.9	18.3
4 21	13 26.82	- 9 5.2	1.922	2.921	2.5	21.0	4 21	13 27.48	+ 1 53.7	1.688	2.670	5.7	18.4
5 1	13 19.92	- 8 27.2	1.949	2.919	6.5	21.3	5 1	13 18.39	+ 2 23.5	1.729	2.674	9.3	18.6
5 11	13 13.08	- 7 56.1	2.002	2.917	10.2	21.5	5 11	13 10.94	+ 2 35.6	1.795	2.677	12.9	18.9
5 21	13 8.13	- 7 35.3	2.078	2.914	13.3	21.7	5 21	13 5.68	+ 2 29.5	1.881	2.679	15.9	19.1
<b>173558</b>	2000 <i>YG</i> <sub>128</sub>		4 14.9 191°53	3°1/17.5	17		<b>122615</b>	2000 <i>RG</i> <sub>49</sub>		4 14.9 198°78	2°2/12.9	17	
3 12	14 0.84	-19 24.6	1.870	2.678	14.8	20.7	3 12	13 56.15	- 6 21.9	1.919	2.771	12.7	20.4
3 22	13 55.10	-19 29.7	1.784	2.677	11.6	20.5	3 22	13 51.38	- 5 30.7	1.844	2.770	9.3	20.2
4 1	13 47.02	-19 18.1	1.721	2.676	7.9	20.3	4 1	13 44.66	- 4 31.6	1.793	2.768	5.6	19.9
4 11	13 37.39	-18 50.4	1.684	2.674	4.3	20.0	4 11	13 36.71	- 3 29.9	1.769	2.767	2.4	19.7
4 21	13 27.22	-18 9.5	1.674	2.671	3.5	20.0	4 21	13 28.39	- 2 31.7	1.773	2.765	4.2	19.8
5 1	13 17.66	-17 20.8	1.693	2.668	6.8	20.2	5 1	13 20.65	- 1 43.1	1.804	2.763	8.0	20.1
5 11	13 9.73	-16 31.2	1.737	2.664	10.7	20.4	5 11	13 14.33	- 1 8.6	1.861	2.760	11.6	20.3
5 21	13 4.09	-15 47.0	1.804	2.660	14.2	20.6	5 21	13 9.96	- 0 50.6	1.939	2.758	14.8	20.5
<b>285466</b>	1999 <i>YL</i> <sub>23</sub>		4 14.9 99°24	1°5/13.7	18		<b>391022</b>	2005 <i>SC</i> <sub>246</sub>		4 14.9 296°81	0°2/15.1	17	
3 12	13 59.23	- 8 26.6	1.669	2.519	14.4	21.7	3 12	13 57.75	-10 21.5	2.351	3.182	11.4	21.4
3 22	13 53.71	- 7 44.1	1.611	2.535	10.6	21.5	3 22	13 52.31	-10 27.6	2.266	3.179	8.5	21.2
4 1	13 46.02	- 6 51.9	1.577	2.552	6.2	21.3	4 1	13 45.14	-10 26.8	2.206	3.176	5.2	21.0
4 11	13 37.05	- 5 55.7	1.569	2.568	2.0	21.1	4 11	13 36.84	-10 20.9	2.174	3.173	1.6	20.7
4 21	13 27.84	- 5 1.8	1.588	2.584	3.8	21.2	4 21	13 28.17	-10 12.5	2.171	3.171	2.2	20.7
5 1	13 19.48	- 4 16.5	1.635	2.600	8.0	21.5	5 1	13 19.95	-10 4.6	2.197	3.168	5.8	21.0
5 11	13 12.86	- 3 44.7	1.706	2.615	12.0	21.8	5 11	13 12.92	-10 0.6	2.250	3.165	9.2	21.2
5 21	13 8.48	- 3 28.7	1.798	2.630	15.3	22.0	5 21	13 7.60	-10 2.8	2.327	3.163	12.1	21.4
<b>351988</b>	2006 <i>UD</i> <sub>156</sub>		4 14.9 153°59	2°8/11.7	18		<b>140649</b>	2001 <i>US</i> <sub>30</sub>		4 14.9 143°67	0°9/14.2	17	
3 12	13 53.09	- 3 39.1	2.329	3.182	10.7	20.7	3 12	13 57.61	- 7 40.8	2.304	3.142	11.4	20.4
3 22	13 48.78	- 2 36.3	2.257	3.184	7.8	20.5	3 22	13 52.16	- 7 31.5	2.227	3.145	8.4	20.2
4 1	13 42.94	- 1 28.7	2.211	3.185	4.8	20.3	4 1	13 45.01	- 7 16.3	2.175	3.148	5.0	20.0
4 11	13 36.16	- 0 21.5	2.194	3.187	2.8	20.2	4 11	13 36.80	- 6 58.2	2.151	3.150	1.5	19.8
4 21	13 29.13	+ 0 39.8	2.205	3.189	4.4	20.3	4 21	13 28.28	- 6 40.5	2.156	3.153	2.7	19.8
5 1	13 22.59	+ 1 30.3	2.244	3.190	7.4	20.5	5 1	13 20.26	- 6 26.5	2.189	3.155	6.3	20.1
5 11	13 17.17	+ 2 6.5	2.309	3.191	10.4	20.7	5 11	13 13.48	- 6 19.5	2.250	3.158	9.5	20.3
5 21	13 13.30	+ 2 26.9	2.395	3.193	12.9	20.9	5 21	13 8.40	- 6 21.4	2.334	3.160	12.4	20.5
<b>331938</b>	2004 <i>TW</i> <sub>52</sub>		4 14.9 267°57	0°9/15.9	18		<b>211535</b>	2003 <i>RY</i> <sub>8</sub>		4 14.9 216°74	1°8/13.4	16	
3 12	13 55.86	-16 15.8	2.130	2.951	12.8	21.3	3 12	13 58.59	- 7 46.7	1.795	2.643	13.7	21.4
3 22	13 51.27	-15 29.6	2.019	2.925	9.8	21.1	3 22	13 53.39	- 6 59.8	1.713	2.637	10.1	21.1
4 1	13 44.70	-14 26.4	1.933	2.899	6.2	20.8	4 1	13 45.98	- 6 2.8	1.655	2.630	6.0	20.9
4 11	13 36.74	-13 9.1	1.874	2.872	2.3	20.5	4 11	13 37.12	- 5 1.0	1.624	2.623	2.1	20.6
4 21	13 28.20	-11 42.6	1.844	2.845	2.4	20.5	4 21	13 27.78	- 4 0.7	1.621	2.615	4.0	20.7
5 1	13 20.02	-10 13.9	1.843	2.816	6.5	20.7	5 1	13 19.03	- 3 8.6	1.645	2.607	8.3	20.9
5 11	13 13.08	- 8 50.5	1.869	2.788	10.5	20.9	5 11	13 11.82	- 2 30.3	1.694	2.598	12.3	21.2
5 21	13 8.02	- 7 38.7	1.918	2.759	14.1	21.0	5 21	13 6.79	- 2 8.7	1.764	2.588	15.8	21.4
<b>181661</b>	2007 <i>YO</i> <sub>47</sub>		4 14.9 116°94	4°4/ 9.9	18		<b>216309</b>	2007 <i>TZ</i> <sub>121</sub>		4 14.9 112°58	0°9/14.2	18	
3 12	13 54.01	+ 2 35.6	2.385	3.240	10.4	20.5	3 12	13 59.81	-10 4.8	1.689	2.534	14.6	21.4
3 22	13 49.37	+ 3 37.6	2.324	3.248	7.8	20.3	3 22	13 54.17	- 9 24.4	1.628	2.550	10.7	21.2
4 1	13 43.25	+ 4 39.2	2.290	3.255	5.4	20.2	4 1	13 46.33	- 8 32.7	1.591	2.565	6.3	20.9
4 11	13 36.25	+ 5 34.9	2.283	3.263	4.4	20.2	4 11	13 37.18	- 7 35.0	1.580	2.580	1.8	20.7
4 21	13 29.05	+ 6 19.7	2.305	3.270	5.8	20.2	4 21	13 27.78	- 6 37.5	1.596	2.594	3.3	20.8
5 1	13 22.36	+ 6 49.9	2.353	3.277	8.3	20.4	5 1	13 19.21	- 5 46.7	1.640	2.608	7.8	21.1
5 11	13 16.81	+ 7 3.6	2.427	3.284	10.9	20.6	5 11	13 12.38	- 5 8.2	1.710	2.622	11.8	21.4
5 21	13 12.79	+ 7 0.7	2.522	3.290	13.1	20.8	5 21	13 7.82	- 4 44.9	1.800	2.635	15.1	21.6
<b>501085</b>	2013 <i>SS</i> <sub>62</sub>		4 14.9 195°82	2°6/12.2	17		<b>296293</b>	2009 <i>DD</i> <sub>89</sub>		4 14.9 252°43	2°0/12.8	17	
3 12	13 55.89	- 5 10.5	2.147	2.996	11.7	22.1	3 12	13 54.13	- 5 25.7	2.361	3.208	10.8	21.0
3 22	13 50.99	- 4 4.6	2.069	2.994	8.5	21.8	3 22	13 49.62	- 4 43.2	2.276	3.200	7.9	20.8
4 1	13 44.34	- 2 51.6	2.017	2.991	5.2	21.6	4 1	13 43.52	- 3 55.0	2.217	3.191	4.7	20.6
4 11	13 36.59	- 1 37.1	1.992	2.988	2.7	21.5	4 11	13 36.38	- 3 5.2	2.185	3.183	2.1	20.4
4 21	13 28.51	- 0 27.5	1.997	2.984	4.4	21.6	4 21	13 28.92	- 2 18.5	2.183	3.174	3.7	20.4
5 1	13 20.95	+ 0 31.5	2.030	2.980	7.8	21.8	5 1	13 21.87	- 1 39.4	2.209	3.165	6.9	20.6
5 11	13 14.65	+ 1 15.4	2.089	2.975	11.1	22.0	5 11	13 15.93	- 1 11.6	2.261	3.156	10.1	20.8
5 21	13 10.12	+ 1 42.3	2.169	2.970	14.0	22.1	5 21	13 11.57	- 0 57.2	2.335	3.146	12.8	21.0
<b>300009</b>	2006 <i>UA</i> <sub>53</sub>		4 14.9 262°44	0°6/14.3	17		<b>131512</b>	2001 <i>TS</i> <sub>46</sub>					

EPHEMERIDES

4 14.9

4 15.0

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>298936</b>	2004 <i>TU</i> <sub>215</sub>		4 14.9 129°88	1°2/15.9	18		<b>508427</b>	2016 <i>JU</i> <sub>35</sub>		4 14.9 303°94	9°8/6.9	17	
3 12	14 1.28	-15 9.1	1.715	2.543	15.1	22.2	3 12	13 59.28	+12 47.8	1.604	2.462	14.5	20.4
3 22	13 55.35	-14 50.6	1.647	2.556	11.4	22.0	3 22	13 54.30	+13 57.8	1.525	2.436	12.0	20.2
4 1	13 47.10	-14 16.7	1.602	2.569	7.2	21.8	4 1	13 46.76	+14 59.0	1.468	2.410	10.2	20.0
4 11	13 37.43	-13 30.6	1.583	2.581	2.7	21.5	4 11	13 37.43	+15 41.4	1.436	2.384	10.0	19.9
4 21	13 27.42	-12 37.4	1.592	2.592	2.7	21.6	4 21	13 27.41	+15 56.9	1.427	2.359	11.8	20.0
5 1	13 18.23	-11 43.6	1.628	2.603	7.1	21.9	5 1	13 17.97	+15 40.9	1.442	2.333	14.7	20.1
5 11	13 10.82	-10 56.0	1.690	2.613	11.2	22.1	5 11	13 10.25	+14 53.1	1.476	2.308	17.8	20.2
5 21	13 5.76	-10 19.4	1.774	2.623	14.7	22.4	5 21	13 4.99	+13 37.2	1.528	2.284	20.8	20.3
<b>24088</b>	1999 <i>UQ</i> <sub>5</sub>		4 14.9 126°43	1°7/16.6	18		<b>468358</b>	2016 <i>EH</i> <sub>161</sub>		4 14.9 104°08	0°1/14.9	18	
3 12	13 56.17	-17 3.9	2.026	2.847	13.4	18.8	3 12	14 2.58	- 9 43.7	1.786	2.623	14.2	20.3
3 22	13 51.37	-16 44.2	1.948	2.851	10.2	18.6	3 22	13 56.23	- 9 49.9	1.718	2.634	10.6	20.0
4 1	13 44.65	-16 9.6	1.894	2.856	6.6	18.4	4 1	13 47.62	- 9 47.5	1.674	2.646	6.4	19.8
4 11	13 36.72	-15 22.6	1.865	2.860	2.9	18.1	4 11	13 37.61	- 9 39.3	1.657	2.657	1.8	19.5
4 21	13 28.45	-14 27.3	1.865	2.865	2.5	18.1	4 21	13 27.25	- 9 28.6	1.668	2.668	2.8	19.6
5 1	13 20.77	-13 29.6	1.892	2.869	6.1	18.4	5 1	13 17.65	- 9 19.5	1.707	2.678	7.2	19.9
5 11	13 14.49	-12 35.6	1.946	2.873	9.8	18.6	5 11	13 9.76	- 9 16.0	1.771	2.688	11.1	20.2
5 21	13 10.14	-11 50.2	2.024	2.876	13.0	18.8	5 21	13 4.17	- 9 20.9	1.859	2.699	14.5	20.4
<b>87605</b>	2000 <i>RW</i> <sub>41</sub>		4 14.9 275°55	3°7/18.9	18		<b>435410</b>	2008 <i>AD</i> <sub>83</sub>		4 14.9 133°19	4°7/9.8	17	
3 12	13 54.50	-23 26.8	2.325	3.113	12.9	19.4	3 12	13 55.03	+ 4 5.1	2.403	3.257	10.4	21.1
3 22	13 50.12	-23 22.3	2.227	3.103	10.4	19.2	3 22	13 50.14	+ 4 58.4	2.340	3.262	7.9	21.0
4 1	13 43.93	-23 0.6	2.152	3.093	7.5	19.0	4 1	13 43.75	+ 5 50.1	2.304	3.267	5.6	20.8
4 11	13 36.54	-22 22.5	2.103	3.083	4.7	18.8	4 11	13 36.46	+ 6 34.8	2.295	3.272	4.7	20.8
4 21	13 28.71	-21 30.5	2.082	3.073	3.8	18.7	4 21	13 28.96	+ 7 8.1	2.314	3.276	6.1	20.9
5 1	13 21.31	-20 29.0	2.089	3.063	5.8	18.8	5 1	13 21.97	+ 7 26.6	2.361	3.281	8.5	21.0
5 11	13 15.12	-19 24.2	2.122	3.052	8.9	19.0	5 11	13 16.12	+ 7 28.9	2.432	3.285	11.0	21.2
5 21	13 10.70	-18 22.1	2.180	3.042	11.8	19.1	5 21	13 11.83	+ 7 15.0	2.525	3.290	13.2	21.4
<b>401174</b>	2011 <i>WM</i> <sub>70</sub>		4 14.9 172°33	1°1/15.9	16		<b>504307</b>	2007 <i>HZ</i> <sub>48</sub>		4 14.9 294°67	3°0/12.5	17	
3 12	14 0.45	-15 22.3	1.955	2.776	13.8	22.8	3 12	13 56.15	- 4 12.5	1.755	2.615	13.4	21.5
3 22	13 54.59	-14 56.1	1.875	2.780	10.5	22.6	3 22	13 51.69	- 3 30.8	1.670	2.599	9.9	21.2
4 1	13 46.62	-14 15.4	1.818	2.784	6.6	22.3	4 1	13 45.05	- 2 42.6	1.608	2.584	6.0	21.0
4 11	13 37.31	-13 22.8	1.789	2.786	2.5	22.1	4 11	13 36.91	- 1 53.3	1.573	2.569	3.1	20.7
4 21	13 27.61	-12 23.3	1.788	2.788	2.5	22.1	4 21	13 28.22	- 1 9.1	1.564	2.554	5.0	20.8
5 1	13 18.55	-11 23.0	1.816	2.789	6.6	22.3	5 1	13 20.06	- 0 36.2	1.582	2.539	9.0	21.0
5 11	13 11.03	-10 28.4	1.870	2.789	10.5	22.6	5 11	13 13.37	- 0 19.0	1.624	2.525	13.0	21.2
5 21	13 5.62	- 9 44.3	1.947	2.788	13.9	22.8	5 21	13 8.83	- 0 19.5	1.686	2.510	16.4	21.4
<b>302297</b>	2001 <i>YJ</i> <sub>80</sub>		4 14.9 166°90	3°1/17.5	18		<b>502632</b>	2015 <i>CQ</i> <sub>30</sub>		4 14.9 306°71	1°1/14.1	17	
3 12	14 0.44	-19 56.3	1.736	2.547	15.7	20.9	3 12	13 57.12	- 8 31.6	1.806	2.654	13.6	21.5
3 22	13 54.90	-19 47.7	1.656	2.551	12.2	20.7	3 22	13 52.27	- 8 8.1	1.728	2.652	10.0	21.3
4 1	13 46.95	-19 19.8	1.599	2.555	8.3	20.4	4 1	13 45.31	- 7 35.6	1.675	2.650	6.0	21.0
4 11	13 37.43	-18 34.0	1.567	2.557	4.4	20.2	4 11	13 36.96	- 6 58.2	1.647	2.647	1.8	20.7
4 21	13 27.42	-17 34.4	1.562	2.560	3.5	20.1	4 21	13 28.19	- 6 21.0	1.647	2.645	3.3	20.8
5 1	13 18.14	-16 27.9	1.585	2.561	7.1	20.4	5 1	13 20.01	- 5 49.2	1.674	2.643	7.6	21.1
5 11	13 10.62	-15 22.6	1.633	2.562	11.1	20.6	5 11	13 13.36	- 5 27.8	1.726	2.640	11.5	21.3
5 21	13 5.50	-14 25.4	1.704	2.563	14.7	20.8	5 21	13 8.81	- 5 19.3	1.800	2.638	15.0	21.5
<b>305960</b>	2009 <i>HT</i> <sub>45</sub>		4 14.9 275°92	0°8/14.3	16		<b>262019</b>	2006 <i>QQ</i> <sub>98</sub>		4 14.9 247°95	1°6/16.4	17	
3 12	13 58.74	- 7 8.0	2.338	3.174	11.3	20.6	3 12	13 57.98	-16 40.3	1.797	2.623	14.6	21.4
3 22	13 53.12	- 7 10.0	2.244	3.161	8.4	20.3	3 22	13 53.14	-16 17.7	1.703	2.610	11.3	21.1
4 1	13 45.70	- 7 7.1	2.176	3.148	5.0	20.1	4 1	13 45.96	-15 37.9	1.632	2.596	7.3	20.9
4 11	13 37.06	- 7 1.8	2.135	3.135	1.5	19.8	4 11	13 37.19	-14 43.0	1.586	2.582	3.0	20.6
4 21	13 27.96	- 6 56.6	2.124	3.121	2.7	19.9	4 21	13 27.80	-13 37.9	1.567	2.568	2.8	20.5
5 1	13 19.25	- 6 54.8	2.142	3.108	6.4	20.1	5 1	13 18.93	-12 29.2	1.577	2.553	7.1	20.7
5 11	13 11.71	- 6 59.1	2.187	3.095	9.8	20.3	5 11	13 11.61	-11 24.9	1.612	2.538	11.4	21.0
5 21	13 5.91	- 7 11.5	2.255	3.081	12.7	20.5	5 21	13 6.54	-10 31.3	1.669	2.522	15.2	21.2
<b>192320</b>	1994 <i>RA</i> <sub>28</sub>		4 14.9 142°37	2°0/12.8	17		<b>393776</b>	2005 <i>GV</i> <sub>216</sub>		4 15.0 128°89	1°6/13.5	17	
3 12	13 55.59	- 6 24.7	2.272	3.117	11.3	20.5	3 12	13 55.61	- 7 18.0	2.089	2.936	12.0	21.1
3 22	13 50.64	- 5 29.1	2.203	3.125	8.2	20.4	3 22	13 50.83	- 6 39.0	2.016	2.940	8.8	20.9
4 1	13 44.07	- 4 26.9	2.159	3.134	4.9	20.2	4 1	13 44.29	- 5 52.6	1.969	2.943	5.2	20.6
4 11	13 36.55	- 3 22.9	2.144	3.142	2.1	20.0	4 11	13 36.65	- 5 3.3	1.948	2.947	1.9	20.4
4 21	13 28.79	- 2 22.6	2.158	3.149	3.7	20.1	4 21	13 28.71	- 4 16.1	1.956	2.950	3.4	20.5
5 1	13 21.59	- 1 30.9	2.201	3.157	7.0	20.3	5 1	13 21.34	- 3 36.0	1.991	2.954	7.1	20.8
5 11	13 15.60	- 0 51.9	2.270	3.163	10.1	20.5	5 11	13 15.26	- 3 7.2	2.053	2.957	10.5	21.0
5 21	13 11.26	- 0 27.3	2.362	3.170	12.8	20.7	5 21	13 10.98	- 2 51.8	2.137	2.960	13.4	21.2
<b>277672</b>	2006 <i>BF</i> <sub>215</sub>		4 14.9 76°14	5°1/10.2	18		<b>224103</b>	2005 <i>OC</i> <sub>28</sub>		4 15.0 290°64	2°3/13.1	17	
3 12	13 55.44	+ 0 56.3	1.793	2.657	12.9	20.5	3 12	13 55.45	- 7 53.8	1.618	2.477	14.4	21.1
3 22	13 50.85	+ 2 11.1	1.736	2.665	9.6	20.4	3 22	13 51.47	- 6 55.4	1.523	2.453	10.7	20.8
4 1	13 44.32	+ 3 27.3	1.704	2.674	6.4	20.2	4 1	13 45.07	- 5 43.7	1.451	2.428	6.4	20.5
4 11	13 36.63	+ 4 37.1	1.698	2.683	5.1	20.1	4 11	13 36.97	- 4 24.4	1.405	2.404	2.5	20.2
4 21	13 28.69	+ 5 33.6	1.720	2.691	6.9	20.2	4 21	13 28.14	- 3 5.5	1.385	2.379	4.7	20.3
5 1	13 21.45	+ 6 11.4	1.767	2.700	10.0	20.4	5 1	13 19.77	- 1 55.8	1.391	2.354	9.4	20.5
5 11	13 15.71	+ 6 28.1	1.838	2.708	13.2	20.7	5 11	13 12.95	- 1 2.7	1.421	2.330	13.9	20.7
5 21	13 11.96	+ 6 23.8	1.928	2.717	15.9	20.9	5 21	13 8.46	- 0 30.4	1.471	2.305	17.9	20.9
<b>519692</b>	2013 <i>AJ</i> <sub>186</sub>		4 14.9 150°25	2°1/12.3	17		<b>465409</b>	2					