

EPHEMERIDES

2 15.0

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>374062</b>	2004 <i>RS</i> <sub>8</sub>		2 15.0 232°73	2°7/17.4	17		<b>170807</b>	2004 <i>DP</i> <sub>37</sub>		2 15.0 265°63	1°9/17.1	18	
1 12	10 14.73	+ 2 40.8	2.367	3.148	12.6	21.7	1 12	10 10.37	+ 3 1.2	2.311	3.103	12.5	19.8
1 22	10 9.65	+ 2 47.5	2.264	3.135	9.9	21.5	1 22	10 6.39	+ 3 45.0	2.223	3.103	9.7	19.6
2 1	10 2.72	+ 3 8.6	2.185	3.121	6.8	21.3	2 1	10 0.72	+ 4 45.3	2.160	3.102	6.4	19.4
2 11	9 54.48	+ 3 42.5	2.134	3.107	3.7	21.1	2 11	9 53.91	+ 5 58.8	2.124	3.102	3.0	19.2
2 21	9 45.69	+ 4 26.1	2.113	3.092	3.1	21.0	2 21	9 46.67	+ 7 20.3	2.118	3.101	2.4	19.2
3 2	9 37.21	+ 5 15.1	2.122	3.077	5.9	21.1	3 2	9 39.83	+ 8 43.7	2.143	3.101	5.7	19.4
3 12	9 29.89	+ 6 4.3	2.159	3.061	9.3	21.3	3 12	9 34.13	+10 2.8	2.195	3.100	9.0	19.6
3 22	9 24.36	+ 6 49.6	2.221	3.045	12.4	21.5	3 22	9 30.13	+11 13.1	2.273	3.099	12.0	19.8
<b>240545</b>	2004 <i>PB</i> <sub>45</sub>		2 15.0 98°82	2°2/13.5	18		<b>265642</b>	2005 <i>TS</i> <sub>42</sub>		2 15.0 97°34	4°9/19.1	18	
1 12	10 19.40	+15 21.7	1.548	2.384	15.5	20.8	1 12	10 15.15	- 2 20.5	1.959	2.727	15.3	20.5
1 22	10 13.65	+16 16.3	1.492	2.401	11.4	20.6	1 22	10 10.08	- 2 32.9	1.885	2.740	12.3	20.3
2 1	10 5.26	+17 20.0	1.459	2.419	6.7	20.3	2 1	10 2.98	- 2 25.4	1.834	2.753	9.0	20.1
2 11	9 55.20	+18 24.7	1.453	2.436	2.5	20.1	2 11	9 54.57	- 1 58.9	1.808	2.766	6.0	20.0
2 21	9 44.74	+19 22.1	1.475	2.453	4.4	20.3	2 21	9 45.74	- 1 16.5	1.810	2.779	5.0	19.9
3 2	9 35.22	+20 5.6	1.525	2.469	8.9	20.6	3 2	9 37.51	- 0 23.2	1.840	2.791	7.0	20.1
3 12	9 27.81	+20 31.9	1.599	2.485	13.0	20.9	3 12	9 30.77	+ 0 34.5	1.897	2.804	10.1	20.3
3 22	9 23.14	+20 40.8	1.695	2.500	16.4	21.1	3 22	9 26.12	+ 1 30.5	1.978	2.816	13.1	20.5
<b>427405</b>	1999 <i>RD</i> <sub>45</sub>		2 15.0 247°50	3°8/20.0	18		<b>433921</b>	2015 <i>CM</i> <sub>1</sub>		2 15.0 116°57	0°1/15.1	17	
1 12	10 10.77	- 5 46.1	3.245	3.972	10.6	22.0	1 12	10 13.42	+10 22.8	2.225	3.040	12.2	21.3
1 22	10 6.32	- 5 22.4	3.124	3.951	8.7	21.9	1 22	10 8.64	+10 56.7	2.149	3.047	9.0	21.1
2 1	10 0.53	- 4 42.6	3.028	3.929	6.6	21.7	2 1	10 2.05	+11 40.7	2.099	3.054	5.5	20.9
2 11	9 53.82	- 3 47.4	2.959	3.906	4.7	21.5	2 11	9 54.29	+12 30.8	2.077	3.061	1.6	20.6
2 21	9 46.70	- 2 39.0	2.920	3.883	3.8	21.4	2 21	9 46.15	+13 22.0	2.085	3.068	2.3	20.7
3 2	9 39.74	- 1 21.1	2.913	3.859	5.0	21.5	3 2	9 38.52	+14 9.3	2.122	3.075	6.1	21.0
3 12	9 33.55	+ 0 1.4	2.936	3.835	7.2	21.6	3 12	9 32.20	+14 48.6	2.187	3.082	9.6	21.2
3 22	9 28.59	+ 1 23.9	2.987	3.810	9.5	21.7	3 22	9 27.73	+15 17.6	2.276	3.088	12.5	21.4
<b>414427</b>	2009 <i>DU</i> <sub>29</sub>		2 15.0 222°01	0°2/15.2	17		<b>421110</b>	2001 <i>AC</i> <sub>45</sub>		2 15.0 120°06	2°6/12.8	18	
1 12	10 16.66	+ 9 52.5	2.001	2.813	13.4	22.4	1 12	10 17.46	+16 12.2	1.839	2.670	13.6	19.3
1 22	10 11.38	+10 25.9	1.908	2.804	10.1	22.2	1 22	10 11.95	+17 27.2	1.778	2.686	10.0	19.1
2 1	10 3.89	+11 12.0	1.840	2.795	6.2	21.9	2 1	10 4.17	+18 50.0	1.742	2.701	5.9	18.9
2 11	9 54.85	+12 6.3	1.800	2.784	1.9	21.6	2 11	9 54.92	+20 12.7	1.734	2.716	2.7	18.8
2 21	9 45.16	+13 3.2	1.790	2.773	2.6	21.7	2 21	9 45.25	+21 27.2	1.756	2.730	4.5	18.9
3 2	9 35.92	+13 56.6	1.809	2.762	7.0	21.9	3 2	9 36.31	+22 26.9	1.807	2.743	8.4	19.2
3 12	9 28.13	+14 41.4	1.855	2.750	11.0	22.1	3 12	9 29.10	+23 8.5	1.884	2.756	12.0	19.4
3 22	9 22.53	+15 14.7	1.925	2.737	14.5	22.3	3 22	9 24.27	+23 31.4	1.983	2.769	15.0	19.6
<b>260981</b>	2005 <i>SK</i> <sub>63</sub>		2 15.0 34°29	5°9/11.7	18		<b>284395</b>	2006 <i>TW</i> <sub>59</sub>		2 15.0 181°16	0°5/15.6	17	
1 12	10 20.32	+25 43.5	1.406	2.257	15.9	19.4	1 12	10 12.41	+ 9 18.6	3.161	3.958	9.3	22.3
1 22	10 14.58	+26 22.1	1.357	2.271	11.9	19.2	1 22	10 7.44	+ 9 38.7	3.072	3.959	7.0	22.1
2 1	10 5.88	+26 57.5	1.332	2.286	8.0	19.0	2 1	10 1.15	+10 6.2	3.010	3.960	4.3	22.0
2 11	9 55.38	+27 20.5	1.331	2.302	5.9	18.9	2 11	9 54.01	+10 38.6	2.977	3.960	1.5	21.8
2 21	9 44.57	+27 24.3	1.357	2.318	7.5	19.0	2 21	9 46.58	+11 13.1	2.976	3.959	1.7	21.8
3 2	9 35.01	+27 6.2	1.408	2.335	11.1	19.3	3 2	9 39.45	+11 46.4	3.006	3.958	4.6	22.0
3 12	9 27.91	+26 27.6	1.482	2.352	14.8	19.5	3 12	9 33.22	+12 15.9	3.065	3.957	7.2	22.1
3 22	9 23.89	+25 32.3	1.576	2.370	17.9	19.8	3 22	9 28.30	+12 39.5	3.150	3.955	9.6	22.3
<b>363865</b>	2005 <i>RL</i> <sub>32</sub>		2 15.0 121°49	4°9/20.2	18		<b>241122</b>	2007 <i>PU</i> <sub>22</sub>		2 15.0 155°78	1°3/13.9	18	
1 12	10 15.75	- 6 6.0	2.572	3.301	13.0	21.3	1 12	10 17.43	+13 7.3	2.049	2.868	12.9	20.8
1 22	10 10.03	- 6 10.1	2.498	3.323	10.7	21.2	1 22	10 11.78	+14 7.2	1.976	2.877	9.5	20.6
2 1	10 2.73	- 5 56.3	2.448	3.346	8.1	21.0	2 1	10 4.03	+15 17.1	1.928	2.885	5.6	20.4
2 11	9 54.45	- 5 25.2	2.424	3.367	5.8	20.9	2 11	9 54.88	+16 30.6	1.909	2.893	1.8	20.1
2 21	9 45.89	- 4 39.3	2.430	3.388	4.9	20.9	2 21	9 45.29	+17 41.0	1.920	2.900	3.3	20.3
3 2	9 37.82	- 3 42.7	2.466	3.407	6.1	21.0	3 2	9 36.27	+18 42.0	1.962	2.906	7.3	20.5
3 12	9 30.94	- 2 40.8	2.530	3.426	8.4	21.2	3 12	9 28.77	+19 29.5	2.030	2.911	10.9	20.7
3 22	9 25.73	- 1 38.7	2.621	3.444	10.7	21.4	3 22	9 23.43	+20 1.7	2.122	2.915	13.9	21.0
<b>152499</b>	2005 <i>WO</i> <sub>155</sub>		2 15.0 177°60	0°7/14.5	18		<b>376653</b>	2013 <i>QV</i> <sub>4</sub>		2 15.0 211°59	1°0/15.9	13 C	
1 12	10 18.22	+11 4.4	1.845	2.663	14.2	21.2	1 12	10 15.23	+ 7 51.2	2.153	2.958	12.9	22.2
1 22	10 12.62	+12 0.4	1.766	2.666	10.5	20.9	1 22	10 10.13	+ 8 11.5	2.063	2.953	9.8	22.0
2 1	10 4.65	+13 9.7	1.711	2.668	6.3	20.7	2 1	10 3.05	+ 8 44.3	1.997	2.947	6.1	21.7
2 11	9 55.08	+14 26.0	1.684	2.669	1.8	20.4	2 11	9 54.62	+ 9 26.1	1.960	2.942	2.3	21.5
2 21	9 44.91	+15 41.9	1.687	2.669	3.2	20.5	2 21	9 45.66	+10 12.6	1.952	2.936	2.4	21.5
3 2	9 35.32	+16 50.0	1.720	2.669	7.7	20.8	3 2	9 37.13	+10 58.5	1.974	2.929	6.3	21.7
3 12	9 27.40	+17 44.8	1.779	2.667	11.7	21.0	3 12	9 29.94	+11 39.4	2.023	2.922	10.0	21.9
3 22	9 21.87	+18 23.8	1.861	2.665	15.2	21.2	3 22	9 24.73	+12 11.8	2.096	2.915	13.2	22.1
<b>403592</b>	2010 <i>PN</i> <sub>77</sub>		2 15.0 159°61	0°4/15.3	18		<b>240539</b>	2004 <i>GY</i> <sub>47</sub>		2 15.0 233°89	5°9/12.6	17	
1 12	10 17.17	+ 9 29.0	2.108	2.916	13.0	22.1	1 12	10 10.30	- 9 21.4	2.494	3.215	13.6	20.9
1 22	10 11.50	+10 0.2	2.030	2.923	9.7	21.9	1 22	10 6.27	- 9 22.1	2.399	3.213	11.4	20.7
2 1	10 3.81	+10 42.8	1.976	2.929	6.0	21.7	2 1	10 0.63	- 9 1.9	2.326	3.210	9.1	20.6
2 11	9 54.80	+11 32.6	1.951	2.935	1.9	21.4	2 11	9 53.90	- 8 20.7	2.277	3.208	7.0	20.4
2 21	9 45.35	+12 24.3	1.957	2.940	2.4	21.5	2 21	9 46.75	- 7 20.5	2.256	3.205	5.9	20.4
3 2	9 36.45	+13 12.7	1.992	2.945	6.5	21.7	3 2	9 39.95	- 6 5.5	2.264	3.203	6.8	20.4
3 12	9 29.00	+13 53.4	2.055	2.948	10.1	22.0	3 12	9 34.20	- 4 41.9	2.299	3.200	8.9	20.5
3 22	9 23.62	+14 23.6	2.142	2.952	13.3	22.2	3 22	9 30.06	- 3 16.2	2.360	3.197	11.3	20.7
<b>349839</b>	2009 <i>CS</i> <sub>37</sub>		2 15.0 43°02	1°4/13.9	18		<b>166873</b>	2002 <i>XB</i> <sub>51</sub>		2 15.0 92°44	1°9/16.7	18	
1 12	10 16.09	+16 23.6											

EPHEMERIDES

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>259184</b>	2003 <i>AL</i> <sub>17</sub>		2 15.0 242°24	9°1/17.8	18		<b>453305</b>	2008 <i>UC</i> <sub>284</sub>		2 15.0 94°05	0°9/14.4	16	
1 12	10 27.81	- 0 46.5	1.235	2.024	21.4	20.3	1 12	10 19.12	+12 18.9	1.491	2.323	16.2	22.2
1 22	10 20.90	- 2 44.8	1.156	2.021	17.7	20.1	1 22	10 13.53	+13 3.1	1.433	2.340	12.0	22.0
2 1	10 10.28	- 4 25.6	1.097	2.018	13.5	19.8	2 1	10 5.27	+13 59.7	1.398	2.357	7.1	21.7
2 11	9 56.88	- 5 42.7	1.062	2.015	10.0	19.6	2 11	9 55.30	+15 1.7	1.389	2.374	2.0	21.4
2 21	9 42.30	- 6 32.1	1.051	2.012	9.3	19.5	2 21	9 44.90	+16 0.7	1.409	2.391	3.6	21.6
3 2	9 28.54	- 6 53.9	1.067	2.008	12.1	19.7	3 2	9 35.46	+16 49.8	1.456	2.407	8.5	21.9
3 12	9 17.40	- 6 54.1	1.105	2.005	16.3	19.9	3 12	9 28.13	+17 24.2	1.528	2.423	12.8	22.2
3 22	9 10.01	- 6 41.4	1.163	2.001	20.3	20.1	3 22	9 23.58	+17 42.5	1.621	2.439	16.5	22.5
<b>229025</b>	2004 <i>BJ</i> <sub>13</sub>		2 15.0 17°34	1°3/15.8	18		<b>320526</b>	2007 <i>YW</i> <sub>41</sub>		2 15.0 250°31	0°5/14.5	17	
1 12	10 17.61	+ 8 45.3	1.205	2.044	18.8	20.3	1 12	10 12.34	+12 54.7	2.509	3.327	10.8	21.3
1 22	10 13.08	+ 8 49.7	1.137	2.045	14.3	20.0	1 22	10 7.76	+13 23.7	2.422	3.323	8.0	21.1
2 1	10 5.34	+ 9 12.4	1.089	2.046	9.0	19.7	2 1	10 1.52	+14 0.3	2.361	3.318	4.8	20.9
2 11	9 55.37	+ 9 48.6	1.065	2.048	3.2	19.4	2 11	9 54.19	+14 40.5	2.329	3.313	1.4	20.6
2 21	9 44.63	+10 31.5	1.066	2.051	3.5	19.4	2 21	9 46.46	+15 20.2	2.327	3.309	2.4	20.7
3 2	9 34.83	+11 12.8	1.092	2.054	9.3	19.8	3 2	9 39.12	+15 55.4	2.355	3.304	5.8	20.9
3 12	9 27.45	+11 45.7	1.142	2.057	14.5	20.1	3 12	9 32.90	+16 22.8	2.410	3.299	9.0	21.1
3 22	9 23.34	+12 6.1	1.210	2.060	19.0	20.4	3 22	9 28.34	+16 40.5	2.490	3.294	11.8	21.3
<b>166203</b>	2002 <i>ES</i> <sub>123</sub>		2 15.0 211°98	0°2/14.9	18		<b>362099</b>	2009 <i>BJ</i> <sub>189</sub>		2 15.0 279°83	0°4/15.3	18	
1 12	10 17.24	+10 52.3	1.976	2.791	13.4	21.0	1 12	10 14.35	+ 8 35.2	1.575	2.402	15.7	21.2
1 22	10 11.84	+11 29.5	1.886	2.784	10.1	20.8	1 22	10 10.25	+ 9 17.3	1.486	2.388	11.9	21.0
2 1	10 4.20	+12 18.9	1.822	2.777	6.1	20.5	2 1	10 3.52	+10 17.9	1.419	2.375	7.4	20.7
2 11	9 55.00	+13 15.4	1.785	2.769	1.8	20.2	2 11	9 54.87	+11 31.6	1.377	2.361	2.3	20.3
2 21	9 45.16	+14 13.1	1.778	2.761	2.8	20.2	2 21	9 45.39	+12 50.9	1.364	2.348	3.1	20.3
3 2	9 35.80	+15 5.9	1.800	2.752	7.2	20.5	3 2	9 36.39	+14 6.7	1.377	2.334	8.3	20.6
3 12	9 27.95	+15 48.8	1.850	2.742	11.2	20.7	3 12	9 29.15	+15 11.5	1.416	2.320	13.1	20.8
3 22	9 22.31	+16 19.2	1.923	2.731	14.6	20.9	3 22	9 24.54	+16 0.4	1.476	2.307	17.2	21.1
<b>211877</b>	2004 <i>HN</i> <sub>38</sub>		2 15.0 222°53	3°3/18.7	18		<b>389054</b>	2008 <i>VP</i> <sub>52</sub>		2 15.0 192°78	4°3/18.9	17	
1 12	10 10.08	- 1 29.3	2.470	3.238	12.5	20.4	1 12	10 13.42	- 2 7.4	2.317	3.078	13.4	21.5
1 22	10 6.10	- 1 1.8	2.378	3.237	10.0	20.2	1 22	10 8.66	- 2 14.7	2.226	3.077	10.8	21.4
2 1	10 0.52	- 0 16.6	2.310	3.235	7.1	20.0	2 1	10 2.13	- 2 4.8	2.158	3.076	7.9	21.2
2 11	9 53.88	+ 0 44.3	2.269	3.234	4.3	19.8	2 11	9 54.39	- 1 38.5	2.116	3.075	5.3	21.0
2 21	9 46.84	+ 1 57.2	2.257	3.232	3.4	19.7	2 21	9 46.19	- 0 58.2	2.103	3.073	4.4	20.9
3 2	9 40.15	+ 3 16.7	2.275	3.231	5.5	19.9	3 2	9 38.38	- 0 8.1	2.120	3.071	6.3	21.1
3 12	9 34.53	+ 4 36.9	2.322	3.229	8.5	20.1	3 12	9 31.77	+ 0 46.5	2.164	3.069	9.2	21.2
3 22	9 30.49	+ 5 52.6	2.394	3.227	11.3	20.2	3 22	9 26.93	+ 1 40.3	2.233	3.066	12.0	21.4
<b>20869</b>	2000 <i>VK</i> <sub>45</sub>		2 15.0 220°54	5°8/19.2	18		<b>496492</b>	2014 <i>TP</i> <sub>58</sub>		2 15.0 359°13	7°8/10.4	18	
1 12	10 18.38	- 3 58.9	2.096	2.845	15.0	18.8	1 12	10 21.37	+30 25.4	1.481	2.329	15.4	20.0
1 22	10 12.63	- 4 28.5	1.994	2.835	12.4	18.6	1 22	10 15.63	+31 15.3	1.421	2.327	12.1	19.8
2 1	10 4.68	- 4 39.5	1.915	2.824	9.4	18.4	2 1	10 6.73	+31 58.0	1.382	2.326	9.0	19.6
2 11	9 55.15	- 4 30.8	1.862	2.812	6.7	18.2	2 11	9 55.76	+32 23.3	1.369	2.326	7.8	19.6
2 21	9 44.91	- 4 3.8	1.837	2.799	5.8	18.1	2 21	9 44.25	+32 23.5	1.381	2.326	9.4	19.7
3 2	9 35.02	- 3 22.0	1.842	2.786	7.6	18.2	3 2	9 33.86	+31 55.8	1.418	2.326	12.6	19.8
3 12	9 26.50	- 2 31.2	1.873	2.771	10.7	18.4	3 12	9 25.98	+31 2.4	1.478	2.328	16.0	20.0
3 22	9 20.08	- 1 37.7	1.929	2.756	13.8	18.5	3 22	9 21.33	+29 48.8	1.556	2.330	19.0	20.3
<b>44437</b>	1998 <i>UN</i> <sub>7</sub>		2 15.0 172°72	4°2/11.7	18		<b>285597</b>	2000 <i>QL</i> <sub>136</sub>		2 15.0 142°57	2°7/12.9	18	
1 12	10 21.45	+21 50.0	1.872	2.704	13.4	20.1	1 12	10 20.97	+18 25.5	1.977	2.802	13.0	21.9
1 22	10 15.06	+22 54.8	1.802	2.708	10.0	19.9	1 22	10 14.43	+19 13.8	1.911	2.815	9.6	21.7
2 1	10 6.14	+24 2.3	1.757	2.711	6.4	19.7	2 1	10 5.64	+20 6.6	1.871	2.828	5.8	21.5
2 11	9 55.55	+25 4.3	1.740	2.714	4.2	19.6	2 11	9 55.41	+20 57.0	1.860	2.840	2.8	21.3
2 21	9 44.40	+25 53.0	1.753	2.716	5.9	19.7	2 21	9 44.78	+21 38.9	1.878	2.851	4.4	21.4
3 2	9 33.98	+26 23.2	1.794	2.716	9.4	19.9	3 2	9 34.89	+22 7.6	1.927	2.861	8.0	21.7
3 12	9 25.43	+26 33.4	1.861	2.716	12.9	20.1	3 12	9 26.75	+22 21.0	2.001	2.871	11.5	21.9
3 22	9 19.46	+26 24.9	1.949	2.715	15.9	20.3	3 22	9 20.97	+22 19.4	2.098	2.879	14.5	22.1
<b>50981</b>	2000 <i>GL</i> <sub>93</sub>		2 15.0 139°99	4°2/10.6	18		<b>167032</b>	2003 <i>QM</i> <sub>41</sub>		2 15.0 121°47	1°8/16.7	18	
1 12	10 14.80	+24 27.7	2.434	3.268	10.6	19.0	1 12	10 16.12	+ 3 37.7	1.924	2.718	14.6	21.0
1 22	10 9.65	+25 35.1	2.369	3.275	7.9	18.8	1 22	10 10.84	+ 4 26.6	1.854	2.735	11.1	20.8
2 1	10 2.68	+26 42.5	2.331	3.281	5.4	18.7	2 1	10 3.48	+ 5 33.8	1.808	2.752	7.2	20.6
2 11	9 54.52	+27 43.4	2.322	3.288	4.2	18.6	2 11	9 54.78	+ 6 54.5	1.790	2.769	3.1	20.4
2 21	9 45.98	+28 32.3	2.342	3.294	5.6	18.7	2 21	9 45.69	+ 8 22.1	1.801	2.785	2.6	20.4
3 2	9 37.98	+29 5.3	2.391	3.299	8.1	18.9	3 2	9 37.23	+ 9 49.0	1.843	2.800	6.5	20.7
3 12	9 31.30	+29 20.9	2.466	3.305	10.7	19.0	3 12	9 30.32	+11 8.2	1.912	2.814	10.3	20.9
3 22	9 26.52	+29 20.0	2.563	3.310	13.0	19.2	3 22	9 25.56	+12 15.3	2.005	2.828	13.6	21.2
<b>93315</b>	2000 <i>SF</i> <sub>217</sub>		2 15.0 90°38	2°3/13.0	18		<b>265725</b>	2005 <i>UB</i> <sub>413</sub>		2 15.0 155°48	3°3/12.2	18	
1 12	10 14.76	+16 20.9	1.883	2.718	13.2	19.7	1 12	10 16.14	+19 43.4	1.970	2.806	12.6	21.2
1 22	10 9.99	+17 20.3	1.816	2.726	9.7	19.5	1 22	10 11.00	+20 40.9	1.899	2.808	9.3	21.0
2 1	10 3.03	+18 27.2	1.773	2.733	5.8	19.3	2 1	10 3.65	+21 42.8	1.853	2.811	5.8	20.7
2 11	9 54.64	+19 34.8	1.758	2.740	2.5	19.1	2 11	9 54.85	+22 42.0	1.835	2.813	3.3	20.6
2 21	9 45.81	+20 35.9	1.772	2.748	4.2	19.2	2 21	9 45.57	+23 31.8	1.846	2.815	5.0	20.7
3 2	9 37.61	+21 24.6	1.815	2.755	8.1	19.5	3 2	9 36.90	+24 7.0	1.886	2.817	8.5	20.9
3 12	9 31.03	+21 57.3	1.883	2.762	11.7	19.7	3 12	9 29.84	+24 25.2	1.951	2.818	11.9	21.1
3 22	9 26.69	+22 13.4	1.973	2.769	14.7	19.9	3 22	9 25.03	+24 26.5	2.038	2.820	14.8	21.3
<b>466394</b>	2013 <i>SO</i> <sub>47</sub>		2 15.0 268°67	4°7/11.7	17		<b>466206</b>	2012 <i>QM</i> <sub>21</sub>		2 15.0 158°33	3°0/18.1	17	
1 12	10 2												

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2 15.0

2 15.0

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>493841</b>	2015 <i>WA</i> <sub>3</sub>		2 15.0 67°68	3°1/17.3	18		<b>320710</b>	2008 <i>DR</i> <sub>46</sub>		2 15.0 314°06	0°4/15.4	18	
1 12	10 16.50	+ 2 46.5	1.388	2.200	18.3	21.5	1 12	10 12.45	+ 8 36.8	1.554	2.385	15.7	20.7
1 22	10 11.68	+ 3 6.0	1.331	2.220	14.1	21.3	1 22	10 8.84	+ 9 16.2	1.467	2.372	11.9	20.4
2 1	10 4.20	+ 3 48.8	1.294	2.240	9.4	21.0	2 1	10 2.68	+10 13.8	1.402	2.359	7.4	20.1
2 11	9 55.02	+ 4 50.6	1.283	2.260	4.6	20.8	2 11	9 54.66	+11 24.6	1.362	2.346	2.3	19.8
2 21	9 45.41	+ 6 3.8	1.298	2.280	3.7	20.8	2 21	9 45.86	+12 40.9	1.350	2.334	3.0	19.8
3 2	9 36.75	+ 7 19.6	1.339	2.300	7.9	21.1	3 2	9 37.56	+13 54.1	1.365	2.322	8.2	20.1
3 12	9 30.19	+ 8 29.3	1.406	2.320	12.4	21.4	3 12	9 31.01	+14 56.6	1.404	2.311	12.9	20.3
3 22	9 26.38	+ 9 27.1	1.494	2.340	16.2	21.7	3 22	9 27.03	+15 43.5	1.465	2.300	17.0	20.5
<b>174119</b>	2002 <i>JA</i> <sub>135</sub>		2 15.0 193°50	1°0/14.3	18		<b>34872</b>	2001 <i>UV</i> <sub>2</sub>		2 15.0 344°11	5°3/18.2	18	
1 12	10 17.98	+13 24.6	2.012	2.832	13.1	21.4	1 12	10 17.79	+ 0 17.0	1.769	2.552	16.1	18.7
1 22	10 12.33	+14 1.5	1.929	2.830	9.7	21.2	1 22	10 12.41	- 0 30.1	1.685	2.551	13.0	18.5
2 1	10 4.47	+14 47.5	1.871	2.828	5.8	21.0	2 1	10 4.63	- 1 0.2	1.623	2.549	9.5	18.3
2 11	9 55.11	+15 37.5	1.841	2.825	1.7	20.7	2 11	9 55.20	- 1 12.6	1.586	2.548	6.3	18.1
2 21	9 45.20	+16 25.7	1.840	2.821	3.1	20.8	2 21	9 45.13	- 1 8.5	1.577	2.548	5.4	18.1
3 2	9 35.83	+17 6.5	1.870	2.817	7.3	21.0	3 2	9 35.63	- 0 51.4	1.595	2.547	7.9	18.2
3 12	9 27.99	+17 36.1	1.926	2.812	11.1	21.3	3 12	9 27.79	- 0 26.7	1.640	2.546	11.4	18.4
3 22	9 22.36	+17 52.9	2.005	2.807	14.3	21.5	3 22	9 22.35	+ 0 0.0	1.707	2.546	14.8	18.6
<b>374481</b>	2005 <i>YG</i> <sub>51</sub>		2 15.0 182°55	1°5/16.2	17		<b>369622</b>	2011 <i>DO</i> <sub>5</sub>		2 15.0 111°38	0°3/15.3	18	
1 12	10 15.52	+ 7 16.9	2.106	2.910	13.1	20.9	1 12	10 13.91	+ 9 13.4	2.030	2.845	13.1	21.5
1 22	10 10.35	+ 7 22.4	2.022	2.910	10.0	20.7	1 22	10 9.20	+ 9 52.7	1.955	2.852	9.8	21.3
2 1	10 3.21	+ 7 40.0	1.962	2.910	6.4	20.5	2 1	10 2.51	+10 44.5	1.906	2.860	6.0	21.1
2 11	9 54.73	+ 8 7.0	1.929	2.910	2.7	20.2	2 11	9 54.54	+11 44.1	1.884	2.868	1.8	20.8
2 21	9 45.78	+ 8 39.4	1.926	2.909	2.5	20.2	2 21	9 46.14	+12 45.8	1.891	2.875	2.4	20.8
3 2	9 37.33	+ 9 12.8	1.952	2.909	6.2	20.5	3 2	9 38.30	+13 43.5	1.928	2.882	6.5	21.1
3 12	9 30.26	+ 9 42.9	2.006	2.908	9.9	20.7	3 12	9 31.88	+14 32.5	1.992	2.890	10.2	21.4
3 22	9 25.20	+10 6.5	2.084	2.907	13.1	20.9	3 22	9 27.48	+15 9.9	2.080	2.896	13.3	21.6
<b>246163</b>	2007 <i>QV</i> <sub>2</sub>		2 15.0 98°76	2°8/13.1	18		<b>156515</b>	2002 <i>CB</i> <sub>214</sub>		2 15.0 54°16	0°5/14.6	18	
1 12	10 21.62	+18 16.6	1.672	2.505	14.7	20.5	1 12	10 14.17	+11 46.3	1.827	2.654	13.9	20.4
1 22	10 15.12	+18 58.5	1.618	2.526	10.8	20.3	1 22	10 9.62	+12 25.2	1.753	2.658	10.3	20.2
2 1	10 6.11	+19 45.0	1.588	2.546	6.5	20.1	2 1	10 2.87	+13 15.6	1.704	2.662	6.2	20.0
2 11	9 55.55	+20 28.7	1.585	2.566	3.0	20.0	2 11	9 54.66	+14 12.1	1.682	2.666	1.7	19.7
2 21	9 44.67	+21 3.0	1.611	2.586	4.7	20.1	2 21	9 45.97	+15 8.2	1.688	2.670	3.0	19.8
3 2	9 34.79	+21 23.1	1.665	2.605	8.7	20.4	3 2	9 37.88	+15 57.8	1.722	2.675	7.3	20.1
3 12	9 26.97	+21 27.5	1.745	2.623	12.5	20.6	3 12	9 31.39	+16 36.2	1.783	2.679	11.3	20.3
3 22	9 21.82	+21 16.8	1.847	2.641	15.6	20.9	3 22	9 27.15	+17 1.1	1.866	2.684	14.6	20.5
<b>341636</b>	2007 <i>VG</i> <sub>25</sub>		2 15.0 87°48	7°1/ 8.5	18		<b>282197</b>	2001 <i>UE</i> <sub>51</sub>		2 15.0 106°21	4°1/18.6	18	
1 12	10 20.93	+35 47.3	2.353	3.174	11.4	20.5	1 12	10 17.86	- 1 40.5	1.736	2.511	16.7	21.2
1 22	10 14.22	+36 45.6	2.310	3.192	9.2	20.4	1 22	10 12.24	- 1 15.3	1.672	2.535	13.2	21.0
2 1	10 5.39	+37 34.0	2.293	3.210	7.6	20.3	2 1	10 4.38	- 0 26.6	1.630	2.559	9.3	20.8
2 11	9 55.31	+38 5.6	2.302	3.228	7.2	20.3	2 11	9 55.08	+ 0 42.4	1.614	2.581	5.5	20.6
2 21	9 45.03	+38 16.1	2.340	3.246	8.3	20.4	2 21	9 45.41	+ 2 5.8	1.627	2.603	4.3	20.6
3 2	9 35.61	+38 4.0	2.404	3.263	10.1	20.5	3 2	9 36.52	+ 3 35.4	1.668	2.625	7.1	20.8
3 12	9 27.98	+37 31.1	2.492	3.280	12.2	20.7	3 12	9 29.38	+ 5 2.8	1.737	2.645	10.8	21.1
3 22	9 22.65	+36 41.1	2.601	3.297	14.0	20.9	3 22	9 24.62	+ 6 21.3	1.830	2.665	14.1	21.3
<b>343637</b>	2010 <i>JE</i> <sub>29</sub>		2 15.0 222°46	0°1/15.2	17		<b>72294</b>	2001 <i>BG</i> <sub>33</sub>		2 15.0 69°68	1°4/14.1	18	
1 12	10 11.10	+ 9 14.9	2.446	3.257	11.3	20.7	1 12	10 18.89	+13 50.8	1.453	2.290	16.3	19.4
1 22	10 6.90	+10 2.0	2.359	3.254	8.5	20.5	1 22	10 13.37	+14 30.7	1.401	2.311	12.0	19.2
2 1	10 1.05	+11 0.3	2.297	3.252	5.1	20.3	2 1	10 5.17	+15 21.2	1.372	2.332	7.1	18.9
2 11	9 54.10	+12 5.9	2.265	3.249	1.6	20.0	2 11	9 55.31	+16 14.8	1.369	2.353	2.2	18.7
2 21	9 46.73	+13 13.5	2.263	3.246	2.2	20.1	2 21	9 45.11	+17 3.6	1.393	2.374	3.9	18.9
3 2	9 39.73	+14 18.0	2.291	3.243	5.7	20.3	3 2	9 35.94	+17 41.2	1.445	2.395	8.6	19.2
3 12	9 33.83	+15 14.7	2.347	3.241	9.0	20.5	3 12	9 28.94	+18 4.0	1.521	2.416	12.9	19.5
3 22	9 29.59	+16 0.7	2.427	3.238	11.9	20.7	3 22	9 24.73	+18 11.2	1.618	2.437	16.4	19.8
<b>192291</b>	1990 <i>QX</i> <sub>19</sub>		2 15.0 232°70	4°0/18.4	17		<b>494839</b>	2007 <i>VL</i> <sub>334</sub>		2 15.0 122°45	5°4/ 8.6	18	
1 12	10 14.11	- 0 30.5	2.223	2.994	13.6	20.6	1 12	10 15.86	+30 44.8	2.730	3.558	9.8	21.7
1 22	10 9.31	- 0 35.5	2.125	2.985	10.9	20.4	1 22	10 10.32	+32 0.7	2.679	3.573	7.6	21.6
2 1	10 2.61	- 0 23.7	2.051	2.977	7.8	20.2	2 1	10 3.04	+33 11.8	2.655	3.587	5.9	21.5
2 11	9 54.58	+ 0 4.2	2.004	2.968	5.0	20.0	2 11	9 54.67	+34 12.0	2.660	3.601	5.5	21.5
2 21	9 46.00	+ 0 45.4	1.985	2.958	4.1	19.9	2 21	9 46.00	+34 56.3	2.694	3.615	6.6	21.5
3 2	9 37.77	+ 1 35.7	1.995	2.949	6.4	20.0	3 2	9 37.87	+35 22.1	2.756	3.629	8.5	21.7
3 12	9 30.78	+ 2 29.5	2.033	2.939	9.6	20.2	3 12	9 31.04	+35 29.0	2.844	3.641	10.6	21.8
3 22	9 25.66	+ 3 21.6	2.096	2.929	12.7	20.4	3 22	9 26.04	+35 19.0	2.952	3.654	12.4	22.0
<b>164446</b>	2006 <i>DO</i> <sub>41</sub>		2 15.0 282°57	6°7/19.1	18		<b>102022</b>	1999 <i>RX</i> <sub>92</sub>		2 15.0 100°21	2°6/13.3	18	
1 12	10 16.01	- 3 0.0	1.574	2.353	17.9	20.0	1 12	10 19.70	+17 38.1	1.647	2.483	14.7	19.1
1 22	10 11.62	- 3 36.7	1.473	2.333	14.8	19.7	1 22	10 13.85	+18 17.1	1.585	2.495	10.8	18.9
2 1	10 4.48	- 3 50.8	1.392	2.312	11.3	19.4	2 1	10 5.45	+19 2.0	1.547	2.506	6.5	18.6
2 11	9 55.23	- 3 40.0	1.335	2.291	7.9	19.2	2 11	9 55.41	+19 45.6	1.536	2.518	2.8	18.4
2 21	9 44.94	- 3 5.4	1.303	2.270	6.8	19.1	2 21	9 44.94	+20 21.0	1.553	2.529	4.6	18.6
3 2	9 34.97	- 2 11.6	1.297	2.249	9.3	19.1	3 2	9 35.35	+20 43.2	1.598	2.540	8.8	18.8
3 12	9 26.70	- 1 6.6	1.316	2.228	13.2	19.3	3 12	9 27.76	+20 49.7	1.668	2.551	12.7	19.1
3 22	9 21.12	+ 0 0.8	1.357	2.207	17.3	19.5	3 22	9 22.83	+20 41.0	1.759	2.561	16.0	19.3
<b>406523</b>	2007 <i>VO</i> <sub>229</sub>		2 15.0 196°15	3°8/11.9	18		<b>431542</b>	2007 <i>TL</i> <sub>405</sub>		2 15.0 160°96	3°8/18.9	17	
1 12	10 19.42	+21 6.											

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2 15.0

2 15.1

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>276314</b>	2002 <i>TG</i> <sub>169</sub>		2 15.0 202°78	5°4/20.7	17		<b>412682</b>	2014 <i>OY</i> <sub>230</sub>		2 15.1 166°25	0°2/14.9	18	
1 12	10 12.74	- 7 30.6	2.705	3.428	12.6	21.4	1 12	10 17.26	+10 46.2	2.156	2.966	12.7	22.0
1 22	10 7.99	- 7 44.2	2.607	3.424	10.5	21.2	1 22	10 11.61	+11 26.0	2.076	2.972	9.4	21.8
2 1	10 1.68	- 7 40.3	2.531	3.420	8.3	21.1	2 1	10 3.97	+12 16.5	2.022	2.977	5.7	21.6
2 11	9 54.31	- 7 18.7	2.481	3.415	6.3	20.9	2 11	9 55.00	+13 12.9	1.997	2.981	1.6	21.3
2 21	9 46.51	- 6 40.7	2.459	3.410	5.4	20.9	2 21	9 45.58	+14 9.7	2.002	2.985	2.5	21.4
3 2	9 39.01	- 5 49.5	2.467	3.404	6.4	20.9	3 2	9 36.68	+15 1.4	2.037	2.988	6.5	21.6
3 12	9 32.51	- 4 50.2	2.503	3.398	8.5	21.0	3 12	9 29.20	+15 43.9	2.100	2.990	10.1	21.8
3 22	9 27.53	- 3 47.7	2.564	3.391	10.8	21.2	3 22	9 23.75	+16 14.6	2.187	2.991	13.2	22.0
<b>271861</b>	2004 <i>TX</i> <sub>279</sub>		2 15.0 68°78	2°6/12.9	18		<b>203329</b>	2001 <i>TH</i> <sub>190</sub>		2 15.1 64°11	0°9/15.6	18	
1 12	10 15.96	+18 14.4	1.900	2.736	13.0	20.7	1 12	10 18.57	+ 9 10.4	1.328	2.160	17.8	20.2
1 22	10 10.88	+18 57.1	1.831	2.741	9.6	20.5	1 22	10 13.39	+ 9 25.1	1.270	2.175	13.4	20.0
2 1	10 3.60	+19 44.8	1.787	2.746	5.8	20.3	2 1	10 5.34	+ 9 56.1	1.234	2.190	8.3	19.7
2 11	9 54.88	+20 31.3	1.770	2.751	2.8	20.1	2 11	9 55.42	+10 38.1	1.222	2.205	2.8	19.4
2 21	9 45.71	+21 10.2	1.782	2.756	4.4	20.2	2 21	9 45.03	+11 23.8	1.236	2.221	3.2	19.5
3 2	9 37.21	+21 36.8	1.822	2.762	8.1	20.5	3 2	9 35.66	+12 5.9	1.277	2.236	8.5	19.9
3 12	9 30.36	+21 48.7	1.888	2.767	11.7	20.7	3 12	9 28.56	+12 38.5	1.342	2.252	13.2	20.2
3 22	9 25.79	+21 45.6	1.976	2.772	14.7	20.9	3 22	9 24.44	+12 58.6	1.428	2.267	17.2	20.5
<b>14667</b>	1999 <i>CS</i> <sub>19</sub>		2 15.0 178°30	0°9/15.9	18		<b>284685</b>	2008 <i>SY</i> <sub>28</sub>		2 15.1 38°16	1°7/14.2	18	
1 12	10 15.43	+ 9 9.8	2.396	3.199	11.8	18.3	1 12	10 20.24	+15 36.4	1.217	2.065	18.0	20.4
1 22	10 10.07	+ 9 11.4	2.310	3.200	8.9	18.1	1 22	10 14.96	+15 48.5	1.158	2.073	13.4	20.2
2 1	10 2.95	+ 9 22.1	2.250	3.200	5.6	17.9	2 1	10 6.43	+16 9.6	1.120	2.082	8.0	19.9
2 11	9 54.67	+ 9 39.2	2.218	3.200	2.1	17.7	2 11	9 55.76	+16 32.9	1.106	2.091	2.5	19.6
2 21	9 46.00	+ 9 59.5	2.217	3.200	2.2	17.7	2 21	9 44.54	+16 51.0	1.118	2.100	4.4	19.7
3 2	9 37.77	+10 19.6	2.245	3.200	5.7	17.9	3 2	9 34.47	+16 58.3	1.156	2.110	9.8	20.1
3 12	9 30.78	+10 36.4	2.302	3.200	9.0	18.1	3 12	9 26.98	+16 51.9	1.217	2.121	14.7	20.4
3 22	9 25.57	+10 47.4	2.384	3.200	11.9	18.3	3 22	9 22.81	+16 31.9	1.297	2.131	18.8	20.7
<b>420550</b>	2012 <i>GW</i> <sub>21</sub>		2 15.0 268°85	4°2/11.4	17		<b>29100</b>	1981 <i>EE</i> <sub>18</sub>		2 15.1 30°62	1°5/13.9	18	
1 12	10 15.98	+21 20.8	1.911	2.751	12.8	20.8	1 12	10 14.65	+15 40.8	1.844	2.679	13.4	19.1
1 22	10 11.20	+22 30.6	1.824	2.735	9.6	20.5	1 22	10 9.88	+16 3.4	1.780	2.690	9.9	18.9
2 1	10 3.99	+23 45.5	1.762	2.719	6.2	20.3	2 1	10 2.97	+16 32.5	1.741	2.701	5.9	18.7
2 11	9 55.06	+24 57.4	1.728	2.702	4.2	20.1	2 11	9 54.70	+17 2.9	1.728	2.712	2.0	18.5
2 21	9 45.39	+25 58.4	1.722	2.685	6.0	20.2	2 21	9 46.08	+17 29.3	1.744	2.724	3.4	18.6
3 2	9 36.18	+26 42.0	1.745	2.668	9.6	20.4	3 2	9 38.17	+17 47.4	1.788	2.737	7.4	18.9
3 12	9 28.57	+27 5.2	1.792	2.651	13.1	20.6	3 12	9 31.90	+17 54.6	1.858	2.750	11.1	19.1
3 22	9 23.37	+27 8.0	1.859	2.634	16.3	20.7	3 22	9 27.86	+17 50.0	1.950	2.763	14.2	19.4
<b>270531</b>	2002 <i>GU</i> <sub>81</sub>		2 15.0 266°96	2°7/12.7	17		<b>312832</b>	2011 <i>SN</i> <sub>257</sub>		2 15.1 117°40	3°8/17.8	18	
1 12	10 15.15	+18 14.8	2.085	2.918	12.2	20.9	1 12	10 17.40	+ 1 23.8	1.678	2.470	16.5	21.5
1 22	10 10.32	+19 4.9	1.995	2.903	9.0	20.6	1 22	10 12.11	+ 1 25.6	1.606	2.481	12.9	21.3
2 1	10 3.34	+20 1.1	1.930	2.888	5.5	20.4	2 1	10 4.43	+ 1 47.8	1.556	2.492	8.9	21.0
2 11	9 54.85	+20 57.4	1.893	2.873	2.8	20.2	2 11	9 55.16	+ 2 28.2	1.531	2.503	5.0	20.8
2 21	9 45.73	+21 47.2	1.885	2.858	4.4	20.2	2 21	9 45.39	+ 3 22.0	1.534	2.513	4.1	20.8
3 2	9 37.03	+22 25.3	1.906	2.842	8.0	20.4	3 2	9 36.32	+ 4 22.6	1.566	2.523	7.4	21.0
3 12	9 29.76	+22 48.3	1.953	2.826	11.6	20.6	3 12	9 29.02	+ 5 22.6	1.623	2.533	11.3	21.3
3 22	9 24.61	+22 55.3	2.022	2.810	14.7	20.8	3 22	9 24.19	+ 6 16.3	1.704	2.542	14.9	21.5
<b>109573</b>	Mishasmirnov		2 15.0 71°63	1°6/16.2	18		<b>518110</b>	2016 <i>BJ</i> <sub>92</sub>		2 15.1 203°41	5°9/19.9	17	
1 12	10 19.13	+ 7 9.4	1.697	2.506	15.6	19.7	1 12	10 15.88	- 5 48.1	2.294	3.031	14.2	21.6
1 22	10 13.10	+ 7 17.9	1.645	2.536	11.7	19.5	1 22	10 10.59	- 6 16.0	2.198	3.027	11.8	21.4
2 1	10 4.83	+ 7 40.8	1.616	2.565	7.4	19.3	2 1	10 3.38	- 6 25.4	2.124	3.023	9.1	21.3
2 11	9 55.21	+ 8 14.0	1.613	2.594	3.0	19.2	2 11	9 54.86	- 6 15.5	2.077	3.018	6.8	21.1
2 21	9 45.35	+ 8 52.4	1.640	2.623	2.8	19.1	2 21	9 45.79	- 5 47.6	2.057	3.012	5.9	21.0
3 2	9 36.41	+ 9 30.2	1.695	2.652	6.9	19.5	3 2	9 37.08	- 5 5.0	2.066	3.006	7.2	21.1
3 12	9 29.34	+10 2.6	1.776	2.680	10.8	19.8	3 12	9 29.60	- 4 13.2	2.103	3.000	9.8	21.2
3 22	9 24.69	+10 26.7	1.880	2.708	14.1	20.0	3 22	9 23.99	- 3 18.0	2.165	2.993	12.5	21.4
<b>188705</b>	2005 <i>TE</i> <sub>77</sub>		2 15.0 114°72	4°9/19.3	18		<b>203526</b>	2002 <i>BP</i> <sub>14</sub>		2 15.1 10°50	2°2/16.3	18	
1 12	10 13.58	- 3 7.5	1.926	2.694	15.5	20.7	1 12	10 13.78	+ 7 10.3	1.144	1.987	19.3	19.5
1 22	10 9.08	- 3 6.0	1.845	2.700	12.5	20.5	1 22	10 10.33	+ 7 9.1	1.080	1.988	14.8	19.2
2 1	10 2.53	- 2 42.8	1.785	2.705	9.2	20.3	2 1	10 3.76	+ 7 28.7	1.035	1.991	9.5	18.9
2 11	9 54.59	- 1 58.8	1.751	2.710	6.1	20.2	2 11	9 55.03	+ 8 5.0	1.013	1.995	3.9	18.6
2 21	9 46.15	- 0 57.6	1.744	2.715	5.0	20.1	2 21	9 45.59	+ 8 51.1	1.015	2.000	3.6	18.6
3 2	9 38.24	+ 0 14.7	1.766	2.720	7.1	20.2	3 2	9 37.08	+ 9 38.6	1.042	2.006	9.1	18.9
3 12	9 31.78	+ 1 30.7	1.815	2.725	10.3	20.4	3 12	9 30.95	+10 19.3	1.091	2.013	14.3	19.2
3 22	9 27.40	+ 2 43.6	1.887	2.729	13.5	20.6	3 22	9 28.00	+10 48.0	1.159	2.021	18.8	19.5
<b>367519</b>	2009 <i>PW</i> <sub>2</sub>		2 15.1 183°59	2°4/16.9	16		<b>432467</b>	2010 <i>CX</i> <sub>192</sub>		2 15.1 227°69	7°7/ 5.4	17	
1 12	10 18.55	+ 4 55.1	2.340	3.123	12.6	22.1	1 12	10 15.68	+36 9.8	2.432	3.260	10.8	20.9
1 22	10 12.43	+ 4 43.2	2.250	3.124	9.8	21.9	1 22	10 10.71	+37 55.6	2.374	3.257	9.0	20.7
2 1	10 4.41	+ 4 42.9	2.185	3.124	6.5	21.7	2 1	10 3.57	+39 34.0	2.343	3.253	7.8	20.7
2 11	9 55.12	+ 4 52.6	2.148	3.123	3.4	21.5	2 11	9 54.92	+40 56.5	2.339	3.250	7.9	20.7
2 21	9 45.38	+ 5 9.8	2.142	3.122	2.9	21.4	2 21	9 45.71	+41 56.8	2.362	3.246	9.2	20.7
3 2	9 36.08	+ 5 31.0	2.166	3.120	5.9	21.6	3 2	9 37.01	+42 31.3	2.411	3.242	11.1	20.9
3 12	9 28.07	+ 5 52.6	2.219	3.118	9.2	21.8	3 12	9 29.82	+42 40.1	2.483	3.238	13.1	21.0
3 22	9 21.97	+ 6 11.3	2.297	3.115	12.2	22.0	3 22	9 24.82	+42 26.2	2.572	3.235	14.8	21.1
<b>241039</b>	2006 <i>QB</i> <sub>159</sub>		2 15.1 129°88	2°3/17.5	18		<b>5373</b>	1988 <i>VV</i> <sub>3</sub>		2 15.1 148°92	1°1/14.2	18	
1 12	10 11.05	+ 2 30.1											

EPHEMERIDES

2 15.1

2 15.1

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>240832</b>	2006 <i>BP</i> <sub>38</sub>		2 15.1 314°26	0°6/15.5 18			<b>237532</b>	2000 <i>SK</i> <sub>301</sub>		2 15.1 174°16	4°8/21.1 18		
1 12	10 14.01	+ 7 34.4	1.427	2.257	16.9	20.6	1 12	10 10.88	- 7 59.2	2.993	3.709	11.6	20.7
1 22	10 10.14	+ 8 21.4	1.349	2.253	12.8	20.4	1 22	10 6.47	- 7 58.0	2.898	3.711	9.7	20.6
2 1	10 3.53	+ 9 29.4	1.293	2.249	8.0	20.1	2 1	10 0.72	- 7 39.9	2.826	3.713	7.6	20.4
2 11	9 54.97	+10 52.3	1.261	2.245	2.6	19.7	2 11	9 54.07	- 7 5.3	2.781	3.715	5.7	20.3
2 21	9 45.64	+12 21.2	1.257	2.241	3.1	19.8	2 21	9 47.09	- 6 16.1	2.765	3.716	4.8	20.3
3 2	9 36.95	+13 46.2	1.279	2.238	8.5	20.1	3 2	9 40.41	- 5 15.7	2.778	3.716	5.7	20.3
3 12	9 30.21	+14 58.5	1.326	2.234	13.4	20.3	3 12	9 34.62	- 4 8.6	2.820	3.717	7.6	20.4
3 22	9 26.25	+15 53.2	1.394	2.231	17.6	20.6	3 22	9 30.18	- 2 59.8	2.888	3.717	9.7	20.6
<b>248010</b>	2004 <i>EZ</i> <sub>56</sub>		2 15.1 255°81	2°7/12.7 17			<b>129799</b>	1999 <i>JT</i> <sub>130</sub>		2 15.1 233°24	1°0/14.2 18		
1 12	10 15.47	+20 13.4	2.375	3.205	11.0	20.6	1 12	10 16.35	+12 4.6	1.733	2.561	14.5	20.5
1 22	10 10.24	+20 46.0	2.292	3.198	8.1	20.4	1 22	10 11.56	+12 58.7	1.647	2.552	10.8	20.2
2 1	10 3.14	+21 21.2	2.234	3.191	5.0	20.2	2 1	10 4.26	+14 6.6	1.585	2.543	6.5	19.9
2 11	9 54.77	+21 53.8	2.205	3.183	2.7	20.0	2 11	9 55.20	+15 21.9	1.550	2.534	1.9	19.6
2 21	9 45.97	+22 19.3	2.205	3.176	4.1	20.1	2 21	9 45.40	+16 36.6	1.543	2.525	3.5	19.7
3 2	9 37.63	+22 34.0	2.235	3.168	7.2	20.3	3 2	9 36.11	+17 43.1	1.565	2.515	8.2	19.9
3 12	9 30.60	+22 36.0	2.292	3.161	10.3	20.5	3 12	9 28.50	+18 35.2	1.613	2.504	12.5	20.2
3 22	9 25.47	+22 25.4	2.372	3.153	13.0	20.6	3 22	9 23.38	+19 10.4	1.683	2.494	16.3	20.4
<b>313017</b>	1999 <i>WJ</i> <sub>5</sub>		2 15.1 140°82	0°7/15.6 18			<b>405925</b>	2006 <i>KC</i> <sub>71</sub>		2 15.1 247°84	0°7/14.5 18		
1 12	10 17.67	+ 8 21.3	2.068	2.872	13.3	21.9	1 12	10 15.49	+11 12.3	1.648	2.477	15.0	21.9
1 22	10 11.91	+ 8 52.8	1.994	2.885	10.0	21.7	1 22	10 10.99	+12 4.1	1.565	2.471	11.2	21.6
2 1	10 4.14	+ 9 36.8	1.946	2.897	6.2	21.5	2 1	10 3.95	+13 11.1	1.505	2.463	6.8	21.4
2 11	9 55.06	+10 28.9	1.926	2.909	2.1	21.3	2 11	9 55.11	+14 26.8	1.471	2.456	1.9	21.0
2 21	9 45.58	+11 23.8	1.936	2.920	2.4	21.3	2 21	9 45.54	+15 43.1	1.466	2.449	3.4	21.1
3 2	9 36.70	+12 15.9	1.976	2.930	6.4	21.6	3 2	9 36.52	+16 51.8	1.489	2.441	8.3	21.4
3 12	9 29.31	+13 0.7	2.043	2.939	10.1	21.8	3 12	9 29.24	+17 46.5	1.537	2.433	12.8	21.6
3 22	9 24.01	+13 35.2	2.135	2.948	13.2	22.1	3 22	9 24.52	+18 24.2	1.607	2.425	16.6	21.8
<b>331161</b>	2010 <i>XG</i> <sub>52</sub>		2 15.1 44°99	6°2/20.0 18			<b>40662</b>	1999 <i>RD</i> <sub>195</sub>		2 15.1 161°04	3°1/17.9 18		
1 12	10 13.27	- 4 42.3	1.656	2.428	17.5	20.6	1 12	10 15.07	+ 1 26.1	2.422	3.195	12.5	19.5
1 22	10 9.13	- 4 56.2	1.582	2.436	14.3	20.4	1 22	10 9.80	+ 1 25.0	2.337	3.201	9.9	19.3
2 1	10 2.67	- 4 44.7	1.528	2.444	10.8	20.2	2 1	10 2.82	+ 1 38.1	2.275	3.206	6.9	19.1
2 11	9 54.67	- 4 7.9	1.498	2.452	7.6	20.1	2 11	9 54.70	+ 2 4.0	2.241	3.210	4.0	19.0
2 21	9 46.14	- 3 9.4	1.494	2.461	6.3	20.0	2 21	9 46.19	+ 2 39.7	2.237	3.214	3.3	18.9
3 2	9 38.23	- 1 55.7	1.517	2.469	8.1	20.1	3 2	9 38.11	+ 3 21.4	2.263	3.217	5.7	19.1
3 12	9 32.00	- 0 35.7	1.565	2.479	11.4	20.3	3 12	9 31.21	+ 4 4.4	2.318	3.220	8.7	19.3
3 22	9 28.13	+ 0 42.6	1.636	2.488	14.7	20.6	3 22	9 26.05	+ 4 44.7	2.397	3.223	11.5	19.4
<b>244349</b>	2002 <i>LF</i> <sub>30</sub>		2 15.1 267°41	11°6/21.0 16			<b>202006</b>	2004 <i>QC</i> <sub>14</sub>		2 15.1 70°51	15°5/1.5 18		
1 12	10 21.05	-13 8.4	1.780	2.484	18.8	20.0	1 12	10 21.27	-26 22.5	1.599	2.220	23.3	18.7
1 22	10 15.18	-15 1.2	1.688	2.475	16.6	19.8	1 22	10 15.25	-28 8.6	1.553	2.253	21.3	18.6
2 1	10 6.57	-16 31.7	1.615	2.465	14.3	19.6	2 1	10 6.44	-29 15.4	1.521	2.285	19.2	18.5
2 11	9 55.90	-17 33.5	1.565	2.456	12.4	19.5	2 11	9 55.80	-29 36.5	1.506	2.317	17.3	18.4
2 21	9 44.22	-18 2.7	1.539	2.447	11.6	19.4	2 21	9 44.65	-29 10.6	1.509	2.349	15.9	18.4
3 2	9 32.87	-17 59.3	1.539	2.437	12.4	19.4	3 2	9 34.46	-28 1.6	1.533	2.380	15.5	18.5
3 12	9 23.18	-17 28.8	1.562	2.428	14.4	19.5	3 12	9 26.48	-26 20.2	1.579	2.411	16.0	18.6
3 22	9 16.12	-16 39.6	1.606	2.418	16.9	19.6	3 22	9 21.41	-24 19.3	1.644	2.441	17.2	18.7
<b>466913</b>	2015 <i>FS</i> <sub>2</sub>		2 15.1 346°61	4°4/10.9 18			<b>506343</b>	2017 <i>OT</i> <sub>48</sub>		2 15.1 197°84	0°2/15.3 17		
1 12	10 14.06	+22 45.6	2.045	2.887	12.0	21.2	1 12	10 13.22	+ 8 29.6	2.278	3.086	12.1	21.9
1 22	10 9.50	+23 59.7	1.975	2.886	9.0	21.0	1 22	10 8.63	+ 9 24.9	2.190	3.083	9.1	21.7
2 1	10 2.82	+25 16.2	1.931	2.885	5.9	20.8	2 1	10 2.21	+10 33.3	2.127	3.081	5.6	21.4
2 11	9 54.70	+26 27.4	1.915	2.885	4.4	20.7	2 11	9 54.55	+11 50.4	2.094	3.078	1.7	21.2
2 21	9 46.09	+27 26.2	1.927	2.884	6.0	20.8	2 21	9 46.40	+13 10.2	2.091	3.074	2.3	21.2
3 2	9 38.04	+28 7.4	1.967	2.884	9.1	21.0	3 2	9 38.64	+14 26.4	2.118	3.070	6.2	21.4
3 12	9 31.51	+28 28.7	2.032	2.884	12.1	21.2	3 12	9 32.10	+15 33.6	2.173	3.066	9.7	21.7
3 22	9 27.14	+28 30.9	2.118	2.884	14.8	21.4	3 22	9 27.38	+16 28.5	2.253	3.061	12.7	21.8
<b>207498</b>	2006 <i>HH</i> <sub>98</sub>		2 15.1 82°01	2°5/13.4 18			<b>97878</b>	2000 <i>QL</i> <sub>43</sub>		2 15.1 107°33	0°6/15.5 18		
1 12	10 19.90	+16 48.9	1.507	2.346	15.7	20.8	1 12	10 18.99	+ 9 21.5	1.632	2.451	15.7	20.5
1 22	10 14.14	+17 33.3	1.452	2.363	11.5	20.6	1 22	10 13.31	+ 9 45.7	1.567	2.465	11.7	20.2
2 1	10 5.68	+18 24.9	1.421	2.381	6.9	20.4	2 1	10 5.16	+10 23.9	1.526	2.480	7.2	20.0
2 11	9 55.53	+19 15.8	1.415	2.398	2.8	20.1	2 11	9 55.41	+11 10.9	1.511	2.494	2.3	19.7
2 21	9 44.98	+19 58.2	1.438	2.415	4.7	20.3	2 21	9 45.22	+12 0.4	1.524	2.508	2.8	19.8
3 2	9 35.45	+20 26.6	1.487	2.432	9.1	20.6	3 2	9 35.84	+12 45.8	1.566	2.521	7.6	20.1
3 12	9 28.08	+20 38.2	1.562	2.448	13.2	20.9	3 12	9 28.38	+13 22.1	1.633	2.534	11.8	20.4
3 22	9 23.51	+20 33.5	1.657	2.465	16.6	21.1	3 22	9 23.50	+13 46.6	1.723	2.547	15.4	20.7
<b>160757</b>	2000 <i>SU</i> <sub>98</sub>		2 15.1 98°72	0°6/14.7 18			<b>247385</b>	2001 <i>YD</i> <sub>95</sub>		2 15.1 284°60	5°4/19.2 17		
1 12	10 21.19	+12 50.3	1.630	2.454	15.4	20.2	1 12	10 15.78	- 3 27.3	2.446	3.192	13.2	20.0
1 22	10 14.87	+13 12.0	1.571	2.474	11.4	20.0	1 22	10 10.41	- 4 15.9	2.349	3.186	10.9	19.9
2 1	10 6.03	+13 43.5	1.536	2.493	6.8	19.7	2 1	10 3.25	- 4 50.1	2.275	3.180	8.3	19.7
2 11	9 55.62	+14 19.3	1.527	2.512	1.9	19.5	2 11	9 54.86	- 5 8.6	2.229	3.174	6.1	19.5
2 21	9 44.86	+14 53.1	1.548	2.530	3.2	19.6	2 21	9 45.95	- 5 12.1	2.211	3.167	5.4	19.5
3 2	9 35.04	+15 19.8	1.596	2.548	7.8	19.9	3 2	9 37.38	- 5 2.5	2.222	3.161	6.8	19.5
3 12	9 27.24	+15 35.8	1.671	2.566	12.0	20.2	3 12	9 29.96	- 4 43.6	2.261	3.155	9.3	19.7
3 22	9 22.10	+15 40.0	1.767	2.583	15.4	20.4	3 22	9 24.28	- 4 19.8	2.324	3.149	11.9	19.8
<b>432182</b>	2009 <i>CZ</i> <sub>53</sub>		2 15.1 325°25	0°7/14.6 16			<b>408900</b>	2001 <i>UM</i> <sub>229</sub>		2 15.1 143°89	2°5/12.9 18		
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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>208944</b>	2002 <i>VH</i> <sub>106</sub>		2 15.1 39°44'	8°9'/22.9 18			<b>58497</b>	1996 <i>UK</i> <sub>4</sub>		2 15.1 177°36'	2°2'/13.6 18		
1 12	10 13.20	-12 18.3	1.912	2.629	17.3	19.6	1 12	10 20.81	+15 34.2	1.577	2.410	15.4	20.0
1 22	10 8.81	-13 11.1	1.844	2.645	14.9	19.5	1 22	10 15.00	+16 21.4	1.504	2.412	11.4	19.8
2 1	10 2.38	-13 38.0	1.795	2.661	12.3	19.3	2 1	10 6.39	+17 18.3	1.454	2.413	6.9	19.5
2 11	9 54.61	-13 36.9	1.768	2.678	10.1	19.2	2 11	9 55.86	+18 17.3	1.431	2.414	2.6	19.3
2 21	9 46.41	-13 8.6	1.766	2.695	8.9	19.2	2 21	9 44.66	+19 10.2	1.436	2.414	4.4	19.4
3 2	9 38.79	-12 17.3	1.790	2.712	9.4	19.3	3 2	9 34.23	+19 50.2	1.469	2.414	9.1	19.7
3 12	9 32.68	-11 10.2	1.839	2.730	11.2	19.4	3 12	9 25.86	+20 13.4	1.527	2.413	13.5	19.9
3 22	9 28.66	-9 55.5	1.910	2.748	13.5	19.6	3 22	9 20.32	+20 19.3	1.606	2.411	17.2	20.1
<b>47308</b>	1999 <i>XP</i> <sub>5</sub>		2 15.1 96°30'	1°0'/14.4 18			<b>161675</b>	2006 <i>FU</i> <sub>1</sub>		2 15.1 336°52'	4°0'/12.5 18		
1 12	10 20.53	+12 7.4	1.412	2.244	16.9	19.7	1 12	10 17.19	+18 57.5	1.367	2.219	16.2	19.6
1 22	10 14.74	+12 53.3	1.356	2.263	12.5	19.5	1 22	10 12.72	+19 55.7	1.298	2.215	12.0	19.3
2 1	10 6.12	+13 52.5	1.323	2.282	7.4	19.2	2 1	10 5.19	+21 1.8	1.251	2.212	7.5	19.0
2 11	9 55.72	+14 57.3	1.316	2.301	2.1	19.0	2 11	9 55.54	+22 6.1	1.229	2.209	4.1	18.8
2 21	9 44.88	+15 59.0	1.337	2.319	3.7	19.1	2 21	9 45.13	+22 58.9	1.234	2.206	6.2	19.0
3 2	9 35.08	+16 49.9	1.385	2.337	8.8	19.4	3 2	9 35.56	+23 32.5	1.264	2.204	10.8	19.2
3 12	9 27.53	+17 25.3	1.458	2.354	13.3	19.8	3 12	9 28.26	+23 43.7	1.317	2.202	15.2	19.5
3 22	9 22.91	+17 43.9	1.551	2.371	17.0	20.0	3 22	9 24.05	+23 33.5	1.389	2.200	19.0	19.7
<b>502508</b>	2015 <i>BU</i> <sub>421</sub>		2 15.1 182°01'	0°6'/15.6 17			<b>229156</b>	2004 <i>TU</i>		2 15.1 67°02'	1°3'/14.1 18		
1 12	10 13.47	+ 8 59.8	2.283	3.092	12.1	21.5	1 12	10 16.11	+14 39.5	1.857	2.687	13.6	20.3
1 22	10 8.77	+ 9 26.6	2.199	3.092	9.1	21.3	1 22	10 11.03	+15 9.3	1.788	2.694	10.0	20.1
2 1	10 2.27	+10 4.4	2.140	3.092	5.6	21.1	2 1	10 3.75	+15 46.9	1.743	2.702	6.0	19.8
2 11	9 54.58	+10 49.6	2.109	3.092	1.9	20.8	2 11	9 55.04	+16 27.0	1.725	2.709	1.9	19.6
2 21	9 46.45	+11 37.7	2.108	3.092	2.2	20.8	2 21	9 45.90	+17 3.8	1.736	2.717	3.3	19.7
3 2	9 38.77	+12 24.0	2.136	3.091	5.9	21.1	3 2	9 37.43	+17 32.4	1.776	2.725	7.5	20.0
3 12	9 32.32	+13 4.1	2.193	3.091	9.4	21.3	3 12	9 30.61	+17 49.4	1.842	2.733	11.2	20.2
3 22	9 27.68	+13 35.2	2.273	3.090	12.4	21.5	3 22	9 26.07	+17 54.0	1.930	2.740	14.5	20.4
<b>462661</b>	2009 <i>SV</i> <sub>334</sub>		2 15.1 212°44'	3°3'/12.4 17			<b>452205</b>	2015 <i>RV</i> <sub>195</sub>		2 15.1 42°85'	4°7'/12.5 18		
1 12	10 19.63	+21 38.2	2.241	3.067	11.7	21.7	1 12	10 20.01	+20 31.3	1.156	2.015	18.0	21.1
1 22	10 13.47	+22 14.8	2.157	3.060	8.7	21.5	1 22	10 14.98	+21 21.5	1.106	2.026	13.4	20.8
2 1	10 5.18	+22 53.0	2.099	3.054	5.5	21.3	2 1	10 6.54	+22 16.4	1.076	2.038	8.4	20.6
2 11	9 55.45	+23 27.0	2.070	3.046	3.3	21.1	2 11	9 55.90	+23 4.9	1.071	2.050	4.8	20.4
2 21	9 45.21	+23 51.4	2.071	3.038	4.7	21.2	2 21	9 44.74	+23 37.3	1.091	2.063	6.9	20.6
3 2	9 35.50	+24 2.6	2.102	3.030	7.9	21.4	3 2	9 34.89	+23 47.7	1.135	2.076	11.6	20.9
3 12	9 27.29	+23 59.0	2.159	3.021	11.1	21.6	3 12	9 27.79	+23 35.3	1.200	2.090	16.1	21.2
3 22	9 21.23	+23 41.4	2.239	3.011	13.9	21.7	3 22	9 24.15	+23 2.9	1.285	2.104	19.9	21.5
<b>393804</b>	2005 <i>QH</i> <sub>71</sub>		2 15.1 154°80'	1°1'/16.0 18			<b>409881</b>	2006 <i>SP</i> <sub>326</sub>		2 15.1 116°80'	2°4'/13.3 18		
1 12	10 19.69	+ 6 42.5	2.037	2.832	13.8	22.1	1 12	10 17.41	+16 54.6	1.737	2.573	14.1	21.3
1 22	10 13.48	+ 7 17.1	1.960	2.845	10.5	21.9	1 22	10 12.20	+17 40.9	1.668	2.578	10.4	21.0
2 1	10 5.16	+ 8 6.0	1.907	2.855	6.6	21.7	2 1	10 4.56	+18 34.3	1.623	2.582	6.2	20.8
2 11	9 55.44	+ 9 5.1	1.884	2.865	2.5	21.4	2 11	9 55.30	+19 27.8	1.605	2.587	2.7	20.6
2 21	9 45.26	+10 8.5	1.890	2.874	2.5	21.4	2 21	9 45.53	+20 14.5	1.615	2.591	4.4	20.7
3 2	9 35.67	+11 10.2	1.927	2.882	6.5	21.7	3 2	9 36.48	+20 48.5	1.653	2.595	8.5	20.9
3 12	9 27.63	+12 4.9	1.993	2.888	10.3	22.0	3 12	9 29.23	+21 6.8	1.717	2.599	12.4	21.2
3 22	9 21.77	+12 49.0	2.082	2.894	13.5	22.2	3 22	9 24.47	+21 8.9	1.801	2.603	15.7	21.4
<b>90082</b>	2002 <i>VO</i> <sub>114</sub>		2 15.1 289°30'	4°2'/12.3 18			<b>217754</b>	2000 <i>HA</i> <sub>64</sub>		2 15.1 311°34'	8°3'/21.4 18		
1 12	10 17.52	+18 45.0	1.340	2.192	16.5	19.3	1 12	10 12.14	- 8 59.0	1.657	2.409	18.3	20.0
1 22	10 13.17	+19 51.1	1.262	2.180	12.3	19.0	1 22	10 8.55	- 9 29.5	1.564	2.397	15.6	19.8
2 1	10 5.60	+21 7.1	1.207	2.168	7.7	18.7	2 1	10 2.55	- 9 32.2	1.490	2.386	12.5	19.6
2 11	9 55.69	+22 22.9	1.177	2.156	4.3	18.5	2 11	9 54.77	- 9 4.5	1.438	2.374	9.7	19.4
2 21	9 44.80	+23 27.3	1.172	2.144	6.6	18.6	2 21	9 46.20	- 8 7.4	1.411	2.364	8.3	19.3
3 2	9 34.63	+24 11.5	1.194	2.133	11.4	18.8	3 2	9 38.05	- 6 46.1	1.409	2.353	9.5	19.3
3 12	9 26.74	+24 31.1	1.237	2.121	16.1	19.1	3 12	9 31.49	- 5 9.9	1.432	2.343	12.5	19.5
3 22	9 22.10	+24 26.6	1.300	2.110	20.2	19.3	3 22	9 27.35	- 3 29.3	1.478	2.333	15.8	19.6
<b>296135</b>	2009 <i>BS</i> <sub>84</sub>		2 15.1 28°88'	0°7'/14.5 18			<b>361630</b>	2007 <i>TF</i> <sub>175</sub>		2 15.1 96°56'	5°3'/11.6 18		
1 12	10 11.91	+11 49.5	1.962	2.790	13.0	20.7	1 12	10 21.33	+24 2.8	1.598	2.440	14.8	21.3
1 22	10 7.85	+12 35.7	1.890	2.795	9.6	20.4	1 22	10 15.28	+25 0.2	1.541	2.451	11.1	21.1
2 1	10 1.80	+13 32.8	1.842	2.801	5.7	20.2	2 1	10 6.45	+25 57.4	1.508	2.462	7.4	20.9
2 11	9 54.45	+14 35.4	1.822	2.807	1.6	20.0	2 11	9 55.85	+26 45.1	1.502	2.473	5.3	20.8
2 21	9 46.68	+15 37.4	1.831	2.813	2.9	20.1	2 21	9 44.81	+27 15.7	1.524	2.484	7.0	20.9
3 2	9 39.45	+16 32.7	1.869	2.820	6.9	20.3	3 2	9 34.77	+27 24.9	1.572	2.494	10.5	21.1
3 12	9 33.66	+17 16.7	1.932	2.827	10.6	20.6	3 12	9 26.94	+27 12.5	1.644	2.505	14.0	21.4
3 22	9 29.89	+17 47.2	2.019	2.834	13.7	20.8	3 22	9 21.98	+26 41.3	1.736	2.515	17.1	21.6
<b>449588</b>	2014 <i>JD</i> <sub>39</sub>		2 15.1 288°11'	3°0'/16.9 18			<b>191048</b>	2002 <i>CM</i> <sub>55</sub>		2 15.1 302°05'	0°6'/14.7 18		
1 12	10 15.12	+ 3 56.6	1.346	2.167	18.3	21.1	1 12	10 17.94	+14 7.5	1.808	2.635	14.0	19.8
1 22	10 11.28	+ 4 8.8	1.258	2.153	14.3	20.8	1 22	10 12.63	+14 9.5	1.720	2.624	10.5	19.5
2 1	10 4.44	+ 4 44.8	1.190	2.139	9.6	20.5	2 1	10 4.89	+14 19.0	1.655	2.613	6.4	19.3
2 11	9 55.36	+ 5 42.2	1.146	2.125	4.6	20.1	2 11	9 55.44	+14 31.7	1.617	2.602	1.9	18.9
2 21	9 45.26	+ 6 54.7	1.127	2.111	3.8	20.0	2 21	9 45.33	+14 43.2	1.608	2.591	3.0	19.0
3 2	9 35.68	+ 8 13.1	1.135	2.097	8.8	20.3	3 2	9 35.78	+14 49.2	1.627	2.580	7.6	19.3
3 12	9 28.11	+ 9 27.4	1.166	2.083	14.1	20.5	3 12	9 27.91	+14 46.8	1.673	2.570	11.8	19.5
3 22	9 23.56	+10 29.9	1.218	2.070	18.7	20.8	3 22	9 22.48	+14 34.9	1.740	2.560	15.4	19.7
<b>505747</b>	2015 <i>BU</i> <sub>86</sub>		2 15.1 148°23'	0°1'/15.1 17			<b>486764</b>	2014 <i>GU</i> <sub>33</sub>		2 15.1 296°79'	6°6'/11.0 18		
1 12	10 13.25												

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>406302</b>	2007 <i>GX</i> <sub>52</sub>		2 15.1 258°79	0°1/15.0 17			<b>455402</b>	2003 <i>BS</i> <sub>52</sub>		2 15.1 48°06	1°9/15.9 18		
1 12	10 17.47	+10 18.3	1.624	2.448	15.5	22.5	1 12	10 24.73	+10 10.1	1.741	2.548	15.3	20.0
1 22	10 12.67	+10 55.2	1.529	2.431	11.7	22.3	1 22	10 17.57	+9 22.1	1.660	2.550	11.7	19.7
2 1	10 5.14	+11 47.9	1.456	2.413	7.2	22.0	2 1	10 7.80	+8 41.9	1.604	2.553	7.5	19.5
2 11	9 55.58	+12 51.4	1.410	2.395	2.1	21.6	2 11	9 56.28	+8 8.1	1.574	2.555	3.1	19.2
2 21	9 45.07	+13 58.2	1.392	2.376	3.2	21.6	2 21	9 44.21	+7 39.3	1.575	2.558	3.1	19.2
3 2	9 34.98	+15 0.3	1.402	2.357	8.4	21.9	3 2	9 32.92	+7 13.5	1.605	2.561	7.5	19.5
3 12	9 26.65	+15 50.9	1.438	2.337	13.2	22.1	3 12	9 23.58	+6 48.5	1.663	2.563	11.7	19.8
3 22	9 21.01	+16 26.3	1.495	2.317	17.4	22.3	3 22	9 16.91	+6 22.7	1.743	2.566	15.3	20.0
<b>334107</b>	2001 <i>QZ</i> <sub>236</sub>		2 15.1 92°69	2°3/13.1 18			<b>63689</b>	2001 <i>QK</i> <sub>155</sub>		2 15.1 139°38	2°4/16.9 18		
1 12	10 17.19	+19 33.5	2.306	3.132	11.4	20.6	1 12	10 17.70	+3 38.5	1.699	2.498	16.0	20.0
1 22	10 11.43	+19 56.9	2.238	3.143	8.4	20.4	1 22	10 12.39	+4 4.7	1.625	2.508	12.3	19.8
2 1	10 3.82	+20 22.3	2.196	3.153	5.1	20.2	2 1	10 4.68	+4 50.4	1.574	2.518	8.1	19.6
2 11	9 55.05	+20 45.2	2.183	3.164	2.5	20.1	2 11	9 55.37	+5 51.9	1.549	2.527	3.8	19.3
2 21	9 45.98	+21 1.2	2.201	3.174	3.8	20.2	2 21	9 45.53	+7 3.0	1.552	2.535	3.1	19.3
3 2	9 37.53	+21 7.4	2.247	3.184	6.9	20.4	3 2	9 36.36	+8 16.1	1.585	2.543	7.2	19.6
3 12	9 30.50	+21 2.5	2.321	3.194	10.0	20.6	3 12	9 28.94	+9 23.8	1.644	2.550	11.4	19.8
3 22	9 25.43	+20 46.5	2.418	3.204	12.6	20.8	3 22	9 23.98	+10 20.9	1.725	2.557	15.0	20.1
<b>493683</b>	2015 <i>RU</i> <sub>243</sub>		2 15.1 109°88	3°2/12.9 18			<b>241148</b>	2007 <i>RP</i> <sub>32</sub>		2 15.1 219°40	1°6/13.9 18		
1 12	10 20.86	+17 42.5	1.461	2.302	16.0	21.3	1 12	10 17.67	+14 2.8	1.780	2.608	14.1	21.2
1 22	10 15.08	+18 37.7	1.402	2.314	11.8	21.1	1 22	10 12.50	+14 53.2	1.696	2.602	10.5	21.0
2 1	10 6.41	+19 40.1	1.366	2.326	7.1	20.8	2 1	10 4.85	+15 54.6	1.636	2.595	6.3	20.7
2 11	9 55.87	+20 40.9	1.356	2.337	3.4	20.6	2 11	9 55.45	+17 0.6	1.604	2.588	2.1	20.4
2 21	9 44.81	+21 31.3	1.374	2.349	5.3	20.8	2 21	9 45.36	+18 3.5	1.600	2.580	3.8	20.5
3 2	9 34.75	+22 4.8	1.419	2.359	9.8	21.1	3 2	9 35.81	+18 56.5	1.625	2.571	8.3	20.8
3 12	9 26.94	+22 18.7	1.488	2.370	14.0	21.3	3 12	9 27.95	+19 34.7	1.676	2.562	12.4	21.0
3 22	9 22.09	+22 14.0	1.577	2.380	17.5	21.6	3 22	9 22.57	+19 56.4	1.749	2.553	16.0	21.2
<b>182685</b>	2001 <i>VN</i> <sub>25</sub>		2 15.1 138°45	3°2/12.4 18			<b>141235</b>	2001 <i>XG</i> <sub>246</sub>		2 15.1 85°53	3°1/18.4 18		
1 12	10 17.74	+19 56.3	2.010	2.842	12.6	20.2	1 12	10 11.52	+0 0.5	2.402	3.176	12.6	19.9
1 22	10 12.17	+20 46.6	1.942	2.849	9.3	20.0	1 22	10 7.19	+0 20.7	2.326	3.190	9.9	19.7
2 1	10 4.42	+21 40.5	1.899	2.856	5.8	19.8	2 1	10 1.26	+0 57.1	2.274	3.203	6.9	19.5
2 11	9 55.26	+22 31.1	1.885	2.863	3.2	19.7	2 11	9 54.32	+1 47.5	2.249	3.216	4.1	19.4
2 21	9 45.67	+23 12.4	1.899	2.869	4.8	19.8	2 21	9 47.06	+2 48.0	2.253	3.230	3.2	19.3
3 2	9 36.73	+23 39.7	1.943	2.874	8.2	20.0	3 2	9 40.24	+3 53.7	2.287	3.243	5.5	19.5
3 12	9 29.42	+23 51.0	2.012	2.880	11.5	20.2	3 12	9 34.57	+4 59.1	2.349	3.256	8.4	19.7
3 22	9 24.35	+23 46.6	2.103	2.885	14.4	20.4	3 22	9 30.54	+5 59.6	2.436	3.269	11.1	19.9
<b>279655</b>	2011 <i>FB</i> <sub>7</sub>		2 15.1 329°56	1°8/13.8 18			<b>426275</b>	2012 <i>SX</i> <sub>17</sub>		2 15.1 10°36	3°5/18.4 18		
1 12	10 14.45	+15 33.3	1.650	2.491	14.4	20.8	1 12	10 11.27	+0 10.3	2.142	2.924	13.7	20.7
1 22	10 10.24	+16 4.2	1.568	2.480	10.7	20.5	1 22	10 7.26	+0 20.2	2.056	2.924	10.9	20.5
2 1	10 3.53	+16 44.1	1.509	2.470	6.5	20.2	2 1	10 1.44	+0 47.7	1.994	2.925	7.7	20.3
2 11	9 55.06	+17 26.8	1.476	2.460	2.3	20.0	2 11	9 54.40	+1 31.3	1.958	2.926	4.6	20.1
2 21	9 45.90	+18 5.8	1.471	2.451	4.0	20.0	2 21	9 46.91	+2 27.2	1.950	2.927	3.6	20.0
3 2	9 37.34	+18 34.8	1.493	2.442	8.5	20.3	3 2	9 39.85	+3 30.1	1.971	2.929	6.1	20.2
3 12	9 30.53	+18 50.1	1.539	2.434	12.8	20.5	3 12	9 34.04	+4 33.9	2.020	2.930	9.4	20.4
3 22	9 26.26	+18 50.3	1.606	2.427	16.5	20.7	3 22	9 30.06	+5 33.4	2.093	2.932	12.4	20.6
<b>145269</b>	2005 <i>JC</i> <sub>138</sub>		2 15.1 139°56	2°2/12.4 18			<b>169570</b>	2002 <i>FS</i> <sub>9</sub>		2 15.1 340°11	4°2/12.7 18		
1 12	10 13.18	+18 38.9	2.903	3.726	9.4	20.9	1 12	10 17.55	+20 1.3	1.272	2.129	16.9	19.6
1 22	10 8.22	+19 36.1	2.834	3.738	6.9	20.7	1 22	10 13.21	+20 41.0	1.202	2.122	12.6	19.3
2 1	10 1.80	+20 36.6	2.792	3.749	4.2	20.6	2 1	10 5.62	+21 26.5	1.153	2.115	7.9	19.0
2 11	9 54.46	+21 35.7	2.780	3.759	2.2	20.5	2 11	9 55.73	+22 8.6	1.129	2.109	4.3	18.8
2 21	9 46.82	+22 28.8	2.800	3.769	3.5	20.6	2 21	9 45.02	+22 38.1	1.130	2.104	6.4	18.9
3 2	9 39.58	+23 12.2	2.850	3.779	6.0	20.7	3 2	9 35.22	+22 48.5	1.155	2.099	11.2	19.1
3 12	9 33.38	+23 43.8	2.928	3.788	8.6	20.9	3 12	9 27.85	+22 37.4	1.203	2.095	15.8	19.4
3 22	9 28.68	+24 3.0	3.030	3.797	10.8	21.1	3 22	9 23.78	+22 6.6	1.269	2.092	19.9	19.6
<b>204871</b>	2007 <i>RB</i> <sub>285</sub>		2 15.1 25°50	0°3/15.4 18			<b>296180</b>	2009 <i>BO</i> <sub>151</sub>		2 15.1 253°41	3°3/18.9 17		
1 12	10 12.87	+9 53.5	2.098	2.916	12.7	20.9	1 12	10 10.23	-2 7.7	2.604	3.365	12.1	21.1
1 22	10 8.47	+10 20.4	2.019	2.918	9.5	20.7	1 22	10 6.28	-1 38.1	2.503	3.356	9.7	21.0
2 1	10 2.16	+10 58.5	1.965	2.920	5.8	20.5	2 1	10 0.77	-0 50.9	2.425	3.347	7.0	20.8
2 11	9 54.60	+11 43.7	1.938	2.922	1.8	20.2	2 11	9 54.21	+0 12.2	2.374	3.338	4.4	20.6
2 21	9 46.60	+12 31.2	1.940	2.924	2.3	20.2	2 21	9 47.21	+1 27.8	2.354	3.328	3.4	20.5
3 2	9 39.09	+13 15.7	1.971	2.926	6.3	20.5	3 2	9 40.50	+2 50.7	2.363	3.319	5.4	20.6
3 12	9 32.93	+13 52.9	2.029	2.929	9.9	20.7	3 12	9 34.77	+4 15.1	2.402	3.309	8.2	20.8
3 22	9 28.71	+14 20.2	2.111	2.931	13.0	20.9	3 22	9 30.55	+5 35.6	2.467	3.299	11.0	20.9
<b>416951</b>	2005 <i>SE</i> <sub>187</sub>		2 15.1 104°60	7°6/ 9.2 18			<b>122944</b>	2000 <i>SA</i> <sub>193</sub>		2 15.1 303°66	4°9/19.3 18		
1 12	10 23.40	+33 23.5	1.942	2.771	13.1	20.6	1 12	10 11.19	-3 9.5	1.781	2.559	16.2	19.0
1 22	10 16.50	+34 28.0	1.893	2.784	10.4	20.5	1 22	10 7.70	-2 55.4	1.684	2.545	13.2	18.7
2 1	10 7.04	+35 23.3	1.869	2.798	8.3	20.4	2 1	10 1.97	-2 16.2	1.607	2.531	9.7	18.5
2 11	9 56.01	+36 0.9	1.872	2.811	7.6	20.4	2 11	9 54.63	-1 12.5	1.555	2.517	6.3	18.2
2 21	9 44.66	+36 14.8	1.903	2.824	8.9	20.5	2 21	9 46.57	+0 11.7	1.530	2.503	5.0	18.1
3 2	9 34.34	+36 3.1	1.960	2.837	11.2	20.6	3 2	9 38.88	+1 49.1	1.532	2.490	7.5	18.2
3 12	9 26.13	+35 27.7	2.040	2.849	13.7	20.8	3 12	9 32.63	+3 30.2	1.561	2.477	11.2	18.4
3 22	9 20.64	+34 33.3	2.140	2.861	16.0	21.0	3 22	9 28.61	+5 6.5	1.613	2.464	15.0	18.6
<b>184545</b>	2005 <i>QS</i> <sub>44</sub>		2 15.1 140°82	0°7/14.5 18			<b>57021</b>	2000 <i>TG</i> <sub>59</sub>		2 15.1 316°32	5°5/ 9.1 18		

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>98129</b>	2000 <i>SD</i> <sub>25</sub>	2 15.1 123°39' 10°5'/26.5 18					<b>448435</b>	2009 <i>WM</i> <sub>76</sub>	2 15.1 285°09' 4°5'/12.5 18				
1 12	10 18.44	-21 42.5	2.201	2.827	17.5	19.3	1 12	10 20.53	+20 15.2	1.303	2.154	16.9	21.2
1 22	10 12.55	-22 24.3	2.129	2.849	15.6	19.2	1 22	10 15.50	+21 3.9	1.228	2.145	12.7	21.0
2 1	10 4.61	-22 37.2	2.074	2.871	13.7	19.1	2 1	10 7.07	+21 59.0	1.176	2.136	8.0	20.7
2 11	9 55.34	-22 18.1	2.041	2.891	11.9	19.0	2 11	9 56.21	+22 50.5	1.148	2.127	4.5	20.4
2 21	9 45.64	-21 27.3	2.031	2.910	10.7	18.9	2 21	9 44.41	+23 28.4	1.146	2.118	6.7	20.5
3 2	9 36.54	-20 8.6	2.048	2.928	10.6	19.0	3 2	9 33.47	+23 45.6	1.169	2.109	11.5	20.8
3 12	9 28.93	-18 29.7	2.089	2.946	11.6	19.1	3 12	9 25.01	+23 39.5	1.215	2.100	16.2	21.0
3 22	9 23.43	-16 39.8	2.155	2.962	13.3	19.2	3 22	9 19.97	+23 12.2	1.279	2.092	20.3	21.2
<b>52842</b>	1998 <i>RV</i> <sub>59</sub>	2 15.1 187°75' 1°1'/14.4 18					<b>242981</b>	2006 <i>SZ</i> <sub>231</sub>	2 15.1 86°41' 3°1'/18.3 18				
1 12	10 21.81	+14 9.3	1.717	2.541	14.8	19.9	1 12	10 11.95	+ 0 34.7	2.425	3.200	12.5	20.7
1 22	10 15.56	+14 31.3	1.638	2.540	11.0	19.7	1 22	10 7.50	+ 0 46.1	2.348	3.212	9.8	20.5
2 1	10 6.68	+15 2.2	1.582	2.540	6.6	19.4	2 1	10 1.47	+ 1 12.7	2.295	3.225	6.9	20.4
2 11	9 56.00	+15 36.4	1.554	2.538	2.0	19.1	2 11	9 54.42	+ 1 52.7	2.269	3.237	4.0	20.2
2 21	9 44.68	+16 7.9	1.555	2.536	3.4	19.2	2 21	9 47.04	+ 2 42.5	2.272	3.249	3.2	20.2
3 2	9 34.06	+16 31.3	1.584	2.534	8.1	19.5	3 2	9 40.11	+ 3 37.8	2.305	3.261	5.5	20.3
3 12	9 25.34	+16 43.1	1.640	2.530	12.4	19.7	3 12	9 34.32	+ 4 33.4	2.367	3.273	8.4	20.5
3 22	9 19.28	+16 42.5	1.718	2.527	16.1	20.0	3 22	9 30.16	+ 5 25.0	2.453	3.285	11.1	20.7
<b>102232</b>	1999 <i>TX</i> <sub>18</sub>	2 15.1 129°88' 2°0'/16.6 18					<b>142714</b>	2002 <i>TQ</i> <sub>265</sub>	2 15.1 83°43' 1°8'/13.8 18				
1 12	10 20.58	+ 4 47.6	1.758	2.554	15.7	20.6	1 12	10 17.59	+15 10.3	1.696	2.529	14.5	19.6
1 22	10 14.37	+ 5 12.1	1.690	2.573	12.0	20.4	1 22	10 12.29	+15 51.9	1.634	2.542	10.7	19.4
2 1	10 5.80	+ 5 53.9	1.645	2.590	7.7	20.2	2 1	10 4.60	+16 41.8	1.596	2.555	6.3	19.1
2 11	9 55.70	+ 6 49.1	1.628	2.607	3.4	20.0	2 11	9 55.37	+17 33.5	1.585	2.568	2.2	18.9
2 21	9 45.18	+ 7 51.5	1.640	2.623	2.9	20.0	2 21	9 45.71	+18 20.0	1.602	2.581	3.9	19.0
3 2	9 35.42	+ 8 54.4	1.681	2.637	7.0	20.3	3 2	9 36.86	+18 55.5	1.647	2.594	8.1	19.3
3 12	9 27.46	+ 9 51.3	1.749	2.651	11.1	20.5	3 12	9 29.85	+19 16.8	1.718	2.607	12.0	19.6
3 22	9 21.96	+10 38.0	1.841	2.664	14.6	20.8	3 22	9 25.33	+19 23.2	1.810	2.619	15.4	19.8
<b>189499</b>	2000 <i>AV</i> <sub>92</sub>	2 15.1 51°35' 8°5'/21.5 18					<b>70519</b>	1999 <i>TD</i> <sub>108</sub>	2 15.1 139°48' 1°6'/16.3 18				
1 12	10 18.75	- 8 41.2	1.695	2.434	18.4	18.8	1 12	10 18.74	+ 7 6.1	1.841	2.645	14.7	19.7
1 22	10 12.98	- 9 47.5	1.641	2.464	15.4	18.7	1 22	10 13.01	+ 7 12.4	1.765	2.654	11.2	19.4
2 1	10 4.92	-10 27.9	1.608	2.494	12.3	18.6	2 1	10 5.00	+ 7 32.4	1.714	2.662	7.2	19.2
2 11	9 55.43	-10 40.2	1.598	2.525	9.7	18.5	2 11	9 55.50	+ 8 3.0	1.689	2.669	3.0	19.0
2 21	9 45.62	-10 25.8	1.614	2.556	8.5	18.5	2 21	9 45.50	+ 8 39.5	1.693	2.677	2.7	19.0
3 2	9 36.66	- 9 49.4	1.656	2.586	9.4	18.6	3 2	9 36.16	+ 9 16.7	1.726	2.683	6.9	19.2
3 12	9 29.53	- 8 58.6	1.723	2.617	11.7	18.8	3 12	9 28.50	+ 9 49.7	1.787	2.690	10.9	19.5
3 22	9 24.84	- 8 1.5	1.812	2.648	14.2	19.0	3 22	9 23.16	+10 15.1	1.870	2.695	14.3	19.7
<b>223821</b>	2004 <i>TX</i> <sub>107</sub>	2 15.1 34°36' 7°9'/ 9.8 18					<b>445900</b>	2012 <i>VH</i> <sub>82</sub>	2 15.1 160°39' 2°8'/17.2 18				
1 12	10 20.09	+31 13.4	1.559	2.405	14.9	19.7	1 12	10 21.51	+ 3 20.8	1.944	2.727	14.9	22.2
1 22	10 14.50	+32 17.5	1.513	2.417	11.7	19.5	1 22	10 14.97	+ 3 25.5	1.864	2.736	11.6	21.9
2 1	10 6.03	+33 13.5	1.490	2.429	8.9	19.4	2 1	10 6.17	+ 3 46.6	1.807	2.745	7.8	21.7
2 11	9 55.77	+33 51.2	1.492	2.442	8.0	19.4	2 11	9 55.84	+ 4 21.5	1.778	2.753	4.0	21.5
2 21	9 45.17	+34 3.8	1.520	2.456	9.5	19.5	2 21	9 45.00	+ 5 6.2	1.779	2.759	3.3	21.5
3 2	9 35.72	+33 48.8	1.573	2.470	12.2	19.7	3 2	9 34.78	+ 5 55.1	1.810	2.765	6.8	21.7
3 12	9 28.62	+33 8.5	1.648	2.485	15.2	19.9	3 12	9 26.19	+ 6 42.5	1.868	2.769	10.6	21.9
3 22	9 24.51	+32 7.8	1.742	2.500	17.8	20.1	3 22	9 19.91	+ 7 24.0	1.951	2.772	13.9	22.2
<b>82037</b>	2000 <i>SJ</i> <sub>182</sub>	2 15.1 182°32' 6°2'/ 8.1 18					<b>173036</b>	2006 <i>QR</i> <sub>51</sub>	2 15.1 248°37' 4°1'/11.8 18				
1 12	10 20.87	+36 50.5	2.965	3.775	9.6	20.0	1 12	10 17.38	+20 22.7	1.744	2.585	13.8	20.5
1 22	10 14.04	+37 39.2	2.902	3.776	7.9	19.9	1 22	10 12.44	+21 33.1	1.664	2.575	10.3	20.2
2 1	10 5.37	+38 19.5	2.865	3.776	6.6	19.8	2 1	10 4.91	+22 49.7	1.608	2.565	6.5	20.0
2 11	9 55.55	+38 45.8	2.857	3.775	6.3	19.7	2 11	9 55.52	+24 3.6	1.580	2.555	4.2	19.8
2 21	9 45.43	+38 54.3	2.877	3.775	7.2	19.8	2 21	9 45.40	+25 6.3	1.579	2.545	6.0	19.9
3 2	9 35.91	+38 43.3	2.926	3.773	8.9	19.9	3 2	9 35.86	+25 50.8	1.606	2.535	9.9	20.1
3 12	9 27.80	+38 13.7	2.999	3.772	10.6	20.0	3 12	9 28.10	+26 13.9	1.658	2.524	13.7	20.3
3 22	9 21.64	+37 28.3	3.093	3.770	12.3	20.2	3 22	9 22.95	+26 16.1	1.730	2.513	17.0	20.5
<b>95112</b>	2002 <i>AE</i> <sub>121</sub>	2 15.1 112°34' 2°3'/13.4 18					<b>175472</b>	2006 <i>QO</i> <sub>138</sub>	2 15.1 201°91' 3°5'/12.1 18				
1 12	10 19.61	+15 38.7	1.672	2.504	14.7	20.0	1 12	10 18.92	+20 34.8	2.105	2.934	12.2	20.9
1 22	10 13.81	+16 36.6	1.613	2.520	10.8	19.8	1 22	10 13.13	+21 32.7	2.025	2.930	9.1	20.7
2 1	10 5.52	+17 43.0	1.577	2.537	6.4	19.6	2 1	10 5.10	+22 34.4	1.970	2.925	5.7	20.5
2 11	9 55.63	+18 50.0	1.570	2.553	2.6	19.4	2 11	9 55.54	+23 33.1	1.944	2.920	3.5	20.3
2 21	9 45.32	+19 49.7	1.591	2.568	4.3	19.5	2 21	9 45.42	+24 21.9	1.948	2.914	5.1	20.4
3 2	9 35.87	+20 35.7	1.640	2.583	8.5	19.8	3 2	9 35.83	+24 56.0	1.980	2.907	8.4	20.6
3 12	9 28.35	+21 4.9	1.715	2.597	12.5	20.1	3 12	9 27.77	+25 12.8	2.039	2.899	11.8	20.8
3 22	9 23.43	+21 16.8	1.812	2.611	15.7	20.3	3 22	9 21.95	+25 12.8	2.121	2.891	14.7	21.0
<b>292726</b>	2006 <i>UY</i> <sub>141</sub>	2 15.1 170°87' 0°8'/14.3 17					<b>410019</b>	2006 <i>WU</i> <sub>173</sub>	2 15.1 74°31' 3°6'/12.3 18				
1 12	10 13.58	+14 19.1	2.861	3.675	9.8	21.4	1 12	10 17.81	+19 8.0	1.652	2.493	14.4	21.0
1 22	10 8.54	+14 45.3	2.779	3.678	7.2	21.3	1 22	10 12.49	+20 14.8	1.601	2.513	10.6	20.8
2 1	10 2.03	+15 16.9	2.724	3.680	4.3	21.1	2 1	10 4.71	+21 26.3	1.573	2.532	6.5	20.6
2 11	9 54.57	+15 50.3	2.698	3.682	1.3	20.9	2 11	9 55.40	+22 33.9	1.573	2.552	3.7	20.5
2 21	9 46.80	+16 22.1	2.703	3.683	2.3	20.9	2 21	9 45.72	+23 29.7	1.601	2.571	5.4	20.6
3 2	9 39.41	+16 48.9	2.738	3.685	5.3	21.2	3 2	9 36.94	+24 8.0	1.657	2.590	9.2	20.9
3 12	9 33.04	+17 8.5	2.803	3.686	8.1	21.3	3 12	9 30.12	+24 26.7	1.737	2.610	12.8	21.1
3 22	9 28.15	+17 19.4	2.892	3.686	10.6	21.5	3 22	9 25.85	+24 26.7	1.838	2.629	15.9	21.4
<b>502739</b>	2015 <i>DP</i> <sub>38</sub>	2 15.1 70°37' 1°6'/13.5 18					<b>204975</b>	1993 <i>TW</i> <sub>35</sub>					



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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>457022</b>	2008 CX <sub>137</sub>		2 15.1 358°20	3°6/13.4	16		<b>264414</b>	2000 OW <sub>2</sub>		2 15.1 92°34	6°6/18.8	18	
1 12	10 22.20	+21 20.8	1.436	2.281	16.0	21.2	1 12	10 24.86	- 2 48.3	1.954	2.702	16.0	20.1
1 22	10 16.27	+21 26.8	1.366	2.279	12.0	21.0	1 22	10 17.40	- 4 8.9	1.880	2.717	13.1	19.9
2 1	10 7.26	+21 33.7	1.318	2.277	7.5	20.7	2 1	10 7.63	- 5 12.8	1.828	2.733	10.0	19.7
2 11	9 56.21	+21 34.4	1.296	2.277	3.8	20.5	2 11	9 56.32	- 5 57.8	1.804	2.748	7.4	19.6
2 21	9 44.56	+21 23.1	1.301	2.276	5.5	20.6	2 21	9 44.54	- 6 23.4	1.809	2.763	6.6	19.6
3 2	9 33.91	+20 56.7	1.333	2.277	9.9	20.9	3 2	9 33.45	- 6 31.4	1.843	2.778	8.3	19.7
3 12	9 25.63	+20 15.1	1.389	2.278	14.3	21.1	3 12	9 24.08	- 6 26.4	1.905	2.793	11.1	19.9
3 22	9 20.48	+19 20.9	1.465	2.280	18.1	21.4	3 22	9 17.12	- 6 13.7	1.990	2.808	13.9	20.1
<b>140184</b>	2001 SO <sub>206</sub>		2 15.1 281°36	2°0/17.1	18		<b>9932</b>	Kopylov		2 15.1 197°93	4°6/11.9	18	
1 12	10 11.52	+ 3 58.9	2.259	3.054	12.7	20.8	1 12	10 22.64	+25 0.1	1.957	2.787	13.0	17.8
1 22	10 7.42	+ 4 24.3	2.168	3.049	9.8	20.6	1 22	10 15.99	+25 35.6	1.882	2.786	9.8	17.6
2 1	10 1.56	+ 5 4.9	2.102	3.044	6.5	20.4	2 1	10 6.87	+26 9.6	1.833	2.783	6.6	17.4
2 11	9 54.49	+ 5 57.8	2.062	3.039	3.1	20.2	2 11	9 56.11	+26 35.0	1.811	2.781	4.6	17.3
2 21	9 46.96	+ 6 58.8	2.052	3.034	2.5	20.1	2 21	9 44.84	+26 45.9	1.819	2.778	6.1	17.4
3 2	9 39.80	+ 8 2.6	2.071	3.030	5.8	20.3	3 2	9 34.32	+26 39.1	1.854	2.775	9.3	17.6
3 12	9 33.81	+ 9 3.6	2.118	3.025	9.2	20.5	3 12	9 25.66	+26 14.4	1.916	2.772	12.6	17.8
3 22	9 29.58	+ 9 57.4	2.190	3.020	12.3	20.7	3 22	9 19.55	+25 34.2	1.999	2.768	15.5	18.0
<b>191254</b>	2003 BO <sub>9</sub>		2 15.1 102°05	0°8/15.7	18		<b>332639</b>	2008 UG <sub>79</sub>		2 15.1 342°51	2°9/17.6	18	
1 12	10 17.89	+ 6 51.5	1.503	2.321	16.8	20.7	1 12	10 12.94	+ 2 29.3	2.011	2.803	14.1	21.2
1 22	10 12.73	+ 7 42.7	1.441	2.338	12.6	20.5	1 22	10 8.66	+ 2 42.0	1.925	2.803	11.0	20.9
2 1	10 4.97	+ 8 53.1	1.401	2.355	7.8	20.2	2 1	10 2.40	+ 3 11.9	1.863	2.802	7.5	20.7
2 11	9 55.51	+10 16.1	1.388	2.371	2.7	20.0	2 11	9 54.80	+ 3 56.8	1.828	2.802	4.0	20.5
2 21	9 45.57	+11 42.8	1.403	2.388	2.9	20.0	2 21	9 46.69	+ 4 52.3	1.821	2.801	3.2	20.5
3 2	9 36.49	+13 4.2	1.446	2.403	7.9	20.4	3 2	9 39.05	+ 5 52.8	1.842	2.801	6.3	20.7
3 12	9 29.40	+14 13.0	1.515	2.418	12.4	20.7	3 12	9 32.76	+ 6 52.2	1.891	2.801	10.0	20.9
3 22	9 25.00	+15 5.1	1.605	2.433	16.1	20.9	3 22	9 28.46	+ 7 45.3	1.963	2.800	13.2	21.1
<b>84690</b>	2002 VJ <sub>105</sub>		2 15.1 120°20	0°4/14.8	18		<b>402870</b>	2007 RM <sub>204</sub>		2 15.1 229°61	1°9/16.5	17	
1 12	10 19.49	+11 52.4	1.417	2.250	16.8	19.9	1 12	10 18.10	+ 6 3.8	1.879	2.680	14.6	21.7
1 22	10 14.22	+12 17.9	1.348	2.255	12.6	19.7	1 22	10 12.75	+ 6 14.2	1.783	2.669	11.3	21.5
2 1	10 6.03	+12 57.0	1.300	2.259	7.6	19.4	2 1	10 5.04	+ 6 39.9	1.711	2.658	7.3	21.2
2 11	9 55.87	+13 43.4	1.278	2.263	2.2	19.1	2 11	9 55.62	+ 7 18.2	1.666	2.646	3.2	20.9
2 21	9 45.05	+14 29.7	1.283	2.267	3.5	19.2	2 21	9 45.48	+ 8 4.5	1.650	2.633	2.9	20.9
3 2	9 35.08	+15 8.7	1.315	2.270	8.8	19.5	3 2	9 35.76	+ 8 53.0	1.663	2.620	7.1	21.1
3 12	9 27.29	+15 35.3	1.372	2.274	13.5	19.8	3 12	9 27.57	+ 9 38.0	1.703	2.606	11.3	21.3
3 22	9 22.46	+15 47.5	1.449	2.277	17.5	20.0	3 22	9 21.69	+10 15.1	1.766	2.592	15.0	21.5
<b>213659</b>	2002 RL <sub>250</sub>		2 15.1 263°93	2°1/13.5	18		<b>166238</b>	2002 FU <sub>33</sub>		2 15.1 272°40	0°1/15.0	18	
1 12	10 16.73	+15 19.9	1.755	2.588	14.1	20.7	1 12	10 18.10	+11 41.6	1.568	2.397	15.7	20.4
1 22	10 11.95	+16 9.1	1.665	2.573	10.5	20.4	1 22	10 13.10	+11 57.7	1.485	2.389	11.8	20.2
2 1	10 4.63	+17 8.7	1.599	2.558	6.3	20.1	2 1	10 5.39	+12 26.2	1.424	2.382	7.2	19.9
2 11	9 55.48	+18 12.1	1.560	2.543	2.4	19.9	2 11	9 55.74	+13 2.1	1.390	2.374	2.1	19.5
2 21	9 45.55	+19 11.5	1.549	2.527	4.2	19.9	2 21	9 45.33	+13 39.4	1.382	2.366	3.2	19.6
3 2	9 36.08	+20 0.0	1.567	2.512	8.7	20.2	3 2	9 35.55	+14 11.7	1.403	2.359	8.3	19.9
3 12	9 28.29	+20 32.8	1.610	2.496	12.9	20.4	3 12	9 27.67	+14 34.1	1.448	2.351	12.9	20.1
3 22	9 23.00	+20 48.4	1.674	2.479	16.6	20.6	3 22	9 22.52	+14 44.2	1.515	2.343	16.9	20.4
<b>59722</b>	1999 KR <sub>6</sub>		2 15.1 255°11	1°5/16.7	18		<b>285281</b>	1998 SD <sub>33</sub>		2 15.1 140°38	12°9/10.8	16	
1 12	10 13.99	+ 3 53.9	2.425	3.211	12.2	20.3	1 12	10 44.80	+39 13.6	1.145	1.969	20.6	20.4
1 22	10 9.32	+ 4 43.1	2.310	3.187	9.4	20.1	1 22	10 34.26	+40 8.2	1.095	1.976	17.1	20.2
2 1	10 2.79	+ 5 49.2	2.220	3.163	6.2	19.8	2 1	10 18.53	+40 40.9	1.064	1.982	14.1	20.0
2 11	9 54.91	+ 7 9.2	2.158	3.137	2.7	19.5	2 11	9 59.57	+40 33.8	1.057	1.988	12.9	20.0
2 21	9 46.36	+ 8 38.0	2.128	3.111	2.3	19.5	2 21	9 40.28	+39 37.8	1.073	1.994	14.2	20.1
3 2	9 38.00	+10 9.3	2.129	3.085	5.9	19.7	3 2	9 23.65	+37 55.7	1.114	1.998	17.2	20.2
3 12	9 30.69	+11 36.7	2.159	3.057	9.5	19.8	3 12	9 11.65	+35 40.2	1.175	2.003	20.7	20.5
3 22	9 25.09	+12 54.8	2.215	3.029	12.7	20.0	3 22	9 4.81	+33 6.1	1.254	2.007	23.8	20.7
<b>13914</b>	Galegant		2 15.1 162°84	4°0/10.9	18		<b>498273</b>	2007 VO <sub>27</sub>		2 15.1 100°30	3°7/18.7	17	
1 12	10 17.59	+22 54.0	2.407	3.236	10.9	18.4	1 12	10 12.81	- 0 44.5	2.335	3.104	13.1	21.7
1 22	10 11.87	+24 12.0	2.339	3.243	8.1	18.3	1 22	10 8.25	- 0 42.3	2.255	3.113	10.4	21.5
2 1	10 4.21	+25 31.6	2.298	3.249	5.4	18.1	2 1	10 2.00	- 0 23.7	2.198	3.122	7.4	21.3
2 11	9 55.28	+26 45.8	2.287	3.255	4.0	18.0	2 11	9 54.65	+ 0 9.9	2.167	3.131	4.7	21.2
2 21	9 45.92	+27 48.1	2.306	3.260	5.4	18.1	2 21	9 46.94	+ 0 55.3	2.166	3.140	3.8	21.1
3 2	9 37.06	+28 34.2	2.354	3.264	8.1	18.3	3 2	9 39.66	+ 1 48.2	2.194	3.148	5.8	21.3
3 12	9 29.57	+29 2.1	2.429	3.268	10.9	18.5	3 12	9 33.58	+ 2 43.3	2.250	3.157	8.7	21.5
3 22	9 24.03	+29 12.4	2.527	3.270	13.2	18.7	3 22	9 29.21	+ 3 35.7	2.331	3.165	11.5	21.6
<b>427051</b>	2014 TF <sub>67</sub>		2 15.1 102°59	2°5/17.3	18		<b>220321</b>	2003 FR <sub>12</sub>		2 15.1 271°60	9°5/ 8.9	18	
1 12	10 17.09	+ 3 6.6	2.066	2.852	14.0	22.0	1 12	10 29.35	+38 39.2	1.840	2.657	14.2	19.1
1 22	10 11.45	+ 3 22.8	2.001	2.876	10.8	21.9	1 22	10 21.34	+39 28.9	1.779	2.655	11.9	18.9
2 1	10 3.90	+ 3 54.8	1.960	2.899	7.2	21.7	2 1	10 10.21	+40 4.5	1.741	2.652	10.0	18.8
2 11	9 55.17	+ 4 39.4	1.947	2.922	3.7	21.5	2 11	9 57.10	+40 15.9	1.729	2.650	9.5	18.7
2 21	9 46.13	+ 5 32.2	1.963	2.944	2.9	21.5	2 21	9 43.56	+39 57.1	1.744	2.648	10.7	18.8
3 2	9 37.74	+ 6 27.6	2.009	2.966	6.1	21.8	3 2	9 31.28	+39 7.0	1.784	2.645	12.9	18.9
3 12	9 30.83	+ 7 20.3	2.083	2.987	9.5	22.0	3 12	9 21.56	+37 50.0	1.847	2.643	15.5	19.1
3 22	9 25.94	+ 8 6.2	2.181	3.007	12.5	22.2	3 22	9 15.11	+36 12.9	1.930	2.641	17.8	19.3
<b>460134</b>	2014 PJ <sub>48</sub>		2 15.1 74°40	1°3/14.3	18		<b>432202</b>	2009 DX <sub>88</sub>		2 15.1 49°09	2°3/17.5	18	
1 12	10 19.88	+15 1.6	1.559	2.393	15.5	21.1	1 12	10 11.38	+ 1 26.4	1.905			

EPHEMERIDES

2 15.1

2 15.1

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>370778</b>	2004 <i>RL</i> <sub>356</sub>		2 15.1 149°36	0°5/15.6	16		<b>205343</b>	2000 <i>WP</i> <sub>7</sub>		2 15.1 147°90	2°7/12.9	18	
1 12	10 15.55	+ 9 23.5	2.171	2.980	12.6	21.9	1 12	10 18.20	+16 34.7	1.821	2.653	13.7	20.7
1 22	10 10.41	+ 9 45.3	2.092	2.986	9.5	21.7	1 22	10 12.78	+17 43.9	1.753	2.661	10.1	20.5
2 1	10 3.37	+10 18.0	2.038	2.990	5.9	21.5	2 1	10 4.98	+19 1.3	1.710	2.668	6.1	20.3
2 11	9 55.07	+10 57.8	2.012	2.995	1.9	21.2	2 11	9 55.60	+20 18.9	1.694	2.675	2.8	20.1
2 21	9 46.35	+11 40.2	2.015	2.999	2.3	21.3	2 21	9 45.71	+21 28.7	1.708	2.682	4.6	20.2
3 2	9 38.14	+12 20.3	2.048	3.003	6.1	21.5	3 2	9 36.48	+22 24.2	1.751	2.688	8.5	20.4
3 12	9 31.27	+12 54.2	2.109	3.007	9.7	21.7	3 12	9 28.99	+23 1.6	1.819	2.693	12.2	20.7
3 22	9 26.35	+13 19.1	2.194	3.010	12.8	22.0	3 22	9 23.91	+23 20.4	1.909	2.698	15.4	20.9
<b>328343</b>	2008 <i>KH</i> <sub>6</sub>		2 15.1 268°87	2°0/16.6	17		<b>158301</b>	2001 <i>UJ</i> <sub>139</sub>		2 15.1 232°01	1°1/14.3	18	
1 12	10 15.39	+ 5 45.7	1.927	2.731	14.2	21.5	1 12	10 18.23	+12 39.7	1.693	2.520	14.8	20.8
1 22	10 10.72	+ 5 54.5	1.828	2.715	11.0	21.3	1 22	10 13.12	+13 26.5	1.606	2.510	11.1	20.5
2 1	10 3.80	+ 6 18.5	1.752	2.698	7.2	21.0	2 1	10 5.40	+14 26.4	1.542	2.500	6.7	20.2
2 11	9 55.26	+ 6 55.2	1.702	2.682	3.3	20.7	2 11	9 55.78	+15 33.1	1.505	2.489	2.0	19.9
2 21	9 46.00	+ 7 40.5	1.682	2.665	2.8	20.7	2 21	9 45.37	+16 38.9	1.497	2.478	3.6	20.0
3 2	9 37.10	+ 8 28.9	1.689	2.648	6.9	20.9	3 2	9 35.48	+17 36.1	1.517	2.466	8.4	20.2
3 12	9 29.62	+ 9 14.5	1.724	2.630	11.0	21.1	3 12	9 27.34	+18 19.2	1.562	2.454	12.9	20.5
3 22	9 24.32	+ 9 53.0	1.782	2.613	14.6	21.3	3 22	9 21.80	+18 45.7	1.629	2.441	16.7	20.7
<b>205857</b>	2002 <i>EV</i> <sub>78</sub>		2 15.1 313°82	3°3/17.2	18		<b>116917</b>	2004 <i>GZ</i> <sub>15</sub>		2 15.1 194°26	6°0/ 8.5	17	
1 12	10 13.58	+ 3 50.6	1.357	2.179	18.1	20.4	1 12	10 17.47	+32 59.3	2.661	3.486	10.1	20.4
1 22	10 10.16	+ 3 50.6	1.267	2.162	14.2	20.1	1 22	10 11.77	+34 0.2	2.595	3.484	8.1	20.2
2 1	10 3.84	+ 4 13.2	1.198	2.146	9.6	19.8	2 1	10 4.16	+34 55.2	2.556	3.483	6.4	20.1
2 11	9 55.35	+ 4 56.6	1.152	2.130	4.9	19.5	2 11	9 55.33	+35 38.1	2.545	3.481	6.0	20.1
2 21	9 45.85	+ 5 55.6	1.131	2.114	4.0	19.4	2 21	9 46.11	+36 4.0	2.563	3.479	7.1	20.2
3 2	9 36.83	+ 7 2.3	1.136	2.099	8.7	19.6	3 2	9 37.43	+36 10.5	2.608	3.476	9.1	20.3
3 12	9 29.77	+ 8 7.1	1.165	2.085	13.8	19.8	3 12	9 30.12	+35 57.7	2.677	3.474	11.2	20.4
3 22	9 25.63	+ 9 2.7	1.213	2.071	18.4	20.0	3 22	9 24.77	+35 27.6	2.768	3.471	13.1	20.6
<b>225977</b>	2002 <i>CP</i> <sub>180</sub>		2 15.1 170°66	0°3/14.9	18		<b>440060</b>	2002 <i>RH</i> <sub>103</sub>		2 15.1 154°65	2°0/13.8	18	
1 12	10 17.56	+12 44.3	2.140	2.955	12.5	20.7	1 12	10 23.00	+16 5.3	1.792	2.615	14.3	22.0
1 22	10 11.95	+13 0.1	2.059	2.957	9.3	20.4	1 22	10 16.30	+16 44.3	1.722	2.624	10.6	21.7
2 1	10 4.32	+13 23.8	2.004	2.959	5.6	20.2	2 1	10 7.10	+17 30.3	1.676	2.633	6.3	21.5
2 11	9 55.36	+13 51.5	1.976	2.961	1.6	19.9	2 11	9 56.23	+18 16.7	1.659	2.642	2.4	21.3
2 21	9 45.95	+14 18.7	1.979	2.962	2.6	20.0	2 21	9 44.86	+18 57.0	1.671	2.649	4.0	21.4
3 2	9 37.08	+14 41.4	2.011	2.963	6.5	20.3	3 2	9 34.27	+19 25.8	1.712	2.655	8.2	21.7
3 12	9 29.65	+14 56.3	2.071	2.963	10.1	20.5	3 12	9 25.59	+19 40.3	1.780	2.660	12.1	21.9
3 22	9 24.26	+15 2.0	2.155	2.964	13.2	20.7	3 22	9 19.51	+19 40.3	1.870	2.665	15.5	22.1
<b>221150</b>	Jerryfoote		2 15.1 124°99	4°0/18.8	18		<b>255810</b>	2006 <i>SC</i> <sub>42</sub>		2 15.1 97°02	2°1/13.5	18	
1 12	10 14.49	- 1 32.5	2.057	2.827	14.6	20.8	1 12	10 17.43	+15 6.8	1.766	2.597	14.1	21.0
1 22	10 9.70	- 1 21.7	1.978	2.837	11.6	20.7	1 22	10 12.13	+16 6.8	1.706	2.614	10.3	20.8
2 1	10 2.97	- 0 51.2	1.922	2.847	8.3	20.5	2 1	10 4.52	+17 15.6	1.672	2.631	6.1	20.6
2 11	9 54.96	- 0 2.8	1.892	2.856	5.2	20.3	2 11	9 55.45	+18 25.5	1.664	2.647	2.4	20.4
2 21	9 46.52	+ 0 59.5	1.891	2.865	4.1	20.2	2 21	9 45.97	+19 29.2	1.686	2.663	4.0	20.5
3 2	9 38.60	+ 2 10.0	1.919	2.874	6.4	20.4	3 2	9 37.26	+20 20.2	1.736	2.679	8.1	20.8
3 12	9 32.05	+ 3 21.8	1.974	2.882	9.7	20.6	3 12	9 30.32	+20 55.1	1.812	2.695	11.8	21.1
3 22	9 27.48	+ 4 29.1	2.054	2.890	12.8	20.8	3 22	9 25.78	+21 13.2	1.910	2.710	15.0	21.3
<b>313801</b>	2004 <i>BH</i> <sub>13</sub>		2 15.1 312°69	0°9/14.1	17		<b>319798</b>	2006 <i>VJ</i> <sub>14</sub>		2 15.1 139°48	0°5/15.5	18	
1 12	10 9.93	+14 18.5	2.847	3.668	9.6	20.4	1 12	10 17.06	+ 9 36.2	1.880	2.695	14.1	21.8
1 22	10 5.98	+14 52.6	2.755	3.657	7.1	20.2	1 22	10 11.80	+ 9 59.5	1.805	2.701	10.6	21.6
2 1	10 0.60	+15 32.9	2.689	3.647	4.2	20.0	2 1	10 4.34	+10 35.0	1.753	2.707	6.5	21.4
2 11	9 54.25	+16 15.7	2.652	3.636	1.3	19.8	2 11	9 55.41	+11 18.6	1.729	2.712	2.1	21.1
2 21	9 47.54	+16 57.2	2.646	3.626	2.4	19.9	2 21	9 46.00	+12 4.6	1.733	2.717	2.5	21.1
3 2	9 41.13	+17 33.7	2.670	3.616	5.4	20.1	3 2	9 37.19	+12 47.6	1.767	2.722	6.9	21.4
3 12	9 35.65	+18 2.4	2.721	3.606	8.3	20.2	3 12	9 29.98	+13 22.8	1.827	2.727	10.8	21.7
3 22	9 31.58	+18 21.6	2.797	3.597	10.8	20.4	3 22	9 25.02	+13 47.5	1.911	2.731	14.2	21.9
<b>154935</b>	2004 <i>TF</i> <sub>36</sub>		2 15.1 175°85	0°8/15.9	16		<b>310081</b>	2010 <i>LK</i> <sub>1</sub>		2 15.1 259°11	2°1/13.6	17	
1 12	10 15.35	+ 8 17.2	2.417	3.217	11.8	21.3	1 12	10 18.14	+15 11.4	1.683	2.516	14.6	21.3
1 22	10 10.12	+ 8 40.2	2.331	3.219	8.9	21.1	1 22	10 13.17	+16 0.1	1.591	2.499	10.9	21.0
2 1	10 3.16	+ 9 13.8	2.271	3.221	5.6	20.9	2 1	10 5.50	+16 59.9	1.523	2.482	6.6	20.7
2 11	9 55.03	+ 9 54.9	2.240	3.222	2.0	20.6	2 11	9 55.85	+18 4.0	1.481	2.464	2.5	20.4
2 21	9 46.48	+10 39.3	2.239	3.223	2.1	20.6	2 21	9 45.30	+19 4.3	1.468	2.446	4.3	20.5
3 2	9 38.36	+11 22.7	2.268	3.223	5.6	20.9	3 2	9 35.21	+19 53.3	1.483	2.428	9.0	20.7
3 12	9 31.44	+12 0.9	2.326	3.223	9.0	21.1	3 12	9 26.89	+20 26.1	1.522	2.409	13.5	20.9
3 22	9 26.27	+12 31.4	2.409	3.222	11.9	21.3	3 22	9 21.22	+20 41.0	1.583	2.390	17.3	21.1
<b>413042</b>	2001 <i>PG</i> <sub>43</sub>		2 15.1 121°03	2°5/12.5	18		<b>291254</b>	2006 <i>BU</i> <sub>54</sub>		2 15.1 281°67	0°9/14.5	18	
1 12	10 16.28	+15 57.4	2.108	2.934	12.3	21.6	1 12	10 15.61	+11 32.4	1.500	2.335	15.9	20.4
1 22	10 11.03	+17 27.4	2.045	2.951	9.0	21.4	1 22	10 11.51	+12 22.3	1.411	2.320	12.0	20.1
2 1	10 3.77	+19 5.1	2.009	2.967	5.4	21.2	2 1	10 4.59	+13 28.9	1.345	2.305	7.3	19.8
2 11	9 55.21	+20 42.7	2.003	2.983	2.6	21.1	2 11	9 55.60	+14 45.7	1.305	2.290	2.1	19.4
2 21	9 46.25	+22 12.4	2.027	2.999	4.3	21.2	2 21	9 45.67	+16 3.8	1.292	2.274	3.7	19.5
3 2	9 37.87	+23 27.8	2.082	3.014	7.7	21.4	3 2	9 36.24	+17 13.9	1.305	2.259	9.1	19.8
3 12	9 30.95	+24 25.1	2.163	3.028	11.0	21.7	3 12	9 28.67	+18 8.7	1.344	2.243	14.0	20.0
3 22	9 26.10	+25 3.5	2.267	3.042	13.7	21.9	3 22	9 23.92	+18 44.8	1.402	2.228	18.2	20.2
<b>25434</b>	Westonia		2 15.1 136°55	1°6/16.2	18		<b>428934</b>	2008 <i>WU</i> <sub>119</sub>		2 15.1 316°75	0°6/14.6	17	
1 12	10 20.42	+ 7 25.3	1.505										

EPHEMERIDES

2 15.1

2 15.2

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>281385</b>	2008 <i>PF</i> <sub>8</sub>		2 15.1 185°21	1°1/16.1	18		<b>231470</b>	Bedding		2 15.1 22°59	1°5/13.9	18	
1 12	10 18.60	+ 6 33.5	1.898	2.700	14.5	22.1	1 12	10 14.49	+14 54.1	1.923	2.754	13.1	20.6
1 22	10 13.03	+ 7 12.0	1.813	2.700	11.0	21.8	1 22	10 9.91	+15 30.0	1.849	2.757	9.7	20.4
2 1	10 5.17	+ 8 6.8	1.751	2.700	7.0	21.6	2 1	10 3.21	+16 13.8	1.800	2.759	5.8	20.1
2 11	9 55.70	+ 9 13.6	1.717	2.699	2.6	21.3	2 11	9 55.11	+17 0.1	1.778	2.762	1.9	19.9
2 21	9 45.62	+10 26.1	1.713	2.697	2.6	21.3	2 21	9 46.54	+17 43.1	1.785	2.765	3.4	20.0
3 2	9 36.05	+11 37.2	1.739	2.694	7.0	21.6	3 2	9 38.56	+18 17.5	1.820	2.768	7.4	20.2
3 12	9 28.05	+12 40.6	1.792	2.690	11.1	21.8	3 12	9 32.11	+18 39.9	1.881	2.771	11.1	20.5
3 22	9 22.33	+13 32.0	1.868	2.685	14.6	22.0	3 22	9 27.82	+18 48.9	1.965	2.775	14.3	20.7
<b>501318</b>	2013 <i>WB</i> <sub>104</sub>		2 15.1 27°68	2°4/16.9	18		<b>128370</b>	2004 <i>HB</i> <sub>72</sub>		2 15.1 292°09	2°9/13.0	18	
1 12	10 13.43	+ 5 30.7	1.749	2.561	15.1	20.8	1 12	10 17.07	+18 7.2	1.727	2.566	14.0	20.1
1 22	10 9.16	+ 5 28.3	1.682	2.572	11.6	20.6	1 22	10 12.15	+18 51.5	1.651	2.562	10.4	19.9
2 1	10 2.74	+ 5 41.4	1.638	2.584	7.6	20.4	2 1	10 4.73	+19 42.2	1.598	2.557	6.3	19.6
2 11	9 54.94	+ 6 7.3	1.619	2.597	3.6	20.2	2 11	9 55.60	+20 32.2	1.572	2.553	3.0	19.4
2 21	9 46.74	+ 6 41.5	1.628	2.611	3.0	20.1	2 21	9 45.84	+21 14.5	1.574	2.549	4.8	19.5
3 2	9 39.21	+ 7 18.8	1.665	2.625	6.7	20.4	3 2	9 36.73	+21 43.3	1.604	2.545	8.8	19.8
3 12	9 33.28	+ 7 53.8	1.727	2.640	10.6	20.7	3 12	9 29.40	+21 55.6	1.659	2.541	12.8	20.0
3 22	9 29.56	+ 8 22.4	1.813	2.655	13.9	20.9	3 22	9 24.59	+21 51.1	1.734	2.537	16.2	20.2
<b>217622</b>	2009 <i>GL</i> <sub>5</sub>		2 15.1 257°72	5°5/10.7	18		<b>223773</b>	2004 <i>RB</i> <sub>333</sub>		2 15.1 130°30	1°7/13.6	18	
1 12	10 18.29	+23 41.8	1.746	2.589	13.7	20.2	1 12	10 15.05	+14 47.2	2.072	2.898	12.5	20.7
1 22	10 13.28	+25 2.1	1.665	2.575	10.4	19.9	1 22	10 10.19	+15 44.0	2.000	2.905	9.2	20.5
2 1	10 5.56	+26 26.0	1.609	2.561	7.1	19.7	2 1	10 3.32	+16 49.1	1.953	2.912	5.5	20.3
2 11	9 55.87	+27 43.8	1.579	2.547	5.5	19.6	2 11	9 55.14	+17 56.3	1.936	2.919	2.0	20.1
2 21	9 45.36	+28 46.1	1.577	2.533	7.3	19.6	2 21	9 46.52	+18 59.4	1.947	2.925	3.5	20.2
3 2	9 35.40	+29 26.2	1.602	2.518	10.9	19.8	3 2	9 38.44	+19 52.4	1.988	2.931	7.2	20.5
3 12	9 27.28	+29 41.6	1.651	2.502	14.5	20.0	3 12	9 31.80	+20 31.8	2.056	2.937	10.7	20.7
3 22	9 21.87	+29 33.7	1.720	2.487	17.7	20.2	3 22	9 27.21	+20 56.1	2.146	2.943	13.7	20.9
<b>190369</b>	1999 <i>RT</i> <sub>72</sub>		2 15.1 132°10	1°5/16.7	18		<b>272618</b>	2005 <i>WA</i> <sub>29</sub>		2 15.1 139°11	3°7/12.1	16	
1 12	10 13.54	+ 4 18.5	2.296	3.087	12.6	20.8	1 12	10 17.15	+20 56.6	1.937	2.773	12.8	22.0
1 22	10 8.84	+ 5 4.7	2.218	3.098	9.6	20.6	1 22	10 11.94	+21 52.4	1.867	2.776	9.5	21.8
2 1	10 2.41	+ 6 6.0	2.165	3.109	6.2	20.4	2 1	10 4.46	+22 51.5	1.823	2.779	6.0	21.6
2 11	9 54.84	+ 7 18.6	2.140	3.119	2.7	20.2	2 11	9 55.49	+23 46.5	1.806	2.782	3.7	21.5
2 21	9 46.89	+ 8 37.2	2.145	3.129	2.2	20.2	2 21	9 46.04	+24 30.8	1.818	2.785	5.3	21.6
3 2	9 39.39	+ 9 55.7	2.181	3.138	5.7	20.4	3 2	9 37.23	+24 59.5	1.858	2.787	8.7	21.8
3 12	9 33.13	+11 8.3	2.245	3.147	9.0	20.7	3 12	9 30.07	+25 10.4	1.924	2.790	12.1	22.0
3 22	9 28.63	+12 11.1	2.335	3.155	12.0	20.9	3 22	9 25.22	+25 4.3	2.011	2.792	15.0	22.2
<b>445877</b>	2012 <i>UT</i> <sub>45</sub>		2 15.1 131°14	0°3/15.3	18		<b>337685</b>	2001 <i>TR</i> <sub>222</sub>		2 15.2 163°08	3°3/18.6	17	
1 12	10 20.02	+ 9 9.2	1.538	2.358	16.4	22.2	1 12	10 12.74	- 0 14.1	2.631	3.396	11.9	21.4
1 22	10 14.38	+ 9 48.7	1.471	2.370	12.3	21.9	1 22	10 8.09	- 0 12.1	2.543	3.399	9.4	21.2
2 1	10 6.06	+10 44.1	1.427	2.382	7.5	21.7	2 1	10 1.91	+ 0 4.3	2.478	3.402	6.7	21.0
2 11	9 55.96	+11 49.4	1.409	2.393	2.3	21.4	2 11	9 54.71	+ 0 33.8	2.441	3.405	4.2	20.9
2 21	9 45.32	+12 56.8	1.419	2.403	3.0	21.5	2 21	9 47.14	+ 1 13.8	2.433	3.407	3.4	20.8
3 2	9 35.49	+13 58.3	1.457	2.413	8.1	21.8	3 2	9 39.93	+ 2 0.4	2.456	3.409	5.4	21.0
3 12	9 27.69	+14 47.8	1.522	2.422	12.6	22.1	3 12	9 33.75	+ 2 49.2	2.507	3.411	8.1	21.1
3 22	9 22.63	+15 22.3	1.607	2.430	16.3	22.3	3 22	9 29.11	+ 3 36.2	2.583	3.413	10.7	21.3
<b>154520</b>	2003 <i>FP</i> <sub>82</sub>		2 15.1 296°37	5°3/10.9	18		<b>28169</b>	Cathconte		2 15.2 82°70	3°0/13.3	18	
1 12	10 16.66	+23 46.7	1.743	2.588	13.6	19.8	1 12	10 22.34	+17 19.5	1.395	2.235	16.6	18.3
1 22	10 12.09	+24 54.2	1.658	2.569	10.3	19.5	1 22	10 16.18	+18 8.5	1.346	2.258	12.2	18.0
2 1	10 4.84	+26 4.9	1.596	2.550	7.0	19.3	2 1	10 7.12	+19 4.4	1.320	2.280	7.3	17.8
2 11	9 55.66	+27 9.7	1.561	2.531	5.3	19.1	2 11	9 56.26	+19 58.3	1.320	2.302	3.2	17.6
2 21	9 45.65	+28 0.0	1.554	2.512	7.1	19.2	2 21	9 45.06	+20 41.7	1.347	2.323	5.1	17.8
3 2	9 36.16	+28 29.3	1.573	2.493	10.7	19.3	3 2	9 35.03	+21 8.8	1.401	2.345	9.6	18.1
3 12	9 28.47	+28 35.3	1.616	2.474	14.4	19.5	3 12	9 27.39	+21 17.6	1.479	2.365	13.8	18.4
3 22	9 23.43	+28 19.2	1.679	2.456	17.7	19.7	3 22	9 22.77	+21 9.0	1.578	2.386	17.3	18.7
<b>258329</b>	2001 <i>VO</i> <sub>17</sub>		2 15.1 47°18	6°6/19.7	18		<b>473709</b>	2015 <i>YC</i> <sub>11</sub>		2 15.2 336°92	2°2/16.5	18	
1 12	10 16.35	- 3 41.0	1.638	2.410	17.6	20.2	1 12	10 14.29	+ 6 22.6	1.360	2.189	17.6	20.6
1 22	10 11.48	- 4 25.2	1.570	2.424	14.4	20.0	1 22	10 10.59	+ 6 26.1	1.281	2.181	13.6	20.3
2 1	10 4.23	- 4 46.7	1.523	2.437	10.9	19.8	2 1	10 4.04	+ 6 49.1	1.222	2.174	8.9	20.0
2 11	9 55.41	- 4 44.4	1.499	2.451	7.8	19.7	2 11	9 55.45	+ 7 28.4	1.187	2.168	3.9	19.7
2 21	9 46.10	- 4 20.6	1.502	2.465	6.7	19.6	2 21	9 46.04	+ 8 18.2	1.177	2.162	3.4	19.7
3 2	9 37.50	- 3 40.1	1.531	2.480	8.4	19.8	3 2	9 37.28	+ 9 10.6	1.194	2.156	8.4	19.9
3 12	9 30.66	- 2 50.2	1.585	2.494	11.6	20.0	3 12	9 30.52	+ 9 58.0	1.234	2.152	13.4	20.2
3 22	9 26.27	- 1 58.3	1.662	2.509	14.7	20.2	3 22	9 26.64	+10 34.8	1.294	2.148	17.8	20.4
<b>412254</b>	2013 <i>HY</i> <sub>57</sub>		2 15.1 116°44	0°1/15.1	18		<b>92418</b>	2000 <i>JP</i> <sub>45</sub>		2 15.2 171°09	2°7/17.3	18	
1 12	10 19.90	+11 48.5	1.685	2.507	15.1	21.8	1 12	10 18.43	+ 3 20.7	1.869	2.660	15.1	20.8
1 22	10 14.10	+12 1.6	1.615	2.516	11.3	21.5	1 22	10 12.89	+ 3 31.5	1.786	2.664	11.7	20.6
2 1	10 5.80	+12 25.2	1.568	2.524	6.9	21.3	2 1	10 5.07	+ 3 59.7	1.727	2.667	7.9	20.4
2 11	9 55.88	+12 54.8	1.548	2.533	2.0	21.0	2 11	9 55.70	+ 4 42.8	1.694	2.669	4.0	20.1
2 21	9 45.46	+13 24.8	1.557	2.541	2.9	21.1	2 21	9 45.75	+ 5 36.2	1.690	2.671	3.3	20.1
3 2	9 35.81	+13 49.9	1.594	2.548	7.6	21.4	3 2	9 36.36	+ 6 33.8	1.715	2.672	6.9	20.3
3 12	9 28.03	+14 6.4	1.657	2.556	11.8	21.7	3 12	9 28.56	+ 7 29.2	1.767	2.673	10.8	20.6
3 22	9 22.82	+14 12.3	1.742	2.563	15.4	21.9	3 22	9 23.05	+ 8 17.6	1.843	2.672	14.3	20.8
<b>199338</b>	2006 <i>BM</i> <sub>148</sub>		2 15.1 52°08	5°3/12.2	18		<b>447223</b>	2005 <i>UM</i> <sub>16</sub>		2 15.2 103°83	2°6/17.1	16	
1 12	10 20.97	+21 41.6	1.194										

EPHEMERIDES

2 15.2

2 15.2

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>204976</b>	1994 <i>JT</i> <sub>1</sub>		2 15.2 158°73	3°0/18.1	17		<b>109988</b>	2001 <i>SR</i> <sub>57</sub>		2 15.2 216°61	0°9/15.9	16	
1 12	10 12.11	+ 1 14.4	2.290	3.071	12.9	20.7	1 12	10 16.01	+ 7 43.6	2.374	3.172	12.0	21.4
1 22	10 7.86	+ 1 26.9	2.202	3.071	10.2	20.5	1 22	10 10.79	+ 8 12.2	2.277	3.163	9.1	21.2
2 1	10 1.87	+ 1 55.5	2.138	3.071	7.1	20.3	2 1	10 3.70	+ 8 52.7	2.204	3.153	5.8	21.0
2 11	9 54.72	+ 2 38.2	2.101	3.072	4.0	20.1	2 11	9 55.31	+ 9 42.1	2.160	3.142	2.1	20.7
2 21	9 47.14	+ 3 31.4	2.093	3.072	3.2	20.1	2 21	9 46.38	+10 35.8	2.147	3.131	2.2	20.7
3 2	9 39.95	+ 4 30.2	2.115	3.072	5.8	20.2	3 2	9 37.79	+11 28.9	2.164	3.119	5.9	20.9
3 12	9 33.94	+ 5 29.3	2.164	3.072	9.0	20.4	3 12	9 30.38	+12 16.7	2.210	3.106	9.4	21.1
3 22	9 29.66	+ 6 23.7	2.238	3.072	11.9	20.6	3 22	9 24.77	+12 56.0	2.280	3.092	12.5	21.3
<b>116401</b>	2003 <i>YA</i> <sub>135</sub>		2 15.2 274°12	3°6/15.9	18 R		<b>40981</b>	Stephenholland		2 15.2 191°28	3°1/18.4	18	
1 12	10 32.26	+10 26.1	1.116	1.941	21.0	18.6	1 12	10 13.30	- 0 7.1	2.477	3.245	12.4	20.2
1 22	10 24.88	+ 8 57.8	1.033	1.931	16.4	18.3	1 22	10 8.65	+ 0 12.8	2.384	3.244	9.9	20.0
2 1	10 13.22	+ 7 35.4	0.970	1.921	10.8	17.9	2 1	10 2.33	+ 0 49.0	2.314	3.242	6.9	19.8
2 11	9 58.31	+ 6 19.7	0.932	1.911	5.1	17.6	2 11	9 54.89	+ 1 39.6	2.272	3.240	4.1	19.6
2 21	9 42.01	+ 5 11.6	0.920	1.902	5.1	17.5	2 21	9 47.00	+ 2 41.2	2.260	3.237	3.2	19.5
3 2	9 26.68	+ 4 12.1	0.934	1.892	11.0	17.8	3 2	9 39.46	+ 3 48.9	2.278	3.234	5.5	19.7
3 12	9 14.43	+ 3 20.0	0.972	1.882	17.0	18.1	3 12	9 33.02	+ 4 57.1	2.325	3.230	8.6	19.9
3 22	9 6.46	+ 2 33.2	1.029	1.872	22.1	18.4	3 22	9 28.22	+ 6 1.1	2.398	3.226	11.4	20.0
<b>171383</b>	2006 <i>OE</i> <sub>20</sub>		2 15.2 210°22	4°3/10.9	18		<b>435939</b>	2009 <i>CG</i> <sub>10</sub>		2 15.2 205°15	1°6/16.7	17	
1 12	10 16.62	+25 51.2	2.483	3.313	10.5	20.6	1 12	10 14.60	+ 6 29.6	2.672	3.462	11.0	21.2
1 22	10 11.19	+26 42.1	2.407	3.310	8.0	20.5	1 22	10 9.48	+ 6 29.1	2.580	3.459	8.5	21.0
2 1	10 3.87	+27 31.9	2.358	3.306	5.5	20.3	2 1	10 2.77	+ 6 38.4	2.512	3.456	5.5	20.8
2 11	9 55.31	+28 14.5	2.338	3.302	4.3	20.2	2 11	9 55.01	+ 6 55.6	2.474	3.452	2.5	20.6
2 21	9 46.33	+28 45.0	2.347	3.298	5.6	20.3	2 21	9 46.86	+ 7 17.9	2.465	3.448	2.2	20.6
3 2	9 37.84	+29 0.1	2.385	3.294	8.1	20.4	3 2	9 39.05	+ 7 42.2	2.488	3.444	5.1	20.8
3 12	9 30.69	+28 58.5	2.449	3.289	10.7	20.6	3 12	9 32.29	+ 8 5.3	2.539	3.439	8.2	21.0
3 22	9 25.45	+28 41.5	2.535	3.284	13.1	20.8	3 22	9 27.11	+ 8 24.5	2.615	3.434	10.9	21.1
<b>407308</b>	2010 <i>MA</i> <sub>107</sub>		2 15.2 103°64	4°8/10.1	18		<b>124289</b>	2001 <i>QA</i> <sub>51</sub>		2 15.2 149°01	1°9/13.7	18	
1 12	10 19.27	+22 12.5	2.079	2.910	12.3	20.7	1 12	10 19.96	+14 48.0	1.729	2.556	14.5	20.2
1 22	10 13.32	+24 16.7	2.033	2.939	9.1	20.6	1 22	10 14.19	+15 43.7	1.660	2.565	10.7	20.0
2 1	10 5.21	+26 22.5	2.015	2.966	6.1	20.5	2 1	10 5.93	+16 49.0	1.615	2.574	6.4	19.8
2 11	9 55.72	+28 19.8	2.028	2.992	4.8	20.4	2 11	9 55.99	+17 56.7	1.598	2.581	2.3	19.5
2 21	9 45.83	+29 59.8	2.071	3.018	6.5	20.6	2 21	9 45.52	+18 58.9	1.610	2.588	4.0	19.7
3 2	9 36.64	+31 16.8	2.143	3.043	9.3	20.8	3 2	9 35.78	+19 49.0	1.651	2.595	8.4	19.9
3 12	9 29.08	+32 9.0	2.242	3.068	12.1	21.0	3 12	9 27.89	+20 22.9	1.717	2.600	12.4	20.2
3 22	9 23.78	+32 38.0	2.361	3.091	14.4	21.2	3 22	9 22.55	+20 39.9	1.806	2.605	15.7	20.4
<b>253069</b>	2002 <i>TG</i> <sub>110</sub>		2 15.2 123°34	4°6/10.9	18		<b>459522</b>	2013 <i>EV</i> <sub>109</sub>		2 15.2 240°87	2°7/13.0	18	
1 12	10 21.45	+25 16.5	2.287	3.112	11.5	22.9	1 12	10 18.34	+17 17.6	1.828	2.660	13.6	21.5
1 22	10 14.70	+26 24.4	2.235	3.135	8.6	22.7	1 22	10 13.12	+18 11.6	1.740	2.648	10.1	21.3
2 1	10 5.93	+27 30.5	2.210	3.157	5.9	22.6	2 1	10 5.40	+19 13.8	1.677	2.636	6.2	21.0
2 11	9 55.91	+28 27.7	2.215	3.178	4.6	22.5	2 11	9 55.88	+20 17.0	1.642	2.623	2.9	20.8
2 21	9 45.60	+29 10.3	2.249	3.198	5.9	22.7	2 21	9 45.60	+21 13.7	1.635	2.609	4.7	20.9
3 2	9 36.02	+29 34.9	2.313	3.218	8.5	22.8	3 2	9 35.82	+21 57.2	1.657	2.595	8.8	21.1
3 12	9 28.06	+29 41.0	2.402	3.236	11.1	23.0	3 12	9 27.71	+22 23.7	1.704	2.581	12.8	21.3
3 22	9 22.26	+29 30.5	2.514	3.253	13.4	23.2	3 22	9 22.07	+22 32.4	1.772	2.566	16.2	21.5
<b>83597</b>	2001 <i>SU</i> <sub>263</sub>		2 15.2 145°84	2°2/12.5	18 R		<b>355754</b>	2008 <i>QZ</i> <sub>15</sub>		2 15.2 100°81	0°4/14.9	18	
1 12	10 13.81	+18 48.0	2.863	3.685	9.5	19.4	1 12	10 21.53	+11 48.2	1.515	2.340	16.3	21.7
1 22	10 8.80	+19 43.6	2.792	3.695	7.0	19.3	1 22	10 15.45	+12 15.0	1.456	2.358	12.1	21.5
2 1	10 2.29	+20 42.3	2.748	3.704	4.3	19.1	2 1	10 6.68	+12 54.0	1.419	2.376	7.3	21.3
2 11	9 54.83	+21 39.6	2.735	3.713	2.3	19.0	2 11	9 56.20	+13 38.9	1.409	2.394	2.1	21.0
2 21	9 47.06	+22 30.9	2.752	3.722	3.5	19.1	2 21	9 45.29	+14 22.7	1.428	2.411	3.2	21.1
3 2	9 39.69	+23 12.4	2.801	3.730	6.1	19.3	3 2	9 35.36	+14 59.2	1.474	2.428	8.2	21.4
3 12	9 33.37	+23 42.0	2.876	3.737	8.7	19.4	3 12	9 27.55	+15 24.0	1.545	2.444	12.5	21.7
3 22	9 28.58	+23 59.0	2.976	3.744	10.9	19.6	3 22	9 22.54	+15 35.7	1.638	2.459	16.2	22.0
<b>362424</b>	2010 <i>QB</i> <sub>1</sub>		2 15.2 197°60	0°9/15.9	17		<b>290987</b>	2005 <i>XP</i> <sub>50</sub>		2 15.2 124°72	3°6/12.1	18	
1 12	10 17.38	+ 7 53.1	2.114	2.916	13.2	22.1	1 12	10 17.04	+20 53.9	1.950	2.787	12.7	20.9
1 22	10 11.95	+ 8 19.0	2.024	2.913	10.0	21.9	1 22	10 11.85	+21 48.3	1.881	2.791	9.4	20.7
2 1	10 4.46	+ 8 57.8	1.959	2.909	6.3	21.7	2 1	10 4.43	+22 45.9	1.837	2.794	6.0	20.5
2 11	9 55.53	+ 9 46.0	1.923	2.905	2.3	21.4	2 11	9 55.54	+23 39.4	1.821	2.797	3.7	20.4
2 21	9 46.05	+10 38.6	1.916	2.900	2.4	21.4	2 21	9 46.17	+24 22.5	1.834	2.801	5.2	20.5
3 2	9 37.01	+11 30.0	1.939	2.894	6.4	21.6	3 2	9 37.44	+24 50.1	1.875	2.804	8.6	20.7
3 12	9 29.35	+12 15.4	1.990	2.888	10.2	21.9	3 12	9 30.35	+25 0.4	1.941	2.807	12.0	20.9
3 22	9 23.74	+12 51.5	2.065	2.880	13.5	22.1	3 22	9 25.54	+24 53.9	2.028	2.810	14.9	21.1
<b>98514</b>	2000 <i>VA</i> <sub>26</sub>		2 15.2 340°03	5°0/11.9	18		<b>65425</b>	2002 <i>TL</i> <sub>129</sub>		2 15.2 198°96	1°6/16.3	18	
1 12	10 18.18	+21 40.9	1.366	2.220	16.1	19.0	1 12	10 21.13	+ 6 55.4	1.878	2.677	14.7	20.9
1 22	10 13.60	+22 38.0	1.298	2.215	12.1	18.7	1 22	10 15.00	+ 7 6.4	1.788	2.673	11.3	20.7
2 1	10 5.89	+23 39.4	1.252	2.211	7.8	18.5	2 1	10 6.45	+ 7 31.7	1.721	2.668	7.3	20.4
2 11	9 56.02	+24 35.1	1.232	2.208	5.0	18.3	2 11	9 56.18	+ 8 8.2	1.682	2.663	3.0	20.2
2 21	9 45.39	+25 15.5	1.237	2.204	7.0	18.4	2 21	9 45.23	+ 8 51.2	1.673	2.656	2.8	20.1
3 2	9 35.64	+25 34.0	1.267	2.202	11.3	18.6	3 2	9 34.78	+ 9 35.1	1.693	2.649	7.1	20.4
3 12	9 28.22	+25 28.7	1.320	2.199	15.6	18.9	3 12	9 25.96	+10 14.3	1.741	2.640	11.3	20.6
3 22	9 23.95	+25 1.7	1.392	2.197	19.3	19.1	3 22	9 19.54	+10 45.3	1.812	2.631	14.9	20.8
<b>522590</b>	2016 <i>EA</i> <sub>247</sub>		2 15.2 206°11	0°8/15.9	17		<b>235065</b>	2003 <i>FX</i>					

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>328201</b>	2008 <i>EL</i> <sub>48</sub>		2 15.2 350°45	4°3/18.4	18		<b>30339</b>	2000 <i>JQ</i> <sub>32</sub>		2 15.2 179°49	0°4/14.8	18	
1 12	10 11.84	- 0 8.3	1.514	2.316	17.5	20.4	1 12	10 17.04	+12 3.8	2.335	3.145	11.8	20.1
1 22	10 8.49	+ 0 3.4	1.433	2.313	13.9	20.2	1 22	10 11.51	+12 34.8	2.251	3.147	8.8	19.9
2 1	10 2.66	+ 0 40.4	1.373	2.310	9.8	19.9	2 1	10 4.11	+13 14.5	2.193	3.148	5.3	19.7
2 11	9 55.07	+ 1 40.8	1.336	2.307	5.8	19.7	2 11	9 55.47	+13 58.5	2.164	3.148	1.5	19.5
2 21	9 46.79	+ 2 59.1	1.326	2.305	4.5	19.6	2 21	9 46.38	+14 42.3	2.165	3.148	2.4	19.5
3 2	9 39.08	+ 4 26.9	1.342	2.304	7.8	19.8	3 2	9 37.75	+15 21.3	2.197	3.147	6.2	19.8
3 12	9 33.10	+ 5 54.2	1.383	2.303	12.1	20.0	3 12	9 30.40	+15 51.9	2.257	3.146	9.6	20.0
3 22	9 29.64	+ 7 13.1	1.446	2.302	16.0	20.3	3 22	9 24.93	+16 12.2	2.341	3.144	12.5	20.2
<b>184696</b>	2005 <i>SO</i> <sub>111</sub>		2 15.2 274°32	7°0/20.9	17		<b>123094</b>	2000 <i>SL</i> <sub>336</sub>		2 15.2 153°65	0°4/14.8	18	
1 12	10 13.56	- 7 48.0	1.924	2.667	16.3	20.4	1 12	10 20.56	+12 14.4	2.131	2.940	12.8	20.9
1 22	10 9.45	- 8 7.6	1.822	2.652	13.8	20.2	1 22	10 14.18	+12 43.6	2.056	2.951	9.5	20.7
2 1	10 3.14	- 8 3.0	1.740	2.637	10.9	20.0	2 1	10 5.74	+13 21.6	2.006	2.961	5.7	20.5
2 11	9 55.22	- 7 32.6	1.682	2.622	8.3	19.8	2 11	9 55.95	+14 3.6	1.986	2.970	1.7	20.3
2 21	9 46.55	- 6 37.8	1.651	2.606	7.0	19.7	2 21	9 45.75	+14 44.7	1.996	2.978	2.6	20.4
3 2	9 38.19	- 5 23.2	1.646	2.590	8.4	19.7	3 2	9 36.14	+15 20.1	2.036	2.986	6.6	20.6
3 12	9 31.20	- 4 26.6	1.668	2.575	11.2	19.9	3 12	9 28.06	+15 46.3	2.105	2.992	10.2	20.9
3 22	9 26.34	- 2 26.5	1.713	2.559	14.5	20.0	3 22	9 22.10	+16 1.7	2.197	2.998	13.3	21.1
<b>340682</b>	2006 <i>RM</i> <sub>81</sub>		2 15.2 188°17	2°8/12.5	17		<b>434960</b>	2006 <i>UU</i> <sub>82</sub>		2 15.2 184°44	1°6/13.6	17	
1 12	10 16.20	+21 23.1	2.532	3.359	10.5	21.4	1 12	10 14.70	+16 59.9	2.585	3.407	10.4	21.7
1 22	10 10.78	+21 56.5	2.454	3.359	7.8	21.2	1 22	10 9.63	+17 28.3	2.504	3.407	7.7	21.5
2 1	10 3.60	+22 31.3	2.403	3.358	4.9	21.0	2 1	10 2.91	+18 0.8	2.450	3.407	4.6	21.3
2 11	9 55.27	+23 2.5	2.381	3.357	2.9	20.9	2 11	9 55.10	+18 33.5	2.424	3.406	1.8	21.1
2 21	9 46.57	+23 25.9	2.389	3.356	4.1	21.0	2 21	9 46.92	+19 2.2	2.429	3.406	3.0	21.2
3 2	9 38.36	+23 38.3	2.426	3.355	6.9	21.2	3 2	9 39.17	+19 23.4	2.464	3.405	6.1	21.4
3 12	9 31.39	+23 38.1	2.491	3.354	9.8	21.3	3 12	9 32.58	+19 35.0	2.526	3.405	9.1	21.6
3 22	9 26.23	+23 25.7	2.579	3.352	12.3	21.5	3 22	9 27.67	+19 36.2	2.613	3.404	11.7	21.8
<b>243657</b>	1999 <i>UX</i> <sub>45</sub>		2 15.2 188°90	3°1/12.5	18		<b>354085</b>	2001 <i>WO</i> <sub>25</sub>		2 15.2 42°58	2°4/13.7	17	
1 12	10 21.64	+21 8.0	2.344	3.164	11.4	21.2	1 12	10 17.39	+14 57.0	1.157	2.012	18.3	21.0
1 22	10 14.97	+21 49.7	2.263	3.163	8.5	21.0	1 22	10 13.05	+15 48.5	1.108	2.027	13.5	20.7
2 1	10 6.22	+22 33.3	2.208	3.161	5.4	20.8	2 1	10 5.52	+16 52.4	1.079	2.042	8.0	20.5
2 11	9 56.09	+23 13.0	2.183	3.159	3.2	20.6	2 11	9 55.93	+17 58.6	1.075	2.058	2.9	20.2
2 21	9 45.47	+23 43.4	2.188	3.155	4.5	20.7	2 21	9 45.84	+18 56.8	1.095	2.075	5.0	20.4
3 2	9 35.39	+24 0.9	2.224	3.151	7.6	20.9	3 2	9 36.93	+19 38.8	1.140	2.092	10.2	20.7
3 12	9 26.78	+24 3.8	2.287	3.145	10.7	21.1	3 12	9 30.56	+20 0.6	1.208	2.110	15.0	21.1
3 22	9 20.26	+23 52.8	2.374	3.139	13.4	21.2	3 22	9 27.40	+20 2.1	1.295	2.128	18.9	21.4
<b>385490</b>	2004 <i>BY</i> <sub>97</sub>		2 15.2 302°81	2°8/13.2	17		<b>237658</b>	2001 <i>SM</i> <sub>196</sub>		2 15.2 44°39	0°8/15.7	18	
1 12	10 19.78	+21 3.6	2.085	2.914	12.3	20.7	1 12	10 16.34	+ 8 19.3	1.217	2.055	18.7	20.4
1 22	10 13.95	+21 13.1	1.987	2.892	9.3	20.4	1 22	10 12.17	+ 8 48.3	1.158	2.066	14.1	20.2
2 1	10 5.79	+21 23.6	1.915	2.871	5.8	20.2	2 1	10 4.98	+ 9 37.1	1.121	2.078	8.7	19.9
2 11	9 56.00	+21 29.9	1.870	2.850	3.0	19.9	2 11	9 55.79	+10 39.5	1.107	2.090	2.9	19.6
2 21	9 45.55	+21 27.5	1.856	2.829	4.4	20.0	2 21	9 46.01	+11 46.3	1.118	2.103	3.3	19.7
3 2	9 35.58	+21 13.3	1.870	2.808	8.0	20.2	3 2	9 37.22	+12 48.3	1.155	2.116	8.9	20.0
3 12	9 27.15	+20 46.1	1.910	2.787	11.6	20.3	3 12	9 30.77	+13 37.9	1.215	2.130	13.9	20.4
3 22	9 21.00	+20 6.8	1.974	2.767	14.8	20.5	3 22	9 27.37	+14 11.2	1.296	2.144	18.1	20.7
<b>430486</b>	2001 <i>SU</i> <sub>304</sub>		2 15.2 133°85	2°6/12.7	17		<b>263306</b>	2008 <i>CH</i> <sub>25</sub>		2 15.2 21°93	1°8/14.1	18	
1 12	10 17.15	+21 2.0	2.673	3.495	10.1	21.5	1 12	10 18.97	+16 6.4	1.539	2.377	15.5	20.8
1 22	10 11.31	+21 32.0	2.604	3.506	7.5	21.3	1 22	10 13.73	+16 24.2	1.469	2.380	11.5	20.5
2 1	10 3.84	+22 3.0	2.562	3.516	4.7	21.2	2 1	10 5.78	+16 49.3	1.422	2.382	6.9	20.3
2 11	9 55.34	+22 30.6	2.549	3.526	2.6	21.1	2 11	9 56.02	+17 15.7	1.401	2.385	2.4	20.0
2 21	9 46.56	+22 50.8	2.567	3.535	3.8	21.1	2 21	9 45.68	+17 37.2	1.407	2.388	4.0	20.1
3 2	9 38.30	+23 0.9	2.615	3.545	6.5	21.3	3 2	9 36.16	+17 48.6	1.441	2.391	8.7	20.4
3 12	9 31.27	+22 59.7	2.691	3.553	9.1	21.5	3 12	9 28.68	+17 47.2	1.499	2.395	13.0	20.6
3 22	9 25.07	+22 47.5	2.790	3.562	11.5	21.7	3 22	9 23.96	+17 32.6	1.578	2.399	16.7	20.9
<b>39330</b>	2001 <i>XZ</i> <sub>195</sub>		2 15.2 143°60	0°7/15.8	18		<b>213783</b>	2003 <i>FF</i>		2 15.2 4°73	3°1/12.7	17	
1 12	10 19.32	+ 8 11.5	1.963	2.767	14.0	20.6	1 12	10 14.58	+20 3.8	1.937	2.777	12.7	20.5
1 22	10 13.40	+ 8 42.6	1.890	2.780	10.5	20.4	1 22	10 10.05	+20 42.0	1.865	2.777	9.4	20.3
2 1	10 5.31	+ 9 27.0	1.841	2.792	6.5	20.2	2 1	10 3.37	+21 23.4	1.819	2.777	5.8	20.1
2 11	9 55.82	+10 20.1	1.821	2.803	2.3	19.9	2 11	9 55.27	+22 2.1	1.800	2.779	3.2	19.9
2 21	9 45.89	+11 16.3	1.830	2.814	2.4	19.9	2 21	9 46.72	+22 32.1	1.809	2.780	4.7	20.0
3 2	9 36.58	+12 9.7	1.869	2.824	6.6	20.2	3 2	9 38.78	+22 49.3	1.845	2.782	8.2	20.2
3 12	9 28.87	+12 55.3	1.936	2.833	10.5	20.5	3 12	9 32.42	+22 51.4	1.908	2.785	11.6	20.4
3 22	9 23.36	+13 30.3	2.026	2.841	13.7	20.7	3 22	9 28.25	+22 38.7	1.991	2.788	14.6	20.6
<b>324029</b>	2005 <i>UY</i> <sub>428</sub>		2 15.2 207°08	4°8/19.8	13 C		<b>68670</b>	2002 <i>CV</i> <sub>110</sub>		2 15.2 254°13	0°7/15.8	18	
1 12	10 14.71	- 4 25.9	2.338	3.085	13.7	22.7	1 12	10 13.05	+ 7 5.1	2.100	2.908	13.0	20.2
1 22	10 9.85	- 4 26.9	2.240	3.079	11.2	22.5	1 22	10 8.85	+ 7 54.6	2.005	2.897	9.9	20.0
2 1	10 3.16	- 4 8.9	2.165	3.074	8.5	22.3	2 1	10 2.67	+ 8 59.8	1.935	2.886	6.2	19.7
2 11	9 55.20	- 3 32.2	2.116	3.067	5.9	22.1	2 11	9 55.09	+10 16.4	1.893	2.876	2.2	19.4
2 21	9 46.71	- 2 39.3	2.095	3.060	4.9	22.0	2 21	9 46.91	+11 38.4	1.880	2.864	2.3	19.4
3 2	9 38.56	- 1 34.6	2.104	3.053	6.5	22.1	3 2	9 39.09	+12 58.8	1.897	2.853	6.4	19.7
3 12	9 31.57	- 0 24.2	2.141	3.045	9.3	22.3	3 12	9 32.53	+14 11.3	1.942	2.842	10.3	19.9
3 22	9 26.36	+ 0 45.9	2.203	3.036	12.1	22.5	3 22	9 27.92	+15 11.6	2.010	2.830	13.6	20.1
<b>499954</b>	2011 <i>JT</i> <sub>3</sub>		2 15.2 355°40	2°4/17.5	18		<b>82025</b>	2000 <i>SM</i> <sub>60</sub>		2 15.2 224°19	0°0/15.2	17	
1 12	10 11.97	+ 2 22.7											

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>454996</b>	2015 <i>TM</i> <sub>243</sub>		2 15.2 106°82	0°6/15.6	18		<b>209484</b>	2004 <i>HE</i> <sub>45</sub>		2 15.2 263°30	3°2/18.5	17	
1 12	10 20.87	+ 9 21.9	1.554	2.372	16.3	22.5	1 12	10 12.04	+ 0 3.6	2.588	3.357	11.9	20.7
1 22	10 14.94	+ 9 45.2	1.492	2.390	12.2	22.3	1 22	10 7.77	+ 0 10.7	2.481	3.341	9.5	20.5
2 1	10 6.40	+10 22.9	1.452	2.407	7.5	22.1	2 1	10 1.89	+ 0 32.7	2.399	3.325	6.8	20.3
2 11	9 56.18	+11 9.7	1.440	2.423	2.4	21.8	2 11	9 54.86	+ 1 8.6	2.344	3.310	4.2	20.1
2 21	9 45.51	+11 58.8	1.455	2.439	2.9	21.8	2 21	9 47.35	+ 1 55.6	2.318	3.293	3.3	20.0
3 2	9 35.73	+12 43.6	1.498	2.455	7.8	22.2	3 2	9 40.08	+ 2 49.9	2.322	3.277	5.5	20.2
3 12	9 27.99	+13 18.9	1.568	2.470	12.1	22.5	3 12	9 33.80	+ 3 46.4	2.354	3.261	8.4	20.3
3 22	9 22.96	+13 42.1	1.659	2.484	15.8	22.7	3 22	9 29.07	+ 4 40.8	2.412	3.244	11.3	20.5
<b>466172</b>	2012 <i>JR</i> <sub>28</sub>		2 15.2 201°07	4°4/11.4	16		<b>30443</b>	Stieltjes		2 15.2 85°89	2°9/17.3	18	
1 12	10 18.32	+23 54.5	2.081	2.915	12.1	21.6	1 12	10 16.85	+ 4 17.0	1.827	2.626	15.1	17.6
1 22	10 12.79	+24 50.1	2.007	2.913	9.1	21.4	1 22	10 11.78	+ 4 6.9	1.748	2.629	11.7	17.4
2 1	10 5.03	+25 46.4	1.959	2.911	6.1	21.3	2 1	10 4.48	+ 4 12.5	1.691	2.632	7.9	17.2
2 11	9 55.79	+26 36.1	1.939	2.909	4.4	21.1	2 11	9 55.66	+ 4 31.8	1.660	2.636	4.1	17.0
2 21	9 46.03	+27 13.0	1.948	2.906	5.9	21.2	2 21	9 46.31	+ 5 1.2	1.658	2.639	3.4	16.9
3 2	9 36.86	+27 32.7	1.985	2.903	8.9	21.4	3 2	9 37.53	+ 5 35.8	1.684	2.643	6.9	17.2
3 12	9 29.29	+27 34.0	2.047	2.900	12.0	21.6	3 12	9 30.35	+ 6 10.3	1.737	2.646	10.7	17.4
3 22	9 23.97	+27 18.0	2.131	2.896	14.8	21.8	3 22	9 25.43	+ 6 40.2	1.812	2.649	14.2	17.6
<b>116554</b>	2004 <i>BY</i> <sub>76</sub>		2 15.2 128°98	3°5/19.3	18		<b>209480</b>	2004 <i>HD</i> <sub>30</sub>		2 15.2 312°04	2°0/17.0	18	
1 12	10 11.50	- 2 59.2	2.422	3.180	13.0	19.6	1 12	10 12.17	+ 4 48.4	2.192	2.991	12.9	20.5
1 22	10 7.35	- 2 20.6	2.335	3.186	10.4	19.4	1 22	10 8.08	+ 5 1.6	2.100	2.983	10.0	20.3
2 1	10 1.57	- 1 22.5	2.271	3.192	7.5	19.2	2 1	10 2.15	+ 5 29.0	2.032	2.976	6.6	20.1
2 11	9 54.73	- 0 7.2	2.235	3.197	4.7	19.1	2 11	9 54.96	+ 6 8.2	1.991	2.969	3.2	19.9
2 21	9 47.50	+ 1 20.8	2.228	3.203	3.6	19.0	2 21	9 47.26	+ 6 55.3	1.979	2.962	2.6	19.8
3 2	9 40.65	+ 2 55.7	2.252	3.208	5.6	19.1	3 2	9 39.95	+ 7 45.5	1.996	2.955	5.9	20.0
3 12	9 34.90	+ 4 30.5	2.305	3.213	8.5	19.3	3 12	9 33.84	+ 8 33.6	2.040	2.948	9.4	20.2
3 22	9 30.78	+ 5 59.6	2.384	3.218	11.3	19.5	3 22	9 29.56	+ 9 15.5	2.109	2.942	12.6	20.4
<b>467247</b>	2016 <i>EK</i> <sub>172</sub>		2 15.2 115°61	1°8/13.6	18		<b>353314</b>	2010 <i>JH</i> <sub>161</sub>		2 15.2 191°66	4°8/21.2	17	
1 12	10 14.51	+14 41.8	1.961	2.792	12.9	21.1	1 12	10 11.93	- 8 24.0	3.253	3.960	10.9	22.0
1 22	10 9.98	+15 39.1	1.887	2.794	9.5	20.8	1 22	10 7.33	- 8 32.1	3.153	3.958	9.2	21.9
2 1	10 3.34	+16 45.6	1.837	2.796	5.7	20.6	2 1	10 1.45	- 8 24.8	3.075	3.956	7.3	21.8
2 11	9 55.29	+17 54.9	1.816	2.799	2.1	20.4	2 11	9 54.71	- 8 2.3	3.025	3.953	5.6	21.6
2 21	9 46.74	+19 0.2	1.823	2.801	3.7	20.5	2 21	9 47.64	- 7 25.8	3.003	3.949	4.8	21.6
3 2	9 38.72	+19 55.1	1.859	2.803	7.6	20.7	3 2	9 40.80	- 6 38.0	3.012	3.945	5.5	21.6
3 12	9 32.20	+20 35.7	1.921	2.806	11.2	21.0	3 12	9 34.78	- 5 42.9	3.049	3.941	7.2	21.7
3 22	9 27.80	+21 0.5	2.006	2.808	14.3	21.2	3 22	9 30.01	- 4 44.7	3.113	3.936	9.2	21.9
<b>421253</b>	2013 <i>SM</i> <sub>60</sub>		2 15.2 123°55	0°5/14.8	18		<b>110512</b>	2001 <i>TU</i> <sub>75</sub>		2 15.2 155°16	1°4/16.3	18	
1 12	10 17.31	+13 2.2	1.944	2.766	13.4	21.0	1 12	10 15.87	+ 6 58.5	1.956	2.762	13.9	20.4
1 22	10 12.01	+13 21.2	1.868	2.769	10.0	20.8	1 22	10 10.95	+ 7 17.8	1.875	2.765	10.6	20.1
2 1	10 4.54	+13 48.9	1.816	2.773	6.0	20.6	2 1	10 3.93	+ 7 51.2	1.818	2.767	6.8	19.9
2 11	9 55.64	+14 20.6	1.792	2.776	1.8	20.3	2 11	9 55.50	+ 8 35.2	1.789	2.770	2.7	19.7
2 21	9 46.27	+14 51.5	1.796	2.779	2.8	20.4	2 21	9 46.56	+ 9 24.8	1.788	2.772	2.5	19.6
3 2	9 37.49	+15 16.9	1.830	2.782	7.0	20.7	3 2	9 38.15	+10 14.4	1.817	2.774	6.5	19.9
3 12	9 30.28	+15 33.3	1.891	2.785	10.8	20.9	3 12	9 31.21	+10 58.8	1.872	2.776	10.4	20.1
3 22	9 25.28	+15 39.1	1.974	2.788	14.1	21.1	3 22	9 26.39	+11 34.3	1.951	2.778	13.7	20.4
<b>328756</b>	2009 <i>UL</i> <sub>76</sub>		2 15.2 206°54	2°0/16.9	17		<b>388628</b>	2007 <i>TA</i> <sub>67</sub>		2 15.2 31°51	4°1/19.0	18	
1 12	10 15.12	+ 4 51.8	2.095	2.891	13.5	21.7	1 12	10 11.85	- 1 25.3	2.077	2.852	14.3	21.0
1 22	10 10.31	+ 5 6.2	2.007	2.888	10.4	21.5	1 22	10 7.87	- 1 18.7	1.994	2.856	11.4	20.8
2 1	10 3.51	+ 5 35.3	1.942	2.885	6.9	21.3	2 1	10 2.02	- 0 52.8	1.934	2.860	8.3	20.6
2 11	9 55.34	+ 6 16.5	1.904	2.882	3.2	21.0	2 11	9 54.93	- 0 9.1	1.900	2.864	5.2	20.4
2 21	9 46.65	+ 7 5.7	1.896	2.878	2.7	21.0	2 21	9 47.38	+ 0 48.7	1.894	2.868	4.1	20.3
3 2	9 38.39	+ 7 57.6	1.917	2.874	6.2	21.2	3 2	9 40.29	+ 1 55.2	1.916	2.873	6.3	20.5
3 12	9 31.46	+ 8 46.8	1.965	2.870	9.9	21.4	3 12	9 34.49	+ 3 3.9	1.966	2.878	9.5	20.7
3 22	9 26.51	+ 9 29.1	2.037	2.866	13.2	21.6	3 22	9 30.56	+ 4 8.8	2.040	2.883	12.6	20.9
<b>274146</b>	2008 <i>FD</i> <sub>66</sub>		2 15.2 129°30	3°0/13.2	18		<b>355301</b>	2007 <i>RA</i> <sub>239</sub>		2 15.2 188°79	0°1/15.1	18	
1 12	10 22.57	+17 17.4	1.501	2.337	15.9	20.8	1 12	10 20.73	+11 59.5	1.840	2.656	14.3	21.6
1 22	10 16.43	+18 11.4	1.440	2.349	11.7	20.6	1 22	10 14.73	+12 13.8	1.758	2.656	10.7	21.3
2 1	10 7.43	+19 13.0	1.402	2.361	7.1	20.3	2 1	10 6.32	+12 38.1	1.700	2.655	6.5	21.1
2 11	9 56.53	+20 13.5	1.390	2.372	3.2	20.1	2 11	9 56.25	+13 7.9	1.669	2.653	1.9	20.8
2 21	9 45.09	+21 4.3	1.407	2.382	5.1	20.3	2 21	9 45.57	+13 38.0	1.668	2.651	2.8	20.8
3 2	9 34.61	+21 38.9	1.451	2.392	9.6	20.5	3 2	9 35.51	+14 3.5	1.696	2.649	7.4	21.1
3 12	9 26.36	+21 54.5	1.520	2.402	13.8	20.8	3 12	9 27.15	+14 20.5	1.750	2.646	11.5	21.3
3 22	9 21.07	+21 51.9	1.609	2.410	17.3	21.1	3 22	9 21.23	+14 27.2	1.828	2.642	15.0	21.6
<b>502686</b>	2015 <i>CE</i> <sub>61</sub>		2 15.2 348°66	3°5/17.5	18		<b>146408</b>	2001 <i>QC</i> <sub>192</sub>		2 15.2 269°80	7°7/20.5	18	
1 12	10 14.82	+ 3 53.8	1.771	2.574	15.3	20.5	1 12	10 16.64	- 7 5.7	1.854	2.598	16.8	20.0
1 22	10 10.40	+ 3 26.6	1.686	2.568	12.0	20.3	1 22	10 11.78	- 7 58.7	1.763	2.592	14.2	19.8
2 1	10 3.70	+ 3 14.6	1.623	2.564	8.3	20.1	2 1	10 4.61	- 8 30.0	1.692	2.586	11.3	19.6
2 11	9 55.43	+ 3 16.9	1.587	2.560	4.7	19.8	2 11	9 55.76	- 8 37.1	1.645	2.580	8.8	19.4
2 21	9 46.55	+ 3 31.0	1.577	2.556	3.9	19.8	2 21	9 46.20	- 8 20.1	1.625	2.574	7.7	19.4
3 2	9 38.18	+ 3 52.7	1.595	2.553	7.1	20.0	3 2	9 37.05	- 7 42.3	1.631	2.568	9.0	19.4
3 12	9 31.39	+ 4 16.9	1.638	2.551	11.0	20.2	3 12	9 29.40	- 6 50.1	1.662	2.562	11.7	19.6
3 22	9 26.87	+ 4 39.1	1.705	2.550	14.6	20.4	3 22	9 24.03	- 5 51.2	1.717	2.556	14.7	19.7
<b>140901</b>	2001 <i>VT</i> <sub>40</sub>		2 15.2 172°94	3°6/10.9	18		<b>81811</b>	2000 <i>KR</i> <sub>17</sub>					

EPHEMERIDES

2 15.2

2 15.2

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>383731</b>	2007 <i>US</i> <sub>128</sub>		2 15.2 73°24	1°8/16.8	18		<b>301278</b>	2009 <i>BF</i> <sub>91</sub>		2 15.2 61°93	0°4/14.9	18	
1 12	10 14.50	+ 6 1.2	2.226	3.024	12.7	20.8	1 12	10 18.86	+10 57.0	1.330	2.166	17.6	21.3
1 22	10 9.61	+ 6 8.1	2.155	3.039	9.7	20.6	1 22	10 13.74	+11 34.8	1.279	2.187	13.0	21.1
2 1	10 2.95	+ 6 27.3	2.108	3.053	6.3	20.4	2 1	10 5.81	+12 27.6	1.251	2.209	7.8	20.9
2 11	9 55.19	+ 6 56.0	2.090	3.068	2.8	20.2	2 11	9 56.10	+13 27.8	1.247	2.232	2.3	20.6
2 21	9 47.09	+ 7 30.5	2.100	3.083	2.4	20.2	2 21	9 46.00	+14 26.9	1.270	2.254	3.4	20.7
3 2	9 39.53	+ 8 6.6	2.140	3.098	5.7	20.5	3 2	9 36.98	+15 17.2	1.320	2.277	8.6	21.1
3 12	9 33.27	+ 8 40.1	2.208	3.113	9.0	20.7	3 12	9 30.22	+15 53.2	1.394	2.299	13.2	21.4
3 22	9 28.84	+ 9 7.8	2.300	3.128	11.9	20.9	3 22	9 26.36	+16 13.3	1.489	2.321	16.9	21.7
<b>362547</b>	2010 <i>UZ</i> <sub>59</sub>		2 15.2 158°50	5°2/9.9	18		<b>367514</b>	2009 <i>OQ</i> <sub>5</sub>		2 15.2 168°64	4°3/19.4	17	
1 12	10 20.87	+28 9.9	2.432	3.256	10.9	22.0	1 12	10 16.81	- 3 8.1	2.592	3.334	12.6	22.0
1 22	10 14.41	+29 20.5	2.370	3.266	8.4	21.8	1 22	10 11.20	- 3 20.4	2.501	3.339	10.2	21.9
2 1	10 5.91	+30 28.0	2.334	3.274	6.1	21.7	2 1	10 3.91	- 3 17.0	2.435	3.344	7.6	21.7
2 11	9 56.08	+31 25.4	2.328	3.282	5.3	21.6	2 11	9 55.52	- 2 58.3	2.396	3.348	5.2	21.6
2 21	9 45.86	+32 6.9	2.352	3.288	6.5	21.7	2 21	9 46.71	- 2 26.4	2.387	3.351	4.4	21.5
3 2	9 36.24	+32 29.2	2.404	3.294	8.9	21.9	3 2	9 38.28	- 1 44.7	2.407	3.354	5.9	21.6
3 12	9 28.13	+32 32.0	2.482	3.300	11.3	22.1	3 12	9 30.96	- 0 57.8	2.457	3.356	8.5	21.8
3 22	9 22.12	+32 17.0	2.582	3.304	13.5	22.2	3 22	9 25.30	- 0 10.3	2.533	3.357	11.0	21.9
<b>202500</b>	2006 <i>BA</i> <sub>140</sub>		2 15.2 95°70	2°1/16.6	18		<b>306351</b>	2011 <i>ST</i> <sub>175</sub>		2 15.2 65°07	2°0/13.9	16	
1 12	10 19.87	+ 6 7.5	1.531	2.342	16.9	21.4	1 12	10 20.95	+15 5.0	1.364	2.204	17.0	21.1
1 22	10 14.26	+ 6 16.1	1.467	2.358	12.9	21.2	1 22	10 15.21	+15 45.9	1.318	2.229	12.5	20.9
2 1	10 6.05	+ 6 42.0	1.426	2.374	8.3	20.9	2 1	10 6.63	+16 36.1	1.294	2.254	7.4	20.7
2 11	9 56.15	+ 7 21.5	1.410	2.390	3.6	20.7	2 11	9 56.33	+17 27.5	1.295	2.279	2.6	20.4
2 21	9 45.79	+ 8 8.5	1.422	2.406	3.1	20.7	2 21	9 45.72	+18 12.0	1.324	2.304	4.3	20.6
3 2	9 36.29	+ 8 56.3	1.462	2.421	7.6	21.0	3 2	9 36.26	+18 43.2	1.379	2.329	9.1	20.9
3 12	9 28.79	+ 9 38.7	1.528	2.436	12.0	21.3	3 12	9 29.14	+18 58.3	1.459	2.354	13.4	21.3
3 22	9 23.97	+10 11.5	1.615	2.451	15.7	21.5	3 22	9 24.96	+18 57.3	1.559	2.378	16.9	21.5
<b>158478</b>	2002 <i>DJ</i> <sub>1</sub>		2 15.2 55°52	2°2/16.8	18		<b>443578</b>	2014 <i>KA</i> <sub>65</sub>		2 15.2 42°48	5°7/11.3	18	
1 12	10 15.53	+ 5 34.2	1.768	2.575	15.1	20.2	1 12	10 18.15	+21 16.8	1.277	2.134	16.8	20.8
1 22	10 10.83	+ 5 39.5	1.695	2.583	11.6	20.0	1 22	10 13.75	+22 46.1	1.219	2.138	12.5	20.5
2 1	10 3.91	+ 6 0.5	1.645	2.591	7.6	19.8	2 1	10 6.12	+24 21.7	1.183	2.142	8.2	20.3
2 11	9 55.51	+ 6 34.3	1.621	2.600	3.5	19.6	2 11	9 56.27	+25 50.7	1.173	2.147	5.7	20.2
2 21	9 46.64	+ 7 16.3	1.625	2.608	2.9	19.5	2 21	9 45.70	+27 1.1	1.187	2.151	7.9	20.3
3 2	9 38.39	+ 8 0.6	1.657	2.616	6.8	19.8	3 2	9 36.13	+27 44.9	1.227	2.156	12.2	20.5
3 12	9 31.77	+ 8 41.6	1.715	2.625	10.8	20.0	3 12	9 29.01	+27 59.8	1.289	2.162	16.4	20.8
3 22	9 27.41	+ 9 15.2	1.796	2.634	14.3	20.3	3 22	9 25.15	+27 48.4	1.369	2.167	19.9	21.1
<b>362243</b>	2009 <i>KF</i> <sub>9</sub>		2 15.2 188°20	0°6/14.6	17		<b>7173</b>	Sepkoski		2 15.2 169°26	17°5/26.2	18	
1 12	10 17.36	+12 27.9	2.419	3.228	11.5	22.4	1 12	10 19.73	-21 31.4	1.294	1.981	25.4	17.2
1 22	10 11.75	+13 6.4	2.332	3.227	8.5	22.2	1 22	10 15.22	-23 43.8	1.224	1.981	23.3	17.0
2 1	10 4.31	+13 53.2	2.271	3.226	5.1	22.0	2 1	10 7.28	-25 19.2	1.168	1.982	21.0	16.9
2 11	9 55.63	+14 44.2	2.239	3.224	1.5	21.7	2 11	9 56.72	-26 7.0	1.127	1.982	19.0	16.7
2 21	9 46.48	+15 34.4	2.239	3.221	2.5	21.8	2 21	9 44.93	-26 0.9	1.105	1.982	17.7	16.6
3 2	9 37.74	+16 19.1	2.269	3.217	6.1	22.0	3 2	9 33.73	-25 1.7	1.102	1.982	17.7	16.6
3 12	9 30.24	+16 54.7	2.327	3.212	9.5	22.2	3 12	9 24.87	-23 19.5	1.118	1.982	18.9	16.7
3 22	9 24.55	+17 19.4	2.410	3.207	12.4	22.4	3 22	9 19.48	-21 10.0	1.152	1.982	21.0	16.8
<b>500553</b>	2012 <i>UG</i> <sub>42</sub>		2 15.2 132°32	3°7/19.2	18		<b>409636</b>	2005 <i>WC</i> <sub>175</sub>		2 15.2 43°63	2°0/13.8	18	
1 12	10 12.30	- 1 53.5	2.564	3.323	12.3	21.9	1 12	10 16.58	+15 18.8	1.487	2.330	15.7	20.7
1 22	10 7.86	- 1 48.4	2.478	3.329	9.9	21.7	1 22	10 11.86	+16 2.7	1.437	2.350	11.5	20.4
2 1	10 1.88	- 1 27.3	2.416	3.335	7.2	21.6	2 1	10 4.59	+16 55.3	1.410	2.371	6.8	20.2
2 11	9 54.88	- 0 51.6	2.381	3.341	4.7	21.4	2 11	9 55.74	+17 49.2	1.408	2.392	2.5	20.0
2 21	9 47.53	- 0 4.0	2.375	3.346	3.8	21.4	2 21	9 46.54	+18 36.6	1.434	2.413	4.2	20.2
3 2	9 40.54	+ 0 51.3	2.399	3.352	5.5	21.5	3 2	9 38.29	+19 11.6	1.486	2.436	8.6	20.5
3 12	9 34.61	+ 1 49.4	2.451	3.357	8.2	21.6	3 12	9 32.06	+19 30.8	1.563	2.458	12.7	20.8
3 22	9 30.23	+ 2 45.7	2.528	3.362	10.8	21.8	3 22	9 28.46	+19 34.0	1.661	2.481	16.0	21.0
<b>88955</b>	2001 <i>TW</i> <sub>42</sub>		2 15.2 80°70	4°3/12.7	18		<b>508703</b>	2017 <i>UW</i> <sub>20</sub>		2 15.2 188°47	0°8/16.1	17	
1 12	10 23.34	+21 15.9	1.430	2.273	16.2	18.4	1 12	10 12.18	+ 7 12.8	2.761	3.557	10.6	21.9
1 22	10 17.05	+21 59.5	1.378	2.290	12.0	18.2	1 22	10 7.73	+ 7 47.5	2.671	3.557	8.0	21.8
2 1	10 7.80	+22 45.4	1.349	2.306	7.5	18.0	2 1	10 1.80	+ 8 33.0	2.607	3.556	5.0	21.6
2 11	9 56.69	+23 24.5	1.345	2.323	4.4	17.9	2 11	9 54.89	+ 9 26.1	2.573	3.554	1.9	21.3
2 21	9 45.18	+23 49.1	1.369	2.339	6.1	18.0	2 21	9 47.61	+10 23.0	2.568	3.553	1.8	21.3
3 2	9 34.84	+23 54.7	1.419	2.355	10.2	18.3	3 2	9 40.65	+11 19.2	2.595	3.551	5.0	21.5
3 12	9 26.91	+23 41.0	1.493	2.371	14.2	18.6	3 12	9 34.66	+12 10.7	2.651	3.548	8.0	21.7
3 22	9 22.05	+23 10.2	1.588	2.387	17.6	18.8	3 22	9 30.13	+12 54.6	2.732	3.546	10.6	21.9
<b>305555</b>	2008 <i>UM</i> <sub>217</sub>		2 15.2 246°48	3°5/17.5	18		<b>206922</b>	2004 <i>PR</i> <sub>101</sub>		2 15.2 157°58	0°3/15.0	18	
1 12	10 18.85	+ 2 55.6	1.699	2.494	16.2	21.4	1 12	10 20.95	+11 48.6	1.933	2.745	13.8	20.7
1 22	10 13.72	+ 2 50.3	1.601	2.479	12.8	21.1	1 22	10 14.74	+12 13.2	1.857	2.753	10.3	20.5
2 1	10 5.95	+ 3 3.6	1.525	2.464	8.8	20.9	2 1	10 6.26	+12 47.7	1.806	2.760	6.3	20.3
2 11	9 56.24	+ 3 34.3	1.474	2.448	4.8	20.6	2 11	9 56.27	+13 27.5	1.783	2.767	1.8	20.0
2 21	9 45.61	+ 4 18.8	1.451	2.431	3.9	20.5	2 21	9 45.78	+14 6.9	1.790	2.773	2.7	20.1
3 2	9 35.36	+ 5 11.0	1.456	2.414	7.7	20.7	3 2	9 35.95	+14 41.0	1.826	2.778	7.0	20.3
3 12	9 26.77	+ 6 3.9	1.487	2.397	12.2	20.9	3 12	9 27.77	+15 5.9	1.890	2.782	10.9	20.6
3 22	9 20.72	+ 6 51.6	1.541	2.378	16.2	21.1	3 22	9 21.90	+15 19.8	1.977	2.786	14.3	20.8
<b>370171</b>	2002 <i>AZ</i> <sub>142</sub>		2 15.2 344°50	2°6/16.9	18		<b>300281</b>	2007 <i>ME</i> <sub>5</sub>					

EPHEMERIDES

2 15.2

2 15.2

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>405898</b>	2006 <i>HO</i> <sub>18</sub>		2 15.2 261 <sup>o</sup> 07	1 <sup>o</sup> 0/14.5 17			<b>287492</b>	2003 <i>BX</i> <sub>24</sub>		2 15.2 344 <sup>o</sup> 99	5 <sup>o</sup> 2/18.5 17		
1 12	10 18.42	+13 10.7	1.701	2.529	14.7	21.9	1 12	10 15.07	+ 0 12.3	1.864	2.648	15.4	19.6
1 22	10 13.44	+13 44.5	1.608	2.512	11.1	21.6	1 22	10 10.58	- 0 38.4	1.774	2.639	12.4	19.4
2 1	10 5.80	+14 30.2	1.538	2.496	6.7	21.3	2 1	10 3.88	- 1 13.4	1.706	2.631	9.2	19.2
2 11	9 56.22	+15 22.0	1.494	2.479	2.1	21.0	2 11	9 55.62	- 1 31.7	1.664	2.624	6.2	19.0
2 21	9 45.76	+16 13.2	1.479	2.461	3.5	21.0	2 21	9 46.72	- 1 34.1	1.648	2.618	5.3	18.9
3 2	9 35.75	+16 56.7	1.492	2.443	8.4	21.3	3 2	9 38.25	- 1 23.6	1.660	2.612	7.6	19.0
3 12	9 27.45	+17 27.6	1.531	2.425	12.9	21.5	3 12	9 31.26	- 1 4.8	1.698	2.607	10.9	19.2
3 22	9 21.76	+17 43.5	1.591	2.407	16.8	21.7	3 22	9 26.45	- 0 42.9	1.758	2.603	14.2	19.4
<b>429743</b>	2011 <i>QP</i> <sub>52</sub>		2 15.2 240 <sup>o</sup> 81	1 <sup>o</sup> 4/16.7 17			<b>67935</b>	2000 <i>WU</i> <sub>134</sub>		2 15.2 262 <sup>o</sup> 59	0 <sup>o</sup> 4/15.0 18		
1 12	10 13.22	+ 5 48.9	2.770	3.558	10.7	21.9	1 12	10 19.95	+12 44.4	1.599	2.426	15.5	19.1
1 22	10 8.58	+ 6 9.6	2.664	3.543	8.3	21.7	1 22	10 14.59	+12 53.8	1.515	2.419	11.7	18.8
2 1	10 2.38	+ 6 41.6	2.584	3.528	5.4	21.5	2 1	10 6.48	+13 13.6	1.454	2.411	7.1	18.5
2 11	9 55.10	+ 7 22.6	2.533	3.512	2.4	21.3	2 11	9 56.43	+13 39.1	1.419	2.403	2.1	18.2
2 21	9 47.35	+ 8 9.2	2.513	3.496	2.0	21.3	2 21	9 45.62	+14 4.7	1.412	2.395	3.2	18.3
3 2	9 39.85	+ 8 57.4	2.523	3.479	5.0	21.4	3 2	9 35.42	+14 24.8	1.432	2.387	8.2	18.5
3 12	9 33.29	+ 9 43.3	2.562	3.462	8.1	21.6	3 12	9 27.14	+14 35.3	1.478	2.379	12.8	18.8
3 22	9 28.20	+10 23.6	2.627	3.444	10.9	21.8	3 22	9 21.59	+14 34.5	1.545	2.371	16.8	19.0
<b>98164</b>	2000 <i>SR</i> <sub>84</sub>		2 15.2 289 <sup>o</sup> 02	4 <sup>o</sup> 4/12.4 18			<b>253133</b>	2002 <i>VT</i> <sub>25</sub>		2 15.2 122 <sup>o</sup> 56	0 <sup>o</sup> 8/15.9 18		
1 12	10 19.80	+20 55.3	1.484	2.330	15.5	19.3	1 12	10 18.20	+ 8 4.0	2.085	2.887	13.3	21.9
1 22	10 14.73	+21 45.4	1.409	2.323	11.6	19.1	1 22	10 12.47	+ 8 30.3	2.016	2.904	10.0	21.7
2 1	10 6.65	+22 40.3	1.357	2.316	7.4	18.8	2 1	10 4.78	+ 9 8.7	1.971	2.921	6.3	21.5
2 11	9 56.47	+23 31.0	1.331	2.309	4.4	18.6	2 11	9 55.83	+ 9 55.3	1.955	2.938	2.2	21.3
2 21	9 45.49	+24 8.5	1.332	2.302	6.3	18.7	2 21	9 46.52	+10 45.1	1.969	2.953	2.3	21.3
3 2	9 35.28	+24 26.8	1.359	2.295	10.6	18.9	3 2	9 37.82	+11 32.6	2.013	2.968	6.2	21.6
3 12	9 27.25	+24 23.6	1.410	2.288	14.8	19.2	3 12	9 30.60	+12 13.6	2.085	2.983	9.8	21.8
3 22	9 22.23	+24 0.3	1.480	2.282	18.5	19.4	3 22	9 25.42	+12 45.3	2.180	2.997	12.8	22.0
<b>508687</b>	2017 <i>UJ</i> <sub>17</sub>		2 15.2 203 <sup>o</sup> 62	1 <sup>o</sup> 0/16.2 17			<b>419140</b>	2009 <i>SZ</i> <sub>278</sub>		2 15.2 146 <sup>o</sup> 80	2 <sup>o</sup> 0/13.5 18		
1 12	10 13.10	+ 7 22.9	2.653	3.450	10.9	22.5	1 12	10 17.26	+16 30.3	2.102	2.927	12.4	21.9
1 22	10 8.48	+ 7 46.2	2.561	3.447	8.3	22.3	1 22	10 11.90	+17 13.8	2.029	2.933	9.1	21.7
2 1	10 2.30	+ 8 20.0	2.495	3.443	5.3	22.1	2 1	10 4.51	+18 3.5	1.981	2.939	5.5	21.5
2 11	9 55.06	+ 9 1.5	2.458	3.439	2.1	21.9	2 11	9 55.77	+18 53.5	1.963	2.945	2.2	21.3
2 21	9 47.43	+ 9 47.1	2.451	3.435	1.9	21.9	2 21	9 46.59	+19 38.3	1.973	2.950	3.7	21.4
3 2	9 40.13	+10 32.7	2.475	3.431	5.1	22.1	3 2	9 37.98	+20 12.9	2.013	2.955	7.3	21.6
3 12	9 33.85	+11 14.4	2.527	3.426	8.2	22.3	3 12	9 30.85	+20 34.5	2.080	2.959	10.7	21.8
3 22	9 29.12	+11 49.3	2.604	3.421	11.0	22.4	3 22	9 25.80	+20 42.4	2.169	2.963	13.6	22.0
<b>221212</b>	2005 <i>UE</i> <sub>80</sub>		2 15.2 123 <sup>o</sup> 38	4 <sup>o</sup> 3/11.2 18			<b>274054</b>	2007 <i>TA</i> <sub>9</sub>		2 15.2 186 <sup>o</sup> 79	3 <sup>o</sup> 1/18.9 18		
1 12	10 18.59	+23 32.1	2.172	3.004	11.8	21.0	1 12	10 12.60	- 1 31.9	2.971	3.723	10.9	21.1
1 22	10 12.83	+24 40.6	2.114	3.019	8.8	20.8	1 22	10 7.96	- 1 16.9	2.874	3.722	8.8	20.9
2 1	10 5.01	+25 49.4	2.082	3.033	5.9	20.7	2 1	10 1.93	- 0 47.7	2.802	3.721	6.3	20.8
2 11	9 55.88	+26 51.3	2.079	3.047	4.3	20.6	2 11	9 54.98	- 0 5.6	2.758	3.719	4.0	20.6
2 21	9 46.38	+27 40.0	2.105	3.061	5.7	20.7	2 21	9 47.67	+ 0 46.6	2.745	3.717	3.2	20.6
3 2	9 37.54	+28 11.4	2.160	3.074	8.5	20.9	3 2	9 40.64	+ 1 45.2	2.762	3.715	4.9	20.7
3 12	9 30.26	+28 24.3	2.241	3.087	11.4	21.1	3 12	9 34.50	+ 2 45.9	2.809	3.711	7.4	20.8
3 22	9 25.12	+28 19.9	2.343	3.099	13.9	21.3	3 22	9 29.72	+ 3 44.5	2.882	3.708	9.8	21.0
<b>354079</b>	2001 <i>VH</i> <sub>41</sub>		2 15.2 99 <sup>o</sup> 51	2 <sup>o</sup> 1/13.7 18			<b>387055</b>	2012 <i>TA</i> <sub>31</sub>		2 15.2 124 <sup>o</sup> 89	0 <sup>o</sup> 7/14.5 17		
1 12	10 21.77	+15 13.8	1.611	2.440	15.3	21.5	1 12	10 14.31	+13 19.3	2.682	3.495	10.4	22.1
1 22	10 15.55	+16 7.1	1.558	2.464	11.3	21.3	1 22	10 9.28	+13 54.8	2.610	3.508	7.6	22.0
2 1	10 6.78	+17 8.8	1.529	2.487	6.7	21.1	2 1	10 2.72	+14 36.8	2.565	3.521	4.6	21.8
2 11	9 56.42	+18 11.1	1.527	2.510	2.5	20.9	2 11	9 55.20	+15 21.3	2.549	3.533	1.4	21.6
2 21	9 45.71	+19 6.2	1.554	2.532	4.2	21.0	2 21	9 47.39	+16 4.2	2.564	3.546	2.3	21.7
3 2	9 35.96	+19 48.0	1.609	2.554	8.5	21.4	3 2	9 40.02	+16 41.7	2.610	3.557	5.5	21.9
3 12	9 28.28	+20 13.4	1.690	2.575	12.4	21.6	3 12	9 33.75	+17 11.0	2.684	3.569	8.4	22.1
3 22	9 23.27	+20 22.2	1.792	2.595	15.7	21.9	3 22	9 29.04	+17 30.6	2.782	3.580	10.9	22.3
<b>383813</b>	2008 <i>AQ</i> <sub>94</sub>		2 15.2 311 <sup>o</sup> 25	3 <sup>o</sup> 3/17.6 17			<b>56924</b>	2000 <i>RJ</i> <sub>20</sub>		2 15.2 110 <sup>o</sup> 01	3 <sup>o</sup> 6/19.3 18		
1 12	10 18.00	+ 3 31.4	2.368	3.145	12.7	20.3	1 12	10 12.16	- 2 8.9	2.626	3.382	12.1	19.2
1 22	10 12.26	+ 2 51.3	2.274	3.141	10.0	20.1	1 22	10 7.73	- 1 59.1	2.545	3.394	9.7	19.0
2 1	10 4.67	+ 2 21.8	2.204	3.136	7.0	19.9	2 1	10 1.82	- 1 33.6	2.487	3.405	7.0	18.9
2 11	9 55.80	+ 2 2.9	2.163	3.132	4.2	19.7	2 11	9 54.95	- 0 53.6	2.457	3.417	4.6	18.7
2 21	9 46.45	+ 1 53.2	2.152	3.127	3.6	19.7	2 21	9 47.76	- 0 2.2	2.457	3.428	3.7	18.7
3 2	9 37.49	+ 1 50.8	2.171	3.123	6.0	19.8	3 2	9 40.95	+ 0 56.4	2.486	3.439	5.3	18.8
3 12	9 29.77	+ 1 52.5	2.218	3.119	9.1	20.0	3 12	9 35.19	+ 1 57.3	2.543	3.449	7.9	19.0
3 22	9 23.87	+ 1 55.4	2.290	3.115	12.0	20.2	3 22	9 30.93	+ 2 56.0	2.627	3.460	10.4	19.2
<b>49200</b>	1998 <i>SW</i> <sub>107</sub>		2 15.2 147 <sup>o</sup> 99	0 <sup>o</sup> 7/15.7 18			<b>432185</b>	2009 <i>DT</i>		2 15.2 283 <sup>o</sup> 56	1 <sup>o</sup> 7/13.9 17		
1 12	10 17.80	+ 9 5.3	1.929	2.739	13.9	19.8	1 12	10 18.18	+17 45.3	2.362	3.182	11.3	21.3
1 22	10 12.42	+ 9 26.6	1.852	2.745	10.5	19.6	1 22	10 12.56	+17 55.0	2.261	3.163	8.5	21.1
2 1	10 4.87	+10 0.2	1.799	2.751	6.5	19.4	2 1	10 4.95	+18 8.1	2.186	3.143	5.2	20.8
2 11	9 55.87	+10 42.1	1.774	2.757	2.2	19.1	2 11	9 55.94	+18 20.5	2.141	3.123	2.0	20.6
2 21	9 46.39	+11 27.2	1.778	2.762	2.4	19.1	2 21	9 46.36	+18 28.4	2.125	3.103	3.2	20.6
3 2	9 37.48	+12 9.8	1.811	2.767	6.7	19.4	3 2	9 37.15	+18 28.5	2.139	3.083	6.7	20.8
3 12	9 30.14	+12 45.4	1.871	2.771	10.6	19.6	3 12	9 29.23	+18 18.9	2.181	3.063	10.2	21.0
3 22	9 25.00	+13 11.2	1.954	2.775	13.9	19.9	3 22	9 23.24	+17 59.4	2.247	3.043	13.2	21.1
<b>458959</b>	2011 <i>UE</i>												



EPHEMERIDES

2 15.2

2 15.3

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>454612</b>	2014 <i>QW</i> <sub>44</sub>		2 15.2	5°99	4.5/18.0	18	<b>522077</b>	2015 <i>XD</i> <sub>420</sub>		2 15.2	258°29	6.4/20.4	17
1 12	10 15.99	+ 1 46.5	1.363	2.174	18.6	20.8	1 12	10 14.76	- 5 56.2	1.930	2.682	16.0	21.2
1 22	10 11.88	+ 1 31.0	1.288	2.173	14.8	20.6	1 22	10 10.36	- 6 19.3	1.836	2.674	13.4	21.0
2 1	10 4.94	+ 1 38.5	1.234	2.174	10.3	20.3	2 1	10 3.78	- 6 20.0	1.762	2.666	10.4	20.8
2 11	9 56.00	+ 2 7.8	1.202	2.174	6.0	20.1	2 11	9 55.66	- 5 57.4	1.713	2.659	7.6	20.6
2 21	9 46.30	+ 2 54.5	1.196	2.175	4.8	20.0	2 21	9 46.86	- 5 13.1	1.691	2.651	6.4	20.5
3 2	9 37.31	+ 3 51.3	1.216	2.177	8.5	20.2	3 2	9 38.45	- 4 11.7	1.696	2.643	7.9	20.6
3 12	9 30.34	+ 4 49.5	1.259	2.179	13.0	20.5	3 12	9 31.43	- 3 0.4	1.727	2.634	10.9	20.8
3 22	9 26.25	+ 5 41.8	1.324	2.181	17.2	20.7	3 22	9 26.54	- 1 46.7	1.782	2.626	14.1	21.0
<b>437741</b>	2014 <i>EE</i> <sub>31</sub>		2 15.2	131°64	3°5/11.4	17	<b>132381</b>	2002 <i>GK</i> <sub>82</sub>		2 15.2	185°95	3°0/12.8	18
1 12	10 14.25	+24 25.3	2.765	3.595	9.6	21.1	1 12	10 18.79	+17 50.9	1.851	2.683	13.5	20.3
1 22	10 9.32	+25 8.5	2.693	3.596	7.2	21.0	1 22	10 13.42	+18 51.4	1.776	2.683	10.0	20.0
2 1	10 2.80	+25 51.2	2.647	3.598	4.8	20.8	2 1	10 5.64	+19 58.9	1.725	2.683	6.1	19.8
2 11	9 55.25	+26 28.6	2.631	3.599	3.5	20.7	2 11	9 56.21	+21 5.9	1.702	2.682	3.1	19.6
2 21	9 47.37	+26 56.5	2.644	3.600	4.7	20.8	2 21	9 46.17	+22 4.8	1.708	2.681	4.8	19.7
3 2	9 39.93	+27 11.9	2.686	3.602	7.0	20.9	3 2	9 36.74	+22 49.5	1.743	2.679	8.6	19.9
3 12	9 33.62	+27 13.8	2.755	3.603	9.4	21.1	3 12	9 29.00	+23 16.5	1.803	2.677	12.4	20.2
3 22	9 28.95	+27 2.4	2.848	3.604	11.6	21.3	3 22	9 23.67	+23 25.6	1.885	2.674	15.6	20.4
<b>52970</b>	1998 <i>TS</i> <sub>30</sub>		2 15.2	125°55	8°2/ 8.7	18	<b>369348</b>	2009 <i>SJ</i> <sub>340</sub>		2 15.2	213°24	2°4/17.5	17
1 12	10 24.57	+34 22.1	1.903	2.730	13.4	18.7	1 12	10 15.27	+ 2 49.3	2.311	3.093	12.8	22.4
1 22	10 17.73	+35 37.3	1.853	2.741	10.8	18.5	1 22	10 10.38	+ 3 9.0	2.214	3.086	10.0	22.2
2 1	10 8.17	+36 43.0	1.828	2.752	8.8	18.4	2 1	10 3.63	+ 3 44.1	2.141	3.078	6.8	22.0
2 11	9 56.89	+37 29.5	1.829	2.762	8.2	18.4	2 11	9 55.59	+ 4 32.5	2.096	3.070	3.5	21.8
2 21	9 45.21	+37 50.3	1.858	2.772	9.5	18.5	2 21	9 47.01	+ 5 30.2	2.080	3.062	2.8	21.7
3 2	9 34.53	+37 43.2	1.912	2.781	11.9	18.6	3 2	9 38.76	+ 6 32.1	2.095	3.052	5.8	21.9
3 12	9 26.03	+37 10.1	1.989	2.790	14.3	18.8	3 12	9 31.70	+ 7 32.7	2.138	3.042	9.3	22.1
3 22	9 20.35	+36 16.2	2.086	2.799	16.6	19.0	3 22	9 26.44	+ 8 27.4	2.206	3.032	12.4	22.3
<b>123274</b>	2000 <i>UZ</i> <sub>90</sub>		2 15.2	121°26	0°5/15.7	18	<b>218692</b>	Leesnyder		2 15.3	43°28	1°0/14.4	18
1 12	10 16.42	+ 9 27.6	2.020	2.831	13.3	20.5	1 12	10 12.85	+ 9 45.5	1.536	2.370	15.7	19.6
1 22	10 11.32	+ 9 48.6	1.944	2.838	10.0	20.3	1 22	10 9.21	+11 12.2	1.474	2.382	11.6	19.3
2 1	10 4.18	+10 21.1	1.893	2.846	6.2	20.0	2 1	10 3.13	+12 56.6	1.435	2.395	6.9	19.1
2 11	9 55.70	+11 1.1	1.870	2.853	2.1	19.8	2 11	9 55.45	+14 49.9	1.423	2.408	2.0	18.8
2 21	9 46.79	+11 43.6	1.875	2.860	2.3	19.8	2 21	9 47.25	+16 41.4	1.440	2.422	3.5	19.0
3 2	9 38.44	+12 23.7	1.910	2.866	6.4	20.1	3 2	9 39.75	+18 20.8	1.484	2.436	8.3	19.3
3 12	9 31.55	+12 57.0	1.973	2.873	10.1	20.3	3 12	9 34.05	+19 41.1	1.553	2.450	12.6	19.5
3 22	9 26.73	+13 20.9	2.058	2.879	13.3	20.5	3 22	9 30.82	+20 39.2	1.644	2.465	16.1	19.8
<b>51342</b>	2000 <i>QO</i> <sub>75</sub>		2 15.2	170°27	0°2/15.0	18	<b>290493</b>	2005 <i>UQ</i> <sub>15</sub>		2 15.3	189°64	0°1/15.2	18
1 12	10 17.14	+11 47.9	2.183	2.996	12.4	19.5	1 12	10 16.23	+10 48.7	2.086	2.900	12.9	22.1
1 22	10 11.76	+12 13.2	2.102	2.999	9.3	19.3	1 22	10 11.22	+11 21.4	2.002	2.899	9.6	21.9
2 1	10 4.43	+12 47.6	2.047	3.001	5.6	19.1	2 1	10 4.17	+12 5.1	1.944	2.898	5.9	21.6
2 11	9 55.78	+13 26.9	2.019	3.003	1.7	18.8	2 11	9 55.75	+12 55.3	1.913	2.897	1.8	21.3
2 21	9 46.68	+14 6.4	2.022	3.005	2.4	18.9	2 21	9 46.81	+13 46.5	1.912	2.896	2.5	21.4
3 2	9 38.08	+14 41.4	2.054	3.006	6.4	19.1	3 2	9 38.35	+14 33.5	1.940	2.894	6.6	21.6
3 12	9 30.85	+15 8.4	2.114	3.007	9.9	19.4	3 12	9 31.28	+15 11.8	1.996	2.891	10.3	21.9
3 22	9 25.60	+15 25.3	2.198	3.007	13.0	19.6	3 22	9 26.23	+15 38.9	2.075	2.889	13.5	22.1
<b>241048</b>	2006 <i>RL</i> <sub>86</sub>		2 15.2	202°17	0°8/16.1	17	<b>446841</b>	2001 <i>SF</i> <sub>157</sub>		2 15.3	106°86	2°9/17.4	18
1 12	10 13.09	+ 7 56.3	2.896	3.690	10.2	22.5	1 12	10 20.34	+ 2 54.8	1.680	2.473	16.4	21.9
1 22	10 8.38	+ 8 21.1	2.802	3.686	7.7	22.3	1 22	10 14.43	+ 3 9.1	1.617	2.495	12.7	21.7
2 1	10 2.23	+ 8 55.2	2.734	3.682	4.8	22.1	2 1	10 6.14	+ 3 42.6	1.577	2.517	8.5	21.5
2 11	9 55.10	+ 9 36.1	2.695	3.677	1.8	21.9	2 11	9 56.33	+ 4 31.9	1.563	2.538	4.3	21.3
2 21	9 47.61	+10 20.3	2.687	3.671	1.8	21.9	2 21	9 46.11	+ 5 31.3	1.577	2.559	3.4	21.3
3 2	9 40.41	+11 4.0	2.710	3.665	4.8	22.1	3 2	9 36.71	+ 6 33.8	1.620	2.578	7.1	21.5
3 12	9 34.14	+11 43.8	2.763	3.659	7.7	22.3	3 12	9 29.15	+ 7 32.6	1.690	2.597	11.1	21.8
3 22	9 29.29	+12 17.2	2.841	3.652	10.3	22.4	3 22	9 24.07	+ 8 22.7	1.783	2.616	14.5	22.1
<b>41116</b>	1999 <i>VT</i> <sub>85</sub>		2 15.2	227°67	1°4/16.4	18	<b>203085</b>	2000 <i>QT</i> <sub>100</sub>		2 15.3	159°18	1°9/13.7	18
1 12	10 15.21	+ 7 2.6	2.147	2.950	13.0	19.3	1 12	10 19.94	+15 31.1	1.896	2.720	13.6	21.0
1 22	10 10.41	+ 7 15.5	2.058	2.945	9.9	19.1	1 22	10 14.12	+16 20.6	1.824	2.727	10.0	20.8
2 1	10 3.67	+ 7 41.1	1.993	2.941	6.4	18.8	2 1	10 5.99	+17 18.1	1.776	2.733	6.0	20.6
2 11	9 55.58	+ 8 16.4	1.956	2.936	2.6	18.6	2 11	9 56.30	+18 17.2	1.756	2.739	2.3	20.4
2 21	9 46.97	+ 8 57.4	1.947	2.931	2.4	18.5	2 21	9 46.10	+19 10.8	1.766	2.744	3.8	20.5
3 2	9 38.78	+ 9 39.3	1.969	2.926	6.1	18.8	3 2	9 36.54	+19 53.4	1.805	2.748	7.9	20.7
3 12	9 31.90	+10 17.4	2.017	2.921	9.8	19.0	3 12	9 28.66	+20 21.4	1.870	2.751	11.6	21.0
3 22	9 26.95	+10 48.2	2.090	2.916	13.0	19.2	3 22	9 23.14	+20 34.0	1.958	2.754	14.8	21.2
<b>241692</b>	2000 <i>SP</i> <sub>97</sub>		2 15.2	142°92	2°4/17.4	18	<b>466347</b>	2013 <i>RS</i> <sub>49</sub>		2 15.3	75°04	2°4/17.2	18
1 12	10 15.52	+ 3 34.4	2.124	2.913	13.6	21.0	1 12	10 15.57	+ 4 39.1	1.932	2.730	14.3	21.3
1 22	10 10.58	+ 3 47.5	2.043	2.919	10.5	20.8	1 22	10 10.78	+ 4 41.1	1.854	2.736	11.1	21.1
2 1	10 3.72	+ 4 16.0	1.986	2.925	7.0	20.6	2 1	10 3.92	+ 4 58.3	1.799	2.742	7.4	20.9
2 11	9 55.59	+ 4 57.2	1.956	2.931	3.6	20.4	2 11	9 55.67	+ 5 28.2	1.772	2.748	3.6	20.7
2 21	9 47.00	+ 5 47.0	1.955	2.937	2.8	20.4	2 21	9 46.95	+ 6 6.8	1.772	2.754	3.0	20.6
3 2	9 38.90	+ 6 40.3	1.984	2.942	6.0	20.6	3 2	9 38.78	+ 6 48.9	1.801	2.760	6.4	20.9
3 12	9 32.15	+ 7 31.6	2.040	2.947	9.5	20.8	3 12	9 32.08	+ 7 29.3	1.857	2.766	10.2	21.1
3 22	9 27.32	+ 8 16.8	2.121	2.951	12.7	21.0	3 22	9 27.49	+ 8 3.9	1.937	2.772	13.5	21.3
<b>192023</b>	2005 <i>YK</i> <sub>175</sub>		2 15.2	233°15	1°4/13.9	17	<b>224720</b>	2006 <i>BM</i> <sub>177</sub>		2 15.3	349°20	1°4/16.4	18
1 12	10 16.21												

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>371205</b>	2006 <i>AT</i> <sub>8</sub>		2 15.3 186°09	1°0/14.4 18			<b>54355</b>	2000 <i>KJ</i> <sub>33</sub>		2 15.3 283°46	4°7/11.8 18		
1 12	10 14.43	+12 22.8	1.972	2.796	13.1	21.0	1 12	10 17.47	+19 33.7	1.445	2.294	15.6	18.0
1 22	10 10.01	+13 14.4	1.893	2.796	9.7	20.8	1 22	10 13.27	+20 53.3	1.362	2.278	11.7	17.7
2 1	10 3.49	+14 17.1	1.838	2.796	5.8	20.5	2 1	10 6.01	+22 23.0	1.303	2.262	7.5	17.4
2 11	9 55.56	+15 25.2	1.812	2.796	1.8	20.2	2 11	9 56.45	+23 52.2	1.269	2.246	4.7	17.2
2 21	9 47.10	+16 32.2	1.814	2.796	3.0	20.3	2 21	9 45.86	+25 9.5	1.262	2.230	6.9	17.3
3 2	9 39.14	+17 31.7	1.846	2.796	7.2	20.6	3 2	9 35.83	+26 5.5	1.280	2.213	11.4	17.5
3 12	9 32.62	+18 18.8	1.904	2.795	10.9	20.8	3 12	9 27.88	+26 35.5	1.322	2.197	15.9	17.7
3 22	9 28.19	+18 51.3	1.985	2.795	14.1	21.0	3 22	9 23.00	+26 39.7	1.382	2.181	19.8	17.9
<b>95809</b>	2003 <i>FA</i> <sub>54</sub>		2 15.3 287°97	1°0/14.6 18			<b>502123</b>	2015 <i>BC</i> <sub>13</sub>		2 15.3 182°83	1°0/14.3 17		
1 12	10 17.24	+12 30.4	1.452	2.289	16.3	20.0	1 12	10 14.95	+13 30.6	2.219	3.040	12.0	21.6
1 22	10 13.02	+13 6.4	1.360	2.269	12.3	19.7	1 22	10 10.17	+14 10.8	2.138	3.040	8.9	21.4
2 1	10 5.83	+13 57.4	1.290	2.250	7.5	19.4	2 1	10 3.50	+14 59.5	2.083	3.040	5.3	21.1
2 11	9 56.39	+14 57.5	1.245	2.230	2.3	19.0	2 11	9 55.56	+15 51.7	2.056	3.040	1.7	20.9
2 21	9 45.88	+15 58.2	1.227	2.210	3.8	19.0	2 21	9 47.17	+16 42.2	2.058	3.039	2.8	21.0
3 2	9 35.82	+16 51.0	1.236	2.190	9.3	19.3	3 2	9 39.22	+17 26.0	2.091	3.039	6.6	21.2
3 12	9 27.71	+17 29.4	1.268	2.170	14.4	19.5	3 12	9 32.58	+17 59.3	2.150	3.038	10.0	21.4
3 22	9 22.54	+17 50.3	1.321	2.151	18.8	19.7	3 22	9 27.84	+18 20.4	2.233	3.037	13.0	21.6
<b>19208</b>	Starrfield		2 15.3 81°86	1°8/14.1 18 R			<b>467865</b>	2011 <i>BP</i> <sub>15</sub>		2 15.3 1°49	3°7/12.9 16		
1 12	10 21.00	+14 52.9	1.545	2.377	15.7	18.3	1 12	10 12.90	+18 20.3	1.267	2.129	16.6	21.1
1 22	10 15.09	+15 34.3	1.493	2.400	11.6	18.1	1 22	10 9.83	+19 10.3	1.204	2.126	12.3	20.9
2 1	10 6.58	+16 24.4	1.464	2.423	6.9	17.9	2 1	10 3.79	+20 8.6	1.162	2.125	7.6	20.6
2 11	9 56.46	+17 16.0	1.462	2.445	2.4	17.6	2 11	9 55.72	+21 6.0	1.144	2.125	3.9	20.4
2 21	9 46.00	+18 1.6	1.487	2.467	3.9	17.8	2 21	9 46.97	+21 52.9	1.151	2.127	5.9	20.5
3 2	9 36.53	+18 35.4	1.541	2.489	8.4	18.1	3 2	9 39.08	+22 22.0	1.183	2.130	10.6	20.8
3 12	9 29.15	+18 54.2	1.620	2.511	12.5	18.4	3 12	9 33.41	+22 29.8	1.237	2.135	15.1	21.0
3 22	9 24.49	+18 57.8	1.720	2.532	15.9	18.7	3 22	9 30.72	+22 16.7	1.310	2.140	18.9	21.3
<b>225590</b>	2000 <i>WE</i> <sub>94</sub>		2 15.3 56°73	4°0/18.3 18			<b>285371</b>	1999 <i>TH</i> <sub>86</sub>		2 15.3 181°60	0°2/15.4 18		
1 12	10 16.76	+ 1 16.0	1.706	2.497	16.3	19.6	1 12	10 17.94	+ 9 50.6	2.093	2.901	13.1	22.0
1 22	10 11.74	+ 1 3.0	1.645	2.518	12.8	19.4	1 22	10 12.49	+10 24.4	2.009	2.902	9.8	21.8
2 1	10 4.49	+ 1 9.0	1.605	2.539	8.9	19.3	2 1	10 4.96	+11 9.9	1.950	2.903	6.0	21.5
2 11	9 55.84	+ 1 32.6	1.591	2.560	5.3	19.1	2 11	9 56.02	+12 2.7	1.919	2.902	1.9	21.3
2 21	9 46.81	+ 2 9.5	1.604	2.581	4.2	19.1	2 21	9 46.56	+12 57.5	1.918	2.902	2.4	21.3
3 2	9 38.52	+ 2 54.3	1.644	2.602	7.1	19.3	3 2	9 37.57	+13 48.6	1.947	2.900	6.5	21.6
3 12	9 31.95	+ 3 40.4	1.711	2.624	10.7	19.5	3 12	9 30.01	+14 31.3	2.004	2.898	10.3	21.8
3 22	9 27.70	+ 4 22.5	1.801	2.645	13.9	19.8	3 22	9 24.51	+15 3.0	2.084	2.895	13.5	22.0
<b>417797</b>	2007 <i>ER</i> <sub>131</sub>		2 15.3 15°12	2°2/13.7 18			<b>462935</b>	2011 <i>BT</i> <sub>75</sub>		2 15.3 303°97	2°9/17.7 17		
1 12	10 17.76	+17 4.1	1.765	2.599	13.9	21.2	1 12	10 12.13	+ 2 10.3	1.790	2.590	15.3	21.2
1 22	10 12.68	+17 33.6	1.691	2.600	10.3	21.0	1 22	10 8.63	+ 2 35.4	1.689	2.571	12.0	20.9
2 1	10 5.18	+18 9.2	1.642	2.601	6.3	20.7	2 1	10 2.88	+ 3 22.0	1.611	2.552	8.2	20.6
2 11	9 56.08	+18 45.1	1.619	2.602	2.5	20.5	2 11	9 55.46	+ 4 27.7	1.558	2.534	4.3	20.4
2 21	9 46.44	+19 15.0	1.625	2.603	4.0	20.6	2 21	9 47.27	+ 5 47.4	1.533	2.516	3.3	20.3
3 2	9 37.47	+19 34.1	1.659	2.605	8.2	20.8	3 2	9 39.40	+ 7 13.6	1.536	2.497	7.1	20.4
3 12	9 30.26	+19 39.6	1.718	2.606	12.1	21.1	3 12	9 32.95	+ 8 37.9	1.565	2.480	11.3	20.6
3 22	9 25.49	+19 31.2	1.799	2.608	15.4	21.3	3 22	9 28.71	+ 9 53.4	1.618	2.462	15.2	20.8
<b>140854</b>	2001 <i>UR</i> <sub>219</sub>		2 15.3 120°76	3°3/11.8 18			<b>92513</b>	2000 <i>NW</i> <sub>20</sub>		2 15.3 127°12	1°6/16.5 18		
1 12	10 14.30	+21 10.3	2.434	3.266	10.7	20.0	1 12	10 20.46	+ 6 28.9	1.868	2.667	14.8	20.4
1 22	10 9.56	+22 10.5	2.365	3.271	7.9	19.8	1 22	10 14.39	+ 6 42.7	1.799	2.683	11.3	20.2
2 1	10 3.06	+23 13.1	2.322	3.277	5.0	19.6	2 1	10 6.10	+ 7 10.9	1.753	2.699	7.2	20.0
2 11	9 55.40	+24 12.2	2.308	3.282	3.3	19.5	2 11	9 56.35	+ 7 49.9	1.734	2.714	3.0	19.8
2 21	9 47.37	+25 2.3	2.324	3.288	4.6	19.6	2 21	9 46.19	+ 8 34.7	1.745	2.729	2.6	19.8
3 2	9 39.80	+25 39.5	2.369	3.293	7.4	19.8	3 2	9 36.72	+ 9 19.6	1.785	2.742	6.7	20.1
3 12	9 33.49	+26 1.4	2.441	3.298	10.2	20.0	3 12	9 28.93	+ 9 59.7	1.853	2.755	10.6	20.3
3 22	9 28.96	+26 8.2	2.535	3.303	12.6	20.2	3 22	9 23.44	+10 31.3	1.944	2.767	13.9	20.5
<b>19674</b>	1999 <i>RN</i> <sub>160</sub>		2 15.3 69°65	4°1/12.3 18			<b>363141</b>	2001 <i>QV</i> <sub>287</sub>		2 15.3 163°50	1°3/16.5 18		
1 12	10 20.14	+22 44.1	1.833	2.669	13.4	17.6	1 12	10 16.55	+ 6 14.6	2.428	3.219	12.0	22.3
1 22	10 14.23	+23 24.2	1.778	2.685	10.0	17.4	1 22	10 11.15	+ 6 42.0	2.345	3.225	9.2	22.1
2 1	10 5.98	+24 4.5	1.747	2.701	6.4	17.3	2 1	10 4.01	+ 7 21.6	2.286	3.231	5.9	21.9
2 11	9 56.28	+24 38.0	1.743	2.717	4.1	17.2	2 11	9 55.72	+ 8 10.4	2.257	3.237	2.4	21.7
2 21	9 46.26	+24 58.7	1.768	2.734	5.6	17.3	2 21	9 47.02	+ 9 3.9	2.258	3.242	2.1	21.7
3 2	9 37.10	+25 3.3	1.821	2.750	8.9	17.5	3 2	9 38.74	+ 9 57.5	2.290	3.246	5.5	21.9
3 12	9 29.81	+24 51.2	1.899	2.766	12.2	17.7	3 12	9 31.67	+10 46.5	2.350	3.249	8.8	22.1
3 22	9 24.97	+24 24.1	1.998	2.782	15.0	18.0	3 22	9 26.34	+11 27.9	2.436	3.251	11.7	22.3
<b>340633</b>	2006 <i>QL</i> <sub>134</sub>		2 15.3 161°18	4°3/20.1 17			<b>197337</b>	2003 <i>WE</i> <sub>176</sub>		2 15.3 152°85	1°2/14.2 17		
1 12	10 13.75	- 4 44.2	2.981	3.712	11.3	21.3	1 12	10 15.70	+14 41.4	2.421	3.239	11.2	21.5
1 22	10 8.80	- 4 57.7	2.890	3.717	9.3	21.2	1 22	10 10.55	+15 16.4	2.344	3.244	8.3	21.3
2 1	10 2.46	- 4 56.9	2.823	3.722	7.1	21.0	2 1	10 3.65	+15 57.7	2.293	3.249	4.9	21.1
2 11	9 55.21	- 4 41.9	2.783	3.727	5.1	20.9	2 11	9 55.61	+16 41.0	2.271	3.254	1.6	20.9
2 21	9 47.62	- 4 14.4	2.773	3.731	4.3	20.9	2 21	9 47.19	+17 21.6	2.279	3.259	2.8	20.9
3 2	9 40.34	- 3 37.0	2.793	3.735	5.4	20.9	3 2	9 39.23	+17 55.4	2.317	3.263	6.2	21.2
3 12	9 33.98	- 2 53.9	2.841	3.739	7.5	21.1	3 12	9 32.50	+18 19.5	2.383	3.267	9.3	21.4
3 22	9 29.00	- 2 8.9	2.916	3.742	9.7	21.2	3 22	9 27.55	+18 32.6	2.473	3.270	12.1	21.6
<b>201947</b>	2004 <i>HG</i> <sub>40</sub>		2 15.3 173°00	4°4/12.1 18			<b>56230</b>	1999 <i>JJ</i> <sub>28</sub>		2 15.3 285°48	1°9/13.8 17		
1 12	10 23.62	+22 16.1											

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>506347</b>	2017 <i>OD</i> <sub>49</sub>		2 15.3 205°54	0°7/14.5	17		<b>465751</b>	2009 <i>WS</i> <sub>26</sub>		2 15.3 334°73	5°9/10.9	18	
1 12	10 15.48	+12 39.4	2.401	3.215	11.4	22.0	1 12	10 16.30	+25 2.4	1.570	2.422	14.5	20.7
1 22	10 10.49	+13 21.6	2.312	3.210	8.5	21.8	1 22	10 12.12	+26 4.8	1.497	2.411	11.0	20.5
2 1	10 3.69	+14 12.5	2.249	3.205	5.1	21.6	2 1	10 5.13	+27 8.2	1.447	2.400	7.6	20.3
2 11	9 55.65	+15 7.8	2.215	3.199	1.5	21.4	2 11	9 56.18	+28 2.9	1.422	2.390	5.9	20.1
2 21	9 47.12	+16 2.3	2.211	3.193	2.6	21.4	2 21	9 46.48	+28 40.2	1.424	2.381	7.7	20.2
3 2	9 38.97	+16 51.2	2.238	3.186	6.2	21.6	3 2	9 37.49	+28 54.4	1.451	2.372	11.3	20.4
3 12	9 32.00	+17 30.6	2.293	3.179	9.5	21.8	3 12	9 30.51	+28 44.0	1.501	2.365	15.0	20.6
3 22	9 26.82	+17 58.4	2.371	3.171	12.4	22.0	3 22	9 26.35	+28 11.5	1.570	2.357	18.2	20.8
<b>133541</b>	2003 <i>TQ</i> <sub>13</sub>		2 15.3 196°09	9°4/24.4	17		<b>411363</b>	2010 <i>UO</i> <sub>94</sub>		2 15.3 66°51	1°6/14.4	18	
1 12	10 17.25	-18 4.4	2.341	2.992	16.0	21.6	1 12	10 23.15	+16 41.9	1.605	2.435	15.3	20.0
1 22	10 11.97	-18 43.1	2.243	2.989	14.2	21.4	1 22	10 16.65	+16 45.0	1.546	2.452	11.4	19.8
2 1	10 4.68	-18 56.7	2.164	2.986	12.3	21.3	2 1	10 7.54	+16 53.3	1.511	2.469	6.8	19.6
2 11	9 55.98	-18 42.3	2.108	2.981	10.5	21.2	2 11	9 56.82	+17 1.4	1.502	2.486	2.3	19.3
2 21	9 46.65	-17 59.4	2.076	2.976	9.5	21.1	2 21	9 45.75	+17 4.4	1.522	2.503	3.6	19.4
3 2	9 37.65	-16 50.7	2.071	2.969	9.7	21.1	3 2	9 35.68	+16 58.8	1.570	2.520	8.1	19.8
3 12	9 29.89	-15 22.7	2.092	2.962	11.1	21.2	3 12	9 27.72	+16 43.0	1.644	2.537	12.2	20.0
3 22	9 24.05	-13 43.4	2.138	2.954	13.1	21.3	3 22	9 22.49	+16 17.4	1.739	2.554	15.6	20.3
<b>27990</b>	1997 <i>VD</i> <sub>6</sub>		2 15.3 340°67	4°7/10.7	18		<b>414845</b>	2010 <i>VH</i> <sub>31</sub>		2 15.3 111°14	3°6/18.5	18	R
1 12	10 14.82	+24 4.6	2.083	2.923	11.9	17.6	1 12	10 16.30	- 0 7.4	1.959	2.735	15.0	22.0
1 22	10 10.32	+25 15.7	2.013	2.921	8.9	17.5	1 22	10 11.26	+ 0 6.7	1.886	2.751	11.8	21.8
2 1	10 3.71	+26 28.1	1.968	2.920	6.1	17.3	2 1	10 4.20	+ 0 40.3	1.836	2.766	8.3	21.6
2 11	9 55.67	+27 34.1	1.951	2.918	4.7	17.2	2 11	9 55.82	+ 1 31.1	1.813	2.781	4.9	21.4
2 21	9 47.11	+28 26.9	1.962	2.916	6.2	17.3	2 21	9 47.02	+ 2 34.4	1.818	2.795	3.8	21.4
3 2	9 39.10	+29 1.6	2.001	2.915	9.1	17.4	3 2	9 38.81	+ 3 44.0	1.852	2.810	6.4	21.6
3 12	9 32.57	+29 16.5	2.065	2.914	12.1	17.6	3 12	9 32.07	+ 4 53.1	1.914	2.823	9.9	21.8
3 22	9 28.18	+29 12.3	2.150	2.913	14.7	17.8	3 22	9 27.41	+ 5 56.1	2.000	2.836	13.1	22.0
<b>433079</b>	2012 <i>TU</i> <sub>66</sub>		2 15.3 123°41	5°5/21.1	18		<b>17500</b>	1992 <i>EQ</i> <sub>10</sub>		2 15.3 227°66	0°4/15.7	18	
1 12	10 12.25	- 7 22.4	2.479	3.209	13.4	21.2	1 12	10 12.59	+ 8 55.8	2.385	3.193	11.6	19.5
1 22	10 8.00	- 7 32.1	2.390	3.213	11.2	21.0	1 22	10 8.32	+ 9 28.4	2.299	3.192	8.8	19.3
2 1	10 2.12	- 7 22.6	2.324	3.216	8.8	20.9	2 1	10 2.36	+10 11.9	2.239	3.191	5.4	19.1
2 11	9 55.17	- 6 53.9	2.282	3.219	6.5	20.7	2 11	9 55.26	+11 2.8	2.208	3.191	1.8	18.9
2 21	9 47.80	- 6 8.1	2.269	3.222	5.5	20.7	2 21	9 47.75	+11 56.4	2.206	3.190	2.0	18.9
3 2	9 40.80	- 5 8.9	2.284	3.225	6.5	20.7	3 2	9 40.62	+12 48.1	2.234	3.189	5.6	19.1
3 12	9 34.87	- 4 1.9	2.326	3.228	8.7	20.9	3 12	9 34.63	+13 33.4	2.289	3.188	9.0	19.3
3 22	9 30.55	- 2 52.9	2.394	3.231	11.1	21.0	3 22	9 30.32	+14 9.5	2.369	3.188	11.9	19.5
<b>98684</b>	2000 <i>WD</i> <sub>187</sub>		2 15.3 264°14	4°1/11.3	18		<b>375897</b>	2009 <i>VN</i> <sub>87</sub>		2 15.3 140°58	0°9/16.1	18	
1 12	10 17.14	+21 55.5	2.177	3.009	11.7	19.3	1 12	10 15.29	+ 7 33.6	2.182	2.985	12.8	21.7
1 22	10 12.17	+23 7.3	2.080	2.986	8.8	19.1	1 22	10 10.40	+ 8 2.4	2.103	2.992	9.7	21.5
2 1	10 4.96	+24 23.9	2.009	2.963	5.8	18.8	2 1	10 3.65	+ 8 43.8	2.049	2.998	6.1	21.3
2 11	9 56.10	+25 37.8	1.967	2.939	4.1	18.7	2 11	9 55.66	+ 9 34.1	2.023	3.005	2.3	21.1
2 21	9 46.48	+26 41.7	1.955	2.914	5.7	18.7	2 21	9 47.24	+10 28.4	2.026	3.011	2.2	21.1
3 2	9 37.17	+27 29.5	1.971	2.889	8.9	18.9	3 2	9 39.30	+11 21.4	2.060	3.016	6.0	21.3
3 12	9 29.22	+27 58.1	2.013	2.864	12.3	19.0	3 12	9 32.68	+12 8.4	2.121	3.022	9.5	21.6
3 22	9 23.40	+28 7.1	2.076	2.838	15.2	19.2	3 22	9 27.94	+12 46.2	2.206	3.027	12.6	21.8
<b>38836</b>	2000 <i>SS</i> <sub>19</sub>		2 15.3 15°31	7°0/20.0	18		<b>139613</b>	2001 <i>QG</i> <sub>136</sub>		2 15.3 60°46	1°5/14.4	18	
1 12	10 15.58	- 4 18.0	1.658	2.428	17.5	18.6	1 12	10 23.21	+16 57.8	1.638	2.467	15.1	19.2
1 22	10 11.18	- 5 7.2	1.580	2.430	14.5	18.4	1 22	10 16.70	+16 54.6	1.575	2.480	11.2	19.0
2 1	10 4.37	- 5 33.9	1.522	2.433	11.2	18.2	2 1	10 7.60	+16 55.9	1.535	2.493	6.8	18.7
2 11	9 55.91	- 5 36.6	1.488	2.437	8.2	18.1	2 11	9 56.85	+16 56.8	1.522	2.506	2.3	18.5
2 21	9 46.81	- 5 16.5	1.480	2.441	7.0	18.0	2 21	9 45.72	+16 52.7	1.538	2.519	3.6	18.6
3 2	9 38.29	- 4 38.0	1.497	2.445	8.7	18.1	3 2	9 35.54	+16 40.5	1.582	2.533	8.0	18.9
3 12	9 31.44	- 3 48.1	1.540	2.450	11.8	18.3	3 12	9 27.44	+16 18.9	1.652	2.546	12.1	19.2
3 22	9 27.00	- 2 54.6	1.605	2.455	15.0	18.5	3 22	9 22.05	+15 48.3	1.745	2.560	15.6	19.4
<b>367745</b>	2010 <i>VQ</i> <sub>61</sub>		2 15.3 67°59	0°9/16.0	18		<b>497739</b>	2006 <i>SF</i> <sub>213</sub>		2 15.3 246°73	0°4/15.6	17	
1 12	10 17.35	+ 7 9.8	1.631	2.445	15.8	20.8	1 12	10 15.12	+10 30.3	2.476	3.283	11.3	21.6
1 22	10 12.23	+ 7 49.9	1.578	2.473	11.9	20.6	1 22	10 10.18	+10 42.8	2.381	3.273	8.5	21.4
2 1	10 4.81	+ 8 46.3	1.549	2.501	7.4	20.4	2 1	10 3.50	+11 3.9	2.311	3.263	5.3	21.2
2 11	9 55.98	+ 9 53.0	1.546	2.528	2.6	20.1	2 11	9 55.62	+11 30.6	2.270	3.253	1.7	21.0
2 21	9 46.83	+11 2.8	1.571	2.556	2.6	20.2	2 21	9 47.27	+11 59.3	2.259	3.243	2.0	21.0
3 2	9 38.54	+12 8.3	1.625	2.583	7.1	20.5	3 2	9 39.26	+12 26.3	2.278	3.233	5.6	21.2
3 12	9 32.07	+13 3.6	1.704	2.610	11.1	20.8	3 12	9 32.38	+12 48.2	2.326	3.222	9.0	21.4
3 22	9 28.01	+13 45.5	1.807	2.636	14.5	21.1	3 22	9 27.21	+13 2.9	2.398	3.212	11.9	21.6
<b>399341</b>	2000 <i>QX</i> <sub>43</sub>		2 15.3 154°29	0°9/16.1	18		<b>465453</b>	2008 <i>SG</i> <sub>72</sub>		2 15.3 208°62	2°1/17.2	17	
1 12	10 18.03	+ 6 37.1	2.029	2.827	13.8	21.9	1 12	10 16.56	+ 4 42.2	2.621	3.401	11.5	21.7
1 22	10 12.56	+ 7 24.0	1.951	2.837	10.4	21.7	1 22	10 11.14	+ 4 43.6	2.523	3.395	8.9	21.5
2 1	10 5.01	+ 8 26.2	1.897	2.846	6.5	21.5	2 1	10 4.04	+ 4 56.3	2.449	3.388	6.0	21.3
2 11	9 56.07	+ 9 38.9	1.872	2.854	2.4	21.2	2 11	9 55.79	+ 5 18.6	2.404	3.380	3.0	21.1
2 21	9 46.64	+10 55.9	1.877	2.862	2.3	21.2	2 21	9 47.07	+ 5 47.6	2.390	3.371	2.5	21.0
3 2	9 37.75	+12 10.3	1.913	2.868	6.4	21.5	3 2	9 38.67	+ 6 20.0	2.407	3.362	5.3	21.2
3 12	9 30.32	+13 16.3	1.976	2.874	10.3	21.7	3 12	9 31.33	+ 6 52.0	2.452	3.353	8.4	21.4
3 22	9 24.99	+14 10.2	2.064	2.879	13.5	21.9	3 22	9 25.62	+ 7 20.3	2.524	3.343	11.2	21.5
<b>280757</b>	2005 <i>QP</i> <sub>80</sub>		2 15.3 142°16	1°4/14.3	18		<b>410227</b>	2007 <i>SA</i> <sub>20</sub>		2 15.3 107°24	3°3/17.8	18	
1 12	10 20.36	+12											

EPHEMERIDES

2 15.3

2 15.3

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>479415</b>	2013 YR <sub>72</sub>		2 15.3 305°66	3°4/18.0	16		<b>158641</b>	2003 BR <sub>90</sub>		2 15.3 307°39	6°3/11.2	18	
1 12	10 14.01	+ 2 11.0	2.187	2.972	13.4	21.2	1 12	10 19.61	+23 36.5	1.319	2.174	16.5	19.9
1 22	10 9.62	+ 1 54.2	2.086	2.956	10.6	21.0	1 22	10 15.09	+24 49.5	1.249	2.166	12.5	19.6
2 1	10 3.30	+ 1 51.6	2.008	2.941	7.5	20.8	2 1	10 7.20	+26 6.2	1.201	2.157	8.5	19.4
2 11	9 55.60	+ 2 2.5	1.956	2.925	4.5	20.6	2 11	9 56.91	+27 14.8	1.178	2.149	6.3	19.2
2 21	9 47.31	+ 2 24.8	1.933	2.910	3.7	20.5	2 21	9 45.68	+28 3.9	1.180	2.141	8.4	19.3
3 2	9 39.32	+ 2 54.7	1.939	2.895	6.3	20.6	3 2	9 35.30	+28 26.2	1.207	2.134	12.6	19.5
3 12	9 32.54	+ 3 27.8	1.972	2.881	9.7	20.8	3 12	9 27.37	+28 19.9	1.255	2.126	16.8	19.7
3 22	9 27.61	+ 3 59.5	2.029	2.866	12.8	21.0	3 22	9 22.81	+27 48.3	1.322	2.119	20.5	20.0
<b>1485</b>	Isa		2 15.3 158°06	1°9/17.0	18		<b>170065</b>	2002 VQ <sub>96</sub>		2 15.3 69°43	4°6/19.3	18	
1 12	10 15.51	+ 5 33.2	2.557	3.344	11.6	17.1	1 12	10 14.87	- 1 50.6	2.165	2.930	14.1	19.7
1 22	10 10.32	+ 5 32.8	2.472	3.348	8.9	16.9	1 22	10 10.09	- 2 10.7	2.087	2.940	11.4	19.5
2 1	10 3.51	+ 5 43.2	2.411	3.352	5.9	16.7	2 1	10 3.48	- 2 13.6	2.032	2.950	8.4	19.4
2 11	9 55.62	+ 6 2.5	2.379	3.356	2.8	16.5	2 11	9 55.65	- 1 59.6	2.002	2.960	5.6	19.2
2 21	9 47.36	+ 6 27.8	2.377	3.359	2.3	16.5	2 21	9 47.41	- 1 31.3	2.001	2.970	4.7	19.2
3 2	9 39.49	+ 6 55.7	2.406	3.362	5.2	16.7	3 2	9 39.65	- 0 52.4	2.028	2.980	6.5	19.3
3 12	9 32.74	+ 7 22.6	2.463	3.365	8.3	16.9	3 12	9 33.19	- 0 8.5	2.083	2.990	9.3	19.5
3 22	9 27.63	+ 7 45.7	2.545	3.367	11.0	17.1	3 22	9 28.60	+ 0 35.6	2.161	3.000	12.1	19.7
<b>132671</b>	2002 NL <sub>9</sub>		2 15.3 196°84	3°9/11.7	18		<b>339582</b>	2005 MY <sub>18</sub>		2 15.3 194°77	1°7/13.4	17	
1 12	10 17.64	+19 28.4	1.899	2.734	13.1	20.2	1 12	10 13.13	+15 18.5	2.487	3.310	10.8	20.8
1 22	10 12.64	+20 55.1	1.823	2.732	9.7	20.0	1 22	10 8.72	+16 18.8	2.406	3.309	7.9	20.6
2 1	10 5.26	+22 28.7	1.773	2.729	6.1	19.8	2 1	10 2.63	+17 26.2	2.350	3.308	4.7	20.4
2 11	9 56.22	+24 0.3	1.751	2.726	3.9	19.7	2 11	9 55.40	+18 35.7	2.324	3.307	1.9	20.2
2 21	9 46.52	+25 21.3	1.758	2.723	5.7	19.8	2 21	9 47.73	+19 41.5	2.329	3.305	3.2	20.3
3 2	9 37.35	+26 24.5	1.794	2.719	9.2	20.0	3 2	9 40.43	+20 38.7	2.363	3.303	6.4	20.5
3 12	9 29.80	+27 6.4	1.855	2.715	12.8	20.2	3 12	9 34.26	+21 23.6	2.425	3.301	9.5	20.6
3 22	9 24.61	+27 26.9	1.938	2.710	15.8	20.4	3 22	9 29.77	+21 54.8	2.510	3.299	12.2	20.8
<b>59797</b>	1999 PX		2 15.3 269°67	0°5/15.6	18		<b>331787</b>	2003 JU <sub>8</sub>		2 15.3 260°80	3°6/18.5	17	
1 12	10 17.09	+ 8 10.4	1.402	2.230	17.3	19.6	1 12	10 13.49	- 0 22.4	2.021	2.800	14.5	20.8
1 22	10 13.00	+ 8 51.9	1.311	2.214	13.2	19.3	1 22	10 9.38	- 0 4.6	1.924	2.790	11.6	20.6
2 1	10 5.90	+ 9 54.8	1.242	2.198	8.3	19.0	2 1	10 3.22	+ 0 33.4	1.849	2.780	8.2	20.3
2 11	9 56.52	+11 13.7	1.197	2.181	2.7	18.6	2 11	9 55.62	+ 1 30.1	1.801	2.769	4.9	20.1
2 21	9 46.05	+12 39.9	1.180	2.164	3.2	18.6	2 21	9 47.39	+ 2 41.3	1.780	2.758	3.8	20.0
3 2	9 36.03	+14 3.1	1.189	2.147	9.0	18.8	3 2	9 39.51	+ 4 0.8	1.789	2.747	6.5	20.2
3 12	9 27.97	+15 14.1	1.222	2.130	14.4	19.1	3 12	9 32.92	+ 5 21.2	1.825	2.736	10.2	20.3
3 22	9 22.90	+16 7.2	1.276	2.113	18.9	19.3	3 22	9 28.32	+ 6 36.1	1.885	2.725	13.6	20.5
<b>506312</b>	2017 OW <sub>1</sub>		2 15.3 207°87	2°8/17.7	17		<b>2374</b>	Vladysvotskij		2 15.3 119°97	2°4/13.0	18	R
1 12	10 14.66	+ 2 40.0	2.193	2.978	13.3	21.1	1 12	10 18.98	+20 45.7	2.642	3.461	10.3	17.2
1 22	10 10.01	+ 2 45.8	2.104	2.976	10.4	20.9	1 22	10 12.78	+21 9.9	2.576	3.476	7.6	17.0
2 1	10 3.47	+ 3 6.8	2.038	2.974	7.1	20.7	2 1	10 4.93	+21 35.0	2.537	3.491	4.7	16.8
2 11	9 55.65	+ 3 41.2	1.999	2.971	3.9	20.5	2 11	9 56.05	+21 56.6	2.527	3.505	2.5	16.7
2 21	9 47.32	+ 4 25.6	1.988	2.969	3.1	20.5	2 21	9 46.93	+22 11.1	2.549	3.519	3.6	16.8
3 2	9 39.40	+ 5 15.2	2.008	2.966	6.0	20.6	3 2	9 38.36	+22 16.0	2.601	3.533	6.4	17.0
3 12	9 32.72	+ 6 4.6	2.055	2.963	9.4	20.8	3 12	9 31.08	+22 10.1	2.681	3.546	9.1	17.2
3 22	9 27.91	+ 6 49.5	2.126	2.959	12.5	21.0	3 22	9 25.56	+21 53.8	2.785	3.559	11.4	17.4
<b>243010</b>	2006 UU <sub>80</sub>		2 15.3 206°75	3°4/19.1	18		<b>256763</b>	2008 BB <sub>46</sub>		2 15.3 44°94	0°4/15.5	18	
1 12	10 12.03	- 1 38.1	2.743	3.500	11.6	21.0	1 12	10 16.99	+ 9 58.5	1.585	2.411	15.7	21.4
1 22	10 7.73	- 1 28.6	2.647	3.497	9.3	20.9	1 22	10 12.31	+10 19.3	1.513	2.415	11.8	21.1
2 1	10 1.95	- 1 4.0	2.574	3.493	6.8	20.7	2 1	10 5.11	+10 54.0	1.463	2.419	7.3	20.9
2 11	9 55.16	- 0 25.5	2.529	3.489	4.4	20.5	2 11	9 56.19	+11 37.9	1.440	2.423	2.4	20.6
2 21	9 47.98	+ 0 24.3	2.513	3.485	3.5	20.4	2 21	9 46.69	+12 24.6	1.443	2.428	2.8	20.6
3 2	9 41.10	+ 1 21.5	2.527	3.481	5.2	20.6	3 2	9 37.88	+13 7.4	1.475	2.432	7.7	20.9
3 12	9 35.16	+ 2 21.4	2.570	3.476	7.8	20.7	3 12	9 30.91	+13 41.1	1.531	2.437	12.1	21.2
3 22	9 30.66	+ 3 19.5	2.639	3.471	10.4	20.9	3 22	9 26.50	+14 2.7	1.609	2.442	15.9	21.4
<b>32896</b>	1994 NM <sub>2</sub>		2 15.3 192°00	3°7/10.2	18		<b>239444</b>	2007 TQ <sub>178</sub>		2 15.3 50°58	1°3/14.3	18	
1 12	10 14.03	+24 5.0	2.995	3.822	9.0	19.0	1 12	10 16.33	+15 8.2	1.942	2.770	13.1	20.6
1 22	10 9.22	+25 27.6	2.918	3.820	6.8	18.8	1 22	10 11.32	+15 33.5	1.879	2.784	9.7	20.4
2 1	10 2.86	+26 51.4	2.870	3.817	4.7	18.7	2 1	10 4.25	+16 5.4	1.841	2.799	5.8	20.2
2 11	9 55.45	+28 10.5	2.852	3.815	3.7	18.6	2 11	9 55.88	+16 39.0	1.830	2.814	1.9	20.0
2 21	9 47.61	+29 19.8	2.865	3.811	4.9	18.7	2 21	9 47.16	+17 9.1	1.848	2.829	3.1	20.1
3 2	9 40.07	+30 15.1	2.908	3.808	7.1	18.8	3 2	9 39.13	+17 31.3	1.895	2.844	7.0	20.4
3 12	9 33.51	+30 54.4	2.978	3.804	9.4	19.0	3 12	9 32.66	+17 42.9	1.968	2.860	10.6	20.6
3 22	9 28.47	+31 17.6	3.071	3.799	11.4	19.1	3 22	9 28.33	+17 43.0	2.064	2.876	13.6	20.9
<b>274510</b>	2008 SG <sub>155</sub>		2 15.3 136°22	1°2/14.2	18		<b>228278</b>	1999 WJ <sub>11</sub>		2 15.3 35°73	3°7/17.5	18	
1 12	10 15.65	+14 14.8	2.206	3.027	12.0	21.0	1 12	10 16.90	+ 3 18.1	1.218	2.040	19.7	20.1
1 22	10 10.70	+14 55.5	2.131	3.033	8.9	20.9	1 22	10 12.83	+ 3 15.3	1.151	2.045	15.4	19.8
2 1	10 3.85	+15 43.9	2.082	3.039	5.3	20.6	2 1	10 5.69	+ 3 37.0	1.104	2.051	10.4	19.5
2 11	9 55.75	+16 34.9	2.061	3.044	1.8	20.4	2 11	9 56.42	+ 4 20.4	1.080	2.057	5.4	19.3
2 21	9 47.24	+17 23.1	2.070	3.050	3.0	20.5	2 21	9 46.40	+ 5 19.2	1.081	2.064	4.2	19.2
3 2	9 39.23	+18 3.8	2.108	3.055	6.6	20.7	3 2	9 37.25	+ 6 24.4	1.107	2.071	8.8	19.5
3 12	9 32.57	+18 33.5	2.174	3.060	10.0	21.0	3 12	9 30.38	+ 7 26.3	1.156	2.078	13.8	19.8
3 22	9 27.82	+18 50.8	2.262	3.064	12.9	21.2	3 22	9 26.63	+ 8 18.0	1.226	2.086	18.1	20.1
<b>459159</b>	2012 DT <sub>7</sub>		2 15.3 342°73	2°0/13.9	17		<b>459334</b>	2012 HO <sub>38</sub>		2 15.3 355°97	19°2/ 8.6	18	
1 12	10 11.24	+13 6.8	1.267	2.122	17.0	21.3	1 12	10 2.23	-30 15.1	1.227	1.884	27.9	

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>78998</b>	2504 <i>P-L</i>		2 15.3	95°84	3°1/12.6	18	<b>357214</b>	2002 <i>GC173</i>		2 15.3	239°87	2°5/13.4	17
1 12	10 18.10	+21 24.2	2.214	3.043	11.7	19.4	1 12	10 20.30	+17 30.3	1.940	2.766	13.2	21.3
1 22	10 12.49	+21 58.6	2.147	3.052	8.7	19.2	1 22	10 14.67	+18 13.5	1.847	2.752	9.9	21.1
2 1	10 4.92	+22 34.4	2.106	3.061	5.5	19.0	2 1	10 6.59	+19 3.7	1.779	2.736	6.1	20.8
2 11	9 56.09	+23 5.8	2.093	3.070	3.2	18.9	2 11	9 56.73	+19 54.4	1.739	2.720	2.7	20.6
2 21	9 46.92	+23 28.2	2.110	3.079	4.5	19.0	2 21	9 46.10	+20 39.0	1.728	2.704	4.3	20.6
3 2	9 38.37	+23 38.0	2.156	3.087	7.5	19.2	3 2	9 35.91	+21 11.7	1.746	2.686	8.3	20.8
3 12	9 31.30	+23 34.2	2.229	3.096	10.6	19.4	3 12	9 27.30	+21 29.1	1.791	2.668	12.2	21.0
3 22	9 26.27	+23 17.2	2.324	3.105	13.2	19.6	3 22	9 21.08	+21 30.6	1.857	2.650	15.7	21.2
<b>400806</b>	2010 <i>GC115</i>		2 15.3	221°46	5°0/11.9	18	<b>29695</b>	1998 <i>YH</i>		2 15.3	348°08	1°4/16.1	18
1 12	10 23.27	+23 39.4	1.702	2.537	14.3	21.8	1 12	10 14.11	+ 9 45.7	1.242	2.086	18.0	17.7
1 22	10 17.14	+24 31.3	1.624	2.531	10.8	21.6	1 22	10 10.89	+ 9 29.6	1.165	2.075	13.8	17.4
2 1	10 8.15	+25 24.5	1.571	2.524	7.2	21.3	2 1	10 4.63	+ 9 28.4	1.108	2.065	8.8	17.1
2 11	9 57.17	+26 10.2	1.545	2.517	5.0	21.2	2 11	9 56.17	+ 9 39.0	1.074	2.057	3.3	16.7
2 21	9 45.45	+26 40.5	1.547	2.509	6.7	21.2	2 21	9 46.84	+ 9 56.3	1.065	2.050	3.3	16.7
3 2	9 34.46	+26 50.2	1.576	2.501	10.3	21.4	3 2	9 38.21	+10 14.4	1.080	2.044	8.8	17.0
3 12	9 25.51	+26 38.4	1.630	2.492	14.1	21.6	3 12	9 31.74	+10 27.2	1.118	2.040	14.1	17.3
3 22	9 19.41	+26 7.3	1.705	2.483	17.4	21.8	3 22	9 28.34	+10 31.0	1.176	2.038	18.6	17.6
<b>81424</b>	2000 <i>GA102</i>		2 15.3	234°54	1°7/16.7	18	<b>24569</b>	9609 <i>P-L</i>		2 15.3	201°35	1°4/16.3	18
1 12	10 17.09	+ 6 0.8	2.190	2.984	13.0	19.8	1 12	10 19.62	+ 6 29.0	1.771	2.574	15.3	19.8
1 22	10 11.94	+ 6 13.4	2.090	2.971	10.1	19.6	1 22	10 14.21	+ 6 56.4	1.683	2.570	11.7	19.6
2 1	10 4.75	+ 6 39.5	2.013	2.958	6.6	19.4	2 1	10 6.31	+ 7 40.8	1.618	2.566	7.5	19.3
2 11	9 56.11	+ 7 16.5	1.965	2.944	2.9	19.1	2 11	9 56.64	+ 8 38.3	1.580	2.561	3.0	19.0
2 21	9 46.84	+ 8 0.5	1.946	2.929	2.5	19.1	2 21	9 46.24	+ 9 42.7	1.570	2.555	2.7	19.0
3 2	9 37.89	+ 8 46.6	1.957	2.914	6.2	19.3	3 2	9 36.33	+10 47.0	1.590	2.548	7.3	19.3
3 12	9 30.20	+ 9 29.9	1.996	2.898	9.9	19.5	3 12	9 28.08	+11 44.6	1.637	2.540	11.7	19.5
3 22	9 24.45	+10 6.5	2.059	2.882	13.2	19.6	3 22	9 22.28	+12 30.9	1.707	2.532	15.5	19.7
<b>427449</b>	2001 <i>RC132</i>		2 15.3	140°01	2°4/18.2	17	<b>160979</b>	2002 <i>CG67</i>		2 15.3	235°27	0°2/15.2	18
1 12	10 12.31	+ 0 40.4	2.695	3.464	11.5	21.2	1 12	10 20.59	+12 1.9	1.673	2.494	15.2	20.1
1 22	10 7.92	+ 1 18.0	2.611	3.473	9.0	21.0	1 22	10 15.07	+12 13.6	1.587	2.487	11.5	19.9
2 1	10 2.06	+ 2 10.7	2.550	3.482	6.2	20.8	2 1	10 6.89	+12 36.2	1.524	2.480	7.0	19.6
2 11	9 55.24	+ 3 15.9	2.519	3.490	3.4	20.7	2 11	9 56.83	+13 5.1	1.488	2.473	2.1	19.3
2 21	9 48.08	+ 4 29.5	2.518	3.497	2.6	20.6	2 21	9 46.02	+13 34.9	1.481	2.465	3.0	19.3
3 2	9 41.27	+ 5 46.6	2.547	3.505	4.9	20.8	3 2	9 35.78	+14 0.0	1.501	2.456	7.9	19.6
3 12	9 35.45	+ 7 1.9	2.607	3.512	7.8	21.0	3 12	9 27.36	+14 16.0	1.548	2.448	12.4	19.8
3 22	9 31.11	+ 8 11.1	2.692	3.518	10.4	21.1	3 22	9 21.58	+14 20.9	1.616	2.439	16.3	20.1
<b>126383</b>	2002 <i>AP202</i>		2 15.3	192°41	3°2/17.9	17	<b>502074</b>	2015 <i>AN196</i>		2 15.3	207°80	0°7/15.9	17
1 12	10 18.08	+ 2 2.4	2.435	3.205	12.6	20.4	1 12	10 18.85	+10 7.1	2.442	3.240	11.7	21.6
1 22	10 12.38	+ 1 46.8	2.342	3.203	10.0	20.2	1 22	10 12.96	+10 4.8	2.348	3.236	8.9	21.4
2 1	10 4.87	+ 1 44.1	2.272	3.201	7.0	20.0	2 1	10 5.23	+10 10.3	2.281	3.230	5.6	21.2
2 11	9 56.12	+ 1 53.4	2.230	3.198	4.1	19.8	2 11	9 56.26	+10 21.4	2.242	3.225	2.0	20.9
2 21	9 46.89	+ 2 12.7	2.219	3.195	3.4	19.8	2 21	9 46.81	+10 34.8	2.235	3.219	2.1	20.9
3 2	9 38.03	+ 2 38.5	2.238	3.191	5.8	19.9	3 2	9 37.76	+10 47.6	2.258	3.212	5.7	21.2
3 12	9 30.35	+ 3 7.0	2.285	3.187	8.9	20.1	3 12	9 29.93	+10 56.7	2.309	3.205	9.1	21.4
3 22	9 24.44	+ 3 34.3	2.358	3.182	11.7	20.3	3 22	9 23.92	+11 0.3	2.386	3.198	12.0	21.5
<b>75196</b>	1999 <i>VK173</i>		2 15.3	186°69	4°3/11.3	18	<b>420464</b>	2012 <i>DY79</i>		2 15.3	284°58	2°4/13.9	18
1 12	10 20.70	+23 40.6	2.262	3.088	11.6	20.6	1 12	10 23.26	+19 8.3	1.742	2.571	14.4	20.4
1 22	10 14.58	+24 47.6	2.186	3.088	8.7	20.4	1 22	10 16.97	+19 11.6	1.658	2.563	10.8	20.1
2 1	10 6.31	+25 55.7	2.137	3.087	5.8	20.3	2 1	10 7.99	+19 17.5	1.598	2.555	6.6	19.9
2 11	9 56.57	+26 57.7	2.117	3.085	4.3	20.2	2 11	9 57.15	+19 20.5	1.565	2.547	2.8	19.6
2 21	9 46.31	+27 47.1	2.127	3.083	5.7	20.2	2 21	9 45.64	+19 15.6	1.561	2.539	4.2	19.7
3 2	9 36.56	+28 19.5	2.167	3.079	8.6	20.4	3 2	9 34.83	+18 59.5	1.586	2.532	8.5	19.9
3 12	9 28.31	+28 33.1	2.232	3.075	11.5	20.6	3 12	9 25.94	+18 31.2	1.636	2.524	12.6	20.1
3 22	9 22.21	+28 29.1	2.320	3.070	14.1	20.8	3 22	9 19.76	+17 51.6	1.709	2.516	16.2	20.3
<b>85871</b>	1999 <i>BN30</i>		2 15.3	3°74	3°0/13.0	18	<b>205765</b>	2002 <i>CB38</i>		2 15.3	205°32	1°1/16.0	18
1 12	10 12.99	+15 33.7	1.371	2.224	16.1	18.4	1 12	10 20.44	+ 8 48.0	1.826	2.633	14.7	20.6
1 22	10 9.78	+16 46.8	1.304	2.223	11.9	18.1	1 22	10 14.72	+ 8 54.0	1.739	2.630	11.2	20.4
2 1	10 3.78	+18 12.7	1.260	2.223	7.2	17.9	2 1	10 6.57	+ 9 12.5	1.675	2.625	7.1	20.1
2 11	9 55.86	+19 41.7	1.242	2.224	3.2	17.6	2 11	9 56.72	+ 9 40.2	1.639	2.621	2.6	19.8
2 21	9 47.24	+21 3.2	1.249	2.226	5.3	17.8	2 21	9 46.19	+10 12.5	1.631	2.615	2.6	19.8
3 2	9 39.36	+22 7.9	1.282	2.228	10.0	18.0	3 2	9 36.20	+10 44.3	1.653	2.610	7.1	20.1
3 12	9 33.51	+22 50.3	1.338	2.232	14.5	18.3	3 12	9 27.86	+11 10.7	1.701	2.603	11.4	20.3
3 22	9 30.46	+23 9.5	1.414	2.236	18.2	18.5	3 22	9 21.92	+11 28.8	1.773	2.597	15.0	20.5
<b>473188</b>	2015 <i>KG71</i>		2 15.3	267°62	0°8/14.4	17	<b>246353</b>	2007 <i>TG318</i>		2 15.3	218°40	1°6/16.5	18
1 12	10 11.70	+12 28.4	2.571	3.388	10.6	21.9	1 12	10 17.91	+ 6 12.7	1.938	2.738	14.3	21.6
1 22	10 7.65	+13 19.1	2.481	3.381	7.9	21.7	1 22	10 12.77	+ 6 33.3	1.845	2.730	11.0	21.4
2 1	10 2.00	+14 18.7	2.418	3.374	4.7	21.5	2 1	10 5.37	+ 7 9.3	1.775	2.722	7.1	21.1
2 11	9 55.25	+15 22.8	2.383	3.367	1.4	21.2	2 11	9 56.36	+ 7 57.7	1.733	2.713	3.0	20.9
2 21	9 48.07	+16 26.4	2.379	3.360	2.5	21.3	2 21	9 46.67	+ 8 53.2	1.720	2.704	2.6	20.8
3 2	9 41.20	+17 24.6	2.405	3.353	5.8	21.5	3 2	9 37.40	+ 9 49.8	1.736	2.694	6.8	21.1
3 12	9 35.37	+18 13.4	2.459	3.346	8.9	21.7	3 12	9 29.59	+10 41.7	1.780	2.684	10.8	21.3
3 22	9 31.11	+18 50.6	2.538	3.339	11.7	21.9	3 22	9 23.99	+11 24.5	1.847	2.673	14.4	21.5
<b>369741</b>	2012 <i>FY14</i>		2 15.3	297°21	1°4/14.4	18	<b>522241</b>	2016 <i>AP271</i>		2 15.3	305°15	9°0/20.4	17
1 12	10 19.53	+15 41.6	1.680	2.512	14.7	20.3	1 12	10 16.94	- 7 28.9				

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>472075</b>	2013 YS <sub>93</sub>		2 15.3 304°93	3°3/17.7	17		<b>502818</b>	2015 DA <sub>127</sub>		2 15.3 252°36	1°1/14.0	17	
1 12	10 17.12	+ 3 36.9	2.235	3.018	13.1	21.0	1 12	10 12.31	+12 20.2	2.422	3.240	11.2	20.9
1 22	10 11.89	+ 3 3.3	2.138	3.008	10.4	20.8	1 22	10 8.25	+13 31.1	2.332	3.233	8.3	20.7
2 1	10 4.70	+ 2 41.3	2.064	2.998	7.2	20.6	2 1	10 2.46	+14 52.6	2.268	3.226	4.9	20.4
2 11	9 56.14	+ 2 30.7	2.018	2.988	4.2	20.4	2 11	9 55.48	+16 19.5	2.234	3.218	1.6	20.2
2 21	9 47.02	+ 2 29.7	2.001	2.978	3.6	20.3	2 21	9 47.99	+17 45.4	2.231	3.211	2.9	20.3
3 2	9 38.25	+ 2 35.9	2.014	2.969	6.2	20.5	3 2	9 40.82	+19 4.2	2.258	3.203	6.4	20.5
3 12	9 30.74	+ 2 45.6	2.054	2.959	9.5	20.6	3 12	9 34.74	+20 11.0	2.313	3.195	9.6	20.7
3 22	9 25.12	+ 2 55.6	2.119	2.950	12.6	20.8	3 22	9 30.35	+21 3.3	2.392	3.187	12.5	20.9
<b>214080</b>	2004 HH <sub>31</sub>		2 15.3 257°56	0°5/14.7	17		<b>319816</b>	2006 VS <sub>80</sub>		2 15.3 65°64	2°1/16.9	18	
1 12	10 12.65	+11 35.4	2.625	3.437	10.6	21.0	1 12	10 15.98	+ 5 3.8	1.638	2.448	16.0	20.9
1 22	10 8.39	+12 24.0	2.525	3.422	7.9	20.8	1 22	10 11.45	+ 5 24.4	1.570	2.460	12.3	20.7
2 1	10 2.50	+13 22.2	2.451	3.407	4.8	20.6	2 1	10 4.57	+ 6 3.3	1.525	2.472	8.0	20.4
2 11	9 55.46	+14 26.0	2.406	3.391	1.4	20.4	2 11	9 56.13	+ 6 56.4	1.505	2.484	3.6	20.2
2 21	9 47.92	+15 30.5	2.392	3.375	2.3	20.4	2 21	9 47.20	+ 7 57.7	1.513	2.497	2.9	20.2
3 2	9 40.64	+16 30.7	2.409	3.358	5.7	20.6	3 2	9 38.96	+ 9 0.1	1.549	2.509	7.1	20.5
3 12	9 34.35	+17 22.6	2.453	3.342	8.9	20.8	3 12	9 32.45	+ 9 56.6	1.610	2.522	11.3	20.7
3 22	9 29.62	+18 3.3	2.523	3.325	11.7	20.9	3 22	9 28.35	+10 42.7	1.694	2.534	14.9	21.0
<b>205507</b>	2001 RL <sub>90</sub>		2 15.3 166°81	0°8/14.4	18		<b>23450</b>	Birkenstock		2 15.3 92°60	4°2/17.7	18	
1 12	10 13.70	+13 15.5	2.874	3.685	9.8	21.5	1 12	10 21.22	+ 2 54.0	1.361	2.167	18.9	18.7
1 22	10 8.92	+14 1.4	2.792	3.689	7.2	21.3	1 22	10 15.80	+ 2 31.0	1.293	2.176	14.9	18.5
2 1	10 2.68	+14 53.9	2.737	3.693	4.3	21.1	2 1	10 7.42	+ 2 28.9	1.246	2.186	10.2	18.2
2 11	9 55.48	+15 49.3	2.713	3.696	1.4	20.9	2 11	9 57.04	+ 2 46.6	1.223	2.196	5.7	18.0
2 21	9 47.94	+16 43.3	2.719	3.699	2.3	21.0	2 21	9 46.00	+ 3 19.8	1.225	2.205	4.6	18.0
3 2	9 40.74	+17 31.7	2.756	3.702	5.3	21.2	3 2	9 35.83	+ 4 1.7	1.255	2.215	8.5	18.2
3 12	9 34.52	+18 11.6	2.822	3.704	8.1	21.4	3 12	9 27.86	+ 4 44.8	1.309	2.224	13.0	18.5
3 22	9 29.75	+18 41.3	2.913	3.706	10.5	21.5	3 22	9 22.89	+ 5 22.7	1.384	2.233	17.1	18.8
<b>74027</b>	1998 HG <sub>18</sub>		2 15.3 217°04	2°0/16.8	18		<b>297709</b>	2001 VL <sub>107</sub>		2 15.3 179°75	3°5/17.9	18	
1 12	10 18.29	+ 5 29.1	2.031	2.825	13.9	20.3	1 12	10 19.33	+ 1 45.8	1.829	2.613	15.6	21.6
1 22	10 12.96	+ 5 40.4	1.936	2.817	10.8	20.1	1 22	10 13.87	+ 1 45.2	1.744	2.615	12.3	21.3
2 1	10 5.45	+ 6 6.4	1.865	2.809	7.1	19.8	2 1	10 6.06	+ 2 3.1	1.681	2.616	8.5	21.1
2 11	9 56.40	+ 6 44.5	1.821	2.800	3.2	19.6	2 11	9 56.61	+ 2 38.0	1.645	2.616	4.8	20.9
2 21	9 46.70	+ 7 30.5	1.807	2.790	2.7	19.5	2 21	9 46.53	+ 3 25.6	1.637	2.616	3.8	20.8
3 2	9 37.38	+ 8 19.0	1.822	2.780	6.5	19.7	3 2	9 36.97	+ 4 20.4	1.657	2.615	7.1	21.0
3 12	9 29.47	+ 9 4.7	1.865	2.769	10.4	19.9	3 12	9 29.01	+ 5 15.7	1.705	2.613	11.0	21.2
3 22	9 23.68	+ 9 43.3	1.931	2.757	13.9	20.1	3 22	9 23.38	+ 6 5.8	1.776	2.611	14.5	21.4
<b>209498</b>	2004 JO <sub>17</sub>		2 15.3 307°70	0°9/14.5	17		<b>109285</b>	2001 QR <sub>120</sub>		2 15.3 86°54	1°5/14.4	18	
1 12	10 13.78	+13 41.7	2.173	2.997	12.1	20.5	1 12	10 23.00	+16 9.6	1.782	2.605	14.3	19.0
1 22	10 9.50	+14 12.4	2.083	2.986	9.0	20.3	1 22	10 16.38	+16 21.8	1.724	2.626	10.6	18.8
2 1	10 3.28	+14 51.5	2.018	2.976	5.4	20.0	2 1	10 7.39	+16 39.5	1.689	2.646	6.4	18.6
2 11	9 55.72	+15 34.6	1.981	2.965	1.7	19.8	2 11	9 56.95	+16 57.4	1.683	2.666	2.2	18.4
2 21	9 47.62	+16 16.6	1.973	2.955	2.8	19.8	2 21	9 46.21	+17 10.5	1.705	2.686	3.4	18.5
3 2	9 39.92	+16 52.7	1.994	2.945	6.6	20.0	3 2	9 36.36	+17 15.3	1.757	2.706	7.6	18.8
3 12	9 33.49	+17 19.1	2.042	2.935	10.2	20.2	3 12	9 28.43	+17 9.7	1.835	2.725	11.4	19.1
3 22	9 28.96	+17 34.0	2.113	2.925	13.3	20.4	3 22	9 23.00	+16 53.8	1.936	2.744	14.5	19.3
<b>178948</b>	2001 QJ <sub>130</sub>		2 15.3 216°44	2°6/17.9	17		<b>133006</b>	2002 TZ <sub>298</sub>		2 15.3 105°96	4°0/19.6	18	
1 12	10 15.60	+ 1 2.1	2.451	3.220	12.5	21.4	1 12	10 14.65	- 2 56.9	2.584	3.332	12.5	19.8
1 22	10 10.65	+ 1 31.4	2.347	3.210	9.9	21.2	1 22	10 9.65	- 2 57.0	2.510	3.352	10.1	19.7
2 1	10 3.91	+ 2 17.4	2.268	3.199	6.8	21.0	2 1	10 3.13	- 2 41.0	2.460	3.372	7.4	19.5
2 11	9 55.91	+ 3 17.9	2.217	3.188	3.7	20.8	2 11	9 55.64	- 2 10.2	2.436	3.391	5.0	19.4
2 21	9 47.35	+ 4 28.9	2.196	3.176	2.9	20.7	2 21	9 47.86	- 1 27.2	2.442	3.410	4.0	19.4
3 2	9 39.07	+ 5 45.2	2.206	3.163	5.6	20.9	3 2	9 40.52	- 0 36.0	2.478	3.428	5.5	19.5
3 12	9 31.88	+ 7 0.6	2.245	3.149	8.9	21.0	3 12	9 34.29	+ 0 18.6	2.542	3.446	8.0	19.7
3 22	9 26.39	+ 8 10.3	2.310	3.134	12.0	21.2	3 22	9 29.63	+ 1 11.9	2.633	3.464	10.4	19.9
<b>462627</b>	2009 QE <sub>33</sub>		2 15.3 140°25	0°5/15.7	16		<b>88054</b>	2000 VK <sub>27</sub>		2 15.3 121°80	0°6/14.7	18	
1 12	10 21.55	+10 49.9	2.330	3.128	12.2	21.9	1 12	10 16.67	+12 4.6	2.258	3.071	12.1	20.0
1 22	10 14.90	+10 47.7	2.253	3.140	9.2	21.8	1 22	10 11.38	+12 48.6	2.189	3.086	8.9	19.9
2 1	10 6.36	+10 53.1	2.202	3.152	5.7	21.6	2 1	10 4.28	+13 41.4	2.146	3.101	5.4	19.7
2 11	9 56.62	+11 3.3	2.180	3.163	1.9	21.3	2 11	9 56.01	+14 38.2	2.132	3.116	1.6	19.4
2 21	9 46.52	+11 15.1	2.190	3.174	2.1	21.4	2 21	9 47.39	+15 33.7	2.148	3.130	2.5	19.5
3 2	9 37.00	+11 25.2	2.230	3.184	5.8	21.6	3 2	9 39.30	+16 22.8	2.194	3.144	6.2	19.8
3 12	9 28.88	+11 31.1	2.299	3.193	9.2	21.8	3 12	9 32.54	+17 1.9	2.268	3.157	9.5	20.0
3 22	9 22.71	+11 31.2	2.394	3.202	12.1	22.1	3 22	9 27.66	+17 29.2	2.366	3.170	12.4	20.2
<b>917</b>	Lyka		2 15.3 152°40	0°9/14.7	18		<b>419750</b>	2010 VB <sub>87</sub>		2 15.3 149°34	3°9/11.7	18	
1 12	10 21.18	+13 30.7	1.980	2.795	13.4	16.1	1 12	10 21.11	+23 24.2	2.374	3.197	11.2	23.4
1 22	10 15.00	+13 58.9	1.907	2.804	10.0	15.9	1 22	10 14.69	+24 20.4	2.309	3.209	8.4	23.2
2 1	10 6.59	+14 35.4	1.857	2.813	6.0	15.7	2 1	10 6.29	+25 16.7	2.271	3.221	5.5	23.1
2 11	9 56.73	+15 15.1	1.837	2.821	1.8	15.4	2 11	9 56.63	+26 6.7	2.262	3.231	3.9	23.0
2 21	9 46.39	+15 52.7	1.846	2.828	2.9	15.5	2 21	9 46.59	+26 45.1	2.283	3.241	5.1	23.1
3 2	9 36.69	+16 23.2	1.885	2.834	7.1	15.8	3 2	9 37.15	+27 8.1	2.334	3.250	7.9	23.3
3 12	9 28.62	+16 43.3	1.951	2.840	10.8	16.0	3 12	9 29.19	+27 14.8	2.412	3.258	10.7	23.4
3 22	9 22.82	+16 51.8	2.040	2.845	14.0	16.2	3 22	9 23.27	+27 6.1	2.513	3.266	13.1	23.6
<b>429058</b>	2009 DV <sub>118</sub>		2 15.3 304°53	2°9/18.5	17		<b>172389</b>	2003 AX <sub>50</sub>		2 15.3 165°00	3°1/12.1	18	
1 12	10 10.79	- 0 10.9	2.242	3.021	13.3	21.0	1 12	10 14.44	+20 23.1	2.423	3.254		

EPHEMERIDES

2 15.3

2 15.3

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>500187</b>	2012 <i>GV</i> <sub>8</sub>	2 15.3 259°02		0°1/15.2 17			<b>417035</b>	2005 <i>UK</i> <sub>108</sub>	2 15.3 103°10		1°4/14.2 18		
1 12	10 17.72	+11 33.1	1.988	2.804	13.4	22.2	1 12	10 16.94	+14 3.9	1.903	2.729	13.4	21.7
1 22	10 12.67	+11 52.7	1.891	2.788	10.1	22.0	1 22	10 11.95	+14 46.7	1.833	2.737	9.9	21.4
2 1	10 5.35	+12 22.8	1.818	2.773	6.2	21.7	2 1	10 4.80	+15 38.5	1.788	2.746	6.0	21.2
2 11	9 56.42	+12 59.3	1.773	2.757	1.9	21.4	2 11	9 56.22	+16 33.4	1.771	2.755	2.0	21.0
2 21	9 46.77	+13 37.2	1.756	2.740	2.6	21.4	2 21	9 47.18	+17 25.0	1.782	2.763	3.3	21.1
3 2	9 37.50	+14 11.4	1.769	2.723	7.0	21.6	3 2	9 38.76	+18 7.7	1.823	2.771	7.3	21.4
3 12	9 29.67	+14 37.5	1.809	2.706	11.1	21.8	3 12	9 31.92	+18 37.7	1.890	2.779	11.1	21.6
3 22	9 24.01	+14 53.1	1.872	2.689	14.6	22.0	3 22	9 27.29	+18 53.8	1.979	2.787	14.2	21.8
<b>277371</b>	2005 <i>UJ</i> <sub>9</sub>	2 15.3 184°17		1°4/16.5 18			<b>360219</b>	1999 <i>SG</i> <sub>26</sub>	2 15.3 125°05		0°7/15.9 18		
1 12	10 19.56	+ 5 36.4	1.940	2.735	14.4	21.7	1 12	10 19.52	+ 8 13.4	2.118	2.917	13.2	21.8
1 22	10 13.96	+ 6 11.5	1.853	2.736	11.1	21.5	1 22	10 13.55	+ 8 45.9	2.050	2.937	10.0	21.6
2 1	10 6.08	+ 7 3 3	1.790	2.736	7.1	21.3	2 1	10 5.62	+ 9 30.5	2.007	2.956	6.2	21.4
2 11	9 56.63	+ 8 7.8	1.755	2.735	2.9	21.0	2 11	9 56.44	+10 22.9	1.993	2.975	2.2	21.2
2 21	9 46.55	+ 9 19.1	1.749	2.733	2.5	21.0	2 21	9 46.91	+11 17.7	2.009	2.993	2.2	21.2
3 2	9 36.95	+10 30.3	1.774	2.731	6.7	21.2	3 2	9 38.00	+12 9.6	2.055	3.010	6.1	21.5
3 12	9 28.87	+11 35.0	1.826	2.727	10.8	21.5	3 12	9 30.56	+12 54.0	2.130	3.026	9.7	21.8
3 22	9 23.03	+12 28.8	1.902	2.722	14.3	21.7	3 22	9 25.16	+13 28.4	2.229	3.041	12.7	22.0
<b>132407</b>	2002 <i>GA</i> <sub>112</sub>	2 15.3 154°25		1°3/14.2 18			<b>240397</b>	2003 <i>UB</i> <sub>102</sub>	2 15.3 100°86		3°7/11.7 18		
1 12	10 18.57	+13 17.0	1.922	2.743	13.6	20.7	1 12	10 16.50	+21 21.7	2.206	3.038	11.6	20.7
1 22	10 13.19	+14 11.5	1.849	2.750	10.0	20.5	1 22	10 11.39	+22 31.1	2.147	3.054	8.6	20.6
2 1	10 5.57	+15 16.3	1.800	2.757	6.0	20.3	2 1	10 4.35	+23 42.7	2.114	3.069	5.5	20.4
2 11	9 56.45	+16 25.1	1.780	2.763	2.0	20.0	2 11	9 56.06	+24 49.7	2.111	3.084	3.7	20.3
2 21	9 46.82	+17 30.8	1.789	2.769	3.3	20.1	2 21	9 47.41	+25 45.7	2.136	3.098	5.1	20.4
3 2	9 37.77	+18 27.2	1.827	2.774	7.5	20.4	3 2	9 39.35	+26 26.3	2.191	3.113	8.0	20.6
3 12	9 30.32	+19 9.8	1.892	2.778	11.2	20.6	3 12	9 32.73	+26 49.6	2.272	3.127	10.9	20.8
3 22	9 25.11	+19 37.0	1.980	2.782	14.5	20.8	3 22	9 28.11	+26 55.9	2.374	3.141	13.4	21.0
<b>463989</b>	2014 <i>WH</i> <sub>50</sub>	2 15.3 33°50		1°5/14.2 18			<b>134032</b>	2004 <i>WC</i> <sub>5</sub>	2 15.3 19°21		11°0/ 8.1 18		
1 12	10 15.90	+14 4.8	1.676	2.511	14.6	20.7	1 12	10 16.78	+31 4.3	1.052	1.924	18.4	18.8
1 22	10 11.48	+14 48.8	1.606	2.515	10.8	20.5	1 22	10 13.54	+33 3.2	1.014	1.931	14.7	18.6
2 1	10 4.64	+15 43.3	1.559	2.519	6.5	20.3	2 1	10 6.45	+34 53.4	0.996	1.939	11.8	18.4
2 11	9 56.18	+16 41.6	1.539	2.523	2.2	20.0	2 11	9 56.80	+36 17.7	1.000	1.949	11.2	18.4
2 21	9 47.18	+17 36.6	1.547	2.527	3.6	20.1	2 21	9 46.50	+37 3.9	1.027	1.960	13.2	18.6
3 2	9 38.83	+18 21.6	1.582	2.532	8.1	20.4	3 2	9 37.62	+37 7.3	1.074	1.973	16.5	18.8
3 12	9 32.22	+18 52.4	1.642	2.537	12.2	20.6	3 12	9 31.78	+36 31.7	1.139	1.986	19.9	19.1
3 22	9 28.04	+19 7.5	1.724	2.542	15.6	20.9	3 22	9 29.67	+35 25.2	1.220	2.001	22.8	19.3
<b>114420</b>	2002 <i>YR</i> <sub>31</sub>	2 15.3 68°09		3°2/12.4 18			<b>162041</b>	1996 <i>NL</i> <sub>4</sub>	2 15.3 222°91		0°6/15.8 18		
1 12	10 15.13	+15 42.4	1.654	2.494	14.5	18.7	1 12	10 18.77	+ 8 39.9	1.935	2.742	14.0	21.0
1 22	10 10.93	+17 24.7	1.594	2.507	10.6	18.5	1 22	10 13.48	+ 9 7.3	1.841	2.732	10.7	20.8
2 1	10 4.31	+19 17.7	1.559	2.519	6.4	18.3	2 1	10 5.87	+ 9 48.5	1.771	2.722	6.7	20.5
2 11	9 56.08	+21 11.4	1.552	2.532	3.3	18.1	2 11	9 56.60	+10 39.6	1.728	2.711	2.3	20.2
2 21	9 47.32	+22 55.3	1.573	2.545	5.2	18.2	2 21	9 46.62	+11 35.0	1.715	2.699	2.5	20.2
3 2	9 39.24	+24 20.6	1.622	2.558	9.2	18.5	3 2	9 37.04	+12 28.5	1.731	2.687	7.0	20.5
3 12	9 32.93	+25 22.8	1.697	2.571	13.0	18.8	3 12	9 28.95	+13 14.7	1.775	2.674	11.1	20.7
3 22	9 29.07	+26 1.0	1.792	2.584	16.2	19.0	3 22	9 23.10	+13 50.0	1.841	2.660	14.7	20.9
<b>164157</b>	2003 <i>YY</i> <sub>142</sub>	2 15.3 196°55		4°5/10.8 18			<b>193519</b>	2000 <i>YP</i> <sub>60</sub>	2 15.3 301°04		4°3/18.1 17		
1 12	10 17.49	+26 2.8	2.459	3.289	10.7	20.3	1 12	10 17.48	+ 1 49.5	1.916	2.701	15.0	19.5
1 22	10 12.09	+26 57.8	2.386	3.287	8.1	20.1	1 22	10 12.50	+ 1 13.7	1.822	2.691	12.0	19.3
2 1	10 4.77	+27 51.7	2.338	3.285	5.7	20.0	2 1	10 5.27	+ 0 52.9	1.750	2.681	8.6	19.0
2 11	9 56.19	+28 38.3	2.320	3.283	4.5	19.9	2 11	9 56.42	+ 0 47.2	1.704	2.671	5.3	18.8
2 21	9 47.18	+29 12.3	2.331	3.280	5.7	20.0	2 21	9 46.89	+ 0 54.9	1.686	2.661	4.5	18.8
3 2	9 38.65	+29 30.2	2.370	3.277	8.2	20.1	3 2	9 37.76	+ 1 12.8	1.696	2.651	7.2	18.9
3 12	9 31.46	+29 31.0	2.436	3.274	10.8	20.3	3 12	9 30.08	+ 1 36.0	1.733	2.642	10.8	19.1
3 22	9 26.20	+29 15.7	2.523	3.271	13.2	20.5	3 22	9 24.59	+ 1 59.7	1.793	2.633	14.2	19.3
<b>519242</b>	2010 <i>VV</i> <sub>227</sub>	2 15.3 309°40		5°0/11.2 16			<b>384564</b>	2010 <i>GX</i> <sub>96</sub>	2 15.3 330°80		1°7/13.9 17		
1 12	10 16.67	+22 2.6	1.646	2.493	14.2	21.4	1 12	10 14.54	+15 32.9	2.046	2.876	12.5	21.4
1 22	10 12.32	+23 21.6	1.573	2.487	10.6	21.1	1 22	10 10.16	+16 12.0	1.965	2.871	9.2	21.2
2 1	10 5.31	+24 45.4	1.525	2.481	7.0	20.9	2 1	10 3.73	+16 58.6	1.909	2.868	5.6	20.9
2 11	9 56.43	+26 4.2	1.503	2.475	5.0	20.8	2 11	9 55.92	+17 47.3	1.881	2.864	2.1	20.7
2 21	9 46.83	+27 8.8	1.509	2.470	6.9	20.9	2 21	9 47.60	+18 32.4	1.882	2.861	3.4	20.8
3 2	9 37.86	+27 52.1	1.541	2.465	10.6	21.1	3 2	9 39.75	+19 8.7	1.911	2.857	7.2	21.0
3 12	9 30.77	+28 11.4	1.596	2.460	14.3	21.3	3 12	9 33.30	+19 32.8	1.966	2.854	10.8	21.2
3 22	9 26.33	+28 7.7	1.671	2.455	17.5	21.5	3 22	9 28.89	+19 43.3	2.045	2.851	13.9	21.4
<b>375302</b>	2008 <i>PJ</i> <sub>21</sub>	2 15.3 133°87		2°5/12.5 18			<b>122341</b>	2000 <i>QT</i> <sub>36</sub>	2 15.3 222°03		1°2/16.2 18		
1 12	10 17.28	+19 53.6	2.787	3.606	9.9	22.3	1 12	10 19.65	+ 8 2.1	1.752	2.561	15.2	20.6
1 22	10 11.56	+20 47.4	2.723	3.623	7.2	22.1	1 22	10 14.31	+ 8 13.0	1.663	2.554	11.6	20.4
2 1	10 4.28	+21 43.3	2.686	3.640	4.5	21.9	2 1	10 6.45	+ 8 38.3	1.597	2.547	7.4	20.1
2 11	9 56.01	+22 36.5	2.680	3.656	2.6	21.8	2 11	9 56.81	+ 9 14.5	1.557	2.539	2.8	19.8
2 21	9 47.45	+23 22.3	2.704	3.672	3.7	21.9	2 21	9 46.42	+ 9 56.6	1.547	2.531	2.7	19.7
3 2	9 39.36	+23 57.3	2.760	3.686	6.3	22.1	3 2	9 36.52	+10 38.5	1.565	2.523	7.3	20.0
3 12	9 32.43	+24 19.7	2.843	3.700	8.9	22.3	3 12	9 28.30	+11 14.7	1.609	2.513	11.7	20.2
3 22	9 27.12	+24 29.4	2.950	3.714	11.1	22.5	3 22	9 22.55	+11 41.6	1.676	2.504	15.5	20.5
<b>397853</b>	2008 <i>TG</i> <sub>50</sub>	2 15.3 154°81		1°3/16.3 18			<b>80025</b>	1999 <i>JB</i> <sub>7</sub>	2 15.3 259°48		0°8/14.5 18		
1 12	10 19.15	+ 6 40.8	1.664	2.472	15.8	22.1	1						

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2 15.3

2 15.4

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>255609</b>	2006 <i>PY</i> <sub>14</sub>		2 15.3 199°32	0°8/14.6	18		<b>182369</b>	2001 <i>QD</i> <sub>156</sub>		2 15.3 104°20	2°1/17.2	18	
1 12	10 18.20	+12 29.2	2.093	2.908	12.8	21.6	1 12	10 15.50	+3 27.7	1.882	2.678	14.8	20.8
1 22	10 12.85	+13 12.7	2.007	2.905	9.6	21.4	1 22	10 10.88	+4 4.0	1.810	2.691	11.4	20.6
2 1	10 5.38	+14 6.5	1.945	2.901	5.8	21.1	2 1	10 4.16	+4 58.7	1.760	2.703	7.5	20.4
2 11	9 56.44	+15 5.4	1.912	2.896	1.8	20.8	2 11	9 56.07	+6 7.8	1.737	2.715	3.5	20.2
2 21	9 46.92	+16 3.4	1.909	2.891	2.9	20.9	2 21	9 47.52	+7 25.3	1.744	2.727	2.7	20.2
3 2	9 37.84	+16 54.8	1.936	2.885	6.9	21.1	3 2	9 39.54	+8 43.8	1.779	2.739	6.4	20.4
3 12	9 30.16	+17 35.1	1.990	2.878	10.7	21.4	3 12	9 33.06	+9 56.7	1.841	2.750	10.3	20.7
3 22	9 24.58	+18 2.2	2.067	2.871	13.9	21.6	3 22	9 28.70	+10 58.8	1.928	2.761	13.6	20.9
<b>90361</b>	2003 <i>HY</i> <sub>48</sub>		2 15.3 103°59	4°0/18.3	18		<b>214732</b>	2006 <i>TM</i> <sub>30</sub>		2 15.4 177°49	2°0/13.2	17	
1 12	10 17.74	+0 45.4	1.583	2.375	17.3	19.4	1 12	10 14.91	+18 25.6	2.823	3.643	9.7	21.8
1 22	10 12.90	+0 50.3	1.511	2.386	13.6	19.2	1 22	10 9.90	+19 4.4	2.743	3.644	7.1	21.6
2 1	10 5.54	+1 17.7	1.460	2.396	9.5	18.9	2 1	10 3.35	+19 46.5	2.689	3.645	4.4	21.4
2 11	9 56.50	+2 5.1	1.435	2.406	5.4	18.7	2 11	9 55.79	+20 27.7	2.666	3.646	2.1	21.3
2 21	9 46.89	+3 7.5	1.436	2.416	4.2	18.7	2 21	9 47.88	+21 3.8	2.673	3.646	3.2	21.4
3 2	9 37.96	+4 17.4	1.465	2.425	7.5	18.9	3 2	9 40.34	+21 31.5	2.711	3.646	6.0	21.5
3 12	9 30.85	+5 26.5	1.520	2.435	11.6	19.2	3 12	9 33.86	+21 48.8	2.776	3.646	8.7	21.7
3 22	9 26.28	+6 28.2	1.598	2.444	15.3	19.4	3 22	9 28.92	+21 54.8	2.866	3.645	11.0	21.9
<b>2960</b>	Ohtaki		2 15.3 31°68	1°1/14.6	18	R	<b>240319</b>	2003 <i>HU</i> <sub>37</sub>		2 15.4 278°62	7°5/10.5	18	
1 12	10 15.78	+11 6.7	1.142	1.993	18.8	16.1	1 12	10 23.82	+28 19.6	1.508	2.351	15.5	19.6
1 22	10 12.23	+12 1.8	1.084	1.999	14.1	15.9	1 22	10 18.20	+29 24.9	1.428	2.334	12.1	19.3
2 1	10 5.47	+13 16.0	1.045	2.007	8.5	15.6	2 1	10 9.20	+30 28.2	1.372	2.318	8.9	19.1
2 11	9 56.53	+14 40.4	1.030	2.015	2.5	15.3	2 11	9 57.75	+31 17.9	1.341	2.301	7.5	19.0
2 21	9 46.87	+16 3.5	1.040	2.024	4.1	15.4	2 21	9 45.29	+31 44.1	1.337	2.284	9.3	19.0
3 2	9 38.18	+17 14.2	1.075	2.033	9.9	15.7	3 2	9 33.59	+31 41.0	1.357	2.267	12.8	19.2
3 12	9 31.91	+18 5.3	1.132	2.043	15.1	16.1	3 12	9 24.27	+31 8.9	1.400	2.250	16.7	19.4
3 22	9 28.86	+18 34.2	1.209	2.053	19.3	16.4	3 22	9 18.30	+30 12.3	1.462	2.233	20.1	19.6
<b>122664</b>	2000 <i>RZ</i> <sub>98</sub>		2 15.3 193°65	6°2/20.5	18		<b>301247</b>	2009 <i>BR</i> <sub>46</sub>		2 15.4 58°47	0°9/15.9	18	
1 12	10 16.83	-6 19.3	2.207	2.942	14.7	20.3	1 12	10 18.59	+7 54.8	1.316	2.145	18.1	20.9
1 22	10 11.73	-6 52.3	2.114	2.941	12.3	20.1	1 22	10 13.75	+8 23.7	1.265	2.167	13.6	20.7
2 1	10 4.66	-7 6.1	2.044	2.939	9.6	19.9	2 1	10 6.10	+9 11.0	1.234	2.189	8.5	20.4
2 11	9 56.22	-6 59.7	1.999	2.937	7.2	19.8	2 11	9 56.67	+10 10.6	1.228	2.211	3.0	20.2
2 21	9 47.22	-6 34.0	1.981	2.935	6.2	19.7	2 21	9 46.82	+11 13.9	1.248	2.233	3.0	20.2
3 2	9 38.60	-5 52.6	1.992	2.932	7.4	19.8	3 2	9 37.99	+12 12.7	1.295	2.256	8.2	20.6
3 12	9 31.23	-5 1.0	2.030	2.929	9.9	19.9	3 12	9 31.38	+13 0.3	1.367	2.279	12.8	20.9
3 22	9 25.78	-4 5.3	2.092	2.926	12.7	20.1	3 22	9 27.63	+13 33.3	1.459	2.301	16.7	21.2
<b>73113</b>	2002 <i>GS</i> <sub>43</sub>		2 15.3 246°35	0°2/15.5	18		<b>148855</b>	2001 <i>VS</i> <sub>38</sub>		2 15.4 69°79	0°3/15.6	18	
1 12	10 18.00	+9 51.1	1.836	2.651	14.3	20.4	1 12	10 16.98	+10 14.0	1.807	2.626	14.4	20.2
1 22	10 13.07	+10 21.7	1.741	2.638	10.9	20.2	1 22	10 12.14	+10 32.8	1.730	2.628	10.8	20.0
2 1	10 5.72	+11 6.2	1.670	2.624	6.7	19.9	2 1	10 5.03	+11 3.7	1.675	2.630	6.7	19.7
2 11	9 56.60	+12 0.1	1.625	2.609	2.2	19.6	2 11	9 56.36	+11 42.4	1.648	2.632	2.2	19.4
2 21	9 46.70	+12 57.4	1.610	2.594	2.7	19.6	2 21	9 47.15	+12 23.5	1.649	2.634	2.5	19.5
3 2	9 37.19	+13 51.5	1.623	2.578	7.4	19.8	3 2	9 38.52	+13 1.4	1.679	2.636	7.0	19.7
3 12	9 29.22	+14 36.6	1.663	2.562	11.7	20.1	3 12	9 31.49	+13 31.4	1.734	2.637	11.1	20.0
3 22	9 23.59	+15 9.2	1.725	2.546	15.5	20.3	3 22	9 26.76	+13 50.9	1.813	2.639	14.6	20.2
<b>326958</b>	2004 <i>GH</i> <sub>47</sub>		2 15.3 293°70	1°3/16.3	17		<b>297396</b>	2000 <i>QC</i> <sub>130</sub>		2 15.4 137°03	0°9/16.2	18	
1 12	10 15.39	+7 17.6	1.693	2.510	15.3	21.7	1 12	10 18.57	+6 0.6	2.069	2.864	13.7	21.7
1 22	10 11.25	+7 36.6	1.602	2.497	11.7	21.4	1 22	10 12.97	+6 54.9	1.997	2.880	10.4	21.5
2 1	10 4.65	+8 12.0	1.533	2.485	7.5	21.1	2 1	10 5.37	+8 4.6	1.949	2.896	6.5	21.3
2 11	9 56.28	+9 0.4	1.491	2.472	3.0	20.8	2 11	9 56.44	+9 24.8	1.929	2.911	2.4	21.0
2 21	9 47.13	+9 56.1	1.475	2.460	2.7	20.8	2 21	9 47.08	+10 48.9	1.940	2.925	2.2	21.0
3 2	9 38.42	+10 52.3	1.488	2.448	7.4	21.0	3 2	9 38.28	+12 10.1	1.982	2.938	6.3	21.3
3 12	9 31.31	+11 42.5	1.526	2.436	11.9	21.3	3 12	9 30.94	+13 22.2	2.053	2.950	10.0	21.6
3 22	9 26.62	+12 21.8	1.586	2.424	15.8	21.5	3 22	9 25.65	+14 21.6	2.148	2.961	13.1	21.8
<b>457759</b>	2009 <i>HY</i> <sub>99</sub>		2 15.3 317°49	7°5/9.6	17		<b>471100</b>	2010 <i>AV</i> <sub>99</sub>		2 15.4 194°84	7°3/6.5	17	
1 12	10 16.62	+25 53.8	1.379	2.237	15.7	20.9	1 12	10 16.42	+33 16.7	2.313	3.145	11.2	21.0
1 22	10 12.96	+27 29.4	1.305	2.221	12.1	20.6	1 22	10 11.68	+35 7.5	2.255	3.145	9.0	20.9
2 1	10 6.06	+29 8.1	1.254	2.206	8.8	20.4	2 1	10 4.74	+36 52.9	2.223	3.144	7.6	20.8
2 11	9 56.78	+30 37.0	1.228	2.191	7.6	20.3	2 11	9 56.28	+38 24.1	2.219	3.143	7.5	20.8
2 21	9 46.48	+31 43.7	1.227	2.176	9.7	20.4	2 21	9 47.24	+39 33.8	2.243	3.143	8.8	20.8
3 2	9 36.86	+32 19.9	1.250	2.162	13.5	20.5	3 2	9 38.68	+40 18.0	2.293	3.142	10.9	21.0
3 12	9 29.51	+32 23.5	1.294	2.149	17.4	20.7	3 12	9 31.61	+40 36.2	2.366	3.141	13.1	21.1
3 22	9 25.42	+31 57.6	1.355	2.137	20.9	20.9	3 22	9 26.72	+40 31.0	2.457	3.140	15.0	21.3
<b>279415</b>	2010 <i>GM</i> <sub>6</sub>		2 15.3 292°32	1°6/14.1	17		<b>202935</b>	1998 <i>YJ</i> <sub>17</sub>		2 15.4 32°10	0°2/15.2	18	
1 12	10 17.23	+16 37.5	2.154	2.979	12.1	20.5	1 12	10 14.18	+11 3.4	1.883	2.706	13.7	20.6
1 22	10 12.08	+16 55.0	2.067	2.970	9.0	20.2	1 22	10 9.94	+11 35.0	1.811	2.713	10.2	20.4
2 1	10 4.89	+17 17.5	2.005	2.962	5.5	20.0	2 1	10 3.62	+12 18.0	1.763	2.720	6.2	20.2
2 11	9 56.30	+17 40.6	1.971	2.954	2.0	19.8	2 11	9 55.92	+13 7.5	1.742	2.727	1.9	19.9
2 21	9 47.18	+17 59.9	1.966	2.946	3.2	19.8	2 21	9 47.76	+13 57.7	1.750	2.734	2.6	20.0
3 2	9 38.54	+18 11.3	1.991	2.938	6.9	20.1	3 2	9 40.18	+14 43.0	1.786	2.742	6.8	20.3
3 12	9 31.28	+18 12.7	2.042	2.930	10.5	20.3	3 12	9 34.09	+15 18.8	1.849	2.750	10.6	20.5
3 22	9 26.06	+18 3.1	2.117	2.922	13.6	20.4	3 22	9 30.11	+15 42.6	1.934	2.758	13.9	20.7
<b>344833</b>	2004 <i>FT</i> <sub>80</sub>		2 15.3 286°88	6°7/8.6	17		<b>338240</b>	2002 <i>TW</i> <sub>109</sub>		2 15.4 178°57	1°5/13.7	18	
1 12	10 19.35	+32 41.9	2.335	3.162	11.2	20.9							



EPHEMERIDES

2 15.4

2 15.4

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>63672</b>	2001 <i>QM</i> <sub>134</sub>		2 15.4 350°99	9°3/22.6	18		<b>411352</b>	2010 <i>UE</i> <sub>77</sub>		2 15.4 105°02	0°1/15.4	18	
1 12	10 12.13	-10 26.1	1.526	2.276	19.6	18.5	1 12	10 19.45	+10 44.9	1.962	2.773	13.7	21.5
1 22	10 9.00	-11 6.5	1.444	2.272	16.9	18.3	1 22	10 13.66	+11 9.0	1.898	2.792	10.2	21.3
2 1	10 3.37	-11 16.6	1.379	2.268	13.8	18.1	2 1	10 5.78	+11 43.4	1.858	2.811	6.2	21.1
2 11	9 55.92	-10 53.0	1.335	2.265	10.9	17.9	2 11	9 56.58	+12 23.6	1.846	2.830	1.9	20.8
2 21	9 47.71	-9 56.6	1.314	2.262	9.4	17.8	2 21	9 47.03	+13 4.4	1.864	2.848	2.4	20.9
3 2	9 39.99	-8 33.1	1.318	2.260	10.2	17.8	3 2	9 38.17	+13 40.7	1.911	2.865	6.6	21.2
3 12	9 33.98	-6 52.5	1.346	2.259	12.9	18.0	3 12	9 30.90	+14 8.9	1.985	2.882	10.3	21.4
3 22	9 30.50	-5 6.5	1.396	2.259	16.1	18.2	3 22	9 25.80	+14 26.7	2.083	2.899	13.4	21.7
<b>405911</b>	2006 <i>HU</i> <sub>120</sub>		2 15.4 213°18	0°7/14.8	17		<b>100316</b>	1995 <i>MM</i> <sub>2</sub>		2 15.4 141°13	1°3/16.4	18	
1 12	10 18.48	+11 54.0	2.017	2.832	13.2	22.5	1 12	10 20.63	+6 3.6	1.844	2.642	15.0	20.5
1 22	10 13.19	+12 37.4	1.927	2.825	9.9	22.2	1 22	10 14.73	+6 39.2	1.772	2.657	11.4	20.3
2 1	10 5.68	+13 32.1	1.861	2.817	6.0	22.0	2 1	10 6.55	+7 31.1	1.723	2.670	7.3	20.0
2 11	9 56.60	+14 33.0	1.824	2.808	1.8	21.7	2 11	9 56.85	+8 34.8	1.702	2.683	2.9	19.8
2 21	9 46.86	+15 33.9	1.817	2.799	2.9	21.7	2 21	9 46.66	+9 43.8	1.711	2.695	2.5	19.8
3 2	9 37.54	+16 28.6	1.839	2.789	7.1	22.0	3 2	9 37.12	+10 51.1	1.749	2.706	6.8	20.1
3 12	9 29.66	+17 12.2	1.889	2.779	11.1	22.2	3 12	9 29.26	+11 50.8	1.815	2.716	10.8	20.3
3 22	9 23.96	+17 42.2	1.961	2.768	14.4	22.4	3 22	9 23.72	+12 38.9	1.905	2.725	14.2	20.6
<b>506177</b>	2016 <i>GK</i> <sub>7</sub>		2 15.4 257°60	5°2/19.9	16		<b>87883</b>	2000 <i>SO</i> <sub>278</sub>		2 15.4 239°57	7°5/24.3	18	
1 12	10 13.95	-4 5.6	1.897	2.661	15.8	21.1	1 12	10 12.58	-16 57.2	2.952	3.602	13.0	19.8
1 22	10 9.86	-4 3.4	1.809	2.659	13.0	20.9	1 22	10 8.27	-17 22.0	2.842	3.589	11.5	19.6
2 1	10 3.66	-3 38.0	1.741	2.657	9.7	20.7	2 1	10 2.46	-17 26.8	2.753	3.576	9.9	19.5
2 11	9 55.97	-2 50.1	1.698	2.655	6.6	20.5	2 11	9 55.58	-17 9.8	2.687	3.563	8.4	19.4
2 21	9 47.68	-1 43.0	1.683	2.652	5.3	20.4	2 21	9 48.24	-16 31.1	2.647	3.550	7.6	19.3
3 2	9 39.82	-0 22.8	1.695	2.650	7.2	20.5	3 2	9 41.10	-15 32.9	2.635	3.536	7.8	19.3
3 12	9 33.36	+1 2.4	1.734	2.648	10.5	20.7	3 12	9 34.85	-14 19.8	2.649	3.521	8.9	19.4
3 22	9 29.00	+2 25.0	1.798	2.645	13.8	20.9	3 22	9 30.00	-12 57.4	2.689	3.507	10.6	19.4
<b>217058</b>	2001 <i>RU</i> <sub>53</sub>		2 15.4 202°81	1°1/14.4	18		<b>186077</b>	2001 <i>SB</i> <sub>227</sub>		2 15.4 131°26	0°7/16.0	18	
1 12	10 17.71	+13 39.1	2.184	3.000	12.3	21.5	1 12	10 16.97	+7 46.0	2.163	2.964	12.9	21.4
1 22	10 12.43	+14 20.1	2.097	2.996	9.1	21.3	1 22	10 11.73	+8 21.7	2.090	2.978	9.8	21.2
2 1	10 5.12	+15 9.9	2.035	2.992	5.5	21.1	2 1	10 4.60	+9 10.0	2.041	2.990	6.1	21.0
2 11	9 56.40	+16 3.4	2.003	2.986	1.8	20.8	2 11	9 56.23	+10 6.7	2.020	3.003	2.2	20.8
2 21	9 47.14	+16 55.0	2.000	2.981	2.9	20.9	2 21	9 47.47	+11 6.7	2.030	3.015	2.1	20.8
3 2	9 38.30	+17 39.5	2.027	2.975	6.8	21.1	3 2	9 39.22	+12 4.2	2.070	3.026	6.0	21.1
3 12	9 30.81	+18 13.0	2.082	2.968	10.4	21.3	3 12	9 32.34	+12 54.6	2.138	3.036	9.5	21.3
3 22	9 25.33	+18 33.8	2.160	2.960	13.5	21.5	3 22	9 27.39	+13 34.8	2.230	3.047	12.6	21.5
<b>332773</b>	2009 <i>VQ</i> <sub>12</sub>		2 15.4 257°62	0°1/15.3	17		<b>365690</b>	2010 <i>VH</i> <sub>106</sub>		2 15.4 161°54	5°2/10.4	18	
1 12	10 16.42	+11 18.6	1.925	2.744	13.6	21.6	1 12	10 20.92	+26 45.6	2.289	3.116	11.4	22.3
1 22	10 11.66	+11 42.6	1.842	2.742	10.2	21.4	1 22	10 14.78	+27 59.0	2.224	3.123	8.7	22.1
2 1	10 4.72	+12 17.5	1.784	2.740	6.2	21.1	2 1	10 6.51	+29 10.7	2.186	3.130	6.2	22.0
2 11	9 56.29	+12 58.8	1.753	2.737	1.9	20.8	2 11	9 56.83	+30 13.2	2.177	3.136	5.2	21.9
2 21	9 47.30	+13 41.3	1.751	2.735	2.6	20.9	2 21	9 46.69	+31 0.1	2.198	3.141	6.5	22.0
3 2	9 38.82	+14 19.5	1.778	2.733	6.9	21.1	3 2	9 37.15	+31 27.6	2.247	3.145	9.0	22.2
3 12	9 31.83	+14 49.0	1.831	2.731	10.8	21.4	3 12	9 29.14	+31 34.9	2.322	3.149	11.7	22.3
3 22	9 27.02	+15 7.5	1.907	2.728	14.2	21.6	3 22	9 23.30	+31 23.8	2.418	3.152	14.0	22.5
<b>310773</b>	2002 <i>RS</i> <sub>290</sub>		2 15.4 225°55	3°0/12.8	17		<b>222524</b>	2001 <i>TW</i> <sub>198</sub>		2 15.4 205°16	6°7/8.7	17	
1 12	10 18.43	+18 6.7	1.954	2.784	13.0	21.3	1 12	10 23.50	+33 27.5	2.434	3.251	11.1	21.6
1 22	10 13.30	+19 9.2	1.869	2.775	9.7	21.1	1 22	10 16.79	+34 37.4	2.361	3.245	9.0	21.4
2 1	10 5.81	+20 19.0	1.809	2.766	6.0	20.9	2 1	10 7.80	+35 41.2	2.315	3.238	7.2	21.3
2 11	9 56.66	+21 28.7	1.777	2.756	3.1	20.7	2 11	9 57.25	+36 30.9	2.298	3.231	6.8	21.3
2 21	9 46.83	+22 31.0	1.775	2.746	4.8	20.7	2 21	9 46.15	+37 0.7	2.309	3.222	8.0	21.3
3 2	9 37.45	+23 19.4	1.801	2.736	8.5	20.9	3 2	9 35.63	+37 7.6	2.348	3.213	10.1	21.4
3 12	9 29.62	+23 50.4	1.853	2.725	12.2	21.1	3 12	9 26.70	+36 51.9	2.411	3.204	12.4	21.6
3 22	9 24.10	+24 3.3	1.927	2.713	15.4	21.3	3 22	9 20.07	+36 16.5	2.495	3.193	14.5	21.7
<b>309320</b>	2007 <i>SZ</i>		2 15.4 91°14	3°0/17.5	18		<b>240736</b>	2005 <i>JK</i> <sub>59</sub>		2 15.4 218°72	3°3/11.9	17	
1 12	10 21.38	+3 30.2	1.703	2.495	16.3	20.8	1 12	10 16.07	+22 22.5	2.660	3.486	10.1	21.5
1 22	10 15.26	+3 28.9	1.644	2.521	12.6	20.6	1 22	10 10.95	+23 11.9	2.576	3.479	7.5	21.3
2 1	10 6.81	+3 45.2	1.607	2.546	8.4	20.4	2 1	10 4.11	+24 2.8	2.519	3.472	4.9	21.1
2 11	9 56.90	+4 16.3	1.597	2.571	4.4	20.3	2 11	9 56.10	+24 50.0	2.492	3.464	3.3	21.0
2 21	9 46.64	+4 57.5	1.615	2.596	3.4	20.2	2 21	9 47.64	+25 28.6	2.495	3.457	4.5	21.1
3 2	9 37.22	+5 42.7	1.661	2.620	7.0	20.5	3 2	9 39.57	+25 55.0	2.527	3.448	7.1	21.2
3 12	9 29.65	+6 26.0	1.735	2.643	10.8	20.8	3 12	9 32.64	+26 7.3	2.586	3.440	9.8	21.4
3 22	9 24.53	+7 3.0	1.832	2.666	14.2	21.0	3 22	9 27.41	+26 5.6	2.669	3.431	12.2	21.5
<b>423315</b>	2005 <i>EZ</i> <sub>245</sub>		2 15.4 25°25	0°5/14.9	17		<b>235080</b>	2003 <i>GS</i> <sub>51</sub>		2 15.4 358°88	2°8/13.8	18	
1 12	10 15.17	+12 15.7	2.022	2.844	12.9	21.5	1 12	10 17.41	+16 14.9	1.180	2.036	18.0	20.3
1 22	10 10.60	+12 42.3	1.944	2.845	9.6	21.2	1 22	10 13.56	+16 54.1	1.115	2.034	13.4	20.1
2 1	10 4.01	+13 18.3	1.891	2.847	5.8	21.0	2 1	10 6.40	+17 44.5	1.070	2.032	8.2	19.8
2 11	9 56.06	+13 59.4	1.865	2.849	1.7	20.7	2 11	9 56.91	+18 37.3	1.048	2.032	3.3	19.5
2 21	9 47.65	+14 40.3	1.868	2.852	2.6	20.8	2 21	9 46.60	+19 22.7	1.052	2.032	5.2	19.6
3 2	9 39.75	+15 16.1	1.900	2.854	6.6	21.1	3 2	9 37.21	+19 52.6	1.080	2.033	10.6	19.9
3 12	9 33.26	+15 43.0	1.959	2.856	10.3	21.3	3 12	9 30.28	+20 2.6	1.130	2.034	15.6	20.2
3 22	9 28.81	+15 58.8	2.041	2.859	13.5	21.5	3 22	9 26.67	+19 52.8	1.199	2.037	19.9	20.4
<b>193820</b>	2001 <i>QV</i> <sub>9</sub>		2 15.4 224°02	1°1/16.3	18		<b>360731</b>	2004 <i>TT</i> <sub>282</sub>		2 15.4 48°68	10°4/9.7	17	
1 12	10 18.69	+6 40.6	1.798	2.603</									

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>53836</b>	2000 <i>EB</i> <sub>185</sub>		2 15.4	62°17'	3°3/12.6	18	<b>362014</b>	2008 <i>WB</i> <sub>126</sub>		2 15.4	40°39'	1°0/14.7	18
1 12	10 18.22	+15 29.3	1.462	2.303	16.0	18.4	1 12	10 16.59	+11 34.5	1.248	2.093	17.9	20.9
1 22	10 13.29	+17 14.8	1.422	2.334	11.6	18.2	1 22	10 12.58	+12 21.1	1.191	2.104	13.3	20.7
2 1	10 5.75	+19 9.7	1.405	2.365	6.9	18.0	2 1	10 5.60	+13 23.9	1.155	2.116	8.0	20.4
2 11	9 56.60	+21 2.5	1.416	2.396	3.4	17.9	2 11	9 56.63	+14 34.9	1.144	2.128	2.4	20.1
2 21	9 47.11	+22 42.0	1.454	2.427	5.4	18.1	2 21	9 47.08	+15 44.1	1.158	2.141	3.8	20.2
3 2	9 38.62	+24 0.0	1.520	2.458	9.6	18.4	3 2	9 38.48	+16 42.4	1.198	2.155	9.2	20.6
3 12	9 32.21	+24 53.0	1.611	2.488	13.4	18.7	3 12	9 32.15	+17 23.9	1.261	2.169	14.0	20.9
3 22	9 28.48	+25 21.7	1.722	2.518	16.5	19.0	3 22	9 28.83	+17 46.2	1.344	2.183	18.0	21.2
<b>433844</b>	2015 <i>BP</i> <sub>261</sub>		2 15.4	85°37'	1°2/14.3	18	<b>500292</b>	2012 <i>PK</i> <sub>43</sub>		2 15.4	163°30'	1°3/14.1	17
1 12	10 16.40	+14 24.7	2.070	2.894	12.6	21.4	1 12	10 15.81	+15 17.0	2.653	3.468	10.4	22.5
1 22	10 11.40	+15 0.9	2.003	2.906	9.3	21.2	1 22	10 10.65	+15 53.0	2.574	3.473	7.7	22.3
2 1	10 4.43	+15 44.6	1.960	2.918	5.6	21.0	2 1	10 3.86	+16 34.5	2.521	3.477	4.6	22.1
2 11	9 56.20	+16 30.6	1.946	2.930	1.8	20.8	2 11	9 56.03	+17 17.3	2.498	3.481	1.6	21.9
2 21	9 47.58	+17 13.4	1.961	2.942	3.0	20.9	2 21	9 47.83	+17 57.2	2.506	3.485	2.7	22.0
3 2	9 39.55	+17 48.4	2.005	2.954	6.8	21.2	3 2	9 40.03	+18 30.4	2.544	3.488	5.8	22.2
3 12	9 32.97	+18 12.3	2.076	2.965	10.3	21.4	3 12	9 33.35	+18 54.2	2.610	3.491	8.7	22.4
3 22	9 28.41	+18 24.0	2.170	2.977	13.2	21.6	3 22	9 28.29	+19 7.5	2.701	3.493	11.3	22.6
<b>420009</b>	2011 <i>CD</i> <sub>67</sub>		2 15.4	67°43'	1°2/14.5	18	<b>369536</b>	2010 <i>XT</i> <sub>80</sub>		2 15.4	324°88'	3°7/10.8	17
1 12	10 18.68	+14 44.8	1.820	2.646	13.9	21.4	1 12	10 11.10	+23 11.8	2.723	3.558	9.6	20.4
1 22	10 13.36	+15 4.1	1.749	2.653	10.3	21.2	1 22	10 7.31	+24 22.2	2.642	3.549	7.2	20.2
2 1	10 5.74	+15 30.8	1.703	2.661	6.2	21.0	2 1	10 1.92	+25 34.5	2.588	3.540	4.8	20.0
2 11	9 56.62	+15 59.9	1.684	2.668	2.0	20.7	2 11	9 55.45	+26 43.1	2.563	3.531	3.7	19.9
2 21	9 47.03	+16 26.1	1.694	2.675	3.2	20.8	2 21	9 48.54	+27 42.6	2.568	3.523	4.9	20.0
3 2	9 38.13	+16 44.8	1.732	2.683	7.4	21.1	3 2	9 41.95	+28 28.9	2.602	3.515	7.3	20.1
3 12	9 30.92	+16 52.9	1.796	2.690	11.3	21.3	3 12	9 36.39	+28 59.5	2.662	3.507	9.8	20.3
3 22	9 26.05	+16 49.6	1.882	2.698	14.6	21.5	3 22	9 32.39	+29 14.3	2.745	3.499	12.1	20.4
<b>330141</b>	2005 <i>YD</i> <sub>200</sub>		2 15.4	171°44'	3°8/11.5	18	<b>453848</b>	2011 <i>UW</i> <sub>17</sub>		2 15.4	82°77'	0°3/15.6	18
1 12	10 16.26	+20 47.5	2.170	3.002	11.8	20.5	1 12	10 20.29	+ 9 48.3	1.534	2.355	16.3	21.7
1 22	10 11.43	+22 7.1	2.097	3.004	8.7	20.3	1 22	10 14.75	+10 16.6	1.476	2.376	12.2	21.5
2 1	10 4.54	+23 30.9	2.051	3.006	5.6	20.1	2 1	10 6.65	+10 59.0	1.442	2.397	7.5	21.2
2 11	9 56.26	+24 51.4	2.034	3.008	3.8	20.0	2 11	9 56.92	+11 49.8	1.433	2.417	2.4	21.0
2 21	9 47.46	+26 1.4	2.047	3.009	5.3	20.1	2 21	9 46.77	+12 42.0	1.453	2.437	2.8	21.0
3 2	9 39.15	+26 55.3	2.088	3.009	8.4	20.3	3 2	9 37.52	+13 28.7	1.500	2.457	7.7	21.4
3 12	9 32.24	+27 30.5	2.156	3.010	11.4	20.5	3 12	9 30.29	+14 4.8	1.573	2.477	12.0	21.7
3 22	9 27.37	+27 46.9	2.245	3.010	14.1	20.7	3 22	9 25.70	+14 27.9	1.668	2.496	15.6	22.0
<b>142029</b>	2002 <i>QE</i> <sub>6</sub>		2 15.4	257°34'	13°8/27.2	18	<b>466410</b>	2013 <i>SN</i> <sub>80</sub>		2 15.4	191°91'	1°6/16.7	17
1 12	10 16.52	-24 58.0	1.995	2.609	19.4	19.5	1 12	10 15.46	+ 6 4.2	2.102	2.901	13.3	22.2
1 22	10 12.12	-26 21.0	1.898	2.596	18.0	19.3	1 22	10 10.79	+ 6 22.1	2.016	2.901	10.2	22.0
2 1	10 5.28	-27 14.8	1.816	2.583	16.4	19.1	2 1	10 4.15	+ 6 53.8	1.954	2.900	6.6	21.8
2 11	9 56.58	-27 32.9	1.752	2.570	15.0	19.0	2 11	9 56.16	+ 7 36.5	1.919	2.899	2.9	21.5
2 21	9 46.95	-27 11.6	1.709	2.556	14.0	18.9	2 21	9 47.67	+ 8 25.6	1.914	2.898	2.4	21.5
3 2	9 37.56	-26 11.3	1.687	2.543	13.9	18.9	3 2	9 39.61	+ 9 16.0	1.938	2.897	6.1	21.7
3 12	9 29.61	-24 38.0	1.688	2.529	14.7	18.9	3 12	9 32.87	+10 2.4	1.990	2.895	9.8	21.9
3 22	9 23.99	-22 41.4	1.709	2.514	16.3	18.9	3 22	9 28.08	+10 41.1	2.065	2.894	13.0	22.1
<b>417705</b>	2007 <i>BU</i> <sub>74</sub>		2 15.4	290°68'	0°4/14.9	17	<b>423530</b>	2005 <i>UO</i> <sub>152</sub>		2 15.4	181°36'	4°6/19.3	18
1 12	10 13.92	+ 9 59.0	1.791	2.615	14.2	21.1	1 12	10 15.74	- 2 12.7	2.098	2.861	14.5	21.5
1 22	10 10.13	+10 55.0	1.696	2.598	10.7	20.8	1 22	10 11.01	- 2 19.1	2.009	2.861	11.8	21.3
2 1	10 4.00	+12 7.3	1.625	2.582	6.6	20.5	2 1	10 4.29	- 2 6.6	1.943	2.861	8.7	21.1
2 11	9 56.16	+13 30.6	1.581	2.565	2.0	20.2	2 11	9 56.21	- 1 35.8	1.902	2.861	5.7	20.9
2 21	9 47.53	+14 56.9	1.565	2.548	3.0	20.2	2 21	9 47.60	- 0 49.6	1.890	2.861	4.6	20.9
3 2	9 39.26	+16 18.1	1.577	2.531	7.7	20.5	3 2	9 39.40	+ 0 7.4	1.907	2.861	6.6	21.0
3 12	9 32.46	+17 27.1	1.616	2.515	12.0	20.7	3 12	9 32.51	+ 1 8.7	1.951	2.860	9.8	21.2
3 22	9 27.95	+18 19.5	1.677	2.499	15.8	20.9	3 22	9 27.58	+ 2 8.6	2.019	2.859	12.8	21.4
<b>224350</b>	2005 <i>UA</i> <sub>107</sub>		2 15.4	176°22'	1°2/14.2	18	<b>120973</b>	1998 <i>WW</i> <sub>4</sub>		2 15.4	33°27'	15°4/ 1.1	18
1 12	10 17.38	+14 13.8	2.363	3.177	11.5	21.7	1 12	10 15.50	+35 54.1	0.984	1.858	19.2	17.3
1 22	10 12.01	+14 56.7	2.281	3.180	8.5	21.5	1 22	10 13.27	+40 7.2	0.969	1.875	16.4	17.2
2 1	10 4.79	+15 47.1	2.226	3.182	5.1	21.3	2 1	10 6.71	+43 57.4	0.976	1.892	15.4	17.2
2 11	9 56.32	+16 40.0	2.200	3.183	1.7	21.0	2 11	9 57.09	+46 59.7	1.006	1.911	16.3	17.3
2 21	9 47.41	+17 30.4	2.204	3.184	2.9	21.1	2 21	9 46.53	+48 59.6	1.056	1.931	18.6	17.5
3 2	9 38.93	+18 13.4	2.238	3.184	6.4	21.4	3 2	9 37.49	+49 54.9	1.124	1.952	21.2	17.7
3 12	9 31.71	+18 45.7	2.301	3.183	9.7	21.6	3 12	9 31.90	+49 54.2	1.207	1.974	23.6	18.0
3 22	9 26.34	+19 5.9	2.387	3.182	12.5	21.7	3 22	9 30.55	+49 9.8	1.301	1.996	25.6	18.2
<b>312103</b>	2007 <i>TN</i> <sub>148</sub>		2 15.4	133°90'	1°4/14.2	18	<b>63655</b>	2001 <i>QV</i> <sub>113</sub>		2 15.4	3°70'	1°6/14.5	18
1 12	10 20.48	+14 13.6	2.008	2.825	13.2	21.8	1 12	10 16.78	+15 13.1	1.344	2.192	16.7	19.0
1 22	10 14.48	+15 1.6	1.941	2.841	9.7	21.6	1 22	10 12.70	+15 29.0	1.277	2.191	12.5	18.8
2 1	10 6.33	+15 57.8	1.899	2.856	5.8	21.4	2 1	10 5.70	+15 54.4	1.230	2.191	7.5	18.5
2 11	9 56.80	+16 56.1	1.887	2.870	2.0	21.2	2 11	9 56.70	+16 23.0	1.208	2.192	2.5	18.2
2 21	9 46.85	+17 50.3	1.904	2.884	3.3	21.3	2 21	9 47.02	+16 47.8	1.212	2.194	4.0	18.3
3 2	9 37.56	+18 34.9	1.951	2.896	7.2	21.6	3 2	9 38.18	+17 2.9	1.242	2.197	9.1	18.6
3 12	9 29.87	+19 6.6	2.025	2.908	10.8	21.8	3 12	9 31.50	+17 4.6	1.295	2.201	13.8	18.9
3 22	9 24.38	+19 24.3	2.123	2.920	13.8	22.1	3 22	9 27.76	+16 52.0	1.368	2.206	17.8	19.1
<b>32691</b>	4269 <i>T</i> <sub>-1</sub>		2 15.4	356°00'	1°5/14.1	18	<b>473114</b>	2015 <i>HL</i> <sub>174</sub>		2 15.4	295°94'	3°0/18.2	17
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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>14305</b>	3437 $T_{-3}$		2 15.4 229°24	1°1/14.5	18	R	<b>67335</b>	2000 $JC_6$		2 15.4 175°83	4°1/11.7	18	
1 12	10 18.36	+13 47.6	2.016	2.836	13.0	18.9	1 12	10 19.86	+9 54.2	1.191	2.030	19.0	18.9
1 22	10 13.13	+14 20.3	1.927	2.827	9.7	18.7	1 22	10 15.67	+13 11.1	1.119	2.032	14.0	18.6
2 1	10 5.68	+15 2.0	1.862	2.818	5.9	18.5	2 1	10 7.96	+17 2.3	1.072	2.034	8.3	18.3
2 11	9 56.67	+15 47.7	1.825	2.809	1.9	18.2	2 11	9 57.56	+21 7.9	1.054	2.035	4.2	18.0
2 21	9 47.03	+16 31.7	1.818	2.799	3.0	18.2	2 21	9 45.90	+25 2.5	1.065	2.035	7.5	18.2
3 2	9 37.83	+17 8.7	1.840	2.789	7.2	18.5	3 2	9 34.88	+28 22.8	1.105	2.035	13.2	18.5
3 12	9 30.08	+17 34.7	1.888	2.778	11.1	18.7	3 12	9 26.28	+30 56.5	1.170	2.034	18.3	18.8
3 22	9 24.51	+17 48.0	1.960	2.767	14.4	18.9	3 22	9 21.26	+32 42.4	1.253	2.032	22.4	19.1
<b>97925</b>	2000 $QL_{98}$		2 15.4 189°40	2°2/13.7	18		<b>21723</b>	Yinyinwu		2 15.4 163°55	1°6/17.1	18	R
1 12	10 21.67	+16 51.7	1.968	2.790	13.2	19.8	1 12	10 15.41	+4 37.5	2.709	3.489	11.2	19.8
1 22	10 15.60	+17 31.6	1.887	2.789	9.8	19.5	1 22	10 10.32	+5 4.0	2.623	3.496	8.6	19.6
2 1	10 7.17	+18 17.9	1.831	2.788	6.0	19.3	2 1	10 3.68	+5 42.5	2.562	3.502	5.6	19.4
2 11	9 57.12	+19 4.5	1.804	2.786	2.5	19.1	2 11	9 56.03	+6 30.4	2.530	3.508	2.6	19.2
2 21	9 46.48	+19 45.2	1.806	2.783	3.9	19.2	2 21	9 48.01	+7 24.0	2.529	3.512	2.1	19.2
3 2	9 36.41	+20 14.7	1.837	2.779	7.8	19.4	3 2	9 40.34	+8 18.9	2.560	3.516	4.9	19.4
3 12	9 27.97	+20 30.3	1.896	2.775	11.6	19.6	3 12	9 33.71	+9 11.0	2.619	3.520	7.9	19.6
3 22	9 21.87	+20 31.5	1.977	2.770	14.8	19.8	3 22	9 28.61	+9 56.9	2.705	3.523	10.6	19.8
<b>94714</b>	2001 $XS_{60}$		2 15.4 14°26	6°8/19.6	18		<b>261877</b>	2006 $GQ_{38}$		2 15.4 277°72	7°4/20.9	17	
1 12	10 17.91	-2 51.4	1.442	2.226	19.1	19.1	1 12	10 15.15	-7 21.5	1.671	2.425	18.0	21.0
1 22	10 13.41	-3 33.1	1.365	2.227	15.7	18.9	1 22	10 11.32	-7 37.3	1.566	2.405	15.2	20.7
2 1	10 6.13	-3 50.3	1.307	2.227	11.8	18.6	2 1	10 4.92	-7 25.4	1.480	2.384	12.0	20.5
2 11	9 56.86	-3 41.6	1.271	2.228	8.2	18.4	2 11	9 56.56	-6 43.4	1.417	2.362	8.9	20.2
2 21	9 46.80	-3 8.9	1.261	2.229	6.9	18.4	2 21	9 47.20	-5 32.6	1.380	2.341	7.4	20.1
3 2	9 37.36	-2 17.8	1.277	2.231	9.1	18.5	3 2	9 38.08	-3 58.8	1.369	2.319	9.0	20.1
3 12	9 29.87	-1 17.0	1.317	2.232	12.9	18.7	3 12	9 30.48	-2 11.9	1.383	2.297	12.6	20.3
3 22	9 25.16	-0 15.4	1.378	2.234	16.7	18.9	3 22	9 25.35	-0 22.7	1.421	2.275	16.4	20.4
<b>377159</b>	2003 $SE_{326}$		2 15.4 74°26	0°4/15.1	17		<b>130881</b>	2000 $VX_{13}$		2 15.4 113°22	4°3/12.2	18	
1 12	10 16.19	+12 6.8	1.999	2.819	13.1	21.6	1 12	10 20.98	+20 42.1	1.654	2.492	14.6	19.7
1 22	10 11.37	+12 32.5	1.924	2.824	9.8	21.4	1 22	10 15.36	+21 50.2	1.595	2.504	10.8	19.5
2 1	10 4.50	+13 7.8	1.874	2.830	5.9	21.2	2 1	10 7.11	+23 2.2	1.560	2.516	6.9	19.3
2 11	9 56.28	+13 48.2	1.851	2.835	1.8	20.9	2 11	9 57.13	+24 9.0	1.552	2.528	4.3	19.2
2 21	9 47.61	+14 28.4	1.857	2.841	2.6	21.0	2 21	9 46.65	+25 2.3	1.573	2.539	6.0	19.3
3 2	9 39.48	+15 3.4	1.893	2.846	6.7	21.3	3 2	9 37.01	+25 36.4	1.621	2.550	9.7	19.5
3 12	9 32.81	+15 29.6	1.955	2.852	10.4	21.5	3 12	9 29.37	+25 49.3	1.693	2.561	13.3	19.8
3 22	9 28.22	+15 44.8	2.040	2.858	13.5	21.7	3 22	9 24.41	+25 42.6	1.786	2.571	16.5	20.0
<b>79264</b>	1995 $MC_4$		2 15.4 322°29	2°2/17.6	18		<b>66103</b>	1998 $SJ_{24}$		2 15.4 120°09	1°7/13.8	18	R
1 12	10 12.61	+3 9.4	2.253	3.043	12.9	19.1	1 12	10 16.16	+15 39.1	2.135	2.960	12.2	18.5
1 22	10 8.57	+3 34.0	2.166	3.042	10.0	18.9	1 22	10 11.27	+16 22.4	2.061	2.965	9.0	18.3
2 1	10 2.76	+4 14.2	2.102	3.041	6.7	18.7	2 1	10 4.43	+17 12.5	2.013	2.971	5.4	18.1
2 11	9 55.75	+5 7.5	2.065	3.040	3.4	18.5	2 11	9 56.28	+18 4.1	1.993	2.976	2.1	17.9
2 21	9 48.28	+6 9.4	2.057	3.040	2.6	18.5	2 21	9 47.70	+18 51.4	2.003	2.981	3.4	18.0
3 2	9 41.19	+7 14.6	2.079	3.039	5.7	18.7	3 2	9 39.64	+19 29.6	2.042	2.986	7.0	18.2
3 12	9 35.27	+8 17.5	2.129	3.038	9.0	18.9	3 12	9 32.97	+19 55.4	2.107	2.991	10.4	18.5
3 22	9 31.09	+9 13.5	2.204	3.037	12.1	19.1	3 22	9 28.29	+20 7.9	2.196	2.996	13.3	18.7
<b>248748</b>	2006 $RN$		2 15.4 77°28	4°2/19.2	18		<b>227217</b>	2005 $QR_{182}$		2 15.4 38°53	1°6/16.3	18	
1 12	10 15.62	-1 24.5	2.343	3.103	13.3	20.3	1 12	10 18.36	+7 44.3	1.192	2.027	19.2	20.5
1 22	10 10.60	-1 44.7	2.269	3.119	10.7	20.1	1 22	10 14.08	+7 52.1	1.129	2.034	14.7	20.2
2 1	10 3.88	-1 49.1	2.217	3.135	7.8	20.0	2 1	10 6.64	+8 19.6	1.087	2.042	9.3	20.0
2 11	9 56.07	-1 38.5	2.193	3.151	5.2	19.8	2 11	9 57.05	+9 2.3	1.068	2.050	3.6	19.6
2 21	9 47.92	-1 15.0	2.197	3.166	4.3	19.8	2 21	9 46.74	+9 52.5	1.074	2.059	3.3	19.6
3 2	9 40.24	-0 42.3	2.231	3.182	6.0	19.9	3 2	9 37.39	+10 41.7	1.105	2.068	8.9	20.0
3 12	9 33.77	-0 5.0	2.292	3.197	8.7	20.1	3 12	9 30.42	+11 22.3	1.159	2.078	14.0	20.3
3 22	9 29.05	+0 32.6	2.378	3.213	11.3	20.3	3 22	9 26.64	+11 50.0	1.233	2.088	18.4	20.6
<b>257314</b>	2009 $HY_{88}$		2 15.4 281°36	3°9/18.1	18		<b>383658</b>	2007 $TZ_{109}$		2 15.4 115°73	0°7/14.6	18	
1 12	10 16.11	+1 34.5	1.676	2.471	16.4	20.8	1 12	10 15.07	+12 50.3	2.622	3.433	10.6	21.4
1 22	10 11.83	+1 30.1	1.585	2.461	13.0	20.5	1 22	10 10.06	+13 31.1	2.553	3.449	7.9	21.3
2 1	10 5.09	+1 45.9	1.515	2.451	9.1	20.3	2 1	10 3.51	+14 18.9	2.511	3.466	4.7	21.1
2 11	9 56.55	+2 20.8	1.470	2.441	5.3	20.0	2 11	9 55.97	+15 9.5	2.498	3.482	1.4	20.9
2 21	9 47.23	+3 10.9	1.452	2.432	4.1	19.9	2 21	9 48.14	+15 58.6	2.515	3.497	2.3	21.0
3 2	9 38.34	+4 10.0	1.462	2.422	7.5	20.1	3 2	9 40.75	+16 42.0	2.564	3.512	5.5	21.2
3 12	9 31.06	+5 10.6	1.497	2.412	11.7	20.3	3 12	9 34.48	+17 16.7	2.640	3.527	8.4	21.4
3 22	9 26.21	+6 6.1	1.555	2.403	15.6	20.5	3 22	9 29.81	+17 41.1	2.742	3.541	11.0	21.6
<b>8456</b>	Davegriep		2 15.4 170°81	1°1/16.4	18		<b>118778</b>	2000 $RW_{62}$		2 15.4 170°58	0°9/14.7	18	
1 12	10 15.41	+8 6.3	2.480	3.278	11.6	18.0	1 12	10 20.96	+14 55.2	2.271	3.082	12.1	19.8
1 22	10 10.45	+8 9.5	2.393	3.279	8.8	17.8	1 22	10 14.71	+15 7.6	2.190	3.086	9.0	19.6
2 1	10 3.82	+8 22.3	2.332	3.279	5.6	17.6	2 1	10 6.47	+15 25.5	2.134	3.089	5.4	19.3
2 11	9 56.07	+8 42.2	2.299	3.280	2.3	17.3	2 11	9 56.91	+15 44.9	2.107	3.091	1.7	19.1
2 21	9 47.92	+9 6.3	2.296	3.280	2.0	17.3	2 21	9 46.92	+16 1.7	2.111	3.093	2.7	19.2
3 2	9 40.16	+9 30.9	2.324	3.281	5.3	17.5	3 2	9 37.46	+16 12.7	2.146	3.094	6.4	19.4
3 12	9 33.53	+9 52.7	2.379	3.281	8.6	17.7	3 12	9 29.41	+16 15.3	2.208	3.095	9.8	19.6
3 22	9 28.59	+10 9.2	2.459	3.281	11.4	17.9	3 22	9 23.38	+16 8.9	2.295	3.095	12.8	19.8
<b>105426</b>	2000 $QK_{173}$		2 15.4 154°68	1°6/16.5	18		<b>188368</b>	2004 $BS_{78}$		2 15.4 116°37	1°3/14.6	18	R
1 12	10 19.86	+6 40.8	1.813	2.616	15.0	20.5	1 12	10 21.55	+12 50.7	1.422	2.254	16.9	20.4
1 22	10 14.29												

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>264322</b>	1999 TZ <sub>249</sub>		2 15.4 168°47'	0°2/15.2	18		<b>31219</b>	1998 BW <sub>24</sub>		2 15.4 322°82'	3°1/12.2	18	
1 12	10 20.39	+11 41.9	1.982	2.793	13.6	21.3	1 12	10 11.57	+16 21.5	1.936	2.775	12.7	17.8
1 22	10 14.55	+12 3.6	1.902	2.797	10.2	21.1	1 22	10 8.29	+17 55.0	1.848	2.761	9.4	17.6
2 1	10 6.50	+12 35.0	1.847	2.801	6.2	20.8	2 1	10 2.86	+19 39.9	1.787	2.746	5.8	17.3
2 11	9 56.95	+13 11.9	1.820	2.804	1.9	20.6	2 11	9 55.88	+21 28.2	1.753	2.733	3.1	17.1
2 21	9 46.88	+13 49.1	1.822	2.806	2.6	20.6	2 21	9 48.22	+23 10.7	1.749	2.719	5.0	17.2
3 2	9 37.37	+14 21.5	1.855	2.808	6.8	20.9	3 2	9 40.90	+24 39.0	1.773	2.707	8.7	17.4
3 12	9 29.42	+14 45.5	1.914	2.809	10.7	21.1	3 12	9 34.96	+25 47.6	1.822	2.694	12.3	17.6
3 22	9 23.70	+14 58.9	1.997	2.809	14.0	21.3	3 22	9 31.12	+26 34.3	1.893	2.682	15.5	17.8
<b>223845</b>	2004 TL <sub>174</sub>		2 15.4 130°08'	0°6/15.9	18		<b>61829</b>	2000 QL <sub>195</sub>		2 15.4 148°07'	1°4/14.2	18	
1 12	10 16.54	+ 9 1.3	2.102	2.910	13.0	21.4	1 12	10 17.30	+14 31.1	2.043	2.865	12.8	20.4
1 22	10 11.54	+ 9 25.0	2.025	2.917	9.8	21.2	1 22	10 12.22	+15 13.6	1.968	2.870	9.5	20.2
2 1	10 4.59	+10 0.2	1.973	2.924	6.1	21.0	2 1	10 5.06	+16 4.2	1.918	2.875	5.7	20.0
2 11	9 56.35	+10 43.2	1.948	2.931	2.1	20.7	2 11	9 56.52	+16 57.5	1.896	2.879	2.0	19.7
2 21	9 47.66	+11 29.0	1.953	2.937	2.2	20.7	2 21	9 47.49	+17 47.4	1.903	2.883	3.2	19.8
3 2	9 39.48	+12 12.6	1.987	2.943	6.2	21.0	3 2	9 39.00	+18 28.8	1.940	2.887	7.1	20.1
3 12	9 32.68	+12 49.7	2.049	2.949	9.8	21.2	3 12	9 31.98	+18 58.0	2.003	2.890	10.7	20.3
3 22	9 27.85	+13 17.4	2.134	2.955	12.9	21.5	3 22	9 27.05	+19 13.7	2.090	2.894	13.8	20.5
<b>39370</b>	2002 CK <sub>22</sub>		2 15.4 25°19'	0°5/14.9	18		<b>412562</b>	2014 NH <sub>55</sub>		2 15.4 131°81'	2°1/13.7	18	
1 12	10 15.53	+11 33.9	1.832	2.656	14.0	19.7	1 12	10 20.30	+16 10.5	2.034	2.855	12.9	21.8
1 22	10 11.13	+12 11.9	1.755	2.657	10.4	19.5	1 22	10 14.37	+17 1.7	1.969	2.871	9.5	21.6
2 1	10 4.49	+13 1.8	1.702	2.658	6.3	19.3	2 1	10 6.32	+17 59.3	1.929	2.885	5.7	21.4
2 11	9 56.35	+13 58.3	1.675	2.660	1.9	19.0	2 11	9 56.89	+18 57.1	1.917	2.899	2.4	21.2
2 21	9 47.65	+14 54.9	1.678	2.661	2.8	19.0	2 21	9 47.05	+19 48.8	1.936	2.913	3.7	21.3
3 2	9 39.49	+15 45.5	1.708	2.662	7.2	19.3	3 2	9 37.87	+20 29.2	1.984	2.926	7.4	21.6
3 12	9 32.89	+16 25.1	1.765	2.664	11.2	19.6	3 12	9 30.27	+20 55.6	2.060	2.938	10.9	21.8
3 22	9 28.51	+16 51.1	1.844	2.665	14.6	19.8	3 22	9 24.86	+21 7.2	2.158	2.949	13.8	22.0
<b>95513</b>	2002 ER <sub>52</sub>		2 15.4 146°85'	0°4/15.8	18		<b>197642</b>	2004 LF <sub>11</sub>		2 15.4 231°15'	1°4/16.4	18	
1 12	10 15.29	+ 8 44.9	2.087	2.897	13.0	20.3	1 12	10 18.45	+ 6 22.0	1.643	2.453	16.0	21.2
1 22	10 10.67	+ 9 22.9	2.008	2.901	9.8	20.1	1 22	10 13.68	+ 6 49.7	1.553	2.444	12.3	20.9
2 1	10 4.10	+10 13.6	1.952	2.904	6.1	19.8	2 1	10 6.28	+ 7 36.1	1.486	2.435	7.9	20.7
2 11	9 56.21	+11 12.9	1.925	2.908	2.0	19.6	2 11	9 56.98	+ 8 37.1	1.445	2.426	3.2	20.3
2 21	9 47.83	+12 14.9	1.927	2.911	2.2	19.6	2 21	9 46.84	+ 9 46.4	1.431	2.416	2.8	20.3
3 2	9 39.93	+13 14.0	1.958	2.914	6.3	19.9	3 2	9 37.16	+10 56.0	1.446	2.405	7.7	20.6
3 12	9 33.38	+14 4.9	2.017	2.917	10.0	20.1	3 12	9 29.19	+11 58.4	1.487	2.395	12.3	20.8
3 22	9 28.78	+14 44.7	2.100	2.920	13.1	20.3	3 22	9 23.79	+12 48.6	1.550	2.383	16.4	21.0
<b>100484</b>	1996 UL <sub>4</sub>		2 15.4 150°45'	4°5/10.7	18		<b>163774</b>	2003 QZ <sub>3</sub>		2 15.4 76°08'	0°9/16.1	18	
1 12	10 18.10	+27 6.6	2.605	3.431	10.2	19.9	1 12	10 18.78	+ 7 31.9	1.512	2.330	16.7	19.8
1 22	10 12.47	+27 58.7	2.539	3.437	7.8	19.8	1 22	10 13.70	+ 8 6.4	1.455	2.351	12.6	19.6
2 1	10 5.05	+28 48.4	2.500	3.443	5.5	19.6	2 1	10 6.08	+ 8 58.0	1.420	2.372	7.9	19.4
2 11	9 56.47	+29 30.0	2.489	3.449	4.5	19.6	2 11	9 56.83	+10 1.0	1.411	2.393	2.8	19.1
2 21	9 47.53	+29 58.9	2.508	3.454	5.6	19.6	2 21	9 47.16	+11 7.8	1.429	2.414	2.7	19.2
3 2	9 39.12	+30 12.1	2.556	3.459	7.9	19.8	3 2	9 38.35	+12 10.5	1.475	2.435	7.5	19.5
3 12	9 32.01	+30 8.9	2.630	3.463	10.3	20.0	3 12	9 31.51	+13 2.8	1.547	2.455	11.9	19.8
3 22	9 26.74	+29 50.7	2.727	3.467	12.4	20.1	3 22	9 27.28	+13 41.3	1.641	2.475	15.6	20.1
<b>263001</b>	2007 ES <sub>115</sub>		2 15.4 353°89'	2°6/17.3	17		<b>334604</b>	2002 TE <sub>314</sub>		2 15.4 117°42'	1°5/17.1	18	
1 12	10 8.85	+ 3 37.1	1.278	2.111	18.3	20.1	1 12	10 13.49	+ 4 16.8	2.454	3.242	12.0	21.1
1 22	10 6.93	+ 4 4.9	1.202	2.103	14.3	19.8	1 22	10 9.02	+ 4 57.1	2.376	3.254	9.2	21.0
2 1	10 2.30	+ 4 59.0	1.145	2.096	9.5	19.5	2 1	10 2.96	+ 5 51.4	2.323	3.266	6.0	20.8
2 11	9 55.74	+ 6 15.7	1.112	2.091	4.5	19.2	2 11	9 55.84	+ 6 56.2	2.299	3.277	2.7	20.6
2 21	9 48.39	+ 7 46.8	1.103	2.088	3.4	19.1	2 21	9 48.37	+ 8 6.8	2.304	3.288	2.1	20.5
3 2	9 41.65	+ 9 21.6	1.119	2.086	8.2	19.4	3 2	9 41.31	+ 9 17.8	2.341	3.299	5.2	20.8
3 12	9 36.81	+10 49.0	1.159	2.085	13.3	19.7	3 12	9 35.36	+10 24.2	2.406	3.310	8.4	21.0
3 22	9 34.72	+12 1.0	1.219	2.087	17.7	20.0	3 22	9 31.04	+11 22.1	2.496	3.320	11.2	21.2
<b>33708</b>	1999 LE <sub>10</sub>		2 15.4 67°46'	5°5/20.4	18		<b>254498</b>	2005 EQ <sub>51</sub>		2 15.4 315°06'	1°3/16.3	18	
1 12	10 14.34	- 5 10.2	1.795	2.556	16.7	17.8	1 12	10 14.55	+ 7 22.4	1.415	2.244	17.1	20.5
1 22	10 10.15	- 5 1.0	1.724	2.572	13.6	17.6	1 22	10 11.14	+ 7 44.5	1.327	2.229	13.1	20.2
2 1	10 3.83	- 4 26.6	1.674	2.587	10.2	17.4	2 1	10 4.91	+ 8 26.5	1.259	2.214	8.4	19.9
2 11	9 56.13	- 3 28.3	1.648	2.603	6.9	17.3	2 11	9 56.59	+ 9 24.4	1.217	2.199	3.2	19.6
2 21	9 47.97	- 2 10.7	1.650	2.618	5.5	17.2	2 21	9 47.32	+10 31.3	1.200	2.185	3.0	19.5
3 2	9 40.41	- 0 41.1	1.679	2.634	7.2	17.4	3 2	9 38.52	+11 38.2	1.210	2.172	8.4	19.8
3 12	9 34.38	+ 0 51.9	1.735	2.650	10.4	17.6	3 12	9 31.59	+12 37.0	1.243	2.159	13.5	20.0
3 22	9 30.51	+ 2 20.2	1.815	2.665	13.6	17.8	3 22	9 27.47	+13 21.9	1.297	2.147	18.0	20.3
<b>266638</b>	2008 RQ <sub>115</sub>		2 15.4 282°17'	0°0/15.4	17		<b>473814</b>	2016 EO <sub>111</sub>		2 15.4 229°03'	6°2/10.8	18	
1 12	10 16.58	+11 12.0	1.940	2.758	13.5	20.9	1 12	10 22.71	+29 2.2	1.925	2.757	13.1	20.5
1 22	10 11.93	+11 30.6	1.845	2.744	10.2	20.7	1 22	10 16.54	+29 51.0	1.856	2.755	10.1	20.3
2 1	10 5.05	+12 0.2	1.775	2.729	6.3	20.4	2 1	10 7.81	+30 35.4	1.811	2.753	7.4	20.1
2 11	9 56.55	+12 36.8	1.731	2.715	2.0	20.1	2 11	9 57.39	+31 7.3	1.794	2.751	6.2	20.0
2 21	9 47.37	+13 15.4	1.716	2.700	2.5	20.1	2 21	9 46.43	+31 20.2	1.805	2.749	7.5	20.1
3 2	9 38.57	+13 50.6	1.730	2.686	7.0	20.4	3 2	9 36.25	+31 11.1	1.843	2.747	10.3	20.3
3 12	9 31.22	+14 18.0	1.770	2.671	11.1	20.6	3 12	9 27.98	+30 40.4	1.905	2.745	13.3	20.5
3 22	9 26.04	+14 34.8	1.834	2.657	14.6	20.8	3 22	9 22.31	+29 51.5	1.989	2.743	16.0	20.7
<b>360220</b>	1999 TU <sub>20</sub>		2 15.4 118°32'	4°1/19.1	18		<b>417759</b>	2007 DZ <sub>50</sub>		2 15.4 334°81'	0°1/15.5	17	
1 12	10 17.76	- 2 2.1	1.955	2.720	15.4	21.6	1 12	10 18.18	+11				

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	
<b>189700</b>	2001 <i>TA</i> <sub>45</sub>	2 15.4 173°36' 11.0°/21.5 18						<b>284203</b>	2006 <i>BK</i> <sub>184</sub>	2 15.4 192°53' 0.5°/14.9 17				
1 12	10 27.65	-10 10.8	0.954	1.727	27.4	21.3	1 12	10 17.80	+13 1.5	2.048	2.866	12.9	21.2	
1 22	10 22.11	-10 41.1	0.885	1.734	23.2	21.0	1 22	10 12.62	+13 20.0	1.966	2.865	9.7	21.0	
2 1	10 12.23	-10 25.3	0.831	1.739	18.3	20.7	2 1	10 5.34	+13 46.8	1.909	2.865	5.9	20.8	
2 11	9 59.00	-9 16.9	0.795	1.742	13.5	20.5	2 11	9 56.65	+14 17.7	1.880	2.864	1.8	20.5	
2 21	9 44.27	-7 18.3	0.780	1.743	11.0	20.4	2 21	9 47.45	+14 48.0	1.880	2.863	2.6	20.5	
3 2	9 30.48	-4 43.4	0.788	1.742	13.2	20.5	3 2	9 38.76	+15 13.1	1.910	2.863	6.7	20.8	
3 12	9 19.85	-1 54.4	0.819	1.740	18.0	20.7	3 12	9 31.52	+15 29.8	1.966	2.862	10.4	21.0	
3 22	9 13.64	+0 47.4	0.869	1.736	23.1	21.0	3 22	9 26.37	+15 36.2	2.046	2.860	13.6	21.2	
<b>133095</b>	2003 <i>NU</i> <sub>6</sub>	2 15.4 191°04' 0.6°/14.9 18						<b>68607</b>	2002 <i>AP</i> <sub>116</sub>	2 15.4 319°48' 0.3°/15.6 18				
1 12	10 20.38	+12 31.4	2.091	2.902	13.0	21.2	1 12	10 16.86	+10 43.7	1.306	2.146	17.6	18.9	
1 22	10 14.53	+13 3.8	2.005	2.901	9.7	21.0	1 22	10 13.11	+10 52.0	1.222	2.131	13.4	18.6	
2 1	10 6.51	+13 45.6	1.944	2.899	5.9	20.7	2 1	10 6.25	+11 15.8	1.158	2.116	8.4	18.2	
2 11	9 57.00	+14 32.2	1.912	2.896	1.8	20.4	2 11	9 57.07	+11 50.6	1.118	2.102	2.8	17.8	
2 21	9 46.91	+15 17.9	1.910	2.892	2.7	20.5	2 21	9 46.85	+12 29.7	1.103	2.088	3.2	17.8	
3 2	9 37.29	+15 57.6	1.938	2.888	6.8	20.7	3 2	9 37.21	+13 5.4	1.114	2.076	9.1	18.1	
3 12	9 29.14	+16 27.5	1.993	2.883	10.6	21.0	3 12	9 29.68	+13 31.4	1.148	2.064	14.4	18.4	
3 22	9 23.12	+16 45.6	2.072	2.877	13.8	21.2	3 22	9 25.25	+13 43.9	1.202	2.052	19.1	18.6	
<b>169326</b>	2001 <i>TO</i> <sub>151</sub>	2 15.4 138°78' 4.4°/10.9 17						<b>413913</b>	2006 <i>WL</i> <sub>74</sub>	2 15.4 142°82' 3.9°/11.9 18				
1 12	10 16.40	+25 24.2	2.424	3.256	10.7	20.3	1 12	10 20.79	+22 25.9	2.155	2.982	12.1	22.0	
1 22	10 11.36	+26 24.3	2.357	3.259	8.1	20.1	1 22	10 14.74	+23 25.5	2.090	2.993	9.0	21.8	
2 1	10 4.45	+27 23.6	2.315	3.263	5.6	19.9	2 1	10 6.57	+24 26.4	2.052	3.004	5.9	21.6	
2 11	9 56.32	+28 16.0	2.302	3.266	4.4	19.9	2 11	9 57.02	+25 21.7	2.043	3.014	3.9	21.5	
2 21	9 47.79	+28 56.1	2.319	3.270	5.7	20.0	2 21	9 47.06	+26 5.0	2.063	3.024	5.3	21.6	
3 2	9 39.76	+29 20.2	2.364	3.273	8.1	20.1	3 2	9 37.73	+26 32.3	2.112	3.033	8.3	21.8	
3 12	9 33.05	+29 27.0	2.435	3.276	10.7	20.3	3 12	9 29.97	+26 42.1	2.188	3.042	11.3	22.0	
3 22	9 28.23	+29 17.6	2.528	3.279	13.1	20.5	3 22	9 24.40	+26 35.5	2.286	3.050	13.9	22.2	
<b>151229</b>	2001 <i>YB</i> <sub>109</sub>	2 15.4 66°62' 5.8°/10.6 18						<b>213605</b>	2002 <i>PU</i> <sub>94</sub>	2 15.4 199°03' 1.9°/13.8 18				
1 12	10 18.25	+24 57.9	1.717	2.562	13.8	19.7	1 12	10 19.09	+15 47.9	2.105	2.926	12.5	21.3	
1 22	10 13.35	+26 21.7	1.663	2.573	10.4	19.5	1 22	10 13.62	+16 35.8	2.021	2.922	9.3	21.1	
2 1	10 5.91	+27 45.4	1.633	2.584	7.3	19.4	2 1	10 6.00	+17 31.2	1.962	2.918	5.6	20.8	
2 11	9 56.81	+28 59.2	1.630	2.595	5.8	19.3	2 11	9 56.88	+18 28.4	1.932	2.914	2.2	20.6	
2 21	9 47.22	+29 54.8	1.655	2.606	7.5	19.4	2 21	9 47.19	+19 21.1	1.931	2.909	3.6	20.7	
3 2	9 38.43	+30 27.1	1.706	2.618	10.6	19.6	3 2	9 37.95	+20 3.8	1.961	2.903	7.4	20.9	
3 12	9 31.54	+30 35.1	1.781	2.629	13.7	19.8	3 12	9 30.16	+20 33.2	2.017	2.897	11.0	21.1	
3 22	9 27.23	+30 21.2	1.875	2.641	16.5	20.1	3 22	9 24.48	+20 48.0	2.096	2.890	14.1	21.3	
<b>145376</b>	2005 <i>NA</i> <sub>6</sub>	2 15.4 252°99' 9.1°/24.9 18						<b>488379</b>	2016 <i>WD</i> <sub>45</sub>	2 15.4 282°20' 19.2°/28.9 16				
1 12	10 14.69	-19 47.6	2.772	3.400	14.2	19.9	1 12	10 29.41	+48 10.1	1.098	1.929	20.8	21.1	
1 22	10 10.07	-20 39.8	2.662	3.384	12.8	19.7	1 22	10 24.98	+51 28.4	1.069	1.926	19.5	21.0	
2 1	10 3.73	-21 11.1	2.571	3.368	11.3	19.6	2 1	10 14.69	+54 17.2	1.059	1.922	19.2	20.9	
2 11	9 56.15	-21 18.6	2.502	3.351	10.0	19.5	2 11	9 59.88	+56 14.1	1.068	1.918	20.2	21.0	
2 21	9 47.97	-21 1.1	2.458	3.334	9.2	19.4	2 21	9 43.41	+57 5.6	1.094	1.914	22.0	21.1	
3 2	9 39.95	-20 19.7	2.440	3.317	9.3	19.4	3 2	9 28.91	+56 50.6	1.135	1.910	24.2	21.2	
3 12	9 32.89	-19 18.7	2.447	3.299	10.3	19.4	3 12	9 19.20	+55 39.6	1.189	1.907	26.4	21.4	
3 22	9 27.39	-18 3.9	2.478	3.281	11.9	19.5	3 22	9 15.28	+53 47.1	1.252	1.903	28.3	21.5	
<b>414833</b>	2010 <i>UJ</i> <sub>76</sub>	2 15.4 133°36' 1.4°/14.2 18						<b>273510</b>	2007 <i>BJ</i> <sub>2</sub>	2 15.4 45°31' 7.2°/9.7 18				
1 12	10 20.18	+15 13.1	2.149	2.965	12.5	21.6	1 12	10 18.03	+24 23.7	1.320	2.178	16.3	19.8	
1 22	10 14.18	+15 47.7	2.080	2.979	9.2	21.4	1 22	10 13.58	+26 33.0	1.291	2.207	12.2	19.6	
2 1	10 6.16	+16 28.6	2.037	2.993	5.5	21.2	2 1	10 6.16	+28 40.5	1.285	2.237	8.6	19.5	
2 11	9 56.86	+17 10.7	2.023	3.006	1.9	21.0	2 11	9 56.91	+30 31.9	1.306	2.268	7.3	19.5	
2 21	9 47.18	+17 48.8	2.038	3.018	3.1	21.1	2 21	9 47.30	+31 55.8	1.352	2.299	9.2	19.7	
3 2	9 38.11	+18 18.4	2.084	3.030	6.8	21.3	3 2	9 38.87	+32 46.6	1.423	2.330	12.5	19.9	
3 12	9 30.53	+18 37.0	2.157	3.041	10.2	21.5	3 12	9 32.83	+33 5.0	1.515	2.362	15.8	20.2	
3 22	9 25.03	+18 43.5	2.254	3.051	13.1	21.8	3 22	9 29.77	+32 55.5	1.626	2.394	18.5	20.5	
<b>369722</b>	2012 <i>DY</i> <sub>78</sub>	2 15.4 333°09' 6.8°/18.5 17						<b>419044</b>	2009 <i>RT</i> <sub>27</sub>	2 15.4 172°80' 2.9°/12.8 16				
1 12	10 17.58	+0 40.2	1.369	2.172	18.9	19.9	1 12	10 21.09	+21 20.9	2.568	3.385	10.7	22.1	
1 22	10 13.52	-0 35.2	1.280	2.156	15.5	19.7	1 22	10 14.68	+21 57.1	2.491	3.389	7.9	21.9	
2 1	10 6.46	-1 33.1	1.210	2.141	11.6	19.4	2 1	10 6.43	+22 34.5	2.440	3.393	5.0	21.7	
2 11	9 57.12	-2 10.5	1.164	2.126	8.0	19.1	2 11	9 56.98	+23 8.1	2.420	3.395	2.9	21.6	
2 21	9 46.71	-2 26.6	1.142	2.113	7.0	19.0	2 21	9 47.14	+23 33.3	2.430	3.397	4.1	21.7	
3 2	9 36.75	-2 23.7	1.145	2.101	9.8	19.1	3 2	9 37.80	+23 47.0	2.471	3.399	6.9	21.8	
3 12	9 28.75	-2 7.7	1.172	2.089	14.0	19.3	3 12	9 29.76	+23 47.8	2.540	3.399	9.7	22.0	
3 22	9 23.73	-1 45.8	1.218	2.079	18.1	19.6	3 22	9 23.60	+23 36.1	2.632	3.399	12.2	22.2	
<b>14559</b>	1997 <i>WP</i> <sub>28</sub>	2 15.4 117°61' 3.3°/18.3 18						<b>58026</b>	2002 <i>VS</i> <sub>55</sub>	2 15.4 285°93' 1.1°/14.8 18				
1 12	10 15.96	+1 22.1	2.350	3.123	12.9	18.9	1 12	10 20.19	+13 24.4	1.359	2.197	17.1	18.9	
1 22	10 10.93	+1 13.6	2.269	3.132	10.2	18.7	1 22	10 15.50	+13 46.3	1.278	2.187	12.9	18.6	
2 1	10 4.16	+1 19.3	2.212	3.141	7.2	18.5	2 1	10 7.66	+14 20.9	1.218	2.177	7.9	18.3	
2 11	9 56.25	+1 38.0	2.182	3.149	4.3	18.4	2 11	9 57.51	+15 2.1	1.183	2.168	2.5	17.9	
2 21	9 47.95	+2 7.1	2.182	3.158	3.4	18.3	2 21	9 46.39	+15 42.1	1.175	2.158	3.8	18.0	
3 2	9 40.08	+2 42.7	2.211	3.166	5.7	18.5	3 2	9 35.94	+16 13.5	1.193	2.149	9.4	18.3	
3 12	9 33.42	+3 20.2	2.268	3.174	8.7	18.7	3 12	9 27.66	+16 31.1	1.234	2.139	14.5	18.5	
3 22	9 28.50	+3 55.8	2.350	3.182	11.5	18.9	3 22	9 22.52	+16 33.0	1.295	2.130	18.9	18.8	
<b>253186</b>	2002 <i>XH</i> <sub>24</sub>	2 15.4 41°10' 9.3°/7.9 18						<b>230507</b>	2002 <i>VQ</i> <sub>9</sub>	2 15.4 21°25' 2.1°/16.5 18				
1 12	10 18.89	+31 22.7	1.440	2.292	15.5	19.8	1 12	10 19.69	+8 8.0	1.178	2.013	19.4	19.8	
1 22	10 14.40	+33 18.9	1.398	2.304	12.3	19.7	1 22	10 15.21	+7 52.7	1.112				

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>407793</b>	2011 YF <sub>20</sub>		2 15.4	80°73	3°0/17.4	18							
1 12	10 19.25	+ 4 36.7	1.620	2.423	16.5	21.0							
1 22	10 14.07	+ 4 26.5	1.548	2.432	12.8	20.7							
2 1	10 6.39	+ 4 33.3	1.499	2.441	8.6	20.5							
2 11	9 57.03	+ 4 55.0	1.474	2.450	4.4	20.3							
2 21	9 47.12	+ 5 27.3	1.477	2.459	3.5	20.2							
3 2	9 37.90	+ 6 4.6	1.508	2.468	7.3	20.5							
3 12	9 30.50	+ 6 40.8	1.565	2.477	11.5	20.7							
3 22	9 25.63	+ 7 11.3	1.644	2.486	15.1	21.0							
<b>22349</b>	1992 UH		2 15.4	121°84	0°0/15.4	18							
1 12	10 21.16	+10 39.6	1.953	2.761	13.9	19.3							
1 22	10 15.03	+11 9.4	1.888	2.781	10.4	19.1							
2 1	10 6.75	+11 49.9	1.846	2.799	6.3	18.9							
2 11	9 57.10	+12 36.3	1.833	2.817	2.0	18.6							
2 21	9 47.07	+13 22.9	1.850	2.834	2.5	18.7							
3 2	9 37.72	+14 4.5	1.897	2.851	6.7	19.0							
3 12	9 30.01	+14 37.1	1.971	2.866	10.4	19.2							
3 22	9 24.52	+14 58.5	2.069	2.881	13.6	19.5							
<b>456724</b>	2007 SZ <sub>5</sub>		2 15.4	91°71	0°2/15.6	18							
1 12	10 21.79	+10 11.4	1.679	2.494	15.5	21.7							
1 22	10 15.70	+10 36.7	1.623	2.519	11.6	21.5							
2 1	10 7.22	+11 14.4	1.590	2.543	7.1	21.3							
2 11	9 57.24	+11 59.0	1.584	2.568	2.2	21.0							
2 21	9 46.92	+12 44.5	1.607	2.591	2.6	21.1							
3 2	9 37.48	+13 24.8	1.659	2.614	7.2	21.4							
3 12	9 29.94	+13 55.6	1.737	2.637	11.3	21.7							
3 22	9 24.90	+14 14.8	1.838	2.659	14.7	22.0							
<b>492317</b>	2014 BE <sub>26</sub>		2 15.4	41°18	0°6/15.9	18							
1 12	10 14.11	+ 9 3.9	2.130	2.942	12.7	21.0							
1 22	10 9.75	+ 9 23.9	2.056	2.949	9.6	20.8							
2 1	10 3.54	+ 9 55.1	2.005	2.957	6.0	20.6							
2 11	9 56.11	+10 33.8	1.982	2.965	2.1	20.4							
2 21	9 48.29	+11 15.5	1.988	2.973	2.1	20.4							
3 2	9 40.95	+11 55.5	2.023	2.981	5.9	20.7							
3 12	9 34.92	+12 29.5	2.085	2.989	9.5	20.9							
3 22	9 30.76	+12 54.8	2.172	2.998	12.5	21.1							
<b>51230</b>	2000 JL <sub>27</sub>		2 15.4	309°78	6°1/10.1	18							
1 12	10 19.68	+29 53.2	2.145	2.976	11.9	19.0							
1 22	10 14.12	+30 48.2	2.077	2.974	9.3	18.9							
2 1	10 6.30	+31 38.7	2.034	2.972	7.0	18.7							
2 11	9 56.99	+32 17.4	2.018	2.970	6.1	18.7							
2 21	9 47.19	+32 38.4	2.031	2.968	7.3	18.7							
3 2	9 38.05	+32 38.5	2.071	2.966	9.8	18.9							
3 12	9 30.55	+32 17.8	2.135	2.965	12.5	19.0							
3 22	9 25.34	+31 39.0	2.220	2.963	14.9	19.2							
<b>122310</b>	2000 QJ <sub>9</sub>		2 15.4	256°71	1°6/16.8	17							
1 12	10 16.68	+ 7 21.5	2.503	3.296	11.6	20.2							
1 22	10 11.50	+ 7 12.7	2.405	3.286	9.0	20.0							
2 1	10 4.58	+ 7 13.2	2.332	3.276	5.8	19.8							
2 11	9 56.45	+ 7 21.3	2.287	3.266	2.6	19.5							
2 21	9 47.83	+ 7 34.5	2.273	3.256	2.2	19.5							
3 2	9 39.54	+ 7 49.7	2.289	3.246	5.4	19.7							
3 12	9 32.36	+ 8 3.8	2.333	3.236	8.7	19.9							
3 22	9 26.86	+ 8 14.2	2.402	3.225	11.6	20.1							
<b>217569</b>	2007 TQ <sub>324</sub>		2 15.4	250°01	0°9/16.1	17							
1 12	10 20.59	+ 8 55.6	1.888	2.694	14.4	21.2							
1 22	10 15.12	+ 9 6.3	1.785	2.675	11.0	21.0							
2 1	10 7.16	+ 9 29.9	1.706	2.656	7.0	20.7							
2 11	9 57.35	+10 3.2	1.653	2.636	2.6	20.4							
2 21	9 46.65	+10 41.4	1.630	2.615	2.6	20.3							
3 2	9 36.28	+11 19.1	1.636	2.593	7.2	20.6							
3 12	9 27.40	+11 51.1	1.669	2.571	11.6	20.8							
3 22	9 20.88	+12 14.0	1.726	2.548	15.4	21.0							
<b>203626</b>	2002 FQ <sub>16</sub>		2 15.4	8°66	6°0/11.4	18							
1 12	10 14.02	+20 40.5	1.099	1.969	17.9	19.2							
1 22	10 11.31	+22 11.2	1.044	1.970	13.4	18.9							
2 1	10 5.20	+23 50.0	1.011	1.972	8.7	18.7							
2 11	9 56.75	+25 23.1	1.000	1.976	6.0	18.6							
2 21	9 47.51	+26 37.0	1.014	1.981	8.3	18.7							
3 2	9 39.28	+27 22.2	1.050	1.987	12.9	19.0							
3 12	9 33.61	+27 36.1	1.107	1.994	17.3	19.2							
3 22	9 31.30	+27 21.1	1.181	2.002	21.1	19.5							
<b>206947</b>	2004 RU <sub>178</sub>		2 15.4	76°59	3°5/17.6	18							
1 12	10 20.64	+ 3 48.9	1.445	2.251	18.0	20.3							
1 22	10 15.30	+ 3 33.2	1.380	2.264	14.0	20.1							
2 1	10 7.21	+ 3 37.0	1.336	2.278	9.5	19.8							
2 11	9 57.31	+ 3 58.1	1.316	2.291	5.0	19.6							
2 21	9 46.84	+ 4 32.0	1.323	2.305	4.0	19.6							
3 2	9 37.22	+ 5 12.4	1.358	2.318	7.9	19.8							
3 12	9 29.66	+ 5 52.2	1.417	2.332	12.3	20.1							
3 22	9 24.90	+ 6 26.2	1.498	2.345	16.1	20.4							
<b>3231</b>	Mila		2 15.4	113°45	0°1/15.5	18							
1 12	10 21.45	+11 19.7	1.749	2.564	14.9	17.5							
1 22	10 15.52	+11 31.0	1.680	2.577	11.2	17.3							
2 1	10 7.19	+11 52.8	1.634	2.588	6.9	17.0							
2 11	9 57.27	+12 20.8	1.616	2.600	2.2	16.8							
2 21	9 46.89	+12 49.7	1.627	2.611	2.6	16.8							
3 2	9 37.25	+13 14.6	1.666	2.622	7.2	17.1							
3 12	9 29.41	+13 31.5	1.732	2.633	11.3	17.4							
3 22	9 24.04	+13 38.6	1.821	2.643	14.8	17.6							
<b>451654</b>	2012 UN <sub>151</sub>		2 15.4	76°99	1°9/16.7	17							
1 12	10 20.12	+ 5 40.4	1.307	2.127	18.7	21.7							
1 22	10 15.07	+ 6 3.9	1.251	2.146	14.3	21.5							
2 1	10 7.12	+ 6 48.7	1.215	2.165	9.2	21.2							
2 11	9 57.28	+ 7 49.4	1.204	2.184	3.8	21.0							
2 21	9 46.93	+ 8 58.0	1.219	2.203	3.1	21.0							
3 2	9 37.56	+10 5.2	1.260	2.222	8.2	21.3							
3 12	9 30.44	+11 3.2	1.327	2.241	13.0	21.6							
3 22	9 26.27	+11 47.3	1.414	2.259	17.0	21.9							
<b>498910</b>	2009 AS <sub>30</sub>												

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>412958</b>	2014 <i>QN</i> <sub>277</sub>		2 15.4 140°11	0°2/15.3	18		<b>274977</b>	2009 <i>SH</i> <sub>356</sub>		2 15.4 284°45	0°7/15.9	18	
1 12	10 18.87	+10 7.3	2.086	2.893	13.1	22.2	1 12	10 16.85	+9 12.7	1.873	2.687	14.1	21.7
1 22	10 13.32	+10 55.2	2.014	2.907	9.8	22.0	1 22	10 12.14	+9 27.8	1.790	2.685	10.7	21.5
2 1	10 5.74	+11 54.6	1.967	2.920	6.0	21.8	2 1	10 5.20	+9 55.3	1.730	2.683	6.7	21.2
2 11	9 56.83	+13 0.5	1.948	2.932	1.8	21.5	2 11	9 56.73	+10 31.7	1.698	2.680	2.4	21.0
2 21	9 47.49	+14 6.7	1.960	2.943	2.4	21.6	2 21	9 47.68	+11 11.9	1.694	2.678	2.4	20.9
3 2	9 38.70	+15 7.2	2.002	2.954	6.5	21.9	3 2	9 39.13	+11 50.6	1.718	2.676	6.8	21.2
3 12	9 31.36	+15 57.4	2.072	2.964	10.1	22.1	3 12	9 32.09	+12 22.8	1.769	2.674	10.8	21.5
3 22	9 26.08	+16 34.8	2.165	2.973	13.2	22.3	3 22	9 27.26	+12 45.6	1.843	2.672	14.3	21.7
<b>503042</b>	2015 <i>FJ</i> <sub>151</sub>		2 15.4 67°24	3°7/19.5	18		<b>520905</b>	2014 <i>WY</i> <sub>528</sub>		2 15.4 47°60	5°9/10.9	18	
1 12	10 11.94	- 2 39.3	2.312	3.074	13.4	21.2	1 12	10 19.55	+27 9.7	1.817	2.657	13.4	20.7
1 22	10 8.05	- 2 13.7	2.230	3.082	10.8	21.1	1 22	10 14.20	+28 7.9	1.763	2.668	10.2	20.5
2 1	10 2.48	- 1 29.0	2.170	3.090	7.8	20.9	2 1	10 6.42	+29 3.1	1.733	2.680	7.3	20.4
2 11	9 55.81	- 0 27.1	2.137	3.098	4.9	20.7	2 11	9 57.08	+29 46.8	1.730	2.691	5.9	20.3
2 21	9 48.75	+ 0 48.1	2.132	3.106	3.8	20.7	2 21	9 47.34	+30 12.7	1.754	2.703	7.3	20.4
3 2	9 42.08	+ 2 10.7	2.157	3.115	5.7	20.8	3 2	9 38.43	+30 17.1	1.805	2.716	10.1	20.6
3 12	9 36.56	+ 3 34.3	2.211	3.123	8.6	21.0	3 12	9 31.41	+30 0.3	1.880	2.728	13.1	20.8
3 22	9 32.69	+ 4 53.1	2.290	3.131	11.5	21.2	3 22	9 26.90	+29 25.1	1.975	2.741	15.8	21.0
<b>296216</b>	2009 <i>CE</i> <sub>26</sub>		2 15.4 228°93	1°8/13.8	17		<b>124987</b>	2001 <i>TO</i> <sub>133</sub>		2 15.4 128°51	2°6/12.9	18	
1 12	10 17.13	+17 42.7	2.527	3.347	10.7	21.3	1 12	10 17.54	+16 56.2	2.054	2.881	12.6	20.2
1 22	10 11.83	+18 5.0	2.441	3.342	8.0	21.1	1 22	10 12.44	+18 7.4	1.988	2.893	9.2	20.0
2 1	10 4.77	+18 31.0	2.380	3.336	4.8	20.9	2 1	10 5.28	+19 25.4	1.947	2.904	5.6	19.8
2 11	9 56.53	+18 56.6	2.349	3.331	2.0	20.7	2 11	9 56.74	+20 43.2	1.935	2.915	2.8	19.6
2 21	9 47.86	+19 17.7	2.348	3.325	3.1	20.8	2 21	9 47.74	+21 53.4	1.952	2.925	4.2	19.8
3 2	9 39.59	+19 31.0	2.377	3.319	6.3	21.0	3 2	9 39.31	+22 50.4	1.999	2.935	7.7	20.0
3 12	9 32.51	+19 34.4	2.433	3.313	9.3	21.2	3 12	9 32.36	+23 30.7	2.072	2.944	11.1	20.2
3 22	9 27.18	+19 27.5	2.514	3.306	12.0	21.3	3 22	9 27.52	+23 53.6	2.168	2.953	13.9	20.4
<b>474072</b>	2016 <i>JD</i> <sub>23</sub>		2 15.4 309°30	1°9/17.0	18		<b>164443</b>	2006 <i>DH</i> <sub>35</sub>		2 15.4 192°58	1°3/16.9	18 R	
1 12	10 14.57	+ 5 18.7	1.946	2.748	14.1	21.2	1 12	10 14.49	+ 5 18.6	3.004	3.784	10.2	21.7
1 22	10 10.37	+ 5 35.5	1.859	2.744	10.9	21.0	1 22	10 9.63	+ 5 46.4	2.907	3.781	7.8	21.6
2 1	10 4.09	+ 6 7.9	1.795	2.740	7.2	20.8	2 1	10 3.35	+ 6 24.9	2.837	3.778	5.1	21.4
2 11	9 56.36	+ 6 53.1	1.758	2.737	3.3	20.5	2 11	9 56.11	+ 7 11.7	2.796	3.774	2.3	21.2
2 21	9 48.05	+ 7 46.5	1.749	2.733	2.6	20.5	2 21	9 48.50	+ 8 3.5	2.787	3.770	1.8	21.1
3 2	9 40.18	+ 8 42.1	1.769	2.729	6.4	20.7	3 2	9 41.15	+ 8 56.5	2.809	3.765	4.6	21.3
3 12	9 33.69	+ 9 34.0	1.816	2.726	10.3	20.9	3 12	9 34.69	+ 9 46.8	2.860	3.760	7.4	21.5
3 22	9 29.26	+10 18.0	1.886	2.722	13.7	21.1	3 22	9 29.59	+10 31.4	2.938	3.753	9.9	21.7
<b>143367</b>	2003 <i>BA</i> <sub>8</sub>		2 15.4 65°69	5°2/20.0	18		<b>161150</b>	2002 <i>SL</i> <sub>25</sub>		2 15.4 166°78	0°2/15.6	18	
1 12	10 14.74	- 4 18.5	1.650	2.422	17.5	19.6	1 12	10 20.64	+ 8 58.7	1.764	2.574	15.0	21.6
1 22	10 10.65	- 3 58.8	1.582	2.438	14.2	19.4	1 22	10 15.07	+ 9 43.4	1.686	2.579	11.3	21.4
2 1	10 4.29	- 3 12.1	1.534	2.454	10.4	19.2	2 1	10 7.05	+10 43.4	1.632	2.584	7.0	21.1
2 11	9 56.42	- 2 0.4	1.510	2.470	6.8	19.1	2 11	9 57.33	+11 53.0	1.605	2.588	2.3	20.8
2 21	9 48.07	- 0 29.5	1.513	2.486	5.2	19.0	2 21	9 46.99	+13 5.0	1.607	2.591	2.7	20.9
3 2	9 40.37	+ 1 12.0	1.544	2.503	7.4	19.2	3 2	9 37.23	+14 12.0	1.639	2.594	7.4	21.2
3 12	9 34.33	+ 2 54.2	1.602	2.519	10.9	19.4	3 12	9 29.19	+15 7.9	1.698	2.595	11.6	21.4
3 22	9 30.60	+ 4 28.7	1.683	2.535	14.3	19.7	3 22	9 23.60	+15 49.5	1.779	2.596	15.2	21.7
<b>17822</b>	1998 <i>FM</i> <sub>135</sub>		2 15.4 158°29	1°5/17.1	18		<b>303267</b>	2004 <i>RV</i> <sub>136</sub>		2 15.4 185°82	0°7/14.9	18	
1 12	10 13.77	+ 5 17.5	2.782	3.567	10.8	19.3	1 12	10 20.92	+12 31.3	1.790	2.608	14.5	22.1
1 22	10 9.14	+ 5 34.2	2.696	3.572	8.3	19.1	1 22	10 15.30	+13 3.7	1.709	2.609	10.9	21.8
2 1	10 3.05	+ 6 1.7	2.635	3.576	5.4	18.9	2 1	10 7.20	+13 47.1	1.653	2.608	6.6	21.6
2 11	9 56.00	+ 6 37.8	2.602	3.580	2.5	18.7	2 11	9 57.38	+14 36.0	1.623	2.607	2.0	21.3
2 21	9 48.60	+ 7 19.3	2.600	3.583	2.0	18.7	2 21	9 46.92	+15 23.9	1.623	2.606	3.0	21.3
3 2	9 41.54	+ 8 2.5	2.629	3.587	4.8	18.9	3 2	9 37.04	+16 4.8	1.652	2.604	7.6	21.6
3 12	9 35.45	+ 8 43.5	2.687	3.590	7.7	19.1	3 12	9 28.87	+16 34.3	1.707	2.601	11.8	21.9
3 22	9 30.81	+ 9 19.4	2.770	3.592	10.2	19.2	3 22	9 23.16	+16 50.4	1.784	2.598	15.4	22.1
<b>396811</b>	2004 <i>PJ</i> <sub>102</sub>		2 15.4 107°16	2°2/17.2	18		<b>366995</b>	2005 <i>YR</i> <sub>188</sub>		2 15.5 122°46	6°8/20.5	18	
1 12	10 19.81	+ 3 54.8	1.695	2.491	16.1	21.8	1 12	10 23.89	- 7 30.8	2.394	3.102	14.4	21.2
1 22	10 14.32	+ 4 24.3	1.631	2.512	12.4	21.6	1 22	10 16.83	- 8 37.8	2.314	3.118	12.1	21.0
2 1	10 6.47	+ 5 12.8	1.589	2.532	8.1	21.4	2 1	10 7.83	- 9 27.7	2.257	3.134	9.7	20.9
2 11	9 57.09	+ 6 16.0	1.574	2.552	3.7	21.2	2 11	9 57.53	- 9 58.2	2.227	3.149	7.6	20.8
2 21	9 47.28	+ 7 27.4	1.587	2.571	2.9	21.2	2 21	9 46.77	-10 9.4	2.226	3.164	6.8	20.7
3 2	9 38.21	+ 8 39.3	1.630	2.589	6.9	21.4	3 2	9 36.50	-10 3.1	2.255	3.178	7.7	20.8
3 12	9 30.92	+ 9 44.8	1.699	2.607	11.0	21.7	3 12	9 27.57	- 9 43.6	2.312	3.192	9.8	21.0
3 22	9 26.04	+10 39.2	1.791	2.624	14.5	22.0	3 22	9 20.60	- 9 16.1	2.394	3.205	12.0	21.1
<b>147542</b>	2004 <i>ET</i> <sub>31</sub>		2 15.4 200°69	1°1/16.2	18		<b>328808</b>	2009 <i>VT</i> <sub>57</sub>		2 15.5 157°50	5°3/9.8	18	
1 12	10 22.11	+ 8 34.2	1.707	2.515	15.5	20.2	1 12	10 19.94	+28 28.7	2.482	3.307	10.7	21.7
1 22	10 16.31	+ 8 42.2	1.621	2.512	11.9	20.0	1 22	10 14.04	+29 42.5	2.419	3.315	8.3	21.6
2 1	10 7.89	+ 9 3.9	1.559	2.509	7.6	19.7	2 1	10 6.18	+30 53.4	2.384	3.322	6.1	21.5
2 11	9 57.60	+ 9 36.0	1.523	2.504	2.8	19.4	2 11	9 57.01	+31 54.4	2.377	3.329	5.3	21.4
2 21	9 46.57	+10 13.1	1.515	2.500	2.7	19.4	2 21	9 47.43	+32 39.8	2.400	3.335	6.5	21.5
3 2	9 36.09	+10 49.6	1.536	2.494	7.5	19.7	3 2	9 38.37	+33 6.1	2.452	3.340	8.8	21.7
3 12	9 27.39	+11 20.0	1.584	2.488	11.9	19.9	3 12	9 30.73	+33 12.8	2.529	3.345	11.2	21.8
3 22	9 21.27	+11 41.1	1.654	2.481	15.8	20.1	3 22	9 25.09	+33 1.5	2.627	3.349	13.3	22.0
<b>155303</b>	2005 <i>YU</i> <sub>53</sub>		2 15.4 223°44	1°0/16.4	17		<b>488849</b>	2005 <i>SL</i> <sub>1</sub>		2 15.5 142°23	2°4/13.1	18	
1 12	10 16.5												

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2 15.5

2 15.5

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>365745</b>	2010 <i>WS</i> <sub>26</sub>		2 15.5 114°87'	2.6/13.3	18		<b>288601</b>	2004 <i>KP</i> <sub>6</sub>		2 15.5 293°34'	1.4/14.1	17	
1 12	10 20.24	+17 59.1	2.021	2.846	12.8	21.0	1 12	10 13.53	+14 28.9	2.285	3.109	11.6	20.4
1 22	10 14.39	+18 49.5	1.960	2.864	9.4	20.8	1 22	10 9.41	+15 16.0	2.196	3.100	8.6	20.2
2 1	10 6.41	+19 44.5	1.925	2.881	5.8	20.6	2 1	10 3.45	+16 11.4	2.133	3.090	5.2	19.9
2 11	9 57.08	+20 37.9	1.918	2.898	2.8	20.4	2 11	9 56.21	+17 10.1	2.098	3.081	1.8	19.7
2 21	9 47.39	+21 23.3	1.940	2.914	4.1	20.5	2 21	9 48.45	+18 6.6	2.092	3.072	3.0	19.7
3 2	9 38.37	+21 56.2	1.992	2.930	7.6	20.8	3 2	9 41.04	+18 55.7	2.116	3.063	6.6	20.0
3 12	9 30.97	+22 14.2	2.071	2.945	11.0	21.0	3 12	9 34.83	+19 33.5	2.167	3.054	10.0	20.2
3 22	9 25.77	+22 17.3	2.172	2.960	13.8	21.2	3 22	9 30.41	+19 58.1	2.241	3.045	13.0	20.3
<b>271715</b>	2004 <i>RK</i> <sub>204</sub>		2 15.5 128°96'	2.0/17.5	18		<b>399478</b>	2002 <i>RS</i> <sub>267</sub>		2 15.5 98°22'	2.1/13.6	18	
1 12	10 17.75	+ 4 2.2	2.595	3.370	11.7	21.1	1 12	10 19.87	+15 6.7	1.915	2.737	13.5	21.6
1 22	10 12.08	+ 4 11.6	2.519	3.388	9.1	21.0	1 22	10 14.14	+16 16.9	1.861	2.764	9.9	21.4
2 1	10 4.83	+ 4 32.9	2.469	3.406	6.1	20.8	2 1	10 6.27	+17 34.9	1.833	2.790	5.9	21.2
2 11	9 56.57	+ 5 3.9	2.448	3.423	3.1	20.6	2 11	9 57.05	+18 53.1	1.834	2.816	2.4	21.0
2 21	9 48.01	+ 5 41.3	2.458	3.439	2.4	20.6	2 21	9 47.50	+20 4.2	1.864	2.841	3.9	21.2
3 2	9 39.89	+ 6 21.3	2.498	3.455	5.1	20.8	3 2	9 38.68	+21 2.1	1.924	2.865	7.6	21.5
3 12	9 32.92	+ 7 0.0	2.568	3.469	8.0	21.0	3 12	9 31.53	+21 43.5	2.010	2.888	11.1	21.7
3 22	9 27.59	+ 7 34.1	2.663	3.484	10.7	21.2	3 22	9 26.62	+22 7.9	2.119	2.911	14.0	21.9
<b>519601</b>	2012 <i>TT</i> <sub>329</sub>		2 15.5 172°98'	6.4/22.3	17		<b>377235</b>	2004 <i>BS</i> <sub>34</sub>		2 15.5 12°05'	0.0/15.5	18	
1 12	10 13.16	-10 17.9	2.499	3.209	13.8	21.7	1 12	10 16.33	+12 1.1	1.783	2.609	14.2	19.9
1 22	10 8.94	-10 34.3	2.407	3.209	11.8	21.6	1 22	10 11.79	+12 6.7	1.709	2.611	10.7	19.7
2 1	10 3.06	-10 30.3	2.336	3.210	9.5	21.4	2 1	10 5.00	+12 22.0	1.658	2.614	6.6	19.5
2 11	9 56.06	-10 5.1	2.289	3.210	7.5	21.3	2 11	9 56.70	+12 43.0	1.634	2.618	2.1	19.2
2 21	9 48.61	- 9 20.3	2.269	3.211	6.4	21.2	2 21	9 47.90	+13 5.1	1.637	2.622	2.6	19.2
3 2	9 41.49	- 8 19.4	2.278	3.211	7.1	21.2	3 2	9 39.70	+13 23.5	1.669	2.627	7.0	19.5
3 12	9 35.42	- 7 7.9	2.314	3.211	9.0	21.4	3 12	9 33.13	+13 34.7	1.727	2.632	11.0	19.8
3 22	9 30.97	- 5 52.2	2.375	3.211	11.3	21.5	3 22	9 28.82	+13 36.7	1.807	2.638	14.5	20.0
<b>433215</b>	2012 <i>UW</i> <sub>115</sub>		2 15.5 143°90'	1.6/17.1	17		<b>27913</b>	1996 <i>TC</i> <sub>41</sub>		2 15.5 56°07'	1.8/17.3	18	
1 12	10 14.56	+ 5 32.8	2.683	3.469	11.1	21.9	1 12	10 12.86	+ 3 54.1	2.130	2.925	13.3	18.5
1 22	10 12.08	+ 5 46.6	2.600	3.476	8.5	21.8	1 22	10 8.89	+ 4 29.8	2.051	2.932	10.3	18.4
2 1	10 3.46	+ 6 11.3	2.542	3.483	5.6	21.6	2 1	10 3.10	+ 5 21.7	1.995	2.938	6.8	18.1
2 11	9 56.16	+ 6 44.6	2.512	3.490	2.6	21.4	2 11	9 56.10	+ 6 26.3	1.967	2.945	3.1	17.9
2 21	9 48.52	+ 7 23.2	2.513	3.496	2.0	21.4	2 21	9 48.67	+ 7 38.5	1.968	2.952	2.4	17.9
3 2	9 41.24	+ 8 3.4	2.544	3.502	4.9	21.6	3 2	9 41.67	+ 8 52.0	1.999	2.959	5.8	18.1
3 12	9 35.00	+ 8 41.4	2.605	3.508	7.9	21.8	3 12	9 35.92	+10 0.9	2.057	2.966	9.3	18.3
3 22	9 30.26	+ 9 14.3	2.690	3.513	10.5	21.9	3 22	9 31.99	+11 0.6	2.140	2.973	12.4	18.6
<b>375050</b>	2007 <i>LJ</i> <sub>22</sub>		2 15.5 103°80'	2.0/13.3	18		<b>79158</b>	1993 <i>FB</i> <sub>17</sub>		2 15.5 227°90'	3.1/19.1	17	
1 12	10 15.53	+14 44.9	2.157	2.981	12.2	20.5	1 12	10 12.33	- 1 21.7	2.658	3.417	11.9	20.3
1 22	10 10.85	+16 4.1	2.092	2.996	8.9	20.3	1 22	10 8.25	- 0 56.0	2.557	3.411	9.5	20.1
2 1	10 4.26	+17 31.8	2.053	3.010	5.3	20.1	2 1	10 2.63	- 0 13.9	2.481	3.404	6.8	19.9
2 11	9 56.43	+19 1.0	2.043	3.025	2.2	19.9	2 11	9 55.95	+ 0 43.1	2.432	3.396	4.2	19.8
2 21	9 48.19	+20 24.7	2.064	3.039	3.7	20.0	2 21	9 48.83	+ 1 51.6	2.413	3.389	3.2	19.7
3 2	9 40.46	+21 36.4	2.114	3.053	7.1	20.3	3 2	9 41.98	+ 3 6.8	2.424	3.381	5.2	19.8
3 12	9 34.09	+22 32.4	2.191	3.067	10.4	20.5	3 12	9 36.08	+ 4 23.3	2.465	3.373	8.0	20.0
3 22	9 29.65	+23 11.2	2.292	3.080	13.2	20.7	3 22	9 31.65	+ 5 36.1	2.531	3.365	10.7	20.1
<b>496581</b>	2015 <i>BS</i> <sub>26</sub>		2 15.5 183°08'	0.1/15.4	17		<b>100797</b>	1998 <i>FP</i> <sub>78</sub>		2 15.5 196°82'	5.2/ 9.8	18	
1 12	10 13.93	+ 9 36.2	2.515	3.321	11.2	21.3	1 12	10 17.95	+30 2.7	2.693	3.518	10.0	19.9
1 22	10 9.48	+10 26.0	2.429	3.321	8.4	21.1	1 22	10 12.49	+30 58.8	2.623	3.516	7.8	19.8
2 1	10 3.37	+11 26.7	2.368	3.321	5.1	20.9	2 1	10 5.22	+31 51.2	2.579	3.514	5.9	19.7
2 11	9 56.16	+12 34.0	2.337	3.320	1.6	20.7	2 11	9 56.75	+32 33.8	2.564	3.512	5.2	19.6
2 21	9 48.51	+13 42.8	2.336	3.320	2.0	20.7	2 21	9 47.88	+33 2.0	2.577	3.509	6.3	19.7
3 2	9 41.20	+14 48.0	2.366	3.319	5.6	20.9	3 2	9 39.47	+33 13.0	2.620	3.507	8.4	19.8
3 12	9 34.97	+15 45.1	2.424	3.317	8.8	21.1	3 12	9 32.34	+33 6.2	2.687	3.504	10.6	19.9
3 22	9 30.36	+16 31.2	2.507	3.316	11.6	21.3	3 22	9 27.04	+32 43.3	2.777	3.501	12.6	20.1
<b>351850</b>	2006 <i>RM</i> <sub>22</sub>		2 15.5 155°61'	3.3/19.4	17		<b>241346</b>	2007 <i>WM</i> <sub>19</sub>		2 15.5 185°67'	3.6/11.6	18	
1 12	10 14.05	- 2 1.9	3.107	3.851	10.7	22.2	1 12	10 15.35	+22 21.2	2.481	3.312	10.5	21.0
1 22	10 9.20	- 2 1.3	3.018	3.859	8.6	22.0	1 22	10 10.64	+23 24.5	2.407	3.312	7.9	20.9
2 1	10 3.05	- 1 47.6	2.954	3.866	6.3	21.9	2 1	10 4.13	+24 29.8	2.359	3.311	5.2	20.7
2 11	9 56.03	- 1 21.8	2.917	3.873	4.2	21.7	2 11	9 56.42	+25 31.1	2.340	3.311	3.6	20.6
2 21	9 48.70	- 0 46.1	2.911	3.880	3.4	21.7	2 21	9 48.28	+26 22.7	2.351	3.310	4.9	20.7
3 2	9 41.67	- 0 3.4	2.936	3.886	4.8	21.8	3 2	9 40.54	+27 0.5	2.390	3.309	7.6	20.8
3 12	9 35.51	+ 0 42.4	2.989	3.892	7.0	21.9	3 12	9 34.02	+27 22.3	2.457	3.308	10.3	21.0
3 22	9 30.66	+ 1 27.7	3.070	3.897	9.2	22.1	3 22	9 29.29	+27 28.2	2.545	3.307	12.7	21.2
<b>64989</b>	2002 <i>AG</i> <sub>54</sub>		2 15.5 175°42'	0.0/15.5	18		<b>151165</b>	2001 <i>XB</i> <sub>140</sub>		2 15.5 88°35'	1.2/16.4	18	
1 12	10 19.46	+10 0.0	1.805	2.619	14.6	20.8	1 12	10 17.36	+ 7 24.2	1.848	2.656	14.5	20.5
1 22	10 14.17	+10 37.1	1.725	2.621	11.0	20.6	1 22	10 12.44	+ 7 41.4	1.777	2.667	11.0	20.3
2 1	10 6.50	+11 27.7	1.669	2.623	6.8	20.3	2 1	10 5.34	+ 8 12.7	1.729	2.678	7.0	20.0
2 11	9 57.18	+12 26.7	1.640	2.624	2.1	20.0	2 11	9 56.81	+ 8 54.3	1.708	2.689	2.8	19.8
2 21	9 47.24	+13 27.5	1.641	2.625	2.7	20.1	2 21	9 47.82	+ 9 40.9	1.715	2.700	2.4	19.8
3 2	9 37.86	+14 23.4	1.670	2.625	7.3	20.3	3 2	9 39.44	+10 27.0	1.751	2.710	6.6	20.1
3 12	9 30.13	+15 9.1	1.726	2.624	11.4	20.6	3 12	9 32.63	+11 7.2	1.814	2.721	10.5	20.3
3 22	9 24.76	+15 41.4	1.805	2.623	15.0	20.8	3 22	9 28.01	+11 38.2	1.900	2.731	13.9	20.6
<b>3479</b>	Malaparte		2 15.5 223°94'	3.9/19.6	18		<b>136090</b>	2003 <i>BZ</i> <sub>28</sub>		2 15.5 31°40'	3.1		



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2 15.5

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>335863</b>	2007 <i>RR</i> <sub>52</sub>		2 15.5 93°81	1.3/16.6	18		<b>7315</b>	Kolbe		2 15.5 346°34	1.0/16.2	18	
1 12	10 16.30	+ 7 9.0	2.346	3.142	12.2	21.0	1 12	10 15.42	+ 7 44.6	1.558	2.381	16.1	17.3
1 22	10 11.18	+ 7 20.5	2.275	3.159	9.3	20.8	1 22	10 11.50	+ 8 9.8	1.479	2.378	12.3	17.1
2 1	10 4.37	+ 7 43.0	2.230	3.176	5.9	20.6	2 1	10 5.05	+ 8 52.3	1.422	2.375	7.8	16.8
2 11	9 56.48	+ 8 13.6	2.212	3.192	2.5	20.4	2 11	9 56.81	+ 9 47.7	1.391	2.373	2.9	16.5
2 21	9 48.27	+ 8 48.6	2.224	3.209	2.1	20.4	2 21	9 47.87	+10 49.4	1.386	2.371	2.7	16.5
3 2	9 40.55	+ 9 23.8	2.267	3.225	5.4	20.7	3 2	9 39.50	+11 49.7	1.409	2.370	7.6	16.8
3 12	9 34.09	+ 9 55.4	2.337	3.241	8.6	20.9	3 12	9 32.88	+12 41.6	1.457	2.369	12.2	17.0
3 22	9 29.37	+10 20.8	2.433	3.256	11.4	21.1	3 22	9 28.79	+13 20.7	1.526	2.368	16.1	17.3
<b>323472</b>	2004 <i>LM</i> <sub>3</sub>		2 15.5 288°04	2.4/13.3	18		<b>331338</b>	2012 <i>BT</i> <sub>53</sub>		2 15.5 54°79	0.7/14.9	18	
1 12	10 14.67	+14 11.9	1.741	2.576	14.1	20.1	1 12	10 18.65	+12 32.9	1.527	2.358	15.9	20.9
1 22	10 10.92	+15 33.9	1.652	2.561	10.5	19.8	1 22	10 13.82	+12 59.8	1.462	2.368	11.9	20.7
2 1	10 4.71	+17 10.1	1.586	2.546	6.4	19.5	2 1	10 6.37	+13 38.5	1.421	2.379	7.2	20.5
2 11	9 56.71	+18 52.8	1.549	2.531	2.7	19.3	2 11	9 57.19	+14 22.9	1.405	2.389	2.2	20.2
2 21	9 47.88	+20 32.3	1.539	2.516	4.5	19.3	2 21	9 47.48	+15 6.1	1.417	2.400	3.2	20.3
3 2	9 39.42	+21 59.3	1.558	2.501	8.9	19.6	3 2	9 38.57	+15 41.7	1.455	2.411	8.0	20.6
3 12	9 32.52	+23 7.2	1.602	2.486	13.1	19.8	3 12	9 31.60	+16 5.3	1.519	2.422	12.4	20.9
3 22	9 28.01	+23 53.3	1.668	2.471	16.7	20.0	3 22	9 27.29	+16 15.2	1.605	2.434	16.1	21.1
<b>270566</b>	2002 <i>JD</i> <sub>7</sub>		2 15.5 287°37	1.7/13.9	17		<b>58125</b>	1981 <i>EO</i> <sub>31</sub>		2 15.5 308°83	1.1/16.3	17	
1 12	10 15.36	+14 34.3	1.938	2.767	13.1	20.5	1 12	10 14.77	+ 7 38.5	1.704	2.522	15.1	19.8
1 22	10 11.17	+15 23.9	1.846	2.752	9.8	20.3	1 22	10 10.93	+ 8 2.0	1.613	2.509	11.6	19.5
2 1	10 4.73	+16 23.8	1.778	2.737	5.9	20.0	2 1	10 4.69	+ 8 42.1	1.544	2.497	7.4	19.3
2 11	9 56.69	+17 28.1	1.738	2.721	2.2	19.7	2 11	9 56.72	+ 9 34.8	1.502	2.484	2.8	19.0
2 21	9 47.93	+18 30.0	1.726	2.706	3.6	19.8	2 21	9 47.98	+10 34.3	1.487	2.472	2.6	18.9
3 2	9 39.55	+19 22.9	1.743	2.690	7.7	20.0	3 2	9 39.66	+11 33.6	1.500	2.460	7.3	19.2
3 12	9 32.59	+20 2.1	1.786	2.675	11.7	20.2	3 12	9 32.89	+12 26.0	1.538	2.449	11.8	19.4
3 22	9 27.80	+20 25.5	1.851	2.660	15.1	20.4	3 22	9 28.48	+13 6.8	1.598	2.437	15.7	19.6
<b>375877</b>	2009 <i>VY</i> <sub>57</sub>		2 15.5 143°59	3.4/12.2	18		<b>93239</b>	2000 <i>SO</i> <sub>150</sub>		2 15.5 18°90	9.7/23.9	18	
1 12	10 18.23	+20 48.4	2.290	3.117	11.4	21.5	1 12	10 10.78	-12 8.3	1.419	2.169	20.9	18.1
1 22	10 12.82	+21 50.1	2.223	3.126	8.5	21.3	1 22	10 8.16	-12 38.5	1.352	2.177	18.0	17.9
2 1	10 5.47	+22 54.5	2.181	3.135	5.4	21.1	2 1	10 3.02	-12 33.6	1.301	2.187	14.7	17.7
2 11	9 56.85	+23 55.4	2.169	3.144	3.4	21.0	2 11	9 56.17	-11 51.3	1.271	2.198	11.6	17.5
2 21	9 47.81	+24 46.6	2.187	3.152	4.7	21.1	2 21	9 48.71	-10 34.1	1.263	2.210	9.8	17.5
3 2	9 39.30	+25 23.7	2.234	3.159	7.7	21.3	3 2	9 41.91	- 8 49.6	1.280	2.223	10.3	17.5
3 12	9 32.18	+25 44.8	2.307	3.166	10.6	21.5	3 12	9 36.91	- 6 50.2	1.320	2.238	12.7	17.7
3 22	9 27.02	+25 50.0	2.404	3.173	13.2	21.7	3 22	9 34.43	- 4 48.6	1.383	2.253	15.8	17.9
<b>432195</b>	2009 <i>DF</i> <sub>68</sub>		2 15.5 18°52	1.3/16.5	17		<b>20215</b>	1997 <i>GQ</i> <sub>26</sub>		2 15.5 77°10	2.3/17.5	18	
1 12	10 15.31	+ 7 57.7	1.941	2.752	13.8	21.3	1 12	10 15.30	+ 3 22.9	1.927	2.721	14.5	19.4
1 22	10 10.88	+ 8 1.1	1.863	2.755	10.5	21.1	1 22	10 10.82	+ 3 48.2	1.856	2.736	11.2	19.2
2 1	10 4.40	+ 8 16.9	1.809	2.759	6.7	20.9	2 1	10 4.33	+ 4 31.0	1.809	2.750	7.5	19.0
2 11	9 56.54	+ 8 42.1	1.782	2.763	2.7	20.7	2 11	9 56.53	+ 5 27.6	1.789	2.765	3.7	18.8
2 21	9 48.21	+ 9 12.6	1.783	2.767	2.4	20.6	2 21	9 48.31	+ 6 32.8	1.797	2.780	2.8	18.8
3 2	9 40.39	+ 9 43.6	1.812	2.772	6.3	20.9	3 2	9 40.65	+ 7 40.2	1.834	2.794	6.2	19.0
3 12	9 34.02	+10 10.7	1.868	2.777	10.1	21.1	3 12	9 34.44	+ 8 43.4	1.898	2.809	9.9	19.3
3 22	9 29.70	+10 30.7	1.948	2.783	13.4	21.3	3 22	9 30.27	+ 9 37.8	1.986	2.823	13.1	19.5
<b>157734</b>	2006 <i>BQ</i> <sub>149</sub>		2 15.5 249°26	6.2/ 9.8	18		<b>288542</b>	2004 <i>GL</i> <sub>28</sub>		2 15.5 137°66	7.3/ 7.9	18	
1 12	10 20.49	+29 32.8	2.130	2.961	12.0	20.0	1 12	10 18.05	+27 52.4	1.817	2.660	13.2	20.2
1 22	10 14.92	+30 38.8	2.053	2.950	9.4	19.8	1 22	10 13.47	+30 6.1	1.759	2.664	10.3	20.0
2 1	10 6.97	+31 41.5	2.002	2.940	7.1	19.7	2 1	10 6.26	+32 19.2	1.727	2.667	7.9	19.9
2 11	9 57.38	+32 33.0	1.978	2.929	6.3	19.6	2 11	9 57.22	+34 19.7	1.724	2.670	7.5	19.9
2 21	9 47.15	+33 6.5	1.982	2.917	7.6	19.7	2 21	9 47.45	+35 56.9	1.748	2.673	9.2	20.0
3 2	9 37.47	+33 17.9	2.013	2.906	10.2	19.8	3 2	9 38.27	+37 4.3	1.798	2.676	12.0	20.1
3 12	9 29.42	+33 6.7	2.069	2.894	13.0	19.9	3 12	9 30.90	+37 40.7	1.871	2.679	14.9	20.3
3 22	9 23.73	+32 35.4	2.145	2.882	15.5	20.1	3 22	9 26.13	+37 48.9	1.962	2.681	17.3	20.5
<b>286654</b>	2002 <i>ER</i> <sub>85</sub>		2 15.5 357°32	0.7/15.0	18		<b>496109</b>	2009 <i>WY</i> <sub>44</sub>		2 15.5 110°12	4.0/11.9	18	
1 12	10 14.99	+11 23.1	1.223	2.071	18.0	19.9	1 12	10 18.03	+21 46.6	1.970	2.805	12.7	21.5
1 22	10 11.75	+11 59.7	1.154	2.068	13.5	19.6	1 22	10 13.00	+22 47.8	1.903	2.810	9.4	21.3
2 1	10 5.45	+12 53.7	1.105	2.066	8.3	19.3	2 1	10 5.74	+23 51.5	1.861	2.815	6.1	21.1
2 11	9 56.97	+13 58.1	1.080	2.065	2.5	18.9	2 11	9 57.00	+24 50.4	1.847	2.820	4.1	21.0
2 21	9 47.65	+15 3.6	1.080	2.064	3.7	19.0	2 21	9 47.77	+25 37.7	1.861	2.825	5.5	21.1
3 2	9 39.11	+16 0.4	1.105	2.065	9.4	19.3	3 2	9 39.14	+26 8.5	1.904	2.829	8.7	21.3
3 12	9 32.78	+16 41.5	1.153	2.066	14.6	19.6	3 12	9 32.12	+26 20.8	1.971	2.834	12.0	21.5
3 22	9 29.53	+17 3.8	1.220	2.068	18.9	19.9	3 22	9 27.35	+26 15.4	2.061	2.839	14.8	21.7
<b>360796</b>	2005 <i>GP</i> <sub>103</sub>		2 15.5 307°66	0.7/16.3	17		<b>503207</b>	2015 <i>HY</i> <sub>28</sub>		2 15.5 358°96	6.5/22.3	17	
1 12	10 11.06	+ 8 27.6	2.970	3.770	9.8	21.7	1 12	10 10.49	- 9 44.4	1.989	2.724	16.1	20.7
1 22	10 7.16	+ 8 46.2	2.874	3.761	7.4	21.5	1 22	10 7.36	- 9 31.1	1.899	2.722	13.6	20.6
2 1	10 1.90	+ 9 13.3	2.804	3.752	4.7	21.3	2 1	10 2.32	- 8 50.5	1.829	2.721	10.8	20.4
2 11	9 55.73	+ 9 46.8	2.762	3.744	1.8	21.1	2 11	9 55.94	- 7 42.6	1.783	2.721	8.0	20.2
2 21	9 49.20	+10 23.4	2.751	3.736	1.6	21.1	2 21	9 49.03	- 6 10.8	1.764	2.721	6.5	20.1
3 2	9 42.92	+10 59.9	2.770	3.727	4.6	21.3	3 2	9 42.52	- 4 21.6	1.772	2.721	7.5	20.2
3 12	9 37.50	+11 33.0	2.818	3.719	7.4	21.4	3 12	9 37.28	- 2 24.2	1.807	2.722	10.0	20.3
3 22	9 33.39	+12 0.2	2.891	3.711	9.9	21.6	3 22	9 33.95	- 0 27.8	1.868	2.724	13.0	20.5
<b>455796</b>	2005 <i>SE</i> <sub>4</sub>		2 15.5 175°38	3.9/19.7	18		<b>45880</b>	2000 <i>WG</i> <sub>49</sub>		2 15.5 311°90	15.8/20.0	18	
1 12	10 16.03	- 3 22.0											

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>402213</b>	2004 <i>XG</i> <sub>146</sub>		2 15.5	21°54'	4.4/12.6	18	<b>400235</b>	2007 <i>GC</i> <sub>48</sub>		2 15.5	265°05'	0.2/15.6	18
1 12	10 14.76	+17 42.3	1.109	1.975	18.2	20.0	1 12	10 18.69	+9 36.5	1.544	2.368	16.2	21.6
1 22	10 11.75	+19 1.4	1.058	1.982	13.4	19.8	1 22	10 14.21	+10 8.0	1.452	2.352	12.3	21.3
2 1	10 5.47	+20 31.3	1.028	1.991	8.3	19.5	2 1	10 6.92	+10 56.3	1.382	2.337	7.7	21.0
2 11	9 56.99	+21 59.5	1.021	2.002	4.5	19.3	2 11	9 57.52	+11 56.6	1.337	2.321	2.5	20.6
2 21	9 47.84	+23 13.6	1.039	2.013	6.7	19.5	2 21	9 47.13	+13 1.6	1.320	2.305	3.0	20.6
3 2	9 39.74	+24 4.1	1.080	2.026	11.6	19.8	3 2	9 37.17	+14 2.9	1.331	2.289	8.4	20.9
3 12	9 34.13	+24 27.3	1.143	2.039	16.2	20.1	3 12	9 29.00	+14 53.4	1.366	2.272	13.3	21.1
3 22	9 31.76	+24 24.5	1.224	2.054	20.0	20.4	3 22	9 23.58	+15 29.1	1.423	2.255	17.6	21.4
<b>290106</b>	2005 <i>QL</i> <sub>116</sub>		2 15.5	58°79'	0°8/16.2	18	<b>371210</b>	2006 <i>AK</i> <sub>53</sub>		2 15.5	148°14'	1°3/16.6	18
1 12	10 15.67	+7 24.9	1.667	2.484	15.4	20.7	1 12	10 17.07	+7 3.2	2.171	2.969	13.0	21.7
1 22	10 11.44	+8 3.0	1.597	2.493	11.7	20.5	1 22	10 12.02	+7 17.0	2.090	2.974	9.9	21.5
2 1	10 4.88	+8 57.8	1.550	2.502	7.3	20.3	2 1	10 5.05	+7 43.2	2.033	2.979	6.4	21.3
2 11	9 56.76	+10 4.4	1.529	2.512	2.7	20.0	2 11	9 56.81	+8 18.7	2.004	2.984	2.6	21.1
2 21	9 48.10	+11 15.5	1.537	2.522	2.5	20.0	2 21	9 48.11	+8 59.3	2.004	2.988	2.2	21.0
3 2	9 40.08	+12 23.6	1.572	2.531	7.1	20.3	3 2	9 39.87	+9 40.4	2.034	2.992	5.9	21.3
3 12	9 33.74	+13 22.2	1.633	2.541	11.3	20.6	3 12	9 32.95	+10 17.4	2.092	2.996	9.4	21.5
3 22	9 29.74	+14 7.3	1.716	2.551	14.9	20.8	3 22	9 27.94	+10 47.2	2.174	2.999	12.5	21.7
<b>209077</b>	2003 <i>RJ</i> <sub>21</sub>		2 15.5	248°00'	0°9/16.1	18	<b>208978</b>	2002 <i>YO</i> <sub>15</sub>		2 15.5	15°76'	7.4/12.1	18
1 12	10 19.12	+8 30.7	1.772	2.583	14.9	20.9	1 12	10 32.26	+33 55.6	1.750	2.570	14.7	19.0
1 22	10 14.16	+8 48.5	1.677	2.570	11.4	20.7	1 22	10 23.74	+33 58.1	1.688	2.576	11.7	18.8
2 1	10 6.69	+9 20.9	1.605	2.556	7.3	20.4	2 1	10 12.26	+33 47.9	1.650	2.582	8.9	18.6
2 11	9 57.38	+10 4.3	1.560	2.543	2.7	20.1	2 11	9 59.02	+33 17.4	1.638	2.589	7.4	18.6
2 21	9 47.25	+10 53.0	1.544	2.528	2.6	20.0	2 21	9 45.56	+32 22.6	1.655	2.597	8.4	18.6
3 2	9 37.53	+11 40.9	1.556	2.514	7.3	20.3	3 2	9 33.44	+31 4.2	1.700	2.605	11.0	18.8
3 12	9 29.38	+12 22.1	1.594	2.499	11.8	20.5	3 12	9 23.88	+29 26.9	1.771	2.615	14.0	19.0
3 22	9 23.66	+12 52.8	1.655	2.484	15.7	20.7	3 22	9 17.47	+27 37.2	1.863	2.625	16.7	19.2
<b>179877</b>	2002 <i>TK</i> <sub>340</sub>		2 15.5	350°13'	4°6/12.4	18	<b>504118</b>	2006 <i>RR</i> <sub>29</sub>		2 15.5	266°00'	1°1/16.4	17
1 12	10 15.36	+19 41.0	1.298	2.156	16.5	20.1	1 12	10 17.90	+8 59.8	2.348	3.147	12.1	21.6
1 22	10 12.04	+20 44.6	1.230	2.150	12.3	19.8	1 22	10 12.64	+8 53.6	2.248	3.134	9.3	21.4
2 1	10 5.65	+21 56.1	1.183	2.144	7.8	19.6	2 1	10 5.48	+8 56.4	2.172	3.120	5.9	21.1
2 11	9 57.08	+23 5.4	1.162	2.140	4.7	19.4	2 11	9 56.97	+9 5.9	2.125	3.106	2.4	20.9
2 21	9 47.70	+24 1.8	1.165	2.136	6.7	19.5	2 21	9 47.89	+9 19.4	2.108	3.092	2.1	20.8
3 2	9 39.09	+24 37.2	1.193	2.134	11.2	19.7	3 2	9 39.14	+9 33.5	2.121	3.078	5.8	21.0
3 12	9 32.69	+24 48.2	1.243	2.132	15.6	20.0	3 12	9 31.57	+9 45.0	2.162	3.063	9.3	21.2
3 22	9 29.36	+24 35.6	1.311	2.132	19.5	20.2	3 22	9 25.83	+9 51.5	2.227	3.049	12.4	21.4
<b>384232</b>	2009 <i>DR</i> <sub>54</sub>		2 15.5	12°05'	1°5/14.3	17	<b>452610</b>	2005 <i>QD</i> <sub>27</sub>		2 15.5	205°74'	1°8/14.2	18
1 12	10 17.47	+16 29.3	2.165	2.988	12.1	20.9	1 12	10 21.45	+14 15.5	1.734	2.557	14.7	22.1
1 22	10 12.35	+16 45.9	2.086	2.989	9.0	20.7	1 22	10 15.93	+15 6.7	1.650	2.553	11.0	21.8
2 1	10 5.26	+17 7.4	2.033	2.990	5.5	20.5	2 1	10 7.78	+16 9.1	1.590	2.547	6.7	21.5
2 11	9 56.86	+17 29.4	2.008	2.991	2.0	20.2	2 11	9 57.75	+17 15.8	1.558	2.541	2.4	21.3
2 21	9 48.02	+17 47.6	2.012	2.992	3.1	20.3	2 21	9 46.94	+18 19.0	1.554	2.534	3.8	21.3
3 2	9 39.69	+17 58.4	2.046	2.993	6.7	20.5	3 2	9 36.66	+19 11.3	1.580	2.526	8.4	21.6
3 12	9 32.76	+17 59.5	2.106	2.995	10.1	20.8	3 12	9 28.14	+19 48.1	1.631	2.518	12.7	21.8
3 22	9 27.82	+17 50.2	2.190	2.997	13.1	21.0	3 22	9 22.20	+20 7.7	1.704	2.509	16.3	22.0
<b>108759</b>	2001 <i>OG</i> <sub>46</sub>		2 15.5	127°16'	0°0/15.5	18	<b>273336</b>	2006 <i>TA</i> <sub>74</sub>		2 15.5	129°93'	0°1/15.4	18
1 12	10 15.23	+10 23.7	2.873	3.672	10.1	20.5	1 12	10 17.92	+9 38.3	2.004	2.814	13.5	21.7
1 22	10 10.17	+10 57.2	2.800	3.689	7.5	20.3	1 22	10 12.77	+10 26.0	1.933	2.827	10.1	21.5
2 1	10 3.70	+11 38.5	2.754	3.705	4.6	20.1	2 1	10 5.55	+11 26.2	1.886	2.839	6.2	21.3
2 11	9 56.33	+12 24.2	2.737	3.721	1.5	19.9	2 11	9 56.98	+12 33.8	1.867	2.851	1.9	21.1
2 21	9 48.69	+13 10.4	2.752	3.736	1.8	20.0	2 21	9 47.95	+13 42.3	1.878	2.862	2.4	21.1
3 2	9 41.43	+13 53.5	2.798	3.750	4.8	20.2	3 2	9 39.48	+14 45.3	1.919	2.873	6.6	21.4
3 12	9 35.18	+14 30.4	2.873	3.764	7.6	20.4	3 12	9 32.48	+15 38.1	1.987	2.883	10.3	21.6
3 22	9 30.38	+14 59.0	2.973	3.778	10.1	20.6	3 22	9 27.56	+16 17.7	2.078	2.892	13.5	21.9
<b>433090</b>	2012 <i>TO</i> <sub>86</sub>		2 15.5	140°88'	2°8/12.9	17	<b>183701</b>	2003 <i>YO</i> <sub>36</sub>		2 15.5	128°82'	1°4/14.6	18
1 12	10 17.09	+20 32.1	2.474	3.299	10.7	21.4	1 12	10 23.43	+13 13.9	1.557	2.381	16.0	20.9
1 22	10 11.87	+21 9.5	2.401	3.304	8.0	21.3	1 22	10 17.37	+13 59.8	1.493	2.396	11.9	20.7
2 1	10 4.88	+21 49.1	2.353	3.308	5.0	21.1	2 1	10 8.57	+14 57.2	1.453	2.410	7.2	20.4
2 11	9 56.73	+22 25.7	2.335	3.312	2.8	20.9	2 11	9 57.96	+15 58.9	1.440	2.423	2.3	20.2
2 21	9 48.20	+22 54.9	2.347	3.316	4.0	21.0	2 21	9 46.80	+16 56.7	1.455	2.436	3.6	20.3
3 2	9 40.15	+23 13.1	2.388	3.320	6.9	21.2	3 2	9 36.50	+17 43.5	1.498	2.448	8.4	20.6
3 12	9 33.36	+23 18.8	2.456	3.323	9.7	21.4	3 12	9 28.27	+18 15.2	1.567	2.459	12.8	20.9
3 22	9 28.36	+23 11.8	2.547	3.327	12.2	21.6	3 22	9 22.83	+18 30.5	1.657	2.470	16.4	21.1
<b>309422</b>	2007 <i>TQ</i> <sub>382</sub>		2 15.5	30°95'	1°2/14.8	18	<b>44964</b>	1999 <i>VK</i> <sub>90</sub>		2 15.5	310°55'	4°6/12.4	18
1 12	10 18.08	+13 24.7	1.264	2.110	17.7	20.3	1 12	10 20.19	+21 30.8	1.518	2.363	15.3	18.7
1 22	10 13.83	+13 50.9	1.206	2.119	13.2	20.0	1 22	10 15.33	+22 22.4	1.444	2.357	11.5	18.5
2 1	10 6.58	+14 29.6	1.169	2.129	8.0	19.7	2 1	10 7.54	+23 18.1	1.394	2.351	7.4	18.2
2 11	9 57.33	+15 13.9	1.156	2.141	2.5	19.4	2 11	9 57.70	+24 8.9	1.369	2.345	4.7	18.0
2 21	9 47.49	+15 55.5	1.169	2.152	3.8	19.6	2 21	9 47.07	+24 46.2	1.371	2.339	6.4	18.1
3 2	9 38.62	+16 27.4	1.207	2.165	9.1	19.9	3 2	9 37.17	+25 4.0	1.399	2.334	10.4	18.3
3 12	9 32.04	+16 44.8	1.269	2.178	13.9	20.2	3 12	9 29.36	+25 0.1	1.451	2.329	14.5	18.6
3 22	9 28.47	+16 46.6	1.351	2.192	17.9	20.5	3 22	9 24.47	+24 36.0	1.523	2.324	18.1	18.8
<b>304807</b>	2007 <i>PQ</i> <sub>35</sub>		2 15.5	152°62'	0°7/15.0	18	<b>450764</b>	2007 <i>RY</i> <sub>102</sub>		2 15.5	76°70'	0°2/15.7	18
1 12	10 22.07	+12 55.9</											

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>241856</b>	2001 <i>TT</i> <sub>119</sub>		2 15.5 185°36	1°1/14.5 17			<b>362966</b>	2013 <i>BB</i> <sub>58</sub>		2 15.5 44°34	0°4/15.2 18		
1 12	10 19.27	+16 23.0	2.614	3.425	10.7	20.7	1 12	10 17.25	+10 0.8	1.325	2.161	17.6	20.6
1 22	10 13.38	+16 31.6	2.528	3.425	7.9	20.5	1 22	10 13.24	+10 49.8	1.258	2.166	13.2	20.3
2 1	10 5.78	+16 43.7	2.470	3.424	4.8	20.3	2 1	10 6.31	+11 57.2	1.213	2.171	8.1	20.1
2 11	9 57.05	+16 56.1	2.441	3.424	1.7	20.1	2 11	9 57.35	+13 15.7	1.192	2.176	2.5	19.7
2 21	9 47.94	+17 5.3	2.442	3.423	2.6	20.2	2 21	9 47.67	+14 35.5	1.198	2.182	3.4	19.8
3 2	9 39.25	+17 8.7	2.475	3.422	5.8	20.4	3 2	9 38.77	+15 46.8	1.230	2.188	8.9	20.1
3 12	9 31.76	+17 4.4	2.536	3.420	8.8	20.6	3 12	9 31.99	+16 42.3	1.285	2.194	13.8	20.4
3 22	9 25.99	+16 52.0	2.622	3.418	11.5	20.8	3 22	9 28.14	+17 18.6	1.362	2.200	17.9	20.7
<b>421545</b>	2014 <i>OH</i> <sub>179</sub>		2 15.5 134°98	2°0/14.1 18			<b>244793</b>	2003 <i>SW</i> <sub>218</sub>		2 15.5 130°85	4°1/11.2 18		
1 12	10 22.61	+16 34.3	1.788	2.612	14.2	21.8	1 12	10 19.43	+25 35.5	2.611	3.435	10.3	21.1
1 22	10 16.52	+17 5.1	1.719	2.622	10.6	21.5	1 22	10 13.54	+26 30.5	2.551	3.450	7.8	21.0
2 1	10 7.96	+17 42.3	1.674	2.631	6.4	21.3	2 1	10 5.88	+27 23.9	2.518	3.464	5.4	20.8
2 11	9 57.78	+18 19.5	1.657	2.640	2.5	21.1	2 11	9 57.10	+28 10.0	2.515	3.478	4.1	20.8
2 21	9 47.10	+18 50.8	1.669	2.648	3.8	21.2	2 21	9 48.02	+28 44.2	2.541	3.491	5.2	20.9
3 2	9 37.15	+19 11.3	1.710	2.656	8.0	21.4	3 2	9 39.47	+29 3.2	2.597	3.504	7.6	21.0
3 12	9 29.04	+19 18.4	1.777	2.663	11.8	21.7	3 12	9 32.23	+29 6.5	2.679	3.517	10.0	21.2
3 22	9 23.44	+19 11.9	1.866	2.670	15.2	21.9	3 22	9 26.82	+28 55.1	2.784	3.528	12.1	21.4
<b>157084</b>	2004 <i>CP</i> <sub>114</sub>		2 15.5 240°93	17°5/ 4.6 18			<b>326725</b>	2003 <i>FJ</i> <sub>94</sub>		2 15.5 238°57	3°2/12.4 17		
1 12	10 43.57	+48 47.0	1.247	2.051	20.4	19.4	1 12	10 18.20	+20 13.1	2.387	3.211	11.1	21.0
1 22	10 35.09	+50 41.5	1.199	2.043	18.6	19.2	1 22	10 13.00	+21 11.4	2.293	3.196	8.3	20.8
2 1	10 20.65	+52 9.0	1.170	2.035	17.6	19.1	2 1	10 5.79	+22 14.2	2.226	3.180	5.3	20.6
2 11	10 1.96	+52 48.9	1.161	2.027	17.8	19.1	2 11	9 57.15	+23 15.4	2.187	3.163	3.2	20.4
2 21	9 42.17	+52 28.7	1.172	2.018	19.2	19.1	2 21	9 47.88	+24 8.9	2.179	3.146	4.6	20.5
3 2	9 24.84	+51 8.2	1.201	2.009	21.3	19.3	3 2	9 38.93	+24 49.8	2.201	3.128	7.6	20.6
3 12	9 12.50	+48 59.2	1.247	1.999	23.8	19.4	3 12	9 31.22	+25 15.0	2.249	3.110	10.8	20.8
3 22	9 5.91	+46 17.4	1.308	1.989	26.0	19.6	3 22	9 25.40	+25 24.3	2.320	3.091	13.6	21.0
<b>146347</b>	2001 <i>OH</i> <sub>87</sub>		2 15.5 117°01	1°6/14.1 18			<b>361174</b>	2006 <i>OF</i> <sub>8</sub>		2 15.5 211°53	0°5/15.1 18		
1 12	10 19.11	+14 37.6	2.135	2.953	12.5	20.9	1 12	10 18.78	+11 23.1	1.997	2.810	13.4	21.9
1 22	10 13.51	+15 29.9	2.072	2.972	9.2	20.8	1 22	10 13.63	+12 3.4	1.908	2.804	10.1	21.7
2 1	10 5.94	+16 29.6	2.035	2.991	5.5	20.6	2 1	10 6.26	+12 55.5	1.843	2.798	6.2	21.4
2 11	9 57.12	+17 30.8	2.026	3.009	2.0	20.4	2 11	9 57.31	+13 54.4	1.806	2.790	1.9	21.1
2 21	9 47.93	+18 27.5	2.047	3.026	3.2	20.5	2 21	9 47.71	+14 53.9	1.799	2.783	2.7	21.2
3 2	9 39.35	+19 14.6	2.099	3.043	6.8	20.7	3 2	9 38.53	+15 47.8	1.822	2.774	7.0	21.4
3 12	9 32.23	+19 48.8	2.177	3.059	10.2	21.0	3 12	9 30.79	+16 31.2	1.872	2.765	10.9	21.7
3 22	9 27.13	+20 9.1	2.279	3.075	13.0	21.2	3 22	9 25.21	+17 1.5	1.945	2.756	14.4	21.9
<b>379124</b>	2009 <i>BE</i> <sub>10</sub>		2 15.5 69°42	0°2/15.7 18			<b>201746</b>	2003 <i>UN</i> <sub>276</sub>		2 15.5 37°23	4°0/18.8 18 R		
1 12	10 16.50	+ 9 56.9	2.083	2.895	13.0	21.1	1 12	10 14.63	+ 0 26.3	1.817	2.604	15.6	19.4
1 22	10 11.53	+10 26.7	2.024	2.918	9.7	20.9	1 22	10 10.50	+ 0 21.5	1.745	2.615	12.4	19.2
2 1	10 4.71	+11 6.9	1.988	2.941	5.9	20.7	2 1	10 4.28	+ 0 36.0	1.694	2.625	8.7	19.0
2 11	9 56.72	+11 53.3	1.981	2.964	1.9	20.5	2 11	9 56.65	+ 1 8.3	1.669	2.637	5.3	18.9
2 21	9 48.43	+12 40.8	2.003	2.987	2.2	20.5	2 21	9 48.56	+ 1 54.4	1.671	2.648	4.1	18.8
3 2	9 40.75	+13 24.2	2.054	3.010	6.0	20.8	3 2	9 41.03	+ 2 48.7	1.701	2.661	6.7	19.0
3 12	9 34.49	+13 59.7	2.133	3.033	9.5	21.1	3 12	9 34.99	+ 3 44.5	1.757	2.673	10.2	19.2
3 22	9 30.16	+14 25.1	2.235	3.055	12.4	21.3	3 22	9 31.07	+ 4 36.1	1.837	2.686	13.5	19.4
<b>95733</b>	2003 <i>DG</i> <sub>22</sub>		2 15.5 330°51	3°4/12.9 18			<b>255881</b>	2006 <i>SE</i> <sub>254</sub>		2 15.5 37°12	2°3/14.0 18		
1 12	10 16.79	+15 40.7	1.368	2.215	16.5	19.4	1 12	10 18.91	+16 17.2	1.452	2.294	16.0	20.2
1 22	10 13.00	+17 5.6	1.297	2.212	12.2	19.1	1 22	10 14.22	+16 52.9	1.390	2.302	11.9	19.9
2 1	10 6.24	+18 44.7	1.249	2.210	7.5	18.8	2 1	10 6.77	+17 37.0	1.350	2.310	7.2	19.7
2 11	9 57.34	+20 27.5	1.226	2.208	3.6	18.6	2 11	9 57.47	+18 22.3	1.336	2.319	2.8	19.5
2 21	9 47.60	+22 1.9	1.230	2.205	5.7	18.7	2 21	9 47.61	+19 0.9	1.348	2.328	4.4	19.6
3 2	9 38.53	+23 17.5	1.260	2.203	10.5	19.0	3 2	9 38.60	+19 26.8	1.388	2.338	9.0	19.9
3 12	9 31.57	+24 8.4	1.314	2.202	15.1	19.2	3 12	9 31.67	+19 36.7	1.451	2.348	13.3	20.1
3 22	9 27.57	+24 33.6	1.386	2.200	19.0	19.5	3 22	9 27.52	+19 30.5	1.535	2.358	17.0	20.4
<b>309264</b>	2007 <i>RA</i> <sub>95</sub>		2 15.5 159°20	1°9/14.0 18			<b>428451</b>	2007 <i>TJ</i> <sub>407</sub>		2 15.5 317°69	2°3/17.9 17		
1 12	10 21.24	+15 37.5	1.970	2.789	13.3	21.5	1 12	10 12.76	+ 2 27.2	2.225	3.012	13.1	21.4
1 22	10 15.37	+16 21.9	1.896	2.797	9.9	21.3	1 22	10 8.89	+ 2 56.2	2.135	3.010	10.2	21.2
2 1	10 7.22	+17 13.8	1.847	2.803	6.0	21.0	2 1	10 3.22	+ 3 42.0	2.070	3.007	6.9	21.0
2 11	9 57.57	+18 7.0	1.826	2.809	2.3	20.8	2 11	9 56.34	+ 4 41.8	2.031	3.005	3.6	20.8
2 21	9 47.39	+18 55.2	1.835	2.814	3.6	20.9	2 21	9 48.96	+ 5 51.1	2.021	3.003	2.6	20.7
3 2	9 37.81	+19 33.0	1.874	2.818	7.5	21.2	3 2	9 41.94	+ 7 4.2	2.041	3.002	5.7	20.9
3 12	9 29.84	+19 57.1	1.940	2.822	11.2	21.4	3 12	9 36.08	+ 8 14.9	2.089	3.000	9.1	21.1
3 22	9 24.15	+20 6.8	2.028	2.825	14.4	21.6	3 22	9 31.98	+ 9 18.3	2.162	2.998	12.2	21.3
<b>505941</b>	2015 <i>FA</i> <sub>68</sub>		2 15.5 242°63	4°3/10.0 17			<b>42594</b>	1997 <i>JQ</i> <sub>1</sub>		2 15.5 285°02	3°9/18.8 18		
1 12	10 14.84	+25 23.8	2.750	3.579	9.7	21.5	1 12	10 14.27	- 0 22.1	2.035	2.812	14.5	19.3
1 22	10 10.31	+26 44.4	2.666	3.568	7.3	21.3	1 22	10 10.29	- 0 18.4	1.932	2.795	11.7	19.1
2 1	10 4.04	+28 6.0	2.610	3.556	5.2	21.2	2 1	10 4.25	+ 0 4.5	1.851	2.779	8.4	18.8
2 11	9 56.57	+29 22.3	2.584	3.544	4.3	21.1	2 11	9 56.71	+ 0 45.6	1.796	2.763	5.2	18.6
2 21	9 48.58	+30 27.5	2.588	3.531	5.6	21.2	2 21	9 48.47	+ 1 41.7	1.769	2.746	4.0	18.5
3 2	9 40.87	+31 17.2	2.621	3.519	7.9	21.3	3 2	9 40.51	+ 2 47.6	1.771	2.730	6.6	18.6
3 12	9 34.22	+31 49.2	2.679	3.506	10.3	21.4	3 12	9 33.79	+ 3 56.4	1.800	2.713	10.2	18.8
3 22	9 29.29	+32 3.7	2.760	3.493	12.5	21.6	3 22	9 29.04	+ 5 2.0	1.852	2.697	13.6	19.0
<b>124175</b>	2001 <i>OB</i> <sub>26</sub>		2 15.5 262°50	0°1/15.5 18			<b>104181</b>	2000 <i>EA</i> <sub>96</sub>		2 15.5 64°50	0°4/15.2 18		
1 12	10 18.												

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>415141</b>	2012 <i>DF</i> <sub>65</sub>		2 15.5 139°75	0°1/15.4 18			<b>331094</b>	2009 <i>WW</i> <sub>185</sub>		2 15.5 236°41	3°1/18.0 18		
1 12	10 18.55	+10 22.5	2.232	3.037	12.5	21.6	1 12	10 16.03	+ 2 26.2	1.962	2.750	14.5	21.1
1 22	10 13.07	+11 1.7	2.158	3.050	9.3	21.4	1 22	10 11.55	+ 2 28.2	1.875	2.749	11.5	20.9
2 1	10 5.71	+11 51.2	2.110	3.062	5.7	21.2	2 1	10 4.97	+ 2 47.2	1.812	2.748	7.9	20.6
2 11	9 57.11	+12 46.5	2.090	3.074	1.8	21.0	2 11	9 56.95	+ 3 21.3	1.774	2.747	4.4	20.4
2 21	9 48.10	+13 42.4	2.101	3.085	2.2	21.0	2 21	9 48.36	+ 4 6.8	1.765	2.745	3.4	20.4
3 2	9 39.60	+14 33.6	2.142	3.095	6.1	21.3	3 2	9 40.20	+ 4 58.3	1.784	2.744	6.4	20.5
3 12	9 32.44	+15 16.0	2.212	3.105	9.5	21.5	3 12	9 33.42	+ 5 50.0	1.831	2.743	10.1	20.8
3 22	9 27.19	+15 47.3	2.305	3.114	12.5	21.7	3 22	9 28.71	+ 6 36.7	1.901	2.742	13.5	21.0
<b>122277</b>	2000 <i>PY</i> <sub>4</sub>		2 15.5 54°37	18°7/29.5 18			<b>229879</b>	2009 <i>UZ</i> <sub>46</sub>		2 15.5 250°38	8°6/ 6.1 17		
1 12	11 3.23	+68 15.9	1.817	2.498	19.2	18.8	1 12	10 24.47	+38 21.7	2.307	3.120	11.8	20.6
1 22	10 50.60	+69 52.5	1.820	2.514	18.8	18.8	1 22	10 18.19	+39 51.7	2.230	3.100	10.0	20.4
2 1	10 29.95	+70 51.5	1.838	2.531	18.7	18.8	2 1	10 9.24	+41 13.3	2.179	3.080	8.8	20.3
2 11	10 4.61	+70 59.7	1.871	2.549	18.9	18.9	2 11	9 58.35	+42 16.9	2.154	3.058	8.8	20.3
2 21	9 39.84	+70 12.7	1.919	2.566	19.4	18.9	2 21	9 46.63	+42 55.5	2.156	3.037	10.1	20.3
3 2	9 20.29	+68 36.2	1.981	2.584	20.0	19.0	3 2	9 35.40	+43 5.0	2.184	3.014	12.1	20.4
3 12	9 7.97	+66 22.4	2.056	2.601	20.7	19.2	3 12	9 25.93	+42 46.3	2.234	2.991	14.3	20.5
3 22	9 2.49	+63 44.1	2.143	2.619	21.3	19.3	3 22	9 19.05	+42 3.3	2.302	2.967	16.3	20.7
<b>428435</b>	2007 <i>TW</i> <sub>253</sub>		2 15.5 186°77	3°9/11.7 17			<b>321054</b>	2008 <i>RP</i> <sub>96</sub>		2 15.5 128°07	0°1/15.4 18		
1 12	10 18.32	+24 10.8	2.436	3.263	10.8	21.5	1 12	10 16.92	+11 18.8	2.196	3.007	12.4	21.4
1 22	10 12.93	+24 57.8	2.361	3.263	8.1	21.3	1 22	10 11.94	+11 44.4	2.119	3.014	9.3	21.2
2 1	10 5.64	+25 44.8	2.313	3.262	5.5	21.1	2 1	10 5.08	+12 19.3	2.066	3.020	5.7	21.0
2 11	9 57.09	+26 26.0	2.293	3.262	3.9	21.0	2 11	9 56.96	+12 59.5	2.042	3.026	1.8	20.8
2 21	9 48.12	+26 56.2	2.303	3.261	5.1	21.1	2 21	9 48.41	+13 40.3	2.048	3.032	2.2	20.8
3 2	9 39.62	+27 12.0	2.342	3.260	7.8	21.3	3 2	9 40.34	+14 17.0	2.083	3.038	6.1	21.1
3 12	9 32.45	+27 12.2	2.407	3.258	10.5	21.4	3 12	9 33.59	+14 46.1	2.146	3.043	9.6	21.3
3 22	9 27.18	+26 57.6	2.495	3.257	12.9	21.6	3 22	9 28.74	+15 5.3	2.233	3.048	12.6	21.5
<b>161718</b>	2006 <i>QP</i> <sub>28</sub>		2 15.5 199°63	0°3/15.8 17			<b>326017</b>	2010 <i>WH</i> <sub>62</sub>		2 15.5 48°31	1°0/16.3 18		
1 12	10 14.66	+ 9 44.6	2.707	3.508	10.6	21.5	1 12	10 17.12	+ 8 10.0	1.626	2.445	15.7	21.2
1 22	10 10.00	+10 13.0	2.616	3.505	8.0	21.3	1 22	10 12.64	+ 8 28.0	1.556	2.453	11.9	20.9
2 1	10 3.78	+10 50.3	2.551	3.502	5.0	21.1	2 1	10 5.73	+ 9 1.2	1.509	2.461	7.5	20.7
2 11	9 56.51	+11 33.6	2.516	3.499	1.7	20.8	2 11	9 57.20	+ 9 45.3	1.487	2.470	2.8	20.4
2 21	9 48.82	+12 18.8	2.510	3.495	1.8	20.8	2 21	9 48.13	+10 34.3	1.493	2.478	2.6	20.4
3 2	9 41.45	+13 2.0	2.536	3.490	5.1	21.1	3 2	9 39.72	+11 21.7	1.527	2.487	7.2	20.7
3 12	9 35.08	+13 39.7	2.590	3.486	8.2	21.2	3 12	9 33.06	+12 1.7	1.586	2.497	11.5	21.0
3 22	9 30.22	+14 9.3	2.669	3.481	10.9	21.4	3 22	9 28.83	+12 30.7	1.668	2.506	15.1	21.2
<b>401413</b>	2013 <i>CB</i> <sub>69</sub>		2 15.5 262°12	1°5/16.4 17			<b>147330</b>	2003 <i>BR</i> <sub>33</sub>		2 15.5 34°67	2°2/13.6 18		
1 12	10 20.69	+ 8 17.6	1.556	2.372	16.4	21.4	1 12	10 13.94	+12 34.2	1.455	2.297	16.0	19.2
1 22	10 15.63	+ 8 14.0	1.469	2.363	12.7	21.2	1 22	10 10.55	+14 6.8	1.395	2.307	11.8	19.0
2 1	10 7.77	+ 8 24.9	1.403	2.354	8.2	20.9	2 1	10 4.57	+15 55.1	1.357	2.318	7.0	18.7
2 11	9 57.88	+ 8 47.4	1.363	2.345	3.3	20.5	2 11	9 56.86	+17 49.0	1.346	2.330	2.6	18.5
2 21	9 47.11	+ 9 16.7	1.351	2.335	2.9	20.5	2 21	9 48.54	+19 37.1	1.363	2.342	4.5	18.6
3 2	9 36.88	+ 9 47.0	1.365	2.326	7.9	20.8	3 2	9 40.95	+21 9.2	1.406	2.354	9.1	18.9
3 12	9 28.49	+10 12.6	1.406	2.316	12.7	21.0	3 12	9 35.23	+22 18.8	1.474	2.367	13.4	19.2
3 22	9 22.86	+10 29.8	1.468	2.307	16.8	21.2	3 22	9 32.10	+23 4.0	1.563	2.381	17.0	19.5
<b>104361</b>	2000 <i>FV</i> <sub>21</sub>		2 15.5 36°79	4°8/10.9 18			<b>189852</b>	2003 <i>FB</i> <sub>81</sub>		2 15.5 236°72	3°6/11.8 18		
1 12	10 15.87	+23 25.5	1.970	2.810	12.5	19.3	1 12	10 19.53	+22 40.6	2.526	3.348	10.6	20.9
1 22	10 11.52	+24 45.9	1.905	2.814	9.3	19.1	1 22	10 13.95	+23 36.7	2.431	3.331	8.0	20.7
2 1	10 4.96	+26 8.1	1.866	2.818	6.3	18.9	2 1	10 6.38	+24 35.1	2.363	3.314	5.3	20.5
2 11	9 56.92	+27 24.0	1.855	2.822	4.8	18.8	2 11	9 57.41	+25 29.7	2.324	3.295	3.7	20.4
2 21	9 48.35	+28 25.9	1.872	2.827	6.4	18.9	2 21	9 47.83	+26 14.9	2.316	3.276	4.9	20.4
3 2	9 40.36	+29 8.6	1.916	2.831	9.4	19.1	3 2	9 38.55	+26 46.2	2.338	3.256	7.7	20.6
3 12	9 33.92	+29 29.9	1.985	2.836	12.4	19.3	3 12	9 30.48	+27 1.6	2.386	3.236	10.6	20.7
3 22	9 29.69	+29 30.9	2.074	2.841	15.1	19.5	3 22	9 24.28	+27 0.9	2.457	3.214	13.2	20.9
<b>268525</b>	2005 <i>YX</i> <sub>221</sub>		2 15.5 67°18	3°3/12.9 18			<b>136800</b>	1997 <i>CS</i> <sub>13</sub>		2 15.5 124°50	1°1/16.6 18		
1 12	10 17.89	+18 54.6	1.780	2.617	13.7	20.4	1 12	10 15.70	+ 7 58.5	2.477	3.275	11.6	20.4
1 22	10 13.07	+19 52.7	1.717	2.627	10.2	20.2	1 22	10 10.85	+ 8 5.4	2.395	3.279	8.8	20.2
2 1	10 5.91	+20 56.1	1.680	2.637	6.3	20.0	2 1	10 4.33	+ 8 22.2	2.337	3.283	5.6	20.0
2 11	9 57.21	+21 57.1	1.669	2.648	3.4	19.9	2 11	9 56.72	+ 8 46.4	2.307	3.288	2.3	19.8
2 21	9 48.03	+22 48.5	1.687	2.658	5.0	20.0	2 21	9 48.72	+ 9 14.5	2.307	3.292	1.9	19.7
3 2	9 39.55	+23 24.7	1.732	2.669	8.6	20.2	3 2	9 41.12	+ 9 42.9	2.338	3.296	5.3	20.0
3 12	9 32.80	+23 43.0	1.803	2.680	12.2	20.5	3 12	9 34.65	+10 8.3	2.397	3.300	8.4	20.2
3 22	9 28.41	+23 43.8	1.894	2.691	15.3	20.7	3 22	9 29.83	+10 27.9	2.480	3.304	11.3	20.4
<b>384822</b>	2012 <i>RJ</i> <sub>13</sub>		2 15.5 117°72	3°9/19.7 15			<b>462621</b>	2009 <i>PF</i> <sub>18</sub>		2 15.5 91°36	0°2/15.7 18		
1 12	10 16.05	- 2 32.9	2.779	3.522	11.8	21.7	1 12	10 16.80	+ 9 15.2	1.877	2.691	14.1	21.6
1 22	10 10.86	- 2 46.6	2.700	3.538	9.6	21.5	1 22	10 12.11	+ 9 51.7	1.806	2.701	10.6	21.4
2 1	10 4.22	- 2 46.1	2.645	3.554	7.1	21.4	2 1	10 5.29	+10 41.4	1.759	2.712	6.5	21.2
2 11	9 56.63	- 2 32.1	2.617	3.570	4.8	21.3	2 11	9 57.04	+11 39.4	1.739	2.723	2.2	20.9
2 21	9 48.73	- 2 6.5	2.619	3.585	4.0	21.2	2 21	9 48.33	+12 39.5	1.749	2.733	2.4	21.0
3 2	9 41.21	- 1 32.3	2.651	3.599	5.3	21.3	3 2	9 40.20	+13 35.5	1.787	2.744	6.7	21.3
3 12	9 34.72	- 0 53.7	2.712	3.614	7.6	21.5	3 12	9 33.60	+14 22.3	1.852	2.754	10.6	21.5
3 22	9 29.70	- 0 14.5	2.798	3.627	10.0	21.7	3 22	9 29.15	+14 56.8	1.939	2.764	13.9	21.7
<b>307834</b>	2003 <i>YY</i> <sub>52</sub>		2 15.5 93°54	20°5/31.1 18			<b>290170</b>	2005 <i>RR</i> <sub>25</sub>		2 15.5 192°60	4°2/21.3 17		
1 12	10												

EPHEMERIDES

2 15.5

2 15.6

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>472463</b>	2015 <i>BR</i> <sub>416</sub>		2 15.5 219°18	1°2/14.3	17		<b>142024</b>	2002 <i>QO</i> <sub>3</sub>		2 15.6 167°31	2°2/17.5	18	
1 12	10 14.35	+12 44.9	2.298	3.117	11.7	21.6	1 12	10 17.45	+ 3 39.3	1.953	2.744	14.5	21.0
1 22	10 10.10	+13 48.9	2.213	3.113	8.7	21.4	1 22	10 12.62	+ 4 3.0	1.869	2.747	11.3	20.7
2 1	10 4.01	+15 3.1	2.152	3.109	5.2	21.2	2 1	10 5.65	+ 4 44.1	1.809	2.750	7.5	20.5
2 11	9 56.66	+16 22.3	2.121	3.105	1.8	20.9	2 11	9 57.22	+ 5 39.6	1.776	2.752	3.7	20.3
2 21	9 48.79	+17 40.0	2.120	3.101	2.9	21.0	2 21	9 48.22	+ 6 44.2	1.771	2.754	2.7	20.2
3 2	9 41.26	+18 50.2	2.150	3.096	6.5	21.2	3 2	9 39.69	+ 7 51.6	1.796	2.756	6.4	20.5
3 12	9 34.92	+19 48.2	2.206	3.092	9.9	21.4	3 12	9 32.59	+ 8 55.4	1.848	2.757	10.2	20.7
3 22	9 30.36	+20 31.7	2.287	3.087	12.8	21.6	3 22	9 27.60	+ 9 50.7	1.924	2.757	13.6	20.9
<b>165476</b>	2001 <i>AQ</i> <sub>40</sub>		2 15.5 19°51	2°5/13.9	18		<b>125634</b>	2001 <i>XA</i> <sub>60</sub>		2 15.6 317°29	3°5/12.9	18	
1 12	10 16.14	+15 10.1	1.182	2.038	18.0	19.4	1 12	10 17.35	+16 22.8	1.414	2.260	16.1	19.4
1 22	10 12.69	+15 58.1	1.124	2.043	13.3	19.2	1 22	10 13.40	+17 41.0	1.342	2.257	12.0	19.1
2 1	10 6.10	+16 58.7	1.088	2.050	8.1	18.9	2 1	10 6.54	+19 11.8	1.293	2.253	7.4	18.9
2 11	9 57.38	+18 2.6	1.075	2.058	3.1	18.6	2 11	9 57.58	+20 45.2	1.269	2.250	3.6	18.6
2 21	9 47.98	+18 59.8	1.087	2.067	4.9	18.8	2 21	9 47.77	+22 10.0	1.272	2.247	5.6	18.7
3 2	9 39.54	+19 41.5	1.123	2.077	10.1	19.1	3 2	9 38.63	+23 16.6	1.301	2.244	10.3	19.0
3 12	9 33.46	+20 3.2	1.182	2.088	14.9	19.4	3 12	9 31.53	+23 59.7	1.354	2.241	14.8	19.2
3 22	9 30.50	+20 4.3	1.260	2.100	19.0	19.7	3 22	9 27.34	+24 18.6	1.426	2.238	18.6	19.5
<b>59467</b>	1999 <i>GQ</i> <sub>57</sub>		2 15.5 306°13	4°0/19.4	18		<b>148753</b>	2001 <i>TZ</i> <sub>181</sub>		2 15.6 19°15	0°1/15.5	18	
1 12	10 12.90	- 1 44.2	2.170	2.939	13.9	18.6	1 12	10 17.51	+11 29.1	1.488	2.321	16.2	19.7
1 22	10 9.10	- 1 37.3	2.075	2.931	11.3	18.4	1 22	10 13.18	+11 41.5	1.419	2.325	12.2	19.4
2 1	10 3.44	- 1 11.4	2.002	2.924	8.2	18.2	2 1	10 6.19	+12 6.4	1.372	2.329	7.5	19.2
2 11	9 56.49	- 0 27.5	1.954	2.917	5.3	18.0	2 11	9 57.41	+12 38.9	1.350	2.334	2.4	18.9
2 21	9 48.99	+ 0 31.1	1.935	2.909	4.1	17.9	2 21	9 48.03	+13 12.9	1.356	2.340	2.9	18.9
3 2	9 41.81	+ 1 39.2	1.945	2.902	6.2	18.0	3 2	9 39.37	+13 42.2	1.388	2.347	7.9	19.2
3 12	9 35.80	+ 2 50.6	1.982	2.896	9.4	18.2	3 12	9 32.65	+14 2.0	1.444	2.354	12.4	19.5
3 22	9 31.59	+ 3 59.1	2.044	2.889	12.5	18.4	3 22	9 28.57	+14 10.0	1.522	2.362	16.3	19.8
<b>296045</b>	2009 <i>AX</i> <sub>18</sub>		2 15.5 313°23	0°2/15.7	17		<b>497844</b>	2006 <i>US</i> <sub>73</sub>		2 15.6 182°01	4°9/10.7	17	
1 12	10 14.66	+10 19.4	1.950	2.769	13.4	20.9	1 12	10 19.90	+29 13.3	2.635	3.457	10.2	21.6
1 22	10 10.70	+10 38.4	1.852	2.750	10.2	20.7	1 22	10 14.02	+29 56.3	2.564	3.458	7.9	21.4
2 1	10 4.58	+11 9.2	1.778	2.732	6.4	20.4	2 1	10 6.30	+30 35.5	2.520	3.458	5.8	21.3
2 11	9 56.90	+11 48.4	1.731	2.714	2.1	20.1	2 11	9 57.38	+31 5.1	2.504	3.458	4.9	21.2
2 21	9 48.51	+12 30.8	1.712	2.697	2.4	20.1	2 21	9 48.08	+31 20.9	2.517	3.457	6.0	21.3
3 2	9 40.46	+13 11.0	1.722	2.680	6.8	20.3	3 2	9 39.30	+31 20.2	2.560	3.457	8.1	21.4
3 12	9 33.75	+13 44.1	1.757	2.663	10.9	20.5	3 12	9 31.85	+31 3.1	2.628	3.456	10.5	21.6
3 22	9 29.14	+14 7.0	1.816	2.646	14.4	20.7	3 22	9 26.28	+30 31.0	2.719	3.455	12.6	21.7
<b>416636</b>	2004 <i>SL</i> <sub>9</sub>		2 15.5 97°87	6°6/20.4	18		<b>430265</b>	2013 <i>WA</i> <sub>41</sub>		2 15.6 273°09	0°8/16.2	17	
1 12	10 22.76	- 6 1.5	2.189	2.915	15.1	20.8	1 12	10 15.78	+ 8 51.1	2.168	2.975	12.7	21.3
1 22	10 16.23	- 7 3.9	2.115	2.934	12.6	20.6	1 22	10 11.21	+ 9 6.7	2.081	2.972	9.7	21.1
2 1	10 7.68	- 7 48.3	2.064	2.953	9.9	20.5	2 1	10 4.72	+ 9 33.5	2.019	2.969	6.1	20.9
2 11	9 57.81	- 8 12.8	2.039	2.971	7.5	20.4	2 11	9 56.92	+10 8.3	1.984	2.966	2.2	20.6
2 21	9 47.50	- 8 17.9	2.042	2.989	6.6	20.3	2 21	9 48.60	+10 46.9	1.979	2.963	2.1	20.6
3 2	9 37.74	- 8 6.1	2.075	3.007	7.7	20.4	3 2	9 40.70	+11 24.5	2.003	2.961	6.0	20.8
3 12	9 29.42	- 7 42.1	2.135	3.025	10.0	20.6	3 12	9 34.06	+11 57.0	2.054	2.958	9.6	21.0
3 22	9 23.14	- 7 11.4	2.219	3.042	12.4	20.8	3 22	9 29.32	+12 21.4	2.129	2.955	12.8	21.2
<b>418362</b>	2008 <i>GP</i> <sub>115</sub>		2 15.5 334°10	1°2/14.9	17		<b>297446</b>	2000 <i>SU</i> <sub>218</sub>		2 15.6 102°66	7°4/10.1	18	
1 12	10 18.30	+14 39.1	1.423	2.264	16.3	20.7	1 12	10 26.30	+29 46.2	1.699	2.532	14.5	20.5
1 22	10 14.09	+14 49.0	1.342	2.253	12.3	20.4	1 22	10 19.51	+31 9.4	1.656	2.554	11.3	20.3
2 1	10 6.94	+15 8.6	1.283	2.243	7.5	20.1	2 1	10 9.90	+32 26.2	1.638	2.575	8.5	20.2
2 11	9 57.69	+15 32.3	1.249	2.233	2.4	19.8	2 11	9 58.53	+33 26.2	1.646	2.596	7.4	20.2
2 21	9 47.58	+15 53.7	1.241	2.224	3.6	19.8	2 21	9 46.79	+34 1.7	1.682	2.616	8.8	20.3
3 2	9 38.11	+16 7.0	1.260	2.216	8.9	20.1	3 2	9 36.14	+34 9.7	1.744	2.636	11.5	20.5
3 12	9 30.67	+16 8.2	1.302	2.209	13.7	20.4	3 12	9 27.77	+33 51.7	1.829	2.655	14.4	20.7
3 22	9 26.13	+15 56.1	1.364	2.203	17.9	20.6	3 22	9 22.31	+33 12.4	1.934	2.674	16.9	21.0
<b>453899</b>	2011 <i>UJ</i> <sub>283</sub>		2 15.5 37°10	4°4/12.7	18		<b>367607</b>	2009 <i>TZ</i> <sub>31</sub>		2 15.6 102°24	0°6/16.1	18	
1 12	10 17.92	+18 31.9	1.158	2.017	18.0	20.1	1 12	10 16.66	+ 7 46.9	1.999	2.805	13.7	21.2
1 22	10 13.95	+19 44.9	1.114	2.035	13.3	19.8	1 22	10 11.89	+ 8 27.1	1.929	2.820	10.3	21.0
2 1	10 6.78	+21 5.7	1.092	2.053	8.2	19.6	2 1	10 5.11	+ 9 21.1	1.883	2.834	6.4	20.8
2 11	9 57.57	+22 22.3	1.094	2.073	4.6	19.5	2 11	9 57.03	+10 24.3	1.865	2.847	2.3	20.6
2 21	9 47.86	+23 23.5	1.120	2.093	6.5	19.6	2 21	9 48.52	+11 30.6	1.876	2.861	2.2	20.6
3 2	9 39.33	+24 1.9	1.171	2.115	11.1	20.0	3 2	9 40.56	+12 33.8	1.917	2.874	6.2	20.9
3 12	9 33.30	+24 15.1	1.244	2.136	15.4	20.3	3 12	9 34.04	+13 28.6	1.985	2.887	10.0	21.1
3 22	9 30.44	+24 5.1	1.336	2.159	19.1	20.6	3 22	9 29.53	+14 11.9	2.077	2.900	13.1	21.4
<b>503265</b>	2015 <i>LK</i> <sub>35</sub>		2 15.5 246°69	5°2/ 8.9	17		<b>158218</b>	2001 <i>SG</i> <sub>123</sub>		2 15.6 215°64	1°6/16.6	18	
1 12	10 15.13	+29 30.9	2.785	3.614	9.6	21.0	1 12	10 20.89	+ 7 24.7	1.595	2.406	16.3	20.7
1 22	10 10.56	+30 48.4	2.710	3.606	7.5	20.9	1 22	10 15.71	+ 7 30.8	1.511	2.402	12.6	20.4
2 1	10 4.25	+32 3.7	2.663	3.598	5.7	20.8	2 1	10 7.81	+ 7 52.8	1.449	2.398	8.1	20.2
2 11	9 56.74	+33 10.5	2.644	3.589	5.2	20.7	2 11	9 57.98	+ 8 27.3	1.413	2.394	3.3	19.9
2 21	9 48.75	+34 3.4	2.654	3.581	6.4	20.8	2 21	9 47.34	+ 9 9.1	1.404	2.389	2.8	19.8
3 2	9 41.10	+34 38.8	2.693	3.573	8.4	20.9	3 2	9 37.27	+ 9 51.7	1.424	2.384	7.7	20.1
3 12	9 34.57	+34 55.4	2.756	3.564	10.6	21.0	3 12	9 29.01	+10 29.1	1.469	2.378	12.3	20.4
3 22	9 29.73	+34 54.2	2.841	3.555	12.6	21.2	3 22	9 23.43	+10 57.0	1.536	2.372	16.3	20.6
<b>213834</b>	2003 <i>QD</i> <sub>103</sub>		2 15.6 96°26	0°1/15.4	18 R		<b>409809</b>	2006 <i>HU</i> <sub>81</sub>		2 15.6 317°53	1°3/14.8	15	
1 12	10												

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>79994</b>	1999 FZ <sub>4</sub>		2 15.6	40°44'	3°3'/18.8	18	<b>57056</b>	2001 MW <sub>19</sub>		2 15.6	95°27'	0°7'/15.1	18
1 12	10 13.22	+ 0 10.0	2.157	2.935	13.7	19.3	1 12	10 21.60	+13 10.3	1.851	2.668	14.1	19.1
1 22	10 9.28	+ 0 25.1	2.074	2.939	10.9	19.1	1 22	10 15.63	+13 32.5	1.790	2.688	10.5	18.9
2 1	10 3.52	+ 0 58.2	2.013	2.943	7.7	18.9	2 1	10 7.41	+14 3.2	1.753	2.708	6.4	18.7
2 11	9 56.54	+ 1 47.2	1.979	2.947	4.5	18.7	2 11	9 57.78	+14 37.4	1.743	2.727	2.0	18.4
2 21	9 49.10	+ 2 48.1	1.973	2.951	3.4	18.7	2 21	9 47.79	+15 9.6	1.763	2.746	2.8	18.5
3 2	9 42.07	+ 3 55.5	1.996	2.955	5.9	18.8	3 2	9 38.55	+15 35.3	1.812	2.765	7.0	18.8
3 12	9 36.24	+ 5 3.2	2.046	2.960	9.1	19.0	3 12	9 31.03	+15 51.2	1.888	2.783	10.8	19.1
3 22	9 32.22	+ 6 5.8	2.122	2.964	12.2	19.2	3 22	9 25.84	+15 56.0	1.986	2.801	14.0	19.3
<b>3959</b>	Irwin		2 15.6	74°87'	2°3'/17.1	18	<b>282807</b>	2006 QG <sub>147</sub>		2 15.6	202°26'	0°1'/15.7	17
1 12	10 20.83	+ 4 51.9	1.347	2.161	18.6	17.2	1 12	10 14.76	+10 9.7	3.000	3.797	9.8	22.2
1 22	10 15.67	+ 5 10.0	1.291	2.183	14.3	17.0	1 22	10 9.99	+10 39.4	2.905	3.792	7.3	22.0
2 1	10 7.68	+ 5 49.4	1.257	2.204	9.3	16.7	2 1	10 3.80	+11 17.0	2.837	3.787	4.5	21.9
2 11	9 57.87	+ 6 45.4	1.247	2.226	4.2	16.5	2 11	9 56.64	+11 59.7	2.798	3.781	1.5	21.6
2 21	9 47.59	+ 7 50.2	1.264	2.248	3.2	16.5	2 21	9 49.10	+12 44.0	2.791	3.775	1.7	21.6
3 2	9 38.28	+ 8 55.2	1.307	2.269	7.9	16.8	3 2	9 41.82	+13 26.1	2.815	3.768	4.8	21.8
3 12	9 31.15	+ 9 52.8	1.376	2.291	12.5	17.1	3 12	9 35.43	+14 3.0	2.868	3.761	7.6	22.0
3 22	9 26.90	+10 37.9	1.466	2.312	16.4	17.4	3 22	9 30.41	+14 32.4	2.947	3.753	10.1	22.2
<b>39311</b>	2001 TF <sub>76</sub>		2 15.6	156°20'	1°1'/14.4	18	<b>436001</b>	2009 FR <sub>50</sub>		2 15.6	341°62'	0°5'/15.1	17
1 12	10 15.41	+14 33.5	2.613	3.428	10.6	19.7	1 12	10 12.66	+10 52.1	2.049	2.870	12.8	20.9
1 22	10 10.61	+15 9.5	2.534	3.432	7.8	19.6	1 22	10 9.05	+11 39.2	1.964	2.865	9.6	20.7
2 1	10 4.21	+15 51.7	2.480	3.436	4.7	19.4	2 1	10 3.49	+12 38.5	1.904	2.860	5.8	20.4
2 11	9 56.74	+16 36.0	2.456	3.439	1.6	19.1	2 11	9 56.59	+13 45.0	1.871	2.855	1.8	20.2
2 21	9 48.89	+17 18.0	2.462	3.443	2.5	19.2	2 21	9 49.15	+14 52.7	1.868	2.851	2.5	20.2
3 2	9 41.43	+17 53.7	2.499	3.446	5.7	19.4	3 2	9 42.10	+15 55.2	1.893	2.847	6.6	20.5
3 12	9 35.06	+18 20.4	2.563	3.449	8.7	19.6	3 12	9 36.33	+16 47.5	1.945	2.844	10.3	20.7
3 22	9 30.30	+18 36.7	2.652	3.451	11.3	19.8	3 22	9 32.48	+17 26.4	2.019	2.841	13.5	20.9
<b>500479</b>	2012 TX <sub>241</sub>		2 15.6	187°62'	1°4'/17.2	17	<b>55763</b>	1992 DO <sub>7</sub>		2 15.6	281°15'	1°0'/14.6	18 R
1 12	10 14.57	+ 5 3.3	2.929	3.708	10.4	22.9	1 12	10 14.49	+13 44.3	2.351	3.171	11.4	20.0
1 22	10 9.85	+ 5 27.0	2.835	3.708	8.0	22.8	1 22	10 10.19	+14 21.9	2.263	3.163	8.5	19.8
2 1	10 3.69	+ 6 1.5	2.766	3.706	5.3	22.6	2 1	10 4.10	+15 7.6	2.200	3.156	5.2	19.5
2 11	9 56.58	+ 6 44.7	2.727	3.705	2.5	22.4	2 11	9 56.77	+15 56.9	2.165	3.149	1.7	19.3
2 21	9 49.08	+ 7 33.2	2.719	3.702	1.9	22.3	2 21	9 48.95	+16 44.8	2.160	3.141	2.7	19.3
3 2	9 41.87	+ 8 23.3	2.742	3.699	4.6	22.5	3 2	9 41.48	+17 26.8	2.184	3.134	6.2	19.6
3 12	9 35.56	+ 9 11.0	2.794	3.696	7.4	22.7	3 12	9 35.16	+17 59.0	2.236	3.126	9.6	19.8
3 22	9 30.63	+ 9 53.4	2.873	3.692	10.0	22.9	3 22	9 30.60	+18 19.7	2.311	3.119	12.5	19.9
<b>466933</b>	2016 AF <sub>51</sub>		2 15.6	301°56'	0°6'/15.9	17	<b>110663</b>	2001 TZ <sub>182</sub>		2 15.6	242°09'	6°3'/21.9	18
1 12	10 17.65	+ 9 42.8	1.486	2.314	16.5	21.2	1 12	10 14.46	- 9 46.2	2.630	3.337	13.3	19.7
1 22	10 13.62	+ 9 55.5	1.394	2.296	12.6	20.9	1 22	10 10.04	-10 12.9	2.527	3.328	11.3	19.5
2 1	10 6.73	+10 23.7	1.323	2.278	8.0	20.6	2 1	10 3.97	-10 21.2	2.445	3.318	9.2	19.4
2 11	9 57.70	+11 3.4	1.277	2.260	2.8	20.2	2 11	9 56.74	-10 10.0	2.388	3.308	7.3	19.2
2 21	9 47.66	+11 48.6	1.257	2.243	2.9	20.1	2 21	9 48.99	- 9 39.9	2.358	3.298	6.3	19.1
3 2	9 38.04	+12 31.9	1.265	2.225	8.3	20.4	3 2	9 41.47	- 8 53.7	2.357	3.288	7.0	19.2
3 12	9 30.24	+13 6.8	1.296	2.208	13.4	20.7	3 12	9 34.93	- 7 56.1	2.383	3.277	8.9	19.3
3 22	9 25.23	+13 29.4	1.349	2.192	17.8	20.9	3 22	9 29.94	- 6 52.7	2.434	3.267	11.1	19.4
<b>252404</b>	2001 TT <sub>76</sub>		2 15.6	92°58'	1°7'/14.2	18	<b>246972</b>	1999 TU <sub>150</sub>		2 15.6	167°82'	2°6'/13.5	18
1 12	10 20.39	+15 13.4	1.913	2.736	13.5	21.0	1 12	10 21.81	+18 9.8	2.081	2.902	12.7	21.4
1 22	10 14.67	+15 54.6	1.856	2.758	10.0	20.8	1 22	10 15.80	+18 54.8	2.006	2.907	9.4	21.2
2 1	10 6.79	+16 42.8	1.823	2.779	6.0	20.6	2 1	10 7.58	+19 44.7	1.956	2.911	5.8	20.9
2 11	9 57.56	+17 32.0	1.818	2.801	2.2	20.4	2 11	9 57.88	+20 33.4	1.935	2.915	2.8	20.7
2 21	9 47.99	+18 16.1	1.842	2.822	3.4	20.5	2 21	9 47.67	+21 14.8	1.944	2.918	4.1	20.8
3 2	9 39.15	+18 50.3	1.896	2.843	7.2	20.8	3 2	9 38.03	+21 44.2	1.982	2.920	7.6	21.1
3 12	9 31.97	+19 11.5	1.976	2.863	10.8	21.0	3 12	9 29.94	+21 59.1	2.047	2.922	11.1	21.3
3 22	9 27.03	+19 19.3	2.079	2.883	13.8	21.3	3 22	9 24.06	+21 59.4	2.135	2.922	14.1	21.5
<b>160703</b>	2000 PB <sub>19</sub>		2 15.6	205°19'	1°1'/14.7	18	<b>229466</b>	2005 UO <sub>252</sub>		2 15.6	118°53'	2°8'/13.5	18
1 12	10 21.23	+13 20.9	1.976	2.790	13.5	21.5	1 12	10 19.86	+18 38.7	1.894	2.724	13.3	20.5
1 22	10 15.55	+13 58.6	1.888	2.785	10.1	21.3	1 22	10 14.52	+19 16.2	1.822	2.728	9.9	20.3
2 1	10 7.54	+14 46.2	1.824	2.779	6.2	21.0	2 1	10 6.86	+19 58.3	1.775	2.731	6.1	20.1
2 11	9 57.89	+15 38.3	1.789	2.772	2.0	20.7	2 11	9 57.66	+20 38.8	1.755	2.735	3.0	19.9
2 21	9 47.55	+16 28.8	1.783	2.765	3.0	20.8	2 21	9 47.95	+21 11.6	1.764	2.739	4.3	20.0
3 2	9 37.67	+17 11.7	1.807	2.757	7.3	21.0	3 2	9 38.87	+21 31.9	1.802	2.743	8.0	20.2
3 12	9 29.31	+17 43.0	1.858	2.747	11.3	21.2	3 12	9 31.44	+21 37.6	1.865	2.746	11.7	20.5
3 22	9 23.22	+18 0.8	1.932	2.738	14.7	21.4	3 22	9 26.34	+21 28.6	1.951	2.750	14.8	20.7
<b>241079</b>	2006 UN <sub>3</sub>		2 15.6	169°62'	5°3'/22.2	18	<b>171018</b>	2005 EA <sub>45</sub>		2 15.6	285°55'	0°5'/15.9	18
1 12	10 13.21	-10 2.4	3.048	3.745	11.8	21.5	1 12	10 18.70	+ 9 49.9	1.596	2.418	15.8	20.4
1 22	10 8.81	-10 9.5	2.953	3.748	10.0	21.4	1 22	10 14.23	+10 2.9	1.503	2.402	12.1	20.1
2 1	10 3.06	- 9 59.6	2.880	3.751	8.0	21.2	2 1	10 7.03	+10 30.3	1.433	2.387	7.6	19.8
2 11	9 56.39	- 9 32.4	2.833	3.753	6.3	21.1	2 11	9 57.83	+11 8.0	1.388	2.371	2.7	19.5
2 21	9 49.37	- 8 49.4	2.814	3.755	5.3	21.1	2 21	9 47.69	+11 50.2	1.371	2.356	2.7	19.4
3 2	9 42.62	- 7 53.6	2.825	3.757	5.9	21.1	3 2	9 37.98	+12 30.5	1.381	2.340	7.9	19.7
3 12	9 36.72	- 6 49.4	2.864	3.758	7.6	21.2	3 12	9 30.01	+13 2.8	1.416	2.325	12.7	19.9
3 22	9 32.14	- 5 41.7	2.929	3.759	9.5	21.3	3 22	9 24.68	+13 23.6	1.473	2.309	16.9	20.2
<b>142154</b>	2002 RM <sub>28</sub>		2 15.6	260°07'	0°7'/15.1	16	<b>354522</b>	2004 RV <sub>77</sub>		2 15.6	183°94'	3°2'/13.1	18
1 12	10 19.64	+12 29.4	1.804	2.625	14.3	21.1	1 12	10 22.42	+18 43.7	1.857			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>127994</b>	2003 <i>HE</i> <sub>49</sub>		2 15.6 148°31'	4.2°/11.5 18			<b>419129</b>	2009 <i>SU</i> <sub>240</sub>		2 15.6 107°69'	5°0'/19.9 18		
1 12	10 18.98	+23 13.0	2.250	3.078	11.5	20.2	1 12	10 18.27	- 3 8.5	2.093	2.847	14.9	21.3
1 22	10 13.61	+24 19.7	2.183	3.086	8.6	20.0	1 22	10 13.04	- 3 28.6	2.017	2.861	12.1	21.1
2 1	10 6.20	+25 27.6	2.142	3.093	5.8	19.9	2 1	10 5.86	- 3 29.8	1.964	2.875	9.0	21.0
2 11	9 57.46	+26 29.7	2.130	3.099	4.2	19.8	2 11	9 57.38	- 3 12.5	1.936	2.889	6.2	20.8
2 21	9 48.26	+27 19.8	2.148	3.105	5.5	19.9	2 21	9 48.46	- 2 39.2	1.936	2.902	5.1	20.8
3 2	9 39.59	+27 53.5	2.195	3.111	8.3	20.0	3 2	9 40.05	- 1 54.1	1.965	2.915	6.7	20.9
3 12	9 32.36	+28 9.2	2.267	3.116	11.1	20.2	3 12	9 33.01	- 1 3.2	2.021	2.928	9.6	21.1
3 22	9 27.16	+28 7.7	2.361	3.121	13.6	20.4	3 22	9 27.95	- 0 12.0	2.102	2.940	12.4	21.3
<b>18129</b>	2000 <i>OH</i> <sub>5</sub>		2 15.6 285°02'	3°3'/17.3 18			<b>419023</b>	2009 <i>QT</i> <sub>36</sub>		2 15.6 120°08'	5°8'/10.7 18		
1 12	10 22.08	+ 5 44.2	1.502	2.310	17.3	16.9	1 12	10 24.07	+29 29.4	2.196	3.020	12.0	21.6
1 22	10 16.78	+ 5 11.5	1.418	2.304	13.6	16.7	1 22	10 17.38	+30 24.4	2.142	3.035	9.3	21.5
2 1	10 8.60	+ 4 54.0	1.355	2.298	9.2	16.4	2 1	10 8.48	+31 14.3	2.113	3.050	6.8	21.4
2 11	9 58.32	+ 4 50.7	1.316	2.293	4.7	16.1	2 11	9 58.19	+31 51.9	2.112	3.065	5.8	21.3
2 21	9 47.17	+ 4 58.7	1.305	2.287	3.9	16.0	2 21	9 47.57	+32 11.8	2.141	3.079	7.0	21.4
3 2	9 36.61	+ 5 13.7	1.321	2.282	8.1	16.3	3 2	9 37.72	+32 11.5	2.197	3.093	9.3	21.6
3 12	9 27.99	+ 5 30.2	1.362	2.276	12.7	16.5	3 12	9 29.61	+31 51.6	2.279	3.106	11.9	21.8
3 22	9 22.20	+ 5 43.6	1.425	2.271	16.8	16.7	3 22	9 23.81	+31 14.9	2.382	3.119	14.1	22.0
<b>340605</b>	2006 <i>QN</i> <sub>48</sub>		2 15.6 163°97'	3°5'/11.6 18			<b>383029</b>	2005 <i>NM</i> <sub>98</sub>		2 15.6 312°69'	3°2'/17.6 17		
1 12	10 19.12	+26 3.2	3.197	4.013	8.8	21.3	1 12	10 18.71	+ 4 56.4	2.033	2.824	14.0	20.5
1 22	10 13.13	+26 39.8	3.125	4.019	6.7	21.2	1 22	10 13.69	+ 4 19.4	1.930	2.806	11.1	20.3
2 1	10 5.66	+27 14.7	3.081	4.025	4.6	21.1	2 1	10 6.47	+ 3 53.6	1.851	2.788	7.6	20.0
2 11	9 57.24	+27 43.3	3.066	4.030	3.5	21.0	2 11	9 57.64	+ 3 38.8	1.798	2.771	4.3	19.8
2 21	9 48.54	+28 2.4	3.083	4.034	4.4	21.1	2 21	9 48.08	+ 3 33.4	1.774	2.754	3.5	19.7
3 2	9 40.25	+28 9.7	3.130	4.038	6.4	21.2	3 2	9 38.83	+ 3 34.8	1.779	2.737	6.6	19.8
3 12	9 33.01	+28 4.4	3.204	4.042	8.5	21.3	3 12	9 30.91	+ 3 39.4	1.811	2.720	10.4	20.0
3 22	9 27.28	+27 47.3	3.303	4.044	10.5	21.5	3 22	9 25.07	+ 3 43.8	1.867	2.704	13.8	20.2
<b>272951</b>	2006 <i>CY</i> <sub>1</sub>		2 15.6 250°75'	1°4'/14.4 17			<b>34260</b>	2000 <i>QG</i> <sub>120</sub>		2 15.6 144°51'	1°5'/17.3 18 R		
1 12	10 17.46	+14 48.0	2.177	2.997	12.2	21.6	1 12	10 14.28	+ 4 58.7	2.856	3.637	10.6	19.4
1 22	10 12.61	+15 22.9	2.085	2.986	9.1	21.4	1 22	10 9.65	+ 5 17.3	2.772	3.645	8.2	19.2
2 1	10 5.70	+16 5.6	2.018	2.974	5.5	21.1	2 1	10 3.61	+ 5 46.7	2.713	3.653	5.4	19.0
2 11	9 57.34	+16 51.4	1.979	2.962	2.0	20.9	2 11	9 56.64	+ 6 24.6	2.684	3.661	2.6	18.8
2 21	9 48.38	+17 34.7	1.969	2.950	3.0	20.9	2 21	9 49.34	+ 7 7.8	2.685	3.668	1.9	18.8
3 2	9 39.79	+18 10.7	1.990	2.937	6.9	21.1	3 2	9 42.37	+ 7 52.6	2.716	3.674	4.6	19.0
3 12	9 32.50	+18 35.7	2.037	2.925	10.5	21.3	3 12	9 36.35	+ 8 35.4	2.777	3.681	7.4	19.2
3 22	9 27.18	+18 48.1	2.107	2.912	13.6	21.5	3 22	9 31.73	+ 9 13.1	2.864	3.687	9.9	19.4
<b>182316</b>	2001 <i>OT</i> <sub>86</sub>		2 15.6 212°19'	1°4'/16.9 17			<b>208465</b>	2001 <i>UZ</i> <sub>70</sub>		2 15.6 57°13'	0°2'/15.8 18		
1 12	10 17.86	+ 5 45.0	2.411	3.197	12.2	21.7	1 12	10 15.86	+10 3.3	2.083	2.896	12.9	20.8
1 22	10 12.68	+ 6 9.1	2.311	3.188	9.4	21.5	1 22	10 11.21	+10 28.1	2.019	2.914	9.7	20.6
2 1	10 5.65	+ 6 46.2	2.237	3.179	6.2	21.2	2 1	10 4.69	+11 3.3	1.980	2.933	6.0	20.4
2 11	9 57.32	+ 7 33.7	2.191	3.170	2.7	21.0	2 11	9 56.99	+11 44.9	1.968	2.952	2.0	20.2
2 21	9 48.42	+ 8 27.4	2.175	3.159	2.1	20.9	2 21	9 48.95	+12 27.8	1.986	2.971	2.1	20.2
3 2	9 39.82	+ 9 22.4	2.190	3.148	5.6	21.1	3 2	9 41.49	+13 7.4	2.033	2.990	6.0	20.5
3 12	9 32.35	+10 13.9	2.234	3.136	9.1	21.3	3 12	9 35.40	+13 39.6	2.107	3.009	9.5	20.7
3 22	9 26.63	+10 58.2	2.303	3.123	12.1	21.5	3 22	9 31.23	+14 2.2	2.204	3.028	12.5	21.0
<b>440407</b>	2005 <i>OU</i> <sub>21</sub>		2 15.6 115°73'	0°2'/15.5 18			<b>18015</b>	Semenkovich		2 15.6 342°81'	3°3'/17.9 18		
1 12	10 21.51	+ 9 27.2	1.576	2.393	16.2	21.5	1 12	10 16.06	+ 2 19.2	1.449	2.257	17.8	18.2
1 22	10 15.99	+10 18.2	1.514	2.411	12.2	21.2	1 22	10 12.31	+ 2 33.2	1.369	2.254	14.1	17.9
2 1	10 7.87	+11 24.9	1.474	2.428	7.4	21.0	2 1	10 5.87	+ 3 11.0	1.310	2.252	9.6	17.7
2 11	9 58.03	+12 40.5	1.460	2.444	2.3	20.7	2 11	9 57.49	+ 4 10.0	1.275	2.251	5.0	17.4
2 21	9 47.67	+13 56.6	1.476	2.460	2.9	20.8	2 21	9 48.32	+ 5 23.9	1.266	2.249	3.7	17.3
3 2	9 38.10	+15 5.1	1.520	2.475	7.8	21.1	3 2	9 39.72	+ 6 44.1	1.284	2.248	7.8	17.6
3 12	9 30.47	+15 59.8	1.589	2.490	12.1	21.4	3 12	9 32.95	+ 8 1.1	1.327	2.247	12.5	17.8
3 22	9 25.47	+16 38.2	1.681	2.503	15.8	21.7	3 22	9 28.87	+ 9 7.6	1.391	2.246	16.7	18.1
<b>281294</b>	2007 <i>RE</i> <sub>173</sub>		2 15.6 148°90'	1°5'/17.2 18			<b>126408</b>	2002 <i>BX</i> <sub>16</sub>		2 15.6 284°70'	0°3'/15.8 18		
1 12	10 14.30	+ 4 46.9	2.528	3.314	11.7	21.5	1 12	10 16.78	+ 8 34.6	1.543	2.367	16.2	19.4
1 22	10 9.86	+ 5 20.4	2.443	3.320	9.0	21.4	1 22	10 12.92	+ 9 13.5	1.449	2.349	12.4	19.1
2 1	10 3.81	+ 6 7.0	2.384	3.326	5.9	21.2	2 1	10 6.33	+10 11.3	1.378	2.332	7.8	18.8
2 11	9 56.71	+ 7 3.6	2.353	3.331	2.7	21.0	2 11	9 57.68	+11 23.2	1.332	2.315	2.6	18.4
2 21	9 49.20	+ 8 6.1	2.352	3.336	2.0	20.9	2 21	9 48.04	+12 41.4	1.313	2.298	2.9	18.4
3 2	9 42.06	+ 9 9.6	2.382	3.341	5.1	21.1	3 2	9 38.78	+13 56.9	1.321	2.281	8.2	18.7
3 12	9 35.97	+10 9.1	2.441	3.345	8.3	21.3	3 12	9 31.23	+15 1.5	1.355	2.263	13.2	18.9
3 22	9 31.46	+11 1.1	2.525	3.349	11.0	21.5	3 22	9 26.35	+15 50.3	1.409	2.246	17.5	19.1
<b>256357</b>	2006 <i>XH</i> <sub>57</sub>		2 15.6 45°65'	5°1'/12.4 18 R			<b>57917</b>	2002 <i>EK</i> <sub>111</sub>		2 15.6 214°15'	3°7'/12.6 18		
1 12	10 22.63	+23 54.3	1.548	2.390	15.2	19.8	1 12	10 20.51	+19 37.7	1.826	2.658	13.7	19.0
1 22	10 17.02	+24 35.6	1.489	2.398	11.4	19.6	1 22	10 15.29	+20 42.9	1.747	2.653	10.2	18.8
2 1	10 8.56	+25 16.6	1.453	2.407	7.6	19.4	2 1	10 7.54	+21 54.1	1.692	2.647	6.5	18.5
2 11	9 58.26	+25 48.7	1.443	2.415	5.1	19.2	2 11	9 58.00	+23 3.5	1.664	2.641	3.8	18.4
2 21	9 47.44	+26 4.8	1.460	2.424	6.6	19.3	2 21	9 47.74	+24 2.7	1.666	2.635	5.4	18.5
3 2	9 37.58	+26 1.0	1.503	2.434	10.2	19.6	3 2	9 38.01	+24 45.5	1.695	2.628	9.1	18.7
3 12	9 29.91	+25 37.0	1.571	2.443	13.9	19.8	3 12	9 29.98	+25 8.6	1.750	2.620	12.9	18.9
3 22	9 25.11	+24 55.8	1.658	2.453	17.1	20.1	3 22	9 24.42	+25 12.2	1.826	2.612	16.1	19.1
<b>182631</b>	2001 <i>UP</i> <sub>143</sub>		2 15.6 219°96'	3°6'/12.4 18			<b>489714</b>	2007 <i>VR</i> <sub>237</sub>		2 15.6 201°36'	2°2'/13.7 17		
1 12	10 20.21	+21 28.9	2.185</										

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>425072</b>	2009 RQ <sub>55</sub>		2 15.6 134°85	3°3/12.8 18			<b>23545</b>	1994 AC		2 15.6 78°81	2°5/17.1 18		
1 12	10 20.07	+20 37.0	2.148	2.974	12.1	21.8	1 12	10 20.99	+5 27.9	1.307	2.125	18.9	17.7
1 22	10 14.44	+21 25.3	2.081	2.984	9.0	21.6	1 22	10 16.09	+5 30.7	1.242	2.136	14.6	17.4
2 1	10 6.74	+22 16.3	2.039	2.993	5.7	21.4	2 1	10 8.18	+5 54.2	1.198	2.146	9.6	17.2
2 11	9 57.68	+23 3.6	2.025	3.002	3.3	21.2	2 11	9 58.22	+6 34.7	1.178	2.157	4.4	16.9
2 21	9 48.20	+23 41.5	2.042	3.010	4.6	21.3	2 21	9 47.59	+7 25.7	1.184	2.168	3.4	16.9
3 2	9 39.31	+24 5.9	2.087	3.018	7.8	21.5	3 2	9 37.83	+8 19.1	1.216	2.179	8.3	17.2
3 12	9 31.92	+24 14.8	2.158	3.025	10.9	21.8	3 12	9 30.31	+9 7.1	1.273	2.190	13.1	17.5
3 22	9 26.63	+24 8.7	2.253	3.033	13.6	22.0	3 22	9 25.79	+9 44.6	1.350	2.201	17.3	17.8
<b>331270</b>	2011 CW <sub>71</sub>		2 15.6 152°98	3°2/12.7 18			<b>373683</b>	2002 RH <sub>9</sub>		2 15.6 74°19	1°1/14.7 18		
1 12	10 18.06	+19 27.6	2.066	2.896	12.4	21.4	1 12	10 19.07	+14 9.0	2.126	2.942	12.6	20.6
1 22	10 13.09	+20 27.7	1.994	2.900	9.2	21.2	1 22	10 13.49	+14 41.6	2.072	2.971	9.3	20.5
2 1	10 6.00	+21 32.4	1.947	2.903	5.8	21.0	2 1	10 6.03	+15 20.9	2.044	2.999	5.6	20.3
2 11	9 57.47	+22 34.9	1.929	2.906	3.3	20.9	2 11	9 57.43	+16 2.0	2.044	3.027	1.8	20.1
2 21	9 48.43	+23 28.7	1.940	2.909	4.7	21.0	2 21	9 48.59	+16 39.9	2.074	3.055	2.7	20.2
3 2	9 39.92	+24 8.4	1.979	2.912	8.0	21.2	3 2	9 40.41	+17 10.3	2.133	3.083	6.4	20.5
3 12	9 32.88	+24 31.4	2.045	2.914	11.3	21.4	3 12	9 33.71	+17 30.5	2.220	3.110	9.6	20.7
3 22	9 27.96	+24 37.7	2.133	2.916	14.2	21.6	3 22	9 28.99	+17 39.6	2.330	3.137	12.4	21.0
<b>141131</b>	2001 XG <sub>90</sub>		2 15.6 258°96	5°6/11.6 18			<b>522361</b>	2016 CS <sub>299</sub>		2 15.6 249°99	4°3/12.5 17		
1 12	10 21.31	+22 50.4	1.504	2.348	15.4	20.1	1 12	10 24.09	+23 58.5	1.999	2.825	12.9	21.7
1 22	10 16.42	+24 3.8	1.431	2.342	11.7	19.8	1 22	10 17.83	+24 30.6	1.912	2.813	9.8	21.5
2 1	10 8.48	+25 21.3	1.381	2.335	7.8	19.6	2 1	10 9.05	+25 2.6	1.849	2.800	6.5	21.3
2 11	9 58.36	+26 32.4	1.357	2.328	5.6	19.4	2 11	9 58.50	+25 27.6	1.815	2.786	4.4	21.1
2 21	9 47.35	+27 27.0	1.360	2.321	7.4	19.5	2 21	9 47.26	+25 39.7	1.809	2.773	5.7	21.2
3 2	9 37.05	+27 58.0	1.388	2.314	11.3	19.7	3 2	9 36.57	+25 35.1	1.832	2.759	9.0	21.3
3 12	9 28.88	+28 3.1	1.440	2.307	15.3	20.0	3 12	9 27.58	+25 12.8	1.881	2.744	12.4	21.5
3 22	9 23.74	+27 44.5	1.511	2.300	18.8	20.2	3 22	9 21.06	+24 34.7	1.953	2.730	15.5	21.7
<b>193882</b>	2001 QW <sub>182</sub>		2 15.6 62°39	10°1/12.5 17			<b>415902</b>	2001 TJ <sub>219</sub>		2 15.6 127°64	0°6/16.1 18		
1 12	10 42.93	+36 16.9	1.271	2.093	19.0	19.4	1 12	10 18.33	+8 10.9	2.218	3.017	12.7	22.0
1 22	10 32.49	+36 37.0	1.229	2.114	15.3	19.2	1 22	10 13.00	+8 46.5	2.146	3.033	9.6	21.8
2 1	10 17.95	+36 38.5	1.209	2.136	11.9	19.1	2 1	10 5.80	+9 33.9	2.099	3.048	6.0	21.6
2 11	10 1.16	+36 9.3	1.213	2.157	10.1	19.0	2 11	9 57.40	+10 29.2	2.080	3.062	2.1	21.4
2 21	9 44.46	+35 4.5	1.243	2.179	11.1	19.2	2 21	9 48.60	+11 27.0	2.092	3.076	2.0	21.4
3 2	9 30.11	+33 27.5	1.299	2.201	14.0	19.4	3 2	9 40.32	+12 22.2	2.134	3.090	5.8	21.7
3 12	9 19.56	+31 27.9	1.379	2.223	17.2	19.6	3 12	9 33.36	+13 10.1	2.204	3.103	9.3	21.9
3 22	9 13.27	+29 16.1	1.478	2.245	20.1	19.9	3 22	9 28.29	+13 47.9	2.298	3.115	12.3	22.1
<b>28928</b>	2000 RY <sub>12</sub>		2 15.6 55°14	6°3/22.1 18			<b>464956</b>	2005 WD <sub>15</sub>		2 15.6 111°46	1°8/14.1 18		
1 12	10 13.40	-9 4.9	2.324	3.046	14.4	18.6	1 12	10 18.93	+15 34.2	2.007	2.830	13.0	21.5
1 22	10 9.37	-9 20.7	2.238	3.051	12.2	18.4	1 22	10 13.67	+16 17.4	1.940	2.842	9.6	21.3
2 1	10 3.62	-9 15.5	2.173	3.056	9.7	18.2	2 1	10 6.31	+17 7.5	1.897	2.854	5.8	21.1
2 11	9 56.70	-8 48.6	2.132	3.061	7.5	18.2	2 11	9 57.58	+17 58.9	1.883	2.866	2.2	20.9
2 21	9 49.33	-8 1.9	2.118	3.066	6.3	18.0	2 21	9 48.41	+18 45.5	1.898	2.877	3.4	21.0
3 2	9 42.32	-6 59.4	2.132	3.071	7.1	18.1	3 2	9 39.85	+19 22.3	1.942	2.888	7.2	21.3
3 12	9 36.44	-5 47.2	2.173	3.076	9.2	18.2	3 12	9 32.81	+19 46.1	2.013	2.899	10.7	21.5
3 22	9 32.26	-4 31.8	2.239	3.081	11.6	18.4	3 22	9 27.90	+19 56.2	2.107	2.909	13.7	21.7
<b>294136</b>	2007 TU <sub>289</sub>		2 15.6 187°05	1°0/14.7 18			<b>98086</b>	2000 RW <sub>70</sub>		2 15.6 202°10	3°7/12.9 18		
1 12	10 20.50	+12 49.6	2.128	2.938	12.8	22.1	1 12	10 22.34	+19 59.6	1.806	2.636	13.9	19.2
1 22	10 14.86	+13 36.2	2.043	2.938	9.6	21.9	1 22	10 16.66	+20 52.9	1.728	2.633	10.4	19.0
2 1	10 7.09	+14 32.7	1.983	2.937	5.8	21.7	2 1	10 8.39	+21 51.1	1.674	2.629	6.6	18.7
2 11	9 57.83	+15 33.8	1.952	2.936	1.9	21.4	2 11	9 58.31	+22 46.6	1.648	2.625	3.8	18.5
2 21	9 47.99	+16 33.3	1.951	2.933	2.9	21.5	2 21	9 47.53	+23 31.6	1.651	2.621	5.3	18.6
3 2	9 38.60	+17 25.5	1.981	2.929	6.8	21.7	3 2	9 37.34	+24 0.6	1.681	2.615	9.1	18.8
3 12	9 30.60	+18 6.1	2.038	2.925	10.5	21.9	3 12	9 28.94	+24 11.0	1.738	2.610	12.8	19.0
3 22	9 24.69	+18 33.2	2.119	2.920	13.7	22.1	3 22	9 23.09	+24 3.4	1.815	2.603	16.1	19.2
<b>128262</b>	2003 SL <sub>301</sub>		2 15.6 166°09	1°4/14.4 18			<b>503629</b>	2016 GB <sub>145</sub>		2 15.6 350°70	2°4/14.4 18		
1 12	10 16.99	+14 38.2	2.221	3.041	12.0	20.4	1 12	10 23.27	+18 49.9	1.525	2.361	15.7	20.2
1 22	10 12.13	+15 18.1	2.142	3.043	8.9	20.2	1 22	10 17.63	+18 46.3	1.449	2.357	11.8	20.0
2 1	10 5.33	+16 5.6	2.088	3.045	5.4	20.0	2 1	10 9.08	+18 45.7	1.396	2.354	7.3	19.7
2 11	9 57.25	+16 55.5	2.063	3.046	1.9	19.7	2 11	9 58.53	+18 42.6	1.368	2.351	3.0	19.4
2 21	9 48.70	+17 42.5	2.067	3.048	3.0	19.8	2 21	9 47.30	+18 31.8	1.369	2.349	4.2	19.5
3 2	9 40.59	+18 21.9	2.101	3.049	6.6	20.0	3 2	9 36.87	+18 10.0	1.396	2.347	8.8	19.8
3 12	9 33.79	+18 50.2	2.163	3.050	10.0	20.2	3 12	9 28.56	+17 36.3	1.448	2.346	13.3	20.0
3 22	9 28.89	+19 6.0	2.247	3.051	12.9	20.4	3 22	9 23.16	+16 51.7	1.522	2.346	17.1	20.3
<b>317478</b>	2002 RF <sub>216</sub>		2 15.6 56°54	13°4/11.9 17 R			<b>33514</b>	Changpeihuan		2 15.6 221°94	2°7/13.8 18		
1 12	10 44.85	+39 16.7	1.023	1.856	21.9	19.9	1 12	10 22.98	+18 0.5	1.748	2.575	14.4	19.1
1 22	10 35.30	+39 57.9	0.977	1.863	18.2	19.6	1 22	10 17.22	+18 35.6	1.665	2.569	10.8	18.8
2 1	10 20.35	+40 15.5	0.949	1.871	15.0	19.5	2 1	10 8.78	+19 16.8	1.606	2.562	6.7	18.6
2 11	10 2.04	+39 51.5	0.943	1.879	13.4	19.4	2 11	9 58.45	+19 57.4	1.574	2.555	3.0	18.3
2 21	9 43.44	+38 37.4	0.959	1.888	14.5	19.5	2 21	9 47.36	+20 30.6	1.570	2.547	4.5	18.4
3 2	9 27.61	+36 37.2	0.999	1.897	17.5	19.7	3 2	9 36.86	+20 50.8	1.595	2.538	8.7	18.6
3 12	9 16.51	+34 5.1	1.059	1.906	21.1	20.0	3 12	9 28.17	+20 55.3	1.646	2.530	12.8	18.9
3 22	9 10.64	+31 16.7	1.136	1.915	24.3	20.2	3 22	9 22.11	+20 44.0	1.718	2.520	16.3	19.1
<b>80083</b>	1999 KD <sub>2</sub>		2 15.6 292°20	2°9/12.9 17			<b>18133</b>	2000 OL <sub>12</sub>		2 15.6 95°97	0°8/16.3 18		
1 12	10 15.89	+19 23.0	2.206	3.037	11.7	19.9	1 12	10 18.80	+7 58.9	1.980	2.7		



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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>198670</b>	2005 <i>BJ</i> <sub>28</sub>		2 15.6	33°77'	0°1/15.6	18	<b>2471</b>	Ultrajectum		2 15.6	209°70'	3°6/12.3	18
1 12	10 18.44	+11 52.2	1.624	2.451	15.3	20.4	1 12	10 19.05	+23 13.1	2.406	3.231	11.0	16.9
1 22	10 13.63	+11 56.0	1.562	2.464	11.5	20.2	1 22	10 13.62	+23 53.9	2.327	3.228	8.3	16.8
2 1	10 6.41	+12 10.2	1.523	2.478	7.1	20.0	2 1	10 6.26	+24 35.2	2.274	3.225	5.4	16.6
2 11	9 57.63	+12 30.5	1.509	2.493	2.3	19.7	2 11	9 57.61	+25 11.6	2.250	3.222	3.7	16.4
2 21	9 48.41	+12 51.8	1.523	2.508	2.6	19.8	2 21	9 48.49	+25 37.8	2.256	3.218	4.8	16.5
3 2	9 39.96	+13 9.3	1.565	2.523	7.2	20.1	3 2	9 39.84	+25 50.6	2.290	3.214	7.6	16.7
3 12	9 33.32	+13 19.3	1.632	2.539	11.4	20.4	3 12	9 32.51	+25 48.5	2.352	3.210	10.5	16.9
3 22	9 29.13	+13 19.9	1.721	2.556	14.9	20.6	3 22	9 27.10	+25 32.2	2.436	3.206	13.0	17.0
<b>261064</b>	2005 <i>SD</i> <sub>189</sub>		2 15.6	309°21'	2°9/13.5	18	<b>63845</b>	2001 <i>RV</i> <sub>81</sub>		2 15.6	28°86'	7°8/22.0	18
1 12	10 19.33	+18 20.3	1.777	2.611	13.9	20.9	1 12	10 13.90	- 8 12.8	1.539	2.298	19.1	18.1
1 22	10 14.37	+19 0.0	1.701	2.609	10.4	20.7	1 22	10 10.49	- 8 35.1	1.468	2.306	16.1	17.9
2 1	10 6.95	+19 45.4	1.649	2.607	6.4	20.5	2 1	10 4.65	- 8 27.7	1.415	2.315	12.7	17.7
2 11	9 57.85	+20 29.9	1.624	2.605	3.1	20.2	2 11	9 57.14	- 7 49.5	1.384	2.325	9.5	17.6
2 21	9 48.12	+21 6.7	1.628	2.603	4.5	20.3	2 21	9 49.02	- 6 43.4	1.378	2.336	7.8	17.5
3 2	9 38.99	+21 30.6	1.659	2.601	8.5	20.6	3 2	9 41.51	- 5 16.6	1.397	2.347	8.9	17.6
3 12	9 31.58	+21 38.6	1.715	2.600	12.3	20.8	3 12	9 35.70	- 3 39.4	1.441	2.359	11.9	17.8
3 22	9 26.61	+21 30.9	1.793	2.598	15.6	21.0	3 22	9 32.32	- 2 2.0	1.508	2.371	15.1	18.0
<b>385863</b>	2006 <i>RE</i> <sub>14</sub>		2 15.6	109°89'	4°4/20.2	17	<b>459323</b>	2012 <i>HF</i> <sub>10</sub>		2 15.6	236°26'	0°7/14.9	17
1 12	10 14.35	- 3 43.7	2.466	3.213	13.0	21.3	1 12	10 15.84	+10 37.3	2.194	3.006	12.4	21.4
1 22	10 9.95	- 3 47.4	2.381	3.221	10.6	21.1	1 22	10 11.45	+11 40.3	2.099	2.995	9.3	21.2
2 1	10 3.93	- 3 33.9	2.320	3.229	8.0	20.9	2 1	10 5.08	+12 56.4	2.030	2.984	5.7	21.0
2 11	9 56.83	- 3 3.9	2.285	3.237	5.5	20.8	2 11	9 57.28	+14 20.5	1.989	2.973	1.8	20.7
2 21	9 49.33	- 2 19.9	2.278	3.244	4.4	20.7	2 21	9 48.85	+15 45.7	1.978	2.961	2.6	20.7
3 2	9 42.19	- 1 25.9	2.300	3.252	5.8	20.8	3 2	9 40.72	+17 5.3	1.998	2.949	6.6	21.0
3 12	9 36.14	- 0 27.2	2.351	3.259	8.4	21.0	3 12	9 33.80	+18 13.5	2.045	2.936	10.3	21.2
3 22	9 31.70	+ 0 31.2	2.427	3.266	11.0	21.2	3 22	9 28.76	+19 7.1	2.116	2.923	13.5	21.3
<b>119538</b>	2001 <i>VD</i> <sub>15</sub>		2 15.6	333°20'	9°5/ 8.4	18	<b>333568</b>	2006 <i>BL</i> <sub>30</sub>		2 15.6	304°59'	0°3/15.8	18
1 12	10 21.68	+33 53.5	1.559	2.402	15.1	18.6	1 12	10 20.78	+12 6.0	1.878	2.692	14.1	20.1
1 22	10 16.83	+35 15.7	1.496	2.393	12.3	18.4	1 22	10 15.34	+11 55.8	1.789	2.685	10.7	19.9
2 1	10 8.78	+36 29.9	1.456	2.385	10.1	18.3	2 1	10 7.54	+11 53.7	1.724	2.677	6.7	19.6
2 11	9 58.48	+37 24.1	1.440	2.377	9.6	18.2	2 11	9 58.08	+11 56.7	1.687	2.670	2.2	19.3
2 21	9 47.39	+37 49.0	1.449	2.370	11.1	18.3	2 21	9 47.97	+12 0.9	1.678	2.663	2.4	19.3
3 2	9 37.19	+37 40.6	1.481	2.363	13.9	18.4	3 2	9 38.36	+12 2.9	1.698	2.656	6.9	19.6
3 12	9 29.34	+37 0.5	1.535	2.357	16.9	18.6	3 12	9 30.33	+11 59.6	1.745	2.649	11.0	19.8
3 22	9 24.67	+35 54.2	1.606	2.352	19.6	18.8	3 22	9 24.62	+11 49.3	1.815	2.642	14.6	20.0
<b>490194</b>	2008 <i>UJ</i> <sub>321</sub>		2 15.6	173°67'	2°7/13.7	18	<b>82779</b>	2001 <i>QU</i> <sub>17</sub>		2 15.6	98°28'	1°0/14.6	18
1 12	10 24.24	+18 1.0	1.813	2.636	14.1	22.0	1 12	10 16.61	+13 59.5	2.422	3.237	11.3	19.4
1 22	10 17.97	+18 43.0	1.738	2.640	10.5	21.8	1 22	10 11.61	+14 37.8	2.356	3.254	8.3	19.2
2 1	10 9.14	+19 30.8	1.687	2.643	6.5	21.5	2 1	10 4.92	+15 22.6	2.316	3.271	5.0	19.0
2 11	9 58.55	+20 17.4	1.664	2.645	3.0	21.3	2 11	9 57.17	+16 9.6	2.305	3.288	1.7	18.8
2 21	9 47.33	+20 56.0	1.671	2.646	4.4	21.4	2 21	9 49.09	+16 54.1	2.324	3.305	2.5	18.9
3 2	9 36.79	+21 21.2	1.706	2.646	8.4	21.7	3 2	9 41.51	+17 31.8	2.373	3.321	5.9	19.1
3 12	9 28.06	+21 30.5	1.767	2.646	12.3	21.9	3 12	9 35.14	+17 59.9	2.450	3.338	9.0	19.4
3 22	9 21.90	+21 24.1	1.851	2.645	15.6	22.1	3 22	9 30.50	+18 17.0	2.551	3.353	11.6	19.6
<b>105038</b>	2000 <i>KG</i> <sub>40</sub>		2 15.6	96°32'	1°2/14.7	18	<b>319735</b>	2006 <i>UU</i> <sub>120</sub>		2 15.6	158°90'	1°6/13.9	18
1 12	10 18.87	+13 29.5	1.788	2.613	14.2	20.0	1 12	10 15.55	+16 26.0	2.614	3.433	10.4	21.3
1 22	10 13.87	+14 7.7	1.720	2.622	10.6	19.7	1 22	10 10.82	+17 5.0	2.535	3.435	7.7	21.2
2 1	10 6.56	+14 55.7	1.675	2.631	6.4	19.5	2 1	10 4.47	+17 49.0	2.482	3.438	4.7	21.0
2 11	9 57.71	+15 47.6	1.657	2.640	2.1	19.2	2 11	9 57.04	+18 33.7	2.459	3.441	1.9	20.8
2 21	9 48.34	+16 37.0	1.667	2.649	3.2	19.3	2 21	9 49.23	+19 14.6	2.465	3.443	2.9	20.8
3 2	9 39.62	+17 17.9	1.706	2.658	7.4	19.6	3 2	9 41.79	+19 47.8	2.502	3.445	6.0	21.0
3 12	9 32.57	+17 46.3	1.772	2.667	11.4	19.9	3 12	9 35.45	+20 10.8	2.567	3.447	8.9	21.2
3 22	9 27.85	+18 0.8	1.859	2.675	14.7	20.1	3 22	9 30.72	+20 22.5	2.655	3.448	11.4	21.4
<b>453268</b>	2008 <i>SR</i> <sub>252</sub>		2 15.6	209°39'	0°5/15.2	18	<b>92446</b>	2000 <i>KS</i> <sub>6</sub>		2 15.6	226°19'	0°7/15.1	18
1 12	10 20.92	+11 7.0	1.739	2.556	14.9	22.5	1 12	10 19.54	+10 56.0	1.838	2.653	14.3	20.3
1 22	10 15.67	+11 46.9	1.653	2.551	11.3	22.2	1 22	10 14.60	+11 49.0	1.745	2.643	10.8	20.1
2 1	10 7.84	+12 40.4	1.590	2.545	6.9	22.0	2 1	10 7.20	+12 56.4	1.677	2.632	6.6	19.8
2 11	9 58.18	+13 42.1	1.555	2.538	2.2	21.6	2 11	9 58.02	+14 12.6	1.636	2.620	2.1	19.5
2 21	9 47.73	+14 44.7	1.548	2.531	2.9	21.7	2 21	9 48.02	+15 30.1	1.625	2.608	3.0	19.5
3 2	9 37.77	+15 41.1	1.570	2.524	7.7	21.9	3 2	9 38.40	+16 41.0	1.642	2.594	7.6	19.8
3 12	9 29.49	+16 25.6	1.618	2.515	12.1	22.2	3 12	9 30.31	+17 39.1	1.687	2.581	11.9	20.0
3 22	9 23.72	+16 55.3	1.688	2.506	15.9	22.4	3 22	9 24.57	+18 21.3	1.754	2.566	15.6	20.2
<b>316791</b>	1999 <i>TS</i> <sub>201</sub>		2 15.6	146°47'	1°1/16.5	18	<b>289126</b>	2004 <i>UW</i> <sub>2</sub>		2 15.6	124°04'	1°6/13.9	18
1 12	10 20.08	+ 7 20.8	2.007	2.805	13.9	21.3	1 12	10 17.72	+14 58.9	2.361	3.177	11.5	21.3
1 22	10 14.54	+ 7 44.4	1.930	2.815	10.6	21.1	1 22	10 12.52	+15 56.6	2.294	3.193	8.5	21.1
2 1	10 6.88	+ 8 21.3	1.877	2.825	6.7	20.9	2 1	10 5.52	+17 1.1	2.254	3.209	5.1	20.9
2 11	9 57.81	+ 9 8.0	1.852	2.833	2.6	20.7	2 11	9 57.38	+18 6.9	2.242	3.225	2.0	20.7
2 21	9 48.24	+ 9 59.2	1.857	2.842	2.2	20.7	2 21	9 48.86	+19 8.2	2.261	3.239	3.1	20.8
3 2	9 39.21	+10 49.4	1.891	2.849	6.3	20.9	3 2	9 40.83	+20 0.3	2.311	3.253	6.4	21.1
3 12	9 31.66	+11 33.5	1.953	2.856	10.1	21.2	3 12	9 34.08	+20 39.8	2.388	3.267	9.5	21.3
3 22	9 26.23	+12 8.2	2.040	2.862	13.4	21.4	3 22	9 29.13	+21 5.5	2.489	3.280	12.2	21.5
<b>504505</b>	2008 <i>MH</i> <sub>1</sub>		2 15.6	204°58'	1°0/16.8	17 C	<b>136432</b>	Allenlunsford		2 15.6	213°54'	0°9/14.8	18
1 12	10 17.63	+ 6 54.4	3.465										

EPHEMERIDES

2 15.6

2 15.6

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>214245</b>	2005 <i>EL</i> <sub>235</sub>	2 15.6 255°25		1°3/14.6 16			<b>473974</b>	2016 <i>EM</i> <sub>195</sub>	2 15.6 280°62		2°8/12.9 17		
1 12	10 20.02	+14 3.8	1.859	2.680	13.9	21.9	1 12	10 15.78	+15 27.2	1.988	2.817	12.8	21.1
1 22	10 14.97	+14 38.7	1.763	2.664	10.5	21.6	1 22	10 11.79	+16 55.8	1.887	2.794	9.6	20.8
2 1	10 7.45	+15 23.9	1.691	2.647	6.4	21.3	2 1	10 5.53	+18 37.3	1.812	2.769	5.9	20.6
2 11	9 58.11	+16 13.7	1.647	2.630	2.2	21.0	2 11	9 57.53	+20 24.4	1.764	2.745	2.9	20.3
2 21	9 47.93	+17 1.8	1.631	2.613	3.3	21.1	2 21	9 48.66	+22 8.1	1.747	2.720	4.6	20.4
3 2	9 38.12	+17 42.0	1.645	2.595	7.8	21.3	3 2	9 40.00	+23 39.5	1.759	2.695	8.6	20.6
3 12	9 29.85	+18 9.6	1.684	2.576	12.0	21.5	3 12	9 32.64	+24 52.4	1.797	2.670	12.4	20.7
3 22	9 23.95	+18 22.9	1.746	2.558	15.7	21.7	3 22	9 27.43	+25 44.0	1.857	2.645	15.8	20.9
<b>334079</b>	2001 <i>QM</i> <sub>45</sub>	2 15.6 127°11		0°6/14.9 18			<b>136485</b>	2005 <i>GU</i> <sub>82</sub>	2 15.6 219°10		0°1/15.6 17		
1 12	10 16.19	+12 59.5	2.924	3.728	9.8	21.9	1 12	10 19.24	+10 25.4	2.022	2.831	13.4	21.2
1 22	10 11.04	+13 36.6	2.853	3.746	7.3	21.8	1 22	10 14.12	+11 0.2	1.930	2.823	10.1	20.9
2 1	10 4.48	+14 19.8	2.809	3.763	4.4	21.6	2 1	10 6.80	+11 47.1	1.862	2.814	6.3	20.7
2 11	9 57.03	+15 5.4	2.795	3.779	1.4	21.4	2 11	9 57.89	+12 41.7	1.822	2.805	2.0	20.4
2 21	9 49.29	+15 49.6	2.813	3.795	2.0	21.5	2 21	9 48.31	+13 38.3	1.811	2.795	2.4	20.4
3 2	9 41.94	+16 28.9	2.861	3.810	5.0	21.7	3 2	9 39.10	+14 30.9	1.830	2.785	6.8	20.6
3 12	9 35.60	+17 0.5	2.939	3.825	7.7	21.9	3 12	9 31.30	+15 14.4	1.877	2.774	10.7	20.9
3 22	9 30.69	+17 23.0	3.042	3.839	10.0	22.1	3 22	9 25.61	+15 45.9	1.947	2.762	14.2	21.1
<b>401192</b>	2011 <i>WN</i> <sub>127</sub>	2 15.6 196°61		1°8/14.1 17			<b>112443</b>	2002 <i>OF</i> <sub>4</sub>	2 15.6 96°13		4°0/19.3 18 R		
1 12	10 21.31	+14 59.9	2.064	2.880	12.9	22.8	1 12	10 15.94	- 0 56.1	2.225	2.991	13.8	18.9
1 22	10 15.61	+15 50.4	1.979	2.877	9.6	22.6	1 22	10 11.32	- 1 4.6	2.144	2.998	11.0	18.7
2 1	10 7.66	+16 49.7	1.918	2.873	5.9	22.4	2 1	10 4.88	- 0 56.3	2.085	3.006	8.0	18.5
2 11	9 58.14	+17 51.6	1.886	2.869	2.2	22.1	2 11	9 57.23	- 0 32.2	2.053	3.014	5.1	18.4
2 21	9 47.97	+18 49.6	1.884	2.863	3.5	22.2	2 21	9 49.14	+ 0 5.0	2.049	3.021	4.1	18.3
3 2	9 38.24	+19 37.8	1.913	2.857	7.4	22.4	3 2	9 41.46	+ 0 50.9	2.074	3.029	6.0	18.5
3 12	9 29.98	+20 12.3	1.968	2.849	11.1	22.6	3 12	9 35.02	+ 1 40.3	2.126	3.036	9.0	18.7
3 22	9 23.90	+20 31.8	2.046	2.841	14.3	22.8	3 22	9 30.37	+ 2 28.1	2.204	3.044	11.9	18.9
<b>284792</b>	2008 <i>YW</i> <sub>79</sub>	2 15.6 235°04		0°3/15.3 17			<b>290421</b>	2005 <i>TH</i> <sub>76</sub>	2 15.6 192°23		2°8/12.9 18		
1 12	10 13.98	+10 30.7	2.353	3.164	11.7	20.9	1 12	10 18.71	+18 24.8	2.276	3.099	11.6	21.7
1 22	10 9.86	+11 19.8	2.266	3.161	8.8	20.7	1 22	10 13.51	+19 29.4	2.195	3.097	8.6	21.5
2 1	10 4.00	+12 19.8	2.204	3.158	5.4	20.5	2 1	10 6.31	+20 39.6	2.140	3.095	5.4	21.2
2 11	9 56.93	+13 26.3	2.171	3.155	1.7	20.2	2 11	9 57.71	+21 49.2	2.114	3.092	2.9	21.1
2 21	9 49.38	+14 34.0	2.169	3.152	2.2	20.2	2 21	9 48.56	+22 51.6	2.118	3.089	4.3	21.1
3 2	9 42.18	+15 37.2	2.196	3.149	5.9	20.5	3 2	9 39.82	+23 41.4	2.153	3.085	7.5	21.4
3 12	9 36.10	+16 31.4	2.251	3.146	9.3	20.7	3 12	9 32.40	+24 15.7	2.214	3.080	10.7	21.5
3 22	9 31.72	+17 13.7	2.330	3.143	12.2	20.9	3 22	9 26.92	+24 33.7	2.298	3.075	13.5	21.7
<b>206027</b>	2002 <i>PA</i> <sub>186</sub>	2 15.6 256°40		1°2/14.8 16			<b>433128</b>	2012 <i>TE</i> <sub>181</sub>	2 15.6 76°36		1°4/14.5 17		
1 12	10 20.08	+13 43.6	1.810	2.632	14.2	21.4	1 12	10 18.11	+16 3.0	2.280	3.099	11.7	21.5
1 22	10 15.07	+14 14.9	1.716	2.617	10.7	21.1	1 22	10 12.87	+16 22.0	2.208	3.108	8.7	21.3
2 1	10 7.53	+14 56.6	1.646	2.602	6.6	20.9	2 1	10 5.79	+16 45.8	2.161	3.117	5.3	21.1
2 11	9 58.15	+15 43.3	1.603	2.587	2.2	20.5	2 11	9 57.50	+17 10.4	2.143	3.126	1.9	20.9
2 21	9 47.94	+16 28.7	1.589	2.571	3.2	20.6	2 21	9 48.85	+17 31.5	2.155	3.135	2.8	20.9
3 2	9 38.12	+17 6.5	1.603	2.555	7.8	20.8	3 2	9 40.72	+17 45.7	2.196	3.144	6.3	21.2
3 12	9 29.89	+17 32.2	1.643	2.538	12.1	21.0	3 12	9 33.92	+17 50.6	2.264	3.153	9.5	21.4
3 22	9 24.09	+17 43.9	1.706	2.521	15.9	21.2	3 22	9 29.00	+17 45.7	2.357	3.162	12.3	21.6
<b>465081</b>	2006 <i>TY</i> <sub>103</sub>	2 15.6 87°46		7°2/21.9 18			<b>103709</b>	2000 <i>CF</i> <sub>84</sub>	2 15.6 40°94		0°1/15.6 18		
1 12	10 16.26	- 8 49.0	1.791	2.529	17.6	21.8	1 12	10 16.78	+ 8 33.1	1.165	2.006	19.2	18.7
1 22	10 11.97	- 9 1.9	1.715	2.540	14.8	21.6	1 22	10 13.28	+ 9 26.3	1.107	2.016	14.5	18.5
2 1	10 5.46	- 8 47.7	1.658	2.550	11.6	21.4	2 1	10 6.65	+10 41.5	1.068	2.027	8.9	18.2
2 11	9 57.44	- 8 5.9	1.624	2.561	8.7	21.3	2 11	9 57.88	+12 10.7	1.054	2.038	2.9	17.9
2 21	9 48.86	- 6 59.3	1.616	2.571	7.2	21.2	2 21	9 48.41	+13 42.5	1.065	2.050	3.3	17.9
3 2	9 40.81	- 5 34.1	1.635	2.581	8.2	21.3	3 2	9 39.86	+15 5.4	1.101	2.062	9.2	18.3
3 12	9 34.29	- 3 59.4	1.681	2.592	10.9	21.5	3 12	9 33.62	+16 10.6	1.160	2.075	14.3	18.6
3 22	9 29.99	- 2 24.1	1.750	2.602	13.9	21.7	3 22	9 30.49	+16 54.4	1.238	2.088	18.6	18.9
<b>318029</b>	2004 <i>EV</i> <sub>23</sub>	2 15.6 67°55		14°4/28.7 18			<b>83562</b>	2001 <i>SJ</i> <sub>210</sub>	2 15.6 348°47		0°9/14.9 18		
1 12	10 15.71	-21 50.2	1.140	1.847	27.3	19.5	1 12	10 15.32	+13 26.5	1.932	2.759	13.2	19.6
1 22	10 12.72	-22 21.9	1.077	1.859	24.4	19.3	1 22	10 11.21	+13 54.8	1.851	2.755	9.9	19.4
2 1	10 6.45	-22 2.1	1.026	1.871	21.1	19.2	2 1	10 4.98	+14 32.4	1.794	2.751	6.0	19.1
2 11	9 57.85	-20 43.5	0.991	1.883	17.7	19.0	2 11	9 57.30	+15 14.4	1.764	2.748	1.9	18.9
2 21	9 48.37	-18 26.7	0.974	1.896	15.1	18.9	2 21	9 49.06	+15 55.3	1.763	2.746	2.8	18.9
3 2	9 39.75	-15 21.9	0.979	1.909	14.5	18.9	3 2	9 41.29	+16 29.8	1.790	2.744	7.0	19.2
3 12	9 33.55	-11 49.7	1.008	1.921	16.1	19.0	3 12	9 34.96	+16 54.0	1.843	2.742	10.8	19.4
3 22	9 30.65	- 8 13.2	1.057	1.934	19.1	19.2	3 22	9 30.72	+17 5.9	1.919	2.741	14.1	19.6
<b>498621</b>	2008 <i>RZ</i> <sub>110</sub>	2 15.6 136°00		0°3/15.3 17			<b>160774</b>	2000 <i>SK</i> <sub>217</sub>	2 15.6 164°72		2°0/13.9 18		
1 12	10 16.55	+11 13.7	2.196	3.008	12.4	21.9	1 12	10 21.28	+15 30.5	2.092	2.908	12.8	21.1
1 22	10 11.82	+11 50.1	2.119	3.014	9.3	21.7	1 22	10 15.48	+16 26.8	2.016	2.915	9.5	20.9
2 1	10 5.21	+12 36.4	2.066	3.019	5.7	21.5	2 1	10 7.52	+17 30.8	1.966	2.921	5.8	20.7
2 11	9 57.33	+13 28.3	2.041	3.025	1.8	21.3	2 11	9 58.10	+18 36.3	1.944	2.926	2.3	20.4
2 21	9 48.99	+14 20.6	2.046	3.029	2.3	21.3	2 21	9 48.15	+19 36.6	1.953	2.931	3.6	20.5
3 2	9 41.11	+15 8.0	2.080	3.034	6.1	21.6	3 2	9 38.72	+20 26.1	1.992	2.934	7.3	20.8
3 12	9 34.52	+15 46.6	2.142	3.039	9.6	21.8	3 12	9 30.77	+21 1.3	2.058	2.937	10.8	21.0
3 22	9 29.80	+16 14.0	2.228	3.043	12.7	22.0	3 22	9 24.97	+21 21.2	2.148	2.939	13.9	21.2
<b>255481</b>	2005 <i>YR</i> <sub>214</sub>	2 15.6 225°98		3°3/14.7 18			<b>82329</b>	2001 <i>LC</i> <sub>4</sub>	2 15.6 201°20		3°1/12.5 18		
1 12	10 37.09	+21 30.3	1.190	2.023	19.4	19.7	1						

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2 15.6

2 15.7

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>500245</b>	2012 <i>JL</i> <sub>43</sub>		2 15.6 210°02	0°5/16.2	17		<b>70652</b>	1999 <i>TB</i> <sub>249</sub>		2 15.6 75°71	6°7/22.3	18	
1 12	10 17.25	+ 8 44.4	2.644	3.438	11.1	22.9	1 12	10 15.00	- 9 23.8	2.035	2.762	16.1	19.4
1 22	10 12.14	+ 9 12.0	2.546	3.430	8.4	22.7	1 22	10 10.79	- 9 33.6	1.959	2.775	13.5	19.3
2 1	10 5.35	+ 9 49.6	2.474	3.422	5.3	22.5	2 1	10 4.63	- 9 18.9	1.902	2.789	10.7	19.1
2 11	9 57.40	+10 34.2	2.431	3.413	1.9	22.2	2 11	9 57.18	- 8 39.3	1.870	2.802	8.1	19.0
2 21	9 48.95	+11 21.8	2.419	3.403	1.8	22.2	2 21	9 49.27	- 7 37.6	1.864	2.815	6.8	18.9
3 2	9 40.78	+12 8.2	2.438	3.393	5.2	22.4	3 2	9 41.84	- 6 19.1	1.886	2.829	7.6	19.0
3 12	9 33.64	+12 49.5	2.485	3.382	8.5	22.6	3 12	9 35.75	- 4 51.5	1.934	2.842	9.9	19.1
3 22	9 28.09	+13 22.9	2.559	3.371	11.3	22.8	3 22	9 31.60	- 3 22.5	2.008	2.855	12.6	19.3
<b>215092</b>	6256 <i>P-L</i>		2 15.6 150°13	1°5/14.4	18		<b>273584</b>	2007 <i>CG</i> <sub>32</sub>		2 15.6 197°25	0°7/16.3	18	
1 12	10 21.16	+15 41.5	2.153	2.968	12.5	21.4	1 12	10 18.79	+ 8 53.4	2.202	3.003	12.8	21.3
1 22	10 15.27	+16 12.8	2.079	2.977	9.3	21.2	1 22	10 13.55	+ 9 8.9	2.113	3.001	9.7	21.0
2 1	10 7.33	+16 50.0	2.030	2.985	5.6	21.0	2 1	10 6.33	+ 9 35.3	2.049	2.998	6.1	20.8
2 11	9 58.02	+17 28.3	2.009	2.992	2.1	20.7	2 11	9 57.74	+10 9.5	2.013	2.995	2.3	20.6
2 21	9 48.27	+18 2.5	2.019	2.999	3.1	20.8	2 21	9 48.61	+10 47.2	2.006	2.991	2.1	20.5
3 2	9 39.08	+18 28.3	2.059	3.005	6.8	21.1	3 2	9 39.87	+11 23.9	2.030	2.987	6.0	20.8
3 12	9 31.34	+18 42.9	2.126	3.011	10.3	21.3	3 12	9 32.44	+11 55.3	2.081	2.983	9.6	21.0
3 22	9 25.68	+18 45.7	2.217	3.016	13.2	21.5	3 22	9 26.93	+12 18.8	2.157	2.978	12.8	21.2
<b>253164</b>	2002 <i>WV</i>		2 15.6 10°90	5°3/12.5	18		<b>335638</b>	2006 <i>KQ</i> <sub>19</sub>		2 15.6 126°11	0°8/14.8	18	
1 12	10 14.52	+20 48.7	1.085	1.955	18.1	18.7	1 12	10 16.21	+12 47.2	2.439	3.251	11.3	21.0
1 22	10 11.87	+21 44.4	1.034	1.959	13.5	18.4	1 22	10 11.38	+13 30.4	2.366	3.262	8.4	20.8
2 1	10 5.88	+22 45.4	1.003	1.966	8.7	18.2	2 1	10 4.86	+14 21.6	2.318	3.273	5.1	20.6
2 11	9 57.64	+23 40.4	0.996	1.974	5.3	18.0	2 11	9 57.23	+15 16.3	2.300	3.283	1.6	20.4
2 21	9 48.75	+24 18.9	1.011	1.984	7.3	18.1	2 21	9 49.23	+16 9.5	2.311	3.293	2.4	20.5
3 2	9 40.93	+24 33.9	1.050	1.995	11.8	18.4	3 2	9 41.65	+16 56.6	2.353	3.303	5.8	20.7
3 12	9 35.63	+24 23.7	1.109	2.009	16.3	18.7	3 12	9 35.26	+17 34.1	2.423	3.312	9.0	20.9
3 22	9 33.59	+23 50.9	1.187	2.024	20.1	19.0	3 22	9 30.56	+18 0.4	2.517	3.321	11.7	21.1
<b>280802</b>	2005 <i>TN</i> <sub>104</sub>		2 15.6 207°90	1°1/16.4	18		<b>27664</b>	1978 <i>VX</i> <sub>5</sub>		2 15.6 215°71	4°1/12.5	18	
1 12	10 22.41	+ 7 51.7	1.880	2.679	14.7	21.7	1 12	10 22.47	+20 3.8	1.760	2.591	14.1	19.2
1 22	10 16.65	+ 8 10.2	1.787	2.673	11.3	21.5	1 22	10 16.97	+21 11.3	1.679	2.584	10.6	19.0
2 1	10 8.44	+ 8 42.9	1.718	2.665	7.2	21.2	2 1	10 8.75	+22 25.0	1.622	2.577	6.8	18.7
2 11	9 58.46	+ 9 26.3	1.676	2.657	2.8	20.9	2 11	9 58.60	+23 36.4	1.592	2.568	4.1	18.5
2 21	9 47.71	+10 15.1	1.663	2.648	2.4	20.9	2 21	9 47.62	+24 36.7	1.592	2.559	5.8	18.6
3 2	9 37.38	+11 3.2	1.681	2.638	7.0	21.2	3 2	9 37.17	+25 19.1	1.619	2.550	9.6	18.8
3 12	9 28.61	+11 45.3	1.725	2.627	11.2	21.4	3 12	9 28.52	+25 40.3	1.671	2.539	13.5	19.0
3 22	9 22.19	+12 17.5	1.793	2.615	14.9	21.6	3 22	9 22.51	+25 41.0	1.744	2.528	16.9	19.2
<b>124803</b>	2001 <i>SR</i> <sub>278</sub>		2 15.6 106°66	1°9/16.9	18		<b>120674</b>	1997 <i>AV</i> <sub>7</sub>		2 15.7 44°24	1°5/16.8	18	
1 12	10 21.95	+ 6 15.4	1.576	2.382	16.7	19.9	1 12	10 17.39	+ 7 10.3	1.808	2.617	14.8	20.3
1 22	10 16.39	+ 6 23.8	1.510	2.397	12.8	19.6	1 22	10 12.80	+ 7 17.4	1.732	2.622	11.3	20.1
2 1	10 8.23	+ 6 49.2	1.465	2.412	8.3	19.4	2 1	10 5.98	+ 7 38.8	1.678	2.627	7.3	19.9
2 11	9 58.35	+ 7 27.7	1.446	2.426	3.6	19.2	2 11	9 57.64	+ 8 11.2	1.651	2.632	3.1	19.6
2 21	9 47.92	+ 8 13.6	1.455	2.440	2.8	19.1	2 21	9 48.77	+ 8 49.9	1.652	2.637	2.5	19.6
3 2	9 38.27	+ 9 0.4	1.492	2.453	7.3	19.5	3 2	9 40.44	+ 9 29.4	1.681	2.642	6.6	19.8
3 12	9 30.53	+ 9 41.9	1.556	2.466	11.7	19.7	3 12	9 33.67	+10 4.5	1.737	2.648	10.6	20.1
3 22	9 25.41	+10 14.1	1.641	2.478	15.4	20.0	3 22	9 29.12	+10 31.6	1.816	2.654	14.1	20.3
<b>83627</b>	2001 <i>SN</i> <sub>315</sub>		2 15.6 131°59	5°5/10.5	18 R		<b>184996</b>	2006 <i>OP</i> <sub>6</sub>		2 15.7 206°05	0°1/15.8	17	
1 12	10 23.00	+31 37.5	2.608	3.425	10.5	19.0	1 12	10 15.01	+10 19.2	2.881	3.680	10.1	21.6
1 22	10 16.39	+32 17.1	2.546	3.433	8.3	18.9	1 22	10 10.34	+10 46.9	2.787	3.675	7.6	21.4
2 1	10 7.88	+32 50.6	2.511	3.441	6.3	18.8	2 1	10 4.19	+11 22.8	2.720	3.670	4.7	21.2
2 11	9 58.17	+33 12.3	2.504	3.449	5.5	18.7	2 11	9 57.03	+12 3.8	2.681	3.665	1.6	21.0
2 21	9 48.15	+33 18.2	2.526	3.457	6.5	18.8	2 21	9 49.47	+12 46.4	2.674	3.659	1.7	21.0
3 2	9 38.77	+33 6.2	2.577	3.464	8.5	18.9	3 2	9 42.18	+13 26.8	2.698	3.652	4.9	21.2
3 12	9 30.86	+32 37.0	2.654	3.471	10.7	19.1	3 12	9 35.82	+14 1.7	2.750	3.645	7.8	21.4
3 22	9 24.96	+31 53.1	2.753	3.478	12.7	19.3	3 22	9 30.88	+14 29.0	2.828	3.638	10.4	21.5
<b>413856</b>	2006 <i>TS</i> <sub>48</sub>		2 15.6 144°14	7°7/ 8.9	18		<b>242752</b>	2005 <i>VL</i> <sub>98</sub>		2 15.7 186°83	15°8/23.9	18	
1 12	10 25.50	+33 42.0	2.036	2.859	12.8	22.0	1 12	10 25.19	-17 25.9	1.341	2.040	24.1	20.0
1 22	10 18.88	+34 59.2	1.982	2.868	10.3	22.2	1 22	10 19.84	-19 40.8	1.266	2.040	21.8	19.8
2 1	10 9.69	+36 8.4	1.953	2.877	8.3	21.9	2 1	10 11.01	-21 24.0	1.206	2.040	19.2	19.6
2 11	9 58.80	+37 0.5	1.952	2.885	7.8	21.9	2 11	9 59.46	-22 25.3	1.165	2.040	17.0	19.5
2 21	9 47.43	+37 28.7	1.977	2.892	9.0	22.0	2 21	9 46.57	-22 38.4	1.144	2.039	15.8	19.4
3 2	9 36.89	+37 30.4	2.030	2.899	11.2	22.1	3 2	9 34.16	-22 3.6	1.144	2.037	16.2	19.4
3 12	9 28.31	+37 6.9	2.105	2.906	13.7	22.3	3 12	9 24.00	-20 49.9	1.165	2.036	17.9	19.5
3 22	9 22.37	+36 22.4	2.201	2.912	15.8	22.5	3 22	9 17.26	-19 11.4	1.205	2.033	20.4	19.7
<b>35995</b>	1999 <i>NK</i> <sub>20</sub>		2 15.6 304°29	2°2/14.2	18		<b>383742</b>	2007 <i>VM</i> <sub>54</sub>		2 15.7 159°01	3°1/12.4	17	
1 12	10 17.50	+14 33.0	1.403	2.246	16.4	19.2	1 12	10 16.52	+20 51.9	2.541	3.367	10.5	21.5
1 22	10 13.81	+15 19.8	1.316	2.228	12.4	18.9	1 22	10 11.66	+21 47.0	2.468	3.370	7.8	21.4
2 1	10 7.11	+16 20.6	1.250	2.210	7.6	18.6	2 1	10 5.07	+22 44.6	2.420	3.374	5.0	21.2
2 11	9 58.12	+17 28.0	1.209	2.193	2.8	18.2	2 11	9 57.32	+23 39.4	2.402	3.377	3.1	21.1
2 21	9 48.06	+18 32.6	1.195	2.176	4.5	18.3	2 21	9 49.17	+24 26.0	2.414	3.380	4.3	21.1
3 2	9 38.47	+19 25.3	1.206	2.159	9.7	18.5	3 2	9 41.42	+25 0.6	2.455	3.382	7.0	21.3
3 12	9 30.84	+19 59.8	1.241	2.142	14.8	18.7	3 12	9 34.85	+25 21.0	2.524	3.384	9.7	21.5
3 22	9 26.19	+20 14.0	1.296	2.126	19.1	19.0	3 22	9 30.00	+25 26.9	2.615	3.386	12.2	21.7
<b>499090</b>	2009 <i>FV</i> <sub>38</sub>		2 15.6 322°14	13°5/ 3.9	17		<b>488656</b>	2003 <i>SW</i> <sub>239</sub>		2 15.7 165°66	0°1/15.7	18	
1 12	10 39.43												

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>403559</b>	2010 <i>LD</i> <sub>35</sub>		2 15.7 203°59	4°0/12.4 18			<b>159495</b>	2000 <i>UV</i> <sub>16</sub>		2 15.7 157°15	0°5/15.2 18		
1 12	10 21.68	+20 38.4	1.857	2.688	13.5	21.5	1 12	10 22.45	+12 4.9	2.613	3.407	11.2	22.6
1 22	10 16.21	+21 44.5	1.779	2.684	10.1	21.2	1 22	10 15.90	+12 39.4	2.533	3.420	8.3	22.5
2 1	10 8.20	+22 55.6	1.725	2.680	6.5	21.0	2 1	10 7.61	+13 21.4	2.481	3.431	5.1	22.3
2 11	9 58.41	+24 3.5	1.700	2.675	4.1	20.9	2 11	9 58.17	+14 6.8	2.458	3.442	1.6	22.0
2 21	9 47.90	+25 0.1	1.703	2.669	5.6	20.9	2 21	9 48.33	+14 51.3	2.468	3.451	2.1	22.1
3 2	9 37.94	+25 39.3	1.735	2.663	9.2	21.1	3 2	9 38.95	+15 30.6	2.510	3.459	5.6	22.3
3 12	9 29.69	+25 58.4	1.791	2.657	12.9	21.3	3 12	9 30.78	+16 1.9	2.581	3.466	8.7	22.6
3 22	9 23.92	+25 57.9	1.870	2.650	16.0	21.5	3 22	9 24.36	+16 23.4	2.678	3.472	11.3	22.7
<b>294091</b>	2007 <i>TE</i> <sub>213</sub>		2 15.7 50°61	4°7/11.8 18			<b>287520</b>	2003 <i>CU</i> <sub>5</sub>		2 15.7 338°24	0°6/16.0 17		
1 12	10 20.02	+25 43.8	2.079	2.911	12.2	20.4	1 12	10 22.20	+12 25.9	2.064	2.872	13.2	19.5
1 22	10 14.56	+26 26.0	2.017	2.919	9.3	20.3	1 22	10 16.21	+11 57.6	1.975	2.867	10.0	19.3
2 1	10 6.94	+27 6.3	1.980	2.928	6.4	20.1	2 1	10 8.02	+11 35.2	1.911	2.862	6.3	19.1
2 11	9 57.94	+27 38.1	1.971	2.937	4.8	20.0	2 11	9 58.35	+11 16.3	1.874	2.857	2.2	18.8
2 21	9 48.54	+27 56.0	1.990	2.946	6.0	20.1	2 21	9 48.11	+10 58.8	1.868	2.853	2.2	18.8
3 2	9 39.82	+27 57.0	2.037	2.955	8.7	20.3	3 2	9 38.37	+10 40.2	1.891	2.848	6.3	19.0
3 12	9 32.72	+27 40.6	2.109	2.964	11.6	20.5	3 12	9 30.13	+10 18.7	1.943	2.845	10.2	19.3
3 22	9 27.83	+27 8.7	2.204	2.974	14.2	20.7	3 22	9 24.05	+9 53.3	2.018	2.841	13.5	19.5
<b>396741</b>	2003 <i>SE</i> <sub>10</sub>		2 15.7 155°72	0°8/16.3 18			<b>250996</b>	2006 <i>MK</i> <sub>11</sub>		2 15.7 142°26	1°7/14.2 18		
1 12	10 20.52	+8 6.3	2.093	2.890	13.4	21.9	1 12	10 20.27	+14 33.9	2.067	2.883	12.9	21.4
1 22	10 14.86	+8 32.9	2.014	2.899	10.2	21.7	1 22	10 14.71	+15 27.2	1.996	2.895	9.5	21.2
2 1	10 7.14	+9 12.0	1.959	2.907	6.4	21.5	2 1	10 7.06	+16 28.7	1.951	2.906	5.8	21.0
2 11	9 58.03	+9 59.8	1.933	2.915	2.4	21.2	2 11	9 58.02	+17 32.5	1.934	2.917	2.1	20.8
2 21	9 48.42	+10 51.1	1.937	2.921	2.1	21.2	2 21	9 48.50	+18 31.9	1.948	2.927	3.3	20.9
3 2	9 39.32	+11 40.6	1.970	2.927	6.2	21.5	3 2	9 39.55	+19 21.5	1.991	2.936	7.1	21.2
3 12	9 31.64	+12 23.5	2.032	2.932	9.9	21.7	3 12	9 32.07	+19 57.6	2.061	2.945	10.6	21.4
3 22	9 26.01	+12 56.8	2.118	2.937	13.1	21.9	3 22	9 26.71	+20 19.0	2.155	2.952	13.6	21.6
<b>419794</b>	2010 <i>VT</i> <sub>218</sub>		2 15.7 186°73	2°7/17.9 17			<b>421267</b>	2013 <i>SN</i> <sub>68</sub>		2 15.7 129°12	2°8/13.4 18		
1 12	10 19.71	+2 59.5	2.216	2.992	13.5	22.3	1 12	10 19.38	+18 57.5	2.077	2.904	12.4	21.0
1 22	10 14.23	+3 0.9	2.124	2.992	10.6	22.1	1 22	10 14.09	+19 39.2	2.006	2.910	9.2	20.8
2 1	10 6.77	+3 17.0	2.057	2.991	7.3	21.9	2 1	10 6.70	+20 25.0	1.960	2.915	5.7	20.6
2 11	9 57.93	+3 45.9	2.017	2.989	3.9	21.7	2 11	9 57.90	+21 9.0	1.941	2.921	2.9	20.5
2 21	9 48.53	+4 24.3	2.007	2.987	3.0	21.6	2 21	9 48.64	+21 45.4	1.953	2.926	4.2	20.6
3 2	9 39.51	+5 7.9	2.027	2.984	5.9	21.8	3 2	9 39.94	+22 9.7	1.993	2.931	7.6	20.8
3 12	9 31.78	+5 51.5	2.075	2.981	9.4	22.0	3 12	9 32.74	+22 19.8	2.059	2.936	10.9	21.0
3 22	9 25.96	+6 31.0	2.148	2.977	12.6	22.2	3 22	9 27.65	+22 15.6	2.148	2.941	13.8	21.2
<b>81449</b>	2000 <i>GJ</i> <sub>124</sub>		2 15.7 209°11	4°4/11.1 17			<b>30227</b>	2000 <i>GO</i> <sub>139</sub>		2 15.7 198°49	1°8/13.9 18		
1 12	10 20.13	+24 10.6	2.379	3.204	11.1	20.0	1 12	10 18.38	+14 59.9	2.170	2.989	12.3	20.3
1 22	10 14.63	+25 22.3	2.297	3.197	8.4	19.8	1 22	10 13.36	+15 55.4	2.086	2.986	9.1	20.1
2 1	10 7.05	+26 35.5	2.242	3.190	5.8	19.6	2 1	10 6.29	+16 59.4	2.027	2.983	5.5	19.9
2 11	9 58.03	+27 43.1	2.216	3.181	4.4	19.5	2 11	9 57.80	+18 6.1	1.997	2.979	2.2	19.6
2 21	9 48.41	+28 38.7	2.220	3.172	5.7	19.6	2 21	9 48.73	+19 9.1	1.997	2.975	3.4	19.7
3 2	9 39.18	+29 17.4	2.253	3.163	8.4	19.7	3 2	9 40.06	+20 2.7	2.026	2.970	7.1	19.9
3 12	9 31.27	+29 37.4	2.312	3.153	11.3	19.9	3 12	9 32.72	+20 42.9	2.083	2.964	10.6	20.1
3 22	9 25.36	+29 39.1	2.394	3.142	13.8	20.1	3 22	9 27.37	+21 8.1	2.163	2.958	13.6	20.3
<b>132091</b>	2002 <i>CC</i> <sub>175</sub>		2 15.7 107°21	2°3/14.0 18			<b>252263</b>	2001 <i>QU</i> <sub>180</sub>		2 15.7 106°91	6°7/9.9 18		
1 12	10 22.80	+15 50.6	1.658	2.485	15.1	20.0	1 12	10 23.35	+29 33.6	1.957	2.788	13.0	20.2
1 22	10 16.95	+16 39.9	1.599	2.503	11.1	19.8	1 22	10 17.23	+30 53.6	1.909	2.806	10.1	20.1
2 1	10 8.55	+17 37.2	1.564	2.521	6.8	19.6	2 1	10 8.65	+32 8.4	1.886	2.823	7.6	20.0
2 11	9 58.49	+18 35.2	1.556	2.538	2.7	19.4	2 11	9 58.52	+33 9.3	1.891	2.840	6.7	20.0
2 21	9 47.97	+19 26.1	1.576	2.554	4.1	19.5	2 21	9 47.99	+33 49.2	1.923	2.857	8.0	20.1
3 2	9 38.28	+20 4.0	1.625	2.571	8.3	19.8	3 2	9 38.27	+34 5.0	1.983	2.873	10.5	20.2
3 12	9 30.53	+20 25.9	1.699	2.586	12.3	20.0	3 12	9 30.44	+33 57.0	2.066	2.889	13.1	20.4
3 22	9 25.38	+20 31.5	1.795	2.601	15.6	20.3	3 22	9 25.12	+33 28.7	2.170	2.904	15.4	20.6
<b>258858</b>	2002 <i>PY</i> <sub>139</sub>		2 15.7 262°54	3°0/12.9 17			<b>249819</b>	2001 <i>FA</i> <sub>117</sub>		2 15.7 330°42	2°6/16.7 18		
1 12	10 18.26	+16 2.7	1.860	2.689	13.6	20.9	1 12	10 23.49	+9 17.7	1.382	2.204	17.8	19.8
1 22	10 13.83	+17 25.5	1.762	2.668	10.2	20.6	1 22	10 18.22	+8 26.3	1.297	2.193	13.9	19.6
2 1	10 6.90	+19 0.9	1.689	2.646	6.3	20.3	2 1	10 9.79	+7 45.2	1.233	2.183	9.1	19.3
2 11	9 58.07	+20 40.9	1.644	2.624	3.1	20.1	2 11	9 59.04	+7 13.6	1.194	2.174	4.2	18.9
2 21	9 48.29	+22 16.2	1.628	2.601	4.9	20.1	2 21	9 47.28	+6 49.4	1.181	2.165	3.6	18.9
3 2	9 38.76	+23 38.0	1.641	2.578	9.0	20.3	3 2	9 36.16	+6 30.0	1.195	2.157	8.5	19.1
3 12	9 30.69	+24 40.1	1.680	2.554	13.1	20.5	3 12	9 27.17	+6 12.1	1.233	2.150	13.6	19.4
3 22	9 25.00	+25 20.3	1.741	2.530	16.7	20.7	3 22	9 21.29	+5 52.6	1.293	2.143	18.0	19.6
<b>358009</b>	2006 <i>DG</i> <sub>107</sub>		2 15.7 70°29	0°9/16.2 18			<b>94430</b>	2001 <i>TM</i> <sub>41</sub>		2 15.7 345°47	8°8/8.8 18		
1 12	10 22.09	+8 36.5	1.372	2.194	17.9	21.2	1 12	10 20.02	+31 42.3	1.550	2.397	14.9	18.1
1 22	10 16.68	+8 56.0	1.319	2.217	13.5	21.0	1 22	10 15.59	+33 9.5	1.489	2.391	12.0	17.9
2 1	10 8.47	+9 32.1	1.287	2.240	8.4	20.8	2 1	10 8.08	+34 30.9	1.451	2.387	9.5	17.7
2 11	9 58.47	+10 19.0	1.280	2.263	3.0	20.5	2 11	9 58.44	+35 34.8	1.438	2.382	8.9	17.7
2 21	9 48.02	+11 9.6	1.300	2.285	2.8	20.6	2 21	9 48.04	+36 11.7	1.450	2.379	10.5	17.8
3 2	9 38.57	+11 56.2	1.347	2.308	7.9	20.9	3 2	9 38.47	+36 16.9	1.486	2.376	13.3	17.9
3 12	9 31.32	+12 33.2	1.419	2.331	12.5	21.2	3 12	9 31.14	+35 51.3	1.543	2.373	16.4	18.1
3 22	9 26.93	+12 57.5	1.513	2.353	16.3	21.5	3 22	9 26.85	+34 59.6	1.618	2.371	19.2	18.3
<b>243776</b>	2000 <i>SH</i>		2 15.7 195°46	3°6/18.4 17			<b>428436</b>	2007 <i>TM</i> <sub>267</sub>		2 15.7 118°81	3°3/19.0 17		
1 12	10 22.18	+1 10.3	2.197</										

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>365486</b>	2010 <i>PV</i> <sub>73</sub>		2 15.7 145°03	0°8/16.5	18		<b>414453</b>	2009 <i>HB</i> <sub>4</sub>		2 15.7 251°89	1°4/14.5	16	
1 12	10 17.45	+ 5 33.7	1.957	2.755	14.2	21.3	1 12	10 18.57	+13 0.9	1.838	2.660	14.0	22.1
1 22	10 12.75	+ 6 35.5	1.878	2.763	10.8	21.1	1 22	10 13.97	+13 53.2	1.744	2.646	10.5	21.9
2 1	10 5.94	+ 7 55.0	1.824	2.771	6.9	20.8	2 1	10 6.93	+14 58.2	1.675	2.631	6.4	21.6
2 11	9 57.69	+ 9 27.0	1.797	2.779	2.6	20.6	2 11	9 58.10	+16 9.7	1.633	2.616	2.2	21.3
2 21	9 48.90	+11 4.2	1.800	2.785	2.2	20.6	2 21	9 48.44	+17 20.3	1.620	2.601	3.4	21.4
3 2	9 40.58	+12 38.5	1.834	2.792	6.4	20.8	3 2	9 39.14	+18 22.6	1.635	2.585	7.9	21.6
3 12	9 33.69	+14 2.9	1.895	2.797	10.4	21.1	3 12	9 31.34	+19 11.0	1.677	2.569	12.1	21.8
3 22	9 28.88	+15 12.9	1.981	2.803	13.7	21.3	3 22	9 25.88	+19 42.8	1.741	2.552	15.8	22.0
<b>28547</b>	Johannschröter		2 15.7 286°63	4°9/18.5	18		<b>34633</b>	2000 <i>VN</i> <sub>11</sub>		2 15.7 199°10	3°9/19.3	18	
1 12	10 19.36	+ 1 17.0	1.428	2.227	18.5	19.0	1 12	10 16.78	- 1 30.7	2.327	3.085	13.4	19.4
1 22	10 15.06	+ 0 51.2	1.340	2.218	14.9	18.7	1 22	10 12.01	- 1 31.3	2.232	3.082	10.8	19.2
2 1	10 7.84	+ 0 47.0	1.273	2.208	10.6	18.4	2 1	10 5.42	- 1 14.8	2.160	3.079	7.9	19.0
2 11	9 58.43	+ 1 4.4	1.229	2.198	6.4	18.1	2 11	9 57.54	- 0 42.1	2.115	3.075	5.1	18.8
2 21	9 48.01	+ 1 40.6	1.210	2.188	5.1	18.0	2 21	9 49.13	+ 0 4.1	2.099	3.071	4.0	18.7
3 2	9 38.06	+ 2 29.5	1.218	2.179	8.5	18.2	3 2	9 41.05	+ 0 59.3	2.112	3.067	6.0	18.8
3 12	9 30.01	+ 3 22.8	1.250	2.169	13.1	18.4	3 12	9 34.11	+ 1 58.1	2.153	3.062	9.0	19.0
3 22	9 24.81	+ 4 13.0	1.303	2.160	17.4	18.7	3 22	9 28.92	+ 2 55.2	2.220	3.057	11.9	19.2
<b>232528</b>	2003 <i>SZ</i> <sub>19</sub>		2 15.7 122°67	0°1/15.8	18		<b>423543</b>	2005 <i>UC</i> <sub>245</sub>		2 15.7 129°87	4°5/19.8	18	
1 12	10 17.44	+10 30.0	2.163	2.972	12.7	21.0	1 12	10 18.75	- 2 59.7	2.318	3.064	13.8	21.4
1 22	10 12.53	+10 54.2	2.085	2.978	9.5	20.8	1 22	10 13.35	- 3 11.5	2.239	3.079	11.2	21.3
2 1	10 5.71	+11 28.5	2.033	2.985	5.9	20.6	2 1	10 6.14	- 3 6.0	2.182	3.093	8.3	21.1
2 11	9 57.60	+12 9.0	2.008	2.991	1.9	20.3	2 11	9 57.75	- 2 43.7	2.153	3.106	5.6	21.0
2 21	9 49.05	+12 50.8	2.013	2.998	2.1	20.3	2 21	9 48.94	- 2 7.2	2.152	3.119	4.5	20.9
3 2	9 40.98	+13 29.4	2.048	3.004	6.0	20.6	3 2	9 40.59	- 1 20.5	2.181	3.131	6.1	21.0
3 12	9 34.23	+14 0.7	2.110	3.010	9.6	20.8	3 12	9 33.47	- 0 28.9	2.238	3.143	8.9	21.2
3 22	9 29.39	+14 22.5	2.196	3.015	12.6	21.1	3 22	9 28.16	+ 0 22.4	2.320	3.154	11.6	21.4
<b>211599</b>	2003 <i>SS</i> <sub>291</sub>		2 15.7 178°50	0°2/15.8	18		<b>17291</b>	2547 <i>P-L</i>		2 15.7 148°99	0°8/14.7	18	
1 12	10 22.03	+11 7.8	1.809	2.621	14.6	20.9	1 12	10 15.61	+13 55.5	2.947	3.755	9.7	20.0
1 22	10 16.36	+11 18.1	1.728	2.622	11.1	20.7	1 22	10 10.73	+14 29.8	2.869	3.763	7.2	19.8
2 1	10 8.26	+11 39.2	1.670	2.623	6.9	20.4	2 1	10 4.41	+15 9.8	2.817	3.771	4.3	19.6
2 11	9 58.47	+12 6.9	1.640	2.623	2.3	20.1	2 11	9 57.18	+15 51.8	2.796	3.779	1.4	19.4
2 21	9 48.05	+12 36.2	1.639	2.623	2.5	20.1	2 21	9 49.62	+16 32.2	2.805	3.786	2.1	19.5
3 2	9 38.21	+13 2.1	1.666	2.623	7.1	20.4	3 2	9 42.41	+17 7.5	2.845	3.793	5.0	19.7
3 12	9 30.04	+13 20.4	1.721	2.622	11.3	20.7	3 12	9 36.16	+17 35.1	2.914	3.799	7.8	19.9
3 22	9 24.28	+13 28.9	1.798	2.621	14.9	20.9	3 22	9 31.32	+17 53.6	3.008	3.805	10.1	20.0
<b>211470</b>	2003 <i>DA</i> <sub>15</sub>		2 15.7 329°31	5°2/11.9	18		<b>446871</b>	2001 <i>YJ</i> <sub>7</sub>		2 15.7 38°93	3°8/13.9	15	
1 12	10 22.96	+28 2.2	2.098	2.926	12.3	19.6	1 12	10 23.96	+19 4.7	1.026	1.885	19.8	20.7
1 22	10 16.89	+28 26.5	2.020	2.918	9.5	19.4	1 22	10 18.77	+19 30.9	0.988	1.908	14.7	20.5
2 1	10 8.48	+28 46.6	1.967	2.911	6.8	19.2	2 1	10 9.99	+20 2.5	0.970	1.931	9.0	20.3
2 11	9 58.51	+28 56.0	1.941	2.904	5.2	19.1	2 11	9 59.01	+20 29.7	0.974	1.956	4.2	20.1
2 21	9 48.04	+28 49.9	1.944	2.898	6.4	19.1	2 21	9 47.70	+20 43.9	1.003	1.982	5.8	20.3
3 2	9 38.21	+28 25.7	1.976	2.891	9.1	19.3	3 2	9 37.94	+20 40.2	1.056	2.008	10.9	20.6
3 12	9 30.07	+27 43.8	2.032	2.885	12.1	19.5	3 12	9 31.12	+20 18.3	1.131	2.035	15.6	21.0
3 22	9 24.29	+26 47.0	2.111	2.880	14.8	19.6	3 22	9 27.84	+19 40.5	1.224	2.063	19.5	21.3
<b>30559</b>	2001 <i>OG</i> <sub>68</sub>		2 15.7 112°46	1°2/14.7	18		<b>114417</b>	2002 <i>YX</i> <sub>29</sub>		2 15.7 318°26	2°8/12.9	18	
1 12	10 22.27	+14 49.7	2.029	2.844	13.2	19.2	1 12	10 14.25	+17 34.0	2.156	2.988	11.9	19.6
1 22	10 16.13	+15 14.5	1.965	2.862	9.8	19.0	1 22	10 10.36	+18 41.7	2.075	2.982	8.8	19.4
2 1	10 7.88	+15 45.8	1.925	2.880	5.9	18.8	2 1	10 4.50	+19 56.5	2.019	2.976	5.4	19.1
2 11	9 58.29	+16 18.7	1.913	2.897	2.0	18.6	2 11	9 57.27	+21 12.0	1.991	2.970	2.9	19.0
2 21	9 48.33	+16 48.1	1.932	2.913	2.9	18.7	2 21	9 49.48	+22 21.4	1.992	2.965	4.3	19.0
3 2	9 39.04	+17 9.9	1.980	2.929	6.8	18.9	3 2	9 42.08	+23 18.6	2.023	2.959	7.6	19.2
3 12	9 31.35	+17 21.4	2.056	2.945	10.3	19.2	3 12	9 35.94	+24 0.0	2.079	2.954	10.9	19.4
3 22	9 25.83	+17 21.8	2.155	2.960	13.3	19.4	3 22	9 31.72	+24 24.3	2.158	2.949	13.8	19.6
<b>156453</b>	2002 <i>BC</i> <sub>8</sub>		2 15.7 3°12	1°3/14.8	18		<b>243563</b>	1995 <i>FU</i> <sub>14</sub>		2 15.7 239°38	0°8/15.0	17	
1 12	10 17.26	+14 8.9	1.535	2.373	15.5	19.7	1 12	10 19.99	+12 0.0	1.928	2.743	13.8	22.0
1 22	10 13.16	+14 33.5	1.463	2.372	11.6	19.4	1 22	10 14.94	+12 43.1	1.831	2.728	10.4	21.8
2 1	10 6.43	+15 8.2	1.413	2.372	7.1	19.1	2 1	10 7.50	+13 38.5	1.758	2.712	6.4	21.5
2 11	9 57.90	+15 47.4	1.389	2.372	2.3	18.9	2 11	9 58.30	+14 41.1	1.713	2.696	2.0	21.2
2 21	9 48.72	+16 24.3	1.391	2.374	3.4	18.9	2 21	9 48.28	+15 44.2	1.697	2.680	2.9	21.2
3 2	9 40.19	+16 52.6	1.420	2.376	8.2	19.2	3 2	9 38.58	+16 41.0	1.710	2.662	7.4	21.4
3 12	9 33.52	+17 8.2	1.474	2.378	12.6	19.5	3 12	9 30.34	+17 26.2	1.751	2.644	11.6	21.6
3 22	9 29.45	+17 9.7	1.549	2.382	16.4	19.7	3 22	9 24.36	+17 56.9	1.814	2.625	15.2	21.8
<b>33766</b>	1999 <i>RT</i> <sub>100</sub>		2 15.7 204°60	2°9/18.8	18		<b>382553</b>	2001 <i>VM</i> <sub>69</sub>		2 15.7 80°77	5°0/20.6	18	
1 12	10 15.21	+ 0 44.1	2.988	3.746	10.7	19.0	1 12	10 16.41	- 4 43.6	2.398	3.138	13.6	20.7
1 22	10 10.46	+ 0 38.5	2.889	3.742	8.6	18.9	1 22	10 11.54	- 5 5.2	2.324	3.156	11.1	20.5
2 1	10 4.28	+ 0 44.8	2.815	3.737	6.1	18.7	2 1	10 5.00	- 5 9.4	2.272	3.174	8.5	20.4
2 11	9 57.13	+ 1 1.8	2.769	3.733	3.8	18.5	2 11	9 57.38	- 4 56.3	2.247	3.192	6.1	20.3
2 21	9 49.59	+ 1 27.8	2.752	3.727	3.0	18.5	2 21	9 49.41	- 4 28.0	2.249	3.209	5.0	20.2
3 2	9 42.30	+ 1 59.8	2.767	3.722	4.8	18.6	3 2	9 41.87	- 3 47.9	2.281	3.227	6.2	20.3
3 12	9 35.88	+ 2 34.3	2.811	3.716	7.3	18.7	3 12	9 35.50	- 3 1.2	2.340	3.244	8.6	20.5
3 22	9 30.80	+ 3 8.0	2.881	3.709	9.7	18.9	3 22	9 30.82	- 2 12.9	2.424	3.261	11.0	20.7
<b>129797</b>	1999 <i>JW</i> <sub>123</sub>		2 15.7 301°50	2°4/14.2	18		<b>94696</b>	2001 <i>XR</i> <sub>35</sub>		2 15.7 82°06	0°1/15.7	18	
1 12	10 19.31	+15 42.3	1.402	2.2									

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>153118</b>	2000 SA <sub>83</sub>		2 15.7 93°21	1.2/14.8	18		<b>132915</b>	2002 SV <sub>27</sub>		2 15.7 192°53	0.1/15.6	18	R
1 12	10 19.83	+14 26.3	1.886	2.708	13.7	20.2	1 12	10 16.31	+10 51.9	2.703	3.504	10.6	21.3
1 22	10 14.57	+14 51.2	1.815	2.716	10.2	20.0	1 22	10 11.43	+11 22.1	2.613	3.502	8.0	21.1
2 1	10 7.07	+15 24.0	1.768	2.724	6.2	19.8	2 1	10 4.96	+12 0.6	2.549	3.500	4.9	20.9
2 11	9 58.08	+15 59.4	1.748	2.732	2.1	19.5	2 11	9 57.41	+12 44.1	2.514	3.497	1.6	20.6
2 21	9 48.62	+16 32.1	1.758	2.740	3.0	19.6	2 21	9 49.44	+13 28.7	2.510	3.494	1.9	20.6
3 2	9 39.77	+16 57.1	1.796	2.748	7.1	19.9	3 2	9 41.78	+14 10.2	2.537	3.490	5.2	20.9
3 12	9 32.53	+17 11.4	1.861	2.756	10.9	20.1	3 12	9 35.13	+14 45.3	2.592	3.486	8.3	21.1
3 22	9 27.55	+17 13.8	1.948	2.763	14.2	20.4	3 22	9 30.02	+15 11.9	2.673	3.482	11.0	21.2
<b>83870</b>	2001 US <sub>89</sub>		2 15.7 112°52	3.2/18.2	18		<b>380404</b>	2002 YM <sub>7</sub>		2 15.7 48°13	10.6/25.4	18	
1 12	10 20.83	+ 3 0.7	2.482	3.249	12.4	19.4	1 12	10 17.63	-17 49.7	2.094	2.757	17.4	20.1
1 22	10 14.79	+ 2 25.4	2.398	3.258	9.8	19.2	1 22	10 12.88	-19 8.9	2.022	2.771	15.5	20.0
2 1	10 6.99	+ 2 1.1	2.338	3.266	6.9	19.0	2 1	10 6.05	-20 2.4	1.968	2.786	13.5	19.9
2 11	9 58.04	+ 1 47.4	2.307	3.274	4.1	18.9	2 11	9 57.81	-20 26.5	1.936	2.800	11.7	19.8
2 21	9 48.67	+ 1 43.0	2.306	3.281	3.4	18.8	2 21	9 49.01	-20 20.2	1.927	2.816	10.7	19.7
3 2	9 39.73	+ 1 45.4	2.335	3.289	5.6	19.0	3 2	9 40.67	-19 45.8	1.943	2.831	10.8	19.8
3 12	9 31.98	+ 1 51.5	2.394	3.297	8.5	19.2	3 12	9 33.72	-18 49.4	1.983	2.847	11.8	19.9
3 22	9 25.99	+ 1 58.5	2.478	3.304	11.2	19.4	3 22	9 28.81	-17 38.9	2.045	2.863	13.5	20.0
<b>340582</b>	2006 PD <sub>7</sub>		2 15.7 141°49	1.8/13.7	17		<b>404212</b>	2013 CM <sub>169</sub>		2 15.7 237°37	2.8/13.9	18	
1 12	10 15.10	+15 34.9	2.488	3.308	10.9	20.8	1 12	10 23.15	+17 54.1	1.673	2.503	14.8	21.0
1 22	10 10.65	+16 35.6	2.412	3.313	8.0	20.6	1 22	10 17.59	+18 28.6	1.589	2.495	11.1	20.8
2 1	10 4.51	+17 43.0	2.362	3.318	4.9	20.4	2 1	10 9.25	+19 9.8	1.529	2.486	6.9	20.5
2 11	9 57.25	+18 51.9	2.342	3.323	2.1	20.2	2 11	9 58.91	+19 50.7	1.495	2.477	3.1	20.3
2 21	9 49.56	+19 56.7	2.352	3.328	3.2	20.3	2 21	9 47.75	+20 24.1	1.490	2.467	4.5	20.3
3 2	9 42.25	+20 52.4	2.392	3.333	6.3	20.5	3 2	9 37.15	+20 44.2	1.513	2.457	8.9	20.6
3 12	9 36.07	+21 35.6	2.459	3.337	9.3	20.7	3 12	9 28.43	+20 48.1	1.560	2.447	13.2	20.8
3 22	9 31.55	+22 5.0	2.551	3.341	11.9	20.9	3 22	9 22.44	+20 35.7	1.630	2.437	16.9	21.0
<b>423927</b>	2006 SD <sub>406</sub>		2 15.7 252°53	3.0/18.8	17		<b>373886</b>	2003 SM <sub>301</sub>		2 15.7 112°53	1.4/14.4	18	
1 12	10 13.59	+ 0 18.7	2.495	3.264	12.3	21.5	1 12	10 17.53	+14 40.9	2.137	2.957	12.4	20.9
1 22	10 9.56	+ 0 34.3	2.397	3.257	9.8	21.3	1 22	10 12.67	+15 21.3	2.064	2.965	9.2	20.7
2 1	10 3.88	+ 1 5.7	2.322	3.249	6.9	21.1	2 1	10 5.84	+16 9.3	2.016	2.972	5.6	20.5
2 11	9 57.06	+ 1 51.2	2.274	3.241	4.1	20.9	2 11	9 57.72	+16 59.5	1.997	2.980	2.0	20.3
2 21	9 49.75	+ 2 47.7	2.255	3.233	3.1	20.8	2 21	9 49.14	+17 46.5	2.007	2.987	3.0	20.4
3 2	9 42.71	+ 3 50.6	2.267	3.225	5.3	21.0	3 2	9 41.07	+18 25.4	2.046	2.994	6.7	20.6
3 12	9 36.68	+ 4 54.6	2.306	3.217	8.4	21.1	3 12	9 34.38	+18 52.7	2.113	3.001	10.1	20.9
3 22	9 32.22	+ 5 54.8	2.372	3.209	11.2	21.3	3 22	9 29.64	+19 7.2	2.202	3.008	13.1	21.1
<b>110207</b>	2001 SO <sub>210</sub>		2 15.7 316°26	0.1/15.6	18		<b>372154</b>	2008 SG <sub>293</sub>		2 15.7 229°10	17.2/28.2	18	
1 12	10 16.49	+10 29.4	1.577	2.406	15.6	19.6	1 12	10 19.32	-23 30.1	1.321	1.992	25.6	21.1
1 22	10 12.67	+10 56.6	1.491	2.394	11.9	19.3	1 22	10 15.61	-25 7.3	1.241	1.986	23.6	20.9
2 1	10 6.25	+11 38.7	1.427	2.383	7.4	19.0	2 1	10 8.53	-26 4.7	1.173	1.981	21.3	20.7
2 11	9 57.92	+12 30.7	1.388	2.372	2.4	18.7	2 11	9 58.81	-26 11.7	1.121	1.975	19.1	20.5
2 21	9 48.77	+13 25.9	1.376	2.361	2.8	18.7	2 21	9 47.75	-25 22.2	1.086	1.968	17.5	20.4
3 2	9 40.08	+14 16.9	1.392	2.351	7.9	18.9	3 2	9 37.09	-23 37.1	1.070	1.961	17.2	20.3
3 12	9 33.10	+14 57.5	1.432	2.341	12.6	19.2	3 12	9 28.59	-21 7.8	1.075	1.954	18.4	20.4
3 22	9 28.67	+15 24.1	1.494	2.332	16.6	19.4	3 22	9 23.44	-18 11.6	1.099	1.947	20.6	20.5
<b>468980</b>	2015 AZ <sub>124</sub>		2 15.7 346°86	0.8/16.3	17		<b>289791</b>	2005 JC <sub>114</sub>		2 15.7 24°78	4.5/19.7	18	
1 12	10 16.79	+ 8 51.4	1.933	2.744	13.9	21.5	1 12	10 13.99	- 2 11.2	2.010	2.780	14.9	20.3
1 22	10 12.34	+ 9 7.3	1.850	2.743	10.5	21.3	1 22	10 10.15	- 2 11.3	1.928	2.783	12.0	20.1
2 1	10 5.75	+ 9 35.8	1.791	2.742	6.7	21.1	2 1	10 4.37	- 1 51.4	1.867	2.787	8.8	19.9
2 11	9 57.70	+10 13.1	1.759	2.741	2.5	20.8	2 11	9 57.27	- 1 12.4	1.831	2.791	5.8	19.7
2 21	9 49.07	+10 54.6	1.755	2.740	2.2	20.8	2 21	9 49.65	- 0 17.8	1.823	2.796	4.5	19.6
3 2	9 40.91	+11 34.9	1.780	2.740	6.4	21.0	3 2	9 42.46	+ 0 47.0	1.843	2.801	6.5	19.8
3 12	9 34.19	+12 9.1	1.832	2.739	10.4	21.3	3 12	9 36.56	+ 1 55.2	1.890	2.806	9.6	20.0
3 22	9 29.55	+12 34.2	1.907	2.739	13.8	21.5	3 22	9 32.57	+ 3 0.8	1.962	2.811	12.7	20.2
<b>116486</b>	2004 BV <sub>11</sub>		2 15.7 343°58	0.2/15.8	18		<b>269283</b>	2008 RN <sub>136</sub>		2 15.7 249°35	0.3/15.4	18	
1 12	10 14.44	+ 9 59.5	1.867	2.688	13.9	19.5	1 12	10 16.05	+10 43.0	2.078	2.892	12.9	20.9
1 22	10 10.69	+10 27.2	1.783	2.682	10.5	19.3	1 22	10 11.73	+11 23.2	1.991	2.887	9.7	20.6
2 1	10 4.79	+11 7.6	1.722	2.677	6.5	19.0	2 1	10 5.37	+12 15.2	1.928	2.882	6.0	20.4
2 11	9 57.40	+11 56.7	1.689	2.672	2.2	18.7	2 11	9 57.61	+13 14.4	1.892	2.876	1.9	20.1
2 21	9 49.40	+12 48.6	1.683	2.668	2.4	18.7	2 21	9 49.26	+14 15.0	1.886	2.870	2.4	20.1
3 2	9 41.84	+13 37.4	1.705	2.664	6.7	19.0	3 2	9 41.29	+15 11.2	1.910	2.865	6.5	20.4
3 12	9 35.70	+14 17.9	1.754	2.661	10.8	19.2	3 12	9 34.62	+15 57.9	1.960	2.859	10.3	20.6
3 22	9 31.67	+14 46.8	1.825	2.658	14.3	19.4	3 22	9 29.93	+16 32.3	2.034	2.853	13.5	20.8
<b>28995</b>	2001 OF <sub>46</sub>		2 15.7 120°32	1.1/16.7	18		<b>320531</b>	2007 YX <sub>61</sub>		2 15.7 50°91	0.7/16.2	18	
1 12	10 19.60	+ 7 7.4	2.091	2.887	13.5	19.7	1 12	10 18.82	+ 8 44.4	1.421	2.247	17.2	21.0
1 22	10 14.14	+ 7 28.9	2.020	2.903	10.3	19.5	1 22	10 14.28	+ 9 8.0	1.364	2.265	13.0	20.8
2 1	10 6.69	+ 8 3.3	1.973	2.919	6.6	19.3	2 1	10 7.08	+ 9 48.1	1.329	2.283	8.1	20.6
2 11	9 57.97	+ 8 46.8	1.954	2.935	2.6	19.1	2 11	9 58.15	+10 38.9	1.318	2.301	2.9	20.3
2 21	9 48.83	+ 9 34.8	1.965	2.949	2.1	19.1	2 21	9 48.72	+11 33.3	1.334	2.320	2.7	20.3
3 2	9 40.24	+10 21.9	2.005	2.964	5.9	19.3	3 2	9 40.16	+12 23.6	1.377	2.339	7.7	20.7
3 12	9 33.08	+11 3.6	2.074	2.977	9.5	19.6	3 12	9 33.60	+13 4.0	1.445	2.358	12.2	21.0
3 22	9 27.92	+11 36.7	2.167	2.991	12.6	19.8	3 22	9 29.73	+13 31.2	1.535	2.378	16.0	21.3
<b>95068</b>	2002 AD <sub>65</sub>		2 15.7 56°44	0.7/16.2	18		<b>155447</b>	1998 HN <sub>41</sub>		2 15.7 339°44	8.7/ 8.9	18	
1 12	10 18.12	+ 7 25.3	1.321	2.149	18.1	19.8	1 12	10 20.43</					

EPHEMERIDES

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>461792</b>	2005 <i>VU</i> <sub>105</sub>	2 15.7 331°29		5°2/12.1 18			<b>48381</b>	1977 <i>SU</i> <sub>3</sub>	2 15.7 119°28		15°9/ 2.0 18		
1 12	10 21.25	+24 15.5	1.669	2.510	14.3	20.9	1 12	10 30.40	+42 36.0	1.216	2.050	19.0	18.2
1 22	10 16.16	+25 1.8	1.597	2.505	10.9	20.7	1 22	10 24.98	+45 52.7	1.191	2.061	16.9	18.1
2 1	10 8.33	+25 48.5	1.548	2.500	7.4	20.5	2 1	10 14.69	+48 45.9	1.187	2.071	16.0	18.1
2 11	9 58.60	+26 27.2	1.525	2.496	5.2	20.3	2 11	10 0.84	+50 55.0	1.206	2.081	16.5	18.2
2 21	9 48.19	+26 50.6	1.529	2.491	6.7	20.4	2 21	9 45.78	+52 7.5	1.246	2.091	18.3	18.3
3 2	9 38.48	+26 53.8	1.560	2.488	10.2	20.6	3 2	9 32.32	+52 21.7	1.304	2.100	20.5	18.5
3 12	9 30.73	+26 36.1	1.615	2.484	13.8	20.8	3 12	9 22.72	+51 46.1	1.377	2.109	22.7	18.7
3 22	9 25.70	+25 59.6	1.691	2.481	17.0	21.0	3 22	9 17.92	+50 32.9	1.462	2.117	24.6	18.9
<b>397154</b>	2005 <i>XK</i> <sub>40</sub>	2 15.7 95°01		3°9/12.9 18			<b>323500</b>	2004 <i>QL</i> <sub>8</sub>	2 15.7 225°46		4°7/11.2 18		
1 12	10 22.86	+18 30.7	1.473	2.312	16.0	20.7	1 12	10 22.62	+26 37.5	2.456	3.276	11.0	21.8
1 22	10 17.36	+19 43.6	1.420	2.330	11.9	20.5	1 22	10 16.51	+27 30.7	2.369	3.264	8.4	21.6
2 1	10 9.00	+21 3.2	1.390	2.348	7.4	20.3	2 1	10 8.28	+28 22.8	2.308	3.251	6.0	21.4
2 11	9 58.78	+22 19.5	1.387	2.365	4.0	20.1	2 11	9 58.58	+29 7.3	2.277	3.238	4.7	21.3
2 21	9 48.04	+23 22.9	1.411	2.382	5.7	20.3	2 21	9 48.28	+29 38.4	2.275	3.223	5.9	21.4
3 2	9 38.25	+24 6.6	1.462	2.399	9.8	20.6	3 2	9 38.38	+29 52.3	2.302	3.208	8.5	21.5
3 12	9 30.64	+24 28.0	1.537	2.416	13.8	20.8	3 12	9 29.84	+29 48.1	2.356	3.193	11.2	21.7
3 22	9 25.90	+24 28.3	1.632	2.432	17.2	21.1	3 22	9 23.34	+29 27.0	2.432	3.176	13.7	21.8
<b>498998</b>	2009 <i>BT</i> <sub>183</sub>	2 15.7 45°24		4°5/19.4 18			<b>245457</b>	2005 <i>LN</i> <sub>37</sub>	2 15.7 131°47		0°7/15.0 17		
1 12	10 16.87	- 0 48.0	2.052	2.822	14.6	20.7	1 12	10 14.72	+11 42.7	2.334	3.148	11.7	20.6
1 22	10 12.21	- 1 14.4	1.975	2.831	11.8	20.6	1 22	10 10.50	+12 31.6	2.253	3.150	8.7	20.4
2 1	10 5.59	- 1 23.9	1.919	2.840	8.6	20.4	2 1	10 4.51	+13 30.5	2.198	3.153	5.3	20.2
2 11	9 57.66	- 1 16.7	1.890	2.849	5.7	20.2	2 11	9 57.34	+14 34.4	2.171	3.155	1.7	20.0
2 21	9 49.26	- 0 55.1	1.888	2.859	4.6	20.2	2 21	9 49.71	+15 38.1	2.175	3.158	2.4	20.0
3 2	9 41.34	- 0 22.9	1.915	2.869	6.5	20.3	3 2	9 42.47	+16 36.2	2.208	3.160	6.0	20.3
3 12	9 34.77	+ 0 14.5	1.968	2.879	9.6	20.5	3 12	9 36.38	+17 24.4	2.269	3.162	9.3	20.5
3 22	9 30.14	+ 0 52.2	2.046	2.890	12.5	20.7	3 22	9 32.02	+18 0.3	2.354	3.164	12.2	20.7
<b>166860</b>	2002 <i>XN</i> <sub>7</sub>	2 15.7 50°11		6°2/21.0 17			<b>463685</b>	2014 <i>OY</i> <sub>190</sub>	2 15.7 67°31		2°5/14.2 18		
1 12	10 16.39	- 6 19.4	2.177	2.914	14.8	19.5	1 12	10 26.12	+18 37.1	1.633	2.460	15.3	21.2
1 22	10 11.83	- 6 56.4	2.093	2.919	12.4	19.4	1 22	10 19.32	+18 51.7	1.583	2.487	11.3	21.0
2 1	10 5.37	- 7 14.0	2.029	2.924	9.7	19.2	2 1	10 9.96	+19 9.7	1.557	2.513	6.9	20.8
2 11	9 57.60	- 7 11.4	1.991	2.928	7.3	19.1	2 11	9 59.07	+19 24.9	1.558	2.539	3.0	20.6
2 21	9 49.32	- 6 49.6	1.980	2.933	6.2	19.0	2 21	9 47.91	+19 32.1	1.587	2.565	4.1	20.7
3 2	9 41.43	- 6 12.2	1.996	2.938	7.3	19.1	3 2	9 37.80	+19 27.8	1.645	2.591	8.2	21.0
3 12	9 34.78	- 5 24.4	2.040	2.943	9.7	19.2	3 12	9 29.81	+19 11.3	1.728	2.617	12.0	21.3
3 22	9 29.99	- 4 32.4	2.107	2.949	12.3	19.4	3 22	9 24.52	+18 43.4	1.834	2.643	15.2	21.6
<b>496508</b>	2014 <i>UH</i> <sub>121</sub>	2 15.7 69°19		1°2/14.9 18			<b>246287</b>	2007 <i>TX</i> <sub>70</sub>	2 15.7 50°12		1°0/14.9 18		
1 12	10 24.07	+14 47.4	1.704	2.525	15.0	21.6	1 12	10 16.44	+13 1.6	1.927	2.750	13.4	20.2
1 22	10 17.65	+15 6.8	1.655	2.555	11.1	21.4	1 22	10 11.95	+13 40.4	1.866	2.768	9.9	20.0
2 1	10 8.87	+15 33.3	1.630	2.586	6.7	21.2	2 1	10 5.44	+14 28.2	1.830	2.787	6.0	19.8
2 11	9 58.68	+16 1.3	1.633	2.616	2.2	21.0	2 11	9 57.63	+15 19.8	1.822	2.806	1.9	19.6
2 21	9 48.24	+16 25.3	1.664	2.646	3.1	21.1	2 21	9 49.44	+16 9.1	1.842	2.825	2.8	19.7
3 2	9 38.75	+16 41.0	1.724	2.676	7.4	21.5	3 2	9 41.88	+16 50.9	1.891	2.844	6.7	20.0
3 12	9 31.20	+16 45.9	1.810	2.705	11.2	21.7	3 12	9 35.81	+17 21.5	1.967	2.864	10.3	20.2
3 22	9 26.15	+16 39.8	1.919	2.734	14.4	22.0	3 22	9 31.80	+17 39.2	2.065	2.883	13.4	20.4
<b>44548</b>	1999 <i>BQ</i> <sub>5</sub>	2 15.7 112°76		3°5/18.7 18			<b>152325</b>	2005 <i>UT</i> <sub>17</sub>	2 15.7 238°30		1°4/14.5 18		
1 12	10 17.32	+ 0 58.0	2.327	3.096	13.1	18.8	1 12	10 17.43	+13 33.5	1.939	2.762	13.4	20.2
1 22	10 12.34	+ 0 44.8	2.245	3.104	10.4	18.6	1 22	10 12.92	+14 21.7	1.855	2.757	10.0	20.0
2 1	10 5.59	+ 0 46.0	2.186	3.112	7.4	18.4	2 1	10 6.21	+15 20.5	1.795	2.752	6.1	19.7
2 11	9 57.66	+ 1 0.7	2.154	3.119	4.5	18.2	2 11	9 57.94	+16 24.0	1.763	2.747	2.1	19.5
2 21	9 49.29	+ 1 26.4	2.152	3.127	3.6	18.2	2 21	9 49.03	+17 25.5	1.761	2.742	3.2	19.5
3 2	9 41.34	+ 1 59.3	2.178	3.135	5.7	18.3	3 2	9 40.56	+18 18.6	1.786	2.736	7.3	19.8
3 12	9 34.59	+ 2 35.0	2.233	3.142	8.7	18.5	3 12	9 33.53	+18 58.9	1.839	2.731	11.2	20.0
3 22	9 29.59	+ 3 9.4	2.313	3.149	11.5	18.7	3 22	9 28.67	+19 24.0	1.914	2.725	14.5	20.2
<b>503627</b>	2016 <i>GE</i> <sub>138</sub>	2 15.7 322°84		1°8/17.2 17			<b>104115</b>	2000 <i>EX</i> <sub>51</sub>	2 15.7 236°03		0°1/15.8 17		
1 12	10 13.43	+ 4 42.3	1.573	2.389	16.3	21.0	1 12	10 16.61	+10 36.3	2.216	3.026	12.4	20.9
1 22	10 10.40	+ 5 16.5	1.482	2.375	12.7	20.7	1 22	10 12.01	+10 59.1	2.130	3.023	9.3	20.7
2 1	10 4.89	+ 6 12.7	1.413	2.362	8.4	20.4	2 1	10 5.49	+11 32.0	2.068	3.020	5.8	20.4
2 11	9 57.54	+ 7 27.3	1.369	2.349	3.7	20.1	2 11	9 57.68	+12 11.2	2.034	3.017	1.9	20.2
2 21	9 49.35	+ 8 53.4	1.351	2.336	2.7	20.0	2 21	9 49.35	+12 52.2	2.029	3.014	2.1	20.2
3 2	9 41.54	+10 22.1	1.360	2.324	7.5	20.2	3 2	9 41.40	+13 30.3	2.054	3.011	6.0	20.4
3 12	9 35.32	+11 44.1	1.395	2.313	12.2	20.5	3 12	9 34.71	+14 1.5	2.107	3.008	9.6	20.6
3 22	9 31.55	+12 52.7	1.452	2.302	16.3	20.7	3 22	9 29.86	+14 23.3	2.183	3.004	12.7	20.8
<b>117080</b>	2004 <i>LE</i> <sub>9</sub>	2 15.7 133°42		2°1/17.9 18			<b>38118</b>	1999 <i>JS</i> <sub>36</sub>	2 15.7 257°68		3°2/17.9 18		
1 12	10 16.79	+ 2 13.4	2.239	3.017	13.3	20.2	1 12	10 18.72	+ 2 45.6	1.710	2.504	16.1	19.5
1 22	10 12.01	+ 2 54.6	2.160	3.030	10.3	20.0	1 22	10 14.25	+ 2 50.4	1.613	2.490	12.8	19.3
2 1	10 5.41	+ 3 52.7	2.106	3.042	6.9	19.8	2 1	10 7.25	+ 3 15.0	1.537	2.476	8.8	19.0
2 11	9 57.61	+ 5 4.3	2.079	3.054	3.5	19.6	2 11	9 58.36	+ 3 57.6	1.487	2.461	4.7	18.7
2 21	9 49.38	+ 6 24.2	2.082	3.065	2.5	19.6	2 21	9 48.56	+ 4 54.0	1.464	2.446	3.5	18.6
3 2	9 41.58	+ 7 46.1	2.115	3.075	5.6	19.8	3 2	9 39.09	+ 5 57.5	1.469	2.431	7.3	18.8
3 12	9 35.02	+ 9 3.7	2.178	3.085	9.0	20.0	3 12	9 31.17	+ 7 0.7	1.501	2.415	11.7	19.0
3 22	9 30.26	+10 12.3	2.266	3.095	12.0	20.3	3 22	9 25.67	+ 7 57.1	1.555	2.399	15.7	19.2
<b>57523</b>	2001 <i>ST</i> <sub>290</sub>	2 15.7 92°94		3°5/19.1 18			<b>432213</b>	2009 <i>FR</i> <sub>8</sub>	2 15.7 20°62		4°9/11.6 18		
1 12	10 15.59	- 1 28.7	1.882	2.656	15.6	19.0	1 12						

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>99735</b>	2002 <i>JT</i> <sub>61</sub>		2 15.7 259°49	3°5/12.9	18		<b>456995</b>	2008 <i>CF</i> <sub>45</sub>		2 15.7 40°26	2°3/14.1	18	
1 12	10 18.85	+17 39.8	1.639	2.477	14.7	19.5	1 12	10 17.52	+14 16.3	1.322	2.168	17.0	20.8
1 22	10 14.48	+18 52.0	1.559	2.468	11.0	19.2	1 22	10 13.58	+15 17.6	1.270	2.184	12.6	20.6
2 1	10 7.41	+20 14.1	1.502	2.460	6.9	19.0	2 1	10 6.80	+16 31.2	1.240	2.201	7.6	20.3
2 11	9 58.40	+21 37.2	1.472	2.452	3.7	18.7	2 11	9 58.16	+17 48.0	1.235	2.218	2.9	20.1
2 21	9 48.55	+22 51.9	1.470	2.443	5.4	18.8	2 21	9 49.00	+18 57.9	1.256	2.236	4.4	20.2
3 2	9 39.20	+23 50.1	1.496	2.434	9.6	19.0	3 2	9 40.75	+19 52.6	1.303	2.255	9.2	20.6
3 12	9 31.64	+24 27.1	1.545	2.425	13.7	19.3	3 12	9 34.64	+20 27.6	1.374	2.274	13.7	20.9
3 22	9 26.70	+24 42.3	1.616	2.416	17.3	19.5	3 22	9 31.35	+20 42.2	1.464	2.293	17.3	21.1
<b>491038</b>	2011 <i>QK</i> <sub>14</sub>		2 15.7 157°17	0°3/15.5	18		<b>498029</b>	2007 <i>GT</i> <sub>34</sub>		2 15.7 253°17	3°2/18.8	17	
1 12	10 24.21	+11 59.8	1.805	2.615	14.7	21.7	1 12	10 15.31	- 0 1.4	2.150	2.923	13.9	21.9
1 22	10 18.00	+12 16.4	1.728	2.622	11.1	21.5	1 22	10 11.21	+ 0 23.7	2.047	2.910	11.1	21.7
2 1	10 9.32	+12 43.1	1.676	2.629	6.8	21.2	2 1	10 5.14	+ 1 8.3	1.967	2.897	7.9	21.4
2 11	9 58.95	+13 15.2	1.651	2.635	2.2	20.9	2 11	9 57.64	+ 2 10.6	1.914	2.883	4.5	21.2
2 21	9 48.00	+13 47.3	1.656	2.640	2.6	21.0	2 21	9 49.49	+ 3 26.4	1.890	2.869	3.3	21.1
3 2	9 37.69	+14 14.2	1.690	2.644	7.2	21.3	3 2	9 41.59	+ 4 49.7	1.895	2.855	6.1	21.2
3 12	9 29.14	+14 32.1	1.750	2.648	11.3	21.5	3 12	9 34.87	+ 6 13.4	1.928	2.841	9.6	21.4
3 22	9 23.06	+14 39.3	1.834	2.651	14.9	21.8	3 22	9 30.00	+ 7 31.1	1.986	2.826	13.0	21.6
<b>519948</b>	2013 <i>RS</i> <sub>107</sub>		2 15.7 203°22	0°5/16.2	17		<b>192510</b>	1998 <i>QX</i> <sub>29</sub>		2 15.7 148°42	2°2/17.6	18	
1 12	10 18.13	+ 9 5.5	2.405	3.203	11.9	23.1	1 12	10 19.96	+ 5 9.5	2.452	3.230	12.3	20.5
1 22	10 13.02	+ 9 29.3	2.312	3.198	9.0	22.9	1 22	10 14.24	+ 4 58.1	2.368	3.238	9.5	20.4
2 1	10 6.09	+10 3.6	2.244	3.193	5.7	22.6	2 1	10 6.76	+ 4 57.6	2.308	3.245	6.4	20.2
2 11	9 57.89	+10 45.1	2.205	3.188	2.0	22.4	2 11	9 58.11	+ 5 6.5	2.277	3.252	3.3	20.0
2 21	9 49.17	+11 29.6	2.197	3.182	1.9	22.4	2 21	9 49.04	+ 5 22.2	2.276	3.258	2.5	19.9
3 2	9 40.78	+12 12.6	2.219	3.175	5.6	22.6	3 2	9 40.39	+ 5 41.6	2.306	3.264	5.3	20.1
3 12	9 33.55	+12 49.9	2.269	3.168	9.1	22.8	3 12	9 32.93	+ 6 1.1	2.365	3.269	8.5	20.3
3 22	9 28.07	+13 18.8	2.344	3.160	12.1	23.0	3 22	9 27.22	+ 6 17.8	2.449	3.274	11.3	20.5
<b>180903</b>	2005 <i>JW</i> <sub>178</sub>		2 15.7 177°09	6°1/ 9.4	18		<b>487592</b>	2015 <i>KW</i> <sub>4</sub>		2 15.7 235°75	17°7/28.5	17	
1 12	10 20.49	+31 54.5	2.510	3.332	10.7	20.5	1 12	10 19.04	-23 21.4	1.262	1.940	26.3	21.5
1 22	10 14.86	+32 57.9	2.444	3.333	8.5	20.3	1 22	10 15.51	-25 9.1	1.187	1.937	24.2	21.3
2 1	10 7.21	+33 56.0	2.405	3.334	6.7	20.2	2 1	10 8.56	-26 16.3	1.124	1.934	21.9	21.1
2 11	9 58.24	+34 42.1	2.394	3.334	6.1	20.2	2 11	9 58.94	-26 32.2	1.076	1.931	19.7	21.0
2 21	9 48.81	+35 11.1	2.412	3.335	7.2	20.3	2 21	9 47.97	-25 50.3	1.045	1.927	18.1	20.9
3 2	9 39.92	+35 20.0	2.457	3.335	9.2	20.4	3 2	9 37.47	-24 11.5	1.033	1.923	17.8	20.8
3 12	9 32.44	+35 8.8	2.527	3.334	11.4	20.5	3 12	9 29.21	-21 47.4	1.040	1.919	18.8	20.9
3 22	9 26.97	+34 39.7	2.618	3.334	13.5	20.7	3 22	9 24.40	-18 55.6	1.066	1.915	21.0	21.0
<b>335002</b>	2004 <i>GY</i> <sub>55</sub>		2 15.7 26°02	0°1/15.6	18		<b>207112</b>	2005 <i>AM</i> <sub>34</sub>		2 15.7 72°32	0°5/15.4	18	
1 12	10 16.41	+11 36.9	1.887	2.709	13.7	20.0	1 12	10 20.08	+10 43.1	1.457	2.285	16.7	20.8
1 22	10 12.06	+11 53.1	1.816	2.716	10.3	19.8	1 22	10 15.25	+11 27.1	1.399	2.302	12.5	20.6
2 1	10 5.59	+12 19.3	1.768	2.723	6.3	19.6	2 1	10 7.74	+12 25.8	1.364	2.320	7.6	20.3
2 11	9 57.73	+12 51.3	1.748	2.731	2.0	19.3	2 11	9 58.47	+13 32.4	1.354	2.338	2.4	20.1
2 21	9 49.40	+13 24.2	1.755	2.740	2.4	19.4	2 21	9 48.68	+14 38.4	1.371	2.355	3.0	20.2
3 2	9 41.63	+13 53.1	1.791	2.749	6.6	19.7	3 2	9 39.75	+15 35.8	1.416	2.373	8.0	20.5
3 12	9 35.36	+14 14.1	1.853	2.758	10.4	19.9	3 12	9 32.82	+16 19.2	1.486	2.391	12.5	20.8
3 22	9 31.19	+14 25.1	1.938	2.768	13.7	20.1	3 22	9 28.60	+16 46.2	1.577	2.408	16.2	21.1
<b>186203</b>	2001 <i>WL</i> <sub>8</sub>		2 15.7 156°76	4°9/20.5	18		<b>331791</b>	2003 <i>LP</i> <sub>5</sub>		2 15.7 146°64	3°7/12.7	18	
1 12	10 17.58	- 5 5.2	2.369	3.105	13.8	20.7	1 12	10 19.88	+21 0.8	1.971	2.802	12.8	20.8
1 22	10 12.57	- 5 8.3	2.282	3.112	11.4	20.6	1 22	10 14.72	+21 53.2	1.899	2.805	9.6	20.6
2 1	10 5.79	- 4 52.5	2.217	3.119	8.6	20.4	2 1	10 7.28	+22 48.9	1.853	2.807	6.2	20.4
2 11	9 57.79	- 4 18.3	2.178	3.126	6.0	20.2	2 11	9 58.32	+23 40.6	1.834	2.810	3.8	20.2
2 21	9 49.33	- 3 28.0	2.168	3.131	4.9	20.2	2 21	9 48.82	+24 22.0	1.845	2.812	5.1	20.3
3 2	9 41.24	- 2 26.3	2.187	3.136	6.2	20.3	3 2	9 39.89	+24 48.1	1.883	2.814	8.4	20.5
3 12	9 34.31	- 1 18.9	2.235	3.141	8.8	20.4	3 12	9 32.56	+24 56.8	1.947	2.816	11.8	20.7
3 22	9 29.13	- 0 11.5	2.308	3.145	11.5	20.6	3 22	9 27.48	+24 48.9	2.033	2.818	14.7	20.9
<b>84068</b>	2002 <i>PK</i> <sub>138</sub>		2 15.7 49°46	18°5/ 2.4	18		<b>170838</b>	2004 <i>FO</i> <sub>24</sub>		2 15.7 310°34	5°5/20.5	17	
1 12	10 16.86	-24 57.5	1.128	1.814	28.5	18.2	1 12	10 14.48	- 4 27.0	2.139	2.892	14.6	19.6
1 22	10 13.93	-26 45.0	1.070	1.822	26.3	18.0	1 22	10 10.59	- 4 49.1	2.040	2.880	12.1	19.4
2 1	10 7.52	-27 45.0	1.022	1.830	23.7	17.9	2 1	10 4.75	- 4 52.0	1.961	2.868	9.3	19.2
2 11	9 58.53	-27 46.9	0.987	1.839	21.3	17.7	2 11	9 57.52	- 4 35.2	1.908	2.856	6.7	19.0
2 21	9 48.44	-26 45.7	0.968	1.849	19.3	17.6	2 21	9 49.65	- 4 0.2	1.882	2.845	5.5	18.9
3 2	9 39.13	-24 45.1	0.966	1.859	18.5	17.6	3 2	9 42.06	- 3 10.9	1.883	2.834	7.0	19.0
3 12	9 32.32	-21 59.6	0.984	1.869	19.2	17.7	3 12	9 35.64	- 2 12.9	1.911	2.823	9.8	19.1
3 22	9 29.04	-18 49.6	1.020	1.879	21.0	17.8	3 22	9 31.06	- 1 12.7	1.964	2.812	12.8	19.3
<b>419751</b>	2010 <i>VB</i> <sub>89</sub>		2 15.7 171°49	2°0/13.9	18		<b>8763</b>	<i>Pugnax</i>		2 15.7 227°19	0°4/15.4	18	
1 12	10 20.84	+16 36.1	2.181	2.999	12.3	21.9	1 12	10 18.34	+11 59.6	1.954	2.771	13.5	17.9
1 22	10 15.19	+17 17.7	2.103	3.002	9.1	21.7	1 22	10 13.54	+12 23.8	1.872	2.770	10.2	17.7
2 1	10 7.47	+18 5.4	2.050	3.005	5.6	21.5	2 1	10 6.57	+12 58.3	1.814	2.768	6.2	17.5
2 11	9 58.35	+18 53.5	2.026	3.008	2.3	21.3	2 11	9 58.10	+13 38.4	1.783	2.767	2.0	17.2
2 21	9 48.72	+19 36.4	2.032	3.009	3.5	21.4	2 21	9 49.05	+14 18.9	1.781	2.765	2.5	17.2
3 2	9 39.58	+20 9.5	2.068	3.011	7.0	21.6	3 2	9 40.47	+14 54.5	1.808	2.763	6.8	17.5
3 12	9 31.86	+20 29.9	2.131	3.011	10.4	21.8	3 12	9 33.35	+15 21.1	1.861	2.761	10.7	17.7
3 22	9 26.18	+20 36.8	2.217	3.011	13.4	22.0	3 22	9 28.36	+15 36.4	1.938	2.759	14.0	17.9
<b>228049</b>	2008 <i>HE</i> <sub>31</sub>		2 15.7 218°23	0°9/16.6	17		<b>89376</b>	2001 <i>VD</i> <sub>91</sub>		2 15.7 185°68	2°0/13.7	18	
1 12	10 17.												



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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>149865</b>	Michelhernandez		2 15.7 49°41'	1.7/14.5	18		<b>281171</b>	2007 <i>EB</i> <sub>48</sub>		2 15.7 254°16'	4.4/12.1	17	
1 12	10 18.52	+13 54.7	1.489	2.325	16.0	20.1	1 12	10 21.38	+24 0.1	2.127	2.955	12.2	21.1
1 22	10 14.04	+14 43.5	1.434	2.343	11.8	19.9	1 22	10 15.88	+24 47.4	2.040	2.941	9.2	20.9
2 1	10 6.96	+15 43.2	1.403	2.362	7.1	19.6	2 1	10 8.08	+25 35.6	1.978	2.927	6.2	20.7
2 11	9 58.21	+16 46.3	1.397	2.381	2.5	19.4	2 11	9 58.65	+26 17.8	1.944	2.913	4.4	20.6
2 21	9 49.00	+17 44.5	1.418	2.400	3.8	19.5	2 21	9 48.53	+26 47.9	1.939	2.899	5.7	20.6
3 2	9 40.63	+18 30.8	1.467	2.419	8.3	19.8	3 2	9 38.87	+27 1.3	1.962	2.884	8.8	20.8
3 12	9 34.22	+19 1.1	1.540	2.439	12.5	20.1	3 12	9 30.70	+26 56.6	2.012	2.869	12.0	20.9
3 22	9 30.41	+19 14.3	1.634	2.459	16.0	20.4	3 22	9 24.76	+26 34.8	2.083	2.854	14.9	21.1
<b>458510</b>	2011 <i>CC</i> <sub>46</sub>		2 15.7 147°39'	2.5/13.4	18		<b>51813</b>	2001 <i>OT</i> <sub>8</sub>		2 15.7 104°93'	2.5/18.4	18	
1 12	10 17.42	+16 34.6	1.995	2.823	12.8	21.1	1 12	10 14.76	+1 31.6	2.408	3.182	12.6	18.7
1 22	10 12.85	+17 38.5	1.921	2.826	9.5	20.9	1 22	10 10.43	+1 57.2	2.329	3.194	9.9	18.5
2 1	10 6.13	+18 50.2	1.872	2.829	5.8	20.7	2 1	10 4.45	+2 38.1	2.273	3.206	6.8	18.3
2 11	9 57.96	+20 2.9	1.850	2.831	2.7	20.5	2 11	9 57.40	+3 32.1	2.246	3.217	3.7	18.1
2 21	9 49.22	+21 9.4	1.858	2.833	4.1	20.6	2 21	9 49.97	+4 34.9	2.248	3.229	2.7	18.1
3 2	9 40.98	+22 3.5	1.895	2.836	7.7	20.8	3 2	9 42.92	+5 41.4	2.280	3.240	5.2	18.3
3 12	9 34.19	+22 41.5	1.958	2.838	11.3	21.0	3 12	9 36.99	+6 46.3	2.341	3.251	8.3	18.5
3 22	9 29.51	+23 2.4	2.044	2.840	14.3	21.2	3 22	9 32.69	+7 45.2	2.427	3.262	11.1	18.7
<b>340576</b>	2006 <i>OO</i> <sub>3</sub>		2 15.7 127°22'	1.8/17.6	17		<b>429246</b>	2010 <i>AW</i> <sub>105</sub>		2 15.7 304°31'	3.9/19.7	17	
1 12	10 18.26	+5 1.3	2.992	3.764	10.4	21.5	1 12	10 13.35	-2 13.5	2.178	2.943	14.0	20.8
1 22	10 12.63	+4 57.8	2.914	3.780	8.1	21.4	1 22	10 9.67	-1 54.6	2.083	2.937	11.3	20.6
2 1	10 5.62	+5 3.6	2.861	3.797	5.4	21.2	2 1	10 4.16	-1 15.5	2.010	2.932	8.2	20.4
2 11	9 57.71	+5 17.0	2.838	3.813	2.7	21.1	2 11	9 57.35	-0 17.8	1.964	2.926	5.2	20.2
2 21	9 49.53	+5 35.9	2.846	3.828	2.1	21.0	2 21	9 49.99	+0 54.9	1.946	2.921	3.9	20.1
3 2	9 41.72	+5 57.4	2.886	3.843	4.5	21.2	3 2	9 42.95	+2 16.7	1.957	2.916	6.0	20.3
3 12	9 34.89	+6 18.6	2.955	3.857	7.1	21.4	3 12	9 37.06	+3 40.7	1.996	2.911	9.2	20.4
3 22	9 29.47	+6 37.1	3.051	3.871	9.5	21.6	3 22	9 32.94	+5 0.5	2.059	2.906	12.3	20.6
<b>320740</b>	2008 <i>EC</i> <sub>40</sub>		2 15.7 231°25'	2.3/17.6	17		<b>493507</b>	2015 <i>BW</i> <sub>126</sub>		2 15.7 10°64'	1.2/14.7	17	
1 12	10 18.50	+4 25.7	2.039	2.828	14.0	21.3	1 12	10 16.72	+13 41.0	2.009	2.832	13.0	21.5
1 22	10 13.65	+4 31.6	1.944	2.820	11.0	21.1	1 22	10 12.30	+14 21.8	1.930	2.832	9.7	21.3
2 1	10 6.67	+4 52.6	1.872	2.811	7.4	20.8	2 1	10 5.80	+15 11.9	1.876	2.832	5.9	21.1
2 11	9 58.15	+5 26.7	1.826	2.802	3.7	20.6	2 11	9 57.89	+16 5.9	1.849	2.833	2.0	20.8
2 21	9 48.97	+6 10.0	1.810	2.793	2.8	20.5	2 21	9 49.42	+16 58.0	1.851	2.833	3.0	20.9
3 2	9 40.14	+6 57.3	1.823	2.783	6.3	20.7	3 2	9 41.43	+17 42.5	1.882	2.833	6.9	21.1
3 12	9 32.63	+7 43.4	1.864	2.773	10.1	20.9	3 12	9 34.83	+18 15.3	1.940	2.834	10.6	21.4
3 22	9 27.17	+8 23.5	1.928	2.763	13.6	21.1	3 22	9 30.28	+18 34.7	2.020	2.834	13.8	21.6
<b>137254</b>	1999 <i>RL</i> <sub>87</sub>		2 15.7 185°07'	0.2/15.9	18		<b>414799</b>	2010 <i>RH</i> <sub>184</sub>		2 15.7 262°35'	1.5/16.7	18	
1 12	10 20.57	+9 49.7	2.082	2.885	13.3	21.2	1 12	10 20.34	+7 58.4	1.758	2.566	15.2	20.9
1 22	10 15.10	+10 18.5	1.996	2.885	10.1	21.0	1 22	10 15.37	+7 56.9	1.667	2.556	11.7	20.7
2 1	10 7.49	+10 58.9	1.934	2.885	6.3	20.7	2 1	10 7.90	+8 8.8	1.598	2.546	7.6	20.4
2 11	9 58.41	+11 46.9	1.901	2.884	2.1	20.4	2 11	9 58.63	+8 31.5	1.556	2.536	3.2	20.1
2 21	9 48.74	+12 37.0	1.898	2.882	2.2	20.4	2 21	9 48.56	+9 0.6	1.541	2.526	2.6	20.0
3 2	9 39.51	+13 23.8	1.924	2.880	6.4	20.7	3 2	9 38.92	+9 30.9	1.555	2.516	7.1	20.3
3 12	9 31.67	+14 2.8	1.979	2.877	10.2	20.9	3 12	9 30.88	+9 57.4	1.596	2.505	11.5	20.5
3 22	9 25.91	+14 31.2	2.057	2.873	13.5	21.1	3 22	9 25.25	+10 16.4	1.659	2.495	15.3	20.7
<b>291892</b>	2006 <i>PN</i> <sub>35</sub>		2 15.7 191°16'	0.7/16.3	17		<b>189187</b>	2003 <i>EY</i> <sub>24</sub>		2 15.7 265°81'	3.9/12.8	17	
1 12	10 20.55	+8 42.0	2.122	2.920	13.2	21.9	1 12	10 23.24	+22 31.3	2.054	2.879	12.6	20.4
1 22	10 15.06	+9 2.1	2.033	2.919	10.1	21.7	1 22	10 17.41	+23 6.3	1.958	2.859	9.6	20.2
2 1	10 7.46	+9 34.1	1.969	2.917	6.4	21.5	2 1	10 9.11	+23 43.0	1.886	2.838	6.3	19.9
2 11	9 58.41	+10 14.4	1.933	2.914	2.4	21.2	2 11	9 59.02	+24 14.9	1.843	2.817	4.0	19.7
2 21	9 48.77	+10 58.3	1.926	2.911	2.1	21.2	2 21	9 48.14	+24 35.9	1.829	2.795	5.3	19.8
3 2	9 39.54	+11 40.9	1.950	2.907	6.2	21.4	3 2	9 37.65	+24 41.4	1.843	2.773	8.7	19.9
3 12	9 31.67	+12 17.5	2.002	2.903	10.0	21.7	3 12	9 28.71	+24 29.9	1.884	2.751	12.2	20.1
3 22	9 25.83	+12 45.1	2.078	2.897	13.3	21.9	3 22	9 22.11	+24 2.2	1.947	2.728	15.4	20.3
<b>173149</b>	1995 <i>VH</i> <sub>18</sub>		2 15.7 175°19'	0.7/16.3	18		<b>422790</b>	2001 <i>WG</i> <sub>26</sub>		2 15.7 155°73'	2.9/18.5	18	
1 12	10 20.19	+8 23.1	2.162	2.959	13.1	21.9	1 12	10 18.34	+1 12.0	2.400	3.166	12.8	22.1
1 22	10 14.71	+8 48.4	2.077	2.962	9.9	21.7	1 22	10 13.12	+1 23.0	2.315	3.175	10.1	21.9
2 1	10 7.21	+9 25.7	2.016	2.964	6.3	21.5	2 1	10 6.13	+1 49.2	2.254	3.183	7.1	21.7
2 11	9 58.32	+10 11.5	1.984	2.966	2.3	21.2	2 11	9 57.97	+2 28.7	2.221	3.190	4.0	21.5
2 21	9 48.88	+11 0.8	1.982	2.967	2.1	21.2	2 21	9 49.36	+3 18.1	2.218	3.197	3.0	21.5
3 2	9 39.89	+11 48.4	2.010	2.967	6.0	21.5	3 2	9 41.15	+4 12.6	2.245	3.202	5.5	21.6
3 12	9 32.23	+12 29.8	2.066	2.967	9.7	21.7	3 12	9 34.10	+5 7.3	2.301	3.208	8.6	21.8
3 22	9 26.55	+13 1.9	2.147	2.966	12.9	21.9	3 22	9 28.78	+5 57.9	2.382	3.212	11.4	22.0
<b>7729</b>	Golovanov		2 15.7 216°57'	2.9/13.4	18		<b>457201</b>	2008 <i>HQ</i> <sub>44</sub>		2 15.7 320°25'	7.0/9.7	16	
1 12	10 21.59	+16 47.8	1.805	2.632	14.1	17.7	1 12	10 14.88	+23 27.2	1.432	2.290	15.3	20.8
1 22	10 16.34	+17 52.5	1.720	2.624	10.5	17.4	1 22	10 12.11	+25 22.0	1.351	2.269	11.7	20.5
2 1	10 8.51	+19 6.7	1.659	2.616	6.5	17.2	2 1	10 6.32	+27 25.4	1.294	2.248	8.3	20.3
2 11	9 58.81	+20 22.6	1.626	2.607	3.1	16.9	2 11	9 58.21	+29 24.5	1.263	2.228	7.0	20.2
2 21	9 48.30	+21 31.8	1.623	2.597	4.6	17.0	2 21	9 48.98	+31 5.5	1.257	2.208	9.2	20.2
3 2	9 38.24	+22 26.9	1.647	2.587	8.8	17.2	3 2	9 40.18	+32 17.9	1.275	2.190	13.1	20.4
3 12	9 29.84	+23 3.7	1.698	2.576	12.8	17.5	3 12	9 33.35	+32 56.8	1.316	2.172	17.1	20.6
3 22	9 23.93	+23 21.1	1.770	2.564	16.2	17.7	3 22	9 29.54	+33 3.3	1.373	2.155	20.7	20.8
<b>469926</b>	2005 <i>YR</i> <sub>228</sub>		2 15.7 338°20'	4.1/12.6	16		<b>412112</b>	2013 <i>GD</i> <sub>16</sub>		2 15.7 246°85'	1.9/14.3	17	
1 12	10 14.98	+18 55.3	1.511	2.361	15.0	21.2	1 12	10 20.54	+14				

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>421683</b>	2014 <i>OF</i> <sub>389</sub>		2 15.7 125°19	0°2/15.9 18			<b>226775</b>	2004 <i>RA</i> <sub>136</sub>		2 15.8 63°13	1°9/14.3 18		
1 12	10 18.84	+ 8 32.6	1.819	2.630	14.6	21.0	1 12	10 18.63	+15 31.9	1.818	2.646	13.9	20.8
1 22	10 13.99	+ 9 20.4	1.747	2.640	11.1	20.8	1 22	10 13.89	+16 11.6	1.748	2.653	10.3	20.6
2 1	10 6.89	+10 23.3	1.699	2.650	6.9	20.6	2 1	10 6.86	+16 59.3	1.702	2.660	6.3	20.4
2 11	9 58.26	+11 35.6	1.677	2.660	2.3	20.3	2 11	9 58.29	+17 48.8	1.684	2.667	2.4	20.1
2 21	9 49.08	+12 50.5	1.685	2.670	2.4	20.3	2 21	9 49.19	+18 33.6	1.694	2.674	3.6	20.2
3 2	9 40.48	+14 0.5	1.722	2.679	6.9	20.6	3 2	9 40.71	+19 8.3	1.732	2.681	7.6	20.5
3 12	9 33.45	+14 59.7	1.785	2.688	10.9	20.9	3 12	9 33.85	+19 29.3	1.796	2.688	11.4	20.7
3 22	9 28.67	+15 44.8	1.872	2.696	14.3	21.1	3 22	9 29.27	+19 35.8	1.882	2.695	14.7	20.9
<b>368566</b>	2004 <i>GM</i> <sub>9</sub>		2 15.8 322°17	3°0/13.8 18			<b>82965</b>	2001 <i>QU</i> <sub>131</sub>		2 15.8 74°46	2°9/18.7 18		
1 12	10 20.10	+18 9.5	1.604	2.442	15.0	21.5	1 12	10 14.60	+ 0 54.8	2.219	2.996	13.4	19.1
1 22	10 15.42	+18 45.0	1.527	2.436	11.2	21.2	1 22	10 10.47	+ 1 15.0	2.142	3.007	10.6	18.9
2 1	10 8.01	+19 27.1	1.472	2.430	7.0	21.0	2 1	10 4.57	+ 1 52.1	2.087	3.018	7.4	18.7
2 11	9 58.70	+20 8.7	1.444	2.425	3.3	20.7	2 11	9 57.52	+ 2 43.8	2.059	3.029	4.2	18.5
2 21	9 48.63	+20 42.6	1.443	2.419	4.7	20.8	2 21	9 50.05	+ 3 45.8	2.060	3.040	3.0	18.5
3 2	9 39.18	+21 2.8	1.469	2.415	9.0	21.1	3 2	9 43.00	+ 4 52.6	2.091	3.051	5.6	18.7
3 12	9 31.61	+21 6.3	1.519	2.410	13.2	21.3	3 12	9 37.14	+ 5 58.6	2.149	3.062	8.8	18.9
3 22	9 26.71	+20 53.3	1.591	2.406	16.8	21.5	3 22	9 33.03	+ 6 58.6	2.233	3.073	11.7	19.1
<b>472445</b>	2015 <i>BK</i> <sub>318</sub>		2 15.8 231°43	1°0/14.8 17			<b>225133</b>	2008 <i>FK</i> <sub>69</sub>		2 15.8 178°73	4°1/19.9 18		
1 12	10 16.82	+13 16.2	2.086	2.905	12.7	21.7	1 12	10 16.76	- 3 15.0	2.373	3.121	13.5	21.5
1 22	10 12.33	+13 55.8	2.004	2.904	9.5	21.4	1 22	10 12.05	- 3 1.7	2.280	3.122	11.0	21.3
2 1	10 5.83	+14 44.8	1.947	2.902	5.8	21.2	2 1	10 5.57	- 2 29.7	2.210	3.124	8.1	21.2
2 11	9 57.93	+15 38.2	1.917	2.901	1.9	21.0	2 11	9 57.86	- 1 40.0	2.167	3.124	5.3	21.0
2 21	9 49.49	+16 30.1	1.917	2.899	2.8	21.0	2 21	9 49.65	- 0 36.1	2.153	3.124	4.1	20.9
3 2	9 41.48	+17 15.2	1.946	2.898	6.7	21.3	3 2	9 41.77	+ 0 37.2	2.169	3.124	5.8	21.0
3 12	9 34.81	+17 49.3	2.002	2.896	10.3	21.5	3 12	9 35.02	+ 1 53.7	2.213	3.123	8.7	21.2
3 22	9 30.11	+18 10.7	2.081	2.894	13.5	21.7	3 22	9 29.97	+ 3 7.4	2.284	3.121	11.6	21.4
<b>256409</b>	2007 <i>AT</i> <sub>22</sub>		2 15.8 93°66	1°7/17.3 18			<b>498188</b>	2007 <i>TV</i> <sub>295</sub>		2 15.8 87°06	1°8/14.2 18		
1 12	10 20.56	+ 4 26.4	2.069	2.853	14.0	20.9	1 12	10 18.52	+16 49.0	2.239	3.060	11.9	21.2
1 22	10 14.82	+ 4 59.2	2.010	2.885	10.7	20.7	1 22	10 13.36	+17 20.8	2.172	3.073	8.8	21.0
2 1	10 7.15	+ 5 46.9	1.976	2.916	7.0	20.5	2 1	10 6.32	+17 57.6	2.130	3.086	5.4	20.8
2 11	9 58.30	+ 6 45.7	1.969	2.947	3.2	20.3	2 11	9 58.08	+18 34.2	2.117	3.099	2.2	20.6
2 21	9 49.15	+ 7 50.1	1.993	2.977	2.3	20.3	2 21	9 49.47	+19 6.1	2.133	3.111	3.2	20.7
3 2	9 40.65	+ 8 54.1	2.047	3.006	5.8	20.6	3 2	9 41.40	+19 29.2	2.179	3.124	6.6	21.0
3 12	9 33.63	+ 9 52.3	2.129	3.034	9.3	20.9	3 12	9 34.68	+19 41.2	2.252	3.137	9.8	21.2
3 22	9 28.61	+10 41.1	2.236	3.061	12.2	21.1	3 22	9 29.86	+19 41.5	2.348	3.149	12.5	21.4
<b>249113</b>	2007 <i>VC</i> <sub>327</sub>		2 15.8 184°74	3°6/18.9 17			<b>303313</b>	2004 <i>TU</i> <sub>50</sub>		2 15.8 187°72	3°4/13.3 18		
1 12	10 16.48	+ 0 27.7	2.408	3.174	12.8	21.0	1 12	10 23.92	+19 37.7	1.805	2.631	14.0	21.3
1 22	10 11.79	+ 0 14.1	2.318	3.174	10.2	20.8	1 22	10 18.01	+20 24.5	1.728	2.631	10.5	21.1
2 1	10 5.37	+ 0 14.8	2.251	3.174	7.4	20.6	2 1	10 9.50	+21 16.0	1.676	2.631	6.6	20.8
2 11	9 57.76	+ 0 28.9	2.211	3.174	4.6	20.4	2 11	9 59.20	+22 4.8	1.651	2.629	3.6	20.6
2 21	9 49.68	+ 0 54.4	2.199	3.174	3.6	20.4	2 21	9 48.21	+22 43.8	1.655	2.627	5.0	20.7
3 2	9 41.94	+ 1 27.7	2.218	3.174	5.7	20.5	3 2	9 37.84	+23 7.6	1.688	2.625	8.8	20.9
3 12	9 35.30	+ 2 4.4	2.264	3.173	8.6	20.7	3 12	9 29.28	+23 13.8	1.746	2.622	12.6	21.2
3 22	9 30.34	+ 2 40.3	2.335	3.173	11.4	20.9	3 22	9 23.27	+23 3.0	1.826	2.618	15.9	21.4
<b>390377</b>	2013 <i>TR</i> <sub>72</sub>		2 15.8 190°75	2°5/13.4 17			<b>58018</b>	2002 <i>UX</i> <sub>37</sub>		2 15.8 329°00	4°7/19.9 18		
1 12	10 19.17	+18 45.3	2.390	3.211	11.2	21.1	1 12	10 14.98	- 2 36.1	2.128	2.890	14.4	19.4
1 22	10 13.88	+19 30.5	2.309	3.209	8.4	20.9	1 22	10 10.94	- 2 47.8	2.037	2.887	11.8	19.2
2 1	10 6.69	+20 19.8	2.253	3.208	5.2	20.7	2 1	10 4.99	- 2 40.8	1.968	2.883	8.8	19.0
2 11	9 58.20	+21 8.0	2.227	3.206	2.7	20.6	2 11	9 57.70	- 2 15.6	1.924	2.880	5.9	18.8
2 21	9 49.22	+21 49.7	2.231	3.203	3.8	20.6	2 21	9 49.84	- 1 34.4	1.908	2.877	4.7	18.7
3 2	9 40.65	+22 20.8	2.264	3.200	6.9	20.8	3 2	9 42.34	- 0 41.8	1.920	2.875	6.5	18.8
3 12	9 33.34	+22 38.6	2.325	3.197	10.0	21.0	3 12	9 36.04	+ 0 16.4	1.959	2.872	9.5	19.0
3 22	9 27.88	+22 42.8	2.409	3.193	12.7	21.2	3 22	9 31.59	+ 1 14.3	2.022	2.869	12.5	19.2
<b>429673</b>	2011 <i>GK</i> <sub>84</sub>		2 15.8 271°90	6°7/22.0 17			<b>47183</b>	1999 <i>TC</i> <sub>127</sub>		2 15.8 284°61	0°2/15.7 18		
1 12	10 14.74	- 8 59.2	2.172	2.896	15.2	21.7	1 12	10 18.53	+ 9 28.4	1.330	2.163	17.8	19.0
1 22	10 10.80	- 9 14.8	2.072	2.887	12.9	21.5	1 22	10 14.80	+10 9.6	1.246	2.151	13.6	18.7
2 1	10 4.93	- 9 7.8	1.992	2.878	10.3	21.4	2 1	10 7.98	+11 11.1	1.182	2.139	8.5	18.4
2 11	9 57.66	- 8 37.2	1.937	2.868	7.9	21.2	2 11	9 58.82	+12 26.9	1.143	2.126	2.8	18.0
2 21	9 49.77	- 7 44.2	1.908	2.859	6.7	21.1	2 21	9 48.56	+13 47.8	1.129	2.114	3.2	18.0
3 2	9 42.15	- 6 33.2	1.907	2.849	7.6	21.1	3 2	9 38.78	+15 3.3	1.142	2.102	9.1	18.3
3 12	9 35.70	- 5 10.8	1.933	2.840	9.9	21.2	3 12	9 31.03	+16 4.7	1.179	2.090	14.5	18.6
3 22	9 31.08	- 3 44.7	1.983	2.830	12.7	21.4	3 22	9 26.33	+16 47.1	1.235	2.079	19.1	18.8
<b>330174</b>	2006 <i>CZ</i> <sub>8</sub>		2 15.8 153°46	0°4/15.3 18			<b>429270</b>	2010 <i>CZ</i> <sub>50</sub>		2 15.8 295°09	3°2/12.8 17		
1 12	10 17.58	+11 39.9	2.215	3.026	12.3	21.4	1 12	10 16.64	+19 35.7	2.152	2.983	11.9	21.3
1 22	10 12.75	+12 15.1	2.136	3.030	9.2	21.2	1 22	10 12.37	+20 27.8	2.058	2.964	8.9	21.0
2 1	10 6.00	+12 59.9	2.081	3.034	5.7	21.0	2 1	10 5.98	+21 25.3	1.989	2.944	5.7	20.8
2 11	9 57.98	+13 49.8	2.055	3.038	1.8	20.7	2 11	9 58.06	+22 22.0	1.947	2.925	3.2	20.6
2 21	9 49.48	+14 39.8	2.058	3.042	2.3	20.7	2 21	9 49.45	+23 11.7	1.935	2.905	4.6	20.6
3 2	9 41.41	+15 24.8	2.091	3.045	6.1	21.0	3 2	9 41.16	+23 48.8	1.951	2.886	8.0	20.8
3 12	9 34.63	+16 0.8	2.152	3.048	9.6	21.2	3 12	9 34.15	+24 10.2	1.993	2.866	11.4	21.0
3 22	9 29.72	+16 25.7	2.237	3.050	12.6	21.4	3 22	9 29.16	+24 15.0	2.057	2.847	14.4	21.2
<b>298878</b>	2004 <i>SJ</i> <sub>29</sub>		2 15.8 191°78	2°0/14.3 18			<b>19298</b>	Zhongkeda		2 15.8 0°31	4°5/13.1 18 R		
1 12	10 23.92	+16 16.7</											

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>206707</b>	2004 <i>BK</i> <sub>35</sub>		2 15.8 82°48	0°6/16.3	18		<b>338121</b>	2002 <i>QZ</i> <sub>73</sub>		2 15.8 130°75	2°5/13.9	18	
1 12	10 18.83	+10 9.9	2.195	3.000	12.7	20.3	1 12	10 23.33	+15 18.3	1.554	2.382	15.8	21.6
1 22	10 13.66	+10 10.6	2.115	3.005	9.6	20.1	1 22	10 17.76	+16 20.5	1.490	2.395	11.8	21.4
2 1	10 6.57	+10 20.4	2.059	3.009	6.0	19.9	2 1	10 9.42	+17 33.1	1.449	2.406	7.2	21.1
2 11	9 58.20	+10 36.3	2.031	3.014	2.2	19.7	2 11	9 59.20	+18 47.5	1.435	2.417	3.0	20.9
2 21	9 49.37	+10 54.8	2.033	3.018	2.0	19.7	2 21	9 48.36	+19 54.7	1.450	2.428	4.4	21.0
3 2	9 41.01	+11 12.3	2.065	3.023	5.8	19.9	3 2	9 38.30	+20 47.1	1.492	2.438	8.9	21.3
3 12	9 33.97	+11 25.4	2.124	3.027	9.3	20.2	3 12	9 30.27	+21 20.6	1.559	2.447	13.1	21.6
3 22	9 28.84	+11 32.0	2.207	3.032	12.4	20.4	3 22	9 25.00	+21 34.9	1.648	2.455	16.7	21.8
<b>21573</b>	1998 <i>RP</i> <sub>70</sub>		2 15.8 314°04	3°4/12.3	18		<b>92803</b>	2000 <i>QO</i> <sub>161</sub>		2 15.8 88°86	3°4/18.3	18	
1 12	10 15.81	+21 43.8	2.371	3.202	11.0	18.1	1 12	10 19.55	+ 1 30.1	1.541	2.336	17.6	19.6
1 22	10 11.47	+22 33.0	2.289	3.194	8.2	17.9	1 22	10 14.83	+ 1 44.6	1.475	2.351	13.8	19.4
2 1	10 5.27	+23 24.7	2.232	3.186	5.3	17.7	2 1	10 7.56	+ 2 21.8	1.429	2.366	9.5	19.2
2 11	9 57.79	+24 13.1	2.204	3.178	3.5	17.6	2 11	9 58.58	+ 3 18.5	1.408	2.381	5.1	19.0
2 21	9 49.80	+24 52.9	2.205	3.170	4.7	17.6	2 21	9 49.04	+ 4 28.5	1.414	2.396	3.7	18.9
3 2	9 42.19	+25 19.9	2.235	3.163	7.5	17.8	3 2	9 40.20	+ 5 43.8	1.448	2.411	7.3	19.1
3 12	9 35.80	+25 31.9	2.290	3.155	10.4	18.0	3 12	9 33.20	+ 6 55.9	1.508	2.425	11.5	19.4
3 22	9 31.22	+25 28.9	2.369	3.148	13.1	18.1	3 22	9 28.74	+ 7 58.5	1.591	2.439	15.2	19.7
<b>187624</b>	2007 <i>BH</i> <sub>17</sub>		2 15.8 75°08	1°2/14.8	18		<b>354090</b>	2001 <i>XE</i> <sub>17</sub>		2 15.8 88°14	0°6/15.4	18	
1 12	10 17.89	+12 54.9	1.774	2.600	14.3	20.7	1 12	10 26.38	+12 26.2	1.545	2.362	16.5	20.7
1 22	10 13.44	+13 40.3	1.700	2.603	10.7	20.5	1 22	10 19.74	+12 47.8	1.493	2.390	12.3	20.5
2 1	10 6.65	+14 37.1	1.650	2.607	6.5	20.3	2 1	10 10.43	+13 20.0	1.464	2.418	7.5	20.3
2 11	9 58.27	+15 39.1	1.626	2.610	2.2	20.0	2 11	9 59.49	+13 56.7	1.462	2.445	2.4	20.0
2 21	9 49.29	+16 39.2	1.631	2.614	3.1	20.1	2 21	9 48.20	+14 31.6	1.488	2.472	2.9	20.1
3 2	9 40.86	+17 30.9	1.664	2.617	7.5	20.3	3 2	9 37.92	+14 59.1	1.542	2.498	7.7	20.5
3 12	9 34.04	+18 9.4	1.724	2.621	11.5	20.6	3 12	9 29.79	+15 15.6	1.623	2.523	11.9	20.8
3 22	9 29.53	+18 32.5	1.805	2.624	15.0	20.8	3 22	9 24.42	+15 20.0	1.726	2.548	15.4	21.1
<b>359186</b>	2009 <i>CX</i> <sub>45</sub>		2 15.8 209°64	1°4/16.7	18		<b>371268</b>	2006 <i>DJ</i> <sub>44</sub>		2 15.8 124°32	1°5/17.2	18	
1 12	10 22.46	+ 8 5.9	1.822	2.624	15.0	21.0	1 12	10 15.84	+ 5 21.1	2.018	2.817	13.8	20.6
1 22	10 16.87	+ 8 6.7	1.734	2.620	11.5	20.8	1 22	10 11.67	+ 5 50.5	1.934	2.818	10.7	20.4
2 1	10 8.82	+ 8 20.4	1.668	2.615	7.4	20.5	2 1	10 5.48	+ 6 35.6	1.874	2.819	7.0	20.1
2 11	9 59.01	+ 8 44.2	1.629	2.610	3.0	20.3	2 11	9 57.91	+ 7 33.0	1.841	2.820	3.1	19.9
2 21	9 48.46	+ 9 13.7	1.619	2.604	2.5	20.2	2 21	9 49.80	+ 8 37.6	1.836	2.821	2.3	19.8
3 2	9 38.37	+ 9 43.8	1.638	2.598	6.9	20.5	3 2	9 42.09	+ 9 43.2	1.861	2.822	6.1	20.1
3 12	9 29.90	+10 9.7	1.684	2.591	11.2	20.7	3 12	9 35.71	+10 43.6	1.913	2.823	9.8	20.3
3 22	9 23.81	+10 28.1	1.753	2.583	14.9	20.9	3 22	9 31.28	+11 34.6	1.988	2.823	13.2	20.5
<b>337533</b>	2001 <i>SW</i> <sub>212</sub>		2 15.8 61°28	8°2/ 9.2	18		<b>429062</b>	2009 <i>EB</i> <sub>31</sub>		2 15.8 227°03	2°6/13.4	17	
1 12	10 27.85	+38 16.6	2.190	3.000	12.5	20.3	1 12	10 19.09	+20 15.8	2.407	3.230	11.1	21.0
1 22	10 20.61	+39 2.9	2.136	3.007	10.4	20.2	1 22	10 13.82	+20 43.2	2.327	3.228	8.3	20.9
2 1	10 10.87	+39 37.2	2.107	3.014	8.7	20.1	2 1	10 6.67	+21 12.7	2.272	3.226	5.2	20.7
2 11	9 59.58	+39 51.8	2.104	3.022	8.2	20.1	2 11	9 58.28	+21 39.7	2.246	3.224	2.8	20.5
2 21	9 47.96	+39 42.0	2.128	3.029	9.2	20.2	2 21	9 49.44	+21 59.7	2.249	3.222	3.8	20.6
3 2	9 37.29	+39 6.5	2.178	3.036	11.1	20.3	3 2	9 41.04	+22 9.3	2.283	3.220	6.8	20.7
3 12	9 28.64	+38 8.2	2.253	3.043	13.2	20.4	3 12	9 33.91	+22 6.8	2.343	3.217	9.9	20.9
3 22	9 22.62	+36 51.8	2.348	3.051	15.2	20.6	3 22	9 28.64	+21 52.3	2.427	3.215	12.5	21.1
<b>37858</b>	1998 <i>EX</i> <sub>15</sub>		2 15.8 128°08	0°1/15.9	18		<b>258435</b>	2001 <i>XJ</i> <sub>226</sub>		2 15.8 162°24	5°0/20.2	18	
1 12	10 19.58	+ 8 41.9	1.746	2.558	15.1	19.2	1 12	10 19.21	- 3 58.7	2.300	3.040	14.0	21.2
1 22	10 14.66	+ 9 32.0	1.675	2.569	11.4	19.0	1 22	10 13.93	- 4 19.2	2.211	3.046	11.5	21.0
2 1	10 7.39	+10 37.6	1.626	2.579	7.1	18.7	2 1	10 6.78	- 4 22.1	2.146	3.051	8.7	20.9
2 11	9 58.51	+11 53.0	1.605	2.589	2.4	18.5	2 11	9 58.33	- 4 7.2	2.106	3.055	6.1	20.7
2 21	9 49.06	+13 10.7	1.613	2.598	2.5	18.5	2 21	9 49.37	- 3 36.4	2.095	3.059	5.0	20.7
3 2	9 40.20	+14 22.8	1.650	2.607	7.1	18.8	3 2	9 40.78	- 2 53.4	2.114	3.062	6.5	20.7
3 12	9 33.00	+15 23.2	1.713	2.616	11.3	19.1	3 12	9 33.41	- 2 3.6	2.160	3.065	9.2	20.9
3 22	9 28.14	+16 8.6	1.800	2.624	14.8	19.3	3 22	9 27.86	- 1 12.3	2.231	3.067	11.9	21.1
<b>334164</b>	2001 <i>SG</i> <sub>89</sub>		2 15.8 93°87	2°8/18.6	18		<b>322724</b>	2000 <i>SG</i> <sub>11</sub>		2 15.8 242°40	8°9/25.8	17	
1 12	10 14.84	+ 1 11.3	2.339	3.113	12.9	20.8	1 12	10 17.45	-20 34.5	2.708	3.326	14.6	22.0
1 22	10 10.59	+ 1 28.7	2.258	3.123	10.2	20.6	1 22	10 12.68	-20 56.0	2.588	3.305	13.2	21.8
2 1	10 4.64	+ 2 1.9	2.201	3.132	7.1	20.4	2 1	10 6.08	-20 53.7	2.485	3.284	11.6	21.7
2 11	9 57.58	+ 2 48.7	2.172	3.142	4.0	20.2	2 11	9 58.14	-20 24.5	2.406	3.262	10.0	21.5
2 21	9 50.10	+ 3 45.3	2.171	3.151	2.9	20.2	2 21	9 49.53	-19 27.7	2.351	3.239	9.0	21.4
3 2	9 43.02	+ 4 46.7	2.200	3.160	5.4	20.4	3 2	9 41.05	-18 5.3	2.323	3.215	9.1	21.4
3 12	9 37.07	+ 5 47.6	2.258	3.170	8.5	20.6	3 12	9 33.54	-16 22.9	2.323	3.190	10.2	21.4
3 22	9 32.79	+ 6 43.3	2.341	3.179	11.3	20.8	3 22	9 27.64	-14 28.0	2.348	3.165	12.0	21.5
<b>425257</b>	2009 <i>WH</i> <sub>79</sub>		2 15.8 88°74	0°7/16.4	18		<b>193638</b>	2001 <i>DY</i> <sub>2</sub>		2 15.8 350°43	7°1/14.4	18	
1 12	10 17.41	+ 8 14.4	1.916	2.725	14.1	22.0	1 12	10 44.47	+29 10.5	1.026	1.863	21.5	18.5
1 22	10 12.87	+ 8 41.0	1.840	2.731	10.7	21.8	1 22	10 35.30	+28 46.0	0.958	1.861	16.9	18.2
2 1	10 6.21	+ 9 21.3	1.788	2.738	6.8	21.6	2 1	10 20.98	+28 7.5	0.910	1.859	11.7	17.9
2 11	9 58.12	+10 10.9	1.762	2.744	2.5	21.3	2 11	10 3.13	+27 2.8	0.886	1.858	7.5	17.6
2 21	9 49.51	+11 4.6	1.766	2.751	2.2	21.3	2 21	9 44.35	+25 25.8	0.887	1.857	8.5	17.7
3 2	9 41.41	+11 56.3	1.798	2.758	6.4	21.6	3 2	9 27.58	+23 20.1	0.914	1.857	13.5	17.9
3 12	9 34.76	+12 40.9	1.857	2.764	10.3	21.8	3 12	9 15.02	+20 56.7	0.964	1.857	18.8	18.2
3 22	9 30.21	+13 14.9	1.940	2.770	13.6	22.0	3 22	9 7.52	+18 27.5	1.034	1.857	23.4	18.5
<b>455589</b>	2004 <i>RJ</i> <sub>335</sub>		2 15.8 102°50	0°2/15.9	18		<b>219335</b>	2000 <i>OB</i> <sub>40</sub>		2 15.8 254°33	4°3/18.8	17	
1 12													

EPHEMERIDES

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>193993</b>	2001 <i>RX</i> <sub>150</sub>		2 15.8	69°75	3°1/13.6	18	<b>422030</b>	2014 <i>QS</i> <sub>347</sub>		2 15.8	101°29	2°6/13.3	18
1 12	10 19.83	+15 37.1	1.366	2.209	16.8	19.8	1 12	10 19.92	+15 28.3	1.884	2.708	13.6	21.5
1 22	10 15.50	+16 49.7	1.304	2.216	12.5	19.5	1 22	10 14.76	+16 55.5	1.827	2.730	10.0	21.3
2 1	10 8.21	+18 14.5	1.265	2.224	7.6	19.3	2 1	10 7.38	+18 31.3	1.795	2.752	6.1	21.1
2 11	9 58.88	+19 41.4	1.250	2.232	3.4	19.1	2 11	9 58.56	+20 7.4	1.792	2.772	2.8	21.0
2 21	9 48.84	+20 59.7	1.263	2.240	5.2	19.2	2 21	9 49.29	+21 35.1	1.819	2.793	4.3	21.1
3 2	9 39.60	+22 0.3	1.302	2.248	9.9	19.5	3 2	9 40.67	+22 47.6	1.874	2.813	8.0	21.4
3 12	9 32.50	+22 38.5	1.365	2.256	14.3	19.8	3 12	9 33.66	+23 40.9	1.957	2.832	11.5	21.6
3 22	9 28.35	+22 53.9	1.447	2.265	18.1	20.0	3 22	9 28.89	+24 14.3	2.061	2.851	14.4	21.9
<b>397149</b>	2005 <i>WV</i> <sub>187</sub>		2 15.8	74°04	16°7/4.4	17	<b>499066</b>	2009 <i>DT</i> <sub>132</sub>		2 15.8	207°95	0°3/16.2	17
1 12	10 20.19	-29 10.5	1.556	2.160	24.4	21.2	1 12	10 14.30	+ 8 28.3	2.521	3.321	11.3	21.7
1 22	10 15.75	-30 49.2	1.499	2.180	22.7	21.1	1 22	10 10.19	+ 9 9.9	2.432	3.319	8.6	21.5
2 1	10 8.38	-31 47.4	1.453	2.199	20.7	20.9	2 1	10 4.45	+10 2.7	2.368	3.318	5.4	21.3
2 11	9 58.95	-31 57.7	1.422	2.218	18.9	20.9	2 11	9 57.60	+11 3.2	2.333	3.315	1.9	21.1
2 21	9 48.74	-31 16.9	1.408	2.237	17.4	20.8	2 21	9 50.30	+12 6.7	2.328	3.313	1.8	21.1
3 2	9 39.25	-29 48.0	1.412	2.257	16.7	20.8	3 2	9 43.30	+13 8.1	2.354	3.311	5.3	21.3
3 12	9 31.83	-27 41.0	1.437	2.276	17.0	20.9	3 12	9 37.33	+14 3.0	2.408	3.308	8.5	21.5
3 22	9 27.32	-25 10.0	1.482	2.294	18.0	21.0	3 22	9 32.92	+14 48.2	2.487	3.306	11.4	21.7
<b>197613</b>	2004 <i>JU</i> <sub>23</sub>		2 15.8	200°77	1°3/16.8	18	<b>265381</b>	2004 <i>RJ</i> <sub>269</sub>		2 15.8	191°78	0°4/16.1	17
1 12	10 21.45	+ 6 45.6	1.774	2.575	15.3	21.3	1 12	10 18.35	+ 9 38.0	2.094	2.900	13.1	21.5
1 22	10 16.21	+ 7 9.2	1.686	2.572	11.8	21.1	1 22	10 13.50	+10 0.4	2.009	2.899	9.9	21.3
2 1	10 8.49	+ 7 49.2	1.621	2.568	7.6	20.8	2 1	10 6.62	+10 34.1	1.948	2.899	6.2	21.0
2 11	9 58.98	+ 8 41.9	1.583	2.563	3.1	20.6	2 11	9 58.34	+11 15.4	1.915	2.897	2.2	20.8
2 21	9 48.70	+ 9 41.4	1.573	2.558	2.5	20.5	2 21	9 49.50	+11 59.4	1.911	2.896	2.1	20.8
3 2	9 38.87	+10 40.9	1.592	2.552	7.0	20.8	3 2	9 41.08	+12 41.1	1.937	2.894	6.2	21.0
3 12	9 30.65	+11 34.0	1.639	2.545	11.4	21.0	3 12	9 34.00	+13 16.1	1.990	2.893	9.9	21.2
3 22	9 24.83	+12 16.2	1.708	2.538	15.2	21.2	3 22	9 28.90	+13 41.4	2.067	2.890	13.2	21.4
<b>201806</b>	2003 <i>XL</i> <sub>14</sub>		2 15.8	321°97	12°0/18.2	18	<b>79859</b>	1998 <i>XN</i> <sub>58</sub>		2 15.8	52°69	1°9/14.4	18
1 12	10 32.62	- 1 38.4	1.040	1.833	24.4	19.5	1 12	10 19.70	+13 34.9	1.403	2.240	16.7	19.0
1 22	10 26.35	- 4 26.4	0.965	1.827	20.6	19.2	1 22	10 15.05	+14 34.0	1.356	2.265	12.3	18.8
2 1	10 15.72	- 6 59.5	0.907	1.822	16.4	19.0	2 1	10 7.72	+15 44.7	1.332	2.291	7.4	18.6
2 11	10 1.61	- 9 6.7	0.871	1.817	12.9	18.8	2 11	9 58.68	+16 58.4	1.333	2.317	2.6	18.3
2 21	9 45.77	-10 38.3	0.859	1.812	12.2	18.7	2 21	9 49.24	+18 5.9	1.362	2.343	3.9	18.5
3 2	9 30.61	-11 30.5	0.870	1.808	14.7	18.8	3 2	9 40.75	+18 59.6	1.417	2.369	8.6	18.8
3 12	9 18.39	-11 48.4	0.902	1.804	18.8	19.0	3 12	9 34.35	+19 35.2	1.497	2.396	12.8	19.1
3 22	9 10.49	-11 42.9	0.951	1.801	23.0	19.3	3 22	9 30.66	+19 52.1	1.597	2.422	16.3	19.4
<b>435546</b>	2008 <i>OK</i> <sub>25</sub>		2 15.8	36°61	5°9/11.7	18	<b>247061</b>	2000 <i>QF</i> <sub>100</sub>		2 15.8	164°26	0°7/16.6	18
1 12	10 20.85	+25 5.8	1.500	2.347	15.3	19.8	1 12	10 17.32	+ 6 49.0	2.554	3.342	11.6	21.6
1 22	10 15.79	+26 11.0	1.466	2.377	11.5	19.6	1 22	10 12.37	+ 7 34.5	2.469	3.349	8.8	21.4
2 1	10 8.06	+27 13.7	1.456	2.407	7.9	19.5	2 1	10 5.76	+ 8 32.2	2.409	3.354	5.6	21.2
2 11	9 58.74	+28 4.3	1.471	2.438	5.9	19.4	2 11	9 58.04	+ 9 38.5	2.378	3.359	2.1	21.0
2 21	9 49.16	+28 35.6	1.513	2.470	7.3	19.6	2 21	9 49.87	+10 48.4	2.379	3.364	1.8	20.9
3 2	9 40.69	+28 44.0	1.580	2.502	10.5	19.9	3 2	9 42.05	+11 56.8	2.411	3.368	5.2	21.2
3 12	9 34.38	+28 30.3	1.671	2.535	13.7	20.1	3 12	9 35.30	+12 59.0	2.472	3.371	8.4	21.4
3 22	9 30.77	+27 57.6	1.782	2.568	16.4	20.4	3 22	9 30.16	+13 51.6	2.558	3.373	11.2	21.6
<b>209098</b>	2003 <i>SR</i> <sub>54</sub>		2 15.8	159°00	1°0/16.5	18	<b>483868</b>	2005 <i>YF</i> <sub>130</sub>		2 15.8	147°67	0°3/16.0	18
1 12	10 22.68	+ 8 52.4	1.889	2.690	14.5	21.0	1 12	10 24.52	+10 40.1	1.769	2.576	15.1	21.7
1 22	10 16.88	+ 8 58.5	1.809	2.696	11.1	20.8	1 22	10 18.36	+10 50.8	1.694	2.585	11.4	21.5
2 1	10 8.75	+ 9 16.6	1.753	2.701	7.1	20.6	2 1	10 9.71	+11 12.8	1.642	2.593	7.1	21.3
2 11	9 59.03	+ 9 43.3	1.724	2.705	2.7	20.3	2 11	9 59.37	+11 41.7	1.618	2.601	2.4	21.0
2 21	9 48.73	+10 14.0	1.724	2.709	2.3	20.3	2 21	9 48.45	+12 12.4	1.623	2.608	2.4	21.0
3 2	9 38.99	+10 43.9	1.754	2.713	6.6	20.6	3 2	9 38.18	+12 39.6	1.657	2.614	7.1	21.3
3 12	9 30.84	+11 8.5	1.811	2.716	10.6	20.8	3 12	9 29.69	+12 59.4	1.718	2.620	11.3	21.6
3 22	9 24.99	+11 25.0	1.892	2.718	14.1	21.1	3 22	9 23.69	+13 9.4	1.803	2.625	14.8	21.8
<b>391979</b>	2008 <i>XX</i> <sub>49</sub>		2 15.8	30°58	3°1/12.8	18	<b>267200</b>	2000 <i>SE</i> <sub>36</sub>		2 15.8	134°23	0°8/15.1	18
1 12	10 14.90	+17 25.4	1.961	2.796	12.7	20.4	1 12	10 18.63	+12 20.9	2.163	2.975	12.6	21.0
1 22	10 11.09	+18 44.8	1.893	2.801	9.4	20.2	1 22	10 13.59	+13 3.4	2.089	2.985	9.4	20.8
2 1	10 5.18	+20 11.9	1.849	2.807	5.8	20.0	2 1	10 6.61	+13 55.2	2.040	2.995	5.7	20.6
2 11	9 57.86	+21 38.9	1.834	2.813	3.2	19.9	2 11	9 58.32	+14 51.5	2.020	3.004	1.8	20.3
2 21	9 50.00	+22 58.0	1.847	2.819	4.6	20.0	2 21	9 49.58	+15 46.5	2.030	3.012	2.5	20.4
3 2	9 42.64	+24 2.5	1.889	2.825	8.1	20.2	3 2	9 41.33	+16 35.0	2.069	3.021	6.3	20.7
3 12	9 36.69	+24 48.7	1.957	2.832	11.5	20.4	3 12	9 34.41	+17 13.1	2.136	3.029	9.8	20.9
3 22	9 32.81	+25 15.6	2.046	2.839	14.4	20.6	3 22	9 29.44	+17 38.8	2.226	3.036	12.8	21.1
<b>193177</b>	2000 <i>OX</i> <sub>18</sub>		2 15.8	213°30	2°4/12.9	18	<b>428445</b>	2007 <i>TL</i> <sub>377</sub>		2 15.8	148°88	3°1/12.9	18
1 12	10 15.27	+17 17.7	2.711	3.531	10.1	20.4	1 12	10 19.86	+21 46.4	2.507	3.328	10.8	21.6
1 22	10 10.90	+18 32.4	2.624	3.525	7.5	20.2	1 22	10 14.31	+22 22.5	2.434	3.334	8.0	21.4
2 1	10 4.89	+19 53.4	2.564	3.519	4.6	20.0	2 1	10 6.95	+22 59.7	2.387	3.339	5.2	21.2
2 11	9 57.75	+21 15.2	2.535	3.513	2.4	19.8	2 11	9 58.42	+23 32.9	2.369	3.344	3.1	21.1
2 21	9 50.11	+22 31.9	2.536	3.507	3.6	19.9	2 21	9 49.49	+23 57.6	2.382	3.349	4.2	21.2
3 2	9 42.74	+23 38.4	2.568	3.500	6.5	20.1	3 2	9 41.04	+24 10.7	2.424	3.353	6.9	21.4
3 12	9 36.35	+24 31.4	2.628	3.493	9.3	20.2	3 12	9 33.85	+24 10.7	2.493	3.358	9.7	21.5
3 22	9 31.51	+25 9.2	2.712	3.485	11.7	20.4	3 22	9 28.48	+23 58.0	2.586	3.362	12.2	21.7
<b>275704</b>	2000 <i>VQ</i> <sub>4</sub>		2 15.8	128°14	1°5/14.5	18	<b>304850</b>	2007 <i>RH</i> <sub>57</sub>		2 15.8	201°99	0°5/16.2	18

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>238806</b>	2005 $MQ_1$	2 15.8 197°23		7°2/ 5.7 18			<b>84017</b>	2002 $PF_{37}$	2 15.8 82°08		2°4/14.4 18		
1 12	10 20.46	+39 12.4	2.939	3.746	9.7	20.8	1 12	10 26.96	+18 34.0	1.680	2.504	15.0	19.2
1 22	10 14.94	+40 38.7	2.880	3.743	8.3	20.7	1 22	10 20.15	+18 44.9	1.622	2.523	11.2	19.0
2 1	10 7.46	+41 56.6	2.848	3.740	7.3	20.7	2 1	10 10.74	+18 59.2	1.587	2.542	6.9	18.7
2 11	9 58.62	+42 59.5	2.843	3.736	7.4	20.7	2 11	9 59.70	+19 10.9	1.580	2.561	2.9	18.5
2 21	9 49.26	+43 42.4	2.866	3.732	8.3	20.7	2 21	9 48.29	+19 15.0	1.601	2.580	4.0	18.6
3 2	9 40.31	+44 2.6	2.914	3.728	9.8	20.8	3 2	9 37.84	+19 8.1	1.651	2.599	8.1	18.9
3 12	9 32.64	+44 0.6	2.986	3.723	11.5	20.9	3 12	9 29.44	+18 49.2	1.728	2.617	12.0	19.2
3 22	9 26.89	+43 38.8	3.076	3.718	12.9	21.1	3 22	9 23.74	+18 19.2	1.826	2.635	15.2	19.5
<b>233561</b>	2007 $PZ_1$	2 15.8 158°72		1°2/14.7 17			<b>141022</b>	2001 $WS_{51}$	2 15.8 154°86		0°1/15.9 17		
1 12	10 18.00	+14 30.3	2.325	3.140	11.7	21.1	1 12	10 16.33	+10 34.0	2.901	3.698	10.1	21.5
1 22	10 13.05	+15 6.1	2.246	3.144	8.7	20.9	1 22	10 11.45	+11 0.4	2.818	3.705	7.6	21.3
2 1	10 6.26	+15 48.9	2.193	3.147	5.3	20.7	2 1	10 5.12	+11 34.4	2.762	3.712	4.7	21.2
2 11	9 58.22	+16 34.1	2.167	3.151	1.9	20.5	2 11	9 57.84	+12 12.9	2.735	3.718	1.6	20.9
2 21	9 49.73	+17 16.8	2.172	3.153	2.7	20.6	2 21	9 50.22	+12 52.4	2.740	3.724	1.6	21.0
3 2	9 41.66	+17 52.6	2.207	3.156	6.2	20.8	3 2	9 42.92	+13 29.4	2.775	3.730	4.7	21.2
3 12	9 34.83	+18 18.2	2.269	3.158	9.5	21.0	3 12	9 36.58	+14 0.9	2.839	3.735	7.6	21.4
3 22	9 29.82	+18 32.2	2.356	3.160	12.4	21.2	3 22	9 31.65	+14 24.8	2.929	3.739	10.1	21.5
<b>428814</b>	2008 $TR_{62}$	2 15.8 149°75		0°7/15.2 17			<b>153819</b>	2001 $WX_{14}$	2 15.8 123°31		0°3/16.1 18		
1 12	10 18.15	+12 46.6	2.242	3.054	12.2	21.9	1 12	10 20.08	+9 33.8	2.195	2.995	12.8	21.1
1 22	10 13.21	+13 15.8	2.163	3.058	9.1	21.7	1 22	10 14.58	+10 0.7	2.124	3.011	9.6	21.0
2 1	10 6.37	+13 53.4	2.108	3.062	5.6	21.5	2 1	10 7.18	+10 38.3	2.077	3.027	6.0	20.8
2 11	9 58.26	+14 35.0	2.082	3.066	1.8	21.2	2 11	9 58.54	+11 22.3	2.060	3.042	2.1	20.5
2 21	9 49.69	+15 15.8	2.086	3.069	2.4	21.3	2 21	9 49.49	+12 8.1	2.072	3.057	2.0	20.5
3 2	9 41.55	+15 51.3	2.119	3.072	6.1	21.5	3 2	9 40.98	+12 50.8	2.114	3.071	5.8	20.8
3 12	9 34.69	+16 17.9	2.180	3.075	9.6	21.8	3 12	9 33.81	+13 26.3	2.185	3.084	9.3	21.1
3 22	9 29.70	+16 33.9	2.265	3.078	12.5	22.0	3 22	9 28.58	+13 52.4	2.280	3.097	12.3	21.3
<b>262119</b>	2006 $SY_{15}$	2 15.8 230°91		1°1/16.7 16			<b>227411</b>	2005 $UR_{459}$	2 15.8 59°43		0°8/15.2 18		
1 12	10 20.15	+7 42.4	2.017	2.816	13.8	21.9	1 12	10 18.76	+12 50.3	1.832	2.654	14.1	21.0
1 22	10 15.05	+7 59.3	1.920	2.805	10.6	21.6	1 22	10 14.07	+13 19.7	1.756	2.656	10.5	20.8
2 1	10 7.72	+8 29.6	1.847	2.794	6.9	21.4	2 1	10 7.10	+13 59.3	1.703	2.659	6.5	20.6
2 11	9 58.77	+9 10.2	1.801	2.782	2.7	21.1	2 11	9 58.56	+14 43.9	1.677	2.661	2.1	20.3
2 21	9 49.09	+9 56.4	1.784	2.769	2.2	21.0	2 21	9 49.44	+15 27.6	1.680	2.663	2.8	20.3
3 2	9 39.74	+10 42.7	1.797	2.756	6.4	21.3	3 2	9 40.86	+16 4.7	1.711	2.666	7.1	20.6
3 12	9 31.75	+11 24.0	1.837	2.742	10.5	21.5	3 12	9 33.85	+16 31.0	1.768	2.668	11.1	20.9
3 22	9 25.88	+11 56.5	1.902	2.728	14.0	21.7	3 22	9 29.09	+16 44.7	1.848	2.671	14.5	21.1
<b>370786</b>	2004 $SD_{62}$	2 15.8 116°68		2°4/13.8 18			<b>386834</b>	2010 $JM_{31}$	2 15.8 265°81		7°0/ 8.4 17		
1 12	10 20.33	+18 2.4	2.072	2.896	12.6	21.9	1 12	10 20.56	+33 49.2	2.364	3.187	11.2	21.2
1 22	10 14.96	+18 40.3	2.003	2.905	9.4	21.7	1 22	10 15.30	+35 1.1	2.292	3.178	9.1	21.0
2 1	10 7.49	+19 22.8	1.958	2.914	5.8	21.5	2 1	10 7.81	+36 7.1	2.247	3.169	7.5	20.9
2 11	9 58.64	+20 4.3	1.942	2.922	2.7	21.4	2 11	9 58.80	+36 59.5	2.228	3.159	7.1	20.9
2 21	9 49.34	+20 39.1	1.955	2.931	3.8	21.4	2 21	9 49.19	+37 32.1	2.237	3.150	8.2	20.9
3 2	9 40.60	+21 2.9	1.997	2.939	7.3	21.7	3 2	9 40.08	+37 41.7	2.273	3.140	10.3	21.0
3 12	9 33.37	+21 13.3	2.065	2.947	10.7	21.9	3 12	9 32.46	+37 28.2	2.332	3.130	12.6	21.2
3 22	9 28.23	+21 10.2	2.157	2.954	13.6	22.1	3 22	9 27.02	+36 54.2	2.412	3.121	14.7	21.3
<b>69858</b>	1998 $SM_{57}$	2 15.8 51°27		1°1/14.9 18			<b>270598</b>	2002 $NS_{35}$	2 15.8 212°40		1°9/17.3 18		
1 12	10 17.03	+13 1.9	1.893	2.716	13.6	18.5	1 12	10 21.15	+4 37.6	1.703	2.500	16.1	21.3
1 22	10 12.66	+13 42.2	1.822	2.724	10.1	18.3	1 22	10 16.17	+5 5.7	1.612	2.493	12.5	21.1
2 1	10 6.16	+14 32.4	1.776	2.732	6.2	18.1	2 1	10 8.60	+5 53.7	1.543	2.486	8.3	20.8
2 11	9 58.22	+15 27.1	1.756	2.740	2.0	17.9	2 11	9 59.13	+6 58.0	1.500	2.478	3.7	20.5
2 21	9 49.78	+16 20.0	1.765	2.748	2.9	17.9	2 21	9 48.79	+8 12.4	1.485	2.470	2.7	20.4
3 2	9 41.89	+17 5.2	1.803	2.756	7.0	18.2	3 2	9 38.85	+9 29.2	1.500	2.460	7.2	20.7
3 12	9 35.49	+17 38.8	1.867	2.765	10.8	18.4	3 12	9 30.53	+10 40.3	1.541	2.450	11.8	20.9
3 22	9 31.21	+17 58.6	1.954	2.773	14.0	18.7	3 22	9 24.70	+11 40.0	1.605	2.439	15.8	21.1
<b>285985</b>	2001 $RM_{149}$	2 15.8 258°26		1°8/14.7 18			<b>317762</b>	2003 $SS_{88}$	2 15.8 210°42		2°3/14.0 18		
1 12	10 24.65	+17 22.3	1.785	2.607	14.4	20.1	1 12	10 21.45	+16 14.4	1.837	2.661	13.9	21.1
1 22	10 18.56	+17 25.7	1.705	2.606	10.8	19.8	1 22	10 16.22	+17 3.0	1.754	2.657	10.4	20.9
2 1	10 9.90	+17 33.4	1.649	2.605	6.7	19.6	2 1	10 8.53	+18 0.2	1.696	2.652	6.4	20.7
2 11	9 59.48	+17 40.5	1.621	2.603	2.5	19.3	2 11	9 59.07	+18 59.1	1.665	2.646	2.7	20.4
2 21	9 48.43	+17 42.1	1.621	2.602	3.5	19.4	2 21	9 48.89	+19 52.6	1.663	2.640	4.0	20.5
3 2	9 38.03	+17 34.6	1.650	2.600	7.8	19.6	3 2	9 39.20	+20 34.4	1.689	2.634	8.1	20.7
3 12	9 29.44	+17 16.4	1.705	2.599	11.9	19.9	3 12	9 31.14	+21 0.5	1.742	2.627	12.1	20.9
3 22	9 23.40	+16 47.7	1.783	2.597	15.3	20.1	3 22	9 25.48	+21 10.1	1.817	2.620	15.5	21.1
<b>293710</b>	2007 $QG_9$	2 15.8 176°87		0°8/16.5 18			<b>47135</b>	1999 $EX_2$	2 15.8 77°18		4°6/19.9 18		
1 12	10 20.38	+7 16.7	1.995	2.793	14.0	21.9	1 12	10 16.70	-7 58.6	1.068	1.856	24.1	18.2
1 22	10 15.14	+7 52.3	1.910	2.795	10.7	21.7	1 22	10 13.79	-6 5.8	0.997	1.866	19.6	17.9
2 1	10 7.71	+8 42.7	1.850	2.797	6.8	21.5	2 1	10 7.53	-3 17.7	0.945	1.875	14.0	17.6
2 11	9 58.75	+9 43.6	1.817	2.798	2.6	21.2	2 11	9 58.83	+0 20.0	0.915	1.885	7.9	17.3
2 21	9 49.19	+10 49.3	1.814	2.799	2.2	21.2	2 21	9 49.14	+4 29.2	0.912	1.895	4.7	17.2
3 2	9 40.07	+11 53.3	1.840	2.799	6.4	21.4	3 2	9 40.25	+8 43.0	0.937	1.905	9.2	17.5
3 12	9 32.38	+12 49.9	1.895	2.798	10.3	21.7	3 12	9 33.76	+12 34.7	0.988	1.914	15.0	17.8
3 22	9 26.81	+13 35.3	1.973	2.796	13.8	21.9	3 22	9 30.64	+15 47.7	1.062	1.924	20.1	18.2
<b>171232</b>	2005 $JK_{160}$	2 15.8 293°03		0°6/16.3 17			<b>336303</b>	2008 $TG_3$	2 15.8 60°32		3°9/12.2 18		
1 12	10 15.85	+8 53.3	2.145	2.953	12.8	20.6	1 12	10 17.31	+20 11.2	1.892	2.729	13.1	20.2
1 22	10 11.72	+9											

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>501427</b>	2013 YP <sub>146</sub>		2 15.8	53°87'	0°2/15.9	18	<b>328523</b>	2009 QY <sub>47</sub>		2 15.8	146°05'	0°5/16.4	18
1 12	10 20.15	+11 53.3	2.084	2.894	13.0	21.2	1 12	10 18.36	+7 54.9	2.557	3.347	11.5	21.9
1 22	10 14.71	+11 49.4	2.014	2.907	9.8	21.0	1 22	10 13.12	+8 34.6	2.478	3.359	8.7	21.7
2 1	10 7.28	+11 53.2	1.968	2.920	6.1	20.8	2 1	10 6.23	+9 25.2	2.425	3.372	5.5	21.5
2 11	9 58.58	+12 1.6	1.950	2.933	2.1	20.5	2 11	9 58.25	+10 22.9	2.401	3.383	2.0	21.3
2 21	9 49.49	+12 11.2	1.962	2.947	2.1	20.6	2 21	9 49.89	+11 23.3	2.409	3.394	1.7	21.3
3 2	9 40.99	+12 18.5	2.003	2.961	6.0	20.8	3 2	9 41.91	+12 21.4	2.447	3.403	5.2	21.5
3 12	9 33.94	+12 20.8	2.072	2.975	9.6	21.1	3 12	9 35.05	+13 13.1	2.515	3.413	8.3	21.7
3 22	9 28.90	+12 16.4	2.164	2.989	12.6	21.3	3 22	9 29.82	+13 55.5	2.608	3.421	11.1	21.9
<b>498858</b>	2008 YX <sub>35</sub>		2 15.8	7°63'	3°1/12.8	17	<b>203919</b>	2003 OV <sub>10</sub>		2 15.8	242°85'	3°1/13.3	17
1 12	10 15.15	+17 59.7	2.026	2.860	12.4	20.9	1 12	10 21.68	+17 45.0	1.871	2.697	13.6	21.1
1 22	10 11.27	+19 11.5	1.953	2.861	9.2	20.7	1 22	10 16.54	+18 46.1	1.778	2.682	10.3	20.8
2 1	10 5.34	+20 30.2	1.904	2.861	5.7	20.4	2 1	10 8.84	+19 55.7	1.710	2.665	6.4	20.6
2 11	9 57.98	+21 48.7	1.884	2.862	3.2	20.3	2 11	9 59.24	+21 6.6	1.669	2.648	3.3	20.4
2 21	9 50.08	+22 59.6	1.893	2.864	4.6	20.4	2 21	9 48.75	+22 10.6	1.657	2.630	4.8	20.4
3 2	9 42.63	+23 56.9	1.929	2.865	8.0	20.6	3 2	9 38.60	+23 0.7	1.674	2.612	8.8	20.6
3 12	9 36.55	+24 36.7	1.992	2.867	11.3	20.8	3 12	9 30.01	+23 32.6	1.717	2.593	12.7	20.8
3 22	9 32.48	+24 58.3	2.077	2.869	14.2	21.0	3 22	9 23.85	+23 45.4	1.781	2.573	16.2	21.0
<b>181201</b>	2005 ST <sub>160</sub>		2 15.8	320°27'	2°9/17.8	18	<b>33796</b>	1999 TP <sub>37</sub>		2 15.8	230°38'	2°3/18.1	18
1 12	10 14.03	+3 52.2	1.440	2.257	17.4	19.2	1 12	10 16.09	+3 37.9	2.711	3.486	11.3	18.4
1 22	10 11.33	+4 0.7	1.341	2.233	13.8	18.9	1 22	10 11.44	+3 35.1	2.613	3.480	8.9	18.2
2 1	10 5.89	+4 31.8	1.262	2.208	9.5	18.6	2 1	10 5.23	+3 43.6	2.540	3.473	6.1	18.0
2 11	9 58.31	+5 23.9	1.207	2.185	4.8	18.2	2 11	9 57.94	+4 2.1	2.495	3.467	3.3	17.8
2 21	9 49.63	+6 31.8	1.178	2.162	3.4	18.1	2 21	9 50.20	+4 28.1	2.480	3.460	2.5	17.7
3 2	9 41.22	+7 47.4	1.174	2.140	8.0	18.3	3 2	9 42.73	+4 58.5	2.495	3.453	4.9	17.9
3 12	9 34.47	+9 1.1	1.194	2.119	13.2	18.5	3 12	9 36.21	+5 29.6	2.539	3.446	7.8	18.1
3 22	9 30.43	+10 4.9	1.236	2.098	17.8	18.7	3 22	9 31.17	+5 58.1	2.608	3.439	10.5	18.2
<b>188248</b>	2002 XC <sub>28</sub>		2 15.8	359°77'	7°1/19.1	18	<b>428192</b>	2006 UL <sub>110</sub>		2 15.8	87°36'	2°9/13.5	18
1 12	10 19.80	+0 14.7	1.309	2.110	19.8	18.8	1 12	10 21.74	+21 33.6	2.356	3.176	11.4	21.0
1 22	10 15.66	-1 8.2	1.233	2.107	16.2	18.5	1 22	10 15.77	+21 51.3	2.285	3.184	8.5	20.8
2 1	10 8.49	-2 11.6	1.178	2.105	12.1	18.3	2 1	10 7.90	+22 9.5	2.241	3.193	5.4	20.6
2 11	9 59.13	-2 52.5	1.144	2.104	8.4	18.1	2 11	9 58.81	+22 23.5	2.225	3.201	3.0	20.5
2 21	9 48.84	-3 10.3	1.135	2.105	7.2	18.0	2 21	9 49.36	+22 29.3	2.239	3.210	4.0	20.5
3 2	9 39.19	-3 7.9	1.151	2.106	9.7	18.2	3 2	9 40.48	+22 24.3	2.282	3.218	6.9	20.7
3 12	9 31.61	-2 51.6	1.189	2.109	13.6	18.4	3 12	9 33.00	+22 7.6	2.354	3.227	9.9	20.9
3 22	9 27.02	-2 29.1	1.249	2.113	17.5	18.6	3 22	9 27.47	+21 39.9	2.448	3.235	12.5	21.1
<b>279534</b>	2011 BT <sub>58</sub>		2 15.8	243°78'	0°1/15.7	17	<b>27102</b>	Emilychen		2 15.8	358°48'	0°1/15.8	18
1 12	10 18.95	+11 21.4	1.967	2.780	13.6	21.8	1 12	10 22.33	+11 58.7	1.323	2.156	17.8	18.2
1 22	10 14.13	+11 41.3	1.881	2.776	10.2	21.5	1 22	10 17.57	+12 4.2	1.250	2.155	13.5	17.9
2 1	10 7.13	+12 11.7	1.819	2.772	6.4	21.0	2 1	10 9.67	+12 22.8	1.198	2.154	8.4	17.6
2 11	9 58.59	+12 48.5	1.784	2.768	2.1	21.0	2 11	9 59.54	+12 49.3	1.170	2.154	2.8	17.3
2 21	9 49.44	+13 26.6	1.779	2.763	2.3	21.0	2 21	9 48.55	+13 17.1	1.169	2.154	3.1	17.3
3 2	9 40.73	+14 0.8	1.802	2.759	6.6	21.3	3 2	9 38.32	+13 39.8	1.194	2.154	8.7	17.6
3 12	9 33.44	+14 27.0	1.852	2.754	10.6	21.5	3 12	9 30.31	+13 52.2	1.242	2.155	13.8	17.9
3 22	9 28.29	+14 42.7	1.926	2.750	14.0	21.7	3 22	9 25.39	+13 52.3	1.311	2.156	18.1	18.2
<b>224371</b>	2005 UD <sub>164</sub>		2 15.8	274°03'	1°4/16.9	17	<b>242435</b>	2004 ND <sub>30</sub>		2 15.8	208°28'	6°3/8.2	18
1 12	10 18.81	+7 8.4	1.941	2.743	14.2	20.7	1 12	10 24.40	+38 16.0	3.212	4.010	9.2	21.0
1 22	10 14.25	+7 19.8	1.835	2.721	11.0	20.5	1 22	10 17.60	+39 4.1	3.141	4.003	7.7	20.8
2 1	10 7.36	+7 45.6	1.753	2.699	7.2	20.2	2 1	10 8.98	+39 43.9	3.096	3.996	6.5	20.8
2 11	9 58.73	+8 23.0	1.697	2.677	3.0	19.9	2 11	9 59.18	+40 10.1	3.080	3.989	6.3	20.7
2 21	9 49.24	+9 7.7	1.670	2.655	2.4	19.8	2 21	9 48.99	+40 18.8	3.093	3.981	7.1	20.8
3 2	9 39.99	+9 54.1	1.672	2.632	6.7	20.0	3 2	9 39.27	+40 8.3	3.134	3.973	8.6	20.9
3 12	9 32.07	+10 36.6	1.701	2.609	10.9	20.2	3 12	9 30.84	+39 39.2	3.200	3.964	10.2	21.0
3 22	9 26.31	+11 10.9	1.753	2.586	14.7	20.4	3 22	9 24.23	+38 54.1	3.287	3.955	11.8	21.1
<b>432924</b>	2011 SK <sub>191</sub>		2 15.8	151°49'	10°5/12.8	16	<b>422241</b>	2014 SZ <sub>45</sub>		2 15.8	161°17'	1°6/14.5	18
1 12	10 47.89	+34 21.9	1.131	1.955	20.8	20.9	1 12	10 20.78	+14 3.3	1.970	2.788	13.4	21.8
1 22	10 37.67	+34 51.0	1.072	1.960	16.8	20.7	1 22	10 15.48	+14 55.1	1.894	2.793	10.0	21.6
2 1	10 22.35	+35 3.7	1.032	1.965	12.8	20.5	2 1	10 7.95	+15 56.3	1.843	2.798	6.1	21.3
2 11	10 3.65	+34 44.1	1.017	1.969	10.5	20.4	2 11	9 58.90	+17 0.9	1.820	2.803	2.2	21.1
2 21	9 44.30	+33 42.8	1.027	1.972	11.7	20.4	2 21	9 49.27	+18 2.0	1.827	2.807	3.3	21.2
3 2	9 27.19	+32 1.7	1.063	1.976	15.3	20.7	3 2	9 40.16	+18 53.6	1.863	2.810	7.3	21.4
3 12	9 14.41	+29 51.7	1.121	1.978	19.4	20.9	3 12	9 32.57	+19 31.5	1.926	2.813	11.0	21.7
3 22	9 6.68	+27 26.4	1.198	1.980	23.1	21.2	3 22	9 27.16	+19 54.3	2.011	2.815	14.2	21.9
<b>192962</b>	2000 CF <sub>101</sub>		2 15.8	349°47'	1°0/14.9	18	<b>170096</b>	2002 XV <sub>57</sub>		2 15.8	36°19'	2°6/13.6	18
1 12	10 16.20	+12 49.9	1.886	2.711	13.6	20.6	1 12	10 16.42	+17 11.4	1.853	2.688	13.4	19.3
1 22	10 12.16	+13 29.8	1.806	2.709	10.2	20.4	1 22	10 12.27	+18 4.4	1.792	2.700	9.9	19.1
2 1	10 5.94	+14 20.5	1.750	2.707	6.2	20.2	2 1	10 5.95	+19 3.9	1.755	2.712	6.1	18.9
2 11	9 58.21	+15 16.6	1.722	2.705	2.0	19.9	2 11	9 58.21	+20 3.1	1.745	2.725	2.9	18.7
2 21	9 49.89	+16 11.7	1.721	2.704	2.9	19.9	2 21	9 50.03	+20 55.2	1.763	2.739	4.1	18.8
3 2	9 42.03	+16 59.7	1.749	2.703	7.1	20.2	3 2	9 42.46	+21 34.8	1.809	2.753	7.8	19.0
3 12	9 35.62	+17 36.1	1.803	2.702	11.0	20.4	3 12	9 36.44	+21 58.7	1.881	2.767	11.3	19.3
3 22	9 31.33	+17 58.5	1.880	2.702	14.4	20.6	3 22	9 32.57	+22 6.4	1.974	2.781	14.3	19.5
<b>465976</b>	2011 CU <sub>30</sub>		2 15.8	292°63'	1°5/16.8	17	<b>274642</b>	2008 TD <sub>118</sub>		2 15.8	137°11'	0°9/15.0	18
1 12	10 21.41	+8 50.6	1.858	2.663	14.6	21.2	1 12	10 18.27	+13 31.1	2.292	3.105	11.9	

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2 15.8

2 15.9

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>100785</b>	1998 <i>FA</i> <sub>62</sub>		2 15.8 236°68	0°3/15.7	18		<b>120713</b>	1997 <i>QO</i> <sub>2</sub>		2 15.8 157°47	0°6/15.2	18	
1 12	10 23.85	+11 41.0	1.593	2.411	16.0	20.0	1 12	10 19.72	+ 7 37.3	1.841	2.646	14.7	20.2
1 22	10 18.46	+11 59.5	1.503	2.400	12.2	19.7	1 22	10 14.87	+ 9 19.1	1.761	2.653	11.1	19.9
2 1	10 10.17	+12 30.7	1.435	2.389	7.6	19.4	2 1	10 7.70	+11 20.5	1.707	2.659	6.8	19.7
2 11	9 59.74	+13 9.7	1.393	2.377	2.5	19.1	2 11	9 58.87	+13 33.5	1.682	2.665	2.1	19.4
2 21	9 48.33	+13 50.1	1.380	2.364	2.9	19.1	2 21	9 49.37	+15 47.7	1.687	2.670	2.9	19.5
3 2	9 37.37	+14 25.3	1.394	2.351	8.2	19.3	3 2	9 40.32	+17 52.4	1.724	2.675	7.4	19.8
3 12	9 28.27	+14 50.0	1.434	2.337	13.0	19.6	3 12	9 32.79	+19 39.4	1.788	2.679	11.6	20.0
3 22	9 21.94	+15 1.6	1.496	2.323	17.1	19.8	3 22	9 27.53	+21 4.5	1.877	2.682	15.0	20.2
<b>50304</b>	2000 <i>CZ</i> <sub>36</sub>		2 15.8 235°07	0°9/16.5	18		<b>81957</b>	2000 <i>QG</i> <sub>14</sub>		2 15.8 142°84	0°1/15.8	17 R	
1 12	10 19.38	+ 8 24.9	1.904	2.710	14.3	18.7	1 12	10 16.39	+11 4.8	2.829	3.629	10.2	20.8
1 22	10 14.59	+ 8 42.1	1.813	2.703	10.9	18.4	1 22	10 11.55	+11 32.0	2.750	3.638	7.7	20.6
2 1	10 7.50	+ 9 12.9	1.747	2.696	7.0	18.2	2 1	10 5.24	+12 6.6	2.696	3.647	4.7	20.5
2 11	9 58.79	+ 9 53.6	1.707	2.688	2.7	17.9	2 11	9 57.97	+12 45.5	2.672	3.655	1.5	20.3
2 21	9 49.38	+10 39.2	1.695	2.681	2.2	17.8	2 21	9 50.37	+13 24.9	2.678	3.663	1.7	20.3
3 2	9 40.36	+11 24.0	1.713	2.673	6.6	18.1	3 2	9 43.10	+14 1.4	2.716	3.670	4.9	20.5
3 12	9 32.80	+12 2.7	1.758	2.664	10.8	18.3	3 12	9 36.82	+14 31.8	2.782	3.678	7.7	20.7
3 22	9 27.43	+12 31.9	1.825	2.656	14.4	18.5	3 22	9 31.99	+14 54.4	2.874	3.684	10.2	20.9
<b>466148</b>	2012 <i>HZ</i> <sub>45</sub>		2 15.8 283°64	0°4/15.5	17		<b>31867</b>	2000 <i>EG</i> <sub>94</sub>		2 15.8 211°44	5°0/20.9	18	
1 12	10 16.52	+10 14.5	1.838	2.657	14.2	21.5	1 12	10 18.16	- 6 14.4	2.575	3.297	13.2	19.5
1 22	10 12.63	+11 2.6	1.742	2.641	10.7	21.3	1 22	10 13.16	- 6 17.2	2.468	3.288	11.0	19.3
2 1	10 6.40	+12 5.9	1.670	2.625	6.7	21.0	2 1	10 6.41	- 6 1.6	2.384	3.279	8.5	19.1
2 11	9 58.46	+13 19.1	1.625	2.609	2.2	20.7	2 11	9 58.42	- 5 27.5	2.327	3.269	6.1	19.0
2 21	9 49.71	+14 35.4	1.608	2.593	2.7	20.7	2 21	9 49.85	- 4 36.9	2.298	3.258	5.0	18.9
3 2	9 41.26	+15 46.9	1.620	2.576	7.3	20.9	3 2	9 41.51	- 3 33.4	2.300	3.246	6.2	18.9
3 12	9 34.23	+16 47.2	1.658	2.560	11.6	21.2	3 12	9 34.17	- 2 22.7	2.330	3.234	8.6	19.1
3 22	9 29.42	+17 32.4	1.719	2.544	15.4	21.3	3 22	9 28.44	- 1 10.6	2.387	3.220	11.3	19.2
<b>81335</b>	2000 <i>GP</i> <sub>33</sub>		2 15.8 269°15	1°1/15.0	18		<b>421529</b>	2014 <i>OR</i> <sub>130</sub>		2 15.8 137°95	1°2/14.8	18	
1 12	10 20.02	+13 42.5	1.810	2.633	14.2	20.1	1 12	10 21.15	+13 8.8	1.973	2.787	13.5	21.6
1 22	10 15.25	+14 9.7	1.720	2.620	10.7	19.8	1 22	10 15.69	+13 59.0	1.902	2.799	10.1	21.4
2 1	10 8.02	+14 46.9	1.652	2.608	6.6	19.6	2 1	10 8.05	+14 59.0	1.856	2.811	6.1	21.2
2 11	9 58.99	+15 28.9	1.612	2.596	2.2	19.3	2 11	9 58.95	+16 2.8	1.839	2.822	2.1	20.9
2 21	9 49.18	+16 9.6	1.600	2.583	3.1	19.3	2 21	9 49.34	+17 3.8	1.851	2.832	3.0	21.0
3 2	9 39.77	+16 43.2	1.617	2.570	7.6	19.5	3 2	9 40.30	+17 56.0	1.893	2.842	7.0	21.3
3 12	9 31.93	+17 5.4	1.659	2.557	11.8	19.8	3 12	9 32.80	+18 35.3	1.961	2.851	10.7	21.5
3 22	9 26.46	+17 14.3	1.724	2.545	15.5	20.0	3 22	9 27.46	+19 0.0	2.054	2.860	13.9	21.7
<b>243837</b>	2000 <i>UF</i> <sub>74</sub>		2 15.8 135°35	4°1/12.7	18		<b>174327</b>	2002 <i>TO</i> <sub>122</sub>		2 15.8 169°75	4°9/20.5	18	
1 12	10 22.69	+20 10.0	1.721	2.553	14.4	20.7	1 12	10 16.47	- 4 24.5	2.402	3.143	13.5	20.2
1 22	10 17.21	+21 17.4	1.656	2.562	10.7	20.5	1 22	10 11.93	- 4 39.5	2.310	3.144	11.1	20.0
2 1	10 9.15	+22 29.8	1.616	2.570	6.9	20.3	2 1	10 5.64	- 4 36.9	2.242	3.145	8.5	19.8
2 11	9 59.32	+23 38.2	1.603	2.579	4.1	20.2	2 11	9 58.15	- 4 16.9	2.199	3.147	6.0	19.7
2 21	9 48.89	+24 34.5	1.618	2.586	5.6	20.3	2 21	9 50.17	- 3 41.3	2.185	3.148	4.9	19.6
3 2	9 39.17	+25 12.5	1.661	2.593	9.3	20.5	3 2	9 42.51	- 2 53.9	2.199	3.148	6.2	19.7
3 12	9 31.32	+25 30.0	1.730	2.600	13.0	20.7	3 12	9 35.95	- 1 59.8	2.241	3.149	8.7	19.8
3 22	9 26.05	+25 27.7	1.819	2.607	16.1	21.0	3 22	9 31.06	- 1 4.4	2.309	3.149	11.4	20.0
<b>309775</b>	2008 <i>YD</i> <sub>125</sub>		2 15.8 300°93	0°9/15.3	16		<b>242385</b>	2004 <i>EM</i> <sub>25</sub>		2 15.8 64°00	6°6/21.4	18	
1 12	10 19.98	+12 51.1	1.445	2.279	16.5	21.1	1 12	10 17.37	- 6 33.4	1.601	2.359	18.5	20.2
1 22	10 15.76	+13 15.4	1.361	2.267	12.5	20.8	1 22	10 13.21	- 6 39.8	1.535	2.377	15.3	20.1
2 1	10 8.59	+13 52.9	1.298	2.256	7.8	20.5	2 1	10 6.66	- 6 18.0	1.487	2.394	11.7	19.9
2 11	9 59.24	+14 37.7	1.260	2.244	2.6	20.1	2 11	9 58.51	- 5 28.4	1.463	2.412	8.3	19.7
2 21	9 48.91	+15 22.4	1.249	2.233	3.4	20.2	2 21	9 49.82	- 4 15.2	1.465	2.429	6.6	19.7
3 2	9 39.10	+15 59.7	1.265	2.222	8.7	20.4	3 2	9 41.78	- 2 46.1	1.493	2.447	8.0	19.8
3 12	9 31.24	+16 23.9	1.304	2.212	13.7	20.7	3 12	9 35.44	- 1 11.0	1.547	2.465	11.2	20.0
3 22	9 26.25	+16 32.8	1.364	2.201	17.9	20.9	3 22	9 31.49	+ 0 21.0	1.625	2.483	14.5	20.2
<b>423620</b>	2005 <i>WM</i> <sub>141</sub>		2 15.8 318°31	6°9/20.7	17		<b>345757</b>	2007 <i>EV</i> <sub>69</sub>		2 15.8 73°67	0°3/16.1	18	
1 12	10 16.82	- 5 0.2	1.753	2.513	17.1	20.2	1 12	10 20.13	+ 7 53.3	1.307	2.134	18.4	20.8
1 22	10 12.90	- 5 42.1	1.660	2.503	14.3	20.0	1 22	10 15.74	+ 8 42.4	1.248	2.149	13.9	20.5
2 1	10 6.59	- 6 2.0	1.586	2.492	11.2	19.8	2 1	10 8.42	+ 9 52.0	1.210	2.164	8.7	20.3
2 11	9 58.53	- 5 58.2	1.537	2.483	8.2	19.6	2 11	9 59.12	+11 14.7	1.196	2.180	3.0	20.0
2 21	9 49.66	- 5 31.3	1.513	2.473	6.9	19.5	2 21	9 49.19	+12 40.5	1.210	2.195	2.9	20.0
3 2	9 41.12	- 4 45.3	1.515	2.464	8.4	19.5	3 2	9 40.12	+13 59.4	1.250	2.211	8.4	20.4
3 12	9 34.04	- 3 47.2	1.542	2.456	11.5	19.7	3 12	9 33.21	+15 3.4	1.314	2.226	13.2	20.7
3 22	9 29.24	- 2 44.8	1.593	2.448	14.9	19.9	3 22	9 29.22	+15 48.7	1.399	2.241	17.3	21.0
<b>42456</b>	4322 <i>T-3</i>		2 15.8 104°95	2°8/13.4	18		<b>229814</b>	2008 <i>SQ</i> <sub>246</sub>		2 15.9 133°64	0°4/16.2	18	
1 12	10 18.65	+17 40.2	1.949	2.778	13.1	20.0	1 12	10 17.97	+ 9 30.4	2.210	3.014	12.6	21.0
1 22	10 13.92	+18 37.4	1.879	2.785	9.7	19.8	1 22	10 13.13	+ 9 53.8	2.131	3.020	9.5	20.8
2 1	10 7.00	+19 41.0	1.834	2.791	6.0	19.6	2 1	10 6.40	+10 27.8	2.076	3.026	6.0	20.6
2 11	9 58.60	+20 44.2	1.817	2.797	3.0	19.4	2 11	9 58.40	+11 8.8	2.049	3.032	2.1	20.3
2 21	9 49.67	+21 40.0	1.829	2.803	4.3	19.5	2 21	9 49.94	+11 52.3	2.052	3.037	2.0	20.3
3 2	9 41.28	+22 22.8	1.869	2.809	7.9	19.8	3 2	9 41.92	+12 33.4	2.085	3.043	5.8	20.6
3 12	9 34.42	+22 49.4	1.935	2.815	11.4	20.0	3 12	9 35.17	+13 8.1	2.146	3.048	9.3	20.8
3 22	9 29.72	+22 59.5	2.023	2.820	14.4	20.2	3 22	9 30.28	+13 33.7	2.230	3.053	12.4	21.0
<b>1568</b>	Aisleen		2 15.8 104°80	0°1/15.8	18 R		<b>96108</b>	4167 <i>T-2</i>		2 15.9			

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>408750</b>	4308 <i>P-L</i>		2 15.9	96°94	2°0/17.6	18	<b>94537</b>	2001 <i>UV</i> <sub>158</sub>		2 15.9	334°93	4°6/18.9	18
1 12	10 20.45	+ 4 7.2	1.971	2.758	14.5	21.9	1 12	10 16.10	+ 0 36.2	1.309	2.117	19.4	19.4
1 22	10 15.00	+ 4 32.5	1.908	2.784	11.2	21.7	1 22	10 12.99	+ 0 32.7	1.228	2.110	15.5	19.1
2 1	10 7.52	+ 5 13.8	1.869	2.809	7.4	21.5	2 1	10 6.95	+ 0 55.7	1.166	2.104	11.0	18.8
2 11	9 58.76	+ 6 7.3	1.857	2.833	3.5	21.3	2 11	9 58.74	+ 1 44.4	1.127	2.098	6.5	18.6
2 21	9 49.62	+ 7 7.8	1.874	2.857	2.5	21.3	2 21	9 49.57	+ 2 53.6	1.112	2.092	4.8	18.4
3 2	9 41.11	+ 8 9.2	1.921	2.881	6.0	21.6	3 2	9 40.91	+ 4 14.4	1.122	2.088	8.4	18.6
3 12	9 34.11	+ 9 5.8	1.995	2.904	9.6	21.8	3 12	9 34.19	+ 5 36.2	1.157	2.083	13.3	18.9
3 22	9 29.18	+ 9 53.6	2.095	2.926	12.7	22.1	3 22	9 30.36	+ 6 49.7	1.212	2.080	17.7	19.1
<b>187864</b>	2000 <i>NE</i> <sub>6</sub>		2 15.9	261°27	1°2/16.9	17	<b>379910</b>	2012 <i>JN</i> <sub>53</sub>		2 15.9	198°77	5°2/20.9	17
1 12	10 17.94	+ 6 47.8	1.985	2.785	13.9	21.5	1 12	10 16.96	- 5 51.7	2.430	3.161	13.6	22.0
1 22	10 13.52	+ 7 10.4	1.884	2.770	10.8	21.3	1 22	10 12.32	- 6 0.2	2.332	3.158	11.3	21.8
2 1	10 6.89	+ 7 48.0	1.808	2.754	7.0	21.0	2 1	10 5.92	- 5 49.9	2.257	3.155	8.7	21.7
2 11	9 58.64	+ 8 37.7	1.758	2.739	2.9	20.7	2 11	9 58.28	- 5 20.8	2.208	3.151	6.3	21.5
2 21	9 49.64	+ 9 34.4	1.737	2.722	2.2	20.6	2 21	9 50.10	- 4 34.9	2.187	3.147	5.2	21.4
3 2	9 40.91	+ 10 32.0	1.746	2.706	6.5	20.9	3 2	9 42.21	- 3 36.1	2.195	3.142	6.3	21.5
3 12	9 33.50	+ 11 24.8	1.781	2.689	10.6	21.1	3 12	9 35.39	- 2 30.0	2.231	3.137	8.8	21.6
3 22	9 28.16	+ 12 8.2	1.840	2.672	14.2	21.3	3 22	9 30.24	- 1 22.4	2.293	3.132	11.5	21.8
<b>115020</b>	2003 <i>QQ</i> <sub>90</sub>		2 15.9	44°80	0°5/15.6	18	<b>61251</b>	2000 <i>OE</i> <sub>24</sub>		2 15.9	147°51	2°1/14.0	18
1 12	10 22.35	+ 12 51.6	1.473	2.301	16.6	19.4	1 12	10 21.78	+ 14 43.2	1.933	2.751	13.6	19.8
1 22	10 17.24	+ 12 59.6	1.403	2.306	12.5	19.2	1 22	10 16.27	+ 15 51.2	1.863	2.762	10.1	19.6
2 1	10 9.31	+ 13 18.5	1.355	2.311	7.7	18.9	2 1	10 8.48	+ 17 8.7	1.817	2.773	6.1	19.4
2 11	9 59.44	+ 13 43.0	1.333	2.316	2.5	18.6	2 11	9 59.14	+ 18 28.5	1.800	2.782	2.5	19.2
2 21	9 48.88	+ 14 7.3	1.337	2.322	3.0	18.7	2 21	9 49.25	+ 19 42.8	1.813	2.791	3.8	19.3
3 2	9 39.10	+ 14 25.5	1.369	2.328	8.1	19.0	3 2	9 39.91	+ 20 45.0	1.856	2.799	7.7	19.5
3 12	9 31.35	+ 14 33.8	1.426	2.334	12.7	19.3	3 12	9 32.16	+ 21 30.8	1.925	2.807	11.3	19.8
3 22	9 26.40	+ 14 30.6	1.504	2.340	16.6	19.5	3 22	9 26.66	+ 21 59.1	2.018	2.813	14.5	20.0
<b>466872</b>	2015 <i>BU</i> <sub>511</sub>		2 15.9	55°00	2°6/13.3	18	<b>309262</b>	2007 <i>RZ</i> <sub>93</sub>		2 15.9	76°78	0°1/15.8	18
1 12	10 15.83	+ 14 31.9	1.794	2.626	13.9	20.6	1 12	10 21.43	+ 9 46.4	1.523	2.343	16.5	20.8
1 22	10 11.96	+ 16 6.2	1.730	2.638	10.2	20.4	1 22	10 16.27	+ 10 27.7	1.468	2.367	12.4	20.6
2 1	10 5.87	+ 17 51.6	1.692	2.650	6.2	20.1	2 1	10 8.53	+ 11 23.8	1.436	2.390	7.6	20.4
2 11	9 58.26	+ 19 39.6	1.681	2.662	2.8	19.9	2 11	9 59.14	+ 12 28.3	1.429	2.412	2.5	20.2
2 21	9 50.12	+ 21 20.5	1.699	2.674	4.4	20.1	2 21	9 49.31	+ 13 33.0	1.450	2.435	2.7	20.2
3 2	9 42.52	+ 22 46.2	1.745	2.687	8.2	20.3	3 2	9 40.31	+ 14 30.7	1.499	2.458	7.6	20.6
3 12	9 36.47	+ 23 51.7	1.818	2.699	11.9	20.6	3 12	9 33.28	+ 15 15.7	1.574	2.480	11.9	20.9
3 22	9 32.62	+ 24 35.5	1.912	2.712	15.0	20.8	3 22	9 28.84	+ 15 45.6	1.671	2.502	15.5	21.2
<b>69389</b>	1995 <i>FD</i> <sub>4</sub>		2 15.9	250°81	1°6/14.7	17	<b>433140</b>	2012 <i>TF</i> <sub>227</sub>		2 15.9	112°43	1°5/17.6	17
1 12	10 21.93	+ 14 22.5	1.847	2.666	14.1	20.9	1 12	10 15.28	+ 4 27.9	2.622	3.404	11.5	21.8
1 22	10 16.77	+ 15 1.2	1.749	2.649	10.6	20.6	1 22	10 10.82	+ 4 58.1	2.545	3.418	8.8	21.6
2 1	10 9.04	+ 15 50.3	1.675	2.630	6.6	20.3	2 1	10 4.85	+ 5 40.7	2.492	3.432	5.8	21.4
2 11	9 59.40	+ 16 44.2	1.628	2.611	2.4	20.0	2 11	9 57.89	+ 6 32.9	2.468	3.445	2.7	21.2
2 21	9 48.83	+ 17 35.8	1.610	2.591	3.4	20.0	2 21	9 50.59	+ 7 30.7	2.475	3.458	1.9	21.2
3 2	9 38.58	+ 18 18.8	1.621	2.571	8.0	20.3	3 2	9 43.65	+ 8 29.6	2.512	3.471	4.8	21.4
3 12	9 29.87	+ 18 48.3	1.659	2.550	12.3	20.5	3 12	9 37.73	+ 9 25.1	2.577	3.484	7.8	21.6
3 22	9 23.58	+ 19 2.5	1.718	2.529	16.0	20.7	3 22	9 33.31	+ 10 13.8	2.669	3.496	10.4	21.8
<b>353844</b>	2012 <i>VM</i> <sub>35</sub>		2 15.9	230°71	4°3/11.3	17	<b>310887</b>	2003 <i>QJ</i> <sub>33</sub>		2 15.9	128°77	0°8/16.5	18
1 12	10 17.76	+ 25 0.7	2.472	3.300	10.7	20.8	1 12	10 21.32	+ 7 46.9	1.894	2.695	14.5	21.4
1 22	10 12.98	+ 25 59.0	2.396	3.297	8.1	20.7	1 22	10 15.86	+ 8 16.3	1.822	2.709	11.0	21.2
2 1	10 6.32	+ 26 57.4	2.346	3.293	5.6	20.5	2 1	10 8.18	+ 8 59.8	1.774	2.722	7.0	20.9
2 11	9 58.39	+ 27 49.7	2.325	3.290	4.3	20.4	2 11	9 59.03	+ 9 52.9	1.754	2.735	2.6	20.7
2 21	9 49.98	+ 28 30.6	2.333	3.286	5.5	20.5	2 21	9 49.38	+ 10 49.8	1.763	2.748	2.2	20.7
3 2	9 41.97	+ 28 56.0	2.370	3.282	8.0	20.6	3 2	9 40.32	+ 11 44.4	1.801	2.760	6.5	21.0
3 12	9 35.20	+ 29 4.5	2.433	3.278	10.6	20.8	3 12	9 32.82	+ 12 31.3	1.867	2.771	10.4	21.2
3 22	9 30.25	+ 28 56.8	2.517	3.275	13.0	20.9	3 22	9 27.53	+ 13 7.4	1.956	2.782	13.7	21.5
<b>419143</b>	2009 <i>SX</i> <sub>287</sub>		2 15.9	341°64	8°2/22.7	18	<b>319808</b>	2006 <i>VN</i> <sub>50</sub>		2 15.9	99°09	8°2/ 8.9	18
1 12	10 14.90	- 10 1.9	1.744	2.480	18.0	20.6	1 12	10 25.59	+ 33 15.8	1.872	2.700	13.6	19.9
1 22	10 11.44	- 10 32.6	1.656	2.476	15.5	20.4	1 22	10 19.33	+ 34 47.7	1.831	2.719	10.9	19.8
2 1	10 5.68	- 10 35.9	1.586	2.472	12.5	20.2	2 1	10 10.40	+ 36 11.0	1.814	2.738	8.8	19.7
2 11	9 58.25	- 10 9.6	1.539	2.468	9.8	20.0	2 11	9 59.76	+ 37 15.5	1.824	2.757	8.2	19.7
2 21	9 50.09	- 9 14.9	1.516	2.465	8.3	19.9	2 21	9 48.67	+ 37 54.2	1.861	2.776	9.5	19.8
3 2	9 42.31	- 7 56.7	1.520	2.462	9.1	20.0	3 2	9 38.51	+ 38 4.2	1.924	2.794	11.8	20.0
3 12	9 35.99	- 6 23.8	1.548	2.460	11.6	20.1	3 12	9 30.43	+ 37 47.2	2.009	2.811	14.2	20.2
3 22	9 31.91	- 4 46.0	1.599	2.458	14.7	20.3	3 22	9 25.07	+ 37 7.8	2.114	2.829	16.3	20.4
<b>39359</b>	2002 <i>AD</i> <sub>178</sub>		2 15.9	212°49	1°1/14.8	18	<b>62933</b>	2000 <i>VR</i> <sub>21</sub>		2 15.9	285°11	2°3/14.3	18
1 12	10 16.71	+ 12 5.5	1.984	2.803	13.2	19.5	1 12	10 20.14	+ 15 20.1	1.540	2.375	15.6	19.1
1 22	10 12.50	+ 13 5.4	1.902	2.802	9.9	19.3	1 22	10 15.89	+ 16 4.9	1.448	2.356	11.8	18.8
2 1	10 6.18	+ 14 17.4	1.845	2.800	6.0	19.0	2 1	10 8.73	+ 17 1.5	1.379	2.337	7.3	18.5
2 11	9 58.38	+ 15 35.5	1.815	2.799	2.0	18.8	2 11	9 59.36	+ 18 3.1	1.335	2.318	2.9	18.2
2 21	9 49.98	+ 16 52.8	1.815	2.797	2.9	18.8	2 21	9 48.93	+ 19 1.0	1.319	2.299	4.3	18.2
3 2	9 41.98	+ 18 2.2	1.844	2.795	7.0	19.1	3 2	9 38.88	+ 19 47.1	1.329	2.279	9.3	18.4
3 12	9 35.35	+ 18 58.4	1.899	2.793	10.8	19.3	3 12	9 30.64	+ 20 15.9	1.364	2.260	14.0	18.6
3 22	9 30.78	+ 19 38.7	1.978	2.791	14.1	19.5	3 22	9 25.20	+ 20 25.7	1.419	2.241	18.2	18.9
<b>419842</b>	2010 <i>XN</i> <sub>87</sub>												



EPHEMERIDES

2 15.9

2 15.9

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>160768</b>	2000 <i>SQ</i> <sub>137</sub>		2 15.9 186°09'	0°7/16.4	18		<b>48621</b>	1995 <i>OC</i>		2 15.9 156°98'	0°7/16.4	18	
1 12	10 22.30	+ 8 34.5	2.148	2.941	13.3	21.6	1 12	10 23.17	+ 7 50.2	1.958	2.753	14.3	20.4
1 22	10 16.50	+ 8 56.5	2.058	2.942	10.1	21.4	1 22	10 17.25	+ 8 25.7	1.880	2.764	10.9	20.2
2 1	10 8.59	+ 9 30.3	1.994	2.941	6.4	21.1	2 1	10 9.08	+ 9 15.3	1.826	2.773	6.9	19.9
2 11	9 59.19	+10 12.6	1.957	2.939	2.4	20.9	2 11	9 59.36	+10 14.4	1.800	2.781	2.5	19.7
2 21	9 49.20	+10 58.4	1.951	2.936	2.1	20.8	2 21	9 49.08	+11 17.2	1.804	2.789	2.2	19.7
3 2	9 39.60	+11 42.6	1.976	2.933	6.1	21.1	3 2	9 39.33	+12 17.1	1.838	2.795	6.5	19.9
3 12	9 31.37	+12 20.8	2.028	2.928	9.9	21.3	3 12	9 31.13	+13 8.9	1.900	2.800	10.5	20.2
3 22	9 25.18	+12 49.9	2.106	2.923	13.2	21.5	3 22	9 25.14	+13 49.2	1.986	2.805	13.8	20.4
<b>170428</b>	2003 <i>UL</i> <sub>94</sub>		2 15.9 134°32'	0°2/15.7	18		<b>357367</b>	2003 <i>SP</i> <sub>165</sub>		2 15.9 188°25'	2°4/18.1	18	
1 12	10 21.85	+10 51.8	1.877	2.687	14.3	21.4	1 12	10 18.97	+ 2 8.7	2.121	2.897	14.0	21.5
1 22	10 16.31	+11 21.1	1.805	2.698	10.7	21.2	1 22	10 14.06	+ 2 41.8	2.029	2.897	11.0	21.3
2 1	10 8.49	+12 1.8	1.756	2.709	6.6	21.0	2 1	10 7.11	+ 3 33.1	1.961	2.896	7.5	21.1
2 11	9 59.15	+12 48.9	1.736	2.719	2.2	20.7	2 11	9 58.73	+ 4 39.8	1.920	2.894	3.8	20.9
2 21	9 49.28	+13 36.7	1.744	2.729	2.4	20.8	2 21	9 49.73	+ 5 56.6	1.908	2.891	2.7	20.8
3 2	9 40.01	+14 19.4	1.782	2.738	6.8	21.0	3 2	9 41.08	+ 7 17.2	1.927	2.888	6.0	21.0
3 12	9 32.34	+14 52.6	1.847	2.746	10.7	21.3	3 12	9 33.71	+ 8 34.8	1.975	2.884	9.7	21.2
3 22	9 26.95	+15 14.1	1.935	2.754	14.1	21.5	3 22	9 28.29	+ 9 43.9	2.048	2.879	13.0	21.4
<b>302072</b>	2000 <i>WK</i> <sub>76</sub>		2 15.9 110°72'	0°7/15.3	18		<b>64500</b>	2001 <i>VX</i> <sub>65</sub>		2 15.9 89°28'	3°3/13.4	18	
1 12	10 23.41	+12 12.5	1.765	2.579	14.9	21.3	1 12	10 21.76	+19 40.8	1.823	2.653	13.8	19.2
1 22	10 17.51	+12 46.1	1.702	2.598	11.1	21.1	1 22	10 16.33	+20 25.0	1.760	2.664	10.3	19.0
2 1	10 9.22	+13 30.3	1.663	2.617	6.8	20.9	2 1	10 8.53	+21 13.1	1.721	2.676	6.4	18.8
2 11	9 59.38	+14 19.3	1.652	2.635	2.2	20.6	2 11	9 59.17	+21 58.0	1.710	2.688	3.5	18.6
2 21	9 49.08	+15 6.6	1.669	2.653	2.8	20.7	2 21	9 49.33	+22 33.2	1.727	2.699	4.7	18.7
3 2	9 39.52	+15 46.5	1.716	2.670	7.2	21.0	3 2	9 40.20	+22 54.0	1.772	2.711	8.3	19.0
3 12	9 31.74	+16 15.0	1.789	2.686	11.2	21.3	3 12	9 32.81	+22 58.5	1.843	2.722	11.9	19.2
3 22	9 26.38	+16 30.6	1.885	2.702	14.5	21.6	3 22	9 27.81	+22 47.3	1.936	2.733	14.9	19.4
<b>318005</b>	2004 <i>CV</i> <sub>58</sub>		2 15.9 48°31'	2°9/12.9	18		<b>283160</b>	2009 <i>BC</i> <sub>151</sub>		2 15.9 61°82'	7°9/ 6.5	17	
1 12	10 16.10	+18 1.5	2.099	2.930	12.2	20.1	1 12	10 18.65	+31 44.1	2.032	2.867	12.3	20.2
1 22	10 11.94	+19 8.8	2.027	2.933	9.0	19.9	1 22	10 14.17	+34 7.9	1.992	2.885	9.9	20.0
2 1	10 5.78	+20 22.4	1.981	2.937	5.6	19.7	2 1	10 7.30	+36 25.7	1.978	2.902	8.2	20.0
2 11	9 58.25	+21 35.4	1.963	2.942	3.0	19.5	2 11	9 58.79	+38 26.5	1.994	2.920	8.1	20.0
2 21	9 50.22	+22 41.0	1.974	2.946	4.4	19.6	2 21	9 49.68	+40 1.4	2.037	2.938	9.6	20.1
3 2	9 42.64	+23 33.6	2.014	2.950	7.6	19.8	3 2	9 41.15	+41 6.0	2.106	2.955	11.7	20.3
3 12	9 36.41	+24 9.8	2.080	2.955	10.9	20.0	3 12	9 34.27	+41 40.1	2.197	2.973	13.9	20.5
3 22	9 32.15	+24 28.7	2.168	2.959	13.7	20.2	3 22	9 29.76	+41 47.2	2.307	2.991	15.9	20.7
<b>406408</b>	2007 <i>TP</i> <sub>124</sub>		2 15.9 193°87'	1°0/14.9	17		<b>306807</b>	2001 <i>QR</i> <sub>101</sub>		2 15.9 184°50'	2°8/13.7	18	
1 12	10 21.51	+12 54.0	2.010	2.822	13.4	22.6	1 12	10 24.77	+20 17.7	2.159	2.976	12.4	20.9
1 22	10 16.09	+13 36.4	1.924	2.820	10.0	22.4	1 22	10 18.35	+20 42.3	2.079	2.976	9.3	20.7
2 1	10 8.42	+14 29.1	1.863	2.817	6.2	22.2	2 1	10 9.71	+21 8.9	2.023	2.976	5.9	20.5
2 11	9 59.16	+15 26.7	1.831	2.814	2.1	21.9	2 11	9 59.57	+21 32.3	1.997	2.975	3.0	20.3
2 21	9 49.25	+16 22.9	1.828	2.810	2.9	21.9	2 21	9 48.90	+21 47.3	2.001	2.974	4.1	20.3
3 2	9 39.77	+17 11.7	1.854	2.805	7.0	22.2	3 2	9 38.78	+21 50.5	2.034	2.972	7.5	20.5
3 12	9 31.74	+17 48.8	1.908	2.800	10.9	22.4	3 12	9 30.19	+21 40.5	2.095	2.970	10.8	20.8
3 22	9 25.90	+18 12.2	1.986	2.793	14.2	22.6	3 22	9 23.81	+21 17.9	2.180	2.967	13.8	20.9
<b>378416</b>	2007 <i>RU</i> <sub>143</sub>		2 15.9 56°17'	5°6/14.3	17		<b>203096</b>	2000 <i>RQ</i> <sub>43</sub>		2 15.9 148°86'	1°1/16.6	18	
1 12	10 37.14	+24 55.1	1.023	1.869	20.9	19.9	1 12	10 23.33	+ 8 28.3	1.848	2.649	14.8	20.4
1 22	10 29.32	+24 47.1	0.971	1.881	16.0	19.7	1 22	10 17.48	+ 8 36.2	1.771	2.657	11.3	20.2
2 1	10 17.09	+24 34.0	0.938	1.893	10.5	19.4	2 1	10 9.26	+ 8 56.7	1.717	2.665	7.2	19.9
2 11	10 2.03	+24 5.8	0.928	1.905	6.0	19.2	2 11	9 59.44	+ 9 26.3	1.691	2.672	2.8	19.7
2 21	9 46.43	+23 16.4	0.944	1.918	7.2	19.3	2 21	9 49.04	+10 0.4	1.693	2.679	2.3	19.6
3 2	9 32.71	+22 5.6	0.985	1.932	12.2	19.6	3 2	9 39.23	+10 33.6	1.725	2.684	6.7	19.9
3 12	9 22.63	+20 38.7	1.048	1.945	17.2	20.0	3 12	9 31.05	+11 1.5	1.785	2.690	10.7	20.2
3 22	9 16.92	+19 2.4	1.129	1.959	21.4	20.3	3 22	9 25.21	+11 21.0	1.867	2.695	14.2	20.4
<b>423250</b>	2004 <i>TV</i> <sub>165</sub>		2 15.9 81°35'	1°7/17.2	18		<b>504340</b>	2007 <i>TH</i> <sub>200</sub>		2 15.9 158°41'	3°5/19.9	17	
1 12	10 17.87	+ 5 54.6	1.924	2.724	14.4	21.6	1 12	10 15.65	- 2 19.7	2.795	3.540	11.7	22.8
1 22	10 13.28	+ 6 10.8	1.850	2.733	11.1	21.4	1 22	10 11.07	- 2 12.0	2.705	3.546	9.5	22.6
2 1	10 6.61	+ 6 41.9	1.798	2.743	7.2	21.2	2 1	10 5.02	- 1 49.2	2.639	3.552	6.9	22.5
2 11	9 58.53	+ 7 24.6	1.774	2.753	3.2	21.0	2 11	9 57.99	- 1 12.5	2.600	3.557	4.5	22.3
2 21	9 49.95	+ 8 14.0	1.778	2.762	2.3	20.9	2 21	9 50.57	- 0 24.6	2.590	3.562	3.5	22.3
3 2	9 41.89	+ 9 4.4	1.810	2.772	6.2	21.2	3 2	9 43.44	+ 0 30.9	2.612	3.566	5.0	22.4
3 12	9 35.27	+ 9 50.4	1.870	2.781	10.0	21.4	3 12	9 37.25	+ 1 29.2	2.662	3.570	7.5	22.5
3 22	9 30.73	+10 28.1	1.954	2.791	13.3	21.7	3 22	9 32.48	+ 2 26.1	2.738	3.573	10.0	22.7
<b>344619</b>	2003 <i>FP</i> <sub>30</sub>		2 15.9 350°10'	4°4/13.2	18		<b>504818</b>	2010 <i>GH</i> <sub>32</sub>		2 15.9 219°04'	7°8/ 4.3	17	
1 12	10 14.84	+17 47.2	1.015	1.886	19.0	19.8	1 12	10 25.19	+45 26.8	3.297	4.076	9.4	22.8
1 22	10 12.81	+18 46.5	0.950	1.877	14.3	19.5	1 22	10 18.49	+46 38.0	3.235	4.065	8.4	22.7
2 1	10 7.18	+19 58.7	0.905	1.869	9.0	19.1	2 1	10 9.74	+47 38.2	3.199	4.054	7.8	22.6
2 11	9 58.89	+21 12.4	0.881	1.863	4.7	18.9	2 11	9 59.58	+48 21.1	3.189	4.042	7.9	22.6
2 21	9 49.52	+22 14.7	0.881	1.858	6.8	19.0	2 21	9 48.89	+48 42.7	3.206	4.030	8.7	22.6
3 2	9 40.98	+22 54.8	0.902	1.855	12.2	19.2	3 2	9 38.66	+48 41.2	3.247	4.017	9.9	22.7
3 12	9 35.02	+23 7.5	0.944	1.853	17.4	19.5	3 12	9 29.81	+48 17.6	3.311	4.003	11.2	22.8
3 22	9 32.63	+22 53.4	1.003	1.853	21.9	19.8	3 22	9 22.98	+47 35.0	3.394	3.989	12.5	22.9
<b>471782</b>	2012 <i>VD</i> <sub>10</sub>		2 15.9 163°64'	9°3/27.6	17		<b>450409</b>	2005 <i>TT</i> <sub>51</sub>		2 15.9 141°27'	2°4/17.7	18	
1 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>341595</b>	2007 <i>UX</i> <sub>98</sub>		2 15.9 107°71	2°7/13.2	18		<b>143334</b>	2003 <i>AK</i> <sub>70</sub>		2 15.9 33°70	2°0/17.1	18	
1 12	10 18.27	+19 45.1	2.460	3.282	10.9	21.3	1 12	10 22.42	+ 8 37.1	1.847	2.650	14.8	19.3
1 22	10 13.21	+20 31.5	2.394	3.295	8.1	21.2	1 22	10 16.68	+ 8 0.9	1.777	2.663	11.3	19.1
2 1	10 6.39	+21 20.6	2.354	3.307	5.1	21.0	2 1	10 8.70	+ 7 34.8	1.731	2.676	7.4	18.9
2 11	9 58.44	+22 7.2	2.343	3.320	2.8	20.8	2 11	9 59.25	+ 7 17.3	1.711	2.690	3.4	18.6
2 21	9 50.14	+22 46.5	2.362	3.332	3.9	20.9	2 21	9 49.36	+ 7 6.0	1.720	2.704	2.6	18.6
3 2	9 42.31	+23 14.7	2.411	3.344	6.7	21.1	3 2	9 40.14	+ 6 58.1	1.758	2.719	6.4	18.9
3 12	9 35.71	+23 29.7	2.486	3.356	9.5	21.3	3 12	9 32.56	+ 6 50.6	1.824	2.734	10.2	19.1
3 22	9 30.88	+23 31.6	2.586	3.368	12.0	21.5	3 22	9 27.26	+ 6 41.1	1.912	2.750	13.5	19.4
<b>180655</b>	2004 <i>GP</i> <sub>35</sub>		2 15.9 341°59	2°6/17.2	18		<b>151124</b>	2001 <i>WL</i> <sub>94</sub>		2 15.9 14°04	1°4/16.9	18	
1 12	10 18.76	+ 7 39.7	1.334	2.161	18.0	19.2	1 12	10 17.80	+ 6 44.4	1.795	2.602	15.0	20.4
1 22	10 15.00	+ 7 8.1	1.251	2.150	14.1	18.9	1 22	10 13.49	+ 7 3.9	1.713	2.602	11.5	20.2
2 1	10 8.22	+ 6 51.5	1.189	2.139	9.4	18.6	2 1	10 6.90	+ 7 39.2	1.654	2.602	7.5	19.9
2 11	9 59.23	+ 6 48.2	1.151	2.130	4.4	18.3	2 11	9 58.71	+ 8 26.6	1.622	2.602	3.1	19.6
2 21	9 49.25	+ 6 55.0	1.137	2.122	3.4	18.2	2 21	9 49.88	+ 9 20.7	1.617	2.603	2.3	19.6
3 2	9 39.83	+ 7 6.9	1.150	2.115	8.3	18.5	3 2	9 41.53	+10 15.1	1.641	2.603	6.6	19.9
3 12	9 32.42	+ 7 18.2	1.186	2.109	13.3	18.8	3 12	9 34.70	+11 3.9	1.692	2.604	10.8	20.1
3 22	9 27.96	+ 7 24.6	1.242	2.104	17.8	19.0	3 22	9 30.09	+11 42.8	1.765	2.604	14.4	20.3
<b>354044</b>	2001 <i>SS</i> <sub>92</sub>		2 15.9 129°61	1°2/16.8	18		<b>306111</b>	2010 <i>JS</i> <sub>37</sub>		2 15.9 240°06	3°8/19.9	17	
1 12	10 23.27	+ 7 13.0	1.764	2.563	15.5	22.0	1 12	10 15.76	- 2 38.7	2.862	3.604	11.5	22.3
1 22	10 17.47	+ 7 34.3	1.693	2.578	11.8	21.8	1 22	10 11.26	- 2 42.1	2.752	3.589	9.4	22.1
2 1	10 9.26	+ 8 10.6	1.646	2.593	7.6	21.6	2 1	10 5.23	- 2 31.0	2.664	3.574	7.0	21.9
2 11	9 59.45	+ 8 57.9	1.626	2.607	3.0	21.3	2 11	9 58.11	- 2 5.9	2.605	3.559	4.8	21.7
2 21	9 49.10	+ 9 50.1	1.635	2.620	2.4	21.3	2 21	9 50.50	- 1 28.6	2.574	3.543	3.8	21.7
3 2	9 39.41	+10 41.0	1.673	2.632	6.8	21.6	3 2	9 43.05	- 0 42.3	2.574	3.526	5.2	21.7
3 12	9 31.44	+11 25.0	1.738	2.644	10.9	21.9	3 12	9 36.47	+ 0 8.9	2.603	3.509	7.7	21.9
3 22	9 25.88	+11 58.7	1.826	2.655	14.4	22.1	3 22	9 31.27	+ 1 0.5	2.658	3.492	10.3	22.0
<b>135394</b>	2001 <i>TD</i> <sub>200</sub>		2 15.9 186°49	5°2/10.3	18		<b>351651</b>	2005 <i>YJ</i> <sub>130</sub>		2 15.9 81°53	2°4/14.3	18	
1 12	10 19.36	+28 34.1	2.525	3.350	10.5	20.3	1 12	10 24.14	+15 6.7	1.407	2.240	16.9	20.8
1 22	10 14.19	+29 37.9	2.455	3.350	8.2	20.1	1 22	10 18.53	+16 3.9	1.357	2.264	12.5	20.6
2 1	10 7.09	+30 39.2	2.412	3.350	6.1	20.0	2 1	10 10.04	+17 11.1	1.330	2.288	7.6	20.4
2 11	9 58.71	+31 31.5	2.397	3.349	5.2	20.0	2 11	9 59.72	+18 19.3	1.329	2.311	3.0	20.1
2 21	9 49.85	+32 9.3	2.411	3.348	6.3	20.0	2 21	9 48.95	+19 19.4	1.355	2.335	4.4	20.3
3 2	9 41.44	+32 29.3	2.453	3.347	8.5	20.2	3 2	9 39.19	+20 4.2	1.409	2.358	9.0	20.6
3 12	9 34.33	+32 30.6	2.520	3.346	10.9	20.3	3 12	9 31.66	+20 30.3	1.487	2.380	13.3	20.9
3 22	9 29.10	+32 14.6	2.609	3.344	13.1	20.5	3 22	9 27.03	+20 37.7	1.585	2.402	16.8	21.2
<b>55724</b>	1979 <i>MB</i> <sub>5</sub>		2 15.9 175°71	1°3/17.1	18		<b>243766</b>	2000 <i>RS</i> <sub>26</sub>		2 15.9 143°77	0°5/16.3	18 R	
1 12	10 18.79	+ 6 10.9	2.354	3.141	12.4	19.9	1 12	10 22.98	+ 8 58.6	2.044	2.841	13.7	21.9
1 22	10 13.70	+ 6 34.2	2.266	3.144	9.6	19.7	1 22	10 17.00	+ 9 23.6	1.969	2.854	10.4	21.7
2 1	10 6.78	+ 7 10.2	2.203	3.146	6.2	19.5	2 1	10 8.87	+10 0.3	1.919	2.867	6.5	21.5
2 11	9 58.61	+ 7 55.9	2.168	3.147	2.7	19.3	2 11	9 59.33	+10 44.8	1.897	2.879	2.4	21.2
2 21	9 49.95	+ 8 47.0	2.163	3.148	2.0	19.2	2 21	9 49.30	+11 31.9	1.905	2.890	2.1	21.2
3 2	9 41.64	+ 9 38.7	2.189	3.148	5.5	19.4	3 2	9 39.83	+12 16.2	1.943	2.900	6.2	21.5
3 12	9 34.51	+10 26.4	2.243	3.148	8.9	19.6	3 12	9 31.85	+12 53.2	2.009	2.909	10.0	21.8
3 22	9 29.15	+11 6.5	2.323	3.147	11.9	19.8	3 22	9 26.00	+13 20.5	2.100	2.918	13.2	22.0
<b>68449</b>	2001 <i>SP</i> <sub>20</sub>		2 15.9 80°48	1°0/16.7	18		<b>498526</b>	2008 <i>EG</i> <sub>152</sub>		2 15.9 282°41	6°2/21.1	17	
1 12	10 18.78	+ 6 55.7	1.776	2.582	15.1	19.6	1 12	10 15.61	- 6 17.6	1.814	2.566	16.9	21.8
1 22	10 14.07	+ 7 28.1	1.711	2.600	11.5	19.4	1 22	10 11.99	- 6 19.5	1.715	2.555	14.1	21.6
2 1	10 7.13	+ 8 16.2	1.668	2.617	7.3	19.2	2 1	10 6.08	- 5 55.5	1.637	2.543	10.9	21.4
2 11	9 58.73	+ 9 15.3	1.653	2.634	2.9	19.0	2 11	9 58.49	- 5 4.9	1.582	2.531	7.8	21.2
2 21	9 49.87	+10 19.0	1.666	2.651	2.2	19.0	2 21	9 50.10	- 3 50.3	1.554	2.520	6.2	21.0
3 2	9 41.63	+11 20.5	1.707	2.668	6.5	19.3	3 2	9 42.00	- 2 17.9	1.553	2.508	7.7	21.1
3 12	9 35.00	+12 14.1	1.775	2.685	10.5	19.6	3 12	9 35.29	- 0 36.8	1.579	2.496	11.0	21.3
3 22	9 30.59	+12 55.9	1.867	2.701	13.9	19.8	3 22	9 30.75	+ 1 3.6	1.628	2.485	14.5	21.5
<b>283923</b>	2004 <i>JH</i> <sub>26</sub>		2 15.9 258°05	6°0/11.9	18		<b>495926</b>	2005 <i>YD</i> <sub>88</sub>		2 15.9 91°43	1°1/16.8	18	
1 12	10 23.69	+23 26.7	1.442	2.286	16.0	20.5	1 12	10 20.07	+ 7 53.6	1.990	2.790	13.9	22.1
1 22	10 18.73	+24 37.6	1.369	2.279	12.2	20.2	1 22	10 14.81	+ 8 6.1	1.922	2.807	10.6	21.9
2 1	10 10.54	+25 52.3	1.319	2.272	8.3	20.0	2 1	10 7.50	+ 8 31.0	1.877	2.824	6.8	21.7
2 11	9 59.99	+26 59.6	1.294	2.264	6.0	19.8	2 11	9 58.86	+ 9 4.8	1.860	2.841	2.7	21.5
2 21	9 48.49	+27 49.0	1.295	2.257	7.8	19.9	2 21	9 49.81	+ 9 42.7	1.873	2.858	2.1	21.5
3 2	9 37.69	+28 13.3	1.323	2.249	11.7	20.1	3 2	9 41.34	+10 20.0	1.914	2.874	6.0	21.8
3 12	9 29.13	+28 10.7	1.372	2.241	15.8	20.3	3 12	9 34.35	+10 52.2	1.983	2.890	9.7	22.0
3 22	9 23.74	+27 43.9	1.441	2.234	19.4	20.5	3 22	9 29.42	+11 16.3	2.076	2.906	12.9	22.3
<b>144649</b>	2004 <i>FO</i> <sub>105</sub>		2 15.9 31°31	2°4/17.1	18		<b>415945</b>	2001 <i>WQ</i> <sub>91</sub>		2 15.9 126°89	5°8/10.7	18	
1 12	10 24.42	+ 8 23.8	1.506	2.317	17.1	19.0	1 12	10 24.09	+28 31.3	2.175	2.999	12.1	20.9
1 22	10 18.72	+ 7 42.2	1.434	2.323	13.2	18.8	1 22	10 17.86	+29 38.4	2.120	3.014	9.3	20.7
2 1	10 10.22	+ 7 12.6	1.383	2.330	8.7	18.5	2 1	10 9.40	+30 41.8	2.090	3.028	6.9	20.6
2 11	9 59.81	+ 6 53.6	1.358	2.337	4.0	18.3	2 11	9 59.50	+31 33.8	2.088	3.042	5.8	20.6
2 21	9 48.74	+ 6 42.6	1.361	2.345	3.2	18.2	2 21	9 49.18	+32 8.2	2.115	3.055	7.0	20.7
3 2	9 38.43	+ 6 36.1	1.391	2.352	7.6	18.5	3 2	9 39.55	+32 21.9	2.171	3.067	9.4	20.8
3 12	9 30.14	+ 6 30.5	1.446	2.361	12.1	18.8	3 12	9 31.58	+32 14.8	2.251	3.080	12.0	21.0
3 22	9 24.64	+ 6 22.5	1.524	2.369	15.9	19.1	3 22	9 25.88	+31 49.5	2.353	3.091	14.3	21.2
<b>349016</b>	2006 <i>UV</i> <sub>289</sub>		2 15.9 225°41	4°8/21.1	17		<b>326726</b>						

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>426971</b>	2013 YA <sub>119</sub>		2 15.9	45°33'	0°7'/15.3	18	<b>296450</b>	2009 HL <sub>64</sub>		2 15.9	296°98'	0°1'/15.9	17
1 12	10 15.80	+11 34.2	1.947	2.768	13.4	20.5	1 12	10 18.03	+9 42.0	1.550	2.374	16.1	21.3
1 22	10 11.71	+12 20.6	1.885	2.785	10.0	20.3	1 22	10 14.24	+10 10.4	1.457	2.357	12.3	21.0
2 1	10 5.62	+13 17.8	1.847	2.802	6.1	20.1	2 1	10 7.71	+10 55.4	1.385	2.340	7.8	20.7
2 11	9 58.25	+14 20.2	1.836	2.820	1.9	19.9	2 11	9 59.12	+11 52.2	1.339	2.323	2.7	20.3
2 21	9 50.48	+15 21.6	1.854	2.838	2.5	20.0	2 21	9 49.54	+12 54.1	1.320	2.305	2.7	20.3
3 2	9 43.26	+16 16.0	1.901	2.856	6.5	20.3	3 2	9 40.30	+13 52.8	1.328	2.289	8.0	20.6
3 12	9 37.46	+16 59.1	1.974	2.874	10.1	20.5	3 12	9 32.76	+14 41.3	1.361	2.272	13.0	20.8
3 22	9 33.65	+17 28.6	2.071	2.893	13.2	20.8	3 22	9 27.86	+15 15.4	1.415	2.256	17.2	21.0
<b>267462</b>	2002 EW <sub>98</sub>		2 15.9	267°33'	4°1'/12.6	17	<b>137860</b>	2000 AK <sub>65</sub>		2 15.9	350°58'	5°4'/11.2	18
1 12	10 23.47	+23 43.9	2.234	3.055	11.9	20.9	1 12	10 13.64	+18 17.1	1.297	2.156	16.4	18.6
1 22	10 17.62	+24 20.5	2.134	3.032	9.1	20.7	1 22	10 11.33	+20 19.3	1.229	2.150	12.3	18.3
2 1	10 9.46	+24 57.8	2.060	3.009	6.1	20.4	2 1	10 6.05	+22 35.7	1.185	2.145	7.9	18.1
2 11	9 59.61	+25 29.7	2.015	2.986	4.1	20.3	2 11	9 58.58	+24 52.5	1.165	2.141	5.4	17.9
2 21	9 49.00	+25 50.3	1.999	2.962	5.3	20.3	2 21	9 50.16	+26 54.8	1.172	2.138	7.8	18.0
3 2	9 38.72	+25 55.4	2.012	2.937	8.4	20.4	3 2	9 42.34	+28 30.2	1.204	2.135	12.1	18.3
3 12	9 29.85	+25 43.6	2.052	2.912	11.7	20.6	3 12	9 36.57	+29 32.7	1.257	2.134	16.4	18.5
3 22	9 23.15	+25 15.8	2.114	2.887	14.6	20.7	3 22	9 33.77	+30 2.1	1.329	2.134	20.1	18.8
<b>48995</b>	1998 QC <sub>51</sub>		2 15.9	92°30'	0°7'/16.4	18	<b>368756</b>	2005 UM <sub>522</sub>		2 15.9	65°10'	2°2'/14.2	18
1 12	10 21.10	+7 31.3	1.431	2.249	17.5	18.2	1 12	10 20.02	+16 15.1	1.755	2.585	14.2	21.4
1 22	10 16.33	+8 11.4	1.368	2.264	13.3	17.9	1 22	10 15.22	+16 55.0	1.683	2.588	10.6	21.2
2 1	10 8.78	+9 10.5	1.327	2.278	8.4	17.7	2 1	10 8.00	+17 42.7	1.635	2.592	6.5	20.9
2 11	9 59.37	+10 22.4	1.310	2.293	3.1	17.4	2 11	9 59.12	+18 31.6	1.614	2.596	2.7	20.7
2 21	9 49.33	+11 38.7	1.321	2.307	2.6	17.4	2 21	9 49.65	+19 15.0	1.621	2.600	3.9	20.8
3 2	9 40.07	+12 50.2	1.360	2.321	7.8	17.8	3 2	9 40.78	+19 47.1	1.656	2.604	8.0	21.0
3 12	9 32.83	+13 49.7	1.423	2.334	12.5	18.1	3 12	9 33.61	+20 4.7	1.716	2.608	11.9	21.3
3 22	9 28.35	+14 33.4	1.509	2.348	16.4	18.3	3 22	9 28.82	+20 6.9	1.799	2.612	15.3	21.5
<b>58158</b>	1989 RA		2 15.9	148°30'	2°3'/17.9	18	<b>410257</b>	2007 TY <sub>115</sub>		2 15.9	209°82'	0°5'/15.5	17
1 12	10 20.26	+2 32.8	2.006	2.785	14.6	20.3	1 12	10 21.37	+11 17.4	2.097	2.903	13.1	22.9
1 22	10 15.05	+3 5.3	1.926	2.796	11.4	20.1	1 22	10 16.00	+11 56.1	2.004	2.896	9.9	22.7
2 1	10 7.74	+3 55.9	1.870	2.806	7.7	19.8	2 1	10 8.43	+12 46.2	1.936	2.888	6.1	22.4
2 11	9 59.00	+5 1.4	1.841	2.816	3.8	19.6	2 11	9 59.29	+13 42.9	1.896	2.879	2.0	22.1
2 21	9 49.72	+6 16.3	1.841	2.824	2.7	19.6	2 21	9 49.45	+14 40.4	1.886	2.870	2.4	22.1
3 2	9 40.92	+7 33.7	1.872	2.832	6.1	19.8	3 2	9 39.97	+15 32.7	1.906	2.860	6.7	22.4
3 12	9 33.53	+8 46.9	1.931	2.839	9.8	20.0	3 12	9 31.84	+16 15.3	1.954	2.849	10.5	22.6
3 22	9 28.21	+9 50.9	2.014	2.846	13.2	20.3	3 22	9 25.78	+16 45.3	2.026	2.837	13.9	22.8
<b>456758</b>	2007 TP <sub>93</sub>		2 15.9	64°30'	1°7'/14.7	18	<b>83428</b>	2001 SR <sub>45</sub>		2 15.9	195°43'	1°4'/14.5	18
1 12	10 21.31	+13 47.6	1.437	2.270	16.6	21.2	1 12	10 16.28	+14 30.3	2.431	3.247	11.2	19.6
1 22	10 16.43	+14 32.8	1.382	2.288	12.3	20.9	1 22	10 11.86	+15 15.8	2.347	3.246	8.3	19.4
2 1	10 8.79	+15 29.3	1.349	2.307	7.5	20.7	2 1	10 5.69	+16 8.8	2.290	3.245	5.1	19.2
2 11	9 59.36	+16 29.5	1.341	2.325	2.6	20.5	2 11	9 58.32	+17 4.4	2.261	3.244	1.9	19.0
2 21	9 49.41	+17 25.0	1.361	2.343	3.7	20.6	2 21	9 50.48	+17 57.6	2.262	3.242	2.8	19.0
3 2	9 40.34	+18 8.7	1.408	2.362	8.5	20.9	3 2	9 42.99	+18 43.7	2.293	3.241	6.1	19.2
3 12	9 33.35	+18 36.3	1.480	2.380	12.8	21.2	3 12	9 36.63	+19 19.1	2.352	3.239	9.3	19.4
3 22	9 29.11	+18 46.9	1.572	2.399	16.5	21.5	3 22	9 31.95	+19 42.2	2.435	3.237	12.1	19.6
<b>459408</b>	2012 LP <sub>17</sub>		2 15.9	315°30'	0°7'/15.3	17	<b>247684</b>	2003 AN <sub>64</sub>		2 15.9	42°98'	4°3'/12.8	18
1 12	10 15.07	+10 42.9	1.527	2.360	15.8	21.0	1 12	10 21.40	+23 22.0	1.833	2.667	13.5	19.9
1 22	10 12.09	+11 30.4	1.431	2.337	12.0	20.7	1 22	10 16.02	+23 58.9	1.780	2.686	10.1	19.7
2 1	10 6.42	+12 35.7	1.357	2.314	7.5	20.4	2 1	10 8.31	+24 35.4	1.752	2.705	6.7	19.6
2 11	9 58.70	+13 53.4	1.308	2.292	2.5	20.1	2 11	9 59.17	+25 4.7	1.751	2.724	4.4	19.5
2 21	9 49.94	+15 15.0	1.287	2.271	3.2	20.0	2 21	9 49.69	+25 21.2	1.778	2.743	5.5	19.6
3 2	9 41.47	+16 31.0	1.291	2.250	8.5	20.3	3 2	9 41.01	+25 21.6	1.832	2.763	8.7	19.8
3 12	9 34.65	+17 33.3	1.321	2.229	13.4	20.5	3 12	9 34.12	+25 5.4	1.912	2.784	11.9	20.1
3 22	9 30.44	+18 17.2	1.371	2.210	17.8	20.7	3 22	9 29.60	+24 34.4	2.013	2.804	14.7	20.3
<b>238531</b>	2004 TL <sub>278</sub>		2 15.9	257°30'	2°9'/17.9	18	<b>10586</b>	Jansteen		2 15.9	121°82'	1°9'/14.4	18
1 12	10 19.30	+3 10.0	1.674	2.470	16.3	20.8	1 12	10 23.88	+14 54.7	1.879	2.695	14.0	18.5
1 22	10 14.98	+3 21.8	1.577	2.456	12.9	20.5	1 22	10 17.81	+15 47.8	1.817	2.715	10.4	18.3
2 1	10 8.07	+3 53.9	1.502	2.441	8.9	20.2	2 1	10 9.45	+16 49.1	1.779	2.734	6.3	18.1
2 11	9 59.22	+4 44.5	1.451	2.427	4.6	19.9	2 11	9 59.57	+17 51.8	1.770	2.753	2.4	17.9
2 21	9 49.42	+5 48.5	1.429	2.412	3.3	19.8	2 21	9 49.25	+18 48.8	1.791	2.771	3.5	18.0
3 2	9 39.93	+6 58.8	1.434	2.396	7.3	20.0	3 2	9 39.63	+19 34.5	1.842	2.788	7.5	18.3
3 12	9 32.00	+8 7.4	1.465	2.381	11.9	20.2	3 12	9 31.71	+20 5.3	1.919	2.804	11.2	18.5
3 22	9 26.53	+9 7.6	1.519	2.365	16.0	20.4	3 22	9 26.13	+20 20.7	2.019	2.819	14.3	18.8
<b>450390</b>	Pitchcommont		2 15.9	167°01'	1°4'/17.0	18	<b>354537</b>	2004 RU <sub>223</sub>		2 15.9	150°85'	2°9'/13.9	18
1 12	10 22.69	+5 55.4	1.835	2.629	15.2	23.0	1 12	10 25.23	+18 17.7	1.743	2.567	14.6	21.9
1 22	10 17.10	+6 24.5	1.754	2.635	11.7	22.7	1 22	10 19.14	+18 57.5	1.673	2.575	10.9	21.7
2 1	10 9.13	+7 10.2	1.696	2.640	7.6	22.5	2 1	10 10.43	+19 42.9	1.627	2.581	6.8	21.4
2 11	9 59.50	+8 8.7	1.665	2.644	3.2	22.2	2 11	9 59.95	+20 26.6	1.608	2.588	3.2	21.2
2 21	9 49.21	+9 13.9	1.663	2.648	2.4	22.2	2 21	9 48.86	+21 1.8	1.618	2.593	4.5	21.3
3 2	9 39.43	+10 18.8	1.691	2.650	6.7	22.5	3 2	9 38.48	+21 23.2	1.656	2.599	8.5	21.6
3 12	9 31.24	+11 17.2	1.746	2.652	10.9	22.7	3 12	9 29.98	+21 28.5	1.720	2.603	12.4	21.8
3 22	9 25.39	+12 4.6	1.825	2.652	14.5	22.9	3 22	9 24.08	+21 18.2	1.807	2.607	15.7	22.0
<b>190387</b>	1999 RL <sub>209</sub>		2 15.9	180°34'	2°6'/18.4	18	<b>169182</b>	2001 QJ <sub>283</sub>		2 15.9	110°55'	4°6'/21.2	18
1 12	10 18.35	+2 13.7	2.571	3.337	12.1	21.0	1 12	10 16.18	-5 56.3	2.675	3.400	12.6	

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>383798</b>	2007 <i>XK</i> <sub>5</sub>		2 15.9 180°28	4.4/11.1	17		<b>55796</b>	1994 <i>AX</i> <sub>13</sub>		2 15.9 104°20	1.2/14.9	18	
1 12	10 18.29	+25 36.7	2.542	3.369	10.5	21.5	1 12	10 21.27	+13 52.8	1.963	2.779	13.5	20.3
1 22	10 13.38	+26 39.5	2.470	3.369	8.0	21.4	1 22	10 15.80	+14 26.3	1.897	2.795	10.0	20.1
2 1	10 6.63	+27 41.8	2.424	3.369	5.6	21.2	2 1	10 8.18	+15 7.9	1.856	2.811	6.1	19.9
2 11	9 58.65	+28 37.6	2.407	3.369	4.4	21.1	2 11	9 59.18	+15 52.4	1.843	2.827	2.1	19.6
2 21	9 50.20	+29 21.4	2.420	3.369	5.6	21.2	2 21	9 49.74	+16 34.0	1.860	2.842	2.8	19.7
3 2	9 42.16	+29 49.4	2.461	3.369	7.9	21.4	3 2	9 40.92	+17 7.7	1.905	2.857	6.8	20.0
3 12	9 35.34	+30 0.3	2.528	3.368	10.4	21.5	3 12	9 33.66	+17 30.4	1.978	2.871	10.5	20.2
3 22	9 30.31	+29 54.8	2.618	3.368	12.7	21.7	3 22	9 28.56	+17 40.6	2.073	2.885	13.6	20.5
<b>233660</b>	2008 <i>QR</i> <sub>32</sub>		2 15.9 153°99	3.8/19.1	17		<b>150754</b>	2001 <i>QJ</i> <sub>139</sub>		2 15.9 170°36	1.5/17.2	18	
1 12	10 18.78	+ 0 9.9	2.219	2.984	13.8	20.9	1 12	10 20.58	+ 6 21.0	2.403	3.186	12.3	21.4
1 22	10 13.81	- 0 2.0	2.133	2.988	11.0	20.7	1 22	10 15.01	+ 6 30.5	2.316	3.191	9.5	21.2
2 1	10 6.94	+ 0 2.0	2.069	2.992	7.9	20.5	2 1	10 7.63	+ 6 51.5	2.253	3.194	6.2	21.0
2 11	9 58.76	+ 0 20.9	2.032	2.996	4.9	20.3	2 11	9 59.00	+ 7 21.5	2.219	3.198	2.8	20.7
2 21	9 50.07	+ 0 52.2	2.024	2.999	3.8	20.3	2 21	9 49.89	+ 7 56.9	2.216	3.200	2.1	20.7
3 2	9 41.77	+ 1 31.9	2.046	3.002	6.0	20.4	3 2	9 41.16	+ 8 33.7	2.243	3.202	5.4	20.9
3 12	9 34.69	+ 2 14.8	2.095	3.005	9.1	20.6	3 12	9 33.61	+ 9 7.7	2.299	3.203	8.7	21.1
3 22	9 29.47	+ 2 56.3	2.169	3.008	12.1	20.8	3 22	9 27.84	+ 9 36.0	2.380	3.203	11.7	21.3
<b>335932</b>	2007 <i>TG</i> <sub>31</sub>		2 15.9 116°82	4.5/11.1	18		<b>202121</b>	2004 <i>TL</i> <sub>124</sub>		2 15.9 37°09	6.8/11.7	18	
1 12	10 20.87	+27 17.5	2.667	3.488	10.2	21.3	1 12	10 24.76	+25 52.9	1.377	2.223	16.5	19.6
1 22	10 15.08	+28 11.3	2.611	3.505	7.8	21.2	1 22	10 19.54	+26 57.2	1.317	2.226	12.6	19.4
2 1	10 7.55	+29 2.4	2.581	3.522	5.6	21.0	2 1	10 11.02	+28 0.7	1.280	2.229	8.9	19.2
2 11	9 58.92	+29 45.1	2.580	3.538	4.5	21.0	2 11	10 0.23	+28 52.0	1.267	2.233	6.8	19.1
2 21	9 49.97	+30 15.0	2.609	3.554	5.5	21.1	2 21	9 48.69	+29 21.6	1.279	2.236	8.4	19.2
3 2	9 41.55	+30 29.3	2.667	3.569	7.6	21.2	3 2	9 38.13	+29 24.0	1.317	2.240	12.1	19.4
3 12	9 34.41	+30 27.5	2.752	3.584	9.9	21.4	3 12	9 30.01	+28 59.8	1.377	2.244	15.9	19.6
3 22	9 29.07	+30 10.9	2.859	3.599	11.9	21.6	3 22	9 25.16	+28 13.0	1.456	2.248	19.2	19.9
<b>285719</b>	2000 <i>SD</i> <sub>290</sub>		2 15.9 70°16	0.7/16.4	18		<b>337597</b>	2001 <i>SY</i> <sub>355</sub>		2 15.9 77°44	6.6/24.1	18	
1 12	10 24.10	+ 9 27.7	1.420	2.239	17.6	20.7	1 12	10 14.16	-13 26.8	2.368	3.058	15.0	20.8
1 22	10 18.43	+ 9 38.0	1.366	2.263	13.3	20.5	1 22	10 10.28	-13 7.7	2.283	3.069	12.8	20.7
2 1	10 9.99	+10 2.9	1.334	2.286	8.3	20.3	2 1	10 4.72	-12 23.3	2.217	3.081	10.4	20.5
2 11	9 59.77	+10 37.4	1.327	2.310	3.0	20.0	2 11	9 58.04	-11 13.5	2.176	3.092	8.1	20.4
2 21	9 49.12	+11 15.0	1.348	2.333	2.6	20.1	2 21	9 50.94	- 9 41.3	2.162	3.104	6.7	20.3
3 2	9 39.44	+11 49.2	1.395	2.356	7.7	20.4	3 2	9 44.22	- 7 52.3	2.177	3.115	7.0	20.4
3 12	9 31.91	+12 15.1	1.469	2.380	12.2	20.7	3 12	9 38.61	- 5 54.5	2.221	3.127	8.9	20.5
3 22	9 27.19	+12 29.9	1.563	2.403	15.9	21.0	3 22	9 34.66	- 3 55.9	2.291	3.138	11.2	20.7
<b>330399</b>	2006 <i>YO</i> <sub>55</sub>		2 15.9 358°20	0.4/15.6	18		<b>174199</b>	2002 <i>QS</i> <sub>43</sub>		2 15.9 208°14	2.6/13.8	18	
1 12	10 16.15	+10 5.7	1.579	2.407	15.7	20.8	1 12	10 22.36	+17 53.2	2.083	2.902	12.7	20.8
1 22	10 12.59	+10 52.6	1.503	2.406	11.8	20.5	1 22	10 16.79	+18 38.4	1.997	2.897	9.5	20.5
2 1	10 6.52	+11 55.7	1.449	2.405	7.3	20.2	2 1	10 8.94	+19 29.5	1.936	2.890	5.9	20.3
2 11	9 58.69	+13 9.0	1.420	2.404	2.4	19.9	2 11	9 59.50	+20 20.5	1.904	2.883	2.8	20.1
2 21	9 50.14	+14 24.2	1.419	2.404	2.8	20.0	2 21	9 49.40	+21 4.9	1.901	2.876	4.0	20.2
3 2	9 42.12	+15 33.2	1.446	2.404	7.7	20.3	3 2	9 39.73	+21 37.7	1.928	2.868	7.6	20.4
3 12	9 35.78	+16 29.2	1.497	2.405	12.2	20.5	3 12	9 31.51	+21 55.8	1.981	2.859	11.2	20.6
3 22	9 31.90	+17 8.5	1.570	2.406	16.0	20.8	3 22	9 25.47	+21 58.7	2.058	2.850	14.3	20.8
<b>169147</b>	2001 <i>QB</i> <sub>126</sub>		2 15.9 153°92	3.6/19.9	18		<b>307657</b>	2003 <i>SE</i> <sub>208</sub>		2 15.9 188°43	3.2/18.5	18	
1 12	10 15.48	- 2 29.6	2.773	3.518	11.8	21.2	1 12	10 20.21	+ 1 39.7	1.940	2.718	15.1	21.1
1 22	10 11.00	- 2 22.4	2.683	3.524	9.5	21.0	1 22	10 15.22	+ 1 48.0	1.851	2.717	11.9	20.9
2 1	10 5.05	- 2 0.0	2.618	3.530	7.0	20.8	2 1	10 8.00	+ 2 14.7	1.784	2.716	8.3	20.7
2 11	9 58.11	- 1 23.6	2.579	3.535	4.6	20.7	2 11	9 59.20	+ 2 57.8	1.744	2.715	4.6	20.5
2 21	9 50.78	- 0 35.6	2.570	3.540	3.6	20.6	2 21	9 49.73	+ 3 53.2	1.732	2.713	3.4	20.4
3 2	9 43.75	+ 0 20.0	2.591	3.545	5.1	20.7	3 2	9 40.66	+ 4 55.1	1.750	2.710	6.5	20.6
3 12	9 37.65	+ 1 18.7	2.641	3.550	7.5	20.9	3 12	9 33.01	+ 5 56.7	1.795	2.707	10.3	20.8
3 22	9 32.98	+ 2 16.0	2.717	3.554	10.0	21.1	3 22	9 27.50	+ 6 52.7	1.864	2.703	13.8	21.0
<b>151874</b>	2003 <i>KQ</i> <sub>17</sub>		2 15.9 331°93	1.8/14.7	18		<b>154316</b>	2002 <i>VM</i> <sub>22</sub>		2 15.9 202°09	0.6/16.4	18	
1 12	10 15.02	+13 56.5	1.394	2.240	16.3	19.5	1 12	10 19.92	+ 8 48.8	1.974	2.778	13.9	20.2
1 22	10 12.24	+14 36.5	1.307	2.221	12.3	19.2	1 22	10 14.98	+ 9 12.0	1.887	2.775	10.6	20.0
2 1	10 6.59	+15 30.6	1.243	2.203	7.6	18.8	2 1	10 7.83	+ 9 48.1	1.823	2.772	6.7	19.7
2 11	9 58.79	+16 32.1	1.202	2.186	2.7	18.5	2 11	9 59.14	+10 33.3	1.787	2.769	2.5	19.4
2 21	9 49.99	+17 32.3	1.188	2.170	4.0	18.5	2 21	9 49.80	+11 22.4	1.780	2.765	2.1	19.4
3 2	9 41.62	+18 22.4	1.198	2.155	9.2	18.8	3 2	9 40.87	+12 9.7	1.802	2.761	6.4	19.7
3 12	9 35.12	+18 56.1	1.232	2.141	14.2	19.0	3 12	9 33.36	+12 50.2	1.852	2.757	10.4	19.9
3 22	9 31.43	+19 10.5	1.286	2.129	18.5	19.2	3 22	9 27.97	+13 20.5	1.925	2.752	13.9	20.1
<b>99613</b>	2002 <i>GV</i> <sub>71</sub>		2 15.9 226°18	1.0/14.9	18		<b>426384</b>	2013 <i>PH</i> <sub>19</sub>		2 15.9 172°59	0.3/15.6	18	
1 12	10 18.10	+13 11.4	2.086	2.903	12.8	20.1	1 12	10 18.73	+10 47.4	2.574	3.372	11.2	22.4
1 22	10 13.51	+13 50.2	2.001	2.900	9.6	19.8	1 22	10 13.57	+11 30.1	2.488	3.376	8.4	22.2
2 1	10 6.86	+14 38.4	1.941	2.896	5.9	19.6	2 1	10 6.72	+12 22.1	2.429	3.380	5.2	22.0
2 11	9 58.76	+15 31.2	1.908	2.892	2.0	19.3	2 11	9 58.72	+13 19.4	2.399	3.382	1.7	21.8
2 21	9 50.08	+16 22.8	1.905	2.888	2.7	19.4	2 21	9 50.26	+14 17.2	2.400	3.384	2.0	21.8
3 2	9 41.80	+17 7.8	1.931	2.883	6.7	19.6	3 2	9 42.14	+15 10.7	2.433	3.385	5.4	22.0
3 12	9 34.84	+17 41.9	1.984	2.879	10.4	19.8	3 12	9 35.10	+15 56.2	2.494	3.386	8.6	22.2
3 22	9 29.88	+18 3.2	2.061	2.874	13.6	20.0	3 22	9 29.71	+16 31.3	2.580	3.386	11.4	22.4
<b>222290</b>	2000 <i>SM</i> <sub>151</sub>		2 15.9 68°01	5.3/12.2	18		<b>372463</b>	200					

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2 15.9

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>452196</b>	2015 <i>RB</i> <sub>102</sub>	2 15.9 138°24'		1°0'/16.7 18			<b>436373</b>	2010 <i>OT</i> <sub>41</sub>	2 15.9 194°13'		4°1'/20.5 18		
1 12	10 23.36	+ 6 44.7	1.743	2.542	15.7	22.6	1 12	10 16.88	- 4 25.6	3.181	3.904	10.9	21.7
1 22	10 17.65	+ 7 21.0	1.672	2.556	12.0	22.4	1 22	10 11.93	- 4 43.2	3.079	3.901	9.0	21.5
2 1	10 9.50	+ 8 14.0	1.623	2.570	7.6	22.1	2 1	10 5.61	- 4 47.6	3.002	3.898	6.9	21.4
2 11	9 59.68	+ 9 18.7	1.602	2.583	3.0	21.9	2 11	9 58.35	- 4 39.0	2.952	3.895	4.9	21.2
2 21	9 49.29	+10 28.3	1.610	2.595	2.3	21.9	2 21	9 50.69	- 4 18.5	2.932	3.890	4.1	21.2
3 2	9 39.54	+11 35.4	1.647	2.606	6.9	22.2	3 2	9 43.24	- 3 48.5	2.942	3.886	5.1	21.2
3 12	9 31.51	+12 33.7	1.711	2.616	11.1	22.4	3 12	9 36.60	- 3 12.4	2.981	3.881	7.1	21.3
3 22	9 25.91	+13 19.3	1.799	2.626	14.7	22.7	3 22	9 31.24	- 2 33.8	3.047	3.876	9.2	21.5
<b>199100</b>	2005 <i>YL</i> <sub>31</sub>	2 15.9 91°09'		0°8'/16.4 18			<b>49678</b>	1999 <i>TQ</i> <sub>7</sub>	2 15.9 180°28'		9°1'/23.9 18		
1 12	10 24.22	+ 8 28.3	1.502	2.314	17.1	21.2	1 12	10 18.96	-14 4.1	1.377	2.104	22.4	19.2
1 22	10 18.46	+ 8 51.4	1.445	2.337	12.9	21.0	1 22	10 15.18	-13 43.4	1.292	2.106	19.3	19.0
2 1	10 10.02	+ 9 30.3	1.409	2.360	8.1	20.8	2 1	10 8.43	-12 39.3	1.223	2.106	15.6	18.7
2 11	9 59.84	+10 19.4	1.400	2.382	3.0	20.5	2 11	9 59.47	-10 48.6	1.174	2.107	11.8	18.5
2 21	9 49.18	+11 11.9	1.418	2.404	2.5	20.5	2 21	9 49.51	- 8 15.5	1.150	2.106	9.3	18.3
3 2	9 39.42	+12 0.6	1.465	2.425	7.5	20.9	3 2	9 40.06	- 5 12.0	1.153	2.105	10.1	18.4
3 12	9 31.69	+12 39.9	1.537	2.446	11.9	21.2	3 12	9 32.59	- 1 56.7	1.182	2.104	13.5	18.6
3 22	9 26.69	+13 6.8	1.632	2.466	15.6	21.5	3 22	9 28.03	+ 1 12.2	1.235	2.102	17.5	18.8
<b>409902</b>	2006 <i>TX</i> <sub>11</sub>	2 15.9 124°95'		2°4'/14.3 18			<b>134247</b>	2006 <i>AM</i> <sub>18</sub>	2 15.9 171°25'		1°0'/14.8 18		
1 12	10 23.17	+17 34.2	1.805	2.630	14.1	21.7	1 12	10 17.24	+12 2.2	2.455	3.262	11.4	20.5
1 22	10 17.52	+18 3.2	1.734	2.636	10.5	21.5	1 22	10 12.59	+13 7.8	2.372	3.265	8.5	20.3
2 1	10 9.41	+18 37.6	1.686	2.642	6.5	21.2	2 1	10 6.19	+14 23.5	2.315	3.268	5.2	20.1
2 11	9 59.66	+19 11.4	1.666	2.648	2.8	21.0	2 11	9 58.58	+15 43.9	2.287	3.270	1.7	19.9
2 21	9 49.34	+19 38.6	1.675	2.653	3.9	21.1	2 21	9 50.48	+17 3.1	2.291	3.272	2.5	19.9
3 2	9 39.68	+19 54.4	1.712	2.658	7.9	21.3	3 2	9 42.71	+18 15.3	2.325	3.273	6.0	20.2
3 12	9 31.76	+19 56.5	1.775	2.663	11.7	21.6	3 12	9 36.06	+19 16.1	2.388	3.274	9.2	20.4
3 22	9 26.29	+19 44.9	1.860	2.668	15.0	21.8	3 22	9 31.08	+20 3.1	2.476	3.275	12.0	20.6
<b>258067</b>	2001 <i>OU</i> <sub>66</sub>	2 15.9 164°00'		0°2'/16.1 18			<b>163784</b>	2003 <i>QY</i> <sub>36</sub>	2 15.9 105°63'		0°3'/16.1 18		
1 12	10 20.94	+10 16.0	2.282	3.081	12.4	20.8	1 12	10 22.02	+ 9 12.5	1.767	2.575	15.1	20.4
1 22	10 15.39	+10 39.7	2.200	3.087	9.4	20.6	1 22	10 16.55	+ 9 46.4	1.703	2.594	11.4	20.2
2 1	10 7.91	+11 13.2	2.143	3.092	5.9	20.4	2 1	10 8.76	+10 33.8	1.662	2.613	7.1	20.0
2 11	9 59.13	+11 52.7	2.114	3.097	2.0	20.1	2 11	9 59.45	+11 29.5	1.648	2.631	2.5	19.8
2 21	9 49.87	+12 33.8	2.116	3.101	2.0	20.1	2 21	9 49.66	+12 27.0	1.663	2.649	2.3	19.8
3 2	9 41.03	+13 11.9	2.148	3.104	5.8	20.4	3 2	9 40.56	+13 19.9	1.708	2.666	6.8	20.1
3 12	9 33.48	+13 43.1	2.209	3.107	9.3	20.6	3 12	9 33.15	+14 3.1	1.779	2.682	10.9	20.4
3 22	9 27.80	+14 5.2	2.294	3.109	12.3	20.8	3 22	9 28.09	+14 33.8	1.873	2.699	14.3	20.6
<b>434567</b>	2005 <i>TZ</i> <sub>191</sub>	2 15.9 135°22'		14°6'/28.3 18			<b>412963</b>	2014 <i>QS</i> <sub>300</sub>	2 15.9 240°56'		1°0'/15.1 17		
1 12	10 20.91	-22 7.6	1.368	2.041	24.8	21.5	1 12	10 20.97	+11 55.0	1.886	2.700	14.0	22.4
1 22	10 16.73	-23 8.5	1.296	2.049	22.4	21.3	1 22	10 16.08	+12 46.1	1.788	2.685	10.6	22.2
2 1	10 9.41	-23 27.4	1.237	2.057	19.7	21.1	2 1	10 8.73	+13 50.8	1.714	2.668	6.6	21.9
2 11	9 59.78	-22 56.7	1.195	2.065	17.0	21.0	2 11	9 59.55	+15 3.4	1.668	2.651	2.2	21.6
2 21	9 49.16	-21 34.2	1.172	2.072	15.1	20.9	2 21	9 49.47	+16 16.6	1.651	2.633	3.0	21.6
3 2	9 39.16	-19 25.1	1.171	2.078	14.7	20.9	3 2	9 39.66	+17 22.9	1.663	2.615	7.6	21.8
3 12	9 31.32	-16 43.4	1.193	2.084	16.0	20.9	3 12	9 31.31	+18 16.4	1.702	2.596	11.9	22.0
3 22	9 26.58	-13 46.8	1.236	2.090	18.4	21.1	3 22	9 25.26	+18 53.8	1.764	2.576	15.6	22.2
<b>272868</b>	2006 <i>BF</i> <sub>80</sub>	2 15.9 293°33'		3°2'/13.4 18			<b>431528</b>	2007 <i>TP</i> <sub>270</sub>	2 15.9 92°94'		3°4'/19.5 18		
1 12	10 20.15	+19 55.2	1.968	2.798	12.9	20.3	1 12	10 16.97	- 0 53.7	2.458	3.215	12.8	21.3
1 22	10 15.20	+20 35.2	1.890	2.795	9.7	20.0	1 22	10 12.22	- 0 49.9	2.385	3.236	10.2	21.2
2 1	10 7.98	+21 19.2	1.837	2.792	6.1	19.8	2 1	10 5.85	- 0 30.6	2.336	3.255	7.3	21.0
2 11	9 59.19	+22 0.7	1.811	2.789	3.4	19.6	2 11	9 58.45	+ 0 2.9	2.313	3.275	4.6	20.9
2 21	9 49.81	+22 33.7	1.814	2.787	4.6	19.7	2 21	9 50.70	+ 0 47.3	2.320	3.294	3.5	20.9
3 2	9 40.95	+22 53.4	1.846	2.784	8.1	19.9	3 2	9 43.38	+ 1 38.5	2.357	3.313	5.3	21.0
3 12	9 33.62	+22 57.7	1.903	2.781	11.6	20.1	3 12	9 37.18	+ 2 31.4	2.422	3.332	8.0	21.2
3 22	9 28.51	+22 46.5	1.982	2.779	14.6	20.3	3 22	9 32.59	+ 3 21.8	2.513	3.351	10.7	21.4
<b>378793</b>	2008 <i>SR</i> <sub>92</sub>	2 15.9 156°37'		4°5'/20.3 18			<b>431181</b>	2006 <i>SC</i> <sub>45</sub>	2 15.9 87°04'		4°6'/20.5 17		
1 12	10 18.90	- 3 39.7	2.589	3.324	12.8	21.4	1 12	10 15.85	- 3 53.1	2.361	3.107	13.6	21.4
1 22	10 13.66	- 3 55.5	2.500	3.332	10.5	21.3	1 22	10 11.54	- 4 2.2	2.277	3.115	11.1	21.2
2 1	10 6.77	- 3 55.6	2.435	3.339	7.9	21.1	2 1	10 5.53	- 3 53.6	2.216	3.123	8.4	21.1
2 11	9 58.75	- 3 40.2	2.396	3.345	5.5	21.0	2 11	9 58.37	- 3 27.6	2.180	3.131	5.8	20.9
2 21	9 50.29	- 3 11.0	2.387	3.351	4.5	20.9	2 21	9 50.76	- 2 46.8	2.173	3.139	4.6	20.9
3 2	9 42.16	- 2 31.4	2.408	3.356	5.8	21.0	3 2	9 43.52	- 1 55.2	2.195	3.147	6.0	21.0
3 12	9 35.10	- 1 46.0	2.457	3.361	8.2	21.2	3 12	9 37.39	- 0 58.1	2.244	3.155	8.6	21.1
3 22	9 29.63	- 0 59.3	2.532	3.365	10.7	21.3	3 22	9 32.92	- 0 0.9	2.319	3.162	11.2	21.3
<b>374060</b>	2004 <i>PY</i> <sub>104</sub>	2 15.9 229°73'		4°3'/19.4 17			<b>94575</b>	2001 <i>VV</i> <sub>44</sub>	2 15.9 98°29'		3°2'/13.7 18		
1 12	10 20.46	- 1 21.1	2.431	3.180	13.2	21.2	1 12	10 23.75	+17 25.5	1.533	2.366	15.8	19.4
1 22	10 15.09	- 1 43.4	2.324	3.167	10.7	21.0	1 22	10 18.25	+18 24.4	1.475	2.382	11.7	19.1
2 1	10 7.81	- 1 51.0	2.240	3.154	8.0	20.8	2 1	10 9.98	+19 30.7	1.441	2.398	7.3	18.9
2 11	9 59.15	- 1 43.7	2.184	3.140	5.3	20.6	2 11	9 59.89	+20 35.8	1.434	2.414	3.5	18.7
2 21	9 49.83	- 1 23.0	2.156	3.126	4.3	20.5	2 21	9 49.25	+21 30.9	1.454	2.429	4.9	18.9
3 2	9 40.73	- 0 52.0	2.159	3.111	6.1	20.6	3 2	9 39.47	+22 9.5	1.502	2.445	9.1	19.1
3 12	9 32.40	- 0 15.0	2.190	3.095	9.0	20.8	3 12	9 31.75	+22 28.8	1.574	2.459	13.2	19.4
3 22	9 26.71	+ 0 23.3	2.246	3.079	12.0	20.9	3 22	9 26.80	+22 29.3	1.667	2.474	16.6	19.7
<b>134202</b>	2005 <i>EO</i> <sub>84</sub>	2 15.9 278°59'		2°5'/14.0 18			<b>373343</b>	2012 <i>JY</i> <sub>48</sub>	2 15.9 232°74'		3°0'/13.3 17		

EPHEMERIDES

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>253013</b>	2002 <i>RX</i> <sub>120</sub>		2 15.9 214°29	3°6/19.2	17		<b>214214</b>	2005 <i>EQ</i> <sub>79</sub>		2 15.9 351°94	4°0/12.9	18	
1 12	10 19.39	- 0 47.1	2.305	3.061	13.6	22.2	1 12	10 17.05	+17 7.7	1.364	2.214	16.4	19.7
1 22	10 14.37	- 0 38.5	2.202	3.053	10.9	22.0	1 22	10 13.77	+18 29.7	1.295	2.211	12.2	19.4
2 1	10 7.41	- 0 12.3	2.122	3.043	7.9	21.8	2 1	10 7.54	+20 3.8	1.248	2.208	7.7	19.1
2 11	9 59.05	+ 0 30.3	2.069	3.033	4.8	21.6	2 11	9 59.20	+21 39.6	1.226	2.206	4.1	18.9
2 21	9 50.03	+ 1 26.2	2.046	3.022	3.7	21.5	2 21	9 49.98	+23 5.4	1.231	2.204	6.0	19.0
3 2	9 41.27	+ 2 30.6	2.052	3.010	5.9	21.6	3 2	9 41.41	+24 11.5	1.261	2.203	10.5	19.3
3 12	9 33.64	+ 3 37.4	2.088	2.997	9.2	21.8	3 12	9 34.86	+24 52.4	1.314	2.203	15.0	19.5
3 22	9 27.82	+ 4 41.1	2.149	2.983	12.3	22.0	3 22	9 31.22	+25 7.7	1.386	2.203	18.8	19.8
<b>155074</b>	2005 <i>SH</i> <sub>90</sub>		2 15.9 133°55	0°7/16.6	18		<b>350671</b>	2001 <i>UN</i> <sub>78</sub>		2 15.9 103°87	2°4/14.1	17	
1 12	10 19.62	+ 8 11.6	2.126	2.924	13.2	21.3	1 12	10 24.51	+15 21.4	1.658	2.481	15.3	21.0
1 22	10 14.51	+ 8 36.8	2.049	2.935	10.1	21.1	1 22	10 18.56	+16 25.8	1.603	2.505	11.3	20.8
2 1	10 7.42	+ 9 14.2	1.997	2.945	6.4	20.9	2 1	10 10.07	+17 39.0	1.573	2.529	6.9	20.6
2 11	9 59.02	+ 9 59.9	1.973	2.954	2.4	20.7	2 11	9 59.93	+18 52.7	1.570	2.552	2.9	20.4
2 21	9 50.15	+10 49.2	1.978	2.963	2.0	20.7	2 21	9 49.34	+19 58.4	1.596	2.574	4.1	20.5
3 2	9 41.75	+11 36.7	2.013	2.972	5.9	20.9	3 2	9 39.59	+20 49.7	1.651	2.596	8.3	20.8
3 12	9 34.69	+12 18.0	2.076	2.980	9.5	21.2	3 12	9 31.77	+21 23.0	1.731	2.616	12.2	21.1
3 22	9 29.58	+12 50.0	2.164	2.988	12.6	21.4	3 22	9 26.54	+21 38.2	1.834	2.636	15.4	21.4
<b>258134</b>	2001 <i>RW</i> <sub>54</sub>		2 15.9 57°71	1°1/16.8	18		<b>419238</b>	2009 <i>VO</i> <sub>31</sub>		2 15.9 8°43	5°6/12.0	16	
1 12	10 18.12	+ 7 11.8	1.673	2.485	15.6	20.5	1 12	10 20.90	+24 53.7	1.622	2.465	14.6	20.9
1 22	10 13.89	+ 7 38.7	1.600	2.492	12.0	20.3	1 22	10 16.23	+25 45.6	1.558	2.466	11.1	20.7
2 1	10 7.26	+ 8 22.0	1.549	2.499	7.7	20.1	2 1	10 8.82	+26 37.4	1.516	2.467	7.6	20.5
2 11	9 59.01	+ 9 17.4	1.525	2.506	3.0	19.8	2 11	9 59.57	+27 20.1	1.501	2.469	5.6	20.4
2 21	9 50.16	+10 18.6	1.528	2.514	2.3	19.8	2 21	9 49.68	+27 46.3	1.512	2.472	7.0	20.5
3 2	9 41.87	+11 18.3	1.559	2.521	6.9	20.1	3 2	9 40.55	+27 51.2	1.549	2.475	10.4	20.7
3 12	9 35.23	+12 10.3	1.616	2.529	11.2	20.4	3 12	9 33.38	+27 34.3	1.610	2.479	13.9	20.9
3 22	9 30.93	+12 50.4	1.696	2.537	14.8	20.6	3 22	9 28.91	+26 57.8	1.691	2.483	17.0	21.1
<b>363319</b>	2002 <i>OR</i> <sub>33</sub>		2 15.9 279°39	1°9/17.4	17		<b>166837</b>	2002 <i>VS</i> <sub>120</sub>		2 15.9 92°68	1°5/17.2	18	
1 12	10 18.68	+ 4 38.8	1.773	2.572	15.4	22.2	1 12	10 18.93	+ 6 55.5	2.321	3.112	12.5	20.0
1 22	10 14.61	+ 5 5.1	1.661	2.544	12.2	22.0	1 22	10 13.79	+ 6 58.3	2.248	3.127	9.6	19.9
2 1	10 7.98	+ 5 51.5	1.571	2.515	8.2	21.7	2 1	10 6.89	+ 7 12.2	2.199	3.142	6.2	19.7
2 11	9 59.37	+ 6 55.5	1.508	2.486	3.8	21.3	2 11	9 58.85	+ 7 34.5	2.178	3.156	2.8	19.5
2 21	9 49.66	+ 8 11.8	1.472	2.457	2.7	21.2	2 21	9 50.43	+ 8 1.8	2.187	3.171	2.0	19.4
3 2	9 40.06	+ 9 32.8	1.465	2.427	7.2	21.4	3 2	9 42.47	+ 8 30.2	2.225	3.185	5.3	19.7
3 12	9 31.84	+10 50.1	1.484	2.396	12.0	21.6	3 12	9 35.75	+ 8 56.2	2.292	3.200	8.6	19.9
3 22	9 25.95	+11 57.0	1.526	2.366	16.2	21.8	3 22	9 30.80	+ 9 16.8	2.384	3.214	11.5	20.1
<b>428199</b>	2006 <i>UN</i> <sub>166</sub>		2 15.9 184°72	5°5/23.4	18		<b>399584</b>	2003 <i>SX</i> <sub>330</sub>		2 15.9 129°45	0°5/15.6	18	
1 12	10 14.60	-12 13.0	3.193	3.869	11.7	21.7	1 12	10 21.45	+10 43.8	1.937	2.745	14.0	21.7
1 22	10 10.28	-12 13.0	3.092	3.869	10.0	21.5	1 22	10 16.04	+11 30.4	1.867	2.760	10.5	21.5
2 1	10 4.62	-11 55.3	3.012	3.869	8.2	21.4	2 1	10 8.45	+12 28.9	1.822	2.774	6.4	21.3
2 11	9 58.06	-11 19.6	2.958	3.868	6.5	21.3	2 11	9 59.40	+13 33.7	1.804	2.788	2.1	21.1
2 21	9 51.13	-10 27.3	2.932	3.866	5.5	21.2	2 21	9 49.85	+14 38.3	1.817	2.801	2.5	21.1
3 2	9 44.42	- 9 21.4	2.936	3.864	5.9	21.2	3 2	9 40.88	+15 36.3	1.859	2.813	6.7	21.4
3 12	9 38.50	- 8 6.3	2.968	3.862	7.4	21.3	3 12	9 33.44	+16 22.9	1.928	2.825	10.5	21.6
3 22	9 33.83	- 6 47.2	3.028	3.859	9.2	21.5	3 22	9 28.18	+16 55.9	2.021	2.836	13.8	21.9
<b>343671</b>	2010 <i>OV</i> <sub>60</sub>		2 15.9 260°92	7°6/8.0	17		<b>362622</b>	2011 <i>SB</i> <sub>67</sub>		2 15.9 59°23	5°8/20.6	18	
1 12	10 21.85	+35 42.4	2.301	3.122	11.6	20.8	1 12	10 19.28	- 4 37.3	1.375	2.152	20.2	20.3
1 22	10 16.44	+36 56.7	2.242	3.122	9.5	20.7	1 22	10 14.94	- 4 27.1	1.321	2.179	16.3	20.1
2 1	10 8.73	+38 3.1	2.207	3.121	8.0	20.6	2 1	10 7.95	- 3 46.2	1.286	2.206	12.0	19.9
2 11	9 59.49	+38 53.4	2.199	3.120	7.7	20.5	2 11	9 59.24	- 2 36.8	1.275	2.234	7.8	19.7
2 21	9 49.71	+39 22.0	2.218	3.120	8.8	20.6	2 21	9 50.06	- 1 5.7	1.289	2.262	5.8	19.7
3 2	9 40.53	+39 25.9	2.263	3.119	10.8	20.7	3 2	9 41.74	+ 0 36.7	1.329	2.290	8.0	19.9
3 12	9 32.97	+39 5.8	2.331	3.119	12.9	20.9	3 12	9 35.44	+ 2 19.0	1.395	2.317	11.8	20.2
3 22	9 27.68	+38 24.9	2.418	3.118	14.8	21.0	3 22	9 31.78	+ 3 52.2	1.483	2.345	15.4	20.5
<b>40463</b>	Frankkameny		2 15.9 167°35	0°4/16.4	18 R		<b>22975</b>	1999 <i>VR</i> <sub>23</sub>		2 15.9 144°24	3°3/13.1	18	
1 12	10 19.05	+ 9 21.6	2.468	3.263	11.7	20.3	1 12	10 22.85	+19 24.0	2.029	2.852	12.9	19.0
1 22	10 13.88	+ 9 43.0	2.383	3.267	8.9	20.2	1 22	10 17.10	+20 25.2	1.962	2.863	9.6	18.8
2 1	10 6.97	+10 14.2	2.323	3.271	5.6	20.0	2 1	10 9.11	+21 30.8	1.920	2.873	6.1	18.6
2 11	9 58.87	+10 51.7	2.292	3.274	2.0	19.7	2 11	9 59.63	+22 33.8	1.906	2.883	3.4	18.4
2 21	9 50.33	+11 31.7	2.292	3.277	1.8	19.7	2 21	9 49.63	+23 27.1	1.923	2.892	4.7	18.5
3 2	9 42.15	+12 9.9	2.322	3.279	5.3	19.9	3 2	9 40.22	+24 5.7	1.968	2.901	8.0	18.7
3 12	9 35.12	+12 42.6	2.381	3.281	8.6	20.2	3 12	9 32.38	+24 27.2	2.040	2.909	11.3	19.0
3 22	9 29.78	+13 7.4	2.464	3.282	11.5	20.3	3 22	9 26.76	+24 31.7	2.134	2.916	14.2	19.2
<b>340607</b>	2006 <i>QK</i> <sub>54</sub>		2 15.9 159°26	1°6/17.9	17		<b>368125</b>	2013 <i>HM</i> <sub>21</sub>		2 15.9 188°76	3°5/13.0	18	
1 12	10 17.02	+ 4 39.8	3.285	4.053	9.7	22.1	1 12	10 22.11	+19 46.3	1.948	2.775	13.2	21.4
1 22	10 11.93	+ 4 47.3	3.197	4.061	7.5	21.9	1 22	10 16.76	+20 45.3	1.871	2.774	9.9	21.2
2 1	10 5.57	+ 5 3.9	3.134	4.068	5.0	21.7	2 1	10 9.02	+21 49.4	1.819	2.773	6.3	21.0
2 11	9 58.37	+ 5 27.9	3.101	4.075	2.5	21.6	2 11	9 59.64	+22 51.1	1.795	2.772	3.6	20.8
2 21	9 50.86	+ 5 57.1	3.099	4.081	1.8	21.5	2 21	9 49.60	+23 43.3	1.800	2.770	5.0	20.9
3 2	9 43.61	+ 6 28.4	3.129	4.087	4.1	21.7	3 2	9 40.07	+24 20.2	1.834	2.767	8.5	21.1
3 12	9 37.19	+ 6 59.2	3.189	4.092	6.6	21.9	3 12	9 32.13	+24 39.2	1.893	2.764	12.0	21.3
3 22	9 32.01	+ 7 26.7	3.276	4.097	8.8	22.0	3 22	9 26.49	+24 40.3	1.975	2.761	15.1	21.5
<b>421124</b>	2013 <i>QM</i> <sub>81</sub>		2 15.9 172°59	1°2/16.9	16		<b>228279</b>	1999 <i>WS</i> <sub>27</sub>		2 15.9 104°13	0°6/15.4	18	
1 12	10 19.49												

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>169128</b>	2001 <i>PT</i> <sub>34</sub>		2 15.9 102°72	3°2/18.9	18		<b>248691</b>	2006 <i>KN</i> <sub>78</sub>		2 15.9 203°32	2°3/14.0	18	
1 12	10 17.64	+ 1 24.6	2.377	3.146	12.9	19.9	1 12	10 20.79	+15 22.9	1.844	2.667	13.9	21.1
1 22	10 12.86	+ 1 15.8	2.295	3.154	10.2	19.8	1 22	10 15.90	+16 23.9	1.762	2.664	10.4	20.8
2 1	10 6.35	+ 1 21.1	2.236	3.163	7.2	19.6	2 1	10 8.59	+17 35.0	1.705	2.661	6.4	20.6
2 11	9 58.69	+ 1 39.3	2.205	3.172	4.3	19.4	2 11	9 59.54	+18 49.1	1.675	2.657	2.7	20.3
2 21	9 50.60	+ 2 7.7	2.203	3.180	3.3	19.3	2 21	9 49.77	+19 58.3	1.675	2.652	4.0	20.4
3 2	9 42.89	+ 2 42.5	2.230	3.188	5.5	19.5	3 2	9 40.45	+20 55.5	1.703	2.647	8.1	20.6
3 12	9 36.33	+ 3 19.5	2.286	3.196	8.4	19.7	3 12	9 32.70	+21 36.1	1.757	2.642	12.0	20.9
3 22	9 31.46	+ 3 54.5	2.366	3.204	11.2	19.9	3 22	9 27.29	+21 58.8	1.833	2.636	15.4	21.1
<b>228274</b>	1999 <i>UV</i> <sub>43</sub>		2 15.9 139°22	2°2/18.2	18		<b>466305</b>	2013 <i>QF</i> <sub>39</sub>		2 15.9 133°46	2°2/18.1	18	
1 12	10 18.91	+ 3 4.5	2.733	3.499	11.4	21.7	1 12	10 17.54	+ 2 37.3	2.252	3.030	13.2	22.2
1 22	10 13.56	+ 3 14.6	2.652	3.513	8.9	21.6	1 22	10 12.89	+ 3 6.7	2.172	3.040	10.3	22.1
2 1	10 6.67	+ 3 36.7	2.596	3.528	6.1	21.4	2 1	10 6.43	+ 3 52.1	2.115	3.051	7.0	21.9
2 11	9 58.77	+ 4 8.9	2.569	3.541	3.2	21.2	2 11	9 58.75	+ 4 50.6	2.086	3.060	3.6	21.7
2 21	9 50.53	+ 4 48.1	2.573	3.554	2.4	21.2	2 21	9 50.62	+ 5 57.6	2.087	3.070	2.5	21.6
3 2	9 42.65	+ 5 30.6	2.608	3.566	4.8	21.3	3 2	9 42.89	+ 7 7.3	2.118	3.078	5.5	21.8
3 12	9 35.81	+ 6 12.4	2.672	3.578	7.6	21.5	3 12	9 36.36	+ 8 14.0	2.177	3.087	8.8	22.0
3 22	9 30.48	+ 6 50.3	2.762	3.588	10.2	21.7	3 22	9 31.61	+ 9 13.2	2.261	3.095	11.8	22.2
<b>172645</b>	2003 <i>YU</i> <sub>52</sub>		2 15.9 55°37	0°2/16.1	18		<b>127890</b>	2003 <i>GE</i> <sub>9</sub>		2 15.9 258°04	3°9/13.2	18	
1 12	10 22.82	+11 24.7	1.598	2.417	15.9	20.1	1 12	10 23.04	+19 31.1	1.610	2.444	15.1	20.1
1 22	10 17.57	+11 25.3	1.523	2.420	12.1	19.9	1 22	10 18.08	+20 25.9	1.524	2.431	11.4	19.8
2 1	10 9.65	+11 37.2	1.469	2.422	7.6	19.6	2 1	10 10.20	+21 27.9	1.462	2.417	7.3	19.6
2 11	9 59.87	+11 56.0	1.442	2.425	2.6	19.3	2 11	10 0.15	+22 28.6	1.425	2.403	4.1	19.3
2 21	9 49.41	+12 16.8	1.442	2.428	2.5	19.3	2 21	9 49.12	+23 19.3	1.417	2.389	5.6	19.4
3 2	9 39.59	+12 34.4	1.471	2.430	7.5	19.6	3 2	9 38.56	+23 52.5	1.435	2.374	9.9	19.6
3 12	9 31.63	+12 44.7	1.525	2.433	12.0	19.9	3 12	9 29.88	+24 4.9	1.478	2.359	14.1	19.8
3 22	9 26.31	+12 45.4	1.601	2.436	15.8	20.1	3 22	9 24.02	+23 56.7	1.542	2.344	17.9	20.0
<b>190747</b>	2001 <i>QW</i> <sub>36</sub>		2 15.9 110°99	1°7/17.1	18		<b>324617</b>	2006 <i>YZ</i> <sub>38</sub>		2 15.9 274°72	2°1/17.4	17	
1 12	10 24.94	+ 6 54.4	1.613	2.414	16.6	20.4	1 12	10 21.18	+ 6 44.1	1.894	2.691	14.6	20.9
1 22	10 18.97	+ 6 59.0	1.547	2.432	12.8	20.2	1 22	10 16.18	+ 6 30.4	1.795	2.676	11.4	20.6
2 1	10 10.39	+ 7 19.2	1.503	2.449	8.3	20.0	2 1	10 8.79	+ 6 29.4	1.718	2.661	7.6	20.3
2 11	10 0.10	+ 7 51.3	1.486	2.465	3.6	19.8	2 11	9 59.63	+ 6 39.3	1.668	2.646	3.6	20.1
2 21	9 49.26	+ 8 30.0	1.497	2.481	2.6	19.7	2 21	9 49.66	+ 6 57.0	1.646	2.630	2.7	20.0
3 2	9 39.19	+ 9 9.3	1.536	2.497	7.1	20.0	3 2	9 39.99	+ 7 18.4	1.654	2.615	6.7	20.2
3 12	9 31.03	+ 9 43.4	1.602	2.512	11.4	20.3	3 12	9 31.75	+ 7 38.7	1.688	2.599	10.9	20.4
3 22	9 25.48	+10 8.9	1.690	2.526	15.1	20.6	3 22	9 25.75	+ 7 54.4	1.745	2.583	14.6	20.6
<b>375024</b>	2007 <i>GE</i> <sub>66</sub>		2 15.9 249°59	5°2/20.7	17		<b>415464</b>	2014 <i>MY</i> <sub>43</sub>		2 15.9 155°66	1°1/16.9	18	
1 12	10 16.94	- 4 57.3	2.266	3.007	14.2	21.8	1 12	10 22.06	+ 7 25.9	2.101	2.893	13.6	22.5
1 22	10 12.63	- 5 6.1	2.161	2.994	11.8	21.6	1 22	10 16.40	+ 7 45.1	2.021	2.902	10.4	22.3
2 1	10 6.41	- 4 55.6	2.078	2.981	9.1	21.4	2 1	10 8.66	+ 8 16.9	1.965	2.910	6.7	22.1
2 11	9 58.79	- 4 25.2	2.020	2.968	6.4	21.2	2 11	9 59.52	+ 8 58.0	1.937	2.917	2.7	21.8
2 21	9 50.50	- 3 37.1	1.990	2.954	5.2	21.1	2 21	9 49.85	+ 9 43.7	1.939	2.924	2.1	21.8
3 2	9 42.44	- 2 35.2	1.989	2.940	6.6	21.1	3 2	9 40.66	+10 28.7	1.971	2.929	6.0	22.1
3 12	9 35.48	- 1 25.7	2.015	2.925	9.4	21.3	3 12	9 32.86	+11 8.5	2.031	2.935	9.7	22.3
3 22	9 30.29	- 0 14.9	2.067	2.910	12.4	21.4	3 22	9 27.10	+11 39.8	2.115	2.939	12.9	22.5
<b>423017</b>	2003 <i>SX</i> <sub>407</sub>		2 15.9 304°06	5°6/10.2	18		<b>463290</b>	2012 <i>HE</i> <sub>32</sub>		2 15.9 219°05	1°1/17.0	17	
1 12	10 16.98	+24 20.0	1.947	2.787	12.6	20.6	1 12	10 18.57	+ 6 52.0	2.387	3.177	12.2	22.5
1 22	10 13.11	+25 59.4	1.871	2.777	9.6	20.4	1 22	10 13.71	+ 7 13.4	2.289	3.168	9.4	22.3
2 1	10 6.89	+27 42.2	1.820	2.768	6.8	20.2	2 1	10 7.00	+ 7 47.1	2.216	3.159	6.1	22.1
2 11	9 58.98	+29 19.0	1.797	2.759	5.6	20.1	2 11	9 58.97	+ 8 30.2	2.170	3.150	2.6	21.9
2 21	9 50.32	+30 40.9	1.802	2.750	7.2	20.2	2 21	9 50.37	+ 9 18.6	2.155	3.140	1.9	21.8
3 2	9 42.05	+31 40.9	1.834	2.741	10.2	20.4	3 2	9 42.04	+10 7.6	2.170	3.129	5.5	22.0
3 12	9 35.27	+32 16.2	1.891	2.732	13.3	20.5	3 12	9 34.82	+10 52.8	2.214	3.118	9.0	22.2
3 22	9 30.75	+32 27.3	1.967	2.724	16.1	20.7	3 22	9 29.33	+11 30.5	2.283	3.107	12.1	22.4
<b>170236</b>	2003 <i>QP</i> <sub>24</sub>		2 15.9 214°19	1°6/17.2	18		<b>344837</b>	2004 <i>FT</i> <sub>107</sub>		2 15.9 335°47	13°3/ 2.2	18	
1 12	10 20.15	+ 5 32.5	1.911	2.705	14.6	20.8	1 12	10 33.58	+52 44.9	2.048	2.817	14.7	19.9
1 22	10 15.32	+ 5 57.7	1.818	2.699	11.4	20.6	1 22	10 26.31	+54 7.2	2.004	2.809	13.7	19.8
2 1	10 8.19	+ 6 39.7	1.749	2.692	7.5	20.3	2 1	10 15.29	+55 7.4	1.981	2.802	13.3	19.8
2 11	9 59.41	+ 7 35.0	1.706	2.685	3.3	20.0	2 11	10 1.79	+55 35.1	1.979	2.795	13.5	19.8
2 21	9 49.88	+ 8 38.3	1.692	2.677	2.4	19.9	2 21	9 47.64	+55 24.2	1.999	2.789	14.5	19.8
3 2	9 40.72	+ 9 43.2	1.708	2.669	6.5	20.2	3 2	9 34.88	+54 34.2	2.038	2.783	15.8	19.9
3 12	9 32.97	+10 43.0	1.751	2.660	10.7	20.4	3 12	9 25.10	+53 10.3	2.097	2.777	17.3	20.0
3 22	9 27.40	+11 33.1	1.818	2.650	14.3	20.6	3 22	9 19.04	+51 20.1	2.170	2.772	18.6	20.2
<b>162673</b>	2000 <i>SF</i> <sub>304</sub>		2 15.9 185°40	2°1/17.5	18		<b>498946</b>	2009 <i>BJ</i> <sub>61</sub>		2 15.9 38°91	0°6/16.5	17	
1 12	10 22.83	+ 5 38.9	1.883	2.673	15.0	20.5	1 12	10 18.01	+ 9 39.5	1.965	2.776	13.7	21.3
1 22	10 17.28	+ 5 38.7	1.796	2.674	11.7	20.3	1 22	10 13.45	+ 9 47.7	1.893	2.785	10.4	21.1
2 1	10 9.36	+ 5 53.2	1.732	2.673	7.8	20.1	2 1	10 6.86	+10 6.9	1.845	2.795	6.6	20.9
2 11	9 59.79	+ 6 19.9	1.695	2.672	3.7	19.8	2 11	9 58.91	+10 33.6	1.823	2.805	2.4	20.6
2 21	9 49.52	+ 6 54.9	1.687	2.671	2.7	19.8	2 21	9 50.49	+11 3.4	1.830	2.815	2.0	20.6
3 2	9 39.71	+ 7 32.9	1.709	2.669	6.6	20.0	3 2	9 42.61	+11 31.6	1.866	2.826	6.1	20.9
3 12	9 31.44	+ 8 8.8	1.757	2.666	10.6	20.2	3 12	9 36.14	+11 54.3	1.928	2.837	9.9	21.1
3 22	9 25.44	+ 8 38.3	1.829	2.663	14.2	20.4	3 22	9 31.71	+12 9.0	2.014	2.848	13.1	21.4
<b>116863</b>	2004 <i>FK</i> <sub>92</sub>		2 15.9 181°84	1°1/16.8	18		<b>20437</b>	1999 <i>JH</i> <sub>1</sub>		2 15.9 127°81	2°7/18.1	18	

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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>88812</b>	2001 <i>SQ</i> <sub>146</sub>		2 15.9 246°00	1°3/16.9 18			<b>112581</b>	2002 <i>PY</i> <sub>54</sub>		2 15.9 214°82	1°1/16.9 18		
1 12	10 21.07	+ 6 41.2	1.689	2.493	15.8	20.5	1 12	10 20.74	+ 7 19.1	2.072	2.867	13.6	20.9
1 22	10 16.41	+ 7 5.3	1.592	2.479	12.3	20.2	1 22	10 15.61	+ 7 37.8	1.977	2.860	10.5	20.6
2 1	10 9.10	+ 7 47.4	1.517	2.464	8.0	19.9	2 1	10 8.31	+ 8 9.8	1.906	2.852	6.8	20.4
2 11	9 59.79	+ 8 43.9	1.468	2.449	3.3	19.6	2 11	9 59.47	+ 8 52.2	1.863	2.844	2.8	20.1
2 21	9 49.50	+ 9 48.7	1.448	2.433	2.5	19.5	2 21	9 49.94	+ 9 40.2	1.850	2.835	2.1	20.0
3 2	9 39.53	+10 54.5	1.455	2.417	7.4	19.8	3 2	9 40.75	+10 28.5	1.866	2.825	6.2	20.3
3 12	9 31.14	+11 53.7	1.490	2.400	12.1	20.0	3 12	9 32.88	+11 11.8	1.910	2.815	10.1	20.5
3 22	9 25.25	+12 41.3	1.546	2.382	16.2	20.2	3 22	9 27.05	+11 46.6	1.978	2.805	13.6	20.7
<b>251100</b>	2006 <i>SU</i> <sub>269</sub>		2 15.9 70°11	8°9/24.4 18			<b>4759</b>	<i>Äretta</i>		2 15.9 149°62	0°0/15.9 18		
1 12	10 17.37	-13 31.1	1.727	2.438	19.1	20.5	1 12	10 16.54	+10 41.9	2.875	3.673	10.2	18.3
1 22	10 13.27	-13 50.6	1.657	2.456	16.4	20.3	1 22	10 11.81	+11 10.0	2.793	3.680	7.6	18.1
2 1	10 6.88	-13 39.1	1.605	2.473	13.5	20.2	2 1	10 5.63	+11 45.7	2.738	3.687	4.7	17.9
2 11	9 58.95	-12 54.8	1.575	2.490	10.7	20.0	2 11	9 58.49	+12 25.9	2.711	3.694	1.6	17.7
2 21	9 50.46	-11 40.1	1.569	2.508	9.0	20.0	2 21	9 50.99	+13 7.0	2.716	3.700	1.6	17.7
3 2	9 42.54	-10 1.6	1.589	2.525	9.3	20.0	3 2	9 43.82	+13 45.5	2.751	3.706	4.7	17.9
3 12	9 36.23	- 8 9.4	1.635	2.542	11.4	20.2	3 12	9 37.59	+14 18.1	2.816	3.712	7.6	18.1
3 22	9 32.19	- 6 14.3	1.705	2.560	14.1	20.4	3 22	9 32.78	+14 42.9	2.906	3.717	10.1	18.3
<b>221130</b>	2005 <i>SX</i> <sub>263</sub>		2 15.9 205°69	1°1/15.1 18			<b>504322</b>	2007 <i>RH</i> <sub>269</sub>		2 15.9 150°05	3°1/19.2 17		
1 12	10 18.69	+12 42.5	1.877	2.698	13.8	21.0	1 12	10 15.98	- 0 13.7	2.528	3.289	12.4	21.9
1 22	10 14.21	+13 25.3	1.797	2.697	10.4	20.8	1 22	10 11.59	+ 0 1.1	2.441	3.295	9.9	21.8
2 1	10 7.48	+14 19.1	1.741	2.696	6.4	20.5	2 1	10 5.59	+ 0 31.4	2.376	3.300	7.0	21.6
2 11	9 59.16	+15 18.5	1.712	2.695	2.1	20.3	2 11	9 58.49	+ 1 15.6	2.340	3.305	4.2	21.4
2 21	9 50.21	+16 16.7	1.711	2.694	2.9	20.3	2 21	9 50.97	+ 2 10.4	2.332	3.309	3.1	21.4
3 2	9 41.73	+17 7.5	1.740	2.693	7.2	20.6	3 2	9 43.77	+ 3 11.3	2.355	3.314	5.2	21.5
3 12	9 34.73	+17 46.2	1.794	2.692	11.1	20.8	3 12	9 37.60	+ 4 13.1	2.407	3.318	8.0	21.7
3 22	9 29.92	+18 10.5	1.872	2.691	14.5	21.0	3 22	9 32.98	+ 5 11.4	2.484	3.321	10.8	21.9
<b>101763</b>	1999 <i>FJ</i> <sub>48</sub>		2 15.9 318°53	1°6/17.5 18			<b>380044</b>	2013 <i>RD</i> <sub>39</sub>		2 15.9 131°01	1°3/14.9 18		
1 12	10 13.99	+ 4 18.2	2.050	2.847	13.7	19.4	1 12	10 20.33	+14 52.3	2.124	2.940	12.6	21.3
1 22	10 10.56	+ 4 59.1	1.957	2.839	10.6	19.2	1 22	10 15.12	+15 21.8	2.049	2.946	9.4	21.1
2 1	10 5.17	+ 5 57.8	1.887	2.830	7.0	19.0	2 1	10 7.88	+15 58.3	1.998	2.953	5.8	20.9
2 11	9 58.39	+ 7 10.8	1.844	2.822	3.2	18.7	2 11	9 59.28	+16 36.9	1.976	2.959	2.1	20.7
2 21	9 50.99	+ 8 32.6	1.830	2.815	2.2	18.6	2 21	9 50.19	+17 12.5	1.984	2.965	2.8	20.7
3 2	9 43.89	+ 9 56.1	1.845	2.807	5.9	18.8	3 2	9 41.61	+17 40.5	2.021	2.971	6.6	21.0
3 12	9 38.00	+11 14.4	1.887	2.800	9.8	19.1	3 12	9 34.42	+17 58.0	2.085	2.977	10.1	21.2
3 22	9 33.98	+12 22.3	1.954	2.793	13.2	19.3	3 22	9 29.25	+18 3.9	2.173	2.982	13.1	21.4
<b>101847</b>	1999 <i>JG</i> <sub>90</sub>		2 15.9 279°77	2°8/13.3 18			<b>234433</b>	2001 <i>SA</i> <sub>26</sub>		2 15.9 97°84	1°1/16.8 18		
1 12	10 17.12	+15 47.7	1.834	2.665	13.6	20.1	1 12	10 21.20	+ 6 55.5	1.485	2.299	17.2	20.8
1 22	10 13.24	+17 6.8	1.748	2.655	10.2	19.9	1 22	10 16.46	+ 7 24.7	1.418	2.310	13.2	20.5
2 1	10 7.00	+18 37.4	1.687	2.644	6.3	19.6	2 1	10 9.01	+ 8 12.5	1.372	2.321	8.4	20.3
2 11	9 59.05	+20 11.6	1.654	2.634	3.0	19.4	2 11	9 59.72	+ 9 13.9	1.351	2.332	3.3	20.0
2 21	9 50.31	+21 40.6	1.649	2.624	4.6	19.5	2 21	9 49.76	+10 21.3	1.358	2.343	2.5	20.0
3 2	9 41.93	+22 56.1	1.673	2.614	8.5	19.7	3 2	9 40.51	+11 26.6	1.392	2.354	7.5	20.3
3 12	9 35.03	+23 52.7	1.722	2.603	12.4	19.9	3 12	9 33.18	+12 22.4	1.451	2.364	12.2	20.6
3 22	9 30.39	+24 28.4	1.793	2.593	15.8	20.1	3 22	9 28.53	+13 4.7	1.533	2.374	16.1	20.9
<b>32697</b>	1069 <i>T</i> <sub>2</sub>		2 15.9 232°63	1°6/17.1 18			<b>375431</b>	2008 <i>TK</i> <sub>38</sub>		2 15.9 108°26	3°6/12.3 18		
1 12	10 21.20	+ 6 15.8	1.738	2.539	15.6	20.3	1 12	10 20.26	+21 52.7	2.344	3.168	11.3	21.0
1 22	10 16.37	+ 6 33.4	1.645	2.530	12.1	20.0	1 22	10 14.88	+22 56.1	2.286	3.187	8.4	20.8
2 1	10 8.99	+ 7 8.0	1.574	2.520	8.0	19.8	2 1	10 7.63	+24 1.0	2.255	3.205	5.5	20.6
2 11	9 59.74	+ 7 56.4	1.529	2.509	3.4	19.5	2 11	9 59.17	+25 1.1	2.252	3.224	3.7	20.6
2 21	9 49.60	+ 8 53.3	1.513	2.498	2.5	19.4	2 21	9 50.34	+25 50.5	2.279	3.241	4.8	20.7
3 2	9 39.83	+ 9 51.6	1.525	2.486	7.1	19.6	3 2	9 42.05	+26 25.3	2.336	3.259	7.5	20.8
3 12	9 31.63	+10 44.9	1.563	2.474	11.6	19.8	3 12	9 35.11	+26 43.8	2.419	3.276	10.3	21.1
3 22	9 25.85	+11 28.1	1.624	2.461	15.6	20.1	3 22	9 30.07	+26 46.4	2.525	3.292	12.7	21.2
<b>54252</b>	2000 <i>JV</i> <sub>26</sub>		2 15.9 299°76	5°4/20.4 18			<b>18791</b>	1999 <i>JF</i> <sub>58</sub>		2 15.9 124°81	3°3/13.6 18		
1 12	10 16.10	- 3 39.1	2.103	2.858	14.8	18.9	1 12	10 24.28	+18 51.8	1.752	2.578	14.4	18.2
1 22	10 12.17	- 4 1.5	1.999	2.842	12.2	18.7	1 22	10 18.46	+19 43.2	1.688	2.591	10.7	18.0
2 1	10 6.21	- 4 5.0	1.916	2.826	9.3	18.5	2 1	10 10.10	+20 39.7	1.648	2.603	6.7	17.8
2 11	9 58.76	- 3 49.1	1.859	2.810	6.6	18.3	2 11	10 0.05	+21 33.7	1.636	2.615	3.5	17.6
2 21	9 50.60	- 3 15.1	1.828	2.794	5.4	18.2	2 21	9 49.46	+22 17.9	1.653	2.626	4.8	17.7
3 2	9 42.65	- 2 27.0	1.825	2.778	7.0	18.2	3 2	9 39.59	+22 46.9	1.698	2.637	8.6	17.9
3 12	9 35.88	- 1 30.4	1.849	2.762	10.0	18.4	3 12	9 31.58	+22 58.3	1.768	2.647	12.3	18.2
3 22	9 30.98	- 0 31.7	1.897	2.747	13.1	18.6	3 22	9 26.10	+22 52.7	1.860	2.657	15.5	18.4
<b>454337</b>	2014 <i>KM</i> <sub>98</sub>		2 15.9 169°56	0°4/16.2 18			<b>448193</b>	2008 <i>UP</i> <sub>85</sub>		2 15.9 42°70	5°1/19.3 18		
1 12	10 21.58	+ 8 45.5	1.680	2.491	15.6	22.1	1 12	10 19.09	- 0 30.3	1.364	2.160	19.4	21.0
1 22	10 16.59	+ 9 19.9	1.601	2.494	11.9	21.8	1 22	10 15.16	- 0 41.2	1.291	2.165	15.6	20.8
2 1	10 9.06	+10 10.1	1.545	2.496	7.5	21.6	2 1	10 8.36	- 0 26.1	1.238	2.169	11.2	20.5
2 11	9 59.73	+11 10.9	1.516	2.498	2.7	21.3	2 11	9 59.54	+ 0 13.9	1.207	2.174	6.9	20.3
2 21	9 49.67	+12 15.4	1.514	2.500	2.4	21.3	2 21	9 49.91	+ 1 14.3	1.201	2.179	5.2	20.2
3 2	9 40.16	+13 16.2	1.542	2.501	7.3	21.6	3 2	9 40.91	+ 2 26.9	1.222	2.185	8.2	20.4
3 12	9 32.35	+14 7.0	1.595	2.501	11.7	21.8	3 12	9 33.87	+ 3 41.8	1.266	2.190	12.6	20.7
3 22	9 27.03	+14 44.3	1.671	2.501	15.5	22.1	3 22	9 29.64	+ 4 50.5	1.333	2.196	16.7	20.9
<b>468210</b>	2015 <i>BX</i> <sub>60</sub>		2 15.9 320°38	2°8/13.5 17			<b>244603</b>	2002 <					



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2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>214189</b>	2005 <i>EF</i> <sub>13</sub>		2 15.9	12°84	3°8/13.7	18	<b>381274</b>	2007 <i>TO</i> <sub>257</sub>		2 15.9	49°74	1°6/14.6	18
1 12	10 18.70	+18 11.5	1.153	2.011	18.1	19.8	1 12	10 18.02	+15 25.8	2.019	2.843	12.9	21.1
1 22	10 15.33	+18 56.4	1.095	2.014	13.6	19.5	1 22	10 13.46	+16 1.0	1.952	2.854	9.6	20.9
2 1	10 8.63	+19 50.1	1.057	2.018	8.5	19.2	2 1	10 6.88	+16 43.1	1.910	2.867	5.8	20.7
2 11	9 59.64	+20 42.6	1.043	2.024	4.2	19.0	2 11	9 58.97	+17 26.7	1.896	2.879	2.2	20.4
2 21	9 49.87	+21 24.1	1.053	2.030	5.8	19.1	2 21	9 50.63	+18 6.4	1.911	2.891	3.1	20.5
3 2	9 41.04	+21 46.8	1.087	2.038	10.7	19.4	3 2	9 42.85	+18 37.4	1.954	2.904	6.8	20.8
3 12	9 34.65	+21 47.6	1.143	2.047	15.5	19.7	3 12	9 36.49	+18 56.6	2.024	2.917	10.3	21.0
3 22	9 31.50	+21 27.6	1.217	2.057	19.5	20.0	3 22	9 32.14	+19 3.1	2.117	2.930	13.3	21.2
<b>415529</b>	2014 <i>QC</i> <sub>63</sub>		2 15.9	35°35	0°8/16.4	18	<b>383713</b>	2007 <i>UW</i> <sub>24</sub>		2 15.9	140°49	2°7/13.2	18
1 12	10 22.71	+10 19.3	1.373	2.199	17.7	21.1	1 12	10 18.07	+19 24.8	2.492	3.313	10.8	21.3
1 22	10 17.82	+10 11.6	1.305	2.205	13.5	20.9	1 22	10 13.24	+20 15.1	2.419	3.319	8.0	21.1
2 1	10 9.96	+10 17.5	1.258	2.211	8.6	20.6	2 1	10 6.65	+21 8.9	2.371	3.325	5.1	20.9
2 11	10 0.06	+10 32.8	1.236	2.218	3.2	20.3	2 11	9 58.89	+22 0.8	2.353	3.331	2.8	20.8
2 21	9 49.44	+10 52.3	1.240	2.225	2.7	20.3	2 21	9 50.71	+22 45.9	2.365	3.336	3.9	20.8
3 2	9 39.62	+11 10.3	1.270	2.233	8.0	20.6	3 2	9 42.94	+23 20.0	2.407	3.341	6.7	21.0
3 12	9 31.93	+11 21.9	1.325	2.241	12.9	20.9	3 12	9 36.35	+23 40.7	2.476	3.346	9.6	21.2
3 22	9 27.15	+11 24.2	1.401	2.249	17.0	21.2	3 22	9 31.47	+23 47.7	2.568	3.351	12.1	21.4
<b>500200</b>	2012 <i>HQ</i> <sub>8</sub>		2 15.9	267°79	1°8/17.6	17	<b>259742</b>	2003 <i>YU</i> <sub>159</sub>		2 15.9	49°79	1°8/17.0	18
1 12	10 16.18	+ 3 34.6	1.950	2.743	14.4	21.5	1 12	10 23.47	+ 8 19.8	1.409	2.226	17.8	19.8
1 22	10 12.37	+ 4 18.9	1.851	2.730	11.3	21.2	1 22	10 18.18	+ 8 1.6	1.348	2.241	13.6	19.6
2 1	10 6.41	+ 5 23.2	1.775	2.717	7.5	21.0	2 1	10 10.07	+ 7 58.2	1.308	2.257	8.8	19.3
2 11	9 58.87	+ 6 44.1	1.726	2.704	3.5	20.7	2 11	10 0.09	+ 8 6.5	1.292	2.272	3.8	19.1
2 21	9 50.58	+ 8 15.6	1.705	2.690	2.4	20.6	2 21	9 49.55	+ 8 21.9	1.304	2.289	2.8	19.1
3 2	9 42.55	+ 9 49.8	1.714	2.676	6.4	20.8	3 2	9 39.88	+ 8 39.1	1.342	2.305	7.6	19.4
3 12	9 35.80	+11 18.9	1.750	2.662	10.5	21.0	3 12	9 32.32	+ 8 53.1	1.405	2.322	12.2	19.7
3 22	9 31.07	+12 36.5	1.811	2.648	14.2	21.2	3 22	9 27.57	+ 9 0.5	1.490	2.339	16.1	20.0
<b>325263</b>	2008 <i>GX</i> <sub>109</sub>		2 15.9	243°87	0°5/16.4	17	<b>463243</b>	2012 <i>FV</i> <sub>17</sub>		2 15.9	50°31	0°2/16.1	18
1 12	10 17.51	+ 7 41.9	2.014	2.817	13.7	20.9	1 12	10 19.10	+ 8 51.3	1.418	2.244	17.2	21.2
1 22	10 13.28	+ 8 25.6	1.919	2.808	10.4	20.6	1 22	10 14.86	+ 9 32.0	1.364	2.265	13.0	21.0
2 1	10 6.93	+ 9 24.8	1.849	2.798	6.6	20.4	2 1	10 7.98	+10 29.6	1.332	2.286	8.1	20.8
2 11	9 59.04	+10 35.2	1.806	2.788	2.4	20.1	2 11	9 59.38	+11 37.5	1.324	2.307	2.8	20.5
2 21	9 50.44	+11 50.7	1.792	2.778	2.1	20.0	2 21	9 50.28	+12 47.3	1.344	2.329	2.6	20.6
3 2	9 42.16	+13 4.4	1.808	2.767	6.4	20.3	3 2	9 42.02	+13 50.6	1.390	2.351	7.7	20.9
3 12	9 35.16	+14 10.0	1.851	2.756	10.4	20.5	3 12	9 35.71	+14 41.2	1.462	2.374	12.1	21.2
3 22	9 30.18	+15 3.3	1.918	2.745	13.9	20.7	3 22	9 32.04	+15 15.8	1.555	2.396	15.9	21.5
<b>174942</b>	2004 <i>CS</i> <sub>75</sub>		2 15.9	52°23	1°0/16.7	18	<b>496329</b>	2013 <i>NF</i> <sub>13</sub>		2 15.9	203°60	4°5/19.2	17
1 12	10 18.98	+ 7 40.2	1.576	2.392	16.3	20.4	1 12	10 21.46	- 0 6.0	2.076	2.839	14.7	21.9
1 22	10 14.71	+ 8 3.0	1.504	2.398	12.4	20.1	1 22	10 16.12	- 0 37.8	1.984	2.837	11.9	21.7
2 1	10 7.91	+ 8 42.6	1.454	2.405	8.0	19.9	2 1	10 8.63	- 0 53.8	1.914	2.834	8.7	21.5
2 11	9 59.36	+ 9 34.3	1.430	2.411	3.1	19.6	2 11	9 59.62	- 0 54.0	1.871	2.831	5.6	21.3
2 21	9 50.17	+10 31.6	1.433	2.418	2.4	19.6	2 21	9 49.97	- 0 39.9	1.856	2.828	4.5	21.2
3 2	9 41.58	+11 27.3	1.463	2.426	7.2	19.9	3 2	9 40.67	- 0 15.1	1.870	2.825	6.7	21.3
3 12	9 34.75	+12 15.0	1.519	2.433	11.7	20.2	3 12	9 32.70	+ 0 15.7	1.912	2.821	9.9	21.5
3 22	9 30.41	+12 50.5	1.598	2.440	15.5	20.4	3 22	9 26.76	+ 0 47.5	1.978	2.817	13.1	21.7
<b>284318</b>	2006 <i>QX</i> <sub>135</sub>		2 15.9	211°03	0°9/16.8	17	<b>241699</b>	2000 <i>SO</i> <sub>168</sub>		2 15.9	194°99	3°0/18.3	18
1 12	10 19.18	+ 9 1.8	2.561	3.353	11.4	21.0	1 12	10 21.59	+ 2 49.0	1.879	2.661	15.3	20.7
1 22	10 14.00	+ 9 2.2	2.467	3.349	8.7	20.8	1 22	10 16.42	+ 2 49.4	1.790	2.660	12.1	20.5
2 1	10 7.11	+ 9 11.1	2.400	3.345	5.6	20.6	2 1	10 8.91	+ 3 7.1	1.723	2.657	8.4	20.3
2 11	9 59.04	+ 9 26.3	2.360	3.341	2.2	20.3	2 11	9 59.74	+ 3 40.3	1.682	2.655	4.5	20.0
2 21	9 50.49	+ 9 44.8	2.351	3.336	1.8	20.3	2 21	9 49.85	+ 4 25.1	1.670	2.651	3.3	20.0
3 2	9 42.27	+10 3.3	2.373	3.332	5.1	20.5	3 2	9 40.36	+ 5 16.1	1.687	2.647	6.6	20.1
3 12	9 35.12	+10 18.9	2.423	3.327	8.4	20.7	3 12	9 32.35	+ 6 7.0	1.731	2.643	10.6	20.4
3 22	9 29.60	+10 29.3	2.499	3.322	11.2	20.9	3 22	9 26.58	+ 6 52.4	1.799	2.638	14.2	20.6
<b>121409</b>	1999 <i>TB</i> <sub>140</sub>		2 15.9	208°17	1°0/15.0	17	<b>241718</b>	2000 <i>UC</i> <sub>35</sub>		2 15.9	164°50	2°7/18.1	18
1 12	10 19.46	+13 57.2	2.561	3.367	11.0	21.0	1 12	10 21.47	+ 3 2.5	1.947	2.728	14.9	21.3
1 22	10 14.28	+14 30.0	2.468	3.361	8.2	20.8	1 22	10 16.19	+ 3 13.1	1.864	2.734	11.7	21.0
2 1	10 7.31	+15 9.7	2.401	3.354	5.1	20.6	2 1	10 8.68	+ 3 40.8	1.803	2.738	8.0	20.8
2 11	9 59.12	+15 52.4	2.364	3.347	1.8	20.3	2 11	9 59.64	+ 4 23.1	1.769	2.742	4.2	20.6
2 21	9 50.41	+16 33.5	2.357	3.339	2.4	20.3	2 21	9 49.99	+ 5 15.7	1.764	2.746	3.0	20.5
3 2	9 42.00	+17 9.0	2.381	3.330	5.8	20.6	3 2	9 40.79	+ 6 12.8	1.788	2.749	6.3	20.7
3 12	9 34.68	+17 35.6	2.433	3.321	9.0	20.7	3 12	9 33.04	+ 7 8.1	1.840	2.751	10.1	21.0
3 22	9 29.04	+17 51.8	2.510	3.312	11.8	20.9	3 22	9 27.45	+ 7 56.9	1.916	2.752	13.6	21.2
<b>123288</b>	2000 <i>UV</i> <sub>99</sub>		2 15.9	222°55	0°8/15.4	18	<b>345559</b>	2006 <i>RK</i> <sub>61</sub>		2 15.9	142°55	5°5/22.2	17
1 12	10 22.85	+12 45.9	1.941	2.752	13.8	20.4	1 12	10 18.37	- 9 35.7	3.109	3.798	11.7	21.0
1 22	10 17.40	+13 15.6	1.848	2.743	10.5	20.2	1 22	10 13.10	-10 8.5	3.021	3.809	10.0	20.9
2 1	10 9.54	+13 55.7	1.780	2.733	6.5	19.9	2 1	10 6.43	-10 25.8	2.955	3.820	8.1	20.7
2 11	9 59.94	+14 41.2	1.739	2.722	2.2	19.6	2 11	9 58.82	-10 27.0	2.916	3.830	6.4	20.6
2 21	9 49.56	+15 26.2	1.727	2.710	2.7	19.6	2 21	9 50.84	-10 12.8	2.905	3.840	5.5	20.6
3 2	9 39.55	+16 5.0	1.745	2.698	7.2	19.9	3 2	9 43.13	- 9 45.4	2.924	3.849	6.0	20.6
3 12	9 31.03	+16 33.2	1.790	2.685	11.3	20.1	3 12	9 36.31	- 9 8.3	2.971	3.858	7.6	20.7
3 22	9 24.79	+16 48.7	1.858	2.672	14.8	20.3	3 22	9 30.82	- 8 25.7	3.044	3.867	9.4	20.9
<b>502664</b>	2015 <i>CF</i> <sub>51</sub>		2 15.9	15°84	0°8/15.3	17	<b>482401</b>	2012 <i>BO</i> <sub>28</sub>		2 15.9	81°15	15°0/22.6	16
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2 16.0

2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2020	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>433569</b>	2013 YP <sub>19</sub>		2 15.9	49°17'	5°2'/10.8	18							
1 12	10 18.49	+25 39.9	2.121	2.955	11.9	20.5							
1 22	10 13.96	+26 55.1	2.056	2.958	9.1	20.3							
2 1	10 7.29	+28 10.1	2.015	2.961	6.5	20.2							
2 11	9 59.16	+29 17.3	2.003	2.964	5.2	20.1							
2 21	9 50.49	+30 9.8	2.019	2.967	6.5	20.2							
3 2	9 42.33	+30 42.9	2.062	2.970	9.2	20.3							
3 12	9 35.62	+30 55.2	2.130	2.973	12.0	20.5							
3 22	9 31.01	+30 47.8	2.219	2.976	14.5	20.7							
<b>9741</b>	Solokhin		2 15.9	31°29'	6°3'/12.4	18							
1 12	10 22.07	+22 42.5	1.109	1.970	18.5	16.3							
1 22	10 17.97	+23 47.9	1.062	1.980	14.0	16.1							
2 1	10 10.29	+24 56.0	1.034	1.992	9.3	15.9							
2 11	10 0.23	+25 54.2	1.030	2.004	6.3	15.8							
2 21	9 49.49	+26 31.7	1.050	2.017	8.1	15.9							
3 2	9 39.96	+26 42.0	1.093	2.031	12.3	16.2							
3 12	9 33.14	+26 25.1	1.158	2.046	16.6	16.5							
3 22	9 29.79	+25 44.9	1.240	2.062	20.3	16.7							
<b>399488</b>	2002 TA <sub>46</sub>		2 15.9	78°87'	4°3'/12.9	16							
1 12	10 28.67	+22 32.4	1.808	2.630	14.2	21.5							
1 22	10 21.35	+23 29.0	1.771	2.670	10.6	21.3							
2 1	10 11.64	+24 25.2	1.759	2.709	6.9	21.2							
2 11	10 0.54	+25 12.8	1.775	2.747	4.4	21.1							
2 21	9 49.26	+25 45.6	1.821	2.785	5.6	21.3							
3 2	9 39.03	+26 0.2	1.895	2.822	8.7	21.5							
3 12	9 30.84	+25 56.6	1.995	2.857	11.9	21.8							
3 22	9 25.21	+25 36.9	2.118	2.893	14.5	22.1							
<b>406526</b>	2007 VG <sub>255</sub>		2 15.9	240°16'	1°5'/14.9	17							
1 12	10 21.98	+14 1.1	1.816	2.636	14.3	22.1							
1 22	10 16.95	+14 39.3	1.725	2.624	10.8	21.9							
2 1	10 9.38	+15 28.0	1.657	2.612	6.7	21.6							
2 11	9 59.95	+16 21.5	1.616	2.599	2.4	21.3							
2 21	9 49.67	+17 13.0	1.604	2.586	3.3	21.3							
3 2	9 39.77	+17 56.0	1.621	2.572	7.8	21.6							
3 12	9 31.45	+18 25.8	1.664	2.558	12.0	21.8							
3 22	9 25.53	+18 40.6	1.729	2.543	15.7	22.0							
<b>71049</b>	1999 XG <sub>88</sub>		2 15.9	126°70'	0°5'/16.5	18							
1 12	10 18.32	+ 8 58.5	2.200	3.002	12.7	19.3							
1 22	10 13.58	+ 9 21.3	2.121	3.008	9.7	19.1							
2 1	10 6.94	+ 9 55.3	2.066	3.015	6.1	18.8							
2 11	9 59.04	+10 36.8	2.039	3.021	2.3	18.6							
2 21	9 50.66	+11 21.3	2.041	3.027	1.9	18.6							
3 2	9 42.70	+12 4.0	2.073	3.032	5.7	18.8							
3 12	9 36.00	+12 40.5	2.133	3.038	9.3	19.1							
3 22	9 31.15	+13 8.2	2.218	3.043	12.3	19.3							
<b>270525</b>	2002 GJ <sub>67</sub>		2 15.9	235°75'	3°6'/12.7	17							
1 12	10 20.43	+21 36.8	2.250	3.075	11.7	20.9							
1 22	10 15.34	+22 27.9	2.165	3.066	8.8	20.7							
2 1	10 8.15	+23 21.9	2.105	3.056	5.8	20.5							
2 11	9 59.48	+24 12.5	2.073	3.046	3.7	20.3							
2 21	9 50.19	+24 53.9	2.071	3.036	4.9	20.4							
3 2	9 41.28	+25 21.3	2.097	3.026	7.9	20.6							
3 12	9 33.70	+25 32.4	2.150	3.015	11.0	20.7							
3 22	9 28.13	+25 27.4	2.226	3.004	13.8	20.9							
<b>466713</b>	2014 WB <sub>470</sub>		2 15.9	48°77'	0°9'/15.4	18							
1 12	10 20.89	+13 33.1	1.665	2.490	15.1	21.5							
1 22	10 16.00	+13 51.6	1.598	2.500	11.3	21.3							
2 1	10 8.64	+14 19.6	1.554	2.510	7.0	21.1							
2 11	9 59.63	+14 51.7	1.537	2.520	2.3	20.8							
2 21	9 50.09	+15 22.1	1.547	2.531	2.9	20.9							
3 2	9 41.23	+15 45.5	1.585	2.542	7.4	21.2							
3 12	9 34.14	+15 58.4	1.649	2.553	11.6	21.4							
3 22	9 29.49	+15 59.3	1.735	2.564	15.1	21.7							
<b>65576</b>	3277 T-2		2 15.9	181°72'	3°2'/13.6	18							
1 12	10 24.77	+18 44.2	1.844	2.667	14.0	19.9							
1 22	10 18.90	+19 34.5	1.767	2.668	10.5	19.6							
2 1	10 10.48	+20 30.6	1.715	2.669	6.6	19.4							
2 11	10 0.29	+21 25.0	1.690	2.669	3.4	19.2							
2 21	9 49.40	+22 10.7	1.695	2.668	4.7	19.3							
3 2	9 39.09	+22 41.8	1.728	2.667	8.5	19.5							
3 12	9 30.50	+22 55.6	1.787	2.664	12.3	19.7							
3 22	9 24.40	+22 52.4	1.869	2.662	15.5	19.9							
<b>188050</b>	2001 VB <sub>53</sub>		2 15.9	79°04'	7°7'/22.4	18							
1 12	10 18.89	- 9 10.4	1.852	2.581	17.4	19.8							
1 22	10 14.34	- 9 47.5	1.777	2.593	14.7	19.6							
2 1	10 7.57	- 9 59.7	1.721	2.605	11.8	19.5							
2 11	9 59.29	- 9 45.5	1.689	2.617	9.1	19.3							
2 21	9 50.42	- 9 6.2	1.682	2.629	7.7	19.3							
3 2	9 42.05	- 8 6.7	1.701	2.641	8.5	19.3							
3 12	9 35.17	- 6 54.5	1.747	2.653	10.9	19.5							
3 22	9 30.46	- 5 37.9	1.816	2.665	13.6	19.7							
<b>272804</b>	2006 AP <sub>30</sub>		2 15.9	6°85'	0°3'/16.2	18							
1 12	10 21.03	+11 44.0	1.621	2.443	15.6	19.8							
1 22	10 16.25	+11 34.9	1.545	2.444	11.8	19.6							
2 1	10 8.89	+11 35.9	1.491	2.445	7.5	19.3							
2 11	9 59.76	+11 43.3	1.463	2.446	2.6	19.1							
2 21	9 49.96	+11 52.9	1.463	2.449	2.4	19.0							
3 2	9 40.79	+12 0.1	1.490	2.451	7.3	19.3							
3 12	9 33.39	+12 1.5	1.543	2.455	11.7	19.6							
3 22	9 28.52	+11 54.8	1.618	2.458	15.4	19.8							
<b>1990</b>	Pilcher		2 15.9	304°81'	2°0'/17.2	18							
1 12	10 19.60	+ 5 48.4	1.310	2.131	18.6	16.3							
1 22	10 15.83	+ 6 3.8	1.230	2.126	14.5	16.0							
2 1	10 9.00	+ 6 41.3	1.171	2.120	9.6	15.7							
2 11	9 59.90	+ 7 37.2	1.135	2.115	4.2	15.4							
2 21	9 49.78	+ 8 44.5	1.124	2.110	3.0	15.3							
3 2	9 40.22	+ 9 53.7	1.140	2.105	8.3	15.6							
3 12	9 32.69	+10 55.9	1.179	2.100	13.6	15.9							
3 22	9 28.15	+11 44.6	1.239	2.096	18.2	16.2							
<b>224346</b>	2005 UF <sub>103</sub>		2 15.9										