

EPHEMERIDES

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>132328</b>	2002 <i>GH</i> <sub>27</sub>		1 22.9 142°55	4°9/19.9	18		<b>444339</b>	2005 <i>WF</i> <sub>109</sub>		1 23.0 36°63	4°2/24.5	18	
12 23	8 47.38	+31 7.6	2.024	2.870	12.0	20.0	12 23	8 43.54	+11 2.0	1.141	1.996	18.6	20.4
1 2	8 39.88	+32 28.3	1.970	2.883	8.8	19.9	1 2	8 37.81	+10 40.1	1.090	2.007	13.8	20.2
1 12	8 30.03	+33 44.7	1.942	2.894	5.9	19.7	1 12	8 29.12	+10 36.1	1.060	2.018	8.6	19.9
1 22	8 18.76	+34 48.9	1.944	2.905	5.0	19.7	1 22	8 18.72	+10 48.5	1.053	2.031	4.4	19.7
2 1	8 7.33	+35 35.0	1.975	2.916	7.0	19.8	2 1	8 8.27	+11 13.1	1.071	2.044	6.2	19.9
2 11	7 57.07	+36 0.6	2.034	2.925	10.0	20.0	2 11	7 59.47	+11 44.6	1.114	2.057	11.0	20.2
2 21	7 48.99	+36 7.0	2.118	2.934	12.9	20.2	2 21	7 53.55	+12 17.4	1.179	2.071	15.7	20.5
3 2	7 43.76	+35 57.3	2.223	2.942	15.3	20.4	3 2	7 51.13	+12 47.1	1.263	2.086	19.6	20.8
<b>416996</b>	2005 <i>TY</i> <sub>157</sub>		1 22.9 102°93	0°8/23.4	18		<b>374541</b>	2006 <i>BV</i> <sub>66</sub>		1 23.0 65°44	0°4/22.8	18	
12 23	8 42.78	+16 7.4	1.922	2.762	12.8	21.8	12 23	8 40.86	+18 21.6	1.889	2.737	12.6	20.7
1 2	8 36.41	+16 24.2	1.860	2.774	9.1	21.6	1 2	8 35.22	+19 3.3	1.822	2.742	8.9	20.5
1 12	8 28.07	+16 48.7	1.824	2.787	5.0	21.4	1 12	8 27.52	+19 52.3	1.781	2.747	4.8	20.3
1 22	8 18.59	+17 17.7	1.816	2.799	1.0	21.1	1 22	8 18.58	+20 43.7	1.769	2.752	0.5	19.9
2 1	8 9.04	+17 47.3	1.838	2.812	3.8	21.3	2 1	8 9.46	+21 32.5	1.785	2.758	4.1	20.2
2 11	8 0.54	+18 14.2	1.889	2.823	7.9	21.6	2 11	8 1.31	+22 14.4	1.830	2.763	8.2	20.5
2 21	7 53.92	+18 36.0	1.966	2.835	11.5	21.8	2 21	7 55.04	+22 47.0	1.901	2.768	11.9	20.7
3 2	7 49.77	+18 51.8	2.065	2.846	14.4	22.1	3 2	7 51.27	+23 9.5	1.994	2.773	14.9	20.9
<b>169321</b>	2001 <i>TP</i> <sub>142</sub>		1 22.9 148°23	1°0/22.2	18		<b>83632</b>	2001 <i>SE</i> <sub>321</sub>		1 23.0 89°58	0°6/23.5	18	
12 23	8 40.03	+21 45.9	2.763	3.603	9.3	21.2	12 23	8 39.01	+14 53.5	2.298	3.134	11.1	19.6
1 2	8 34.10	+22 19.8	2.694	3.611	6.5	21.0	1 2	8 33.58	+15 38.1	2.232	3.145	7.9	19.4
1 12	8 26.71	+22 55.9	2.654	3.619	3.5	20.8	1 12	8 26.51	+16 31.3	2.193	3.156	4.4	19.2
1 22	8 18.47	+23 31.0	2.643	3.626	1.0	20.7	1 22	8 18.48	+17 29.3	2.183	3.167	0.8	18.9
2 1	8 10.13	+24 1.9	2.664	3.632	3.3	20.9	2 1	8 10.33	+18 27.8	2.204	3.177	3.3	19.2
2 11	8 2.48	+24 26.3	2.715	3.639	6.3	21.1	2 11	8 2.95	+19 22.6	2.255	3.188	6.8	19.4
2 21	7 56.16	+24 43.2	2.794	3.645	9.1	21.2	2 21	7 57.07	+20 10.9	2.333	3.199	10.0	19.6
3 2	7 51.65	+24 52.4	2.897	3.650	11.4	21.4	3 2	7 53.19	+20 50.9	2.434	3.209	12.7	19.8
<b>465470</b>	2008 <i>SM</i> <sub>256</sub>		1 22.9 108°13	4°4/25.9	18		<b>29561</b>	latteri		1 23.0 92°15	3°9/20.6	18	
12 23	8 39.63	+ 4 25.5	2.278	3.077	12.4	22.1	12 23	8 42.51	+30 12.1	2.276	3.125	10.7	18.2
1 2	8 33.93	+ 4 27.6	2.211	3.090	9.7	21.9	1 2	8 36.16	+31 3.1	2.221	3.137	7.8	18.1
1 12	8 26.66	+ 4 44.8	2.169	3.104	6.8	21.7	1 12	8 27.93	+31 50.3	2.192	3.148	5.0	17.9
1 22	8 18.48	+ 5 16.0	2.155	3.117	4.6	21.6	1 22	8 18.61	+32 28.5	2.192	3.160	3.9	17.9
2 1	8 10.21	+ 5 58.7	2.171	3.130	4.9	21.7	2 1	8 9.22	+32 53.7	2.222	3.171	5.7	18.0
2 11	8 2.72	+ 6 48.9	2.216	3.143	7.3	21.8	2 11	8 0.82	+33 4.2	2.280	3.183	8.5	18.2
2 21	7 56.72	+ 7 42.4	2.287	3.155	10.1	22.0	2 21	7 54.22	+33 0.5	2.364	3.194	11.2	18.4
3 2	7 52.69	+ 8 35.3	2.383	3.168	12.6	22.2	3 2	7 49.97	+32 44.9	2.469	3.205	13.6	18.6
<b>411914</b>	2012 <i>FD</i> <sub>67</sub>		1 22.9 35°07	0°1/23.0	18		<b>179092</b>	2001 <i>SD</i> <sub>177</sub>		1 23.0 138°78	3°4/25.1	18	
12 23	8 41.63	+17 20.6	1.701	2.551	13.6	21.4	12 23	8 41.09	+ 7 31.7	2.067	2.881	13.0	20.6
1 2	8 35.94	+17 53.6	1.633	2.553	9.7	21.1	1 2	8 35.16	+ 7 49.0	1.996	2.889	9.8	20.4
1 12	8 27.97	+18 35.5	1.590	2.555	5.3	20.9	1 12	8 27.41	+ 8 21.1	1.951	2.898	6.4	20.3
1 22	8 18.61	+19 21.6	1.574	2.558	0.5	20.5	1 22	8 18.57	+ 9 6.0	1.933	2.905	3.7	20.1
2 1	8 9.03	+20 6.5	1.586	2.560	4.3	20.8	2 1	8 9.58	+10 0.0	1.945	2.912	4.5	20.2
2 11	8 0.53	+20 45.7	1.627	2.562	8.8	21.1	2 11	8 1.45	+10 58.3	1.986	2.919	7.6	20.4
2 21	7 54.10	+21 16.6	1.692	2.565	12.8	21.3	2 21	7 54.96	+11 56.5	2.054	2.926	10.9	20.6
3 2	7 50.40	+21 37.8	1.779	2.568	16.1	21.6	3 2	7 50.70	+12 50.9	2.146	2.932	13.8	20.8
<b>61460</b>	2000 <i>QX</i> <sub>30</sub>		1 22.9 210°67	0°3/23.2	18		<b>766</b>	Moguntia		1 23.0 33°63	5°1/20.5	18	
12 23	8 43.90	+16 5.2	1.787	2.629	13.5	20.2	12 23	8 44.19	+32 46.4	1.917	2.770	12.2	14.5
1 2	8 37.58	+16 47.7	1.708	2.624	9.7	20.0	1 2	8 37.66	+33 28.2	1.860	2.775	9.1	14.3
1 12	8 28.90	+17 40.8	1.654	2.618	5.3	19.7	1 12	8 28.84	+34 3.3	1.828	2.781	6.2	14.2
1 22	8 18.70	+18 39.7	1.628	2.612	0.7	19.4	1 22	8 18.70	+34 25.7	1.824	2.787	5.1	14.1
2 1	8 8.14	+19 38.7	1.632	2.606	4.3	19.6	2 1	8 8.50	+34 31.0	1.847	2.793	6.9	14.2
2 11	7 58.53	+20 32.3	1.665	2.598	8.8	19.9	2 11	7 59.55	+34 18.5	1.898	2.800	10.0	14.4
2 21	7 50.94	+21 17.0	1.724	2.591	12.9	20.1	2 21	7 52.82	+33 50.1	1.973	2.807	13.0	14.6
3 2	7 46.12	+21 51.3	1.804	2.583	16.3	20.3	3 2	7 48.90	+33 9.3	2.069	2.814	15.6	14.8
<b>337848</b>	2001 <i>VZ</i> <sub>95</sub>		1 22.9 92°21	2°2/21.3	18		<b>289129</b>	2004 <i>UL</i> <sub>6</sub>		1 23.0 64°44	2°7/24.1	18	
12 23	8 40.88	+24 0.9	2.495	3.341	10.0	20.6	12 23	8 44.78	+12 35.7	1.363	2.209	16.6	20.4
1 2	8 34.82	+25 11.7	2.443	3.362	7.0	20.4	1 2	8 38.30	+12 34.4	1.313	2.227	12.1	20.2
1 12	8 27.14	+26 23.6	2.420	3.383	3.9	20.2	1 12	8 29.24	+12 47.4	1.285	2.245	7.2	19.9
1 22	8 18.53	+27 31.4	2.426	3.404	2.2	20.1	1 22	8 18.73	+13 11.6	1.283	2.263	3.0	19.7
2 1	8 9.83	+28 30.6	2.464	3.424	4.3	20.3	2 1	8 8.26	+13 42.4	1.308	2.281	5.1	19.9
2 11	8 1.94	+29 18.0	2.531	3.444	7.3	20.5	2 11	7 59.28	+14 14.8	1.360	2.300	9.7	20.2
2 21	7 55.57	+29 52.6	2.626	3.464	10.0	20.7	2 21	7 52.87	+14 45.1	1.435	2.318	14.0	20.5
3 2	7 51.23	+30 15.0	2.744	3.484	12.2	20.9	3 2	7 49.60	+15 10.2	1.531	2.336	17.6	20.8
<b>416267</b>	2003 <i>FN</i> <sub>93</sub>		1 23.0 298°33	8°6/17.7	18		<b>416938</b>	2005 <i>SB</i> <sub>119</sub>		1 23.0 152°25	0°2/23.1	18	
12 23	8 46.30	+39 9.8	1.735	2.583	13.6	20.3	12 23	8 42.32	+16 47.6	2.549	3.379	10.3	22.1
1 2	8 40.00	+40 41.2	1.661	2.562	10.9	20.1	1 2	8 35.78	+17 25.8	2.480	3.390	7.3	22.0
1 12	8 30.53	+42 3.0	1.612	2.542	9.0	20.0	1 12	8 27.65	+18 10.1	2.438	3.401	4.0	21.8
1 22	8 18.87	+43 4.8	1.588	2.522	8.8	19.9	1 22	8 18.60	+18 56.9	2.427	3.410	0.4	21.5
2 1	8 6.60	+43 38.3	1.590	2.502	10.7	20.0	2 1	8 9.42	+19 42.7	2.447	3.419	3.2	21.7
2 11	7 55.58	+43 40.7	1.617	2.483	13.6	20.1	2 11	8 0.98	+20 24.1	2.499	3.428	6.5	22.0
2 21	7 47.30	+43 15.0	1.665	2.463	16.6	20.3	2 21	7 53.99	+20 59.1	2.578	3.435	9.5	22.2
3 2	7 42.69	+42 27.1	1.731	2.444	19.3	20.4	3 2	7 48.96	+21 26.7	2.682	3.442	12.0	22.4
<b>39172</b>	2000 <i>WZ</i> <sub>148</sub>		1 23.0 219°85	4°9/26.0	18		<b>370401</b>	2002 <i>TW</i> <sub>194</sub>		1 23.0 75°96	1°5/23.9	18	
12 23	8 39.24	+ 3 48.2	1.987	2.792	13.8	19.3	12 23	8 40.76					

EPHEMERIDES

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>111281</b>	2001 <i>XC</i> <sub>41</sub>		1 23.0	1°01'	4°9'/20.9	18	<b>26618</b>	Yixinli		1 23.0	236°91'	0°3'/23.2	18
12 23	8 45.14	+30 42.1	1.615	2.475	13.8	18.8	12 23	8 40.26	+17 29.5	2.422	3.259	10.5	19.4
1 2	8 38.70	+31 19.9	1.553	2.474	10.1	18.6	1 2	8 34.51	+17 46.5	2.337	3.251	7.5	19.1
1 12	8 29.55	+31 52.5	1.515	2.473	6.5	18.4	1 12	8 27.08	+18 9.2	2.279	3.243	4.1	18.9
1 22	8 18.80	+32 13.0	1.503	2.473	4.9	18.3	1 22	8 18.61	+18 34.8	2.251	3.235	0.5	18.6
2 1	8 7.90	+32 16.1	1.519	2.474	7.2	18.4	2 1	8 9.92	+19 0.2	2.253	3.226	3.3	18.8
2 11	7 58.40	+32 0.6	1.561	2.475	10.9	18.6	2 11	8 1.92	+19 22.9	2.285	3.217	6.8	19.0
2 21	7 51.47	+31 28.8	1.627	2.476	14.5	18.8	2 21	7 55.35	+19 41.0	2.344	3.208	10.1	19.2
3 2	7 47.74	+30 44.4	1.712	2.477	17.6	19.1	3 2	7 50.80	+19 53.6	2.426	3.198	12.8	19.4
<b>494205</b>	2016 <i>HT</i> <sub>13</sub>		1 23.0	171°20'	4°0'/25.5	18	<b>448113</b>	2008 <i>PR</i> <sub>7</sub>		1 23.0	115°97'	2°0'/23.8	18
12 23	8 39.23	+6 1.1	2.351	3.156	11.9	21.4	12 23	8 47.37	+14 23.9	1.551	2.390	15.3	21.4
1 2	8 33.71	+5 53.9	2.273	3.157	9.2	21.2	1 2	8 40.00	+14 20.0	1.492	2.404	11.1	21.2
1 12	8 26.60	+5 59.9	2.220	3.158	6.4	21.0	1 12	8 30.16	+14 26.6	1.458	2.418	6.4	20.9
1 22	8 18.53	+6 18.5	2.194	3.159	4.2	20.9	1 22	8 18.90	+14 40.7	1.450	2.432	2.2	20.7
2 1	8 10.30	+6 47.6	2.198	3.160	4.7	20.9	2 1	8 7.61	+14 58.8	1.471	2.444	4.7	20.9
2 11	8 2.76	+7 24.3	2.232	3.160	7.2	21.1	2 11	7 57.69	+15 17.2	1.521	2.457	9.2	21.2
2 21	7 56.63	+8 4.8	2.292	3.161	10.1	21.3	2 21	7 50.20	+15 33.4	1.595	2.469	13.4	21.5
3 2	7 52.44	+8 45.8	2.377	3.161	12.7	21.4	3 2	7 45.74	+15 45.7	1.690	2.480	16.8	21.7
<b>2939</b>	Coconino		1 23.0	272°31'	1°9'/22.2	18 R	<b>296350</b>	2009 <i>FJ</i> <sub>11</sub>		1 23.0	175°69'	3°1'/24.7	18
12 23	8 45.08	+23 9.7	1.687	2.541	13.5	16.5	12 23	8 42.81	+9 18.8	1.951	2.771	13.4	21.5
1 2	8 38.70	+23 38.2	1.601	2.524	9.7	16.3	1 2	8 36.55	+9 28.1	1.875	2.773	10.1	21.3
1 12	8 29.66	+24 10.0	1.541	2.507	5.4	16.0	1 12	8 28.27	+9 51.2	1.824	2.775	6.4	21.1
1 22	8 18.84	+24 39.3	1.507	2.489	1.9	15.7	1 22	8 18.74	+10 26.2	1.801	2.776	3.4	20.9
2 1	8 7.55	+25 0.9	1.503	2.471	5.3	15.9	2 1	8 9.00	+11 9.5	1.807	2.777	4.5	21.0
2 11	7 57.29	+25 11.4	1.525	2.454	9.9	16.1	2 11	8 0.15	+11 56.9	1.843	2.777	8.1	21.2
2 21	7 49.30	+25 10.0	1.573	2.436	14.2	16.3	2 21	7 53.08	+12 44.1	1.905	2.776	11.7	21.4
3 2	7 44.41	+24 58.0	1.641	2.417	17.8	16.5	3 2	7 48.44	+13 27.8	1.990	2.775	14.8	21.6
<b>135786</b>	2002 <i>RL</i> <sub>84</sub>		1 23.0	72°40'	3°3'/21.7	18	<b>456407</b>	2006 <i>UL</i> <sub>240</sub>		1 23.0	346°07'	2°7'/24.2	18
12 23	8 49.13	+27 1.0	1.592	2.446	14.2	19.7	12 23	8 42.27	+12 11.3	1.680	2.518	14.4	21.4
1 2	8 41.09	+27 32.6	1.554	2.475	10.1	19.5	1 2	8 36.42	+12 8.5	1.608	2.518	10.6	21.2
1 12	8 30.61	+28 1.0	1.541	2.504	5.8	19.3	1 12	8 28.29	+12 18.1	1.559	2.517	6.5	21.0
1 22	8 18.89	+28 20.3	1.555	2.532	3.3	19.2	1 22	8 18.75	+12 38.0	1.537	2.517	2.9	20.7
2 1	8 7.44	+28 26.1	1.598	2.561	5.9	19.4	2 1	8 8.98	+13 4.8	1.544	2.516	4.6	20.8
2 11	7 57.67	+28 17.9	1.669	2.589	9.8	19.7	2 11	8 0.26	+13 34.8	1.578	2.516	8.8	21.1
2 21	7 50.53	+27 57.3	1.764	2.617	13.4	20.0	2 21	7 53.59	+14 4.0	1.637	2.516	12.8	21.3
3 2	7 46.50	+27 27.6	1.880	2.644	16.3	20.3	3 2	7 49.65	+14 29.9	1.718	2.515	16.3	21.6
<b>56459</b>	2000 <i>GD</i> <sub>96</sub>		1 23.0	233°09'	1°7'/23.7	18	<b>49545</b>	1999 <i>CJ</i> <sub>77</sub>		1 23.0	312°37'	0°8'/23.4	18
12 23	8 44.59	+14 15.7	1.654	2.494	14.5	19.7	12 23	8 41.60	+17 22.0	2.144	2.984	11.6	18.8
1 2	8 38.22	+14 27.5	1.573	2.486	10.6	19.4	1 2	8 35.56	+17 14.7	2.066	2.981	8.4	18.6
1 12	8 29.33	+14 50.8	1.516	2.477	6.1	19.1	1 12	8 27.68	+17 12.6	2.014	2.978	4.7	18.4
1 22	8 18.81	+15 22.3	1.486	2.468	1.9	18.8	1 22	8 18.69	+17 13.5	1.991	2.974	1.0	18.1
2 1	8 7.89	+15 57.9	1.484	2.458	4.5	19.0	2 1	8 9.53	+17 15.3	1.998	2.971	3.6	18.3
2 11	7 57.99	+16 32.9	1.511	2.448	9.3	19.3	2 11	8 1.23	+17 16.0	2.034	2.968	7.4	18.5
2 21	7 50.25	+17 3.9	1.563	2.437	13.6	19.5	2 21	7 54.60	+17 14.4	2.096	2.965	10.9	18.7
3 2	7 45.45	+17 28.9	1.636	2.426	17.3	19.7	3 2	7 50.22	+17 9.8	2.182	2.963	13.8	18.9
<b>333378</b>	2002 <i>PH</i> <sub>123</sub>		1 23.0	181°67'	4°0'/25.8	18	<b>343535</b>	2010 <i>EZ</i> <sub>139</sub>		1 23.0	268°34'	4°0'/25.5	17
12 23	8 38.83	+4 45.0	2.538	3.334	11.4	21.2	12 23	8 38.49	+6 8.3	2.302	3.109	12.0	21.1
1 2	8 33.36	+4 49.6	2.456	3.335	8.9	21.1	1 2	8 33.26	+6 2.8	2.221	3.107	9.3	20.9
1 12	8 26.39	+5 7.9	2.400	3.335	6.2	20.9	1 12	8 26.41	+6 11.0	2.165	3.105	6.4	20.7
1 22	8 18.52	+5 38.9	2.372	3.335	4.2	20.8	1 22	8 18.57	+6 31.9	2.137	3.102	4.2	20.6
2 1	8 10.49	+6 20.5	2.375	3.334	4.5	20.8	2 1	8 10.54	+7 3.6	2.138	3.100	4.7	20.6
2 11	8 3.08	+7 9.3	2.407	3.334	6.8	20.9	2 11	8 3.20	+7 42.9	2.168	3.098	7.3	20.8
2 21	7 56.96	+8 1.4	2.466	3.332	9.5	21.1	2 21	7 57.26	+8 26.0	2.225	3.096	10.2	20.9
3 2	7 52.64	+8 53.4	2.550	3.331	12.0	21.3	3 2	7 53.29	+9 9.3	2.305	3.093	12.9	21.1
<b>40378</b>	1999 <i>NW</i> <sub>40</sub>		1 23.0	156°53'	2°2'/21.9	18	<b>426877</b>	2013 <i>WB</i> <sub>37</sub>		1 23.0	117°37'	1°8'/23.9	18
12 23	8 46.99	+24 38.2	1.922	2.769	12.5	19.4	12 23	8 41.16	+13 59.9	2.334	3.163	11.2	21.0
1 2	8 39.56	+25 8.1	1.857	2.776	8.9	19.2	1 2	8 35.06	+13 49.8	2.262	3.168	8.2	20.8
1 12	8 29.87	+25 38.2	1.818	2.782	4.9	18.9	1 12	8 27.34	+13 46.9	2.216	3.174	4.8	20.6
1 22	8 18.85	+26 3.5	1.807	2.787	2.2	18.8	1 22	8 18.66	+13 49.5	2.199	3.179	1.9	20.5
2 1	8 7.73	+26 19.6	1.827	2.793	4.9	19.0	2 1	8 9.90	+13 56.0	2.213	3.184	3.5	20.6
2 11	7 57.77	+26 24.4	1.875	2.797	8.8	19.2	2 11	8 1.94	+14 4.1	2.256	3.190	6.8	20.8
2 21	7 49.94	+26 18.3	1.950	2.801	12.4	19.4	2 21	7 55.49	+14 12.0	2.327	3.195	10.0	21.0
3 2	7 44.87	+26 2.8	2.046	2.804	15.3	19.6	3 2	7 51.08	+14 18.4	2.421	3.200	12.6	21.2
<b>523744</b>	2014 <i>TC</i> <sub>86</sub>		1 23.0	32°60'	0°0'/22.8	18	<b>259874</b>	2004 <i>DT</i> <sub>13</sub>		1 23.0	252°65'	1°2'/22.4	18
12 23	8 20.24	+20 39.2	40.834	41.672	0.7	22.1	12 23	8 43.36	+21 1.3	1.787	2.638	13.0	21.1
1 2	8 19.49	+20 41.8	40.757	41.673	0.5	22.0	1 2	8 37.26	+21 35.4	1.710	2.631	9.3	20.9
1 12	8 18.67	+20 44.6	40.709	41.674	0.3	22.0	1 12	8 28.79	+22 14.6	1.657	2.624	5.0	20.6
1 22	8 17.81	+20 47.4	40.691	41.675	0.0	22.0	1 22	8 18.82	+22 53.8	1.633	2.616	1.2	20.3
2 1	8 16.95	+20 50.2	40.704	41.675	0.2	22.0	2 1	8 8.53	+23 28.0	1.638	2.609	4.7	20.6
2 11	8 16.12	+20 52.8	40.747	41.676	0.5	22.0	2 11	7 59.24	+23 53.3	1.671	2.601	9.1	20.8
2 21	8 15.35	+20 55.2	40.820	41.677	0.7	22.1	2 21	7 52.02	+24 8.2	1.729	2.593	13.0	21.0
3 2	8 14.67	+20 57.2	40.919	41.678	0.9	22.1	3 2	7 47.60	+24 12.7	1.808	2.585	16.4	21.2
<b>36857</b>	2000 <i>SL</i> <sub>126</sub>		1 23.0	180°20'	0°3'/23.2	18	<b>317602</b>	2002 <i>XM</i> <sub>94</sub>		1 23.0	55°22'	1°6'/22.4	18
12 23	8 44.41	+16 22.3	2.081	2.916	12.1	19.9	12 23	8 45.18	+22 13.0	1			

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1 23.0

1 23.0

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>404359</b>	2013 <i>GP</i> <sub>19</sub>		1 23.0	20°58	1°0/23.5	18	<b>193101</b>	2000 <i>GQ</i> <sub>121</sub>		1 23.0	215°79	0°3/22.9	18
12 23	8 41.55	+14 14.3	1.394	2.248	15.9	21.0	12 23	8 45.59	+18 34.3	1.696	2.542	13.9	21.5
1 2	8 36.30	+15 1.2	1.329	2.250	11.5	20.8	1 2	8 38.93	+19 3.6	1.618	2.537	9.9	21.2
1 12	8 28.38	+16 3.5	1.287	2.252	6.4	20.5	1 12	8 29.75	+19 40.5	1.565	2.530	5.4	20.9
1 22	8 18.78	+17 15.4	1.271	2.255	1.3	20.2	1 22	8 18.94	+20 20.3	1.540	2.524	0.5	20.6
2 1	8 8.90	+18 29.4	1.283	2.258	4.8	20.4	2 1	8 7.77	+20 57.5	1.544	2.516	4.6	20.8
2 11	8 0.25	+19 37.9	1.321	2.261	9.9	20.7	2 11	7 57.67	+21 28.0	1.576	2.508	9.3	21.1
2 21	7 54.02	+20 35.9	1.382	2.265	14.5	21.0	2 21	7 49.77	+21 49.5	1.633	2.500	13.5	21.3
3 2	7 50.97	+21 20.9	1.464	2.269	18.3	21.3	3 2	7 44.84	+22 1.7	1.711	2.491	17.0	21.6
<b>522344</b>	2016 <i>CX</i> <sub>296</sub>		1 23.0	174°65	3°6/20.6	18	<b>154550</b>	2003 <i>GT</i> <sub>43</sub>		1 23.0	252°24	4°1/20.0	18
12 23	8 43.35	+28 25.8	2.267	3.115	10.8	21.5	12 23	8 43.33	+28 15.2	2.124	2.974	11.3	20.4
1 2	8 36.90	+29 28.6	2.200	3.117	7.8	21.3	1 2	8 37.23	+29 42.0	2.042	2.959	8.2	20.2
1 12	8 28.46	+30 30.0	2.160	3.118	4.9	21.2	1 12	8 28.83	+31 9.9	1.986	2.944	5.3	20.0
1 22	8 18.78	+31 24.1	2.149	3.119	3.6	21.1	1 22	8 18.86	+32 31.4	1.961	2.929	4.2	19.9
2 1	8 8.89	+32 5.9	2.168	3.120	5.6	21.2	2 1	8 8.41	+33 39.5	1.965	2.913	6.4	20.0
2 11	7 59.88	+32 32.6	2.217	3.121	8.6	21.4	2 11	7 58.71	+34 29.6	1.998	2.897	9.7	20.1
2 21	7 52.65	+32 44.2	2.290	3.121	11.5	21.6	2 21	7 50.85	+35 0.9	2.056	2.880	12.9	20.3
3 2	7 47.82	+32 42.4	2.386	3.120	14.0	21.8	3 2	7 45.61	+35 14.7	2.135	2.863	15.6	20.5
<b>496155</b>	2010 <i>UR</i> <sub>92</sub>		1 23.0	46°19	19°5/ 8.9	18	<b>143947</b>	2003 <i>YQ</i> <sub>117</sub>		1 23.0	56°67	13°9/ 2.4	17
12 23	8 43.35	-29 32.6	1.659	2.251	23.4	20.1	12 23	9 1.92	-16 49.8	1.370	2.053	24.4	18.7
1 2	8 37.38	-31 54.0	1.624	2.271	22.2	20.0	1 2	8 49.40	-17 35.2	1.367	2.133	20.8	18.6
1 12	8 28.88	-33 32.7	1.602	2.291	21.1	20.0	1 12	8 34.69	-17 34.8	1.381	2.209	17.5	18.6
1 22	8 18.83	-34 22.0	1.594	2.311	20.2	19.9	1 22	8 19.35	-16 48.4	1.417	2.283	14.9	18.7
2 1	8 8.57	-34 19.0	1.601	2.332	19.7	20.0	2 1	8 5.06	-15 22.0	1.479	2.355	13.9	18.8
2 11	7 59.53	-33 27.2	1.624	2.354	19.6	20.0	2 11	7 53.23	-13 28.1	1.565	2.423	14.4	19.0
2 21	7 52.83	-31 55.2	1.662	2.376	19.8	20.1	2 21	7 44.59	-11 20.4	1.676	2.490	15.8	19.3
3 2	7 49.18	-29 54.2	1.714	2.398	20.4	20.2	3 2	7 39.40	-9 10.9	1.808	2.554	17.5	19.5
<b>244407</b>	2002 <i>PG</i> <sub>141</sub>		1 23.0	103°66	3°4/24.8	18	<b>357637</b>	2005 <i>GM</i> <sub>52</sub>		1 23.0	123°70	5°3/19.9	18
12 23	8 45.72	+ 9 13.5	2.032	2.845	13.2	21.2	12 23	8 48.79	+34 42.9	2.261	3.098	11.2	21.7
1 2	8 38.28	+ 9 0.3	1.979	2.872	9.9	21.0	1 2	8 40.67	+35 44.7	2.214	3.118	8.4	21.6
1 12	8 29.03	+ 8 59.2	1.951	2.898	6.3	20.8	1 12	8 30.42	+36 38.4	2.195	3.138	6.1	21.5
1 22	8 18.83	+ 9 8.8	1.951	2.924	3.6	20.7	1 22	8 19.00	+37 17.7	2.205	3.158	5.4	21.5
2 1	8 8.70	+ 9 26.7	1.982	2.949	4.6	20.8	2 1	8 7.57	+37 38.6	2.245	3.176	6.9	21.6
2 11	7 59.66	+ 9 49.8	2.043	2.973	7.7	21.1	2 11	7 57.37	+37 40.2	2.313	3.194	9.4	21.8
2 21	7 52.47	+10 15.0	2.131	2.996	10.9	21.3	2 21	7 49.28	+37 24.8	2.406	3.211	11.9	22.0
3 2	7 47.62	+10 39.5	2.242	3.019	13.6	21.5	3 2	7 43.87	+36 56.0	2.521	3.227	14.0	22.1
<b>66912</b>	1999 <i>VH</i> <sub>167</sub>		1 23.0	287°33	0°1/23.0	18	<b>28070</b>	1998 <i>QS</i> <sub>25</sub>		1 23.0	102°67	1°1/22.4	18
12 23	8 41.33	+18 25.2	2.002	2.847	12.1	19.3	12 23	8 41.51	+20 57.2	2.048	2.896	11.7	18.5
1 2	8 35.53	+18 43.9	1.927	2.845	8.6	19.1	1 2	8 35.61	+21 32.9	1.980	2.901	8.3	18.3
1 12	8 27.74	+19 8.6	1.878	2.843	4.7	18.8	1 12	8 27.77	+22 12.8	1.939	2.905	4.5	18.0
1 22	8 18.73	+19 35.7	1.857	2.841	0.4	18.5	1 22	8 18.75	+22 52.4	1.926	2.910	1.1	17.8
2 1	8 9.52	+20 1.7	1.866	2.839	3.8	18.8	2 1	8 9.58	+23 27.3	1.944	2.914	4.1	18.0
2 11	8 1.21	+20 23.3	1.903	2.837	7.9	19.0	2 11	8 1.34	+23 54.3	1.990	2.918	7.9	18.3
2 21	7 54.67	+20 38.8	1.966	2.835	11.5	19.2	2 21	7 54.89	+24 12.0	2.062	2.923	11.4	18.5
3 2	7 50.54	+20 47.3	2.052	2.833	14.6	19.4	3 2	7 50.81	+24 20.4	2.156	2.927	14.2	18.7
<b>184404</b>	2005 <i>MD</i> <sub>15</sub>		1 23.0	162°77	1°5/23.9	18	<b>323499</b>	2004 <i>QA</i> <sub>4</sub>		1 23.0	164°39	3°3/21.1	18
12 23	8 41.82	+13 20.1	1.925	2.759	13.0	20.9	12 23	8 45.47	+29 18.8	2.356	3.198	10.6	21.6
1 2	8 35.90	+13 46.2	1.852	2.762	9.4	20.7	1 2	8 38.26	+29 53.8	2.289	3.203	7.7	21.4
1 12	8 27.95	+14 23.5	1.804	2.764	5.5	20.4	1 12	8 29.13	+30 25.5	2.250	3.208	4.8	21.2
1 22	8 18.75	+15 8.6	1.785	2.766	1.8	20.2	1 22	8 18.88	+30 49.1	2.240	3.212	3.3	21.1
2 1	8 9.35	+15 57.2	1.795	2.768	3.9	20.3	2 1	8 8.53	+31 0.9	2.261	3.215	5.2	21.2
2 11	8 0.85	+16 44.7	1.834	2.770	8.0	20.6	2 11	7 59.15	+30 59.7	2.311	3.218	8.2	21.4
2 21	7 54.16	+17 27.7	1.899	2.771	11.7	20.8	2 21	7 51.57	+30 46.3	2.388	3.221	11.0	21.6
3 2	7 49.91	+18 3.8	1.987	2.772	14.8	21.0	3 2	7 46.37	+30 22.7	2.486	3.222	13.5	21.8
<b>174969</b>	2004 <i>DT</i> <sub>29</sub>		1 23.0	356°84	0°1/23.0	18	<b>109133</b>	2001 <i>QH</i> <sub>52</sub>		1 23.0	97°76	0°4/23.3	18
12 23	8 41.92	+17 19.1	1.572	2.426	14.4	20.2	12 23	8 40.50	+17 7.3	2.417	3.253	10.6	20.0
1 2	8 36.37	+17 54.1	1.503	2.425	10.3	20.0	1 2	8 34.54	+17 28.6	2.356	3.269	7.5	19.9
1 12	8 28.36	+18 38.8	1.458	2.424	5.6	19.7	1 12	8 27.04	+17 55.5	2.322	3.286	4.1	19.7
1 22	8 18.80	+19 28.4	1.440	2.424	0.5	19.3	1 22	8 18.68	+18 24.9	2.318	3.302	0.6	19.4
2 1	8 8.97	+20 16.9	1.450	2.424	4.6	19.6	2 1	8 10.27	+18 53.8	2.345	3.318	3.2	19.7
2 11	8 0.27	+20 59.1	1.487	2.424	9.4	19.9	2 11	8 2.68	+19 19.6	2.401	3.333	6.6	19.9
2 21	7 53.79	+21 32.0	1.548	2.424	13.6	20.2	2 21	7 56.57	+19 40.5	2.485	3.349	9.6	20.1
3 2	7 50.25	+21 54.4	1.631	2.425	17.2	20.4	3 2	7 52.43	+19 55.6	2.592	3.364	12.1	20.3
<b>203610</b>	2002 <i>EC</i> <sub>67</sub>		1 23.0	310°81	0°1/23.0	18	<b>55987</b>	1998 <i>SO</i> <sub>27</sub>		1 23.0	79°78	14°6/15.8	18
12 23	8 43.73	+18 45.8	1.420	2.278	15.3	20.3	12 23	9 1.17	+51 15.3	1.409	2.224	17.9	17.9
1 2	8 37.95	+18 59.3	1.345	2.269	11.0	20.0	1 2	8 51.54	+53 43.0	1.398	2.251	15.8	17.9
1 12	8 29.35	+19 20.7	1.294	2.261	6.0	19.7	1 12	8 37.03	+55 38.5	1.408	2.278	14.7	17.9
1 22	8 18.90	+19 45.6	1.268	2.252	0.6	19.3	1 22	8 19.64	+56 47.8	1.441	2.304	14.9	17.9
2 1	8 8.07	+20 8.7	1.270	2.244	5.0	19.6	2 1	8 2.41	+57 5.4	1.495	2.331	16.1	18.1
2 11	7 58.48	+20 26.1	1.298	2.236	10.3	19.9	2 11	7 48.32	+56 36.4	1.569	2.356	17.8	18.3
2 21	7 51.40	+20 35.7	1.349	2.228	15.0	20.1	2 21	7 39.12	+55 32.4	1.661	2.382	19.6	18.5
3 2	7 47.65	+20 36.9	1.420	2.221	18.9	20.4	3 2	7 35.26	+54 5.5	1.767	2.407	21.2	18.7
<b>84348</b>	2002 <i>TQ</i> <sub>72</sub>		1 23.0	18°45	0°7/22.8	18	<b>407492</b>	2010 <i>VQ</i> <sub>58</sub>		1 23.0	357°58	8°6/19.6	18
12 23	8 43.60	+20 40.3	1.384	2.2									

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1 23.0

1 23.1

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>493191</b>	2014 <i>UZ</i> <sub>21</sub>		1 23.0 118°26'	3°2/24.9	18		<b>371908</b>	2008 <i>DD</i> <sub>16</sub>		1 23.0 295°00'	2°3/24.4	17	
12 23	8 41.29	+ 9 2.9	1.985	2.806	13.2	21.5	12 23	8 40.55	+10 25.3	1.671	2.507	14.6	21.1
1 2	8 35.40	+ 9 11.5	1.916	2.815	9.9	21.3	1 2	8 35.59	+11 11.5	1.571	2.480	10.9	20.8
1 12	8 27.63	+ 9 33.7	1.873	2.823	6.3	21.1	1 12	8 28.13	+12 17.3	1.495	2.453	6.6	20.5
1 22	8 18.75	+10 7.6	1.857	2.831	3.4	20.9	1 22	8 18.86	+13 39.6	1.446	2.426	2.6	20.2
2 1	8 9.74	+10 49.9	1.870	2.839	4.4	21.0	2 1	8 8.90	+15 11.9	1.425	2.399	4.6	20.3
2 11	8 1.62	+11 36.1	1.912	2.847	7.8	21.2	2 11	7 59.62	+16 46.5	1.432	2.372	9.4	20.5
2 21	7 55.24	+12 22.3	1.981	2.855	11.2	21.5	2 21	7 52.25	+18 16.0	1.465	2.345	14.0	20.7
3 2	7 51.15	+13 5.2	2.073	2.862	14.1	21.7	3 2	7 47.74	+19 35.3	1.520	2.318	18.0	20.9
<b>350243</b>	2012 <i>TZ</i> <sub>78</sub>		1 23.0 187°11'	0°5/23.3	18		<b>82918</b>	2001 <i>QR</i> <sub>104</sub>		1 23.0 202°71'	7°2/28.3	18	
12 23	8 46.86	+16 2.6	1.811	2.647	13.6	21.6	12 23	8 37.87	- 6 38.7	2.709	3.442	12.3	19.9
1 2	8 39.67	+16 37.5	1.734	2.647	9.8	21.3	1 2	8 32.68	- 7 6.2	2.625	3.439	10.5	19.7
1 12	8 30.10	+17 22.1	1.683	2.646	5.4	21.1	1 12	8 26.10	- 7 15.4	2.563	3.436	8.7	19.6
1 22	8 19.01	+18 11.9	1.661	2.645	0.8	20.7	1 22	8 18.66	- 7 5.0	2.528	3.433	7.5	19.5
2 1	8 7.61	+19 1.4	1.669	2.642	4.2	21.0	2 1	8 11.03	- 6 35.5	2.519	3.430	7.3	19.5
2 11	7 57.23	+19 46.0	1.706	2.638	8.8	21.3	2 11	8 3.95	- 5 49.5	2.539	3.427	8.4	19.6
2 21	7 48.94	+20 22.7	1.769	2.633	12.8	21.5	2 21	7 58.06	- 4 51.1	2.584	3.423	10.1	19.7
3 2	7 43.46	+20 50.2	1.855	2.628	16.2	21.7	3 2	7 53.83	- 3 45.2	2.653	3.419	12.0	19.8
<b>157098</b>	2004 <i>HN</i> <sub>61</sub>		1 23.0 142°14'	2°1/22.0	18		<b>81532</b>	2000 <i>HE</i> <sub>15</sub>		1 23.1 210°31'	0°9/23.5	18	
12 23	8 48.02	+23 8.5	1.753	2.601	13.4	21.5	12 23	8 42.27	+15 22.5	1.931	2.770	12.7	19.2
1 2	8 40.46	+23 51.3	1.693	2.613	9.5	21.3	1 2	8 36.29	+15 44.9	1.854	2.768	9.2	19.0
1 12	8 30.46	+24 36.3	1.659	2.624	5.2	21.0	1 12	8 28.24	+16 16.7	1.802	2.765	5.2	18.7
1 22	8 19.04	+25 17.5	1.653	2.634	2.1	20.8	1 22	8 18.87	+16 54.3	1.778	2.761	1.2	18.4
2 1	8 7.51	+25 49.3	1.677	2.644	5.1	21.1	2 1	8 9.26	+17 33.6	1.784	2.758	3.9	18.6
2 11	7 57.27	+26 8.9	1.730	2.653	9.3	21.3	2 11	8 0.53	+18 10.6	1.819	2.754	8.1	18.9
2 21	7 49.35	+26 15.9	1.807	2.661	13.0	21.6	2 21	7 53.63	+18 42.4	1.879	2.750	11.8	19.1
3 2	7 44.39	+26 11.9	1.906	2.669	16.1	21.8	3 2	7 49.21	+19 7.3	1.962	2.746	15.0	19.3
<b>35531</b>	1998 <i>FQ</i> <sub>70</sub>		1 23.0 48°96'	3°6/21.3	18		<b>120740</b>	1997 <i>UE</i> <sub>16</sub>		1 23.1 202°99'	2°9/21.3	18	
12 23	8 43.83	+27 16.4	1.717	2.575	13.1	18.2	12 23	8 45.03	+27 10.4	2.298	3.142	10.8	21.6
1 2	8 37.59	+28 2.9	1.660	2.582	9.4	18.0	1 2	8 38.11	+27 53.9	2.221	3.137	7.8	21.4
1 12	8 28.95	+28 48.1	1.627	2.590	5.6	17.8	1 12	8 29.17	+28 36.5	2.171	3.132	4.6	21.2
1 22	8 18.89	+29 25.3	1.622	2.598	3.6	17.7	1 22	8 18.97	+29 13.0	2.151	3.126	2.9	21.0
2 1	8 8.73	+29 49.3	1.646	2.606	6.1	17.8	2 1	8 8.52	+29 39.2	2.161	3.119	5.1	21.2
2 11	7 59.84	+29 57.8	1.696	2.614	9.8	18.1	2 11	7 58.94	+29 52.6	2.201	3.112	8.3	21.4
2 21	7 53.24	+29 51.3	1.771	2.623	13.4	18.3	2 21	7 51.13	+29 53.2	2.267	3.104	11.4	21.5
3 2	7 49.54	+29 32.3	1.866	2.631	16.3	18.5	3 2	7 45.72	+29 42.7	2.355	3.096	14.0	21.7
<b>331429</b>	2012 <i>GO</i> <sub>12</sub>		1 23.0 288°68'	6°5/26.6	17		<b>147899</b>	2006 <i>SS</i> <sub>18</sub>		1 23.1 129°97'	3°2/21.3	18	
12 23	8 39.49	+ 0 49.7	1.834	2.630	15.1	20.8	12 23	8 46.26	+26 57.2	2.034	2.881	11.9	21.6
1 2	8 34.52	+ 0 47.8	1.737	2.609	12.3	20.5	1 2	8 39.01	+27 46.9	1.978	2.895	8.5	21.4
1 12	8 27.39	+ 1 8.4	1.662	2.587	9.2	20.3	1 12	8 29.62	+28 35.1	1.947	2.909	5.0	21.2
1 22	8 18.77	+ 1 52.1	1.612	2.566	6.8	20.1	1 22	8 19.01	+29 16.0	1.946	2.922	3.2	21.1
2 1	8 9.65	+ 2 56.9	1.590	2.545	7.0	20.1	2 1	8 8.34	+29 44.9	1.976	2.934	5.4	21.3
2 11	8 1.20	+ 4 17.6	1.596	2.524	9.6	20.2	2 11	7 58.79	+29 59.6	2.033	2.946	8.8	21.5
2 21	7 54.46	+ 5 47.1	1.627	2.502	13.1	20.3	2 21	7 51.29	+30 0.5	2.117	2.957	12.0	21.7
3 2	7 50.21	+ 7 18.2	1.680	2.481	16.4	20.5	3 2	7 46.43	+29 49.8	2.222	2.968	14.6	21.9
<b>268614</b>	2006 <i>CT</i> <sub>46</sub>		1 23.0 195°16'	1°3/22.4	18		<b>19329</b>	1996 <i>XZ</i> <sub>30</sub>		1 23.1 73°58'	2°1/23.9	18	
12 23	8 42.36	+21 57.6	2.074	2.922	11.6	21.1	12 23	8 45.53	+14 15.8	1.499	2.343	15.5	17.6
1 2	8 36.25	+22 25.4	2.002	2.921	8.2	20.9	1 2	8 38.77	+14 8.0	1.444	2.359	11.3	17.4
1 12	8 28.14	+22 56.2	1.955	2.921	4.5	20.7	1 12	8 29.57	+14 11.2	1.414	2.375	6.5	17.1
1 22	8 18.83	+23 25.8	1.937	2.920	1.3	20.4	1 22	8 19.01	+14 22.6	1.409	2.391	2.3	16.9
2 1	8 9.33	+23 50.2	1.949	2.919	4.2	20.7	2 1	8 8.45	+14 38.7	1.433	2.407	4.7	17.1
2 11	8 0.74	+24 6.7	1.990	2.918	8.0	20.9	2 11	7 59.29	+14 55.9	1.484	2.423	9.2	17.4
2 21	7 53.96	+24 14.3	2.057	2.916	11.5	21.1	2 21	7 52.53	+15 11.4	1.560	2.439	13.4	17.7
3 2	7 49.57	+24 13.3	2.146	2.915	14.4	21.3	3 2	7 48.76	+15 23.3	1.657	2.454	16.8	17.9
<b>307618</b>	2003 <i>RC</i> <sub>22</sub>		1 23.0 88°80'	1°4/23.6	18		<b>63956</b>	2001 <i>SJ</i> <sub>67</sub>		1 23.1 43°36'	4°6/25.2	18	
12 23	8 46.45	+15 48.9	1.598	2.441	14.8	20.4	12 23	8 42.20	+ 7 40.9	1.322	2.160	17.5	19.3
1 2	8 39.28	+15 45.0	1.544	2.458	10.6	20.2	1 2	8 36.78	+ 7 44.9	1.261	2.166	13.3	19.1
1 12	8 29.77	+15 49.7	1.514	2.476	6.0	19.9	1 12	8 28.68	+ 8 10.3	1.221	2.173	8.7	18.8
1 22	8 18.98	+16 0.1	1.511	2.494	1.6	19.7	1 22	8 18.94	+ 8 55.0	1.206	2.180	5.0	18.6
2 1	8 8.21	+16 12.7	1.537	2.511	4.4	19.9	2 1	8 8.99	+ 9 53.9	1.217	2.187	6.0	18.7
2 11	7 58.81	+16 24.4	1.591	2.528	8.9	20.2	2 11	8 0.36	+10 59.7	1.253	2.194	10.3	19.0
2 21	7 51.75	+16 33.4	1.671	2.545	12.9	20.5	2 21	7 54.20	+12 5.3	1.314	2.202	14.7	19.2
3 2	7 47.60	+16 38.4	1.771	2.561	16.2	20.8	3 2	7 51.24	+13 5.2	1.394	2.210	18.4	19.5
<b>197576</b>	2004 <i>GX</i> <sub>40</sub>		1 23.0 198°29'	0°4/22.9	18		<b>409923</b>	2006 <i>TV</i> <sub>98</sub>		1 23.1 142°78'	0°6/22.7	18	
12 23	8 46.81	+19 11.6	1.755	2.599	13.6	21.7	12 23	8 44.53	+19 49.9	2.151	2.990	11.6	22.8
1 2	8 39.72	+19 36.9	1.679	2.596	9.7	21.4	1 2	8 37.64	+20 22.8	2.087	3.002	8.2	22.6
1 12	8 30.16	+20 8.6	1.628	2.593	5.3	21.2	1 12	8 28.85	+20 59.9	2.049	3.014	4.4	22.3
1 22	8 19.03	+20 41.8	1.605	2.589	0.6	20.8	1 22	8 18.95	+21 37.2	2.041	3.024	0.7	22.1
2 1	8 7.60	+21 11.8	1.612	2.584	4.5	21.1	2 1	8 8.95	+22 10.6	2.063	3.034	3.8	22.3
2 11	7 57.26	+21 34.8	1.647	2.578	9.1	21.3	2 11	7 59.91	+22 37.1	2.116	3.043	7.6	22.6
2 21	7 49.10	+21 49.3	1.708	2.572	13.2	21.6	2 21	7 52.65	+22 55.3	2.195	3.052	10.9	22.8
3 2	7 43.87	+21 55.2	1.791	2.565	16.6	21.8	3 2	7 47.74	+23 5.3	2.297	3.060	13.7	23.0
<b>383687</b>	2007 <i>TU</i> <sub>304</sub>		1 23.0 124°10'	0°3/23.3	18		<b>202008</b>	2004 <i>QX</i> <sub>26</sub>		1 23.1 57°23'	4°1/21.5	17	
12 23	8 40.80	+17 9.4	2.464	3.299	10.5								

EPHEMERIDES

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>262850</b>	2007 <i>BK</i> <sub>19</sub>		1 23.1 23°91'	3°5'/21.3	18		<b>382271</b>	2012 <i>TM</i> <sub>180</sub>		1 23.1 287°55'	2°1'/24.1	17	
12 23	8 42.19	+25 5.1	1.496	2.362	14.3	19.6	12 23	8 40.45	+13 9.6	2.208	3.038	11.7	21.0
1 2	8 36.74	+26 10.7	1.440	2.367	10.2	19.4	1 2	8 34.88	+13 2.2	2.114	3.021	8.6	20.8
1 12	8 28.64	+27 18.4	1.407	2.373	5.9	19.2	1 12	8 27.47	+13 3.3	2.047	3.004	5.2	20.6
1 22	8 18.94	+28 20.2	1.401	2.379	3.5	19.1	1 22	8 18.87	+13 11.4	2.007	2.987	2.2	20.3
2 1	8 9.04	+29 8.6	1.423	2.386	6.4	19.2	2 1	8 9.96	+13 24.6	1.998	2.970	3.8	20.4
2 11	8 0.46	+29 39.6	1.470	2.393	10.7	19.5	2 11	8 1.72	+13 40.3	2.018	2.953	7.4	20.6
2 21	7 54.36	+29 52.7	1.541	2.401	14.6	19.8	2 21	7 55.01	+13 56.2	2.064	2.936	10.9	20.8
3 2	7 51.41	+29 49.9	1.631	2.410	17.8	20.0	3 2	7 50.45	+14 10.2	2.133	2.919	13.9	21.0
<b>28827</b>	2000 <i>JK</i> <sub>29</sub>		1 23.1 146°25'	1°9'/21.9	18		<b>53595</b>	2000 <i>CK</i> <sub>62</sub>		1 23.1 239°78'	3°7'/24.8	18	
12 23	8 44.68	+23 58.5	2.273	3.115	11.0	19.1	12 23	8 43.55	+ 9 17.8	1.552	2.384	15.7	19.0
1 2	8 37.71	+24 33.6	2.208	3.125	7.8	18.9	1 2	8 37.65	+ 9 24.5	1.473	2.377	11.9	18.7
1 12	8 28.88	+25 9.4	2.171	3.135	4.3	18.7	1 12	8 29.19	+ 9 48.7	1.416	2.369	7.6	18.5
1 22	8 18.97	+25 41.7	2.164	3.145	1.9	18.6	1 22	8 19.05	+10 28.2	1.386	2.362	4.0	18.2
2 1	8 8.97	+26 6.4	2.188	3.153	4.3	18.8	2 1	8 8.50	+11 19.1	1.383	2.354	5.3	18.3
2 11	7 59.91	+26 21.6	2.241	3.162	7.7	19.0	2 11	7 58.96	+12 15.3	1.408	2.346	9.7	18.5
2 21	7 52.61	+26 26.7	2.321	3.169	10.8	19.2	2 21	7 51.63	+13 11.4	1.457	2.337	14.0	18.8
3 2	7 47.61	+26 22.7	2.424	3.176	13.4	19.4	3 2	7 47.29	+14 2.8	1.527	2.329	17.8	19.0
<b>70873</b>	1999 <i>VJ</i> <sub>158</sub>		1 23.1 119°52'	0°5'/22.8	18		<b>204070</b>	2003 <i>UU</i> <sub>336</sub>		1 23.1 84°91'	0°7'/23.5	18	
12 23	8 42.18	+19 41.9	2.103	2.947	11.6	19.9	12 23	8 41.01	+16 10.4	2.038	2.878	12.1	21.0
1 2	8 36.04	+20 5.1	2.036	2.953	8.3	19.7	1 2	8 35.26	+16 29.5	1.969	2.884	8.7	20.8
1 12	8 28.02	+20 32.8	1.994	2.960	4.4	19.4	1 12	8 27.63	+16 56.3	1.926	2.889	4.8	20.5
1 22	8 18.89	+21 1.3	1.982	2.966	0.6	19.2	1 22	8 18.89	+17 27.6	1.911	2.895	0.9	20.3
2 1	8 9.65	+21 27.0	2.000	2.972	3.8	19.4	2 1	8 10.00	+17 59.6	1.926	2.900	3.6	20.5
2 11	8 1.32	+21 46.9	2.047	2.978	7.6	19.7	2 11	8 2.01	+18 29.1	1.970	2.906	7.5	20.7
2 21	7 54.75	+21 59.8	2.120	2.984	11.0	19.9	2 21	7 55.75	+18 53.6	2.041	2.911	11.0	21.0
3 2	7 50.48	+22 5.3	2.216	2.990	13.8	20.1	3 2	7 51.78	+19 11.9	2.134	2.917	14.0	21.2
<b>328200</b>	2008 <i>EW</i> <sub>47</sub>		1 23.1 266°69'	1°9'/24.0	17		<b>277554</b>	2005 <i>YG</i> <sub>109</sub>		1 23.1 258°87'	0°9'/23.5	17	
12 23	8 42.06	+12 54.2	1.991	2.822	12.7	21.6	12 23	8 41.89	+16 10.5	2.006	2.846	12.3	21.4
1 2	8 36.27	+13 9.0	1.894	2.802	9.4	21.3	1 2	8 36.00	+16 18.1	1.925	2.839	8.9	21.2
1 12	8 28.33	+13 35.2	1.822	2.780	5.6	21.1	1 12	8 28.10	+16 33.1	1.870	2.833	5.0	20.9
1 22	8 18.94	+14 10.4	1.778	2.759	2.1	20.8	1 22	8 18.94	+16 52.8	1.843	2.826	1.1	20.7
2 1	8 9.09	+14 50.9	1.764	2.737	4.1	20.9	2 1	8 9.53	+17 14.2	1.846	2.820	3.8	20.8
2 11	7 59.93	+15 32.7	1.779	2.715	8.2	21.1	2 11	8 0.98	+17 34.1	1.877	2.813	7.8	21.1
2 21	7 52.47	+16 12.1	1.820	2.692	12.1	21.3	2 21	7 54.18	+17 50.3	1.935	2.806	11.5	21.3
3 2	7 47.45	+16 46.6	1.884	2.669	15.5	21.5	3 2	7 49.77	+18 1.7	2.015	2.799	14.7	21.5
<b>362410</b>	2010 <i>PJ</i> <sub>10</sub>		1 23.1 170°37'	2°9'/24.7	18		<b>384137</b>	2008 <i>YU</i> <sub>99</sub>		1 23.1 337°35'	0°2'/22.9	18	
12 23	8 43.27	+ 9 54.2	2.041	2.860	12.9	21.4	12 23	8 39.25	+18 24.3	1.961	2.810	12.1	20.9
1 2	8 36.85	+10 0.6	1.965	2.863	9.7	21.2	1 2	8 34.20	+18 55.1	1.884	2.804	8.6	20.7
1 12	8 28.49	+10 19.5	1.915	2.867	6.1	21.0	1 12	8 27.15	+19 33.0	1.832	2.798	4.7	20.5
1 22	8 18.95	+10 49.1	1.893	2.869	3.1	20.8	1 22	8 18.85	+20 14.0	1.809	2.793	0.5	20.1
2 1	8 9.22	+11 26.1	1.901	2.871	4.3	20.9	2 1	8 10.30	+20 53.5	1.815	2.788	3.9	20.4
2 11	8 0.35	+12 6.7	1.939	2.872	7.8	21.1	2 11	8 2.59	+21 27.8	1.848	2.783	8.0	20.6
2 21	7 53.22	+12 47.2	2.003	2.873	11.2	21.3	2 21	7 56.63	+21 54.4	1.908	2.779	11.7	20.8
3 2	7 48.41	+13 24.7	2.091	2.873	14.3	21.5	3 2	7 53.05	+22 12.4	1.989	2.775	14.8	21.0
<b>100368</b>	1995 <i>UG</i> <sub>41</sub>		1 23.1 56°12'	7°4'/26.3	17		<b>2307</b>	<i>Garuda</i>		1 23.1 257°43'	2°8'/24.6	18	
12 23	8 43.52	+ 3 10.5	1.221	2.047	19.4	20.1	12 23	8 40.04	+10 28.1	2.287	3.108	11.7	16.2
1 2	8 37.71	+ 2 44.7	1.171	2.063	15.3	19.9	1 2	8 34.45	+10 18.5	2.204	3.103	8.7	16.0
1 12	8 29.16	+ 2 45.6	1.140	2.078	11.0	19.7	1 12	8 27.17	+10 19.0	2.147	3.098	5.6	15.8
1 22	8 19.02	+ 3 13.4	1.133	2.094	7.8	19.5	1 22	8 18.85	+10 28.6	2.118	3.093	3.0	15.6
2 1	8 8.81	+ 4 4.1	1.150	2.111	8.1	19.6	2 1	8 10.33	+10 45.3	2.119	3.087	4.0	15.6
2 11	8 0.12	+ 5 10.0	1.192	2.127	11.4	19.8	2 11	8 2.51	+11 6.6	2.149	3.082	7.1	15.8
2 21	7 54.07	+ 6 22.5	1.257	2.144	15.3	20.1	2 21	7 56.17	+11 29.7	2.206	3.077	10.3	16.0
3 2	7 51.32	+ 7 33.7	1.342	2.161	18.9	20.4	3 2	7 51.85	+11 52.1	2.286	3.072	13.1	16.2
<b>53426</b>	1999 <i>SL</i> <sub>5</sub>		1 23.1 248°60'	11°9'/26.7	18		<b>246219</b>	2007 <i>RF</i> <sub>179</sub>		1 23.1 27°51'	4°8'/25.9	18	
12 23	8 50.62	-11 32.8	2.039	2.735	16.9	21.8	12 23	8 38.41	+ 4 13.2	2.174	2.977	12.8	20.5
1 2	8 42.61	-12 52.1	1.925	2.705	15.1	21.6	1 2	8 33.31	+ 4 2.0	2.100	2.980	10.1	20.3
1 12	8 31.96	-13 48.3	1.833	2.673	13.3	21.4	1 12	8 26.55	+ 4 6.4	2.049	2.983	7.2	20.2
1 22	8 19.33	-14 15.1	1.766	2.639	12.1	21.3	1 22	8 18.79	+ 4 25.8	2.026	2.985	5.1	20.0
2 1	8 5.79	-14 8.4	1.725	2.602	12.2	21.2	2 1	8 10.86	+ 4 58.5	2.031	2.989	5.4	20.1
2 11	7 52.67	-13 28.9	1.711	2.564	13.6	21.2	2 11	8 3.68	+ 5 40.8	2.064	2.992	7.7	20.2
2 21	7 41.25	-12 21.6	1.722	2.524	16.0	21.3	2 21	7 57.98	+ 6 28.4	2.124	2.995	10.6	20.4
3 2	7 32.50	-10 55.1	1.754	2.481	18.6	21.3	3 2	7 54.31	+ 7 17.3	2.207	2.999	13.3	20.6
<b>260428</b>	2004 <i>XR</i> <sub>101</sub>		1 23.1 319°31'	0°4'/23.2	18		<b>469078</b>	2015 <i>BR</i> <sub>156</sub>		1 23.1 337°81'	0°4'/22.8	17	
12 23	8 44.91	+18 40.1	1.449	2.305	15.3	20.0	12 23	8 39.05	+17 35.9	1.953	2.802	12.2	20.0
1 2	8 38.74	+18 37.1	1.376	2.299	11.0	19.7	1 2	8 34.08	+18 28.4	1.877	2.797	8.7	19.8
1 12	8 29.79	+18 40.6	1.327	2.293	6.1	19.4	1 12	8 27.10	+19 29.8	1.827	2.793	4.7	19.5
1 22	8 19.10	+18 47.1	1.304	2.288	0.8	19.0	1 22	8 18.85	+20 35.2	1.805	2.789	0.5	19.2
2 1	8 8.10	+18 52.8	1.308	2.282	4.8	19.3	2 1	8 10.32	+21 39.0	1.812	2.785	4.0	19.5
2 11	7 58.38	+18 54.9	1.339	2.278	10.0	19.6	2 11	8 2.60	+22 36.2	1.848	2.781	8.1	19.7
2 21	7 51.17	+18 51.8	1.394	2.273	14.6	19.8	2 21	7 56.62	+23 23.5	1.910	2.778	11.8	19.9
3 2	7 47.22	+18 43.3	1.468	2.269	18.4	20.1	3 2	7 53.03	+23 59.4	1.994	2.775	14.9	20.1
<b>296704</b>	2009 <i>SA</i> <sub>291</sub>		1 23.1 265°21'	0°7'/23.5	17		<b>308171</b>	2005 <i>BQ</i> <sub>41</sub>		1 23.1 275°59'	0°7'/22.8	18	
12 23	8 41.15	+15 29.7	1.960	2.801	12.5								

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>153085</b>	2000 <i>RU</i> <sub>38</sub>		1 23.1 80°44	4.4/25.6	18		<b>2038</b>	Bistro		1 23.1 230°39	6.4/19.0	18	
12 23	8 42.06	+ 6 5.2	1.938	2.748	13.9	19.7	12 23	8 46.47	+32 40.1	1.753	2.606	13.2	16.0
1 2	8 35.89	+ 5 59.3	1.883	2.771	10.6	19.6	1 2	8 39.94	+34 19.8	1.686	2.600	9.9	15.8
1 12	8 27.90	+ 6 9.3	1.852	2.793	7.2	19.4	1 12	8 30.54	+35 55.9	1.645	2.593	7.2	15.6
1 22	8 18.93	+ 6 33.6	1.848	2.815	4.7	19.3	1 22	8 19.23	+37 18.1	1.631	2.587	6.5	15.5
2 1	8 9.94	+ 7 9.5	1.873	2.836	5.2	19.4	2 1	8 7.43	+38 18.1	1.646	2.580	8.7	15.6
2 11	8 1.96	+ 7 52.7	1.927	2.858	8.0	19.6	2 11	7 56.78	+38 51.9	1.686	2.573	12.0	15.8
2 21	7 55.77	+ 8 38.7	2.007	2.879	11.1	19.8	2 21	7 48.59	+39 0.8	1.750	2.565	15.2	16.0
3 2	7 51.86	+ 9 23.7	2.109	2.900	13.9	20.0	3 2	7 43.73	+38 48.9	1.833	2.557	18.0	16.2
<b>518825</b>	2010 <i>CM</i> <sub>169</sub>		1 23.1 276°94	1.2/23.9	17		<b>459039</b>	2011 <i>YD</i> <sub>77</sub>		1 23.1 90°21	1.6/22.1	18	
12 23	8 39.24	+13 1.7	2.118	2.952	12.0	21.7	12 23	8 46.56	+20 11.3	1.850	2.693	13.0	20.7
1 2	8 34.07	+13 48.1	2.037	2.947	8.7	21.5	1 2	8 39.21	+21 27.8	1.808	2.726	9.1	20.5
1 12	8 27.05	+14 46.4	1.982	2.942	5.0	21.2	1 12	8 29.75	+22 48.8	1.792	2.758	4.9	20.3
1 22	8 18.86	+15 52.9	1.955	2.938	1.4	21.0	1 22	8 19.13	+24 7.2	1.806	2.789	1.6	20.1
2 1	8 10.38	+17 2.6	1.959	2.933	3.6	21.1	2 1	8 8.54	+25 16.4	1.851	2.819	4.6	20.4
2 11	8 2.63	+18 10.4	1.992	2.928	7.4	21.4	2 11	7 59.20	+26 12.2	1.925	2.848	8.5	20.7
2 21	7 56.45	+19 12.0	2.053	2.924	11.0	21.6	2 21	7 51.98	+26 53.2	2.026	2.877	11.9	21.0
3 2	7 52.45	+20 5.0	2.136	2.919	14.0	21.8	3 2	7 47.43	+27 20.2	2.148	2.905	14.7	21.2
<b>233746</b>	2008 <i>SR</i> <sub>303</sub>		1 23.1 179°07	0.7/22.8	18		<b>367675</b>	2010 <i>EE</i> <sub>76</sub>		1 23.1 23°64	19.6/ 5.4	18	
12 23	8 47.70	+20 26.2	1.761	2.605	13.5	21.4	12 23	8 40.73	-20 51.4	1.063	1.785	28.1	20.5
1 2	8 40.33	+20 45.7	1.689	2.607	9.7	21.2	1 2	8 36.41	-21 51.1	1.006	1.786	25.8	20.3
1 12	8 30.51	+21 9.6	1.643	2.608	5.2	20.9	1 12	8 28.82	-21 55.5	0.959	1.788	23.3	20.2
1 22	8 19.20	+21 33.3	1.625	2.609	0.8	20.6	1 22	8 19.07	-20 54.5	0.926	1.791	21.1	20.0
2 1	8 7.67	+21 52.5	1.637	2.609	4.5	20.8	2 1	8 8.83	-18 45.2	0.911	1.793	19.7	20.0
2 11	7 57.31	+22 4.2	1.678	2.608	9.0	21.1	2 11	8 0.05	-15 36.6	0.914	1.797	19.8	20.0
2 21	7 49.19	+22 7.6	1.744	2.606	13.0	21.3	2 21	7 54.24	-11 48.0	0.936	1.800	21.4	20.1
3 2	7 43.99	+22 3.1	1.831	2.604	16.3	21.6	3 2	7 52.32	- 7 42.9	0.978	1.804	23.8	20.3
<b>8184</b>	Luderic		1 23.1 0°33	5°3/19.9	18		<b>351654</b>	2005 <i>Y7</i> <sub>155</sub>		1 23.1 278°08	1°3/23.3	18	
12 23	8 43.07	+32 52.8	2.029	2.881	11.7	16.8	12 23	8 53.30	+19 27.9	1.598	2.436	15.0	19.5
1 2	8 37.02	+33 55.6	1.967	2.880	8.7	16.7	1 2	8 44.80	+18 31.5	1.499	2.412	11.0	19.2
1 12	8 28.71	+34 53.1	1.930	2.880	6.1	16.5	1 12	8 33.21	+17 34.0	1.425	2.388	6.2	18.8
1 22	8 19.02	+35 38.5	1.921	2.880	5.3	16.5	1 22	8 19.52	+16 34.4	1.380	2.363	1.5	18.5
2 1	8 9.12	+36 6.7	1.940	2.880	7.1	16.6	2 1	8 5.24	+15 32.9	1.366	2.338	5.1	18.6
2 11	8 0.29	+36 15.5	1.986	2.881	10.0	16.7	2 11	7 52.12	+14 30.8	1.380	2.313	10.4	18.9
2 21	7 53.51	+36 6.2	2.057	2.881	12.9	16.9	2 21	7 41.57	+13 30.3	1.421	2.287	15.2	19.1
3 2	7 49.43	+35 41.9	2.148	2.882	15.4	17.1	3 2	7 34.49	+12 33.2	1.482	2.261	19.3	19.3
<b>154766</b>	2004 <i>PG</i> <sub>19</sub>		1 23.1 110°61	2°5/21.8	18		<b>184997</b>	2006 <i>OQ</i> <sub>6</sub>		1 23.1 6°56	0°7/23.3	18	
12 23	8 46.07	+26 38.4	2.138	2.982	11.5	20.4	12 23	8 45.19	+16 25.9	1.233	2.093	17.1	20.5
1 2	8 38.73	+27 1.4	2.082	2.999	8.2	20.2	1 2	8 39.26	+16 48.2	1.169	2.093	12.4	20.2
1 12	8 29.44	+27 22.4	2.052	3.014	4.7	20.1	1 12	8 30.23	+17 23.1	1.127	2.093	6.9	19.9
1 22	8 19.08	+27 37.0	2.052	3.030	2.5	19.9	1 22	8 19.22	+18 5.3	1.109	2.093	1.1	19.5
2 1	8 8.75	+27 42.1	2.082	3.045	4.8	20.1	2 1	8 7.88	+18 48.0	1.118	2.093	5.3	19.8
2 11	7 59.55	+27 36.3	2.141	3.060	8.1	20.3	2 11	7 58.02	+19 25.5	1.153	2.094	11.0	20.1
2 21	7 52.29	+27 20.6	2.227	3.074	11.2	20.6	2 21	7 51.02	+19 54.1	1.210	2.095	15.9	20.4
3 2	7 47.51	+26 56.7	2.335	3.088	13.8	20.8	3 2	7 47.65	+20 12.5	1.286	2.095	20.1	20.7
<b>29666</b>	1998 <i>WC</i> <sub>31</sub>		1 23.1 29°53	1°5/22.4	18		<b>219395</b>	2000 <i>SS</i> <sub>167</sub>		1 23.1 112°84	2°6/24.6	18	
12 23	8 42.59	+19 2.7	1.164	2.035	17.1	18.3	12 23	8 42.86	+10 43.3	2.230	3.048	12.0	20.5
1 2	8 37.47	+20 8.6	1.111	2.041	12.1	18.0	1 2	8 36.32	+10 45.6	2.170	3.068	8.9	20.3
1 12	8 29.24	+21 26.1	1.080	2.049	6.5	17.7	1 12	8 28.12	+10 58.3	2.135	3.087	5.5	20.1
1 22	8 19.08	+22 45.9	1.073	2.057	1.5	17.4	1 22	8 18.99	+11 19.6	2.129	3.105	2.7	20.0
2 1	8 8.70	+23 58.0	1.093	2.065	6.0	17.7	2 1	8 9.84	+11 46.6	2.153	3.123	3.8	20.1
2 11	7 59.91	+24 55.2	1.137	2.075	11.5	18.1	2 11	8 1.58	+12 16.4	2.208	3.140	7.0	20.3
2 21	7 54.04	+25 34.4	1.203	2.084	16.3	18.4	2 21	7 54.93	+12 46.0	2.289	3.157	10.1	20.5
3 2	7 51.82	+25 55.9	1.288	2.095	20.2	18.7	3 2	7 50.40	+13 13.2	2.395	3.173	12.8	20.8
<b>369079</b>	2008 <i>FD</i> <sub>100</sub>		1 23.1 177°17	4.2/26.1	18		<b>170963</b>	2005 <i>CE</i> <sub>4</sub>		1 23.1 332°12	1°4/22.5	18	
12 23	8 40.53	+ 3 18.7	2.623	3.408	11.4	22.3	12 23	8 42.37	+20 47.4	1.341	2.207	15.6	20.3
1 2	8 34.59	+ 3 24.8	2.541	3.411	8.9	22.1	1 2	8 37.22	+21 23.6	1.270	2.198	11.1	20.0
1 12	8 27.18	+ 3 45.1	2.484	3.413	6.4	21.9	1 12	8 29.13	+22 7.3	1.221	2.189	6.1	19.7
1 22	8 18.87	+ 4 18.9	2.456	3.414	4.5	21.8	1 22	8 19.12	+22 52.3	1.198	2.181	1.5	19.4
2 1	8 10.39	+ 5 3.8	2.458	3.414	4.7	21.8	2 1	8 8.68	+23 31.4	1.202	2.174	5.6	19.6
2 11	8 2.52	+ 5 56.6	2.491	3.414	6.8	22.0	2 11	7 59.53	+23 59.6	1.230	2.167	10.9	19.9
2 21	7 55.93	+ 6 53.2	2.551	3.413	9.4	22.1	2 21	7 53.00	+24 14.7	1.282	2.161	15.6	20.2
3 2	7 51.12	+ 7 50.0	2.637	3.412	11.8	22.3	3 2	7 49.93	+24 17.0	1.352	2.156	19.6	20.4
<b>375554</b>	2008 <i>UC</i> <sub>297</sub>		1 23.1 56°05	5°0/25.7	18		<b>337625</b>	2001 <i>TJ</i> <sub>82</sub>		1 23.1 154°97	3°4/25.4	17	
12 23	8 40.25	+ 5 11.4	1.938	2.748	13.9	20.8	12 23	8 39.19	+ 6 33.4	2.754	3.553	10.5	21.3
1 2	8 34.73	+ 4 53.4	1.871	2.756	10.8	20.6	1 2	8 33.58	+ 6 26.9	2.677	3.559	8.1	21.2
1 12	8 27.36	+ 4 51.6	1.827	2.764	7.6	20.5	1 12	8 26.61	+ 6 31.5	2.626	3.565	5.5	21.0
1 22	8 18.89	+ 5 5.6	1.809	2.772	5.2	20.3	1 22	8 18.85	+ 6 46.2	2.605	3.570	3.6	20.9
2 1	8 10.29	+ 5 33.4	1.820	2.780	5.6	20.4	2 1	8 10.97	+ 7 9.5	2.613	3.575	4.0	20.9
2 11	8 2.58	+ 6 11.0	1.859	2.789	8.3	20.6	2 11	8 3.70	+ 7 38.8	2.652	3.579	6.3	21.1
2 21	7 56.58	+ 6 54.1	1.924	2.797	11.5	20.8	2 21	7 57.65	+ 8 11.4	2.719	3.583	8.8	21.2
3 2	7 52.86	+ 7 38.3	2.011	2.806	14.3	21.0	3 2	7 53.26	+ 8 44.5	2.810	3.587	11.1	21.4
<b>169241</b>	2001 <i>SV</i> <sub>85</sub>		1 23.1 31°13	5°0/26.2	18		<b>9599</b>	Onotomoko		1 23.1 111°85	2°1/22.1	18	
12 23	8 38.10	+ 3 51.9	1.978	2.785	13.8	19.7	12 23	8 47.11	+22 1				

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>304835</b>	2007 <i>RW</i> <sub>27</sub>		1 23.1 64°68'	3°8'/21.4	17		<b>397875</b>	2008 <i>UR</i> <sub>77</sub>		1 23.1 102°36'	3°8'/24.7	18	
12 23	8 47.75	+25 38.9	1.370	2.232	15.6	20.3	12 23	8 45.71	+9 47.2	1.548	2.378	15.8	21.0
1 2	8 40.61	+26 43.5	1.333	2.259	11.0	20.1	1 2	8 38.93	+9 34.8	1.489	2.392	11.9	20.8
1 12	8 30.68	+27 47.4	1.321	2.285	6.3	19.9	1 12	8 29.76	+9 37.7	1.453	2.405	7.5	20.6
1 22	8 19.24	+28 41.6	1.335	2.312	3.8	19.8	1 22	8 19.20	+9 54.1	1.444	2.419	4.1	20.4
2 1	8 7.96	+29 19.5	1.376	2.339	6.7	20.0	2 1	8 8.57	+10 21.0	1.463	2.432	5.3	20.5
2 11	7 58.46	+29 38.3	1.444	2.365	10.9	20.4	2 11	7 59.23	+10 53.6	1.509	2.445	9.3	20.8
2 21	7 51.82	+29 39.6	1.534	2.392	14.8	20.6	2 21	7 52.18	+11 27.7	1.580	2.457	13.3	21.0
3 2	7 48.56	+29 26.4	1.644	2.418	17.9	20.9	3 2	7 48.06	+11 59.7	1.672	2.469	16.7	21.3
<b>65953</b>	1998 <i>FD</i> <sub>123</sub>		1 23.1 236°49'	4°4'/26.1	18		<b>193968</b>	2001 <i>RV</i> <sub>93</sub>		1 23.1 133°02'	2°2'/22.0	18	
12 23	8 40.20	+2 57.0	2.708	3.490	11.1	20.8	12 23	8 47.82	+23 15.5	1.672	2.522	13.8	20.6
1 2	8 34.46	+2 59.7	2.605	3.472	8.8	20.6	1 2	8 40.49	+24 0.9	1.613	2.534	9.8	20.4
1 12	8 27.19	+3 16.5	2.528	3.454	6.4	20.4	1 12	8 30.64	+24 48.8	1.580	2.545	5.4	20.2
1 22	8 18.92	+3 47.2	2.479	3.435	4.6	20.2	1 22	8 19.30	+25 32.5	1.575	2.556	2.2	20.0
2 1	8 10.34	+4 29.9	2.461	3.416	4.8	20.2	2 1	8 7.86	+26 6.4	1.599	2.566	5.3	20.2
2 11	8 2.24	+5 21.7	2.473	3.395	6.9	20.3	2 11	7 57.75	+26 27.2	1.651	2.576	9.6	20.5
2 21	7 55.32	+6 18.6	2.513	3.374	9.6	20.5	2 21	7 50.04	+26 34.7	1.728	2.585	13.4	20.7
3 2	7 50.13	+7 16.9	2.579	3.352	12.1	20.6	3 2	7 45.37	+26 30.6	1.826	2.593	16.6	21.0
<b>293129</b>	2006 <i>XC</i> <sub>55</sub>		1 23.1 30°05'	2°5'/23.6	18		<b>325173</b>	2008 <i>FY</i> <sub>54</sub>		1 23.1 332°51'	1°6'/22.3	18	
12 23	8 46.88	+16 55.0	1.180	2.040	17.7	19.0	12 23	8 43.19	+22 2.3	1.673	2.529	13.5	21.1
1 2	8 40.03	+15 56.9	1.137	2.060	12.8	18.8	1 2	8 37.32	+22 36.8	1.603	2.526	9.6	20.9
1 12	8 30.35	+15 7.0	1.117	2.081	7.3	18.6	1 12	8 28.99	+23 15.7	1.557	2.524	5.2	20.6
1 22	8 19.22	+14 25.1	1.122	2.103	2.6	18.3	1 22	8 19.15	+23 53.2	1.539	2.522	1.6	20.4
2 1	8 8.35	+13 50.4	1.153	2.127	5.4	18.6	2 1	8 9.05	+24 24.1	1.549	2.520	5.0	20.6
2 11	7 59.36	+13 22.0	1.209	2.151	10.4	18.9	2 11	8 0.06	+24 44.8	1.587	2.518	9.4	20.8
2 21	7 53.30	+12 58.4	1.288	2.176	14.9	19.3	2 21	7 53.28	+24 54.1	1.649	2.516	13.4	21.1
3 2	7 50.66	+12 37.9	1.387	2.202	18.5	19.6	3 2	7 49.40	+24 52.6	1.732	2.514	16.8	21.3
<b>448240</b>	2008 <i>WK</i> <sub>42</sub>		1 23.1 49°25'	2°6'/22.1	18		<b>455545</b>	2004 <i>GU</i> <sub>45</sub>		1 23.1 262°87'	4°0'/21.0	18	
12 23	8 45.99	+23 15.6	1.226	2.094	16.6	21.2	12 23	8 44.76	+27 59.5	1.788	2.643	12.8	21.5
1 2	8 39.68	+23 58.0	1.180	2.109	11.7	21.0	1 2	8 38.47	+28 52.6	1.716	2.637	9.3	21.3
1 12	8 30.32	+24 43.5	1.156	2.124	6.4	20.7	1 12	8 29.65	+29 44.8	1.669	2.630	5.7	21.1
1 22	8 19.23	+25 24.1	1.158	2.140	2.6	20.6	1 22	8 19.22	+30 29.0	1.650	2.623	4.0	20.9
2 1	8 8.17	+25 53.1	1.186	2.156	6.3	20.8	2 1	8 8.47	+30 59.3	1.659	2.616	6.4	21.1
2 11	7 58.88	+26 7.0	1.239	2.172	11.2	21.1	2 11	7 58.83	+31 12.6	1.695	2.609	10.2	21.3
2 21	7 52.58	+26 6.0	1.315	2.189	15.6	21.5	2 21	7 51.42	+31 9.4	1.756	2.602	13.7	21.5
3 2	7 49.87	+25 52.4	1.409	2.206	19.2	21.7	3 2	7 46.98	+30 52.0	1.837	2.595	16.8	21.7
<b>458858</b>	2011 <i>UX</i> <sub>94</sub>		1 23.1 139°84'	0°1'/23.1	18		<b>107408</b>	2001 <i>DZ</i> <sub>6</sub>		1 23.1 40°40'	1°1'/23.6	18	
12 23	8 46.14	+17 40.8	1.877	2.716	13.1	22.6	12 23	8 42.97	+15 24.5	1.297	2.155	16.5	19.1
1 2	8 39.01	+18 6.8	1.813	2.728	9.3	22.4	1 2	8 37.37	+15 45.8	1.244	2.167	11.9	18.9
1 12	8 29.73	+18 39.7	1.776	2.740	5.1	22.2	1 12	8 29.05	+16 19.6	1.214	2.180	6.6	18.6
1 22	8 19.18	+19 15.1	1.767	2.751	0.5	21.8	1 22	8 19.15	+17 1.2	1.210	2.193	1.4	18.3
2 1	8 8.54	+19 48.7	1.788	2.761	4.0	22.1	2 1	8 9.17	+17 44.3	1.231	2.207	4.9	18.6
2 11	7 58.99	+20 16.9	1.838	2.770	8.2	22.4	2 11	8 0.67	+18 23.4	1.279	2.221	10.0	18.9
2 21	7 51.49	+20 37.9	1.915	2.779	11.9	22.7	2 21	7 54.78	+18 54.9	1.350	2.236	14.5	19.2
3 2	7 46.63	+20 51.2	2.014	2.788	15.0	22.9	3 2	7 52.13	+19 17.2	1.440	2.251	18.2	19.5
<b>288276</b>	2003 <i>YC</i> <sub>172</sub>		1 23.1 356°28'	3°6'/20.8	18		<b>94898</b>	2001 <i>YA</i> <sub>11</sub>		1 23.1 73°91'	0°4'/23.3	17	
12 23	8 40.59	+26 23.9	1.864	2.723	12.2	19.9	12 23	8 47.95	+17 10.7	1.389	2.240	16.1	20.3
1 2	8 35.36	+27 33.6	1.798	2.721	8.8	19.6	1 2	8 40.57	+17 31.1	1.348	2.267	11.4	20.1
1 12	8 27.90	+28 44.5	1.757	2.720	5.3	19.4	1 12	8 30.61	+18 0.3	1.330	2.295	6.2	19.9
1 22	8 19.01	+29 49.6	1.744	2.719	3.6	19.3	1 22	8 19.29	+18 32.9	1.338	2.322	0.8	19.6
2 1	8 9.86	+30 42.5	1.760	2.718	6.0	19.5	2 1	8 8.15	+19 3.8	1.374	2.349	4.7	19.9
2 11	8 1.69	+31 19.4	1.803	2.718	9.6	19.7	2 11	7 58.66	+19 28.9	1.438	2.375	9.6	20.3
2 21	7 55.51	+31 39.3	1.871	2.718	13.0	19.9	2 21	7 51.84	+19 46.3	1.526	2.401	13.8	20.6
3 2	7 52.01	+31 43.7	1.959	2.719	15.8	20.1	3 2	7 48.22	+19 55.7	1.634	2.427	17.2	20.9
<b>6005</b>	1989 <i>BD</i>		1 23.1 349°85'	5°6'/20.6	18		<b>46568</b>	Stevenlee		1 23.1 67°66'	18°0'/18.5	18	
12 23	8 43.46	+30 50.2	1.447	2.314	14.6	16.5	12 23	9 8.73	+54 1.0	1.051	1.872	22.3	17.3
1 2	8 37.96	+31 44.5	1.384	2.308	10.8	16.3	1 2	8 58.13	+55 45.5	1.025	1.883	19.9	17.2
1 12	8 29.50	+32 34.6	1.344	2.303	7.1	16.1	1 12	8 40.99	+56 50.1	1.017	1.895	18.3	17.2
1 22	8 19.18	+33 11.6	1.330	2.298	5.7	16.0	1 22	8 20.32	+56 56.6	1.027	1.907	18.1	17.2
2 1	8 8.58	+33 28.9	1.342	2.295	8.1	16.1	2 1	8 0.55	+55 59.1	1.056	1.919	19.3	17.3
2 11	7 59.42	+33 24.0	1.378	2.292	12.0	16.3	2 11	7 45.58	+54 7.4	1.104	1.931	21.3	17.5
2 21	7 52.99	+32 59.1	1.437	2.291	15.8	16.5	2 21	7 37.05	+51 39.8	1.168	1.943	23.5	17.7
3 2	7 50.04	+32 18.1	1.515	2.290	19.1	16.8	3 2	7 34.88	+48 53.3	1.247	1.955	25.7	17.9
<b>233484</b>	2006 <i>SF</i> <sub>360</sub>		1 23.1 169°92'	2°1'/24.5	18		<b>258578</b>	2002 <i>CQ</i> <sub>149</sub>		1 23.1 342°01'	0°2'/22.9	18	
12 23	8 38.89	+11 18.6	2.697	3.516	10.2	20.5	12 23	8 40.02	+17 49.2	1.548	2.406	14.3	20.8
1 2	8 33.43	+11 22.6	2.619	3.518	7.5	20.4	1 2	8 35.22	+18 27.4	1.474	2.399	10.2	20.5
1 12	8 26.57	+11 35.1	2.567	3.519	4.6	20.2	1 12	8 27.94	+19 15.8	1.425	2.392	5.6	20.2
1 22	8 18.88	+11 54.7	2.544	3.521	2.3	20.0	1 22	8 19.07	+20 9.1	1.402	2.386	0.6	19.8
2 1	8 11.05	+12 19.1	2.552	3.522	3.3	20.1	2 1	8 9.85	+21 1.2	1.406	2.380	4.6	20.1
2 11	8 3.84	+12 46.0	2.590	3.523	6.1	20.3	2 11	8 1.68	+21 46.4	1.437	2.375	9.5	20.4
2 21	7 57.86	+13 13.0	2.656	3.524	8.9	20.5	2 21	7 55.69	+22 21.4	1.492	2.371	13.8	20.6
3 2	7 53.61	+13 38.0	2.746	3.524	11.3	20.6	3 2	7 52.65	+22 45.0	1.568	2.368	17.5	20.9
<b>393421</b>	2001 <i>RA</i> <sub>110</sub>		1 23.1 217°64'	2°0'/22.2	18		<b>253374</b>	2003 <i>HF</i> <sub>24</sub>		1 23.1 8°61'	1°9'/22.1	18	
12 23	8 47.43	+23 1.5	1.716	2.565	13.6	21.7	12 23						

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>521098</b>	2015 <i>DS</i> <sub>243</sub>		1 23.1	53°14	5°8/26.2	18	<b>486664</b>	2013 <i>QV</i> <sub>69</sub>		1 23.1	341°62	18°3/3.6	17
12 23	8 39.90	+ 1 47.5	2.364	3.148	12.5	21.3	12 23	8 42.12	-19 36.8	1.208	1.920	25.8	21.2
1 2	8 34.29	+ 1 6.4	2.287	3.150	10.1	21.1	1 2	8 37.23	-20 41.9	1.145	1.919	23.6	21.0
1 12	8 27.11	+ 0 40.0	2.234	3.152	7.6	21.0	1 12	8 29.27	-20 58.4	1.094	1.919	21.3	20.9
1 22	8 18.97	+ 0 29.1	2.209	3.154	6.0	20.9	1 22	8 19.26	-20 17.4	1.059	1.919	19.3	20.7
2 1	8 10.68	+ 0 33.4	2.212	3.155	6.1	20.9	2 1	8 8.74	-18 35.7	1.042	1.919	18.3	20.7
2 11	8 3.08	+ 0 50.6	2.243	3.157	8.0	21.0	2 11	7 59.51	-16 0.4	1.045	1.918	18.7	20.7
2 21	7 56.87	+ 1 17.5	2.301	3.159	10.5	21.2	2 21	7 53.00	-12 47.2	1.068	1.918	20.3	20.8
3 2	7 52.58	+ 1 50.0	2.382	3.161	12.8	21.3	3 2	7 50.12	-9 15.5	1.110	1.918	22.7	20.9
<b>408841</b>	2001 <i>RN</i> <sub>140</sub>		1 23.1	148°11	0°7/23.5	18	<b>244690</b>	2003 <i>PA</i> <sub>7</sub>		1 23.1	104°78	1°9/23.9	18
12 23	8 43.14	+16 0.9	2.075	2.910	12.1	21.7	12 23	8 46.61	+13 55.5	1.740	2.573	14.2	20.5
1 2	8 36.79	+16 25.2	2.006	2.918	8.7	21.5	1 2	8 39.34	+13 57.4	1.684	2.593	10.3	20.3
1 12	8 28.53	+16 57.3	1.962	2.925	4.8	21.3	1 12	8 29.91	+14 9.3	1.654	2.613	6.0	20.0
1 22	8 19.12	+17 33.7	1.948	2.931	0.9	21.0	1 22	8 19.29	+14 28.3	1.652	2.633	2.1	19.8
2 1	8 9.57	+18 10.6	1.964	2.937	3.6	21.2	2 1	8 8.68	+14 50.9	1.679	2.652	4.2	20.0
2 11	8 0.93	+18 44.3	2.009	2.943	7.5	21.5	2 11	7 59.32	+15 13.6	1.735	2.670	8.4	20.3
2 21	7 54.03	+19 12.5	2.081	2.948	11.0	21.7	2 21	7 52.11	+15 33.8	1.816	2.688	12.1	20.6
3 2	7 49.46	+19 34.0	2.176	2.953	14.0	21.9	3 2	7 47.61	+15 50.0	1.920	2.705	15.3	20.8
<b>88133</b>	2000 <i>WO</i> <sub>158</sub>		1 23.1	100°18	1°5/22.3	18	<b>246442</b>	2007 <i>VZ</i> <sub>161</sub>		1 23.1	50°25	3°8/25.1	18
12 23	8 43.01	+21 55.8	1.975	2.824	12.1	19.5	12 23	8 40.20	+ 8 4.5	2.274	3.087	12.0	20.2
1 2	8 36.79	+22 36.1	1.914	2.834	8.5	19.3	1 2	8 34.56	+ 7 41.0	2.199	3.090	9.2	20.0
1 12	8 28.55	+23 19.7	1.879	2.845	4.6	19.0	1 12	8 27.29	+ 7 28.9	2.149	3.093	6.2	19.8
1 22	8 19.13	+24 1.6	1.873	2.855	1.5	18.8	1 22	8 19.04	+ 7 27.8	2.128	3.096	4.0	19.7
2 1	8 9.59	+24 37.2	1.897	2.866	4.4	19.1	2 1	8 10.65	+ 7 36.5	2.135	3.099	4.6	19.7
2 11	8 1.08	+25 3.2	1.949	2.876	8.2	19.3	2 11	8 3.02	+ 7 52.3	2.172	3.102	7.3	19.9
2 21	7 54.46	+25 18.8	2.027	2.886	11.6	19.5	2 21	7 56.86	+ 8 12.7	2.235	3.105	10.2	20.1
3 2	7 50.33	+25 24.2	2.127	2.895	14.5	19.8	3 2	7 52.70	+ 8 34.6	2.322	3.108	12.9	20.3
<b>333868</b>	1996 <i>TA</i> <sub>16</sub>		1 23.1	135°95	1°7/24.1	18	<b>471710</b>	2012 <i>TM</i> <sub>298</sub>		1 23.1	202°32	3°6/25.5	17
12 23	8 40.61	+13 34.7	2.395	3.223	11.0	20.9	12 23	8 38.55	+ 6 21.1	2.553	3.356	11.1	21.4
1 2	8 34.78	+13 35.6	2.322	3.228	8.0	20.7	1 2	8 33.30	+ 6 20.4	2.470	3.354	8.6	21.2
1 12	8 27.36	+13 44.2	2.275	3.233	4.7	20.5	1 12	8 26.59	+ 6 31.9	2.413	3.352	5.9	21.0
1 22	8 19.01	+13 58.7	2.257	3.237	1.8	20.3	1 22	8 18.97	+ 6 54.8	2.384	3.350	3.8	20.9
2 1	8 10.53	+14 16.9	2.269	3.242	3.4	20.5	2 1	8 11.19	+ 7 27.2	2.386	3.348	4.3	20.9
2 11	8 2.81	+14 36.1	2.312	3.246	6.6	20.7	2 11	8 4.01	+ 8 6.0	2.416	3.346	6.7	21.0
2 21	7 56.53	+14 54.4	2.381	3.250	9.7	20.9	2 21	7 58.09	+ 8 48.0	2.475	3.343	9.4	21.2
3 2	7 52.22	+15 10.0	2.474	3.254	12.4	21.1	3 2	7 53.95	+ 9 29.9	2.557	3.341	11.9	21.4
<b>399003</b>	2013 <i>FM</i> <sub>26</sub>		1 23.1	277°51	0°5/22.8	18	<b>465212</b>	2007 <i>RG</i> <sub>6</sub>		1 23.1	107°71	5°9/27.7	18
12 23	8 43.01	+17 34.8	1.517	2.372	14.8	20.4	12 23	8 39.17	- 2 18.3	2.558	3.317	12.3	21.6
1 2	8 37.47	+18 29.7	1.442	2.364	10.6	20.1	1 2	8 33.63	- 2 22.4	2.492	3.335	10.1	21.4
1 12	8 29.24	+19 36.5	1.390	2.356	5.7	19.8	1 12	8 26.70	- 2 8.8	2.450	3.352	7.8	21.3
1 22	8 19.22	+20 48.8	1.364	2.348	0.7	19.5	1 22	8 18.98	- 1 37.8	2.435	3.370	6.2	21.2
2 1	8 8.75	+21 58.8	1.368	2.341	4.9	19.7	2 1	8 11.20	- 0 51.3	2.449	3.386	6.0	21.3
2 11	7 59.34	+22 59.9	1.398	2.333	10.0	20.0	2 11	8 4.10	+ 0 7.0	2.492	3.403	7.5	21.4
2 21	7 52.25	+23 48.0	1.452	2.325	14.5	20.3	2 21	7 58.29	+ 1 12.5	2.562	3.419	9.6	21.5
3 2	7 48.30	+24 22.0	1.526	2.317	18.3	20.5	3 2	7 54.24	+ 2 20.4	2.657	3.434	11.7	21.7
<b>68842</b>	2002 <i>GM</i> <sub>122</sub>		1 23.1	118°89	2°8/24.6	18	<b>155638</b>	2000 <i>GD</i> <sub>23</sub>		1 23.1	118°14	2°1/22.1	18
12 23	8 43.87	+10 10.1	1.765	2.592	14.3	19.7	12 23	8 48.82	+23 16.5	1.689	2.537	13.8	20.6
1 2	8 37.48	+10 30.5	1.702	2.605	10.6	19.5	1 2	8 41.12	+23 58.4	1.636	2.556	9.8	20.3
1 12	8 28.96	+11 5.6	1.664	2.618	6.5	19.3	1 12	8 30.96	+24 42.1	1.609	2.573	5.4	20.1
1 22	8 19.18	+11 52.1	1.653	2.631	3.0	19.1	1 22	8 19.42	+25 21.4	1.609	2.591	2.1	19.9
2 1	8 9.28	+12 45.5	1.671	2.643	4.4	19.2	2 1	8 7.87	+25 50.8	1.640	2.607	5.2	20.2
2 11	8 0.45	+13 40.5	1.718	2.655	8.3	19.5	2 11	7 57.71	+26 7.6	1.699	2.623	9.4	20.5
2 21	7 53.62	+14 32.7	1.791	2.666	12.1	19.7	2 21	7 49.98	+26 12.0	1.782	2.638	13.1	20.7
3 2	7 49.39	+15 18.8	1.886	2.677	15.3	20.0	3 2	7 45.25	+26 5.5	1.887	2.653	16.2	21.0
<b>412284</b>	2013 <i>JW</i> <sub>15</sub>		1 23.1	281°20	1°6/22.2	18	<b>428995</b>	2009 <i>BU</i> <sub>10</sub>		1 23.1	51°80	3°5/25.9	18
12 23	8 42.95	+20 27.6	1.607	2.463	14.0	20.9	12 23	8 39.93	+ 4 9.0	1.946	2.752	14.0	20.2
1 2	8 37.37	+21 26.4	1.530	2.454	10.0	20.6	1 2	8 34.54	+ 5 23.3	1.885	2.773	10.6	20.1
1 12	8 29.17	+22 33.6	1.477	2.444	5.4	20.3	1 12	8 27.32	+ 6 58.1	1.850	2.794	7.0	19.9
1 22	8 19.22	+23 42.3	1.451	2.434	1.6	20.0	1 22	8 19.05	+ 8 48.8	1.843	2.815	3.9	19.7
2 1	8 8.82	+24 45.2	1.454	2.424	5.3	20.3	2 1	8 10.68	+10 48.1	1.866	2.836	4.3	19.8
2 11	7 59.44	+25 36.4	1.484	2.414	10.0	20.5	2 11	8 3.20	+12 48.0	1.921	2.858	7.6	20.0
2 21	7 52.29	+26 13.1	1.538	2.404	14.3	20.7	2 21	7 57.42	+14 41.4	2.003	2.879	10.9	20.3
3 2	7 48.20	+26 35.0	1.612	2.394	17.8	21.0	3 2	7 53.88	+16 23.2	2.110	2.901	13.8	20.5
<b>142649</b>	2002 <i>TA</i> <sub>192</sub>		1 23.1	72°12	4°6/21.5	18	<b>300903</b>	2008 <i>BX</i> <sub>38</sub>		1 23.1	342°75	3°9/20.9	18
12 23	8 50.61	+31 1.0	1.596	2.448	14.3	19.9	12 23	8 41.82	+30 40.2	2.216	3.067	10.9	20.0
1 2	8 42.43	+31 23.8	1.550	2.467	10.4	19.7	1 2	8 35.97	+31 10.9	2.145	3.062	8.0	19.8
1 12	8 31.62	+31 39.2	1.529	2.487	6.6	19.5	1 12	8 28.15	+31 37.5	2.100	3.057	5.1	19.7
1 22	8 19.43	+31 41.1	1.536	2.507	4.6	19.4	1 22	8 19.15	+31 55.3	2.083	3.052	3.9	19.6
2 1	8 7.47	+31 25.9	1.570	2.527	6.8	19.6	2 1	8 9.99	+32 0.6	2.095	3.048	5.7	19.7
2 11	7 57.24	+30 54.1	1.632	2.547	10.4	19.9	2 11	8 1.76	+31 52.1	2.135	3.044	8.6	19.9
2 21	7 49.77	+30 9.3	1.718	2.566	13.9	20.1	2 21	7 55.33	+31 30.7	2.201	3.041	11.6	20.0
3 2	7 45.57	+29 15.6	1.825	2.586	16.8	20.4	3 2	7 51.30	+30 58.4	2.288	3.038	14.1	20.2
<b>247474</b>	2002 <i>JL</i> <sub>81</sub>		1 23.1	259°99	3°3/21.4	18	<b>496336</b>	2013 <i>PO</i> <sub>19</sub>		1 23.1	161°68	3°5/20.8	18
12 23	8 46.13	+26 0.1	1.739	2.5									



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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>225483</b>	2000 <i>GT</i> <sub>145</sub>		1 23.1 260°94	3°6/24.9	17		<b>8520</b>	1992 <i>EC</i> <sub>12</sub>		1 23.1 156°30	3°1/25.4	18	
12 23	8 42.08	+ 8 40.6	1.987	2.805	13.3	21.2	12 23	8 38.13	+ 6 58.0	2.555	3.362	11.0	18.4
1 2	8 36.31	+ 8 39.4	1.892	2.787	10.1	21.0	1 2	8 33.02	+ 7 16.1	2.476	3.364	8.4	18.2
1 12	8 28.46	+ 8 52.1	1.821	2.769	6.6	20.7	1 12	8 26.45	+ 7 46.9	2.423	3.366	5.6	18.0
1 22	8 19.20	+ 9 17.8	1.777	2.750	3.8	20.5	1 22	8 19.01	+ 8 28.6	2.398	3.368	3.3	17.9
2 1	8 9.50	+ 9 53.8	1.763	2.731	4.8	20.5	2 1	8 11.40	+ 9 18.6	2.404	3.370	3.9	17.9
2 11	8 0.50	+10 36.3	1.778	2.712	8.3	20.7	2 11	8 4.41	+10 13.2	2.439	3.372	6.4	18.1
2 21	7 53.17	+11 21.1	1.818	2.692	12.0	20.9	2 21	7 58.68	+11 8.6	2.503	3.374	9.2	18.2
3 2	7 48.23	+12 4.5	1.882	2.672	15.3	21.1	3 2	7 54.70	+12 1.7	2.591	3.375	11.8	18.4
<b>282623</b>	2005 <i>LR</i> <sub>19</sub>		1 23.1 248°23	2°3/21.4	18		<b>223842</b>	2004 <i>TR</i> <sub>168</sub>		1 23.1 128°07	2°8/24.8	18	
12 23	8 40.35	+24 10.4	2.336	3.185	10.5	20.6	12 23	8 40.81	+ 9 35.6	2.089	2.910	12.6	20.6
1 2	8 34.87	+25 14.0	2.261	3.181	7.4	20.4	1 2	8 35.14	+ 9 48.8	2.017	2.916	9.4	20.4
1 12	8 27.56	+26 20.1	2.214	3.178	4.2	20.2	1 12	8 27.68	+10 14.7	1.970	2.921	5.9	20.2
1 22	8 19.10	+27 23.6	2.196	3.174	2.4	20.1	1 22	8 19.14	+10 51.5	1.951	2.927	3.1	20.0
2 1	8 10.36	+28 19.2	2.208	3.170	4.6	20.2	2 1	8 10.43	+11 35.5	1.962	2.932	4.1	20.1
2 11	8 2.36	+29 3.4	2.250	3.166	7.9	20.4	2 11	8 2.54	+12 22.8	2.002	2.937	7.4	20.3
2 21	7 55.90	+29 34.7	2.318	3.162	10.9	20.6	2 21	7 56.27	+13 9.5	2.068	2.942	10.8	20.5
3 2	7 51.61	+29 53.3	2.408	3.158	13.5	20.8	3 2	7 52.18	+13 52.5	2.158	2.947	13.7	20.7
<b>81993</b>	2000 <i>QG</i> <sub>183</sub>		1 23.1 253°98	0°3/22.9	18		<b>270614</b>	2002 <i>OX</i> <sub>30</sub>		1 23.1 185°92	3°0/25.1	17	
12 23	8 43.48	+20 49.8	2.482	3.318	10.3	19.0	12 23	8 39.95	+ 8 2.0	2.708	3.512	10.5	22.0
1 2	8 36.90	+20 42.7	2.392	3.306	7.4	18.8	1 2	8 34.24	+ 8 3.8	2.624	3.512	8.0	21.8
1 12	8 28.59	+20 37.2	2.330	3.294	4.0	18.6	1 12	8 27.09	+ 8 16.1	2.568	3.511	5.3	21.6
1 22	8 19.20	+20 31.1	2.297	3.281	0.4	18.3	1 22	8 19.08	+ 8 38.0	2.540	3.510	3.2	21.5
2 1	8 9.61	+20 22.5	2.296	3.268	3.3	18.5	2 1	8 10.91	+ 9 7.3	2.543	3.508	3.8	21.5
2 11	8 0.75	+20 10.3	2.326	3.255	6.9	18.7	2 11	8 3.32	+ 9 41.4	2.576	3.506	6.3	21.7
2 21	7 53.40	+19 53.9	2.383	3.242	10.1	18.9	2 21	7 56.97	+10 17.3	2.638	3.504	9.0	21.8
3 2	7 48.13	+19 33.8	2.463	3.229	12.8	19.1	3 2	7 52.33	+10 52.6	2.724	3.501	11.4	22.0
<b>325261</b>	2008 <i>GO</i> <sub>106</sub>		1 23.1 313°43	11°3/29.3	18		<b>284985</b>	2010 <i>GO</i> <sub>158</sub>		1 23.1 296°83	2°2/21.5	18	
12 23	8 38.43	- 8 59.1	1.652	2.405	18.3	20.1	12 23	8 39.94	+23 4.7	2.246	3.095	10.8	20.3
1 2	8 34.03	- 9 37.6	1.565	2.389	15.9	19.9	1 2	8 34.67	+24 14.7	2.169	3.090	7.6	20.1
1 12	8 27.34	- 9 45.5	1.496	2.373	13.6	19.7	1 12	8 27.51	+25 28.7	2.120	3.084	4.3	19.9
1 22	8 19.09	- 9 18.8	1.449	2.357	11.8	19.6	1 22	8 19.14	+26 41.1	2.100	3.079	2.2	19.7
2 1	8 10.34	- 8 16.5	1.425	2.342	11.4	19.5	2 1	8 10.47	+27 46.3	2.110	3.074	4.6	19.9
2 11	8 2.37	- 6 43.4	1.426	2.327	12.7	19.6	2 11	8 2.52	+28 40.0	2.150	3.068	8.0	20.1
2 21	7 56.28	- 4 48.3	1.450	2.313	15.2	19.7	2 21	7 56.14	+29 20.2	2.216	3.063	11.2	20.3
3 2	7 52.87	- 2 41.9	1.495	2.299	18.0	19.8	3 2	7 51.99	+29 46.9	2.303	3.058	13.9	20.4
<b>110192</b>	2001 <i>SN</i> <sub>187</sub>		1 23.1 178°31	5°4/19.9	18		<b>249417</b>	2009 <i>DQ</i> <sub>90</sub>		1 23.1 250°21	2°6/24.4	18	
12 23	8 46.17	+37 10.8	2.529	3.362	10.3	19.8	12 23	8 42.83	+11 26.7	1.659	2.495	14.7	20.9
1 2	8 38.91	+37 50.1	2.464	3.363	7.9	19.7	1 2	8 37.09	+11 40.2	1.581	2.489	10.9	20.7
1 12	8 29.68	+38 20.8	2.426	3.364	6.0	19.5	1 12	8 28.97	+12 8.4	1.525	2.483	6.6	20.4
1 22	8 19.31	+38 37.8	2.417	3.364	5.4	19.5	1 22	8 19.30	+12 48.4	1.497	2.476	2.9	20.1
2 1	8 8.85	+38 37.8	2.438	3.364	6.7	19.6	2 1	8 9.27	+13 35.9	1.497	2.470	4.6	20.2
2 11	7 59.40	+38 20.3	2.486	3.364	8.9	19.7	2 11	8 0.21	+14 25.8	1.524	2.463	9.0	20.5
2 21	7 51.81	+37 47.4	2.560	3.364	11.3	19.9	2 21	7 53.20	+15 13.3	1.577	2.456	13.2	20.7
3 2	7 46.65	+37 2.3	2.656	3.363	13.3	20.0	3 2	7 48.99	+15 55.0	1.651	2.449	16.8	20.9
<b>190720</b>	2001 <i>NL</i> <sub>10</sub>		1 23.1 134°11	0°8/23.4	18		<b>343236</b>	2009 <i>WZ</i> <sub>132</sub>		1 23.1 150°77	2°1/24.1	18	
12 23	8 49.08	+16 58.9	1.862	2.695	13.4	20.9	12 23	8 46.79	+13 0.9	1.547	2.384	15.5	21.4
1 2	8 41.05	+17 2.5	1.801	2.712	9.6	20.7	1 2	8 39.90	+13 13.3	1.481	2.391	11.3	21.1
1 12	8 30.85	+17 12.5	1.766	2.728	5.3	20.5	1 12	8 30.46	+13 38.8	1.438	2.398	6.7	20.9
1 22	8 19.43	+17 25.5	1.760	2.743	1.0	20.2	1 22	8 19.45	+14 14.0	1.423	2.404	2.4	20.6
2 1	8 8.00	+17 38.5	1.785	2.758	4.0	20.4	2 1	8 8.23	+14 54.2	1.436	2.409	4.7	20.8
2 11	7 57.78	+17 48.8	1.839	2.771	8.2	20.7	2 11	7 58.26	+15 34.2	1.476	2.414	9.4	21.1
2 21	7 49.72	+17 55.0	1.920	2.784	11.9	21.0	2 21	7 50.64	+16 10.3	1.542	2.418	13.6	21.3
3 2	7 44.37	+17 56.8	2.023	2.795	15.0	21.2	3 2	7 46.07	+16 40.0	1.629	2.422	17.2	21.6
<b>372445</b>	2009 <i>SJ</i> <sub>92</sub>		1 23.1 33°20	0°1/23.1	18		<b>26608</b>	2000 <i>FZ</i> <sub>33</sub>		1 23.1 156°87	0°3/23.3	18	
12 23	8 43.64	+19 4.4	1.773	2.621	13.3	21.2	12 23	8 40.16	+17 0.1	2.906	3.735	9.2	20.1
1 2	8 37.44	+19 9.5	1.704	2.623	9.5	21.0	1 2	8 34.30	+17 25.4	2.832	3.742	6.6	19.9
1 12	8 29.02	+19 19.8	1.660	2.625	5.2	20.7	1 12	8 27.10	+17 55.6	2.787	3.749	3.6	19.7
1 22	8 19.26	+19 32.1	1.644	2.628	0.5	20.4	1 22	8 19.10	+18 28.2	2.772	3.756	0.5	19.5
2 1	8 9.35	+19 42.7	1.656	2.630	4.1	20.7	2 1	8 10.99	+19 0.4	2.789	3.762	2.8	19.7
2 11	8 0.52	+19 49.2	1.697	2.633	8.5	20.9	2 11	8 3.49	+19 29.8	2.837	3.767	5.8	19.9
2 21	7 53.76	+19 50.3	1.763	2.635	12.4	21.2	2 21	7 57.21	+19 54.8	2.913	3.772	8.5	20.1
3 2	7 49.69	+19 45.7	1.851	2.638	15.7	21.4	3 2	7 52.59	+20 14.4	3.014	3.777	10.8	20.3
<b>90959</b>	1997 <i>WW</i> <sub>14</sub>		1 23.1 95°69	4°4/21.1	18		<b>467148</b>	2016 <i>EL</i> <sub>83</sub>		1 23.1 267°35	1°4/22.2	18	
12 23	8 49.00	+27 58.7	1.539	2.395	14.5	19.6	12 23	8 41.64	+19 59.0	1.884	2.734	12.5	21.3
1 2	8 41.51	+29 0.7	1.493	2.414	10.4	19.3	1 2	8 36.14	+21 6.4	1.808	2.729	8.9	21.1
1 12	8 31.27	+29 59.9	1.472	2.433	6.4	19.2	1 12	8 28.42	+22 21.7	1.758	2.724	4.8	20.8
1 22	8 19.49	+30 48.0	1.478	2.451	4.4	19.1	1 22	8 19.26	+23 38.4	1.737	2.719	1.4	20.6
2 1	8 7.72	+31 18.6	1.512	2.469	6.9	19.3	2 1	8 9.75	+24 49.9	1.745	2.714	4.7	20.8
2 11	7 57.55	+31 29.6	1.573	2.486	10.8	19.5	2 11	8 1.10	+25 50.7	1.782	2.709	8.8	21.0
2 21	7 50.09	+31 22.7	1.657	2.504	14.4	19.8	2 21	7 54.33	+26 38.0	1.844	2.704	12.6	21.2
3 2	7 45.95	+31 1.8	1.761	2.520	17.4	20.1	3 2	7 50.16	+27 11.0	1.928	2.699	15.7	21.4
<b>237679</b>	2001 <i>TV</i> <sub>75</sub>		1 23.1 68°77	3°1/25.0	18		<b>303102</b>	2004 <i>BJ</i> <sub>96</sub>		1 23.1 51°73	1°0/23.5	18	
12 23	8 39.92	+ 8 59.9	2.216	3.034	1								

EPHEMERIDES

1 23.1

1 23.1

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>371777</b>	2007 <i>HL</i> <sub>44</sub>		1 23.1 304°98	5°7/20.5	18		<b>159462</b>	2000 <i>OO</i> <sub>3</sub>		1 23.1 199°60	1°1/23.7	18	
12 23	8 47.36	+34 28.6	1.869	2.716	12.7	20.7	12 23	8 45.66	+14 58.6	2.054	2.883	12.5	21.3
1 2	8 40.30	+35 7.4	1.801	2.712	9.6	20.5	1 2	8 38.76	+15 15.4	1.971	2.879	9.1	21.1
1 12	8 30.67	+35 38.0	1.759	2.708	6.8	20.3	1 12	8 29.78	+15 40.8	1.914	2.875	5.2	20.8
1 22	8 19.49	+35 53.6	1.744	2.704	5.8	20.2	1 22	8 19.46	+16 11.9	1.886	2.869	1.4	20.6
2 1	8 8.15	+35 49.6	1.758	2.700	7.6	20.3	2 1	8 8.85	+16 45.0	1.889	2.862	3.8	20.7
2 11	7 58.10	+35 25.4	1.798	2.696	10.6	20.5	2 11	7 59.08	+17 16.4	1.922	2.855	7.9	21.0
2 21	7 50.45	+34 43.7	1.862	2.692	13.8	20.7	2 21	7 51.10	+17 43.6	1.982	2.847	11.6	21.2
3 2	7 45.87	+33 48.9	1.947	2.689	16.5	20.9	3 2	7 45.58	+18 5.1	2.064	2.838	14.7	21.4
<b>11926</b>	Orinoco		1 23.1 97°38	2°9/21.6	18		<b>364281</b>	2006 <i>TB</i> <sub>71</sub>		1 23.1 108°51	6°3/20.2	18	
12 23	8 45.27	+23 52.9	1.613	2.469	13.9	17.8	12 23	8 50.61	+35 58.2	1.889	2.730	12.9	21.2
1 2	8 38.87	+25 0.9	1.557	2.480	9.9	17.6	1 2	8 42.45	+36 53.3	1.842	2.747	9.8	21.1
1 12	8 29.92	+26 11.9	1.526	2.491	5.6	17.3	1 12	8 31.75	+37 38.0	1.821	2.764	7.2	20.9
1 22	8 19.42	+27 18.0	1.522	2.501	3.0	17.2	1 22	8 19.65	+38 5.2	1.828	2.780	6.4	20.9
2 1	8 8.75	+28 12.0	1.547	2.511	5.9	17.4	2 1	8 7.61	+38 10.4	1.863	2.796	8.0	21.0
2 11	7 59.37	+28 49.7	1.599	2.521	10.1	17.7	2 11	7 57.09	+37 53.5	1.926	2.811	10.7	21.2
2 21	7 52.36	+29 10.6	1.676	2.531	13.8	17.9	2 21	7 49.11	+37 18.2	2.012	2.826	13.5	21.5
3 2	7 48.42	+29 16.1	1.773	2.541	17.0	18.2	3 2	7 44.26	+36 29.4	2.119	2.841	15.9	21.7
<b>47226</b>	1999 <i>VE</i> <sub>19</sub>		1 23.1 356°69	5°2/20.9	18		<b>77295</b>	2001 <i>FZ</i> <sub>71</sub>		1 23.1 4°96	0°7/23.5	18	
12 23	8 46.24	+27 25.4	1.232	2.103	16.4	17.2	12 23	8 40.56	+15 54.7	1.221	2.087	16.8	19.2
1 2	8 40.36	+28 39.6	1.173	2.101	11.9	17.0	1 2	8 36.03	+16 23.6	1.160	2.086	12.1	18.9
1 12	8 31.06	+29 54.4	1.137	2.101	7.3	16.7	1 12	8 28.60	+17 6.4	1.120	2.087	6.8	18.7
1 22	8 19.56	+30 58.9	1.126	2.100	5.2	16.6	1 22	8 19.35	+17 57.8	1.104	2.088	1.1	18.3
2 1	8 7.69	+31 43.4	1.140	2.100	8.3	16.8	2 1	8 9.80	+18 50.6	1.115	2.091	5.1	18.6
2 11	7 57.48	+32 3.5	1.179	2.100	12.9	17.0	2 11	8 1.64	+19 38.1	1.150	2.094	10.6	18.9
2 21	7 50.41	+32 0.5	1.239	2.100	17.3	17.3	2 21	7 56.14	+20 16.1	1.208	2.099	15.5	19.2
3 2	7 47.30	+31 38.6	1.317	2.101	21.0	17.5	3 2	7 54.04	+20 42.3	1.284	2.104	19.5	19.4
<b>235612</b>	2004 <i>PC</i> <sub>101</sub>		1 23.1 186°00	1°5/22.5	18		<b>394125</b>	2006 <i>GZ</i> <sub>25</sub>		1 23.1 262°77	1°0/22.3	16	
12 23	8 48.69	+22 58.0	1.885	2.728	12.8	20.6	12 23	8 37.44	+22 45.2	3.312	4.152	7.9	21.9
1 2	8 41.04	+23 16.4	1.811	2.728	9.2	20.4	1 2	8 32.41	+23 11.5	3.222	4.139	5.6	21.7
1 12	8 31.02	+23 36.2	1.763	2.728	5.0	20.1	1 12	8 26.13	+23 39.4	3.161	4.125	3.1	21.5
1 22	8 19.54	+23 52.9	1.744	2.727	1.5	19.9	1 22	8 19.08	+24 6.3	3.130	4.111	1.1	21.3
2 1	8 7.86	+24 2.6	1.755	2.725	4.6	20.1	2 1	8 11.85	+24 29.9	3.130	4.098	2.9	21.4
2 11	7 57.31	+24 3.0	1.796	2.722	8.8	20.3	2 11	8 5.09	+24 48.1	3.160	4.084	5.6	21.6
2 21	7 48.92	+23 54.1	1.862	2.719	12.6	20.6	2 21	7 59.35	+25 0.2	3.219	4.070	8.0	21.7
3 2	7 43.37	+23 37.4	1.950	2.715	15.8	20.8	3 2	7 55.09	+25 5.7	3.302	4.056	10.1	21.9
<b>181779</b>	1997 <i>US</i> <sub>18</sub>		1 23.1 90°03	6°2/26.6	18		<b>69849</b>	1998 <i>SZ</i> <sub>38</sub>		1 23.1 186°68	0°3/23.4	17	
12 23	8 42.88	+1 31.2	1.891	2.682	14.9	20.2	12 23	8 41.52	+17 10.8	2.639	3.470	10.0	21.5
1 2	8 36.61	+1 12.5	1.834	2.703	11.9	20.0	1 2	8 35.44	+17 31.3	2.559	3.470	7.1	21.3
1 12	8 28.47	+1 13.5	1.801	2.724	8.8	19.8	1 12	8 27.82	+17 57.0	2.506	3.469	3.9	21.1
1 22	8 19.27	+1 34.0	1.793	2.745	6.5	19.8	1 22	8 19.26	+18 25.4	2.484	3.467	0.6	20.8
2 1	8 10.05	+2 11.5	1.814	2.765	6.6	19.8	2 1	8 10.53	+18 53.5	2.492	3.465	3.0	21.0
2 11	8 1.83	+3 1.6	1.862	2.785	8.8	20.0	2 11	8 2.45	+19 18.9	2.532	3.463	6.3	21.2
2 21	7 55.43	+3 58.6	1.937	2.804	11.7	20.2	2 21	7 55.72	+19 39.8	2.599	3.460	9.3	21.4
3 2	7 51.38	+4 57.2	2.034	2.823	14.4	20.4	3 2	7 50.86	+19 55.2	2.690	3.456	11.8	21.6
<b>348619</b>	2005 <i>YY</i> <sub>41</sub>		1 23.1 40°87	0°2/23.1	15		<b>343182</b>	2009 <i>UD</i> <sub>85</sub>		1 23.1 49°02	2°6/22.1	17	
12 23	8 46.05	+19 7.2	1.056	1.928	18.4	20.4	12 23	8 45.96	+22 10.5	1.146	2.017	17.3	21.0
1 2	8 39.90	+19 19.3	1.017	1.947	13.1	20.1	1 2	8 40.01	+23 7.6	1.097	2.027	12.3	20.8
1 12	8 30.56	+19 39.9	0.999	1.967	7.0	19.9	1 12	8 30.78	+24 10.8	1.069	2.037	6.7	20.5
1 22	8 19.49	+20 3.0	1.004	1.988	0.7	19.5	1 22	8 19.58	+25 10.8	1.066	2.048	2.6	20.3
2 1	8 8.59	+20 22.6	1.034	2.010	5.5	19.9	2 1	8 8.23	+25 58.7	1.089	2.059	6.6	20.6
2 11	7 59.69	+20 34.8	1.089	2.032	11.2	20.3	2 11	7 58.67	+26 29.3	1.136	2.070	11.9	20.9
2 21	7 53.98	+20 38.2	1.166	2.055	16.0	20.7	2 21	7 52.25	+26 42.1	1.205	2.082	16.6	21.2
3 2	7 51.97	+20 33.1	1.261	2.079	19.9	21.0	3 2	7 49.64	+26 39.2	1.292	2.094	20.4	21.5
<b>269064</b>	2007 <i>GB</i> <sub>40</sub>		1 23.1 39°92	1°8/24.1	18		<b>82872</b>	2001 <i>QC</i> <sub>66</sub>		1 23.1 54°06	7°0/27.5	18	
12 23	8 41.20	+13 21.4	1.783	2.623	13.6	20.7	12 23	8 40.19	- 0 43.0	1.661	2.454	16.5	18.6
1 2	8 35.70	+13 33.8	1.716	2.628	9.9	20.5	1 2	8 35.05	- 0 40.2	1.596	2.464	13.4	18.4
1 12	8 28.10	+13 57.6	1.673	2.633	5.8	20.3	1 12	8 27.79	- 0 11.8	1.552	2.474	10.1	18.3
1 22	8 19.25	+14 29.7	1.658	2.639	2.1	20.0	1 22	8 19.26	+ 0 41.7	1.533	2.484	7.5	18.1
2 1	8 10.24	+15 6.2	1.671	2.644	4.1	20.2	2 1	8 10.56	+ 1 56.6	1.541	2.494	7.4	18.2
2 11	8 2.21	+15 43.0	1.712	2.650	8.2	20.5	2 11	8 2.85	+ 3 25.9	1.576	2.504	9.7	18.3
2 21	7 56.09	+16 16.6	1.778	2.656	12.0	20.7	2 21	7 57.08	+ 5 1.4	1.637	2.515	12.8	18.5
3 2	7 52.50	+16 44.6	1.867	2.663	15.2	20.9	3 2	7 53.87	+ 6 35.6	1.719	2.526	15.9	18.8
<b>451889</b>	2014 <i>JO</i> <sub>36</sub>		1 23.1 216°10	0°6/22.9	18		<b>371260</b>	2006 <i>BU</i> <sub>233</sub>		1 23.1 49°49	1°0/22.6	18	
12 23	8 46.60	+19 10.9	1.770	2.613	13.5	22.4	12 23	8 41.81	+19 50.4	1.784	2.637	13.0	20.8
1 2	8 39.79	+19 43.3	1.689	2.606	9.7	22.2	1 2	8 36.19	+20 34.2	1.722	2.644	9.2	20.6
1 12	8 30.47	+20 22.8	1.633	2.598	5.3	21.9	1 12	8 28.41	+21 24.3	1.685	2.651	4.9	20.4
1 22	8 19.53	+21 4.2	1.606	2.589	0.7	21.5	1 22	8 19.33	+22 15.2	1.676	2.659	1.0	20.1
2 1	8 8.20	+21 42.4	1.608	2.580	4.5	21.8	2 1	8 10.08	+23 1.5	1.695	2.667	4.4	20.4
2 11	7 57.86	+22 13.0	1.639	2.570	9.1	22.0	2 11	8 1.88	+23 39.0	1.743	2.675	8.6	20.6
2 21	7 49.65	+22 34.1	1.695	2.559	13.3	22.3	2 21	7 55.68	+24 5.8	1.816	2.683	12.3	20.9
3 2	7 44.34	+22 45.5	1.773	2.548	16.7	22.5	3 2	7 52.10	+24 21.6	1.910	2.692	15.4	21.1
<b>124363</b>	2001 <i>QM</i> <sub>136</sub>		1 23.1 106°01	1°5/22.6	18		<b>171320</b>	2006 <i>HO</i> <sub>78</sub>		1 23.1 197°73	1°6/23.9	18	
12 23	8 52.01	+23 12.3	1.687	2.530	14.1	19.7	12 23						

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1 23.1

1 23.2

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>205946</b>	2002 <i>JH</i> <sub>77</sub>		1 23.1 312°89	4.0°/24.8	18		<b>6210</b>	Hyunseop		1 23.1 342°05	0°1°/23.2	18	
12 23	8 43.00	+ 9 40.8	1.496	2.332	16.0	20.1	12 23	8 41.16	+17 30.9	1.958	2.803	12.3	17.0
1 2	8 37.39	+ 9 28.3	1.422	2.327	12.1	19.8	1 2	8 35.63	+17 59.9	1.884	2.802	8.8	16.8
1 12	8 29.22	+ 9 32.0	1.370	2.323	7.8	19.6	1 12	8 28.10	+18 36.5	1.836	2.801	4.8	16.6
1 22	8 19.42	+ 9 50.6	1.343	2.318	4.3	19.3	1 22	8 19.32	+19 16.7	1.816	2.800	0.5	16.2
2 1	8 9.28	+10 21.1	1.344	2.314	5.6	19.4	2 1	8 10.32	+19 56.1	1.826	2.799	3.8	16.5
2 11	8 0.23	+10 58.7	1.371	2.310	9.8	19.6	2 11	8 2.19	+20 30.9	1.864	2.799	7.9	16.7
2 21	7 53.42	+11 38.6	1.423	2.307	14.1	19.9	2 21	7 55.85	+20 58.7	1.928	2.798	11.6	17.0
3 2	7 49.62	+12 16.3	1.495	2.303	17.8	20.1	3 2	7 51.91	+21 18.3	2.014	2.798	14.7	17.2
<b>493818</b>	2015 <i>VK</i> <sub>102</sub>		1 23.1 71°11	3°4°/21.6	18		<b>119651</b>	2001 <i>XE</i> <sub>49</sub>		1 23.2 229°68	6°7°/18.5	18	
12 23	8 46.83	+25 11.7	1.397	2.260	15.3	20.8	12 23	8 46.28	+35 49.5	2.006	2.851	12.1	19.5
1 2	8 40.22	+26 6.4	1.347	2.272	10.9	20.6	1 2	8 39.70	+37 22.6	1.940	2.845	9.4	19.3
1 12	8 30.74	+27 2.0	1.320	2.285	6.2	20.4	1 12	8 30.50	+38 49.1	1.900	2.839	7.2	19.2
1 22	8 19.57	+27 50.4	1.319	2.298	3.4	20.2	1 22	8 19.59	+40 0.2	1.888	2.832	6.9	19.2
2 1	8 8.33	+28 24.6	1.346	2.310	6.5	20.5	2 1	8 8.24	+40 49.1	1.904	2.825	8.6	19.2
2 11	7 58.67	+28 41.4	1.398	2.323	10.9	20.7	2 11	7 57.94	+41 12.9	1.947	2.818	11.3	19.4
2 21	7 51.78	+28 41.5	1.474	2.336	15.0	21.0	2 21	7 49.87	+41 13.2	2.012	2.811	14.1	19.6
3 2	7 48.30	+28 27.5	1.569	2.349	18.3	21.3	3 2	7 44.83	+40 54.1	2.098	2.803	16.5	19.7
<b>89139</b>	2001 <i>UT</i> <sub>20</sub>		1 23.1 171°04	2°0°/22.2	18		<b>491815</b>	2012 <i>XU</i> <sub>118</sub>		1 23.2 29°10	3°2°/24.4	18	
12 23	8 47.45	+22 52.6	1.814	2.661	13.1	20.8	12 23	8 44.00	+12 3.7	1.221	2.073	17.7	21.3
1 2	8 40.27	+23 35.0	1.746	2.665	9.3	20.6	1 2	8 38.40	+11 57.5	1.161	2.077	13.2	21.1
1 12	8 30.67	+24 20.3	1.703	2.668	5.1	20.3	1 12	8 29.86	+12 7.9	1.122	2.082	8.0	20.8
1 22	8 19.58	+25 2.7	1.689	2.671	2.0	20.1	1 22	8 19.52	+12 32.2	1.108	2.087	3.5	20.6
2 1	8 8.26	+25 36.7	1.705	2.672	5.0	20.3	2 1	8 8.96	+13 6.0	1.119	2.093	5.6	20.7
2 11	7 58.08	+25 59.0	1.749	2.674	9.2	20.6	2 11	7 59.86	+13 43.3	1.156	2.099	10.6	21.0
2 21	7 50.09	+26 8.9	1.819	2.674	12.9	20.8	2 21	7 53.50	+14 19.1	1.215	2.106	15.4	21.3
3 2	7 44.98	+26 7.5	1.910	2.674	16.1	21.0	3 2	7 50.59	+14 49.8	1.293	2.113	19.4	21.6
<b>48493</b>	1992 <i>WG</i>		1 23.1 57°48	5°9°/19.6	18		<b>237304</b>	2008 <i>YP</i> <sub>77</sub>		1 23.2 105°39	1°1°/23.9	18	
12 23	8 44.39	+34 10.4	1.954	2.804	12.1	18.1	12 23	8 40.26	+14 18.2	2.401	3.231	10.9	21.1
1 2	8 38.06	+35 22.9	1.906	2.817	9.2	18.0	1 2	8 34.59	+14 42.1	2.335	3.244	7.8	21.0
1 12	8 29.42	+36 28.0	1.884	2.831	6.6	17.8	1 12	8 27.38	+15 13.9	2.296	3.256	4.5	20.8
1 22	8 19.44	+37 18.6	1.890	2.844	6.0	17.8	1 22	8 19.26	+15 50.8	2.286	3.269	1.3	20.5
2 1	8 9.36	+37 49.3	1.924	2.858	7.7	17.9	2 1	8 11.05	+16 29.6	2.307	3.281	3.2	20.7
2 11	8 0.50	+37 58.7	1.984	2.871	10.4	18.1	2 11	8 3.59	+17 7.0	2.358	3.293	6.5	20.9
2 21	7 53.83	+37 48.7	2.068	2.885	13.1	18.3	2 21	7 57.58	+17 40.5	2.436	3.305	9.6	21.2
3 2	7 49.97	+37 22.9	2.172	2.899	15.4	18.5	3 2	7 53.49	+18 8.5	2.538	3.316	12.2	21.4
<b>180650</b>	2004 <i>GK</i> <sub>32</sub>		1 23.1 220°33	1°8°/24.1	18		<b>454212</b>	2013 <i>HN</i> <sub>65</sub>		1 23.2 17°88	0°1°/23.2	18	
12 23	8 43.78	+13 40.1	2.214	3.040	11.8	20.8	12 23	8 42.98	+18 51.2	1.116	1.989	17.6	20.8
1 2	8 37.32	+13 38.8	2.127	3.031	8.7	20.5	1 2	8 37.84	+18 54.7	1.064	1.994	12.6	20.5
1 12	8 28.97	+13 45.8	2.065	3.022	5.2	20.3	1 12	8 29.59	+19 7.0	1.033	2.001	6.9	20.2
1 22	8 19.41	+13 59.1	2.032	3.012	2.0	20.1	1 22	8 19.50	+19 23.1	1.026	2.010	0.7	19.8
2 1	8 9.57	+14 16.4	2.030	3.002	3.7	20.2	2 1	8 9.31	+19 37.8	1.044	2.019	5.4	20.2
2 11	8 0.47	+14 35.0	2.057	2.991	7.4	20.4	2 11	8 0.81	+19 47.1	1.085	2.030	11.0	20.5
2 21	7 52.97	+14 52.5	2.112	2.979	10.9	20.6	2 21	7 55.27	+19 49.2	1.149	2.042	16.0	20.8
3 2	7 47.70	+15 7.3	2.190	2.967	13.9	20.8	3 2	7 53.35	+19 43.6	1.231	2.055	20.0	21.1
<b>117831</b>	2005 <i>JM</i> <sub>48</sub>		1 23.1 102°40	1°1°/23.8	18		<b>461285</b>	2015 <i>XF</i> <sub>69</sub>		1 23.2 71°52	5°8°/25.7	18	
12 23	8 44.46	+14 18.3	1.968	2.799	12.8	19.8	12 23	8 44.11	+ 5 37.5	1.456	2.279	17.0	21.0
1 2	8 37.73	+14 49.7	1.914	2.823	9.2	19.6	1 2	8 38.02	+ 5 13.7	1.398	2.291	13.2	20.8
1 12	8 29.10	+15 30.5	1.885	2.846	5.2	19.4	1 12	8 29.47	+ 5 10.3	1.361	2.303	9.2	20.6
1 22	8 19.41	+16 16.7	1.885	2.868	1.3	19.1	1 22	8 19.49	+ 5 26.9	1.350	2.316	6.1	20.5
2 1	8 9.69	+17 3.9	1.916	2.890	3.7	19.4	2 1	8 9.38	+ 6 0.6	1.365	2.328	6.7	20.5
2 11	8 1.03	+17 47.9	1.977	2.911	7.6	19.6	2 11	8 0.55	+ 6 46.0	1.407	2.341	10.0	20.7
2 21	7 54.24	+18 26.0	2.064	2.932	11.0	19.9	2 21	7 54.04	+ 7 36.9	1.473	2.354	13.8	21.0
3 2	7 49.85	+18 56.6	2.174	2.952	13.9	20.1	3 2	7 50.48	+ 8 27.7	1.559	2.366	17.2	21.2
<b>372495</b>	2009 <i>SW</i> <sub>249</sub>		1 23.1 237°17	2°2°/24.3	17		<b>336530</b>	2008 <i>YJ</i> <sub>135</sub>		1 23.2 41°10	2°5°/22.4	18	
12 23	8 41.96	+12 15.0	2.070	2.898	12.4	21.8	12 23	8 48.00	+27 18.5	1.733	2.584	13.4	19.5
1 2	8 36.14	+12 20.8	1.985	2.890	9.2	21.6	1 2	8 40.39	+27 7.6	1.685	2.605	9.5	19.3
1 12	8 28.36	+12 37.1	1.926	2.882	5.6	21.4	1 12	8 30.54	+26 52.8	1.662	2.626	5.4	19.1
1 22	8 19.34	+13 2.0	1.895	2.874	2.4	21.1	1 22	8 19.58	+26 30.6	1.668	2.648	2.5	19.0
2 1	8 10.04	+13 32.5	1.893	2.865	3.9	21.2	2 1	8 8.84	+25 59.2	1.702	2.670	5.0	19.2
2 11	8 1.50	+14 5.2	1.921	2.856	7.7	21.4	2 11	7 59.60	+25 19.0	1.765	2.692	8.9	19.5
2 21	7 54.62	+14 36.8	1.975	2.847	11.3	21.6	2 21	7 52.74	+24 32.3	1.854	2.715	12.4	19.7
3 2	7 50.02	+15 4.9	2.052	2.838	14.4	21.8	3 2	7 48.74	+23 41.6	1.964	2.738	15.3	20.0
<b>196715</b>	2003 <i>SQ</i> <sub>102</sub>		1 23.1 42°20	2°5°/24.4	18		<b>323446</b>	2004 <i>HM</i> <sub>28</sub>		1 23.2 252°72	6°9°/26.5	18	
12 23	8 41.41	+12 19.4	1.822	2.657	13.6	19.4	12 23	8 41.65	+ 0 49.1	1.934	2.722	14.7	20.5
1 2	8 35.77	+12 14.3	1.758	2.666	10.0	19.2	1 2	8 36.02	+ 0 15.7	1.848	2.714	12.0	20.3
1 12	8 28.13	+12 20.3	1.718	2.675	6.1	19.0	1 12	8 28.36	+ 0 1.3	1.786	2.705	9.2	20.1
1 22	8 19.31	+12 35.5	1.705	2.684	2.7	18.8	1 22	8 19.38	+ 0 7.1	1.749	2.696	7.1	20.0
2 1	8 10.39	+12 57.0	1.721	2.693	4.2	18.9	2 1	8 10.06	+ 0 32.6	1.740	2.686	7.3	20.0
2 11	8 2.47	+13 21.3	1.765	2.703	8.0	19.2	2 11	8 1.50	+ 1 14.2	1.758	2.677	9.5	20.1
2 21	7 56.42	+13 45.3	1.835	2.713	11.7	19.4	2 21	7 54.63	+ 2 6.8	1.801	2.667	12.5	20.3
3 2	7 52.82	+14 6.6	1.926	2.723	14.8	19.6	3 2	7 50.13	+ 3 4.8	1.867	2.658	15.4	20.4
<b>297103</b>	2010 <i>OO</i> <sub>53</sub>		1 23.1 81°73	2°1°/24.5	18		<b>322740</b>	2000 <i>TM</i> <sub>1</sub>		1 23.2 244°14	10°3°/30.6	17	
12 23	8 43.88	+10 13.7	1.794	2.620	14.2								

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>377941</b>	2006 <i>HZ</i> <sub>63</sub>		1 23.2 46°71	0°3/22.9	18		<b>202749</b>	2007 <i>PH</i> <sub>3</sub>		1 23.2 87°97	1°5/22.1	18	
12 23	8 41.10	+18 36.4	2.017	2.863	12.0	21.2	12 23	8 41.62	+21 18.3	2.160	3.007	11.3	19.5
1 2	8 35.53	+19 6.9	1.947	2.866	8.5	21.0	1 2	8 35.79	+22 20.1	2.102	3.021	7.9	19.3
1 12	8 28.03	+19 43.6	1.903	2.869	4.6	20.8	1 12	8 28.13	+23 25.9	2.071	3.036	4.3	19.1
1 22	8 19.35	+20 22.6	1.888	2.872	0.5	20.5	1 22	8 19.38	+24 30.3	2.069	3.051	1.5	18.9
2 1	8 10.49	+20 59.6	1.902	2.875	3.8	20.7	2 1	8 10.51	+25 28.1	2.097	3.065	4.2	19.1
2 11	8 2.51	+21 31.0	1.944	2.878	7.7	21.0	2 11	8 2.53	+26 15.6	2.155	3.079	7.7	19.4
2 21	7 56.29	+21 54.8	2.013	2.881	11.3	21.2	2 21	7 56.24	+26 51.1	2.240	3.094	10.9	19.6
3 2	7 52.40	+22 10.3	2.104	2.884	14.2	21.4	3 2	7 52.19	+27 14.6	2.346	3.108	13.5	19.8
<b>320953</b>	2008 <i>HB</i> <sub>12</sub>		1 23.2 195°22	7°3/18.0	18		<b>294892</b>	2008 <i>DC</i> <sub>12</sub>		1 23.2 26°69	1°3/22.6	18	
12 23	8 50.00	+42 32.8	2.459	3.278	11.0	21.5	12 23	8 43.16	+20 29.1	1.446	2.307	15.0	20.8
1 2	8 42.03	+43 44.3	2.397	3.276	9.0	21.4	1 2	8 37.60	+21 8.6	1.386	2.312	10.6	20.6
1 12	8 31.64	+44 43.9	2.361	3.272	7.6	21.3	1 12	8 29.38	+21 54.8	1.349	2.317	5.7	20.3
1 22	8 19.73	+45 24.7	2.353	3.268	7.5	21.3	1 22	8 19.55	+22 41.5	1.339	2.322	1.3	20.0
2 1	8 7.57	+45 42.1	2.373	3.264	8.7	21.3	2 1	8 9.51	+23 22.2	1.356	2.328	5.1	20.3
2 11	7 56.51	+45 35.2	2.420	3.259	10.6	21.5	2 11	8 0.79	+23 52.4	1.399	2.334	10.0	20.6
2 21	7 47.63	+45 7.0	2.491	3.253	12.7	21.6	2 21	7 54.52	+24 10.3	1.466	2.341	14.3	20.9
3 2	7 41.61	+44 22.2	2.581	3.247	14.6	21.7	3 2	7 51.40	+24 16.2	1.553	2.348	17.8	21.1
<b>338861</b>	2003 <i>YH</i> <sub>116</sub>		1 23.2 347°75	0°4/22.9	18		<b>491426</b>	2012 <i>EV</i> <sub>16</sub>		1 23.2 54°70	2°2/24.6	18	
12 23	8 43.26	+20 53.4	2.080	2.924	11.7	20.0	12 23	8 40.98	+9 41.4	1.650	2.483	14.8	20.2
1 2	8 37.00	+20 50.0	2.005	2.923	8.4	19.8	1 2	8 35.74	+10 39.9	1.585	2.492	10.9	20.0
1 12	8 28.79	+20 49.1	1.957	2.922	4.5	19.6	1 12	8 28.27	+11 56.6	1.544	2.501	6.6	19.7
1 22	8 19.43	+20 47.9	1.937	2.921	0.6	19.3	1 22	8 19.43	+13 26.7	1.530	2.510	2.6	19.5
2 1	8 9.92	+20 43.9	1.947	2.920	3.7	19.5	2 1	8 10.37	+15 2.6	1.545	2.520	4.3	19.6
2 11	8 1.35	+20 35.7	1.986	2.919	7.7	19.8	2 11	8 2.33	+16 36.6	1.589	2.529	8.6	19.9
2 21	7 54.57	+20 22.7	2.052	2.918	11.2	20.0	2 21	7 56.29	+18 2.3	1.659	2.539	12.6	20.2
3 2	7 50.15	+20 5.2	2.140	2.918	14.1	20.2	3 2	7 52.91	+19 15.8	1.750	2.549	16.0	20.4
<b>455315</b>	2002 <i>GE</i> <sub>127</sub>		1 23.2 307°93	6°0/19.8	18		<b>384895</b>	2012 <i>TT</i> <sub>26</sub>		1 23.2 148°51	1°5/24.2	17	
12 23	8 44.27	+32 53.1	1.773	2.629	12.9	20.7	12 23	8 39.69	+12 58.3	2.721	3.543	10.0	21.8
1 2	8 38.44	+34 1.6	1.699	2.614	9.8	20.5	1 2	8 34.10	+13 10.7	2.647	3.550	7.3	21.6
1 12	8 29.90	+35 5.7	1.649	2.600	6.9	20.3	1 12	8 27.11	+13 30.8	2.600	3.556	4.3	21.4
1 22	8 19.57	+35 56.9	1.626	2.586	6.1	20.2	1 22	8 19.30	+13 56.6	2.582	3.562	1.7	21.2
2 1	8 8.79	+36 28.4	1.630	2.572	8.1	20.3	2 1	8 11.38	+14 25.6	2.596	3.568	3.0	21.3
2 11	7 59.12	+36 37.3	1.661	2.558	11.4	20.4	2 11	8 4.09	+14 55.2	2.639	3.573	6.0	21.5
2 21	7 51.78	+36 24.6	1.714	2.545	14.8	20.6	2 21	7 58.04	+15 23.2	2.711	3.578	8.8	21.7
3 2	7 47.60	+35 54.3	1.787	2.532	17.7	20.8	3 2	7 53.72	+15 47.9	2.807	3.583	11.2	21.9
<b>172004</b>	2001 <i>UD</i> <sub>38</sub>		1 23.2 194°82	4°4/20.3	18		<b>167783</b>	2005 <i>AC</i> <sub>22</sub>		1 23.2 42°02	2°4/24.4	18	
12 23	8 43.69	+33 3.6	2.456	3.299	10.2	20.1	12 23	8 42.11	+11 20.9	1.328	2.177	16.8	19.8
1 2	8 37.25	+33 47.7	2.389	3.298	7.6	19.9	1 2	8 36.87	+11 53.3	1.272	2.187	12.4	19.6
1 12	8 28.92	+34 26.5	2.348	3.297	5.3	19.8	1 12	8 28.99	+12 44.0	1.238	2.198	7.3	19.3
1 22	8 19.45	+34 54.9	2.336	3.296	4.5	19.7	1 22	8 19.52	+13 48.1	1.229	2.210	2.8	19.1
2 1	8 9.82	+35 9.3	2.353	3.295	6.0	19.8	2 1	8 9.89	+14 58.6	1.247	2.222	4.9	19.2
2 11	8 1.08	+35 8.1	2.399	3.293	8.5	20.0	2 11	8 1.59	+16 7.8	1.291	2.234	9.8	19.5
2 21	7 54.07	+34 52.6	2.471	3.292	11.1	20.1	2 21	7 55.76	+17 9.9	1.359	2.247	14.3	19.8
3 2	7 49.36	+34 24.9	2.564	3.290	13.3	20.3	3 2	7 53.08	+18 1.2	1.447	2.260	18.0	20.1
<b>146727</b>	2001 <i>XD</i> <sub>35</sub>		1 23.2 60°48	2°9/24.2	18		<b>222789</b>	2002 <i>CU</i> <sub>200</sub>		1 23.2 331°37	0°7/22.9	18	
12 23	8 46.40	+13 30.9	1.622	2.459	14.9	18.9	12 23	8 43.15	+20 16.5	1.867	2.715	12.7	20.5
1 2	8 39.35	+12 55.7	1.569	2.477	10.9	18.7	1 2	8 37.16	+20 36.4	1.795	2.714	9.0	20.2
1 12	8 30.06	+12 30.3	1.539	2.496	6.6	18.5	1 12	8 29.01	+21 0.9	1.748	2.713	4.9	20.0
1 22	8 19.56	+12 13.8	1.537	2.515	3.1	18.3	1 22	8 19.53	+21 26.0	1.729	2.713	0.8	19.7
2 1	8 9.12	+12 4.5	1.563	2.534	4.7	18.5	2 1	8 9.83	+21 47.7	1.739	2.712	4.2	19.9
2 11	8 0.01	+12 0.2	1.617	2.554	8.8	18.8	2 11	8 1.14	+22 3.0	1.778	2.711	8.4	20.2
2 21	7 53.15	+11 58.9	1.697	2.573	12.6	19.0	2 21	7 54.39	+22 10.5	1.842	2.711	12.1	20.4
3 2	7 49.09	+11 58.3	1.798	2.592	15.8	19.3	3 2	7 50.24	+22 10.2	1.928	2.710	15.3	20.6
<b>373959</b>	2003 <i>WB</i> <sub>99</sub>		1 23.2 25°92	4°3/24.9	18		<b>159454</b>	2000 <i>DJ</i> <sub>8</sub>		1 23.2 50°98	18°4/7.8	17	
12 23	8 41.09	+9 21.5	1.609	2.443	15.1	19.7	12 23	9 5.73	-52 44.7	0.533	1.151	58.4	19.1
1 2	8 35.69	+8 52.0	1.551	2.454	11.4	19.5	1 2	8 54.90	-47 53.3	0.468	1.184	53.9	18.8
1 12	8 28.15	+8 37.0	1.515	2.465	7.5	19.3	1 12	8 39.07	-39 47.9	0.405	1.218	46.3	18.3
1 22	8 19.37	+8 36.1	1.506	2.478	4.5	19.2	1 22	8 20.57	-26 55.9	0.356	1.255	34.9	17.8
2 1	8 10.51	+8 47.2	1.523	2.491	5.4	19.2	2 1	8 3.10	-9 24.1	0.341	1.292	22.2	17.4
2 11	8 2.79	+9 6.6	1.568	2.505	8.9	19.5	2 11	7 50.35	+8 38.6	0.371	1.330	19.2	17.5
2 21	7 57.12	+9 30.4	1.637	2.520	12.6	19.7	2 21	7 44.15	+22 38.7	0.444	1.368	26.2	18.2
3 2	7 54.07	+9 54.9	1.728	2.535	15.8	20.0	3 2	7 44.79	+31 53.1	0.545	1.405	32.7	18.9
<b>238359</b>	2004 <i>CJ</i> <sub>9</sub>		1 23.2 333°70	1°4/22.4	18		<b>143030</b>	2002 <i>VD</i> <sub>119</sub>		1 23.2 21°13	4°5/21.5	18	
12 23	8 40.95	+21 59.6	1.971	2.824	11.9	21.2	12 23	8 43.61	+27 29.0	1.166	2.043	16.6	18.5
1 2	8 35.56	+22 29.7	1.896	2.818	8.5	20.9	1 2	8 38.32	+28 11.7	1.122	2.053	12.0	18.2
1 12	8 28.11	+23 3.4	1.846	2.812	4.6	20.7	1 12	8 29.88	+28 52.2	1.099	2.065	7.1	18.0
1 22	8 19.37	+23 36.3	1.825	2.807	1.4	20.4	1 22	8 19.62	+29 21.8	1.101	2.078	4.5	17.9
2 1	8 10.40	+24 4.0	1.832	2.802	4.3	20.6	2 1	8 9.38	+29 34.2	1.128	2.092	7.5	18.1
2 11	8 2.31	+24 23.5	1.868	2.798	8.3	20.9	2 11	8 0.97	+29 27.3	1.178	2.108	12.0	18.4
2 21	7 56.04	+24 33.5	1.929	2.794	11.9	21.1	2 21	7 55.61	+29 3.3	1.250	2.124	16.3	18.7
3 2	7 52.22	+24 34.0	2.012	2.790	14.9	21.3	3 2	7 53.90	+28 26.1	1.340	2.142	19.8	19.0
<b>79155</b>	1993 <i>FN</i> <sub>8</sub>		1 23.2 326°43	1°0/23.8	18		<b>445902</b>	2012 <i>VA</i> <sub>87</sub>		1 23.2 44°93	2°8/24.1	18	
12 23	8 38.99	+14 37.5	2.052	2.892	12.1	19.4							

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>175100</b>	2004 JZ <sub>35</sub>		1 23.2 322°96	2°3/24.6	18		<b>459913</b>	2014 MH <sub>24</sub>		1 23.2 122°66	0°1/23.2	18	
12 23	8 38.67	+11 12.9	2.104	2.934	12.2	20.1	12 23	8 45.40	+17 15.6	1.888	2.727	13.0	21.9
1 2	8 33.82	+11 25.7	2.020	2.925	9.1	19.9	1 2	8 38.61	+17 50.1	1.828	2.743	9.3	21.7
1 12	8 27.15	+11 50.3	1.961	2.917	5.6	19.6	1 12	8 29.73	+18 32.1	1.794	2.758	5.0	21.5
1 22	8 19.34	+12 24.7	1.930	2.908	2.6	19.4	1 22	8 19.64	+19 17.0	1.788	2.772	0.6	21.2
2 1	8 11.27	+13 5.7	1.928	2.900	3.8	19.5	2 1	8 9.45	+19 59.9	1.812	2.786	3.9	21.5
2 11	8 3.90	+13 49.2	1.955	2.893	7.4	19.7	2 11	8 0.34	+20 37.0	1.866	2.799	8.1	21.8
2 21	7 58.06	+14 31.8	2.008	2.886	10.9	19.9	2 21	7 53.21	+21 6.1	1.946	2.812	11.7	22.0
3 2	7 54.36	+15 10.4	2.084	2.879	13.9	20.1	3 2	7 48.64	+21 26.4	2.048	2.824	14.7	22.2
<b>466882</b>	2015 DK <sub>28</sub>		1 23.2 212°37	0°2/23.3	18		<b>369111</b>	2008 KP <sub>38</sub>		1 23.2 145°55	2°7/21.6	18	
12 23	8 39.48	+16 19.2	2.489	3.324	10.4	20.9	12 23	8 43.97	+24 49.1	1.939	2.790	12.2	21.6
1 2	8 34.18	+17 3.6	2.408	3.321	7.4	20.8	1 2	8 37.76	+25 41.4	1.873	2.793	8.7	21.4
1 12	8 27.28	+17 55.6	2.355	3.318	4.1	20.5	1 12	8 29.36	+26 35.2	1.832	2.796	5.0	21.2
1 22	8 19.37	+18 51.6	2.331	3.315	0.5	20.2	1 22	8 19.61	+27 24.5	1.821	2.799	2.7	21.0
2 1	8 11.23	+19 47.5	2.338	3.311	3.2	20.5	2 1	8 9.64	+28 3.9	1.838	2.802	5.2	21.2
2 11	8 3.72	+20 39.5	2.376	3.308	6.6	20.7	2 11	8 0.69	+28 30.3	1.884	2.804	8.9	21.4
2 21	7 57.56	+21 24.9	2.441	3.304	9.7	20.9	2 21	7 53.71	+28 42.9	1.956	2.807	12.3	21.6
3 2	7 53.30	+22 2.1	2.529	3.301	12.4	21.0	3 2	7 49.36	+28 42.9	2.048	2.809	15.2	21.8
<b>337028</b>	1995 SY <sub>33</sub>		1 23.2 76°57	3°5/21.3	18		<b>466952</b>	2016 AB <sub>128</sub>		1 23.2 333°66	10°3/18.0	18	
12 23	8 43.80	+29 35.4	2.253	3.100	10.9	21.2	12 23	8 46.66	+40 51.5	1.417	2.271	15.6	20.4
1 2	8 37.33	+30 6.5	2.194	3.110	7.9	21.0	1 2	8 40.98	+42 17.0	1.354	2.256	12.8	20.2
1 12	8 28.97	+30 34.0	2.161	3.119	4.9	20.9	1 12	8 31.64	+43 28.5	1.312	2.242	10.7	20.0
1 22	8 19.54	+30 53.2	2.158	3.129	3.5	20.8	1 22	8 19.88	+44 13.9	1.295	2.229	10.5	20.0
2 1	8 10.07	+31 0.8	2.184	3.139	5.3	20.9	2 1	8 7.62	+44 24.6	1.301	2.216	12.4	20.0
2 11	8 1.59	+30 55.5	2.238	3.149	8.2	21.1	2 11	7 57.06	+43 59.2	1.330	2.204	15.4	20.2
2 21	7 54.94	+30 38.4	2.318	3.158	11.1	21.3	2 21	7 49.84	+43 2.9	1.379	2.194	18.5	20.4
3 2	7 50.62	+30 11.4	2.421	3.168	13.5	21.5	3 2	7 46.79	+41 43.7	1.444	2.184	21.4	20.5
<b>387467</b>	2013 XE <sub>12</sub>		1 23.2 2°95	1°6/23.9	18		<b>69137</b>	2003 FS <sub>87</sub>		1 23.2 240°18	0°9/23.5	18	
12 23	8 40.22	+14 42.0	1.865	2.707	13.0	20.5	12 23	8 46.87	+17 18.1	1.594	2.439	14.7	19.7
1 2	8 35.03	+14 41.3	1.793	2.707	9.4	20.3	1 2	8 40.17	+17 14.7	1.515	2.432	10.6	19.4
1 12	8 27.84	+14 49.6	1.746	2.707	5.5	20.0	1 12	8 30.82	+17 18.6	1.461	2.425	6.0	19.1
1 22	8 19.43	+15 4.7	1.726	2.708	1.8	19.8	1 22	8 19.78	+17 26.7	1.434	2.417	1.2	18.8
2 1	8 10.85	+15 23.6	1.735	2.709	3.9	19.9	2 1	8 8.38	+17 35.6	1.435	2.409	4.5	19.0
2 11	8 3.18	+15 43.1	1.771	2.710	7.9	20.2	2 11	7 58.12	+17 42.2	1.464	2.401	9.5	19.3
2 21	7 57.31	+16 0.6	1.834	2.713	11.6	20.4	2 21	7 50.18	+17 44.9	1.518	2.393	13.9	19.5
3 2	7 53.85	+16 14.2	1.918	2.715	14.8	20.6	3 2	7 45.32	+17 42.9	1.592	2.384	17.6	19.7
<b>399469</b>	2002 QG <sub>140</sub>		1 23.2 94°61	2°7/21.7	18		<b>93575</b>	2000 UD <sub>44</sub>		1 23.2 268°88	6°7/19.2	18	
12 23	8 46.89	+24 12.6	1.814	2.663	13.0	21.5	12 23	8 46.25	+36 5.3	1.927	2.773	12.4	19.2
1 2	8 39.74	+25 15.4	1.768	2.687	9.2	21.3	1 2	8 39.70	+37 18.3	1.863	2.769	9.6	19.0
1 12	8 30.34	+26 19.2	1.748	2.712	5.2	21.1	1 12	8 30.54	+38 23.3	1.825	2.765	7.3	18.8
1 22	8 19.69	+27 17.0	1.757	2.736	2.7	21.0	1 22	8 19.75	+39 12.3	1.814	2.762	6.8	18.8
2 1	8 9.05	+28 3.2	1.796	2.759	5.3	21.2	2 1	8 8.66	+39 39.2	1.830	2.758	8.5	18.9
2 11	7 59.68	+28 34.7	1.863	2.782	9.0	21.5	2 11	7 58.74	+39 42.2	1.873	2.754	11.3	19.1
2 21	7 52.51	+28 51.4	1.955	2.804	12.4	21.7	2 21	7 51.16	+39 23.5	1.939	2.750	14.1	19.2
3 2	7 48.12	+28 54.9	2.069	2.826	15.2	22.0	3 2	7 46.63	+38 47.5	2.025	2.746	16.6	19.4
<b>406352</b>	2007 RC <sub>162</sub>		1 23.2 105°94	0°9/23.6	18		<b>195536</b>	2002 JC <sub>44</sub>		1 23.2 309°16	4°1/24.8	18	
12 23	8 46.35	+15 43.2	1.724	2.563	14.1	21.7	12 23	8 41.41	+ 9 43.2	1.717	2.548	14.5	19.3
1 2	8 39.35	+16 4.8	1.669	2.582	10.1	21.5	1 2	8 36.26	+ 9 19.5	1.620	2.523	11.1	19.0
1 12	8 30.14	+16 35.4	1.638	2.601	5.6	21.3	1 12	8 28.74	+ 9 8.8	1.547	2.498	7.3	18.8
1 22	8 19.68	+17 10.9	1.636	2.619	1.2	21.0	1 22	8 19.57	+ 9 11.3	1.499	2.473	4.3	18.5
2 1	8 9.18	+17 46.7	1.663	2.637	4.1	21.3	2 1	8 9.86	+ 9 25.3	1.480	2.448	5.4	18.5
2 11	7 59.91	+18 18.9	1.718	2.654	8.4	21.6	2 11	8 0.90	+ 9 47.7	1.487	2.424	9.3	18.7
2 21	7 52.81	+18 45.1	1.800	2.671	12.3	21.8	2 21	7 53.82	+10 14.9	1.519	2.400	13.5	18.9
3 2	7 48.43	+19 4.0	1.903	2.687	15.4	22.1	3 2	7 49.45	+10 42.9	1.572	2.377	17.2	19.1
<b>282176</b>	2001 TR <sub>21</sub>		1 23.2 147°39	0°3/23.0	18		<b>255999</b>	2006 TJ <sub>110</sub>		1 23.2 259°02	1°9/22.3	18	
12 23	8 46.33	+17 39.5	1.743	2.585	13.8	20.7	12 23	8 44.96	+23 11.8	1.778	2.630	13.1	20.7
1 2	8 39.51	+18 26.3	1.678	2.594	9.8	20.4	1 2	8 38.69	+23 42.4	1.701	2.622	9.3	20.5
1 12	8 30.33	+19 21.7	1.638	2.603	5.3	20.2	1 12	8 29.98	+24 15.8	1.648	2.614	5.2	20.2
1 22	8 19.71	+20 20.0	1.627	2.611	0.6	19.9	1 22	8 19.70	+24 46.8	1.624	2.605	1.9	20.0
2 1	8 8.88	+21 15.1	1.646	2.618	4.3	20.2	2 1	8 9.09	+25 10.2	1.628	2.597	5.0	20.1
2 11	7 59.18	+22 2.3	1.693	2.625	8.8	20.4	2 11	7 59.51	+25 23.0	1.660	2.588	9.3	20.4
2 21	7 51.63	+22 38.9	1.766	2.631	12.8	20.7	2 21	7 52.06	+25 24.4	1.717	2.579	13.2	20.6
3 2	7 46.89	+23 4.4	1.861	2.636	16.0	20.9	3 2	7 47.48	+25 15.5	1.795	2.570	16.5	20.8
<b>50287</b>	2000 CT <sub>26</sub>		1 23.2 247°77	0°9/23.7	18	R	<b>343930</b>	2011 KU <sub>11</sub>		1 23.2 154°40	5°7/18.2	17	
12 23	8 41.10	+15 46.8	2.330	3.164	11.0	19.3	12 23	8 45.52	+41 14.6	3.110	3.930	8.9	21.9
1 2	8 35.43	+16 0.4	2.243	3.154	8.0	19.1	1 2	8 38.41	+42 17.7	3.057	3.938	7.2	21.8
1 12	8 28.00	+16 21.2	2.182	3.143	4.5	18.9	1 12	8 29.54	+43 11.4	3.031	3.946	6.0	21.8
1 22	8 19.46	+16 46.5	2.150	3.133	1.1	18.6	1 22	8 19.64	+43 51.0	3.034	3.954	5.8	21.8
2 1	8 10.66	+17 13.5	2.149	3.122	3.3	18.8	2 1	8 9.60	+44 13.2	3.067	3.961	6.8	21.8
2 11	8 2.53	+17 39.3	2.177	3.111	7.0	19.0	2 11	8 0.36	+44 17.3	3.127	3.967	8.4	22.0
2 21	7 55.88	+18 1.5	2.232	3.100	10.3	19.2	2 21	7 52.72	+44 4.9	3.212	3.974	10.1	22.1
3 2	7 51.28	+18 18.8	2.311	3.089	13.2	19.3	3 2	7 47.20	+43 38.7	3.319	3.979	11.7	22.2
<b>368633</b>	2004 XB <sub>41</sub>		1 23.2 40°84	1°6/23.9	18		<b>21010</b>	Kishon		1 23.2 113°75	2°8/22.1	18	
12 23	8 41.89	+14 24.4	1.625	2.471	14.4	19.9	12 23	8 51.82	+25 41.4	1.620	2.468	14.3	18.8

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>284336</b>	2006 <i>RS</i> <sub>23</sub>		1 23.2 143°64	3°3/25.7	18		<b>411310</b>	2010 <i>TF</i> <sub>144</sub>		1 23.2 149°64	0°4/22.9	18	
12 23	8 38.84	+ 6 12.8	2.691	3.491	10.7	21.7	12 23	8 45.62	+19 38.1	2.228	3.064	11.4	23.2
1 2	8 33.53	+ 6 21.8	2.615	3.497	8.2	21.6	1 2	8 38.58	+19 59.3	2.161	3.074	8.1	23.0
1 12	8 26.85	+ 6 42.9	2.565	3.504	5.6	21.4	1 12	8 29.69	+20 24.4	2.120	3.084	4.4	22.8
1 22	8 19.36	+ 7 14.7	2.544	3.510	3.5	21.3	1 22	8 19.72	+20 49.9	2.109	3.093	0.6	22.5
2 1	8 11.74	+ 7 55.1	2.553	3.516	3.9	21.3	2 1	8 9.65	+21 12.3	2.130	3.102	3.6	22.7
2 11	8 4.72	+ 8 40.9	2.592	3.522	6.3	21.5	2 11	8 0.49	+21 29.2	2.180	3.109	7.3	23.0
2 21	7 58.91	+ 9 28.6	2.659	3.527	8.9	21.7	2 21	7 53.06	+21 39.5	2.258	3.117	10.6	23.2
3 2	7 54.78	+10 15.2	2.751	3.532	11.2	21.8	3 2	7 47.92	+21 43.0	2.358	3.123	13.3	23.4
<b>168220</b>	2006 <i>JQ</i> <sub>57</sub>		1 23.2 305°71	1°4/23.9	18		<b>307605</b>	2003 <i>QY</i> <sub>51</sub>		1 23.2 85°69	6°2/21.2	18	
12 23	8 40.66	+14 34.9	1.873	2.715	13.0	20.0	12 23	8 54.07	+34 40.3	1.573	2.419	14.8	20.1
1 2	8 35.57	+14 46.2	1.780	2.694	9.5	19.7	1 2	8 45.18	+35 11.9	1.528	2.438	11.1	19.9
1 12	8 28.29	+15 7.8	1.711	2.673	5.5	19.4	1 12	8 33.40	+35 32.1	1.508	2.457	7.6	19.8
1 22	8 19.54	+15 37.1	1.670	2.652	1.7	19.1	1 22	8 20.12	+35 33.5	1.515	2.476	6.2	19.8
2 1	8 10.35	+16 10.6	1.657	2.631	4.0	19.3	2 1	8 7.10	+35 12.6	1.549	2.495	8.0	19.9
2 11	8 1.89	+16 44.1	1.672	2.611	8.4	19.5	2 11	7 56.00	+34 30.6	1.611	2.514	11.4	20.1
2 21	7 55.19	+17 14.4	1.713	2.591	12.4	19.7	2 21	7 47.93	+33 32.6	1.696	2.532	14.6	20.4
3 2	7 51.02	+17 39.3	1.775	2.571	15.9	19.9	3 2	7 43.39	+32 24.5	1.802	2.550	17.4	20.6
<b>37557</b>	1984 <i>JR</i>		1 23.2 215°21	0°6/22.9	18		<b>131487</b>	2001 <i>SS</i> <sub>90</sub>		1 23.2 34°18	3°5/24.7	18	
12 23	8 45.29	+19 5.7	1.920	2.762	12.7	20.2	12 23	8 42.82	+10 51.0	1.129	1.985	18.6	19.5
1 2	8 38.78	+19 42.7	1.839	2.755	9.1	19.9	1 2	8 37.68	+10 57.1	1.078	1.995	13.8	19.3
1 12	8 29.99	+20 26.5	1.783	2.748	4.9	19.7	1 12	8 29.59	+11 23.2	1.047	2.007	8.5	19.0
1 22	8 19.73	+21 12.3	1.756	2.740	0.7	19.3	1 22	8 19.74	+12 5.8	1.040	2.020	3.9	18.8
2 1	8 9.11	+21 55.0	1.759	2.731	4.2	19.6	2 1	8 9.75	+12 58.6	1.058	2.033	5.7	18.9
2 11	7 59.37	+22 30.6	1.791	2.722	8.5	19.8	2 11	8 1.36	+13 54.1	1.101	2.047	10.7	19.2
2 21	7 51.56	+22 56.8	1.849	2.712	12.4	20.0	2 21	7 55.77	+14 45.9	1.166	2.062	15.5	19.6
3 2	7 46.40	+23 13.2	1.929	2.701	15.6	20.2	3 2	7 53.67	+15 29.6	1.250	2.077	19.5	19.9
<b>304871</b>	2007 <i>RA</i> <sub>141</sub>		1 23.2 84°91	1°2/23.8	18		<b>71604</b>	2000 <i>DZ</i> <sub>99</sub>		1 23.2 92°87	4°5/20.6	18	
12 23	8 45.86	+14 35.6	1.569	2.410	15.0	20.8	12 23	8 44.84	+31 44.7	2.128	2.975	11.4	19.2
1 2	8 39.15	+15 2.0	1.518	2.432	10.8	20.6	1 2	8 38.28	+32 32.5	2.069	2.983	8.4	19.0
1 12	8 30.09	+15 39.7	1.492	2.454	6.1	20.4	1 12	8 29.62	+33 15.2	2.037	2.990	5.6	18.9
1 22	8 19.73	+16 23.9	1.492	2.475	1.5	20.1	1 22	8 19.73	+33 47.0	2.033	2.998	4.5	18.8
2 1	8 9.36	+17 9.5	1.522	2.496	4.3	20.4	2 1	8 9.75	+34 3.8	2.059	3.005	6.3	18.9
2 11	8 0.33	+17 51.3	1.579	2.517	8.8	20.7	2 11	8 0.83	+34 4.1	2.112	3.013	9.1	19.1
2 21	7 53.59	+18 26.4	1.662	2.537	12.8	21.0	2 21	7 53.89	+33 49.1	2.190	3.020	12.0	19.3
3 2	7 49.74	+18 53.2	1.765	2.557	16.1	21.2	3 2	7 49.52	+33 21.6	2.289	3.027	14.4	19.5
<b>236937</b>	2007 <i>TF</i> <sub>275</sub>		1 23.2 18°10	1°2/22.5	18		<b>29918</b>	1999 <i>JV</i> <sub>20</sub>		1 23.2 355°49	1°3/22.5	18	
12 23	8 40.87	+21 12.6	2.041	2.891	11.7	20.2	12 23	8 40.57	+21 31.3	1.808	2.664	12.7	17.1
1 2	8 35.44	+21 49.1	1.972	2.892	8.3	20.0	1 2	8 35.46	+22 1.0	1.737	2.661	9.0	16.8
1 12	8 28.07	+22 29.8	1.929	2.894	4.5	19.7	1 12	8 28.20	+22 35.0	1.692	2.658	4.9	16.6
1 22	8 19.53	+23 10.2	1.914	2.897	1.2	19.5	1 22	8 19.59	+23 8.8	1.674	2.657	1.3	16.3
2 1	8 10.79	+23 45.8	1.928	2.899	4.1	19.7	2 1	8 10.75	+23 37.5	1.684	2.655	4.5	16.5
2 11	8 2.94	+24 13.5	1.971	2.901	7.9	19.9	2 11	8 2.90	+23 58.0	1.722	2.655	8.6	16.8
2 21	7 56.83	+24 31.6	2.040	2.904	11.3	20.2	2 21	7 56.98	+24 8.6	1.784	2.655	12.4	17.0
3 2	7 53.06	+24 40.1	2.132	2.907	14.2	20.4	3 2	7 53.65	+24 9.6	1.869	2.655	15.5	17.2
<b>325915</b>	2010 <i>UT</i> <sub>84</sub>		1 23.2 98°16	2°4/24.4	18		<b>34497</b>	2000 <i>SJ</i> <sub>147</sub>		1 23.2 234°06	0°1/23.3	18	
12 23	8 45.38	+12 10.5	1.923	2.749	13.4	20.8	12 23	8 42.91	+17 54.8	2.070	2.910	12.0	19.4
1 2	8 38.45	+12 6.3	1.868	2.771	9.8	20.6	1 2	8 36.93	+18 15.9	1.988	2.903	8.6	19.2
1 12	8 29.60	+12 12.7	1.837	2.792	5.9	20.4	1 12	8 28.94	+18 43.5	1.932	2.896	4.7	18.9
1 22	8 19.70	+12 27.4	1.835	2.813	2.7	20.2	1 22	8 19.68	+19 14.2	1.905	2.889	0.6	18.6
2 1	8 9.80	+12 47.6	1.862	2.833	4.1	20.4	2 1	8 10.13	+19 44.0	1.907	2.881	3.7	18.8
2 11	8 0.99	+13 10.1	1.919	2.853	7.7	20.6	2 11	8 1.39	+20 9.8	1.939	2.873	7.8	19.1
2 21	7 54.09	+13 32.0	2.002	2.873	11.2	20.9	2 21	7 54.37	+20 29.5	1.997	2.864	11.4	19.3
3 2	7 49.62	+13 51.4	2.108	2.892	14.1	21.1	3 2	7 49.71	+20 42.2	2.078	2.856	14.5	19.5
<b>132705</b>	2002 <i>OL</i> <sub>6</sub>		1 23.2 176°84	3°7/24.9	18		<b>455546</b>	2004 <i>GW</i> <sub>61</sub>		1 23.2 225°54	1°8/22.1	16	
12 23	8 42.15	+ 8 42.3	2.250	3.061	12.1	19.8	12 23	8 44.83	+23 32.3	2.206	3.049	11.2	22.4
1 2	8 36.12	+ 8 15.9	2.171	3.062	9.3	19.6	1 2	8 38.29	+24 8.8	2.122	3.039	8.0	22.2
1 12	8 28.37	+ 8 0.3	2.118	3.062	6.2	19.4	1 12	8 29.69	+24 47.4	2.064	3.028	4.5	22.0
1 22	8 19.58	+ 7 55.2	2.093	3.063	3.9	19.3	1 22	8 19.77	+25 23.5	2.036	3.017	1.8	21.8
2 1	8 10.61	+ 7 59.4	2.099	3.063	4.6	19.3	2 1	8 9.52	+25 52.8	2.038	3.005	4.4	21.9
2 11	8 2.41	+ 8 10.7	2.133	3.063	7.4	19.5	2 11	8 0.06	+26 12.3	2.070	2.993	8.1	22.1
2 21	7 55.73	+ 8 26.5	2.194	3.063	10.5	19.7	2 21	7 52.34	+26 21.1	2.128	2.980	11.5	22.3
3 2	7 51.12	+ 8 44.0	2.279	3.062	13.2	19.9	3 2	7 47.01	+26 19.9	2.209	2.966	14.4	22.5
<b>95303</b>	2002 <i>CC</i> <sub>98</sub>		1 23.2 126°23	2°8/25.1	18		<b>90465</b>	2004 <i>CT</i> <sub>49</sub>		1 23.2 211°38	1°2/22.7	18	
12 23	8 40.84	+ 8 42.4	2.068	2.886	12.8	19.6	12 23	8 49.05	+21 34.1	1.642	2.489	14.2	20.5
1 2	8 35.33	+ 9 13.0	1.995	2.892	9.6	19.4	1 2	8 41.77	+21 55.8	1.565	2.484	10.2	20.2
1 12	8 27.99	+ 9 58.2	1.948	2.898	6.1	19.2	1 12	8 31.76	+22 21.5	1.513	2.478	5.6	19.9
1 22	8 19.54	+10 55.3	1.928	2.904	3.1	19.1	1 22	8 20.00	+22 46.0	1.488	2.471	1.3	19.6
2 1	8 10.89	+11 59.8	1.939	2.910	4.0	19.1	2 1	8 7.88	+23 4.1	1.493	2.464	4.9	19.8
2 11	8 3.05	+13 6.8	1.979	2.915	7.4	19.3	2 11	7 56.93	+23 12.9	1.525	2.456	9.7	20.1
2 21	7 56.81	+14 11.5	2.046	2.921	10.8	19.6	2 21	7 48.39	+23 11.6	1.583	2.447	14.0	20.3
3 2	7 52.77	+15 10.3	2.136	2.926	13.8	19.8	3 2	7 43.02	+23 1.3	1.661	2.438	17.6	20.6
<b>51244</b>	2000 <i>JP</i> <sub>39</sub>		1 23.2 169°84	3°2/25.1	18		<b>244992</b>	2004 <i>BO</i> <sub>119</sub>		1 23.2 10°65	1°7/22.1	18	
12 23	8 40.27	+ 8 32.9	2.487	3.297	11.2	18.3							

EPHEMERIDES

1 23.2

1 23.2

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>378952</b>	2008 <i>UH</i> <sub>185</sub>		1 23.2 114°02	0°4/22.9	18		<b>88734</b>	2001 <i>SP</i> <sub>42</sub>		1 23.2 250°78	1°0/22.7	18	
12 23	8 41.86	+19 24.9	2.256	3.097	11.1	21.7	12 23	8 43.60	+20 30.5	1.797	2.647	13.0	19.6
1 2	8 35.95	+19 53.0	2.189	3.106	7.8	21.5	1 2	8 37.67	+21 5.1	1.724	2.644	9.3	19.4
1 12	8 28.29	+20 25.6	2.149	3.114	4.2	21.3	1 12	8 29.45	+21 45.3	1.676	2.642	5.0	19.2
1 22	8 19.61	+20 59.2	2.138	3.122	0.6	21.0	1 22	8 19.78	+22 26.1	1.656	2.639	1.1	18.9
2 1	8 10.81	+21 30.1	2.158	3.130	3.5	21.3	2 1	8 9.83	+23 2.3	1.664	2.636	4.5	19.1
2 11	8 2.84	+21 55.6	2.206	3.138	7.1	21.5	2 11	8 0.88	+23 30.1	1.701	2.633	8.8	19.4
2 21	7 56.46	+22 13.9	2.282	3.145	10.3	21.7	2 21	7 53.95	+23 47.8	1.763	2.630	12.7	19.6
3 2	7 52.23	+22 24.8	2.381	3.152	13.0	21.9	3 2	7 49.74	+23 55.3	1.847	2.627	15.9	19.8
<b>8071</b>	Simonelli		1 23.2 331°09	1°6/23.9	18		<b>364415</b>	2006 <i>WG</i> <sub>6</sub>		1 23.2 187°90	4°8/20.1	18	
12 23	8 43.05	+14 1.7	1.378	2.230	16.1	17.5	12 23	8 46.01	+30 23.1	2.039	2.886	11.8	20.7
1 2	8 37.74	+14 22.2	1.307	2.226	11.8	17.2	1 2	8 39.38	+31 43.2	1.972	2.886	8.7	20.5
1 12	8 29.66	+14 57.3	1.258	2.221	6.8	16.9	1 12	8 30.39	+33 0.9	1.931	2.885	5.8	20.3
1 22	8 19.79	+15 42.9	1.235	2.218	2.0	16.6	1 22	8 19.88	+34 8.6	1.920	2.884	4.8	20.2
2 1	8 9.52	+16 33.2	1.239	2.214	4.8	16.8	2 1	8 9.05	+34 59.8	1.938	2.882	6.8	20.3
2 11	8 0.44	+17 21.9	1.269	2.211	10.0	17.1	2 11	7 59.18	+35 31.3	1.984	2.880	9.9	20.5
2 21	7 53.81	+18 4.5	1.322	2.208	14.8	17.4	2 21	7 51.36	+35 43.5	2.055	2.877	13.0	20.7
3 2	7 50.43	+18 38.1	1.395	2.205	18.7	17.6	3 2	7 46.30	+35 39.0	2.146	2.874	15.6	20.9
<b>208994</b>	2003 <i>AY</i> <sub>71</sub>		1 23.2 28°85	9°0/18.1	16		<b>140253</b>	2001 <i>SV</i> <sub>256</sub>		1 23.2 249°31	1°5/22.4	18	
12 23	8 44.92	+39 42.3	1.594	2.446	14.3	18.9	12 23	8 43.68	+21 39.8	1.832	2.683	12.8	20.3
1 2	8 39.07	+41 24.2	1.562	2.464	11.4	18.7	1 2	8 37.72	+22 17.4	1.758	2.679	9.1	20.1
1 12	8 30.30	+42 51.3	1.555	2.484	9.4	18.7	1 12	8 29.47	+22 59.6	1.710	2.676	5.0	19.8
1 22	8 19.83	+43 53.8	1.572	2.503	9.2	18.7	1 22	8 19.79	+23 41.0	1.690	2.672	1.5	19.6
2 1	8 9.33	+44 25.5	1.615	2.524	10.8	18.8	2 1	8 9.82	+24 16.5	1.699	2.669	4.6	19.8
2 11	8 0.48	+44 26.5	1.682	2.546	13.2	19.0	2 11	8 0.84	+24 42.5	1.736	2.665	8.8	20.0
2 21	7 54.44	+44 1.0	1.769	2.568	15.7	19.2	2 21	7 53.87	+24 57.4	1.798	2.662	12.6	20.2
3 2	7 51.81	+43 15.3	1.875	2.591	17.9	19.5	3 2	7 49.59	+25 1.7	1.882	2.658	15.8	20.5
<b>236050</b>	2005 <i>JL</i> <sub>5</sub>		1 23.2 245°46	14°9/ 1.7	18		<b>79027</b>	1337 <i>T</i> <sub>-2</sub>		1 23.2 187°12	0°5/22.9	18	
12 23	8 43.31	-14 52.5	1.171	1.914	24.9	20.2	12 23	8 40.65	+19 57.8	2.739	3.576	9.5	20.1
1 2	8 38.34	-15 2.4	1.098	1.911	22.0	20.0	1 2	8 34.93	+20 24.0	2.661	3.575	6.7	19.9
1 12	8 30.20	-14 21.5	1.040	1.907	18.9	19.8	1 12	8 27.71	+20 53.8	2.611	3.575	3.6	19.7
1 22	8 19.87	-12 42.5	1.000	1.904	16.2	19.6	1 22	8 19.60	+21 24.1	2.590	3.574	0.6	19.4
2 1	8 8.90	-10 6.2	0.981	1.900	14.9	19.5	2 1	8 11.32	+21 52.0	2.601	3.572	3.1	19.7
2 11	7 59.16	- 6 44.4	0.985	1.896	15.9	19.5	2 11	8 3.67	+22 15.2	2.642	3.570	6.2	19.9
2 21	7 52.17	- 2 57.5	1.012	1.892	18.7	19.7	2 21	7 57.31	+22 32.2	2.710	3.568	9.1	20.0
3 2	7 48.91	+ 0 52.7	1.061	1.888	22.2	19.9	3 2	7 52.74	+22 42.7	2.803	3.566	11.5	20.2
<b>428461</b>	2007 <i>US</i> <sub>1</sub>		1 23.2 78°32	1°5/22.2	18		<b>200741</b>	2001 <i>VD</i> <sub>103</sub>		1 23.2 129°35	0°9/22.8	18	
12 23	8 42.40	+22 6.7	2.234	3.079	11.0	21.3	12 23	8 48.42	+20 34.3	1.723	2.567	13.8	21.2
1 2	8 36.29	+22 55.6	2.184	3.103	7.7	21.1	1 2	8 40.99	+21 2.0	1.664	2.581	9.8	21.0
1 12	8 28.45	+23 46.8	2.161	3.126	4.2	20.9	1 12	8 31.18	+21 34.1	1.630	2.595	5.3	20.8
1 22	8 19.64	+24 35.8	2.168	3.149	1.5	20.8	1 22	8 19.98	+22 5.5	1.624	2.607	1.0	20.5
2 1	8 10.81	+25 18.1	2.205	3.172	4.0	21.0	2 1	8 8.71	+22 31.3	1.648	2.620	4.5	20.8
2 11	8 2.92	+25 51.0	2.271	3.195	7.4	21.2	2 11	7 58.71	+22 48.7	1.701	2.631	8.9	21.1
2 21	7 56.69	+26 13.3	2.364	3.218	10.4	21.5	2 21	7 50.99	+22 56.7	1.779	2.642	12.8	21.3
3 2	7 52.64	+26 25.4	2.480	3.240	12.9	21.7	3 2	7 46.18	+22 55.9	1.878	2.652	15.9	21.6
<b>375649</b>	2009 <i>BZ</i>		1 23.2 6°09	0°1/23.2	17		<b>75997</b>	2000 <i>DU</i> <sub>14</sub>		1 23.2 19°37	1°3/23.9	18	
12 23	8 38.24	+17 57.3	1.427	2.292	14.9	19.9	12 23	8 40.56	+13 26.4	1.317	2.174	16.4	18.3
1 2	8 34.15	+18 25.2	1.367	2.294	10.6	19.7	1 2	8 35.94	+14 11.7	1.258	2.179	11.9	18.0
1 12	8 27.60	+19 2.5	1.329	2.296	5.8	19.4	1 12	8 28.66	+15 14.0	1.220	2.185	6.8	17.7
1 22	8 19.57	+19 44.4	1.317	2.301	0.6	19.0	1 22	8 19.72	+16 27.2	1.208	2.191	1.7	17.4
2 1	8 11.33	+20 25.2	1.331	2.306	4.6	19.3	2 1	8 10.52	+17 43.6	1.223	2.199	4.7	17.7
2 11	8 4.28	+20 59.7	1.371	2.313	9.4	19.6	2 11	8 2.61	+18 55.2	1.264	2.207	9.9	18.0
2 21	7 59.48	+21 25.1	1.435	2.322	13.7	19.9	2 21	7 57.13	+19 56.5	1.328	2.217	14.5	18.3
3 2	7 57.59	+21 40.1	1.518	2.331	17.3	20.2	3 2	7 54.82	+20 44.3	1.412	2.226	18.3	18.5
<b>354041</b>	2001 <i>SW</i> <sub>5</sub>		1 23.2 57°21	15°8/21.9	17		<b>22581</b>	Rosahemphill		1 23.2 355°78	0°9/22.9	18	
12 23	9 17.16	+55 39.0	1.249	2.044	20.9	20.7	12 23	8 43.20	+20 9.1	1.254	2.122	16.3	18.0
1 2	9 2.69	+56 27.1	1.230	2.071	18.4	20.6	1 2	8 38.07	+20 31.9	1.190	2.119	11.7	17.7
1 12	8 42.89	+56 34.5	1.229	2.098	16.5	20.5	1 12	8 29.93	+21 2.2	1.148	2.116	6.4	17.4
1 22	8 21.13	+55 48.9	1.249	2.126	15.8	20.6	1 22	8 19.87	+21 34.4	1.131	2.114	1.0	17.1
2 1	8 1.37	+54 9.7	1.292	2.154	16.4	20.7	2 1	8 9.48	+22 2.1	1.139	2.113	5.4	17.3
2 11	7 46.53	+51 49.0	1.356	2.182	18.1	20.9	2 11	8 0.53	+22 20.7	1.173	2.113	10.9	17.7
2 21	7 37.58	+49 4.2	1.441	2.210	20.1	21.1	2 21	7 54.32	+22 28.5	1.229	2.114	15.7	17.9
3 2	7 34.22	+46 10.4	1.543	2.237	21.9	21.4	3 2	7 51.63	+22 25.5	1.303	2.116	19.7	18.2
<b>203841</b>	2002 <i>VC</i> <sub>55</sub>		1 23.2 21°99	0°7/22.9	18		<b>218731</b>	2005 <i>UY</i> <sub>256</sub>		1 23.2 173°55	2°6/24.6	18	
12 23	8 40.97	+19 56.0	1.813	2.666	12.8	20.0	12 23	8 42.17	+11 7.0	1.961	2.788	13.1	20.9
1 2	8 35.66	+20 21.3	1.750	2.672	9.1	19.8	1 2	8 36.41	+11 14.6	1.886	2.789	9.7	20.6
1 12	8 28.27	+20 51.9	1.712	2.678	4.9	19.5	1 12	8 28.67	+11 34.3	1.835	2.790	6.0	20.4
1 22	8 19.64	+21 23.6	1.702	2.685	0.8	19.2	1 22	8 19.72	+12 4.0	1.812	2.790	2.8	20.2
2 1	8 10.87	+21 51.9	1.720	2.693	4.1	19.5	2 1	8 10.54	+12 40.5	1.819	2.791	4.1	20.3
2 11	8 3.13	+22 13.7	1.766	2.701	8.3	19.8	2 11	8 2.22	+13 19.7	1.854	2.791	7.8	20.5
2 21	7 57.31	+22 27.3	1.837	2.709	12.0	20.0	2 21	7 55.63	+13 57.9	1.916	2.791	11.4	20.7
3 2	7 54.02	+22 32.3	1.930	2.718	15.1	20.2	3 2	7 51.39	+14 32.5	2.000	2.791	14.5	21.0
<b>428151</b>	2006 <i>SL</i> <sub>234</sub>		1 23.2 206°20	2°4/21.6	17		<b>105695</b>	2000 <i>SC</i> <sub>63</sub>		1 23.2 139°20	0°3/23.4	18	R
12 23	8 42.67	+27 33.9	2.861	3.701	9.0	22.2	12 23	8 46.90					

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>378871</b>	2008 TX <sub>119</sub>		1 23.2	69°74	5°5/20.3	18	<b>260103</b>	2004 NL <sub>25</sub>		1 23.2	196°86	1°0/22.5	18
12 23	8 46.49	+34 44.3	2.063	2.907	11.8	21.3	12 23	8 42.83	+19 43.4	2.306	3.145	10.9	21.2
1 2	8 39.63	+35 29.1	2.000	2.908	9.0	21.1	1 2	8 36.79	+20 42.8	2.227	3.142	7.8	21.0
1 12	8 30.46	+36 6.4	1.962	2.908	6.4	21.0	1 12	8 28.88	+21 48.2	2.175	3.139	4.2	20.7
1 22	8 19.92	+36 29.7	1.952	2.909	5.6	20.9	1 22	8 19.77	+22 54.6	2.153	3.136	1.1	20.5
2 1	8 9.23	+36 34.7	1.971	2.909	7.2	21.0	2 1	8 10.37	+23 57.1	2.162	3.131	3.9	20.7
2 11	7 59.71	+36 20.7	2.017	2.910	10.0	21.2	2 11	8 1.66	+24 51.2	2.201	3.127	7.5	20.9
2 21	7 52.34	+35 49.6	2.088	2.910	12.8	21.4	2 21	7 54.52	+25 34.7	2.268	3.122	10.8	21.1
3 2	7 47.75	+35 5.4	2.179	2.911	15.2	21.6	3 2	7 49.55	+26 6.8	2.358	3.116	13.5	21.3
<b>255951</b>	2006 TY <sub>26</sub>		1 23.2	2°38	10°1/28.1	18	<b>463944</b>	2014 UM <sub>204</sub>		1 23.2	38°63	1°8/24.2	18
12 23	8 40.47	- 4 25.7	1.552	2.331	18.1	19.9	12 23	8 41.53	+13 11.0	1.659	2.502	14.3	21.0
1 2	8 35.58	- 5 17.9	1.482	2.331	15.3	19.7	1 2	8 36.18	+13 30.5	1.596	2.509	10.5	21.0
1 12	8 28.38	- 5 42.7	1.432	2.330	12.5	19.6	1 12	8 28.62	+14 2.6	1.557	2.517	6.1	20.5
1 22	8 19.70	- 5 36.9	1.404	2.331	10.5	19.4	1 22	8 19.74	+14 43.7	1.544	2.525	2.1	20.3
2 1	8 10.71	- 5 0.5	1.401	2.331	10.3	19.4	2 1	8 10.69	+15 29.2	1.560	2.534	4.2	20.5
2 11	8 2.70	- 3 58.4	1.422	2.333	12.0	19.5	2 11	8 2.71	+16 14.2	1.603	2.543	8.5	20.7
2 21	7 56.73	- 2 38.6	1.466	2.334	14.7	19.7	2 21	7 56.75	+16 54.7	1.671	2.552	12.5	21.0
3 2	7 53.51	- 1 10.1	1.531	2.337	17.6	19.9	3 2	7 53.44	+17 28.1	1.761	2.562	15.8	21.2
<b>51213</b>	2000 JU <sub>20</sub>		1 23.2	180°94	1°3/22.5	18	<b>371144</b>	2005 WN <sub>176</sub>		1 23.2	25°43	0°7/22.9	18
12 23	8 42.50	+22 52.8	2.401	3.244	10.4	19.2	12 23	8 43.34	+20 15.9	1.766	2.617	13.2	21.6
1 2	8 36.40	+23 14.3	2.327	3.244	7.4	19.0	1 2	8 37.45	+20 34.6	1.699	2.619	9.4	21.4
1 12	8 28.57	+23 37.5	2.280	3.244	4.1	18.8	1 12	8 29.31	+20 58.1	1.656	2.622	5.1	21.1
1 22	8 19.71	+23 58.7	2.262	3.244	1.3	18.6	1 22	8 19.82	+21 22.2	1.641	2.625	0.8	20.8
2 1	8 10.69	+24 14.9	2.275	3.244	3.7	18.8	2 1	8 10.15	+21 42.9	1.654	2.627	4.3	21.1
2 11	8 2.46	+24 23.9	2.318	3.244	7.1	19.0	2 11	8 1.55	+21 57.0	1.696	2.631	8.6	21.3
2 21	7 55.78	+24 25.2	2.387	3.243	10.2	19.2	2 21	7 54.99	+22 3.2	1.763	2.634	12.5	21.6
3 2	7 51.19	+24 19.0	2.479	3.242	12.8	19.4	3 2	7 51.13	+22 1.5	1.851	2.637	15.7	21.8
<b>136494</b>	2005 GE <sub>150</sub>		1 23.2	105°93	4°8/27.1	18	<b>239988</b>	2001 RW <sub>154</sub>		1 23.2	125°29	3°1/25.3	18
12 23	8 39.47	+ 0 32.4	2.791	3.561	11.1	20.7	12 23	8 39.45	+ 8 9.8	2.391	3.202	11.5	21.1
1 2	8 33.90	+ 0 30.3	2.728	3.582	8.9	20.6	1 2	8 34.18	+ 8 18.0	2.315	3.206	8.7	20.9
1 12	8 27.07	+ 0 42.6	2.689	3.603	6.7	20.4	1 12	8 27.36	+ 8 38.2	2.264	3.210	5.7	20.8
1 22	8 19.54	+ 1 9.0	2.678	3.624	5.0	20.4	1 22	8 19.61	+ 9 9.2	2.242	3.214	3.3	20.6
2 1	8 11.95	+ 1 47.5	2.697	3.644	5.0	20.4	2 1	8 11.69	+ 9 48.1	2.250	3.218	3.9	20.7
2 11	8 5.00	+ 2 34.9	2.746	3.663	6.6	20.5	2 11	8 4.45	+10 31.7	2.288	3.221	6.7	20.8
2 21	7 59.24	+ 3 27.6	2.823	3.683	8.7	20.7	2 21	7 58.58	+11 16.3	2.352	3.225	9.7	21.0
3 2	7 55.09	+ 4 21.9	2.925	3.701	10.7	20.8	3 2	7 54.59	+11 58.9	2.441	3.228	12.3	21.2
<b>123613</b>	2000 YQ <sub>17</sub>		1 23.2	68°84	0°3/23.4	18	<b>198664</b>	2005 BE <sub>23</sub>		1 23.2	325°34	1°3/22.5	18
12 23	8 37.51	+18 11.8	1.867	2.711	12.9	19.5	12 23	8 41.97	+21 46.7	1.989	2.839	12.0	20.7
1 2	8 43.68	+18 18.6	1.801	2.718	9.2	19.3	1 2	8 36.36	+22 18.6	1.915	2.836	8.5	20.5
1 12	8 29.27	+18 31.2	1.760	2.724	5.1	19.0	1 12	8 28.70	+22 54.2	1.867	2.833	4.6	20.2
1 22	8 19.79	+18 46.5	1.747	2.731	0.7	18.7	1 22	8 19.77	+23 29.1	1.847	2.829	1.3	20.0
2 1	8 10.20	+19 1.1	1.764	2.738	3.9	19.0	2 1	8 10.59	+23 58.9	1.856	2.826	4.3	20.2
2 11	8 1.64	+19 12.3	1.809	2.745	8.0	19.2	2 11	8 2.31	+24 20.4	1.894	2.824	8.2	20.4
2 21	7 55.02	+19 18.6	1.880	2.752	11.8	19.5	2 21	7 55.84	+24 32.4	1.957	2.821	11.7	20.6
3 2	7 50.93	+19 19.4	1.972	2.759	14.9	19.7	3 2	7 51.81	+24 34.8	2.042	2.819	14.8	20.8
<b>245056</b>	2004 FN <sub>107</sub>		1 23.2	281°96	5°1/26.3	18	<b>237693</b>	2001 TB <sub>253</sub>		1 23.2	185°03	1°1/24.0	17
12 23	8 38.92	+ 2 25.1	2.424	3.212	12.1	20.6	12 23	8 39.80	+14 5.4	2.683	3.508	10.0	21.6
1 2	8 33.93	+ 2 12.4	2.325	3.193	9.7	20.4	1 2	8 34.35	+14 28.9	2.603	3.508	7.3	21.4
1 12	8 27.30	+ 2 14.8	2.249	3.173	7.2	20.2	1 12	8 27.43	+15 0.0	2.549	3.508	4.2	21.2
1 22	8 19.59	+ 2 32.7	2.201	3.154	5.4	20.0	1 22	8 19.62	+15 36.2	2.525	3.507	1.3	21.0
2 1	8 11.56	+ 3 5.0	2.182	3.135	5.5	20.0	2 1	8 11.64	+16 14.7	2.533	3.506	2.9	21.1
2 11	8 4.04	+ 3 48.6	2.192	3.115	7.6	20.1	2 11	8 4.25	+16 52.4	2.571	3.505	6.1	21.3
2 21	7 57.80	+ 4 39.6	2.228	3.095	10.4	20.3	2 21	7 58.11	+17 27.0	2.637	3.503	9.0	21.5
3 2	7 53.42	+ 5 33.7	2.288	3.076	13.0	20.4	3 2	7 53.72	+17 56.7	2.727	3.501	11.5	21.7
<b>166255</b>	2002 GF <sub>42</sub>		1 23.2	341°05	0°5/23.0	18	<b>414869</b>	2010 VB <sub>152</sub>		1 23.2	138°33	1°7/22.1	18
12 23	8 43.12	+19 16.6	1.253	2.119	16.4	19.9	12 23	8 45.54	+22 41.8	2.290	3.130	11.0	22.1
1 2	8 38.09	+19 35.4	1.184	2.111	11.8	19.6	1 2	8 38.59	+23 31.9	2.229	3.145	7.8	21.9
1 12	8 29.99	+20 2.9	1.136	2.104	6.5	19.3	1 12	8 29.78	+24 24.1	2.196	3.159	4.3	21.7
1 22	8 19.90	+20 33.9	1.114	2.098	0.8	18.9	1 22	8 19.89	+25 13.6	2.192	3.173	1.7	21.5
2 1	8 9.40	+21 2.2	1.117	2.092	5.3	19.2	2 1	8 9.88	+25 55.8	2.220	3.186	4.1	21.7
2 11	8 0.26	+21 22.9	1.146	2.087	10.9	19.5	2 11	8 0.78	+26 27.9	2.277	3.198	7.5	22.0
2 21	7 53.85	+21 33.7	1.196	2.084	15.9	19.7	2 21	7 53.40	+26 48.9	2.362	3.209	10.6	22.2
3 2	7 51.00	+21 34.3	1.265	2.080	20.0	20.0	3 2	7 48.29	+26 59.3	2.470	3.220	13.2	22.4
<b>314363</b>	2005 UQ <sub>5</sub>		1 23.2	105°81	13°9/14.8	18	<b>343552</b>	2010 FC <sub>26</sub>		1 23.2	138°17	2°1/24.8	18
12 23	8 56.45	+41 48.0	1.136	1.990	18.7	19.8	12 23	8 39.52	+10 17.8	2.612	3.427	10.6	21.1
1 2	8 49.14	+45 17.4	1.106	2.002	15.7	19.7	1 2	8 34.13	+10 41.6	2.538	3.435	7.8	21.0
1 12	8 36.72	+48 26.1	1.100	2.014	14.0	19.6	1 12	8 27.30	+11 15.6	2.490	3.442	4.8	20.8
1 22	8 20.68	+50 51.6	1.117	2.025	14.5	19.7	1 22	8 19.62	+11 57.6	2.472	3.449	2.3	20.6
2 1	8 3.86	+52 20.0	1.157	2.036	16.7	19.9	2 1	8 11.79	+12 44.6	2.485	3.456	3.2	20.7
2 11	7 49.54	+52 51.5	1.218	2.047	19.5	20.1	2 11	8 4.60	+13 33.2	2.528	3.463	6.1	20.9
2 21	7 40.02	+52 36.7	1.295	2.057	22.2	20.3	2 21	7 58.68	+14 20.3	2.600	3.469	9.0	21.1
3 2	7 36.24	+51 49.1	1.384	2.067	24.5	20.5	3 2	7 54.51	+15 3.4	2.696	3.476	11.5	21.3
<b>205299</b>	2000 SN <sub>266</sub>		1 23.2	90°14	0°8/22.8	18	<b>85482</b>	1997 PL <sub>2</sub>		1 23.2	119°65	0°9/23.7	18
12 23	8 47.25	+19 30.3	1.561	2.411	14.7	20.8	12 23	8 47.28	+15 38.2	1.700	2.537		



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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>107371</b>	2001 <i>CN</i> <sub>31</sub>		1 23.2 207°61	0°6/22.9	18		<b>113782</b>	2002 <i>TU</i> <sub>188</sub>		1 23.2 177°13	1°0/23.9	18	
12 23	8 46.31	+20 24.9	1.853	2.697	13.0	20.1	12 23	8 41.07	+15 12.6	2.699	3.525	9.9	20.1
1 2	8 39.57	+20 41.2	1.777	2.694	9.3	19.8	1 2	8 35.22	+15 23.2	2.620	3.527	7.2	20.0
1 12	8 30.51	+21 1.7	1.725	2.690	5.1	19.6	1 12	8 27.91	+15 40.0	2.568	3.528	4.1	19.8
1 22	8 19.99	+21 22.5	1.702	2.686	0.8	19.2	1 22	8 19.71	+16 0.8	2.546	3.529	1.2	19.5
2 1	8 9.21	+21 39.5	1.709	2.681	4.2	19.5	2 1	8 11.37	+16 23.2	2.556	3.529	2.9	19.7
2 11	7 59.44	+21 49.8	1.744	2.676	8.6	19.7	2 11	8 3.66	+16 45.0	2.596	3.529	6.1	19.9
2 21	7 51.72	+21 52.5	1.805	2.670	12.5	20.0	2 21	7 57.23	+17 4.3	2.663	3.529	9.0	20.1
3 2	7 46.73	+21 47.7	1.888	2.665	15.8	20.2	3 2	7 52.58	+17 19.8	2.756	3.528	11.4	20.2
<b>44624</b>	1999 <i>RS</i> <sub>57</sub>		1 23.2 208°89	0°5/23.0	18		<b>61232</b>	2000 <i>OB</i> <sub>15</sub>		1 23.2 216°94	1°2/23.8	18	
12 23	8 47.68	+18 20.0	1.696	2.539	14.0	20.1	12 23	8 45.16	+14 32.8	1.749	2.586	14.0	20.2
1 2	8 40.81	+19 0.9	1.617	2.533	10.1	19.8	1 2	8 38.89	+14 57.4	1.668	2.580	10.2	19.9
1 12	8 31.32	+19 50.6	1.562	2.527	5.5	19.5	1 12	8 30.22	+15 33.5	1.612	2.574	5.8	19.7
1 22	8 20.10	+20 43.6	1.535	2.519	0.7	19.2	1 22	8 20.00	+16 17.3	1.584	2.567	1.5	19.3
2 1	8 8.44	+21 33.6	1.538	2.511	4.6	19.4	2 1	8 9.39	+17 3.9	1.585	2.559	4.2	19.5
2 11	7 57.80	+22 15.6	1.570	2.502	9.4	19.7	2 11	7 59.71	+17 48.3	1.615	2.551	8.8	19.8
2 21	7 49.38	+22 47.0	1.627	2.492	13.7	19.9	2 21	7 52.07	+18 27.1	1.670	2.543	12.9	20.0
3 2	7 43.97	+23 7.3	1.705	2.481	17.2	20.1	3 2	7 47.21	+18 58.1	1.747	2.534	16.4	20.2
<b>375788</b>	2009 <i>SR</i> <sub>309</sub>		1 23.2 260°14	5°5/20.4	16		<b>158539</b>	2002 <i>GH</i> <sub>91</sub>		1 23.2 189°12	1°5/22.4	18	
12 23	8 49.25	+34 17.9	2.081	2.921	11.9	21.6	12 23	8 43.63	+22 48.6	2.177	3.021	11.3	20.7
1 2	8 41.84	+35 2.3	1.995	2.901	9.1	21.4	1 2	8 37.40	+23 17.5	2.103	3.021	8.0	20.5
1 12	8 31.85	+35 40.1	1.934	2.880	6.5	21.2	1 12	8 29.23	+23 48.5	2.056	3.020	4.4	20.3
1 22	8 20.16	+36 4.4	1.901	2.859	5.5	21.1	1 22	8 19.88	+24 17.5	2.037	3.019	1.5	20.0
2 1	8 8.03	+36 9.9	1.898	2.837	7.3	21.2	2 1	8 10.33	+24 40.7	2.049	3.018	4.1	20.2
2 11	7 56.92	+35 55.0	1.922	2.815	10.3	21.3	2 11	8 1.64	+24 55.5	2.090	3.017	7.8	20.5
2 21	7 47.98	+35 21.6	1.971	2.793	13.5	21.5	2 21	7 54.67	+25 1.0	2.158	3.015	11.1	20.7
3 2	7 42.00	+34 33.8	2.042	2.770	16.3	21.6	3 2	7 50.03	+24 57.8	2.248	3.013	13.9	20.8
<b>350595</b>	2001 <i>QH</i> <sub>272</sub>		1 23.2 109°48	3°6/21.9	18		<b>428464</b>	2007 <i>UE</i> <sub>46</sub>		1 23.2 98°07	2°4/21.8	18	
12 23	8 51.34	+27 18.7	1.534	2.386	14.8	21.1	12 23	8 42.97	+25 47.8	2.386	3.231	10.4	21.5
1 2	8 43.35	+27 51.2	1.482	2.401	10.6	20.9	1 2	8 36.72	+26 26.5	2.329	3.246	7.4	21.3
1 12	8 32.57	+28 20.8	1.454	2.416	6.2	20.7	1 12	8 28.75	+27 4.6	2.299	3.261	4.3	21.2
1 22	8 20.21	+28 40.8	1.453	2.430	3.6	20.6	1 22	8 19.82	+27 37.9	2.299	3.277	2.4	21.0
2 1	8 7.89	+28 46.2	1.481	2.444	6.3	20.8	2 1	8 10.83	+28 2.7	2.329	3.291	4.4	21.2
2 11	7 57.19	+28 35.8	1.536	2.458	10.4	21.0	2 11	8 2.73	+28 17.1	2.389	3.306	7.4	21.4
2 21	7 49.27	+28 11.6	1.616	2.471	14.3	21.3	2 21	7 56.25	+28 20.9	2.475	3.321	10.2	21.6
3 2	7 44.71	+27 37.2	1.715	2.483	17.5	21.6	3 2	7 51.91	+28 15.1	2.583	3.335	12.6	21.8
<b>485985</b>	2012 <i>JW</i> <sub>66</sub>		1 23.2 265°71	5°2/19.7	18		<b>232709</b>	2004 <i>BN</i> <sub>59</sub>		1 23.2 345°18	1°9/24.3	18	
12 23	8 47.61	+20 23.4	1.164	2.029	17.5	20.7	12 23	8 37.67	+12 11.7	1.620	2.468	14.4	19.8
1 2	8 40.28	+23 36.5	1.093	2.022	12.5	20.4	1 2	8 33.67	+12 46.8	1.541	2.457	10.6	19.6
1 12	8 32.68	+27 12.4	1.048	2.014	7.3	20.1	1 12	8 27.43	+13 37.8	1.486	2.447	6.3	19.3
1 22	8 20.31	+30 51.1	1.031	2.006	5.4	19.9	1 22	8 19.70	+14 41.1	1.456	2.438	2.2	19.0
2 1	8 6.73	+34 9.1	1.043	1.998	9.7	20.1	2 1	8 11.59	+15 50.8	1.454	2.430	4.2	19.1
2 11	7 54.29	+36 49.1	1.082	1.990	15.1	20.4	2 11	8 4.36	+17 0.5	1.479	2.423	8.8	19.4
2 21	7 45.05	+38 45.6	1.143	1.982	20.0	20.7	2 21	7 59.06	+18 4.6	1.529	2.417	13.0	19.6
3 2	7 40.33	+40 1.7	1.220	1.974	23.9	20.9	3 2	7 56.43	+18 59.1	1.600	2.412	16.7	19.8
<b>461177</b>	2015 <i>UW</i> <sub>77</sub>		1 23.2 89°31	3°0/21.9	18		<b>358063</b>	2006 <i>HE</i> <sub>67</sub>		1 23.2 179°40	1°8/24.2	18	
12 23	8 48.76	+24 30.0	1.534	2.388	14.6	21.2	12 23	8 44.86	+12 52.5	2.116	2.940	12.4	22.6
1 2	8 41.45	+25 24.3	1.488	2.410	10.4	21.0	1 2	8 38.26	+13 8.1	2.038	2.942	9.1	22.4
1 12	8 31.50	+26 19.6	1.467	2.432	5.9	20.8	1 12	8 29.70	+13 33.7	1.986	2.943	5.4	22.2
1 22	8 20.10	+27 8.1	1.474	2.453	3.0	20.7	1 22	8 19.95	+14 6.8	1.963	2.943	2.0	21.9
2 1	8 8.72	+27 43.7	1.509	2.474	5.9	20.9	2 1	8 9.96	+14 43.8	1.970	2.943	3.7	22.1
2 11	7 58.87	+28 3.5	1.571	2.495	10.1	21.2	2 11	8 0.80	+15 21.1	2.008	2.942	7.5	22.3
2 21	7 51.63	+28 8.1	1.658	2.515	13.9	21.5	2 21	7 53.34	+15 55.6	2.072	2.941	11.0	22.5
3 2	7 47.57	+27 59.7	1.764	2.535	17.0	21.8	3 2	7 48.18	+16 25.3	2.160	2.938	14.0	22.7
<b>34106</b>	Sakhrani		1 23.2 173°45	0°6/22.9	18		<b>193944</b>	2001 <i>RY</i> <sub>38</sub>		1 23.2 220°35	3°6/24.9	18	
12 23	8 47.69	+20 7.5	1.935	2.774	12.7	18.9	12 23	8 45.14	+ 9 4.6	1.721	2.543	14.8	21.0
1 2	8 40.42	+20 29.6	1.863	2.778	9.1	18.7	1 2	8 38.89	+ 9 10.3	1.637	2.536	11.2	20.8
1 12	8 30.92	+20 56.1	1.817	2.781	4.9	18.4	1 12	8 30.25	+ 9 32.0	1.577	2.528	7.2	20.5
1 22	8 20.05	+21 22.7	1.799	2.783	0.8	18.1	1 22	8 20.02	+10 7.9	1.544	2.519	3.9	20.3
2 1	8 8.98	+21 45.3	1.812	2.784	4.1	18.4	2 1	8 9.38	+10 54.3	1.540	2.510	5.0	20.4
2 11	7 58.95	+22 1.0	1.855	2.785	8.3	18.6	2 11	7 59.63	+11 46.2	1.564	2.500	9.0	20.6
2 21	7 50.94	+22 8.8	1.924	2.785	12.0	18.9	2 21	7 51.88	+12 38.5	1.614	2.490	13.1	20.8
3 2	7 45.59	+22 8.8	2.015	2.784	15.2	19.1	3 2	7 46.90	+13 27.0	1.685	2.479	16.7	21.0
<b>74427</b>	1999 <i>BU</i> <sub>2</sub>		1 23.2 341°41	0°6/22.8	18		<b>417263</b>	2005 <i>YV</i> <sub>286</sub>		1 23.2 285°39	3°4/24.5	18	
12 23	8 44.72	+ 9 5.5	0.974	1.832	20.8	17.9	12 23	8 44.43	+11 30.6	1.901	2.727	13.5	20.3
1 2	8 40.08	+12 10.1	0.906	1.829	15.1	17.5	1 2	8 38.17	+10 53.5	1.815	2.716	10.2	20.0
1 12	8 31.57	+16 0.5	0.860	1.826	8.3	17.2	1 12	8 29.76	+10 25.8	1.753	2.705	6.5	19.8
1 22	8 20.19	+20 18.7	0.840	1.824	0.9	16.7	1 22	8 19.96	+10 7.2	1.719	2.694	3.6	19.6
2 1	8 7.76	+24 36.4	0.849	1.822	7.1	17.1	2 1	8 9.85	+ 9 57.0	1.714	2.683	4.8	19.6
2 11	7 56.68	+28 26.0	0.885	1.821	14.2	17.4	2 11	8 0.58	+ 9 53.4	1.738	2.672	8.5	19.8
2 21	7 48.96	+31 31.6	0.944	1.820	20.1	17.8	2 21	7 53.15	+ 9 54.3	1.787	2.661	12.2	20.0
3 2	7 45.85	+33 50.0	1.020	1.819	24.8	18.1	3 2	7 48.23	+ 9 57.3	1.859	2.650	15.5	20.2
<b>6357</b>	Glushko		1 23.2 179°09	4°3/20.6	18		<b>268508</b>	2005 <i>YE</i> <sub>135</sub>		1 23.2 359°45	2°9/21.8	18	
12 23	8 44.85	+32 26.9	2.387	3.229	10.5	17.5	12 23	8					

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>165743</b>	2001 <i>QS</i> <sub>164</sub>		1 23.3	48°31'	6°1/20.9	18	<b>424351</b>	2007 <i>VS</i> <sub>114</sub>		1 23.3	139°97'	2°8/21.2	18
12 23	8 49.80	+36 30.3	1.855	2.697	13.0	19.5	12 23	8 41.70	+26 48.4	2.478	3.324	10.0	20.8
1 2	8 41.89	+36 56.1	1.814	2.720	9.9	19.3	1 2	8 35.92	+27 41.8	2.411	3.328	7.2	20.6
1 12	8 31.61	+37 10.4	1.799	2.742	7.1	19.2	1 12	8 28.41	+28 34.7	2.372	3.332	4.3	20.5
1 22	8 20.15	+37 7.5	1.810	2.765	6.1	19.2	1 22	8 19.85	+29 22.6	2.362	3.336	2.8	20.4
2 1	8 8.94	+36 44.6	1.850	2.788	7.6	19.3	2 1	8 11.11	+30 1.1	2.382	3.340	4.7	20.5
2 11	7 59.34	+36 3.0	1.917	2.812	10.3	19.5	2 11	8 3.13	+30 27.7	2.431	3.343	7.6	20.7
2 21	7 52.25	+35 6.8	2.008	2.836	13.0	19.7	2 21	7 56.67	+30 41.9	2.507	3.346	10.4	20.9
3 2	7 48.15	+34 0.6	2.121	2.859	15.4	20.0	3 2	7 52.30	+30 44.5	2.606	3.350	12.7	21.1
<b>511703</b>	2015 <i>CQ</i> <sub>25</sub>		1 23.3	267°47'	5°4/20.0	17	<b>498940</b>	2009 <i>BC</i> <sub>48</sub>		1 23.3	352°42'	1°1/22.9	18
12 23	8 46.33	+36 48.1	2.485	3.320	10.4	20.8	12 23	8 45.62	+23 43.2	1.959	2.806	12.3	20.0
1 2	8 39.39	+37 25.1	2.406	3.306	8.1	20.7	1 2	8 38.93	+23 26.8	1.885	2.803	8.8	19.8
1 12	8 30.36	+37 54.1	2.353	3.291	6.0	20.5	1 12	8 30.11	+23 9.8	1.836	2.801	4.8	19.6
1 22	8 20.05	+38 9.8	2.328	3.277	5.4	20.5	1 22	8 20.04	+22 49.3	1.816	2.799	1.2	19.3
2 1	8 9.50	+38 8.5	2.333	3.263	6.8	20.5	2 1	8 9.86	+22 23.6	1.826	2.798	4.1	19.5
2 11	7 59.87	+37 49.2	2.366	3.248	9.2	20.6	2 11	8 0.74	+21 52.1	1.865	2.797	8.1	19.8
2 21	7 52.08	+37 13.7	2.424	3.233	11.7	20.8	2 21	7 53.60	+21 15.6	1.929	2.796	11.8	20.0
3 2	7 46.75	+36 25.5	2.504	3.219	13.9	20.9	3 2	7 49.04	+20 35.5	2.017	2.796	14.8	20.2
<b>319988</b>	2007 <i>DK</i>		1 23.3	226°01'	1°0/23.5	17	<b>15280</b>	1991 <i>PW</i> <sub>11</sub>		1 23.3	201°67'	3°4/25.2	18
12 23	9 6.88	+15 48.0	1.304	2.125	18.7	22.7	12 23	8 43.74	+8 18.1	2.074	2.885	13.0	18.9
1 2	8 56.00	+16 9.6	1.203	2.107	14.0	22.3	1 2	8 37.55	+8 26.1	1.989	2.882	9.9	18.7
1 12	8 40.47	+16 44.5	1.126	2.085	8.0	21.9	1 12	8 29.39	+8 48.2	1.930	2.877	6.5	18.5
1 22	8 21.30	+17 26.6	1.077	2.060	1.5	21.4	1 22	8 19.97	+9 22.7	1.899	2.872	3.6	18.3
2 1	8 0.53	+18 7.5	1.059	2.031	6.3	21.6	2 1	8 10.26	+10 6.5	1.898	2.866	4.5	18.4
2 11	7 40.90	+18 40.2	1.071	1.998	13.3	21.9	2 11	8 1.29	+10 55.4	1.926	2.860	7.8	18.6
2 21	7 24.75	+19 2.2	1.109	1.961	19.6	22.2	2 21	7 53.98	+11 45.3	1.981	2.852	11.3	18.8
3 2	7 13.50	+19 14.2	1.166	1.921	24.8	22.4	3 2	7 48.96	+12 32.6	2.059	2.845	14.4	18.9
<b>461799</b>	2005 <i>WF</i> <sub>116</sub>		1 23.3	34°69'	6°5/19.3	16	<b>109221</b>	2001 <i>QM</i> <sub>87</sub>		1 23.3	149°03'	6°0/26.4	18
12 23	8 43.87	+30 53.1	1.482	2.347	14.4	20.5	12 23	8 43.35	+2 6.6	2.080	2.867	13.9	20.1
1 2	8 38.43	+32 48.0	1.438	2.360	10.7	20.3	1 2	8 37.15	+1 35.5	2.007	2.873	11.1	19.9
1 12	8 30.11	+34 38.9	1.419	2.373	7.5	20.2	1 12	8 29.10	+1 21.2	1.957	2.879	8.3	19.7
1 22	8 20.03	+36 14.1	1.426	2.386	6.7	20.2	1 22	8 19.94	+1 24.5	1.935	2.885	6.2	19.6
2 1	8 9.71	+37 24.7	1.460	2.401	9.0	20.3	2 1	8 10.59	+1 44.2	1.941	2.890	6.4	19.6
2 11	8 0.82	+38 6.8	1.519	2.416	12.4	20.6	2 11	8 2.07	+2 17.1	1.975	2.895	8.6	19.8
2 21	7 54.60	+38 22.1	1.601	2.431	15.6	20.8	2 21	7 55.19	+2 58.6	2.036	2.899	11.4	20.0
3 2	7 51.73	+38 15.1	1.700	2.447	18.4	21.0	3 2	7 50.53	+3 44.3	2.119	2.903	14.0	20.1
<b>306086</b>	2010 <i>GO</i> <sub>159</sub>		1 23.3	172°27'	2°4/21.9	18	<b>496355</b>	2013 <i>QU</i> <sub>68</sub>		1 23.3	81°89'	0°2/23.2	18
12 23	8 46.40	+22 56.3	1.788	2.637	13.1	21.1	12 23	8 44.37	+19 2.6	2.049	2.889	12.1	22.1
1 2	8 39.78	+23 59.3	1.720	2.639	9.4	20.9	1 2	8 37.79	+19 20.0	1.996	2.912	8.5	21.9
1 12	8 30.72	+25 6.5	1.677	2.642	5.2	20.7	1 12	8 29.37	+19 42.0	1.970	2.934	4.6	21.7
1 22	8 20.11	+26 10.9	1.663	2.643	2.4	20.5	1 22	8 19.95	+20 5.0	1.972	2.956	0.5	21.4
2 1	8 9.19	+27 5.7	1.679	2.645	5.3	20.7	2 1	8 10.55	+20 25.7	2.005	2.978	3.6	21.7
2 11	7 59.34	+27 46.7	1.723	2.645	9.4	20.9	2 11	8 2.20	+20 41.4	2.067	3.000	7.4	22.0
2 21	7 51.65	+28 12.3	1.792	2.645	13.2	21.1	2 21	7 55.67	+20 51.0	2.155	3.021	10.7	22.2
3 2	7 46.84	+28 23.8	1.882	2.645	16.3	21.4	3 2	7 51.46	+20 54.3	2.266	3.042	13.5	22.5
<b>417223</b>	2005 <i>YH</i> <sub>34</sub>		1 23.3	32°57'	0°4/23.4	18	<b>494193</b>	2016 <i>HJ</i> <sub>1</sub>		1 23.3	196°26'	0°3/23.4	17
12 23	8 43.41	+18 10.5	1.494	2.350	14.9	20.7	12 23	8 41.81	+17 34.7	2.289	3.126	11.1	21.6
1 2	8 37.67	+18 15.4	1.440	2.362	10.6	20.4	1 2	8 36.02	+17 52.7	2.212	3.125	7.9	21.4
1 12	8 29.50	+18 27.6	1.409	2.375	5.8	20.2	1 12	8 28.48	+18 16.5	2.161	3.124	4.4	21.1
1 22	8 19.96	+18 43.2	1.405	2.389	0.8	19.9	1 22	8 19.87	+18 43.2	2.139	3.123	0.6	20.8
2 1	8 10.37	+18 58.3	1.428	2.403	4.4	20.2	2 1	8 11.05	+19 9.5	2.147	3.121	3.3	21.1
2 11	8 2.10	+19 9.6	1.478	2.418	9.1	20.5	2 11	8 2.99	+19 32.7	2.185	3.119	7.0	21.3
2 21	7 56.16	+19 15.4	1.552	2.433	13.2	20.8	2 21	7 56.47	+19 50.9	2.250	3.117	10.3	21.5
3 2	7 53.14	+19 15.0	1.647	2.449	16.6	21.0	3 2	7 52.04	+20 3.1	2.339	3.115	13.1	21.7
<b>50445</b>	2000 <i>DH</i> <sub>35</sub>		1 23.3	5°62'	0°8/22.9	18	<b>268623</b>	2006 <i>DT</i> <sub>22</sub>		1 23.3	106°35'	1°2/22.6	18
12 23	8 43.68	+19 59.2	1.470	2.328	14.9	19.4	12 23	8 43.26	+21 41.4	2.086	2.932	11.7	20.3
1 2	8 38.11	+20 25.5	1.404	2.328	10.6	19.1	1 2	8 37.15	+22 13.1	2.022	2.940	8.3	20.1
1 12	8 29.89	+20 58.7	1.362	2.329	5.8	18.9	1 12	8 29.11	+22 47.9	1.983	2.948	4.5	19.9
1 22	8 20.02	+21 33.3	1.346	2.329	1.0	18.5	1 22	8 19.93	+23 21.5	1.974	2.956	1.3	19.7
2 1	8 9.88	+22 3.7	1.357	2.331	4.9	18.8	2 1	8 10.63	+23 49.9	1.994	2.964	4.0	19.9
2 11	8 1.00	+22 25.9	1.395	2.332	9.8	19.1	2 11	8 2.25	+24 10.3	2.043	2.972	7.8	20.2
2 21	7 54.52	+22 38.0	1.457	2.335	14.2	19.4	2 21	7 55.66	+24 21.5	2.119	2.980	11.1	20.4
3 2	7 51.17	+22 39.9	1.538	2.337	17.8	19.6	3 2	7 51.41	+24 24.0	2.217	2.987	13.9	20.6
<b>288685</b>	2004 <i>PO</i> <sub>98</sub>		1 23.3	127°86'	0°7/22.8	18	<b>158606</b>	2002 <i>XS</i> <sub>80</sub>		1 23.3	359°94'	3°9/21.7	18
12 23	8 46.35	+18 6.1	1.683	2.527	14.0	21.0	12 23	8 41.70	+24 7.6	0.985	1.871	18.1	19.2
1 2	8 39.69	+19 6.6	1.622	2.540	10.0	20.8	1 2	8 37.70	+25 5.7	0.930	1.867	13.0	18.9
1 12	8 30.63	+20 15.9	1.587	2.552	5.4	20.6	1 12	8 30.06	+26 9.5	0.896	1.865	7.5	18.6
1 22	8 20.10	+21 27.4	1.580	2.563	0.8	20.3	1 22	8 20.07	+27 8.2	0.884	1.864	3.9	18.3
2 1	8 9.38	+22 34.0	1.602	2.575	4.5	20.6	2 1	8 9.70	+27 51.7	0.895	1.864	7.7	18.6
2 11	7 59.81	+23 30.3	1.654	2.585	9.0	20.9	2 11	8 1.11	+28 14.1	0.928	1.867	13.3	18.9
2 21	7 52.46	+24 13.7	1.730	2.595	13.0	21.1	2 21	7 55.88	+28 15.0	0.982	1.870	18.4	19.2
3 2	7 47.99	+24 43.7	1.828	2.604	16.2	21.4	3 2	7 54.82	+27 57.3	1.051	1.875	22.6	19.5
<b>378815</b>	2008 <i>SO</i> <sub>225</sub>		1 23.3	125°11'	4°5/26.2	18	<b>451080</b>	2009 <i>BV</i> <sub>84</sub>		1 23.3	22°21'	0°1/23.3	18
12 23	8 40.70	+4 6.4	2.308	3.103	12.4	22.0	12 23						

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>396997</b>	2005 <i>SQ</i> <sub>226</sub>		1 23.3	31°66'	3°2/24.5	18	<b>167651</b>	2004 <i>DG</i> <sub>49</sub>		1 23.3	6°39'	4°4/25.9	18
12 23	8 43.98	+11 36.6	1.205	2.057	17.9	21.2	12 23	8 38.45	+5 42.9	1.856	2.673	14.1	19.5
1 2	8 38.60	+11 40.8	1.146	2.062	13.3	20.9	1 2	8 33.92	+5 53.9	1.782	2.674	10.9	19.3
1 12	8 30.26	+12 3.1	1.108	2.068	8.1	20.7	1 12	8 27.47	+6 22.9	1.732	2.675	7.5	19.1
1 22	8 20.10	+12 40.2	1.094	2.074	3.5	20.4	1 22	8 19.83	+7 8.4	1.709	2.677	4.7	18.9
2 1	8 9.69	+13 26.7	1.106	2.080	5.5	20.6	2 1	8 11.96	+8 7.0	1.713	2.679	5.1	18.9
2 11	8 0.74	+14 15.8	1.143	2.088	10.6	20.9	2 11	8 4.92	+9 13.0	1.745	2.682	8.2	19.1
2 21	7 54.51	+15 1.7	1.202	2.095	15.4	21.2	2 21	7 59.55	+10 21.0	1.802	2.686	11.6	19.3
3 2	7 51.73	+15 40.5	1.281	2.103	19.4	21.4	3 2	7 56.48	+11 25.9	1.883	2.689	14.7	19.5
<b>44936</b>	1999 <i>VD</i> <sub>50</sub>		1 23.3	191°50'	1°3/22.7	18	<b>253974</b>	2004 <i>EY</i> <sub>19</sub>		1 23.3	255°50'	7°2/16.9	17
12 23	8 48.60	+21 9.5	1.579	2.428	14.6	18.9	12 23	8 49.49	+46 40.4	3.027	3.827	9.6	20.9
1 2	8 41.57	+21 39.4	1.507	2.427	10.4	18.7	1 2	8 41.75	+47 42.1	2.947	3.804	8.2	20.7
1 12	8 31.80	+22 14.3	1.461	2.426	5.7	18.4	1 12	8 31.77	+48 32.1	2.893	3.781	7.3	20.6
1 22	8 20.28	+22 48.6	1.441	2.424	1.3	18.1	1 22	8 20.33	+49 4.5	2.867	3.757	7.3	20.6
2 1	8 8.45	+23 16.5	1.450	2.422	5.0	18.3	2 1	8 8.52	+49 15.3	2.869	3.732	8.3	20.6
2 11	7 57.85	+23 34.3	1.487	2.419	9.8	18.6	2 11	7 57.54	+49 3.6	2.897	3.707	9.9	20.7
2 21	7 49.71	+23 41.1	1.549	2.416	14.1	18.9	2 21	7 48.41	+48 31.5	2.949	3.681	11.6	20.8
3 2	7 44.78	+23 37.7	1.631	2.412	17.7	19.1	3 2	7 41.82	+47 42.9	3.021	3.655	13.2	20.9
<b>131796</b>	2002 <i>AB</i> <sub>51</sub>		1 23.3	332°28'	0°4/23.4	18	<b>47242</b>	1999 <i>VY</i> <sub>50</sub>		1 23.3	45°65'	4°7/25.1	18
12 23	8 42.85	+17 56.8	1.209	2.076	16.9	19.6	12 23	8 45.04	+9 16.3	1.164	2.011	18.8	17.9
1 2	8 38.09	+18 5.4	1.136	2.063	12.3	19.3	1 2	8 39.33	+8 59.1	1.111	2.021	14.2	17.7
1 12	8 30.17	+18 24.3	1.084	2.051	6.8	18.9	1 12	8 30.66	+9 2.2	1.078	2.032	9.2	17.4
1 22	8 20.12	+18 49.0	1.056	2.040	0.9	18.5	1 22	8 20.21	+9 24.1	1.068	2.043	5.1	17.2
2 1	8 9.54	+19 14.1	1.053	2.029	5.3	18.8	2 1	8 9.61	+10 0.4	1.084	2.055	6.3	17.3
2 11	8 0.28	+19 34.5	1.075	2.020	11.1	19.1	2 11	8 0.57	+10 44.7	1.124	2.067	10.9	17.6
2 21	7 53.78	+19 47.1	1.119	2.011	16.3	19.3	2 21	7 54.34	+11 30.6	1.187	2.080	15.5	17.9
3 2	7 50.96	+19 51.0	1.181	2.003	20.7	19.6	3 2	7 51.59	+12 12.9	1.269	2.093	19.5	18.2
<b>327006</b>	2004 <i>RY</i> <sub>53</sub>		1 23.3	117°58'	3°7/25.7	18	<b>69093</b>	2003 <i>BM</i> <sub>48</sub>		1 23.3	306°38'	0°1/23.3	18
12 23	8 41.84	+6 26.4	2.178	2.984	12.7	21.3	12 23	8 40.05	+18 6.4	2.228	3.070	11.1	19.7
1 2	8 35.99	+6 35.1	2.111	2.997	9.7	21.1	1 2	8 34.92	+18 31.9	2.144	3.060	8.0	19.4
1 12	8 28.44	+6 58.4	2.069	3.010	6.5	21.0	1 12	8 27.98	+19 3.8	2.086	3.050	4.4	19.2
1 22	8 19.89	+7 34.5	2.054	3.023	4.0	20.8	1 22	8 19.90	+19 38.6	2.057	3.040	0.5	18.9
2 1	8 11.23	+8 20.5	2.070	3.035	4.5	20.9	2 1	8 11.54	+20 12.7	2.057	3.031	3.4	19.1
2 11	8 3.37	+9 12.2	2.114	3.047	7.3	21.1	2 11	8 3.88	+20 42.9	2.087	3.021	7.2	19.3
2 21	7 57.07	+10 5.2	2.186	3.058	10.3	21.3	2 21	7 57.73	+21 7.0	2.143	3.012	10.6	19.5
3 2	7 52.85	+10 56.1	2.282	3.070	13.0	21.5	3 2	7 53.71	+21 23.7	2.222	3.003	13.6	19.7
<b>194090</b>	2001 <i>SH</i> <sub>176</sub>		1 23.3	25°68'	10°3/19.8	18	<b>350630</b>	2001 <i>SG</i> <sub>319</sub>		1 23.3	62°11'	4°6/21.6	18
12 23	8 48.45	+37 23.7	1.019	1.893	18.7	19.5	12 23	8 50.09	+28 4.9	1.263	2.127	16.5	20.4
1 2	8 42.62	+38 47.7	0.984	1.904	14.6	19.3	1 2	8 42.90	+28 50.3	1.220	2.144	11.9	20.2
1 12	8 32.68	+39 55.1	0.969	1.916	11.3	19.1	1 12	8 32.54	+29 32.1	1.200	2.162	7.2	20.0
1 22	8 20.38	+40 32.2	0.977	1.929	10.4	19.1	1 22	8 20.41	+30 1.7	1.205	2.180	4.6	19.9
2 1	8 8.18	+40 31.3	1.006	1.943	12.5	19.3	2 1	8 8.38	+30 12.7	1.236	2.198	7.4	20.1
2 11	7 58.49	+39 54.0	1.057	1.959	16.0	19.5	2 11	7 58.28	+30 4.0	1.293	2.217	11.8	20.4
2 21	7 52.77	+38 48.6	1.127	1.976	19.6	19.8	2 21	7 51.33	+29 38.5	1.372	2.235	15.9	20.7
3 2	7 51.52	+37 24.5	1.213	1.993	22.7	20.1	3 2	7 48.10	+29 0.5	1.470	2.253	19.2	21.0
<b>490273</b>	2008 <i>YC</i> <sub>48</sub>		1 23.3	43°11'	1°4/22.6	18	<b>369081</b>	2008 <i>FE</i> <sub>105</sub>		1 23.3	253°32'	3°9/21.4	18
12 23	8 44.17	+19 29.6	1.346	2.208	15.8	21.1	12 23	8 47.69	+29 14.7	1.951	2.798	12.3	21.8
1 2	8 38.63	+20 27.9	1.289	2.215	11.2	20.9	1 2	8 40.75	+29 50.4	1.869	2.784	9.0	21.6
1 12	8 30.26	+21 35.4	1.255	2.222	6.1	20.6	1 12	8 31.33	+30 23.3	1.811	2.770	5.6	21.4
1 22	8 20.13	+22 44.5	1.246	2.230	1.4	20.3	1 22	8 20.30	+30 47.3	1.783	2.755	3.9	21.2
2 1	8 9.76	+23 46.8	1.265	2.238	5.4	20.6	2 1	8 8.88	+30 57.4	1.783	2.740	6.1	21.3
2 11	8 0.78	+24 36.2	1.310	2.246	10.5	20.9	2 11	7 58.48	+30 51.5	1.812	2.724	9.7	21.5
2 21	7 54.41	+25 10.3	1.379	2.255	14.9	21.2	2 21	7 50.20	+30 30.7	1.865	2.709	13.2	21.7
3 2	7 51.36	+25 29.0	1.466	2.264	18.6	21.5	3 2	7 44.81	+29 57.7	1.940	2.693	16.2	21.9
<b>39388</b>	4190 <i>P-L</i>		1 23.3	133°79'	3°3/24.9	18	<b>412119</b>	2013 <i>GU</i> <sub>25</sub>		1 23.3	202°46'	8°1/18.0	18
12 23	8 45.81	+9 46.5	1.797	2.618	14.3	20.0	12 23	8 50.81	+39 47.2	1.975	2.809	12.7	21.2
1 2	8 39.10	+9 46.1	1.732	2.630	10.7	19.8	1 2	8 43.28	+41 21.7	1.914	2.806	10.2	21.0
1 12	8 30.25	+9 59.6	1.690	2.641	6.8	19.6	1 12	8 32.84	+42 45.6	1.878	2.802	8.4	20.9
1 22	8 20.12	+10 24.9	1.676	2.652	3.6	19.4	1 22	8 20.48	+43 49.3	1.869	2.797	8.2	20.9
2 1	8 9.85	+10 58.7	1.692	2.662	4.7	19.5	2 1	8 7.68	+44 25.9	1.888	2.792	9.8	20.9
2 11	8 0.64	+11 36.8	1.736	2.671	8.4	19.7	2 11	7 56.11	+44 33.7	1.933	2.786	12.3	21.1
2 21	7 53.41	+12 15.1	1.806	2.680	12.1	20.0	2 21	7 47.09	+44 15.8	2.000	2.780	14.8	21.3
3 2	7 48.77	+12 50.5	1.898	2.688	15.2	20.2	3 2	7 41.44	+43 37.8	2.086	2.773	17.1	21.4
<b>467772</b>	2009 <i>VX</i> <sub>78</sub>		1 23.3	17°29'	12°4/27.3	18	<b>306562</b>	2000 <i>CM</i> <sub>74</sub>		1 23.3	295°91'	0°2/23.3	18
12 23	8 44.56	-8 11.0	1.703	2.448	18.1	19.8	12 23	8 44.19	+18 9.2	1.621	2.471	14.2	20.8
1 2	8 38.41	-10 13.8	1.639	2.451	15.9	19.7	1 2	8 38.42	+18 23.1	1.542	2.462	10.3	20.6
1 12	8 29.98	-11 51.6	1.596	2.456	13.8	19.6	1 12	8 30.11	+18 44.7	1.488	2.453	5.7	20.3
1 22	8 20.10	-12 58.1	1.575	2.460	12.6	19.5	1 22	8 20.16	+19 10.0	1.460	2.444	0.7	19.9
2 1	8 9.94	-13 30.2	1.579	2.466	12.5	19.5	2 1	8 9.83	+19 34.6	1.460	2.435	4.4	20.1
2 11	8 0.74	-13 29.2	1.607	2.471	13.7	19.6	2 11	8 0.53	+19 54.7	1.488	2.426	9.2	20.4
2 21	7 53.54	-13 0.9	1.656	2.478	15.6	19.7	2 21	7 53.42	+20 8.0	1.540	2.417	13.6	20.6
3 2	7 49.04	-12 13.4	1.724	2.485	17.6	19.9	3 2	7 49.25	+20 13.7	1.613	2.409	17.2	20.9
<b>402810</b>	2007 <i>DO</i> <sub>98</sub>		1 23.3	307°14'	2°3/24.3	17	<b>276294</b>	2002 <i>TD</i> <sub>91</sub>		1 23.3	81°67'	4°0/25.7	18
12 23	8 43.04	+12 9.2	1.282	2.133	17.1	21.7							

EPHEMERIDES

1 23.3

1 23.3

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>411370</b>	2010 VR <sub>27</sub>		1 23.3 121°76	5°4/26.3	18		<b>433897</b>	2015 BC <sub>424</sub>		1 23.3 313°01	1°1/23.9	18	
12 23	8 44.02	+ 3 2.6	2.105	2.894	13.7	21.5	12 23	8 40.65	+14 49.5	2.125	2.961	11.9	21.2
1 2	8 37.55	+ 2 42.2	2.040	2.910	10.8	21.3	1 2	8 35.36	+15 7.3	2.047	2.958	8.6	21.0
1 12	8 29.32	+ 2 38.2	1.999	2.925	7.8	21.2	1 12	8 28.23	+15 33.8	1.994	2.955	4.9	20.8
1 22	8 20.06	+ 2 50.6	1.986	2.940	5.7	21.1	1 22	8 19.97	+16 6.3	1.969	2.951	1.4	20.5
2 1	8 10.70	+ 3 17.5	2.001	2.955	5.8	21.1	2 1	8 11.47	+16 41.3	1.974	2.948	3.5	20.7
2 11	8 2.23	+ 3 55.4	2.046	2.969	8.1	21.3	2 11	8 3.72	+17 15.4	2.008	2.945	7.3	20.9
2 21	7 55.41	+ 4 39.8	2.117	2.982	10.9	21.5	2 21	7 57.56	+17 45.6	2.068	2.942	10.8	21.1
3 2	7 50.78	+ 5 26.3	2.211	2.995	13.6	21.7	3 2	7 53.57	+18 10.2	2.151	2.939	13.7	21.3
<b>428965</b>	2008 YL <sub>132</sub>		1 23.3 78°51	1°2/22.5	18		<b>3819</b>	Robinson		1 23.3 65°84	6°1/19.9	18	
12 23	8 41.52	+21 20.0	2.203	3.049	11.1	21.1	12 23	8 46.82	+33 43.1	1.769	2.620	13.1	16.1
1 2	8 35.90	+21 57.4	2.137	3.055	7.9	20.9	1 2	8 40.17	+34 54.8	1.722	2.634	9.9	15.9
1 12	8 28.47	+22 38.5	2.096	3.061	4.3	20.7	1 12	8 30.97	+35 59.0	1.700	2.648	7.1	15.8
1 22	8 19.96	+23 18.9	2.085	3.067	1.2	20.5	1 22	8 20.28	+36 47.5	1.706	2.663	6.2	15.8
2 1	8 11.30	+23 54.5	2.103	3.074	3.9	20.7	2 1	8 9.50	+37 14.7	1.739	2.677	8.0	15.9
2 11	8 3.47	+24 22.5	2.151	3.080	7.4	20.9	2 11	8 0.10	+37 19.3	1.799	2.692	11.0	16.1
2 21	7 57.26	+24 41.2	2.225	3.086	10.7	21.2	2 21	7 53.14	+37 3.5	1.881	2.706	13.9	16.3
3 2	7 53.25	+24 50.8	2.322	3.092	13.4	21.4	3 2	7 49.23	+36 31.8	1.984	2.720	16.4	16.5
<b>94614</b>	2001 VM <sub>116</sub>		1 23.3 298°24	0°3/23.4	18		<b>432912</b>	2011 QG <sub>49</sub>		1 23.3 245°64	6°2/28.6	17	
12 23	8 45.29	+17 59.3	1.400	2.255	15.7	19.5	12 23	8 38.77	- 5 52.9	2.905	3.636	11.6	21.7
1 2	8 39.57	+18 8.4	1.321	2.243	11.4	19.2	1 2	8 33.69	- 5 47.4	2.801	3.620	9.8	21.6
1 12	8 30.91	+18 26.3	1.264	2.230	6.4	18.8	1 12	8 27.22	- 5 23.5	2.722	3.603	8.0	21.4
1 22	8 20.28	+18 49.0	1.234	2.217	0.9	18.4	1 22	8 19.85	- 4 40.6	2.668	3.586	6.6	21.3
2 1	8 9.13	+19 11.4	1.230	2.205	4.9	18.7	2 1	8 12.21	- 3 40.0	2.644	3.569	6.3	21.3
2 11	7 59.14	+19 29.2	1.252	2.193	10.3	19.0	2 11	8 5.01	- 2 24.9	2.649	3.551	7.5	21.3
2 21	7 51.68	+19 40.2	1.298	2.181	15.2	19.2	2 21	7 58.85	- 0 59.9	2.682	3.533	9.4	21.4
3 2	7 47.61	+19 43.3	1.364	2.169	19.3	19.4	3 2	7 54.25	+ 0 29.9	2.741	3.514	11.5	21.5
<b>503749</b>	2016 MM <sub>1</sub>		1 23.3 223°56	2°7/25.5	17		<b>343625</b>	2010 GA <sub>157</sub>		1 23.3 280°98	2°0/21.8	18	
12 23	8 39.01	+ 7 9.5	2.803	3.605	10.3	22.2	12 23	8 40.87	+22 49.9	2.269	3.116	10.8	20.3
1 2	8 33.86	+ 7 38.8	2.711	3.597	7.8	22.0	1 2	8 35.60	+23 53.1	2.186	3.105	7.7	20.1
1 12	8 27.30	+ 8 20.2	2.645	3.588	5.2	21.8	1 12	8 28.43	+25 0.8	2.130	3.094	4.3	19.9
1 22	8 19.85	+ 9 12.2	2.608	3.579	3.0	21.7	1 22	8 20.00	+26 7.4	2.103	3.083	2.0	19.7
2 1	8 12.16	+10 11.7	2.602	3.570	3.5	21.7	2 1	8 11.22	+27 7.6	2.107	3.072	4.5	19.8
2 11	8 4.95	+11 15.2	2.627	3.560	6.0	21.8	2 11	8 3.11	+27 57.3	2.140	3.061	7.9	20.0
2 21	7 58.86	+12 18.9	2.681	3.550	8.8	22.0	2 21	7 56.55	+28 34.4	2.199	3.050	11.2	20.2
3 2	7 54.40	+13 19.5	2.760	3.540	11.2	22.1	3 2	7 52.18	+28 58.6	2.281	3.039	13.9	20.4
<b>467128</b>	2016 EL <sub>75</sub>		1 23.3 246°37	4°4/21.4	18		<b>359233</b>	2009 EJ <sub>16</sub>		1 23.3 274°90	0°7/23.6	18	
12 23	8 48.80	+31 25.0	1.925	2.771	12.5	20.8	12 23	8 44.87	+16 47.5	1.655	2.500	14.2	21.3
1 2	8 41.48	+31 50.4	1.852	2.765	9.2	20.6	1 2	8 38.98	+17 1.4	1.567	2.483	10.3	21.0
1 12	8 31.67	+32 10.0	1.803	2.759	6.0	20.4	1 12	8 30.50	+17 24.6	1.503	2.466	5.8	20.7
1 22	8 20.36	+32 17.9	1.783	2.752	4.4	20.2	1 22	8 20.26	+17 53.4	1.466	2.449	1.0	20.3
2 1	8 8.83	+32 10.0	1.792	2.746	6.4	20.4	2 1	8 9.50	+18 23.4	1.457	2.432	4.4	20.5
2 11	7 58.50	+31 45.5	1.829	2.739	9.8	20.5	2 11	7 59.65	+18 50.3	1.476	2.414	9.3	20.8
2 21	7 50.43	+31 6.5	1.891	2.732	13.1	20.7	2 21	7 51.92	+19 11.4	1.520	2.397	13.8	21.0
3 2	7 45.30	+30 16.7	1.975	2.726	16.0	20.9	3 2	7 47.16	+19 25.1	1.585	2.379	17.6	21.2
<b>170468</b>	2003 UY <sub>227</sub>		1 23.3 171°66	1°4/23.9	18		<b>191886</b>	2004 XR <sub>161</sub>		1 23.3 86°47	1°8/24.1	18	
12 23	8 45.71	+15 0.6	1.854	2.689	13.4	20.6	12 23	8 45.77	+14 50.0	2.038	2.867	12.6	19.9
1 2	8 39.11	+15 5.9	1.781	2.691	9.8	20.3	1 2	8 38.81	+14 28.4	1.978	2.884	9.1	19.7
1 12	8 30.33	+15 20.1	1.733	2.693	5.6	20.1	1 12	8 30.00	+14 13.8	1.943	2.901	5.4	19.5
1 22	8 20.20	+15 40.4	1.712	2.695	1.7	19.8	1 22	8 20.17	+14 4.8	1.938	2.918	2.0	19.3
2 1	8 9.85	+16 3.3	1.722	2.696	4.0	20.0	2 1	8 10.33	+13 59.7	1.962	2.935	3.8	19.5
2 11	8 0.50	+16 25.5	1.760	2.696	8.2	20.3	2 11	8 1.54	+13 56.6	2.017	2.951	7.4	19.7
2 21	7 53.10	+16 44.6	1.824	2.697	12.0	20.5	2 21	7 54.57	+13 54.0	2.098	2.968	10.8	19.9
3 2	7 48.30	+16 58.9	1.911	2.697	15.3	20.7	3 2	7 49.94	+13 50.7	2.202	2.984	13.6	20.2
<b>35766</b>	1999 HB <sub>9</sub>		1 23.3 18°58	3°0/24.4	18		<b>391436</b>	2007 EL <sub>102</sub>		1 23.3 269°74	0°9/22.8	17	
12 23	8 43.64	+12 23.5	1.269	2.120	17.3	18.6	12 23	8 43.27	+20 8.2	2.086	2.930	11.8	21.8
1 2	8 38.31	+12 20.2	1.207	2.123	12.8	18.3	1 2	8 37.47	+20 44.2	1.992	2.909	8.4	21.6
1 12	8 30.13	+12 32.7	1.166	2.126	7.7	18.0	1 12	8 29.53	+21 26.1	1.923	2.888	4.6	21.3
1 22	8 20.19	+12 58.5	1.150	2.130	3.3	17.8	1 22	8 20.14	+22 9.7	1.884	2.867	0.9	21.0
2 1	8 9.98	+13 32.8	1.160	2.135	5.3	17.9	2 1	8 10.29	+22 50.2	1.874	2.845	4.1	21.2
2 11	8 1.15	+14 10.0	1.196	2.140	10.3	18.2	2 11	8 1.12	+23 23.8	1.893	2.823	8.2	21.4
2 21	7 54.91	+14 45.4	1.254	2.145	15.0	18.5	2 21	7 53.64	+23 48.1	1.939	2.801	11.9	21.6
3 2	7 52.01	+15 15.3	1.332	2.152	18.9	18.8	3 2	7 48.58	+24 2.7	2.007	2.779	15.1	21.8
<b>428479</b>	2007 VC <sub>76</sub>		1 23.3 242°76	4°1/20.5	15		<b>456249</b>	2006 QP <sub>4</sub>		1 23.3 189°52	1°2/24.1	17	
12 23	8 42.84	+30 29.2	2.316	3.163	10.6	21.3	12 23	8 41.02	+14 16.1	3.007	3.826	9.2	22.0
1 2	8 36.96	+31 26.4	2.247	3.161	7.8	21.1	1 2	8 35.15	+14 18.9	2.923	3.825	6.7	21.8
1 12	8 29.12	+32 20.9	2.205	3.160	5.1	20.9	1 12	8 27.94	+14 27.5	2.866	3.823	3.9	21.7
1 22	8 20.07	+33 6.8	2.192	3.158	4.1	20.9	1 22	8 19.94	+14 40.3	2.840	3.821	1.4	21.5
2 1	8 10.78	+33 39.6	2.209	3.157	5.8	21.0	2 1	8 11.79	+14 55.5	2.845	3.818	2.7	21.6
2 11	8 2.34	+33 57.0	2.254	3.155	8.6	21.2	2 11	8 4.18	+15 11.1	2.882	3.815	5.6	21.8
2 21	7 55.61	+33 59.2	2.324	3.153	11.4	21.3	2 21	7 57.72	+15 25.5	2.947	3.811	8.2	21.9
3 2	7 51.21	+33 48.0	2.416	3.152	13.8	21.5	3 2	7 52.85	+15 37.6	3.037	3.807	10.5	22.1
<b>350709</b>	2001 XR <sub>57</sub>		1 23.3 42°60	3°2/21.7	18		<b>496352</b>	2013 QO <sub>65</sub>		1 23.3 148°31	0°6/23.7	18	
12 23	8 44.83	+22 22.8	1.166	2.038	17.0	20.0	12 23	8 42.22	+15 9.1	2.361	3.190	11.1	21.9

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>214279</b>	2005 <i>GQ</i> <sub>75</sub>		1 23.3 234°10	0°5/23.5	18		<b>205312</b>	2000 <i>TS</i> <sub>16</sub>		1 23.3 147°60	0°6/23.6	18	
12 23	8 44.70	+16 53.0	1.844	2.684	13.2	21.1	12 23	8 46.95	+16 23.9	1.994	2.826	12.7	21.7
1 2	8 38.55	+17 11.8	1.762	2.677	9.5	20.9	1 2	8 39.84	+16 44.8	1.928	2.838	9.1	21.5
1 12	8 30.12	+17 38.9	1.706	2.669	5.3	20.6	1 12	8 30.68	+17 13.2	1.887	2.848	5.1	21.3
1 22	8 20.21	+18 10.6	1.677	2.661	0.9	20.3	1 22	8 20.31	+17 45.3	1.875	2.858	0.9	21.0
2 1	8 9.95	+18 42.6	1.678	2.652	4.0	20.5	2 1	8 9.80	+18 17.3	1.894	2.868	3.7	21.2
2 11	8 0.59	+19 11.1	1.707	2.643	8.4	20.8	2 11	8 0.29	+18 45.7	1.942	2.876	7.8	21.5
2 21	7 53.16	+19 33.7	1.762	2.634	12.4	21.0	2 21	7 52.67	+19 8.4	2.018	2.884	11.4	21.7
3 2	7 48.39	+19 49.1	1.839	2.625	15.8	21.2	3 2	7 47.54	+19 24.6	2.116	2.890	14.4	21.9
<b>333616</b>	2007 <i>TX</i> <sub>19</sub>		1 23.3 125°38	0°1/23.4	18		<b>34276</b>	2000 <i>QW</i> <sub>136</sub>		1 23.3 255°11	1°0/22.8	18	
12 23	8 41.91	+17 57.6	2.689	3.520	9.8	21.6	12 23	8 46.35	+19 57.0	1.724	2.571	13.7	19.7
1 2	8 35.83	+18 17.2	2.624	3.535	7.0	21.5	1 2	8 40.07	+20 36.2	1.635	2.553	9.8	19.4
1 12	8 28.32	+18 41.2	2.587	3.549	3.8	21.3	1 12	8 31.14	+21 23.0	1.570	2.535	5.4	19.1
1 22	8 19.98	+19 6.8	2.579	3.563	0.5	21.0	1 22	8 20.39	+22 11.9	1.533	2.516	1.1	18.8
2 1	8 11.57	+19 31.5	2.603	3.577	2.9	21.2	2 1	8 9.06	+22 56.9	1.525	2.497	4.8	19.0
2 11	8 3.88	+19 52.9	2.658	3.590	6.0	21.5	2 11	7 58.60	+23 33.0	1.545	2.477	9.5	19.2
2 21	7 57.52	+20 9.5	2.741	3.602	8.9	21.7	2 21	7 50.25	+23 57.8	1.591	2.457	13.9	19.5
3 2	7 52.98	+20 20.8	2.847	3.614	11.2	21.9	3 2	7 44.91	+24 11.1	1.657	2.436	17.6	19.7
<b>146672</b>	2001 <i>UH</i> <sub>201</sub>		1 23.3 172°84	0°3/23.5	18		<b>134818</b>	2000 <i>GH</i> <sub>18</sub>		1 23.3 91°54	4°6/21.1	18	
12 23	8 44.15	+17 22.9	1.990	2.829	12.4	21.0	12 23	8 49.25	+30 29.6	1.807	2.655	13.1	19.2
1 2	8 37.93	+17 41.5	1.916	2.830	8.9	20.8	1 2	8 41.68	+31 19.3	1.762	2.677	9.5	19.0
1 12	8 29.67	+18 7.0	1.868	2.831	4.9	20.5	1 12	8 31.71	+32 3.6	1.742	2.697	6.1	18.8
1 22	8 20.16	+18 35.9	1.849	2.832	0.7	20.2	1 22	8 20.42	+32 35.7	1.749	2.718	4.6	18.8
2 1	8 10.44	+19 4.4	1.859	2.833	3.7	20.5	2 1	8 9.19	+32 51.1	1.786	2.738	6.6	18.9
2 11	8 1.62	+19 29.1	1.899	2.834	7.8	20.7	2 11	7 59.36	+32 48.5	1.851	2.758	9.8	19.2
2 21	7 54.61	+19 48.1	1.965	2.834	11.5	20.9	2 21	7 51.93	+32 30.1	1.940	2.777	13.0	19.4
3 2	7 50.04	+20 0.4	2.053	2.834	14.5	21.1	3 2	7 47.45	+31 59.5	2.049	2.796	15.6	19.6
<b>162748</b>	2000 <i>WG</i> <sub>30</sub>		1 23.3 102°59	2°4/22.0	18		<b>493813</b>	2015 <i>VT</i> <sub>96</sub>		1 23.3 19°79	3°5/24.7	18	
12 23	8 46.79	+22 26.1	1.616	2.469	14.1	19.6	12 23	8 42.76	+11 33.7	1.186	2.041	18.0	21.2
1 2	8 40.15	+23 30.1	1.562	2.483	10.0	19.4	1 2	8 37.78	+11 27.4	1.129	2.046	13.4	20.9
1 12	8 30.98	+24 38.3	1.533	2.498	5.5	19.2	1 12	8 29.91	+11 38.9	1.092	2.052	8.3	20.6
1 22	8 20.31	+25 43.1	1.531	2.512	2.4	19.0	1 22	8 20.24	+12 5.7	1.079	2.058	3.8	20.4
2 1	8 9.50	+26 37.5	1.559	2.526	5.4	19.2	2 1	8 10.35	+12 42.9	1.091	2.066	5.6	20.5
2 11	7 59.98	+27 17.1	1.614	2.540	9.7	19.5	2 11	8 1.91	+13 24.4	1.128	2.074	10.6	20.8
2 21	7 52.83	+27 41.1	1.694	2.553	13.5	19.8	2 21	7 56.16	+14 4.4	1.188	2.083	15.3	21.1
3 2	7 48.70	+27 50.7	1.794	2.566	16.7	20.0	3 2	7 53.81	+14 39.0	1.266	2.093	19.3	21.4
<b>442630</b>	2012 <i>SU</i> <sub>64</sub>		1 23.3 138°06	1°0/22.9	17		<b>429001</b>	2009 <i>BB</i> <sub>38</sub>		1 23.3 301°70	0°4/23.0	17	
12 23	8 50.18	+20 13.2	1.592	2.437	14.7	22.3	12 23	8 40.12	+18 11.3	2.275	3.116	11.0	21.2
1 2	8 42.54	+20 45.1	1.533	2.450	10.5	22.0	1 2	8 34.96	+18 56.5	2.197	3.113	7.8	21.0
1 12	8 32.28	+21 22.5	1.498	2.462	5.7	21.8	1 12	8 28.04	+19 48.5	2.146	3.111	4.3	20.8
1 22	8 20.46	+21 59.4	1.490	2.474	1.1	21.5	1 22	8 20.02	+20 43.2	2.124	3.108	0.6	20.5
2 1	8 8.52	+22 30.5	1.513	2.484	4.8	21.8	2 1	8 11.74	+21 36.2	2.133	3.105	3.5	20.7
2 11	7 57.95	+22 52.1	1.563	2.494	9.5	22.1	2 11	8 4.17	+22 23.5	2.170	3.103	7.1	21.0
2 21	7 49.87	+23 3.2	1.638	2.503	13.6	22.3	2 21	7 58.08	+23 2.6	2.235	3.100	10.4	21.2
3 2	7 44.93	+23 4.6	1.735	2.512	16.9	22.6	3 2	7 54.08	+23 32.3	2.323	3.098	13.2	21.4
<b>155069</b>	2005 <i>SA</i> <sub>65</sub>		1 23.3 90°28	4°4/25.3	18		<b>190122</b>	2004 <i>WZ</i> <sub>9</sub>		1 23.3 68°30	3°3/25.4	18	
12 23	8 46.41	+ 8 6.6	1.407	2.236	17.2	20.1	12 23	8 41.09	+ 7 45.2	1.895	2.714	13.8	19.7
1 2	8 39.92	+ 8 6.3	1.352	2.253	13.0	19.9	1 2	8 35.72	+ 8 13.1	1.832	2.728	10.4	19.6
1 12	8 30.86	+ 8 25.2	1.320	2.270	8.4	19.7	1 12	8 28.45	+ 8 57.2	1.794	2.743	6.7	19.4
1 22	8 20.30	+ 9 1.1	1.312	2.286	4.7	19.5	1 22	8 20.06	+ 9 54.6	1.783	2.757	3.6	19.2
2 1	8 9.65	+ 9 49.3	1.332	2.302	5.7	19.6	2 1	8 11.54	+11 0.7	1.801	2.772	4.3	19.3
2 11	8 0.38	+10 43.4	1.379	2.318	9.7	19.9	2 11	8 3.93	+12 9.8	1.848	2.786	7.7	19.5
2 21	7 53.55	+11 37.6	1.450	2.333	13.9	20.1	2 21	7 58.06	+13 16.8	1.921	2.801	11.2	19.7
3 2	7 49.80	+12 27.2	1.542	2.349	17.4	20.4	3 2	7 54.50	+14 17.7	2.018	2.815	14.2	20.0
<b>327041</b>	2004 <i>SY</i> <sub>21</sub>		1 23.3 211°23	4°2/20.9	18		<b>11195</b>	Woomera		1 23.3 350°06	0°5/23.5	18	
12 23	8 47.41	+31 37.7	2.251	3.092	11.1	21.3	12 23	8 44.57	+18 6.8	1.211	2.075	17.0	17.1
1 2	8 40.26	+32 14.5	2.177	3.087	8.2	21.1	1 2	8 39.25	+18 6.4	1.145	2.071	12.3	16.8
1 12	8 30.95	+32 46.5	2.129	3.082	5.4	20.9	1 12	8 30.80	+18 15.1	1.100	2.067	6.9	16.5
1 22	8 20.32	+33 8.3	2.110	3.076	4.2	20.8	1 22	8 20.36	+18 28.7	1.080	2.064	1.0	16.1
2 1	8 9.48	+33 15.7	2.120	3.069	6.0	20.9	2 1	8 9.55	+18 42.4	1.085	2.061	5.2	16.4
2 11	7 59.60	+33 7.4	2.160	3.062	8.9	21.1	2 11	8 0.20	+18 52.3	1.115	2.059	10.9	16.7
2 21	7 51.64	+32 44.7	2.225	3.055	11.8	21.3	2 21	7 53.66	+18 56.1	1.168	2.059	15.9	17.0
3 2	7 46.24	+32 10.3	2.312	3.048	14.4	21.5	3 2	7 50.75	+18 53.0	1.239	2.059	20.1	17.2
<b>464373</b>	2016 <i>AV</i> <sub>173</sub>		1 23.3 154°89	3°3/24.8	18		<b>496026</b>	2008 <i>RV</i> <sub>121</sub>		1 23.3 182°17	0°8/23.7	16	
12 23	8 46.03	+10 19.9	2.073	2.888	12.9	21.2	12 23	8 43.24	+16 20.0	2.320	3.151	11.2	22.2
1 2	8 39.09	+ 9 54.9	2.000	2.894	9.7	21.0	1 2	8 37.06	+16 27.6	2.242	3.151	8.1	22.0
1 12	8 30.24	+ 9 40.2	1.952	2.900	6.3	20.8	1 12	8 29.13	+16 41.5	2.191	3.152	4.5	21.8
1 22	8 20.24	+ 9 35.2	1.933	2.906	3.5	20.7	1 22	8 20.14	+16 59.0	2.168	3.151	1.0	21.5
2 1	8 10.09	+ 9 38.4	1.943	2.911	4.5	20.8	2 1	8 10.97	+17 17.6	2.177	3.151	3.3	21.7
2 11	8 0.85	+ 9 47.5	1.984	2.915	7.8	21.0	2 11	8 2.57	+17 34.7	2.216	3.150	6.9	21.9
2 21	7 53.36	+ 9 59.9	2.051	2.919	11.1	21.2	2 21	7 55.69	+17 48.4	2.281	3.149	10.2	22.1
3 2	7 48.19	+10 13.2	2.142	2.923	14.0	21.4	3 2	7 50.91	+17 57.8	2.371	3.147	12.9	22.3
<b>2857</b>	NOT		1 23.3 1°18	2°1/24.3	18		<b>7920</b>	1981 <i>XM</i> <sub>2</sub>		1 23.3 43°26	5°4/25.3	18	
12 23	8 41.89	+12 23.0	1.321	2.173	16.7	15.7	12 23	8 44.55					

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>523795</b>	2015 <i>TQ</i> <sub>178</sub>		1 23.3 163°20	1°1/23.9	18	C	<b>274653</b>	2008 <i>TH</i> <sub>151</sub>		1 23.3 345°14	4°8/26.2	18	
12 23	8 49.48	+14 41.1	2.304	3.120	11.8	25.4	12 23	8 39.90	+ 4 30.9	1.943	2.751	14.0	20.8
1 2	8 41.44	+15 0.3	2.230	3.131	8.5	25.2	1 2	8 34.97	+ 4 34.9	1.865	2.749	10.9	20.6
1 12	8 31.50	+15 27.0	2.183	3.141	4.9	25.0	1 12	8 28.13	+ 4 56.9	1.810	2.747	7.7	20.4
1 22	8 20.43	+15 58.1	2.167	3.149	1.3	24.8	1 22	8 20.09	+ 5 36.0	1.781	2.745	5.1	20.3
2 1	8 9.20	+16 30.4	2.183	3.156	3.4	24.9	2 1	8 11.79	+ 6 29.3	1.781	2.744	5.4	20.3
2 11	7 58.85	+17 0.6	2.231	3.161	7.1	25.2	2 11	8 4.25	+ 7 31.8	1.809	2.743	8.2	20.4
2 21	7 50.21	+17 26.6	2.307	3.165	10.4	25.4	2 21	7 58.35	+ 8 38.0	1.863	2.742	11.5	20.6
3 2	7 43.86	+17 47.3	2.408	3.168	13.2	25.6	3 2	7 54.71	+ 9 42.9	1.940	2.741	14.5	20.8
<b>416924</b>	2005 <i>SD</i> <sub>54</sub>		1 23.3 153°58	2°2/21.9	18		<b>145858</b>	1999 <i>EM</i> <sub>8</sub>		1 23.3 233°60	0°2/23.2	18	
12 23	8 45.90	+25 18.7	2.501	3.339	10.2	22.2	12 23	8 44.29	+18 51.4	2.099	2.938	11.9	20.9
1 2	8 38.86	+25 56.6	2.436	3.349	7.3	22.0	1 2	8 38.11	+19 14.1	2.013	2.928	8.5	20.6
1 12	8 30.08	+26 34.2	2.397	3.359	4.2	21.8	1 12	8 29.87	+19 42.5	1.954	2.918	4.7	20.4
1 22	8 20.26	+27 7.4	2.390	3.368	2.2	21.7	1 22	8 20.30	+20 13.0	1.923	2.907	0.6	20.0
2 1	8 10.33	+27 32.5	2.413	3.376	4.2	21.8	2 1	8 10.41	+20 41.7	1.923	2.896	3.7	20.3
2 11	8 1.24	+27 47.4	2.467	3.383	7.2	22.0	2 11	8 1.29	+21 5.4	1.952	2.884	7.8	20.5
2 21	7 53.76	+27 52.0	2.548	3.390	10.1	22.2	2 21	7 53.88	+21 22.2	2.007	2.872	11.4	20.7
3 2	7 48.42	+27 47.3	2.652	3.396	12.5	22.4	3 2	7 48.86	+21 31.6	2.085	2.860	14.5	20.9
<b>413043</b>	2001 <i>QM</i> <sub>65</sub>		1 23.3 149°82	6°0/27.9	18		<b>327023</b>	2004 <i>RU</i> <sub>219</sub>		1 23.3 192°71	2°0/24.4	16	
12 23	8 42.16	- 2 27.2	2.371	3.128	13.2	21.8	12 23	8 43.60	+12 45.4	2.414	3.233	11.2	21.4
1 2	8 36.21	- 2 16.1	2.295	3.139	10.8	21.7	1 2	8 37.28	+12 41.4	2.331	3.231	8.3	21.2
1 12	8 28.64	- 1 45.1	2.243	3.148	8.3	21.5	1 12	8 29.27	+12 45.4	2.275	3.229	5.0	21.0
1 22	8 20.10	- 0 54.7	2.218	3.157	6.4	21.4	1 22	8 20.23	+12 56.0	2.248	3.226	2.2	20.8
2 1	8 11.40	+ 0 12.6	2.223	3.165	6.2	21.4	2 1	8 10.98	+13 10.9	2.252	3.223	3.5	20.8
2 11	8 3.40	+ 1 32.0	2.257	3.173	7.9	21.5	2 11	8 2.44	+13 28.0	2.286	3.219	6.7	21.0
2 21	7 56.82	+ 2 57.7	2.319	3.180	10.3	21.7	2 21	7 55.34	+13 44.8	2.348	3.215	9.9	21.2
3 2	7 52.17	+ 4 24.2	2.406	3.186	12.7	21.9	3 2	7 50.25	+13 59.8	2.433	3.210	12.6	21.4
<b>413852</b>	2006 <i>SX</i> <sub>399</sub>		1 23.3 139°40	3°5/25.4	18		<b>247683</b>	2003 <i>AE</i> <sub>47</sub>		1 23.3 350°96	3°6/21.7	18	
12 23	8 44.06	+ 7 25.9	2.202	3.006	12.6	23.2	12 23	8 44.51	+23 36.9	1.199	2.071	16.6	19.9
1 2	8 37.61	+ 7 32.2	2.133	3.020	9.6	23.0	1 2	8 39.44	+24 48.1	1.137	2.067	11.9	19.6
1 12	8 29.42	+ 7 52.0	2.090	3.033	6.3	22.8	1 12	8 31.04	+26 5.8	1.098	2.065	6.8	19.3
1 22	8 20.20	+ 8 23.6	2.075	3.045	3.7	22.7	1 22	8 20.46	+27 19.9	1.083	2.063	3.6	19.1
2 1	8 10.86	+ 9 4.0	2.090	3.056	4.3	22.7	2 1	8 9.43	+28 20.0	1.094	2.061	7.2	19.3
2 11	8 2.34	+ 9 49.5	2.135	3.067	7.3	22.9	2 11	7 59.89	+28 59.9	1.129	2.060	12.3	19.6
2 21	7 55.41	+10 36.1	2.208	3.077	10.4	23.1	2 21	7 53.33	+29 18.3	1.186	2.060	17.0	19.8
3 2	7 50.62	+11 20.6	2.305	3.087	13.1	23.3	3 2	7 50.60	+29 17.5	1.260	2.060	20.9	20.1
<b>464441</b>	2016 <i>BU</i> <sub>35</sub>		1 23.3 38°28	6°8/21.4	18		<b>379849</b>	2012 <i>DK</i> <sub>38</sub>		1 23.3 177°77	16°5/15.0	15	
12 23	8 52.37	+35 35.3	1.402	2.256	15.8	20.8	12 23	9 5.74	+53 7.1	1.292	2.103	19.5	21.7
1 2	8 44.48	+35 58.6	1.354	2.267	12.0	20.6	1 2	8 56.44	+55 25.7	1.256	2.104	17.6	21.5
1 12	8 33.42	+36 8.9	1.330	2.280	8.4	20.4	1 12	8 41.08	+57 13.4	1.239	2.105	16.6	21.5
1 22	8 20.66	+35 58.5	1.331	2.293	6.9	20.3	1 22	8 21.68	+58 12.1	1.243	2.105	16.8	21.5
2 1	8 8.10	+35 23.8	1.359	2.306	8.7	20.5	2 1	8 1.84	+58 12.1	1.267	2.105	18.2	21.6
2 11	7 57.57	+34 26.6	1.412	2.320	12.2	20.7	2 11	7 45.47	+57 17.3	1.310	2.105	20.3	21.7
2 21	7 50.24	+33 13.1	1.487	2.335	15.7	21.0	2 21	7 34.89	+55 41.2	1.369	2.104	22.5	21.9
3 2	7 46.65	+31 49.8	1.583	2.350	18.7	21.2	3 2	7 30.70	+53 38.6	1.442	2.103	24.5	22.0
<b>343984</b>	2011 <i>MS</i> <sub>5</sub>		1 23.3 212°97	1°4/24.2	17		<b>132457</b>	2002 <i>HZ</i> <sub>5</sub>		1 23.3 287°96	0°8/23.8	18	
12 23	8 41.41	+14 12.9	2.865	3.685	9.6	21.5	12 23	8 42.02	+15 45.8	1.947	2.787	12.6	20.5
1 2	8 35.53	+14 10.8	2.776	3.679	7.0	21.4	1 2	8 36.66	+16 4.9	1.857	2.771	9.2	20.3
1 12	8 28.23	+14 14.6	2.715	3.672	4.1	21.2	1 12	8 29.16	+16 33.1	1.793	2.755	5.2	20.0
1 22	8 20.07	+14 22.9	2.684	3.664	1.5	21.0	1 22	8 20.26	+17 7.4	1.756	2.739	1.2	19.7
2 1	8 11.72	+14 34.0	2.684	3.656	2.9	21.1	2 1	8 10.95	+17 43.9	1.749	2.723	3.8	19.8
2 11	8 3.93	+14 45.9	2.715	3.648	5.8	21.2	2 11	8 2.39	+18 18.5	1.770	2.708	8.1	20.1
2 21	7 57.33	+14 57.0	2.774	3.639	8.6	21.4	2 21	7 55.56	+18 48.2	1.817	2.692	12.0	20.3
3 2	7 52.40	+15 6.2	2.858	3.630	11.1	21.6	3 2	7 51.18	+19 11.3	1.886	2.676	15.3	20.5
<b>488731</b>	2004 <i>RL</i> <sub>25</sub>		1 23.3 123°91	0°3/23.5	18		<b>41652</b>	2000 <i>SA</i> <sub>294</sub>		1 23.3 86°96	6°8/20.6	18	R
12 23	8 44.05	+16 58.8	2.457	3.286	10.7	22.8	12 23	8 55.27	+35 26.9	1.624	2.466	14.6	18.7
1 2	8 37.45	+17 21.8	2.396	3.305	7.6	22.6	1 2	8 46.15	+36 27.1	1.591	2.497	11.0	18.6
1 12	8 29.27	+17 50.4	2.361	3.323	4.2	22.5	1 12	8 34.21	+37 15.2	1.583	2.527	7.9	18.5
1 22	8 20.19	+18 21.3	2.357	3.341	0.7	22.2	1 22	8 20.82	+37 42.8	1.602	2.556	6.8	18.5
2 1	8 11.06	+18 51.5	2.384	3.358	3.1	22.4	2 1	8 7.72	+37 45.6	1.649	2.585	8.5	18.6
2 11	8 2.73	+19 18.3	2.442	3.374	6.5	22.7	2 11	7 56.54	+37 24.4	1.722	2.613	11.5	18.9
2 21	7 55.92	+19 40.0	2.528	3.390	9.5	22.9	2 21	7 48.36	+36 44.1	1.819	2.640	14.4	19.1
3 2	7 51.11	+19 55.9	2.637	3.405	12.0	23.1	3 2	7 43.66	+35 50.7	1.936	2.667	16.9	19.4
<b>390882</b>	2004 <i>VY</i> <sub>66</sub>		1 23.3 67°80	0°6/23.0	17		<b>181203</b>	2005 <i>SW</i> <sub>166</sub>		1 23.3 168°48	2°7/25.2	18	
12 23	8 47.16	+18 39.9	1.364	2.220	16.0	21.1	12 23	8 42.41	+ 8 27.7	2.301	3.110	12.0	20.8
1 2	8 40.54	+19 19.6	1.319	2.242	11.4	20.9	1 2	8 36.50	+ 8 55.4	2.223	3.115	9.0	20.6
1 12	8 31.24	+20 7.5	1.298	2.264	6.1	20.6	1 12	8 28.89	+ 9 36.4	2.170	3.118	5.8	20.4
1 22	8 20.43	+20 56.8	1.302	2.286	0.8	20.3	1 22	8 20.22	+10 28.3	2.147	3.121	3.0	20.2
2 1	8 9.65	+21 41.0	1.335	2.309	4.9	20.7	2 1	8 11.33	+11 27.5	2.154	3.124	3.8	20.3
2 11	8 0.43	+22 15.4	1.394	2.331	9.8	21.0	2 11	8 3.15	+12 29.4	2.191	3.126	6.9	20.5
2 21	7 53.87	+22 38.1	1.477	2.353	14.1	21.3	2 21	7 56.42	+13 30.0	2.256	3.127	10.1	20.7
3 2	7 50.54	+22 49.5	1.580	2.375	17.6	21.6	3 2	7 51.73	+14 26.0	2.346	3.128	12.9	20.9
<b>342982</b>	2009 <i>BV</i> <sub>45</sub>		1 23.3 356°69	0°4/23.1	18		<b>432559</b>	2010 <i>JZ</i> <sub>79</sub>		1 23.3 218°86	4°0/19.8	17	
12 23	8 42.76	+20 33.0	2.178</										

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>415873</b>	2001 SY <sub>293</sub>		1 23.3 143°50	4.3/21.1	18		<b>493258</b>	2014 UZ <sub>114</sub>		1 23.3 134°57	9.0/16.2	17	
12 23	8 48.45	+31 6.1	2.118	2.960	11.7	21.8	12 23	8 50.46	+42 38.3	2.063	2.890	12.5	20.5
1 2	8 41.02	+31 49.4	2.058	2.969	8.6	21.6	1 2	8 43.19	+44 46.5	2.018	2.898	10.4	20.4
1 12	8 31.40	+32 27.7	2.024	2.978	5.6	21.5	1 12	8 32.96	+46 41.4	2.000	2.906	9.1	20.3
1 22	8 20.51	+32 55.2	2.019	2.986	4.3	21.4	1 22	8 20.75	+48 12.9	2.009	2.913	9.2	20.4
2 1	8 9.53	+33 7.8	2.044	2.994	6.1	21.5	2 1	8 8.06	+49 14.0	2.046	2.920	10.7	20.5
2 11	7 59.66	+33 4.1	2.098	3.001	9.1	21.7	2 11	7 56.55	+49 43.2	2.107	2.927	12.7	20.6
2 21	7 51.87	+32 45.7	2.177	3.008	12.0	21.9	2 21	7 47.59	+49 43.7	2.190	2.933	14.8	20.8
3 2	7 46.73	+32 15.5	2.278	3.014	14.5	22.1	3 2	7 42.02	+49 21.6	2.290	2.939	16.6	20.9
<b>221273</b>	2005 UH <sub>334</sub>		1 23.3 81°53	2.3/22.1	18		<b>73174</b>	2002 HG <sub>3</sub>		1 23.3 144°06	3.8/21.4	18	
12 23	8 44.62	+23 19.7	1.830	2.681	12.8	20.6	12 23	8 48.63	+27 57.6	1.849	2.697	12.8	19.8
1 2	8 38.43	+24 11.8	1.775	2.695	9.1	20.4	1 2	8 41.39	+28 48.9	1.789	2.705	9.3	19.6
1 12	8 30.04	+25 6.5	1.745	2.709	5.0	20.2	1 12	8 31.72	+29 38.1	1.754	2.713	5.7	19.4
1 22	8 20.35	+25 57.5	1.743	2.723	2.3	20.0	1 22	8 20.59	+30 18.7	1.748	2.721	3.8	19.3
2 1	8 10.56	+26 39.4	1.770	2.737	4.9	20.2	2 1	8 9.30	+30 45.0	1.771	2.728	6.0	19.5
2 11	8 1.87	+27 8.8	1.826	2.751	8.8	20.5	2 11	7 59.22	+30 55.0	1.822	2.735	9.6	19.7
2 21	7 55.25	+27 25.0	1.906	2.764	12.3	20.7	2 21	7 51.39	+30 49.4	1.898	2.741	13.0	19.9
3 2	7 51.28	+27 28.9	2.009	2.778	15.2	21.0	3 2	7 46.48	+30 31.0	1.995	2.746	15.9	20.2
<b>431628</b>	2007 WW <sub>23</sub>		1 23.3 31°43	5.2/26.4	18		<b>87793</b>	2000 SN <sub>127</sub>		1 23.3 90°43	3.0/24.9	18	
12 23	8 39.76	+3 15.5	2.177	2.973	13.0	20.8	12 23	8 42.43	+9 55.4	1.909	2.733	13.5	20.2
1 2	8 34.66	+2 57.8	2.103	2.977	10.3	20.6	1 2	8 36.74	+10 2.5	1.842	2.742	10.1	20.0
1 12	8 27.89	+2 56.0	2.052	2.980	7.5	20.5	1 12	8 29.10	+10 22.9	1.798	2.750	6.4	19.8
1 22	8 20.10	+3 10.2	2.028	2.983	5.5	20.4	1 22	8 20.28	+10 54.6	1.782	2.758	3.3	19.6
2 1	8 12.13	+3 38.6	2.032	2.987	5.6	20.4	2 1	8 11.30	+11 34.2	1.795	2.767	4.3	19.7
2 11	8 4.89	+4 17.9	2.065	2.991	7.8	20.5	2 11	8 3.23	+12 17.3	1.837	2.775	7.8	19.9
2 21	7 59.11	+5 3.8	2.123	2.995	10.6	20.7	2 21	7 56.93	+13 0.0	1.905	2.783	11.3	20.1
3 2	7 55.35	+5 52.1	2.205	2.999	13.2	20.9	3 2	7 52.98	+13 39.1	1.996	2.791	14.4	20.3
<b>389629</b>	2011 JV <sub>29</sub>		1 23.3 182°01	0.9/23.9	18		<b>377549</b>	2005 JD <sub>24</sub>		1 23.3 23°18	5.1/20.1	18	
12 23	8 46.79	+14 21.3	1.942	2.771	13.1	22.0	12 23	8 43.74	+32 22.5	2.063	2.913	11.6	20.3
1 2	8 39.95	+15 0.3	1.865	2.772	9.5	21.8	1 2	8 37.87	+33 28.3	2.002	2.915	8.7	20.1
1 12	8 30.91	+15 50.3	1.813	2.773	5.4	21.5	1 12	8 29.80	+34 29.5	1.967	2.917	6.0	20.0
1 22	8 20.47	+16 47.0	1.790	2.773	1.3	21.3	1 22	8 20.37	+35 19.2	1.959	2.920	5.2	19.9
2 1	8 9.72	+17 45.2	1.798	2.772	3.8	21.4	2 1	8 10.72	+35 52.2	1.981	2.922	6.9	20.0
2 11	7 59.85	+18 39.9	1.836	2.770	8.1	21.7	2 11	8 2.07	+36 6.3	2.029	2.925	9.7	20.2
2 21	7 51.86	+19 27.5	1.900	2.767	11.9	21.9	2 21	7 55.40	+36 2.4	2.102	2.928	12.6	20.4
3 2	7 46.44	+20 6.3	1.988	2.763	15.1	22.1	3 2	7 51.35	+35 43.3	2.196	2.931	15.0	20.6
<b>275573</b>	1999 TT <sub>75</sub>		1 23.3 35°28	3.6/21.4	18		<b>312329</b>	2008 CE <sub>162</sub>		1 23.3 56°73	0.9/23.8	17	
12 23	8 44.63	+27 51.2	1.901	2.754	12.3	20.3	12 23	8 45.22	+13 58.3	1.374	2.223	16.4	20.4
1 2	8 38.52	+28 35.5	1.837	2.756	8.9	20.1	1 2	8 39.10	+14 50.9	1.334	2.251	11.7	20.2
1 12	8 30.14	+29 18.3	1.798	2.758	5.4	19.9	1 12	8 30.46	+15 57.3	1.316	2.279	6.5	20.0
1 22	8 20.38	+29 53.4	1.786	2.760	3.6	19.8	1 22	8 20.44	+17 10.7	1.325	2.308	1.4	19.7
2 1	8 10.43	+30 16.2	1.804	2.763	5.8	19.9	2 1	8 10.47	+18 23.3	1.361	2.336	4.5	20.0
2 11	8 1.55	+30 24.1	1.849	2.765	9.3	20.2	2 11	8 1.98	+19 28.4	1.424	2.365	9.3	20.4
2 21	7 54.73	+30 17.6	1.919	2.768	12.6	20.4	2 21	7 55.97	+20 21.8	1.512	2.394	13.5	20.7
3 2	7 50.62	+29 58.8	2.010	2.771	15.5	20.6	3 2	7 53.01	+21 2.3	1.621	2.422	16.9	21.0
<b>369873</b>	2012 KC <sub>44</sub>		1 23.3 34°57	0.4/23.5	18		<b>350746</b>	2001 YP <sub>126</sub>		1 23.3 24°48	1.4/22.9	18	
12 23	8 42.05	+16 15.9	1.826	2.670	13.1	20.5	12 23	8 46.28	+22 30.6	1.011	1.889	18.5	19.8
1 2	8 36.64	+16 51.2	1.756	2.672	9.4	20.3	1 2	8 40.65	+22 28.0	0.967	1.899	13.2	19.5
1 12	8 29.11	+17 36.1	1.711	2.675	5.2	20.0	1 12	8 31.59	+22 28.8	0.943	1.911	7.2	19.2
1 22	8 20.26	+18 26.1	1.694	2.677	0.8	19.7	1 22	8 20.58	+22 27.3	0.941	1.925	1.6	18.9
2 1	8 11.17	+19 16.3	1.705	2.680	3.9	20.0	2 1	8 9.63	+22 18.9	0.965	1.940	5.9	19.2
2 11	8 3.01	+20 1.9	1.745	2.683	8.2	20.2	2 11	8 0.70	+22 1.8	1.012	1.956	11.7	19.6
2 21	7 56.73	+20 39.8	1.811	2.686	12.0	20.5	2 21	7 55.09	+21 36.7	1.079	1.973	16.7	19.9
3 2	7 52.97	+21 8.5	1.899	2.689	15.2	20.7	3 2	7 53.37	+21 5.2	1.165	1.991	20.7	20.2
<b>18688</b>	1998 FA <sub>123</sub>		1 23.3 230°83	0.1/23.3	18		<b>209072</b>	2003 QJ <sub>102</sub>		1 23.3 3°61	2.7/24.7	18	
12 23	8 40.33	+18 14.4	2.709	3.543	9.6	19.5	12 23	8 42.77	+11 4.7	1.440	2.282	16.1	20.0
1 2	8 34.92	+18 41.1	2.623	3.535	6.9	19.3	1 2	8 37.59	+11 28.0	1.371	2.282	12.0	19.7
1 12	8 28.00	+19 12.8	2.564	3.527	3.8	19.1	1 12	8 29.83	+12 8.9	1.324	2.282	7.3	19.4
1 22	8 20.13	+19 46.7	2.535	3.519	0.4	18.8	1 22	8 20.39	+13 3.8	1.302	2.282	3.0	19.2
2 1	8 12.03	+20 19.8	2.537	3.510	3.0	19.1	2 1	8 10.62	+14 6.8	1.308	2.283	4.8	19.3
2 11	8 4.51	+20 49.2	2.570	3.502	6.2	19.3	2 11	8 1.96	+15 11.1	1.341	2.284	9.5	19.6
2 21	7 58.24	+21 13.3	2.630	3.493	9.1	19.4	2 21	7 55.58	+16 10.9	1.397	2.285	14.0	19.8
3 2	7 53.74	+21 31.1	2.715	3.484	11.7	19.6	3 2	7 52.25	+17 2.0	1.475	2.286	17.8	20.1
<b>456277</b>	2006 RC <sub>85</sub>		1 23.3 61°08	0.3/23.2	18		<b>127788</b>	2003 FL <sub>66</sub>		1 23.3 179°84	1.6/22.5	18	
12 23	8 44.85	+18 54.1	1.630	2.480	14.1	21.7	12 23	8 47.50	+21 40.9	1.869	2.713	12.9	20.5
1 2	8 38.82	+19 16.3	1.564	2.484	10.1	21.5	1 2	8 40.59	+22 24.3	1.798	2.715	9.2	20.3
1 12	8 30.36	+19 45.4	1.523	2.488	5.5	21.2	1 12	8 31.32	+23 12.0	1.751	2.716	5.1	20.0
1 22	8 20.41	+20 16.8	1.508	2.492	0.7	20.9	1 22	8 20.58	+23 58.3	1.734	2.716	1.6	19.8
2 1	8 10.26	+20 45.7	1.522	2.496	4.4	21.2	2 1	8 9.55	+24 37.9	1.746	2.716	4.6	20.0
2 11	8 1.26	+21 8.3	1.564	2.500	9.0	21.5	2 11	7 59.54	+25 7.0	1.788	2.715	8.8	20.2
2 21	7 54.47	+21 22.7	1.630	2.505	13.1	21.7	2 21	7 51.60	+25 24.3	1.855	2.713	12.6	20.5
3 2	7 50.56	+21 28.5	1.718	2.509	16.5	22.0	3 2	7 46.42	+25 30.5	1.944	2.711	15.7	20.7
<b>221412</b>	2005 YG <sub>124</sub>		1 23.3 20°54	2.7/21.9	18		<b>212044</b>	2005 CC <sub>65</sub>		1 23.3 15°22	3.0/22.2	18	
12 23	8 43.32	+24 10.3	1.717	2.574	13.2	19.9	12 23	8 45.08	+24 30.7	1.202	2.074	16.6	19.7

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>177554</b>	2004 <i>FB</i> <sub>86</sub>		1 23.3 225°66	1°9/24.6	18		<b>314781</b>	2006 <i>SJ</i> <sub>402</sub>		1 23.3 48°68	2°1/24.4	18	
12 23	8 42.49	+10 39.5	1.898	2.725	13.5	20.3	12 23	8 43.47	+12 54.8	1.649	2.487	14.6	21.2
1 2	8 36.99	+11 31.1	1.816	2.720	10.0	20.1	1 2	8 37.81	+13 6.2	1.579	2.490	10.7	20.9
1 12	8 29.37	+12 38.7	1.758	2.715	6.0	19.9	1 12	8 29.84	+13 30.3	1.534	2.493	6.4	20.7
1 22	8 20.36	+13 58.2	1.729	2.710	2.2	19.6	1 22	8 20.42	+14 4.0	1.515	2.495	2.4	20.5
2 1	8 10.96	+15 23.7	1.730	2.704	3.9	19.7	2 1	8 10.76	+14 43.2	1.524	2.498	4.3	20.6
2 11	8 2.33	+16 48.6	1.760	2.698	8.0	19.9	2 11	8 2.14	+15 23.1	1.561	2.501	8.7	20.9
2 21	7 55.45	+18 7.2	1.817	2.692	11.9	20.2	2 21	7 55.59	+15 59.8	1.623	2.504	12.8	21.1
3 2	7 51.03	+19 15.9	1.897	2.686	15.3	20.4	3 2	7 51.77	+16 30.6	1.706	2.507	16.2	21.3
<b>314262</b>	2005 <i>QM</i> <sub>149</sub>		1 23.3 174°92	0°3/23.1	18		<b>183126</b>	2002 <i>RU</i> <sub>194</sub>		1 23.3 176°95	0°5/23.0	18	
12 23	8 43.87	+17 23.9	2.410	3.241	10.8	21.1	12 23	8 42.36	+19 48.3	2.319	3.159	10.9	20.6
1 2	8 37.59	+18 19.2	2.333	3.244	7.7	20.9	1 2	8 36.54	+20 13.7	2.245	3.160	7.7	20.4
1 12	8 29.53	+19 21.7	2.284	3.247	4.2	20.7	1 12	8 28.96	+20 43.5	2.196	3.160	4.2	20.2
1 22	8 20.37	+20 26.9	2.265	3.249	0.5	20.4	1 22	8 20.32	+21 14.1	2.177	3.161	0.7	19.9
2 1	8 10.95	+21 30.0	2.278	3.250	3.4	20.7	2 1	8 11.48	+21 42.1	2.189	3.161	3.4	20.1
2 11	8 2.22	+22 26.8	2.321	3.250	6.9	20.9	2 11	8 3.41	+22 4.7	2.230	3.161	7.0	20.4
2 21	7 54.98	+23 14.9	2.393	3.250	10.1	21.1	2 21	7 56.87	+22 20.3	2.298	3.161	10.3	20.6
3 2	7 49.80	+23 52.9	2.488	3.249	12.8	21.3	3 2	7 52.43	+22 28.7	2.389	3.161	13.0	20.8
<b>266944</b>	2010 <i>TP</i> <sub>2</sub>		1 23.3 110°46	1°7/22.3	18		<b>309414</b>	2007 <i>TQ</i> <sub>332</sub>		1 23.3 45°57	0°7/23.6	18	
12 23	8 46.42	+22 14.2	1.996	2.839	12.2	21.1	12 23	8 45.32	+16 56.4	1.480	2.331	15.3	20.8
1 2	8 39.52	+23 2.9	1.942	2.859	8.6	20.9	1 2	8 39.32	+17 6.6	1.417	2.336	11.0	20.6
1 12	8 30.59	+23 54.4	1.914	2.878	4.7	20.7	1 12	8 30.72	+17 25.9	1.376	2.341	6.2	20.3
1 22	8 20.48	+24 43.1	1.916	2.897	1.7	20.5	1 22	8 20.54	+17 50.4	1.362	2.346	1.1	20.0
2 1	8 10.31	+25 24.2	1.947	2.915	4.4	20.8	2 1	8 10.15	+18 15.5	1.376	2.351	4.5	20.2
2 11	8 1.22	+25 54.4	2.008	2.933	8.1	21.0	2 11	8 1.03	+18 37.2	1.416	2.357	9.4	20.5
2 21	7 54.07	+26 13.0	2.096	2.951	11.5	21.3	2 21	7 54.29	+18 52.9	1.481	2.362	13.8	20.8
3 2	7 49.44	+26 20.7	2.205	2.967	14.2	21.5	3 2	7 50.62	+19 1.6	1.566	2.368	17.4	21.1
<b>324669</b>	2007 <i>DG</i> <sub>40</sub>		1 23.3 83°18	1°1/23.9	18		<b>18810</b>	1999 <i>JF</i> <sub>96</sub>		1 23.4 6°36	2°0/24.6	18	
12 23	8 43.39	+14 21.4	1.786	2.625	13.6	20.9	12 23	8 40.09	+10 16.5	1.498	2.340	15.6	17.4
1 2	8 37.54	+14 55.0	1.726	2.638	9.9	20.7	1 2	8 35.64	+11 17.2	1.428	2.340	11.5	17.1
1 12	8 29.58	+15 39.7	1.690	2.651	5.6	20.5	1 12	8 28.76	+12 38.3	1.382	2.341	6.9	16.9
1 22	8 20.37	+16 31.0	1.682	2.665	1.4	20.2	1 22	8 20.32	+14 14.2	1.362	2.343	2.5	16.6
2 1	8 11.03	+17 23.9	1.703	2.678	3.8	20.5	2 1	8 11.52	+15 57.0	1.369	2.345	4.4	16.7
2 11	8 2.72	+18 13.5	1.753	2.691	8.1	20.7	2 11	8 3.73	+17 37.4	1.405	2.348	9.1	17.0
2 21	7 56.35	+18 56.4	1.828	2.704	11.9	21.0	2 21	7 58.06	+19 8.2	1.465	2.351	13.5	17.3
3 2	7 52.52	+19 30.6	1.926	2.717	15.0	21.2	3 2	7 55.24	+20 24.9	1.546	2.356	17.2	17.5
<b>224833</b>	2006 <i>WO</i> <sub>161</sub>		1 23.3 176°45	1°4/23.9	18		<b>219515</b>	2001 <i>OY</i> <sub>39</sub>		1 23.4 103°83	0°6/22.9	18	
12 23	8 48.24	+14 37.6	1.566	2.404	15.3	22.0	12 23	8 41.44	+18 51.6	2.421	3.259	10.5	20.3
1 2	8 41.36	+14 52.8	1.495	2.406	11.1	21.8	1 2	8 35.78	+19 38.3	2.358	3.273	7.4	20.1
1 12	8 31.85	+15 19.5	1.447	2.408	6.4	21.5	1 12	8 28.50	+20 30.2	2.323	3.287	4.0	19.9
1 22	8 20.66	+15 54.0	1.427	2.409	1.8	21.2	1 22	8 20.28	+21 23.2	2.316	3.300	0.7	19.6
2 1	8 9.16	+16 31.3	1.435	2.410	4.5	21.4	2 1	8 11.92	+22 13.1	2.341	3.313	3.3	19.9
2 11	7 58.83	+17 6.7	1.471	2.409	9.3	21.7	2 11	8 4.32	+22 56.6	2.396	3.326	6.7	20.1
2 21	7 50.85	+17 36.9	1.533	2.408	13.7	21.9	2 21	7 58.17	+23 31.8	2.478	3.339	9.7	20.3
3 2	7 45.94	+18 0.1	1.615	2.407	17.4	22.2	3 2	7 53.99	+23 57.8	2.584	3.351	12.2	20.5
<b>463724</b>	2014 <i>QR</i> <sub>292</sub>		1 23.3 73°80	0°2/23.2	18		<b>469184</b>	2016 <i>FF</i> <sub>10</sub>		1 23.4 142°01	1°3/22.7	18	
12 23	8 43.54	+15 22.8	1.637	2.482	14.3	20.2	12 23	8 44.13	+21 24.2	1.934	2.781	12.4	21.7
1 2	8 37.87	+16 42.8	1.578	2.496	10.2	19.9	1 2	8 38.10	+21 58.3	1.864	2.783	8.8	21.5
1 12	8 29.87	+18 15.7	1.544	2.509	5.6	19.7	1 12	8 29.93	+22 36.4	1.820	2.785	4.8	21.2
1 22	8 20.42	+19 54.1	1.538	2.522	0.6	19.4	1 22	8 20.46	+23 13.9	1.805	2.787	1.3	21.0
2 1	8 10.74	+21 29.5	1.562	2.536	4.3	19.7	2 1	8 10.77	+23 46.0	1.818	2.789	4.3	21.2
2 11	8 2.15	+22 54.6	1.614	2.549	8.9	20.0	2 11	8 2.03	+24 9.6	1.861	2.791	8.3	21.5
2 21	7 55.68	+24 5.1	1.692	2.562	12.9	20.2	2 21	7 55.20	+24 23.2	1.929	2.793	11.9	21.7
3 2	7 51.99	+24 59.4	1.791	2.575	16.2	20.5	3 2	7 50.90	+24 27.2	2.019	2.795	14.9	21.9
<b>309285</b>	2007 <i>RO</i> <sub>195</sub>		1 23.3 100°70	3°4/25.0	18		<b>95351</b>	2002 <i>CT</i> <sub>138</sub>		1 23.4 330°79	5°4/26.7	18	
12 23	8 44.98	+ 9 26.1	1.638	2.464	15.3	21.5	12 23	8 39.36	+ 2 53.1	1.661	2.472	15.8	19.4
1 2	8 38.77	+ 9 34.2	1.577	2.478	11.4	21.3	1 2	8 34.97	+ 3 15.0	1.578	2.463	12.5	19.2
1 12	8 30.29	+ 9 58.2	1.539	2.490	7.2	21.0	1 12	8 28.37	+ 4 1.2	1.517	2.454	8.9	19.0
1 22	8 20.46	+10 35.5	1.527	2.503	3.7	20.9	1 22	8 20.28	+ 5 10.3	1.482	2.446	5.9	18.8
2 1	8 10.49	+11 21.9	1.544	2.516	4.8	21.0	2 1	8 11.79	+ 6 38.1	1.474	2.438	6.0	18.7
2 11	8 1.65	+12 12.1	1.589	2.528	8.7	21.2	2 11	8 4.10	+ 8 17.1	1.493	2.431	9.2	18.9
2 21	7 54.91	+13 1.2	1.660	2.540	12.6	21.5	2 21	7 58.27	+ 9 58.9	1.537	2.424	13.0	19.1
3 2	7 50.90	+13 45.5	1.752	2.551	15.9	21.7	3 2	7 55.03	+11 36.2	1.604	2.418	16.5	19.3
<b>495405</b>	2014 <i>QG</i> <sub>398</sub>		1 23.3 110°29	6°9/20.4	18		<b>200721</b>	2001 <i>VB</i> <sub>5</sub>		1 23.4 143°18	9°1/27.3	18	
12 23	8 53.36	+38 3.9	1.887	2.722	13.2	21.1	12 23	8 49.09	- 4 41.5	2.002	2.745	15.8	20.0
1 2	8 44.77	+38 49.4	1.838	2.736	10.2	21.0	1 2	8 41.39	- 5 56.4	1.935	2.759	13.3	19.8
1 12	8 33.53	+39 22.6	1.815	2.751	7.7	20.8	1 12	8 31.64	- 6 50.2	1.890	2.772	10.9	19.7
1 22	8 20.84	+39 36.1	1.819	2.765	6.9	20.8	1 22	8 20.67	- 7 19.5	1.872	2.784	9.3	19.6
2 1	8 8.24	+39 26.0	1.851	2.778	8.4	20.9	2 1	8 9.51	- 7 23.5	1.882	2.795	9.3	19.6
2 11	7 57.24	+38 53.0	1.910	2.792	11.0	21.1	2 11	7 59.31	- 7 4.8	1.919	2.805	10.8	19.7
2 21	7 48.92	+38 1.5	1.993	2.805	13.7	21.3	2 21	7 50.95	- 6 28.5	1.982	2.814	13.0	19.9
3 2	7 43.83	+36 57.2	2.097	2.817	16.1	21.5	3 2	7 45.06	- 5 41.0	2.066	2.823	15.2	20.1
<b>232763</b>	Eliewiesel		1 23.3 164°93	1°8/22.5	18		<b>126298</b>	2002 <i>AD</i> <sub>111</sub>		1 23.4 81°55	1°6/22.8	18	
12 23	8 49.36	+23 15.2	1.890	2.731	12								



EPHEMERIDES

1 23.4

1 23.4

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>368011</b>	2012 <i>FX</i> <sub>61</sub>		1 23.4 315°84	0°3/23.5	18		<b>76774</b>	2000 <i>KS</i> <sub>58</sub>		1 23.4 94°51	0°6/22.9	18	
12 23	8 43.55	+18 15.5	1.509	2.364	14.8	20.0	12 23	8 41.06	+18 38.5	2.204	3.046	11.3	19.3
1 2	8 38.31	+18 20.2	1.424	2.346	10.8	19.7	1 2	8 35.74	+19 29.2	2.131	3.048	8.0	19.1
1 12	8 30.35	+18 32.7	1.362	2.328	6.0	19.4	1 12	8 28.61	+20 26.7	2.085	3.049	4.3	18.9
1 22	8 20.54	+18 49.4	1.326	2.310	0.9	19.0	1 22	8 20.33	+21 26.3	2.067	3.051	0.7	18.6
2 1	8 10.20	+19 6.0	1.318	2.293	4.6	19.2	2 1	8 11.83	+22 23.1	2.080	3.052	3.6	18.9
2 11	8 0.87	+19 18.8	1.335	2.276	9.8	19.5	2 11	8 4.06	+23 13.2	2.122	3.054	7.3	19.1
2 21	7 53.81	+19 25.5	1.377	2.260	14.5	19.7	2 21	7 57.86	+23 53.8	2.191	3.055	10.7	19.3
3 2	7 49.89	+19 25.4	1.438	2.245	18.5	19.9	3 2	7 53.81	+24 24.1	2.283	3.057	13.5	19.5
<b>492643</b>	2014 <i>OM</i> <sub>348</sub>		1 23.4 189°09	1°8/24.3	18		<b>79612</b>	1998 <i>RH</i> <sub>56</sub>		1 23.4 200°15	2°5/24.5	18	
12 23	8 45.54	+13 8.9	1.889	2.718	13.4	22.2	12 23	8 46.79	+11 54.6	1.762	2.589	14.3	20.0
1 2	8 39.12	+13 25.3	1.811	2.718	9.9	22.0	1 2	8 40.18	+12 2.9	1.682	2.586	10.7	19.8
1 12	8 30.53	+13 53.0	1.759	2.716	5.8	21.8	1 12	8 31.19	+12 23.9	1.626	2.582	6.5	19.5
1 22	8 20.55	+14 28.9	1.734	2.715	2.1	21.5	1 22	8 20.66	+12 55.2	1.598	2.578	2.7	19.3
2 1	8 10.27	+15 9.1	1.739	2.712	4.0	21.6	2 1	8 9.78	+13 32.9	1.600	2.572	4.4	19.4
2 11	8 0.90	+15 49.3	1.773	2.710	8.1	21.9	2 11	7 59.83	+14 12.7	1.630	2.567	8.7	19.6
2 21	7 53.39	+16 25.9	1.833	2.706	12.0	22.1	2 21	7 51.91	+14 50.5	1.686	2.560	12.8	19.8
3 2	7 48.45	+16 56.9	1.916	2.702	15.3	22.3	3 2	7 46.74	+15 23.6	1.763	2.553	16.2	20.0
<b>268599</b>	2006 <i>BB</i> <sub>245</sub>		1 23.4 121°59	0°6/22.9	18		<b>246610</b>	2008 <i>VR</i> <sub>68</sub>		1 23.4 25°70	0°9/23.8	18	
12 23	8 43.17	+19 29.6	2.106	2.948	11.7	21.0	12 23	8 42.77	+16 53.2	2.164	3.000	11.7	20.3
1 2	8 37.23	+20 3.7	2.038	2.955	8.3	20.8	1 2	8 36.88	+16 46.5	2.090	3.002	8.4	20.1
1 12	8 29.39	+20 43.0	1.997	2.962	4.5	20.6	1 12	8 29.18	+16 45.3	2.042	3.004	4.8	19.8
1 22	8 20.40	+21 23.4	1.985	2.968	0.7	20.3	1 22	8 20.41	+16 47.6	2.023	3.006	1.2	19.6
2 1	8 11.25	+22 0.6	2.003	2.975	3.7	20.5	2 1	8 11.49	+16 51.3	2.034	3.008	3.4	19.8
2 11	8 2.97	+22 31.2	2.049	2.981	7.5	20.8	2 11	8 3.41	+16 54.3	2.074	3.010	7.1	20.0
2 21	7 56.40	+22 53.5	2.123	2.987	10.9	21.0	2 21	7 56.95	+16 55.1	2.141	3.013	10.5	20.2
3 2	7 52.12	+23 7.1	2.219	2.993	13.8	21.2	3 2	7 52.68	+16 52.9	2.230	3.015	13.4	20.4
<b>132924</b>	2002 <i>SF</i> <sub>49</sub>		1 23.4 123°45	0°4/23.6	18		<b>235040</b>	2003 <i>FV</i> <sub>47</sub>		1 23.4 165°39	2°2/22.3	18	
12 23	8 41.57	+16 23.8	2.431	3.263	10.7	20.2	12 23	8 49.04	+24 1.9	1.864	2.708	12.9	20.8
1 2	8 35.86	+16 54.4	2.363	3.274	7.6	20.0	1 2	8 41.68	+24 37.4	1.796	2.713	9.2	20.6
1 12	8 28.55	+17 31.7	2.322	3.284	4.2	19.8	1 12	8 31.94	+25 14.3	1.755	2.718	5.2	20.3
1 22	8 20.30	+18 12.4	2.310	3.294	0.7	19.5	1 22	8 20.76	+25 47.0	1.741	2.722	2.2	20.1
2 1	8 11.92	+18 52.9	2.329	3.303	3.1	19.7	2 1	8 9.37	+26 10.5	1.758	2.725	4.9	20.3
2 11	8 4.26	+19 30.0	2.379	3.313	6.5	20.0	2 11	7 59.10	+26 22.2	1.804	2.728	8.9	20.6
2 21	7 58.04	+20 1.7	2.455	3.322	9.6	20.2	2 21	7 51.01	+26 22.1	1.875	2.730	12.6	20.8
3 2	7 53.76	+20 26.6	2.556	3.330	12.2	20.4	3 2	7 45.75	+26 11.5	1.968	2.731	15.7	21.0
<b>47120</b>	1999 <i>CP</i> <sub>84</sub>		1 23.4 189°86	6°0/20.4	18		<b>232150</b>	2002 <i>CY</i> <sub>177</sub>		1 23.4 236°08	0°9/23.0	18	
12 23	8 51.02	+36 23.3	2.103	2.938	12.0	18.3	12 23	8 48.67	+21 36.6	1.699	2.545	13.9	20.6
1 2	8 43.09	+37 6.4	2.036	2.937	9.2	18.1	1 2	8 41.68	+21 43.8	1.619	2.536	10.0	20.3
1 12	8 32.68	+37 40.2	1.995	2.936	6.8	17.9	1 12	8 32.07	+21 54.0	1.563	2.528	5.5	20.0
1 22	8 20.81	+37 58.0	1.983	2.934	6.0	17.9	1 22	8 20.78	+22 2.9	1.536	2.519	1.1	19.7
2 1	8 8.77	+37 55.7	1.999	2.932	7.5	18.0	2 1	8 9.14	+22 6.6	1.537	2.510	4.6	19.9
2 11	7 57.97	+37 32.6	2.044	2.930	10.2	18.1	2 11	7 58.59	+22 2.6	1.567	2.500	9.3	20.2
2 21	7 49.45	+36 51.7	2.113	2.927	13.0	18.3	2 21	7 50.33	+21 50.8	1.622	2.490	13.5	20.4
3 2	7 43.88	+35 57.6	2.203	2.923	15.4	18.5	3 2	7 45.10	+21 32.0	1.698	2.480	17.1	20.6
<b>32191</b>	2000 <i>NZ</i> <sub>26</sub>		1 23.4 221°67	0°5/23.6	18		<b>292903</b>	2006 <i>VH</i> <sub>44</sub>		1 23.4 40°52	21°9/1.2	18	
12 23	8 43.79	+16 57.5	1.950	2.790	12.6	18.6	12 23	8 46.19	-17 48.4	1.021	1.758	28.1	20.1
1 2	8 37.86	+17 16.3	1.872	2.786	9.1	18.4	1 2	8 40.86	-20 37.2	0.976	1.763	26.0	20.0
1 12	8 29.82	+17 42.7	1.820	2.783	5.1	18.1	1 12	8 32.01	-22 38.7	0.944	1.769	24.0	19.8
1 22	8 20.47	+18 13.3	1.796	2.779	0.8	17.8	1 22	8 20.80	-23 40.0	0.927	1.774	22.5	19.8
2 1	8 10.84	+18 44.1	1.801	2.775	3.7	18.0	2 1	8 9.05	-23 34.5	0.925	1.781	21.9	19.7
2 11	8 2.08	+19 11.6	1.835	2.771	7.9	18.3	2 11	7 58.86	-22 26.3	0.939	1.787	22.4	19.8
2 21	7 55.12	+19 33.4	1.895	2.767	11.7	18.5	2 21	7 51.83	-20 28.8	0.968	1.794	23.8	19.9
3 2	7 50.64	+19 48.4	1.978	2.763	14.9	18.7	3 2	7 48.91	-17 59.9	1.011	1.802	25.6	20.1
<b>104929</b>	2000 <i>JX</i> <sub>25</sub>		1 23.4 202°24	0°2/23.2	17		<b>245693</b>	2006 <i>BC</i> <sub>165</sub>		1 23.4 169°05	1°0/23.9	18	
12 23	8 41.60	+18 56.3	2.725	3.558	9.6	21.3	12 23	8 46.14	+14 54.1	1.897	2.729	13.2	21.6
1 2	8 35.83	+19 18.4	2.643	3.554	6.9	21.1	1 2	8 39.53	+15 21.2	1.824	2.733	9.6	21.4
1 12	8 28.54	+19 44.8	2.587	3.550	3.8	20.9	1 12	8 30.75	+15 58.2	1.776	2.737	5.5	21.2
1 22	8 20.31	+20 12.5	2.562	3.546	0.5	20.6	1 22	8 20.62	+16 41.3	1.757	2.740	1.3	20.9
2 1	8 11.89	+20 38.8	2.568	3.541	3.0	20.8	2 1	8 10.23	+17 25.9	1.768	2.742	3.8	21.1
2 11	8 4.07	+21 1.2	2.605	3.536	6.2	21.0	2 11	8 0.79	+18 7.7	1.808	2.744	8.1	21.3
2 21	7 57.53	+21 18.2	2.669	3.530	9.1	21.2	2 21	7 53.27	+18 43.5	1.875	2.745	11.9	21.6
3 2	7 52.80	+21 29.3	2.758	3.524	11.6	21.3	3 2	7 48.30	+19 11.9	1.964	2.745	15.1	21.8
<b>275803</b>	2001 <i>QV</i> <sub>222</sub>		1 23.4 154°77	3°6/26.3	18		<b>290560</b>	2005 <i>UK</i> <sub>109</sub>		1 23.4 106°40	2°8/21.9	18	
12 23	8 39.72	+ 4 13.9	2.882	3.668	10.4	21.7	12 23	8 45.38	+25 49.8	1.866	2.717	12.6	20.7
1 2	8 34.34	+ 4 27.0	2.804	3.675	8.1	21.5	1 2	8 39.13	+26 27.2	1.798	2.718	9.0	20.5
1 12	8 27.66	+ 4 52.7	2.751	3.682	5.7	21.4	1 12	8 30.57	+27 4.8	1.756	2.719	5.2	20.2
1 22	8 20.21	+ 5 29.9	2.728	3.689	3.8	21.3	1 22	8 20.59	+27 36.8	1.741	2.720	2.8	20.1
2 1	8 12.61	+ 6 16.4	2.735	3.695	4.0	21.3	2 1	8 10.41	+27 58.5	1.756	2.720	5.3	20.2
2 11	8 5.56	+ 7 8.9	2.773	3.700	6.0	21.4	2 11	8 1.29	+28 7.3	1.799	2.721	9.1	20.5
2 21	7 59.63	+ 8 4.0	2.839	3.705	8.4	21.6	2 21	7 54.24	+28 3.2	1.866	2.722	12.6	20.7
3 2	7 55.28	+ 8 58.5	2.931	3.710	10.6	21.8	3 2	7 49.92	+27 47.9	1.955	2.723	15.6	20.9
<b>456474</b>	2006 <i>WV</i> <sub>59</sub>		1 23.4 355°58	10°6/26.9	16		<b>305632</b>	2009 <i>BB</i> <sub>13</sub>		1 23.4 324°48	1°7/23.9	18	
12 23	8 39.83	- 0 12.3	1.237	2.055</									

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>77740</b>	2001 <i>OP</i> <sub>88</sub>		1 23.4	9°08	0°1/23.3	18 R	<b>67398</b>	2000 <i>PA</i> <sub>6</sub>		1 23.4	79°80	0°3/23.6	18
12 23	8 43.56	+19 45.8	2.045	2.888	12.0	18.2	12 23	8 40.48	+16 7.2	2.283	3.119	11.1	19.4
1 2	8 37.56	+19 44.8	1.972	2.889	8.6	18.0	1 2	8 35.25	+16 50.5	2.213	3.125	8.0	19.2
1 12	8 29.60	+19 47.5	1.925	2.889	4.7	17.7	1 12	8 28.32	+17 41.7	2.169	3.132	4.4	18.9
1 22	8 20.48	+19 51.1	1.906	2.890	0.6	17.4	1 22	8 20.37	+18 37.0	2.154	3.138	0.7	18.7
2 1	8 11.20	+19 53.1	1.917	2.891	3.6	17.7	2 1	8 12.24	+19 32.1	2.170	3.144	3.2	18.9
2 11	8 2.84	+19 51.4	1.957	2.893	7.6	17.9	2 11	8 4.83	+20 22.9	2.216	3.151	6.8	19.1
2 21	7 56.24	+19 45.3	2.023	2.894	11.1	18.1	2 21	7 58.89	+21 6.8	2.288	3.157	10.1	19.3
3 2	7 51.99	+19 34.5	2.112	2.896	14.1	18.3	3 2	7 54.99	+21 42.0	2.384	3.163	12.8	19.5
<b>331256</b>	2011 <i>CN</i> <sub>27</sub>		1 23.4	46°10	1°1/22.7	18	<b>167539</b>	2004 <i>AJ</i> <sub>2</sub>		1 23.4	297°36	0°1/23.4	17
12 23	8 42.89	+20 0.0	1.807	2.657	13.0	20.8	12 23	8 40.81	+17 21.1	2.102	2.944	11.7	20.0
1 2	8 37.34	+20 46.2	1.741	2.661	9.2	20.5	1 2	8 35.77	+17 56.7	2.013	2.928	8.5	19.7
1 12	8 29.60	+21 38.8	1.699	2.665	5.0	20.3	1 12	8 28.76	+18 40.6	1.948	2.912	4.7	19.5
1 22	8 20.49	+22 32.2	1.686	2.669	1.1	20.0	1 22	8 20.44	+19 29.0	1.912	2.896	0.6	19.1
2 1	8 11.15	+23 21.0	1.702	2.674	4.4	20.3	2 1	8 11.74	+20 17.4	1.906	2.880	3.6	19.3
2 11	8 2.79	+24 0.7	1.746	2.678	8.6	20.5	2 11	8 3.71	+21 1.5	1.929	2.864	7.7	19.6
2 21	7 56.40	+24 29.3	1.815	2.683	12.3	20.8	2 21	7 57.25	+21 38.4	1.978	2.849	11.3	19.8
3 2	7 52.62	+24 46.4	1.905	2.688	15.5	21.0	3 2	7 53.05	+22 6.5	2.050	2.833	14.5	19.9
<b>225246</b>	2009 <i>QX</i> <sub>28</sub>		1 23.4	174°36	4°1/26.3	18	<b>258198</b>	2001 <i>SL</i> <sub>288</sub>		1 23.4	141°13	3°7/25.4	18
12 23	8 42.38	+3 45.8	2.534	3.319	11.7	21.9	12 23	8 43.95	+8 1.8	2.055	2.866	13.2	20.9
1 2	8 36.41	+3 56.9	2.451	3.322	9.2	21.8	1 2	8 37.77	+7 53.5	1.983	2.873	10.0	20.7
1 12	8 28.88	+4 22.7	2.395	3.325	6.5	21.6	1 12	8 29.72	+7 58.6	1.936	2.881	6.7	20.5
1 22	8 20.40	+5 2.0	2.367	3.327	4.4	21.5	1 22	8 20.55	+8 15.9	1.917	2.888	4.0	20.4
2 1	8 11.71	+5 52.5	2.369	3.329	4.6	21.5	2 1	8 11.21	+8 43.1	1.928	2.895	4.6	20.4
2 11	8 3.65	+6 50.3	2.402	3.329	6.8	21.6	2 11	8 2.72	+9 16.6	1.968	2.901	7.7	20.6
2 21	7 56.89	+7 51.2	2.463	3.329	9.6	21.8	2 21	7 55.90	+9 52.7	2.034	2.907	11.0	20.8
3 2	7 51.98	+8 51.3	2.549	3.328	12.1	22.0	3 2	7 51.33	+10 28.1	2.123	2.912	13.9	21.0
<b>204612</b>	2005 <i>JE</i> <sub>124</sub>		1 23.4	221°13	0°1/23.3	18	<b>69015</b>	2002 <i>UE</i> <sub>26</sub>		1 23.4	13°35	6°9/26.9	18
12 23	8 40.68	+17 21.0	2.483	3.318	10.4	20.5	12 23	8 39.94	+2 26.0	1.356	2.177	18.1	19.0
1 2	8 35.34	+18 2.6	2.401	3.314	7.4	20.3	1 2	8 35.64	+2 19.2	1.292	2.180	14.4	18.8
1 12	8 28.36	+18 51.0	2.346	3.309	4.1	20.1	1 12	8 28.84	+2 39.1	1.248	2.184	10.5	18.5
1 22	8 20.34	+19 42.6	2.321	3.305	0.5	19.8	1 22	8 20.46	+3 25.3	1.228	2.189	7.4	18.4
2 1	8 12.07	+20 33.4	2.326	3.300	3.2	20.0	2 1	8 11.79	+4 33.8	1.232	2.195	7.4	18.4
2 11	8 4.42	+21 19.8	2.362	3.294	6.6	20.3	2 11	8 4.26	+5 56.9	1.262	2.201	10.5	18.6
2 21	7 58.12	+21 59.4	2.425	3.289	9.8	20.4	2 21	7 58.96	+7 25.5	1.316	2.209	14.3	18.8
3 2	7 53.74	+22 30.8	2.512	3.283	12.4	20.6	3 2	7 56.63	+8 51.5	1.390	2.217	17.9	19.1
<b>118763</b>	2000 <i>QU</i> <sub>222</sub>		1 23.4	45°18	3°8/21.2	18	<b>233621</b>	2007 <i>TP</i> <sub>235</sub>		1 23.4	207°10	1°4/22.4	18
12 23	8 44.35	+24 41.1	1.469	2.332	14.7	18.4	12 23	8 42.37	+22 47.4	2.640	3.487	9.7	21.0
1 2	8 38.68	+26 9.2	1.427	2.353	10.4	18.2	1 2	8 36.49	+23 21.3	2.568	3.483	6.9	20.8
1 12	8 30.40	+27 39.2	1.410	2.374	6.1	18.0	1 12	8 28.99	+23 57.3	2.514	3.478	3.8	20.6
1 22	8 20.59	+29 1.5	1.419	2.395	3.8	17.9	1 22	8 20.47	+24 31.8	2.491	3.473	1.4	20.4
2 1	8 10.69	+30 8.0	1.456	2.417	6.6	18.1	2 1	8 11.74	+25 1.4	2.499	3.467	3.6	20.5
2 11	8 2.21	+30 54.1	1.519	2.440	10.6	18.4	2 11	8 3.64	+25 23.6	2.537	3.461	6.7	20.7
2 21	7 56.22	+31 19.7	1.606	2.463	14.3	18.7	2 21	7 56.91	+25 37.4	2.602	3.454	9.6	20.9
3 2	7 53.33	+31 27.2	1.712	2.486	17.3	19.0	3 2	7 52.10	+25 42.7	2.691	3.448	12.1	21.1
<b>322386</b>	2011 <i>QY</i> <sub>34</sub>		1 23.4	276°45	3°1/24.9	17	<b>277170</b>	2005 <i>NJ</i> <sub>101</sub>		1 23.4	258°72	1°6/24.1	18
12 23	8 42.07	+10 2.6	2.460	3.272	11.2	19.9	12 23	8 45.59	+13 32.3	1.414	2.259	16.2	20.9
1 2	8 36.30	+9 35.4	2.366	3.258	8.5	19.7	1 2	8 39.92	+14 2.9	1.334	2.249	11.9	20.6
1 12	8 28.89	+9 16.9	2.298	3.245	5.6	19.5	1 12	8 31.35	+14 49.7	1.276	2.238	7.0	20.3
1 22	8 20.41	+9 6.8	2.259	3.231	3.3	19.3	1 22	8 20.80	+15 48.3	1.245	2.227	2.0	19.9
2 1	8 11.67	+9 4.2	2.250	3.217	4.1	19.4	2 1	8 9.66	+16 52.0	1.241	2.216	4.8	20.1
2 11	8 3.53	+9 7.5	2.271	3.202	6.9	19.5	2 11	7 59.57	+17 53.9	1.264	2.205	10.2	20.4
2 21	7 56.73	+9 14.6	2.319	3.188	10.0	19.7	2 21	7 51.89	+18 48.3	1.310	2.193	15.1	20.6
3 2	7 51.84	+9 23.4	2.391	3.174	12.7	19.9	3 2	7 47.55	+19 32.3	1.377	2.182	19.2	20.9
<b>256014</b>	2006 <i>UC</i> <sub>16</sub>		1 23.4	101°81	2°0/22.3	18	<b>427390</b>	2014 <i>YQ</i> <sub>16</sub>		1 23.4	57°72	2°4/22.3	18
12 23	8 46.99	+22 55.6	1.908	2.753	12.6	21.0	12 23	8 45.45	+24 49.0	1.800	2.652	12.9	20.9
1 2	8 40.03	+23 44.9	1.857	2.774	8.9	20.9	1 2	8 39.16	+25 17.1	1.738	2.659	9.2	20.6
1 12	8 30.95	+24 36.3	1.832	2.796	4.9	20.7	1 12	8 30.59	+25 45.7	1.702	2.666	5.2	20.4
1 22	8 20.67	+25 24.0	1.835	2.816	2.0	20.5	1 22	8 20.67	+26 9.5	1.694	2.674	2.4	20.2
2 1	8 10.34	+26 3.0	1.869	2.836	4.7	20.7	2 1	8 10.64	+26 24.4	1.714	2.682	5.0	20.4
2 11	8 1.16	+26 30.2	1.931	2.856	8.4	21.0	2 11	8 1.75	+26 27.9	1.763	2.690	8.9	20.7
2 21	7 54.03	+26 45.2	2.020	2.875	11.8	21.2	2 21	7 54.99	+26 20.3	1.836	2.698	12.5	20.9
3 2	7 49.52	+26 48.8	2.130	2.893	14.6	21.5	3 2	7 50.97	+26 3.0	1.931	2.706	15.5	21.1
<b>429386</b>	2010 <i>ON</i> <sub>86</sub>		1 23.4	254°07	5°1/20.4	18	<b>279601</b>	2011 <i>ET</i> <sub>16</sub>		1 23.4	349°55	2°0/24.5	18
12 23	8 46.54	+35 46.6	2.415	3.252	10.6	21.2	12 23	8 41.12	+12 2.8	1.765	2.602	13.9	20.6
1 2	8 39.68	+36 22.2	2.343	3.246	8.1	21.1	1 2	8 36.13	+12 30.3	1.690	2.599	10.2	20.4
1 12	8 30.79	+36 50.3	2.298	3.240	5.9	20.9	1 12	8 29.00	+13 11.7	1.639	2.597	6.1	20.1
1 22	8 20.66	+37 5.5	2.281	3.234	5.2	20.9	1 22	8 20.49	+14 3.7	1.615	2.596	2.3	19.9
2 1	8 10.36	+37 4.3	2.294	3.228	6.6	20.9	2 1	8 11.69	+15 1.4	1.620	2.594	4.0	20.0
2 11	8 1.02	+36 45.9	2.334	3.222	9.0	21.1	2 11	8 3.76	+15 59.4	1.653	2.593	8.2	20.2
2 21	7 53.53	+36 12.2	2.400	3.216	11.5	21.2	2 21	7 57.68	+16 53.0	1.711	2.593	12.2	20.5
3 2	7 48.50	+35 26.3	2.488	3.210	13.8	21.4	3 2	7 54.13	+17 39.1	1.791	2.592	15.6	20.7
<b>131247</b>	2001 <i>FU</i> <sub>4</sub>		1 23.4	114°84	4°3/26.2	18	<b>462450</b>	2008 <i>UR</i> <sub>114</sub>		1 23.4	237°89	5°3/26.2	17
12 23	8 40.97	+4 41.6	2.255	3.053	12.6	19.7	12 23	8 41.5					

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>332550</b>	2008 <i>QJ</i> <sub>41</sub>		1 23.4 59°90	0°8/23.8	18		<b>457123</b>	2008 <i>FV</i> <sub>49</sub>		1 23.4 248°32	1°6/24.3	16	
12 23	8 42.65	+15 59.4	1.930	2.770	12.7	20.8	12 23	8 43.58	+13 36.2	1.994	2.825	12.7	22.6
1 2	8 37.00	+16 16.1	1.862	2.776	9.2	20.6	1 2	8 37.80	+13 52.0	1.906	2.813	9.4	22.4
1 12	8 29.37	+16 41.1	1.819	2.781	5.2	20.3	1 12	8 29.93	+14 18.3	1.843	2.801	5.5	22.1
1 22	8 20.53	+17 11.1	1.804	2.787	1.1	20.1	1 22	8 20.68	+14 52.6	1.808	2.789	1.9	21.8
2 1	8 11.52	+17 42.3	1.818	2.793	3.6	20.3	2 1	8 11.05	+15 31.1	1.802	2.776	3.8	21.9
2 11	8 3.43	+18 11.1	1.861	2.799	7.7	20.5	2 11	8 2.15	+16 9.8	1.825	2.763	7.9	22.2
2 21	7 57.13	+18 35.1	1.930	2.805	11.4	20.8	2 21	7 54.96	+16 45.4	1.875	2.750	11.7	22.4
3 2	7 53.22	+18 52.8	2.021	2.811	14.4	21.0	3 2	7 50.16	+17 15.5	1.948	2.736	15.0	22.6
<b>435392</b>	2007 <i>YP</i> <sub>23</sub>		1 23.4 49°75	1°5/24.2	18		<b>101113</b>	1992 <i>PX</i> <sub>2</sub>		1 23.4 262°18	1°9/24.1	18	A
12 23	8 42.37	+14 48.1	2.173	3.005	11.8	20.6	12 23	8 46.21	+14 57.6	1.926	2.757	13.1	17.1
1 2	8 36.59	+14 39.8	2.103	3.011	8.6	20.4	1 2	8 39.73	+14 38.0	1.835	2.743	9.7	16.8
1 12	8 29.06	+14 38.8	2.058	3.017	5.0	20.2	1 12	8 31.01	+14 25.6	1.770	2.728	5.7	16.6
1 22	8 20.51	+14 43.1	2.042	3.023	1.8	20.0	1 22	8 20.82	+14 18.8	1.733	2.714	2.1	16.3
2 1	8 11.83	+14 50.8	2.056	3.030	3.5	20.1	2 1	8 10.25	+14 15.9	1.726	2.699	4.1	16.4
2 11	8 3.98	+14 59.5	2.099	3.036	7.0	20.3	2 11	8 0.51	+14 14.6	1.747	2.684	8.2	16.6
2 21	7 57.72	+15 7.3	2.169	3.043	10.3	20.6	2 21	7 52.61	+14 13.5	1.795	2.668	12.2	16.8
3 2	7 53.60	+15 12.9	2.262	3.050	13.1	20.8	3 2	7 47.28	+14 11.0	1.865	2.653	15.6	17.0
<b>420629</b>	2012 <i>HN</i> <sub>74</sub>		1 23.4 151°78	2°9/21.6	18		<b>375475</b>	2008 <i>UB</i> <sub>12</sub>		1 23.4 121°81	0°1/23.4	18	
12 23	8 44.59	+25 33.5	2.009	2.858	11.9	20.9	12 23	8 43.29	+18 11.6	2.202	3.039	11.4	21.1
1 2	8 38.50	+26 28.7	1.942	2.861	8.5	20.7	1 2	8 37.29	+18 31.6	2.133	3.047	8.2	20.9
1 12	8 30.25	+27 25.0	1.901	2.864	5.0	20.5	1 12	8 29.49	+18 57.1	2.091	3.055	4.5	20.7
1 22	8 20.66	+28 16.2	1.889	2.866	2.9	20.4	1 22	8 20.62	+19 24.7	2.078	3.062	0.6	20.4
2 1	8 10.83	+28 57.1	1.906	2.868	5.2	20.5	2 1	8 11.62	+19 51.1	2.095	3.069	3.4	20.7
2 11	8 1.95	+29 24.4	1.952	2.870	8.8	20.7	2 11	8 3.45	+20 13.4	2.142	3.076	7.1	20.9
2 21	7 54.96	+29 37.5	2.023	2.872	12.1	20.9	2 21	7 56.91	+20 30.0	2.216	3.083	10.4	21.1
3 2	7 50.53	+29 37.7	2.116	2.874	14.9	21.1	3 2	7 52.54	+20 40.0	2.312	3.090	13.2	21.3
<b>343865</b>	2011 <i>HO</i> <sub>62</sub>		1 23.4 135°87	4°1/27.0	18		<b>173088</b>	2007 <i>RS</i> <sub>36</sub>		1 23.4 72°80	0°5/23.6	18	
12 23	8 39.95	+ 1 44.9	2.678	3.455	11.4	20.5	12 23	8 47.15	+16 32.2	1.474	2.321	15.5	20.6
1 2	8 34.64	+ 2 15.8	2.601	3.464	9.0	20.4	1 2	8 40.52	+16 56.5	1.425	2.343	11.1	20.4
1 12	8 27.93	+ 3 2.6	2.549	3.473	6.4	20.2	1 12	8 31.39	+17 30.4	1.401	2.364	6.2	20.2
1 22	8 20.39	+ 4 3.7	2.525	3.482	4.4	20.1	1 22	8 20.86	+18 8.9	1.403	2.386	1.0	19.9
2 1	8 12.69	+ 5 16.0	2.533	3.491	4.4	20.1	2 1	8 10.34	+18 46.5	1.433	2.408	4.4	20.2
2 11	8 5.58	+ 6 35.1	2.571	3.499	6.4	20.3	2 11	8 1.24	+19 18.8	1.490	2.430	9.1	20.5
2 21	7 59.66	+ 7 56.3	2.638	3.506	8.9	20.4	2 21	7 54.58	+19 43.4	1.573	2.451	13.3	20.8
3 2	7 55.42	+ 9 15.3	2.730	3.514	11.2	20.6	3 2	7 50.93	+19 59.3	1.676	2.472	16.7	21.1
<b>40324</b>	1999 <i>LY</i> <sub>30</sub>		1 23.4 134°48	1°2/23.9	18		<b>178202</b>	2006 <i>VZ</i> <sub>6</sub>		1 23.4 103°61	0°2/23.5	18	
12 23	8 49.57	+14 43.2	1.652	2.485	14.8	20.4	12 23	8 45.29	+17 39.3	1.801	2.643	13.4	20.6
1 2	8 42.13	+15 8.0	1.592	2.501	10.7	20.2	1 2	8 39.00	+18 2.5	1.738	2.654	9.6	20.4
1 12	8 32.26	+15 43.6	1.556	2.516	6.1	19.9	1 12	8 30.53	+18 33.1	1.701	2.664	5.3	20.1
1 22	8 20.93	+16 25.6	1.548	2.530	1.5	19.7	1 22	8 20.76	+19 6.8	1.691	2.674	0.7	19.8
2 1	8 9.48	+17 8.8	1.569	2.543	4.2	19.9	2 1	8 10.86	+19 39.1	1.710	2.684	3.9	20.1
2 11	7 59.28	+17 48.5	1.619	2.556	8.8	20.2	2 11	8 2.02	+20 6.6	1.758	2.694	8.2	20.3
2 21	7 51.36	+18 21.8	1.696	2.567	12.9	20.5	2 21	7 55.19	+20 27.0	1.832	2.704	12.0	20.6
3 2	7 46.37	+18 47.1	1.794	2.578	16.2	20.7	3 2	7 50.98	+20 39.6	1.927	2.713	15.2	20.8
<b>152933</b>	2000 <i>EO</i> <sub>131</sub>		1 23.4 176°79	3°1/22.0	18		<b>147827</b>	2005 <i>SW</i> <sub>210</sub>		1 23.4 287°00	1°5/22.4	18	
12 23	8 50.29	+26 6.4	1.673	2.521	13.9	19.8	12 23	8 42.98	+19 25.2	1.793	2.642	13.1	19.3
1 2	8 42.90	+26 42.6	1.605	2.523	10.0	19.6	1 2	8 37.62	+20 41.2	1.718	2.638	9.3	19.1
1 12	8 32.79	+27 18.5	1.562	2.525	5.8	19.3	1 12	8 29.94	+22 6.5	1.669	2.634	5.1	18.8
1 22	8 21.01	+27 47.3	1.547	2.526	3.1	19.2	1 22	8 20.72	+23 34.1	1.648	2.631	1.5	18.6
2 1	8 8.98	+28 3.7	1.561	2.526	5.8	19.3	2 1	8 11.08	+24 56.4	1.657	2.627	4.7	18.8
2 11	7 58.23	+28 5.2	1.603	2.526	10.0	19.6	2 11	8 2.32	+26 7.1	1.694	2.623	9.0	19.0
2 21	7 49.95	+27 52.6	1.670	2.525	13.9	19.8	2 21	7 55.50	+27 2.8	1.756	2.619	12.9	19.3
3 2	7 44.85	+27 28.7	1.757	2.524	17.2	20.0	3 2	7 51.38	+27 42.6	1.840	2.616	16.2	19.5
<b>303174</b>	2004 <i>FH</i> <sub>11</sub>		1 23.4 214°26	8°8/28.9	18		<b>93655</b>	2000 <i>UT</i> <sub>99</sub>		1 23.4 110°30	3°4/21.6	18	
12 23	8 45.47	-10 25.5	2.519	3.216	14.0	21.9	12 23	8 46.21	+27 47.8	1.998	2.846	12.0	19.6
1 2	8 38.81	-10 57.2	2.420	3.204	12.2	21.8	1 2	8 39.62	+28 31.3	1.938	2.854	8.7	19.4
1 12	8 30.36	-11 7.2	2.343	3.191	10.4	21.6	1 12	8 30.86	+29 13.0	1.903	2.863	5.3	19.2
1 22	8 20.72	-10 52.8	2.292	3.177	9.1	21.5	1 22	8 20.82	+29 47.0	1.898	2.872	3.4	19.1
2 1	8 10.69	-10 13.8	2.268	3.162	8.9	21.5	2 1	8 10.65	+30 8.9	1.921	2.880	5.5	19.3
2 11	8 1.19	- 9 12.9	2.273	3.145	9.9	21.5	2 11	8 1.56	+30 16.6	1.973	2.889	8.9	19.5
2 21	7 53.03	- 7 55.1	2.304	3.127	11.7	21.6	2 21	7 54.47	+30 10.5	2.051	2.897	12.1	19.7
3 2	7 46.84	- 6 26.9	2.358	3.108	13.7	21.7	3 2	7 50.00	+29 52.9	2.149	2.905	14.8	19.9
<b>453906</b>	2011 <i>UN</i> <sub>318</sub>		1 23.4 305°48	2°7/22.3	18		<b>77915</b>	2001 <i>VE</i> <sub>36</sub>		1 23.4 71°24	2°8/24.7	18	
12 23	8 46.39	+23 59.1	1.462	2.322	14.9	21.3	12 23	8 44.40	+11 49.7	1.769	2.600	14.1	19.2
1 2	8 40.47	+24 36.2	1.391	2.315	10.7	21.0	1 2	8 38.35	+11 38.5	1.704	2.609	10.5	19.0
1 12	8 31.63	+25 16.5	1.342	2.308	6.1	20.7	1 12	8 30.17	+11 39.0	1.664	2.618	6.5	18.8
1 22	8 20.88	+25 53.0	1.320	2.301	2.7	20.5	1 22	8 20.74	+11 49.5	1.650	2.628	3.1	18.6
2 1	8 9.72	+26 19.4	1.325	2.294	5.9	20.7	2 1	8 11.17	+12 7.2	1.665	2.637	4.4	18.7
2 11	7 59.81	+26 31.7	1.356	2.287	10.7	20.9	2 11	8 2.63	+12 28.7	1.708	2.647	8.2	18.9
2 21	7 52.46	+26 29.6	1.411	2.281	15.1	21.2	2 21	7 56.05	+12 50.8	1.777	2.656	12.0	19.2
3 2	7 48.47	+26 14.7	1.485	2.274	18.8	21.4	3 2	7 52.02	+13 11.0	1.868	2.666	15.1	19.4
<b>141149</b>	2001 <i>XB</i> <sub>107</sub>		1 23.4 92°95	0°7/23.0	18		<b>397832</b>	2008 <i>SQ</i> <sub>170</sub>		1 23.4 163°35	2°3/24.3	18	
12 23	8 42.96	+20 54.1	2.440	3.278									

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>396963</b>	2005 <i>QO</i> <sub>157</sub>		1 23.4 172°08	0°3/23.5	18		<b>89944</b>	2002 <i>FD</i> <sub>32</sub>		1 23.4 50°63	2°5/21.9	18	
12 23	8 49.13	+17 27.7	1.807	2.642	13.7	21.8	12 23	8 44.05	+24 11.7	1.874	2.726	12.5	19.4
1 2	8 41.83	+17 48.3	1.734	2.646	9.8	21.5	1 2	8 38.25	+25 1.4	1.807	2.728	8.9	19.2
1 12	8 32.15	+18 16.4	1.688	2.650	5.5	21.3	1 12	8 30.21	+25 53.3	1.766	2.730	5.1	18.9
1 22	8 21.00	+18 47.6	1.669	2.653	0.8	21.0	1 22	8 20.78	+26 41.6	1.753	2.732	2.5	18.8
2 1	8 9.60	+19 17.7	1.681	2.655	4.0	21.2	2 1	8 11.11	+27 20.8	1.769	2.734	5.1	18.9
2 11	7 59.26	+19 42.8	1.721	2.656	8.5	21.5	2 11	8 2.43	+27 47.4	1.812	2.737	8.9	19.2
2 21	7 51.04	+20 1.1	1.788	2.656	12.5	21.7	2 21	7 55.74	+28 0.6	1.881	2.739	12.4	19.4
3 2	7 45.61	+20 12.0	1.877	2.655	15.8	22.0	3 2	7 51.68	+28 1.2	1.972	2.742	15.4	19.6
<b>169109</b>	2001 <i>OY</i> <sub>24</sub>		1 23.4 73°90	3°0/25.1	18		<b>79274</b>	1995 <i>SG</i> <sub>16</sub>		1 23.4 64°39	3°5/25.8	18	
12 23	8 43.07	+ 9 43.5	2.215	3.030	12.2	19.9	12 23	8 39.98	+ 6 49.8	2.231	3.040	12.3	20.0
1 2	8 36.95	+ 9 32.3	2.159	3.053	9.1	19.7	1 2	8 34.91	+ 6 59.9	2.160	3.048	9.4	19.8
1 12	8 29.23	+ 9 32.0	2.129	3.077	5.9	19.5	1 12	8 28.21	+ 7 24.0	2.114	3.057	6.3	19.6
1 22	8 20.62	+ 9 41.3	2.127	3.100	3.3	19.4	1 22	8 20.53	+ 8 0.7	2.096	3.065	3.8	19.5
2 1	8 12.01	+ 9 58.1	2.155	3.123	4.0	19.5	2 1	8 12.70	+ 8 46.9	2.107	3.074	4.3	19.5
2 11	8 4.27	+10 19.5	2.212	3.146	6.9	19.7	2 11	8 5.59	+ 9 38.6	2.147	3.082	7.0	19.7
2 21	7 58.10	+10 42.8	2.296	3.169	9.9	20.0	2 21	7 59.93	+10 31.7	2.214	3.091	10.0	19.9
3 2	7 53.98	+11 5.4	2.404	3.191	12.5	20.2	3 2	7 56.23	+11 22.5	2.305	3.100	12.7	20.1
<b>180532</b>	2004 <i>DU</i> <sub>59</sub>		1 23.4 255°34	4°1/26.1	18		<b>500062</b>	2011 <i>UF</i> <sub>271</sub>		1 23.4 127°41	4°6/26.7	17	
12 23	8 42.05	+ 5 3.4	1.889	2.696	14.3	20.8	12 23	8 40.00	+ 1 58.6	2.910	3.684	10.6	21.3
1 2	8 36.81	+ 5 34.9	1.799	2.686	11.1	20.6	1 2	8 34.58	+ 1 35.3	2.835	3.693	8.5	21.2
1 12	8 29.46	+ 6 26.9	1.734	2.675	7.5	20.4	1 12	8 27.91	+ 1 24.6	2.786	3.702	6.4	21.1
1 22	8 20.68	+ 7 37.3	1.695	2.665	4.6	20.2	1 22	8 20.50	+ 1 26.5	2.765	3.711	4.8	21.0
2 1	8 11.47	+ 9 1.6	1.686	2.654	5.0	20.2	2 1	8 12.97	+ 1 40.0	2.774	3.720	4.9	21.0
2 11	8 2.96	+10 33.2	1.705	2.642	8.3	20.3	2 11	8 6.00	+ 2 3.1	2.812	3.728	6.5	21.1
2 21	7 56.14	+12 5.2	1.751	2.631	12.1	20.5	2 21	8 0.14	+ 2 33.0	2.877	3.736	8.6	21.2
3 2	7 51.74	+13 31.9	1.821	2.619	15.4	20.7	3 2	7 55.83	+ 3 6.5	2.968	3.744	10.6	21.4
<b>63895</b>	2001 <i>SZ</i> <sub>5</sub>		1 23.4 266°75	1°0/22.8	18		<b>127781</b>	2003 <i>FO</i> <sub>55</sub>		1 23.4 141°79	1°0/22.9	18	
12 23	8 41.58	+20 35.1	2.303	3.146	10.8	19.3	12 23	8 45.97	+21 31.6	1.940	2.784	12.5	20.1
1 2	8 36.19	+21 13.4	2.221	3.138	7.7	19.1	1 2	8 39.46	+21 47.8	1.871	2.788	8.9	19.9
1 12	8 28.99	+21 56.3	2.164	3.129	4.2	18.8	1 12	8 30.81	+22 7.0	1.827	2.792	4.9	19.7
1 22	8 20.61	+22 40.0	2.137	3.120	1.0	18.6	1 22	8 20.87	+22 25.1	1.812	2.795	1.1	19.4
2 1	8 11.95	+23 20.1	2.140	3.112	3.7	18.8	2 1	8 10.76	+22 38.6	1.826	2.798	4.1	19.6
2 11	8 3.97	+23 53.5	2.173	3.103	7.3	19.0	2 11	8 1.66	+22 45.0	1.869	2.801	8.1	19.9
2 21	7 57.49	+24 18.1	2.232	3.094	10.6	19.2	2 21	7 54.50	+22 43.5	1.939	2.804	11.8	20.1
3 2	7 53.13	+24 33.6	2.314	3.085	13.4	19.3	3 2	7 49.91	+22 34.8	2.030	2.807	14.8	20.3
<b>81840</b>	2000 <i>KV</i> <sub>52</sub>		1 23.4 246°27	1°0/22.9	18		<b>429741</b>	2011 <i>OT</i> <sub>59</sub>		1 23.4 198°33	4°0/26.9	17	
12 23	8 44.39	+19 56.5	1.942	2.787	12.5	20.4	12 23	8 39.06	+ 1 54.2	3.089	3.862	10.1	21.9
1 2	8 38.50	+20 37.7	1.859	2.776	8.9	20.2	1 2	8 33.94	+ 2 3.1	2.999	3.858	8.1	21.8
1 12	8 30.39	+21 25.3	1.801	2.766	4.9	19.9	1 12	8 27.59	+ 2 25.2	2.934	3.854	5.9	21.6
1 22	8 20.80	+22 14.6	1.772	2.755	1.0	19.6	1 22	8 20.46	+ 2 59.7	2.898	3.850	4.3	21.5
2 1	8 10.81	+23 0.2	1.772	2.744	4.2	19.8	2 1	8 13.15	+ 3 44.9	2.892	3.845	4.3	21.5
2 11	8 1.63	+23 37.8	1.801	2.732	8.4	20.0	2 11	8 6.29	+ 4 38.0	2.917	3.840	6.0	21.6
2 21	7 54.29	+24 5.2	1.856	2.721	12.3	20.3	2 21	8 0.44	+ 5 35.5	2.971	3.834	8.2	21.8
3 2	7 49.52	+24 21.9	1.933	2.709	15.5	20.4	3 2	7 56.03	+ 6 33.9	3.050	3.828	10.3	21.9
<b>116192</b>	2003 <i>XS</i> <sub>10</sub>		1 23.4 105°83	2°7/21.3	18		<b>304802</b>	2007 <i>PV</i> <sub>14</sub>		1 23.4 133°17	0°1/23.4	18	
12 23	8 42.16	+24 52.4	2.328	3.175	10.6	19.1	12 23	8 46.90	+17 4.4	1.840	2.677	13.4	21.2
1 2	8 36.59	+26 6.1	2.263	3.181	7.5	18.9	1 2	8 40.14	+17 43.0	1.777	2.690	9.6	21.0
1 12	8 29.19	+27 21.7	2.224	3.186	4.4	18.7	1 12	8 31.20	+18 29.8	1.740	2.703	5.3	20.8
1 22	8 20.64	+28 33.4	2.216	3.192	2.7	18.6	1 22	8 20.93	+19 19.9	1.731	2.715	0.7	20.5
2 1	8 11.85	+29 35.7	2.237	3.197	4.8	18.8	2 1	8 10.50	+20 8.1	1.752	2.726	3.9	20.8
2 11	8 3.81	+30 25.1	2.289	3.202	7.9	19.0	2 11	8 1.12	+20 50.1	1.802	2.737	8.2	21.0
2 21	7 57.33	+31 0.2	2.366	3.208	10.8	19.2	2 21	7 53.76	+21 23.2	1.879	2.747	12.0	21.3
3 2	7 53.03	+31 21.5	2.466	3.213	13.3	19.4	3 2	7 49.04	+21 46.9	1.978	2.756	15.1	21.5
<b>295778</b>	2008 <i>UZ</i> <sub>207</sub>		1 23.4 263°74	2°8/24.5	18		<b>7512</b>	Monicalazzarin		1 23.4 332°75	3°0/22.2	18	
12 23	8 46.08	+12 37.1	1.500	2.339	15.8	20.7	12 23	8 45.34	+26 24.8	1.586	2.445	14.0	17.0
1 2	8 40.10	+12 29.9	1.421	2.331	11.8	20.4	1 2	8 39.59	+26 42.4	1.510	2.434	10.1	16.8
1 12	8 31.42	+12 35.9	1.365	2.322	7.2	20.1	1 12	8 31.13	+26 59.0	1.459	2.423	5.9	16.5
1 22	8 20.94	+12 53.0	1.334	2.314	3.1	19.9	1 22	8 20.94	+27 9.0	1.433	2.413	3.0	16.3
2 1	8 10.02	+13 17.8	1.332	2.305	4.9	20.0	2 1	8 10.40	+27 7.7	1.436	2.403	5.8	16.4
2 11	8 0.16	+13 46.0	1.356	2.297	9.7	20.2	2 11	8 1.05	+26 53.2	1.464	2.394	10.1	16.7
2 21	7 52.59	+14 13.6	1.405	2.288	14.2	20.4	2 21	7 54.08	+26 26.2	1.517	2.386	14.3	16.9
3 2	7 48.14	+14 37.7	1.474	2.280	18.1	20.7	3 2	7 50.25	+25 49.1	1.590	2.378	17.8	17.1
<b>207688</b>	2007 <i>RQ</i> <sub>16</sub>		1 23.4 116°92	1°6/22.6	18		<b>92758</b>	2000 <i>QE</i> <sub>120</sub>		1 23.4 355°91	4°7/25.4	18	
12 23	8 48.80	+22 3.0	1.867	2.709	13.0	21.0	12 23	8 43.17	+ 8 27.3	1.335	2.174	17.4	18.2
1 2	8 41.41	+22 41.4	1.812	2.729	9.2	20.8	1 2	8 38.14	+ 8 16.7	1.266	2.171	13.3	18.0
1 12	8 31.82	+23 22.5	1.784	2.748	5.0	20.6	1 12	8 30.38	+ 8 25.6	1.218	2.170	8.8	17.7
1 22	8 20.97	+24 1.0	1.784	2.766	1.6	20.4	1 22	8 20.85	+ 8 53.1	1.195	2.169	5.0	17.5
2 1	8 10.07	+24 32.0	1.814	2.784	4.5	20.6	2 1	8 10.95	+ 9 35.4	1.198	2.168	6.0	17.5
2 11	8 0.36	+24 52.8	1.874	2.801	8.4	20.9	2 11	8 2.23	+10 26.3	1.226	2.168	10.3	17.8
2 21	7 52.79	+25 2.7	1.959	2.817	12.0	21.1	2 21	7 55.91	+11 19.5	1.277	2.169	14.7	18.0
3 2	7 47.92	+25 2.6	2.067	2.833	14.9	21.4	3 2	7 52.78	+12 9.5	1.348	2.170	18.6	18.3
<b>53247</b>	1999 <i>DE</i> <sub>2</sub>		1 23.4 55°98	3°7/22.2	18	R	<b>82383</b>	2001 <i>MD</i> <sub>19</sub>		1 23.4 173°98	5°7/26.9	18	
12 23	8 51.08	+28 55.3	1.533	2.386	14.7	16.8	12 23						

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>368548</b>	2003 YR <sub>75</sub>		1 23.4	19°46'	6°3'/19.4	18	<b>465333</b>	2007 VT <sub>103</sub>		1 23.4	201°48'	4°2'/26.0	18
12 23	8 42.79	+31 20.8	1.619	2.482	13.6	19.5	12 23	8 40.76	+5 25.6	2.354	3.154	12.1	21.6
1 2	8 37.80	+33 6.1	1.569	2.489	10.1	19.3	1 2	8 35.46	+5 14.6	2.273	3.153	9.4	21.4
1 12	8 30.14	+34 47.7	1.544	2.496	7.1	19.2	1 12	8 28.54	+5 17.1	2.217	3.152	6.6	21.2
1 22	8 20.82	+36 15.4	1.546	2.505	6.4	19.1	1 22	8 20.63	+5 32.7	2.188	3.151	4.5	21.1
2 1	8 11.19	+37 21.1	1.575	2.515	8.5	19.3	2 1	8 12.50	+5 59.6	2.189	3.150	4.8	21.1
2 11	8 2.79	+38 0.9	1.629	2.525	11.7	19.5	2 11	8 5.03	+6 34.8	2.219	3.149	7.2	21.2
2 21	7 56.78	+38 15.8	1.706	2.536	14.8	19.7	2 21	7 58.92	+7 14.7	2.276	3.147	10.0	21.4
3 2	7 53.88	+38 9.5	1.801	2.547	17.5	19.9	3 2	7 54.71	+7 55.8	2.356	3.146	12.6	21.6
<b>165832</b>	2001 RH <sub>131</sub>		1 23.4	325°28'	3°5'/21.5	18	<b>461606</b>	2004 TJ <sub>227</sub>		1 23.4	162°46'	0°3'/23.2	18
12 23	8 43.45	+28 3.8	1.984	2.837	11.9	19.3	12 23	8 44.41	+19 30.0	2.185	3.023	11.5	22.0
1 2	8 37.85	+28 42.4	1.908	2.827	8.6	19.1	1 2	8 38.18	+19 48.3	2.112	3.026	8.2	21.8
1 12	8 30.02	+29 19.5	1.858	2.819	5.3	18.8	1 12	8 30.07	+20 11.1	2.065	3.029	4.5	21.6
1 22	8 20.80	+29 49.8	1.836	2.810	3.5	18.7	1 22	8 20.82	+20 34.9	2.048	3.031	0.6	21.3
2 1	8 11.28	+30 8.5	1.842	2.802	5.6	18.8	2 1	8 11.40	+20 56.4	2.060	3.034	3.5	21.5
2 11	8 2.69	+30 13.1	1.876	2.794	9.1	19.0	2 11	8 2.81	+21 12.8	2.103	3.036	7.3	21.8
2 21	7 56.02	+30 3.9	1.935	2.787	12.4	19.2	2 21	7 55.89	+21 22.8	2.172	3.037	10.7	22.0
3 2	7 51.94	+29 42.5	2.015	2.779	15.3	19.4	3 2	7 51.22	+21 26.2	2.264	3.039	13.5	22.2
<b>118538</b>	2000 ER <sub>86</sub>		1 23.4	288°57'	0°7'/23.7	18	<b>319764</b>	2006 UP <sub>211</sub>		1 23.4	61°64'	4°0'/22.0	18
12 23	8 46.99	+17 18.8	1.387	2.239	16.0	19.2	12 23	8 50.90	+28 59.2	1.517	2.371	14.8	20.3
1 2	8 40.95	+17 22.7	1.313	2.233	11.7	18.9	1 2	8 43.25	+29 22.9	1.473	2.393	10.7	20.1
1 12	8 31.97	+17 35.8	1.262	2.226	6.6	18.6	1 12	8 32.92	+29 41.6	1.454	2.414	6.5	19.9
1 22	8 21.06	+17 54.2	1.236	2.220	1.2	18.3	1 22	8 21.17	+29 48.9	1.461	2.436	4.0	19.8
2 1	8 9.72	+18 13.4	1.238	2.213	4.8	18.5	2 1	8 9.58	+29 41.1	1.496	2.458	6.4	20.0
2 11	7 59.62	+18 29.2	1.266	2.207	10.2	18.8	2 11	7 59.69	+29 17.7	1.558	2.480	10.3	20.3
2 21	7 52.08	+18 39.2	1.317	2.201	15.0	19.0	2 21	7 52.54	+28 41.6	1.644	2.502	13.9	20.6
3 2	7 47.93	+18 42.6	1.388	2.194	19.0	19.3	3 2	7 48.64	+27 56.6	1.751	2.524	17.0	20.8
<b>83212</b>	2001 RU <sub>21</sub>		1 23.4	278°05'	4°8'/26.9	18	<b>428968</b>	2008 YF <sub>140</sub>		1 23.4	59°48'	1°1'/24.2	18
12 23	8 39.47	+2 1.9	2.281	3.069	12.8	19.6	12 23	8 41.06	+13 17.8	2.045	2.878	12.4	20.9
1 2	8 34.61	+2 16.9	2.196	3.065	10.2	19.4	1 2	8 35.82	+14 4.7	1.984	2.894	9.0	20.7
1 12	8 28.11	+2 49.9	2.135	3.062	7.4	19.2	1 12	8 28.78	+15 2.5	1.949	2.909	5.1	20.5
1 22	8 20.56	+3 39.9	2.102	3.059	5.2	19.1	1 22	8 20.68	+16 7.2	1.943	2.925	1.4	20.3
2 1	8 12.76	+4 44.1	2.097	3.055	5.2	19.1	2 1	8 12.44	+17 13.6	1.966	2.941	3.4	20.4
2 11	8 5.57	+5 57.9	2.122	3.052	7.4	19.2	2 11	8 5.05	+18 16.7	2.019	2.957	7.2	20.7
2 21	7 59.75	+7 15.9	2.174	3.048	10.3	19.4	2 21	7 59.29	+19 12.8	2.098	2.973	10.6	20.9
3 2	7 55.85	+8 33.1	2.250	3.045	13.0	19.5	3 2	7 55.71	+19 59.8	2.201	2.989	13.5	21.2
<b>466800</b>	2015 BB <sub>69</sub>		1 23.4	131°40'	3°6'/25.9	18	<b>501641</b>	2014 SR <sub>216</sub>		1 23.4	84°00'	1°4'/24.3	18
12 23	8 40.90	+6 5.9	2.372	3.173	11.9	21.4	12 23	8 42.74	+13 10.7	1.865	2.700	13.3	20.8
1 2	8 35.50	+6 18.8	2.298	3.181	9.2	21.2	1 2	8 37.20	+13 43.5	1.798	2.708	9.7	20.6
1 12	8 28.53	+6 45.7	2.249	3.188	6.2	21.1	1 12	8 29.62	+14 28.2	1.756	2.715	5.7	20.3
1 22	8 20.61	+7 25.0	2.228	3.196	3.9	20.9	1 22	8 20.80	+15 21.0	1.742	2.723	1.8	20.1
2 1	8 12.53	+8 13.8	2.237	3.202	4.2	21.0	2 1	8 11.78	+16 17.0	1.757	2.731	3.7	20.3
2 11	8 5.12	+9 8.2	2.276	3.209	6.8	21.1	2 11	8 3.67	+17 11.2	1.800	2.739	7.8	20.5
2 21	7 59.09	+10 4.1	2.342	3.216	9.7	21.3	2 21	7 57.38	+17 59.8	1.870	2.747	11.6	20.8
3 2	7 54.94	+10 58.0	2.433	3.222	12.3	21.5	3 2	7 53.52	+18 40.3	1.962	2.755	14.7	21.0
<b>518804</b>	2010 BP <sub>110</sub>		1 23.4	153°87'	5°6'/19.6	18	<b>508043</b>	2015 BW <sub>533</sub>		1 23.4	222°40'	3°0'/21.6	17
12 23	8 47.28	+39 26.9	2.747	3.572	9.8	21.5	12 23	8 44.02	+29 52.4	2.726	3.565	9.4	21.3
1 2	8 40.10	+40 9.5	2.687	3.577	7.8	21.4	1 2	8 37.70	+30 10.9	2.651	3.562	6.9	21.1
1 12	8 31.05	+40 42.7	2.654	3.581	6.1	21.3	1 12	8 29.73	+30 26.0	2.604	3.560	4.3	20.9
1 22	8 20.93	+41 1.7	2.650	3.585	5.7	21.2	1 22	8 20.81	+30 34.0	2.586	3.558	3.0	20.8
2 1	8 10.72	+41 3.3	2.675	3.589	6.8	21.3	2 1	8 11.76	+30 32.5	2.599	3.555	4.5	20.9
2 11	8 1.45	+40 47.2	2.728	3.593	8.7	21.4	2 11	8 3.47	+30 20.3	2.642	3.553	7.1	21.1
2 21	7 53.94	+40 15.4	2.806	3.596	10.7	21.6	2 21	7 56.65	+29 58.2	2.712	3.550	9.7	21.3
3 2	7 48.72	+39 31.1	2.906	3.599	12.6	21.7	3 2	7 51.83	+29 27.7	2.805	3.547	11.9	21.4
<b>322793</b>	2001 QL <sub>141</sub>		1 23.4	214°11'	3°2'/25.5	18	<b>204888</b>	2007 TH <sub>187</sub>		1 23.4	64°14'	4°5'/20.4	18
12 23	8 43.27	+7 26.2	2.324	3.127	12.1	21.0	12 23	8 43.94	+31 7.8	2.168	3.016	11.2	20.0
1 2	8 37.35	+7 46.5	2.232	3.119	9.2	20.8	1 2	8 38.04	+32 12.1	2.109	3.023	8.3	19.8
1 12	8 29.65	+8 20.9	2.166	3.110	6.1	20.6	1 12	8 30.08	+33 12.7	2.076	3.029	5.6	19.6
1 22	8 20.78	+9 7.6	2.128	3.100	3.4	20.4	1 22	8 20.86	+34 3.4	2.072	3.036	4.6	19.6
2 1	8 11.57	+10 3.4	2.121	3.090	4.1	20.5	2 1	8 11.46	+34 39.1	2.097	3.042	6.3	19.7
2 11	8 2.97	+11 4.1	2.145	3.079	7.1	20.6	2 11	8 2.99	+34 57.6	2.150	3.049	9.1	19.9
2 21	7 55.78	+12 5.2	2.196	3.067	10.4	20.8	2 21	7 56.37	+34 59.5	2.227	3.056	11.9	20.1
3 2	7 50.62	+13 3.1	2.272	3.054	13.3	21.0	3 2	7 52.21	+34 47.0	2.326	3.063	14.3	20.3
<b>203621</b>	2002 EB <sub>129</sub>		1 23.4	247°82'	0°5'/23.2	18	<b>170220</b>	2003 QM <sub>11</sub>		1 23.4	177°47'	3°0'/21.9	18
12 23	8 46.63	+19 13.7	1.741	2.585	13.7	21.2	12 23	8 49.60	+26 46.5	1.997	2.839	12.3	21.0
1 2	8 40.35	+19 38.6	1.656	2.573	9.9	20.9	1 2	8 42.14	+27 23.1	1.927	2.841	8.9	20.8
1 12	8 31.53	+20 10.4	1.596	2.561	5.4	20.6	1 12	8 32.36	+27 58.5	1.883	2.843	5.2	20.6
1 22	8 21.03	+20 44.6	1.564	2.548	0.8	20.2	1 22	8 21.16	+28 27.1	1.868	2.844	3.0	20.4
2 1	8 10.06	+21 16.1	1.561	2.534	4.4	20.5	2 1	8 9.74	+28 44.3	1.883	2.844	5.3	20.6
2 11	8 0.01	+21 40.9	1.586	2.520	9.1	20.7	2 11	7 59.39	+28 47.9	1.927	2.844	8.9	20.8
2 21	7 52.05	+21 57.0	1.636	2.506	13.3	20.9	2 21	7 51.12	+28 38.6	1.996	2.843	12.3	21.0
3 2	7 46.98	+22 4.0	1.707	2.492	16.9	21.1	3 2	7 45.60	+28 18.4	2.088	2.841	15.2	21.2
<b>102514</b>	1999 TC <sub>304</sub>		1 23.4	193°67'	2°5'/24.8	18	<b>306352</b>	2011 SW <sub>177</sub>		1 23.4	102°83'	0°3'/23.6	18
12 23	8 44.51	+10 50.3	1.911	2.734	13.5	20.3	12 23	8 47.29	+16 26.1	1.662	2.503	14.4	21.4
1 2													

EPHEMERIDES

1 23.4

1 23.5

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>492693</b>	2014 <i>PP</i> <sub>55</sub>		1 23.4 158°88	0°5/23.7	18		<b>488956</b>	2005 <i>UD</i> <sub>198</sub>		1 23.4 77°95	2°9/22.3	15	
12 23	8 46.22	+16 30.1	2.076	2.908	12.3	22.2	12 23	8 50.13	+23 45.2	1.320	2.179	16.2	22.1
1 2	8 39.53	+16 54.3	2.005	2.915	8.9	22.0	1 2	8 43.07	+24 33.8	1.275	2.198	11.6	21.8
1 12	8 30.85	+17 25.9	1.960	2.922	4.9	21.8	1 12	8 33.02	+25 24.8	1.252	2.218	6.5	21.6
1 22	8 20.97	+18 1.4	1.944	2.927	0.9	21.5	1 22	8 21.28	+26 9.7	1.256	2.237	2.9	21.4
2 1	8 10.89	+18 36.6	1.959	2.933	3.5	21.7	2 1	8 9.53	+26 41.9	1.287	2.256	6.1	21.7
2 11	8 1.71	+19 8.2	2.003	2.937	7.5	22.0	2 11	7 59.50	+26 57.9	1.344	2.275	10.8	22.0
2 21	7 54.29	+19 33.9	2.074	2.941	11.1	22.2	2 21	7 52.38	+26 58.5	1.425	2.293	15.0	22.3
3 2	7 49.25	+19 52.7	2.169	2.944	14.0	22.4	3 2	7 48.78	+26 46.0	1.525	2.312	18.5	22.6
<b>226782</b>	2004 <i>RB</i> <sub>150</sub>		1 23.4 126°72	3°1/21.7	18		<b>226726</b>	2004 <i>PE</i> <sub>68</sub>		1 23.4 108°04	1°4/24.2	18	
12 23	8 45.98	+27 2.9	2.092	2.938	11.6	20.8	12 23	8 44.84	+14 50.8	2.052	2.883	12.4	20.6
1 2	8 39.44	+27 45.4	2.030	2.946	8.4	20.6	1 2	8 38.48	+14 53.5	1.988	2.895	9.0	20.4
1 12	8 30.83	+28 26.7	1.993	2.954	5.0	20.4	1 12	8 30.25	+15 4.2	1.949	2.908	5.2	20.2
1 22	8 20.99	+29 1.4	1.986	2.961	3.1	20.3	1 22	8 20.93	+15 20.4	1.938	2.920	1.7	20.0
2 1	8 10.99	+29 25.2	2.008	2.969	5.1	20.4	2 1	8 11.50	+15 39.1	1.958	2.932	3.5	20.1
2 11	8 2.00	+29 35.9	2.059	2.976	8.5	20.6	2 11	8 3.01	+15 57.7	2.007	2.944	7.3	20.4
2 21	7 54.90	+29 33.7	2.136	2.983	11.6	20.8	2 21	7 56.26	+16 13.8	2.083	2.955	10.8	20.6
3 2	7 50.30	+29 20.2	2.235	2.989	14.3	21.0	3 2	7 51.81	+16 26.0	2.181	2.966	13.7	20.8
<b>395448</b>	2011 <i>SD</i> <sub>258</sub>		1 23.4 145°51	0°1/23.4	18		<b>171994</b>	2001 <i>TZ</i> <sub>218</sub>		1 23.5 67°11	5°1/19.9	18	
12 23	8 47.52	+17 45.1	2.002	2.835	12.6	22.0	12 23	8 44.95	+32 31.0	2.164	3.010	11.3	20.0
1 2	8 40.50	+18 21.7	1.936	2.848	9.0	21.8	1 2	8 38.72	+33 49.1	2.121	3.031	8.4	19.8
1 12	8 31.40	+19 5.1	1.897	2.860	4.9	21.6	1 12	8 30.43	+35 1.6	2.104	3.052	5.9	19.7
1 22	8 21.06	+19 50.8	1.887	2.871	0.6	21.3	1 22	8 20.95	+36 1.8	2.116	3.073	5.1	19.7
2 1	8 10.56	+20 34.1	1.908	2.881	3.7	21.6	2 1	8 11.37	+36 44.6	2.157	3.094	6.7	19.8
2 11	8 1.03	+21 11.2	1.958	2.890	7.8	21.8	2 11	8 2.83	+37 8.2	2.226	3.115	9.3	20.0
2 21	7 53.39	+21 40.0	2.035	2.899	11.4	22.1	2 21	7 56.22	+37 13.6	2.319	3.136	11.8	20.2
3 2	7 48.25	+21 59.8	2.135	2.906	14.4	22.3	3 2	7 52.09	+37 3.7	2.433	3.157	14.0	20.4
<b>284210</b>	2006 <i>BV</i> <sub>219</sub>		1 23.4 20°58	1°4/22.9	18		<b>284093</b>	2005 <i>MT</i> <sub>32</sub>		1 23.5 339°56	6°6/27.8	18	
12 23	8 46.55	+21 18.5	1.176	2.044	17.2	20.4	12 23	8 39.82	- 2 8.2	2.314	3.079	13.3	20.9
1 2	8 40.89	+21 37.2	1.120	2.048	12.3	20.1	1 2	8 34.85	- 2 30.3	2.233	3.078	11.0	20.8
1 12	8 32.01	+22 1.7	1.085	2.052	6.8	19.8	1 12	8 28.27	- 2 33.8	2.176	3.078	8.7	20.6
1 22	8 21.16	+22 25.7	1.074	2.057	1.5	19.5	1 22	8 20.69	- 2 17.9	2.144	3.077	7.0	20.5
2 1	8 10.08	+22 43.1	1.089	2.063	5.6	19.8	2 1	8 12.88	- 1 43.5	2.140	3.077	6.8	20.5
2 11	8 0.64	+22 50.2	1.128	2.069	11.1	20.1	2 11	8 5.70	- 0 54.2	2.164	3.077	8.3	20.6
2 21	7 54.18	+22 46.2	1.190	2.077	16.0	20.4	2 21	7 59.88	+ 0 5.4	2.214	3.076	10.6	20.7
3 2	7 51.42	+22 32.2	1.271	2.084	20.0	20.7	3 2	7 55.96	+ 1 10.2	2.288	3.076	13.0	20.9
<b>38782</b>	2000 <i>RP</i> <sub>31</sub>		1 23.4 46°85	5°1/26.1	18		<b>420133</b>	2011 <i>FS</i> <sub>54</sub>		1 23.5 111°52	0°2/23.3	18	
12 23	8 42.48	+ 5 36.3	1.690	2.505	15.4	19.3	12 23	8 43.20	+18 15.0	2.103	2.943	11.8	21.4
1 2	8 37.10	+ 5 21.6	1.626	2.515	11.9	19.1	1 2	8 37.39	+18 46.3	2.036	2.950	8.4	21.2
1 12	8 29.61	+ 5 25.2	1.586	2.525	8.3	18.9	1 12	8 29.69	+19 23.8	1.994	2.958	4.6	21.0
1 22	8 20.84	+ 5 46.3	1.571	2.536	5.5	18.7	1 22	8 20.87	+20 3.6	1.981	2.965	0.6	20.7
2 1	8 11.91	+ 6 22.2	1.583	2.547	5.8	18.8	2 1	8 11.87	+20 41.5	1.998	2.972	3.5	20.9
2 11	8 3.99	+ 7 8.1	1.623	2.558	8.9	19.0	2 11	8 3.73	+21 14.1	2.045	2.979	7.4	21.2
2 21	7 57.99	+ 7 58.6	1.688	2.569	12.3	19.2	2 21	7 57.26	+21 39.4	2.117	2.986	10.8	21.4
3 2	7 54.53	+ 8 48.8	1.774	2.581	15.5	19.5	3 2	7 53.05	+21 56.5	2.213	2.992	13.7	21.6
<b>319708</b>	2006 <i>UV</i> <sub>30</sub>		1 23.4 285°40	3°3/24.9	18		<b>231977</b>	2001 <i>QH</i> <sub>156</sub>		1 23.5 225°71	1°8/22.4	17	
12 23	8 43.56	+10 31.3	1.699	2.529	14.6	21.0	12 23	8 44.85	+25 8.2	2.583	3.421	9.9	20.6
1 2	8 38.15	+10 27.7	1.611	2.515	11.1	20.7	1 2	8 38.38	+25 22.3	2.500	3.413	7.1	20.4
1 12	8 30.35	+10 38.3	1.548	2.501	7.0	20.5	1 12	8 30.19	+25 36.1	2.443	3.405	4.0	20.2
1 22	8 20.96	+11 1.7	1.510	2.487	3.6	20.2	1 22	8 20.94	+25 46.1	2.417	3.397	1.8	20.0
2 1	8 11.09	+11 34.9	1.501	2.473	4.8	20.3	2 1	8 11.48	+25 49.6	2.421	3.388	3.8	20.1
2 11	8 2.05	+12 13.4	1.519	2.459	8.9	20.5	2 11	8 2.73	+25 45.2	2.456	3.379	6.9	20.3
2 21	7 54.95	+12 52.9	1.562	2.445	13.1	20.7	2 21	7 55.47	+25 32.8	2.518	3.369	9.9	20.5
3 2	7 50.57	+13 29.6	1.627	2.431	16.8	20.9	3 2	7 50.25	+25 13.2	2.604	3.360	12.4	20.7
<b>300321</b>	2007 <i>PK</i> <sub>50</sub>		1 23.4 80°67	0°8/23.1	17		<b>226527</b>	2003 <i>UZ</i> <sub>124</sub>		1 23.5 103°13	0°4/23.2	18	
12 23	8 49.25	+20 1.9	1.523	2.371	15.1	21.3	12 23	8 43.10	+19 1.2	2.152	2.992	11.6	20.5
1 2	8 42.02	+20 28.5	1.477	2.395	10.7	21.1	1 2	8 37.27	+19 34.4	2.086	3.002	8.2	20.3
1 12	8 32.28	+21 0.3	1.455	2.420	5.8	20.9	1 12	8 29.61	+20 12.9	2.047	3.011	4.5	20.0
1 22	8 21.17	+21 31.9	1.460	2.443	1.0	20.6	1 22	8 20.86	+20 52.9	2.037	3.020	0.7	19.8
2 1	8 10.12	+21 58.0	1.494	2.467	4.6	20.9	2 1	8 11.96	+21 30.1	2.057	3.030	3.5	20.0
2 11	8 0.56	+22 15.6	1.555	2.490	9.2	21.3	2 11	8 3.91	+22 1.4	2.106	3.039	7.3	20.3
2 21	7 53.48	+22 23.8	1.642	2.513	13.2	21.5	2 21	7 57.51	+22 24.9	2.181	3.048	10.6	20.5
3 2	7 49.46	+22 23.1	1.749	2.536	16.5	21.8	3 2	7 53.33	+22 40.0	2.280	3.056	13.4	20.7
<b>235988</b>	2005 <i>EJ</i> <sub>330</sub>		1 23.4 270°90	2°8/21.5	18		<b>31436</b>	1999 <i>BJ</i> <sub>15</sub>		1 23.5 256°72	1°5/24.1	18	
12 23	8 42.66	+25 7.8	2.165	3.014	11.2	20.0	12 23	8 44.57	+14 49.9	1.888	2.723	13.2	19.0
1 2	8 37.17	+26 11.2	2.091	3.009	8.0	19.8	1 2	8 38.64	+14 52.1	1.805	2.714	9.7	18.8
1 12	8 29.67	+27 16.8	2.043	3.005	4.7	19.5	1 12	8 30.53	+15 3.3	1.746	2.705	5.7	18.5
1 22	8 20.86	+28 18.8	2.023	3.000	2.8	19.4	1 22	8 21.00	+15 21.1	1.714	2.696	1.8	18.2
2 1	8 11.73	+29 11.5	2.034	2.995	5.0	19.5	2 1	8 11.12	+15 42.4	1.713	2.687	3.9	18.4
2 11	8 3.37	+29 51.3	2.073	2.991	8.4	19.7	2 11	8 2.09	+16 3.7	1.739	2.678	8.1	18.6
2 21	7 56.70	+30 16.9	2.139	2.986	11.6	19.9	2 21	7 54.88	+16 22.5	1.792	2.668	12.0	18.8
3 2	7 52.37	+30 28.8	2.226	2.981	14.3	20.1	3 2	7 50.21	+16 37.1	1.867	2.658	15.4	19.0
<b>173238</b>	1999 <i>DW</i> <sub>3</sub>		1 23.4 189°38	0°4/23.6	18		<b>121887</b>	2000 <i>DY</i> <sub>11</sub>		1 23.5 296°30	1°0/23.0	18	
12 23	8 50.13	+17 16.2	1.589	2.429	1								

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>340734</b>	2006 <i>SF</i> <sub>165</sub>		1 23.5 220°84	0°8/22.9	17		<b>56938</b>	2000 <i>RO</i> <sub>65</sub>		1 23.5 259°96	7°0/19.3	18	
12 23	8 42.78	+21 42.4	2.895	3.729	9.1	21.6	12 23	8 49.22	+37 44.7	1.997	2.836	12.4	17.9
1 2	8 36.77	+22 0.2	2.807	3.719	6.5	21.4	1 2	8 42.31	+38 50.8	1.925	2.825	9.8	17.7
1 12	8 29.26	+22 20.0	2.746	3.709	3.6	21.2	1 12	8 32.69	+39 48.0	1.878	2.813	7.6	17.6
1 22	8 20.83	+22 39.0	2.716	3.699	0.9	21.0	1 22	8 21.32	+40 28.2	1.859	2.801	7.1	17.5
2 1	8 12.18	+22 54.7	2.718	3.688	3.0	21.1	2 1	8 9.54	+40 45.5	1.867	2.789	8.7	17.6
2 11	8 4.09	+23 5.3	2.750	3.677	6.1	21.3	2 11	7 58.89	+40 38.0	1.901	2.777	11.4	17.7
2 21	7 57.24	+23 9.7	2.810	3.666	8.9	21.5	2 21	7 50.57	+40 8.4	1.959	2.764	14.1	17.9
3 2	7 52.14	+23 8.0	2.895	3.654	11.3	21.6	3 2	7 45.36	+39 21.4	2.036	2.752	16.6	18.0
<b>269579</b>	2009 <i>WS</i> <sub>204</sub>		1 23.5 178°96	0°2/23.4	18		<b>307206</b>	2002 <i>FV</i> <sub>35</sub>		1 23.5 268°89	3°5/21.3	18	
12 23	8 44.38	+19 3.2	2.065	2.905	12.0	21.3	12 23	8 45.43	+23 16.5	1.568	2.425	14.2	20.0
1 2	8 38.29	+19 18.1	1.990	2.905	8.6	21.1	1 2	8 39.88	+24 55.3	1.495	2.418	10.2	19.7
1 12	8 30.23	+19 38.0	1.942	2.906	4.7	20.9	1 12	8 31.51	+26 41.9	1.446	2.410	5.9	19.5
1 22	8 20.95	+19 59.6	1.922	2.906	0.6	20.5	1 22	8 21.18	+28 26.5	1.426	2.403	3.6	19.3
2 1	8 11.46	+20 19.4	1.932	2.906	3.6	20.8	2 1	8 10.26	+29 58.8	1.434	2.396	6.6	19.5
2 11	8 2.84	+20 34.6	1.971	2.906	7.6	21.0	2 11	8 0.34	+31 11.5	1.469	2.388	11.0	19.7
2 21	7 55.97	+20 43.8	2.036	2.905	11.1	21.3	2 21	7 52.76	+32 1.9	1.528	2.381	15.1	19.9
3 2	7 51.44	+20 46.6	2.125	2.905	14.1	21.5	3 2	7 48.42	+32 31.1	1.607	2.373	18.5	20.2
<b>406680</b>	2008 <i>ES</i> <sub>113</sub>		1 23.5 72°43	4°6/21.7	18		<b>427249</b>	2014 <i>WY</i> <sub>74</sub>		1 23.5 87°25	7°1/19.3	18	
12 23	8 50.97	+30 49.8	1.634	2.484	14.1	21.0	12 23	8 51.68	+37 12.4	1.942	2.779	12.8	21.7
1 2	8 43.34	+31 17.1	1.584	2.499	10.3	20.8	1 2	8 43.74	+38 43.4	1.910	2.809	9.9	21.6
1 12	8 33.05	+31 38.1	1.558	2.514	6.6	20.7	1 12	8 33.27	+40 2.9	1.905	2.838	7.6	21.5
1 22	8 21.31	+31 46.1	1.559	2.530	4.6	20.6	1 22	8 21.37	+41 2.6	1.927	2.866	7.1	21.5
2 1	8 9.62	+31 37.3	1.588	2.545	6.7	20.7	2 1	8 9.47	+41 37.3	1.977	2.894	8.6	21.7
2 11	7 59.50	+31 11.3	1.645	2.560	10.3	21.0	2 11	7 59.03	+41 46.4	2.054	2.922	11.0	21.9
2 21	7 52.02	+30 31.3	1.725	2.575	13.8	21.2	2 21	7 51.08	+41 33.3	2.155	2.949	13.4	22.1
3 2	7 47.73	+29 41.2	1.827	2.590	16.7	21.5	3 2	7 46.21	+41 3.2	2.275	2.975	15.5	22.3
<b>458203</b>	2010 <i>RS</i> <sub>48</sub>		1 23.5 50°69	1°1/23.9	18		<b>39969</b>	1998 <i>G7</i> <sub>8</sub>		1 23.5 153°24	9°8/16.8	18	
12 23	8 45.44	+15 19.0	1.416	2.266	15.9	21.2	12 23	8 51.51	+40 43.1	1.694	2.533	14.2	17.1
1 2	8 39.41	+15 38.1	1.371	2.288	11.5	21.0	1 2	8 44.56	+42 56.5	1.645	2.536	11.7	16.9
1 12	8 30.91	+16 8.5	1.348	2.311	6.5	20.8	1 12	8 34.21	+44 57.3	1.621	2.539	10.0	16.8
1 22	8 21.03	+16 45.6	1.352	2.335	1.5	20.5	1 22	8 21.54	+46 33.1	1.623	2.541	10.0	16.8
2 1	8 11.17	+17 23.9	1.383	2.358	4.3	20.8	2 1	8 8.28	+47 34.7	1.652	2.543	11.7	16.9
2 11	8 2.73	+17 58.6	1.440	2.382	9.1	21.1	2 11	7 56.44	+48 0.2	1.705	2.546	14.2	17.1
2 21	7 56.71	+18 26.7	1.522	2.406	13.3	21.4	2 21	7 47.58	+47 53.5	1.778	2.547	16.8	17.3
3 2	7 53.66	+18 46.6	1.625	2.431	16.7	21.7	3 2	7 42.61	+47 21.9	1.868	2.549	19.0	17.5
<b>336023</b>	2007 <i>UU</i> <sub>35</sub>		1 23.5 85°23	1°2/22.6	18		<b>341631</b>	2007 <i>VT</i> <sub>12</sub>		1 23.5 124°06	6°0/18.9	18	
12 23	8 42.99	+21 20.1	2.279	3.120	10.9	21.1	12 23	8 47.61	+40 16.7	2.754	3.577	9.8	21.4
1 2	8 37.08	+22 2.6	2.222	3.139	7.7	21.0	1 2	8 40.42	+41 18.1	2.706	3.592	7.9	21.3
1 12	8 29.46	+22 48.2	2.193	3.157	4.2	20.8	1 12	8 31.32	+42 9.7	2.685	3.606	6.4	21.2
1 22	8 20.85	+23 32.7	2.193	3.175	1.2	20.6	1 22	8 21.12	+42 46.1	2.693	3.620	6.1	21.2
2 1	8 12.16	+24 11.8	2.223	3.193	3.7	20.8	2 1	8 10.83	+43 3.8	2.730	3.634	7.2	21.3
2 11	8 4.32	+24 42.8	2.283	3.211	7.1	21.0	2 11	8 1.49	+43 2.4	2.795	3.647	8.9	21.4
2 21	7 58.09	+25 4.3	2.370	3.229	10.2	21.3	2 21	7 53.93	+42 43.7	2.884	3.660	10.8	21.6
3 2	7 53.97	+25 16.5	2.480	3.246	12.7	21.5	3 2	7 48.69	+42 11.1	2.994	3.672	12.5	21.7
<b>459684</b>	2013 <i>MH</i> <sub>6</sub>		1 23.5 194°75	6°7/27.3	18		<b>172018</b>	2001 <i>UL</i> <sub>137</sub>		1 23.5 160°81	1°0/24.1	18	
12 23	8 43.59	- 1 20.2	2.264	3.028	13.6	21.6	12 23	8 41.38	+15 3.5	2.511	3.339	10.5	20.8
1 2	8 37.58	- 1 49.3	2.180	3.026	11.2	21.4	1 2	8 35.88	+15 19.1	2.435	3.342	7.6	20.6
1 12	8 29.81	- 2 0.3	2.119	3.023	8.7	21.2	1 12	8 28.81	+15 41.8	2.385	3.344	4.4	20.4
1 22	8 20.91	- 1 52.1	2.085	3.020	7.0	21.1	1 22	8 20.81	+16 9.1	2.364	3.346	1.2	20.2
2 1	8 11.73	- 1 25.5	2.079	3.016	6.9	21.1	2 1	8 12.63	+16 38.3	2.374	3.348	3.0	20.3
2 11	8 3.21	- 0 43.5	2.101	3.012	8.6	21.2	2 11	8 5.11	+17 6.5	2.414	3.350	6.3	20.5
2 21	7 56.15	+ 0 9.3	2.150	3.007	11.1	21.3	2 21	7 58.94	+17 31.5	2.481	3.352	9.3	20.7
3 2	7 51.15	+ 1 7.6	2.222	3.001	13.6	21.5	3 2	7 54.62	+17 51.9	2.573	3.353	12.0	20.9
<b>58102</b>	1979 <i>MW</i> <sub>4</sub>		1 23.5 45°09	0°4/23.7	18		<b>106829</b>	2000 <i>YL</i> <sub>1</sub>		1 23.5 210°80	3°4/23.9	18	
12 23	8 42.74	+13 49.8	1.461	2.310	15.6	18.3	12 23	8 58.45	+16 36.0	1.197	2.039	18.7	19.0
1 2	8 37.61	+15 7.0	1.408	2.326	11.2	18.1	1 2	8 49.50	+15 15.3	1.124	2.036	13.9	18.7
1 12	8 30.02	+16 39.8	1.379	2.343	6.2	17.8	1 12	8 36.86	+13 57.9	1.074	2.033	8.4	18.4
1 22	8 20.94	+18 20.4	1.376	2.360	1.0	17.5	1 22	8 21.88	+12 44.9	1.050	2.030	3.6	18.1
2 1	8 11.66	+19 59.6	1.402	2.377	4.4	17.8	2 1	8 6.53	+11 38.3	1.054	2.026	6.3	18.2
2 11	8 3.60	+21 29.2	1.455	2.395	9.2	18.1	2 11	7 52.97	+10 40.1	1.085	2.022	12.0	18.5
2 21	7 57.79	+22 44.0	1.534	2.414	13.5	18.4	2 21	7 42.78	+ 9 51.3	1.139	2.017	17.2	18.8
3 2	7 54.91	+23 42.0	1.633	2.432	16.9	18.7	3 2	7 36.77	+ 9 11.0	1.213	2.013	21.6	19.1
<b>281755</b>	2009 <i>BV</i> <sub>49</sub>		1 23.5 92°37	1°0/24.3	18		<b>435343</b>	2007 <i>VB</i> <sub>121</sub>		1 23.5 151°35	4°3/20.6	18	
12 23	8 41.89	+12 19.4	2.450	3.271	11.0	20.4	12 23	8 45.00	+32 43.1	2.498	3.338	10.2	21.6
1 2	8 36.19	+13 22.7	2.389	3.292	8.0	20.2	1 2	8 38.62	+33 29.7	2.434	3.342	7.6	21.4
1 12	8 28.95	+14 36.3	2.354	3.312	4.6	20.1	1 12	8 30.37	+34 11.3	2.396	3.345	5.2	21.3
1 22	8 20.79	+15 55.9	2.350	3.333	1.3	19.8	1 22	8 21.02	+34 42.9	2.388	3.348	4.3	21.2
2 1	8 12.51	+17 16.6	2.378	3.353	3.0	20.0	2 1	8 11.50	+35 0.8	2.409	3.351	5.8	21.3
2 11	8 4.94	+18 33.5	2.437	3.372	6.3	20.3	2 11	8 2.84	+35 3.5	2.459	3.354	8.3	21.5
2 21	7 58.75	+19 43.0	2.525	3.392	9.3	20.5	2 21	7 55.85	+34 51.9	2.535	3.357	10.8	21.6
3 2	7 54.46	+20 43.0	2.637	3.411	11.9	20.7	3 2	7 51.10	+34 28.2	2.632	3.360	13.0	21.8
<b>146526</b>	2001 <i>SX</i> <sub>156</sub>		1 23.5 56°18	2°2/24.4	18		<b>325476</b>	2009 <i>RY</i>		1 23.5 77°19	6°5/27.6	18	
12 23	8 44.65	+13 19.5	1.621	2.460	14.8	20							

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>367574</b>	2009 <i>SH</i> <sub>174</sub>		1 23.5 77°83	0°6/23.2	18		<b>499058</b>	2009 <i>DC</i> <sub>118</sub>		1 23.5 25°51	6°1/27.9	18	
12 23	8 46.25	+20 13.5	1.835	2.679	13.1	21.8	12 23	8 38.90	- 0 47.2	1.998	2.782	14.5	20.9
1 2	8 39.66	+20 31.0	1.780	2.697	9.3	21.6	1 2	8 34.40	- 0 35.5	1.927	2.788	11.7	20.8
1 12	8 30.97	+20 52.7	1.751	2.715	5.1	21.4	1 12	8 28.14	- 0 1.7	1.878	2.795	8.9	20.6
1 22	8 21.10	+21 14.4	1.750	2.734	0.8	21.1	1 22	8 20.80	+ 0 53.5	1.854	2.803	6.6	20.5
2 1	8 11.19	+21 32.3	1.778	2.752	4.0	21.4	2 1	8 13.26	+ 2 6.8	1.859	2.811	6.4	20.5
2 11	8 2.44	+21 43.9	1.835	2.770	8.1	21.7	2 11	8 6.47	+ 3 32.6	1.891	2.819	8.3	20.6
2 21	7 55.72	+21 48.3	1.918	2.788	11.7	22.0	2 21	8 1.22	+ 5 4.0	1.949	2.828	11.1	20.8
3 2	7 51.59	+21 45.5	2.023	2.805	14.7	22.2	3 2	7 58.09	+ 6 34.7	2.032	2.837	13.8	21.0
<b>167548</b>	2004 <i>AR</i> <sub>26</sub>		1 23.5 109°18	2°8/24.9	18		<b>279897</b>	2001 <i>QZ</i> <sub>165</sub>		1 23.5 109°68	2°2/22.4	17	
12 23	8 43.36	+10 41.0	2.328	3.143	11.7	19.9	12 23	8 50.31	+22 45.9	1.605	2.453	14.4	20.8
1 2	8 37.29	+10 22.2	2.257	3.152	8.8	19.8	1 2	8 42.89	+23 35.0	1.554	2.472	10.3	20.6
1 12	8 29.59	+10 12.7	2.212	3.161	5.6	19.6	1 12	8 32.90	+24 27.0	1.527	2.491	5.7	20.4
1 22	8 20.93	+10 11.7	2.196	3.170	3.1	19.4	1 22	8 21.42	+25 15.0	1.529	2.510	2.2	20.2
2 1	8 12.15	+10 17.6	2.209	3.178	3.9	19.5	2 1	8 9.87	+25 52.8	1.559	2.528	5.2	20.4
2 11	8 4.14	+10 28.3	2.253	3.187	6.8	19.7	2 11	7 59.73	+26 17.1	1.618	2.545	9.5	20.7
2 21	7 57.62	+10 41.4	2.324	3.195	9.8	19.9	2 21	7 52.07	+26 27.5	1.701	2.561	13.4	21.0
3 2	7 53.09	+10 54.7	2.418	3.203	12.5	20.1	3 2	7 47.49	+26 25.9	1.805	2.577	16.6	21.2
<b>472368</b>	2015 <i>BZ</i> <sub>36</sub>		1 23.5 265°82	1°7/24.3	17		<b>431137</b>	2006 <i>QE</i> <sub>11</sub>		1 23.5 210°38	3°5/26.1	17	
12 23	8 43.92	+14 22.2	2.540	3.361	10.6	21.0	12 23	8 39.98	+ 5 29.0	2.623	3.418	11.1	21.7
1 2	8 37.77	+14 3.4	2.441	3.343	7.9	20.8	1 2	8 34.89	+ 5 45.1	2.536	3.415	8.6	21.5
1 12	8 29.93	+13 50.2	2.369	3.325	4.7	20.6	1 12	8 28.32	+ 6 14.7	2.474	3.410	5.9	21.3
1 22	8 20.99	+13 41.7	2.326	3.306	1.9	20.4	1 22	8 20.84	+ 6 56.5	2.440	3.406	3.8	21.2
2 1	8 11.76	+13 36.6	2.315	3.287	3.3	20.4	2 1	8 13.12	+ 7 47.8	2.437	3.401	4.0	21.2
2 11	8 3.10	+13 33.3	2.334	3.268	6.6	20.6	2 11	8 5.94	+ 8 45.2	2.464	3.396	6.4	21.3
2 21	7 55.79	+13 30.5	2.380	3.248	9.8	20.8	2 21	7 59.95	+ 9 44.6	2.519	3.391	9.1	21.5
3 2	7 50.40	+13 27.1	2.451	3.229	12.5	20.9	3 2	7 55.67	+10 42.5	2.599	3.386	11.7	21.6
<b>291493</b>	2006 <i>DH</i> <sub>120</sub>		1 23.5 285°00	1°9/24.5	18		<b>171798</b>	2001 <i>DW</i> <sub>24</sub>		1 23.5 302°22	0°1/23.5	18	
12 23	8 43.96	+12 6.4	1.488	2.330	15.7	20.5	12 23	8 43.42	+15 58.8	1.532	2.382	14.9	19.9
1 2	8 38.70	+12 41.7	1.412	2.324	11.6	20.2	1 2	8 38.35	+16 53.6	1.454	2.373	10.8	19.7
1 12	8 30.80	+13 34.2	1.358	2.318	6.9	19.9	1 12	8 30.65	+18 2.3	1.400	2.365	6.0	19.4
1 22	8 21.13	+14 39.7	1.330	2.312	2.4	19.6	1 22	8 21.17	+19 19.0	1.373	2.357	0.8	19.0
2 1	8 10.98	+15 51.6	1.331	2.306	4.5	19.7	2 1	8 11.18	+20 35.9	1.374	2.349	4.5	19.2
2 11	8 1.84	+17 2.6	1.358	2.300	9.5	20.0	2 11	8 2.15	+21 45.9	1.402	2.341	9.6	19.5
2 21	7 54.93	+18 7.0	1.410	2.294	14.1	20.3	2 21	7 55.32	+22 44.0	1.454	2.333	14.1	19.8
3 2	7 51.08	+19 0.8	1.482	2.289	18.0	20.5	3 2	7 51.53	+23 28.0	1.527	2.326	17.9	20.0
<b>213583</b>	2002 <i>NM</i> <sub>55</sub>		1 23.5 104°40	3°0/25.3	18		<b>343560</b>	2010 <i>FF</i> <sub>54</sub>		1 23.5 232°64	4°6/20.5	18	
12 23	8 45.54	+ 8 31.6	1.939	2.752	13.8	21.0	12 23	8 45.15	+33 11.3	2.399	3.240	10.5	20.8
1 2	8 39.03	+ 8 56.1	1.882	2.776	10.3	20.8	1 2	8 38.87	+33 57.9	2.329	3.237	7.9	20.6
1 12	8 30.59	+ 9 35.4	1.850	2.798	6.5	20.7	1 12	8 30.62	+34 39.3	2.286	3.234	5.5	20.5
1 22	8 21.07	+10 26.4	1.846	2.821	3.4	20.5	1 22	8 21.14	+35 10.2	2.271	3.230	4.6	20.4
2 1	8 11.48	+11 24.5	1.871	2.842	4.2	20.6	2 1	8 11.46	+35 26.5	2.286	3.227	6.1	20.5
2 11	8 2.88	+12 24.7	1.927	2.863	7.6	20.9	2 11	8 2.63	+35 26.7	2.329	3.224	8.7	20.7
2 21	7 56.09	+13 22.6	2.009	2.884	11.0	21.1	2 21	7 55.55	+35 11.7	2.397	3.220	11.3	20.8
3 2	7 51.67	+14 14.7	2.115	2.903	13.9	21.3	3 2	7 50.81	+34 44.0	2.487	3.216	13.6	21.0
<b>10711</b>	Pskov		1 23.5 116°28	5°4/20.5	18		<b>203756</b>	2002 <i>RP</i> <sub>135</sub>		1 23.5 53°09	4°6/20.7	18	
12 23	8 50.10	+35 6.4	2.215	3.050	11.5	17.9	12 23	8 44.80	+29 25.4	1.868	2.721	12.5	19.7
1 2	8 42.35	+35 56.8	2.165	3.068	8.7	17.7	1 2	8 38.85	+30 40.6	1.823	2.740	9.1	19.5
1 12	8 32.45	+36 39.0	2.142	3.085	6.3	17.6	1 12	8 30.65	+31 52.6	1.804	2.760	5.9	19.4
1 22	8 21.33	+37 7.0	2.148	3.101	5.4	17.6	1 22	8 21.15	+32 54.1	1.812	2.780	4.6	19.3
2 1	8 10.19	+37 16.8	2.183	3.117	6.9	17.7	2 1	8 11.55	+33 39.1	1.849	2.799	6.6	19.5
2 11	8 0.25	+37 7.9	2.246	3.133	9.4	17.9	2 11	8 3.11	+34 5.2	1.914	2.820	9.7	19.7
2 21	7 52.42	+36 42.5	2.334	3.148	11.9	18.1	2 21	7 56.77	+34 13.0	2.003	2.840	12.7	19.9
3 2	7 47.25	+36 4.5	2.444	3.163	14.1	18.2	3 2	7 53.13	+34 5.3	2.112	2.860	15.2	20.1
<b>286541</b>	2002 <i>CA</i> <sub>143</sub>		1 23.5 95°97	0°8/23.8	18		<b>228720</b>	2002 <i>TN</i> <sub>4</sub>		1 23.5 105°66	1°9/24.4	18	
12 23	8 49.42	+16 58.4	1.555	2.397	15.2	20.4	12 23	8 49.04	+12 57.1	1.512	2.347	15.9	21.0
1 2	8 42.19	+17 1.0	1.500	2.415	10.9	20.2	1 2	8 41.99	+13 20.9	1.459	2.368	11.6	20.8
1 12	8 32.46	+17 11.5	1.470	2.432	6.1	19.9	1 12	8 32.42	+13 58.2	1.429	2.388	6.8	20.6
1 22	8 21.33	+17 26.2	1.466	2.449	1.2	19.7	1 22	8 21.39	+14 44.6	1.426	2.407	2.2	20.3
2 1	8 10.18	+17 41.3	1.491	2.466	4.3	19.9	2 1	8 10.30	+15 34.4	1.451	2.426	4.4	20.5
2 11	8 0.40	+17 53.5	1.545	2.483	8.9	20.2	2 11	8 0.55	+16 22.1	1.505	2.444	9.0	20.8
2 21	7 53.03	+18 1.3	1.623	2.499	13.1	20.5	2 21	7 53.21	+17 3.9	1.583	2.461	13.2	21.1
3 2	7 48.66	+18 3.7	1.722	2.515	16.4	20.8	3 2	7 48.89	+17 37.5	1.683	2.478	16.7	21.4
<b>180546</b>	2004 <i>ED</i> <sub>17</sub>		1 23.5 14°94	8°5/19.6	18		<b>354093</b>	2001 <i>XO</i> <sub>132</sub>		1 23.5 32°90	1°8/24.2	18	
12 23	8 45.31	+34 23.8	1.190	2.062	16.7	19.0	12 23	8 44.85	+14 46.5	1.076	1.941	18.7	20.4
1 2	8 40.38	+35 54.9	1.146	2.067	12.8	18.8	1 2	8 39.66	+14 53.9	1.030	1.954	13.6	20.1
1 12	8 31.92	+37 16.7	1.123	2.074	9.5	18.7	1 12	8 31.37	+15 16.4	1.005	1.969	7.8	19.8
1 22	8 21.29	+38 16.6	1.125	2.081	8.6	18.6	1 22	8 21.27	+15 49.3	1.003	1.985	2.2	19.5
2 1	8 10.44	+38 45.8	1.150	2.090	10.8	18.8	2 1	8 11.09	+16 26.2	1.025	2.002	5.2	19.8
2 11	8 1.45	+38 42.5	1.197	2.100	14.4	19.0	2 11	8 2.64	+17 1.1	1.072	2.020	10.7	20.2
2 21	7 55.74	+38 11.2	1.265	2.112	18.0	19.3	2 21	7 57.12	+17 29.6	1.141	2.038	15.7	20.5
3 2	7 53.99	+37 18.6	1.350	2.124	21.0	19.5	3 2	7 55.19	+17 49.5	1.229	2.058	19.7	20.8
<b>427399</b>	1997 <i>SY</i> <sub>7</sub>		1 23.5 38°09	4°1/21.6	18		<b>154593</b>	2003 <i>NK</i> <sub>4</sub>		1 23.5 208°79	0°7/24.0	18	
12 23	8 46.25	+29 49.2	1.826	2.678	12.8	21							



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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>242470</b>	2004 SZ <sub>45</sub>		1 23.5 111°11	0°7/23.1	18		<b>335965</b>	2007 TF <sub>162</sub>		1 23.5 154°27	0°4/23.8	17	
12 23	8 45.34	+20 28.4	2.106	2.946	11.8	21.1	12 23	8 42.09	+16 32.2	2.818	3.644	9.6	22.2
1 2	8 38.92	+20 50.8	2.043	2.958	8.4	20.9	1 2	8 36.27	+16 54.3	2.744	3.651	6.9	22.0
1 12	8 30.59	+21 16.9	2.007	2.971	4.6	20.7	1 12	8 29.05	+17 21.7	2.698	3.659	3.8	21.8
1 22	8 21.16	+21 42.9	2.000	2.983	0.8	20.4	1 22	8 20.99	+17 52.0	2.682	3.665	0.7	21.6
2 1	8 11.63	+22 5.1	2.022	2.995	3.7	20.7	2 1	8 12.80	+18 22.4	2.698	3.672	2.7	21.8
2 11	8 3.04	+22 20.9	2.075	3.007	7.4	20.9	2 11	8 5.21	+18 50.4	2.744	3.677	5.8	22.0
2 21	7 56.22	+22 29.4	2.153	3.018	10.8	21.1	2 21	7 58.85	+19 14.3	2.819	3.683	8.6	22.2
3 2	7 51.72	+22 30.5	2.255	3.029	13.6	21.4	3 2	7 54.20	+19 33.1	2.918	3.688	10.9	22.3
<b>498149</b>	2007 TB <sub>102</sub>		1 23.5 155°73	0°2/23.4	17		<b>306159</b>	2010 LS <sub>34</sub>		1 23.5 177°35	0°3/23.3	18	
12 23	8 42.16	+18 25.1	2.455	3.290	10.5	22.1	12 23	8 46.06	+17 21.0	1.799	2.640	13.5	21.2
1 2	8 36.52	+18 52.3	2.381	3.293	7.5	21.9	1 2	8 39.86	+18 10.6	1.726	2.641	9.7	20.9
1 12	8 29.25	+19 24.7	2.333	3.296	4.1	21.7	1 12	8 31.33	+19 9.6	1.679	2.642	5.3	20.7
1 22	8 20.99	+19 59.1	2.316	3.299	0.5	21.4	1 22	8 21.31	+20 12.6	1.659	2.643	0.7	20.3
2 1	8 12.55	+20 32.0	2.328	3.302	3.1	21.6	2 1	8 10.95	+21 13.5	1.670	2.643	4.1	20.6
2 11	8 4.81	+21 0.6	2.371	3.305	6.6	21.9	2 11	8 1.54	+22 7.0	1.709	2.643	8.6	20.9
2 21	7 58.47	+21 23.1	2.442	3.307	9.7	22.1	2 21	7 54.12	+22 49.9	1.774	2.642	12.5	21.1
3 2	7 54.09	+21 38.7	2.536	3.309	12.3	22.3	3 2	7 49.41	+23 21.2	1.861	2.641	15.8	21.3
<b>209210</b>	2003 UB <sub>387</sub>		1 23.5 97°43	1°3/24.2	18		<b>327273</b>	2005 SP <sub>216</sub>		1 23.5 96°71	2°1/24.6	18	
12 23	8 45.20	+14 0.3	1.631	2.470	14.7	20.5	12 23	8 44.46	+12 18.8	1.904	2.732	13.4	21.5
1 2	8 39.26	+14 31.3	1.567	2.480	10.7	20.3	1 2	8 38.40	+12 27.6	1.841	2.745	9.8	21.3
1 12	8 30.97	+15 14.9	1.528	2.489	6.1	20.1	1 12	8 30.37	+12 47.8	1.802	2.758	5.9	21.1
1 22	8 21.24	+16 6.4	1.516	2.498	1.7	19.8	1 22	8 21.17	+13 16.5	1.792	2.771	2.4	20.8
2 1	8 11.29	+17 0.5	1.532	2.507	4.1	20.0	2 1	8 11.84	+13 50.2	1.810	2.784	3.9	21.0
2 11	8 2.44	+17 51.6	1.576	2.516	8.6	20.3	2 11	8 3.47	+14 25.2	1.858	2.796	7.7	21.2
2 21	7 55.71	+18 35.8	1.646	2.525	12.7	20.5	2 21	7 56.92	+14 58.0	1.931	2.808	11.3	21.5
3 2	7 51.77	+19 11.0	1.737	2.534	16.2	20.8	3 2	7 52.77	+15 26.3	2.028	2.820	14.3	21.7
<b>227564</b>	2005 YV <sub>192</sub>		1 23.5 68°24	0°3/23.3	18		<b>154754</b>	2004 PO <sub>9</sub>		1 23.5 200°79	2°4/25.1	18	
12 23	8 43.81	+18 39.5	1.877	2.721	12.8	20.7	12 23	8 42.77	+ 9 36.0	2.326	3.139	11.8	21.0
1 2	8 38.07	+19 8.4	1.811	2.728	9.2	20.5	1 2	8 37.08	+10 4.5	2.241	3.135	8.8	20.8
1 12	8 30.24	+19 43.8	1.771	2.735	5.0	20.2	1 12	8 29.65	+10 45.7	2.181	3.131	5.6	20.6
1 22	8 21.14	+20 21.4	1.758	2.742	0.7	19.9	1 22	8 21.09	+11 37.2	2.150	3.127	2.7	20.4
2 1	8 11.86	+20 56.7	1.775	2.749	3.8	20.2	2 1	8 12.25	+12 35.3	2.150	3.122	3.6	20.5
2 11	8 3.54	+21 26.0	1.820	2.756	8.0	20.5	2 11	8 4.04	+13 35.6	2.180	3.116	6.9	20.7
2 21	7 57.10	+21 47.3	1.891	2.763	11.7	20.7	2 21	7 57.24	+14 34.1	2.238	3.110	10.1	20.9
3 2	7 53.16	+22 0.1	1.984	2.770	14.8	20.9	3 2	7 52.45	+15 27.7	2.320	3.103	13.0	21.0
<b>959</b>	Arne		1 23.5 64°30	1°9/22.3	18		<b>255774</b>	2006 RZ <sub>75</sub>		1 23.5 14°79	3°8/25.3	18	
12 23	8 43.95	+23 37.0	2.104	2.950	11.5	15.5	12 23	8 39.96	+ 9 46.9	1.146	2.002	18.4	20.0
1 2	8 37.91	+24 16.9	2.054	2.972	8.2	15.3	1 2	8 36.12	+ 9 55.3	1.092	2.008	13.8	19.7
1 12	8 30.02	+24 58.1	2.030	2.994	4.6	15.1	1 12	8 29.47	+10 25.4	1.058	2.016	8.7	19.4
1 22	8 21.10	+25 35.8	2.035	3.016	1.9	15.0	1 22	8 21.07	+11 14.1	1.047	2.025	4.3	19.2
2 1	8 12.14	+26 5.9	2.070	3.038	4.3	15.2	2 1	8 12.45	+12 15.0	1.061	2.036	5.5	19.3
2 11	8 4.18	+26 26.0	2.134	3.060	7.7	15.4	2 11	8 5.21	+13 19.9	1.099	2.048	10.3	19.6
2 21	7 57.99	+26 35.5	2.224	3.082	10.8	15.7	2 21	8 0.54	+14 21.7	1.159	2.062	15.0	19.9
3 2	7 54.09	+26 35.1	2.336	3.103	13.4	15.9	3 2	7 59.15	+15 14.8	1.239	2.076	19.0	20.2
<b>366064</b>	2012 CO <sub>33</sub>		1 23.5 44°67	1°1/23.9	18		<b>359242</b>	2009 FT		1 23.5 138°99	4°4/21.4	14 C	
12 23	8 45.12	+15 56.5	1.489	2.338	15.3	20.5	12 23	9 9.70	+26 30.5	1.707	2.523	15.2	22.9
1 2	8 39.33	+16 5.5	1.430	2.347	11.1	20.2	1 2	8 56.91	+28 18.8	1.654	2.555	11.0	22.7
1 12	8 31.04	+16 24.7	1.394	2.357	6.3	20.0	1 12	8 40.75	+30 4.8	1.631	2.584	6.7	22.5
1 22	8 21.25	+16 50.2	1.384	2.367	1.5	19.7	1 22	8 22.57	+31 36.0	1.640	2.610	4.4	22.4
2 1	8 11.31	+17 17.6	1.402	2.377	4.3	19.9	2 1	8 4.26	+32 42.8	1.683	2.633	7.0	22.7
2 11	8 2.62	+17 42.7	1.447	2.388	9.1	20.2	2 11	7 47.80	+33 22.2	1.758	2.653	11.0	22.9
2 21	7 56.24	+18 2.6	1.516	2.399	13.4	20.5	2 21	7 34.61	+33 37.4	1.860	2.670	14.6	23.2
3 2	7 52.82	+18 15.9	1.605	2.411	16.9	20.7	3 2	7 25.40	+33 34.3	1.983	2.684	17.5	23.4
<b>163741</b>	2003 LV <sub>3</sub>		1 23.5 270°33	0°3/23.6	18		<b>419038</b>	2009 RW <sub>8</sub>		1 23.5 58°80	3°9/25.6	18	
12 23	8 46.79	+17 42.9	1.543	2.391	14.9	20.5	12 23	8 42.75	+ 7 47.6	1.782	2.602	14.5	21.2
1 2	8 40.79	+17 56.2	1.461	2.378	10.9	20.2	1 2	8 37.32	+ 7 47.2	1.716	2.611	11.0	21.0
1 12	8 32.03	+18 18.3	1.402	2.366	6.1	19.9	1 12	8 29.84	+ 8 2.7	1.674	2.620	7.3	20.8
1 22	8 21.42	+18 45.1	1.370	2.353	0.9	19.5	1 22	8 21.12	+ 8 32.6	1.658	2.629	4.3	20.7
2 1	8 10.28	+19 11.6	1.366	2.341	4.5	19.7	2 1	8 12.21	+ 9 13.6	1.670	2.639	4.9	20.7
2 11	8 0.17	+19 33.7	1.389	2.328	9.7	20.0	2 11	8 4.26	+10 1.0	1.710	2.649	8.2	21.0
2 21	7 52.36	+19 48.9	1.436	2.315	14.3	20.2	2 21	7 58.15	+10 49.9	1.776	2.658	11.8	21.2
3 2	7 47.71	+19 56.1	1.504	2.302	18.2	20.4	3 2	7 54.48	+11 36.3	1.865	2.668	14.9	21.4
<b>152378</b>	2005 UK <sub>184</sub>		1 23.5 152°71	2°8/21.9	18		<b>223656</b>	2004 PZ <sub>17</sub>		1 23.5 125°60	0°8/23.0	18	
12 23	8 45.92	+25 36.9	2.035	2.881	11.9	20.2	12 23	8 44.24	+19 20.9	2.116	2.956	11.8	20.2
1 2	8 39.56	+26 23.6	1.968	2.885	8.5	20.0	1 2	8 38.21	+20 5.6	2.051	2.966	8.4	20.0
1 12	8 31.07	+27 10.9	1.927	2.889	5.0	19.7	1 12	8 30.28	+20 55.9	2.011	2.975	4.6	19.8
1 22	8 21.26	+27 53.1	1.915	2.892	2.8	19.6	1 22	8 21.18	+21 47.1	2.001	2.985	0.9	19.5
2 1	8 11.24	+28 25.2	1.933	2.896	5.0	19.8	2 1	8 11.90	+22 34.6	2.022	2.994	3.7	19.8
2 11	8 2.16	+28 44.6	1.979	2.899	8.6	20.0	2 11	8 3.49	+23 14.6	2.071	3.002	7.5	20.0
2 21	7 54.99	+28 50.9	2.051	2.901	11.9	20.2	2 21	7 56.77	+23 45.1	2.148	3.011	10.9	20.2
3 2	7 50.36	+28 45.3	2.145	2.904	14.7	20.4	3 2	7 52.35	+24 5.7	2.247	3.019	13.7	20.4
<b>379219</b>	2009 SG <sub>184</sub>		1 23.5 230°75	5°2/20.6	18		<b>369071</b>	2008 FU <sub>3</sub>		1 23.5 237°16	1°1/24.1	16	
12 23	8 49.22	+33 57.3	2.169	3.007	11.6	21.2	12 23	8 44.39	+14 36.1	2.148	2.976	12.0	22.2
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1 23.5

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>465787</b>	2010 <i>AL</i> <sub>100</sub>		1 23.5 294°60	3°7/26.2	17		<b>226704</b>	2004 <i>NL</i> <sub>17</sub>		1 23.5 180°27	1°8/24.8	18	
12 23	8 39.93	+ 5 15.4	2.250	3.052	12.5	21.0	12 23	8 42.79	+10 47.1	2.178	2.998	12.2	20.5
1 2	8 35.09	+ 5 41.6	2.166	3.049	9.6	20.8	1 2	8 37.20	+11 31.9	2.098	2.998	9.1	20.3
1 12	8 28.57	+ 6 24.3	2.106	3.045	6.6	20.6	1 12	8 29.77	+12 30.1	2.044	2.999	5.5	20.1
1 22	8 20.97	+ 7 21.6	2.074	3.042	4.1	20.5	1 22	8 21.17	+13 38.0	2.019	2.999	2.1	19.9
2 1	8 13.10	+ 8 30.0	2.072	3.039	4.3	20.5	2 1	8 12.28	+14 50.9	2.025	2.999	3.5	20.0
2 11	8 5.85	+ 9 44.5	2.099	3.035	7.1	20.6	2 11	8 4.09	+16 3.5	2.061	2.998	7.1	20.2
2 21	7 59.99	+11 0.1	2.154	3.032	10.2	20.8	2 21	7 57.42	+17 11.3	2.124	2.997	10.5	20.4
3 2	7 56.09	+12 12.2	2.233	3.029	13.0	21.0	3 2	7 52.88	+18 11.3	2.211	2.996	13.5	20.6
<b>111176</b>	2001 <i>VU</i> <sub>122</sub>		1 23.5 302°10	6°1/19.5	18		<b>347460</b>	2012 <i>TA</i> <sub>301</sub>		1 23.5 99°98	0°5/23.3	17	
12 23	8 45.94	+31 40.7	1.755	2.609	13.1	18.8	12 23	8 48.83	+17 47.7	1.370	2.221	16.3	21.1
1 2	8 40.19	+33 20.0	1.689	2.604	9.8	18.6	1 2	8 42.22	+18 35.8	1.316	2.236	11.6	20.9
1 12	8 31.72	+34 56.8	1.649	2.600	7.0	18.4	1 12	8 32.76	+19 34.2	1.285	2.250	6.4	20.6
1 22	8 21.41	+36 21.3	1.637	2.595	6.2	18.3	1 22	8 21.58	+20 35.8	1.280	2.264	0.9	20.3
2 1	8 10.61	+37 25.2	1.652	2.591	8.3	18.4	2 1	8 10.24	+21 32.9	1.304	2.278	4.9	20.6
2 11	8 0.87	+38 4.3	1.694	2.587	11.5	18.6	2 11	8 0.34	+22 19.8	1.354	2.291	10.0	20.9
2 21	7 53.43	+38 19.1	1.759	2.583	14.7	18.8	2 21	7 53.10	+22 53.8	1.428	2.304	14.5	21.2
3 2	7 49.14	+38 12.9	1.843	2.579	17.5	19.0	3 2	7 49.20	+23 14.6	1.522	2.317	18.1	21.5
<b>517138</b>	2013 <i>JY</i> <sub>28</sub>		1 23.5 167°90	14°5/31.1	18		<b>134153</b>	2005 <i>AF</i> <sub>61</sub>		1 23.5 174°49	1°1/22.7	18	
12 23	8 48.20	-12 48.7	1.325	2.060	22.8	21.7	12 23	8 42.79	+20 43.3	2.583	3.419	10.0	20.4
1 2	8 41.97	-13 45.8	1.259	2.064	20.2	21.5	1 2	8 37.01	+21 31.3	2.508	3.422	7.1	20.2
1 12	8 32.75	-14 3.2	1.209	2.068	17.4	21.3	1 12	8 29.59	+22 23.3	2.460	3.423	3.9	20.0
1 22	8 21.55	-13 34.4	1.178	2.071	15.2	21.2	1 22	8 21.16	+23 15.4	2.442	3.425	1.1	19.8
2 1	8 9.86	-12 18.4	1.169	2.073	14.5	21.1	2 1	8 12.51	+24 3.4	2.456	3.426	3.4	20.0
2 11	7 59.38	-10 22.3	1.183	2.074	15.5	21.2	2 11	8 4.50	+24 44.1	2.500	3.426	6.7	20.2
2 21	7 51.47	- 7 59.3	1.219	2.075	17.9	21.3	2 21	7 57.85	+25 15.8	2.571	3.426	9.6	20.4
3 2	7 47.00	- 5 24.4	1.275	2.075	20.7	21.5	3 2	7 53.12	+25 38.0	2.667	3.426	12.1	20.5
<b>334923</b>	2003 <i>YY</i> <sub>132</sub>		1 23.5 49°91	2°0/22.6	18		<b>161004</b>	2002 <i>DV</i> <sub>3</sub>		1 23.5 223°04	12°2/15.2	18	
12 23	8 45.93	+25 10.5	2.028	2.874	11.9	20.0	12 23	8 54.19	+35 37.4	1.115	1.979	18.2	19.1
1 2	8 39.47	+25 20.0	1.963	2.880	8.5	19.8	1 2	8 48.16	+39 26.2	1.065	1.976	14.6	18.8
1 12	8 30.96	+25 28.9	1.924	2.887	4.8	19.6	1 12	8 37.19	+43 11.2	1.039	1.972	12.4	18.7
1 22	8 21.28	+25 33.2	1.913	2.894	2.0	19.5	1 22	8 22.31	+46 26.6	1.038	1.968	12.9	18.7
2 1	8 11.50	+25 30.0	1.933	2.901	4.4	19.6	2 1	8 5.84	+48 50.9	1.063	1.964	15.9	18.9
2 11	8 2.77	+25 18.0	1.981	2.908	8.0	19.9	2 11	7 51.01	+50 16.6	1.109	1.959	19.6	19.1
2 21	7 55.94	+24 57.5	2.055	2.916	11.4	20.1	2 21	7 40.45	+50 49.7	1.172	1.954	23.1	19.3
3 2	7 51.59	+24 30.1	2.151	2.923	14.2	20.3	3 2	7 35.64	+50 42.6	1.248	1.949	26.0	19.5
<b>217247</b>	2003 <i>QF</i>		1 23.5 93°48	1°1/24.2	18		<b>374590</b>	2006 <i>DX</i> <sub>76</sub>		1 23.5 129°00	0°1/23.6	18	
12 23	8 44.13	+14 34.7	2.187	3.015	11.9	21.4	12 23	8 43.33	+17 23.7	2.160	2.996	11.7	21.3
1 2	8 37.93	+14 53.9	2.130	3.037	8.6	21.2	1 2	8 37.56	+17 52.4	2.089	3.002	8.4	21.1
1 12	8 30.02	+15 21.1	2.099	3.058	4.9	21.1	1 12	8 29.94	+18 27.9	2.045	3.008	4.6	20.8
1 22	8 21.15	+15 53.4	2.097	3.079	1.4	20.8	1 22	8 21.21	+19 6.5	2.030	3.013	0.7	20.6
2 1	8 12.23	+16 27.3	2.125	3.100	3.3	21.0	2 1	8 12.29	+19 44.2	2.044	3.019	3.4	20.8
2 11	8 4.19	+16 59.6	2.183	3.120	6.8	21.3	2 11	8 4.18	+20 17.7	2.089	3.024	7.2	21.0
2 21	7 57.78	+17 27.8	2.269	3.140	10.1	21.5	2 21	7 57.68	+20 44.6	2.159	3.029	10.6	21.2
3 2	7 53.50	+17 50.6	2.377	3.159	12.8	21.7	3 2	7 53.38	+21 4.1	2.254	3.034	13.4	21.5
<b>238534</b>	2004 <i>TH</i> <sub>332</sub>		1 23.5 157°87	1°2/22.9	18		<b>26784</b>	2103 <i>T-3</i>		1 23.5 55°57	4°2/25.8	18	
12 23	8 48.88	+21 10.9	1.983	2.821	12.5	21.7	12 23	8 42.17	+ 6 53.9	2.077	2.886	13.1	18.5
1 2	8 41.65	+21 47.5	1.916	2.830	8.9	21.5	1 2	8 36.74	+ 6 37.7	2.003	2.889	10.1	18.3
1 12	8 32.22	+22 28.0	1.874	2.838	4.9	21.2	1 12	8 29.50	+ 6 35.4	1.953	2.893	6.9	18.1
1 22	8 21.46	+23 7.3	1.862	2.845	1.3	21.0	1 22	8 21.16	+ 6 46.4	1.930	2.897	4.5	17.9
2 1	8 10.50	+23 40.8	1.880	2.851	4.2	21.2	2 1	8 12.62	+ 7 8.7	1.937	2.901	4.9	18.0
2 11	8 0.55	+24 5.1	1.928	2.856	8.2	21.5	2 11	8 4.85	+ 7 39.3	1.971	2.905	7.7	18.1
2 21	7 52.58	+24 19.4	2.002	2.861	11.8	21.7	2 21	7 58.66	+ 8 14.1	2.032	2.909	10.8	18.3
3 2	7 47.21	+24 23.9	2.099	2.865	14.8	21.9	3 2	7 54.62	+ 8 49.8	2.117	2.913	13.7	18.5
<b>416901</b>	2005 <i>QB</i> <sub>172</sub>		1 23.5 93°72	2°1/24.8	18		<b>330808</b>	2008 <i>UU</i> <sub>370</sub>		1 23.5 336°88	3°5/24.6	18	
12 23	8 46.04	+11 35.7	2.062	2.881	12.8	22.1	12 23	8 45.96	+12 35.0	1.381	2.225	16.6	19.7
1 2	8 39.29	+11 49.9	2.010	2.909	9.4	22.0	1 2	8 40.27	+12 2.7	1.308	2.220	12.4	19.5
1 12	8 30.76	+12 14.9	1.984	2.937	5.7	21.8	1 12	8 31.78	+11 42.8	1.258	2.215	7.8	19.2
1 22	8 21.26	+12 47.8	1.986	2.964	2.4	21.6	1 22	8 21.48	+11 34.5	1.232	2.210	3.8	18.9
2 1	8 11.76	+13 25.1	2.019	2.991	3.7	21.8	2 1	8 10.80	+11 35.9	1.233	2.206	5.4	19.0
2 11	8 3.25	+14 3.1	2.081	3.017	7.1	22.0	2 11	8 1.30	+11 43.9	1.260	2.202	10.1	19.3
2 21	7 56.50	+14 38.7	2.171	3.043	10.4	22.3	2 21	7 54.24	+11 54.9	1.310	2.199	14.7	19.5
3 2	7 51.99	+15 9.7	2.284	3.067	13.2	22.5	3 2	7 50.41	+12 6.0	1.380	2.196	18.6	19.8
<b>143512</b>	2003 <i>ED</i> <sub>7</sub>		1 23.5 47°03	1°1/22.9	18		<b>66689</b>	1999 <i>TU</i> <sub>52</sub>		1 23.5 66°10	1°2/24.1	18	
12 23	8 44.09	+22 28.7	2.166	3.010	11.4	19.7	12 23	8 46.40	+14 41.9	1.436	2.282	15.9	18.8
1 2	8 38.04	+22 36.2	2.100	3.017	8.1	19.5	1 2	8 40.25	+15 7.5	1.386	2.301	11.5	18.6
1 12	8 30.15	+22 45.2	2.061	3.025	4.4	19.3	1 12	8 31.58	+15 45.3	1.358	2.320	6.6	18.4
1 22	8 21.20	+22 52.5	2.050	3.033	1.1	19.0	1 22	8 21.43	+16 30.6	1.357	2.339	1.6	18.1
2 1	8 12.15	+22 55.4	2.069	3.041	3.7	19.2	2 1	8 11.22	+17 17.4	1.383	2.359	4.3	18.4
2 11	8 4.01	+22 52.2	2.117	3.049	7.3	19.5	2 11	8 2.38	+18 0.5	1.436	2.378	9.2	18.7
2 21	7 57.57	+22 42.5	2.192	3.057	10.6	19.7	2 21	7 55.94	+18 36.2	1.514	2.397	13.4	19.0
3 2	7 53.39	+22 26.8	2.290	3.066	13.3	19.9	3 2	7 52.53	+19 2.8	1.613	2.416	16.9	19.3
<b>428433</b>	2007 <i>TV</i> <sub>233</sub>		1 23.5 112°65	4°1/26.2	18		<b>9968</b>	Serpe		1 23.5 194°91	7°3/27.4	18	
12 23	8 40.84	+ 5 19.5	2.382	3.180	12.0	21.							

EPHEMERIDES

1 23.5

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>120486</b>	1993 <i>FG</i> <sub>11</sub>		1 23.5 229°60	0°8/24.0	18		<b>237325</b>	2009 <i>BO</i> <sub>115</sub>		1 23.5 177°47	0°7/23.1	17	
12 23	8 43.02	+14 58.0	2.207	3.038	11.7	20.3	12 23	8 42.67	+20 39.4	2.534	3.371	10.1	21.2
1 2	8 37.41	+15 26.3	2.122	3.030	8.5	20.1	1 2	8 36.93	+21 4.0	2.458	3.372	7.2	21.0
1 12	8 29.93	+16 3.6	2.062	3.023	4.9	19.9	1 12	8 29.57	+21 31.8	2.409	3.372	4.0	20.8
1 22	8 21.23	+16 46.9	2.032	3.015	1.2	19.6	1 22	8 21.23	+21 59.7	2.390	3.373	0.8	20.6
2 1	8 12.22	+17 32.1	2.032	3.006	3.3	19.8	2 1	8 12.69	+22 24.6	2.401	3.373	3.2	20.8
2 11	8 3.87	+18 15.4	2.061	2.998	7.2	20.0	2 11	8 4.84	+22 44.0	2.442	3.373	6.6	21.0
2 21	7 57.06	+18 53.7	2.117	2.989	10.7	20.2	2 21	7 58.39	+22 56.7	2.511	3.373	9.6	21.2
3 2	7 52.40	+19 25.2	2.197	2.979	13.7	20.4	3 2	7 53.86	+23 2.3	2.604	3.372	12.1	21.3
<b>76498</b>	2000 <i>GC</i> <sub>17</sub>		1 23.5 340°75	5°3/20.6	18		<b>520890</b>	2014 <i>WG</i> <sub>525</sub>		1 23.5 150°82	0°9/24.1	18	
12 23	8 46.34	+33 23.8	1.995	2.842	12.1	18.9	12 23	8 43.86	+14 15.0	2.202	3.029	11.8	21.4
1 2	8 40.09	+34 11.9	1.928	2.839	9.1	18.7	1 2	8 37.93	+14 54.7	2.130	3.036	8.6	21.2
1 12	8 31.49	+34 53.8	1.887	2.837	6.4	18.5	1 12	8 30.18	+15 44.0	2.083	3.043	4.9	21.0
1 22	8 21.44	+35 23.1	1.874	2.834	5.4	18.5	1 22	8 21.31	+16 39.2	2.066	3.049	1.2	20.8
2 1	8 11.16	+35 35.0	1.889	2.832	7.0	18.6	2 1	8 12.23	+17 35.9	2.080	3.055	3.3	20.9
2 11	8 1.95	+35 28.0	1.931	2.831	10.0	18.7	2 11	8 3.90	+18 29.6	2.124	3.060	7.0	21.2
2 21	7 54.85	+35 3.7	1.997	2.829	12.9	18.9	2 21	7 57.14	+19 17.3	2.196	3.065	10.4	21.4
3 2	7 50.52	+34 25.4	2.084	2.828	15.5	19.1	3 2	7 52.54	+19 56.9	2.291	3.070	13.3	21.6
<b>308235</b>	2005 <i>EA</i> <sub>309</sub>		1 23.5 67°35	1°0/23.1	18		<b>323162</b>	2003 <i>FB</i> <sub>69</sub>		1 23.5 275°81	7°6/19.2	18	
12 23	8 49.33	+20 50.1	1.437	2.289	15.6	21.0	12 23	8 49.71	+38 24.9	1.881	2.721	13.0	20.8
1 2	8 42.31	+21 10.4	1.391	2.312	11.0	20.8	1 2	8 42.95	+39 36.2	1.811	2.709	10.3	20.6
1 12	8 32.67	+21 35.3	1.369	2.335	6.0	20.6	1 12	8 33.31	+40 37.9	1.765	2.698	8.2	20.5
1 22	8 21.58	+21 59.2	1.374	2.358	1.2	20.3	1 22	8 21.76	+41 21.1	1.746	2.686	7.7	20.4
2 1	8 10.56	+22 17.3	1.407	2.381	4.7	20.6	2 1	8 9.77	+41 39.2	1.754	2.673	9.3	20.5
2 11	8 1.10	+22 26.7	1.467	2.403	9.5	21.0	2 11	7 58.97	+41 30.6	1.787	2.661	12.0	20.6
2 21	7 54.24	+22 26.8	1.551	2.426	13.6	21.3	2 21	7 50.66	+40 58.0	1.843	2.649	14.9	20.8
3 2	7 50.54	+22 18.6	1.656	2.449	17.0	21.5	3 2	7 45.66	+40 6.8	1.919	2.637	17.5	20.9
<b>52808</b>	1998 <i>QE</i> <sub>86</sub>		1 23.5 93°77	9°2/29.5	18		<b>462052</b>	2007 <i>EN</i> <sub>21</sub>		1 23.5 300°89	0°8/23.9	17	
12 23	8 44.93	- 7 12.0	1.891	2.633	16.7	19.1	12 23	8 42.84	+15 22.8	1.726	2.570	13.8	21.5
1 2	8 38.70	- 7 43.7	1.836	2.656	14.1	18.9	1 2	8 37.80	+15 51.8	1.640	2.555	10.1	21.3
1 12	8 30.55	- 7 49.1	1.801	2.679	11.6	18.8	1 12	8 30.39	+16 32.5	1.578	2.540	5.8	21.0
1 22	8 21.31	- 7 26.7	1.790	2.702	9.7	18.8	1 22	8 21.37	+17 20.9	1.543	2.526	1.2	20.6
2 1	8 11.98	- 6 38.2	1.806	2.724	9.2	18.8	2 1	8 11.87	+18 12.0	1.536	2.511	4.0	20.8
2 11	8 3.63	- 5 28.8	1.848	2.746	10.4	18.9	2 11	8 3.18	+19 0.4	1.557	2.497	8.7	21.0
2 21	7 57.09	- 4 5.8	1.915	2.767	12.5	19.1	2 21	7 56.39	+19 42.2	1.603	2.483	13.0	21.3
3 2	7 52.91	- 2 37.0	2.005	2.788	14.8	19.3	3 2	7 52.32	+20 15.0	1.671	2.469	16.6	21.5
<b>79904</b>	1999 <i>BO</i> <sub>13</sub>		1 23.5 249°36	3°0/25.6	18 R		<b>163389</b>	2002 <i>QS</i> <sub>1</sub>		1 23.5 47°97	0°5/23.8	18	
12 23	8 40.42	+ 7 45.4	2.468	3.275	11.4	19.0	12 23	8 43.13	+15 58.6	1.762	2.605	13.6	19.6
1 2	8 35.38	+ 8 3.5	2.377	3.265	8.7	18.8	1 2	8 37.60	+16 30.4	1.711	2.626	9.7	19.4
1 12	8 28.75	+ 8 34.5	2.311	3.256	5.7	18.6	1 12	8 30.02	+17 11.2	1.685	2.648	5.4	19.2
1 22	8 21.08	+ 9 16.8	2.274	3.246	3.3	18.5	1 22	8 21.30	+17 56.7	1.687	2.670	1.0	18.9
2 1	8 13.13	+10 7.6	2.267	3.236	3.8	18.5	2 1	8 12.51	+18 41.8	1.717	2.692	3.7	19.2
2 11	8 5.72	+11 3.1	2.290	3.226	6.6	18.6	2 11	8 4.81	+19 22.4	1.776	2.715	7.9	19.5
2 21	7 59.58	+11 59.3	2.341	3.216	9.6	18.8	2 21	7 59.05	+19 55.7	1.860	2.738	11.6	19.7
3 2	7 55.28	+12 53.0	2.416	3.205	12.4	19.0	3 2	7 55.76	+20 20.2	1.966	2.761	14.6	20.0
<b>396136</b>	2013 <i>CJ</i> <sub>222</sub>		1 23.5 216°98	0°5/23.1	17		<b>120890</b>	1998 <i>SU</i>		1 23.5 165°59	1°1/22.9	18	
12 23	8 38.57	+20 54.6	3.613	4.445	7.5	22.1	12 23	8 43.91	+21 20.4	2.233	3.074	11.2	20.1
1 2	8 33.65	+21 13.9	3.528	4.440	5.3	21.9	1 2	8 38.00	+21 50.1	2.160	3.075	8.0	19.9
1 12	8 27.62	+21 35.3	3.472	4.435	2.9	21.7	1 12	8 30.24	+22 23.3	2.113	3.077	4.4	19.7
1 22	8 20.92	+21 56.8	3.446	4.429	0.6	21.5	1 22	8 21.34	+22 55.9	2.096	3.078	1.1	19.4
2 1	8 14.08	+22 16.3	3.452	4.424	2.4	21.7	2 1	8 12.22	+23 24.2	2.108	3.080	3.7	19.6
2 11	8 7.66	+22 32.1	3.489	4.418	4.9	21.9	2 11	8 3.91	+23 45.4	2.151	3.081	7.3	19.8
2 21	8 2.16	+22 43.4	3.554	4.412	7.1	22.0	2 21	7 57.21	+23 58.1	2.219	3.082	10.6	20.0
3 2	7 57.97	+22 49.6	3.645	4.405	9.1	22.1	3 2	7 52.71	+24 2.4	2.311	3.082	13.4	20.2
<b>245089</b>	2004 <i>PZ</i> <sub>8</sub>		1 23.5 136°65	2°7/22.3	18		<b>244729</b>	2003 <i>RQ</i> <sub>9</sub>		1 23.5 72°05	5°5/26.1	18	
12 23	8 51.28	+25 31.2	1.757	2.601	13.6	21.3	12 23	8 46.85	+ 5 43.6	1.508	2.324	16.9	20.1
1 2	8 43.58	+26 3.9	1.697	2.613	9.7	21.1	1 2	8 40.40	+ 5 24.1	1.458	2.347	13.0	19.9
1 12	8 33.37	+26 36.3	1.663	2.625	5.6	20.9	1 12	8 31.61	+ 5 24.4	1.430	2.370	9.0	19.8
1 22	8 21.69	+27 2.1	1.657	2.636	2.7	20.7	1 22	8 21.52	+ 5 43.6	1.427	2.393	5.8	19.6
2 1	8 9.91	+27 16.8	1.680	2.646	5.3	20.9	2 1	8 11.40	+ 6 18.4	1.452	2.416	6.2	19.7
2 11	7 59.42	+27 18.2	1.732	2.655	9.3	21.1	2 11	8 2.58	+ 7 3.3	1.504	2.439	9.4	19.9
2 21	7 51.29	+27 7.2	1.809	2.664	13.0	21.4	2 21	7 56.01	+ 7 52.6	1.580	2.462	13.0	20.2
3 2	7 46.16	+26 45.9	1.908	2.672	16.1	21.6	3 2	7 52.27	+ 8 40.9	1.678	2.484	16.2	20.5
<b>144259</b>	2004 <i>CY</i> <sub>92</sub>		1 23.5 204°58	1°8/22.6	18		<b>6814</b>	Steffl		1 23.5 183°54	1°0/24.1	18	
12 23	8 46.33	+22 24.2	1.903	2.749	12.6	20.4	12 23	8 43.31	+15 5.8	2.098	2.930	12.1	17.7
1 2	8 40.06	+23 4.5	1.828	2.746	9.0	20.2	1 2	8 37.64	+15 22.1	2.021	2.930	8.8	17.5
1 12	8 31.49	+23 48.6	1.779	2.743	5.0	20.0	1 12	8 30.07	+15 46.9	1.970	2.930	5.1	17.2
1 22	8 21.47	+24 31.1	1.758	2.740	1.8	19.7	1 22	8 21.33	+16 17.4	1.948	2.930	1.4	17.0
2 1	8 11.12	+25 6.8	1.767	2.736	4.6	19.9	2 1	8 12.34	+16 50.0	1.955	2.930	3.4	17.1
2 11	8 1.71	+25 32.1	1.804	2.732	8.6	20.2	2 11	8 4.14	+17 21.2	1.992	2.929	7.3	17.4
2 21	7 54.26	+25 45.8	1.867	2.728	12.4	20.4	2 21	7 57.57	+17 48.5	2.055	2.929	10.8	17.6
3 2	7 49.47	+25 48.4	1.952	2.724	15.5	20.6	3 2	7 53.23	+18 10.2	2.141	2.928	13.8	17.8
<b>412519</b>	2014 <i>MN</i> <sub>20</sub>		1 23.5 86°50	2°6/24.9	18		<b>302462</b>	2002 <i>EL</i> <sub>125</sub>		1 23.5 55°83	2°1/24.6	18	
12 23	8 45.21	+10 30.8	1.621	2.451	15.2	20.5	12 23</						

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1 23.5

1 23.6

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>39223</b>	2000 <i>YP</i> <sub>20</sub>		1 23.5 138°57	1°3/22.9	18		<b>169498</b>	2002 <i>CC</i> <sub>216</sub>		1 23.6 284°88	1°2/23.0	18	
12 23	8 48.57	+21 21.6	1.891	2.731	12.9	20.3	12 23	8 46.03	+20 6.8	1.522	2.375	14.8	20.8
1 2	8 41.52	+21 57.5	1.828	2.743	9.2	20.1	1 2	8 40.45	+20 44.1	1.439	2.361	10.7	20.5
1 12	8 32.24	+22 37.2	1.791	2.755	5.1	19.9	1 12	8 32.04	+21 29.7	1.380	2.346	5.9	20.2
1 22	8 21.62	+23 15.5	1.783	2.765	1.4	19.7	1 22	8 21.68	+22 17.6	1.347	2.330	1.3	19.9
2 1	8 10.85	+23 47.5	1.804	2.775	4.3	19.9	2 1	8 10.72	+23 1.3	1.342	2.315	5.0	20.1
2 11	8 1.16	+24 10.2	1.855	2.785	8.4	20.1	2 11	8 0.75	+23 35.3	1.364	2.300	10.1	20.3
2 21	7 53.51	+24 22.5	1.932	2.794	12.0	20.4	2 21	7 53.11	+23 57.2	1.410	2.285	14.7	20.6
3 2	7 48.54	+24 25.1	2.031	2.802	15.0	20.6	3 2	7 48.69	+24 6.7	1.476	2.271	18.6	20.8
<b>163011</b>	2001 <i>TK</i> <sub>75</sub>		1 23.5 90°55	2°2/22.1	18		<b>127990</b>	2003 <i>HG</i> <sub>48</sub>		1 23.6 250°22	4°6/21.5	18	
12 23	8 44.02	+25 21.7	2.415	3.257	10.4	20.2	12 23	8 50.24	+28 52.1	1.600	2.452	14.2	20.1
1 2	8 37.90	+26 1.1	2.359	3.275	7.4	20.1	1 2	8 43.45	+29 39.9	1.525	2.443	10.5	19.8
1 12	8 30.09	+26 40.3	2.331	3.293	4.3	19.9	1 12	8 33.67	+30 25.9	1.473	2.432	6.6	19.6
1 22	8 21.33	+27 15.0	2.332	3.310	2.2	19.8	1 22	8 21.89	+31 2.0	1.449	2.422	4.6	19.4
2 1	8 12.49	+27 41.7	2.364	3.328	4.2	20.0	2 1	8 9.64	+31 21.4	1.453	2.411	7.0	19.5
2 11	8 4.50	+27 58.3	2.425	3.345	7.2	20.2	2 11	7 58.61	+31 21.2	1.483	2.400	11.1	19.7
2 21	7 58.09	+28 4.5	2.512	3.362	10.0	20.4	2 21	7 50.15	+31 2.8	1.537	2.389	15.1	20.0
3 2	7 53.77	+28 1.1	2.623	3.378	12.4	20.6	3 2	7 45.10	+30 29.6	1.611	2.377	18.5	20.2
<b>124941</b>	2001 <i>TR</i> <sub>79</sub>		1 23.5 140°21	0°3/23.4	18		<b>277205</b>	2005 <i>QH</i> <sub>92</sub>		1 23.6 172°63	2°3/22.5	18	
12 23	8 48.47	+17 52.0	1.792	2.630	13.6	20.5	12 23	8 51.40	+24 3.6	1.689	2.534	14.0	21.3
1 2	8 41.54	+18 32.9	1.728	2.642	9.8	20.2	1 2	8 43.90	+24 36.6	1.621	2.537	10.1	21.0
1 12	8 32.30	+19 21.5	1.690	2.653	5.4	20.0	1 12	8 33.73	+25 11.2	1.577	2.540	5.7	20.8
1 22	8 21.65	+20 12.7	1.680	2.664	0.7	19.7	1 22	8 21.90	+25 41.2	1.562	2.542	2.4	20.6
2 1	8 10.81	+21 0.9	1.701	2.674	4.0	20.0	2 1	8 9.80	+26 1.2	1.575	2.544	5.2	20.7
2 11	8 1.05	+21 41.6	1.750	2.684	8.4	20.2	2 11	7 58.93	+26 8.6	1.618	2.544	9.6	21.0
2 21	7 53.38	+22 12.5	1.825	2.692	12.3	20.5	2 21	7 50.46	+26 3.4	1.685	2.544	13.6	21.2
3 2	7 48.46	+22 33.3	1.923	2.700	15.5	20.7	3 2	7 45.11	+25 47.6	1.773	2.544	16.9	21.5
<b>270643</b>	2002 <i>PM</i> <sub>107</sub>		1 23.5 97°59	4°2/26.3	18		<b>131969</b>	2002 <i>CG</i> <sub>53</sub>		1 23.6 314°38	3°6/25.3	18	
12 23	8 41.60	+ 5 12.3	2.202	3.003	12.8	20.6	12 23	8 41.63	+ 9 15.4	1.304	2.148	17.3	18.9
1 2	8 36.27	+ 5 15.0	2.132	3.012	9.9	20.4	1 2	8 37.61	+ 9 36.9	1.215	2.125	13.2	18.6
1 12	8 29.26	+ 5 32.8	2.085	3.021	6.9	20.2	1 12	8 30.65	+10 21.6	1.146	2.103	8.5	18.3
1 22	8 21.24	+ 6 4.7	2.066	3.030	4.5	20.1	1 22	8 21.53	+11 27.5	1.102	2.080	4.1	18.0
2 1	8 13.05	+ 6 48.0	2.076	3.039	4.7	20.1	2 1	8 11.58	+12 48.7	1.084	2.059	5.4	18.0
2 11	8 5.60	+ 7 38.6	2.115	3.048	7.3	20.3	2 11	8 2.49	+14 16.6	1.091	2.038	10.7	18.2
2 21	7 59.62	+ 8 32.3	2.181	3.057	10.2	20.5	2 21	7 55.75	+15 42.3	1.121	2.018	15.9	18.4
3 2	7 55.65	+ 9 24.9	2.271	3.065	12.9	20.7	3 2	7 52.42	+16 59.0	1.170	1.998	20.5	18.7
<b>473832</b>	2016 <i>EB</i> <sub>124</sub>		1 23.5 338°74	6°5/27.1	18		<b>385522</b>	2004 <i>LH</i> <sub>3</sub>		1 23.6 289°19	0°9/24.2	16	
12 23	8 41.52	+ 1 25.7	1.766	2.563	15.6	21.1	12 23	8 40.98	+13 56.4	2.377	3.206	11.0	21.3
1 2	8 36.64	+ 1 12.5	1.688	2.560	12.5	20.9	1 2	8 36.03	+14 37.8	2.273	3.180	8.1	21.1
1 12	8 29.65	+ 1 20.8	1.632	2.557	9.4	20.7	1 12	8 29.29	+15 29.9	2.195	3.155	4.7	20.8
1 22	8 21.31	+ 1 51.0	1.601	2.554	6.9	20.6	1 22	8 21.31	+16 29.8	2.146	3.129	1.2	20.5
2 1	8 12.63	+ 2 41.0	1.597	2.552	6.9	20.6	2 1	8 12.87	+17 33.2	2.128	3.103	3.2	20.6
2 11	8 4.76	+ 3 45.6	1.620	2.550	9.3	20.7	2 11	8 4.90	+18 35.6	2.140	3.077	6.9	20.8
2 21	7 58.67	+ 4 58.4	1.668	2.548	12.6	20.9	2 21	7 58.23	+19 33.1	2.179	3.051	10.4	21.0
3 2	7 55.03	+ 6 12.8	1.738	2.546	15.7	21.1	3 2	7 53.54	+20 23.2	2.242	3.024	13.4	21.1
<b>456</b>	Abnoba		1 23.6 270°18	7°2/27.1	18		<b>405942</b>	2006 <i>RA</i> <sub>54</sub>		1 23.6 82°51	6°0/20.8	18	
12 23	8 42.64	- 1 9.6	2.156	2.926	14.0	13.9	12 23	8 52.02	+33 46.2	1.705	2.551	13.8	21.7
1 2	8 37.24	- 1 49.6	2.060	2.909	11.6	13.7	1 2	8 44.24	+34 45.0	1.665	2.574	10.4	21.5
1 12	8 29.94	- 2 11.7	1.987	2.892	9.2	13.5	1 12	8 33.79	+35 34.9	1.649	2.597	7.3	21.4
1 22	8 21.36	- 2 14.1	1.939	2.875	7.4	13.4	1 22	8 21.89	+36 8.1	1.660	2.619	6.1	21.4
2 1	8 12.35	- 1 56.5	1.919	2.857	7.4	13.3	2 1	8 10.06	+36 19.7	1.700	2.642	7.8	21.5
2 11	8 3.92	- 1 21.5	1.927	2.839	9.2	13.4	2 11	7 59.81	+36 9.2	1.766	2.664	10.8	21.7
2 21	7 56.93	- 0 33.5	1.960	2.821	11.9	13.5	2 21	7 52.20	+35 40.1	1.856	2.685	13.8	22.0
3 2	7 52.07	+ 0 22.2	2.016	2.803	14.6	13.7	3 2	7 47.79	+34 57.2	1.966	2.707	16.4	22.2
<b>82566</b>	2001 <i>OP</i> <sub>80</sub>		1 23.6 97°04	2°1/24.4	18		<b>35882</b>	1999 <i>JT</i> <sub>77</sub>		1 23.6 232°34	1°7/24.5	18	
12 23	8 48.50	+14 2.7	1.929	2.754	13.3	18.9	12 23	8 45.85	+12 45.5	1.865	2.693	13.6	19.9
1 2	8 41.22	+13 44.0	1.872	2.775	9.8	18.7	1 2	8 39.82	+13 10.3	1.777	2.682	10.1	19.6
1 12	8 31.96	+13 33.6	1.839	2.795	5.8	18.5	1 12	8 31.49	+13 47.9	1.713	2.670	6.0	19.4
1 22	8 21.60	+13 29.8	1.836	2.815	2.3	18.3	1 22	8 21.62	+14 35.2	1.677	2.658	2.1	19.1
2 1	8 11.24	+13 30.5	1.862	2.835	3.9	18.5	2 1	8 11.27	+15 27.5	1.671	2.645	4.0	19.2
2 11	8 1.99	+13 33.5	1.918	2.854	7.6	18.7	2 11	8 1.69	+16 19.9	1.693	2.632	8.3	19.4
2 21	7 54.68	+13 36.9	2.001	2.873	11.1	19.0	2 21	7 53.93	+17 8.2	1.743	2.618	12.4	19.6
3 2	7 49.83	+13 39.3	2.106	2.891	14.1	19.2	3 2	7 48.77	+17 49.5	1.814	2.603	15.9	19.8
<b>324730</b>	2007 <i>EZ</i> <sub>170</sub>		1 23.6 4°08	5°0/26.4	18		<b>195246</b>	2002 <i>ES</i> <sub>40</sub>		1 23.6 286°05	4°6/21.1	18	
12 23	8 41.85	+ 4 38.6	1.781	2.591	14.9	20.2	12 23	8 47.35	+30 43.5	1.963	2.810	12.2	19.8
1 2	8 36.85	+ 4 41.7	1.705	2.590	11.7	19.9	1 2	8 41.08	+31 28.3	1.875	2.789	9.1	19.6
1 12	8 29.75	+ 5 4.2	1.653	2.591	8.2	19.7	1 12	8 32.26	+32 10.1	1.812	2.767	6.0	19.4
1 22	8 21.33	+ 5 45.1	1.626	2.591	5.4	19.6	1 22	8 21.73	+32 42.3	1.776	2.744	4.6	19.2
2 1	8 12.60	+ 6 41.1	1.627	2.591	5.6	19.6	2 1	8 10.68	+32 59.3	1.770	2.722	6.6	19.3
2 11	8 4.71	+ 7 46.8	1.655	2.592	8.6	19.8	2 11	8 0.51	+32 58.3	1.791	2.700	10.0	19.5
2 21	7 58.61	+ 8 56.0	1.710	2.593	12.1	20.0	2 21	7 52.40	+32 40.1	1.836	2.677	13.5	19.6
3 2	7 54.95	+10 3.3	1.786	2.594	15.3	20.2	3 2	7 47.17	+32 7.5	1.903	2.655	16.5	19.8
<b>175956</b>	2000 <i>HC</i> <sub>59</sub>		1 23.6 268°41	2°2/22.4	17		<b>307814</b>	2003 <i>WK</i> <sub>193</sub>		1 23.6 96°26	4°0/21.9	18	
12 23	8 47.01	+23 59.1	1.935	2.780	12.4	20							

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>342920</b>	2008 YW <sub>157</sub>		1 23.6 124°00	1°0/24.3	18		<b>292355</b>	2006 SW <sub>225</sub>		1 23.6 192°18	4°3/26.4	18	
12 23	8 41.27	+13 52.9	2.429	3.255	10.9	20.6	12 23	8 40.63	+ 4 26.3	2.496	3.288	11.7	21.3
1 2	8 35.99	+14 27.6	2.355	3.261	7.9	20.4	1 2	8 35.50	+ 4 17.3	2.414	3.288	9.2	21.1
1 12	8 29.12	+15 11.1	2.308	3.267	4.6	20.2	1 12	8 28.86	+ 4 21.7	2.357	3.287	6.6	20.9
1 22	8 21.27	+16 0.4	2.290	3.272	1.3	20.0	1 22	8 21.29	+ 4 39.3	2.327	3.287	4.6	20.8
2 1	8 13.24	+16 51.8	2.303	3.278	3.0	20.1	2 1	8 13.50	+ 5 8.4	2.327	3.286	4.7	20.8
2 11	8 5.87	+17 41.5	2.346	3.283	6.4	20.3	2 11	8 6.31	+ 5 46.0	2.357	3.285	6.9	21.0
2 21	7 59.85	+18 26.5	2.417	3.288	9.5	20.5	2 21	8 0.38	+ 6 28.5	2.413	3.284	9.5	21.1
3 2	7 55.73	+19 4.8	2.512	3.293	12.2	20.7	3 2	7 56.24	+ 7 12.4	2.494	3.283	12.0	21.3
<b>335843</b>	2007 MN <sub>6</sub>		1 23.6 229°97	0°2/23.4	17		<b>190355</b>	1999 AR <sub>6</sub>		1 23.6 80°13	0°1/23.5	18	
12 23	8 46.38	+20 21.9	2.557	3.386	10.3	21.2	12 23	8 51.68	+19 45.1	1.373	2.222	16.3	19.8
1 2	8 39.64	+20 20.6	2.465	3.375	7.4	21.0	1 2	8 44.19	+19 40.6	1.321	2.240	11.7	19.6
1 12	8 31.15	+20 21.4	2.400	3.362	4.1	20.8	1 12	8 33.87	+19 41.2	1.292	2.257	6.5	19.3
1 22	8 21.56	+20 22.2	2.366	3.350	0.6	20.5	1 22	8 21.97	+19 42.9	1.290	2.274	0.9	19.0
2 1	8 11.71	+20 20.5	2.363	3.336	3.1	20.7	2 1	8 10.08	+19 42.0	1.316	2.291	4.7	19.3
2 11	8 2.52	+20 15.0	2.391	3.322	6.6	20.9	2 11	7 59.82	+19 36.2	1.368	2.307	9.8	19.6
2 21	7 54.77	+20 5.1	2.447	3.308	9.8	21.1	2 21	7 52.33	+19 25.2	1.445	2.324	14.2	19.9
3 2	7 49.06	+19 50.8	2.528	3.293	12.5	21.2	3 2	7 48.20	+19 9.3	1.542	2.340	17.8	20.2
<b>298828</b>	2004 RZ <sub>143</sub>		1 23.6 85°93	2°1/24.6	17		<b>267022</b>	1995 WX <sub>26</sub>		1 23.6 304°08	5°8/20.5	18	
12 23	8 47.07	+11 47.8	1.503	2.339	15.9	20.8	12 23	8 46.81	+32 15.8	1.754	2.607	13.2	19.9
1 2	8 40.70	+12 21.7	1.451	2.359	11.7	20.6	1 2	8 41.02	+33 15.0	1.670	2.584	10.0	19.6
1 12	8 31.89	+13 11.0	1.422	2.380	6.9	20.4	1 12	8 32.39	+34 10.7	1.610	2.562	7.0	19.4
1 22	8 21.66	+14 10.8	1.419	2.400	2.5	20.1	1 22	8 21.81	+34 54.5	1.577	2.540	5.8	19.3
2 1	8 11.32	+15 14.8	1.445	2.420	4.3	20.3	2 1	8 10.63	+35 19.4	1.571	2.518	7.9	19.3
2 11	8 2.27	+16 16.6	1.498	2.439	8.9	20.6	2 11	8 0.43	+35 22.2	1.592	2.496	11.4	19.5
2 21	7 55.53	+17 11.5	1.577	2.459	13.0	20.9	2 21	7 52.56	+35 3.9	1.636	2.475	14.9	19.7
3 2	7 51.72	+17 56.7	1.677	2.478	16.5	21.2	3 2	7 47.89	+34 28.0	1.699	2.454	18.1	19.8
<b>134438</b>	1998 RV <sub>72</sub>		1 23.6 50°51	2°2/22.7	18		<b>39184</b>	Willgrundy		1 23.6 53°65	2°0/24.7	18	
12 23	8 48.55	+22 50.8	1.337	2.197	16.0	19.2	12 23	8 43.17	+12 25.2	1.825	2.657	13.7	19.6
1 2	8 41.94	+23 25.1	1.298	2.222	11.4	19.0	1 2	8 37.75	+12 39.9	1.756	2.663	10.1	19.4
1 12	8 32.58	+24 2.0	1.282	2.248	6.3	18.8	1 12	8 30.26	+13 6.8	1.711	2.668	6.1	19.2
1 22	8 21.74	+24 34.7	1.292	2.274	2.2	18.6	1 22	8 21.49	+13 43.0	1.694	2.674	2.4	18.9
2 1	8 11.01	+24 57.6	1.330	2.301	5.4	18.9	2 1	8 12.50	+14 24.5	1.705	2.679	3.9	19.1
2 11	8 1.96	+25 7.8	1.393	2.328	10.1	19.2	2 11	8 4.42	+15 6.8	1.745	2.685	7.9	19.3
2 21	7 55.65	+25 5.6	1.480	2.355	14.2	19.5	2 21	7 58.17	+15 46.2	1.810	2.691	11.7	19.6
3 2	7 52.60	+24 52.8	1.587	2.382	17.5	19.8	3 2	7 54.37	+16 19.9	1.898	2.697	14.9	19.8
<b>31077</b>	1996 XZ <sub>2</sub>		1 23.6 325°97	3°1/21.3	18		<b>90862</b>	1996 KM <sub>1</sub>		1 23.6 299°69	18°3/30.8	18	
12 23	8 41.19	+24 13.7	1.927	2.783	12.0	17.8	12 23	8 42.61	-20 22.5	1.533	2.210	22.3	18.8
1 2	8 36.60	+25 35.4	1.845	2.767	8.7	17.5	1 2	8 38.15	-22 13.6	1.447	2.187	21.0	18.6
1 12	8 29.77	+27 2.5	1.789	2.752	5.1	17.3	1 12	8 30.92	-23 30.0	1.376	2.165	19.6	18.5
1 22	8 21.40	+28 27.8	1.761	2.738	3.1	17.1	1 22	8 21.64	-24 1.8	1.322	2.142	18.6	18.3
2 1	8 12.53	+29 43.9	1.762	2.724	5.6	17.3	2 1	8 11.48	-23 42.4	1.286	2.120	18.3	18.2
2 11	8 4.39	+30 45.3	1.792	2.711	9.4	17.5	2 11	8 2.00	-22 31.5	1.268	2.098	18.8	18.2
2 21	7 58.03	+31 29.3	1.846	2.698	12.9	17.6	2 21	7 54.59	-20 36.1	1.269	2.076	20.2	18.2
3 2	7 54.24	+31 56.0	1.921	2.685	16.0	17.8	3 2	7 50.33	-18 8.2	1.286	2.055	22.2	18.3
<b>266642</b>	2008 SE <sub>16</sub>		1 23.6 229°07	1°1/22.9	17		<b>135514</b>	2001 XV <sub>263</sub>		1 23.6 138°57	2°0/21.9	18	
12 23	8 46.02	+22 14.6	2.346	3.183	10.9	21.4	12 23	8 42.89	+24 28.8	2.952	3.788	8.9	20.2
1 2	8 39.56	+22 33.2	2.259	3.172	7.8	21.2	1 2	8 36.98	+25 27.7	2.888	3.801	6.3	20.1
1 12	8 31.19	+22 53.9	2.198	3.161	4.3	21.0	1 12	8 29.63	+26 27.6	2.852	3.813	3.6	19.9
1 22	8 21.59	+23 13.3	2.167	3.150	1.2	20.7	1 22	8 21.40	+27 24.2	2.847	3.824	2.0	19.8
2 1	8 11.68	+23 28.0	2.167	3.138	3.7	20.9	2 1	8 13.00	+28 14.0	2.874	3.835	3.7	20.0
2 11	8 2.50	+23 35.8	2.197	3.125	7.3	21.1	2 11	8 5.21	+28 54.2	2.931	3.846	6.3	20.1
2 21	7 54.89	+23 35.8	2.254	3.112	10.6	21.3	2 21	7 58.66	+29 23.8	3.017	3.856	8.8	20.3
3 2	7 49.50	+23 28.4	2.334	3.099	13.5	21.5	3 2	7 53.84	+29 43.0	3.126	3.866	10.9	20.5
<b>255784</b>	2006 RJ <sub>96</sub>		1 23.6 53°92	1°3/24.2	18		<b>293662</b>	2007 PW <sub>16</sub>		1 23.6 148°11	2°1/22.4	18	
12 23	8 45.74	+15 3.3	1.474	2.320	15.6	20.7	12 23	8 49.09	+23 39.0	2.047	2.886	12.1	21.6
1 2	8 39.81	+15 17.0	1.422	2.337	11.3	20.5	1 2	8 41.87	+24 26.1	1.983	2.897	8.7	21.4
1 12	8 31.41	+15 41.9	1.393	2.355	6.5	20.3	1 12	8 32.49	+25 15.0	1.946	2.908	4.9	21.2
1 22	8 21.61	+16 14.1	1.390	2.373	1.7	20.0	1 22	8 21.81	+26 0.1	1.938	2.918	2.2	21.0
2 1	8 11.73	+16 48.4	1.415	2.391	4.2	20.2	2 1	8 10.95	+26 36.4	1.961	2.928	4.6	21.2
2 11	8 3.15	+17 20.5	1.467	2.409	9.0	20.5	2 11	8 1.10	+27 1.0	2.014	2.936	8.3	21.4
2 21	7 56.91	+17 47.0	1.544	2.428	13.1	20.8	2 21	7 53.20	+27 13.3	2.093	2.944	11.6	21.7
3 2	7 53.60	+18 6.4	1.641	2.447	16.6	21.1	3 2	7 47.87	+27 14.4	2.194	2.951	14.4	21.9
<b>186893</b>	2004 JD <sub>46</sub>		1 23.6 140°30	2°9/21.9	18		<b>338251</b>	2002 TW <sub>187</sub>		1 23.6 128°78	1°8/24.4	17	
12 23	8 46.91	+25 43.3	1.924	2.771	12.4	20.8	12 23	8 50.23	+13 44.8	1.654	2.484	15.0	21.7
1 2	8 40.47	+26 30.7	1.859	2.777	8.9	20.6	1 2	8 42.87	+13 52.8	1.593	2.500	11.0	21.5
1 12	8 31.76	+27 18.5	1.820	2.782	5.2	20.4	1 12	8 33.09	+14 11.8	1.557	2.515	6.4	21.3
1 22	8 21.67	+28 0.8	1.809	2.787	2.9	20.2	1 22	8 21.90	+14 38.6	1.548	2.529	2.2	21.0
2 1	8 11.36	+28 32.4	1.828	2.791	5.2	20.4	2 1	8 10.58	+15 9.0	1.569	2.543	4.2	21.2
2 11	8 2.07	+28 50.4	1.875	2.796	8.9	20.6	2 11	8 0.49	+15 38.9	1.618	2.556	8.6	21.5
2 21	7 54.81	+28 54.6	1.947	2.800	12.3	20.8	2 21	7 52.66	+16 5.2	1.693	2.568	12.7	21.7
3 2	7 50.21	+28 46.7	2.041	2.804	15.2	21.0	3 2	7 47.70	+16 26.1	1.790	2.579	16.0	22.0
<b>39097</b>	2000 WX <sub>7</sub>		1 23.6 182°59	1°2/24.2	18		<b>235407</b>	2003 XX <sub>18</sub>		1 23.6 67°37	0°6/23.3	18	
12 23	8 46.02	+13 49.8	1.869	2.699	13.5	20.1	12 23	8 44.50	+19 14.8	1.962	2.805	12.4	20.3

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>264694</b>	2002 AS <sub>60</sub>		1 23.6	21°66	0°2/23.6	18	<b>405955</b>	2006 SR <sub>6</sub>		1 23.6	93°45	7°4/19.1	18
12 23	8 47.80	+20 25.4	1.451	2.305	15.3	19.9	12 23	8 50.23	+35 28.1	1.713	2.560	13.7	20.6
1 2	8 41.41	+19 58.8	1.391	2.312	11.1	19.6	1 2	8 43.34	+37 12.1	1.669	2.574	10.6	20.4
1 12	8 32.37	+19 35.4	1.354	2.319	6.1	19.4	1 12	8 33.58	+38 47.3	1.649	2.589	8.1	20.3
1 22	8 21.81	+19 12.8	1.344	2.327	0.9	19.0	1 22	8 22.03	+40 3.4	1.657	2.603	7.5	20.3
2 1	8 11.16	+18 48.9	1.361	2.336	4.4	19.3	2 1	8 10.24	+40 53.0	1.692	2.617	9.3	20.4
2 11	8 1.91	+18 22.8	1.405	2.346	9.4	19.6	2 11	7 59.84	+41 14.1	1.753	2.630	12.1	20.6
2 21	7 55.17	+17 54.5	1.473	2.357	13.7	19.9	2 21	7 52.06	+41 9.7	1.837	2.644	14.9	20.9
3 2	7 51.55	+17 24.4	1.562	2.368	17.3	20.2	3 2	7 47.64	+40 45.0	1.939	2.657	17.3	21.1
<b>519567</b>	2012 SY <sub>69</sub>		1 23.6	42°35	2°3/25.2	18	<b>239651</b>	2008 WK <sub>76</sub>		1 23.6	286°03	2°8/24.8	18
12 23	8 40.71	+10 6.7	2.093	2.916	12.5	21.1	12 23	8 45.30	+11 45.4	1.466	2.305	16.0	20.7
1 2	8 35.80	+10 36.1	2.022	2.922	9.3	20.9	1 2	8 39.93	+11 49.3	1.383	2.293	12.1	20.4
1 12	8 29.12	+11 18.7	1.976	2.929	5.8	20.7	1 12	8 31.81	+12 8.7	1.324	2.281	7.5	20.1
1 22	8 21.36	+12 11.7	1.958	2.936	2.7	20.5	1 22	8 21.81	+12 41.5	1.290	2.269	3.2	19.9
2 1	8 13.40	+13 10.9	1.969	2.943	3.6	20.6	2 1	8 11.26	+13 23.3	1.283	2.257	4.9	19.9
2 11	8 6.18	+14 11.6	2.010	2.950	7.1	20.8	2 11	8 1.67	+14 8.6	1.302	2.245	9.8	20.2
2 21	8 0.49	+15 9.5	2.077	2.957	10.4	21.0	2 21	7 54.35	+14 52.3	1.346	2.233	14.4	20.4
3 2	7 56.90	+16 1.5	2.168	2.965	13.4	21.2	3 2	7 50.15	+15 30.6	1.410	2.222	18.5	20.6
<b>46529</b>	1981 ED <sub>9</sub>		1 23.6	34°10	3°1/24.6	18	<b>413119</b>	2001 WL <sub>43</sub>		1 23.6	143°86	4°5/20.9	18
12 23	8 47.15	+13 12.8	1.142	1.997	18.6	18.3	12 23	8 47.57	+30 0.7	2.007	2.852	12.0	21.2
1 2	8 41.45	+12 54.7	1.086	2.004	13.8	18.1	1 2	8 41.01	+31 7.2	1.945	2.859	8.9	21.0
1 12	8 32.61	+12 51.7	1.051	2.011	8.3	17.8	1 12	8 32.14	+32 10.8	1.910	2.864	5.8	20.9
1 22	8 21.86	+13 1.8	1.039	2.019	3.5	17.5	1 22	8 21.84	+33 4.6	1.903	2.870	4.5	20.8
2 1	8 10.88	+13 20.7	1.053	2.028	5.5	17.7	2 1	8 11.29	+33 42.7	1.926	2.875	6.4	20.9
2 11	8 1.47	+13 43.5	1.091	2.037	10.8	18.0	2 11	8 1.77	+34 2.7	1.976	2.880	9.5	21.1
2 21	7 54.95	+14 5.8	1.151	2.047	15.7	18.3	2 21	7 54.29	+34 5.1	2.051	2.884	12.6	21.3
3 2	7 52.04	+14 24.4	1.231	2.057	19.8	18.6	3 2	7 49.51	+33 52.5	2.147	2.888	15.2	21.5
<b>426154</b>	2012 HA <sub>54</sub>		1 23.6	256°80	2°6/22.1	17	<b>410730</b>	2009 BP <sub>186</sub>		1 23.6	270°27	0°7/23.2	17
12 23	8 45.19	+24 11.8	1.925	2.774	12.4	21.4	12 23	8 45.42	+17 41.5	1.699	2.544	13.9	21.2
1 2	8 39.39	+25 5.2	1.847	2.766	8.9	21.1	1 2	8 39.91	+18 38.6	1.608	2.525	10.1	20.9
1 12	8 31.30	+26 1.6	1.795	2.758	5.1	20.9	1 12	8 31.79	+19 47.5	1.542	2.506	5.6	20.6
1 22	8 21.69	+26 55.1	1.771	2.750	2.6	20.7	1 22	8 21.82	+21 2.6	1.503	2.487	0.9	20.2
2 1	8 11.68	+27 39.7	1.776	2.741	5.1	20.9	2 1	8 11.19	+22 16.4	1.494	2.467	4.5	20.4
2 11	8 2.54	+28 11.6	1.810	2.733	9.0	21.1	2 11	8 1.31	+23 22.3	1.513	2.448	9.4	20.7
2 21	7 55.31	+28 29.3	1.868	2.724	12.6	21.3	2 21	7 53.45	+24 15.8	1.557	2.427	13.8	20.9
3 2	7 50.72	+28 33.7	1.948	2.716	15.7	21.5	3 2	7 48.50	+24 55.4	1.622	2.407	17.6	21.1
<b>11506</b>	Toulouse-Lautrec		1 23.6	207°00	1°1/24.0	18	<b>501792</b>	2014 VO <sub>30</sub>		1 23.6	181°70	1°5/22.7	18
12 23	8 47.75	+16 22.4	1.829	2.664	13.5	18.7	12 23	8 46.10	+22 17.5	2.228	3.067	11.3	22.4
1 2	8 41.13	+16 20.8	1.750	2.661	9.9	18.5	1 2	8 39.69	+22 57.3	2.154	3.068	8.1	22.2
1 12	8 32.21	+16 26.6	1.696	2.657	5.7	18.2	1 12	8 31.32	+23 40.1	2.105	3.069	4.5	21.9
1 22	8 21.82	+16 37.0	1.670	2.653	1.4	17.9	1 22	8 21.72	+24 21.4	2.087	3.068	1.6	21.7
2 1	8 11.11	+16 49.1	1.674	2.649	3.9	18.1	2 1	8 11.87	+24 56.8	2.099	3.068	4.0	21.9
2 11	8 1.37	+16 59.9	1.706	2.644	8.3	18.3	2 11	8 2.81	+25 23.1	2.140	3.067	7.6	22.1
2 21	7 53.60	+17 7.4	1.765	2.639	12.3	18.6	2 21	7 55.43	+25 39.3	2.209	3.065	10.9	22.3
3 2	7 48.52	+17 10.8	1.845	2.634	15.7	18.8	3 2	7 50.35	+25 45.6	2.300	3.063	13.7	22.5
<b>155397</b>	1995 SA <sub>19</sub>		1 23.6	215°75	1°4/22.7	18	<b>246685</b>	2008 YO <sub>162</sub>		1 23.6	305°99	0°5/23.3	18
12 23	8 45.55	+22 37.7	2.325	3.163	10.9	21.4	12 23	8 41.51	+18 10.8	2.123	2.965	11.6	20.7
1 2	8 39.26	+23 7.8	2.242	3.156	7.8	21.2	1 2	8 36.55	+18 56.8	2.040	2.956	8.4	20.5
1 12	8 31.07	+23 40.4	2.186	3.149	4.4	21.0	1 12	8 29.65	+19 50.5	1.983	2.947	4.6	20.2
1 22	8 21.65	+24 11.4	2.159	3.141	1.5	20.8	1 22	8 21.50	+20 47.7	1.955	2.938	0.7	19.9
2 1	8 11.95	+24 37.0	2.164	3.133	3.9	20.9	2 1	8 13.01	+21 43.4	1.956	2.930	3.6	20.1
2 11	8 2.97	+24 54.6	2.198	3.124	7.4	21.1	2 11	8 5.19	+22 33.1	1.987	2.922	7.5	20.4
2 21	7 55.58	+25 3.0	2.259	3.115	10.7	21.3	2 21	7 58.94	+23 14.0	2.044	2.914	11.1	20.6
3 2	7 50.40	+25 2.6	2.342	3.106	13.5	21.5	3 2	7 54.91	+23 44.6	2.124	2.906	14.1	20.8
<b>496582</b>	2015 BZ <sub>35</sub>		1 23.6	76°18	2°9/25.1	18	<b>411341</b>	2010 UB <sub>60</sub>		1 23.6	93°64	3°2/21.9	18
12 23	8 43.29	+10 42.1	2.280	3.096	11.9	20.8	12 23	8 47.09	+25 52.5	1.796	2.646	13.0	21.1
1 2	8 37.45	+10 21.8	2.209	3.104	8.9	20.6	1 2	8 40.72	+26 43.4	1.738	2.657	9.4	20.9
1 12	8 29.96	+10 11.0	2.164	3.112	5.7	20.4	1 12	8 31.99	+27 34.6	1.705	2.667	5.5	20.7
1 22	8 21.49	+10 8.9	2.147	3.121	3.1	20.2	1 22	8 21.83	+28 19.5	1.700	2.677	3.2	20.6
2 1	8 12.89	+10 14.0	2.160	3.129	3.9	20.3	2 1	8 11.50	+28 52.7	1.724	2.687	5.5	20.8
2 11	8 5.05	+10 24.0	2.202	3.137	6.9	20.5	2 11	8 2.32	+29 11.1	1.775	2.697	9.3	21.0
2 21	7 58.71	+10 36.7	2.271	3.145	9.9	20.7	2 21	7 55.29	+29 14.9	1.852	2.706	12.8	21.3
3 2	7 54.37	+10 49.7	2.364	3.153	12.6	20.9	3 2	7 51.05	+29 5.8	1.949	2.716	15.7	21.5
<b>236713</b>	2007 FE <sub>15</sub>		1 23.6	315°65	3°0/22.6	18	<b>498343</b>	2007 VS <sub>256</sub>		1 23.6	101°33	1°3/24.5	18
12 23	8 48.94	+24 43.2	1.272	2.136	16.4	20.6	12 23	8 41.56	+13 30.2	2.347	3.174	11.2	21.6
1 2	8 42.95	+25 9.2	1.202	2.128	11.9	20.3	1 2	8 36.28	+13 54.7	2.275	3.180	8.2	21.4
1 12	8 33.61	+25 37.3	1.155	2.120	6.9	20.0	1 12	8 29.36	+14 28.2	2.229	3.187	4.8	21.2
1 22	8 22.05	+26 0.0	1.132	2.113	3.0	19.7	1 22	8 21.47	+15 8.0	2.212	3.194	1.6	21.0
2 1	8 10.01	+26 10.6	1.135	2.106	6.3	19.9	2 1	8 13.39	+15 50.7	2.225	3.200	3.1	21.1
2 11	7 59.42	+26 6.0	1.164	2.099	11.6	20.1	2 11	8 6.00	+16 32.7	2.268	3.206	6.5	21.3
2 21	7 51.78	+25 46.8	1.215	2.093	16.4	20.4	2 21	8 0.03	+17 11.1	2.338	3.213	9.7	21.5
3 2	7 47.96	+25 15.7	1.284	2.087	20.5	20.7	3 2	7 56.00	+17 44.0	2.433	3.219	12.4	21.7
<b>114785</b>	2003 MH <sub>6</sub>		1 23.6	88°69	0°9/24.1	18	<b>522624</b>	2016 FQ <sub>66</sub>		1 23.6	352°47	4°7/26.9	18
12 23	8 48.03	+14 43.1	1.627	2.463	14.9	19.4	12 23	8 40.35	+ 2 45.4	2.264	3.055	12.8	21.4
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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>245454</b>	2005 <i>LK</i> <sub>11</sub>		1 23.6 153°74	1°0/24.3	17		<b>459490</b>	2013 <i>CY</i> <sub>123</sub>		1 23.6 307°58	0°7/23.3	18	
12 23	8 41.91	+15 6.5	2.737	3.561	9.9	21.1	12 23	8 45.30	+18 58.9	1.376	2.235	15.8	21.4
1 2	8 36.33	+15 15.8	2.661	3.565	7.2	20.9	1 2	8 40.19	+19 33.4	1.298	2.221	11.4	21.1
1 12	8 29.34	+15 31.2	2.612	3.570	4.2	20.7	1 12	8 32.10	+20 18.1	1.242	2.208	6.4	20.8
1 22	8 21.48	+15 50.6	2.592	3.574	1.2	20.5	1 22	8 21.95	+21 7.2	1.211	2.195	1.0	20.4
2 1	8 13.48	+16 11.9	2.604	3.578	2.7	20.6	2 1	8 11.19	+21 53.5	1.207	2.182	5.1	20.6
2 11	8 6.09	+16 32.7	2.646	3.582	5.8	20.8	2 11	8 1.51	+22 31.3	1.229	2.170	10.5	20.9
2 21	7 59.93	+16 51.2	2.716	3.585	8.7	21.0	2 21	7 54.32	+22 57.2	1.274	2.158	15.4	21.1
3 2	7 55.49	+17 6.1	2.810	3.588	11.1	21.2	3 2	7 50.55	+23 10.5	1.339	2.146	19.5	21.4
<b>138604</b>	2000 <i>QO</i> <sub>177</sub>		1 23.6 203°01	0°5/23.9	17		<b>30236</b>	2000 <i>HF</i>		1 23.6 197°34	0°4/23.9	18	
12 23	8 41.82	+16 26.3	3.067	3.890	9.0	21.0	12 23	8 44.32	+14 46.9	2.094	2.924	12.2	18.9
1 2	8 36.21	+16 41.5	2.980	3.885	6.5	20.8	1 2	8 38.57	+15 43.1	2.013	2.922	8.9	18.6
1 12	8 29.26	+17 1.6	2.920	3.880	3.7	20.6	1 12	8 30.81	+16 50.3	1.958	2.919	5.0	18.4
1 22	8 21.48	+17 24.5	2.891	3.874	0.8	20.4	1 22	8 21.75	+18 4.1	1.933	2.916	0.9	18.1
2 1	8 13.50	+17 48.1	2.893	3.867	2.5	20.5	2 1	8 12.32	+19 18.6	1.938	2.913	3.5	18.3
2 11	8 6.02	+18 10.2	2.927	3.861	5.4	20.7	2 11	8 3.61	+20 28.4	1.974	2.909	7.5	18.5
2 21	7 59.63	+18 29.1	2.989	3.853	8.1	20.9	2 21	7 56.52	+21 29.7	2.036	2.905	11.1	18.8
3 2	7 54.80	+18 43.9	3.076	3.846	10.4	21.0	3 2	7 51.72	+22 20.3	2.122	2.900	14.2	19.0
<b>398349</b>	2011 <i>RS</i> <sub>13</sub>		1 23.6 115°40	1°1/24.1	18		<b>149322</b>	2002 <i>VM</i> <sub>21</sub>		1 23.6 106°17	0°3/23.5	17	
12 23	8 49.51	+15 24.9	1.780	2.611	14.0	21.6	12 23	8 51.78	+19 19.9	1.474	2.319	15.7	20.4
1 2	8 42.22	+15 35.7	1.722	2.630	10.2	21.4	1 2	8 44.24	+19 33.0	1.419	2.336	11.2	20.2
1 12	8 32.72	+15 55.3	1.689	2.649	5.8	21.2	1 12	8 33.99	+19 52.1	1.389	2.353	6.2	20.0
1 22	8 21.96	+16 20.0	1.685	2.667	1.5	21.0	1 22	8 22.18	+20 12.3	1.385	2.369	0.9	19.6
2 1	8 11.13	+16 46.1	1.710	2.685	3.8	21.2	2 1	8 10.31	+20 28.9	1.411	2.385	4.5	19.9
2 11	8 1.47	+17 10.0	1.765	2.702	8.1	21.5	2 11	7 59.94	+20 38.9	1.463	2.400	9.5	20.3
2 21	7 53.92	+17 29.5	1.846	2.718	11.9	21.7	2 21	7 52.17	+20 41.2	1.541	2.415	13.7	20.5
3 2	7 49.07	+17 43.4	1.949	2.734	15.1	22.0	3 2	7 47.63	+20 36.3	1.639	2.430	17.2	20.8
<b>100691</b>	1997 <i>YF</i> <sub>7</sub>		1 23.6 16°31	1°2/23.1	18		<b>44656</b>	1999 <i>RU</i> <sub>159</sub>		1 23.6 53°23	2°2/22.7	18	
12 23	8 41.38	+18 26.6	0.975	1.856	18.7	19.0	12 23	8 48.43	+21 31.0	1.160	2.026	17.5	19.0
1 2	8 37.76	+19 22.6	0.929	1.863	13.4	18.8	1 2	8 42.51	+22 21.2	1.110	2.037	12.5	18.7
1 12	8 30.78	+20 32.2	0.902	1.871	7.3	18.5	1 12	8 33.31	+23 18.3	1.081	2.047	6.9	18.4
1 22	8 21.72	+21 46.1	0.897	1.881	1.4	18.1	1 22	8 22.10	+24 13.6	1.076	2.059	2.3	18.2
2 1	8 12.40	+22 53.7	0.917	1.893	5.9	18.5	2 1	8 10.68	+24 58.6	1.098	2.070	6.1	18.5
2 11	8 4.78	+23 47.0	0.959	1.906	11.8	18.8	2 11	8 0.95	+25 28.0	1.144	2.082	11.4	18.8
2 21	8 0.24	+24 22.1	1.022	1.921	17.0	19.2	2 21	7 54.29	+25 40.8	1.213	2.094	16.2	19.1
3 2	7 59.49	+24 39.1	1.103	1.937	21.1	19.5	3 2	7 51.38	+25 38.8	1.300	2.106	20.1	19.4
<b>121098</b>	1999 <i>FL</i> <sub>55</sub>		1 23.6 45°39	2°7/22.7	18		<b>462949</b>	2011 <i>CQ</i> <sub>20</sub>		1 23.6 322°38	0°8/23.2	17	
12 23	8 49.71	+24 32.6	1.243	2.107	16.7	18.9	12 23	8 43.89	+19 45.0	1.691	2.542	13.7	21.5
1 2	8 43.22	+24 55.1	1.193	2.118	12.0	18.6	1 2	8 38.66	+20 15.8	1.613	2.534	9.8	21.2
1 12	8 33.58	+25 18.5	1.164	2.130	6.8	18.4	1 12	8 31.02	+20 53.5	1.560	2.525	5.4	20.9
1 22	8 22.09	+25 36.0	1.161	2.142	2.8	18.2	1 22	8 21.79	+21 33.3	1.534	2.518	1.0	20.6
2 1	8 10.54	+25 42.0	1.183	2.154	6.0	18.4	2 1	8 12.16	+22 10.0	1.536	2.510	4.4	20.8
2 11	8 0.71	+25 34.2	1.232	2.167	11.0	18.7	2 11	8 3.48	+22 39.1	1.566	2.503	9.0	21.1
2 21	7 53.88	+25 14.0	1.302	2.180	15.5	19.0	2 21	7 56.84	+22 58.5	1.620	2.496	13.1	21.3
3 2	7 50.68	+24 43.8	1.392	2.194	19.2	19.3	3 2	7 52.99	+23 7.6	1.696	2.490	16.6	21.5
<b>204243</b>	2004 <i>DH</i> <sub>50</sub>		1 23.6 250°85	1°3/22.9	18		<b>219702</b>	2001 <i>XL</i> <sub>33</sub>		1 23.6 232°32	7°6/27.6	17	
12 23	8 45.28	+23 32.0	2.302	3.142	10.9	20.0	12 23	8 44.28	- 3 26.0	2.298	3.048	13.8	21.0
1 2	8 39.03	+23 39.6	2.225	3.140	7.8	19.8	1 2	8 38.39	- 4 9.5	2.204	3.036	11.6	20.8
1 12	8 30.94	+23 47.9	2.174	3.137	4.4	19.6	1 12	8 30.67	- 4 34.8	2.133	3.023	9.4	20.7
1 22	8 21.72	+23 53.6	2.152	3.135	1.4	19.3	1 22	8 21.74	- 4 39.8	2.088	3.010	7.8	20.5
2 1	8 12.32	+23 54.0	2.161	3.132	3.7	19.5	2 1	8 12.42	- 4 24.0	2.070	2.996	7.7	20.5
2 11	8 3.74	+23 47.5	2.200	3.129	7.2	19.7	2 11	8 3.66	- 3 50.0	2.081	2.982	9.3	20.6
2 21	7 56.78	+23 34.0	2.265	3.126	10.5	19.9	2 21	7 56.30	- 3 1.8	2.118	2.967	11.6	20.7
3 2	7 52.01	+23 14.0	2.353	3.124	13.2	20.1	3 2	7 50.97	- 2 5.0	2.177	2.952	14.0	20.8
<b>171854</b>	2001 <i>MB</i> <sub>20</sub>		1 23.6 248°09	0°3/23.7	18		<b>456804</b>	2007 <i>TL</i> <sub>291</sub>		1 23.6 123°28	0°6/23.9	18	
12 23	8 49.96	+19 44.7	1.814	2.652	13.5	20.1	12 23	8 48.28	+16 17.6	1.821	2.655	13.6	22.2
1 2	8 42.78	+19 23.4	1.732	2.645	9.8	19.8	1 2	8 41.40	+16 37.7	1.759	2.670	9.8	22.0
1 12	8 33.18	+19 4.8	1.675	2.638	5.5	19.6	1 12	8 32.32	+17 5.9	1.723	2.684	5.5	21.8
1 22	8 22.06	+18 46.5	1.647	2.631	0.9	19.2	1 22	8 21.95	+17 38.5	1.715	2.698	1.1	21.5
2 1	8 10.63	+18 26.7	1.649	2.623	4.0	19.4	2 1	8 11.45	+18 11.0	1.737	2.712	3.8	21.7
2 11	8 0.24	+18 4.1	1.679	2.616	8.5	19.7	2 11	8 2.04	+18 39.8	1.788	2.725	8.0	22.0
2 21	7 51.96	+17 38.8	1.736	2.608	12.6	19.9	2 21	7 54.66	+19 2.7	1.865	2.737	11.8	22.3
3 2	7 46.49	+17 11.2	1.815	2.600	16.0	20.1	3 2	7 49.91	+19 18.6	1.964	2.749	15.0	22.5
<b>496615</b>	2015 <i>HA</i> <sub>3</sub>		1 23.6 190°68	3°0/25.4	17		<b>313534</b>	2002 <i>XN</i> <sub>92</sub>		1 23.6 54°01	7°3/26.5	18	
12 23	8 42.13	+ 9 13.8	2.574	3.381	10.9	20.9	12 23	8 45.96	+ 2 46.1	1.635	2.436	16.5	20.2
1 2	8 36.58	+ 8 58.5	2.492	3.380	8.3	20.7	1 2	8 39.92	+ 1 46.6	1.569	2.443	13.2	20.0
1 12	8 29.52	+ 8 52.8	2.435	3.380	5.5	20.5	1 12	8 31.59	+ 1 6.2	1.526	2.450	9.9	19.8
1 22	8 21.54	+ 8 56.1	2.408	3.379	3.2	20.4	1 22	8 21.86	+ 0 46.9	1.507	2.458	7.6	19.7
2 1	8 13.37	+ 9 6.7	2.411	3.378	3.8	20.4	2 1	8 11.91	+ 0 48.8	1.516	2.466	7.7	19.7
2 11	8 5.80	+ 9 22.7	2.444	3.377	6.4	20.6	2 11	8 3.00	+ 1 8.5	1.550	2.474	10.2	19.9
2 21	7 59.51	+ 9 41.6	2.504	3.376	9.2	20.8	2 21	7 56.13	+ 1 40.9	1.609	2.482	13.4	20.1
3 2	7 55.00	+10 1.1	2.589	3.374	11.7	20.9	3 2	7 51.96	+ 2 20.1	1.690	2.490	16.4	20.3
<b>138189</b>	2000 <i>EZ</i> <sub>115</sub>		1 23.6 136°06	2°1/24.9	18		<b>201452</b>	2003 <i>FJ</i> <sub>68</sub>		1 23.6 300°03	3°3/22.1	18	
12 23	8 45.48	+11 11.3	2.219	3.034									

EPHEMERIDES

1 23.6

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>452300</b>	1994 <i>TC</i> <sub>6</sub>		1 23.6 130°84	1.4°/24.4	15		<b>73146</b>	2002 <i>GJ</i> <sub>98</sub>		1 23.6 231°73	3°0'/25.1	18	
12 23	8 48.97	+13 49.9	1.826	2.653	13.9	22.5	12 23	8 45.96	+10 29.4	1.767	2.591	14.4	20.6
1 2	8 41.87	+14 11.9	1.764	2.670	10.2	22.3	1 2	8 40.03	+10 32.2	1.683	2.584	10.9	20.4
1 12	8 32.58	+14 44.5	1.727	2.685	5.9	22.1	1 12	8 31.77	+10 49.1	1.623	2.576	6.9	20.1
1 22	8 22.00	+15 23.9	1.719	2.701	1.8	21.9	1 22	8 21.96	+11 18.2	1.590	2.567	3.4	19.9
2 1	8 11.27	+16 5.6	1.740	2.715	3.8	22.0	2 1	8 11.72	+11 56.0	1.586	2.559	4.5	19.9
2 11	8 1.63	+16 45.5	1.791	2.728	8.0	22.3	2 11	8 2.33	+12 38.1	1.610	2.549	8.6	20.2
2 21	7 54.00	+17 20.2	1.869	2.741	11.8	22.6	2 21	7 54.84	+13 20.2	1.660	2.540	12.6	20.4
3 2	7 49.01	+17 48.2	1.969	2.753	15.0	22.8	3 2	7 50.01	+13 58.7	1.732	2.530	16.1	20.6
<b>1227</b>	Geranium		1 23.6 171°97	4°9'/19.9	18		<b>49464</b>	1999 <i>AO</i> <sub>7</sub>		1 23.6 231°13	0°4'/23.3	18	
12 23	8 47.25	+37 58.3	3.003	3.827	9.1	16.7	12 23	8 42.30	+17 54.4	2.268	3.105	11.2	18.8
1 2	8 40.25	+38 38.4	2.938	3.830	7.1	16.6	1 2	8 37.03	+18 46.3	2.188	3.102	8.0	18.6
1 12	8 31.56	+39 10.8	2.901	3.832	5.4	16.5	1 12	8 29.94	+19 45.8	2.135	3.098	4.4	18.4
1 22	8 21.86	+39 31.1	2.893	3.834	5.0	16.4	1 22	8 21.69	+20 48.4	2.111	3.095	0.7	18.1
2 1	8 12.03	+39 36.3	2.915	3.836	6.0	16.5	2 1	8 13.13	+21 49.2	2.118	3.092	3.4	18.3
2 11	8 3.01	+39 25.8	2.966	3.837	7.9	16.6	2 11	8 5.23	+22 43.9	2.155	3.088	7.1	18.5
2 21	7 55.52	+39 1.1	3.043	3.838	9.9	16.8	2 21	7 58.81	+23 29.6	2.219	3.084	10.5	18.7
3 2	7 50.09	+38 24.7	3.142	3.838	11.7	16.9	3 2	7 54.49	+24 5.1	2.306	3.081	13.3	18.9
<b>354183</b>	2002 <i>DD</i> <sub>6</sub>		1 23.6 44°33	5°5'/25.6	17		<b>173865</b>	2001 <i>TS</i> <sub>206</sub>		1 23.6 125°53	1°7'/22.2	18	
12 23	8 49.44	+ 8 55.8	1.052	1.898	20.5	19.2	12 23	8 43.46	+23 55.8	3.054	3.887	8.7	21.0
1 2	8 42.80	+ 8 16.3	1.020	1.928	15.4	19.0	1 2	8 37.38	+24 47.0	2.995	3.906	6.2	20.8
1 12	8 33.20	+ 7 58.9	1.008	1.960	10.1	18.8	1 12	8 29.93	+25 39.1	2.964	3.925	3.5	20.7
1 22	8 22.08	+ 8 2.3	1.019	1.992	5.9	18.7	1 22	8 21.67	+26 28.2	2.964	3.943	1.7	20.6
2 1	8 11.22	+ 8 22.6	1.055	2.025	6.7	18.9	2 1	8 13.31	+27 11.1	2.996	3.960	3.4	20.7
2 11	8 2.31	+ 8 53.4	1.115	2.059	11.0	19.2	2 11	8 5.55	+27 45.5	3.059	3.977	6.0	20.9
2 21	7 56.42	+ 9 28.2	1.198	2.092	15.3	19.5	2 21	7 59.02	+28 10.4	3.151	3.993	8.4	21.1
3 2	7 54.03	+10 1.9	1.299	2.126	18.9	19.9	3 2	7 54.15	+28 26.1	3.266	4.008	10.4	21.2
<b>125670</b>	2001 <i>XX</i> <sub>77</sub>		1 23.6 113°30	2°9'/25.1	18		<b>491051</b>	2011 <i>QM</i> <sub>49</sub>		1 23.6 112°25	1°7'/24.5	16	
12 23	8 44.20	+10 32.0	1.876	2.699	13.7	19.9	12 23	8 48.99	+13 7.2	1.805	2.630	14.1	22.7
1 2	8 38.52	+10 33.5	1.803	2.703	10.3	19.7	1 2	8 41.85	+13 27.9	1.749	2.653	10.3	22.5
1 12	8 30.78	+10 47.8	1.754	2.706	6.5	19.5	1 12	8 32.56	+13 59.7	1.718	2.675	6.1	22.3
1 22	8 21.77	+11 13.2	1.733	2.709	3.2	19.3	1 22	8 22.05	+14 39.0	1.716	2.697	2.1	22.1
2 1	8 12.52	+11 46.5	1.740	2.712	4.2	19.3	2 1	8 11.47	+15 21.3	1.743	2.717	3.8	22.2
2 11	8 4.13	+12 23.5	1.776	2.715	7.9	19.6	2 11	8 2.03	+16 2.1	1.799	2.737	7.9	22.5
2 21	7 57.54	+13 0.6	1.838	2.718	11.6	19.8	2 21	7 54.62	+16 38.4	1.882	2.756	11.7	22.8
3 2	7 53.36	+13 34.5	1.923	2.721	14.7	20.0	3 2	7 49.84	+17 8.1	1.988	2.774	14.8	23.0
<b>405902</b>	2006 <i>HM</i> <sub>56</sub>		1 23.6 294°57	3°4'/25.2	18		<b>15303</b>	Hatoyamamachi		1 23.6 142°12	3°8'/26.1	18	
12 23	8 44.18	+ 9 57.7	1.473	2.309	16.2	20.8	12 23	8 42.42	+ 6 11.5	2.446	3.243	11.7	18.2
1 2	8 39.17	+10 7.5	1.389	2.295	12.3	20.6	1 2	8 36.85	+ 6 2.8	2.370	3.249	9.1	18.0
1 12	8 31.47	+10 35.5	1.327	2.281	7.8	20.3	1 12	8 29.73	+ 6 6.7	2.319	3.255	6.3	17.9
1 22	8 21.91	+11 19.7	1.290	2.268	3.8	20.0	1 22	8 21.67	+ 6 22.4	2.296	3.261	4.1	17.7
2 1	8 11.75	+12 15.5	1.281	2.254	5.1	20.0	2 1	8 13.44	+ 6 48.2	2.304	3.266	4.4	17.8
2 11	8 2.49	+13 16.6	1.297	2.241	9.7	20.3	2 11	8 5.85	+ 7 21.0	2.340	3.271	6.8	17.9
2 21	7 55.42	+14 16.7	1.338	2.228	14.4	20.5	2 21	7 59.61	+ 7 57.5	2.405	3.276	9.5	18.1
3 2	7 51.42	+15 10.9	1.400	2.215	18.4	20.7	3 2	7 55.22	+ 8 34.7	2.493	3.281	12.1	18.3
<b>457791</b>	2009 <i>QM</i> <sub>23</sub>		1 23.6 145°28	3°5'/21.8	18		<b>462909</b>	2010 <i>XW</i> <sub>77</sub>		1 23.6 35°54	8°0'/27.1	18	
12 23	8 49.84	+29 49.7	2.254	3.091	11.2	21.8	12 23	8 44.48	+ 0 8.0	1.709	2.497	16.4	20.4
1 2	8 42.33	+30 19.9	2.191	3.101	8.2	21.6	1 2	8 38.86	- 0 49.3	1.639	2.501	13.4	20.2
1 12	8 32.78	+30 46.0	2.154	3.110	5.2	21.5	1 12	8 31.05	- 1 25.9	1.591	2.505	10.5	20.1
1 22	8 22.05	+31 3.1	2.148	3.119	3.5	21.4	1 22	8 21.87	- 1 39.4	1.568	2.509	8.3	20.0
2 1	8 11.22	+31 7.7	2.171	3.127	5.3	21.5	2 1	8 12.41	- 1 29.8	1.572	2.514	8.3	20.0
2 11	8 1.43	+30 58.7	2.224	3.134	8.3	21.7	2 11	8 3.89	- 1 0.5	1.601	2.519	10.4	20.1
2 21	7 53.55	+30 37.4	2.303	3.141	11.2	21.9	2 21	7 57.27	- 0 17.0	1.655	2.524	13.3	20.3
3 2	7 48.15	+30 6.0	2.405	3.148	13.7	22.1	3 2	7 53.23	+ 0 34.3	1.730	2.529	16.1	20.5
<b>399420</b>	2001 <i>WY</i> <sub>54</sub>		1 23.6 63°79	0°6'/23.9	18		<b>378403</b>	2007 <i>RL</i> <sub>74</sub>		1 23.6 94°60	1°0'/23.0	18	
12 23	8 46.12	+16 51.8	1.650	2.494	14.3	21.0	12 23	8 44.31	+21 25.2	2.231	3.071	11.2	21.1
1 2	8 39.99	+17 7.2	1.596	2.511	10.3	20.8	1 2	8 38.35	+21 50.9	2.166	3.082	8.0	20.9
1 12	8 31.60	+17 30.9	1.565	2.528	5.8	20.5	1 12	8 30.60	+22 19.6	2.129	3.092	4.4	20.7
1 22	8 21.89	+17 58.8	1.561	2.544	1.1	20.3	1 22	8 21.79	+22 47.5	2.120	3.103	1.1	20.5
2 1	8 12.10	+18 26.7	1.586	2.561	3.9	20.5	2 1	8 12.85	+23 11.0	2.141	3.113	3.6	20.7
2 11	8 3.49	+18 50.9	1.639	2.579	8.4	20.8	2 11	8 4.76	+23 27.7	2.192	3.123	7.2	20.9
2 21	7 57.02	+19 9.0	1.717	2.596	12.3	21.1	2 21	7 58.30	+23 36.5	2.269	3.133	10.4	21.1
3 2	7 53.28	+19 20.2	1.816	2.613	15.6	21.3	3 2	7 54.01	+23 37.5	2.370	3.143	13.0	21.3
<b>223729</b>	2004 <i>RK</i> <sub>131</sub>		1 23.6 72°66	0°1'/23.6	18		<b>178995</b>	2001 <i>RT</i> <sub>4</sub>		1 23.6 154°45	5°7'/27.5	18	
12 23	8 44.75	+18 13.1	1.858	2.701	13.0	21.3	12 23	8 43.44	+ 0 24.1	2.115	2.892	14.0	20.9
1 2	8 38.94	+18 37.0	1.793	2.708	9.3	21.1	1 2	8 37.81	+ 0 30.3	2.038	2.898	11.3	20.8
1 12	8 31.02	+19 7.8	1.752	2.716	5.2	20.8	1 12	8 30.36	+ 0 56.4	1.984	2.903	8.4	20.6
1 22	8 21.82	+19 41.3	1.740	2.723	0.7	20.5	1 22	8 21.78	+ 1 41.8	1.958	2.908	6.1	20.5
2 1	8 12.42	+20 13.1	1.756	2.731	3.8	20.8	2 1	8 12.95	+ 2 43.7	1.960	2.913	6.0	20.5
2 11	8 4.00	+20 39.8	1.801	2.739	8.0	21.0	2 11	8 4.86	+ 3 57.2	1.991	2.917	8.1	20.6
2 21	7 57.47	+20 59.2	1.872	2.746	11.7	21.3	2 21	7 58.30	+ 5 16.3	2.049	2.921	10.9	20.8
3 2	7 53.45	+21 10.7	1.965	2.754	14.8	21.5	3 2	7 53.87	+ 6 35.4	2.131	2.924	13.7	21.0
<b>202393</b>	2005 <i>GW</i> <sub>160</sub>		1 23.6 311°91	0°9'/24.1	18		<b>415155</b>	2012 <i>FP</i> <sub>25</sub>		1 23.6 290°69	7°6'/19.7	18	
12 23	8 41.88	+15 33.3	1.890	2.731	12.9	19.4	12 23						



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1 23.6

1 23.7

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>8923</b>	Yamakawa		1 23.6 318°94	1.3	24.1	18	<b>3023</b>	Heard		1 23.6 277°68	3.1	24.8	18
12 23	8 44.34	+15 29.3	1.369	2.222	16.1	17.6	12 23	8 46.90	+11 58.7	1.396	2.236	16.7	16.9
1 2	8 39.49	+15 39.5	1.289	2.208	11.9	17.3	1 2	8 41.24	+11 52.3	1.317	2.226	12.5	16.6
1 12	8 31.74	+16 2.4	1.231	2.194	6.9	17.0	1 12	8 32.69	+12 1.0	1.260	2.217	7.8	16.3
1 22	8 22.02	+16 34.3	1.198	2.181	1.8	16.6	1 22	8 22.18	+12 22.8	1.228	2.207	3.5	16.0
2 1	8 11.71	+17 10.1	1.192	2.169	4.7	16.8	2 1	8 11.11	+12 54.0	1.223	2.197	5.1	16.1
2 11	8 2.44	+17 44.4	1.212	2.156	10.1	17.0	2 11	8 1.10	+13 29.3	1.244	2.187	10.1	16.3
2 21	7 55.58	+18 13.2	1.254	2.145	15.0	17.3	2 21	7 53.51	+14 4.3	1.289	2.178	14.9	16.6
3 2	7 52.03	+18 34.0	1.317	2.134	19.2	17.5	3 2	7 49.20	+14 35.1	1.354	2.168	19.0	16.8
<b>430409</b>	1995 SC <sub>86</sub>		1 23.6 79°28	9.5	20.9	18	<b>59445</b>	1999 GJ <sub>32</sub>		1 23.6 292°56	6.4	26.8	18
12 23	8 40.52	-14 38.4	2.446	3.124	14.8	21.6	12 23	8 42.52	+ 2 13.8	1.803	2.601	15.3	20.0
1 2	8 35.52	-14 55.1	2.378	3.139	13.1	21.5	1 2	8 37.63	+ 1 56.1	1.708	2.582	12.3	19.8
1 12	8 29.01	-14 46.5	2.330	3.153	11.4	21.4	1 12	8 30.52	+ 1 58.5	1.636	2.563	9.2	19.5
1 22	8 21.60	-14 10.8	2.304	3.167	10.0	21.4	1 22	8 21.87	+ 2 22.1	1.588	2.544	6.7	19.3
2 1	8 14.05	-13 9.1	2.304	3.181	9.5	21.4	2 1	8 12.68	+ 3 5.5	1.568	2.525	6.8	19.3
2 11	8 7.17	-11 45.3	2.330	3.195	10.0	21.4	2 11	8 4.14	+ 4 4.5	1.575	2.506	9.5	19.4
2 21	8 1.62	-10 5.7	2.381	3.209	11.2	21.5	2 21	7 57.30	+ 5 13.0	1.607	2.487	13.0	19.6
3 2	7 57.90	- 8 17.4	2.456	3.223	12.8	21.6	3 2	7 52.97	+ 6 24.5	1.661	2.468	16.3	19.7
<b>408859</b>	2001 SR <sub>236</sub>		1 23.6 120°56	5.5	20.9	18	<b>492723</b>	2014 QN <sub>90</sub>		1 23.6 222°66	2.0	24.6	17
12 23	8 50.70	+33 40.2	1.923	2.765	12.7	21.2	12 23	8 47.91	+13 8.5	1.961	2.784	13.3	22.7
1 2	8 43.36	+34 30.1	1.866	2.774	9.5	21.0	1 2	8 41.31	+13 10.7	1.871	2.773	9.9	22.4
1 12	8 33.53	+35 12.8	1.836	2.783	6.7	20.8	1 12	8 32.47	+13 23.1	1.807	2.762	6.0	22.2
1 22	8 22.25	+35 41.2	1.832	2.792	5.5	20.8	1 22	8 22.14	+13 43.4	1.770	2.750	2.3	21.9
2 1	8 10.84	+35 50.6	1.858	2.800	7.2	20.9	2 1	8 11.38	+14 8.7	1.764	2.738	3.9	22.0
2 11	8 0.70	+35 40.1	1.911	2.809	10.1	21.1	2 11	8 1.39	+14 35.5	1.788	2.725	8.0	22.2
2 21	7 52.88	+35 12.0	1.988	2.817	13.1	21.3	2 21	7 53.19	+15 0.8	1.838	2.711	11.9	22.4
3 2	7 48.01	+34 30.4	2.086	2.824	15.7	21.5	3 2	7 47.51	+15 22.4	1.910	2.696	15.3	22.6
<b>285613</b>	2000 QC <sub>230</sub>		1 23.6 104°34	2.9	22.2	17	<b>413064</b>	2001 SG <sub>88</sub>		1 23.6 121°67	0.2	23.7	18
12 23	8 51.68	+25 5.7	1.763	2.607	13.6	21.0	12 23	8 47.01	+17 39.0	2.126	2.957	12.0	22.1
1 2	8 43.92	+25 56.5	1.717	2.632	9.7	20.8	1 2	8 40.29	+18 0.6	2.064	2.974	8.6	21.9
1 12	8 33.77	+26 47.1	1.695	2.657	5.6	20.6	1 12	8 31.69	+18 28.2	2.029	2.991	4.8	21.7
1 22	8 22.27	+27 31.0	1.703	2.681	2.9	20.5	1 22	8 22.00	+18 58.1	2.023	3.006	0.7	21.4
2 1	8 10.78	+28 2.6	1.740	2.704	5.3	20.7	2 1	8 12.21	+19 26.7	2.047	3.022	3.4	21.7
2 11	8 0.63	+28 19.6	1.805	2.727	9.1	21.0	2 11	8 3.36	+19 50.9	2.102	3.036	7.2	22.0
2 21	7 52.83	+28 22.5	1.896	2.748	12.6	21.2	2 21	7 56.24	+20 9.2	2.183	3.050	10.6	22.2
3 2	7 47.94	+28 13.5	2.009	2.769	15.5	21.5	3 2	7 51.42	+20 20.8	2.288	3.064	13.4	22.4
<b>276398</b>	2002 XM <sub>41</sub>		1 23.6 136°06	1.9	24.5	18	<b>485402</b>	2011 NY <sub>1</sub>		1 23.6 198°89	2.7	22.1	18
12 23	8 50.52	+13 40.9	1.723	2.549	14.6	20.8	12 23	8 49.09	+24 4.4	1.908	2.751	12.7	21.8
1 2	8 43.12	+13 43.1	1.659	2.563	10.7	20.6	1 2	8 42.31	+25 3.6	1.832	2.748	9.2	21.5
1 12	8 33.37	+13 55.8	1.620	2.577	6.4	20.4	1 12	8 33.07	+26 5.9	1.782	2.744	5.3	21.3
1 22	8 22.23	+14 16.1	1.609	2.590	2.3	20.2	1 22	8 22.23	+27 4.8	1.760	2.739	2.7	21.1
2 1	8 10.94	+14 40.5	1.628	2.602	4.1	20.3	2 1	8 10.97	+27 53.8	1.769	2.734	5.2	21.3
2 11	8 0.82	+15 5.0	1.675	2.613	8.4	20.6	2 11	8 0.63	+28 28.7	1.806	2.727	9.1	21.5
2 21	7 52.86	+15 27.1	1.749	2.623	12.4	20.8	2 21	7 52.32	+28 48.6	1.870	2.721	12.8	21.7
3 2	7 47.71	+15 44.8	1.844	2.632	15.7	21.1	3 2	7 46.81	+28 54.6	1.954	2.713	15.9	21.9
<b>465993</b>	2011 EZ <sub>52</sub>		1 23.6 306°17	8.4	18.5	18	<b>162727</b>	2000 VO <sub>14</sub>		1 23.6 137°98	0.2	23.6	18
12 23	8 49.44	+41 1.5	1.929	2.764	12.9	21.0	12 23	8 48.38	+17 46.6	1.955	2.789	12.9	20.9
1 2	8 42.92	+42 20.0	1.866	2.756	10.6	20.8	1 2	8 41.46	+18 23.2	1.892	2.803	9.2	20.7
1 12	8 33.53	+43 26.7	1.827	2.749	8.8	20.7	1 12	8 32.42	+19 6.7	1.854	2.816	5.1	20.5
1 22	8 22.27	+44 12.8	1.815	2.741	8.5	20.7	1 22	8 22.11	+19 52.7	1.845	2.829	0.7	20.2
2 1	8 10.62	+44 32.1	1.829	2.734	10.0	20.7	2 1	8 11.64	+20 36.1	1.867	2.840	3.7	20.5
2 11	8 0.20	+44 23.2	1.867	2.727	12.3	20.9	2 11	8 2.15	+21 13.1	1.918	2.851	7.8	20.7
2 21	7 52.28	+43 49.3	1.929	2.720	14.9	21.0	2 21	7 54.58	+21 41.6	1.996	2.862	11.5	21.0
3 2	7 47.64	+42 55.9	2.008	2.713	17.2	21.2	3 2	7 49.53	+22 1.1	2.096	2.871	14.5	21.2
<b>152710</b>	1998 SW <sub>86</sub>		1 23.6 20°31	4.7	25.5	18	<b>490667</b>	2010 HF <sub>105</sub>		1 23.6 263°84	1.9	24.5	18
12 23	8 46.13	+ 8 35.7	1.350	2.184	17.5	19.7	12 23	8 46.48	+13 42.6	1.524	2.365	15.5	21.9
1 2	8 40.57	+ 8 20.9	1.282	2.185	13.4	19.4	1 2	8 40.71	+13 50.0	1.447	2.359	11.5	21.7
1 12	8 32.23	+ 8 25.1	1.236	2.186	8.8	19.2	1 12	8 32.30	+14 10.3	1.394	2.353	6.8	21.4
1 22	8 22.09	+ 8 47.1	1.213	2.187	5.1	18.9	1 22	8 22.13	+14 40.4	1.366	2.347	2.4	21.1
2 1	8 11.58	+ 9 23.6	1.218	2.188	5.9	19.0	2 1	8 11.52	+15 16.0	1.366	2.341	4.5	21.2
2 11	8 2.26	+10 8.9	1.248	2.190	10.2	19.2	2 11	8 1.94	+15 52.0	1.393	2.335	9.3	21.5
2 21	7 55.38	+10 56.8	1.301	2.192	14.6	19.5	2 21	7 54.60	+16 24.5	1.445	2.329	13.8	21.7
3 2	7 51.70	+11 42.2	1.375	2.194	18.5	19.7	3 2	7 50.30	+16 50.9	1.518	2.323	17.7	22.0
<b>117262</b>	2004 ST <sub>57</sub>		1 23.6 85°16	2.8	22.4	17	<b>345074</b>	2005 JE <sub>69</sub>		1 23.6 149°65	1.6	25.1	17
12 23	8 51.87	+24 9.9	1.534	2.383	14.9	20.1	12 23	8 41.06	+10 31.9	2.890	3.699	9.8	21.5
1 2	8 44.24	+24 59.1	1.493	2.411	10.6	20.0	1 2	8 35.75	+11 10.5	2.813	3.706	7.3	21.3
1 12	8 33.99	+25 49.2	1.476	2.439	6.0	19.8	1 12	8 29.11	+11 58.8	2.763	3.714	4.5	21.1
1 22	8 22.31	+26 32.8	1.486	2.466	2.8	19.6	1 22	8 21.65	+12 54.2	2.742	3.721	1.9	21.0
2 1	8 10.69	+27 4.2	1.525	2.492	5.5	19.8	2 1	8 14.01	+13 53.6	2.754	3.727	2.8	21.0
2 11	8 0.64	+27 20.5	1.592	2.518	9.7	20.2	2 11	8 6.90	+14 53.4	2.797	3.734	5.5	21.2
2 21	7 53.19	+27 22.5	1.683	2.544	13.5	20.4	2 21	8 0.90	+15 50.4	2.869	3.739	8.2	21.4
3 2	7 48.91	+27 12.4	1.795	2.568	16.6	20.7	3 2	7 56.49	+16 42.3	2.967	3.745	10.6	21.6
<b>140500</b>	2001 TF <sub>158</sub>		1 23.6 129°35	2.9	21.5	18	<b>368580</b>	2004 PC <sub>70</sub>		1 23.7 184°48	0.6	23.3	17
12 23	8 43.94	+27 31.3	2.582	3.423	9.8	20.3	12 23	8 46.46	+20 51.6	2.659	3.487	10.0	21.7

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>374322</b>	2005 <i>TQ</i> <sub>17</sub>		1 23.7 237°64	1.9/24.8	17		<b>502180</b>	2015 <i>BV</i> <sub>63</sub>		1 23.7 287°41	3.1/22.1	18	
12 23	8 44.95	+12 12.1	2.231	3.050	12.0	22.6	12 23	8 46.50	+27 59.8	2.126	2.971	11.5	21.1
1 2	8 39.02	+12 26.9	2.136	3.035	8.9	22.4	1 2	8 40.20	+28 24.2	2.051	2.966	8.4	20.9
1 12	8 31.15	+12 52.3	2.066	3.020	5.5	22.1	1 12	8 31.80	+28 46.5	2.002	2.961	5.1	20.7
1 22	8 21.99	+13 26.1	2.025	3.004	2.2	21.9	1 22	8 22.10	+29 1.9	1.981	2.957	3.1	20.6
2 1	8 12.41	+14 5.1	2.014	2.988	3.5	21.9	2 1	8 12.16	+29 6.7	1.990	2.952	5.0	20.7
2 11	8 3.43	+14 45.7	2.033	2.970	7.2	22.1	2 11	8 3.14	+28 59.2	2.028	2.948	8.4	20.9
2 21	7 55.94	+15 24.6	2.080	2.953	10.8	22.3	2 21	7 55.96	+28 40.0	2.092	2.943	11.6	21.1
3 2	7 50.61	+15 59.1	2.151	2.934	13.9	22.5	3 2	7 51.26	+28 10.9	2.177	2.939	14.4	21.2
<b>431599</b>	2007 <i>VV</i> <sub>189</sub>		1 23.7 73°44	6.4/27.4	18		<b>504654</b>	2008 <i>YO</i> <sub>154</sub>		1 23.7 229°52	1.6/24.4	17	
12 23	8 42.37	- 0 17.8	2.288	3.059	13.3	20.6	12 23	8 46.21	+15 4.9	2.637	3.454	10.4	21.4
1 2	8 36.90	- 0 56.0	2.218	3.069	10.8	20.4	1 2	8 39.56	+14 39.5	2.546	3.446	7.7	21.2
1 12	8 29.82	- 1 17.4	2.172	3.079	8.4	20.3	1 12	8 31.30	+14 18.7	2.482	3.437	4.6	21.0
1 22	8 21.78	- 1 21.0	2.152	3.089	6.7	20.2	1 22	8 22.02	+14 1.6	2.448	3.428	1.8	20.7
2 1	8 13.57	- 1 7.4	2.160	3.099	6.6	20.2	2 1	8 12.53	+13 47.1	2.446	3.418	3.1	20.8
2 11	8 6.08	- 0 39.4	2.196	3.110	8.2	20.3	2 11	8 3.66	+13 34.4	2.475	3.409	6.3	21.0
2 21	7 59.99	- 0 1.0	2.259	3.120	10.5	20.5	2 21	7 56.15	+13 22.3	2.532	3.399	9.3	21.2
3 2	7 55.85	+ 0 43.1	2.344	3.130	12.8	20.7	3 2	7 50.52	+13 10.1	2.615	3.388	11.9	21.4
<b>47914</b>	2000 <i>GM</i> <sub>90</sub>		1 23.7 351°11	4.1/26.4	18		<b>51725</b>	2001 <i>KV</i> <sub>39</sub>		1 23.7 157°79	1.4/22.5	18	
12 23	8 40.84	+ 5 25.7	2.049	2.856	13.4	18.0	12 23	8 43.35	+21 26.3	2.679	3.514	9.7	19.7
1 2	8 36.08	+ 5 42.5	1.969	2.854	10.4	17.8	1 2	8 37.59	+22 28.7	2.607	3.520	6.9	19.5
1 12	8 29.50	+ 6 16.5	1.913	2.853	7.1	17.6	1 12	8 30.23	+23 34.9	2.563	3.525	3.8	19.3
1 22	8 21.75	+ 7 6.0	1.884	2.852	4.4	17.4	1 22	8 21.87	+24 40.3	2.549	3.530	1.4	19.2
2 1	8 13.72	+ 8 7.7	1.884	2.851	4.7	17.5	2 1	8 13.28	+25 40.5	2.568	3.535	3.5	19.3
2 11	8 6.38	+ 9 16.4	1.913	2.850	7.6	17.6	2 11	8 5.29	+26 32.0	2.617	3.539	6.6	19.5
2 21	8 0.56	+10 26.8	1.968	2.850	10.8	17.8	2 21	7 58.62	+27 13.0	2.694	3.543	9.4	19.7
3 2	7 56.87	+11 34.3	2.047	2.850	13.8	18.0	3 2	7 53.80	+27 43.2	2.795	3.547	11.8	19.9
<b>294098</b>	2007 <i>TD</i> <sub>225</sub>		1 23.7 161°63	2°2/22.3	18		<b>373889</b>	2003 <i>SC</i> <sub>323</sub>		1 23.7 110°91	3°6/21.9	18	
12 23	8 44.94	+25 38.6	2.362	3.204	10.6	21.2	12 23	8 48.60	+29 52.4	2.142	2.983	11.6	21.2
1 2	8 38.86	+26 7.3	2.291	3.206	7.6	21.0	1 2	8 41.59	+30 17.9	2.080	2.992	8.5	21.1
1 12	8 30.96	+26 35.9	2.246	3.207	4.4	20.8	1 12	8 32.49	+30 39.3	2.044	3.000	5.3	20.9
1 22	8 21.95	+27 0.2	2.230	3.209	2.3	20.6	1 22	8 22.19	+30 51.5	2.036	3.008	3.6	20.8
2 1	8 12.76	+27 16.7	2.245	3.210	4.2	20.8	2 1	8 11.80	+30 51.3	2.059	3.016	5.4	20.9
2 11	8 4.37	+27 23.5	2.289	3.211	7.4	21.0	2 11	8 2.47	+30 37.6	2.110	3.024	8.5	21.1
2 21	7 57.58	+27 20.2	2.359	3.212	10.4	21.2	2 21	7 55.10	+30 11.7	2.187	3.032	11.5	21.3
3 2	7 52.95	+27 7.9	2.453	3.213	13.0	21.3	3 2	7 50.24	+29 36.2	2.287	3.039	14.1	21.5
<b>457066</b>	2008 <i>EB</i> <sub>45</sub>		1 23.7 255°68	0°3/23.5	17		<b>485833</b>	2012 <i>DY</i> <sub>72</sub>		1 23.7 45°56	13°6/2.5	17	
12 23	8 45.98	+19 4.1	1.916	2.756	12.8	21.9	12 23	8 43.60	-13 58.8	1.026	1.788	26.5	21.0
1 2	8 40.03	+19 26.1	1.830	2.745	9.2	21.6	1 2	8 39.30	-13 30.3	0.967	1.797	23.1	20.8
1 12	8 31.81	+19 54.4	1.769	2.733	5.1	21.4	1 12	8 31.78	-12 3.9	0.923	1.808	19.1	20.6
1 22	8 22.10	+20 25.0	1.737	2.721	0.8	21.0	1 22	8 22.14	- 9 35.7	0.896	1.818	15.5	20.4
2 1	8 11.96	+20 53.7	1.734	2.708	3.9	21.2	2 1	8 12.07	- 6 12.5	0.892	1.830	13.6	20.3
2 11	8 2.64	+21 16.8	1.760	2.695	8.2	21.5	2 11	8 3.48	- 2 13.4	0.912	1.841	14.6	20.4
2 21	7 55.16	+21 32.3	1.811	2.683	12.2	21.7	2 21	7 57.80	+ 1 56.0	0.955	1.854	17.8	20.7
3 2	7 50.26	+21 39.7	1.885	2.669	15.5	21.9	3 2	7 55.88	+ 5 53.0	1.020	1.866	21.6	20.9
<b>371185</b>	2005 <i>YH</i> <sub>113</sub>		1 23.7 4°38	1°4/24.3	18		<b>310182</b>	2011 <i>SL</i> <sub>65</sub>		1 23.7 162°50	0°7/24.0	18	
12 23	8 44.64	+15 22.1	1.764	2.604	13.7	20.8	12 23	8 48.80	+15 59.8	1.976	2.804	13.0	22.4
1 2	8 39.03	+15 21.4	1.692	2.604	10.1	20.6	1 2	8 41.81	+16 20.7	1.904	2.811	9.4	22.2
1 12	8 31.21	+15 29.6	1.643	2.604	5.9	20.3	1 12	8 32.68	+16 49.6	1.857	2.817	5.3	21.9
1 22	8 22.00	+15 44.1	1.622	2.604	1.8	20.0	1 22	8 22.24	+17 23.1	1.840	2.823	1.1	21.6
2 1	8 12.53	+16 1.7	1.630	2.605	3.9	20.2	2 1	8 11.57	+17 57.0	1.853	2.828	3.6	21.8
2 11	8 4.02	+16 19.1	1.665	2.606	8.2	20.5	2 11	8 1.82	+18 27.6	1.896	2.832	7.7	22.1
2 21	7 57.44	+16 33.8	1.726	2.607	12.1	20.7	2 21	7 53.95	+18 52.7	1.966	2.835	11.5	22.3
3 2	7 53.46	+16 44.2	1.808	2.608	15.5	20.9	3 2	7 48.60	+19 11.0	2.059	2.837	14.6	22.6
<b>417132</b>	2005 <i>VW</i> <sub>25</sub>		1 23.7 136°10	3°9/25.9	18		<b>67535</b>	2000 <i>RY</i> <sub>100</sub>		1 23.7 173°76	2°8/24.8	18	
12 23	8 45.34	+ 6 47.8	2.294	3.091	12.4	21.7	12 23	8 49.04	+12 7.5	1.868	2.688	13.9	19.7
1 2	8 39.00	+ 6 36.0	2.224	3.104	9.5	21.5	1 2	8 42.06	+11 50.0	1.792	2.691	10.4	19.5
1 12	8 30.97	+ 6 37.0	2.179	3.116	6.5	21.4	1 12	8 32.86	+11 42.9	1.741	2.693	6.5	19.2
1 22	8 21.95	+ 6 49.8	2.162	3.128	4.1	21.2	1 22	8 22.27	+11 44.6	1.718	2.695	3.1	19.0
2 1	8 12.80	+ 7 12.6	2.176	3.139	4.5	21.3	2 1	8 11.42	+11 53.2	1.724	2.696	4.3	19.1
2 11	8 4.40	+ 7 42.4	2.219	3.150	7.1	21.4	2 11	8 1.53	+12 5.7	1.760	2.696	8.2	19.4
2 21	7 57.51	+ 8 15.7	2.290	3.160	10.0	21.6	2 21	7 53.58	+12 19.6	1.822	2.696	12.0	19.6
3 2	7 52.65	+ 8 49.5	2.385	3.169	12.6	21.8	3 2	7 48.22	+12 32.5	1.907	2.696	15.2	19.8
<b>266538</b>	2008 <i>FY</i> <sub>95</sub>		1 23.7 307°52	0°3/23.8	18		<b>79189</b>	1993 <i>RB</i> <sub>8</sub>		1 23.7 109°69	3°2/25.6	18	
12 23	8 46.54	+18 46.1	1.596	2.444	14.5	19.7	12 23	8 45.45	+ 8 33.7	1.985	2.797	13.5	20.0
1 2	8 40.78	+18 41.0	1.512	2.430	10.6	19.4	1 2	8 39.28	+ 8 47.5	1.922	2.814	10.2	19.8
1 12	8 32.37	+18 41.8	1.451	2.415	6.0	19.1	1 12	8 31.21	+ 9 15.5	1.885	2.832	6.6	19.6
1 22	8 22.19	+18 45.4	1.418	2.401	1.0	18.7	1 22	8 22.03	+ 9 55.3	1.875	2.849	3.5	19.5
2 1	8 11.54	+18 48.3	1.412	2.388	4.3	18.9	2 1	8 12.71	+10 43.1	1.894	2.865	4.2	19.5
2 11	8 1.87	+18 47.8	1.434	2.374	9.3	19.2	2 11	8 4.31	+11 34.5	1.944	2.881	7.5	19.8
2 21	7 54.41	+18 42.5	1.480	2.361	13.8	19.4	2 21	7 57.63	+12 25.2	2.020	2.896	10.8	20.0
3 2	7 49.96	+18 32.0	1.546	2.349	17.6	19.6	3 2	7 53.25	+13 11.7	2.119	2.911	13.8	20.2
<b>305652</b>	2009 <i>BB</i> <sub>56</sub>		1 23.7 41°41	0°9/23.4	18		<b>62571</b>	2000 <i>SY</i> <sub>274</sub>		1 23.7 136°11	1°6/22.7	18	
12 23	8 49.53	+21 31.2	1.328	2.185</									

EPHEMERIDES

1 23.7

1 23.7

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>495028</b>	2010 <i>UH</i> <sub>93</sub>		1 23.7 108°83	0°9/23.2	18		<b>397448</b>	2007 <i>EF</i> <sub>123</sub>		1 23.7 233°16	2°6/22.4	18	
12 23	8 48.37	+21 10.7	1.896	2.737	12.9	21.7	12 23	8 49.62	+23 28.1	1.646	2.495	14.1	21.6
1 2	8 41.49	+21 28.8	1.836	2.751	9.2	21.5	1 2	8 43.08	+24 17.8	1.566	2.485	10.2	21.3
1 12	8 32.47	+21 50.0	1.802	2.765	5.1	21.3	1 12	8 33.73	+25 11.9	1.511	2.474	5.9	21.0
1 22	8 22.21	+22 10.4	1.796	2.779	1.1	21.1	1 22	8 22.47	+26 3.4	1.483	2.463	2.6	20.8
2 1	8 11.85	+22 25.9	1.820	2.792	4.0	21.3	2 1	8 10.65	+26 45.3	1.484	2.452	5.5	21.0
2 11	8 2.59	+22 34.3	1.872	2.805	8.0	21.6	2 11	7 59.85	+27 13.1	1.512	2.439	10.1	21.2
2 21	7 55.33	+22 34.8	1.951	2.818	11.6	21.8	2 21	7 51.36	+27 25.5	1.565	2.427	14.3	21.4
3 2	7 50.67	+22 27.9	2.052	2.830	14.6	22.0	3 2	7 46.07	+27 23.9	1.639	2.414	17.9	21.6
<b>2816</b>	Pien		1 23.7 103°92	1°8/22.5	18	R	<b>59730</b>	1999 <i>LW</i>		1 23.7 91°72	2°9/25.0	18	
12 23	8 46.35	+22 17.4	2.041	2.883	12.0	16.6	12 23	8 46.78	+11 10.6	1.550	2.382	15.7	19.4
1 2	8 40.00	+23 11.5	1.985	2.901	8.5	16.4	1 2	8 40.72	+11 13.8	1.487	2.392	11.7	19.2
1 12	8 31.64	+24 8.7	1.955	2.918	4.8	16.2	1 12	8 32.22	+11 31.8	1.447	2.402	7.3	18.9
1 22	8 22.09	+25 3.5	1.954	2.935	1.9	16.0	1 22	8 22.22	+12 1.9	1.433	2.412	3.3	18.7
2 1	8 12.41	+25 50.6	1.983	2.951	4.3	16.2	2 1	8 12.00	+12 40.0	1.448	2.421	4.6	18.8
2 11	8 3.69	+26 26.7	2.041	2.967	7.9	16.5	2 11	8 2.94	+13 20.9	1.489	2.431	8.9	19.1
2 21	7 56.81	+26 50.5	2.126	2.983	11.2	16.7	2 21	7 56.07	+14 0.3	1.556	2.440	13.0	19.4
3 2	7 52.35	+27 2.6	2.233	2.998	14.0	16.9	3 2	7 52.08	+14 34.9	1.644	2.449	16.5	19.6
<b>212452</b>	2006 <i>QJ</i> <sub>18</sub>		1 23.7 199°62	2°6/22.2	18		<b>508111</b>	2015 <i>DJ</i> <sub>197</sub>		1 23.7 210°41	1°8/24.7	18	
12 23	8 47.40	+23 49.4	1.898	2.744	12.6	20.7	12 23	8 43.43	+13 34.5	2.519	3.339	10.7	20.9
1 2	8 41.10	+24 46.7	1.824	2.742	9.1	20.5	1 2	8 37.64	+13 22.1	2.437	3.337	7.9	20.7
1 12	8 32.44	+25 47.5	1.776	2.739	5.2	20.3	1 12	8 30.27	+13 16.6	2.381	3.335	4.8	20.5
1 22	8 22.23	+26 45.1	1.757	2.736	2.6	20.1	1 22	8 21.93	+13 16.6	2.354	3.333	2.0	20.3
2 1	8 11.65	+27 33.4	1.767	2.732	5.1	20.2	2 1	8 13.40	+13 20.6	2.358	3.331	3.2	20.4
2 11	8 1.98	+28 8.4	1.805	2.728	9.0	20.5	2 11	8 5.51	+13 26.7	2.392	3.329	6.3	20.6
2 21	7 54.30	+28 28.9	1.869	2.724	12.7	20.7	2 21	7 58.96	+13 33.2	2.454	3.326	9.3	20.8
3 2	7 49.33	+28 35.7	1.954	2.719	15.7	20.9	3 2	7 54.28	+13 38.6	2.540	3.324	12.0	21.0
<b>205315</b>	2000 <i>TG</i> <sub>41</sub>		1 23.7 185°81	2°3/22.0	18		<b>117638</b>	2005 <i>EN</i> <sub>132</sub>		1 23.7 236°73	0°1/23.7	18	
12 23	8 43.93	+26 38.8	2.809	3.646	9.2	20.9	12 23	8 47.28	+18 8.2	1.920	2.757	12.9	21.2
1 2	8 37.96	+27 11.3	2.734	3.646	6.7	20.7	1 2	8 40.98	+18 27.0	1.833	2.746	9.4	20.9
1 12	8 30.42	+27 43.1	2.686	3.645	4.0	20.5	1 12	8 32.38	+18 52.6	1.771	2.734	5.3	20.7
1 22	8 21.93	+28 10.5	2.668	3.644	2.3	20.4	1 22	8 22.26	+19 21.4	1.738	2.722	0.8	20.3
2 1	8 13.25	+28 30.5	2.682	3.643	3.9	20.5	2 1	8 11.70	+19 49.2	1.734	2.709	3.8	20.5
2 11	8 5.21	+28 41.2	2.725	3.642	6.6	20.7	2 11	8 1.95	+20 12.4	1.760	2.696	8.2	20.8
2 21	7 58.51	+28 42.2	2.796	3.640	9.3	20.9	2 21	7 54.06	+20 28.9	1.812	2.682	12.2	21.0
3 2	7 53.67	+28 34.3	2.890	3.638	11.5	21.0	3 2	7 48.77	+20 38.0	1.885	2.668	15.6	21.2
<b>146514</b>	2001 <i>SX</i> <sub>118</sub>		1 23.7 250°96	2°1/24.8	18		<b>26006</b>	2001 <i>FC</i> <sub>112</sub>		1 23.7 165°90	1°5/22.9	18	
12 23	8 45.78	+12 29.1	2.084	2.905	12.6	20.8	12 23	8 50.14	+20 53.0	1.688	2.531	14.1	20.2
1 2	8 39.77	+12 33.0	1.987	2.888	9.4	20.5	1 2	8 43.19	+21 41.8	1.620	2.536	10.1	19.9
1 12	8 31.67	+12 47.2	1.915	2.870	5.8	20.3	1 12	8 33.64	+22 36.4	1.577	2.541	5.6	19.7
1 22	8 22.14	+13 10.0	1.872	2.851	2.4	20.0	1 22	8 22.44	+23 30.5	1.562	2.544	1.6	19.4
2 1	8 12.15	+13 38.5	1.858	2.831	3.8	20.1	2 1	8 10.92	+24 17.7	1.576	2.547	4.8	19.6
2 11	8 2.79	+14 9.2	1.874	2.812	7.7	20.3	2 11	8 0.51	+24 53.3	1.619	2.550	9.3	19.9
2 21	7 55.03	+14 39.0	1.917	2.791	11.5	20.4	2 21	7 52.37	+25 15.9	1.688	2.551	13.3	20.1
3 2	7 49.60	+15 5.5	1.983	2.770	14.7	20.6	3 2	7 47.23	+25 26.1	1.777	2.552	16.7	20.4
<b>175726</b>	Borda		1 23.7 141°39	1°4/24.5	18		<b>306070</b>	2010 <i>GK</i> <sub>106</sub>		1 23.7 245°75	6°5/26.9	18	
12 23	8 45.95	+13 34.9	2.158	2.981	12.2	20.9	12 23	8 44.98	+ 2 6.9	1.658	2.456	16.4	21.1
1 2	8 39.60	+13 53.5	2.089	2.992	8.9	20.7	1 2	8 39.52	+ 1 54.6	1.573	2.448	13.2	20.9
1 12	8 31.40	+14 21.4	2.045	3.002	5.3	20.5	1 12	8 31.66	+ 2 4.7	1.511	2.439	9.7	20.7
1 22	8 22.08	+14 55.7	2.031	3.012	1.8	20.3	1 22	8 22.17	+ 2 37.7	1.473	2.430	7.0	20.5
2 1	8 12.60	+15 32.9	2.047	3.022	3.4	20.4	2 1	8 12.18	+ 3 31.5	1.462	2.420	7.0	20.5
2 11	8 3.94	+16 9.3	2.093	3.030	7.0	20.6	2 11	8 3.00	+ 4 40.5	1.478	2.410	9.8	20.6
2 21	7 56.91	+16 42.2	2.167	3.039	10.4	20.9	2 21	7 55.76	+ 5 57.7	1.520	2.400	13.5	20.8
3 2	7 52.09	+17 9.7	2.264	3.046	13.3	21.1	3 2	7 51.24	+ 7 16.0	1.583	2.390	17.0	21.0
<b>406081</b>	2006 <i>UK</i> <sub>143</sub>		1 23.7 83°51	0°1/23.7	18		<b>76014</b>	2000 <i>DV</i> <sub>28</sub>		1 23.7 181°62	0°1/23.7	18	
12 23	8 49.64	+18 12.1	1.785	2.621	13.7	21.7	12 23	8 43.79	+18 6.3	2.259	3.094	11.3	19.8
1 2	8 42.31	+18 33.1	1.739	2.652	9.8	21.6	1 2	8 38.10	+18 26.7	2.183	3.094	8.1	19.6
1 12	8 32.87	+19 0.0	1.719	2.682	5.4	21.4	1 12	8 30.61	+18 52.7	2.132	3.095	4.5	19.4
1 22	8 22.28	+19 28.5	1.728	2.711	0.8	21.1	1 22	8 22.00	+19 21.3	2.111	3.094	0.7	19.1
2 1	8 11.76	+19 54.5	1.766	2.740	3.8	21.4	2 1	8 13.17	+19 48.9	2.120	3.094	3.2	19.3
2 11	8 2.50	+20 14.9	1.833	2.769	8.0	21.7	2 11	8 5.07	+20 12.8	2.158	3.094	6.9	19.5
2 21	7 55.38	+20 28.3	1.926	2.797	11.6	22.0	2 21	7 58.51	+20 30.9	2.224	3.093	10.3	19.7
3 2	7 50.90	+20 34.6	2.042	2.824	14.6	22.2	3 2	7 54.06	+20 42.5	2.312	3.093	13.1	19.9
<b>410016</b>	2006 <i>WP</i> <sub>149</sub>		1 23.7 51°07	0°2/23.7	18		<b>171853</b>	2001 <i>MN</i> <sub>17</sub>		1 23.7 312°78	1°2/22.8	18	
12 23	8 46.41	+17 54.6	1.511	2.361	15.1	21.4	12 23	8 44.43	+15 57.8	1.623	2.469	14.4	19.3
1 2	8 40.47	+18 11.3	1.457	2.375	10.8	21.2	1 2	8 39.35	+17 49.2	1.545	2.463	10.4	19.1
1 12	8 32.05	+18 36.0	1.426	2.390	6.0	20.9	1 12	8 31.68	+19 57.6	1.493	2.458	5.7	18.8
1 22	8 22.18	+19 4.2	1.421	2.405	0.9	20.6	1 22	8 22.21	+22 14.1	1.469	2.452	1.2	18.5
2 1	8 12.21	+19 31.2	1.445	2.420	4.2	20.9	2 1	8 12.12	+24 27.3	1.476	2.447	4.9	18.7
2 11	8 3.52	+19 52.9	1.495	2.436	8.9	21.2	2 11	8 2.85	+26 26.9	1.511	2.442	9.7	19.0
2 21	7 57.14	+20 7.4	1.570	2.452	13.1	21.5	2 21	7 55.64	+28 6.7	1.572	2.438	14.0	19.2
3 2	7 53.69	+20 14.0	1.666	2.468	16.5	21.8	3 2	7 51.37	+29 24.4	1.654	2.433	17.6	19.4
<b>133032</b>	2002 <i>XU</i> <sub>102</sub>		1 23.7 103°69	0°2/23.8	18		<b>430597</b>	2002 <i>SP</i> <sub>71</sub>		1 23.7 87°81	4°2/21.4	18	
12 23	8 44.02	+17 14.0	2.606	3.433	10.2	20.5	12 23	8					

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>427691</b>	2004 EW <sub>41</sub>		1 23.7 330°12	3°8/21.9	18		<b>134238</b>	2005 YX <sub>126</sub>		1 23.7 320°52	2°4/22.9	18	
12 23	8 46.35	+29 31.0	1.927	2.777	12.3	20.4	12 23	8 49.50	+24 34.6	1.255	2.118	16.6	19.9
1 2	8 40.37	+29 53.3	1.850	2.767	9.0	20.2	1 2	8 43.59	+24 37.7	1.179	2.105	12.1	19.6
1 12	8 32.04	+30 12.0	1.799	2.757	5.7	19.9	1 12	8 34.26	+24 41.3	1.126	2.092	6.9	19.3
1 22	8 22.25	+30 21.9	1.774	2.748	3.8	19.8	1 22	8 22.63	+24 39.3	1.098	2.080	2.5	19.0
2 1	8 12.16	+30 18.9	1.779	2.739	5.8	19.9	2 1	8 10.43	+24 26.6	1.095	2.068	6.0	19.1
2 11	8 3.08	+30 1.4	1.811	2.730	9.2	20.1	2 11	7 59.67	+24 1.3	1.118	2.057	11.5	19.4
2 21	7 56.03	+29 30.7	1.868	2.723	12.7	20.3	2 21	7 51.86	+23 24.7	1.163	2.046	16.5	19.7
3 2	7 51.71	+28 49.4	1.947	2.715	15.6	20.5	3 2	7 47.92	+22 39.8	1.226	2.037	20.8	19.9
<b>473983</b>	2016 EA <sub>198</sub>		1 23.7 221°37	0°8/23.2	17		<b>104601</b>	2000 GG <sub>97</sub>		1 23.7 278°11	2°2/24.7	18	
12 23	8 45.70	+20 36.8	2.200	3.038	11.5	21.9	12 23	8 45.75	+13 8.8	1.831	2.661	13.7	20.3
1 2	8 39.60	+21 2.5	2.118	3.031	8.2	21.7	1 2	8 40.06	+13 8.6	1.733	2.639	10.3	20.1
1 12	8 31.52	+21 32.5	2.061	3.024	4.6	21.5	1 12	8 32.00	+13 19.3	1.660	2.617	6.3	19.8
1 22	8 22.17	+22 2.7	2.034	3.017	1.0	21.2	1 22	8 22.29	+13 39.2	1.614	2.594	2.5	19.5
2 1	8 12.51	+22 29.5	2.037	3.009	3.7	21.4	2 1	8 11.99	+14 5.1	1.597	2.571	4.1	19.5
2 11	8 3.60	+22 49.7	2.069	3.001	7.5	21.6	2 11	8 2.39	+14 33.3	1.608	2.548	8.5	19.7
2 21	7 56.31	+23 2.0	2.129	2.993	10.9	21.8	2 21	7 54.58	+15 0.5	1.645	2.525	12.7	19.9
3 2	7 51.31	+23 6.2	2.211	2.984	13.9	22.0	3 2	7 49.42	+15 24.0	1.704	2.501	16.4	20.1
<b>486933</b>	2014 MV <sub>31</sub>		1 23.7 239°44	0°6/23.9	18		<b>466396</b>	2013 SL <sub>51</sub>		1 23.7 85°67	0°6/23.3	18	
12 23	8 48.82	+17 30.5	1.644	2.485	14.5	21.2	12 23	8 44.61	+19 14.7	2.157	2.995	11.6	21.3
1 2	8 42.33	+17 31.6	1.564	2.478	10.6	20.9	1 2	8 38.65	+19 51.1	2.100	3.014	8.3	21.1
1 12	8 33.24	+17 40.0	1.508	2.470	6.0	20.6	1 12	8 30.89	+20 32.5	2.069	3.033	4.5	20.9
1 22	8 22.44	+17 52.5	1.479	2.462	1.2	20.3	1 22	8 22.08	+21 14.7	2.068	3.051	0.8	20.6
2 1	8 11.21	+18 5.3	1.479	2.454	4.2	20.5	2 1	8 13.18	+21 53.5	2.096	3.070	3.5	20.9
2 11	8 1.01	+18 15.1	1.506	2.446	9.0	20.7	2 11	8 5.17	+22 25.7	2.155	3.088	7.1	21.1
2 21	7 53.00	+18 20.2	1.559	2.437	13.4	21.0	2 21	7 58.82	+22 49.7	2.239	3.106	10.4	21.4
3 2	7 47.98	+18 19.9	1.633	2.428	17.1	21.2	3 2	7 54.65	+23 5.1	2.347	3.124	13.1	21.6
<b>327932</b>	2007 DL <sub>78</sub>		1 23.7 27°90	4°3/26.4	18		<b>451237</b>	2010 EO <sub>79</sub>		1 23.7 305°22	0°9/24.1	18	
12 23	8 41.76	+ 5 6.2	1.535	2.356	16.4	20.4	12 23	8 45.51	+15 25.6	1.339	2.192	16.5	20.9
1 2	8 37.21	+ 5 46.0	1.469	2.363	12.6	20.2	1 2	8 40.46	+15 53.2	1.262	2.181	12.1	20.6
1 12	8 30.34	+ 6 49.7	1.425	2.370	8.5	19.9	1 12	8 32.44	+16 35.3	1.207	2.171	7.0	20.3
1 22	8 22.01	+ 8 13.8	1.406	2.378	4.9	19.7	1 22	8 22.36	+17 26.9	1.177	2.160	1.5	19.9
2 1	8 13.39	+ 9 51.8	1.415	2.386	5.2	19.8	2 1	8 11.68	+18 21.5	1.174	2.150	4.7	20.1
2 11	8 5.74	+11 34.9	1.451	2.395	8.9	20.0	2 11	8 2.08	+19 12.3	1.197	2.141	10.3	20.4
2 21	8 0.12	+13 14.9	1.513	2.405	12.9	20.3	2 21	7 54.96	+19 54.4	1.242	2.131	15.3	20.7
3 2	7 57.20	+14 45.2	1.597	2.415	16.4	20.5	3 2	7 51.25	+20 25.5	1.308	2.122	19.5	20.9
<b>427834</b>	2005 JY <sub>114</sub>		1 23.7 220°34	3°8/26.5	17		<b>83155</b>	2001 QZ <sub>271</sub>		1 23.7 26°14	2°7/25.6	18	
12 23	8 41.19	+ 4 29.7	2.836	3.621	10.6	22.1	12 23	8 40.41	+ 7 48.3	1.629	2.458	15.2	18.1
1 2	8 35.97	+ 4 29.1	2.743	3.613	8.3	22.0	1 2	8 36.09	+ 8 51.6	1.570	2.472	11.4	17.8
1 12	8 29.36	+ 4 40.7	2.675	3.604	5.9	21.8	1 12	8 29.65	+10 15.2	1.534	2.487	7.1	17.6
1 22	8 21.86	+ 5 4.1	2.636	3.595	4.1	21.7	1 22	8 21.92	+11 53.9	1.525	2.503	3.2	17.4
2 1	8 14.11	+ 5 37.6	2.627	3.586	4.2	21.6	2 1	8 13.97	+13 40.1	1.545	2.520	4.1	17.5
2 11	8 6.83	+ 6 18.6	2.648	3.576	6.2	21.8	2 11	8 6.99	+15 25.1	1.593	2.537	8.1	17.8
2 21	8 0.64	+ 7 3.7	2.697	3.566	8.7	21.9	2 21	8 1.90	+17 1.8	1.667	2.556	12.0	18.1
3 2	7 56.04	+ 7 49.8	2.771	3.555	11.1	22.1	3 2	7 59.32	+18 25.6	1.764	2.575	15.4	18.3
<b>72501</b>	2001 DA <sub>67</sub>		1 23.7 192°57	2°0/22.7	18		<b>398382</b>	2011 ST <sub>144</sub>		1 23.7 156°05	2°9/25.3	18	
12 23	8 46.19	+24 16.9	2.072	2.916	11.8	19.3	12 23	8 47.55	+ 9 32.8	1.988	2.799	13.5	22.1
1 2	8 40.00	+24 40.0	2.000	2.916	8.5	19.1	1 2	8 40.91	+ 9 44.6	1.915	2.808	10.2	21.9
1 12	8 31.74	+25 4.1	1.953	2.916	4.8	18.9	1 12	8 32.23	+10 9.8	1.868	2.816	6.5	21.7
1 22	8 22.21	+25 24.6	1.935	2.915	2.0	18.7	1 22	8 22.30	+10 46.1	1.848	2.824	3.3	21.5
2 1	8 12.45	+25 38.0	1.946	2.915	4.3	18.9	2 1	8 12.14	+11 30.0	1.859	2.830	4.1	21.6
2 11	8 3.60	+25 41.8	1.987	2.915	8.0	19.1	2 11	8 2.84	+12 17.1	1.900	2.836	7.7	21.8
2 21	7 56.56	+25 36.0	2.053	2.914	11.4	19.3	2 21	7 55.32	+13 3.3	1.967	2.841	11.2	22.0
3 2	7 51.96	+25 21.4	2.142	2.914	14.3	19.5	3 2	7 50.19	+13 45.6	2.058	2.845	14.3	22.2
<b>328533</b>	2009 RH <sub>14</sub>		1 23.7 174°24	2°6/25.2	18		<b>17981</b>	1999 JZ <sub>56</sub>		1 23.7 27°92	0°7/23.3	18	R
12 23	8 44.04	+10 30.0	2.041	2.861	12.9	21.0	12 23	8 43.10	+20 15.9	2.103	2.947	11.7	17.9
1 2	8 38.41	+10 39.6	1.964	2.862	9.7	20.8	1 2	8 37.73	+20 41.6	2.033	2.950	8.3	17.7
1 12	8 30.85	+11 1.7	1.911	2.863	6.1	20.6	1 12	8 30.46	+21 11.8	1.989	2.953	4.6	17.4
1 22	8 22.08	+11 34.1	1.886	2.863	2.9	20.4	1 22	8 22.04	+21 42.7	1.974	2.957	0.9	17.2
2 1	8 13.05	+12 13.6	1.891	2.864	3.9	20.4	2 1	8 13.42	+22 10.4	1.988	2.961	3.6	17.4
2 11	8 4.78	+12 56.1	1.925	2.864	7.4	20.6	2 11	8 5.62	+22 32.0	2.031	2.965	7.4	17.6
2 21	7 58.13	+13 37.9	1.986	2.864	10.9	20.9	2 21	7 59.47	+22 45.8	2.100	2.970	10.8	17.9
3 2	7 53.74	+14 16.0	2.070	2.864	14.0	21.1	3 2	7 55.55	+22 51.6	2.191	2.974	13.7	18.1
<b>343375</b>	2010 CF <sub>117</sub>		1 23.7 183°10	4°1/21.2	18		<b>296076</b>	2009 BZ <sub>7</sub>		1 23.7 266°29	0°3/23.5	17	
12 23	8 46.71	+32 0.7	2.419	3.258	10.5	21.0	12 23	8 42.21	+17 48.9	2.475	3.308	10.5	20.9
1 2	8 40.23	+32 38.0	2.349	3.258	7.8	20.9	1 2	8 37.02	+18 33.7	2.380	3.291	7.6	20.7
1 12	8 31.81	+33 10.6	2.307	3.258	5.3	20.7	1 12	8 30.09	+19 25.7	2.312	3.275	4.2	20.5
1 22	8 22.22	+33 33.7	2.293	3.257	4.1	20.6	1 22	8 22.00	+20 21.4	2.274	3.257	0.6	20.2
2 1	8 12.44	+33 43.4	2.309	3.257	5.6	20.7	2 1	8 13.52	+21 16.3	2.266	3.240	3.2	20.3
2 11	8 3.53	+33 38.5	2.354	3.257	8.3	20.9	2 11	8 5.56	+22 6.6	2.289	3.223	6.8	20.5
2 21	7 56.33	+33 20.0	2.425	3.256	10.9	21.1	2 21	7 58.92	+22 49.5	2.340	3.205	10.0	20.7
3 2	7 51.42	+32 50.0	2.518	3.255	13.3	21.2	3 2	7 54.21	+23 23.5	2.414	3.187	12.8	20.9
<b>366737</b>	2004 FE <sub>32</sub>		1 23.7 201°94	5°6/28.5	17		<b>411855</b>	2012 DX <sub>76</sub>		1 23.7 59°17	4°9/22.0	18	
12 23	8 44.35	- 3 22.6	2.539	3.283	12.8	21.7	12 23	8 52.61	+31 54.3	1.619	2.467	14.3	

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>368057</b>	2012 <i>HH</i> <sub>53</sub>		1 23.7 107°80		1.7/22.7	18	<b>124399</b>	2001 <i>QN</i> <sub>197</sub>		1 23.7 37°88		2°1/24.2	18
12 23	8 45.23	+21 26.9	1.919	2.765	12.5	20.9	12 23	8 50.70	+17 2.7	1.126	1.984	18.5	18.9
1 2	8 39.44	+22 20.0	1.853	2.771	8.9	20.7	1 2	8 44.06	+16 19.8	1.077	1.997	13.5	18.6
1 12	8 31.49	+23 18.1	1.813	2.777	5.0	20.4	1 12	8 34.25	+15 45.6	1.049	2.012	7.8	18.4
1 22	8 22.20	+24 15.3	1.801	2.783	1.7	20.2	1 22	8 22.62	+15 18.6	1.045	2.027	2.5	18.1
2 1	8 12.65	+25 6.0	1.819	2.789	4.4	20.4	2 1	8 11.01	+14 56.8	1.067	2.044	5.2	18.3
2 11	8 4.03	+25 46.1	1.865	2.794	8.3	20.7	2 11	8 1.22	+14 38.4	1.115	2.060	10.7	18.7
2 21	7 57.28	+26 13.8	1.937	2.800	11.9	20.9	2 21	7 54.48	+14 22.1	1.184	2.078	15.5	19.0
3 2	7 53.05	+26 29.2	2.031	2.805	14.9	21.1	3 2	7 51.41	+14 6.2	1.273	2.096	19.5	19.3
<b>244109</b>	2001 <i>UX</i> <sub>213</sub>		1 23.7 29°22		5°2/26.9	18	<b>81086</b>	2000 <i>EN</i> <sub>91</sub>		1 23.7 240°33		3°4/25.2	18
12 23	8 40.91	+ 2 55.4	2.143	2.936	13.3	20.3	12 23	8 47.34	+ 9 52.0	2.162	2.970	12.7	19.5
1 2	8 36.06	+ 2 45.3	2.068	2.940	10.6	20.1	1 2	8 40.81	+ 9 26.5	2.065	2.955	9.7	19.3
1 12	8 29.51	+ 2 52.0	2.017	2.944	7.7	19.9	1 12	8 32.26	+ 9 11.0	1.994	2.940	6.4	19.0
1 22	8 21.91	+ 3 15.3	1.993	2.949	5.5	19.8	1 22	8 22.36	+ 9 5.3	1.951	2.923	3.7	18.8
2 1	8 14.09	+ 3 53.1	1.997	2.953	5.5	19.8	2 1	8 12.03	+ 9 8.2	1.939	2.907	4.5	18.8
2 11	8 6.97	+ 4 41.6	2.029	2.958	7.7	19.9	2 11	8 2.36	+ 9 17.5	1.956	2.889	7.8	19.0
2 21	8 1.31	+ 5 36.1	2.087	2.964	10.6	20.1	2 21	7 54.26	+ 9 30.7	2.001	2.871	11.2	19.2
3 2	7 57.66	+ 6 32.0	2.169	2.969	13.2	20.3	3 2	7 48.43	+ 9 45.4	2.069	2.853	14.3	19.4
<b>316486</b>	2010 <i>VK</i> <sub>71</sub>		1 23.7 197°84		3°9/21.1	18	<b>228698</b>	2002 <i>PF</i> <sub>187</sub>		1 23.7 100°95		2°2/22.6	18
12 23	8 47.62	+27 48.3	2.121	2.964	11.6	20.9	12 23	8 49.35	+20 40.0	1.363	2.218	16.1	20.7
1 2	8 41.21	+29 4.2	2.048	2.962	8.5	20.7	1 2	8 43.03	+21 50.9	1.308	2.230	11.5	20.4
1 12	8 32.53	+30 20.3	2.002	2.958	5.4	20.5	1 12	8 33.73	+23 9.9	1.276	2.241	6.4	20.2
1 22	8 22.37	+31 29.7	1.984	2.955	3.9	20.4	1 22	8 22.57	+24 27.9	1.271	2.252	2.2	19.9
2 1	8 11.79	+32 25.9	1.998	2.950	5.9	20.5	2 1	8 11.13	+25 35.9	1.293	2.264	5.7	20.2
2 11	8 2.04	+33 5.3	2.039	2.946	9.1	20.7	2 11	8 1.10	+26 27.8	1.342	2.274	10.6	20.5
2 21	7 54.13	+33 27.0	2.107	2.940	12.3	20.9	2 21	7 53.76	+27 1.5	1.414	2.285	15.0	20.8
3 2	7 48.80	+33 33.0	2.196	2.935	14.9	21.1	3 2	7 49.86	+27 18.3	1.507	2.295	18.6	21.0
<b>424269</b>	2007 <i>TO</i> <sub>24</sub>		1 23.7 205°68		0°7/23.3	18	<b>458820</b>	2011 <i>TT</i> <sub>14</sub>		1 23.7 80°71		3°9/21.8	17
12 23	8 45.38	+21 11.7	2.290	3.127	11.1	20.8	12 23	8 51.00	+26 2.1	1.495	2.348	15.0	21.2
1 2	8 39.24	+21 21.3	2.212	3.125	7.9	20.6	1 2	8 43.89	+27 9.8	1.453	2.372	10.8	21.0
1 12	8 31.27	+21 33.5	2.160	3.123	4.4	20.3	1 12	8 34.03	+28 17.1	1.435	2.396	6.4	20.8
1 22	8 22.17	+21 45.3	2.138	3.122	0.9	20.1	1 22	8 22.60	+29 15.2	1.444	2.420	3.9	20.7
2 1	8 12.86	+21 53.7	2.146	3.119	3.4	20.3	2 1	8 11.14	+29 57.2	1.481	2.443	6.4	20.9
2 11	8 4.33	+21 56.8	2.184	3.117	7.1	20.5	2 11	8 1.23	+30 20.0	1.546	2.466	10.4	21.2
2 21	7 57.38	+21 53.7	2.249	3.115	10.4	20.7	2 21	7 53.97	+30 24.8	1.634	2.489	14.1	21.4
3 2	7 52.60	+21 44.7	2.337	3.112	13.2	20.9	3 2	7 49.96	+30 14.4	1.742	2.512	17.2	21.7
<b>93696</b>	2000 <i>VV</i> <sub>25</sub>		1 23.7 190°62		0°9/23.2	18	<b>405159</b>	2002 <i>TS</i> <sub>312</sub>		1 23.7 125°04		2°2/22.3	18
12 23	8 45.65	+20 38.8	1.969	2.812	12.4	19.9	12 23	8 48.64	+23 46.9	2.162	2.999	11.6	22.5
1 2	8 39.69	+21 3.9	1.895	2.811	8.9	19.6	1 2	8 41.61	+24 42.4	2.105	3.018	8.3	22.3
1 12	8 31.63	+21 33.4	1.847	2.811	4.9	19.4	1 12	8 32.58	+25 39.4	2.076	3.037	4.7	22.1
1 22	8 22.23	+22 3.3	1.828	2.811	1.0	19.1	1 22	8 22.39	+26 32.3	2.076	3.055	2.2	22.0
2 1	8 12.57	+22 29.2	1.837	2.810	3.9	19.3	2 1	8 12.06	+27 16.1	2.107	3.072	4.4	22.1
2 11	8 3.80	+22 48.0	1.876	2.810	8.0	19.6	2 11	8 2.70	+27 47.9	2.167	3.088	7.9	22.4
2 21	7 56.86	+22 58.5	1.940	2.809	11.6	19.8	2 21	7 55.16	+28 7.0	2.255	3.104	11.0	22.6
3 2	7 52.39	+23 0.4	2.027	2.808	14.7	20.0	3 2	7 50.02	+28 14.4	2.365	3.119	13.6	22.8
<b>373168</b>	2012 <i>DH</i> <sub>15</sub>		1 23.7 202°19		9°5/15.5	13 C	<b>411422</b>	2010 <i>VA</i> <sub>204</sub>		1 23.7 70°84		5°5/25.9	18
12 23	9 2.28	+56 0.6	2.929	3.679	11.1	22.2	12 23	8 46.26	+ 6 10.6	1.701	2.512	15.5	20.5
1 2	8 51.98	+57 11.9	2.874	3.673	10.1	22.1	1 2	8 40.22	+ 5 30.7	1.632	2.518	12.1	20.3
1 12	8 38.59	+58 4.6	2.844	3.667	9.6	22.0	1 12	8 31.95	+ 5 7.0	1.587	2.524	8.5	20.1
1 22	8 23.26	+58 31.7	2.839	3.659	9.7	22.0	1 22	8 22.31	+ 5 0.0	1.567	2.530	5.8	20.0
2 1	8 7.64	+58 29.3	2.859	3.651	10.4	22.1	2 1	8 12.43	+ 5 8.6	1.575	2.537	6.2	20.0
2 11	7 53.50	+57 57.9	2.904	3.643	11.5	22.1	2 11	8 3.55	+ 5 29.4	1.611	2.543	9.2	20.2
2 21	7 42.16	+57 2.0	2.969	3.633	12.8	22.2	2 21	7 56.64	+ 5 58.2	1.671	2.549	12.6	20.4
3 2	7 34.38	+55 47.8	3.053	3.623	14.0	22.3	3 2	7 52.35	+ 6 30.2	1.754	2.556	15.8	20.6
<b>264420</b>	2000 <i>QY</i> <sub>165</sub>		1 23.7 87°95		0°2/23.8	18	<b>16352</b>	1974 <i>FF</i>		1 23.7 266°05		2°1/22.8	18
12 23	8 48.42	+18 27.2	1.937	2.772	12.9	20.5	12 23	8 48.44	+23 33.2	1.687	2.537	13.8	18.0
1 2	8 41.42	+18 31.0	1.883	2.794	9.2	20.3	1 2	8 42.15	+23 58.2	1.608	2.526	10.0	17.8
1 12	8 32.43	+18 39.8	1.854	2.816	5.1	20.1	1 12	8 33.20	+24 25.8	1.552	2.516	5.7	17.5
1 22	8 22.33	+18 50.4	1.854	2.837	0.8	19.8	1 22	8 22.51	+24 50.4	1.524	2.506	2.1	17.3
2 1	8 12.23	+18 59.9	1.884	2.859	3.5	20.1	2 1	8 11.38	+25 7.0	1.525	2.495	5.0	17.4
2 11	8 3.24	+19 5.9	1.943	2.880	7.5	20.4	2 11	8 1.28	+25 12.3	1.553	2.485	9.5	17.7
2 21	7 56.19	+19 7.4	2.029	2.900	11.1	20.6	2 21	7 53.41	+25 6.1	1.606	2.474	13.7	17.9
3 2	7 51.61	+19 4.2	2.138	2.921	14.0	20.9	3 2	7 48.55	+24 49.5	1.680	2.463	17.2	18.1
<b>495444</b>	2014 <i>SU</i> <sub>330</sub>		1 23.7 92°63		12°0/30.9	18	<b>45944</b>	2001 <i>AW</i> <sub>16</sub>		1 23.7 302°29		0°4/23.9	18
12 23	8 43.58	-13 6.0	1.894	2.600	17.8	21.2	12 23	8 43.61	+14 26.3	1.480	2.328	15.4	18.0
1 2	8 38.24	-14 11.6	1.824	2.604	15.8	21.0	1 2	8 39.09	+15 27.5	1.388	2.305	11.4	17.7
1 12	8 30.84	-14 48.5	1.773	2.608	13.9	20.9	1 12	8 31.75	+16 47.3	1.318	2.282	6.5	17.4
1 22	8 22.13	-14 52.8	1.743	2.612	12.4	20.8	1 22	8 22.33	+18 20.2	1.275	2.258	1.1	17.0
2 1	8 13.09	-14 23.1	1.736	2.615	12.0	20.8	2 1	8 12.09	+19 57.6	1.259	2.235	4.6	17.1
2 11	8 4.85	-13 23.0	1.753	2.619	12.7	20.9	2 11	8 2.58	+21 30.2	1.271	2.213	10.1	17.4
2 21	7 58.34	-11 59.4	1.793	2.623	14.3	21.0	2 21	7 55.22	+22 51.0	1.307	2.190	15.1	17.6
3 2	7 54.22	-10 21.1	1.854	2.626	16.2	21.1	3 2	7 51.05	+23 55.9	1.363	2.168	19.3	17.8
<b>298989</b>	2004 <i>XZ</i> <sub>19</sub>		1 23.7 14°37		2°2/22.8	18	<b>460725</b>	2014 <i>VQ</i> <sub>10</sub>		1 23.7 139°39		2°0/25.1	18
12 23	8 44.12	+21 19.6	1.108	1.982									

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>297030</b>	2010 <i>GB</i> <sub>106</sub>		1 23.7 183°11	3°3/21.9	18		<b>148865</b>	2001 <i>VF</i> <sub>76</sub>		1 23.7 4°76	0°5/23.9	18	
12 23	8 49.22	+25 34.8	1.782	2.629	13.3	20.8	12 23	8 45.51	+17 13.1	1.771	2.612	13.6	20.4
1 2	8 42.59	+26 36.5	1.713	2.630	9.6	20.6	1 2	8 39.77	+17 25.5	1.698	2.612	9.9	20.2
1 12	8 33.39	+27 39.9	1.669	2.630	5.7	20.4	1 12	8 31.76	+17 45.7	1.650	2.612	5.6	19.9
1 22	8 22.54	+28 37.6	1.653	2.630	3.3	20.2	1 22	8 22.33	+18 10.2	1.629	2.613	1.0	19.6
2 1	8 11.31	+29 23.1	1.667	2.629	5.8	20.4	2 1	8 12.62	+18 35.0	1.637	2.613	3.8	19.8
2 11	8 1.13	+29 52.4	1.708	2.628	9.7	20.6	2 11	8 3.87	+18 56.5	1.673	2.613	8.3	20.1
2 21	7 53.15	+30 5.0	1.775	2.626	13.4	20.8	2 21	7 57.08	+19 12.5	1.735	2.614	12.2	20.3
3 2	7 48.12	+30 2.8	1.862	2.624	16.5	21.0	3 2	7 52.92	+19 21.9	1.819	2.614	15.6	20.5
<b>191997</b>	2005 <i>XK</i> <sub>56</sub>		1 23.7 62°80	1°6/24.2	17		<b>244741</b>	2003 <i>SY</i> <sub>33</sub>		1 23.7 148°69	1°8/22.7	18	
12 23	8 51.84	+16 16.2	1.241	2.090	17.7	19.7	12 23	8 49.45	+22 51.4	2.080	2.917	12.1	21.6
1 2	8 44.58	+15 58.6	1.196	2.112	12.9	19.5	1 2	8 42.30	+23 32.3	2.015	2.928	8.6	21.4
1 12	8 34.42	+15 51.1	1.173	2.135	7.4	19.2	1 12	8 33.05	+24 15.5	1.976	2.939	4.8	21.2
1 22	8 22.66	+15 50.5	1.176	2.158	2.1	19.0	1 22	8 22.52	+24 55.8	1.967	2.948	1.8	21.0
2 1	8 10.99	+15 53.2	1.205	2.181	4.8	19.2	2 1	8 11.80	+25 28.7	1.989	2.957	4.3	21.2
2 11	8 1.08	+15 56.1	1.261	2.204	10.0	19.6	2 11	8 2.06	+25 51.1	2.040	2.966	8.0	21.5
2 21	7 54.05	+15 57.1	1.340	2.227	14.5	19.9	2 21	7 54.21	+26 2.5	2.118	2.973	11.4	21.7
3 2	7 50.47	+15 55.1	1.440	2.250	18.2	20.2	3 2	7 48.85	+26 3.6	2.219	2.980	14.2	21.9
<b>451749</b>	2013 <i>EQ</i> <sub>85</sub>		1 23.7 357°89	5°0/21.6	17		<b>63467</b>	2001 <i>OS</i> <sub>21</sub>		1 23.7 152°66	0°6/23.3	18	
12 23	8 43.90	+26 13.3	1.074	1.954	17.5	20.3	12 23	8 47.42	+20 14.2	2.353	3.184	11.0	20.6
1 2	8 39.88	+27 22.4	1.017	1.950	12.7	20.0	1 2	8 40.63	+20 38.7	2.284	3.194	7.9	20.4
1 12	8 32.31	+28 34.6	0.981	1.947	7.8	19.8	1 12	8 32.04	+21 6.8	2.241	3.203	4.4	20.2
1 22	8 22.40	+29 38.8	0.968	1.945	5.0	19.6	1 22	8 22.37	+21 34.8	2.228	3.212	0.8	19.9
2 1	8 12.00	+30 24.4	0.979	1.944	8.2	19.8	2 1	8 12.54	+21 59.3	2.247	3.220	3.3	20.1
2 11	8 3.22	+30 46.0	1.013	1.945	13.2	20.0	2 11	8 3.52	+22 17.8	2.296	3.227	6.9	20.4
2 21	7 57.61	+30 43.7	1.067	1.948	17.9	20.3	2 21	7 56.10	+22 29.2	2.372	3.233	10.1	20.6
3 2	7 56.00	+30 21.2	1.138	1.952	21.9	20.6	3 2	7 50.84	+22 33.3	2.473	3.239	12.8	20.8
<b>87086</b>	2000 <i>KZ</i> <sub>81</sub>		1 23.7 147°50	1°1/23.3	18		<b>360750</b>	2004 <i>WY</i> <sub>5</sub>		1 23.7 39°21	0°7/23.9	18	
12 23	8 50.30	+20 53.2	1.638	2.482	14.4	19.5	12 23	8 49.19	+18 11.5	1.102	1.965	18.4	20.5
1 2	8 43.32	+21 16.6	1.572	2.488	10.3	19.2	1 2	8 42.98	+18 1.2	1.061	1.985	13.3	20.3
1 12	8 33.76	+21 44.6	1.531	2.494	5.7	19.0	1 12	8 33.65	+17 59.8	1.041	2.006	7.4	20.0
1 22	8 22.60	+22 12.1	1.517	2.500	1.2	18.7	1 22	8 22.60	+18 3.3	1.045	2.028	1.4	19.7
2 1	8 11.20	+22 34.1	1.532	2.505	4.5	18.9	2 1	8 11.65	+18 7.2	1.074	2.051	5.0	20.0
2 11	8 1.01	+22 47.4	1.575	2.510	9.1	19.2	2 11	8 2.56	+18 8.2	1.128	2.074	10.5	20.4
2 21	7 53.15	+22 51.1	1.644	2.514	13.3	19.5	2 21	7 56.51	+18 4.9	1.205	2.099	15.3	20.8
3 2	7 48.31	+22 45.9	1.733	2.518	16.7	19.7	3 2	7 54.05	+17 56.6	1.300	2.123	19.1	21.1
<b>338926</b>	2004 <i>EL</i> <sub>35</sub>		1 23.7 289°15	3°4/22.2	18		<b>274102</b>	2008 <i>CF</i> <sub>195</sub>		1 23.7 251°67	4°1/22.1	18	
12 23	8 48.40	+24 8.9	1.328	2.189	16.0	19.9	12 23	8 51.51	+26 30.0	1.336	2.195	16.1	21.4
1 2	8 42.74	+25 7.7	1.256	2.181	11.6	19.6	1 2	8 44.99	+27 17.7	1.266	2.188	11.8	21.1
1 12	8 33.81	+26 11.9	1.208	2.172	6.8	19.3	1 12	8 35.07	+28 6.4	1.220	2.182	7.1	20.8
1 22	8 22.65	+27 12.3	1.184	2.164	3.4	19.1	1 22	8 22.87	+28 47.1	1.198	2.176	4.1	20.7
2 1	8 10.87	+28 0.1	1.188	2.155	6.7	19.2	2 1	8 10.14	+29 11.9	1.204	2.169	7.0	20.8
2 11	8 0.36	+28 29.6	1.217	2.147	11.7	19.5	2 11	7 58.83	+29 16.9	1.235	2.162	11.9	21.1
2 21	7 52.64	+28 39.9	1.268	2.139	16.3	19.7	2 21	7 50.48	+29 3.2	1.289	2.155	16.4	21.3
3 2	7 48.63	+28 32.9	1.338	2.131	20.3	20.0	3 2	7 45.96	+28 34.4	1.361	2.148	20.3	21.5
<b>296637</b>	2009 <i>SR</i> <sub>87</sub>		1 23.7 22°78	2°5/24.9	18		<b>119208</b>	2001 <i>QJ</i> <sub>156</sub>		1 23.7 198°22	1°1/24.3	18	
12 23	8 42.78	+11 38.3	1.592	2.430	15.0	21.0	12 23	8 46.05	+15 0.5	2.170	2.996	12.0	21.4
1 2	8 37.90	+11 53.3	1.527	2.436	11.2	20.7	1 2	8 39.85	+15 15.7	2.088	2.994	8.8	21.2
1 12	8 30.74	+12 23.0	1.485	2.442	6.8	20.5	1 12	8 31.72	+15 39.2	2.032	2.990	5.1	20.9
1 22	8 22.16	+13 4.3	1.469	2.448	2.9	20.3	1 22	8 22.35	+16 8.2	2.004	2.986	1.4	20.7
2 1	8 13.33	+13 52.6	1.481	2.456	4.2	20.4	2 1	8 12.68	+16 39.4	2.007	2.982	3.3	20.8
2 11	8 5.51	+14 42.4	1.519	2.463	8.5	20.7	2 11	8 3.75	+17 9.3	2.040	2.977	7.2	21.0
2 21	7 59.70	+15 29.0	1.583	2.472	12.6	20.9	2 21	7 56.41	+17 35.4	2.100	2.972	10.7	21.3
3 2	7 56.58	+16 9.1	1.668	2.480	16.1	21.2	3 2	7 51.32	+17 56.1	2.183	2.966	13.7	21.4
<b>55472</b>	2001 <i>TJ</i> <sub>227</sub>		1 23.7 83°43	8°8/18.9	18		<b>105526</b>	2000 <i>RQ</i> <sub>26</sub>		1 23.7 68°68	4°7/26.1	18	
12 23	8 53.00	+40 49.8	1.768	2.602	13.9	18.6	12 23	8 45.78	+ 6 38.4	1.773	2.584	14.9	19.1
1 2	8 45.53	+42 19.5	1.729	2.619	11.3	18.5	1 2	8 39.69	+ 6 19.7	1.718	2.605	11.5	19.0
1 12	8 35.06	+43 34.8	1.714	2.635	9.3	18.4	1 12	8 31.58	+ 6 17.3	1.686	2.626	7.9	18.8
1 22	8 22.80	+44 26.1	1.725	2.652	8.9	18.4	1 22	8 22.31	+ 6 30.3	1.681	2.648	5.0	18.7
2 1	8 10.42	+44 47.7	1.763	2.668	10.3	18.5	2 1	8 12.98	+ 6 56.1	1.704	2.669	5.4	18.7
2 11	7 59.64	+44 39.4	1.826	2.684	12.6	18.7	2 11	8 4.70	+ 7 30.6	1.755	2.690	8.3	18.9
2 21	7 51.68	+44 5.9	1.910	2.700	15.1	18.9	2 21	7 58.33	+ 8 9.2	1.832	2.711	11.6	19.2
3 2	7 47.20	+43 13.7	2.013	2.716	17.2	19.1	3 2	7 54.40	+ 8 47.7	1.931	2.732	14.6	19.4
<b>416629</b>	2004 <i>RZ</i> <sub>249</sub>		1 23.7 125°49	2°7/22.2	18		<b>29455</b>	1997 <i>SX</i> <sub>1</sub>		1 23.7 18°88	3°3/25.2	18	
12 23	8 48.36	+27 1.3	2.307	3.144	11.0	21.8	12 23	8 43.51	+10 52.0	1.424	2.265	16.3	17.4
1 2	8 41.32	+27 32.6	2.247	3.159	7.9	21.6	1 2	8 38.63	+10 48.6	1.361	2.270	12.2	17.2
1 12	8 32.40	+28 2.2	2.214	3.173	4.7	21.4	1 12	8 31.24	+11 1.4	1.320	2.275	7.7	16.9
1 22	8 22.40	+28 25.5	2.211	3.187	2.7	21.3	1 22	8 22.28	+11 28.1	1.304	2.282	3.7	16.7
2 1	8 12.31	+28 39.2	2.238	3.200	4.5	21.5	2 1	8 13.06	+12 4.7	1.315	2.289	4.9	16.8
2 11	8 3.17	+28 41.5	2.295	3.213	7.6	21.7	2 11	8 4.99	+12 45.8	1.351	2.296	9.3	17.1
2 21	7 55.80	+28 32.9	2.379	3.226	10.6	21.9	2 21	7 59.15	+13 26.4	1.412	2.305	13.5	17.3
3 2	7 50.73	+28 15.0	2.486	3.237	13.1	22.1	3 2	7 56.23	+14 2.5	1.494	2.314	17.2	17.6
<b>485549</b>	2011 <i>UY</i> <sub>120</sub>		1 23.7 169°00	2°8/25.5	18		<b>10609</b>	Hirai		1 23.7 120°39	4°7/26.8	18	
12 23	8 46.80	+ 8 17.1	1.991	2.800	13.6	21							

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>57726</b>	2001 <i>UV</i> <sub>149</sub>		1 23.7 255°66	1.5°/24.4	18		<b>78514</b>	2002 <i>RF</i> <sub>88</sub>		1 23.7 49°55	0.7°/24.1	18	
12 23	8 47.21	+14 21.0	1.598	2.436	15.0	19.0	12 23	8 43.84	+16 13.0	1.928	2.767	12.8	19.3
1 2	8 41.37	+14 36.3	1.513	2.424	11.1	18.7	1 2	8 38.32	+16 27.3	1.867	2.780	9.2	19.1
1 12	8 32.87	+15 4.0	1.452	2.412	6.5	18.4	1 12	8 30.86	+16 49.6	1.831	2.792	5.2	18.9
1 22	8 22.56	+15 40.8	1.417	2.399	1.9	18.1	1 22	8 22.25	+17 16.4	1.823	2.806	1.2	18.6
2 1	8 11.69	+16 21.9	1.410	2.386	4.3	18.2	2 1	8 13.52	+17 44.3	1.843	2.819	3.4	18.8
2 11	8 1.72	+17 2.2	1.432	2.373	9.2	18.5	2 11	8 5.71	+18 9.7	1.893	2.833	7.4	19.1
2 21	7 53.88	+17 37.7	1.478	2.359	13.8	18.7	2 21	7 59.67	+18 30.4	1.968	2.847	11.0	19.3
3 2	7 49.04	+18 5.9	1.545	2.346	17.6	18.9	3 2	7 55.96	+18 45.1	2.066	2.861	14.0	19.6
<b>205332</b>	2000 <i>UC</i> <sub>92</sub>		1 23.7 100°76	4.1°/22.0	18		<b>280673</b>	2005 <i>EL</i> <sub>162</sub>		1 23.7 191°61	0.9°/24.5	17	
12 23	8 51.45	+28 1.2	1.576	2.426	14.5	20.4	12 23	8 42.15	+14 24.6	3.141	3.957	8.9	22.8
1 2	8 44.28	+28 43.8	1.520	2.438	10.5	20.2	1 2	8 36.60	+14 44.2	3.054	3.954	6.5	22.6
1 12	8 34.34	+29 23.8	1.489	2.449	6.4	20.0	1 12	8 29.75	+15 10.0	2.995	3.952	3.8	22.4
1 22	8 22.75	+29 53.9	1.486	2.460	4.1	19.9	1 22	8 22.09	+15 40.0	2.967	3.949	1.2	22.2
2 1	8 11.02	+30 8.6	1.510	2.471	6.4	20.0	2 1	8 14.24	+16 11.8	2.971	3.945	2.4	22.3
2 11	8 0.74	+30 5.8	1.561	2.482	10.3	20.3	2 11	8 6.87	+16 42.9	3.005	3.941	5.2	22.5
2 21	7 53.05	+29 47.4	1.637	2.492	14.1	20.6	2 21	8 0.53	+17 11.6	3.069	3.936	7.9	22.7
3 2	7 48.62	+29 16.5	1.732	2.503	17.2	20.8	3 2	7 55.70	+17 36.3	3.159	3.930	10.1	22.8
<b>95737</b>	2003 <i>EN</i> <sub>7</sub>		1 23.7 238°09	0.6°/23.5	18		<b>162797</b>	2000 <i>YR</i> <sub>74</sub>		1 23.7 60°98	1.7°/24.5	18	
12 23	8 49.97	+20 17.3	1.574	2.420	14.8	20.2	12 23	8 47.97	+13 43.5	1.346	2.191	16.9	19.4
1 2	8 43.35	+20 27.7	1.496	2.413	10.7	20.0	1 2	8 41.75	+14 5.8	1.301	2.215	12.3	19.2
1 12	8 33.94	+20 43.3	1.442	2.406	6.0	19.7	1 12	8 32.90	+14 42.1	1.278	2.239	7.1	19.0
1 22	8 22.71	+20 59.6	1.415	2.398	1.0	19.3	1 22	8 22.56	+15 27.3	1.281	2.263	2.2	18.8
2 1	8 11.04	+21 12.0	1.416	2.390	4.5	19.5	2 1	8 12.20	+16 15.3	1.311	2.287	4.4	19.0
2 11	8 0.49	+21 17.5	1.445	2.383	9.5	19.8	2 11	8 3.30	+17 0.4	1.368	2.311	9.3	19.3
2 21	7 52.30	+21 14.8	1.499	2.374	14.0	20.1	2 21	7 56.94	+17 38.6	1.449	2.336	13.6	19.6
3 2	7 47.29	+21 4.5	1.573	2.366	17.7	20.3	3 2	7 53.69	+18 7.8	1.550	2.360	17.2	19.9
<b>342876</b>	2008 <i>YG</i> <sub>52</sub>		1 23.7 241°04	1.3°/23.0	17		<b>246171</b>	Konrad		1 23.7 92°27	6.5°/27.7	18	
12 23	8 45.01	+23 5.3	2.360	3.199	10.7	21.2	12 23	8 47.46	+0 12.1	1.736	2.518	16.4	20.0
1 2	8 39.00	+23 18.4	2.282	3.196	7.7	21.0	1 2	8 40.90	+0 8.8	1.683	2.546	13.1	19.8
1 12	8 31.19	+23 32.8	2.230	3.193	4.3	20.7	1 12	8 32.27	+0 28.6	1.653	2.573	9.7	19.7
1 22	8 22.28	+23 45.2	2.208	3.190	1.3	20.5	1 22	8 22.47	+1 10.6	1.648	2.599	7.0	19.6
2 1	8 13.16	+23 52.6	2.216	3.187	3.6	20.7	2 1	8 12.60	+2 11.1	1.671	2.625	6.8	19.6
2 11	8 4.79	+23 53.3	2.254	3.184	7.1	20.9	2 11	8 3.84	+3 23.8	1.723	2.650	9.1	19.8
2 21	7 57.98	+23 46.6	2.318	3.180	10.2	21.1	2 21	7 57.06	+4 41.8	1.800	2.674	12.1	20.0
3 2	7 53.28	+23 33.1	2.406	3.177	12.9	21.3	3 2	7 52.81	+5 58.7	1.900	2.698	14.9	20.3
<b>367339</b>	2008 <i>CS</i> <sub>193</sub>		1 23.7 101°74	0.2°/23.6	18		<b>403664</b>	2010 <i>TT</i> <sub>127</sub>		1 23.7 46°24	0.8°/23.5	18	
12 23	8 46.23	+17 52.5	1.760	2.602	13.6	21.5	12 23	8 50.97	+22 21.2	1.442	2.294	15.5	20.0
1 2	8 40.27	+18 24.3	1.694	2.609	9.8	21.3	1 2	8 43.84	+22 4.9	1.390	2.309	11.1	19.8
1 12	8 32.04	+19 4.1	1.654	2.617	5.5	21.0	1 12	8 34.03	+21 50.2	1.361	2.325	6.2	19.6
1 22	8 22.42	+19 47.0	1.640	2.624	0.8	20.7	1 22	8 22.73	+21 33.5	1.358	2.342	1.1	19.3
2 1	8 12.55	+20 28.1	1.657	2.631	3.9	21.0	2 1	8 11.46	+21 12.3	1.384	2.359	4.6	19.6
2 11	8 3.71	+21 3.0	1.701	2.638	8.3	21.2	2 11	8 1.75	+20 45.7	1.437	2.376	9.4	19.9
2 21	7 56.88	+21 29.4	1.771	2.645	12.2	21.5	2 21	7 54.66	+20 14.7	1.514	2.394	13.6	20.2
3 2	7 52.70	+21 46.5	1.863	2.652	15.5	21.7	3 2	7 50.77	+19 40.4	1.612	2.411	17.1	20.5
<b>412869</b>	2014 <i>QP</i> <sub>2</sub>		1 23.7 245°91	0.5°/23.9	17		<b>470847</b>	2008 <i>YY</i> <sub>9</sub>		1 23.7 233°97	1.5°/24.5	17	
12 23	8 49.15	+16 43.1	1.953	2.783	13.0	22.3	12 23	8 44.20	+14 40.1	2.339	3.164	11.3	20.6
1 2	8 42.50	+17 0.9	1.854	2.762	9.6	22.1	1 2	8 38.39	+14 31.6	2.258	3.162	8.3	20.4
1 12	8 33.42	+17 26.9	1.781	2.741	5.5	21.8	1 12	8 30.86	+14 29.8	2.202	3.159	4.9	20.2
1 22	8 22.66	+17 57.8	1.736	2.719	1.1	21.4	1 22	8 22.27	+14 33.3	2.175	3.156	1.8	20.0
2 1	8 11.29	+18 29.4	1.721	2.696	3.8	21.6	2 1	8 13.46	+14 39.9	2.179	3.153	3.2	20.1
2 11	8 0.60	+18 57.7	1.736	2.672	8.3	21.8	2 11	8 5.33	+14 47.7	2.212	3.150	6.7	20.3
2 21	7 51.72	+19 20.3	1.777	2.647	12.5	22.0	2 21	7 58.67	+14 54.7	2.273	3.147	9.9	20.5
3 2	7 45.48	+19 35.9	1.841	2.621	16.0	22.2	3 2	7 54.01	+14 59.7	2.357	3.144	12.7	20.7
<b>356311</b>	2010 <i>GF</i> <sub>161</sub>		1 23.7 292°19	2.7°/22.5	18		<b>439889</b>	2000 <i>PG</i> <sub>5</sub>		1 23.7 165°66	0.4°/23.5	15	
12 23	8 47.83	+23 23.0	1.418	2.276	15.4	20.9	12 23	8 53.58	+19 13.6	2.181	3.003	12.1	24.9
1 2	8 42.29	+24 6.7	1.336	2.259	11.2	20.6	1 2	8 45.18	+19 37.6	2.108	3.013	8.7	24.7
1 12	8 33.60	+24 56.0	1.277	2.242	6.4	20.3	1 12	8 34.66	+20 6.0	2.061	3.022	4.8	24.5
1 22	8 22.70	+25 43.4	1.244	2.225	2.7	20.0	1 22	8 22.85	+20 34.6	2.045	3.029	0.8	24.2
2 1	8 11.09	+26 21.2	1.238	2.207	6.0	20.2	2 1	8 10.82	+20 59.7	2.062	3.034	3.6	24.4
2 11	8 0.56	+26 44.1	1.257	2.190	11.1	20.4	2 11	7 59.75	+21 18.3	2.109	3.039	7.5	24.7
2 21	7 52.58	+26 50.8	1.300	2.174	15.9	20.6	2 21	7 50.55	+21 29.6	2.185	3.041	11.0	24.9
3 2	7 48.16	+26 42.7	1.362	2.157	19.9	20.8	3 2	7 43.85	+21 33.5	2.285	3.043	13.9	25.1
<b>460477</b>	2014 <i>SB</i> <sub>283</sub>		1 23.7 129°24	0.2°/23.6	18		<b>363133</b>	2001 <i>QS</i> <sub>189</sub>		1 23.7 144°48	5.0°/26.6	18	
12 23	8 46.72	+17 47.2	2.111	2.944	12.1	21.8	12 23	8 46.00	+3 21.9	2.303	3.085	12.9	20.9
1 2	8 40.28	+18 24.0	2.047	2.958	8.6	21.6	1 2	8 39.59	+2 59.6	2.231	3.096	10.2	20.8
1 12	8 31.92	+19 7.3	2.010	2.972	4.8	21.4	1 12	8 31.49	+2 52.0	2.183	3.107	7.4	20.6
1 22	8 22.40	+19 52.9	2.001	2.985	0.7	21.1	1 22	8 22.38	+2 59.3	2.163	3.117	5.3	20.5
2 1	8 12.73	+20 36.4	2.023	2.997	3.4	21.3	2 1	8 13.09	+3 19.9	2.173	3.127	5.4	20.5
2 11	8 3.93	+21 14.0	2.075	3.009	7.3	21.6	2 11	8 4.54	+3 50.9	2.212	3.135	7.6	20.6
2 21	7 56.86	+21 43.6	2.154	3.021	10.7	21.8	2 21	7 57.48	+4 28.5	2.278	3.144	10.3	20.8
3 2	7 52.08	+22 4.6	2.256	3.032	13.6	22.1	3 2	7 52.44	+5 8.8	2.369	3.151	12.8	21.0
<b>8671</b>	1991 <i>PW</i>		1 23.7 151°60	1.0°/24.3	18		<b>409460</b>	2005 <i>RU</i> <sub>7</sub>		1 23.7 47°18	6.5°/27.5	18	
12 23	8 48.13	+15 22.7	2.077	2.902	12.5	19.3	12 2						

EPHEMERIDES

1 23.7

1 23.8

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>512311</b>	2016 <i>JS</i> <sub>10</sub>		1 23.7 229°80	1°6/22.6	18		<b>10069</b>	Fontenelle		1 23.7 184°16	3°0/25.4	18	
12 23	8 43.35	+21 54.9	2.348	3.189	10.7	21.4	12 23	8 43.64	+9 40.7	2.370	3.180	11.7	17.4
1 2	8 37.94	+22 46.3	2.269	3.184	7.7	21.2	1 2	8 37.97	+9 28.4	2.289	3.180	8.8	17.2
1 12	8 30.69	+23 41.9	2.217	3.180	4.3	21.0	1 12	8 30.65	+9 26.4	2.234	3.180	5.8	17.0
1 22	8 22.28	+24 36.9	2.194	3.175	1.6	20.8	1 22	8 22.30	+9 33.7	2.207	3.179	3.3	16.9
2 1	8 13.55	+25 26.7	2.202	3.171	3.9	21.0	2 1	8 13.73	+9 48.7	2.210	3.179	3.9	16.9
2 11	8 5.49	+26 7.6	2.239	3.166	7.3	21.2	2 11	8 5.82	+10 8.7	2.243	3.178	6.7	17.1
2 21	7 58.90	+26 37.9	2.303	3.161	10.5	21.4	2 21	7 59.30	+10 31.1	2.303	3.178	9.8	17.3
3 2	7 54.40	+26 57.2	2.390	3.156	13.2	21.6	3 2	7 54.72	+10 53.4	2.387	3.177	12.5	17.4
<b>116063</b>	2003 <i>WM</i> <sub>117</sub>		1 23.7 89°98	1°6/22.8	18		<b>367558</b>	2009 <i>ST</i> <sub>60</sub>		1 23.7 120°09	2°8/25.2	18	
12 23	8 46.38	+23 12.2	2.195	3.035	11.4	20.1	12 23	8 45.20	+10 43.6	2.034	2.852	13.0	21.7
1 2	8 39.96	+23 39.9	2.139	3.054	8.1	19.9	1 2	8 39.26	+10 39.8	1.963	2.860	9.8	21.5
1 12	8 31.71	+24 8.9	2.110	3.072	4.5	19.8	1 12	8 31.41	+10 47.5	1.917	2.867	6.2	21.3
1 22	8 22.41	+24 35.1	2.109	3.091	1.6	19.6	1 22	8 22.42	+11 4.9	1.899	2.875	3.1	21.1
2 1	8 13.06	+24 55.0	2.139	3.109	3.9	19.8	2 1	8 13.23	+11 29.5	1.911	2.882	4.0	21.2
2 11	8 4.64	+25 6.4	2.198	3.127	7.3	20.0	2 11	8 4.87	+11 58.0	1.951	2.889	7.4	21.4
2 21	7 57.95	+25 8.8	2.284	3.144	10.5	20.2	2 21	7 58.19	+12 26.9	2.018	2.896	10.8	21.6
3 2	7 53.51	+25 3.0	2.393	3.162	13.1	20.5	3 2	7 53.75	+12 53.8	2.109	2.903	13.8	21.8
<b>54478</b>	2000 <i>OG</i> <sub>23</sub>		1 23.7 150°80	2°0/21.9	18		<b>227947</b>	2007 <i>GH</i> <sub>42</sub>		1 23.7 69°20	2°1/22.6	18	
12 23	8 43.43	+23 48.2	2.796	3.632	9.3	19.5	12 23	8 46.44	+23 42.7	1.855	2.703	12.8	20.8
1 2	8 37.73	+24 55.1	2.726	3.639	6.6	19.3	1 2	8 40.38	+24 18.0	1.795	2.713	9.1	20.6
1 12	8 30.47	+26 4.1	2.685	3.645	3.8	19.1	1 12	8 32.11	+24 55.2	1.760	2.724	5.2	20.3
1 22	8 22.24	+27 10.5	2.674	3.652	2.0	19.0	1 22	8 22.52	+25 28.9	1.753	2.734	2.1	20.2
2 1	8 13.78	+28 10.0	2.695	3.658	3.8	19.1	2 1	8 12.77	+25 54.6	1.775	2.744	4.6	20.3
2 11	8 5.89	+28 59.4	2.747	3.663	6.6	19.3	2 11	8 4.08	+26 9.4	1.825	2.755	8.5	20.6
2 21	7 59.28	+29 37.3	2.827	3.669	9.2	19.5	2 21	7 57.38	+26 12.7	1.901	2.765	12.0	20.8
3 2	7 54.47	+30 3.6	2.930	3.673	11.5	19.7	3 2	7 53.31	+26 5.7	1.998	2.775	15.0	21.1
<b>105383</b>	2000 <i>QT</i> <sub>133</sub>		1 23.7 272°41	5°5/21.6	18		<b>298938</b>	2004 <i>TO</i> <sub>234</sub>		1 23.7 28°87	2°6/24.8	18	
12 23	8 53.47	+34 15.9	1.882	2.720	13.1	18.8	12 23	8 45.47	+12 46.7	1.232	2.084	17.7	20.7
1 2	8 45.75	+34 38.1	1.801	2.707	9.9	18.6	1 2	8 40.37	+12 51.2	1.175	2.091	13.1	20.4
1 12	8 35.25	+34 51.8	1.745	2.693	6.9	18.4	1 12	8 32.37	+13 11.9	1.138	2.098	7.9	20.1
1 22	8 22.98	+34 50.2	1.716	2.679	5.5	18.3	1 22	8 22.58	+13 45.5	1.126	2.107	3.0	19.9
2 1	8 10.36	+34 28.9	1.716	2.664	7.2	18.3	2 1	8 12.52	+14 26.4	1.140	2.116	4.9	20.0
2 11	7 58.97	+33 47.3	1.745	2.650	10.5	18.5	2 11	8 3.84	+15 8.6	1.179	2.126	10.1	20.3
2 21	7 50.01	+32 48.9	1.798	2.636	13.9	18.7	2 21	7 57.77	+15 46.9	1.241	2.136	14.8	20.6
3 2	7 44.24	+31 38.6	1.872	2.621	16.8	18.9	3 2	7 55.04	+16 18.0	1.322	2.147	18.8	20.9
<b>403711</b>	2010 <i>VE</i> <sub>203</sub>		1 23.7 66°72	1°6/23.0	18		<b>213046</b>	1998 <i>QA</i> <sub>85</sub>		1 23.7 93°83	2°1/24.8	18	
12 23	8 48.35	+22 44.2	1.643	2.493	14.1	21.1	12 23	8 48.72	+12 28.8	1.842	2.665	14.0	20.5
1 2	8 41.92	+23 3.9	1.584	2.503	10.1	20.8	1 2	8 41.75	+12 34.5	1.790	2.691	10.3	20.3
1 12	8 33.01	+23 26.0	1.548	2.512	5.6	20.6	1 12	8 32.75	+12 51.2	1.762	2.717	6.2	20.1
1 22	8 22.63	+23 45.7	1.539	2.522	1.7	20.4	1 22	8 22.61	+13 16.1	1.762	2.742	2.5	19.9
2 1	8 12.10	+23 58.3	1.560	2.532	4.6	20.6	2 1	8 12.46	+13 45.5	1.792	2.766	3.9	20.0
2 11	8 2.80	+24 1.4	1.607	2.541	9.0	20.9	2 11	8 3.42	+14 15.8	1.852	2.790	7.7	20.3
2 21	7 55.78	+23 54.8	1.680	2.551	13.0	21.1	2 21	7 56.35	+14 43.8	1.938	2.814	11.3	20.6
3 2	7 51.68	+23 39.6	1.774	2.561	16.2	21.4	3 2	7 51.79	+15 7.7	2.046	2.836	14.3	20.8
<b>87993</b>	2000 <i>UM</i> <sub>10</sub>		1 23.7 53°83	7°6/20.0	18		<b>351203</b>	2004 <i>FT</i> <sub>130</sub>		1 23.7 214°36	2°0/22.6	18	
12 23	8 52.39	+35 56.6	1.553	2.401	14.8	18.5	12 23	8 49.37	+21 13.7	1.744	2.587	13.7	21.1
1 2	8 44.97	+37 27.8	1.529	2.435	11.3	18.4	1 2	8 42.88	+22 16.8	1.664	2.580	9.9	20.8
1 12	8 34.69	+38 46.3	1.530	2.470	8.5	18.3	1 12	8 33.75	+23 27.1	1.609	2.572	5.6	20.5
1 22	8 22.86	+39 42.6	1.557	2.505	7.7	18.3	1 22	8 22.81	+24 37.7	1.582	2.564	2.0	20.3
2 1	8 11.18	+40 11.1	1.611	2.540	9.3	18.5	2 1	8 11.32	+25 41.0	1.586	2.555	5.0	20.5
2 11	8 1.28	+40 11.7	1.690	2.575	12.0	18.7	2 11	8 0.74	+26 31.6	1.617	2.545	9.5	20.7
2 21	7 54.26	+39 49.0	1.792	2.609	14.8	19.0	2 21	7 52.29	+27 6.9	1.674	2.535	13.6	20.9
3 2	7 50.63	+39 9.1	1.912	2.644	17.1	19.2	3 2	7 46.81	+27 27.4	1.753	2.523	17.0	21.1
<b>138130</b>	2000 <i>EO</i> <sub>18</sub>		1 23.7 301°71	1°4/23.1	18		<b>208546</b>	2002 <i>AS</i> <sub>103</sub>		1 23.8 148°64	1°3/23.3	18	
12 23	8 46.28	+20 57.6	1.650	2.501	14.0	19.4	12 23	8 52.83	+23 1.4	1.714	2.554	14.0	20.5
1 2	8 40.62	+21 34.5	1.577	2.497	10.1	19.1	1 2	8 45.08	+23 1.9	1.646	2.561	10.1	20.3
1 12	8 32.42	+22 17.5	1.528	2.493	5.6	18.9	1 12	8 34.77	+23 3.3	1.604	2.566	5.6	20.0
1 22	8 22.57	+23 0.8	1.506	2.489	1.5	18.6	1 22	8 22.94	+23 1.3	1.589	2.572	1.5	19.8
2 1	8 12.33	+23 38.8	1.513	2.485	4.6	18.8	2 1	8 10.94	+22 52.6	1.604	2.577	4.4	20.0
2 11	8 3.11	+24 6.9	1.546	2.481	9.2	19.0	2 11	8 0.22	+22 35.9	1.649	2.582	8.9	20.2
2 21	7 56.04	+24 23.5	1.605	2.478	13.4	19.3	2 21	7 51.85	+22 11.9	1.718	2.586	12.9	20.5
3 2	7 51.89	+24 28.7	1.684	2.474	16.9	19.5	3 2	7 46.50	+21 42.2	1.810	2.589	16.3	20.7
<b>66096</b>	1998 <i>SS</i> <sub>6</sub>		1 23.7 320°10	5°6/27.4	18		<b>29259</b>	1993 <i>FZ</i> <sub>11</sub>		1 23.8 115°32	2°9/22.3	18	
12 23	8 41.27	+1 30.3	1.923	2.716	14.6	19.3	12 23	8 51.58	+24 18.9	1.642	2.489	14.3	19.1
1 2	8 36.66	+1 44.2	1.839	2.710	11.7	19.1	1 2	8 44.26	+25 14.6	1.589	2.506	10.2	18.9
1 12	8 30.09	+2 19.8	1.777	2.704	8.6	18.9	1 12	8 34.34	+26 12.0	1.562	2.524	5.9	18.6
1 22	8 22.22	+3 16.3	1.741	2.698	6.0	18.7	1 22	8 22.88	+27 3.5	1.561	2.540	2.9	18.5
2 1	8 13.98	+4 30.6	1.732	2.692	5.9	18.7	2 1	8 11.28	+27 42.9	1.591	2.556	5.5	18.7
2 11	8 6.43	+5 56.7	1.752	2.687	8.4	18.8	2 11	8 1.01	+28 6.8	1.648	2.572	9.6	19.0
2 21	8 0.46	+7 27.8	1.799	2.682	11.6	19.0	2 21	7 53.18	+28 15.3	1.730	2.587	13.4	19.2
3 2	7 56.75	+8 57.4	1.869	2.677	14.7	19.2	3 2	7 48.43	+28 10.6	1.832	2.601	16.5	19.5
<b>98237</b>	2000 <i>SQ</i> <sub>153</sub>		1 23.7 9°64	5°5/21.3	18		<b>27940</b>	1997 <i>LB</i> <sub>4</sub>		1 23.8 160°66	0°1/23.7	18	
12 23	8 48.49	+29 14.3	1.326	2.190	15.9	19.1	12 23	8 47.					



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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>138761</b>	2000 <i>SN</i> <sub>286</sub>		1 23.8 149°06	7°8/31.2	18		<b>118791</b>	2000 <i>SP</i> <sub>6</sub>		1 23.8 79°09	4°6/26.4	18	
12 23	8 40.64	-12 21.7	2.944	3.625	12.5	20.9	12 23	8 46.85	+5 17.8	1.918	2.717	14.4	19.6
1 2	8 35.59	-12 36.3	2.864	3.632	10.9	20.8	1 2	8 40.32	+5 10.4	1.868	2.747	11.1	19.4
1 12	8 29.24	-12 30.5	2.806	3.638	9.4	20.7	1 12	8 31.93	+5 19.6	1.842	2.778	7.7	19.3
1 22	8 22.11	-12 3.4	2.773	3.645	8.2	20.6	1 22	8 22.53	+5 43.9	1.844	2.808	5.0	19.2
2 1	8 14.80	-11 15.4	2.766	3.651	7.8	20.6	2 1	8 13.14	+6 20.4	1.874	2.837	5.2	19.3
2 11	8 8.01	-10 9.5	2.787	3.656	8.4	20.6	2 11	8 4.77	+7 4.6	1.934	2.867	7.8	19.5
2 21	8 2.29	-8 50.3	2.834	3.661	9.6	20.7	2 21	7 58.21	+7 51.9	2.020	2.895	10.9	19.7
3 2	7 58.11	-7 23.0	2.905	3.666	11.2	20.8	3 2	7 53.97	+8 38.3	2.129	2.923	13.6	20.0
<b>454292</b>	2014 <i>JS</i> <sub>8</sub>		1 23.8 159°41	1°0/23.2	18		<b>403542</b>	2010 <i>HR</i> <sub>8</sub>		1 23.8 163°97	4°9/26.3	18	
12 23	8 49.53	+19 59.5	1.955	2.790	12.8	22.2	12 23	8 46.96	+4 50.5	2.064	2.856	13.8	21.3
1 2	8 42.54	+20 40.4	1.886	2.798	9.2	22.0	1 2	8 40.53	+4 30.2	1.987	2.862	10.8	21.2
1 12	8 33.33	+21 26.8	1.843	2.806	5.1	21.8	1 12	8 32.17	+4 25.3	1.935	2.867	7.7	21.0
1 22	8 22.74	+22 13.3	1.829	2.812	1.1	21.5	1 22	8 22.59	+4 35.6	1.911	2.871	5.2	20.8
2 1	8 11.89	+22 55.1	1.845	2.818	4.0	21.7	2 1	8 12.77	+4 59.4	1.915	2.875	5.5	20.8
2 11	8 2.00	+23 28.2	1.891	2.822	8.1	22.0	2 11	8 3.74	+5 33.4	1.949	2.878	8.1	21.0
2 21	7 54.05	+23 51.0	1.964	2.826	11.8	22.2	2 21	7 56.36	+6 13.3	2.009	2.880	11.2	21.2
3 2	7 48.71	+24 3.5	2.059	2.830	14.8	22.5	3 2	7 51.25	+6 55.1	2.093	2.882	14.0	21.4
<b>428502</b>	2007 <i>WN</i> <sub>31</sub>		1 23.8 347°42	5°1/26.9	18		<b>360174</b>	2013 <i>CG</i> <sub>118</sub>		1 23.8 216°76	0°3/23.9	18	
12 23	8 41.11	+3 16.5	2.176	2.970	13.1	21.5	12 23	8 47.01	+16 28.4	1.700	2.540	14.2	20.9
1 2	8 36.32	+3 5.6	2.095	2.968	10.4	21.3	1 2	8 41.09	+17 1.8	1.623	2.537	10.3	20.6
1 12	8 29.81	+3 11.0	2.038	2.966	7.6	21.2	1 12	8 32.70	+17 45.5	1.570	2.532	5.8	20.4
1 22	8 22.21	+3 32.6	2.007	2.964	5.4	21.0	1 22	8 22.69	+18 35.0	1.545	2.528	1.0	20.0
2 1	8 14.35	+4 8.6	2.005	2.963	5.4	21.0	2 1	8 12.26	+19 24.6	1.548	2.523	4.0	20.2
2 11	8 7.14	+4 55.2	2.031	2.962	7.7	21.1	2 11	8 2.76	+20 9.2	1.580	2.518	8.7	20.5
2 21	8 1.35	+5 48.1	2.084	2.961	10.5	21.3	2 21	7 55.31	+20 45.5	1.637	2.513	13.0	20.7
3 2	7 57.55	+6 42.5	2.159	2.960	13.3	21.5	3 2	7 50.67	+21 11.9	1.715	2.508	16.5	21.0
<b>457621</b>	2009 <i>BZ</i> <sub>93</sub>		1 23.8 340°88	0°5/23.9	16		<b>281380</b>	2008 <i>OB</i> <sub>10</sub>		1 23.8 149°84	1°7/24.7	18	
12 23	8 45.46	+17 15.5	1.303	2.161	16.5	21.6	12 23	8 48.81	+12 28.0	1.797	2.621	14.2	21.3
1 2	8 40.50	+17 28.1	1.232	2.154	12.0	21.3	1 2	8 42.11	+12 59.5	1.728	2.631	10.5	21.1
1 12	8 32.56	+17 51.5	1.183	2.148	6.8	21.0	1 12	8 33.14	+13 43.9	1.684	2.640	6.2	20.8
1 22	8 22.66	+18 21.3	1.159	2.142	1.2	20.6	1 22	8 22.75	+14 37.4	1.668	2.649	2.1	20.6
2 1	8 12.27	+18 51.8	1.161	2.138	4.7	20.9	2 1	8 12.09	+15 34.6	1.682	2.657	3.9	20.7
2 11	8 3.10	+19 18.1	1.188	2.133	10.2	21.2	2 11	8 2.42	+16 30.2	1.725	2.664	8.1	21.0
2 21	7 56.48	+19 36.9	1.239	2.130	15.1	21.4	2 21	7 54.74	+17 20.2	1.795	2.670	12.1	21.2
3 2	7 53.26	+19 46.8	1.309	2.127	19.3	21.7	3 2	7 49.71	+18 2.0	1.888	2.676	15.4	21.5
<b>335896</b>	2007 <i>RC</i> <sub>219</sub>		1 23.8 159°72	0°2/23.9	17		<b>494217</b>	2016 <i>JJ</i> <sub>25</sub>		1 23.8 141°25	0°5/23.4	18	
12 23	8 43.78	+17 45.5	2.312	3.146	11.1	21.5	12 23	8 43.45	+19 48.2	2.473	3.308	10.4	21.4
1 2	8 38.16	+18 3.2	2.237	3.147	8.0	21.3	1 2	8 37.84	+20 12.1	2.400	3.312	7.5	21.2
1 12	8 30.80	+18 26.6	2.187	3.149	4.5	21.1	1 12	8 30.59	+20 40.0	2.353	3.316	4.1	21.0
1 22	8 22.36	+18 52.7	2.167	3.150	0.7	20.8	1 22	8 22.35	+21 8.7	2.336	3.320	0.7	20.8
2 1	8 13.71	+19 18.4	2.176	3.151	3.1	21.0	2 1	8 13.92	+21 35.0	2.350	3.323	3.1	21.0
2 11	8 5.78	+19 40.8	2.216	3.152	6.7	21.2	2 11	8 6.18	+21 56.4	2.393	3.326	6.5	21.2
2 21	7 59.33	+19 58.1	2.282	3.153	10.0	21.4	2 21	7 59.84	+22 11.3	2.464	3.329	9.6	21.4
3 2	7 54.94	+20 9.3	2.372	3.154	12.8	21.6	3 2	7 55.45	+22 19.4	2.558	3.332	12.2	21.6
<b>319811</b>	2006 <i>VB</i> <sub>54</sub>		1 23.8 175°62	3°9/21.8	18		<b>229669</b>	2006 <i>TF</i> <sub>41</sub>		1 23.8 175°59	3°2/25.2	18	
12 23	8 48.69	+28 0.7	1.823	2.671	13.0	21.4	12 23	8 49.65	+10 37.8	1.549	2.374	16.0	21.5
1 2	8 42.22	+28 48.1	1.755	2.672	9.5	21.2	1 2	8 43.05	+10 39.2	1.476	2.377	12.1	21.3
1 12	8 33.27	+29 34.2	1.713	2.672	5.9	21.0	1 12	8 33.81	+10 56.1	1.426	2.379	7.6	21.0
1 22	8 22.75	+30 12.1	1.699	2.672	3.9	20.8	1 22	8 22.87	+11 26.0	1.402	2.380	3.6	20.8
2 1	8 11.94	+30 36.5	1.713	2.673	6.0	21.0	2 1	8 11.54	+12 5.1	1.407	2.380	4.8	20.8
2 11	8 2.22	+30 44.6	1.755	2.673	9.6	21.2	2 11	8 1.29	+12 48.0	1.440	2.380	9.3	21.1
2 21	7 54.67	+30 37.0	1.822	2.673	13.1	21.4	2 21	7 53.31	+13 30.1	1.498	2.380	13.6	21.3
3 2	7 50.00	+30 16.3	1.910	2.672	16.1	21.6	3 2	7 48.36	+14 7.8	1.577	2.378	17.3	21.6
<b>55519</b>	2001 <i>VA</i> <sub>43</sub>		1 23.8 186°13	10°0/16.5	18		<b>379104</b>	2008 <i>YL</i> <sub>14</sub>		1 23.8 232°17	4°1/20.8	18	
12 23	8 55.15	+41 51.9	1.787	2.616	14.0	18.3	12 23	8 45.58	+30 15.9	2.327	3.170	10.7	20.6
1 2	8 47.75	+44 12.7	1.734	2.616	11.7	18.2	1 2	8 39.70	+31 19.2	2.254	3.165	7.9	20.4
1 12	8 36.81	+46 21.2	1.707	2.616	10.2	18.1	1 12	8 31.79	+32 20.4	2.206	3.159	5.3	20.3
1 22	8 23.34	+48 4.3	1.706	2.615	10.3	18.1	1 22	8 22.56	+33 13.5	2.188	3.153	4.2	20.2
2 1	8 9.06	+49 12.6	1.733	2.613	11.9	18.2	2 1	8 12.99	+33 53.6	2.200	3.148	5.8	20.3
2 11	7 56.05	+49 43.6	1.783	2.611	14.3	18.3	2 11	8 4.17	+34 17.7	2.240	3.141	8.7	20.4
2 21	7 45.99	+49 41.2	1.854	2.609	16.7	18.5	2 21	7 57.02	+34 25.7	2.305	3.135	11.5	20.6
3 2	7 39.91	+49 12.9	1.942	2.606	18.8	18.7	3 2	7 52.20	+34 19.5	2.392	3.129	13.9	20.8
<b>309800</b>	2009 <i>BP</i> <sub>44</sub>		1 23.8 295°03	0°7/24.0	18		<b>502031</b>	2015 <i>AM</i> <sub>112</sub>		1 23.8 99°43	0°6/24.1	18	
12 23	8 46.15	+16 31.1	1.501	2.349	15.3	21.0	12 23	8 43.82	+16 13.4	2.077	2.912	12.1	21.2
1 2	8 40.82	+16 48.1	1.418	2.335	11.2	20.7	1 2	8 38.37	+16 36.4	2.002	2.913	8.8	21.0
1 12	8 32.72	+17 15.9	1.357	2.320	6.4	20.4	1 12	8 31.00	+17 7.4	1.953	2.914	5.0	20.8
1 22	8 22.70	+17 50.8	1.323	2.306	1.3	20.0	1 22	8 22.44	+17 43.1	1.932	2.915	1.0	20.5
2 1	8 12.10	+18 27.3	1.316	2.292	4.4	20.2	2 1	8 13.62	+18 19.7	1.941	2.916	3.3	20.7
2 11	8 2.44	+19 0.5	1.336	2.278	9.6	20.4	2 11	8 5.57	+18 53.3	1.979	2.917	7.3	20.9
2 21	7 55.04	+19 26.9	1.380	2.264	14.3	20.7	2 21	7 59.15	+19 21.6	2.043	2.918	10.8	21.2
3 2	7 50.77	+19 44.7	1.444	2.251	18.4	20.9	3 2	7 54.97	+19 43.0	2.130	2.919	13.8	21.4
<b>408872</b>	2001 <i>TF</i> <sub>90</sub>		1 23.8 46°36	5°8/26.4	18		<b>370792</b>	2004 <i>TH</i> <sub>81</sub>		1 23.8 166°74	1°1/24.4	16	
12 23	8 46.96	+5 46.5	1.393	2.214	17.7	20.5							

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>415475</b>	2014 <i>OF</i> <sub>190</sub>		1 23.8 58°63	0°8/23.4	18		<b>214338</b>	2005 <i>JO</i> <sub>103</sub>		1 23.8 342°32	5°5/21.4	18	
12 23	8 47.67	+20 19.8	1.583	2.433	14.5	20.7	12 23	8 48.63	+30 1.5	1.391	2.253	15.4	20.2
1 2	8 41.46	+20 38.6	1.528	2.446	10.4	20.5	1 2	8 42.90	+30 55.3	1.327	2.248	11.4	20.0
1 12	8 32.80	+21 2.6	1.496	2.460	5.7	20.3	1 12	8 33.97	+31 45.9	1.285	2.243	7.5	19.7
1 22	8 22.71	+21 26.8	1.491	2.474	1.1	20.0	1 22	8 22.97	+32 24.3	1.268	2.239	5.5	19.6
2 1	8 12.49	+21 46.8	1.514	2.488	4.3	20.3	2 1	8 11.54	+32 42.9	1.278	2.235	7.9	19.7
2 11	8 3.54	+21 59.3	1.565	2.503	8.9	20.6	2 11	8 1.53	+32 38.9	1.313	2.232	12.0	20.0
2 21	7 56.86	+22 3.3	1.640	2.517	12.9	20.8	2 21	7 54.33	+32 14.3	1.370	2.230	16.1	20.2
3 2	7 53.08	+21 59.1	1.737	2.532	16.2	21.1	3 2	7 50.76	+31 33.4	1.446	2.228	19.5	20.4
<b>31014</b>	1996 <i>DW</i>		1 23.8 278°03	4°5/21.9	18		<b>109676</b>	2001 <i>RC</i> <sub>25</sub>		1 23.8 320°87	0°5/23.6	18	
12 23	8 51.48	+28 25.7	1.498	2.352	15.0	18.5	12 23	8 46.43	+19 39.2	1.629	2.478	14.2	19.7
1 2	8 44.95	+29 4.9	1.416	2.334	11.1	18.2	1 2	8 40.77	+19 54.3	1.554	2.472	10.3	19.5
1 12	8 35.17	+29 42.7	1.356	2.316	6.9	17.9	1 12	8 32.58	+20 15.6	1.503	2.467	5.7	19.2
1 22	8 23.12	+30 10.9	1.323	2.297	4.5	17.7	1 22	8 22.75	+20 38.9	1.478	2.462	0.9	18.9
2 1	8 10.40	+30 22.6	1.317	2.279	7.0	17.8	2 1	8 12.54	+20 59.4	1.482	2.457	4.3	19.1
2 11	7 58.85	+30 14.4	1.338	2.260	11.5	18.0	2 11	8 3.35	+21 13.8	1.513	2.452	9.0	19.4
2 21	7 49.99	+29 47.7	1.381	2.242	15.9	18.2	2 21	7 56.32	+21 20.2	1.568	2.448	13.3	19.6
3 2	7 44.78	+29 6.4	1.444	2.223	19.7	18.4	3 2	7 52.20	+21 18.5	1.645	2.443	16.9	19.8
<b>91375</b>	1999 <i>JD</i> <sub>99</sub>		1 23.8 303°25	8°6/28.4	18		<b>78145</b>	2002 <i>NL</i> <sub>21</sub>		1 23.8 163°05	3°0/25.4	18	
12 23	8 43.57	- 2 18.8	1.520	2.307	18.1	18.3	12 23	8 44.54	+ 9 53.0	2.338	3.147	11.8	19.9
1 2	8 38.78	- 2 37.4	1.441	2.301	15.1	18.0	1 2	8 38.66	+ 9 38.1	2.259	3.150	9.0	19.7
1 12	8 31.51	- 2 27.8	1.382	2.295	11.8	17.8	1 12	8 31.10	+ 9 33.3	2.206	3.152	5.8	19.5
1 22	8 22.56	- 1 48.0	1.346	2.289	9.2	17.7	1 22	8 22.51	+ 9 37.8	2.182	3.155	3.3	19.3
2 1	8 13.10	+ 0 39.8	1.335	2.283	8.8	17.6	2 1	8 13.70	+ 9 49.8	2.188	3.156	3.9	19.4
2 11	8 4.52	+ 0 50.2	1.350	2.277	11.0	17.7	2 11	8 5.59	+10 6.9	2.223	3.158	6.8	19.5
2 21	7 57.98	+ 2 32.9	1.389	2.272	14.4	17.9	2 21	7 58.91	+10 26.5	2.286	3.160	9.9	19.7
3 2	7 54.27	+ 4 18.6	1.449	2.267	17.8	18.1	3 2	7 54.21	+10 46.1	2.372	3.161	12.6	19.9
<b>168173</b>	2006 <i>HF</i> <sub>82</sub>		1 23.8 86°49	4°5/21.6	18		<b>96347</b>	1997 <i>SS</i> <sub>16</sub>		1 23.8 204°05	0°4/24.0	18	
12 23	8 50.41	+27 59.0	1.556	2.409	14.5	19.8	12 23	8 44.02	+16 58.8	2.354	3.185	11.0	20.3
1 2	8 43.65	+29 5.5	1.506	2.425	10.6	19.6	1 2	8 38.37	+17 16.1	2.274	3.183	8.0	20.1
1 12	8 34.11	+30 10.1	1.481	2.440	6.6	19.4	1 12	8 30.98	+17 39.5	2.220	3.180	4.5	19.8
1 22	8 22.93	+31 4.3	1.483	2.456	4.5	19.3	1 22	8 22.49	+18 6.4	2.194	3.178	0.9	19.6
2 1	8 11.59	+31 41.1	1.513	2.471	6.8	19.5	2 1	8 13.76	+18 33.6	2.200	3.175	3.1	19.7
2 11	8 1.67	+31 57.9	1.570	2.486	10.6	19.7	2 11	8 5.70	+18 58.2	2.235	3.172	6.7	20.0
2 21	7 54.33	+31 55.7	1.650	2.501	14.2	20.0	2 21	7 59.09	+19 18.2	2.297	3.168	9.9	20.2
3 2	7 50.22	+31 38.1	1.750	2.516	17.3	20.2	3 2	7 54.50	+19 32.5	2.383	3.165	12.7	20.3
<b>122021</b>	2000 <i>GD</i> <sub>45</sub>		1 23.8 351°21	3°0/25.0	18		<b>469024</b>	2015 <i>AG</i> <sub>244</sub>		1 23.8 61°25	2°9/21.7	18	
12 23	8 44.87	+11 43.3	1.211	2.062	18.0	19.5	12 23	8 43.91	+24 28.2	2.110	2.957	11.5	20.9
1 2	8 40.17	+11 49.5	1.143	2.058	13.5	19.2	1 2	8 38.52	+25 45.9	2.049	2.967	8.2	20.7
1 12	8 32.45	+12 14.2	1.096	2.055	8.3	18.9	1 12	8 31.14	+27 6.1	2.015	2.976	4.8	20.5
1 22	8 22.71	+12 54.4	1.073	2.053	3.5	18.7	1 22	8 22.52	+28 22.3	2.010	2.986	2.9	20.4
2 1	8 12.47	+13 44.7	1.075	2.051	5.2	18.7	2 1	8 13.64	+29 28.3	2.035	2.996	5.0	20.5
2 11	8 3.48	+14 37.9	1.102	2.050	10.5	19.0	2 11	8 5.58	+30 20.1	2.089	3.006	8.3	20.8
2 21	7 57.11	+15 27.8	1.152	2.050	15.5	19.3	2 21	7 59.22	+30 56.2	2.168	3.016	11.4	21.0
3 2	7 54.21	+16 9.9	1.221	2.050	19.8	19.6	3 2	7 55.19	+31 17.4	2.270	3.027	14.0	21.2
<b>199833</b>	2007 <i>EP</i> <sub>23</sub>		1 23.8 205°85	0°4/24.0	17		<b>500003</b>	2011 <i>QW</i> <sub>2</sub>		1 23.8 170°51	2°9/25.9	17	
12 23	8 44.46	+16 12.3	2.432	3.258	10.9	21.0	12 23	8 41.64	+ 7 18.7	3.068	3.861	9.7	22.9
1 2	8 38.67	+16 41.7	2.347	3.254	7.9	20.8	1 2	8 36.28	+ 7 16.1	2.985	3.864	7.5	22.7
1 12	8 31.13	+17 18.4	2.288	3.248	4.5	20.5	1 12	8 29.66	+ 7 23.1	2.929	3.867	5.1	22.6
1 22	8 22.48	+17 59.3	2.259	3.243	0.9	20.3	1 22	8 22.29	+ 7 38.9	2.902	3.869	3.1	22.5
2 1	8 13.54	+18 40.7	2.261	3.236	3.0	20.4	2 1	8 14.75	+ 8 1.8	2.907	3.871	3.4	22.5
2 11	8 5.21	+19 19.2	2.294	3.230	6.6	20.6	2 11	8 7.70	+ 8 29.8	2.941	3.873	5.5	22.6
2 21	7 58.27	+19 52.3	2.354	3.222	9.9	20.8	2 21	8 1.69	+ 9 0.2	3.005	3.874	7.9	22.8
3 2	7 53.31	+20 18.7	2.438	3.215	12.6	21.0	3 2	7 57.15	+ 9 30.8	3.094	3.875	10.1	22.9
<b>422529</b>	2014 <i>TY</i> <sub>18</sub>		1 23.8 72°54	2°4/24.9	18		<b>11272</b>	1988 <i>RK</i>		1 23.8 93°46	6°1/27.5	18	R
12 23	8 45.69	+12 0.1	1.718	2.549	14.5	21.0	12 23	8 46.24	+ 1 18.3	1.684	2.476	16.4	17.9
1 2	8 39.87	+12 8.5	1.657	2.562	10.7	20.8	1 2	8 40.25	+ 1 26.0	1.625	2.495	13.1	17.7
1 12	8 31.88	+12 29.7	1.620	2.576	6.5	20.6	1 12	8 32.11	+ 1 57.0	1.588	2.515	9.5	17.5
1 22	8 22.59	+13 0.8	1.610	2.590	2.7	20.4	1 22	8 22.67	+ 2 50.1	1.577	2.534	6.6	17.4
2 1	8 13.14	+13 37.9	1.629	2.603	4.1	20.5	2 1	8 13.09	+ 4 0.9	1.594	2.553	6.4	17.4
2 11	8 4.73	+14 16.4	1.676	2.617	8.1	20.8	2 11	8 4.55	+ 5 22.6	1.639	2.571	9.0	17.6
2 21	7 58.29	+14 52.6	1.748	2.631	11.9	21.0	2 21	7 57.98	+ 6 47.8	1.709	2.589	12.3	17.9
3 2	7 54.42	+15 23.7	1.842	2.644	15.2	21.3	3 2	7 53.99	+ 8 10.2	1.803	2.607	15.3	18.1
<b>145851</b>	1999 <i>CS</i> <sub>69</sub>		1 23.8 347°80	7°6/27.9	18		<b>413517</b>	2005 <i>SU</i> <sub>23</sub>		1 23.8 100°95	2°2/22.5	18	
12 23	8 41.39	- 0 1.6	1.504	2.306	17.6	19.6	12 23	8 48.81	+23 56.9	2.064	2.904	12.0	21.9
1 2	8 37.20	- 0 14.1	1.428	2.301	14.4	19.4	1 2	8 41.85	+24 43.3	2.014	2.928	8.6	21.7
1 12	8 30.61	- 0 0.0	1.372	2.296	10.9	19.2	1 12	8 32.89	+25 30.7	1.989	2.951	4.9	21.6
1 22	8 22.43	+ 0 41.7	1.340	2.292	8.2	19.0	1 22	8 22.79	+26 13.6	1.995	2.974	2.2	21.4
2 1	8 13.81	+ 1 48.5	1.333	2.289	7.9	19.0	2 1	8 12.63	+26 47.7	2.030	2.997	4.4	21.6
2 11	8 6.08	+ 3 13.7	1.352	2.286	10.4	19.1	2 11	8 3.52	+27 10.2	2.095	3.018	7.9	21.9
2 21	8 0.35	+ 4 48.5	1.394	2.284	13.9	19.3	2 21	7 56.31	+27 20.8	2.186	3.040	11.1	22.1
3 2	7 57.38	+ 6 24.3	1.458	2.283	17.3	19.5	3 2	7 51.56	+27 20.6	2.300	3.060	13.7	22.3
<b>153183</b>	2000 <i>UY</i> <sub>58</sub>		1 23.8 109°53	3°2/22.1	18		<b>78007</b>	2002 <i>JG</i> <sub>52</sub>		1 23.8 202°88	0°1/23.7	18	
12 23	8 48.59	+27 32.7	2.026	2.869	12.1								

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>35907</b>	1999 <i>JO</i> <sub>92</sub>		1 23.8 204°37'	2°0/24.9	18		<b>112433</b>	2002 <i>NC</i> <sub>57</sub>		1 23.8 81°93'	1°9/22.9	18	
12 23	8 46.81	+11 49.7	1.892	2.714	13.7	20.0	12 23	8 47.56	+24 32.3	2.100	2.942	11.8	19.8
1 2	8 40.76	+12 14.8	1.809	2.711	10.2	19.8	1 2	8 40.97	+24 47.0	2.040	2.955	8.4	19.6
1 12	8 32.49	+12 53.2	1.751	2.706	6.2	19.6	1 12	8 32.43	+25 1.7	2.006	2.968	4.8	19.4
1 22	8 22.77	+13 41.8	1.721	2.701	2.4	19.3	1 22	8 22.76	+25 12.4	2.000	2.981	1.9	19.2
2 1	8 12.64	+14 36.1	1.721	2.695	3.8	19.4	2 1	8 13.02	+25 16.0	2.025	2.994	4.1	19.4
2 11	8 3.29	+15 30.9	1.750	2.689	8.0	19.6	2 11	8 4.27	+25 11.1	2.078	3.007	7.6	19.6
2 21	7 55.74	+16 22.0	1.805	2.682	11.9	19.8	2 21	7 57.37	+24 57.8	2.159	3.020	10.9	19.9
3 2	7 50.70	+17 6.5	1.883	2.675	15.3	20.1	3 2	7 52.84	+24 37.1	2.261	3.033	13.6	20.1
<b>491939</b>	2013 <i>CO</i> <sub>112</sub>		1 23.8 10°39'	3°1/22.6	17		<b>490391</b>	2009 <i>QT</i> <sub>7</sub>		1 23.8 169°00'	5°4/27.7	18	
12 23	8 47.72	+24 8.2	1.241	2.107	16.6	22.1	12 23	8 44.01	- 0 25.5	2.510	3.271	12.5	22.7
1 2	8 42.30	+24 49.6	1.181	2.108	12.0	21.8	1 2	8 38.22	- 0 24.7	2.428	3.276	10.1	22.6
1 12	8 33.65	+25 34.4	1.144	2.109	6.9	21.5	1 12	8 30.87	- 0 6.9	2.370	3.281	7.7	22.4
1 22	8 22.95	+26 14.6	1.131	2.111	3.1	21.3	1 22	8 22.53	+ 0 27.9	2.340	3.284	5.8	22.3
2 1	8 11.89	+26 42.6	1.144	2.114	6.3	21.5	2 1	8 13.97	+ 1 17.7	2.340	3.287	5.6	22.3
2 11	8 2.33	+26 54.4	1.182	2.117	11.4	21.8	2 11	8 6.00	+ 2 18.7	2.369	3.289	7.3	22.4
2 21	7 55.66	+26 50.0	1.242	2.121	16.0	22.1	2 21	7 59.33	+ 3 26.1	2.426	3.291	9.7	22.5
3 2	7 52.64	+26 31.5	1.321	2.126	19.8	22.3	3 2	7 54.47	+ 4 35.4	2.508	3.292	12.1	22.7
<b>77755</b>	Delémont		1 23.8 337°07'	2°2/25.3	18		<b>467535</b>	2007 <i>RY</i> <sub>209</sub>		1 23.8 92°80'	0°7/23.3	18	
12 23	8 41.69	+10 16.6	2.137	2.958	12.4	19.2	12 23	8 44.00	+19 50.2	2.253	3.091	11.2	21.7
1 2	8 36.85	+10 48.6	2.057	2.956	9.3	19.0	1 2	8 38.38	+20 23.7	2.187	3.100	8.0	21.5
1 12	8 30.21	+11 33.9	2.002	2.954	5.8	18.8	1 12	8 31.00	+21 1.8	2.147	3.110	4.4	21.3
1 22	8 22.41	+12 29.8	1.975	2.953	2.6	18.6	1 22	8 22.55	+21 40.6	2.136	3.119	0.9	21.1
2 1	8 14.32	+13 32.2	1.977	2.951	3.5	18.7	2 1	8 13.93	+22 16.3	2.156	3.129	3.4	21.3
2 11	8 6.88	+14 36.2	2.009	2.950	7.0	18.9	2 11	8 6.09	+22 45.6	2.205	3.138	7.0	21.5
2 21	8 0.92	+15 37.2	2.068	2.948	10.4	19.1	2 21	7 59.80	+23 6.9	2.280	3.147	10.2	21.7
3 2	7 57.04	+16 32.1	2.150	2.947	13.4	19.3	3 2	7 55.62	+23 19.9	2.380	3.156	12.9	21.9
<b>296958</b>	2010 <i>ER</i> <sub>37</sub>		1 23.8 234°66'	2°5/25.6	18		<b>333686</b>	2008 <i>UC</i> <sub>92</sub>		1 23.8 87°23'	3°3/26.8	18	
12 23	8 41.79	+ 9 18.3	2.572	3.380	10.9	20.9	12 23	8 42.82	+ 3 54.3	2.458	3.245	12.0	20.1
1 2	8 36.68	+ 9 29.9	2.482	3.372	8.3	20.7	1 2	8 37.33	+ 4 48.6	2.391	3.265	9.3	20.0
1 12	8 30.02	+ 9 52.5	2.418	3.365	5.3	20.5	1 12	8 30.34	+ 5 59.1	2.350	3.285	6.3	19.8
1 22	8 22.38	+10 24.5	2.383	3.357	2.8	20.3	1 22	8 22.45	+ 7 22.8	2.339	3.306	3.8	19.7
2 1	8 14.46	+11 3.4	2.378	3.349	3.4	20.3	2 1	8 14.42	+ 8 55.1	2.358	3.325	3.8	19.7
2 11	8 7.07	+11 46.0	2.403	3.341	6.2	20.5	2 11	8 7.04	+10 30.4	2.409	3.345	6.3	19.9
2 21	8 0.90	+12 29.2	2.457	3.332	9.2	20.7	2 21	8 0.99	+12 3.5	2.489	3.364	9.1	20.1
3 2	7 56.48	+13 10.1	2.534	3.323	11.9	20.8	3 2	7 56.75	+13 30.1	2.595	3.384	11.6	20.3
<b>101795</b>	1999 <i>HX</i> <sub>2</sub>		1 23.8 211°17'	1°1/24.9	18		<b>427719</b>	2004 <i>GN</i> <sub>66</sub>		1 23.8 329°44'	4°6/21.1	17	
12 23	8 41.17	+12 24.1	3.994	4.797	7.4	22.0	12 23	8 46.20	+32 4.0	2.195	3.039	11.2	20.9
1 2	8 35.79	+12 52.3	3.894	4.786	5.5	21.8	1 2	8 40.23	+32 48.5	2.125	3.035	8.4	20.7
1 12	8 29.37	+13 26.7	3.823	4.775	3.3	21.6	1 12	8 32.15	+33 28.4	2.081	3.032	5.7	20.6
1 22	8 22.27	+14 5.6	3.784	4.763	1.3	21.5	1 22	8 22.74	+33 58.1	2.066	3.029	4.6	20.5
2 1	8 14.98	+14 46.9	3.777	4.751	2.1	21.5	2 1	8 13.09	+34 13.3	2.079	3.027	6.2	20.6
2 11	8 7.99	+15 28.6	3.804	4.738	4.3	21.7	2 11	8 4.33	+34 12.2	2.120	3.024	9.0	20.7
2 21	8 1.78	+16 8.6	3.860	4.724	6.5	21.8	2 21	7 57.41	+33 55.7	2.186	3.021	11.8	20.9
3 2	7 56.72	+16 45.4	3.944	4.709	8.4	21.9	3 2	7 52.96	+33 26.2	2.274	3.019	14.3	21.1
<b>338083</b>	2002 <i>PF</i> <sub>119</sub>		1 23.8 130°47'	0°6/24.0	17		<b>260764</b>	2005 <i>MO</i> <sub>46</sub>		1 23.8 253°69'	2°3/24.9	18	
12 23	8 52.64	+17 9.9	1.656	2.489	14.8	21.7	12 23	8 46.32	+12 48.1	1.790	2.620	14.0	21.2
1 2	8 44.95	+17 19.2	1.595	2.505	10.7	21.5	1 2	8 40.49	+12 43.3	1.709	2.614	10.5	20.9
1 12	8 34.77	+17 35.9	1.560	2.520	6.0	21.2	1 12	8 32.38	+12 49.5	1.653	2.608	6.4	20.7
1 22	8 23.11	+17 56.2	1.552	2.535	1.2	20.9	1 22	8 22.80	+13 4.9	1.623	2.602	2.7	20.4
2 1	8 11.33	+18 16.0	1.573	2.548	4.0	21.2	2 1	8 12.84	+13 26.4	1.622	2.596	4.1	20.5
2 11	8 0.83	+18 31.8	1.624	2.561	8.7	21.5	2 11	8 3.74	+13 50.7	1.650	2.590	8.3	20.7
2 21	7 52.65	+18 42.1	1.700	2.573	12.7	21.8	2 21	7 56.53	+14 14.3	1.703	2.584	12.3	21.0
3 2	7 47.43	+18 46.3	1.798	2.584	16.1	22.0	3 2	7 51.93	+14 34.9	1.778	2.578	15.7	21.2
<b>365196</b>	2009 <i>FM</i> <sub>44</sub>		1 23.8 313°37'	0°5/24.0	13 C		<b>329385</b>	2001 <i>XA</i> <sub>119</sub>		1 23.8 32°87'	5°7/20.9	18	
12 23	8 45.34	+16 56.0	1.385	2.240	15.9	21.4	12 23	8 46.14	+27 43.6	1.221	2.092	16.4	19.5
1 2	8 40.49	+17 11.2	1.302	2.222	11.7	21.1	1 2	8 41.03	+29 26.2	1.189	2.115	11.9	19.3
1 12	8 32.70	+17 37.7	1.241	2.205	6.7	20.8	1 12	8 32.83	+31 6.4	1.179	2.140	7.6	19.2
1 22	8 22.86	+18 11.3	1.205	2.189	1.3	20.4	1 22	8 22.85	+32 32.3	1.195	2.166	5.8	19.1
2 1	8 12.34	+18 46.6	1.196	2.173	4.6	20.6	2 1	8 12.81	+33 34.6	1.236	2.192	8.3	19.3
2 11	8 2.81	+19 18.2	1.213	2.157	10.1	20.8	2 11	8 4.48	+34 9.6	1.302	2.220	12.2	19.6
2 21	7 55.68	+19 42.4	1.253	2.142	15.1	21.1	2 21	7 59.05	+34 19.1	1.390	2.248	15.9	19.9
3 2	7 51.87	+19 57.5	1.312	2.128	19.4	21.3	3 2	7 57.11	+34 7.6	1.495	2.277	19.0	20.2
<b>166985</b>	2003 <i>OW</i> <sub>27</sub>		1 23.8 210°39'	0°5/23.5	18		<b>201440</b>	2003 <i>EU</i> <sub>26</sub>		1 23.8 254°02'	4°5/22.0	18	
12 23	8 47.92	+18 33.2	1.901	2.738	13.0	20.8	12 23	8 52.04	+28 41.5	1.505	2.358	15.0	19.9
1 2	8 41.64	+19 13.8	1.820	2.733	9.4	20.6	1 2	8 45.21	+29 19.7	1.434	2.351	11.0	19.6
1 12	8 33.03	+20 2.2	1.764	2.727	5.2	20.3	1 12	8 35.25	+29 55.4	1.386	2.345	6.9	19.4
1 22	8 22.88	+20 53.5	1.737	2.720	0.9	20.0	1 22	8 23.26	+30 20.8	1.364	2.338	4.5	19.2
2 1	8 12.31	+21 42.2	1.739	2.713	4.0	20.2	2 1	8 10.83	+30 29.4	1.370	2.331	6.9	19.3
2 11	8 2.56	+22 23.8	1.771	2.705	8.3	20.5	2 11	7 59.73	+30 18.8	1.402	2.324	11.2	19.6
2 21	7 54.69	+22 55.6	1.829	2.696	12.2	20.7	2 21	7 51.35	+29 50.8	1.458	2.317	15.3	19.8
3 2	7 49.45	+23 16.9	1.909	2.687	15.6	20.9	3 2	7 46.50	+29 9.5	1.534	2.310	18.8	20.0
<b>280234</b>	2002 <i>VM</i> <sub>30</sub>		1 23.8 67°18'	5°7/20.2	18		<b>120184</b>	2004 <i>BB</i> <sub>45</sub>		1 23.8 262°14'	3°8/23.3	18	
12 23	8 47.62	+34 19.7	2.085	2.928	11.8	20.4							

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>78635</b>	2002 <i>TF</i> <sub>36</sub>		1 23.8 264°63	0°3/23.9	18		<b>492395</b>	2014 <i>JU</i> <sub>22</sub>		1 23.8 250°25	4°4/25.7	18	
12 23	8 43.35	+16 55.5	2.203	3.038	11.5	19.8	12 23	8 47.26	+ 8 2.3	1.560	2.381	16.2	21.8
1 2	8 38.01	+17 20.4	2.126	3.037	8.4	19.6	1 2	8 41.53	+ 7 55.2	1.475	2.370	12.5	21.6
1 12	8 30.86	+17 52.4	2.075	3.037	4.7	19.4	1 12	8 33.16	+ 8 5.9	1.412	2.359	8.3	21.3
1 22	8 22.56	+18 28.3	2.053	3.036	0.8	19.1	1 22	8 22.98	+ 8 33.7	1.375	2.347	4.8	21.1
2 1	8 14.01	+19 4.3	2.060	3.035	3.2	19.3	2 1	8 12.21	+ 9 15.4	1.366	2.336	5.5	21.1
2 11	8 6.16	+19 37.0	2.097	3.035	7.0	19.5	2 11	8 2.32	+10 5.8	1.383	2.323	9.6	21.3
2 21	7 59.84	+20 4.1	2.161	3.034	10.4	19.7	2 21	7 54.53	+10 59.1	1.426	2.311	13.9	21.5
3 2	7 55.64	+20 24.1	2.247	3.033	13.3	19.9	3 2	7 49.71	+11 50.3	1.489	2.298	17.8	21.7
<b>201854</b>	2003 <i>YU</i> <sub>106</sub>		1 23.8 326°73	2°2/24.7	18		<b>334551</b>	2002 <i>SW</i> <sub>37</sub>		1 23.8 146°50	3°7/21.2	18	
12 23	8 45.47	+14 20.9	1.982	2.812	12.9	19.4	12 23	8 47.11	+31 27.3	2.700	3.534	9.7	20.9
1 2	8 39.68	+13 52.8	1.898	2.804	9.5	19.2	1 2	8 40.48	+32 10.0	2.637	3.543	7.2	20.8
1 12	8 31.85	+13 32.0	1.840	2.796	5.8	18.9	1 12	8 32.14	+32 48.7	2.601	3.551	4.8	20.6
1 22	8 22.72	+13 17.4	1.809	2.789	2.5	18.7	1 22	8 22.78	+33 18.7	2.596	3.560	3.7	20.6
2 1	8 13.29	+13 7.7	1.808	2.782	3.8	18.8	2 1	8 13.27	+33 36.9	2.620	3.567	5.1	20.7
2 11	8 4.66	+13 1.1	1.835	2.775	7.7	19.0	2 11	8 4.54	+33 41.6	2.675	3.575	7.5	20.8
2 21	7 57.74	+12 56.2	1.889	2.768	11.3	19.2	2 21	7 57.35	+33 33.5	2.756	3.582	9.9	21.0
3 2	7 53.19	+12 51.2	1.965	2.762	14.5	19.4	3 2	7 52.22	+33 14.5	2.859	3.588	12.0	21.2
<b>246293</b>	2007 <i>TH</i> <sub>79</sub>		1 23.8 24°14	0°2/23.9	18		<b>85966</b>	1999 <i>FD</i> <sub>62</sub>		1 23.8 29°86	5°6/26.9	18	
12 23	8 46.27	+18 2.1	1.249	2.109	16.9	20.2	12 23	8 43.47	+ 4 8.4	1.255	2.083	18.9	18.3
1 2	8 41.03	+18 13.5	1.193	2.116	12.2	19.9	1 2	8 38.99	+ 4 30.8	1.194	2.089	14.8	18.0
1 12	8 32.86	+18 34.4	1.158	2.124	6.9	19.7	1 12	8 31.75	+ 5 21.6	1.153	2.097	10.2	17.8
1 22	8 22.88	+18 59.9	1.149	2.132	1.1	19.3	1 22	8 22.75	+ 6 38.2	1.135	2.104	6.2	17.6
2 1	8 12.67	+19 24.7	1.165	2.142	4.7	19.6	2 1	8 13.38	+ 8 13.8	1.143	2.113	6.3	17.6
2 11	8 3.90	+19 44.0	1.206	2.152	10.1	19.9	2 11	8 5.22	+ 9 58.3	1.176	2.122	10.2	17.8
2 21	7 57.79	+19 55.6	1.271	2.162	14.8	20.2	2 21	7 59.48	+11 41.3	1.233	2.131	14.6	18.1
3 2	7 55.05	+19 58.7	1.355	2.174	18.7	20.5	3 2	7 56.93	+13 15.0	1.311	2.141	18.6	18.4
<b>144573</b>	2004 <i>FG</i> <sub>21</sub>		1 23.8 290°74	1°5/22.9	18		<b>104254</b>	2000 <i>ET</i> <sub>139</sub>		1 23.8 269°64	3°4/25.9	18	
12 23	8 44.57	+23 10.8	2.246	3.088	11.1	19.8	12 23	8 43.93	+ 7 29.8	1.843	2.658	14.3	19.3
1 2	8 38.96	+23 32.4	2.161	3.077	8.0	19.6	1 2	8 38.85	+ 7 58.5	1.751	2.644	11.0	19.0
1 12	8 31.43	+23 56.0	2.103	3.066	4.5	19.3	1 12	8 31.55	+ 8 45.8	1.682	2.630	7.2	18.8
1 22	8 22.66	+24 17.8	2.073	3.055	1.6	19.1	1 22	8 22.72	+ 9 49.5	1.641	2.615	3.9	18.5
2 1	8 13.57	+24 34.1	2.074	3.044	3.9	19.3	2 1	8 13.37	+11 5.2	1.628	2.600	4.5	18.5
2 11	8 5.20	+24 42.7	2.103	3.033	7.5	19.5	2 11	8 4.67	+12 26.4	1.644	2.585	8.3	18.7
2 21	7 58.41	+24 42.6	2.159	3.022	10.8	19.7	2 21	7 57.67	+13 46.9	1.687	2.570	12.2	18.9
3 2	7 53.84	+24 34.2	2.237	3.012	13.7	19.8	3 2	7 53.16	+15 1.4	1.752	2.555	15.8	19.1
<b>344483</b>	2002 <i>PM</i> <sub>197</sub>		1 23.8 135°52	1°1/24.3	17		<b>350982</b>	2003 <i>FL</i> <sub>71</sub>		1 23.8 269°41	2°1/22.8	18	
12 23	8 51.28	+15 17.0	1.640	2.472	15.0	22.4	12 23	8 49.02	+22 12.6	1.583	2.432	14.5	21.5
1 2	8 44.05	+15 34.2	1.577	2.486	10.9	22.1	1 2	8 43.04	+22 54.8	1.494	2.414	10.6	21.3
1 12	8 34.33	+16 1.5	1.539	2.498	6.3	21.9	1 12	8 34.13	+23 43.2	1.430	2.394	6.0	20.9
1 22	8 23.10	+16 34.9	1.528	2.511	1.6	21.6	1 22	8 23.15	+24 31.4	1.393	2.375	2.1	20.6
2 1	8 11.68	+17 9.6	1.547	2.522	4.0	21.8	2 1	8 11.45	+25 12.3	1.384	2.355	5.3	20.8
2 11	8 1.45	+17 41.2	1.594	2.533	8.7	22.1	2 11	8 0.65	+25 40.9	1.402	2.335	10.2	21.0
2 21	7 53.49	+18 7.1	1.667	2.543	12.8	22.4	2 21	7 52.15	+25 55.2	1.445	2.314	14.8	21.2
3 2	7 48.46	+18 25.8	1.762	2.552	16.2	22.6	3 2	7 46.91	+25 55.9	1.507	2.294	18.7	21.5
<b>143459</b>	2003 <i>BG</i> <sub>88</sub>		1 23.8 289°47	0°5/23.6	18		<b>350651</b>	2001 <i>TN</i> <sub>213</sub>		1 23.8 64°61	5°1/21.9	17	
12 23	8 50.38	+21 49.8	1.763	2.605	13.6	19.2	12 23	8 53.76	+28 50.1	1.269	2.128	16.8	20.4
1 2	8 43.54	+21 32.0	1.677	2.591	9.9	18.9	1 2	8 46.33	+29 46.1	1.233	2.153	12.2	20.2
1 12	8 34.15	+21 15.3	1.615	2.578	5.6	18.6	1 12	8 35.71	+30 37.6	1.219	2.179	7.6	20.0
1 22	8 23.09	+20 56.6	1.581	2.565	1.0	18.3	1 22	8 23.34	+31 15.0	1.231	2.204	5.1	19.9
2 1	8 11.63	+20 33.6	1.577	2.552	4.1	18.5	2 1	8 11.08	+31 31.8	1.269	2.229	7.5	20.1
2 11	8 1.18	+20 5.2	1.601	2.538	8.8	18.7	2 11	8 0.78	+31 26.9	1.333	2.254	11.7	20.4
2 21	7 52.87	+19 32.0	1.651	2.525	13.0	19.0	2 21	7 53.64	+31 3.5	1.419	2.280	15.6	20.7
3 2	7 47.48	+18 55.1	1.723	2.512	16.6	19.2	3 2	7 50.19	+30 26.5	1.525	2.305	18.8	21.0
<b>261278</b>	2005 <i>UA</i> <sub>134</sub>		1 23.8 132°87	0°8/23.4	18		<b>97481</b>	2000 <i>CF</i> <sub>61</sub>		1 23.8 219°66	0°5/23.6	18	R
12 23	8 47.42	+20 45.1	2.026	2.864	12.3	21.1	12 23	8 46.31	+20 43.4	2.305	3.139	11.1	19.1
1 2	8 41.00	+21 6.3	1.958	2.872	8.8	20.8	1 2	8 40.08	+20 46.9	2.224	3.136	8.0	18.9
1 12	8 32.54	+21 31.3	1.916	2.879	4.9	20.6	1 12	8 32.00	+20 53.1	2.170	3.133	4.5	18.7
1 22	8 22.83	+21 56.1	1.903	2.886	1.0	20.4	1 22	8 22.78	+20 59.2	2.145	3.129	0.8	18.4
2 1	8 12.93	+22 16.8	1.920	2.893	3.7	20.6	2 1	8 13.34	+21 2.6	2.151	3.125	3.3	18.6
2 11	8 3.97	+22 30.8	1.966	2.900	7.7	20.8	2 11	8 4.65	+21 1.4	2.187	3.121	7.0	18.8
2 21	7 56.83	+22 36.9	2.039	2.906	11.2	21.1	2 21	7 57.53	+20 54.9	2.249	3.117	10.3	19.0
3 2	7 52.12	+22 35.4	2.134	2.912	14.1	21.3	3 2	7 52.57	+20 43.2	2.336	3.112	13.1	19.2
<b>322733</b>	2000 <i>SD</i> <sub>231</sub>		1 23.8 119°72	6°7/27.4	18		<b>196344</b>	2003 <i>FJ</i> <sub>83</sub>		1 23.8 257°72	1°9/24.8	18	
12 23	8 45.22	- 0 1.1	2.094	2.867	14.3	20.4	12 23	8 46.41	+12 24.4	1.577	2.413	15.3	20.4
1 2	8 39.29	- 0 38.8	2.023	2.876	11.6	20.2	1 2	8 40.94	+12 51.6	1.494	2.402	11.4	20.2
1 12	8 31.54	- 0 58.2	1.976	2.886	9.0	20.1	1 12	8 32.84	+13 34.5	1.434	2.392	6.9	19.9
1 22	8 22.68	- 0 58.5	1.954	2.895	7.0	20.0	1 22	8 22.95	+14 29.5	1.400	2.381	2.4	19.6
2 1	8 13.62	- 0 40.2	1.961	2.904	6.9	20.0	2 1	8 12.49	+15 31.0	1.395	2.371	4.3	19.7
2 11	8 5.33	- 0 6.8	1.996	2.912	8.7	20.1	2 11	8 2.90	+16 32.7	1.417	2.360	9.1	19.9
2 21	7 58.62	+ 0 37.3	2.057	2.921	11.3	20.3	2 21	7 55.41	+17 29.1	1.464	2.348	13.7	20.2
3 2	7 54.06	+ 1 26.9	2.140	2.929	13.8	20.5	3 2	7 50.88	+18 16.8	1.532	2.337	17.6	20.4
<b>79734</b>	1998 <i>SH</i> <sub>136</sub>		1 23.8 174°39	0°6/23.5	18		<b>156207</b>	2001 <i>UD</i> <sub>50</sub>		1 23.8 104°05	0°5/24.1	18	
12 23	8 50.00	+18 47.2	1.846										

EPHEMERIDES

1 23.8

1 23.8

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>48631</b>	Hasantufan		1 23.8 117°31'	2°5/25.1	18		<b>472300</b>	2014 <i>WN</i> <sub>429</sub>		1 23.8 79°05'	3°9/20.9	18	
12 23	8 49.88	+11 9.7	1.623	2.448	15.5	19.2	12 23	8 44.65	+29 15.4	2.302	3.147	10.7	20.5
1 2	8 43.01	+11 27.2	1.564	2.466	11.5	19.0	1 2	8 39.07	+30 23.0	2.237	3.150	7.9	20.3
1 12	8 33.75	+11 59.3	1.529	2.483	7.0	18.8	1 12	8 31.53	+31 29.1	2.200	3.154	5.1	20.1
1 22	8 23.06	+12 42.4	1.521	2.500	3.0	18.6	1 22	8 22.77	+32 27.6	2.191	3.158	3.9	20.1
2 1	8 12.21	+13 31.6	1.542	2.516	4.3	18.7	2 1	8 13.74	+33 13.5	2.212	3.162	5.6	20.2
2 11	8 2.54	+14 21.4	1.591	2.531	8.6	19.0	2 11	8 5.48	+33 43.8	2.261	3.166	8.4	20.4
2 21	7 55.07	+15 7.5	1.666	2.546	12.6	19.3	2 21	7 58.88	+33 58.4	2.336	3.170	11.2	20.5
3 2	7 50.43	+15 47.1	1.764	2.560	16.0	19.5	3 2	7 54.54	+33 58.6	2.433	3.174	13.6	20.7
<b>76635</b>	2000 <i>HH</i> <sub>10</sub>		1 23.8 240°18'	4°0/21.4	18		<b>268126</b>	2004 <i>TW</i> <sub>85</sub>		1 23.8 157°45'	2°0/24.9	18	
12 23	8 48.15	+28 17.6	1.961	2.807	12.3	18.6	12 23	8 44.60	+12 9.2	2.112	2.934	12.5	21.5
1 2	8 41.94	+29 18.1	1.883	2.798	9.0	18.4	1 2	8 38.96	+12 21.5	2.036	2.937	9.2	21.3
1 12	8 33.29	+30 18.3	1.831	2.788	5.7	18.2	1 12	8 31.44	+12 44.6	1.985	2.939	5.6	21.1
1 22	8 23.02	+31 11.2	1.807	2.778	4.0	18.1	1 22	8 22.76	+13 16.0	1.962	2.942	2.3	20.9
2 1	8 12.29	+31 50.6	1.812	2.768	6.1	18.2	2 1	8 13.82	+13 52.5	1.970	2.944	3.5	21.0
2 11	8 2.43	+32 13.0	1.845	2.758	9.6	18.4	2 11	8 5.64	+14 30.4	2.006	2.946	7.1	21.2
2 21	7 54.56	+32 18.4	1.904	2.747	13.0	18.6	2 21	7 59.03	+15 6.3	2.070	2.948	10.6	21.4
3 2	7 49.46	+32 8.6	1.983	2.736	15.9	18.7	3 2	7 54.60	+15 37.9	2.157	2.949	13.6	21.6
<b>212435</b>	2006 <i>OJ</i> <sub>16</sub>		1 23.8 241°74'	0°6/24.2	18		<b>327372</b>	2005 <i>UT</i> <sub>310</sub>		1 23.8 321°58'	2°3/22.6	18	
12 23	8 47.01	+15 46.7	1.900	2.733	13.2	21.0	12 23	8 46.33	+23 28.3	1.754	2.605	13.3	20.8
1 2	8 41.05	+16 13.6	1.811	2.720	9.7	20.8	1 2	8 40.68	+24 12.3	1.683	2.602	9.6	20.5
1 12	8 32.79	+16 50.6	1.746	2.706	5.6	20.5	1 12	8 32.61	+24 59.8	1.636	2.599	5.5	20.3
1 22	8 22.96	+17 33.8	1.709	2.692	1.2	20.2	1 22	8 22.96	+25 44.6	1.616	2.597	2.4	20.1
2 1	8 12.62	+18 18.6	1.703	2.678	3.7	20.3	2 1	8 12.96	+26 21.1	1.625	2.594	5.0	20.2
2 11	8 3.02	+19 0.4	1.725	2.663	8.2	20.6	2 11	8 3.93	+26 45.4	1.662	2.592	9.1	20.5
2 21	7 55.21	+19 35.9	1.773	2.648	12.2	20.8	2 21	7 56.97	+26 56.4	1.724	2.590	13.0	20.7
3 2	7 49.99	+20 3.4	1.844	2.632	15.7	21.0	3 2	7 52.81	+26 54.9	1.806	2.587	16.2	20.9
<b>338158</b>	2002 <i>QX</i> <sub>150</sub>		1 23.8 99°99'	1°1/24.2	18		<b>242447</b>	2004 <i>PG</i> <sub>106</sub>		1 23.8 204°56'	1°7/24.7	18	
12 23	8 51.37	+16 7.7	1.393	2.236	16.5	20.9	12 23	8 46.26	+14 2.8	2.148	2.972	12.2	21.4
1 2	8 44.42	+16 13.8	1.337	2.251	12.0	20.6	1 2	8 40.16	+13 59.9	2.066	2.969	9.0	21.1
1 12	8 34.66	+16 30.0	1.303	2.265	6.9	20.4	1 12	8 32.13	+14 5.2	2.010	2.966	5.4	20.9
1 22	8 23.23	+16 52.4	1.296	2.279	1.6	20.1	1 22	8 22.88	+14 16.8	1.982	2.962	2.0	20.7
2 1	8 11.65	+17 16.1	1.316	2.292	4.4	20.3	2 1	8 13.36	+14 32.2	1.984	2.958	3.4	20.8
2 11	8 1.50	+17 36.9	1.364	2.305	9.5	20.6	2 11	8 4.57	+14 48.7	2.016	2.954	7.2	21.0
2 21	7 53.96	+17 52.4	1.435	2.318	14.0	20.9	2 21	7 57.39	+15 4.0	2.075	2.950	10.7	21.2
3 2	7 49.69	+18 1.5	1.528	2.331	17.7	21.2	3 2	7 52.43	+15 16.4	2.157	2.945	13.7	21.4
<b>400997</b>	2011 <i>QX</i> <sub>9</sub>		1 23.8 169°14'	1°1/23.4	18		<b>123320</b>	2000 <i>VV</i> <sub>15</sub>		1 23.8 137°52'	1°1/24.4	18	
12 23	8 51.51	+21 30.5	1.742	2.582	13.9	22.2	12 23	8 48.63	+14 25.0	1.931	2.756	13.3	20.3
1 2	8 44.29	+21 46.6	1.672	2.586	10.0	21.9	1 2	8 41.92	+14 51.5	1.865	2.770	9.7	20.1
1 12	8 34.54	+22 6.1	1.626	2.589	5.6	21.7	1 12	8 33.12	+15 27.9	1.824	2.783	5.6	19.9
1 22	8 23.23	+22 24.4	1.608	2.591	1.3	21.4	1 22	8 23.03	+16 10.4	1.812	2.795	1.5	19.6
2 1	8 11.64	+22 37.0	1.620	2.593	4.3	21.6	2 1	8 12.76	+16 54.6	1.831	2.806	3.5	19.8
2 11	8 1.19	+22 41.5	1.661	2.595	8.8	21.9	2 11	8 3.43	+17 36.2	1.879	2.817	7.6	20.1
2 21	7 52.96	+22 37.1	1.727	2.595	12.8	22.1	2 21	7 55.97	+18 12.2	1.954	2.827	11.3	20.3
3 2	7 47.66	+22 25.0	1.815	2.596	16.2	22.3	3 2	7 50.99	+18 40.9	2.051	2.836	14.4	20.5
<b>184030</b>	2004 <i>FT</i> <sub>63</sub>		1 23.8 235°96'	5°0/26.9	18		<b>89256</b>	2001 <i>UQ</i> <sub>183</sub>		1 23.8 194°23'	0°2/23.7	18	
12 23	8 44.10	+ 3 4.6	2.074	2.864	13.8	20.9	12 23	8 48.78	+17 11.2	1.800	2.635	13.7	20.3
1 2	8 38.73	+ 3 9.4	1.983	2.855	11.0	20.7	1 2	8 42.38	+17 57.2	1.722	2.633	9.9	20.0
1 12	8 31.39	+ 3 32.5	1.915	2.844	7.9	20.4	1 12	8 33.56	+18 52.9	1.669	2.631	5.6	19.8
1 22	8 22.75	+ 4 13.6	1.874	2.834	5.4	20.3	1 22	8 23.13	+19 53.1	1.644	2.628	0.9	19.4
2 1	8 13.69	+ 5 10.1	1.862	2.823	5.5	20.2	2 1	8 12.26	+20 51.6	1.650	2.624	4.0	19.6
2 11	8 5.25	+ 6 17.4	1.879	2.811	8.1	20.4	2 11	8 2.29	+21 43.2	1.684	2.620	8.6	19.9
2 21	7 58.32	+ 7 29.8	1.923	2.799	11.3	20.6	2 21	7 54.30	+22 24.7	1.744	2.615	12.6	20.1
3 2	7 53.59	+ 8 42.0	1.990	2.787	14.4	20.7	3 2	7 49.07	+22 54.8	1.827	2.609	16.0	20.4
<b>361699</b>	2007 <i>VD</i> <sub>162</sub>		1 23.8 200°49'	4°1/21.6	18		<b>242093</b>	2002 <i>TP</i> <sub>356</sub>		1 23.8 37°15'	5°4/27.2	18	
12 23	8 50.00	+28 20.9	1.823	2.669	13.1	21.3	12 23	8 42.03	+ 2 55.7	1.934	2.731	14.4	20.4
1 2	8 43.34	+29 16.1	1.753	2.667	9.6	21.1	1 2	8 37.19	+ 2 48.9	1.865	2.739	11.4	20.2
1 12	8 34.09	+30 10.1	1.707	2.665	6.0	20.9	1 12	8 30.48	+ 3 0.9	1.819	2.747	8.3	20.1
1 22	8 23.17	+30 55.6	1.690	2.662	4.1	20.7	1 22	8 22.63	+ 3 31.1	1.798	2.756	5.8	19.9
2 1	8 11.87	+31 26.6	1.701	2.659	6.3	20.9	2 1	8 14.56	+ 4 16.9	1.806	2.765	5.8	20.0
2 11	8 1.63	+31 40.0	1.740	2.655	9.9	21.1	2 11	8 7.28	+ 5 13.7	1.841	2.774	8.2	20.1
2 21	7 53.59	+31 36.3	1.804	2.651	13.4	21.3	2 21	8 1.61	+ 6 15.9	1.902	2.783	11.2	20.3
3 2	7 48.51	+31 18.1	1.889	2.647	16.4	21.5	3 2	7 58.13	+ 7 18.5	1.986	2.793	14.0	20.5
<b>122830</b>	2000 <i>SY</i> <sub>110</sub>		1 23.8 168°36'	3°2/25.5	18		<b>327071</b>	2004 <i>TQ</i> <sub>356</sub>		1 23.8 123°71'	4°3/27.0	18	
12 23	8 47.13	+ 9 8.8	1.827	2.643	14.4	20.1	12 23	8 43.86	+ 3 10.3	2.348	3.132	12.6	21.3
1 2	8 41.01	+ 9 19.9	1.752	2.646	10.9	19.9	1 2	8 38.19	+ 3 25.0	2.278	3.146	9.9	21.1
1 12	8 32.68	+ 9 46.0	1.701	2.649	7.0	19.7	1 12	8 30.93	+ 3 55.9	2.232	3.160	7.0	21.0
1 22	8 22.95	+10 25.1	1.677	2.652	3.6	19.5	1 22	8 22.69	+ 4 41.6	2.215	3.174	4.7	20.8
2 1	8 12.90	+11 13.3	1.682	2.654	4.4	19.5	2 1	8 14.30	+ 5 39.0	2.227	3.187	4.7	20.9
2 11	8 3.73	+12 5.6	1.716	2.655	8.1	19.8	2 11	8 6.59	+ 6 43.7	2.269	3.200	6.9	21.0
2 21	7 56.41	+12 57.4	1.777	2.656	11.9	20.0	2 21	8 0.28	+ 7 51.1	2.339	3.213	9.7	21.2
3 2	7 51.63	+13 44.8	1.860	2.657	15.2	20.2	3 2	7 55.87	+ 8 56.9	2.434	3.225	12.2	21.4
<b>341810</b>	2007 <i>XQ</i> <sub>49</sub>		1 23.8 51°70'	0°4/24.1	18		<b>324529</b>	2006 <i>VW</i> <sub>135</sub>		1 23.8 353°97'	0°8/24.2	18	
12 23	8 44.23	+17 6.7	2.052	2.889	12.2								

EPHEMERIDES

1 23.8

1 23.8

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>269349</b>	2008 <i>TT</i> <sub>179</sub>		1 23.8 162°71	0°3/23.6	18		<b>28620</b>	2000 <i>FE</i> <sub>26</sub>		1 23.8 128°47	3°1/22.4	18	
12 23	8 43.99	+17 38.0	2.145	2.981	11.8	20.0	12 23	8 51.39	+24 45.3	1.572	2.421	14.6	18.1
1 2	8 38.59	+18 25.0	2.070	2.982	8.5	19.8	1 2	8 44.47	+25 35.3	1.512	2.430	10.5	17.9
1 12	8 31.29	+19 19.7	2.021	2.983	4.7	19.6	1 12	8 34.77	+26 27.0	1.477	2.440	6.1	17.7
1 22	8 22.78	+20 17.7	2.001	2.985	0.7	19.3	1 22	8 23.37	+27 12.9	1.470	2.448	3.1	17.5
2 1	8 13.97	+21 14.1	2.011	2.986	3.4	19.5	2 1	8 11.71	+27 46.6	1.490	2.457	5.7	17.7
2 11	8 5.89	+22 4.5	2.051	2.986	7.3	19.8	2 11	8 1.36	+28 4.7	1.538	2.465	10.0	17.9
2 21	7 59.38	+22 46.2	2.118	2.987	10.7	20.0	2 21	7 53.52	+28 7.1	1.611	2.472	14.0	18.2
3 2	7 55.07	+23 17.8	2.207	2.988	13.7	20.2	3 2	7 48.88	+27 56.2	1.704	2.479	17.3	18.4
<b>143515</b>	2003 <i>EX</i> <sub>8</sub>		1 23.8 243°71	1°6/22.9	18		<b>19590</b>	1999 <i>NG</i> <sub>18</sub>		1 23.8 120°71	3°8/20.6	18	
12 23	8 45.71	+24 29.9	2.512	3.349	10.2	19.9	12 23	8 44.38	+28 21.0	2.442	3.285	10.3	17.4
1 2	8 39.59	+24 40.2	2.432	3.345	7.4	19.7	1 2	8 38.88	+29 51.1	2.375	3.287	7.5	17.2
1 12	8 31.75	+24 50.5	2.378	3.340	4.2	19.5	1 12	8 31.49	+31 21.1	2.335	3.290	4.9	17.0
1 22	8 22.84	+24 57.7	2.354	3.335	1.6	19.3	1 22	8 22.85	+32 44.7	2.326	3.292	3.9	17.0
2 1	8 13.73	+24 59.1	2.361	3.330	3.6	19.4	2 1	8 13.86	+33 55.9	2.347	3.294	5.6	17.1
2 11	8 5.33	+24 53.2	2.397	3.325	6.8	19.6	2 11	8 5.53	+34 51.0	2.397	3.297	8.3	17.3
2 21	7 58.41	+24 39.8	2.461	3.320	9.8	19.8	2 21	7 58.70	+35 29.0	2.474	3.299	10.9	17.4
3 2	7 53.52	+24 19.8	2.549	3.315	12.4	20.0	3 2	7 54.02	+35 50.8	2.572	3.301	13.2	17.6
<b>340652</b>	2006 <i>RD</i> <sub>5</sub>		1 23.8 130°43	1°1/24.5	18		<b>150497</b>	2000 <i>QM</i> <sub>96</sub>		1 23.8 100°42	2°7/25.7	18	
12 23	8 44.02	+15 12.6	2.683	3.504	10.1	20.9	12 23	8 45.52	+ 8 40.8	2.119	2.928	12.9	20.0
1 2	8 38.17	+15 14.3	2.611	3.514	7.4	20.7	1 2	8 39.48	+ 9 9.9	2.059	2.950	9.7	19.9
1 12	8 30.86	+15 21.7	2.566	3.523	4.3	20.6	1 12	8 31.69	+ 9 52.6	2.024	2.972	6.2	19.7
1 22	8 22.70	+15 33.2	2.551	3.532	1.4	20.4	1 22	8 22.87	+10 46.1	2.018	2.993	3.1	19.5
2 1	8 14.41	+15 46.7	2.566	3.541	2.7	20.5	2 1	8 13.93	+11 46.0	2.042	3.014	3.7	19.6
2 11	8 6.76	+15 59.9	2.613	3.550	5.8	20.7	2 11	8 5.83	+12 47.6	2.096	3.035	6.9	19.8
2 21	8 0.39	+16 11.4	2.687	3.558	8.7	20.9	2 21	7 59.33	+13 46.6	2.178	3.055	10.2	20.1
3 2	7 55.78	+16 20.0	2.786	3.566	11.1	21.1	3 2	7 54.97	+14 40.0	2.284	3.074	12.9	20.3
<b>411295</b>	2010 <i>TF</i> <sub>76</sub>		1 23.8 104°03	2°2/22.7	18		<b>493451</b>	2014 <i>WC</i> <sub>388</sub>		1 23.8 140°32	4°2/20.8	18	
12 23	8 49.60	+23 48.8	1.889	2.732	12.9	22.5	12 23	8 48.25	+28 54.2	2.158	2.999	11.5	20.9
1 2	8 42.67	+24 30.2	1.836	2.751	9.2	22.3	1 2	8 41.79	+30 17.8	2.097	3.009	8.4	20.7
1 12	8 33.54	+25 13.0	1.807	2.769	5.2	22.1	1 12	8 33.14	+31 40.1	2.064	3.018	5.5	20.5
1 22	8 23.13	+25 51.5	1.808	2.788	2.2	22.0	1 22	8 23.12	+32 53.8	2.060	3.027	4.2	20.5
2 1	8 12.62	+26 21.0	1.838	2.806	4.6	22.2	2 1	8 12.79	+33 52.7	2.086	3.035	6.1	20.6
2 11	8 3.23	+26 38.8	1.897	2.823	8.4	22.4	2 11	8 3.33	+34 33.5	2.141	3.043	9.0	20.8
2 21	7 55.92	+26 44.5	1.981	2.840	11.9	22.7	2 21	7 55.73	+34 56.0	2.222	3.050	11.9	21.0
3 2	7 51.25	+26 39.5	2.088	2.857	14.7	22.9	3 2	7 50.64	+35 2.2	2.324	3.057	14.4	21.2
<b>52715</b>	1998 <i>FR</i> <sub>116</sub>		1 23.8 269°32	0°4/24.1	17		<b>400776</b>	2010 <i>EQ</i> <sub>31</sub>		1 23.8 199°58	0°4/24.1	18	
12 23	8 43.47	+17 15.8	2.448	3.279	10.7	19.9	12 23	8 49.07	+16 22.5	1.966	2.795	13.0	22.4
1 2	8 38.05	+17 25.0	2.360	3.269	7.8	19.7	1 2	8 42.43	+16 49.4	1.883	2.791	9.5	22.1
1 12	8 30.94	+17 39.8	2.297	3.258	4.4	19.5	1 12	8 33.56	+17 24.9	1.826	2.786	5.4	21.9
1 22	8 22.73	+17 57.7	2.264	3.247	0.9	19.2	1 22	8 23.20	+18 5.2	1.798	2.781	1.0	21.6
2 1	8 14.24	+18 16.2	2.261	3.237	3.0	19.3	2 1	8 12.45	+18 45.7	1.800	2.775	3.6	21.7
2 11	8 6.35	+18 32.7	2.288	3.226	6.5	19.5	2 11	8 2.52	+19 22.3	1.832	2.768	7.9	22.0
2 21	7 59.82	+18 45.4	2.343	3.215	9.7	19.7	2 21	7 54.40	+19 52.3	1.890	2.761	11.8	22.2
3 2	7 55.23	+18 53.4	2.421	3.204	12.5	19.9	3 2	7 48.82	+20 14.4	1.972	2.752	15.1	22.4
<b>7478</b>	Hasse		1 23.8 130°26	0°1/23.8	18		<b>411881</b>	2012 <i>FO</i> <sub>11</sub>		1 23.8 346°16	7°6/21.0	18	
12 23	8 44.89	+17 41.9	2.180	3.014	11.7	18.7	12 23	8 51.22	+35 55.3	1.436	2.290	15.5	20.1
1 2	8 39.15	+18 11.9	2.110	3.021	8.4	18.5	1 2	8 44.91	+36 40.4	1.373	2.284	12.0	19.9
1 12	8 31.56	+18 48.4	2.065	3.027	4.7	18.3	1 12	8 35.25	+37 14.9	1.332	2.279	8.8	19.7
1 22	8 22.83	+19 27.8	2.049	3.033	0.7	18.0	1 22	8 23.48	+37 29.3	1.317	2.274	7.6	19.6
2 1	8 13.89	+20 5.9	2.064	3.039	3.3	18.2	2 1	8 11.37	+37 17.4	1.326	2.270	9.4	19.7
2 11	8 5.72	+20 39.5	2.108	3.044	7.0	18.5	2 11	8 0.88	+36 38.5	1.361	2.266	12.8	19.9
2 21	7 59.15	+21 6.2	2.179	3.050	10.4	18.7	2 21	7 53.39	+35 37.4	1.417	2.264	16.4	20.1
3 2	7 54.74	+21 25.2	2.273	3.055	13.3	18.9	3 2	7 49.67	+34 20.7	1.493	2.262	19.6	20.3
<b>208996</b>	2003 <i>AZ</i> <sub>84</sub>		1 23.8 233°13	0°2/26.4	18		<b>249870</b>	2001 <i>QV</i> <sub>182</sub>		1 23.8 49°04	6°5/20.5	18	
12 23	8 23.54	+ 7 51.2	43.569	44.356	0.8	20.2	12 23	8 50.19	+30 21.7	1.366	2.227	15.7	19.2
1 2	8 22.86	+ 7 52.0	43.479	44.353	0.6	20.1	1 2	8 43.79	+32 9.3	1.338	2.257	11.6	19.0
1 12	8 22.11	+ 7 53.5	43.417	44.350	0.4	20.1	1 12	8 34.40	+33 50.6	1.334	2.288	7.8	18.9
1 22	8 21.33	+ 7 55.5	43.384	44.347	0.3	20.1	1 22	8 23.31	+35 13.9	1.356	2.319	6.5	18.9
2 1	8 20.55	+ 7 58.1	43.381	44.343	0.3	20.1	2 1	8 12.23	+36 11.2	1.404	2.351	8.7	19.1
2 11	8 19.79	+ 8 1.0	43.409	44.340	0.4	20.1	2 11	8 2.86	+36 40.2	1.478	2.382	12.1	19.4
2 21	8 19.08	+ 8 4.2	43.466	44.337	0.6	20.1	2 21	7 56.37	+36 43.6	1.574	2.414	15.4	19.6
3 2	8 18.44	+ 8 7.6	43.549	44.334	0.8	20.2	3 2	7 53.34	+36 26.9	1.689	2.446	18.1	19.9
<b>153211</b>	2000 <i>XJ</i> <sub>16</sub>		1 23.8 190°13	1°8/22.9	18		<b>293642</b>	2007 <i>OS</i> <sub>9</sub>		1 23.8 212°12	1°6/22.9	18	
12 23	8 48.89	+24 30.9	2.223	3.059	11.4	19.9	12 23	8 49.73	+21 41.5	1.946	2.784	12.7	22.2
1 2	8 42.04	+24 43.6	2.146	3.058	8.2	19.7	1 2	8 43.03	+22 24.6	1.864	2.777	9.2	22.0
1 12	8 33.18	+24 56.4	2.096	3.057	4.7	19.4	1 12	8 33.95	+23 12.5	1.807	2.769	5.2	21.7
1 22	8 23.09	+25 5.4	2.075	3.056	1.8	19.2	1 22	8 23.28	+23 59.7	1.779	2.760	1.7	21.5
2 1	8 12.78	+25 7.4	2.085	3.054	4.0	19.4	2 1	8 12.15	+24 40.8	1.781	2.751	4.4	21.6
2 11	8 3.34	+25 0.9	2.124	3.052	7.6	19.6	2 11	8 1.86	+25 11.6	1.812	2.741	8.6	21.9
2 21	7 55.65	+24 45.9	2.190	3.049	10.9	19.8	2 21	7 53.48	+25 30.7	1.869	2.730	12.4	22.1
3 2	7 50.32	+24 23.5	2.280	3.046	13.7	20.0	3 2	7 47.79	+25 38.3	1.949	2.718	15.6	22.3
<b>269375</b>	2009 <i>DV</i> <sub>46</sub>		1 23.8 308°36	3°6/26.1	18		<b>296937</b>	2010 <i>DQ</i> <sub>15</sub>		1 23.8 220°95	3°9/25.8	17	
12 23	8 41.21	+ 7 0.9	2.166	2.975	12								

EPHEMERIDES

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>149432</b>	2003 <i>BU</i> <sub>58</sub>		1 23.8 325°81	1.6/22.9	18		<b>466884</b>	2015 <i>DG</i> <sub>69</sub>		1 23.9 106°87	0.6/23.5	18	
12 23	8 43.15	+18 55.7	1.498	2.355	14.8	19.6	12 23	8 43.95	+19 34.8	2.293	3.130	11.1	21.5
1 2	8 38.87	+20 9.9	1.418	2.341	10.7	19.3	1 2	8 38.45	+20 7.8	2.223	3.136	7.9	21.3
1 12	8 31.88	+21 36.9	1.362	2.327	6.0	19.0	1 12	8 31.19	+20 45.8	2.179	3.141	4.4	21.1
1 22	8 22.98	+23 9.3	1.332	2.314	1.7	18.7	1 22	8 22.86	+21 24.8	2.163	3.147	0.8	20.8
2 1	8 13.43	+24 37.8	1.329	2.302	5.1	18.9	2 1	8 14.31	+22 1.0	2.178	3.152	3.3	21.0
2 11	8 4.76	+25 54.3	1.354	2.290	10.1	19.1	2 11	8 6.49	+22 31.3	2.223	3.157	6.9	21.2
2 21	7 58.28	+26 53.9	1.402	2.279	14.7	19.3	2 21	8 0.18	+22 53.9	2.295	3.162	10.1	21.5
3 2	7 54.89	+27 35.2	1.470	2.269	18.5	19.6	3 2	7 55.94	+23 8.2	2.390	3.168	12.8	21.7
<b>320430</b>	2007 <i>VW</i> <sub>91</sub>		1 23.9 230°78	5°2/20.2	18		<b>1916</b>	Boreas		1 23.9 142°32	3°7/21.9	18	
12 23	8 46.50	+34 19.9	2.389	3.227	10.6	20.4	12 23	8 56.01	+30 4.0	2.310	3.135	11.4	19.9
1 2	8 40.48	+35 21.1	2.321	3.225	8.1	20.2	1 2	8 47.02	+30 43.3	2.251	3.155	8.4	19.8
1 12	8 32.40	+36 16.8	2.280	3.222	5.9	20.1	1 12	8 35.92	+31 17.8	2.221	3.173	5.3	19.6
1 22	8 23.03	+37 1.2	2.267	3.220	5.2	20.0	1 22	8 23.60	+31 42.1	2.220	3.190	3.7	19.5
2 1	8 13.36	+37 29.5	2.283	3.217	6.6	20.1	2 1	8 11.22	+31 52.4	2.252	3.205	5.3	19.7
2 11	8 4.50	+37 39.8	2.327	3.214	9.0	20.3	2 11	7 59.97	+31 47.8	2.314	3.219	8.2	19.9
2 21	7 57.38	+37 32.9	2.396	3.212	11.6	20.4	2 21	7 50.75	+31 29.6	2.403	3.232	11.1	20.1
3 2	7 52.62	+37 11.3	2.486	3.209	13.8	20.6	3 2	7 44.13	+31 1.0	2.516	3.244	13.5	20.3
<b>118010</b>	1272 <i>T</i> <sub>-2</sub>		1 23.9 49°99	5°6/21.9	18		<b>412549</b>	2014 <i>ND</i> <sub>24</sub>		1 23.9 300°58	4°9/25.9	18	
12 23	8 53.09	+30 29.5	1.250	2.111	16.8	18.9	12 23	8 46.26	+7 38.3	1.465	2.291	16.8	21.0
1 2	8 45.99	+31 13.1	1.212	2.132	12.4	18.7	1 2	8 40.92	+7 20.6	1.388	2.285	13.0	20.8
1 12	8 35.64	+31 50.0	1.196	2.154	7.9	18.5	1 12	8 32.94	+7 21.3	1.333	2.279	8.8	20.5
1 22	8 23.51	+32 11.1	1.206	2.177	5.6	18.4	1 22	8 23.17	+7 40.2	1.303	2.274	5.4	20.3
2 1	8 11.51	+32 11.1	1.241	2.200	7.9	18.6	2 1	8 12.92	+8 14.4	1.299	2.269	5.9	20.3
2 11	8 1.49	+31 49.5	1.301	2.223	11.9	18.9	2 11	8 3.65	+8 59.0	1.322	2.263	9.8	20.5
2 21	7 54.65	+31 10.5	1.384	2.247	15.7	19.2	2 21	7 56.59	+9 47.9	1.369	2.258	14.1	20.8
3 2	7 51.53	+30 19.3	1.486	2.270	19.0	19.5	3 2	7 52.54	+10 36.0	1.436	2.253	17.9	21.0
<b>15869</b>	Tullius		1 23.9 213°25	5°7/27.1	18		<b>264765</b>	2002 <i>ER</i> <sub>147</sub>		1 23.9 11°30	1°7/24.7	18	
12 23	8 44.87	+1 20.2	2.305	3.079	13.1	20.0	12 23	8 43.03	+13 50.1	1.442	2.291	15.7	19.9
1 2	8 39.12	+1 0.2	2.215	3.073	10.6	19.8	1 2	8 38.54	+14 6.2	1.378	2.294	11.6	19.6
1 12	8 31.59	+0 56.5	2.149	3.066	8.0	19.7	1 12	8 31.53	+14 36.0	1.336	2.297	6.8	19.3
1 22	8 22.91	+1 9.6	2.110	3.058	6.0	19.5	1 22	8 22.94	+15 16.0	1.320	2.302	2.2	19.1
2 1	8 13.89	+1 38.4	2.100	3.050	5.9	19.5	2 1	8 14.05	+16 0.7	1.330	2.307	4.2	19.2
2 11	8 5.45	+2 20.0	2.119	3.041	7.9	19.6	2 11	8 6.25	+16 44.7	1.367	2.314	9.0	19.5
2 21	7 58.40	+3 9.9	2.165	3.032	10.7	19.8	2 21	8 0.64	+17 23.5	1.428	2.321	13.4	19.8
3 2	7 53.34	+4 3.7	2.235	3.022	13.3	19.9	3 2	7 57.93	+17 54.3	1.509	2.329	17.1	20.0
<b>293365</b>	2007 <i>EM</i> <sub>7</sub>		1 23.9 123°35	2°1/25.1	18		<b>143373</b>	2003 <i>BK</i> <sub>12</sub>		1 23.9 199°70	4°4/21.8	18	
12 23	8 44.75	+11 49.4	1.955	2.779	13.2	20.7	12 23	8 51.76	+31 29.7	2.015	2.854	12.3	19.7
1 2	8 39.22	+12 6.1	1.881	2.783	9.8	20.5	1 2	8 44.42	+31 57.5	1.943	2.852	9.2	19.5
1 12	8 31.70	+12 35.0	1.833	2.787	6.0	20.3	1 12	8 34.66	+32 19.8	1.898	2.850	6.0	19.3
1 22	8 22.93	+13 13.2	1.812	2.791	2.5	20.1	1 22	8 23.44	+32 30.9	1.880	2.848	4.4	19.2
2 1	8 13.89	+13 57.0	1.820	2.795	3.7	20.2	2 1	8 11.98	+32 26.6	1.892	2.845	6.1	19.3
2 11	8 5.66	+14 42.0	1.857	2.798	7.5	20.4	2 11	8 1.62	+32 5.9	1.932	2.843	9.3	19.5
2 21	7 59.12	+15 24.4	1.921	2.802	11.1	20.6	2 21	7 53.41	+31 30.7	1.998	2.840	12.5	19.7
3 2	7 54.91	+16 1.5	2.008	2.805	14.3	20.9	3 2	7 48.00	+30 44.5	2.086	2.836	15.3	19.9
<b>192068</b>	2006 <i>BA</i> <sub>93</sub>		1 23.9 43°36	0°8/24.3	18		<b>493455</b>	2014 <i>WH</i> <sub>394</sub>		1 23.9 109°98	8°7/19.1	18	
12 23	8 44.64	+15 50.0	1.906	2.743	13.0	20.8	12 23	8 57.35	+44 34.6	2.097	2.909	12.9	21.1
1 2	8 39.21	+16 9.6	1.835	2.746	9.5	20.5	1 2	8 48.55	+45 45.1	2.058	2.929	10.7	21.0
1 12	8 31.71	+16 38.1	1.788	2.749	5.4	20.3	1 12	8 36.97	+46 39.2	2.044	2.948	9.1	20.9
1 22	8 22.93	+17 12.0	1.769	2.752	1.3	20.0	1 22	8 23.79	+47 9.2	2.057	2.966	8.8	20.9
2 1	8 13.88	+17 47.3	1.779	2.755	3.5	20.2	2 1	8 10.61	+47 10.7	2.097	2.984	9.8	21.0
2 11	8 5.70	+18 20.1	1.818	2.758	7.6	20.4	2 11	7 59.02	+46 44.7	2.162	3.001	11.7	21.2
2 21	7 59.28	+18 47.7	1.882	2.761	11.4	20.7	2 21	7 50.14	+45 56.1	2.251	3.018	13.7	21.3
3 2	7 55.26	+19 8.4	1.970	2.765	14.6	20.9	3 2	7 44.58	+44 51.1	2.359	3.034	15.6	21.5
<b>74612</b>	1999 <i>RW</i> <sub>17</sub>		1 23.9 184°01	0°2/23.8	18		<b>63510</b>	2001 <i>OG</i> <sub>89</sub>		1 23.9 22°03	0°6/24.1	18	
12 23	8 51.27	+18 36.4	1.549	2.391	15.2	20.1	12 23	8 43.07	+15 19.9	1.224	2.085	17.1	17.9
1 2	8 44.45	+18 56.7	1.477	2.392	11.0	19.8	1 2	8 38.83	+16 1.4	1.172	2.095	12.4	17.7
1 12	8 34.85	+19 24.7	1.429	2.392	6.2	19.5	1 12	8 31.78	+16 57.7	1.142	2.107	7.0	17.4
1 22	8 23.45	+19 55.4	1.408	2.392	1.0	19.2	1 22	8 22.99	+18 2.5	1.136	2.119	1.4	17.1
2 1	8 11.65	+20 23.7	1.415	2.391	4.4	19.4	2 1	8 13.97	+19 7.6	1.156	2.133	4.6	17.4
2 11	8 1.02	+20 45.3	1.451	2.389	9.4	19.7	2 11	8 6.29	+20 5.8	1.201	2.148	9.9	17.7
2 21	7 52.78	+20 58.3	1.511	2.387	13.9	20.0	2 21	8 1.15	+20 52.4	1.269	2.164	14.6	18.0
3 2	7 47.71	+21 2.7	1.592	2.384	17.6	20.2	3 2	7 59.22	+21 25.4	1.356	2.181	18.4	18.3
<b>104049</b>	2000 <i>EP</i> <sub>13</sub>		1 23.9 236°56	1°4/22.9	18		<b>169314</b>	2001 <i>TP</i> <sub>109</sub>		1 23.9 106°65	3°3/25.9	18	
12 23	8 45.00	+22 25.7	2.345	3.183	10.8	19.9	12 23	8 43.06	+7 54.3	2.439	3.242	11.6	20.2
1 2	8 39.28	+22 58.1	2.262	3.176	7.8	19.7	1 2	8 37.65	+7 46.2	2.365	3.250	8.9	20.0
1 12	8 31.70	+23 33.4	2.206	3.169	4.4	19.5	1 12	8 30.69	+7 49.6	2.317	3.258	6.0	19.9
1 22	8 22.93	+24 7.6	2.180	3.161	1.5	19.3	1 22	8 22.81	+8 3.4	2.297	3.265	3.6	19.7
2 1	8 13.86	+24 36.8	2.183	3.153	3.7	19.4	2 1	8 14.75	+8 25.9	2.306	3.273	4.0	19.8
2 11	8 5.46	+24 58.2	2.216	3.145	7.2	19.6	2 11	8 7.34	+8 54.1	2.346	3.281	6.5	19.9
2 21	7 58.56	+25 10.5	2.276	3.137	10.4	19.8	2 21	8 1.26	+9 25.1	2.413	3.288	9.4	20.1
3 2	7 53.79	+25 13.7	2.360	3.129	13.2	20.0	3 2	7 57.02	+9 56.0	2.504	3.295	11.9	20.3
<b>460080</b>	2014 <i>OT</i> <sub>306</sub>		1 23.9 195°89	0°9/23.3	18		<b>52852</b>	1998 <i>RB</i> <sub>75</sub>		1 23.9 72°73	5°0/22.1	18	
12 23	8 48.84	+19 38.2	2.080	2.913	12.2	22.0	12 23	8 53.65	+29 15.0	1.319			

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>336697</b>	2010 <i>BG</i> <sub>53</sub>		1 23.9	42°43	2°7/25.8	18	<b>359160</b>	2009 <i>BN</i> <sub>141</sub>		1 23.9	62°82	0°5/23.6	18
12 23	8 41.83	+ 8 5.7	2.057	2.872	13.0	20.0	12 23	8 49.08	+18 16.2	1.349	2.202	16.4	20.8
1 2	8 37.06	+ 8 49.0	1.985	2.879	9.8	19.8	1 2	8 42.87	+18 55.4	1.303	2.222	11.7	20.6
1 12	8 30.48	+ 9 48.1	1.938	2.887	6.3	19.6	1 12	8 33.91	+19 43.7	1.279	2.243	6.5	20.4
1 22	8 22.78	+10 59.9	1.919	2.895	3.1	19.4	1 22	8 23.34	+20 34.4	1.281	2.264	1.1	20.1
2 1	8 14.84	+12 19.4	1.930	2.904	3.7	19.5	2 1	8 12.70	+21 20.7	1.310	2.286	4.6	20.4
2 11	8 7.61	+13 40.7	1.970	2.912	7.1	19.7	2 11	8 3.53	+21 57.5	1.366	2.307	9.6	20.7
2 21	8 1.91	+14 58.4	2.038	2.921	10.5	19.9	2 21	7 56.95	+22 22.6	1.446	2.328	14.0	21.0
3 2	7 58.31	+16 8.6	2.129	2.930	13.4	20.2	3 2	7 53.60	+22 36.0	1.547	2.350	17.5	21.3
<b>246025</b>	2006 <i>UE</i> <sub>54</sub>		1 23.9	164°11	0°1/23.8	18	<b>205925</b>	2002 <i>HH</i> <sub>9</sub>		1 23.9	282°59	0°9/23.4	18
12 23	8 43.69	+18 58.0	2.868	3.695	9.4	21.2	12 23	8 46.83	+18 55.3	1.557	2.406	14.7	20.1
1 2	8 37.97	+19 13.4	2.791	3.699	6.7	21.1	1 2	8 41.47	+19 38.2	1.473	2.392	10.7	19.8
1 12	8 30.83	+19 32.4	2.742	3.703	3.8	20.9	1 12	8 33.35	+20 31.2	1.413	2.378	6.0	19.5
1 22	8 22.83	+19 52.5	2.723	3.706	0.6	20.6	1 22	8 23.31	+21 28.3	1.380	2.363	1.2	19.1
2 1	8 14.67	+20 11.4	2.735	3.709	2.6	20.8	2 1	8 12.63	+22 22.7	1.375	2.349	4.6	19.3
2 11	8 7.09	+20 27.0	2.778	3.712	5.7	21.0	2 11	8 2.85	+23 8.5	1.397	2.335	9.7	19.6
2 21	8 0.71	+20 38.0	2.849	3.714	8.4	21.2	2 21	7 55.28	+23 42.2	1.443	2.321	14.3	19.8
3 2	7 56.02	+20 43.9	2.945	3.716	10.8	21.4	3 2	7 50.81	+24 2.9	1.509	2.306	18.2	20.0
<b>18204</b>	3065 <i>P-L</i>		1 23.9	174°55	1°8/24.9	18	<b>431524</b>	2007 <i>TV</i> <sub>254</sub>		1 23.9	48°13	3°6/21.8	18
12 23	8 46.19	+13 12.1	2.223	3.042	12.0	19.6	12 23	8 45.97	+28 8.6	2.000	2.848	12.0	21.1
1 2	8 40.08	+13 13.7	2.144	3.044	8.9	19.4	1 2	8 40.16	+28 55.0	1.944	2.860	8.7	20.9
1 12	8 32.14	+13 24.1	2.091	3.046	5.4	19.2	1 12	8 32.25	+29 39.5	1.913	2.872	5.4	20.7
1 22	8 23.05	+13 41.3	2.067	3.047	2.1	18.9	1 22	8 23.08	+30 16.4	1.911	2.884	3.6	20.6
2 1	8 13.72	+14 2.7	2.074	3.048	3.4	19.0	2 1	8 13.76	+30 41.0	1.937	2.896	5.5	20.8
2 11	8 5.13	+14 25.4	2.110	3.048	6.9	19.3	2 11	8 5.45	+30 51.3	1.992	2.909	8.7	21.0
2 21	7 58.08	+14 46.9	2.174	3.048	10.3	19.5	2 21	7 59.05	+30 47.5	2.071	2.922	11.8	21.2
3 2	7 53.17	+15 5.3	2.261	3.048	13.2	19.7	3 2	7 55.14	+30 31.5	2.172	2.935	14.4	21.4
<b>396875</b>	2004 <i>TM</i> <sub>108</sub>		1 23.9	97°82	2°6/22.5	18	<b>505812</b>	2015 <i>BG</i> <sub>425</sub>		1 23.9	153°18	3°2/22.2	18
12 23	8 50.01	+22 40.9	1.542	2.392	14.8	20.7	12 23	8 49.46	+30 13.0	2.460	3.294	10.5	21.2
1 2	8 43.47	+23 44.2	1.489	2.408	10.6	20.4	1 2	8 42.33	+30 25.6	2.389	3.297	7.7	21.0
1 12	8 34.25	+24 51.7	1.459	2.423	6.0	20.2	1 12	8 33.33	+30 33.8	2.346	3.300	4.9	20.9
1 22	8 23.39	+25 55.6	1.457	2.438	2.6	20.0	1 22	8 23.25	+30 33.6	2.332	3.303	3.2	20.8
2 1	8 12.33	+26 48.5	1.484	2.452	5.4	20.2	2 1	8 13.06	+30 22.5	2.348	3.306	4.7	20.9
2 11	8 2.56	+27 25.8	1.538	2.467	9.8	20.5	2 11	8 3.77	+29 59.8	2.395	3.309	7.6	21.0
2 21	7 55.23	+27 46.8	1.616	2.481	13.8	20.8	2 21	7 56.19	+29 26.8	2.468	3.311	10.4	21.2
3 2	7 51.03	+27 52.8	1.715	2.495	17.0	21.1	3 2	7 50.86	+28 45.5	2.565	3.313	12.8	21.4
<b>359072</b>	2008 <i>YP</i> <sub>127</sub>		1 23.9	185°20	0°2/23.9	18	<b>334903</b>	2003 <i>WO</i> <sub>143</sub>		1 23.9	95°20	1°1/23.2	18
12 23	8 50.08	+18 28.3	1.798	2.634	13.7	21.1	12 23	8 48.31	+18 38.2	1.687	2.529	14.1	20.5
1 2	8 43.28	+18 33.9	1.723	2.634	9.9	20.8	1 2	8 42.03	+19 46.5	1.632	2.548	10.1	20.2
1 12	8 34.08	+18 45.4	1.672	2.634	5.6	20.6	1 12	8 33.37	+21 3.0	1.603	2.567	5.6	20.0
1 22	8 23.37	+18 59.2	1.650	2.633	0.9	20.2	1 22	8 23.27	+22 20.6	1.602	2.585	1.3	19.8
2 1	8 12.35	+19 11.8	1.657	2.632	3.8	20.5	2 1	8 12.98	+23 32.0	1.630	2.603	4.4	20.0
2 11	8 2.34	+19 20.2	1.693	2.631	8.3	20.7	2 11	8 3.80	+24 31.6	1.687	2.620	8.7	20.3
2 21	7 54.38	+19 23.2	1.755	2.629	12.4	21.0	2 21	7 56.76	+25 16.9	1.770	2.638	12.6	20.6
3 2	7 49.18	+19 20.4	1.839	2.626	15.7	21.2	3 2	7 52.51	+25 47.7	1.874	2.654	15.7	20.8
<b>264703</b>	2002 <i>AF</i> <sub>130</sub>		1 23.9	350°36	0°3/23.7	18	<b>309297</b>	2007 <i>RU</i> <sub>335</sub>		1 23.9	139°48	1°7/22.9	18
12 23	8 44.48	+17 32.9	1.723	2.568	13.7	20.2	12 23	8 49.92	+21 47.6	1.958	2.795	12.7	21.8
1 2	8 39.38	+18 14.5	1.650	2.566	9.9	20.0	1 2	8 42.98	+22 36.7	1.895	2.808	9.1	21.6
1 12	8 31.96	+19 5.7	1.601	2.565	5.6	19.7	1 12	8 33.84	+23 29.6	1.859	2.821	5.1	21.4
1 22	8 23.04	+20 1.4	1.580	2.564	0.9	19.4	1 22	8 23.35	+24 20.6	1.851	2.833	1.7	21.2
2 1	8 13.75	+20 55.8	1.587	2.563	4.0	19.6	2 1	8 12.65	+25 4.4	1.874	2.844	4.3	21.4
2 11	8 5.36	+21 43.6	1.622	2.562	8.5	19.9	2 11	8 2.94	+25 37.2	1.926	2.854	8.2	21.7
2 21	7 58.91	+22 21.6	1.683	2.561	12.6	20.1	2 21	7 55.19	+25 58.0	2.005	2.864	11.7	21.9
3 2	7 55.13	+22 48.4	1.765	2.561	16.0	20.3	3 2	7 50.04	+26 7.3	2.105	2.872	14.7	22.1
<b>11748</b>	1999 <i>NT</i> <sub>10</sub>		1 23.9	204°70	0°3/24.0	18	<b>379084</b>	2008 <i>WS</i> <sub>139</sub>		1 23.9	36°47	8°8/16.6	17
12 23	8 50.08	+18 3.3	2.143	2.970	12.1	19.5	12 23	8 48.63	+37 41.7	1.785	2.629	13.4	19.5
1 2	8 43.03	+18 9.7	2.057	2.964	8.8	19.3	1 2	8 42.89	+40 25.0	1.746	2.644	10.7	19.4
1 12	8 33.86	+18 21.4	1.998	2.958	5.0	19.1	1 12	8 34.19	+42 58.3	1.734	2.658	9.0	19.3
1 22	8 23.34	+18 35.3	1.967	2.951	0.9	18.8	1 22	8 23.45	+45 9.0	1.751	2.674	9.1	19.4
2 1	8 12.48	+18 48.3	1.968	2.943	3.4	18.9	2 1	8 12.12	+46 47.6	1.795	2.690	10.8	19.5
2 11	8 2.40	+18 58.0	1.999	2.934	7.5	19.2	2 11	8 1.90	+47 51.0	1.864	2.706	13.2	19.7
2 21	7 54.04	+19 2.9	2.057	2.924	11.1	19.4	2 21	7 54.17	+48 21.7	1.955	2.722	15.5	19.9
3 2	7 48.09	+19 2.6	2.139	2.914	14.2	19.6	3 2	7 49.82	+48 25.5	2.063	2.740	17.5	20.1
<b>227934</b>	2007 <i>GQ</i> <sub>16</sub>		1 23.9	143°14	1°7/24.8	18	<b>456947</b>	2008 <i>AX</i> <sub>41</sub>		1 23.9	47°85	3°1/23.3	18
12 23	8 45.12	+13 19.1	2.143	2.967	12.2	21.0	12 23	8 58.31	+28 29.6	1.312	2.162	16.9	20.5
1 2	8 39.35	+13 27.7	2.069	2.971	9.0	20.8	1 2	8 49.37	+28 1.7	1.268	2.185	12.2	20.2
1 12	8 31.74	+13 45.7	2.020	2.976	5.4	20.5	1 12	8 37.39	+27 27.0	1.248	2.209	7.1	20.0
1 22	8 22.99	+14 10.7	2.000	2.980	2.0	20.3	1 22	8 23.88	+26 41.5	1.253	2.233	3.2	19.9
2 1	8 14.02	+14 39.7	2.009	2.984	3.4	20.4	2 1	8 10.74	+25 44.0	1.288	2.258	5.7	20.1
2 11	8 5.80	+15 9.4	2.048	2.987	7.0	20.7	2 11	7 59.72	+24 37.2	1.349	2.283	10.4	20.4
2 21	7 59.16	+15 36.9	2.114	2.991	10.4	20.9	2 21	7 51.89	+23 25.6	1.434	2.308	14.6	20.7
3 2	7 54.68	+16 0.3	2.203	2.994	13.3	21.1	3 2	7 47.72	+22 13.1	1.541	2.334	18.0	21.0
<b>400778</b>	2010 <i>EO</i> <sub>42</sub>		1 23.9	294°45	3°5/22.5	18	<b>74390</b>	1998 <i>XK</i> <sub>37</sub>		1 23.9	59°72	0°9/23.4	18
12 23	8 49.48	+25 3.8	1.362	2.221	15.8								



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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>183119</b>	2002 <i>RQ</i> <sub>163</sub>		1 23.9 65°23	0°6/24.2	18		<b>430725</b>	2004 <i>FB</i> <sub>53</sub>		1 23.9 319°11	1°4/24.7	17	
12 23	8 47.31	+16 10.3	1.547	2.391	15.1	20.6	12 23	8 42.13	+13 59.5	1.884	2.721	13.1	20.7
1 2	8 41.41	+16 34.0	1.491	2.405	10.9	20.4	1 2	8 37.70	+14 17.0	1.788	2.698	9.7	20.5
1 12	8 33.06	+17 7.7	1.458	2.420	6.2	20.1	1 12	8 31.10	+14 46.1	1.716	2.675	5.8	20.2
1 22	8 23.24	+17 47.0	1.451	2.435	1.3	19.8	1 22	8 23.00	+15 24.1	1.671	2.652	1.9	19.9
2 1	8 13.25	+18 26.6	1.473	2.449	4.0	20.1	2 1	8 14.37	+16 7.0	1.654	2.630	3.7	19.9
2 11	8 4.46	+19 1.7	1.522	2.464	8.7	20.4	2 11	8 6.36	+16 50.5	1.666	2.609	8.0	20.2
2 21	7 57.90	+19 29.5	1.596	2.479	12.9	20.6	2 21	7 59.99	+17 30.4	1.703	2.588	12.1	20.3
3 2	7 54.21	+19 48.6	1.692	2.494	16.3	20.9	3 2	7 56.05	+18 4.1	1.762	2.567	15.6	20.5
<b>466224</b>	2012 <i>TZ</i> <sub>100</sub>		1 23.9 133°76	8°4/31.7	16		<b>495685</b>	2016 <i>BM</i> <sub>54</sub>		1 23.9 178°32	2°4/25.5	18	
12 23	8 42.21	-15 5.3	3.105	3.758	12.4	22.3	12 23	8 45.13	+9 6.4	1.972	2.787	13.5	21.9
1 2	8 36.82	-15 43.0	3.033	3.772	11.0	22.2	1 2	8 39.60	+9 51.3	1.893	2.788	10.2	21.7
1 12	8 30.18	-16 1.0	2.983	3.785	9.7	22.1	1 12	8 32.03	+10 52.4	1.838	2.789	6.4	21.4
1 22	8 22.77	-15 57.5	2.956	3.797	8.7	22.0	1 22	8 23.13	+12 6.2	1.811	2.789	2.9	21.2
2 1	8 15.21	-15 32.6	2.955	3.809	8.4	22.0	2 1	8 13.87	+13 27.4	1.815	2.789	3.7	21.3
2 11	8 8.16	-14 48.3	2.980	3.821	8.8	22.1	2 11	8 5.34	+14 49.7	1.848	2.789	7.5	21.5
2 21	8 2.16	-13 48.7	3.031	3.832	9.8	22.2	2 21	7 58.46	+16 7.5	1.909	2.788	11.2	21.7
3 2	7 57.66	-12 38.5	3.105	3.843	11.0	22.3	3 2	7 53.91	+17 17.0	1.993	2.787	14.4	21.9
<b>204253</b>	2004 <i>EB</i> <sub>39</sub>		1 23.9 351°30	10°3/18.3	18		<b>266804</b>	2009 <i>SO</i> <sub>343</sub>		1 23.9 143°61	3°4/21.9	18	
12 23	8 49.30	+43 55.5	1.660	2.497	14.6	18.9	12 23	8 47.66	+26 54.1	1.951	2.798	12.3	20.9
1 2	8 43.59	+45 12.9	1.603	2.489	12.3	18.7	1 2	8 41.54	+27 44.7	1.884	2.800	8.9	20.7
1 12	8 34.60	+46 14.2	1.570	2.483	10.6	18.6	1 12	8 33.14	+28 35.2	1.843	2.802	5.4	20.5
1 22	8 23.52	+46 49.6	1.560	2.477	10.4	18.6	1 22	8 23.31	+29 19.3	1.830	2.805	3.4	20.4
2 1	8 12.06	+46 52.4	1.574	2.473	11.8	18.7	2 1	8 13.19	+29 51.7	1.846	2.807	5.5	20.5
2 11	8 2.14	+46 22.3	1.612	2.469	14.1	18.8	2 11	8 4.04	+30 9.5	1.890	2.809	8.9	20.7
2 21	7 55.15	+45 24.0	1.670	2.467	16.6	19.0	2 21	7 56.84	+30 12.4	1.959	2.811	12.3	20.9
3 2	7 51.83	+44 4.7	1.747	2.465	18.9	19.1	3 2	7 52.29	+30 2.4	2.050	2.813	15.2	21.1
<b>193349</b>	2000 <i>UU</i> <sub>22</sub>		1 23.9 357°64	2°8/22.6	18		<b>97478</b>	2000 <i>CP</i> <sub>53</sub>		1 23.9 19°17	2°2/22.8	18	
12 23	8 43.34	+21 25.8	1.121	1.996	17.3	18.7	12 23	8 47.48	+25 27.6	2.065	2.908	11.9	18.5
1 2	8 39.56	+22 31.1	1.060	1.992	12.5	18.4	1 2	8 41.23	+25 43.6	1.993	2.908	8.6	18.3
1 12	8 32.48	+23 46.6	1.021	1.989	7.1	18.1	1 12	8 32.88	+25 59.1	1.947	2.909	5.0	18.1
1 22	8 23.20	+25 2.6	1.005	1.987	2.8	17.8	1 22	8 23.26	+26 10.0	1.930	2.910	2.2	17.9
2 1	8 13.38	+26 8.9	1.014	1.986	6.4	18.0	2 1	8 13.43	+26 12.9	1.942	2.910	4.4	18.0
2 11	8 4.95	+26 57.6	1.047	1.987	11.9	18.3	2 11	8 4.53	+26 6.0	1.983	2.911	8.0	18.3
2 21	7 59.39	+27 25.8	1.100	1.989	16.9	18.6	2 21	7 57.48	+25 49.5	2.050	2.912	11.4	18.5
3 2	7 57.59	+27 34.5	1.172	1.992	21.0	18.9	3 2	7 52.87	+25 24.8	2.140	2.913	14.3	18.7
<b>14362</b>	1988 <i>MH</i>		1 23.9 142°43	1°3/24.5	18 R		<b>158530</b>	2002 <i>GC</i> <sub>39</sub>		1 23.9 280°17	4°8/26.5	18	
12 23	8 49.61	+15 48.2	2.167	2.989	12.2	17.2	12 23	8 43.68	+5 14.6	1.968	2.771	14.0	20.4
1 2	8 42.49	+15 37.5	2.097	3.000	8.9	17.0	1 2	8 38.59	+5 5.1	1.880	2.762	11.0	20.2
1 12	8 33.46	+15 32.9	2.053	3.010	5.2	16.8	1 12	8 31.49	+5 12.1	1.817	2.752	7.8	19.9
1 22	8 23.31	+15 32.4	2.038	3.019	1.6	16.6	1 22	8 23.06	+5 35.4	1.779	2.743	5.2	19.8
2 1	8 13.01	+15 33.9	2.054	3.028	3.3	16.7	2 1	8 14.24	+6 12.8	1.770	2.734	5.3	19.8
2 11	8 3.61	+15 35.5	2.100	3.037	7.0	16.9	2 11	8 6.08	+7 0.3	1.789	2.725	8.2	19.9
2 21	7 55.93	+15 35.8	2.174	3.044	10.4	17.2	2 21	7 59.52	+7 53.2	1.835	2.716	11.5	20.1
3 2	7 50.53	+15 33.8	2.271	3.052	13.3	17.4	3 2	7 55.22	+8 46.6	1.903	2.706	14.7	20.3
<b>244514</b>	2002 <i>TS</i> <sub>172</sub>		1 23.9 62°44	5°6/26.1	18		<b>37530</b>	Dancingangel		1 23.9 116°54	5°6/21.2	18	
12 23	8 50.41	+6 48.5	1.505	2.319	17.0	19.9	12 23	8 55.80	+33 57.3	1.943	2.776	12.9	19.5
1 2	8 43.38	+6 3.8	1.460	2.348	13.1	19.7	1 2	8 47.27	+34 51.3	1.896	2.799	9.7	19.4
1 12	8 34.02	+5 37.1	1.437	2.376	9.0	19.6	1 12	8 36.24	+35 36.9	1.876	2.820	6.8	19.2
1 22	8 23.39	+5 28.4	1.440	2.405	5.9	19.5	1 22	8 23.80	+36 7.1	1.883	2.841	5.6	19.2
2 1	8 12.81	+5 35.8	1.471	2.434	6.3	19.6	2 1	8 11.36	+36 17.2	1.920	2.861	7.2	19.3
2 11	8 3.61	+5 55.3	1.529	2.463	9.4	19.8	2 11	8 0.32	+36 6.7	1.986	2.880	10.0	19.5
2 21	7 56.71	+6 22.0	1.612	2.492	12.9	20.1	2 21	7 51.72	+35 38.7	2.076	2.899	12.8	19.8
3 2	7 52.66	+6 51.2	1.716	2.520	16.0	20.3	3 2	7 46.15	+34 57.4	2.187	2.916	15.3	20.0
<b>242457</b>	2004 <i>RC</i> <sub>141</sub>		1 23.9 128°39	3°4/21.7	18		<b>223661</b>	2004 <i>PW</i> <sub>32</sub>		1 23.9 193°39	2°4/22.4	18	
12 23	8 48.68	+28 45.0	2.369	3.205	10.8	21.4	12 23	8 47.71	+25 18.2	2.251	3.090	11.2	20.9
1 2	8 41.85	+29 33.7	2.310	3.220	7.8	21.2	1 2	8 41.34	+25 56.4	2.175	3.088	8.1	20.7
1 12	8 33.12	+30 19.8	2.279	3.235	4.9	21.1	1 12	8 32.95	+26 35.2	2.126	3.086	4.7	20.5
1 22	8 23.26	+30 58.3	2.278	3.249	3.4	21.0	1 22	8 23.30	+27 9.9	2.106	3.084	2.4	20.3
2 1	8 13.27	+31 25.0	2.307	3.262	5.0	21.1	2 1	8 13.36	+27 36.2	2.116	3.081	4.4	20.5
2 11	8 4.16	+31 38.1	2.365	3.275	7.9	21.3	2 11	8 4.20	+27 51.4	2.156	3.078	7.8	20.7
2 21	7 56.78	+31 37.8	2.450	3.288	10.6	21.5	2 21	7 56.74	+27 55.1	2.222	3.074	11.0	20.9
3 2	7 51.68	+31 26.0	2.558	3.299	13.0	21.7	3 2	7 51.59	+27 48.3	2.311	3.070	13.7	21.0
<b>277228</b>	2005 <i>QW</i> <sub>171</sub>		1 23.9 188°22	0°5/23.7	18		<b>30435</b>	2000 <i>LB</i> <sub>29</sub>		1 23.9 188°83	0°7/24.6	18	
12 23	8 51.73	+19 30.4	1.701	2.539	14.2	21.4	12 23	8 38.99	+14 44.2	4.075	4.889	7.1	20.2
1 2	8 44.65	+19 49.0	1.626	2.539	10.3	21.1	1 2	8 34.35	+14 57.8	3.989	4.888	5.2	20.1
1 12	8 34.96	+20 13.6	1.575	2.538	5.8	20.9	1 12	8 28.76	+15 16.0	3.931	4.886	3.0	19.9
1 22	8 23.59	+20 39.4	1.553	2.536	1.0	20.5	1 22	8 22.61	+15 37.1	3.903	4.884	1.0	19.8
2 1	8 11.84	+21 1.8	1.560	2.534	4.2	20.8	2 1	8 16.32	+15 59.8	3.908	4.882	1.9	19.8
2 11	8 1.16	+21 17.4	1.595	2.531	8.9	21.0	2 11	8 10.37	+16 22.3	3.943	4.880	4.1	20.0
2 21	7 52.71	+21 24.6	1.656	2.527	13.1	21.3	2 21	8 5.17	+16 43.2	4.009	4.877	6.1	20.1
3 2	7 47.23	+21 23.7	1.739	2.523	16.6	21.5	3 2	8 1.07	+17 1.5	4.100	4.874	7.9	20.3
<b>243156</b>	2007 <i>TP</i> <sub>66</sub>		1 23.9 156°69	1°0/24.4	18		<b>200876</b>	2001 <i>YV</i> <sub>106</sub>		1 23.9 1°32	2°3/24.8	18	
12 23	8 48.79	+15 6.5	1.989	2.815	13.0	22.2	12 23	8 43.					

EPHEMERIDES

1 23.9

1 23.9

2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>93849</b>	2000 WZ <sub>93</sub>		1 23.9	90°90	5°0/20.7	18	<b>316747</b>	1999 FC <sub>88</sub>		1 23.9	348°80	0°2/23.8	18
12 23	8 47.64	+30 31.9	1.929	2.776	12.4	19.3	12 23	8 43.96	+18 31.5	2.037	2.877	12.1	21.2
1 2	8 41.65	+31 51.5	1.870	2.783	9.2	19.1	1 2	8 38.73	+18 52.2	1.961	2.875	8.8	21.0
1 12	8 33.26	+33 8.2	1.837	2.789	6.2	18.9	1 12	8 31.54	+19 19.1	1.911	2.873	4.9	20.7
1 22	8 23.36	+34 14.3	1.832	2.795	5.1	18.9	1 22	8 23.10	+19 48.7	1.888	2.872	0.8	20.4
2 1	8 13.14	+35 3.3	1.855	2.802	6.9	19.0	2 1	8 14.39	+20 17.0	1.895	2.870	3.4	20.6
2 11	8 3.93	+35 32.1	1.906	2.808	10.0	19.2	2 11	8 6.45	+20 40.9	1.931	2.869	7.4	20.9
2 21	7 56.78	+35 41.1	1.982	2.814	13.0	19.4	2 21	8 0.17	+20 58.3	1.993	2.868	11.0	21.1
3 2	7 52.38	+35 33.1	2.078	2.820	15.6	19.6	3 2	7 56.16	+21 8.4	2.077	2.868	14.1	21.3
<b>467487</b>	2006 SS <sub>366</sub>		1 23.9	160°38	5°2/28.1	18	<b>435540</b>	2008 OS <sub>1</sub>		1 23.9	154°11	0°1/23.8	18
12 23	8 41.77	- 1 23.5	2.998	3.749	10.9	21.9	12 23	8 39.21	+18 8.1	4.035	4.857	7.0	21.8
1 2	8 36.56	- 1 35.7	2.916	3.754	8.9	21.8	1 2	8 34.53	+18 40.6	3.958	4.864	5.0	21.6
1 12	8 30.08	- 1 33.5	2.860	3.759	6.9	21.7	1 12	8 28.88	+19 16.4	3.910	4.870	2.8	21.5
1 22	8 22.83	- 1 16.8	2.830	3.764	5.5	21.6	1 22	8 22.66	+19 53.6	3.893	4.877	0.4	21.3
2 1	8 15.41	- 0 46.7	2.830	3.768	5.3	21.6	2 1	8 16.31	+20 30.0	3.909	4.883	1.9	21.4
2 11	8 8.47	- 0 5.7	2.860	3.772	6.6	21.7	2 11	8 10.32	+21 3.7	3.956	4.888	4.2	21.6
2 21	8 2.56	+ 0 42.9	2.917	3.776	8.5	21.8	2 21	8 5.11	+21 33.2	4.032	4.894	6.3	21.8
3 2	7 58.14	+ 1 35.3	3.000	3.779	10.4	21.9	3 2	8 1.03	+21 57.9	4.135	4.899	8.0	21.9
<b>394813</b>	2008 SO <sub>17</sub>		1 23.9	142°05	0°1/23.8	18	<b>371186</b>	2005 YX <sub>115</sub>		1 23.9	4°29	1°7/23.1	18
12 23	8 51.79	+18 27.4	1.745	2.579	14.1	21.6	12 23	8 46.45	+22 29.3	1.811	2.658	13.1	21.0
1 2	8 44.50	+18 47.8	1.680	2.591	10.2	21.3	1 2	8 40.75	+22 57.2	1.740	2.658	9.4	20.7
1 12	8 34.79	+19 14.6	1.640	2.602	5.7	21.1	1 12	8 32.76	+23 28.4	1.695	2.658	5.3	20.5
1 22	8 23.61	+19 43.5	1.629	2.612	0.9	20.8	1 22	8 23.31	+23 58.0	1.677	2.659	1.7	20.3
2 1	8 12.22	+20 9.8	1.647	2.622	3.9	21.0	2 1	8 13.57	+24 21.3	1.687	2.659	4.4	20.4
2 11	8 1.97	+20 30.2	1.695	2.631	8.4	21.3	2 11	8 4.81	+24 35.3	1.726	2.660	8.5	20.7
2 21	7 53.91	+20 43.0	1.768	2.639	12.4	21.6	2 21	7 58.03	+24 38.9	1.790	2.661	12.3	20.9
3 2	7 48.68	+20 48.0	1.863	2.647	15.7	21.8	3 2	7 53.90	+24 32.7	1.876	2.662	15.5	21.1
<b>85537</b>	1997 WP <sub>31</sub>		1 23.9	93°22	7°4/27.6	18	<b>138161</b>	2000 EB <sub>88</sub>		1 23.9	308°29	0°2/23.9	18
12 23	8 45.88	- 0 17.9	1.861	2.639	15.6	19.0	12 23	8 52.77	+21 45.4	1.572	2.416	14.9	19.2
1 2	8 40.10	- 1 1.6	1.792	2.647	12.8	18.8	1 2	8 45.64	+21 9.4	1.489	2.404	10.9	19.0
1 12	8 32.28	- 1 25.1	1.745	2.656	9.9	18.7	1 12	8 35.65	+20 33.2	1.429	2.392	6.2	18.7
1 22	8 23.21	- 1 26.7	1.724	2.664	7.8	18.6	1 22	8 23.80	+19 54.4	1.397	2.381	1.0	18.3
2 1	8 13.89	- 1 7.1	1.730	2.673	7.6	18.6	2 1	8 11.53	+19 11.6	1.394	2.370	4.3	18.5
2 11	8 5.43	- 0 30.1	1.763	2.681	9.5	18.7	2 11	8 0.45	+18 24.9	1.419	2.359	9.4	18.7
2 21	7 58.73	+ 0 19.0	1.821	2.689	12.3	18.9	2 21	7 51.80	+17 35.8	1.470	2.348	14.0	19.0
3 2	7 54.41	+ 1 14.2	1.901	2.698	15.0	19.1	3 2	7 46.40	+16 45.9	1.541	2.338	17.8	19.2
<b>424827</b>	2008 UT <sub>201</sub>		1 23.9	66°86	8°0/18.9	18	<b>318647</b>	2005 MJ <sub>26</sub>		1 23.9	212°01	0°5/23.5	18
12 23	8 50.70	+40 52.9	2.014	2.846	12.6	20.2	12 23	8 46.43	+17 32.7	2.117	2.950	12.0	21.1
1 2	8 43.92	+42 16.1	1.972	2.860	10.2	20.1	1 2	8 40.57	+18 31.5	2.033	2.944	8.7	20.9
1 12	8 34.53	+43 26.7	1.955	2.875	8.4	20.0	1 12	8 32.64	+19 39.4	1.975	2.937	4.9	20.6
1 22	8 23.57	+44 16.5	1.965	2.890	8.1	20.0	1 22	8 23.31	+20 51.3	1.947	2.930	0.8	20.3
2 1	8 12.42	+44 40.4	2.001	2.904	9.4	20.1	2 1	8 13.54	+22 1.2	1.949	2.923	3.6	20.5
2 11	8 2.57	+44 38.0	2.063	2.919	11.5	20.3	2 11	8 4.44	+23 4.2	1.982	2.915	7.7	20.8
2 21	7 55.10	+44 12.3	2.148	2.934	13.7	20.5	2 21	7 56.96	+23 56.7	2.041	2.907	11.3	21.0
3 2	7 50.67	+43 28.8	2.252	2.949	15.7	20.7	3 2	7 51.80	+24 37.4	2.124	2.897	14.3	21.2
<b>163564</b>	2002 TV <sub>128</sub>		1 23.9	48°47	0°1/23.9	18	<b>500425</b>	2012 TO <sub>141</sub>		1 23.9	213°64	6°6/19.9	17
12 23	8 46.33	+19 14.7	2.028	2.866	12.3	19.0	12 23	8 51.88	+41 0.3	2.468	3.288	11.0	21.4
1 2	8 40.33	+19 13.9	1.959	2.872	8.9	18.8	1 2	8 44.42	+41 44.1	2.401	3.284	8.8	21.3
1 12	8 32.37	+19 17.4	1.916	2.878	5.0	18.5	1 12	8 34.70	+42 16.9	2.361	3.281	7.1	21.2
1 22	8 23.22	+19 22.3	1.901	2.885	0.8	18.2	1 22	8 23.62	+42 32.7	2.348	3.277	6.7	21.1
2 1	8 13.90	+19 26.1	1.916	2.891	3.4	18.4	2 1	8 12.35	+42 27.8	2.363	3.274	7.8	21.2
2 11	8 5.49	+19 26.6	1.960	2.898	7.3	18.7	2 11	8 2.13	+42 1.9	2.406	3.270	9.8	21.3
2 21	7 58.84	+19 22.7	2.030	2.905	10.9	18.9	2 21	7 53.92	+41 17.6	2.474	3.266	12.0	21.5
3 2	7 54.51	+19 14.2	2.123	2.912	13.9	19.1	3 2	7 48.36	+40 19.2	2.563	3.261	14.0	21.6
<b>33865</b>	2000 JX <sub>15</sub>		1 23.9	134°72	13°3/15.1	18	<b>253997</b>	2004 EV <sub>78</sub>		1 23.9	261°55	0°9/24.4	18
12 23	9 1.78	+40 2.0	1.202	2.048	18.4	18.7	12 23	8 45.81	+14 55.0	1.846	2.680	13.5	21.0
1 2	8 54.23	+43 51.7	1.167	2.060	15.2	18.5	1 2	8 40.35	+15 23.0	1.759	2.668	9.9	20.7
1 12	8 41.50	+47 25.5	1.157	2.071	13.4	18.5	1 12	8 32.61	+16 2.1	1.697	2.657	5.8	20.4
1 22	8 24.83	+50 19.4	1.173	2.082	13.9	18.5	1 22	8 23.31	+16 48.8	1.662	2.644	1.4	20.1
2 1	8 6.84	+52 16.6	1.213	2.091	16.1	18.7	2 1	8 13.53	+17 38.2	1.656	2.632	3.7	20.2
2 11	7 50.85	+53 14.7	1.275	2.100	19.1	18.9	2 11	8 4.49	+18 25.5	1.679	2.620	8.2	20.5
2 21	7 39.42	+53 23.3	1.355	2.108	21.8	19.1	2 21	7 57.24	+19 6.8	1.728	2.607	12.2	20.7
3 2	7 33.79	+52 56.2	1.447	2.115	24.1	19.4	3 2	7 52.56	+19 40.0	1.799	2.594	15.7	20.9
<b>499137</b>	2009 QX <sub>36</sub>		1 23.9	172°43	1°7/24.9	17	<b>19036</b>	4642 P-L		1 23.9	165°43	0°6/23.6	18
12 23	8 45.87	+12 29.8	2.431	3.245	11.3	22.9	12 23	8 49.94	+19 18.5	2.083	2.913	12.3	20.7
1 2	8 39.78	+12 45.8	2.352	3.249	8.4	22.7	1 2	8 42.96	+19 49.9	2.010	2.920	8.8	20.4
1 12	8 32.00	+13 10.9	2.299	3.252	5.1	22.5	1 12	8 33.89	+20 26.6	1.964	2.925	4.9	20.2
1 22	8 23.17	+13 42.9	2.275	3.254	2.0	22.3	1 22	8 23.51	+21 4.4	1.947	2.930	0.9	19.9
2 1	8 14.10	+14 18.7	2.282	3.256	3.1	22.4	2 1	8 12.86	+21 38.7	1.961	2.934	3.6	20.1
2 11	8 5.68	+14 55.2	2.320	3.257	6.4	22.6	2 11	8 3.10	+22 6.3	2.005	2.938	7.6	20.4
2 21	7 58.66	+15 29.5	2.386	3.258	9.6	22.8	2 21	7 55.13	+22 25.5	2.076	2.940	11.2	20.6
3 2	7 53.59	+15 59.7	2.476	3.258	12.3	23.0	3 2	7 49.60	+22 36.2	2.170	2.942	14.1	20.8
<b>433874</b>	2015 BL <sub>319</sub>		1 23.9	168°09	0°5/23.5	17	<b>76177</b>	2000 EG <sub>36</sub>		1 23.9	260°10	4°9/21.2	18
12 23	8 44.19	+18 55.7	2.336	3.171	11.0	21.6	12 23	8 49.94	+30 36.1	1.907	2.751	12.6	19.2

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>205928</b>	2002 <i>JS</i> <sub>11</sub>		1 23.9 234°93	1.3°/23.2	18		<b>220608</b>	2004 <i>PQ</i> <sub>12</sub>		1 23.9 79°34	0.7°/24.3	18	
12 23	8 48.93	+21 8.0	1.902	2.742	12.9	20.9	12 23	8 47.10	+15 35.9	1.920	2.752	13.1	20.6
1 2	8 42.63	+21 44.2	1.816	2.730	9.3	20.7	1 2	8 40.86	+16 3.7	1.868	2.777	9.5	20.4
1 12	8 33.91	+22 25.8	1.755	2.718	5.3	20.4	1 12	8 32.65	+16 40.0	1.842	2.801	5.4	20.2
1 22	8 23.55	+23 7.7	1.723	2.705	1.5	20.1	1 22	8 23.33	+17 20.8	1.843	2.826	1.2	20.0
2 1	8 12.70	+23 44.5	1.720	2.692	4.3	20.3	2 1	8 13.94	+18 1.7	1.874	2.850	3.4	20.2
2 11	8 2.65	+24 12.2	1.746	2.678	8.6	20.5	2 11	8 5.57	+18 38.8	1.935	2.874	7.4	20.5
2 21	7 54.50	+24 29.1	1.799	2.664	12.5	20.7	2 21	7 59.04	+19 9.6	2.022	2.898	10.9	20.7
3 2	7 49.05	+24 35.3	1.873	2.649	15.9	20.9	3 2	7 54.88	+19 32.9	2.132	2.921	13.8	21.0
<b>168506</b>	1999 <i>TQ</i> <sub>50</sub>		1 23.9 190°58	0°5°/24.2	18		<b>2497</b>	Kulikovskij		1 23.9 194°95	0°2°/23.8	18	
12 23	8 48.48	+16 32.6	2.034	2.863	12.6	21.9	12 23	8 48.66	+19 6.3	2.289	3.117	11.4	18.1
1 2	8 42.01	+16 54.5	1.954	2.862	9.2	21.7	1 2	8 41.96	+19 21.0	2.206	3.114	8.3	17.9
1 12	8 33.42	+17 24.3	1.900	2.860	5.2	21.4	1 12	8 33.32	+19 40.3	2.150	3.111	4.6	17.6
1 22	8 23.46	+17 58.4	1.874	2.858	1.1	21.1	1 22	8 23.46	+20 0.7	2.124	3.107	0.7	17.3
2 1	8 13.16	+18 32.7	1.879	2.855	3.4	21.3	2 1	8 13.31	+20 19.3	2.128	3.103	3.3	17.5
2 11	8 3.67	+19 3.5	1.914	2.851	7.6	21.5	2 11	8 3.90	+20 33.3	2.163	3.097	7.0	17.8
2 21	7 55.92	+19 28.5	1.975	2.847	11.3	21.7	2 21	7 56.08	+20 41.4	2.226	3.092	10.4	18.0
3 2	7 50.60	+19 46.5	2.060	2.842	14.5	22.0	3 2	7 50.48	+20 43.4	2.312	3.085	13.3	18.1
<b>313829</b>	2004 <i>CG</i> <sub>14</sub>		1 23.9 24°59	1°2°/23.3	18		<b>9025</b>	Polanskey		1 23.9 164°72	0°2°/24.1	18	
12 23	8 46.71	+20 16.4	1.477	2.331	15.1	20.6	12 23	8 42.99	+17 15.5	2.881	3.706	9.4	19.6
1 2	8 41.31	+20 53.4	1.413	2.334	10.9	20.4	1 2	8 37.55	+17 38.0	2.803	3.709	6.8	19.4
1 12	8 33.22	+21 37.6	1.373	2.338	6.1	20.1	1 12	8 30.72	+18 5.4	2.753	3.713	3.8	19.2
1 22	8 23.44	+22 22.8	1.359	2.342	1.4	19.8	1 22	8 23.03	+18 35.3	2.733	3.716	0.7	19.0
2 1	8 13.32	+23 2.7	1.373	2.347	4.7	20.0	2 1	8 15.16	+19 5.1	2.744	3.719	2.5	19.1
2 11	8 4.39	+23 32.6	1.413	2.352	9.6	20.3	2 11	8 7.83	+19 32.1	2.786	3.721	5.6	19.3
2 21	7 57.80	+23 50.6	1.477	2.357	13.9	20.6	2 21	8 1.66	+19 54.8	2.856	3.723	8.3	19.5
3 2	7 54.30	+23 56.7	1.562	2.363	17.5	20.9	3 2	7 57.13	+20 12.1	2.951	3.725	10.7	19.7
<b>209908</b>	2005 <i>NZ</i> <sub>12</sub>		1 23.9 201°14	0°2°/23.8	18		<b>190339</b>	1998 <i>SC</i> <sub>117</sub>		1 23.9 132°29	1°8°/23.0	17	
12 23	8 43.15	+18 28.0	2.681	3.511	9.9	21.1	12 23	8 53.97	+23 8.2	1.884	2.719	13.2	21.4
1 2	8 37.79	+18 54.2	2.599	3.509	7.1	20.9	1 2	8 45.93	+23 39.7	1.826	2.737	9.5	21.2
1 12	8 30.90	+19 25.3	2.545	3.506	4.0	20.7	1 12	8 35.55	+24 12.7	1.794	2.755	5.3	21.0
1 22	8 23.04	+19 58.3	2.520	3.504	0.6	20.4	1 22	8 23.82	+24 41.8	1.791	2.772	1.9	20.8
2 1	8 14.95	+20 30.3	2.526	3.501	2.8	20.6	2 1	8 11.98	+25 2.6	1.819	2.788	4.4	21.0
2 11	8 7.43	+20 58.4	2.563	3.498	6.0	20.8	2 11	8 1.35	+25 12.6	1.876	2.803	8.4	21.3
2 21	8 1.15	+21 20.9	2.627	3.494	9.0	21.0	2 21	7 52.90	+25 11.8	1.959	2.817	12.0	21.5
3 2	7 56.64	+21 37.0	2.716	3.491	11.5	21.2	3 2	7 47.25	+25 1.7	2.065	2.830	15.0	21.8
<b>467991</b>	2012 <i>TV</i> <sub>96</sub>		1 23.9 178°24	3°9°/26.6	17		<b>194006</b>	2001 <i>SG</i> <sub>10</sub>		1 23.9 216°91	3°6°/25.1	15	
12 23	8 42.43	+4 56.3	2.693	3.480	11.1	21.7	12 23	9 3.83	+9 50.9	1.230	2.045	20.0	23.4
1 2	8 37.20	+4 50.5	2.610	3.481	8.7	21.6	1 2	8 54.83	+10 6.8	1.138	2.033	15.3	23.1
1 12	8 30.54	+4 57.0	2.552	3.482	6.1	21.4	1 12	8 41.56	+10 45.2	1.067	2.018	9.7	22.7
1 22	8 22.98	+5 15.3	2.522	3.482	4.1	21.3	1 22	8 24.94	+11 43.3	1.022	2.000	4.2	22.3
2 1	8 15.22	+5 43.8	2.522	3.483	4.2	21.3	2 1	8 6.87	+12 54.0	1.006	1.979	6.2	22.4
2 11	8 7.98	+6 19.7	2.552	3.482	6.3	21.4	2 11	7 49.82	+14 7.9	1.018	1.955	12.6	22.6
2 21	8 1.91	+6 59.8	2.610	3.482	8.9	21.6	2 21	7 35.93	+15 17.2	1.055	1.929	18.7	22.9
3 2	7 57.49	+7 41.0	2.693	3.481	11.3	21.8	3 2	7 26.59	+16 17.2	1.111	1.899	23.9	23.1
<b>522190</b>	2016 <i>AO</i> <sub>259</sub>		1 23.9 175°39	2°3°/22.8	18		<b>250455</b>	2004 <i>BH</i> <sub>5</sub>		1 23.9 162°22	2°1°/23.0	18	
12 23	8 51.17	+26 10.3	2.199	3.034	11.6	21.7	12 23	8 49.59	+23 57.4	1.623	2.473	14.2	20.1
1 2	8 43.80	+26 23.9	2.126	3.036	8.4	21.5	1 2	8 43.24	+24 16.8	1.555	2.473	10.3	19.9
1 12	8 34.33	+26 36.1	2.078	3.038	4.9	21.3	1 12	8 34.27	+24 37.8	1.510	2.474	5.9	19.6
1 22	8 23.60	+26 42.6	2.060	3.039	2.3	21.1	1 22	8 23.63	+24 54.9	1.493	2.474	2.2	19.4
2 1	8 12.68	+26 40.3	2.073	3.040	4.3	21.3	2 1	8 12.71	+25 3.6	1.504	2.475	4.9	19.6
2 11	8 2.70	+26 27.9	2.116	3.040	7.8	21.5	2 11	8 2.96	+25 1.2	1.542	2.476	9.4	19.8
2 21	7 54.58	+26 6.0	2.186	3.040	11.1	21.7	2 21	7 55.52	+24 48.0	1.605	2.477	13.5	20.1
3 2	7 48.92	+25 36.3	2.279	3.039	13.9	21.9	3 2	7 51.12	+24 25.4	1.689	2.478	16.9	20.3
<b>178949</b>	2001 <i>QM</i> <sub>132</sub>		1 23.9 177°27	0°2°/23.9	18		<b>417055</b>	2005 <i>UP</i> <sub>184</sub>		1 23.9 357°13	6°0°/20.7	18	
12 23	8 48.88	+18 36.8	2.040	2.872	12.5	20.4	12 23	8 47.69	+31 47.6	1.607	2.462	14.0	21.2
1 2	8 42.24	+18 40.3	1.963	2.873	9.0	20.2	1 2	8 42.16	+32 59.2	1.545	2.461	10.5	21.0
1 12	8 33.50	+18 48.7	1.913	2.874	5.1	19.9	1 12	8 33.78	+34 6.7	1.507	2.459	7.3	20.8
1 22	8 23.47	+18 59.0	1.891	2.875	0.9	19.6	1 22	8 23.57	+35 1.0	1.495	2.458	6.1	20.7
2 1	8 13.19	+19 8.2	1.900	2.875	3.4	19.8	2 1	8 12.97	+35 35.1	1.511	2.458	8.1	20.8
2 11	8 3.79	+19 13.8	1.938	2.875	7.5	20.1	2 11	8 3.57	+35 45.7	1.552	2.458	11.5	21.0
2 21	7 56.18	+19 14.8	2.003	2.874	11.2	20.3	2 21	7 56.64	+35 34.3	1.616	2.459	14.9	21.2
3 2	7 51.00	+19 10.7	2.091	2.873	14.2	20.5	3 2	7 52.94	+35 4.9	1.699	2.460	17.9	21.4
<b>205516</b>	2001 <i>SL</i> <sub>23</sub>		1 23.9 42°10	0°4°/24.1	18		<b>30890</b>	1993 <i>FB</i> <sub>9</sub>		1 23.9 168°91	0°9°/23.3	18	
12 23	8 43.91	+16 54.8	1.960	2.799	12.6	20.2	12 23	8 43.90	+21 8.1	2.793	3.625	9.5	19.3
1 2	8 38.65	+17 15.9	1.898	2.811	9.1	20.0	1 2	8 38.28	+21 39.4	2.717	3.628	6.8	19.1
1 12	8 31.47	+17 44.3	1.862	2.824	5.1	19.8	1 12	8 31.16	+22 13.6	2.669	3.631	3.8	18.9
1 22	8 23.14	+18 16.7	1.853	2.836	1.0	19.6	1 22	8 23.12	+22 47.6	2.650	3.633	1.0	18.7
2 1	8 14.65	+18 49.1	1.874	2.850	3.3	19.8	2 1	8 14.88	+23 18.1	2.663	3.635	3.0	18.8
2 11	8 7.04	+19 17.9	1.923	2.863	7.3	20.0	2 11	8 7.22	+23 42.8	2.707	3.637	6.0	19.0
2 21	8 1.15	+19 40.9	1.998	2.877	10.8	20.3	2 21	8 0.81	+24 0.4	2.778	3.638	8.8	19.2
3 2	7 57.54	+19 56.9	2.096	2.891	13.8	20.5	3 2	7 56.15	+24 10.6	2.873	3.639	11.2	19.4
<b>456982</b>	2008 <i>BS</i> <sub>35</sub>		1 23.9 13°66	4°6°/22.6	18		<b>141123</b>	2001 <i>XM</i> <sub>82</sub>		1 23.9 35°68	1°0°/24.4	18	
12 23	8 44.33	+27 30.4	0.903	1.791	19.1	19.5	12 23	8 45.35					

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>293425</b>	2007 EQ <sub>123</sub>		1 23.9 250°99	0°8/23.4	17		<b>219784</b>	2002 AK <sub>30</sub>		1 23.9 336°13	1°0/24.3	18	
12 23	8 46.28	+19 53.1	2.399	3.230	10.8	21.2	12 23	8 44.99	+16 17.5	1.574	2.421	14.7	19.9
1 2	8 40.38	+20 30.4	2.300	3.210	7.8	21.0	1 2	8 40.03	+16 23.4	1.497	2.412	10.8	19.7
1 12	8 32.54	+21 13.3	2.227	3.189	4.4	20.7	1 12	8 32.56	+16 39.0	1.442	2.404	6.3	19.4
1 22	8 23.37	+21 57.9	2.185	3.168	1.0	20.5	1 22	8 23.43	+17 1.1	1.414	2.397	1.5	19.1
2 1	8 13.73	+22 39.9	2.173	3.146	3.4	20.6	2 1	8 13.86	+17 25.5	1.413	2.390	4.0	19.2
2 11	8 4.62	+23 15.7	2.192	3.123	7.1	20.8	2 11	8 5.25	+17 48.2	1.440	2.384	8.9	19.5
2 21	7 56.92	+23 43.2	2.238	3.100	10.6	21.0	2 21	7 58.73	+18 6.3	1.490	2.378	13.3	19.7
3 2	7 51.32	+24 1.6	2.307	3.076	13.5	21.1	3 2	7 55.07	+18 17.9	1.562	2.373	17.0	19.9
<b>294094</b>	2007 TF <sub>217</sub>		1 23.9 38°27	0°8/23.5	18		<b>320879</b>	2008 GQ <sub>21</sub>		1 23.9 328°63	5°3/26.3	18	
12 23	8 44.82	+20 48.4	2.087	2.929	11.8	20.6	12 23	8 43.46	+ 6 42.0	1.479	2.305	16.6	20.9
1 2	8 39.29	+21 7.8	2.019	2.934	8.5	20.4	1 2	8 39.05	+ 6 24.4	1.397	2.292	13.0	20.6
1 12	8 31.86	+21 30.9	1.977	2.940	4.7	20.2	1 12	8 32.09	+ 6 26.3	1.336	2.280	9.0	20.3
1 22	8 23.26	+21 54.1	1.963	2.947	1.0	20.0	1 22	8 23.37	+ 6 47.7	1.300	2.269	5.7	20.1
2 1	8 14.47	+22 13.9	1.979	2.953	3.5	20.2	2 1	8 14.10	+ 7 26.3	1.290	2.259	6.1	20.1
2 11	8 6.53	+22 27.5	2.024	2.960	7.3	20.4	2 11	8 5.70	+ 8 16.8	1.306	2.249	9.8	20.3
2 21	8 0.26	+22 33.8	2.095	2.967	10.7	20.6	2 21	7 59.36	+ 9 12.9	1.346	2.239	14.0	20.5
3 2	7 56.24	+22 32.6	2.189	2.974	13.6	20.9	3 2	7 55.93	+10 8.7	1.406	2.231	17.8	20.7
<b>31269</b>	1998 FO		1 23.9 2°12	5°6/21.5	18		<b>273450</b>	2006 XA <sub>14</sub>		1 23.9 120°69	0°2/23.9	18	
12 23	8 48.15	+31 7.3	1.496	2.355	14.7	17.4	12 23	8 51.03	+17 46.5	1.364	2.212	16.5	20.6
1 2	8 42.55	+31 56.9	1.435	2.353	11.0	17.1	1 2	8 44.58	+18 4.6	1.301	2.218	12.0	20.3
1 12	8 34.02	+32 41.9	1.397	2.353	7.3	16.9	1 12	8 35.16	+18 32.3	1.260	2.224	6.8	20.0
1 22	8 23.63	+33 13.8	1.385	2.353	5.6	16.8	1 22	8 23.86	+19 4.2	1.245	2.229	1.1	19.7
2 1	8 12.93	+33 26.4	1.400	2.354	7.7	16.9	2 1	8 12.22	+19 34.8	1.258	2.234	4.6	19.9
2 11	8 3.58	+33 17.5	1.440	2.356	11.4	17.2	2 11	8 1.93	+19 59.2	1.297	2.239	9.9	20.3
2 21	7 56.83	+32 49.2	1.502	2.359	15.1	17.4	2 21	7 54.26	+20 15.2	1.360	2.244	14.6	20.5
3 2	7 53.43	+32 5.6	1.584	2.362	18.3	17.6	3 2	7 49.99	+20 22.2	1.443	2.248	18.5	20.8
<b>451000</b>	2008 TW <sub>114</sub>		1 23.9 311°16	0°1/23.9	18		<b>261357</b>	2005 US <sub>312</sub>		1 23.9 177°98	2°8/22.3	18	
12 23	8 47.59	+16 56.6	1.415	2.265	15.9	21.4	12 23	8 48.43	+26 3.8	2.109	2.950	11.7	20.8
1 2	8 42.13	+17 34.2	1.345	2.263	11.6	21.1	1 2	8 42.02	+26 44.3	2.038	2.951	8.5	20.6
1 12	8 33.83	+18 23.8	1.297	2.260	6.6	20.8	1 12	8 33.46	+27 24.9	1.992	2.952	5.1	20.4
1 22	8 23.63	+19 19.6	1.275	2.258	1.1	20.5	1 22	8 23.57	+28 0.3	1.976	2.953	2.8	20.2
2 1	8 12.94	+20 14.8	1.280	2.257	4.5	20.7	2 1	8 13.40	+28 25.9	1.989	2.953	4.8	20.4
2 11	8 3.38	+21 2.9	1.313	2.255	9.8	21.0	2 11	8 4.10	+28 39.2	2.031	2.952	8.3	20.6
2 21	7 56.22	+21 40.3	1.369	2.253	14.5	21.3	2 21	7 56.63	+28 39.7	2.099	2.952	11.5	20.8
3 2	7 52.30	+22 5.5	1.445	2.251	18.4	21.5	3 2	7 51.63	+28 29.1	2.190	2.951	14.3	21.0
<b>500254</b>	2012 KW <sub>15</sub>		1 23.9 272°80	2°7/22.2	17		<b>68220</b>	2001 CT <sub>38</sub>		1 23.9 69°98	7°8/22.4	18	
12 23	8 45.78	+23 14.7	1.923	2.770	12.4	21.8	12 23	9 5.05	+39 6.4	1.460	2.291	16.5	17.5
1 2	8 40.42	+24 26.6	1.842	2.760	9.0	21.5	1 2	8 54.30	+39 19.6	1.421	2.317	12.8	17.3
1 12	8 32.73	+25 44.1	1.786	2.749	5.2	21.3	1 12	8 40.24	+39 14.7	1.406	2.343	9.4	17.2
1 22	8 23.45	+27 0.3	1.759	2.738	2.7	21.1	1 22	8 24.61	+38 44.1	1.417	2.369	7.8	17.2
2 1	8 13.64	+28 8.2	1.761	2.727	5.1	21.2	2 1	8 9.56	+37 45.5	1.455	2.395	9.1	17.3
2 11	8 4.57	+29 2.4	1.792	2.716	9.0	21.4	2 11	7 56.98	+36 23.6	1.521	2.420	12.2	17.6
2 21	7 57.32	+29 40.6	1.848	2.705	12.7	21.6	2 21	7 48.01	+34 46.7	1.611	2.445	15.3	17.8
3 2	7 52.69	+30 3.0	1.926	2.694	15.8	21.8	3 2	7 43.01	+33 2.9	1.721	2.470	18.1	18.1
<b>378944</b>	2008 UM <sub>148</sub>		1 23.9 77°95	0°6/23.6	18		<b>157261</b>	2004 RK <sub>183</sub>		1 23.9 68°43	2°2/25.1	18	
12 23	8 45.75	+19 49.7	2.086	2.924	12.0	21.3	12 23	8 45.38	+12 23.5	1.914	2.740	13.4	20.0
1 2	8 39.91	+20 15.5	2.024	2.938	8.6	21.2	1 2	8 39.84	+12 25.5	1.840	2.742	10.0	19.8
1 12	8 32.18	+20 45.9	1.989	2.951	4.7	20.9	1 12	8 32.25	+12 38.5	1.790	2.745	6.1	19.5
1 22	8 23.32	+21 17.0	1.981	2.965	0.9	20.7	1 22	8 23.37	+13 0.6	1.768	2.747	2.6	19.3
2 1	8 14.32	+21 44.9	2.004	2.978	3.5	20.9	2 1	8 14.22	+13 28.4	1.775	2.749	3.8	19.4
2 11	8 6.21	+22 6.7	2.056	2.992	7.2	21.2	2 11	8 5.91	+13 58.5	1.810	2.752	7.6	19.6
2 21	7 59.79	+22 21.0	2.135	3.005	10.6	21.4	2 21	7 59.32	+14 27.4	1.872	2.754	11.3	19.9
3 2	7 55.63	+22 27.4	2.236	3.018	13.4	21.6	3 2	7 55.10	+14 52.7	1.956	2.756	14.5	20.1
<b>256256</b>	2006 WV <sub>48</sub>		1 23.9 93°38	0°6/24.3	18		<b>33605</b>	McCue		1 23.9 339°23	3°6/22.2	18	
12 23	8 47.69	+15 50.5	1.802	2.637	13.7	20.5	12 23	8 47.30	+24 6.2	1.334	2.197	15.9	18.7
1 2	8 41.48	+16 17.0	1.744	2.654	9.9	20.3	1 2	8 42.23	+25 13.3	1.267	2.192	11.5	18.4
1 12	8 33.12	+16 52.5	1.710	2.670	5.7	20.1	1 12	8 34.02	+26 25.9	1.223	2.188	6.8	18.1
1 22	8 23.48	+17 33.1	1.704	2.687	1.2	19.8	1 22	8 23.70	+27 34.9	1.205	2.184	3.6	17.9
2 1	8 13.69	+18 13.8	1.727	2.703	3.6	20.0	2 1	8 12.83	+28 31.0	1.213	2.180	6.6	18.1
2 11	8 4.93	+18 50.7	1.779	2.719	7.8	20.3	2 11	8 3.20	+29 8.2	1.247	2.177	11.4	18.4
2 21	7 58.13	+19 20.9	1.857	2.735	11.6	20.5	2 21	7 56.24	+29 25.2	1.303	2.175	15.9	18.6
3 2	7 53.87	+19 43.1	1.958	2.750	14.7	20.8	3 2	7 52.83	+29 24.0	1.377	2.173	19.7	18.9
<b>347510</b>	1999 RV <sub>154</sub>		1 23.9 158°99	0°6/23.7	18		<b>426199</b>	2012 KS <sub>2</sub>		1 23.9 299°42	8°0/27.6	18	
12 23	8 53.07	+19 42.0	1.753	2.587	14.1	22.1	12 23	8 43.69	- 0 53.7	1.757	2.540	16.2	21.0
1 2	8 45.54	+20 5.5	1.685	2.596	10.1	21.9	1 2	8 39.02	- 1 29.0	1.658	2.516	13.5	20.8
1 12	8 35.49	+20 34.4	1.642	2.603	5.7	21.6	1 12	8 32.03	- 1 42.5	1.580	2.492	10.6	20.5
1 22	8 23.89	+21 3.9	1.627	2.610	1.0	21.3	1 22	8 23.38	- 1 31.4	1.526	2.468	8.4	20.4
2 1	8 12.02	+21 29.2	1.642	2.616	4.1	21.5	2 1	8 14.07	- 0 55.6	1.499	2.444	8.3	20.3
2 11	8 1.28	+21 46.9	1.686	2.621	8.6	21.8	2 11	8 5.33	+ 0 1.5	1.497	2.421	10.5	20.4
2 21	7 52.76	+21 55.9	1.757	2.625	12.7	22.1	2 21	7 58.28	+ 1 13.6	1.520	2.397	13.7	20.5
3 2	7 47.15	+21 56.5	1.849	2.628	16.0	22.3	3 2	7 53.79	+ 2 33.2	1.564	2.374	17.1	20.7
<b>109530</b>	2001 QK <sub>248</sub>		1 23.9 41°01	7°5/28.5	18		<b>252458</b>	2001 TH <sub>227</sub>		1 23.9 47°93	10°1/19.6	17	
12 23	8 43.32	- 1 10.4	1.600	2.389	17.3	19.4	12 23	8 55.26	+40 17.0	1.364	2.211	16.6	18.8

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>125302</b>	2001 VY <sub>28</sub>		1 23.9 335°69	4°6/21.8	18		<b>376054</b>	2010 EL <sub>111</sub>		1 23.9 13°93	5°6/20.8	18	
12 23	8 47.93	+26 10.4	1.288	2.154	16.1	19.2	12 23	8 46.07	+31 53.8	1.740	2.595	13.2	19.8
1 2	8 42.83	+27 20.2	1.223	2.148	11.8	18.9	1 2	8 40.78	+32 59.5	1.683	2.598	9.9	19.6
1 12	8 34.43	+28 33.4	1.180	2.142	7.2	18.6	1 12	8 32.95	+34 0.5	1.651	2.603	6.8	19.5
1 22	8 23.78	+29 39.6	1.161	2.137	4.6	18.5	1 22	8 23.54	+34 49.2	1.645	2.608	5.6	19.4
2 1	8 12.55	+30 29.4	1.169	2.133	7.4	18.6	2 1	8 13.85	+35 19.3	1.666	2.613	7.5	19.5
2 11	8 2.65	+30 57.3	1.201	2.128	12.1	18.9	2 11	8 5.30	+35 28.3	1.713	2.619	10.6	19.7
2 21	7 55.57	+31 2.8	1.256	2.125	16.6	19.1	2 21	7 58.98	+35 17.6	1.784	2.626	13.8	19.9
3 2	7 52.23	+30 49.2	1.328	2.122	20.4	19.4	3 2	7 55.57	+34 50.5	1.875	2.634	16.5	20.2
<b>430492</b>	2001 TB <sub>185</sub>		1 23.9 57°18	3°0/22.3	18		<b>203281</b>	2001 RQ <sub>116</sub>		1 23.9 149°54	0°1/23.9	17	
12 23	8 47.10	+27 17.2	2.069	2.914	11.8	21.0	12 23	8 44.03	+17 50.0	2.469	3.300	10.6	21.1
1 2	8 40.92	+27 48.7	2.016	2.931	8.5	20.8	1 2	8 38.54	+18 16.4	2.394	3.303	7.6	20.9
1 12	8 32.76	+28 18.4	1.988	2.948	5.1	20.7	1 12	8 31.41	+18 48.3	2.346	3.307	4.3	20.7
1 22	8 23.45	+28 41.4	1.989	2.965	3.0	20.6	1 22	8 23.27	+19 22.7	2.327	3.311	0.7	20.5
2 1	8 14.07	+28 54.2	2.019	2.982	4.9	20.7	2 1	8 14.92	+19 56.3	2.339	3.314	2.9	20.6
2 11	8 5.70	+28 54.9	2.078	3.000	8.1	20.9	2 11	8 7.22	+20 26.1	2.381	3.317	6.4	20.9
2 21	7 59.20	+28 44.0	2.162	3.017	11.2	21.2	2 21	8 0.89	+20 50.1	2.450	3.320	9.5	21.1
3 2	7 55.10	+28 23.3	2.269	3.035	13.8	21.4	3 2	7 56.47	+21 7.4	2.543	3.323	12.1	21.3
<b>74387</b>	1998 XW <sub>24</sub>		1 23.9 104°88	0°4/24.2	18		<b>232653</b>	2003 WW <sub>18</sub>		1 23.9 61°05	2°2/24.9	18	
12 23	8 45.20	+16 17.1	2.275	3.104	11.5	20.0	12 23	8 47.18	+13 36.9	1.932	2.758	13.3	19.8
1 2	8 39.39	+16 44.3	2.211	3.119	8.3	19.9	1 2	8 40.96	+13 17.6	1.871	2.774	9.8	19.6
1 12	8 31.86	+17 18.6	2.173	3.133	4.7	19.7	1 12	8 32.78	+13 7.0	1.836	2.790	6.0	19.4
1 22	8 23.32	+17 56.4	2.165	3.148	1.0	19.4	1 22	8 23.49	+13 3.8	1.828	2.807	2.5	19.2
2 1	8 14.62	+18 34.3	2.186	3.162	3.0	19.6	2 1	8 14.11	+13 5.9	1.850	2.824	3.7	19.3
2 11	8 6.69	+19 8.9	2.238	3.176	6.6	19.9	2 11	8 5.70	+13 10.8	1.901	2.841	7.4	19.6
2 21	8 0.29	+19 37.8	2.317	3.189	9.8	20.1	2 21	7 59.10	+13 16.5	1.978	2.857	10.9	19.8
3 2	7 55.93	+20 0.0	2.419	3.202	12.5	20.3	3 2	7 54.85	+13 21.2	2.077	2.874	13.9	20.1
<b>277952</b>	2006 SA <sub>18</sub>		1 23.9 111°84	1°8/25.0	18		<b>244557</b>	2002 VY <sub>62</sub>		1 23.9 118°42	6°2/27.8	18	
12 23	8 47.63	+12 14.4	1.949	2.770	13.4	21.5	12 23	8 43.58	- 0 31.7	2.384	3.149	13.0	20.3
1 2	8 41.32	+12 37.2	1.887	2.788	9.9	21.3	1 2	8 38.19	- 1 4.0	2.308	3.155	10.6	20.2
1 12	8 33.01	+13 11.6	1.851	2.805	5.9	21.1	1 12	8 31.21	- 1 19.8	2.255	3.161	8.3	20.0
1 22	8 23.52	+13 54.3	1.842	2.822	2.3	20.9	1 22	8 23.25	- 1 18.2	2.229	3.166	6.5	19.9
2 1	8 13.87	+14 40.9	1.864	2.839	3.5	21.1	2 1	8 15.07	- 1 0.0	2.232	3.172	6.3	19.9
2 11	8 5.16	+15 27.0	1.915	2.855	7.4	21.3	2 11	8 7.51	- 0 27.9	2.262	3.177	7.9	20.0
2 21	7 58.23	+16 9.3	1.993	2.870	10.9	21.6	2 21	8 1.29	+ 0 14.2	2.319	3.182	10.2	20.2
3 2	7 53.67	+16 45.2	2.094	2.885	13.9	21.8	3 2	7 56.93	+ 1 1.6	2.400	3.187	12.5	20.4
<b>423391</b>	2005 JK <sub>156</sub>		1 23.9 210°73	5°9/28.1	17		<b>145144</b>	2005 GU <sub>171</sub>		1 23.9 196°41	4°9/19.7	18	
12 23	8 42.65	- 2 51.5	2.923	3.665	11.3	21.7	12 23	8 46.87	+35 25.7	2.850	3.679	9.4	20.5
1 2	8 37.35	- 3 19.5	2.831	3.659	9.5	21.6	1 2	8 40.70	+36 36.4	2.780	3.677	7.2	20.4
1 12	8 30.68	- 3 32.7	2.763	3.653	7.6	21.5	1 12	8 32.70	+37 42.0	2.738	3.674	5.4	20.3
1 22	8 23.14	- 3 30.2	2.722	3.646	6.2	21.4	1 22	8 23.51	+38 36.9	2.725	3.670	5.0	20.2
2 1	8 15.35	- 3 12.3	2.710	3.639	6.0	21.3	2 1	8 14.00	+39 17.0	2.743	3.667	6.2	20.3
2 11	8 8.00	- 2 41.0	2.727	3.631	7.2	21.4	2 11	8 5.11	+39 40.1	2.789	3.663	8.2	20.4
2 21	8 1.70	- 1 59.7	2.772	3.623	9.1	21.5	2 21	7 57.68	+39 46.6	2.861	3.658	10.4	20.6
3 2	7 56.93	- 1 12.1	2.840	3.615	11.1	21.6	3 2	7 52.30	+39 38.5	2.954	3.653	12.3	20.7
<b>258709</b>	2002 GF <sub>69</sub>		1 23.9 192°45	0°3/23.7	18		<b>300256</b>	2007 GV <sub>60</sub>		1 23.9 252°26	0°6/24.2	18	
12 23	8 48.61	+18 20.0	2.142	2.972	12.0	21.8	12 23	8 50.20	+16 43.8	1.711	2.545	14.3	21.7
1 2	8 42.11	+18 55.7	2.061	2.970	8.7	21.6	1 2	8 43.86	+16 57.6	1.617	2.527	10.6	21.4
1 12	8 33.54	+19 38.0	2.006	2.967	4.9	21.4	1 12	8 34.83	+17 20.6	1.548	2.509	6.1	21.1
1 22	8 23.63	+20 22.8	1.981	2.964	0.8	21.1	1 22	8 23.91	+17 49.2	1.506	2.489	1.3	20.7
2 1	8 13.36	+21 5.4	1.986	2.960	3.5	21.3	2 1	8 12.31	+18 18.9	1.493	2.469	4.1	20.9
2 11	8 3.83	+21 42.1	2.021	2.955	7.5	21.5	2 11	8 1.50	+18 45.2	1.509	2.448	9.0	21.1
2 21	7 55.98	+22 10.6	2.084	2.950	11.1	21.7	2 21	7 52.74	+19 5.6	1.550	2.427	13.5	21.4
3 2	7 50.48	+22 30.2	2.170	2.943	14.1	21.9	3 2	7 46.92	+19 18.6	1.613	2.405	17.4	21.6
<b>234523</b>	2001 UU <sub>72</sub>		1 23.9 102°64	7°1/29.1	18		<b>499408</b>	2010 CW <sub>2</sub>		1 23.9 293°98	1°2/23.3	17	
12 23	8 47.55	- 3 44.7	1.616	2.384	18.0	19.8	12 23	8 45.35	+21 36.7	2.088	2.930	11.8	21.4
1 2	8 41.60	- 2 59.3	1.550	2.401	14.7	19.6	1 2	8 39.85	+22 2.7	2.007	2.923	8.5	21.1
1 12	8 33.32	- 1 42.4	1.506	2.418	11.0	19.4	1 12	8 32.32	+22 32.4	1.952	2.915	4.8	20.9
1 22	8 23.59	+ 0 4.1	1.487	2.435	7.9	19.3	1 22	8 23.47	+23 1.7	1.926	2.908	1.3	20.6
2 1	8 13.60	+ 2 13.6	1.496	2.451	7.2	19.3	2 1	8 14.28	+23 26.7	1.929	2.901	3.8	20.8
2 11	8 4.63	+ 4 35.6	1.534	2.467	9.5	19.4	2 11	8 5.86	+23 44.3	1.961	2.894	7.7	21.0
2 21	7 57.71	+ 6 58.7	1.599	2.482	12.8	19.7	2 21	7 59.10	+23 53.1	2.019	2.888	11.2	21.2
3 2	7 53.50	+ 9 13.7	1.689	2.497	16.1	19.9	3 2	7 54.67	+23 53.1	2.099	2.881	14.2	21.4
<b>188683</b>	2005 SC <sub>233</sub>		1 23.9 265°23	7°3/27.6	18		<b>502898</b>	2015 EA <sub>4</sub>		1 23.9 13°25	5°0/21.3	18	
12 23	8 44.99	- 1 21.5	2.084	2.850	14.5	20.4	12 23	8 49.03	+34 14.1	2.226	3.064	11.3	20.4
1 2	8 39.63	- 1 54.4	1.984	2.831	12.1	20.2	1 2	8 42.44	+34 47.5	2.160	3.064	8.6	20.2
1 12	8 32.24	- 2 8.1	1.906	2.811	9.5	20.0	1 12	8 33.71	+35 14.1	2.119	3.065	6.1	20.0
1 22	8 23.44	- 2 0.8	1.854	2.790	7.6	19.8	1 22	8 23.69	+35 28.3	2.107	3.066	5.0	20.0
2 1	8 14.11	- 1 32.6	1.829	2.769	7.5	19.8	2 1	8 13.48	+35 26.6	2.123	3.066	6.4	20.1
2 11	8 5.31	- 0 46.1	1.832	2.748	9.4	19.8	2 11	8 4.27	+35 8.0	2.168	3.067	9.0	20.2
2 21	7 57.96	+ 0 13.4	1.861	2.727	12.2	20.0	2 21	7 56.99	+34 34.4	2.238	3.068	11.7	20.4
3 2	7 52.83	+ 1 20.1	1.912	2.705	15.0	20.1	3 2	7 52.22	+33 48.8	2.329	3.070	14.2	20.6
<b>404819</b>	2014 JZ <sub>70</sub>		1 23.9 234°27	1°5/23.3	18		<b>97381</b>	2000 AO <sub>72</sub>		1 23.9 24°22	2°7/22.2	18	
12 23	8 51.20	+21 25.9	1.638	2.481	14.4	22.0	12 23	8 44.62	+22 44.8	1.747	2.600	13.2	1

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>254603</b>	2005 <i>GD</i> <sub>124</sub>		1 23.9 299°35	0°6/23.7	18		<b>275774</b>	2001 <i>PO</i> <sub>47</sub>		1 23.9 133°55	2°9/21.6	18	
12 23	8 47.30	+19 15.2	1.539	2.389	14.8	20.9	12 23	8 45.86	+28 5.6	2.812	3.647	9.3	20.8
1 2	8 41.91	+19 37.8	1.457	2.376	10.8	20.6	1 2	8 39.77	+28 59.3	2.751	3.660	6.8	20.6
1 12	8 33.77	+20 8.5	1.399	2.363	6.1	20.3	1 12	8 32.09	+29 51.6	2.717	3.673	4.2	20.5
1 22	8 23.75	+20 42.3	1.367	2.351	1.1	19.9	1 22	8 23.46	+30 38.0	2.714	3.685	2.9	20.4
2 1	8 13.16	+21 13.7	1.363	2.338	4.4	20.1	2 1	8 14.65	+31 14.9	2.742	3.696	4.4	20.5
2 11	8 3.53	+21 38.2	1.385	2.326	9.5	20.4	2 11	8 6.51	+31 40.1	2.799	3.708	6.9	20.7
2 21	7 56.13	+21 53.2	1.432	2.314	14.1	20.6	2 21	7 59.73	+31 53.2	2.884	3.719	9.3	20.9
3 2	7 51.83	+21 58.4	1.499	2.302	18.0	20.8	3 2	7 54.82	+31 55.3	2.993	3.729	11.4	21.0
<b>186614</b>	2003 <i>EY</i> <sub>31</sub>		1 23.9 252°78	4°7/26.8	18		<b>373868</b>	2003 <i>SY</i> <sub>40</sub>		1 23.9 135°51	5°7/28.1	18	
12 23	8 44.18	+4 9.6	2.015	2.812	13.9	20.3	12 23	8 44.01	-0 56.7	2.531	3.289	12.5	21.8
1 2	8 39.04	+4 18.3	1.924	2.801	11.0	20.0	1 2	8 38.42	-1 9.9	2.457	3.301	10.2	21.7
1 12	8 31.91	+4 45.4	1.857	2.790	7.8	19.8	1 12	8 31.34	-1 6.4	2.407	3.312	7.8	21.6
1 22	8 23.43	+5 30.0	1.816	2.779	5.1	19.6	1 22	8 23.34	-0 46.1	2.384	3.322	6.0	21.5
2 1	8 14.51	+6 29.3	1.804	2.768	5.2	19.6	2 1	8 15.16	-0 10.6	2.390	3.333	5.8	21.5
2 11	8 6.20	+7 38.3	1.821	2.757	8.0	19.8	2 11	8 7.59	+0 37.1	2.426	3.342	7.3	21.6
2 21	7 59.43	+8 51.4	1.864	2.745	11.4	19.9	2 21	8 1.30	+1 32.5	2.488	3.352	9.6	21.7
3 2	7 54.90	+10 3.2	1.931	2.734	14.5	20.1	3 2	7 56.78	+2 31.2	2.576	3.361	11.8	21.9
<b>196229</b>	2003 <i>BC</i> <sub>67</sub>		1 23.9 10°10	0°9/23.6	18		<b>500353</b>	2012 <i>TL</i> <sub>11</sub>		1 23.9 178°38	8°2/16.3	17	
12 23	8 48.08	+20 16.9	1.138	2.004	17.8	20.1	12 23	8 55.08	+51 55.3	3.095	3.869	10.1	22.2
1 2	8 42.94	+20 31.8	1.078	2.005	12.9	19.8	1 2	8 46.89	+53 6.4	3.045	3.870	8.9	22.2
1 12	8 34.47	+20 54.3	1.040	2.006	7.2	19.5	1 12	8 36.29	+54 2.6	3.021	3.871	8.3	22.1
1 22	8 23.87	+21 18.6	1.025	2.009	1.4	19.2	1 22	8 24.19	+54 38.1	3.023	3.872	8.3	22.1
2 1	8 12.88	+21 38.2	1.036	2.012	5.3	19.4	2 1	8 11.79	+54 49.3	3.051	3.872	9.1	22.2
2 11	8 3.42	+21 48.8	1.071	2.017	11.0	19.8	2 11	8 0.42	+54 36.2	3.104	3.872	10.2	22.3
2 21	7 56.93	+21 48.9	1.128	2.022	16.1	20.1	2 21	7 51.14	+54 1.8	3.179	3.871	11.5	22.4
3 2	7 54.17	+21 38.9	1.204	2.028	20.3	20.3	3 2	7 44.62	+53 10.5	3.272	3.870	12.8	22.5
<b>175441</b>	2006 <i>QH</i> <sub>41</sub>		1 23.9 134°48	0°1/23.9	18		<b>495219</b>	2013 <i>FO</i> <sub>12</sub>		1 23.9 246°48	2°4/22.8	18	
12 23	8 43.51	+17 4.2	2.709	3.535	9.9	20.7	12 23	8 49.89	+23 48.5	1.772	2.617	13.4	21.7
1 2	8 38.04	+17 41.2	2.638	3.545	7.1	20.6	1 2	8 43.58	+24 25.7	1.689	2.605	9.8	21.5
1 12	8 31.11	+18 24.0	2.594	3.555	4.0	20.4	1 12	8 34.65	+25 6.0	1.631	2.594	5.6	21.2
1 22	8 23.28	+19 9.5	2.580	3.564	0.7	20.1	1 22	8 23.95	+25 43.4	1.601	2.581	2.4	20.9
2 1	8 15.26	+19 54.1	2.598	3.573	2.7	20.3	2 1	8 12.73	+26 12.1	1.600	2.569	5.0	21.1
2 11	8 7.84	+20 34.9	2.646	3.581	5.9	20.5	2 11	8 2.42	+26 28.6	1.627	2.556	9.3	21.3
2 21	8 1.66	+21 9.7	2.722	3.590	8.7	20.7	2 21	7 54.21	+26 31.9	1.679	2.543	13.4	21.5
3 2	7 57.21	+21 37.4	2.823	3.598	11.1	20.9	3 2	7 48.94	+26 23.2	1.752	2.529	16.8	21.7
<b>86426</b>	2000 <i>BP</i> <sub>23</sub>		1 23.9 326°66	10°4/18.6	18		<b>288297</b>	2004 <i>BD</i> <sub>8</sub>		1 23.9 62°68	2°1/22.9	18	
12 23	8 54.03	+42 30.7	1.543	2.381	15.5	18.0	12 23	8 48.32	+22 4.1	1.522	2.374	14.8	20.4
1 2	8 47.37	+43 57.9	1.486	2.375	12.8	17.8	1 2	8 42.44	+22 54.1	1.466	2.386	10.6	20.2
1 12	8 37.05	+45 9.7	1.451	2.370	10.9	17.7	1 12	8 33.93	+23 48.9	1.434	2.398	6.0	20.0
1 22	8 24.31	+45 54.6	1.440	2.364	10.6	17.6	1 22	8 23.80	+24 41.7	1.428	2.410	2.2	19.7
2 1	8 11.08	+46 4.5	1.454	2.359	12.1	17.7	2 1	8 13.44	+25 25.6	1.451	2.422	5.1	20.0
2 11	7 59.52	+45 38.6	1.491	2.354	14.7	17.8	2 11	8 4.32	+25 56.5	1.501	2.434	9.6	20.2
2 21	7 51.21	+44 42.7	1.549	2.350	17.5	18.0	2 21	7 57.57	+26 12.9	1.574	2.447	13.6	20.5
3 2	7 46.98	+43 24.7	1.624	2.346	20.1	18.2	3 2	7 53.86	+26 16.1	1.669	2.459	17.0	20.8
<b>49569</b>	1999 <i>CH</i> <sub>109</sub>		1 23.9 53°98	5°0/27.1	18		<b>500380</b>	2012 <i>TK</i> <sub>65</sub>		1 23.9 122°30	1°5/23.1	18	
12 23	8 42.93	+3 26.9	2.116	2.909	13.5	18.7	12 23	8 46.29	+23 47.7	2.470	3.306	10.4	21.7
1 2	8 37.92	+3 17.8	2.042	2.914	10.7	18.5	1 2	8 40.17	+24 3.4	2.400	3.313	7.5	21.5
1 12	8 31.16	+3 25.3	1.991	2.919	7.7	18.4	1 12	8 32.35	+24 19.9	2.357	3.319	4.2	21.3
1 22	8 23.30	+3 49.1	1.967	2.925	5.4	18.2	1 22	8 23.53	+24 33.6	2.344	3.325	1.5	21.2
2 1	8 15.21	+4 27.1	1.972	2.931	5.4	18.2	2 1	8 14.54	+24 41.9	2.361	3.331	3.5	21.3
2 11	8 7.82	+5 15.3	2.005	2.937	7.7	18.4	2 11	8 6.32	+24 43.1	2.407	3.337	6.7	21.5
2 21	8 1.90	+6 9.1	2.064	2.942	10.6	18.6	2 21	7 59.60	+24 36.7	2.482	3.342	9.7	21.7
3 2	7 58.04	+7 3.9	2.147	2.948	13.3	18.8	3 2	7 54.90	+24 23.3	2.579	3.348	12.2	21.9
<b>373848</b>	2003 <i>GU</i> <sub>25</sub>		1 23.9 238°02	6°3/19.9	17		<b>42520</b>	1994 <i>AB</i> <sub>8</sub>		1 23.9 331°07	1°5/23.4	18	
12 23	8 52.77	+37 56.8	2.359	3.185	11.2	21.6	12 23	8 46.95	+20 52.9	1.329	2.189	16.1	19.6
1 2	8 45.36	+38 53.3	2.278	3.170	8.9	21.4	1 2	8 41.97	+21 22.6	1.256	2.180	11.7	19.3
1 12	8 35.52	+39 41.6	2.223	3.154	6.9	21.2	1 12	8 33.94	+21 59.7	1.206	2.171	6.6	19.0
1 22	8 24.05	+40 15.0	2.197	3.138	6.3	21.2	1 22	8 23.84	+22 38.2	1.180	2.163	1.7	18.6
2 1	8 12.14	+40 28.2	2.200	3.121	7.6	21.2	2 1	8 13.18	+23 11.1	1.181	2.156	5.2	18.9
2 11	8 1.11	+40 19.6	2.230	3.104	10.0	21.3	2 11	8 3.69	+23 33.4	1.208	2.149	10.5	19.1
2 21	7 52.07	+39 51.2	2.285	3.086	12.6	21.5	2 21	7 56.78	+23 43.2	1.257	2.143	15.4	19.4
3 2	7 45.76	+39 6.9	2.362	3.067	14.9	21.6	3 2	7 53.32	+23 40.6	1.325	2.137	19.4	19.6
<b>381212</b>	2007 <i>RM</i> <sub>167</sub>		1 23.9 16°38	5°0/27.3	18		<b>461207</b>	2015 <i>VH</i> <sub>123</sub>		1 23.9 52°89	0°3/24.1	18	
12 23	8 41.40	+3 7.5	1.828	2.630	14.9	20.4	12 23	8 49.08	+17 14.9	1.292	2.145	16.9	21.2
1 2	8 37.08	+3 24.5	1.755	2.634	11.8	20.2	1 2	8 43.17	+17 33.3	1.241	2.160	12.3	21.0
1 12	8 30.79	+4 2.5	1.705	2.639	8.4	20.0	1 12	8 34.39	+18 2.1	1.211	2.175	6.9	20.7
1 22	8 23.25	+5 0.0	1.681	2.644	5.6	19.9	1 22	8 23.89	+18 35.8	1.207	2.191	1.3	20.4
2 1	8 15.43	+6 13.2	1.685	2.650	5.4	19.9	2 1	8 13.23	+19 8.7	1.230	2.206	4.5	20.7
2 11	8 8.38	+7 35.7	1.717	2.656	8.1	20.1	2 11	8 4.04	+19 35.9	1.278	2.223	9.7	21.0
2 21	8 2.97	+9 0.8	1.774	2.663	11.5	20.3	2 21	7 57.49	+19 54.8	1.351	2.239	14.3	21.3
3 2	7 59.85	+10 22.4	1.855	2.670	14.6	20.5	3 2	7 54.24	+20 4.6	1.443	2.256	18.1	21.6
<b>17139</b>	Malyshev		1 23.9 148°73	2°8/25.5	18		<b>381998</b>	2010 <i>LF</i> <sub>108</sub>		1 23.9 316°56	0°5/24.3	17	
12 23	8 47.86	+9 59.7	1.796	2.614	14.5	18.7	12 23	8 42.88	+15 58.				

EPHEMERIDES

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>416824</b>	2005 <i>JW</i> <sub>17</sub>		1 23.9 172°33	0°9/24.5	18		<b>252163</b>	2001 <i>CM</i> <sub>31</sub>		1 23.9 276°55	0°2/24.1	18	
12 23	8 47.74	+15 0.9	2.304	3.124	11.6	23.0	12 23	8 47.75	+17 32.5	1.649	2.491	14.4	21.7
1 2	8 41.32	+15 19.2	2.226	3.128	8.5	22.8	1 2	8 42.12	+17 51.5	1.563	2.477	10.5	21.4
1 12	8 33.07	+15 45.2	2.174	3.132	5.0	22.6	1 12	8 33.89	+18 19.6	1.501	2.464	6.0	21.1
1 22	8 23.68	+16 16.2	2.152	3.134	1.4	22.3	1 22	8 23.86	+18 52.5	1.466	2.450	1.1	20.7
2 1	8 14.03	+16 48.9	2.161	3.136	3.1	22.5	2 1	8 13.27	+19 25.6	1.459	2.436	4.1	20.9
2 11	8 5.09	+17 19.9	2.200	3.137	6.7	22.7	2 11	8 3.53	+19 54.2	1.480	2.421	9.0	21.2
2 21	7 57.68	+17 46.9	2.267	3.138	10.1	22.9	2 21	7 55.87	+20 15.4	1.526	2.407	13.5	21.4
3 2	7 52.38	+18 8.4	2.358	3.137	12.9	23.1	3 2	7 51.13	+20 28.2	1.593	2.393	17.2	21.6
<b>209068</b>	2003 <i>QF</i> <sub>87</sub>		1 23.9 91°63	0°7/24.3	18		<b>155411</b>	1996 <i>DG</i> <sub>3</sub>		1 23.9 109°77	2°4/25.3	18	
12 23	8 49.34	+15 22.9	1.643	2.478	14.8	20.8	12 23	8 49.16	+10 53.1	1.586	2.412	15.7	20.7
1 2	8 42.86	+15 57.3	1.589	2.499	10.7	20.6	1 2	8 42.85	+11 21.5	1.526	2.428	11.7	20.5
1 12	8 34.04	+16 42.3	1.560	2.520	6.1	20.3	1 12	8 34.10	+12 5.8	1.489	2.443	7.1	20.2
1 22	8 23.83	+17 32.8	1.557	2.540	1.3	20.1	1 22	8 23.87	+13 1.8	1.479	2.458	2.9	20.0
2 1	8 13.50	+18 23.2	1.584	2.561	3.8	20.3	2 1	8 13.41	+14 4.0	1.497	2.472	4.2	20.1
2 11	8 4.33	+19 8.4	1.640	2.580	8.3	20.6	2 11	8 4.07	+15 5.8	1.544	2.487	8.6	20.4
2 21	7 57.33	+19 45.4	1.721	2.599	12.3	20.9	2 21	7 56.91	+16 2.5	1.617	2.500	12.7	20.7
3 2	7 53.11	+20 12.9	1.824	2.618	15.6	21.1	3 2	7 52.58	+16 50.6	1.711	2.513	16.1	20.9
<b>84693</b>	2002 <i>VY</i> <sub>107</sub>		1 23.9 52°32	4°8/20.9	18		<b>117185</b>	2004 <i>RS</i> <sub>90</sub>		1 23.9 75°61	4°8/26.9	18	
12 23	8 46.94	+31 44.0	2.107	2.952	11.6	19.8	12 23	8 46.92	+ 4 31.1	1.944	2.739	14.4	19.4
1 2	8 41.07	+32 43.1	2.048	2.958	8.7	19.6	1 2	8 40.71	+ 4 25.0	1.893	2.769	11.2	19.3
1 12	8 33.04	+33 38.0	2.014	2.964	5.9	19.4	1 12	8 32.67	+ 4 36.0	1.866	2.798	7.8	19.1
1 22	8 23.67	+34 22.3	2.008	2.970	4.8	19.4	1 22	8 23.61	+ 5 2.7	1.865	2.827	5.2	19.0
2 1	8 14.07	+34 51.1	2.031	2.977	6.4	19.5	2 1	8 14.51	+ 5 42.2	1.894	2.856	5.2	19.1
2 11	8 5.41	+35 2.2	2.081	2.983	9.2	19.7	2 11	8 6.37	+ 6 30.0	1.951	2.884	7.7	19.3
2 21	7 58.64	+34 56.5	2.156	2.990	12.0	19.9	2 21	7 59.98	+ 7 21.2	2.035	2.912	10.7	19.5
3 2	7 54.39	+34 36.4	2.253	2.997	14.5	20.1	3 2	7 55.84	+ 8 11.6	2.142	2.940	13.5	19.8
<b>417723</b>	2007 <i>CR</i> <sub>25</sub>		1 23.9 262°73	1°4/24.6	18		<b>169189</b>	2001 <i>RZ</i> <sub>28</sub>		1 23.9 181°92	3°6/26.7	18	R
12 23	8 48.62	+15 55.1	1.908	2.738	13.3	20.5	12 23	8 42.49	+ 4 56.3	2.670	3.457	11.1	20.8
1 2	8 42.35	+15 39.3	1.822	2.728	9.8	20.2	1 2	8 37.37	+ 5 8.4	2.585	3.458	8.7	20.6
1 12	8 33.83	+15 30.2	1.759	2.718	5.8	20.0	1 12	8 30.80	+ 5 33.8	2.525	3.458	6.1	20.5
1 22	8 23.83	+15 26.0	1.725	2.707	1.9	19.7	1 22	8 23.31	+ 6 11.4	2.494	3.458	3.9	20.3
2 1	8 13.42	+15 24.5	1.721	2.696	3.7	19.8	2 1	8 15.59	+ 6 58.9	2.494	3.457	4.0	20.3
2 11	8 3.83	+15 23.5	1.745	2.685	7.9	20.0	2 11	8 8.38	+ 7 52.7	2.523	3.456	6.2	20.5
2 21	7 56.06	+15 21.5	1.796	2.674	11.9	20.2	2 21	8 2.33	+ 8 49.2	2.580	3.455	8.9	20.7
3 2	7 50.84	+15 17.2	1.869	2.663	15.3	20.4	3 2	7 57.95	+ 9 44.7	2.663	3.454	11.3	20.8
<b>6587</b>	Brassens		1 23.9 91°96	2°4/22.9	18	R	<b>14578</b>	1998 <i>QO</i> <sub>93</sub>		1 23.9 15°75	9°0/27.5	18	
12 23	8 50.60	+24 9.4	1.601	2.450	14.4	17.4	12 23	8 45.47	+ 0 10.6	1.457	2.255	18.2	16.9
1 2	8 44.04	+24 38.3	1.539	2.457	10.4	17.2	1 2	8 40.40	+ 0 57.7	1.391	2.258	15.0	16.7
1 12	8 34.82	+25 8.8	1.501	2.464	6.0	16.9	1 12	8 32.84	+ 1 42.6	1.346	2.262	11.8	16.5
1 22	8 23.98	+25 35.0	1.491	2.471	2.5	16.7	1 22	8 23.67	+ 2 0.9	1.324	2.266	9.4	16.4
2 1	8 12.91	+25 51.5	1.508	2.478	5.1	16.9	2 1	8 14.16	+ 1 52.0	1.327	2.271	9.2	16.4
2 11	8 3.08	+25 55.8	1.554	2.486	9.5	17.2	2 11	8 5.68	+ 1 19.8	1.354	2.277	11.4	16.5
2 21	7 55.64	+25 47.8	1.623	2.493	13.5	17.4	2 21	7 59.34	+ 0 31.1	1.404	2.283	14.5	16.7
3 2	7 51.25	+25 29.5	1.714	2.499	16.8	17.7	3 2	7 55.86	+ 0 26.5	1.475	2.290	17.6	17.0
<b>198778</b>	2005 <i>EG</i> <sub>109</sub>		1 23.9 353°05	5°4/27.1	18		<b>294605</b>	2008 <i>AT</i> <sub>11</sub>		1 23.9 58°95	1°5/24.7	18	
12 23	8 43.09	+ 3 17.8	2.033	2.827	13.9	20.2	12 23	8 47.39	+14 35.3	1.590	2.429	15.0	21.0
1 2	8 38.17	+ 3 2.0	1.954	2.826	11.1	20.0	1 2	8 41.66	+14 43.0	1.524	2.434	11.1	20.7
1 12	8 31.38	+ 3 3.3	1.897	2.825	8.1	19.8	1 12	8 33.48	+15 1.9	1.481	2.440	6.5	20.5
1 22	8 23.41	+ 3 21.9	1.868	2.824	5.8	19.7	1 22	8 23.77	+15 28.7	1.464	2.446	2.0	20.2
2 1	8 15.13	+ 3 55.9	1.866	2.824	5.7	19.7	2 1	8 13.78	+15 59.1	1.476	2.452	4.0	20.4
2 11	8 7.55	+ 4 41.5	1.892	2.823	8.1	19.8	2 11	8 4.85	+16 28.7	1.515	2.458	8.6	20.6
2 21	8 1.48	+ 5 33.9	1.944	2.823	11.1	20.0	2 21	7 58.06	+16 54.4	1.579	2.464	12.8	20.9
3 2	7 57.56	+ 6 28.3	2.019	2.823	13.9	20.2	3 2	7 54.09	+17 14.1	1.664	2.471	16.3	21.1
<b>293580</b>	2007 <i>JA</i> <sub>1</sub>		1 23.9 284°53	0°6/24.2	18		<b>293591</b>	2007 <i>JY</i> <sub>25</sub>		1 23.9 272°50	3°0/25.4	18	
12 23	8 47.76	+15 56.4	1.403	2.251	16.1	21.2	12 23	8 47.10	+10 39.5	1.479	2.312	16.3	21.2
1 2	8 42.54	+16 24.5	1.319	2.236	11.9	20.9	1 2	8 41.83	+10 51.7	1.396	2.300	12.3	21.0
1 12	8 34.31	+17 6.1	1.257	2.220	6.9	20.5	1 12	8 33.80	+11 21.4	1.335	2.289	7.8	20.7
1 22	8 23.95	+17 56.6	1.221	2.204	1.4	20.1	1 22	8 23.86	+12 6.2	1.299	2.278	3.5	20.4
2 1	8 12.84	+18 49.6	1.212	2.188	4.5	20.3	2 1	8 13.29	+13 1.2	1.291	2.266	4.7	20.4
2 11	8 2.67	+19 38.4	1.229	2.173	10.1	20.6	2 11	8 3.61	+14 0.2	1.310	2.255	9.5	20.7
2 21	7 54.87	+20 18.4	1.270	2.157	15.1	20.8	2 21	7 56.12	+14 57.0	1.353	2.243	14.2	20.9
3 2	7 50.42	+20 47.4	1.330	2.142	19.4	21.1	3 2	7 51.72	+15 47.4	1.417	2.231	18.3	21.1
<b>327864</b>	2006 <i>YV</i> <sub>34</sub>		1 23.9 323°42	3°4/22.2	18		<b>329234</b>	2012 <i>ET</i> <sub>11</sub>		1 23.9 155°65	1°6/23.1	18	
12 23	8 46.15	+24 52.7	1.574	2.431	14.2	20.4	12 23	8 47.85	+22 7.6	1.967	2.808	12.5	21.6
1 2	8 41.14	+25 49.2	1.498	2.420	10.3	20.2	1 2	8 41.73	+22 44.6	1.897	2.811	9.0	21.3
1 12	8 33.39	+26 49.5	1.447	2.410	6.1	19.9	1 12	8 33.43	+23 25.2	1.852	2.814	5.0	21.1
1 22	8 23.78	+27 46.0	1.421	2.399	3.4	19.7	1 22	8 23.77	+24 4.5	1.836	2.817	1.7	20.9
2 1	8 13.62	+28 31.5	1.424	2.390	6.0	19.8	2 1	8 13.82	+24 37.5	1.849	2.820	4.2	21.1
2 11	8 4.45	+29 1.0	1.452	2.381	10.3	20.1	2 11	8 4.76	+25 1.1	1.891	2.822	8.1	21.3
2 21	7 57.54	+29 13.2	1.505	2.372	14.4	20.3	2 21	7 57.57	+25 13.9	1.959	2.824	11.7	21.5
3 2	7 53.74	+29 9.6	1.577	2.364	17.9	20.5	3 2	7 52.88	+25 16.3	2.050	2.826	14.7	21.7
<b>463987</b>	2014 <i>WC</i> <sub>50</sub>		1 23.9 115°87	3°1/25.7	18		<b>409834</b>	2006 <i>QS</i> <sub>66</sub>		1 23.9 316°13	2°8/25.3	18	
12 23	8 45.37	+ 9 41.9	1.895	2.714	13.8	21.4</							

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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>91229</b>	1999 <i>BN</i> <sub>15</sub>		1 23.9 283°74	3°6/25.8	18		<b>412829</b>	2014 <i>PY</i> <sub>44</sub>		1 23.9 81°12	0°3/23.9	18	
12 23	8 45.79	+ 8 27.2	1.527	2.354	16.2	18.5	12 23	8 50.66	+19 12.8	1.625	2.467	14.6	21.4
1 2	8 40.90	+ 8 47.4	1.436	2.335	12.5	18.2	1 2	8 43.84	+19 24.8	1.572	2.486	10.5	21.2
1 12	8 33.32	+ 9 28.3	1.366	2.317	8.1	17.9	1 12	8 34.61	+19 42.6	1.542	2.505	5.9	21.0
1 22	8 23.80	+10 27.9	1.322	2.298	4.2	17.6	1 22	8 23.98	+20 1.8	1.540	2.524	1.0	20.7
2 1	8 13.54	+11 41.4	1.305	2.279	5.0	17.6	2 1	8 13.28	+20 18.2	1.567	2.543	4.0	21.0
2 11	8 4.00	+13 1.3	1.316	2.260	9.5	17.8	2 11	8 3.86	+20 28.9	1.622	2.561	8.5	21.3
2 21	7 56.50	+14 20.4	1.351	2.241	14.2	18.0	2 21	7 56.70	+20 32.8	1.702	2.580	12.5	21.6
3 2	7 52.00	+15 32.6	1.407	2.223	18.3	18.2	3 2	7 52.41	+20 29.7	1.804	2.598	15.8	21.8
<b>277818</b>	2006 <i>GR</i> <sub>18</sub>		1 23.9 291°70	0°7/23.6	18		<b>470888</b>	2009 <i>BV</i> <sub>120</sub>		1 23.9 319°28	3°0/26.2	18	
12 23	8 45.09	+19 31.7	2.051	2.891	12.1	21.2	12 23	8 41.93	+ 7 27.5	2.263	3.070	12.2	20.8
1 2	8 39.70	+20 4.7	1.975	2.889	8.7	21.0	1 2	8 37.25	+ 7 54.3	2.179	3.067	9.4	20.6
1 12	8 32.29	+20 43.7	1.923	2.886	4.9	20.7	1 12	8 30.86	+ 8 35.8	2.120	3.064	6.2	20.4
1 22	8 23.59	+21 24.4	1.900	2.884	1.0	20.4	1 22	8 23.37	+ 9 29.9	2.088	3.061	3.4	20.3
2 1	8 14.56	+22 2.3	1.907	2.881	3.6	20.6	2 1	8 15.58	+10 33.1	2.087	3.058	3.8	20.3
2 11	8 6.30	+22 33.8	1.943	2.879	7.6	20.9	2 11	8 8.37	+11 40.6	2.115	3.055	6.7	20.5
2 21	7 59.70	+22 56.8	2.005	2.876	11.2	21.1	2 21	8 2.51	+12 47.8	2.170	3.052	10.0	20.7
3 2	7 55.42	+23 10.6	2.089	2.874	14.2	21.3	3 2	7 58.59	+13 50.7	2.250	3.050	12.8	20.8
<b>461696</b>	2005 <i>QT</i> <sub>128</sub>		1 23.9 90°50	0°3/23.8	18		<b>166149</b>	2002 <i>EO</i> <sub>15</sub>		1 23.9 329°84	2°0/24.9	18	
12 23	8 47.15	+18 12.3	1.813	2.653	13.4	21.7	12 23	8 46.21	+13 2.0	1.413	2.257	16.3	20.3
1 2	8 41.25	+18 46.8	1.751	2.664	9.7	21.5	1 2	8 41.20	+13 20.8	1.340	2.252	12.1	20.0
1 12	8 33.16	+19 28.7	1.713	2.675	5.4	21.2	1 12	8 33.44	+13 55.1	1.288	2.248	7.3	19.7
1 22	8 23.72	+20 13.2	1.703	2.686	0.9	20.9	1 22	8 23.83	+14 41.5	1.262	2.244	2.5	19.4
2 1	8 14.07	+20 55.2	1.722	2.697	3.7	21.2	2 1	8 13.72	+15 34.1	1.263	2.240	4.4	19.5
2 11	8 5.39	+21 30.6	1.770	2.708	8.0	21.5	2 11	8 4.64	+16 26.7	1.290	2.236	9.5	19.8
2 21	7 58.65	+21 57.2	1.843	2.718	11.8	21.7	2 21	7 57.86	+17 14.0	1.342	2.233	14.2	20.1
3 2	7 54.48	+22 14.3	1.939	2.729	15.0	22.0	3 2	7 54.20	+17 52.8	1.413	2.230	18.2	20.3
<b>480076</b>	2015 <i>DR</i> <sub>199</sub>		1 23.9 218°40	17°6/30.9	18		<b>499402</b>	2010 <i>BJ</i> <sub>74</sub>		1 23.9 264°40	4°7/20.9	18	
12 23	8 49.98	-15 24.9	1.294	2.013	24.0	21.2	12 23	8 47.63	+33 12.7	2.355	3.193	10.8	21.2
1 2	8 44.27	-17 23.1	1.226	2.009	21.9	21.0	1 2	8 41.51	+33 59.5	2.280	3.185	8.2	21.0
1 12	8 35.36	-18 44.0	1.173	2.004	19.8	20.8	1 12	8 33.31	+34 41.5	2.231	3.178	5.7	20.8
1 22	8 24.16	-19 17.4	1.137	1.999	18.2	20.7	1 22	8 23.79	+35 13.1	2.211	3.170	4.8	20.7
2 1	8 12.16	-18 57.4	1.121	1.993	17.7	20.7	2 1	8 13.95	+35 29.8	2.220	3.163	6.2	20.8
2 11	8 1.16	-17 46.6	1.125	1.987	18.5	20.7	2 11	8 4.92	+35 29.9	2.257	3.155	8.8	21.0
2 21	7 52.72	-15 55.3	1.147	1.981	20.3	20.8	2 21	7 57.62	+35 14.1	2.320	3.147	11.5	21.1
3 2	7 47.86	-13 38.0	1.187	1.974	22.7	20.9	3 2	7 52.70	+34 45.0	2.404	3.140	13.9	21.3
<b>436288</b>	2010 <i>CW</i> <sub>230</sub>		1 23.9 315°71	12°3/1.9	18		<b>118661</b>	2000 <i>KL</i> <sub>6</sub>		1 23.9 169°14	1°6/22.9	18	
12 23	8 41.87	-19 9.9	2.296	2.942	16.4	21.1	12 23	8 47.78	+22 25.6	2.360	3.193	10.9	21.1
1 2	8 37.30	-20 12.7	2.213	2.934	15.1	21.0	1 2	8 41.42	+23 12.1	2.287	3.198	7.8	20.9
1 12	8 30.94	-20 48.6	2.148	2.926	13.8	20.9	1 12	8 33.19	+24 1.5	2.240	3.202	4.4	20.7
1 22	8 23.38	-20 53.4	2.102	2.919	12.7	20.8	1 22	8 23.77	+24 49.2	2.224	3.205	1.7	20.5
2 1	8 15.44	-20 25.4	2.079	2.911	12.3	20.7	2 1	8 14.08	+25 30.9	2.239	3.208	3.8	20.6
2 11	8 8.06	-19 26.3	2.078	2.904	12.6	20.8	2 11	8 5.12	+26 3.3	2.284	3.210	7.2	20.9
2 21	8 2.05	-18 1.6	2.100	2.897	13.6	20.8	2 21	7 57.71	+26 25.1	2.356	3.211	10.3	21.1
3 2	7 58.06	-16 18.6	2.143	2.891	15.0	20.9	3 2	7 52.47	+26 36.4	2.451	3.212	13.0	21.2
<b>200803</b>	2001 <i>XJ</i> <sub>142</sub>		1 23.9 147°81	1°4/23.2	18		<b>464590</b>	2016 <i>CH</i> <sub>108</sub>		1 23.9 112°84	3°9/26.0	18	
12 23	8 50.88	+20 36.8	1.887	2.722	13.1	21.1	12 23	8 45.81	+ 7 58.9	1.784	2.599	14.7	21.7
1 2	8 43.94	+21 26.3	1.821	2.733	9.4	20.9	1 2	8 40.35	+ 7 57.1	1.709	2.601	11.3	21.4
1 12	8 34.69	+22 21.1	1.782	2.744	5.3	20.7	1 12	8 32.72	+ 8 11.1	1.658	2.603	7.5	21.2
1 22	8 24.01	+23 15.4	1.771	2.753	1.5	20.4	1 22	8 23.70	+ 8 39.7	1.633	2.605	4.3	21.0
2 1	8 13.05	+24 3.4	1.791	2.762	4.2	20.6	2 1	8 14.36	+ 9 19.7	1.637	2.607	4.8	21.1
2 11	8 3.08	+24 41.0	1.840	2.770	8.3	20.9	2 11	8 5.86	+10 6.4	1.669	2.609	8.2	21.3
2 21	7 55.13	+25 6.6	1.915	2.777	12.0	21.2	2 21	7 59.19	+10 55.0	1.726	2.611	11.9	21.5
3 2	7 49.85	+25 20.6	2.012	2.784	15.1	21.4	3 2	7 55.00	+11 41.4	1.806	2.613	15.2	21.7
<b>456293</b>	2006 <i>SE</i> <sub>105</sub>		1 23.9 38°21	20°6/23.5	16		<b>70036</b>	1999 <i>CZ</i> <sub>48</sub>		1 23.9 31°14	5°2/21.7	18	
12 23	9 43.82	+69 43.7	1.384	2.096	23.0	19.9	12 23	8 49.57	+32 37.1	1.753	2.602	13.4	18.0
1 2	9 26.20	+70 54.5	1.378	2.119	21.8	19.9	1 2	8 43.19	+33 10.6	1.700	2.612	10.0	17.8
1 12	8 58.82	+71 17.4	1.386	2.144	20.9	19.9	1 12	8 34.30	+33 37.2	1.671	2.623	6.8	17.6
1 22	8 27.71	+70 35.9	1.409	2.170	20.6	19.9	1 22	8 23.96	+33 50.4	1.669	2.634	5.2	17.5
2 1	8 0.61	+68 48.1	1.449	2.196	20.7	20.0	2 1	8 13.52	+33 46.2	1.695	2.646	6.9	17.7
2 11	7 42.20	+66 8.4	1.506	2.223	21.3	20.2	2 11	8 4.40	+33 23.8	1.747	2.659	10.0	17.9
2 21	7 32.81	+62 56.5	1.580	2.251	22.2	20.3	2 21	7 57.61	+32 45.7	1.823	2.671	13.2	18.1
3 2	7 30.81	+59 29.2	1.670	2.279	23.1	20.5	3 2	7 53.77	+31 55.8	1.921	2.685	16.0	18.3
<b>456576</b>	2007 <i>DV</i> <sub>20</sub>		1 23.9 282°80	3°2/22.3	16		<b>207865</b>	2007 <i>VY</i> <sub>147</sub>		1 23.9 190°14	0°3/23.8	18	
12 23	8 50.51	+27 14.3	2.074	2.913	12.0	22.1	12 23	8 48.52	+18 10.4	2.039	2.871	12.5	21.0
1 2	8 43.99	+27 46.6	1.969	2.881	8.9	21.9	1 2	8 42.20	+18 46.5	1.960	2.870	9.0	20.8
1 12	8 34.95	+28 18.8	1.889	2.847	5.4	21.6	1 12	8 33.74	+19 29.7	1.907	2.869	5.1	20.5
1 22	8 24.10	+28 45.3	1.838	2.813	3.2	21.4	1 22	8 23.89	+20 15.7	1.883	2.866	0.9	20.2
2 1	8 12.54	+29 0.9	1.816	2.779	5.3	21.5	2 1	8 13.67	+20 59.8	1.889	2.864	3.6	20.4
2 11	8 1.61	+29 2.4	1.824	2.744	9.1	21.6	2 11	8 4.24	+21 37.7	1.925	2.860	7.7	20.7
2 21	7 52.50	+28 49.6	1.857	2.709	12.9	21.8	2 21	7 56.55	+22 7.2	1.987	2.856	11.4	20.9
3 2	7 46.09	+28 24.4	1.912	2.673	16.2	21.9	3 2	7 51.29	+22 27.5	2.073	2.851	14.5	21.1
<b>160867</b>	2001 <i>KS</i> <sub>25</sub>		1 23.9 228°89	1°9/24.7	18		<b>54728</b>	2001 <i>KP</i> <sub>11</sub>		1 23.9 100°93	2°1/25.3	18	
12 23	8 50.98	+14 18.3											



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2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$	2019/20	$\alpha_{2000}$	$\delta_{2000}$	$\Delta$	$r$	$\beta$	$V$
<b>429292</b>	2010 CZ <sub>155</sub>		1 23.9 144°63	3°5/22.0	18		<b>165257</b>	2000 SY <sub>206</sub>		1 24.0 171°30	4°1/21.9	18	
12 23	8 48.52	+29 54.9	2.375	3.212	10.7	21.0	12 23	8 52.08	+28 20.3	1.792	2.636	13.4	20.2
1 2	8 41.95	+30 23.6	2.307	3.216	7.9	20.8	1 2	8 45.11	+29 13.5	1.725	2.638	9.8	20.0
1 12	8 33.47	+30 48.8	2.266	3.220	5.0	20.6	1 12	8 35.51	+30 5.2	1.684	2.641	6.2	19.8
1 22	8 23.83	+31 5.9	2.254	3.224	3.5	20.5	1 22	8 24.22	+30 47.9	1.670	2.643	4.1	19.7
2 1	8 14.01	+31 11.6	2.271	3.228	5.0	20.6	2 1	8 12.60	+31 15.7	1.686	2.644	6.2	19.8
2 11	8 5.07	+31 4.4	2.318	3.231	7.9	20.8	2 11	8 2.10	+31 25.8	1.729	2.645	9.9	20.0
2 21	7 57.82	+30 45.3	2.392	3.234	10.7	21.0	2 21	7 53.87	+31 18.9	1.797	2.645	13.4	20.3
3 2	7 52.85	+30 16.1	2.488	3.237	13.1	21.2	3 2	7 48.66	+30 57.9	1.886	2.645	16.4	20.5
<b>288312</b>	2004 BO <sub>35</sub>		1 23.9 252°51	1°1/23.3	18		<b>27921</b>	1996 VY <sub>26</sub>		1 24.0 108°80	0°4/24.2	18	R
12 23	8 46.57	+18 31.9	1.807	2.648	13.4	21.1	12 23	8 44.81	+16 48.6	2.493	3.319	10.6	19.1
1 2	8 41.15	+19 35.5	1.724	2.639	9.7	20.8	1 2	8 39.08	+17 9.2	2.427	3.334	7.7	18.9
1 12	8 33.32	+20 49.2	1.667	2.630	5.4	20.6	1 12	8 31.79	+17 35.6	2.388	3.347	4.4	18.7
1 22	8 23.84	+22 7.0	1.638	2.621	1.2	20.2	1 22	8 23.57	+18 5.0	2.378	3.361	0.9	18.5
2 1	8 13.82	+23 21.6	1.638	2.611	4.3	20.4	2 1	8 15.21	+18 34.3	2.399	3.374	2.8	18.6
2 11	8 4.56	+24 26.9	1.667	2.602	8.7	20.7	2 11	8 7.55	+19 0.8	2.450	3.388	6.1	18.9
2 21	7 57.18	+25 19.1	1.722	2.592	12.8	20.9	2 21	8 1.26	+19 22.6	2.529	3.401	9.1	19.1
3 2	7 52.49	+25 57.0	1.798	2.582	16.2	21.1	3 2	7 56.85	+19 38.8	2.632	3.413	11.7	19.3
<b>102440</b>	1999 TW <sub>213</sub>		1 24.0 146°61	0°4/24.2	18		<b>492469</b>	2014 NH <sub>30</sub>		1 24.0 287°13	4°4/25.4	17	
12 23	8 49.08	+16 33.3	2.002	2.830	12.8	21.1	12 23	8 49.37	+10 42.0	1.458	2.288	16.6	21.5
1 2	8 42.50	+17 0.0	1.933	2.840	9.3	20.9	1 2	8 43.56	+10 2.3	1.371	2.273	12.8	21.2
1 12	8 33.85	+17 34.5	1.890	2.849	5.3	20.7	1 12	8 34.86	+9 35.4	1.307	2.257	8.4	20.9
1 22	8 23.91	+18 13.0	1.875	2.858	1.0	20.4	1 22	8 24.16	+9 21.8	1.268	2.242	4.7	20.7
2 1	8 13.74	+18 51.1	1.891	2.866	3.4	20.6	2 1	8 12.78	+9 20.4	1.256	2.226	5.7	20.7
2 11	8 4.46	+19 25.0	1.937	2.874	7.5	20.9	2 11	8 2.33	+9 28.4	1.270	2.211	10.1	20.9
2 21	7 56.97	+19 52.3	2.009	2.881	11.1	21.1	2 21	7 54.15	+9 42.3	1.308	2.196	14.8	21.1
3 2	7 51.92	+20 12.1	2.104	2.887	14.2	21.3	3 2	7 49.16	+9 58.3	1.367	2.181	18.8	21.3
<b>67254</b>	2000 EV <sub>108</sub>		1 24.0 37°19	0°6/23.7	18		<b>92443</b>	2000 KS <sub>4</sub>		1 24.0 131°32	3°3/21.9	18	
12 23	8 46.75	+19 43.2	1.545	2.396	14.7	18.1	12 23	8 52.01	+25 1.0	1.902	2.741	12.9	20.2
1 2	8 41.10	+20 2.4	1.498	2.418	10.5	17.9	1 2	8 44.83	+26 22.3	1.846	2.759	9.3	20.1
1 12	8 33.10	+20 27.4	1.476	2.440	5.8	17.6	1 12	8 35.25	+27 45.2	1.816	2.775	5.5	19.9
1 22	8 23.77	+20 53.4	1.480	2.463	1.0	17.4	1 22	8 24.18	+29 1.9	1.816	2.791	3.3	19.7
2 1	8 14.40	+21 15.8	1.512	2.487	4.1	17.6	2 1	8 12.84	+30 5.2	1.845	2.806	5.5	19.9
2 11	8 6.31	+21 31.4	1.571	2.512	8.6	18.0	2 11	8 2.56	+30 51.3	1.904	2.820	9.1	20.2
2 21	8 0.44	+21 38.8	1.655	2.537	12.5	18.3	2 21	7 54.38	+31 19.4	1.989	2.833	12.5	20.4
3 2	7 57.34	+21 38.0	1.759	2.562	15.7	18.5	3 2	7 48.98	+31 31.5	2.096	2.845	15.3	20.6
<b>210067</b>	2006 QO <sub>6</sub>		1 24.0 120°84	2°0/25.5	18		<b>346958</b>	2010 BX <sub>51</sub>		1 24.0 186°03	2°0/25.4	17	
12 23	8 42.79	+10 31.9	2.480	3.293	11.1	20.6	12 23	8 44.04	+11 31.5	2.844	3.651	10.0	21.3
1 2	8 37.69	+10 56.5	2.405	3.299	8.3	20.4	1 2	8 38.43	+11 26.1	2.759	3.651	7.5	21.2
1 12	8 31.04	+11 31.9	2.355	3.306	5.2	20.2	1 12	8 31.41	+11 28.4	2.701	3.650	4.7	21.0
1 22	8 23.43	+12 15.7	2.334	3.312	2.4	20.0	1 22	8 23.53	+11 37.1	2.673	3.649	2.3	20.8
2 1	8 15.62	+13 4.8	2.344	3.318	3.1	20.1	2 1	8 15.44	+11 50.7	2.676	3.648	3.0	20.9
2 11	8 8.40	+13 55.4	2.384	3.324	6.1	20.3	2 11	8 7.88	+12 7.0	2.709	3.646	5.7	21.0
2 21	8 2.47	+14 44.1	2.452	3.329	9.1	20.5	2 21	8 1.46	+12 24.1	2.771	3.644	8.4	21.2
3 2	7 58.34	+15 28.4	2.544	3.335	11.8	20.7	3 2	7 56.67	+12 40.3	2.858	3.642	10.8	21.4
<b>166676</b>	2002 TO <sub>92</sub>		1 24.0 189°71	0°2/23.9	18		<b>218689</b>	2005 TR <sub>64</sub>		1 24.0 8°98	2°9/25.5	18	
12 23	8 45.08	+18 44.9	2.453	3.284	10.7	20.8	12 23	8 44.98	+10 43.8	1.705	2.534	14.7	20.3
1 2	8 39.41	+19 8.0	2.374	3.283	7.7	20.6	1 2	8 39.88	+10 50.0	1.632	2.534	11.0	20.1
1 12	8 32.04	+19 36.1	2.321	3.282	4.3	20.4	1 12	8 32.53	+11 10.6	1.582	2.535	7.0	19.8
1 22	8 23.61	+20 6.0	2.298	3.281	0.7	20.1	1 22	8 23.74	+11 43.4	1.558	2.536	3.3	19.6
2 1	8 14.92	+20 34.4	2.305	3.280	3.0	20.3	2 1	8 14.61	+12 24.7	1.563	2.537	4.2	19.7
2 11	8 6.88	+20 58.6	2.342	3.278	6.5	20.5	2 11	8 6.36	+13 9.4	1.595	2.538	8.2	19.9
2 21	8 0.23	+21 16.8	2.407	3.276	9.6	20.7	2 21	7 59.99	+13 53.2	1.652	2.540	12.2	20.1
3 2	7 55.54	+21 28.4	2.496	3.273	12.3	20.9	3 2	7 56.20	+14 32.5	1.732	2.542	15.6	20.4
<b>278451</b>	2007 TO <sub>22</sub>		1 24.0 144°03	3°3/26.5	18	R	<b>269385</b>	2009 QY <sub>3</sub>		1 24.0 83°70	2°2/25.4	18	
12 23	8 43.15	+ 6 13.0	2.684	3.476	11.0	21.0	12 23	8 46.26	+10 34.3	1.935	2.753	13.6	21.0
1 2	8 37.82	+ 6 21.9	2.607	3.484	8.5	20.9	1 2	8 40.41	+11 6.9	1.878	2.776	10.1	20.8
1 12	8 31.06	+ 6 42.9	2.556	3.492	5.8	20.7	1 12	8 32.64	+11 52.8	1.846	2.798	6.2	20.6
1 22	8 23.44	+ 7 14.9	2.534	3.500	3.6	20.6	1 22	8 23.74	+12 48.5	1.841	2.820	2.6	20.5
2 1	8 15.63	+ 7 55.4	2.541	3.507	3.8	20.6	2 1	8 14.71	+13 49.1	1.867	2.842	3.6	20.6
2 11	8 8.37	+ 8 41.2	2.580	3.514	6.0	20.8	2 11	8 6.59	+14 49.4	1.922	2.863	7.2	20.8
2 21	8 2.31	+ 9 29.0	2.646	3.520	8.7	20.9	2 21	8 0.21	+15 45.3	2.004	2.884	10.7	21.1
3 2	7 57.91	+10 15.7	2.738	3.527	11.1	21.1	3 2	7 56.13	+16 33.9	2.109	2.905	13.7	21.3
<b>52672</b>	1998 DH <sub>5</sub>		1 24.0 331°64	2°3/22.5	18		<b>293314</b>	2007 DD <sub>45</sub>		1 24.0 92°99	0°5/23.8	18	
12 23	8 43.99	+23 20.2	2.105	2.951	11.6	18.6	12 23	8 48.11	+19 48.5	1.851	2.691	13.2	21.3
1 2	8 38.99	+24 17.5	2.030	2.947	8.3	18.4	1 2	8 41.98	+20 2.2	1.782	2.696	9.5	21.0
1 12	8 31.96	+25 18.7	1.980	2.942	4.8	18.1	1 12	8 33.63	+20 20.9	1.739	2.702	5.3	20.8
1 22	8 23.61	+26 18.1	1.959	2.938	2.3	18.0	1 22	8 23.92	+20 40.6	1.724	2.707	0.9	20.5
2 1	8 14.91	+27 10.3	1.967	2.935	4.5	18.1	2 1	8 13.97	+20 57.5	1.737	2.712	3.7	20.7
2 11	8 6.93	+27 51.2	2.005	2.931	8.0	18.3	2 11	8 5.00	+21 8.7	1.780	2.718	8.0	21.0
2 21	8 0.58	+28 19.2	2.068	2.927	11.4	18.5	2 21	7 57.97	+21 13.0	1.848	2.723	11.8	21.2
3 2	7 56.53	+28 34.2	2.153	2.924	14.2	18.7	3 2	7 53.52	+21 10.2	1.938	2.728	15.0	21.4
<b>159470</b>	2000 QW <sub>119</sub>		1 24.0 125°93	1°4/24.7	18		<b>205531</b>	2001 SO <sub>126</sub>		1 24.0 131°96	0°3/24.2	18	
12 23	8 50.50	+14 36.7	1.800	2.626	14.1	20.4	12 23	8 45.11	+17 22.9	2.560	3.386	10.4	21.2
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